2025 Annual Groundwater Summary

Brickhaven No. 2 Mine Tract “A” Structural Fill

Charah Solutions, Inc.

Moncure, Chatham County, North Carolina

January 28, 2026

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2025 Annual Groundwater Summary

Brickhaven No. 2 Mine Tract "A" Structural Fill Permit 1910-STRUT-2015

The Brickhaven No.2 Mine Tract "A" Structural Fill groundwater monitoring system is designed to meet the requirements of the North Carolina Coal Ash Management Act of 2014 (CAMA) and North Carolina Department of Environmental Quality Rule 15A NCAC 13B Section .1631.

HDR conducted the required 2025 semi-annual sampling events on March 31 – April 3, 2025, and October 20 – 23, 2025. Groundwater monitoring and sampling at the site is governed by the following:

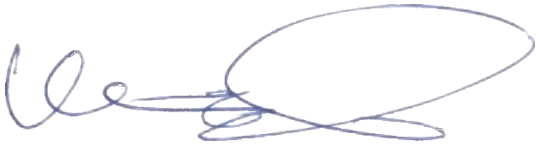
- North Carolina - Coal Ash Management Act (CAMA) of 2014 (Senate Bill 729)
- Water Quality Monitoring Plan Brickhaven No.2 Mine Tract "A" Structural Fill, approved March 2015
- North Carolina Department of Environmental Quality (NCDEQ) Permit No. 1910-STRUC-2015, issued June 5, 2015
- NCDEQ Solid Waste Section Guidelines for Groundwater, Soil, and Surface Water Sampling, April 2008
- NCDEQ Division of Water Management memorandum concerning electronic document submittal for routine groundwater and surface water monitoring, November 5, 2014
- U.S. Environmental Protection Agency (USEPA) Region I, *Low Stress (low flow) Purging and Sampling Procedure for the Collection of Groundwater Samples from Monitoring Wells*, revised September 19, 2017
- USEPA Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, Unified Guidance and CFR 40 257.93 (f)(3), March 2009

The First and Second 2025 Semi-Annual Reports with an USEPA method of statistical analyses were submitted to the NCDEQ Division of Waste Management on June 6, 2025, and January 27, 2026, respectively. The reports are attached for reference and can be found on the NCDEQ website at this location https://deq.nc.gov/about/divisions/waste-management/laserfiche. The following information has been provided in those reports:

- Status of the groundwater monitoring for the structural fill
- Site conditions and key actions completed during the reporting period
- Key activities proposed for the upcoming year
- A map showing the background (or upgradient) and downgradient monitoring wells
- Monitoring data obtained from sampling of wells, including information on the samples collected

The findings of the groundwater sampling and laboratory testing conducted in 2025 indicate the presence of naturally occurring constituents that were detected at various concentrations both prior to and after placement of coal combustion products.

As HDR's authorized representative, I have prepared or supervised the preparation of the referenced documents above; which have been prepared in general accordance with industry standards and practices; and the information contained therein is truthful and accurate to the best of my knowledge.



Mark P. Filardi, LG
Senior Geologist

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A

Attachment A – 2025 First Semi-Annual Detection Monitoring Report

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DENR USE ONLY: ☐ Paper Report ☐ Electronic Data - Email CD (data loaded: Yes / No) Doc/Event #:

NC DENR
Division of Waste Management - Solid Waste

Environmental Monitoring Reporting Form

Notice: This form and any information attached to it are "Public Records" as defined in NC General Statute 132-1. As such, these documents are available for inspection and examination by any person upon request (NC General Statute 132-6).

Instructions:

- Prepare one form for each individually monitored unit.
- *Please type or print legibly.*
- Attach a notification table with values that attain or exceed NC 2L groundwater standards or NC 2B surface water standards. The notification must include a preliminary analysis of the cause and significance of each value. (e.g. naturally occurring, off-site source, pre-existing condition, etc.).
- Attach a notification table of any groundwater or surface water values that equal or exceed the reporting limits.
- Attach a notification table of any methane gas values that attain or exceed explosive gas levels. This includes any structures on or nearby the facility (NCAC 13B .1629 (4)(a)(i).
- Send the original signed and sealed form, any tables, and Electronic Data Deliverable to: Compliance Unit, NCDENR-DWM, Solid Waste Section, 1646 Mail Service Center, Raleigh, NC 27699-1646.

Solid Waste Monitoring Data Submittal Information

Name of entity submitting data (laboratory, consultant, facility owner):

Green Meadow - Charah Solutions, Inc.

Contact for questions about data formatting. Include data preparer's name, telephone number and E-mail address:

Name: Mark Filardi Phone: 704-338-6787

E-mail: mark.filardi@hdrinc.com

Facility name:	Facility Address:	Facility Permit #	NC Landfill Rule: (.0500 or .1600)	Actual sampling dates (e.g., October 20-24, 2006)
Charah, LLC Brickhaven No. 2 Mine Tract "A"	1271 Moncure-Flatwood Road Chatham County Moncure, NC	1910- STRUT-2015	CAMA	January 20-23, 2025 & March 31 - April 3, 2025

Environmental Status: (Check all that apply)

☐ Initial/Background Monitoring ☒ Detection Monitoring ☐ Assessment Monitoring ☐ Corrective Action

Type of data submitted: (Check all that apply)

☒ Groundwater monitoring data from monitoring wells
☐ Groundwater monitoring data from private water supply wells
☒ Leachate monitoring data
☐ Surface water monitoring data
☐ Methane gas monitoring data
☐ Corrective action data (specify)
☐ Other(specify)

Notification attached?

☐ No. No groundwater or surface water standards were exceeded.
☒ Yes, a notification of values exceeding a groundwater or surface water standard is attached. It includes a list of groundwater and surface water monitoring points, dates, analytical values, NC 2L groundwater standard, NC 2B surface water standard or NC Solid Waste GWPS and preliminary analysis of the cause and significance of any concentration.
☐ Yes, a notification of values exceeding an explosive methane gas limit is attached. It includes the methane monitoring points, dates, sample values and explosive methane gas limits.

Certification

To the best of my knowledge, the information reported and statements made on this data submittal and attachments are true and correct. Furthermore, I have attached complete notification of any sampling values meeting or exceeding groundwater standards or explosive gas levels, and a preliminary analysis of the cause and significance of concentrations exceeding groundwater standards. I am aware that there are significant penalties for making any false statement, representation, or certification including the possibility of a fine and imprisonment.

Mark Filardi — Facility Representative Name (Print)

Sr. Geologist — Title

704-338-6787 — (Area Code) Telephone Number

Filardi, Mark — Signature

Digitally signed by Filardi, Mark
Date: 2025.06.06 10:29:55 -04'00'

6/6/2025 — Date

Affix Professional Geologist Seal

NORTH CAROLINA LICENSED SEAL 1886 GEOLOGIST MARK FILARDI

HDR Engineering, Inc. of the Carolinas, 440 S. Church St., Ste. 1200, Charlotte, NC 28202

Facility Representative Address

F0116

NC PE Firm License Number (if applicable effective May 1, 2009)

2025 First Semi-Annual Detection Monitoring Report

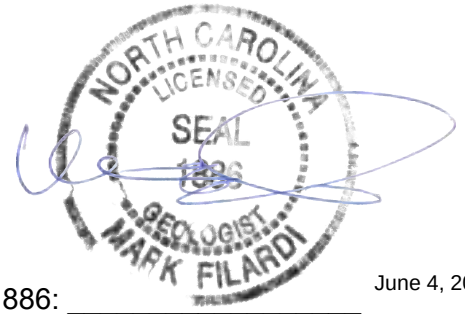
Brickhaven No.2 Mine Tract "A" Structural Fill

Charah Solutions, Inc.

Facility Permit #1910-STRUT-2015

Moncure, Chatham County, North Carolina

June 3, 2025



Mark Filardi, L.G. #1886: _____ June 4, 2025

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Appendix C – Electronic Data Deliverables (electronic only)
Appendix D – Statistical Analysis Memo

Acronyms

µg/L	micrograms per liter
BGS	below ground surface
BTOC	below top of casing
BTV	background threshold value
CAMA	North Carolina Coal Ash Management Act of 2014
CCP	coal combustion products
CFR	Code of Federal Regulations
DO	dissolved oxygen
DQR	double quantification rule
GOF	Goodness-of-fit-test
MDL	method detection limit
MLE	maximum likelihood estimate
MRL	method reporting limit
MSL	mean sea level
NCAC	North Carolina Administrative Code
NCDENR	North Carolina Department of Environment and Natural Resources
NCDEQ	North Carolina Department of Environmental Quality
ND	Non-detect
NTU	Nephelometric turbidity unit
ORP	oxidation-reduction potential
SSI	statistically significant increase
TD	total depth
TDS	total dissolved solids
TOC	top of casing
USCS	Unified Soil Classification System
USEPA	United States Environmental Protection Agency
VOC	volatile organic compound

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1 Introduction

The purpose of this *2025 First Semi-Annual Detection Monitoring Report* is to summarize the first and second quarterly detection monitoring results conducted at the Brickhaven No. 2 Mine Tract "A" Structural Fill (Site) in Moncure, Chatham County, North Carolina. The sampling events were conducted from January 20-23, 2025 and March 31-April 3, 2025, respectively.

Operating under Facility Permit #1910-STRUT-2015, Charah Solutions, Inc. (Charah) is required to monitor groundwater and surface water quality at designated locations, in accordance with the following rules, regulations, and guidelines:

- North Carolina – Coal Ash Management Act (CAMA) of 2014 (Senate Bill 729).
- Water Quality Monitoring Plan, Brickhaven No. 2 Mine Tract "A" Structural Fill, approved March 2015 (Buxton 2015a).
- North Carolina Department of Environment and Natural Resources (NCDENR)[1] Permit No. 1910-STRUC-2015, issued June 5, 2015.
- NCDENR Solid Waste Section Guidelines for Groundwater, Soil, and Surface Water Sampling, April 2008 including Groundwater Rules .1600.
- NCDENR Division of Water Management memorandum concerning electronic document submittal for routine groundwater and surface water monitoring, November 5, 2014.
- U.S. Environmental Protection Agency (USEPA) Region 1, *Low Stress (low flow) Purging and Sampling Procedure for the Collection of Groundwater Samples from Monitoring Wells*, revised September 19, 2017.

Water quality monitoring at the Site is also conducted in general accordance with the USEPA's "Disposal of Coal Combustion Residuals from Electric Utilities" rule (CCR Rule).

On June 21, 2019, Charah received correspondence from the North Carolina Department of Environmental Quality (NCDEQ) Solid Waste Section requesting that Charah submit an assessment work plan in accordance with 15A NCAC 02L .0106 and 15A NCAC 02B .0211 and .0216. NCDEQ cited exceedances of North Carolina Groundwater Protection Standards established under T15A NCAC 02L (2L Standards) for barium, chloride, chromium, cobalt, total dissolved solids (TDS), and vanadium, and exceedances of North Carolina Surface Water & Wetland Standards established under T15A NCAC 02B (2B Standards) for arsenic, cobalt, copper, lead, TDS, and zinc as cause for the work plan. On behalf of Charah, HDR submitted a *Groundwater and Surface Water Assessment Monitoring Plan* to NCDEQ on August 16, 2019 (HDR 2019). The work plan was approved by NCDEQ in correspondence dated September 16, 2019, and amended on October 4, 2019. Between November 2019 and July 2020, Charah implemented the work plan, which was documented in an Assessment Monitoring Report dated July 24, 2020 (HDR 2020).

[1] On September 18, 2015, the North Carolina Department of Environment and Natural Resources (NCDENR) became the North Carolina Department of Environmental Quality (NCDEQ). Both naming conventions are used in this report, as appropriate.

On April 9, 2021, Charah received a response letter to the Assessment Monitoring Report from NCDEQ requiring additional activities. During the first and second quarters of 2021, HDR Engineering, Inc. of the Carolinas (HDR) addressed these requirements on behalf of Charah, as summarized below, and provided responses to NCDEQ in a Response Letter dated May 7, 2021.

NCDEQ Comment	Charah Response	Date of Action
Redevelop (or replace) monitoring wells MW-2 and MW-3 to improve recharge into the wells	Wells MW-2 and MW-3 were redeveloped for 6 to 7 hours via surging	March 18 and 19, 2021
Collect a surface water sample (SW-6) upstream of SW-1 to delineate off-site impacts to surface water	Collected surface water sample SW-6 upstream of SW-1 at the Charah property line	Initial sample collected 2Q2021 and each quarterly event thereafter
Reinstall previously dry monitoring wells MW-9 and MW-10 as close to the original locations as practicable	Reinstalled wells MW-9 and MW-10 at top of bedrock (36 feet and 47 feet bgs, respectively)	March 17, 2021
Install bedrock monitoring wells adjacent to MW-2 and at a second location approved by NCDEQ	Installed well MW-2D to 144 feet bgs and well MW-11D to 65 feet bgs	March 19, 2021 (MW-2D) March 22, 2021 (MW-11D)

Per the approved Water Quality Monitoring Plan, and additional requirements set forth by NCDEQ since 2015, Charah is required to monitor the following network and report the results semi-annually.

Sampling Locations	Date Initiated	Purpose
MW-1 through MW-6, MW-7R, MW-8, and BG-1; SW-1 and SW-2; leachate	2015	Detection Monitoring
BG-2	2018	Detection Monitoring
MW-11; SW-3, SW-4, and SW-5	2020	Detection Monitoring
MW-2D, MW-9, MW-10, MW-11D; SW-6	2021	Detection Monitoring

Samples are analyzed for constituents listed in NCDEQ Solid Waste Appendix I (except volatile organic compounds [VOCs]), 40 CFR 257 Appendix III, and 40 CFR 257 Appendix IV. On January 8, 2020, NCDEQ approved the discontinuation of Appendix I VOC analysis based on historical non-detection of VOC constituents. Per the Water Quality Monitoring Plan, if sampling results indicate impacts to groundwater or surface water, Charah must notify NCDEQ within 14 days. If no impacts are observed, Charah must submit a report of the sampling results to NCDEQ within 120 days of the semi-annual sampling event.

2 Background

2.1 Site Location and Operation

The Site is located approximately four miles southeast of Moncure, in Chatham County North Carolina (**Figure 1**). The owner of the Site is Green Meadow, LLC (Green Meadow) and Charah Solutions, Inc. (Charah) is responsible for the operation and maintenance of the Site. The mine

property is approximately 301 acres; of which 145 acres is permitted for structural fill placement of coal combustion products (CCP).

The structural fill area is located on property previously owned by General Shale Brick, Inc., which operated the Site and an adjacent property as a mine beginning in 1985 for their off-site brick manufacturing facility. Mined material was stockpiled and then transported approximately 3.5 miles south to Brickhaven, North Carolina for brick manufacturing.

The area immediately surrounding the Site primarily consists of rural residential, commercial, industrial, wooded, and agricultural property. According to information obtained from the Chatham County GIS website (October 2015), municipal water is available to the surrounding area.

Charah began CCP placement in the first composite liner containment system (Cell 1, Sub Cell 1A) on October 23, 2015. Placement of approximately 7.3 million tons of CCP material has occurred in Cell 1, Cell 2, Cell 6A and Cell 6B. CCP materials (including fly ash, bottom ash, boiler slag, and/or flue gas desulfurization materials) were initially brought to the Site by truck beginning in October 2015 until transportation was changed to rail in January 2016. The Site ceased accepting CCP on July 11, 2019, and closure of the structural fill concluded in January 2020. The CCP originated from the Duke Energy Carolinas Riverbend Steam Station and Duke Energy Progress L.V. Sutton Energy Complex.

Leachate (i.e., product generated from the liquids present in the fill at the time of placement and/or stormwater that infiltrates the fill) is managed on-site through the collection, storage, and disposal of the resultant liquid. Green Meadow has approved pump and haul permits to dispose of leachate at the City of Sanford's Big Buffalo Creek Wastewater Treatment Plant and the Town of Spring Lake's South Harnett Regional Wastewater Treatment Plant.

2.2 Groundwater Monitoring System

The groundwater monitoring system was designed to provide background groundwater quality data prior to the placement of CCP in the structural fill and early detection of potential CCP constituents subsequent to CCP placement to be protective of human health and the environment. The groundwater monitoring system was originally comprised of 10 wells: eight wells are located down-gradient/cross-gradient (MW-1, MW-2, MW-3, MW-4, MW-5, MW-6, MW-7R and MW-8) and two wells are considered to represent background groundwater quality (BG-1 and BG-2). Since 2015, the NCDEQ has required installation of five additional monitoring wells (MW-9, MW-10, MW-11, MW-2D, and MW-11D) to further evaluate groundwater quality conditions.

Background monitoring well BG-1 was installed in July of 2015 near the entrance of the Site along Moncure-Flatwood Road. This location was selected to provide groundwater quality data in an area of the Site presumed to not be affected by historical or current usage of the property. Upon statistical analysis of groundwater quality data collected pre- and post-CCP placement, concentrations of target constituents in well BG-1 appear to be anomalously low when compared to pre-CCP conditions elsewhere on-site. With approval from NCDEQ, Charah

installed a second background well (BG-2) southwest of the structural fill in December 2018 to evaluate spatial variability of naturally-occurring inorganic concentrations across the Site.

Well MW-7R was installed in April of 2017 as a replacement for monitoring well MW-7, as documented and approved in a memorandum submitted to the NCDEQ Solid Waste Section on May 25, 2017. Well MW-7 has remained onsite for water level gauging purposes only.

Well MW-11, located down-gradient/cross-gradient of the structural fill, was installed in March 2020 during assessment monitoring. Monitoring wells MW-2D, MW-9, MW-10, and MW-11D, located down-gradient/cross-gradient of the structural fill, were installed in March 2021. Monitoring well locations are shown on **Figure 2**.

2.3 Surface Water Monitoring System

Surface water locations SW-1 and SW-2 were sampled during the initial sampling event in August 2015. Surface water locations SW-3 (background location) and SW-4 (on-site location) were proposed by Charah in the Groundwater and Surface Water Assessment Work Plan (dated August 16, 2019) in response to NCDEQ's request to delineate exceedances of surface water standards at surface water location SW-1. Based on additional discussions with NCDEQ, surface water locations SW-5 and SW-6 were added to the monitoring program in 2020 to evaluate potential contribution of contaminants from off-site sources north and east of the structural fill. Surface water monitoring locations are shown on **Figure 2**.

2.4 Leachate Monitoring System

The leachate sample is collected from the on-site holding tank located just north of wells MW-11 and MW-11D.

2.5 Site Topography and Geographical Setting

Based on review of the 1993 USGS topographic quadrangle (**Figure 3**) and GIS mapping, the topography of the site and immediately surrounding area is characterized by moderately rolling hills, which are dissected by dendritic creeks. Prior to mining by General Shale, a topographic ridge was present within the Site, extending from the northwestern corner of the present-day structural fill toward the southeast. Thus, historical drainage was assumed to be to the north/northwest/west and to the northeast/east/southeast away from the ridge.

2.6 Geologic and Hydrogeologic Setting

2.6.1 Regional Geology

The Site is located within the Piedmont Physiographical Province (Piedmont) of North Carolina, which is a northeast-southwest trending region extending from New York to Alabama.

According to the 1985 North Carolina Geologic Map prepared by the North Carolina Geological Survey, the Site is located in the Triassic Basin Belt of the Piedmont. The basement rocks of the Triassic Basin Belt include conglomerate, sandstone, mudstone, limestone, coal, and shale. The majority of the Site is underlain by the Sanford Formation, which is comprised of conglomerate, fanglomerate, sandstone, and mudstone. The far western portion of the Site is underlain by the

Cummock Formation, which is comprised of sandstone, mudstone, gray and black coal, and carbonaceous shale. The Triassic Basin is bounded by felsic metavolcanic rock of the Carolina Slate Belt approximately 6.5 miles to the northwest; and is contacted by metamorphosed granite and biotite gneiss and schist of the Raleigh Belt along a normal fault approximately 2.5 miles to the southeast. The Triassic Basin formations have been intruded by north/northwest-south/southeast trending igneous diabase dikes during the Jurassic Period (~144 to 208 Ma) and contain northeast-southwest trending normal faults. However, none of these faults were mapped beneath the Site on the 1985 geologic map (NCDENR 1985).

In the Piedmont, bedrock is typically overlain by a mantle of weathered rock (residuum/saprolite) with an average thickness of approximately 25 feet. The residuum/saprolite consists of varying amounts of unconsolidated clays, silts, and sands, with lesser amounts of rock fragments. Due to the range of the parent rock composition and the variable susceptibility to weathering of each rock type, the residuum/saprolite range widely in color, texture, and thickness. Generally, the residuum/saprolite is thickest near inter-stream divides (ridges) and thins toward stream beds. In profile, the residuum/saprolite normally grades from clayey soils near the land surface to sandier, partially weathered rock above competent bedrock (Buxton 2015a).

2.6.2 Site Geology

The geology of the Site can be subdivided into six units which include fill, floodplain, soil horizon, residuum, partially weathered rock, and layered rock. These units generally grade downward from a soil horizon, to residuum, to partially weathered rock and finally layered rock. Fill materials were limited to the road bed and berm located east and west of MW-4. Floodplain sediments were only identified at MW-4, on the southeast corner of the Site. The following summary of site-specific units is based on boring logs provided in the *Design Hydrogeologic Report* (Buxton 2016).

2.6.2.1 FILL

Fill materials were primarily identified in the road bed and berm located around the east and west sides, near MW-4, and generally consisted of mottled reddish yellow, orange, brown, and light gray sandy silty clay with quartz gravel.

2.6.2.2 FLOODPLAIN

Floodplain sediments were identified adjacent to MW-4, on the southeast corner of the Site. Sediments were associated with a former adjacent intermittent tributary creek and were generally be characterized as mottled light gray fine sandy silty clay. The floodplain sediments were approximately five feet thick in this area and had been deposited above residuum. Based on geotechnical laboratory data, the floodplain sediments were classified as lean clay under the Unified Soil Classification System (USCS).

2.6.2.3 RESIDUUM

Residuum was formed from the weathering and biologic reworking of saprolite, and ranged from 2 to 15 feet thick, where encountered on-site. Residuum was characterized as mottled yellowish, brown, orange, and red silty clay and clayey silt. Root structures were common. Based on geotechnical laboratory data, the residuum was comprised of clayey sand, elastic silt, and lean clay and had a calculated hydraulic conductivity of 2.86×10^{-7} cm/sec.

2.6.2.4 SAPROLITE

Saprolite generally retains the remnant texture, structure, and mineral content of the rock from which it was formed and is characteristically fissile, often breaking in horizontal sheets. Saprolite encountered on-site was characterized as mottled (black and gray) red and reddish brown sandy silty clay with infrequent quartz gravel and cobbles and ranged from five to 15 feet thick. Saprolite had a standard penetration resistance of less than 100 blows per foot during standard penetration testing (SPT). Based on geotechnical laboratory data, the saprolite consisted of lean clay with hydraulic conductivities ranging from 7.69×10^{-8} cm/sec to 3.69×10^{-9} cm/sec.

2.6.2.5 PARTIALLY WEATHERED ROCK

Partially weathered rock generally retains the remnant texture, structure, and mineral content of the rock from which it was formed. Partially weathered rock is defined as having SPT values of 100 blows per foot or greater and can generally be drilled with standard hollow-stem auger drilling technology. Where encountered on-site, partially weathered rock was characterized as mottled (light green and purple) brown, reddish gray, and weak red silty clay and weathered mudstone, which are often fissile, and ranged from five to 40 feet thick. Based on geotechnical laboratory data, partially weathered rock consisted of lean clay. Hydraulic conductivity ranged from 2.433×10^{-4} cm/sec to 7.154×10^{-8} cm/sec, according to slug or recovery test data (for wells screened solely in partially weathered rock).

2.6.2.6 BEDROCK

Bedrock generally occurs as horizontally oriented and relatively thin intermittent layers (especially within the upper 15 feet of contacting layered rock) across the Site. Bedrock contained horizontal to near vertical fracturing. Large fractures, oriented approximately N 40^{o} to 60^{o} E at 70 ^{o} northwest, were observed in weathered mudstone immediately northeast of well MW-8. The occurrence of layered rock at the Site was generally defined by auger refusal.

Based on rock coring activities conducted near MW-7/MW-7R, visual inspection of the rock exposed on the north side of the MW-4 area, and rock fragments produced during installation of wells MW-2D and MW-11D, bedrock at the Site is primarily composed of reddish to light tan gray mudstone, cross-bedded muddy sandstone, muddy sandy conglomerate (rounded quartz gravel and cobbles), and gray to brown siltstone.

2.6.3 Regional Hydrogeology

Groundwater in the Piedmont typically occurs and moves within two separate but interconnected water-bearing zones that typically comprise one aquifer. A shallow water-bearing zone typically occurs within the residuum/saprolite and a deeper zone occurs within the underlying bedrock.

Groundwater in the residuum/saprolite zone occurs in the interstitial pore spaces between individual sediment grains. Groundwater in this zone generally flows from topographic highs to topographic lows. The occurrence and movement of groundwater in the underlying bedrock zone are controlled by joints and fractures within the bedrock. Groundwater within this deeper zone may occur under confined or semi-confined conditions, depending on the extent of fracturing at the saprolite/bedrock interface. Deeper groundwater movement is typically controlled by the distribution of openings in the bedrock and can be variable.

3 Detection Monitoring

On behalf of Charah, HDR conducted two detection monitoring events in January and April 2025 that included monitoring well gauging and sampling of groundwater, surface water, and leachate.

3.1 Well Gauging

3.1.1 January 2025 Event

During the January 2025 event, depth to groundwater in shallow wells ranged from 8.08 feet below ground surface (bgs) in well MW-3 to 61.94 feet bgs in well MW-1. Groundwater elevations calculated from depth-to-water measurements ranged from 181.30 feet (BG-2) to 226.34 feet (MW-10) in shallow wells. Depth to water in deep wells ranged from 7.76 feet bgs (MW-11D) to 141.72 feet bgs (MW-2D). Corresponding groundwater elevations ranged from 211.64 feet (MW-11D) to 91.15 feet (MW-2D). Groundwater gauging data and elevations for the January 2025 event are presented in **Table 1**. Historical and current groundwater elevations are shown on **Figure 4**.

HDR previously developed a site-specific three-dimensional groundwater flow and transport model using the groundwater modeling pre- and post-processing software Groundwater Modeling System (GMS) 10.3.4 (Aquaveo; https://www.aquaveo.com/software/gms-groundwater-modeling-system-introduction) as well as ArcMap 10.4.1 (ESRI; https://www.esri.com/en-us/arcgis/products/index). For the groundwater flow model, MODFLOW-2005 (Harbaugh 2005; https://pubs.usgs.gov/tm/2005/tm6A16/) was used to solve the groundwater flow equations that quantify the flow of groundwater in three dimensions.

A potentiometric surface map was created using the Kriging method of interpolating groundwater contours (**Figure 5**) using groundwater measurements collected in January 2025. Regional groundwater flow near the Site generally flows northeast to southwest. The Kriging results indicated groundwater highs at MW-5, MW-6, and MW-10, and groundwater lows at wells MW-4, MW-8, and BG-2. Groundwater elevations for wells MW-2D and MW-11D were not used to generate potentiometric contours for the surficial aquifer during the January 2025 event since MW-2D and MW-11D were installed to monitor groundwater in the bedrock aquifer, thus, potentially not representative of shallow groundwater conditions. Monitoring well MW-9 was not used to generate potentiometric contours for the surficial aquifer during the January 2025 event, as less than two feet of water were present in the well at the time of gauging, creating an anomalously low groundwater elevation.

3.1.2 April 2025 Event

On March 31, 2025, depth to groundwater in shallow wells ranged from 7.55 feet bgs in well MW-6 to 62.00 feet in well MW-1. Groundwater elevations calculated from depth-to-water measurements ranged from 183.43 feet (BG-2) to 226.74 feet (MW-10) in shallow wells. Depth to water in deep wells ranged from 6.47 feet bgs in well MW-11D to 141.60 feet in well MW-2D. Corresponding groundwater elevations ranged from 212.93 feet (MW-11D) to 91.27 feet (MW-

2D). Well gauging data and groundwater elevations for the April 2025 event are presented in **Table 2**. Historical and current groundwater elevations are shown on **Figure 4**.

A potentiometric surface map was created using groundwater measurements collected on March 31, 2025, via the Kriging method of interpolating groundwater contours (**Figure 6**). Regional groundwater flow near the Site generally flows northeast to southwest. The results indicated groundwater highs at MW-5, MW-6, and MW-10, and groundwater lows at wells MW-4, MW-8, and BG-2. Groundwater elevations from wells MW-2D and MW-11D were not used to generate potentiometric contours for the surficial aquifer since MW-2D and MW-11D were installed to monitor groundwater in the bedrock aquifer, thus, potentially not representative of shallow groundwater conditions. The groundwater elevation from well MW-9 was not used to generate potentiometric contours for the surficial aquifer during the April 2025 event, as less than two feet of water were present in the well at the time of gauging, creating an anomalously low groundwater elevation.

3.1.3 Horizontal Hydraulic Gradients

Horizontal hydraulic gradient is calculated by taking the difference in hydraulic head over the length of the flow path between two wells of similar construction and (generally) perpendicular to flow. Since groundwater flow direction can vary slightly between gauging events, it is difficult to install permanent monitoring wells in locations consistently perpendicular to groundwater flow. Horizontal hydraulic gradient was calculated between well pairs MW-5/MW-4 and MW-6/BG-2, recognizing that these well pairs are not truly perpendicular to flow, as shown on **Figure 5** and **Figure 6**. Groundwater monitoring wells from the northern portion of the site were not used to calculate the hydraulic gradient on-site because they are most likely to have significant alterations to natural groundwater recharge caused by the structural fill cap. Hydraulic gradients calculated from data obtained during the January 2025 and April 2025 sampling events are presented in **Table 3**.

3.1.4 Groundwater Flow Velocity

The average linear velocity, or seepage velocity, of groundwater between wells at the site was calculated using Darcy's Law, as follows:

$$V_S = \frac{Ki}{P_e}$$

Where:

V_s = seepage velocity
K = horizontal hydraulic conductivity
i = horizontal hydraulic gradient
P_e = effective porosity

Seepage velocities for groundwater were calculated using horizontal hydraulic gradients, as referenced above, average horizontal hydraulic conductivity and average effective porosity values. Average horizontal hydraulic conductivity (9.79×10^{-5} cm/sec) was calculated during geotechnical testing from on-site wells, except BG-2, MW-7R, and MW-11. Average effective porosity (0.093) values were derived from geotechnical testing and from the literature where geotechnical data was not available (Buxton 2014; Sinhal and Gupta 2010).

Seepage velocity varies on a well-by-well basis and was calculated between the MW-5/MW-4 and MW-6/BG-2 well pairs, representing the two well pairs that are approximately perpendicular to the direction of groundwater flow and located farthest from the effects of the structural fill cap. Seepage velocity was calculated at 16.4 feet per year between MW-5 and MW-4, and 14.2 feet per year between MW-6 and BG-2 for the January 2025 sampling event. For the April 2025 sampling event, seepage velocity was calculated at 17.5 feet per year between MW-5 and MW-4 and 14.2 feet per year between MW-6 and BG-2. Flow rates listed above are estimations; actual rates will vary across the Site with local hydrogeologic conditions. Seepage velocities are shown in **Table 3**.

4 Sampling Activities

4.1 Groundwater Sampling

4.1.1 January 2025 Event

HDR collected groundwater samples from monitoring wells MW-1, MW-2, MW-2D, MW-3, MW-4, MW-5, MW-6, MW-7R, MW-8, MW-9, MW-10, MW-11, MW-11D, BG-1, and BG-2 between January 20 and 23, 2025.

Purging was conducted via low-flow methods, except for MW-2D and MW-9, where hand bailing was conducted. Purging was considered complete when the depth to water and field parameters had stabilized in accordance with the targets specified below.

- Turbidity (10 percent for values greater than 10 nephelometric turbidity units (NTUs) (if three turbidity values are less than 10 NTU, the values are considered stabilized)
- Dissolved oxygen (DO) (10 percent for values greater than 2.0 mg/L, if DO values are below 2.0 mg/L, values are considered stable if three readings are within +/- 0.2 mg/L. If three DO values are less than 0.5 mg/L, the values are considered stabilized)
- Specific conductance (5 percent)
- Temperature (3 percent)
- pH (± 0.1 unit)
- Oxygen reduction potential (ORP) (± 20 millivolts)

In instances where water level in the well would not stabilize, the well was pumped (or bailed) for as long as possible while leaving enough water in the well to fill groundwater sample bottles. Field data sheets are provided in **Appendix A**.

Non-disposable sampling equipment was decontaminated after each use by washing in a Liquinox® detergent solution followed by a tap-water rinse. Hand bailers were dedicated to a specific well and not re-used between wells. Purge water was discharged to the ground surface adjacent to each well.

One equipment blank sample and one duplicate sample were collected in the field to evaluate effectiveness of field decontamination and consistency of laboratory analytical methods, respectively.

Samples were transferred under chain-of-custody procedures to Pace Analytical Services, LLC (Pace) for analysis. Sample handling and custody were performed in accordance with the USEPA Guidance for Field Samplers.

4.1.2 April 2025 Event

HDR collected groundwater samples from monitoring wells MW-1, MW-2, MW-3, MW-4, MW-5, MW-6, MW-7R, MW-8, MW-10, MW-11, MW-11D, BG-1, and BG-2 between March 31 and April 3, 2025. Note that groundwater samples were not collected from wells MW-2D or MW-9, as the wells were bailed dry and did not recharge sufficiently to facilitate sample collection.

Purging was conducted via low-flow methods and was considered complete when the depth to water and field parameters had stabilized.

One equipment blank sample and one duplicate sample were collected in the field to evaluate effectiveness of field decontamination and consistency of laboratory analytical methods, respectively.

Purging and sampling methods were consistent with the methods described in **Section 4.1.1**. Field data sheets are provided in **Appendix A**.

4.2 Surface Water Sampling

Surface water samples were collected from locations outside of the structural fill boundary to evaluate potential groundwater to surface water interaction (**Figure 2**). During the January 2025 sampling event, only surface water location SW-6 was sampled, as water was not present at surface water locations SW-1 through SW-5. Surface water locations SW-1, SW-2, SW-3, SW-5, and SW-6 were sampled during the April 2025 sampling event; surface water location SW-4 dry. Surface water sampling locations are described as follows:

- SW-1 was sampled approximately 500 feet south of MW-4, outside of the property boundary, from an unnamed tributary of Gulf Creek.
- SW-2 was sampled south and adjacent to the rail spur west of the structural fill from an unnamed tributary of Shaddox Creek.
- SW-3 was sampled approximately 1,100 feet southwest of SW-2, outside of the property boundary, from an unnamed tributary of Shaddox Creek.
- SW-4 is typically sampled approximately 850 feet south of MW-11 from an unnamed tributary of Gulf Creek; however, was not sampled during the January or April 2025 events because it was dry.
- SW-5 was sampled approximately 1,600 feet southeast of SW-4, outside the property boundary, west of Moncure-Flatwood Road, from an unnamed tributary of Gulf Creek.
- SW-6 was sampled approximately 350 feet north of MW-4 from an unnamed tributary of Gulf Creek.

Prior to sample collection, field parameters (temperature, specific conductance, DO, pH, turbidity, and ORP) were measured with a water quality meter and recorded on field data sheets for the April 2025 sampling event. An equipment malfunction occurred when sampling SW-6 during the January 2025 sampling event which precluded measurement of field parameters (**Appendix A**).

4.3 Leachate Sampling

One leachate grab sample (leachate) was collected directly from the on-site holding tanks via a built-in spigot (**Figure 2**) during the January 2025 and April 2025 sampling events.

5 Water Quality

5.1 Background Site Conditions

Two groundwater sampling events were conducted prior to CCP placement (August and October 2015). The background sampling events consisted of sample collection and analysis from nine monitoring wells (MW-1 through MW-8 and BG-1) and two surface water sample locations (SW-1 and SW-2).

During these initial background monitoring events, chloride, pH, TDS, and vanadium were detected at concentrations that exceeded their 2L Standard or interim maximum allowable concentration (IMAC) in groundwater samples collected from background monitoring well BG-1. Antimony, barium, chloride, chromium, cobalt, pH, TDS, and vanadium were detected at concentrations that exceeded their respective 2L Standards or IMACs in other monitoring wells prior to ash placement. Additional target constituents were detected in the samples from well BG-1 and other wells; however, these concentrations did not exceed applicable standards.

Copper and cobalt concentrations that exceeded their respective 2B Standards were reported in surface water samples collected during the initial background monitoring events, prior to CCP placement. Additionally, all USEPA Appendix III constituents were detected in the surface water samples collected prior to CCP material placement, but at concentrations below their respective 2B Standards (if applicable).

During the first monitoring event (August 2015), bromodichloromethane and dibromochloromethane were detected at concentrations above their respective 2L Standards in groundwater samples collected from MW-2, MW-3, and MW-7. VOCs, including trihalomethanes, are not present naturally at the Site. These detections are attributed to the use of municipal water during previous well development activities. VOCs were not detected above laboratory method detection limits (MDLs) in any subsequent (second through eighth) background sampling events.

A detailed discussion of background groundwater conditions can be found in the *2016 Background Sampling Report* (HDR 2016b). Additional discussion of the statistical results can be found in **Section 6** of this report for a better understanding of predictive limits for the background well locations (BG-1 and BG-2), as well as interwell interactions.

5.2 Groundwater Analytical Results

5.2.1 January 2025 Event

5.2.1.1 COMPARISON TO GROUNDWATER QUALITY STANDARDS

Concentrations of the following constituents exceeded 2L Standards, as established in 15A NCAC 02L .0202 (effective April 1, 2022), in samples collected from one or more monitoring wells during the January 2025 sampling event:

- Arsenic exceeded the 2L Standard (10 µg/L) in the sample collected from MW-2D.
- Barium exceeded the 2L Standard (700 µg/L) in the samples collected from MW-3 and MW-8.
- Chloride exceeded the 2L Standard (250 mg/L) in the samples collected from MW-1, MW-2, MW-3, MW-4, and MW-8.
- Chromium exceeded the 2L Standard (10 µg/L) in the sample collected from MW-2D.
- Cobalt exceeded the 2L Standard (1 µg/L) in the sample collected from MW-4. Note that the laboratory reporting limit (5.0 µg/L) for cobalt was greater than the 2L Standard during the January 2025 event. Thus, cobalt was estimated at concentration (J-flag) of 1.3 µg/L in the sample collected from well BG-2.
- Fluoride exceeded the 2L Standard (2 mg/L) in the sample collected from MW-2D.
- Field-measured pH values did not fall within the 2L Standard range (6.5 – 8.5) while collecting samples from MW-2D, MW-4, and MW-6.
- TDS exceeded the 2L Standard (500 mg/L) in the samples collected from BG-1, BG-2, MW-1, MW-2, MW-2D, MW-3, MW-4, MW-6, MW-7R, and MW-8.
- Vanadium exceeded the 2L Standard (7 µg/L) in the sample collected from MW-2D.

Note that antimony and cobalt results were reported with laboratory reporting limits that exceeded the 2L Standard.

5.2.1.2 COMPARISON TO SITE-SPECIFIC BACKGROUD THRESHOLD VALUES

Concentrations of the following constituents exceeded the background threshold values (BTVs) in samples collected from one or more of the monitoring wells during the January 2025 sampling event:

- Arsenic exceeded the BTV (8.80 µg/L) in the sample collected from MW-2D.
- Barium exceeded the BTV (377 µg/L) in the samples collected from MW-3 and MW-8.
- Calcium exceeded the BTV (124,000 µg/L) in the samples collected from MW-1, MW-2, and MW-3.
- Chloride exceeded the BTV (374 mg/L) in the samples collected from MW-2 and MW-3.
- Chromium exceeded the BTV (7.20 µg/L) in the sample collected from MW-2D.
- Cobalt exceeded the BTV (2.30 µg/L) in the sample collected from MW-4.
- Combined Radium exceeded the BTV (2.09 pCi/L) in the samples collected from MW-2, MW-3, and MW-9.

- Copper exceeded the BTV (0.0071 mg/L) in the sample collected from MW-2D.
- Field-measured pH values did not fall within the BTV range of 5.63 – 7.55 while collecting samples from MW-2D, MW-3, MW-9, MW-10, and MW-11D.
- Fluoride exceeded the BTV (0.509 mg/L) in the samples collected from MW-2D and MW-5.
- Lithium exceeded the BTV (43.7 µg/L) in the samples collected from MW-2, MW-2D, and MW-3.
- Molybdenum exceeded the BTV (13.6 µg/L) in the samples collected from MW-2D, MW-9, and MW-10.
- Nickel exceeded the BTV (4.20 µg/L) in the samples collected from MW-2, MW-2D, and MW-4.
- Radium-226 exceeded the BTV (0.800 pCi/L) in the sample collected from MW-2.
- Radium-228 exceeded the BTV (1.35 pCi/L) in the samples collected from MW-2, MW-2D, MW-3, and MW-9.
- Selenium exceeded the BTV (6.00 µg/L) as an estimated concentration in the sample collected from MW-2D.
- Silver exceeded the BTV (0.700 µg/L) as an estimated concentration in the sample collected from MW-2 and MW-3.
- TDS exceeded the BTV (1,400 mg/L) in the samples collected from MW-2 and MW-3.
- Vanadium exceeded the BTV (8.30 µg/L) in the sample collected from MW-2D.
- Zinc exceeded the BTV (0.0324 mg/L) in the samples collected from MW-2 and MW-2D.

Note that nine constituents were reported with laboratory RLs that exceeded the BTV (antimony, arsenic, beryllium, cadmium, cobalt, mercury, nickel, selenium, and silver); however, the analytical laboratory did report estimated concentrations (J-flags) between the method detection limit and reporting limit. Analytical results are presented in **Table 4**. The laboratory report for the January 2025 sampling event is provided in **Appendix B**. Electronic data deliverables are provided in **Appendix C**.

5.2.2 April 2025 Event

5.2.2.1 COMPARISON TO GROUNDWATER QUALITY STANDARDS

Concentrations of the following constituents exceeded 2L Standards in samples collected from one or more monitoring wells during the April 2025 sampling event:

- Barium exceeded the 2L Standard (700 µg/L) in the samples collected from MW-3 and MW-8.
- Chloride exceeded the 2L Standard (250 mg/L) in the samples collected from BG-2, MW-1, MW-2, MW-3, MW-4, MW-7R, and MW-8.
- Chromium exceeded the 2L Standard (10 µg/L) in the sample collected from MW-2.
- Cobalt exceeded the 2L Standard (1 µg/L) in the samples collected from MW-2 and MW-4. Note that the laboratory RL for cobalt was greater than the 2L Standard during the

April 2025 event. Thus, cobalt was estimated at concentrations (J-flag) of 1.3J µg/L, 1.6J µg/L, and 1.4J µg/L in the samples collected from BG-2, MW-1, and MW-3, respectively.

- Field measured pH values did not fall within the 2L Standard range (6.5 – 8.5) in groundwater while collecting samples from MW-4 and MW-6.
- Lead exceeded the 2L Standard (15 µg/L) in the sample collected from MW-2.
- TDS exceeded the 2L Standard (500 mg/L) in the samples collected from BG-2, MW-1, MW-2, MW-3, MW-4, MW-6, MW-7R, and MW-8.
- Vanadium exceeded the 2L Standard (7 µg/L) in the sample collected from MW-2.

Note that antimony, arsenic, beryllium, cadmium, cobalt, and vanadium results were reported with laboratory RLs that exceeded the 2L Standards. However, the analytical laboratory did report estimated concentrations (J-flags) between the method detection limit and reporting limit.

5.2.2.2 COMPARISON TO SITE-SPECIFIC BTVs

Concentrations of the following constituents exceeded the BTVs in samples collected from one or more of the monitoring wells during the April 2025 sampling event:

- Antimony exceeded the BTV (0.790 µg/L) as an estimated concentration in the samples collected from MW-2 and MW-11D.
- Barium exceeded the BTV (377 µg/L) in the samples collected from MW-2, MW-3, and MW-8.
- Calcium exceeded the BTV (124,000 µg/L) in the samples collected from MW-1, MW-2, and MW-3.
- Chloride exceeded the BTV (374 mg/L) in the samples collected from MW-1, MW-2, and MW-3.
- Chromium exceeded the BTV (7.20 µg/L) in the sample collected from MW-2. Note that the laboratory RL for the sample collected from MW-1 was greater than the BTV, resulting in an estimated concentration above the BTV.
- Cobalt exceeded the BTV (2.30 µg/L) in the samples collected from MW-2 and MW-4.
- Combined radium exceeded the BTV (2.09 pCi/L) in the samples from MW-2 and MW-3.
- Copper exceeded the BTV (0.0071 mg/L) in the sample collected from MW-2.
- Field-measured pH values did not fall within the BTV range of 5.63 – 7.55 SU while collecting samples from MW-10 and MW-11D.
- Fluoride exceeded the BTV (0.509 mg/L) in the sample collected from MW-5.
- Lead exceeded the BTV (13.7 µg/L) in the sample collected from MW-2.
- Lithium exceeded the BTV (43.7 µg/L) in the samples collected from MW-2 and MW-3.
- Molybdenum exceeded the BTV (13.6 µg/L) in the sample collected from MW-10.
- Nickel exceeded the BTV (4.20 µg/L) in the sample collected from MW-2. Note that the laboratory RL for the samples collected from MW-1, MW-3, and MW-4 were greater than the BTV, resulting in an estimated concentration above the BTV.

- Radium-226 exceeded the BTV (0.800 pCi/L) in the samples collected from MW-2, MW-3, and MW-6.
- Radium-228 exceeded the BTV (1.35 pCi/L) in the samples collected from MW-2 and MW-3.
- TDS exceeded the BTV (1,400 µg/L) in the samples collected from MW-1, MW-2, and MW-3.
- Vanadium exceeded the BTV (8.30 µg/L) in the sample collected from MW-2.
- Zinc exceeded the BTV (0.0324 mg/L) in the samples collected from MW-2 and MW-5.

Note that 13 constituents were reported with laboratory RLs that exceeded the BTV (antimony, arsenic, beryllium, cadmium, chromium, cobalt, copper, mercury, molybdenum, nickel, selenium, silver, and vanadium). Analytical results are presented in **Table 4**. The laboratory report for the April 2025 sampling event is provided in **Appendix B**. Electronic data deliverables are provided in **Appendix C**.

The presence of naturally occurring inorganic constituents above regulatory criteria is common in North Carolina due to various geologic conditions. The presence of naturally occurring metals is discussed in more detail in the *Initial Background Groundwater & Surface Water Monitoring Event* (Buxton 2015c).

5.3 Surface Water Analytical Results

Surface water sample results were compared to the 2B Standards or the USEPA National Criteria Standard (used by the North Carolina Division of Water Quality as default standards for parameters not listed in 15A NCAC 02B).

5.3.1 January 2025 Event

Concentrations of target analytes did not exceed 2B Standards in surface water sample SW-6 during the January 2025 event.

Note that four constituents (cobalt, mercury, selenium, and silver) were reported with RLs that exceeded the 2B Standards. Standards have not been established under T15A NCAC 02B for the following constituents detected: calcium, combined radium, lithium, radium-226, radium-228, and vanadium. Laboratory results are presented in **Table 4**.

5.3.2 April 2025 Event

Concentrations of the following constituents exceeded 2B Standards in one or more surface water samples during the April 2025 event:

- Cobalt exceeded the 2B Standard (3 µg/L) in the surface water samples collected from SW-1 and SW-6. Note that laboratory RL for cobalt was greater than the 2B Standard during the April 2025 event. Thus, cobalt was estimated at a concentration (J-flag) of 8.0J µg/L in surface water sample SW-5.
- Copper exceeded the 2B Standard (0.007 mg/L) in the surface water samples collected from SW-1, SW-5, and SW-6.

- Lead exceeded the 2B Standard (25 µg/L) in the surface water samples collected from SW-1, SW-5, and SW-6.
- TDS exceeded the 2B Standard (500 mg/L) in the surface water samples collected from SW-1, SW-5, and SW-6.
- Zinc exceeded the 2B Standard (0.05 mg/L) in the surface water sample collected from SW-1, SW-5, and SW-6.

Note that eight constituents (antimony, arsenic, cadmium, cobalt, copper, mercury, selenium, and silver) were reported with RLs that exceeded the 2B Standards. Standards have not been established under T15A NCAC 02B for the following constituents detected: calcium, combined radium, lithium, radium-226, radium-228, and vanadium. Laboratory results are presented in **Table 4**.

5.4 Leachate Analytical Results

Leachate generated on-site was collected and analyzed during the January 2025 and April 2025 monitoring events. Analytical results (**Table 4**) were generally consistent with historical concentrations.

6 Statistics

6.1 Methodology

Background groundwater quality was evaluated to statistically derive background concentrations for the site. Groundwater quality in down-gradient wells was then compared to background concentrations to evaluate if a statistically significant increase (SSI) over background has occurred, as required by Section .1600 of the North Carolina Solid Waste Management Rules (15A NCAC 13B .1600).

Analytical results used to establish BTVs were obtained during 37 monitoring events performed between October 2015 and April 2025. Down-gradient sampling results from the detection monitoring event in April 2025 were used to evaluate the potential for SSIs. Software packages R and SPSS were used to analyze the data (R is a free software package; SPSS is a licensed software package).

Groundwater samples collected as part of the 15A NCAC 13B .1600 monitoring program were analyzed for NCDEQ Solid Waste Appendix I metals and 40 CFR 257 Appendix III and IV constituents. Only non-filtered sample results were utilized for the statistical analysis of monitored constituents.

6.1.1 Statistical Analysis

The background sample size (i.e., quantity of qualifying samples) was evaluated per constituent. Descriptive statistics were calculated for the background data set including and excluding non-detect (ND) values. When NDs were included in the dataset, the method detection limit (MDL) was substituted as the ND value for simple descriptive statistics. The analysis was performed with NDs removed to better understand the central tendency and range of the detected values.

Note that for the trend analyses in **Section 6.1.4** and for the establishment of statistically derived background concentration levels in **Section 6.2**, imputation methods using the maximum likelihood method (MLE) for NDs, regression on order statistics, or Kaplan-Meier methods were used, where appropriate.

Following the calculation of descriptive statistics, statistical analyses for the background data set were performed to evaluate outliers, data distributions, trends, and spatial variability between the background wells for Appendix I metals, Appendix III and Appendix IV constituents, where data quantity and quality permit. A total of 67 samples were included for the descriptive analysis of the background monitoring well results for the monitored constituents. The first round sampled in August 2015 was not included in the analysis, as it was deemed unrepresentative of the other monitoring events, likely because the samples were tested at a different laboratory. The sample collected on April 3, 2017, for TDS in well BG-1 is considered an outlier and was removed from the analysis. January 2020 samples for boron were removed from the analysis, as they were diluted and could not be properly detected.

For down-gradient monitoring results, the analysis included the calculation of descriptive statistics for Appendix I metals, Appendix III and Appendix IV constituents, (for the data sets including and excluding ND values), followed by an evaluation of outliers and trends. A total of up to 41 monitoring events conducted between November 2015 and April 2025 were included for the descriptive analysis of the down-gradient monitoring well results for the monitored constituents.

6.1.2 Outliers

Outliers are values that are not representative of the population from which they are sampled. The background and down-gradient datasets were screened for outliers using the Dixon's and Rosner's outlier tests. Dixon's outlier test is suitable for datasets containing less than 25 samples, while Rosner's test is suitable for datasets with 25 or more samples. Since current background locations have greater than 25 observations, based on the pooling of data from BG-1 and BG-2, Rosner's test was used. For down-gradient data, since sample sizes vary by well, both Dixon's and Rosner's tests were used depending on the well-constituent pair sample size. The outlier test was conducted using a significance of one percent. For constituents that had NDs, the NDs were removed prior to testing for outliers.

Ten occurrences of nickel, vanadium, boron, chromium, lithium, selenium, thallium, and/or total radium in background well BG-1 were identified as statistical outliers. Six occurrences of vanadium, zinc, and/or boron in background well BG-2 were identified as statistical outliers.

The statistical outliers were investigated as possible data entry or measurement errors. The remaining values were within one order of magnitude of other observations and deemed correct. Although the elevated values appear as statistical outliers, they are within a reasonable range of the remaining concentrations throughout the monitoring period and should not be removed from the data set at this time for purposes of evaluating background concentrations. Given the variable nature of groundwater samples, and that it is common for groundwater quality samples to have very low or very high concentrations over time, statistical outliers are expected but do

not necessarily signify that the outliers are from different distributions. As additional background samples are collected over time, the variability in concentrations will be better understood. Outlier test results may change, and earlier observations thought to be outliers may no longer be outliers.

Statistical outliers were identified for Appendix I metals, Appendix III, and Appendix IV constituents in the data sets evaluated for down-gradient monitoring wells throughout the monitoring period. Results of the outlier test of the background data set is listed in Appendix C of the Statistical Analysis Memo, and results of the down-gradient data set is listed in **Table 4** of the Statistical Analysis Memo (**Appendix D**).

6.1.3 Data Distribution

Groundwater data was fitted to known distribution models using Goodness-of-Fit (GOF) tests. The Shapiro-Wilk and Lilliefors tests were used to test for normal distribution. Note that these two tests can be used to test for lognormal distributions after the data are transformed using the natural log function. The empirical distribution function (EDF) based methods, the Kolmogorov-Smirnov (K-S) and Anderson-Darling (A-D) test, are used to test for a gamma distribution. Normal, lognormal and gamma distributions are parametric distributions. If a dataset cannot be fit with any of these three parametric distributions, it is considered to follow a nonparametric distribution. In addition, if more than 50 percent of the observations are non-detects, then the dataset is assumed to follow a nonparametric distribution. Finally, the data distributions for radium-226, radium-228, and total radium are set to nonparametric for evaluation purposes as non-detect values were not flagged by the laboratory. Data distributions are listed in Table 5 of **Appendix D**.

6.1.4 Trends

Background constituent concentrations in groundwater should demonstrate stationary conditions through time, free of trends. Constituents were analyzed for trends within the dataset using a maximum likelihood estimate (MLE) regression for constituents which followed parametric distributions and Mann-Kendall tests for those that were treated under nonparametric distributional assumptions. The MLE regression can be applied to datasets that can be fitted to a specific distribution model and that contain NDs with multiple MDLs. The Mann-Kendall test is suitable for data series with no discernable distributions and only one MDL value for NDs.

Constituents treated under nonparametric data assumptions (either tested as nonparametric or having greater than or equal to 50 percent NDs) and with multiple MDLs or with less than three detected values were not assessed for trends. A summary of the trend analysis results for constituents with sufficient detected values in the background data set is provided in Table 6 of **Appendix D**. A one-percent significance level was used to detect statistically significant trends.

The background well regression analysis showed potential increasing trends for boron (Appendix III), fluoride (an Appendix III and Appendix IV constituent), and sulfate (Appendix III), and potential decreasing trends for chloride (Appendix III) and barium (Appendix IV). There were no increasing or decreasing trends identified for other monitoring constituents with sufficient data quantity and quality for testing with the MLE analysis or Mann-Kendall test.

Trends were also evaluated for constituents in each down-gradient well using the same methods as described above for the background data set. Trends identified for select constituents at select monitoring well locations should be monitored as additional down-gradient groundwater data are collected at the Site. A summary of the statistical trends identified within the down-gradient dataset is provided in Table 7 of **Appendix D**. As with the background datasets, one-percent significance level was used to detect statistically significant trends. No trends were detected for constituents with sufficient data at MW-11. Trends observed in the downgradient dataset for the current monitoring period are as follows:

- Arsenic: Decreasing trend observed in MW-11D.
- Barium: Increasing trends observed in MW-2, MW-3, MW-7R, and MW-10. Decreasing trend observed in MW-6.
- Calcium: Increasing trends observed in MW-3 and MW-7R. Decreasing trends observed in MW-5 and MW-11D.
- Chloride: Decreasing trends observed in MW-2, MW-4, MW-6, MW-7R, MW-8, and MW-11D.
- Fluoride: Increasing trend observed in MW-1. Decreasing trend observed in MW-10.
- Lithium: Increasing trends observed in MW-4, MW-5, MW-7R, and MW-10. Decreasing trends observed in MW-6 and MW-11D.
- Molybdenum: Decreasing trends observed in MW-2, MW-10, and MW-11D.
- Nickel: Increasing trend observed in MW-4.
- pH (field): Increasing trend observed in MW-8. Decreasing trends observed in MW-2, MW-4, and MW-11D.
- Sulfate: Increasing trend observed in MW-8. Decreasing trends observed in MW-1, MW-2, MW-3, MW-6, MW-7R, MW-10, and MW-11D.
- TDS: Increasing trend observed in MW-7R. Decreasing trends observed in MW-5 and MW-11D.
- Radium-226: Decreasing trend observed in MW-1.

6.1.5 Spatial Variability

Spatial variability refers to identifying whether or not there are statistically identifiable differences in mean concentrations or variance levels across the well field (i.e., the pooled background data). Parametric and nonparametric analysis of variance (ANOVA) tests and visual aids (i.e., side-by-side box plots and scatter plots), as needed, were used to evaluate for spatial variability within the background dataset to check that results from background wells BG-1 and BG-2 were appropriate for pooling and calculating background concentrations for constituents.

Statistical tests at the one percent level of statistical significance indicated that seven Appendix III constituents (boron, calcium, chloride, fluoride, pH [field], sulfate, and total dissolved solids) exhibited spatial variability. Statistical spatial variability was also identified for two Appendix IV constituents (barium and fluoride), and one Appendix I metal (vanadium). Review of side-by-side box plots for the constituents listed above indicated that the statistically-identified variability

in concentrations are reasonable and the mean concentrations calculated for the monitoring wells are generally within the natural variability of concentrations of the well field conditions for Appendix III and IV constituents or within or close to one order of magnitude of the other (See Figure 10 through Figure 17 in **Appendix D**). Therefore, the concentration distribution across the background wells should be considered reflective of the hydrogeological regime at the Site and the background results are appropriate for pooling and calculating background concentrations at this time. Spatial variability will continue to be monitored with each background update and down-gradient assessment.

6.2 Evaluation for SSIs over Background

The BTVs developed during the 2025 First Semi-Annual Report for Appendix I metals, Appendix III and Appendix IV constituents at the Site are used to evaluate if concentrations of Appendix I metals, Appendix III and Appendix IV constituents, as of the April 2025 sampling round, are SSIs. BTVs are estimated based on data available as of April 2025. For constituents that have all ND background values, the maximum MDL is chosen to represent background, and the double quantification rule (DQR) is used to evaluate whether there is an SSI. The BTV provided for detection monitoring constituents is the statistically derived background concentration (i.e., upper prediction limit [UPL]), the maximum detected value, or the maximum MDL, depending on the level of censorship in each of the background samples.

Down-gradient sampling results from the April 2025 detection monitoring event were used to test for SSIs. For constituents that have all ND background values, the DQR is applied; that is, an SSI is registered for the well-constituent pair if the down-gradient concentrations exhibit detects in two consecutive sampling events. Down-gradient sampling results from the January 2025 and April 2025 sampling events were used to test for SSIs for constituents that have all ND background values. Down-gradient concentrations were compared to the BTVs and are summarized in Table 11 through Table 13 of **Appendix D**.

SSIs were identified for four Appendix I metals (copper, nickel, vanadium, and zinc), five Appendix III constituents (calcium, chloride, fluoride, pH [field], and TDS), and eleven Appendix IV constituents (antimony, barium, chromium, cobalt, fluoride, lead, lithium, molybdenum, radium-226, radium-228, and total radium). Note that samples collected from MW-2 during the April 2025 sampling event were collected with a turbidity greater than 10 NTUs, potentially resulting in biased-high laboratory results. Thus, it is unclear if SSIs associated with MW-2 in April 2025 have occurred.

6.3 Statistical Summary

A summary of the statistical analysis results is provided in Table 8 and Table 10 of **Appendix D** and discussed below. Note that for the purposes of the SSI analysis, the BTVs used include samples up to April 2025.

- The statistical outliers identified for nickel, vanadium, zinc, boron, chromium, lithium, selenium, thallium and total radium are considered representative of background. During the next BTV update with the additional 2025 and 2026 samples, the full datasets will be re-assessed for statistical outliers.

- For the background data set, there are currently sufficient data to fit the Appendix III constituents to known parametric distribution models (e.g., gamma, lognormal, or normal) using GOF test, except for calcium, sulfate, and TDS, which are nonparametric.
- For the background data set, 11 of the 17 Appendix IV constituents exhibited high percentages of NDs and will be treated under nonparametric distribution assumptions. Among these constituents, four used maximum detected values to represent background as the number of detects is less than four; one used the MDL since constituent is 100% non-detects; and the UPL for the rest of the constituents were calculated based on nonparametric distribution. The data sets for radium-226, radium-228, and total radium are set to nonparametric distribution for inferential purposes. This is because the NDs were not indicated based on the analytical protocols used by the laboratory and some observations had negative values. Currently, the background datasets for fluoride can be fit to known parametric models using GOF test.
- Down-gradient samples, as of April 2025, were used to evaluate SSIs. The statistically-derived background concentrations and the evaluation for SSIs over background for Appendix I metals, Appendix III and Appendix IV constituents are included in Section 4 of **Appendix D**.
- While multiple statistical outliers have been flagged at the down-gradient wells for various constituents, the outliers can indicate contamination from the structural fill or alternative sources. Unless an alternative source can be confirmed, the values remain in the sample as representing down-gradient groundwater quality at the time of measurement.
- SSIs were identified for four Appendix I metals (copper, nickel, vanadium, and zinc), five Appendix III constituents (calcium, chloride, fluoride, pH [field], and TDS), and eleven Appendix IV constituents (antimony, barium, chromium, cobalt, fluoride, lead, lithium, molybdenum, radium-226, radium-228, and total radium).

When the April 2025 sampling event results are compared to the pre-ash sampling results from the eight down-gradient wells, current down-gradient groundwater constituent concentrations are generally similar to concentrations reported prior to ash placement. In some cases, the BTV is not contained within the pre-ash placement range, indicating that natural variability may lie beyond what was captured prior to the ash placement. Depending on the data distribution of the constituent, the BTVs have been computed to allow for one to two verification samples, should an opportunity for additional sampling take place. The validity of the initial exceedance can be confirmed by verification sampling; however, for practical purposes, should the initial sampling event of interest exceed the respective BTV, the event is considered an SSI. Additional details regarding statistical methodology and results are provided in **Appendix D**.

7 Summary and Conclusions

7.1 Summary

The first and second quarterly groundwater monitoring events in 2025 were conducted at the Brickhaven No. 2 Mine Tract “A” Structural Fill site from January 20-23, 2025, and March 31-April 3, 2025, respectively. A summary of the findings from these events is provided below**.**

7.1.1 Groundwater

7.1.1.1 JANUARY 2025 EVENT

- Concentrations of the following constituents exceeded 2L Standards in samples collected from one or more monitoring wells: arsenic, barium, chloride, chromium, cobalt, fluoride, pH (field), TDS, and vanadium. Note that antimony and cobalt results were reported with laboratory RLs that exceeded the 2L Standard.
- Concentrations of the following constituents exceeded BTVs in samples from one or more monitoring wells: arsenic, barium, calcium, chloride, chromium, cobalt, combined radium, copper, fluoride, lithium, molybdenum, nickel, pH (field), radium-226, radium-228, selenium, silver, TDS, and vanadium. Note that antimony, arsenic, beryllium, cadmium, cobalt, mercury, nickel, selenium, and silver were reported with laboratory RLs that exceeded the BTV.

7.1.1.2 APRIL 2025 EVENT

- Concentrations of the following constituents exceeded 2L Standards in samples collected from one or more monitoring wells: antimony, barium, chloride, chromium, cobalt, pH (field), lead, TDS, and vanadium. Note that antimony, arsenic, beryllium, cadmium, cobalt, and vanadium results were reported with RLs that exceeded the 2L Standard.
- Concentrations of the following constituents exceeded the BTVs in samples collected from one or more monitoring wells: antimony, barium, calcium, chloride, chromium, cobalt, combined radium, copper, fluoride, lead, lithium, molybdenum, nickel, pH (field), radium-226, radium-228, TDS, vanadium, and zinc. Note that antimony, arsenic, beryllium, cadmium, chromium, cobalt, copper, mercury, molybdenum, nickel, selenium, silver, and vanadium were reported with RLs that exceeded the BTV.
- Comparing the results of the April 2025 monitoring event to the pre-ash sampling results from the eight downgradient wells, current down-gradient groundwater constituent concentrations are generally similar to concentrations reported prior to ash placement.

7.1.1.3 STATISTICAL EVALUATION

- Ten occurrences of nickel, vanadium, boron, chromium, lithium, selenium, thallium, and/or total radium in background well BG-1 were identified as statistical outliers. Six occurrences of vanadium, zinc, and/or boron in background well BG-2 were identified as statistical outliers. The statistical outliers are considered representative of background. During the next BTV update with the additional 2025 and 2026 samples, the full datasets will be re-assessed for statistical outliers.
- Groundwater quality in wells was compared to background concentrations to evaluate if an SSI over background has occurred:
  - SSIs were identified for four Appendix I metals (copper, nickel, vanadium, and zinc), five Appendix III constituents (calcium, chloride, fluoride, pH [field], and TDS), and eleven Appendix IV constituents (antimony, barium, chromium, cobalt, fluoride, lead, lithium, molybdenum, radium-226, radium-228, and total radium).

7.1.2 Surface Water

7.1.2.1 JANUARY 2025 EVENT

- Concentrations of target analytes did not exceed 2B Standards in the sample collected from SW-6. Note that cobalt, mercury, selenium, and silver were reported with laboratory RLs that exceeded the 2B Standard.
- Surface water sample locations SW-1 through SW-5 were dry and not sampled.

7.1.2.2 APRIL 2025 EVENT

- Concentrations of the following constituents exceeded 2B Standards in one or more surface water samples: arsenic, cobalt, copper, lead, TDS, selenium, and zinc. Note that antimony, arsenic, cadmium, cobalt, copper, mercury, selenium, and silver were reported with laboratory RLs that exceeded the 2B Standard.
- Surface water sample location SW-4 was dry or stagnant and not sampled.

7.1.3 Leachate

Concentrations of the analyzed constituents (**Table 1**) were generally within range of historical results, with some minor fluctuations observed.

7.2 Conclusions

Based upon the data analyzed during this event and historical events, HDR has made the following conclusions:

- The presence of SSIs is largely the result of low background concentrations that may not represent data collected prior to CCP placement (August and October 2015 sampling events) and is influenced by natural and seasonal variations at the Site. In general, the SSIs reported during this sampling event are either consistent with those evaluated in the Alternate Source Demonstration (March 29, 2019) or are potential SSIs to be verified during the next sampling event.
- Groundwater modeling during assessment monitoring in 2020 calculated that, due to the low hydraulic conductivity of the clay-rich soil of the former clay mine, groundwater and constituents found in the groundwater will move slowly through the aquifer materials. Model-estimated groundwater velocities are too low for constituents to have been transported from the structural fill to the monitoring wells or surface waters where they have been detected at the time of first detection. It was calculated that a hypothetical plume would have migrated approximately 250 feet in six years between 2014 and 2020. Using the average seepage rate of approximately 16 ft/yr calculating using data derived in 2025, and adding it to the 250 feet the plume could have migrated between 2014 and 2020, the total potential migration distance of a plume since the placement of structural fill would be approximately 338 feet or less. Therefore, tracer constituents would have reached down-gradient monitoring wells within 338 feet of the fill boundary, if a plume were migrating from the unit.
- Tracer constituents, such as boron, are not present at significant concentrations in groundwater or the surface water. Boron is a conservative tracer, so its ratio to the less mobile constituents (e.g., arsenic) should increase down-gradient of the structural fill. However, boron was detected at low concentrations or not detected in down-gradient groundwater. This indicates that the ash and leachate, which are a source of boron, are not the source of other constituents in groundwater and/or surface water.

- Historically, results of surface water sampling indicate exceedances of 2B Standards in the sample collected from SW-6. This location is immediately downstream of the General Shale property and away from ash handling activities performed on the Brickhaven site prior to closure of the structural fill. Thus, it appears that the presence of inorganics in surface water samples collected downstream (locations SW-1 and SW-5) are likely the result of off-site impacts, and not from activities on the Brickhaven site.
- The structural fill is engineered and lined with an active leachate collection system. By collecting and disposing of the leachate off-site, the likelihood that leachate escaped the liner is greatly reduced.

8 Recommendations

Based on the findings, HDR makes the following recommendations:

- Continue semi-annual detection monitoring and reporting, in accordance with permit requirements.
- Evaluate the validity of SSIs by further assessing sampling protocols/performance, spatial variability, and seasonality of constituent concentrations as additional sampling rounds are conducted.

9 References

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Tables

Table 1. January 2025 Groundwater Elevations
Table 2. April 2025 Groundwater Elevations
Table 3. Horizontal Hydraulic Gradients and Seepage Velocity
Table 4. Analytical Results – January 2024 and April 2024

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Table 1
Well Construction Details & Groundwater Elevations
January 20 - 23, 2025
Charah Solutions, Inc. - Brickhaven No.2 Mine Tract "A" Structural Fill
Moncure, Chatham County, North Carolina

Well ID	*Northing*	*Easting*	*TOC elev. (ft)*	*TD BGS (ft)*	*TD BTOC (ft)*	*Screen length (ft)*	*Screen Interval (ft)*	*DTW (ft BTOC)*	*GW Elevation (ft MSL)*	*Lithologic Unit*
BG-1	670898.50	1996348.25	228.19	41.00	43.55	15	26 - 41	11.70	216.49	Layered Rock/PWR*
BG-2	669278.99	1990476.10	194.23	23.00	25.82	10	13 -23	12.93	181.30	Layered Rock/PWR*
MW-1	674737.98	1993417.69	280.08	72.00	74.80	15	57 - 72	61.94	218.14	Layered Rock/PWR*
MW-2	673677.07	1994537.54	231.76	48.00	50.49	15	33 - 48	20.18	211.58	Layered Rock/PWR*
MW-2D	673650.31	1994535.97	232.87	144.00	147.14	15	129 - 144	141.72	91.15	Layered Rock/PWR*
MW-3	672474.63	1994834.76	222.56	40.00	42.56	15	25 - 40	8.08	214.48	PWR
MW-4	671326.48	1994974.40	217.13	22.70	25.34	10	13 - 23	14.86	202.27	Residuum/PWR
MW-5	671081.19	1993779.03	244.86	44.00	46.14	10	34 - 44	24.11	220.75	PWR
MW-6	671267.71	1992793.49	230.95	27.00	29.33	15	12 - 27	9.70	221.25	Residuum/PWR
MW-7	672306.28	1992642.35	231.71	15.00	17.18	10	5 - 15	NM	NM	Residuum/PWR
MW-7R	672221.96	1992702.98	242.22	36.00	38.23	10	26 - 36	23.54	218.68	Residuum/PWR
MW-8	673304.83	1992200.37	236.47	46.00	49.06	15	31 - 46	32.96	203.51	PWR
MW-9	672747.21	1993936.20	240.36	36.00	39.03	10	26 - 36	37.29	203.07	PWR
MW-10	672421.01	1993269.14	257.74	47.00	50.00	10	37 - 47	31.40	226.34	PWR
MW-11	670446.25	1993476.57	219.23	40.00	42.70	15	25 - 40	11.49	207.74	PWR
MW-11D	670447.41	1993466.72	219.40	65.00	67.38	15	50 - 65	7.76	211.64	Layered Rock/PWR*

Created by: CG, QC'd by: AL

Notes:

1. Wells MW-4 (PZM-1), MW-5 (MZM-22), and MW-7 (PZM-27) were surveyed by Lawrence Surveying of Monroe, NC. Wells BG-1, BG-2, MW-1, MW-2, MW-2D MW-3, MW-6, MW-7R, MW-8, MW-9, MW-10, MW-11, and MW-11D were surveyed by McAdams of Durham, NC. Well Locations and elevations based on NAD 83 horizontal datum and NGVD88 vertical datum.

2. TD = Total Depth; BGS = Below Ground Surface; TOC = Top of Casing; DTW = Depth to Water; BTOC = Below Top of Casing; GW = Groundwater; MSL = Mean Sea Level

3. DTW measurements obtained on January 20 - 23, 2025, to the nearest 0.01 foot with a water-level meter.

4. * = Interpreted lithologic unit based on relative drilling hardness and geologic judgment during well installation.

5. NM = Not Measured

Table 2
Well Construction Details & Groundwater Elevations
March 31, 2025
Charah Solutions, Inc. - Brickhaven No.2 Mine Tract "A" Structural Fill
Moncure, Chatham County, North Carolina

Well ID	*Northing*	*Easting*	*TOC elev. (ft)*	*TD BGS (ft)*	*TD BTOC (ft)*	*Screen length (ft)*	*Screen Interval (ft)*	*DTW (ft BTOC)*	*GW Elevation (ft MSL)*	*Lithologic Unit*
BG-1	670898.50	1996348.25	228.19	41.00	43.55	15	26 - 41	9.86	218.33	Layered Rock/PWR*
BG-2	669278.99	1990476.10	194.23	23.00	25.82	10	13 -23	10.80	183.43	Layered Rock/PWR*
MW-1	674737.98	1993417.69	280.08	72.00	74.80	15	57 - 72	62.00	218.08	Layered Rock/PWR*
MW-2	673677.07	1994537.54	231.76	48.00	50.49	15	33 - 48	19.74	212.02	Layered Rock/PWR*
MW-2D	673650.31	1994535.97	232.87	144.00	147.14	15	129 - 144	141.60	91.27	Layered Rock/PWR*
MW-3	672474.63	1994834.76	222.56	40.00	42.56	15	25 - 40	7.90	214.66	PWR
MW-4	671326.48	1994974.40	217.13	22.70	25.34	10	13 - 23	13.26	203.87	Residuum/PWR
MW-5	671081.19	1993779.03	244.86	44.00	46.14	10	34 - 44	21.30	223.56	PWR
MW-6	671267.71	1992793.49	230.95	27.00	29.33	15	12 - 27	7.55	223.40	Residuum/PWR
MW-7	672306.28	1992642.35	231.71	15.00	17.18	10	5 - 15	16.50	215.21	Residuum/PWR
MW-7R	672221.96	1992702.98	242.22	36.00	38.23	10	26 - 36	22.40	219.82	Residuum/PWR
MW-8	673304.83	1992200.37	236.47	46.00	49.06	15	31 - 46	31.55	204.92	PWR
MW-9	672747.21	1993936.20	240.36	36.00	39.03	10	26 - 36	38.00	202.36	PWR
MW-10	672421.01	1993269.14	257.74	47.00	50.00	10	37 - 47	31.00	226.74	PWR
MW-11	670446.25	1993476.57	219.23	40.00	42.70	15	25 - 40	9.81	209.42	PWR
MW-11D	670447.41	1993466.72	219.40	65.00	67.38	15	50 - 65	6.47	212.93	Layered Rock/PWR*

Created by: CG; QC'd by: AL

Notes:

1. Wells MW-4 (PZM-1), MW-5 (MZM-22), and MW-7 (PZM-27) were surveyed by Lawrence Surveying of Monroe, NC. Wells BG-1, BG-2, MW-1, MW-2, MW-2D MW-3, MW-6, MW-7R, MW-8, MW-9, MW-10, MW-11, and MW-11D were surveyed by McAdams of Durham, NC. Well Locations and elevations based on NAD 83 horizontal datum and NGVD88 vertical datum.

2. TD = Total Depth; BGS = Below Ground Surface; TOC = Top of Casing; DTW = Depth to Water; BTOC = Below Top of Casing; GW = Groundwater; MSL = Mean Sea Level

3. DTW measurements obtained on March 31, 2025 to the nearest 0.01 foot with a water-level meter.

4. * = Interpreted lithologic unit based on relative drilling hardness and geologic judgment during well installation.

Table 3
Horizontal Hydraulic Gradient & Groundwater Flow Velocity
January 20 - 23, 2025 & March 31, 2025
Charah Solutions, Inc. - Brickhaven No.2 Mine Tract "A" Structural Fill
Moncure, Chatham County, North Carolina

Sampling Event	Upgradient Well	Downgradient Well	Upgradient Groundwater Elevation (ft)	Downgradient Groundwater Elevation (ft)	Linear Flow Distance (ft)	Hydraulic Gradient	Seepage Velocity (ft/yr)
Jan-25	MW-5	MW-4	220.75	202.27	1,220	0.015	16.4
	MW-6	BG-2	221.25	181.3	3,054	0.013	14.2
Mar-25	MW-5	MW-4	223.56	203.87	1,220	0.016	17.5
	MW-6	BG-2	223.40	183.43	3,054	0.013	14.2

Created by: CG; QC'd by: BS

Notes:

1. Horizontal hydraulic gradients calculated by dividing the difference in hydraulic head between a well pair by the length of the flow path between the well pair. (i= dh/dl).
2. All well pairs assumed to be screened in same surficial aquifer unit.
3. Groundwater elevations calculated using measurements obtained on January 20 - 23, 2025 (Jan-25) and March 31, 2025 (Mar-25).
4. The average linear velocity, or seepage velocity, of groundwater between wells at the site was calculated using Darcy's Law, as follows: Vs = (Ki)/Pe

V = Seepage Velocity (ft/yr) i = Horizontal Hydraulic Gradient

K = Horizontal Hydraulic Conductivity Pe = Effective Porosity

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Table 4: Analytical Results January 2025 and April 2025

Analyte	CAS Number	2L Standard / IMAC	BTV (2Q2025)	Groundwater Analysis															
				BG-1		BG-2		MW-1		MW-2		MW-2D		MW-3		MW-4		MW-5	
				Jan-25	Apr-25	Jan-25	Apr-25	Jan-25	Apr-25	Jan-25	Apr-25	Jan-25	Apr-25	Jan-25	Apr-25	Jan-25	Apr-25	Jan-25	Apr-25
EPA APPENDIX III																			
Boron (µg/L)	7440-42-8	*700*	*56.9*	8.6 J	5.9 J	16.7 J	15.8	10.9 J	6.8 J	46.0 J	44.1	40.6 J	NS	47.8 J	39.5	7.9 J	7.2 J	12.6 J	9.1 J
Calcium (µg/L)	7440-70-2	*NE*	*124,000*	23,900	18,600	95,000	106,000	**128,000**	**218,000**	**188,000**	**188,000**	14,000	NS	**326,000**	**174,000**	53,800	41,300	7,830	9,220
Chloride (mg/L)	16887-00-6	*250*	*374*	180	155	250	276	350	**956**	**962**	**1,080**	104	NS	**944**	**1,060**	275	319	16.9	20.1
Fluoride (mg/L)	16984-48-8	*2*	*0.509*	0.19	0.23	0.36	0.31	0.17	0.17	0.21	0.21	**2.8**	NS	0.27	0.31	0.39	0.39	**0.54**	**0.57**
pH (standard units)	pH	*6.5-8.5*	*5.63-7.55*	6.90	6.56	6.86	6.96	6.99	6.59	7.50	7.41	**11.36**	NS	**7.57**	7.39	6.25	6.17	6.68	6.97
Sulfate (mg/L)	14808-79-8	*250*	*210*	20.0	24.5	181	193	5.0	6.5	66.4	68.6	31.8	NS	11.5	12.7	10.0	12.9	3.0	3.7
Total Dissolved Solids (mg/L)	TDS	*500*	*1,400*	552	487	1,300	1,280	950	**1,530**	**2,340**	**2,400**	510	NS	**2,160**	**2,430**	1,120	1,020	190	207
EPA APPENDIX IV																			
Antimony (µg/L)	7440-36-0	*1*	*0.790*	<5.0	<20.0	<5.0	<20.0	<5.0	<20.0	<5.0	4.1 J	<5.0	NS	<5.0	<20.0	<5.0	<20.0	<5.0	<20.0
Arsenic (µg/L)	7440-38-2	*10*	*8.80*	<10.0	<20.0	<10.0	<20.0	3.5 J	<20.0	5.8 J	<20.0	**25.0**	NS	4.2 J	<20.0	<10.0	<20.0	<10.0	<20.0
Barium (µg/L)	7440-39-3	*700*	*377*	283	232	52.3	54.8	136	291	334	**473**	122	NS	**748**	**764**	297	334	101	96.3
Beryllium (µg/L)	7440-41-7	*4*	*0.700*	<1.0	<5.0	<1.0	<5.0	<1.0	<5.0	<1.0	0.62 J	<1.0	NS	<1.0	<5.0	<1.0	<5.0	<1.0	<5.0
Cadmium (µg/L)	7440-43-9	*2*	*0.500*	<1.0	<3.0	<1.0	<3.0	<1.0	<3.0	<1.0	<3.0	<1.0	NS	<1.0	<3.0	<1.0	<3.0	<1.0	<3.0
Chromium (µg/L)	7440-47-3	*10*	*7.20*	<5.0	1.2 J	<5.0	<10.0	<5.0	9.3 J	5.4	**22.9**	**33.4**	NS	<5.0	3.6 J	<5.0	2.6 J	2.0 J	1.6 J
Cobalt (µg/L)	7440-48-4	*1*	*2.30*	<5.0	<10.0	1.3 J	1.3 J	<5.0	1.6 J	0.81 J	**11.4**	<5.0	NS	0.90 J	1.4 J	**8.3**	**19.0**	<5.0	<10.0
Fluoride (mg/L)	16984-48-8	*2*	*0.509*	0.19	0.23	0.36	0.31	0.17	0.17	0.21	0.21	**2.8**	NS	0.27	0.31	0.39	0.39	**0.54**	**0.57**
Lead (µg/L)	7439-92-1	*15*	*13.7*	<5.0	<10.0	<5.0	3.1 J	<5.0	3.8 J	<5.0	**17.8**	<5.0	NS	<5.0	4.0 J	<5.0	<10.0	<5.0	<10.0
Lithium (µg/L)	7439-93-2	*NE*	*43.7*	31.1	13.7	22.1	22.3	29.5	37.1	**117**	**130**	**158**	NS	**84.4**	**86.1**	42.0	37.8	11.4	8.7
Mercury (µg/L)	7439-97-6	*1*	*0.170*	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	NS	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Molybdenum (µg/L)	7439-98-7	*NE*	*13.6*	<5.0	<15.0	<5.0	5.5 J	<5.0	<15.0	<25.0	3.5 J	**223**	NS	<5.0	7.0 J	<25.0	<15.0	<5.0	<15.0
Selenium (µg/L)	7782-49-2	*20*	*6.00*	<10.0	<20.0	<10.0	<20.0	<10.0	<20.0	<10.0	<20.0	6.3 J	NS	<10.0	<20.0	<10.0	<20.0	<10.0	<20.0
Thallium (µg/L)	7440-28-0	*2*	*13.7*	<0.20	<0.10	<0.20	<0.10	<0.20	<0.10	0.037 J	0.13	<0.20	NS	<0.20	<0.10	<0.20	<0.10	<0.20	<0.10
Radium 226 (pCi/L)	13982-63-3	*NE*	*0.800*	0.373	0.525	0.326	0.111	-0.407	0.0565	**1.14**	**2.11**	0.229	NS	0.651	**1.56**	0.720	0.735	0.193	0.212
Radium 228 (pCi/L)	15262-20-1	*NE*	*1.35*	0.410	0.441	1.12	0.301	0.460	1.06	**1.66**	**1.96**	**1.45**	NS	**1.83**	**2.03**	0.490	-0.0252	0.395	0.540
Combined Radium (pCi/L)	7440-14-4	*NE**	*2.09*	0.783	0.966	1.45	0.412	0.460	1.12	**2.80**	**4.07**	1.68	NS	**2.48**	**3.59**	1.21	0.735	0.588	0.752
EPA APPENDIX I METALS																			
Copper (mg/L)	7440-50-8	*1*	*0.0071*	0.0030 J	<0.0100	0.0010 J	0.0013 J	0.00093 J	0.0012 J	0.0027 J	**0.0330**	**0.0106**	NS	0.0024 J	0.0068 J	<0.0050	0.00090 J	0.0027 J	0.0015 J
Nickel (µg/L)	7440-02-0	*100*	*4.20*	1.0 J	<20.0	1.7 J	<20.0	1.3 J	4.9 J	**5.3**	**22.1**	**11.9**	NS	1.8 J	5.1 J	**7.3**	12.4 J	3.0 J	<20.0
Silver (µg/L)	7440-22-4	*20*	*0.700*	<5.0	<10.0	0.70 J	<10.0	0.70 J	<10.0	0.88 J	<10.0	<5.0	NS	0.85 J	<10.0	<5.0	<10.0	<5.0	<10.0
Vanadium (µg/L)	7440-62-2	*7*	*8.30*	5.8	6.5 J	<5.0	<15.0	3.4 J	4.1 J	1.9 J	**20.2**	**128**	NS	1.7 J	3.4 J	<5.0	<15.0	<5.0	<15.0
Zinc (mg/L)	7440-66-6	*1*	*0.0324*	0.0112	0.0084 J	0.0045 J	0.0111 J	0.0049 J	0.0117 J	**0.0447**	**0.122**	**0.040**	NS	0.0035 J	0.0191 J	0.0075 J	0.0195 J	0.0118	**0.0549**

Notes:

* = no established 2L Standard. 5 pCi/l is the Federal Standard

BTV = background threshold value calculated for April 2025

NE = not established

NA = not analyzed

µg/L = micrograms per liter

pCi/L = picocuries per liter

mg/L = miligrams per liter

EQBL = Equipment Blank

J = Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit

NS =Not Sampled

Shaded = concentration reported above (or below for pH) established 2L Standard, IMAC, or 2B Standard

Bold = concentration exceeded BTV

2L Standard = North Carolina Groundwater Protection Standard (T15A NCAC 02L .0202)

IMAC = Interim Allowable Maximum Concentration

2B Standard = North Carolina Surface Water and Wetland Standards (15A NCAC 02B) for Gulf Creek (SW-1) and Shaddox Creek (SW-2) which are both Class WS-IV Waters or are National Criteria per EPA

pH was field tested

Groundwater, surface water, and leachate samples collected for **January 2025 from January 20-23** and for **April 2025 from March 31 - April 3** and analyzed for above parameters by Pace Analytical Services, LLC

Constituents are only considered exceeding the BTV if the sampling event in question and the previous sampling event had detections for that constituent

Secondary USEPA Maximun Contaminant Levels (MCL) used where other regulatory criteria not established.

Analysis for chloride, flouride, and sulfate during the January 2025 sampling event were analyzed outside the EPA method holding time

Table 4: Analytical Results January 2025 and April 2025

Analyte	CAS Number	2L Standard / IMAC	BTV (2Q2025)	Groundwater Analysis													
				MW-6		MW-7R		MW-8		MW-9		MW-10		MW-11		MW-11D	
				Jan-25	Apr-25	Jan-25	Apr-25	Jan-25	Apr-25	Jan-25	Apr-25	Jan-25	Apr-25	Jan-25	Apr-25	Jan-25	Apr-25
EPA APPENDIX III																	
Boron (µg/L)	7440-42-8	*700*	*56.9*	9.1 J	6.8 J	10.6 J	8.7 J	12.7 J	10.5	32.9 J	NS	28.6 J	25.5	20.0 J	15.4	52.0	42.6
Calcium (µg/L)	7440-70-2	*NE*	*124,000*	33,500	33,200	91,000	89,900	116,000	96,300	34,100	NS	21,800	21,300	29,200	24,900	16,400	15,300
Chloride (mg/L)	16887-00-6	*250*	*374*	165	184	244	269	345	302	9.3	NS	28.2	30.4	111	136	52.7	55.9
Fluoride (mg/L)	16984-48-8	*2*	*0.509*	0.34	0.36	0.14	0.14	0.10	0.10	0.27	NS	0.41	0.44	0.18	0.17	0.42	0.45
pH (standard units)	pH	*6.5-8.5*	*5.63-7.55*	6.41	6.33	7.30	7.31	6.97	7.09	**7.71**	NS	**7.79**	**7.76**	6.87	6.58	**8.10**	**8.09**
Sulfate (mg/L)	14808-79-8	*250*	*210*	25.4	27.3	12.8	14.2	6.1	7.5	62.3	NS	1.6	1.7	1.8	2.3	13.3	15.0
Total Dissolved Solids (mg/L)	TDS	*500*	*1,400*	568	542	834	818	908	798	482	NS	338	345	393	447	315	323
EPA APPENDIX IV																	
Antimony (µg/L)	7440-36-0	*1*	*0.790*	<5.0	<20.0	<5.0	<20.0	<5.0	<20.0	<5.0	NS	<5.0	<20.0	<5.0	<20.0	<5.0	4.2 J
Arsenic (µg/L)	7440-38-2	*10*	*8.80*	<10.0	<20.0	<10.0	<20.0	<10.0	<20.0	<10.0	NS	<10.0	<20.0	<10.0	<20.0	<10.0	<20.0
Barium (µg/L)	7440-39-3	*700*	*377*	54.7	54.5	320	318	**1,110**	**1,020**	184	NS	95.3	95.2	45.8	35.3	114	112
Beryllium (µg/L)	7440-41-7	*4*	*0.700*	<1.0	<5.0	<1.0	<5.0	<1.0	<5.0	<1.0	NS	<1.0	<5.0	<1.0	<5.0	<1.0	<5.0
Cadmium (µg/L)	7440-43-9	*2*	*0.500*	<1.0	<3.0	<1.0	<3.0	<1.0	<3.0	<1.0	NS	<1.0	<3.0	<1.0	<3.0	<1.0	<3.0
Chromium (µg/L)	7440-47-3	*10*	*7.20*	<5.0	1.8 J	1.1 J	4.0 J	2.2 J	5.4 J	1.5 J	NS	<5.0	3.6 J	<5.0	0.87 J	<5.0	2.2 J
Cobalt (µg/L)	7440-48-4	*1*	*2.30*	<5.0	<10.0	<5.0	<10.0	0.52 J	<10.0	<5.0	NS	<5.0	<10.0	0.52 J	<10.0	<5.0	<10.0
Fluoride (mg/L)	16984-48-8	*2*	*0.509*	0.34	0.36	0.14	0.14	0.10	0.10	0.27	NS	0.41	0.44	0.18	0.17	0.42	0.45
Lead (µg/L)	7439-92-1	*15*	*13.7*	<5.0	<10.0	<5.0	3.1 J	<5.0	<10.0	<5.0	NS	<5.0	<10.0	<5.0	<10.0	<5.0	<10.0
Lithium (µg/L)	7439-93-2	*NE*	*43.7*	25.5	22.1	31.5	29.1	30.9	24.4	4.8	NS	6.5	4.9	9.6	10.8	17.4	14.7
Mercury (µg/L)	7439-97-6	*1*	*0.170*	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	NS	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Molybdenum (µg/L)	7439-98-7	*NE*	*13.6*	<5.0	<15.0	<5.0	<15.0	<5.0	<15.0	**16.0**	NS	**17.2**	**19.8**	<5.0	<15.0	<5.0	3.8 J
Selenium (µg/L)	7782-49-2	*20*	*6.00*	<10.0	<20.0	<10.0	<20.0	<10.0	<20.0	<10.0	NS	<10.0	<20.0	<10.0	<20.0	<10.0	<20.0
Thallium (µg/L)	7440-28-0	*2*	*13.7*	<0.20	<0.10	<0.20	<0.10	<0.20	<0.10	<0.20	NS	<0.20	<0.10	<0.20	<0.10	<0.20	<0.10
Radium 226 (pCi/L)	13982-63-3	*NE*	*0.800*	-0.236	**0.913**	0.342	-0.316	0.432	0.0493	-1.11	NS	-0.0903	0.0522	0.347	0.478	0.0945	-0.156
Radium 228 (pCi/L)	15262-20-1	*NE*	*1.35*	0.411	0.794	0.373	0.514	0.388	0.546	**2.19**	NS	0.404	0.617	0.557	0.488	0.656	0.690
Combined Radium (pCi/L)	7440-14-4	*NE**	*2.09*	0.411	1.71	0.715	0.514	0.820	0.595	**2.19**	NS	0.404	0.669	0.904	0.966	0.751	0.690
EPA APPENDIX I METALS																	
Copper (mg/L)	7440-50-8	*1*	*0.0071*	0.0028 J	<0.0100	0.00076 J	<0.0100	0.00086 J	0.0011 J	0.0030 J	NS	0.00095 J	0.0010 J	0.0022 J	0.0014 J	0.0023 J	0.0012 J
Nickel (µg/L)	7440-02-0	*100*	*4.20*	2.1 J	<20.0	1.3 J	<20.0	2.2 J	3.3 J	1.5 J	NS	0.96 J	2.6 J	0.96 J	<20.0	<5.0	2.2 J
Silver (µg/L)	7440-22-4	*20*	*0.700*	<5.0	<10.0	<5.0	<10.0	<5.0	<10.0	<5.0	NS	<5.0	<10.0	<5.0	<10.0	<5.0	<10.0
Vanadium (µg/L)	7440-62-2	*7*	*8.30*	<5.0	<15.0	2.8 J	3.1 J	1.8 J	<15.0	<5.0	NS	<5.0	<15.0	<5.0	<15.0	<5.0	<15.0
Zinc (mg/L)	7440-66-6	*1*	*0.0324*	0.0055 J	0.0092 J	0.0040 J	0.0049 J	0.0046 J	0.0102 J	0.0036 J	NS	<0.010	0.0055 J	0.0071 J	0.0091 J	0.0190	0.0112 J

Notes:

* = no established 2L Standard. 5 pCi/l is the Federal Standard

BTV = background threshold value calculated for April 2025

NE = not established

NA = not analyzed

µg/L = micrograms per liter

pCi/L = picocuries per liter

mg/L = miligrams per liter

EQBL = Equipment Blank

J = Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit

NS =Not Sampled

Shaded = concentration reported above (or below for pH) established 2L Standard, IMAC, or 2B Standard

Bold = concentration exceeded BTV

2L Standard = North Carolina Groundwater Protection Standard (T15A NCAC 02L .0202)

IMAC = Interim Allowable Maximum Concentration

2B Standard = North Carolina Surface Water and Wetland Standards (15A NCAC 02B) for Gulf Creek (SW-1) and Shaddox Creek (SW-2) which are both Class WS-IV Waters or are National Criteria per EPA

pH was field tested

Groundwater, surface water, and leachate samples collected for **January 2025 from January 20-23** and for **April 2025 from March 31 - April 3** and analyzed for above parameters by Pace Analytical Services, LLC

Constituents are only considered exceeding the BTV if the sampling event in question and the previous sampling event had detections for that constituent

Secondary USEPA Maximun Contaminant Levels (MCL) used where other regulatory criteria not established.

Analysis for chloride, flouride, and sulfate during the January 2025 sampling event were analyzed outside the EPA method holding time

Table 4: Analytical Results January 2025 and April 2025

Analyte	CAS Number	2L Standard / IMAC	BTV (2Q2025)	Quality Control			
				EQBL		DUP (MW-6)	
				Jan-25	Apr-25	Jan-25	Apr-25
EPA APPENDIX III							
Boron (µg/L)	7440-42-8	*700*	*56.9*	19.8 J	<10.0	9.6 J	6.6 J
Calcium (µg/L)	7440-70-2	*NE*	*124,000*	<100	<500	33,600	34,700
Chloride (mg/L)	16887-00-6	*250*	*374*	<1.0	<1.0	167	167
Fluoride (mg/L)	16984-48-8	*2*	*0.509*	0.054 J	<0.10	0.35	0.35
pH (standard units)	pH	*6.5-8.5*	*5.63-7.55*	NA	NA	6.41	6.33
Sulfate (mg/L)	14808-79-8	*250*	*210*	<1.0	<1.0	25.6	25.6
Total Dissolved Solids (mg/L)	TDS	*500*	*1,400*	<25.0	<25.0	564	554
EPA APPENDIX IV							
Antimony (µg/L)	7440-36-0	*1*	*0.790*	<5.0	<20.0	<5.0	<20.0
Arsenic (µg/L)	7440-38-2	*10*	*8.80*	<10.0	<20.0	<10.0	<20.0
Barium (µg/L)	7440-39-3	*700*	*377*	<5.0	<10.0	56.5	55.6
Beryllium (µg/L)	7440-41-7	*4*	*0.700*	<1.0	<5.0	<1.0	<5.0
Cadmium (µg/L)	7440-43-9	*2*	*0.500*	<1.0	<3.0	<1.0	<3.0
Chromium (µg/L)	7440-47-3	*10*	*7.20*	<5.0	1.1 J	<5.0	1.6 J
Cobalt (µg/L)	7440-48-4	*1*	*2.30*	<5.0	<10.0	<5.0	<10.0
Fluoride (mg/L)	16984-48-8	*2*	*0.509*	0.054 J	<0.10	0.35	0.35
Lead (µg/L)	7439-92-1	*15*	*13.7*	<5.0	<10.0	<5.0	<10.0
Lithium (µg/L)	7439-93-2	*NE*	*43.7*	<2.5	<0.50	24.8	21.4
Mercury (µg/L)	7439-97-6	*1*	*0.170*	<0.20	<0.20	<0.20	<0.20
Molybdenum (µg/L)	7439-98-7	*NE*	*13.6*	<5.0	<15.0	<5.0	<15.0
Selenium (µg/L)	7782-49-2	*20*	*6.00*	<10.0	<20.0	<10.0	<20.0
Thallium (µg/L)	7440-28-0	*2*	*13.7*	<0.20	<0.10	<0.20	0.056 J
Radium 226 (pCi/L)	13982-63-3	*NE*	*0.800*	-0.173	0.000	-0.0441	-0.0995
Radium 228 (pCi/L)	15262-20-1	*NE*	*1.35*	0.811	0.428	0.708	0.780
Combined Radium (pCi/L)	7440-14-4	*NE**	*2.09*	0.811	0.428	0.708	0.780
EPA APPENDIX I METALS							
Copper (mg/L)	7440-50-8	*1*	*0.0071*	<0.0050	<0.0100	0.00096 J	<0.0100
Nickel (µg/L)	7440-02-0	*100*	*4.20*	<5.0	<20.0	1.8 J	<20.0
Silver (µg/L)	7440-22-4	*20*	*0.700*	<5.0	<10.0	<5.0	<10.0
Vanadium (µg/L)	7440-62-2	*7*	*8.30*	<5.0	<15.0	<5.0	<15.0
Zinc (mg/L)	7440-66-6	*1*	*0.0324*	<0.010	<0.0200	0.0065 J	0.0099 J

Notes:

* = no established 2L Standard. 5 pCi/l is the Federal Standard

BTV = background threshold value calculated for April 2025

NE = not established

NA = not analyzed

µg/L = micrograms per liter

pCi/L = picocuries per liter

mg/L = miligrams per liter

EQBL = Equipment Blank

J = Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit

NS =Not Sampled

Table 4: Analytical Results January 2025 and April 2025

Analyte	CAS Number	2L Standard / IMAC	BTV (2Q2025)	Surface Water Analysis													Leachate Analysis	
				SW-1		SW-2		SW-3		SW-4		SW-5		SW-6		2B Standard	LEACHATE	
				Jan-25	Apr-25	Jan-25	Apr-25	Jan-25	Apr-25	Jan-25	Apr-25	Jan-25	Apr-25	Jan-25	Apr-25		Jan-25	Apr-25
EPA APPENDIX III																		
Boron (µg/L)	7440-42-8	*700*	*56.9*	NS	9.3 J	NS	11.80	NS	11.60	NS	NS	NS	10.0	15.4 J	9.0 J	*7,300*	2,110 J	3,530
Calcium (µg/L)	7440-70-2	*NE*	*124,000*	NS	4,850	NS	21,500	NS	18,300	NS	NS	NS	4,830	1,130	7,190	*NE*	331,000	298,000
Chloride (mg/L)	16887-00-6	*250*	*374*	NS	9.0	NS	112	NS	113	NS	NS	NS	9.0	1.6	9.2	*250*	20.2	23.7
Fluoride (mg/L)	16984-48-8	*2*	*0.509*	NS	0.32	NS	0.094 J	NS	0.14	NS	NS	NS	0.20	0.093 J	0.30	*1.8*	0.21	0.33
pH (standard units)	pH	*6.5-8.5*	*5.63-7.55*	NS	6.82	NS	7.34	NS	7.11	NS	NS	NS	6.14	NA	6.63	*6.0-9.0*	NA	7.21
Sulfate (mg/L)	14808-79-8	*250*	*210*	NS	1.7	NS	9.1	NS	10.1	NS	NS	NS	1.2	1.2	1.8	*250*	466	447
Total Dissolved Solids (mg/L)	TDS	*500*	*1,400*	NS	1,090	NS	285	NS	305	NS	NS	NS	702	36.0	1,110	*500*	1,520	1,480
EPA APPENDIX IV																		
Antimony (µg/L)	7440-36-0	*1*	*0.790*	NS	<20.0	NS	<20.0	NS	<20.0	NS	NS	NS	<20.0	<5.0	<20.0	*5.6*	<5.0	6.9 J
Arsenic (µg/L)	7440-38-2	*10*	*8.80*	NS	7.9 J	NS	<20.0	NS	<20.0	NS	NS	NS	7.1 J	<10.0	11.5 J	*10*	25.3	20.5
Barium (µg/L)	7440-39-3	*700*	*377*	NS	634	NS	148	NS	104	NS	NS	NS	414	7.7	954	*1,000*	55.3	58.7
Beryllium (µg/L)	7440-41-7	*4*	*0.700*	NS	1.2 J	NS	<5.0	NS	<5.0	NS	NS	NS	0.71 J	<1.0	1.9 J	*6.5*	<1.0	<5.0
Cadmium (µg/L)	7440-43-9	*2*	*0.500*	NS	<3.0	NS	<3.0	NS	<3.0	NS	NS	NS	<3.0	<1.0	<3.0	*2*	<1.0	<3.0
Chromium (µg/L)	7440-47-3	*10*	*7.20*	NS	19.7	NS	1.8 J	NS	1.4 J	NS	NS	NS	15.4	<5.0	28.8	*50*	<5.0	<10.0
Cobalt (µg/L)	7440-48-4	*1*	*2.30*	NS	10.2	NS	<10.0	NS	<10.0	NS	NS	NS	8.0 J	<5.0	32.6	*3*	0.66 J	1.5 J
Fluoride (mg/L)	16984-48-8	*2*	*0.509*	NS	0.32	NS	0.094 J	NS	0.14	NS	NS	NS	0.20	0.093 J	0.30	*1.8*	0.21	0.33
Lead (µg/L)	7439-92-1	*15*	*13.7*	NS	39.9	NS	<10.0	NS	<10.0	NS	NS	NS	29.6	<5.0	61.7	*25*	<5.0	<10.0
Lithium (µg/L)	7439-93-2	*NE*	*43.7*	NS	9.5	NS	0.86	NS	0.67	NS	NS	NS	7.8	<2.5	12.6	*NE*	70.5	54.1
Mercury (µg/L)	7439-97-6	*1*	*0.170*	NS	<0.20	NS	<0.20	NS	<0.20	NS	NS	NS	<0.20	<0.20	<0.20	*0.012*	<0.20	<0.20
Molybdenum (µg/L)	7439-98-7	*NE*	*13.6*	NS	<15.0	NS	<15.0	NS	<15.0	NS	NS	NS	2.1 J	<5.0	<15.0	*160*	224	194
Selenium (µg/L)	7782-49-2	*20*	*6.00*	NS	7.4 J	NS	<20.0	NS	<20.0	NS	NS	NS	<20.0	<10.0	<20.0	*5*	<10.0	<20.0
Thallium (µg/L)	7440-28-0	*2*	*13.7*	NS	0.32	NS	0.031 J	NS	<0.10	NS	NS	NS	0.23	<0.20	0.39	*2*	0.072 J	0.11
Radium 226 (pCi/L)	13982-63-3	*NE*	*0.800*	NS	-0.0945	NS	-0.104	NS	0.621	NS	NS	NS	-0.166	0.000	0.147	*NE*	0.000	0.150
Radium 228 (pCi/L)	15262-20-1	*NE*	*1.35*	NS	0.762	NS	1.01	NS	0.794	NS	NS	NS	0.540	1.10	1.16	*NE*	0.595	0.793
Combined Radium (pCi/L)	7440-14-4	*NE**	*2.09*	NS	0.762	NS	1.01	NS	1.42	NS	NS	NS	0.540	1.10	1.31	*NE*	0.595	0.943
EPA APPENDIX I METALS																		
Copper (mg/L)	7440-50-8	*1*	*0.0071*	NS	0.0128	NS	0.0014 J	NS	0.0011 J	NS	NS	NS	0.0109	0.0023 J	0.0246	*0.007*	0.00066 J	0.0012 J
Nickel (µg/L)	7440-02-0	*100*	*4.20*	NS	8.9 J	NS	2.9 J	NS	<20.0	NS	NS	NS	8.6 J	<5.0	17.2 J	*25*	3.1 J	2.8 J
Silver (µg/L)	7440-22-4	*20*	*0.700*	NS	<10.0	NS	<10.0	NS	<10.0	NS	NS	NS	<10.0	<5.0	<10.0	*0.06*	<5.0	<10.0
Vanadium (µg/L)	7440-62-2	*7*	*8.30*	NS	73.2	NS	2.0 J	NS	<15.0	NS	NS	NS	50.4	<5.0	108	*NE*	2.6 J	<15.0
Zinc (mg/L)	7440-66-6	*1*	*0.0324*	NS	0.0845	NS	0.0078 J	NS	0.0049 J	NS	NS	NS	0.0610	0.0031 J	0.149	*0.05*	<0.010	0.0040 J

Notes:

Prepared by: CG; Checked by: BS

* = no established 2L Standard. 5 pCi/l is the Federal Standard

BTV = background threshold value calculated for April 2025

NE = not established

NA = not analyzed

µg/L = micrograms per liter

pCi/L = picocuries per liter

mg/L = miligrams per liter

EQBL = Equipment Blank

J = Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit

NS =Not Sampled

Shaded = concentration reported above (or below for pH) established 2L Standard, IMAC, or 2B Standard

Bold = concentration exceeded BTV

2L Standard = North Carolina Groundwater Protection Standard (T15A NCAC 02L .0202)

IMAC = Interim Allowable Maximum Concentration

2B Standard = North Carolina Surface Water and Wetland Standards (15A NCAC 02B) for Gulf Creek (SW-1) and Shaddox Creek (SW-2) which are both Class WS-IV Waters or are National Criteria per EPA

pH was field tested

Groundwater, surface water, and leachate samples collected for **January 2025 from January 20-23** and for **April 2025 from March 31 - April 3** and analyzed for above parameters by Pace Analytical Services, LLC

Constituents are only considered exceeding the BTV if the sampling event in question and the previous sampling event had detections for that constituent

Secondary USEPA Maximun Contaminant Levels (MCL) used where other regulatory criteria not established.

Analysis for chloride, flouride, and sulfate during the January 2025 sampling event were analyzed outside the EPA method holding time

Figures

Figure 1. Regional Site Location Map
Figure 2. Sample Location Map
Figure 3. Regional Topographic Map
Figure 4. Historical Groundwater Elevations
Figure 5. Potentiometric Surface Map – January 20-23, 2025
Figure 6. Potentiometric Surface Map – March 31, 2025

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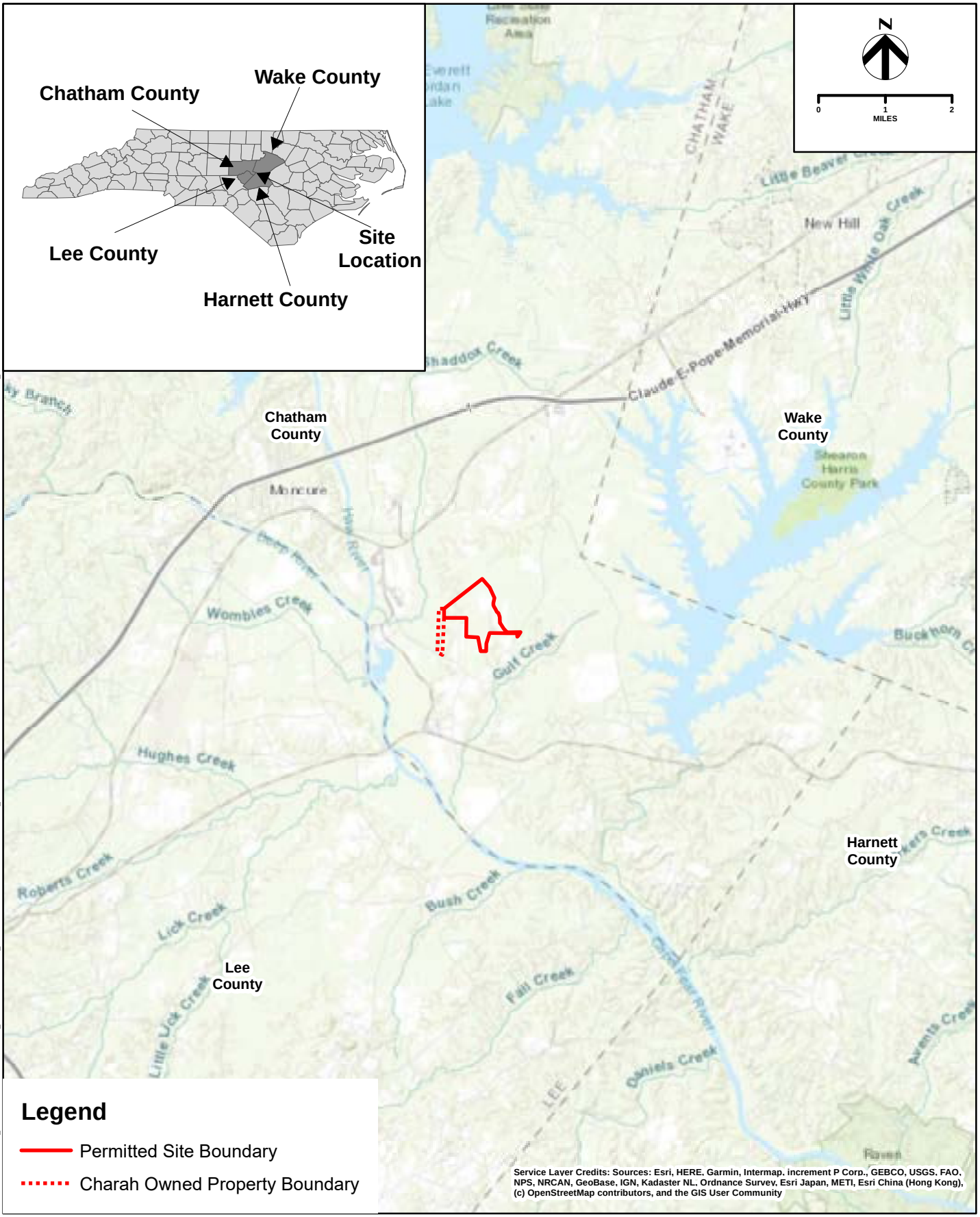

PATH: \\CLTSMAIN\GIS_DATA\GIS\PROJECTS\453925_CHARAHINC\0237673_MONCUREMINERECLAMATIONP-DIMAP_DOCS\MXD\GROUNDWATER MONITORING REPORT FIGURES\2021.04 SEMI-ANNUAL REPORT\FIGURE 1 REGIONAL MAP_BRICKHAVEN.MXD - USER: CGRUENBERG - DATE: 7/9/2021

REGIONAL SITE LOCATION MAP
CHARAH SOLUTIONS, INC
MONCURE, NORTH CAROLINA

BRICKHAVEN NO. 2 MINE TRACT "A"

DATE

June 2025

FIGURE

1

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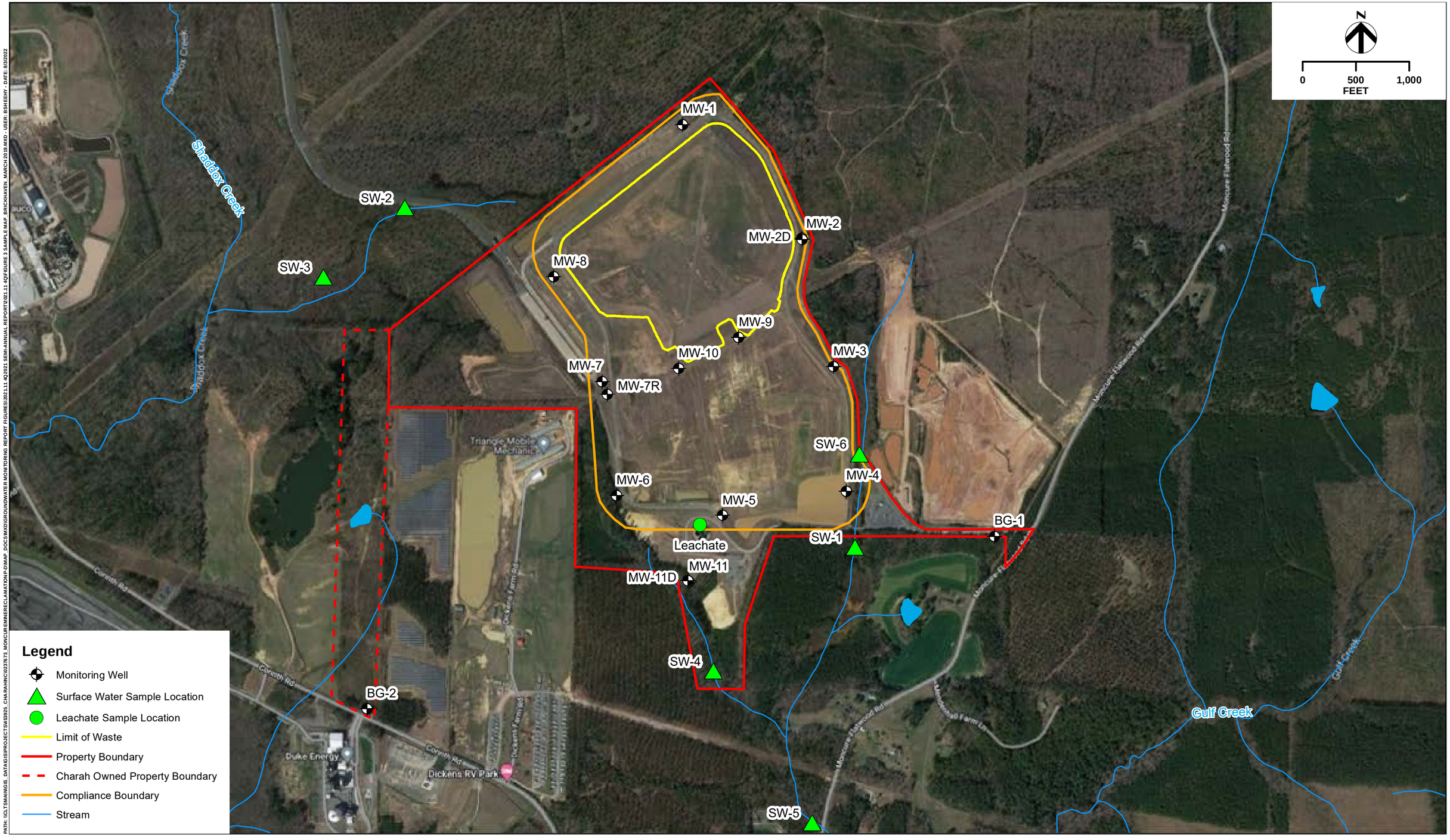
PATH: I:\CLT\MAIN\GIS_DATA\GIS\PROJECTS\453925_CHARAH\NC\023\76\73_MONCURE\MXD\GROUNDWATER MONITORING REPORT FIGURES\2021.11 4Q2021 SEMI-ANNUAL REPORT\2021.11 4Q\FIGURE 3 SAMPLE MAP_BRICKHAVEN_MARCH 2019.MXD - USER: BSHEEHY - DATE: 6/3/2022



SAMPLE LOCATION MAP
CHARAH SOLUTIONS, INC.
MONCURE, NORTH CAROLINA

BRICKHAVEN NO. 2 MINE TRACT "A"

DATE
June 2025

FIGURE
2

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PATH: \\CLTSMAIN\GIS_DATA\GIS\PROJECTS\453925_CHARAHINC\0237673_MONCUREMINERECLAMATIONP-DIMAP_DOCS\MXD\GROUNDWATER MONITORING REPORT FIGURES\2021.04 SEMI-ANNUAL REPORT\FIGURE 2 USGS TOPO MAP_BRICKHAVEN.MXD - USER: CGRUENBERG - DATE: 7/9/2021

REGIONAL TOPOGRAPHIC MAP
CHARAH SOLUTIONS, INC
MONCURE, NORTH CAROLINA

BRICKHAVEN NO. 2 MINE TRACT "A"

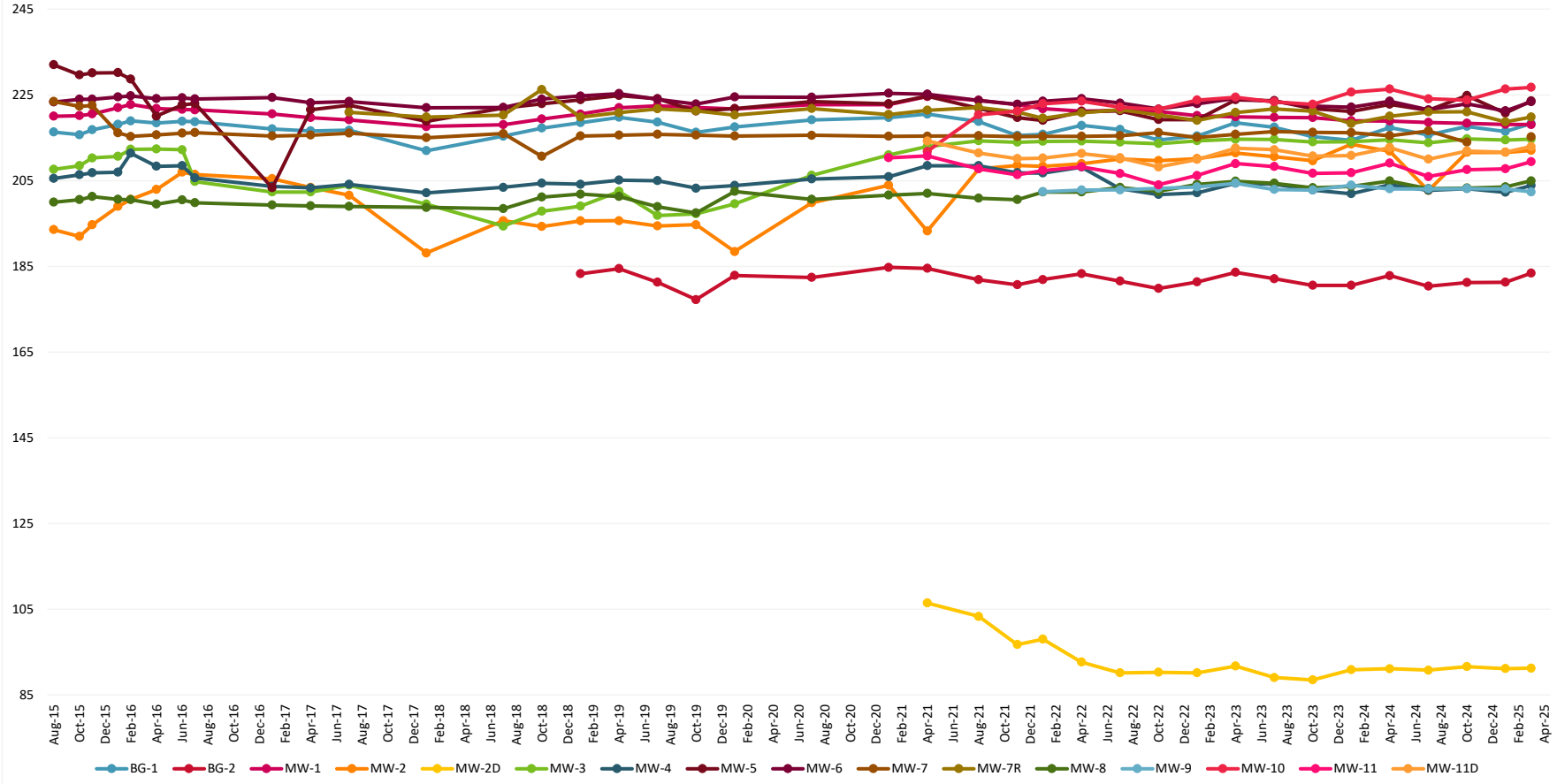
DATE

June 2025

FIGURE

3

Figure 4: Historical Groundwater Elevations



LEGEND

- Monitoring Wells
- Potentiometric Contours (5' Interval)
- Inferred Potentiometric Contours (5' Interval)
- Streams (NHD)
- Limit of Waste
- Permitted Site Boundary
- Charah Owned Property Boundary

MW-1 218.14
MW-2D 91.15
MW-2 211.58
MW-8 203.51
MW-9 203.07
MW-10 226.34
MW-3 214.48
MW-7R 218.68
MW-6 221.25
MW-5 220.75
MW-4 202.27
BG-1 216.49
MW-11D 211.64
MW-11 207.74
BG-2 181.30

220 215 210 205 200 195 190 185 225

0 800 1,600 2,400 3,200 Feet

1" = 800'

NOTES:
1. GROUNDWATER ELEVATIONS DERIVED FROM DEPTH TO WATER MEASUREMENTS COLLECTED ON JANUARY 20 - 23, 2025.
2. MONITORING WELLS MW-2D AND MW-11D WERE NOT USED FOR CONTOURS AS THEY ARE SCREENED IN BEDROCK. MW-9 WAS NOT USED FOR CONTOURS AS THE GROUNDWATER ELEVATION AT THIS LOCATION WAS ANOMALOUS. MW-7 WAS NOT USED FOR CONTOURS DUE TO DEPTH TO WATER NOT BEING RECORDED DURING THE JANUARY 2025 EVENT.
3. TOPOGRAPHY DATA FOR THE SITE WAS OBTAINED FROM NC ONEMAP GEOGRAPHIC INFORMATION SYSTEM (GIS) WEBSITE (DATED 2020).
4. AERIAL IMAGERY OBTAINED FROM MICROSOFT BING WEB SERVICE VIA ESRI ARCGIS ONLINE.

HDR Engineering, Inc. of the Carolinas License Number: F-0116
440 S Church Street, Suite 1200 Charlotte, NC 28202-2075

POTENTIOMETRIC SURFACE MAP - JANUARY 20-23, 2025
BRICKHAVEN NO. 2 MINE TRACT "A"
CHARAH SOLUTIONS, INC.
MONCURE, NORTH CAROLINA

DATE
JUNE 2025

FIGURE
5

PATH: C:\USERS\VROSPEREZ\DOCUMENTS\ARCGIS\PROJECTS\ARCGIS PROJECT - BRICKHAVEN\7-2_WIP\MAP_DOCS\BRICKHAVEN_GW2023_WIP.APRX - USER: VROSPEREZ - DATE: 5/19/2025

LEGEND

- Monitoring Wells
- Potentiometric Contours (5' Interval)
- Inferred Potentiometric Contours (5' Interval)
- Streams (NHD)
- Limit of Waste
- Permitted Site Boundary
- Charah Owned Property Boundary

MW-1 218.08
MW-2D 91.27
MW-2 212.02
MW-8 204.92
MW-9 202.36
MW-10 226.74
MW-3 214.66
MW-7 215.21
MW-7R 219.82
MW-6 223.40
MW-5 223.56
MW-4 203.87
BG-1 218.33
MW-11D 212.93
MW-11 209.42
BG-2 183.43

220 215 210 205 225 200 195 190 185

0 800 1,600 2,400 3,200 Feet

1" = 800'

NOTES:
1. GROUNDWATER ELEVATIONS DERIVED FROM DEPTH TO WATER MEASUREMENTS COLLECTED ON MARCH 31, 2025.
2. MONITORING WELLS MW-2D AND MW-11D WERE NOT USED FOR CONTOURS AS THEY ARE SCREENED IN BEDROCK. MW-9 WAS NOT USED FOR CONTOURS AS THE GROUNDWATER ELEVATION AT THIS LOCATION WAS ANOMALOUS.
3. TOPOGRAPHY DATA FOR THE SITE WAS OBTAINED FROM NC ONEMAP GEOGRAPHIC INFORMATION SYSTEM (GIS) WEBSITE (DATED 2020).
4. AERIAL IMAGERY OBTAINED FROM MICROSOFT BING WEB SERVICE VIA ESRI ARCGIS ONLINE.

HDR Engineering, Inc. of the Carolinas License Number: F-0116
440 S Church Street, Suite 1200 Charlotte, NC 28202-2075

POTENTIOMETRIC SURFACE MAP - MARCH 31, 2025
BRICKHAVEN NO. 2 MINE TRACT "A"
CHARAH SOLUTIONS, INC.
MONCURE, NORTH CAROLINA

DATE
JUNE 2025

FIGURE
6

PATH: C:\USERS\VROSPEREZ\DOCUMENTS\ARCGIS\PROJECTS\ARCGIS PROJECT - BRICKHAVEN\7.2_WIP\MAP_DOCS\BRICKHAVEN_GW2023_WIP.APRX - USER: VROSPEREZ - DATE: 5/19/2025

A

Appendix A – Field Data Sheets

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GROUNDWATER DEPTH

Project Name: Charah – Brickhaven
Project Address: Moncure
Time Started: 0800
Personnel: C. Hosmer

Date: 1/20/25 - 1/23/25
Project No: 10923253
Time Finished: 1200

Well ID	Depth to Water	Total Depth
BG-1	11.70	43.05
BG-2	12.93	26.11
MW-1	61.941	75.30
MW-2	20.18	50.15
MW-2D	141.72	145
MW-3	8.08	43.36
MW-4	141.86	25.34
MW-5	24.11	46.14
MW-6	9.70	29.47
MW-7	NM	17.18
MW-7R	23.54	39.94
MW-8	32.96	49.06
MW-9	37.29	38.9
MW-10	31.410	47
MW-11	11.419	43.5
MW-11D	7.76	68.1

Well ID	Depth to Water	Total Depth

1. "Groundwater Depth" form was completed at a later date.
2. Groundwater depths were measured on January 20, 2025 - January 23, 2025

Groundwater Sampling Form

Sample ID: BG-1

Site Information	
Site Name: Charah Brickhaven	**Project Number:** ~~10337473~~ - 102123253
Site Location: Moncure, NC	**Sampling Personnel:** Cameron Hosmer
Date: 11/20/24	**Weather:** 30°F Sunny

Well Information	
Well Diameter (in): 2"	**Purge Equipment:** Mega Monsoon Pro
Screened Interval (ft): 26' - 41'	**Pump Type:** ESP
Well Depth (ft): 43.05'	**Pump Depth (ft-bTOC):**
Depth-to-Water (ft-bTOC): 11.70'	**Tubing Diameter (in):** 3/8" X 1/2"
Water Column Thickness (ft): 31.35	**Well Volume (ft^3):** 5.02gal or 0.676ft3
1 Well Volume = (Total Depth - Static Water Level) * Well Capacity	
Well Capacity (gallons per feet): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47	

Purge Start 14:13

Purging Information

Parameter Instrument(s):

TIME	VOLUME PURGED (Liters)	CUMULATIVE VOLUME PURGED (Liters)	PURGE RATE (mL/min)	DEPTH TO WATER (ft-bTOC)	pH (SU) (±0.1)	TEMP. (C°)	COND. (µS/cm) (5%)	DISSOLVED OXYGEN (mg/L) (10%)*	ORP (mV) (±20mV)	TURBIDITY (NTUs) (≤10 or 10%)	COLOR/ ODOR (describe)
14:25	.75	0.75	150	11.71	6.94	10.7	970	7.24	93.4	11.4	clear
14:30	.75	1.50	"	11.72	6.91	10.1	972	10.36	114.1	10.2	"
14:35	.75	2.25	"	11.72	6.91	10.1	971	11.44	119.9	6.94	"
14:40	.75	3.00	150	11.73	6.91	10.1	963	11.99	124.9	3.99	↓
14:45	.75	3.75	"	11.74	6.91	10.0	970	7.24	125.6	3.64	"
14:50	.75	4.50	150	11.75	6.91	10.1	977	6.36	126.1	3.22	↓
14:55	.75	5.25	150	11.75	6.91	10.1	971	4.99	126.6	4.91	"
15:00	.75	6.00	150	11.75	6.89	11.1	971	4.98	126.7	4.69	"
15:05	.75	6.75	150	11.75	6.89	10.9	970	4.76	126.7	4.76	↓
15:10	.75	7.50	150	11.75	6.90	10.8	970	4.74	126.7	4.81	↓

* DO below 2.0 mg/L is stable at ±0.2 mg/L; DO below 0.5 mg/L is stable

Sample Information

Sample Number	Collection Time	Parameter	Container	Preservative
BG-1	15:20	Radium 226/228	2 - 1 L Poly	HNO3
		6010/6020/7470	1 - 250 mL Poly	HNO3
		Cl, F, SO4	1 - 250 mL Poly	N/A
		TDS	1 - 500 mL Poly	N/A

Sampled By: Cameron Hosmer	**Sample Time:** 15:20
Date Sampled: 11/20/24	**Sampler Signature:** Cameron Hosmer

Notes: Pumprate= 150 ml/min

Groundwater Sampling Form

Sample ID: BG-1

Purging Information (Page 2)

TIME	VOLUME PURGED (Liters)	CUMULATIVE VOLUME PURGED (Liters)	PURGE RATE (mL/min)	DEPTH TO WATER (ft-bTOC)	pH (SU) (±0.1)	TEMP. (C°)	COND. (µS/cm) (5%)	DISSOLVED OXYGEN (mg/L) (10%)*	ORP (mV) (±20mV)	TURBIDITY (NTUs) (≤10 or 10%)	COLOR/ ODOR (describe)
15:15	.25	8.25	150	11.76	6.90	10.8	970	4.72	125.9	3.19	Clear
15:20	Sample										

Groundwater Sampling Form

Sample ID: BG-2

Site Information	
Site Name: Charah Brickhaven	**Project Number:** ~~10357473~~ 10423253
Site Location: Moncure, NC	**Sampling Personnel:** Cameron Hosmer
Date: 1/21/25	**Weather:** 31°F Cloudy

Well Information	
Well Diameter (in): 2"	**Purge Equipment:** Mega Monsoon Pro
Screened Interval (ft): 13' - 23'	**Pump Type:** ESP
Well Depth (ft): 26.11'	**Pump Depth (ft-bTOC):**
Depth-to-Water (ft-bTOC): 12.93	**Tubing Diameter (in):** 3/8" X 1/2"
Water Column Thickness (ft): 13.18	**Well Volume (ft^3):** 2.11 gal/1ft or 0.28ft³

1 Well Volume = (Total Depth - Static Water Level) * Well Capacity

Well Capacity (gallons per feet): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3' = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47

Purging Information Purge @ 14:40

Parameter Instrument(s): YSI Pro Quattro

TIME	VOLUME PURGED (Liters)	CUMULATIVE VOLUME PURGED (Liters)	PURGE RATE (mL/min)	DEPTH TO WATER (ft-bTOC)	pH (SU) (±0.1)	TEMP. (C°)	COND. (µS/cm) (5%)	DISSOLVED OXYGEN (mg/L) (10%)*	ORP (mV) (±20mV)	TURBIDITY (NTUs) (≤10 or 10%)	COLOR/ ODOR (describe)
14:45	0.75	0.75	150	12.93	6.94	10.2	2419	7.61	116.9	24.6	clear
14:50	0.75	1.50	150	12.94	6.94	10.1	2286	6.12	116.6	30.0	clear
14:55	0.75	2.25	150	12.94	6.94	10.2	2291	6.10	116.8	27.8	clear
15:00	0.75	3.00	150	12.94	6.93	10.2	2240	5.49	116.6	30.1	clear
15:05	0.75	3.75	150	12.95	6.93	10.1	2174	5.15	115.6	24.2	clear
15:10	0.75	4.50	150	12.95	6.92	10.1	2089	4.37	114.4	23.1	clear
15:15	0.75	5.25	150	12.96	6.89	10.1	2113	1.46	101.1	14.7	clear
15:20	0.75	6.00	150	12.96	6.89	10.0	2190	0.75	80.5	11.1	clear
15:25	0.75	6.75	150	12.96	6.89	10.1	2116	0.91	79.1	9.46	clear
15:30	0.75	7.50	150	12.95	6.89	10.1	2140	0.84	74.8	11.2	clear

* DO below 2.0 mg/L is stable at ±0.2 mg/L; DO below 0.5 mg/L is stable

Sample Information

Sample Number	Collection Time	Parameter	Container	Preservative
BG-2	15:50	Radium 226/228	2 - 1 L Poly	HNO3
		6010/6020/7470	1 - 250 mL Poly	HNO3
		Cl, F, SO4	1 - 250 mL Poly	N/A
		TDS	1 - 500 mL Poly	N/A

Sampled By: Cameron Hosmer **Sample Time:** 15:50

Date Sampled: 1/21/25 **Sampler Signature:** Cam Hos

Notes: Pumprate= 150 mL/min

Groundwater Sampling Form

Sample ID: BG-2

Purging Information (Page 2)

TIME	VOLUME PURGED (Liters)	CUMULATIVE VOLUME PURGED (Liters)	PURGE RATE (mL/min)	DEPTH TO WATER (ft-bTOC)	pH (SU) (±0.1)	TEMP. (C°)	COND. (µS/cm) (5%)	DISSOLVED OXYGEN (mg/L) (10%)*	ORP (mV) (±20mV)	TURBIDITY (NTUs) (≤10 or 10%)	COLOR/ ODOR (describe)
1535	0.75	8.25	150	12.96	6.56	10.1	2200	0.48	76.6	9.06	Clear
1540	0.75	9.00	150	12.96	6.56	10.1	2195	0.46	76.2	5.44	Clear
1545	0.75	9.75	150	12.96	6.56	10.1	2201	0.46	75.9	4.12	Clear
Sample											

* DO below 2.0 mg/L is stable at ±0.2 mg/L; DO below 0.5 mg/L is stable

Groundwater Sampling Form

Sample ID: MW-1

Site Information	
Site Name: Charah Brickhaven	**Project Number:** ~~10337~~473 10423253
Site Location: Moncure, NC	**Sampling Personnel:** C. Hosmer
Date: 1/20/25	**Weather:**

Well Information	
Well Diameter (in): 2"	**Purge Equipment:** Mega Monsoon Pro
Screened Interval (ft): 57' - 72'	**Pump Type:** ESP
Well Depth (ft): 75.30'	**Pump Depth (ft-bTOC):**
Depth-to-Water (ft-bTOC): 61.94	**Tubing Diameter (in):** 3/8" X 1/2"
Water Column Thickness (ft): 13.36	**Well Volume (ft^3):** 2.14 gal/ft or 0.29 ft

1 Well Volume = (Total Depth - Static Water Level) * Well Capacity

Well Capacity (gallons per feet): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3' = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47

Purged 15:45

Purging Information

Parameter Instrument(s): YSI DO Quatro

TIME	VOLUME PURGED (Liters)	CUMULATIVE VOLUME PURGED (Liters)	PURGE RATE (mL/min)	DEPTH TO WATER (ft-bTOC)	pH (SU) (±0.1)	TEMP. (C°)	COND. (µS/cm) (5%)	DISSOLVED OXYGEN (mg/L) (10%)*	ORP (mV) (±20mV)	TURBIDITY (NTUs) (≤10 or 10%)	COLOR/ ODOR (describe)
15:50	.75	0.75	150	61.95	7.17	12.1	791	2.91	119.1	80.3	cloudy
15:55	.75	1.50	150	61.95	7.17	12.4	544	2.16	111.3	102.	
16:00	.75	2.25	150	61.96	7.17	12.6	763	2.04	115.0	59.5	
16:05	.75	3.00	150	61.96	7.19	12.4	740	1.91	101.6	79.4	
16:10	.75	3.75	150	61.97	7.18	12.1	692	1.89	114.4	90.1	
16:15	.75	4.50	150	61.98	7.16	12.3	634	1.87	110.3	94.3	
16:20	.75	5.25	150	61.99	7.16	12.3	654	1.69	106.6	101	
16:25	.75	6.00	150	61.99	7.16	12.2	634	1.92	103.6	93.7	
16:30	.75	6.75	150	61.99	7.17	12.4	634	1.75	103.0	80.6	
16:35	.75	7.50	150	62.09	7.16	12.8	634	1.71	103.1	109	

* DO below 2.0 mg/L is stable at ±0.2 mg/L; DO below 0.5 mg/L is stable

Sample @ 17:15

Sample Information

Sample Number	Collection Time	Parameter	Container	Preservative
MW-1	17:15	Radium 226/228	2 - 1 L Poly	HNO3
		6010/6020/7470	1 - 250 mL Poly	HNO3
		Cl, F, SO4	1 - 250 mL Poly	N/A
		TDS	1 - 500 mL Poly	N/A

Sampled By: Conner Hosmer	**Sample Time:** 17:15
Date Sampled: 1/20/25	**Sampler Signature:**

Notes: Pumprate ≈ 150 mL/min

HDR

Groundwater Sampling Form

Sample ID: MW-1

Purging Information (Page 2)

TIME	VOLUME PURGED (Liters)	CUMULATIVE VOLUME PURGED (Liters)	PURGE RATE (mL/min)	DEPTH TO WATER (ft-bTOC)	pH (SU) (±0.1)	TEMP. (C°)	COND. (µS/cm) (5%)	DISSOLVED OXYGEN (mg/L) (10%)*	ORP (mV) (±20mV)	TURBIDITY (NTUs) (≤10 or 10%)	COLOR/ ODOR (describe)
16:40	.75	8.25	150	62.01	7.16	12.9	637	1.69	101.4	71.1	Cloudy
16:45	.75	9.00	150	62.02	7.15	12.7	640	1.68	100.0	46.9	Cleaner
16:50	.75	9.75	150	62.02	7.14	12.7	641	1.64	97.2	25.5	Clear
16:55	.75	10.50	150	62.02	7.14	12.1				24.6	Clear
17:00	.75	11.25	150	62.03	6.94	12.8				21.4	Clear
17:05	.75	12.00	150	62.02	6.90	12.1				17.4	clear
17:10	.75	12.75	150	62.02	6.89	12.1				9.33	Clear
17:15	Sample										

* DO below 2.0 mg/L is stable at ±0.2 mg/L; DO below 0.5 mg/L is stable

Groundwater Sampling Form

Sample ID: MW-2

Site Information	
Site Name: Charah Brickhaven	**Project Number:** ~~10337473~~ 10423253
Site Location: Moncure, NC	**Sampling Personnel:** Cameron Hosmer
Date: 1/23/25	**Weather:** 34°F Sunny/Overcast

Well Information	
Well Diameter (in): 2"	**Purge Equipment:** Mega Monsoon Pro
Screened Interval (ft): 32' - 47'	**Pump Type:** ESP
Well Depth (ft): 50.15'	**Pump Depth (ft-bTOC):**
Depth-to-Water (ft-bTOC): 20.18	**Tubing Diameter (in):** 3/8" X 1/2"
Water Column Thickness (ft): 29.97	**Well Volume (ft^3):** 4.80 gal / 6 ft or 0.641 ft3

1 Well Volume = (Total Depth - Static Water Level) * Well Capacity

Well Capacity (gallons per feet): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3' = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47

Purging Information Purged 1340

Parameter Instrument(s):

TIME	VOLUME PURGED (Liters)	CUMULATIVE VOLUME PURGED (Liters)	PURGE RATE (mL/min)	DEPTH TO WATER (ft-bTOC)	pH (SU) (±0.1)	TEMP. (C°)	COND. (µS/cm) (5%)	DISSOLVED OXYGEN (mg/L) (10%)*	ORP (mV) (±20mV)	TURBIDITY (NTUs) (≤10 or 10%)	COLOR/ ODOR (describe)
1325			100	20.15	7.52	13.5	4002	4.16	117.8	10.1	Clear
1330			100	20.14	7.51	13.6	4037	4.01	118.5	11.3	Clear
1335			100	20.10	7.50	13.8	4056	3.43	117.0	9.73	Clear
1340			100	20.22	7.44	13.9	4040	3.72	115.6	7.80	Clear
1345			100	22.24	7.50	14.0	4039	3.80	115.2	6.81	Clear
1350			100	22.24	7.50	14.0	4036	3.86	115.0	7.44	Clear
1355	Sample										

* DO below 2.0 mg/L is stable at ±0.2 mg/L; DO below 0.5 mg/L is stable

Sample Information

Sample Number	Collection Time	Parameter	Container	Preservative
MW-2	1355	Radium 226/228	2 - 1 L Poly	HNO3
		6010/6020/7470	1 - 250 mL Poly	HNO3
		Cl, F, SO4	1 - 250 mL Poly	N/A
		TDS	1 - 500 mL Poly	N/A

Sampled By: Cameron Hosmer **Sample Time:** 1355

Date Sampled: 1/23/25 **Sampler Signature:** Cameron Hosmer

Notes: Pumprate= 100mL/min

Groundwater Sampling Form

Sample ID: MW-2D

Site Information	
Site Name: Charah Brickhaven	**Project Number:** ~~10337473~~ 10423253
Site Location: Moncure, NC	**Sampling Personnel:** Cameron Hosmer
Date: 1/23/25	**Weather:** 23°F Cloudy

Well Information	
Well Diameter (in): 2"	**Purge Equipment:** ~~Mega Monsoon Pro~~
Screened Interval (ft): 129' - 144'	**Pump Type:** ~~ESP~~
Well Depth (ft): 147.4'	**Pump Depth (ft-bTOC):**
Depth-to-Water (ft-bTOC): 141.72	**Tubing Diameter (in):** 3/8" X 1/2"
Water Column Thickness (ft): 5.68	**Well Volume (ft^3):** 0.91 ~~gal~~/Ft ~ 0.126 ft^3

1 Well Volume = (Total Depth - Static Water Level) * Well Capacity

Well Capacity (gallons per feet): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3' = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47

Purging Information

Parameter Instrument(s): Bailer

TIME	VOLUME PURGED (Liters)	CUMULATIVE VOLUME PURGED (Liters)	PURGE RATE (mL/min)	DEPTH TO WATER (ft-bTOC)	pH (SU) (±0.1)	TEMP. (C°)	COND. (µS/cm) (5%)	DISSOLVED OXYGEN (mg/L) (10%)*	ORP (mV) (±20mV)	TURBIDITY (NTUs) (≤10 or 10%)	COLOR/ ODOR (describe)
14:30	Bailed										
1/23/25 1435					11.36	10.0	919	3.65	-39.4	246	reddish clear

* DO below 2.0 mg/L is stable at ±0.2 mg/L; DO below 0.5 mg/L is stable

Sample Information

Sample Number	Collection Time	Parameter	Container	Preservative
MW-2D	14:35	Radium 226/228	2 - 1 L Poly	HNO3
		6010/6020/7470	1 - 250 mL Poly	HNO3
		Cl, F, SO4	1 - 250 mL Poly	N/A
		TDS	1 - 500 mL Poly	N/A

Sampled By: Cameron Hosmer **Sample Time:** 14:35

Date Sampled: 1/23/25 **Sampler Signature:**

Notes: Pumprate= NA

Groundwater Sampling Form

Sample ID: MW-3

Site Information	
Site Name: Charah Brickhaven	**Project Number:** ~~10337473~~ 10423253
Site Location: Moncure, NC	**Sampling Personnel:** Cameron Hosmer
Date: 1/23/25	**Weather:** 35°F Sunny

Well Information	
Well Diameter (in): 2"	**Purge Equipment: Mega Monsoon Pro**
Screened Interval (ft): 25' - 40'	**Pump Type:** ESP
Well Depth (ft): 43.36'	**Pump Depth (ft-bTOC):**
Depth-to-Water (ft-bTOC): 45.03'	**Tubing Diameter (in):** 3/8" X 1/2"
Water Column Thickness (ft): 35.28	**Well Volume (ft^3):** 5.64 gal/ft or 0.75 ft^3

1 Well Volume = (Total Depth - Static Water Level) * Well Capacity

Well Capacity (gallons per feet): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3' = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47

Purging Information Purge @ 11:35

Parameter Instrument(s):

TIME	VOLUME PURGED (Liters)	CUMULATIVE VOLUME PURGED (Liters)	PURGE RATE (mL/min)	DEPTH TO WATER (ft-bTOC)	pH (SU) (±0.1)	TEMP. (C°)	COND. (µS/cm) (5%)	DISSOLVED OXYGEN (mg/L) (10%)*	ORP (mV) (±20mV)	TURBIDITY (NTUs) (≤10 or 10%)	COLOR/ ODOR (describe)
11:40	.50	0.50	100	45.09	7.46	13.1	2967	9.64	43.0	5.92	clear
11:45	.50	1.00	100	45.09	7.48	13.2	2945	9.17	44.7	7.16	clear
11:50	.50	1.50	100	45.10	7.49	13.4	3571	5.37	42.4	5.17	clear
11:55	.50	2.00	100	45.10	7.52	13.5	3591	7.44	54.7	6.91	clear
12:00	.50	2.50	100	45.11	7.57	12.0	3926	6.35	65.1	3.48	clear
12:05	.50	3.00	100	45.12	7.56	14.0	3956	4.89	74.5	2.91	clear
12:10	.50	3.50	100	45.13	7.56	13.9	3955	4.91	82.5	2.61	clear
12:15	.50	4.00	100	45.13	7.57	12.5	3951	4.89	84.5	1.96	clear
12:20	.50	4.50	100	45.14	7.57	12.6	3954	4.82	88.6	1.69	clear
30s	Mpk										

* DO below 2.0 mg/L is stable at ±0.2 mg/L; DO below 0.5 mg/L is stable

Sample Information

Sample Number	Collection Time	Parameter	Container	Preservative
MW-3	12:25	Radium 226/228	2 - 1 L Poly	HNO3
		6010/6020/7470	1 - 250 mL Poly	HNO3
		Cl, F, SO4	1 - 250 mL Poly	N/A
		TDS	1 - 500 mL Poly	N/A

Sampled By: Cameron Hosmer	**Sample Time:** 12:25
Date Sampled: 1/23/25	**Sampler Signature:** Cam Hosmer

Notes: Pumprate= 100 mL/min

Groundwater Sampling Form

Sample ID: MW-4

Site Information	
Site Name: Charah Brickhaven	**Project Number:** ~~10337473~~ 10423253
Site Location: Moncure, NC	**Sampling Personnel:** Cameron Hosmer
Date: 1/23/25	**Weather:** 33°F Sunny

Well Information	
Well Diameter (in): 2"	**Purge Equipment:** Mega Monsoon Pro
Screened Interval (ft): 13' - 23'	**Pump Type:** ESP
Well Depth (ft): 25.34'	**Pump Depth (ft-bTOC):**
Depth-to-Water (ft-bTOC): 14.86	**Tubing Diameter (in):** 3/8" X 1/2"
Water Column Thickness (ft): 10.48	**Well Volume (ft^3):** 1.68gal/ft or 0.22ft^3
1 Well Volume = (Total Depth - Static Water Level) * Well Capacity	
Well Capacity (gallons per feet): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3' = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47	

Purging Information Purge @ 09:15

Parameter Instrument(s):

TIME	VOLUME PURGED (Liters)	CUMULATIVE VOLUME PURGED (Liters)	PURGE RATE (mL/min)	DEPTH TO WATER (ft-bTOC)	pH (SU) (±0.1)	TEMP. (C°)	COND. (µS/cm) (5%)	DISSOLVED OXYGEN (mg/L) (10%)*	ORP (mV) (±20mV)	TURBIDITY (NTUs) (≤10 or 10%)	COLOR/ ODOR (describe)
0920	0.50	0.50	100	14.56	12.14	6.03	2149	11.1	114.9	91.2	Cloudy
925	0.50	1.00	100	14.56	13.04	6.03	2120	14.2	116.5	86.4	Cloudy
0930	0.50	1.50	100	14.57	13.14	6.02	2091	9.56	73.9	51.2	Cloudy
0940	0.50	2.00	100	14.59	13.14	6.01	1896	8.12	111.4	74.9	Cloudy
—	Lots of water									76.5	Cloudy
1010	0.50	2.50	100	14.91	6.01	11.4	1902	7.81	106.4	69.7	Cloudy
1015	0.50	3.00	100	14.92	6.01	11.3	1887	6.43	71.9	67.5	Cloudy
1020	0.50	3.50	100	14.92	6.01	11.1	1914	5.26	68.4	63.4	Cloudy
1025	0.50	4.00	100	14.93	6.02	12.1	1891	3.44	70.6	51.9	Cloudy
1030	0.50	4.50	100	14.93	6.02	12.7	1896	2.55	83.0	48.8	Cloudy

* DO below 2.0 mg/L is stable at ±0.2 mg/L; DO below 0.5 mg/L is stable

Sample Information

Sample Number	Collection Time	Parameter	Container	Preservative
MW-4	11:05	★ Radium 226/228	2 - 1 L Poly	HNO3
		6010/6020/7470	1 - 250 mL Poly	HNO3
		★ Cl, F, SO4	1 - 250 mL Poly	N/A
		TDS	1 - 500 mL Poly	N/A

Sampled By: Cameron Hosmer **Sample Time:** 11:05

Date Sampled: 1/23/25 **Sampler Signature:** Cam Hos

Notes: Pumprate= 400ml/min Possible Biased high turbidity in Samples ★

Groundwater Sampling Form

Sample ID: MW-4

Purging Information (Page 2)

TIME	VOLUME PURGED (Liters)	CUMULATIVE VOLUME PURGED (Liters)	PURGE RATE (mL/min)	DEPTH TO WATER (ft-bTOC)	pH (SU) (±0.1)	TEMP. (C°)	COND. (µS/cm) (5%)	DISSOLVED OXYGEN (mg/L) (10%)*	ORP (mV) (±20mV)	TURBIDITY (NTUs) (≤10 or 10%)	COLOR/ ODOR (describe)
1035	0.50	5.00	100	14.93	6.02	12.1	1896	2.45	95.0	41.6	Clear/
1040	0.50	5.50	100	14.93	6.06	10.9	1891	1.94	49.6	31.7	clear/
1045	0.50	6.00	100	14.94	6.10	10.7	1882	1.10	40.4	25.2	clear/
1050	0.50	6.50	100	14.94	6.10	12.5	1893	0.71	36.1	19.6	clear/
1055	0.50	7.00	100	14.94	6.25	12.0	1891	0.65	29.5	12.4	clear/
1100	0.5	7.50	100	14.95	6.25	12.1	1896	0.69	31.4	6.23	Clear/
Sample											

* DO below 2.0 mg/L is stable at ±0.2 mg/L; DO below 0.5 mg/L is stable

Groundwater Sampling Form

Sample ID: MW-5

Site Information	
Site Name: Charah Brickhaven	**Project Number:** ~~10337473~~ 104233253
Site Location: Moncure, NC	**Sampling Personnel:** Cameron Hoomer
Date: 1/22/25	**Weather:** 31°F Sunny

Well Information	
Well Diameter (in): 2"	**Purge Equipment:** Mega Monsoon Pro
Screened Interval (ft): 34' - 44'	**Pump Type:** ESP
Well Depth (ft): 46.14'	**Pump Depth (ft-bTOC):**
Depth-to-Water (ft-bTOC): 24.11	**Tubing Diameter (in):** 3/8" X 1/2"
Water Column Thickness (ft): 22.03	**Well Volume (ft^3):** 3.52 gal/Ft or 0.47Ft³

1 Well Volume = (Total Depth - Static Water Level) * Well Capacity

Well Capacity (gallons per feet): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3' = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47

Purging Information Purge @ 14:10

Parameter Instrument(s):

TIME	VOLUME PURGED (Liters)	CUMULATIVE VOLUME PURGED (Liters)	PURGE RATE (mL/min)	DEPTH TO WATER (ft-bTOC)	pH (SU) (±0.1)	TEMP. (C°)	COND. (µS/cm) (5%)	DISSOLVED OXYGEN (mg/L) (10%)*	ORP (mV) (±20mV)	TURBIDITY (NTUs) (≤10 or 10%)	COLOR/ ODOR (describe)
14:10	0.75	0.75	150	24.12	6.71	13.1	197.4	6.19	124.1	12.4	clear
14:15	0.75	1.50	150	24.13	6.70	13.2	206.8	4.24	131.6	11.6	clear
14:20	0.75	2.25	150	24.14	6.71	13.1	241.7	3.10	120.1	10.2	clear
14:25	0.75	3.00	150	24.15	6.70	13.1	254.6	2.06	109.8	9.26	clear
14:30	0.75	3.75	150	24.16	6.70	13.1	304.1	1.84	106.7	9.51	clear
14:35	0.75	4.50	150	24.16	6.70	13.1	299.3	1.72	106.6	10.4	clear
14:40	0.75	5.25	150	24.17	6.69	13.1	291.6	1.01	102.4	9.08	clear
14:45	0.75	6.00	150	24.18	6.65	13.1	280.7	0.25	96.2	5.00	clear
14:50	0.75	6.75	150	24.19	6.69	13.2	292.4	0.72	99.6	7.49	clear
14:55	0.75	7.50	150	24.20	6.69	13.2	292.6	0.50	101.0	5.21	clear

* DO below 2.0 mg/L is stable at ±0.2 mg/L; DO below 0.5 mg/L is stable

Sample Information

Sample Number	Collection Time	Parameter	Container	Preservative
MW-5	15:50	Radium 226/228	2 - 1 L Poly	HNO3
		6010/6020/7470	1 - 250 mL Poly	HNO3
		Cl, F, SO4	1 - 250 mL Poly	N/A
		TDS	1 - 500 mL Poly	N/A

Sampled By: Cameron Hoomer	**Sample Time:** 15:50
Date Sampled: 1/22/25	**Sampler Signature:**

Notes: Pumprate= 150ml/min

HDR

Groundwater Sampling Form

Sample ID: MW-5

Purging Information (Page 2)

TIME	VOLUME PURGED (Liters)	CUMULATIVE VOLUME PURGED (Liters)	PURGE RATE (mL/min)	DEPTH TO WATER (ft-bTOC)	pH (SU) (±0.1)	TEMP. (C°)	COND. (µS/cm) (5%)	DISSOLVED OXYGEN (mg/L) (10%)*	ORP (mV) (±20mV)	TURBIDITY (NTUs) (≤10 or 10%)	COLOR/ ODOR (describe)
1500	0.75	8.25	150	24.21	6.70	11.1	291.0	1.12	102.5	6.75	Clear
1505	6.75	9.00	150	24.22	6.69	11.2	290.6	1.08	101.4	21.6	clear
1510	0.75	9.75	150	24.23	6.70	11.1	293.6	1.06	101.2	15.4	clear
1515	6.75	10.50	150	24.24	6.70	11.1	294.0	0.82	101.2	12.1	clear
1520	0.75	11.25	150	24.24	6.69	11.1	293.4	0.71	101.5	13.9	Clear
1525	0.75	12.00	150	24.25	6.69	11.1	294.7	0.70	100.6	9.52	Clear
1530	0.75	12.75	150	24.25	6.69	11.1	296.3	0.57	100.4	14.1	clear
1535	6.75	13.50	150	24.25	6.68	11.1	274.9	0.51	100.4	11.2	clear
1540	0.75	14.25	150	24.26	6.68	11.2	275.6	0.49	100.6	10.6	Clear
1545	0.75	15.00	150	24.27	6.68	11.1	274.1	0.48	101.1	9.49	Clear
1550	~~TT~~	Sample									
1550	Stop sampling			Radium	dup						
	Resume Sampling @ 1610										

* DO below 2.0 mg/L is stable at ±0.2 mg/L; DO below 0.5 mg/L is stable

Groundwater Sampling Form

Sample ID: MW-6

Site Information	
Site Name: Charah Brickhaven	**Project Number:** ~~10337473~~ 10423253
Site Location: Moncure, NC	**Sampling Personnel:** Cameron Hosmer
Date: 1/22/25	**Weather:**

Well Information	
Well Diameter (in): 2"	**Purge Equipment:** Mega Monsoon Pro
Screened Interval (ft): 12' - 27'	**Pump Type:** ESP
Well Depth (ft): 29.47'	**Pump Depth (ft-bTOC):**
Depth-to-Water (ft-bTOC): 9.70	**Tubing Diameter (in):** 3/8" X 1/2"
Water Column Thickness (ft): 19.72	**Well Volume (ft^3):** 3.16 gal / 1 Ltr or 0.42 ft^3
1 Well Volume = (Total Depth - Static Water Level) * Well Capacity	
Well Capacity (gallons per feet): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3' = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47	

Purging Information Purge @ 10:00

Parameter Instrument(s):

TIME	VOLUME PURGED (Liters)	CUMULATIVE VOLUME PURGED (Liters)	PURGE RATE (mL/min)	DEPTH TO WATER (ft-bTOC)	pH (SU) (±0.1)	TEMP. (C°)	COND. (µS/cm) (5%)	DISSOLVED OXYGEN (mg/L) (10%)*	ORP (mV) (±20mV)	TURBIDITY (NTUs) (≤10 or 10%)	COLOR/ ODOR (describe)
10:05	0.75	0.75	150	9.70	6.45	9.9	1240	16.4	186.3	9.37	Clear
1010	0.75	1.50	150	9.70	6.44	9.9	1129	14.9	189.4	9.00	clear
1015	0.75	2.25	150	9.71	6.44	10	1006	13.6	161.3	9.38	clear
1020	0.75	3.00	150	9.71	6.43	9.9	979	14.10	142.2	7.84	clear
1025	0.75	3.75	150	9.72	6.42	9.9	979	7.14	159.8	11.6	clear
1030	0.75	4.50	150	9.73	6.42	10	977	3.49	163.2	8.41	Clear
1035	0.75	5.25	150	9.74	6.41	9.9	976	2.49	169.5	7.21	clear
1040	0.75	6.00	150	9.74	6.41	9.9	976	1.77	170.1	6.44	clear
1045	0.75	6.75	150	9.74	6.41	10.0	976	1.62	171.1	4.91	Clear
1050	0.75	7.50	150	9.75	6.41	10.1	977	1.66	169.9	5.68	Clear

* DO below 2.0 mg/L is stable at ±0.2 mg/L; DO below 0.5 mg/L is stable — Sample

Sample Information

Sample Number	Collection Time	Parameter	Container	Preservative
MW-6 (DUP)	10:55	Radium 226/228	2 - 1 L Poly	HNO3
		6010/6020/7470	1 - 250 mL Poly	HNO3
		Cl, F, SO4	1 - 250 mL Poly	N/A
		TDS	1 - 500 mL Poly	N/A
	11:30			

Sampled By: Cameron Hosmer	**Sample Time:** 10:55
Date Sampled: 1/22/25	**Sampler Signature:**

Notes: Pumprate= 150mL/min

Groundwater Sampling Form

Sample ID: MW-7R

Site Information	
Site Name: Charah Brickhaven	**Project Number:** ~~10337473~~ 104723253
Site Location: Moncure, NC	**Sampling Personnel:** Cameron Horner
Date: 1/22/25	**Weather:**

Well Information	
Well Diameter (in): 2"	**Purge Equipment:** Mega Monsoon Pro
Screened Interval (ft): 26' - 36'	**Pump Type:** ESP
Well Depth (ft): 39.94'	**Pump Depth (ft-bTOC):**
Depth-to-Water (ft-bTOC): 23.54	**Tubing Diameter (in):** 3/8" X 1/2"
Water Column Thickness (ft): 16.4	**Well Volume (ft^3):** 2.62 gal/Ft = 0.35 ft^3
1 Well Volume = (Total Depth - Static Water Level) * Well Capacity	
Well Capacity (gallons per feet): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3' = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47	

Purging Information 11:35 Purge

Parameter Instrument(s):

TIME	VOLUME PURGED (Liters)	CUMULATIVE VOLUME PURGED (Liters)	PURGE RATE (mL/min)	DEPTH TO WATER (ft-bTOC)	pH (SU) (±0.1)	TEMP. (C°)	COND. (µS/cm) (5%)	DISSOLVED OXYGEN (mg/L) (10%)*	ORP (mV) (±20mV)	TURBIDITY (NTUs) (≤10 or 10%)	COLOR/ ODOR (describe)
11:40	0.75	0.75	150	23.54	7.30	11.5	1459	10.1	136.4	66.9	cloudy
11:45	0.75	1.50	150	23.55	7.30	11.6	1470	9.95	129.2	66.3	clearer
11:50	0.75	2.25	150	23.55	7.30	11.7	1436	7.69	125.3	59.6	clear
11:55	0.75	3.00	150	23.56	7.30	11.8	1491	5.43	126.6	58.4	clear
12:00	0.75	3.75	150	23.56	7.30	11.8	1491	4.65	125.7	55.6	clear
12:05	0.75	4.50	150	23.57	7.30	11.9	1469	2.68	119.4	22.5	clear
12:10	0.75	5.25	150	23.56	7.30	11.9	1468	2.67	115.5	12.3	clear
12:15	0.75	6.00	150	23.59	7.30	11.8	1458	2.61	114.9	10.0	clear
12:20	0.75	6.75	150	23.60	7.30	11.9	1452	2.06	114.7	9.61	clear
Sample											

* DO below 2.0 mg/L is stable at ±0.2 mg/L; DO below 0.5 mg/L is stable

Sample Information

Sample Number	Collection Time	Parameter	Container	Preservative
MW-7R	12:25	Radium 226/228	2 - 1 L Poly	HNO3
		6010/6020/7470	1 - 250 mL Poly	HNO3
		Cl, F, SO4	1 - 250 mL Poly	N/A
		TDS	1 - 500 mL Poly	N/A

Sampled By: Cameron Horner **Sample Time:** 12:25

Date Sampled: 1/22/25 **Sampler Signature:** Cameron Horner

Notes: Pumprate= 150mL/min

Groundwater Sampling Form

Sample ID: MW-8

Site Information	
Site Name: Charah Brickhaven	**Project Number:** ~~10337473~~ 10423253
Site Location: Moncure, NC	**Sampling Personnel:** Cameron Hosmer
Date: 1/21/25	**Weather:** 31°F Cloudy

Well Information	
Well Diameter (in): 2"	**Purge Equipment:** Mega Monsoon Pro
Screened Interval (ft): 31' - 46'	**Pump Type:** ESP
Well Depth (ft): 49.06'	**Pump Depth (ft-bTOC):**
Depth-to-Water (ft-bTOC): 32.96	**Tubing Diameter (in):** 3/8" X 1/2"
Water Column Thickness (ft): 16.1	**Well Volume (ft^3):** 2.60 gal/Ft or 0.35 Ft^3
1 Well Volume = (Total Depth - Static Water Level) * Well Capacity	
Well Capacity (gallons per feet): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47	

Purging Information Start @ 10:15

Parameter Instrument(s): YSI Pro Quatro

TIME	VOLUME PURGED (Liters)	CUMULATIVE VOLUME PURGED (Liters)	PURGE RATE (mL/min)	DEPTH TO WATER (ft-bTOC)	pH (SU) (±0.1)	TEMP. (C°)	COND. (µS/cm) (5%)	DISSOLVED OXYGEN (mg/L) (10%)*	ORP (mV) (±20mV)	TURBIDITY (NTUs) (≤10 or 10%)	COLOR/ ODOR (describe)
1020	1.0	1	200	32.96	6.91	12.6	2349	9.91	141.6	240	reddish brown
1025	1.0	2	200	32.97	6.90	11.9	2281	10.48	100.4	340	"
1030	0.75	2.75	200	32.98	6.91	11.6	2275	8.94	106.1	231	"
1035	0.75	3.50	150	32.99	6.91	15.9	2274	7.36	109.3	267	cloudy white
1040	0.75	4.25	150	32.99	6.91	15.9	2242	6.76	74.2	103	cloudy
1045	0.75	5.00	150	33.00	6.91	16.0	2197	0.51	72.9	71.5	Clearer
1050	0.75	5.75	150	33.01	6.93	16.0	2126	0.36	67.7	103.4	Clearer
1055	0.75	6.50	150	33.02	6.93	16.0	2126	0.35	67.3	40.9	Clearer
1100	0.75	7.25	150	33.02	6.93	16.0	2100	0.37		33.3	Clear
1105	0.75	8.00	150	33.02	6.93	16.0	1990	0.35	61.5	24.6	Clear

* DO below 2.0 mg/L is stable at ±0.2 mg/L; DO below 0.5 mg/L is stable

Sample Information

Sample Number	Collection Time	Parameter	Container	Preservative
MW-8	11:40	Radium 226/228	2 - 1 L Poly	HNO3
		6010/6020/7470	1 - 250 mL Poly	HNO3
		Cl, F, SO4	1 - 250 mL Poly	N/A
		TDS	1 - 500 mL Poly	N/A

Sampled By: Cameron Hosmer **Sample Time:** 11:40

Date Sampled: 1/21/25 **Sampler Signature:** Cameron Hosmer

Notes: Pumprate= 150mL/min

HDR

Groundwater Sampling Form

Sample ID: MW-8

Purging Information (Page 2)

TIME	VOLUME PURGED (Liters)	CUMULATIVE VOLUME PURGED (Liters)	PURGE RATE (mL/min)	DEPTH TO WATER (ft-bTOC)	pH (SU) (±0.1)	TEMP. (C°)	COND. (µS/cm) (5%)	DISSOLVED OXYGEN (mg/L) (10%)*	ORP (mV) (±20mV)	TURBIDITY (NTUs) (≤10 or 10%)	COLOR/ ODOR (describe)
1110	0.75	8.75	150	33.03	6.96	16.0	1530	0.34	57.4	30.1	Clear
1115	0.75	9.50	150	33.03	6.96	16.0	1526	0.32	56.3	24.1	Clear
1120	0.75	10.25	150	33.03	6.96	16.0	1716	0.24	57.3	22.6	Clear
1125	0.75	11.00	150	33.03	6.96	16.0	1644	0.18	57.8	20.4	Clear
1130	0.75	11.75	150	33.03	6.97	16.0	1641	0.18	57.4	13.1	Clear
1135	0.75	12.50	150	33.03	6.97	15.9	1624	0.16	58.0	9.44	Clear
1140	Sample										

* DO below 2.0 mg/L is stable at ±0.2 mg/L; DO below 0.5 mg/L is stable

Groundwater Sampling Form

Sample ID: MW-9

Site Information	
Site Name: Charah Brickhaven	**Project Number:** ~~10337473~~ 10412 3253
Site Location: Moncure, NC	**Sampling Personnel:** Cameron Horner
Date: 1/23/25	**Weather:** 31°F Overcast

Well Information	
Well Diameter (in): 2"	**Purge Equipment:** Mega Monsoon Pro
Screened Interval (ft): 26' - 36'	**Pump Type:** ESP
Well Depth (ft): ~~36'~~ ~~37~~ 35.8	**Pump Depth (ft-bTOC):** Bailer
Depth-to-Water (ft-bTOC): 37.96	**Tubing Diameter (in):** 3/8" X 1/2"
Water Column Thickness (ft): 1.61	**Well Volume (ft^3):** 0.26 gal/ft or 0.03 ft^3
1 Well Volume = (Total Depth - Static Water Level) * Well Capacity	
Well Capacity (gallons per feet): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3' = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47	

Purging Information

Parameter Instrument(s): Bailer

TIME	VOLUME PURGED (Liters)	CUMULATIVE VOLUME PURGED (Liters)	PURGE RATE (mL/min)	DEPTH TO WATER (ft-bTOC)	pH (SU) (±0.1)	TEMP. (C°)	COND. (µS/cm) (5%)	DISSOLVED OXYGEN (mg/L) (10%)*	ORP (mV) (±20mV)	TURBIDITY (NTUs) (≤10 or 10%)	COLOR/ ODOR (describe)
1545		Bailed		~~37.96~~ 37.24	7.71	11.1	773	4.58	-56.5	94	Brn

* DO below 2.0 mg/L is stable at ±0.2 mg/L; DO below 0.5 mg/L is stable

Sample Information

Sample Number	Collection Time	Parameter	Container	Preservative
MW-9	1555	Radium 226/228	2 - 1 L Poly	HNO3
		6010/6020/7470	1 - 250 mL Poly	HNO3
		Cl, F, SO4	1 - 250 mL Poly	N/A
		TDS	1 - 500 mL Poly	N/A

Sampled By: Cameron Horner **Sample Time:** 1555

Date Sampled: 1/23/25 **Sampler Signature:** Cameron Horner

Notes: Pumprate=

Bailed Dry

Partial EPA 903 Sample

Groundwater Sampling Form

Sample ID: MW-10

Site Information	
Site Name: Charah Brickhaven	**Project Number:** ~~10337473~~ 10423253
Site Location: Moncure, NC	**Sampling Personnel:** Cameron Hosmer
Date: 1/22/25	**Weather:** 31°F Sunny

Well Information	
Well Diameter (in): 2"	**Purge Equipment:** Mega Monsoon Pro
Screened Interval (ft): 37' - 47'	**Pump Type:** ESP
Well Depth (ft): 49.91	**Pump Depth (ft-bTOC):**
Depth-to-Water (ft-bTOC): 31.40	**Tubing Diameter (in):** 3/8" X 1/2"
Water Column Thickness (ft): 18.50	**Well Volume (ft^3):** 2.96 gal/ft or 0.40 ft^3
1 Well Volume = (Total Depth - Static Water Level) * Well Capacity	
Well Capacity (gallons per feet): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47	

Purging Information 13.10

Parameter Instrument(s):

TIME	VOLUME PURGED (Liters)	CUMULATIVE VOLUME PURGED (Liters)	PURGE RATE (mL/min)	DEPTH TO WATER (ft-bTOC)	pH (SU) (±0.1)	TEMP. (C°)	COND. (µS/cm) (5%)	DISSOLVED OXYGEN (mg/L) (10%)*	ORP (mV) (±20mV)	TURBIDITY (NTUs) (≤10 or 10%)	COLOR/ ODOR (describe)
13.10	0.75	0.75	150	31.39	7.81	11.1	720	2.03	-91.4	8.64	clear
13.15	0.75	1.50	150	31.40	7.82	11.0	691	2.02	-96.3	7.20	clear
1320	0.75	2.25	150	31.41	7.81	11.1	574	2.01	-124.2	5.13	clear
1325	0.75	3.00	150	31.42	7.80	11.1	569	1.89	-109.8	4.28	clear
1330	0.75	3.75	150	31.43	7.80	11.1	564	1.13	-105.1	3.99	clear
1335	0.75	4.50	150		7.79	11.3	565	0.79	-112.6	4.11	clear
1340	0.75	5.25	150		7.79	11.3	567	0.71	-111.7	4.67	clear
1345	0.75	6.00	150		7.79	11.4	569	0.72	-116.7	5.52	clear
~~1350~~			150								
~~1356~~			150								

* DO below 2.0 mg/L is stable at ±0.2 mg/L; DO below 0.5 mg/L is stable

Sample Information

Sample Number	Collection Time	Parameter	Container	Preservative
MW-10	1350	Radium 226/228	2 - 1 L Poly	HNO3
		6010/6020/7470	1 - 250 mL Poly	HNO3
		Cl, F, SO4	1 - 250 mL Poly	N/A
		TDS	1 - 500 mL Poly	N/A

Sampled By: Cameron Hosmer **Sample Time:** 13.50

Date Sampled: 1/22/25 **Sampler Signature:** Cameron Hosmer

Notes: Pumprate= 150 mL/min

Groundwater Sampling Form

Sample ID: MW-11

Site Information	
Site Name: Charah Brickhaven	**Project Number:** ~~10337473~~ 10423253
Site Location: Moncure, NC	**Sampling Personnel:** Cameron Hosmer
Date: 1/21/25	**Weather:** 33°F Cloudy

Well Information	
Well Diameter (in): 2"	**Purge Equipment:** Mega Monsoon Pro
Screened Interval (ft): 28.50' - 43.50'	**Pump Type:** ESP
Well Depth (ft): 43.50'	**Pump Depth (ft-bTOC):** 30.5
Depth-to-Water (ft-bTOC): 11.49	**Tubing Diameter (in):** 3/8" X 1/2"
Water Column Thickness (ft): 32.01	**Well Volume (ft^3):** 5 12gal/ft or 0.68ft^3

1 Well Volume = (Total Depth - Static Water Level) * Well Capacity

Well Capacity (gallons per feet): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47

Purging Information Purge @ 12:25

Parameter Instrument(s): YSI Pro Quatro

TIME	VOLUME PURGED (Liters)	CUMULATIVE VOLUME PURGED (Liters)	PURGE RATE (mL/min)	DEPTH TO WATER (ft-bTOC)	pH (SU) (±0.1)	TEMP. (C°)	COND. (µS/cm) (5%)	DISSOLVED OXYGEN (mg/L) (10%)*	ORP (mV) (±20mV)	TURBIDITY (NTUs) (≤10 or 10%)	COLOR/ ODOR (describe)
12:30	0.75	0.75	150	11.49	6.44	8.5	720	14.63	85.9	5.48	clear
12:35	0.75	1.50	150	11.50	6.44	9.1	724	11.91	91.4	6.11	clear
12:40	0.75	2.25	150	11.51	6.43	9.0	733	7.74	96.1	7.14	clear
12:45	0.75	3.00	150	11.52	6.43	9.9	732	6.51	100.4	5.65	clear
12:50	0.75	3.75	150	11.51	6.43	9.8	731	5.20	111.3	4.20	clear
12:55	0.75	4.50	150	11.53	6.45						
13:00	0.75	5.25	150	11.55	6.47						
13:05	0.75	6.00	150	11.57	6.47						
13:10	0.75	6.75	150	11.58	6.47						
13:15	Stop										

* DO below 2.0 mg/L is stable at ±0.2 mg/L; DO below 0.5 mg/L is stable

Sample Information

Sample Number	Collection Time	Parameter	Container	Preservative
MW-11	1315	Radium 226/228	2 - 1 L Poly	HNO3
		6010/6020/7470	1 - 250 mL Poly	HNO3
		Cl, F, SO4	1 - 250 mL Poly	N/A
		TDS	1 - 500 mL Poly	N/A

Sampled By: Cameron Hosmer **Sample Time:** 1315

Date Sampled: 1/21/25 **Sampler Signature:** Cam Hosmer

Notes: Pumprate= 150mL/min

Groundwater Sampling Form

Sample ID: MW-11D

Site Information	
Site Name: Charah Brickhaven	**Project Number:** ~~10337473~~ 10423253
Site Location: Moncure, NC	**Sampling Personnel:** Cameron Hosmer
Date: 1/21/25	**Weather:** 32°F Cloudy

Well Information	
Well Diameter (in): 2"	**Purge Equipment:** Mega Monsoon Pro
Screened Interval (ft): 50' - 65'	**Pump Type:** ESP
Well Depth (ft): 68.18'	**Pump Depth (ft-bTOC):**
Depth-to-Water (ft-bTOC): 7.76	**Tubing Diameter (in):** 3/8" X 1/2"
Water Column Thickness (ft): 60.42	**Well Volume (ft^3):** 9.66gal/Ft or 1.29Ft3
1 Well Volume = (Total Depth - Static Water Level) * Well Capacity	
Well Capacity (gallons per feet): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3' = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47	

Purging Information Purged 13:25

Parameter Instrument(s):

TIME	VOLUME PURGED (Liters)	CUMULATIVE VOLUME PURGED (Liters)	PURGE RATE (mL/min)	DEPTH TO WATER (ft-bTOC)	pH (SU) (±0.1)	TEMP. (C°)	COND. (µS/cm) (5%)	DISSOLVED OXYGEN (mg/L) (10%)*	ORP (mV) (±20mV)	TURBIDITY (NTUs) (≤10 or 10%)	COLOR/ ODOR (describe)
13.30	6.75	0.75	150	7.77	8.09	10.1	691	5.22	119.2	3.54	clear
13.35	0.75	1.50	150	7.77	8.06	10.2	536	4.75	112.7	4.11	clear
13.40	6.75	2.25	150	7.76	8.10	8.8	540	4.71	114.9	1.93	clear
13.45	6.75	3.00	150	7.76	8.10	8.4	541	4.63	115.7	6.14	clear
13.50	6.75	3.25	150	7.79	8.10	8.4	539	4.61	114.9	6.00	clear
13.55	6.75	4.50	150	7.80	8.10	8.4	536	4.60	114.7	2.49	clear
14.00	Sample										

* DO below 2.0 mg/L is stable at ±0.2 mg/L; DO below 0.5 mg/L is stable

Sample Information

Sample Number	Collection Time	Parameter	Container	Preservative
MW-11D	14:00	Radium 226/228	2 - 1 L Poly	HNO3
		6010/6020/7470	1 - 250 mL Poly	HNO3
		Cl, F, SO4	1 - 250 mL Poly	N/A
		TDS	1 - 500 mL Poly	N/A

Sampled By: Cameron Hosmer **Sample Time:** 14:00

Date Sampled: 1/21/25 **Sampler Signature:** Cameron Hosmer

Notes: Pumprate= 150ml/min

Groundwater Sampling Form

Sample ID: LEACHATE

Site Information

Site Name: Charah Brickhaven	**Project Number:** ~~10337473~~ 10423253
Site Location: Moncure, NC	**Sampling Personnel:** Cameron Hosmer
Date: 1/23/25	**Weather:** 30°F Cloudy

Well Information

Well Diameter (in): N/A	**Purge Equipment:** N/A
Screened Interval (ft): N/A	**Pump Type:** N/A
Well Depth (ft): N/A	**Pump Depth (ft-bTOC):** N/A
Depth-to-Water (ft-bTOC): N/A	**Tubing Diameter (in):** N/A
Water Column Thickness (ft): N/A	**Well Volume (ft^3):** N/A

1 Well Volume = (Total Depth - Static Water Level) * Well Capacity

Well Capacity (gallons per feet): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3' = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47

Purging Information

Parameter Instrument(s):

TIME	VOLUME PURGED (Liters)	CUMULATIVE VOLUME PURGED (Liters)	PURGE RATE (mL/min)	DEPTH TO WATER (ft-bTOC)	pH (SU) (±0.1)	TEMP. (C°)	COND. (µS/cm) (5%)	DISSOLVED OXYGEN (mg/L) (10%)*	ORP (mV) (±20mV)	TURBIDITY (NTUs) (≤10 or 10%)	COLOR/ ODOR (describe)
17:10		Equipment Malfunction									

* DO below 2.0 mg/L is stable at ±0.2 mg/L; DO below 0.5 mg/L is stable

Sample Information

Sample Number	Collection Time	Parameter	Container	Preservative
LEACHATE	17:15	Radium 226/228	2 - 1 L Poly	HNO3
		6010/6020/7470	1 - 250 mL Poly	HNO3
		Cl, F, SO4	1 - 250 mL Poly	N/A
		TDS	1 - 500 mL Poly	N/A

Sampled By: Cameron Hosmer **Sample Time:** 17:15

Date Sampled: 1/23/25 **Sampler Signature:** Cameron

Notes: Pumprate=

Version: 07/30/2020

Sheet __ of __

Groundwater Sampling Form

Sample ID: SW-1

Site Information	
Site Name: Charah Brickhaven	**Project Number:** ~~10337473~~ 10423253
Site Location: Moncure, NC	**Sampling Personnel:** C. Hosmer
Date: 1/23/25	**Weather:**

Well Information	
Well Diameter (in): N/A	**Purge Equipment:** N/A
Screened Interval (ft): N/A	**Pump Type:** N/A
Well Depth (ft): N/A	**Pump Depth (ft-bTOC):** N/A
Depth-to-Water (ft-bTOC): N/A	**Tubing Diameter (in):** N/A
Water Column Thickness (ft): N/A	**Well Volume (ft^3):** N/A

1 Well Volume = (Total Depth - Static Water Level) * Well Capacity

Well Capacity (gallons per feet): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3' = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47

Purging Information

Parameter Instrument(s):

TIME	VOLUME PURGED (Liters)	CUMULATIVE VOLUME PURGED (Liters)	PURGE RATE (mL/min)	DEPTH TO WATER (ft-bTOC)	pH (SU) (±0.1)	TEMP. (C°)	COND. (µS/cm) (5%)	DISSOLVED OXYGEN (mg/L) (10%)*	ORP (mV) (±20mV)	TURBIDITY (NTUs) (≤10 or 10%)	COLOR/ ODOR (describe)
				Dry							

* DO below 2.0 mg/L is stable at ±0.2 mg/L; DO below 0.5 mg/L is stable

Sample Information

Sample Number	Collection Time	Parameter	Container	Preservative
SW-1		Radium 226/228	2 - 1 L Poly	HNO3
		6010/6020/7470	1 - 250 mL Poly	HNO3
		Cl, F, SO4	1 - 250 mL Poly	N/A
		TDS	1 - 500 mL Poly	N/A

Sampled By:	**Sample Time:**
Date Sampled:	**Sampler Signature:**

Notes: Pumprate=

Surface water location dry.

Groundwater Sampling Form

Sample ID: SW-2

Site Information	
Site Name: Charah Brickhaven	**Project Number:** ~~10337473~~ 10423253
Site Location: Moncure, NC	**Sampling Personnel:** C. Hosmer
Date: 1/23/25	**Weather:**

Well Information	
Well Diameter (in): N/A	**Purge Equipment:** N/A
Screened Interval (ft): N/A	**Pump Type:** N/A
Well Depth (ft): N/A	**Pump Depth (ft-bTOC):** N/A
Depth-to-Water (ft-bTOC): N/A	**Tubing Diameter (in):** N/A
Water Column Thickness (ft): N/A	**Well Volume (ft^3):** N/A

1 Well Volume = (Total Depth - Static Water Level) * Well Capacity

Well Capacity (gallons per feet): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3' = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47

Purging Information

Parameter Instrument(s):

TIME	VOLUME PURGED (Liters)	CUMULATIVE VOLUME PURGED (Liters)	PURGE RATE (mL/min)	DEPTH TO WATER (ft-bTOC)	pH (SU) (±0.1)	TEMP. (C°)	COND. (µS/cm) (5%)	DISSOLVED OXYGEN (mg/L) (10%)*	ORP (mV) (±20mV)	TURBIDITY (NTUs) (≤10 or 10%)	COLOR/ ODOR (describe)
				Dry							

* DO below 2.0 mg/L is stable at ±0.2 mg/L; DO below 0.5 mg/L is stable

Sample Information

Sample Number	Collection Time	Parameter	Container	Preservative
SW-2		Radium 226/228	2 - 1 L Poly	HNO3
		6010/6020/7470	1 - 250 mL Poly	HNO3
		Cl, F, SO4	1 - 250 mL Poly	N/A
		TDS	1 - 500 mL Poly	N/A

Sampled By:	**Sample Time:**
Date Sampled:	**Sampler Signature:**

Notes: Pumprate=

Surface water location dry and frozen.

Groundwater Sampling Form

Sample ID: SW-3

Site Information	
Site Name: Charah Brickhaven	**Project Number:** ~~10337473~~ 10412325 3
Site Location: Moncure, NC	**Sampling Personnel:** C Hosmer
Date: 1/23/25	**Weather:**

Well Information	
Well Diameter (in): N/A	**Purge Equipment:** N/A
Screened Interval (ft): N/A	**Pump Type:** N/A
Well Depth (ft): N/A	**Pump Depth (ft-bTOC):** N/A
Depth-to-Water (ft-bTOC): N/A	**Tubing Diameter (in):** N/A
Water Column Thickness (ft): N/A	**Well Volume (ft^3):** N/A

1 Well Volume = (Total Depth - Static Water Level) * Well Capacity

Well Capacity (gallons per feet): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3' = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47

Purging Information

Parameter Instrument(s):

TIME	VOLUME PURGED (Liters)	CUMULATIVE VOLUME PURGED (Liters)	PURGE RATE (mL/min)	DEPTH TO WATER (ft-bTOC)	pH (SU) (±0.1)	TEMP. (C°)	COND. (µS/cm) (5%)	DISSOLVED OXYGEN (mg/L) (10%)*	ORP (mV) (±20mV)	TURBIDITY (NTUs) (≤10 or 10%)	COLOR/ ODOR (describe)
				Dry							

* DO below 2.0 mg/L is stable at ±0.2 mg/L; OO below 0.5 mg/L is stable

Sample Information

Sample Number	Collection Time	Parameter	Container	Preservative
SW-3		Radium 226/228	2 - 1 L Poly	HNO3
		6010/6020/7470	1 - 250 mL Poly	HNO3
		Cl, F, SO4	1 - 250 mL Poly	N/A
		TDS	1 - 500 mL Poly	N/A

Sampled By:	**Sample Time:**
Date Sampled:	**Sampler Signature:**

Notes: Pumprate=

Surface water location dry.

Groundwater Sampling Form

Sample ID: SW-4

Site Information	
Site Name: Charah Brickhaven	**Project Number:** ~~10337473~~ 10423253
Site Location: Moncure, NC	**Sampling Personnel:** B Hasmer
Date: 1/23/25	**Weather:**

Well Information	
Well Diameter (in): N/A	**Purge Equipment:** N/A
Screened Interval (ft): N/A	**Pump Type:** N/A
Well Depth (ft): N/A	**Pump Depth (ft-bTOC):** N/A
Depth-to-Water (ft-bTOC): N/A	**Tubing Diameter (in):** N/A
Water Column Thickness (ft): N/A	**Well Volume (ft^3):** N/A

1 Well Volume = (Total Depth - Static Water Level) * Well Capacity

Well Capacity (gallons per feet): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3' = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47

Purging Information

Parameter Instrument(s):

TIME	VOLUME PURGED (Liters)	CUMULATIVE VOLUME PURGED (Liters)	PURGE RATE (mL/min)	DEPTH TO WATER (ft-bTOC)	pH (SU) (±0.1)	TEMP. (C°)	COND. (µS/cm) (5%)	DISSOLVED OXYGEN (mg/L) (10%)*	ORP (mV) (±20mV)	TURBIDITY (NTUs) (≤10 or 10%)	COLOR/ ODOR (describe)
				Dry							

* DO below 2.0 mg/L is stable at ±0.2 mg/L; DO below 0.5 mg/L is stable

Sample Information

Sample Number	Collection Time	Parameter	Container	Preservative
SW-4		Radium 226/228	2 - 1 L Poly	HNO3
		6010/6020/7470	1 - 250 mL Poly	HNO3
		Cl, F, SO4	1 - 250 mL Poly	N/A
		TDS	1 - 500 mL Poly	N/A

Sampled By:	**Sample Time:**
Date Sampled:	**Sampler Signature:**

Notes: Pumprate=

Surface water location frozen + dry, both.

Groundwater Sampling Form

Sample ID: SW-5

Site Information	
Site Name: Charah Brickhaven	**Project Number:** ~~10337473~~ 10423253
Site Location: Moncure, NC	**Sampling Personnel:** B. Hosmer
Date: 1/23/25	**Weather:**

Well Information	
Well Diameter (in): N/A	**Purge Equipment:** N/A
Screened Interval (ft): N/A	**Pump Type:** N/A
Well Depth (ft): N/A	**Pump Depth (ft-bTOC):** N/A
Depth-to-Water (ft-bTOC): N/A	**Tubing Diameter (in):** N/A
Water Column Thickness (ft): N/A	**Well Volume (ft^3):** N/A
1 Well Volume = (Total Depth - Static Water Level) * Well Capacity	
Well Capacity (gallons per feet): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3' = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47	

Purging Information

Parameter Instrument(s):

TIME	VOLUME PURGED (Liters)	CUMULATIVE VOLUME PURGED (Liters)	PURGE RATE (mL/min)	DEPTH TO WATER (ft-bTOC)	pH (SU) (±0.1)	TEMP. (C°)	COND. (µS/cm) (5%)	DISSOLVED OXYGEN (mg/L) (10%)*	ORP (mV) (±20mV)	TURBIDITY (NTUs) (≤10 or 10%)	COLOR/ ODOR (describe)
				Dry							

* OO below 2.0 mg/L is stable at ±0.2 mg/L; DO below 0.5 mg/L is stable

Sample Information

Sample Number	Collection Time	Parameter	Container	Preservative
SW-5		Radium 226/228	2 - 1 L Poly	HNO3
		6010/6020/7470	1 - 250 mL Poly	HNO3
		Cl, F, SO4	1 - 250 mL Poly	N/A
		TDS	1 - 500 mL Poly	N/A

Sampled By:	**Sample Time:**
Date Sampled:	**Sampler Signature:**

Notes: Pumprate=

Surface water location dry/muddy.

Groundwater Sampling Form

Sample ID: SW-6

Site Information	
Site Name: Charah Brickhaven	**Project Number:** ~~10337473~~ 10423253
Site Location: Moncure, NC	**Sampling Personnel:** Cameron Hosmer
Date: 1/23/25	**Weather:** 30°F Cloudy

Well Information	
Well Diameter (in): N/A	**Purge Equipment:** N/A
Screened Interval (ft): N/A	**Pump Type:** N/A
Well Depth (ft): N/A	**Pump Depth (ft-bTOC):** N/A
Depth-to-Water (ft-bTOC): N/A	**Tubing Diameter (in):** N/A
Water Column Thickness (ft): N/A	**Well Volume (ft^3):** N/A

1 Well Volume = (Total Depth - Static Water Level) * Well Capacity

Well Capacity (gallons per feet): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3' = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47

Purging Information

Parameter Instrument(s): YSI P10 Quattro

TIME	VOLUME PURGED (Liters)	CUMULATIVE VOLUME PURGED (Liters)	PURGE RATE (mL/min)	DEPTH TO WATER (ft-bTOC)	pH (SU) (±0.1)	TEMP. (C°)	COND. (µS/cm) (5%)	DISSOLVED OXYGEN (mg/L) (10%)*	ORP (mV) (±20mV)	TURBIDITY (NTUs) (≤10 or 10%)	COLOR/ ODOR (describe)
1625	—	—	—	—	—	11.3°C	—	—	—	74.1	Light Yellow Green
			Equipment Malfunction								

* DO below 2.0 mg/L is stable at ±0.2 mg/L; DO below 0.5 mg/L is stable

Sample Information

Sample Number	Collection Time	Parameter	Container	Preservative
SW-6	1630	Radium 226/228	2 - 1 L Poly	HNO3
		6010/6020/7470	1 - 250 mL Poly	HNO3
		Cl, F, SO4	1 - 250 mL Poly	N/A
		TDS	1 - 500 mL Poly	N/A

Sampled By: Cameron Hosmer **Sample Time:** 1630

Date Sampled: 1/23/25 **Sampler Signature:** [signature]

Notes: Pumprate=

YSI P10 Quattro would not read in ~~bentish~~ murky water.

GROUNDWATER DEPTH

Project Name: Charah – Brickhaven

Date: 3/31/25

Project Address: Moncure

Project No: 10423253

Time Started: 0830

Time Finished: 0930

Personnel: B. Weiser GS

Well ID	Depth to Water	Total Depth	
BG-1	9.80	~~43.05~~	43.25
BG-2	10.90	~~26.11~~	28.05
MW-1	62.00	~~75.30~~	75.40
MW-2	19.74	~~50.15~~	49.96
MW-2D	141.60	~~145~~	147.3
MW-3	7.90	~~43.36~~	43.65
MW-4	13.26	~~25.34~~	30.90
MW-5	21.30	~~46.14~~	46.94
MW-6	7.55	~~29.47~~	27.60
MW-7	16.50	~~17.18~~	17.76
MW-7R	22.40	~~39.94~~	39.90
MW-8	31.55	~~49.06~~	49.78
MW-9	38.00	~~38.9~~	39.95
MW-10	31.00	~~47~~	49.90
MW-11	9.81	~~43.5~~	43.45
MW-11D	6.47	68.1	

Well ID	Depth to Water	Total Depth

Groundwater Sampling Form

Sample ID: LEACHATE

Site Information

Site Name: Charah Brickhaven	**Project Number:** 10~~337473~~ 10423253
Site Location: Moncure, NC	**Sampling Personnel:** B. Wheeler
Date: 4/1/23	**Weather:** 70° Sunny

Well Information

Well Diameter (in): N/A	**Purge Equipment:** N/A
Screened Interval (ft): N/A	**Pump Type:** N/A
Well Depth (ft): N/A	**Pump Depth (ft-bTOC):** N/A
Depth-to-Water (ft-bTOC): N/A	**Tubing Diameter (in):** N/A
Water Column Thickness (ft): N/A	**Well Volume (ft^3):** N/A

1 Well Volume = (Total Depth - Static Water Level) * Well Capacity

Well Capacity (gallons per feet): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3' = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47

Purging Information

Parameter Instrument(s):

TIME	VOLUME PURGED (Liters)	CUMULATIVE VOLUME PURGED (Liters)	PURGE RATE (ml/min)	DEPTH TO WATER (ft-bTOC)	pH (SU) (±0.1)	TEMP. (C°)	COND. (µS/cm) (5%)	DISSOLVED OXYGEN (mg/L) (10%)*	ORP (mV) (±20mV)	TURBIDITY (NTUs) (≤10 or 10%)	COLOR/ ODOR (describe)
1255					7.21	17.2	1347	6.59	16.7	10.2	Clear

* DO below 2.0 mg/L is stable at ±0.2 mg/L; DO below 0.5 mg/L is stable

Sample Information

Sample Number	Collection Time	Parameter	Container	Preservative
LEACHATE	1255	Radium 226/228	2 - 1 L Poly	HNO3
		6010/6020/7470	1 - 250 mL Poly	HNO3
		Cl, F, SO4	1 - 250 mL Poly	N/A
		TDS	1 - 500 mL Poly	N/A
		pH: 7.21		

Sampled By: B. Wheeler **Sample Time:** 1255

Date Sampled: 4/1/23 **Sampler Signature:**

Notes: Pumprate=

Groundwater Sampling Form

Sample ID: BG-1

Site Information	
Site Name: Charah Brickhaven	Project Number: ~~10337473~~ 60423253
Site Location: Moncure, NC	Sampling Personnel: B. Battles
Date: 3/31/25	Weather: 75° F Cloudy
Start 1310	End 1540

Well Information	
Well Diameter (in): 2"	Purge Equipment: Mega Monsoon Pro
Screened Interval (ft): 26' - 41'	Pump Type: ESP
Well Depth (ft): ~~43.05'~~ 43.75	Pump Depth (ft-bTOC): 38
Depth-to-Water (ft-bTOC): 7.96	Tubing Diameter (in): 3/8" X 1/2"
Water Column Thickness (ft): 33.79	Well Volume (ft^3): 5.412 gal/ft or 0.7269 ft^3
1 Well Volume = (Total Depth - Static Water Level) * Well Capacity	
Well Capacity (gallons per feet): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47	

Purging Information

Parameter Instrument(s):

TIME	VOLUME PURGED (Liters)	CUMULATIVE VOLUME PURGED (Liters)	PURGE RATE (mL/min)	DEPTH TO WATER (ft-bTOC)	pH (SU) (±0.1)	TEMP. (C°)	COND. (µS/cm) (5%)	DISSOLVED OXYGEN (mg/L) (10%)*	ORP (mV) (±20mV)	TURBIDITY (NTUs) (≤10 or 10%)	COLOR/ ODOR (describe)
1345	1	1	200	11.85	6.70	16.9	1000	2.57	-28.6	622	Clear None
1350	1	2	200	11.77	6.67	17.1	993	2.27	-31.4	455	Clear None
1355	1	3	200	11.92	6.65	17.3	991	1.67	-43.4	331	Clear None
1400	1	4	200	11.99	6.63	17.3	985	1.36	-36.2	219	Clear None
1405	1	5	200	12.06	6.63	17.4	980	1.15	-42.0	207	Clear None
1410	1	6	200	12.10	6.62	17.3	973	0.96	-41.5	190	Clear None
1415	1	7	200	12.10	6.61	17.6	964	0.80	-43.5	150	Clear None
1420	1	8	200	12.11	6.61	17.5	951	0.74	-58.1	145	Clear None
1425	1	9	200	12.12	6.61	17.5	942	0.66	-56.1	127	Clear None
1430	1	10	200	12.14	6.60	17.5	930	0.59	-48.6	111	Clear None

* DO below 2.0 mg/L is stable at ±0.2 mg/L; DO below 0.5 mg/L is stable

Sample Information

Sample Number	Collection Time	Parameter	Container	Preservative
BG-1	1545	Radium 226/228	2 - 1 L Poly	HNO3
	|	6010/6020/7470	1 - 250 mL Poly	HNO3
	|	Cl, F, SO4	1 - 250 mL Poly	N/A
	|	TDS	1 - 500 mL Poly	N/A
	|	pH : 6.56		

Sampled By: B. Battles	Sample Time: 1545
Date Sampled: 3/31/25	Sampler Signature:

Notes: Pumprate= 200 mL/min

Groundwater Sampling Form

Sample ID: BG-1

Purging Information (Page 2)

TIME	VOLUME PURGED (Liters)	CUMULATIVE VOLUME PURGED (Liters)	PURGE RATE (mL/min)	DEPTH TO WATER (ft-bTOC)	pH (SU) (±0.1)	TEMP. (C°)	COND. (µS/cm) (5%)	DISSOLVED OXYGEN (mg/L) (10%)*	ORP (mV) (±20mV)	TURBIDITY (NTUs) (≤10 or 10%)	COLOR/ ODOR (describe)
1435	1	11	200	12.15	6.60	17.5	920	0.53	-66.0	103	
1440	1	12	200	12.16	6.60	17.5	910	0.49	-64.2	90.4	
1445	1	13	200	12.12	6.60	15.0	932	1.55	-36.4	32.0	
1450	1	14	200	12.01	6.59	17.6	919	0.44	-32.6	65.6	
1455	1	15	200	11.98	6.55	17.9	911	0.35	-32.9	60.7	
1500	1	16	200	12.26	6.55	17.5	902	0.29	-37.2	52.9	
1505	1	17	200	12.38	6.59	17.8	907	0.34	-32.4	104	
1510	1	18	200	12.50	6.54	18.2	917	0.35	-40.2	132	
1515	1	19	200	12.51	6.57	17.7	892	0.47	-63.2	60.5	
1520	1	20	200	12.30	6.56	17.8	927	0.33	-70.9	41.2	
1525	1	21	200	12.20	6.56	17.7	971	0.23	-78.5	26.0	
1530	1	22	200	12.12	6.56	17.7	868	0.24	-86.3	21.1	
1535	1	23	200	12.07	6.56	17.8	866	0.24	-92.1	23.2	
1540	1	24	200	12.06	6.56	17.7	866	0.25	-95.3	23.3	

* DO below 2.0 mg/L is stable at ±0.2 mg/L; DO below 0.5 mg/L is stable

Groundwater Sampling Form

Sample ID: BG-2

Site Information	
Site Name: Charah Brickhaven	Project Number: ~~10337473~~ 164232 53
Site Location: Moncure, NC	Sampling Personnel: B.Chesbrough S.
Date: 3/31/25	Weather: 70 °C Sunny

Start 1055 End 1255

Well Information	
Well Diameter (in): 2"	Purge Equipment: Mega Monsoon Pro
Screened Interval (ft): 13' - 23'	Pump Type: ESP
Well Depth (ft): ~~26.11~~ 20.05	Pump Depth (ft-bTOC): 20
Depth-to-Water (ft-bTOC): 10.80	Tubing Diameter (in): 3/8" X 1/2"
Water Column Thickness (ft): 15.25	Well Volume (ft^3): 2.44 gal/ft or 0.5364 ft^3

1 Well Volume = (Total Depth - Static Water Level) * Well Capacity

Well Capacity (gallons per feet): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3' = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47

Purging Information

Parameter Instrument(s):

TIME	VOLUME PURGED (Liters)	CUMULATIVE VOLUME PURGED (Liters)	PURGE RATE (mL/min)	DEPTH TO WATER (ft-bTOC)	pH (SU) (±0.1)	TEMP. (C°)	COND. (µS/cm) (5%)	DISSOLVED OXYGEN (mg/L) (10%)*	ORP (mV) (±20mV)	TURBIDITY (NTUs) (≤10 or 10%)	COLOR/ ODOR (describe)
1055	1	1	200	11.00	6.98	17.6	3037	3.05	-47.2	60.2	Brown, cl
1100	1	2	200	11.20	6.95	19.8	3048	2.38	-49.7	34.8	Cloudy
1105	1	3	200	11.63	6.95	18.30	3044	1.67	-53.1	20.2	cloudy
1110	1	4	200	11.81	6.95	19.10	2888	1.27	-56.5	19.6	cloudy
1115	1	5	200	11.85	6.95	18.18	2592	0.95	-57.7	15.7	cloudy
1120	1	6	200	11.87	6.96	18.0	2775	0.71	-62.7	26.7	slightly cloudy
1125	1	7	200	11.91	6.97	18.1	2672	0.61	-63.9	25.4	slightly cloudy
1130	1	8	200	12.03	6.97	18.5	2559	0.41	-64.9	65.7	Slightly cloudy
1135	1	9	200	12.06	6.97	18.4	2445	0.29	-64.8	45.5	clear
1140	1	10	200	12.15	6.98	18.41	2379	0.20	-62.5	35.3	clear

* DO below 2.0 mg/l is stable at ±0.2 mg/L; DO below 0.5 mg/L is stable

Sample Information

Sample Number	Collection Time	Parameter	Container	Preservative
BG-2	1300	Radium 226/228	2 - 1 L Poly	HNO3
		6010/6020/7470	1 - 250 mL Poly	HNO3
		Cl, F, SO4	1 - 250 mL Poly	N/A
		TDS	1 - 500 mL Poly	N/A
		pH : 6.96		

Sampled By: B. Chesbrough S.	Sample Time: 1300
Date Sampled: 3/31/25	Sampler Signature:

Notes: Pumprate= 200 ml/min

Groundwater Sampling Form

Sample ID: BG-2

Purging Information (Page 2)

TIME	VOLUME PURGED (Liters)	CUMULATIVE VOLUME PURGED (Liters)	PURGE RATE (mL/min)	DEPTH TO WATER (ft-bTOC)	pH (SU) (±0.1)	TEMP. (C°)	COND. (µS/cm) (5%)	DISSOLVED OXYGEN (mg/L) (10%)*	ORP (mV) (±20mV)	TURBIDITY (NTUs) (≤10 or 10%)	COLOR/ ODOR (describe)
1145	1	11	200	12.20	6.98	18.70	2309	0.17	-61.6	20.40	clear NA
1150	1	12	200	12.28	6.98	19.70	2254	0.17	-63.5	27.30	clear NA
1155	1	13	200	12.32	6.98	18.90	2230	0.15	-65.0	18.50	clear NA
1200	1	14	200	12.36	6.99	19.00	2191	0.14	-66.2	20.10	clear NA
1205	1	15	200	12.41	6.99	19.90	2193	0.13	-67.5	19.4	clear NA
1210	1	16	200	12.45	6.99	18.90	2164	0.12	-66.8	19.5	clear NA
1215	1	17	200	12.50	6.98	19.50	2200	0.13	-66.7	19.5	clear NA
1220	1	18	200	12.55	6.96	19.20	2530	0.29	-62.3	7.88	clear NA
1225	1	19	200	12.58	6.95	19.3	2809	0.67	-53.4	17.7	clear NA
1230	1	20	200	12.60	6.95	19.1	2741	0.42	-60.4	82.9	clear NA
1235	1	21	200	12.63	6.95	19.2	2626	0.36	-62.9	48.1	clear NA
1240	1	22	200	12.65	6.96	19.1	2545	0.30	-64.9	31.6	clear NA
1245	1	23	200	12.71	6.96	19.1	2492	0.26	-66.4	21.9	clear NA
1250	1	24	200	12.73	6.96	19.3	2434	0.23	-67.3	21.1	clear NA
1255	1	25	200	12.76	6.96	19.2	2388	0.23	-68.3	19.7	clear NA

* DO below 2.0 mg/L is stable at ±0.2 mg/L; DO below 0.5 mg/L is stable

Groundwater Sampling Form

Sample ID: MW-1

Site Information	
Site Name: Charah Brickhaven	Project Number: 10337473
Site Location: Moncure, NC	Sampling Personnel: [illegible]
Date:	Weather: 70°F Sunny

Start 1520 End 1750

Well Information	
Well Diameter (in): 2"	Purge Equipment: Mega Monsoon Pro
Screened Interval (ft): 57' - 72'	Pump Type: ESP
Well Depth (ft): ~~75.30'~~ 75	Pump Depth (ft-bTOC): 73
Depth-to-Water (ft-bTOC): 61.63	Tubing Diameter (in): 3/8" X 1/2"
Water Column Thickness (ft): 13.5	Well Volume (ft^3): 2.16 gal / 0.29 ft^3

1 Well Volume = (Total Depth - Static Water Level) * Well Capacity

Well Capacity (gallons per feet): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47

Purging Information

Parameter Instrument(s):

TIME	VOLUME PURGED (Liters)	CUMULATIVE VOLUME PURGED (Liters)	PURGE RATE (mL/min)	DEPTH TO WATER (ft bTOC)	pH (SU) (±0.1)	TEMP. (C°)	COND. (µS/cm) (5%)	DISSOLVED OXYGEN (mg/L) (10%)*	ORP (mV) (±20mV)	TURBIDITY (NTUs) (≤10 or 10%)	COLOR/ ODOR (describe)
1525	0.75	0.75	150	62.10	7.17	19.7	681	257.8	-1.3	530	clear/ none
1530	0.75	1.50	150	62.10	7.14	19.1	7011	299.5	-2.3	290	clear/ none
1535	1.00	2.50	200	62.10	7.141	19.5	729	300.8	-1.9	1741	clear/ none
1540	1.00	3.50	150	62.12	7.141	20.0	727	277.0	-2.3	123	clear/ none
1545	1.00	4.50	200	62.11	7.13	20.3	741	286.0	-3.6	111	clear/ none
1550	1.00	5.50	200	62.15	7.11	19.7	769	314.4	-5.3	190	clear/ none
1555	1.00	6.50	200	62.15	7.11	20.2	776	301.2	-7.7	165	clear/ none
1600	1.00	7.50	200	62.15	7.10	20.4	775	302.2	-20.1	110	clear/ none
1605	1.00	8.50	200	62.10	7.09	20.4	874	300.2	-29.6	68.9	clear/ none
1610	1.25	9.75	250	62.17	7.08	20.9	951	299.1	-31.3	52.17	clear/ none

* DO below 2.0 mg/L is stable at ±0.2 mg/L; DO below 0.5 mg/L is stable

Sample Information

Sample Number	Collection Time	Parameter	Container	Preservative
MW-1	1755	Radium 226/228	2 - 1 L Poly	HNO3
		6010/6020/7470	1 - 250 mL Poly	HNO3
		Cl, F, SO4	1 - 250 mL Poly	N/A
		TDS	1 - 500 mL Poly	N/A
		pH: 6.88		

Sampled By: [illegible]	Sample Time: 1755
Date Sampled: 2/11/20	Sampler Signature:

Notes: Pumprate= 200

Groundwater Sampling Form

Sample ID: MW-1

Purging Information (Page 2)

TIME	VOLUME PURGED (Liters)	CUMULATIVE VOLUME PURGED (Liters)	PURGE RATE (mL/min)	DEPTH TO WATER (ft-bTOC)	pH (SU) (±0.1)	TEMP. (C°)	COND. (µS/cm) (5%)	DISSOLVED OXYGEN (mg/L) (10%)*	ORP (mV) (±20mV)	TURBIDITY (NTUs) (≤10 or 10%)	COLOR/ ODOR (describe)
1615	1.25	11.25	250	62.17	6.95	20.5	1220	2.76	-33.9	34.3	
1620	1.25	12.50	250	62.17	6.90	20.7	1456	2.40	-32.2	42.8	
1625	1.25	13.75	250	62.17	6.84	20.5	1681	2.41.3	-34.5	14.8	
1630	1.25	15.00	250	62.17	6.85	20.2	1849	2.33	-30.2	17.1	
1635	1.25	16.25	250	62.17	6.74	20.9	2054	2.57	-31	19.3	
1640	1.25	17.50	250	62.17	6.741	20.9	2241	2.53.83	-35.4	14.2	
1645	1.25	18.75	250	62.20	6.96	19.8	1661	3.56	-12.5	54.3	
1710	1.25	20.00	250	62.25	6.71	21.0	2252	2.76	-44.1	35.0	
1715	1.25	21.25	250	62.25	6.68	22.2	2519	2.20	-18.2	22.1	
1720	1.25	22.50	250	62.25	6.66	22.4	27412	1.97	-19.7	20.5	
1725	1.25	23.75	250	62.25	6.64	22.6	2576	1.86	-20.1	15.7	
1730	1.25	25.00	250	62.26	6.62	22.5	2789	1.64	-20.2	11.6	
1735	1.25	26.25	250	62.26	6.61	22.4	3000	1.56	-19.8	6.9	
1740	1.25	27.50	250	62.26	6.65	22.1	3184	1.45	-20.3	5.4	
1745	1.25	28.75	250	62.26	6.51	22.4	3276	1.34	-20.3	6.59	
1750	1.25	30.00	250	62.26	6.54	22.4	3304	1.26	-20.1	5.5	

* DO below 2.0 mg/L is stable at ±0.2 mg/L; DO below 0.5 mg/L is stable

Groundwater Sampling Form

Sample ID: MW-2

Site Information	
Site Name: Charah Brickhaven	Project Number: 10337473 10473253
Site Location: Moncure, NC	Sampling Personnel:
Date: 4/1/25	Weather: 70°F

Start 1220 End 1430

Well Information	
Well Diameter (in): 2"	Purge Equipment: Mega Monsoon Pro
Screened Interval (ft): 32' - 47'	Pump Type: ESP
Well Depth (ft): 50.15' 49.96	Pump Depth (ft-bTOC): 44
Depth-to-Water (ft-bTOC): 19.40	Tubing Diameter (in): 3/8" X 1/2"
Water Column Thickness (ft): 30.56	Well Volume (ft^3): 4.89 gal/ft or 0.654 ft^3
1 Well Volume = (Total Depth - Static Water Level) * Well Capacity	
Well Capacity (gallons per feet): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47	

Purging Information

Parameter Instrument(s):

TIME	VOLUME PURGED (Liters)	CUMULATIVE VOLUME PURGED (Liters)	PURGE RATE (mL/min)	DEPTH TO WATER (ft-bTOC)	pH (SU) (±0.1)	TEMP. (C°)	COND. (µS/cm) (5%)	DISSOLVED OXYGEN (mg/L) (10%)*	ORP (mV) (±20mV)	TURBIDITY (NTUs) (≤10 or 10%)	COLOR/ ODOR (describe)
1225	1	1	200	22.15	7.40	18.2	4495	6.34	-20.2	764	Clear/ None
1230	1	2	200	23.75	7.38	18.7	4511	5.63	-11.2	248	Clear/ None
1235	1	3	200	25.3	7.38	18.9	4489	5.22	-11.7	219	Clear/ None
1240	1	4	200	29.75	7.38	19.0	4452	4.81	-12.2	191	Clear/ None
1245	1	5	200	26.8	7.38	19.1	4458	4.53	-14.4	159	Clear/ None
1250	1	6	200	27.5	7.38	19.2	4427	4.21	-16.6	112	Clear/ None
1255	1	7	200	28.45	7.40	19.2	4412	4.00	-16.2	70.2	Clear/ None
1300	1	8	200	29.30	7.39	19.5	4386	3.91	-13.0	54.7	Clear/ None
1305	1	9	200	30.20	7.40	19.6	4374	3.69	-12.6	39.2	Clear/ None
1310	1	10	200	31.05	7.40	19.7	4351	3.52	-10.8	34.7	Clear/ None

* DO below 2.0 mg/L is stable at ±0.2 mg/L; DO below 0.5 mg/L is stable

Sample Information

Sample Number	Collection Time	Parameter	Container	Preservative
MW-2	1435	Radium 226/228	2 - 1 L Poly	HNO3
	|	6010/6020/7470	1 - 250 mL Poly	HNO3
	|	Cl, F, SO4	1 - 250 mL Poly	N/A
	|	TDS	1 - 500 mL Poly	N/A
	|	pH: 7.41		
	|			

Sampled By: [illegible] Sample Time: 1435

Date Sampled: 4/1/25 Sampler Signature: [signature]

Notes: Pumprate= 200 ml/min

Turbidity ~~stabilized~~ increase significantly due to equipment failure,

Groundwater Sampling Form

Sample ID: MW-2

Purging Information (Page 2)

TIME	VOLUME PURGED (Liters)	CUMULATIVE VOLUME PURGED (Liters)	PURGE RATE (mL/min)	DEPTH TO WATER (ft-bTOC)	pH (SU) (±0.1)	TEMP. (C°)	COND. (µS/cm) (5%)	DISSOLVED OXYGEN (mg/L) (10%)*	ORP (mV) (±20mV)	TURBIDITY (NTUs) (≤10 or 10%)	COLOR/ ODOR (describe)
1315	1	11	200	32.1	7.43	19.5	4375	3.41	-4.6	28.6	clear NA
1320	1	12	200	33.30	7.43	20.2	4375	3.25	-13.8	28.0	clear NA
1325	1	13	200	34.35	7.44	19.6	4346	3.20	-12.0	21.4	clear NA
1330	1	14	200	34.8	7.45	19.9	4347	3.10	-13.5	19.6	clear NA
1335	1	15	200	35.55	7.47	20.2	4326	3.05	-13.2	20.5	clear NA
1340	1	16	200	36.65	7.48	20.3	4308	3.01	-15.5	17.7	clear NA
1345	1	17	200	37.80	7.40	20.4	4278	2.98	-20.8	33.2	clear NA
1350	1	18	200	37.90	7.49	20.4	4269	2.96	-22.1	93.0	clear NA
1355	1	19	200	38.5	7.48	20.3	44141	2.53	-17.9	110	clear NA
1400	0.75	19.75	150	39.05	7.46	20.7	4446	2.09	-15.5	111	clear NA
1405	0.75	20.50	150	39.4	7.45	20.3	4449	2.07	-15.1	95.9	clear NA
1410	0.75	21.25	150	39.8	7.44	20.4	4460	1.99	-13.1	74.2	clear NA
1415	0.75	22.00	150	40.1	7.43	20.5	4469	1.88	-12.2	58.9	clear NA
1420	0.75	22.75	150	40.35	7.47	20.3	4476	1.77	-9.7	49.3	clear NA
1425	0.75	23.50	150	40.9	7.41	20.5	4479	1.76	-7.0	34.1	clear NA
1430	0.75	24.25	150	41.41	7.41	20.6	4482	1.72	-5.7	31.8	clear NA

* DO below 2.0 mg/L is stable at ±0.2 mg/L; DO below 0.5 mg/L is stable

Groundwater Sampling Form

Sample ID: MW-2D

Site Information	
Site Name: Charah Brickhaven	Project Number: 10337473
Site Location: Moncure, NC	Sampling Personnel: B. Wenbert
Date: 4/3/25	Weather:

Well Information	
Well Diameter (in): 2"	Purge Equipment: ~~Mega Monsoon Pro~~ Bailer
Screened interval (ft): 129' - 144'	Pump Type: ~~ESP~~
Well Depth (ft): 147.23	~~Pump Depth (ft-bTOC):~~
Depth-to-Water (ft-bTOC): 141.6	Tubing Diameter (in): 3/8" X 1/2"
Water Column Thickness (ft): 5.7	Well Volume (ft^3): 0.912 gal 0.3.45 ft^3
1 Well Volume = (Total Depth - Static Water Level) * Well Capacity	
Well Capacity (gallons per feet): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47	

Purging Information

Parameter Instrument(s):

TIME	VOLUME PURGED (Liters)	CUMULATIVE VOLUME PURGED (Liters)	PURGE RATE (mL/min)	DEPTH TO WATER (ft-bTOC)	pH (SU) (±0.1)	TEMP. (C°)	COND. (µS/cm) (5%)	DISSOLVED OXYGEN (mg/L) (10%)*	ORP (mV) (±20mV)	TURBIDITY (NTUs) (≤10 or 10%)	COLOR/ ODOR (describe)
	No Sample										
	Not enough Recharge										

* DO below 2.0 mg/L is stable at ±0.2 mg/L; DO below 0.5 mg/L is stable

Sample Information

Sample Number	Collection Time	Parameter	Container	Preservative
MW-2D		Radium 226/228	2 - 1 L Poly	HNO3
		6010/6020/7470	1 - 250 mL Poly	HNO3
		Cl, F, SO4	1 - 250 mL Poly	N/A
		TDS	1 - 500 mL Poly	N/A

Sampled By:	Sample Time:
Date Sampled:	Sampler Signature:

Notes: Pumprate=

Groundwater Sampling Form

Sample ID: MW-3

Site Information	
Site Name: Charah Brickhaven	Project Number: ~~10337473~~ 10123
Site Location: Moncure, NC	Sampling Personnel: [illegible]
Date: 4/1/25	Weather: 68°F Sunny
Start 0955	End 1150

Well Information	
Well Diameter (in): 2"	Purge Equipment: Mega Monsoon Pro
Screened Interval (ft): 25' - 40'	Pump Type: ESP
Well Depth (ft): ~~43.36~~ 43.65	Pump Depth (ft-bTOC): 38
Depth-to-Water (ft-bTOC): 8.2	Tubing Diameter (in): 3/8" X 1/2"
Water Column Thickness (ft): 35.45	Well Volume (ft^3): 5.67 gal/ft ≈ 0.756 ft^3
1 Well Volume = (Total Depth - Static Water Level) * Well Capacity	
Well Capacity (gallons per foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47	

Purging Information

Parameter Instrument(s):

TIME	VOLUME PURGED (Liters)	CUMULATIVE VOLUME PURGED (Liters)	PURGE RATE (mL/min)	DEPTH TO WATER (ft-bTOC)	pH (SU) (±0.1)	TEMP. (C°)	COND. (µS/cm) (5%)	DISSOLVED OXYGEN (mg/L) (10%)*	ORP (mV) (±20mV)	TURBIDITY (NTUs) (≤10 or 10%)	COLOR/ ODOR (describe)
0955											
1000											
1005	1	1	200	9.36	7.44	17.0	4373	406.31	-70.4	351	Cloudy Tan
1010	1	2	200	10.76	7.36	17.0	4368	406.25	-62.1	356	Cloudy Tan
1015	1	3	200	11.55	7.34	17.0	4341	406.19	-38.3	293	Cloudy Tan
1020	1	4	200	12.26	7.34	17.1	4328	341.45	-26.2	298	Cloudy Tan
1025	1	5	200	12.95	7.42	16.5	4358	414.49	-13.5	254	Cloudy Tan
1030	1	6	200	14.5	7.40	17.1	4370	402.71	-13.7	293	Cloudy Tan
1035	1	7	200	15.54	7.39	17.5	4345	391.4	-15.9	243	Cloudy Tan
1040	1	8	200	16.35	7.40	17.7	4347	324.72	-17.4	150	Cloudy Tan

* DO below 2.0 mg/L is stable at ±0.2 mg/L; DO below 0.5 mg/L is stable

* Turbid Water Sediment Disturbance

* Started Sediment Disturbance

Sample Information

Sample Number	Collection Time	Parameter	Container	Preservative
MW-3		Radium 226/228	2 - 1 L Poly	HNO3
		6010/6020/7470	1 - 250 mL Poly	HNO3
		Cl, F, SO4	1 - 250 mL Poly	N/A
		TDS	1 - 500 mL Poly	N/A
		pH: 7.39		

Sampled By:	[illegible]	Sample Time:	1155
Date Sampled:	4/1/25	Sampler Signature:	

Notes: Pumprate= 200

Groundwater Sampling Form

Sample ID: MW-3

Purging Information (Page 2)

TIME	VOLUME PURGED (Liters)	CUMULATIVE VOLUME PURGED (Liters)	PURGE RATE (mL/min)	DEPTH TO WATER (ft-bTOC)	pH (SU) (±0.1)	TEMP. (C°)	COND. (µS/cm) (5%)	DISSOLVED OXYGEN (mg/L) (10%)*	ORP (mV) (±20mV)	TURBIDITY (NTUs) (≤10 or 10%)	COLOR/ ODOR (describe)
1045	1	9	200	17.60	7.37	17.4	4331	344.4	-15.1	10.3	clear/ none
1050	1	10	200	18.03	7.40	17.6	4316	38.75	-15.0	7.41	clear/ none
1055	1	11	200	19.11	7.38	17.8	4297	36.12	-15.3	6.74	clear/ none
1100	1	12	200	19.52	7.39	18.1	4252	35.57	-15.4	4.84	clear/ none
1105	1	13	200	20.06	7.37	18.1	4251	34.96	-14.1	10.2	clear/ none
1110	1	14	200	21.20	7.38	18.2	4266	34.07	-13.8	36.0	clear/ none
1115	1	15	200	21.70	7.40	18.0	4336	34.03	-12.1	34.3	clear/ none
1120	1	16	200	23.32	7.39	18.6	4300	33.56	-14.3	36.0	clear/ none
1125	1	17	200	24.01	7.39	18.6	4303	33.9	-14.3	33.6	clear/ none
1130	1	18	200	24.82	7.39	18.8	4256	33.15	-11.1	26.4	clear/ none
1135	1	19	200	25.80	7.38	18.8	4281	32.30	-13.5	25.3	clear/ none
1140	1	20	200	26.50	7.35	18.9	4272	31.89	-27.2	22.0	clear/ none
1145	1	21	200	27.50	7.35	19.0	4267	31.16	-21.3	21.0	clear/ none
1150	1	22	200	28.01	7.37	19.1	4255	32.32	-12.8	21.4	clear/ none

* DO below 2.0 mg/L is stable at ±0.2 mg/L; DO below 0.5 mg/L is stable

Groundwater Sampling Form

Sample ID: MW-4

Site Information	
Site Name: Charah Brickhaven	Project Number: ~~10337473~~ 10423253
Site Location: Moncure, NC	Sampling Personnel: B. Weeks
Date: ~~3/26/25~~ 4/1/25	Weather: 70°F Cloudy

Start 0820 End

Well Information	
Well Diameter (in): 2"	Purge Equipment: Mega Monsoon Pro
Screened Interval (ft): 13' - 23'	Pump Type: ESP
Well Depth (ft): ~~25.34~~ 30.29	Pump Depth (ft-bTOC): 22
Depth-to-Water (ft-bTOC): 13.47	Tubing Diameter (in): 3/8" X 1/2"
Water Column Thickness (ft): 17.49	Well Volume (ft^3): 2.78 gal (1/4 = 0.37 ft^3)

1 Well Volume = (Total Depth - Static Water Level) * Well Capacity

Well Capacity (gallons per feet): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3' = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47

Purging Information

Parameter Instrument(s):

TIME	VOLUME PURGED (Liters)	CUMULATIVE VOLUME PURGED (Liters)	PURGE RATE (mL/min)	DEPTH TO WATER (ft-bTOC)	pH (SU) (±0.1)	TEMP. (C°)	COND. (µS/cm) (5%)	DISSOLVED OXYGEN (mg/L) (10%)*	ORP (mV) (±20mV)	TURBIDITY (NTUs) (≤10 or 10%)	COLOR/ ODOR (describe)
0805	1	1	200	14.52	6.12	16.3	2000	52.65	78.4	157	[illegible]
0810	1	2	200	14.73	6.11	16.6	2003	42.10	73.3	112	[illegible]
0815	1	3	200	14.90	6.10	17.0	2001	47.11	66.5	66.1	clear
0820	1	4	200	15.00	6.10	17.2	1996	48.93	60.8	47.1	clear
0825	1	5	200	15.04	6.11	17.3	1982	46.94	55.1	38.9	clear
0830	1	6	200	15.05	6.11	17.5	1969	47.20	50.8	33.3	clear
0835	1	7	200	15.05	6.13	17.6	1939	47.96	41.7	27.5	clear
0840	1	8	200	15.06	6.14	17.6	1921	47.09	33.7	23.4	clear
0845	1	9	200	15.07	6.15	17.7	1901	47.27	32.7	19.5	clear
[illegible]	1	10	200	15.05	6.16	17.9	1883	46.32	30.9	15.0	clear

* DO below 2.0 mg/L is stable at ±0.2 mg/L; DO below 0.5 mg/L is stable

Sample Information

Sample Number	Collection Time	Parameter	Container	Preservative
MW-4	0920	Radium 226/228	2 - 1 L Poly	HNO3
		6010/6020/7470	1 - 250 mL Poly	HNO3
		Cl, F, SO4	1 - 250 mL Poly	N/A
		TDS	1 - 500 mL Poly	N/A
		pH: 6.17		

Sampled By: B. Weeks	Sample Time: 0920
Date Sampled: 4/1/25	Sampler Signature:

Notes: Pumprate=200 ml/min

Groundwater Sampling Form

Sample ID: MW-4

Purging Information (Page 2)

TIME	VOLUME PURGED (Liters)	CUMULATIVE VOLUME PURGED (Liters)	PURGE RATE (mL/min)	DEPTH TO WATER (ft-bTOC)	pH (SU) (±0.1)	TEMP. (C°)	COND. (µS/cm) (5%)	DISSOLVED OXYGEN (mg/L) (10%)*	ORP (mV) (±20mV)	TURBIDITY (NTUs) (≤10 or 10%)	COLOR/ ODOR (describe)
0855	1	11	200	15.10	6.16	18.0	1910	461.20	30.7	17.0	clear/ none
0900	1	12	200	15.10	6.16	18.0	1904	466.83	27.4	17.3	clear/ none
0905	1	13	200	15.11	6.17	18.1	1890	457.62	26.9	14.4	clear/ none
0910	1	14	200	15.12	6.17	18.1	1875	457.0	24.0	11.41	clear/ none
0915	1	15	200	15.13	6.17	18.4	1862	454.7	23.2	9.6	clear/ none

* DO below 2.0 mg/L is stable at ±0.2 mg/L; DO below 0.5 mg/L is stable

Groundwater Sampling Form

Sample ID: MW-5

Site Information	
Site Name: Charah Brickhaven	Project Number: ~~10337473~~ 10123253
Site Location: Moncure, NC	Sampling Personnel: B. Weisenborn, E.S.
Date: 3/3/25	Weather: 70°F Sunny
Start 1620	End 1735

Well Information	
Well Diameter (in): 2"	Purge Equipment: Mega Mons
System: 30.46 ?	GSP
TD: 46.95	Pump Depth: 40'
DTW: 21.3	3/5 x 1/3
r Column Thickness (ft): 25.65	Well Volume (ft^3): ~~3.64/4.4~~ or 4 Liters

1 Well Volume = (Total Depth - Static Water Level) * Well Capacity

Well Capacity (gallons per feet): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47

Purging Information

Parameter Instrument(s):

TIME	VOLUME PURGED (Liters)	CUMULATIVE VOLUME PURGED (Liters)	PURGE RATE (mL/min)	DEPTH TO WATER (ft-bTOC)	pH (SU) (±0.1)	TEMP. (C°)	COND. (µS/cm) (5%)	DISSOLVED OXYGEN (mg/L) (10%)*	ORP (mV) (±20mV)	TURBIDITY (NTUs) (≤10 or 10%)	COLOR/ ODOR (describe)
1625	1	1	200	23.53	6.85	19.3	326.6	1.51	-193.7	16.2	clear/N
1630	1	2	200	24.70	6.83	19.3	324.2	0.93	-200.8	16.1	clear/N
1635	1	3	200	24.41	6.83	19.3	322.7	0.44	-189.2	26	clear/N
1640	1	4	200	26.70	6.86	19.3	318.7	0.26	-164.5	45.6	clear/N
1645	1	5	200	27.20	6.85	19.6	318.7	1.07	-162.0	38.7	clear/N
1650	1	6	200	28.52	6.81	19.7	319.0	1.26	-154.6	23.5	clear/N
1655	1	7	200	29.40	6.81	20.0	320.1	1.44	-166.7	23.5	clear/N
1700	75	7.75	150	30.00	6.81	20.0	324.1	1.66	-166.4	23.9	clear/N
1705	76	8.5	150	30.35	6.82	20.4	325.6	1.67	-154.5	17.0	clear/N
1710	79	9.25	150	31.30	6.83	19.9	322.1	1.75	-151.5	20.1	clear/N

* DO below 2.0 mg/L is stable at ±0.2 mg/L; DO below 0.5 mg/L is stable

Sample Information

Sample Number	Collection Time	Parameter	Container	Preservative
MW-5	1740	Radium 226/228	2 - 1 L Poly	HNO3
		6010/6020/7470	1 - 250 mL Poly	HNO3
		Cl, F, SO4	1 - 250 mL Poly	N/A
		TDS	1 - 500 mL Poly	N/A
		pH: 6.87		

Sampled By: B. Weisenborn, E.S. Sample Time: 1740

Date Sampled: 3/3/25 Sampler Signature:

Notes: Pumprate= 200 mL/min

Groundwater Sampling Form

Sample ID: MW-5

Purging Information (Page 2)

TIME	VOLUME PURGED (Liters)	CUMULATIVE VOLUME PURGED (Liters)	PURGE RATE (mL/min)	DEPTH TO WATER (ft-bTOC)	pH (SU) (±0.1)	TEMP. (C°)	COND. (µS/cm) (5%)	DISSOLVED OXYGEN (mg/L) (10%)*	ORP (mV) (±20mV)	TURBIDITY (NTUs) (≤10 or 10%)	COLOR/ ODOR (describe)
1715	0.75	10	150	32.19	6.94	22.1	332	1.75	-137	14.0	clear/ none
1720	0.75	10.75	150	32.42	6.95	20.5	332	1.72	-132.1	14.3	clear/ none
1725	0.75	11.50	150	32.87	6.95	20.2	330.3	1.67	-123.3	11.6	clear/ none
1730	0.75	12.25	150	33.00	6.96	19.9	332.9	1.67	-118.2	11.7	clear/ none
1735	0.75	13.00	150	33.35	6.97	19.9	331.5	1.67	-113.5	9.7	clear/ none

* DO below 2.0 mg/L is stable at ±0.2 mg/L; DO below 0.5 mg/L is stable

Groundwater Sampling Form

Sample ID: MW-6

Site Information	
Site Name: Charah Brickhaven	Project Number: ~~10337473~~ 10423253
Site Location: Moncure, NC	Sampling Personnel: B. Wyatt
Date: 4/2/25	Weather: 65°F Cloudy

Start 1600 End 1630

Well Information	
Well Diameter (in): 2"	Purge Equipment: Mega Monsoon Pro
Screened Interval (ft): 12' - 27'	Pump Type: ESP
Well Depth (ft): ~~28.47~~ 27.60	Pump Depth (ft-bTOC): 24
Depth-to-Water (ft-bTOC): 7.65	Tubing Diameter (in): 3/8" X 1/2"
Water Column Thickness (ft): 19.95	Well Volume (ft^3): 3.19 gal/ft or 0.413

1 Well Volume = (Total Depth - Static Water Level) * Well Capacity

Well Capacity (gallons per feet): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47

Purging Information

Parameter Instrument(s):

TIME	VOLUME PURGED (Liters)	CUMULATIVE VOLUME PURGED (Liters)	PURGE RATE (mL/min)	DEPTH TO WATER (ft-bTOC)	pH (SU) (±0.1)	TEMP. (C°)	COND. (µS/cm) (5%)	DISSOLVED OXYGEN (mg/L) (10%)*	ORP (mV) (±20mV)	TURBIDITY (NTUs) (≤10 or 10%)	COLOR/ ODOR (describe)
1605	1	1	200	8.28	6.39	16.1	1051	1.02	-10.3	359	cloudy/NA
1610	1	2	200	8.36	6.39	16.3	1044	0.79	-10.8	607	cloudy/NA
1615	1	3	200	8.36	6.35	16.4	1048	0.75	-13.1	582	cloudy/NA
1620	1	4	200	8.70	6.37	17.41	1041	0.79	-16.1	475	cloudy/NA
1625	1	5	200	8.95	6.36	17.7	1038	0.91	-19.41	361	cloudy/NA
1630	1	6	200	9.00	6.35	17.2	1042	0.91	-21.9	258	cloudy/NA
1635	1	7	200	9.04	6.35	17.2	1038	0.81	-25.1	197	cloudy/NA
1640	1	8	200	8.99	6.35	17.3	1036	0.72	-27.1	157	cloudy/NA
1645	1	9	200	8.96	6.34	17.3	1035	0.51	-31.2	135	slightly cloudy/NA
1650	1	10	200	8.90	6.34	17.4	1032	0.44	-33.3	97.4	cloudy/NA

* DO below 2.0 mg/L is stable at ±0.2 mg/L; DO below 0.5 mg/L is stable

Sample Information

Sample Number	Collection Time	Parameter	Container	Preservative
MW-6 (DUP)	1603	Radium 226/228	2 - 1 L Poly	HNO3
		6010/6020/7470	1 - 250 mL Poly	HNO3
		Cl, F, SO4	1 - 250 mL Poly	N/A
		TDS	1 - 500 mL Poly	N/A
		pH 6.53		

Sampled By: B. Wyatt, Bobs

Sample Time: 1605

Date Sampled: 4/2/25

Sampler Signature:

Notes: Pumprate= 200

Groundwater Sampling Form

Sample ID: MW-6

Purging Information (Page 2)

TIME	VOLUME PURGED (Liters)	CUMULATIVE VOLUME PURGED (Liters)	PURGE RATE (mL/min)	DEPTH TO WATER (ft-bTOC)	pH (SU) (±0.1)	TEMP. (C°)	COND. (µS/cm) (5%)	DISSOLVED OXYGEN (mg/L) (10%)*	ORP (mV) (±20mV)	TURBIDITY (NTUs) (≤10 or 10%)	COLOR/ ODOR (describe)
1655	1	11.5	200	9.60	6.34	17.5	1041	0.35	-35.2	8.2	clear NA
1700	1	13.0	200	9.97	6.34	17.3	1039	0.30	-36.4	54.9	clear NA
1705	1	14.0	200	9.50	6.34	17.2	1038	0.26	-37.2	43.0	clear NA
1710	1	15.0	200	9.45	6.34	17.5	1037	0.24	-37.8	40.8	clear NA
1715	1	16	200	9.41	6.34	17.41	1035	0.21	-37.6	40.5	clear NA
1720	1	17	200	9.38	6.34	17.41	1035	0.23	-37.5	39.9	clear NA
1725	1	18	200	9.38	6.34	17.41	1034	0.22	-37.2	34.4	clear NA
1730	1	19	200	9.35	6.34	17.41	1042	0.21	-40.5	30.9	clear NA
1735	1	20	200	9.35	6.34	17.5	1039	0.21	-41.6	189	clear NA
1740	1	21	200	9.36	6.34	17.41	1038	0.19	-42.6	20.0	clear NA
1745	1	22	200	9.36	6.33	17.4	1038	0.15	-43.6	17.7	clear NA
1750	1	23	200	9.36	6.33	17.41	1035	0.17	-45.7	121.8	clear NA
1755	1	24	200	9.36	6.33	17.5	1036	0.15	-47.5	13.5	clear NA
1800	1	24	200	9.36	6.33	17.5	1036	0.15	-46.5	15.7	clear NA

* DO below 2.0 mg/L is stable at ±0.2 mg/L; DO below 0.5 mg/L is stable

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MW-7R

Groundwater Sampling Form

Sample ID: MW-7R

Site Information	
Site Name: Charah Brickhaven	Project Number: ~~10337473~~ 10423235
Site Location: Moncure, NC	Sampling Personnel: B. Jaeckle
Date: 4/2/25	Weather: 69°F Cloudy
Start 1035	End 1205

Well Information	
Well Diameter (in): 2"	Purge Equipment: Mega Monsoon Pro
Screened Interval (ft): 26' - 36'	Pump Type: ESP
Well Depth (ft): 39.96	Pump Depth (ft-bTOC):
Depth-to-Water (ft-bTOC): 27.91	Tubing Diameter (in): 3/8" X 1/2"
Water Column Thickness (ft): 12.35	Well Volume (ft^3): 2.03 gal / 1.27 ft^3 = 0.32 ft^3

1 Well Volume = (Total Depth - Static Water Level) * Well Capacity

Well Capacity (gallons per feet): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47

Purging Information

Parameter Instrument(s):

TIME	VOLUME PURGED (Liters)	CUMULATIVE VOLUME PURGED (Liters)	PURGE RATE (ml/min)	DEPTH TO WATER (ft-bTOC)	pH (SU) (±0.1)	TEMP. (C°)	COND. (µS/cm) (5%)	DISSOLVED OXYGEN (mg/L) (10%)*	ORP (mV) (±20mV)	TURBIDITY (NTUs) (≤10 or ±10%)	COLOR/ ODOR (describe)
1035	1	1	200	23.28	7.35	18.0	1622	2.22	-48.1	726	clear/ NA
1040	1	2	200	25.05	7.35	15.0	1621	2.55	-54.9	626	clear/ NA
1045	1	3	200	26.3	7.38	17.9	1620	2.30	-64.5	372	clear/ NA
1050	1	4	200	27.41	7.35	18.0	1613	2.17	-74.5	199	clear/ NA
1055	1	5	200	28.12	7.34	17.5	1626	2.01	-72.6	157	clear/ NA
1100	1	6	200	28.6	7.35	17.5	1625	1.77	-71.1	91.0	clear/ NA
1105	1	7	200	29.0	7.37	17.9	1621	1.40	-68.2	70.1	clear/ NA
1110	0.75	7.75	150	29.5	7.37	18.1	1619	1.24	-66.7	66.2	clear/ NA
1115	0.5	8.25	100	29.65	7.37	18.1	1632	1.24	-62.0	39.1	clear/ NA
1120	0.5	8.75	100	29.84	7.32	17.9	1630	1.38	-62.5	36.4	clear/ NA

* DO below 2.0 mg/L is stable at ±0.2 mg/L; DO below 0.5 mg/L is stable

Sample Information

Sample Number	Collection Time	Parameter	Container	Preservative
MW-7R	1120	Radium 226/228	2 - 1 L Poly	HNO3
		6010/6020/7470	1 - 250 mL Poly	HNO3
		Cl, F, SO4	1 - 250 mL Poly	N/A
		TDS	1 - 500 mL Poly	N/A
		pH		

Sampled By: B. Jaeckle	Sample Time: 1210
Date Sampled: 4/2/25	Sampler Signature:

Notes: Pumprate= Redox / Turb

Groundwater Sampling Form

Sample ID: MW-7R

Purging Information (Page 2)

TIME	VOLUME PURGED (Liters)	CUMULATIVE VOLUME PURGED (Liters)	PURGE RATE (ml/min)	DEPTH TO WATER (ft-bTOC)	pH (SU) (±0.1)	TEMP. (C°)	COND. (µS/cm) (5%)	DISSOLVED OXYGEN (mg/L) (10%)*	ORP (mV) (±20mV)	TURBIDITY (NTUs) (≤10 or 10%)	COLOR/ ODOR (describe)
1124	0.5	9.25	100	29.95	7.38	17.8	1650	1.79	-57.2	391.9	clear/NA
1130	0.5	9.75	100	29.95	7.37	17.7	1630	1.79	-56.1	97.1	clear/NA
1135	0.5	10.25	100	29.96	7.37	17.6	1630	1.75	-57.4	89.1	clear/NA
1140	0.5	10.75	100	30.01	7.35	17.4	1628	1.72	-59.0	63.5	clear/NA
1145	0.5	11.25	100	30.05	7.34	17.5	1625	1.75	-58.6	46.3	clear/NA
1150	0.5	11.75	100	30.11	7.34	17.3	1620	1.73	-57.9	35.1	clear/NA
1155	0.5	12.25	100	30.3	7.33	18.3	1629	1.52	-58.6	29.3	clear/NA
1200	0.5	12.75	100	30.4	7.32	18.3	1628	1.61	-59.7	25.2	clear/NA
1205	0.5	13.25	100	30.3	7.32	18.0	1628	1.79	-60.0	29.1	clear/NA
1210	0.5	13.75	100	30.6	7.31	18.1	1626	1.73	-63.2	18.1	clear/NA

HDR

Groundwater Sampling Form

Sample ID: MW-8

Site Information	
Site Name: Charah Brickhaven	Project Number: ~~10337473~~ 10423253
Site Location: Moncure, NC	Sampling Personnel: B. Wescott
Date: 4/2/25	Weather: 60°F Cloudy

Start 0800

Well Information	
Well Diameter (in): 2"	Purge Equipment: Mega Monsoon Pro
Screened Interval (ft): 31' - 46'	Pump Type: ESP
Well Depth (ft): ~~49.06'~~ 49.78	Pump Depth (ft-bTOC): 42'
Depth-to-Water (ft-bTOC): 31.45	Tubing Diameter (in): 3/8" X 1/2"
Water Column Thickness (ft): 18.33	Well Volume (ft^3): 2.93 gal/ft or 0.3947

1 Well Volume = (Total Depth - Static Water Level) * Well Capacity

Well Capacity (gallons per feet): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47

Purging Information

Parameter Instrument(s):

TIME	VOLUME PURGED (Liters)	CUMULATIVE VOLUME PURGED (Liters)	PURGE RATE (mL/min)	DEPTH TO WATER (ft-bTOC)	pH (SU) (±0.1)	TEMP. (C°)	COND. (µS/cm) (5%)	DISSOLVED OXYGEN (mg/L) (10%)*	ORP (mV) (±20mV)	TURBIDITY (NTUs) (≤10 or 10%)	COLOR/ ODOR (describe)
0805	1.25	1.25	250	32.30	6.98	19.2	1671	1.23	-5.4	>1000	clear/n/a
0810	1.25	2.50	250	32.60	7.01			0.97	-16.7	>1000	clear/n/a
0815	1.25	3.75	250	32.71	7.00	20.1	1870	0.35	-28.3	>1000	clear/n/a
0820	1.25	5.00	250	32.92	6.99	20.5	1876	0.25	-35.3	>1000	clear/n/a
0825	1.25	6.25	250	33.25	7.01	20.2	1781	0.13	-43.2	>1000	clear/n/a
0830	1.25	7.50	250	34.10	7.02	19.6	1778	0.53	-41.9	>1000	clear/n/a
0835	1.00	8.50	200	33.70	7.04	20.0	1705	0.21	-39.4	>1000	clear/n/a
0840	1.00	9.50	200	33.53	7.06	20.4	1630	0.44	-41.0	>1000	clear/n/a
0845	1.00	10.50	200	33.45	7.07	20.6	1583	0.11	-42.1	950	clear/n/a
0850	1.00	11.50	200	33.41	7.07	20.7	1564	0.10	-42.7	932	clear/n/a

* DO below 2.0 mg/L is stable at ±0.2 mg/L; DO below 0.5 mg/L is stable

(Purge 1.6L/min turbid. 1.1L (4.4L) system empty)

Sample Information

Sample Number	Collection Time	Parameter	Container	Preservative
MW-8	1005	Radium 226/228	2 - 1 L Poly	HNO3
	|	6010/6020/7470	1 - 250 mL Poly	HNO3
	|	Cl, F, SO4	1 - 250 mL Poly	N/A
	|	TDS	1 - 500 mL Poly	N/A
	|	pH: 7.09		

Sampled By: B. Wescott — Sample Time: 1005

Date Sampled: 4/2/25 — Sampler Signature:

Notes: Pumprate= 200 ml/min

Groundwater Sampling Form

Sample ID: MW-8

Purging Information (Page 2)

TIME	VOLUME PURGED (Liters)	CUMULATIVE VOLUME PURGED (Liters)	PURGE RATE (mL/min)	DEPTH TO WATER (ft-bTOC)	pH (SU) (±0.1)	TEMP. (C°)	COND. (µS/cm) (5%)	DISSOLVED OXYGEN (mg/L) (10%)*	ORP (mV) (±20mV)	TURBIDITY (NTUs) (≤10 or 10%)	COLOR/ ODOR (describe)
0855	1.0	12.50	200	33.41	7.05	20.8	1550	0.07	-42.8	3.12	clear NA
0900	1.0	13.50	200	33.40	7.08	20.8	1523	0.08	-41.7	266	cloudy NA
0905	1.0	14.50	200	33.40	7.09	20.9	1512	0.09	-41.1	164	cloudy NA
0910	1.0	15.50	200	33.40	7.09	21.0	1499	0.09	-41.1	125	cloudy NA
0915	1.0	16.50	200	33.40	7.09	21.0	1490	0.07	-42.5	110	slightly cloudy NA
0920	1.0	17.50	200	33.40	7.09	21.0	1486	0.07	-44.0	100	slightly cloudy NA
0925	1.0	18.50	200	33.40	7.08	20.8	1615	0.08	-43.1	120	slightly cloudy NA
0930	1.0	19.50	200	33.40	7.10	20.7	1484	0.05	-41.8	95	slightly cloudy NA
0935	1.0	20.50	200	33.40	7.10	21.2	1471	0.05	-43.1	79.1	clear NA
0940	1.0	21.50	200	33.40	7.10	21.2	1471	0.05	-44.6	66.1	clear NA
0945	1.0	22.50	200	33.40	7.09	21.3	1473	0.05	-45.7	51.9	clear NA
0950	1.0	23.50	200	33.40	7.09	21.2	1472	0.04	-46.7	49.9	clear NA
0955	1.0	24.50	200	33.40	7.09	21.3	1496	0.05	-42.8	53.4	clear NA
1000	1.0	25.50	200	33.40	7.09	21.2	1483	0.09	-43.7	56.3	clear NA

* DO below 2.0 mg/L is stable at ±0.2 mg/L; DO below 0.5 mg/L is stable

Groundwater Sampling Form

Sample ID: MW-9

Site Information	
Site Name: Charah Brickhaven	Project Number: ~~10337473~~ 10423253
Site Location: Moncure, NC	Sampling Personnel:
Date:	Weather:

Well Information	
Well Diameter (in): 2"	Purge Equipment: ~~Mega Monsoon Pro~~ Bailer
Screened Interval (ft): ~~26' - 36'~~ 26-36	Pump Type: ESP
Well Depth (ft): ~~36'~~ 39.95	Pump Depth (ft-bTOC):
Depth-to-Water (ft-bTOC): 25.38	Tubing Diameter (in): 3/8" X 1/2"
Water Column Thickness (ft): ~~39~~ 14.57	Well Volume (ft^3): 0.31 gal/ft = 1.17 ft^3
1 Well Volume = (Total Depth - Static Water Level) * Well Capacity	
Well Capacity (gallons per feet): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47	

Purging Information

Parameter Instrument(s):

TIME	VOLUME PURGED (Liters)	CUMULATIVE VOLUME PURGED (Liters)	PURGE RATE (mL/min)	DEPTH TO WATER (ft-bTOC)	pH (SU) (±0.1)	TEMP. (C°)	COND. (µS/cm) (5%)	DISSOLVED OXYGEN (mg/L) (10%)*	ORP (mV) (±20mV)	TURBIDITY (NTUs) (≤10 or 10%)	COLOR/ ODOR (describe)
		No Sample									
		Not enough recharge									

* DO below 2.0 mg/L is stable at ±0.2 mg/L; DO below 0.5 mg/L is stable

Sample Information

Sample Number	Collection Time	Parameter	Container	Preservative
MW-9		Radium 226/228	2 - 1 L Poly	HNO3
		6010/6020/7470	1 - 250 mL Poly	HNO3
		Cl, F, SO4	1 - 250 mL Poly	N/A
		TDS	1 - 500 mL Poly	N/A

Sampled By:	Sample Time:
Date Sampled:	Sampler Signature:

Notes: Pumprate=

TDR

Groundwater Sampling Form

Sample ID: MW-10

Site Information	
Site Name: Charah Brickhaven	Project Number: ~~10337473~~ 104233293
Site Location: Moncure, NC	Sampling Personnel: B. Wheeler
Date: 4/2/15	Weather: 60°F Cloudy
Start 1305	End: 1500

Well Information	
Well Diameter (in): 2"	Purge Equipment: Mega Monsoon Pro
Screened Interval (ft): 37' - 47'	Pump Type: ESP
Well Depth (ft): 49.90	Pump Depth (ft-bTOC): 48
Depth-to-Water (ft-bTOC): 31.05	Tubing Diameter (in): 3/8" X 1/2"
Water Column Thickness (ft): 18.85	Well Volume (ft^3): 3.02 gal/ft or 0.40 ft^3
1 Well Volume = (Total Depth - Static Water Level) * Well Capacity	
Well Capacity (gallons per feet): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47	

Purging Information

Parameter Instrument(s):

TIME	VOLUME PURGED (Liters)	CUMULATIVE VOLUME PURGED (Liters)	PURGE RATE (mL/min)	DEPTH TO WATER (ft-bTOC)	pH (SU) (±0.1)	TEMP. (C°)	COND. (µS/cm) (5%)	DISSOLVED OXYGEN (mg/L) (10%)*	ORP (mV) (±20mV)	TURBIDITY (NTUs) (≤10 or 10%)	COLOR/ ODOR (describe)
1310	0.5	0.5	100	32.52	7.80	18.6	618	2.13	-106.6	2100	[illegible]
1315	0.5	1.0	100	33.13	7.80	18.5	617	2.01	-112.1	2411	[illegible]
1320	0.5	1.5	100	33.55	7.82	19.0	619	1.75	-105.6	525	[illegible]
1325	0.5	2.0	100	33.89	7.79	19.3	617	0.82	-109.2	339	[illegible]
1330	0.5	2.5	100	34.35	7.79	19.5	619	0.68	-111.9	251	[illegible]
1335	0.5	3.0	100	34.95	7.79	19.6	620	0.62	-109.5	213	[illegible]
1340	0.5	3.5	100	35.10	7.79	20.3	614	0.51	-111.5	145	[illegible]
1345	0.5	4.0	100	35.41	7.78	20.6	619	0.47	-108.3	139	[illegible]
1350	0.5	4.5	100	35.70	7.78	21.0	617	0.43	-106.6	99.8	[illegible]
1355	0.5	5.0	100	35.95	7.78	21.4	618	0.40	-99.2	91.5	[illegible]

* DO below 2.0 mg/L is stable at ±0.2 mg/L; DO below 0.5 mg/L is stable

Sample Information

Sample Number	Collection Time	Parameter	Container	Preservative
MW-10	1500	Radium 226/228	2 - 1 L Poly	HNO3
		6010/6020/7470	1 - 250 mL Poly	HNO3
		Cl, F, SO4	1 - 250 mL Poly	N/A
		TDS	1 - 500 mL Poly	N/A
		pH: 7.76		

Sampled By: B. Wheeler	Sample Time: 1500
Date Sampled: 4/2/2015	Sampler Signature:

Notes: Pumprate=100 ml/min

Groundwater Sampling Form

Sample ID: MW-10

Purging Information (Page 2)

TIME	VOLUME PURGED (Liters)	CUMULATIVE VOLUME PURGED (Liters)	PURGE RATE (mL/min)	DEPTH TO WATER (ft-bTOC)	pH (SU) (±0.1)	TEMP. (C°)	COND. (µS/cm) (5%)	DISSOLVED OXYGEN (mg/L) (10%)*	ORP (mV) (±20mV)	TURBIDITY (NTUs) (≤10 or 10%)	COLOR/ ODOR (describe)
1400	0.5	5.5	100	36.15	7.77	21.8	616	0.39	-92.6	11.0	strong
1405	0.5	6.0	100	36.25	7.83	21.7	621	1.83	-80.7	3.62	cloudy
1410	0.5	6.5	100	36.52	7.77	20.1	623	1.50	-96.0	2.37	cloudy
1415	0.5	7.0	100	36.9	7.77	20.9	621	1.41	-99.0	1.01	slight
1420	0.5	7.5	100	37.2	7.77	20.9	615	1.31	-91.0	53.9	cloudy
1425	0.5	8.0	100	37.5	7.77	21.2	616	1.22	-92.1	45.8	
1430	0.5	8.5	100	37.85	7.77	21.3	620	1.19	-87.6	40.3	
1435	0.5	9.0	100	38.05	7.76	21.3	615	1.18	-83.9	32.6	
1440	0.5	9.5	100	38.32	7.76	21.7	621	1.08	-95.3	34.1	
1445	0.5	10.0	100	38.60	7.76	21.6	620	1.07	-82.9	30.6	
1450	0.5	10.5	100	38.72	7.75	21.8	620	1.01	-71.6	28.1	
1459	0.5	11.0	100	39.10	7.76	22.-	621	0.93	-67.8	25.5	clear

* DO below 2.0 mg/L is stable at ±0.2 mg/L; DO below 0.5 mg/L is stable

Groundwater Sampling Form

Sample ID: MW-11

Site Information	
Site Name: Charah Brickhaven	Project Number: 10337473 10423253
Site Location: Moncure, NC	Sampling Personnel: B. Lovelace
Date: 4/3	Weather: 70°F Cloudy

Start 0945 End 1105

Well Information	
Well Diameter (in): 2"	Purge Equipment: Mega Monsoon Pro
Screened Interval (ft): 28.50' - 43.50'	Pump Type: ESP
Well Depth (ft): ~~43.50'~~ 43.45	Pump Depth (ft-bTOC): 35
Depth-to-Water (ft-bTOC): 9.81	Tubing Diameter (in): 3/8" X 1/2"
Water Column Thickness (ft): 33.64	Well Volume (ft^3): 5.38 gal/ft or 0.726 ft^3

1 Well Volume = (Total Depth - Static Water Level) * Well Capacity

Well Capacity (gallons per feet): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3' = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47

Purging Information

Parameter Instrument(s):

TIME	VOLUME PURGED (Liters)	CUMULATIVE VOLUME PURGED (Liters)	PURGE RATE (ml/min)	DEPTH TO WATER (ft-bTOC)	pH (SU) (±0.1)	TEMP. (C°)	COND. (µS/cm) (5%)	DISSOLVED OXYGEN (mg/L) (10%)*	ORP (mV) (±20mV)	TURBIDITY (NTUs) (≤10 or 10%)	COLOR/ ODOR (describe)
~~1000~~	1	1	200	10.90	6.67	16.5	834	1.85	-143.3	66.7	cloudy NA
1005	1	2	200	11.55	6.64	16.6	816	1.70	-116.1	566	cloudy NA
1010	1	3	200	12.44	6.63	16.8	806	1.69	-63.7	560	cloudy NA
1015	1	4	200	13.90	6.62	17.1	810	0.93	-72.1	462	cloudy NA
1020	1	5	200	14.72	6.62	17.2	809	0.57	-83.8	321	cloudy NA
1025	1	6	200	15.45	6.61	17.2	816	0.51	-183.0	161	slightly cloudy NA
1030	1	7	200	15.56	6.61	17.2	819	0.48	-183.0	100	slightly cloudy
1035	1	8	200	16.35	6.60	17.3	820	0.47	-182.9	830	cloudy NA
1040	1	9	200	16.06	6.60	17.3	825	0.45	-186.6	56.3	clear NA
1045	1	10	200	16.90	6.59	17.3	829	0.42	-181.1	31.5	clear NA

* DO below 2.0 mg/L is stable at ±0.2 mg/L; DO below 0.5 mg/L is stable

Sample Information

Sample Number	Collection Time	Parameter	Container	Preservative
MW-11	1105	Radium 226/228	2 - 1 L Poly	HNO3
		6010/6020/7470	1 - 250 mL Poly	HNO3
		Cl, F, SO4	1 - 250 mL Poly	N/A
		TDS	1 - 500 mL Poly	N/A

Sampled By: B Lovelace	Sample Time: 1105
Date Sampled: 4/3/25	Sampler Signature:

Notes: Pumprate= 200 mL

Groundwater Sampling Form

Sample ID: MW-11

Purging Information (Page 2)

TIME	VOLUME PURGED (Liters)	CUMULATIVE VOLUME PURGED (Liters)	PURGE RATE (mL/min)	DEPTH TO WATER (ft-bTOC)	pH (SU) (±0.1)	TEMP. (C°)	COND. (µS/cm) (5%)	DISSOLVED OXYGEN (mg/L) (10%)*	ORP (mV) (±20mV)	TURBIDITY (NTUs) (≤10 or 10%)	COLOR/ ODOR (describe)
1040	1	11	200	17.23	6.54	17.4	837	0.38	-216.4	22.1	clear/ none
1055	1	12	200	17.4	6.58	17.4	836	0.37	-214.9	14.3	clear/ none
1100	1	13	200	17.91	6.65	17.4	833	0.36	-215.9	9.5	clear/ none

* DO below 2.0 mg/L is stable at ±0.2 mg/L; DO below 0.5 mg/L is stable

Groundwater Sampling Form

Sample ID: MW-11D

Site Information	
Site Name: Charah Brickhaven	Project Number: ~~10337473~~ 10412325.3
Site Location: Moncure, NC	Sampling Personnel: B. Cousins
Date: 4/3/25	Weather:

Start 0900 End 0946

Well Information	
Well Diameter (in): 2"	Purge Equipment: Mega Monsoon Pro
Screened Interval (ft): 50' - 65'	Pump Type: ESP
Well Depth (ft): 68.18'	Pump Depth (ft-bTOC): 55
Depth-to-Water (ft-bTOC): 6.47	Tubing Diameter (in): 3/8" X 1/2"
Water Column Thickness (ft): 61.71	Well Volume (ft^3): 9.87gal/61 = 1.326 ft^3

1 Well Volume = (Total Depth - Static Water Level) * Well Capacity

Well Capacity (gallons per feet): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47

Purging Information

Parameter Instrument(s):

TIME	VOLUME PURGED (Liters)	CUMULATIVE VOLUME PURGED (Liters)	PURGE RATE (mL/min)	DEPTH TO WATER (ft-bTOC)	pH (SU) (±0.1)	TEMP. (C°)	COND. (µS/cm) (5%)	DISSOLVED OXYGEN (mg/L) (10%)*	ORP (mV) (±20mV)	TURBIDITY (NTUs) (≤10 or 10%)	COLOR/ ODOR (describe)
0905	1	1	200		8.12	17.1	600.3	5.72	-101.2	12.30	clear
0910	1	2	200	8.80	8.10	16.5	581.3	4.45	-103.9	9.18	clear
0915	1	3	200	8.90	8.10	16.0	582.6	3.19	-113.3	5.21	clear
0920	1	4	200	9.20	8.10	16.2	582.3	2.39	-125.3	4.99	clear
0925	1	5	200	9.40	8.09	16.4	581.9	1.80	-135.3	3.85	clear
0930	1	6	200	9.50	8.08	16.6	581.5	1.75	-138.7	3.61	clear
0935	1	7	200	9.58	8.09	16.6	581.4	1.65	-141.3	3.09	clear

* DO below 2.0 mg/L is stable at ±0.2 mg/L; DO below 0.5 mg/L is stable

Sample Information

Sample Number	Collection Time	Parameter	Container	Preservative
MW-11D		Radium 226/228	2 - 1 L Poly	HNO3
		6010/6020/7470	1 - 250 mL Poly	HNO3
		Cl, F, SO4	1 - 250 mL Poly	N/A
		TDS	1 - 500 mL Poly	N/A

Sampled By: B. Cousins	Sample Time: 0940
Date Sampled: 4/3/25	Sampler Signature:

Notes: Pumprate=200ml/min

Groundwater Sampling Form

Sample ID: SW-1

Site Information	
Site Name: Charah Brickhaven	**Project Number:** 104123253
Site Location: Moncure, NC	**Sampling Personnel:** B. Cowles
Date: 4/2/25	**Weather:** 60°F Cloudy

Well Information	
Well Diameter (in): N/A	**Purge Equipment:** N/A
Screened Interval (ft): N/A	**Pump Type:** N/A
Well Depth (ft): N/A	**Pump Depth (ft-bTOC):** N/A
Depth-to-Water (ft-bTOC): N/A	**Tubing Diameter (in):** N/A
Water Column Thickness (ft): N/A	**Well Volume (ft^3):** N/A

1 Well Volume = (Total Depth - Static Water Level) * Well Capacity

Well Capacity (gallons per feet): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3' = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47

Purging Information

Parameter Instrument(s):

TIME	VOLUME PURGED (Liters)	CUMULATIVE VOLUME PURGED (Liters)	PURGE RATE (mL/min)	DEPTH TO WATER (ft-bTOC)	pH (SU) (±0.1)	TEMP. (C°)	COND. (µS/cm) (5%)	DISSOLVED OXYGEN (mg/L) (10%)*	ORP (mV) (±20mV)	TURBIDITY (NTUs) (≤10 or 10%)	COLOR/ ODOR (describe)
1110	—	—	—	—	6.82	16.0	53	6.74	195.4	>100	cloudy

* DO below 2.0 mg/L is stable at ±0.2 mg/L; DO below 0.5 mg/L is stable

Sample Information

Sample Number	Collection Time	Parameter	Container	Preservative
SW-1	1110	Radium 226/228	2 - 1 L Poly	HNO3
		6010/6020/7470	1 - 250 mL Poly	HNO3
		Cl, F, SO4	1 - 250 mL Poly	N/A
		TDS	1 - 500 mL Poly	N/A

Sampled By: B. Cowles	**Sample Time:** 1110
Date Sampled: 4/2/25	**Sampler Signature:**

Notes: Pumprate= NA

Groundwater Sampling Form

Sample ID: SW-2

Site Information	
Site Name: Charah Brickhaven	Project Number: 10423253
Site Location: Moncure, NC	Sampling Personnel: B. Cousins
Date: 4/2/25	Weather: 60°F Cloudy

Well Information	
Well Diameter (in): N/A	Purge Equipment: N/A
Screened Interval (ft): N/A	Pump Type: N/A
Well Depth (ft): N/A	Pump Depth (ft-bTOC): N/A
Depth-to-Water (ft-bTOC): N/A	Tubing Diameter (in): N/A
Water Column Thickness (ft): N/A	Well Volume (ft^3): N/A

1 Well Volume = (Total Depth - Static Water Level) * Well Capacity

Well Capacity (gallons per feet): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3' = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47

Purging Information

Parameter Instrument(s):

TIME	VOLUME PURGED (Liters)	CUMULATIVE VOLUME PURGED (Liters)	PURGE RATE (mL/min)	DEPTH TO WATER (ft-bTOC)	pH (SU) (±0.1)	TEMP. (C°)	COND. (µS/cm) (5%)	DISSOLVED OXYGEN (mg/L) (10%)*	ORP (mV) (±20mV)	TURBIDITY (NTUs) (≤10 or 10%)	COLOR/ ODOR (describe)
CFAS	—	—	—	—	8.39	14.1	615	5.83	42.5	20.5	Clear/N

* DO below 2.0 mg/L is stable at ±0.2 mg/L; DO below 0.5 mg/L is stable

Sample Information

Sample Number	Collection Time	Parameter	Container	Preservative
SW-2	0905	Radium 226/228	2 - 1 L Poly	HNO3
		6010/6020/7470	1 - 250 mL Poly	HNO3
		Cl, F, SO4	1 - 250 mL Poly	N/A
		TDS	1 - 500 mL Poly	N/A

Sampled By: B. Cousins	Sample Time: 0905
Date Sampled: 4/2/25	Sampler Signature:

Notes: Pumprate= NA

Groundwater Sampling Form

Sample ID: SW-3

Site Information	
Site Name: Charah Brickhaven	Project Number: 104123253
Site Location: Moncure, NC	Sampling Personnel: B. Jacobs
Date: 4/2/25	Weather: 60°F Cloudy

Well Information	
Well Diameter (in): N/A	Purge Equipment: N/A
Screened Interval (ft): N/A	Pump Type: N/A
Well Depth (ft): N/A	Pump Depth (ft-bTOC): N/A
Depth-to-Water (ft-bTOC): N/A	Tubing Diameter (in): N/A
Water Column Thickness (ft): N/A	Well Volume (ft^3): N/A
1 Well Volume = (Total Depth - Static Water Level) * Well Capacity	
Well Capacity (gallons per feet): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47	

Purging Information

Parameter Instrument(s):

TIME	VOLUME PURGED (Liters)	CUMULATIVE VOLUME PURGED (Liters)	PURGE RATE (mL/min)	DEPTH TO WATER (ft-bTOC)	pH (SU) (±0.1)	TEMP. (C°)	COND. (µS/cm) (5%)	DISSOLVED OXYGEN (mg/L) (10%)*	ORP (mV) (±20mV)	TURBIDITY (NTUs) (≤10 or 10%)	COLOR/ ODOR (describe)
0934	—	—	—	—	7.11	14.5	324	6.83	71.6	35.7	Clear

* DO below 2.0 mg/L is stable at ±0.2 mg/L; DO below 0.5 mg/L is stable

Sample Information

Sample Number	Collection Time	Parameter	Container	Preservative
SW-3	0935	Radium 226/228	2 - 1 L Poly	HNO3
		6010/6020/7470	1 - 250 mL Poly	HNO3
		Cl, F, SO4	1 - 250 mL Poly	N/A
		TDS	1 - 500 mL Poly	N/A

Sampled By: B. Jacobs	Sample Time: 0935
Date Sampled: 4/2/25	Sampler Signature:

Notes: Pumprate=

Groundwater Sampling Form

Sample ID: SW-4

Site Information	
Site Name: Charah Brickhaven	Project Number: 104233253
Site Location: Moncure, NC	Sampling Personnel: B. Wessels
Date: 9/8/25	Weather: 60°F Cloudy

Well Information	
Well Diameter (in): N/A	Purge Equipment: N/A
Screened Interval (ft): N/A	Pump Type: N/A
Well Depth (ft): N/A	Pump Depth (ft-bTOC): N/A
Depth-to-Water (ft-bTOC): N/A	Tubing Diameter (in): N/A
Water Column Thickness (ft): N/A	Well Volume (ft^3): N/A

1 Well Volume = (Total Depth - Static Water Level) * Well Capacity

Well Capacity (gallons per feet): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47

Purging Information

Parameter Instrument(s):

TIME	VOLUME PURGED (Liters)	CUMULATIVE VOLUME PURGED (Liters)	PURGE RATE (mL/min)	DEPTH TO WATER (ft-bTOC)	pH (SU) (±0.1)	TEMP. (C°)	COND. (µS/cm) (5%)	DISSOLVED OXYGEN (mg/L) (10%)*	ORP (mV) (±20mV)	TURBIDITY (NTUs) (≤10 or 10%)	COLOR/ ODOR (describe)
			DRY								
			No Sample								

* DO below 2.0 mg/L is stable at ±0.2 mg/L; DO below 0.5 mg/L is stable

Sample Information

Sample Number	Collection Time	Parameter	Container	Preservative
SW-4		Radium 226/228	2 - 1 L Poly	HNO3
		6010/6020/7470	1 - 250 mL Poly	HNO3
		Cl, F, SO4	1 - 250 mL Poly	N/A
		TDS	1 - 500 mL Poly	N/A

Sampled By:	Sample Time:
Date Sampled:	Sampler Signature:

Notes: Pumprate=

Groundwater Sampling Form

Sample ID: SW-5

Site Information	
Site Name: Charah Brickhaven	Project Number: 104232.53
Site Location: Moncure, NC	Sampling Personnel: B. Cuthbertson
Date: 4/21/25	Weather: 60s Cloudy

Well Information	
Well Diameter (in): N/A	Purge Equipment: N/A
Screened Interval (ft): N/A	Pump Type: N/A
Well Depth (ft): N/A	Pump Depth (ft-bTOC): N/A
Depth-to-Water (ft-bTOC): N/A	Tubing Diameter (in): N/A
Water Column Thickness (ft): N/A	Well Volume (ft^3): N/A

1 Well Volume = (Total Depth - Static Water Level) * Well Capacity

Well Capacity (gallons per feet): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3' = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47

Purging Information

Parameter Instrument(s):

TIME	VOLUME PURGED (Liters)	CUMULATIVE VOLUME PURGED (Liters)	PURGE RATE (mL/min)	DEPTH TO WATER (ft bTOC)	pH (SU) (±0.1)	TEMP. (C°)	COND. (µS/cm) (5%)	DISSOLVED OXYGEN (mg/L) (10%)*	ORP (mV) (±20mV)	TURBIDITY (NTUs) (≤10 or 10%)	COLOR/ ODOR (describe)
1200					6.14	14.8					None
								meter error			

* DO below 2.0 mg/L is stable at ±0.2 mg/L; DO below 0.5 mg/L is stable

Sample Information

Sample Number	Collection Time	Parameter	Container	Preservative
SW-5	1200	Radium 226/228	2 - 1 L Poly	HNO3
		6010/6020/7470	1 - 250 mL Poly	HNO3
		Cl, F, SO4	1 - 250 mL Poly	N/A
		TDS	1 - 500 mL Poly	N/A

Sampled By: B. Cuthbertson	Sample Time: 1200
Date Sampled: 4/21/25	Sampler Signature:

Notes: Pumprate=NA

Groundwater Sampling Form

Sample ID: SW-6

Site Information	
Site Name: Charah Brickhaven	Project Number: 60423253
Site Location: Moncure, NC	Sampling Personnel: B. Wrigley
Date:	Weather: 60°F Cloudy

Well Information	
Well Diameter (in): N/A	Purge Equipment: N/A
Screened Interval (ft): N/A	Pump Type: N/A
Well Depth (ft): N/A	Pump Depth (ft-bTOC): N/A
Depth-to-Water (ft-bTOC): N/A	Tubing Diameter (in): N/A
Water Column Thickness (ft): N/A	Well Volume (ft^3): N/A
1 Well Volume = (Total Depth - Static Water Level) * Well Capacity	
Well Capacity (gallons per feet): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47	

Purging Information

Parameter Instrument(s):

TIME	VOLUME PURGED (Liters)	CUMULATIVE VOLUME PURGED (Liters)	PURGE RATE (mL/min)	DEPTH TO WATER (ft-bTOC)	pH (SU) (±0.1)	TEMP. (C°)	COND. (µS/cm) (5%)	DISSOLVED OXYGEN (mg/L) (10%)*	ORP (mV) (±20mV)	TURBIDITY (NTUs) (≤10 or 10%)	COLOR/ ODOR (describe)
1125					6.05	17.2	66.7	6.26	150	7000	Clear

* DO below 2.0 mg/L is stable at ±0.2 mg/L; DO below 0.5 mg/L is stable

Sample Information

Sample Number	Collection Time	Parameter	Container	Preservative
SW-6	1135	Radium 226/228	2 - 1 L Poly	HNO3
		6010/6020/7470	1 - 250 mL Poly	HNO3
		Cl, F, SO4	1 - 250 mL Poly	N/A
		TDS	1 - 500 mL Poly	N/A

Sampled By:	B. Wrigley	Sample Time:	1135
Date Sampled:	6/12/25	Sampler Signature:	

Notes: Pumprate=

B

Appendix B – Laboratory Results, Chains of Custody, and Quality Control Data

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Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

February 28, 2025

Mark Filardi
HDR
440 S. Church St
Suite 900
Charlotte, NC 28202

RE: Project: Charah 1st quarter GW monitori
Pace Project No.: 92775785

Dear Mark Filardi:

Enclosed are the analytical results for sample(s) received by the laboratory on January 24, 2025. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Asheville
- Pace Analytical Services - Greensburg

Revised 2/28/25 to add anions, per client request.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Angela M. Baioni

Angela Baioni
angela.baioni@pacelabs.com
612-473-6801
Project Manager

Enclosures

cc: Mark Filardi, HDR Engineering

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Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

CERTIFICATIONS

Project: Charah 1st quarter GW monitori
Pace Project No.: 92775785

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
ANABISO/IEC 17025:2017 Rad Cert#: L24170
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 2950
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA010
Louisiana DEQ/TNI Certification #: 04086
Maine Certification #: 2023021
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572023-03
New Hampshire/TNI Certification #: 297622
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-015
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN02867
Texas/TNI Certification #: T104704188-22-18
Utah/TNI Certification #: PA014572223-14
USDA Soil Permit #: 525-23-67-77263
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad

Pace Analytical Services Asheville

2225 Riverside Drive, Asheville, NC 28804
Florida/NELAP Certification #: E87648
North Carolina Drinking Water Certification #: 37712
North Carolina Wastewater Certification #: 40
South Carolina Laboratory ID: 99030
South Carolina Certification #: 99030001
Virginia/VELAP Certification #: 460222

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

SAMPLE SUMMARY

Project: Charah 1st quarter GW monitori
Pace Project No.: 92775785

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92775785001	**BG-1**	Water	01/20/25 15:20	01/24/25 12:00
92775785002	**BG-2**	Water	01/21/25 15:50	01/24/25 12:00
92775785003	**MW-1**	Water	01/20/25 17:15	01/24/25 12:00
92775785004	**MW-2**	Water	01/23/25 13:55	01/24/25 12:00
92775785005	**MW-2D**	Water	01/23/25 14:35	01/24/25 12:00
92775785006	**MW-3**	Water	01/23/25 12:25	01/24/25 12:00
92775785007	**MW-4**	Water	01/23/25 11:05	01/24/25 12:00
92775785008	**MW-5**	Water	01/22/25 15:50	01/24/25 12:00
92775785009	**MW-6**	Water	01/22/25 10:55	01/24/25 12:00
92775785010	**MW-7R**	Water	01/22/25 12:25	01/24/25 12:00
92775785011	**MW-8**	Water	01/21/25 11:40	01/24/25 12:00
92775785012	**MW-9**	Water	01/23/25 15:55	01/24/25 12:00
92775785013	**MW-10**	Water	01/22/25 13:50	01/24/25 12:00
92775785014	**MW-11**	Water	01/21/25 13:15	01/24/25 12:00
92775785015	**MW-11D**	Water	01/21/25 14:00	01/24/25 12:00
92775785016	**DUP**	Water	01/22/25 11:30	01/24/25 12:00
92775785017	**EQBL**	Water	01/24/25 08:00	01/24/25 12:00
92775785018	**LEACHATE**	Water	01/23/25 17:15	01/24/25 12:00
92775785019	**SW-6**	Water	01/23/25 16:30	01/24/25 12:00

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9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

SAMPLE ANALYTE COUNT

Project: Charah 1st quarter GW monitori
Pace Project No.: 92775785

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92775785001	**BG-1**	EPA 6010D	MGW	16	PASI-A
		EPA 6020B	KML, KRL	3	PASI-A
		EPA 7470A	MAB2	1	PASI-A
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2540C-2015	CDM	1	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92775785002	**BG-2**	EPA 6010D	MGW	16	PASI-A
		EPA 6020B	KML, KRL	3	PASI-A
		EPA 7470A	MAB2	1	PASI-A
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2540C-2015	CDM	1	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92775785003	**MW-1**	EPA 6010D	DBB1, MGW	16	PASI-A
		EPA 6020B	KML, KRL	3	PASI-A
		EPA 7470A	MAB2	1	PASI-A
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2540C-2015	CDM	1	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92775785004	**MW-2**	EPA 6010D	DBB1, MGW	16	PASI-A
		EPA 6020B	KML, KRL	3	PASI-A
		EPA 7470A	MAB2	1	PASI-A
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2540C-2015	CDM	1	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92775785005	**MW-2D**	EPA 6010D	MGW	16	PASI-A
		EPA 6020B	KML, KRL	3	PASI-A
		EPA 7470A	MAB2	1	PASI-A
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA

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SAMPLE ANALYTE COUNT

Project: Charah 1st quarter GW monitori
Pace Project No.: 92775785

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2540C-2015	CDM	1	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92775785006	**MW-3**	EPA 6010D	DBB1, MGW	16	PASI-A
		EPA 6020B	KRL	3	PASI-A
		EPA 7470A	MAB2	1	PASI-A
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2540C-2015	CDM	1	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92775785007	**MW-4**	EPA 6010D	DBB1, MGW	16	PASI-A
		EPA 6020B	KRL	3	PASI-A
		EPA 7470A	MAB2	1	PASI-A
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2540C-2015	CDM	1	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92775785008	**MW-5**	EPA 6010D	MGW	16	PASI-A
		EPA 6020B	KRL	3	PASI-A
		EPA 7470A	MAB2	1	PASI-A
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2540C-2015	CDM	1	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92775785009	**MW-6**	EPA 6010D	MGW	16	PASI-A
		EPA 6020B	KRL	3	PASI-A
		EPA 7470A	MAB2	1	PASI-A
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2540C-2015	CDM	1	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92775785010	**MW-7R**	EPA 6010D	MGW	16	PASI-A
		EPA 6020B	KRL	3	PASI-A

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SAMPLE ANALYTE COUNT

Project: Charah 1st quarter GW monitori
Pace Project No.: 92775785

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 7470A	MAB2	1	PASI-A
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2540C-2015	CDM	1	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92775785011	**MW-8**	EPA 6010D	DBB1, MGW	16	PASI-A
		EPA 6020B	KRL	3	PASI-A
		EPA 7470A	MAB2	1	PASI-A
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2540C-2015	CDM	1	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92775785012	**MW-9**	EPA 6010D	MGW	16	PASI-A
		EPA 6020B	KRL	3	PASI-A
		EPA 7470A	MAB2	1	PASI-A
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2540C-2015	CDM	1	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92775785013	**MW-10**	EPA 6010D	MGW	16	PASI-A
		EPA 6020B	KRL	3	PASI-A
		EPA 7470A	MAB2	1	PASI-A
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2540C-2015	CDM	1	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92775785014	**MW-11**	EPA 6010D	MGW	16	PASI-A
		EPA 6020B	KRL	3	PASI-A
		EPA 7470A	MAB2	1	PASI-A
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2540C-2015	CDM	1	PASI-A

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SAMPLE ANALYTE COUNT

Project: Charah 1st quarter GW monitori
Pace Project No.: 92775785

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92775785015	**MW-11D**	EPA 6010D	MGW	16	PASI-A
		EPA 6020B	KRL	3	PASI-A
		EPA 7470A	MAB2	1	PASI-A
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2540C-2015	CDM	1	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92775785016	**DUP**	EPA 6010D	MGW	16	PASI-A
		EPA 6020B	KRL	3	PASI-A
		EPA 7470A	MAB2	1	PASI-A
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2540C-2015	CDM	1	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92775785017	**EQBL**	EPA 6010D	MGW	16	PASI-A
		EPA 6020B	KRL	3	PASI-A
		EPA 7470A	MAB2	1	PASI-A
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2540C-2015	CMW1	1	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92775785018	**LEACHATE**	EPA 6010D	MGW	16	PASI-A
		EPA 6020B	KML, KRL	3	PASI-A
		EPA 7470A	MAB2	1	PASI-A
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2540C-2015	CDM	1	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92775785019	**SW-6**	EPA 6010D	MGW	16	PASI-A
		EPA 6020B	KRL	3	PASI-A
		EPA 7470A	MAB2	1	PASI-A
		EPA 903.1	CLM	1	PASI-PA

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SAMPLE ANALYTE COUNT

Project: Charah 1st quarter GW monitori
Pace Project No.: 92775785

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2540C-2015	CDM	1	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A

PASI-A = Pace Analytical Services - Asheville
PASI-PA = Pace Analytical Services - Greensburg

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SUMMARY OF DETECTION

Project: Charah 1st quarter GW monitori
Pace Project No.: 92775785

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92775785001	**BG-1**					
EPA 6010D	Barium	283	ug/L	5.0	01/29/25 15:03	
EPA 6010D	Calcium	23900	ug/L	100	01/29/25 15:03	
EPA 6010D	Copper	3.0J	ug/L	5.0	01/29/25 15:03	
EPA 6010D	Nickel	1.0J	ug/L	5.0	01/29/25 15:03	
EPA 6010D	Vanadium	5.8	ug/L	5.0	01/29/25 15:03	
EPA 6010D	Zinc	11.2	ug/L	10.0	01/29/25 15:03	
EPA 6020B	Boron	8.6J	ug/L	50.0	02/07/25 16:20	
EPA 6020B	Lithium	31.1	ug/L	2.5	02/06/25 00:35	
EPA 903.1	Radium-226	0.373 ± 0.710 (1.23) C:NA T:87%	pCi/L		02/18/25 14:05	
EPA 904.0	Radium-228	0.410 ± 0.348 (0.692) C:79% T:83%	pCi/L		02/11/25 14:45	
Total Radium Calculation	Total Radium	0.783 ± 1.06 (1.92)	pCi/L		02/19/25 14:08	
SM 2540C-2015	Total Dissolved Solids	552	mg/L	50.0	01/25/25 11:39	
EPA 300.0 Rev 2.1 1993	Chloride	180	mg/L	4.0	02/27/25 08:37	H1,M1
EPA 300.0 Rev 2.1 1993	Fluoride	0.19	mg/L	0.10	02/27/25 02:12	H1
EPA 300.0 Rev 2.1 1993	Sulfate	20.0	mg/L	1.0	02/27/25 02:12	H1
92775785002	**BG-2**					
EPA 6010D	Barium	52.3	ug/L	5.0	01/29/25 15:16	
EPA 6010D	Calcium	95000	ug/L	100	01/29/25 15:16	
EPA 6010D	Cobalt	1.3J	ug/L	5.0	01/29/25 15:16	
EPA 6010D	Copper	1.0J	ug/L	5.0	01/29/25 15:16	
EPA 6010D	Nickel	1.7J	ug/L	5.0	01/29/25 15:16	
EPA 6010D	Silver	0.70J	ug/L	5.0	01/29/25 15:16	
EPA 6010D	Zinc	4.5J	ug/L	10.0	01/29/25 15:16	
EPA 6020B	Boron	16.7J	ug/L	50.0	02/07/25 16:23	
EPA 6020B	Lithium	22.1	ug/L	2.5	02/06/25 00:39	
EPA 903.1	Radium-226	0.326 ± 0.641 (1.12) C:NA T:91%	pCi/L		02/18/25 14:05	
EPA 904.0	Radium-228	1.12 ± 0.445 (0.664) C:83% T:82%	pCi/L		02/11/25 14:46	
Total Radium Calculation	Total Radium	1.45 ± 1.09 (1.78)	pCi/L		02/19/25 14:08	
SM 2540C-2015	Total Dissolved Solids	1300	mg/L	50.0	01/25/25 11:39	
EPA 300.0 Rev 2.1 1993	Chloride	250	mg/L	6.0	02/27/25 10:05	H1
EPA 300.0 Rev 2.1 1993	Fluoride	0.36	mg/L	0.10	02/27/25 03:41	H1
EPA 300.0 Rev 2.1 1993	Sulfate	181	mg/L	6.0	02/27/25 10:05	H1

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: Charah 1st quarter GW monitori
Pace Project No.: 92775785

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92775785003	**MW-1**					
EPA 6010D	Arsenic	3.5J	ug/L	10.0	01/29/25 15:19	
EPA 6010D	Barium	136	ug/L	5.0	01/29/25 15:19	
EPA 6010D	Calcium	128000	ug/L	500	01/29/25 19:13	
EPA 6010D	Copper	0.93J	ug/L	5.0	01/29/25 15:19	
EPA 6010D	Nickel	1.3J	ug/L	5.0	01/29/25 15:19	
EPA 6010D	Silver	0.70J	ug/L	5.0	01/29/25 15:19	
EPA 6010D	Vanadium	3.4J	ug/L	5.0	01/29/25 15:19	
EPA 6010D	Zinc	4.9J	ug/L	10.0	01/29/25 15:19	
EPA 6020B	Boron	10.9J	ug/L	50.0	02/07/25 16:27	
EPA 6020B	Lithium	29.5	ug/L	2.5	02/06/25 00:43	
EPA 903.1	Radium-226	-0.407 ± 0.389 (0.908) C:NA T:93%	pCi/L		02/18/25 14:05	
EPA 904.0	Radium-228	0.460 ± 0.349 (0.681) C:77% T:89%	pCi/L		02/11/25 14:45	
Total Radium Calculation	Total Radium	0.460 ± 0.738 (1.59)	pCi/L		02/19/25 14:08	
SM 2540C-2015	Total Dissolved Solids	950	mg/L	50.0	01/25/25 11:39	
EPA 300.0 Rev 2.1 1993	Chloride	350	mg/L	8.0	02/27/25 09:51	H1
EPA 300.0 Rev 2.1 1993	Fluoride	0.17	mg/L	0.10	02/27/25 02:57	H1
EPA 300.0 Rev 2.1 1993	Sulfate	5.0	mg/L	1.0	02/27/25 02:57	H1
92775785004	**MW-2**					
EPA 6010D	Arsenic	5.8J	ug/L	10.0	01/29/25 15:22	
EPA 6010D	Barium	334	ug/L	5.0	01/29/25 15:22	
EPA 6010D	Calcium	188000	ug/L	500	01/29/25 19:16	
EPA 6010D	Chromium	5.4	ug/L	5.0	01/29/25 15:22	
EPA 6010D	Cobalt	0.81J	ug/L	5.0	01/29/25 15:22	
EPA 6010D	Copper	2.7J	ug/L	5.0	01/29/25 15:22	
EPA 6010D	Nickel	5.3	ug/L	5.0	01/29/25 15:22	
EPA 6010D	Silver	0.88J	ug/L	5.0	01/29/25 15:22	
EPA 6010D	Vanadium	1.9J	ug/L	5.0	01/29/25 15:22	
EPA 6010D	Zinc	44.7	ug/L	10.0	01/29/25 15:22	
EPA 6020B	Boron	46.0J	ug/L	50.0	02/07/25 16:31	
EPA 6020B	Lithium	117	ug/L	2.5	02/06/25 00:47	
EPA 6020B	Thallium	0.037J	ug/L	0.20	02/07/25 16:31	
EPA 903.1	Radium-226	1.14 ± 0.712 (1.03) C:NA T:94%	pCi/L		02/18/25 14:46	
EPA 904.0	Radium-228	1.66 ± 0.623 (0.961) C:77% T:87%	pCi/L		02/11/25 14:47	

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SUMMARY OF DETECTION

Project: Charah 1st quarter GW monitori
Pace Project No.: 92775785

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92775785004	**MW-2**					
Total Radium Calculation	Total Radium	2.80 ± 1.34 (1.99)	pCi/L		02/19/25 14:08	
SM 2540C-2015	Total Dissolved Solids	2340	mg/L	250	01/29/25 14:21	
EPA 300.0 Rev 2.1 1993	Chloride	962	mg/L	20.0	02/27/25 06:54	H1
EPA 300.0 Rev 2.1 1993	Fluoride	0.21	mg/L	0.10	02/27/25 13:16	H1
EPA 300.0 Rev 2.1 1993	Sulfate	66.4	mg/L	1.0	02/27/25 13:16	H1
92775785005	**MW-2D**					
EPA 6010D	Arsenic	25.0	ug/L	10.0	01/29/25 15:25	
EPA 6010D	Barium	122	ug/L	5.0	01/29/25 15:25	
EPA 6010D	Calcium	14000	ug/L	100	01/29/25 15:25	
EPA 6010D	Chromium	33.4	ug/L	5.0	01/29/25 15:25	
EPA 6010D	Copper	10.6	ug/L	5.0	01/29/25 15:25	
EPA 6010D	Molybdenum	223	ug/L	5.0	01/29/25 15:25	
EPA 6010D	Nickel	11.9	ug/L	5.0	01/29/25 15:25	
EPA 6010D	Selenium	6.3J	ug/L	10.0	01/29/25 15:25	
EPA 6010D	Vanadium	128	ug/L	5.0	01/29/25 15:25	
EPA 6010D	Zinc	40.0	ug/L	10.0	01/29/25 15:25	
EPA 6020B	Boron	40.6J	ug/L	50.0	02/07/25 16:34	
EPA 6020B	Lithium	158	ug/L	2.5	02/06/25 00:50	
EPA 903.1	Radium-226	0.229 ± 0.954 (1.82) C:NA T:92%	pCi/L		02/18/25 14:46	
EPA 904.0	Radium-228	1.45 ± 1.10 (2.20) C:79% T:80%	pCi/L		02/11/25 14:48	
Total Radium Calculation	Total Radium	1.68 ± 2.05 (4.02)	pCi/L		02/19/25 14:08	
SM 2540C-2015	Total Dissolved Solids	510	mg/L	50.0	01/29/25 14:21	
EPA 300.0 Rev 2.1 1993	Chloride	104	mg/L	2.0	02/27/25 12:47	H1
EPA 300.0 Rev 2.1 1993	Fluoride	2.8	mg/L	0.10	02/27/25 07:09	H1
EPA 300.0 Rev 2.1 1993	Sulfate	31.8	mg/L	1.0	02/27/25 07:09	H1
92775785006	**MW-3**					
EPA 6010D	Arsenic	4.2J	ug/L	10.0	01/30/25 15:41	
EPA 6010D	Barium	748	ug/L	5.0	01/30/25 15:41	
EPA 6010D	Calcium	326000	ug/L	1000	01/30/25 19:19	M1
EPA 6010D	Cobalt	0.90J	ug/L	5.0	01/30/25 15:41	
EPA 6010D	Copper	2.4J	ug/L	5.0	01/30/25 15:41	
EPA 6010D	Nickel	1.8J	ug/L	5.0	01/30/25 15:41	
EPA 6010D	Silver	0.85J	ug/L	5.0	01/30/25 15:41	
EPA 6010D	Vanadium	1.7J	ug/L	5.0	01/30/25 15:41	
EPA 6010D	Zinc	3.5J	ug/L	10.0	01/30/25 15:41	
EPA 6020B	Boron	47.8J	ug/L	50.0	02/13/25 12:53	
EPA 6020B	Lithium	84.4	ug/L	2.5	02/11/25 15:37	
EPA 903.1	Radium-226	0.651 ± 0.745 (1.23) C:NA T:94%	pCi/L		02/18/25 14:46	

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SUMMARY OF DETECTION

Project: Charah 1st quarter GW monitori
Pace Project No.: 92775785

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92775785006	**MW-3**					
EPA 904.0	Radium-228	1.83 ± 0.654 (0.982) C:74% T:87%	pCi/L		02/11/25 14:47	
Total Radium Calculation	Total Radium	2.48 ± 1.40 (2.21)	pCi/L		02/19/25 14:08	
SM 2540C-2015	Total Dissolved Solids	2160	mg/L	250	01/29/25 14:23	
EPA 300.0 Rev 2.1 1993	Chloride	944	mg/L	20.0	02/27/25 07:24	H1
EPA 300.0 Rev 2.1 1993	Fluoride	0.27	mg/L	0.10	02/27/25 13:31	H1
EPA 300.0 Rev 2.1 1993	Sulfate	11.5	mg/L	1.0	02/27/25 13:31	H1
92775785007	**MW-4**					
EPA 6010D	Barium	297	ug/L	5.0	01/30/25 16:00	
EPA 6010D	Calcium	53800	ug/L	100	01/30/25 16:00	
EPA 6010D	Cobalt	8.3	ug/L	5.0	01/30/25 16:00	
EPA 6010D	Nickel	7.3	ug/L	5.0	01/30/25 16:00	
EPA 6010D	Zinc	7.5J	ug/L	10.0	01/30/25 16:00	
EPA 6020B	Boron	7.9J	ug/L	50.0	02/13/25 13:12	
EPA 6020B	Lithium	42.0	ug/L	2.5	02/11/25 16:13	
EPA 903.1	Radium-226	0.720 ± 0.531 (0.762) C:NA T:96%	pCi/L		02/18/25 14:46	
EPA 904.0	Radium-228	0.490 ± 0.470 (0.975) C:81% T:89%	pCi/L		02/11/25 14:47	
Total Radium Calculation	Total Radium	1.21 ± 1.00 (1.74)	pCi/L		02/19/25 14:08	
SM 2540C-2015	Total Dissolved Solids	1120	mg/L	50.0	01/29/25 14:23	
EPA 300.0 Rev 2.1 1993	Chloride	275	mg/L	7.0	02/27/25 13:02	H1
EPA 300.0 Rev 2.1 1993	Fluoride	0.39	mg/L	0.10	02/27/25 07:38	H1
EPA 300.0 Rev 2.1 1993	Sulfate	10	mg/L	1.0	02/27/25 07:38	H1
92775785008	**MW-5**					
EPA 6010D	Barium	101	ug/L	5.0	01/30/25 16:03	
EPA 6010D	Calcium	7830	ug/L	100	01/30/25 16:03	
EPA 6010D	Chromium	2.0J	ug/L	5.0	01/30/25 16:03	
EPA 6010D	Copper	2.7J	ug/L	5.0	01/30/25 16:03	
EPA 6010D	Nickel	3.0J	ug/L	5.0	01/30/25 16:03	
EPA 6010D	Zinc	11.8	ug/L	10.0	01/30/25 16:03	
EPA 6020B	Boron	12.6J	ug/L	50.0	02/13/25 13:16	
EPA 6020B	Lithium	11.4	ug/L	2.5	02/11/25 16:17	
EPA 903.1	Radium-226	0.193 ± 0.401 (0.724) C:NA T:86%	pCi/L		02/18/25 14:46	

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Huntersville, NC 28078
(704)875-9092

SUMMARY OF DETECTION

Project: Charah 1st quarter GW monitori
Pace Project No.: 92775785

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92775785008	**MW-5**					
EPA 904.0	Radium-228	0.395 ± 0.355 (0.718) C:81% T:87%	pCi/L		02/11/25 14:47	
Total Radium Calculation	Total Radium	0.588 ± 0.756 (1.44)	pCi/L		02/19/25 14:08	
SM 2540C-2015	Total Dissolved Solids	190	mg/L	25.0	01/28/25 12:27	
EPA 300.0 Rev 2.1 1993	Chloride	16.9	mg/L	1.0	02/27/25 04:41	H1
EPA 300.0 Rev 2.1 1993	Fluoride	0.54	mg/L	0.10	02/27/25 04:41	H1
EPA 300.0 Rev 2.1 1993	Sulfate	3.0	mg/L	1.0	02/27/25 04:41	H1
92775785009	**MW-6**					
EPA 6010D	Barium	54.7	ug/L	5.0	01/30/25 16:06	
EPA 6010D	Calcium	33500	ug/L	100	01/30/25 16:06	
EPA 6010D	Copper	2.8J	ug/L	5.0	01/30/25 16:06	
EPA 6010D	Nickel	2.1J	ug/L	5.0	01/30/25 16:06	
EPA 6010D	Zinc	5.5J	ug/L	10.0	01/30/25 16:06	
EPA 6020B	Boron	9.1J	ug/L	50.0	02/13/25 13:20	
EPA 6020B	Lithium	25.5	ug/L	2.5	02/11/25 16:21	
EPA 903.1	Radium-226	-0.236 ± 0.533 (1.09) C:NA T:90%	pCi/L		02/18/25 14:05	
EPA 904.0	Radium-228	0.411 ± 0.374 (0.757) C:81% T:83%	pCi/L		02/11/25 14:47	
Total Radium Calculation	Total Radium	0.411 ± 0.907 (1.85)	pCi/L		02/19/25 14:08	
SM 2540C-2015	Total Dissolved Solids	568	mg/L	50.0	01/28/25 12:27	
EPA 300.0 Rev 2.1 1993	Chloride	165	mg/L	4.0	02/27/25 10:49	H1
EPA 300.0 Rev 2.1 1993	Fluoride	0.34	mg/L	0.10	02/27/25 04:56	H1
EPA 300.0 Rev 2.1 1993	Sulfate	25.4	mg/L	1.0	02/27/25 04:56	H1
92775785010	**MW-7R**					
EPA 6010D	Barium	320	ug/L	5.0	01/30/25 16:09	
EPA 6010D	Calcium	91000	ug/L	100	01/30/25 16:09	
EPA 6010D	Chromium	1.1J	ug/L	5.0	01/30/25 16:09	
EPA 6010D	Copper	0.76J	ug/L	5.0	01/30/25 16:09	
EPA 6010D	Nickel	1.3J	ug/L	5.0	01/30/25 16:09	
EPA 6010D	Vanadium	2.8J	ug/L	5.0	01/30/25 16:09	
EPA 6010D	Zinc	4.0J	ug/L	10.0	01/30/25 16:09	
EPA 6020B	Boron	10.6J	ug/L	50.0	02/13/25 13:32	
EPA 6020B	Lithium	31.5	ug/L	2.5	02/11/25 16:33	
EPA 903.1	Radium-226	0.342 ± 0.240 (0.116) C:NA T:94%	pCi/L		02/18/25 14:46	

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SUMMARY OF DETECTION

Project: Charah 1st quarter GW monitori
Pace Project No.: 92775785

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92775785010	**MW-7R**					
EPA 904.0	Radium-228	0.373 ± 0.347 (0.704) C:83% T:81%	pCi/L		02/11/25 14:47	
Total Radium Calculation	Total Radium	0.715 ± 0.587 (0.820)	pCi/L		02/19/25 14:08	
SM 2540C-2015	Total Dissolved Solids	834	mg/L	50.0	01/28/25 12:27	
EPA 300.0 Rev 2.1 1993	Chloride	244	mg/L	6.0	02/27/25 11:04	H1
EPA 300.0 Rev 2.1 1993	Fluoride	0.14	mg/L	0.10	02/27/25 05:10	H1
EPA 300.0 Rev 2.1 1993	Sulfate	12.8	mg/L	1.0	02/27/25 05:10	H1
92775785011	**MW-8**					
EPA 6010D	Barium	1110	ug/L	5.0	01/30/25 16:12	
EPA 6010D	Calcium	116000	ug/L	1000	01/30/25 19:16	
EPA 6010D	Chromium	2.2J	ug/L	5.0	01/30/25 16:12	
EPA 6010D	Cobalt	0.52J	ug/L	5.0	01/30/25 16:12	
EPA 6010D	Copper	0.86J	ug/L	5.0	01/30/25 16:12	
EPA 6010D	Nickel	2.2J	ug/L	5.0	01/30/25 16:12	
EPA 6010D	Vanadium	1.8J	ug/L	5.0	01/30/25 16:12	
EPA 6010D	Zinc	4.6J	ug/L	10.0	01/30/25 16:12	
EPA 6020B	Boron	12.7J	ug/L	50.0	02/13/25 13:36	
EPA 6020B	Lithium	30.9	ug/L	2.5	02/11/25 16:36	
EPA 903.1	Radium-226	0.432 ± 0.647 (1.10) C:NA T:92%	pCi/L		02/18/25 14:05	
EPA 904.0	Radium-228	0.388 ± 0.441 (0.928) C:83% T:84%	pCi/L		02/11/25 14:45	
Total Radium Calculation	Total Radium	0.820 ± 1.09 (2.03)	pCi/L		02/19/25 14:08	
SM 2540C-2015	Total Dissolved Solids	908	mg/L	50.0	01/25/25 11:42	
EPA 300.0 Rev 2.1 1993	Chloride	345	mg/L	8.0	02/27/25 10:20	H1
EPA 300.0 Rev 2.1 1993	Fluoride	0.10	mg/L	0.10	02/27/25 03:56	H1
EPA 300.0 Rev 2.1 1993	Sulfate	6.1	mg/L	1.0	02/27/25 03:56	H1
92775785012	**MW-9**					
EPA 6010D	Barium	184	ug/L	5.0	01/30/25 16:15	
EPA 6010D	Calcium	34100	ug/L	100	01/30/25 16:15	
EPA 6010D	Chromium	1.5J	ug/L	5.0	01/30/25 16:15	
EPA 6010D	Copper	3.0J	ug/L	5.0	01/30/25 16:15	
EPA 6010D	Molybdenum	16.0	ug/L	5.0	01/30/25 16:15	
EPA 6010D	Nickel	1.5J	ug/L	5.0	01/30/25 16:15	
EPA 6010D	Zinc	3.6J	ug/L	10.0	01/30/25 16:15	
EPA 6020B	Boron	32.9J	ug/L	50.0	02/13/25 13:39	
EPA 6020B	Lithium	4.8	ug/L	2.5	02/11/25 16:40	

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(704)875-9092

SUMMARY OF DETECTION

Project: Charah 1st quarter GW monitori
Pace Project No.: 92775785

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92775785012	**MW-9**					
EPA 903.1	Radium-226	-1.11 ± 1.39 (2.89) C:NA T:91%	pCi/L		02/18/25 14:33	
EPA 904.0	Radium-228	2.19 ± 0.942 (1.50) C:83% T:85%	pCi/L		02/11/25 14:48	
Total Radium Calculation	Total Radium	2.19 ± 2.33 (4.39)	pCi/L		02/19/25 14:08	
SM 2540C-2015	Total Dissolved Solids	482	mg/L	50.0	01/29/25 14:23	
EPA 300.0 Rev 2.1 1993	Chloride	9.3	mg/L	1.0	02/27/25 07:53	H1
EPA 300.0 Rev 2.1 1993	Fluoride	0.27	mg/L	0.10	02/27/25 07:53	H1
EPA 300.0 Rev 2.1 1993	Sulfate	62.3	mg/L	1.0	02/27/25 07:53	H1
92775785013	**MW-10**					
EPA 6010D	Barium	95.3	ug/L	5.0	01/30/25 16:19	
EPA 6010D	Calcium	21800	ug/L	100	01/30/25 16:19	
EPA 6010D	Copper	0.95J	ug/L	5.0	01/30/25 16:19	
EPA 6010D	Molybdenum	17.2	ug/L	5.0	01/30/25 16:19	
EPA 6010D	Nickel	0.96J	ug/L	5.0	01/30/25 16:19	
EPA 6020B	Boron	28.6J	ug/L	50.0	02/13/25 13:43	
EPA 6020B	Lithium	6.5	ug/L	2.5	02/11/25 16:44	
EPA 903.1	Radium-226	-0.0903 ± 0.217 (0.542) C:NA T:94%	pCi/L		02/18/25 14:46	
EPA 904.0	Radium-228	0.404 ± 0.331 (0.653) C:76% T:92%	pCi/L		02/11/25 14:47	
Total Radium Calculation	Total Radium	0.404 ± 0.548 (1.20)	pCi/L		02/19/25 14:08	
SM 2540C-2015	Total Dissolved Solids	338	mg/L	25.0	01/28/25 12:27	
EPA 300.0 Rev 2.1 1993	Chloride	28.2	mg/L	1.0	02/27/25 05:25	H1
EPA 300.0 Rev 2.1 1993	Fluoride	0.41	mg/L	0.10	02/27/25 05:25	H1
EPA 300.0 Rev 2.1 1993	Sulfate	1.6	mg/L	1.0	02/27/25 05:25	H1
92775785014	**MW-11**					
EPA 6010D	Barium	45.8	ug/L	5.0	01/30/25 16:22	
EPA 6010D	Calcium	29200	ug/L	100	01/30/25 16:22	
EPA 6010D	Cobalt	0.52J	ug/L	5.0	01/30/25 16:22	
EPA 6010D	Copper	2.2J	ug/L	5.0	01/30/25 16:22	
EPA 6010D	Nickel	0.96J	ug/L	5.0	01/30/25 16:22	
EPA 6010D	Zinc	7.1J	ug/L	10.0	01/30/25 16:22	
EPA 6020B	Boron	20.0J	ug/L	50.0	02/13/25 13:47	
EPA 6020B	Lithium	9.6	ug/L	2.5	02/11/25 16:48	

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SUMMARY OF DETECTION

Project: Charah 1st quarter GW monitori
Pace Project No.: 92775785

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92775785014	**MW-11**					
EPA 903.1	Radium-226	0.347 ± 0.553 (0.950) C:NA T:99%	pCi/L		02/18/25 14:05	
EPA 904.0	Radium-228	0.557 ± 0.378 (0.717) C:79% T:86%	pCi/L		02/11/25 14:46	
Total Radium Calculation	Total Radium	0.904 ± 0.931 (1.67)	pCi/L		02/19/25 14:08	
SM 2540C-2015	Total Dissolved Solids	393	mg/L	25.0	01/25/25 11:42	
EPA 300.0 Rev 2.1 1993	Chloride	111	mg/L	3.0	02/27/25 10:34	H1
EPA 300.0 Rev 2.1 1993	Fluoride	0.18	mg/L	0.10	02/27/25 04:11	H1
EPA 300.0 Rev 2.1 1993	Sulfate	1.8	mg/L	1.0	02/27/25 04:11	H1
92775785015	**MW-11D**					
EPA 6010D	Barium	114	ug/L	5.0	01/30/25 16:25	
EPA 6010D	Calcium	16400	ug/L	100	01/30/25 16:25	
EPA 6010D	Copper	2.3J	ug/L	5.0	01/30/25 16:25	
EPA 6010D	Zinc	19.0	ug/L	10.0	01/30/25 16:25	
EPA 6020B	Boron	52.0	ug/L	50.0	02/13/25 13:51	
EPA 6020B	Lithium	17.4	ug/L	2.5	02/11/25 16:52	
EPA 903.1	Radium-226	0.0945 ± 0.540 (1.01) C:NA T:88%	pCi/L		02/18/25 14:05	
EPA 904.0	Radium-228	0.656 ± 0.396 (0.723) C:79% T:81%	pCi/L		02/11/25 14:46	
Total Radium Calculation	Total Radium	0.751 ± 0.936 (1.73)	pCi/L		02/19/25 14:08	
SM 2540C-2015	Total Dissolved Solids	315	mg/L	25.0	01/25/25 11:42	
EPA 300.0 Rev 2.1 1993	Chloride	52.7	mg/L	1.0	02/27/25 04:26	H1
EPA 300.0 Rev 2.1 1993	Fluoride	0.42	mg/L	0.10	02/27/25 04:26	H1
EPA 300.0 Rev 2.1 1993	Sulfate	13.3	mg/L	1.0	02/27/25 04:26	H1
92775785016	**DUP**					
EPA 6010D	Barium	56.5	ug/L	5.0	01/30/25 16:28	
EPA 6010D	Calcium	33600	ug/L	100	01/30/25 16:28	
EPA 6010D	Copper	0.96J	ug/L	5.0	01/30/25 16:28	
EPA 6010D	Nickel	1.8J	ug/L	5.0	01/30/25 16:28	
EPA 6010D	Zinc	6.5J	ug/L	10.0	01/30/25 16:28	
EPA 6020B	Boron	9.6J	ug/L	50.0	02/13/25 13:55	
EPA 6020B	Lithium	24.8	ug/L	2.5	02/11/25 16:56	

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SUMMARY OF DETECTION

Project: Charah 1st quarter GW monitori
Pace Project No.: 92775785

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92775785016	**DUP**					
EPA 903.1	Radium-226	-0.0441 ± 0.465 (0.913) C:NA T:94%	pCi/L		02/18/25 14:46	
EPA 904.0	Radium-228	0.708 ± 0.396 (0.716) C:82% T:90%	pCi/L		02/11/25 14:47	
Total Radium Calculation	Total Radium	0.708 ± 0.861 (1.63)	pCi/L		02/19/25 14:08	
SM 2540C-2015	Total Dissolved Solids	564	mg/L	50.0	01/28/25 12:27	
EPA 300.0 Rev 2.1 1993	Chloride	167	mg/L	4.0	02/27/25 11:18	H1,M1
EPA 300.0 Rev 2.1 1993	Fluoride	0.35	mg/L	0.10	02/27/25 05:40	H1,M1
EPA 300.0 Rev 2.1 1993	Sulfate	25.6	mg/L	1.0	02/27/25 05:40	H1
92775785017	**EQBL**					
EPA 6020B	Boron	19.8J	ug/L	50.0	02/13/25 13:59	
EPA 903.1	Radium-226	-0.173 ± 0.481 (0.972) C:NA T:92%	pCi/L		02/18/25 14:33	
EPA 904.0	Radium-228	0.811 ± 0.434 (0.768) C:77% T:83%	pCi/L		02/11/25 14:49	
Total Radium Calculation	Total Radium	0.811 ± 0.915 (1.74)	pCi/L		02/19/25 14:08	
EPA 300.0 Rev 2.1 1993	Fluoride	0.054J	mg/L	0.10	02/26/25 22:45	H1
92775785018	**LEACHATE**					
EPA 6010D	Arsenic	25.3	ug/L	10.0	01/30/25 16:40	
EPA 6010D	Barium	55.3	ug/L	5.0	01/30/25 16:40	
EPA 6010D	Calcium	331000	ug/L	1000	01/31/25 15:33	
EPA 6010D	Cobalt	0.66J	ug/L	5.0	01/30/25 16:40	
EPA 6010D	Copper	0.66J	ug/L	5.0	01/30/25 16:40	
EPA 6010D	Molybdenum	224	ug/L	5.0	01/30/25 16:40	
EPA 6010D	Nickel	3.1J	ug/L	5.0	01/30/25 16:40	
EPA 6010D	Vanadium	2.6J	ug/L	5.0	01/30/25 16:40	
EPA 6020B	Boron	2110J	ug/L	5000	02/14/25 16:26	
EPA 6020B	Lithium	70.5	ug/L	2.5	02/11/25 17:03	
EPA 6020B	Thallium	0.072J	ug/L	0.20	02/11/25 17:03	
EPA 903.1	Radium-226	0.000 ± 0.213 (0.433) C:NA T:89%	pCi/L		02/18/25 14:33	

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SUMMARY OF DETECTION

Project: Charah 1st quarter GW monitori
Pace Project No.: 92775785

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92775785018	**LEACHATE**					
EPA 904.0	Radium-228	0.595 ± 0.428 (0.826) C:82% T:84%	pCi/L		02/11/25 14:49	
Total Radium Calculation	Total Radium	0.595 ± 0.641 (1.26)	pCi/L		02/19/25 14:08	
SM 2540C-2015	Total Dissolved Solids	1520	mg/L	50.0	01/29/25 14:23	
EPA 300.0 Rev 2.1 1993	Chloride	20.2	mg/L	1.0	02/27/25 13:46	H1
EPA 300.0 Rev 2.1 1993	Fluoride	0.21	mg/L	0.10	02/27/25 13:46	H1
EPA 300.0 Rev 2.1 1993	Sulfate	466	mg/L	10.0	02/27/25 08:08	H1
92775785019	**SW-6**					
EPA 6010D	Barium	7.7	ug/L	5.0	01/30/25 16:43	
EPA 6010D	Calcium	1130	ug/L	100	01/30/25 16:43	
EPA 6010D	Copper	2.3J	ug/L	5.0	01/30/25 16:43	
EPA 6010D	Zinc	3.1J	ug/L	10.0	01/30/25 16:43	
EPA 6020B	Boron	15.4J	ug/L	50.0	02/13/25 14:07	
EPA 903.1	Radium-226	0.000 ± 0.264 (0.572) C:NA T:88%	pCi/L		02/18/25 14:33	
EPA 904.0	Radium-228	1.10 ± 0.706 (1.30) C:86% T:44%	pCi/L		02/11/25 14:48	
Total Radium Calculation	Total Radium	1.10 ± 0.970 (1.87)	pCi/L		02/19/25 14:08	
SM 2540C-2015	Total Dissolved Solids	36.0	mg/L	25.0	01/29/25 14:23	
EPA 300.0 Rev 2.1 1993	Chloride	1.6	mg/L	1.0	02/27/25 08:22	H1
EPA 300.0 Rev 2.1 1993	Fluoride	0.093J	mg/L	0.10	02/27/25 08:22	H1
EPA 300.0 Rev 2.1 1993	Sulfate	1.2	mg/L	1.0	02/27/25 08:22	H1

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ANALYTICAL RESULTS

Project: Charah 1st quarter GW monitori
Pace Project No.: 92775785

Sample: BG-1 **Lab ID: 92775785001** Collected: 01/20/25 15:20 Received: 01/24/25 12:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Asheville								
Antimony	ND	ug/L	5.0	3.6	1	01/28/25 15:09	01/29/25 15:03	7440-36-0	
Arsenic	ND	ug/L	10.0	2.5	1	01/28/25 15:09	01/29/25 15:03	7440-38-2	
Barium	**283**	ug/L	5.0	0.79	1	01/28/25 15:09	01/29/25 15:03	7440-39-3	
Beryllium	ND	ug/L	1.0	0.16	1	01/28/25 15:09	01/29/25 15:03	7440-41-7	
Cadmium	ND	ug/L	1.0	0.29	1	01/28/25 15:09	01/29/25 15:03	7440-43-9	
Calcium	**23900**	ug/L	100	14.7	1	01/28/25 15:09	01/29/25 15:03	7440-70-2	
Chromium	ND	ug/L	5.0	0.63	1	01/28/25 15:09	01/29/25 15:03	7440-47-3	
Cobalt	ND	ug/L	5.0	0.44	1	01/28/25 15:09	01/29/25 15:03	7440-48-4	
Copper	**3.0J**	ug/L	5.0	0.62	1	01/28/25 15:09	01/29/25 15:03	7440-50-8	
Lead	ND	ug/L	5.0	1.4	1	01/28/25 15:09	01/29/25 15:03	7439-92-1	
Molybdenum	ND	ug/L	5.0	2.6	1	01/28/25 15:09	01/29/25 15:03	7439-98-7	
Nickel	**1.0J**	ug/L	5.0	0.88	1	01/28/25 15:09	01/29/25 15:03	7440-02-0	
Selenium	ND	ug/L	10.0	4.1	1	01/28/25 15:09	01/29/25 15:03	7782-49-2	
Silver	ND	ug/L	5.0	0.49	1	01/28/25 15:09	01/29/25 15:03	7440-22-4	
Vanadium	**5.8**	ug/L	5.0	1.6	1	01/28/25 15:09	01/29/25 15:03	7440-62-2	
Zinc	**11.2**	ug/L	10.0	3.0	1	01/28/25 15:09	01/29/25 15:03	7440-66-6	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3010A Pace Analytical Services - Asheville								
Boron	**8.6J**	ug/L	50.0	7.5	1	01/30/25 13:23	02/07/25 16:20	7440-42-8	
Lithium	**31.1**	ug/L	2.5	0.33	1	01/30/25 13:23	02/06/25 00:35	7439-93-2	
Thallium	ND	ug/L	0.20	0.028	1	01/30/25 13:23	02/07/25 16:20	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Asheville								
Mercury	ND	ug/L	0.20	0.12	1	01/28/25 12:20	02/03/25 11:05	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Asheville								
Total Dissolved Solids	**552**	mg/L	50.0	50.0	1		01/25/25 11:39		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**180**	mg/L	4.0	2.4	4		02/27/25 08:37	16887-00-6	H1,M1
Fluoride	**0.19**	mg/L	0.10	0.050	1		02/27/25 02:12	16984-48-8	H1
Sulfate	**20.0**	mg/L	1.0	0.50	1		02/27/25 02:12	14808-79-8	H1

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(704)875-9092

ANALYTICAL RESULTS

Project: Charah 1st quarter GW monitori
Pace Project No.: 92775785

Sample: BG-2 **Lab ID: 92775785002** Collected: 01/21/25 15:50 Received: 01/24/25 12:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Asheville								
Antimony	ND	ug/L	5.0	3.6	1	01/28/25 15:09	01/29/25 15:16	7440-36-0	
Arsenic	ND	ug/L	10.0	2.5	1	01/28/25 15:09	01/29/25 15:16	7440-38-2	
Barium	**52.3**	ug/L	5.0	0.79	1	01/28/25 15:09	01/29/25 15:16	7440-39-3	
Beryllium	ND	ug/L	1.0	0.16	1	01/28/25 15:09	01/29/25 15:16	7440-41-7	
Cadmium	ND	ug/L	1.0	0.29	1	01/28/25 15:09	01/29/25 15:16	7440-43-9	
Calcium	**95000**	ug/L	100	14.7	1	01/28/25 15:09	01/29/25 15:16	7440-70-2	
Chromium	ND	ug/L	5.0	0.63	1	01/28/25 15:09	01/29/25 15:16	7440-47-3	
Cobalt	**1.3J**	ug/L	5.0	0.44	1	01/28/25 15:09	01/29/25 15:16	7440-48-4	
Copper	**1.0J**	ug/L	5.0	0.62	1	01/28/25 15:09	01/29/25 15:16	7440-50-8	
Lead	ND	ug/L	5.0	1.4	1	01/28/25 15:09	01/29/25 15:16	7439-92-1	
Molybdenum	ND	ug/L	5.0	2.6	1	01/28/25 15:09	01/29/25 15:16	7439-98-7	
Nickel	**1.7J**	ug/L	5.0	0.88	1	01/28/25 15:09	01/29/25 15:16	7440-02-0	
Selenium	ND	ug/L	10.0	4.1	1	01/28/25 15:09	01/29/25 15:16	7782-49-2	
Silver	**0.70J**	ug/L	5.0	0.49	1	01/28/25 15:09	01/29/25 15:16	7440-22-4	
Vanadium	ND	ug/L	5.0	1.6	1	01/28/25 15:09	01/29/25 15:16	7440-62-2	
Zinc	**4.5J**	ug/L	10.0	3.0	1	01/28/25 15:09	01/29/25 15:16	7440-66-6	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3010A Pace Analytical Services - Asheville								
Boron	**16.7J**	ug/L	50.0	7.5	1	01/30/25 13:23	02/07/25 16:23	7440-42-8	
Lithium	**22.1**	ug/L	2.5	0.33	1	01/30/25 13:23	02/06/25 00:39	7439-93-2	
Thallium	ND	ug/L	0.20	0.028	1	01/30/25 13:23	02/07/25 16:23	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Asheville								
Mercury	ND	ug/L	0.20	0.12	1	01/28/25 12:20	02/03/25 11:11	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Asheville								
Total Dissolved Solids	**1300**	mg/L	50.0	50.0	1		01/25/25 11:39		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**250**	mg/L	6.0	3.6	6		02/27/25 10:05	16887-00-6	H1
Fluoride	**0.36**	mg/L	0.10	0.050	1		02/27/25 03:41	16984-48-8	H1
Sulfate	**181**	mg/L	6.0	3.0	6		02/27/25 10:05	14808-79-8	H1

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ANALYTICAL RESULTS

Project: Charah 1st quarter GW monitori
Pace Project No.: 92775785

Sample: MW-1 **Lab ID: 92775785003** Collected: 01/20/25 17:15 Received: 01/24/25 12:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Asheville								
Antimony	ND	ug/L	5.0	3.6	1	01/28/25 15:09	01/29/25 15:19	7440-36-0	
Arsenic	**3.5J**	ug/L	10.0	2.5	1	01/28/25 15:09	01/29/25 15:19	7440-38-2	
Barium	**136**	ug/L	5.0	0.79	1	01/28/25 15:09	01/29/25 15:19	7440-39-3	
Beryllium	ND	ug/L	1.0	0.16	1	01/28/25 15:09	01/29/25 15:19	7440-41-7	
Cadmium	ND	ug/L	1.0	0.29	1	01/28/25 15:09	01/29/25 15:19	7440-43-9	
Calcium	**128000**	ug/L	500	73.7	5	01/28/25 15:09	01/29/25 19:13	7440-70-2	
Chromium	ND	ug/L	5.0	0.63	1	01/28/25 15:09	01/29/25 15:19	7440-47-3	
Cobalt	ND	ug/L	5.0	0.44	1	01/28/25 15:09	01/29/25 15:19	7440-48-4	
Copper	**0.93J**	ug/L	5.0	0.62	1	01/28/25 15:09	01/29/25 15:19	7440-50-8	
Lead	ND	ug/L	5.0	1.4	1	01/28/25 15:09	01/29/25 15:19	7439-92-1	
Molybdenum	ND	ug/L	5.0	2.6	1	01/28/25 15:09	01/29/25 15:19	7439-98-7	
Nickel	**1.3J**	ug/L	5.0	0.88	1	01/28/25 15:09	01/29/25 15:19	7440-02-0	
Selenium	ND	ug/L	10.0	4.1	1	01/28/25 15:09	01/29/25 15:19	7782-49-2	
Silver	**0.70J**	ug/L	5.0	0.49	1	01/28/25 15:09	01/29/25 15:19	7440-22-4	
Vanadium	**3.4J**	ug/L	5.0	1.6	1	01/28/25 15:09	01/29/25 15:19	7440-62-2	
Zinc	**4.9J**	ug/L	10.0	3.0	1	01/28/25 15:09	01/29/25 15:19	7440-66-6	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3010A Pace Analytical Services - Asheville								
Boron	**10.9J**	ug/L	50.0	7.5	1	01/30/25 13:23	02/07/25 16:27	7440-42-8	
Lithium	**29.5**	ug/L	2.5	0.33	1	01/30/25 13:23	02/06/25 00:43	7439-93-2	
Thallium	ND	ug/L	0.20	0.028	1	01/30/25 13:23	02/07/25 16:27	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Asheville								
Mercury	ND	ug/L	0.20	0.12	1	01/28/25 12:20	02/03/25 11:13	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Asheville								
Total Dissolved Solids	**950**	mg/L	50.0	50.0	1		01/25/25 11:39		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**350**	mg/L	8.0	4.8	8		02/27/25 09:51	16887-00-6	H1
Fluoride	**0.17**	mg/L	0.10	0.050	1		02/27/25 02:57	16984-48-8	H1
Sulfate	**5.0**	mg/L	1.0	0.50	1		02/27/25 02:57	14808-79-8	H1

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ANALYTICAL RESULTS

Project: Charah 1st quarter GW monitori
Pace Project No.: 92775785

Sample: MW-2 **Lab ID: 92775785004** Collected: 01/23/25 13:55 Received: 01/24/25 12:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Asheville								
Antimony	ND	ug/L	5.0	3.6	1	01/28/25 15:09	01/29/25 15:22	7440-36-0	
Arsenic	**5.8J**	ug/L	10.0	2.5	1	01/28/25 15:09	01/29/25 15:22	7440-38-2	
Barium	**334**	ug/L	5.0	0.79	1	01/28/25 15:09	01/29/25 15:22	7440-39-3	
Beryllium	ND	ug/L	1.0	0.16	1	01/28/25 15:09	01/29/25 15:22	7440-41-7	
Cadmium	ND	ug/L	1.0	0.29	1	01/28/25 15:09	01/29/25 15:22	7440-43-9	
Calcium	**188000**	ug/L	500	73.7	5	01/28/25 15:09	01/29/25 19:16	7440-70-2	
Chromium	**5.4**	ug/L	5.0	0.63	1	01/28/25 15:09	01/29/25 15:22	7440-47-3	
Cobalt	**0.81J**	ug/L	5.0	0.44	1	01/28/25 15:09	01/29/25 15:22	7440-48-4	
Copper	**2.7J**	ug/L	5.0	0.62	1	01/28/25 15:09	01/29/25 15:22	7440-50-8	
Lead	ND	ug/L	5.0	1.4	1	01/28/25 15:09	01/29/25 15:22	7439-92-1	
Molybdenum	ND	ug/L	25.0	13.2	5	01/28/25 15:09	01/29/25 19:16	7439-98-7	D3
Nickel	**5.3**	ug/L	5.0	0.88	1	01/28/25 15:09	01/29/25 15:22	7440-02-0	
Selenium	ND	ug/L	10.0	4.1	1	01/28/25 15:09	01/29/25 15:22	7782-49-2	
Silver	**0.88J**	ug/L	5.0	0.49	1	01/28/25 15:09	01/29/25 15:22	7440-22-4	
Vanadium	**1.9J**	ug/L	5.0	1.6	1	01/28/25 15:09	01/29/25 15:22	7440-62-2	
Zinc	**44.7**	ug/L	10.0	3.0	1	01/28/25 15:09	01/29/25 15:22	7440-66-6	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3010A Pace Analytical Services - Asheville								
Boron	**46.0J**	ug/L	50.0	7.5	1	01/30/25 13:23	02/07/25 16:31	7440-42-8	
Lithium	**117**	ug/L	2.5	0.33	1	01/30/25 13:23	02/06/25 00:47	7439-93-2	
Thallium	**0.037J**	ug/L	0.20	0.028	1	01/30/25 13:23	02/07/25 16:31	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Asheville								
Mercury	ND	ug/L	0.20	0.12	1	01/28/25 12:20	02/03/25 11:15	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Asheville								
Total Dissolved Solids	**2340**	mg/L	250	250	1		01/29/25 14:21		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**962**	mg/L	20.0	12.0	20		02/27/25 06:54	16887-00-6	H1
Fluoride	**0.21**	mg/L	0.10	0.050	1		02/27/25 13:16	16984-48-8	H1
Sulfate	**66.4**	mg/L	1.0	0.50	1		02/27/25 13:16	14808-79-8	H1

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ANALYTICAL RESULTS

Project: Charah 1st quarter GW monitori
Pace Project No.: 92775785

Sample: MW-2D **Lab ID: 92775785005** Collected: 01/23/25 14:35 Received: 01/24/25 12:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Asheville								
Antimony	ND	ug/L	5.0	3.6	1	01/28/25 15:09	01/29/25 15:25	7440-36-0	
Arsenic	**25.0**	ug/L	10.0	2.5	1	01/28/25 15:09	01/29/25 15:25	7440-38-2	
Barium	**122**	ug/L	5.0	0.79	1	01/28/25 15:09	01/29/25 15:25	7440-39-3	
Beryllium	ND	ug/L	1.0	0.16	1	01/28/25 15:09	01/29/25 15:25	7440-41-7	
Cadmium	ND	ug/L	1.0	0.29	1	01/28/25 15:09	01/29/25 15:25	7440-43-9	
Calcium	**14000**	ug/L	100	14.7	1	01/28/25 15:09	01/29/25 15:25	7440-70-2	
Chromium	**33.4**	ug/L	5.0	0.63	1	01/28/25 15:09	01/29/25 15:25	7440-47-3	
Cobalt	ND	ug/L	5.0	0.44	1	01/28/25 15:09	01/29/25 15:25	7440-48-4	
Copper	**10.6**	ug/L	5.0	0.62	1	01/28/25 15:09	01/29/25 15:25	7440-50-8	
Lead	ND	ug/L	5.0	1.4	1	01/28/25 15:09	01/29/25 15:25	7439-92-1	
Molybdenum	**223**	ug/L	5.0	2.6	1	01/28/25 15:09	01/29/25 15:25	7439-98-7	
Nickel	**11.9**	ug/L	5.0	0.88	1	01/28/25 15:09	01/29/25 15:25	7440-02-0	
Selenium	**6.3J**	ug/L	10.0	4.1	1	01/28/25 15:09	01/29/25 15:25	7782-49-2	
Silver	ND	ug/L	5.0	0.49	1	01/28/25 15:09	01/29/25 15:25	7440-22-4	
Vanadium	**128**	ug/L	5.0	1.6	1	01/28/25 15:09	01/29/25 15:25	7440-62-2	
Zinc	**40.0**	ug/L	10.0	3.0	1	01/28/25 15:09	01/29/25 15:25	7440-66-6	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3010A Pace Analytical Services - Asheville								
Boron	**40.6J**	ug/L	50.0	7.5	1	01/30/25 13:23	02/07/25 16:34	7440-42-8	
Lithium	**158**	ug/L	2.5	0.33	1	01/30/25 13:23	02/06/25 00:50	7439-93-2	
Thallium	ND	ug/L	0.20	0.028	1	01/30/25 13:23	02/07/25 16:34	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Asheville								
Mercury	ND	ug/L	0.20	0.12	1	01/28/25 12:20	02/03/25 11:17	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Asheville								
Total Dissolved Solids	**510**	mg/L	50.0	50.0	1		01/29/25 14:21		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**104**	mg/L	2.0	1.2	2		02/27/25 12:47	16887-00-6	H1
Fluoride	**2.8**	mg/L	0.10	0.050	1		02/27/25 07:09	16984-48-8	H1
Sulfate	**31.8**	mg/L	1.0	0.50	1		02/27/25 07:09	14808-79-8	H1

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ANALYTICAL RESULTS

Project: Charah 1st quarter GW monitori
Pace Project No.: 92775785

Sample: MW-3 **Lab ID: 92775785006** Collected: 01/23/25 12:25 Received: 01/24/25 12:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Asheville								
Antimony	ND	ug/L	5.0	3.6	1	01/30/25 01:00	01/30/25 15:41	7440-36-0	
Arsenic	**4.2J**	ug/L	10.0	2.5	1	01/30/25 01:00	01/30/25 15:41	7440-38-2	
Barium	**748**	ug/L	5.0	0.79	1	01/30/25 01:00	01/30/25 15:41	7440-39-3	
Beryllium	ND	ug/L	1.0	0.16	1	01/30/25 01:00	01/30/25 15:41	7440-41-7	
Cadmium	ND	ug/L	1.0	0.29	1	01/30/25 01:00	01/30/25 15:41	7440-43-9	
Calcium	**326000**	ug/L	1000	147	10	01/30/25 01:00	01/30/25 19:19	7440-70-2	M1
Chromium	ND	ug/L	5.0	0.63	1	01/30/25 01:00	01/30/25 15:41	7440-47-3	
Cobalt	**0.90J**	ug/L	5.0	0.44	1	01/30/25 01:00	01/30/25 15:41	7440-48-4	
Copper	**2.4J**	ug/L	5.0	0.62	1	01/30/25 01:00	01/30/25 15:41	7440-50-8	
Lead	ND	ug/L	5.0	1.4	1	01/30/25 01:00	01/30/25 15:41	7439-92-1	
Molybdenum	ND	ug/L	5.0	2.6	1	01/30/25 01:00	01/30/25 15:41	7439-98-7	
Nickel	**1.8J**	ug/L	5.0	0.88	1	01/30/25 01:00	01/30/25 15:41	7440-02-0	
Selenium	ND	ug/L	10.0	4.1	1	01/30/25 01:00	01/30/25 15:41	7782-49-2	
Silver	**0.85J**	ug/L	5.0	0.49	1	01/30/25 01:00	01/30/25 15:41	7440-22-4	
Vanadium	**1.7J**	ug/L	5.0	1.6	1	01/30/25 01:00	01/30/25 15:41	7440-62-2	
Zinc	**3.5J**	ug/L	10.0	3.0	1	01/30/25 01:00	01/30/25 15:41	7440-66-6	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3010A Pace Analytical Services - Asheville								
Boron	**47.8J**	ug/L	50.0	7.5	1	01/30/25 01:00	02/13/25 12:53	7440-42-8	
Lithium	**84.4**	ug/L	2.5	0.33	1	01/30/25 01:00	02/11/25 15:37	7439-93-2	
Thallium	ND	ug/L	0.20	0.028	1	01/30/25 01:00	02/11/25 15:37	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Asheville								
Mercury	ND	ug/L	0.20	0.12	1	01/28/25 12:20	02/03/25 11:19	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Asheville								
Total Dissolved Solids	**2160**	mg/L	250	250	1		01/29/25 14:23		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**944**	mg/L	20.0	12.0	20		02/27/25 07:24	16887-00-6	H1
Fluoride	**0.27**	mg/L	0.10	0.050	1		02/27/25 13:31	16984-48-8	H1
Sulfate	**11.5**	mg/L	1.0	0.50	1		02/27/25 13:31	14808-79-8	H1

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ANALYTICAL RESULTS

Project: Charah 1st quarter GW monitori
Pace Project No.: 92775785

Sample: MW-4 **Lab ID: 92775785007** Collected: 01/23/25 11:05 Received: 01/24/25 12:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Asheville								
Antimony	ND	ug/L	5.0	3.6	1	01/30/25 01:00	01/30/25 16:00	7440-36-0	
Arsenic	ND	ug/L	10.0	2.5	1	01/30/25 01:00	01/30/25 16:00	7440-38-2	
Barium	**297**	ug/L	5.0	0.79	1	01/30/25 01:00	01/30/25 16:00	7440-39-3	
Beryllium	ND	ug/L	1.0	0.16	1	01/30/25 01:00	01/30/25 16:00	7440-41-7	
Cadmium	ND	ug/L	1.0	0.29	1	01/30/25 01:00	01/30/25 16:00	7440-43-9	
Calcium	**53800**	ug/L	100	14.7	1	01/30/25 01:00	01/30/25 16:00	7440-70-2	
Chromium	ND	ug/L	5.0	0.63	1	01/30/25 01:00	01/30/25 16:00	7440-47-3	
Cobalt	**8.3**	ug/L	5.0	0.44	1	01/30/25 01:00	01/30/25 16:00	7440-48-4	
Copper	ND	ug/L	5.0	0.62	1	01/30/25 01:00	01/30/25 16:00	7440-50-8	
Lead	ND	ug/L	5.0	1.4	1	01/30/25 01:00	01/30/25 16:00	7439-92-1	
Molybdenum	ND	ug/L	25.0	13.2	5	01/30/25 01:00	01/30/25 19:12	7439-98-7	D3
Nickel	**7.3**	ug/L	5.0	0.88	1	01/30/25 01:00	01/30/25 16:00	7440-02-0	
Selenium	ND	ug/L	10.0	4.1	1	01/30/25 01:00	01/30/25 16:00	7782-49-2	
Silver	ND	ug/L	5.0	0.49	1	01/30/25 01:00	01/30/25 16:00	7440-22-4	
Vanadium	ND	ug/L	5.0	1.6	1	01/30/25 01:00	01/30/25 16:00	7440-62-2	
Zinc	**7.5J**	ug/L	10.0	3.0	1	01/30/25 01:00	01/30/25 16:00	7440-66-6	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3010A Pace Analytical Services - Asheville								
Boron	**7.9J**	ug/L	50.0	7.5	1	01/30/25 01:00	02/13/25 13:12	7440-42-8	
Lithium	**42.0**	ug/L	2.5	0.33	1	01/30/25 01:00	02/11/25 16:13	7439-93-2	
Thallium	ND	ug/L	0.20	0.028	1	01/30/25 01:00	02/11/25 16:13	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Asheville								
Mercury	ND	ug/L	0.20	0.12	1	01/28/25 12:20	02/03/25 11:22	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Asheville								
Total Dissolved Solids	**1120**	mg/L	50.0	50.0	1		01/29/25 14:23		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**275**	mg/L	7.0	4.2	7		02/27/25 13:02	16887-00-6	H1
Fluoride	**0.39**	mg/L	0.10	0.050	1		02/27/25 07:38	16984-48-8	H1
Sulfate	**10**	mg/L	1.0	0.50	1		02/27/25 07:38	14808-79-8	H1

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ANALYTICAL RESULTS

Project: Charah 1st quarter GW monitori
Pace Project No.: 92775785

Sample: MW-5 **Lab ID: 92775785008** Collected: 01/22/25 15:50 Received: 01/24/25 12:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Asheville								
Antimony	ND	ug/L	5.0	3.6	1	01/30/25 01:00	01/30/25 16:03	7440-36-0	
Arsenic	ND	ug/L	10.0	2.5	1	01/30/25 01:00	01/30/25 16:03	7440-38-2	
Barium	**101**	ug/L	5.0	0.79	1	01/30/25 01:00	01/30/25 16:03	7440-39-3	
Beryllium	ND	ug/L	1.0	0.16	1	01/30/25 01:00	01/30/25 16:03	7440-41-7	
Cadmium	ND	ug/L	1.0	0.29	1	01/30/25 01:00	01/30/25 16:03	7440-43-9	
Calcium	**7830**	ug/L	100	14.7	1	01/30/25 01:00	01/30/25 16:03	7440-70-2	
Chromium	**2.0J**	ug/L	5.0	0.63	1	01/30/25 01:00	01/30/25 16:03	7440-47-3	
Cobalt	ND	ug/L	5.0	0.44	1	01/30/25 01:00	01/30/25 16:03	7440-48-4	
Copper	**2.7J**	ug/L	5.0	0.62	1	01/30/25 01:00	01/30/25 16:03	7440-50-8	
Lead	ND	ug/L	5.0	1.4	1	01/30/25 01:00	01/30/25 16:03	7439-92-1	
Molybdenum	ND	ug/L	5.0	2.6	1	01/30/25 01:00	01/30/25 16:03	7439-98-7	
Nickel	**3.0J**	ug/L	5.0	0.88	1	01/30/25 01:00	01/30/25 16:03	7440-02-0	
Selenium	ND	ug/L	10.0	4.1	1	01/30/25 01:00	01/30/25 16:03	7782-49-2	
Silver	ND	ug/L	5.0	0.49	1	01/30/25 01:00	01/30/25 16:03	7440-22-4	
Vanadium	ND	ug/L	5.0	1.6	1	01/30/25 01:00	01/30/25 16:03	7440-62-2	
Zinc	**11.8**	ug/L	10.0	3.0	1	01/30/25 01:00	01/30/25 16:03	7440-66-6	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3010A Pace Analytical Services - Asheville								
Boron	**12.6J**	ug/L	50.0	7.5	1	01/30/25 01:00	02/13/25 13:16	7440-42-8	
Lithium	**11.4**	ug/L	2.5	0.33	1	01/30/25 01:00	02/11/25 16:17	7439-93-2	
Thallium	ND	ug/L	0.20	0.028	1	01/30/25 01:00	02/11/25 16:17	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Asheville								
Mercury	ND	ug/L	0.20	0.12	1	01/28/25 12:20	02/03/25 11:24	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Asheville								
Total Dissolved Solids	**190**	mg/L	25.0	25.0	1		01/28/25 12:27		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**16.9**	mg/L	1.0	0.60	1		02/27/25 04:41	16887-00-6	H1
Fluoride	**0.54**	mg/L	0.10	0.050	1		02/27/25 04:41	16984-48-8	H1
Sulfate	**3.0**	mg/L	1.0	0.50	1		02/27/25 04:41	14808-79-8	H1

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ANALYTICAL RESULTS

Project: Charah 1st quarter GW monitori
Pace Project No.: 92775785

Sample: MW-6 **Lab ID: 92775785009** Collected: 01/22/25 10:55 Received: 01/24/25 12:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Asheville								
Antimony	ND	ug/L	5.0	3.6	1	01/30/25 01:00	01/30/25 16:06	7440-36-0	
Arsenic	ND	ug/L	10.0	2.5	1	01/30/25 01:00	01/30/25 16:06	7440-38-2	
Barium	**54.7**	ug/L	5.0	0.79	1	01/30/25 01:00	01/30/25 16:06	7440-39-3	
Beryllium	ND	ug/L	1.0	0.16	1	01/30/25 01:00	01/30/25 16:06	7440-41-7	
Cadmium	ND	ug/L	1.0	0.29	1	01/30/25 01:00	01/30/25 16:06	7440-43-9	
Calcium	**33500**	ug/L	100	14.7	1	01/30/25 01:00	01/30/25 16:06	7440-70-2	
Chromium	ND	ug/L	5.0	0.63	1	01/30/25 01:00	01/30/25 16:06	7440-47-3	
Cobalt	ND	ug/L	5.0	0.44	1	01/30/25 01:00	01/30/25 16:06	7440-48-4	
Copper	**2.8J**	ug/L	5.0	0.62	1	01/30/25 01:00	01/30/25 16:06	7440-50-8	
Lead	ND	ug/L	5.0	1.4	1	01/30/25 01:00	01/30/25 16:06	7439-92-1	
Molybdenum	ND	ug/L	5.0	2.6	1	01/30/25 01:00	01/30/25 16:06	7439-98-7	
Nickel	**2.1J**	ug/L	5.0	0.88	1	01/30/25 01:00	01/30/25 16:06	7440-02-0	
Selenium	ND	ug/L	10.0	4.1	1	01/30/25 01:00	01/30/25 16:06	7782-49-2	
Silver	ND	ug/L	5.0	0.49	1	01/30/25 01:00	01/30/25 16:06	7440-22-4	
Vanadium	ND	ug/L	5.0	1.6	1	01/30/25 01:00	01/30/25 16:06	7440-62-2	
Zinc	**5.5J**	ug/L	10.0	3.0	1	01/30/25 01:00	01/30/25 16:06	7440-66-6	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3010A Pace Analytical Services - Asheville								
Boron	**9.1J**	ug/L	50.0	7.5	1	01/30/25 01:00	02/13/25 13:20	7440-42-8	
Lithium	**25.5**	ug/L	2.5	0.33	1	01/30/25 01:00	02/11/25 16:21	7439-93-2	
Thallium	ND	ug/L	0.20	0.028	1	01/30/25 01:00	02/11/25 16:21	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Asheville								
Mercury	ND	ug/L	0.20	0.12	1	01/28/25 12:20	02/03/25 11:26	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Asheville								
Total Dissolved Solids	**568**	mg/L	50.0	50.0	1		01/28/25 12:27		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**165**	mg/L	4.0	2.4	4		02/27/25 10:49	16887-00-6	H1
Fluoride	**0.34**	mg/L	0.10	0.050	1		02/27/25 04:56	16984-48-8	H1
Sulfate	**25.4**	mg/L	1.0	0.50	1		02/27/25 04:56	14808-79-8	H1

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ANALYTICAL RESULTS

Project: Charah 1st quarter GW monitori
Pace Project No.: 92775785

Sample: MW-7R **Lab ID: 92775785010** Collected: 01/22/25 12:25 Received: 01/24/25 12:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Asheville								
Antimony	ND	ug/L	5.0	3.6	1	01/30/25 01:00	01/30/25 16:09	7440-36-0	
Arsenic	ND	ug/L	10.0	2.5	1	01/30/25 01:00	01/30/25 16:09	7440-38-2	
Barium	**320**	ug/L	5.0	0.79	1	01/30/25 01:00	01/30/25 16:09	7440-39-3	
Beryllium	ND	ug/L	1.0	0.16	1	01/30/25 01:00	01/30/25 16:09	7440-41-7	
Cadmium	ND	ug/L	1.0	0.29	1	01/30/25 01:00	01/30/25 16:09	7440-43-9	
Calcium	**91000**	ug/L	100	14.7	1	01/30/25 01:00	01/30/25 16:09	7440-70-2	
Chromium	**1.1J**	ug/L	5.0	0.63	1	01/30/25 01:00	01/30/25 16:09	7440-47-3	
Cobalt	ND	ug/L	5.0	0.44	1	01/30/25 01:00	01/30/25 16:09	7440-48-4	
Copper	**0.76J**	ug/L	5.0	0.62	1	01/30/25 01:00	01/30/25 16:09	7440-50-8	
Lead	ND	ug/L	5.0	1.4	1	01/30/25 01:00	01/30/25 16:09	7439-92-1	
Molybdenum	ND	ug/L	5.0	2.6	1	01/30/25 01:00	01/30/25 16:09	7439-98-7	
Nickel	**1.3J**	ug/L	5.0	0.88	1	01/30/25 01:00	01/30/25 16:09	7440-02-0	
Selenium	ND	ug/L	10.0	4.1	1	01/30/25 01:00	01/30/25 16:09	7782-49-2	
Silver	ND	ug/L	5.0	0.49	1	01/30/25 01:00	01/30/25 16:09	7440-22-4	
Vanadium	**2.8J**	ug/L	5.0	1.6	1	01/30/25 01:00	01/30/25 16:09	7440-62-2	
Zinc	**4.0J**	ug/L	10.0	3.0	1	01/30/25 01:00	01/30/25 16:09	7440-66-6	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3010A Pace Analytical Services - Asheville								
Boron	**10.6J**	ug/L	50.0	7.5	1	01/30/25 01:00	02/13/25 13:32	7440-42-8	
Lithium	**31.5**	ug/L	2.5	0.33	1	01/30/25 01:00	02/11/25 16:33	7439-93-2	
Thallium	ND	ug/L	0.20	0.028	1	01/30/25 01:00	02/11/25 16:33	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Asheville								
Mercury	ND	ug/L	0.20	0.12	1	01/28/25 12:20	01/28/25 16:08	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Asheville								
Total Dissolved Solids	**834**	mg/L	50.0	50.0	1		01/28/25 12:27		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**244**	mg/L	6.0	3.6	6		02/27/25 11:04	16887-00-6	H1
Fluoride	**0.14**	mg/L	0.10	0.050	1		02/27/25 05:10	16984-48-8	H1
Sulfate	**12.8**	mg/L	1.0	0.50	1		02/27/25 05:10	14808-79-8	H1

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ANALYTICAL RESULTS

Project: Charah 1st quarter GW monitori
Pace Project No.: 92775785

Sample: MW-8 **Lab ID: 92775785011** Collected: 01/21/25 11:40 Received: 01/24/25 12:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Asheville								
Antimony	ND	ug/L	5.0	3.6	1	01/30/25 01:00	01/30/25 16:12	7440-36-0	
Arsenic	ND	ug/L	10.0	2.5	1	01/30/25 01:00	01/30/25 16:12	7440-38-2	
Barium	**1110**	ug/L	5.0	0.79	1	01/30/25 01:00	01/30/25 16:12	7440-39-3	
Beryllium	ND	ug/L	1.0	0.16	1	01/30/25 01:00	01/30/25 16:12	7440-41-7	
Cadmium	ND	ug/L	1.0	0.29	1	01/30/25 01:00	01/30/25 16:12	7440-43-9	
Calcium	**116000**	ug/L	1000	147	10	01/30/25 01:00	01/30/25 19:16	7440-70-2	
Chromium	**2.2J**	ug/L	5.0	0.63	1	01/30/25 01:00	01/30/25 16:12	7440-47-3	
Cobalt	**0.52J**	ug/L	5.0	0.44	1	01/30/25 01:00	01/30/25 16:12	7440-48-4	
Copper	**0.86J**	ug/L	5.0	0.62	1	01/30/25 01:00	01/30/25 16:12	7440-50-8	
Lead	ND	ug/L	5.0	1.4	1	01/30/25 01:00	01/30/25 16:12	7439-92-1	
Molybdenum	ND	ug/L	5.0	2.6	1	01/30/25 01:00	01/30/25 16:12	7439-98-7	
Nickel	**2.2J**	ug/L	5.0	0.88	1	01/30/25 01:00	01/30/25 16:12	7440-02-0	
Selenium	ND	ug/L	10.0	4.1	1	01/30/25 01:00	01/30/25 16:12	7782-49-2	
Silver	ND	ug/L	5.0	0.49	1	01/30/25 01:00	01/30/25 16:12	7440-22-4	
Vanadium	**1.8J**	ug/L	5.0	1.6	1	01/30/25 01:00	01/30/25 16:12	7440-62-2	
Zinc	**4.6J**	ug/L	10.0	3.0	1	01/30/25 01:00	01/30/25 16:12	7440-66-6	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3010A Pace Analytical Services - Asheville								
Boron	**12.7J**	ug/L	50.0	7.5	1	01/30/25 01:00	02/13/25 13:36	7440-42-8	
Lithium	**30.9**	ug/L	2.5	0.33	1	01/30/25 01:00	02/11/25 16:36	7439-93-2	
Thallium	ND	ug/L	0.20	0.028	1	01/30/25 01:00	02/11/25 16:36	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Asheville								
Mercury	ND	ug/L	0.20	0.12	1	01/28/25 12:20	01/28/25 16:10	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Asheville								
Total Dissolved Solids	**908**	mg/L	50.0	50.0	1		01/25/25 11:42		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**345**	mg/L	8.0	4.8	8		02/27/25 10:20	16887-00-6	H1
Fluoride	**0.10**	mg/L	0.10	0.050	1		02/27/25 03:56	16984-48-8	H1
Sulfate	**6.1**	mg/L	1.0	0.50	1		02/27/25 03:56	14808-79-8	H1

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ANALYTICAL RESULTS

Project: Charah 1st quarter GW monitori
Pace Project No.: 92775785

Sample: MW-9 **Lab ID: 92775785012** Collected: 01/23/25 15:55 Received: 01/24/25 12:00 Matrix: Water

Comments: • Sample 012 bottle 2 of 2 received with roughly 300 mL volume. Lab notified 01/29/2025.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Asheville								
Antimony	ND	ug/L	5.0	3.6	1	01/30/25 01:00	01/30/25 16:15	7440-36-0	
Arsenic	ND	ug/L	10.0	2.5	1	01/30/25 01:00	01/30/25 16:15	7440-38-2	
Barium	**184**	ug/L	5.0	0.79	1	01/30/25 01:00	01/30/25 16:15	7440-39-3	
Beryllium	ND	ug/L	1.0	0.16	1	01/30/25 01:00	01/30/25 16:15	7440-41-7	
Cadmium	ND	ug/L	1.0	0.29	1	01/30/25 01:00	01/30/25 16:15	7440-43-9	
Calcium	**34100**	ug/L	100	14.7	1	01/30/25 01:00	01/30/25 16:15	7440-70-2	
Chromium	**1.5J**	ug/L	5.0	0.63	1	01/30/25 01:00	01/30/25 16:15	7440-47-3	
Cobalt	ND	ug/L	5.0	0.44	1	01/30/25 01:00	01/30/25 16:15	7440-48-4	
Copper	**3.0J**	ug/L	5.0	0.62	1	01/30/25 01:00	01/30/25 16:15	7440-50-8	
Lead	ND	ug/L	5.0	1.4	1	01/30/25 01:00	01/30/25 16:15	7439-92-1	
Molybdenum	**16.0**	ug/L	5.0	2.6	1	01/30/25 01:00	01/30/25 16:15	7439-98-7	
Nickel	**1.5J**	ug/L	5.0	0.88	1	01/30/25 01:00	01/30/25 16:15	7440-02-0	
Selenium	ND	ug/L	10.0	4.1	1	01/30/25 01:00	01/30/25 16:15	7782-49-2	
Silver	ND	ug/L	5.0	0.49	1	01/30/25 01:00	01/30/25 16:15	7440-22-4	
Vanadium	ND	ug/L	5.0	1.6	1	01/30/25 01:00	01/30/25 16:15	7440-62-2	
Zinc	**3.6J**	ug/L	10.0	3.0	1	01/30/25 01:00	01/30/25 16:15	7440-66-6	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3010A Pace Analytical Services - Asheville								
Boron	**32.9J**	ug/L	50.0	7.5	1	01/30/25 01:00	02/13/25 13:39	7440-42-8	
Lithium	**4.8**	ug/L	2.5	0.33	1	01/30/25 01:00	02/11/25 16:40	7439-93-2	
Thallium	ND	ug/L	0.20	0.028	1	01/30/25 01:00	02/11/25 16:40	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Asheville								
Mercury	ND	ug/L	0.20	0.12	1	01/28/25 12:20	01/28/25 16:16	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Asheville								
Total Dissolved Solids	**482**	mg/L	50.0	50.0	1		01/29/25 14:23		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**9.3**	mg/L	1.0	0.60	1		02/27/25 07:53	16887-00-6	H1
Fluoride	**0.27**	mg/L	0.10	0.050	1		02/27/25 07:53	16984-48-8	H1
Sulfate	**62.3**	mg/L	1.0	0.50	1		02/27/25 07:53	14808-79-8	H1

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ANALYTICAL RESULTS

Project: Charah 1st quarter GW monitori
Pace Project No.: 92775785

Sample: MW-10 **Lab ID: 92775785013** Collected: 01/22/25 13:50 Received: 01/24/25 12:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Asheville								
Antimony	ND	ug/L	5.0	3.6	1	01/30/25 01:00	01/30/25 16:19	7440-36-0	
Arsenic	ND	ug/L	10.0	2.5	1	01/30/25 01:00	01/30/25 16:19	7440-38-2	
Barium	**95.3**	ug/L	5.0	0.79	1	01/30/25 01:00	01/30/25 16:19	7440-39-3	
Beryllium	ND	ug/L	1.0	0.16	1	01/30/25 01:00	01/30/25 16:19	7440-41-7	
Cadmium	ND	ug/L	1.0	0.29	1	01/30/25 01:00	01/30/25 16:19	7440-43-9	
Calcium	**21800**	ug/L	100	14.7	1	01/30/25 01:00	01/30/25 16:19	7440-70-2	
Chromium	ND	ug/L	5.0	0.63	1	01/30/25 01:00	01/30/25 16:19	7440-47-3	
Cobalt	ND	ug/L	5.0	0.44	1	01/30/25 01:00	01/30/25 16:19	7440-48-4	
Copper	**0.95J**	ug/L	5.0	0.62	1	01/30/25 01:00	01/30/25 16:19	7440-50-8	
Lead	ND	ug/L	5.0	1.4	1	01/30/25 01:00	01/30/25 16:19	7439-92-1	
Molybdenum	**17.2**	ug/L	5.0	2.6	1	01/30/25 01:00	01/30/25 16:19	7439-98-7	
Nickel	**0.96J**	ug/L	5.0	0.88	1	01/30/25 01:00	01/30/25 16:19	7440-02-0	
Selenium	ND	ug/L	10.0	4.1	1	01/30/25 01:00	01/30/25 16:19	7782-49-2	
Silver	ND	ug/L	5.0	0.49	1	01/30/25 01:00	01/30/25 16:19	7440-22-4	
Vanadium	ND	ug/L	5.0	1.6	1	01/30/25 01:00	01/30/25 16:19	7440-62-2	
Zinc	ND	ug/L	10.0	3.0	1	01/30/25 01:00	01/30/25 16:19	7440-66-6	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3010A Pace Analytical Services - Asheville								
Boron	**28.6J**	ug/L	50.0	7.5	1	01/30/25 01:00	02/13/25 13:43	7440-42-8	
Lithium	**6.5**	ug/L	2.5	0.33	1	01/30/25 01:00	02/11/25 16:44	7439-93-2	
Thallium	ND	ug/L	0.20	0.028	1	01/30/25 01:00	02/11/25 16:44	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Asheville								
Mercury	ND	ug/L	0.20	0.12	1	01/28/25 12:20	01/28/25 16:18	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Asheville								
Total Dissolved Solids	**338**	mg/L	25.0	25.0	1		01/28/25 12:27		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**28.2**	mg/L	1.0	0.60	1		02/27/25 05:25	16887-00-6	H1
Fluoride	**0.41**	mg/L	0.10	0.050	1		02/27/25 05:25	16984-48-8	H1
Sulfate	**1.6**	mg/L	1.0	0.50	1		02/27/25 05:25	14808-79-8	H1

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ANALYTICAL RESULTS

Project: Charah 1st quarter GW monitori
Pace Project No.: 92775785

Sample: MW-11 **Lab ID: 92775785014** Collected: 01/21/25 13:15 Received: 01/24/25 12:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Asheville								
Antimony	ND	ug/L	5.0	3.6	1	01/30/25 01:00	01/30/25 16:22	7440-36-0	
Arsenic	ND	ug/L	10.0	2.5	1	01/30/25 01:00	01/30/25 16:22	7440-38-2	
Barium	**45.8**	ug/L	5.0	0.79	1	01/30/25 01:00	01/30/25 16:22	7440-39-3	
Beryllium	ND	ug/L	1.0	0.16	1	01/30/25 01:00	01/30/25 16:22	7440-41-7	
Cadmium	ND	ug/L	1.0	0.29	1	01/30/25 01:00	01/30/25 16:22	7440-43-9	
Calcium	**29200**	ug/L	100	14.7	1	01/30/25 01:00	01/30/25 16:22	7440-70-2	
Chromium	ND	ug/L	5.0	0.63	1	01/30/25 01:00	01/30/25 16:22	7440-47-3	
Cobalt	**0.52J**	ug/L	5.0	0.44	1	01/30/25 01:00	01/30/25 16:22	7440-48-4	
Copper	**2.2J**	ug/L	5.0	0.62	1	01/30/25 01:00	01/30/25 16:22	7440-50-8	
Lead	ND	ug/L	5.0	1.4	1	01/30/25 01:00	01/30/25 16:22	7439-92-1	
Molybdenum	ND	ug/L	5.0	2.6	1	01/30/25 01:00	01/30/25 16:22	7439-98-7	
Nickel	**0.96J**	ug/L	5.0	0.88	1	01/30/25 01:00	01/30/25 16:22	7440-02-0	
Selenium	ND	ug/L	10.0	4.1	1	01/30/25 01:00	01/30/25 16:22	7782-49-2	
Silver	ND	ug/L	5.0	0.49	1	01/30/25 01:00	01/30/25 16:22	7440-22-4	
Vanadium	ND	ug/L	5.0	1.6	1	01/30/25 01:00	01/30/25 16:22	7440-62-2	
Zinc	**7.1J**	ug/L	10.0	3.0	1	01/30/25 01:00	01/30/25 16:22	7440-66-6	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3010A Pace Analytical Services - Asheville								
Boron	**20.0J**	ug/L	50.0	7.5	1	01/30/25 01:00	02/13/25 13:47	7440-42-8	
Lithium	**9.6**	ug/L	2.5	0.33	1	01/30/25 01:00	02/11/25 16:48	7439-93-2	
Thallium	ND	ug/L	0.20	0.028	1	01/30/25 01:00	02/11/25 16:48	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Asheville								
Mercury	ND	ug/L	0.20	0.12	1	01/28/25 12:20	01/28/25 16:20	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Asheville								
Total Dissolved Solids	**393**	mg/L	25.0	25.0	1		01/25/25 11:42		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**111**	mg/L	3.0	1.8	3		02/27/25 10:34	16887-00-6	H1
Fluoride	**0.18**	mg/L	0.10	0.050	1		02/27/25 04:11	16984-48-8	H1
Sulfate	**1.8**	mg/L	1.0	0.50	1		02/27/25 04:11	14808-79-8	H1

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ANALYTICAL RESULTS

Project: Charah 1st quarter GW monitori
Pace Project No.: 92775785

Sample: MW-11D **Lab ID: 92775785015** Collected: 01/21/25 14:00 Received: 01/24/25 12:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Asheville								
Antimony	ND	ug/L	5.0	3.6	1	01/30/25 01:00	01/30/25 16:25	7440-36-0	
Arsenic	ND	ug/L	10.0	2.5	1	01/30/25 01:00	01/30/25 16:25	7440-38-2	
Barium	**114**	ug/L	5.0	0.79	1	01/30/25 01:00	01/30/25 16:25	7440-39-3	
Beryllium	ND	ug/L	1.0	0.16	1	01/30/25 01:00	01/30/25 16:25	7440-41-7	
Cadmium	ND	ug/L	1.0	0.29	1	01/30/25 01:00	01/30/25 16:25	7440-43-9	
Calcium	**16400**	ug/L	100	14.7	1	01/30/25 01:00	01/30/25 16:25	7440-70-2	
Chromium	ND	ug/L	5.0	0.63	1	01/30/25 01:00	01/30/25 16:25	7440-47-3	
Cobalt	ND	ug/L	5.0	0.44	1	01/30/25 01:00	01/30/25 16:25	7440-48-4	
Copper	**2.3J**	ug/L	5.0	0.62	1	01/30/25 01:00	01/30/25 16:25	7440-50-8	
Lead	ND	ug/L	5.0	1.4	1	01/30/25 01:00	01/30/25 16:25	7439-92-1	
Molybdenum	ND	ug/L	5.0	2.6	1	01/30/25 01:00	01/30/25 16:25	7439-98-7	
Nickel	ND	ug/L	5.0	0.88	1	01/30/25 01:00	01/30/25 16:25	7440-02-0	
Selenium	ND	ug/L	10.0	4.1	1	01/30/25 01:00	01/30/25 16:25	7782-49-2	
Silver	ND	ug/L	5.0	0.49	1	01/30/25 01:00	01/30/25 16:25	7440-22-4	
Vanadium	ND	ug/L	5.0	1.6	1	01/30/25 01:00	01/30/25 16:25	7440-62-2	
Zinc	**19.0**	ug/L	10.0	3.0	1	01/30/25 01:00	01/30/25 16:25	7440-66-6	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3010A Pace Analytical Services - Asheville								
Boron	**52.0**	ug/L	50.0	7.5	1	01/30/25 01:00	02/13/25 13:51	7440-42-8	
Lithium	**17.4**	ug/L	2.5	0.33	1	01/30/25 01:00	02/11/25 16:52	7439-93-2	
Thallium	ND	ug/L	0.20	0.028	1	01/30/25 01:00	02/11/25 16:52	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Asheville								
Mercury	ND	ug/L	0.20	0.12	1	01/28/25 12:20	01/28/25 16:22	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Asheville								
Total Dissolved Solids	**315**	mg/L	25.0	25.0	1		01/25/25 11:42		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**52.7**	mg/L	1.0	0.60	1		02/27/25 04:26	16887-00-6	H1
Fluoride	**0.42**	mg/L	0.10	0.050	1		02/27/25 04:26	16984-48-8	H1
Sulfate	**13.3**	mg/L	1.0	0.50	1		02/27/25 04:26	14808-79-8	H1

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ANALYTICAL RESULTS

Project: Charah 1st quarter GW monitori
Pace Project No.: 92775785

Sample: DUP **Lab ID: 92775785016** Collected: 01/22/25 11:30 Received: 01/24/25 12:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Asheville								
Antimony	ND	ug/L	5.0	3.6	1	01/30/25 01:00	01/30/25 16:28	7440-36-0	
Arsenic	ND	ug/L	10.0	2.5	1	01/30/25 01:00	01/30/25 16:28	7440-38-2	
Barium	**56.5**	ug/L	5.0	0.79	1	01/30/25 01:00	01/30/25 16:28	7440-39-3	
Beryllium	ND	ug/L	1.0	0.16	1	01/30/25 01:00	01/30/25 16:28	7440-41-7	
Cadmium	ND	ug/L	1.0	0.29	1	01/30/25 01:00	01/30/25 16:28	7440-43-9	
Calcium	**33600**	ug/L	100	14.7	1	01/30/25 01:00	01/30/25 16:28	7440-70-2	
Chromium	ND	ug/L	5.0	0.63	1	01/30/25 01:00	01/30/25 16:28	7440-47-3	
Cobalt	ND	ug/L	5.0	0.44	1	01/30/25 01:00	01/30/25 16:28	7440-48-4	
Copper	**0.96J**	ug/L	5.0	0.62	1	01/30/25 01:00	01/30/25 16:28	7440-50-8	
Lead	ND	ug/L	5.0	1.4	1	01/30/25 01:00	01/30/25 16:28	7439-92-1	
Molybdenum	ND	ug/L	5.0	2.6	1	01/30/25 01:00	01/30/25 16:28	7439-98-7	
Nickel	**1.8J**	ug/L	5.0	0.88	1	01/30/25 01:00	01/30/25 16:28	7440-02-0	
Selenium	ND	ug/L	10.0	4.1	1	01/30/25 01:00	01/30/25 16:28	7782-49-2	
Silver	ND	ug/L	5.0	0.49	1	01/30/25 01:00	01/30/25 16:28	7440-22-4	
Vanadium	ND	ug/L	5.0	1.6	1	01/30/25 01:00	01/30/25 16:28	7440-62-2	
Zinc	**6.5J**	ug/L	10.0	3.0	1	01/30/25 01:00	01/30/25 16:28	7440-66-6	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3010A Pace Analytical Services - Asheville								
Boron	**9.6J**	ug/L	50.0	7.5	1	01/30/25 01:00	02/13/25 13:55	7440-42-8	
Lithium	**24.8**	ug/L	2.5	0.33	1	01/30/25 01:00	02/11/25 16:56	7439-93-2	
Thallium	ND	ug/L	0.20	0.028	1	01/30/25 01:00	02/11/25 16:56	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Asheville								
Mercury	ND	ug/L	0.20	0.12	1	01/28/25 12:20	01/28/25 16:24	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Asheville								
Total Dissolved Solids	**564**	mg/L	50.0	50.0	1		01/28/25 12:27		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**167**	mg/L	4.0	2.4	4		02/27/25 11:18	16887-00-6	H1,M1
Fluoride	**0.35**	mg/L	0.10	0.050	1		02/27/25 05:40	16984-48-8	H1,M1
Sulfate	**25.6**	mg/L	1.0	0.50	1		02/27/25 05:40	14808-79-8	H1

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ANALYTICAL RESULTS

Project: Charah 1st quarter GW monitori
Pace Project No.: 92775785

Sample: EQBL **Lab ID: 92775785017** Collected: 01/24/25 08:00 Received: 01/24/25 12:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Asheville								
Antimony	ND	ug/L	5.0	3.6	1	01/30/25 01:00	01/30/25 16:37	7440-36-0	
Arsenic	ND	ug/L	10.0	2.5	1	01/30/25 01:00	01/30/25 16:37	7440-38-2	
Barium	ND	ug/L	5.0	0.79	1	01/30/25 01:00	01/30/25 16:37	7440-39-3	
Beryllium	ND	ug/L	1.0	0.16	1	01/30/25 01:00	01/30/25 16:37	7440-41-7	
Cadmium	ND	ug/L	1.0	0.29	1	01/30/25 01:00	01/30/25 16:37	7440-43-9	
Calcium	ND	ug/L	100	14.7	1	01/30/25 01:00	01/30/25 16:37	7440-70-2	
Chromium	ND	ug/L	5.0	0.63	1	01/30/25 01:00	01/30/25 16:37	7440-47-3	
Cobalt	ND	ug/L	5.0	0.44	1	01/30/25 01:00	01/30/25 16:37	7440-48-4	
Copper	ND	ug/L	5.0	0.62	1	01/30/25 01:00	01/30/25 16:37	7440-50-8	
Lead	ND	ug/L	5.0	1.4	1	01/30/25 01:00	01/30/25 16:37	7439-92-1	
Molybdenum	ND	ug/L	5.0	2.6	1	01/30/25 01:00	01/30/25 16:37	7439-98-7	
Nickel	ND	ug/L	5.0	0.88	1	01/30/25 01:00	01/30/25 16:37	7440-02-0	
Selenium	ND	ug/L	10.0	4.1	1	01/30/25 01:00	01/30/25 16:37	7782-49-2	
Silver	ND	ug/L	5.0	0.49	1	01/30/25 01:00	01/30/25 16:37	7440-22-4	
Vanadium	ND	ug/L	5.0	1.6	1	01/30/25 01:00	01/30/25 16:37	7440-62-2	
Zinc	ND	ug/L	10.0	3.0	1	01/30/25 01:00	01/30/25 16:37	7440-66-6	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3010A Pace Analytical Services - Asheville								
Boron	**19.8J**	ug/L	50.0	7.5	1	01/30/25 01:00	02/13/25 13:59	7440-42-8	
Lithium	ND	ug/L	2.5	0.33	1	01/30/25 01:00	02/11/25 17:00	7439-93-2	
Thallium	ND	ug/L	0.20	0.028	1	01/30/25 01:00	02/11/25 17:00	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Asheville								
Mercury	ND	ug/L	0.20	0.12	1	01/28/25 12:20	01/28/25 16:26	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Asheville								
Total Dissolved Solids	ND	mg/L	25.0	25.0	1		01/29/25 16:50		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	ND	mg/L	1.0	0.60	1		02/26/25 22:45	16887-00-6	H1
Fluoride	**0.054J**	mg/L	0.10	0.050	1		02/26/25 22:45	16984-48-8	H1
Sulfate	ND	mg/L	1.0	0.50	1		02/26/25 22:45	14808-79-8	H1

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(704)875-9092

ANALYTICAL RESULTS

Project: Charah 1st quarter GW monitori
Pace Project No.: 92775785

Sample: LEACHATE **Lab ID: 92775785018** Collected: 01/23/25 17:15 Received: 01/24/25 12:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Asheville								
Antimony	ND	ug/L	5.0	3.6	1	01/30/25 01:00	01/30/25 16:40	7440-36-0	
Arsenic	**25.3**	ug/L	10.0	2.5	1	01/30/25 01:00	01/30/25 16:40	7440-38-2	
Barium	**55.3**	ug/L	5.0	0.79	1	01/30/25 01:00	01/30/25 16:40	7440-39-3	
Beryllium	ND	ug/L	1.0	0.16	1	01/30/25 01:00	01/30/25 16:40	7440-41-7	
Cadmium	ND	ug/L	1.0	0.29	1	01/30/25 01:00	01/30/25 16:40	7440-43-9	
Calcium	**331000**	ug/L	1000	147	10	01/30/25 01:00	01/31/25 15:33	7440-70-2	
Chromium	ND	ug/L	5.0	0.63	1	01/30/25 01:00	01/30/25 16:40	7440-47-3	
Cobalt	**0.66J**	ug/L	5.0	0.44	1	01/30/25 01:00	01/30/25 16:40	7440-48-4	
Copper	**0.66J**	ug/L	5.0	0.62	1	01/30/25 01:00	01/30/25 16:40	7440-50-8	
Lead	ND	ug/L	5.0	1.4	1	01/30/25 01:00	01/30/25 16:40	7439-92-1	
Molybdenum	**224**	ug/L	5.0	2.6	1	01/30/25 01:00	01/30/25 16:40	7439-98-7	
Nickel	**3.1J**	ug/L	5.0	0.88	1	01/30/25 01:00	01/30/25 16:40	7440-02-0	
Selenium	ND	ug/L	10.0	4.1	1	01/30/25 01:00	01/30/25 16:40	7782-49-2	
Silver	ND	ug/L	5.0	0.49	1	01/30/25 01:00	01/30/25 16:40	7440-22-4	
Vanadium	**2.6J**	ug/L	5.0	1.6	1	01/30/25 01:00	01/30/25 16:40	7440-62-2	
Zinc	ND	ug/L	10.0	3.0	1	01/30/25 01:00	01/30/25 16:40	7440-66-6	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3010A Pace Analytical Services - Asheville								
Boron	**2110J**	ug/L	5000	749	100	01/30/25 01:00	02/14/25 16:26	7440-42-8	
Lithium	**70.5**	ug/L	2.5	0.33	1	01/30/25 01:00	02/11/25 17:03	7439-93-2	
Thallium	**0.072J**	ug/L	0.20	0.028	1	01/30/25 01:00	02/11/25 17:03	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Asheville								
Mercury	ND	ug/L	0.20	0.12	1	01/28/25 12:20	01/28/25 16:28	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Asheville								
Total Dissolved Solids	**1520**	mg/L	50.0	50.0	1		01/29/25 14:23		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**20.2**	mg/L	1.0	0.60	1		02/27/25 13:46	16887-00-6	H1
Fluoride	**0.21**	mg/L	0.10	0.050	1		02/27/25 13:46	16984-48-8	H1
Sulfate	**466**	mg/L	10.0	5.0	10		02/27/25 08:08	14808-79-8	H1

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(704)875-9092

ANALYTICAL RESULTS

Project: Charah 1st quarter GW monitori
Pace Project No.: 92775785

Sample: SW-6 **Lab ID: 92775785019** Collected: 01/23/25 16:30 Received: 01/24/25 12:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Asheville								
Antimony	ND	ug/L	5.0	3.6	1	01/30/25 01:00	01/30/25 16:43	7440-36-0	
Arsenic	ND	ug/L	10.0	2.5	1	01/30/25 01:00	01/30/25 16:43	7440-38-2	
Barium	**7.7**	ug/L	5.0	0.79	1	01/30/25 01:00	01/30/25 16:43	7440-39-3	
Beryllium	ND	ug/L	1.0	0.16	1	01/30/25 01:00	01/30/25 16:43	7440-41-7	
Cadmium	ND	ug/L	1.0	0.29	1	01/30/25 01:00	01/30/25 16:43	7440-43-9	
Calcium	**1130**	ug/L	100	14.7	1	01/30/25 01:00	01/30/25 16:43	7440-70-2	
Chromium	ND	ug/L	5.0	0.63	1	01/30/25 01:00	01/30/25 16:43	7440-47-3	
Cobalt	ND	ug/L	5.0	0.44	1	01/30/25 01:00	01/30/25 16:43	7440-48-4	
Copper	**2.3J**	ug/L	5.0	0.62	1	01/30/25 01:00	01/30/25 16:43	7440-50-8	
Lead	ND	ug/L	5.0	1.4	1	01/30/25 01:00	01/30/25 16:43	7439-92-1	
Molybdenum	ND	ug/L	5.0	2.6	1	01/30/25 01:00	01/30/25 16:43	7439-98-7	
Nickel	ND	ug/L	5.0	0.88	1	01/30/25 01:00	01/30/25 16:43	7440-02-0	
Selenium	ND	ug/L	10.0	4.1	1	01/30/25 01:00	01/30/25 16:43	7782-49-2	
Silver	ND	ug/L	5.0	0.49	1	01/30/25 01:00	01/30/25 16:43	7440-22-4	
Vanadium	ND	ug/L	5.0	1.6	1	01/30/25 01:00	01/30/25 16:43	7440-62-2	
Zinc	**3.1J**	ug/L	10.0	3.0	1	01/30/25 01:00	01/30/25 16:43	7440-66-6	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3010A Pace Analytical Services - Asheville								
Boron	**15.4J**	ug/L	50.0	7.5	1	01/30/25 01:00	02/13/25 14:07	7440-42-8	
Lithium	ND	ug/L	2.5	0.33	1	01/30/25 01:00	02/11/25 17:07	7439-93-2	
Thallium	ND	ug/L	0.20	0.028	1	01/30/25 01:00	02/11/25 17:07	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Asheville								
Mercury	ND	ug/L	0.20	0.12	1	01/28/25 12:20	01/28/25 16:31	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Asheville								
Total Dissolved Solids	**36.0**	mg/L	25.0	25.0	1		01/29/25 14:23		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**1.6**	mg/L	1.0	0.60	1		02/27/25 08:22	16887-00-6	H1
Fluoride	**0.093J**	mg/L	0.10	0.050	1		02/27/25 08:22	16984-48-8	H1
Sulfate	**1.2**	mg/L	1.0	0.50	1		02/27/25 08:22	14808-79-8	H1

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QUALITY CONTROL DATA

Project: Charah 1st quarter GW monitori
Pace Project No.: 92775785

QC Batch: 911503 — Analysis Method: EPA 7470A
QC Batch Method: EPA 7470A — Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92775785001, 92775785002, 92775785003, 92775785004, 92775785005, 92775785006, 92775785007, 92775785008, 92775785009

METHOD BLANK: 4686521 — Matrix: Water
Associated Lab Samples: 92775785001, 92775785002, 92775785003, 92775785004, 92775785005, 92775785006, 92775785007, 92775785008, 92775785009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	0.12	02/03/25 10:46	

LABORATORY CONTROL SAMPLE: 4686522

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	2.5	2.6	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4686523 4686524

Parameter	Units	92775785001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	2.5	2.5	2.5	2.5	96	97	75-125	1	25	

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QUALITY CONTROL DATA

Project: Charah 1st quarter GW monitori
Pace Project No.: 92775785

QC Batch: 911617 | Analysis Method: EPA 7470A
QC Batch Method: EPA 7470A | Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92775785010, 92775785011, 92775785012, 92775785013, 92775785014, 92775785015, 92775785016, 92775785017, 92775785018, 92775785019

METHOD BLANK: 4686983 Matrix: Water
Associated Lab Samples: 92775785010, 92775785011, 92775785012, 92775785013, 92775785014, 92775785015, 92775785016, 92775785017, 92775785018, 92775785019

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	0.12	01/28/25 15:51	

LABORATORY CONTROL SAMPLE: 4686984

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	2.5	2.4	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4686985 4686986

Parameter	Units	92775372008 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	2.5	2.5	2.4	2.4	96	96	75-125	0	25	

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QUALITY CONTROL DATA

Project: Charah 1st quarter GW monitori
Pace Project No.: 92775785

QC Batch: 911885
QC Batch Method: EPA 3010A
Analysis Method: EPA 6010D
Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92775785001, 92775785002, 92775785003, 92775785004, 92775785005

METHOD BLANK: 4687941 Matrix: Water
Associated Lab Samples: 92775785001, 92775785002, 92775785003, 92775785004, 92775785005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	ND	5.0	3.6	01/29/25 14:42	
Arsenic	ug/L	ND	10.0	2.5	01/29/25 14:42	
Barium	ug/L	ND	5.0	0.79	01/29/25 14:42	
Beryllium	ug/L	ND	1.0	0.16	01/29/25 14:42	
Cadmium	ug/L	ND	1.0	0.29	01/29/25 14:42	
Calcium	ug/L	17.9J	100	14.7	01/29/25 14:42	
Chromium	ug/L	ND	5.0	0.63	01/29/25 14:42	
Cobalt	ug/L	ND	5.0	0.44	01/29/25 14:42	
Copper	ug/L	ND	5.0	0.62	01/29/25 14:42	
Lead	ug/L	ND	5.0	1.4	01/29/25 14:42	
Molybdenum	ug/L	ND	5.0	2.6	01/29/25 14:42	
Nickel	ug/L	ND	5.0	0.88	01/29/25 14:42	
Selenium	ug/L	ND	10.0	4.1	01/29/25 14:42	
Silver	ug/L	ND	5.0	0.49	01/29/25 14:42	
Vanadium	ug/L	ND	5.0	1.6	01/29/25 14:42	
Zinc	ug/L	ND	10.0	3.0	01/29/25 14:42	

LABORATORY CONTROL SAMPLE: 4687942

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	500	541	108	80-120	
Arsenic	ug/L	500	540	108	80-120	
Barium	ug/L	500	521	104	80-120	
Beryllium	ug/L	500	536	107	80-120	
Cadmium	ug/L	500	530	106	80-120	
Calcium	ug/L	5000	4960	99	80-120	
Chromium	ug/L	500	525	105	80-120	
Cobalt	ug/L	500	525	105	80-120	
Copper	ug/L	500	529	106	80-120	
Lead	ug/L	500	526	105	80-120	
Molybdenum	ug/L	500	534	107	80-120	
Nickel	ug/L	500	528	106	80-120	
Selenium	ug/L	500	538	108	80-120	
Silver	ug/L	250	260	104	80-120	
Vanadium	ug/L	500	528	106	80-120	
Zinc	ug/L	500	531	106	80-120	

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QUALITY CONTROL DATA

Project: Charah 1st quarter GW monitori
Pace Project No.: 92775785

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4687943 4687944

Parameter	Units	92775785001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	ug/L	ND	500	500	558	566	112	113	75-125	1	20	
Arsenic	ug/L	ND	500	500	549	558	109	111	75-125	2	20	
Barium	ug/L	283	500	500	826	829	109	109	75-125	0	20	
Beryllium	ug/L	ND	500	500	543	551	109	110	75-125	1	20	
Cadmium	ug/L	ND	500	500	522	530	104	106	75-125	1	20	
Calcium	ug/L	23900	5000	5000	29800	30100	119	123	75-125	1	20	
Chromium	ug/L	ND	500	500	518	525	104	105	75-125	1	20	
Cobalt	ug/L	ND	500	500	523	534	105	107	75-125	2	20	
Copper	ug/L	3.0J	500	500	562	570	112	113	75-125	1	20	
Lead	ug/L	ND	500	500	519	526	104	105	75-125	1	20	
Molybdenum	ug/L	ND	500	500	527	535	105	107	75-125	1	20	
Nickel	ug/L	1.0J	500	500	524	532	105	106	75-125	1	20	
Selenium	ug/L	ND	500	500	559	568	112	114	75-125	2	20	
Silver	ug/L	ND	250	250	271	274	108	110	75-125	1	20	
Vanadium	ug/L	5.8	500	500	537	544	106	108	75-125	1	20	
Zinc	ug/L	11.2	500	500	539	546	105	107	75-125	1	20	

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QUALITY CONTROL DATA

Project: Charah 1st quarter GW monitori
Pace Project No.: 92775785

QC Batch: 912403
QC Batch Method: EPA 3010A
Analysis Method: EPA 6010D
Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92775785006, 92775785007, 92775785008, 92775785009, 92775785010, 92775785011, 92775785012, 92775785013, 92775785014, 92775785015, 92775785016, 92775785017, 92775785018, 92775785019

METHOD BLANK: 4690518 Matrix: Water
Associated Lab Samples: 92775785006, 92775785007, 92775785008, 92775785009, 92775785010, 92775785011, 92775785012, 92775785013, 92775785014, 92775785015, 92775785016, 92775785017, 92775785018, 92775785019

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	ND	5.0	3.6	01/30/25 15:35	
Arsenic	ug/L	ND	10.0	2.5	01/30/25 15:35	
Barium	ug/L	ND	5.0	0.79	01/30/25 15:35	
Beryllium	ug/L	ND	1.0	0.16	01/30/25 15:35	
Cadmium	ug/L	ND	1.0	0.29	01/30/25 15:35	
Calcium	ug/L	ND	100	14.7	01/30/25 15:35	
Chromium	ug/L	ND	5.0	0.63	01/30/25 15:35	
Cobalt	ug/L	ND	5.0	0.44	01/30/25 15:35	
Copper	ug/L	ND	5.0	0.62	01/30/25 15:35	
Lead	ug/L	ND	5.0	1.4	01/30/25 15:35	
Molybdenum	ug/L	ND	5.0	2.6	01/30/25 15:35	
Nickel	ug/L	ND	5.0	0.88	01/30/25 15:35	
Selenium	ug/L	ND	10.0	4.1	01/30/25 15:35	
Silver	ug/L	ND	5.0	0.49	01/30/25 15:35	
Vanadium	ug/L	ND	5.0	1.6	01/30/25 15:35	
Zinc	ug/L	ND	10.0	3.0	01/30/25 15:35	

LABORATORY CONTROL SAMPLE: 4690519

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	500	525	105	80-120	
Arsenic	ug/L	500	511	102	80-120	
Barium	ug/L	500	514	103	80-120	
Beryllium	ug/L	500	512	102	80-120	
Cadmium	ug/L	500	500	100	80-120	
Calcium	ug/L	5000	4860	97	80-120	
Chromium	ug/L	500	506	101	80-120	
Cobalt	ug/L	500	500	100	80-120	
Copper	ug/L	500	510	102	80-120	
Lead	ug/L	500	497	99	80-120	
Molybdenum	ug/L	500	517	103	80-120	
Nickel	ug/L	500	501	100	80-120	
Selenium	ug/L	500	510	102	80-120	
Silver	ug/L	250	252	101	80-120	
Vanadium	ug/L	500	505	101	80-120	
Zinc	ug/L	500	502	100	80-120	

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QUALITY CONTROL DATA

Project: Charah 1st quarter GW monitori
Pace Project No.: 92775785

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4690520 4690521

Parameter	Units	92775785006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	ug/L	ND	500	500	538	533	108	107	75-125	1	20	
Arsenic	ug/L	4.2J	500	500	522	514	103	102	75-125	1	20	
Barium	ug/L	748	500	500	1270	1290	103	109	75-125	2	20	
Beryllium	ug/L	ND	500	500	519	513	104	103	75-125	1	20	
Cadmium	ug/L	ND	500	500	465	457	93	91	75-125	2	20	
Calcium	ug/L	326000	5000	5000	179000	185000	-2930	-2810	75-125	3	20	M1
Chromium	ug/L	ND	500	500	491	485	98	97	75-125	1	20	
Cobalt	ug/L	0.90J	500	500	490	483	98	96	75-125	2	20	
Copper	ug/L	2.4J	500	500	581	577	116	115	75-125	1	20	
Lead	ug/L	ND	500	500	484	476	97	95	75-125	2	20	
Molybdenum	ug/L	ND	500	500	500	494	100	99	75-125	1	20	
Nickel	ug/L	1.8J	500	500	479	472	95	94	75-125	1	20	
Selenium	ug/L	ND	500	500	536	529	107	106	75-125	1	20	
Silver	ug/L	0.85J	250	250	279	277	111	111	75-125	1	20	
Vanadium	ug/L	1.7J	500	500	507	502	101	100	75-125	1	20	
Zinc	ug/L	3.5J	500	500	458	449	91	89	75-125	2	20	

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QUALITY CONTROL DATA

Project: Charah 1st quarter GW monitori
Pace Project No.: 92775785

QC Batch: 912404
QC Batch Method: EPA 3010A
Analysis Method: EPA 6020B
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92775785006, 92775785007, 92775785008, 92775785009, 92775785010, 92775785011, 92775785012, 92775785013, 92775785014, 92775785015, 92775785016, 92775785017, 92775785018, 92775785019

METHOD BLANK: 4690522 Matrix: Water
Associated Lab Samples: 92775785006, 92775785007, 92775785008, 92775785009, 92775785010, 92775785011, 92775785012, 92775785013, 92775785014, 92775785015, 92775785016, 92775785017, 92775785018, 92775785019

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron	ug/L	ND	50.0	7.5	02/13/25 12:45	
Lithium	ug/L	ND	2.5	0.33	02/11/25 15:29	
Thallium	ug/L	ND	0.20	0.028	02/11/25 15:29	

LABORATORY CONTROL SAMPLE: 4690523

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	ug/L	50	49.7J	99	80-120	
Lithium	ug/L	50	49.8	100	80-120	
Thallium	ug/L	25	25.4	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4690524 4690525

Parameter	Units	92775785006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	ug/L	47.8J	50	50	104	102	113	109	75-125	2	20	
Lithium	ug/L	84.4	50	50	137	134	105	98	75-125	3	20	
Thallium	ug/L	ND	25	25	25.6	25.7	102	103	75-125	0	20	

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QUALITY CONTROL DATA

Project: Charah 1st quarter GW monitori
Pace Project No.: 92775785

QC Batch: 912516
QC Batch Method: EPA 3010A
Analysis Method: EPA 6020B
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92775785001, 92775785002, 92775785003, 92775785004, 92775785005

METHOD BLANK: 4690836 Matrix: Water
Associated Lab Samples: 92775785001, 92775785002, 92775785003, 92775785004, 92775785005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron	ug/L	ND	50.0	7.5	02/07/25 14:47	
Lithium	ug/L	ND	2.5	0.33	02/05/25 23:01	
Thallium	ug/L	ND	0.20	0.028	02/05/25 23:01	

LABORATORY CONTROL SAMPLE: 4690837

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	ug/L	50	53.4	107	80-120	
Lithium	ug/L	50	51.3	103	80-120	
Thallium	ug/L	25	25.7	103	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4690838 4690839

Parameter	Units	92776460010 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	ug/L	116	50	50	173	169	113	106	75-125	2	20	
Lithium	ug/L	ND	50	50	52.7	51.5	103	100	75-125	2	20	
Thallium	ug/L	0.20	25	25	26.5	27.0	105	107	75-125	2	20	

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QUALITY CONTROL DATA

Project: Charah 1st quarter GW monitori
Pace Project No.: 92775785

QC Batch: 911400 | Analysis Method: SM 2540C-2015
QC Batch Method: SM 2540C-2015 | Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92775785001, 92775785002, 92775785003, 92775785011, 92775785014, 92775785015

METHOD BLANK: 4686275 Matrix: Water
Associated Lab Samples: 92775785001, 92775785002, 92775785003, 92775785011, 92775785014, 92775785015

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	25.0	25.0	01/25/25 11:39	

LABORATORY CONTROL SAMPLE: 4686276

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	250	258	103	90-110	

SAMPLE DUPLICATE: 4686277

Parameter	Units	92775785001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	552	556	1	25	

SAMPLE DUPLICATE: 4686278

Parameter	Units	92775439002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	704	704	0	25	

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QUALITY CONTROL DATA

Project: Charah 1st quarter GW monitori
Pace Project No.: 92775785

QC Batch: 911720 | Analysis Method: SM 2540C-2015
QC Batch Method: SM 2540C-2015 | Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92775785008, 92775785009, 92775785010, 92775785013, 92775785016

METHOD BLANK: 4687347 Matrix: Water
Associated Lab Samples: 92775785008, 92775785009, 92775785010, 92775785013, 92775785016

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	25.0	25.0	01/28/25 12:26	

LABORATORY CONTROL SAMPLE: 4687348

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	250	246	98	90-110	

SAMPLE DUPLICATE: 4687349

Parameter	Units	92775464015 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	156	156	0	25	

SAMPLE DUPLICATE: 4687350

Parameter	Units	92775372009 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	432	432	0	25	

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QUALITY CONTROL DATA

Project: Charah 1st quarter GW monitori
Pace Project No.: 92775785

QC Batch: 912020 | Analysis Method: SM 2540C-2015
QC Batch Method: SM 2540C-2015 | Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92775785004, 92775785005, 92775785006, 92775785007, 92775785012, 92775785018, 92775785019

METHOD BLANK: 4688609 Matrix: Water
Associated Lab Samples: 92775785004, 92775785005, 92775785006, 92775785007, 92775785012, 92775785018, 92775785019

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	25.0	25.0	01/29/25 14:18	

LABORATORY CONTROL SAMPLE: 4688610

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	250	250	100	90-110	

SAMPLE DUPLICATE: 4688611

Parameter	Units	92775606009 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	37.0	39.0	5	25	

SAMPLE DUPLICATE: 4688612

Parameter	Units	92775652002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1090	1060	3	25	

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QUALITY CONTROL DATA

Project: Charah 1st quarter GW monitori
Pace Project No.: 92775785

QC Batch: 912283
QC Batch Method: SM 2540C-2015
Analysis Method: SM 2540C-2015
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92775785017

METHOD BLANK: 4689959 Matrix: Water
Associated Lab Samples: 92775785017

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	25.0	25.0	01/29/25 16:50	

LABORATORY CONTROL SAMPLE: 4689960

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	250	244	98	90-110	

SAMPLE DUPLICATE: 4689961

Parameter	Units	92775692001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1880	1840	2	25	

SAMPLE DUPLICATE: 4689962

Parameter	Units	92775860004 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	2300	2300	0	25	

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QUALITY CONTROL DATA

Project: Charah 1st quarter GW monitori
Pace Project No.: 92775785

QC Batch: 918765
QC Batch Method: EPA 300.0 Rev 2.1 1993
Analysis Method: EPA 300.0 Rev 2.1 1993
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92775785001, 92775785002, 92775785003, 92775785004, 92775785005, 92775785006, 92775785007, 92775785008, 92775785009, 92775785010, 92775785011, 92775785012, 92775785013, 92775785014, 92775785015, 92775785016, 92775785017, 92775785018, 92775785019

METHOD BLANK: 4721684 Matrix: Water
Associated Lab Samples: 92775785001, 92775785002, 92775785003, 92775785004, 92775785005, 92775785006, 92775785007, 92775785008, 92775785009, 92775785010, 92775785011, 92775785012, 92775785013, 92775785014, 92775785015, 92775785016, 92775785017, 92775785018, 92775785019

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	02/27/25 01:43	
Fluoride	mg/L	ND	0.10	0.050	02/27/25 01:43	
Sulfate	mg/L	ND	1.0	0.50	02/27/25 01:43	

LABORATORY CONTROL SAMPLE: 4721685

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	48.1	96	90-110	
Fluoride	mg/L	2.5	2.4	96	90-110	
Sulfate	mg/L	50	48.8	98	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4721686 4721687

Parameter	Units	92775785001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	180	50	50	219	222	77	84	90-110	1	10	H1,M1
Fluoride	mg/L	0.19	2.5	2.5	2.8	2.8	103	103	90-110	0	10	H1
Sulfate	mg/L	20.0	50	50	72.2	71.8	104	104	90-110	1	10	H1

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4721688 4721689

Parameter	Units	92775785016 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	167	50	50	205	213	76	92	90-110	4	10	H1,M1
Fluoride	mg/L	0.35	2.5	2.5	3.0	3.1	104	111	90-110	5	10	H1,M1
Sulfate	mg/L	25.6	50	50	77.1	79.8	103	108	90-110	3	10	H1

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Charah 1st quarter GW monitori
Pace Project No.: 92775785

Sample: BG-1 **Lab ID: 92775785001** Collected: 01/20/25 15:20 Received: 01/24/25 12:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.373 ± 0.710 (1.23) C:NA T:87%**	pCi/L	02/18/25 14:05	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.410 ± 0.348 (0.692) C:79% T:83%**	pCi/L	02/11/25 14:45	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.783 ± 1.06 (1.92)**	pCi/L	02/19/25 14:08	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Charah 1st quarter GW monitori
Pace Project No.: 92775785

Sample: BG-2 **Lab ID: 92775785002** Collected: 01/21/25 15:50 Received: 01/24/25 12:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.326 ± 0.641 (1.12) C:NA T:91%**	pCi/L	02/18/25 14:05	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**1.12 ± 0.445 (0.664) C:83% T:82%**	pCi/L	02/11/25 14:46	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.45 ± 1.09 (1.78)**	pCi/L	02/19/25 14:08	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Charah 1st quarter GW monitori
Pace Project No.: 92775785

Sample: MW-1 **Lab ID: 92775785003** Collected: 01/20/25 17:15 Received: 01/24/25 12:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**-0.407 ± 0.389 (0.908) C:NA T:93%**	pCi/L	02/18/25 14:05	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.460 ± 0.349 (0.681) C:77% T:89%**	pCi/L	02/11/25 14:45	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.460 ± 0.738 (1.59)**	pCi/L	02/19/25 14:08	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Charah 1st quarter GW monitori
Pace Project No.: 92775785

Sample: MW-2 **Lab ID: 92775785004** Collected: 01/23/25 13:55 Received: 01/24/25 12:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**1.14 ± 0.712 (1.03) C:NA T:94%**	pCi/L	02/18/25 14:46	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**1.66 ± 0.623 (0.961) C:77% T:87%**	pCi/L	02/11/25 14:47	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**2.80 ± 1.34 (1.99)**	pCi/L	02/19/25 14:08	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Charah 1st quarter GW monitori
Pace Project No.: 92775785

Sample: MW-2D **Lab ID: 92775785005** Collected: 01/23/25 14:35 Received: 01/24/25 12:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.229 ± 0.954 (1.82) C:NA T:92%**	pCi/L	02/18/25 14:46	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**1.45 ± 1.10 (2.20) C:79% T:80%**	pCi/L	02/11/25 14:48	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.68 ± 2.05 (4.02)**	pCi/L	02/19/25 14:08	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Charah 1st quarter GW monitori
Pace Project No.: 92775785

Sample: MW-3 **Lab ID: 92775785006** Collected: 01/23/25 12:25 Received: 01/24/25 12:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.651 ± 0.745 (1.23) C:NA T:94%**	pCi/L	02/18/25 14:46	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**1.83 ± 0.654 (0.982) C:74% T:87%**	pCi/L	02/11/25 14:47	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**2.48 ± 1.40 (2.21)**	pCi/L	02/19/25 14:08	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Charah 1st quarter GW monitori
Pace Project No.: 92775785

Sample: MW-4 **Lab ID: 92775785007** Collected: 01/23/25 11:05 Received: 01/24/25 12:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.720 ± 0.531 (0.762) C:NA T:96%**	pCi/L	02/18/25 14:46	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.490 ± 0.470 (0.975) C:81% T:89%**	pCi/L	02/11/25 14:47	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.21 ± 1.00 (1.74)**	pCi/L	02/19/25 14:08	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Charah 1st quarter GW monitori
Pace Project No.: 92775785

Sample: MW-5 **Lab ID: 92775785008** Collected: 01/22/25 15:50 Received: 01/24/25 12:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.193 ± 0.401 (0.724) C:NA T:86%**	pCi/L	02/18/25 14:46	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.395 ± 0.355 (0.718) C:81% T:87%**	pCi/L	02/11/25 14:47	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.588 ± 0.756 (1.44)**	pCi/L	02/19/25 14:08	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Charah 1st quarter GW monitori
Pace Project No.: 92775785

Sample: MW-6 **Lab ID: 92775785009** Collected: 01/22/25 10:55 Received: 01/24/25 12:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**-0.236 ± 0.533 (1.09) C:NA T:90%**	pCi/L	02/18/25 14:05	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.411 ± 0.374 (0.757) C:81% T:83%**	pCi/L	02/11/25 14:47	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.411 ± 0.907 (1.85)**	pCi/L	02/19/25 14:08	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Charah 1st quarter GW monitori
Pace Project No.: 92775785

Sample: MW-7R **Lab ID: 92775785010** Collected: 01/22/25 12:25 Received: 01/24/25 12:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.342 ± 0.240 (0.116) C:NA T:94%**	pCi/L	02/18/25 14:46	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.373 ± 0.347 (0.704) C:83% T:81%**	pCi/L	02/11/25 14:47	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.715 ± 0.587 (0.820)**	pCi/L	02/19/25 14:08	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Charah 1st quarter GW monitori
Pace Project No.: 92775785

Sample: MW-8 **Lab ID: 92775785011** Collected: 01/21/25 11:40 Received: 01/24/25 12:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.432 ± 0.647 (1.10) C:NA T:92%**	pCi/L	02/18/25 14:05	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.388 ± 0.441 (0.928) C:83% T:84%**	pCi/L	02/11/25 14:45	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.820 ± 1.09 (2.03)**	pCi/L	02/19/25 14:08	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Charah 1st quarter GW monitori
Pace Project No.: 92775785

Sample: MW-9 **Lab ID: 92775785012** Collected: 01/23/25 15:55 Received: 01/24/25 12:00 Matrix: Water
PWS: Site ID: Sample Type:

Comments: • Sample 012 bottle 2 of 2 received with roughly 300 mL volume. Lab notified 01/29/2025.

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**-1.11 ± 1.39 (2.89) C:NA T:91%**	pCi/L	02/18/25 14:33	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**2.19 ± 0.942 (1.50) C:83% T:85%**	pCi/L	02/11/25 14:48	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**2.19 ± 2.33 (4.39)**	pCi/L	02/19/25 14:08	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Charah 1st quarter GW monitori
Pace Project No.: 92775785

Sample: MW-10 **Lab ID: 92775785013** Collected: 01/22/25 13:50 Received: 01/24/25 12:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**-0.0903 ± 0.217 (0.542) C:NA T:94%**	pCi/L	02/18/25 14:46	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.404 ± 0.331 (0.653) C:76% T:92%**	pCi/L	02/11/25 14:47	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.404 ± 0.548 (1.20)**	pCi/L	02/19/25 14:08	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Charah 1st quarter GW monitori
Pace Project No.: 92775785

Sample: MW-11 **Lab ID: 92775785014** Collected: 01/21/25 13:15 Received: 01/24/25 12:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.347 ± 0.553 (0.950) C:NA T:99%**	pCi/L	02/18/25 14:05	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.557 ± 0.378 (0.717) C:79% T:86%**	pCi/L	02/11/25 14:46	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.904 ± 0.931 (1.67)**	pCi/L	02/19/25 14:08	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Charah 1st quarter GW monitori
Pace Project No.: 92775785

Sample: MW-11D **Lab ID: 92775785015** Collected: 01/21/25 14:00 Received: 01/24/25 12:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.0945 ± 0.540 (1.01) C:NA T:88%**	pCi/L	02/18/25 14:05	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.656 ± 0.396 (0.723) C:79% T:81%**	pCi/L	02/11/25 14:46	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.751 ± 0.936 (1.73)**	pCi/L	02/19/25 14:08	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Charah 1st quarter GW monitori
Pace Project No.: 92775785

Sample: DUP **Lab ID: 92775785016** Collected: 01/22/25 11:30 Received: 01/24/25 12:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**-0.0441 ± 0.465 (0.913) C:NA T:94%**	pCi/L	02/18/25 14:46	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.708 ± 0.396 (0.716) C:82% T:90%**	pCi/L	02/11/25 14:47	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.708 ± 0.861 (1.63)**	pCi/L	02/19/25 14:08	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Charah 1st quarter GW monitori
Pace Project No.: 92775785

Sample: EQBL **Lab ID: 92775785017** Collected: 01/24/25 08:00 Received: 01/24/25 12:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**-0.173 ± 0.481 (0.972) C:NA T:92%**	pCi/L	02/18/25 14:33	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.811 ± 0.434 (0.768) C:77% T:83%**	pCi/L	02/11/25 14:49	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.811 ± 0.915 (1.74)**	pCi/L	02/19/25 14:08	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Charah 1st quarter GW monitori
Pace Project No.: 92775785

Sample: LEACHATE **Lab ID: 92775785018** Collected: 01/23/25 17:15 Received: 01/24/25 12:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.000 ± 0.213 (0.433) C:NA T:89%**	pCi/L	02/18/25 14:33	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.595 ± 0.428 (0.826) C:82% T:84%**	pCi/L	02/11/25 14:49	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.595 ± 0.641 (1.26)**	pCi/L	02/19/25 14:08	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Charah 1st quarter GW monitori
Pace Project No.: 92775785

Sample: SW-6 **Lab ID: 92775785019** Collected: 01/23/25 16:30 Received: 01/24/25 12:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.000 ± 0.264 (0.572) C:NA T:88%**	pCi/L	02/18/25 14:33	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**1.10 ± 0.706 (1.30) C:86% T:44%**	pCi/L	02/11/25 14:48	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.10 ± 0.970 (1.87)**	pCi/L	02/19/25 14:08	7440-14-4	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Charah 1st quarter GW monitori
Pace Project No.: 92775785

QC Batch: 723899 Analysis Method: EPA 904.0
QC Batch Method: EPA 904.0 Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 92775785001, 92775785002, 92775785003, 92775785004, 92775785005, 92775785006, 92775785007, 92775785008, 92775785009, 92775785010, 92775785011, 92775785012, 92775785013, 92775785014, 92775785015, 92775785016, 92775785017, 92775785018, 92775785019

METHOD BLANK: 3523395 Matrix: Water

Associated Lab Samples: 92775785001, 92775785002, 92775785003, 92775785004, 92775785005, 92775785006, 92775785007, 92775785008, 92775785009, 92775785010, 92775785011, 92775785012, 92775785013, 92775785014, 92775785015, 92775785016, 92775785017, 92775785018, 92775785019

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.333 ± 0.322 (0.658) C:82% T:89%	pCi/L	02/11/25 14:44	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Charah 1st quarter GW monitori
Pace Project No.: 92775785

QC Batch: 723898 Analysis Method: EPA 903.1
QC Batch Method: EPA 903.1 Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 92775785001, 92775785002, 92775785003, 92775785004, 92775785005, 92775785006, 92775785007, 92775785008, 92775785009, 92775785010, 92775785011, 92775785012, 92775785013, 92775785014, 92775785015, 92775785016, 92775785017, 92775785018, 92775785019

METHOD BLANK: 3523394 Matrix: Water

Associated Lab Samples: 92775785001, 92775785002, 92775785003, 92775785004, 92775785005, 92775785006, 92775785007, 92775785008, 92775785009, 92775785010, 92775785011, 92775785012, 92775785013, 92775785014, 92775785015, 92775785016, 92775785017, 92775785018, 92775785019

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.109 ± 0.166 (0.266) C:NA T:91%	pCi/L	02/18/25 14:05	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALIFIERS

Project: Charah 1st quarter GW monitori
Pace Project No.: 92775785

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

D3	Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
H1	Analysis conducted outside the EPA method holding time.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Charah 1st quarter GW monitori
Pace Project No.: 92775785

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92775785001	**BG-1**	EPA 3010A	911885	EPA 6010D	912054
92775785002	**BG-2**	EPA 3010A	911885	EPA 6010D	912054
92775785003	**MW-1**	EPA 3010A	911885	EPA 6010D	912054
92775785004	**MW-2**	EPA 3010A	911885	EPA 6010D	912054
92775785005	**MW-2D**	EPA 3010A	911885	EPA 6010D	912054
92775785006	**MW-3**	EPA 3010A	912403	EPA 6010D	912415
92775785007	**MW-4**	EPA 3010A	912403	EPA 6010D	912415
92775785008	**MW-5**	EPA 3010A	912403	EPA 6010D	912415
92775785009	**MW-6**	EPA 3010A	912403	EPA 6010D	912415
92775785010	**MW-7R**	EPA 3010A	912403	EPA 6010D	912415
92775785011	**MW-8**	EPA 3010A	912403	EPA 6010D	912415
92775785012	**MW-9**	EPA 3010A	912403	EPA 6010D	912415
92775785013	**MW-10**	EPA 3010A	912403	EPA 6010D	912415
92775785014	**MW-11**	EPA 3010A	912403	EPA 6010D	912415
92775785015	**MW-11D**	EPA 3010A	912403	EPA 6010D	912415
92775785016	**DUP**	EPA 3010A	912403	EPA 6010D	912415
92775785017	**EQBL**	EPA 3010A	912403	EPA 6010D	912415
92775785018	**LEACHATE**	EPA 3010A	912403	EPA 6010D	912415
92775785019	**SW-6**	EPA 3010A	912403	EPA 6010D	912415
92775785001	**BG-1**	EPA 3010A	912516	EPA 6020B	912684
92775785002	**BG-2**	EPA 3010A	912516	EPA 6020B	912684
92775785003	**MW-1**	EPA 3010A	912516	EPA 6020B	912684
92775785004	**MW-2**	EPA 3010A	912516	EPA 6020B	912684
92775785005	**MW-2D**	EPA 3010A	912516	EPA 6020B	912684
92775785006	**MW-3**	EPA 3010A	912404	EPA 6020B	912417
92775785007	**MW-4**	EPA 3010A	912404	EPA 6020B	912417
92775785008	**MW-5**	EPA 3010A	912404	EPA 6020B	912417
92775785009	**MW-6**	EPA 3010A	912404	EPA 6020B	912417
92775785010	**MW-7R**	EPA 3010A	912404	EPA 6020B	912417
92775785011	**MW-8**	EPA 3010A	912404	EPA 6020B	912417
92775785012	**MW-9**	EPA 3010A	912404	EPA 6020B	912417
92775785013	**MW-10**	EPA 3010A	912404	EPA 6020B	912417
92775785014	**MW-11**	EPA 3010A	912404	EPA 6020B	912417
92775785015	**MW-11D**	EPA 3010A	912404	EPA 6020B	912417
92775785016	**DUP**	EPA 3010A	912404	EPA 6020B	912417
92775785017	**EQBL**	EPA 3010A	912404	EPA 6020B	912417
92775785018	**LEACHATE**	EPA 3010A	912404	EPA 6020B	912417
92775785019	**SW-6**	EPA 3010A	912404	EPA 6020B	912417
92775785001	**BG-1**	EPA 7470A	911503	EPA 7470A	911933
92775785002	**BG-2**	EPA 7470A	911503	EPA 7470A	911933
92775785003	**MW-1**	EPA 7470A	911503	EPA 7470A	911933
92775785004	**MW-2**	EPA 7470A	911503	EPA 7470A	911933
92775785005	**MW-2D**	EPA 7470A	911503	EPA 7470A	911933
92775785006	**MW-3**	EPA 7470A	911503	EPA 7470A	911933
92775785007	**MW-4**	EPA 7470A	911503	EPA 7470A	911933
92775785008	**MW-5**	EPA 7470A	911503	EPA 7470A	911933
92775785009	**MW-6**	EPA 7470A	911503	EPA 7470A	911933

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Charah 1st quarter GW monitori
Pace Project No.: 92775785

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92775785010	**MW-7R**	EPA 7470A	911617	EPA 7470A	911934
92775785011	**MW-8**	EPA 7470A	911617	EPA 7470A	911934
92775785012	**MW-9**	EPA 7470A	911617	EPA 7470A	911934
92775785013	**MW-10**	EPA 7470A	911617	EPA 7470A	911934
92775785014	**MW-11**	EPA 7470A	911617	EPA 7470A	911934
92775785015	**MW-11D**	EPA 7470A	911617	EPA 7470A	911934
92775785016	**DUP**	EPA 7470A	911617	EPA 7470A	911934
92775785017	**EQBL**	EPA 7470A	911617	EPA 7470A	911934
92775785018	**LEACHATE**	EPA 7470A	911617	EPA 7470A	911934
92775785019	**SW-6**	EPA 7470A	911617	EPA 7470A	911934
92775785001	**BG-1**	EPA 903.1	723898		
92775785002	**BG-2**	EPA 903.1	723898		
92775785003	**MW-1**	EPA 903.1	723898		
92775785004	**MW-2**	EPA 903.1	723898		
92775785005	**MW-2D**	EPA 903.1	723898		
92775785006	**MW-3**	EPA 903.1	723898		
92775785007	**MW-4**	EPA 903.1	723898		
92775785008	**MW-5**	EPA 903.1	723898		
92775785009	**MW-6**	EPA 903.1	723898		
92775785010	**MW-7R**	EPA 903.1	723898		
92775785011	**MW-8**	EPA 903.1	723898		
92775785012	**MW-9**	EPA 903.1	723898		
92775785013	**MW-10**	EPA 903.1	723898		
92775785014	**MW-11**	EPA 903.1	723898		
92775785015	**MW-11D**	EPA 903.1	723898		
92775785016	**DUP**	EPA 903.1	723898		
92775785017	**EQBL**	EPA 903.1	723898		
92775785018	**LEACHATE**	EPA 903.1	723898		
92775785019	**SW-6**	EPA 903.1	723898		
92775785001	**BG-1**	EPA 904.0	723899		
92775785002	**BG-2**	EPA 904.0	723899		
92775785003	**MW-1**	EPA 904.0	723899		
92775785004	**MW-2**	EPA 904.0	723899		
92775785005	**MW-2D**	EPA 904.0	723899		
92775785006	**MW-3**	EPA 904.0	723899		
92775785007	**MW-4**	EPA 904.0	723899		
92775785008	**MW-5**	EPA 904.0	723899		
92775785009	**MW-6**	EPA 904.0	723899		
92775785010	**MW-7R**	EPA 904.0	723899		
92775785011	**MW-8**	EPA 904.0	723899		
92775785012	**MW-9**	EPA 904.0	723899		
92775785013	**MW-10**	EPA 904.0	723899		
92775785014	**MW-11**	EPA 904.0	723899		
92775785015	**MW-11D**	EPA 904.0	723899		
92775785016	**DUP**	EPA 904.0	723899		
92775785017	**EQBL**	EPA 904.0	723899		
92775785018	**LEACHATE**	EPA 904.0	723899		

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Charah 1st quarter GW monitori
Pace Project No.: 92775785

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92775785019	**SW-6**	EPA 904.0	723899		
92775785001	**BG-1**	Total Radium Calculation	727914		
92775785002	**BG-2**	Total Radium Calculation	727914		
92775785003	**MW-1**	Total Radium Calculation	727914		
92775785004	**MW-2**	Total Radium Calculation	727914		
92775785005	**MW-2D**	Total Radium Calculation	727914		
92775785006	**MW-3**	Total Radium Calculation	727914		
92775785007	**MW-4**	Total Radium Calculation	727914		
92775785008	**MW-5**	Total Radium Calculation	727914		
92775785009	**MW-6**	Total Radium Calculation	727914		
92775785010	**MW-7R**	Total Radium Calculation	727914		
92775785011	**MW-8**	Total Radium Calculation	727914		
92775785012	**MW-9**	Total Radium Calculation	727914		
92775785013	**MW-10**	Total Radium Calculation	727914		
92775785014	**MW-11**	Total Radium Calculation	727914		
92775785015	**MW-11D**	Total Radium Calculation	727914		
92775785016	**DUP**	Total Radium Calculation	727914		
92775785017	**EQBL**	Total Radium Calculation	727914		
92775785018	**LEACHATE**	Total Radium Calculation	727914		
92775785019	**SW-6**	Total Radium Calculation	727914		
92775785001	**BG-1**	SM 2540C-2015	911400		
92775785002	**BG-2**	SM 2540C-2015	911400		
92775785003	**MW-1**	SM 2540C-2015	911400		
92775785004	**MW-2**	SM 2540C-2015	912020		
92775785005	**MW-2D**	SM 2540C-2015	912020		
92775785006	**MW-3**	SM 2540C-2015	912020		
92775785007	**MW-4**	SM 2540C-2015	912020		
92775785008	**MW-5**	SM 2540C-2015	911720		
92775785009	**MW-6**	SM 2540C-2015	911720		
92775785010	**MW-7R**	SM 2540C-2015	911720		
92775785011	**MW-8**	SM 2540C-2015	911400		
92775785012	**MW-9**	SM 2540C-2015	912020		
92775785013	**MW-10**	SM 2540C-2015	911720		
92775785014	**MW-11**	SM 2540C-2015	911400		
92775785015	**MW-11D**	SM 2540C-2015	911400		
92775785016	**DUP**	SM 2540C-2015	911720		
92775785017	**EQBL**	SM 2540C-2015	912283		
92775785018	**LEACHATE**	SM 2540C-2015	912020		
92775785019	**SW-6**	SM 2540C-2015	912020		
92775785001	**BG-1**	EPA 300.0 Rev 2.1 1993	918765		
92775785002	**BG-2**	EPA 300.0 Rev 2.1 1993	918765		
92775785003	**MW-1**	EPA 300.0 Rev 2.1 1993	918765		
92775785004	**MW-2**	EPA 300.0 Rev 2.1 1993	918765		

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Charah 1st quarter GW monitori
Pace Project No.: 92775785

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92775785005	**MW-2D**	EPA 300.0 Rev 2.1 1993	918765		
92775785006	**MW-3**	EPA 300.0 Rev 2.1 1993	918765		
92775785007	**MW-4**	EPA 300.0 Rev 2.1 1993	918765		
92775785008	**MW-5**	EPA 300.0 Rev 2.1 1993	918765		
92775785009	**MW-6**	EPA 300.0 Rev 2.1 1993	918765		
92775785010	**MW-7R**	EPA 300.0 Rev 2.1 1993	918765		
92775785011	**MW-8**	EPA 300.0 Rev 2.1 1993	918765		
92775785012	**MW-9**	EPA 300.0 Rev 2.1 1993	918765		
92775785013	**MW-10**	EPA 300.0 Rev 2.1 1993	918765		
92775785014	**MW-11**	EPA 300.0 Rev 2.1 1993	918765		
92775785015	**MW-11D**	EPA 300.0 Rev 2.1 1993	918765		
92775785016	**DUP**	EPA 300.0 Rev 2.1 1993	918765		
92775785017	**EQBL**	EPA 300.0 Rev 2.1 1993	918765		
92775785018	**LEACHATE**	EPA 300.0 Rev 2.1 1993	918765		
92775785019	**SW-6**	EPA 300.0 Rev 2.1 1993	918765		

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Pace

DC#_Title: ENV-FRM-HUN1-0083 v05_Sample Condition Upon Receipt

Effective Date: 05/24/2024

Laboratory receiving samples:

Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☒ Raleigh ☐ Mechanicsville ☐ Atlanta ☐ Kernersville ☐

Sample Condition Upon Receipt

Client Name: HDR

Project #

WO#: 92775785

92775785

Courier: ☐ Commercial ☐ Fed Ex ☐ Pace ☐ UPS ☐ USPS ☐ Other: ☑ Client

Custody Seal Present? ☐ Yes ☒ No Seals Intact? ☐ Yes ☐ No ☒ N/A

Date/Initials Person Examining Contents: AV 1/24

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☒ None ☐ Other

Biological Tissue Frozen? ☐ Yes ☐ No ☒ N/A

Thermometer: ☒ IR Gun ID: 427042

Type of Ice: ☑ Wet ☐ Blue ☐ None

Cooler Temp: 2.1 1.7 1.3 1.0 0.7 Correction Factor: Add/Subtract (°C) 0

Temp should be above freezing to 6°C

☐ Samples out of temp criteria. Samples on ice, cooling process has begun

Cooler Temp Corrected (°C): 2.1 1.7 1.3 1.0 0.7

USDA Regulated Soil (☒ N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? ☐ Yes ☒ No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes ☒ No

				Comments/Discrepancy:
Chain of Custody Present?	☑ Yes	☐ No	☐ N/A	1.
Samples Arrived within Hold Time?	☑ Yes	☐ No	☐ N/A	2.
Short Hold Time Analysis (<72 hr.)?	☐ Yes	☐ No	☑ N/A	3.
Rush Turn Around Time Requested?	☐ Yes	☐ No	☒ N/A	4.
Sufficient Volume?	☑ Yes	☐ No	☐ N/A	5.
Correct Containers Used?	☑ Yes	☐ No	☐ N/A	6.
-Pace Containers Used?	☑ Yes	☐ No	☐ N/A	
Containers Intact?	☑ Yes	☐ No	☐ N/A	7.
Dissolved analysis: Samples Field Filtered?	☐ Yes	☐ No	☑ N/A	8.
Sample Labels Match COC?	☒ Yes	☐ No	☐ N/A	9.
-Includes Date/Time/ID/Analysis Matrix: WT				
Headspace in VOA Vials (>5-6mm)?	☐ Yes	☐ No	☒ N/A	10.
Trip Blank Present?	☐ Yes	☐ No	☒ N/A	11.
Trip Blank Custody Seals Present?	☐ Yes	☐ No	☒ N/A	

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? ☐ Yes ☐ No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: Date/Time:

Project Manager SCURF Review: Date:

Project Manager SRF Review: Date:

Qualtrax ID: 69614

*Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.
Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC, LLHg
**Bottom half of box is to list number of bottles
***Check all unpreserved Nitrates for chlorine

Project # WO#:92775785

PM: AMB Due Date: 02/18/25
CLIENT: 92-HDR

Laboratory Receiving Location: Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☐ Raleigh ☐ Mec... ☐ ... ☐ Kernersville ☐

Client_____ Profile/EZ (Circle one)_____ Notes_____

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (CL)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP1N	BP4S-125 mL Plastic H2SO4 (pH < 2) (CL)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic Zn Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (CL)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (CL)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (CL)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	DG9H-40 mL Amber NH4Cl (N/A)(CL)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unpreserved (N/A)	DG9V-40 mL VOA H3PO4 (N/A)	KP7U-50 mL Plastic Unpreserved (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A - lab)	SP2T-250 mL Sterile Plastic (N/A - lab)		BP3R-250 mL Plastic (NH4)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved (N/A) (CL)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)
CC																															
1			1		2		1																								
2			1		2		1																								
3			1		2		1																								
4			1		2		1																								
5			1		2		1																								
6			1		2		1																								
7			1		2		1																								
8			1		2		1																								
9			1		2		1																								
10			1		2		1																								
11																															
12																															

pH Adjustment Log for Preserved Samples

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot #

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DENR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers.

*Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.
Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC, LLHg
**Bottom half of box is to list number of bottles
***Check all unpreserved Nitrates for chlorine

Project #

Laboratory Receiving Location: Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☐ Raleigh ☐ Mechanicsville ☐ Atlanta ☐ Kernersville ☐

Client_____ Profile/EZ (Circle one)_____ Notes_____

Items	BP4U-125 mL Plastic Unpreserved (N/A) (CI-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP45-125 mL Plastic H2SO4 (pH < 2) (CI-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (CI-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (CI-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (CI-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	DG84-40 mL Amber NH4Cl (N/A)(CI-)	DG8H-40 mL VOA HCl (N/A)	VG4T-40 mL VOA Na2S2O3 (N/A)	VG4U-40 mL VOA Unpreserved (N/A)	DG8V-40 mL VOA H3PO4 (N/A)	KP7U-50 mL Plastic Unpreserved (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A – lab)	SP2T-250 mL Sterile Plastic (N/A – lab)		BP3B-250 mL Plastic (NH4)2SO4 (3.3-9.7)	AG0U-100 mL Amber Unpreserved (N/A) (CI-)	V5GU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)
CC																												
1			1		2		1																					
2			1		2		1																					
3			1		2		1																					
4			1		2		1																					
5			1		2		1																					
6			1		2		1																					
7			1		2		1																					
8			1		2		1																					
9			1		2		1																					
10																												
11																												
12																												

pH Adjustment Log for Preserved Samples

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot #

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DENR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers.

Pace® Location Requested (City/State):
Pace Analytical Charlotte
9800 Kincey Ave. Suite 100, Huntersville, NC 28078

CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

LAB USE ONLY- Affix Workorder/Login Label Here

Scan QR Code for instructions

Company Name:	HDR Engineering	Contact/Report To:	Mark Filardi
Street Address:	440 S. Church St Suite 900 Charlotte, NC 28202	Phone #:	(704)338-6787
		E-Mail:	mark.filardi@hdrinc.com
		Cc E-Mail:	
Customer Project #:			
Project Name:	Charah 1st quarter GW monitoring	Invoice To:	Accounts Payable
		Invoice E-Mail:	saaaccounting@hdrinc.onmicrosoft.com
Site Collection Info/Facility ID (as applicable):		Purchase Order # (if applicable):	1000100102528
		Quote #:	

Time Zone Collected: [ ] AK [ ] PT [ ] MT [ ] CT [✓] ET

County / State origin of sample(s): North Carolina

Data Deliverables: [ ] Level II [ ] Level III [ ] Level IV [ ] EQUIS [ ] Other

Regulatory Program (DW, RCRA, etc.) as applicable: Reportable [ ] Yes [ ] No

Rush (Pre-approval required): [ ] Same Day [ ] 1 Day [ ] 2 Day [ ] 3 Day [ ] Other _____

DW PWSID # or WW Permit # as applicable:

Date Results Requested:

Field Filtered (if applicable): [ ] Yes [ ] No

Analysis:

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Waste Water (WW), Product (P), Soil/Solid (SS), Oil (OL), Wipe (WP), Tissue (TS), Bioassay (B), Vapor (V), Surface Water (SW),Sediment (SED), Sludge (SL), Caulk (CK), Leachate (LL), Biosolid (BS), Other (OT)

Specify Container Size **: 3 1 1 2

Identify Container Preservative Type***: 2 2 2 1

Analysis Requested

**Container Size: (1) 1L, (2) 500mL, (3) 250mL, (4) 125mL, (5) 100mL, (6) 40mL vial, (7) EnCore, (8) TerraCore, (9) 90mL, (10) Other

*** Preservative Types: (1) None, (2) HNO3, (3) H2SO4, (4) HCl, (5) NaOH, (6) Zn Acetate, (7) NaHSO4, (8) Sod. Thiosulfate, (9) Ascorbic Acid, (10) MeOH, (11) Other

Customer Sample ID	Matrix *	Comp / Grab	Composite Start Date	Composite Start Time	Collected or Composite End Date	Collected or Composite End Time	# Cont.	Res. Chlorine Results	Res. Chlorine Units	6010/6020/7470 metals	EPA 903.1	EPA 904.0, total Ra calculation	TDS	Sample Comment
BG-1	WT	G			1/20/25	15:20	4			X	X	X	X	
BG-2	WT	G			1/21/25	15:50	4			X	X	X	X	
MW-1	WT	G			1/20/25	17:15	4			X	X	X	X	
MW-2	WT	G			1/23/25	13:55	4			X	X	X	X	
MW-2D	WT	G			1/23/25	14:35	4			X	X	X	X	
MW-3	WT	G			1/23/25	12:25	4			X	X	X	X	
MW-4	WT	G			1/23/25	11:05	4			X	X	X	X	
MW-5	WT	G			1/22/25	15:50	4			X	X	X	X	Record high turbidity
MW-6	WT	G			1/22/25	10:55	4			X	X	X	X	
MW-7R	WT	G			1/22/25	12:25	4			X	X	X	X	

Lab Use Only: Proj. Mgr: Angela Baioni; AcctNum / Client ID:; Table #:; Profile / Template: 7672; Prelog / Bottle Ord. ID: EZ 3195920

Preservation non-conformance identified for sample.

Additional Instructions from Pace®:
6020-B, Li, Tl
6010-Ca, Sb, As, Ba, Be, Cd, Cr, Co, Pb, Mo, Se, Cu, Ni, Ag, V, Zn

Collected By: (Printed Name) Cameron Hosmer
Signature: Cam Hosmer

Customer Remarks / Special Conditions / Possible Hazards:

Coolers: Thermometer ID: Correction Factor (°C): Obs. Temp. (°C) Corrected Temp. (°C) On Ice:

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Tracking Number:
Cam Hosmer	1/24/25 12:00	AL Pace HNL	1/24/25 1200	
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Delivered by: [ ] In-Person [ ] Courier
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	[ ] FedEX [ ] UPS [ ] Other
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Page: 1 of 3

Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace® Terms and Conditions found at https://www.pacelabs.com/resource-library/resource/pace-terms-and-conditions/

Pace® Location Requested (City/State):
Pace Analytical Charlotte
9800 Kincey Ave. Suite 100, Huntersville, NC 28078

CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

LAB USE ONLY- Affix Workorder/Login Label Here

Scan QR Code for instructions

Company Name:	HDR Engineering	Contact/Report To:	Mark Filardi
Street Address:	440 S. Church St Suite 900 Charlotte, NC 28202	Phone #:	(704)338-6787
		E-Mail:	mark.filardi@hdrinc.com
		Cc E-Mail:	
Customer Project #:			
Project Name:	Charah 1st quarter GW monitoring	Invoice To:	Accounts Payable
		Invoice E-Mail:	saaaccounting@hdrinc.onmicrosoft.com
Site Collection Info/Facility ID (as applicable):		Purchase Order # (if applicable):	1000100102528
		Quote #:	
Time Zone Collected: [ ] AK [ ] PT [ ] MT [ ] CT [ ] ET		County / State origin of sample(s):	North Carolina
Data Deliverables: [ ] Level II [ ] Level III [ ] Level IV [ ] EQUIS [ ] Other		Regulatory Program (DW, RCRA, etc.) as applicable:	Reportable [ ] Yes [ ] No
		Rush (Pre-approval required): [ ] Same Day [ ] 1 Day [ ] 2 Day [ ] 3 Day [ ] Other	DW PWSID # or WW Permit # as applicable:
		Date Results Requested:	Field Filtered (if applicable): [ ] Yes [ ] No Analysis:

Specify Container Size **: 3 1 1 2

Identify Container Preservative Type***: 2 2 2 1

**Container Size: (1) 1L, (2) 500mL, (3) 250mL, (4) 125mL, (5) 100mL, (6) 40mL vial, (7) EnCore, (8) TerraCore, (9) 90mL, (10) Other

*** Preservative Types: (1) None, (2) HNO3, (3) H2SO4, (4) HCl, (5) NaOH, (6) Zn Acetate, (7) NaHSO4, (8) Sod. Thiosulfate, (9) Ascorbic Acid, (10) MeOH, (11) Other

Analysis Requested

Lab Use Only

Proj. Mgr: Angela Baioni

AcctNum / Client ID:

Table #:

Profile / Template: 7672

Prelog / Bottle Ord. ID: EZ 3195920

* Matrix Codes (insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Waste Water (WW), Product (P), Soil/Solid (SS), Oil (OL), Wipe (WP), Tissue (TS), Bioassay (B), Vapor (V), Surface Water (SW),Sediment (SED), Sludge (SL), Caulk (CK), Leachate (LL), Biosolid (BS), Other (OT)

Customer Sample ID	Matrix *	Comp / Grab	Composite Start Date	Composite Start Time	Collected or Composite End Date	Collected or Composite End Time	# Cont.	Res. Chlorine Results	Res. Chlorine Units	6010/6020/7470 metals	EPA 903.1	EPA 904.0, total Ra calculation	TDS	Sample Comment	Preservation non-conformance identified for sample.
MW-8	WT	G			1/21/25	11:40	4			X	X	X	X		
MW-9	WT	G			1/23/25	15:55	4			X	X	X	X	Partially filled bottles	
MW-10	WT	G			1/22/25	13:50	4			X	X	X	X		
MW-11	WT	G			1/21/25	13:15	4			X	X	X	X		
MW-11D	WT	G			1/21/25	14:00	4			X	X	X	X		
Unused	WT									X	X	X	X		
Unused	WT									X	X	X	X		
DUP	WT	G			1/22/25	11:30	4			X	X	X	X		
EQBL	WT	G			1/24/25	5:00	4			X	X	X	X		
LEACHATE	WT	G			1/23/25	17:15	4			X	X	X	X		

Additional instructions from Pace®:
6020-B, Li, Tl
6010-Ca, Sb, As, Ba, Be, Cd, Cr, Co, Pb, Mo, Se, Cu, Ni, Ag, V, Zn

Collected By: (Printed Name) Cameron Hosmer
Signature: Cameron Hosmer

Customer Remarks / Special Conditions / Possible Hazards:

# Coolers:	Thermometer ID:	Correction Factor (°C):	Obs. Temp. (°C)	Corrected Temp. (°C)	On Ice:

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Tracking Number:
Cameron Hosmer	1/24/25 12:00	AC Pace HNL	1/24/25 1200	
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Delivered by: [ ] In- Person [ ] Courier [ ] FedEX [ ] UPS [ ] Other
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Page: 2 of 3

Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace® Terms and Conditions found at https://www.pacelabs.com/resource-library/resource/pace-terms-and-conditions/

Pace® Location Requested (City/State):
Pace Analytical Charlotte
9800 Kincey Ave. Suite 100, Huntersville, NC 28078

CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

LAB USE ONLY- Affix Workorder/Login Label Here

Scan QR Code for instructions

Company Name:	HDR Engineering
Street Address:	440 S. Church St Suite 900 Charlotte, NC 28202
Customer Project #:	
Project Name:	Charah 1st quarter GW monitoring
Site Collection Info/Facility ID (as applicable):	

Contact/Report To:	Mark Filardi
Phone #:	(704)338-6787
E-Mail:	mark.filardi@hdrinc.com
Cc E-Mail:	
Invoice To:	Accounts Payable
Invoice E-Mail:	saaaccounting@hdrinc.onmicrosoft.com
Purchase Order # (if applicable):	1000100102528
Quote #:	

Time Zone Collected: [ ] AK [ ] PT [ ] MT [ ] CT [✓] ET

County / State origin of sample(s): North Carolina

Data Deliverables: [ ] Level II [ ] Level III [ ] Level IV [ ] EQuIS [ ] Other

Regulatory Program (DW, RCRA, etc.) as applicable: Reportable [ ] Yes [ ] No

Rush (Pre-approval required): [ ] Same Day [ ] 1 Day [ ] 2 Day [ ] 3 Day [ ] Other _____

DW PWSID # or WW Permit # as applicable:

Date Results Requested:

Field Filtered (if applicable): [ ] Yes [ ] No

Analysis:

Specify Container Size **: 3 1 1 7

Identify Container Preservative Type***: 2 2 2 1

Analysis Requested

**Container Size: (1) 1L, (2) 500mL, (3) 250mL, (4) 125mL, (5) 100mL, (6) 40mL vial, (7) EnCore, (8) TerraCore, (9) 90mL, (10) Other

*** Preservative Types: (1) None, (2) HNO3, (3) H2SO4, (4) HCl, (5) NaOH, (6) Zn Acetate, (7) NaHSO4, (8) Sod. Thiosulfate, (9) Ascorbic Acid, (10) MeOH, (11) Other

Lab Use Only

Proj. Mgr: Angela Baioni

Acct/Num / Client ID:

Table #:

Profile / Template: 7672

Prelog / Bottle Ord. ID: EZ 3195920

* Matrix Codes (insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Waste Water (WW), Product (P), Soil/Solid (SS), Oil (OL), Wipe (WP), Tissue (TS), Bioassay (B), Vapor (V), Surface Water (SW),Sediment (SED), Sludge (SL), Caulk (CK), Leachate (LL), Biosolid (BS), Other (OT)

Customer Sample ID	Matrix *	Comp / Grab	Composite Start Date	Composite Start Time	Collected or Composite End Date	Collected or Composite End Time	# Cont.	Res. Chlorine Results	Res. Chlorine Units	6010/6020/7470 metals	EPA 903.1	EPA 904.0, total Ra calculation	TDS	Sample Comment	Preservation non-conformance identified for sample.
SW-6	WT	G			1/23/25	16:30	4			X	X	X	X		

Additional Instructions from Pace®:
6020-B, Li, Tl
6010-Ca, Sb, As, Ba, Be, Cd, Cr, Co, Pb, Mo, Se, Cu, Ni, Ag, V, Zn

Collected By:
(Printed Name)
Signature:

Customer Remarks / Special Conditions / Possible Hazards:

Coolers: | Thermometer ID: | Correction Factor (°C): | Obs. Temp. (°C) | Corrected Temp. (°C) | On Ice:

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Tracking Number:
[illegible]	1/24/25 12:00	AE Pelee HNL	1/24/25 1200	
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Delivered by: [ ] In- Person [ ] Courier [ ] FedEX [ ] UPS [ ] Other
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Page: 3 of 3

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ENV-FRM-CORO-0019_v02_110123 ©

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

May 06, 2025

Mark Filardi
HDR
440 S. Church St
Suite 900
Charlotte, NC 28202

RE: Project: Charah 2nd quarter GW monitori
Pace Project No.: 92788949

Dear Mark Filardi:

Enclosed are the analytical results for sample(s) received by the laboratory on April 03, 2025. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Asheville
- Pace Analytical Services - Minneapolis
- Pace Analytical Services - Greensburg

Revised 5/6/25 to update the project ID.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Angela M. Baioni

Angela Baioni
angela.baioni@pacelabs.com
612-473-6801
Project Manager

Enclosures

cc: Mark Filardi, HDR Engineering

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

CERTIFICATIONS

Project: Charah 2nd quarter GW monitori
Pace Project No.: 92788949

Pace Analytical Services, LLC - Minneapolis MN
1700 Elm Street SE, Minneapolis, MN 55414
Alabama Certification #: 40770
Alaska Contaminated Sites Certification #: 17-009
Alaska DW Certification #: MN00064
Arizona Certification #: AZ0014
Arkansas DW Certification #: MN00064
Arkansas WW Certification #: 88-0680
California Certification #: 2929
Colorado Certification #: MN00064
Connecticut Certification #: PH-0256
DoD Certification via A2LA #: 2926.01
EPA Region 8 Tribal Water Systems+Wyoming DW Certification #: via MN 027-053-137
Florida Certification #: E87605
Georgia Certification #: 959
GMP+ Certification #: GMP050884
Hawaii Certification #: MN00064
Idaho Certification #: MN00064
Illinois Certification #: 200011
Indiana Certification #: C-MN-01
Iowa Certification #: 368
ISO/IEC 17025 Certification via A2LA #: 2926.01
Kansas Certification #: E-10167
Kentucky DW Certification #: 90062
Kentucky WW Certification #: 90062
Louisiana DEQ Certification #: AI-03086
Louisiana DW Certification #: MN00064
Maine Certification #: MN00064
Maryland Certification #: 322
Michigan Certification #: 9909
Minnesota Certification #: 027-053-137
Minnesota Dept of Ag Approval: via MN 027-053-137
Minnesota Petrofund Registration #: 1240
Mississippi Certification #: MN00064
Missouri Certification #: 10100
Montana Certification #: CERT0092
Nebraska Certification #: NE-OS-18-06
Nevada Certification #: MN00064
New Hampshire Certification #: 2081
New Jersey Certification #: MN002
New York Certification #: 11647
North Carolina DW Certification #: 27700
North Carolina WW Certification #: 530
North Dakota Certification (A2LA) #: R-036
North Dakota Certification (MN) #: R-036
Ohio DW Certification #: 41244
Ohio VAP Certification (1700) #: CL101
Oklahoma Certification #: 9507
Oregon Primary Certification #: MN300001
Oregon Secondary Certification #: MN200001
Pennsylvania Certification #: 68-00563
Puerto Rico Certification #: MN00064
South Carolina Certification #:74003001
Tennessee Certification #: TN02818
Texas Certification #: T104704192
Utah Certification #: MN00064
Vermont Certification #: VT-027053137
Virginia Certification #: 460163
Washington Certification #: C486
West Virginia DEP Certification #: 382
West Virginia DW Certification #: 9952 C
Wisconsin Certification #: 999407970
Wyoming UST Certification via A2LA #: 2926.01
USDA Permit #: P330-19-00208

Pace Analytical Services Pennsylvania
1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
ANABISO/IEC 17025:2017 Rad Cert#: L24170
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 2950
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA010
Louisiana DEQ/TNI Certification #: 04086
Maine Certification #: 2023021
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572023-03

REPORT OF LABORATORY ANALYSIS

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9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

CERTIFICATIONS

Project: Charah 2nd quarter GW monitori
Pace Project No.: 92788949

Pace Analytical Services Pennsylvania

New Hampshire/TNI Certification #: 297622
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-015
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN02867
Texas/TNI Certification #: T104704188-22-18
Utah/TNI Certification #: PA014572223-14
USDA Soil Permit #: 525-23-67-77263
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad

Pace Analytical Services Asheville

2225 Riverside Drive, Asheville, NC 28804
Florida/NELAP Certification #: E87648
North Carolina Drinking Water Certification #: 37712
North Carolina Wastewater Certification #: 40
South Carolina Laboratory ID: 99030
South Carolina Certification #: 99030001
Virginia/VELAP Certification #: 460222

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9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

SAMPLE SUMMARY

Project: Charah 2nd quarter GW monitori
Pace Project No.: 92788949

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92788949001	**BG-1**	Water	03/31/25 15:45	04/03/25 15:50
92788949002	**BG-2**	Water	03/31/25 13:00	04/03/25 15:50
92788949003	**MW-1**	Water	04/01/25 17:20	04/03/25 15:50
92788949004	**MW-2**	Water	04/02/25 14:35	04/03/25 15:50
92788949005	**MW-3**	Water	04/01/25 11:55	04/03/25 15:50
92788949006	**MW-4**	Water	04/01/25 09:20	04/03/25 15:50
92788949007	**MW-5**	Water	03/31/25 17:40	04/03/25 15:50
92788949008	**MW-6**	Water	04/02/25 18:05	04/03/25 15:50
92788949009	**MW-7R**	Water	04/02/25 12:10	04/03/25 15:50
92788949010	**MW-8**	Water	04/02/25 10:05	04/03/25 15:50
92788949011	**MW-10**	Water	04/02/25 15:00	04/03/25 15:50
92788949012	**MW-11**	Water	04/03/25 09:40	04/03/25 15:50
92788949013	**MW-11D**	Water	04/03/25 11:05	04/03/25 15:50
92788949014	**SW-1**	Water	04/02/25 11:10	04/03/25 15:50
92788949015	**SW-2**	Water	04/02/25 09:05	04/03/25 15:50
92788949016	**SW-3**	Water	04/02/25 09:05	04/03/25 15:50
92788949017	**SW-5**	Water	04/02/25 11:35	04/03/25 15:50
92788949018	**SW-6**	Water	04/02/25 11:36	04/03/25 15:50
92788949019	**DUP**	Water	04/02/25 00:00	04/03/25 15:50
92788949020	**EQBL**	Water	04/02/25 20:40	04/03/25 15:50
92788949021	**LEACHATE**	Water	04/01/25 12:55	04/03/25 15:50

REPORT OF LABORATORY ANALYSIS

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9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

SAMPLE ANALYTE COUNT

Project: Charah 2nd quarter GW monitori
Pace Project No.: 92788949

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92788949001	**BG-1**	EPA 6010D	DM	16	PASI-M
		EPA 6020B	IMB	3	PASI-M
		EPA 7470A	LMW	1	PASI-M
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2540C-2015	CDM	1	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92788949002	**BG-2**	EPA 6010D	DM	16	PASI-M
		EPA 6020B	IMB	3	PASI-M
		EPA 7470A	LMW	1	PASI-M
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2540C-2015	CDM	1	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92788949003	**MW-1**	EPA 6010D	DM	16	PASI-M
		EPA 6020B	IMB	3	PASI-M
		EPA 7470A	LMW	1	PASI-M
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2540C-2015	CDM	1	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92788949004	**MW-2**	EPA 6010D	DM	16	PASI-M
		EPA 6020B	IMB	3	PASI-M
		EPA 7470A	LMW	1	PASI-M
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2540C-2015	NSS	1	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92788949005	**MW-3**	EPA 6010D	DM	16	PASI-M
		EPA 6020B	IMB	3	PASI-M
		EPA 7470A	LMW	1	PASI-M
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA

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9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

SAMPLE ANALYTE COUNT

Project: Charah 2nd quarter GW monitori
Pace Project No.: 92788949

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2540C-2015	CDM	1	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92788949006	**MW-4**	EPA 6010D	DM	16	PASI-M
		EPA 6020B	IMB	3	PASI-M
		EPA 7470A	LMW	1	PASI-M
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2540C-2015	CMW1	1	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92788949007	**MW-5**	EPA 6010D	DM	16	PASI-M
		EPA 6020B	IMB	3	PASI-M
		EPA 7470A	LMW	1	PASI-M
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2540C-2015	CDM	1	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92788949008	**MW-6**	EPA 6010D	DM	16	PASI-M
		EPA 6020B	IMB	3	PASI-M
		EPA 7470A	LMW	1	PASI-M
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2540C-2015	NSS	1	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92788949009	**MW-7R**	EPA 6010D	DM	16	PASI-M
		EPA 6020B	IMB	3	PASI-M
		EPA 7470A	LMW	1	PASI-M
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2540C-2015	NSS	1	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92788949010	**MW-8**	EPA 6010D	DM	16	PASI-M
		EPA 6020B	IMB	3	PASI-M

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(704)875-9092

SAMPLE ANALYTE COUNT

Project: Charah 2nd quarter GW monitori
Pace Project No.: 92788949

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 7470A	LMW	1	PASI-M
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2540C-2015	NSS	1	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92788949011	**MW-10**	EPA 6010D	DM	16	PASI-M
		EPA 6020B	IMB	3	PASI-M
		EPA 7470A	LMW	1	PASI-M
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2540C-2015	NSS	1	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92788949012	**MW-11**	EPA 6010D	DM	16	PASI-M
		EPA 6020B	IMB	3	PASI-M
		EPA 7470A	LMW	1	PASI-M
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2540C-2015	YEG	1	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92788949013	**MW-11D**	EPA 6010D	DM	16	PASI-M
		EPA 6020B	IMB	3	PASI-M
		EPA 7470A	LMW	1	PASI-M
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2540C-2015	YEG	1	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92788949014	**SW-1**	EPA 6010D	DM	16	PASI-M
		EPA 6020B	IMB	3	PASI-M
		EPA 7470A	LMW	1	PASI-M
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2540C-2015	NSS	1	PASI-A

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Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

SAMPLE ANALYTE COUNT

Project: Charah 2nd quarter GW monitori
Pace Project No.: 92788949

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92788949015	**SW-2**	EPA 6010D	DM	16	PASI-M
		EPA 6020B	IMB	3	PASI-M
		EPA 7470A	LMW	1	PASI-M
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2540C-2015	NSS	1	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92788949016	**SW-3**	EPA 6010D	DM	16	PASI-M
		EPA 6020B	IMB	3	PASI-M
		EPA 7470A	LMW	1	PASI-M
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2540C-2015	NSS	1	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92788949017	**SW-5**	EPA 6010D	DM	16	PASI-M
		EPA 6020B	IMB	3	PASI-M
		EPA 7470A	LMW	1	PASI-M
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2540C-2015	NSS	1	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92788949018	**SW-6**	EPA 6010D	DM	16	PASI-M
		EPA 6020B	IMB	3	PASI-M
		EPA 7470A	LMW	1	PASI-M
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2540C-2015	NSS	1	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92788949019	**DUP**	EPA 6010D	DM	16	PASI-M
		EPA 6020B	IMB	3	PASI-M
		EPA 7470A	LMW	1	PASI-M
		EPA 903.1	CLM	1	PASI-PA

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SAMPLE ANALYTE COUNT

Project: Charah 2nd quarter GW monitori
Pace Project No.: 92788949

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2540C-2015	NSS	1	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92788949020	**EQBL**	EPA 6010D	DM	16	PASI-M
		EPA 6020B	IMB	3	PASI-M
		EPA 7470A	LMW	1	PASI-M
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2540C-2015	NSS	1	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92788949021	**LEACHATE**	EPA 6010D	DM	16	PASI-M
		EPA 6020B	GAS1	3	PASI-M
		EPA 7470A	LMW	1	PASI-M
		EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2540C-2015	CMW1	1	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A

PASI-A = Pace Analytical Services - Asheville
PASI-M = Pace Analytical Services - Minneapolis
PASI-PA = Pace Analytical Services - Greensburg

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SUMMARY OF DETECTION

Project: Charah 2nd quarter GW monitori
Pace Project No.: 92788949

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92788949001	**BG-1**					
EPA 6010D	Barium	232	ug/L	10.0	04/17/25 10:43	
EPA 6010D	Calcium	18600	ug/L	500	04/17/25 10:43	
EPA 6010D	Chromium	1.2J	ug/L	10.0	04/17/25 10:43	
EPA 6010D	Vanadium	6.5J	ug/L	15.0	04/17/25 10:43	
EPA 6010D	Zinc	8.4J	ug/L	20.0	04/17/25 10:43	
EPA 6020B	Boron	5.9J	ug/L	10.0	04/17/25 18:49	
EPA 6020B	Lithium	13.7	ug/L	0.50	04/17/25 18:49	
EPA 903.1	Radium-226	0.525 ± 0.685 (1.15) C:NA T:96%	pCi/L		04/25/25 15:24	
EPA 904.0	Radium-228	0.441 ± 0.324 (0.625) C:78% T:94%	pCi/L		04/25/25 13:53	
Total Radium Calculation	Total Radium	0.966 ± 1.01 (1.78)	pCi/L		04/30/25 14:38	
SM 2540C-2015	Total Dissolved Solids	487	mg/L	25.0	04/04/25 10:48	
EPA 300.0 Rev 2.1 1993	Chloride	155	mg/L	3.0	04/05/25 08:30	M1
EPA 300.0 Rev 2.1 1993	Fluoride	0.23	mg/L	0.10	04/04/25 21:16	
EPA 300.0 Rev 2.1 1993	Sulfate	24.5	mg/L	1.0	04/04/25 21:16	
92788949002	**BG-2**					
EPA 6010D	Barium	54.8	ug/L	10.0	04/17/25 10:52	
EPA 6010D	Calcium	106000	ug/L	500	04/17/25 10:52	
EPA 6010D	Cobalt	1.3J	ug/L	10.0	04/17/25 10:52	
EPA 6010D	Copper	1.3J	ug/L	10.0	04/17/25 10:52	
EPA 6010D	Lead	3.1J	ug/L	10.0	04/17/25 10:52	
EPA 6010D	Molybdenum	5.5J	ug/L	15.0	04/17/25 10:52	
EPA 6010D	Zinc	11.1J	ug/L	20.0	04/17/25 10:52	
EPA 6020B	Boron	15.8	ug/L	10.0	04/18/25 13:45	
EPA 6020B	Lithium	22.3	ug/L	0.50	04/18/25 13:45	
EPA 903.1	Radium-226	0.111 ± 0.668 (1.24) C:NA T:83%	pCi/L		04/25/25 15:24	
EPA 904.0	Radium-228	0.301 ± 0.376 (0.796) C:75% T:81%	pCi/L		04/25/25 13:53	
Total Radium Calculation	Total Radium	0.412 ± 1.04 (2.04)	pCi/L		04/30/25 14:38	
SM 2540C-2015	Total Dissolved Solids	1280	mg/L	50.0	04/04/25 10:48	
EPA 300.0 Rev 2.1 1993	Chloride	276	mg/L	6.0	04/05/25 09:13	
EPA 300.0 Rev 2.1 1993	Fluoride	0.31	mg/L	0.10	04/04/25 22:28	
EPA 300.0 Rev 2.1 1993	Sulfate	193	mg/L	6.0	04/05/25 09:13	
92788949003	**MW-1**					
EPA 6010D	Barium	291	ug/L	10.0	04/17/25 10:53	

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SUMMARY OF DETECTION

Project: Charah 2nd quarter GW monitori
Pace Project No.: 92788949

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92788949003	**MW-1**					
EPA 6010D	Calcium	218000	ug/L	500	04/17/25 10:53	
EPA 6010D	Chromium	9.3J	ug/L	10.0	04/17/25 10:53	
EPA 6010D	Cobalt	1.6J	ug/L	10.0	04/17/25 10:53	
EPA 6010D	Copper	1.2J	ug/L	10.0	04/17/25 10:53	
EPA 6010D	Lead	3.8J	ug/L	10.0	04/17/25 10:53	
EPA 6010D	Nickel	4.9J	ug/L	20.0	04/17/25 10:53	
EPA 6010D	Vanadium	4.1J	ug/L	15.0	04/17/25 10:53	
EPA 6010D	Zinc	11.7J	ug/L	20.0	04/17/25 10:53	
EPA 6020B	Boron	6.8J	ug/L	10.0	04/18/25 14:07	
EPA 6020B	Lithium	37.1	ug/L	0.50	04/18/25 14:07	
EPA 903.1	Radium-226	0.0565 ± 0.727 (1.36) C:NA T:92%	pCi/L		04/25/25 15:24	
EPA 904.0	Radium-228	1.06 ± 0.464 (0.750) C:74% T:88%	pCi/L		04/25/25 13:53	
Total Radium Calculation	Total Radium	1.12 ± 1.19 (2.11)	pCi/L		04/30/25 14:38	
SM 2540C-2015	Total Dissolved Solids	1530	mg/L	50.0	04/04/25 14:04	
EPA 300.0 Rev 2.1 1993	Chloride	956	mg/L	22.0	04/05/25 09:56	
EPA 300.0 Rev 2.1 1993	Fluoride	0.17	mg/L	0.10	04/04/25 22:43	
EPA 300.0 Rev 2.1 1993	Sulfate	6.5	mg/L	1.0	04/04/25 22:43	
92788949004	**MW-2**					
EPA 6010D	Antimony	4.1J	ug/L	20.0	04/17/25 10:55	B
EPA 6010D	Barium	473	ug/L	10.0	04/17/25 10:55	
EPA 6010D	Beryllium	0.62J	ug/L	5.0	04/17/25 10:55	
EPA 6010D	Calcium	188000	ug/L	500	04/17/25 10:55	
EPA 6010D	Chromium	22.9	ug/L	10.0	04/17/25 10:55	
EPA 6010D	Cobalt	11.4	ug/L	10.0	04/17/25 10:55	
EPA 6010D	Copper	33.0	ug/L	10.0	04/17/25 10:55	
EPA 6010D	Lead	17.8	ug/L	10.0	04/17/25 10:55	
EPA 6010D	Molybdenum	3.5J	ug/L	15.0	04/17/25 10:55	
EPA 6010D	Nickel	22.1	ug/L	20.0	04/17/25 10:55	
EPA 6010D	Vanadium	20.2	ug/L	15.0	04/17/25 10:55	
EPA 6010D	Zinc	122	ug/L	20.0	04/17/25 10:55	
EPA 6020B	Boron	44.1	ug/L	10.0	04/18/25 14:10	
EPA 6020B	Lithium	130	ug/L	0.50	04/18/25 14:10	
EPA 6020B	Thallium	0.13	ug/L	0.10	04/17/25 19:16	
EPA 903.1	Radium-226	2.11 ± 1.01 (1.35) C:NA T:99%	pCi/L		04/25/25 15:24	
EPA 904.0	Radium-228	1.96 ± 0.673 (0.996) C:74% T:90%	pCi/L		04/25/25 13:53	

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SUMMARY OF DETECTION

Project: Charah 2nd quarter GW monitori
Pace Project No.: 92788949

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92788949004	**MW-2**					
Total Radium Calculation	Total Radium	4.07 ± 1.68 (2.35)	pCi/L		04/30/25 14:38	
SM 2540C-2015	Total Dissolved Solids	2400	mg/L	125	04/08/25 03:11	
EPA 300.0 Rev 2.1 1993	Chloride	1080	mg/L	25.0	04/05/25 10:10	
EPA 300.0 Rev 2.1 1993	Fluoride	0.21	mg/L	0.10	04/04/25 22:57	
EPA 300.0 Rev 2.1 1993	Sulfate	68.6	mg/L	1.0	04/04/25 22:57	
92788949005	**MW-3**					
EPA 6010D	Barium	764	ug/L	10.0	04/17/25 11:00	
EPA 6010D	Calcium	174000	ug/L	500	04/17/25 11:00	
EPA 6010D	Chromium	3.6J	ug/L	10.0	04/17/25 11:00	
EPA 6010D	Cobalt	1.4J	ug/L	10.0	04/17/25 11:00	
EPA 6010D	Copper	6.8J	ug/L	10.0	04/17/25 11:00	
EPA 6010D	Lead	4.0J	ug/L	10.0	04/17/25 11:00	
EPA 6010D	Molybdenum	7.0J	ug/L	15.0	04/17/25 11:00	
EPA 6010D	Nickel	5.1J	ug/L	20.0	04/17/25 11:00	
EPA 6010D	Vanadium	3.4J	ug/L	15.0	04/17/25 11:00	
EPA 6010D	Zinc	19.1J	ug/L	20.0	04/17/25 11:00	
EPA 6020B	Boron	39.5	ug/L	10.0	04/18/25 14:13	
EPA 6020B	Lithium	86.1	ug/L	0.50	04/18/25 14:13	
EPA 903.1	Radium-226	1.56 ± 0.797 (1.01) C:NA T:89%	pCi/L		04/25/25 15:24	
EPA 904.0	Radium-228	2.03 ± 0.716 (1.10) C:72% T:88%	pCi/L		04/25/25 13:54	
Total Radium Calculation	Total Radium	3.59 ± 1.51 (2.11)	pCi/L		04/30/25 14:38	
SM 2540C-2015	Total Dissolved Solids	2430	mg/L	50.0	04/04/25 14:04	1g
EPA 300.0 Rev 2.1 1993	Chloride	1060	mg/L	25.0	04/05/25 10:24	
EPA 300.0 Rev 2.1 1993	Fluoride	0.31	mg/L	0.10	04/04/25 23:12	
EPA 300.0 Rev 2.1 1993	Sulfate	12.7	mg/L	1.0	04/04/25 23:12	
92788949006	**MW-4**					
EPA 6010D	Barium	334	ug/L	10.0	04/10/25 13:51	
EPA 6010D	Calcium	41300	ug/L	500	04/10/25 13:51	
EPA 6010D	Chromium	2.6J	ug/L	10.0	04/10/25 13:51	
EPA 6010D	Cobalt	19.0	ug/L	10.0	04/10/25 13:51	
EPA 6010D	Copper	0.90J	ug/L	10.0	04/10/25 13:51	
EPA 6010D	Nickel	12.4J	ug/L	20.0	04/10/25 13:51	
EPA 6010D	Zinc	19.5J	ug/L	20.0	04/10/25 13:51	
EPA 6020B	Boron	7.2J	ug/L	10.0	04/18/25 14:16	
EPA 6020B	Lithium	37.8	ug/L	0.50	04/18/25 14:16	
EPA 903.1	Radium-226	0.735 ± 0.775 (1.26) C:NA T:95%	pCi/L		04/25/25 15:24	

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: Charah 2nd quarter GW monitori
Pace Project No.: 92788949

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92788949006	**MW-4**					
EPA 904.0	Radium-228	-0.0252 ± 0.335 (0.786) C:82% T:86%	pCi/L		04/25/25 13:54	
Total Radium Calculation	Total Radium	0.735 ± 1.11 (2.05)	pCi/L		04/30/25 14:38	
SM 2540C-2015	Total Dissolved Solids	1020	mg/L	50.0	04/07/25 15:04	
EPA 300.0 Rev 2.1 1993	Chloride	319	mg/L	7.0	04/05/25 10:38	
EPA 300.0 Rev 2.1 1993	Fluoride	0.39	mg/L	0.10	04/04/25 23:26	
EPA 300.0 Rev 2.1 1993	Sulfate	12.9	mg/L	1.0	04/04/25 23:26	
92788949007	**MW-5**					
EPA 6010D	Barium	96.3	ug/L	10.0	04/17/25 11:02	
EPA 6010D	Calcium	9220	ug/L	500	04/17/25 11:02	
EPA 6010D	Chromium	1.6J	ug/L	10.0	04/17/25 11:02	
EPA 6010D	Copper	1.5J	ug/L	10.0	04/17/25 11:02	
EPA 6010D	Zinc	54.9	ug/L	20.0	04/17/25 11:02	
EPA 6020B	Boron	9.1J	ug/L	10.0	04/17/25 19:25	
EPA 6020B	Lithium	8.7	ug/L	0.50	04/17/25 19:25	
EPA 903.1	Radium-226	0.212 ± 0.549 (0.996) C:NA T:96%	pCi/L		04/25/25 15:24	
EPA 904.0	Radium-228	0.540 ± 0.376 (0.714) C:75% T:86%	pCi/L		04/25/25 13:54	
Total Radium Calculation	Total Radium	0.752 ± 0.925 (1.71)	pCi/L		04/30/25 14:38	
SM 2540C-2015	Total Dissolved Solids	207	mg/L	25.0	04/04/25 10:48	
EPA 300.0 Rev 2.1 1993	Chloride	20.1	mg/L	1.0	04/04/25 23:41	
EPA 300.0 Rev 2.1 1993	Fluoride	0.57	mg/L	0.10	04/04/25 23:41	
EPA 300.0 Rev 2.1 1993	Sulfate	3.7	mg/L	1.0	04/04/25 23:41	
92788949008	**MW-6**					
EPA 6010D	Barium	54.5	ug/L	10.0	04/17/25 11:03	
EPA 6010D	Calcium	33200	ug/L	500	04/17/25 11:03	
EPA 6010D	Chromium	1.8J	ug/L	10.0	04/17/25 11:03	
EPA 6010D	Zinc	9.2J	ug/L	20.0	04/17/25 11:03	
EPA 6020B	Boron	6.8J	ug/L	10.0	04/17/25 19:28	
EPA 6020B	Lithium	22.1	ug/L	0.50	04/17/25 19:28	
EPA 903.1	Radium-226	0.913 ± 0.653 (0.955) C:NA T:95%	pCi/L		04/25/25 15:36	

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SUMMARY OF DETECTION

Project: Charah 2nd quarter GW monitori
Pace Project No.: 92788949

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92788949008	**MW-6**					
EPA 904.0	Radium-228	0.794 ± 0.408 (0.699) C:80% T:82%	pCi/L		04/25/25 13:54	
Total Radium Calculation	Total Radium	1.71 ± 1.06 (1.65)	pCi/L		04/30/25 14:38	
SM 2540C-2015	Total Dissolved Solids	542	mg/L	50.0	04/08/25 03:12	
EPA 300.0 Rev 2.1 1993	Chloride	184	mg/L	4.0	04/05/25 10:53	
EPA 300.0 Rev 2.1 1993	Fluoride	0.36	mg/L	0.10	04/04/25 23:55	
EPA 300.0 Rev 2.1 1993	Sulfate	27.3	mg/L	1.0	04/04/25 23:55	
92788949009	**MW-7R**					
EPA 6010D	Barium	318	ug/L	10.0	04/17/25 11:05	
EPA 6010D	Calcium	89900	ug/L	500	04/17/25 11:05	
EPA 6010D	Chromium	4.0J	ug/L	10.0	04/17/25 11:05	
EPA 6010D	Lead	3.1J	ug/L	10.0	04/17/25 11:05	
EPA 6010D	Vanadium	3.1J	ug/L	15.0	04/17/25 11:05	
EPA 6010D	Zinc	4.9J	ug/L	20.0	04/17/25 11:05	
EPA 6020B	Boron	8.7J	ug/L	10.0	04/18/25 14:19	
EPA 6020B	Lithium	29.1	ug/L	0.50	04/18/25 14:19	
EPA 903.1	Radium-226	-0.316 ± 0.388 (0.918) C:NA T:95%	pCi/L		04/25/25 15:36	
EPA 904.0	Radium-228	0.514 ± 0.346 (0.651) C:80% T:89%	pCi/L		04/25/25 13:54	
Total Radium Calculation	Total Radium	0.514 ± 0.734 (1.57)	pCi/L		04/30/25 14:38	
SM 2540C-2015	Total Dissolved Solids	818	mg/L	50.0	04/08/25 03:12	
EPA 300.0 Rev 2.1 1993	Chloride	269	mg/L	6.0	04/05/25 11:07	M1
EPA 300.0 Rev 2.1 1993	Fluoride	0.14	mg/L	0.10	04/05/25 00:09	
EPA 300.0 Rev 2.1 1993	Sulfate	14.2	mg/L	1.0	04/05/25 00:09	
92788949010	**MW-8**					
EPA 6010D	Barium	1020	ug/L	10.0	04/17/25 11:07	
EPA 6010D	Calcium	96300	ug/L	500	04/17/25 11:07	
EPA 6010D	Chromium	5.4J	ug/L	10.0	04/17/25 11:07	
EPA 6010D	Copper	1.1J	ug/L	10.0	04/17/25 11:07	
EPA 6010D	Nickel	3.3J	ug/L	20.0	04/17/25 11:07	
EPA 6010D	Zinc	10.2J	ug/L	20.0	04/17/25 11:07	
EPA 6020B	Boron	10.5	ug/L	10.0	04/18/25 14:22	
EPA 6020B	Lithium	24.4	ug/L	0.50	04/18/25 14:22	
EPA 903.1	Radium-226	0.0493 ± 0.588 (1.11) C:NA T:96%	pCi/L		04/25/25 15:36	

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SUMMARY OF DETECTION

Project: Charah 2nd quarter GW monitori
Pace Project No.: 92788949

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92788949010	**MW-8**					
EPA 904.0	Radium-228	0.546 ± 0.395 (0.767) C:76% T:88%	pCi/L		04/25/25 13:54	
Total Radium Calculation	Total Radium	0.595 ± 0.983 (1.88)	pCi/L		04/30/25 14:38	
SM 2540C-2015	Total Dissolved Solids	798	mg/L	50.0	04/08/25 03:12	
EPA 300.0 Rev 2.1 1993	Chloride	302	mg/L	7.0	04/05/25 11:49	
EPA 300.0 Rev 2.1 1993	Fluoride	0.10	mg/L	0.10	04/05/25 01:22	
EPA 300.0 Rev 2.1 1993	Sulfate	7.5	mg/L	1.0	04/05/25 01:22	
92788949011	**MW-10**					
EPA 6010D	Barium	95.2	ug/L	10.0	04/17/25 11:08	
EPA 6010D	Calcium	21300	ug/L	500	04/17/25 11:08	
EPA 6010D	Chromium	3.6J	ug/L	10.0	04/17/25 11:08	
EPA 6010D	Copper	1.0J	ug/L	10.0	04/17/25 11:08	
EPA 6010D	Molybdenum	19.8	ug/L	15.0	04/17/25 11:08	
EPA 6010D	Nickel	2.6J	ug/L	20.0	04/17/25 11:08	
EPA 6010D	Zinc	5.5J	ug/L	20.0	04/17/25 11:08	
EPA 6020B	Boron	25.5	ug/L	10.0	04/17/25 19:44	
EPA 6020B	Lithium	4.9	ug/L	0.50	04/17/25 19:44	
EPA 903.1	Radium-226	0.0522 ± 0.512 (0.982) C:NA T:92%	pCi/L		04/25/25 15:36	
EPA 904.0	Radium-228	0.617 ± 0.391 (0.725) C:74% T:86%	pCi/L		04/25/25 13:54	
Total Radium Calculation	Total Radium	0.669 ± 0.903 (1.71)	pCi/L		04/30/25 14:38	
SM 2540C-2015	Total Dissolved Solids	345	mg/L	25.0	04/08/25 03:12	
EPA 300.0 Rev 2.1 1993	Chloride	30.4	mg/L	1.0	04/05/25 01:36	
EPA 300.0 Rev 2.1 1993	Fluoride	0.44	mg/L	0.10	04/05/25 01:36	
EPA 300.0 Rev 2.1 1993	Sulfate	1.7	mg/L	1.0	04/05/25 01:36	
92788949012	**MW-11**					
EPA 6010D	Barium	35.3	ug/L	10.0	04/17/25 11:10	
EPA 6010D	Calcium	24900	ug/L	500	04/17/25 11:10	
EPA 6010D	Chromium	0.87J	ug/L	10.0	04/17/25 11:10	
EPA 6010D	Copper	1.4J	ug/L	10.0	04/17/25 11:10	
EPA 6010D	Zinc	9.1J	ug/L	20.0	04/17/25 11:10	
EPA 6020B	Boron	15.4	ug/L	10.0	04/17/25 19:47	
EPA 6020B	Lithium	10.8	ug/L	0.50	04/17/25 19:47	
EPA 903.1	Radium-226	0.478 ± 0.731 (1.25) C:NA T:95%	pCi/L		04/25/25 15:36	

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(704)875-9092

SUMMARY OF DETECTION

Project: Charah 2nd quarter GW monitori
Pace Project No.: 92788949

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92788949012	**MW-11**					
EPA 904.0	Radium-228	0.488 ± 0.371 (0.722) C:75% T:88%	pCi/L		04/25/25 13:54	
Total Radium Calculation	Total Radium	0.966 ± 1.10 (1.97)	pCi/L		04/30/25 14:38	
SM 2540C-2015	Total Dissolved Solids	447	mg/L	25.0	04/08/25 11:58	
EPA 300.0 Rev 2.1 1993	Chloride	136	mg/L	3.0	04/04/25 13:51	
EPA 300.0 Rev 2.1 1993	Fluoride	0.17	mg/L	0.10	04/04/25 01:20	
EPA 300.0 Rev 2.1 1993	Sulfate	2.3	mg/L	1.0	04/04/25 01:20	
92788949013	**MW-11D**					
EPA 6010D	Antimony	4.2J	ug/L	20.0	04/17/25 11:12	B
EPA 6010D	Barium	112	ug/L	10.0	04/17/25 11:12	
EPA 6010D	Calcium	15300	ug/L	500	04/17/25 11:12	
EPA 6010D	Chromium	2.2J	ug/L	10.0	04/17/25 11:12	
EPA 6010D	Copper	1.2J	ug/L	10.0	04/17/25 11:12	
EPA 6010D	Molybdenum	3.8J	ug/L	15.0	04/17/25 11:12	
EPA 6010D	Nickel	2.2J	ug/L	20.0	04/17/25 11:12	
EPA 6010D	Zinc	11.2J	ug/L	20.0	04/17/25 11:12	
EPA 6020B	Boron	42.6	ug/L	10.0	04/17/25 19:50	
EPA 6020B	Lithium	14.7	ug/L	0.50	04/17/25 19:50	
EPA 903.1	Radium-226	-0.156 ± 0.445 (0.944) C:NA T:96%	pCi/L		04/25/25 15:36	
EPA 904.0	Radium-228	0.690 ± 0.488 (0.964) C:78% T:91%	pCi/L		04/25/25 13:54	
Total Radium Calculation	Total Radium	0.690 ± 0.933 (1.91)	pCi/L		04/30/25 14:38	
SM 2540C-2015	Total Dissolved Solids	323	mg/L	25.0	04/08/25 11:59	
EPA 300.0 Rev 2.1 1993	Chloride	55.9	mg/L	1.0	04/05/25 01:50	
EPA 300.0 Rev 2.1 1993	Fluoride	0.45	mg/L	0.10	04/05/25 01:50	
EPA 300.0 Rev 2.1 1993	Sulfate	15.0	mg/L	1.0	04/05/25 01:50	
92788949014	**SW-1**					
EPA 6010D	Arsenic	7.9J	ug/L	20.0	04/17/25 11:13	
EPA 6010D	Barium	634	ug/L	10.0	04/17/25 11:13	
EPA 6010D	Beryllium	1.2J	ug/L	5.0	04/17/25 11:13	
EPA 6010D	Calcium	4850	ug/L	500	04/17/25 11:13	
EPA 6010D	Chromium	19.7	ug/L	10.0	04/17/25 11:13	
EPA 6010D	Cobalt	10.2	ug/L	10.0	04/17/25 11:13	
EPA 6010D	Copper	12.8	ug/L	10.0	04/17/25 11:13	
EPA 6010D	Lead	39.9	ug/L	10.0	04/17/25 11:13	
EPA 6010D	Nickel	8.9J	ug/L	20.0	04/17/25 11:13	
EPA 6010D	Selenium	7.4J	ug/L	20.0	04/17/25 11:13	

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SUMMARY OF DETECTION

Project: Charah 2nd quarter GW monitori
Pace Project No.: 92788949

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92788949014	**SW-1**					
EPA 6010D	Vanadium	73.2	ug/L	15.0	04/17/25 11:13	
EPA 6010D	Zinc	84.5	ug/L	20.0	04/17/25 11:13	
EPA 6020B	Boron	9.3J	ug/L	10.0	04/17/25 19:53	
EPA 6020B	Lithium	9.5	ug/L	0.50	04/17/25 19:53	
EPA 6020B	Thallium	0.32	ug/L	0.10	04/17/25 19:53	
EPA 903.1	Radium-226	-0.0945 ± 0.628 (1.20) C:NA T:93%	pCi/L		04/25/25 15:36	
EPA 904.0	Radium-228	0.762 ± 0.494 (0.956) C:79% T:88%	pCi/L		04/25/25 13:54	
Total Radium Calculation	Total Radium	0.762 ± 1.12 (2.16)	pCi/L		04/30/25 14:38	
SM 2540C-2015	Total Dissolved Solids	1090	mg/L	25.0	04/08/25 03:12	
EPA 300.0 Rev 2.1 1993	Chloride	9.0	mg/L	1.0	04/05/25 02:05	
EPA 300.0 Rev 2.1 1993	Fluoride	0.32	mg/L	0.10	04/05/25 02:05	
EPA 300.0 Rev 2.1 1993	Sulfate	1.7	mg/L	1.0	04/05/25 02:05	
92788949015	**SW-2**					
EPA 6010D	Barium	148	ug/L	10.0	04/17/25 11:15	
EPA 6010D	Calcium	21500	ug/L	500	04/17/25 11:15	
EPA 6010D	Chromium	1.8J	ug/L	10.0	04/17/25 11:15	
EPA 6010D	Copper	1.4J	ug/L	10.0	04/17/25 11:15	
EPA 6010D	Nickel	2.9J	ug/L	20.0	04/17/25 11:15	
EPA 6010D	Vanadium	2.0J	ug/L	15.0	04/17/25 11:15	
EPA 6010D	Zinc	7.8J	ug/L	20.0	04/17/25 11:15	
EPA 6020B	Boron	11.8	ug/L	10.0	04/17/25 19:56	
EPA 6020B	Lithium	0.86	ug/L	0.50	04/17/25 19:56	
EPA 6020B	Thallium	0.031J	ug/L	0.10	04/17/25 19:56	
EPA 903.1	Radium-226	-0.104 ± 0.539 (1.08) C:NA T:87%	pCi/L		04/25/25 15:36	
EPA 904.0	Radium-228	1.01 ± 0.665 (1.29) C:78% T:65%	pCi/L		04/25/25 13:54	
Total Radium Calculation	Total Radium	1.01 ± 1.20 (2.37)	pCi/L		04/30/25 14:38	
SM 2540C-2015	Total Dissolved Solids	285	mg/L	25.0	04/08/25 03:12	
EPA 300.0 Rev 2.1 1993	Chloride	112	mg/L	3.0	04/05/25 12:04	
EPA 300.0 Rev 2.1 1993	Fluoride	0.094J	mg/L	0.10	04/05/25 02:19	
EPA 300.0 Rev 2.1 1993	Sulfate	9.1	mg/L	1.0	04/05/25 02:19	
92788949016	**SW-3**					
EPA 6010D	Barium	104	ug/L	10.0	04/17/25 11:20	
EPA 6010D	Calcium	18300	ug/L	500	04/17/25 11:20	

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SUMMARY OF DETECTION

Project: Charah 2nd quarter GW monitori
Pace Project No.: 92788949

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92788949016	**SW-3**					
EPA 6010D	Chromium	1.4J	ug/L	10.0	04/17/25 11:20	
EPA 6010D	Copper	1.1J	ug/L	10.0	04/17/25 11:20	
EPA 6010D	Zinc	4.9J	ug/L	20.0	04/17/25 11:20	
EPA 6020B	Boron	11.6	ug/L	10.0	04/17/25 19:59	
EPA 6020B	Lithium	0.67	ug/L	0.50	04/17/25 19:59	
EPA 903.1	Radium-226	0.621 ± 0.661 (1.07) C:NA T:91%	pCi/L		04/25/25 15:49	
EPA 904.0	Radium-228	0.794 ± 0.570 (1.12) C:78% T:77%	pCi/L		04/25/25 13:54	
Total Radium Calculation	Total Radium	1.42 ± 1.23 (2.19)	pCi/L		04/30/25 14:38	
SM 2540C-2015	Total Dissolved Solids	305	mg/L	25.0	04/08/25 03:13	
EPA 300.0 Rev 2.1 1993	Chloride	113	mg/L	3.0	04/05/25 12:47	
EPA 300.0 Rev 2.1 1993	Fluoride	0.14	mg/L	0.10	04/05/25 02:34	
EPA 300.0 Rev 2.1 1993	Sulfate	10.1	mg/L	1.0	04/05/25 02:34	
92788949017	**SW-5**					
EPA 6010D	Arsenic	7.1J	ug/L	20.0	04/17/25 11:21	
EPA 6010D	Barium	414	ug/L	10.0	04/17/25 11:21	
EPA 6010D	Beryllium	0.71J	ug/L	5.0	04/17/25 11:21	
EPA 6010D	Calcium	4830	ug/L	500	04/17/25 11:21	
EPA 6010D	Chromium	15.4	ug/L	10.0	04/17/25 11:21	
EPA 6010D	Cobalt	8.0J	ug/L	10.0	04/17/25 11:21	
EPA 6010D	Copper	10.9	ug/L	10.0	04/17/25 11:21	
EPA 6010D	Lead	29.6	ug/L	10.0	04/17/25 11:21	
EPA 6010D	Molybdenum	2.1J	ug/L	15.0	04/17/25 11:21	
EPA 6010D	Nickel	8.6J	ug/L	20.0	04/17/25 11:21	
EPA 6010D	Vanadium	50.4	ug/L	15.0	04/17/25 11:21	
EPA 6010D	Zinc	61.0	ug/L	20.0	04/17/25 11:21	
EPA 6020B	Boron	10.0	ug/L	10.0	04/17/25 20:02	
EPA 6020B	Lithium	7.8	ug/L	0.50	04/17/25 20:02	
EPA 6020B	Thallium	0.23	ug/L	0.10	04/17/25 20:02	
EPA 903.1	Radium-226	-0.166 ± 0.542 (1.11) C:NA T:92%	pCi/L		04/25/25 15:49	
EPA 904.0	Radium-228	0.540 ± 0.405 (0.791) C:79% T:88%	pCi/L		04/25/25 13:55	
Total Radium Calculation	Total Radium	0.540 ± 0.947 (1.90)	pCi/L		04/30/25 14:38	
SM 2540C-2015	Total Dissolved Solids	702	mg/L	25.0	04/08/25 03:13	
EPA 300.0 Rev 2.1 1993	Chloride	9.0	mg/L	1.0	04/05/25 02:48	

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SUMMARY OF DETECTION

Project: Charah 2nd quarter GW monitori
Pace Project No.: 92788949

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92788949017	**SW-5**					
EPA 300.0 Rev 2.1 1993	Fluoride	0.20	mg/L	0.10	04/05/25 02:48	
EPA 300.0 Rev 2.1 1993	Sulfate	1.2	mg/L	1.0	04/05/25 02:48	
92788949018	**SW-6**					
EPA 6010D	Arsenic	11.5J	ug/L	20.0	04/17/25 11:23	
EPA 6010D	Barium	954	ug/L	10.0	04/17/25 11:23	
EPA 6010D	Beryllium	1.9J	ug/L	5.0	04/17/25 11:23	
EPA 6010D	Calcium	7190	ug/L	500	04/17/25 11:23	
EPA 6010D	Chromium	28.8	ug/L	10.0	04/17/25 11:23	
EPA 6010D	Cobalt	32.6	ug/L	10.0	04/17/25 11:23	
EPA 6010D	Copper	24.6	ug/L	10.0	04/17/25 11:23	
EPA 6010D	Lead	61.7	ug/L	10.0	04/17/25 11:23	
EPA 6010D	Nickel	17.2J	ug/L	20.0	04/17/25 11:23	
EPA 6010D	Vanadium	108	ug/L	15.0	04/17/25 11:23	
EPA 6010D	Zinc	149	ug/L	20.0	04/17/25 11:23	
EPA 6020B	Boron	9.0J	ug/L	10.0	04/17/25 20:05	
EPA 6020B	Lithium	12.6	ug/L	0.50	04/17/25 20:05	
EPA 6020B	Thallium	0.39	ug/L	0.10	04/17/25 20:05	
EPA 903.1	Radium-226	0.147 ± 0.482 (0.891) C:NA T:96%	pCi/L		04/25/25 15:49	
EPA 904.0	Radium-228	1.16 ± 0.490 (0.765) C:77% T:89%	pCi/L		04/25/25 13:55	
Total Radium Calculation	Total Radium	1.31 ± 0.972 (1.66)	pCi/L		04/30/25 14:38	
SM 2540C-2015	Total Dissolved Solids	1110	mg/L	25.0	04/08/25 03:13	
EPA 300.0 Rev 2.1 1993	Chloride	9.2	mg/L	1.0	04/05/25 03:03	
EPA 300.0 Rev 2.1 1993	Fluoride	0.30	mg/L	0.10	04/05/25 03:03	
EPA 300.0 Rev 2.1 1993	Sulfate	1.8	mg/L	1.0	04/05/25 03:03	
92788949019	**DUP**					
EPA 6010D	Barium	55.6	ug/L	10.0	04/17/25 11:25	
EPA 6010D	Calcium	34700	ug/L	500	04/17/25 11:25	
EPA 6010D	Chromium	1.6J	ug/L	10.0	04/17/25 11:25	
EPA 6010D	Zinc	9.9J	ug/L	20.0	04/17/25 11:25	
EPA 6020B	Boron	6.6J	ug/L	10.0	04/17/25 20:08	
EPA 6020B	Lithium	21.4	ug/L	0.50	04/17/25 20:08	
EPA 6020B	Thallium	0.056J	ug/L	0.10	04/17/25 20:08	
EPA 903.1	Radium-226	-0.0995 ± 0.647 (1.24) C:NA T:94%	pCi/L		04/25/25 15:49	

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SUMMARY OF DETECTION

Project: Charah 2nd quarter GW monitori
Pace Project No.: 92788949

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92788949019	**DUP**					
EPA 904.0	Radium-228	0.780 ± 0.480 (0.890) C:78% T:84%	pCi/L		04/25/25 13:55	
Total Radium Calculation	Total Radium	0.780 ± 1.13 (2.13)	pCi/L		04/30/25 14:38	
SM 2540C-2015	Total Dissolved Solids	554	mg/L	50.0	04/08/25 03:13	
EPA 300.0 Rev 2.1 1993	Chloride	167	mg/L	4.0	04/04/25 14:06	
EPA 300.0 Rev 2.1 1993	Fluoride	0.35	mg/L	0.10	04/04/25 01:35	
EPA 300.0 Rev 2.1 1993	Sulfate	25.6	mg/L	1.0	04/04/25 01:35	
92788949020	**EQBL**					
EPA 6010D	Chromium	1.1J	ug/L	10.0	04/17/25 11:26	
EPA 903.1	Radium-226	0.000 ± 0.416 (0.832) C:NA T:95%	pCi/L		04/25/25 15:49	
EPA 904.0	Radium-228	0.428 ± 0.438 (0.910) C:77% T:83%	pCi/L		04/25/25 13:55	
Total Radium Calculation	Total Radium	0.428 ± 0.854 (1.74)	pCi/L		04/30/25 14:38	
92788949021	**LEACHATE**					
EPA 6010D	Antimony	6.9J	ug/L	20.0	04/16/25 13:22	
EPA 6010D	Arsenic	20.5	ug/L	20.0	04/16/25 13:22	
EPA 6010D	Barium	58.7	ug/L	10.0	04/16/25 13:22	
EPA 6010D	Calcium	298000	ug/L	500	04/16/25 13:22	
EPA 6010D	Cobalt	1.5J	ug/L	10.0	04/16/25 13:22	
EPA 6010D	Copper	1.2J	ug/L	10.0	04/16/25 13:22	
EPA 6010D	Molybdenum	194	ug/L	15.0	04/16/25 13:22	
EPA 6010D	Nickel	2.8J	ug/L	20.0	04/16/25 13:22	
EPA 6010D	Zinc	4.0J	ug/L	20.0	04/16/25 13:22	
EPA 6020B	Boron	3530	ug/L	1000	04/18/25 14:02	
EPA 6020B	Lithium	54.1	ug/L	0.50	04/18/25 15:13	
EPA 6020B	Thallium	0.11	ug/L	0.10	04/18/25 15:13	
EPA 903.1	Radium-226	0.150 ± 0.489 (0.905) C:NA T:92%	pCi/L		04/25/25 16:06	
EPA 904.0	Radium-228	0.793 ± 0.395 (0.669) C:79% T:86%	pCi/L		04/25/25 13:35	
Total Radium Calculation	Total Radium	0.943 ± 0.884 (1.57)	pCi/L		04/29/25 13:46	
SM 2540C-2015	Total Dissolved Solids	1480	mg/L	50.0	04/07/25 15:04	

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SUMMARY OF DETECTION

Project: Charah 2nd quarter GW monitori
Pace Project No.: 92788949

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92788949021	**LEACHATE**					
EPA 300.0 Rev 2.1 1993	Chloride	23.7	mg/L	1.0	04/04/25 18:23	
EPA 300.0 Rev 2.1 1993	Fluoride	0.33	mg/L	0.10	04/04/25 18:23	
EPA 300.0 Rev 2.1 1993	Sulfate	447	mg/L	10.0	04/05/25 07:19	

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ANALYTICAL RESULTS

Project: Charah 2nd quarter GW monitori
Pace Project No.: 92788949

Sample: BG-1 **Lab ID: 92788949001** Collected: 03/31/25 15:45 Received: 04/03/25 15:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis								
Antimony	ND	ug/L	20.0	4.0	1	04/09/25 13:33	04/17/25 10:43	7440-36-0	
Arsenic	ND	ug/L	20.0	4.2	1	04/09/25 13:33	04/17/25 10:43	7440-38-2	
Barium	**232**	ug/L	10.0	0.50	1	04/09/25 13:33	04/17/25 10:43	7440-39-3	
Beryllium	ND	ug/L	5.0	0.44	1	04/09/25 13:33	04/17/25 10:43	7440-41-7	
Cadmium	ND	ug/L	3.0	0.48	1	04/09/25 13:33	04/17/25 10:43	7440-43-9	
Calcium	**18600**	ug/L	500	31.8	1	04/09/25 13:33	04/17/25 10:43	7440-70-2	
Chromium	**1.2J**	ug/L	10.0	0.81	1	04/09/25 13:33	04/17/25 10:43	7440-47-3	
Cobalt	ND	ug/L	10.0	1.2	1	04/09/25 13:33	04/17/25 10:43	7440-48-4	
Copper	ND	ug/L	10.0	0.79	1	04/09/25 13:33	04/17/25 10:43	7440-50-8	
Lead	ND	ug/L	10.0	2.9	1	04/09/25 13:33	04/17/25 10:43	7439-92-1	
Molybdenum	ND	ug/L	15.0	1.7	1	04/09/25 13:33	04/17/25 10:43	7439-98-7	
Nickel	ND	ug/L	20.0	2.0	1	04/09/25 13:33	04/17/25 10:43	7440-02-0	
Selenium	ND	ug/L	20.0	5.5	1	04/09/25 13:33	04/17/25 10:43	7782-49-2	
Silver	ND	ug/L	10.0	0.77	1	04/09/25 13:33	04/17/25 10:43	7440-22-4	
Vanadium	**6.5J**	ug/L	15.0	2.0	1	04/09/25 13:33	04/17/25 10:43	7440-62-2	
Zinc	**8.4J**	ug/L	20.0	2.3	1	04/09/25 13:33	04/17/25 10:43	7440-66-6	
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3020A Pace Analytical Services - Minneapolis								
Boron	**5.9J**	ug/L	10.0	2.3	1	04/09/25 13:04	04/17/25 18:49	7440-42-8	
Lithium	**13.7**	ug/L	0.50	0.20	1	04/09/25 13:04	04/17/25 18:49	7439-93-2	
Thallium	ND	ug/L	0.10	0.027	1	04/09/25 13:04	04/17/25 18:49	7440-28-0	
7470A Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Minneapolis								
Mercury	ND	ug/L	0.20	0.095	1	04/10/25 07:24	04/16/25 08:31	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Asheville								
Total Dissolved Solids	**487**	mg/L	25.0	25.0	1		04/04/25 10:48		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**155**	mg/L	3.0	1.8	3		04/05/25 08:30	16887-00-6	M1
Fluoride	**0.23**	mg/L	0.10	0.050	1		04/04/25 21:16	16984-48-8	
Sulfate	**24.5**	mg/L	1.0	0.50	1		04/04/25 21:16	14808-79-8	

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ANALYTICAL RESULTS

Project: Charah 2nd quarter GW monitori
Pace Project No.: 92788949

Sample: BG-2 **Lab ID: 92788949002** Collected: 03/31/25 13:00 Received: 04/03/25 15:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis								
Antimony	ND	ug/L	20.0	4.0	1	04/09/25 13:33	04/17/25 10:52	7440-36-0	
Arsenic	ND	ug/L	20.0	4.2	1	04/09/25 13:33	04/17/25 10:52	7440-38-2	
Barium	**54.8**	ug/L	10.0	0.50	1	04/09/25 13:33	04/17/25 10:52	7440-39-3	
Beryllium	ND	ug/L	5.0	0.44	1	04/09/25 13:33	04/17/25 10:52	7440-41-7	
Cadmium	ND	ug/L	3.0	0.48	1	04/09/25 13:33	04/17/25 10:52	7440-43-9	
Calcium	**106000**	ug/L	500	31.8	1	04/09/25 13:33	04/17/25 10:52	7440-70-2	
Chromium	ND	ug/L	10.0	0.81	1	04/09/25 13:33	04/17/25 10:52	7440-47-3	
Cobalt	**1.3J**	ug/L	10.0	1.2	1	04/09/25 13:33	04/17/25 10:52	7440-48-4	
Copper	**1.3J**	ug/L	10.0	0.79	1	04/09/25 13:33	04/17/25 10:52	7440-50-8	
Lead	**3.1J**	ug/L	10.0	2.9	1	04/09/25 13:33	04/17/25 10:52	7439-92-1	
Molybdenum	**5.5J**	ug/L	15.0	1.7	1	04/09/25 13:33	04/17/25 10:52	7439-98-7	
Nickel	ND	ug/L	20.0	2.0	1	04/09/25 13:33	04/17/25 10:52	7440-02-0	
Selenium	ND	ug/L	20.0	5.5	1	04/09/25 13:33	04/17/25 10:52	7782-49-2	
Silver	ND	ug/L	10.0	0.77	1	04/09/25 13:33	04/17/25 10:52	7440-22-4	
Vanadium	ND	ug/L	15.0	2.0	1	04/09/25 13:33	04/17/25 10:52	7440-62-2	
Zinc	**11.1J**	ug/L	20.0	2.3	1	04/09/25 13:33	04/17/25 10:52	7440-66-6	
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3020A Pace Analytical Services - Minneapolis								
Boron	**15.8**	ug/L	10.0	2.3	1	04/09/25 13:04	04/18/25 13:45	7440-42-8	
Lithium	**22.3**	ug/L	0.50	0.20	1	04/09/25 13:04	04/18/25 13:45	7439-93-2	
Thallium	ND	ug/L	0.10	0.027	1	04/09/25 13:04	04/17/25 18:52	7440-28-0	
7470A Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Minneapolis								
Mercury	ND	ug/L	0.20	0.095	1	04/10/25 07:24	04/16/25 08:33	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Asheville								
Total Dissolved Solids	**1280**	mg/L	50.0	50.0	1		04/04/25 10:48		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**276**	mg/L	6.0	3.6	6		04/05/25 09:13	16887-00-6	
Fluoride	**0.31**	mg/L	0.10	0.050	1		04/04/25 22:28	16984-48-8	
Sulfate	**193**	mg/L	6.0	3.0	6		04/05/25 09:13	14808-79-8	

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ANALYTICAL RESULTS

Project: Charah 2nd quarter GW monitori
Pace Project No.: 92788949

Sample: MW-1 **Lab ID: 92788949003** Collected: 04/01/25 17:20 Received: 04/03/25 15:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis								
Antimony	ND	ug/L	20.0	4.0	1	04/09/25 13:33	04/17/25 10:53	7440-36-0	
Arsenic	ND	ug/L	20.0	4.2	1	04/09/25 13:33	04/17/25 10:53	7440-38-2	
Barium	**291**	ug/L	10.0	0.50	1	04/09/25 13:33	04/17/25 10:53	7440-39-3	
Beryllium	ND	ug/L	5.0	0.44	1	04/09/25 13:33	04/17/25 10:53	7440-41-7	
Cadmium	ND	ug/L	3.0	0.48	1	04/09/25 13:33	04/17/25 10:53	7440-43-9	
Calcium	**218000**	ug/L	500	31.8	1	04/09/25 13:33	04/17/25 10:53	7440-70-2	
Chromium	**9.3J**	ug/L	10.0	0.81	1	04/09/25 13:33	04/17/25 10:53	7440-47-3	
Cobalt	**1.6J**	ug/L	10.0	1.2	1	04/09/25 13:33	04/17/25 10:53	7440-48-4	
Copper	**1.2J**	ug/L	10.0	0.79	1	04/09/25 13:33	04/17/25 10:53	7440-50-8	
Lead	**3.8J**	ug/L	10.0	2.9	1	04/09/25 13:33	04/17/25 10:53	7439-92-1	
Molybdenum	ND	ug/L	15.0	1.7	1	04/09/25 13:33	04/17/25 10:53	7439-98-7	
Nickel	**4.9J**	ug/L	20.0	2.0	1	04/09/25 13:33	04/17/25 10:53	7440-02-0	
Selenium	ND	ug/L	20.0	5.5	1	04/09/25 13:33	04/17/25 10:53	7782-49-2	
Silver	ND	ug/L	10.0	0.77	1	04/09/25 13:33	04/17/25 10:53	7440-22-4	
Vanadium	**4.1J**	ug/L	15.0	2.0	1	04/09/25 13:33	04/17/25 10:53	7440-62-2	
Zinc	**11.7J**	ug/L	20.0	2.3	1	04/09/25 13:33	04/17/25 10:53	7440-66-6	
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3020A Pace Analytical Services - Minneapolis								
Boron	**6.8J**	ug/L	10.0	2.3	1	04/09/25 13:04	04/18/25 14:07	7440-42-8	
Lithium	**37.1**	ug/L	0.50	0.20	1	04/09/25 13:04	04/18/25 14:07	7439-93-2	
Thallium	ND	ug/L	0.10	0.027	1	04/09/25 13:04	04/17/25 19:13	7440-28-0	
7470A Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Minneapolis								
Mercury	ND	ug/L	0.20	0.095	1	04/10/25 07:24	04/16/25 08:34	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Asheville								
Total Dissolved Solids	**1530**	mg/L	50.0	50.0	1		04/04/25 14:04		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**956**	mg/L	22.0	13.2	22		04/05/25 09:56	16887-00-6	
Fluoride	**0.17**	mg/L	0.10	0.050	1		04/04/25 22:43	16984-48-8	
Sulfate	**6.5**	mg/L	1.0	0.50	1		04/04/25 22:43	14808-79-8	

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ANALYTICAL RESULTS

Project: Charah 2nd quarter GW monitori
Pace Project No.: 92788949

Sample: MW-2 **Lab ID: 92788949004** Collected: 04/02/25 14:35 Received: 04/03/25 15:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis								
Antimony	**4.1J**	ug/L	20.0	4.0	1	04/09/25 13:33	04/17/25 10:55	7440-36-0	B
Arsenic	ND	ug/L	20.0	4.2	1	04/09/25 13:33	04/17/25 10:55	7440-38-2	
Barium	**473**	ug/L	10.0	0.50	1	04/09/25 13:33	04/17/25 10:55	7440-39-3	
Beryllium	**0.62J**	ug/L	5.0	0.44	1	04/09/25 13:33	04/17/25 10:55	7440-41-7	
Cadmium	ND	ug/L	3.0	0.48	1	04/09/25 13:33	04/17/25 10:55	7440-43-9	
Calcium	**188000**	ug/L	500	31.8	1	04/09/25 13:33	04/17/25 10:55	7440-70-2	
Chromium	**22.9**	ug/L	10.0	0.81	1	04/09/25 13:33	04/17/25 10:55	7440-47-3	
Cobalt	**11.4**	ug/L	10.0	1.2	1	04/09/25 13:33	04/17/25 10:55	7440-48-4	
Copper	**33.0**	ug/L	10.0	0.79	1	04/09/25 13:33	04/17/25 10:55	7440-50-8	
Lead	**17.8**	ug/L	10.0	2.9	1	04/09/25 13:33	04/17/25 10:55	7439-92-1	
Molybdenum	**3.5J**	ug/L	15.0	1.7	1	04/09/25 13:33	04/17/25 10:55	7439-98-7	
Nickel	**22.1**	ug/L	20.0	2.0	1	04/09/25 13:33	04/17/25 10:55	7440-02-0	
Selenium	ND	ug/L	20.0	5.5	1	04/09/25 13:33	04/17/25 10:55	7782-49-2	
Silver	ND	ug/L	10.0	0.77	1	04/09/25 13:33	04/17/25 10:55	7440-22-4	
Vanadium	**20.2**	ug/L	15.0	2.0	1	04/09/25 13:33	04/17/25 10:55	7440-62-2	
Zinc	**122**	ug/L	20.0	2.3	1	04/09/25 13:33	04/17/25 10:55	7440-66-6	
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3020A Pace Analytical Services - Minneapolis								
Boron	**44.1**	ug/L	10.0	2.3	1	04/09/25 13:04	04/18/25 14:10	7440-42-8	
Lithium	**130**	ug/L	0.50	0.20	1	04/09/25 13:04	04/18/25 14:10	7439-93-2	
Thallium	**0.13**	ug/L	0.10	0.027	1	04/09/25 13:04	04/17/25 19:16	7440-28-0	
7470A Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Minneapolis								
Mercury	ND	ug/L	0.20	0.095	1	04/10/25 07:24	04/16/25 08:36	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Asheville								
Total Dissolved Solids	**2400**	mg/L	125	125	1		04/08/25 03:11		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**1080**	mg/L	25.0	15.0	25		04/05/25 10:10	16887-00-6	
Fluoride	**0.21**	mg/L	0.10	0.050	1		04/04/25 22:57	16984-48-8	
Sulfate	**68.6**	mg/L	1.0	0.50	1		04/04/25 22:57	14808-79-8	

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ANALYTICAL RESULTS

Project: Charah 2nd quarter GW monitori
Pace Project No.: 92788949

Sample: MW-3 **Lab ID: 92788949005** Collected: 04/01/25 11:55 Received: 04/03/25 15:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis								
Antimony	ND	ug/L	20.0	4.0	1	04/09/25 13:33	04/17/25 11:00	7440-36-0	
Arsenic	ND	ug/L	20.0	4.2	1	04/09/25 13:33	04/17/25 11:00	7440-38-2	
Barium	**764**	ug/L	10.0	0.50	1	04/09/25 13:33	04/17/25 11:00	7440-39-3	
Beryllium	ND	ug/L	5.0	0.44	1	04/09/25 13:33	04/17/25 11:00	7440-41-7	
Cadmium	ND	ug/L	3.0	0.48	1	04/09/25 13:33	04/17/25 11:00	7440-43-9	
Calcium	**174000**	ug/L	500	31.8	1	04/09/25 13:33	04/17/25 11:00	7440-70-2	
Chromium	**3.6J**	ug/L	10.0	0.81	1	04/09/25 13:33	04/17/25 11:00	7440-47-3	
Cobalt	**1.4J**	ug/L	10.0	1.2	1	04/09/25 13:33	04/17/25 11:00	7440-48-4	
Copper	**6.8J**	ug/L	10.0	0.79	1	04/09/25 13:33	04/17/25 11:00	7440-50-8	
Lead	**4.0J**	ug/L	10.0	2.9	1	04/09/25 13:33	04/17/25 11:00	7439-92-1	
Molybdenum	**7.0J**	ug/L	15.0	1.7	1	04/09/25 13:33	04/17/25 11:00	7439-98-7	
Nickel	**5.1J**	ug/L	20.0	2.0	1	04/09/25 13:33	04/17/25 11:00	7440-02-0	
Selenium	ND	ug/L	20.0	5.5	1	04/09/25 13:33	04/17/25 11:00	7782-49-2	
Silver	ND	ug/L	10.0	0.77	1	04/09/25 13:33	04/17/25 11:00	7440-22-4	
Vanadium	**3.4J**	ug/L	15.0	2.0	1	04/09/25 13:33	04/17/25 11:00	7440-62-2	
Zinc	**19.1J**	ug/L	20.0	2.3	1	04/09/25 13:33	04/17/25 11:00	7440-66-6	
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3020A Pace Analytical Services - Minneapolis								
Boron	**39.5**	ug/L	10.0	2.3	1	04/09/25 13:04	04/18/25 14:13	7440-42-8	
Lithium	**86.1**	ug/L	0.50	0.20	1	04/09/25 13:04	04/18/25 14:13	7439-93-2	
Thallium	ND	ug/L	0.10	0.027	1	04/09/25 13:04	04/17/25 19:19	7440-28-0	
7470A Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Minneapolis								
Mercury	ND	ug/L	0.20	0.095	1	04/10/25 07:24	04/16/25 08:37	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Asheville								
Total Dissolved Solids	**2430**	mg/L	50.0	50.0	1		04/04/25 14:04		1g
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**1060**	mg/L	25.0	15.0	25		04/05/25 10:24	16887-00-6	
Fluoride	**0.31**	mg/L	0.10	0.050	1		04/04/25 23:12	16984-48-8	
Sulfate	**12.7**	mg/L	1.0	0.50	1		04/04/25 23:12	14808-79-8	

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ANALYTICAL RESULTS

Project: Charah 2nd quarter GW monitori
Pace Project No.: 92788949

Sample: MW-4 **Lab ID: 92788949006** Collected: 04/01/25 09:20 Received: 04/03/25 15:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis								
Antimony	ND	ug/L	20.0	4.0	1	04/10/25 06:33	04/10/25 13:51	7440-36-0	
Arsenic	ND	ug/L	20.0	4.2	1	04/10/25 06:33	04/10/25 13:51	7440-38-2	
Barium	**334**	ug/L	10.0	0.50	1	04/10/25 06:33	04/10/25 13:51	7440-39-3	
Beryllium	ND	ug/L	5.0	0.44	1	04/10/25 06:33	04/10/25 13:51	7440-41-7	
Cadmium	ND	ug/L	3.0	0.48	1	04/10/25 06:33	04/10/25 13:51	7440-43-9	
Calcium	**41300**	ug/L	500	31.8	1	04/10/25 06:33	04/10/25 13:51	7440-70-2	
Chromium	**2.6J**	ug/L	10.0	0.81	1	04/10/25 06:33	04/10/25 13:51	7440-47-3	
Cobalt	**19.0**	ug/L	10.0	1.2	1	04/10/25 06:33	04/10/25 13:51	7440-48-4	
Copper	**0.90J**	ug/L	10.0	0.79	1	04/10/25 06:33	04/10/25 13:51	7440-50-8	
Lead	ND	ug/L	10.0	2.9	1	04/10/25 06:33	04/10/25 13:51	7439-92-1	
Molybdenum	ND	ug/L	15.0	1.7	1	04/10/25 06:33	04/10/25 13:51	7439-98-7	
Nickel	**12.4J**	ug/L	20.0	2.0	1	04/10/25 06:33	04/10/25 13:51	7440-02-0	
Selenium	ND	ug/L	20.0	5.5	1	04/10/25 06:33	04/10/25 13:51	7782-49-2	
Silver	ND	ug/L	10.0	0.77	1	04/10/25 06:33	04/10/25 13:51	7440-22-4	
Vanadium	ND	ug/L	15.0	2.0	1	04/10/25 06:33	04/10/25 13:51	7440-62-2	
Zinc	**19.5J**	ug/L	20.0	2.3	1	04/10/25 06:33	04/10/25 13:51	7440-66-6	
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3020A Pace Analytical Services - Minneapolis								
Boron	**7.2J**	ug/L	10.0	2.3	1	04/09/25 13:04	04/18/25 14:16	7440-42-8	
Lithium	**37.8**	ug/L	0.50	0.20	1	04/09/25 13:04	04/18/25 14:16	7439-93-2	
Thallium	ND	ug/L	0.10	0.027	1	04/09/25 13:04	04/17/25 19:22	7440-28-0	
7470A Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Minneapolis								
Mercury	ND	ug/L	0.20	0.095	1	04/10/25 07:24	04/16/25 08:45	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Asheville								
Total Dissolved Solids	**1020**	mg/L	50.0	50.0	1		04/07/25 15:04		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**319**	mg/L	7.0	4.2	7		04/05/25 10:38	16887-00-6	
Fluoride	**0.39**	mg/L	0.10	0.050	1		04/04/25 23:26	16984-48-8	
Sulfate	**12.9**	mg/L	1.0	0.50	1		04/04/25 23:26	14808-79-8	

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ANALYTICAL RESULTS

Project: Charah 2nd quarter GW monitori
Pace Project No.: 92788949

Sample: MW-5 **Lab ID: 92788949007** Collected: 03/31/25 17:40 Received: 04/03/25 15:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis								
Antimony	ND	ug/L	20.0	4.0	1	04/09/25 13:33	04/17/25 11:02	7440-36-0	
Arsenic	ND	ug/L	20.0	4.2	1	04/09/25 13:33	04/17/25 11:02	7440-38-2	
Barium	**96.3**	ug/L	10.0	0.50	1	04/09/25 13:33	04/17/25 11:02	7440-39-3	
Beryllium	ND	ug/L	5.0	0.44	1	04/09/25 13:33	04/17/25 11:02	7440-41-7	
Cadmium	ND	ug/L	3.0	0.48	1	04/09/25 13:33	04/17/25 11:02	7440-43-9	
Calcium	**9220**	ug/L	500	31.8	1	04/09/25 13:33	04/17/25 11:02	7440-70-2	
Chromium	**1.6J**	ug/L	10.0	0.81	1	04/09/25 13:33	04/17/25 11:02	7440-47-3	
Cobalt	ND	ug/L	10.0	1.2	1	04/09/25 13:33	04/17/25 11:02	7440-48-4	
Copper	**1.5J**	ug/L	10.0	0.79	1	04/09/25 13:33	04/17/25 11:02	7440-50-8	
Lead	ND	ug/L	10.0	2.9	1	04/09/25 13:33	04/17/25 11:02	7439-92-1	
Molybdenum	ND	ug/L	15.0	1.7	1	04/09/25 13:33	04/17/25 11:02	7439-98-7	
Nickel	ND	ug/L	20.0	2.0	1	04/09/25 13:33	04/17/25 11:02	7440-02-0	
Selenium	ND	ug/L	20.0	5.5	1	04/09/25 13:33	04/17/25 11:02	7782-49-2	
Silver	ND	ug/L	10.0	0.77	1	04/09/25 13:33	04/17/25 11:02	7440-22-4	
Vanadium	ND	ug/L	15.0	2.0	1	04/09/25 13:33	04/17/25 11:02	7440-62-2	
Zinc	**54.9**	ug/L	20.0	2.3	1	04/09/25 13:33	04/17/25 11:02	7440-66-6	
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3020A Pace Analytical Services - Minneapolis								
Boron	**9.1J**	ug/L	10.0	2.3	1	04/09/25 13:04	04/17/25 19:25	7440-42-8	
Lithium	**8.7**	ug/L	0.50	0.20	1	04/09/25 13:04	04/17/25 19:25	7439-93-2	
Thallium	ND	ug/L	0.10	0.027	1	04/09/25 13:04	04/17/25 19:25	7440-28-0	
7470A Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Minneapolis								
Mercury	ND	ug/L	0.20	0.095	1	04/10/25 07:24	04/16/25 08:46	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Asheville								
Total Dissolved Solids	**207**	mg/L	25.0	25.0	1		04/04/25 10:48		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**20.1**	mg/L	1.0	0.60	1		04/04/25 23:41	16887-00-6	
Fluoride	**0.57**	mg/L	0.10	0.050	1		04/04/25 23:41	16984-48-8	
Sulfate	**3.7**	mg/L	1.0	0.50	1		04/04/25 23:41	14808-79-8	

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ANALYTICAL RESULTS

Project: Charah 2nd quarter GW monitori
Pace Project No.: 92788949

Sample: MW-6 **Lab ID: 92788949008** Collected: 04/02/25 18:05 Received: 04/03/25 15:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis								
Antimony	ND	ug/L	20.0	4.0	1	04/09/25 13:33	04/17/25 11:03	7440-36-0	
Arsenic	ND	ug/L	20.0	4.2	1	04/09/25 13:33	04/17/25 11:03	7440-38-2	
Barium	**54.5**	ug/L	10.0	0.50	1	04/09/25 13:33	04/17/25 11:03	7440-39-3	
Beryllium	ND	ug/L	5.0	0.44	1	04/09/25 13:33	04/17/25 11:03	7440-41-7	
Cadmium	ND	ug/L	3.0	0.48	1	04/09/25 13:33	04/17/25 11:03	7440-43-9	
Calcium	**33200**	ug/L	500	31.8	1	04/09/25 13:33	04/17/25 11:03	7440-70-2	
Chromium	**1.8J**	ug/L	10.0	0.81	1	04/09/25 13:33	04/17/25 11:03	7440-47-3	
Cobalt	ND	ug/L	10.0	1.2	1	04/09/25 13:33	04/17/25 11:03	7440-48-4	
Copper	ND	ug/L	10.0	0.79	1	04/09/25 13:33	04/17/25 11:03	7440-50-8	
Lead	ND	ug/L	10.0	2.9	1	04/09/25 13:33	04/17/25 11:03	7439-92-1	
Molybdenum	ND	ug/L	15.0	1.7	1	04/09/25 13:33	04/17/25 11:03	7439-98-7	
Nickel	ND	ug/L	20.0	2.0	1	04/09/25 13:33	04/17/25 11:03	7440-02-0	
Selenium	ND	ug/L	20.0	5.5	1	04/09/25 13:33	04/17/25 11:03	7782-49-2	
Silver	ND	ug/L	10.0	0.77	1	04/09/25 13:33	04/17/25 11:03	7440-22-4	
Vanadium	ND	ug/L	15.0	2.0	1	04/09/25 13:33	04/17/25 11:03	7440-62-2	
Zinc	**9.2J**	ug/L	20.0	2.3	1	04/09/25 13:33	04/17/25 11:03	7440-66-6	
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3020A Pace Analytical Services - Minneapolis								
Boron	**6.8J**	ug/L	10.0	2.3	1	04/09/25 13:04	04/17/25 19:28	7440-42-8	
Lithium	**22.1**	ug/L	0.50	0.20	1	04/09/25 13:04	04/17/25 19:28	7439-93-2	
Thallium	ND	ug/L	0.10	0.027	1	04/09/25 13:04	04/17/25 19:28	7440-28-0	
7470A Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Minneapolis								
Mercury	ND	ug/L	0.20	0.095	1	04/10/25 07:24	04/16/25 08:47	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Asheville								
Total Dissolved Solids	**542**	mg/L	50.0	50.0	1		04/08/25 03:12		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**184**	mg/L	4.0	2.4	4		04/05/25 10:53	16887-00-6	
Fluoride	**0.36**	mg/L	0.10	0.050	1		04/04/25 23:55	16984-48-8	
Sulfate	**27.3**	mg/L	1.0	0.50	1		04/04/25 23:55	14808-79-8	

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ANALYTICAL RESULTS

Project: Charah 2nd quarter GW monitori
Pace Project No.: 92788949

Sample: MW-7R **Lab ID: 92788949009** Collected: 04/02/25 12:10 Received: 04/03/25 15:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis								
Antimony	ND	ug/L	20.0	4.0	1	04/09/25 13:33	04/17/25 11:05	7440-36-0	
Arsenic	ND	ug/L	20.0	4.2	1	04/09/25 13:33	04/17/25 11:05	7440-38-2	
Barium	**318**	ug/L	10.0	0.50	1	04/09/25 13:33	04/17/25 11:05	7440-39-3	
Beryllium	ND	ug/L	5.0	0.44	1	04/09/25 13:33	04/17/25 11:05	7440-41-7	
Cadmium	ND	ug/L	3.0	0.48	1	04/09/25 13:33	04/17/25 11:05	7440-43-9	
Calcium	**89900**	ug/L	500	31.8	1	04/09/25 13:33	04/17/25 11:05	7440-70-2	
Chromium	**4.0J**	ug/L	10.0	0.81	1	04/09/25 13:33	04/17/25 11:05	7440-47-3	
Cobalt	ND	ug/L	10.0	1.2	1	04/09/25 13:33	04/17/25 11:05	7440-48-4	
Copper	ND	ug/L	10.0	0.79	1	04/09/25 13:33	04/17/25 11:05	7440-50-8	
Lead	**3.1J**	ug/L	10.0	2.9	1	04/09/25 13:33	04/17/25 11:05	7439-92-1	
Molybdenum	ND	ug/L	15.0	1.7	1	04/09/25 13:33	04/17/25 11:05	7439-98-7	
Nickel	ND	ug/L	20.0	2.0	1	04/09/25 13:33	04/17/25 11:05	7440-02-0	
Selenium	ND	ug/L	20.0	5.5	1	04/09/25 13:33	04/17/25 11:05	7782-49-2	
Silver	ND	ug/L	10.0	0.77	1	04/09/25 13:33	04/17/25 11:05	7440-22-4	
Vanadium	**3.1J**	ug/L	15.0	2.0	1	04/09/25 13:33	04/17/25 11:05	7440-62-2	
Zinc	**4.9J**	ug/L	20.0	2.3	1	04/09/25 13:33	04/17/25 11:05	7440-66-6	
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3020A Pace Analytical Services - Minneapolis								
Boron	**8.7J**	ug/L	10.0	2.3	1	04/09/25 13:04	04/18/25 14:19	7440-42-8	
Lithium	**29.1**	ug/L	0.50	0.20	1	04/09/25 13:04	04/18/25 14:19	7439-93-2	
Thallium	ND	ug/L	0.10	0.027	1	04/09/25 13:04	04/17/25 19:31	7440-28-0	
7470A Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Minneapolis								
Mercury	ND	ug/L	0.20	0.095	1	04/10/25 07:24	04/16/25 08:49	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Asheville								
Total Dissolved Solids	**818**	mg/L	50.0	50.0	1		04/08/25 03:12		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**269**	mg/L	6.0	3.6	6		04/05/25 11:07	16887-00-6	M1
Fluoride	**0.14**	mg/L	0.10	0.050	1		04/05/25 00:09	16984-48-8	
Sulfate	**14.2**	mg/L	1.0	0.50	1		04/05/25 00:09	14808-79-8	

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ANALYTICAL RESULTS

Project: Charah 2nd quarter GW monitori
Pace Project No.: 92788949

Sample: MW-8 **Lab ID: 92788949010** Collected: 04/02/25 10:05 Received: 04/03/25 15:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis								
Antimony	ND	ug/L	20.0	4.0	1	04/09/25 13:33	04/17/25 11:07	7440-36-0	
Arsenic	ND	ug/L	20.0	4.2	1	04/09/25 13:33	04/17/25 11:07	7440-38-2	
Barium	**1020**	ug/L	10.0	0.50	1	04/09/25 13:33	04/17/25 11:07	7440-39-3	
Beryllium	ND	ug/L	5.0	0.44	1	04/09/25 13:33	04/17/25 11:07	7440-41-7	
Cadmium	ND	ug/L	3.0	0.48	1	04/09/25 13:33	04/17/25 11:07	7440-43-9	
Calcium	**96300**	ug/L	500	31.8	1	04/09/25 13:33	04/17/25 11:07	7440-70-2	
Chromium	**5.4J**	ug/L	10.0	0.81	1	04/09/25 13:33	04/17/25 11:07	7440-47-3	
Cobalt	ND	ug/L	10.0	1.2	1	04/09/25 13:33	04/17/25 11:07	7440-48-4	
Copper	**1.1J**	ug/L	10.0	0.79	1	04/09/25 13:33	04/17/25 11:07	7440-50-8	
Lead	ND	ug/L	10.0	2.9	1	04/09/25 13:33	04/17/25 11:07	7439-92-1	
Molybdenum	ND	ug/L	15.0	1.7	1	04/09/25 13:33	04/17/25 11:07	7439-98-7	
Nickel	**3.3J**	ug/L	20.0	2.0	1	04/09/25 13:33	04/17/25 11:07	7440-02-0	
Selenium	ND	ug/L	20.0	5.5	1	04/09/25 13:33	04/17/25 11:07	7782-49-2	
Silver	ND	ug/L	10.0	0.77	1	04/09/25 13:33	04/17/25 11:07	7440-22-4	
Vanadium	ND	ug/L	15.0	2.0	1	04/09/25 13:33	04/17/25 11:07	7440-62-2	
Zinc	**10.2J**	ug/L	20.0	2.3	1	04/09/25 13:33	04/17/25 11:07	7440-66-6	
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3020A Pace Analytical Services - Minneapolis								
Boron	**10.5**	ug/L	10.0	2.3	1	04/09/25 13:04	04/18/25 14:22	7440-42-8	
Lithium	**24.4**	ug/L	0.50	0.20	1	04/09/25 13:04	04/18/25 14:22	7439-93-2	
Thallium	ND	ug/L	0.10	0.027	1	04/09/25 13:04	04/17/25 19:34	7440-28-0	
7470A Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Minneapolis								
Mercury	ND	ug/L	0.20	0.095	1	04/10/25 07:24	04/16/25 08:50	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Asheville								
Total Dissolved Solids	**798**	mg/L	50.0	50.0	1		04/08/25 03:12		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**302**	mg/L	7.0	4.2	7		04/05/25 11:49	16887-00-6	
Fluoride	**0.10**	mg/L	0.10	0.050	1		04/05/25 01:22	16984-48-8	
Sulfate	**7.5**	mg/L	1.0	0.50	1		04/05/25 01:22	14808-79-8	

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ANALYTICAL RESULTS

Project: Charah 2nd quarter GW monitori
Pace Project No.: 92788949

Sample: MW-10 **Lab ID: 92788949011** Collected: 04/02/25 15:00 Received: 04/03/25 15:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis								
Antimony	ND	ug/L	20.0	4.0	1	04/09/25 13:33	04/17/25 11:08	7440-36-0	
Arsenic	ND	ug/L	20.0	4.2	1	04/09/25 13:33	04/17/25 11:08	7440-38-2	
Barium	**95.2**	ug/L	10.0	0.50	1	04/09/25 13:33	04/17/25 11:08	7440-39-3	
Beryllium	ND	ug/L	5.0	0.44	1	04/09/25 13:33	04/17/25 11:08	7440-41-7	
Cadmium	ND	ug/L	3.0	0.48	1	04/09/25 13:33	04/17/25 11:08	7440-43-9	
Calcium	**21300**	ug/L	500	31.8	1	04/09/25 13:33	04/17/25 11:08	7440-70-2	
Chromium	**3.6J**	ug/L	10.0	0.81	1	04/09/25 13:33	04/17/25 11:08	7440-47-3	
Cobalt	ND	ug/L	10.0	1.2	1	04/09/25 13:33	04/17/25 11:08	7440-48-4	
Copper	**1.0J**	ug/L	10.0	0.79	1	04/09/25 13:33	04/17/25 11:08	7440-50-8	
Lead	ND	ug/L	10.0	2.9	1	04/09/25 13:33	04/17/25 11:08	7439-92-1	
Molybdenum	**19.8**	ug/L	15.0	1.7	1	04/09/25 13:33	04/17/25 11:08	7439-98-7	
Nickel	**2.6J**	ug/L	20.0	2.0	1	04/09/25 13:33	04/17/25 11:08	7440-02-0	
Selenium	ND	ug/L	20.0	5.5	1	04/09/25 13:33	04/17/25 11:08	7782-49-2	
Silver	ND	ug/L	10.0	0.77	1	04/09/25 13:33	04/17/25 11:08	7440-22-4	
Vanadium	ND	ug/L	15.0	2.0	1	04/09/25 13:33	04/17/25 11:08	7440-62-2	
Zinc	**5.5J**	ug/L	20.0	2.3	1	04/09/25 13:33	04/17/25 11:08	7440-66-6	
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3020A Pace Analytical Services - Minneapolis								
Boron	**25.5**	ug/L	10.0	2.3	1	04/09/25 13:04	04/17/25 19:44	7440-42-8	
Lithium	**4.9**	ug/L	0.50	0.20	1	04/09/25 13:04	04/17/25 19:44	7439-93-2	
Thallium	ND	ug/L	0.10	0.027	1	04/09/25 13:04	04/17/25 19:44	7440-28-0	
7470A Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Minneapolis								
Mercury	ND	ug/L	0.20	0.095	1	04/10/25 07:24	04/16/25 08:52	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Asheville								
Total Dissolved Solids	**345**	mg/L	25.0	25.0	1		04/08/25 03:12		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**30.4**	mg/L	1.0	0.60	1		04/05/25 01:36	16887-00-6	
Fluoride	**0.44**	mg/L	0.10	0.050	1		04/05/25 01:36	16984-48-8	
Sulfate	**1.7**	mg/L	1.0	0.50	1		04/05/25 01:36	14808-79-8	

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ANALYTICAL RESULTS

Project: Charah 2nd quarter GW monitori
Pace Project No.: 92788949

Sample: MW-11 **Lab ID: 92788949012** Collected: 04/03/25 09:40 Received: 04/03/25 15:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis								
Antimony	ND	ug/L	20.0	4.0	1	04/09/25 13:33	04/17/25 11:10	7440-36-0	
Arsenic	ND	ug/L	20.0	4.2	1	04/09/25 13:33	04/17/25 11:10	7440-38-2	
Barium	**35.3**	ug/L	10.0	0.50	1	04/09/25 13:33	04/17/25 11:10	7440-39-3	
Beryllium	ND	ug/L	5.0	0.44	1	04/09/25 13:33	04/17/25 11:10	7440-41-7	
Cadmium	ND	ug/L	3.0	0.48	1	04/09/25 13:33	04/17/25 11:10	7440-43-9	
Calcium	**24900**	ug/L	500	31.8	1	04/09/25 13:33	04/17/25 11:10	7440-70-2	
Chromium	**0.87J**	ug/L	10.0	0.81	1	04/09/25 13:33	04/17/25 11:10	7440-47-3	
Cobalt	ND	ug/L	10.0	1.2	1	04/09/25 13:33	04/17/25 11:10	7440-48-4	
Copper	**1.4J**	ug/L	10.0	0.79	1	04/09/25 13:33	04/17/25 11:10	7440-50-8	
Lead	ND	ug/L	10.0	2.9	1	04/09/25 13:33	04/17/25 11:10	7439-92-1	
Molybdenum	ND	ug/L	15.0	1.7	1	04/09/25 13:33	04/17/25 11:10	7439-98-7	
Nickel	ND	ug/L	20.0	2.0	1	04/09/25 13:33	04/17/25 11:10	7440-02-0	
Selenium	ND	ug/L	20.0	5.5	1	04/09/25 13:33	04/17/25 11:10	7782-49-2	
Silver	ND	ug/L	10.0	0.77	1	04/09/25 13:33	04/17/25 11:10	7440-22-4	
Vanadium	ND	ug/L	15.0	2.0	1	04/09/25 13:33	04/17/25 11:10	7440-62-2	
Zinc	**9.1J**	ug/L	20.0	2.3	1	04/09/25 13:33	04/17/25 11:10	7440-66-6	
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3020A Pace Analytical Services - Minneapolis								
Boron	**15.4**	ug/L	10.0	2.3	1	04/09/25 13:04	04/17/25 19:47	7440-42-8	
Lithium	**10.8**	ug/L	0.50	0.20	1	04/09/25 13:04	04/17/25 19:47	7439-93-2	
Thallium	ND	ug/L	0.10	0.027	1	04/09/25 13:04	04/17/25 19:47	7440-28-0	
7470A Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Minneapolis								
Mercury	ND	ug/L	0.20	0.095	1	04/10/25 07:24	04/16/25 09:45	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Asheville								
Total Dissolved Solids	**447**	mg/L	25.0	25.0	1		04/08/25 11:58		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**136**	mg/L	3.0	1.8	3		04/04/25 13:51	16887-00-6	
Fluoride	**0.17**	mg/L	0.10	0.050	1		04/04/25 01:20	16984-48-8	
Sulfate	**2.3**	mg/L	1.0	0.50	1		04/04/25 01:20	14808-79-8	

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ANALYTICAL RESULTS

Project: Charah 2nd quarter GW monitori
Pace Project No.: 92788949

Sample: MW-11D **Lab ID: 92788949013** Collected: 04/03/25 11:05 Received: 04/03/25 15:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis								
Antimony	**4.2J**	ug/L	20.0	4.0	1	04/09/25 13:33	04/17/25 11:12	7440-36-0	B
Arsenic	ND	ug/L	20.0	4.2	1	04/09/25 13:33	04/17/25 11:12	7440-38-2	
Barium	**112**	ug/L	10.0	0.50	1	04/09/25 13:33	04/17/25 11:12	7440-39-3	
Beryllium	ND	ug/L	5.0	0.44	1	04/09/25 13:33	04/17/25 11:12	7440-41-7	
Cadmium	ND	ug/L	3.0	0.48	1	04/09/25 13:33	04/17/25 11:12	7440-43-9	
Calcium	**15300**	ug/L	500	31.8	1	04/09/25 13:33	04/17/25 11:12	7440-70-2	
Chromium	**2.2J**	ug/L	10.0	0.81	1	04/09/25 13:33	04/17/25 11:12	7440-47-3	
Cobalt	ND	ug/L	10.0	1.2	1	04/09/25 13:33	04/17/25 11:12	7440-48-4	
Copper	**1.2J**	ug/L	10.0	0.79	1	04/09/25 13:33	04/17/25 11:12	7440-50-8	
Lead	ND	ug/L	10.0	2.9	1	04/09/25 13:33	04/17/25 11:12	7439-92-1	
Molybdenum	**3.8J**	ug/L	15.0	1.7	1	04/09/25 13:33	04/17/25 11:12	7439-98-7	
Nickel	**2.2J**	ug/L	20.0	2.0	1	04/09/25 13:33	04/17/25 11:12	7440-02-0	
Selenium	ND	ug/L	20.0	5.5	1	04/09/25 13:33	04/17/25 11:12	7782-49-2	
Silver	ND	ug/L	10.0	0.77	1	04/09/25 13:33	04/17/25 11:12	7440-22-4	
Vanadium	ND	ug/L	15.0	2.0	1	04/09/25 13:33	04/17/25 11:12	7440-62-2	
Zinc	**11.2J**	ug/L	20.0	2.3	1	04/09/25 13:33	04/17/25 11:12	7440-66-6	
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3020A Pace Analytical Services - Minneapolis								
Boron	**42.6**	ug/L	10.0	2.3	1	04/09/25 13:04	04/17/25 19:50	7440-42-8	
Lithium	**14.7**	ug/L	0.50	0.20	1	04/09/25 13:04	04/17/25 19:50	7439-93-2	
Thallium	ND	ug/L	0.10	0.027	1	04/09/25 13:04	04/17/25 19:50	7440-28-0	
7470A Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Minneapolis								
Mercury	ND	ug/L	0.20	0.095	1	04/10/25 07:24	04/16/25 09:46	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Asheville								
Total Dissolved Solids	**323**	mg/L	25.0	25.0	1		04/08/25 11:59		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**55.9**	mg/L	1.0	0.60	1		04/05/25 01:50	16887-00-6	
Fluoride	**0.45**	mg/L	0.10	0.050	1		04/05/25 01:50	16984-48-8	
Sulfate	**15.0**	mg/L	1.0	0.50	1		04/05/25 01:50	14808-79-8	

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ANALYTICAL RESULTS

Project: Charah 2nd quarter GW monitori
Pace Project No.: 92788949

Sample: SW-1 **Lab ID: 92788949014** Collected: 04/02/25 11:10 Received: 04/03/25 15:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis								
Antimony	ND	ug/L	20.0	4.0	1	04/09/25 13:33	04/17/25 11:13	7440-36-0	
Arsenic	**7.9J**	ug/L	20.0	4.2	1	04/09/25 13:33	04/17/25 11:13	7440-38-2	
Barium	**634**	ug/L	10.0	0.50	1	04/09/25 13:33	04/17/25 11:13	7440-39-3	
Beryllium	**1.2J**	ug/L	5.0	0.44	1	04/09/25 13:33	04/17/25 11:13	7440-41-7	
Cadmium	ND	ug/L	3.0	0.48	1	04/09/25 13:33	04/17/25 11:13	7440-43-9	
Calcium	**4850**	ug/L	500	31.8	1	04/09/25 13:33	04/17/25 11:13	7440-70-2	
Chromium	**19.7**	ug/L	10.0	0.81	1	04/09/25 13:33	04/17/25 11:13	7440-47-3	
Cobalt	**10.2**	ug/L	10.0	1.2	1	04/09/25 13:33	04/17/25 11:13	7440-48-4	
Copper	**12.8**	ug/L	10.0	0.79	1	04/09/25 13:33	04/17/25 11:13	7440-50-8	
Lead	**39.9**	ug/L	10.0	2.9	1	04/09/25 13:33	04/17/25 11:13	7439-92-1	
Molybdenum	ND	ug/L	15.0	1.7	1	04/09/25 13:33	04/17/25 11:13	7439-98-7	
Nickel	**8.9J**	ug/L	20.0	2.0	1	04/09/25 13:33	04/17/25 11:13	7440-02-0	
Selenium	**7.4J**	ug/L	20.0	5.5	1	04/09/25 13:33	04/17/25 11:13	7782-49-2	
Silver	ND	ug/L	10.0	0.77	1	04/09/25 13:33	04/17/25 11:13	7440-22-4	
Vanadium	**73.2**	ug/L	15.0	2.0	1	04/09/25 13:33	04/17/25 11:13	7440-62-2	
Zinc	**84.5**	ug/L	20.0	2.3	1	04/09/25 13:33	04/17/25 11:13	7440-66-6	
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3020A Pace Analytical Services - Minneapolis								
Boron	**9.3J**	ug/L	10.0	2.3	1	04/09/25 13:04	04/17/25 19:53	7440-42-8	
Lithium	**9.5**	ug/L	0.50	0.20	1	04/09/25 13:04	04/17/25 19:53	7439-93-2	
Thallium	**0.32**	ug/L	0.10	0.027	1	04/09/25 13:04	04/17/25 19:53	7440-28-0	
7470A Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Minneapolis								
Mercury	ND	ug/L	0.20	0.095	1	04/10/25 07:24	04/16/25 09:47	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Asheville								
Total Dissolved Solids	**1090**	mg/L	25.0	25.0	1		04/08/25 03:12		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**9.0**	mg/L	1.0	0.60	1		04/05/25 02:05	16887-00-6	
Fluoride	**0.32**	mg/L	0.10	0.050	1		04/05/25 02:05	16984-48-8	
Sulfate	**1.7**	mg/L	1.0	0.50	1		04/05/25 02:05	14808-79-8	

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ANALYTICAL RESULTS

Project: Charah 2nd quarter GW monitori
Pace Project No.: 92788949

Sample: SW-2 **Lab ID: 92788949015** Collected: 04/02/25 09:05 Received: 04/03/25 15:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis								
Antimony	ND	ug/L	20.0	4.0	1	04/09/25 13:33	04/17/25 11:15	7440-36-0	
Arsenic	ND	ug/L	20.0	4.2	1	04/09/25 13:33	04/17/25 11:15	7440-38-2	
Barium	**148**	ug/L	10.0	0.50	1	04/09/25 13:33	04/17/25 11:15	7440-39-3	
Beryllium	ND	ug/L	5.0	0.44	1	04/09/25 13:33	04/17/25 11:15	7440-41-7	
Cadmium	ND	ug/L	3.0	0.48	1	04/09/25 13:33	04/17/25 11:15	7440-43-9	
Calcium	**21500**	ug/L	500	31.8	1	04/09/25 13:33	04/17/25 11:15	7440-70-2	
Chromium	**1.8J**	ug/L	10.0	0.81	1	04/09/25 13:33	04/17/25 11:15	7440-47-3	
Cobalt	ND	ug/L	10.0	1.2	1	04/09/25 13:33	04/17/25 11:15	7440-48-4	
Copper	**1.4J**	ug/L	10.0	0.79	1	04/09/25 13:33	04/17/25 11:15	7440-50-8	
Lead	ND	ug/L	10.0	2.9	1	04/09/25 13:33	04/17/25 11:15	7439-92-1	
Molybdenum	ND	ug/L	15.0	1.7	1	04/09/25 13:33	04/17/25 11:15	7439-98-7	
Nickel	**2.9J**	ug/L	20.0	2.0	1	04/09/25 13:33	04/17/25 11:15	7440-02-0	
Selenium	ND	ug/L	20.0	5.5	1	04/09/25 13:33	04/17/25 11:15	7782-49-2	
Silver	ND	ug/L	10.0	0.77	1	04/09/25 13:33	04/17/25 11:15	7440-22-4	
Vanadium	**2.0J**	ug/L	15.0	2.0	1	04/09/25 13:33	04/17/25 11:15	7440-62-2	
Zinc	**7.8J**	ug/L	20.0	2.3	1	04/09/25 13:33	04/17/25 11:15	7440-66-6	
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3020A Pace Analytical Services - Minneapolis								
Boron	**11.8**	ug/L	10.0	2.3	1	04/09/25 13:04	04/17/25 19:56	7440-42-8	
Lithium	**0.86**	ug/L	0.50	0.20	1	04/09/25 13:04	04/17/25 19:56	7439-93-2	
Thallium	**0.031J**	ug/L	0.10	0.027	1	04/09/25 13:04	04/17/25 19:56	7440-28-0	
7470A Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Minneapolis								
Mercury	ND	ug/L	0.20	0.095	1	04/10/25 07:24	04/16/25 09:49	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Asheville								
Total Dissolved Solids	**285**	mg/L	25.0	25.0	1		04/08/25 03:12		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**112**	mg/L	3.0	1.8	3		04/05/25 12:04	16887-00-6	
Fluoride	**0.094J**	mg/L	0.10	0.050	1		04/05/25 02:19	16984-48-8	
Sulfate	**9.1**	mg/L	1.0	0.50	1		04/05/25 02:19	14808-79-8	

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ANALYTICAL RESULTS

Project: Charah 2nd quarter GW monitori
Pace Project No.: 92788949

Sample: SW-3 **Lab ID: 92788949016** Collected: 04/02/25 09:05 Received: 04/03/25 15:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis								
Antimony	ND	ug/L	20.0	4.0	1	04/09/25 13:33	04/17/25 11:20	7440-36-0	
Arsenic	ND	ug/L	20.0	4.2	1	04/09/25 13:33	04/17/25 11:20	7440-38-2	
Barium	**104**	ug/L	10.0	0.50	1	04/09/25 13:33	04/17/25 11:20	7440-39-3	
Beryllium	ND	ug/L	5.0	0.44	1	04/09/25 13:33	04/17/25 11:20	7440-41-7	
Cadmium	ND	ug/L	3.0	0.48	1	04/09/25 13:33	04/17/25 11:20	7440-43-9	
Calcium	**18300**	ug/L	500	31.8	1	04/09/25 13:33	04/17/25 11:20	7440-70-2	
Chromium	**1.4J**	ug/L	10.0	0.81	1	04/09/25 13:33	04/17/25 11:20	7440-47-3	
Cobalt	ND	ug/L	10.0	1.2	1	04/09/25 13:33	04/17/25 11:20	7440-48-4	
Copper	**1.1J**	ug/L	10.0	0.79	1	04/09/25 13:33	04/17/25 11:20	7440-50-8	
Lead	ND	ug/L	10.0	2.9	1	04/09/25 13:33	04/17/25 11:20	7439-92-1	
Molybdenum	ND	ug/L	15.0	1.7	1	04/09/25 13:33	04/17/25 11:20	7439-98-7	
Nickel	ND	ug/L	20.0	2.0	1	04/09/25 13:33	04/17/25 11:20	7440-02-0	
Selenium	ND	ug/L	20.0	5.5	1	04/09/25 13:33	04/17/25 11:20	7782-49-2	
Silver	ND	ug/L	10.0	0.77	1	04/09/25 13:33	04/17/25 11:20	7440-22-4	
Vanadium	ND	ug/L	15.0	2.0	1	04/09/25 13:33	04/17/25 11:20	7440-62-2	
Zinc	**4.9J**	ug/L	20.0	2.3	1	04/09/25 13:33	04/17/25 11:20	7440-66-6	
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3020A Pace Analytical Services - Minneapolis								
Boron	**11.6**	ug/L	10.0	2.3	1	04/09/25 13:04	04/17/25 19:59	7440-42-8	
Lithium	**0.67**	ug/L	0.50	0.20	1	04/09/25 13:04	04/17/25 19:59	7439-93-2	
Thallium	ND	ug/L	0.10	0.027	1	04/09/25 13:04	04/17/25 19:59	7440-28-0	
7470A Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Minneapolis								
Mercury	ND	ug/L	0.20	0.095	1	04/10/25 07:24	04/16/25 09:50	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Asheville								
Total Dissolved Solids	**305**	mg/L	25.0	25.0	1		04/08/25 03:13		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**113**	mg/L	3.0	1.8	3		04/05/25 12:47	16887-00-6	
Fluoride	**0.14**	mg/L	0.10	0.050	1		04/05/25 02:34	16984-48-8	
Sulfate	**10.1**	mg/L	1.0	0.50	1		04/05/25 02:34	14808-79-8	

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ANALYTICAL RESULTS

Project: Charah 2nd quarter GW monitori
Pace Project No.: 92788949

Sample: SW-5 **Lab ID: 92788949017** Collected: 04/02/25 11:35 Received: 04/03/25 15:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis								
Antimony	ND	ug/L	20.0	4.0	1	04/09/25 13:33	04/17/25 11:21	7440-36-0	
Arsenic	**7.1J**	ug/L	20.0	4.2	1	04/09/25 13:33	04/17/25 11:21	7440-38-2	
Barium	**414**	ug/L	10.0	0.50	1	04/09/25 13:33	04/17/25 11:21	7440-39-3	
Beryllium	**0.71J**	ug/L	5.0	0.44	1	04/09/25 13:33	04/17/25 11:21	7440-41-7	
Cadmium	ND	ug/L	3.0	0.48	1	04/09/25 13:33	04/17/25 11:21	7440-43-9	
Calcium	**4830**	ug/L	500	31.8	1	04/09/25 13:33	04/17/25 11:21	7440-70-2	
Chromium	**15.4**	ug/L	10.0	0.81	1	04/09/25 13:33	04/17/25 11:21	7440-47-3	
Cobalt	**8.0J**	ug/L	10.0	1.2	1	04/09/25 13:33	04/17/25 11:21	7440-48-4	
Copper	**10.9**	ug/L	10.0	0.79	1	04/09/25 13:33	04/17/25 11:21	7440-50-8	
Lead	**29.6**	ug/L	10.0	2.9	1	04/09/25 13:33	04/17/25 11:21	7439-92-1	
Molybdenum	**2.1J**	ug/L	15.0	1.7	1	04/09/25 13:33	04/17/25 11:21	7439-98-7	
Nickel	**8.6J**	ug/L	20.0	2.0	1	04/09/25 13:33	04/17/25 11:21	7440-02-0	
Selenium	ND	ug/L	20.0	5.5	1	04/09/25 13:33	04/17/25 11:21	7782-49-2	
Silver	ND	ug/L	10.0	0.77	1	04/09/25 13:33	04/17/25 11:21	7440-22-4	
Vanadium	**50.4**	ug/L	15.0	2.0	1	04/09/25 13:33	04/17/25 11:21	7440-62-2	
Zinc	**61.0**	ug/L	20.0	2.3	1	04/09/25 13:33	04/17/25 11:21	7440-66-6	
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3020A Pace Analytical Services - Minneapolis								
Boron	**10.0**	ug/L	10.0	2.3	1	04/09/25 13:04	04/17/25 20:02	7440-42-8	
Lithium	**7.8**	ug/L	0.50	0.20	1	04/09/25 13:04	04/17/25 20:02	7439-93-2	
Thallium	**0.23**	ug/L	0.10	0.027	1	04/09/25 13:04	04/17/25 20:02	7440-28-0	
7470A Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Minneapolis								
Mercury	ND	ug/L	0.20	0.095	1	04/10/25 07:24	04/16/25 09:52	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Asheville								
Total Dissolved Solids	**702**	mg/L	25.0	25.0	1		04/08/25 03:13		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**9.0**	mg/L	1.0	0.60	1		04/05/25 02:48	16887-00-6	
Fluoride	**0.20**	mg/L	0.10	0.050	1		04/05/25 02:48	16984-48-8	
Sulfate	**1.2**	mg/L	1.0	0.50	1		04/05/25 02:48	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Charah 2nd quarter GW monitori
Pace Project No.: 92788949

Sample: SW-6 **Lab ID: 92788949018** Collected: 04/02/25 11:36 Received: 04/03/25 15:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis								
Antimony	ND	ug/L	20.0	4.0	1	04/09/25 13:33	04/17/25 11:23	7440-36-0	
Arsenic	**11.5J**	ug/L	20.0	4.2	1	04/09/25 13:33	04/17/25 11:23	7440-38-2	
Barium	**954**	ug/L	10.0	0.50	1	04/09/25 13:33	04/17/25 11:23	7440-39-3	
Beryllium	**1.9J**	ug/L	5.0	0.44	1	04/09/25 13:33	04/17/25 11:23	7440-41-7	
Cadmium	ND	ug/L	3.0	0.48	1	04/09/25 13:33	04/17/25 11:23	7440-43-9	
Calcium	**7190**	ug/L	500	31.8	1	04/09/25 13:33	04/17/25 11:23	7440-70-2	
Chromium	**28.8**	ug/L	10.0	0.81	1	04/09/25 13:33	04/17/25 11:23	7440-47-3	
Cobalt	**32.6**	ug/L	10.0	1.2	1	04/09/25 13:33	04/17/25 11:23	7440-48-4	
Copper	**24.6**	ug/L	10.0	0.79	1	04/09/25 13:33	04/17/25 11:23	7440-50-8	
Lead	**61.7**	ug/L	10.0	2.9	1	04/09/25 13:33	04/17/25 11:23	7439-92-1	
Molybdenum	ND	ug/L	15.0	1.7	1	04/09/25 13:33	04/17/25 11:23	7439-98-7	
Nickel	**17.2J**	ug/L	20.0	2.0	1	04/09/25 13:33	04/17/25 11:23	7440-02-0	
Selenium	ND	ug/L	20.0	5.5	1	04/09/25 13:33	04/17/25 11:23	7782-49-2	
Silver	ND	ug/L	10.0	0.77	1	04/09/25 13:33	04/17/25 11:23	7440-22-4	
Vanadium	**108**	ug/L	15.0	2.0	1	04/09/25 13:33	04/17/25 11:23	7440-62-2	
Zinc	**149**	ug/L	20.0	2.3	1	04/09/25 13:33	04/17/25 11:23	7440-66-6	
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3020A Pace Analytical Services - Minneapolis								
Boron	**9.0J**	ug/L	10.0	2.3	1	04/09/25 13:04	04/17/25 20:05	7440-42-8	
Lithium	**12.6**	ug/L	0.50	0.20	1	04/09/25 13:04	04/17/25 20:05	7439-93-2	
Thallium	**0.39**	ug/L	0.10	0.027	1	04/09/25 13:04	04/17/25 20:05	7440-28-0	
7470A Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Minneapolis								
Mercury	ND	ug/L	0.20	0.095	1	04/10/25 07:24	04/16/25 09:53	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Asheville								
Total Dissolved Solids	**1110**	mg/L	25.0	25.0	1		04/08/25 03:13		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**9.2**	mg/L	1.0	0.60	1		04/05/25 03:03	16887-00-6	
Fluoride	**0.30**	mg/L	0.10	0.050	1		04/05/25 03:03	16984-48-8	
Sulfate	**1.8**	mg/L	1.0	0.50	1		04/05/25 03:03	14808-79-8	

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ANALYTICAL RESULTS

Project: Charah 2nd quarter GW monitori
Pace Project No.: 92788949

Sample: DUP **Lab ID: 92788949019** Collected: 04/02/25 00:00 Received: 04/03/25 15:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis								
Antimony	ND	ug/L	20.0	4.0	1	04/09/25 13:33	04/17/25 11:25	7440-36-0	
Arsenic	ND	ug/L	20.0	4.2	1	04/09/25 13:33	04/17/25 11:25	7440-38-2	
Barium	**55.6**	ug/L	10.0	0.50	1	04/09/25 13:33	04/17/25 11:25	7440-39-3	
Beryllium	ND	ug/L	5.0	0.44	1	04/09/25 13:33	04/17/25 11:25	7440-41-7	
Cadmium	ND	ug/L	3.0	0.48	1	04/09/25 13:33	04/17/25 11:25	7440-43-9	
Calcium	**34700**	ug/L	500	31.8	1	04/09/25 13:33	04/17/25 11:25	7440-70-2	
Chromium	**1.6J**	ug/L	10.0	0.81	1	04/09/25 13:33	04/17/25 11:25	7440-47-3	
Cobalt	ND	ug/L	10.0	1.2	1	04/09/25 13:33	04/17/25 11:25	7440-48-4	
Copper	ND	ug/L	10.0	0.79	1	04/09/25 13:33	04/17/25 11:25	7440-50-8	
Lead	ND	ug/L	10.0	2.9	1	04/09/25 13:33	04/17/25 11:25	7439-92-1	
Molybdenum	ND	ug/L	15.0	1.7	1	04/09/25 13:33	04/17/25 11:25	7439-98-7	
Nickel	ND	ug/L	20.0	2.0	1	04/09/25 13:33	04/17/25 11:25	7440-02-0	
Selenium	ND	ug/L	20.0	5.5	1	04/09/25 13:33	04/17/25 11:25	7782-49-2	
Silver	ND	ug/L	10.0	0.77	1	04/09/25 13:33	04/17/25 11:25	7440-22-4	
Vanadium	ND	ug/L	15.0	2.0	1	04/09/25 13:33	04/17/25 11:25	7440-62-2	
Zinc	**9.9J**	ug/L	20.0	2.3	1	04/09/25 13:33	04/17/25 11:25	7440-66-6	
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3020A Pace Analytical Services - Minneapolis								
Boron	**6.6J**	ug/L	10.0	2.3	1	04/09/25 13:04	04/17/25 20:08	7440-42-8	
Lithium	**21.4**	ug/L	0.50	0.20	1	04/09/25 13:04	04/17/25 20:08	7439-93-2	
Thallium	**0.056J**	ug/L	0.10	0.027	1	04/09/25 13:04	04/17/25 20:08	7440-28-0	
7470A Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Minneapolis								
Mercury	ND	ug/L	0.20	0.095	1	04/10/25 07:24	04/16/25 09:55	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Asheville								
Total Dissolved Solids	**554**	mg/L	50.0	50.0	1		04/08/25 03:13		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**167**	mg/L	4.0	2.4	4		04/04/25 14:06	16887-00-6	
Fluoride	**0.35**	mg/L	0.10	0.050	1		04/04/25 01:35	16984-48-8	
Sulfate	**25.6**	mg/L	1.0	0.50	1		04/04/25 01:35	14808-79-8	

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ANALYTICAL RESULTS

Project: Charah 2nd quarter GW monitori
Pace Project No.: 92788949

Sample: EQBL **Lab ID: 92788949020** Collected: 04/02/25 20:40 Received: 04/03/25 15:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis								
Antimony	ND	ug/L	20.0	4.0	1	04/09/25 13:33	04/17/25 11:26	7440-36-0	
Arsenic	ND	ug/L	20.0	4.2	1	04/09/25 13:33	04/17/25 11:26	7440-38-2	
Barium	ND	ug/L	10.0	0.50	1	04/09/25 13:33	04/17/25 11:26	7440-39-3	
Beryllium	ND	ug/L	5.0	0.44	1	04/09/25 13:33	04/17/25 11:26	7440-41-7	
Cadmium	ND	ug/L	3.0	0.48	1	04/09/25 13:33	04/17/25 11:26	7440-43-9	
Calcium	ND	ug/L	500	31.8	1	04/09/25 13:33	04/17/25 11:26	7440-70-2	
Chromium	**1.1J**	ug/L	10.0	0.81	1	04/09/25 13:33	04/17/25 11:26	7440-47-3	
Cobalt	ND	ug/L	10.0	1.2	1	04/09/25 13:33	04/17/25 11:26	7440-48-4	
Copper	ND	ug/L	10.0	0.79	1	04/09/25 13:33	04/17/25 11:26	7440-50-8	
Lead	ND	ug/L	10.0	2.9	1	04/09/25 13:33	04/17/25 11:26	7439-92-1	
Molybdenum	ND	ug/L	15.0	1.7	1	04/09/25 13:33	04/17/25 11:26	7439-98-7	
Nickel	ND	ug/L	20.0	2.0	1	04/09/25 13:33	04/17/25 11:26	7440-02-0	
Selenium	ND	ug/L	20.0	5.5	1	04/09/25 13:33	04/17/25 11:26	7782-49-2	
Silver	ND	ug/L	10.0	0.77	1	04/09/25 13:33	04/17/25 11:26	7440-22-4	
Vanadium	ND	ug/L	15.0	2.0	1	04/09/25 13:33	04/17/25 11:26	7440-62-2	
Zinc	ND	ug/L	20.0	2.3	1	04/09/25 13:33	04/17/25 11:26	7440-66-6	
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3020A Pace Analytical Services - Minneapolis								
Boron	ND	ug/L	10.0	2.3	1	04/09/25 13:04	04/17/25 20:11	7440-42-8	
Lithium	ND	ug/L	0.50	0.20	1	04/09/25 13:04	04/17/25 20:11	7439-93-2	
Thallium	ND	ug/L	0.10	0.027	1	04/09/25 13:04	04/17/25 20:11	7440-28-0	
7470A Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Minneapolis								
Mercury	ND	ug/L	0.20	0.095	1	04/10/25 07:24	04/16/25 09:56	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Asheville								
Total Dissolved Solids	ND	mg/L	25.0	25.0	1		04/08/25 03:13		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	ND	mg/L	1.0	0.60	1		04/04/25 20:33	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		04/04/25 20:33	16984-48-8	
Sulfate	ND	mg/L	1.0	0.50	1		04/04/25 20:33	14808-79-8	

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ANALYTICAL RESULTS

Project: Charah 2nd quarter GW monitori
Pace Project No.: 92788949

Sample: LEACHATE **Lab ID: 92788949021** Collected: 04/01/25 12:55 Received: 04/03/25 15:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis								
Antimony	**6.9J**	ug/L	20.0	4.0	1	04/09/25 13:33	04/16/25 13:22	7440-36-0	
Arsenic	**20.5**	ug/L	20.0	4.2	1	04/09/25 13:33	04/16/25 13:22	7440-38-2	
Barium	**58.7**	ug/L	10.0	0.50	1	04/09/25 13:33	04/16/25 13:22	7440-39-3	
Beryllium	ND	ug/L	5.0	0.44	1	04/09/25 13:33	04/16/25 13:22	7440-41-7	
Cadmium	ND	ug/L	3.0	0.48	1	04/09/25 13:33	04/16/25 13:22	7440-43-9	
Calcium	**298000**	ug/L	500	31.8	1	04/09/25 13:33	04/16/25 13:22	7440-70-2	
Chromium	ND	ug/L	10.0	0.81	1	04/09/25 13:33	04/16/25 13:22	7440-47-3	
Cobalt	**1.5J**	ug/L	10.0	1.2	1	04/09/25 13:33	04/16/25 13:22	7440-48-4	
Copper	**1.2J**	ug/L	10.0	0.79	1	04/09/25 13:33	04/16/25 13:22	7440-50-8	
Lead	ND	ug/L	10.0	2.9	1	04/09/25 13:33	04/16/25 13:22	7439-92-1	
Molybdenum	**194**	ug/L	15.0	1.7	1	04/09/25 13:33	04/16/25 13:22	7439-98-7	
Nickel	**2.8J**	ug/L	20.0	2.0	1	04/09/25 13:33	04/16/25 13:22	7440-02-0	
Selenium	ND	ug/L	20.0	5.5	1	04/09/25 13:33	04/16/25 13:22	7782-49-2	
Silver	ND	ug/L	10.0	0.77	1	04/09/25 13:33	04/16/25 13:22	7440-22-4	
Vanadium	ND	ug/L	15.0	2.0	1	04/09/25 13:33	04/16/25 13:22	7440-62-2	
Zinc	**4.0J**	ug/L	20.0	2.3	1	04/09/25 13:33	04/16/25 13:22	7440-66-6	
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3020A Pace Analytical Services - Minneapolis								
Boron	**3530**	ug/L	1000	227	100	04/09/25 13:04	04/18/25 14:02	7440-42-8	
Lithium	**54.1**	ug/L	0.50	0.20	1	04/09/25 13:04	04/18/25 15:13	7439-93-2	
Thallium	**0.11**	ug/L	0.10	0.027	1	04/09/25 13:04	04/18/25 15:13	7440-28-0	
7470A Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Minneapolis								
Mercury	ND	ug/L	0.20	0.095	1	04/09/25 15:22	04/10/25 12:48	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Asheville								
Total Dissolved Solids	**1480**	mg/L	50.0	50.0	1		04/07/25 15:04		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**23.7**	mg/L	1.0	0.60	1		04/04/25 18:23	16887-00-6	
Fluoride	**0.33**	mg/L	0.10	0.050	1		04/04/25 18:23	16984-48-8	
Sulfate	**447**	mg/L	10.0	5.0	10		04/05/25 07:19	14808-79-8	

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QUALITY CONTROL DATA

Project: Charah 2nd quarter GW monitori
Pace Project No.: 92788949

QC Batch: 1000488
QC Batch Method: EPA 7470A
Analysis Method: EPA 7470A
Analysis Description: 7470A Mercury Water
Laboratory: Pace Analytical Services - Minneapolis

Associated Lab Samples: 92788949021

METHOD BLANK: 5218617 Matrix: Water
Associated Lab Samples: 92788949021

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	0.095	04/10/25 12:45	

LABORATORY CONTROL SAMPLE: 5218618

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	5.5	109	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5218619 5218620

Parameter	Units	92789187003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	5	5	5.4	5.7	109	114	80-120	5	20	

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QUALITY CONTROL DATA

Project: Charah 2nd quarter GW monitori
Pace Project No.: 92788949

QC Batch: 1000764
QC Batch Method: EPA 7470A
Analysis Method: EPA 7470A
Analysis Description: 7470A Mercury Water
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 92788949001, 92788949002, 92788949003, 92788949004, 92788949005, 92788949006, 92788949007, 92788949008, 92788949009, 92788949010, 92788949011, 92788949012, 92788949013, 92788949014, 92788949015, 92788949016, 92788949017, 92788949018, 92788949019, 92788949020

METHOD BLANK: 5219924 Matrix: Water
Associated Lab Samples: 92788949001, 92788949002, 92788949003, 92788949004, 92788949005, 92788949006, 92788949007, 92788949008, 92788949009, 92788949010, 92788949011, 92788949012, 92788949013, 92788949014, 92788949015, 92788949016, 92788949017, 92788949018, 92788949019, 92788949020

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	0.095	04/16/25 08:29	

LABORATORY CONTROL SAMPLE: 5219925

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	5.3	106	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5219926 5219927

Parameter	Units	92788949005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	5	5	5.0	5.2	99	105	80-120	6	20	

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QUALITY CONTROL DATA

Project: Charah 2nd quarter GW monitori
Pace Project No.: 92788949

QC Batch: 1000469
QC Batch Method: EPA 3010A
Analysis Method: EPA 6010D
Analysis Description: 6010D Water
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 92788949001, 92788949002, 92788949003, 92788949004, 92788949005, 92788949007, 92788949008, 92788949009, 92788949010, 92788949011, 92788949012, 92788949013, 92788949014, 92788949015, 92788949016, 92788949017, 92788949018, 92788949019, 92788949020

METHOD BLANK: 5218537
Matrix: Water
Associated Lab Samples: 92788949001, 92788949002, 92788949003, 92788949004, 92788949005, 92788949007, 92788949008, 92788949009, 92788949010, 92788949011, 92788949012, 92788949013, 92788949014, 92788949015, 92788949016, 92788949017, 92788949018, 92788949019, 92788949020

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	5.0J	20.0	4.0	04/17/25 10:40	
Arsenic	ug/L	ND	20.0	4.2	04/17/25 10:40	
Barium	ug/L	ND	10.0	0.50	04/17/25 10:40	
Beryllium	ug/L	ND	5.0	0.44	04/17/25 10:40	
Cadmium	ug/L	ND	3.0	0.48	04/17/25 10:40	
Calcium	ug/L	ND	500	31.8	04/17/25 10:40	
Chromium	ug/L	ND	10.0	0.81	04/17/25 10:40	
Cobalt	ug/L	ND	10.0	1.2	04/17/25 10:40	
Copper	ug/L	ND	10.0	0.79	04/17/25 10:40	
Lead	ug/L	ND	10.0	2.9	04/17/25 10:40	
Molybdenum	ug/L	ND	15.0	1.7	04/17/25 10:40	
Nickel	ug/L	ND	20.0	2.0	04/17/25 10:40	
Selenium	ug/L	ND	20.0	5.5	04/17/25 10:40	
Silver	ug/L	ND	10.0	0.77	04/17/25 10:40	
Vanadium	ug/L	ND	15.0	2.0	04/17/25 10:40	
Zinc	ug/L	ND	20.0	2.3	04/17/25 10:40	

LABORATORY CONTROL SAMPLE: 5218538

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	1000	1050	105	80-120	
Arsenic	ug/L	1000	1030	103	80-120	
Barium	ug/L	1000	1020	102	80-120	
Beryllium	ug/L	1000	1040	104	80-120	
Cadmium	ug/L	1000	1030	103	80-120	
Calcium	ug/L	20000	19700	99	80-120	
Chromium	ug/L	1000	1010	101	80-120	
Cobalt	ug/L	1000	1010	101	80-120	
Copper	ug/L	1000	1010	101	80-120	
Lead	ug/L	1000	1020	102	80-120	
Molybdenum	ug/L	1000	999	100	80-120	
Nickel	ug/L	1000	1010	101	80-120	
Selenium	ug/L	1000	1090	109	80-120	
Silver	ug/L	500	482	96	80-120	
Vanadium	ug/L	1000	1010	101	80-120	

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QUALITY CONTROL DATA

Project: Charah 2nd quarter GW monitori
Pace Project No.: 92788949

LABORATORY CONTROL SAMPLE: 5218538

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Zinc	ug/L	1000	1030	103	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5218539 5218540

Parameter	Units	92788949001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	ug/L	ND	1000	1000	1030	1050	103	105	75-125	1	20	
Arsenic	ug/L	ND	1000	1000	1010	1020	100	101	75-125	1	20	
Barium	ug/L	232	1000	1000	1210	1230	98	99	75-125	1	20	
Beryllium	ug/L	ND	1000	1000	1020	1030	102	103	75-125	1	20	
Cadmium	ug/L	ND	1000	1000	985	997	99	100	75-125	1	20	
Calcium	ug/L	18600	20000	20000	37500	38000	94	97	75-125	1	20	
Chromium	ug/L	1.2J	1000	1000	978	990	98	99	75-125	1	20	
Cobalt	ug/L	ND	1000	1000	979	991	98	99	75-125	1	20	
Copper	ug/L	ND	1000	1000	1020	1030	102	103	75-125	1	20	
Lead	ug/L	ND	1000	1000	984	992	98	99	75-125	1	20	
Molybdenum	ug/L	ND	1000	1000	972	984	97	98	75-125	1	20	
Nickel	ug/L	ND	1000	1000	974	986	97	98	75-125	1	20	
Selenium	ug/L	ND	1000	1000	1060	1070	106	107	75-125	1	20	
Silver	ug/L	ND	500	500	477	482	95	96	75-125	1	20	
Vanadium	ug/L	6.5J	1000	1000	991	1000	98	100	75-125	1	20	
Zinc	ug/L	8.4J	1000	1000	989	999	98	99	75-125	1	20	

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QUALITY CONTROL DATA

Project: Charah 2nd quarter GW monitori
Pace Project No.: 92788949

QC Batch: 1000470
QC Batch Method: EPA 3010A
Analysis Method: EPA 6010D
Analysis Description: 6010D Water
Laboratory: Pace Analytical Services - Minneapolis

Associated Lab Samples: 92788949021

METHOD BLANK: 5218541 Matrix: Water
Associated Lab Samples: 92788949021

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	ND	20.0	4.0	04/16/25 13:19	
Arsenic	ug/L	ND	20.0	4.2	04/16/25 13:19	
Barium	ug/L	ND	10.0	0.50	04/16/25 13:19	
Beryllium	ug/L	ND	5.0	0.44	04/16/25 13:19	
Cadmium	ug/L	ND	3.0	0.48	04/16/25 13:19	
Calcium	ug/L	ND	500	31.8	04/16/25 13:19	
Chromium	ug/L	ND	10.0	0.81	04/16/25 13:19	
Cobalt	ug/L	ND	10.0	1.2	04/16/25 13:19	
Copper	ug/L	ND	10.0	0.79	04/16/25 13:19	
Lead	ug/L	ND	10.0	2.9	04/16/25 13:19	
Molybdenum	ug/L	ND	15.0	1.7	04/16/25 13:19	
Nickel	ug/L	ND	20.0	2.0	04/16/25 13:19	
Selenium	ug/L	ND	20.0	5.5	04/16/25 13:19	
Silver	ug/L	ND	10.0	0.77	04/16/25 13:19	
Vanadium	ug/L	ND	15.0	2.0	04/16/25 13:19	
Zinc	ug/L	ND	20.0	2.3	04/16/25 13:19	

LABORATORY CONTROL SAMPLE: 5218542

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	1000	1000	100	80-120	
Arsenic	ug/L	1000	976	98	80-120	
Barium	ug/L	1000	961	96	80-120	
Beryllium	ug/L	1000	976	98	80-120	
Cadmium	ug/L	1000	951	95	80-120	
Calcium	ug/L	20000	17900	90	80-120	
Chromium	ug/L	1000	950	95	80-120	
Cobalt	ug/L	1000	936	94	80-120	
Copper	ug/L	1000	938	94	80-120	
Lead	ug/L	1000	954	95	80-120	
Molybdenum	ug/L	1000	948	95	80-120	
Nickel	ug/L	1000	946	95	80-120	
Selenium	ug/L	1000	1040	104	80-120	
Silver	ug/L	500	445	89	80-120	
Vanadium	ug/L	1000	935	94	80-120	
Zinc	ug/L	1000	942	94	80-120	

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QUALITY CONTROL DATA

Project: Charah 2nd quarter GW monitori
Pace Project No.: 92788949

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5218543 5218544

Parameter	Units	92789187001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	ug/L	ND	1000	1000	980	943	98	94	75-125	4	20	
Arsenic	ug/L	ND	1000	1000	963	926	96	92	75-125	4	20	
Barium	ug/L	17.0J	1000	1000	933	898	92	88	75-125	4	20	
Beryllium	ug/L	1.0J	1000	1000	952	912	95	91	75-125	4	20	
Cadmium	ug/L	ND	1000	1000	880	844	88	84	75-125	4	20	
Calcium	ug/L	429000	20000	20000	447000	426000	87	-18	75-125	5	20	P6
Chromium	ug/L	ND	1000	1000	920	881	92	88	75-125	4	20	
Cobalt	ug/L	21.8	1000	1000	916	876	89	85	75-125	4	20	
Copper	ug/L	ND	1000	1000	936	896	93	89	75-125	4	20	
Lead	ug/L	ND	1000	1000	911	876	91	87	75-125	4	20	
Molybdenum	ug/L	703	1000	1000	1640	1570	94	86	75-125	4	20	
Nickel	ug/L	8.1J	1000	1000	910	871	90	86	75-125	4	20	
Selenium	ug/L	114	1000	1000	1100	1050	99	94	75-125	4	20	
Silver	ug/L	ND	500	500	429	413	86	83	75-125	4	20	
Vanadium	ug/L	ND	1000	1000	917	878	92	88	75-125	4	20	
Zinc	ug/L	22.5J	1000	1000	885	846	86	82	75-125	5	20	

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QUALITY CONTROL DATA

Project: Charah 2nd quarter GW monitori
Pace Project No.: 92788949

QC Batch: 1000744
QC Batch Method: EPA 3010A
Analysis Method: EPA 6010D
Analysis Description: 6010D Water
Laboratory: Pace Analytical Services - Minneapolis

Associated Lab Samples: 92788949006

METHOD BLANK: 5219850 Matrix: Water

Associated Lab Samples: 92788949006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	ND	20.0	4.0	04/10/25 13:25	
Arsenic	ug/L	ND	20.0	4.2	04/10/25 13:25	
Barium	ug/L	ND	10.0	0.50	04/10/25 13:25	
Beryllium	ug/L	ND	5.0	0.44	04/10/25 13:25	
Cadmium	ug/L	ND	3.0	0.48	04/10/25 13:25	
Calcium	ug/L	ND	500	31.8	04/10/25 13:25	
Chromium	ug/L	ND	10.0	0.81	04/10/25 13:25	
Cobalt	ug/L	ND	10.0	1.2	04/10/25 13:25	
Copper	ug/L	ND	10.0	0.79	04/10/25 13:25	
Lead	ug/L	ND	10.0	2.9	04/10/25 13:25	
Molybdenum	ug/L	ND	15.0	1.7	04/10/25 13:25	
Nickel	ug/L	ND	20.0	2.0	04/10/25 13:25	
Selenium	ug/L	ND	20.0	5.5	04/10/25 13:25	
Silver	ug/L	ND	10.0	0.77	04/10/25 13:25	
Vanadium	ug/L	ND	15.0	2.0	04/10/25 13:25	
Zinc	ug/L	ND	20.0	2.3	04/10/25 13:25	

LABORATORY CONTROL SAMPLE: 5219851

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	1000	1020	102	80-120	
Arsenic	ug/L	1000	1000	100	80-120	
Barium	ug/L	1000	1000	100	80-120	
Beryllium	ug/L	1000	1030	103	80-120	
Cadmium	ug/L	1000	1010	101	80-120	
Calcium	ug/L	20000	19000	95	80-120	
Chromium	ug/L	1000	1010	101	80-120	
Cobalt	ug/L	1000	992	99	80-120	
Copper	ug/L	1000	996	100	80-120	
Lead	ug/L	1000	1010	101	80-120	
Molybdenum	ug/L	1000	964	96	80-120	
Nickel	ug/L	1000	1000	100	80-120	
Selenium	ug/L	1000	1050	105	80-120	
Silver	ug/L	500	476	95	80-120	
Vanadium	ug/L	1000	1000	100	80-120	
Zinc	ug/L	1000	1010	101	80-120	

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QUALITY CONTROL DATA

Project: Charah 2nd quarter GW monitori
Pace Project No.: 92788949

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5219852 5219853

Parameter	Units	92784966002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	ug/L	ND	1000	1000	1060	1080	106	108	75-125	1	20	
Arsenic	ug/L	4.3J	1000	1000	1040	1050	103	104	75-125	1	20	
Barium	ug/L	245	1000	1000	1240	1250	99	101	75-125	2	20	
Beryllium	ug/L	ND	1000	1000	1070	1080	107	108	75-125	1	20	
Cadmium	ug/L	ND	1000	1000	983	993	98	99	75-125	1	20	
Calcium	ug/L	240000	20000	20000	254000	263000	66	112	75-125	4	20	P6
Chromium	ug/L	ND	1000	1000	1010	1020	101	102	75-125	1	20	
Cobalt	ug/L	5.5J	1000	1000	971	981	97	98	75-125	1	20	
Copper	ug/L	ND	1000	1000	1040	1060	104	106	75-125	1	20	
Lead	ug/L	ND	1000	1000	1010	1020	100	101	75-125	1	20	
Molybdenum	ug/L	ND	1000	1000	995	1010	99	101	75-125	1	20	
Nickel	ug/L	ND	1000	1000	973	983	97	98	75-125	1	20	
Selenium	ug/L	ND	1000	1000	1080	1090	108	109	75-125	1	20	
Silver	ug/L	ND	500	500	496	502	99	100	75-125	1	20	
Vanadium	ug/L	ND	1000	1000	1020	1030	102	103	75-125	1	20	
Zinc	ug/L	ND	1000	1000	966	975	97	97	75-125	1	20	

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QUALITY CONTROL DATA

Project: Charah 2nd quarter GW monitori
Pace Project No.: 92788949

QC Batch: 1000471
QC Batch Method: EPA 3020A
Analysis Method: EPA 6020B
Analysis Description: 6020B Water UPD5
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 92788949001, 92788949002, 92788949003, 92788949004, 92788949005, 92788949006, 92788949007, 92788949008, 92788949009, 92788949010, 92788949011, 92788949012, 92788949013, 92788949014, 92788949015, 92788949016, 92788949017, 92788949018, 92788949019, 92788949020

METHOD BLANK: 5218545 Matrix: Water
Associated Lab Samples: 92788949001, 92788949002, 92788949003, 92788949004, 92788949005, 92788949006, 92788949007, 92788949008, 92788949009, 92788949010, 92788949011, 92788949012, 92788949013, 92788949014, 92788949015, 92788949016, 92788949017, 92788949018, 92788949019, 92788949020

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron	ug/L	ND	10.0	2.3	04/17/25 18:42	
Lithium	ug/L	ND	0.50	0.20	04/17/25 18:42	
Thallium	ug/L	ND	0.10	0.027	04/17/25 18:42	

LABORATORY CONTROL SAMPLE: 5218546

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	ug/L	100	106	106	80-120	
Lithium	ug/L	100	98.7	99	80-120	
Thallium	ug/L	100	107	107	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5218547 5218548

Parameter	Units	92788949002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	ug/L	15.8	100	100	118	117	102	101	75-125	1	20	
Lithium	ug/L	22.3	100	100	119	117	97	95	75-125	1	20	
Thallium	ug/L	ND	100	100	106	105	106	105	75-125	0	20	

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QUALITY CONTROL DATA

Project: Charah 2nd quarter GW monitori
Pace Project No.: 92788949

QC Batch: 1000472
QC Batch Method: EPA 3020A
Analysis Method: EPA 6020B
Analysis Description: 6020B Water UPD5
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 92788949021

METHOD BLANK: 5218549 Matrix: Water
Associated Lab Samples: 92788949021

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron	ug/L	2.4J	10.0	2.3	04/18/25 14:28	
Lithium	ug/L	ND	0.50	0.20	04/18/25 14:28	
Thallium	ug/L	ND	0.10	0.027	04/18/25 14:28	

LABORATORY CONTROL SAMPLE: 5218550

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	ug/L	100	110	110	80-120	
Lithium	ug/L	100	106	106	80-120	
Thallium	ug/L	100	107	107	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5218551 5218552

Parameter	Units	92789187002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	ug/L	42300	100	100	41100	41000	-1260	-1370	75-125	0	20	P6
Lithium	ug/L	1560	100	100	1640	1660	86	102	75-125	1	20	
Thallium	ug/L	7.4	100	100	117	117	110	110	75-125	0	20	

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QUALITY CONTROL DATA

Project: Charah 2nd quarter GW monitori
Pace Project No.: 92788949

QC Batch: 927314
QC Batch Method: SM 2540C-2015
Analysis Method: SM 2540C-2015
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92788949001, 92788949002, 92788949007

METHOD BLANK: 4763277 Matrix: Water
Associated Lab Samples: 92788949001, 92788949002, 92788949007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	25.0	25.0	04/04/25 10:48	

LABORATORY CONTROL SAMPLE: 4763278

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	250	246	98	90-110	

SAMPLE DUPLICATE: 4763279

Parameter	Units	92788949001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	487	482	1	25	

SAMPLE DUPLICATE: 4763280

Parameter	Units	92788338002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	608	622	2	25	

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QUALITY CONTROL DATA

Project: Charah 2nd quarter GW monitori
Pace Project No.: 92788949

QC Batch: 927382
QC Batch Method: SM 2540C-2015
Analysis Method: SM 2540C-2015
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92788949003, 92788949005

METHOD BLANK: 4763690 Matrix: Water
Associated Lab Samples: 92788949003, 92788949005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	25.0	25.0	04/04/25 14:00	

LABORATORY CONTROL SAMPLE: 4763691

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	250	248	99	90-110	

SAMPLE DUPLICATE: 4763692

Parameter	Units	92788447005 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	390	390	0	25	

SAMPLE DUPLICATE: 4763693

Parameter	Units	92788553008 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	159	179	12	25	

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QUALITY CONTROL DATA

Project: Charah 2nd quarter GW monitori
Pace Project No.: 92788949

QC Batch: 927541
QC Batch Method: SM 2540C-2015
Analysis Method: SM 2540C-2015
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92788949006, 92788949021

METHOD BLANK: 4764633 Matrix: Water
Associated Lab Samples: 92788949006, 92788949021

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	25.0	25.0	04/07/25 15:04	

LABORATORY CONTROL SAMPLE: 4764634

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	250	250	100	90-110	

SAMPLE DUPLICATE: 4764636

Parameter	Units	92788403001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	2060	2050	1	25	

SAMPLE DUPLICATE: 4764992

Parameter	Units	92788949006 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1020	1030	2	25	

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QUALITY CONTROL DATA

Project: Charah 2nd quarter GW monitori
Pace Project No.: 92788949

QC Batch: 927748 | Analysis Method: SM 2540C-2015
QC Batch Method: SM 2540C-2015 | Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92788949004, 92788949008, 92788949009, 92788949010, 92788949011, 92788949014, 92788949015, 92788949016, 92788949017, 92788949018, 92788949019, 92788949020

METHOD BLANK: 4765612 Matrix: Water
Associated Lab Samples: 92788949004, 92788949008, 92788949009, 92788949010, 92788949011, 92788949014, 92788949015, 92788949016, 92788949017, 92788949018, 92788949019, 92788949020

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	25.0	25.0	04/08/25 03:10	

LABORATORY CONTROL SAMPLE: 4765613

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	250	250	100	90-110	

SAMPLE DUPLICATE: 4765614

Parameter	Units	92788746003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	176	173	2	25	

SAMPLE DUPLICATE: 4765615

Parameter	Units	92788949014 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1090	1080	1	25	

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QUALITY CONTROL DATA

Project: Charah 2nd quarter GW monitori
Pace Project No.: 92788949

QC Batch: 927864
QC Batch Method: SM 2540C-2015
Analysis Method: SM 2540C-2015
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92788949012, 92788949013

METHOD BLANK: 4766088 Matrix: Water
Associated Lab Samples: 92788949012, 92788949013

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	25.0	25.0	04/08/25 11:57	

LABORATORY CONTROL SAMPLE: 4766089

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	250	242	97	90-110	

SAMPLE DUPLICATE: 4766090

Parameter	Units	92789136002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	491	489	0	25	

SAMPLE DUPLICATE: 4766091

Parameter	Units	92788889001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	483	484	0	25	

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QUALITY CONTROL DATA

Project: Charah 2nd quarter GW monitori
Pace Project No.: 92788949

QC Batch: 927162
QC Batch Method: EPA 300.0 Rev 2.1 1993
Analysis Method: EPA 300.0 Rev 2.1 1993
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92788949012, 92788949019

METHOD BLANK: 4762591 Matrix: Water
Associated Lab Samples: 92788949012, 92788949019

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	04/03/25 22:00	
Fluoride	mg/L	ND	0.10	0.050	04/03/25 22:00	
Sulfate	mg/L	ND	1.0	0.50	04/03/25 22:00	

LABORATORY CONTROL SAMPLE: 4762592

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	50.7	101	90-110	
Fluoride	mg/L	2.5	2.4	96	90-110	
Sulfate	mg/L	50	50.4	101	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4762593 4762594

Parameter	Units	92788724001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	9.4	50	50	58.6	58.2	98	98	90-110	1	10	
Fluoride	mg/L	0.066J	2.5	2.5	2.5	2.5	97	97	90-110	0	10	
Sulfate	mg/L	0.63J	50	50	48.3	48.0	95	95	90-110	1	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4762595 4762596

Parameter	Units	92788684001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	6.6	50	50	54.0	58.0	95	103	90-110	7	10	
Fluoride	mg/L	0.057J	2.5	2.5	2.7	3.0	108	117	90-110	8	10	M1
Sulfate	mg/L	476	50	50	509	508	65	64	90-110	0	10	M1

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QUALITY CONTROL DATA

Project: Charah 2nd quarter GW monitori
Pace Project No.: 92788949

QC Batch: 927250
QC Batch Method: EPA 300.0 Rev 2.1 1993
Analysis Method: EPA 300.0 Rev 2.1 1993
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville

Associated Lab Samples: 92788949021

METHOD BLANK: 4763110 Matrix: Water
Associated Lab Samples: 92788949021

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	04/04/25 13:19	
Fluoride	mg/L	ND	0.10	0.050	04/04/25 13:19	
Sulfate	mg/L	ND	1.0	0.50	04/04/25 13:19	

LABORATORY CONTROL SAMPLE: 4763111

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	52.5	105	90-110	
Fluoride	mg/L	2.5	2.6	102	90-110	
Sulfate	mg/L	50	53.0	106	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4763112 4763113

Parameter	Units	92788497001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	226	50	50	272	270	91	89	90-110	0	10	M1
Fluoride	mg/L	ND	2.5	2.5	ND	ND	0	0	90-110		10	M1
Sulfate	mg/L	32.9	50	50	78.4	83.5	91	101	90-110	6	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4763114 4763115

Parameter	Units	92788443001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	217	50	50	260	260	87	86	90-110	0	10	M1
Fluoride	mg/L	0.37	2.5	2.5	3.4	3.4	123	121	90-110	1	10	M1
Sulfate	mg/L	88.7	50	50	131	130	85	84	90-110	1	10	M1

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QUALITY CONTROL DATA

Project: Charah 2nd quarter GW monitori
Pace Project No.: 92788949

QC Batch: 927256
QC Batch Method: EPA 300.0 Rev 2.1 1993
Analysis Method: EPA 300.0 Rev 2.1 1993
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92788949001, 92788949002, 92788949003, 92788949004, 92788949005, 92788949006, 92788949007, 92788949008, 92788949009, 92788949010, 92788949011, 92788949013, 92788949014, 92788949015, 92788949016, 92788949017, 92788949018, 92788949020

METHOD BLANK: 4763128
Matrix: Water
Associated Lab Samples: 92788949001, 92788949002, 92788949003, 92788949004, 92788949005, 92788949006, 92788949007, 92788949008, 92788949009, 92788949010, 92788949011, 92788949013, 92788949014, 92788949015, 92788949016, 92788949017, 92788949018, 92788949020

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	04/04/25 20:04	
Fluoride	mg/L	ND	0.10	0.050	04/04/25 20:04	
Sulfate	mg/L	ND	1.0	0.50	04/04/25 20:04	

LABORATORY CONTROL SAMPLE: 4763129

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	53.2	106	90-110	
Fluoride	mg/L	2.5	2.7	107	90-110	
Sulfate	mg/L	50	53.7	107	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4763130 4763131

Parameter	Units	92788949001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	155	50	50	196	197	84	85	90-110	0	10	M1
Fluoride	mg/L	0.23	2.5	2.5	2.7	2.8	100	103	90-110	2	10	
Sulfate	mg/L	24.5	50	50	74.6	75.6	100	102	90-110	1	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4763132 4763133

Parameter	Units	92788949009 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	269	50	50	310	312	82	85	90-110	0	10	M1
Fluoride	mg/L	0.14	2.5	2.5	2.6	2.6	97	100	90-110	2	10	
Sulfate	mg/L	14.2	50	50	64.3	65.2	100	102	90-110	1	10	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Charah 2nd quarter GW monitori
Pace Project No.: 92788949

Sample: BG-1 **Lab ID: 92788949001** Collected: 03/31/25 15:45 Received: 04/03/25 15:50 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.525 ± 0.685 (1.15) C:NA T:96%**	pCi/L	04/25/25 15:24	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.441 ± 0.324 (0.625) C:78% T:94%**	pCi/L	04/25/25 13:53	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.966 ± 1.01 (1.78)**	pCi/L	04/30/25 14:38	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Charah 2nd quarter GW monitori
Pace Project No.: 92788949

Sample: BG-2 **Lab ID: 92788949002** Collected: 03/31/25 13:00 Received: 04/03/25 15:50 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.111 ± 0.668 (1.24) C:NA T:83%**	pCi/L	04/25/25 15:24	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.301 ± 0.376 (0.796) C:75% T:81%**	pCi/L	04/25/25 13:53	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.412 ± 1.04 (2.04)**	pCi/L	04/30/25 14:38	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Charah 2nd quarter GW monitori
Pace Project No.: 92788949

Sample: MW-1 **Lab ID: 92788949003** Collected: 04/01/25 17:20 Received: 04/03/25 15:50 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.0565 ± 0.727 (1.36) C:NA T:92%**	pCi/L	04/25/25 15:24	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**1.06 ± 0.464 (0.750) C:74% T:88%**	pCi/L	04/25/25 13:53	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.12 ± 1.19 (2.11)**	pCi/L	04/30/25 14:38	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Charah 2nd quarter GW monitori
Pace Project No.: 92788949

Sample: MW-2 **Lab ID: 92788949004** Collected: 04/02/25 14:35 Received: 04/03/25 15:50 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**2.11 ± 1.01 (1.35) C:NA T:99%**	pCi/L	04/25/25 15:24	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**1.96 ± 0.673 (0.996) C:74% T:90%**	pCi/L	04/25/25 13:53	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**4.07 ± 1.68 (2.35)**	pCi/L	04/30/25 14:38	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Charah 2nd quarter GW monitori
Pace Project No.: 92788949

Sample: MW-3 **Lab ID: 92788949005** Collected: 04/01/25 11:55 Received: 04/03/25 15:50 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**1.56 ± 0.797 (1.01) C:NA T:89%**	pCi/L	04/25/25 15:24	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**2.03 ± 0.716 (1.10) C:72% T:88%**	pCi/L	04/25/25 13:54	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**3.59 ± 1.51 (2.11)**	pCi/L	04/30/25 14:38	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Charah 2nd quarter GW monitori
Pace Project No.: 92788949

Sample: MW-4 **Lab ID: 92788949006** Collected: 04/01/25 09:20 Received: 04/03/25 15:50 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.735 ± 0.775 (1.26) C:NA T:95%**	pCi/L	04/25/25 15:24	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**-0.0252 ± 0.335 (0.786) C:82% T:86%**	pCi/L	04/25/25 13:54	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.735 ± 1.11 (2.05)**	pCi/L	04/30/25 14:38	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Charah 2nd quarter GW monitori
Pace Project No.: 92788949

Sample: MW-5 **Lab ID: 92788949007** Collected: 03/31/25 17:40 Received: 04/03/25 15:50 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.212 ± 0.549 (0.996) C:NA T:96%**	pCi/L	04/25/25 15:24	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.540 ± 0.376 (0.714) C:75% T:86%**	pCi/L	04/25/25 13:54	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.752 ± 0.925 (1.71)**	pCi/L	04/30/25 14:38	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Charah 2nd quarter GW monitori
Pace Project No.: 92788949

Sample: MW-6 **Lab ID: 92788949008** Collected: 04/02/25 18:05 Received: 04/03/25 15:50 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.913 ± 0.653 (0.955) C:NA T:95%**	pCi/L	04/25/25 15:36	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.794 ± 0.408 (0.699) C:80% T:82%**	pCi/L	04/25/25 13:54	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.71 ± 1.06 (1.65)**	pCi/L	04/30/25 14:38	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Charah 2nd quarter GW monitori
Pace Project No.: 92788949

Sample: MW-7R **Lab ID: 92788949009** Collected: 04/02/25 12:10 Received: 04/03/25 15:50 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**-0.316 ± 0.388 (0.918) C:NA T:95%**	pCi/L	04/25/25 15:36	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.514 ± 0.346 (0.651) C:80% T:89%**	pCi/L	04/25/25 13:54	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.514 ± 0.734 (1.57)**	pCi/L	04/30/25 14:38	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Charah 2nd quarter GW monitori
Pace Project No.: 92788949

Sample: MW-8 **Lab ID: 92788949010** Collected: 04/02/25 10:05 Received: 04/03/25 15:50 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.0493 ± 0.588 (1.11) C:NA T:96%**	pCi/L	04/25/25 15:36	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.546 ± 0.395 (0.767) C:76% T:88%**	pCi/L	04/25/25 13:54	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.595 ± 0.983 (1.88)**	pCi/L	04/30/25 14:38	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Charah 2nd quarter GW monitori
Pace Project No.: 92788949

Sample: MW-10 **Lab ID: 92788949011** Collected: 04/02/25 15:00 Received: 04/03/25 15:50 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.0522 ± 0.512 (0.982) C:NA T:92%**	pCi/L	04/25/25 15:36	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.617 ± 0.391 (0.725) C:74% T:86%**	pCi/L	04/25/25 13:54	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.669 ± 0.903 (1.71)**	pCi/L	04/30/25 14:38	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Charah 2nd quarter GW monitori
Pace Project No.: 92788949

Sample: MW-11 **Lab ID: 92788949012** Collected: 04/03/25 09:40 Received: 04/03/25 15:50 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.478 ± 0.731 (1.25) C:NA T:95%**	pCi/L	04/25/25 15:36	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.488 ± 0.371 (0.722) C:75% T:88%**	pCi/L	04/25/25 13:54	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.966 ± 1.10 (1.97)**	pCi/L	04/30/25 14:38	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Charah 2nd quarter GW monitori
Pace Project No.: 92788949

Sample: MW-11D **Lab ID: 92788949013** Collected: 04/03/25 11:05 Received: 04/03/25 15:50 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**-0.156 ± 0.445 (0.944) C:NA T:96%**	pCi/L	04/25/25 15:36	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.690 ± 0.488 (0.964) C:78% T:91%**	pCi/L	04/25/25 13:54	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.690 ± 0.933 (1.91)**	pCi/L	04/30/25 14:38	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Charah 2nd quarter GW monitori
Pace Project No.: 92788949

Sample: SW-1 **Lab ID: 92788949014** Collected: 04/02/25 11:10 Received: 04/03/25 15:50 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**-0.0945 ± 0.628 (1.20) C:NA T:93%**	pCi/L	04/25/25 15:36	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.762 ± 0.494 (0.956) C:79% T:88%**	pCi/L	04/25/25 13:54	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.762 ± 1.12 (2.16)**	pCi/L	04/30/25 14:38	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Charah 2nd quarter GW monitori
Pace Project No.: 92788949

Sample: SW-2 **Lab ID: 92788949015** Collected: 04/02/25 09:05 Received: 04/03/25 15:50 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**-0.104 ± 0.539 (1.08) C:NA T:87%**	pCi/L	04/25/25 15:36	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**1.01 ± 0.665 (1.29) C:78% T:65%**	pCi/L	04/25/25 13:54	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.01 ± 1.20 (2.37)**	pCi/L	04/30/25 14:38	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Charah 2nd quarter GW monitori
Pace Project No.: 92788949

Sample: SW-3 **Lab ID: 92788949016** Collected: 04/02/25 09:05 Received: 04/03/25 15:50 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.621 ± 0.661 (1.07) C:NA T:91%**	pCi/L	04/25/25 15:49	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.794 ± 0.570 (1.12) C:78% T:77%**	pCi/L	04/25/25 13:54	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.42 ± 1.23 (2.19)**	pCi/L	04/30/25 14:38	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Charah 2nd quarter GW monitori
Pace Project No.: 92788949

Sample: SW-5 **Lab ID: 92788949017** Collected: 04/02/25 11:35 Received: 04/03/25 15:50 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**-0.166 ± 0.542 (1.11) C:NA T:92%**	pCi/L	04/25/25 15:49	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.540 ± 0.405 (0.791) C:79% T:88%**	pCi/L	04/25/25 13:55	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.540 ± 0.947 (1.90)**	pCi/L	04/30/25 14:38	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Charah 2nd quarter GW monitori
Pace Project No.: 92788949

Sample: SW-6 **Lab ID: 92788949018** Collected: 04/02/25 11:36 Received: 04/03/25 15:50 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.147 ± 0.482 (0.891) C:NA T:96%**	pCi/L	04/25/25 15:49	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**1.16 ± 0.490 (0.765) C:77% T:89%**	pCi/L	04/25/25 13:55	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.31 ± 0.972 (1.66)**	pCi/L	04/30/25 14:38	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Charah 2nd quarter GW monitori
Pace Project No.: 92788949

Sample: DUP **Lab ID: 92788949019** Collected: 04/02/25 00:00 Received: 04/03/25 15:50 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**-0.0995 ± 0.647 (1.24) C:NA T:94%**	pCi/L	04/25/25 15:49	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.780 ± 0.480 (0.890) C:78% T:84%**	pCi/L	04/25/25 13:55	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.780 ± 1.13 (2.13)**	pCi/L	04/30/25 14:38	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Charah 2nd quarter GW monitori
Pace Project No.: 92788949

Sample: EQBL **Lab ID: 92788949020** Collected: 04/02/25 20:40 Received: 04/03/25 15:50 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.000 ± 0.416 (0.832) C:NA T:95%**	pCi/L	04/25/25 15:49	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.428 ± 0.438 (0.910) C:77% T:83%**	pCi/L	04/25/25 13:55	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.428 ± 0.854 (1.74)**	pCi/L	04/30/25 14:38	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Charah 2nd quarter GW monitori
Pace Project No.: 92788949

Sample: LEACHATE **Lab ID: 92788949021** Collected: 04/01/25 12:55 Received: 04/03/25 15:50 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.150 ± 0.489 (0.905) C:NA T:92%**	pCi/L	04/25/25 16:06	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.793 ± 0.395 (0.669) C:79% T:86%**	pCi/L	04/25/25 13:35	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.943 ± 0.884 (1.57)**	pCi/L	04/29/25 13:46	7440-14-4	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Charah 2nd quarter GW monitori
Pace Project No.: 92788949

QC Batch: 738316
QC Batch Method: EPA 903.1
Analysis Method: EPA 903.1
Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 92788949021

METHOD BLANK: 3593738 Matrix: Water
Associated Lab Samples: 92788949021

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.115 ± 0.199 (0.355) C:NA T:96%	pCi/L	04/25/25 16:06	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Charah 2nd quarter GW monitori
Pace Project No.: 92788949

QC Batch: 738317
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 92788949021

METHOD BLANK: 3593739 Matrix: Water
Associated Lab Samples: 92788949021

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.535 ± 0.314 (0.559) C:85% T:89%	pCi/L	04/25/25 13:35	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Charah 2nd quarter GW monitori
Pace Project No.: 92788949

QC Batch: 738310 Analysis Method: EPA 903.1
QC Batch Method: EPA 903.1 Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 92788949001, 92788949002, 92788949003, 92788949004, 92788949005, 92788949006, 92788949007, 92788949008, 92788949009, 92788949010, 92788949011, 92788949012, 92788949013, 92788949014, 92788949015, 92788949016, 92788949017, 92788949018, 92788949019, 92788949020

METHOD BLANK: 3593729 Matrix: Water
Associated Lab Samples: 92788949001, 92788949002, 92788949003, 92788949004, 92788949005, 92788949006, 92788949007, 92788949008, 92788949009, 92788949010, 92788949011, 92788949012, 92788949013, 92788949014, 92788949015, 92788949016, 92788949017, 92788949018, 92788949019, 92788949020

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0383 ± 0.199 (0.412) C:NA T:93%	pCi/L	04/25/25 15:24	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Charah 2nd quarter GW monitori
Pace Project No.: 92788949

QC Batch: 738314 Analysis Method: EPA 904.0
QC Batch Method: EPA 904.0 Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 92788949001, 92788949002, 92788949003, 92788949004, 92788949005, 92788949006, 92788949007, 92788949008, 92788949009, 92788949010, 92788949011, 92788949012, 92788949013, 92788949014, 92788949015, 92788949016, 92788949017, 92788949018, 92788949019, 92788949020

METHOD BLANK: 3593735 Matrix: Water
Associated Lab Samples: 92788949001, 92788949002, 92788949003, 92788949004, 92788949005, 92788949006, 92788949007, 92788949008, 92788949009, 92788949010, 92788949011, 92788949012, 92788949013, 92788949014, 92788949015, 92788949016, 92788949017, 92788949018, 92788949019, 92788949020

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.527 ± 0.369 (0.703) C:75% T:87%	pCi/L	04/25/25 13:53	

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QUALIFIERS

Project: Charah 2nd quarter GW monitori
Pace Project No.: 92788949

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

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TNI - The NELAC Institute.

ANALYTE QUALIFIERS

1g	Constant weight could not be achieved for this sample after 4 drying cycles. The final weight change was 0.0069 grams.
B	Analyte was detected in the associated method blank.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
P6	Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Charah 2nd quarter GW monitori
Pace Project No.: 92788949

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92788949001	**BG-1**	EPA 3010A	1000469	EPA 6010D	1000774
92788949002	**BG-2**	EPA 3010A	1000469	EPA 6010D	1000774
92788949003	**MW-1**	EPA 3010A	1000469	EPA 6010D	1000774
92788949004	**MW-2**	EPA 3010A	1000469	EPA 6010D	1000774
92788949005	**MW-3**	EPA 3010A	1000469	EPA 6010D	1000774
92788949006	**MW-4**	EPA 3010A	1000744	EPA 6010D	1000864
92788949007	**MW-5**	EPA 3010A	1000469	EPA 6010D	1000774
92788949008	**MW-6**	EPA 3010A	1000469	EPA 6010D	1000774
92788949009	**MW-7R**	EPA 3010A	1000469	EPA 6010D	1000774
92788949010	**MW-8**	EPA 3010A	1000469	EPA 6010D	1000774
92788949011	**MW-10**	EPA 3010A	1000469	EPA 6010D	1000774
92788949012	**MW-11**	EPA 3010A	1000469	EPA 6010D	1000774
92788949013	**MW-11D**	EPA 3010A	1000469	EPA 6010D	1000774
92788949014	**SW-1**	EPA 3010A	1000469	EPA 6010D	1000774
92788949015	**SW-2**	EPA 3010A	1000469	EPA 6010D	1000774
92788949016	**SW-3**	EPA 3010A	1000469	EPA 6010D	1000774
92788949017	**SW-5**	EPA 3010A	1000469	EPA 6010D	1000774
92788949018	**SW-6**	EPA 3010A	1000469	EPA 6010D	1000774
92788949019	**DUP**	EPA 3010A	1000469	EPA 6010D	1000774
92788949020	**EQBL**	EPA 3010A	1000469	EPA 6010D	1000774
92788949021	**LEACHATE**	EPA 3010A	1000470	EPA 6010D	1000775
92788949001	**BG-1**	EPA 3020A	1000471	EPA 6020B	1000827
92788949002	**BG-2**	EPA 3020A	1000471	EPA 6020B	1000827
92788949003	**MW-1**	EPA 3020A	1000471	EPA 6020B	1000827
92788949004	**MW-2**	EPA 3020A	1000471	EPA 6020B	1000827
92788949005	**MW-3**	EPA 3020A	1000471	EPA 6020B	1000827
92788949006	**MW-4**	EPA 3020A	1000471	EPA 6020B	1000827
92788949007	**MW-5**	EPA 3020A	1000471	EPA 6020B	1000827
92788949008	**MW-6**	EPA 3020A	1000471	EPA 6020B	1000827
92788949009	**MW-7R**	EPA 3020A	1000471	EPA 6020B	1000827
92788949010	**MW-8**	EPA 3020A	1000471	EPA 6020B	1000827
92788949011	**MW-10**	EPA 3020A	1000471	EPA 6020B	1000827
92788949012	**MW-11**	EPA 3020A	1000471	EPA 6020B	1000827
92788949013	**MW-11D**	EPA 3020A	1000471	EPA 6020B	1000827
92788949014	**SW-1**	EPA 3020A	1000471	EPA 6020B	1000827
92788949015	**SW-2**	EPA 3020A	1000471	EPA 6020B	1000827
92788949016	**SW-3**	EPA 3020A	1000471	EPA 6020B	1000827
92788949017	**SW-5**	EPA 3020A	1000471	EPA 6020B	1000827
92788949018	**SW-6**	EPA 3020A	1000471	EPA 6020B	1000827
92788949019	**DUP**	EPA 3020A	1000471	EPA 6020B	1000827
92788949020	**EQBL**	EPA 3020A	1000471	EPA 6020B	1000827
92788949021	**LEACHATE**	EPA 3020A	1000472	EPA 6020B	1000823
92788949001	**BG-1**	EPA 7470A	1000764	EPA 7470A	1000840
92788949002	**BG-2**	EPA 7470A	1000764	EPA 7470A	1000840
92788949003	**MW-1**	EPA 7470A	1000764	EPA 7470A	1000840
92788949004	**MW-2**	EPA 7470A	1000764	EPA 7470A	1000840

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Charah 2nd quarter GW monitori
Pace Project No.: 92788949

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92788949005	**MW-3**	EPA 7470A	1000764	EPA 7470A	1000840
92788949006	**MW-4**	EPA 7470A	1000764	EPA 7470A	1000840
92788949007	**MW-5**	EPA 7470A	1000764	EPA 7470A	1000840
92788949008	**MW-6**	EPA 7470A	1000764	EPA 7470A	1000840
92788949009	**MW-7R**	EPA 7470A	1000764	EPA 7470A	1000840
92788949010	**MW-8**	EPA 7470A	1000764	EPA 7470A	1000840
92788949011	**MW-10**	EPA 7470A	1000764	EPA 7470A	1000840
92788949012	**MW-11**	EPA 7470A	1000764	EPA 7470A	1000840
92788949013	**MW-11D**	EPA 7470A	1000764	EPA 7470A	1000840
92788949014	**SW-1**	EPA 7470A	1000764	EPA 7470A	1000840
92788949015	**SW-2**	EPA 7470A	1000764	EPA 7470A	1000840
92788949016	**SW-3**	EPA 7470A	1000764	EPA 7470A	1000840
92788949017	**SW-5**	EPA 7470A	1000764	EPA 7470A	1000840
92788949018	**SW-6**	EPA 7470A	1000764	EPA 7470A	1000840
92788949019	**DUP**	EPA 7470A	1000764	EPA 7470A	1000840
92788949020	**EQBL**	EPA 7470A	1000764	EPA 7470A	1000840
92788949021	**LEACHATE**	EPA 7470A	1000488	EPA 7470A	1000788
92788949001	**BG-1**	EPA 903.1	738310		
92788949002	**BG-2**	EPA 903.1	738310		
92788949003	**MW-1**	EPA 903.1	738310		
92788949004	**MW-2**	EPA 903.1	738310		
92788949005	**MW-3**	EPA 903.1	738310		
92788949006	**MW-4**	EPA 903.1	738310		
92788949007	**MW-5**	EPA 903.1	738310		
92788949008	**MW-6**	EPA 903.1	738310		
92788949009	**MW-7R**	EPA 903.1	738310		
92788949010	**MW-8**	EPA 903.1	738310		
92788949011	**MW-10**	EPA 903.1	738310		
92788949012	**MW-11**	EPA 903.1	738310		
92788949013	**MW-11D**	EPA 903.1	738310		
92788949014	**SW-1**	EPA 903.1	738310		
92788949015	**SW-2**	EPA 903.1	738310		
92788949016	**SW-3**	EPA 903.1	738310		
92788949017	**SW-5**	EPA 903.1	738310		
92788949018	**SW-6**	EPA 903.1	738310		
92788949019	**DUP**	EPA 903.1	738310		
92788949020	**EQBL**	EPA 903.1	738310		
92788949021	**LEACHATE**	EPA 903.1	738316		
92788949001	**BG-1**	EPA 904.0	738314		
92788949002	**BG-2**	EPA 904.0	738314		
92788949003	**MW-1**	EPA 904.0	738314		
92788949004	**MW-2**	EPA 904.0	738314		
92788949005	**MW-3**	EPA 904.0	738314		
92788949006	**MW-4**	EPA 904.0	738314		
92788949007	**MW-5**	EPA 904.0	738314		
92788949008	**MW-6**	EPA 904.0	738314		
92788949009	**MW-7R**	EPA 904.0	738314		

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Charah 2nd quarter GW monitori
Pace Project No.: 92788949

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92788949010	**MW-8**	EPA 904.0	738314		
92788949011	**MW-10**	EPA 904.0	738314		
92788949012	**MW-11**	EPA 904.0	738314		
92788949013	**MW-11D**	EPA 904.0	738314		
92788949014	**SW-1**	EPA 904.0	738314		
92788949015	**SW-2**	EPA 904.0	738314		
92788949016	**SW-3**	EPA 904.0	738314		
92788949017	**SW-5**	EPA 904.0	738314		
92788949018	**SW-6**	EPA 904.0	738314		
92788949019	**DUP**	EPA 904.0	738314		
92788949020	**EQBL**	EPA 904.0	738314		
92788949021	**LEACHATE**	EPA 904.0	738317		
92788949001	**BG-1**	Total Radium Calculation	742859		
92788949002	**BG-2**	Total Radium Calculation	742859		
92788949003	**MW-1**	Total Radium Calculation	742859		
92788949004	**MW-2**	Total Radium Calculation	742859		
92788949005	**MW-3**	Total Radium Calculation	742859		
92788949006	**MW-4**	Total Radium Calculation	742859		
92788949007	**MW-5**	Total Radium Calculation	742859		
92788949008	**MW-6**	Total Radium Calculation	742859		
92788949009	**MW-7R**	Total Radium Calculation	742859		
92788949010	**MW-8**	Total Radium Calculation	742859		
92788949011	**MW-10**	Total Radium Calculation	742859		
92788949012	**MW-11**	Total Radium Calculation	742859		
92788949013	**MW-11D**	Total Radium Calculation	742859		
92788949014	**SW-1**	Total Radium Calculation	742859		
92788949015	**SW-2**	Total Radium Calculation	742859		
92788949016	**SW-3**	Total Radium Calculation	742859		
92788949017	**SW-5**	Total Radium Calculation	742859		
92788949018	**SW-6**	Total Radium Calculation	742859		
92788949019	**DUP**	Total Radium Calculation	742859		
92788949020	**EQBL**	Total Radium Calculation	742859		
92788949021	**LEACHATE**	Total Radium Calculation	742610		
92788949001	**BG-1**	SM 2540C-2015	927314		
92788949002	**BG-2**	SM 2540C-2015	927314		
92788949003	**MW-1**	SM 2540C-2015	927382		
92788949004	**MW-2**	SM 2540C-2015	927748		
92788949005	**MW-3**	SM 2540C-2015	927382		
92788949006	**MW-4**	SM 2540C-2015	927541		
92788949007	**MW-5**	SM 2540C-2015	927314		
92788949008	**MW-6**	SM 2540C-2015	927748		
92788949009	**MW-7R**	SM 2540C-2015	927748		
92788949010	**MW-8**	SM 2540C-2015	927748		
92788949011	**MW-10**	SM 2540C-2015	927748		

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Charah 2nd quarter GW monitori
Pace Project No.: 92788949

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92788949012	**MW-11**	SM 2540C-2015	927864		
92788949013	**MW-11D**	SM 2540C-2015	927864		
92788949014	**SW-1**	SM 2540C-2015	927748		
92788949015	**SW-2**	SM 2540C-2015	927748		
92788949016	**SW-3**	SM 2540C-2015	927748		
92788949017	**SW-5**	SM 2540C-2015	927748		
92788949018	**SW-6**	SM 2540C-2015	927748		
92788949019	**DUP**	SM 2540C-2015	927748		
92788949020	**EQBL**	SM 2540C-2015	927748		
92788949021	**LEACHATE**	SM 2540C-2015	927541		
92788949001	**BG-1**	EPA 300.0 Rev 2.1 1993	927256		
92788949002	**BG-2**	EPA 300.0 Rev 2.1 1993	927256		
92788949003	**MW-1**	EPA 300.0 Rev 2.1 1993	927256		
92788949004	**MW-2**	EPA 300.0 Rev 2.1 1993	927256		
92788949005	**MW-3**	EPA 300.0 Rev 2.1 1993	927256		
92788949006	**MW-4**	EPA 300.0 Rev 2.1 1993	927256		
92788949007	**MW-5**	EPA 300.0 Rev 2.1 1993	927256		
92788949008	**MW-6**	EPA 300.0 Rev 2.1 1993	927256		
92788949009	**MW-7R**	EPA 300.0 Rev 2.1 1993	927256		
92788949010	**MW-8**	EPA 300.0 Rev 2.1 1993	927256		
92788949011	**MW-10**	EPA 300.0 Rev 2.1 1993	927256		
92788949012	**MW-11**	EPA 300.0 Rev 2.1 1993	927162		
92788949013	**MW-11D**	EPA 300.0 Rev 2.1 1993	927256		
92788949014	**SW-1**	EPA 300.0 Rev 2.1 1993	927256		
92788949015	**SW-2**	EPA 300.0 Rev 2.1 1993	927256		
92788949016	**SW-3**	EPA 300.0 Rev 2.1 1993	927256		
92788949017	**SW-5**	EPA 300.0 Rev 2.1 1993	927256		
92788949018	**SW-6**	EPA 300.0 Rev 2.1 1993	927256		
92788949019	**DUP**	EPA 300.0 Rev 2.1 1993	927162		
92788949020	**EQBL**	EPA 300.0 Rev 2.1 1993	927256		
92788949021	**LEACHATE**	EPA 300.0 Rev 2.1 1993	927250		

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Effective Date: 11/29/2023 4:16:30 PM

Laboratory receiving samples:
Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☑ Raleigh ☐ Mechanicsville ☐ Atlanta ☐ Kernersville ☐

Sample Condition Upon Receipt

Client Name: HDR Engineering

Project #: WO#: 92788949

92788949

Courier: ☐ Commercial ☐ Fed Ex ☑ UPS ☐ USPS ☐ Client ☐ Pace ☐ Other:____

Custody Seal Present? ☐ Yes ☑ No Seals Intact? ☐ Yes ☑ No ☐ N/A

Date/Initials Person Examining Contents: LJ 4/3/25

Packing Material: ☑ Bubble Wrap ☑ Bubble Bags ☐ None ☑ Other

Biological Tissue Frozen? ☐ Yes ☐ No ☑ N/A

Thermometer: ☐ IR Gun ID: 92708Z

Type of Ice: ☑ Wet ☐ Blue ☐ None

Cooler Temp: 1.0 Correction Factor: Add/Subtract (°C) 0

Temp should be above freezing to 6°C
☐ Samples out of temp criteria. Samples on ice, cooling process has begun

Cooler Temp Corrected (°C): 1.0

USDA Regulated Soil (☑ N/A, water sample)
Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? ☐ Yes ☑ No

Did samples originate from a foreign source (Internationally, including Hawaii and Puerto Rico)? ☐ Yes ☑ No

				Comments/Discrepancy:
Chain of Custody Present?	☑ Yes	☐ No	☐ N/A	1.
Samples Arrived within Hold Time?	☑ Yes	☐ No	☐ N/A	2.
Short Hold Time Analysis (<72 hr.)?	☐ Yes	☑ No	☐ N/A	3.
Rush Turn Around Time Requested?	☐ Yes	☑ No	☐ N/A	4.
Sufficient Volume?	☑ Yes	☐ No	☐ N/A	5.
Correct Containers Used?	☑ Yes	☐ No	☐ N/A	6.
-Pace Containers Used?	☑ Yes	☐ No	☐ N/A	
Containers Intact?	☑ Yes	☐ No	☐ N/A	7.
Dissolved analysis: Samples Field Filtered?	☐ Yes	☑ No	☐ N/A	8.
Sample Labels Match COC? -Includes Date/Time/ID/Analysis Matrix: WT	☑ Yes	☐ No	☐ N/A	9.
Headspace in VOA Vials (>5-6mm)?	☐ Yes	☑ No	☐ N/A	10.
Trip Blank Present?	☐ Yes	☑ No	☐ N/A	11.
Trip Blank Custody Seals Present?	☐ Yes	☐ No	☐ N/A	

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? ☐ Yes ☐ No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: _____ Date/Time: _____

Project Manager SCURF Review: _____ Date: _____

Project Manager SRF Review: _____ Date: _____

*Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.
Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC, LLHg
**Bottom half of box is to list number of bottles
***Check all unpreserved Nitrates for chlorine

Project # **WO#: 92788949**
PM: AMB Due Date: 04/18/25
CLIENT: 92-HDR

Laboratory Receiving Location: Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☑ Raleigh ☐ Mechanicsville ☐ Atlanta ☐ Kernersville ☐

Client HDR Engineering Profile # (Circle one) 324455 Notes

Items	BP4U-125 mL Plastic Unpreserved (N/A) (C-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP/N	BP4S-125 mL Plastic H2SO4 (pH < 2) (C-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (C-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (C-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (C-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	DG9A-40 mL Amber NH4Cl (N/A)(C-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unpreserved (N/A)	DG9V-40 mL VOA H3PO4 (N/A)	KP7U-50 mL Plastic Unpreserved (N/A)	V/GK (3 vials per kit)-VPH/Gasoline (N/A)	SP5T-125 mL Sterile Plastic (N/A - lab)	SP2T-250 mL Sterile Plastic (N/A - lab)		BP3B-250 mL Plastic (NH4)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved (N/A) (C-)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)
CC		AS	AS		SI		SI																							
1		1	1		2		1																							
2		1	1		2		1																							
3		1	1		2		1																							
4		1	1		2		1																							
5		1	1		2		1																							
6		1	1		2		1																							
7		1	1		2		1																							
8		1	1		2		1																							
9		1	1		2		1																							
10		1	1		2		1																							
11																														
12																														

pH Adjustment Log for Preserved Samples

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot #

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DENR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers.

*Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.
Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC, LLHg
**Bottom half of box is to list number of bottles
***Check all unpreserved Nitrates for chlorine

Project #

Laboratory Receiving Location: Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☑ Raleigh ☐ Mechanicsville ☐ Atlanta ☐ Kernersville ☐

Client_____ Profile/EZ (Circle one)_____ Notes_____

Items	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP1U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP3U-1 liter Plastic Unpreserved (N/A)	BP1N	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	DG9H-40 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	V0GT-40 mL VOA Na2S2O3 (N/A)	VGBU-40 mL VOA Unpreserved (N/A)	DG9V-40 mL VOA H3PO4 (N/A)	KP7U-50 mL Plastic Unpreserved (N/A)	V/GK (3 vials per kit)-VPH/Gasoline (N/A)	SPST-125 mL Sterile Plastic (N/A – lab)	SP2T-250 mL Sterile Plastic (N/A – lab)		BP3B-250 mL Plastic (NH4)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved (N/A) (Cl-)	VSGU-10 mL Scintillation vials (N/A)	DG8U-40 mL Amber Unpreserved vials (N/A)
CC		AS	AS		SI		SI																								
1		1	1		2		1																								
2		1	1		2		1																								
3		1	1		2		1																								
4		1	1		2		1																								
5		1	1		2		1																								
6		1	1		2		1																								
7		1	1		2		1																								
8		1	1		2		1																								
9		1	1		2		1																								
10		1	1		2		1																								
11		1	1		2		1																								
12																															

pH Adjustment Log for Preserved Samples

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot #

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DENR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers.

Pace® Location Requested (City/State):
Pace Analytical Charlotte
9800 Kincey Ave. Suite 100, Huntersville, NC 28078

CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

LAB USE ONLY- Affix Workorder/Login Label Here

Scan QR Code for instructions

Company Name:	HDR Engineering	Contact/Report To:	Mark Filardi
Street Address:	440 S. Church St Suite 900 Charlotte, NC 28202	Phone #:	(704)338-6787
		E-Mail:	mark.filardi@hdrinc.com
		Cc E-Mail:	
Customer Project #:			
Project Name:	Charah 1st quarter GW monitoring	Invoice To:	Accounts Payable
		Invoice E-Mail:	saaaccounting@hdrinc.onmicrosoft.com
Site Collection Info/Facility ID (as applicable):		Purchase Order # (if applicable):	10423253
		Quote #:	

Time Zone Collected: [ ] AK [ ] PT [ ] MT [ ] CT [ ] ET

County / State origin of sample(s): North Carolina

Data Deliverables: [ ] Level II [ ] Level III [ ] Level IV [ ] EQUIS [ ] Other

Regulatory Program (DW, RCRA, etc.) as applicable: Reportable [ ] Yes [ ] No

Rush (Pre-approval required): [ ] Same Day [ ] 1 Day [ ] 2 Day [ ] 3 Day [ ] Other _____

Dw PWSID # or WW Permit # as applicable:

Date Results Requested: 10 Day TAT

Field Filtered (if applicable): [ ] Yes [ ] No

Analysis:

* Matrix Codes (insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Waste Water (WW), Product (P), Soil/Solid (SS), Oil (OL), Wipe (WP), Tissue (TS), Bioassay (B), Vapor (V), Surface Water (SW), Sediment (SED), Sludge (SL), Caulk (CK), Leachate (LL), Biosolid (BS), Other (OT)

Specify Container Size **: 3 3 1 1 2

Identify Container Preservative Type***: 1 2 2 2 1

Analysis Requested: 300.0- Cl/ F/ SO4 | 6010/6020/7470 metals | EPA 903.1 | EPA 904.0, total Ra calculation | TDS

**Container Size: (1) 1L, (2) 500mL, (3) 250mL, (4) 125mL, (5) 100mL, (6) 40mL vial, (7) EnCore, (8) TerraCore, (9) 90mL, (10) Other

*** Preservative Types: (1) None, (2) HNO3, (3) H2SO4, (4) HCl, (5) NaOH, (6) Zn Acetate, (7) NaHSO4, (8) Sod. Thiosulfate, (9) Ascorbic Acid, (10) MeOH, (11) Other

Lab Use Only: Proj. Mgr: Angela Baloni; AcctNum / Client ID:; Table #:; Profile / Template: 7672; Prelog / Bottle Ord. ID: EZ 3244551

Preservation non-conformance identified for sample:

Customer Sample ID	Matrix *	Comp / Grab	Composite Start Date	Composite Start Time	Collected or Composite End Date	Collected or Composite End Time	# Cont.	Res. Chlorine Results	Res. Chlorine Units	300.0- Cl/ F/ SO4	6010/6020/7470 metals	EPA 903.1	EPA 904.0, total Ra calculation	TDS	Sample Comment
BG-1	WT	G	3/31/25	1515			5			X	X	X	X	X	
BG-2	WT	G	3/31/25	1300			5			X	X	X	X	X	
MW-1	WT	G	4/1/25	1755			5			X	X	X	X	X	
MW-2	WT	G	4/2/25	1435			5			X	X	X	X	X	
~~MW-2D~~	~~WT~~						~~5~~			X	X	X	X	X	
MW-3	WT	G	4/1/25	1155			5			X	X	X	X	X	
MW-4	WT	G	~~3/31/25~~	4/1/25 0920			5			X	X	X	X	X	
MW-5	WT	G	3/31/25	1740			5			X	X	X	X	X	
MW-6	WT	G	4/2/25	1805			5			X	X	X	X	X	
MW-7R	WT	G	4/2/25	1210			5			X	X	X	X	X	

Additional instructions from Pace®:
6020-B, Li, Tl
6010-Ca, Sb, As, Ba, Be, Cd, Cr, Co, Pb, Mo, Se, Cu, Ni, Ag, V, Zn

Collected By: (Printed Name) Ben Wieserle
Signature:

Customer Remarks / Special Conditions / Possible Hazards:

# Coolers:	Thermometer ID:	Correction Factor (°C):	Obs. Temp. (°C)	Corrected Temp. (°C)	On Ice:
1	92T082		1.0	1.0	

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
HDR	4/3/25 1550	To Pace HM	4-3-25 1550

Tracking Number:

Delivered by: [ ] In-Person [ ] Courier [ ] FedEX [ ] UPS [ ] Other

Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace® Terms and Conditions found at https://www.pacelabs.com/resource-library/resource/pace-terms-and-conditions/

Pace® Location Requested (City/State):
Pace Analytical Charlotte
9800 Kincey Ave. Suite 100, Huntersville, NC 28078

CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

LAB USE ONLY- Affix Workorder/Login Label Here

Scan QR Code for instructions

Company Name:	HDR Engineering	Contact/Report To:	Mark Filardi
Street Address:	440 S. Church St Suite 900 Charlotte, NC 28202	Phone #:	(704)338-6787
		E-Mail:	mark.filardi@hdrinc.com
		Cc E-Mail:	
Customer Project #:			
Project Name:	Charah 1st quarter GW monitoring	Invoice To:	Accounts Payable
		Invoice E-Mail:	saaaccounting@hdrinc.onmicrosoft.com
Site Collection Info/Facility ID (as applicable):		Purchase Order # (if applicable):	10423253
		Quote #:	

Time Zone Collected: [ ] AK [ ] PT [ ] MT [ ] CT [ ] ET

County / State origin of sample(s): North Carolina

Data Deliverables: [ ] Level II [ ] Level III [ ] Level IV [ ] EQUIS [ ] Other

Regulatory Program (DW, RCRA, etc.) as applicable: Reportable [ ] Yes [ ] No

Rush (Pre-approval required): [ ] Same Day [ ] 1 Day [ ] 2 Day [ ] 3 Day [ ] Other _____

DW PWSID # or WW Permit # as applicable:

Date Results Requested:

Field Filtered (if applicable): [ ] Yes [ ] No

Analysis:

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Waste Water (WW), Product (P), Soil/Solid (SS), Oil (OL), Wipe (WP), Tissue (TS), Bioassay (B), Vapor (V), Surface Water (SW) Sediment (SED), Sludge (SL), Caulk (CK), Leachate (LL), Biosolid (BS), Other (OT)

Customer Sample ID	Matrix *	Comp / Grab	Composite Start Date	Composite Start Time	Collected or Composite End Date	Collected or Composite End Time	# Cont.	Res. Chlorine Results	Res. Chlorine Units	300.0- Cl/ F/ SO4	6010/6020/7470 metals	EPA 903.1	EPA 904.0, total Ra calculation	TDS							Sample Comment
MW-8	WT	G	4/2/25	1005						X	X	X	X	X							
~~MW-9~~	WT	~~G~~								X	X	X	X	X							
MW-10	WT	G	4/2/25	1500						X	X	X	X	X							
MW-11	WT	G	4/3/25	0940						X	X	X	X	X							
MW-11D	WT	G	4/3/25	1105						X	X	X	X	X							
SW-1	WT	G	4/2/25	1110						X	X	X	X	X							
SW-2	WT	G	4/2/25	0905						X	X	X	X	X							
SW-3	WT	G	4/2/25	0935						X	X	X	X	X							
~~SW-4~~	WT									X	X	X	X	X							
SW-5	WT	G	4/2/25	1135						X	X	X	X	X							

Specify Container Size **

Identify Container Preservative Type***

Analysis Requested

**Container Size: (1) 1L, (2) 500mL, (3) 250mL, (4) 125mL, (5) 100mL, (6) 40mL vial, (7) EnCore, (8) TerraCore, (9) 90mL, (10) Other

*** Preservative Types: (1) None, (2) HNO3, (3) H2SO4, (4) HCl, (5) NaOH, (6) Zn Acetate, (7) NaHSO4, (8) Sod. Thiosulfate, (9) Ascorbic Acid, (10) MeOH, (11) Other

Lab Use Only

Proj. Mgr: Angela Baioni

AcctNum / Client ID:

Table #:

Profile / Template: 7672

Prelog / Bottle Ord. ID: EZ 3244551

Preservation non-conformance identified for sample

Additional Instructions from Pace®:
6020-B, Li, Tl
6010-Ca, Sb, As, Ba, Be, Cd, Cr, Co, Pb, Mo, Se, Cu, Ni, Ag, V, Zn

Collected By: (Printed Name) Ben Welsh

Signature:

Customer Remarks / Special Conditions / Possible Hazards:

# Coolers:	Thermometer ID:	Correction Factor (°C):	Obs. Temp. (°C)	Corrected Temp. (°C)	On Ice:
1	92T082		1.0	1.0	

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
HDR	4/3/25 1550	Pace HM	4-3-25 1554
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:

Tracking Number:

Delivered by: [✓] In-Person [ ] Courier [ ] FedEX [ ] UPS [ ] Other

Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace® Terms and Conditions found at https://www.pacelabs.com/resource-library/resource/pace-terms-and-conditions/

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C

Appendix C – Electronic Data Deliverables (electronic only)

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D

Appendix D – Statistical Analysis Memo

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Summary of Statistical Analysis and Evaluation for SSIs for 2025: First Semi-Annual Report

Background and Downgradient Wells

Charah, LLC

Moncure, Chatham County, North Carolina

May 9, 2025

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1 Introduction

This report summarizes the statistical analysis of background and downgradient groundwater quality for the Charah, LLC Brickhaven No. Mine Tract 'A' Site (Brickhaven Mine) and operating under the Facility Permit #1910-STRUC-2015 as a municipal solid waste landfill (MSWLF). Background groundwater quality was evaluated such that statistically-derived background concentrations could be established for the site. Groundwater quality in downgradient wells was then compared to background concentrations to determine if a statistically significant increase (SSI) over background has occurred, as required by Section .1600 rules of the North Carolina Solid Waste Management Rules 15A NCAC 13B .1600. Sampling results used to establish background threshold values (BTVs) were obtained during 41 monitoring events performed between October 2015 and April 2025. The BTVs for the Appendix I, Appendix III, and Appendix IV constituents were developed based on the pooling of data from the site's two background wells, BG-1 and BG-2. The assumption for pooling groundwater data is that the constituent concentrations sampled at multiple background wells, when pooled, serve as an estimate of overall well field conditions for the Appendix I, III, and IV constituents.

Downgradient sampling results from the detection monitoring round in April 2025 were used to evaluate for SSIs. The current groundwater monitoring network wells with sufficient data points for statistical analysis is presented in **Table 1**.

Software packages R [1] and SPSS [2] were used in the production of the statistics. R is a free software package and SPSS is a licensed software package.

Table 1: Brickhaven Mine Monitoring Well Network

Background	Downgradient
BG-1	MW-1
BG-2	MW-2
	MW-3
	MW-4
	MW-5
	MW-6
	MW-7R
	MW-8
	MW-10
	MW-11
	MW-11D

Groundwater samples collected as part of the 15A NCAC 13B .1600 monitoring program were analyzed for EPA Appendix III and Appendix IV constituents, and Appendix I metals. Only non-filtered sample results were utilized for the statistical analysis of monitored constituents. A summary of constituents included in the data analysis is provided in **Table 2**.

Table 2: Brickhaven Mine Monitored Constituents

Appendix I Metals	Appendix III Constituents	Appendix IV Constituents
Copper	Boron	Antimony
Nickel	Calcium	Arsenic
Silver	Chloride	Barium
Vanadium	Fluoride	Beryllium
Zinc	pH (Field)	Cadmium
	Sulfate	Chromium
	Total Dissolved Solids	Cobalt
		Fluoride
		Lead
		Lithium
		Mercury
		Molybdenum
		Radium-226
		Radium-228
		Selenium
		Thallium
		Total Radium

2 Statistical Analysis

The background sample size (i.e., quantity of qualifying samples) was evaluated per constituent. Descriptive statistics were calculated for the background data set including non-detect (ND) values and excluding ND values. When NDs were included in the data set, the method detection limit (MDL) was substituted as the ND value for simple descriptive statistics. The analysis was performed with NDs removed to better understand the central tendency and range of the detected values. A summary of the descriptive statistics for the background data set is provided in **Appendix A**. Note that for the trend analyses in Section 2.3 and for the establishment of statistically-derived background concentration levels in Section 4, imputation methods using the maximum likelihood method (MLE) for NDs, regression on order statistics (ROS) or Kaplan-Meier (KM) methods, where appropriate, were used.

Following the calculation of descriptive statistics, the statistical analysis for the background data set was performed to evaluate for outliers, data distributions, trends, and spatial variability between the background wells for Appendix I metals, Appendix III and IV constituents, where data quantity and quality permit. The establishment of background is based on the pooled observations from BG-1 and BG-2. Spatial variability between the background wells was evaluated for each constituent having at least fifty percent detected data to assess whether the data can be pooled for establishing background concentrations. Analysis of variance tests for spatial variability can be found in **Appendix A**. A total of up to 67 samples (41 monitoring events from well BG-1 and 26 monitoring events from well BG-2) were included for the descriptive analysis of the background monitoring well results for the monitored constituents. The first monitoring round sampled in August 2015 was not included in the analysis as it was deemed not representative of the other monitoring events as the samples were tested at a different lab. The sample collected on April 3, 2017, for total dissolved solids from well BG-1 is considered an outlier and removed from the analysis. The January 2020 background samples for boron were removed from the analysis as they were diluted and could not be properly detected.

For downgradient monitoring results, the data analysis included the calculation of descriptive statistics for Appendix I metals, as well as Appendix III and IV constituents (for the data sets including and excluding ND values), followed by an evaluation of outliers and trends. A total of up to 41 monitoring events performed between November 2015 and April 2025 were included for the descriptive analysis of the downgradient monitoring well results for the monitored constituents. A summary of the descriptive statistics for each downgradient constituent-well pair is provided in **Appendix B**.

2.1 Outliers

Outliers are values that are not representative of the population from which they are sampled. The background and downgradient data sets were screened for outliers using Dixon's and Rosner's outlier tests. Dixon's outlier test is suitable for datasets containing less than 25 samples, while Rosner's test is suitable for datasets with 25 or more samples. Since all current background samples based on the pooling of data from BG-1 and BG-2 have greater than 25 observations, Rosner's test was used. For downgradient data, since sample sizes vary by well both Dixon's and Rosner's tests were used depending on the well-constituent pair sample size. With respect to Rosner's test, the test can detect up to 10 potential outliers. Note that these outlier tests assume the underlying distributions are normally distributed. Applying these tests on data that are not normally distributed may results in false positives; however, the flagged values are worth questioning as part of data quality. All outlier tests were conducted using a significance of one percent. For constituents that had NDs, the NDs were removed prior to testing for outliers.

2.1.1 Background

The statistical outliers identified in the pooled background data set are listed in **Table 3**. Ten concentrations from background well BG-1 (Appendix I metals nickel and vanadium, Appendix III constituent boron, and Appendix IV constituents chromium, lithium, selenium, thallium, and total radium) were identified as statistical outliers. Six concentrations from background well BG-2 (Appendix I metals vanadium and zinc, and Appendix III constituent boron) were identified as statistical outliers.

Table 3: Outlier Test Results – Background

Well	Constituent Type	Constituent	Unit	n	% NDs	Date	Dilution Factor	Potential Outlier Value
BG-1	App. I Metals	Nickel	ug/L	67	76%	10/17/2022	1	14.1
BG-2	App. I Metals	Vanadium	ug/L	67	55%	4/24/2023	1	0.810
BG-2	App. I Metals	Vanadium	ug/L	67	55%	1/24/2023	1	1.10
BG-2	App. I Metals	Vanadium	ug/L	67	55%	7/11/2022	1	1.40
BG-1	App. I Metals	Vanadium	ug/L	67	55%	1/24/2023	1	8.40
BG-2	App. I Metals	Vanadium	ug/L	67	55%	10/14/2019	1	8.30
BG-2	App. I Metals	Zinc	ug/L	67	75%	10/14/2019	1	34.2
BG-1	App. III	Boron	ug/L	66	44%	4/12/2021	1	56.5
BG-2	App. III	Boron	ug/L	66	44%	4/12/2021	1	36.2
BG-1	App. IV	Chromium	ug/L	67	85%	10/17/2022	1	26.5
BG-1	App. IV	Lithium	ug/L	67	4%	1/23/2024	1	51.1
BG-1	App. IV	Lithium	ug/L	67	4%	4/27/2023	1	43.7
BG-1	App. IV	Lithium	ug/L	67	4%	4/5/2016		36.8
BG-1	App. IV	Selenium	ug/L	67	96%	4/1/2024	1	6.00
BG-1	App. IV	Thallium	ug/L	67	96%	2/16/2016		13.7
BG-1	App. IV	Total Radium	pCi/L	64	0%	7/11/2022	1	2.59

A visual inspection of concentration vs. time scatter plots for nickel (**Figure 1**), vanadium (**Figure 2**), zinc (**Figure 3**), boron (**Figure 4**), chromium (**Figure 5**), lithium (**Figure 6**), selenium (**Figure** 7), thallium (**Figure 8**), and total radium (**Figure 9**) reveal the presence of the potential outliers. The statistical outliers were investigated as possible data entry or measurement errors. The remaining values were all within one order of magnitude of other observations and deemed correct. Although the elevated values appear as statistical outliers, it is within a reasonable range of the remaining concentrations throughout the monitoring period and should not be removed from the data set at this time for purposes of determining background concentrations. Given the variable nature of groundwater samples and that it is common for groundwater quality samples to have very low or very high concentrations over time, statistical outliers are expected but do not necessarily signify that the outliers are from different distributions. As additional background samples are collected over time, the variability in concentrations will be better understood. Outlier test results may change, and earlier observations thought to be outliers may no longer be outliers. **Appendix C** contains additional visualizations of the background data.

Figure 1: Nickel Concentrations (ug/L) vs Time

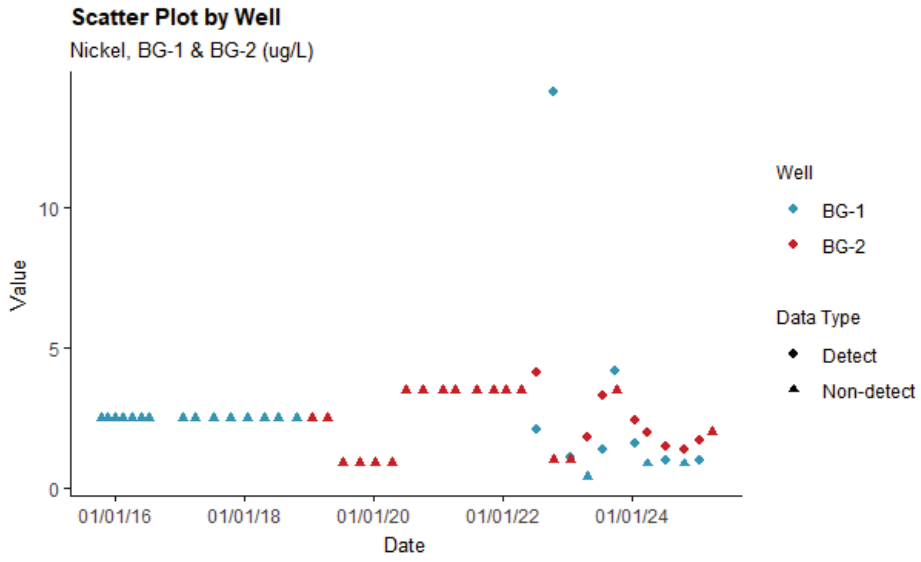


Figure 2: Vanadium Concentrations (ug/L) vs. Time

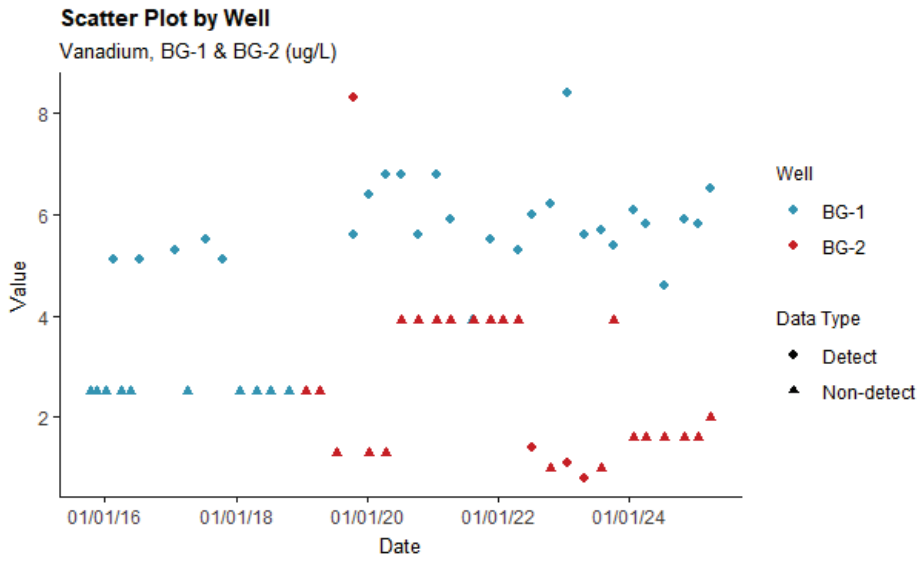


Figure 3: Zinc Concentrations (ug/L) vs. Time

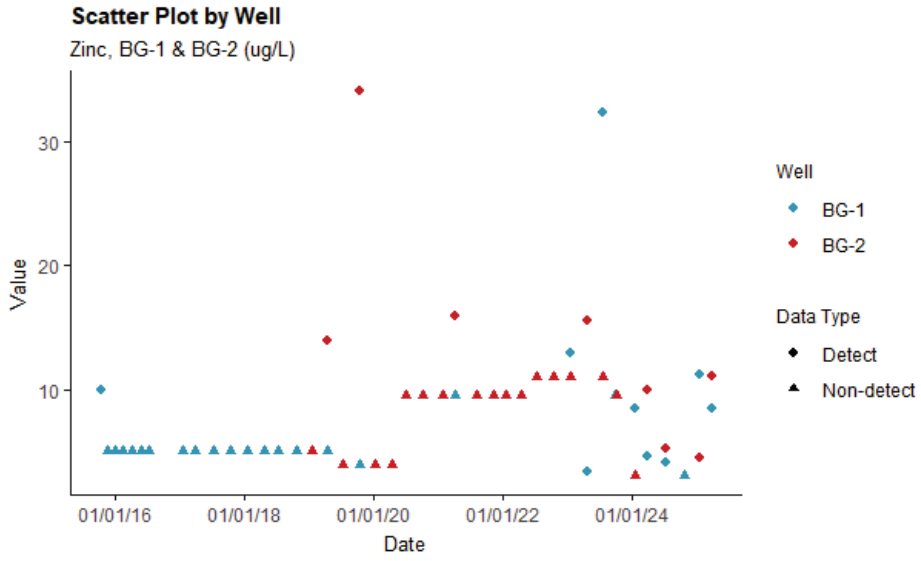


Figure 4: Boron Concentrations (ug/L) vs. Time

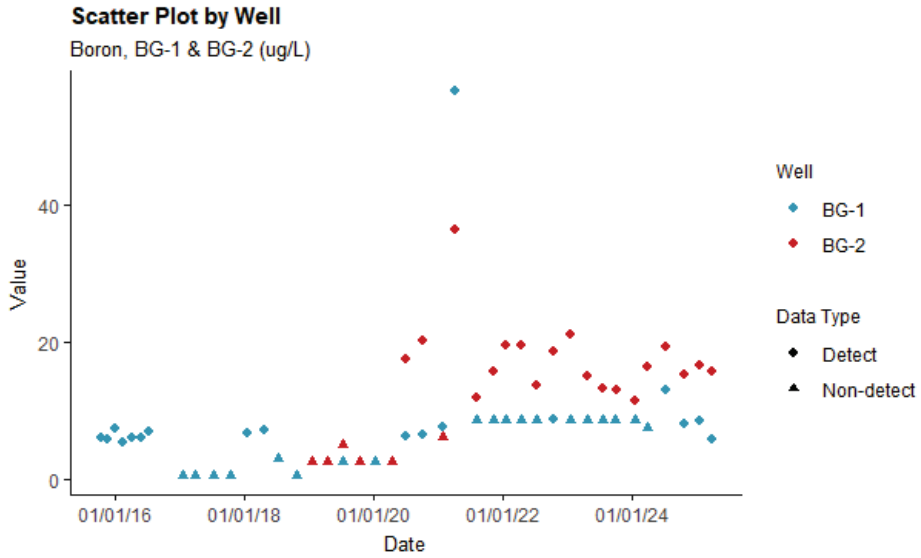


Figure 5: Chromium Concentrations (ug/L) vs. Time

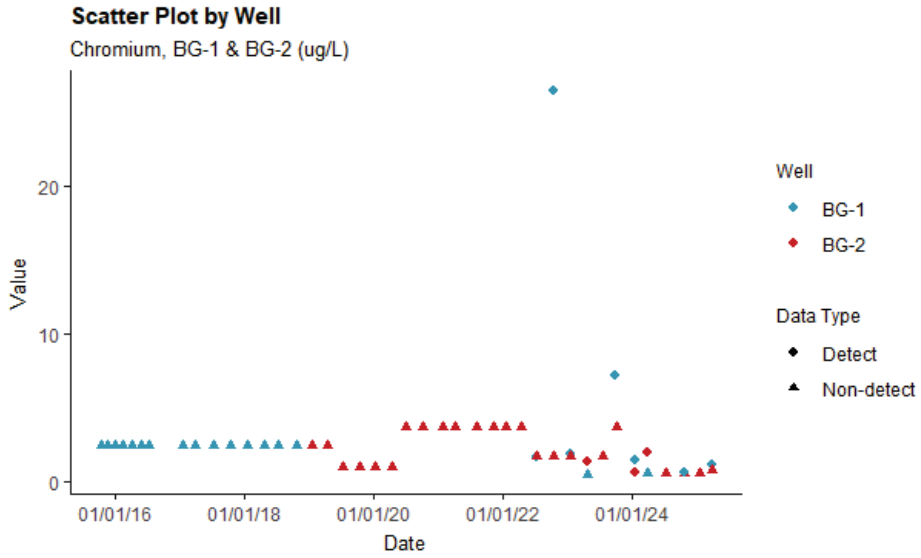


Figure 6: Lithium Concentrations (ug/L) vs. Time

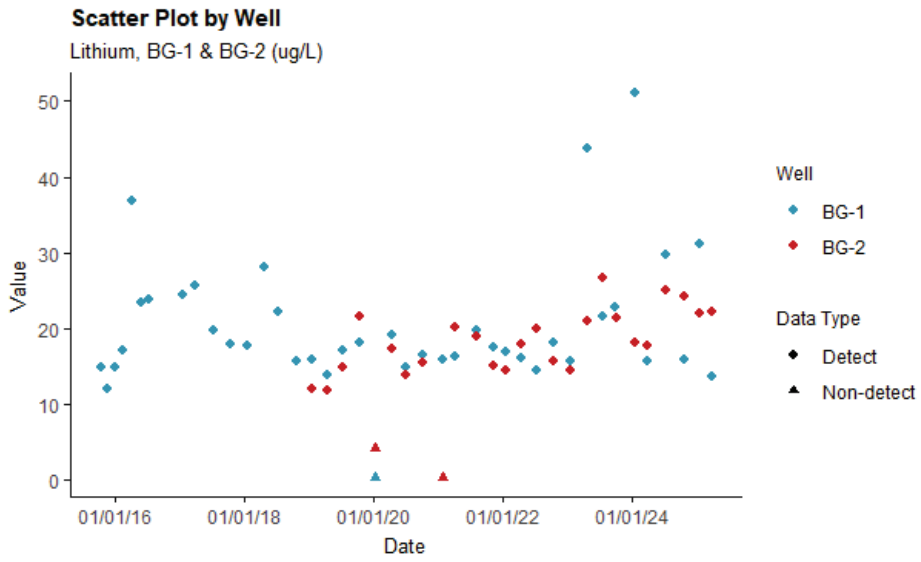


Figure 7: Selenium Concentrations (ug/L) vs. Time

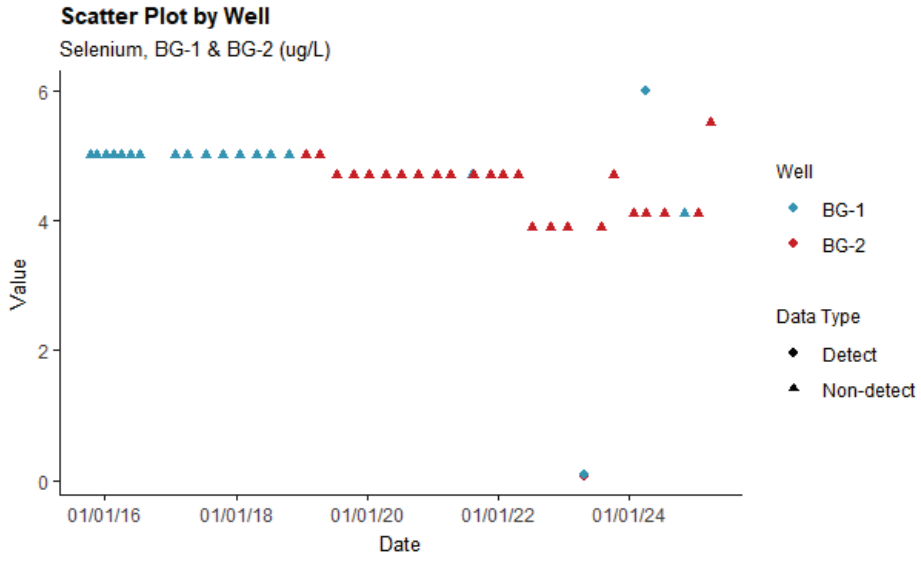


Figure 8: Thallium Concentrations (ug/L) vs. Time

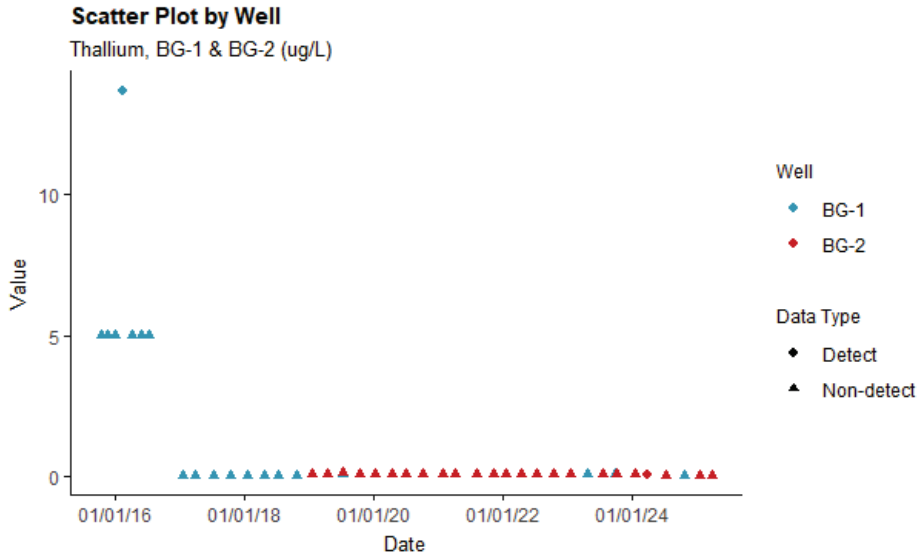
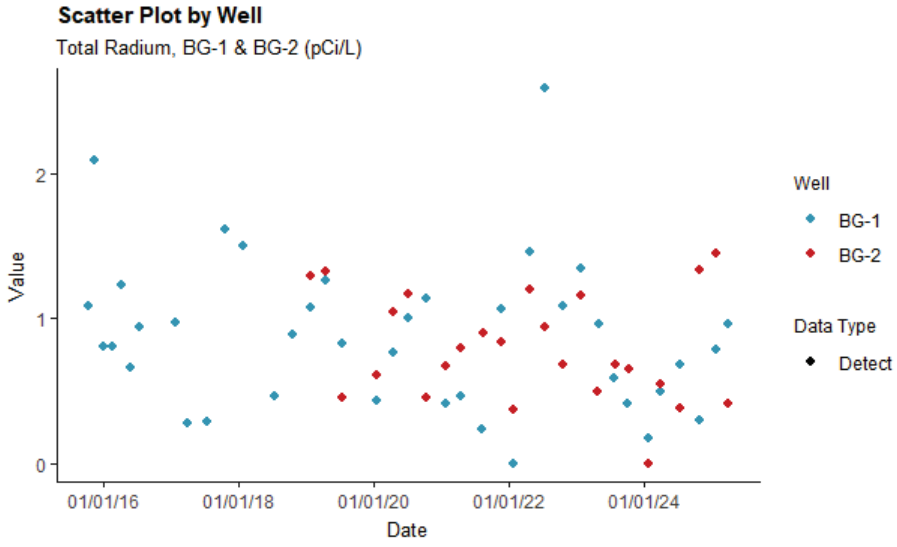


Figure 9: Total Radium Concentrations (pCi/L) vs. Time



2.1.2 Downgradient

Statistical outliers were identified for Appendix I metals, Appendix III constituents, and Appendix IV constituents in the data sets evaluated for downgradient monitoring wells throughout the monitoring period and are listed in **Table 4**.

Table 4: Outlier Test Results – Downgradient

Well	Constituent Type	Constituent	Unit	n	% NDs	Date	Dilution	Value
MW-1	App. III	Boron	ug/L	39	56%	10/4/2023	1	44.6
MW-1	App. IV	Cadmium	ug/L	40	92%	10/14/2020	1	0.67
MW-1	App. IV	Total Radium	pCi/L	38	0%	7/10/2019	1	2.48
MW-2	App. I Metals	Copper	ug/L	35	43%	11/18/2021	1	294
MW-2	App. I Metals	Nickel	ug/L	35	34%	10/19/2022	1	115
MW-2	App. I Metals	Vanadium	ug/L	35	66%	10/4/2023	1	37.2
MW-2	App. I Metals	Zinc	ug/L	35	46%	10/31/2024	1	1590
MW-2	App. III	Calcium	ug/L	35	0%	1/26/2024	1	34300
MW-2	App. III	Chloride	mg/L	35	0%	1/26/2024	11	489
MW-2	App. III	Chloride	mg/L	35	0%	7/12/2022	26	552
MW-2	App. III	Fluoride	mg/L	35	6%	7/18/2017		0.4
MW-2	App. III	pH (Field)	S.U.	31	0%	1/24/2024		9.29
MW-2	App. III	pH (Field)	S.U.	31	0%	7/12/2016		8.5
MW-2	App. III	Total Dissolved Solids	mg/L	35	0%	1/17/2020	1	11700
MW-2	App. III	Total Dissolved Solids	mg/L	35	0%	11/19/2015		257
MW-2	App. III	Total Dissolved Solids	mg/L	35	0%	1/28/2021	1	428
MW-2	App. IV	Chromium	ug/L	35	17%	10/19/2022	1	130
MW-2	App. IV	Chromium	ug/L	35	17%	10/25/2018	1	84
MW-2	App. IV	Chromium	ug/L	35	17%	1/25/2018		56.8
MW-2	App. IV	Chromium	ug/L	35	17%	4/5/2017		48.8
MW-2	App. IV	Chromium	ug/L	35	17%	10/4/2023	1	46.2
MW-2	App. IV	Cobalt	ug/L	35	77%	10/4/2023	1	34.8
MW-2	App. IV	Fluoride	mg/L	35	6%	7/18/2017		0.4
MW-2	App. IV	Lithium	ug/L	35	0%	8/10/2021	5	512
MW-2	App. IV	Lithium	ug/L	35	0%	7/12/2016		356
MW-2	App. IV	Lithium	ug/L	35	0%	5/27/2016		350
MW-2	App. IV	Molybdenum	ug/L	35	17%	1/17/2020	1	41
MW-2	App. IV	Thallium	ug/L	35	66%	2/17/2016		10.3
MW-3	App. I Metals	Copper	ug/L	38	55%	4/20/2022	1	137
MW-3	App. I Metals	Nickel	ug/L	38	50%	1/25/2019	1	86
MW-3	App. III	Calcium	ug/L	38	0%	1/23/2025	10	326000
MW-3	App. III	Chloride	mg/L	38	0%	7/12/2022	25	565
MW-3	App. III	pH (Field)	S.U.	34	0%	7/7/2020		6.18
MW-3	App. III	Sulfate	mg/L	38	0%	1/24/2017		174

Well	Constituent Type	Constituent	Unit	n	% NDs	Date	Dilution	Value
MW-3	App. III	Sulfate	mg/L	38	0%	4/5/2017		167
MW-3	App. III	Sulfate	mg/L	38	0%	7/11/2016		125
MW-3	App. III	Sulfate	mg/L	38	0%	7/19/2017		125
MW-3	App. III	Sulfate	mg/L	38	0%	10/18/2017		107
MW-3	App. III	Sulfate	mg/L	38	0%	1/24/2018		102
MW-3	App. III	Sulfate	mg/L	38	0%	10/25/2018	1	98
MW-3	App. III	Sulfate	mg/L	38	0%	7/17/2018		88.1
MW-3	App. III	Sulfate	mg/L	38	0%	4/24/2018		80.9
MW-3	App. III	Sulfate	mg/L	38	0%	1/25/2019	1	80.2
MW-3	App. III	Total Dissolved Solids	mg/L	38	0%	11/19/2015		256
MW-3	App. III	Total Dissolved Solids	mg/L	38	0%	1/24/2017		303
MW-3	App. III	Total Dissolved Solids	mg/L	38	0%	1/24/2018		1060
MW-3	App. IV	Chromium	ug/L	38	50%	1/25/2019	1	179
MW-3	App. IV	Cobalt	ug/L	38	84%	1/25/2019	1	6.2
MW-3	App. IV	Lithium	ug/L	38	3%	10/18/2017		236
MW-3	App. IV	Lithium	ug/L	38	3%	4/7/2016		217
MW-3	App. IV	Lithium	ug/L	38	3%	7/17/2018		36.7
MW-3	App. IV	Lithium	ug/L	38	3%	4/5/2017		129
MW-3	App. IV	Lithium	ug/L	38	3%	11/19/2015		128
MW-3	App. IV	Molybdenum	ug/L	38	3%	1/16/2020	1	35.7
MW-4	App. I Metals	Zinc	ug/L	39	62%	4/17/2020	1	47.2
MW-4	App. III	Boron	ug/L	38	61%	10/17/2017		165
MW-4	App. III	Total Dissolved Solids	mg/L	39	0%	11/19/2015		395
MW-4	App. III	Total Dissolved Solids	mg/L	39	0%	5/25/2016		486
MW-4	App. III	Total Dissolved Solids	mg/L	39	0%	4/7/2016		513
MW-4	App. IV	Lithium	ug/L	39	0%	8/12/2021	5	98
MW-5	App. I Metals	Nickel	ug/L	40	75%	7/13/2022	1	120
MW-5	App. I Metals	Zinc	ug/L	40	62%	3/31/2025	1	54.9
MW-5	App. III	Boron	ug/L	39	38%	1/23/2017		39.3
MW-5	App. III	pH (Field)	S.U.	37	0%	4/15/2020		8.54
MW-5	App. III	pH (Field)	S.U.	37	0%	7/7/2020		5.5
MW-5	App. III	pH (Field)	S.U.	37	0%	1/16/2020		5.62
MW-5	App. III	Total Dissolved Solids	mg/L	40	0%	10/17/2017		1160
MW-5	App. III	Total Dissolved Solids	mg/L	40	0%	10/14/2020	1	320
MW-5	App. IV	Chromium	ug/L	40	70%	7/13/2022	1	260
MW-5	App. IV	Lithium	ug/L	40	2%	8/9/2021	1	28.6
MW-6	App. III	Chloride	mg/L	39	0%	4/5/2016		15.3
MW-6	App. III	Chloride	mg/L	39	0%	4/15/2021	4	80.3
MW-6	App. III	Sulfate	mg/L	39	0%	4/5/2016		214
MW-6	App. III	Sulfate	mg/L	39	0%	1/5/2016		194

Well	Constituent Type	Constituent	Unit	n	% NDs	Date	Dilution	Value
MW-6	App. III	Sulfate	mg/L	39	0%	4/4/2017		179
MW-6	App. III	Sulfate	mg/L	39	0%	1/24/2017		145
MW-6	App. III	Sulfate	mg/L	39	0%	11/20/2015		137
MW-6	App. III	Sulfate	mg/L	39	0%	1/24/2018		126
MW-6	App. III	Sulfate	mg/L	39	0%	4/23/2018		96.1
MW-6	App. III	Sulfate	mg/L	39	0%	10/17/2017		90.9
MW-6	App. III	Sulfate	mg/L	39	0%	2/17/2016		87.7
MW-6	App. III	Sulfate	mg/L	39	0%	7/19/2017		86.9
MW-6	App. IV	Thallium	ug/L	39	92%	1/5/2016		6.2
MW-7R	App. I Metals	Nickel	ug/L	31	42%	7/10/2019	1	880
MW-7R	App. III	Chloride	mg/L	31	0%	7/14/2022	7	194
MW-7R	App. III	Fluoride	mg/L	31	3%	7/20/2017		0.32
MW-7R	App. III	pH (Field)	S.U.	30	0%	7/20/2017		9.6
MW-7R	App. III	Sulfate	mg/L	31	0%	7/20/2017		51.2
MW-7R	App. IV	Barium	ug/L	31	0%	7/20/2017		50.1
MW-7R	App. IV	Chromium	ug/L	31	26%	7/10/2019	1	1940
MW-7R	App. IV	Fluoride	mg/L	31	3%	7/20/2017		0.32
MW-7R	App. IV	Lithium	ug/L	31	0%	7/20/2017		5.6
MW-7R	App. IV	Radium-228	pCi/L	29	0%	4/14/2021	1	2.13
MW-8	App. I Metals	Copper	ug/L	40	75%	4/27/2023	1	116
MW-8	App. I Metals	Nickel	ug/L	40	48%	4/27/2023	1	157
MW-8	App. I Metals	Vanadium	ug/L	40	80%	4/27/2023	1	9.5
MW-8	App. III	Calcium	ug/L	40	0%	1/27/2021	10	4170
MW-8	App. III	Chloride	mg/L	40	0%	11/20/2015		939
MW-8	App. III	Chloride	mg/L	40	0%	1/6/2016		755
MW-8	App. III	Chloride	mg/L	40	0%	4/6/2016		685
MW-8	App. III	Chloride	mg/L	40	0%	2/18/2016		663
MW-8	App. III	Chloride	mg/L	40	0%	1/24/2017		660
MW-8	App. IV	Barium	ug/L	40	0%	4/27/2023	10	1880
MW-8	App. IV	Radium-226	pCi/L	38	0%	4/27/2023	1	2.51
MW-8	App. IV	Radium-228	pCi/L	38	0%	4/27/2023	1	4.72
MW-8	App. IV	Total Radium	pCi/L	38	0%	4/27/2023	1	7.23
MW-10	App. I Metals	Copper	ug/L	16	56%	4/21/2022	1	103
MW-10	App. I Metals	Nickel	ug/L	16	25%	10/4/2023	1	27.9
MW-10	App. I Metals	Vanadium	ug/L	16	56%	10/4/2023	1	18.2
MW-10	App. I Metals	Zinc	ug/L	16	81%	10/4/2023	1	94.2
MW-10	App. III	Boron	ug/L	16	0%	10/4/2023	1	43.4
MW-10	App. IV	Arsenic	ug/L	16	75%	4/27/2023	1	1.2
MW-10	App. IV	Barium	ug/L	16	0%	10/4/2023	1	195
MW-10	App. IV	Chromium	ug/L	16	31%	10/4/2023	1	56.7

Well	Constituent Type	Constituent	Unit	n	% NDs	Date	Dilution	Value
MW-11	App. I Metals	Copper	ug/L	19	53%	11/17/2021	1	20.1
MW-11	App. III	Calcium	ug/L	19	0%	1/24/2024	1	69400
MW-11	App. III	Total Dissolved Solids	mg/L	19	0%	1/29/2021	1	2760
MW-11	App. IV	Barium	ug/L	19	0%	1/24/2024	1	130
MW-11	App. IV	Lithium	ug/L	19	0%	1/24/2024	1	19.5
MW-11	App. IV	Radium-228	pCi/L	19	0%	4/13/2021	1	2.13
MW-11	App. IV	Total Radium	pCi/L	19	0%	4/13/2021	1	2.388
MW-11D	App. I Metals	Nickel	ug/L	17	71%	7/13/2022	1	6.2
MW-11D	App. III	Boron	ug/L	17	0%	8/12/2021	2	109
MW-11D	App. III	Calcium	ug/L	17	0%	8/12/2021	1	94400
MW-11D	App. III	Chloride	mg/L	17	0%	8/12/2021	12	530
MW-11D	App. III	Sulfate	mg/L	17	6%	8/12/2021	12	523
MW-11D	App. III	Total Dissolved Solids	mg/L	17	0%	8/12/2021	1	1740
MW-11D	App. IV	Lithium	ug/L	17	0%	8/12/2021	2	80.7
MW-11D	App. IV	Molybdenum	ug/L	17	6%	8/12/2021	1	127
MW-11D	App. IV	Radium-228	pCi/L	17	0%	4/13/2021	1	2.23

A visual inspection of concentration vs. time scatter plots for constituents included in the outliers listed in **Table 4** reveal the presence of the potential outliers. See **Appendix D** for scatter plots of constituents with downgradient statistically-derived outliers as well as other downgradient data visualizations. Following review of the sampling protocols and field sampling records, there were no obvious reasons for the outliers noted on the sampling dates. The value for each statistical outlier for the other constituents listed above is within a reasonable range of the remaining concentrations for each constituent throughout the monitoring period. The variability in concentrations will be better understood as additional samples are obtained.

2.2 Data Distribution

Groundwater data was fitted to known distribution models using Goodness-of-Fit (GOF) tests. The Shapiro-Wilk and Lilliefors tests is used to test for normal distribution. Note that these two tests can be used to test for lognormal distributions after the data are transformed using the natural log function. The empirical distribution function (EDF) based methods, the Kolmogorov-Smirnov (K-S) and Anderson-Darling (A-D) test, are used to test for a gamma distribution. Normal, lognormal and gamma distributions are parametric distributions. If a data set cannot be fit with any of these three parametric distributions, it is considered to follow a nonparametric distribution. In addition, if more than 50 percent of the observations are non-detects, then the dataset is assumed to follow a nonparametric distribution. Finally, the data distributions for radium 226, radium 226, and total radium are set to nonparametric for evaluation purposes as non-detect values were not flagged by the laboratory. Data distributions are listed in **Table 5**. Downgradient data distributions for each constituent-well pair are reported in **Appendix B**.

Table 5: Data Distributions – Background

Constituent	Sample Size	No. of NDs	Distribution Fit[1]
Appendix I Metals			
Copper	67	54	Nonparametric
Nickel	67	51	Nonparametric
Silver	67	66	Nonparametric
Vanadium	67	37	Nonparametric
Zinc	67	50	Nonparametric
Appendix III Constituents			
Boron	66	29	Gamma
Calcium	67	0	Nonparametric
Chloride	67	0	Normal
Fluoride	67	0	Gamma
pH (Field)	65	0	Normal
Sulfate	67	0	Nonparametric
Total Dissolved Solids	66	0	Nonparametric
Appendix IV Constituents			
Antimony	67	66	Nonparametric
Arsenic	67	62	Nonparametric
Barium	67	0	Nonparametric
Beryllium	67	67	Nonparametric
Cadmium	67	65	Nonparametric
Chromium	67	57	Nonparametric
Cobalt	67	56	Nonparametric
Fluoride	67	0	Gamma
Lead	67	63	Nonparametric
Lithium	67	3	Nonparametric
Mercury	67	59	Nonparametric
Molybdenum	67	52	Nonparametric
Radium-226	64	0	Nonparametric
Radium-228	64	0	Nonparametric
Selenium	67	64	Nonparametric
Thallium	67	64	Nonparametric
Total Radium	64	0	Nonparametric

[1]Parametric distribution fit is based on detected data.

2.3 Trends

2.3.1 Background

Background constituent concentrations in groundwater should demonstrate stationary conditions through time, free of trends. Constituents were analyzed for trends within the dataset using a maximum likelihood estimate (MLE) regression for constituents which followed parametric distributions and Mann-Kendall tests for those that were treated under nonparametric distributional assumptions. The MLE regression can be applied to datasets that can be fitted to a specific distribution model and that contain NDs with multiple MDLs. The Mann-Kendall test is suitable for data series with no discernable distributions and only one MDL value for NDs.

Constituents treated under nonparametric data assumptions (either tested as nonparametric or having more than 50 percent NDs) and with multiple MDLs or with less than three detected

values were not assessed for trends. A summary of the trend analysis results for constituents with sufficient detected values in the background data set is provided in **Table 6**. A one percent significance level was used to detect statistically significant trends.

The background well regression analysis showed a potential increasing trend for fluoride (an Appendix III and Appendix IV constituent), boron (Appendix III), and sulfate (Appendix III); while a potential decreasing trend for chloride (Appendix III) and barium (Appendix IV) were observed. There were no increasing or decreasing trends identified for other monitoring constituents with sufficient data quantity and quality for testing with the MLE analysis or Mann-Kendall test.

Table 6: Summary of Trend Analysis Results – Background

Constituent	Trend
Appendix III Constituents	
Boron	↑
Chloride	↓
Fluoride	↑
Sulfate	↑
Appendix IV Constituents	
Barium	↓
Fluoride	↑

2.3.2 Downgradient

Trends were also evaluated for constituents in each downgradient well using the same methods as described above for the background data set. Trends identified for select constituents at select monitoring well locations should be monitored as additional downgradient groundwater data are collected at the site. A summary of the statistical trends identified within the downgradient data set is provided in **Table 7**. As with the background data sets, one percent significance level was used to detect statistically significant trends.

Table 7: Summary of Trend Analysis Results – Downgradient

Constituent	Downgradient Well with Increasing or Decreasing Trend										
	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6	MW-7R	MW-8	MW-10	MW-11*	MW-11D
Appendix I Metals											
Nickel				↑							
Appendix III Constituents											
Calcium			↑		↓		↑				↓
Chloride		↓		↓		↓	↓	↓			↓
Fluoride	↑								↓		
pH (Field)		↓		↓				↑			↓
Sulfate	↓	↓	↓			↓	↓	↑	↓		↓
TDS*					↓		↑				↓
Appendix IV Constituents											
Arsenic											↓
Barium		↑	↑			↓	↑		↑		
Fluoride	↑								↓		
Lithium				↑	↑	↓	↑		↑		↓
Molybdenum		↓							↓		↓
Radium-226	↓										

*Total Dissolved Solids
*No trends were observed for MW-11

2.4 Spatial Variability

Spatial variability refers to identifying whether or not there are statistically identifiable differences in mean concentrations or variance levels across the well field (i.e., the pooled background data). Parametric and nonparametric analysis of variance (ANOVA) tests and visual aids (i.e., side-by-side box plots and scatter plots), as needed, were used to evaluate for spatial variability within the background data set to check that results from background wells BG-1 and BG-2 were appropriate for pooling and calculating background concentrations for constituents.

Statistical tests at the one percent level of statistical significance indicated that seven Appendix III constituents (boron, calcium, chloride, fluoride, pH, sulfate, and total dissolved solids) exhibited spatial variability. Statistical spatial variability was also identified for two Appendix IV constituents (barium and fluoride), and one Appendix I metal (vanadium). Review of side-by-side box plots for the constituents listed above indicated that the statistically-identified variability in concentrations are reasonable and the mean concentrations calculated for the monitoring wells are generally within the natural variability of concentrations of the well field conditions for Appendix III and IV constituents or within or close to one order of magnitude of the other (See **Figure 10** to **Figure 17**). Therefore, the concentration distribution across the background wells should be considered reflective of the hydrogeological regime at the site and the background results are appropriate for pooling and calculating background concentrations at this time. Note that this spatial variability analysis is updated to include data up to April 2025. Spatial variability will continue to be monitored with each background update and downgradient assessment.

Figure 10: Boron Concentrations (ug/L) Side-by-Side Box Plots by Background Well

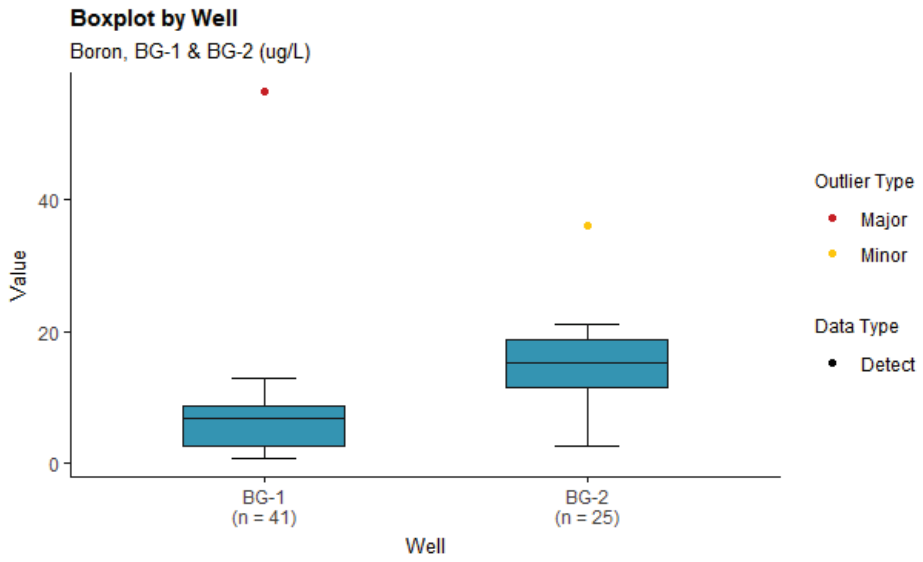


Figure 11: Calcium Concentrations (ug/L) Side-by-Side Box Plots by Background Well

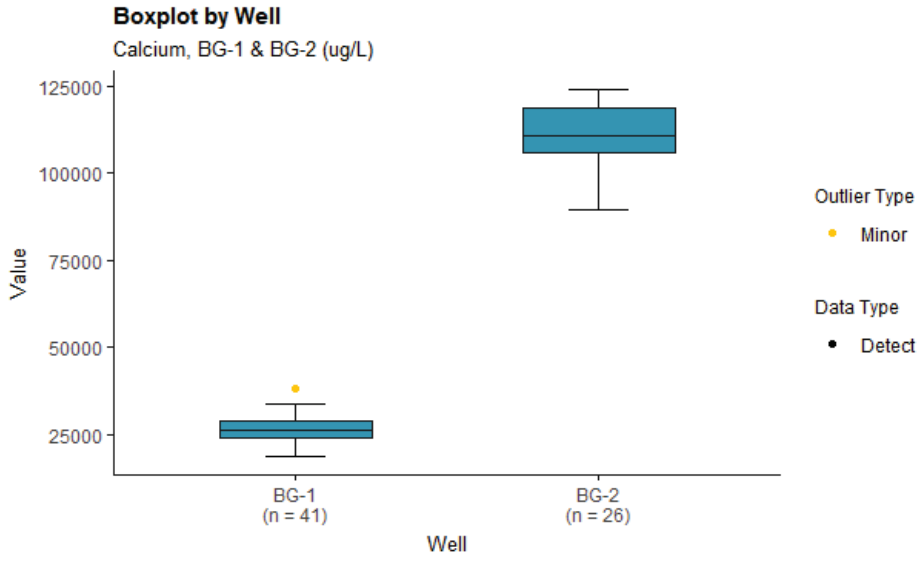


Figure 12: Fluoride Concentrations (mg/L) Side-by-Side Box Plots by Background Well

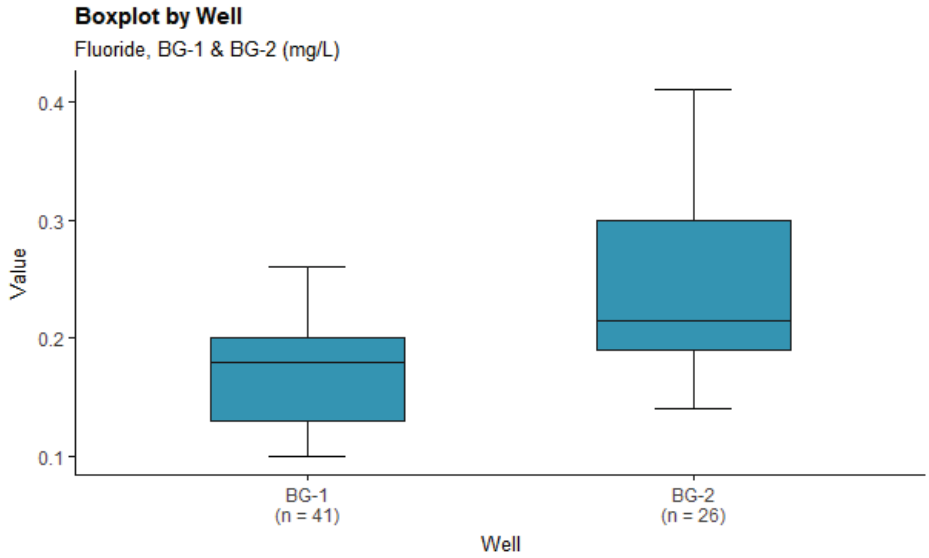


Figure 13: pH (Field) Concentrations (S.U.) Side-by-Side Box Plots by Background Well

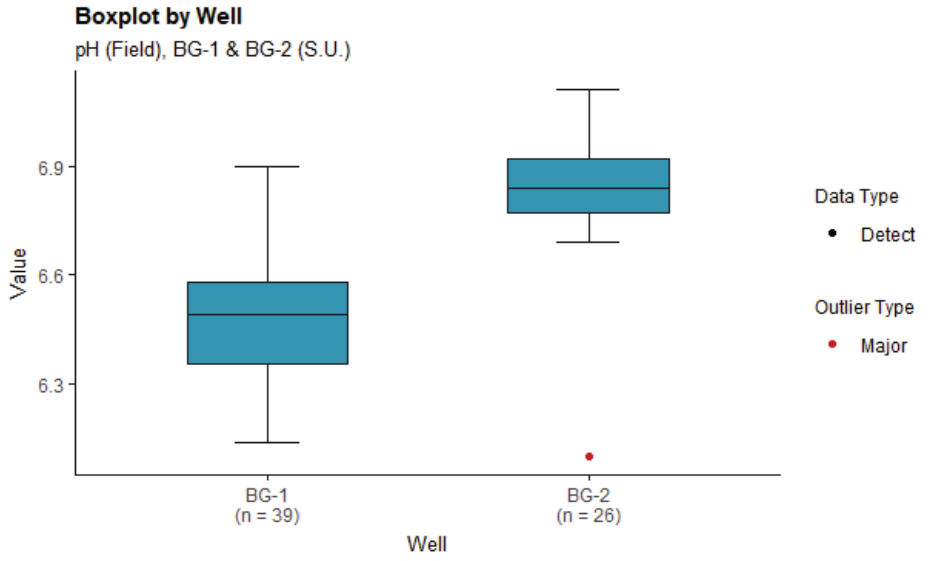


Figure 14: Sulfate Concentrations (mg/L) Side-by-Side Box Plots by Background Well

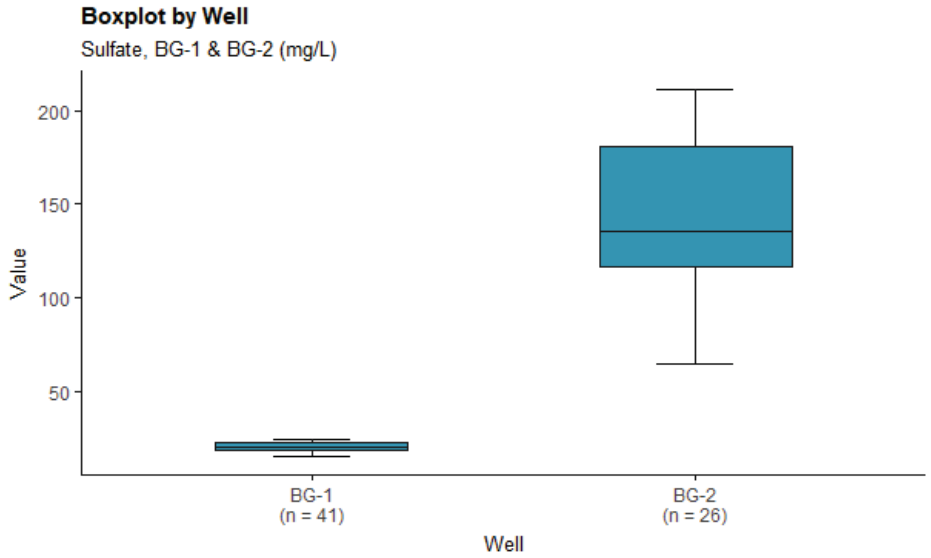


Figure 15: Total Dissolved Solids Concentration (mg/L) Side-by-Side Box Plots by Background Well

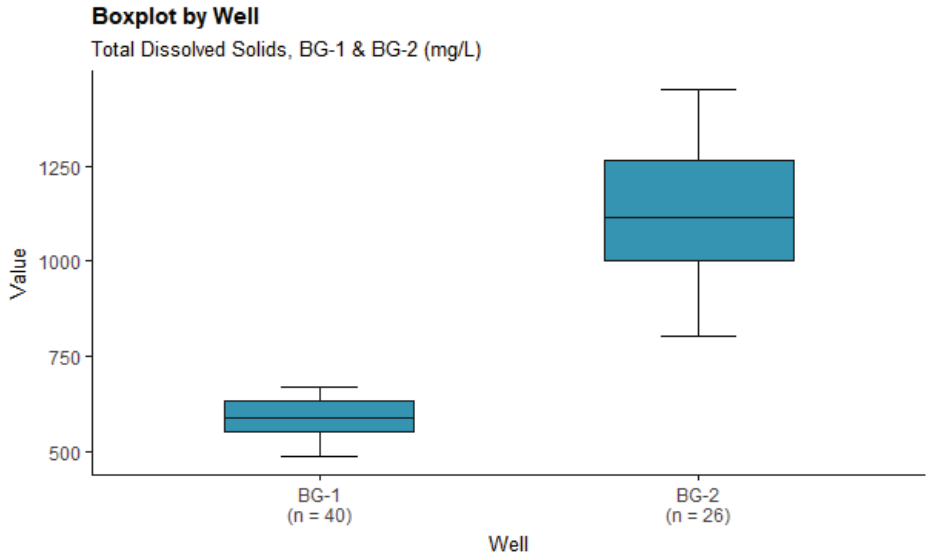


Figure 16: Barium Concentration (ug/L) Side-by-Side Box Plots by Background Well

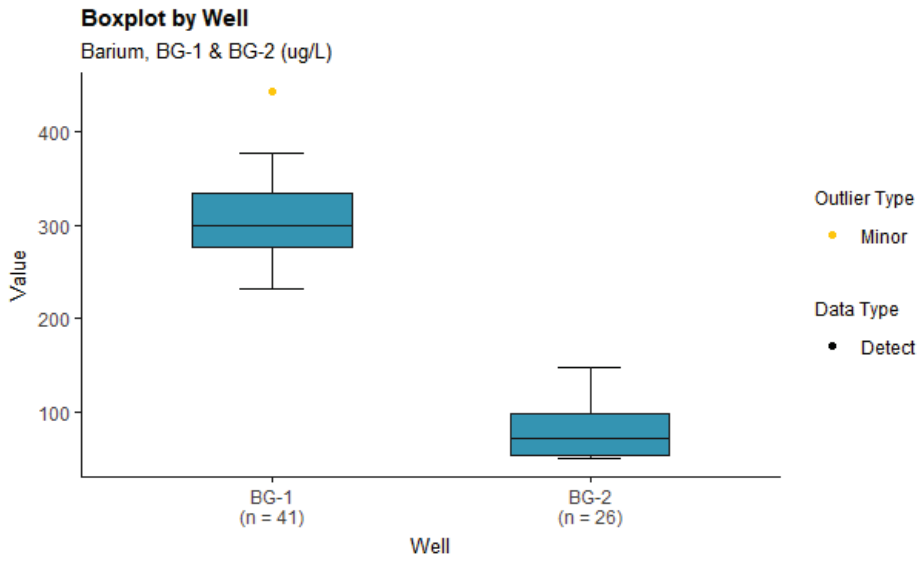
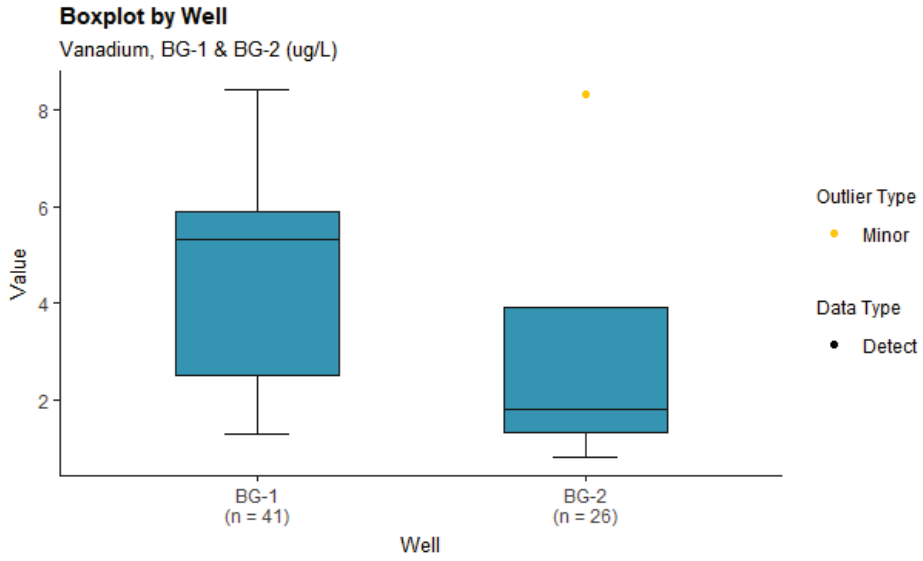


Figure 17: Vanadium Concentration (ug/L) Side-by-Side Box Plots by Background Well



3 Summary of Statistical Analysis

A summary of the statistical analysis results is provided in **Table 8** and **Table 10,** and discussed below.

- Note that for the purposes of the SSI analysis, the BTVs used include samples up to April 2025.

- The statistical outliers identified for nickel, vanadium, zinc, boron, chromium, lithium, selenium, thallium, and total radium are considered representative of background. During the next BTV update with the additional 2025 and 2026 samples, the full datasets will be re-assessed for statistical outliers.
- For the background data set, there are currently sufficient data to fit the Appendix III constituents to known parametric distribution models (e.g., gamma, lognormal, or normal) using GOF tests, except for calcium, sulfate, and TDS, which are nonparametric.
- For the background data set, 11 of the 17 Appendix IV constituents exhibited high percentages of NDs and will be treated under nonparametric distribution assumptions. Among these constituents, four of them used maximum detected value to represent background as the number of detects is less than 4; one of them used the MDL since the constituent is 100% non-detects; and the UPL for the rest of the constituents were calculated based on nonparametric distribution. The datasets for radium-226, radium-228, and total radium are set to nonparametric distribution for inferential purposes. This is because the NDs were not indicated based on the analytical protocols used by the laboratory and some observations had negative values. Currently, the background datasets for fluoride can be fit to known parametric distribution models using GOF tests.
- Downgradient samples as of April 2025 were used to determine SSIs. The statistically-derived background concentrations and the evaluation for SSIs over background for Appendix I metals, Appendix III constituents, and Appendix IV constituents are included in **Section 4**.

- While multiple statistical outliers have been flagged at the downgradient wells for various constituents, the outliers can indicate contamination from the solid waste landfill or alternative sources. Unless an alternative source can be confirmed, the values remain in the sample as representing groundwater quality at the time of measurement.

Table 8: Summary of Background Preliminary Data Analysis

Constituent	Statistical Outlier	Nonparametric Data Distribution	Trend	Spatial Variability
Appendix I Metals				
Copper		✓		
Nickel	✓	✓		
Silver		✓		
Vanadium	✓	✓		✓
Zinc	✓	✓		
Appendix III Constituents				
Boron	✓		✓	✓
Calcium		✓		✓
Chloride			✓	
Fluoride			✓	✓
pH (field)				✓
Sulfate		✓	✓	✓
Total Dissolved Solids		✓		✓
Appendix IV Constituents				
Antimony		✓		
Arsenic		✓		
Barium		✓	✓	✓
Beryllium		✓		
Cadmium		✓		
Chromium	✓	✓		
Cobalt		✓		
Fluoride			✓	✓
Lead		✓		
Lithium	✓	✓		
Mercury		✓		
Molybdenum		✓		
Radium-226		✓		
Radium-228		✓		
Selenium	✓	✓		
Thallium	✓	✓		
Total Radium	✓	✓		

✓Constituent was flagged during the statistical analysis of pooled wells BG-1 and BG-2

Table 9: Summary of Downgradient Preliminary Data Analysis

Constituent	Statistical Outlier	Nonparametric Data Distribution	Trend
Appendix I Metals			
Copper	MW-2 MW-3 MW-8 MW-10 MW-11	MW-1 MW-2 MW-3 MW-4 MW-5 MW-6 MW-7R MW-8 MW-10 MW-11 MW-11D	
Nickel	MW-2 MW-3 MW-5 MW-7R MW-8 MW-10 MW-11D	MW-1 MW-3 MW-5 MW-6 MW-7R MW-8 MW-10 MW-11 MW-11D	MW-4 (↑)
Silver		MW-1 MW-2 MW-3 MW-4 MW-5 MW-6 MW-7R MW-8 MW-10 MW-11 MW-11D	
Vanadium	MW-2 MW-8 MW-10	MW-1 MW-2 MW-3 MW-4 MW-5 MW-6 MW-8 MW-10 MW-11 MW-11D	
Zinc	MW-2 MW-4 MW-5 MW-10	MW-1 MW-2 MW-3 MW-4 MW-5 MW-6 MW-7R MW-8 MW-10 MW-11	

Constituent	Statistical Outlier	Nonparametric Data Distribution	Trend
		MW-11D	
Appendix III Constituents			
Boron	MW-1 MW-4 MW-5 MW-10 MW-11D	MW-1 MW-4 MW-5 MW-6 MW-7R MW-11D	
Calcium	MW-2 MW-3 MW-8 MW-11 MW-11D	MW-2 MW-3 MW-4 MW-8 MW-11 MW-11D	MW-3 (↑) MW-5 (↓) MW-7R (↑) MW-11 (↓)
Chloride	MW-2 MW-3 MW-6 MW-7R MW-8 MW-11D	MW-2 MW-4 MW-6 MW-7R MW-8	MW-2 (↓) MW-3 (↓) MW-6 (↓) MW-7 (↓) MW-8 (↓) MW-11D (↓)
Fluoride	MW-2 MW-7R	MW-1 MW-2 MW-7R MW-8	MW-1 (↑) MW-10 (↓)
pH (field)	MW-2 MW-3 MW-5 MW-7R	MW-2 MW-3 MW-5 MW-6 MW-7R MW-11	MW-2 (↓) MW-4 (↓) MW-8 (↑) MW-11D (↓)
Sulfate	MW-3 MW-6 MW-7R MW-11D	MW-1 MW-2 MW-3 MW-4 MW-6 MW-7R MW-11D	MW-1 (↓) MW-2 (↓) MW-3 (↓) MW-6 (↓) MW-7R (↓) MW-8 (↑) MW-10 (↓) MW-11D (↓)
Total Dissolved Solids	MW-2 MW-3 MW-4 MW-5 MW-11 MW-11D	MW-2 MW-3 MW-4 MW-5 MW-8 MW-11 MW-11D	MW-5 (↓) MW-7R (↑) MW-11D (↓)
Appendix IV Constituents			
Antimony		MW-1 MW-2 MW-3 MW-4 MW-5 MW-6 MW-7R	

Constituent	Statistical Outlier	Nonparametric Data Distribution	Trend
		MW-8 MW-10 MW-11 MW-11D	
Arsenic	MW-10	MW-1 MW-2 MW-3 MW-4 MW-5 MW-6 MW-7R MW-8 MW-10 MW-11	MW-11D (↓)
Barium	MW-7R MW-8 MW-10 MW-11	MW-2 MW-4 MW-6 MW-7R MW-8 MW-11 MW-11D	MW-2 (↑) MW-3 (↑) MW-6 (↓) MW-7R (↑) MW-10 (↑)
Beryllium		MW-1 MW-2 MW-3 MW-4 MW-5 MW-6 MW-7R MW-8 MW-10 MW-11 MW-11D	
Cadmium	MW-1	MW-1 MW-2 MW-3 MW-4 MW-5 MW-6 MW-7R MW-8 MW-10 MW-11 MW-11D	
Chromium	MW-2 MW-3 MW-5 MW-7R MW-10	MW-1 MW-2 MW-3 MW-4 MW-5 MW-6 MW-7R MW-11 MW-11D	
Cobalt	MW-2 MW-3	MW-1 MW-2	

Constituent	Statistical Outlier	Nonparametric Data Distribution	Trend
		MW-3 MW-4 MW-5 MW-6 MW-7R MW-8 MW-10 MW-11 MW-11D	
Fluoride	MW-2 MW-7R	MW-1 MW-2 MW-7R MW-8	MW-1 (↑) MW-10 (↓)
Lead		MW-1 MW-2 MW-3 MW-4 MW-5 MW-6 MW-7R MW-8 MW-10 MW-11 MW-11D	
Lithium	MW-2 MW-3 MW-4 MW-5 MW-7R MW-11 MW-11D	MW-2 MW-3 MW-4 MW-5 MW-11	MW-4 (↑) MW-5 (↑) MW-6 (↓) MW-7 (↑) MW-10 (↑) MW-11D (↓)
Mercury		MW-1 MW-2 MW-3 MW-4 MW-5 MW-6 MW-7R MW-8 MW-10 MW-11 MW-11D	
Molybdenum	MW-2 MW-3 MW-11D	MW-1 MW-3 MW-4 MW-5 MW-6 MW-7R MW-8 MW-11	MW-2 (↓) MW-10 (↓) MW-11D (↓)
Radium-226	MW-8	MW-1 MW-2 MW-3 MW-4	MW-1 (↓)

Constituent	Statistical Outlier	Nonparametric Data Distribution	Trend
		MW-5 MW-6 MW-7R MW-8 MW-10 MW-11 MW-11D	
Radium-228	MW-7 MW-8 MW-11 MW-11D	MW-1 MW-2 MW-3 MW-4 MW-5 MW-6 MW-7R MW-8 MW-10 MW-11 MW-11D	
Selenium		MW-1 MW-2 MW-3 MW-4 MW-5 MW-6 MW-7R MW-8 MW-10 MW-11 MW-11D	
Thallium	MW-2 MW-6	MW-1 MW-2 MW-3 MW-4 MW-5 MW-6 MW-7R MW-8 MW-10 MW-11 MW-11D	
Total Radium	MW-1 MW-8 MW-11	MW-1 MW-2 MW-3 MW-4 MW-5 MW-6 MW-7R MW-8 MW-10 MW-11 MW-11D	MW-11D (↓)

4 Evaluation for SSIs over Background

The background threshold values (BTVs) developed using data available as of April 2025 for Appendix I metals, Appendix III constituents, and Appendix IV constituents at the site are used to determine if concentrations for Appendix I metals, Appendix III constituents, and Appendix IV constituents as of the April 2025 sampling round are SSIs.

For constituents that have all ND background values, the maximum MDL is chosen to represent background and the double quantification rule (DQR) is used to evaluate whether or not there is an SSI. The BTV provided for detection monitoring constituents is the statistically-derived background concentration (i.e., upper prediction limit [UPL]), or the maximum detected value, or the maximum MDL depending on the level of censorship in each of the background samples. For pH (field), both the UPL and the lower prediction limit (LPL) were computed as pH values above or below the prediction limits at the downgradient wells can be considered statistically significant. The test significance level per constituent has been estimated such that the cumulative false positive rate over all constituent-well pair comparisons is approximately ten percent.

The number of verification samples per constituent has been selected to provide sufficient statistical power to detect an SSI conditional to the background sample size, its distributional properties, and the total number of statistical test comparisons. The calculated background concentrations, or BTVs, for each detection monitoring constituent is provided below in **Table 10**. Detailed BTV results are in **Appendix E.**

Table 10: Background Concentrations for Detection Monitoring Constituents

Constituent	Unit	No. of Verification Samples.	BTV (UPL)
Appendix I Metals			
Copper	ug/L	2	7.10
Nickel	ug/L	2	4.20
Silver	ug/L	2	0.700
Vanadium	ug/L	2	8.30
Zinc	ug/L	2	32.4
Appendix III Constituents			
Boron	ug/L	1	56.9
Calcium	ug/L	2	124,000
Chloride	mg/L	1	374
Fluoride	mg/L	1	0.509
pH (Field)	S.U.	1	5.63-7.55*
Sulfate	mg/L	2	210
Total Dissolved Solids	mg/L	2	1,400
Appendix IV Constituents			
Antimony	ug/L	2	0.790
Arsenic	ug/L	2	8.80
Barium	ug/L	2	377
Beryllium	ug/L	DQR	*0.700*
Cadmium	ug/L	2	0.500
Chromium	ug/L	2	7.20
Cobalt	ug/L	2	2.30

Constituent	Unit	No. of Verification Samples.	BTV (UPL)
Fluoride	mg/L	1	0.509
Lead	ug/L	2	13.7
Lithium	ug/L	2	43.7
Mercury	ug/L	2	0.170
Molybdenum	ug/L	2	13.6
Radium-226	pCi/L	2	0.800
Radium-228	pCi/L	2	1.35
Selenium	ug/L	2	6.00
Thallium	ug/L	2	13.7
Total Radium	pCi/L	2	2.09

Note:

Values are recorded with three significant figures for reporting consistency. The laboratory reported values with varying significant figures.
* indicates the lower bound of the pH range is the lower prediction limit (LPL). The upper bound is the UPL.
If background samples are 100% non-detects, the DQR is recommended for statistical evaluation.

Downgradient sampling results from the detection monitoring rounds in April 2025 were used to test for SSIs. For constituents that have all ND background values, the DQR is applied (an SSI is registered for the well-constituent pair if the downgradient concentrations exhibit detects in two consecutive sampling events). Downgradient sampling results from the January 2025 and April 2025 sampling events were used to test for SSIs for constituents that 100% ND values in the background dataset. Downgradient concentrations were compared to the BTVs and are summarized below in **Table 11** through **Table 13.** Eight monitoring wells (MW-1 through MW-8) were installed and sampled (October 2015) prior to ash placement, thus representing pre-ash conditions at the site. The range of the concentrations of the pre-ash conditions are included in the tables below as a relative comparison to the current downgradient conditions.

Table 11: Summary of Evaluation for SSIs over Background for Appendix I Metals (Detection Monitoring)

	Appendix I Metals				
	Copper	Nickel	Silver	Vanadium	Zinc
Unit	ug/L	ug/L	ug/L	ug/L	ug/L
BTV (UPL)	7.10	4.20	0.700	8.30	32.4
Pre-Ash Range	2.50 - 16.4	2.50 - 18.2	2.50 - 2.50	2.50 - 9.90	5.00 - 106
Second Detection Monitoring Round Results					
MW-1	1.20	4.90	*0.770*	4.10	11.7
MW-2	33.0	22.1	*0.770*	20.2	122
MW-3	6.80	5.10	*0.770*	3.40	19.1
MW-4	0.900	12.4	*0.770*	*2.00*	19.5
MW-5	1.50	*2.00*	*0.770*	*2.00*	54.9
MW-6	*0.790*	*2.00*	*0.770*	*2.00*	9.20
MW-7R	*0.790*	*2.00*	*0.770*	3.10	4.90
MW-8	1.10	3.30	*0.770*	*2.00*	10.2
MW-10	1.00	2.60	*0.770*	*2.00*	5.50
MW-11	1.40	*2.00*	*0.770*	*2.00*	9.10
MW-11D	1.20	2.20	*0.770*	*2.00*	11.2

Notes:
Underlined concentration indicates a detect value for constituents with 100 percent background non-detects.
Bold and underlined concentration indicates an SSI over background.
Italic concentration indicates a non-detect value.

Table 12: Summary of Evaluation for SSIs over Background for Appendix III Constituents (Detection Monitoring)

	Appendix III Constituents						
	Boron	Calcium	Chloride	Fluoride	pH (Field)	Sulfate	TDS
Unit	ug/L	ug/L	mg/L	mg/L	S.U.	mg/L	mg/L
BTV (UPL)	56.9	124,000	374	0.509	5.63 - 7.55**	210	1,270
Pre-Ash Range	6.20 - 53.1	16,900 - 185,000	22.2 - 1,160	0.0200 - 0.590	6.17 - 7.70	3.70 - 199	296 - 2,770
Second Detection Monitoring Round Results							
MW-1	6.80	218000	956	0.170	6.59	6.50	1530
MW-2	44.1	188000	1080	0.210	7.41	68.6	2400
MW-3	39.5	174000	1060	0.310	7.39	12.7	2430
MW-4	7.20	41300	319	0.390	6.17	12.9	1020
MW-5	9.10	9220	20.1	0.570	6.97	3.70	207
MW-6	6.80	33200	184	0.360	6.33	27.3	542
MW-7R	8.70	89900	269	0.140	7.31	14.2	818
MW-8	10.5	96300	302	0.100	7.09	7.50	798
MW-10	25.5	21300	30.4	0.440	7.76	1.70	345
MW-11	15.4	24900	136	0.170	6.58	2.30	447
MW-11D	42.6	15300	55.9	0.450	8.09	15.0	323

Notes:
** indicates the lower bound of the pH range is the LPL. The upper bound is the UPL
Underlined concentration indicates a detect value for constituents with 100 percent background non-detects.
Bold and underlined concentration indicates an SSI over background.
Italic concentration indicates a non-detect value.

Table 13: Summary of Evaluation for SSIs over Background for Appendix IV Constituents (Detection Monitoring)

	Appendix IV Constituents																
	Anti-mony	Ars-enic	Barium	Bery-llium	Cadmium	Chromium	Cobalt	Fluoride	Lead	Lithium	Mercury	Moly-bdenum	Radium-226	Radium-228	Selenium	Thallium	Total Radium
Unit	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	pCi/L	pCi/L	ug/L	ug/L	pCi/L
BTV (UPL)	0.790	8.80	377	*0.700 (DQR)*	0.500	7.20	2.30	0.509	13.7	43.7	0.170	13.6	0.800	1.35	6.00	13.7	2.09
Pre-Ash Range	3.80 - 12.0	2.50 - 2.50	117 - 1,240	0.500 - 0.500	0.500 - 0.500	2.50 - 33.9	2.50 - 7.00	0.0200 - 0.590	2.50 - 6.30	7.50 - 70.4	0.100 - 0.100	2.50 - 20.6	0.0774 - 0.820	0.0230 - 1.56	5.00 - 5.00	5.00 - 5.00	0.304 - 2.93
Second Detection Monitoring Round Results																	
MW-1	*4.00*	*4.20*	291	*0.440*	*0.480*	9.30	1.60	0.170	3.80	37.1	*0.0950*	*1.70*	0.0565	1.06	*5.50*	*0.0270*	1.12
MW-2	4.10	*4.20*	473	0.620	*0.480*	22.9	11.4	0.210	17.8	130	*0.0950*	3.50	2.11	1.96	*5.50*	0.130	4.07
MW-3	*4.00*	*4.20*	764	*0.440*	*0.480*	3.60	1.40	0.310	4.00	86.1	*0.0950*	7.00	1.56	2.03	*5.50*	*0.0270*	3.59
MW-4	*4.00*	*4.20*	334	*0.440*	*0.480*	2.60	19.0	0.390	*2.90*	37.8	*0.0950*	*1.70*	0.735	-0.0252	*5.50*	*0.0270*	0.735
MW-5	*4.00*	*4.20*	96.3	*0.440*	*0.480*	1.60	*1.20*	0.570	*2.90*	8.70	*0.0950*	*1.70*	0.212	0.540	*5.50*	*0.0270*	0.752
MW-6	*4.00*	*4.20*	54.5	*0.440*	*0.480*	1.80	*1.20*	0.360	*2.90*	22.1	*0.0950*	*1.70*	0.913	0.794	*5.50*	*0.0270*	1.71
MW-7R	*4.00*	*4.20*	318	*0.440*	*0.480*	4.00	*1.20*	0.140	3.10	29.1	*0.0950*	*1.70*	-0.316	0.514	*5.50*	*0.0270*	0.514
MW-8	*4.00*	*4.20*	1020	*0.440*	*0.480*	5.40	*1.20*	0.100	*2.90*	24.4	*0.0950*	*1.70*	0.0493	0.546	*5.50*	*0.0270*	0.595
MW-10	*4.00*	*4.20*	95.2	*0.440*	*0.480*	3.60	*1.20*	0.440	*2.90*	4.90	*0.0950*	19.8	0.0522	0.617	*5.50*	*0.0270*	0.669
MW-11	*4.00*	*4.20*	35.3	*0.440*	*0.480*	0.870	*1.20*	0.170	*2.90*	10.8	*0.0950*	*1.70*	0.478	0.488	*5.50*	*0.0270*	0.966
MW-11D	4.20	*4.20*	112	*0.440*	*0.480*	2.20	*1.20*	0.450	*2.90*	14.7	*0.0950*	3.80	-0.156	0.690	*5.50*	*0.0270*	0.690

Notes:
Underlined concentration indicates a detect value for constituents with 100 percent background non-detects.
Bold and underlined concentration indicates an SSI over background.
Italic concentration indicates a non-detect value.

SSIs were found for four Appendix I metals (copper, nickel, vanadium, and zinc), five Appendix III constituents (calcium, chloride, fluoride, field pH, and TDS), and eleven Appendix IV constituents (antimony, barium, chromium, cobalt, fluoride, lead, lithium, molybdenum, radium-226, radium-228, and total radium). For the constituent that uses the DQR, beryllium did not have two consecutive detects.

When the April 2025 sampling event results are compared to the pre-ash sampling results from the eight downgradient wells, current downgradient groundwater constituent concentrations are generally like concentrations reported prior to ash placement. In some cases, the BTV is not contained within the pre-ash placement range indicating that natural variability may lie beyond what was captured prior to the ash placement. Depending on the data distribution of the constituent, the BTVs have been computed to allow for one to two verification samples should an opportunity for additional sampling to take place. The validity of the initial exceedance can be confirmed by verification sampling. However, for practical purposes, should a sampling event of interest exceed the respective BTV, the event is considered an SSI.

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Table 1: Summary Statistics, Non-Detects Included

ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	Date Range	Distributions Fit[a]	Recommended Distribution	Mean	Median	Minimum	Maximum	SD	CV	Skewness	Kurtosis
1_111	BG-1 & BG-2	App. I Metals	Copper	ug/L	67	54	81%	2015-10-15 to 2025-03-31	Lognormal	Nonparametric	2.86	2.50	0.620	11.4	1.74	0.608	2.09	8.13
1_117	BG-1 & BG-2	App. I Metals	Nickel	ug/L	67	51	76%	2015-10-15 to 2025-03-31	Lognormal	Nonparametric	2.49	2.50	0.420	14.1	1.76	0.707	4.33	28.3
1_122	BG-1 & BG-2	App. I Metals	Silver	ug/L	67	66	99%	2015-10-15 to 2025-03-31		Nonparametric	1.90	2.50	0.0700	2.50	0.881	0.464	-0.871	-1.10
1_127	BG-1 & BG-2	App. I Metals	Vanadium	ug/L	67	37	55%	2015-10-15 to 2025-03-31	Nonparametric	Nonparametric	3.87	3.90	0.810	8.40	1.99	0.513	0.231	-0.999
1_128	BG-1 & BG-2	App. I Metals	Zinc	ug/L	67	50	75%	2015-10-15 to 2025-03-31	Gamma; Lognormal	Nonparametric	8.28	8.40	3.00	34.2	5.50	0.664	2.90	11.5
2_105	BG-1 & BG-2	App. III	Boron	ug/L	66	29	44%	2015-10-15 to 2025-03-31	Gamma; Lognormal	Gamma	9.77	8.25	0.570	56.5	8.77	0.898	2.82	12.2
2_107	BG-1 & BG-2	App. III	Calcium	ug/L	67	0	0%	2015-10-15 to 2025-03-31	Nonparametric	Nonparametric	59131	29500	18600	124000	42172	0.713	0.516	-1.68
2_108	BG-1 & BG-2	App. III	Chloride	mg/L	67	0	0%	2015-10-15 to 2025-03-31	Gamma; Normal	Normal	235	239	149	311	38.7	0.165	-0.250	-0.701
2_112	BG-1 & BG-2	App. III	Fluoride	mg/L	67	0	0%	2015-10-15 to 2025-03-31	Gamma; Lognormal	Gamma	0.196	0.190	0.100	0.410	0.0648	0.330	1.17	1.38
2_118	BG-1 & BG-2	App. III	pH (Field)	S.U.	65	0	0%	2015-10-15 to 2025-04-01	Gamma; Lognormal; Normal	Normal	6.61	6.60	6.10	7.11	0.247	0.0373	-0.132	-0.919
2_123	BG-1 & BG-2	App. III	Sulfate	mg/L	67	0	0%	2015-10-15 to 2025-03-31	Nonparametric	Nonparametric	68.5	22.7	15.1	211	66.3	0.969	0.919	-0.734
2_125	BG-1 & BG-2	App. III	Total Dissolved Solids	mg/L	66	0	0%	2015-10-15 to 2025-03-31	Nonparametric	Nonparametric	799	646	487	1450	279	0.350	0.818	-0.834
3_101	BG-1 & BG-2	App. IV	Antimony	ug/L	67	66	99%	2015-10-15 to 2025-03-31		Nonparametric	3.59	3.60	0.200	5.50	0.948	0.264	-0.175	3.08
3_102	BG-1 & BG-2	App. IV	Arsenic	ug/L	67	62	93%	2015-10-15 to 2025-03-31	Gamma; Lognormal; Normal	Nonparametric	4.43	4.70	0.360	34.0	3.90	0.879	6.79	52.0
3_103	BG-1 & BG-2	App. IV	Barium	ug/L	67	0	0%	2015-10-15 to 2025-03-31	Nonparametric	Nonparametric	217	262	49.5	443	118	0.543	-0.263	-1.50
3_104	BG-1 & BG-2	App. IV	Beryllium	ug/L	67	67	100%	2015-10-15 to 2025-03-31		Nonparametric	0.413	0.500	0.0500	0.700	0.226	0.547	-0.00944	-1.59
3_106	BG-1 & BG-2	App. IV	Cadmium	ug/L	67	65	97%	2015-10-15 to 2025-03-31		Nonparametric	0.397	0.400	0.0600	0.500	0.0956	0.241	-1.23	2.75
3_109	BG-1 & BG-2	App. IV	Chromium	ug/L	67	57	85%	2015-10-15 to 2025-03-31	Nonparametric	Nonparametric	2.64	2.50	0.500	26.5	3.22	1.22	6.38	47.3
3_110	BG-1 & BG-2	App. IV	Cobalt	ug/L	67	56	84%	2015-10-15 to 2025-03-31	Normal	Nonparametric	2.12	2.50	0.0650	3.60	1.14	0.540	-0.0192	-1.41
3_112	BG-1 & BG-2	App. IV	Fluoride	mg/L	67	0	0%	2015-10-15 to 2025-03-31	Gamma; Lognormal	Gamma	0.196	0.190	0.100	0.410	0.0648	0.330	1.17	1.38
3_113	BG-1 & BG-2	App. IV	Lead	ug/L	67	63	94%	2015-10-15 to 2025-03-31		Nonparametric	3.32	2.50	0.0770	14.1	2.62	0.789	2.94	10.0
3_114	BG-1 & BG-2	App. IV	Lithium	ug/L	67	3	4%	2015-10-15 to 2025-03-31	Nonparametric	Nonparametric	19.0	17.8	0.390	51.1	7.80	0.410	1.32	5.27
3_115	BG-1 & BG-2	App. IV	Mercury	ug/L	67	59	88%	2015-10-15 to 2025-03-31	Gamma; Lognormal; Normal	Nonparametric	0.114	0.120	0.0900	0.200	0.0183	0.161	2.12	7.37
3_116	BG-1 & BG-2	App. IV	Molybdenum	ug/L	67	52	78%	2015-10-15 to 2025-03-31	Gamma; Normal	Nonparametric	3.81	2.60	0.170	16.0	2.85	0.749	2.44	6.70
3_119	BG-1 & BG-2	App. IV	Radium-226	pCi/L	64	0	0%	2015-10-15 to 2025-03-31	Normal	Nonparametric	0.202	0.191	-0.780	1.22	0.332	1.64	-0.135	1.71
3_120	BG-1 & BG-2	App. IV	Radium-228	pCi/L	64	0	0%	2015-10-15 to 2025-03-31	Normal	Nonparametric	0.587	0.554	-0.271	1.96	0.384	0.653	0.769	1.62
3_121	BG-1 & BG-2	App. IV	Selenium	ug/L	67	64	96%	2015-10-15 to 2025-03-31		Nonparametric	4.51	4.70	0.0730	6.00	0.900	0.199	-3.63	16.7
3_124	BG-1 & BG-2	App. IV	Thallium	ug/L	67	64	96%	2015-10-15 to 2025-03-31		Nonparametric	0.694	0.0500	0.0200	13.7	2.15	3.10	4.17	20.6
3_126	BG-1 & BG-2	App. IV	Total Radium	pCi/L	64	0	0%	2015-10-15 to 2025-03-31	Normal	Nonparametric	0.843	0.808	0	2.59	0.472	0.560	0.952	2.12

[a] Non-detects are excluded from goodness-of-fit tests.

Table 2: Summary Statistics, Non-Detects Excluded

ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	Date Range	Distributions Fit	Recommended Distribution	Mean	Median	Minimum	Maximum	SD	CV	Skewness	Kurtosis
1_111	BG-1 & BG-2	App. I Metals	Copper	ug/L	67	54	81%	2015-10-15 to 2025-03-31	Lognormal	Nonparametric	3.15	1.30	0.640	11.4	3.36	1.07	1.55	1.74
1_117	BG-1 & BG-2	App. I Metals	Nickel	ug/L	67	51	76%	2015-10-15 to 2025-03-31	Lognormal	Nonparametric	2.79	1.75	0.980	14.1	3.18	1.14	3.37	12.3
1_122	BG-1 & BG-2	App. I Metals	Silver	ug/L	67	66	99%	2015-10-15 to 2025-03-31		Nonparametric	0.700	0.700	0.700	0.700	NA	NA	NA	NA
1_127	BG-1 & BG-2	App. I Metals	Vanadium	ug/L	67	37	55%	2015-10-15 to 2025-03-31	Nonparametric	Nonparametric	5.48	5.65	0.810	8.40	1.71	0.311	-1.47	3.03
1_128	BG-1 & BG-2	App. I Metals	Zinc	ug/L	67	50	75%	2015-10-15 to 2025-03-31	Gamma; Lognormal	Nonparametric	12.1	10.0	3.30	34.2	8.92	0.737	1.67	2.48
2_105	BG-1 & BG-2	App. III	Boron	ug/L	66	29	44%	2015-10-15 to 2025-03-31	Gamma; Lognormal	Gamma	13.8	12.9	5.50	56.5	9.68	0.704	2.76	10.3
2_107	BG-1 & BG-2	App. III	Calcium	ug/L	67	0	0%	2015-10-15 to 2025-03-31	Nonparametric	Nonparametric	59131	29500	18600	124000	42172	0.713	0.516	-1.68
2_108	BG-1 & BG-2	App. III	Chloride	mg/L	67	0	0%	2015-10-15 to 2025-03-31	Gamma; Normal	Normal	235	239	149	311	38.7	0.165	-0.250	-0.701
2_112	BG-1 & BG-2	App. III	Fluoride	mg/L	67	0	0%	2015-10-15 to 2025-03-31	Gamma; Lognormal	Gamma	0.196	0.190	0.100	0.410	0.0648	0.330	1.17	1.38
2_118	BG-1 & BG-2	App. III	pH (Field)	S.U.	65	0	0%	2015-10-15 to 2025-04-01	Gamma; Lognormal; Normal	Normal	6.61	6.60	6.10	7.11	0.247	0.0373	-0.132	-0.919
2_123	BG-1 & BG-2	App. III	Sulfate	mg/L	67	0	0%	2015-10-15 to 2025-03-31	Nonparametric	Nonparametric	68.5	22.7	15.1	211	66.3	0.969	0.919	-0.734
2_125	BG-1 & BG-2	App. III	Total Dissolved Solids	mg/L	66	0	0%	2015-10-15 to 2025-03-31	Nonparametric	Nonparametric	799	646	487	1450	279	0.350	0.818	-0.834
3_101	BG-1 & BG-2	App. IV	Antimony	ug/L	67	66	99%	2015-10-15 to 2025-03-31		Nonparametric	0.790	0.790	0.790	0.790	NA	NA	NA	NA
3_102	BG-1 & BG-2	App. IV	Arsenic	ug/L	67	62	93%	2015-10-15 to 2025-03-31	Gamma; Lognormal; Normal	Nonparametric	4.03	4.80	0.360	8.80	3.54	0.876	0.241	-1.40
3_103	BG-1 & BG-2	App. IV	Barium	ug/L	67	0	0%	2015-10-15 to 2025-03-31	Nonparametric	Nonparametric	217	262	49.5	443	118	0.543	-0.263	-1.50
3_106	BG-1 & BG-2	App. IV	Cadmium	ug/L	67	65	97%	2015-10-15 to 2025-03-31		Nonparametric	0.450	0.450	0.400	0.500	0.0707	0.157	NA	NA
3_109	BG-1 & BG-2	App. IV	Chromium	ug/L	67	57	85%	2015-10-15 to 2025-03-31	Nonparametric	Nonparametric	4.47	1.60	0.650	26.5	7.97	1.78	2.87	8.47
3_110	BG-1 & BG-2	App. IV	Cobalt	ug/L	67	56	84%	2015-10-15 to 2025-03-31	Normal	Nonparametric	1.20	1.20	0.0650	2.30	0.573	0.478	0.0793	1.63
3_112	BG-1 & BG-2	App. IV	Fluoride	mg/L	67	0	0%	2015-10-15 to 2025-03-31	Gamma; Lognormal	Gamma	0.196	0.190	0.100	0.410	0.0648	0.330	1.17	1.38
3_113	BG-1 & BG-2	App. IV	Lead	ug/L	67	63	94%	2015-10-15 to 2025-03-31		Nonparametric	5.94	4.35	0.970	14.1	5.76	0.969	1.39	1.98
3_114	BG-1 & BG-2	App. IV	Lithium	ug/L	67	3	4%	2015-10-15 to 2025-03-31	Nonparametric	Nonparametric	19.9	17.9	11.9	51.1	6.97	0.351	2.37	7.34
3_115	BG-1 & BG-2	App. IV	Mercury	ug/L	67	59	88%	2015-10-15 to 2025-03-31	Gamma; Lognormal; Normal	Nonparametric	0.144	0.140	0.0900	0.200	0.0325	0.226	0.153	0.996
3_116	BG-1 & BG-2	App. IV	Molybdenum	ug/L	67	52	78%	2015-10-15 to 2025-03-31	Gamma; Normal	Nonparametric	6.40	5.60	0.170	13.6	3.72	0.580	0.377	-0.408
3_119	BG-1 & BG-2	App. IV	Radium-226	pCi/L	64	0	0%	2015-10-15 to 2025-03-31	Normal	Nonparametric	0.202	0.191	-0.780	1.22	0.332	1.64	-0.135	1.71
3_120	BG-1 & BG-2	App. IV	Radium-228	pCi/L	64	0	0%	2015-10-15 to 2025-03-31	Normal	Nonparametric	0.587	0.554	-0.271	1.96	0.384	0.653	0.769	1.62
3_121	BG-1 & BG-2	App. IV	Selenium	ug/L	67	64	96%	2015-10-15 to 2025-03-31		Nonparametric	2.05	0.0890	0.0730	6.00	3.42	1.66	1.73	NA
3_124	BG-1 & BG-2	App. IV	Thallium	ug/L	67	64	96%	2015-10-15 to 2025-03-31		Nonparametric	4.61	0.0600	0.0570	13.7	7.88	1.71	1.73	NA
3_126	BG-1 & BG-2	App. IV	Total Radium	pCi/L	64	0	0%	2015-10-15 to 2025-03-31	Normal	Nonparametric	0.843	0.808	0	2.59	0.472	0.560	0.952	2.12

Table 3: Goodness-of-Fit Tests, Non-Detects Excluded

								Normal				Lognormal				Gamma						
								S-W		Lilliefors		S-W		Lilliefors		K-S		A-D				
ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	Stat.	p-Value	Stat.	p-Value	Stat.	p-Value	Stat.	p-Value	Stat.	p-Value	Stat.	p-Value	Log-SD (NDs excl.)	ProUCL Distributions Fit	Recommended Distribution
1_111	BG-1 & BG-2	App. I Metals	Copper	ug/L	67	54	81%	0.755	0.002	0.313	0.001	0.880	0.071	0.252	0.024	0.293	< 0.01	0.928	0.01 <= p < 0.05	0.975	Lognormal	Nonparametric
1_117	BG-1 & BG-2	App. I Metals	Nickel	ug/L	67	51	76%	0.539	0.000	0.299	0.000	0.864	0.022	0.183	0.164	0.235	0.01 <= p < 0.05	1.286	< 0.01	0.679	Lognormal	Nonparametric
1_122	BG-1 & BG-2	App. I Metals	Silver	ug/L	67	66	99%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
1_127	BG-1 & BG-2	App. I Metals	Vanadium	ug/L	67	37	55%	0.797	0.000	0.278	0.000	0.593	0.000	0.384	0.000	0.358	< 0.01	4.274	< 0.01	0.541	Nonparametric	Nonparametric
1_128	BG-1 & BG-2	App. I Metals	Zinc	ug/L	67	50	75%	0.795	0.002	0.214	0.038	0.951	0.473	0.119	0.753	0.135	>= 0.10	0.472	>= 0.10	0.674	Gamma; Lognormal	Nonparametric
2_105	BG-1 & BG-2	App. III	Boron	ug/L	66	29	44%	0.715	0.000	0.197	0.001	0.920	0.011	0.131	0.110	0.144	0.05 <= p < 0.10	1.096	< 0.01	0.558	Gamma; Lognormal	Gamma
2_107	BG-1 & BG-2	App. III	Calcium	ug/L	67	0	0%	0.731	0.000	0.324	0.000	0.768	0.000	0.274	0.000	0.297	< 0.01	7.674	< 0.01	0.723	Nonparametric	Nonparametric
2_108	BG-1 & BG-2	App. III	Chloride	mg/L	67	0	0%	0.977	0.247	0.096	0.133	0.959	0.026	0.119	0.020	0.113	0.01 <= p < 0.05	0.711	0.05 <= p < 0.10	0.173	Gamma; Normal	Normal
2_112	BG-1 & BG-2	App. III	Fluoride	mg/L	67	0	0%	0.906	0.000	0.149	0.001	0.975	0.189	0.087	0.236	0.106	0.05 <= p < 0.10	0.887	0.01 <= p < 0.05	0.309	Gamma; Lognormal	Gamma
2_118	BG-1 & BG-2	App. III	pH (Field)	S.U.	65	0	0%	0.973	0.167	0.098	0.130	0.972	0.142	0.102	0.093	0.102	0.05 <= p < 0.10	0.659	0.05 <= p < 0.10	0.037	Gamma; Lognormal; Normal	Normal
2_123	BG-1 & BG-2	App. III	Sulfate	mg/L	67	0	0%	0.743	0.000	0.358	0.000	0.762	0.000	0.330	0.000	0.349	< 0.01	7.521	< 0.01	0.964	Nonparametric	Nonparametric
2_125	BG-1 & BG-2	App. III	Total Dissolved Solids	mg/L	66	0	0%	0.824	0.000	0.287	0.000	0.851	0.000	0.255	0.000	0.269	< 0.01	4.491	< 0.01	0.325	Nonparametric	Nonparametric
3_101	BG-1 & BG-2	App. IV	Antimony	ug/L	67	66	99%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
3_102	BG-1 & BG-2	App. IV	Arsenic	ug/L	67	62	93%	0.916	0.501	0.226	0.544	0.866	0.249	0.303	0.136	0.296	>= 0.10	0.429	>= 0.10	1.407	Gamma; Lognormal; Normal	Nonparametric
3_103	BG-1 & BG-2	App. IV	Barium	ug/L	67	0	0%	0.867	0.000	0.187	0.000	0.817	0.000	0.267	0.000	0.248	< 0.01	4.794	< 0.01	0.734	Nonparametric	Nonparametric
3_104	BG-1 & BG-2	App. IV	Beryllium	ug/L	67	67	100%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
3_106	BG-1 & BG-2	App. IV	Cadmium	ug/L	67	65	97%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		0.158		Nonparametric
3_109	BG-1 & BG-2	App. IV	Chromium	ug/L	67	57	85%	0.519	0.000	0.422	0.000	0.831	0.035	0.310	0.007	0.387	< 0.01	1.326	< 0.01	1.119	Nonparametric	Nonparametric
3_110	BG-1 & BG-2	App. IV	Cobalt	ug/L	67	56	84%	0.925	0.365	0.248	0.057	0.651	0.000	0.324	0.002	0.281	0.01 <= p < 0.05	1.110	< 0.01	0.941	Normal	Nonparametric
3_112	BG-1 & BG-2	App. IV	Fluoride	mg/L	67	0	0%	0.906	0.000	0.149	0.001	0.975	0.189	0.087	0.236	0.106	0.05 <= p < 0.10	0.887	0.01 <= p < 0.05	0.309	Gamma; Lognormal	Gamma
3_113	BG-1 & BG-2	App. IV	Lead	ug/L	67	63	94%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		1.121		Nonparametric
3_114	BG-1 & BG-2	App. IV	Lithium	ug/L	67	3	4%	0.777	0.000	0.172	0.000	0.922	0.001	0.135	0.005	0.152	< 0.01	1.918	< 0.01	0.288	Nonparametric	Nonparametric
3_115	BG-1 & BG-2	App. IV	Mercury	ug/L	67	59	88%	0.958	0.790	0.204	0.421	0.943	0.643	0.245	0.169	0.230	>= 0.10	0.324	>= 0.10	0.236	Gamma; Lognormal; Normal	Nonparametric
3_116	BG-1 & BG-2	App. IV	Molybdenum	ug/L	67	52	78%	0.972	0.882	0.133	0.679	0.749	0.001	0.251	0.012	0.179	>= 0.10	0.520	>= 0.10	1.056	Gamma; Normal	Nonparametric
3_119	BG-1 & BG-2	App. IV	Radium-226	pCi/L	64	0	0%	0.972	0.151	0.084	0.318	NA	NA	NA	NA	NA		NA		NA	Normal	Nonparametric
3_120	BG-1 & BG-2	App. IV	Radium-228	pCi/L	64	0	0%	0.965	0.068	0.073	0.536	NA	NA	NA	NA	NA		NA		NA	Normal	Nonparametric
3_121	BG-1 & BG-2	App. IV	Selenium	ug/L	67	64	96%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		2.490		Nonparametric
3_124	BG-1 & BG-2	App. IV	Thallium	ug/L	67	64	96%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		3.150		Nonparametric
3_126	BG-1 & BG-2	App. IV	Total Radium	pCi/L	64	0	0%	0.950	0.011	0.070	0.605	NA	NA	NA	NA	NA		NA		NA	Normal	Nonparametric

Note: p-values above 0.05 suggest a fit to the tested distribution; a distribution passes its GOF test when at least one of the two p-values is above 0.05.

Table 4: Autocorrelation Tests, Non-Detects Excluded

ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	Autocorrelation	Box-Ljung p-value	Sig.
1_111	BG-1 & BG-2	App. I Metals	Copper	ug/L	67	54	81%	0.377	0.129	
1_117	BG-1 & BG-2	App. I Metals	Nickel	ug/L	67	51	76%	0.046	0.841	
1_122	BG-1 & BG-2	App. I Metals	Silver	ug/L	67	66	99%	NA	NA	
1_127	BG-1 & BG-2	App. I Metals	Vanadium	ug/L	67	37	55%	0.130	0.455	
1_128	BG-1 & BG-2	App. I Metals	Zinc	ug/L	67	50	75%	0.006	0.977	
2_105	BG-1 & BG-2	App. III	Boron	ug/L	66	29	44%	0.302	0.056	
2_107	BG-1 & BG-2	App. III	Calcium	ug/L	67	0	0%	-0.543	0.000	***
2_108	BG-1 & BG-2	App. III	Chloride	mg/L	67	0	0%	0.047	0.695	
2_112	BG-1 & BG-2	App. III	Fluoride	mg/L	67	0	0%	0.444	0.000	***
2_118	BG-1 & BG-2	App. III	pH (Field)	S.U.	65	0	0%	-0.440	0.000	***
2_123	BG-1 & BG-2	App. III	Sulfate	mg/L	67	0	0%	-0.334	0.005	**
2_125	BG-1 & BG-2	App. III	Total Dissolved Solids	mg/L	66	0	0%	-0.488	0.000	***
3_101	BG-1 & BG-2	App. IV	Antimony	ug/L	67	66	99%	NA	NA	
3_102	BG-1 & BG-2	App. IV	Arsenic	ug/L	67	62	93%	0.056	0.868	
3_103	BG-1 & BG-2	App. IV	Barium	ug/L	67	0	0%	-0.188	0.115	
3_106	BG-1 & BG-2	App. IV	Cadmium	ug/L	67	65	97%	-0.500	0.157	
3_109	BG-1 & BG-2	App. IV	Chromium	ug/L	67	57	85%	-0.146	0.593	
3_110	BG-1 & BG-2	App. IV	Cobalt	ug/L	67	56	84%	-0.199	0.452	
3_112	BG-1 & BG-2	App. IV	Fluoride	mg/L	67	0	0%	0.444	0.000	***
3_113	BG-1 & BG-2	App. IV	Lead	ug/L	67	63	94%	0.131	0.711	
3_114	BG-1 & BG-2	App. IV	Lithium	ug/L	67	3	4%	0.219	0.073	
3_115	BG-1 & BG-2	App. IV	Mercury	ug/L	67	59	88%	0.029	0.923	
3_116	BG-1 & BG-2	App. IV	Molybdenum	ug/L	67	52	78%	0.615	0.009	**
3_119	BG-1 & BG-2	App. IV	Radium-226	pCi/L	64	0	0%	0.116	0.344	
3_120	BG-1 & BG-2	App. IV	Radium-228	pCi/L	64	0	0%	0.136	0.264	
3_121	BG-1 & BG-2	App. IV	Selenium	ug/L	67	64	96%	-0.165	0.651	
3_124	BG-1 & BG-2	App. IV	Thallium	ug/L	67	64	96%	-0.167	0.648	
3_126	BG-1 & BG-2	App. IV	Total Radium	pCi/L	64	0	0%	0.238	0.051	

*** p < 0.001, ** p < 0.01, * p < 0.05

Table 5: Outlier Counts by Date

Date	Count
2016-02-16	1
2016-04-05	1
2019-10-14	2
2021-04-12	2
2022-07-11	2
2022-10-17	2
2023-01-24	2
2023-04-24	1
2023-04-27	1
2024-01-23	1
2024-04-01	1

Table 6: Outliers Identified at the 1% Significance Level, Non-Detects Excluded

ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	No. Detects	Date	Dilution	Value
1_117	BG-1	App. I Metals	Nickel	ug/L	67	51	76%	16	2022-10-17	1	14.1
1_127	BG-2	App. I Metals	Vanadium	ug/L	67	37	55%	30	2023-04-24	1	0.810
1_127	BG-2	App. I Metals	Vanadium	ug/L	67	37	55%	30	2023-01-24	1	1.10
1_127	BG-2	App. I Metals	Vanadium	ug/L	67	37	55%	30	2022-07-11	1	1.40
1_127	BG-1	App. I Metals	Vanadium	ug/L	67	37	55%	30	2023-01-24	1	8.40
1_127	BG-2	App. I Metals	Vanadium	ug/L	67	37	55%	30	2019-10-14	1	8.30
1_128	BG-2	App. I Metals	Zinc	ug/L	67	50	75%	17	2019-10-14	1	34.2
2_105	BG-1	App. III	Boron	ug/L	66	29	44%	37	2021-04-12	1	56.5
2_105	BG-2	App. III	Boron	ug/L	66	29	44%	37	2021-04-12	1	36.2
3_109	BG-1	App. IV	Chromium	ug/L	67	57	85%	10	2022-10-17	1	26.5
3_114	BG-1	App. IV	Lithium	ug/L	67	3	4%	64	2024-01-23	1	51.1
3_114	BG-1	App. IV	Lithium	ug/L	67	3	4%	64	2023-04-27	1	43.7
3_114	BG-1	App. IV	Lithium	ug/L	67	3	4%	64	2016-04-05	NA	36.8
3_121	BG-1	App. IV	Selenium	ug/L	67	64	96%	3	2024-04-01	1	6.00
3_124	BG-1	App. IV	Thallium	ug/L	67	64	96%	3	2016-02-16	NA	13.7
3_126	BG-1	App. IV	Total Radium	pCi/L	64	0	0%	64	2022-07-11	1	2.59

Table 7: Seasonality Tests

						Full									Without Non-Detects								
						Sample Size					p-Value				Sample Size					p-Value			
ID	Well	Constituent Type	Constituent	Unit	% NDs	Winter	Spring	Summer	Fall	Total	Kruskal-Wallis		ANOVA	Log ANOVA	Winter	Spring	Summer	Fall	Total	Kruskal-Wallis		ANOVA	Log ANOVA
1_111	BG-1 & BG-2	App. I Metals	Copper	ug/L	81%	18	18	15	16	67	0.174	NA	0.068	0.264	2	4	2	5	13	0.458	NA	0.315	0.508
1_117	BG-1 & BG-2	App. I Metals	Nickel	ug/L	76%	18	18	15	16	67	0.672	NA	0.342	0.723	5	2	6	3	16	0.466	NA	0.141	0.179
1_122	BG-1 & BG-2	App. I Metals	Silver	ug/L	99%	18	18	15	16	67	0.858	NA	0.857	0.571	1	0	0	0	1	NA	NA	NA	NA
1_127	BG-1 & BG-2	App. I Metals	Vanadium	ug/L	55%	18	18	15	16	67	0.744	NA	0.687	0.680	8	7	7	8	30	0.787	NA	0.745	0.772
1_128	BG-1 & BG-2	App. I Metals	Zinc	ug/L	75%	18	18	15	16	67	0.856	NA	0.640	0.778	4	8	3	2	17	0.662	NA	0.369	0.599
2_105	BG-1 & BG-2	App. III	Boron	ug/L	44%	17	18	15	16	66	0.980	NA	0.583	0.944	9	10	8	10	37	0.946	NA	0.360	0.696
2_107	BG-1 & BG-2	App. III	Calcium	ug/L	0%	18	18	15	16	67	0.668	NA	0.966	0.986	18	18	15	16	67	0.668	NA	0.966	0.986
2_108	BG-1 & BG-2	App. III	Chloride	mg/L	0%	18	18	15	16	67	0.724	NA	0.603	0.548	18	18	15	16	67	0.724	NA	0.603	0.548
2_112	BG-1 & BG-2	App. III	Fluoride	mg/L	0%	18	18	15	16	67	0.838	NA	0.978	0.967	18	18	15	16	67	0.838	NA	0.978	0.967
2_118	BG-1 & BG-2	App. III	pH (Field)	S.U.	0%	18	17	15	15	65	0.193	NA	0.204	0.203	18	17	15	15	65	0.193	NA	0.204	0.203
2_123	BG-1 & BG-2	App. III	Sulfate	mg/L	0%	18	18	15	16	67	0.731	NA	0.844	0.964	18	18	15	16	67	0.731	NA	0.844	0.964
2_125	BG-1 & BG-2	App. III	Total Dissolved Solids	mg/L	0%	18	17	15	16	66	0.645	NA	0.809	0.858	18	17	15	16	66	0.645	NA	0.809	0.858
3_101	BG-1 & BG-2	App. IV	Antimony	ug/L	99%	18	18	15	16	67	0.762	NA	0.151	0.126	0	1	0	0	1	NA	NA	NA	NA
3_102	BG-1 & BG-2	App. IV	Arsenic	ug/L	93%	18	18	15	16	67	0.975	NA	0.378	0.462	1	3	1	0	5	0.766	NA	0.912	0.716
3_103	BG-1 & BG-2	App. IV	Barium	ug/L	0%	18	18	15	16	67	0.645	NA	0.860	0.949	18	18	15	16	67	0.645	NA	0.860	0.949
3_104	BG-1 & BG-2	App. IV	Beryllium	ug/L	100%	18	18	15	16	67	0.811	NA	0.829	0.861	NA	NA	NA	NA	NA	NA	NA	NA	NA
3_106	BG-1 & BG-2	App. IV	Cadmium	ug/L	97%	18	18	15	16	67	0.793	NA	0.924	0.631	1	0	0	1	2	0.317	NA	NA	NA
3_109	BG-1 & BG-2	App. IV	Chromium	ug/L	85%	18	18	15	16	67	0.555	NA	0.175	0.430	3	3	1	3	10	0.854	NA	0.402	0.500
3_110	BG-1 & BG-2	App. IV	Cobalt	ug/L	84%	18	18	15	16	67	0.846	NA	0.860	0.871	3	4	3	1	11	0.921	NA	0.829	0.807
3_112	BG-1 & BG-2	App. IV	Fluoride	mg/L	0%	18	18	15	16	67	0.838	NA	0.978	0.967	18	18	15	16	67	0.838	NA	0.978	0.967
3_113	BG-1 & BG-2	App. IV	Lead	ug/L	94%	18	18	15	16	67	0.073	NA	0.005 **	0.024 *	0	2	1	1	4	0.259	NA	0.151	0.423
3_114	BG-1 & BG-2	App. IV	Lithium	ug/L	4%	18	18	15	16	67	0.211	NA	0.360	0.068	15	18	15	16	64	0.511	NA	0.539	0.540
3_115	BG-1 & BG-2	App. IV	Mercury	ug/L	88%	18	18	15	16	67	0.522	NA	0.571	0.582	3	1	3	1	8	0.529	NA	0.843	0.845
3_116	BG-1 & BG-2	App. IV	Molybdenum	ug/L	78%	18	18	15	16	67	0.282	NA	0.094	0.136	3	5	4	3	15	0.124	NA	0.099	0.297
3_119	BG-1 & BG-2	App. IV	Radium-226	pCi/L	0%	18	17	15	14	64	0.073	NA	0.114	NA	18	17	15	14	64	0.073	NA	0.114	NA
3_120	BG-1 & BG-2	App. IV	Radium-228	pCi/L	0%	18	17	15	14	64	0.895	NA	0.955	NA	18	17	15	14	64	0.895	NA	0.955	NA
3_121	BG-1 & BG-2	App. IV	Selenium	ug/L	96%	18	18	15	16	67	0.215	NA	0.923	0.299	0	3	0	0	3	NA	NA	NA	NA
3_124	BG-1 & BG-2	App. IV	Thallium	ug/L	96%	18	18	15	16	67	0.820	NA	0.823	0.969	1	2	0	0	3	0.221	NA	0.000 ***	0.005 **
3_126	BG-1 & BG-2	App. IV	Total Radium	pCi/L	0%	18	17	15	14	64	0.618	NA	0.673	NA	18	17	15	14	64	0.618	NA	0.673	NA

*** p < 0.001, ** p < 0.01, * p < 0.05

Table 8: Spatial Variability Tests

						Full									Without Non-Detects								
						Sample Size			p-Value						Sample Size			p-Value					
ID	Well	Constituent Type	Constituent	Unit	% NDs	BG-1	BG-2	Total	Kruskal-Wallis		ANOVA		Log ANOVA		BG-1	BG-2	Total	Kruskal-Wallis		ANOVA		Log ANOVA	
1_111	BG-1 & BG-2	App. I Metals	Copper	ug/L	81%	41	26	67	0.613		0.350		0.928		6	7	13	0.943		0.810		0.875	
1_117	BG-1 & BG-2	App. I Metals	Nickel	ug/L	76%	41	26	67	0.808		0.722		0.979		8	8	16	0.372		0.534		0.908	
1_122	BG-1 & BG-2	App. I Metals	Silver	ug/L	99%	41	26	67	0.216		0.214		0.290		0	1	1	NA		NA		NA	
1_127	BG-1 & BG-2	App. I Metals	Vanadium	ug/L	55%	41	26	67	0.000	***	0.000	***	0.000	***	26	4	30	0.099		0.000	***	0.000	***
1_128	BG-1 & BG-2	App. I Metals	Zinc	ug/L	75%	41	26	67	0.045	*	0.083		0.057		9	8	17	0.211		0.477		0.352	
2_105	BG-1 & BG-2	App. III	Boron	ug/L	44%	41	25	66	0.000	***	0.001	**	0.000	***	18	19	37	0.000	***	0.018	*	0.000	***
2_107	BG-1 & BG-2	App. III	Calcium	ug/L	0%	41	26	67	0.000	***	0.000	***	0.000	***	41	26	67	0.000	***	0.000	***	0.000	***
2_108	BG-1 & BG-2	App. III	Chloride	mg/L	0%	41	26	67	0.013	*	0.008	**	0.004	**	41	26	67	0.013	*	0.008	**	0.004	**
2_112	BG-1 & BG-2	App. III	Fluoride	mg/L	0%	41	26	67	0.000	***	0.000	***	0.000	***	41	26	67	0.000	***	0.000	***	0.000	***
2_118	BG-1 & BG-2	App. III	pH (Field)	S.U.	0%	39	26	65	0.000	***	0.000	***	0.000	***	39	26	65	0.000	***	0.000	***	0.000	***
2_123	BG-1 & BG-2	App. III	Sulfate	mg/L	0%	41	26	67	0.000	***	0.000	***	0.000	***	41	26	67	0.000	***	0.000	***	0.000	***
2_125	BG-1 & BG-2	App. III	Total Dissolved Solids	mg/L	0%	40	26	66	0.000	***	0.000	***	0.000	***	40	26	66	0.000	***	0.000	***	0.000	***
3_101	BG-1 & BG-2	App. IV	Antimony	ug/L	99%	41	26	67	0.189		0.550		0.347		1	0	1	NA		NA		NA	
3_102	BG-1 & BG-2	App. IV	Arsenic	ug/L	93%	41	26	67	0.973		0.252		0.664		3	2	5	0.564		0.642		0.614	
3_103	BG-1 & BG-2	App. IV	Barium	ug/L	0%	41	26	67	0.000	***	0.000	***	0.000	***	41	26	67	0.000	***	0.000	***	0.000	***
3_104	BG-1 & BG-2	App. IV	Beryllium	ug/L	100%	41	26	67	0.553		0.471		0.291		NA	NA	NA	NA		NA		NA	
3_106	BG-1 & BG-2	App. IV	Cadmium	ug/L	97%	41	26	67	0.028	*	0.058		0.190		1	1	2	0.317		NA		NA	
3_109	BG-1 & BG-2	App. IV	Chromium	ug/L	85%	41	26	67	0.466		0.326		0.290		7	3	10	0.569		0.451		0.375	
3_110	BG-1 & BG-2	App. IV	Cobalt	ug/L	84%	41	26	67	0.995		0.981		0.774		3	8	11	0.218		0.155		0.095	
3_112	BG-1 & BG-2	App. IV	Fluoride	mg/L	0%	41	26	67	0.000	***	0.000	***	0.000	***	41	26	67	0.000	***	0.000	***	0.000	***
3_113	BG-1 & BG-2	App. IV	Lead	ug/L	94%	41	26	67	0.640		0.201		0.298		0	4	4	NA		NA		NA	
3_114	BG-1 & BG-2	App. IV	Lithium	ug/L	4%	41	26	67	0.368		0.132		0.309		40	24	64	0.560		0.223		0.288	
3_115	BG-1 & BG-2	App. IV	Mercury	ug/L	88%	41	26	67	0.226		0.328		0.294		7	1	8	0.118		0.053		0.111	
3_116	BG-1 & BG-2	App. IV	Molybdenum	ug/L	78%	41	26	67	0.001	***	0.006	**	0.005	**	4	11	15	0.602		0.760		0.448	
3_119	BG-1 & BG-2	App. IV	Radium-226	pCi/L	0%	39	25	64	0.577		0.938		NA		39	25	64	0.577		0.938		NA	
3_120	BG-1 & BG-2	App. IV	Radium-228	pCi/L	0%	39	25	64	0.995		0.604		NA		39	25	64	0.995		0.604		NA	
3_121	BG-1 & BG-2	App. IV	Selenium	ug/L	96%	41	26	67	0.013	*	0.202		0.530		2	1	3	0.221		0.665		0.641	
3_124	BG-1 & BG-2	App. IV	Thallium	ug/L	96%	41	26	67	0.903		0.051		0.095		2	1	3	1.000		0.667		0.672	
3_126	BG-1 & BG-2	App. IV	Total Radium	pCi/L	0%	39	25	64	0.736		0.506		NA		39	25	64	0.736		0.506		NA	

*** p < 0.001, ** p < 0.01, * p < 0.05

Table 9: Trend Tests: Lognormal MLE and MK

ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	Type	Method	Slope	p-value	Trend
2_105	BG-1 & BG-2	App. III	Boron	ug/L	66	29	44%	Parametric	Lognormal MLE	0.000587	0.000	↑
2_107	BG-1 & BG-2	App. III	Calcium	ug/L	67	0	0%	Nonparametric	MK	0.248	0.871	↔
2_108	BG-1 & BG-2	App. III	Chloride	mg/L	67	0	0%	Parametric	Lognormal MLE	-0.0000757	0.000	↓
2_112	BG-1 & BG-2	App. III	Fluoride	mg/L	67	0	0%	Parametric	Lognormal MLE	0.000253	0.000	↑
2_118	BG-1 & BG-2	App. III	pH (Field)	S.U.	65	0	0%	Parametric	Lognormal MLE	0.0000103	0.021	↔
2_123	BG-1 & BG-2	App. III	Sulfate	mg/L	67	0	0%	Nonparametric	MK	0.00425	0.000	↑
2_125	BG-1 & BG-2	App. III	Total Dissolved Solids	mg/L	66	0	0%	Nonparametric	MK	0.0139	0.591	↔
3_103	BG-1 & BG-2	App. IV	Barium	ug/L	67	0	0%	Nonparametric	MK	-0.0424	0.000	↓
3_112	BG-1 & BG-2	App. IV	Fluoride	mg/L	67	0	0%	Parametric	Lognormal MLE	0.000253	0.000	↑
3_119	BG-1 & BG-2	App. IV	Radium-226	pCi/L	64	0	0%	Nonparametric	MK	-0.0000994	0.011	↔
3_120	BG-1 & BG-2	App. IV	Radium-228	pCi/L	64	0	0%	Nonparametric	MK	-0.0000458	0.444	↔
3_126	BG-1 & BG-2	App. IV	Total Radium	pCi/L	64	0	0%	Nonparametric	MK	-0.000110	0.069	↔

Table 10: Trend Tests: Piecewise Linear-Linear

								Line 1			Line 2					
ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	Slope	p-Value	Trend	Slope	p-Value	Trend	Break 1	R-Squared	Overall Trend
1_111	BG-1 & BG-2	App. I Metals	Copper	ug/L	67	54	81%	0.00108	0.002	↑	-0.00315	0.000	↓	2021-11-16	0.371	↔
1_117	BG-1 & BG-2	App. I Metals	Nickel	ug/L	67	51	76%	0.000550	0.093	↔	-0.00252	0.092	↔	2022-10-17	0.111	↔
1_122	BG-1 & BG-2	App. I Metals	Silver	ug/L	67	66	99%	0	1.000	↔	-0.00152	0.000	↓	2021-03-03	0.756	↔
1_127	BG-1 & BG-2	App. I Metals	Vanadium	ug/L	67	37	55%	0.000767	0.179	↔	-0.000542	0.486	↔	2021-01-26	0.039	↔
1_128	BG-1 & BG-2	App. I Metals	Zinc	ug/L	67	50	75%	0.00260	0.004	↑	-0.0109	0.112	↔	2023-07-24	0.155	↔
2_105	BG-1 & BG-2	App. III	Boron	ug/L	66	29	44%	0.00628	0.005	↑	-0.000764	0.825	↔	2021-04-12	0.195	↔
2_107	BG-1 & BG-2	App. III	Calcium	ug/L	67	0	0%	28.4	0.049	↔	-2.18	0.859	↔	2020-06-26	0.120	↔
2_108	BG-1 & BG-2	App. III	Chloride	mg/L	67	0	0%	-0.0444	0.001	↓	0.00332	0.720	↔	2020-04-13	0.311	↔
2_112	BG-1 & BG-2	App. III	Fluoride	mg/L	67	0	0%	0.0000393	0.000	↑	0.0000719	0.002	↑	2022-01-14	0.589	↑
2_118	BG-1 & BG-2	App. III	pH (Field)	S.U.	65	0	0%	0.00000126	0.986	↔	0.000138	0.112	↔	2020-10-14	0.099	↔
2_123	BG-1 & BG-2	App. III	Sulfate	mg/L	67	0	0%	0.0377	0.046	↔	0.0168	0.442	↔	2021-01-25	0.192	↔
2_125	BG-1 & BG-2	App. III	Total Dissolved Solids	mg/L	66	0	0%	0.122	0.122	↔	0.0456	0.666	↔	2021-02-27	0.105	↔
3_101	BG-1 & BG-2	App. IV	Antimony	ug/L	67	66	99%	-0.000491	0.112	↔	0.000441	0.155	↔	2020-07-08	0.069	↔
3_102	BG-1 & BG-2	App. IV	Arsenic	ug/L	67	62	93%	0.00140	0.066	↔	-0.00482	0.090	↔	2022-07-11	0.111	↔
3_103	BG-1 & BG-2	App. IV	Barium	ug/L	67	0	0%	-0.107	0.001	↓	-0.00482	0.893	↔	2020-12-09	0.309	↔
3_104	BG-1 & BG-2	App. IV	Beryllium	ug/L	67	67	100%	0.0000411	0.409	↔	-0.000294	0.002	↓	2021-08-12	0.264	↔
3_106	BG-1 & BG-2	App. IV	Cadmium	ug/L	67	65	97%	-0.0000807	0.000	↓	0.00208	0.016	↔	2024-12-26	0.648	↔
3_109	BG-1 & BG-2	App. IV	Chromium	ug/L	67	57	85%	0.00102	0.088	↔	-0.00453	0.097	↔	2022-10-17	0.109	↔
3_110	BG-1 & BG-2	App. IV	Cobalt	ug/L	67	56	84%	0.000282	0.244	↔	-0.00183	0.000	↓	2021-11-08	0.326	↔
3_112	BG-1 & BG-2	App. IV	Fluoride	mg/L	67	0	0%	0.0000393	0.000	↑	0.0000719	0.002	↑	2022-01-14	0.589	↑
3_113	BG-1 & BG-2	App. IV	Lead	ug/L	67	63	94%	0.000202	0.597	↔	0.00434	0.654	↔	2024-04-01	0.035	↔
3_114	BG-1 & BG-2	App. IV	Lithium	ug/L	67	3	4%	-0.00598	0.032	↔	0.00612	0.003	↑	2020-01-15	0.194	↔
3_115	BG-1 & BG-2	App. IV	Mercury	ug/L	67	59	88%	0.0000164	0.000	↑	-0.0000135	0.085	↔	2021-11-16	0.294	↔
3_116	BG-1 & BG-2	App. IV	Molybdenum	ug/L	67	52	78%	0.00191	0.142	↔	-0.00104	0.133	↔	2019-10-13	0.071	↔

(Table continues on next page)

Table 10: Trend Tests: Piecewise Linear-Linear *(continued)*

								Line 1			Line 2					
ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	Slope	p-Value	Trend	Slope	p-Value	Trend	Break 1	R-Squared	Overall Trend
3_119	BG-1 & BG-2	App. IV	Radium-226	pCi/L	64	0	0%	-0.000150	0.001	↓	0.00274	0.537	↔	2024-10-29	0.191	↔
3_120	BG-1 & BG-2	App. IV	Radium-228	pCi/L	64	0	0%	-0.00345	0.405	↔	0.00000348	0.950	↔	2016-02-23	0.035	↔
3_121	BG-1 & BG-2	App. IV	Selenium	ug/L	67	64	96%	-0.000596	0.000	↓	0.00139	0.113	↔	2023-04-26	0.256	↔
3_124	BG-1 & BG-2	App. IV	Thallium	ug/L	67	64	96%	-0.0132	0.000	↓	-0.00000363	0.984	↔	2017-05-13	0.748	↔
3_126	BG-1 & BG-2	App. IV	Total Radium	pCi/L	64	0	0%	-0.00414	0.407	↔	-0.0000675	0.309	↔	2016-02-23	0.076	↔

Table 11: Trend Tests: Piecewise Linear-Linear-Linear

								Line 1			Line 2			Line 3						
ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	Slope	p-Value	Trend	Slope	p-Value	Trend	Slope	p-Value	Trend	Break 1	Break 2	R-Squared	Overall Trend
1_111	BG-1 & BG-2	App. I Metals	Copper	ug/L	67	54	81%	0	1.000	↔	0.00197	0.043	↔	-0.00344	0.000	↓	2018-10-10	2021-10-23	0.395	↔
1_117	BG-1 & BG-2	App. I Metals	Nickel	ug/L	67	51	76%	-0.000869	0.166	↔	0.0138	0.130	↔	-0.00178	0.003	↓	2020-04-13	2020-11-05	0.207	↔
1_122	BG-1 & BG-2	App. I Metals	Silver	ug/L	67	66	99%	0	1.000	↔	0	1.000	↔	-0.00152	0.000	↓	2016-03-10	2021-03-03	0.756	↔
1_127	BG-1 & BG-2	App. I Metals	Vanadium	ug/L	67	37	55%	-0.000651	0.521	↔	0.00570	0.400	↔	-0.000812	0.178	↔	2019-04-23	2020-05-01	0.089	↔
1_128	BG-1 & BG-2	App. I Metals	Zinc	ug/L	67	50	75%	-0.0132	0.632	↔	0.00316	0.007	↑	-0.0118	0.089	↔	2016-06-26	2023-07-24	0.170	↔
2_105	BG-1 & BG-2	App. III	Boron	ug/L	66	29	44%	-0.00452	0.228	↔	0.0245	0.007	↑	-0.00538	0.088	↔	2019-05-10	2021-04-12	0.366	↔
2_112	BG-1 & BG-2	App. III	Fluoride	mg/L	67	0	0%	0.0000383	0.000	↑	0.0000808	0.005	↑	-0.0000893	0.886	↔	2022-01-23	2024-10-31	0.593	↔
2_118	BG-1 & BG-2	App. III	pH (Field)	S.U.	65	0	0%	0.00193	0.266	↔	-0.0000783	0.471	↔	0.000159	0.047	↔	2016-04-19	2020-10-13	0.144	↔
2_123	BG-1 & BG-2	App. III	Sulfate	mg/L	67	0	0%	0.000111	0.998	↔	0.140	0.593	↔	0.0162	0.284	↔	2018-08-25	2019-08-26	0.205	↔
2_125	BG-1 & BG-2	App. III	Total Dissolved Solids	mg/L	66	0	0%	-0.0102	0.958	↔	0.691	0.669	↔	0.0408	0.542	↔	2018-12-17	2019-09-06	0.117	↔
3_101	BG-1 & BG-2	App. IV	Antimony	ug/L	67	66	99%	0.000104	0.850	↔	-0.0105	0.338	↔	0.000485	0.037	↔	2019-04-12	2019-07-14	0.109	↔
3_102	BG-1 & BG-2	App. IV	Arsenic	ug/L	67	62	93%	0.00330	0.651	↔	0.00105	0.399	↔	-0.00455	0.115	↔	2017-06-07	2022-07-11	0.114	↔
3_103	BG-1 & BG-2	App. IV	Barium	ug/L	67	0	0%	-0.0355	0.779	↔	-0.177	0.096	↔	-0.00681	0.825	↔	2018-01-21	2020-04-17	0.318	↔
3_106	BG-1 & BG-2	App. IV	Cadmium	ug/L	67	65	97%	0	1.000	↔	-0.0000984	0.000	↓	0.00229	0.007	↑	2018-03-16	2024-12-26	0.677	↔
3_109	BG-1 & BG-2	App. IV	Chromium	ug/L	67	57	85%	0.00110	0.071	↔	-0.00568	0.236	↔	0.00114	0.956	↔	2022-10-17	2024-07-23	0.114	↔
3_112	BG-1 & BG-2	App. IV	Fluoride	mg/L	67	0	0%	0.0000383	0.000	↑	0.0000808	0.005	↑	-0.0000893	0.886	↔	2022-01-23	2024-10-31	0.593	↔
3_113	BG-1 & BG-2	App. IV	Lead	ug/L	67	63	94%	0.00106	0.052	↔	-0.0151	0.247	↔	0.00509	0.052	↔	2022-07-10	2023-02-23	0.133	↔
3_114	BG-1 & BG-2	App. IV	Lithium	ug/L	67	3	4%	-0.00493	0.025	↔	0.0122	0.006	↑	-0.0131	0.376	↔	2021-01-19	2024-01-23	0.242	↔
3_116	BG-1 & BG-2	App. IV	Molybdenum	ug/L	67	52	78%	-0.00196	0.438	↔	0.00949	0.418	↔	-0.00142	0.029	↔	2018-05-11	2019-07-10	0.131	↔
3_119	BG-1 & BG-2	App. IV	Radium-226	pCi/L	64	0	0%	-0.000108	0.036	↔	-0.00155	0.362	↔	0.00235	0.038	↔	2023-09-01	2024-06-07	0.235	↔
3_120	BG-1 & BG-2	App. IV	Radium-228	pCi/L	64	0	0%	0.0000729	0.292	↔	-0.00180	0.440	↔	0.000931	0.194	↔	2023-02-23	2023-12-16	0.106	↔
3_121	BG-1 & BG-2	App. IV	Selenium	ug/L	67	64	96%	-0.000162	0.286	↔	-0.00475	0.012	↔	0.00338	0.000	↑	2022-03-28	2023-04-24	0.476	↔
3_124	BG-1 & BG-2	App. IV	Thallium	ug/L	67	64	96%	-0.0132	0.000	↓	0.0000734	0.957	↔	-0.0000146	0.958	↔	2017-05-16	2019-07-11	0.748	↔
3_126	BG-1 & BG-2	App. IV	Total Radium	pCi/L	64	0	0%	-0.0000267	0.748	↔	-0.00179	0.352	↔	0.00158	0.100	↔	2023-02-16	2024-01-23	0.141	↔

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Table 1: Summary Statistics, Non-Detects Included

ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	Date Range	Distributions Fit[a]	Recommended Distribution	Mean	Median	Minimum	Maximum	SD	CV	Skewness	Kurtosis
01_01_111	MW-1	App. I Metals	Copper	ug/L	40	32	80%	2015-11-20 to 2025-04-01	Gamma; Lognormal	Nonparametric	3.14	2.50	0.620	15.0	2.40	0.764	3.40	15.2
01_01_117	MW-1	App. I Metals	Nickel	ug/L	40	28	70%	2015-11-20 to 2025-04-01	Gamma; Lognormal; Normal	Nonparametric	3.16	2.50	0.880	13.3	2.35	0.744	2.45	8.25
01_01_122	MW-1	App. I Metals	Silver	ug/L	40	33	82%	2015-11-20 to 2025-04-01	Gamma; Normal	Nonparametric	2.03	2.50	0.200	2.50	0.786	0.387	-1.20	-0.358
01_01_127	MW-1	App. I Metals	Vanadium	ug/L	40	24	60%	2015-11-20 to 2025-04-01	Gamma; Lognormal; Normal	Nonparametric	3.40	2.75	1.30	9.80	1.71	0.502	1.81	4.60
01_01_128	MW-1	App. I Metals	Zinc	ug/L	40	25	62%	2015-11-20 to 2025-04-01	Gamma; Lognormal; Normal	Nonparametric	10.2	9.50	2.70	35.3	7.26	0.709	1.88	3.80
01_02_105	MW-1	App. III	Boron	ug/L	39	22	56%	2015-11-20 to 2025-04-01	Nonparametric	Nonparametric	8.94	8.50	0.570	44.6	9.06	1.01	2.96	10.1
01_02_107	MW-1	App. III	Calcium	ug/L	40	0	0%	2015-11-20 to 2025-04-01	Gamma; Lognormal; Normal	Normal	165763	163000	43100	311000	74370	0.449	0.110	-0.835
01_02_108	MW-1	App. III	Chloride	mg/L	40	0	0%	2015-11-20 to 2025-04-01	Gamma; Normal	Normal	606	636	83.9	1240	274	0.452	-0.0828	-0.521
01_02_112	MW-1	App. III	Fluoride	mg/L	40	1	2%	2015-11-20 to 2025-04-01	Nonparametric	Nonparametric	0.149	0.160	0.0200	0.210	0.0315	0.212	-1.63	6.05
01_02_118	MW-1	App. III	pH (Field)	S.U.	38	0	0%	2015-11-20 to 2025-04-01	Gamma; Lognormal; Normal	Normal	6.75	6.70	6.41	7.30	0.222	0.0329	0.708	-0.0920
01_02_123	MW-1	App. III	Sulfate	mg/L	40	0	0%	2015-11-20 to 2025-04-01	Nonparametric	Nonparametric	6.99	6.60	4.50	11.2	1.60	0.229	1.17	0.993
01_02_125	MW-1	App. III	Total Dissolved Solids	mg/L	40	0	0%	2015-11-20 to 2025-04-01	Gamma; Lognormal; Normal	Normal	1439	1310	346	3390	713	0.495	0.614	0.00752
01_03_101	MW-1	App. IV	Antimony	ug/L	40	38	95%	2015-11-20 to 2025-04-01		Nonparametric	3.68	3.80	0.200	6.10	0.991	0.269	-0.203	3.90
01_03_102	MW-1	App. IV	Arsenic	ug/L	40	36	90%	2015-11-20 to 2025-04-01		Nonparametric	3.99	4.70	1.70	5.20	1.10	0.275	-0.608	-1.32
01_03_103	MW-1	App. IV	Barium	ug/L	40	0	0%	2015-11-20 to 2025-04-01	Gamma; Normal	Normal	213	216	36.3	421	98.6	0.463	0.234	-0.597
01_03_104	MW-1	App. IV	Beryllium	ug/L	40	40	100%	2015-11-20 to 2025-04-01		Nonparametric	0.427	0.500	0.0500	0.700	0.210	0.493	-0.211	-1.35
01_03_106	MW-1	App. IV	Cadmium	ug/L	40	37	92%	2015-11-20 to 2025-04-01		Nonparametric	0.428	0.440	0.0600	0.670	0.109	0.254	-0.859	2.14
01_03_109	MW-1	App. IV	Chromium	ug/L	40	27	68%	2015-11-20 to 2025-04-01	Gamma; Lognormal; Normal	Nonparametric	3.72	2.50	0.630	18.4	3.38	0.911	2.59	8.52
01_03_110	MW-1	App. IV	Cobalt	ug/L	40	36	90%	2015-11-20 to 2025-04-01		Nonparametric	2.13	2.50	0.140	3.60	1.11	0.524	-0.201	-1.21
01_03_112	MW-1	App. IV	Fluoride	mg/L	40	1	2%	2015-11-20 to 2025-04-01	Nonparametric	Nonparametric	0.149	0.160	0.0200	0.210	0.0315	0.212	-1.63	6.05
01_03_113	MW-1	App. IV	Lead	ug/L	40	36	90%	2015-11-20 to 2025-04-01		Nonparametric	3.09	2.50	0.250	13.7	2.15	0.697	3.27	14.8
01_03_114	MW-1	App. IV	Lithium	ug/L	40	0	0%	2015-11-20 to 2025-04-01	Gamma; Lognormal; Normal	Normal	32.9	33.0	19.2	47.5	5.85	0.178	-0.0100	0.407
01_03_115	MW-1	App. IV	Mercury	ug/L	40	40	100%	2015-11-20 to 2025-04-01		Nonparametric	0.109	0.100	0.0900	0.120	0.0106	0.0972	0.107	-1.88
01_03_116	MW-1	App. IV	Molybdenum	ug/L	40	35	88%	2015-11-20 to 2025-04-01	Gamma; Lognormal; Normal	Nonparametric	3.40	2.50	0.340	15.1	2.96	0.870	3.19	10.5
01_03_119	MW-1	App. IV	Radium-226	pCi/L	38	0	0%	2015-11-20 to 2025-04-01	Normal	Nonparametric	0.227	0.227	-0.407	1.03	0.328	1.44	0.294	0.543
01_03_120	MW-1	App. IV	Radium-228	pCi/L	38	0	0%	2015-11-20 to 2025-04-01	Normal	Nonparametric	0.600	0.597	-0.0467	1.45	0.281	0.469	0.466	1.73
01_03_121	MW-1	App. IV	Selenium	ug/L	40	38	95%	2015-11-20 to 2025-04-01		Nonparametric	4.59	4.70	0.280	5.50	0.799	0.174	-4.20	22.1
01_03_124	MW-1	App. IV	Thallium	ug/L	40	40	100%	2015-11-20 to 2025-04-01		Nonparametric	0.804	0.0500	0.0200	5.00	1.79	2.22	2.03	2.23
01_03_126	MW-1	App. IV	Total Radium	pCi/L	38	0	0%	2015-11-20 to 2025-04-01	Gamma; Lognormal; Normal	Nonparametric	0.875	0.824	0.237	2.48	0.432	0.493	1.41	3.83
02_01_111	MW-2	App. I Metals	Copper	ug/L	35	15	43%	2015-11-19 to 2025-04-02	Lognormal	Nonparametric	19.7	3.60	0.620	294	53.7	2.73	4.48	21.5
02_01_117	MW-2	App. I Metals	Nickel	ug/L	35	12	34%	2015-11-19 to 2025-04-02	Gamma; Lognormal	Gamma	13.5	4.70	0.900	115	22.6	1.67	3.30	12.2
02_01_122	MW-2	App. I Metals	Silver	ug/L	35	32	91%	2015-11-19 to 2025-04-02		Nonparametric	1.94	2.50	0.0730	2.50	0.862	0.445	-0.979	-0.877
02_01_127	MW-2	App. I Metals	Vanadium	ug/L	35	23	66%	2015-11-19 to 2025-04-02	Gamma; Lognormal	Nonparametric	4.45	2.50	1.30	37.2	6.53	1.47	4.36	20.2
02_01_128	MW-2	App. I Metals	Zinc	ug/L	35	16	46%	2015-11-19 to 2025-04-02	Lognormal	Nonparametric	71.1	11.0	3.60	1590	268	3.77	5.68	33
02_02_105	MW-2	App. III	Boron	ug/L	34	1	3%	2015-11-19 to 2025-04-02	Gamma; Lognormal; Normal	Normal	43.7	43.7	8.50	63.9	8.58	0.196	-1.68	8.45
02_02_107	MW-2	App. III	Calcium	ug/L	35	0	0%	2015-11-19 to 2025-04-02	Nonparametric	Nonparametric	183980	188000	34300	221000	32785	0.178	-2.98	12.5
02_02_108	MW-2	App. III	Chloride	mg/L	35	0	0%	2015-11-19 to 2025-04-02	Nonparametric	Nonparametric	1081	1130	489	1360	187	0.173	-1.55	3.03
02_02_112	MW-2	App. III	Fluoride	mg/L	35	2	6%	2015-11-19 to 2025-04-02	Nonparametric	Nonparametric	0.209	0.210	0.0200	0.400	0.0664	0.318	-0.352	3.04
02_02_118	MW-2	App. III	pH (Field)	S.U.	31	0	0%	2015-11-19 to 2025-04-01	Nonparametric	Nonparametric	7.68	7.58	7.35	9.29	0.383	0.0499	2.93	10.4
02_02_123	MW-2	App. III	Sulfate	mg/L	35	0	0%	2015-11-19 to 2025-04-02	Nonparametric	Nonparametric	124	88.6	51.7	338	77.4	0.624	1.28	0.580
02_02_125	MW-2	App. III	Total Dissolved Solids	mg/L	35	0	0%	2015-11-19 to 2025-04-02	Nonparametric	Nonparametric	2652	2480	257	11700	1696	0.639	4.56	25.4
02_03_101	MW-2	App. IV	Antimony	ug/L	35	21	60%	2015-11-19 to 2025-04-02	Gamma; Lognormal; Normal	Nonparametric	5.91	3.90	0.610	30.0	4.93	0.834	3.67	16.9

(Table continues on next page)

[a] Non-detects are excluded from goodness-of-fit tests.

Table 1: Summary Statistics, Non-Detects Included *(continued)*

ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	Date Range	Distributions Fit[a]	Recommended Distribution	Mean	Median	Minimum	Maximum	SD	CV	Skewness	Kurtosis
02_03_102	MW-2	App. IV	Arsenic	ug/L	35	24	69%	2015-11-19 to 2025-04-02	Gamma; Lognormal; Normal	Nonparametric	4.62	4.70	2.50	11.5	1.98	0.427	1.80	4.73
02_03_103	MW-2	App. IV	Barium	ug/L	35	0	0%	2015-11-19 to 2025-04-02	Nonparametric	Nonparametric	305	312	90.8	565	87.7	0.288	0.558	2.16
02_03_104	MW-2	App. IV	Beryllium	ug/L	35	32	91%	2015-11-19 to 2025-04-02		Nonparametric	0.463	0.500	0.160	1.10	0.225	0.486	0.271	0.335
02_03_106	MW-2	App. IV	Cadmium	ug/L	35	32	91%	2015-11-19 to 2025-04-02		Nonparametric	0.426	0.480	0.0780	0.680	0.107	0.252	-0.831	2.31
02_03_109	MW-2	App. IV	Chromium	ug/L	35	6	17%	2015-11-19 to 2025-04-02	Lognormal	Nonparametric	17.3	5.90	1.00	130	26.9	1.55	2.87	9.16
02_03_110	MW-2	App. IV	Cobalt	ug/L	35	27	77%	2015-11-19 to 2025-04-02	Gamma; Lognormal	Nonparametric	3.54	2.50	0.440	34.8	5.73	1.62	5.11	27.9
02_03_112	MW-2	App. IV	Fluoride	mg/L	35	2	6%	2015-11-19 to 2025-04-02	Nonparametric	Nonparametric	0.209	0.210	0.0200	0.400	0.0664	0.318	-0.352	3.04
02_03_113	MW-2	App. IV	Lead	ug/L	35	30	86%	2015-11-19 to 2025-04-02	Gamma; Lognormal; Normal	Nonparametric	4.29	2.50	1.40	27.5	5.22	1.21	3.42	12.4
02_03_114	MW-2	App. IV	Lithium	ug/L	35	0	0%	2015-11-19 to 2025-04-02	Nonparametric	Nonparametric	153	130	41.2	512	88.3	0.578	2.67	8.37
02_03_115	MW-2	App. IV	Mercury	ug/L	35	35	100%	2015-11-19 to 2025-04-02		Nonparametric	0.109	0.100	0.0900	0.120	0.0107	0.0981	-0.0504	-1.89
02_03_116	MW-2	App. IV	Molybdenum	ug/L	35	6	17%	2015-11-19 to 2025-04-02	Gamma; Lognormal	Gamma	9.39	7.10	2.60	41.0	7.22	0.768	2.76	10.2
02_03_119	MW-2	App. IV	Radium-226	pCi/L	34	0	0%	2015-11-19 to 2025-04-02	Gamma; Lognormal; Normal	Nonparametric	0.936	0.938	0.227	2.11	0.406	0.434	0.849	1.61
02_03_120	MW-2	App. IV	Radium-228	pCi/L	34	0	0%	2015-11-19 to 2025-04-02	Gamma; Lognormal; Normal	Nonparametric	1.39	1.36	0.433	2.23	0.470	0.339	0.0427	-0.852
02_03_121	MW-2	App. IV	Selenium	ug/L	35	33	94%	2015-11-19 to 2025-04-02		Nonparametric	4.59	4.70	0.940	5.50	0.761	0.166	-3.43	15.5
02_03_124	MW-2	App. IV	Thallium	ug/L	35	23	66%	2015-11-19 to 2025-04-02	Nonparametric	Nonparametric	1.09	0.0600	0.0200	10.3	2.37	2.18	2.48	6.13
02_03_126	MW-2	App. IV	Total Radium	pCi/L	34	0	0%	2015-11-19 to 2025-04-02	Normal	Nonparametric	2.32	2.38	1.10	4.07	0.736	0.317	-0.00609	-0.451
03_01_111	MW-3	App. I Metals	Copper	ug/L	38	21	55%	2015-11-19 to 2025-04-01	Lognormal	Nonparametric	9.59	2.85	0.620	137	23.4	2.44	4.82	25.2
03_01_117	MW-3	App. I Metals	Nickel	ug/L	38	19	50%	2015-11-19 to 2025-04-01	Lognormal	Nonparametric	7.10	2.50	0.900	86.0	15.5	2.18	4.38	20.2
03_01_122	MW-3	App. I Metals	Silver	ug/L	38	36	95%	2015-11-19 to 2025-04-01		Nonparametric	1.99	2.50	0.0700	2.50	0.832	0.417	-1.17	-0.415
03_01_127	MW-3	App. I Metals	Vanadium	ug/L	38	23	61%	2015-11-19 to 2025-04-01	Gamma; Lognormal	Nonparametric	3.37	2.50	1.30	13.9	2.25	0.668	3.27	13
03_01_128	MW-3	App. I Metals	Zinc	ug/L	38	28	74%	2015-11-19 to 2025-04-01	Gamma; Lognormal; Normal	Nonparametric	8.87	5.00	3.00	42.7	7.26	0.819	3.18	12.7
03_02_105	MW-3	App. III	Boron	ug/L	37	10	27%	2015-11-19 to 2025-04-01	Normal	Normal	28	35.4	0.570	49.6	17.2	0.614	-0.521	-1.24
03_02_107	MW-3	App. III	Calcium	ug/L	38	0	0%	2015-11-19 to 2025-04-01	Nonparametric	Nonparametric	177053	178500	117000	326000	31248	0.176	2.74	13.9
03_02_108	MW-3	App. III	Chloride	mg/L	38	0	0%	2015-11-19 to 2025-04-01	Normal	Normal	1060	1075	565	1280	134	0.127	-1.33	4.10
03_02_112	MW-3	App. III	Fluoride	mg/L	38	1	3%	2015-11-19 to 2025-04-01	Gamma; Lognormal; Normal	Normal	0.349	0.330	0.0200	0.610	0.121	0.345	0.112	0.698
03_02_118	MW-3	App. III	pH (Field)	S.U.	34	0	0%	2015-11-19 to 2025-04-01	Nonparametric	Nonparametric	7.34	7.38	6.18	7.77	0.257	0.0349	-2.76	12.5
03_02_123	MW-3	App. III	Sulfate	mg/L	38	0	0%	2015-11-19 to 2025-04-01	Nonparametric	Nonparametric	46.3	20.8	9.10	174	46.1	0.996	1.40	1.04
03_02_125	MW-3	App. III	Total Dissolved Solids	mg/L	38	0	0%	2015-11-19 to 2025-04-01	Nonparametric	Nonparametric	2236	2370	256	3180	590	0.264	-2.06	5.34
03_03_101	MW-3	App. IV	Antimony	ug/L	38	27	71%	2015-11-19 to 2025-04-01	Gamma; Lognormal; Normal	Nonparametric	5.14	3.90	1.30	15.0	3.02	0.587	1.67	2.25
03_03_102	MW-3	App. IV	Arsenic	ug/L	38	30	79%	2015-11-19 to 2025-04-01	Gamma; Lognormal; Normal	Nonparametric	4.31	4.70	1.90	9.60	1.61	0.374	0.919	1.90
03_03_103	MW-3	App. IV	Barium	ug/L	38	0	0%	2015-11-19 to 2025-04-01	Gamma; Lognormal; Normal	Normal	658	668	353	855	108	0.164	-0.614	0.300
03_03_104	MW-3	App. IV	Beryllium	ug/L	38	38	100%	2015-11-19 to 2025-04-01		Nonparametric	0.439	0.500	0.0500	0.700	0.209	0.477	-0.336	-1.22
03_03_106	MW-3	App. IV	Cadmium	ug/L	38	37	97%	2015-11-19 to 2025-04-01		Nonparametric	0.414	0.400	0.0600	0.500	0.0980	0.237	-1.38	2.93
03_03_109	MW-3	App. IV	Chromium	ug/L	38	19	50%	2015-11-19 to 2025-04-01	Lognormal	Nonparametric	11.0	3.65	0.630	179	30.9	2.80	4.90	25.3
03_03_110	MW-3	App. IV	Cobalt	ug/L	38	32	84%	2015-11-19 to 2025-04-01	Gamma; Lognormal	Nonparametric	2.30	2.50	0.0610	6.20	1.28	0.557	0.412	0.838
03_03_112	MW-3	App. IV	Fluoride	mg/L	38	1	3%	2015-11-19 to 2025-04-01	Gamma; Lognormal; Normal	Normal	0.349	0.330	0.0200	0.610	0.121	0.345	0.112	0.698
03_03_113	MW-3	App. IV	Lead	ug/L	38	34	89%	2015-11-19 to 2025-04-01		Nonparametric	3.27	2.50	0.190	13.7	2.26	0.690	2.88	11.8
03_03_114	MW-3	App. IV	Lithium	ug/L	38	1	3%	2015-11-19 to 2025-04-01	Nonparametric	Nonparametric	90.2	86.0	0.390	236	38.6	0.429	2.13	7.99
03_03_115	MW-3	App. IV	Mercury	ug/L	38	38	100%	2015-11-19 to 2025-04-01		Nonparametric	0.109	0.100	0.0900	0.120	0.0106	0.0976	0.00568	-1.90
03_03_116	MW-3	App. IV	Molybdenum	ug/L	38	1	3%	2015-11-19 to 2025-04-01	Nonparametric	Nonparametric	8.79	7.90	2.60	35.7	4.94	0.563	4.54	24.8
03_03_119	MW-3	App. IV	Radium-226	pCi/L	37	0	0%	2015-11-19 to 2025-04-01	Gamma; Lognormal; Normal	Nonparametric	0.916	0.816	0.213	1.92	0.371	0.405	0.409	0.0337
03_03_120	MW-3	App. IV	Radium-228	pCi/L	37	0	0%	2015-11-19 to 2025-04-01	Gamma; Normal	Nonparametric	1.48	1.54	0.326	2.86	0.558	0.377	-0.146	0.174

(Table continues on next page)

[a] Non-detects are excluded from goodness-of-fit tests.

Table 1: Summary Statistics, Non-Detects Included *(continued)*

ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	Date Range	Distributions Fit[a]	Recommended Distribution	Mean	Median	Minimum	Maximum	SD	CV	Skewness	Kurtosis
03_03_121	MW-3	App. IV	Selenium	ug/L	38	37	97%	2015-11-19 to 2025-04-01		Nonparametric	4.57	4.70	0.270	5.50	0.829	0.181	-3.96	19.9
03_03_124	MW-3	App. IV	Thallium	ug/L	38	38	100%	2015-11-19 to 2025-04-01		Nonparametric	0.852	0.0500	0.0200	5.00	1.82	2.14	1.94	1.89
03_03_126	MW-3	App. IV	Total Radium	pCi/L	37	0	0%	2015-11-19 to 2025-04-01	Gamma; Normal	Nonparametric	2.40	2.35	0.857	3.92	0.721	0.301	-0.0168	-0.171
04_01_111	MW-4	App. I Metals	Copper	ug/L	39	33	85%	2015-11-19 to 2025-04-01	Gamma; Lognormal	Nonparametric	8.59	2.50	0.620	170	28.5	3.32	5.26	28.9
04_01_117	MW-4	App. I Metals	Nickel	ug/L	39	11	28%	2015-11-19 to 2025-04-01	Gamma; Lognormal; Normal	Normal	6.37	5.60	0.900	12.8	3.50	0.550	0.373	-1.03
04_01_122	MW-4	App. I Metals	Silver	ug/L	39	39	100%	2015-11-19 to 2025-04-01		Nonparametric	1.98	2.50	0.0700	2.50	0.853	0.430	-1.13	-0.569
04_01_127	MW-4	App. I Metals	Vanadium	ug/L	39	35	90%	2015-11-19 to 2025-04-01		Nonparametric	2.63	2.50	0.250	10.7	1.66	0.631	3.07	14.4
04_01_128	MW-4	App. I Metals	Zinc	ug/L	39	24	62%	2015-11-19 to 2025-04-01	Gamma; Lognormal	Nonparametric	10.1	8.80	3.90	47.2	8.04	0.799	3.09	12.0
04_02_105	MW-4	App. III	Boron	ug/L	38	23	61%	2015-11-19 to 2025-04-01	Nonparametric	Nonparametric	11.5	7.20	0.570	165	26.4	2.30	5.61	32.9
04_02_107	MW-4	App. III	Calcium	ug/L	39	0	0%	2015-11-19 to 2025-04-01	Nonparametric	Nonparametric	55138	58300	17900	71600	12635	0.229	-1.44	2.06
04_02_108	MW-4	App. III	Chloride	mg/L	39	0	0%	2015-11-19 to 2025-04-01	Nonparametric	Nonparametric	403	423	144	567	104	0.259	-0.773	-0.0450
04_02_112	MW-4	App. III	Fluoride	mg/L	39	0	0%	2015-11-19 to 2025-04-01	Gamma; Lognormal; Normal	Normal	0.333	0.340	0.210	0.500	0.0599	0.180	0.488	0.447
04_02_118	MW-4	App. III	pH (Field)	S.U.	37	0	0%	2015-11-19 to 2025-04-01	Gamma; Lognormal; Normal	Normal	6.26	6.25	5.91	6.56	0.136	0.0217	0.0467	0.276
04_02_123	MW-4	App. III	Sulfate	mg/L	39	0	0%	2015-11-19 to 2025-04-01	Nonparametric	Nonparametric	10.1	10.7	3.40	13.4	2.32	0.228	-1.41	2.06
04_02_125	MW-4	App. III	Total Dissolved Solids	mg/L	39	0	0%	2015-11-19 to 2025-04-01	Nonparametric	Nonparametric	1076	1120	395	1580	223	0.207	-1.40	3.32
04_03_101	MW-4	App. IV	Antimony	ug/L	39	34	87%	2015-11-19 to 2025-04-01	Gamma; Lognormal; Normal	Nonparametric	3.77	3.80	0.200	7.00	1.07	0.284	0.147	4.15
04_03_102	MW-4	App. IV	Arsenic	ug/L	39	37	95%	2015-11-19 to 2025-04-01		Nonparametric	3.90	4.70	0.360	5.10	1.21	0.309	-0.878	-0.0371
04_03_103	MW-4	App. IV	Barium	ug/L	39	0	0%	2015-11-19 to 2025-04-01	Nonparametric	Nonparametric	289	302	85.9	431	69	0.239	-1.35	2.62
04_03_104	MW-4	App. IV	Beryllium	ug/L	39	39	100%	2015-11-19 to 2025-04-01		Nonparametric	0.425	0.500	0.0500	0.700	0.213	0.501	-0.183	-1.39
04_03_106	MW-4	App. IV	Cadmium	ug/L	39	38	97%	2015-11-19 to 2025-04-01		Nonparametric	0.412	0.400	0.0600	0.500	0.0961	0.233	-1.39	3.11
04_03_109	MW-4	App. IV	Chromium	ug/L	39	29	74%	2015-11-19 to 2025-04-01	Gamma; Lognormal; Normal	Nonparametric	2.80	2.50	0.580	9.90	1.93	0.691	1.98	5.41
04_03_110	MW-4	App. IV	Cobalt	ug/L	39	20	51%	2015-11-19 to 2025-04-01	Gamma; Lognormal; Normal	Nonparametric	7.74	3.60	1.10	28.2	7.16	0.926	1.40	1.01
04_03_112	MW-4	App. IV	Fluoride	mg/L	39	0	0%	2015-11-19 to 2025-04-01	Gamma; Lognormal; Normal	Normal	0.333	0.340	0.210	0.500	0.0599	0.180	0.488	0.447
04_03_113	MW-4	App. IV	Lead	ug/L	39	38	97%	2015-11-19 to 2025-04-01		Nonparametric	3.07	2.50	0.0770	13.7	2.19	0.712	3.22	14.4
04_03_114	MW-4	App. IV	Lithium	ug/L	39	0	0%	2015-11-19 to 2025-04-01	Nonparametric	Nonparametric	31.7	28.3	15.8	98.0	12.7	0.399	3.90	20.2
04_03_115	MW-4	App. IV	Mercury	ug/L	39	39	100%	2015-11-19 to 2025-04-01		Nonparametric	0.109	0.100	0.0900	0.120	0.0106	0.0974	0.0576	-1.89
04_03_116	MW-4	App. IV	Molybdenum	ug/L	39	34	87%	2015-11-19 to 2025-04-01	Gamma; Lognormal; Normal	Nonparametric	4.39	2.50	0.480	20.9	4.98	1.13	2.58	5.72
04_03_119	MW-4	App. IV	Radium-226	pCi/L	37	0	0%	2015-11-19 to 2025-04-01	Normal	Nonparametric	0.331	0.291	-0.259	0.913	0.293	0.884	0.142	-0.686
04_03_120	MW-4	App. IV	Radium-228	pCi/L	37	0	0%	2015-11-19 to 2025-04-01	Normal	Nonparametric	0.523	0.465	-0.0252	1.57	0.370	0.707	0.896	0.732
04_03_121	MW-4	App. IV	Selenium	ug/L	39	37	95%	2015-11-19 to 2025-04-01		Nonparametric	4.59	4.70	0.140	5.90	0.860	0.187	-3.75	19.1
04_03_124	MW-4	App. IV	Thallium	ug/L	39	39	100%	2015-11-19 to 2025-04-01		Nonparametric	0.821	0.0500	0.0200	5.00	1.81	2.20	1.99	2.07
04_03_126	MW-4	App. IV	Total Radium	pCi/L	37	0	0%	2015-11-19 to 2025-04-01	Gamma; Lognormal; Normal	Nonparametric	0.870	0.760	0.146	2.26	0.487	0.559	1.04	0.873
05_01_111	MW-5	App. I Metals	Copper	ug/L	40	28	70%	2015-11-18 to 2025-03-31	Gamma; Lognormal; Normal	Nonparametric	3.48	2.50	0.620	12.9	2.41	0.691	2.29	6.09
05_01_117	MW-5	App. I Metals	Nickel	ug/L	40	30	75%	2015-11-18 to 2025-03-31	Lognormal	Nonparametric	5.60	2.50	0.640	120	18.6	3.33	6.25	39.3
05_01_122	MW-5	App. I Metals	Silver	ug/L	40	40	100%	2015-11-18 to 2025-03-31		Nonparametric	1.99	2.50	0.0700	2.50	0.846	0.424	-1.17	-0.472
05_01_127	MW-5	App. I Metals	Vanadium	ug/L	40	37	92%	2015-11-18 to 2025-03-31		Nonparametric	2.41	2.50	0.510	3.90	0.988	0.410	0.176	-0.816
05_01_128	MW-5	App. I Metals	Zinc	ug/L	40	25	62%	2015-11-18 to 2025-03-31	Gamma; Lognormal	Nonparametric	10.3	9.50	3.80	54.9	9.26	0.901	3.56	14.8
05_02_105	MW-5	App. III	Boron	ug/L	39	15	38%	2015-11-18 to 2025-03-31	Nonparametric	Nonparametric	9.17	9.60	0.570	39.3	6.22	0.678	2.76	14.3
05_02_107	MW-5	App. III	Calcium	ug/L	40	0	0%	2015-11-18 to 2025-03-31	Gamma; Lognormal	Gamma	10869	10100	7830	16900	2215	0.204	0.723	-0.145
05_02_108	MW-5	App. III	Chloride	mg/L	40	0	0%	2015-11-18 to 2025-03-31	Gamma; Lognormal; Normal	Normal	20.1	19.6	16.9	23.1	1.60	0.0800	0.104	-0.951
05_02_112	MW-5	App. III	Fluoride	mg/L	40	0	0%	2015-11-18 to 2025-03-31	Gamma; Lognormal; Normal	Normal	0.548	0.555	0.410	0.690	0.0586	0.107	-0.0167	0.602
05_02_118	MW-5	App. III	pH (Field)	S.U.	37	0	0%	2015-11-18 to 2025-04-01	Nonparametric	Nonparametric	6.89	6.96	5.50	8.54	0.468	0.0679	-0.0965	6.32

(Table continues on next page)

[a] Non-detects are excluded from goodness-of-fit tests.

Table 1: Summary Statistics, Non-Detects Included *(continued)*

ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	Date Range	Distributions Fit[a]	Recommended Distribution	Mean	Median	Minimum	Maximum	SD	CV	Skewness	Kurtosis
05_02_123	MW-5	App. III	Sulfate	mg/L	40	0	0%	2015-11-18 to 2025-03-31	Gamma; Lognormal; Normal	Normal	3.61	3.60	2.60	5.60	0.615	0.171	1.21	2.44
05_02_125	MW-5	App. III	Total Dissolved Solids	mg/L	40	0	0%	2015-11-18 to 2025-03-31	Nonparametric	Nonparametric	251	222	190	1160	150	0.598	6.01	37.2
05_03_101	MW-5	App. IV	Antimony	ug/L	40	38	95%	2015-11-18 to 2025-03-31		Nonparametric	3.67	3.80	1.10	5.50	0.820	0.223	0.201	2.78
05_03_102	MW-5	App. IV	Arsenic	ug/L	40	38	95%	2015-11-18 to 2025-03-31		Nonparametric	3.92	4.70	0.170	5.00	1.21	0.310	-0.987	0.364
05_03_103	MW-5	App. IV	Barium	ug/L	40	0	0%	2015-11-18 to 2025-03-31	Gamma; Lognormal; Normal	Normal	103	101	75.0	153	15.3	0.149	0.869	1.57
05_03_104	MW-5	App. IV	Beryllium	ug/L	40	40	100%	2015-11-18 to 2025-03-31		Nonparametric	0.427	0.500	0.0500	0.700	0.210	0.493	-0.211	-1.35
05_03_106	MW-5	App. IV	Cadmium	ug/L	40	40	100%	2015-11-18 to 2025-03-31		Nonparametric	0.413	0.400	0.0600	0.500	0.0955	0.231	-1.38	3.14
05_03_109	MW-5	App. IV	Chromium	ug/L	40	28	70%	2015-11-18 to 2025-03-31	Lognormal	Nonparametric	9.61	2.50	0.500	260	40.7	4.24	6.26	39.5
05_03_110	MW-5	App. IV	Cobalt	ug/L	40	38	95%	2015-11-18 to 2025-03-31		Nonparametric	2.15	2.50	0.100	3.60	1.13	0.525	-0.297	-1.18
05_03_112	MW-5	App. IV	Fluoride	mg/L	40	0	0%	2015-11-18 to 2025-03-31	Gamma; Lognormal; Normal	Normal	0.548	0.555	0.410	0.690	0.0586	0.107	-0.0167	0.602
05_03_113	MW-5	App. IV	Lead	ug/L	40	39	98%	2015-11-18 to 2025-03-31		Nonparametric	3.00	2.50	0.180	13.7	2.09	0.694	3.58	17.7
05_03_114	MW-5	App. IV	Lithium	ug/L	40	1	2%	2015-11-18 to 2025-03-31	Nonparametric	Nonparametric	9.55	9.30	4.20	28.6	3.41	0.357	4.53	26.0
05_03_115	MW-5	App. IV	Mercury	ug/L	40	40	100%	2015-11-18 to 2025-03-31		Nonparametric	0.109	0.100	0.0900	0.120	0.0106	0.0972	0.107	-1.88
05_03_116	MW-5	App. IV	Molybdenum	ug/L	40	37	92%	2015-11-18 to 2025-03-31		Nonparametric	3.22	2.50	0.520	25.3	3.82	1.19	5.23	30.1
05_03_119	MW-5	App. IV	Radium-226	pCi/L	38	0	0%	2015-11-18 to 2025-03-31	Normal	Nonparametric	0.100	0.0749	-0.640	0.778	0.265	2.65	0.155	1.32
05_03_120	MW-5	App. IV	Radium-228	pCi/L	38	0	0%	2015-11-18 to 2025-03-31	Normal	Nonparametric	0.407	0.382	-0.0922	1.08	0.317	0.778	0.482	-0.417
05_03_121	MW-5	App. IV	Selenium	ug/L	40	39	98%	2015-11-18 to 2025-03-31		Nonparametric	4.57	4.70	0.260	5.50	0.809	0.177	-4.08	21.1
05_03_124	MW-5	App. IV	Thallium	ug/L	40	39	98%	2015-11-18 to 2025-03-31		Nonparametric	1.04	0.0500	0.0200	14.8	2.78	2.66	3.63	15.4
05_03_126	MW-5	App. IV	Total Radium	pCi/L	38	0	0%	2015-11-18 to 2025-03-31	Gamma; Normal	Nonparametric	0.566	0.566	0.0262	1.23	0.337	0.595	0.188	-1.01
06_01_111	MW-6	App. I Metals	Copper	ug/L	39	33	85%	2015-11-20 to 2025-04-02	Gamma; Lognormal; Normal	Nonparametric	3.17	2.50	0.620	19.8	3.03	0.954	4.57	25
06_01_117	MW-6	App. I Metals	Nickel	ug/L	39	27	69%	2015-11-20 to 2025-04-02	Gamma; Lognormal	Nonparametric	2.55	2.50	0.900	8.20	1.30	0.511	2.13	8.42
06_01_122	MW-6	App. I Metals	Silver	ug/L	39	39	100%	2015-11-20 to 2025-04-02		Nonparametric	2.02	2.50	0.0700	2.50	0.841	0.416	-1.27	-0.225
06_01_127	MW-6	App. I Metals	Vanadium	ug/L	39	35	90%	2015-11-20 to 2025-04-02		Nonparametric	2.48	2.50	0.810	5.10	1.02	0.410	0.567	-0.215
06_01_128	MW-6	App. I Metals	Zinc	ug/L	39	26	67%	2015-11-20 to 2025-04-02	Gamma; Lognormal; Normal	Nonparametric	7.98	5.50	3.60	27.5	4.68	0.586	2.20	6.99
06_02_105	MW-6	App. III	Boron	ug/L	38	23	61%	2015-11-20 to 2025-04-02	Gamma; Lognormal; Normal	Nonparametric	6.35	8.00	0.570	10.8	3.16	0.497	-0.871	-0.825
06_02_107	MW-6	App. III	Calcium	ug/L	39	0	0%	2015-11-20 to 2025-04-02	Gamma; Lognormal; Normal	Normal	34718	34400	30300	40200	2243	0.0646	0.443	-0.0000856
06_02_108	MW-6	App. III	Chloride	mg/L	39	0	0%	2015-11-20 to 2025-04-02	Nonparametric	Nonparametric	206	212	15.3	279	49.1	0.239	-1.86	5.59
06_02_112	MW-6	App. III	Fluoride	mg/L	39	1	3%	2015-11-20 to 2025-04-02	Gamma; Lognormal; Normal	Normal	0.366	0.370	0.0500	0.520	0.0787	0.215	-1.73	6.54
06_02_118	MW-6	App. III	pH (Field)	S.U.	36	0	0%	2015-11-20 to 2025-04-01	Nonparametric	Nonparametric	6.41	6.37	6.15	7.00	0.187	0.0291	1.14	1.49
06_02_123	MW-6	App. III	Sulfate	mg/L	39	0	0%	2015-11-20 to 2025-04-02	Nonparametric	Nonparametric	58.7	28.3	25.1	214	52.3	0.891	1.70	1.99
06_02_125	MW-6	App. III	Total Dissolved Solids	mg/L	39	0	0%	2015-11-20 to 2025-04-02	Gamma; Lognormal; Normal	Normal	634	614	371	946	98.1	0.155	0.393	2.75
06_03_101	MW-6	App. IV	Antimony	ug/L	39	39	100%	2015-11-20 to 2025-04-02		Nonparametric	3.58	3.80	0.200	5.50	0.864	0.241	-0.826	6.31
06_03_102	MW-6	App. IV	Arsenic	ug/L	39	37	95%	2015-11-20 to 2025-04-02		Nonparametric	4.02	4.70	0.430	8.10	1.37	0.341	-0.0516	1.25
06_03_103	MW-6	App. IV	Barium	ug/L	39	0	0%	2015-11-20 to 2025-04-02	Nonparametric	Nonparametric	78.6	63.8	43.0	142	29.6	0.377	0.627	-0.870
06_03_104	MW-6	App. IV	Beryllium	ug/L	39	38	97%	2015-11-20 to 2025-04-02		Nonparametric	0.435	0.500	0.100	0.700	0.207	0.475	-0.238	-1.34
06_03_106	MW-6	App. IV	Cadmium	ug/L	39	39	100%	2015-11-20 to 2025-04-02		Nonparametric	0.415	0.400	0.0600	0.500	0.0958	0.231	-1.46	3.37
06_03_109	MW-6	App. IV	Chromium	ug/L	39	31	79%	2015-11-20 to 2025-04-02	Gamma; Lognormal; Normal	Nonparametric	2.75	2.50	0.500	14.0	2.28	0.829	3.31	15.5
06_03_110	MW-6	App. IV	Cobalt	ug/L	39	38	97%	2015-11-20 to 2025-04-02		Nonparametric	2.15	2.50	0.440	3.60	1.11	0.516	-0.201	-1.27
06_03_112	MW-6	App. IV	Fluoride	mg/L	39	1	3%	2015-11-20 to 2025-04-02	Gamma; Lognormal; Normal	Normal	0.366	0.370	0.0500	0.520	0.0787	0.215	-1.73	6.54
06_03_113	MW-6	App. IV	Lead	ug/L	39	37	95%	2015-11-20 to 2025-04-02		Nonparametric	3.08	2.50	0.890	13.7	2.12	0.689	3.48	16.4
06_03_114	MW-6	App. IV	Lithium	ug/L	39	0	0%	2015-11-20 to 2025-04-02	Lognormal	Lognormal	32.4	27.9	10.1	60.5	11.5	0.355	0.882	0.0602
06_03_115	MW-6	App. IV	Mercury	ug/L	39	38	97%	2015-11-20 to 2025-04-02		Nonparametric	0.115	0.100	0.0950	0.320	0.0352	0.307	5.45	32.3

(Table continues on next page)

[a] Non-detects are excluded from goodness-of-fit tests.

Table 1: Summary Statistics, Non-Detects Included *(continued)*

ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	Date Range	Distributions Fit[a]	Recommended Distribution	Mean	Median	Minimum	Maximum	SD	CV	Skewness	Kurtosis
06_03_116	MW-6	App. IV	Molybdenum	ug/L	39	34	87%	2015-11-20 to 2025-04-02	Normal	Nonparametric	3.09	2.50	0.200	8.30	1.59	0.515	1.60	3.64
06_03_119	MW-6	App. IV	Radium-226	pCi/L	37	0	0%	2015-11-20 to 2025-04-02	Normal	Nonparametric	0.172	0.207	-0.579	0.913	0.309	1.79	0.301	0.911
06_03_120	MW-6	App. IV	Radium-228	pCi/L	37	0	0%	2015-11-20 to 2025-04-02	Normal	Nonparametric	0.557	0.533	-0.243	1.12	0.332	0.597	-0.125	-0.367
06_03_121	MW-6	App. IV	Selenium	ug/L	39	37	95%	2015-11-20 to 2025-04-02		Nonparametric	4.59	4.70	0.110	5.50	0.834	0.182	-4.29	22.6
06_03_124	MW-6	App. IV	Thallium	ug/L	39	36	92%	2015-11-20 to 2025-04-02		Nonparametric	0.836	0.0500	0.0200	6.20	1.89	2.27	2.04	2.37
06_03_126	MW-6	App. IV	Total Radium	pCi/L	37	0	0%	2015-11-20 to 2025-04-02	Gamma; Normal	Nonparametric	0.786	0.848	0.0513	1.71	0.429	0.546	0.121	-0.815
07_01_111	MW-7R	App. I Metals	Copper	ug/L	31	21	68%	2017-07-20 to 2025-04-02	Gamma; Lognormal	Nonparametric	9.17	2.60	0.620	109	23.2	2.53	3.80	14.0
07_01_117	MW-7R	App. I Metals	Nickel	ug/L	31	13	42%	2017-07-20 to 2025-04-02	Lognormal	Nonparametric	33.2	3.50	0.900	880	157	4.74	5.56	30.9
07_01_122	MW-7R	App. I Metals	Silver	ug/L	31	31	100%	2017-07-20 to 2025-04-02		Nonparametric	1.85	2.50	0.0700	2.50	0.911	0.493	-0.767	-1.32
07_01_127	MW-7R	App. I Metals	Vanadium	ug/L	31	15	48%	2017-07-20 to 2025-04-02	Lognormal	Lognormal	4.78	3.90	1.30	18.8	4.38	0.916	2.60	5.84
07_01_128	MW-7R	App. I Metals	Zinc	ug/L	31	22	71%	2017-07-20 to 2025-04-02	Gamma; Lognormal	Nonparametric	10.1	9.50	3.00	53.4	11.8	1.17	3.34	10.8
07_02_105	MW-7R	App. III	Boron	ug/L	30	12	40%	2017-07-20 to 2025-04-02	Nonparametric	Nonparametric	10.1	9.60	0.570	25.3	5.34	0.531	0.807	1.79
07_02_107	MW-7R	App. III	Calcium	ug/L	31	0	0%	2017-07-20 to 2025-04-02	Gamma; Lognormal; Normal	Normal	91535	91200	74000	104000	6454	0.0705	-0.463	0.799
07_02_108	MW-7R	App. III	Chloride	mg/L	31	0	0%	2017-07-20 to 2025-04-02	Nonparametric	Nonparametric	278	281	194	313	24.1	0.0867	-1.74	4.45
07_02_112	MW-7R	App. III	Fluoride	mg/L	31	1	3%	2017-07-20 to 2025-04-02	Nonparametric	Nonparametric	0.132	0.120	0.0500	0.320	0.0421	0.319	2.93	13.5
07_02_118	MW-7R	App. III	pH (Field)	S.U.	30	0	0%	2017-07-20 to 2025-04-01	Nonparametric	Nonparametric	7.46	7.35	7.13	9.60	0.432	0.0579	4.48	22.5
07_02_123	MW-7R	App. III	Sulfate	mg/L	31	0	0%	2017-07-20 to 2025-04-02	Nonparametric	Nonparametric	17.3	15.7	12.8	51.2	6.62	0.382	4.75	24.6
07_02_125	MW-7R	App. III	Total Dissolved Solids	mg/L	31	0	0%	2017-07-20 to 2025-04-02	Gamma; Lognormal; Normal	Normal	856	860	740	990	56.9	0.0664	0.177	-0.169
07_03_101	MW-7R	App. IV	Antimony	ug/L	31	30	97%	2017-07-20 to 2025-04-02		Nonparametric	3.91	3.60	0.200	13.6	2.07	0.529	3.50	16.9
07_03_102	MW-7R	App. IV	Arsenic	ug/L	31	28	90%	2017-07-20 to 2025-04-02		Nonparametric	4.19	4.70	0.770	7.10	1.21	0.289	-0.719	1.46
07_03_103	MW-7R	App. IV	Barium	ug/L	31	0	0%	2017-07-20 to 2025-04-02	Nonparametric	Nonparametric	295	308	50.1	423	65.3	0.222	-1.66	5.98
07_03_104	MW-7R	App. IV	Beryllium	ug/L	31	31	100%	2017-07-20 to 2025-04-02		Nonparametric	0.405	0.500	0.0500	0.700	0.235	0.581	0.0820	-1.71
07_03_106	MW-7R	App. IV	Cadmium	ug/L	31	31	100%	2017-07-20 to 2025-04-02		Nonparametric	0.387	0.400	0.0600	0.500	0.0944	0.244	-1.26	3.44
07_03_109	MW-7R	App. IV	Chromium	ug/L	31	8	26%	2017-07-20 to 2025-04-02	Nonparametric	Nonparametric	71	3.70	1.00	1940	347	4.89	5.56	30.9
07_03_110	MW-7R	App. IV	Cobalt	ug/L	31	26	84%	2017-07-20 to 2025-04-02	Gamma; Lognormal; Normal	Nonparametric	2.82	2.50	0.160	20.4	3.58	1.27	4.17	20.4
07_03_112	MW-7R	App. IV	Fluoride	mg/L	31	1	3%	2017-07-20 to 2025-04-02	Nonparametric	Nonparametric	0.132	0.120	0.0500	0.320	0.0421	0.319	2.93	13.5
07_03_113	MW-7R	App. IV	Lead	ug/L	31	27	87%	2017-07-20 to 2025-04-02		Nonparametric	3.49	2.50	0.270	13.7	2.47	0.709	2.46	8.97
07_03_114	MW-7R	App. IV	Lithium	ug/L	31	0	0%	2017-07-20 to 2025-04-02	Normal	Normal	26.7	28.1	5.60	33.8	5.37	0.201	-2.18	7.22
07_03_115	MW-7R	App. IV	Mercury	ug/L	31	31	100%	2017-07-20 to 2025-04-02		Nonparametric	0.111	0.120	0.0900	0.120	0.0108	0.0970	-0.462	-1.67
07_03_116	MW-7R	App. IV	Molybdenum	ug/L	31	27	87%	2017-07-20 to 2025-04-02		Nonparametric	4.96	2.60	0.900	49.5	8.96	1.81	4.52	21.9
07_03_119	MW-7R	App. IV	Radium-226	pCi/L	29	0	0%	2017-07-20 to 2025-04-02	Normal	Nonparametric	0.204	0.132	-0.316	1.05	0.322	1.58	1.01	1.29
07_03_120	MW-7R	App. IV	Radium-228	pCi/L	29	0	0%	2017-07-20 to 2025-04-02	Normal	Nonparametric	0.556	0.509	-0.454	2.13	0.489	0.880	1.06	3.17
07_03_121	MW-7R	App. IV	Selenium	ug/L	31	30	97%	2017-07-20 to 2025-04-02		Nonparametric	4.45	4.70	0.180	5.50	0.896	0.201	-3.77	17.8
07_03_124	MW-7R	App. IV	Thallium	ug/L	31	28	90%	2017-07-20 to 2025-04-02		Nonparametric	0.0628	0.0500	0.0200	0.480	0.0803	1.28	4.99	26.4
07_03_126	MW-7R	App. IV	Total Radium	pCi/L	29	0	0%	2017-07-20 to 2025-04-02	Gamma	Nonparametric	0.819	0.594	0.0664	2.31	0.564	0.688	1.20	0.951
08_01_111	MW-8	App. I Metals	Copper	ug/L	40	30	75%	2015-11-20 to 2025-04-02	Lognormal	Nonparametric	5.95	2.50	0.620	116	17.9	3.02	6.23	39.1
08_01_117	MW-8	App. I Metals	Nickel	ug/L	40	19	48%	2015-11-20 to 2025-04-02	Lognormal	Nonparametric	9.32	2.50	0.900	157	25.2	2.70	5.51	32.4
08_01_122	MW-8	App. I Metals	Silver	ug/L	40	39	98%	2015-11-20 to 2025-04-02		Nonparametric	2.05	2.50	0.490	2.50	0.786	0.384	-1.27	-0.259
08_01_127	MW-8	App. I Metals	Vanadium	ug/L	40	32	80%	2015-11-20 to 2025-04-02	Gamma; Lognormal; Normal	Nonparametric	2.77	2.50	1.30	9.50	1.41	0.508	2.89	12.9
08_01_128	MW-8	App. I Metals	Zinc	ug/L	40	24	60%	2015-11-20 to 2025-04-02	Gamma; Lognormal	Nonparametric	12.9	9.50	3.20	62.0	13.0	1.01	2.59	6.66
08_02_105	MW-8	App. III	Boron	ug/L	39	15	38%	2015-11-20 to 2025-04-02	Gamma; Lognormal; Normal	Normal	8.26	9.20	0.570	14.0	4.05	0.491	-0.920	-0.387
08_02_107	MW-8	App. III	Calcium	ug/L	40	0	0%	2015-11-20 to 2025-04-02	Nonparametric	Nonparametric	112037	108000	4170	194000	29118	0.260	-0.288	5.32

(Table continues on next page)

[a] Non-detects are excluded from goodness-of-fit tests.

Table 1: Summary Statistics, Non-Detects Included *(continued)*

ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	Date Range	Distributions Fit[a]	Recommended Distribution	Mean	Median	Minimum	Maximum	SD	CV	Skewness	Kurtosis
08_02_108	MW-8	App. III	Chloride	mg/L	40	0	0%	2015-11-20 to 2025-04-02	Nonparametric	Nonparametric	409	372	229	939	148	0.361	1.86	3.70
08_02_112	MW-8	App. III	Fluoride	mg/L	40	20	50%	2015-11-20 to 2025-04-02	Gamma; Lognormal; Normal	Nonparametric	0.0634	0.0555	0.0200	0.140	0.0311	0.490	0.281	-0.531
08_02_118	MW-8	App. III	pH (Field)	S.U.	38	0	0%	2015-11-20 to 2025-04-01	Gamma; Lognormal; Normal	Normal	7.03	7.01	6.70	7.31	0.138	0.0197	0.114	0.334
08_02_123	MW-8	App. III	Sulfate	mg/L	40	0	0%	2015-11-20 to 2025-04-02	Gamma; Lognormal; Normal	Normal	6.84	6.90	4.40	8.40	0.831	0.121	-0.610	0.537
08_02_125	MW-8	App. III	Total Dissolved Solids	mg/L	40	0	0%	2015-11-20 to 2025-04-02	Nonparametric	Nonparametric	962	904	224	1530	230	0.239	-0.0187	2.33
08_03_101	MW-8	App. IV	Antimony	ug/L	40	33	82%	2015-11-20 to 2025-04-02	Gamma; Lognormal; Normal	Nonparametric	4.29	3.90	0.200	10.1	1.83	0.426	1.19	2.12
08_03_102	MW-8	App. IV	Arsenic	ug/L	40	35	88%	2015-11-20 to 2025-04-02	Gamma; Lognormal; Normal	Nonparametric	4.23	4.70	2.50	7.40	1.36	0.322	0.332	-0.104
08_03_103	MW-8	App. IV	Barium	ug/L	40	0	0%	2015-11-20 to 2025-04-02	Nonparametric	Nonparametric	1144	1090	880	1880	187	0.163	2.08	5.49
08_03_104	MW-8	App. IV	Beryllium	ug/L	40	39	98%	2015-11-20 to 2025-04-02		Nonparametric	0.463	0.500	0.160	1.50	0.262	0.566	1.38	4.82
08_03_106	MW-8	App. IV	Cadmium	ug/L	40	39	98%	2015-11-20 to 2025-04-02		Nonparametric	0.449	0.400	0.290	1.50	0.187	0.416	4.70	26.8
08_03_109	MW-8	App. IV	Chromium	ug/L	40	19	48%	2015-11-20 to 2025-04-02	Gamma; Lognormal	Gamma	11.1	2.50	1.00	87.6	19.7	1.77	2.95	8.82
08_03_110	MW-8	App. IV	Cobalt	ug/L	40	35	88%	2015-11-20 to 2025-04-02	Gamma; Lognormal; Normal	Nonparametric	2.23	2.50	0.440	3.80	1.08	0.486	-0.192	-1.23
08_03_112	MW-8	App. IV	Fluoride	mg/L	40	20	50%	2015-11-20 to 2025-04-02	Gamma; Lognormal; Normal	Nonparametric	0.0634	0.0555	0.0200	0.140	0.0311	0.490	0.281	-0.531
08_03_113	MW-8	App. IV	Lead	ug/L	40	38	95%	2015-11-20 to 2025-04-02		Nonparametric	3.12	2.50	1.40	13.7	2.02	0.647	3.86	19.5
08_03_114	MW-8	App. IV	Lithium	ug/L	40	1	2%	2015-11-20 to 2025-04-02	Gamma; Lognormal	Gamma	27.4	26.6	4.20	50.1	7.74	0.283	0.366	2.68
08_03_115	MW-8	App. IV	Mercury	ug/L	40	39	98%	2015-11-20 to 2025-04-02		Nonparametric	0.115	0.100	0.0900	0.370	0.0426	0.369	5.73	34.9
08_03_116	MW-8	App. IV	Molybdenum	ug/L	40	37	92%	2015-11-20 to 2025-04-02		Nonparametric	2.71	2.50	0.900	5.60	1.08	0.398	0.586	0.444
08_03_119	MW-8	App. IV	Radium-226	pCi/L	38	0	0%	2015-11-20 to 2025-04-02	Normal	Nonparametric	0.432	0.337	-0.357	2.51	0.503	1.16	1.94	6.84
08_03_120	MW-8	App. IV	Radium-228	pCi/L	38	0	0%	2015-11-20 to 2025-04-02	Nonparametric	Nonparametric	0.841	0.676	-0.351	4.72	0.746	0.888	3.90	20.3
08_03_121	MW-8	App. IV	Selenium	ug/L	40	38	95%	2015-11-20 to 2025-04-02		Nonparametric	4.58	4.70	0.330	5.50	0.797	0.174	-4.08	21.1
08_03_124	MW-8	App. IV	Thallium	ug/L	40	38	95%	2015-11-20 to 2025-04-02		Nonparametric	0.881	0.0500	0.0200	8.80	2.10	2.38	2.42	5.09
08_03_126	MW-8	App. IV	Total Radium	pCi/L	38	0	0%	2015-11-20 to 2025-04-02	Nonparametric	Nonparametric	1.30	1.19	0	7.23	1.10	0.843	4.36	23.7
09_01_111	MW-10	App. I Metals	Copper	ug/L	16	9	56%	2021-08-09 to 2025-04-02	Gamma; Lognormal	Nonparametric	10.8	2.60	0.620	103	25.2	2.34	3.68	14.1
09_01_117	MW-10	App. I Metals	Nickel	ug/L	16	4	25%	2021-08-09 to 2025-04-02	Lognormal	Lognormal	4.04	2.75	0.880	27.9	6.49	1.61	3.74	14.5
09_01_122	MW-10	App. I Metals	Silver	ug/L	16	16	100%	2021-08-09 to 2025-04-02		Nonparametric	1.24	1.00	0.0700	2.50	0.915	0.740	0.621	-1.41
09_01_127	MW-10	App. I Metals	Vanadium	ug/L	16	9	56%	2021-08-09 to 2025-04-02	Nonparametric	Nonparametric	3.46	2.35	1.50	18.2	4.04	1.17	3.65	14
09_01_128	MW-10	App. I Metals	Zinc	ug/L	16	13	81%	2021-08-09 to 2025-04-02		Nonparametric	12.7	9.50	3.00	94.2	22	1.73	3.84	15.1
09_02_105	MW-10	App. III	Boron	ug/L	16	0	0%	2021-08-09 to 2025-04-02	Gamma; Lognormal; Normal	Normal	25.1	24.4	17.8	43.4	5.75	0.229	2.18	6.86
09_02_107	MW-10	App. III	Calcium	ug/L	16	0	0%	2021-08-09 to 2025-04-02	Gamma; Lognormal; Normal	Normal	21775	21750	17700	26500	2022	0.0928	0.122	1.76
09_02_108	MW-10	App. III	Chloride	mg/L	16	0	0%	2021-08-09 to 2025-04-02	Gamma; Lognormal; Normal	Normal	29.7	29.6	28.0	32.4	1.13	0.0379	0.620	0.811
09_02_112	MW-10	App. III	Fluoride	mg/L	16	0	0%	2021-08-09 to 2025-04-02	Gamma; Lognormal; Normal	Normal	0.465	0.455	0.400	0.540	0.0413	0.0888	0.499	-0.357
09_02_118	MW-10	App. III	pH (Field)	S.U.	17	0	0%	2021-04-12 to 2025-04-01	Lognormal; Normal	Normal	7.79	7.77	7.48	8.16	0.145	0.0186	0.658	2.52
09_02_123	MW-10	App. III	Sulfate	mg/L	16	0	0%	2021-08-09 to 2025-04-02	Gamma; Lognormal; Normal	Normal	3.49	3.05	1.60	8.00	1.84	0.527	1.17	0.858
09_02_125	MW-10	App. III	Total Dissolved Solids	mg/L	16	0	0%	2021-08-09 to 2025-04-02	Gamma; Lognormal; Normal	Normal	348	348	318	368	11.5	0.0331	-0.941	2.24
09_03_101	MW-10	App. IV	Antimony	ug/L	16	15	94%	2021-08-09 to 2025-04-02		Nonparametric	3.73	3.60	0.760	5.50	1.27	0.340	-0.235	0.842
09_03_102	MW-10	App. IV	Arsenic	ug/L	16	12	75%	2021-08-09 to 2025-04-02		Nonparametric	3.47	3.40	1.20	4.70	1.07	0.308	-0.334	-0.540
09_03_103	MW-10	App. IV	Barium	ug/L	16	0	0%	2021-08-09 to 2025-04-02	Gamma; Lognormal	Gamma	82.6	81.8	43.2	195	35.2	0.426	2.20	7.08
09_03_104	MW-10	App. IV	Beryllium	ug/L	16	16	100%	2021-08-09 to 2025-04-02		Nonparametric	0.342	0.170	0.0500	0.700	0.261	0.763	0.668	-1.58
09_03_106	MW-10	App. IV	Cadmium	ug/L	16	16	100%	2021-08-09 to 2025-04-02		Nonparametric	0.332	0.330	0.0600	0.480	0.0923	0.278	-1.51	4.61
09_03_109	MW-10	App. IV	Chromium	ug/L	16	5	31%	2021-08-09 to 2025-04-02	Gamma; Lognormal	Gamma	6.96	3.65	0.630	56.7	13.6	1.96	3.66	14
09_03_110	MW-10	App. IV	Cobalt	ug/L	16	14	88%	2021-08-09 to 2025-04-02		Nonparametric	1.85	0.960	0.440	7.60	2.01	1.09	1.78	3.28
09_03_112	MW-10	App. IV	Fluoride	mg/L	16	0	0%	2021-08-09 to 2025-04-02	Gamma; Lognormal; Normal	Normal	0.465	0.455	0.400	0.540	0.0413	0.0888	0.499	-0.357

(Table continues on next page)

[a] Non-detects are excluded from goodness-of-fit tests.

Table 1: Summary Statistics, Non-Detects Included *(continued)*

ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	Date Range	Distributions Fit[a]	Recommended Distribution	Mean	Median	Minimum	Maximum	SD	CV	Skewness	Kurtosis
09_03_113	MW-10	App. IV	Lead	ug/L	16	14	88%	2021-08-09 to 2025-04-02		Nonparametric	3.94	2.50	0.760	13.7	3.62	0.919	1.92	3.32
09_03_114	MW-10	App. IV	Lithium	ug/L	16	0	0%	2021-08-09 to 2025-04-02	Gamma; Lognormal	Gamma	3.32	2.30	0.690	6.70	2.09	0.630	0.340	-1.55
09_03_115	MW-10	App. IV	Mercury	ug/L	16	16	100%	2021-08-09 to 2025-04-02		Nonparametric	0.117	0.120	0.0900	0.120	0.00944	0.0810	-2.56	5.28
09_03_116	MW-10	App. IV	Molybdenum	ug/L	16	0	0%	2021-08-09 to 2025-04-02	Gamma; Lognormal	Gamma	22.2	20.0	15.4	36.2	6.26	0.282	1.09	0.279
09_03_119	MW-10	App. IV	Radium-226	pCi/L	16	0	0%	2021-08-09 to 2025-04-02	Normal	Nonparametric	0.142	0.146	-0.305	0.537	0.249	1.76	-0.146	-1.03
09_03_120	MW-10	App. IV	Radium-228	pCi/L	16	0	0%	2021-08-09 to 2025-04-02	Normal	Nonparametric	0.572	0.506	-0.100	1.67	0.421	0.736	0.975	1.93
09_03_121	MW-10	App. IV	Selenium	ug/L	16	14	88%	2021-08-09 to 2025-04-02		Nonparametric	4.13	4.10	0.500	5.50	1.09	0.263	-2.58	9.09
09_03_124	MW-10	App. IV	Thallium	ug/L	16	15	94%	2021-08-09 to 2025-04-02		Nonparametric	0.0474	0.0500	0.0270	0.120	0.0220	0.464	2.46	8.40
09_03_126	MW-10	App. IV	Total Radium	pCi/L	16	0	0%	2021-08-09 to 2025-04-02	Normal	Nonparametric	0.768	0.768	0	1.74	0.412	0.536	0.367	1.08
10_01_111	MW-11	App. I Metals	Copper	ug/L	19	10	53%	2020-10-15 to 2025-04-03	Gamma; Lognormal	Nonparametric	3.97	2.60	0.620	20.1	4.21	1.06	3.39	13.3
10_01_117	MW-11	App. I Metals	Nickel	ug/L	19	10	53%	2020-10-15 to 2025-04-03	Gamma; Lognormal	Nonparametric	2.71	3.50	0.790	7.60	1.64	0.605	1.29	3.14
10_01_122	MW-11	App. I Metals	Silver	ug/L	19	19	100%	2020-10-15 to 2025-04-03		Nonparametric	1.44	1.00	0.0700	2.50	0.960	0.669	0.155	-1.92
10_01_127	MW-11	App. I Metals	Vanadium	ug/L	19	16	84%	2020-10-15 to 2025-04-03		Nonparametric	2.43	1.60	0.440	3.90	1.33	0.547	0.148	-1.88
10_01_128	MW-11	App. I Metals	Zinc	ug/L	19	14	74%	2020-10-15 to 2025-04-03	Gamma; Lognormal; Normal	Nonparametric	8.21	9.50	3.00	11.0	2.83	0.345	-0.991	-0.461
10_02_105	MW-11	App. III	Boron	ug/L	19	1	5%	2020-10-15 to 2025-04-03	Gamma; Lognormal	Gamma	15.7	15.4	8.50	25.2	3.47	0.221	0.717	2.72
10_02_107	MW-11	App. III	Calcium	ug/L	19	0	0%	2020-10-15 to 2025-04-03	Nonparametric	Nonparametric	30474	26700	23200	69400	10433	0.342	3.20	11.6
10_02_108	MW-11	App. III	Chloride	mg/L	19	0	0%	2020-10-15 to 2025-04-03	Gamma; Lognormal; Normal	Normal	128	129	74.5	149	18.6	0.146	-1.26	2.37
10_02_112	MW-11	App. III	Fluoride	mg/L	19	1	5%	2020-10-15 to 2025-04-03	Gamma; Lognormal; Normal	Normal	0.162	0.170	0.0500	0.220	0.0345	0.214	-1.73	5.70
10_02_118	MW-11	App. III	pH (Field)	S.U.	17	0	0%	2021-01-29 to 2025-04-01	Nonparametric	Nonparametric	6.73	6.66	6.53	7.33	0.201	0.0298	1.87	3.97
10_02_123	MW-11	App. III	Sulfate	mg/L	19	0	0%	2020-10-15 to 2025-04-03	Gamma; Lognormal; Normal	Normal	2.21	2.20	1.80	3.00	0.290	0.131	0.877	1.95
10_02_125	MW-11	App. III	Total Dissolved Solids	mg/L	19	0	0%	2020-10-15 to 2025-04-03	Nonparametric	Nonparametric	537	416	296	2760	540	1.01	4.32	18.7
10_03_101	MW-11	App. IV	Antimony	ug/L	19	17	89%	2020-10-15 to 2025-04-03		Nonparametric	3.61	3.60	0.320	5.50	1.25	0.348	-0.317	1.75
10_03_102	MW-11	App. IV	Arsenic	ug/L	19	17	89%	2020-10-15 to 2025-04-03		Nonparametric	3.64	3.40	0.400	5.60	1.27	0.350	-0.768	0.618
10_03_103	MW-11	App. IV	Barium	ug/L	19	0	0%	2020-10-15 to 2025-04-03	Nonparametric	Nonparametric	48.3	41.5	34.3	130	21.6	0.446	3.35	12.5
10_03_104	MW-11	App. IV	Beryllium	ug/L	19	19	100%	2020-10-15 to 2025-04-03		Nonparametric	0.398	0.170	0.0500	0.700	0.273	0.686	0.188	-2.07
10_03_106	MW-11	App. IV	Cadmium	ug/L	19	19	100%	2020-10-15 to 2025-04-03		Nonparametric	0.343	0.330	0.0600	0.480	0.0881	0.257	-1.75	5.29
10_03_109	MW-11	App. IV	Chromium	ug/L	19	14	74%	2020-10-15 to 2025-04-03	Gamma; Lognormal; Normal	Nonparametric	2.95	3.70	0.500	8.80	2.31	0.784	1.28	1.62
10_03_110	MW-11	App. IV	Cobalt	ug/L	19	13	68%	2020-10-15 to 2025-04-03	Gamma; Lognormal; Normal	Nonparametric	2.00	1.20	0.440	3.60	1.42	0.710	0.261	-2.04
10_03_112	MW-11	App. IV	Fluoride	mg/L	19	1	5%	2020-10-15 to 2025-04-03	Gamma; Lognormal; Normal	Normal	0.162	0.170	0.0500	0.220	0.0345	0.214	-1.73	5.70
10_03_113	MW-11	App. IV	Lead	ug/L	19	18	95%	2020-10-15 to 2025-04-03		Nonparametric	3.65	4.50	0.190	13.7	2.86	0.785	2.44	8.51
10_03_114	MW-11	App. IV	Lithium	ug/L	19	0	0%	2020-10-15 to 2025-04-03	Nonparametric	Nonparametric	10.7	10.1	8.30	19.5	2.40	0.225	3.01	10.8
10_03_115	MW-11	App. IV	Mercury	ug/L	19	19	100%	2020-10-15 to 2025-04-03		Nonparametric	0.117	0.120	0.0900	0.120	0.00871	0.0744	-2.85	6.94
10_03_116	MW-11	App. IV	Molybdenum	ug/L	19	17	89%	2020-10-15 to 2025-04-03		Nonparametric	2.78	2.60	0.410	3.90	1.11	0.398	-0.435	-0.879
10_03_119	MW-11	App. IV	Radium-226	pCi/L	19	0	0%	2020-10-15 to 2025-04-03	Normal	Nonparametric	0.122	0.108	-0.149	0.478	0.193	1.58	0.335	-1.18
10_03_120	MW-11	App. IV	Radium-228	pCi/L	19	0	0%	2020-10-15 to 2025-04-03	Nonparametric	Nonparametric	0.489	0.500	-0.135	2.13	0.497	1.02	2.05	6.18
10_03_121	MW-11	App. IV	Selenium	ug/L	19	19	100%	2020-10-15 to 2025-04-03		Nonparametric	4.17	4.10	0.0720	5.50	1.08	0.260	-3.20	12.6
10_03_124	MW-11	App. IV	Thallium	ug/L	19	18	95%	2020-10-15 to 2025-04-03		Nonparametric	0.0472	0.0500	0.0270	0.0850	0.0130	0.276	0.709	3.50
10_03_126	MW-11	App. IV	Total Radium	pCi/L	19	0	0%	2020-10-15 to 2025-04-03	Gamma; Lognormal	Nonparametric	0.648	0.513	0.124	2.39	0.529	0.817	2.23	6.14
11_01_111	MW-11D	App. I Metals	Copper	ug/L	17	12	71%	2021-04-13 to 2025-04-03	Gamma; Lognormal	Nonparametric	3.85	2.60	0.620	15.4	4.38	1.14	2.15	3.98
11_01_117	MW-11D	App. I Metals	Nickel	ug/L	17	12	71%	2021-04-13 to 2025-04-03	Gamma; Lognormal	Nonparametric	2.30	1.70	0.880	6.20	1.54	0.669	0.995	0.700
11_01_122	MW-11D	App. I Metals	Silver	ug/L	17	17	100%	2021-04-13 to 2025-04-03		Nonparametric	1.31	1.00	0.0700	2.50	0.938	0.715	0.440	-1.68
11_01_127	MW-11D	App. I Metals	Vanadium	ug/L	17	14	82%	2021-04-13 to 2025-04-03		Nonparametric	2.30	1.60	0.690	3.90	1.25	0.545	0.475	-1.67

(Table continues on next page)

[a] Non-detects are excluded from goodness-of-fit tests.

Table 1: Summary Statistics, Non-Detects Included *(continued)*

ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	Date Range	Distributions Fit[a]	Recommended Distribution	Mean	Median	Minimum	Maximum	SD	CV	Skewness	Kurtosis
11_01_128	MW-11D	App. I Metals	Zinc	ug/L	17	11	65%	2021-04-13 to 2025-04-03	Gamma; Lognormal; Normal	Nonparametric	9.28	9.50	2.90	19.0	4.68	0.504	0.579	0.522
11_02_105	MW-11D	App. III	Boron	ug/L	17	0	0%	2021-04-13 to 2025-04-03	Nonparametric	Nonparametric	53.6	50.9	41.7	109	16.2	0.302	2.85	9.19
11_02_107	MW-11D	App. III	Calcium	ug/L	17	0	0%	2021-04-13 to 2025-04-03	Nonparametric	Nonparametric	24671	17700	14000	94400	18934	0.767	3.48	13.1
11_02_108	MW-11D	App. III	Chloride	mg/L	17	0	0%	2021-04-13 to 2025-04-03	Lognormal	Lognormal	118	68.2	52.3	530	117	0.995	3.07	10.5
11_02_112	MW-11D	App. III	Fluoride	mg/L	17	0	0%	2021-04-13 to 2025-04-03	Gamma; Lognormal; Normal	Normal	0.485	0.480	0.420	0.640	0.0527	0.109	1.51	3.83
11_02_118	MW-11D	App. III	pH (Field)	S.U.	17	0	0%	2021-04-12 to 2025-04-01	Gamma; Lognormal; Normal	Normal	8.37	8.34	8.06	8.92	0.252	0.0301	0.827	0.180
11_02_123	MW-11D	App. III	Sulfate	mg/L	17	1	6%	2021-04-13 to 2025-04-03	Nonparametric	Nonparametric	78.1	26.9	0.500	523	127	1.63	3.04	10.3
11_02_125	MW-11D	App. III	Total Dissolved Solids	mg/L	17	0	0%	2021-04-13 to 2025-04-03	Nonparametric	Nonparametric	522	387	312	1740	354	0.678	2.88	9.33
11_03_101	MW-11D	App. IV	Antimony	ug/L	17	14	82%	2021-04-13 to 2025-04-03		Nonparametric	3.85	3.60	0.620	5.60	1.33	0.346	-0.398	0.681
11_03_102	MW-11D	App. IV	Arsenic	ug/L	17	8	47%	2021-04-13 to 2025-04-03	Gamma; Lognormal; Normal	Normal	6.09	4.20	2.50	16.5	4.44	0.729	1.50	1.12
11_03_103	MW-11D	App. IV	Barium	ug/L	17	0	0%	2021-04-13 to 2025-04-03	Nonparametric	Nonparametric	106	113	65.7	124	17.1	0.161	-1.43	1.41
11_03_104	MW-11D	App. IV	Beryllium	ug/L	17	16	94%	2021-04-13 to 2025-04-03		Nonparametric	0.366	0.170	0.110	0.700	0.263	0.717	0.514	-1.87
11_03_106	MW-11D	App. IV	Cadmium	ug/L	17	17	100%	2021-04-13 to 2025-04-03		Nonparametric	0.336	0.330	0.0600	0.480	0.0909	0.271	-1.59	4.81
11_03_109	MW-11D	App. IV	Chromium	ug/L	17	13	76%	2021-04-13 to 2025-04-03		Nonparametric	2.57	2.20	0.630	8.00	1.92	0.749	1.30	2.70
11_03_110	MW-11D	App. IV	Cobalt	ug/L	17	16	94%	2021-04-13 to 2025-04-03		Nonparametric	1.71	0.960	0.210	3.60	1.46	0.856	0.570	-1.75
11_03_112	MW-11D	App. IV	Fluoride	mg/L	17	0	0%	2021-04-13 to 2025-04-03	Gamma; Lognormal; Normal	Normal	0.485	0.480	0.420	0.640	0.0527	0.109	1.51	3.83
11_03_113	MW-11D	App. IV	Lead	ug/L	17	16	94%	2021-04-13 to 2025-04-03		Nonparametric	3.64	2.90	1.40	13.7	2.93	0.806	2.69	9.10
11_03_114	MW-11D	App. IV	Lithium	ug/L	17	0	0%	2021-04-13 to 2025-04-03	Lognormal	Lognormal	28.0	21.4	14.7	80.7	17	0.606	2.38	5.77
11_03_115	MW-11D	App. IV	Mercury	ug/L	17	17	100%	2021-04-13 to 2025-04-03		Nonparametric	0.117	0.120	0.0900	0.120	0.00918	0.0786	-2.66	5.84
11_03_116	MW-11D	App. IV	Molybdenum	ug/L	17	1	6%	2021-04-13 to 2025-04-03	Gamma; Lognormal	Gamma	20.3	8.10	2.60	127	30.1	1.48	3.09	10.7
11_03_119	MW-11D	App. IV	Radium-226	pCi/L	17	0	0%	2021-04-13 to 2025-04-03	Normal	Nonparametric	0.180	0.0934	-0.156	0.692	0.266	1.48	0.665	-0.764
11_03_120	MW-11D	App. IV	Radium-228	pCi/L	17	0	0%	2021-04-13 to 2025-04-03	Gamma; Lognormal	Nonparametric	0.609	0.611	0.0582	2.23	0.512	0.841	2.07	5.95
11_03_121	MW-11D	App. IV	Selenium	ug/L	17	16	94%	2021-04-13 to 2025-04-03		Nonparametric	4.12	4.10	0.230	5.50	1.10	0.266	-2.96	11.0
11_03_124	MW-11D	App. IV	Thallium	ug/L	17	16	94%	2021-04-13 to 2025-04-03		Nonparametric	0.0474	0.0500	0.0270	0.0940	0.0154	0.325	1.39	4.95
11_03_126	MW-11D	App. IV	Total Radium	pCi/L	17	0	0%	2021-04-13 to 2025-04-03	Gamma; Lognormal; Normal	Nonparametric	0.815	0.714	0.125	2.27	0.537	0.658	1.17	2.06

[a] Non-detects are excluded from goodness-of-fit tests.

Table 2: Summary Statistics, Non-Detects Excluded

ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	Date Range	Distributions Fit	Recommended Distribution	Mean	Median	Minimum	Maximum	SD	CV	Skewness	Kurtosis
01_01_111	MW-1	App. I Metals	Copper	ug/L	40	32	80%	2015-11-20 to 2025-04-01	Gamma; Lognormal	Nonparametric	4.49	1.70	0.860	15.0	5.04	1.12	1.53	1.95
01_01_117	MW-1	App. I Metals	Nickel	ug/L	40	28	70%	2015-11-20 to 2025-04-01	Gamma; Lognormal; Normal	Nonparametric	4.96	4.90	1.30	13.3	3.50	0.706	1.18	1.72
01_01_122	MW-1	App. I Metals	Silver	ug/L	40	33	82%	2015-11-20 to 2025-04-01	Gamma; Normal	Nonparametric	0.861	1.00	0.200	1.20	0.353	0.410	-1.13	1.18
01_01_127	MW-1	App. I Metals	Vanadium	ug/L	40	24	60%	2015-11-20 to 2025-04-01	Gamma; Lognormal; Normal	Nonparametric	4.36	3.85	1.90	9.80	2.16	0.494	1.26	1.46
01_01_128	MW-1	App. I Metals	Zinc	ug/L	40	25	62%	2015-11-20 to 2025-04-01	Gamma; Lognormal; Normal	Nonparametric	15.9	13.3	4.90	35.3	8.85	0.557	0.989	0.276
01_02_105	MW-1	App. III	Boron	ug/L	39	22	56%	2015-11-20 to 2025-04-01	Nonparametric	Nonparametric	12.0	9.70	6.20	44.6	8.78	0.730	3.55	13.6
01_02_107	MW-1	App. III	Calcium	ug/L	40	0	0%	2015-11-20 to 2025-04-01	Gamma; Lognormal; Normal	Normal	165763	163000	43100	311000	74370	0.449	0.110	-0.835
01_02_108	MW-1	App. III	Chloride	mg/L	40	0	0%	2015-11-20 to 2025-04-01	Gamma; Normal	Normal	606	636	83.9	1240	274	0.452	-0.0828	-0.521
01_02_112	MW-1	App. III	Fluoride	mg/L	40	1	2%	2015-11-20 to 2025-04-01	Nonparametric	Nonparametric	0.152	0.160	0.110	0.210	0.0239	0.157	0.0623	-0.542
01_02_118	MW-1	App. III	pH (Field)	S.U.	38	0	0%	2015-11-20 to 2025-04-01	Gamma; Lognormal; Normal	Normal	6.75	6.70	6.41	7.30	0.222	0.0329	0.708	-0.0920
01_02_123	MW-1	App. III	Sulfate	mg/L	40	0	0%	2015-11-20 to 2025-04-01	Nonparametric	Nonparametric	6.99	6.60	4.50	11.2	1.60	0.229	1.17	0.993
01_02_125	MW-1	App. III	Total Dissolved Solids	mg/L	40	0	0%	2015-11-20 to 2025-04-01	Gamma; Lognormal; Normal	Normal	1439	1310	346	3390	713	0.495	0.614	0.00752
01_03_101	MW-1	App. IV	Antimony	ug/L	40	38	95%	2015-11-20 to 2025-04-01		Nonparametric	5.85	5.85	5.60	6.10	0.354	0.0604	NA	NA
01_03_102	MW-1	App. IV	Arsenic	ug/L	40	36	90%	2015-11-20 to 2025-04-01		Nonparametric	3.23	3.00	1.70	5.20	1.51	0.468	0.737	-0.0458
01_03_103	MW-1	App. IV	Barium	ug/L	40	0	0%	2015-11-20 to 2025-04-01	Gamma; Normal	Normal	213	216	36.3	421	98.6	0.463	0.234	-0.597
01_03_106	MW-1	App. IV	Cadmium	ug/L	40	37	92%	2015-11-20 to 2025-04-01		Nonparametric	0.603	0.570	0.570	0.670	0.0577	0.0957	1.73	NA
01_03_109	MW-1	App. IV	Chromium	ug/L	40	27	68%	2015-11-20 to 2025-04-01	Gamma; Lognormal; Normal	Nonparametric	6.37	6.60	0.760	18.4	4.85	0.760	1.21	2.0
01_03_110	MW-1	App. IV	Cobalt	ug/L	40	36	90%	2015-11-20 to 2025-04-01		Nonparametric	0.922	0.975	0.140	1.60	0.627	0.679	-0.412	-0.694
01_03_112	MW-1	App. IV	Fluoride	mg/L	40	1	2%	2015-11-20 to 2025-04-01	Nonparametric	Nonparametric	0.152	0.160	0.110	0.210	0.0239	0.157	0.0623	-0.542
01_03_113	MW-1	App. IV	Lead	ug/L	40	36	90%	2015-11-20 to 2025-04-01		Nonparametric	3.11	2.70	0.250	6.80	2.86	0.919	0.671	-0.685
01_03_114	MW-1	App. IV	Lithium	ug/L	40	0	0%	2015-11-20 to 2025-04-01	Gamma; Lognormal; Normal	Normal	32.9	33.0	19.2	47.5	5.85	0.178	-0.0100	0.407
01_03_116	MW-1	App. IV	Molybdenum	ug/L	40	35	88%	2015-11-20 to 2025-04-01	Gamma; Lognormal; Normal	Nonparametric	8.11	9.00	0.340	15.1	6.95	0.857	-0.175	-2.91
01_03_119	MW-1	App. IV	Radium-226	pCi/L	38	0	0%	2015-11-20 to 2025-04-01	Normal	Nonparametric	0.227	0.227	-0.407	1.03	0.328	1.44	0.294	0.543
01_03_120	MW-1	App. IV	Radium-228	pCi/L	38	0	0%	2015-11-20 to 2025-04-01	Normal	Nonparametric	0.600	0.597	-0.0467	1.45	0.281	0.469	0.466	1.73
01_03_121	MW-1	App. IV	Selenium	ug/L	40	38	95%	2015-11-20 to 2025-04-01		Nonparametric	2.34	2.34	0.280	4.40	2.91	1.24	NA	NA
01_03_126	MW-1	App. IV	Total Radium	pCi/L	38	0	0%	2015-11-20 to 2025-04-01	Gamma; Lognormal; Normal	Nonparametric	0.875	0.824	0.237	2.48	0.432	0.493	1.41	3.83
02_01_111	MW-2	App. I Metals	Copper	ug/L	35	15	43%	2015-11-19 to 2025-04-02	Lognormal	Nonparametric	32.4	6.45	0.950	294	69	2.13	3.35	11.8
02_01_117	MW-2	App. I Metals	Nickel	ug/L	35	12	34%	2015-11-19 to 2025-04-02	Gamma; Lognormal	Gamma	19.3	9.70	2.30	115	26.3	1.37	2.67	7.79
02_01_122	MW-2	App. I Metals	Silver	ug/L	35	32	91%	2015-11-19 to 2025-04-02		Nonparametric	0.684	0.880	0.0730	1.10	0.541	0.790	-1.42	NA
02_01_127	MW-2	App. I Metals	Vanadium	ug/L	35	23	66%	2015-11-19 to 2025-04-02	Gamma; Lognormal	Nonparametric	7.92	4.05	1.60	37.2	10.5	1.33	2.43	5.84
02_01_128	MW-2	App. I Metals	Zinc	ug/L	35	16	46%	2015-11-19 to 2025-04-02	Lognormal	Nonparametric	125	27.2	3.60	1590	359	2.88	4.20	18
02_02_105	MW-2	App. III	Boron	ug/L	34	1	3%	2015-11-19 to 2025-04-02	Gamma; Lognormal; Normal	Normal	44.7	44.1	34.5	63.9	6.00	0.134	1.06	1.93
02_02_107	MW-2	App. III	Calcium	ug/L	35	0	0%	2015-11-19 to 2025-04-02	Nonparametric	Nonparametric	183980	188000	34300	221000	32785	0.178	-2.98	12.5
02_02_108	MW-2	App. III	Chloride	mg/L	35	0	0%	2015-11-19 to 2025-04-02	Nonparametric	Nonparametric	1081	1130	489	1360	187	0.173	-1.55	3.03
02_02_112	MW-2	App. III	Fluoride	mg/L	35	2	6%	2015-11-19 to 2025-04-02	Nonparametric	Nonparametric	0.219	0.220	0.130	0.400	0.0517	0.235	1.13	3.80
02_02_118	MW-2	App. III	pH (Field)	S.U.	31	0	0%	2015-11-19 to 2025-04-01	Nonparametric	Nonparametric	7.68	7.58	7.35	9.29	0.383	0.0499	2.93	10.4
02_02_123	MW-2	App. III	Sulfate	mg/L	35	0	0%	2015-11-19 to 2025-04-02	Nonparametric	Nonparametric	124	88.6	51.7	338	77.4	0.624	1.28	0.580
02_02_125	MW-2	App. III	Total Dissolved Solids	mg/L	35	0	0%	2015-11-19 to 2025-04-02	Nonparametric	Nonparametric	2652	2480	257	11700	1696	0.639	4.56	25.4
02_03_101	MW-2	App. IV	Antimony	ug/L	35	21	60%	2015-11-19 to 2025-04-02	Gamma; Lognormal; Normal	Nonparametric	7.16	6.75	0.610	12.3	3.13	0.437	-0.287	0.0205
02_03_102	MW-2	App. IV	Arsenic	ug/L	35	24	69%	2015-11-19 to 2025-04-02	Gamma; Lognormal; Normal	Nonparametric	6.09	5.40	3.70	11.5	2.62	0.430	1.29	0.796
02_03_103	MW-2	App. IV	Barium	ug/L	35	0	0%	2015-11-19 to 2025-04-02	Nonparametric	Nonparametric	305	312	90.8	565	87.7	0.288	0.558	2.16
02_03_104	MW-2	App. IV	Beryllium	ug/L	35	32	91%	2015-11-19 to 2025-04-02		Nonparametric	0.707	0.620	0.400	1.10	0.358	0.507	1.03	NA
02_03_106	MW-2	App. IV	Cadmium	ug/L	35	32	91%	2015-11-19 to 2025-04-02		Nonparametric	0.413	0.480	0.0780	0.680	0.307	0.743	-0.941	NA

(Table continues on next page)

Table 2: Summary Statistics, Non-Detects Excluded *(continued)*

ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	Date Range	Distributions Fit	Recommended Distribution	Mean	Median	Minimum	Maximum	SD	CV	Skewness	Kurtosis
02_03_109	MW-2	App. IV	Chromium	ug/L	35	6	17%	2015-11-19 to 2025-04-02	Lognormal	Nonparametric	20.3	8.80	1.80	130	28.7	1.41	2.60	7.41
02_03_110	MW-2	App. IV	Cobalt	ug/L	35	27	77%	2015-11-19 to 2025-04-02	Gamma; Lognormal	Nonparametric	7.17	2.45	0.810	34.8	11.7	1.63	2.40	5.90
02_03_112	MW-2	App. IV	Fluoride	mg/L	35	2	6%	2015-11-19 to 2025-04-02	Nonparametric	Nonparametric	0.219	0.220	0.130	0.400	0.0517	0.235	1.13	3.80
02_03_113	MW-2	App. IV	Lead	ug/L	35	30	86%	2015-11-19 to 2025-04-02	Gamma; Lognormal; Normal	Nonparametric	11.7	6.70	1.80	27.5	10.7	0.912	0.927	-0.738
02_03_114	MW-2	App. IV	Lithium	ug/L	35	0	0%	2015-11-19 to 2025-04-02	Nonparametric	Nonparametric	153	130	41.2	512	88.3	0.578	2.67	8.37
02_03_116	MW-2	App. IV	Molybdenum	ug/L	35	6	17%	2015-11-19 to 2025-04-02	Gamma; Lognormal	Gamma	9.83	7.90	3.50	41.0	7.49	0.761	2.89	10.4
02_03_119	MW-2	App. IV	Radium-226	pCi/L	34	0	0%	2015-11-19 to 2025-04-02	Gamma; Lognormal; Normal	Nonparametric	0.936	0.938	0.227	2.11	0.406	0.434	0.849	1.61
02_03_120	MW-2	App. IV	Radium-228	pCi/L	34	0	0%	2015-11-19 to 2025-04-02	Gamma; Lognormal; Normal	Nonparametric	1.39	1.36	0.433	2.23	0.470	0.339	0.0427	-0.852
02_03_121	MW-2	App. IV	Selenium	ug/L	35	33	94%	2015-11-19 to 2025-04-02		Nonparametric	2.87	2.87	0.940	4.80	2.73	0.951	NA	NA
02_03_124	MW-2	App. IV	Thallium	ug/L	35	23	66%	2015-11-19 to 2025-04-02	Nonparametric	Nonparametric	0.942	0.0865	0.0370	10.3	2.95	3.13	3.46	12
02_03_126	MW-2	App. IV	Total Radium	pCi/L	34	0	0%	2015-11-19 to 2025-04-02	Normal	Nonparametric	2.32	2.38	1.10	4.07	0.736	0.317	-0.00609	-0.451
03_01_111	MW-3	App. I Metals	Copper	ug/L	38	21	55%	2015-11-19 to 2025-04-01	Lognormal	Nonparametric	18	5.60	1.40	137	33.6	1.87	3.18	10.9
03_01_117	MW-3	App. I Metals	Nickel	ug/L	38	19	50%	2015-11-19 to 2025-04-01	Lognormal	Nonparametric	11.5	4.80	1.10	86.0	21.2	1.85	3.0	9.08
03_01_122	MW-3	App. I Metals	Silver	ug/L	38	36	95%	2015-11-19 to 2025-04-01		Nonparametric	1.23	1.23	0.850	1.60	0.530	0.433	NA	NA
03_01_127	MW-3	App. I Metals	Vanadium	ug/L	38	23	61%	2015-11-19 to 2025-04-01	Gamma; Lognormal	Nonparametric	4.20	2.70	1.70	13.9	3.35	0.798	2.04	4.39
03_01_128	MW-3	App. I Metals	Zinc	ug/L	38	28	74%	2015-11-19 to 2025-04-01	Gamma; Lognormal; Normal	Nonparametric	14.2	12.2	3.50	42.7	12.3	0.864	1.55	2.50
03_02_105	MW-3	App. III	Boron	ug/L	37	10	27%	2015-11-19 to 2025-04-01	Normal	Normal	36	39.0	9.70	49.6	10.3	0.287	-0.762	0.146
03_02_107	MW-3	App. III	Calcium	ug/L	38	0	0%	2015-11-19 to 2025-04-01	Nonparametric	Nonparametric	177053	178500	117000	326000	31248	0.176	2.74	13.9
03_02_108	MW-3	App. III	Chloride	mg/L	38	0	0%	2015-11-19 to 2025-04-01	Normal	Normal	1060	1075	565	1280	134	0.127	-1.33	4.10
03_02_112	MW-3	App. III	Fluoride	mg/L	38	1	3%	2015-11-19 to 2025-04-01	Gamma; Lognormal; Normal	Normal	0.358	0.330	0.210	0.610	0.109	0.304	0.712	-0.179
03_02_118	MW-3	App. III	pH (Field)	S.U.	34	0	0%	2015-11-19 to 2025-04-01	Nonparametric	Nonparametric	7.34	7.38	6.18	7.77	0.257	0.0349	-2.76	12.5
02_03_123	MW-3	App. III	Sulfate	mg/L	38	0	0%	2015-11-19 to 2025-04-01	Nonparametric	Nonparametric	46.3	20.8	9.10	174	46.1	0.996	1.40	1.04
02_03_125	MW-3	App. III	Total Dissolved Solids	mg/L	38	0	0%	2015-11-19 to 2025-04-01	Nonparametric	Nonparametric	2236	2370	256	3180	590	0.264	-2.06	5.34
03_03_101	MW-3	App. IV	Antimony	ug/L	38	27	71%	2015-11-19 to 2025-04-01	Gamma; Lognormal; Normal	Nonparametric	7.54	8.70	1.30	11.4	3.36	0.446	-0.601	-0.852
03_03_102	MW-3	App. IV	Arsenic	ug/L	38	30	79%	2015-11-19 to 2025-04-01	Gamma; Lognormal; Normal	Nonparametric	5.49	5.60	1.90	9.60	2.60	0.473	0.0692	-0.713
03_03_103	MW-3	App. IV	Barium	ug/L	38	0	0%	2015-11-19 to 2025-04-01	Gamma; Lognormal; Normal	Normal	658	668	353	855	108	0.164	-0.614	0.300
03_03_106	MW-3	App. IV	Cadmium	ug/L	38	37	97%	2015-11-19 to 2025-04-01		Nonparametric	0.410	0.410	0.410	0.410	NA	NA	NA	NA
03_03_109	MW-3	App. IV	Chromium	ug/L	38	19	50%	2015-11-19 to 2025-04-01	Lognormal	Nonparametric	19.4	5.80	1.10	179	42.6	2.19	3.41	12.1
03_03_110	MW-3	App. IV	Cobalt	ug/L	38	32	84%	2015-11-19 to 2025-04-01	Gamma; Lognormal	Nonparametric	1.83	1.15	0.0610	6.20	2.22	1.22	2.05	4.54
03_03_112	MW-3	App. IV	Fluoride	mg/L	38	1	3%	2015-11-19 to 2025-04-01	Gamma; Lognormal; Normal	Normal	0.358	0.330	0.210	0.610	0.109	0.304	0.712	-0.179
03_03_113	MW-3	App. IV	Lead	ug/L	38	34	89%	2015-11-19 to 2025-04-01		Nonparametric	4.37	5.00	0.190	7.30	3.10	0.709	-0.979	0.430
03_03_114	MW-3	App. IV	Lithium	ug/L	38	1	3%	2015-11-19 to 2025-04-01	Nonparametric	Nonparametric	92.6	86.1	36.7	236	36.1	0.390	2.92	9.79
03_03_116	MW-3	App. IV	Molybdenum	ug/L	38	1	3%	2015-11-19 to 2025-04-01	Nonparametric	Nonparametric	8.95	8.00	5.10	35.7	4.90	0.547	4.75	25.9
03_03_119	MW-3	App. IV	Radium-226	pCi/L	37	0	0%	2015-11-19 to 2025-04-01	Gamma; Lognormal; Normal	Nonparametric	0.916	0.816	0.213	1.92	0.371	0.405	0.409	0.0337
03_03_120	MW-3	App. IV	Radium-228	pCi/L	37	0	0%	2015-11-19 to 2025-04-01	Gamma; Normal	Nonparametric	1.48	1.54	0.326	2.86	0.558	0.377	-0.146	0.174
03_03_121	MW-3	App. IV	Selenium	ug/L	38	37	97%	2015-11-19 to 2025-04-01		Nonparametric	0.270	0.270	0.270	0.270	NA	NA	NA	NA
03_03_126	MW-3	App. IV	Total Radium	pCi/L	37	0	0%	2015-11-19 to 2025-04-01	Gamma; Normal	Nonparametric	2.40	2.35	0.857	3.92	0.721	0.301	-0.0168	-0.171
04_01_111	MW-4	App. I Metals	Copper	ug/L	39	33	85%	2015-11-19 to 2025-04-01	Gamma; Lognormal	Nonparametric	41.3	4.26	0.900	170	68.2	1.65	1.81	2.92
04_01_117	MW-4	App. I Metals	Nickel	ug/L	39	11	28%	2015-11-19 to 2025-04-01	Gamma; Lognormal; Normal	Normal	7.95	7.45	3.50	12.8	2.83	0.357	0.323	-1.10
04_01_127	MW-4	App. I Metals	Vanadium	ug/L	39	35	90%	2015-11-19 to 2025-04-01		Nonparametric	3.51	1.55	0.250	10.7	4.84	1.38	1.87	3.57
04_01_128	MW-4	App. I Metals	Zinc	ug/L	39	24	62%	2015-11-19 to 2025-04-01	Gamma; Lognormal	Nonparametric	15.7	13.0	7.40	47.2	10.5	0.668	2.25	5.65
04_02_105	MW-4	App. III	Boron	ug/L	38	23	61%	2015-11-19 to 2025-04-01	Nonparametric	Nonparametric	17.9	7.20	5.70	165	40.7	2.27	3.86	14.9
04_02_107	MW-4	App. III	Calcium	ug/L	39	0	0%	2015-11-19 to 2025-04-01	Nonparametric	Nonparametric	55138	58300	17900	71600	12635	0.229	-1.44	2.06

(Table continues on next page)

Table 2: Summary Statistics, Non-Detects Excluded *(continued)*

ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	Date Range	Distributions Fit	Recommended Distribution	Mean	Median	Minimum	Maximum	SD	CV	Skewness	Kurtosis
04_02_108	MW-4	App. III	Chloride	mg/L	39	0	0%	2015-11-19 to 2025-04-01	Nonparametric	Nonparametric	403	423	144	567	104	0.259	-0.773	-0.0450
04_02_112	MW-4	App. III	Fluoride	mg/L	39	0	0%	2015-11-19 to 2025-04-01	Gamma; Lognormal; Normal	Normal	0.333	0.340	0.210	0.500	0.0599	0.180	0.488	0.447
04_02_118	MW-4	App. III	pH (Field)	S.U.	37	0	0%	2015-11-19 to 2025-04-01	Gamma; Lognormal; Normal	Normal	6.26	6.25	5.91	6.56	0.136	0.0217	0.0467	0.276
04_02_123	MW-4	App. III	Sulfate	mg/L	39	0	0%	2015-11-19 to 2025-04-01	Nonparametric	Nonparametric	10.1	10.7	3.40	13.4	2.32	0.228	-1.41	2.06
04_02_125	MW-4	App. III	Total Dissolved Solids	mg/L	39	0	0%	2015-11-19 to 2025-04-01	Nonparametric	Nonparametric	1076	1120	395	1580	223	0.207	-1.40	3.32
04_03_101	MW-4	App. IV	Antimony	ug/L	39	34	87%	2015-11-19 to 2025-04-01	Gamma; Lognormal; Normal	Nonparametric	4.32	3.40	3.10	7.00	1.69	0.392	1.30	0.660
04_03_102	MW-4	App. IV	Arsenic	ug/L	39	37	95%	2015-11-19 to 2025-04-01		Nonparametric	2.73	2.73	0.360	5.10	3.35	1.23	NA	NA
04_03_103	MW-4	App. IV	Barium	ug/L	39	0	0%	2015-11-19 to 2025-04-01	Nonparametric	Nonparametric	289	302	85.9	431	69	0.239	-1.35	2.62
04_03_106	MW-4	App. IV	Cadmium	ug/L	39	38	97%	2015-11-19 to 2025-04-01		Nonparametric	0.470	0.470	0.470	0.470	NA	NA	NA	NA
04_03_109	MW-4	App. IV	Chromium	ug/L	39	29	74%	2015-11-19 to 2025-04-01	Gamma; Lognormal; Normal	Nonparametric	3.98	3.35	0.580	9.90	3.24	0.815	0.841	-0.375
04_03_110	MW-4	App. IV	Cobalt	ug/L	39	20	51%	2015-11-19 to 2025-04-01	Gamma; Lognormal; Normal	Nonparametric	13	13.0	3.90	28.2	7.13	0.549	0.682	-0.575
04_03_112	MW-4	App. IV	Fluoride	mg/L	39	0	0%	2015-11-19 to 2025-04-01	Gamma; Lognormal; Normal	Normal	0.333	0.340	0.210	0.500	0.0599	0.180	0.488	0.447
04_03_113	MW-4	App. IV	Lead	ug/L	39	38	97%	2015-11-19 to 2025-04-01		Nonparametric	6.80	6.80	6.80	6.80	NA	NA	NA	NA
04_03_114	MW-4	App. IV	Lithium	ug/L	39	0	0%	2015-11-19 to 2025-04-01	Nonparametric	Nonparametric	31.7	28.3	15.8	98.0	12.7	0.399	3.90	20.2
04_03_116	MW-4	App. IV	Molybdenum	ug/L	39	34	87%	2015-11-19 to 2025-04-01	Gamma; Lognormal; Normal	Nonparametric	13.7	18.7	0.480	20.9	8.81	0.642	-1.06	-0.553
04_03_119	MW-4	App. IV	Radium-226	pCi/L	37	0	0%	2015-11-19 to 2025-04-01	Normal	Nonparametric	0.331	0.291	-0.259	0.913	0.293	0.884	0.142	-0.686
04_03_120	MW-4	App. IV	Radium-228	pCi/L	37	0	0%	2015-11-19 to 2025-04-01	Normal	Nonparametric	0.523	0.465	-0.0252	1.57	0.370	0.707	0.896	0.732
04_03_121	MW-4	App. IV	Selenium	ug/L	39	37	95%	2015-11-19 to 2025-04-01		Nonparametric	3.02	3.02	0.140	5.90	4.07	1.35	NA	NA
04_03_126	MW-4	App. IV	Total Radium	pCi/L	37	0	0%	2015-11-19 to 2025-04-01	Gamma; Lognormal; Normal	Nonparametric	0.870	0.760	0.146	2.26	0.487	0.559	1.04	0.873
05_01_111	MW-5	App. I Metals	Copper	ug/L	40	28	70%	2015-11-18 to 2025-03-31	Gamma; Lognormal; Normal	Nonparametric	4.92	4.05	1.10	12.9	3.90	0.793	0.851	-0.244
05_01_117	MW-5	App. I Metals	Nickel	ug/L	40	30	75%	2015-11-18 to 2025-03-31	Lognormal	Nonparametric	15	2.40	0.640	120	37.0	2.47	3.13	9.83
05_01_127	MW-5	App. I Metals	Vanadium	ug/L	40	37	92%	2015-11-18 to 2025-03-31		Nonparametric	1.37	1.00	0.510	2.60	1.09	0.798	1.35	NA
05_01_128	MW-5	App. I Metals	Zinc	ug/L	40	25	62%	2015-11-18 to 2025-03-31	Gamma; Lognormal	Nonparametric	15.6	11.7	3.80	54.9	13.4	0.855	2.25	5.22
05_02_105	MW-5	App. III	Boron	ug/L	39	15	38%	2015-11-18 to 2025-03-31	Nonparametric	Nonparametric	11.7	10.5	7.70	39.3	6.00	0.512	4.56	21.7
05_02_107	MW-5	App. III	Calcium	ug/L	40	0	0%	2015-11-18 to 2025-03-31	Gamma; Lognormal	Gamma	10869	10100	7830	16900	2215	0.204	0.723	-0.145
05_02_108	MW-5	App. III	Chloride	mg/L	40	0	0%	2015-11-18 to 2025-03-31	Gamma; Lognormal; Normal	Normal	20.1	19.6	16.9	23.1	1.60	0.0800	0.104	-0.951
05_02_112	MW-5	App. III	Fluoride	mg/L	40	0	0%	2015-11-18 to 2025-03-31	Gamma; Lognormal; Normal	Normal	0.548	0.555	0.410	0.690	0.0586	0.107	-0.0167	0.602
05_02_118	MW-5	App. III	pH (Field)	S.U.	37	0	0%	2015-11-18 to 2025-04-01	Nonparametric	Nonparametric	6.89	6.96	5.50	8.54	0.468	0.0679	-0.0965	6.32
05_02_123	MW-5	App. III	Sulfate	mg/L	40	0	0%	2015-11-18 to 2025-03-31	Gamma; Lognormal; Normal	Normal	3.61	3.60	2.60	5.60	0.615	0.171	1.21	2.44
05_02_125	MW-5	App. III	Total Dissolved Solids	mg/L	40	0	0%	2015-11-18 to 2025-03-31	Nonparametric	Nonparametric	251	222	190	1160	150	0.598	6.01	37.2
05_03_101	MW-5	App. IV	Antimony	ug/L	40	38	95%	2015-11-18 to 2025-03-31		Nonparametric	2.50	2.50	1.10	3.90	1.98	0.792	NA	NA
05_03_102	MW-5	App. IV	Arsenic	ug/L	40	38	95%	2015-11-18 to 2025-03-31		Nonparametric	2.58	2.58	0.170	5.00	3.42	1.32	NA	NA
05_03_103	MW-5	App. IV	Barium	ug/L	40	0	0%	2015-11-18 to 2025-03-31	Gamma; Lognormal; Normal	Normal	103	101	75.0	153	15.3	0.149	0.869	1.57
05_03_109	MW-5	App. IV	Chromium	ug/L	40	28	70%	2015-11-18 to 2025-03-31	Lognormal	Nonparametric	26.2	2.25	0.920	260	73.8	2.82	3.43	11.8
05_03_110	MW-5	App. IV	Cobalt	ug/L	40	38	95%	2015-11-18 to 2025-03-31		Nonparametric	1.50	1.50	0.100	2.90	1.98	1.32	NA	NA
05_03_112	MW-5	App. IV	Fluoride	mg/L	40	0	0%	2015-11-18 to 2025-03-31	Gamma; Lognormal; Normal	Normal	0.548	0.555	0.410	0.690	0.0586	0.107	-0.0167	0.602
05_03_113	MW-5	App. IV	Lead	ug/L	40	39	98%	2015-11-18 to 2025-03-31		Nonparametric	0.180	0.180	0.180	0.180	NA	NA	NA	NA
05_03_114	MW-5	App. IV	Lithium	ug/L	40	1	2%	2015-11-18 to 2025-03-31	Nonparametric	Nonparametric	9.69	9.30	6.30	28.6	3.34	0.345	4.94	28.4
05_03_116	MW-5	App. IV	Molybdenum	ug/L	40	37	92%	2015-11-18 to 2025-03-31		Nonparametric	11.5	8.70	0.520	25.3	12.6	1.10	0.951	NA
05_03_119	MW-5	App. IV	Radium-226	pCi/L	38	0	0%	2015-11-18 to 2025-03-31	Normal	Nonparametric	0.100	0.0749	-0.640	0.778	0.265	2.65	0.155	1.32
05_03_120	MW-5	App. IV	Radium-228	pCi/L	38	0	0%	2015-11-18 to 2025-03-31	Normal	Nonparametric	0.407	0.382	-0.0922	1.08	0.317	0.778	0.482	-0.417
05_03_121	MW-5	App. IV	Selenium	ug/L	40	39	98%	2015-11-18 to 2025-03-31		Nonparametric	0.260	0.260	0.260	0.260	NA	NA	NA	NA
05_03_124	MW-5	App. IV	Thallium	ug/L	40	39	98%	2015-11-18 to 2025-03-31		Nonparametric	14.8	14.8	14.8	14.8	NA	NA	NA	NA

(Table continues on next page)

Table 2: Summary Statistics, Non-Detects Excluded *(continued)*

ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	Date Range	Distributions Fit	Recommended Distribution	Mean	Median	Minimum	Maximum	SD	CV	Skewness	Kurtosis
05_03_126	MW-5	App. IV	Total Radium	pCi/L	38	0	0%	2015-11-18 to 2025-03-31	Gamma; Normal	Nonparametric	0.566	0.566	0.0262	1.23	0.337	0.595	0.188	-1.01
06_01_111	MW-6	App. I Metals	Copper	ug/L	39	33	85%	2015-11-20 to 2025-04-02	Gamma; Lognormal; Normal	Nonparametric	6.07	4.15	0.640	19.8	7.13	1.17	1.88	3.81
06_01_117	MW-6	App. I Metals	Nickel	ug/L	39	27	69%	2015-11-20 to 2025-04-02	Gamma; Lognormal	Nonparametric	2.73	1.80	0.920	8.20	2.08	0.760	1.91	3.84
06_01_127	MW-6	App. I Metals	Vanadium	ug/L	39	35	90%	2015-11-20 to 2025-04-02		Nonparametric	2.30	1.65	0.810	5.10	1.93	0.837	1.63	2.72
06_01_128	MW-6	App. I Metals	Zinc	ug/L	39	26	67%	2015-11-20 to 2025-04-02	Gamma; Lognormal; Normal	Nonparametric	10.5	9.20	3.60	27.5	6.68	0.637	1.46	2.50
06_02_105	MW-6	App. III	Boron	ug/L	38	23	61%	2015-11-20 to 2025-04-02	Gamma; Lognormal; Normal	Nonparametric	8.11	8.30	6.10	10.8	1.23	0.152	0.277	0.162
06_02_107	MW-6	App. III	Calcium	ug/L	39	0	0%	2015-11-20 to 2025-04-02	Gamma; Lognormal; Normal	Normal	34718	34400	30300	40200	2243	0.0646	0.443	-0.0000856
06_02_108	MW-6	App. III	Chloride	mg/L	39	0	0%	2015-11-20 to 2025-04-02	Nonparametric	Nonparametric	206	212	15.3	279	49.1	0.239	-1.86	5.59
06_02_112	MW-6	App. III	Fluoride	mg/L	39	1	3%	2015-11-20 to 2025-04-02	Gamma; Lognormal; Normal	Normal	0.374	0.370	0.180	0.520	0.0600	0.161	-0.298	2.38
06_02_118	MW-6	App. III	pH (Field)	S.U.	36	0	0%	2015-11-20 to 2025-04-01	Nonparametric	Nonparametric	6.41	6.37	6.15	7.00	0.187	0.0291	1.14	1.49
06_02_123	MW-6	App. III	Sulfate	mg/L	39	0	0%	2015-11-20 to 2025-04-02	Nonparametric	Nonparametric	58.7	28.3	25.1	214	52.3	0.891	1.70	1.99
06_02_125	MW-6	App. III	Total Dissolved Solids	mg/L	39	0	0%	2015-11-20 to 2025-04-02	Gamma; Lognormal; Normal	Normal	634	614	371	946	98.1	0.155	0.393	2.75
06_03_102	MW-6	App. IV	Arsenic	ug/L	39	37	95%	2015-11-20 to 2025-04-02		Nonparametric	4.26	4.26	0.430	8.10	5.42	1.27	NA	NA
06_03_103	MW-6	App. IV	Barium	ug/L	39	0	0%	2015-11-20 to 2025-04-02	Nonparametric	Nonparametric	78.6	63.8	43.0	142	29.6	0.377	0.627	-0.870
06_03_104	MW-6	App. IV	Beryllium	ug/L	39	38	97%	2015-11-20 to 2025-04-02		Nonparametric	0.100	0.100	0.100	0.100	NA	NA	NA	NA
06_03_109	MW-6	App. IV	Chromium	ug/L	39	31	79%	2015-11-20 to 2025-04-02	Gamma; Lognormal; Normal	Nonparametric	4.68	3.85	0.640	14.0	4.20	0.898	1.79	3.83
06_03_110	MW-6	App. IV	Cobalt	ug/L	39	38	97%	2015-11-20 to 2025-04-02		Nonparametric	0.840	0.840	0.840	0.840	NA	NA	NA	NA
06_03_112	MW-6	App. IV	Fluoride	mg/L	39	1	3%	2015-11-20 to 2025-04-02	Gamma; Lognormal; Normal	Normal	0.374	0.370	0.180	0.520	0.0600	0.161	-0.298	2.38
06_03_113	MW-6	App. IV	Lead	ug/L	39	37	95%	2015-11-20 to 2025-04-02		Nonparametric	3.35	3.35	0.890	5.80	3.47	1.04	NA	NA
06_03_114	MW-6	App. IV	Lithium	ug/L	39	0	0%	2015-11-20 to 2025-04-02	Lognormal	Lognormal	32.4	27.9	10.1	60.5	11.5	0.355	0.882	0.0602
06_03_115	MW-6	App. IV	Mercury	ug/L	39	38	97%	2015-11-20 to 2025-04-02		Nonparametric	0.320	0.320	0.320	0.320	NA	NA	NA	NA
06_03_116	MW-6	App. IV	Molybdenum	ug/L	39	34	87%	2015-11-20 to 2025-04-02	Normal	Nonparametric	5.50	5.80	0.200	8.30	3.21	0.584	-1.44	2.29
06_03_119	MW-6	App. IV	Radium-226	pCi/L	37	0	0%	2015-11-20 to 2025-04-02	Normal	Nonparametric	0.172	0.207	-0.579	0.913	0.309	1.79	0.301	0.911
06_03_120	MW-6	App. IV	Radium-228	pCi/L	37	0	0%	2015-11-20 to 2025-04-02	Normal	Nonparametric	0.557	0.533	-0.243	1.12	0.332	0.597	-0.125	-0.367
06_03_121	MW-6	App. IV	Selenium	ug/L	39	37	95%	2015-11-20 to 2025-04-02		Nonparametric	2.50	2.50	0.110	4.90	3.39	1.35	NA	NA
06_03_124	MW-6	App. IV	Thallium	ug/L	39	36	92%	2015-11-20 to 2025-04-02		Nonparametric	2.10	0.0600	0.0300	6.20	3.55	1.69	1.73	NA
06_03_126	MW-6	App. IV	Total Radium	pCi/L	37	0	0%	2015-11-20 to 2025-04-02	Gamma; Normal	Nonparametric	0.786	0.848	0.0513	1.71	0.429	0.546	0.121	-0.815
07_01_111	MW-7R	App. I Metals	Copper	ug/L	31	21	68%	2017-07-20 to 2025-04-02	Gamma; Lognormal	Nonparametric	22.3	3.40	0.740	109	38.8	1.74	1.85	2.20
07_01_117	MW-7R	App. I Metals	Nickel	ug/L	31	13	42%	2017-07-20 to 2025-04-02	Lognormal	Nonparametric	55.3	4.20	1.00	880	206	3.73	4.23	17.9
07_01_127	MW-7R	App. I Metals	Vanadium	ug/L	31	15	48%	2017-07-20 to 2025-04-02	Lognormal	Lognormal	6.46	4.10	2.80	18.8	5.59	0.866	1.68	1.22
07_01_128	MW-7R	App. I Metals	Zinc	ug/L	31	22	71%	2017-07-20 to 2025-04-02	Gamma; Lognormal	Nonparametric	16.6	5.40	3.20	53.4	20.9	1.25	1.54	0.588
07_02_105	MW-7R	App. III	Boron	ug/L	30	12	40%	2017-07-20 to 2025-04-02	Nonparametric	Nonparametric	12.6	10.6	8.10	25.3	4.70	0.372	1.71	2.42
07_02_107	MW-7R	App. III	Calcium	ug/L	31	0	0%	2017-07-20 to 2025-04-02	Gamma; Lognormal; Normal	Normal	91535	91200	74000	104000	6454	0.0705	-0.463	0.799
07_02_108	MW-7R	App. III	Chloride	mg/L	31	0	0%	2017-07-20 to 2025-04-02	Nonparametric	Nonparametric	278	281	194	313	24.1	0.0867	-1.74	4.45
07_02_112	MW-7R	App. III	Fluoride	mg/L	31	1	3%	2017-07-20 to 2025-04-02	Nonparametric	Nonparametric	0.135	0.120	0.100	0.320	0.0400	0.297	3.66	16.4
07_02_118	MW-7R	App. III	pH (Field)	S.U.	30	0	0%	2017-07-20 to 2025-04-01	Nonparametric	Nonparametric	7.46	7.35	7.13	9.60	0.432	0.0579	4.48	22.5
07_02_123	MW-7R	App. III	Sulfate	mg/L	31	0	0%	2017-07-20 to 2025-04-02	Nonparametric	Nonparametric	17.3	15.7	12.8	51.2	6.62	0.382	4.75	24.6
07_02_125	MW-7R	App. III	Total Dissolved Solids	mg/L	31	0	0%	2017-07-20 to 2025-04-02	Gamma; Lognormal; Normal	Normal	856	860	740	990	56.9	0.0664	0.177	-0.169
07_03_101	MW-7R	App. IV	Antimony	ug/L	31	30	97%	2017-07-20 to 2025-04-02		Nonparametric	13.6	13.6	13.6	13.6	NA	NA	NA	NA
07_03_102	MW-7R	App. IV	Arsenic	ug/L	31	28	90%	2017-07-20 to 2025-04-02		Nonparametric	3.89	3.80	0.770	7.10	3.17	0.814	0.128	NA
07_03_103	MW-7R	App. IV	Barium	ug/L	31	0	0%	2017-07-20 to 2025-04-02	Nonparametric	Nonparametric	295	308	50.1	423	65.3	0.222	-1.66	5.98
07_03_109	MW-7R	App. IV	Chromium	ug/L	31	8	26%	2017-07-20 to 2025-04-02	Nonparametric	Nonparametric	94.5	6.40	1.10	1940	402	4.26	4.79	23
07_03_110	MW-7R	App. IV	Cobalt	ug/L	31	26	84%	2017-07-20 to 2025-04-02	Gamma; Lognormal; Normal	Nonparametric	5.89	1.50	0.160	20.4	8.52	1.44	1.78	3.04

(Table continues on next page)

Table 2: Summary Statistics, Non-Detects Excluded *(continued)*

ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	Date Range	Distributions Fit	Recommended Distribution	Mean	Median	Minimum	Maximum	SD	CV	Skewness	Kurtosis
07_03_112	MW-7R	App. IV	Fluoride	mg/L	31	1	3%	2017-07-20 to 2025-04-02	Nonparametric	Nonparametric	0.135	0.120	0.100	0.320	0.0400	0.297	3.66	16.4
07_03_113	MW-7R	App. IV	Lead	ug/L	31	27	87%	2017-07-20 to 2025-04-02		Nonparametric	4.22	4.90	0.270	6.80	3.14	0.746	-0.652	-2.36
07_03_114	MW-7R	App. IV	Lithium	ug/L	31	0	0%	2017-07-20 to 2025-04-02	Normal	Normal	26.7	28.1	5.60	33.8	5.37	0.201	-2.18	7.22
07_03_116	MW-7R	App. IV	Molybdenum	ug/L	31	27	87%	2017-07-20 to 2025-04-02		Nonparametric	20.2	15.1	1.10	49.5	20.9	1.04	1.26	1.76
07_03_119	MW-7R	App. IV	Radium-226	pCi/L	29	0	0%	2017-07-20 to 2025-04-02	Normal	Nonparametric	0.204	0.132	-0.316	1.05	0.322	1.58	1.01	1.29
07_03_120	MW-7R	App. IV	Radium-228	pCi/L	29	0	0%	2017-07-20 to 2025-04-02	Normal	Nonparametric	0.556	0.509	-0.454	2.13	0.489	0.880	1.06	3.17
07_03_121	MW-7R	App. IV	Selenium	ug/L	31	30	97%	2017-07-20 to 2025-04-02		Nonparametric	0.180	0.180	0.180	0.180	NA	NA	NA	NA
07_03_124	MW-7R	App. IV	Thallium	ug/L	31	28	90%	2017-07-20 to 2025-04-02		Nonparametric	0.237	0.120	0.110	0.480	0.211	0.891	1.73	NA
07_03_126	MW-7R	App. IV	Total Radium	pCi/L	29	0	0%	2017-07-20 to 2025-04-02	Gamma	Nonparametric	0.819	0.594	0.0664	2.31	0.564	0.688	1.20	0.951
08_01_111	MW-8	App. I Metals	Copper	ug/L	40	30	75%	2015-11-20 to 2025-04-02	Lognormal	Nonparametric	15.1	3.55	0.760	116	35.6	2.35	3.11	9.77
08_01_117	MW-8	App. I Metals	Nickel	ug/L	40	19	48%	2015-11-20 to 2025-04-02	Lognormal	Nonparametric	15.7	4.30	1.20	157	33.8	2.16	4.02	17.1
08_01_122	MW-8	App. I Metals	Silver	ug/L	40	39	98%	2015-11-20 to 2025-04-02		Nonparametric	2.20	2.20	2.20	2.20	NA	NA	NA	NA
08_01_127	MW-8	App. I Metals	Vanadium	ug/L	40	32	80%	2015-11-20 to 2025-04-02	Gamma; Lognormal; Normal	Nonparametric	3.14	2.10	1.30	9.50	2.71	0.863	2.33	5.73
08_01_128	MW-8	App. I Metals	Zinc	ug/L	40	24	60%	2015-11-20 to 2025-04-02	Gamma; Lognormal	Nonparametric	21	15.0	3.20	62.0	17.7	0.844	1.32	0.807
08_02_105	MW-8	App. III	Boron	ug/L	39	15	38%	2015-11-20 to 2025-04-02	Gamma; Lognormal; Normal	Normal	10.6	10.5	8.60	14.0	1.50	0.142	0.659	-0.172
08_02_107	MW-8	App. III	Calcium	ug/L	40	0	0%	2015-11-20 to 2025-04-02	Nonparametric	Nonparametric	112037	108000	4170	194000	29118	0.260	-0.288	5.32
08_02_108	MW-8	App. III	Chloride	mg/L	40	0	0%	2015-11-20 to 2025-04-02	Nonparametric	Nonparametric	409	372	229	939	148	0.361	1.86	3.70
08_02_112	MW-8	App. III	Fluoride	mg/L	40	20	50%	2015-11-20 to 2025-04-02	Gamma; Lognormal; Normal	Nonparametric	0.0888	0.0900	0.0610	0.140	0.0199	0.224	0.690	0.542
08_02_118	MW-8	App. III	pH (Field)	S.U.	38	0	0%	2015-11-20 to 2025-04-01	Gamma; Lognormal; Normal	Normal	7.03	7.01	6.70	7.31	0.138	0.0197	0.114	0.334
08_02_123	MW-8	App. III	Sulfate	mg/L	40	0	0%	2015-11-20 to 2025-04-02	Gamma; Lognormal; Normal	Normal	6.84	6.90	4.40	8.40	0.831	0.121	-0.610	0.537
08_02_125	MW-8	App. III	Total Dissolved Solids	mg/L	40	0	0%	2015-11-20 to 2025-04-02	Nonparametric	Nonparametric	962	904	224	1530	230	0.239	-0.0187	2.33
08_03_101	MW-8	App. IV	Antimony	ug/L	40	33	82%	2015-11-20 to 2025-04-02	Gamma; Lognormal; Normal	Nonparametric	7.46	7.50	5.20	10.1	1.50	0.201	0.438	1.59
08_03_102	MW-8	App. IV	Arsenic	ug/L	40	35	88%	2015-11-20 to 2025-04-02	Gamma; Lognormal; Normal	Nonparametric	5.90	7.10	2.50	7.40	2.10	0.357	-1.42	1.25
08_03_103	MW-8	App. IV	Barium	ug/L	40	0	0%	2015-11-20 to 2025-04-02	Nonparametric	Nonparametric	1144	1090	880	1880	187	0.163	2.08	5.49
08_03_104	MW-8	App. IV	Beryllium	ug/L	40	39	98%	2015-11-20 to 2025-04-02		Nonparametric	1.50	1.50	1.50	1.50	NA	NA	NA	NA
08_03_106	MW-8	App. IV	Cadmium	ug/L	40	39	98%	2015-11-20 to 2025-04-02		Nonparametric	1.50	1.50	1.50	1.50	NA	NA	NA	NA
08_03_109	MW-8	App. IV	Chromium	ug/L	40	19	48%	2015-11-20 to 2025-04-02	Gamma; Lognormal	Gamma	19	7.60	1.20	87.6	24.9	1.31	1.96	3.32
08_03_110	MW-8	App. IV	Cobalt	ug/L	40	35	88%	2015-11-20 to 2025-04-02	Gamma; Lognormal; Normal	Nonparametric	1.47	0.820	0.520	3.80	1.37	0.928	1.77	3.02
08_03_112	MW-8	App. IV	Fluoride	mg/L	40	20	50%	2015-11-20 to 2025-04-02	Gamma; Lognormal; Normal	Nonparametric	0.0888	0.0900	0.0610	0.140	0.0199	0.224	0.690	0.542
08_03_113	MW-8	App. IV	Lead	ug/L	40	38	95%	2015-11-20 to 2025-04-02		Nonparametric	3.10	3.10	2.80	3.40	0.424	0.137	NA	NA
08_03_114	MW-8	App. IV	Lithium	ug/L	40	1	2%	2015-11-20 to 2025-04-02	Gamma; Lognormal	Gamma	28	26.8	18.7	50.1	6.85	0.245	1.34	2.08
08_03_115	MW-8	App. IV	Mercury	ug/L	40	39	98%	2015-11-20 to 2025-04-02		Nonparametric	0.370	0.370	0.370	0.370	NA	NA	NA	NA
08_03_116	MW-8	App. IV	Molybdenum	ug/L	40	37	92%	2015-11-20 to 2025-04-02		Nonparametric	4.07	5.20	1.40	5.60	2.32	0.570	-1.67	NA
08_03_119	MW-8	App. IV	Radium-226	pCi/L	38	0	0%	2015-11-20 to 2025-04-02	Normal	Nonparametric	0.432	0.337	-0.357	2.51	0.503	1.16	1.94	6.84
08_03_120	MW-8	App. IV	Radium-228	pCi/L	38	0	0%	2015-11-20 to 2025-04-02	Nonparametric	Nonparametric	0.841	0.676	-0.351	4.72	0.746	0.888	3.90	20.3
08_03_121	MW-8	App. IV	Selenium	ug/L	40	38	95%	2015-11-20 to 2025-04-02		Nonparametric	2.31	2.31	0.330	4.30	2.81	1.21	NA	NA
08_03_124	MW-8	App. IV	Thallium	ug/L	40	38	95%	2015-11-20 to 2025-04-02		Nonparametric	4.42	4.42	0.0330	8.80	6.20	1.40	NA	NA
08_03_126	MW-8	App. IV	Total Radium	pCi/L	38	0	0%	2015-11-20 to 2025-04-02	Nonparametric	Nonparametric	1.30	1.19	0	7.23	1.10	0.843	4.36	23.7
09_01_111	MW-10	App. I Metals	Copper	ug/L	16	9	56%	2021-08-09 to 2025-04-02	Gamma; Lognormal	Nonparametric	21.7	11.4	0.680	103	36.6	1.69	2.42	6.07
09_01_117	MW-10	App. I Metals	Nickel	ug/L	16	4	25%	2021-08-09 to 2025-04-02	Lognormal	Lognormal	4.44	2.55	0.940	27.9	7.50	1.69	3.28	11.0
09_01_127	MW-10	App. I Metals	Vanadium	ug/L	16	9	56%	2021-08-09 to 2025-04-02	Nonparametric	Nonparametric	4.47	2.40	1.50	18.2	6.07	1.36	2.62	6.89
09_01_128	MW-10	App. I Metals	Zinc	ug/L	16	13	81%	2021-08-09 to 2025-04-02		Nonparametric	35.4	6.50	5.50	94.2	50.9	1.44	1.73	NA
09_02_105	MW-10	App. III	Boron	ug/L	16	0	0%	2021-08-09 to 2025-04-02	Gamma; Lognormal; Normal	Normal	25.1	24.4	17.8	43.4	5.75	0.229	2.18	6.86

(Table continues on next page)

Table 2: Summary Statistics, Non-Detects Excluded *(continued)*

ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	Date Range	Distributions Fit	Recommended Distribution	Mean	Median	Minimum	Maximum	SD	CV	Skewness	Kurtosis
09_02_107	MW-10	App. III	Calcium	ug/L	16	0	0%	2021-08-09 to 2025-04-02	Gamma; Lognormal; Normal	Normal	21775	21750	17700	26500	2022	0.0928	0.122	1.76
09_02_108	MW-10	App. III	Chloride	mg/L	16	0	0%	2021-08-09 to 2025-04-02	Gamma; Lognormal; Normal	Normal	29.7	29.6	28.0	32.4	1.13	0.0379	0.620	0.811
09_02_112	MW-10	App. III	Fluoride	mg/L	16	0	0%	2021-08-09 to 2025-04-02	Gamma; Lognormal; Normal	Normal	0.465	0.455	0.400	0.540	0.0413	0.0888	0.499	-0.357
09_02_118	MW-10	App. III	pH (Field)	S.U.	17	0	0%	2021-04-12 to 2025-04-01	Lognormal; Normal	Normal	7.79	7.77	7.48	8.16	0.145	0.0186	0.658	2.52
09_02_123	MW-10	App. III	Sulfate	mg/L	16	0	0%	2021-08-09 to 2025-04-02	Gamma; Lognormal; Normal	Normal	3.49	3.05	1.60	8.00	1.84	0.527	1.17	0.858
09_02_125	MW-10	App. III	Total Dissolved Solids	mg/L	16	0	0%	2021-08-09 to 2025-04-02	Gamma; Lognormal; Normal	Normal	348	348	318	368	11.5	0.0331	-0.941	2.24
09_03_101	MW-10	App. IV	Antimony	ug/L	16	15	94%	2021-08-09 to 2025-04-02		Nonparametric	0.760	0.760	0.760	0.760	NA	NA	NA	NA
09_03_102	MW-10	App. IV	Arsenic	ug/L	16	12	75%	2021-08-09 to 2025-04-02		Nonparametric	2.30	2.65	1.20	2.70	0.735	0.319	-1.98	3.91
09_03_103	MW-10	App. IV	Barium	ug/L	16	0	0%	2021-08-09 to 2025-04-02	Gamma; Lognormal	Gamma	82.6	81.8	43.2	195	35.2	0.426	2.20	7.08
09_03_109	MW-10	App. IV	Chromium	ug/L	16	5	31%	2021-08-09 to 2025-04-02	Gamma; Lognormal	Gamma	9.46	4.60	0.960	56.7	16.0	1.69	3.08	9.80
09_03_110	MW-10	App. IV	Cobalt	ug/L	16	14	88%	2021-08-09 to 2025-04-02		Nonparametric	4.02	4.02	0.440	7.60	5.06	1.26	NA	NA
09_03_112	MW-10	App. IV	Fluoride	mg/L	16	0	0%	2021-08-09 to 2025-04-02	Gamma; Lognormal; Normal	Normal	0.465	0.455	0.400	0.540	0.0413	0.0888	0.499	-0.357
09_03_113	MW-10	App. IV	Lead	ug/L	16	14	88%	2021-08-09 to 2025-04-02		Nonparametric	5.98	5.98	0.760	11.2	7.38	1.23	NA	NA
09_03_114	MW-10	App. IV	Lithium	ug/L	16	0	0%	2021-08-09 to 2025-04-02	Gamma; Lognormal	Gamma	3.32	2.30	0.690	6.70	2.09	0.630	0.340	-1.55
09_03_116	MW-10	App. IV	Molybdenum	ug/L	16	0	0%	2021-08-09 to 2025-04-02	Gamma; Lognormal	Gamma	22.2	20.0	15.4	36.2	6.26	0.282	1.09	0.279
09_03_119	MW-10	App. IV	Radium-226	pCi/L	16	0	0%	2021-08-09 to 2025-04-02	Normal	Nonparametric	0.142	0.146	-0.305	0.537	0.249	1.76	-0.146	-1.03
09_03_120	MW-10	App. IV	Radium-228	pCi/L	16	0	0%	2021-08-09 to 2025-04-02	Normal	Nonparametric	0.572	0.506	-0.100	1.67	0.421	0.736	0.975	1.93
09_03_121	MW-10	App. IV	Selenium	ug/L	16	14	88%	2021-08-09 to 2025-04-02		Nonparametric	2.85	2.85	0.500	5.20	3.32	1.17	NA	NA
09_03_124	MW-10	App. IV	Thallium	ug/L	16	15	94%	2021-08-09 to 2025-04-02		Nonparametric	0.120	0.120	0.120	0.120	NA	NA	NA	NA
09_03_126	MW-10	App. IV	Total Radium	pCi/L	16	0	0%	2021-08-09 to 2025-04-02	Normal	Nonparametric	0.768	0.768	0	1.74	0.412	0.536	0.367	1.08
10_01_111	MW-11	App. I Metals	Copper	ug/L	19	10	53%	2020-10-15 to 2025-04-03	Gamma; Lognormal	Nonparametric	4.77	2.20	1.00	20.1	6.06	1.27	2.46	6.55
10_01_117	MW-11	App. I Metals	Nickel	ug/L	19	10	53%	2020-10-15 to 2025-04-03	Gamma; Lognormal	Nonparametric	2.28	1.40	0.790	7.60	2.19	0.961	2.20	4.99
10_01_127	MW-11	App. I Metals	Vanadium	ug/L	19	16	84%	2020-10-15 to 2025-04-03		Nonparametric	0.980	1.20	0.440	1.30	0.470	0.480	-1.64	NA
10_01_128	MW-11	App. I Metals	Zinc	ug/L	19	14	74%	2020-10-15 to 2025-04-03	Gamma; Lognormal; Normal	Nonparametric	5.98	5.50	3.10	9.10	2.25	0.377	0.259	0.0554
10_02_105	MW-11	App. III	Boron	ug/L	19	1	5%	2020-10-15 to 2025-04-03	Gamma; Lognormal	Gamma	16.1	15.6	11.5	25.2	3.09	0.192	1.47	3.65
10_02_107	MW-11	App. III	Calcium	ug/L	19	0	0%	2020-10-15 to 2025-04-03	Nonparametric	Nonparametric	30474	26700	23200	69400	10433	0.342	3.20	11.6
10_02_108	MW-11	App. III	Chloride	mg/L	19	0	0%	2020-10-15 to 2025-04-03	Gamma; Lognormal; Normal	Normal	128	129	74.5	149	18.6	0.146	-1.26	2.37
10_02_112	MW-11	App. III	Fluoride	mg/L	19	1	5%	2020-10-15 to 2025-04-03	Gamma; Lognormal; Normal	Normal	0.168	0.170	0.140	0.220	0.0221	0.132	0.500	0.175
10_02_118	MW-11	App. III	pH (Field)	S.U.	17	0	0%	2021-01-29 to 2025-04-01	Nonparametric	Nonparametric	6.73	6.66	6.53	7.33	0.201	0.0298	1.87	3.97
10_02_123	MW-11	App. III	Sulfate	mg/L	19	0	0%	2020-10-15 to 2025-04-03	Gamma; Lognormal; Normal	Normal	2.21	2.20	1.80	3.00	0.290	0.131	0.877	1.95
10_02_125	MW-11	App. III	Total Dissolved Solids	mg/L	19	0	0%	2020-10-15 to 2025-04-03	Nonparametric	Nonparametric	537	416	296	2760	540	1.01	4.32	18.7
10_03_101	MW-11	App. IV	Antimony	ug/L	19	17	89%	2020-10-15 to 2025-04-03		Nonparametric	2.06	2.06	0.320	3.80	2.46	1.19	NA	NA
10_03_102	MW-11	App. IV	Arsenic	ug/L	19	17	89%	2020-10-15 to 2025-04-03		Nonparametric	3.00	3.00	0.400	5.60	3.68	1.23	NA	NA
10_03_103	MW-11	App. IV	Barium	ug/L	19	0	0%	2020-10-15 to 2025-04-03	Nonparametric	Nonparametric	48.3	41.5	34.3	130	21.6	0.446	3.35	12.5
10_03_109	MW-11	App. IV	Chromium	ug/L	19	14	74%	2020-10-15 to 2025-04-03	Gamma; Lognormal; Normal	Nonparametric	3.93	1.30	0.780	8.80	4.05	1.03	0.626	-3.16
10_03_110	MW-11	App. IV	Cobalt	ug/L	19	13	68%	2020-10-15 to 2025-04-03	Gamma; Lognormal; Normal	Nonparametric	0.783	0.665	0.450	1.30	0.350	0.447	0.687	-1.46
10_03_112	MW-11	App. IV	Fluoride	mg/L	19	1	5%	2020-10-15 to 2025-04-03	Gamma; Lognormal; Normal	Normal	0.168	0.170	0.140	0.220	0.0221	0.132	0.500	0.175
10_03_113	MW-11	App. IV	Lead	ug/L	19	18	95%	2020-10-15 to 2025-04-03		Nonparametric	0.190	0.190	0.190	0.190	NA	NA	NA	NA
10_03_114	MW-11	App. IV	Lithium	ug/L	19	0	0%	2020-10-15 to 2025-04-03	Nonparametric	Nonparametric	10.7	10.1	8.30	19.5	2.40	0.225	3.01	10.8
10_03_116	MW-11	App. IV	Molybdenum	ug/L	19	17	89%	2020-10-15 to 2025-04-03		Nonparametric	1.10	1.10	0.410	1.80	0.983	0.889	NA	NA
10_03_119	MW-11	App. IV	Radium-226	pCi/L	19	0	0%	2020-10-15 to 2025-04-03	Normal	Nonparametric	0.122	0.108	-0.149	0.478	0.193	1.58	0.335	-1.18
10_03_120	MW-11	App. IV	Radium-228	pCi/L	19	0	0%	2020-10-15 to 2025-04-03	Nonparametric	Nonparametric	0.489	0.500	-0.135	2.13	0.497	1.02	2.05	6.18
10_03_124	MW-11	App. IV	Thallium	ug/L	19	18	95%	2020-10-15 to 2025-04-03		Nonparametric	0.0850	0.0850	0.0850	0.0850	NA	NA	NA	NA

(Table continues on next page)

Table 2: Summary Statistics, Non-Detects Excluded *(continued)*

ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	Date Range	Distributions Fit	Recommended Distribution	Mean	Median	Minimum	Maximum	SD	CV	Skewness	Kurtosis
10_03_126	MW-11	App. IV	Total Radium	pCi/L	19	0	0%	2020-10-15 to 2025-04-03	Gamma; Lognormal	Nonparametric	0.648	0.513	0.124	2.39	0.529	0.817	2.23	6.14
11_01_111	MW-11D	App. I Metals	Copper	ug/L	17	12	71%	2021-04-13 to 2025-04-03	Gamma; Lognormal	Nonparametric	7.06	2.30	1.20	15.4	7.18	1.02	0.605	-3.25
11_01_117	MW-11D	App. I Metals	Nickel	ug/L	17	12	71%	2021-04-13 to 2025-04-03	Gamma; Lognormal	Nonparametric	2.52	1.70	1.20	6.20	2.09	0.831	2.05	4.28
11_01_127	MW-11D	App. I Metals	Vanadium	ug/L	17	14	82%	2021-04-13 to 2025-04-03		Nonparametric	1.23	1.40	0.690	1.60	0.478	0.389	-1.40	NA
11_01_128	MW-11D	App. I Metals	Zinc	ug/L	17	11	65%	2021-04-13 to 2025-04-03	Gamma; Lognormal; Normal	Nonparametric	10.3	8.35	2.90	19.0	7.15	0.694	0.435	-2.22
11_02_105	MW-11D	App. III	Boron	ug/L	17	0	0%	2021-04-13 to 2025-04-03	Nonparametric	Nonparametric	53.6	50.9	41.7	109	16.2	0.302	2.85	9.19
11_02_107	MW-11D	App. III	Calcium	ug/L	17	0	0%	2021-04-13 to 2025-04-03	Nonparametric	Nonparametric	24671	17700	14000	94400	18934	0.767	3.48	13.1
11_02_108	MW-11D	App. III	Chloride	mg/L	17	0	0%	2021-04-13 to 2025-04-03	Lognormal	Lognormal	118	68.2	52.3	530	117	0.995	3.07	10.5
11_02_112	MW-11D	App. III	Fluoride	mg/L	17	0	0%	2021-04-13 to 2025-04-03	Gamma; Lognormal; Normal	Normal	0.485	0.480	0.420	0.640	0.0527	0.109	1.51	3.83
11_02_118	MW-11D	App. III	pH (Field)	S.U.	17	0	0%	2021-04-12 to 2025-04-01	Gamma; Lognormal; Normal	Normal	8.37	8.34	8.06	8.92	0.252	0.0301	0.827	0.180
11_02_123	MW-11D	App. III	Sulfate	mg/L	17	1	6%	2021-04-13 to 2025-04-03	Nonparametric	Nonparametric	82.9	27.1	13.3	523	129	1.56	2.97	9.76
11_02_125	MW-11D	App. III	Total Dissolved Solids	mg/L	17	0	0%	2021-04-13 to 2025-04-03	Nonparametric	Nonparametric	522	387	312	1740	354	0.678	2.88	9.33
11_03_101	MW-11D	App. IV	Antimony	ug/L	17	14	82%	2021-04-13 to 2025-04-03		Nonparametric	3.47	4.20	0.620	5.60	2.57	0.739	-1.17	NA
11_03_102	MW-11D	App. IV	Arsenic	ug/L	17	8	47%	2021-04-13 to 2025-04-03	Gamma; Lognormal; Normal	Normal	8.56	7.00	3.20	16.5	4.94	0.577	0.655	-1.19
11_03_103	MW-11D	App. IV	Barium	ug/L	17	0	0%	2021-04-13 to 2025-04-03	Nonparametric	Nonparametric	106	113	65.7	124	17.1	0.161	-1.43	1.41
11_03_104	MW-11D	App. IV	Beryllium	ug/L	17	16	94%	2021-04-13 to 2025-04-03		Nonparametric	0.110	0.110	0.110	0.110	NA	NA	NA	NA
11_03_109	MW-11D	App. IV	Chromium	ug/L	17	13	76%	2021-04-13 to 2025-04-03		Nonparametric	3.73	2.70	1.50	8.00	2.93	0.788	1.67	2.87
11_03_110	MW-11D	App. IV	Cobalt	ug/L	17	16	94%	2021-04-13 to 2025-04-03		Nonparametric	0.210	0.210	0.210	0.210	NA	NA	NA	NA
11_03_112	MW-11D	App. IV	Fluoride	mg/L	17	0	0%	2021-04-13 to 2025-04-03	Gamma; Lognormal; Normal	Normal	0.485	0.480	0.420	0.640	0.0527	0.109	1.51	3.83
11_03_113	MW-11D	App. IV	Lead	ug/L	17	16	94%	2021-04-13 to 2025-04-03		Nonparametric	1.80	1.80	1.80	1.80	NA	NA	NA	NA
11_03_114	MW-11D	App. IV	Lithium	ug/L	17	0	0%	2021-04-13 to 2025-04-03	Lognormal	Lognormal	28.0	21.4	14.7	80.7	17	0.606	2.38	5.77
11_03_116	MW-11D	App. IV	Molybdenum	ug/L	17	1	6%	2021-04-13 to 2025-04-03	Gamma; Lognormal	Gamma	21.4	8.70	3.60	127	30.8	1.44	3.01	10.2
11_03_119	MW-11D	App. IV	Radium-226	pCi/L	17	0	0%	2021-04-13 to 2025-04-03	Normal	Nonparametric	0.180	0.0934	-0.156	0.692	0.266	1.48	0.665	-0.764
11_03_120	MW-11D	App. IV	Radium-228	pCi/L	17	0	0%	2021-04-13 to 2025-04-03	Gamma; Lognormal	Nonparametric	0.609	0.611	0.0582	2.23	0.512	0.841	2.07	5.95
11_03_121	MW-11D	App. IV	Selenium	ug/L	17	16	94%	2021-04-13 to 2025-04-03		Nonparametric	0.230	0.230	0.230	0.230	NA	NA	NA	NA
11_03_124	MW-11D	App. IV	Thallium	ug/L	17	16	94%	2021-04-13 to 2025-04-03		Nonparametric	0.0940	0.0940	0.0940	0.0940	NA	NA	NA	NA
11_03_126	MW-11D	App. IV	Total Radium	pCi/L	17	0	0%	2021-04-13 to 2025-04-03	Gamma; Lognormal; Normal	Nonparametric	0.815	0.714	0.125	2.27	0.537	0.658	1.17	2.06

Table 3: Goodness-of-Fit Tests, Non-Detects Excluded

								Normal				Lognormal				Gamma						
								S-W		Lilliefors		S-W		Lilliefors		K-S		A-D				
ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	Stat.	p-Value	Stat.	p-Value	Stat.	p-Value	Stat.	p-Value	Stat.	p-Value	Stat.	p-Value	Log-SD (NDs excl.)	ProUCL Distributions Fit	Recommended Distribution
01_01_111	MW-1	App. I Metals	Copper	ug/L	40	32	80%	0.760	0.011	0.328	0.011	0.867	0.140	0.258	0.120	0.307	0.01 <= p < 0.05	0.676	0.05 <= p < 0.10	1.097	Gamma; Lognormal	Nonparametric
01_01_117	MW-1	App. I Metals	Nickel	ug/L	40	28	70%	0.887	0.107	0.157	0.567	0.938	0.474	0.203	0.187	0.166	>= 0.10	0.334	>= 0.10	0.749	Gamma; Lognormal; Normal	Nonparametric
01_01_122	MW-1	App. I Metals	Silver	ug/L	40	33	82%	0.882	0.238	0.224	0.358	0.743	0.011	0.305	0.049	0.261	>= 0.10	0.687	0.05 <= p < 0.10	0.627	Gamma; Normal	Nonparametric
01_01_127	MW-1	App. I Metals	Vanadium	ug/L	40	24	60%	0.896	0.070	0.173	0.223	0.980	0.965	0.090	0.981	0.120	>= 0.10	0.226	>= 0.10	0.463	Gamma; Lognormal; Normal	Nonparametric
01_01_128	MW-1	App. I Metals	Zinc	ug/L	40	25	62%	0.888	0.063	0.224	0.042	0.941	0.391	0.167	0.315	0.154	>= 0.10	0.429	>= 0.10	0.570	Gamma; Lognormal; Normal	Nonparametric
01_02_105	MW-1	App. III	Boron	ug/L	39	22	56%	0.528	0.000	0.316	0.000	0.794	0.002	0.240	0.010	0.277	< 0.01	1.663	< 0.01	0.446	Nonparametric	Nonparametric
01_02_107	MW-1	App. III	Calcium	ug/L	40	0	0%	0.967	0.299	0.105	0.326	0.928	0.013	0.117	0.180	0.108	>= 0.10	0.592	>= 0.10	0.536	Gamma; Lognormal; Normal	Normal
01_02_108	MW-1	App. III	Chloride	mg/L	40	0	0%	0.978	0.616	0.073	0.848	0.880	0.001	0.157	0.014	0.129	0.05 <= p < 0.10	1.001	0.01 <= p < 0.05	0.612	Gamma; Normal	Normal
01_02_112	MW-1	App. III	Fluoride	mg/L	40	1	2%	0.937	0.030	0.169	0.007	0.929	0.017	0.192	0.001	0.188	< 0.01	1.252	< 0.01	0.160	Nonparametric	Nonparametric
01_02_118	MW-1	App. III	pH (Field)	S.U.	38	0	0%	0.945	0.063	0.144	0.044	0.951	0.096	0.139	0.062	0.141	0.05 <= p < 0.10	0.629	0.05 <= p < 0.10	0.033	Gamma; Lognormal; Normal	Normal
01_02_123	MW-1	App. III	Sulfate	mg/L	40	0	0%	0.883	0.001	0.223	0.000	0.942	0.040	0.178	0.003	0.192	< 0.01	1.253	< 0.01	0.213	Nonparametric	Nonparametric
01_02_125	MW-1	App. III	Total Dissolved Solids	mg/L	40	0	0%	0.963	0.208	0.098	0.439	0.969	0.326	0.085	0.668	0.059	>= 0.10	0.174	>= 0.10	0.551	Gamma; Lognormal; Normal	Normal
01_03_101	MW-1	App. IV	Antimony	ug/L	40	38	95%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		0.060		Nonparametric
01_03_102	MW-1	App. IV	Arsenic	ug/L	40	36	90%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		0.477		Nonparametric
01_03_103	MW-1	App. IV	Barium	ug/L	40	0	0%	0.979	0.660	0.083	0.700	0.932	0.018	0.142	0.042	0.117	>= 0.10	0.357	>= 0.10	0.568	Gamma; Normal	Normal
01_03_104	MW-1	App. IV	Beryllium	ug/L	40	40	100%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
01_03_106	MW-1	App. IV	Cadmium	ug/L	40	37	92%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		0.093		Nonparametric
01_03_109	MW-1	App. IV	Chromium	ug/L	40	27	68%	0.901	0.140	0.148	0.610	0.952	0.626	0.190	0.227	0.157	>= 0.10	0.237	>= 0.10	0.909	Gamma; Lognormal; Normal	Nonparametric
01_03_110	MW-1	App. IV	Cobalt	ug/L	40	36	90%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		1.090		Nonparametric
01_03_112	MW-1	App. IV	Fluoride	mg/L	40	1	2%	0.937	0.030	0.169	0.007	0.929	0.017	0.192	0.001	0.188	< 0.01	1.252	< 0.01	0.160	Nonparametric	Nonparametric
01_03_113	MW-1	App. IV	Lead	ug/L	40	36	90%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		1.442		Nonparametric
01_03_114	MW-1	App. IV	Lithium	ug/L	40	0	0%	0.984	0.846	0.089	0.581	0.965	0.250	0.121	0.147	0.108	>= 0.10	0.427	>= 0.10	0.186	Gamma; Lognormal; Normal	Normal
01_03_115	MW-1	App. IV	Mercury	ug/L	40	40	100%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
01_03_116	MW-1	App. IV	Molybdenum	ug/L	40	35	88%	0.864	0.244	0.225	0.551	0.848	0.188	0.286	0.197	0.278	>= 0.10	0.454	>= 0.10	1.658	Gamma; Lognormal; Normal	Nonparametric
01_03_119	MW-1	App. IV	Radium-226	pCi/L	38	0	0%	0.969	0.360	0.090	0.618	NA	NA	NA	NA	NA		NA		NA	Normal	Nonparametric
01_03_120	MW-1	App. IV	Radium-228	pCi/L	38	0	0%	0.967	0.327	0.102	0.410	NA	NA	NA	NA	NA		NA		NA	Normal	Nonparametric
01_03_121	MW-1	App. IV	Selenium	ug/L	40	38	95%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		1.948		Nonparametric
01_03_124	MW-1	App. IV	Thallium	ug/L	40	40	100%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
01_03_126	MW-1	App. IV	Total Radium	pCi/L	38	0	0%	0.909	0.005	0.114	0.245	0.976	0.565	0.074	0.862	0.060	>= 0.10	0.186	>= 0.10	0.502	Gamma; Lognormal; Normal	Nonparametric
02_01_111	MW-2	App. I Metals	Copper	ug/L	35	15	43%	0.488	0.000	0.337	0.000	0.930	0.154	0.165	0.162	0.246	< 0.01	1.705	< 0.01	1.430	Lognormal	Nonparametric
02_01_117	MW-2	App. I Metals	Nickel	ug/L	35	12	34%	0.644	0.000	0.269	0.000	0.958	0.433	0.106	0.720	0.168	>= 0.10	0.929	0.01 <= p < 0.05	1.061	Gamma; Lognormal	Gamma
02_01_122	MW-2	App. I Metals	Silver	ug/L	35	32	91%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		1.506		Nonparametric
02_01_127	MW-2	App. I Metals	Vanadium	ug/L	35	23	66%	0.626	0.000	0.346	0.000	0.897	0.145	0.171	0.426	0.239	0.05 <= p < 0.10	0.976	0.01 <= p < 0.05	0.952	Gamma; Lognormal	Nonparametric
02_01_128	MW-2	App. I Metals	Zinc	ug/L	35	16	46%	0.348	0.000	0.398	0.000	0.927	0.152	0.142	0.402	0.290	< 0.01	2.057	< 0.01	1.463	Lognormal	Nonparametric
02_02_105	MW-2	App. III	Boron	ug/L	34	1	3%	0.941	0.072	0.106	0.452	0.974	0.611	0.080	0.859	0.089	>= 0.10	0.330	>= 0.10	0.129	Gamma; Lognormal; Normal	Normal
02_02_107	MW-2	App. III	Calcium	ug/L	35	0	0%	0.722	0.000	0.219	0.000	0.468	0.000	0.289	0.000	0.264	< 0.01	4.264	< 0.01	0.308	Nonparametric	Nonparametric
02_02_108	MW-2	App. III	Chloride	mg/L	35	0	0%	0.868	0.001	0.156	0.031	0.758	0.000	0.192	0.002	0.182	< 0.01	2.062	< 0.01	0.213	Nonparametric	Nonparametric
02_02_112	MW-2	App. III	Fluoride	mg/L	35	2	6%	0.887	0.002	0.176	0.011	0.922	0.021	0.204	0.001	0.189	< 0.01	1.160	< 0.01	0.230	Nonparametric	Nonparametric
02_02_118	MW-2	App. III	pH (Field)	S.U.	31	0	0%	0.680	0.000	0.252	0.000	0.710	0.000	0.241	0.000	0.245	< 0.01	2.775	< 0.01	0.047	Nonparametric	Nonparametric

(Table continues on next page)

Note: p-values above 0.05 suggest a fit to the tested distribution; a distribution passes its GOF test when at least one of the two p-values is above 0.05.

Table 3: Goodness-of-Fit Tests, Non-Detects Excluded *(continued)*

								Normal				Lognormal				Gamma						
								S-W		Lilliefors		S-W		Lilliefors		K-S		A-D				
ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	Stat.	p-Value	Stat.	p-Value	Stat.	p-Value	Stat.	p-Value	Stat.	p-Value	Stat.	p-Value	Log-SD (NDs excl.)	ProUCL Distributions Fit	Recommended Distribution
02_02_123	MW-2	App. III	Sulfate	mg/L	35	0	0%	0.798	0.000	0.240	0.000	0.887	0.002	0.187	0.003	0.196	< 0.01	2.064	< 0.01	0.545	Nonparametric	Nonparametric
02_02_125	MW-2	App. III	Total Dissolved Solids	mg/L	35	0	0%	0.456	0.000	0.363	0.000	0.630	0.000	0.319	0.000	0.286	< 0.01	4.860	< 0.01	0.579	Nonparametric	Nonparametric
02_03_101	MW-2	App. IV	Antimony	ug/L	35	21	60%	0.975	0.936	0.118	0.865	0.732	0.001	0.226	0.050	0.165	>= 0.10	0.676	0.05 <= p < 0.10	0.741	Gamma; Lognormal; Normal	Nonparametric
02_03_102	MW-2	App. IV	Arsenic	ug/L	35	24	69%	0.835	0.027	0.211	0.184	0.907	0.223	0.137	0.820	0.154	>= 0.10	0.504	>= 0.10	0.387	Gamma; Lognormal; Normal	Nonparametric
02_03_103	MW-2	App. IV	Barium	ug/L	35	0	0%	0.929	0.026	0.171	0.011	0.889	0.002	0.169	0.012	0.152	0.01 <= p < 0.05	1.008	0.01 <= p < 0.05	0.319	Nonparametric	Nonparametric
02_03_104	MW-2	App. IV	Beryllium	ug/L	35	32	91%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		0.507		Nonparametric
02_03_106	MW-2	App. IV	Cadmium	ug/L	35	32	91%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		1.163		Nonparametric
02_03_109	MW-2	App. IV	Chromium	ug/L	35	6	17%	0.647	0.000	0.275	0.000	0.960	0.322	0.127	0.268	0.201	< 0.01	1.240	< 0.01	1.132	Lognormal	Nonparametric
02_03_110	MW-2	App. IV	Cobalt	ug/L	35	27	77%	0.620	0.000	0.377	0.001	0.895	0.262	0.211	0.368	0.302	0.05 <= p < 0.10	0.712	0.05 <= p < 0.10	1.318	Gamma; Lognormal	Nonparametric
02_03_112	MW-2	App. IV	Fluoride	mg/L	35	2	6%	0.887	0.002	0.176	0.011	0.922	0.021	0.204	0.001	0.189	< 0.01	1.160	< 0.01	0.230	Nonparametric	Nonparametric
02_03_113	MW-2	App. IV	Lead	ug/L	35	30	86%	0.894	0.376	0.281	0.219	0.968	0.866	0.178	0.866	0.217	>= 0.10	0.242	>= 0.10	1.081	Gamma; Lognormal; Normal	Nonparametric
02_03_114	MW-2	App. IV	Lithium	ug/L	35	0	0%	0.688	0.000	0.285	0.000	0.894	0.003	0.181	0.005	0.215	< 0.01	2.077	< 0.01	0.459	Nonparametric	Nonparametric
02_03_115	MW-2	App. IV	Mercury	ug/L	35	35	100%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
02_03_116	MW-2	App. IV	Molybdenum	ug/L	35	6	17%	0.685	0.000	0.244	0.000	0.934	0.069	0.116	0.401	0.164	0.05 <= p < 0.10	1.067	< 0.01	0.557	Gamma; Lognormal	Gamma
02_03_119	MW-2	App. IV	Radium-226	pCi/L	34	0	0%	0.940	0.060	0.115	0.308	0.933	0.039	0.130	0.156	0.105	>= 0.10	0.453	>= 0.10	0.484	Gamma; Lognormal; Normal	Nonparametric
02_03_120	MW-2	App. IV	Radium-228	pCi/L	34	0	0%	0.975	0.611	0.095	0.609	0.950	0.123	0.098	0.556	0.082	>= 0.10	0.273	>= 0.10	0.380	Gamma; Lognormal; Normal	Nonparametric
02_03_121	MW-2	App. IV	Selenium	ug/L	35	33	94%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		1.153		Nonparametric
02_03_124	MW-2	App. IV	Thallium	ug/L	35	23	66%	0.341	0.000	0.519	0.000	0.671	0.000	0.309	0.002	0.473	< 0.01	2.896	< 0.01	1.503	Nonparametric	Nonparametric
02_03_126	MW-2	App. IV	Total Radium	pCi/L	34	0	0%	0.959	0.220	0.111	0.356	0.923	0.020	0.177	0.009	0.156	0.01 <= p < 0.05	0.890	0.01 <= p < 0.05	0.350	Normal	Nonparametric
03_01_111	MW-3	App. I Metals	Copper	ug/L	38	21	55%	0.524	0.000	0.361	0.000	0.907	0.090	0.170	0.217	0.276	< 0.01	1.494	< 0.01	1.226	Lognormal	Nonparametric
03_01_117	MW-3	App. I Metals	Nickel	ug/L	38	19	50%	0.516	0.000	0.409	0.000	0.894	0.038	0.179	0.111	0.294	< 0.01	1.754	< 0.01	1.187	Lognormal	Nonparametric
03_01_122	MW-3	App. I Metals	Silver	ug/L	38	36	95%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		0.447		Nonparametric
03_01_127	MW-3	App. I Metals	Vanadium	ug/L	38	23	61%	0.738	0.001	0.261	0.007	0.893	0.075	0.175	0.252	0.209	0.05 <= p < 0.10	0.882	0.01 <= p < 0.05	0.630	Gamma; Lognormal	Nonparametric
03_01_128	MW-3	App. I Metals	Zinc	ug/L	38	28	74%	0.830	0.033	0.223	0.170	0.929	0.434	0.204	0.280	0.214	>= 0.10	0.390	>= 0.10	0.848	Gamma; Lognormal; Normal	Nonparametric
03_02_105	MW-3	App. III	Boron	ug/L	37	10	27%	0.937	0.104	0.145	0.152	0.829	0.000	0.209	0.004	0.191	0.01 <= p < 0.05	0.995	0.01 <= p < 0.05	0.370	Normal	Normal
03_02_107	MW-3	App. III	Calcium	ug/L	38	0	0%	0.741	0.000	0.189	0.002	0.859	0.000	0.148	0.036	0.157	0.01 <= p < 0.05	1.461	< 0.01	0.156	Nonparametric	Nonparametric
03_02_108	MW-3	App. III	Chloride	mg/L	38	0	0%	0.907	0.004	0.126	0.136	0.816	0.000	0.158	0.018	0.147	0.01 <= p < 0.05	1.238	< 0.01	0.144	Normal	Normal
03_02_112	MW-3	App. III	Fluoride	mg/L	38	1	3%	0.938	0.039	0.116	0.233	0.971	0.435	0.088	0.658	0.093	>= 0.10	0.322	>= 0.10	0.296	Gamma; Lognormal; Normal	Normal
03_02_118	MW-3	App. III	pH (Field)	S.U.	34	0	0%	0.746	0.000	0.231	0.000	0.711	0.000	0.241	0.000	0.235	< 0.01	2.080	< 0.01	0.037	Nonparametric	Nonparametric
03_02_123	MW-3	App. III	Sulfate	mg/L	38	0	0%	0.769	0.000	0.249	0.000	0.885	0.001	0.193	0.001	0.215	< 0.01	2.216	< 0.01	0.919	Nonparametric	Nonparametric
03_02_125	MW-3	App. III	Total Dissolved Solids	mg/L	38	0	0%	0.784	0.000	0.212	0.000	0.518	0.000	0.328	0.000	0.298	< 0.01	5.286	< 0.01	0.511	Nonparametric	Nonparametric
03_03_101	MW-3	App. IV	Antimony	ug/L	38	27	71%	0.921	0.324	0.181	0.402	0.815	0.015	0.216	0.159	0.220	>= 0.10	0.600	>= 0.10	0.655	Gamma; Lognormal; Normal	Nonparametric
03_03_102	MW-3	App. IV	Arsenic	ug/L	38	30	79%	0.975	0.937	0.125	0.971	0.933	0.541	0.159	0.798	0.149	>= 0.10	0.249	>= 0.10	0.559	Gamma; Lognormal; Normal	Nonparametric
03_03_103	MW-3	App. IV	Barium	ug/L	38	0	0%	0.964	0.251	0.122	0.165	0.916	0.008	0.140	0.057	0.138	0.05 <= p < 0.10	0.725	0.05 <= p < 0.10	0.179	Gamma; Lognormal; Normal	Normal
03_03_104	MW-3	App. IV	Beryllium	ug/L	38	38	100%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
03_03_106	MW-3	App. IV	Cadmium	ug/L	38	37	97%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
03_03_109	MW-3	App. IV	Chromium	ug/L	38	19	50%	0.454	0.000	0.423	0.000	0.917	0.100	0.194	0.057	0.321	< 0.01	1.811	< 0.01	1.324	Lognormal	Nonparametric
03_03_110	MW-3	App. IV	Cobalt	ug/L	38	32	84%	0.755	0.022	0.339	0.030	0.930	0.577	0.237	0.360	0.195	>= 0.10	0.250	>= 0.10	1.535	Gamma; Lognormal	Nonparametric
03_03_112	MW-3	App. IV	Fluoride	mg/L	38	1	3%	0.938	0.039	0.116	0.233	0.971	0.435	0.088	0.658	0.093	>= 0.10	0.322	>= 0.10	0.296	Gamma; Lognormal; Normal	Normal

(Table continues on next page)

Note: p-values above 0.05 suggest a fit to the tested distribution; a distribution passes its GOF test when at least one of the two p-values is above 0.05.

Table 3: Goodness-of-Fit Tests, Non-Detects Excluded *(continued)*

								Normal				Lognormal				Gamma						
								S-W		Lilliefors		S-W		Lilliefors		K-S		A-D				
ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	Stat.	p-Value	Stat.	p-Value	Stat.	p-Value	Stat.	p-Value	Stat.	p-Value	Stat.	p-Value	Log-SD (NDs excl.)	ProUCL Distributions Fit	Recommended Distribution
03_03_113	MW-3	App. IV	Lead	ug/L	38	34	89%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		1.710		Nonparametric
03_03_114	MW-3	App. IV	Lithium	ug/L	38	1	3%	0.631	0.000	0.307	0.000	0.800	0.000	0.238	0.000	0.263	< 0.01	3.368	< 0.01	0.305	Nonparametric	Nonparametric
03_03_115	MW-3	App. IV	Mercury	ug/L	38	38	100%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
03_03_116	MW-3	App. IV	Molybdenum	ug/L	38	1	3%	0.493	0.000	0.269	0.000	0.808	0.000	0.192	0.001	0.225	< 0.01	2.481	< 0.01	0.331	Nonparametric	Nonparametric
03_03_119	MW-3	App. IV	Radium-226	pCi/L	37	0	0%	0.966	0.320	0.135	0.085	0.946	0.073	0.124	0.162	0.119	>= 0.10	0.478	>= 0.10	0.458	Gamma; Lognormal; Normal	Nonparametric
03_03_120	MW-3	App. IV	Radium-228	pCi/L	37	0	0%	0.979	0.687	0.083	0.753	0.867	0.000	0.150	0.034	0.133	0.05 <= p < 0.10	1.005	0.01 <= p < 0.05	0.490	Gamma; Normal	Nonparametric
03_03_121	MW-3	App. IV	Selenium	ug/L	38	37	97%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
03_03_124	MW-3	App. IV	Thallium	ug/L	38	38	100%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
03_03_126	MW-3	App. IV	Total Radium	pCi/L	37	0	0%	0.983	0.840	0.083	0.749	0.939	0.042	0.149	0.038	0.127	>= 0.10	0.487	>= 0.10	0.340	Gamma; Normal	Nonparametric
04_01_111	MW-4	App. I Metals	Copper	ug/L	39	33	85%	0.704	0.007	0.356	0.017	0.818	0.085	0.294	0.108	0.301	>= 0.10	0.619	>= 0.10	2.358	Gamma; Lognormal	Nonparametric
04_01_117	MW-4	App. I Metals	Nickel	ug/L	39	11	28%	0.938	0.096	0.118	0.413	0.955	0.259	0.107	0.565	0.114	>= 0.10	0.427	>= 0.10	0.370	Gamma; Lognormal; Normal	Normal
04_01_122	MW-4	App. I Metals	Silver	ug/L	39	39	100%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
04_01_127	MW-4	App. I Metals	Vanadium	ug/L	39	35	90%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		1.554		Nonparametric
04_01_128	MW-4	App. I Metals	Zinc	ug/L	39	24	62%	0.739	0.001	0.228	0.034	0.914	0.159	0.140	0.599	0.152	>= 0.10	0.678	0.05 <= p < 0.10	0.522	Gamma; Lognormal	Nonparametric
04_02_105	MW-4	App. III	Boron	ug/L	38	23	61%	0.313	0.000	0.493	0.000	0.478	0.000	0.380	0.000	0.451	< 0.01	4.175	< 0.01	0.827	Nonparametric	Nonparametric
04_02_107	MW-4	App. III	Calcium	ug/L	39	0	0%	0.867	0.000	0.189	0.001	0.729	0.000	0.250	0.000	0.233	< 0.01	2.609	< 0.01	0.308	Nonparametric	Nonparametric
04_02_108	MW-4	App. III	Chloride	mg/L	39	0	0%	0.928	0.015	0.162	0.011	0.847	0.000	0.163	0.010	0.165	< 0.01	1.468	< 0.01	0.315	Nonparametric	Nonparametric
04_02_112	MW-4	App. III	Fluoride	mg/L	39	0	0%	0.978	0.623	0.097	0.465	0.990	0.974	0.093	0.541	0.094	>= 0.10	0.240	>= 0.10	0.179	Gamma; Lognormal; Normal	Normal
04_02_118	MW-4	App. III	pH (Field)	S.U.	37	0	0%	0.983	0.829	0.093	0.584	0.983	0.831	0.089	0.645	0.092	>= 0.10	0.269	>= 0.10	0.022	Gamma; Lognormal; Normal	Normal
04_02_123	MW-4	App. III	Sulfate	mg/L	39	0	0%	0.857	0.000	0.202	0.000	0.731	0.000	0.268	0.000	0.245	< 0.01	3.165	< 0.01	0.302	Nonparametric	Nonparametric
04_02_125	MW-4	App. III	Total Dissolved Solids	mg/L	39	0	0%	0.823	0.000	0.221	0.000	0.700	0.000	0.284	0.000	0.264	< 0.01	3.928	< 0.01	0.269	Nonparametric	Nonparametric
04_03_101	MW-4	App. IV	Antimony	ug/L	39	34	87%	0.812	0.100	0.307	0.127	0.834	0.150	0.296	0.158	0.322	>= 0.10	0.536	>= 0.10	0.359	Gamma; Lognormal; Normal	Nonparametric
04_03_102	MW-4	App. IV	Arsenic	ug/L	39	37	95%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		1.874		Nonparametric
04_03_103	MW-4	App. IV	Barium	ug/L	39	0	0%	0.866	0.000	0.198	0.001	0.709	0.000	0.277	0.000	0.253	< 0.01	3.265	< 0.01	0.329	Nonparametric	Nonparametric
04_03_104	MW-4	App. IV	Beryllium	ug/L	39	39	100%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
04_03_106	MW-4	App. IV	Cadmium	ug/L	39	38	97%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
04_03_109	MW-4	App. IV	Chromium	ug/L	39	29	74%	0.899	0.215	0.165	0.616	0.946	0.618	0.158	0.678	0.123	>= 0.10	0.211	>= 0.10	0.985	Gamma; Lognormal; Normal	Nonparametric
04_03_110	MW-4	App. IV	Cobalt	ug/L	39	20	51%	0.921	0.116	0.172	0.149	0.963	0.635	0.129	0.552	0.140	>= 0.10	0.343	>= 0.10	0.572	Gamma; Lognormal; Normal	Nonparametric
04_03_112	MW-4	App. IV	Fluoride	mg/L	39	0	0%	0.978	0.623	0.097	0.465	0.990	0.974	0.093	0.541	0.094	>= 0.10	0.240	>= 0.10	0.179	Gamma; Lognormal; Normal	Normal
04_03_113	MW-4	App. IV	Lead	ug/L	39	38	97%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
04_03_114	MW-4	App. IV	Lithium	ug/L	39	0	0%	0.626	0.000	0.194	0.001	0.878	0.001	0.159	0.014	0.177	< 0.01	1.618	< 0.01	0.295	Nonparametric	Nonparametric
04_03_115	MW-4	App. IV	Mercury	ug/L	39	39	100%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
04_03_116	MW-4	App. IV	Molybdenum	ug/L	39	34	87%	0.843	0.172	0.313	0.109	0.702	0.010	0.326	0.088	0.344	0.05 <= p < 0.10	0.746	0.01 <= p < 0.05	1.611	Gamma; Lognormal; Normal	Nonparametric
04_03_119	MW-4	App. IV	Radium-226	pCi/L	37	0	0%	0.971	0.437	0.110	0.314	NA	NA	NA	NA	NA		NA		NA	Normal	Nonparametric
04_03_120	MW-4	App. IV	Radium-228	pCi/L	37	0	0%	0.943	0.058	0.104	0.403	NA	NA	NA	NA	NA		NA		NA	Normal	Nonparametric
04_03_121	MW-4	App. IV	Selenium	ug/L	39	37	95%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		2.645		Nonparametric
04_03_124	MW-4	App. IV	Thallium	ug/L	39	39	100%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
04_03_126	MW-4	App. IV	Total Radium	pCi/L	37	0	0%	0.926	0.017	0.128	0.130	0.983	0.817	0.068	0.935	0.060	>= 0.10	0.152	>= 0.10	0.589	Gamma; Lognormal; Normal	Nonparametric
05_01_111	MW-5	App. I Metals	Copper	ug/L	40	28	70%	0.877	0.080	0.215	0.130	0.908	0.199	0.185	0.311	0.188	>= 0.10	0.517	>= 0.10	0.871	Gamma; Lognormal; Normal	Nonparametric

(Table continues on next page)

Note: p-values above 0.05 suggest a fit to the tested distribution; a distribution passes its GOF test when at least one of the two p-values is above 0.05.

Table 3: Goodness-of-Fit Tests, Non-Detects Excluded *(continued)*

								Normal				Lognormal				Gamma						
								S-W		Lilliefors		S-W		Lilliefors		K-S		A-D				
ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	Stat.	p-Value	Stat.	p-Value	Stat.	p-Value	Stat.	p-Value	Stat.	p-Value	Stat.	p-Value	Log-SD (NDs excl.)	ProUCL Distributions Fit	Recommended Distribution
05_01_117	MW-5	App. I Metals	Nickel	ug/L	40	30	75%	0.429	0.000	0.464	0.000	0.859	0.075	0.222	0.175	0.320	0.01 <= p < 0.05	1.455	< 0.01	1.494	Lognormal	Nonparametric
05_01_122	MW-5	App. I Metals	Silver	ug/L	40	40	100%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
05_01_127	MW-5	App. I Metals	Vanadium	ug/L	40	37	92%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		0.818		Nonparametric
05_01_128	MW-5	App. I Metals	Zinc	ug/L	40	25	62%	0.722	0.000	0.296	0.001	0.956	0.632	0.178	0.230	0.227	0.01 <= p < 0.05	0.680	0.05 <= p < 0.10	0.682	Gamma; Lognormal	Nonparametric
05_02_105	MW-5	App. III	Boron	ug/L	39	15	38%	0.395	0.000	0.367	0.000	0.599	0.000	0.244	0.001	0.288	< 0.01	3.660	< 0.01	0.296	Nonparametric	Nonparametric
05_02_107	MW-5	App. III	Calcium	ug/L	40	0	0%	0.934	0.022	0.161	0.011	0.957	0.137	0.133	0.071	0.145	0.01 <= p < 0.05	0.730	0.05 <= p < 0.10	0.197	Gamma; Lognormal	Gamma
05_02_108	MW-5	App. III	Chloride	mg/L	40	0	0%	0.965	0.250	0.111	0.241	0.968	0.302	0.098	0.436	0.103	>= 0.10	0.483	>= 0.10	0.080	Gamma; Lognormal; Normal	Normal
05_02_112	MW-5	App. III	Fluoride	mg/L	40	0	0%	0.977	0.595	0.085	0.653	0.971	0.396	0.101	0.382	0.097	>= 0.10	0.435	>= 0.10	0.109	Gamma; Lognormal; Normal	Normal
05_02_118	MW-5	App. III	pH (Field)	S.U.	37	0	0%	0.796	0.000	0.216	0.000	0.787	0.000	0.229	0.000	0.220	< 0.01	2.682	< 0.01	0.069	Nonparametric	Nonparametric
05_02_123	MW-5	App. III	Sulfate	mg/L	40	0	0%	0.903	0.002	0.120	0.154	0.949	0.073	0.130	0.087	0.130	0.05 <= p < 0.10	0.683	0.05 <= p < 0.10	0.161	Gamma; Lognormal; Normal	Normal
05_02_125	MW-5	App. III	Total Dissolved Solids	mg/L	40	0	0%	0.285	0.000	0.415	0.000	0.502	0.000	0.293	0.000	0.346	< 0.01	6.679	< 0.01	0.283	Nonparametric	Nonparametric
05_03_101	MW-5	App. IV	Antimony	ug/L	40	38	95%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		0.895		Nonparametric
05_03_102	MW-5	App. IV	Arsenic	ug/L	40	38	95%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		2.391		Nonparametric
05_03_103	MW-5	App. IV	Barium	ug/L	40	0	0%	0.955	0.116	0.116	0.191	0.984	0.842	0.087	0.621	0.096	>= 0.10	0.259	>= 0.10	0.145	Gamma; Lognormal; Normal	Normal
05_03_104	MW-5	App. IV	Beryllium	ug/L	40	40	100%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
05_03_106	MW-5	App. IV	Cadmium	ug/L	40	40	100%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
05_03_109	MW-5	App. IV	Chromium	ug/L	40	28	70%	0.381	0.000	0.467	0.000	0.827	0.019	0.218	0.120	0.328	< 0.01	1.895	< 0.01	1.600	Lognormal	Nonparametric
05_03_110	MW-5	App. IV	Cobalt	ug/L	40	38	95%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		2.381		Nonparametric
05_03_112	MW-5	App. IV	Fluoride	mg/L	40	0	0%	0.977	0.595	0.085	0.653	0.971	0.396	0.101	0.382	0.097	>= 0.10	0.435	>= 0.10	0.109	Gamma; Lognormal; Normal	Normal
05_03_113	MW-5	App. IV	Lead	ug/L	40	39	98%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
05_03_114	MW-5	App. IV	Lithium	ug/L	40	1	2%	0.485	0.000	0.279	0.000	0.736	0.000	0.195	0.001	0.223	< 0.01	3.097	< 0.01	0.231	Nonparametric	Nonparametric
05_03_115	MW-5	App. IV	Mercury	ug/L	40	40	100%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
05_03_116	MW-5	App. IV	Molybdenum	ug/L	40	37	92%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		2.007		Nonparametric
05_03_119	MW-5	App. IV	Radium-226	pCi/L	38	0	0%	0.968	0.340	0.100	0.447	NA	NA	NA	NA	NA		NA		NA	Normal	Nonparametric
05_03_120	MW-5	App. IV	Radium-228	pCi/L	38	0	0%	0.956	0.136	0.088	0.639	NA	NA	NA	NA	NA		NA		NA	Normal	Nonparametric
05_03_121	MW-5	App. IV	Selenium	ug/L	40	39	98%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
05_03_124	MW-5	App. IV	Thallium	ug/L	40	39	98%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
05_03_126	MW-5	App. IV	Total Radium	pCi/L	38	0	0%	0.958	0.165	0.121	0.176	0.889	0.001	0.156	0.020	0.125	>= 0.10	0.751	0.05 <= p < 0.10	0.860	Gamma; Normal	Nonparametric
06_01_111	MW-6	App. I Metals	Copper	ug/L	39	33	85%	0.783	0.041	0.304	0.088	0.974	0.917	0.153	0.929	0.169	>= 0.10	0.240	>= 0.10	1.255	Gamma; Lognormal; Normal	Nonparametric
06_01_117	MW-6	App. I Metals	Nickel	ug/L	39	27	69%	0.769	0.004	0.287	0.007	0.925	0.330	0.217	0.121	0.246	0.05 <= p < 0.10	0.683	0.05 <= p < 0.10	0.630	Gamma; Lognormal	Nonparametric
06_01_122	MW-6	App. I Metals	Silver	ug/L	39	39	100%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
06_01_127	MW-6	App. I Metals	Vanadium	ug/L	39	35	90%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		0.783		Nonparametric
06_01_128	MW-6	App. I Metals	Zinc	ug/L	39	26	67%	0.870	0.052	0.151	0.571	0.973	0.925	0.120	0.878	0.128	>= 0.10	0.247	>= 0.10	0.600	Gamma; Lognormal; Normal	Nonparametric
06_02_105	MW-6	App. III	Boron	ug/L	38	23	61%	0.955	0.609	0.145	0.537	0.959	0.669	0.139	0.611	0.135	>= 0.10	0.347	>= 0.10	0.153	Gamma; Lognormal; Normal	Nonparametric
06_02_107	MW-6	App. III	Calcium	ug/L	39	0	0%	0.977	0.590	0.111	0.266	0.984	0.844	0.098	0.445	0.103	>= 0.10	0.304	>= 0.10	0.064	Gamma; Lognormal; Normal	Normal
06_02_108	MW-6	App. III	Chloride	mg/L	39	0	0%	0.853	0.000	0.152	0.024	0.508	0.000	0.298	0.000	0.255	< 0.01	3.825	< 0.01	0.469	Nonparametric	Nonparametric
06_02_112	MW-6	App. III	Fluoride	mg/L	39	1	3%	0.951	0.093	0.091	0.598	0.878	0.001	0.112	0.267	0.085	>= 0.10	0.527	>= 0.10	0.176	Gamma; Lognormal; Normal	Normal
06_02_118	MW-6	App. III	pH (Field)	S.U.	36	0	0%	0.911	0.007	0.157	0.025	0.919	0.012	0.151	0.036	0.153	0.01 <= p < 0.05	0.956	0.01 <= p < 0.05	0.029	Nonparametric	Nonparametric
06_02_123	MW-6	App. III	Sulfate	mg/L	39	0	0%	0.691	0.000	0.333	0.000	0.760	0.000	0.346	0.000	0.351	< 0.01	4.379	< 0.01	0.706	Nonparametric	Nonparametric

(Table continues on next page)

Note: p-values above 0.05 suggest a fit to the tested distribution; a distribution passes its GOF test when at least one of the two p-values is above 0.05.

Table 3: Goodness-of-Fit Tests, Non-Detects Excluded *(continued)*

								Normal				Lognormal				Gamma						
								S-W		Lilliefors		S-W		Lilliefors		K-S		A-D				
ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	Stat.	p-Value	Stat.	p-Value	Stat.	p-Value	Stat.	p-Value	Stat.	p-Value	Stat.	p-Value	Log-SD (NDs excl.)	ProUCL Distributions Fit	Recommended Distribution
06_02_125	MW-6	App. III	Total Dissolved Solids	mg/L	39	0	0%	0.932	0.021	0.123	0.147	0.917	0.007	0.140	0.053	0.127	>= 0.10	0.920	0.01 <= p < 0.05	0.159	Gamma; Lognormal; Normal	Normal
06_03_101	MW-6	App. IV	Antimony	ug/L	39	39	100%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
06_03_102	MW-6	App. IV	Arsenic	ug/L	39	37	95%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		2.076		Nonparametric
06_03_103	MW-6	App. IV	Barium	ug/L	39	0	0%	0.887	0.001	0.205	0.000	0.909	0.004	0.176	0.004	0.188	< 0.01	1.504	< 0.01	0.367	Nonparametric	Nonparametric
06_03_104	MW-6	App. IV	Beryllium	ug/L	39	38	97%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
06_03_106	MW-6	App. IV	Cadmium	ug/L	39	39	100%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
06_03_109	MW-6	App. IV	Chromium	ug/L	39	31	79%	0.823	0.050	0.252	0.142	0.977	0.946	0.146	0.884	0.153	>= 0.10	0.213	>= 0.10	0.934	Gamma; Lognormal; Normal	Nonparametric
06_03_110	MW-6	App. IV	Cobalt	ug/L	39	38	97%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
06_03_112	MW-6	App. IV	Fluoride	mg/L	39	1	3%	0.951	0.093	0.091	0.598	0.878	0.001	0.112	0.267	0.085	>= 0.10	0.527	>= 0.10	0.176	Gamma; Lognormal; Normal	Normal
06_03_113	MW-6	App. IV	Lead	ug/L	39	37	95%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		1.325		Nonparametric
06_03_114	MW-6	App. IV	Lithium	ug/L	39	0	0%	0.885	0.001	0.206	0.000	0.915	0.006	0.139	0.056	0.161	0.01 <= p < 0.05	1.445	< 0.01	0.351	Lognormal	Lognormal
06_03_115	MW-6	App. IV	Mercury	ug/L	39	38	97%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
06_03_116	MW-6	App. IV	Molybdenum	ug/L	39	34	87%	0.860	0.230	0.288	0.190	0.657	0.003	0.421	0.004	0.417	0.01 <= p < 0.05	0.880	0.01 <= p < 0.05	1.582	Normal	Nonparametric
06_03_119	MW-6	App. IV	Radium-226	pCi/L	37	0	0%	0.968	0.361	0.099	0.477	NA	NA	NA	NA	NA		NA		NA	Normal	Nonparametric
06_03_120	MW-6	App. IV	Radium-228	pCi/L	37	0	0%	0.978	0.647	0.070	0.914	NA	NA	NA	NA	NA		NA		NA	Normal	Nonparametric
06_03_121	MW-6	App. IV	Selenium	ug/L	39	37	95%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		2.685		Nonparametric
06_03_124	MW-6	App. IV	Thallium	ug/L	39	36	92%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		2.899		Nonparametric
06_03_126	MW-6	App. IV	Total Radium	pCi/L	37	0	0%	0.976	0.577	0.103	0.414	0.854	0.000	0.159	0.019	0.146	0.05 <= p < 0.10	0.739	0.05 <= p < 0.10	0.826	Gamma; Normal	Nonparametric
07_01_111	MW-7R	App. I Metals	Copper	ug/L	31	21	68%	0.628	0.000	0.352	0.001	0.857	0.071	0.248	0.082	0.262	0.05 <= p < 0.10	0.904	0.01 <= p < 0.05	1.906	Gamma; Lognormal	Nonparametric
07_01_117	MW-7R	App. I Metals	Nickel	ug/L	31	13	42%	0.278	0.000	0.502	0.000	0.832	0.004	0.158	0.277	0.344	< 0.01	3.221	< 0.01	1.657	Lognormal	Nonparametric
07_01_122	MW-7R	App. I Metals	Silver	ug/L	31	31	100%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
07_01_127	MW-7R	App. I Metals	Vanadium	ug/L	31	15	48%	0.652	0.000	0.345	0.000	0.785	0.002	0.208	0.063	0.263	< 0.01	1.822	< 0.01	0.664	Lognormal	Lognormal
07_01_128	MW-7R	App. I Metals	Zinc	ug/L	31	22	71%	0.644	0.000	0.379	0.001	0.820	0.034	0.245	0.125	0.282	0.05 <= p < 0.10	1.050	< 0.01	1.081	Gamma; Lognormal	Nonparametric
07_02_105	MW-7R	App. III	Boron	ug/L	30	12	40%	0.787	0.001	0.268	0.001	0.876	0.023	0.228	0.014	0.246	< 0.01	1.128	< 0.01	0.316	Nonparametric	Nonparametric
07_02_107	MW-7R	App. III	Calcium	ug/L	31	0	0%	0.974	0.621	0.116	0.362	0.959	0.282	0.130	0.204	0.120	>= 0.10	0.380	>= 0.10	0.072	Gamma; Lognormal; Normal	Normal
07_02_108	MW-7R	App. III	Chloride	mg/L	31	0	0%	0.858	0.001	0.188	0.007	0.803	0.000	0.209	0.001	0.199	< 0.01	1.508	< 0.01	0.095	Nonparametric	Nonparametric
07_02_112	MW-7R	App. III	Fluoride	mg/L	31	1	3%	0.605	0.000	0.247	0.000	0.774	0.000	0.185	0.010	0.204	< 0.01	2.053	< 0.01	0.222	Nonparametric	Nonparametric
07_02_118	MW-7R	App. III	pH (Field)	S.U.	30	0	0%	0.485	0.000	0.285	0.000	0.527	0.000	0.261	0.000	0.276	< 0.01	4.262	< 0.01	0.052	Nonparametric	Nonparametric
07_02_123	MW-7R	App. III	Sulfate	mg/L	31	0	0%	0.445	0.000	0.313	0.000	0.654	0.000	0.234	0.000	0.264	< 0.01	3.456	< 0.01	0.241	Nonparametric	Nonparametric
07_02_125	MW-7R	App. III	Total Dissolved Solids	mg/L	31	0	0%	0.988	0.971	0.075	0.926	0.989	0.986	0.080	0.880	0.076	>= 0.10	0.188	>= 0.10	0.066	Gamma; Lognormal; Normal	Normal
07_03_101	MW-7R	App. IV	Antimony	ug/L	31	30	97%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
07_03_102	MW-7R	App. IV	Arsenic	ug/L	31	28	90%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		1.146		Nonparametric
07_03_103	MW-7R	App. IV	Barium	ug/L	31	0	0%	0.852	0.001	0.198	0.003	0.580	0.000	0.253	0.000	0.236	< 0.01	2.824	< 0.01	0.359	Nonparametric	Nonparametric
07_03_104	MW-7R	App. IV	Beryllium	ug/L	31	31	100%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
07_03_106	MW-7R	App. IV	Cadmium	ug/L	31	31	100%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
07_03_109	MW-7R	App. IV	Chromium	ug/L	31	8	26%	0.235	0.000	0.501	0.000	0.835	0.001	0.181	0.048	0.344	< 0.01	4.542	< 0.01	1.575	Nonparametric	Nonparametric
07_03_110	MW-7R	App. IV	Cobalt	ug/L	31	26	84%	0.765	0.041	0.297	0.155	0.986	0.964	0.149	0.972	0.236	>= 0.10	0.247	>= 0.10	1.895	Gamma; Lognormal; Normal	Nonparametric
07_03_112	MW-7R	App. IV	Fluoride	mg/L	31	1	3%	0.605	0.000	0.247	0.000	0.774	0.000	0.185	0.010	0.204	< 0.01	2.053	< 0.01	0.222	Nonparametric	Nonparametric
07_03_113	MW-7R	App. IV	Lead	ug/L	31	27	87%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		1.525		Nonparametric

(Table continues on next page)

Note: p-values above 0.05 suggest a fit to the tested distribution; a distribution passes its GOF test when at least one of the two p-values is above 0.05.

Table 3: Goodness-of-Fit Tests, Non-Detects Excluded *(continued)*

								Normal				Lognormal				Gamma						
								S-W		Lilliefors		S-W		Lilliefors		K-S		A-D				
ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	Stat.	p-Value	Stat.	p-Value	Stat.	p-Value	Stat.	p-Value	Stat.	p-Value	Stat.	p-Value	Log-SD (NDs excl.)	ProUCL Distributions Fit	Recommended Distribution
07_03_114	MW-7R	App. IV	Lithium	ug/L	31	0	0%	0.822	0.000	0.156	0.054	0.576	0.000	0.246	0.000	0.205	< 0.01	2.690	< 0.01	0.318	Normal	Normal
07_03_115	MW-7R	App. IV	Mercury	ug/L	31	31	100%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
07_03_116	MW-7R	App. IV	Molybdenum	ug/L	31	27	87%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		1.620		Nonparametric
07_03_119	MW-7R	App. IV	Radium-226	pCi/L	29	0	0%	0.927	0.045	0.127	0.270	NA	NA	NA	NA	NA		NA		NA	Normal	Nonparametric
07_03_120	MW-7R	App. IV	Radium-228	pCi/L	29	0	0%	0.918	0.027	0.152	0.084	NA	NA	NA	NA	NA		NA		NA	Normal	Nonparametric
07_03_121	MW-7R	App. IV	Selenium	ug/L	31	30	97%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
07_03_124	MW-7R	App. IV	Thallium	ug/L	31	28	90%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		0.827		Nonparametric
07_03_126	MW-7R	App. IV	Total Radium	pCi/L	29	0	0%	0.882	0.004	0.185	0.012	0.904	0.012	0.166	0.040	0.121	>= 0.10	0.489	>= 0.10	0.816	Gamma	Nonparametric
08_01_111	MW-8	App. I Metals	Copper	ug/L	40	30	75%	0.445	0.000	0.455	0.000	0.886	0.152	0.174	0.527	0.302	0.01 <= p < 0.05	1.157	< 0.01	1.531	Lognormal	Nonparametric
08_01_117	MW-8	App. I Metals	Nickel	ug/L	40	19	48%	0.437	0.000	0.335	0.000	0.928	0.123	0.146	0.286	0.211	0.01 <= p < 0.05	1.376	< 0.01	1.288	Lognormal	Nonparametric
08_01_122	MW-8	App. I Metals	Silver	ug/L	40	39	98%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
08_01_127	MW-8	App. I Metals	Vanadium	ug/L	40	32	80%	0.689	0.002	0.285	0.055	0.886	0.217	0.199	0.459	0.216	>= 0.10	0.641	0.05 <= p < 0.10	0.644	Gamma; Lognormal; Normal	Nonparametric
08_01_128	MW-8	App. I Metals	Zinc	ug/L	40	24	60%	0.830	0.007	0.238	0.016	0.954	0.548	0.143	0.513	0.139	>= 0.10	0.368	>= 0.10	0.880	Gamma; Lognormal	Nonparametric
08_02_105	MW-8	App. III	Boron	ug/L	39	15	38%	0.940	0.162	0.144	0.220	0.955	0.340	0.117	0.538	0.124	>= 0.10	0.379	>= 0.10	0.138	Gamma; Lognormal; Normal	Normal
08_02_107	MW-8	App. III	Calcium	ug/L	40	0	0%	0.823	0.000	0.212	0.000	0.420	0.000	0.382	0.000	0.324	< 0.01	4.638	< 0.01	0.552	Nonparametric	Nonparametric
08_02_108	MW-8	App. III	Chloride	mg/L	40	0	0%	0.802	0.000	0.236	0.000	0.916	0.006	0.178	0.003	0.200	< 0.01	1.759	< 0.01	0.307	Nonparametric	Nonparametric
08_02_112	MW-8	App. III	Fluoride	mg/L	40	20	50%	0.911	0.068	0.163	0.176	0.932	0.172	0.191	0.054	0.188	0.05 <= p < 0.10	0.677	0.05 <= p < 0.10	0.219	Gamma; Lognormal; Normal	Nonparametric
08_02_118	MW-8	App. III	pH (Field)	S.U.	38	0	0%	0.965	0.278	0.121	0.168	0.966	0.296	0.119	0.191	0.117	>= 0.10	0.555	>= 0.10	0.020	Gamma; Lognormal; Normal	Normal
08_02_123	MW-8	App. III	Sulfate	mg/L	40	0	0%	0.970	0.365	0.086	0.649	0.937	0.027	0.113	0.225	0.098	>= 0.10	0.491	>= 0.10	0.129	Gamma; Lognormal; Normal	Normal
08_02_125	MW-8	App. III	Total Dissolved Solids	mg/L	40	0	0%	0.919	0.007	0.150	0.024	0.754	0.000	0.212	0.000	0.182	< 0.01	1.330	< 0.01	0.297	Nonparametric	Nonparametric
08_03_101	MW-8	App. IV	Antimony	ug/L	40	33	82%	0.957	0.795	0.191	0.613	0.963	0.846	0.180	0.707	0.165	>= 0.10	0.265	>= 0.10	0.203	Gamma; Lognormal; Normal	Nonparametric
08_03_102	MW-8	App. IV	Arsenic	ug/L	40	35	88%	0.800	0.081	0.316	0.103	0.752	0.031	0.311	0.116	0.336	0.05 <= p < 0.10	0.676	0.05 <= p < 0.10	0.463	Gamma; Lognormal; Normal	Nonparametric
08_03_103	MW-8	App. IV	Barium	ug/L	40	0	0%	0.797	0.000	0.208	0.000	0.867	0.000	0.179	0.002	0.189	< 0.01	2.076	< 0.01	0.146	Nonparametric	Nonparametric
08_03_104	MW-8	App. IV	Beryllium	ug/L	40	39	98%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
08_03_106	MW-8	App. IV	Cadmium	ug/L	40	39	98%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
08_03_109	MW-8	App. IV	Chromium	ug/L	40	19	48%	0.709	0.000	0.281	0.000	0.951	0.359	0.125	0.528	0.204	0.01 <= p < 0.05	0.673	0.05 <= p < 0.10	1.311	Gamma; Lognormal	Gamma
08_03_110	MW-8	App. IV	Cobalt	ug/L	40	35	88%	0.780	0.055	0.284	0.205	0.908	0.455	0.243	0.432	0.283	>= 0.10	0.431	>= 0.10	0.812	Gamma; Lognormal; Normal	Nonparametric
08_03_112	MW-8	App. IV	Fluoride	mg/L	40	20	50%	0.911	0.068	0.163	0.176	0.932	0.172	0.191	0.054	0.188	0.05 <= p < 0.10	0.677	0.05 <= p < 0.10	0.219	Gamma; Lognormal; Normal	Nonparametric
08_03_113	MW-8	App. IV	Lead	ug/L	40	38	95%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		0.137		Nonparametric
08_03_114	MW-8	App. IV	Lithium	ug/L	40	1	2%	0.899	0.002	0.152	0.023	0.964	0.236	0.105	0.339	0.121	>= 0.10	0.609	>= 0.10	0.226	Gamma; Lognormal	Gamma
08_03_115	MW-8	App. IV	Mercury	ug/L	40	39	98%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
08_03_116	MW-8	App. IV	Molybdenum	ug/L	40	37	92%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		0.780		Nonparametric
08_03_119	MW-8	App. IV	Radium-226	pCi/L	38	0	0%	0.859	0.000	0.138	0.067	NA	NA	NA	NA	NA		NA		NA	Normal	Nonparametric
08_03_120	MW-8	App. IV	Radium-228	pCi/L	38	0	0%	0.615	0.000	0.236	0.000	NA	NA	NA	NA	NA		NA		NA	Nonparametric	Nonparametric
08_03_121	MW-8	App. IV	Selenium	ug/L	40	38	95%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		1.815		Nonparametric
08_03_124	MW-8	App. IV	Thallium	ug/L	40	38	95%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		3.950		Nonparametric
08_03_126	MW-8	App. IV	Total Radium	pCi/L	38	0	0%	0.565	0.000	0.254	0.000	NA	NA	NA	NA	NA		NA		NA	Nonparametric	Nonparametric
09_01_111	MW-10	App. I Metals	Copper	ug/L	16	9	56%	0.629	0.001	0.394	0.002	0.884	0.245	0.249	0.209	0.251	>= 0.10	0.494	>= 0.10	1.919	Gamma; Lognormal	Nonparametric
09_01_117	MW-10	App. I Metals	Nickel	ug/L	16	4	25%	0.475	0.000	0.404	0.000	0.844	0.031	0.238	0.059	0.329	< 0.01	1.354	< 0.01	0.944	Lognormal	Lognormal

(Table continues on next page)

Note: p-values above 0.05 suggest a fit to the tested distribution; a distribution passes its GOF test when at least one of the two p-values is above 0.05.

Table 3: Goodness-of-Fit Tests, Non-Detects Excluded *(continued)*

								Normal				Lognormal				Gamma						
								S-W		Lilliefors		S-W		Lilliefors		K-S		A-D				
ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	Stat.	p-Value	Stat.	p-Value	Stat.	p-Value	Stat.	p-Value	Stat.	p-Value	Stat.	p-Value	Log-SD (NDs excl.)	ProUCL Distributions Fit	Recommended Distribution
09_01_122	MW-10	App. I Metals	Silver	ug/L	16	16	100%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
09_01_127	MW-10	App. I Metals	Vanadium	ug/L	16	9	56%	0.522	0.000	0.472	0.000	0.692	0.003	0.391	0.002	0.446	< 0.01	1.388	< 0.01	0.838	Nonparametric	Nonparametric
09_01_128	MW-10	App. I Metals	Zinc	ug/L	16	13	81%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		1.594		Nonparametric
09_02_105	MW-10	App. III	Boron	ug/L	16	0	0%	0.791	0.002	0.211	0.055	0.896	0.069	0.166	0.283	0.173	>= 0.10	0.662	0.05 <= p < 0.10	0.200	Gamma; Lognormal; Normal	Normal
09_02_107	MW-10	App. III	Calcium	ug/L	16	0	0%	0.940	0.355	0.157	0.363	0.937	0.317	0.174	0.220	0.165	>= 0.10	0.519	>= 0.10	0.094	Gamma; Lognormal; Normal	Normal
09_02_108	MW-10	App. III	Chloride	mg/L	16	0	0%	0.967	0.785	0.101	0.935	0.973	0.880	0.093	0.969	0.095	>= 0.10	0.186	>= 0.10	0.038	Gamma; Lognormal; Normal	Normal
09_02_112	MW-10	App. III	Fluoride	mg/L	16	0	0%	0.934	0.284	0.165	0.290	0.944	0.401	0.159	0.340	0.166	>= 0.10	0.432	>= 0.10	0.088	Gamma; Lognormal; Normal	Normal
09_02_118	MW-10	App. III	pH (Field)	S.U.	17	0	0%	0.893	0.051	0.240	0.010	0.895	0.057	0.237	0.012	0.237	0.01 <= p < 0.05	0.892	0.01 <= p < 0.05	0.019	Lognormal; Normal	Normal
09_02_123	MW-10	App. III	Sulfate	mg/L	16	0	0%	0.879	0.038	0.188	0.135	0.949	0.479	0.126	0.708	0.133	>= 0.10	0.390	>= 0.10	0.493	Gamma; Lognormal; Normal	Normal
09_02_125	MW-10	App. III	Total Dissolved Solids	mg/L	16	0	0%	0.941	0.356	0.153	0.406	0.930	0.241	0.160	0.339	0.156	>= 0.10	0.409	>= 0.10	0.034	Gamma; Lognormal; Normal	Normal
09_03_101	MW-10	App. IV	Antimony	ug/L	16	15	94%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
09_03_102	MW-10	App. IV	Arsenic	ug/L	16	12	75%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		0.400		Nonparametric
09_03_103	MW-10	App. IV	Barium	ug/L	16	0	0%	0.761	0.001	0.292	0.001	0.905	0.098	0.216	0.044	0.233	0.01 <= p < 0.05	0.709	0.05 <= p < 0.10	0.367	Gamma; Lognormal	Gamma
09_03_104	MW-10	App. IV	Beryllium	ug/L	16	16	100%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
09_03_106	MW-10	App. IV	Cadmium	ug/L	16	16	100%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
09_03_109	MW-10	App. IV	Chromium	ug/L	16	5	31%	0.523	0.000	0.374	0.000	0.931	0.425	0.170	0.502	0.264	0.05 <= p < 0.10	0.846	0.01 <= p < 0.05	1.137	Gamma; Lognormal	Gamma
09_03_110	MW-10	App. IV	Cobalt	ug/L	16	14	88%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		2.015		Nonparametric
09_03_112	MW-10	App. IV	Fluoride	mg/L	16	0	0%	0.934	0.284	0.165	0.290	0.944	0.401	0.159	0.340	0.166	>= 0.10	0.432	>= 0.10	0.088	Gamma; Lognormal; Normal	Normal
09_03_113	MW-10	App. IV	Lead	ug/L	16	14	88%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		1.902		Nonparametric
09_03_114	MW-10	App. IV	Lithium	ug/L	16	0	0%	0.884	0.045	0.221	0.036	0.919	0.160	0.211	0.055	0.208	0.05 <= p < 0.10	0.620	>= 0.10	0.732	Gamma; Lognormal	Gamma
09_03_115	MW-10	App. IV	Mercury	ug/L	16	16	100%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
09_03_116	MW-10	App. IV	Molybdenum	ug/L	16	0	0%	0.878	0.036	0.219	0.039	0.926	0.212	0.180	0.182	0.196	>= 0.10	0.571	>= 0.10	0.261	Gamma; Lognormal	Gamma
09_03_119	MW-10	App. IV	Radium-226	pCi/L	16	0	0%	0.962	0.703	0.133	0.636	NA	NA	NA	NA	NA		NA		NA	Normal	Nonparametric
09_03_120	MW-10	App. IV	Radium-228	pCi/L	16	0	0%	0.937	0.309	0.155	0.383	NA	NA	NA	NA	NA		NA		NA	Normal	Nonparametric
09_03_121	MW-10	App. IV	Selenium	ug/L	16	14	88%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		1.656		Nonparametric
09_03_124	MW-10	App. IV	Thallium	ug/L	16	15	94%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
09_03_126	MW-10	App. IV	Total Radium	pCi/L	16	0	0%	0.970	0.832	0.114	0.839	NA	NA	NA	NA	NA		NA		NA	Normal	Nonparametric
10_01_111	MW-11	App. I Metals	Copper	ug/L	19	10	53%	0.657	0.000	0.315	0.011	0.905	0.283	0.184	0.508	0.208	>= 0.10	0.593	>= 0.10	1.007	Gamma; Lognormal	Nonparametric
10_01_117	MW-11	App. I Metals	Nickel	ug/L	19	10	53%	0.704	0.002	0.292	0.026	0.898	0.242	0.171	0.629	0.221	>= 0.10	0.648	0.05 <= p < 0.10	0.735	Gamma; Lognormal	Nonparametric
10_01_122	MW-11	App. I Metals	Silver	ug/L	19	19	100%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
10_01_127	MW-11	App. I Metals	Vanadium	ug/L	19	16	84%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		0.604		Nonparametric
10_01_128	MW-11	App. I Metals	Zinc	ug/L	19	14	74%	0.985	0.960	0.184	0.833	0.973	0.892	0.204	0.703	0.171	>= 0.10	0.201	>= 0.10	0.403	Gamma; Lognormal; Normal	Nonparametric
10_02_105	MW-11	App. III	Boron	ug/L	19	1	5%	0.889	0.037	0.211	0.034	0.950	0.426	0.173	0.167	0.183	>= 0.10	0.455	>= 0.10	0.179	Gamma; Lognormal	Gamma
10_02_107	MW-11	App. III	Calcium	ug/L	19	0	0%	0.601	0.000	0.278	0.000	0.739	0.000	0.235	0.007	0.253	< 0.01	1.882	< 0.01	0.255	Nonparametric	Nonparametric
10_02_108	MW-11	App. III	Chloride	mg/L	19	0	0%	0.897	0.043	0.145	0.365	0.829	0.003	0.186	0.082	0.152	>= 0.10	0.659	0.05 <= p < 0.10	0.165	Gamma; Lognormal; Normal	Normal
10_02_112	MW-11	App. III	Fluoride	mg/L	19	1	5%	0.920	0.128	0.151	0.340	0.924	0.154	0.176	0.149	0.169	>= 0.10	0.523	>= 0.10	0.130	Gamma; Lognormal; Normal	Normal
10_02_118	MW-11	App. III	pH (Field)	S.U.	17	0	0%	0.799	0.002	0.269	0.002	0.810	0.003	0.267	0.002	0.269	< 0.01	1.182	< 0.01	0.029	Nonparametric	Nonparametric
10_02_123	MW-11	App. III	Sulfate	mg/L	19	0	0%	0.917	0.098	0.161	0.216	0.938	0.245	0.137	0.452	0.144	>= 0.10	0.449	>= 0.10	0.128	Gamma; Lognormal; Normal	Normal
10_02_125	MW-11	App. III	Total Dissolved Solids	mg/L	19	0	0%	0.307	0.000	0.462	0.000	0.445	0.000	0.410	0.000	0.445	< 0.01	4.972	< 0.01	0.449	Nonparametric	Nonparametric

(Table continues on next page)

Note: p-values above 0.05 suggest a fit to the tested distribution; a distribution passes its GOF test when at least one of the two p-values is above 0.05.

Table 3: Goodness-of-Fit Tests, Non-Detects Excluded *(continued)*

								Normal				Lognormal				Gamma						
								S-W		Lilliefors		S-W		Lilliefors		K-S		A-D				
ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	Stat.	p-Value	Stat.	p-Value	Stat.	p-Value	Stat.	p-Value	Stat.	p-Value	Stat.	p-Value	Log-SD (NDs excl.)	ProUCL Distributions Fit	Recommended Distribution
10_03_101	MW-11	App. IV	Antimony	ug/L	19	17	89%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		1.750		Nonparametric
10_03_102	MW-11	App. IV	Arsenic	ug/L	19	17	89%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		1.866		Nonparametric
10_03_103	MW-11	App. IV	Barium	ug/L	19	0	0%	0.574	0.000	0.336	0.000	0.745	0.000	0.284	0.000	0.307	< 0.01	1.920	< 0.01	0.311	Nonparametric	Nonparametric
10_03_104	MW-11	App. IV	Beryllium	ug/L	19	19	100%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
10_03_106	MW-11	App. IV	Cadmium	ug/L	19	19	100%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
10_03_109	MW-11	App. IV	Chromium	ug/L	19	14	74%	0.752	0.031	0.342	0.057	0.797	0.077	0.280	0.222	0.329	>= 0.10	0.672	0.05 <= p < 0.10	1.200	Gamma; Lognormal; Normal	Nonparametric
10_03_110	MW-11	App. IV	Cobalt	ug/L	19	13	68%	0.878	0.261	0.265	0.205	0.898	0.363	0.260	0.231	0.284	>= 0.10	0.420	>= 0.10	0.438	Gamma; Lognormal; Normal	Nonparametric
10_03_112	MW-11	App. IV	Fluoride	mg/L	19	1	5%	0.920	0.128	0.151	0.340	0.924	0.154	0.176	0.149	0.169	>= 0.10	0.523	>= 0.10	0.130	Gamma; Lognormal; Normal	Normal
10_03_113	MW-11	App. IV	Lead	ug/L	19	18	95%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
10_03_114	MW-11	App. IV	Lithium	ug/L	19	0	0%	0.668	0.000	0.268	0.001	0.786	0.001	0.224	0.013	0.239	< 0.01	1.415	< 0.01	0.183	Nonparametric	Nonparametric
10_03_115	MW-11	App. IV	Mercury	ug/L	19	19	100%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
10_03_116	MW-11	App. IV	Molybdenum	ug/L	19	17	89%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		1.046		Nonparametric
10_03_119	MW-11	App. IV	Radium-226	pCi/L	19	0	0%	0.928	0.159	0.189	0.072	NA	NA	NA	NA	NA		NA		NA	Normal	Nonparametric
10_03_120	MW-11	App. IV	Radium-228	pCi/L	19	0	0%	0.807	0.001	0.235	0.007	NA	NA	NA	NA	NA		NA		NA	Nonparametric	Nonparametric
10_03_121	MW-11	App. IV	Selenium	ug/L	19	19	100%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
10_03_124	MW-11	App. IV	Thallium	ug/L	19	18	95%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
10_03_126	MW-11	App. IV	Total Radium	pCi/L	19	0	0%	0.774	0.000	0.250	0.003	0.966	0.704	0.165	0.187	0.173	>= 0.10	0.406	>= 0.10	0.742	Gamma; Lognormal	Nonparametric
11_01_111	MW-11D	App. I Metals	Copper	ug/L	17	12	71%	0.750	0.030	0.346	0.050	0.830	0.139	0.289	0.183	0.338	>= 0.10	0.637	0.05 <= p < 0.10	1.192	Gamma; Lognormal	Nonparametric
11_01_117	MW-11D	App. I Metals	Nickel	ug/L	17	12	71%	0.714	0.013	0.361	0.032	0.844	0.176	0.257	0.338	0.301	>= 0.10	0.595	0.05 <= p < 0.10	0.663	Gamma; Lognormal	Nonparametric
11_01_122	MW-11D	App. I Metals	Silver	ug/L	17	17	100%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
11_01_127	MW-11D	App. I Metals	Vanadium	ug/L	17	14	82%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		0.452		Nonparametric
11_01_128	MW-11D	App. I Metals	Zinc	ug/L	17	11	65%	0.855	0.172	0.249	0.289	0.908	0.423	0.192	0.697	0.234	>= 0.10	0.392	>= 0.10	0.781	Gamma; Lognormal; Normal	Nonparametric
11_02_105	MW-11D	App. III	Boron	ug/L	17	0	0%	0.650	0.000	0.306	0.000	0.772	0.001	0.238	0.011	0.259	< 0.01	1.491	< 0.01	0.237	Nonparametric	Nonparametric
11_02_107	MW-11D	App. III	Calcium	ug/L	17	0	0%	0.522	0.000	0.287	0.001	0.748	0.000	0.245	0.008	0.264	< 0.01	1.883	< 0.01	0.468	Nonparametric	Nonparametric
11_02_108	MW-11D	App. III	Chloride	mg/L	17	0	0%	0.590	0.000	0.288	0.001	0.826	0.005	0.205	0.056	0.218	0.01 <= p < 0.05	1.404	< 0.01	0.643	Lognormal	Lognormal
11_02_112	MW-11D	App. III	Fluoride	mg/L	17	0	0%	0.874	0.025	0.170	0.212	0.913	0.111	0.149	0.406	0.155	>= 0.10	0.520	>= 0.10	0.103	Gamma; Lognormal; Normal	Normal
11_02_118	MW-11D	App. III	pH (Field)	S.U.	17	0	0%	0.921	0.154	0.144	0.460	0.926	0.188	0.138	0.531	0.138	>= 0.10	0.430	>= 0.10	0.030	Gamma; Lognormal; Normal	Normal
11_02_123	MW-11D	App. III	Sulfate	mg/L	17	1	6%	0.590	0.000	0.295	0.001	0.858	0.018	0.225	0.030	0.237	0.01 <= p < 0.05	1.209	< 0.01	1.150	Nonparametric	Nonparametric
11_02_125	MW-11D	App. III	Total Dissolved Solids	mg/L	17	0	0%	0.623	0.000	0.277	0.001	0.800	0.002	0.211	0.044	0.228	0.01 <= p < 0.05	1.475	< 0.01	0.468	Nonparametric	Nonparametric
11_03_101	MW-11D	App. IV	Antimony	ug/L	17	14	82%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		1.196		Nonparametric
11_03_102	MW-11D	App. IV	Arsenic	ug/L	17	8	47%	0.886	0.183	0.243	0.129	0.934	0.517	0.161	0.717	0.179	>= 0.10	0.346	>= 0.10	0.597	Gamma; Lognormal; Normal	Normal
11_03_103	MW-11D	App. IV	Barium	ug/L	17	0	0%	0.829	0.005	0.225	0.022	0.774	0.001	0.235	0.013	0.237	0.01 <= p < 0.05	1.356	< 0.01	0.185	Nonparametric	Nonparametric
11_03_104	MW-11D	App. IV	Beryllium	ug/L	17	16	94%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
11_03_106	MW-11D	App. IV	Cadmium	ug/L	17	17	100%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
11_03_109	MW-11D	App. IV	Chromium	ug/L	17	13	76%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		0.717		Nonparametric
11_03_110	MW-11D	App. IV	Cobalt	ug/L	17	16	94%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
11_03_112	MW-11D	App. IV	Fluoride	mg/L	17	0	0%	0.874	0.025	0.170	0.212	0.913	0.111	0.149	0.406	0.155	>= 0.10	0.520	>= 0.10	0.103	Gamma; Lognormal; Normal	Normal
11_03_113	MW-11D	App. IV	Lead	ug/L	17	16	94%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
11_03_114	MW-11D	App. IV	Lithium	ug/L	17	0	0%	0.691	0.000	0.279	0.001	0.866	0.019	0.183	0.136	0.220	0.01 <= p < 0.05	1.173	< 0.01	0.452	Lognormal	Lognormal

(Table continues on next page)

Note: p-values above 0.05 suggest a fit to the tested distribution; a distribution passes its GOF test when at least one of the two p-values is above 0.05.

Table 3: Goodness-of-Fit Tests, Non-Detects Excluded *(continued)*

								Normal				Lognormal				Gamma						
								S-W		Lilliefors		S-W		Lilliefors		K-S		A-D				
ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	Stat.	p-Value	Stat.	p-Value	Stat.	p-Value	Stat.	p-Value	Stat.	p-Value	Stat.	p-Value	Log-SD (NDs excl.)	ProUCL Distributions Fit	Recommended Distribution
11_03_115	MW-11D	App. IV	Mercury	ug/L	17	17	100%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
11_03_116	MW-11D	App. IV	Molybdenum	ug/L	17	1	6%	0.604	0.000	0.281	0.001	0.904	0.092	0.169	0.254	0.199	>= 0.10	0.862	0.01 <= p < 0.05	1.074	Gamma; Lognormal	Gamma
11_03_119	MW-11D	App. IV	Radium-226	pCi/L	17	0	0%	0.909	0.097	0.214	0.038	NA	NA	NA	NA	NA		NA		NA	Normal	Nonparametric
11_03_120	MW-11D	App. IV	Radium-228	pCi/L	17	0	0%	0.806	0.002	0.214	0.037	0.934	0.255	0.172	0.197	0.135	>= 0.10	0.337	>= 0.10	0.928	Gamma; Lognormal	Nonparametric
11_03_121	MW-11D	App. IV	Selenium	ug/L	17	16	94%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
11_03_124	MW-11D	App. IV	Thallium	ug/L	17	16	94%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
11_03_126	MW-11D	App. IV	Total Radium	pCi/L	17	0	0%	0.916	0.127	0.136	0.548	0.960	0.629	0.160	0.292	0.116	>= 0.10	0.181	>= 0.10	0.754	Gamma; Lognormal; Normal	Nonparametric

Note: p-values above 0.05 suggest a fit to the tested distribution; a distribution passes its GOF test when at least one of the two p-values is above 0.05.

Table 4: Autocorrelation Tests, Non-Detects Excluded

ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	Autocorrelation	Box-Ljung p-value	Sig.
01_01_111	MW-1	App. I Metals	Copper	ug/L	40	32	80%	0.517	0.080	
01_01_117	MW-1	App. I Metals	Nickel	ug/L	40	28	70%	0.149	0.560	
01_01_122	MW-1	App. I Metals	Silver	ug/L	40	33	82%	0.155	0.615	
01_01_127	MW-1	App. I Metals	Vanadium	ug/L	40	24	60%	0.140	0.540	
01_01_128	MW-1	App. I Metals	Zinc	ug/L	40	25	62%	-0.116	0.621	
01_02_105	MW-1	App. III	Boron	ug/L	39	22	56%	-0.051	0.820	
01_02_107	MW-1	App. III	Calcium	ug/L	40	0	0%	0.567	0.000	***
01_02_108	MW-1	App. III	Chloride	mg/L	40	0	0%	0.324	0.034	*
01_02_112	MW-1	App. III	Fluoride	mg/L	40	1	2%	0.416	0.007	**
01_02_118	MW-1	App. III	pH (Field)	S.U.	38	0	0%	0.159	0.308	
01_02_123	MW-1	App. III	Sulfate	mg/L	40	0	0%	0.714	0.000	***
01_02_125	MW-1	App. III	Total Dissolved Solids	mg/L	40	0	0%	0.638	0.000	***
01_03_101	MW-1	App. IV	Antimony	ug/L	40	38	95%	-0.500	0.157	
01_03_102	MW-1	App. IV	Arsenic	ug/L	40	36	90%	-0.308	0.383	
01_03_103	MW-1	App. IV	Barium	ug/L	40	0	0%	0.461	0.002	**
01_03_106	MW-1	App. IV	Cadmium	ug/L	40	37	92%	-0.667	0.068	
01_03_109	MW-1	App. IV	Chromium	ug/L	40	27	68%	0.125	0.614	
01_03_110	MW-1	App. IV	Cobalt	ug/L	40	36	90%	-0.324	0.359	
01_03_112	MW-1	App. IV	Fluoride	mg/L	40	1	2%	0.416	0.007	**
01_03_113	MW-1	App. IV	Lead	ug/L	40	36	90%	-0.296	0.403	
01_03_114	MW-1	App. IV	Lithium	ug/L	40	0	0%	0.300	0.049	*
01_03_116	MW-1	App. IV	Molybdenum	ug/L	40	35	88%	0.489	0.148	
01_03_119	MW-1	App. IV	Radium-226	pCi/L	38	0	0%	0.271	0.083	
01_03_120	MW-1	App. IV	Radium-228	pCi/L	38	0	0%	-0.112	0.474	
01_03_121	MW-1	App. IV	Selenium	ug/L	40	38	95%	-0.500	0.157	
01_03_126	MW-1	App. IV	Total Radium	pCi/L	38	0	0%	0.054	0.730	
02_01_111	MW-2	App. I Metals	Copper	ug/L	35	15	43%	0.273	0.189	
02_01_117	MW-2	App. I Metals	Nickel	ug/L	35	12	34%	-0.105	0.590	
02_01_122	MW-2	App. I Metals	Silver	ug/L	35	32	91%	-0.295	0.418	
02_01_127	MW-2	App. I Metals	Vanadium	ug/L	35	23	66%	-0.241	0.346	
02_01_128	MW-2	App. I Metals	Zinc	ug/L	35	16	46%	-0.081	0.704	
02_02_105	MW-2	App. III	Boron	ug/L	34	1	3%	0.079	0.635	
02_02_107	MW-2	App. III	Calcium	ug/L	35	0	0%	0.056	0.729	
02_02_108	MW-2	App. III	Chloride	mg/L	35	0	0%	0.287	0.076	
02_02_112	MW-2	App. III	Fluoride	mg/L	35	2	6%	0.042	0.803	
02_02_118	MW-2	App. III	pH (Field)	S.U.	31	0	0%	-0.090	0.600	
02_02_123	MW-2	App. III	Sulfate	mg/L	35	0	0%	0.835	0.000	***
02_02_125	MW-2	App. III	Total Dissolved Solids	mg/L	35	0	0%	0.007	0.966	
02_03_101	MW-2	App. IV	Antimony	ug/L	35	21	60%	0.453	0.060	
02_03_102	MW-2	App. IV	Arsenic	ug/L	35	24	69%	-0.125	0.635	
02_03_103	MW-2	App. IV	Barium	ug/L	35	0	0%	-0.025	0.877	
02_03_104	MW-2	App. IV	Beryllium	ug/L	35	32	91%	-0.604	0.098	

(Table continues on next page)

*** p < 0.001, ** p < 0.01, * p < 0.05

Table 4: Autocorrelation Tests, Non-Detects Excluded *(continued)*

ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	Autocorrelation	Box-Ljung p-value	Sig.
02_03_106	MW-2	App. IV	Cadmium	ug/L	35	32	91%	-0.596	0.103	
02_03_109	MW-2	App. IV	Chromium	ug/L	35	6	17%	-0.056	0.751	
02_03_110	MW-2	App. IV	Cobalt	ug/L	35	27	77%	-0.257	0.384	
02_03_112	MW-2	App. IV	Fluoride	mg/L	35	2	6%	0.042	0.803	
02_03_113	MW-2	App. IV	Lead	ug/L	35	30	86%	0.052	0.877	
02_03_114	MW-2	App. IV	Lithium	ug/L	35	0	0%	0.277	0.088	
02_03_116	MW-2	App. IV	Molybdenum	ug/L	35	6	17%	0.078	0.657	
02_03_119	MW-2	App. IV	Radium-226	pCi/L	34	0	0%	-0.129	0.432	
02_03_120	MW-2	App. IV	Radium-228	pCi/L	34	0	0%	0.211	0.198	
02_03_121	MW-2	App. IV	Selenium	ug/L	35	33	94%	-0.500	0.157	
02_03_124	MW-2	App. IV	Thallium	ug/L	35	23	66%	-0.010	0.969	
02_03_126	MW-2	App. IV	Total Radium	pCi/L	34	0	0%	-0.039	0.814	
03_01_111	MW-3	App. I Metals	Copper	ug/L	38	21	55%	0.196	0.379	
03_01_117	MW-3	App. I Metals	Nickel	ug/L	38	19	50%	0.378	0.075	
03_01_122	MW-3	App. I Metals	Silver	ug/L	38	36	95%	-0.500	0.157	
03_01_127	MW-3	App. I Metals	Vanadium	ug/L	38	23	61%	0.521	0.026	*
03_01_128	MW-3	App. I Metals	Zinc	ug/L	38	28	74%	0.380	0.166	
03_02_105	MW-3	App. III	Boron	ug/L	37	10	27%	0.530	0.004	**
03_02_107	MW-3	App. III	Calcium	ug/L	38	0	0%	0.221	0.157	
03_02_108	MW-3	App. III	Chloride	mg/L	38	0	0%	0.550	0.000	***
03_02_112	MW-3	App. III	Fluoride	mg/L	38	1	3%	0.698	0.000	***
03_02_118	MW-3	App. III	pH (Field)	S.U.	34	0	0%	-0.151	0.357	
03_02_123	MW-3	App. III	Sulfate	mg/L	38	0	0%	0.870	0.000	***
03_02_125	MW-3	App. III	Total Dissolved Solids	mg/L	38	0	0%	0.173	0.267	
03_03_101	MW-3	App. IV	Antimony	ug/L	38	27	71%	0.584	0.027	*
03_03_102	MW-3	App. IV	Arsenic	ug/L	38	30	79%	-0.128	0.666	
03_03_103	MW-3	App. IV	Barium	ug/L	38	0	0%	0.618	0.000	***
03_03_106	MW-3	App. IV	Cadmium	ug/L	38	37	97%	NA	NA	
03_03_109	MW-3	App. IV	Chromium	ug/L	38	19	50%	-0.064	0.763	
03_03_110	MW-3	App. IV	Cobalt	ug/L	38	32	84%	-0.247	0.444	
03_03_112	MW-3	App. IV	Fluoride	mg/L	38	1	3%	0.698	0.000	***
03_03_113	MW-3	App. IV	Lead	ug/L	38	34	89%	-0.017	0.962	
03_03_114	MW-3	App. IV	Lithium	ug/L	38	1	3%	0.043	0.784	
03_03_116	MW-3	App. IV	Molybdenum	ug/L	38	1	3%	-0.003	0.987	
03_03_119	MW-3	App. IV	Radium-226	pCi/L	37	0	0%	-0.304	0.054	
03_03_120	MW-3	App. IV	Radium-228	pCi/L	37	0	0%	0.334	0.034	*
03_03_121	MW-3	App. IV	Selenium	ug/L	38	37	97%	NA	NA	
03_03_126	MW-3	App. IV	Total Radium	pCi/L	37	0	0%	0.076	0.629	
04_01_111	MW-4	App. I Metals	Copper	ug/L	39	33	85%	0.053	0.869	
04_01_117	MW-4	App. I Metals	Nickel	ug/L	39	11	28%	0.157	0.380	
04_01_127	MW-4	App. I Metals	Vanadium	ug/L	39	35	90%	0.009	0.979	
04_01_128	MW-4	App. I Metals	Zinc	ug/L	39	24	62%	-0.099	0.673	

(Table continues on next page)

*** p < 0.001, ** p < 0.01, * p < 0.05

Table 4: Autocorrelation Tests, Non-Detects Excluded *(continued)*

ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	Autocorrelation	Box-Ljung p-value	Sig.
04_02_105	MW-4	App. III	Boron	ug/L	38	23	61%	-0.088	0.706	
04_02_107	MW-4	App. III	Calcium	ug/L	39	0	0%	0.691	0.000	***
04_02_108	MW-4	App. III	Chloride	mg/L	39	0	0%	0.782	0.000	***
04_02_112	MW-4	App. III	Fluoride	mg/L	39	0	0%	0.472	0.002	**
04_02_118	MW-4	App. III	pH (Field)	S.U.	37	0	0%	0.297	0.060	
04_02_123	MW-4	App. III	Sulfate	mg/L	39	0	0%	0.661	0.000	***
04_02_125	MW-4	App. III	Total Dissolved Solids	mg/L	39	0	0%	0.606	0.000	***
04_03_101	MW-4	App. IV	Antimony	ug/L	39	34	87%	0.172	0.612	
04_03_102	MW-4	App. IV	Arsenic	ug/L	39	37	95%	-0.500	0.157	
04_03_103	MW-4	App. IV	Barium	ug/L	39	0	0%	0.701	0.000	***
04_03_106	MW-4	App. IV	Cadmium	ug/L	39	38	97%	NA	NA	
04_03_109	MW-4	App. IV	Chromium	ug/L	39	29	74%	0.214	0.435	
04_03_110	MW-4	App. IV	Cobalt	ug/L	39	20	51%	-0.123	0.561	
04_03_112	MW-4	App. IV	Fluoride	mg/L	39	0	0%	0.472	0.002	**
04_03_113	MW-4	App. IV	Lead	ug/L	39	38	97%	NA	NA	
04_03_114	MW-4	App. IV	Lithium	ug/L	39	0	0%	0.170	0.272	
04_03_116	MW-4	App. IV	Molybdenum	ug/L	39	34	87%	-0.150	0.657	
04_03_119	MW-4	App. IV	Radium-226	pCi/L	37	0	0%	0.390	0.014	*
04_03_120	MW-4	App. IV	Radium-228	pCi/L	37	0	0%	0.214	0.175	
04_03_121	MW-4	App. IV	Selenium	ug/L	39	37	95%	-0.500	0.157	
04_03_126	MW-4	App. IV	Total Radium	pCi/L	37	0	0%	0.328	0.038	*
05_01_111	MW-5	App. I Metals	Copper	ug/L	40	28	70%	0.485	0.058	
05_01_117	MW-5	App. I Metals	Nickel	ug/L	40	30	75%	-0.069	0.802	
05_01_127	MW-5	App. I Metals	Vanadium	ug/L	40	37	92%	-0.057	0.875	
05_01_128	MW-5	App. I Metals	Zinc	ug/L	40	25	62%	0.147	0.530	
05_02_105	MW-5	App. III	Boron	ug/L	39	15	38%	-0.050	0.794	
05_02_107	MW-5	App. III	Calcium	ug/L	40	0	0%	0.586	0.000	***
05_02_108	MW-5	App. III	Chloride	mg/L	40	0	0%	0.470	0.002	**
05_02_112	MW-5	App. III	Fluoride	mg/L	40	0	0%	0.062	0.682	
05_02_118	MW-5	App. III	pH (Field)	S.U.	37	0	0%	-0.561	0.000	***
05_02_123	MW-5	App. III	Sulfate	mg/L	40	0	0%	0.275	0.072	
05_02_125	MW-5	App. III	Total Dissolved Solids	mg/L	40	0	0%	0.011	0.943	
05_03_101	MW-5	App. IV	Antimony	ug/L	40	38	95%	-0.500	0.157	
05_03_102	MW-5	App. IV	Arsenic	ug/L	40	38	95%	-0.500	0.157	
05_03_103	MW-5	App. IV	Barium	ug/L	40	0	0%	0.230	0.131	
05_03_109	MW-5	App. IV	Chromium	ug/L	40	28	70%	-0.060	0.816	
05_03_110	MW-5	App. IV	Cobalt	ug/L	40	38	95%	-0.500	0.157	
05_03_112	MW-5	App. IV	Fluoride	mg/L	40	0	0%	0.062	0.682	
05_03_113	MW-5	App. IV	Lead	ug/L	40	39	98%	NA	NA	
05_03_114	MW-5	App. IV	Lithium	ug/L	40	1	2%	0.050	0.747	
05_03_116	MW-5	App. IV	Molybdenum	ug/L	40	37	92%	-0.025	0.946	
05_03_119	MW-5	App. IV	Radium-226	pCi/L	38	0	0%	-0.331	0.034	*

(Table continues on next page)

*** p < 0.001, ** p < 0.01, * p < 0.05

Table 4: Autocorrelation Tests, Non-Detects Excluded *(continued)*

ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	Autocorrelation	Box-Ljung p-value	Sig.
05_03_120	MW-5	App. IV	Radium-228	pCi/L	38	0	0%	-0.132	0.399	
05_03_121	MW-5	App. IV	Selenium	ug/L	40	39	98%	NA	NA	
05_03_124	MW-5	App. IV	Thallium	ug/L	40	39	98%	NA	NA	
05_03_126	MW-5	App. IV	Total Radium	pCi/L	38	0	0%	-0.029	0.851	
06_01_111	MW-6	App. I Metals	Copper	ug/L	39	33	85%	0.164	0.612	
06_01_117	MW-6	App. I Metals	Nickel	ug/L	39	27	69%	0.260	0.309	
06_01_127	MW-6	App. I Metals	Vanadium	ug/L	39	35	90%	-0.213	0.547	
06_01_128	MW-6	App. I Metals	Zinc	ug/L	39	26	67%	0.003	0.990	
06_02_105	MW-6	App. III	Boron	ug/L	38	23	61%	-0.481	0.040	*
06_02_107	MW-6	App. III	Calcium	ug/L	39	0	0%	0.285	0.065	
06_02_108	MW-6	App. III	Chloride	mg/L	39	0	0%	0.199	0.197	
06_02_112	MW-6	App. III	Fluoride	mg/L	39	1	3%	0.176	0.260	
06_02_118	MW-6	App. III	pH (Field)	S.U.	36	0	0%	0.417	0.009	**
06_02_123	MW-6	App. III	Sulfate	mg/L	39	0	0%	0.588	0.000	***
06_02_125	MW-6	App. III	Total Dissolved Solids	mg/L	39	0	0%	0.019	0.903	
06_03_102	MW-6	App. IV	Arsenic	ug/L	39	37	95%	-0.500	0.157	
06_03_103	MW-6	App. IV	Barium	ug/L	39	0	0%	0.748	0.000	***
06_03_104	MW-6	App. IV	Beryllium	ug/L	39	38	97%	NA	NA	
06_03_109	MW-6	App. IV	Chromium	ug/L	39	31	79%	0.273	0.357	
06_03_110	MW-6	App. IV	Cobalt	ug/L	39	38	97%	NA	NA	
06_03_112	MW-6	App. IV	Fluoride	mg/L	39	1	3%	0.176	0.260	
06_03_113	MW-6	App. IV	Lead	ug/L	39	37	95%	-0.500	0.157	
06_03_114	MW-6	App. IV	Lithium	ug/L	39	0	0%	0.709	0.000	***
06_03_115	MW-6	App. IV	Mercury	ug/L	39	38	97%	NA	NA	
06_03_116	MW-6	App. IV	Molybdenum	ug/L	39	34	87%	0.127	0.707	
06_03_119	MW-6	App. IV	Radium-226	pCi/L	37	0	0%	-0.047	0.767	
06_03_120	MW-6	App. IV	Radium-228	pCi/L	37	0	0%	-0.305	0.054	
06_03_121	MW-6	App. IV	Selenium	ug/L	39	37	95%	-0.500	0.157	
06_03_124	MW-6	App. IV	Thallium	ug/L	39	36	92%	-0.164	0.653	
06_03_126	MW-6	App. IV	Total Radium	pCi/L	37	0	0%	-0.175	0.267	
07_01_111	MW-7R	App. I Metals	Copper	ug/L	31	21	68%	-0.186	0.498	
07_01_117	MW-7R	App. I Metals	Nickel	ug/L	31	13	42%	-0.034	0.877	
07_01_127	MW-7R	App. I Metals	Vanadium	ug/L	31	15	48%	0.688	0.003	**
07_01_128	MW-7R	App. I Metals	Zinc	ug/L	31	22	71%	0.456	0.109	
07_02_105	MW-7R	App. III	Boron	ug/L	30	12	40%	0.143	0.511	
07_02_107	MW-7R	App. III	Calcium	ug/L	31	0	0%	0.411	0.017	*
07_02_108	MW-7R	App. III	Chloride	mg/L	31	0	0%	0.290	0.090	
07_02_112	MW-7R	App. III	Fluoride	mg/L	31	1	3%	0.060	0.732	
07_02_118	MW-7R	App. III	pH (Field)	S.U.	30	0	0%	0.098	0.571	
07_02_123	MW-7R	App. III	Sulfate	mg/L	31	0	0%	0.222	0.195	
07_02_125	MW-7R	App. III	Total Dissolved Solids	mg/L	31	0	0%	0.089	0.604	
07_03_101	MW-7R	App. IV	Antimony	ug/L	31	30	97%	NA	NA	

(Table continues on next page)

*** p < 0.001, ** p < 0.01, * p < 0.05

Table 4: Autocorrelation Tests, Non-Detects Excluded *(continued)*

ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	Autocorrelation	Box-Ljung p-value	Sig.
07_03_102	MW-7R	App. IV	Arsenic	ug/L	31	28	90%	-0.486	0.184	
07_03_103	MW-7R	App. IV	Barium	ug/L	31	0	0%	0.374	0.029	*
07_03_109	MW-7R	App. IV	Chromium	ug/L	31	8	26%	-0.029	0.883	
07_03_110	MW-7R	App. IV	Cobalt	ug/L	31	26	84%	0.190	0.575	
07_03_112	MW-7R	App. IV	Fluoride	mg/L	31	1	3%	0.060	0.732	
07_03_113	MW-7R	App. IV	Lead	ug/L	31	27	87%	0.034	0.922	
07_03_114	MW-7R	App. IV	Lithium	ug/L	31	0	0%	0.210	0.220	
07_03_116	MW-7R	App. IV	Molybdenum	ug/L	31	27	87%	-0.089	0.800	
07_03_119	MW-7R	App. IV	Radium-226	pCi/L	29	0	0%	0.057	0.745	
07_03_120	MW-7R	App. IV	Radium-228	pCi/L	29	0	0%	0.050	0.776	
07_03_121	MW-7R	App. IV	Selenium	ug/L	31	30	97%	NA	NA	
07_03_124	MW-7R	App. IV	Thallium	ug/L	31	28	90%	-0.153	0.675	
07_03_126	MW-7R	App. IV	Total Radium	pCi/L	29	0	0%	0.064	0.719	
08_01_111	MW-8	App. I Metals	Copper	ug/L	40	30	75%	-0.143	0.602	
08_01_117	MW-8	App. I Metals	Nickel	ug/L	40	19	48%	-0.104	0.608	
08_01_122	MW-8	App. I Metals	Silver	ug/L	40	39	98%	NA	NA	
08_01_127	MW-8	App. I Metals	Vanadium	ug/L	40	32	80%	-0.257	0.385	
08_01_128	MW-8	App. I Metals	Zinc	ug/L	40	24	60%	-0.032	0.887	
08_02_105	MW-8	App. III	Boron	ug/L	39	15	38%	0.324	0.091	
08_02_107	MW-8	App. III	Calcium	ug/L	40	0	0%	0.187	0.221	
08_02_108	MW-8	App. III	Chloride	mg/L	40	0	0%	0.596	0.000	***
08_02_112	MW-8	App. III	Fluoride	mg/L	40	20	50%	0.611	0.003	**
08_02_118	MW-8	App. III	pH (Field)	S.U.	38	0	0%	0.250	0.109	
08_02_123	MW-8	App. III	Sulfate	mg/L	40	0	0%	0.545	0.000	***
08_02_125	MW-8	App. III	Total Dissolved Solids	mg/L	40	0	0%	0.097	0.525	
08_03_101	MW-8	App. IV	Antimony	ug/L	40	33	82%	0.016	0.957	
08_03_102	MW-8	App. IV	Arsenic	ug/L	40	35	88%	-0.132	0.697	
08_03_103	MW-8	App. IV	Barium	ug/L	40	0	0%	0.246	0.106	
08_03_104	MW-8	App. IV	Beryllium	ug/L	40	39	98%	NA	NA	
08_03_106	MW-8	App. IV	Cadmium	ug/L	40	39	98%	NA	NA	
08_03_109	MW-8	App. IV	Chromium	ug/L	40	19	48%	-0.055	0.789	
08_03_110	MW-8	App. IV	Cobalt	ug/L	40	35	88%	0.210	0.535	
08_03_112	MW-8	App. IV	Fluoride	mg/L	40	20	50%	0.611	0.003	**
08_03_113	MW-8	App. IV	Lead	ug/L	40	38	95%	-0.500	0.157	
08_03_114	MW-8	App. IV	Lithium	ug/L	40	1	2%	0.433	0.005	**
08_03_115	MW-8	App. IV	Mercury	ug/L	40	39	98%	NA	NA	
08_03_116	MW-8	App. IV	Molybdenum	ug/L	40	37	92%	-0.120	0.743	
08_03_119	MW-8	App. IV	Radium-226	pCi/L	38	0	0%	0.047	0.764	
08_03_120	MW-8	App. IV	Radium-228	pCi/L	38	0	0%	-0.087	0.576	
08_03_121	MW-8	App. IV	Selenium	ug/L	40	38	95%	-0.500	0.157	
08_03_124	MW-8	App. IV	Thallium	ug/L	40	38	95%	-0.500	0.157	
08_03_126	MW-8	App. IV	Total Radium	pCi/L	38	0	0%	-0.042	0.786	

(Table continues on next page)

*** p < 0.001, ** p < 0.01, * p < 0.05

Table 4: Autocorrelation Tests, Non-Detects Excluded *(continued)*

ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	Autocorrelation	Box-Ljung p-value	Sig.
09_01_111	MW-10	App. I Metals	Copper	ug/L	16	9	56%	-0.039	0.900	
09_01_117	MW-10	App. I Metals	Nickel	ug/L	16	4	25%	-0.174	0.496	
09_01_127	MW-10	App. I Metals	Vanadium	ug/L	16	9	56%	-0.275	0.373	
09_01_128	MW-10	App. I Metals	Zinc	ug/L	16	13	81%	-0.667	0.068	
09_02_105	MW-10	App. III	Boron	ug/L	16	0	0%	-0.025	0.912	
09_02_107	MW-10	App. III	Calcium	ug/L	16	0	0%	0.196	0.391	
09_02_108	MW-10	App. III	Chloride	mg/L	16	0	0%	-0.551	0.016	*
09_02_112	MW-10	App. III	Fluoride	mg/L	16	0	0%	0.187	0.414	
09_02_118	MW-10	App. III	pH (Field)	S.U.	17	0	0%	-0.282	0.205	
09_02_123	MW-10	App. III	Sulfate	mg/L	16	0	0%	0.788	0.001	***
09_02_125	MW-10	App. III	Total Dissolved Solids	mg/L	16	0	0%	0.276	0.226	
09_03_101	MW-10	App. IV	Antimony	ug/L	16	15	94%	NA	NA	
09_03_102	MW-10	App. IV	Arsenic	ug/L	16	12	75%	-0.031	0.930	
09_03_103	MW-10	App. IV	Barium	ug/L	16	0	0%	0.268	0.240	
09_03_109	MW-10	App. IV	Chromium	ug/L	16	5	31%	-0.226	0.393	
09_03_110	MW-10	App. IV	Cobalt	ug/L	16	14	88%	-0.500	0.157	
09_03_112	MW-10	App. IV	Fluoride	mg/L	16	0	0%	0.187	0.414	
09_03_113	MW-10	App. IV	Lead	ug/L	16	14	88%	-0.500	0.157	
09_03_114	MW-10	App. IV	Lithium	ug/L	16	0	0%	0.722	0.002	**
09_03_116	MW-10	App. IV	Molybdenum	ug/L	16	0	0%	0.714	0.002	**
09_03_119	MW-10	App. IV	Radium-226	pCi/L	16	0	0%	0.106	0.642	
09_03_120	MW-10	App. IV	Radium-228	pCi/L	16	0	0%	-0.126	0.580	
09_03_121	MW-10	App. IV	Selenium	ug/L	16	14	88%	-0.500	0.157	
09_03_124	MW-10	App. IV	Thallium	ug/L	16	15	94%	NA	NA	
09_03_126	MW-10	App. IV	Total Radium	pCi/L	16	0	0%	-0.058	0.800	
10_01_111	MW-11	App. I Metals	Copper	ug/L	19	10	53%	0.146	0.607	
10_01_117	MW-11	App. I Metals	Nickel	ug/L	19	10	53%	-0.049	0.864	
10_01_127	MW-11	App. I Metals	Vanadium	ug/L	19	16	84%	-0.109	0.764	
10_01_128	MW-11	App. I Metals	Zinc	ug/L	19	14	74%	0.102	0.762	
10_02_105	MW-11	App. III	Boron	ug/L	19	1	5%	-0.049	0.822	
10_02_107	MW-11	App. III	Calcium	ug/L	19	0	0%	-0.097	0.649	
10_02_108	MW-11	App. III	Chloride	mg/L	19	0	0%	0.022	0.916	
10_02_112	MW-11	App. III	Fluoride	mg/L	19	1	5%	0.406	0.062	
10_02_118	MW-11	App. III	pH (Field)	S.U.	17	0	0%	-0.207	0.352	
10_02_123	MW-11	App. III	Sulfate	mg/L	19	0	0%	-0.279	0.190	
10_02_125	MW-11	App. III	Total Dissolved Solids	mg/L	19	0	0%	-0.009	0.966	
10_03_101	MW-11	App. IV	Antimony	ug/L	19	17	89%	-0.500	0.157	
10_03_102	MW-11	App. IV	Arsenic	ug/L	19	17	89%	-0.500	0.157	
10_03_103	MW-11	App. IV	Barium	ug/L	19	0	0%	-0.016	0.939	
10_03_109	MW-11	App. IV	Chromium	ug/L	19	14	74%	0.408	0.227	
10_03_110	MW-11	App. IV	Cobalt	ug/L	19	13	68%	-0.281	0.384	
10_03_112	MW-11	App. IV	Fluoride	mg/L	19	1	5%	0.406	0.062	

(Table continues on next page)

*** p < 0.001, ** p < 0.01, * p < 0.05

Table 4: Autocorrelation Tests, Non-Detects Excluded *(continued)*

ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	Autocorrelation	Box-Ljung p-value	Sig.
10_03_113	MW-11	App. IV	Lead	ug/L	19	18	95%	NA	NA	
10_03_114	MW-11	App. IV	Lithium	ug/L	19	0	0%	0.008	0.970	
10_03_116	MW-11	App. IV	Molybdenum	ug/L	19	17	89%	-0.500	0.157	
10_03_119	MW-11	App. IV	Radium-226	pCi/L	19	0	0%	0.174	0.411	
10_03_120	MW-11	App. IV	Radium-228	pCi/L	19	0	0%	-0.316	0.137	
10_03_124	MW-11	App. IV	Thallium	ug/L	19	18	95%	NA	NA	
10_03_126	MW-11	App. IV	Total Radium	pCi/L	19	0	0%	-0.084	0.692	
11_01_111	MW-11D	App. I Metals	Copper	ug/L	17	12	71%	0.369	0.275	
11_01_117	MW-11D	App. I Metals	Nickel	ug/L	17	12	71%	0.001	0.998	
11_01_127	MW-11D	App. I Metals	Vanadium	ug/L	17	14	82%	-0.063	0.863	
11_01_128	MW-11D	App. I Metals	Zinc	ug/L	17	11	65%	-0.451	0.162	
11_02_105	MW-11D	App. III	Boron	ug/L	17	0	0%	0.012	0.958	
11_02_107	MW-11D	App. III	Calcium	ug/L	17	0	0%	0.009	0.968	
11_02_108	MW-11D	App. III	Chloride	mg/L	17	0	0%	0.258	0.247	
11_02_112	MW-11D	App. III	Fluoride	mg/L	17	0	0%	0.088	0.694	
11_02_118	MW-11D	App. III	pH (Field)	S.U.	17	0	0%	0.549	0.014	*
11_02_123	MW-11D	App. III	Sulfate	mg/L	17	1	6%	0.400	0.079	
11_02_125	MW-11D	App. III	Total Dissolved Solids	mg/L	17	0	0%	0.271	0.223	
11_03_101	MW-11D	App. IV	Antimony	ug/L	17	14	82%	-0.617	0.091	
11_03_102	MW-11D	App. IV	Arsenic	ug/L	17	8	47%	0.041	0.886	
11_03_103	MW-11D	App. IV	Barium	ug/L	17	0	0%	0.276	0.215	
11_03_104	MW-11D	App. IV	Beryllium	ug/L	17	16	94%	NA	NA	
11_03_109	MW-11D	App. IV	Chromium	ug/L	17	13	76%	0.090	0.800	
11_03_110	MW-11D	App. IV	Cobalt	ug/L	17	16	94%	NA	NA	
11_03_112	MW-11D	App. IV	Fluoride	mg/L	17	0	0%	0.088	0.694	
11_03_113	MW-11D	App. IV	Lead	ug/L	17	16	94%	NA	NA	
11_03_114	MW-11D	App. IV	Lithium	ug/L	17	0	0%	0.523	0.019	*
11_03_116	MW-11D	App. IV	Molybdenum	ug/L	17	1	6%	0.206	0.367	
11_03_119	MW-11D	App. IV	Radium-226	pCi/L	17	0	0%	0.236	0.290	
11_03_120	MW-11D	App. IV	Radium-228	pCi/L	17	0	0%	0.080	0.720	
11_03_121	MW-11D	App. IV	Selenium	ug/L	17	16	94%	NA	NA	
11_03_124	MW-11D	App. IV	Thallium	ug/L	17	16	94%	NA	NA	
11_03_126	MW-11D	App. IV	Total Radium	pCi/L	17	0	0%	0.162	0.468	

*** p < 0.001, ** p < 0.01, * p < 0.05

Table 5: Outlier Counts by Date

Date	Count
2015-11-19	4
2015-11-20	2
2016-01-05	2
2016-01-06	1
2016-02-17	2
2016-02-18	1
2016-04-05	2
2016-04-06	1
2016-04-07	2
2016-05-25	1
2016-05-27	1
2016-07-11	1
2016-07-12	2
2017-01-23	1
2017-01-24	4
2017-04-04	1
2017-04-05	3
2017-07-18	2
2017-07-19	2
2017-07-20	6
2017-10-17	3
2017-10-18	2
2018-01-24	3
2018-01-25	1
2018-04-23	1
2018-04-24	1
2018-07-17	2
2018-10-25	2
2019-01-25	4
2019-07-10	3
2020-01-16	2
2020-01-17	2
2020-04-15	1
2020-04-17	1
2020-07-07	2
2020-10-14	2
2021-01-27	1
2021-01-28	1
2021-01-29	1
2021-04-13	3
2021-04-14	1
2021-04-15	1
2021-08-09	1

(Table continues on next page)

Table 5: Outlier Counts by Date *(continued)*

Date	Count
2021-08-10	1
2021-08-12	8
2021-11-17	1
2021-11-18	1
2022-04-20	1
2022-04-21	1
2022-07-12	2
2022-07-13	3
2022-07-14	1
2022-10-19	2
2023-04-27	8
2023-10-04	10
2024-01-24	4
2024-01-26	2
2024-10-31	1
2025-01-23	1
2025-03-31	1

Table 6: Outliers Identified at the 1% Significance Level, Non-Detects Excluded

ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	No. Detects	Date	Dilution	Value
01_02_105	MW-1	App. III	Boron	ug/L	39	22	56%	17	2023-10-04	1	44.6
01_03_106	MW-1	App. IV	Cadmium	ug/L	40	37	92%	3	2020-10-14	1	0.670
01_03_126	MW-1	App. IV	Total Radium	pCi/L	38	0	0%	38	2019-07-10	1	2.48
02_01_111	MW-2	App. I Metals	Copper	ug/L	35	15	43%	20	2021-11-18	1	294
02_01_117	MW-2	App. I Metals	Nickel	ug/L	35	12	34%	23	2022-10-19	1	115
02_01_127	MW-2	App. I Metals	Vanadium	ug/L	35	23	66%	12	2023-10-04	1	37.2
02_01_128	MW-2	App. I Metals	Zinc	ug/L	35	16	46%	19	2024-10-31	1	1590
02_02_107	MW-2	App. III	Calcium	ug/L	35	0	0%	35	2024-01-26	1	34300
02_02_108	MW-2	App. III	Chloride	mg/L	35	0	0%	35	2024-01-26	11	489
02_02_108	MW-2	App. III	Chloride	mg/L	35	0	0%	35	2022-07-12	26	552
02_02_112	MW-2	App. III	Fluoride	mg/L	35	2	6%	33	2017-07-18	NA	0.400
02_02_118	MW-2	App. III	pH (Field)	S.U.	31	0	0%	31	2024-01-24	NA	9.29
02_02_118	MW-2	App. III	pH (Field)	S.U.	31	0	0%	31	2016-07-12	NA	8.50
02_02_125	MW-2	App. III	Total Dissolved Solids	mg/L	35	0	0%	35	2020-01-17	1	11700
02_02_125	MW-2	App. III	Total Dissolved Solids	mg/L	35	0	0%	35	2015-11-19	NA	257
02_02_125	MW-2	App. III	Total Dissolved Solids	mg/L	35	0	0%	35	2021-01-28	1	428
02_03_109	MW-2	App. IV	Chromium	ug/L	35	6	17%	29	2022-10-19	1	130
02_03_109	MW-2	App. IV	Chromium	ug/L	35	6	17%	29	2018-10-25	1	84.0
02_03_109	MW-2	App. IV	Chromium	ug/L	35	6	17%	29	2018-01-25	NA	56.8
02_03_109	MW-2	App. IV	Chromium	ug/L	35	6	17%	29	2017-04-05	NA	48.8
02_03_109	MW-2	App. IV	Chromium	ug/L	35	6	17%	29	2023-10-04	1	46.2

(Table continues on next page)

Table 6: Outliers Identified at the 1% Significance Level, Non-Detects Excluded *(continued)*

ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	No. Detects	Date	Dilution	Value
02_03_110	MW-2	App. IV	Cobalt	ug/L	35	27	77%	8	2023-10-04	1	34.8
02_03_112	MW-2	App. IV	Fluoride	mg/L	35	2	6%	33	2017-07-18	NA	0.400
02_03_114	MW-2	App. IV	Lithium	ug/L	35	0	0%	35	2021-08-10	5	512
02_03_114	MW-2	App. IV	Lithium	ug/L	35	0	0%	35	2016-07-12	NA	356
02_03_114	MW-2	App. IV	Lithium	ug/L	35	0	0%	35	2016-05-27	NA	350
02_03_116	MW-2	App. IV	Molybdenum	ug/L	35	6	17%	29	2020-01-17	1	41.0
02_03_124	MW-2	App. IV	Thallium	ug/L	35	23	66%	12	2016-02-17	NA	10.3
03_01_111	MW-3	App. I Metals	Copper	ug/L	38	21	55%	17	2022-04-20	1	137
03_01_117	MW-3	App. I Metals	Nickel	ug/L	38	19	50%	19	2019-01-25	1	86.0
03_02_107	MW-3	App. III	Calcium	ug/L	38	0	0%	38	2025-01-23	10	326000
03_02_108	MW-3	App. III	Chloride	mg/L	38	0	0%	38	2022-07-12	25	565
03_02_118	MW-3	App. III	pH (Field)	S.U.	34	0	0%	34	2020-07-07	NA	6.18
03_02_123	MW-3	App. III	Sulfate	mg/L	38	0	0%	38	2017-01-24	NA	174
03_02_123	MW-3	App. III	Sulfate	mg/L	38	0	0%	38	2017-04-05	NA	167
03_02_123	MW-3	App. III	Sulfate	mg/L	38	0	0%	38	2016-07-11	NA	125
03_02_123	MW-3	App. III	Sulfate	mg/L	38	0	0%	38	2017-07-19	NA	125
03_02_123	MW-3	App. III	Sulfate	mg/L	38	0	0%	38	2017-10-18	NA	107
03_02_123	MW-3	App. III	Sulfate	mg/L	38	0	0%	38	2018-01-24	NA	102
03_02_123	MW-3	App. III	Sulfate	mg/L	38	0	0%	38	2018-10-25	1	98.0
03_02_123	MW-3	App. III	Sulfate	mg/L	38	0	0%	38	2018-07-17	NA	88.1
03_02_123	MW-3	App. III	Sulfate	mg/L	38	0	0%	38	2018-04-24	NA	80.9
03_02_123	MW-3	App. III	Sulfate	mg/L	38	0	0%	38	2019-01-25	1	80.2
03_02_125	MW-3	App. III	Total Dissolved Solids	mg/L	38	0	0%	38	2015-11-19	NA	256
03_02_125	MW-3	App. III	Total Dissolved Solids	mg/L	38	0	0%	38	2017-01-24	NA	303
03_02_125	MW-3	App. III	Total Dissolved Solids	mg/L	38	0	0%	38	2018-01-24	NA	1060
03_03_109	MW-3	App. IV	Chromium	ug/L	38	19	50%	19	2019-01-25	1	179
03_03_110	MW-3	App. IV	Cobalt	ug/L	38	32	84%	6	2019-01-25	1	6.20
03_03_114	MW-3	App. IV	Lithium	ug/L	38	1	3%	37	2017-10-18	NA	236
03_03_114	MW-3	App. IV	Lithium	ug/L	38	1	3%	37	2016-04-07	NA	217
03_03_114	MW-3	App. IV	Lithium	ug/L	38	1	3%	37	2018-07-17	NA	36.7
03_03_114	MW-3	App. IV	Lithium	ug/L	38	1	3%	37	2017-04-05	NA	129
03_03_114	MW-3	App. IV	Lithium	ug/L	38	1	3%	37	2015-11-19	NA	128
03_03_116	MW-3	App. IV	Molybdenum	ug/L	38	1	3%	37	2020-01-16	1	35.7
04_01_128	MW-4	App. I Metals	Zinc	ug/L	39	24	62%	15	2020-04-17	1	47.2
04_02_105	MW-4	App. III	Boron	ug/L	38	23	61%	15	2017-10-17	NA	165
04_02_125	MW-4	App. III	Total Dissolved Solids	mg/L	39	0	0%	39	2015-11-19	NA	395
04_02_125	MW-4	App. III	Total Dissolved Solids	mg/L	39	0	0%	39	2016-05-25	NA	486
04_02_125	MW-4	App. III	Total Dissolved Solids	mg/L	39	0	0%	39	2016-04-07	NA	513
04_03_114	MW-4	App. IV	Lithium	ug/L	39	0	0%	39	2021-08-12	5	98.0
05_01_117	MW-5	App. I Metals	Nickel	ug/L	40	30	75%	10	2022-07-13	1	120
05_01_128	MW-5	App. I Metals	Zinc	ug/L	40	25	62%	15	2025-03-31	1	54.9
05_02_105	MW-5	App. III	Boron	ug/L	39	15	38%	24	2017-01-23	NA	39.3
05_02_118	MW-5	App. III	pH (Field)	S.U.	37	0	0%	37	2020-04-15	NA	8.54

(Table continues on next page)

Table 6: Outliers Identified at the 1% Significance Level, Non-Detects Excluded *(continued)*

ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	No. Detects	Date	Dilution	Value
05_02_118	MW-5	App. III	pH (Field)	S.U.	37	0	0%	37	2020-07-07	NA	5.50
05_02_118	MW-5	App. III	pH (Field)	S.U.	37	0	0%	37	2020-01-16	NA	5.62
05_02_125	MW-5	App. III	Total Dissolved Solids	mg/L	40	0	0%	40	2017-10-17	NA	1160
05_02_125	MW-5	App. III	Total Dissolved Solids	mg/L	40	0	0%	40	2020-10-14	1	320
05_03_109	MW-5	App. IV	Chromium	ug/L	40	28	70%	12	2022-07-13	1	260
05_03_114	MW-5	App. IV	Lithium	ug/L	40	1	2%	39	2021-08-09	1	28.6
06_02_108	MW-6	App. III	Chloride	mg/L	39	0	0%	39	2016-04-05	NA	15.3
06_02_108	MW-6	App. III	Chloride	mg/L	39	0	0%	39	2021-04-15	4	80.3
06_02_123	MW-6	App. III	Sulfate	mg/L	39	0	0%	39	2016-04-05	NA	214
06_02_123	MW-6	App. III	Sulfate	mg/L	39	0	0%	39	2016-01-05	NA	194
06_02_123	MW-6	App. III	Sulfate	mg/L	39	0	0%	39	2017-04-04	NA	179
06_02_123	MW-6	App. III	Sulfate	mg/L	39	0	0%	39	2017-01-24	NA	145
06_02_123	MW-6	App. III	Sulfate	mg/L	39	0	0%	39	2015-11-20	NA	137
06_02_123	MW-6	App. III	Sulfate	mg/L	39	0	0%	39	2018-01-24	NA	126
06_02_123	MW-6	App. III	Sulfate	mg/L	39	0	0%	39	2018-04-23	NA	96.1
06_02_123	MW-6	App. III	Sulfate	mg/L	39	0	0%	39	2017-10-17	NA	90.9
06_02_123	MW-6	App. III	Sulfate	mg/L	39	0	0%	39	2016-02-17	NA	87.7
06_02_123	MW-6	App. III	Sulfate	mg/L	39	0	0%	39	2017-07-19	NA	86.9
06_03_124	MW-6	App. IV	Thallium	ug/L	39	36	92%	3	2016-01-05	NA	6.20
07_01_117	MW-7R	App. I Metals	Nickel	ug/L	31	13	42%	18	2019-07-10	1	880
07_02_108	MW-7R	App. III	Chloride	mg/L	31	0	0%	31	2022-07-14	7	194
07_02_112	MW-7R	App. III	Fluoride	mg/L	31	1	3%	30	2017-07-20	NA	0.320
07_02_118	MW-7R	App. III	pH (Field)	S.U.	30	0	0%	30	2017-07-20	NA	9.60
07_02_123	MW-7R	App. III	Sulfate	mg/L	31	0	0%	31	2017-07-20	NA	51.2
07_03_103	MW-7R	App. IV	Barium	ug/L	31	0	0%	31	2017-07-20	NA	50.1
07_03_109	MW-7R	App. IV	Chromium	ug/L	31	8	26%	23	2019-07-10	1	1940
07_03_112	MW-7R	App. IV	Fluoride	mg/L	31	1	3%	30	2017-07-20	NA	0.320
07_03_114	MW-7R	App. IV	Lithium	ug/L	31	0	0%	31	2017-07-20	NA	5.60
07_03_120	MW-7R	App. IV	Radium-228	pCi/L	29	0	0%	29	2021-04-14	1	2.13
08_01_111	MW-8	App. I Metals	Copper	ug/L	40	30	75%	10	2023-04-27	1	116
08_01_117	MW-8	App. I Metals	Nickel	ug/L	40	19	48%	21	2023-04-27	1	157
08_01_127	MW-8	App. I Metals	Vanadium	ug/L	40	32	80%	8	2023-04-27	1	9.50
08_02_107	MW-8	App. III	Calcium	ug/L	40	0	0%	40	2021-01-27	10	4170
08_02_108	MW-8	App. III	Chloride	mg/L	40	0	0%	40	2015-11-20	NA	939
08_02_108	MW-8	App. III	Chloride	mg/L	40	0	0%	40	2016-01-06	NA	755
08_02_108	MW-8	App. III	Chloride	mg/L	40	0	0%	40	2016-04-06	NA	685
08_02_108	MW-8	App. III	Chloride	mg/L	40	0	0%	40	2016-02-18	NA	663
08_02_108	MW-8	App. III	Chloride	mg/L	40	0	0%	40	2017-01-24	NA	660
08_03_103	MW-8	App. IV	Barium	ug/L	40	0	0%	40	2023-04-27	10	1880
08_03_119	MW-8	App. IV	Radium-226	pCi/L	38	0	0%	38	2023-04-27	1	2.51
08_03_120	MW-8	App. IV	Radium-228	pCi/L	38	0	0%	38	2023-04-27	1	4.72
08_03_126	MW-8	App. IV	Total Radium	pCi/L	38	0	0%	38	2023-04-27	1	7.23
09_01_111	MW-10	App. I Metals	Copper	ug/L	16	9	56%	7	2022-04-21	1	103

(Table continues on next page)

Table 6: Outliers Identified at the 1% Significance Level, Non-Detects Excluded *(continued)*

ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	No. Detects	Date	Dilution	Value
09_01_117	MW-10	App. I Metals	Nickel	ug/L	16	4	25%	12	2023-10-04	1	27.9
09_01_127	MW-10	App. I Metals	Vanadium	ug/L	16	9	56%	7	2023-10-04	1	18.2
09_01_128	MW-10	App. I Metals	Zinc	ug/L	16	13	81%	3	2023-10-04	1	94.2
09_02_105	MW-10	App. III	Boron	ug/L	16	0	0%	16	2023-10-04	1	43.4
09_03_102	MW-10	App. IV	Arsenic	ug/L	16	12	75%	4	2023-04-27	1	1.20
09_03_103	MW-10	App. IV	Barium	ug/L	16	0	0%	16	2023-10-04	1	195
09_03_109	MW-10	App. IV	Chromium	ug/L	16	5	31%	11	2023-10-04	1	56.7
10_01_111	MW-11	App. I Metals	Copper	ug/L	19	10	53%	9	2021-11-17	1	20.1
10_02_107	MW-11	App. III	Calcium	ug/L	19	0	0%	19	2024-01-24	1	69400
10_02_125	MW-11	App. III	Total Dissolved Solids	mg/L	19	0	0%	19	2021-01-29	1	2760
10_03_103	MW-11	App. IV	Barium	ug/L	19	0	0%	19	2024-01-24	1	130
10_03_114	MW-11	App. IV	Lithium	ug/L	19	0	0%	19	2024-01-24	1	19.5
10_03_120	MW-11	App. IV	Radium-228	pCi/L	19	0	0%	19	2021-04-13	1	2.13
10_03_126	MW-11	App. IV	Total Radium	pCi/L	19	0	0%	19	2021-04-13	1	2.39
11_01_117	MW-11D	App. I Metals	Nickel	ug/L	17	12	71%	5	2022-07-13	1	6.20
11_02_105	MW-11D	App. III	Boron	ug/L	17	0	0%	17	2021-08-12	2	109
11_02_107	MW-11D	App. III	Calcium	ug/L	17	0	0%	17	2021-08-12	1	94400
11_02_108	MW-11D	App. III	Chloride	mg/L	17	0	0%	17	2021-08-12	12	530
11_02_123	MW-11D	App. III	Sulfate	mg/L	17	1	6%	16	2021-08-12	12	523
11_02_125	MW-11D	App. III	Total Dissolved Solids	mg/L	17	0	0%	17	2021-08-12	1	1740
11_03_114	MW-11D	App. IV	Lithium	ug/L	17	0	0%	17	2021-08-12	2	80.7
11_03_116	MW-11D	App. IV	Molybdenum	ug/L	17	1	6%	16	2021-08-12	1	127
11_03_120	MW-11D	App. IV	Radium-228	pCi/L	17	0	0%	17	2021-04-13	1	2.23

Table 7: Seasonality Tests

						Full								Without Non-Detects							
						Sample Size					p-Value			Sample Size					p-Value			
ID	Well	Constituent Type	Constituent	Unit	% NDs	Winter	Spring	Summer	Fall	Total	Kruskal-Wallis	ANOVA	Log ANOVA	Winter	Spring	Summer	Fall	Total	Kruskal-Wallis	ANOVA	Log ANOVA	
01_01_111	MW-1	App. I Metals	Copper	ug/L	80%	11	11	9	9	40	0.789	0.661	0.895	2	3	1	2	8	0.670	0.600	0.648	
01_01_117	MW-1	App. I Metals	Nickel	ug/L	70%	11	11	9	9	40	0.842	0.762	0.869	3	3	4	2	12	0.889	0.654	0.938	
01_01_122	MW-1	App. I Metals	Silver	ug/L	82%	11	11	9	9	40	0.930	0.925	0.773	2	1	2	2	7	0.321	0.178	0.042	*
01_01_127	MW-1	App. I Metals	Vanadium	ug/L	60%	11	11	9	9	40	0.892	0.819	0.899	4	5	4	3	16	0.603	0.601	0.555	
01_01_128	MW-1	App. I Metals	Zinc	ug/L	62%	11	11	9	9	40	0.511	0.686	0.535	5	4	3	3	15	0.698	0.917	0.882	
01_02_105	MW-1	App. III	Boron	ug/L	56%	10	11	9	9	39	0.835	0.594	0.936	5	6	2	4	17	0.430	0.192	0.132	
01_02_107	MW-1	App. III	Calcium	ug/L	0%	11	11	9	9	40	0.506	0.540	0.587	11	11	9	9	40	0.506	0.540	0.587	
01_02_108	MW-1	App. III	Chloride	mg/L	0%	11	11	9	9	40	0.606	0.551	0.739	11	11	9	9	40	0.606	0.551	0.739	
01_02_112	MW-1	App. III	Fluoride	mg/L	2%	11	11	9	9	40	0.665	0.685	0.576	11	10	9	9	39	0.626	0.600	0.610	
01_02_118	MW-1	App. III	pH (Field)	S.U.	0%	11	10	9	8	38	0.286	0.357	0.356	11	10	9	8	38	0.286	0.357	0.356	
01_02_123	MW-1	App. III	Sulfate	mg/L	0%	11	11	9	9	40	0.966	0.958	0.976	11	11	9	9	40	0.966	0.958	0.976	
01_02_125	MW-1	App. III	Total Dissolved Solids	mg/L	0%	11	11	9	9	40	0.387	0.351	0.466	11	11	9	9	40	0.387	0.351	0.466	
01_03_101	MW-1	App. IV	Antimony	ug/L	95%	11	11	9	9	40	0.730	0.257	0.351	0	0	2	0	2	NA	NA	NA	
01_03_102	MW-1	App. IV	Arsenic	ug/L	90%	11	11	9	9	40	0.905	0.934	0.909	1	1	0	2	4	0.407	0.731	0.627	
01_03_103	MW-1	App. IV	Barium	ug/L	0%	11	11	9	9	40	0.359	0.422	0.497	11	11	9	9	40	0.359	0.422	0.497	
01_03_104	MW-1	App. IV	Beryllium	ug/L	100%	11	11	9	9	40	0.935	0.948	0.967	NA	NA	NA	NA	NA	NA	NA	NA	
01_03_106	MW-1	App. IV	Cadmium	ug/L	92%	11	11	9	9	40	0.991	0.931	0.783	1	0	1	1	3	0.368	NA	NA	
01_03_109	MW-1	App. IV	Chromium	ug/L	68%	11	11	9	9	40	0.956	0.707	0.960	3	4	3	3	13	0.429	0.264	0.374	
01_03_110	MW-1	App. IV	Cobalt	ug/L	90%	11	11	9	9	40	0.952	0.960	0.949	0	2	2	0	4	1.000	0.903	0.632	
01_03_112	MW-1	App. IV	Fluoride	mg/L	2%	11	11	9	9	40	0.665	0.685	0.576	11	10	9	9	39	0.626	0.600	0.610	
01_03_113	MW-1	App. IV	Lead	ug/L	90%	11	11	9	9	40	0.590	0.275	0.356	1	2	1	0	4	0.407	0.507	0.771	
01_03_114	MW-1	App. IV	Lithium	ug/L	0%	11	11	9	9	40	0.288	0.413	0.442	11	11	9	9	40	0.288	0.413	0.442	
01_03_115	MW-1	App. IV	Mercury	ug/L	100%	11	11	9	9	40	0.782	0.837	0.830	NA	NA	NA	NA	NA	NA	NA	NA	
01_03_116	MW-1	App. IV	Molybdenum	ug/L	88%	11	11	9	9	40	0.472	0.488	0.242	1	1	2	1	5	0.362	0.771	0.576	
01_03_119	MW-1	App. IV	Radium-226	pCi/L	0%	11	10	9	8	38	0.842	0.802	NA	11	10	9	8	38	0.842	0.802	NA	
01_03_120	MW-1	App. IV	Radium-228	pCi/L	0%	11	10	9	8	38	0.906	0.822	NA	11	10	9	8	38	0.906	0.822	NA	
01_03_121	MW-1	App. IV	Selenium	ug/L	95%	11	11	9	9	40	0.761	0.937	0.653	0	1	1	0	2	0.317	NA	NA	
01_03_124	MW-1	App. IV	Thallium	ug/L	100%	11	11	9	9	40	0.758	0.932	0.769	NA	NA	NA	NA	NA	NA	NA	NA	
01_03_126	MW-1	App. IV	Total Radium	pCi/L	0%	11	10	9	8	38	0.959	0.806	0.944	11	10	9	8	38	0.959	0.806	0.944	
02_01_111	MW-2	App. I Metals	Copper	ug/L	43%	11	10	6	8	35	0.187	0.251	0.093	5	6	3	6	20	0.036	* 0.459	0.068	
02_01_117	MW-2	App. I Metals	Nickel	ug/L	34%	11	10	6	8	35	0.607	0.075	0.405	8	5	4	6	23	0.477	0.108	0.344	
02_01_122	MW-2	App. I Metals	Silver	ug/L	91%	11	10	6	8	35	0.857	0.846	0.785	1	1	1	0	3	0.368	NA	NA	
02_01_127	MW-2	App. I Metals	Vanadium	ug/L	66%	11	10	6	8	35	0.466	0.469	0.471	3	3	3	3	12	0.183	0.472	0.258	
02_01_128	MW-2	App. I Metals	Zinc	ug/L	46%	11	10	6	8	35	0.691	0.256	0.390	6	5	3	5	19	0.391	0.351	0.268	
02_02_105	MW-2	App. III	Boron	ug/L	3%	10	10	6	8	34	0.600	0.717	0.570	9	10	6	8	33	0.623	0.934	0.881	
02_02_107	MW-2	App. III	Calcium	ug/L	0%	11	10	6	8	35	0.244	0.769	0.776	11	10	6	8	35	0.244	0.769	0.776	
02_02_108	MW-2	App. III	Chloride	mg/L	0%	11	10	6	8	35	0.629	0.570	0.556	11	10	6	8	35	0.629	0.570	0.556	
02_02_112	MW-2	App. III	Fluoride	mg/L	6%	11	10	6	8	35	0.938	0.675	0.744	10	10	6	7	33	0.924	0.602	0.688	
02_02_118	MW-2	App. III	pH (Field)	S.U.	0%	11	8	6	6	31	0.598	0.705	0.708	11	8	6	6	31	0.598	0.705	0.708	

(Table continues on next page)

*** p < 0.001, ** p < 0.01, * p < 0.05

Table 7: Seasonality Tests *(continued)*

						Full								Without Non-Detects							
						Sample Size					p-Value			Sample Size					p-Value		
ID	Well	Constituent Type	Constituent	Unit	% NDs	Winter	Spring	Summer	Fall	Total	Kruskal-Wallis	ANOVA	Log ANOVA	Winter	Spring	Summer	Fall	Total	Kruskal-Wallis	ANOVA	Log ANOVA
02_02_123	MW-2	App. III	Sulfate	mg/L	0%	11	10	6	8	35	0.942	0.953	0.987	11	10	6	8	35	0.942	0.953	0.987
02_02_125	MW-2	App. III	Total Dissolved Solids	mg/L	0%	11	10	6	8	35	0.230	0.708	0.502	11	10	6	8	35	0.230	0.708	0.502
02_03_101	MW-2	App. IV	Antimony	ug/L	60%	11	10	6	8	35	0.699	0.513	0.520	4	5	3	2	14	0.720	0.783	0.617
02_03_102	MW-2	App. IV	Arsenic	ug/L	69%	11	10	6	8	35	0.995	0.899	0.971	3	3	3	2	11	0.698	0.585	0.658
02_03_103	MW-2	App. IV	Barium	ug/L	0%	11	10	6	8	35	0.827	0.600	0.642	11	10	6	8	35	0.827	0.600	0.642
02_03_104	MW-2	App. IV	Beryllium	ug/L	91%	11	10	6	8	35	0.583	0.418	0.424	0	2	0	1	3	0.221	0.199	0.284
02_03_106	MW-2	App. IV	Cadmium	ug/L	91%	11	10	6	8	35	0.704	0.651	0.698	1	1	0	1	3	0.368	NA	NA
02_03_109	MW-2	App. IV	Chromium	ug/L	17%	11	10	6	8	35	0.513	0.149	0.374	8	9	5	7	29	0.334	0.158	0.243
02_03_110	MW-2	App. IV	Cobalt	ug/L	77%	11	10	6	8	35	0.095	0.255	0.067	1	3	1	3	8	0.274	0.757	0.554
02_03_112	MW-2	App. IV	Fluoride	mg/L	6%	11	10	6	8	35	0.938	0.675	0.744	10	10	6	7	33	0.924	0.602	0.688
02_03_113	MW-2	App. IV	Lead	ug/L	86%	11	10	6	8	35	0.326	0.221	0.187	0	3	1	1	5	0.344	0.316	0.565
02_03_114	MW-2	App. IV	Lithium	ug/L	0%	11	10	6	8	35	0.352	0.070	0.115	11	10	6	8	35	0.352	0.070	0.115
02_03_115	MW-2	App. IV	Mercury	ug/L	100%	11	10	6	8	35	0.757	0.805	0.799	NA	NA	NA	NA	NA	NA	NA	NA
02_03_116	MW-2	App. IV	Molybdenum	ug/L	17%	11	10	6	8	35	0.513	0.295	0.455	8	9	5	7	29	0.186	0.120	0.096
02_03_119	MW-2	App. IV	Radium-226	pCi/L	0%	11	9	6	8	34	0.047 *	0.017 *	0.028 *	11	9	6	8	34	0.047 *	0.017 *	0.028 *
02_03_120	MW-2	App. IV	Radium-228	pCi/L	0%	11	9	6	8	34	0.520	0.600	0.720	11	9	6	8	34	0.520	0.600	0.720
02_03_121	MW-2	App. IV	Selenium	ug/L	94%	11	10	6	8	35	0.422	0.950	0.869	0	2	0	0	2	NA	NA	NA
02_03_124	MW-2	App. IV	Thallium	ug/L	66%	11	10	6	8	35	0.736	0.897	0.868	3	4	2	3	12	0.569	0.446	0.571
02_03_126	MW-2	App. IV	Total Radium	pCi/L	0%	11	9	6	8	34	0.128	0.095	0.148	11	9	6	8	34	0.128	0.095	0.148
03_01_111	MW-3	App. I Metals	Copper	ug/L	55%	11	11	8	8	38	0.762	0.625	0.681	5	5	3	4	17	0.269	0.627	0.356
03_01_117	MW-3	App. I Metals	Nickel	ug/L	50%	11	11	8	8	38	0.361	0.811	0.874	4	7	5	3	19	0.830	0.644	0.991
03_01_122	MW-3	App. I Metals	Silver	ug/L	95%	11	11	8	8	38	0.977	0.987	0.866	1	0	1	0	2	0.317	NA	NA
03_01_127	MW-3	App. I Metals	Vanadium	ug/L	61%	11	11	8	8	38	0.890	0.869	0.864	4	5	3	3	15	0.833	0.894	0.966
03_01_128	MW-3	App. I Metals	Zinc	ug/L	74%	11	11	8	8	38	0.731	0.824	0.867	3	5	1	1	10	0.711	0.904	0.809
03_02_105	MW-3	App. III	Boron	ug/L	27%	10	11	8	8	37	0.812	0.860	0.956	6	8	6	7	27	0.683	0.847	0.858
03_02_107	MW-3	App. III	Calcium	ug/L	0%	11	11	8	8	38	0.462	0.260	0.255	11	11	8	8	38	0.462	0.260	0.255
03_02_108	MW-3	App. III	Chloride	mg/L	0%	11	11	8	8	38	0.700	0.472	0.443	11	11	8	8	38	0.700	0.472	0.443
03_02_112	MW-3	App. III	Fluoride	mg/L	3%	11	11	8	8	38	0.303	0.216	0.217	10	11	8	8	37	0.475	0.452	0.493
03_02_118	MW-3	App. III	pH (Field)	S.U.	0%	11	9	8	6	34	0.444	0.166	0.165	11	9	8	6	34	0.444	0.166	0.165
03_02_123	MW-3	App. III	Sulfate	mg/L	0%	11	11	8	8	38	0.805	0.920	0.912	11	11	8	8	38	0.805	0.920	0.912
03_02_125	MW-3	App. III	Total Dissolved Solids	mg/L	0%	11	11	8	8	38	0.808	0.527	0.489	11	11	8	8	38	0.808	0.527	0.489
03_03_101	MW-3	App. IV	Antimony	ug/L	71%	11	11	8	8	38	0.893	0.904	0.984	3	4	2	2	11	0.626	0.775	0.696
03_03_102	MW-3	App. IV	Arsenic	ug/L	79%	11	11	8	8	38	0.723	0.692	0.822	1	2	2	3	8	0.761	0.892	0.871
03_03_103	MW-3	App. IV	Barium	ug/L	0%	11	11	8	8	38	0.805	0.745	0.725	11	11	8	8	38	0.805	0.745	0.725
03_03_104	MW-3	App. IV	Beryllium	ug/L	100%	11	11	8	8	38	0.857	0.890	0.925	NA	NA	NA	NA	NA	NA	NA	NA
03_03_106	MW-3	App. IV	Cadmium	ug/L	97%	11	11	8	8	38	0.963	0.994	0.906	0	0	0	1	1	NA	NA	NA
03_03_109	MW-3	App. IV	Chromium	ug/L	50%	11	11	8	8	38	0.396	0.754	0.868	4	7	3	5	19	0.756	0.444	0.819
03_03_110	MW-3	App. IV	Cobalt	ug/L	84%	11	11	8	8	38	0.918	0.905	0.858	2	3	1	0	6	0.304	0.470	0.473
03_03_112	MW-3	App. IV	Fluoride	mg/L	3%	11	11	8	8	38	0.303	0.216	0.217	10	11	8	8	37	0.475	0.452	0.493

(Table continues on next page)

*** p < 0.001, ** p < 0.01, * p < 0.05

Table 7: Seasonality Tests *(continued)*

						Full								Without Non-Detects							
						Sample Size					p-Value			Sample Size					p-Value		
ID	Well	Constituent Type	Constituent	Unit	% NDs	Winter	Spring	Summer	Fall	Total	Kruskal-Wallis	ANOVA	Log ANOVA	Winter	Spring	Summer	Fall	Total	Kruskal-Wallis	ANOVA	Log ANOVA
03_03_113	MW-3	App. IV	Lead	ug/L	89%	11	11	8	8	38	0.470	0.279	0.292	1	2	1	0	4	0.259	0.502	0.728
03_03_114	MW-3	App. IV	Lithium	ug/L	3%	11	11	8	8	38	0.349	0.145	0.328	10	11	8	8	37	0.411	0.208	0.124
03_03_115	MW-3	App. IV	Mercury	ug/L	100%	11	11	8	8	38	0.685	0.738	0.736	NA	NA	NA	NA	NA	NA	NA	NA
03_03_116	MW-3	App. IV	Molybdenum	ug/L	3%	11	11	8	8	38	0.811	0.431	0.775	10	11	8	8	37	0.599	0.225	0.200
03_03_119	MW-3	App. IV	Radium-226	pCi/L	0%	11	10	8	8	37	0.741	0.765	0.925	11	10	8	8	37	0.741	0.765	0.925
03_03_120	MW-3	App. IV	Radium-228	pCi/L	0%	11	10	8	8	37	0.886	0.829	0.823	11	10	8	8	37	0.886	0.829	0.823
03_03_121	MW-3	App. IV	Selenium	ug/L	97%	11	11	8	8	38	0.756	0.945	0.694	0	1	0	0	1	NA	NA	NA
03_03_124	MW-3	App. IV	Thallium	ug/L	100%	11	11	8	8	38	0.589	0.962	0.734	NA	NA	NA	NA	NA	NA	NA	NA
03_03_126	MW-3	App. IV	Total Radium	pCi/L	0%	11	10	8	8	37	0.808	0.813	0.740	11	10	8	8	37	0.808	0.813	0.740
04_01_111	MW-4	App. I Metals	Copper	ug/L	85%	11	10	9	9	39	0.865	0.460	0.692	1	3	1	1	6	0.378	0.168	0.458
04_01_117	MW-4	App. I Metals	Nickel	ug/L	28%	11	10	9	9	39	0.621	0.712	0.584	7	8	7	6	28	0.836	0.935	0.865
04_01_122	MW-4	App. I Metals	Silver	ug/L	100%	11	10	9	9	39	0.954	0.953	0.796	NA	NA	NA	NA	NA	NA	NA	NA
04_01_127	MW-4	App. I Metals	Vanadium	ug/L	90%	11	10	9	9	39	0.887	0.612	0.987	1	2	1	0	4	0.861	0.881	0.987
04_01_128	MW-4	App. I Metals	Zinc	ug/L	62%	11	10	9	9	39	0.892	0.624	0.775	5	5	2	3	15	0.780	0.808	0.847
04_02_105	MW-4	App. III	Boron	ug/L	61%	10	10	9	9	38	0.986	0.466	0.904	5	5	2	3	15	0.995	0.294	0.410
04_02_107	MW-4	App. III	Calcium	ug/L	0%	11	10	9	9	39	0.670	0.253	0.172	11	10	9	9	39	0.670	0.253	0.172
04_02_108	MW-4	App. III	Chloride	mg/L	0%	11	10	9	9	39	0.795	0.647	0.480	11	10	9	9	39	0.795	0.647	0.480
04_02_112	MW-4	App. III	Fluoride	mg/L	0%	11	10	9	9	39	0.763	0.610	0.571	11	10	9	9	39	0.763	0.610	0.571
04_02_118	MW-4	App. III	pH (Field)	S.U.	0%	11	9	9	8	37	0.169	0.179	0.175	11	9	9	8	37	0.169	0.179	0.175
04_02_123	MW-4	App. III	Sulfate	mg/L	0%	11	10	9	9	39	0.701	0.945	0.830	11	10	9	9	39	0.701	0.945	0.830
04_02_125	MW-4	App. III	Total Dissolved Solids	mg/L	0%	11	10	9	9	39	0.098	0.274	0.341	11	10	9	9	39	0.098	0.274	0.341
04_03_101	MW-4	App. IV	Antimony	ug/L	87%	11	10	9	9	39	0.843	0.895	0.597	2	2	1	0	5	0.949	0.821	0.863
04_03_102	MW-4	App. IV	Arsenic	ug/L	95%	11	10	9	9	39	0.984	0.859	0.612	0	2	0	0	2	NA	NA	NA
04_03_103	MW-4	App. IV	Barium	ug/L	0%	11	10	9	9	39	0.485	0.499	0.372	11	10	9	9	39	0.485	0.499	0.372
04_03_104	MW-4	App. IV	Beryllium	ug/L	100%	11	10	9	9	39	0.933	0.951	0.959	NA	NA	NA	NA	NA	NA	NA	NA
04_03_106	MW-4	App. IV	Cadmium	ug/L	97%	11	10	9	9	39	0.987	0.987	0.813	0	0	1	0	1	NA	NA	NA
04_03_109	MW-4	App. IV	Chromium	ug/L	74%	11	10	9	9	39	0.835	0.439	0.921	3	5	2	0	10	0.563	0.473	0.683
04_03_110	MW-4	App. IV	Cobalt	ug/L	51%	11	10	9	9	39	0.722	0.822	0.719	4	5	6	4	19	0.739	0.890	0.730
04_03_112	MW-4	App. IV	Fluoride	mg/L	0%	11	10	9	9	39	0.763	0.610	0.571	11	10	9	9	39	0.763	0.610	0.571
04_03_113	MW-4	App. IV	Lead	ug/L	97%	11	10	9	9	39	0.566	0.264	0.311	0	0	1	0	1	NA	NA	NA
04_03_114	MW-4	App. IV	Lithium	ug/L	0%	11	10	9	9	39	0.992	0.471	0.583	11	10	9	9	39	0.992	0.471	0.583
04_03_115	MW-4	App. IV	Mercury	ug/L	100%	11	10	9	9	39	0.846	0.889	0.882	NA	NA	NA	NA	NA	NA	NA	NA
04_03_116	MW-4	App. IV	Molybdenum	ug/L	87%	11	10	9	9	39	0.350	0.443	0.172	2	1	1	1	5	0.532	0.588	0.237
04_03_119	MW-4	App. IV	Radium-226	pCi/L	0%	11	9	9	8	37	0.791	0.853	NA	11	9	9	8	37	0.791	0.853	NA
04_03_120	MW-4	App. IV	Radium-228	pCi/L	0%	11	9	9	8	37	0.886	0.972	NA	11	9	9	8	37	0.886	0.972	NA
04_03_121	MW-4	App. IV	Selenium	ug/L	95%	11	10	9	9	39	0.817	0.796	0.540	0	1	0	1	2	0.317	NA	NA
04_03_124	MW-4	App. IV	Thallium	ug/L	100%	11	10	9	9	39	0.771	0.918	0.812	NA	NA	NA	NA	NA	NA	NA	NA
04_03_126	MW-4	App. IV	Total Radium	pCi/L	0%	11	9	9	8	37	0.982	0.993	0.922	11	9	9	8	37	0.982	0.993	0.922
05_01_111	MW-5	App. I Metals	Copper	ug/L	70%	11	11	9	9	40	0.702	0.779	0.758	3	4	3	2	12	0.772	0.827	0.888

(Table continues on next page)

*** p < 0.001, ** p < 0.01, * p < 0.05

Table 7: Seasonality Tests *(continued)*

						Full								Without Non-Detects							
						Sample Size					p-Value			Sample Size					p-Value		
ID	Well	Constituent Type	Constituent	Unit	% NDs	Winter	Spring	Summer	Fall	Total	Kruskal-Wallis	ANOVA	Log ANOVA	Winter	Spring	Summer	Fall	Total	Kruskal-Wallis	ANOVA	Log ANOVA
05_01_117	MW-5	App. I Metals	Nickel	ug/L	75%	11	11	9	9	40	0.531	0.372	0.595	4	1	2	3	10	0.378	0.308	0.410
05_01_122	MW-5	App. I Metals	Silver	ug/L	100%	11	11	9	9	40	0.972	0.972	0.864	NA	NA	NA	NA	NA	NA	NA	NA
05_01_127	MW-5	App. I Metals	Vanadium	ug/L	92%	11	11	9	9	40	0.965	0.957	0.969	0	1	1	1	3	0.368	NA	NA
05_01_128	MW-5	App. I Metals	Zinc	ug/L	62%	11	11	9	9	40	0.069	0.148	0.085	3	6	5	1	15	0.539	0.548	0.634
05_02_105	MW-5	App. III	Boron	ug/L	38%	10	11	9	9	39	0.172	0.178	0.281	9	7	4	4	24	0.632	0.658	0.629
05_02_107	MW-5	App. III	Calcium	ug/L	0%	11	11	9	9	40	0.941	0.744	0.864	11	11	9	9	40	0.941	0.744	0.864
05_02_108	MW-5	App. III	Chloride	mg/L	0%	11	11	9	9	40	0.987	0.998	0.998	11	11	9	9	40	0.987	0.998	0.998
05_02_112	MW-5	App. III	Fluoride	mg/L	0%	11	11	9	9	40	0.664	0.660	0.638	11	11	9	9	40	0.664	0.660	0.638
05_02_118	MW-5	App. III	pH (Field)	S.U.	0%	11	10	9	7	37	0.628	0.257	0.264	11	10	9	7	37	0.628	0.257	0.264
05_02_123	MW-5	App. III	Sulfate	mg/L	0%	11	11	9	9	40	0.252	0.358	0.366	11	11	9	9	40	0.252	0.358	0.366
05_02_125	MW-5	App. III	Total Dissolved Solids	mg/L	0%	11	11	9	9	40	0.710	0.296	0.300	11	11	9	9	40	0.710	0.296	0.300
05_03_101	MW-5	App. IV	Antimony	ug/L	95%	11	11	9	9	40	0.800	0.463	0.414	1	1	0	0	2	0.317	NA	NA
05_03_102	MW-5	App. IV	Arsenic	ug/L	95%	11	11	9	9	40	0.992	0.917	0.653	0	2	0	0	2	NA	NA	NA
05_03_103	MW-5	App. IV	Barium	ug/L	0%	11	11	9	9	40	0.276	0.223	0.212	11	11	9	9	40	0.276	0.223	0.212
05_03_104	MW-5	App. IV	Beryllium	ug/L	100%	11	11	9	9	40	0.935	0.948	0.967	NA	NA	NA	NA	NA	NA	NA	NA
05_03_106	MW-5	App. IV	Cadmium	ug/L	100%	11	11	9	9	40	0.925	0.992	0.901	NA	NA	NA	NA	NA	NA	NA	NA
05_03_109	MW-5	App. IV	Chromium	ug/L	70%	11	11	9	9	40	0.829	0.360	0.521	4	2	3	3	12	0.966	0.464	0.753
05_03_110	MW-5	App. IV	Cobalt	ug/L	95%	11	11	9	9	40	0.924	0.947	0.901	0	1	1	0	2	0.317	NA	NA
05_03_112	MW-5	App. IV	Fluoride	mg/L	0%	11	11	9	9	40	0.664	0.660	0.638	11	11	9	9	40	0.664	0.660	0.638
05_03_113	MW-5	App. IV	Lead	ug/L	98%	11	11	9	9	40	0.564	0.218	0.309	0	1	0	0	1	NA	NA	NA
05_03_114	MW-5	App. IV	Lithium	ug/L	2%	11	11	9	9	40	0.443	0.161	0.101	10	11	9	9	39	0.606	0.224	0.192
05_03_115	MW-5	App. IV	Mercury	ug/L	100%	11	11	9	9	40	0.782	0.837	0.830	NA	NA	NA	NA	NA	NA	NA	NA
05_03_116	MW-5	App. IV	Molybdenum	ug/L	92%	11	11	9	9	40	0.891	0.720	0.979	0	2	1	0	3	1.000	0.877	0.838
05_03_119	MW-5	App. IV	Radium-226	pCi/L	0%	11	10	9	8	38	0.053	0.051	NA	11	10	9	8	38	0.053	0.051	NA
05_03_120	MW-5	App. IV	Radium-228	pCi/L	0%	11	10	9	8	38	0.276	0.499	NA	11	10	9	8	38	0.276	0.499	NA
05_03_121	MW-5	App. IV	Selenium	ug/L	98%	11	11	9	9	40	0.710	0.938	0.660	0	1	0	0	1	NA	NA	NA
05_03_124	MW-5	App. IV	Thallium	ug/L	98%	11	11	9	9	40	0.858	0.698	0.818	1	0	0	0	1	NA	NA	NA
05_03_126	MW-5	App. IV	Total Radium	pCi/L	0%	11	10	9	8	38	0.135	0.090	0.339	11	10	9	8	38	0.135	0.090	0.339
06_01_111	MW-6	App. I Metals	Copper	ug/L	85%	11	11	8	9	39	0.493	0.447	0.604	1	1	2	2	6	0.836	0.883	0.974
06_01_117	MW-6	App. I Metals	Nickel	ug/L	69%	11	11	8	9	39	0.742	0.301	0.622	3	3	3	3	12	0.201	0.196	0.191
06_01_122	MW-6	App. I Metals	Silver	ug/L	100%	11	11	8	9	39	0.978	0.975	0.845	NA	NA	NA	NA	NA	NA	NA	NA
06_01_127	MW-6	App. I Metals	Vanadium	ug/L	90%	11	11	8	9	39	0.938	0.835	0.897	0	1	1	2	4	0.407	0.805	0.713
06_01_128	MW-6	App. I Metals	Zinc	ug/L	67%	11	11	8	9	39	0.908	0.718	0.926	4	4	2	3	13	0.915	0.633	0.910
06_02_105	MW-6	App. III	Boron	ug/L	61%	10	11	8	9	38	0.777	0.906	0.893	5	4	3	3	15	0.924	0.986	0.974
06_02_107	MW-6	App. III	Calcium	ug/L	0%	11	11	8	9	39	0.884	0.754	0.769	11	11	8	9	39	0.884	0.754	0.769
06_02_108	MW-6	App. III	Chloride	mg/L	0%	11	11	8	9	39	0.839	0.643	0.403	11	11	8	9	39	0.839	0.643	0.403
06_02_112	MW-6	App. III	Fluoride	mg/L	3%	11	11	8	9	39	0.667	0.792	0.563	11	10	8	9	38	0.516	0.741	0.822
06_02_118	MW-6	App. III	pH (Field)	S.U.	0%	11	9	8	8	36	0.402	0.300	0.304	11	9	8	8	36	0.402	0.300	0.304
06_02_123	MW-6	App. III	Sulfate	mg/L	0%	11	11	8	9	39	0.789	0.660	0.814	11	11	8	9	39	0.789	0.660	0.814

(Table continues on next page)

*** p < 0.001, ** p < 0.01, * p < 0.05

Table 7: Seasonality Tests *(continued)*

						Full								Without Non-Detects							
						Sample Size					p-Value			Sample Size					p-Value		
ID	Well	Constituent Type	Constituent	Unit	% NDs	Winter	Spring	Summer	Fall	Total	Kruskal-Wallis	ANOVA	Log ANOVA	Winter	Spring	Summer	Fall	Total	Kruskal-Wallis	ANOVA	Log ANOVA
06_02_125	MW-6	App. III	Total Dissolved Solids	mg/L	0%	11	11	8	9	39	0.158	0.042 *	0.038 *	11	11	8	9	39	0.158	0.042 *	0.038 *
06_03_101	MW-6	App. IV	Antimony	ug/L	100%	11	11	8	9	39	0.973	0.621	0.480	NA	NA	NA	NA	NA	NA	NA	NA
06_03_102	MW-6	App. IV	Arsenic	ug/L	95%	11	11	8	9	39	0.991	0.976	0.865	0	2	0	0	2	NA	NA	NA
06_03_103	MW-6	App. IV	Barium	ug/L	0%	11	11	8	9	39	0.761	0.773	0.794	11	11	8	9	39	0.761	0.773	0.794
06_03_104	MW-6	App. IV	Beryllium	ug/L	97%	11	11	8	9	39	0.950	0.978	0.990	0	1	0	0	1	NA	NA	NA
06_03_106	MW-6	App. IV	Cadmium	ug/L	100%	11	11	8	9	39	0.967	0.998	0.893	NA	NA	NA	NA	NA	NA	NA	NA
06_03_109	MW-6	App. IV	Chromium	ug/L	79%	11	11	8	9	39	0.970	0.610	0.919	2	3	2	1	8	0.689	0.594	0.652
06_03_110	MW-6	App. IV	Cobalt	ug/L	97%	11	11	8	9	39	0.955	0.968	0.979	0	1	0	0	1	NA	NA	NA
06_03_112	MW-6	App. IV	Fluoride	mg/L	3%	11	11	8	9	39	0.667	0.792	0.563	11	10	8	9	38	0.516	0.741	0.822
06_03_113	MW-6	App. IV	Lead	ug/L	95%	11	11	8	9	39	0.466	0.180	0.259	0	1	0	1	2	0.317	NA	NA
06_03_114	MW-6	App. IV	Lithium	ug/L	0%	11	11	8	9	39	0.392	0.587	0.380	11	11	8	9	39	0.392	0.587	0.380
06_03_115	MW-6	App. IV	Mercury	ug/L	97%	11	11	8	9	39	0.648	0.468	0.486	1	0	0	0	1	NA	NA	NA
06_03_116	MW-6	App. IV	Molybdenum	ug/L	87%	11	11	8	9	39	0.361	0.322	0.164	2	1	1	1	5	0.284	0.056	0.020 *
06_03_119	MW-6	App. IV	Radium-226	pCi/L	0%	11	10	8	8	37	0.412	0.793	NA	11	10	8	8	37	0.412	0.793	NA
06_03_120	MW-6	App. IV	Radium-228	pCi/L	0%	11	10	8	8	37	0.182	0.195	NA	11	10	8	8	37	0.182	0.195	NA
06_03_121	MW-6	App. IV	Selenium	ug/L	95%	11	11	8	9	39	0.843	0.919	0.611	0	1	1	0	2	0.317	NA	NA
06_03_124	MW-6	App. IV	Thallium	ug/L	92%	11	11	8	9	39	0.931	0.946	0.949	1	1	0	1	3	0.368	NA	NA
06_03_126	MW-6	App. IV	Total Radium	pCi/L	0%	11	10	8	8	37	0.233	0.261	0.250	11	10	8	8	37	0.233	0.261	0.250
07_01_111	MW-7R	App. I Metals	Copper	ug/L	68%	8	8	8	7	31	0.419	0.709	0.797	3	2	2	3	10	0.451	0.452	0.715
07_01_117	MW-7R	App. I Metals	Nickel	ug/L	42%	8	8	8	7	31	0.194	0.423	0.278	4	4	6	4	18	0.723	0.613	0.613
07_01_122	MW-7R	App. I Metals	Silver	ug/L	100%	8	8	8	7	31	0.945	0.956	0.783	NA	NA	NA	NA	NA	NA	NA	NA
07_01_127	MW-7R	App. I Metals	Vanadium	ug/L	48%	8	8	8	7	31	0.121	0.138	0.084	3	4	6	3	16	0.381	0.420	0.385
07_01_128	MW-7R	App. I Metals	Zinc	ug/L	71%	8	8	8	7	31	0.233	0.374	0.207	2	4	1	2	9	0.280	0.120	0.201
07_02_105	MW-7R	App. III	Boron	ug/L	40%	7	8	8	7	30	0.299	0.262	0.232	6	5	4	3	18	0.348	0.310	0.343
07_02_107	MW-7R	App. III	Calcium	ug/L	0%	8	8	8	7	31	0.348	0.570	0.598	8	8	8	7	31	0.348	0.570	0.598
07_02_108	MW-7R	App. III	Chloride	mg/L	0%	8	8	8	7	31	0.397	0.473	0.473	8	8	8	7	31	0.397	0.473	0.473
07_02_112	MW-7R	App. III	Fluoride	mg/L	3%	8	8	8	7	31	0.283	0.258	0.244	8	7	8	7	30	0.334	0.321	0.290
07_02_118	MW-7R	App. III	pH (Field)	S.U.	0%	8	7	8	7	30	0.098	0.252	0.231	8	7	8	7	30	0.098	0.252	0.231
07_02_123	MW-7R	App. III	Sulfate	mg/L	0%	8	8	8	7	31	0.880	0.440	0.489	8	8	8	7	31	0.880	0.440	0.489
07_02_125	MW-7R	App. III	Total Dissolved Solids	mg/L	0%	8	8	8	7	31	0.260	0.173	0.200	8	8	8	7	31	0.260	0.173	0.200
07_03_101	MW-7R	App. IV	Antimony	ug/L	97%	8	8	8	7	31	0.390	0.175	0.214	0	0	1	0	1	NA	NA	NA
07_03_102	MW-7R	App. IV	Arsenic	ug/L	90%	8	8	8	7	31	0.982	0.990	0.929	0	2	1	0	3	1.000	0.984	0.843
07_03_103	MW-7R	App. IV	Barium	ug/L	0%	8	8	8	7	31	0.394	0.475	0.433	8	8	8	7	31	0.394	0.475	0.433
07_03_104	MW-7R	App. IV	Beryllium	ug/L	100%	8	8	8	7	31	0.938	0.961	0.971	NA	NA	NA	NA	NA	NA	NA	NA
07_03_106	MW-7R	App. IV	Cadmium	ug/L	100%	8	8	8	7	31	0.983	0.992	0.816	NA	NA	NA	NA	NA	NA	NA	NA
07_03_109	MW-7R	App. IV	Chromium	ug/L	26%	8	8	8	7	31	0.525	0.426	0.423	5	7	7	4	23	0.737	0.546	0.612
07_03_110	MW-7R	App. IV	Cobalt	ug/L	84%	8	8	8	7	31	0.592	0.459	0.563	0	2	2	1	5	0.223	0.616	0.314
07_03_112	MW-7R	App. IV	Fluoride	mg/L	3%	8	8	8	7	31	0.283	0.258	0.244	8	7	8	7	30	0.334	0.321	0.290
07_03_113	MW-7R	App. IV	Lead	ug/L	87%	8	8	8	7	31	0.119	0.065	0.087	0	2	1	1	4	0.259	0.367	0.654

(Table continues on next page)

*** p < 0.001, ** p < 0.01, * p < 0.05

Table 7: Seasonality Tests *(continued)*

						Full								Without Non-Detects							
						Sample Size					p-Value			Sample Size					p-Value		
ID	Well	Constituent Type	Constituent	Unit	% NDs	Winter	Spring	Summer	Fall	Total	Kruskal-Wallis	ANOVA	Log ANOVA	Winter	Spring	Summer	Fall	Total	Kruskal-Wallis	ANOVA	Log ANOVA
07_03_114	MW-7R	App. IV	Lithium	ug/L	0%	8	8	8	7	31	0.244	0.103	0.134	8	8	8	7	31	0.244	0.103	0.134
07_03_115	MW-7R	App. IV	Mercury	ug/L	100%	8	8	8	7	31	0.709	0.742	0.730	NA	NA	NA	NA	NA	NA	NA	NA
07_03_116	MW-7R	App. IV	Molybdenum	ug/L	87%	8	8	8	7	31	0.362	0.215	0.176	0	1	2	1	4	0.259	0.585	0.235
07_03_119	MW-7R	App. IV	Radium-226	pCi/L	0%	8	7	8	6	29	0.893	0.781	NA	8	7	8	6	29	0.893	0.781	NA
07_03_120	MW-7R	App. IV	Radium-228	pCi/L	0%	8	7	8	6	29	0.460	0.371	NA	8	7	8	6	29	0.460	0.371	NA
07_03_121	MW-7R	App. IV	Selenium	ug/L	97%	8	8	8	7	31	0.881	0.903	0.580	0	1	0	0	1	NA	NA	NA
07_03_124	MW-7R	App. IV	Thallium	ug/L	90%	8	8	8	7	31	0.853	0.523	0.685	1	0	1	1	3	0.368	NA	NA
07_03_126	MW-7R	App. IV	Total Radium	pCi/L	0%	8	7	8	6	29	0.351	0.274	0.387	8	7	8	6	29	0.351	0.274	0.387
08_01_111	MW-8	App. I Metals	Copper	ug/L	75%	11	11	9	9	40	0.942	0.455	0.784	3	4	1	2	10	0.580	0.728	0.613
08_01_117	MW-8	App. I Metals	Nickel	ug/L	48%	11	11	9	9	40	0.719	0.538	0.722	7	5	5	4	21	0.515	0.400	0.466
08_01_122	MW-8	App. I Metals	Silver	ug/L	98%	11	11	9	9	40	0.975	0.948	0.957	0	1	0	0	1	NA	NA	NA
08_01_127	MW-8	App. I Metals	Vanadium	ug/L	80%	11	11	9	9	40	0.881	0.736	0.884	3	1	3	1	8	0.223	0.007 **	0.059
08_01_128	MW-8	App. I Metals	Zinc	ug/L	60%	11	11	9	9	40	0.518	0.641	0.665	6	5	3	2	16	0.674	0.591	0.634
08_02_105	MW-8	App. III	Boron	ug/L	38%	10	11	9	9	39	0.704	0.662	0.755	8	7	4	5	24	0.957	0.843	0.855
08_02_107	MW-8	App. III	Calcium	ug/L	0%	11	11	9	9	40	0.671	0.881	0.714	11	11	9	9	40	0.671	0.881	0.714
08_02_108	MW-8	App. III	Chloride	mg/L	0%	11	11	9	9	40	0.250	0.376	0.280	11	11	9	9	40	0.250	0.376	0.280
08_02_112	MW-8	App. III	Fluoride	mg/L	50%	11	11	9	9	40	0.727	0.765	0.702	5	5	5	5	20	0.792	0.741	0.745
08_02_118	MW-8	App. III	pH (Field)	S.U.	0%	11	10	9	8	38	0.253	0.515	0.531	11	10	9	8	38	0.253	0.515	0.531
08_02_123	MW-8	App. III	Sulfate	mg/L	0%	11	11	9	9	40	0.905	0.937	0.925	11	11	9	9	40	0.905	0.937	0.925
08_02_125	MW-8	App. III	Total Dissolved Solids	mg/L	0%	11	11	9	9	40	0.517	0.294	0.221	11	11	9	9	40	0.517	0.294	0.221
08_03_101	MW-8	App. IV	Antimony	ug/L	82%	11	11	9	9	40	0.934	0.999	0.797	2	3	1	1	7	0.508	0.364	0.504
08_03_102	MW-8	App. IV	Arsenic	ug/L	88%	11	11	9	9	40	0.861	0.780	0.863	1	2	1	1	5	0.284	0.043 *	0.027 *
08_03_103	MW-8	App. IV	Barium	ug/L	0%	11	11	9	9	40	0.216	0.396	0.382	11	11	9	9	40	0.216	0.396	0.382
08_03_104	MW-8	App. IV	Beryllium	ug/L	98%	11	11	9	9	40	0.786	0.495	0.584	0	1	0	0	1	NA	NA	NA
08_03_106	MW-8	App. IV	Cadmium	ug/L	98%	11	11	9	9	40	0.506	0.283	0.275	0	1	0	0	1	NA	NA	NA
08_03_109	MW-8	App. IV	Chromium	ug/L	48%	11	11	9	9	40	0.983	0.772	0.874	8	5	4	4	21	0.584	0.696	0.641
08_03_110	MW-8	App. IV	Cobalt	ug/L	88%	11	11	9	9	40	0.814	0.871	0.830	1	2	2	0	5	0.301	0.657	0.611
08_03_112	MW-8	App. IV	Fluoride	mg/L	50%	11	11	9	9	40	0.727	0.765	0.702	5	5	5	5	20	0.792	0.741	0.745
08_03_113	MW-8	App. IV	Lead	ug/L	95%	11	11	9	9	40	0.465	0.258	0.326	0	1	1	0	2	0.317	NA	NA
08_03_114	MW-8	App. IV	Lithium	ug/L	2%	11	11	9	9	40	0.582	0.819	0.920	10	11	9	9	39	0.317	0.424	0.382
08_03_115	MW-8	App. IV	Mercury	ug/L	98%	11	11	9	9	40	0.621	0.430	0.428	1	0	0	0	1	NA	NA	NA
08_03_116	MW-8	App. IV	Molybdenum	ug/L	92%	11	11	9	9	40	0.812	0.782	0.829	1	1	1	0	3	0.368	NA	NA
08_03_119	MW-8	App. IV	Radium-226	pCi/L	0%	11	10	9	8	38	0.421	0.452	NA	11	10	9	8	38	0.421	0.452	NA
08_03_120	MW-8	App. IV	Radium-228	pCi/L	0%	11	10	9	8	38	0.237	0.203	NA	11	10	9	8	38	0.237	0.203	NA
08_03_121	MW-8	App. IV	Selenium	ug/L	95%	11	11	9	9	40	0.681	0.954	0.694	0	2	0	0	2	NA	NA	NA
08_03_124	MW-8	App. IV	Thallium	ug/L	95%	11	11	9	9	40	0.894	0.867	0.930	1	0	1	0	2	0.317	NA	NA
08_03_126	MW-8	App. IV	Total Radium	pCi/L	0%	11	10	9	8	38	0.284	0.234	NA	11	10	9	8	38	0.284	0.234	NA
09_01_111	MW-10	App. I Metals	Copper	ug/L	56%	4	4	4	4	16	0.804	0.373	0.635	1	3	1	2	7	0.277	0.808	0.498
09_01_117	MW-10	App. I Metals	Nickel	ug/L	25%	4	4	4	4	16	0.607	0.420	0.512	2	4	3	3	12	0.663	0.471	0.617

(Table continues on next page)

*** p < 0.001, ** p < 0.01, * p < 0.05

Table 7: Seasonality Tests *(continued)*

						Full								Without Non-Detects							
						Sample Size					p-Value			Sample Size					p-Value		
ID	Well	Constituent Type	Constituent	Unit	% NDs	Winter	Spring	Summer	Fall	Total	Kruskal-Wallis	ANOVA	Log ANOVA	Winter	Spring	Summer	Fall	Total	Kruskal-Wallis	ANOVA	Log ANOVA
09_01_122	MW-10	App. I Metals	Silver	ug/L	100%	4	4	4	4	16	0.656	0.803	0.576	NA	NA	NA	NA	NA	NA	NA	NA
09_01_127	MW-10	App. I Metals	Vanadium	ug/L	56%	4	4	4	4	16	0.757	0.413	0.507	2	1	2	2	7	0.658	0.588	0.556
09_01_128	MW-10	App. I Metals	Zinc	ug/L	81%	4	4	4	4	16	0.523	0.407	0.513	0	2	0	1	3	0.221	0.006 **	0.033 *
09_02_105	MW-10	App. III	Boron	ug/L	0%	4	4	4	4	16	0.485	0.368	0.380	4	4	4	4	16	0.485	0.368	0.380
09_02_107	MW-10	App. III	Calcium	ug/L	0%	4	4	4	4	16	0.150	0.220	0.219	4	4	4	4	16	0.150	0.220	0.219
09_02_108	MW-10	App. III	Chloride	mg/L	0%	4	4	4	4	16	0.821	0.755	0.758	4	4	4	4	16	0.821	0.755	0.758
09_02_112	MW-10	App. III	Fluoride	mg/L	0%	4	4	4	4	16	0.579	0.589	0.584	4	4	4	4	16	0.579	0.589	0.584
09_02_118	MW-10	App. III	pH (Field)	S.U.	0%	4	5	4	4	17	0.205	0.257	0.252	4	5	4	4	17	0.205	0.257	0.252
09_02_123	MW-10	App. III	Sulfate	mg/L	0%	4	4	4	4	16	0.888	0.914	0.927	4	4	4	4	16	0.888	0.914	0.927
09_02_125	MW-10	App. III	Total Dissolved Solids	mg/L	0%	4	4	4	4	16	0.230	0.186	0.191	4	4	4	4	16	0.230	0.186	0.191
09_03_101	MW-10	App. IV	Antimony	ug/L	94%	4	4	4	4	16	0.643	0.396	0.347	0	1	0	0	1	NA	NA	NA
09_03_102	MW-10	App. IV	Arsenic	ug/L	75%	4	4	4	4	16	0.685	0.827	0.730	0	2	1	1	4	0.264	0.778	0.790
09_03_103	MW-10	App. IV	Barium	ug/L	0%	4	4	4	4	16	0.897	0.576	0.670	4	4	4	4	16	0.897	0.576	0.670
09_03_104	MW-10	App. IV	Beryllium	ug/L	100%	4	4	4	4	16	0.837	0.897	0.900	NA	NA	NA	NA	NA	NA	NA	NA
09_03_106	MW-10	App. IV	Cadmium	ug/L	100%	4	4	4	4	16	0.923	0.926	0.695	NA	NA	NA	NA	NA	NA	NA	NA
09_03_109	MW-10	App. IV	Chromium	ug/L	31%	4	4	4	4	16	0.577	0.410	0.550	3	3	1	4	11	0.949	0.747	0.911
09_03_110	MW-10	App. IV	Cobalt	ug/L	88%	4	4	4	4	16	0.789	0.574	0.766	0	1	0	1	2	0.317	NA	NA
09_03_112	MW-10	App. IV	Fluoride	mg/L	0%	4	4	4	4	16	0.579	0.589	0.584	4	4	4	4	16	0.579	0.589	0.584
09_03_113	MW-10	App. IV	Lead	ug/L	88%	4	4	4	4	16	0.208	0.073	0.135	0	1	0	1	2	0.317	NA	NA
09_03_114	MW-10	App. IV	Lithium	ug/L	0%	4	4	4	4	16	0.769	0.803	0.836	4	4	4	4	16	0.769	0.803	0.836
09_03_115	MW-10	App. IV	Mercury	ug/L	100%	4	4	4	4	16	0.542	0.585	0.584	NA	NA	NA	NA	NA	NA	NA	NA
09_03_116	MW-10	App. IV	Molybdenum	ug/L	0%	4	4	4	4	16	0.936	0.871	0.886	4	4	4	4	16	0.936	0.871	0.886
09_03_119	MW-10	App. IV	Radium-226	pCi/L	0%	4	4	4	4	16	0.562	0.606	NA	4	4	4	4	16	0.562	0.606	NA
09_03_120	MW-10	App. IV	Radium-228	pCi/L	0%	4	4	4	4	16	0.438	0.480	NA	4	4	4	4	16	0.438	0.480	NA
09_03_121	MW-10	App. IV	Selenium	ug/L	88%	4	4	4	4	16	0.806	0.825	0.600	0	1	0	1	2	0.317	NA	NA
09_03_124	MW-10	App. IV	Thallium	ug/L	94%	4	4	4	4	16	0.630	0.514	0.639	0	0	0	1	1	NA	NA	NA
09_03_126	MW-10	App. IV	Total Radium	pCi/L	0%	4	4	4	4	16	0.877	0.836	NA	4	4	4	4	16	0.877	0.836	NA
10_01_111	MW-11	App. I Metals	Copper	ug/L	53%	5	5	4	5	19	0.495	0.372	0.397	2	3	1	3	9	0.450	0.597	0.608
10_01_117	MW-11	App. I Metals	Nickel	ug/L	53%	5	5	4	5	19	0.923	0.725	0.915	2	2	3	2	9	0.769	0.685	0.728
10_01_122	MW-11	App. I Metals	Silver	ug/L	100%	5	5	4	5	19	0.782	0.822	0.689	NA	NA	NA	NA	NA	NA	NA	NA
10_01_127	MW-11	App. I Metals	Vanadium	ug/L	84%	5	5	4	5	19	0.749	0.793	0.801	0	1	1	1	3	0.368	NA	NA
10_01_128	MW-11	App. I Metals	Zinc	ug/L	74%	5	5	4	5	19	0.663	0.966	0.997	1	3	0	1	5	0.344	0.478	0.305
10_02_105	MW-11	App. III	Boron	ug/L	5%	5	5	4	5	19	0.201	0.332	0.412	4	5	4	5	18	0.059	0.149	0.110
10_02_107	MW-11	App. III	Calcium	ug/L	0%	5	5	4	5	19	0.028 *	0.134	0.077	5	5	4	5	19	0.028 *	0.134	0.077
10_02_108	MW-11	App. III	Chloride	mg/L	0%	5	5	4	5	19	0.203	0.188	0.198	5	5	4	5	19	0.203	0.188	0.198
10_02_112	MW-11	App. III	Fluoride	mg/L	5%	5	5	4	5	19	0.547	0.387	0.362	4	5	4	5	18	0.786	0.889	0.888
10_02_118	MW-11	App. III	pH (Field)	S.U.	0%	4	5	4	4	17	0.019 *	0.001 **	0.001 ***	4	5	4	4	17	0.019 *	0.001 **	0.001 ***
10_02_123	MW-11	App. III	Sulfate	mg/L	0%	5	5	4	5	19	0.862	0.724	0.792	5	5	4	5	19	0.862	0.724	0.792
10_02_125	MW-11	App. III	Total Dissolved Solids	mg/L	0%	5	5	4	5	19	0.800	0.536	0.721	5	5	4	5	19	0.800	0.536	0.721

(Table continues on next page)

*** p < 0.001, ** p < 0.01, * p < 0.05

Table 7: Seasonality Tests *(continued)*

						Full								Without Non-Detects							
						Sample Size					p-Value			Sample Size					p-Value		
ID	Well	Constituent Type	Constituent	Unit	% NDs	Winter	Spring	Summer	Fall	Total	Kruskal-Wallis	ANOVA	Log ANOVA	Winter	Spring	Summer	Fall	Total	Kruskal-Wallis	ANOVA	Log ANOVA
10_03_101	MW-11	App. IV	Antimony	ug/L	89%	5	5	4	5	19	0.490	0.292	0.324	1	1	0	0	2	0.317	NA	NA
10_03_102	MW-11	App. IV	Arsenic	ug/L	89%	5	5	4	5	19	0.889	0.865	0.671	1	1	0	0	2	0.317	NA	NA
10_03_103	MW-11	App. IV	Barium	ug/L	0%	5	5	4	5	19	0.042 *	0.171	0.102	5	5	4	5	19	0.042 *	0.171	0.102
10_03_104	MW-11	App. IV	Beryllium	ug/L	100%	5	5	4	5	19	0.854	0.814	0.857	NA	NA	NA	NA	NA	NA	NA	NA
10_03_106	MW-11	App. IV	Cadmium	ug/L	100%	5	5	4	5	19	0.888	0.935	0.741	NA	NA	NA	NA	NA	NA	NA	NA
10_03_109	MW-11	App. IV	Chromium	ug/L	74%	5	5	4	5	19	0.764	0.694	0.785	1	2	1	1	5	0.284	0.048 *	0.150
10_03_110	MW-11	App. IV	Cobalt	ug/L	68%	5	5	4	5	19	0.854	0.850	0.886	2	2	1	1	6	0.543	0.546	0.660
10_03_112	MW-11	App. IV	Fluoride	mg/L	5%	5	5	4	5	19	0.547	0.387	0.362	4	5	4	5	18	0.786	0.889	0.888
10_03_113	MW-11	App. IV	Lead	ug/L	95%	5	5	4	5	19	0.377	0.260	0.338	0	1	0	0	1	NA	NA	NA
10_03_114	MW-11	App. IV	Lithium	ug/L	0%	5	5	4	5	19	0.490	0.621	0.614	5	5	4	5	19	0.490	0.621	0.614
10_03_115	MW-11	App. IV	Mercury	ug/L	100%	5	5	4	5	19	0.481	0.507	0.504	NA	NA	NA	NA	NA	NA	NA	NA
10_03_116	MW-11	App. IV	Molybdenum	ug/L	89%	5	5	4	5	19	0.798	0.752	0.655	0	1	1	0	2	0.317	NA	NA
10_03_119	MW-11	App. IV	Radium-226	pCi/L	0%	5	5	4	5	19	0.783	0.712	NA	5	5	4	5	19	0.783	0.712	NA
10_03_120	MW-11	App. IV	Radium-228	pCi/L	0%	5	5	4	5	19	0.205	0.369	NA	5	5	4	5	19	0.205	0.369	NA
10_03_121	MW-11	App. IV	Selenium	ug/L	100%	5	5	4	5	19	0.682	0.856	0.558	NA	NA	NA	NA	NA	NA	NA	NA
10_03_124	MW-11	App. IV	Thallium	ug/L	95%	5	5	4	5	19	0.957	0.803	0.925	0	1	0	0	1	NA	NA	NA
10_03_126	MW-11	App. IV	Total Radium	pCi/L	0%	5	5	4	5	19	0.068	0.275	0.111	5	5	4	5	19	0.068	0.275	0.111
11_01_111	MW-11D	App. I Metals	Copper	ug/L	71%	4	5	4	4	17	0.897	0.696	0.920	1	3	0	1	5	0.344	0.532	0.606
11_01_117	MW-11D	App. I Metals	Nickel	ug/L	71%	4	5	4	4	17	0.858	0.758	0.825	1	2	1	1	5	0.362	0.193	0.352
11_01_122	MW-11D	App. I Metals	Silver	ug/L	100%	4	5	4	4	17	0.854	0.908	0.818	NA	NA	NA	NA	NA	NA	NA	NA
11_01_127	MW-11D	App. I Metals	Vanadium	ug/L	82%	4	5	4	4	17	0.881	0.868	0.879	0	1	1	1	3	0.368	NA	NA
11_01_128	MW-11D	App. I Metals	Zinc	ug/L	65%	4	5	4	4	17	0.628	0.542	0.567	2	2	2	0	6	0.651	0.820	0.816
11_02_105	MW-11D	App. III	Boron	ug/L	0%	4	5	4	4	17	0.952	0.678	0.784	4	5	4	4	17	0.952	0.678	0.784
11_02_107	MW-11D	App. III	Calcium	ug/L	0%	4	5	4	4	17	0.718	0.417	0.565	4	5	4	4	17	0.718	0.417	0.565
11_02_108	MW-11D	App. III	Chloride	mg/L	0%	4	5	4	4	17	0.857	0.616	0.864	4	5	4	4	17	0.857	0.616	0.864
11_02_112	MW-11D	App. III	Fluoride	mg/L	0%	4	5	4	4	17	0.786	0.882	0.882	4	5	4	4	17	0.786	0.882	0.882
11_02_118	MW-11D	App. III	pH (Field)	S.U.	0%	4	5	4	4	17	0.897	0.998	0.998	4	5	4	4	17	0.897	0.998	0.998
11_02_123	MW-11D	App. III	Sulfate	mg/L	6%	4	5	4	4	17	0.919	0.537	0.577	4	5	4	3	16	0.970	0.619	0.913
11_02_125	MW-11D	App. III	Total Dissolved Solids	mg/L	0%	4	5	4	4	17	0.890	0.580	0.696	4	5	4	4	17	0.890	0.580	0.696
11_03_101	MW-11D	App. IV	Antimony	ug/L	82%	4	5	4	4	17	0.118	0.103	0.209	0	2	1	0	3	0.221	0.491	0.590
11_03_102	MW-11D	App. IV	Arsenic	ug/L	47%	4	5	4	4	17	0.654	0.965	0.942	2	3	1	3	9	0.322	0.290	0.417
11_03_103	MW-11D	App. IV	Barium	ug/L	0%	4	5	4	4	17	0.769	0.989	0.971	4	5	4	4	17	0.769	0.989	0.971
11_03_104	MW-11D	App. IV	Beryllium	ug/L	94%	4	5	4	4	17	0.898	0.831	0.850	0	1	0	0	1	NA	NA	NA
11_03_106	MW-11D	App. IV	Cadmium	ug/L	100%	4	5	4	4	17	0.879	0.973	0.830	NA	NA	NA	NA	NA	NA	NA	NA
11_03_109	MW-11D	App. IV	Chromium	ug/L	76%	4	5	4	4	17	0.733	0.622	0.731	0	2	1	1	4	0.259	0.097	0.218
11_03_110	MW-11D	App. IV	Cobalt	ug/L	94%	4	5	4	4	17	0.898	0.895	0.915	0	1	0	0	1	NA	NA	NA
11_03_112	MW-11D	App. IV	Fluoride	mg/L	0%	4	5	4	4	17	0.786	0.882	0.882	4	5	4	4	17	0.786	0.882	0.882
11_03_113	MW-11D	App. IV	Lead	ug/L	94%	4	5	4	4	17	0.350	0.256	0.284	0	1	0	0	1	NA	NA	NA
11_03_114	MW-11D	App. IV	Lithium	ug/L	0%	4	5	4	4	17	0.938	0.700	0.828	4	5	4	4	17	0.938	0.700	0.828

(Table continues on next page)

*** p < 0.001, ** p < 0.01, * p < 0.05

Table 7: Seasonality Tests *(continued)*

						Full								Without Non-Detects							
						Sample Size					p-Value			Sample Size					p-Value		
ID	Well	Constituent Type	Constituent	Unit	% NDs	Winter	Spring	Summer	Fall	Total	Kruskal-Wallis	ANOVA	Log ANOVA	Winter	Spring	Summer	Fall	Total	Kruskal-Wallis	ANOVA	Log ANOVA
11_03_115	MW-11D	App. IV	Mercury	ug/L	100%	4	5	4	4	17	0.571	0.606	0.603	NA	NA	NA	NA	NA	NA	NA	NA
11_03_116	MW-11D	App. IV	Molybdenum	ug/L	6%	4	5	4	4	17	0.878	0.501	0.828	3	5	4	4	16	0.996	0.568	0.942
11_03_119	MW-11D	App. IV	Radium-226	pCi/L	0%	4	5	4	4	17	0.153	0.206	NA	4	5	4	4	17	0.153	0.206	NA
11_03_120	MW-11D	App. IV	Radium-228	pCi/L	0%	4	5	4	4	17	0.206	0.444	0.460	4	5	4	4	17	0.206	0.444	0.460
11_03_121	MW-11D	App. IV	Selenium	ug/L	94%	4	5	4	4	17	0.727	0.932	0.688	0	1	0	0	1	NA	NA	NA
11_03_124	MW-11D	App. IV	Thallium	ug/L	94%	4	5	4	4	17	0.951	0.745	0.882	0	1	0	0	1	NA	NA	NA
11_03_126	MW-11D	App. IV	Total Radium	pCi/L	0%	4	5	4	4	17	0.715	0.829	0.791	4	5	4	4	17	0.715	0.829	0.791

*** p < 0.001, ** p < 0.01, * p < 0.05

Table 8: Trend Tests: Lognormal MLE and MK

ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	Type	Method	Slope	p-value	Trend
01_02_107	MW-1	App. III	Calcium	ug/L	40	0	0%	Parametric	Lognormal MLE	0.000157	0.038	↔
01_02_108	MW-1	App. III	Chloride	mg/L	40	0	0%	Parametric	Lognormal MLE	0.0000827	0.358	↔
01_02_112	MW-1	App. III	Fluoride	mg/L	40	1	2%	Nonparametric	MK	0.0000135	0.000	↑
01_02_118	MW-1	App. III	pH (Field)	S.U.	38	0	0%	Parametric	Lognormal MLE	0.00000598	0.213	↔
01_02_123	MW-1	App. III	Sulfate	mg/L	40	0	0%	Nonparametric	MK	-0.00104	0.000	↓
01_02_125	MW-1	App. III	Total Dissolved Solids	mg/L	40	0	0%	Parametric	Lognormal MLE	0.000101	0.208	↔
01_03_103	MW-1	App. IV	Barium	ug/L	40	0	0%	Parametric	Lognormal MLE	0.0000673	0.421	↔
01_03_112	MW-1	App. IV	Fluoride	mg/L	40	1	2%	Nonparametric	MK	0.0000135	0.000	↑
01_03_114	MW-1	App. IV	Lithium	ug/L	40	0	0%	Parametric	Lognormal MLE	0.0000476	0.073	↔
01_03_119	MW-1	App. IV	Radium-226	pCi/L	38	0	0%	Nonparametric	MK	-0.000127	0.003	↓
01_03_120	MW-1	App. IV	Radium-228	pCi/L	38	0	0%	Nonparametric	MK	0.0000630	0.152	↔
01_03_126	MW-1	App. IV	Total Radium	pCi/L	38	0	0%	Nonparametric	MK	-0.0000456	0.497	↔
02_01_117	MW-2	App. I Metals	Nickel	ug/L	35	12	34%	Parametric	Lognormal MLE	0.000333	0.183	↔
02_02_105	MW-2	App. III	Boron	ug/L	34	1	3%	Parametric	Lognormal MLE	-0.0000549	0.242	↔
02_02_107	MW-2	App. III	Calcium	ug/L	35	0	0%	Nonparametric	MK	-5.12	0.124	↔
02_02_108	MW-2	App. III	Chloride	mg/L	35	0	0%	Nonparametric	MK	-0.0649	0.004	↓
02_02_118	MW-2	App. III	pH (Field)	S.U.	31	0	0%	Nonparametric	MK	-0.0000724	0.003	↓
02_02_123	MW-2	App. III	Sulfate	mg/L	35	0	0%	Nonparametric	MK	-0.0428	0.000	↓
02_02_125	MW-2	App. III	Total Dissolved Solids	mg/L	35	0	0%	Nonparametric	MK	-0.0275	0.609	↔
02_03_103	MW-2	App. IV	Barium	ug/L	35	0	0%	Nonparametric	MK	0.0335	0.002	↑
02_03_114	MW-2	App. IV	Lithium	ug/L	35	0	0%	Nonparametric	MK	-0.00119	0.798	↔
02_03_116	MW-2	App. IV	Molybdenum	ug/L	35	6	17%	Parametric	Lognormal MLE	-0.000403	0.000	↓
02_03_119	MW-2	App. IV	Radium-226	pCi/L	34	0	0%	Nonparametric	MK	0.0000111	0.790	↔
02_03_120	MW-2	App. IV	Radium-228	pCi/L	34	0	0%	Nonparametric	MK	0.0000837	0.423	↔
02_03_126	MW-2	App. IV	Total Radium	pCi/L	34	0	0%	Nonparametric	MK	0.000116	0.406	↔
03_02_105	MW-3	App. III	Boron	ug/L	37	10	27%	Parametric	Lognormal MLE	0.000598	0.022	↔
03_02_107	MW-3	App. III	Calcium	ug/L	38	0	0%	Nonparametric	MK	9.15	0.004	↑
03_02_108	MW-3	App. III	Chloride	mg/L	38	0	0%	Parametric	Lognormal MLE	-0.0000392	0.056	↔
03_02_112	MW-3	App. III	Fluoride	mg/L	38	1	3%	Parametric	Lognormal MLE	0.0000608	0.463	↔
03_02_118	MW-3	App. III	pH (Field)	S.U.	34	0	0%	Nonparametric	MK	0.0000367	0.040	↔
03_02_123	MW-3	App. III	Sulfate	mg/L	38	0	0%	Nonparametric	MK	-0.0237	0.000	↓
03_02_125	MW-3	App. III	Total Dissolved Solids	mg/L	38	0	0%	Nonparametric	MK	0.110	0.070	↔
03_03_103	MW-3	App. IV	Barium	ug/L	38	0	0%	Parametric	Lognormal MLE	0.0000684	0.005	↑
03_03_112	MW-3	App. IV	Fluoride	mg/L	38	1	3%	Parametric	Lognormal MLE	0.0000608	0.463	↔
03_03_114	MW-3	App. IV	Lithium	ug/L	38	1	3%	Nonparametric	MK	-0.00235	0.227	↔
03_03_116	MW-3	App. IV	Molybdenum	ug/L	38	1	3%	Nonparametric	MK	-0.000636	0.097	↔
03_03_119	MW-3	App. IV	Radium-226	pCi/L	37	0	0%	Nonparametric	MK	0.00000671	0.958	↔
03_03_120	MW-3	App. IV	Radium-228	pCi/L	37	0	0%	Nonparametric	MK	0.0000682	0.565	↔
03_03_126	MW-3	App. IV	Total Radium	pCi/L	37	0	0%	Nonparametric	MK	0.0000261	0.794	↔
04_01_117	MW-4	App. I Metals	Nickel	ug/L	39	11	28%	Parametric	Lognormal MLE	0.000554	0.000	↑
04_02_107	MW-4	App. III	Calcium	ug/L	39	0	0%	Nonparametric	MK	-2.24	0.204	↔
04_02_108	MW-4	App. III	Chloride	mg/L	39	0	0%	Nonparametric	MK	-0.0536	0.003	↓
04_02_112	MW-4	App. III	Fluoride	mg/L	39	0	0%	Parametric	Lognormal MLE	0.0000557	0.027	↔

(Table continues on next page)

Table 8: Trend Tests: Lognormal MLE and MK *(continued)*

ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	Type	Method	Slope	p-value	Trend
04_02_118	MW-4	App. III	pH (Field)	S.U.	37	0	0%	Parametric	Lognormal MLE	-0.0000115	0.000	↓
04_02_123	MW-4	App. III	Sulfate	mg/L	39	0	0%	Nonparametric	MK	0.000781	0.023	↔
04_02_125	MW-4	App. III	Total Dissolved Solids	mg/L	39	0	0%	Nonparametric	MK	0	0.923	↔
04_03_103	MW-4	App. IV	Barium	ug/L	39	0	0%	Nonparametric	MK	0.0168	0.045	↔
04_03_112	MW-4	App. IV	Fluoride	mg/L	39	0	0%	Parametric	Lognormal MLE	0.0000557	0.027	↔
04_03_114	MW-4	App. IV	Lithium	ug/L	39	0	0%	Nonparametric	MK	0.00501	0.000	↑
04_03_119	MW-4	App. IV	Radium-226	pCi/L	37	0	0%	Nonparametric	MK	-0.0000102	0.764	↔
04_03_120	MW-4	App. IV	Radium-228	pCi/L	37	0	0%	Nonparametric	MK	-0.0000297	0.601	↔
04_03_126	MW-4	App. IV	Total Radium	pCi/L	37	0	0%	Nonparametric	MK	-0.0000152	0.824	↔
05_02_107	MW-5	App. III	Calcium	ug/L	40	0	0%	Parametric	Lognormal MLE	-0.000124	0.000	↓
05_02_108	MW-5	App. III	Chloride	mg/L	40	0	0%	Parametric	Lognormal MLE	-0.0000112	0.340	↔
05_02_112	MW-5	App. III	Fluoride	mg/L	40	0	0%	Parametric	Lognormal MLE	0.0000299	0.054	↔
05_02_118	MW-5	App. III	pH (Field)	S.U.	37	0	0%	Nonparametric	MK	-0.0000655	0.066	↔
05_02_123	MW-5	App. III	Sulfate	mg/L	40	0	0%	Parametric	Lognormal MLE	-0.0000114	0.632	↔
05_02_125	MW-5	App. III	Total Dissolved Solids	mg/L	40	0	0%	Nonparametric	MK	-0.0133	0.001	↓
05_03_103	MW-5	App. IV	Barium	ug/L	40	0	0%	Parametric	Lognormal MLE	-0.0000504	0.012	↔
05_03_112	MW-5	App. IV	Fluoride	mg/L	40	0	0%	Parametric	Lognormal MLE	0.0000299	0.054	↔
05_03_114	MW-5	App. IV	Lithium	ug/L	40	1	2%	Nonparametric	MK	0.000621	0.003	↑
05_03_119	MW-5	App. IV	Radium-226	pCi/L	38	0	0%	Nonparametric	MK	0.0000282	0.678	↔
05_03_120	MW-5	App. IV	Radium-228	pCi/L	38	0	0%	Nonparametric	MK	0.0000378	0.414	↔
05_03_126	MW-5	App. IV	Total Radium	pCi/L	38	0	0%	Nonparametric	MK	0.0000444	0.400	↔
06_02_107	MW-6	App. III	Calcium	ug/L	39	0	0%	Parametric	Lognormal MLE	-0.0000102	0.285	↔
06_02_108	MW-6	App. III	Chloride	mg/L	39	0	0%	Nonparametric	MK	-0.0223	0.000	↓
06_02_112	MW-6	App. III	Fluoride	mg/L	39	1	3%	Parametric	Lognormal MLE	-0.0000429	0.443	↔
06_02_118	MW-6	App. III	pH (Field)	S.U.	36	0	0%	Nonparametric	MK	-0.0000507	0.054	↔
06_02_123	MW-6	App. III	Sulfate	mg/L	39	0	0%	Nonparametric	MK	-0.0189	0.000	↓
06_02_125	MW-6	App. III	Total Dissolved Solids	mg/L	39	0	0%	Parametric	Lognormal MLE	-0.0000538	0.016	↔
06_03_103	MW-6	App. IV	Barium	ug/L	39	0	0%	Nonparametric	MK	-0.0199	0.000	↓
06_03_112	MW-6	App. IV	Fluoride	mg/L	39	1	3%	Parametric	Lognormal MLE	-0.0000429	0.443	↔
06_03_114	MW-6	App. IV	Lithium	ug/L	39	0	0%	Parametric	Lognormal MLE	-0.000222	0.000	↓
06_03_119	MW-6	App. IV	Radium-226	pCi/L	37	0	0%	Nonparametric	MK	-0.0000424	0.367	↔
06_03_120	MW-6	App. IV	Radium-228	pCi/L	37	0	0%	Nonparametric	MK	-0.0000242	0.794	↔
06_03_126	MW-6	App. IV	Total Radium	pCi/L	37	0	0%	Nonparametric	MK	-0.0000446	0.574	↔
07_01_127	MW-7R	App. I Metals	Vanadium	ug/L	31	15	48%	Parametric	Lognormal MLE	0.000165	0.493	↔
07_02_107	MW-7R	App. III	Calcium	ug/L	31	0	0%	Parametric	Lognormal MLE	0.0000366	0.009	↑
07_02_108	MW-7R	App. III	Chloride	mg/L	31	0	0%	Nonparametric	MK	-0.0101	0.010	↓
07_02_112	MW-7R	App. III	Fluoride	mg/L	31	1	3%	Nonparametric	MK	0.0000109	0.013	↔
07_02_118	MW-7R	App. III	pH (Field)	S.U.	30	0	0%	Nonparametric	MK	-0.0000466	0.252	↔
07_02_123	MW-7R	App. III	Sulfate	mg/L	31	0	0%	Nonparametric	MK	-0.00209	0.000	↓
07_02_125	MW-7R	App. III	Total Dissolved Solids	mg/L	31	0	0%	Parametric	Lognormal MLE	0.0000347	0.007	↑
07_03_103	MW-7R	App. IV	Barium	ug/L	31	0	0%	Nonparametric	MK	0.0306	0.000	↑
07_03_112	MW-7R	App. IV	Fluoride	mg/L	31	1	3%	Nonparametric	MK	0.0000109	0.013	↔
07_03_114	MW-7R	App. IV	Lithium	ug/L	31	0	0%	Parametric	Lognormal MLE	0.000169	0.006	↑

(Table continues on next page)

Table 8: Trend Tests: Lognormal MLE and MK *(continued)*

ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	Type	Method	Slope	p-value	Trend
07_03_119	MW-7R	App. IV	Radium-226	pCi/L	29	0	0%	Nonparametric	MK	-0.0000980	0.302	↔
07_03_120	MW-7R	App. IV	Radium-228	pCi/L	29	0	0%	Nonparametric	MK	-0.0000291	0.750	↔
07_03_126	MW-7R	App. IV	Total Radium	pCi/L	29	0	0%	Nonparametric	MK	-0.0000853	0.488	↔
08_02_105	MW-8	App. III	Boron	ug/L	39	15	38%	Parametric	Lognormal MLE	0.000371	0.067	↔
08_02_107	MW-8	App. III	Calcium	ug/L	40	0	0%	Nonparametric	MK	-6.76	0.034	↔
08_02_108	MW-8	App. III	Chloride	mg/L	40	0	0%	Nonparametric	MK	-0.0559	0.000	↓
08_02_118	MW-8	App. III	pH (Field)	S.U.	38	0	0%	Parametric	Lognormal MLE	0.00000823	0.002	↑
08_02_123	MW-8	App. III	Sulfate	mg/L	40	0	0%	Parametric	Lognormal MLE	0.0000516	0.003	↑
08_02_125	MW-8	App. III	Total Dissolved Solids	mg/L	40	0	0%	Nonparametric	MK	-0.0206	0.544	↔
08_03_103	MW-8	App. IV	Barium	ug/L	40	0	0%	Nonparametric	MK	-0.0478	0.013	↔
08_03_109	MW-8	App. IV	Chromium	ug/L	40	19	48%	Parametric	Lognormal MLE	0.000583	0.104	↔
08_03_114	MW-8	App. IV	Lithium	ug/L	40	1	2%	Parametric	Lognormal MLE	-0.0000541	0.332	↔
08_03_119	MW-8	App. IV	Radium-226	pCi/L	38	0	0%	Nonparametric	MK	-0.000159	0.014	↔
08_03_120	MW-8	App. IV	Radium-228	pCi/L	38	0	0%	Nonparametric	MK	-0.0000252	0.597	↔
08_03_126	MW-8	App. IV	Total Radium	pCi/L	38	0	0%	Nonparametric	MK	-0.000148	0.108	↔
09_01_117	MW-10	App. I Metals	Nickel	ug/L	16	4	25%	Parametric	Lognormal MLE	-0.000395	0.521	↔
09_02_105	MW-10	App. III	Boron	ug/L	16	0	0%	Parametric	Lognormal MLE	0.000252	0.011	↔
09_02_107	MW-10	App. III	Calcium	ug/L	16	0	0%	Parametric	Lognormal MLE	0.0000878	0.080	↔
09_02_108	MW-10	App. III	Chloride	mg/L	16	0	0%	Parametric	Lognormal MLE	-0.00000267	0.903	↔
09_02_112	MW-10	App. III	Fluoride	mg/L	16	0	0%	Parametric	Lognormal MLE	-0.000116	0.006	↓
09_02_118	MW-10	App. III	pH (Field)	S.U.	17	0	0%	Parametric	Lognormal MLE	0.00000568	0.564	↔
09_02_123	MW-10	App. III	Sulfate	mg/L	16	0	0%	Parametric	Lognormal MLE	-0.00111	0.000	↓
09_02_125	MW-10	App. III	Total Dissolved Solids	mg/L	16	0	0%	Parametric	Lognormal MLE	0.0000209	0.269	↔
09_03_103	MW-10	App. IV	Barium	ug/L	16	0	0%	Parametric	Lognormal MLE	0.000626	0.000	↑
09_03_109	MW-10	App. IV	Chromium	ug/L	16	5	31%	Parametric	Lognormal MLE	-0.00173	0.049	↔
09_03_112	MW-10	App. IV	Fluoride	mg/L	16	0	0%	Parametric	Lognormal MLE	-0.000116	0.006	↓
09_03_114	MW-10	App. IV	Lithium	ug/L	16	0	0%	Parametric	Lognormal MLE	0.00146	0.000	↑
09_03_116	MW-10	App. IV	Molybdenum	ug/L	16	0	0%	Parametric	Lognormal MLE	-0.000496	0.000	↓
09_03_119	MW-10	App. IV	Radium-226	pCi/L	16	0	0%	Nonparametric	MK	-0.000132	0.344	↔
09_03_120	MW-10	App. IV	Radium-228	pCi/L	16	0	0%	Nonparametric	MK	-0.0000319	0.964	↔
09_03_126	MW-10	App. IV	Total Radium	pCi/L	16	0	0%	Nonparametric	MK	-0.000278	0.392	↔
10_02_105	MW-11	App. III	Boron	ug/L	19	1	5%	Parametric	Lognormal MLE	0.0000955	0.358	↔
10_02_107	MW-11	App. III	Calcium	ug/L	19	0	0%	Nonparametric	MK	-1.10	0.484	↔
10_02_108	MW-11	App. III	Chloride	mg/L	19	0	0%	Parametric	Lognormal MLE	-0.000101	0.154	↔
10_02_112	MW-11	App. III	Fluoride	mg/L	19	1	5%	Parametric	Lognormal MLE	0.0000463	0.747	↔
10_02_118	MW-11	App. III	pH (Field)	S.U.	17	0	0%	Nonparametric	MK	-0.0000311	0.710	↔
10_02_123	MW-11	App. III	Sulfate	mg/L	19	0	0%	Parametric	Lognormal MLE	0.0000144	0.801	↔
10_02_125	MW-11	App. III	Total Dissolved Solids	mg/L	19	0	0%	Nonparametric	MK	-0.0206	0.401	↔
10_03_103	MW-11	App. IV	Barium	ug/L	19	0	0%	Nonparametric	MK	-0.00546	0.278	↔
10_03_112	MW-11	App. IV	Fluoride	mg/L	19	1	5%	Parametric	Lognormal MLE	0.0000463	0.747	↔
10_03_114	MW-11	App. IV	Lithium	ug/L	19	0	0%	Nonparametric	MK	-0.000474	0.461	↔
10_03_119	MW-11	App. IV	Radium-226	pCi/L	19	0	0%	Nonparametric	MK	0.0000608	0.726	↔
10_03_120	MW-11	App. IV	Radium-228	pCi/L	19	0	0%	Nonparametric	MK	0.000260	0.184	↔

(Table continues on next page)

Table 8: Trend Tests: Lognormal MLE and MK *(continued)*

ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	Type	Method	Slope	p-value	Trend
10_03_126	MW-11	App. IV	Total Radium	pCi/L	19	0	0%	Nonparametric	MK	0.000289	0.050	↔
11_02_105	MW-11D	App. III	Boron	ug/L	17	0	0%	Nonparametric	MK	-0.00911	0.032	↔
11_02_107	MW-11D	App. III	Calcium	ug/L	17	0	0%	Nonparametric	MK	-8.71	0.003	↓
11_02_108	MW-11D	App. III	Chloride	mg/L	17	0	0%	Parametric	Lognormal MLE	-0.00110	0.000	↓
11_02_112	MW-11D	App. III	Fluoride	mg/L	17	0	0%	Parametric	Lognormal MLE	-0.000118	0.012	↔
11_02_118	MW-11D	App. III	pH (Field)	S.U.	17	0	0%	Parametric	Lognormal MLE	-0.0000524	0.000	↓
11_02_123	MW-11D	App. III	Sulfate	mg/L	17	1	6%	Nonparametric	MK	-0.0837	0.004	↓
11_02_125	MW-11D	App. III	Total Dissolved Solids	mg/L	17	0	0%	Nonparametric	MK	-0.310	0.000	↓
11_03_102	MW-11D	App. IV	Arsenic	ug/L	17	8	47%	Parametric	Lognormal MLE	-0.00154	0.000	↓
11_03_103	MW-11D	App. IV	Barium	ug/L	17	0	0%	Nonparametric	MK	0.0102	0.284	↔
11_03_112	MW-11D	App. IV	Fluoride	mg/L	17	0	0%	Parametric	Lognormal MLE	-0.000118	0.012	↔
11_03_114	MW-11D	App. IV	Lithium	ug/L	17	0	0%	Parametric	Lognormal MLE	-0.000865	0.000	↓
11_03_116	MW-11D	App. IV	Molybdenum	ug/L	17	1	6%	Parametric	Lognormal MLE	-0.00217	0.000	↓
11_03_119	MW-11D	App. IV	Radium-226	pCi/L	17	0	0%	Nonparametric	MK	-0.000238	0.202	↔
11_03_120	MW-11D	App. IV	Radium-228	pCi/L	17	0	0%	Nonparametric	MK	-0.0000879	0.537	↔
11_03_126	MW-11D	App. IV	Total Radium	pCi/L	17	0	0%	Nonparametric	MK	-0.000610	0.077	↔

Table 9: Trend Tests: Piecewise Linear-Linear

								Line 1			Line 2					
ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	Slope	p-Value	Trend	Slope	p-Value	Trend	Break 1	R-Squared	Overall Trend
01_01_111	MW-1	App. I Metals	Copper	ug/L	40	32	80%	0.00154	0.010	↑	-0.00476	0.008	↓	2022-04-19	0.310	↔
01_01_117	MW-1	App. I Metals	Nickel	ug/L	40	28	70%	0.000128	0.865	↔	-0.000712	0.662	↔	2021-10-22	0.010	↔
01_01_122	MW-1	App. I Metals	Silver	ug/L	40	33	82%	0	1.000	↔	-0.00141	0.000	↓	2021-03-02	0.766	↔
01_01_127	MW-1	App. I Metals	Vanadium	ug/L	40	24	60%	-0.000270	0.763	↔	0.000577	0.376	↔	2019-10-14	0.038	↔
01_01_128	MW-1	App. I Metals	Zinc	ug/L	40	25	62%	0.00151	0.275	↔	-0.0138	0.592	↔	2024-01-25	0.044	↔
01_02_105	MW-1	App. III	Boron	ug/L	39	22	56%	-0.0274	0.236	↔	0.00559	0.001	↑	2017-03-07	0.278	↔
01_02_107	MW-1	App. III	Calcium	ug/L	40	0	0%	74.6	0.000	↑	-120	0.013	↔	2022-02-28	0.465	↔
01_02_108	MW-1	App. III	Chloride	mg/L	40	0	0%	0.334	0.001	↑	-0.220	0.046	↔	2020-07-31	0.354	↔
01_02_112	MW-1	App. III	Fluoride	mg/L	40	1	2%	-0.000239	0.173	↔	0.0000211	0.000	↑	2016-06-06	0.391	↔
01_02_118	MW-1	App. III	pH (Field)	S.U.	38	0	0%	-0.000169	0.231	↔	0.000164	0.021	↔	2019-07-09	0.182	↔
01_02_123	MW-1	App. III	Sulfate	mg/L	40	0	0%	-0.00449	0.000	↓	-0.000616	0.001	↓	2017-11-28	0.790	↓
01_02_125	MW-1	App. III	Total Dissolved Solids	mg/L	40	0	0%	0.742	0.000	↑	-1.39	0.001	↓	2022-01-23	0.521	↔
01_03_101	MW-1	App. IV	Antimony	ug/L	40	38	95%	-0.000650	0.133	↔	0.000434	0.306	↔	2020-07-07	0.100	↔
01_03_102	MW-1	App. IV	Arsenic	ug/L	40	36	90%	0.00582	0.000	↑	-0.000868	0.000	↓	2017-07-13	0.688	↔
01_03_103	MW-1	App. IV	Barium	ug/L	40	0	0%	0.0759	0.001	↑	-0.157	0.054	↔	2022-04-20	0.306	↔
01_03_104	MW-1	App. IV	Beryllium	ug/L	40	40	100%	0.0000293	0.610	↔	-0.000290	0.024	↔	2021-08-10	0.279	↔
01_03_106	MW-1	App. IV	Cadmium	ug/L	40	37	92%	0	1.000	↔	-0.0000935	0.000	↓	2018-12-06	0.473	↔
01_03_109	MW-1	App. IV	Chromium	ug/L	40	27	68%	0.00445	0.330	↔	-0.00127	0.111	↔	2018-01-24	0.097	↔
01_03_110	MW-1	App. IV	Cobalt	ug/L	40	36	90%	0.000212	0.457	↔	-0.00195	0.003	↓	2021-10-25	0.374	↔
01_03_112	MW-1	App. IV	Fluoride	mg/L	40	1	2%	-0.000239	0.173	↔	0.0000211	0.000	↑	2016-06-06	0.391	↔

(Table continues on next page)

Table 9: Trend Tests: Piecewise Linear-Linear *(continued)*

								Line 1			Line 2					
ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	Slope	p-Value	Trend	Slope	p-Value	Trend	Break 1	R-Squared	Overall Trend
01_03_113	MW-1	App. IV	Lead	ug/L	40	36	90%	0.000327	0.391	↔	0.00548	0.626	↔	2024-04-03	0.093	↔
01_03_114	MW-1	App. IV	Lithium	ug/L	40	0	0%	0.00458	0.002	↑	-0.00713	0.100	↔	2022-02-09	0.279	↔
01_03_115	MW-1	App. IV	Mercury	ug/L	40	40	100%	0.00000980	0.000	↑	-0.00000652	0.358	↔	2022-07-13	0.522	↔
01_03_116	MW-1	App. IV	Molybdenum	ug/L	40	35	88%	0.00321	0.024	↔	-0.00246	0.017	↔	2019-10-14	0.247	↔
01_03_119	MW-1	App. IV	Radium-226	pCi/L	38	0	0%	0.000248	0.146	↔	-0.000350	0.001	↓	2019-07-09	0.389	↔
01_03_120	MW-1	App. IV	Radium-228	pCi/L	38	0	0%	0.000225	0.200	↔	-0.0000274	0.773	↔	2019-07-09	0.113	↔
01_03_121	MW-1	App. IV	Selenium	ug/L	40	38	95%	0	1.000	↔	-0.000435	0.019	↔	2018-03-19	0.232	↔
01_03_124	MW-1	App. IV	Thallium	ug/L	40	40	100%	-0.0116	0.000	↓	-0.00000645	0.945	↔	2017-04-24	0.943	↔
01_03_126	MW-1	App. IV	Total Radium	pCi/L	38	0	0%	0.000431	0.099	↔	-0.000298	0.039	↔	2019-07-09	0.181	↔
02_01_111	MW-2	App. I Metals	Copper	ug/L	35	15	43%	0.0308	0.081	↔	-0.0473	0.178	↔	2021-11-17	0.153	↔
02_01_117	MW-2	App. I Metals	Nickel	ug/L	35	12	34%	0.00509	0.262	↔	-0.0312	0.614	↔	2023-10-09	0.050	↔
02_01_122	MW-2	App. I Metals	Silver	ug/L	35	32	91%	0	1.000	↔	-0.00146	0.000	↓	2021-02-18	0.747	↔
02_01_127	MW-2	App. I Metals	Vanadium	ug/L	35	23	66%	0.00102	0.329	↔	0.0829	0.524	↔	2024-11-25	0.155	↔
02_01_128	MW-2	App. I Metals	Zinc	ug/L	35	16	46%	-0.00785	0.884	↔	0.662	0.129	↔	2023-05-28	0.201	↔
02_02_105	MW-2	App. III	Boron	ug/L	34	1	3%	0.0270	0.252	↔	-0.00372	0.040	↔	2017-02-18	0.173	↔
02_02_107	MW-2	App. III	Calcium	ug/L	35	0	0%	49.9	0.461	↔	-14.9	0.045	↔	2017-07-04	0.139	↔
02_02_108	MW-2	App. III	Chloride	mg/L	35	0	0%	0.595	0.203	↔	-0.121	0.001	↓	2017-01-26	0.321	↔
02_02_112	MW-2	App. III	Fluoride	mg/L	35	2	6%	-0.00000928	0.662	↔	0.0000127	0.804	↔	2021-11-18	0.009	↔
02_02_118	MW-2	App. III	pH (Field)	S.U.	31	0	0%	-0.000269	0.550	↔	0.0000470	0.752	↔	2019-01-21	0.055	↔
02_02_123	MW-2	App. III	Sulfate	mg/L	35	0	0%	-0.120	0.000	↓	-0.0109	0.509	↔	2019-10-05	0.763	↔
02_02_125	MW-2	App. III	Total Dissolved Solids	mg/L	35	0	0%	1.37	0.199	↔	-1.14	0.108	↔	2020-01-16	0.128	↔
02_03_101	MW-2	App. IV	Antimony	ug/L	35	21	60%	-0.0115	0.154	↔	0.000748	0.514	↔	2017-08-02	0.148	↔
02_03_102	MW-2	App. IV	Arsenic	ug/L	35	24	69%	0.00581	0.137	↔	-0.0000945	0.816	↔	2017-06-05	0.234	↔
02_03_103	MW-2	App. IV	Barium	ug/L	35	0	0%	0.0569	0.088	↔	-0.00100	0.982	↔	2021-04-14	0.238	↔
02_03_104	MW-2	App. IV	Beryllium	ug/L	35	32	91%	0.0000573	0.458	↔	-0.000275	0.038	↔	2021-07-22	0.203	↔
02_03_106	MW-2	App. IV	Cadmium	ug/L	35	32	91%	-0.0000757	0.000	↓	0.000451	0.114	↔	2024-03-11	0.480	↔
02_03_109	MW-2	App. IV	Chromium	ug/L	35	6	17%	0.0361	0.648	↔	-0.00446	0.449	↔	2017-04-04	0.031	↔
02_03_110	MW-2	App. IV	Cobalt	ug/L	35	27	77%	0.000755	0.435	↔	0.0329	0.785	↔	2024-11-25	0.053	↔
02_03_112	MW-2	App. IV	Fluoride	mg/L	35	2	6%	-0.00000928	0.662	↔	0.0000127	0.804	↔	2021-11-18	0.009	↔
02_03_113	MW-2	App. IV	Lead	ug/L	35	30	86%	0.00111	0.190	↔	0.0288	0.526	↔	2024-07-18	0.206	↔
02_03_114	MW-2	App. IV	Lithium	ug/L	35	0	0%	0.725	0.399	↔	-0.0226	0.155	↔	2016-05-26	0.113	↔
02_03_115	MW-2	App. IV	Mercury	ug/L	35	35	100%	0.00000773	0.000	↑	-0.000187	0.208	↔	2024-11-25	0.602	↔
02_03_116	MW-2	App. IV	Molybdenum	ug/L	35	6	17%	-0.0746	0.254	↔	-0.00185	0.125	↔	2016-04-06	0.240	↔
02_03_119	MW-2	App. IV	Radium-226	pCi/L	34	0	0%	-0.000119	0.249	↔	0.000477	0.272	↔	2022-07-12	0.096	↔
02_03_120	MW-2	App. IV	Radium-228	pCi/L	34	0	0%	0.000157	0.127	↔	-0.000552	0.492	↔	2023-07-24	0.093	↔
02_03_121	MW-2	App. IV	Selenium	ug/L	35	33	94%	-0.000511	0.001	↓	0.00116	0.216	↔	2023-04-25	0.341	↔
02_03_124	MW-2	App. IV	Thallium	ug/L	35	23	66%	-0.0143	0.000	↓	0.0000143	0.948	↔	2017-04-11	0.847	↔
02_03_126	MW-2	App. IV	Total Radium	pCi/L	34	0	0%	-0.00000395	0.973	↔	0.0140	0.332	↔	2024-11-29	0.189	↔
03_01_111	MW-3	App. I Metals	Copper	ug/L	38	21	55%	0.0116	0.069	↔	-0.0286	0.127	↔	2022-04-19	0.150	↔
03_01_117	MW-3	App. I Metals	Nickel	ug/L	38	19	50%	0.0174	0.126	↔	-0.00950	0.046	↔	2019-01-24	0.166	↔
03_01_122	MW-3	App. I Metals	Silver	ug/L	38	36	95%	0	1.000	↔	-0.00145	0.000	↓	2021-03-04	0.745	↔
03_01_127	MW-3	App. I Metals	Vanadium	ug/L	38	23	61%	0.00333	0.018	↔	-0.00179	0.011	↔	2019-03-29	0.282	↔

(Table continues on next page)

Table 9: Trend Tests: Piecewise Linear-Linear *(continued)*

								Line 1			Line 2					
ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	Slope	p-Value	Trend	Slope	p-Value	Trend	Break 1	R-Squared	Overall Trend
03_01_128	MW-3	App. I Metals	Zinc	ug/L	38	28	74%	0.00944	0.051	↔	-0.00359	0.133	↔	2019-01-25	0.169	↔
03_02_105	MW-3	App. III	Boron	ug/L	37	10	27%	-0.0969	0.003	↓	0.0146	0.000	↑	2017-03-28	0.643	↔
03_02_107	MW-3	App. III	Calcium	ug/L	38	0	0%	7.07	0.187	↔	102	0.167	↔	2023-11-22	0.299	↔
03_02_108	MW-3	App. III	Chloride	mg/L	38	0	0%	-0.486	0.054	↔	0.00848	0.734	↔	2017-05-26	0.316	↔
03_02_112	MW-3	App. III	Fluoride	mg/L	38	1	3%	0.000403	0.000	↑	-0.0000995	0.000	↓	2018-03-03	0.579	↔
03_02_118	MW-3	App. III	pH (Field)	S.U.	34	0	0%	-0.0000888	0.716	↔	0.000105	0.246	↔	2018-10-18	0.074	↔
03_02_123	MW-3	App. III	Sulfate	mg/L	38	0	0%	0.355	0.005	↑	-0.0447	0.000	↓	2016-11-22	0.760	↔
03_02_125	MW-3	App. III	Total Dissolved Solids	mg/L	38	0	0%	0.377	0.070	↔	-0.0600	0.846	↔	2021-01-28	0.176	↔
03_03_101	MW-3	App. IV	Antimony	ug/L	38	27	71%	-0.0133	0.046	↔	-0.000286	0.538	↔	2017-04-04	0.486	↔
03_03_102	MW-3	App. IV	Arsenic	ug/L	38	30	79%	0.00180	0.003	↑	-0.00213	0.001	↓	2020-10-14	0.406	↔
03_03_103	MW-3	App. IV	Barium	ug/L	38	0	0%	-0.599	0.002	↓	0.0995	0.000	↑	2017-04-04	0.701	↔
03_03_104	MW-3	App. IV	Beryllium	ug/L	38	38	100%	0.0000411	0.489	↔	-0.000328	0.004	↓	2021-08-11	0.354	↔
03_03_106	MW-3	App. IV	Cadmium	ug/L	38	37	97%	0	1.000	↔	-0.0000824	0.000	↓	2017-12-06	0.620	↔
03_03_109	MW-3	App. IV	Chromium	ug/L	38	19	50%	0.0340	0.134	↔	-0.0200	0.035	↔	2019-01-24	0.175	↔
03_03_110	MW-3	App. IV	Cobalt	ug/L	38	32	84%	0.000370	0.298	↔	-0.00208	0.002	↓	2021-06-23	0.386	↔
03_03_112	MW-3	App. IV	Fluoride	mg/L	38	1	3%	0.000403	0.000	↑	-0.0000995	0.000	↓	2018-03-03	0.579	↔
03_03_113	MW-3	App. IV	Lead	ug/L	38	34	89%	0.000232	0.567	↔	0.00560	0.639	↔	2024-04-03	0.072	↔
03_03_114	MW-3	App. IV	Lithium	ug/L	38	1	3%	-0.0303	0.062	↔	0.0136	0.427	↔	2020-09-12	0.171	↔
03_03_115	MW-3	App. IV	Mercury	ug/L	38	38	100%	0.0000100	0.000	↑	-0.00000692	0.325	↔	2022-06-08	0.539	↔
03_03_116	MW-3	App. IV	Molybdenum	ug/L	38	1	3%	-0.000605	0.500	↔	-0.0101	0.702	↔	2024-05-31	0.050	↔
03_03_119	MW-3	App. IV	Radium-226	pCi/L	37	0	0%	0.000380	0.203	↔	-0.000145	0.214	↔	2019-01-24	0.106	↔
03_03_120	MW-3	App. IV	Radium-228	pCi/L	37	0	0%	-0.00373	0.318	↔	0.000144	0.171	↔	2016-07-10	0.111	↔
03_03_121	MW-3	App. IV	Selenium	ug/L	38	37	97%	-0.000475	0.001	↓	0.00453	0.232	↔	2024-07-09	0.317	↔
03_03_124	MW-3	App. IV	Thallium	ug/L	38	38	100%	-0.0116	0.000	↓	-0.00000636	0.949	↔	2017-04-23	0.941	↔
03_03_126	MW-3	App. IV	Total Radium	pCi/L	37	0	0%	-0.00000497	0.967	↔	0.00777	0.611	↔	2024-11-16	0.069	↔
04_01_111	MW-4	App. I Metals	Copper	ug/L	39	33	85%	0.0150	0.086	↔	-0.0279	0.137	↔	2021-11-16	0.135	↔
04_01_117	MW-4	App. I Metals	Nickel	ug/L	39	11	28%	0.00401	0.596	↔	0.00206	0.000	↑	2017-04-04	0.472	↔
04_01_122	MW-4	App. I Metals	Silver	ug/L	39	39	100%	0	1.000	↔	-0.00154	0.000	↓	2021-03-11	0.776	↔
04_01_127	MW-4	App. I Metals	Vanadium	ug/L	39	35	90%	0.000991	0.100	↔	-0.00172	0.034	↔	2020-11-04	0.199	↔
04_01_128	MW-4	App. I Metals	Zinc	ug/L	39	24	62%	0.00692	0.047	↔	-0.00172	0.598	↔	2020-04-17	0.186	↔
04_02_105	MW-4	App. III	Boron	ug/L	38	23	61%	0.0302	0.499	↔	-0.00652	0.291	↔	2017-10-10	0.050	↔
04_02_107	MW-4	App. III	Calcium	ug/L	39	0	0%	75.5	0.000	↑	-6.21	0.000	↓	2017-05-27	0.667	↔
04_02_108	MW-4	App. III	Chloride	mg/L	39	0	0%	0.688	0.000	↑	-0.0793	0.000	↓	2017-04-23	0.740	↔
04_02_112	MW-4	App. III	Fluoride	mg/L	39	0	0%	-0.0000459	0.018	↔	0.0000912	0.000	↑	2020-08-06	0.481	↔
04_02_118	MW-4	App. III	pH (Field)	S.U.	37	0	0%	-0.0000828	0.000	↓	0.000479	0.588	↔	2024-07-16	0.370	↔
04_02_123	MW-4	App. III	Sulfate	mg/L	39	0	0%	0.00993	0.000	↑	-0.00000942	0.975	↔	2017-08-20	0.687	↔
04_02_125	MW-4	App. III	Total Dissolved Solids	mg/L	39	0	0%	0.986	0.000	↑	-0.0823	0.010	↔	2017-11-02	0.695	↔
04_03_101	MW-4	App. IV	Antimony	ug/L	39	34	87%	-0.000258	0.481	↔	0.000184	0.784	↔	2021-04-13	0.020	↔
04_03_102	MW-4	App. IV	Arsenic	ug/L	39	37	95%	0.00535	0.000	↑	-0.000986	0.000	↓	2017-09-02	0.613	↔
04_03_103	MW-4	App. IV	Barium	ug/L	39	0	0%	0.369	0.000	↑	0.000635	0.947	↔	2017-04-06	0.612	↔
04_03_104	MW-4	App. IV	Beryllium	ug/L	39	39	100%	0.0000290	0.620	↔	-0.000290	0.026	↔	2021-08-12	0.277	↔
04_03_106	MW-4	App. IV	Cadmium	ug/L	39	38	97%	-0.0000791	0.000	↓	0.00113	0.342	↔	2024-11-08	0.681	↔

(Table continues on next page)

Table 9: Trend Tests: Piecewise Linear-Linear *(continued)*

								Line 1			Line 2					
ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	Slope	p-Value	Trend	Slope	p-Value	Trend	Break 1	R-Squared	Overall Trend
04_03_109	MW-4	App. IV	Chromium	ug/L	39	29	74%	0.000805	0.102	↔	-0.00346	0.021	↔	2022-04-20	0.233	↔
04_03_110	MW-4	App. IV	Cobalt	ug/L	39	20	51%	0.00204	0.250	↔	0.00836	0.033	↔	2021-08-12	0.424	↔
04_03_112	MW-4	App. IV	Fluoride	mg/L	39	0	0%	-0.0000459	0.018	↔	0.0000912	0.000	↑	2020-08-06	0.481	↔
04_03_113	MW-4	App. IV	Lead	ug/L	39	38	97%	0.000599	0.101	↔	-0.0137	0.765	↔	2024-10-31	0.081	↔
04_03_114	MW-4	App. IV	Lithium	ug/L	39	0	0%	0.0147	0.800	↔	0.00513	0.026	↔	2017-01-24	0.247	↔
04_03_115	MW-4	App. IV	Mercury	ug/L	39	39	100%	0.00000980	0.000	↑	-0.00000681	0.337	↔	2022-07-11	0.525	↔
04_03_116	MW-4	App. IV	Molybdenum	ug/L	39	34	87%	0.00456	0.118	↔	-0.00321	0.058	↔	2019-10-13	0.158	↔
04_03_119	MW-4	App. IV	Radium-226	pCi/L	37	0	0%	0.000739	0.230	↔	-0.0000957	0.145	↔	2017-04-05	0.110	↔
04_03_120	MW-4	App. IV	Radium-228	pCi/L	37	0	0%	0.000146	0.093	↔	-0.000765	0.042	↔	2022-10-17	0.214	↔
04_03_121	MW-4	App. IV	Selenium	ug/L	39	37	95%	-0.000438	0.001	↓	0.00989	0.538	↔	2024-11-08	0.273	↔
04_03_124	MW-4	App. IV	Thallium	ug/L	39	39	100%	-0.0116	0.000	↓	-0.0000128	0.895	↔	2017-04-24	0.942	↔
04_03_126	MW-4	App. IV	Total Radium	pCi/L	37	0	0%	0.00183	0.060	↔	-0.000206	0.046	↔	2017-04-05	0.224	↔
05_01_111	MW-5	App. I Metals	Copper	ug/L	40	28	70%	0.00165	0.005	↑	-0.00490	0.006	↓	2022-04-18	0.335	↔
05_01_117	MW-5	App. I Metals	Nickel	ug/L	40	30	75%	0.00678	0.144	↔	-0.0183	0.359	↔	2022-07-13	0.080	↔
05_01_122	MW-5	App. I Metals	Silver	ug/L	40	40	100%	0	1.000	↔	-0.00154	0.000	↓	2021-03-11	0.779	↔
05_01_127	MW-5	App. I Metals	Vanadium	ug/L	40	37	92%	0.000377	0.184	↔	-0.00145	0.021	↔	2021-10-23	0.221	↔
05_01_128	MW-5	App. I Metals	Zinc	ug/L	40	25	62%	-0.00102	0.360	↔	0.259	0.073	↔	2024-11-01	0.510	↔
05_02_105	MW-5	App. III	Boron	ug/L	39	15	38%	-0.00553	0.195	↔	0.00215	0.277	↔	2019-01-24	0.083	↔
05_02_107	MW-5	App. III	Calcium	ug/L	40	0	0%	0.293	0.745	↔	-2.42	0.000	↓	2019-10-02	0.514	↔
05_02_108	MW-5	App. III	Chloride	mg/L	40	0	0%	0.00148	0.028	↔	-0.00180	0.002	↓	2020-04-15	0.314	↔
05_02_112	MW-5	App. III	Fluoride	mg/L	40	0	0%	-0.000480	0.387	↔	0.0000225	0.028	↔	2016-04-30	0.144	↔
05_02_118	MW-5	App. III	pH (Field)	S.U.	37	0	0%	-0.000169	0.510	↔	0.0000444	0.812	↔	2020-01-15	0.028	↔
05_02_123	MW-5	App. III	Sulfate	mg/L	40	0	0%	-0.000175	0.527	↔	0.0000577	0.832	↔	2020-07-06	0.021	↔
05_02_125	MW-5	App. III	Total Dissolved Solids	mg/L	40	0	0%	0.211	0.381	↔	-0.0698	0.036	↔	2017-10-16	0.134	↔
05_03_101	MW-5	App. IV	Antimony	ug/L	40	38	95%	-0.000416	0.252	↔	0.000360	0.313	↔	2020-05-22	0.063	↔
05_03_102	MW-5	App. IV	Arsenic	ug/L	40	38	95%	0.00535	0.000	↑	-0.000998	0.000	↓	2017-09-03	0.612	↔
05_03_103	MW-5	App. IV	Barium	ug/L	40	0	0%	0.0127	0.117	↔	-0.0152	0.001	↓	2019-07-08	0.335	↔
05_03_104	MW-5	App. IV	Beryllium	ug/L	40	40	100%	0.0000294	0.609	↔	-0.000290	0.024	↔	2021-08-09	0.280	↔
05_03_106	MW-5	App. IV	Cadmium	ug/L	40	40	100%	-0.0000798	0.000	↓	0.00108	0.359	↔	2024-11-01	0.686	↔
05_03_109	MW-5	App. IV	Chromium	ug/L	40	28	70%	0.0146	0.149	↔	-0.0393	0.367	↔	2022-07-13	0.078	↔
05_03_110	MW-5	App. IV	Cobalt	ug/L	40	38	95%	0.000293	0.259	↔	-0.00224	0.001	↓	2021-11-23	0.431	↔
05_03_112	MW-5	App. IV	Fluoride	mg/L	40	0	0%	-0.000480	0.387	↔	0.0000225	0.028	↔	2016-04-30	0.144	↔
05_03_113	MW-5	App. IV	Lead	ug/L	40	39	98%	0.000557	0.110	↔	-0.0125	0.776	↔	2024-10-28	0.075	↔
05_03_114	MW-5	App. IV	Lithium	ug/L	40	1	2%	0.00187	0.096	↔	-0.00139	0.494	↔	2021-08-08	0.116	↔
05_03_115	MW-5	App. IV	Mercury	ug/L	40	40	100%	0.00000979	0.000	↑	-0.00000651	0.423	↔	2022-07-13	0.521	↔
05_03_116	MW-5	App. IV	Molybdenum	ug/L	40	37	92%	0.00190	0.067	↔	-0.00424	0.170	↔	2022-04-18	0.133	↔
05_03_119	MW-5	App. IV	Radium-226	pCi/L	38	0	0%	-0.0000398	0.426	↔	0.000763	0.411	↔	2024-01-28	0.068	↔
05_03_120	MW-5	App. IV	Radium-228	pCi/L	38	0	0%	-0.000215	0.627	↔	0.0000588	0.469	↔	2017-10-22	0.022	↔
05_03_121	MW-5	App. IV	Selenium	ug/L	40	39	98%	-0.000556	0.001	↓	0.00114	0.258	↔	2023-04-25	0.319	↔
05_03_124	MW-5	App. IV	Thallium	ug/L	40	39	98%	-0.0165	0.001	↓	-0.00000828	0.979	↔	2017-04-03	0.721	↔
05_03_126	MW-5	App. IV	Total Radium	pCi/L	38	0	0%	-0.00487	0.638	↔	0.0000604	0.286	↔	2016-02-09	0.055	↔
06_01_111	MW-6	App. I Metals	Copper	ug/L	39	33	85%	0.00194	0.026	↔	-0.00454	0.017	↔	2021-11-16	0.254	↔

(Table continues on next page)

Table 9: Trend Tests: Piecewise Linear-Linear *(continued)*

								Line 1			Line 2					
ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	Slope	p-Value	Trend	Slope	p-Value	Trend	Break 1	R-Squared	Overall Trend
06_01_117	MW-6	App. I Metals	Nickel	ug/L	39	27	69%	0.000504	0.175	↔	-0.00148	0.118	↔	2021-11-17	0.131	↔
06_01_122	MW-6	App. I Metals	Silver	ug/L	39	39	100%	0	1.000	↔	-0.00154	0.000	↓	2021-03-16	0.771	↔
06_01_127	MW-6	App. I Metals	Vanadium	ug/L	39	35	90%	0.000395	0.192	↔	-0.00132	0.047	↔	2021-11-16	0.167	↔
06_01_128	MW-6	App. I Metals	Zinc	ug/L	39	26	67%	0.00218	0.018	↔	-0.0135	0.255	↔	2023-10-08	0.181	↔
06_02_105	MW-6	App. III	Boron	ug/L	38	23	61%	-0.0183	0.005	↓	0.00261	0.000	↑	2017-01-24	0.570	↔
06_02_107	MW-6	App. III	Calcium	ug/L	39	0	0%	-2.74	0.465	↔	0.0157	0.975	↔	2017-10-16	0.068	↔
06_02_108	MW-6	App. III	Chloride	mg/L	39	0	0%	0.0831	0.526	↔	-0.0265	0.007	↓	2017-04-03	0.202	↔
06_02_112	MW-6	App. III	Fluoride	mg/L	39	1	3%	0.0000763	0.477	↔	-0.0000290	0.125	↔	2017-12-29	0.079	↔
06_02_118	MW-6	App. III	pH (Field)	S.U.	36	0	0%	-0.000168	0.025	↔	0.0000400	0.608	↔	2020-10-13	0.286	↔
06_02_123	MW-6	App. III	Sulfate	mg/L	39	0	0%	-0.0804	0.000	↓	0.000828	0.946	↔	2020-01-22	0.685	↔
06_02_125	MW-6	App. III	Total Dissolved Solids	mg/L	39	0	0%	1.77	0.518	↔	-0.0489	0.002	↓	2016-02-12	0.258	↔
06_03_101	MW-6	App. IV	Antimony	ug/L	39	39	100%	-0.000460	0.195	↔	0.000339	0.404	↔	2020-10-03	0.075	↔
06_03_102	MW-6	App. IV	Arsenic	ug/L	39	37	95%	0.00537	0.003	↑	-0.000944	0.000	↓	2017-09-08	0.479	↔
06_03_103	MW-6	App. IV	Barium	ug/L	39	0	0%	-0.0411	0.000	↓	0.00278	0.721	↔	2020-09-02	0.708	↔
06_03_104	MW-6	App. IV	Beryllium	ug/L	39	38	97%	0.0000300	0.599	↔	-0.000290	0.024	↔	2021-09-17	0.265	↔
06_03_106	MW-6	App. IV	Cadmium	ug/L	39	39	100%	-0.0000803	0.000	↓	0.00115	0.321	↔	2024-11-07	0.682	↔
06_03_109	MW-6	App. IV	Chromium	ug/L	39	31	79%	0.000915	0.229	↔	-0.00258	0.035	↔	2021-04-08	0.186	↔
06_03_110	MW-6	App. IV	Cobalt	ug/L	39	38	97%	0.000235	0.395	↔	-0.00208	0.001	↓	2021-11-16	0.407	↔
06_03_112	MW-6	App. IV	Fluoride	mg/L	39	1	3%	0.0000763	0.477	↔	-0.0000290	0.125	↔	2017-12-29	0.079	↔
06_03_113	MW-6	App. IV	Lead	ug/L	39	37	95%	0.000682	0.057	↔	-0.0148	0.727	↔	2024-10-30	0.106	↔
06_03_114	MW-6	App. IV	Lithium	ug/L	39	0	0%	-0.0140	0.000	↓	0.000209	0.953	↔	2020-10-08	0.609	↔
06_03_115	MW-6	App. IV	Mercury	ug/L	39	38	97%	0.00000442	0.468	↔	-0.000159	0.829	↔	2024-11-07	0.020	↔
06_03_116	MW-6	App. IV	Molybdenum	ug/L	39	34	87%	0.00134	0.088	↔	-0.00119	0.039	↔	2019-10-14	0.183	↔
06_03_119	MW-6	App. IV	Radium-226	pCi/L	37	0	0%	-0.0000938	0.066	↔	0.00475	0.431	↔	2024-11-15	0.165	↔
06_03_120	MW-6	App. IV	Radium-228	pCi/L	37	0	0%	-0.000134	0.274	↔	0.000149	0.426	↔	2021-01-25	0.055	↔
06_03_121	MW-6	App. IV	Selenium	ug/L	39	37	95%	-0.000455	0.001	↓	0.0102	0.493	↔	2024-11-07	0.301	↔
06_03_124	MW-6	App. IV	Thallium	ug/L	39	36	92%	-0.0125	0.000	↓	0.000000556	0.995	↔	2017-04-16	0.952	↔
06_03_126	MW-6	App. IV	Total Radium	pCi/L	37	0	0%	-0.000178	0.193	↔	0.000266	0.359	↔	2021-08-11	0.074	↔
07_01_111	MW-7R	App. I Metals	Copper	ug/L	31	21	68%	0.00837	0.434	↔	-0.0228	0.302	↔	2022-04-21	0.079	↔
07_01_117	MW-7R	App. I Metals	Nickel	ug/L	31	13	42%	-0.0409	0.465	↔	-0.00228	0.993	↔	2023-04-25	0.034	↔
07_01_122	MW-7R	App. I Metals	Silver	ug/L	31	31	100%	0	1.000	↔	-0.00154	0.000	↓	2021-03-12	0.753	↔
07_01_127	MW-7R	App. I Metals	Vanadium	ug/L	31	15	48%	-0.0495	0.106	↔	-0.000590	0.541	↔	2018-03-10	0.279	↔
07_01_128	MW-7R	App. I Metals	Zinc	ug/L	31	22	71%	0.0301	0.147	↔	-0.00877	0.019	↔	2019-07-09	0.241	↔
07_02_105	MW-7R	App. III	Boron	ug/L	30	12	40%	-0.0400	0.015	↔	0.00183	0.124	↔	2018-10-23	0.457	↔
07_02_107	MW-7R	App. III	Calcium	ug/L	31	0	0%	15.3	0.109	↔	1.05	0.607	↔	2019-07-10	0.257	↔
07_02_108	MW-7R	App. III	Chloride	mg/L	31	0	0%	-0.0853	0.632	↔	-0.00950	0.106	↔	2018-03-10	0.159	↔
07_02_112	MW-7R	App. III	Fluoride	mg/L	31	1	3%	-0.000919	0.000	↓	0.0000186	0.001	↑	2018-03-10	0.768	↔
07_02_118	MW-7R	App. III	pH (Field)	S.U.	30	0	0%	-0.0156	0.000	↓	-0.00000478	0.915	↔	2017-12-01	0.850	↔
07_02_123	MW-7R	App. III	Sulfate	mg/L	31	0	0%	-0.140	0.000	↓	-0.00162	0.000	↓	2018-03-10	0.970	↓
07_02_125	MW-7R	App. III	Total Dissolved Solids	mg/L	31	0	0%	0.0394	0.003	↑	-0.656	0.523	↔	2024-10-30	0.300	↔
07_03_101	MW-7R	App. IV	Antimony	ug/L	31	30	97%	-0.000930	0.505	↔	0.000193	0.883	↔	2021-04-14	0.029	↔
07_03_102	MW-7R	App. IV	Arsenic	ug/L	31	28	90%	-0.000294	0.591	↔	-0.00176	0.008	↓	2021-11-14	0.471	↔

(Table continues on next page)

Table 9: Trend Tests: Piecewise Linear-Linear *(continued)*

								Line 1			Line 2					
ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	Slope	p-Value	Trend	Slope	p-Value	Trend	Break 1	R-Squared	Overall Trend
07_03_103	MW-7R	App. IV	Barium	ug/L	31	0	0%	0.301	0.000	↑	-0.00498	0.699	↔	2019-07-09	0.672	↔
07_03_104	MW-7R	App. IV	Beryllium	ug/L	31	31	100%	0.000107	0.438	↔	-0.000325	0.017	↔	2021-08-10	0.276	↔
07_03_106	MW-7R	App. IV	Cadmium	ug/L	31	31	100%	-0.0000974	0.000	↓	0.00185	0.136	↔	2024-12-10	0.642	↔
07_03_109	MW-7R	App. IV	Chromium	ug/L	31	8	26%	-0.0912	0.461	↔	-0.0000647	1.000	↔	2023-04-25	0.034	↔
07_03_110	MW-7R	App. IV	Cobalt	ug/L	31	26	84%	0.00696	0.258	↔	-0.00297	0.009	↓	2019-07-09	0.261	↔
07_03_112	MW-7R	App. IV	Fluoride	mg/L	31	1	3%	-0.000919	0.000	↓	0.0000186	0.001	↑	2018-03-10	0.768	↔
07_03_113	MW-7R	App. IV	Lead	ug/L	31	27	87%	0.00317	0.436	↔	-0.000319	0.720	↔	2019-07-10	0.041	↔
07_03_114	MW-7R	App. IV	Lithium	ug/L	31	0	0%	0.0270	0.000	↑	-0.000624	0.589	↔	2019-05-13	0.610	↔
07_03_115	MW-7R	App. IV	Mercury	ug/L	31	31	100%	0.0000171	0.000	↑	-0.00000709	0.235	↔	2021-12-11	0.507	↔
07_03_116	MW-7R	App. IV	Molybdenum	ug/L	31	27	87%	-0.0458	0.499	↔	-0.00232	0.291	↔	2018-03-10	0.123	↔
07_03_119	MW-7R	App. IV	Radium-226	pCi/L	29	0	0%	0.00132	0.126	↔	-0.000219	0.018	↔	2018-11-04	0.262	↔
07_03_120	MW-7R	App. IV	Radium-228	pCi/L	29	0	0%	0.000582	0.481	↔	-0.0000971	0.609	↔	2019-08-29	0.038	↔
07_03_121	MW-7R	App. IV	Selenium	ug/L	31	30	97%	-0.000874	0.003	↓	0.00157	0.241	↔	2023-04-25	0.327	↔
07_03_124	MW-7R	App. IV	Thallium	ug/L	31	28	90%	-0.00174	0.000	↓	-0.00000421	0.561	↔	2018-03-10	0.880	↔
07_03_126	MW-7R	App. IV	Total Radium	pCi/L	29	0	0%	0.00162	0.208	↔	-0.000262	0.149	↔	2019-01-24	0.137	↔
08_01_111	MW-8	App. I Metals	Copper	ug/L	40	30	75%	0.00640	0.095	↔	-0.0274	0.369	↔	2023-04-27	0.096	↔
08_01_117	MW-8	App. I Metals	Nickel	ug/L	40	19	48%	0.0170	0.899	↔	0.00152	0.761	↔	2017-01-23	0.015	↔
08_01_122	MW-8	App. I Metals	Silver	ug/L	40	39	98%	0	1.000	↔	-0.00156	0.000	↓	2021-06-12	0.785	↔
08_01_127	MW-8	App. I Metals	Vanadium	ug/L	40	32	80%	0.000596	0.042	↔	-0.00295	0.205	↔	2023-04-27	0.153	↔
08_01_128	MW-8	App. I Metals	Zinc	ug/L	40	24	60%	-0.0166	0.130	↔	0.00256	0.456	↔	2018-10-02	0.139	↔
08_02_105	MW-8	App. III	Boron	ug/L	39	15	38%	-0.0149	0.401	↔	0.00270	0.000	↑	2017-01-23	0.333	↔
08_02_107	MW-8	App. III	Calcium	ug/L	40	0	0%	-91.0	0.004	↓	3.55	0.484	↔	2018-01-01	0.489	↔
08_02_108	MW-8	App. III	Chloride	mg/L	40	0	0%	-0.539	0.000	↓	-0.00813	0.686	↔	2017-11-02	0.686	↔
08_02_112	MW-8	App. III	Fluoride	mg/L	40	20	50%	0.0000302	0.000	↑	-0.0000000618	0.998	↔	2023-04-27	0.861	↔
08_02_118	MW-8	App. III	pH (Field)	S.U.	38	0	0%	0.000403	0.010	↑	-0.00000807	0.771	↔	2017-12-01	0.426	↔
08_02_123	MW-8	App. III	Sulfate	mg/L	40	0	0%	0.00308	0.000	↑	-0.000189	0.151	↔	2017-12-09	0.587	↔
08_02_125	MW-8	App. III	Total Dissolved Solids	mg/L	40	0	0%	6.47	0.328	↔	-0.0570	0.112	↔	2016-02-15	0.178	↔
08_03_101	MW-8	App. IV	Antimony	ug/L	40	33	82%	-0.0111	0.001	↓	-0.0000228	0.914	↔	2017-03-19	0.697	↔
08_03_102	MW-8	App. IV	Arsenic	ug/L	40	35	88%	0.00106	0.001	↑	-0.00282	0.003	↓	2022-01-26	0.406	↔
08_03_103	MW-8	App. IV	Barium	ug/L	40	0	0%	-0.416	0.011	↔	0.0382	0.358	↔	2018-05-13	0.323	↔
08_03_104	MW-8	App. IV	Beryllium	ug/L	40	39	98%	0.0000519	0.487	↔	-0.000300	0.119	↔	2022-01-25	0.117	↔
08_03_106	MW-8	App. IV	Cadmium	ug/L	40	39	98%	-0.0000100	0.802	↔	-0.000232	0.471	↔	2023-05-03	0.068	↔
08_03_109	MW-8	App. IV	Chromium	ug/L	40	19	48%	0.00336	0.430	↔	-0.0274	0.424	↔	2023-04-27	0.050	↔
08_03_110	MW-8	App. IV	Cobalt	ug/L	40	35	88%	0.000294	0.274	↔	-0.00197	0.006	↓	2021-12-15	0.338	↔
08_03_112	MW-8	App. IV	Fluoride	mg/L	40	20	50%	0.0000302	0.000	↑	-0.0000000618	0.998	↔	2023-04-27	0.861	↔
08_03_113	MW-8	App. IV	Lead	ug/L	40	38	95%	0.000709	0.032	↔	-0.0153	0.697	↔	2024-10-30	0.128	↔
08_03_114	MW-8	App. IV	Lithium	ug/L	40	1	2%	-0.0151	0.001	↓	0.00435	0.023	↔	2019-03-31	0.438	↔
08_03_115	MW-8	App. IV	Mercury	ug/L	40	39	98%	0.00000404	0.739	↔	-0.00000718	0.844	↔	2022-02-21	0.004	↔
08_03_116	MW-8	App. IV	Molybdenum	ug/L	40	37	92%	0.000188	0.580	↔	-0.000719	0.329	↔	2021-09-02	0.050	↔
08_03_119	MW-8	App. IV	Radium-226	pCi/L	38	0	0%	0.0000725	0.880	↔	-0.000153	0.287	↔	2018-07-19	0.055	↔
08_03_120	MW-8	App. IV	Radium-228	pCi/L	38	0	0%	0.000218	0.174	↔	-0.00125	0.328	↔	2023-04-27	0.090	↔
08_03_121	MW-8	App. IV	Selenium	ug/L	40	38	95%	-0.000549	0.001	↓	0.00116	0.324	↔	2023-04-27	0.320	↔

(Table continues on next page)

Table 9: Trend Tests: Piecewise Linear-Linear *(continued)*

								Line 1			Line 2					
ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	Slope	p-Value	Trend	Slope	p-Value	Trend	Break 1	R-Squared	Overall Trend
08_03_124	MW-8	App. IV	Thallium	ug/L	40	38	95%	-0.0136	0.000	↓	0.000000538	0.997	↔	2017-04-15	0.895	↔
08_03_126	MW-8	App. IV	Total Radium	pCi/L	38	0	0%	0.000209	0.377	↔	-0.00176	0.354	↔	2023-04-27	0.070	↔
09_01_111	MW-10	App. I Metals	Copper	ug/L	16	9	56%	0.126	0.553	↔	-0.0369	0.092	↔	2022-04-20	0.237	↔
09_01_117	MW-10	App. I Metals	Nickel	ug/L	16	4	25%	0.00804	0.420	↔	-0.0161	0.264	↔	2023-10-03	0.154	↔
09_01_122	MW-10	App. I Metals	Silver	ug/L	16	16	100%	-0.00399	0.040	↔	-0.000569	0.471	↔	2022-11-06	0.627	↔
09_01_127	MW-10	App. I Metals	Vanadium	ug/L	16	9	56%	0.00398	0.522	↔	-0.00970	0.281	↔	2023-10-03	0.140	↔
09_01_128	MW-10	App. I Metals	Zinc	ug/L	16	13	81%	0.0339	0.237	↔	-0.0618	0.307	↔	2023-10-04	0.206	↔
09_02_105	MW-10	App. III	Boron	ug/L	16	0	0%	0.0133	0.106	↔	-0.00537	0.628	↔	2023-10-03	0.327	↔
09_02_107	MW-10	App. III	Calcium	ug/L	16	0	0%	6.70	0.003	↑	-6.28	0.129	↔	2023-10-04	0.584	↔
09_02_108	MW-10	App. III	Chloride	mg/L	16	0	0%	0.00302	0.651	↔	-0.000746	0.520	↔	2022-07-14	0.062	↔
09_02_123	MW-10	App. III	Sulfate	mg/L	16	0	0%	-0.00812	0.008	↓	-0.00232	0.008	↓	2022-10-23	0.890	↓
09_02_125	MW-10	App. III	Total Dissolved Solids	mg/L	16	0	0%	0.0683	0.009	↑	-0.0216	0.046	↔	2022-12-13	0.619	↔
09_03_101	MW-10	App. IV	Antimony	ug/L	16	15	94%	0.00570	0.270	↔	-0.00105	0.461	↔	2022-07-15	0.155	↔
09_03_102	MW-10	App. IV	Arsenic	ug/L	16	12	75%	-0.00371	0.029	↔	0.000662	0.660	↔	2023-04-27	0.474	↔
09_03_103	MW-10	App. IV	Barium	ug/L	16	0	0%	0.106	0.008	↑	-0.0524	0.478	↔	2023-10-04	0.526	↔
09_03_104	MW-10	App. IV	Beryllium	ug/L	16	16	100%	-0.00141	0.021	↔	0.0000848	0.723	↔	2022-11-04	0.569	↔
09_03_106	MW-10	App. IV	Cadmium	ug/L	16	16	100%	-0.000305	0.113	↔	0.000178	0.160	↔	2023-04-26	0.349	↔
09_03_109	MW-10	App. IV	Chromium	ug/L	16	5	31%	0.0179	0.390	↔	-0.0350	0.243	↔	2023-10-03	0.167	↔
09_03_110	MW-10	App. IV	Cobalt	ug/L	16	14	88%	-0.00631	0.411	↔	-0.00105	0.623	↔	2022-08-08	0.239	↔
09_03_113	MW-10	App. IV	Lead	ug/L	16	14	88%	0.00139	0.642	↔	-0.0200	0.807	↔	2024-10-29	0.045	↔
09_03_114	MW-10	App. IV	Lithium	ug/L	16	0	0%	-0.00265	0.662	↔	0.00504	0.000	↑	2022-04-21	0.776	↔
09_03_116	MW-10	App. IV	Molybdenum	ug/L	16	0	0%	-0.0230	0.000	↓	0.00733	0.237	↔	2023-10-16	0.899	↔
09_03_119	MW-10	App. IV	Radium-226	pCi/L	16	0	0%	-0.000593	0.294	↔	0.000258	0.487	↔	2023-04-26	0.182	↔
09_03_121	MW-10	App. IV	Selenium	ug/L	16	14	88%	-0.00370	0.040	↔	0.00288	0.091	↔	2023-04-27	0.421	↔
09_03_124	MW-10	App. IV	Thallium	ug/L	16	15	94%	0.0000278	0.255	↔	-0.0000904	0.093	↔	2023-10-04	0.420	↔
09_03_126	MW-10	App. IV	Total Radium	pCi/L	16	0	0%	-0.00830	0.127	↔	0.0000503	0.848	↔	2021-12-17	0.418	↔
10_01_111	MW-11	App. I Metals	Copper	ug/L	19	10	53%	0.0102	0.749	↔	-0.00494	0.060	↔	2021-07-02	0.241	↔
10_01_117	MW-11	App. I Metals	Nickel	ug/L	19	10	53%	0	1.000	↔	-0.00244	0.102	↔	2022-07-07	0.287	↔
10_01_122	MW-11	App. I Metals	Silver	ug/L	19	19	100%	-0.00212	0.012	↔	-0.000622	0.484	↔	2023-04-23	0.665	↔
10_01_127	MW-11	App. I Metals	Vanadium	ug/L	19	16	84%	-0.00381	0.004	↓	0.000531	0.691	↔	2023-02-04	0.600	↔
10_01_128	MW-11	App. I Metals	Zinc	ug/L	19	14	74%	-0.00428	0.004	↓	0.0278	0.551	↔	2024-11-07	0.441	↔
10_02_105	MW-11	App. III	Boron	ug/L	19	1	5%	-0.0193	0.688	↔	0.00284	0.165	↔	2021-04-12	0.134	↔
10_02_107	MW-11	App. III	Calcium	ug/L	19	0	0%	-60.1	0.495	↔	3.57	0.598	↔	2021-05-22	0.078	↔
10_02_108	MW-11	App. III	Chloride	mg/L	19	0	0%	-0.0202	0.162	↔	0.0215	0.742	↔	2024-01-28	0.154	↔
10_02_112	MW-11	App. III	Fluoride	mg/L	19	1	5%	0.0000621	0.322	↔	-0.0000101	0.792	↔	2022-07-14	0.106	↔
10_02_123	MW-11	App. III	Sulfate	mg/L	19	0	0%	0.000118	0.651	↔	-0.000404	0.631	↔	2024-01-23	0.030	↔
10_02_125	MW-11	App. III	Total Dissolved Solids	mg/L	19	0	0%	-2.39	0.315	↔	-0.0199	0.953	↔	2021-11-16	0.277	↔
10_03_101	MW-11	App. IV	Antimony	ug/L	19	17	89%	0.00220	0.329	↔	-0.000833	0.549	↔	2022-10-18	0.124	↔
10_03_102	MW-11	App. IV	Arsenic	ug/L	19	17	89%	-0.00196	0.002	↓	0.0236	0.244	↔	2025-01-03	0.497	↔
10_03_103	MW-11	App. IV	Barium	ug/L	19	0	0%	-0.0786	0.461	↔	0.00618	0.689	↔	2021-08-12	0.069	↔
10_03_104	MW-11	App. IV	Beryllium	ug/L	19	19	100%	-0.000731	0.006	↓	0.0000583	0.833	↔	2023-02-27	0.593	↔
10_03_106	MW-11	App. IV	Cadmium	ug/L	19	19	100%	-0.000102	0.024	↔	0.00264	0.091	↔	2025-01-07	0.407	↔

(Table continues on next page)

Table 9: Trend Tests: Piecewise Linear-Linear *(continued)*

								Line 1			Line 2					
ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	Slope	p-Value	Trend	Slope	p-Value	Trend	Break 1	R-Squared	Overall Trend
10_03_109	MW-11	App. IV	Chromium	ug/L	19	14	74%	0.00120	0.752	↔	-0.00353	0.151	↔	2022-07-13	0.242	↔
10_03_110	MW-11	App. IV	Cobalt	ug/L	19	13	68%	-0.00341	0.020	↔	-0.000850	0.464	↔	2023-01-24	0.645	↔
10_03_112	MW-11	App. IV	Fluoride	mg/L	19	1	5%	0.0000621	0.322	↔	-0.0000101	0.792	↔	2022-07-14	0.106	↔
10_03_113	MW-11	App. IV	Lead	ug/L	19	18	95%	-0.00376	0.240	↔	0.00398	0.435	↔	2023-04-24	0.125	↔
10_03_114	MW-11	App. IV	Lithium	ug/L	19	0	0%	-0.00247	0.711	↔	0.000496	0.819	↔	2022-01-25	0.015	↔
10_03_116	MW-11	App. IV	Molybdenum	ug/L	19	17	89%	-0.00316	0.008	↓	0.000881	0.482	↔	2023-01-25	0.500	↔
10_03_119	MW-11	App. IV	Radium-226	pCi/L	19	0	0%	-0.000150	0.161	↔	0.00138	0.102	↔	2024-04-01	0.469	↔
10_03_120	MW-11	App. IV	Radium-228	pCi/L	19	0	0%	-0.000938	0.482	↔	0.000412	0.346	↔	2022-04-18	0.093	↔
10_03_121	MW-11	App. IV	Selenium	ug/L	19	19	100%	-0.00234	0.063	↔	0.00256	0.081	↔	2023-04-23	0.344	↔
10_03_124	MW-11	App. IV	Thallium	ug/L	19	18	95%	0.00000564	0.386	↔	-0.0000962	0.069	↔	2024-04-01	0.554	↔
10_03_126	MW-11	App. IV	Total Radium	pCi/L	19	0	0%	-0.00120	0.277	↔	0.000690	0.174	↔	2022-05-31	0.181	↔
11_01_111	MW-11D	App. I Metals	Copper	ug/L	17	12	71%	-0.00696	0.051	↔	0.00412	0.841	↔	2024-06-14	0.354	↔
11_01_117	MW-11D	App. I Metals	Nickel	ug/L	17	12	71%	-0.00277	0.009	↓	0.00823	0.471	↔	2024-10-22	0.486	↔
11_01_122	MW-11D	App. I Metals	Silver	ug/L	17	17	100%	-0.00294	0.043	↔	-0.000566	0.468	↔	2023-01-21	0.642	↔
11_01_127	MW-11D	App. I Metals	Vanadium	ug/L	17	14	82%	-0.00491	0.019	↔	0.000638	0.557	↔	2023-01-24	0.610	↔
11_01_128	MW-11D	App. I Metals	Zinc	ug/L	17	11	65%	-0.00357	0.314	↔	0.0564	0.200	↔	2024-10-26	0.210	↔
11_02_105	MW-11D	App. III	Boron	ug/L	17	0	0%	-0.0544	0.178	↔	-0.00673	0.661	↔	2022-08-15	0.374	↔
11_02_107	MW-11D	App. III	Calcium	ug/L	17	0	0%	-79.4	0.332	↔	-9.81	0.492	↔	2022-04-18	0.344	↔
11_02_108	MW-11D	App. III	Chloride	mg/L	17	0	0%	-0.660	0.049	↔	-0.0596	0.475	↔	2022-04-19	0.541	↔
11_02_112	MW-11D	App. III	Fluoride	mg/L	17	0	0%	0.0000299	0.713	↔	-0.000141	0.052	↔	2023-04-23	0.369	↔
11_02_118	MW-11D	App. III	pH (Field)	S.U.	17	0	0%	-0.00144	0.040	↔	-0.000239	0.052	↔	2022-04-21	0.766	↔
11_02_123	MW-11D	App. III	Sulfate	mg/L	17	1	6%	-0.685	0.073	↔	-0.0568	0.554	↔	2022-04-19	0.481	↔
11_02_125	MW-11D	App. III	Total Dissolved Solids	mg/L	17	0	0%	-1.66	0.087	↔	-0.187	0.448	↔	2022-06-23	0.563	↔
11_03_101	MW-11D	App. IV	Antimony	ug/L	17	14	82%	0.00159	0.691	↔	-0.000826	0.600	↔	2022-08-29	0.034	↔
11_03_103	MW-11D	App. IV	Barium	ug/L	17	0	0%	0.0502	0.145	↔	0.00361	0.850	↔	2022-11-05	0.347	↔
11_03_104	MW-11D	App. IV	Beryllium	ug/L	17	16	94%	-0.00104	0.022	↔	0.0000567	0.810	↔	2022-12-13	0.578	↔
11_03_106	MW-11D	App. IV	Cadmium	ug/L	17	17	100%	-0.000107	0.064	↔	0.00264	0.116	↔	2025-01-06	0.375	↔
11_03_109	MW-11D	App. IV	Chromium	ug/L	17	13	76%	0.00117	0.828	↔	-0.00397	0.014	↔	2022-07-12	0.490	↔
11_03_110	MW-11D	App. IV	Cobalt	ug/L	17	16	94%	-0.00518	0.027	↔	-0.000642	0.601	↔	2022-12-08	0.633	↔
11_03_112	MW-11D	App. IV	Fluoride	mg/L	17	0	0%	0.0000299	0.713	↔	-0.000141	0.052	↔	2023-04-23	0.369	↔
11_03_113	MW-11D	App. IV	Lead	ug/L	17	16	94%	-0.00422	0.356	↔	0.00387	0.472	↔	2023-05-06	0.101	↔
11_03_114	MW-11D	App. IV	Lithium	ug/L	17	0	0%	-0.119	0.012	↔	-0.0113	0.140	↔	2022-04-03	0.782	↔
11_03_116	MW-11D	App. IV	Molybdenum	ug/L	17	1	6%	-0.154	0.081	↔	-0.0189	0.399	↔	2022-04-19	0.507	↔
11_03_119	MW-11D	App. IV	Radium-226	pCi/L	17	0	0%	-0.000463	0.121	↔	0.000284	0.687	↔	2023-10-02	0.215	↔
11_03_120	MW-11D	App. IV	Radium-228	pCi/L	17	0	0%	-0.0122	0.006	↓	0.0000486	0.822	↔	2021-09-04	0.683	↔
11_03_121	MW-11D	App. IV	Selenium	ug/L	17	16	94%	-0.00303	0.089	↔	0.00278	0.063	↔	2023-04-23	0.375	↔
11_03_124	MW-11D	App. IV	Thallium	ug/L	17	16	94%	0.0000102	0.331	↔	-0.000106	0.118	↔	2024-04-01	0.489	↔
11_03_126	MW-11D	App. IV	Total Radium	pCi/L	17	0	0%	-0.00858	0.085	↔	-0.000162	0.546	↔	2021-10-01	0.562	↔

Table 10: Trend Tests: Piecewise Linear-Linear-Linear

								Line 1			Line 2			Line 3						
ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	Slope	p-Value	Trend	Slope	p-Value	Trend	Slope	p-Value	Trend	Break 1	Break 2	R-Squared	Overall Trend
01_01_111	MW-1	App. I Metals	Copper	ug/L	40	32	80%	0.000236	0.805	↔	0.00465	0.103	↔	-0.00620	0.002	↓	2020-03-18	2022-04-20	0.382	↔
01_01_127	MW-1	App. I Metals	Vanadium	ug/L	40	24	60%	-0.00579	0.840	↔	-0.0000692	0.952	↔	0.000553	0.409	↔	2016-03-28	2019-12-03	0.043	↔
01_02_105	MW-1	App. III	Boron	ug/L	39	22	56%	-0.00766	0.110	↔	0.0129	0.003	↑	-0.0238	0.250	↔	2019-05-31	2023-10-04	0.381	↔
01_02_107	MW-1	App. III	Calcium	ug/L	40	0	0%	83.2	0.000	↑	-854	0.214	↔	195	0.010	↔	2022-10-25	2023-07-03	0.716	↔
01_02_108	MW-1	App. III	Chloride	mg/L	40	0	0%	0.238	0.000	↑	-1.67	0.025	↔	1.53	0.033	↔	2022-10-19	2024-01-29	0.536	↔
01_02_112	MW-1	App. III	Fluoride	mg/L	40	1	2%	-0.000118	0.030	↔	0.0000866	0.188	↔	0.0000118	0.108	↔	2017-04-05	2018-12-27	0.458	↔
01_02_118	MW-1	App. III	pH (Field)	S.U.	38	0	0%	-0.000189	0.129	↔	0.000251	0.013	↔	-0.000710	0.511	↔	2019-09-24	2024-04-01	0.251	↔
01_02_123	MW-1	App. III	Sulfate	mg/L	40	0	0%	-0.00662	0.004	↓	-0.000892	0.000	↓	0.00219	0.584	↔	2017-02-20	2024-04-04	0.805	↔
01_02_125	MW-1	App. III	Total Dissolved Solids	mg/L	40	0	0%	0.426	0.284	↔	1.19	0.033	↔	-1.29	0.001	↓	2018-10-23	2021-08-13	0.538	↔
01_03_101	MW-1	App. IV	Antimony	ug/L	40	38	95%	-0.000723	0.017	↔	0.00588	0.498	↔	-0.00106	0.233	↔	2021-10-08	2022-07-13	0.209	↔
01_03_102	MW-1	App. IV	Arsenic	ug/L	40	36	90%	0.00537	0.000	↑	-0.00104	0.000	↓	0.00888	0.464	↔	2017-09-15	2024-11-03	0.737	↔
01_03_103	MW-1	App. IV	Barium	ug/L	40	0	0%	0.0926	0.000	↑	-1.45	0.190	↔	0.272	0.025	↔	2022-11-17	2023-06-04	0.583	↔
01_03_106	MW-1	App. IV	Cadmium	ug/L	40	37	92%	-0.0000118	0.668	↔	-0.000169	0.000	↓	0.00150	0.311	↔	2020-10-14	2024-11-03	0.607	↔
01_03_109	MW-1	App. IV	Chromium	ug/L	40	27	68%	0.00630	0.012	↔	-0.0221	0.414	↔	0.000750	0.495	↔	2018-10-23	2019-08-02	0.244	↔
01_03_112	MW-1	App. IV	Fluoride	mg/L	40	1	2%	-0.000118	0.030	↔	0.0000866	0.188	↔	0.0000118	0.108	↔	2017-04-05	2018-12-27	0.458	↔
01_03_113	MW-1	App. IV	Lead	ug/L	40	36	90%	0.00105	0.043	↔	-0.0136	0.645	↔	0.00588	0.052	↔	2022-07-14	2023-03-18	0.210	↔
01_03_114	MW-1	App. IV	Lithium	ug/L	40	0	0%	0.00527	0.000	↑	-0.0552	0.441	↔	0.0156	0.047	↔	2022-10-19	2023-07-12	0.494	↔
01_03_116	MW-1	App. IV	Molybdenum	ug/L	40	35	88%	0.00390	0.007	↑	-0.00441	0.075	↔	0.00138	0.672	↔	2019-10-14	2022-12-13	0.305	↔
01_03_120	MW-1	App. IV	Radium-228	pCi/L	38	0	0%	0.000290	0.047	↔	-0.00130	0.785	↔	0.000107	0.411	↔	2020-02-11	2020-09-16	0.153	↔
01_03_121	MW-1	App. IV	Selenium	ug/L	40	38	95%	-0.000157	0.283	↔	-0.00577	0.035	↔	0.00329	0.001	↑	2022-05-26	2023-04-25	0.573	↔
01_03_124	MW-1	App. IV	Thallium	ug/L	40	40	100%	-0.0116	0.000	↓	0.000162	0.773	↔	-0.0000627	0.712	↔	2017-05-02	2020-01-15	0.943	↔
01_03_126	MW-1	App. IV	Total Radium	pCi/L	38	0	0%	0.000662	0.006	↑	-0.00143	0.662	↔	-0.0000721	0.699	↔	2019-07-13	2020-08-30	0.258	↔
02_01_111	MW-2	App. I Metals	Copper	ug/L	35	15	43%	-0.00887	0.812	↔	0.0717	0.338	↔	-0.0624	0.080	↔	2019-01-31	2021-11-17	0.203	↔
02_01_122	MW-2	App. I Metals	Silver	ug/L	35	32	91%	0	1.000	↔	0	1.000	↔	-0.00146	0.000	↓	2016-02-04	2021-02-18	0.747	↔
02_01_127	MW-2	App. I Metals	Vanadium	ug/L	35	23	66%	0.00221	0.070	↔	-0.0246	0.399	↔	0.161	0.205	↔	2023-10-04	2024-11-25	0.261	↔
02_01_128	MW-2	App. I Metals	Zinc	ug/L	35	16	46%	-0.204	0.979	↔	-0.00665	0.912	↔	0.662	0.142	↔	2016-02-04	2023-05-30	0.201	↔
02_02_107	MW-2	App. III	Calcium	ug/L	35	0	0%	0.172	0.980	↔	-192	0.477	↔	164	0.050	↔	2023-02-19	2024-01-25	0.269	↔
02_02_108	MW-2	App. III	Chloride	mg/L	35	0	0%	0.636	0.179	↔	-0.136	0.001	↓	1.37	0.687	↔	2017-01-26	2024-11-25	0.351	↔
02_02_112	MW-2	App. III	Fluoride	mg/L	35	2	6%	-0.00108	0.013	↔	0.000364	0.247	↔	-0.0000123	0.368	↔	2016-06-23	2017-07-13	0.296	↔
02_02_118	MW-2	App. III	pH (Field)	S.U.	31	0	0%	-0.000124	0.118	↔	0.00389	0.168	↔	-0.00246	0.062	↔	2023-07-06	2024-01-24	0.275	↔
02_02_123	MW-2	App. III	Sulfate	mg/L	35	0	0%	0.186	0.013	↔	-0.653	0.001	↓	-0.0165	0.015	↔	2017-03-30	2018-01-21	0.912	↔
02_02_125	MW-2	App. III	Total Dissolved Solids	mg/L	35	0	0%	2.0	0.034	↔	-3.05	0.467	↔	0.242	0.859	↔	2020-01-17	2022-04-02	0.185	↔
02_03_101	MW-2	App. IV	Antimony	ug/L	35	21	60%	-0.00910	0.057	↔	0.00293	0.164	↔	-0.0101	0.424	↔	2018-06-13	2023-10-04	0.220	↔
02_03_102	MW-2	App. IV	Arsenic	ug/L	35	24	69%	0.00513	0.185	↔	0.000362	0.506	↔	-0.00405	0.402	↔	2017-05-20	2023-10-09	0.294	↔
02_03_103	MW-2	App. IV	Barium	ug/L	35	0	0%	-0.437	0.279	↔	0.162	0.100	↔	0.00165	0.960	↔	2016-09-17	2019-06-24	0.321	↔
02_03_106	MW-2	App. IV	Cadmium	ug/L	35	32	91%	-0.0000336	0.237	↔	-0.000272	0.113	↔	0.000304	0.009	↑	2021-05-07	2023-04-25	0.562	↔
02_03_109	MW-2	App. IV	Chromium	ug/L	35	6	17%	0.0323	0.692	↔	-0.00269	0.738	↔	-0.0210	0.783	↔	2017-04-04	2023-10-16	0.037	↔
02_03_110	MW-2	App. IV	Cobalt	ug/L	35	27	77%	-0.000294	0.881	↔	0.00781	0.371	↔	-0.00959	0.545	↔	2021-09-01	2023-10-04	0.095	↔
02_03_112	MW-2	App. IV	Fluoride	mg/L	35	2	6%	-0.00108	0.013	↔	0.000364	0.247	↔	-0.0000123	0.368	↔	2016-06-23	2017-07-13	0.296	↔
02_03_113	MW-2	App. IV	Lead	ug/L	35	30	86%	0.000388	0.903	↔	0.00165	0.536	↔	0.0270	0.565	↔	2019-08-09	2024-07-18	0.209	↔
02_03_114	MW-2	App. IV	Lithium	ug/L	35	0	0%	-0.0777	0.169	↔	0.147	0.567	↔	-0.0967	0.076	↔	2019-04-28	2021-08-09	0.170	↔

(Table continues on next page)

Table 10: Trend Tests: Piecewise Linear-Linear-Linear *(continued)*

								Line 1			Line 2			Line 3						
ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	Slope	p-Value	Trend	Slope	p-Value	Trend	Slope	p-Value	Trend	Break 1	Break 2	R-Squared	Overall Trend
02_03_116	MW-2	App. IV	Molybdenum	ug/L	35	6	17%	-0.0730	0.499	↔	-0.00208	0.121	↔	0.00753	0.905	↔	2016-04-05	2024-07-18	0.244	↔
02_03_119	MW-2	App. IV	Radium-226	pCi/L	34	0	0%	0.00209	0.866	↔	-0.000137	0.267	↔	0.000492	0.211	↔	2016-02-16	2022-07-11	0.103	↔
02_03_120	MW-2	App. IV	Radium-228	pCi/L	34	0	0%	0.000198	0.027	↔	-0.00364	0.080	↔	0.00712	0.077	↔	2023-10-03	2024-08-31	0.323	↔
02_03_121	MW-2	App. IV	Selenium	ug/L	35	33	94%	-0.000145	0.353	↔	-0.00382	0.044	↔	0.00284	0.004	↑	2022-02-12	2023-04-26	0.569	↔
02_03_124	MW-2	App. IV	Thallium	ug/L	35	23	66%	-0.0142	0.000	↓	0.0000482	0.894	↔	-0.000107	0.941	↔	2017-04-14	2023-01-26	0.847	↔
02_03_126	MW-2	App. IV	Total Radium	pCi/L	34	0	0%	-0.00405	0.719	↔	0.0000412	0.759	↔	0.0136	0.358	↔	2016-03-30	2024-11-29	0.208	↔
03_01_111	MW-3	App. I Metals	Copper	ug/L	38	21	55%	0.00130	0.893	↔	0.0465	0.313	↔	-0.0416	0.051	↔	2020-08-09	2022-04-20	0.208	↔
03_01_117	MW-3	App. I Metals	Nickel	ug/L	38	19	50%	0.0231	0.026	↔	-0.0206	0.247	↔	0.00227	0.834	↔	2019-01-25	2022-01-17	0.220	↔
03_01_128	MW-3	App. I Metals	Zinc	ug/L	38	28	74%	-0.00353	0.570	↔	0.0665	0.462	↔	-0.00634	0.003	↓	2018-06-14	2019-01-24	0.346	↔
03_02_105	MW-3	App. III	Boron	ug/L	37	10	27%	-0.0391	0.000	↓	0.0301	0.004	↑	0.0115	0.202	↔	2018-12-17	2022-01-27	0.658	↔
03_02_107	MW-3	App. III	Calcium	ug/L	38	0	0%	-51.1	0.512	↔	15	0.032	↔	131	0.361	↔	2017-04-04	2024-05-09	0.345	↔
03_02_108	MW-3	App. III	Chloride	mg/L	38	0	0%	-0.486	0.057	↔	0.0293	0.394	↔	-0.197	0.529	↔	2017-07-02	2023-12-03	0.340	↔
03_02_112	MW-3	App. III	Fluoride	mg/L	38	1	3%	-0.000211	0.534	↔	0.00171	0.003	↑	-0.000106	0.000	↓	2017-01-23	2017-09-01	0.738	↔
03_02_118	MW-3	App. III	pH (Field)	S.U.	34	0	0%	-0.00300	0.710	↔	-0.0000147	0.951	↔	0.0000991	0.339	↔	2016-02-01	2019-01-24	0.092	↔
03_02_123	MW-3	App. III	Sulfate	mg/L	38	0	0%	0.364	0.000	↑	-0.0869	0.000	↓	-0.00915	0.288	↔	2017-01-24	2020-11-20	0.885	↔
03_02_125	MW-3	App. III	Total Dissolved Solids	mg/L	38	0	0%	16	0.320	↔	0.190	0.106	↔	-0.625	0.567	↔	2016-02-09	2023-10-05	0.312	↔
03_03_102	MW-3	App. IV	Arsenic	ug/L	38	30	79%	0.00559	0.130	↔	0.000930	0.285	↔	-0.00185	0.007	↓	2017-03-06	2020-10-15	0.464	↔
03_03_103	MW-3	App. IV	Barium	ug/L	38	0	0%	-0.725	0.000	↓	0.250	0.239	↔	0.0804	0.000	↑	2017-04-05	2018-09-09	0.728	↔
03_03_106	MW-3	App. IV	Cadmium	ug/L	38	37	97%	0.000000102	0.998	↔	-0.000107	0.000	↓	0.00139	0.223	↔	2018-07-21	2024-11-12	0.739	↔
03_03_110	MW-3	App. IV	Cobalt	ug/L	38	32	84%	0.000417	0.209	↔	-0.00270	0.009	↓	0.00628	0.521	↔	2021-08-14	2024-09-24	0.424	↔
03_03_112	MW-3	App. IV	Fluoride	mg/L	38	1	3%	-0.000211	0.534	↔	0.00171	0.003	↑	-0.000106	0.000	↓	2017-01-23	2017-09-01	0.738	↔
03_03_113	MW-3	App. IV	Lead	ug/L	38	34	89%	0.000961	0.124	↔	-0.00412	0.378	↔	0.00904	0.134	↔	2022-03-04	2023-12-28	0.163	↔
03_03_114	MW-3	App. IV	Lithium	ug/L	38	1	3%	0.0711	0.210	↔	-0.294	0.088	↔	0.0117	0.239	↔	2017-10-17	2018-08-09	0.338	↔
03_03_116	MW-3	App. IV	Molybdenum	ug/L	38	1	3%	-0.00748	0.170	↔	0.0108	0.513	↔	-0.00430	0.019	↔	2018-02-23	2020-01-15	0.213	↔
03_03_119	MW-3	App. IV	Radium-226	pCi/L	37	0	0%	0.000445	0.128	↔	-0.000234	0.071	↔	0.00506	0.501	↔	2019-01-24	2024-11-16	0.204	↔
03_03_120	MW-3	App. IV	Radium-228	pCi/L	37	0	0%	0.000403	0.176	↔	-0.00201	0.283	↔	0.000630	0.063	↔	2020-01-16	2021-04-19	0.190	↔
03_03_121	MW-3	App. IV	Selenium	ug/L	38	37	97%	-0.0000897	0.634	↔	-0.00340	0.047	↔	0.00294	0.002	↑	2021-10-14	2023-04-25	0.549	↔
03_03_124	MW-3	App. IV	Thallium	ug/L	38	38	100%	-0.0116	0.000	↓	0.000216	0.713	↔	-0.0000845	0.655	↔	2017-05-04	2020-01-16	0.942	↔
03_03_126	MW-3	App. IV	Total Radium	pCi/L	37	0	0%	0.000730	0.103	↔	-0.00269	0.146	↔	0.000643	0.136	↔	2020-01-15	2021-04-26	0.196	↔
04_01_111	MW-4	App. I Metals	Copper	ug/L	39	33	85%	-0.00646	0.690	↔	0.0576	0.200	↔	-0.0435	0.020	↔	2019-10-10	2021-11-16	0.232	↔
04_01_117	MW-4	App. I Metals	Nickel	ug/L	39	11	28%	0.00471	0.415	↔	0.00164	0.232	↔	0.00275	0.176	↔	2017-04-15	2021-11-17	0.476	↔
04_01_127	MW-4	App. I Metals	Vanadium	ug/L	39	35	90%	0.000907	0.033	↔	-0.0232	0.375	↔	0.000947	0.552	↔	2022-04-07	2022-08-20	0.296	↔
04_02_105	MW-4	App. III	Boron	ug/L	38	23	61%	0.0378	0.409	↔	-0.0138	0.456	↔	0.00174	0.917	↔	2017-10-16	2021-07-27	0.063	↔
04_02_107	MW-4	App. III	Calcium	ug/L	39	0	0%	76.8	0.001	↑	3.98	0.693	↔	-8.72	0.002	↓	2017-03-10	2019-08-22	0.687	↔
04_02_108	MW-4	App. III	Chloride	mg/L	39	0	0%	0.664	0.000	↑	-0.0428	0.415	↔	-0.0985	0.000	↓	2017-04-05	2020-06-14	0.751	↔
04_02_112	MW-4	App. III	Fluoride	mg/L	39	0	0%	-0.000220	0.317	↔	-0.00000531	0.838	↔	0.0000880	0.000	↑	2017-01-22	2020-12-25	0.554	↔
04_02_118	MW-4	App. III	pH (Field)	S.U.	37	0	0%	0.000439	0.694	↔	-0.0000926	0.000	↓	0.000522	0.562	↔	2016-05-10	2024-07-16	0.386	↔
04_02_123	MW-4	App. III	Sulfate	mg/L	39	0	0%	0.00875	0.000	↑	-0.00102	0.132	↔	0.00148	0.232	↔	2018-01-23	2022-05-04	0.718	↔
04_02_125	MW-4	App. III	Total Dissolved Solids	mg/L	39	0	0%	0.928	0.000	↑	-0.101	0.013	↔	0.137	0.842	↔	2017-12-24	2024-05-02	0.696	↔
04_03_101	MW-4	App. IV	Antimony	ug/L	39	34	87%	0.0000455	0.934	↔	-0.00333	0.709	↔	0.000414	0.468	↔	2020-04-16	2020-11-18	0.043	↔
04_03_102	MW-4	App. IV	Arsenic	ug/L	39	37	95%	0.00580	0.001	↑	-0.000329	0.522	↔	-0.00148	0.001	↓	2017-05-13	2021-03-17	0.644	↔
04_03_103	MW-4	App. IV	Barium	ug/L	39	0	0%	0.375	0.000	↑	-0.00857	0.565	↔	0.0468	0.547	↔	2017-04-23	2023-04-26	0.623	↔

(Table continues on next page)

Table 10: Trend Tests: Piecewise Linear-Linear-Linear *(continued)*

								Line 1			Line 2			Line 3						
ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	Slope	p-Value	Trend	Slope	p-Value	Trend	Slope	p-Value	Trend	Break 1	Break 2	R-Squared	Overall Trend
04_03_106	MW-4	App. IV	Cadmium	ug/L	39	38	97%	0	1.000	↔	-0.0000995	0.000	↓	0.00129	0.266	↔	2018-03-25	2024-11-08	0.716	↔
04_03_109	MW-4	App. IV	Chromium	ug/L	39	29	74%	0.000909	0.053	↔	-0.00456	0.039	↔	0.0157	0.671	↔	2022-04-21	2024-11-08	0.279	↔
04_03_110	MW-4	App. IV	Cobalt	ug/L	39	20	51%	0.00198	0.274	↔	0.0101	0.041	↔	-0.0236	0.846	↔	2021-10-29	2024-11-08	0.433	↔
04_03_112	MW-4	App. IV	Fluoride	mg/L	39	0	0%	-0.000220	0.317	↔	-0.00000531	0.838	↔	0.0000880	0.000	↑	2017-01-22	2020-12-25	0.554	↔
04_03_114	MW-4	App. IV	Lithium	ug/L	39	0	0%	0.00238	0.729	↔	0.0192	0.417	↔	-0.00311	0.654	↔	2019-07-12	2021-08-11	0.296	↔
04_03_115	MW-4	App. IV	Mercury	ug/L	39	39	100%	0	1.000	↔	0.000250	0.027	↔	-0.00000548	0.060	↔	2020-04-16	2020-07-14	0.713	↔
04_03_116	MW-4	App. IV	Molybdenum	ug/L	39	34	87%	0.00685	0.008	↑	-0.0104	0.099	↔	0.00349	0.347	↔	2019-10-14	2022-03-23	0.294	↔
04_03_119	MW-4	App. IV	Radium-226	pCi/L	37	0	0%	0.000453	0.008	↑	-0.000842	0.002	↓	0.000498	0.012	↔	2019-06-20	2022-01-27	0.479	↔
04_03_120	MW-4	App. IV	Radium-228	pCi/L	37	0	0%	0.000814	0.408	↔	0.0000448	0.715	↔	-0.000674	0.118	↔	2017-04-04	2022-10-21	0.258	↔
04_03_121	MW-4	App. IV	Selenium	ug/L	39	37	95%	-0.0000585	0.733	↔	-0.00478	0.030	↔	0.00328	0.004	↑	2022-02-11	2023-04-26	0.541	↔
04_03_124	MW-4	App. IV	Thallium	ug/L	39	39	100%	-0.0115	0.000	↓	0.000174	0.730	↔	-0.0000758	0.683	↔	2017-05-04	2020-01-16	0.943	↔
04_03_126	MW-4	App. IV	Total Radium	pCi/L	37	0	0%	0.000748	0.003	↑	-0.00609	0.438	↔	0.00000575	0.978	↔	2020-02-06	2020-07-06	0.302	↔
05_01_111	MW-5	App. I Metals	Copper	ug/L	40	28	70%	0.000446	0.750	↔	0.00283	0.092	↔	-0.00561	0.006	↓	2019-03-04	2022-04-19	0.363	↔
05_01_117	MW-5	App. I Metals	Nickel	ug/L	40	30	75%	-0.00568	0.725	↔	0.0137	0.226	↔	-0.0236	0.243	↔	2018-07-21	2022-07-13	0.110	↔
05_01_122	MW-5	App. I Metals	Silver	ug/L	40	40	100%	0	1.000	↔	0	1.000	↔	-0.00154	0.000	↓	2016-05-03	2021-03-11	0.779	↔
05_02_105	MW-5	App. III	Boron	ug/L	39	15	38%	-0.00651	0.138	↔	0.00698	0.599	↔	0.000447	0.889	↔	2019-04-03	2020-12-22	0.097	↔
05_02_107	MW-5	App. III	Calcium	ug/L	40	0	0%	-14.6	0.061	↔	2.59	0.156	↔	-2.61	0.000	↓	2016-08-10	2019-06-08	0.604	↔
05_02_108	MW-5	App. III	Chloride	mg/L	40	0	0%	-0.0191	0.001	↓	0.00465	0.000	↑	-0.00182	0.000	↓	2016-08-07	2019-07-09	0.619	↔
05_02_112	MW-5	App. III	Fluoride	mg/L	40	0	0%	-0.000426	0.142	↔	0.0000861	0.150	↔	0.00000209	0.915	↔	2016-08-15	2019-07-09	0.204	↔
05_02_123	MW-5	App. III	Sulfate	mg/L	40	0	0%	0.00221	0.002	↑	-0.00483	0.056	↔	0.000213	0.141	↔	2018-01-24	2019-01-04	0.443	↔
05_02_125	MW-5	App. III	Total Dissolved Solids	mg/L	40	0	0%	0.422	0.033	↔	-0.425	0.392	↔	-0.0141	0.745	↔	2017-10-17	2019-04-06	0.229	↔
05_03_102	MW-5	App. IV	Arsenic	ug/L	40	38	95%	0.00582	0.001	↑	-0.000329	0.526	↔	-0.00147	0.002	↓	2017-05-13	2021-02-15	0.641	↔
05_03_103	MW-5	App. IV	Barium	ug/L	40	0	0%	0.0170	0.018	↔	-0.0246	0.004	↓	0.0218	0.305	↔	2019-07-09	2023-07-02	0.438	↔
05_03_106	MW-5	App. IV	Cadmium	ug/L	40	40	100%	0.000000300	0.996	↔	-0.0001000	0.000	↓	0.00123	0.280	↔	2018-03-16	2024-11-01	0.722	↔
05_03_109	MW-5	App. IV	Chromium	ug/L	40	28	70%	-0.0112	0.752	↔	0.0292	0.239	↔	-0.0505	0.255	↔	2018-07-27	2022-07-13	0.105	↔
05_03_110	MW-5	App. IV	Cobalt	ug/L	40	38	95%	-0.000677	0.044	↔	0.0126	0.247	↔	-0.00245	0.000	↓	2020-04-16	2020-10-21	0.618	↔
05_03_112	MW-5	App. IV	Fluoride	mg/L	40	0	0%	-0.000426	0.142	↔	0.0000861	0.150	↔	0.00000209	0.915	↔	2016-08-15	2019-07-09	0.204	↔
05_03_114	MW-5	App. IV	Lithium	ug/L	40	1	2%	-0.0000805	0.954	↔	0.0115	0.459	↔	-0.00355	0.078	↔	2020-06-05	2021-08-08	0.216	↔
05_03_115	MW-5	App. IV	Mercury	ug/L	40	40	100%	0	1.000	↔	0.000244	0.024	↔	-0.00000548	0.057	↔	2020-04-15	2020-07-15	0.718	↔
05_03_116	MW-5	App. IV	Molybdenum	ug/L	40	37	92%	-0.00104	0.532	↔	0.00823	0.156	↔	-0.00727	0.016	↔	2020-02-06	2022-04-18	0.267	↔
05_03_119	MW-5	App. IV	Radium-226	pCi/L	38	0	0%	0.000167	0.321	↔	-0.000204	0.234	↔	0.000585	0.205	↔	2019-04-18	2023-06-15	0.124	↔
05_03_120	MW-5	App. IV	Radium-228	pCi/L	38	0	0%	-0.000196	0.668	↔	0.0000467	0.653	↔	0.000299	0.865	↔	2017-10-26	2024-05-10	0.025	↔
05_03_121	MW-5	App. IV	Selenium	ug/L	40	39	98%	-0.000115	0.493	↔	-0.00362	0.022	↔	0.00301	0.004	↑	2021-11-23	2023-04-26	0.553	↔
05_03_124	MW-5	App. IV	Thallium	ug/L	40	39	98%	-0.0166	0.000	↓	0.000154	0.926	↔	-0.0000676	0.914	↔	2017-04-08	2020-01-16	0.721	↔
06_01_111	MW-6	App. I Metals	Copper	ug/L	39	33	85%	-0.000479	0.792	↔	0.00466	0.094	↔	-0.00577	0.006	↓	2019-02-17	2021-11-17	0.324	↔
06_01_122	MW-6	App. I Metals	Silver	ug/L	39	39	100%	0	1.000	↔	0	1.000	↔	-0.00154	0.000	↓	2016-03-22	2021-03-16	0.771	↔
06_01_128	MW-6	App. I Metals	Zinc	ug/L	39	26	67%	-0.00216	0.721	↔	0.00340	0.031	↔	-0.0159	0.183	↔	2018-01-16	2023-10-08	0.218	↔
06_02_105	MW-6	App. III	Boron	ug/L	38	23	61%	-0.0188	0.002	↓	0.00440	0.000	↑	-0.000517	0.722	↔	2017-03-22	2022-01-04	0.663	↔
06_02_107	MW-6	App. III	Calcium	ug/L	39	0	0%	-19.5	0.392	↔	2.31	0.855	↔	-0.163	0.727	↔	2016-05-25	2017-02-18	0.099	↔
06_02_108	MW-6	App. III	Chloride	mg/L	39	0	0%	0.0371	0.284	↔	-0.0906	0.165	↔	0.0126	0.614	↔	2018-11-17	2021-04-14	0.268	↔
06_02_112	MW-6	App. III	Fluoride	mg/L	39	1	3%	0.000150	0.081	↔	-0.000221	0.090	↔	0.0000216	0.468	↔	2018-04-22	2020-01-16	0.234	↔
06_02_118	MW-6	App. III	pH (Field)	S.U.	36	0	0%	0.000260	0.134	↔	-0.000579	0.100	↔	0.0000799	0.224	↔	2018-01-24	2020-02-21	0.454	↔

(Table continues on next page)

Table 10: Trend Tests: Piecewise Linear-Linear-Linear *(continued)*

								Line 1			Line 2			Line 3						
ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	Slope	p-Value	Trend	Slope	p-Value	Trend	Slope	p-Value	Trend	Break 1	Break 2	R-Squared	Overall Trend
06_02_123	MW-6	App. III	Sulfate	mg/L	39	0	0%	-0.0804	0.000	↓	0.00168	0.940	↔	-0.00327	0.969	↔	2020-01-28	2024-01-18	0.685	↔
06_02_125	MW-6	App. III	Total Dissolved Solids	mg/L	39	0	0%	-0.0174	0.807	↔	-0.0895	0.434	↔	-0.00879	0.877	↔	2018-10-26	2021-04-15	0.208	↔
06_03_101	MW-6	App. IV	Antimony	ug/L	39	39	100%	-0.000460	0.208	↔	0.000286	0.565	↔	0.00169	0.926	↔	2020-08-29	2024-11-07	0.077	↔
06_03_102	MW-6	App. IV	Arsenic	ug/L	39	37	95%	0.00583	0.010	↑	-0.000266	0.598	↔	-0.00196	0.012	↔	2017-05-07	2022-01-24	0.529	↔
06_03_106	MW-6	App. IV	Cadmium	ug/L	39	39	100%	0.000000400	0.995	↔	-0.000101	0.000	↓	0.00132	0.240	↔	2018-03-22	2024-11-07	0.720	↔
06_03_109	MW-6	App. IV	Chromium	ug/L	39	31	79%	-0.000658	0.723	↔	0.00377	0.411	↔	-0.00255	0.009	↓	2018-08-21	2020-06-29	0.222	↔
06_03_112	MW-6	App. IV	Fluoride	mg/L	39	1	3%	0.000150	0.081	↔	-0.000221	0.090	↔	0.0000216	0.468	↔	2018-04-22	2020-01-16	0.234	↔
06_03_114	MW-6	App. IV	Lithium	ug/L	39	0	0%	0.00551	0.453	↔	-0.0582	0.014	↔	0.000296	0.888	↔	2018-04-14	2019-06-01	0.730	↔
06_03_115	MW-6	App. IV	Mercury	ug/L	39	38	97%	0.0000547	0.270	↔	-0.0000238	0.483	↔	0.00000775	0.674	↔	2018-01-23	2020-12-02	0.083	↔
06_03_116	MW-6	App. IV	Molybdenum	ug/L	39	34	87%	-0.00519	0.488	↔	0.00287	0.069	↔	-0.00145	0.007	↓	2016-12-05	2019-10-13	0.272	↔
06_03_119	MW-6	App. IV	Radium-226	pCi/L	37	0	0%	-0.0000422	0.497	↔	-0.00115	0.239	↔	0.00763	0.203	↔	2023-10-02	2024-11-15	0.238	↔
06_03_120	MW-6	App. IV	Radium-228	pCi/L	37	0	0%	0.000321	0.397	↔	-0.000919	0.234	↔	0.000184	0.173	↔	2018-07-16	2020-01-21	0.147	↔
06_03_121	MW-6	App. IV	Selenium	ug/L	39	37	95%	0.000162	0.705	↔	-0.00121	0.006	↓	0.00192	0.184	↔	2019-06-09	2023-04-25	0.399	↔
06_03_124	MW-6	App. IV	Thallium	ug/L	39	36	92%	-0.0125	0.000	↓	0.0000611	0.924	↔	-0.0000138	0.929	↔	2017-04-18	2019-08-28	0.952	↔
06_03_126	MW-6	App. IV	Total Radium	pCi/L	37	0	0%	0.000374	0.349	↔	-0.000810	0.190	↔	0.000320	0.143	↔	2018-07-17	2020-10-19	0.169	↔
07_01_111	MW-7R	App. I Metals	Copper	ug/L	31	21	68%	0.00788	0.811	↔	0.00825	0.776	↔	-0.0229	0.319	↔	2019-12-22	2022-05-04	0.077	↔
07_01_117	MW-7R	App. I Metals	Nickel	ug/L	31	13	42%	0.489	0.090	↔	-0.575	0.153	↔	0.0258	0.734	↔	2019-07-09	2020-10-20	0.252	↔
07_01_127	MW-7R	App. I Metals	Vanadium	ug/L	31	15	48%	-0.0756	0.010	↔	0.0153	0.235	↔	-0.00243	0.047	↔	2018-03-10	2019-07-09	0.436	↔
07_02_105	MW-7R	App. III	Boron	ug/L	30	12	40%	-0.0424	0.001	↓	0.0109	0.059	↔	-0.00150	0.490	↔	2019-01-01	2021-01-26	0.556	↔
07_02_107	MW-7R	App. III	Calcium	ug/L	31	0	0%	14.2	0.214	↔	1.95	0.382	↔	-38.9	0.750	↔	2019-07-09	2024-11-02	0.286	↔
07_02_108	MW-7R	App. III	Chloride	mg/L	31	0	0%	-0.00912	0.557	↔	-0.0513	0.800	↔	0.00862	0.662	↔	2021-04-20	2022-04-20	0.186	↔
07_02_118	MW-7R	App. III	pH (Field)	S.U.	30	0	0%	-0.0150	0.000	↓	-0.000109	0.712	↔	0.0000242	0.742	↔	2017-12-01	2020-04-14	0.852	↔
07_02_123	MW-7R	App. III	Sulfate	mg/L	31	0	0%	-0.137	0.000	↓	-0.00289	0.031	↔	-0.000883	0.152	↔	2018-03-10	2021-01-25	0.973	↔
07_02_125	MW-7R	App. III	Total Dissolved Solids	mg/L	31	0	0%	0.0941	0.117	↔	0.0185	0.432	↔	-0.541	0.599	↔	2020-02-28	2024-10-30	0.348	↔
07_03_102	MW-7R	App. IV	Arsenic	ug/L	31	28	90%	-0.000252	0.556	↔	-0.00282	0.005	↓	0.0200	0.265	↔	2022-04-20	2024-12-11	0.572	↔
07_03_106	MW-7R	App. IV	Cadmium	ug/L	31	31	100%	0	1.000	↔	-0.0000996	0.000	↓	0.00187	0.147	↔	2018-03-17	2024-12-10	0.644	↔
07_03_109	MW-7R	App. IV	Chromium	ug/L	31	8	26%	1.11	0.041	↔	-1.40	0.402	↔	0.0567	0.711	↔	2019-07-10	2020-09-17	0.259	↔
07_03_113	MW-7R	App. IV	Lead	ug/L	31	27	87%	0.00138	0.227	↔	-0.0128	0.479	↔	0.00532	0.146	↔	2022-05-22	2023-03-12	0.157	↔
07_03_114	MW-7R	App. IV	Lithium	ug/L	31	0	0%	0.0606	0.027	↔	0.0158	0.197	↔	-0.000375	0.737	↔	2018-03-10	2019-07-09	0.663	↔
07_03_116	MW-7R	App. IV	Molybdenum	ug/L	31	27	87%	-0.0436	0.535	↔	-0.00292	0.459	↔	-0.000239	0.986	↔	2018-03-10	2023-02-23	0.125	↔
07_03_119	MW-7R	App. IV	Radium-226	pCi/L	29	0	0%	0.00142	0.106	↔	-0.000676	0.291	↔	-0.000115	0.408	↔	2019-01-23	2020-09-08	0.305	↔
07_03_121	MW-7R	App. IV	Selenium	ug/L	31	30	97%	-0.000187	0.574	↔	-0.00459	0.164	↔	0.00322	0.003	↑	2022-03-07	2023-04-24	0.526	↔
07_03_124	MW-7R	App. IV	Thallium	ug/L	31	28	90%	-0.00213	0.000	↓	0.000322	0.045	↔	-0.0000217	0.001	↓	2018-03-10	2019-01-23	0.951	↔
08_01_111	MW-8	App. I Metals	Copper	ug/L	40	30	75%	-0.00143	0.798	↔	0.0458	0.132	↔	-0.0549	0.066	↔	2021-08-09	2023-04-27	0.215	↔
08_01_117	MW-8	App. I Metals	Nickel	ug/L	40	19	48%	-0.00139	0.822	↔	0.123	0.275	↔	-0.0869	0.039	↔	2022-05-14	2023-04-27	0.217	↔
08_01_122	MW-8	App. I Metals	Silver	ug/L	40	39	98%	0.0000417	0.745	↔	-0.00162	0.000	↓	-0.000921	0.494	↔	2021-04-19	2024-02-26	0.787	↔
08_01_128	MW-8	App. I Metals	Zinc	ug/L	40	24	60%	-0.0164	0.035	↔	0.0117	0.150	↔	-0.0228	0.201	↔	2019-06-29	2023-04-26	0.227	↔
08_02_105	MW-8	App. III	Boron	ug/L	39	15	38%	0.00912	0.870	↔	-0.0204	0.693	↔	0.00278	0.000	↑	2016-04-01	2017-01-22	0.346	↔
08_02_107	MW-8	App. III	Calcium	ug/L	40	0	0%	-85.6	0.022	↔	-12.9	0.472	↔	14.7	0.187	↔	2017-10-13	2021-01-26	0.517	↔
08_02_108	MW-8	App. III	Chloride	mg/L	40	0	0%	-0.535	0.001	↓	-0.0287	0.480	↔	0.0284	0.729	↔	2017-10-08	2022-04-20	0.691	↔
08_02_118	MW-8	App. III	pH (Field)	S.U.	38	0	0%	0.000403	0.012	↔	0.00000815	0.839	↔	-0.000115	0.708	↔	2017-10-25	2023-10-05	0.434	↔
08_02_123	MW-8	App. III	Sulfate	mg/L	40	0	0%	0.00219	0.000	↑	-0.00151	0.111	↔	0.000288	0.350	↔	2019-02-28	2021-04-12	0.614	↔

(Table continues on next page)

Table 10: Trend Tests: Piecewise Linear-Linear-Linear *(continued)*

								Line 1			Line 2			Line 3						
ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	Slope	p-Value	Trend	Slope	p-Value	Trend	Slope	p-Value	Trend	Break 1	Break 2	R-Squared	Overall Trend
08_02_125	MW-8	App. III	Total Dissolved Solids	mg/L	40	0	0%	10.7	0.067	↔	-0.893	0.027	↔	0.0328	0.435	↔	2016-02-15	2017-08-29	0.415	↔
08_03_101	MW-8	App. IV	Antimony	ug/L	40	33	82%	-0.0111	0.001	↓	-0.000516	0.464	↔	0.000361	0.504	↔	2017-02-14	2020-12-11	0.706	↔
08_03_102	MW-8	App. IV	Arsenic	ug/L	40	35	88%	0.00560	0.053	↔	0.000254	0.543	↔	-0.00236	0.006	↓	2017-04-03	2022-02-23	0.547	↔
08_03_103	MW-8	App. IV	Barium	ug/L	40	0	0%	-0.157	0.000	↓	1.25	0.096	↔	-0.485	0.077	↔	2022-06-13	2023-04-27	0.387	↔
08_03_106	MW-8	App. IV	Cadmium	ug/L	40	39	98%	-0.0000777	0.121	↔	0.000598	0.488	↔	-0.000562	0.036	↔	2022-02-05	2023-04-26	0.193	↔
08_03_109	MW-8	App. IV	Chromium	ug/L	40	19	48%	0.0362	0.728	↔	0.00000127	1.000	↔	-0.0225	0.443	↔	2017-01-23	2023-04-26	0.077	↔
08_03_114	MW-8	App. IV	Lithium	ug/L	40	1	2%	-0.0162	0.000	↓	0.0376	0.378	↔	-0.00156	0.570	↔	2020-01-17	2021-01-25	0.572	↔
08_03_115	MW-8	App. IV	Mercury	ug/L	40	39	98%	0.0000586	0.249	↔	-0.0000189	0.512	↔	0.00000672	0.836	↔	2018-01-23	2021-12-16	0.068	↔
08_03_116	MW-8	App. IV	Molybdenum	ug/L	40	37	92%	-0.000670	0.369	↔	0.00153	0.324	↔	-0.00101	0.133	↔	2019-02-25	2021-04-15	0.116	↔
08_03_119	MW-8	App. IV	Radium-226	pCi/L	38	0	0%	-0.000156	0.270	↔	0.000989	0.565	↔	-0.00112	0.202	↔	2022-02-07	2023-04-27	0.122	↔
08_03_120	MW-8	App. IV	Radium-228	pCi/L	38	0	0%	-0.000534	0.672	↔	0.000361	0.195	↔	-0.00144	0.269	↔	2017-07-26	2023-04-27	0.112	↔
08_03_121	MW-8	App. IV	Selenium	ug/L	40	38	95%	-0.000122	0.463	↔	-0.00365	0.073	↔	0.00301	0.001	↑	2021-12-07	2023-04-26	0.553	↔
08_03_124	MW-8	App. IV	Thallium	ug/L	40	38	95%	-0.0136	0.000	↓	0.0000609	0.954	↔	-0.0000136	0.957	↔	2017-04-18	2019-08-29	0.895	↔
08_03_126	MW-8	App. IV	Total Radium	pCi/L	38	0	0%	-0.000173	0.637	↔	0.00205	0.391	↔	-0.00305	0.059	↔	2021-07-26	2023-04-26	0.145	↔
09_01_111	MW-10	App. I Metals	Copper	ug/L	16	9	56%	0.260	0.195	↔	-0.238	0.190	↔	0.00120	0.966	↔	2022-04-20	2022-12-09	0.477	↔
09_01_117	MW-10	App. I Metals	Nickel	ug/L	16	4	25%	-0.00693	0.724	↔	0.0331	0.389	↔	-0.0228	0.241	↔	2022-12-20	2023-10-04	0.248	↔
09_01_127	MW-10	App. I Metals	Vanadium	ug/L	16	9	56%	-0.00996	0.681	↔	0.0111	0.366	↔	-0.0123	0.317	↔	2022-06-27	2023-10-04	0.209	↔
09_01_128	MW-10	App. I Metals	Zinc	ug/L	16	13	81%	-0.0170	0.793	↔	0.101	0.586	↔	-0.0812	0.113	↔	2022-11-16	2023-10-03	0.285	↔
09_02_105	MW-10	App. III	Boron	ug/L	16	0	0%	-0.00784	0.797	↔	0.0206	0.297	↔	-0.00820	0.487	↔	2022-05-05	2023-10-03	0.380	↔
09_02_107	MW-10	App. III	Calcium	ug/L	16	0	0%	8.82	0.168	↔	4.37	0.463	↔	-5.63	0.206	↔	2022-10-15	2023-10-08	0.596	↔
09_02_108	MW-10	App. III	Chloride	mg/L	16	0	0%	0.00237	0.302	↔	-0.00890	0.730	↔	0.00168	0.626	↔	2023-04-28	2023-11-04	0.166	↔
09_02_123	MW-10	App. III	Sulfate	mg/L	16	0	0%	-0.00783	0.019	↔	-0.00276	0.113	↔	-0.000779	0.843	↔	2022-10-23	2024-07-15	0.892	↔
09_02_125	MW-10	App. III	Total Dissolved Solids	mg/L	16	0	0%	0.171	0.016	↔	0.0185	0.592	↔	-0.0213	0.061	↔	2022-02-10	2023-04-26	0.749	↔
09_03_101	MW-10	App. IV	Antimony	ug/L	16	15	94%	0.00598	0.270	↔	-0.00530	0.444	↔	0.00116	0.686	↔	2022-10-18	2023-09-30	0.240	↔
09_03_103	MW-10	App. IV	Barium	ug/L	16	0	0%	0.0402	0.614	↔	0.201	0.382	↔	-0.0790	0.197	↔	2022-12-01	2023-10-03	0.581	↔
09_03_106	MW-10	App. IV	Cadmium	ug/L	16	16	100%	-0.000269	0.155	↔	0.0000723	0.678	↔	0.00229	0.195	↔	2023-04-26	2025-01-18	0.480	↔
09_03_109	MW-10	App. IV	Chromium	ug/L	16	5	31%	-0.00984	0.813	↔	0.0542	0.650	↔	-0.0455	0.162	↔	2022-11-14	2023-10-03	0.227	↔
09_03_110	MW-10	App. IV	Cobalt	ug/L	16	14	88%	-0.00884	0.129	↔	0.00743	0.637	↔	-0.00559	0.188	↔	2022-11-07	2023-10-03	0.387	↔
09_03_114	MW-10	App. IV	Lithium	ug/L	16	0	0%	-0.000388	0.892	↔	0.0139	0.109	↔	0.00122	0.567	↔	2023-01-08	2023-10-03	0.847	↔
09_03_115	MW-10	App. IV	Mercury	ug/L	16	16	100%	-0.0000157	0.208	↔	0.0000224	0.422	↔	-0.000379	0.043	↔	2023-07-25	2025-01-15	0.509	↔
09_03_116	MW-10	App. IV	Molybdenum	ug/L	16	0	0%	-0.0260	0.017	↔	-0.0192	0.052	↔	0.00733	0.275	↔	2022-10-15	2023-11-09	0.902	↔
09_03_120	MW-10	App. IV	Radium-228	pCi/L	16	0	0%	-0.0130	0.027	↔	0.000797	0.398	↔	-0.000186	0.759	↔	2021-11-28	2023-04-27	0.543	↔
09_03_124	MW-10	App. IV	Thallium	ug/L	16	15	94%	-0.0000133	0.808	↔	0.000103	0.337	↔	-0.000110	0.056	↔	2023-01-03	2023-10-04	0.488	↔
10_01_111	MW-11	App. I Metals	Copper	ug/L	19	10	53%	0.0234	0.051	↔	-0.0486	0.413	↔	-0.000646	0.840	↔	2021-11-17	2022-05-29	0.525	↔
10_01_128	MW-11	App. I Metals	Zinc	ug/L	19	14	74%	-0.0000479	0.977	↔	-0.0204	0.030	↔	0.0368	0.038	↔	2023-07-25	2024-08-31	0.722	↔
10_02_107	MW-11	App. III	Calcium	ug/L	19	0	0%	-52.1	0.293	↔	20.2	0.207	↔	-38.3	0.186	↔	2021-09-22	2024-01-23	0.279	↔
10_02_112	MW-11	App. III	Fluoride	mg/L	19	1	5%	0.0000933	0.136	↔	-0.0000966	0.315	↔	0.000117	0.342	↔	2022-08-12	2024-01-24	0.274	↔
10_02_123	MW-11	App. III	Sulfate	mg/L	19	0	0%	-0.000519	0.425	↔	0.00154	0.503	↔	-0.000467	0.309	↔	2022-06-24	2023-04-09	0.173	↔
10_02_125	MW-11	App. III	Total Dissolved Solids	mg/L	19	0	0%	-2.36	0.356	↔	-0.0797	0.906	↔	0.172	0.927	↔	2021-11-12	2024-03-20	0.279	↔
10_03_101	MW-11	App. IV	Antimony	ug/L	19	17	89%	0.00258	0.282	↔	-0.00209	0.485	↔	0.00161	0.822	↔	2022-10-23	2024-04-05	0.153	↔
10_03_102	MW-11	App. IV	Arsenic	ug/L	19	17	89%	0.00123	0.706	↔	-0.00737	0.160	↔	0.000621	0.618	↔	2022-01-24	2023-01-02	0.557	↔
10_03_103	MW-11	App. IV	Barium	ug/L	19	0	0%	-0.0652	0.243	↔	0.0555	0.234	↔	-0.0868	0.146	↔	2022-03-22	2024-01-23	0.296	↔

(Table continues on next page)

Table 10: Trend Tests: Piecewise Linear-Linear-Linear *(continued)*

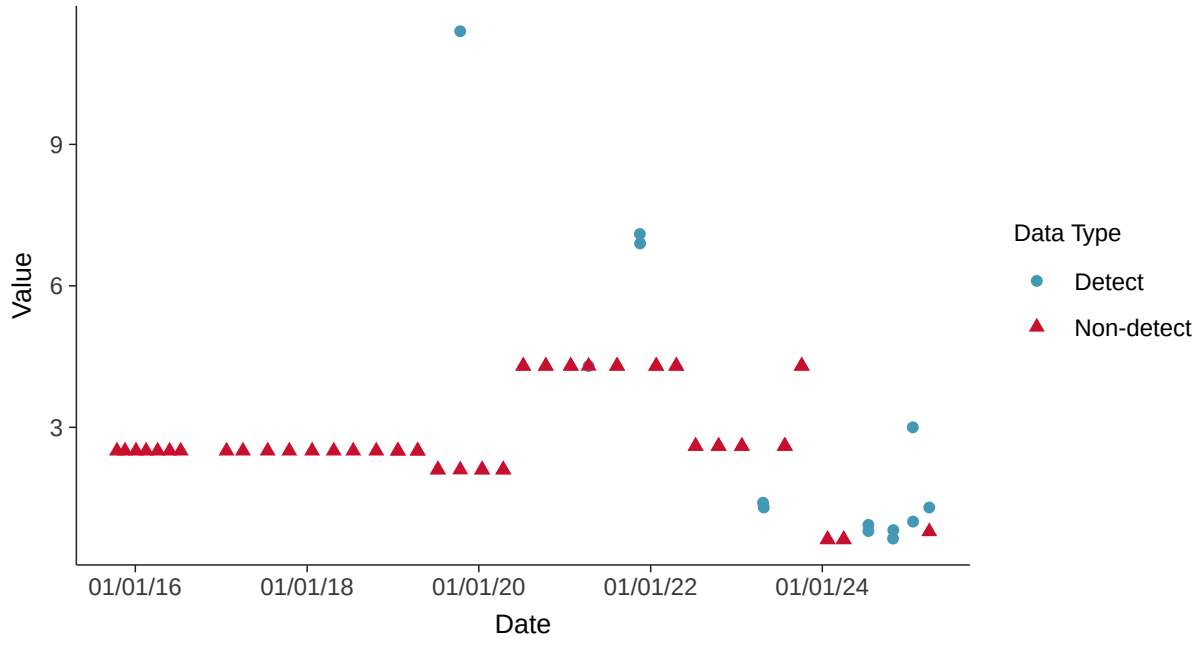
								Line 1			Line 2			Line 3						
ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	Slope	p-Value	Trend	Slope	p-Value	Trend	Slope	p-Value	Trend	Break 1	Break 2	R-Squared	Overall Trend
10_03_104	MW-11	App. IV	Beryllium	ug/L	19	19	100%	0	1.000	↔	-0.000513	0.006	↓	0.00175	0.377	↔	2021-04-03	2024-09-22	0.570	↔
10_03_112	MW-11	App. IV	Fluoride	mg/L	19	1	5%	0.0000933	0.136	↔	-0.0000966	0.315	↔	0.000117	0.342	↔	2022-08-12	2024-01-24	0.274	↔
10_03_113	MW-11	App. IV	Lead	ug/L	19	18	95%	0	1.000	↔	-0.0130	0.569	↔	0.00521	0.255	↔	2022-06-21	2023-03-09	0.169	↔
10_03_114	MW-11	App. IV	Lithium	ug/L	19	0	0%	-0.00310	0.279	↔	0.0179	0.139	↔	-0.0127	0.126	↔	2023-04-09	2024-01-24	0.354	↔
10_03_120	MW-11	App. IV	Radium-228	pCi/L	19	0	0%	-0.00105	0.462	↔	0.000574	0.337	↔	-0.00168	0.879	↔	2022-04-18	2024-10-29	0.113	↔
10_03_121	MW-11	App. IV	Selenium	ug/L	19	19	100%	0.000180	0.941	↔	-0.00521	0.267	↔	0.00335	0.028	↔	2022-03-26	2023-04-23	0.443	↔
10_03_124	MW-11	App. IV	Thallium	ug/L	19	18	95%	-0.00000736	0.876	↔	0.00000936	0.404	↔	-0.000100	0.077	↔	2021-11-07	2024-04-01	0.563	↔
10_03_126	MW-11	App. IV	Total Radium	pCi/L	19	0	0%	-0.00116	0.326	↔	0.000398	0.737	↔	0.00132	0.501	↔	2022-04-21	2024-03-31	0.193	↔
11_01_127	MW-11D	App. I Metals	Vanadium	ug/L	17	14	82%	-0.00581	0.002	↓	0.00812	0.286	↔	-0.00160	0.479	↔	2023-03-15	2023-10-02	0.700	↔
11_01_128	MW-11D	App. I Metals	Zinc	ug/L	17	11	65%	0.00196	0.771	↔	-0.0199	0.243	↔	0.0682	0.129	↔	2023-07-24	2024-09-17	0.338	↔
11_02_107	MW-11D	App. III	Calcium	ug/L	17	0	0%	-76.6	0.390	↔	-12.8	0.638	↔	-0.969	0.992	↔	2022-04-18	2024-04-20	0.346	↔
11_02_108	MW-11D	App. III	Chloride	mg/L	17	0	0%	-0.644	0.077	↔	-0.0768	0.649	↔	-0.00531	0.992	↔	2022-04-19	2024-05-03	0.543	↔
11_02_112	MW-11D	App. III	Fluoride	mg/L	17	0	0%	0.0000655	0.415	↔	-0.000300	0.094	↔	0.000123	0.609	↔	2023-04-23	2024-05-27	0.495	↔
11_02_118	MW-11D	App. III	pH (Field)	S.U.	17	0	0%	-0.00136	0.071	↔	-0.000355	0.491	↔	-0.000165	0.530	↔	2022-04-21	2023-06-22	0.769	↔
11_02_125	MW-11D	App. III	Total Dissolved Solids	mg/L	17	0	0%	-1.66	0.117	↔	-0.284	0.569	↔	0.00654	0.996	↔	2022-06-04	2024-04-01	0.566	↔
11_03_101	MW-11D	App. IV	Antimony	ug/L	17	14	82%	0.00255	0.546	↔	-0.00419	0.467	↔	0.00137	0.741	↔	2022-10-23	2023-10-17	0.099	↔
11_03_106	MW-11D	App. IV	Cadmium	ug/L	17	17	100%	-0.000226	0.079	↔	0.0000403	0.851	↔	0.00148	0.375	↔	2023-04-24	2024-12-14	0.446	↔
11_03_109	MW-11D	App. IV	Chromium	ug/L	17	13	76%	0.00458	0.253	↔	-0.0109	0.343	↔	-0.000342	0.889	↔	2022-07-13	2023-07-06	0.630	↔
11_03_110	MW-11D	App. IV	Cobalt	ug/L	17	16	94%	-0.00553	0.007	↓	0.00834	0.348	↔	-0.00277	0.304	↔	2023-04-15	2023-10-02	0.697	↔
11_03_112	MW-11D	App. IV	Fluoride	mg/L	17	0	0%	0.0000655	0.415	↔	-0.000300	0.094	↔	0.000123	0.609	↔	2023-04-23	2024-05-27	0.495	↔
11_03_115	MW-11D	App. IV	Mercury	ug/L	17	17	100%	-0.0000139	0.245	↔	0.0000263	0.222	↔	-0.000293	0.085	↔	2023-07-24	2024-12-22	0.493	↔
11_03_116	MW-11D	App. IV	Molybdenum	ug/L	17	1	6%	-0.148	0.235	↔	-0.0247	0.513	↔	0.000776	0.995	↔	2022-04-18	2024-05-14	0.510	↔
11_03_119	MW-11D	App. IV	Radium-226	pCi/L	17	0	0%	-0.000558	0.036	↔	0.00203	0.275	↔	-0.00450	0.045	↔	2024-01-01	2024-10-28	0.531	↔
11_03_120	MW-11D	App. IV	Radium-228	pCi/L	17	0	0%	-0.0122	0.009	↓	-0.000203	0.576	↔	0.00139	0.430	↔	2021-08-27	2024-06-24	0.717	↔
11_03_121	MW-11D	App. IV	Selenium	ug/L	17	16	94%	-0.00406	0.012	↔	0.0110	0.583	↔	0.000538	0.834	↔	2023-04-24	2023-10-03	0.487	↔
11_03_124	MW-11D	App. IV	Thallium	ug/L	17	16	94%	0.0000136	0.206	↔	-0.000178	0.307	↔	0.0000385	0.875	↔	2024-04-01	2024-10-30	0.569	↔
11_03_126	MW-11D	App. IV	Total Radium	pCi/L	17	0	0%	-0.00833	0.082	↔	-0.000690	0.113	↔	0.00161	0.422	↔	2021-09-11	2024-04-01	0.668	↔

App. I Metals: Copper, BG-1 & BG-2

ID: 1_111

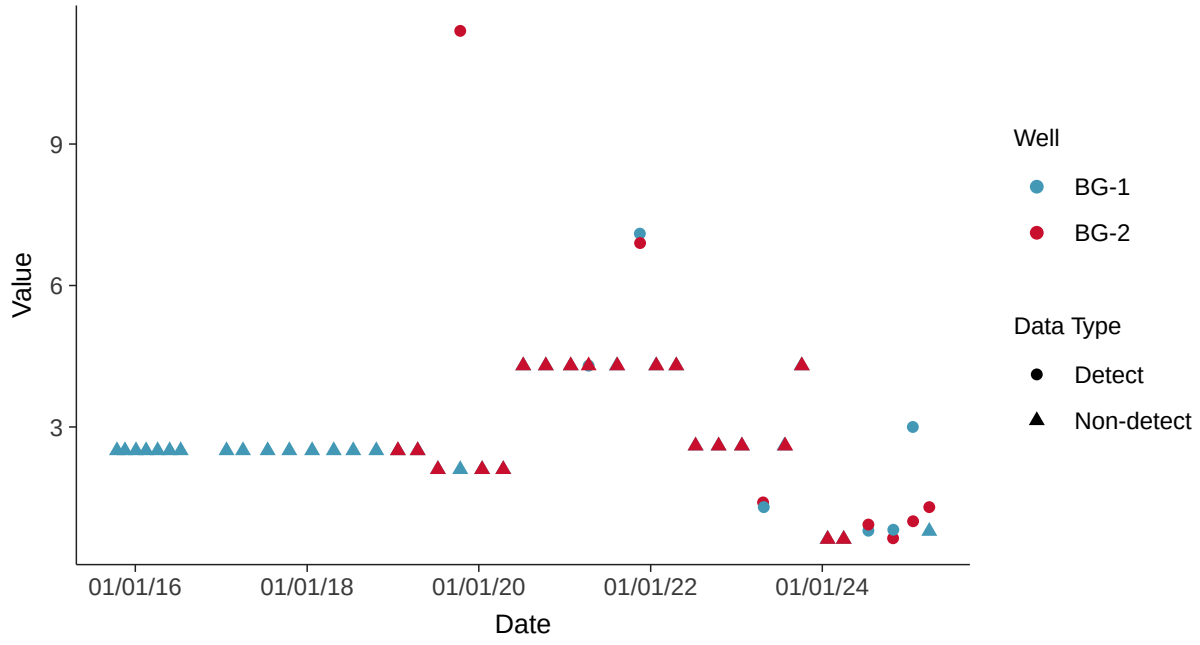
Scatter Plot

Copper, BG-1 & BG-2 (ug/L)



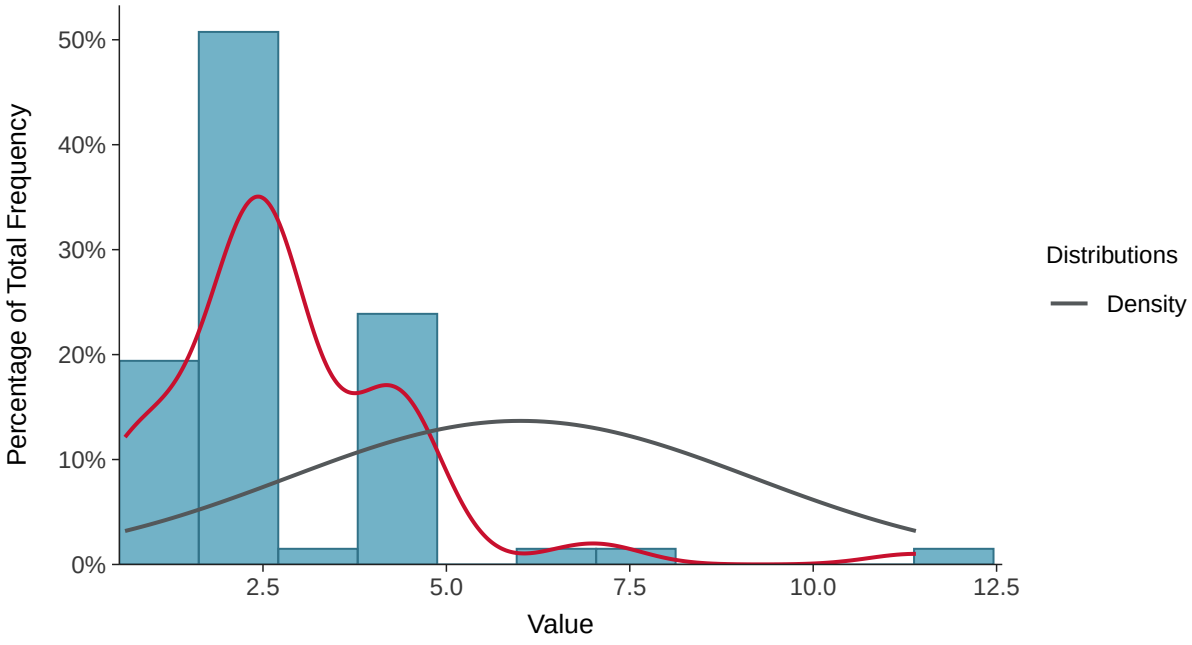
Scatter Plot by Well

Copper, BG-1 & BG-2 (ug/L)



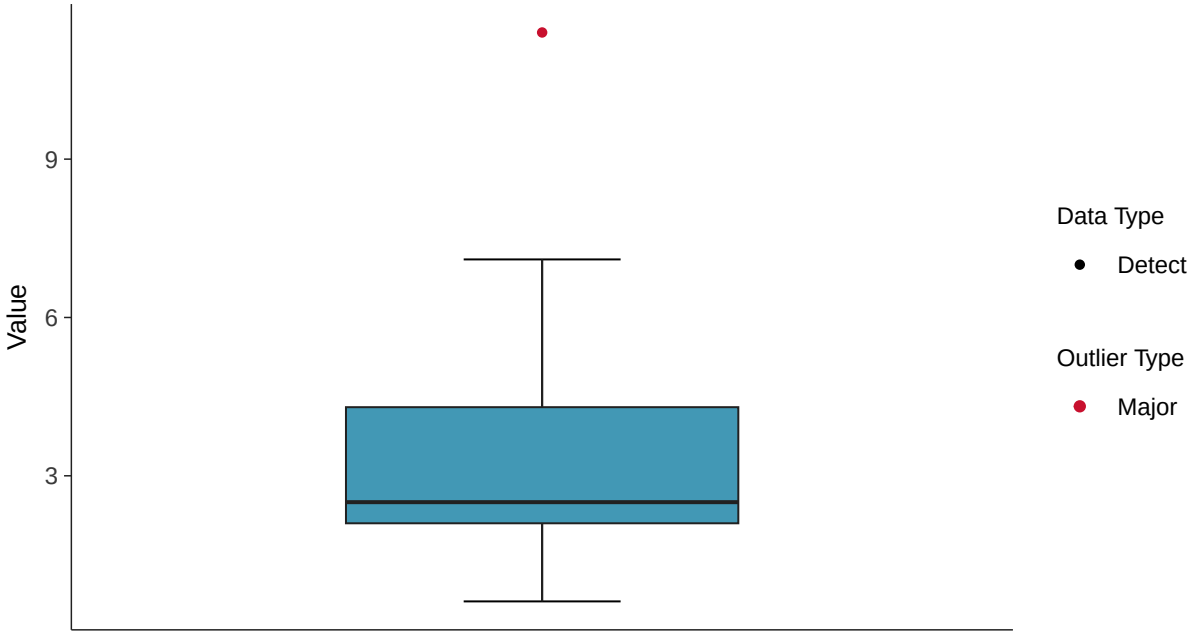
Histogram

Copper, BG-1 & BG-2 (ug/L)



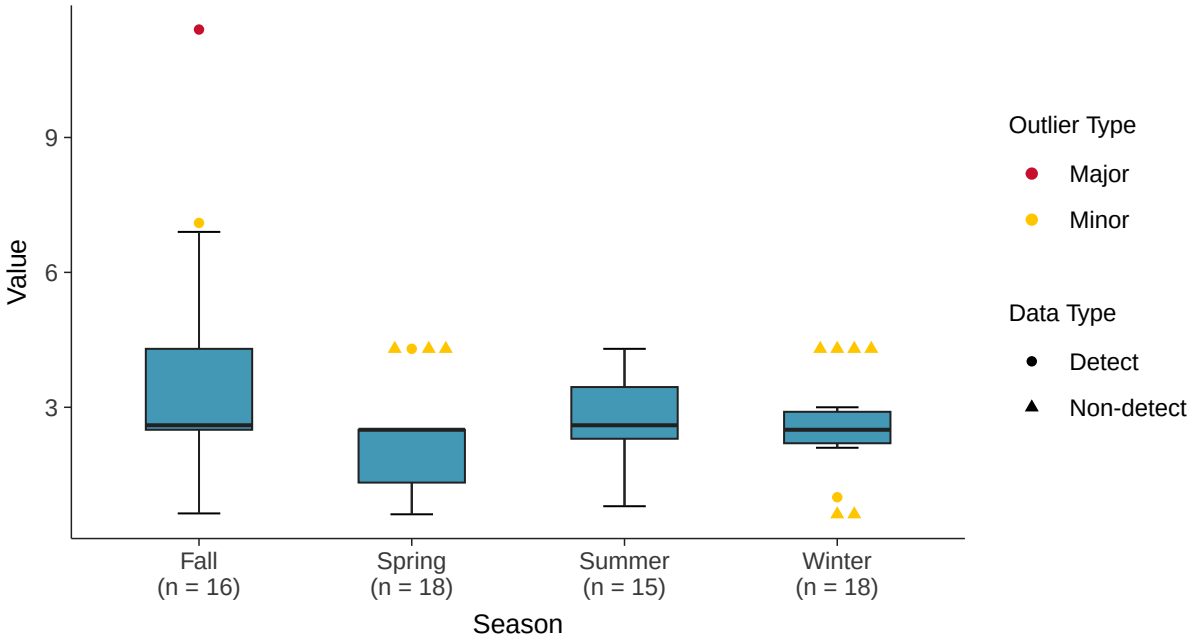
Boxplot

Copper, BG-1 & BG-2 (ug/L)



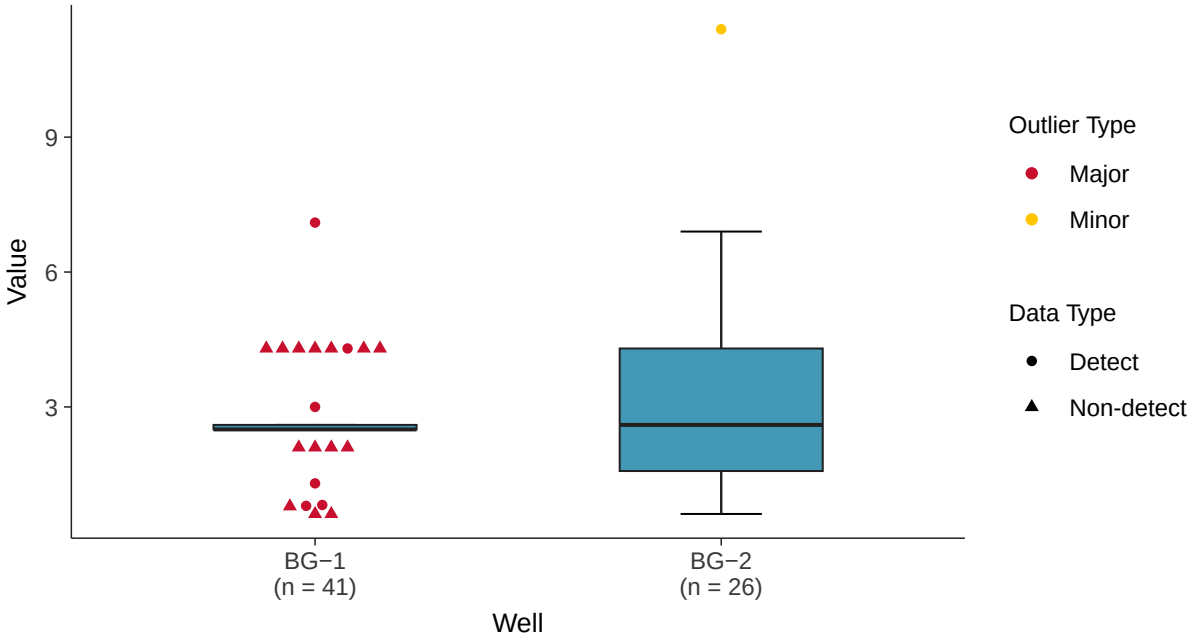
Boxplot by Season

Copper, BG-1 & BG-2 (ug/L)



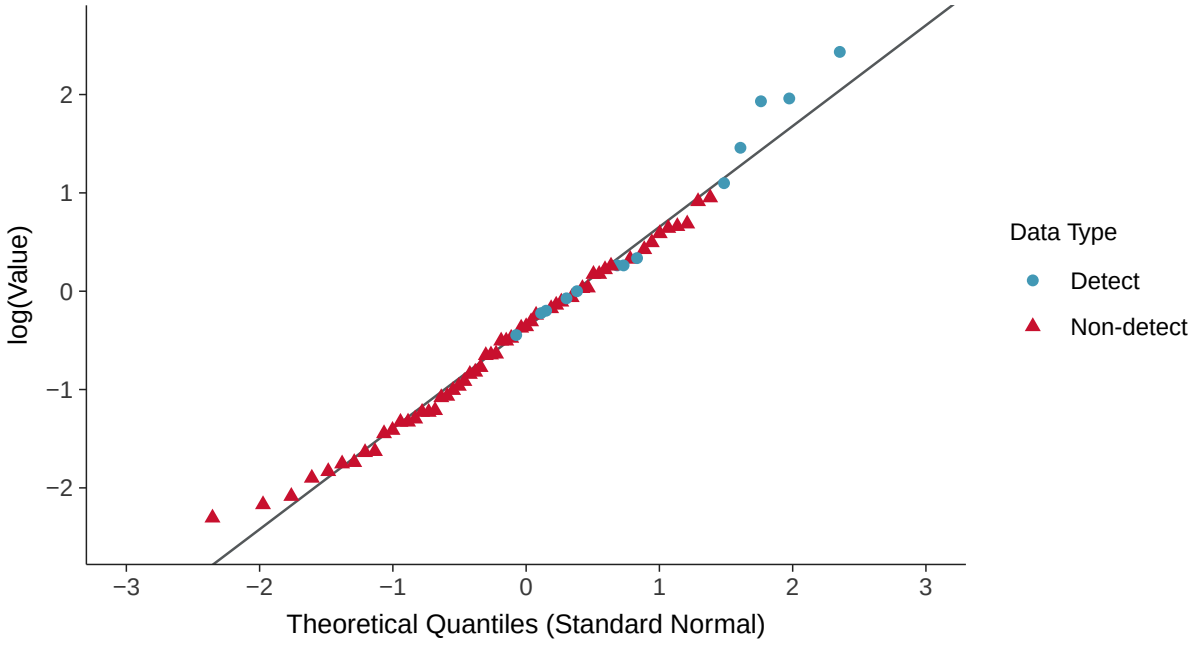
Boxplot by Well

Copper, BG-1 & BG-2 (ug/L)



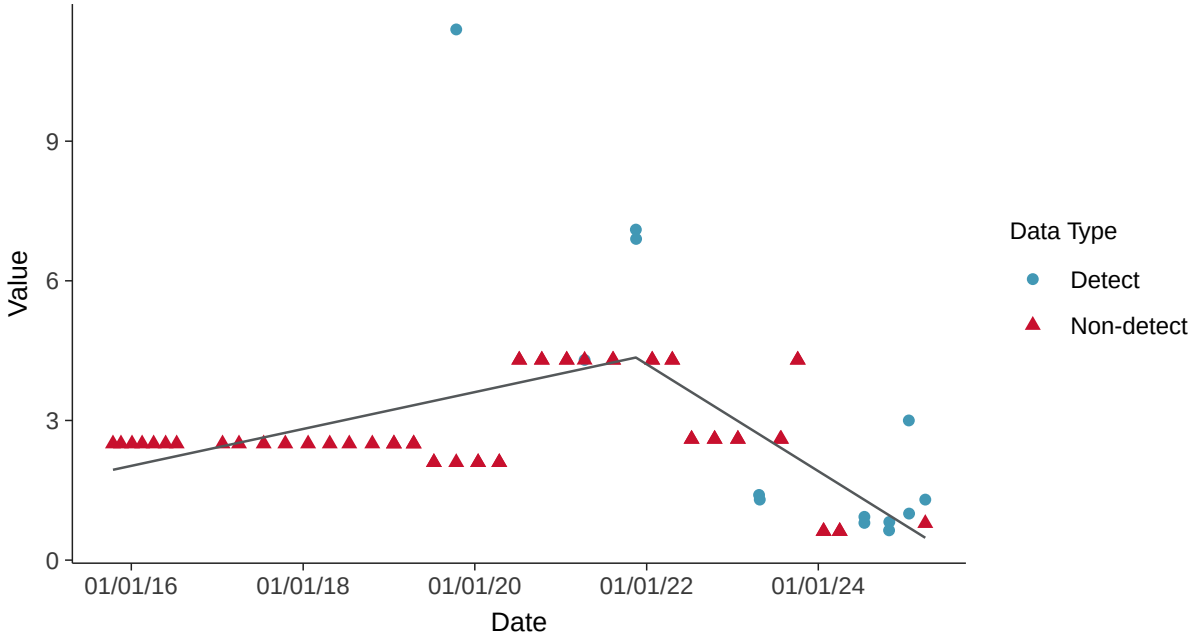
Lognormal Q-Q plot using ROS Imputed Estimates

Copper, BG-1 & BG-2 (ug/L)



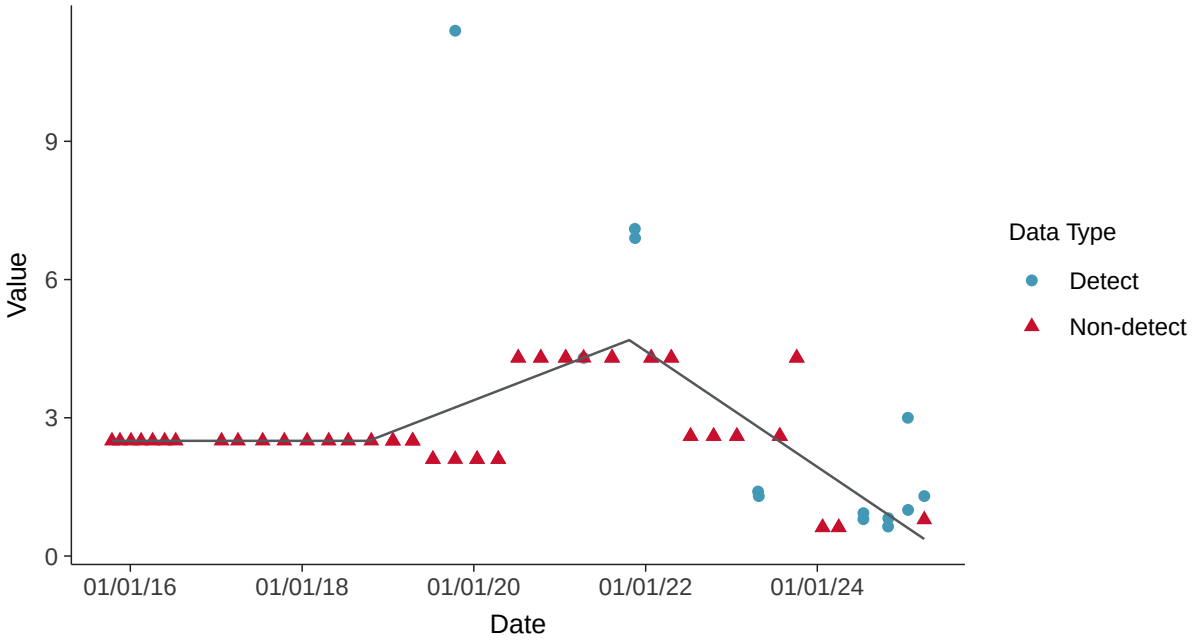
Trend Regression: Piecewise Linear-Linear

Copper, BG-1 & BG-2 (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Copper, BG-1 & BG-2 (ug/L)

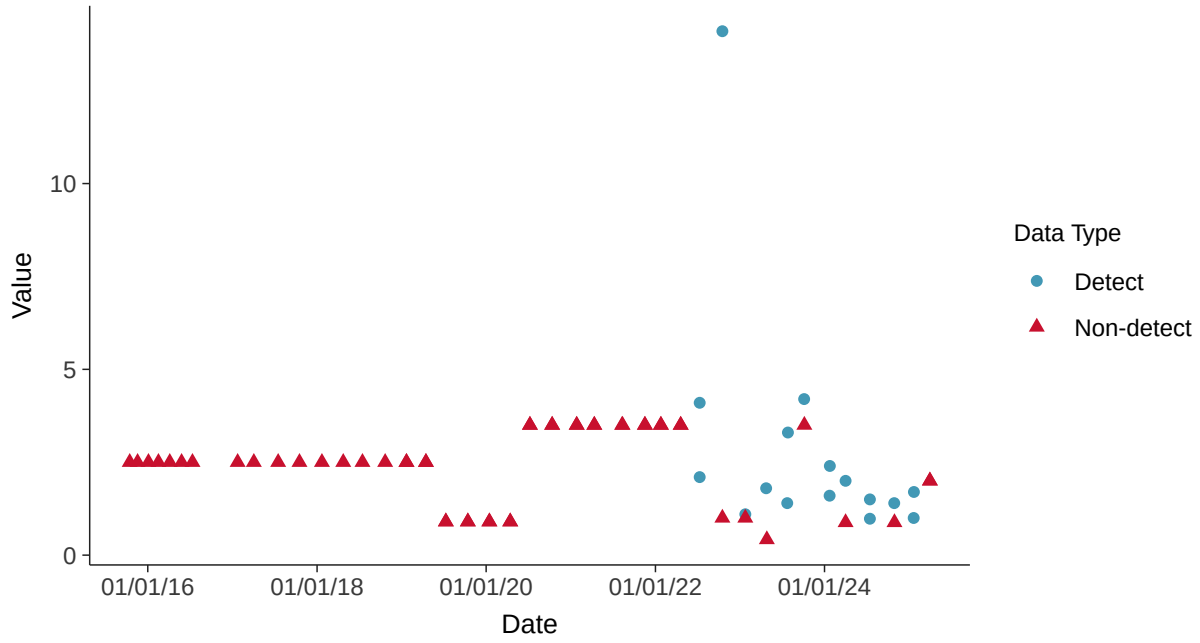


App. I Metals: Nickel, BG-1 & BG-2

ID: 1_117

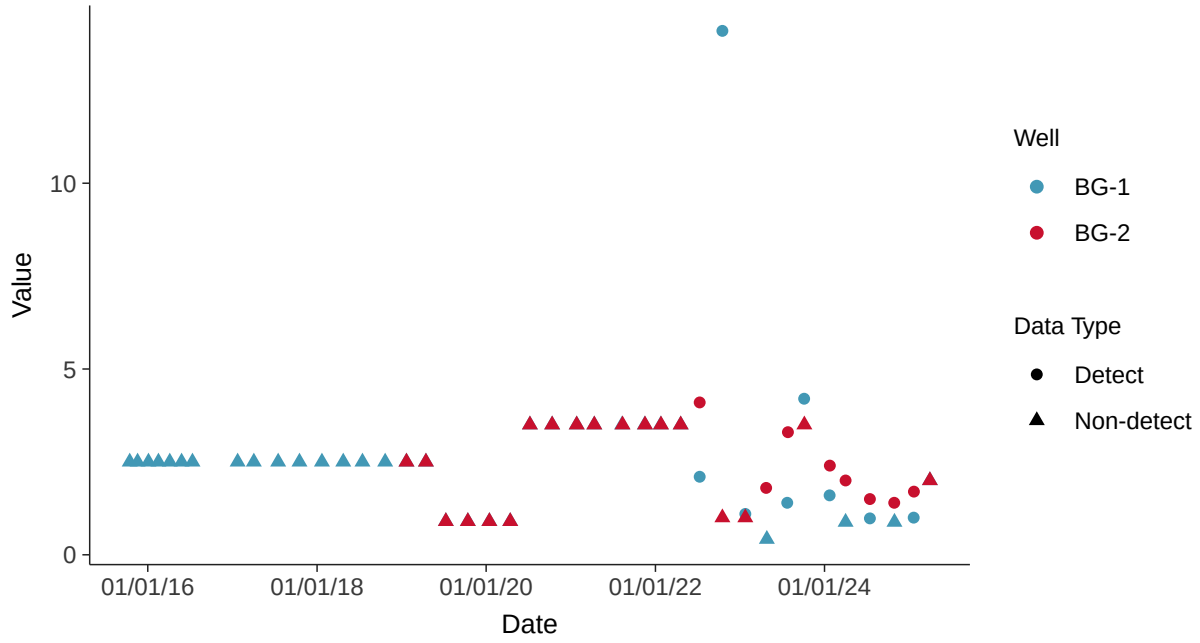
Scatter Plot

Nickel, BG-1 & BG-2 (ug/L)



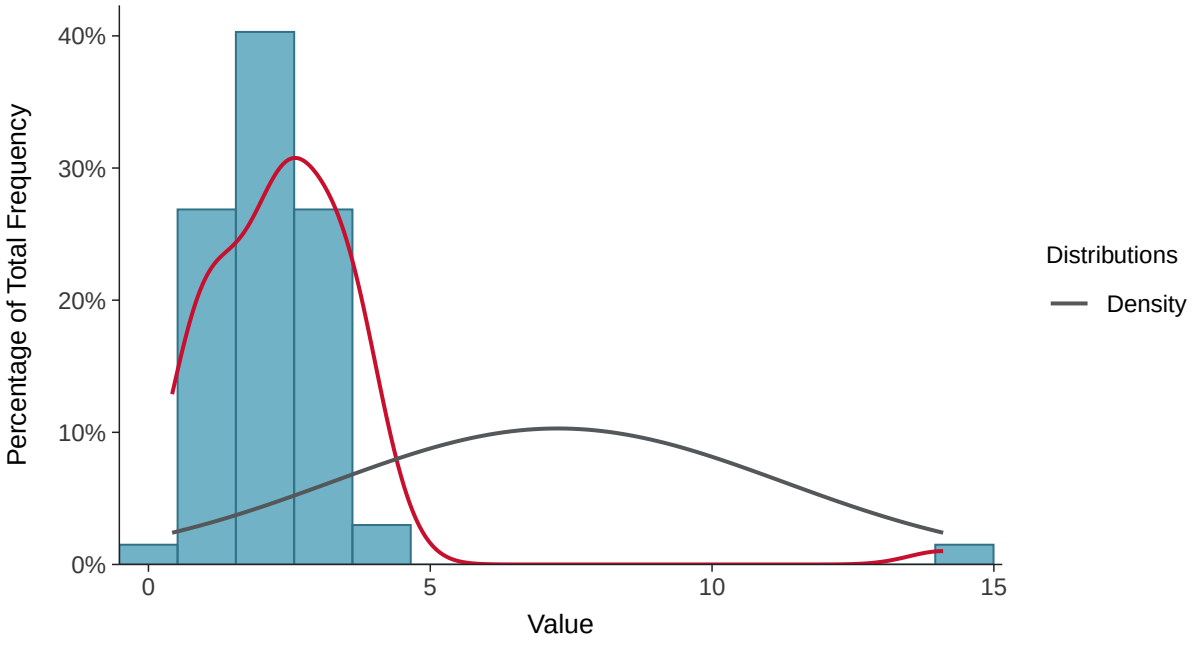
Scatter Plot by Well

Nickel, BG-1 & BG-2 (ug/L)



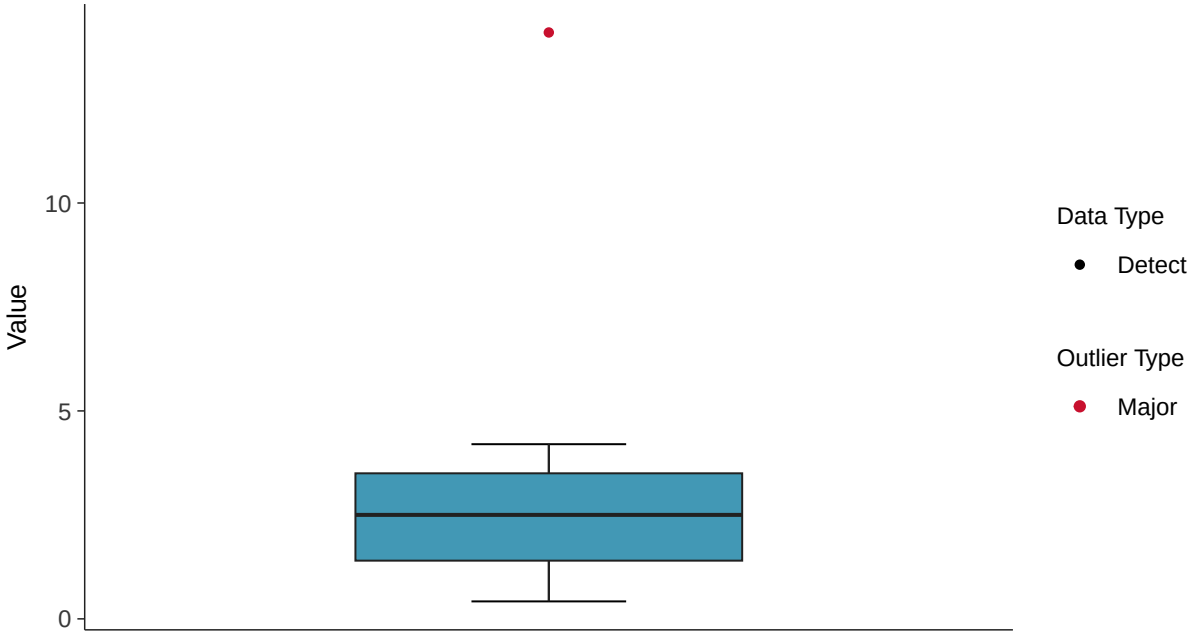
Histogram

Nickel, BG-1 & BG-2 (ug/L)



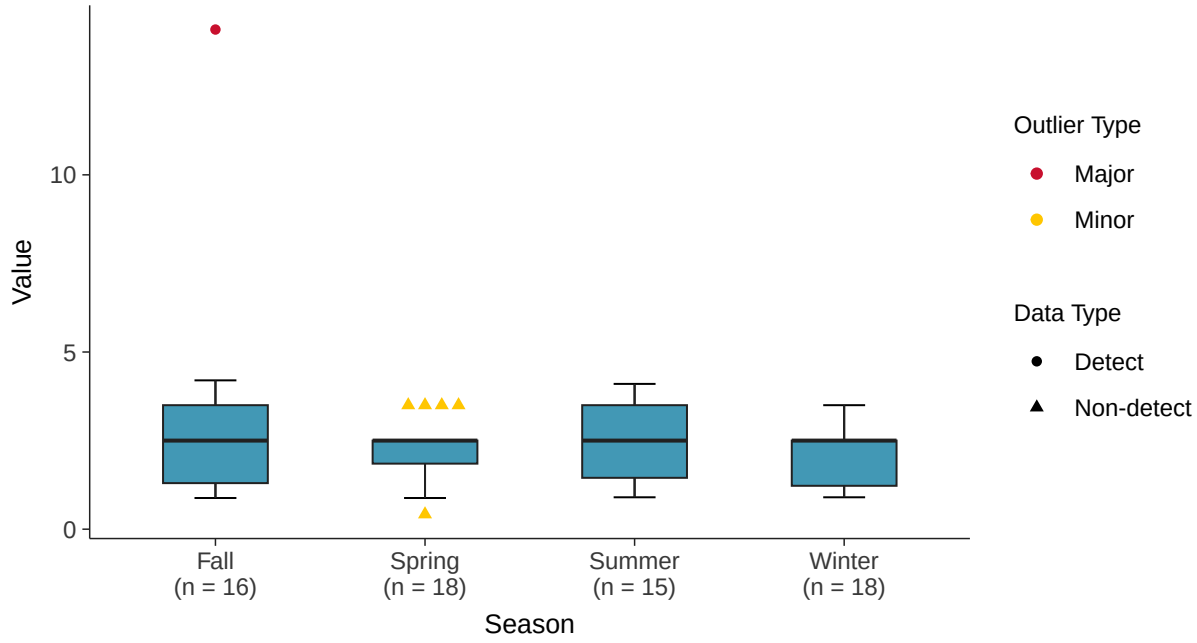
Boxplot

Nickel, BG-1 & BG-2 (ug/L)



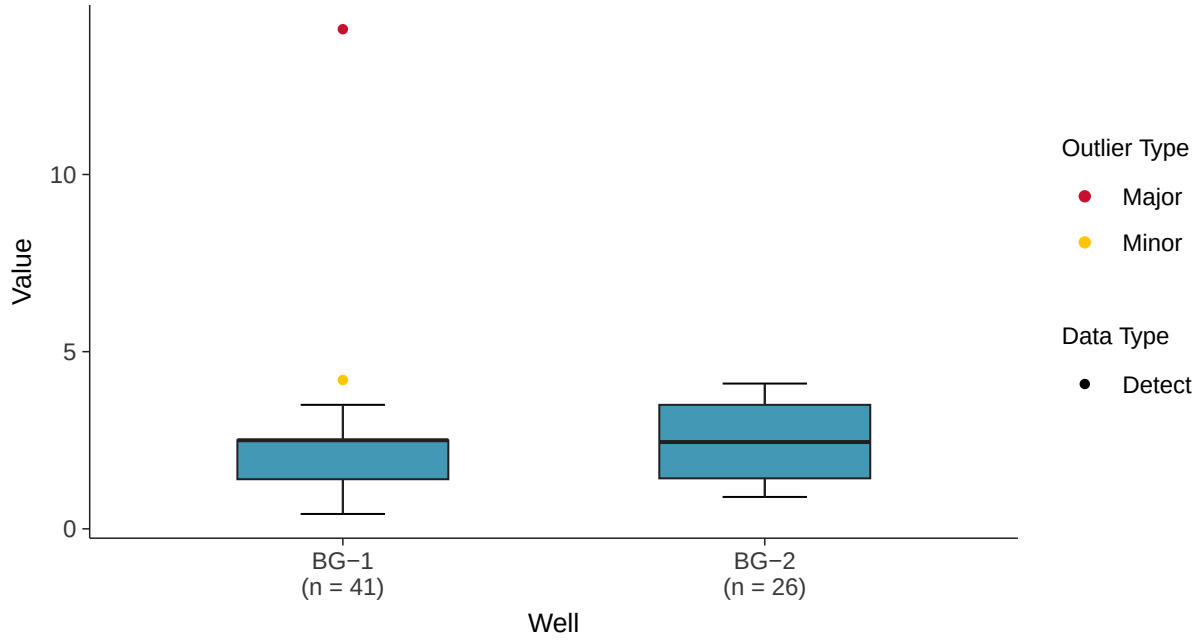
Boxplot by Season

Nickel, BG-1 & BG-2 (ug/L)



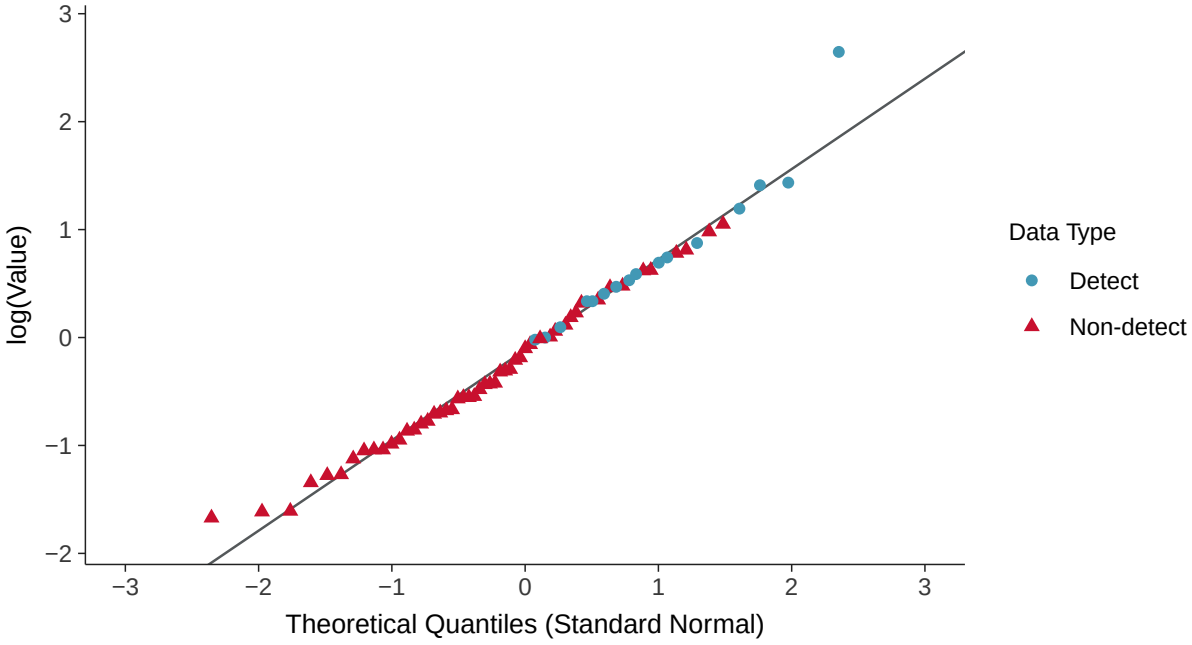
Boxplot by Well

Nickel, BG-1 & BG-2 (ug/L)



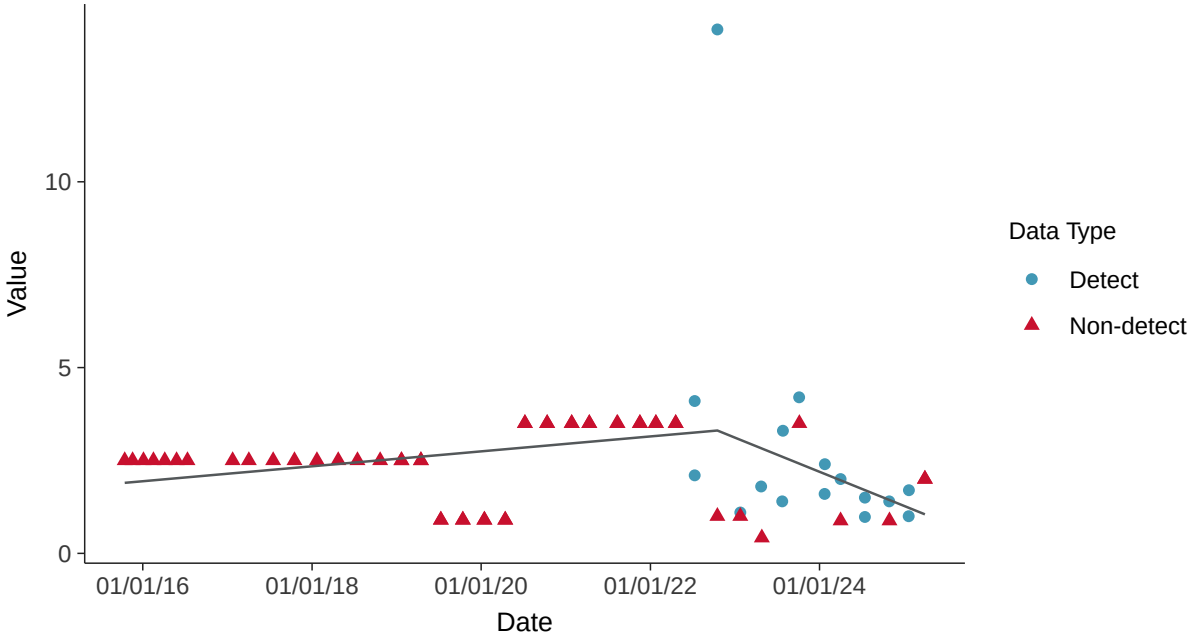
Lognormal Q-Q plot using ROS Imputed Estimates

Nickel, BG-1 & BG-2 (ug/L)



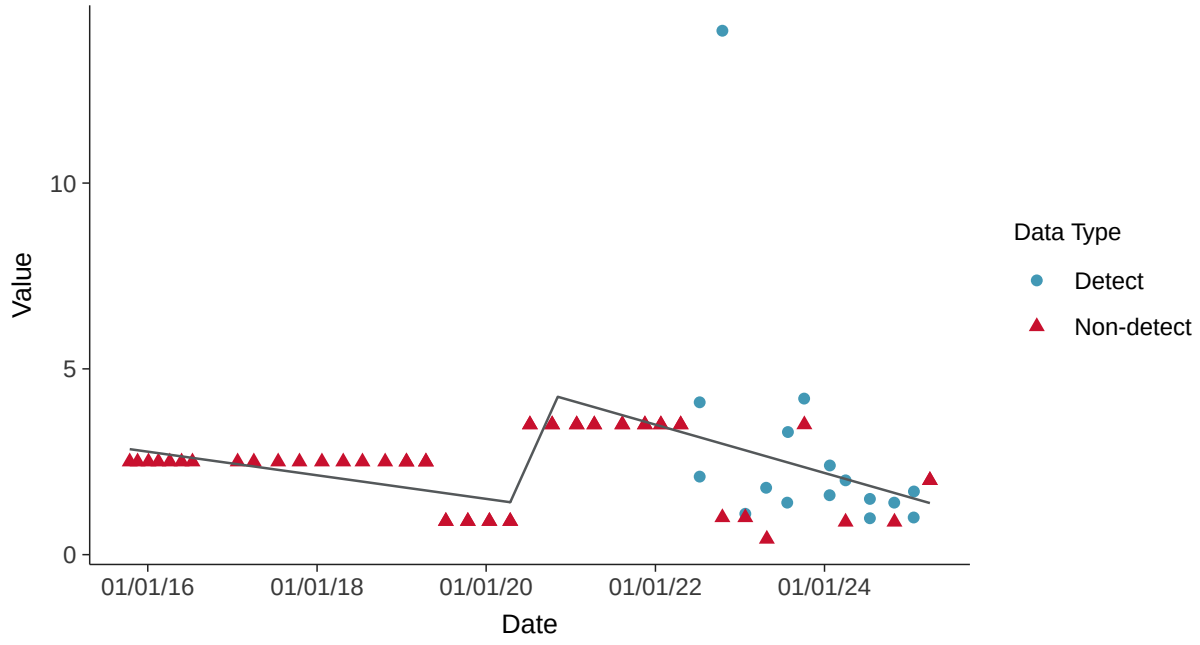
Trend Regression: Piecewise Linear-Linear

Nickel, BG-1 & BG-2 (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Nickel, BG-1 & BG-2 (ug/L)

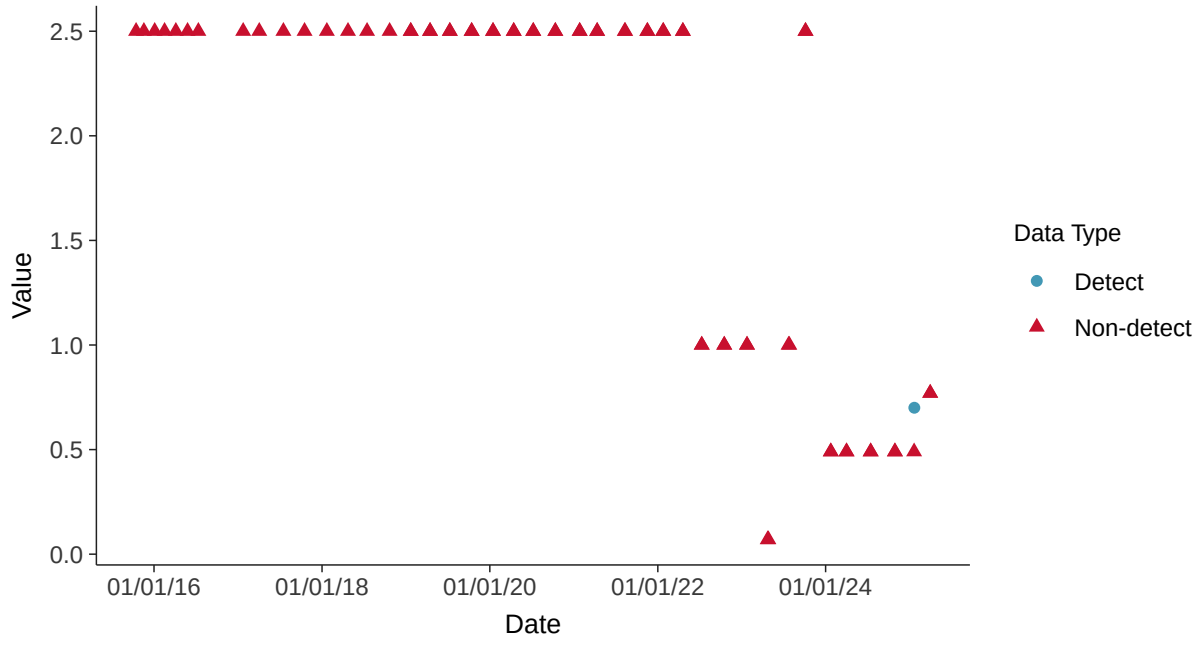


App. I Metals: Silver, BG-1 & BG-2

ID: 1_122

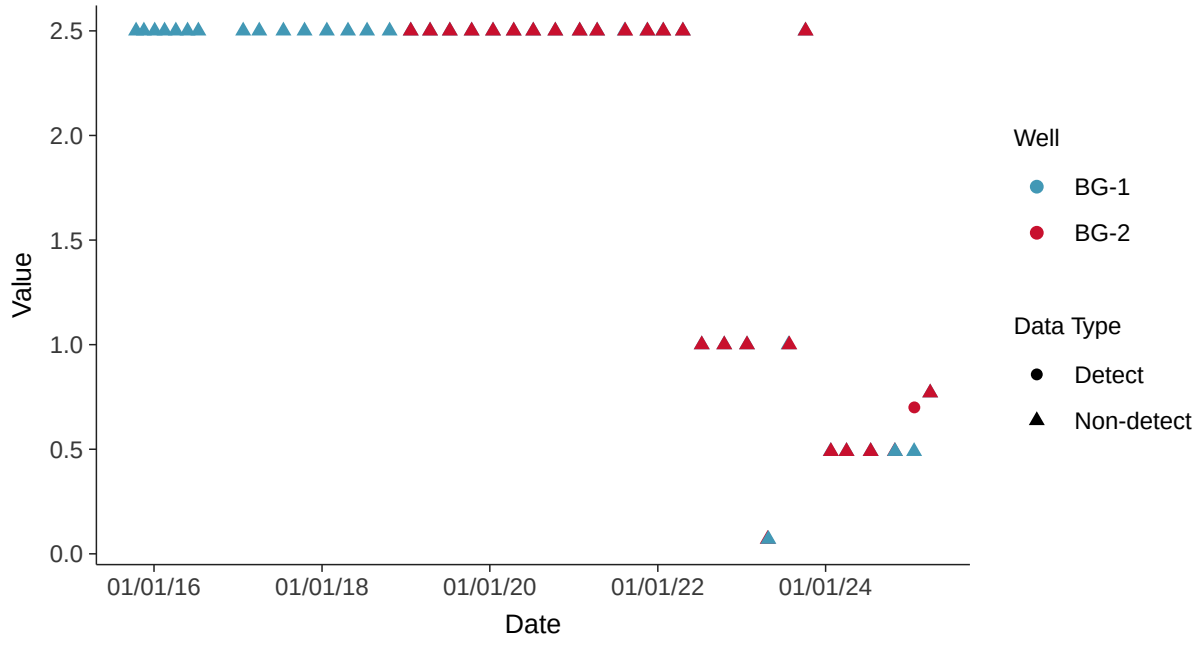
Scatter Plot

Silver, BG-1 & BG-2 (ug/L)



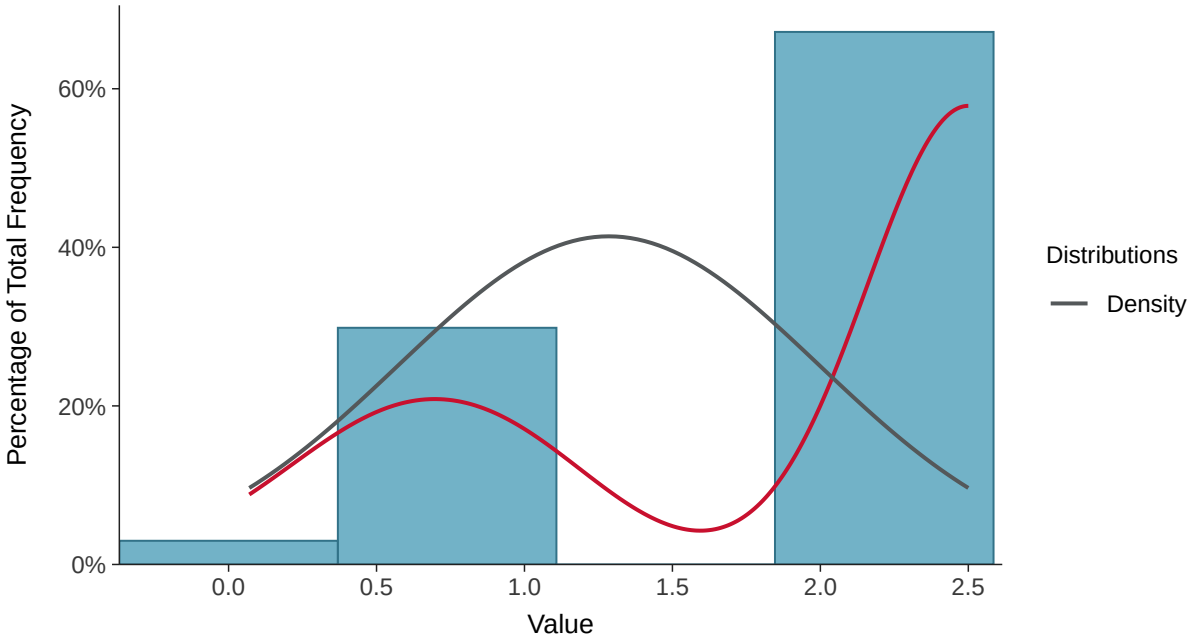
Scatter Plot by Well

Silver, BG-1 & BG-2 (ug/L)



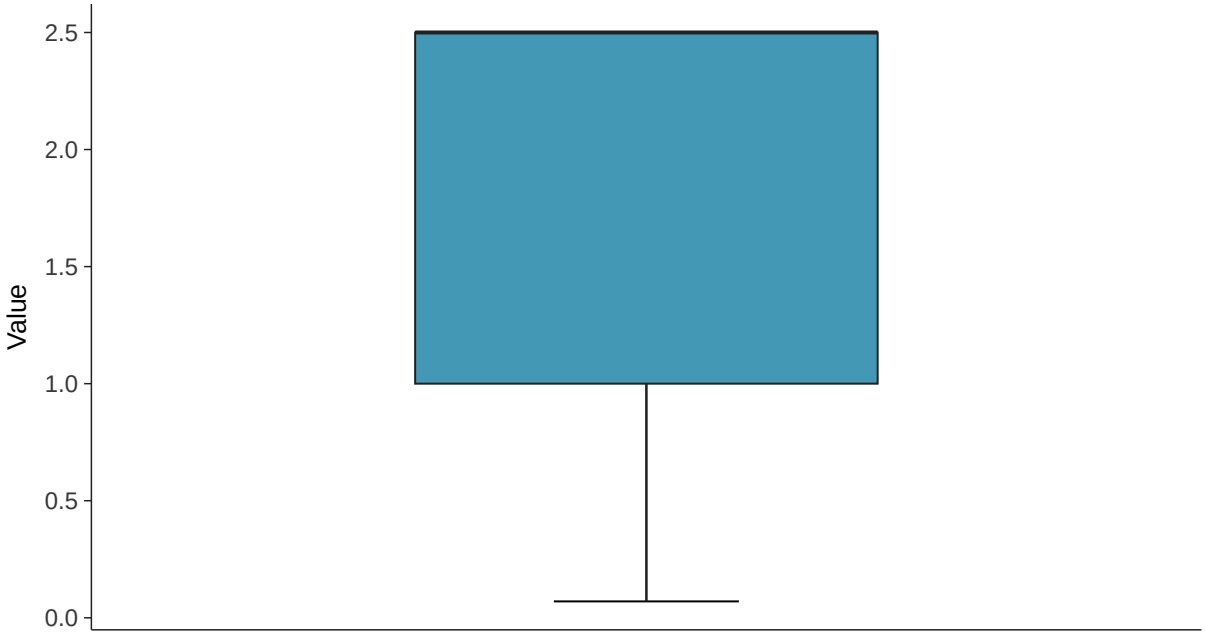
Histogram

Silver, BG-1 & BG-2 (ug/L)



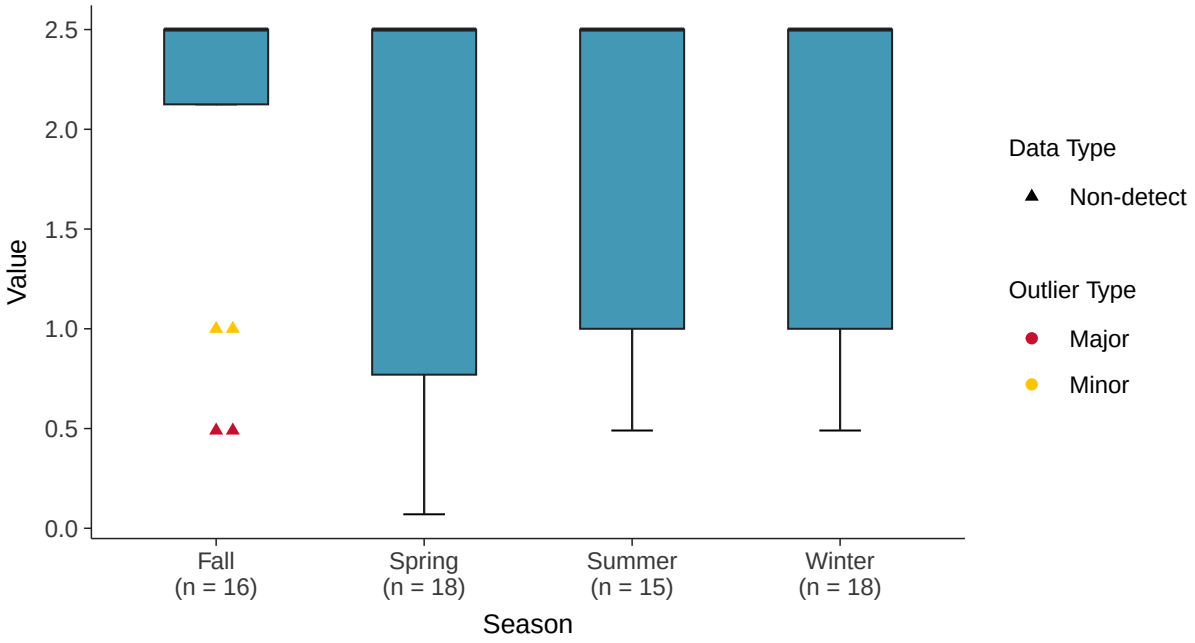
Boxplot

Silver, BG-1 & BG-2 (ug/L)



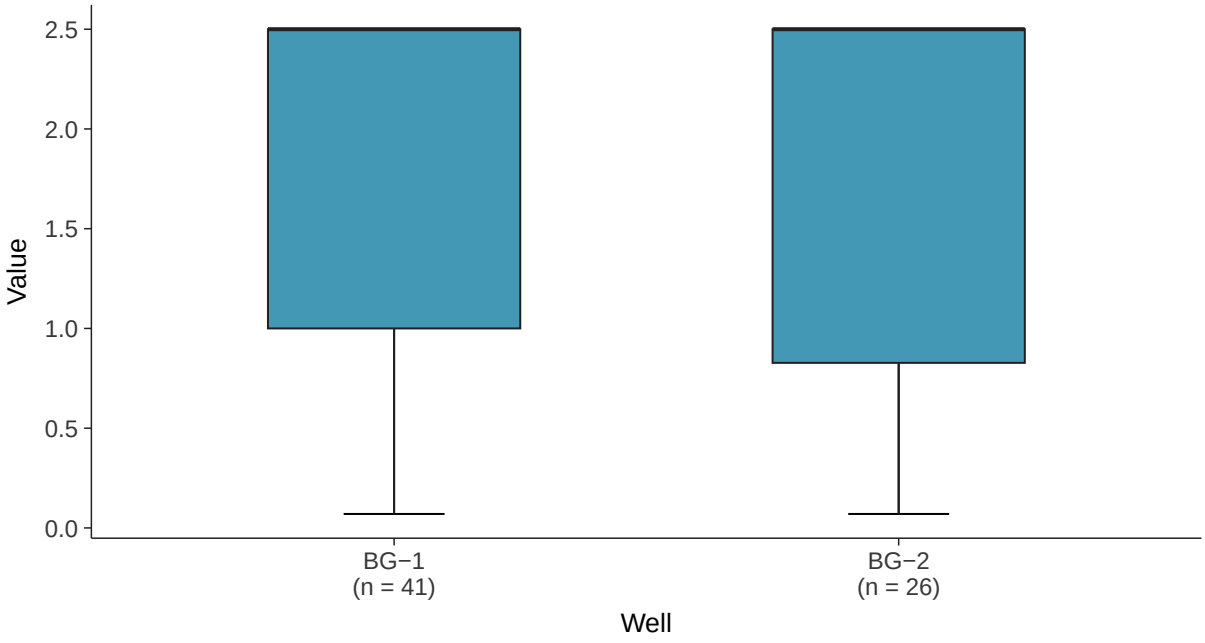
Boxplot by Season

Silver, BG-1 & BG-2 (ug/L)



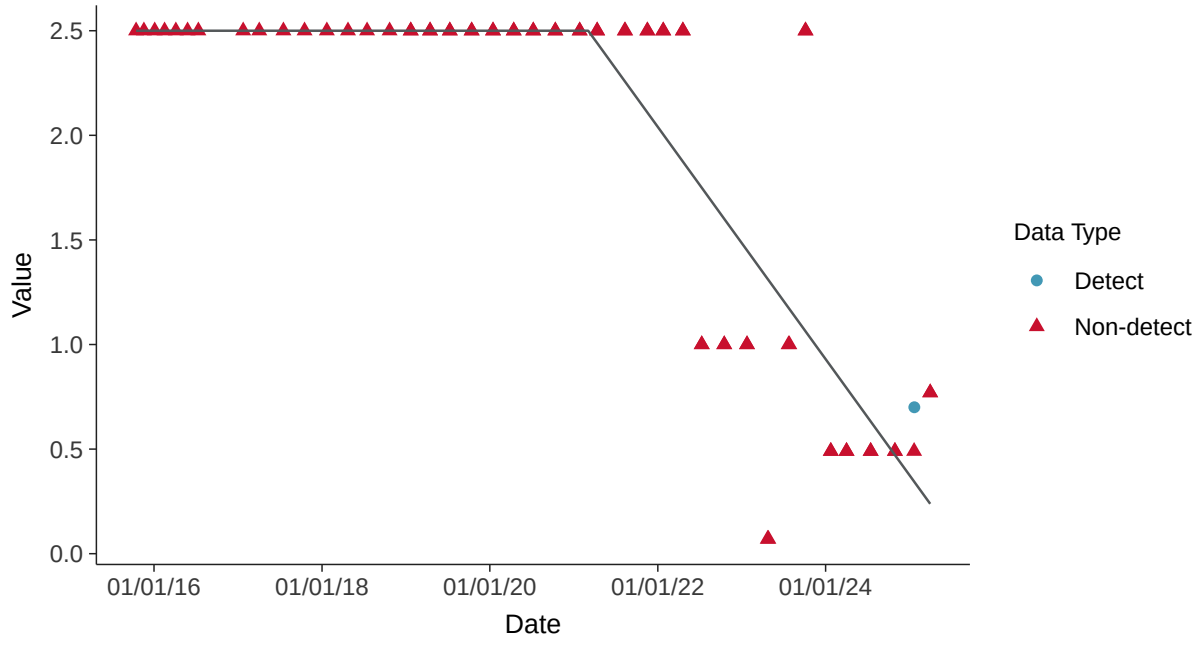
Boxplot by Well

Silver, BG-1 & BG-2 (ug/L)



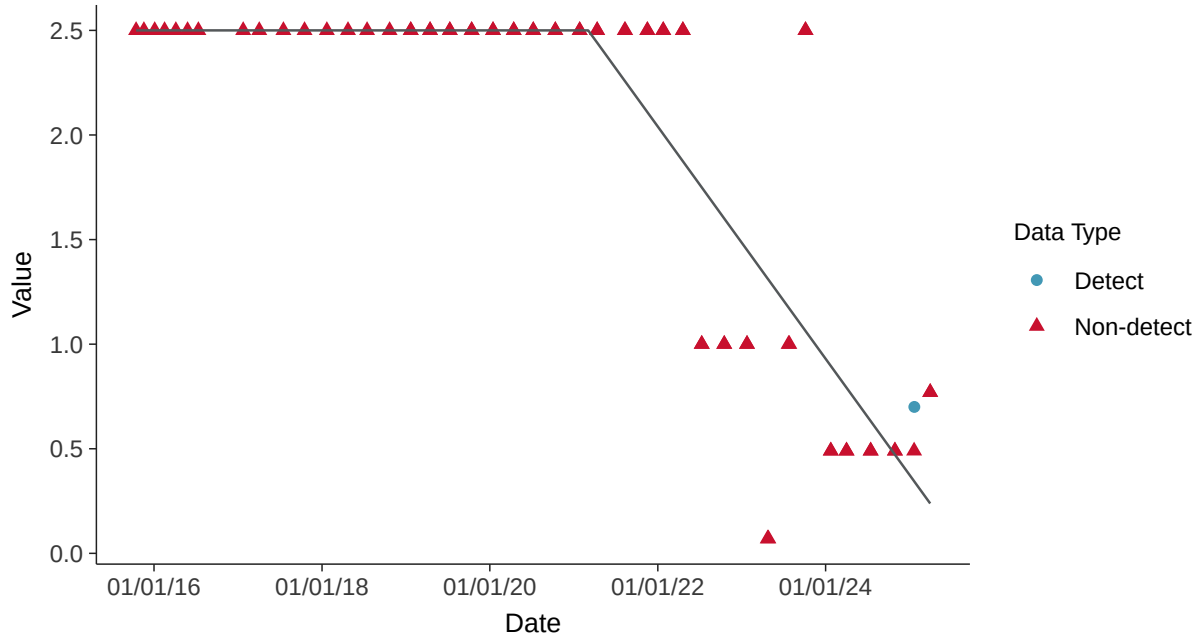
Trend Regression: Piecewise Linear-Linear

Silver, BG-1 & BG-2 (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Silver, BG-1 & BG-2 (ug/L)

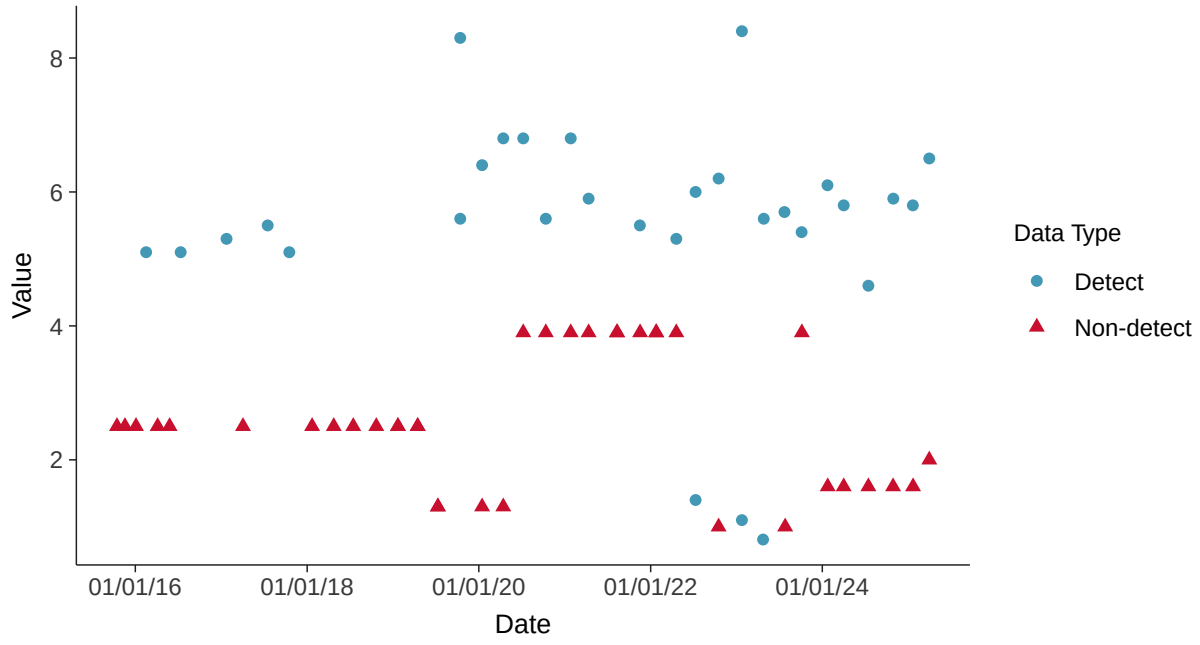


App. I Metals: Vanadium, BG-1 & BG-2

ID: 1_127

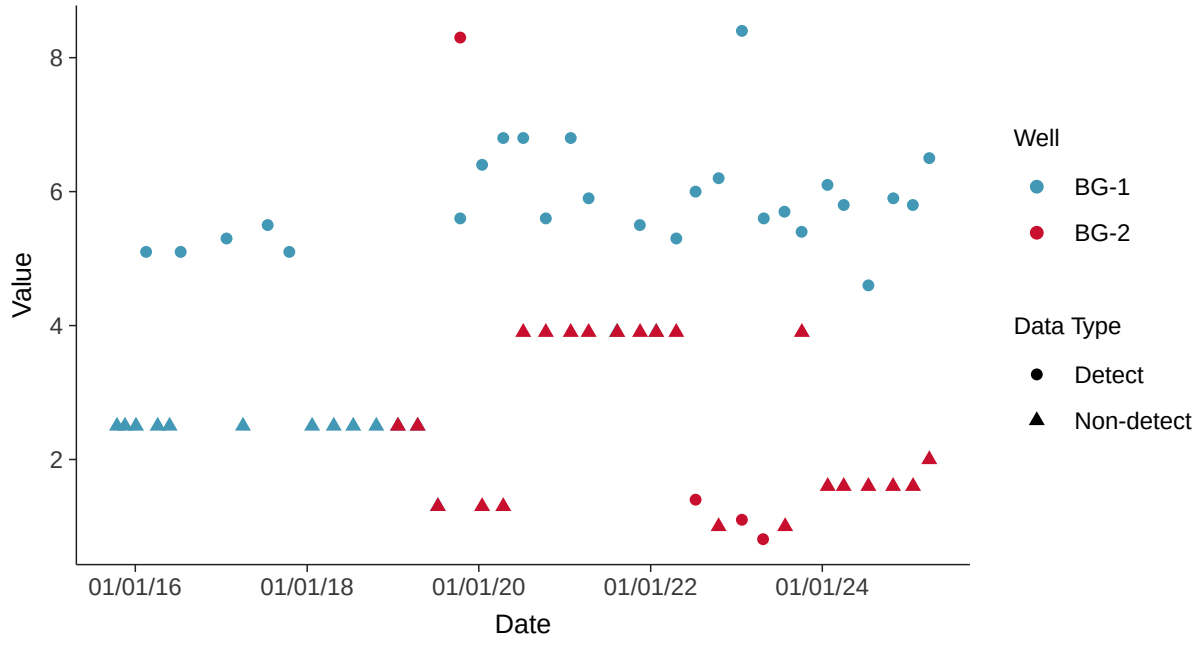
Scatter Plot

Vanadium, BG-1 & BG-2 (ug/L)



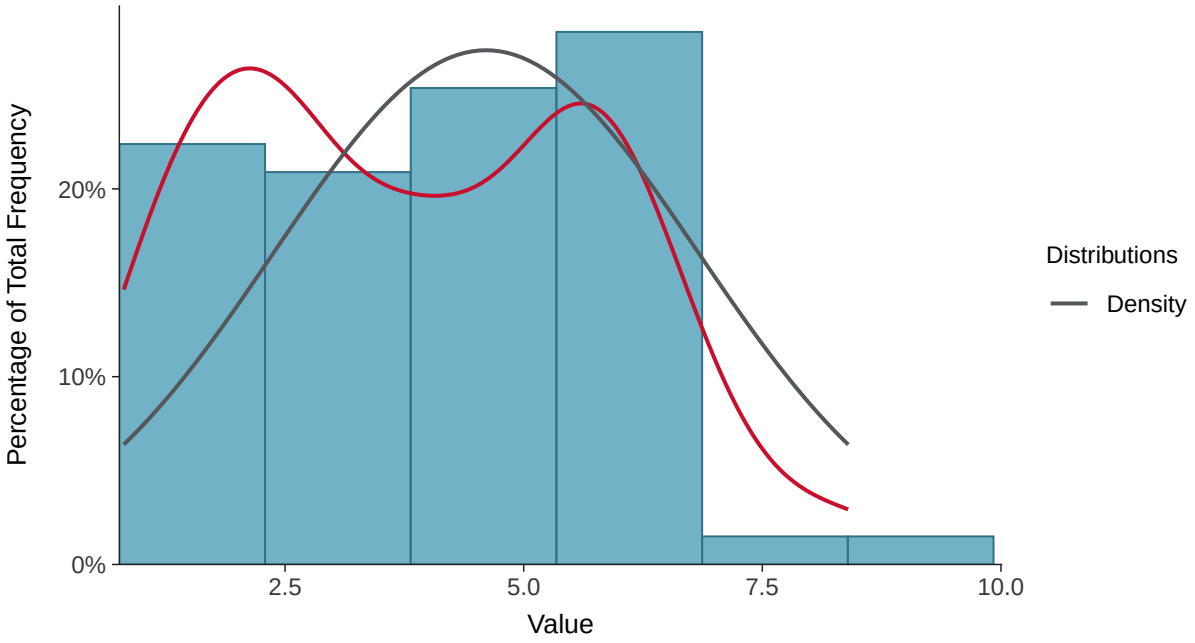
Scatter Plot by Well

Vanadium, BG-1 & BG-2 (ug/L)



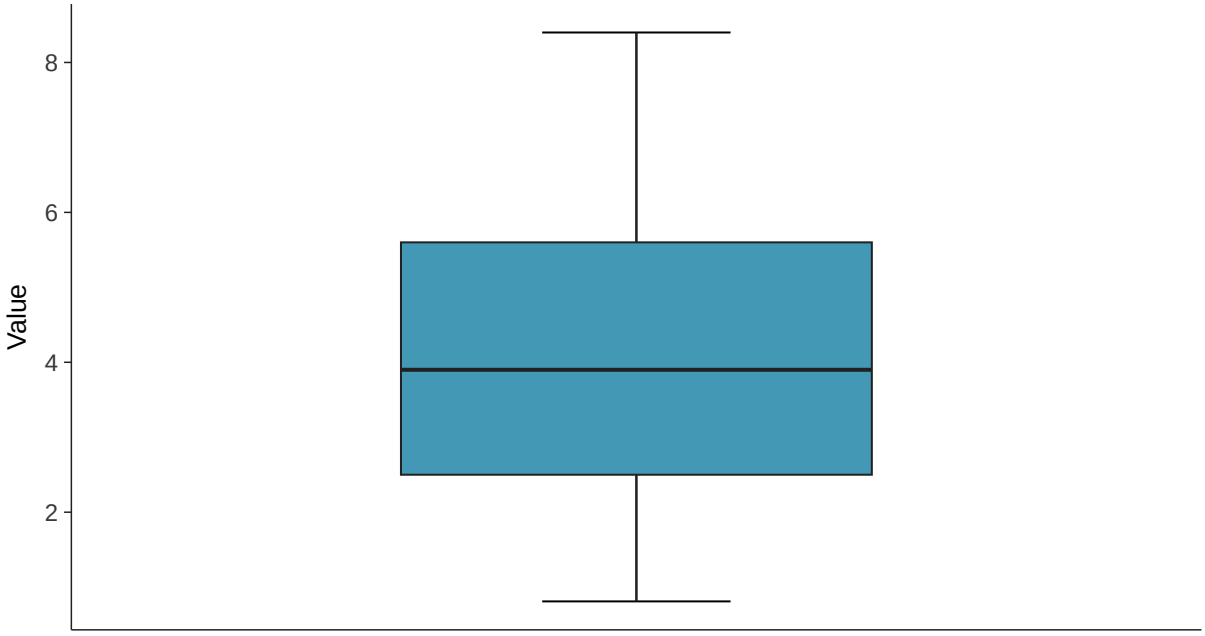
Histogram

Vanadium, BG-1 & BG-2 (ug/L)



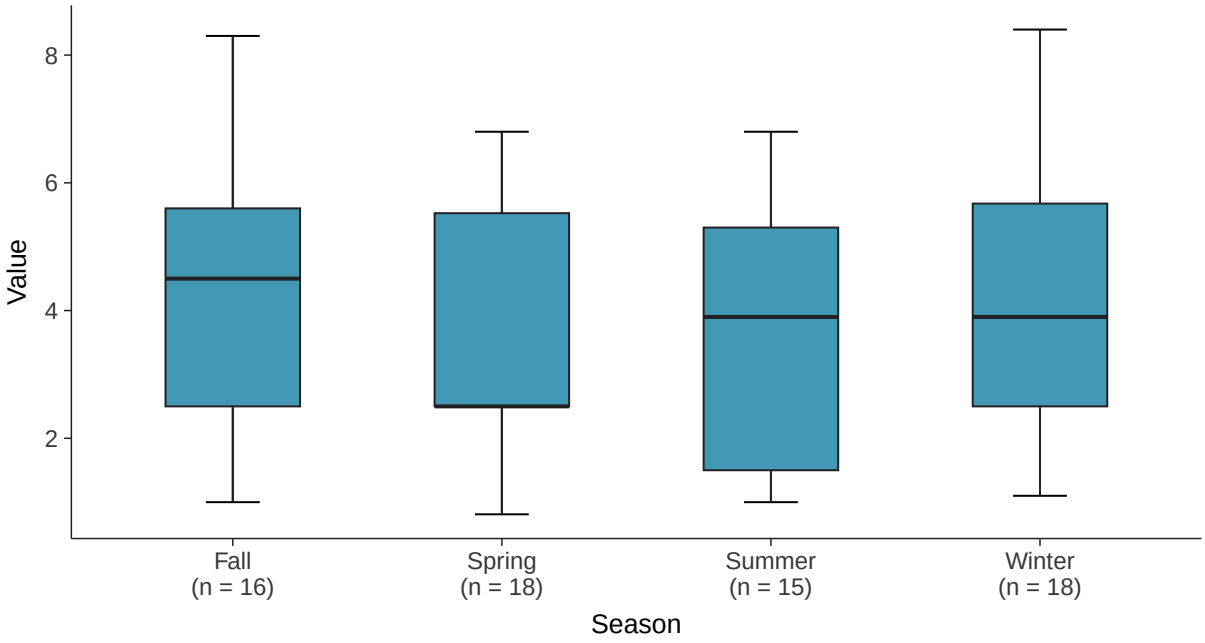
Boxplot

Vanadium, BG-1 & BG-2 (ug/L)



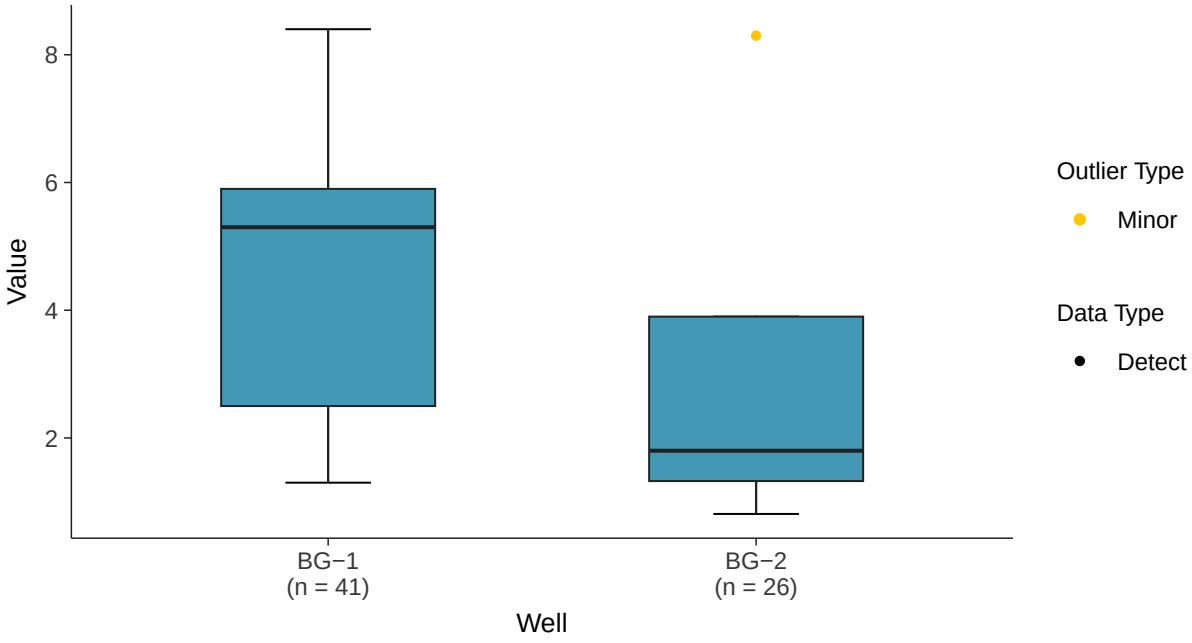
Boxplot by Season

Vanadium, BG-1 & BG-2 (ug/L)



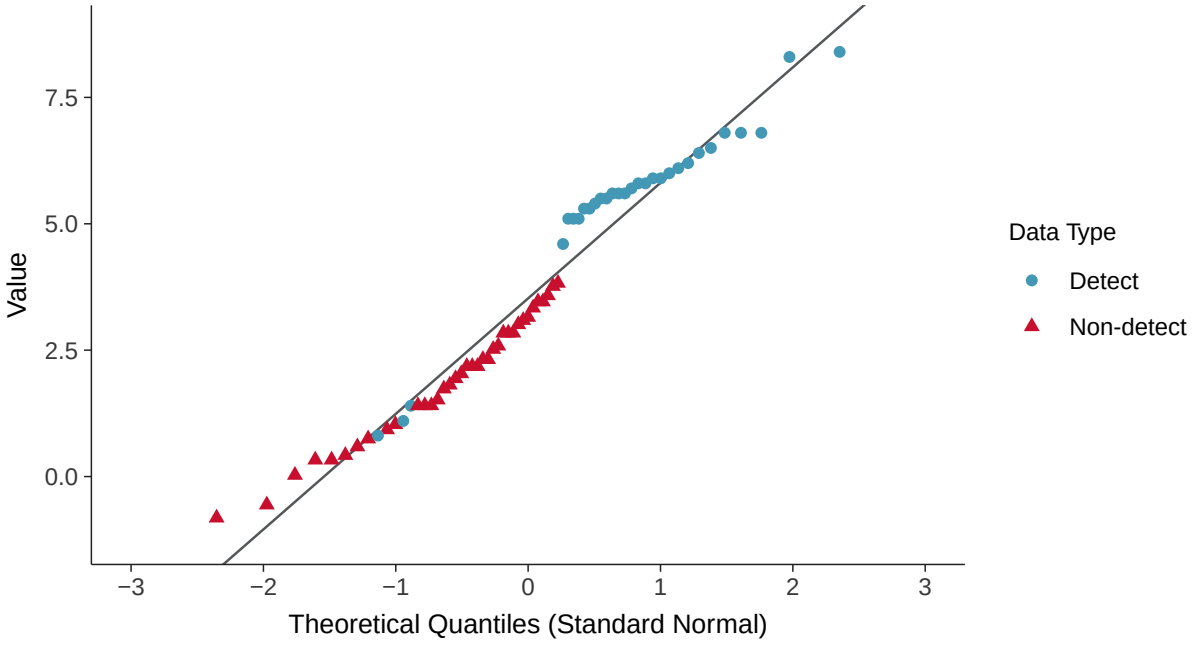
Boxplot by Well

Vanadium, BG-1 & BG-2 (ug/L)



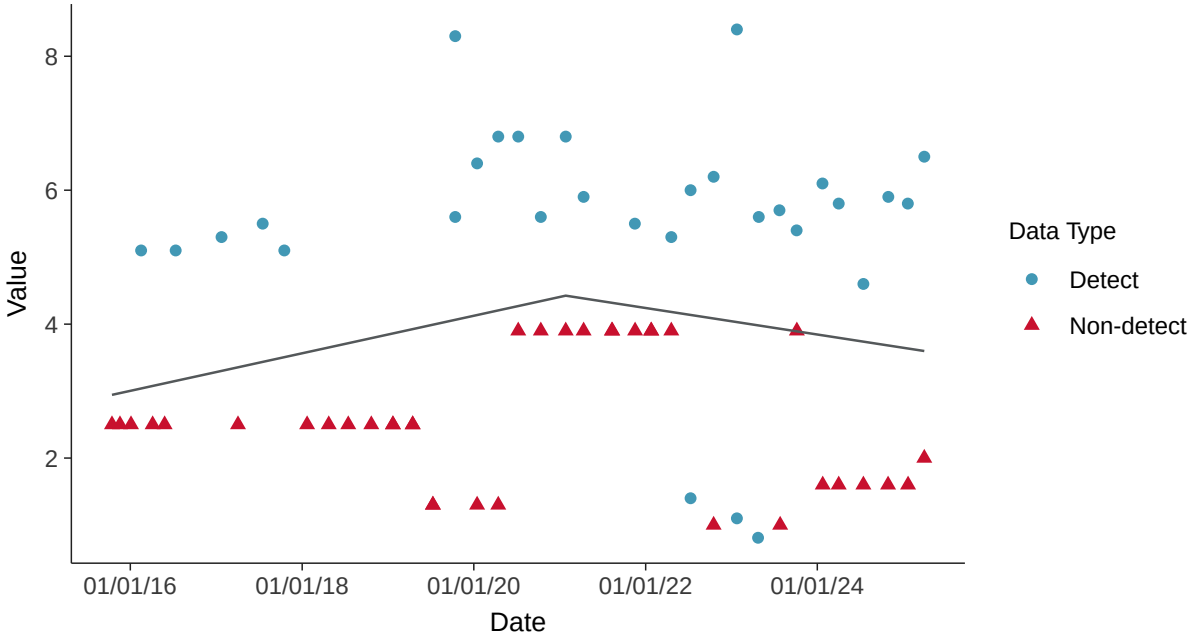
Normal Q-Q plot using ROS Imputed Estimates

Vanadium, BG-1 & BG-2 (ug/L)



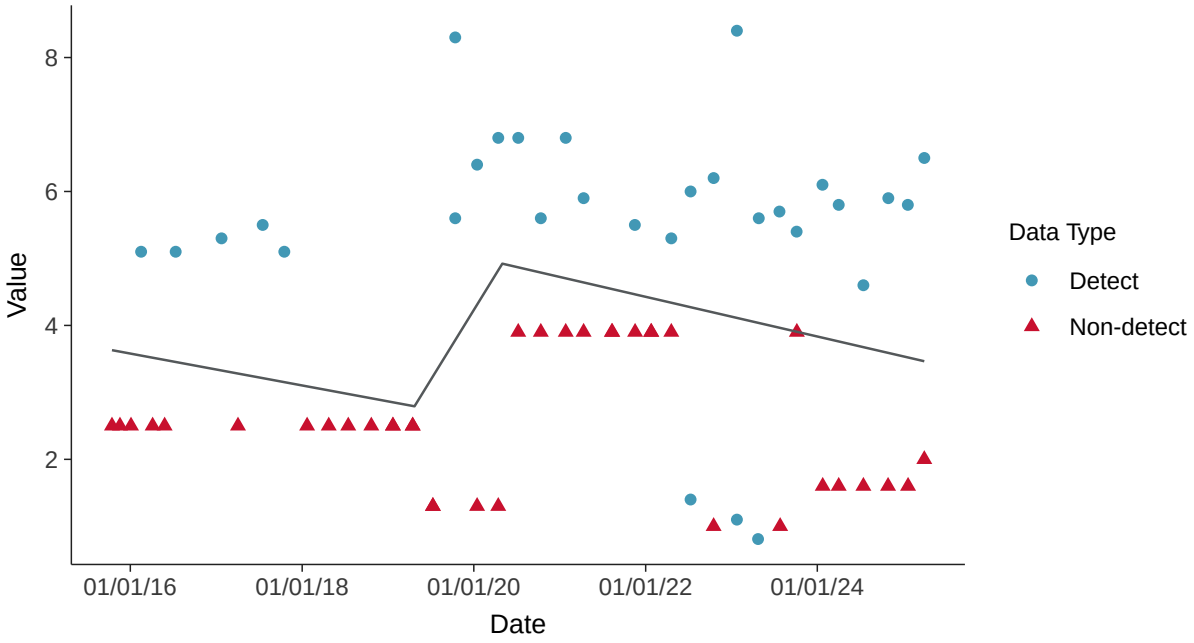
Trend Regression: Piecewise Linear-Linear

Vanadium, BG-1 & BG-2 (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Vanadium, BG-1 & BG-2 (ug/L)

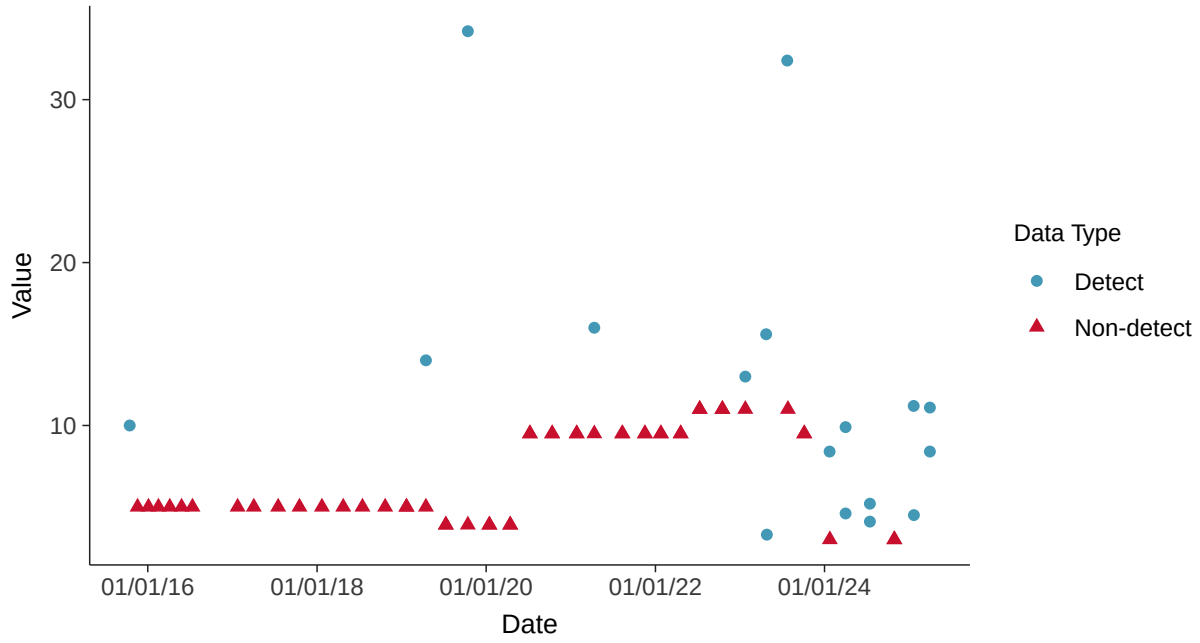


App. I Metals: Zinc, BG-1 & BG-2

ID: 1_128

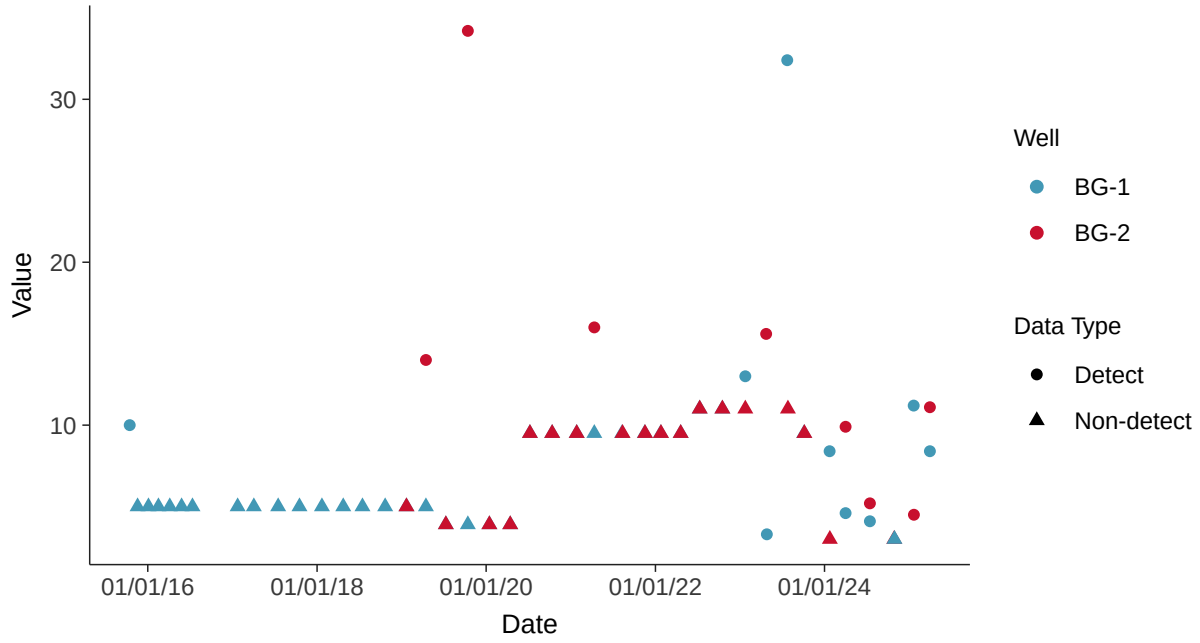
Scatter Plot

Zinc, BG-1 & BG-2 (ug/L)



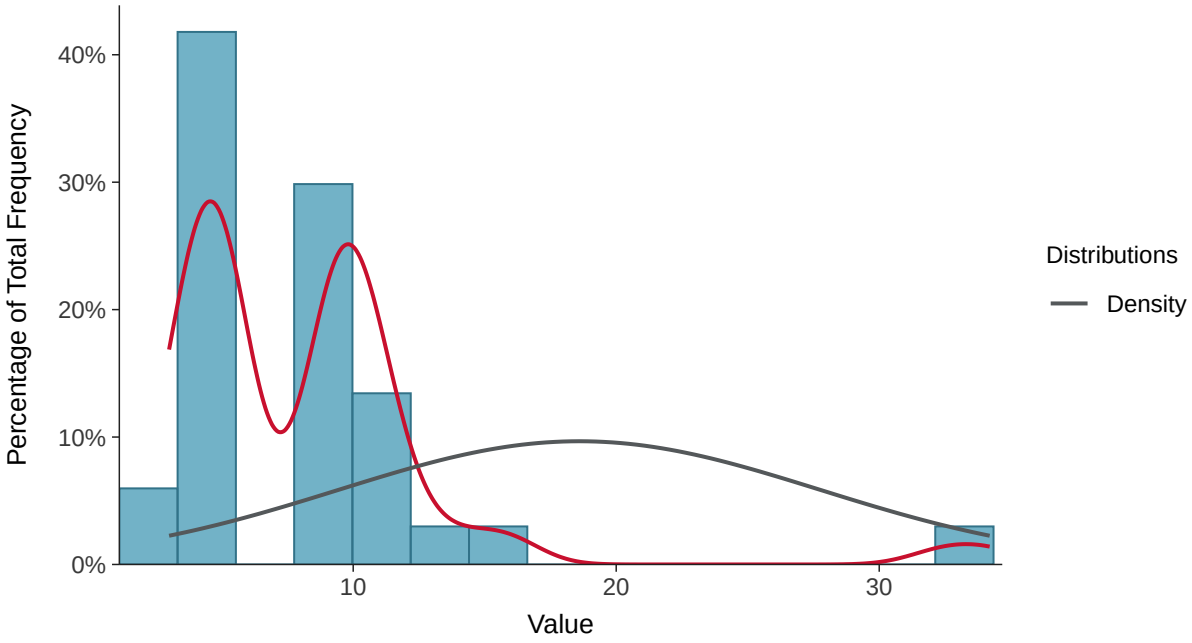
Scatter Plot by Well

Zinc, BG-1 & BG-2 (ug/L)



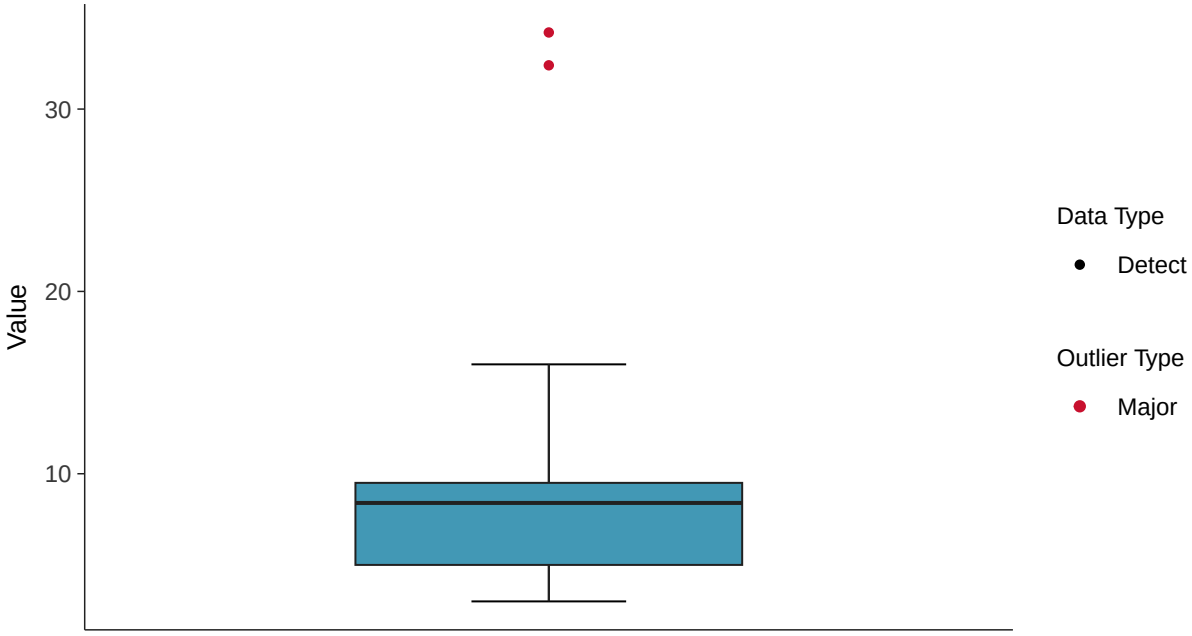
Histogram

Zinc, BG-1 & BG-2 (ug/L)



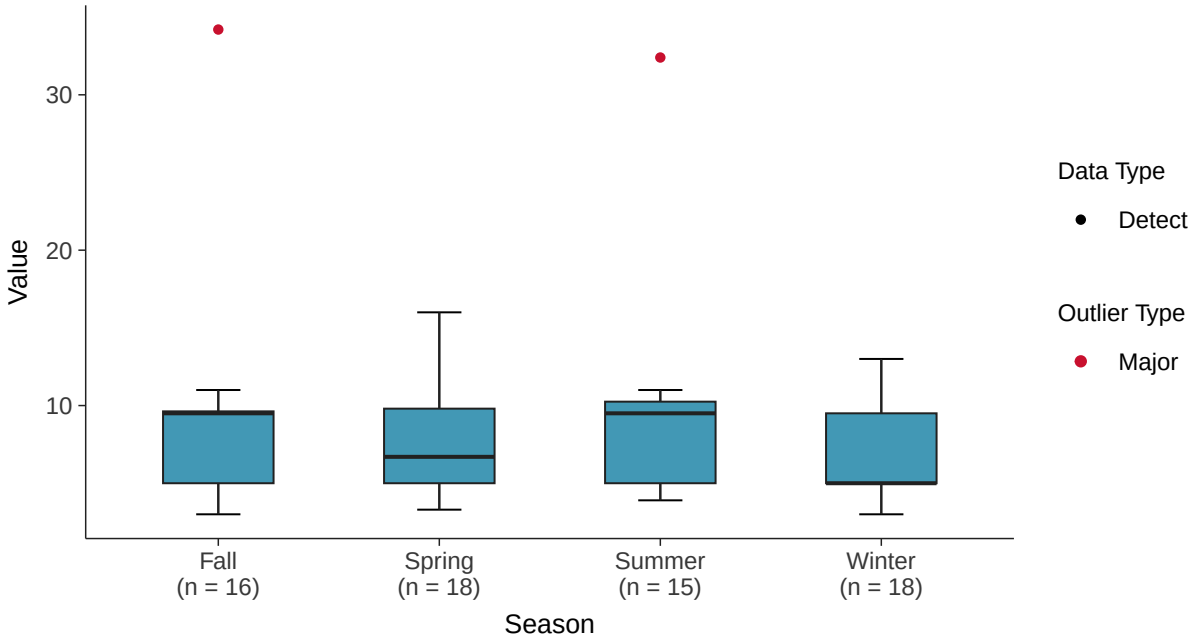
Boxplot

Zinc, BG-1 & BG-2 (ug/L)



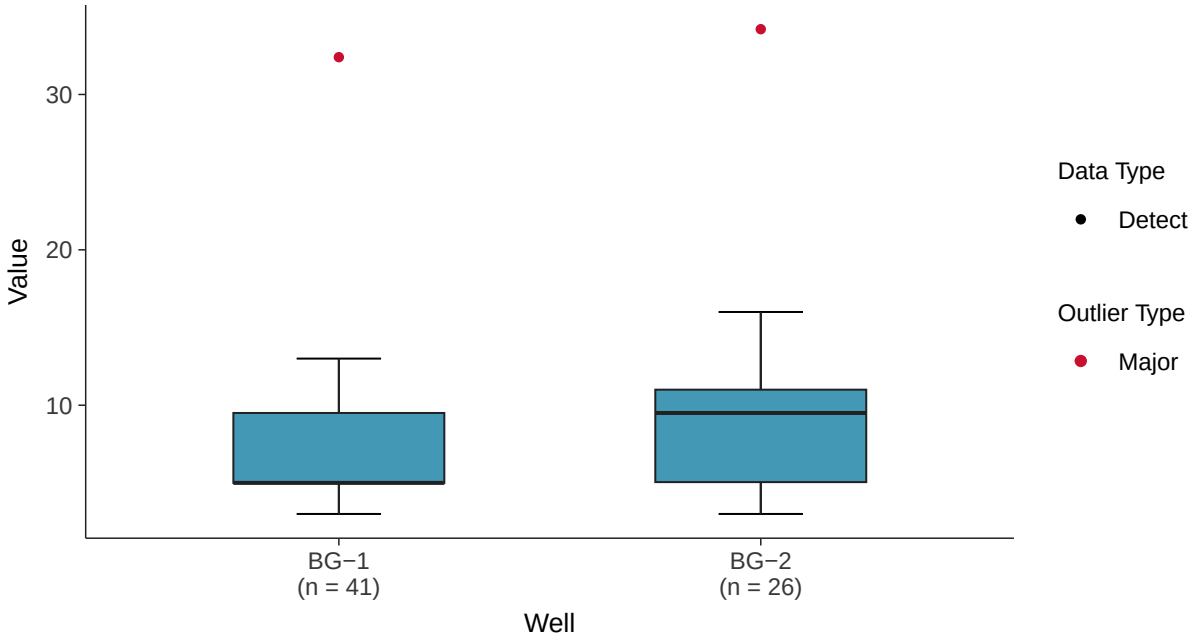
Boxplot by Season

Zinc, BG-1 & BG-2 (ug/L)



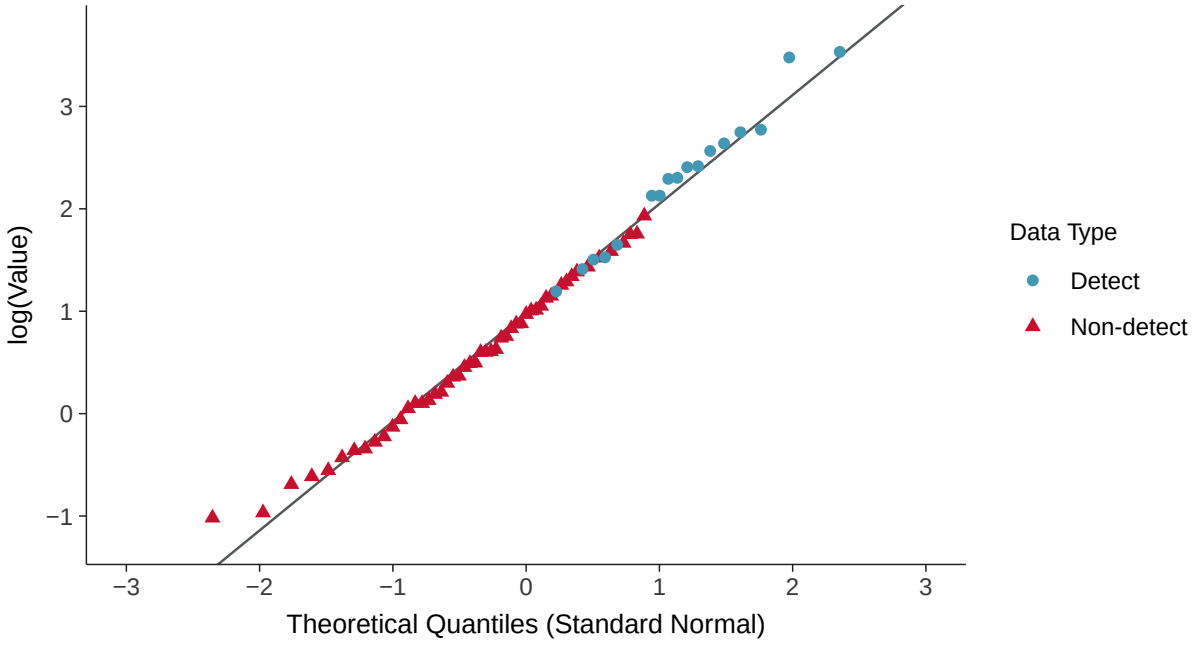
Boxplot by Well

Zinc, BG-1 & BG-2 (ug/L)



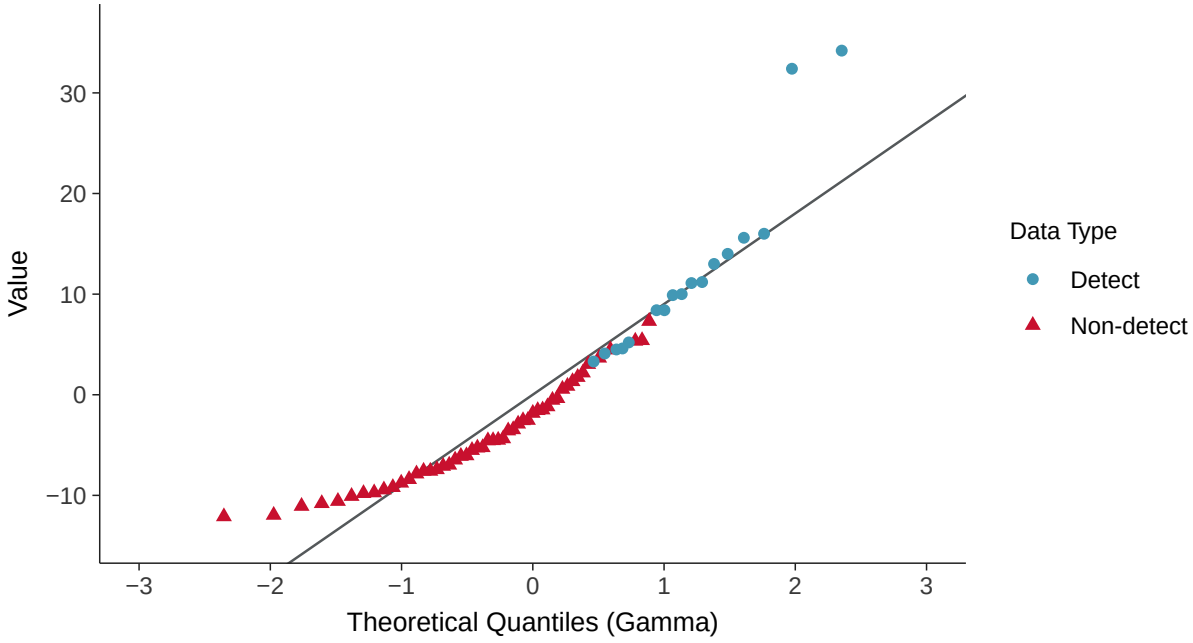
Lognormal Q-Q plot using ROS Imputed Estimates

Zinc, BG-1 & BG-2 (ug/L)



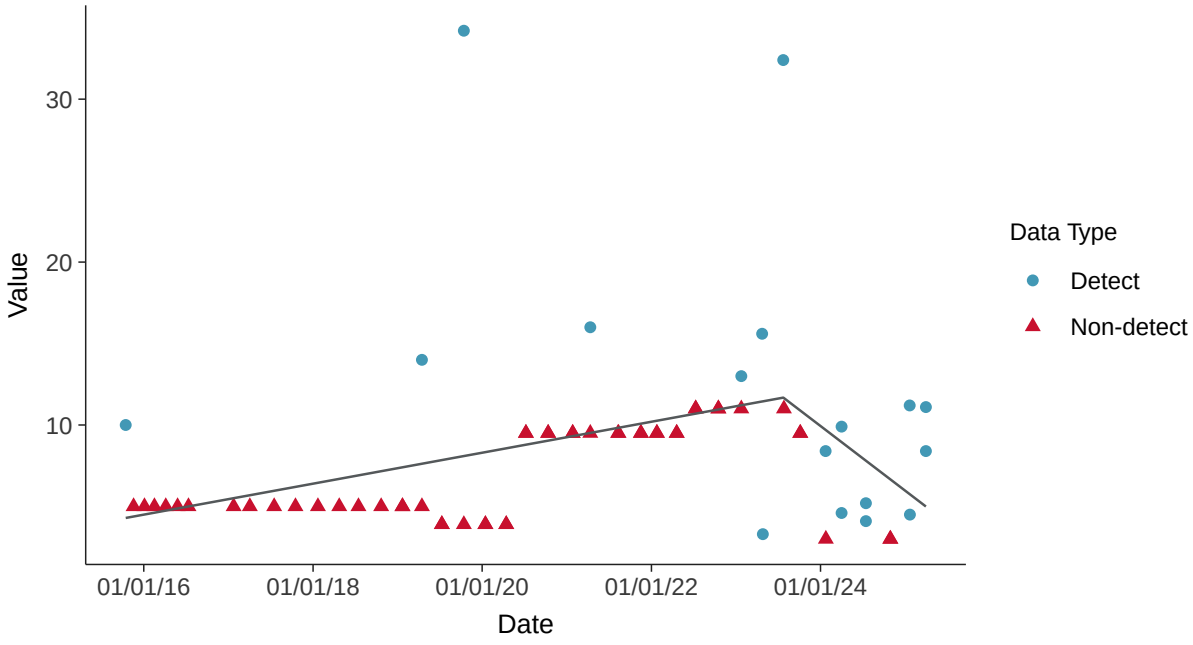
Gamma Q-Q plot using ROS Imputed Estimates

Zinc, BG-1 & BG-2 (ug/L)



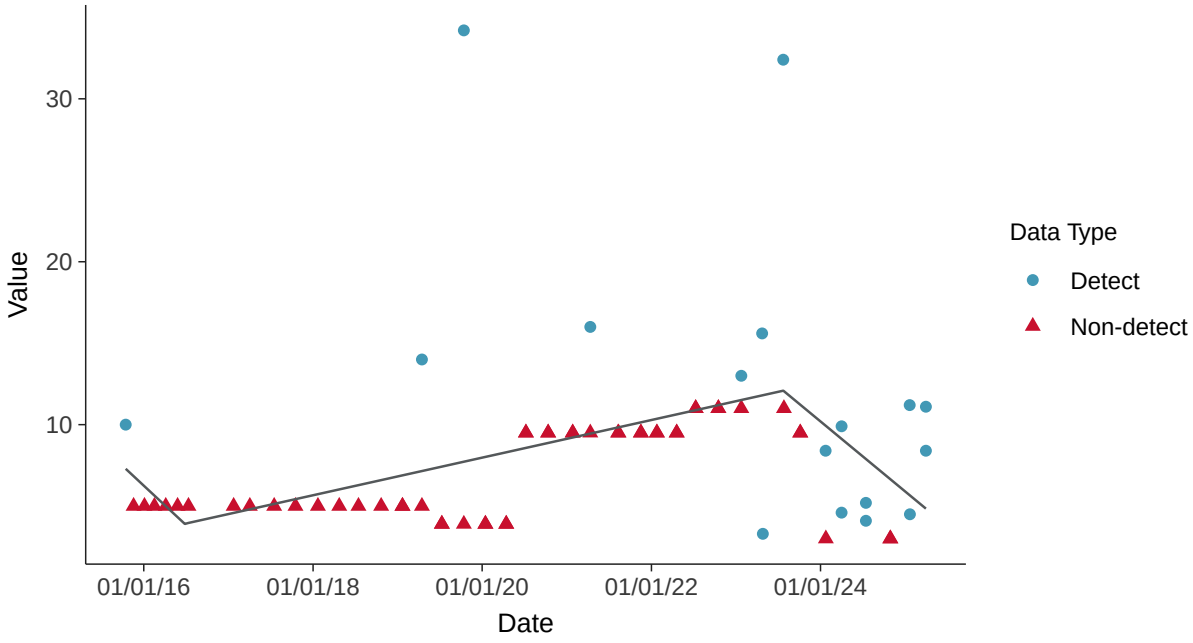
Trend Regression: Piecewise Linear-Linear

Zinc, BG-1 & BG-2 (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Zinc, BG-1 & BG-2 (ug/L)

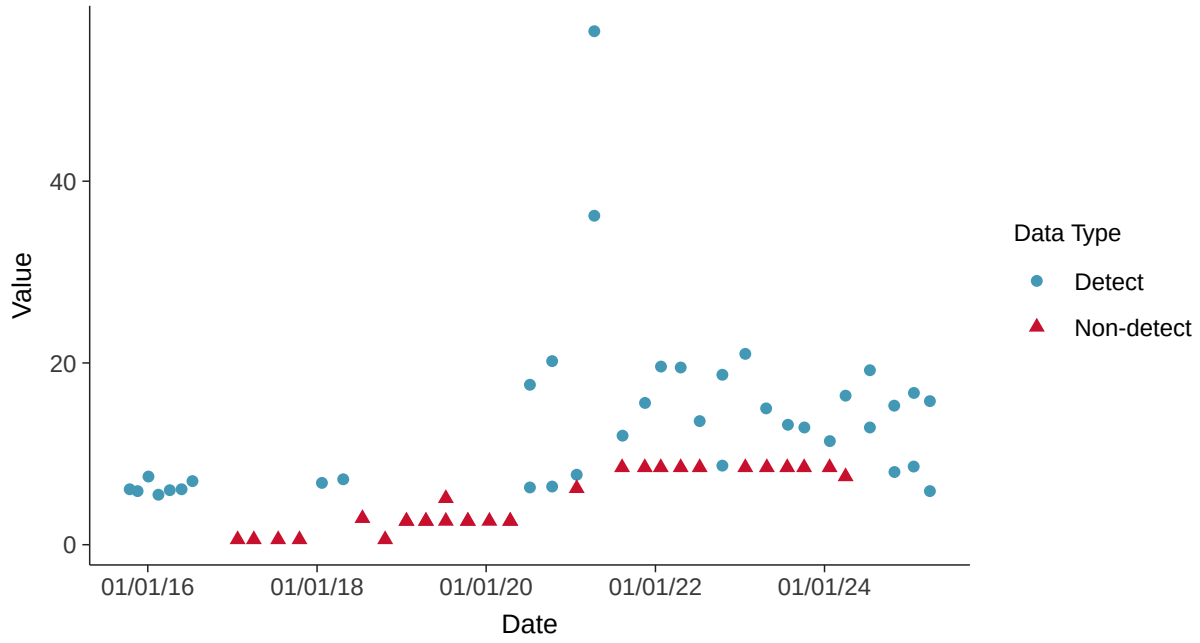


App. III: Boron, BG-1 & BG-2

ID: 2_105

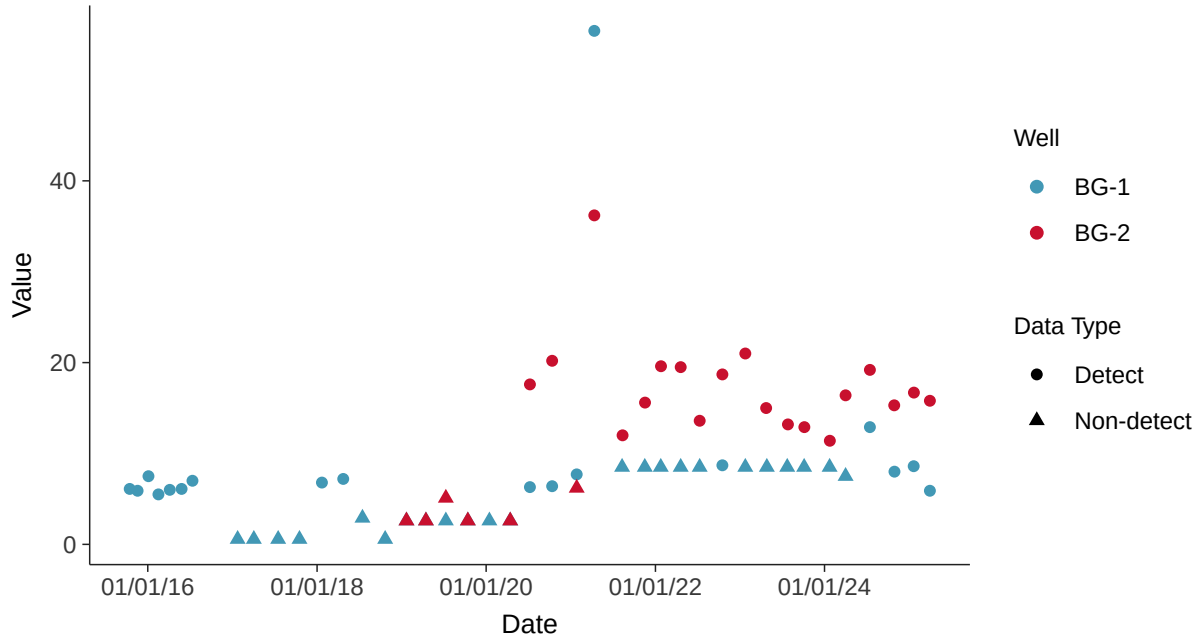
Scatter Plot

Boron, BG-1 & BG-2 (ug/L)



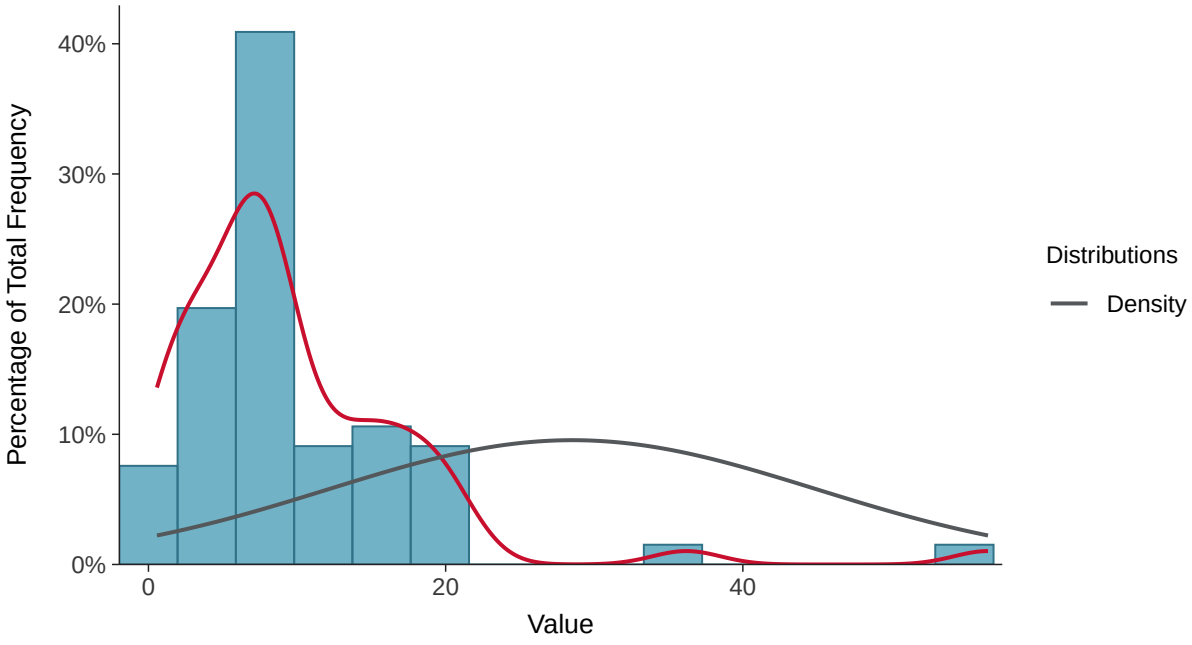
Scatter Plot by Well

Boron, BG-1 & BG-2 (ug/L)



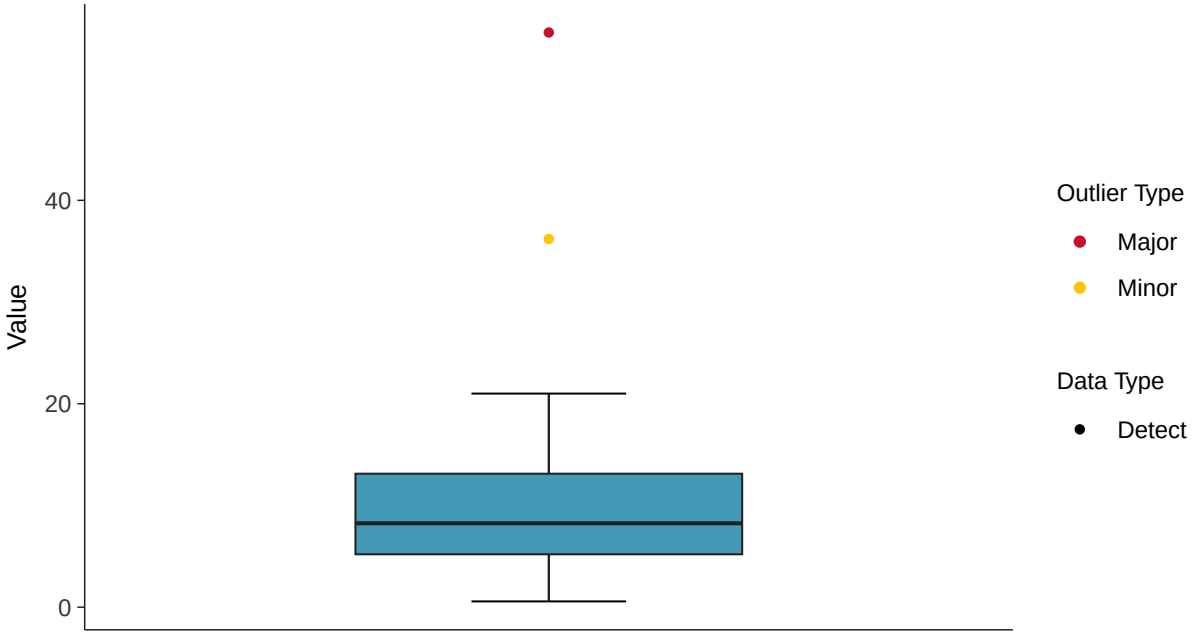
Histogram

Boron, BG-1 & BG-2 (ug/L)



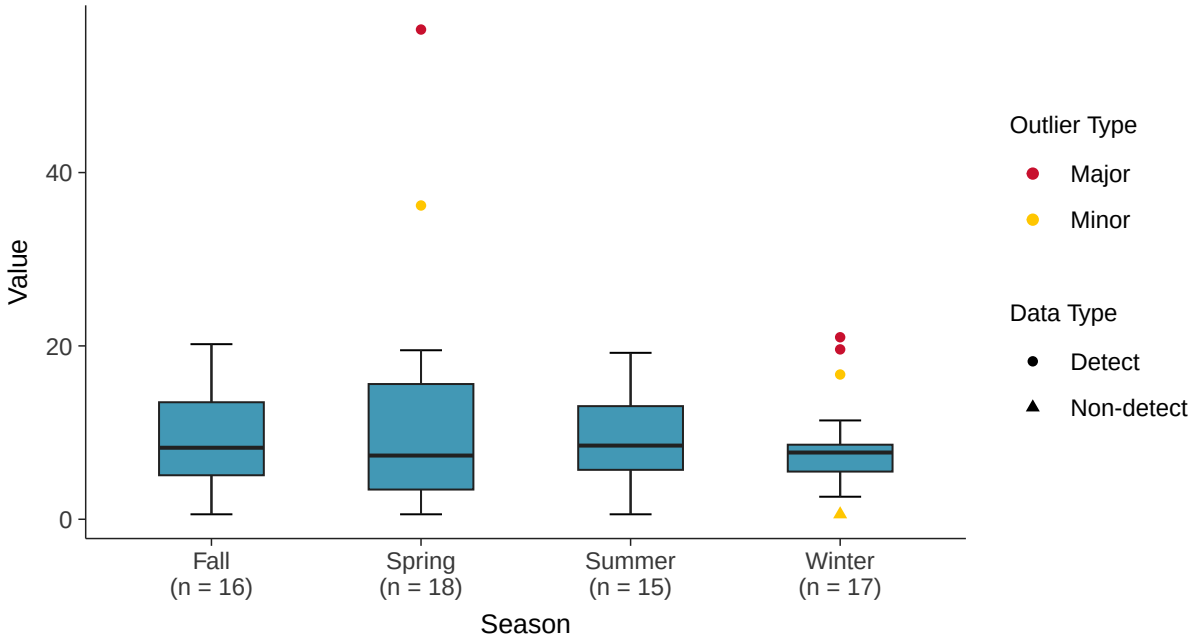
Boxplot

Boron, BG-1 & BG-2 (ug/L)



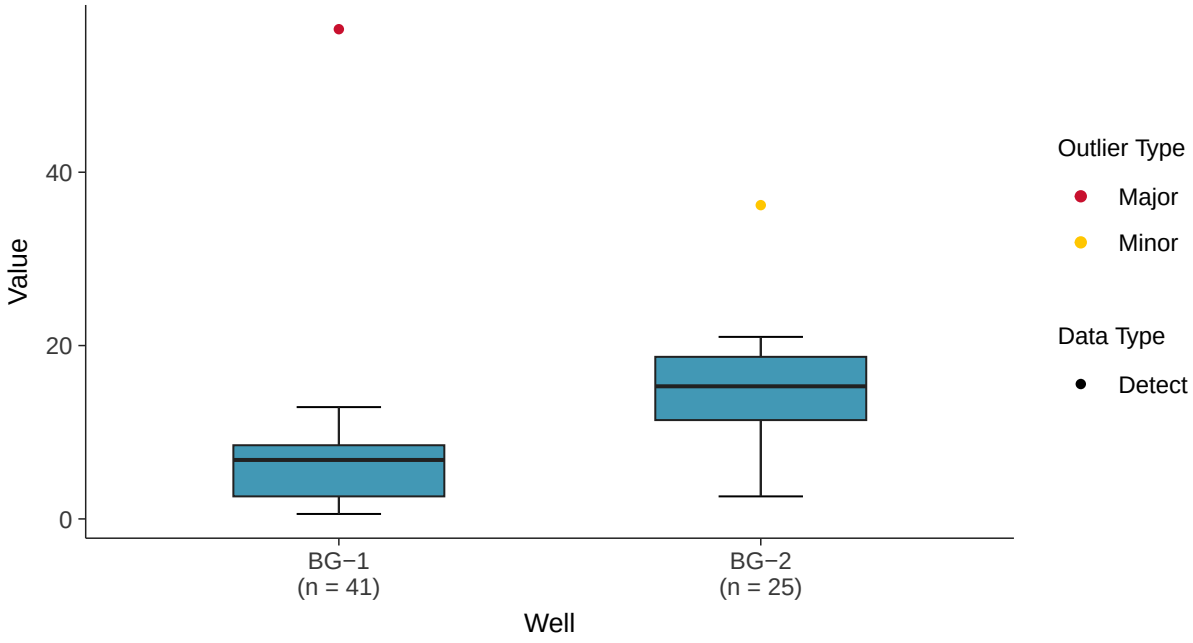
Boxplot by Season

Boron, BG-1 & BG-2 (ug/L)



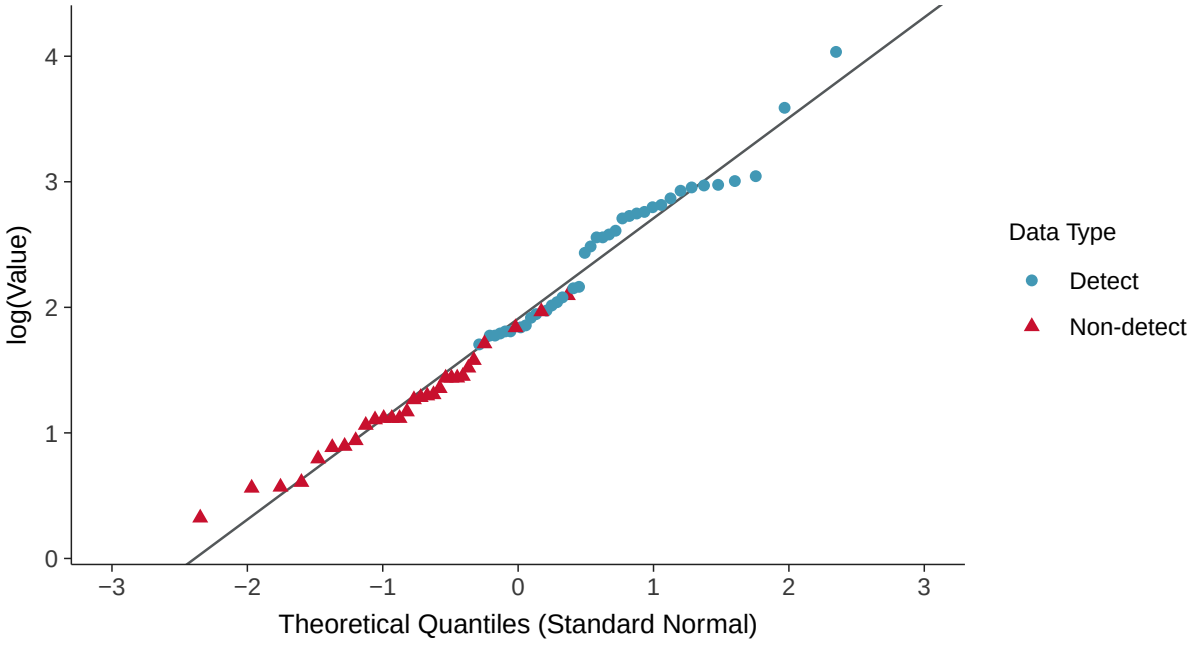
Boxplot by Well

Boron, BG-1 & BG-2 (ug/L)



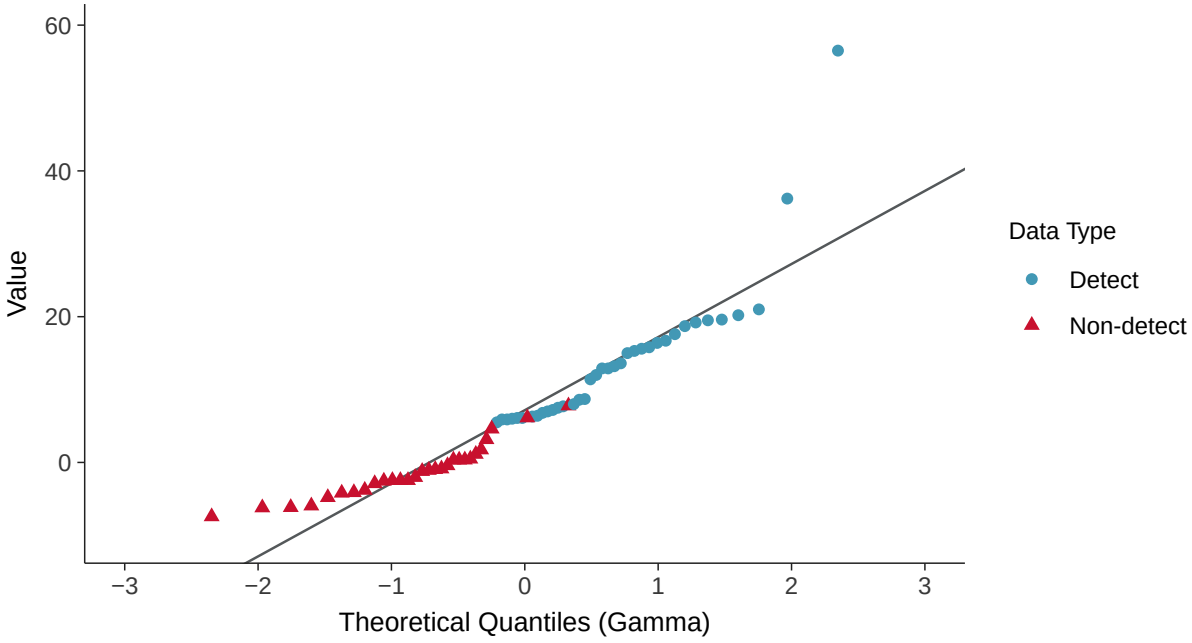
Lognormal Q-Q plot using ROS Imputed Estimates

Boron, BG-1 & BG-2 (ug/L)



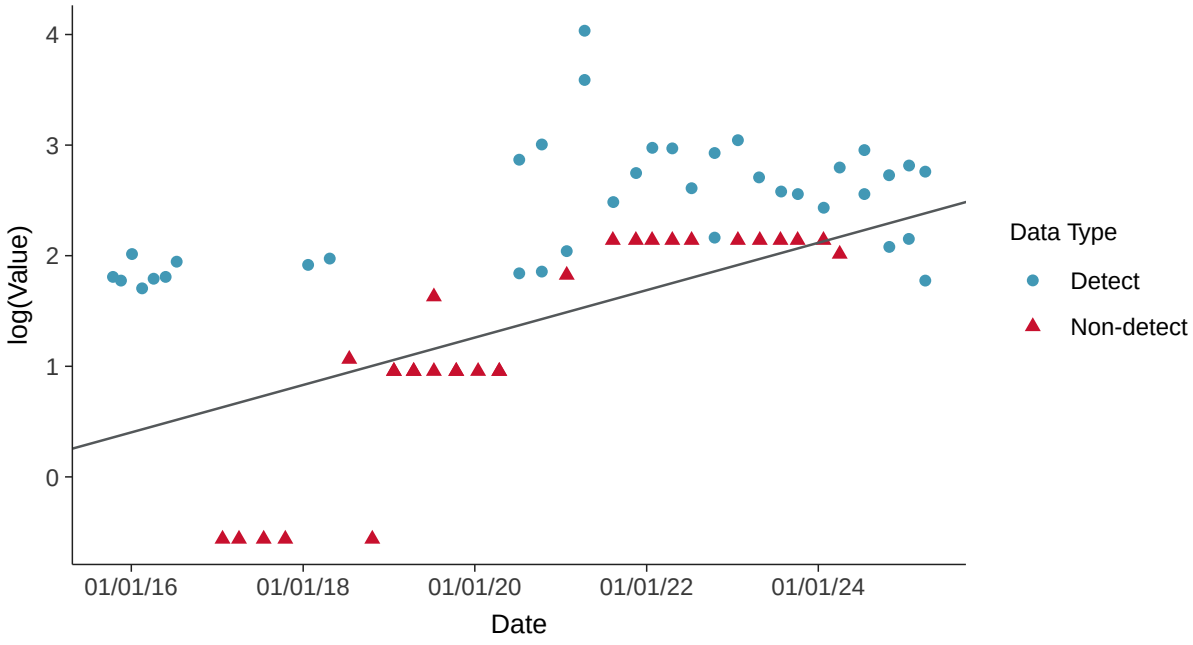
Gamma Q-Q plot using ROS Imputed Estimates

Boron, BG-1 & BG-2 (ug/L)



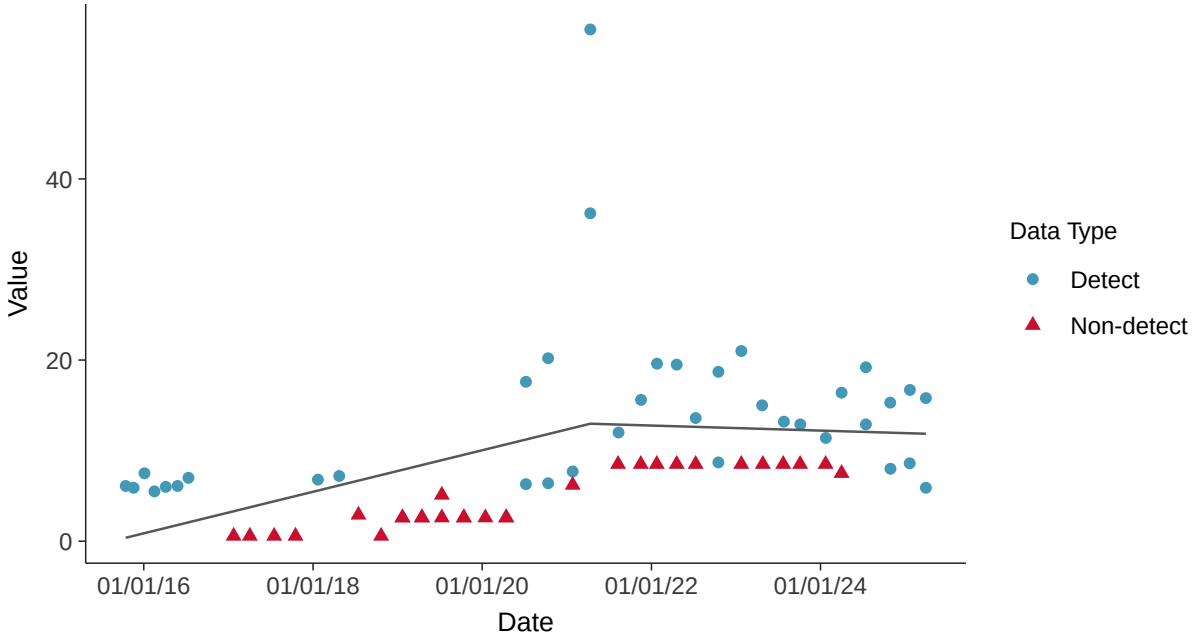
Trend Regression: Lognormal MLE

Boron, BG-1 & BG-2 (ug/L)



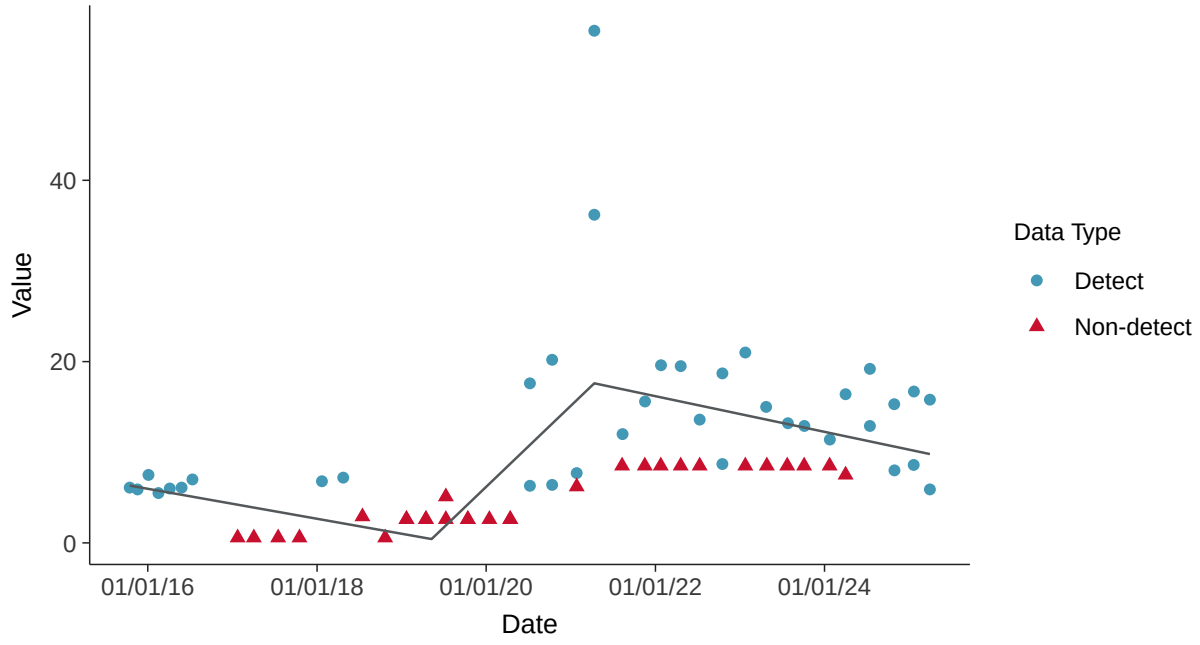
Trend Regression: Piecewise Linear-Linear

Boron, BG-1 & BG-2 (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Boron, BG-1 & BG-2 (ug/L)

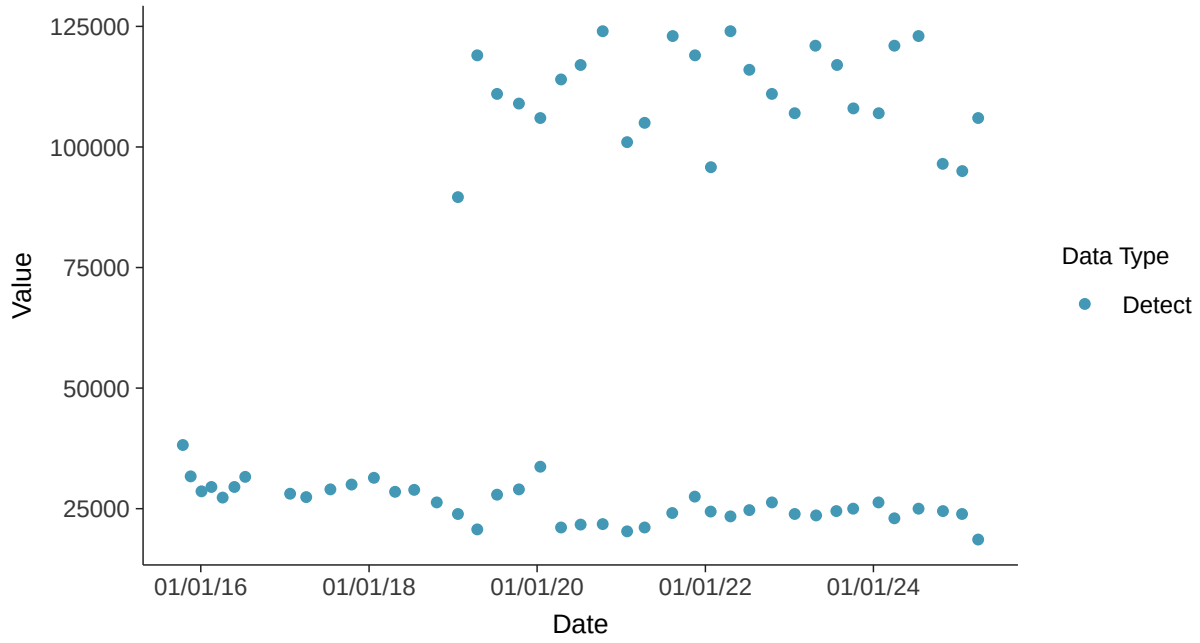


App. III: Calcium, BG-1 & BG-2

ID: 2_107

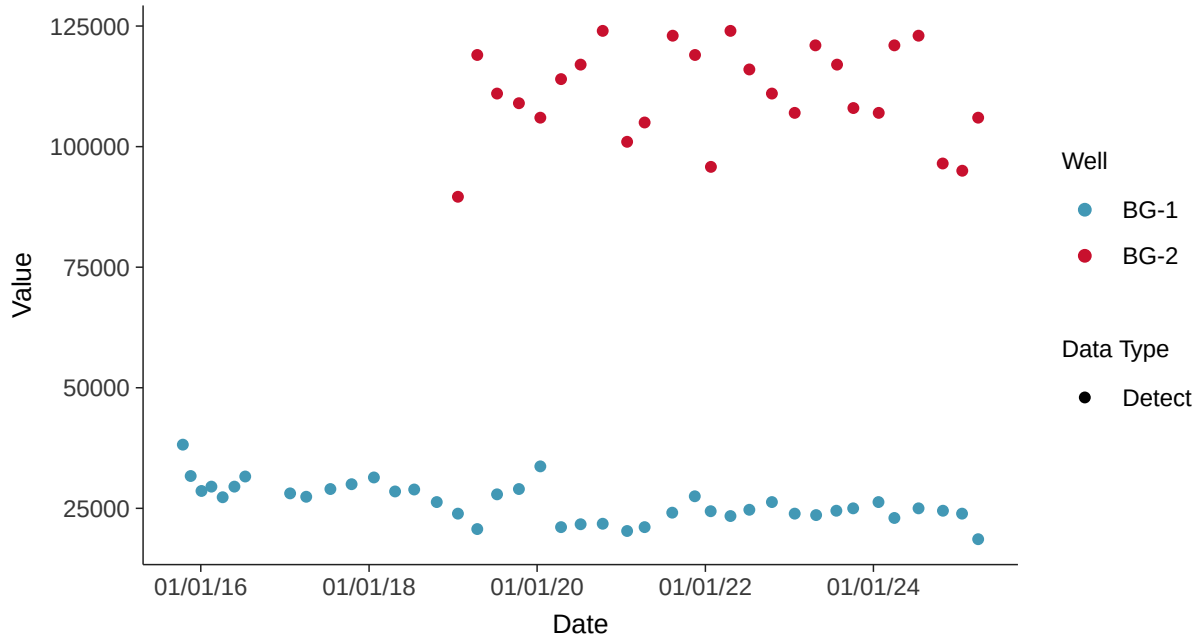
Scatter Plot

Calcium, BG-1 & BG-2 (ug/L)



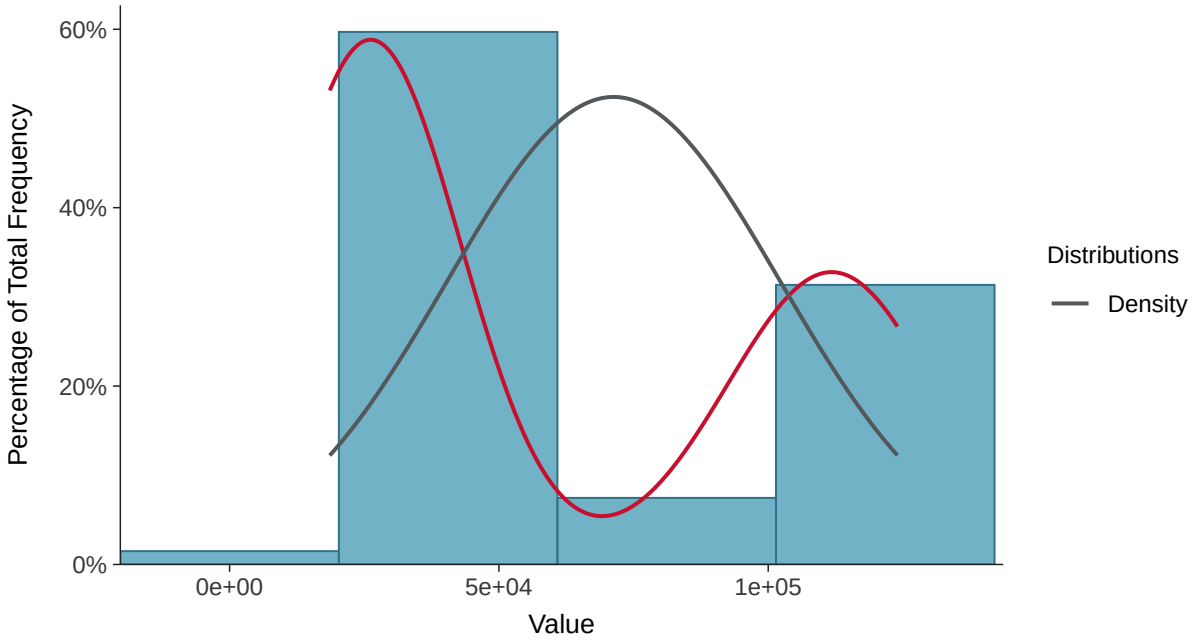
Scatter Plot by Well

Calcium, BG-1 & BG-2 (ug/L)



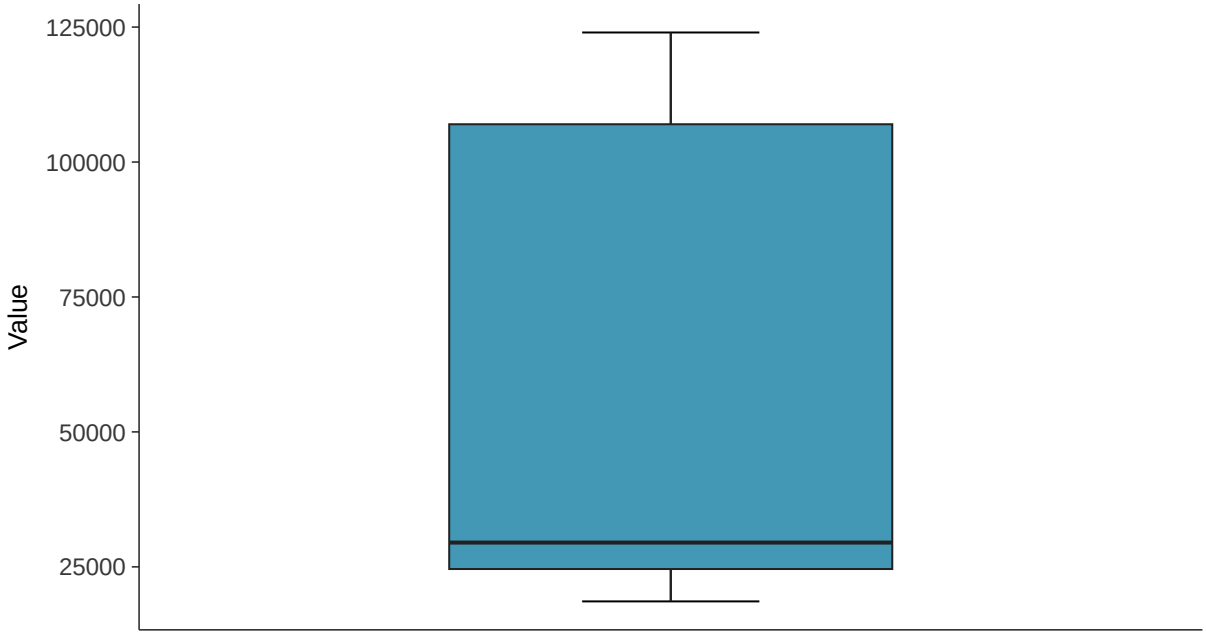
Histogram

Calcium, BG-1 & BG-2 (ug/L)



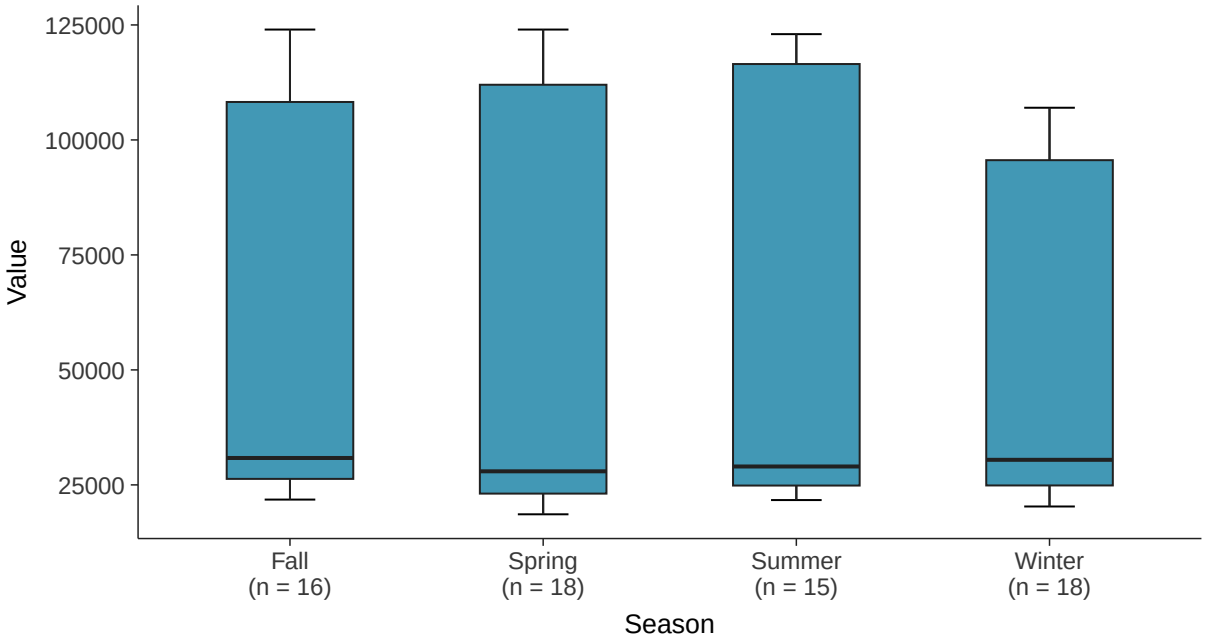
Boxplot

Calcium, BG-1 & BG-2 (ug/L)



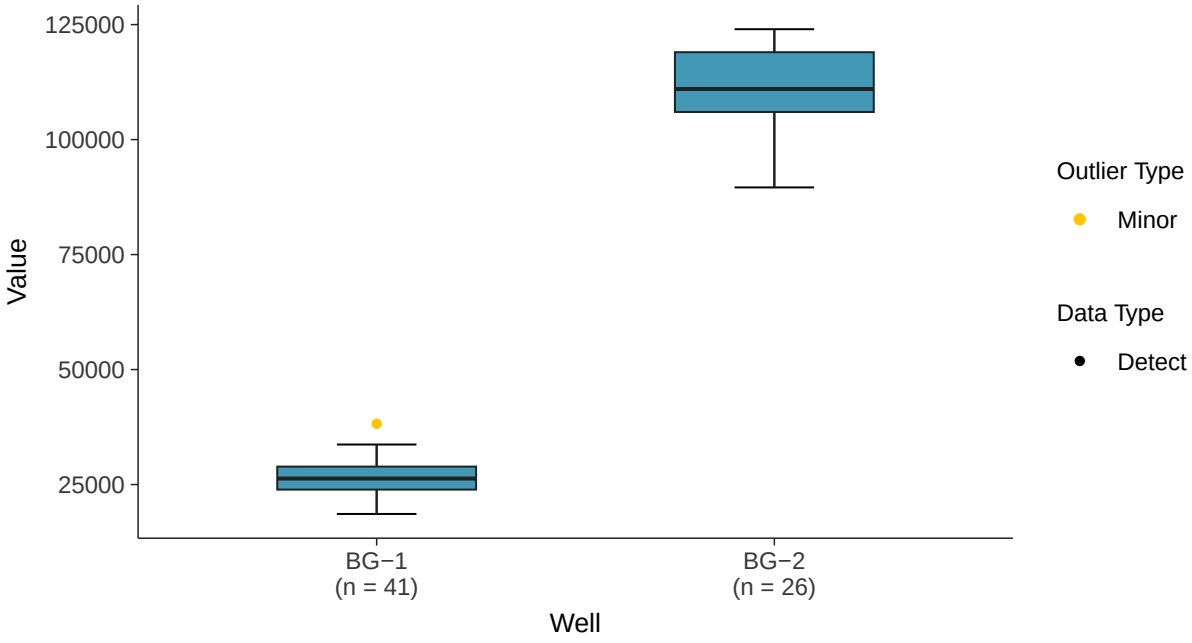
Boxplot by Season

Calcium, BG-1 & BG-2 (ug/L)



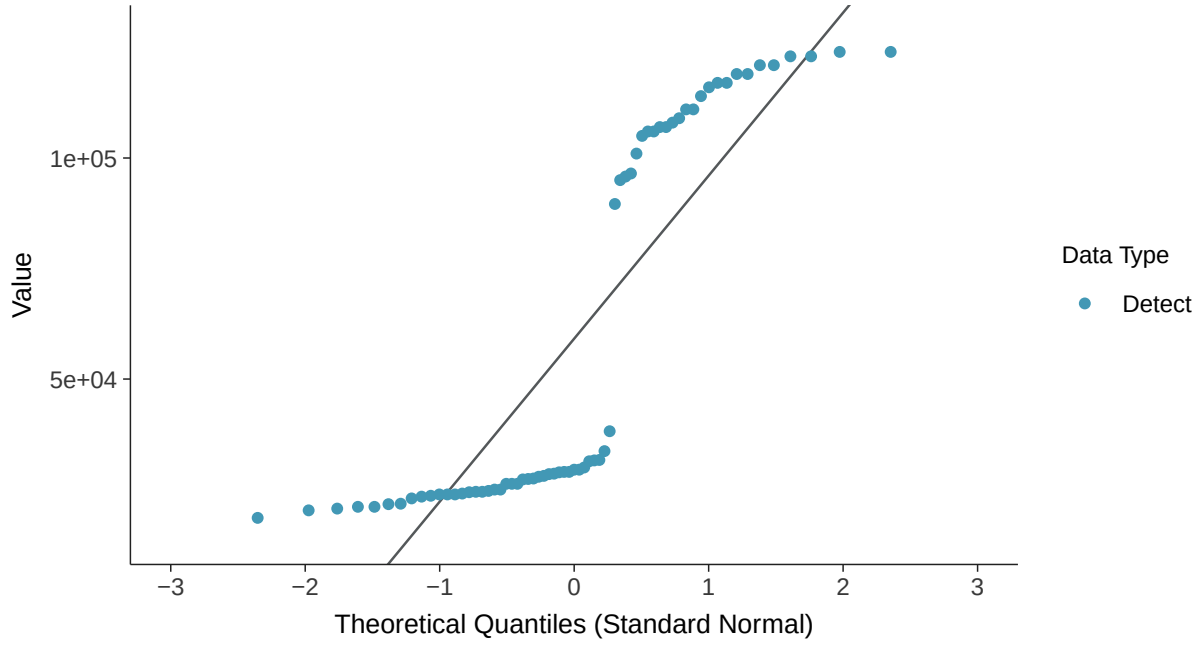
Boxplot by Well

Calcium, BG-1 & BG-2 (ug/L)



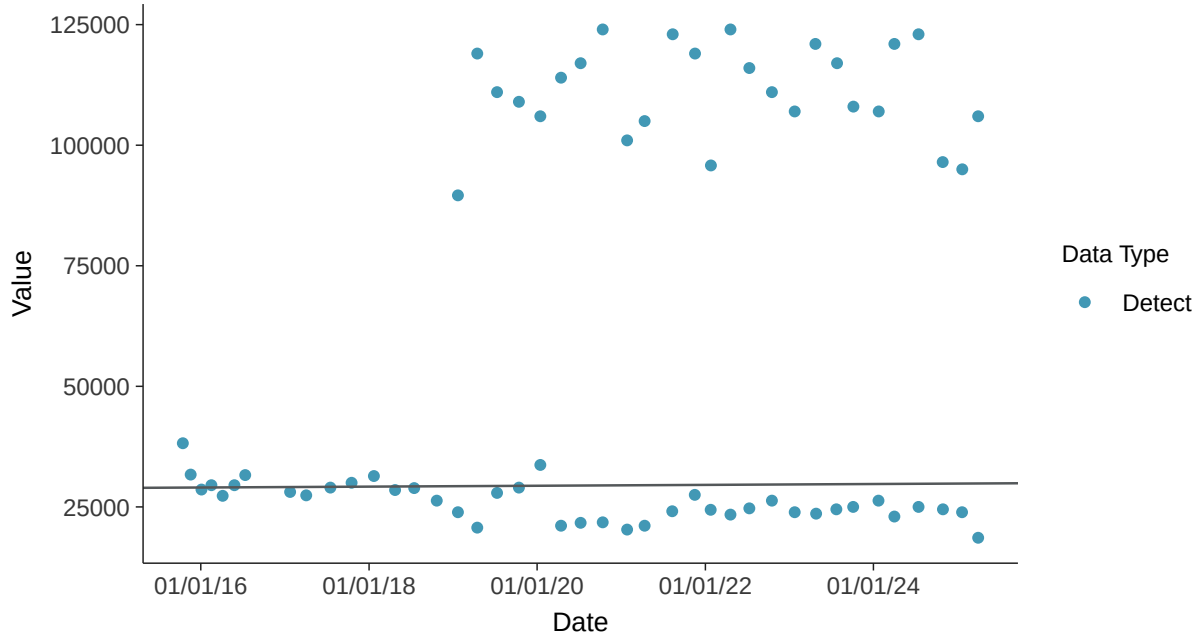
Normal Q-Q plot

Calcium, BG-1 & BG-2 (ug/L)



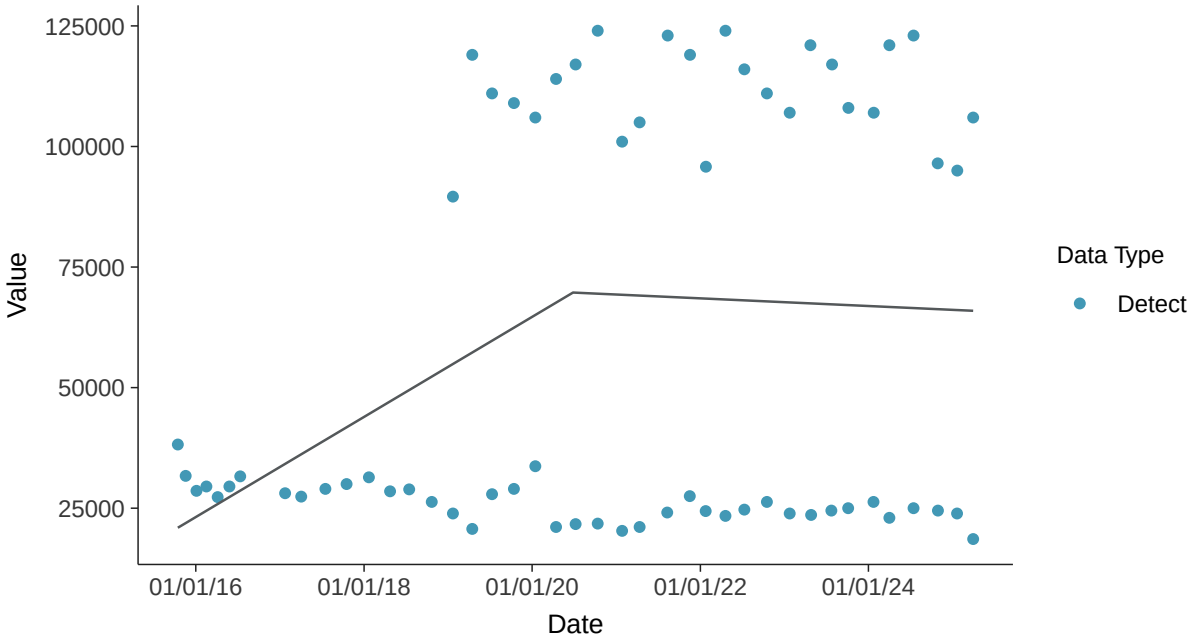
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Calcium, BG-1 & BG-2 (ug/L)



Trend Regression: Piecewise Linear-Linear

Calcium, BG-1 & BG-2 (ug/L)

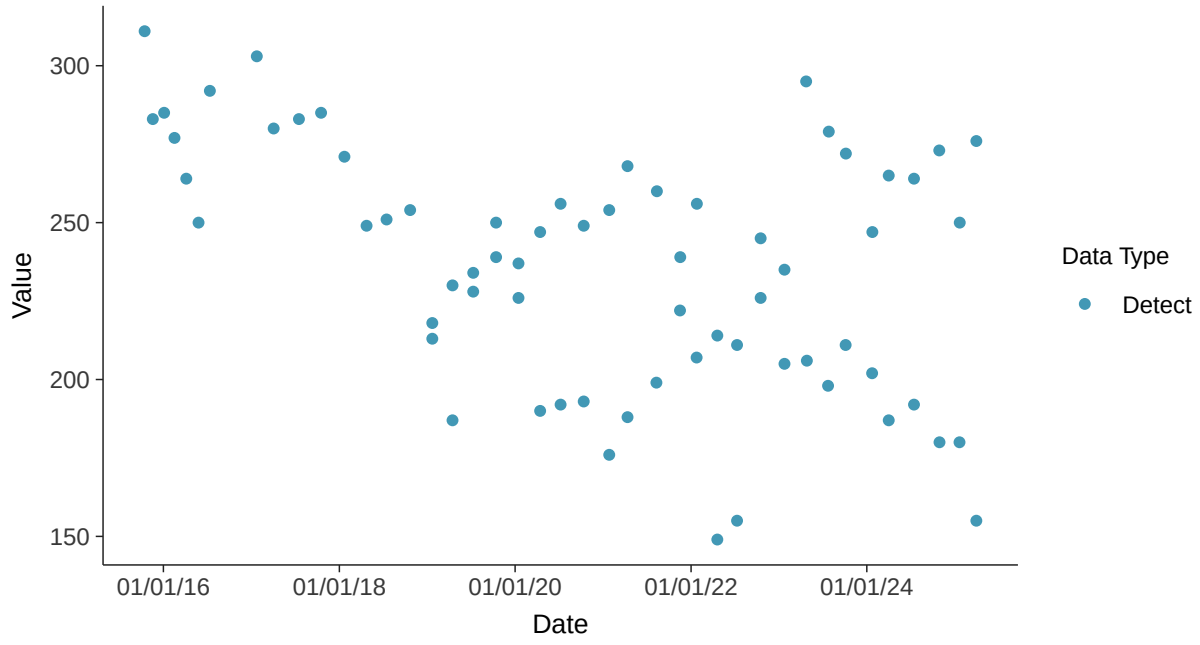


App. III: Chloride, BG-1 & BG-2

ID: 2_108

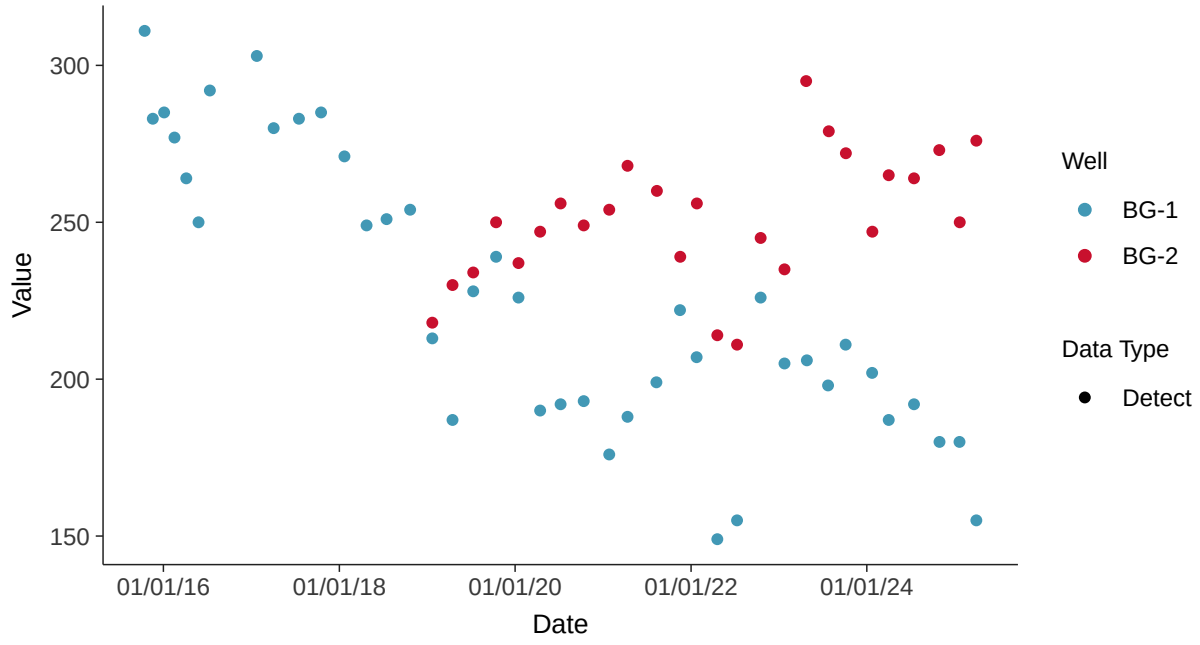
Scatter Plot

Chloride, BG-1 & BG-2 (mg/L)



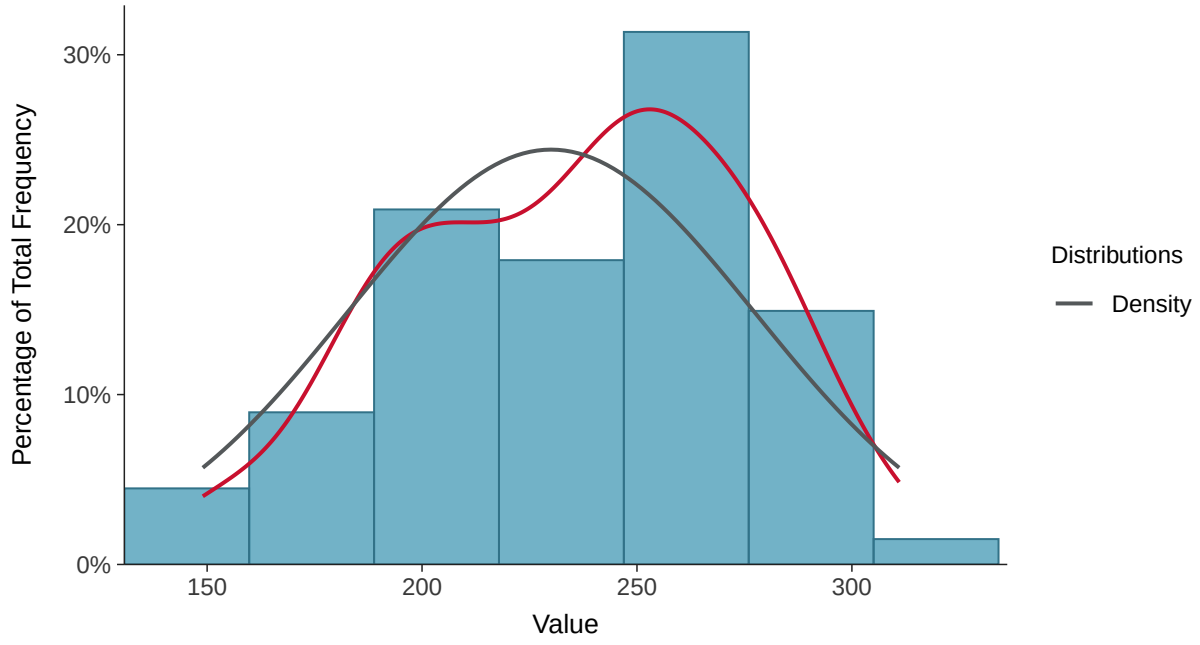
Scatter Plot by Well

Chloride, BG-1 & BG-2 (mg/L)



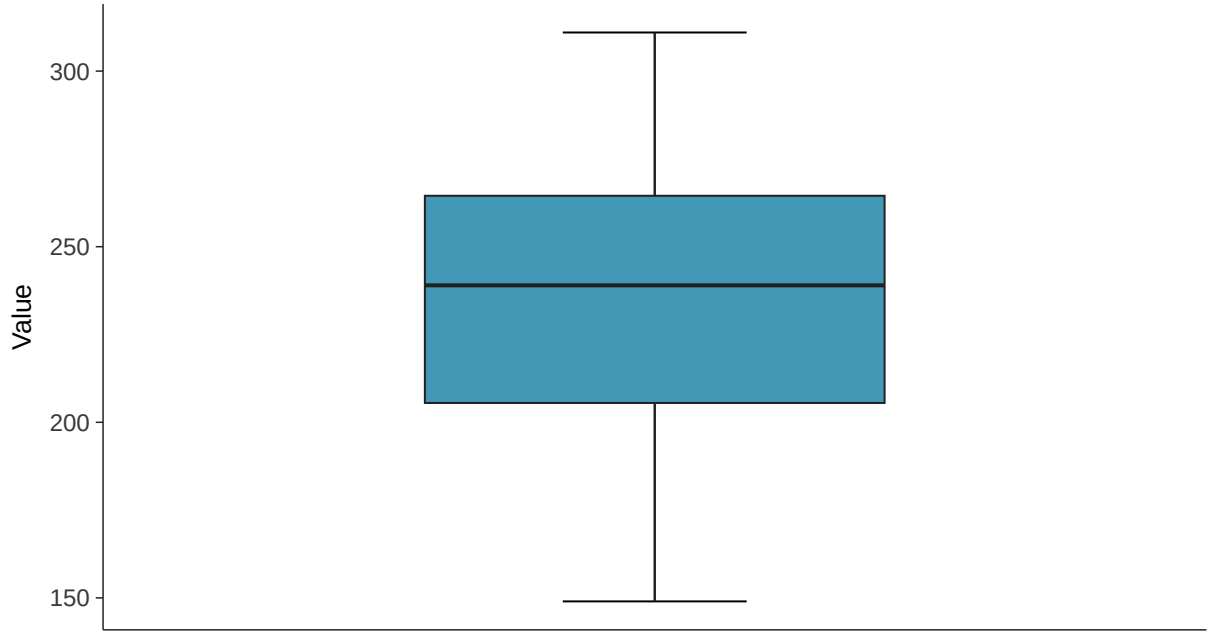
Histogram

Chloride, BG-1 & BG-2 (mg/L)



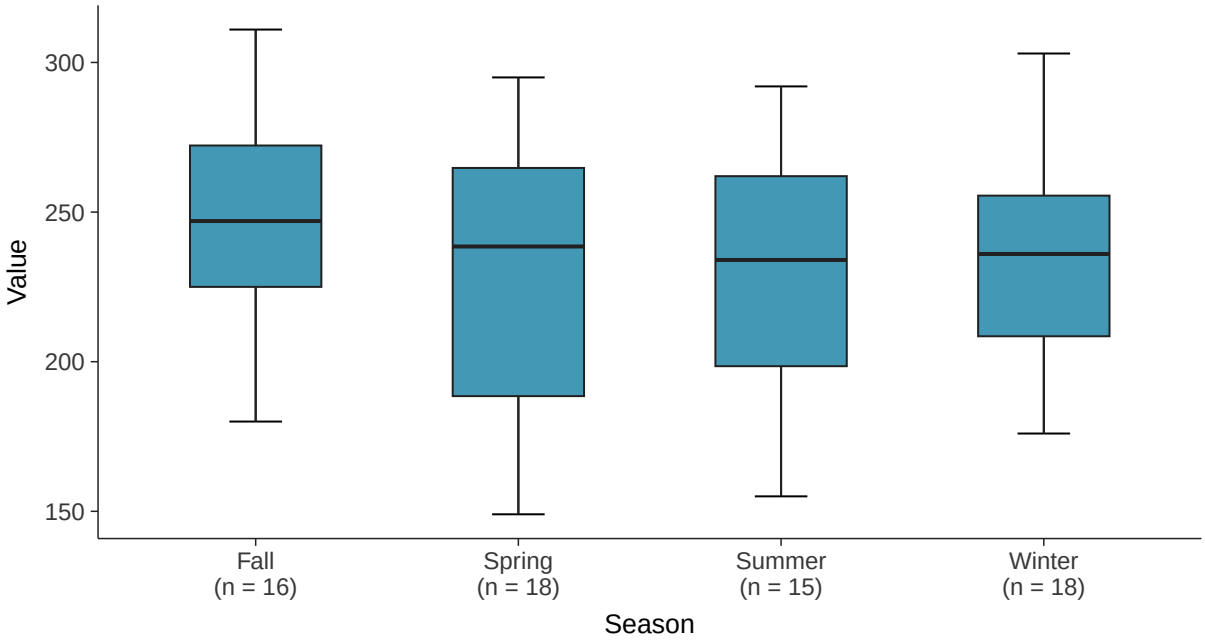
Boxplot

Chloride, BG-1 & BG-2 (mg/L)



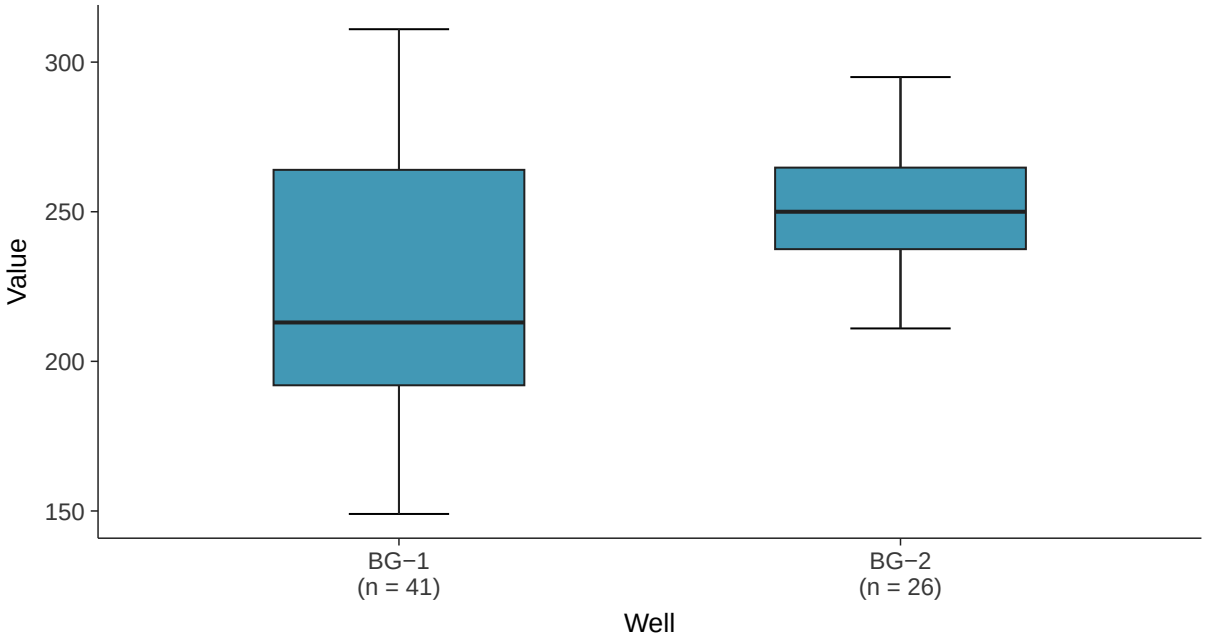
Boxplot by Season

Chloride, BG-1 & BG-2 (mg/L)



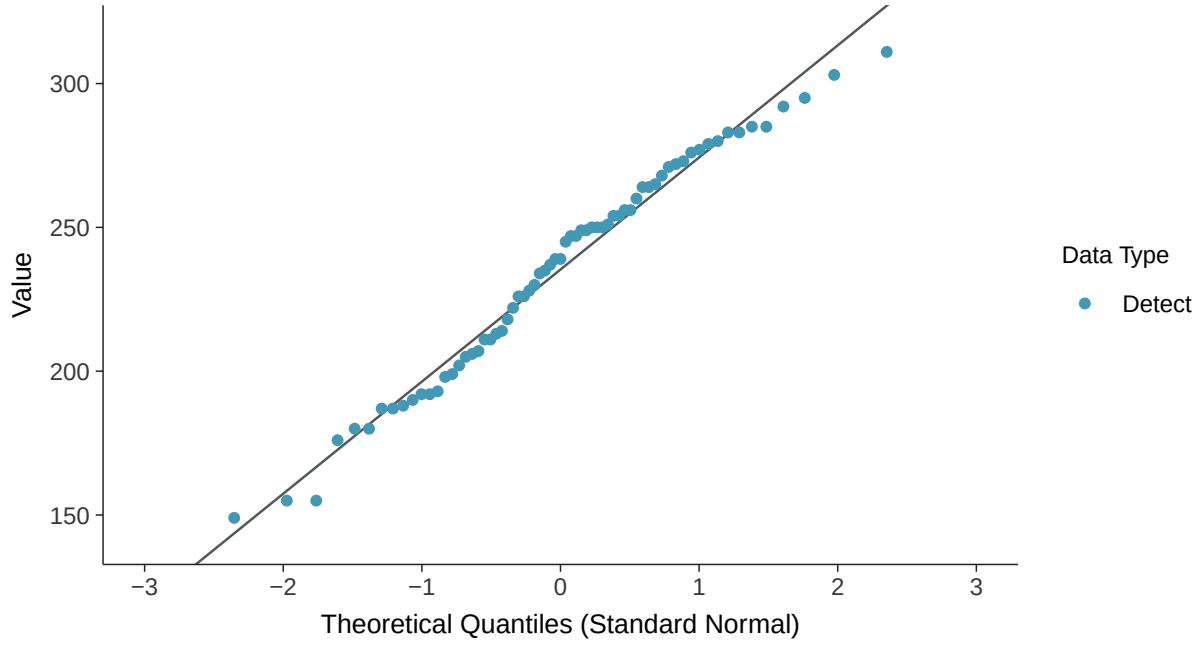
Boxplot by Well

Chloride, BG-1 & BG-2 (mg/L)



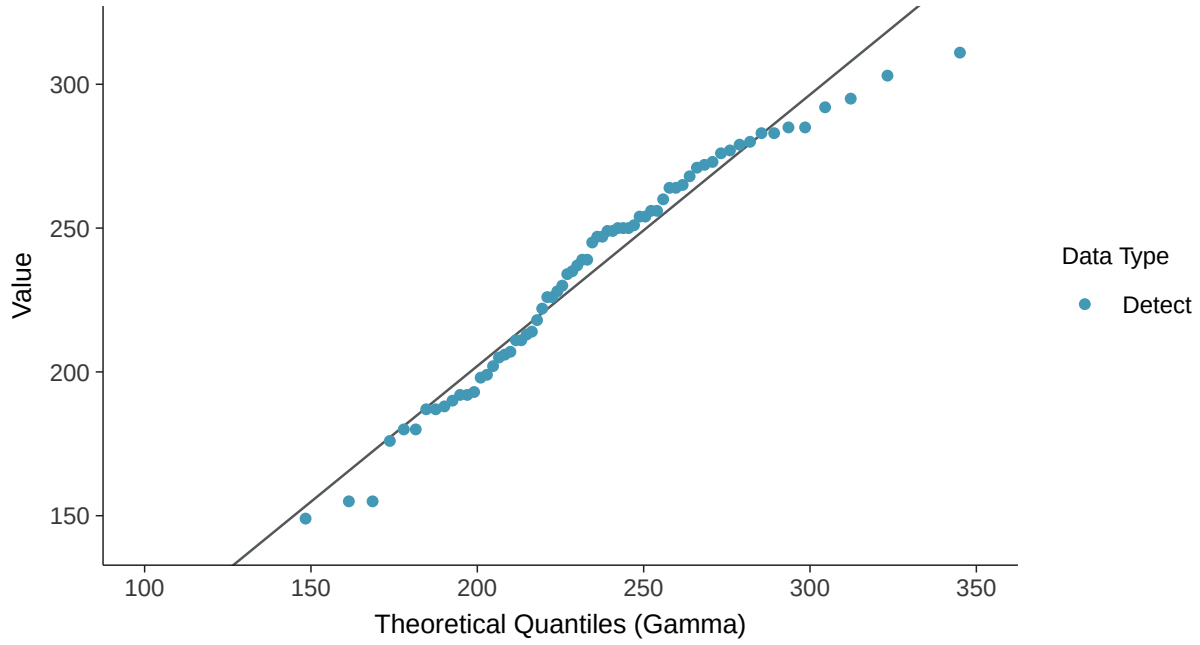
Normal Q-Q plot

Chloride, BG-1 & BG-2 (mg/L)



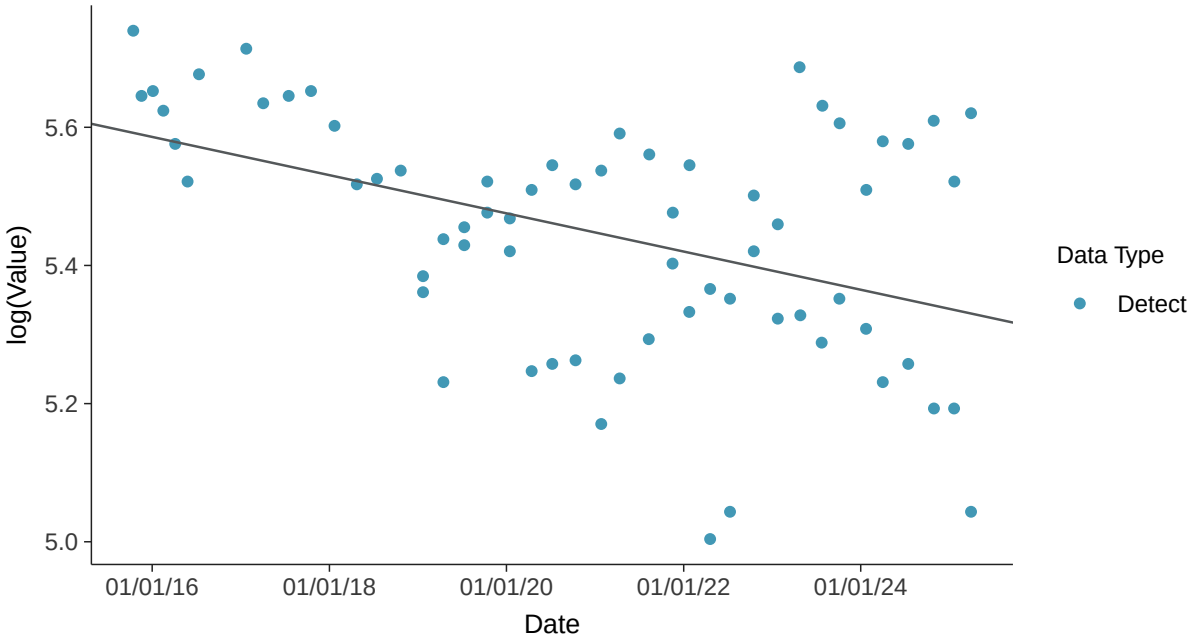
Gamma Q-Q plot

Chloride, BG-1 & BG-2 (mg/L)



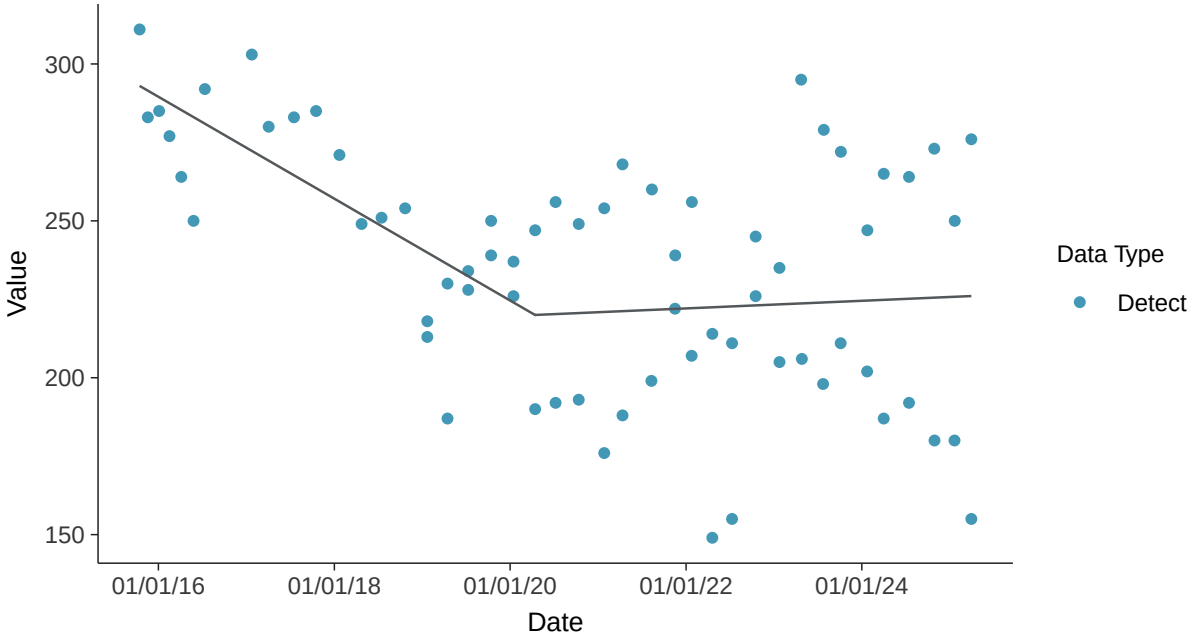
Trend Regression: Lognormal MLE

Chloride, BG-1 & BG-2 (mg/L)



Trend Regression: Piecewise Linear-Linear

Chloride, BG-1 & BG-2 (mg/L)

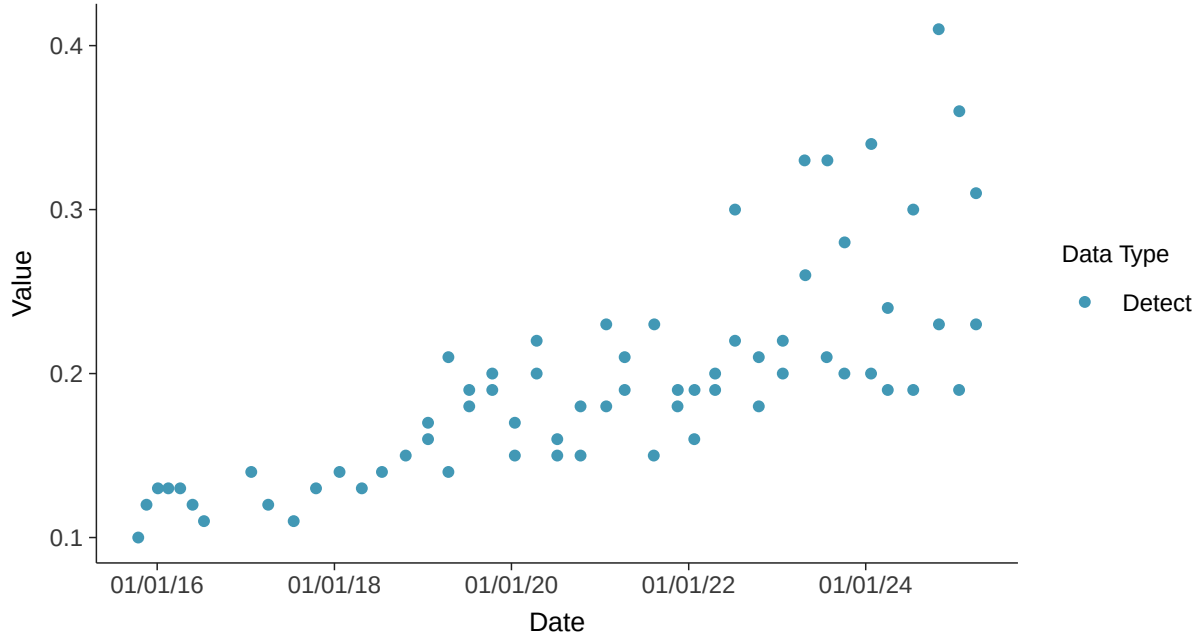


App. III: Fluoride, BG-1 & BG-2

ID: 2_112

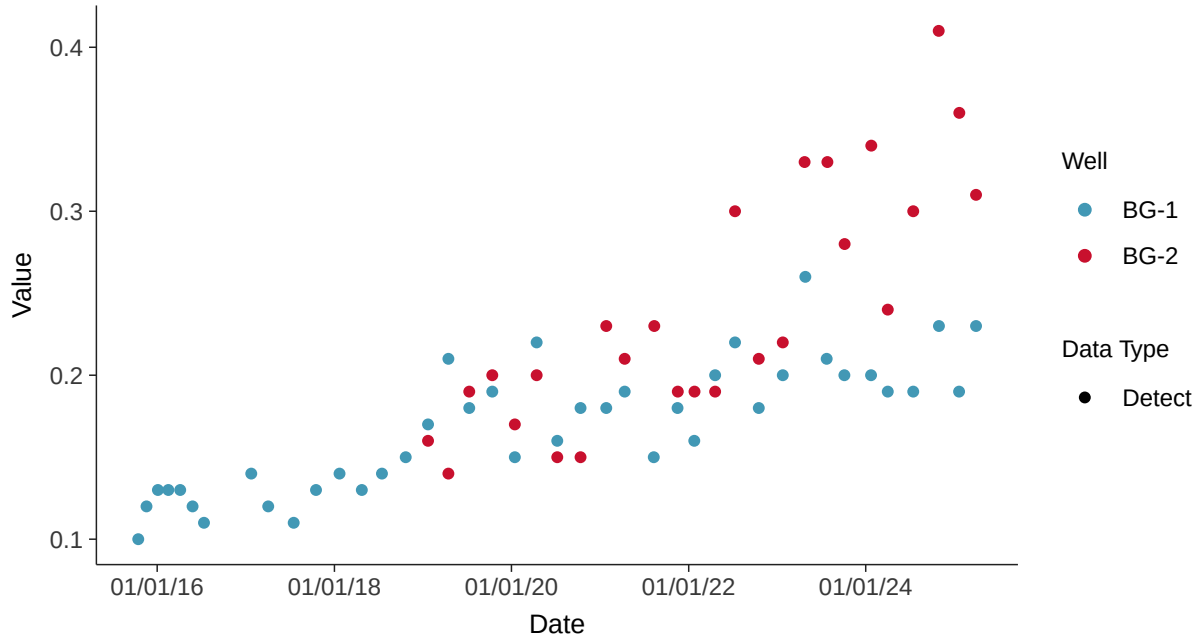
Scatter Plot

Fluoride, BG-1 & BG-2 (mg/L)



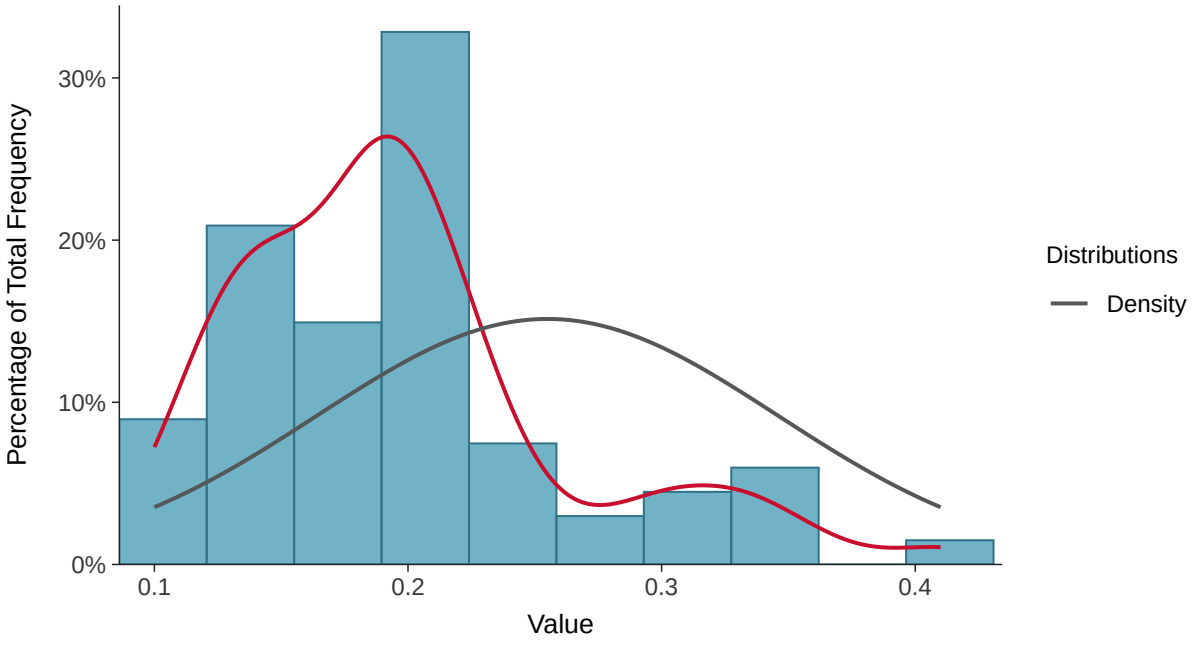
Scatter Plot by Well

Fluoride, BG-1 & BG-2 (mg/L)



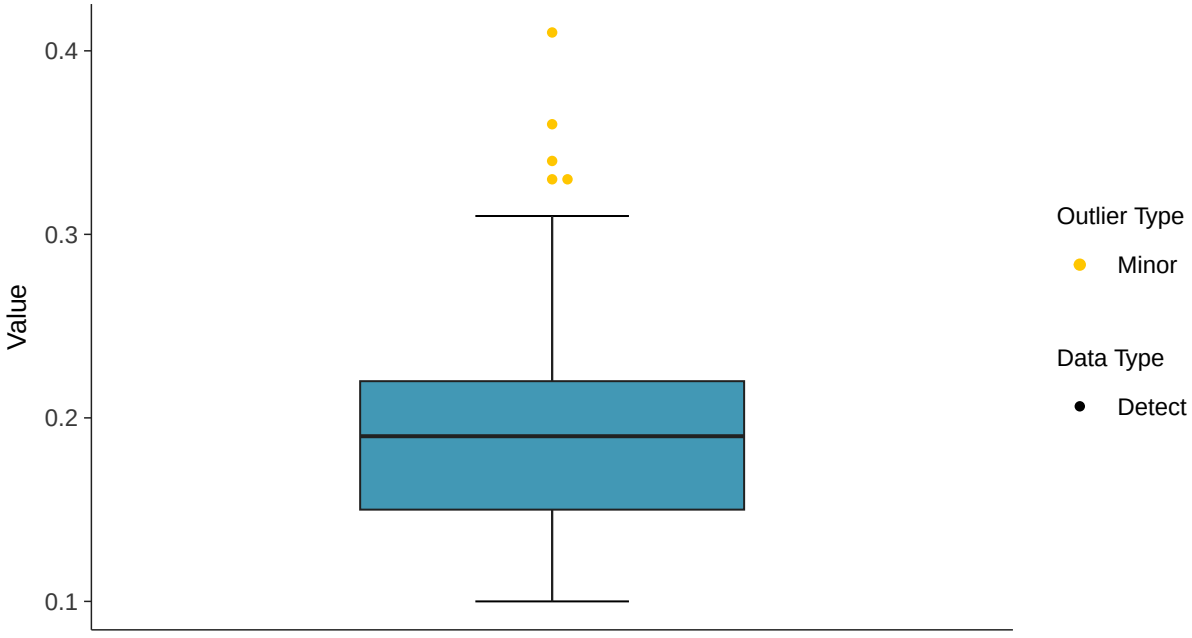
Histogram

Fluoride, BG-1 & BG-2 (mg/L)



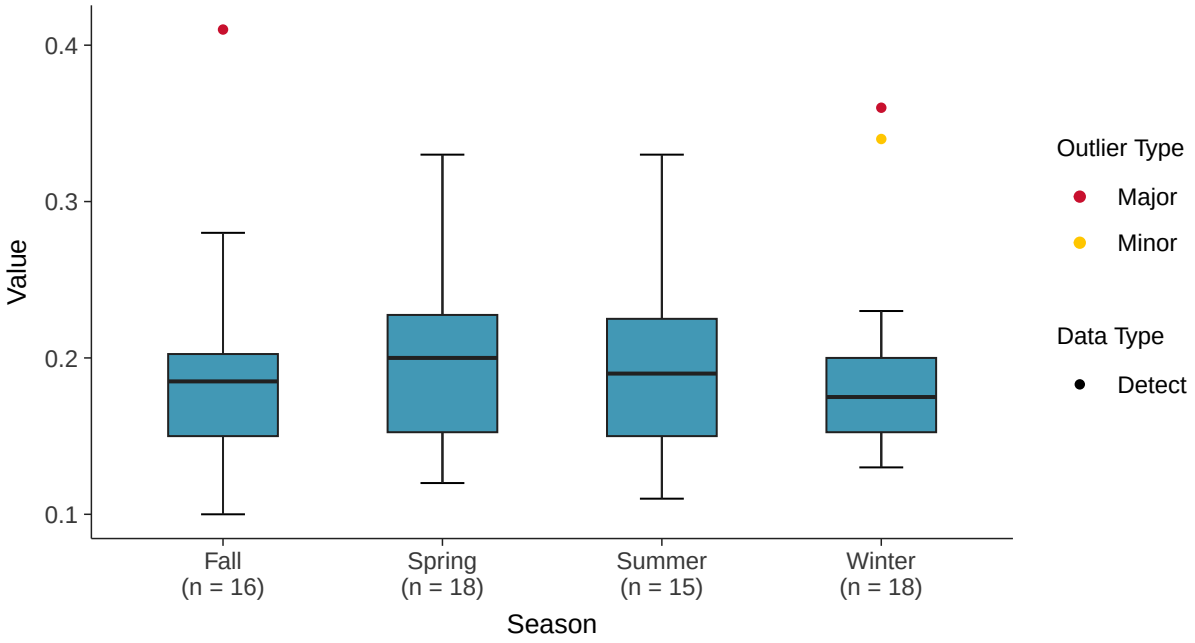
Boxplot

Fluoride, BG-1 & BG-2 (mg/L)



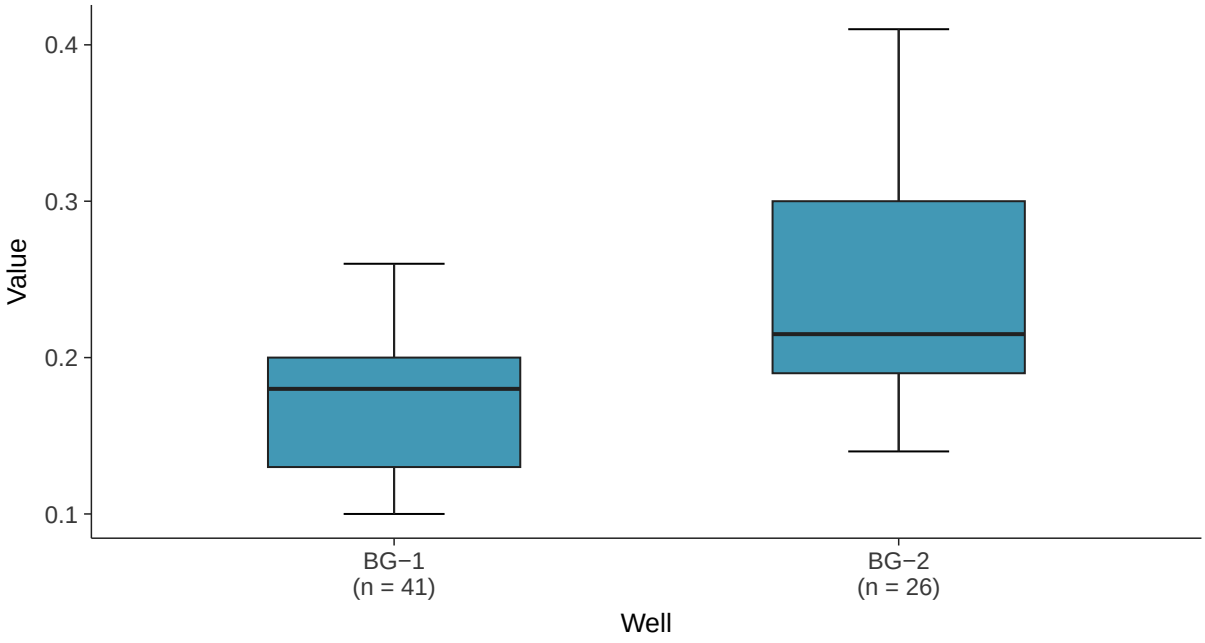
Boxplot by Season

Fluoride, BG-1 & BG-2 (mg/L)



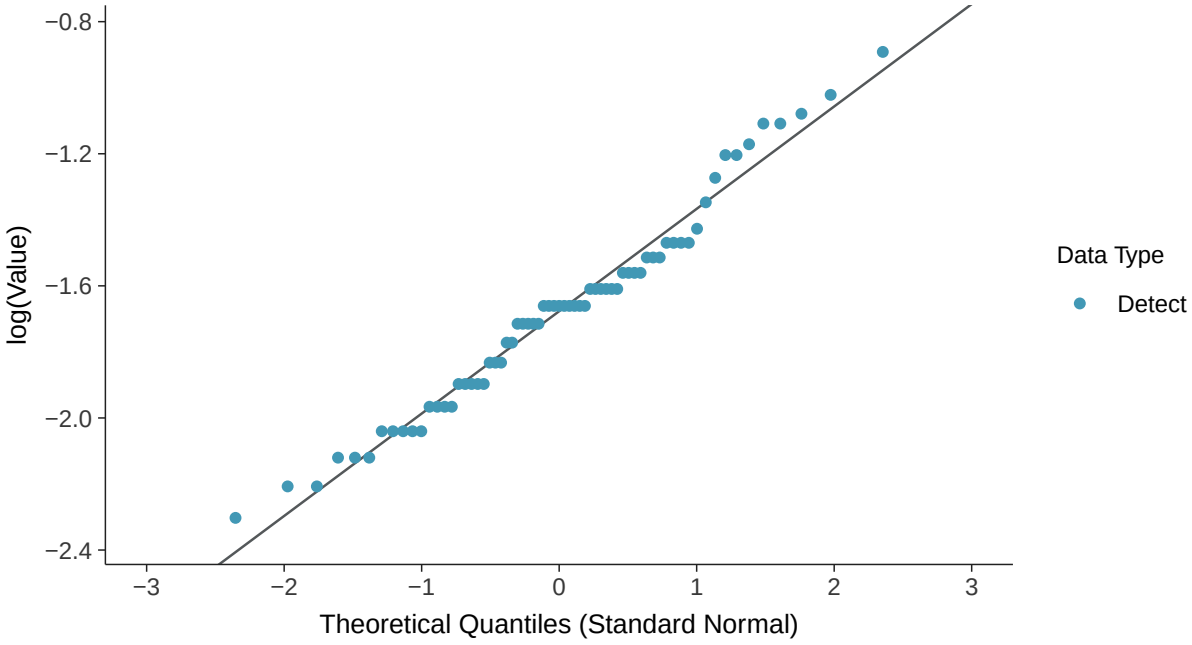
Boxplot by Well

Fluoride, BG-1 & BG-2 (mg/L)



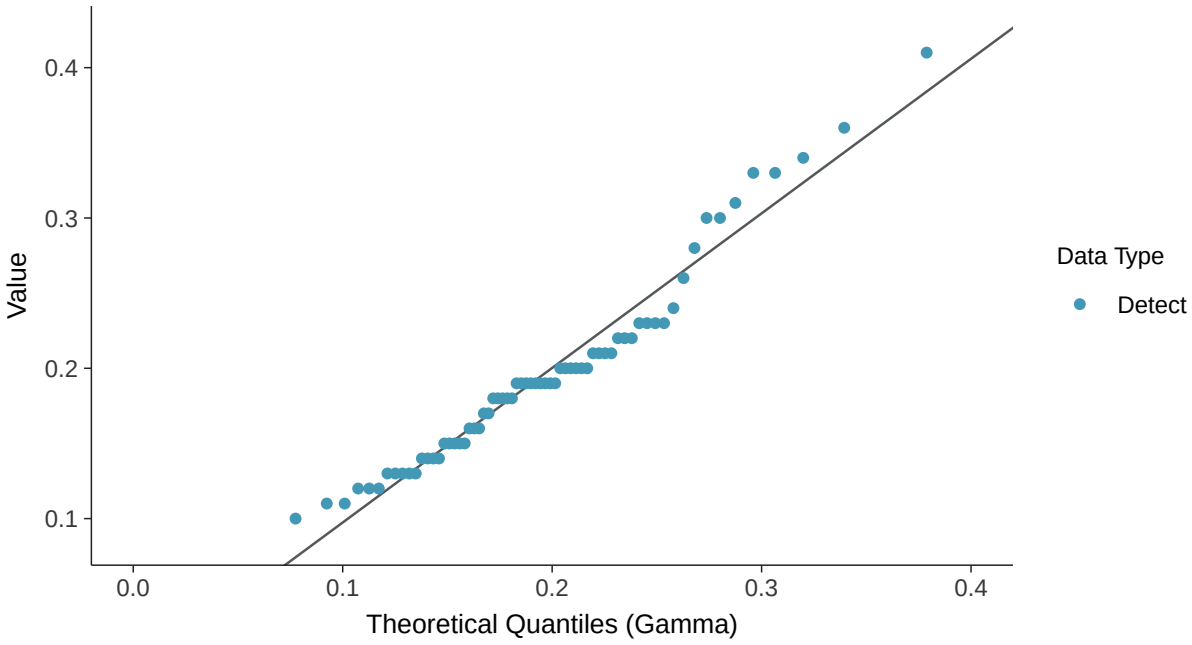
Lognormal Q-Q plot

Fluoride, BG-1 & BG-2 (mg/L)



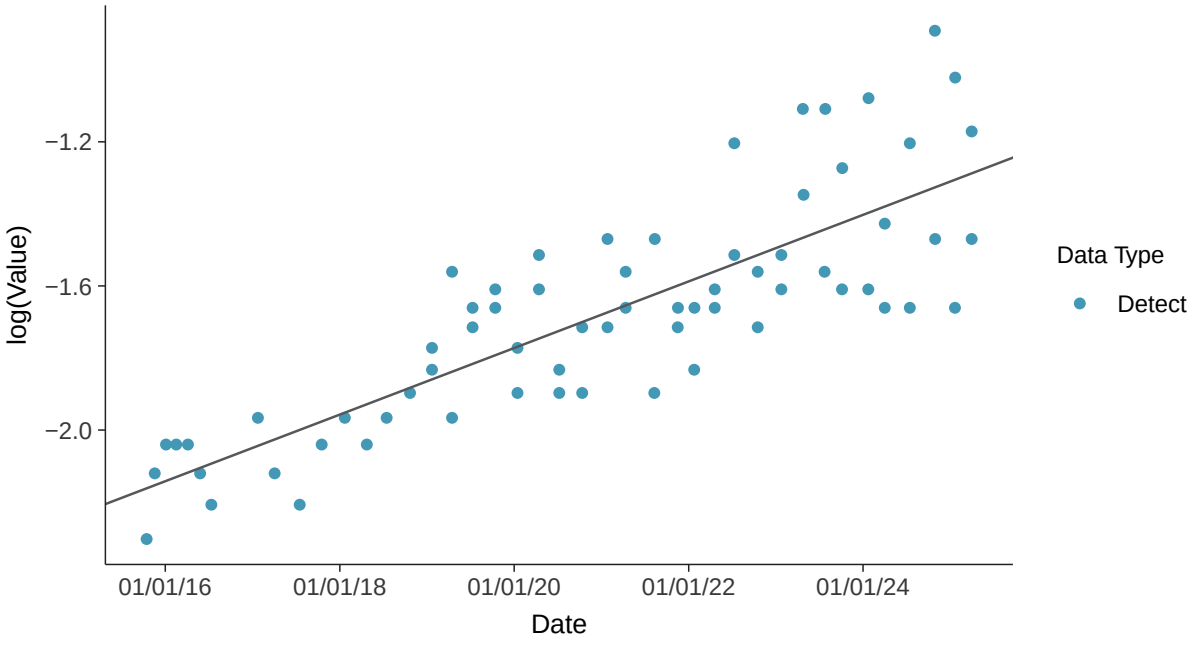
Gamma Q-Q plot

Fluoride, BG-1 & BG-2 (mg/L)



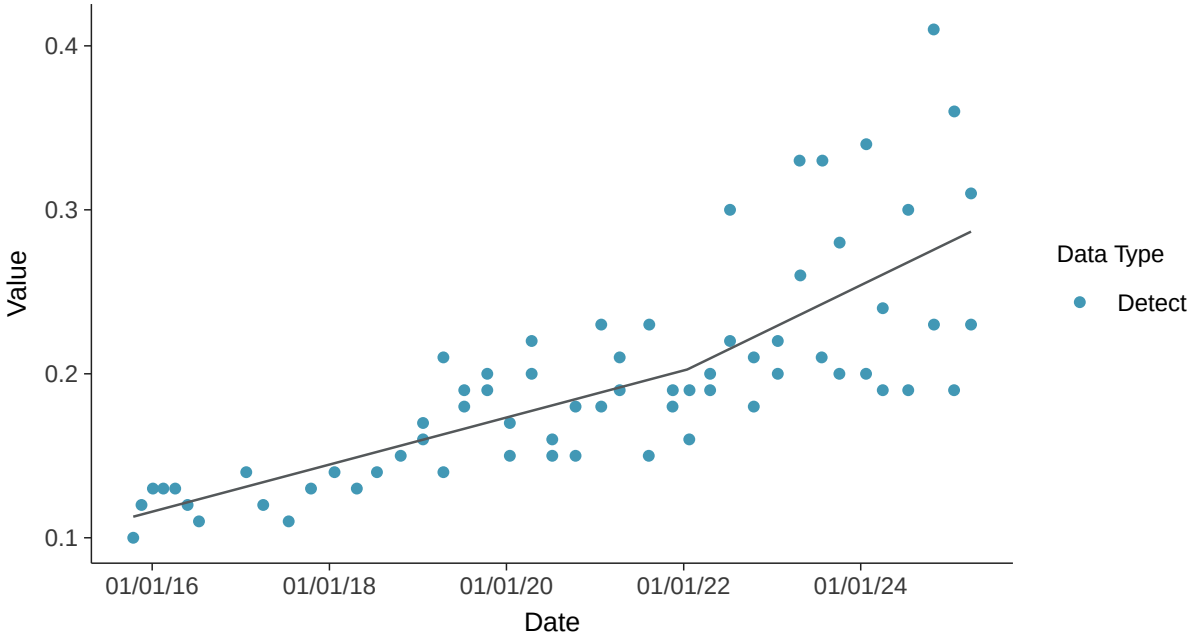
Trend Regression: Lognormal MLE

Fluoride, BG-1 & BG-2 (mg/L)



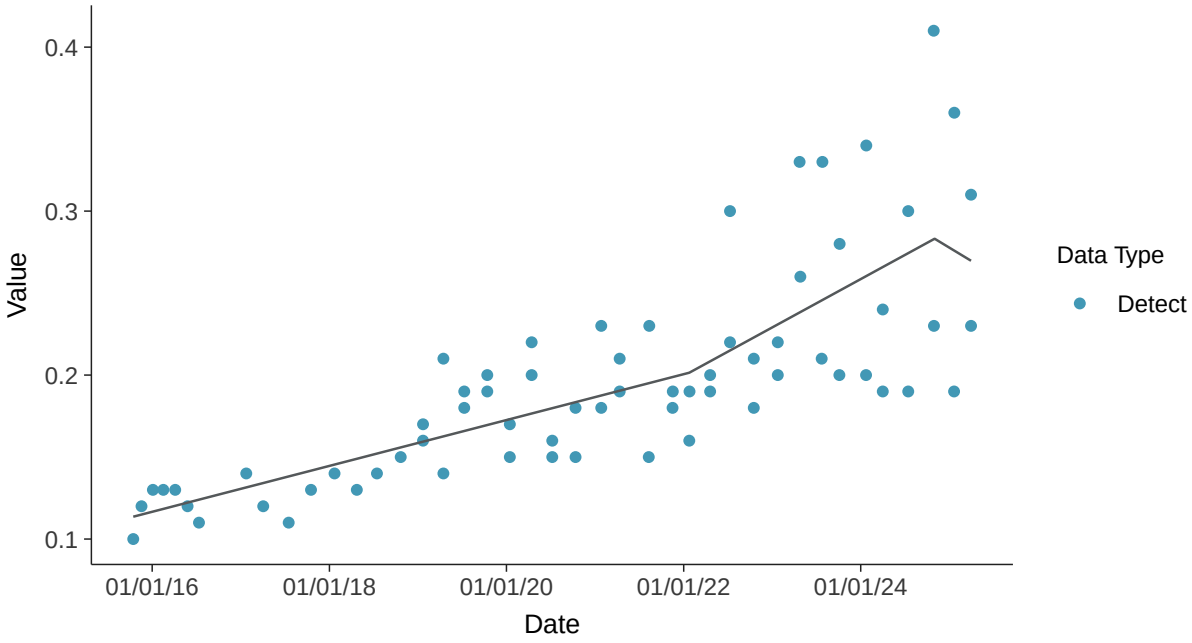
Trend Regression: Piecewise Linear-Linear

Fluoride, BG-1 & BG-2 (mg/L)



Trend Regression: Piecewise Linear-Linear-Linear

Fluoride, BG-1 & BG-2 (mg/L)

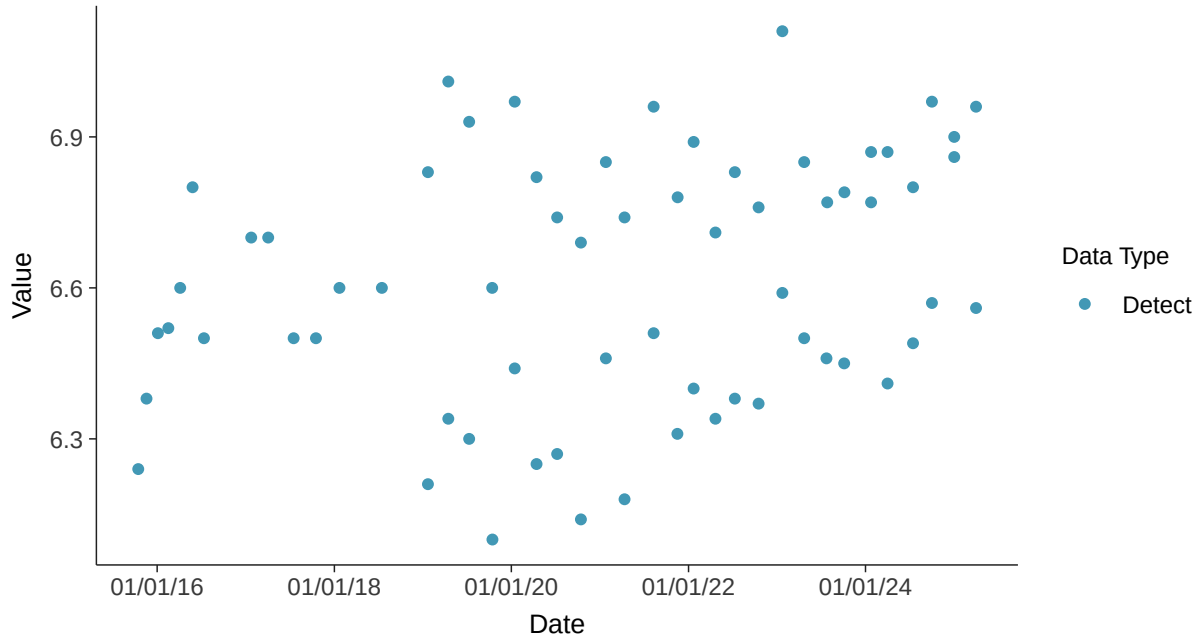


App. III: pH (Field), BG-1 & BG-2

ID: 2_118

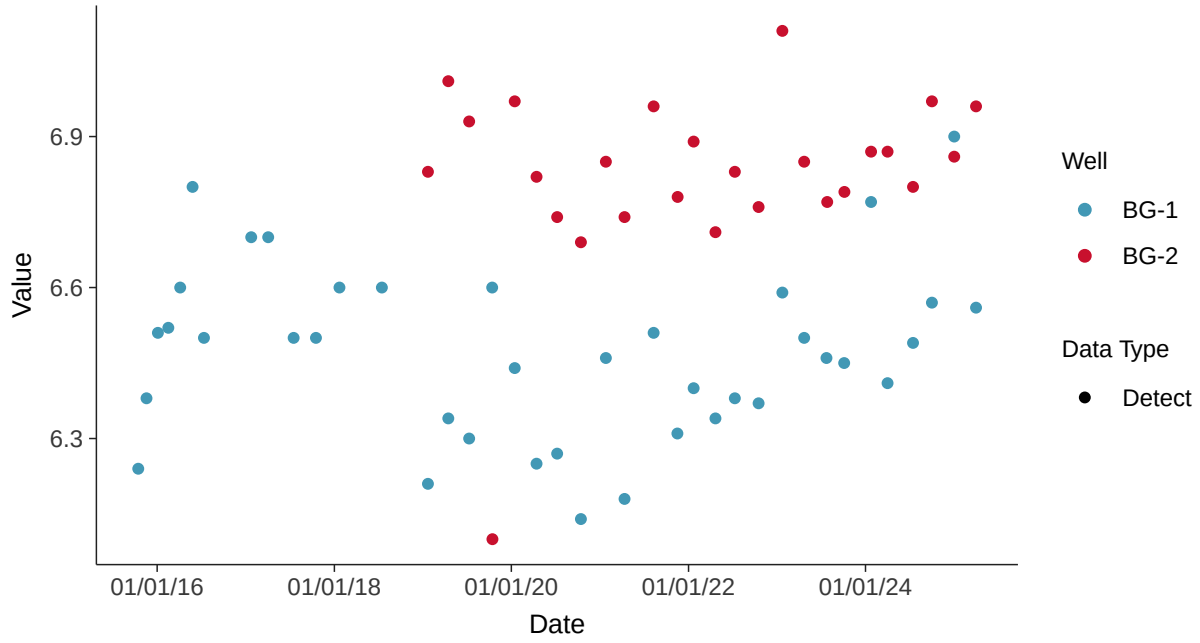
Scatter Plot

pH (Field), BG-1 & BG-2 (S.U.)



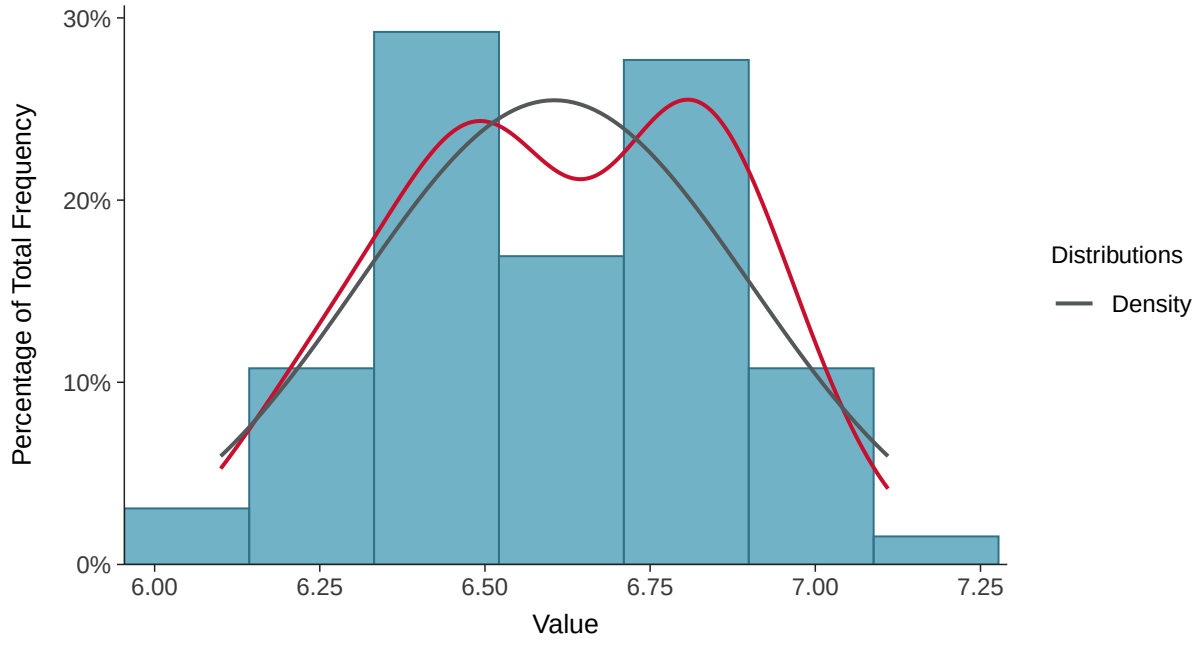
Scatter Plot by Well

pH (Field), BG-1 & BG-2 (S.U.)



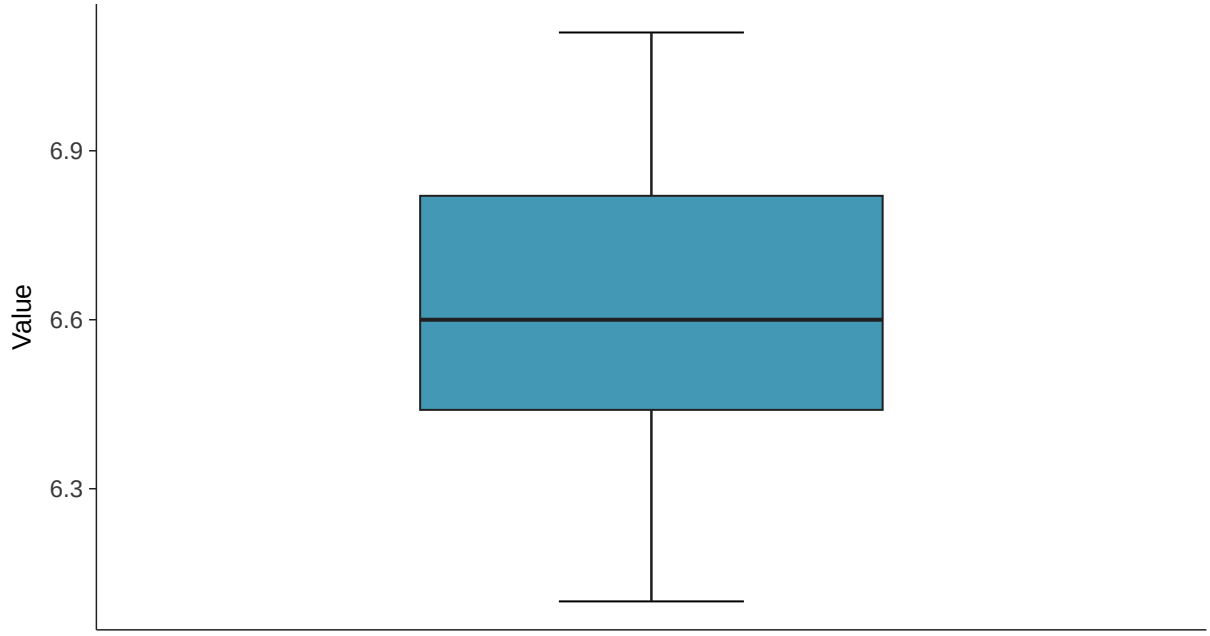
Histogram

pH (Field), BG-1 & BG-2 (S.U.)



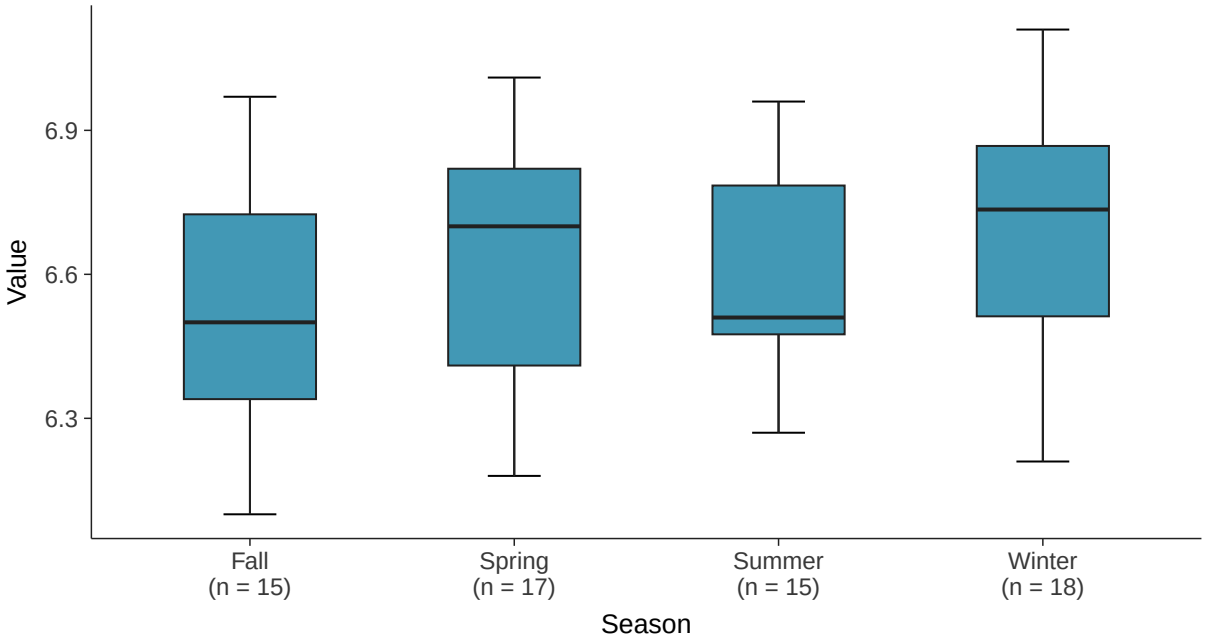
Boxplot

pH (Field), BG-1 & BG-2 (S.U.)



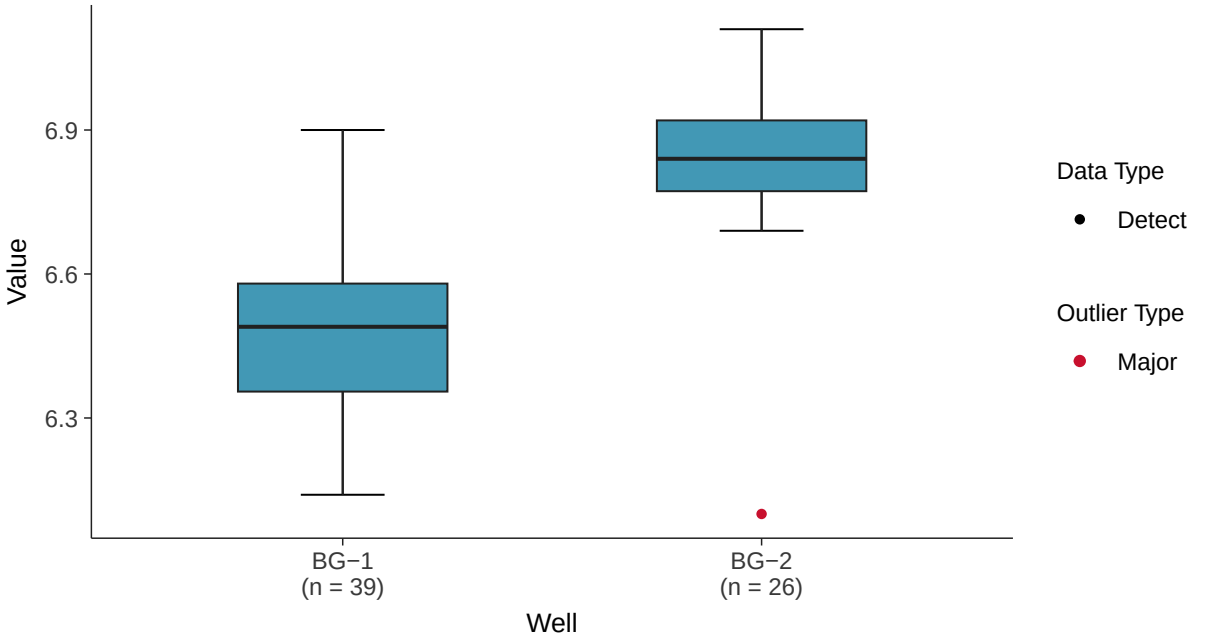
Boxplot by Season

pH (Field), BG-1 & BG-2 (S.U.)



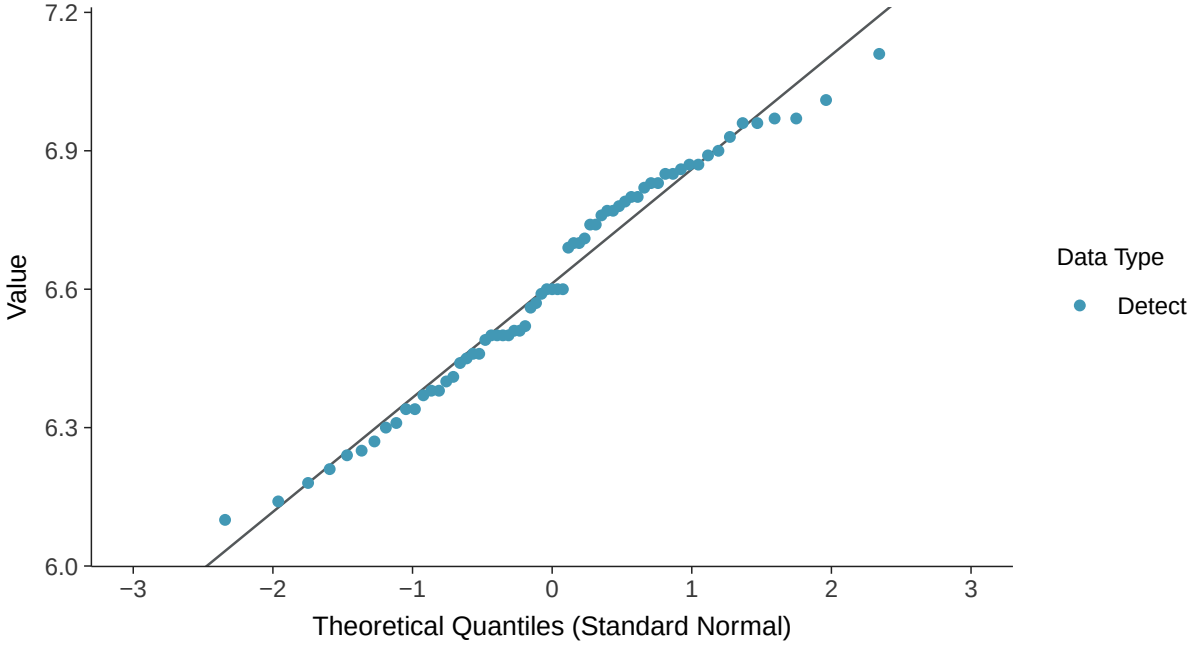
Boxplot by Well

pH (Field), BG-1 & BG-2 (S.U.)



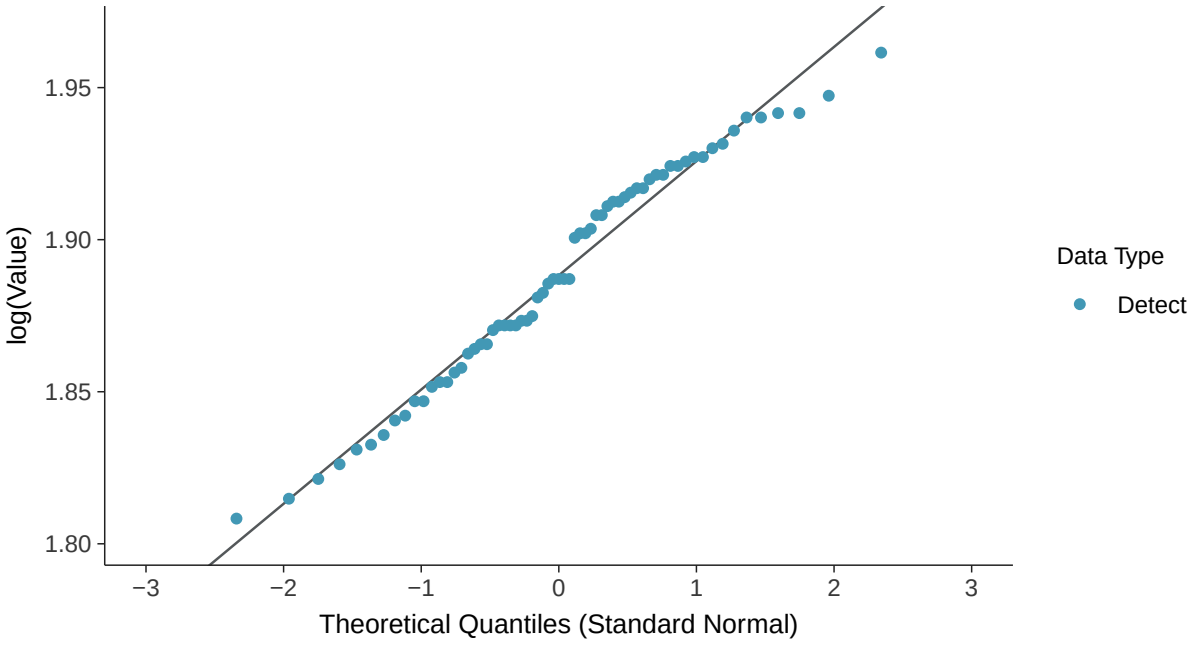
Normal Q-Q plot

pH (Field), BG-1 & BG-2 (S.U.)



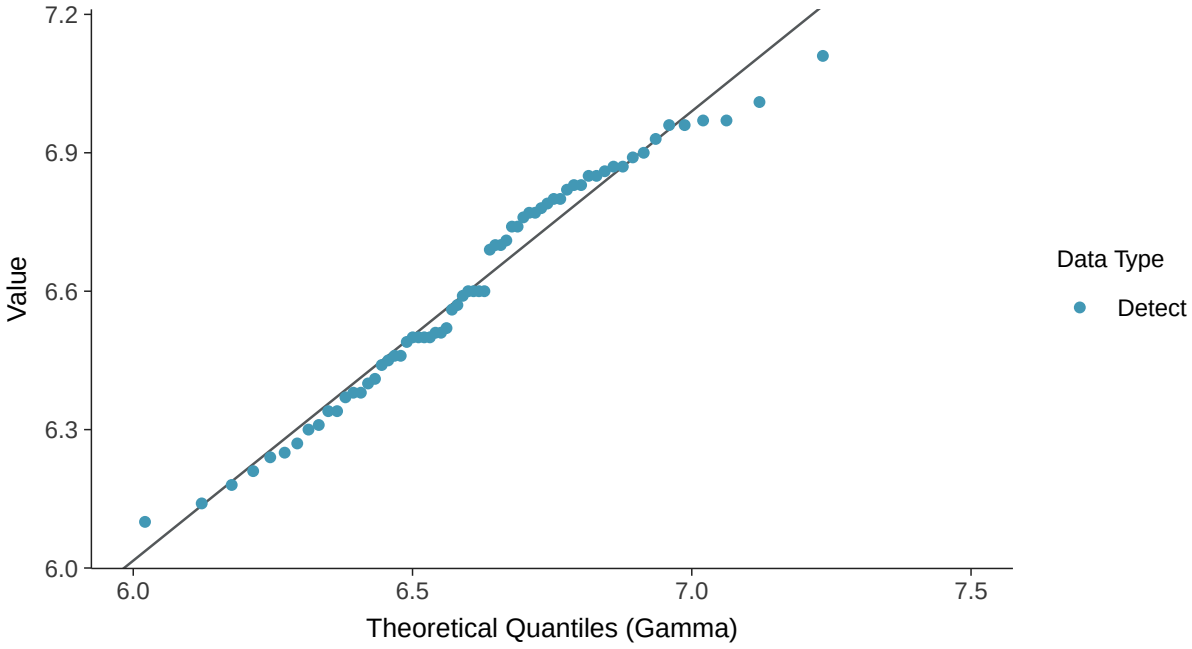
Lognormal Q-Q plot

pH (Field), BG-1 & BG-2 (S.U.)



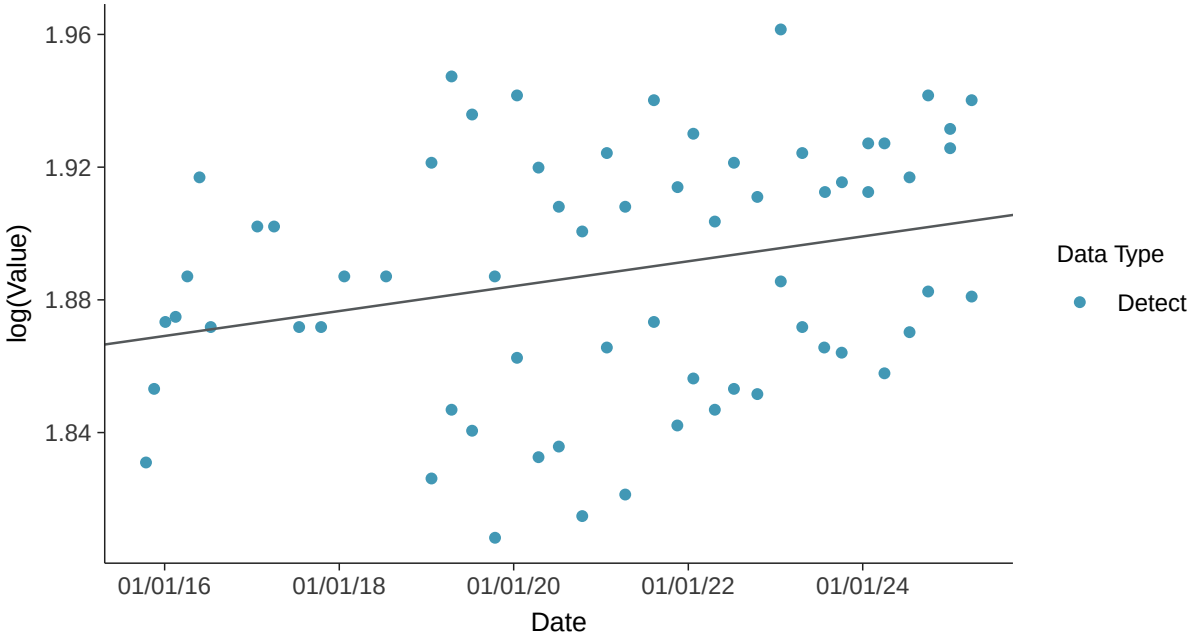
Gamma Q-Q plot

pH (Field), BG-1 & BG-2 (S.U.)



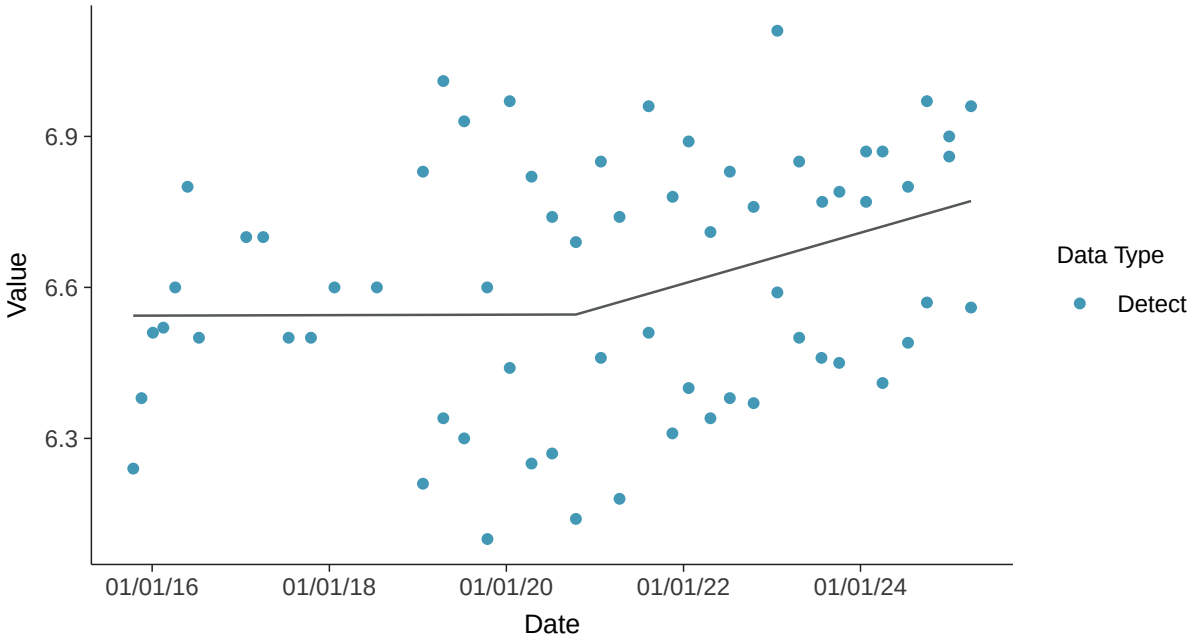
Trend Regression: Lognormal MLE

pH (Field), BG-1 & BG-2 (S.U.)



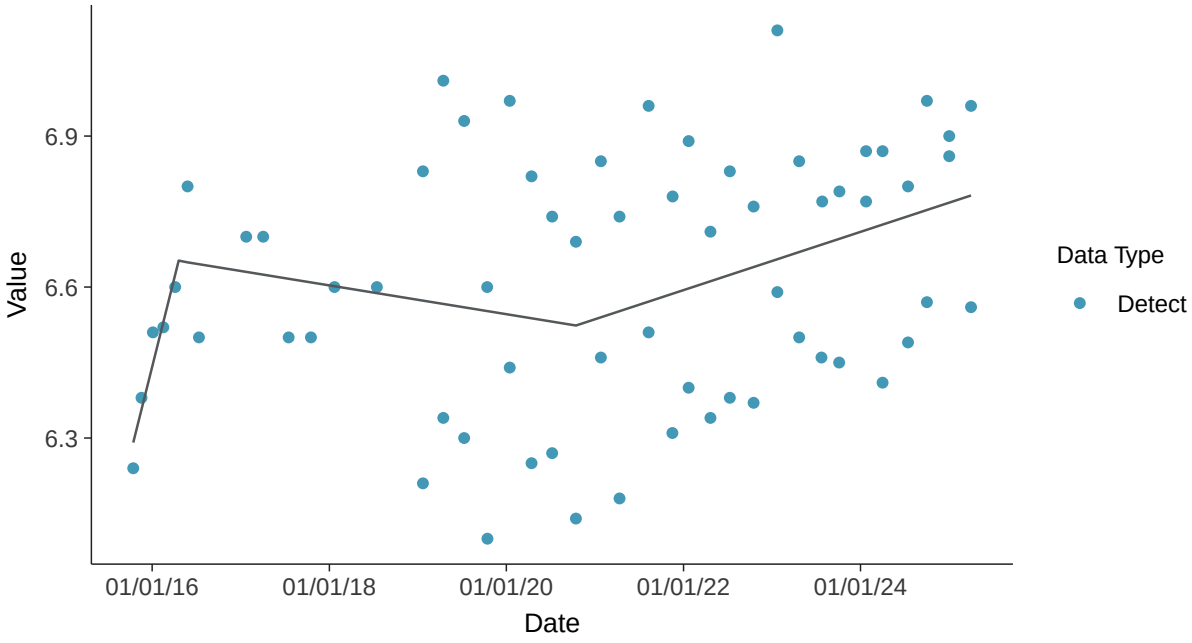
Trend Regression: Piecewise Linear-Linear

pH (Field), BG-1 & BG-2 (S.U.)



Trend Regression: Piecewise Linear-Linear-Linear

pH (Field), BG-1 & BG-2 (S.U.)

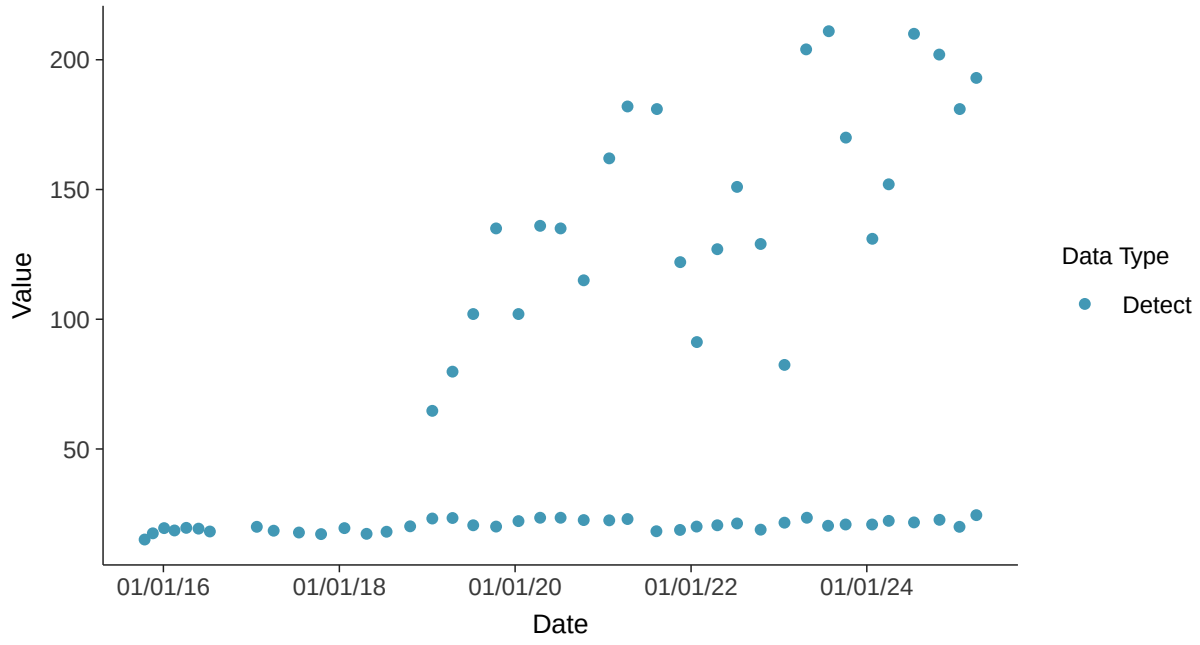


App. III: Sulfate, BG-1 & BG-2

ID: 2_123

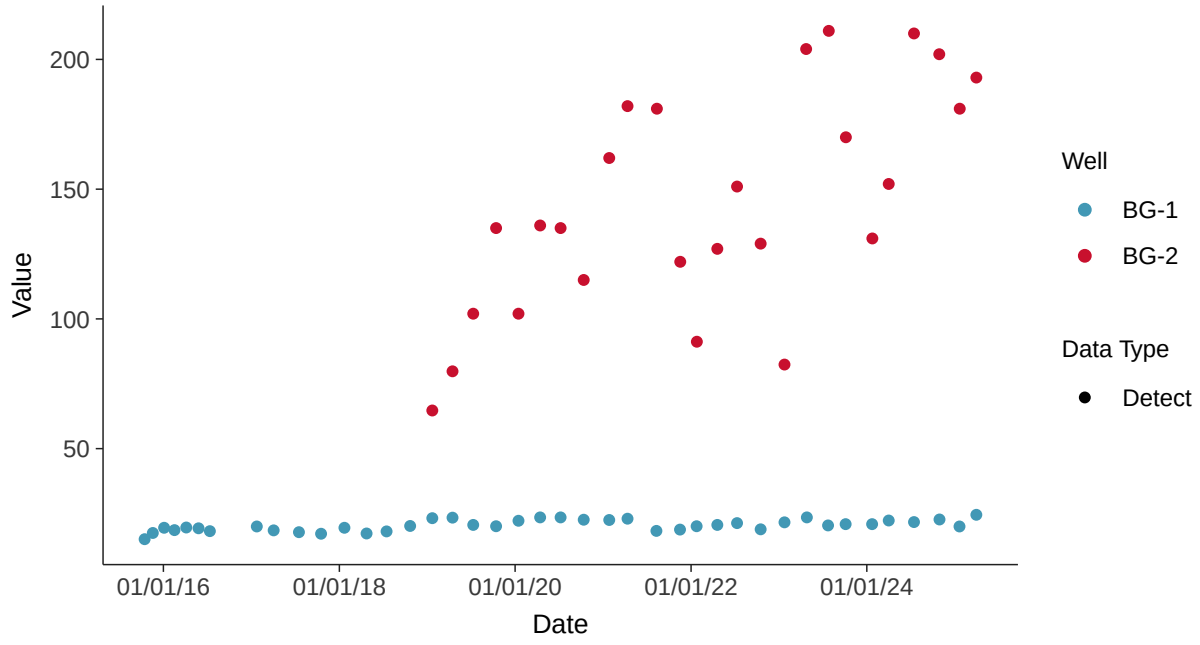
Scatter Plot

Sulfate, BG-1 & BG-2 (mg/L)



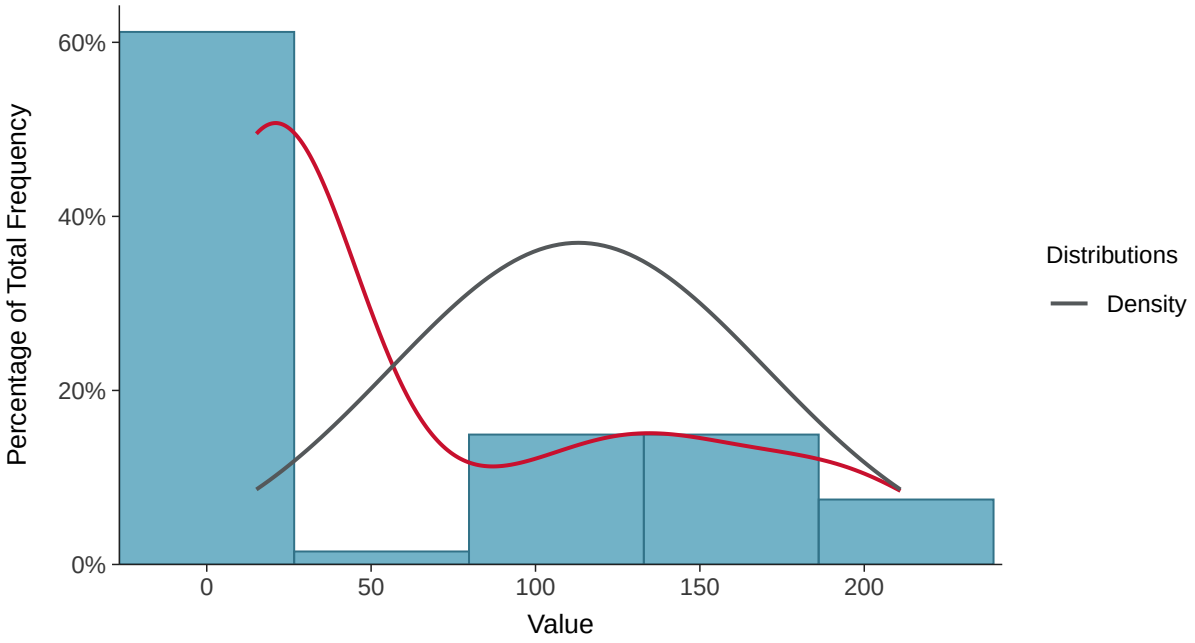
Scatter Plot by Well

Sulfate, BG-1 & BG-2 (mg/L)



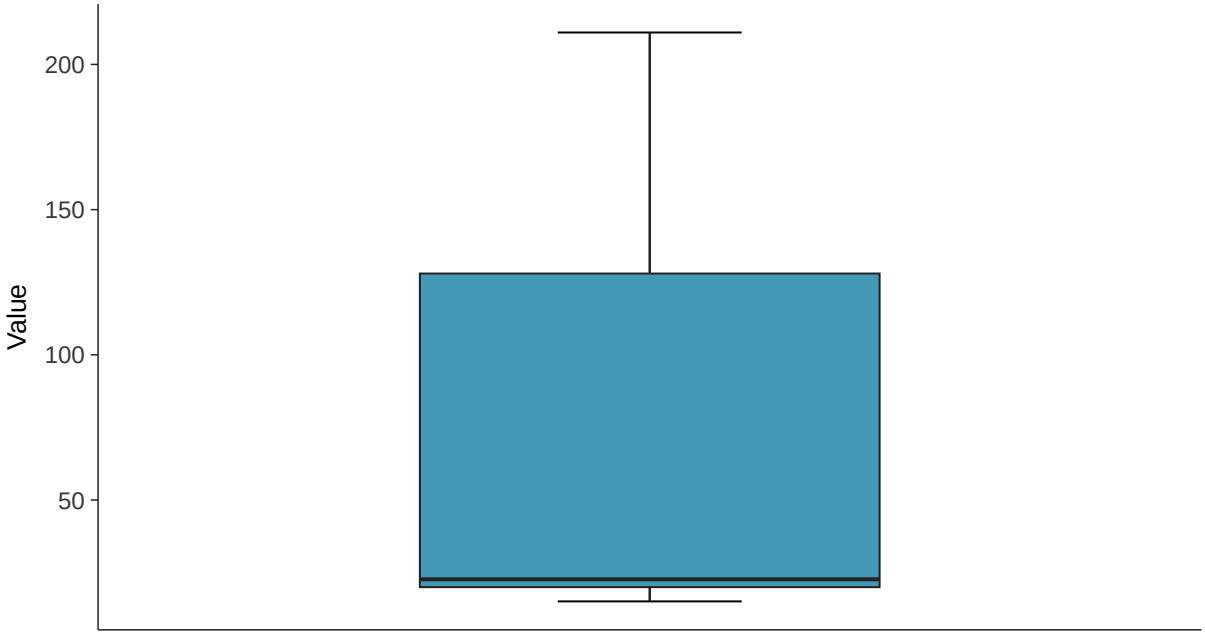
Histogram

Sulfate, BG-1 & BG-2 (mg/L)



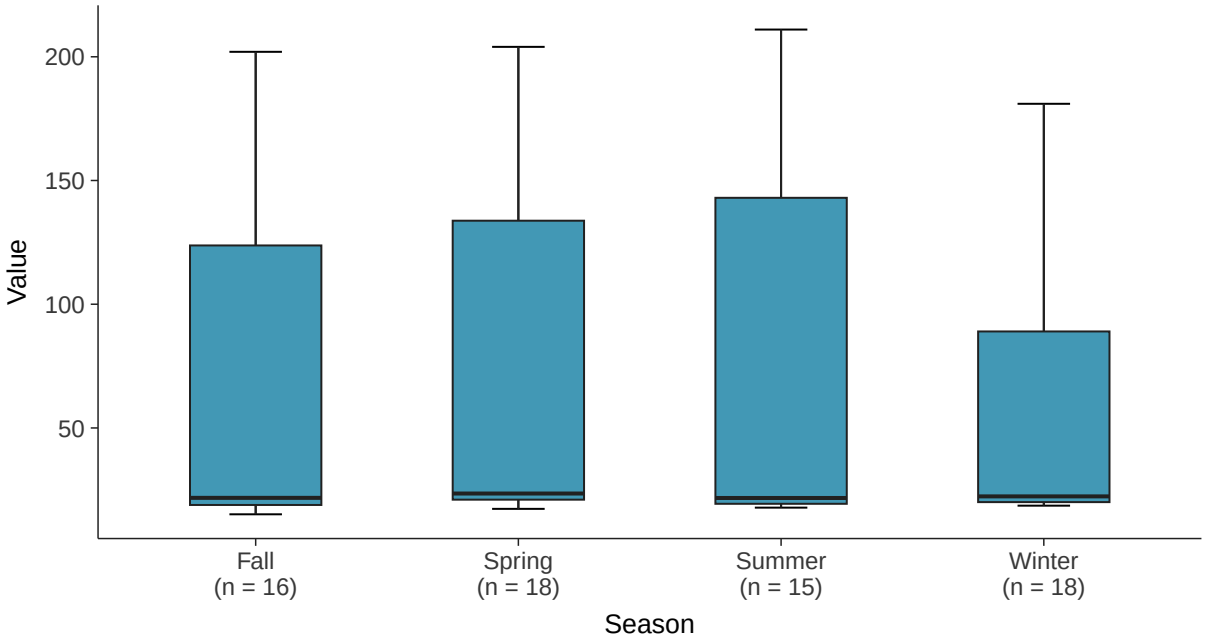
Boxplot

Sulfate, BG-1 & BG-2 (mg/L)



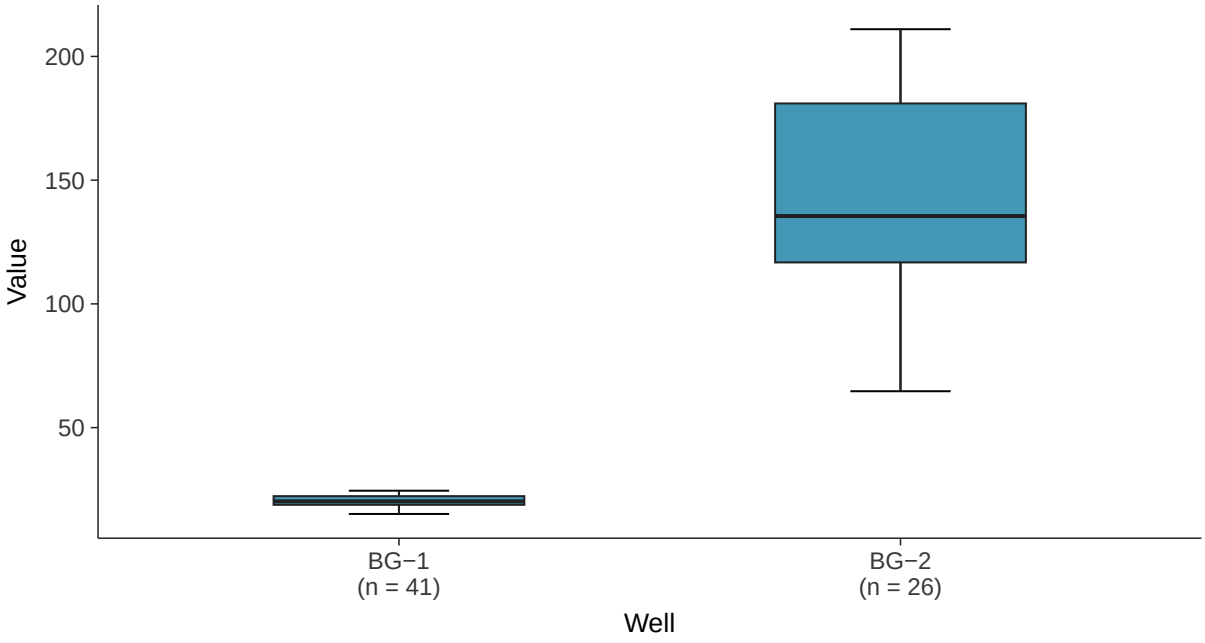
Boxplot by Season

Sulfate, BG-1 & BG-2 (mg/L)



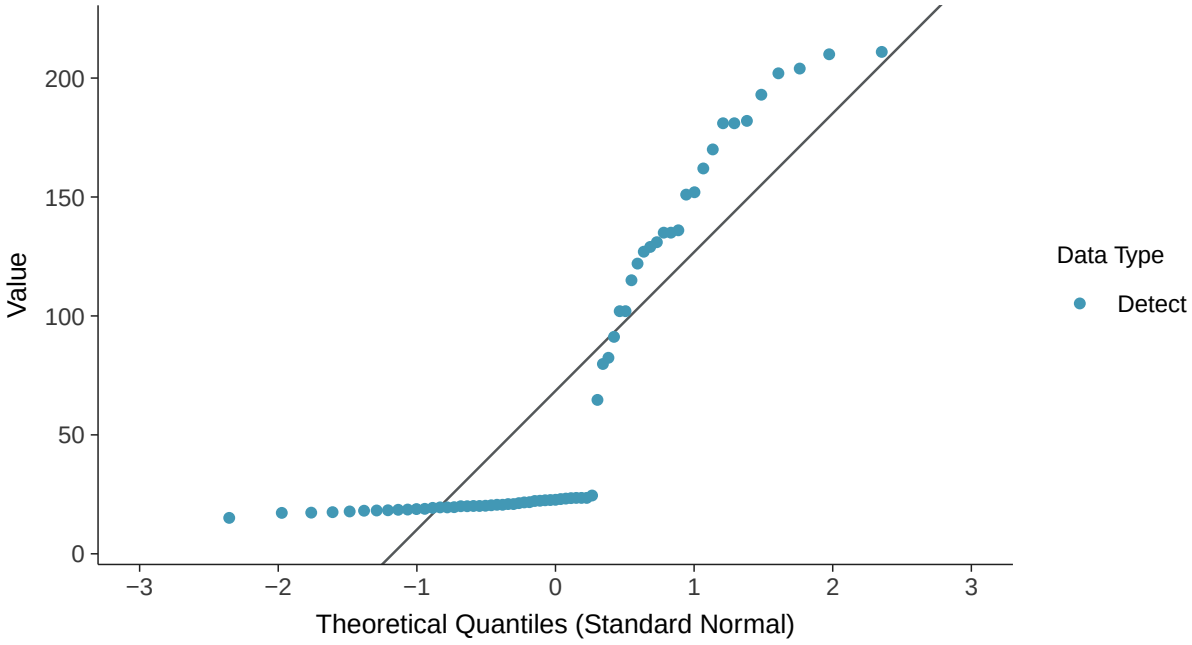
Boxplot by Well

Sulfate, BG-1 & BG-2 (mg/L)



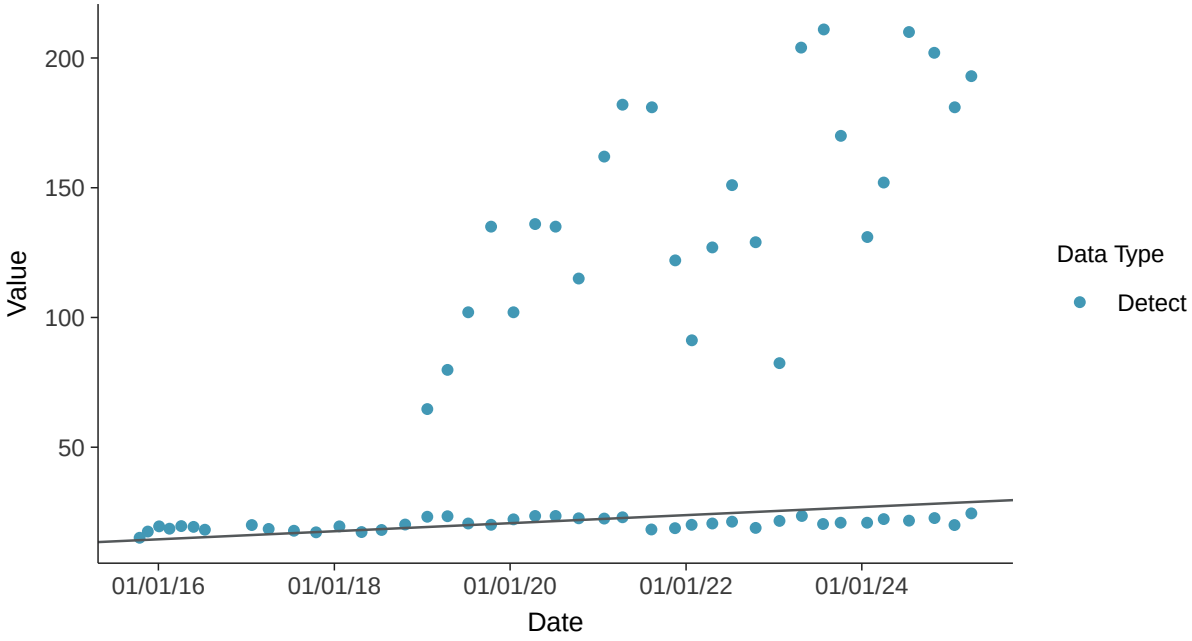
Normal Q-Q plot

Sulfate, BG-1 & BG-2 (mg/L)



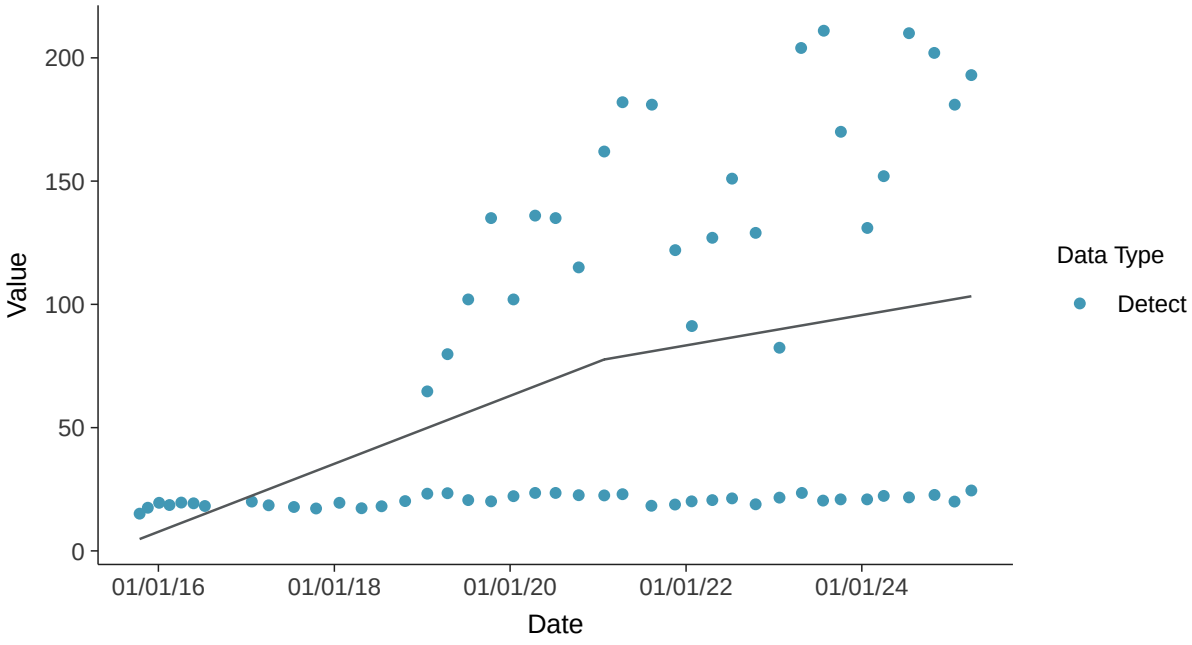
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Sulfate, BG-1 & BG-2 (mg/L)



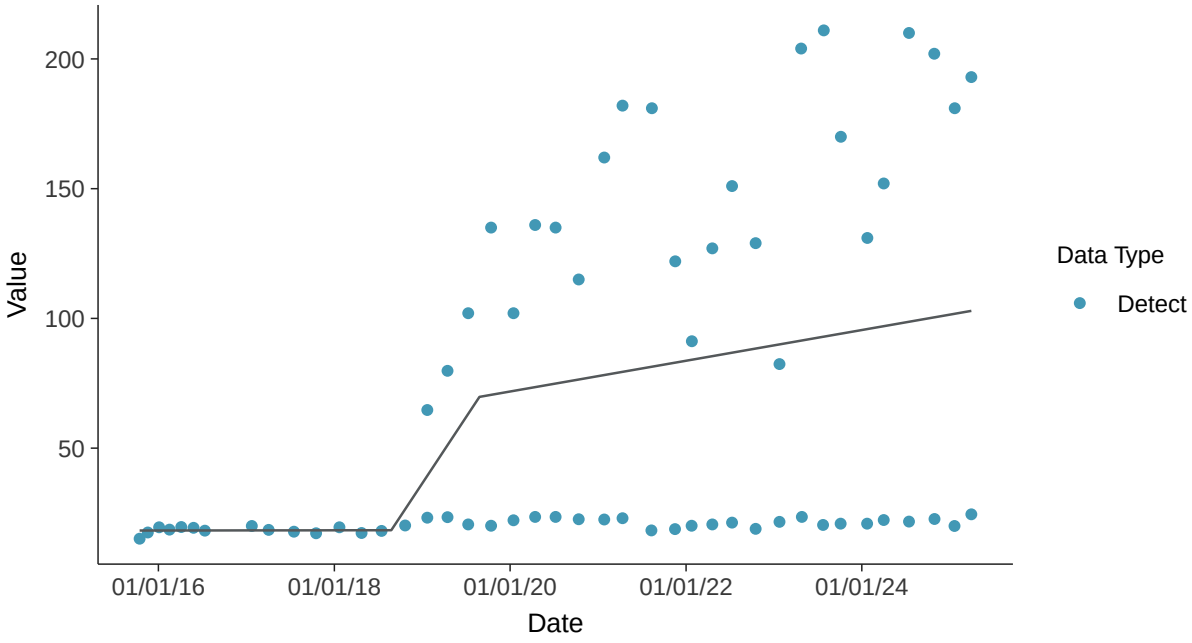
Trend Regression: Piecewise Linear-Linear

Sulfate, BG-1 & BG-2 (mg/L)



Trend Regression: Piecewise Linear-Linear-Linear

Sulfate, BG-1 & BG-2 (mg/L)

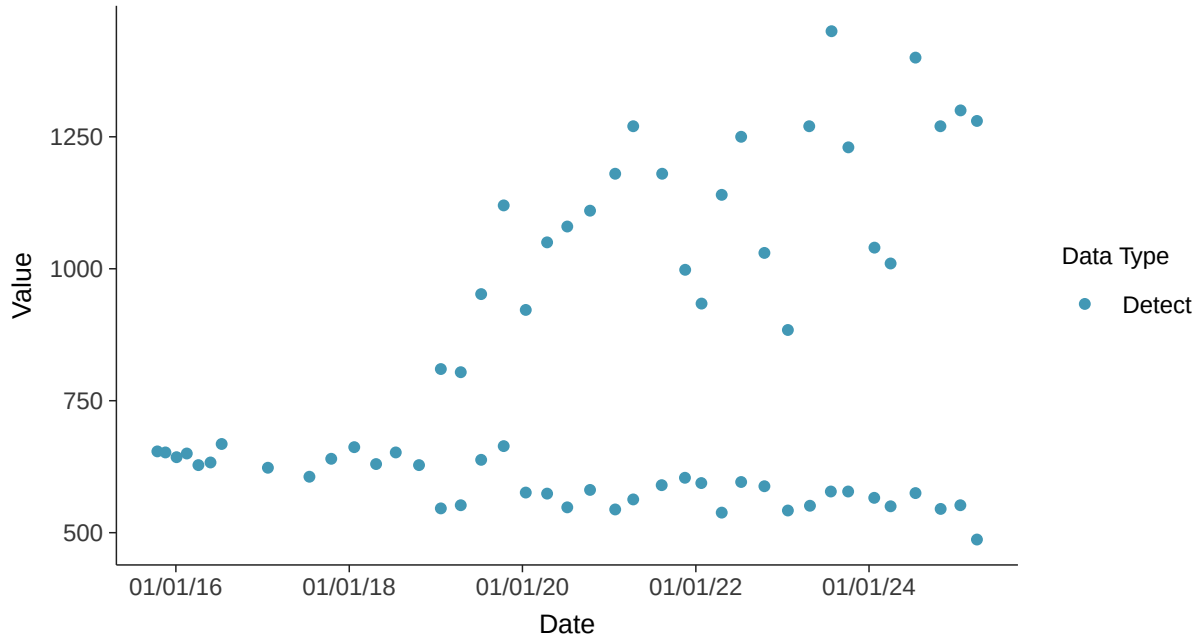


App. III: Total Dissolved Solids, BG-1 & BG-2

ID: 2_125

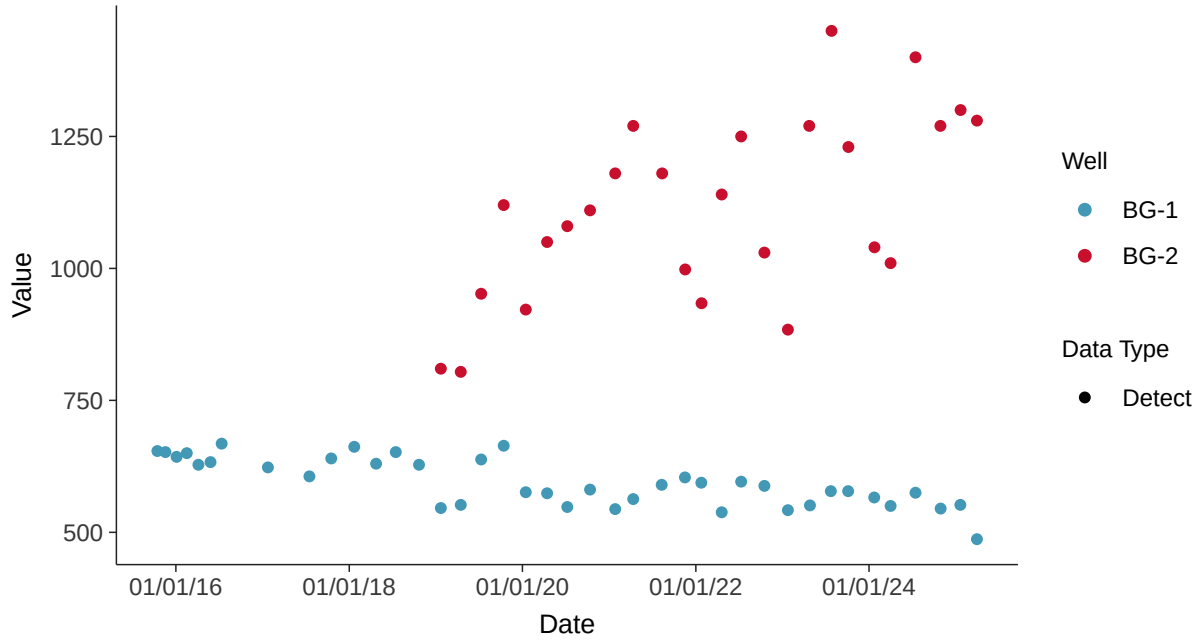
Scatter Plot

Total Dissolved Solids, BG-1 & BG-2 (mg/L)



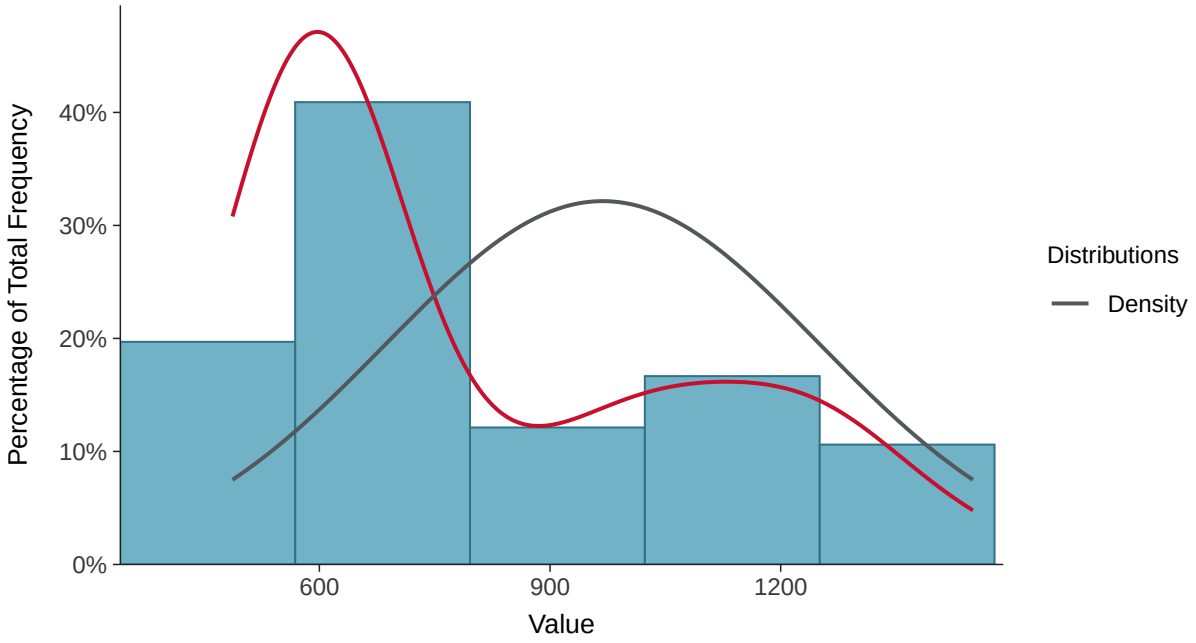
Scatter Plot by Well

Total Dissolved Solids, BG-1 & BG-2 (mg/L)



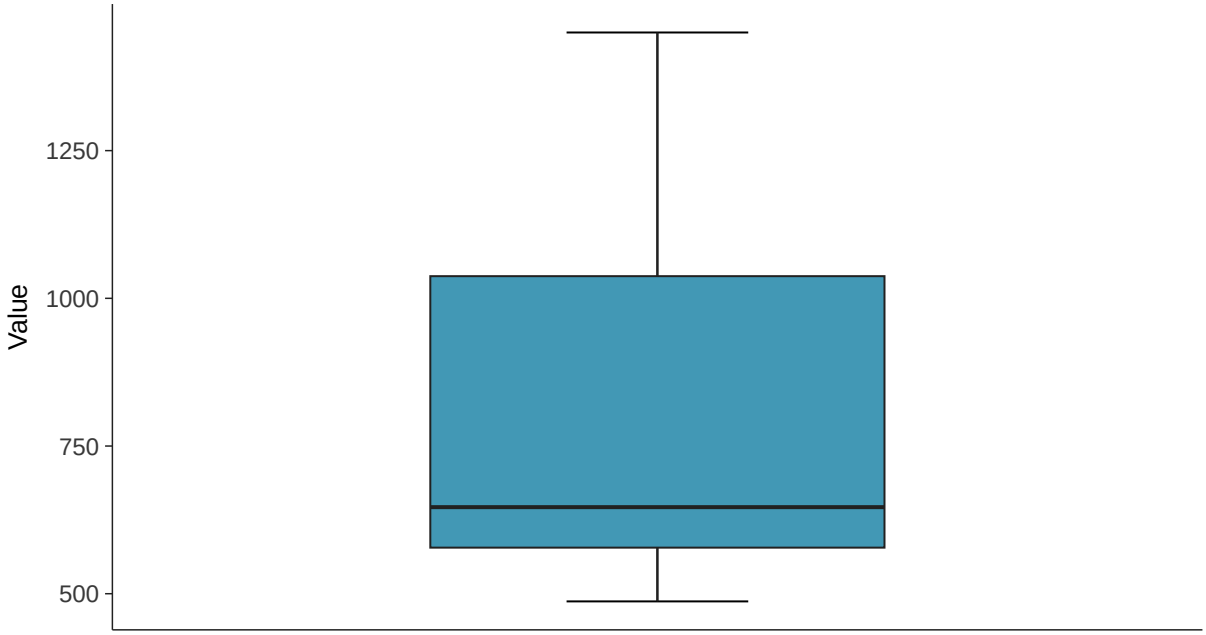
Histogram

Total Dissolved Solids, BG-1 & BG-2 (mg/L)



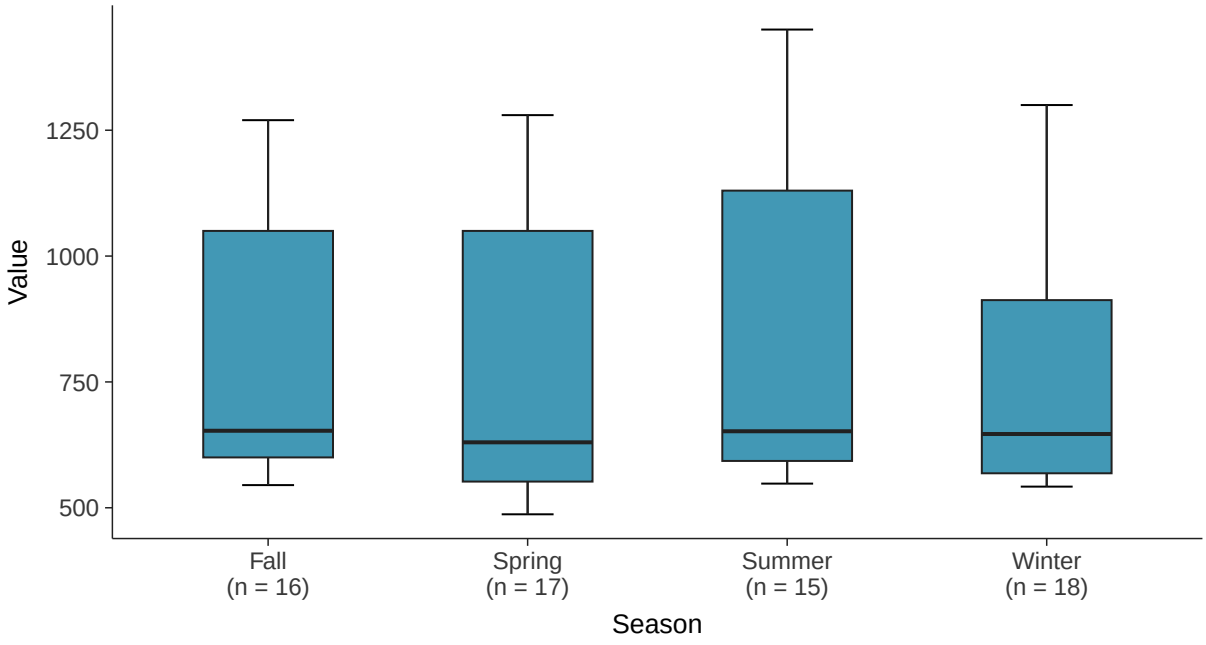
Boxplot

Total Dissolved Solids, BG-1 & BG-2 (mg/L)



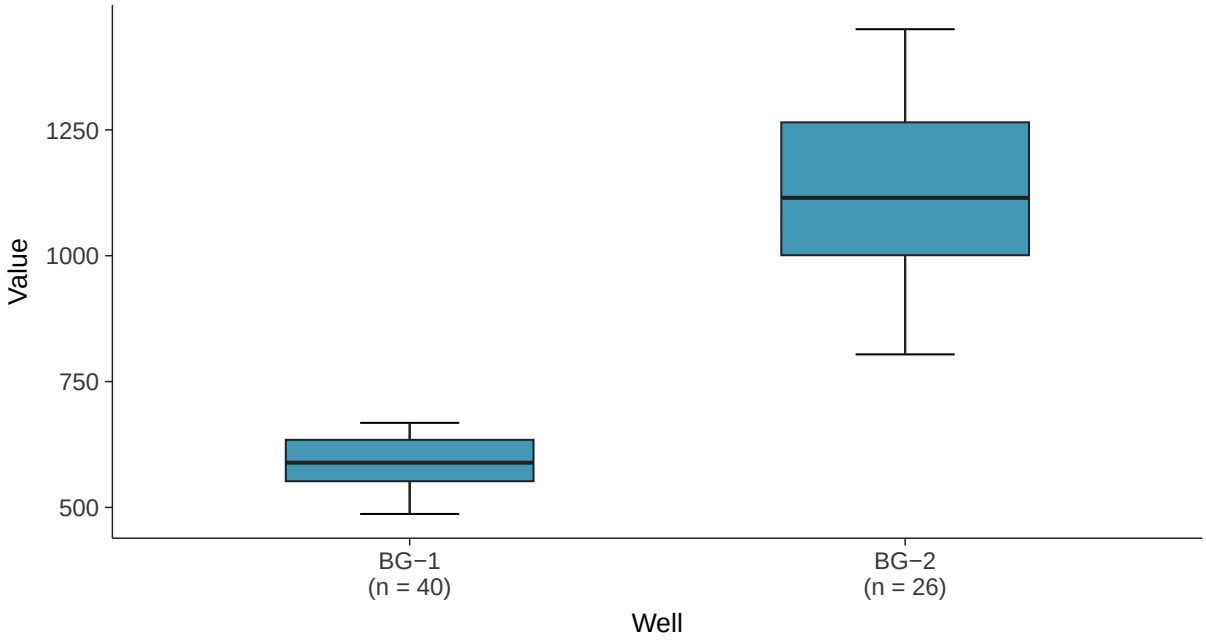
Boxplot by Season

Total Dissolved Solids, BG-1 & BG-2 (mg/L)



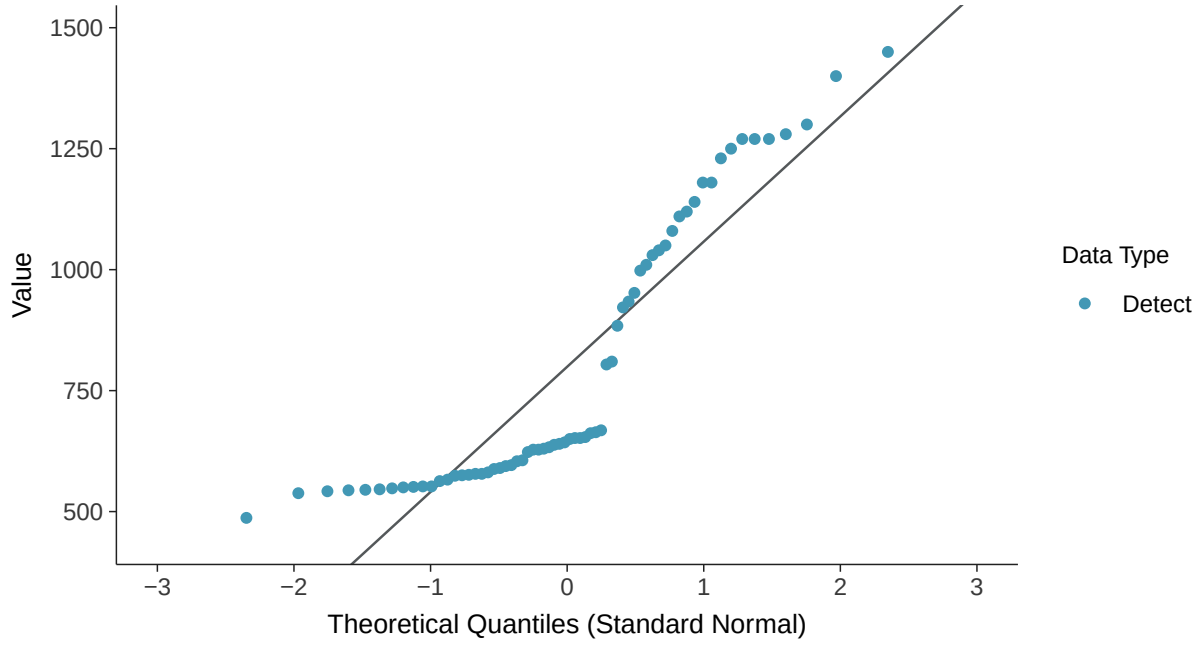
Boxplot by Well

Total Dissolved Solids, BG-1 & BG-2 (mg/L)



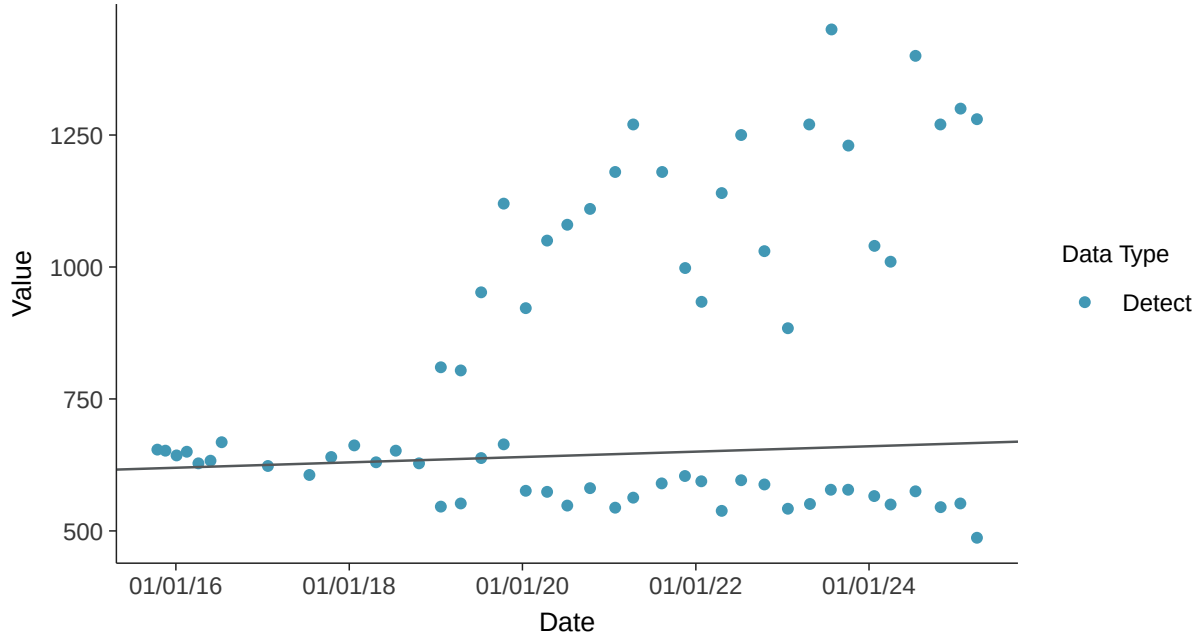
Normal Q-Q plot

Total Dissolved Solids, BG-1 & BG-2 (mg/L)



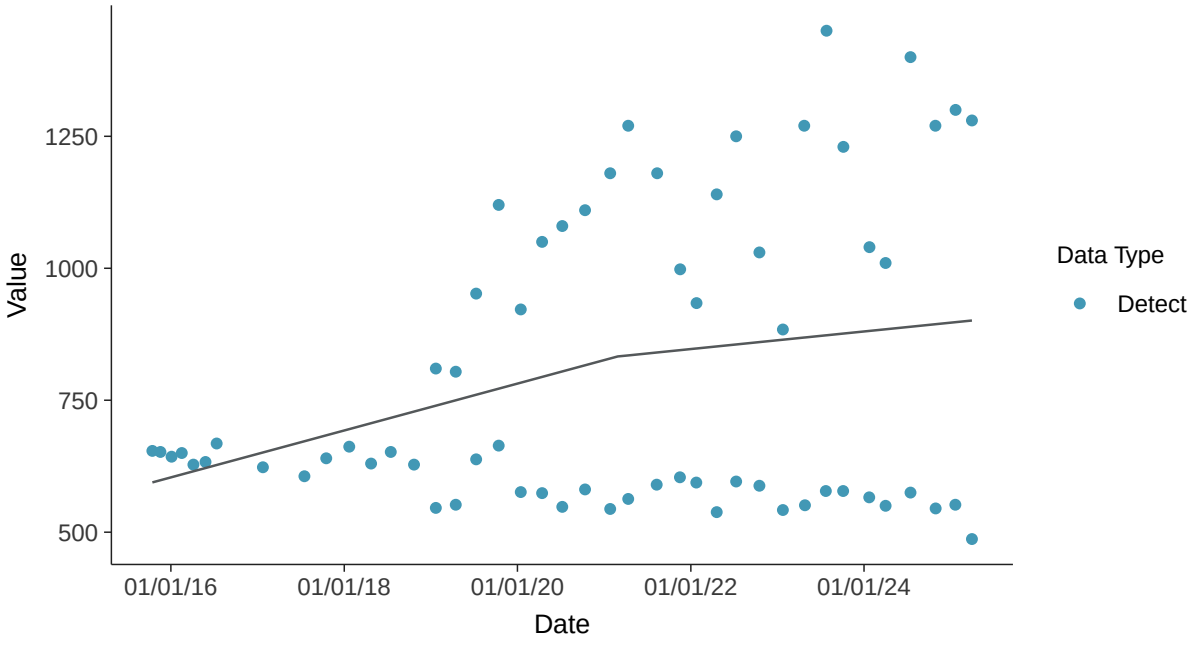
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Total Dissolved Solids, BG-1 & BG-2 (mg/L)



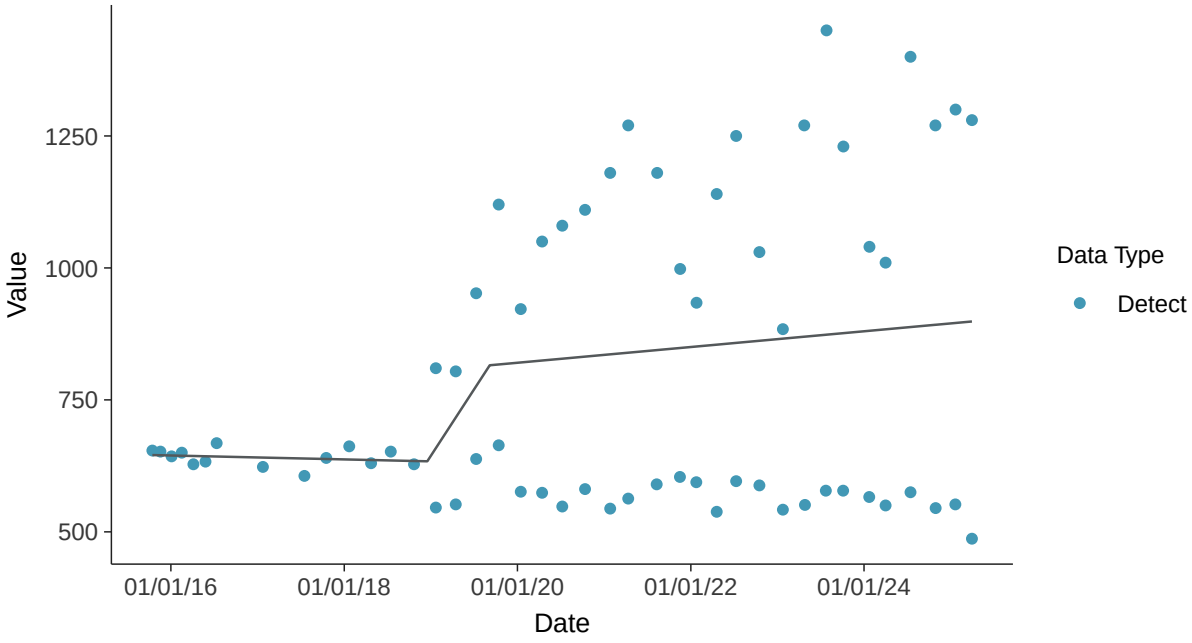
Trend Regression: Piecewise Linear-Linear

Total Dissolved Solids, BG-1 & BG-2 (mg/L)



Trend Regression: Piecewise Linear-Linear-Linear

Total Dissolved Solids, BG-1 & BG-2 (mg/L)

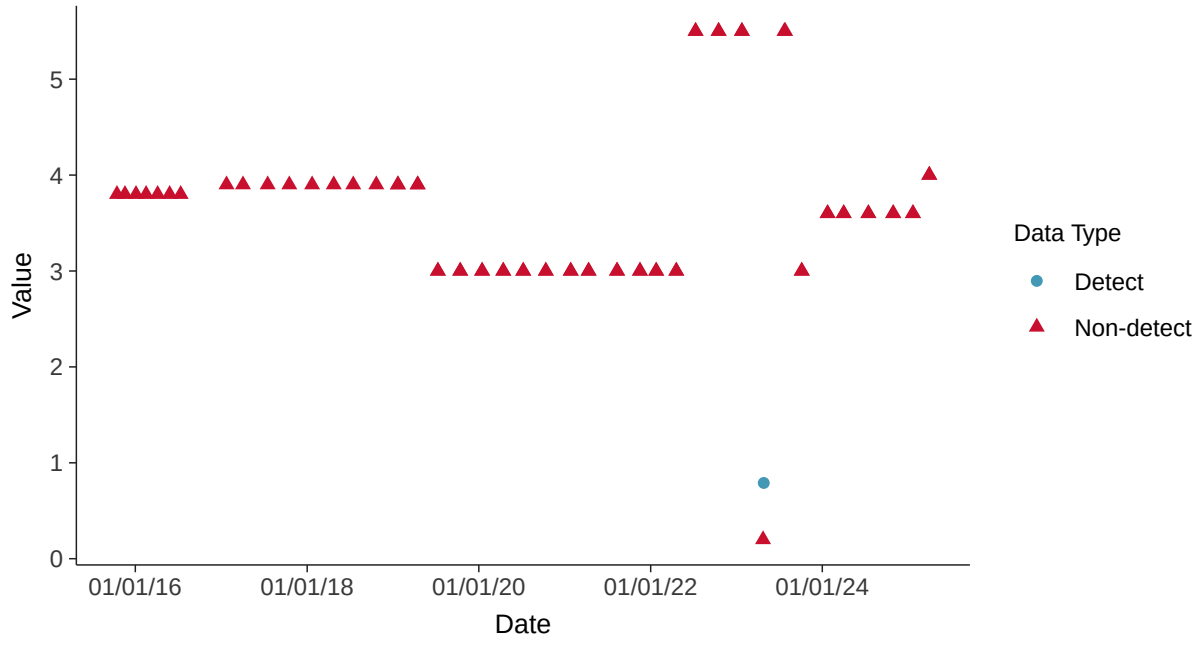


App. IV: Antimony, BG-1 & BG-2

ID: 3_101

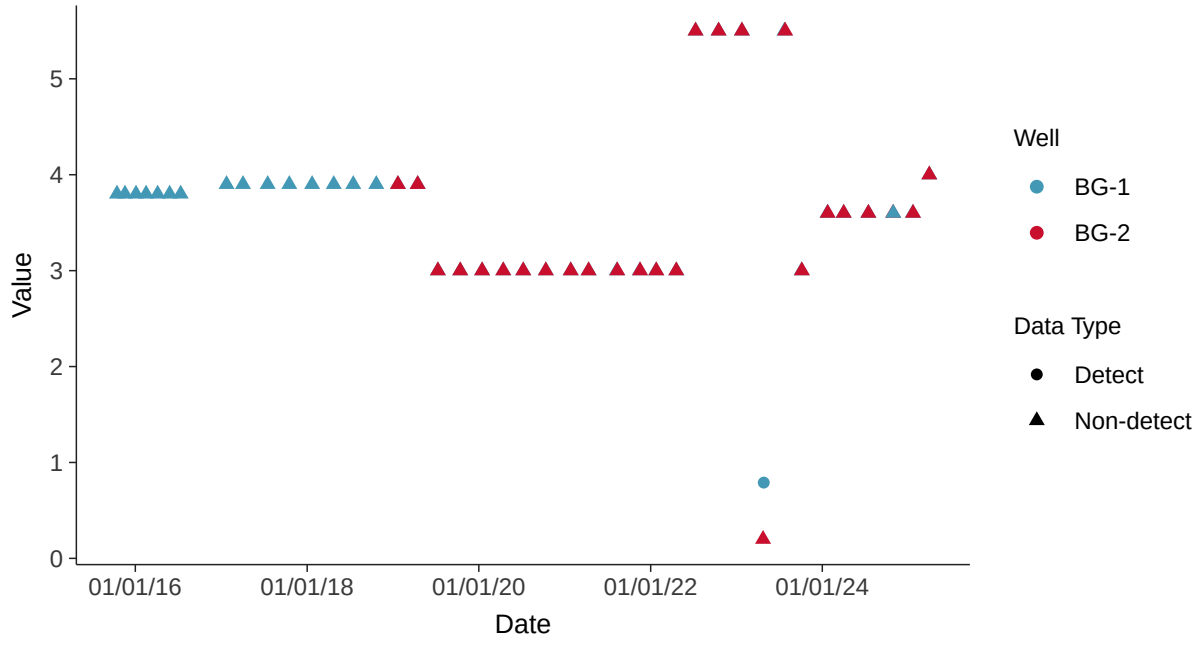
Scatter Plot

Antimony, BG-1 & BG-2 (ug/L)



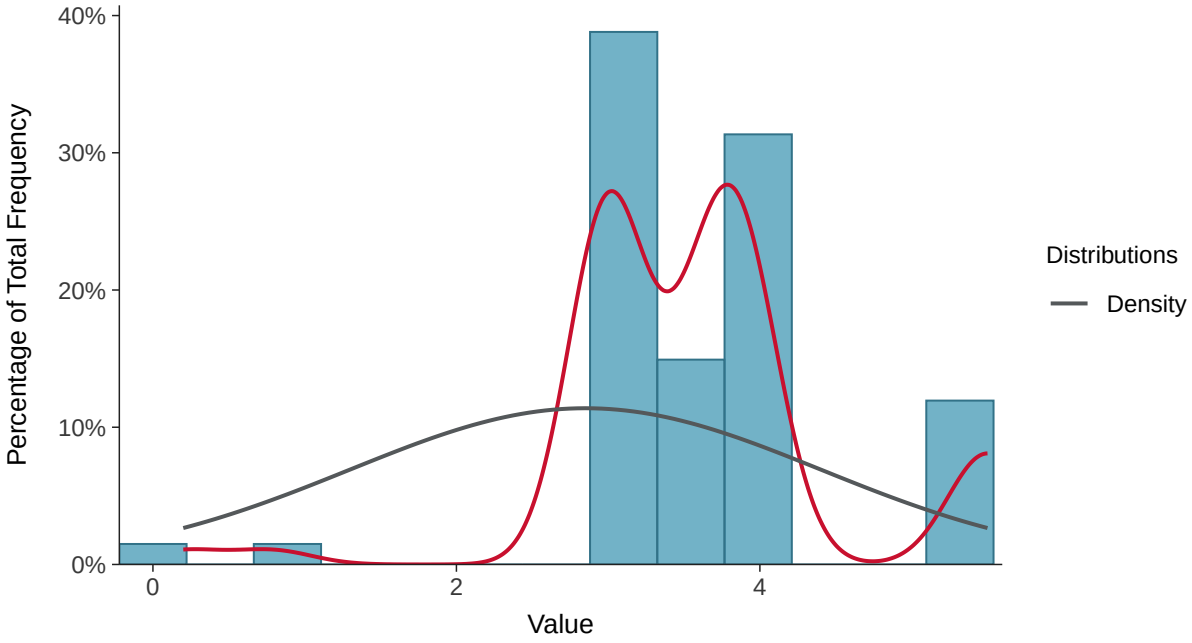
Scatter Plot by Well

Antimony, BG-1 & BG-2 (ug/L)



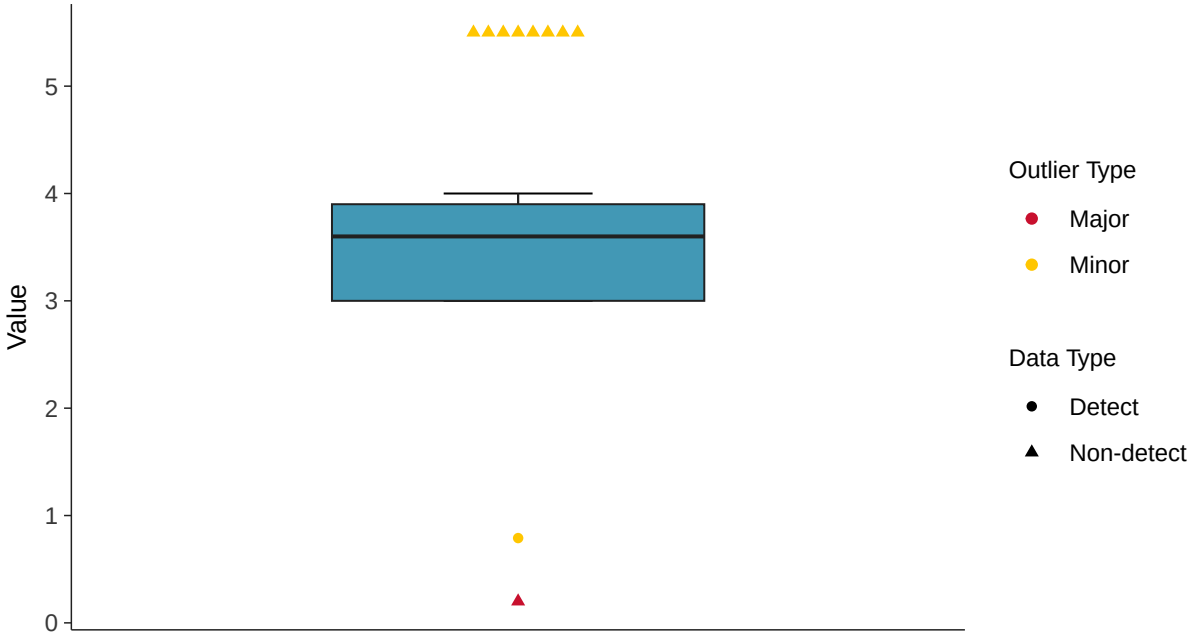
Histogram

Antimony, BG-1 & BG-2 (ug/L)



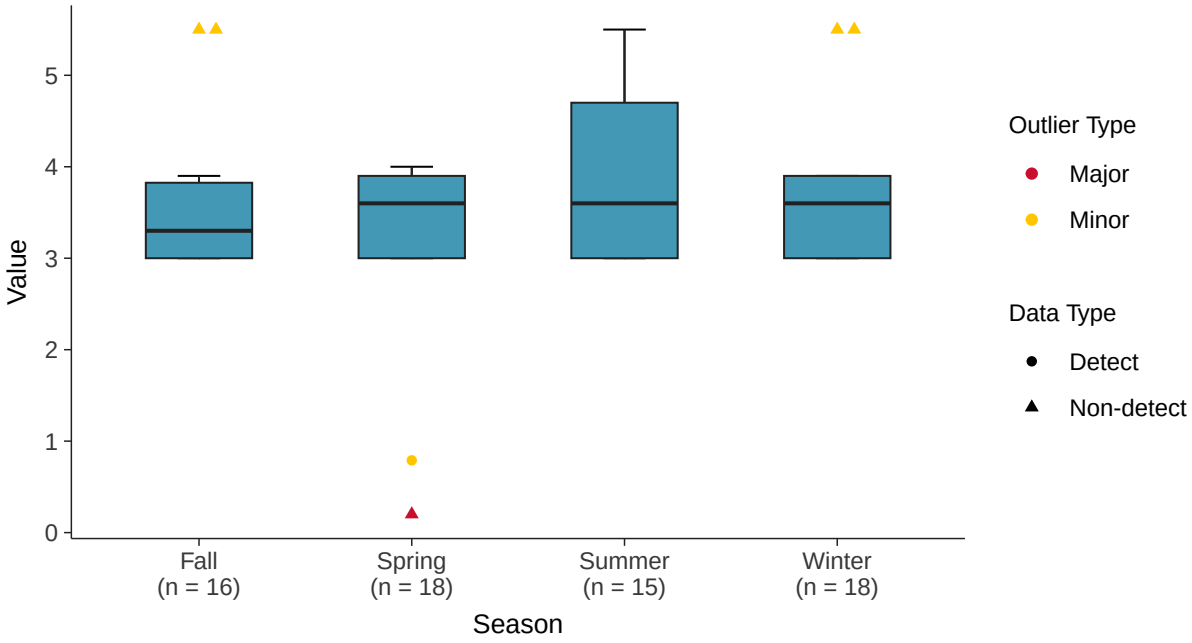
Boxplot

Antimony, BG-1 & BG-2 (ug/L)



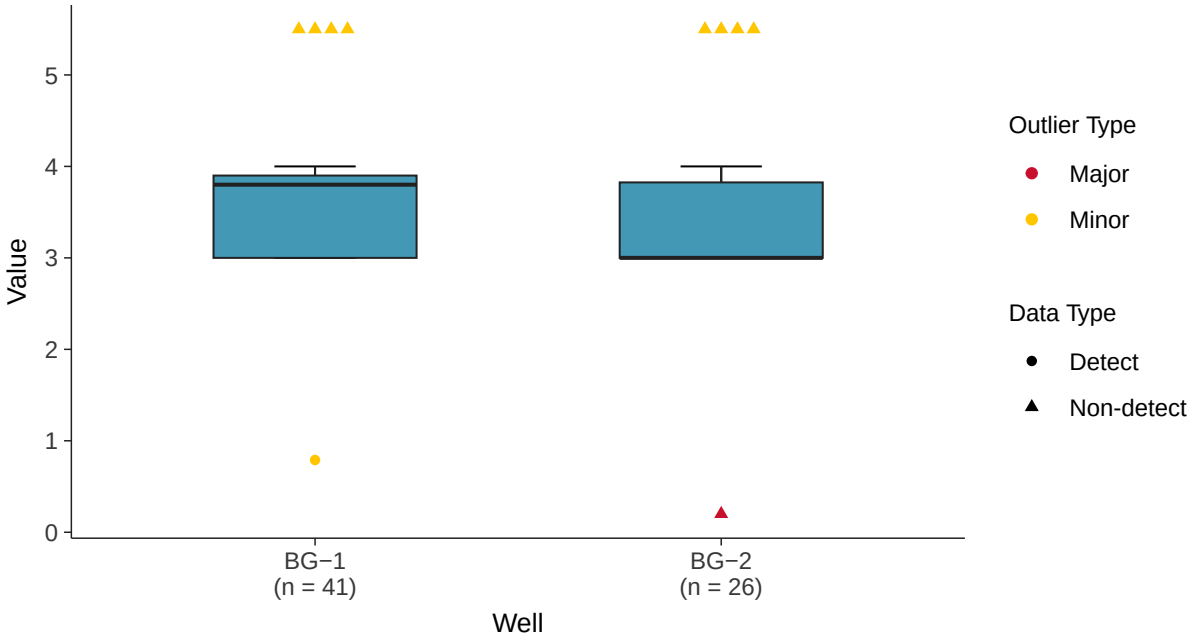
Boxplot by Season

Antimony, BG-1 & BG-2 (ug/L)



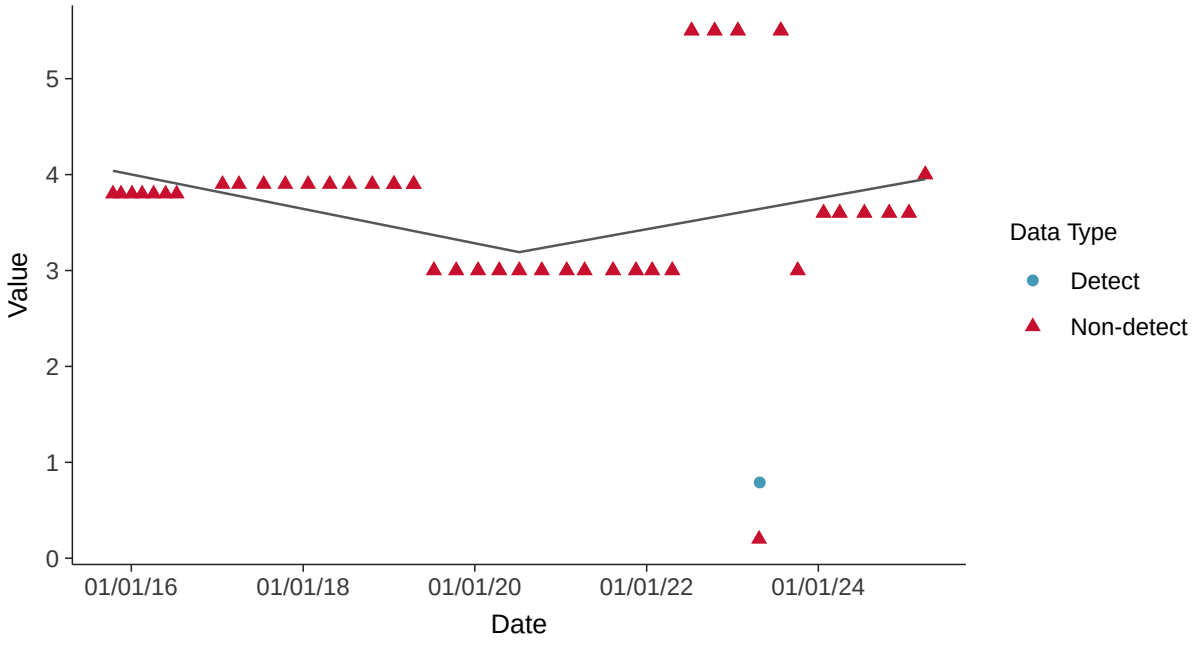
Boxplot by Well

Antimony, BG-1 & BG-2 (ug/L)



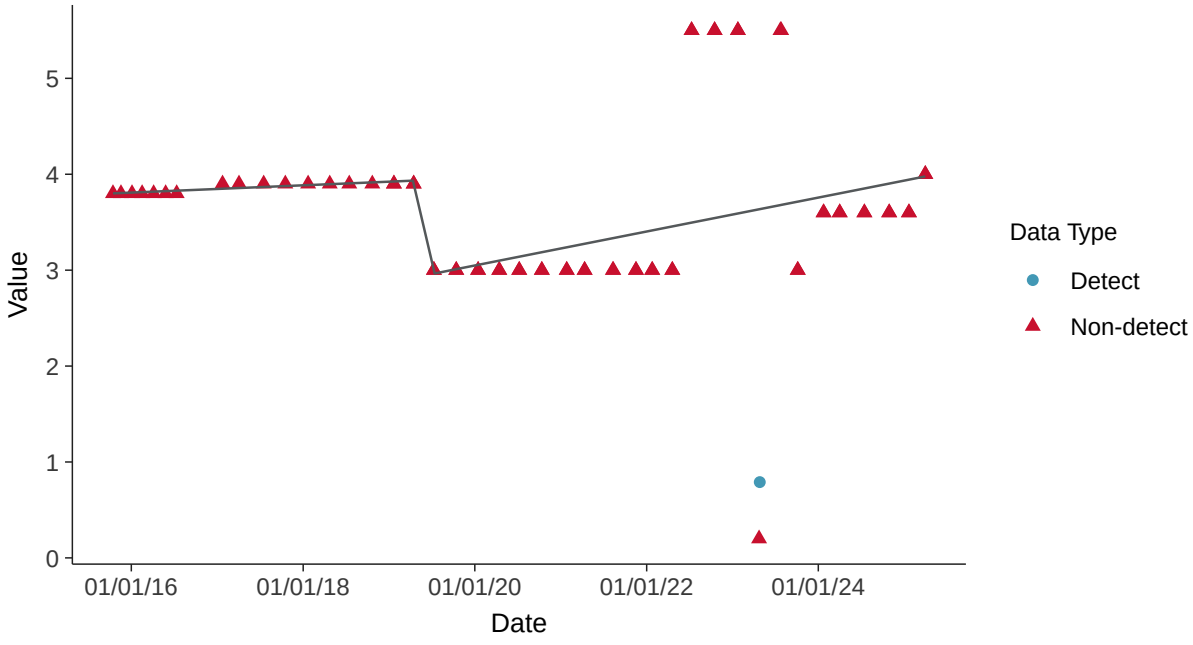
Trend Regression: Piecewise Linear-Linear

Antimony, BG-1 & BG-2 (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Antimony, BG-1 & BG-2 (ug/L)

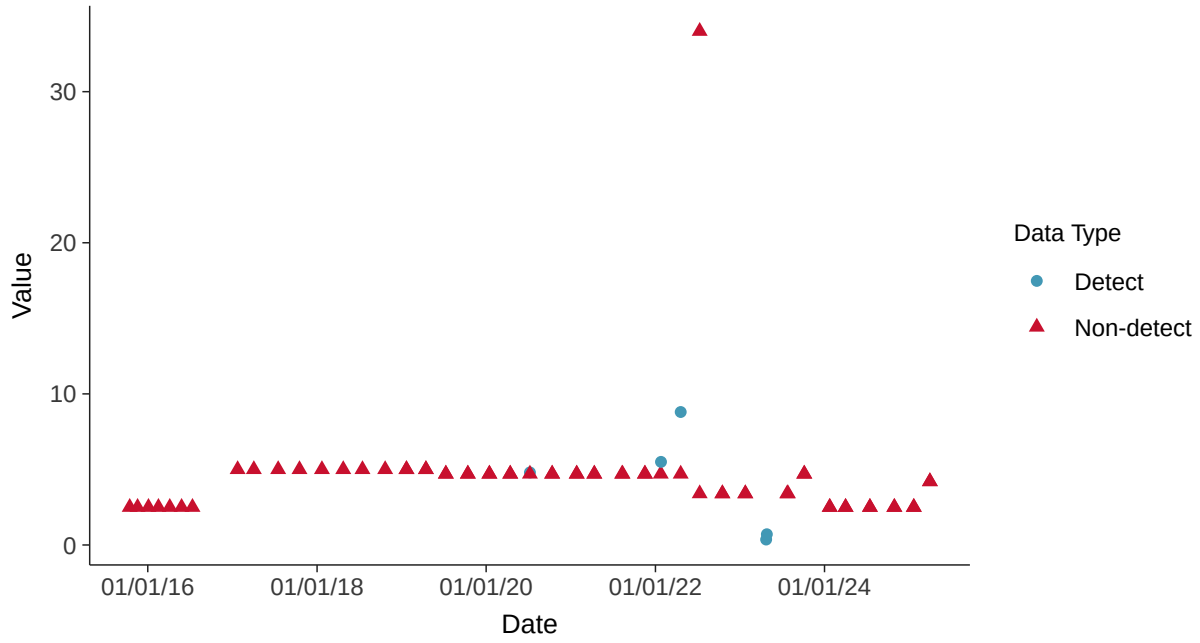


App. IV: Arsenic, BG-1 & BG-2

ID: 3_102

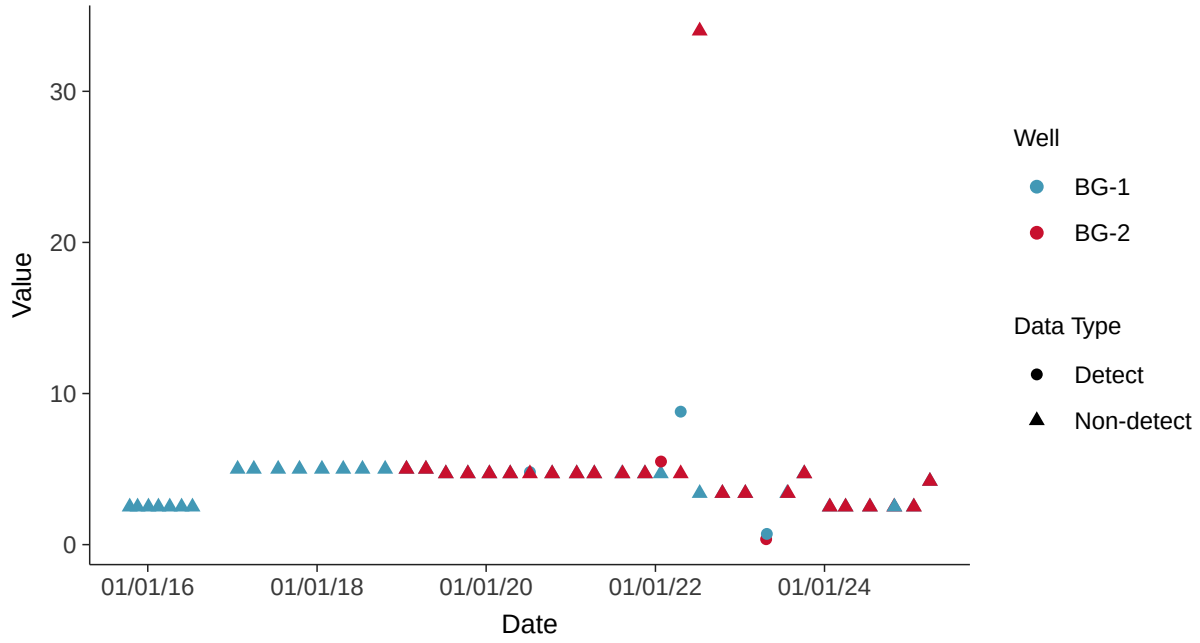
Scatter Plot

Arsenic, BG-1 & BG-2 (ug/L)



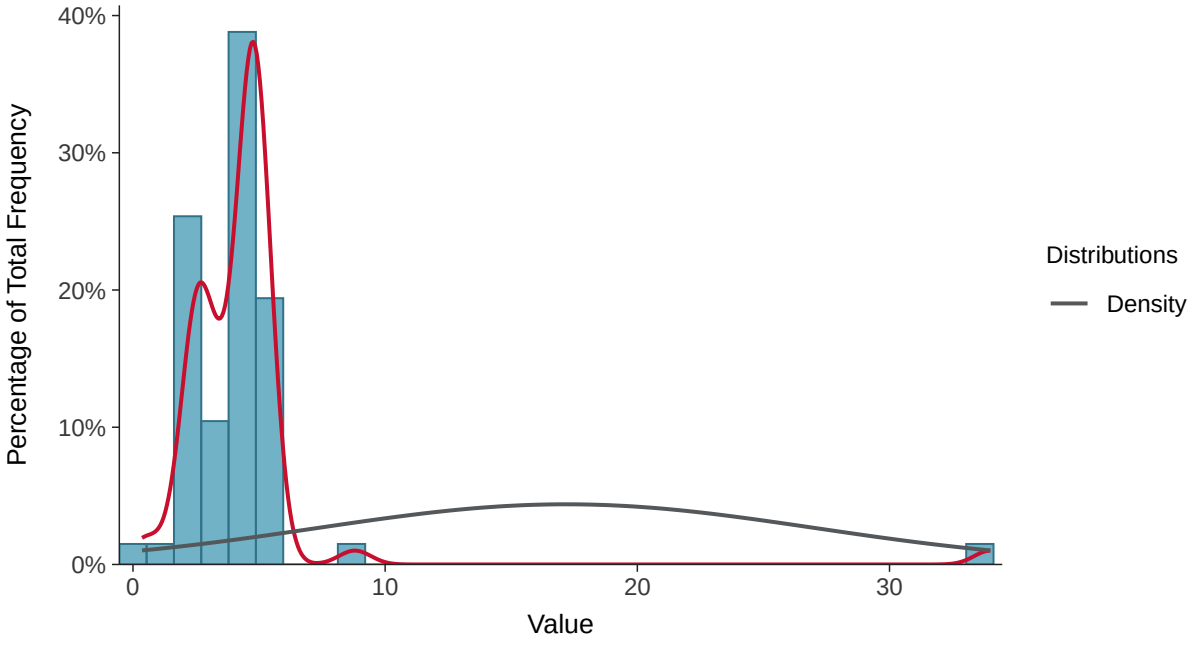
Scatter Plot by Well

Arsenic, BG-1 & BG-2 (ug/L)



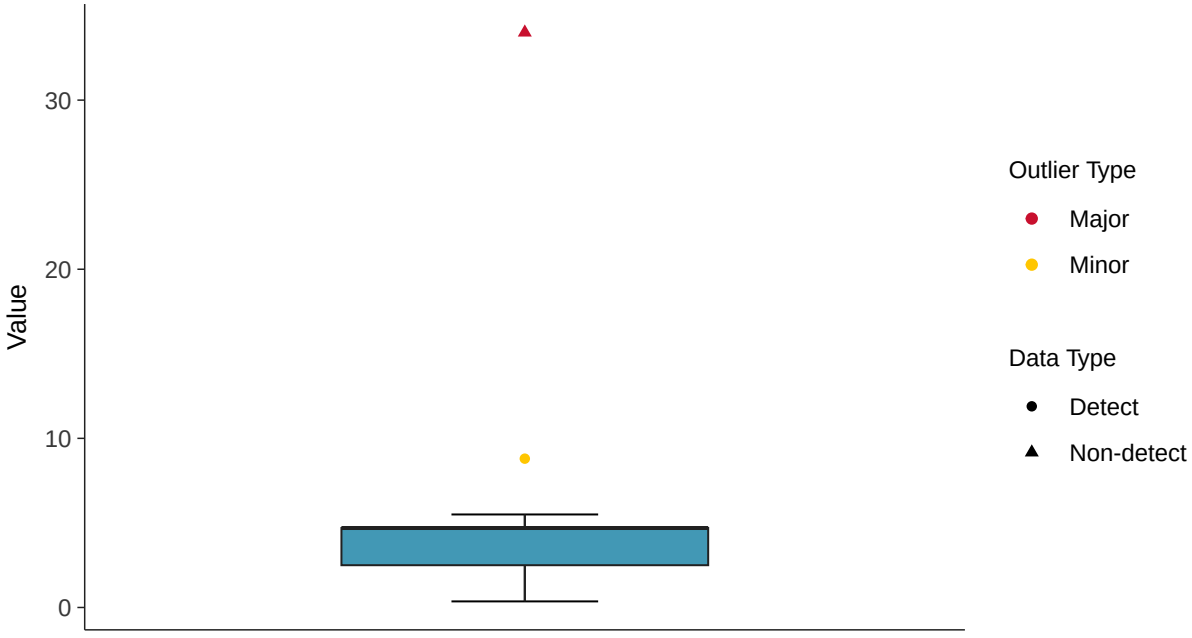
Histogram

Arsenic, BG-1 & BG-2 (ug/L)



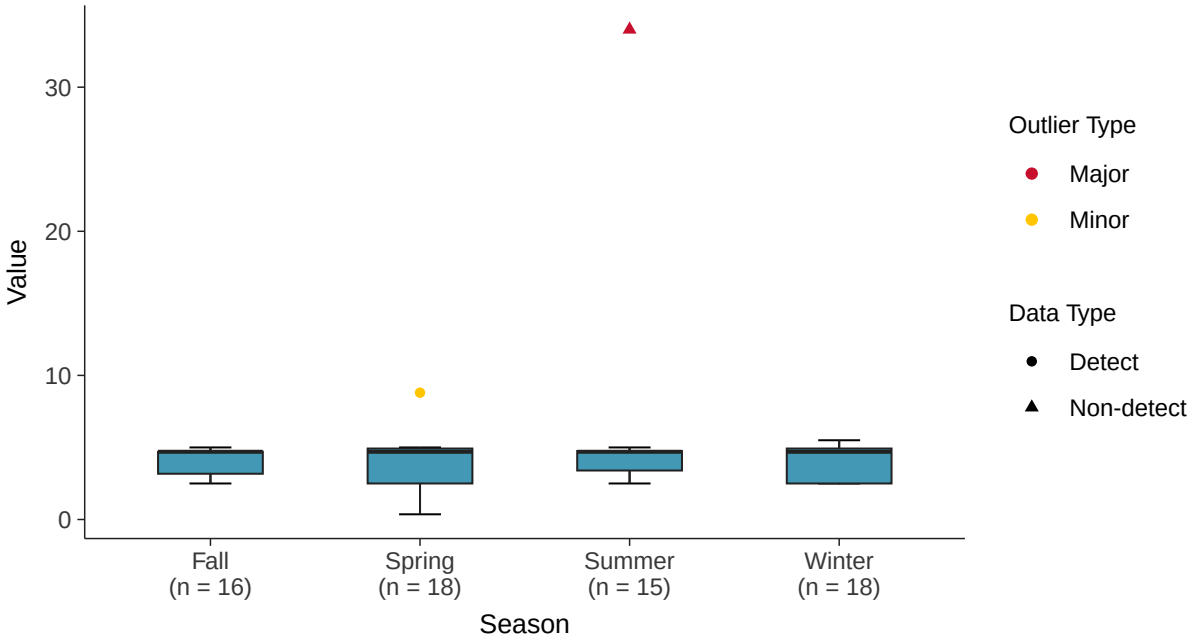
Boxplot

Arsenic, BG-1 & BG-2 (ug/L)



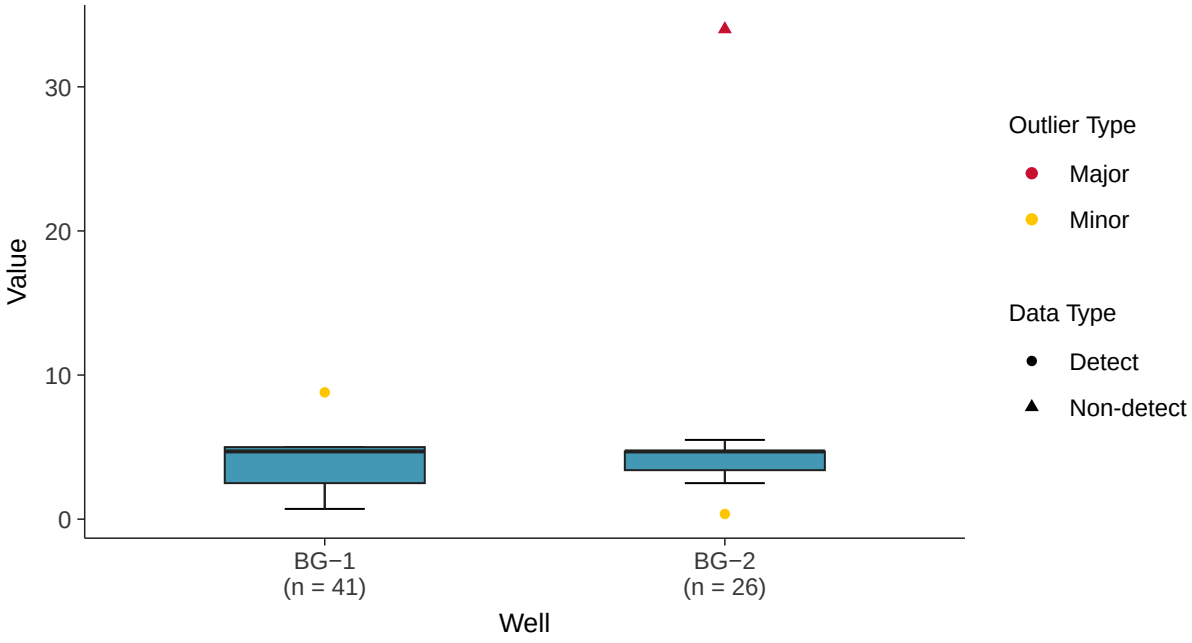
Boxplot by Season

Arsenic, BG-1 & BG-2 (ug/L)



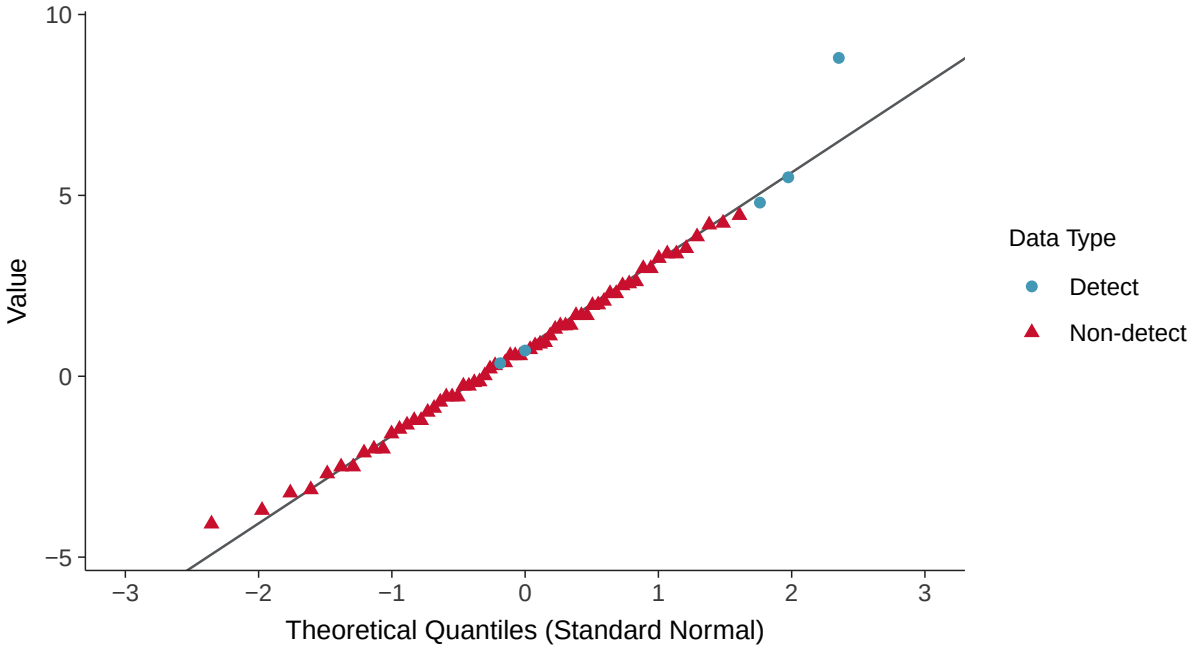
Boxplot by Well

Arsenic, BG-1 & BG-2 (ug/L)



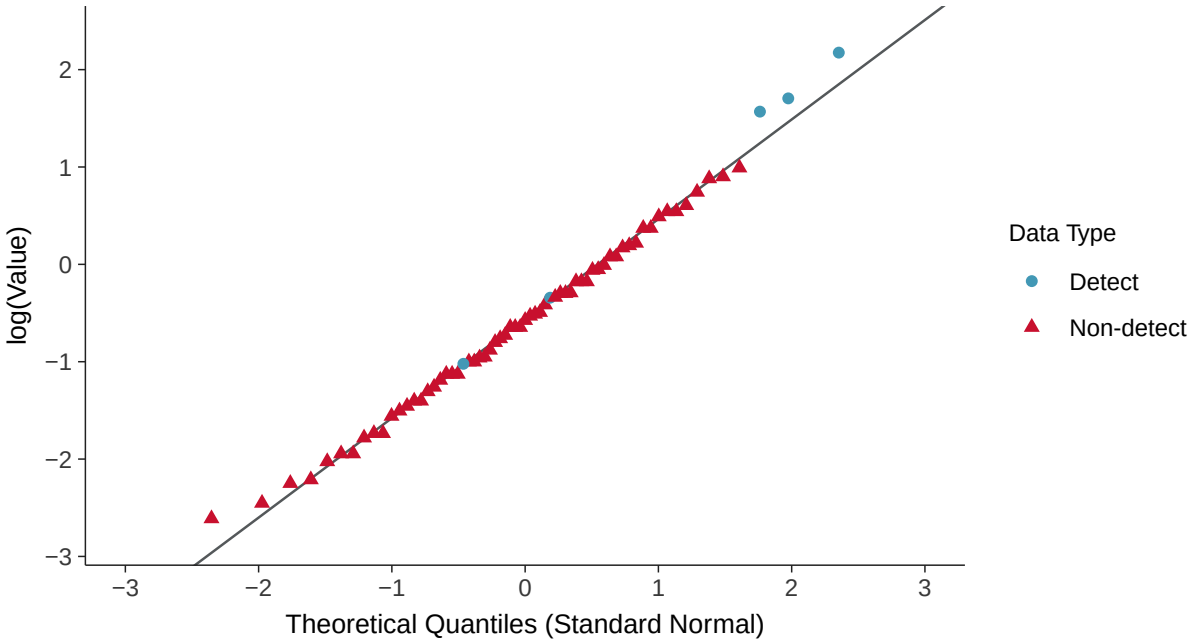
Normal Q-Q plot using ROS Imputed Estimates

Arsenic, BG-1 & BG-2 (ug/L)



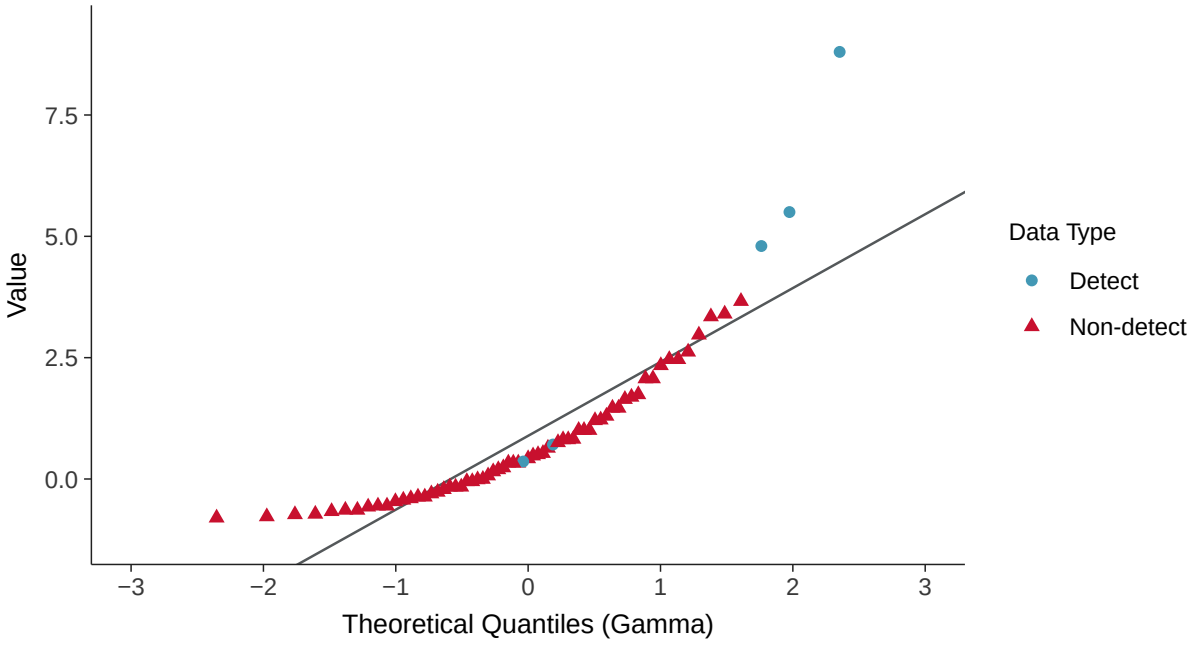
Lognormal Q-Q plot using ROS Imputed Estimates

Arsenic, BG-1 & BG-2 (ug/L)



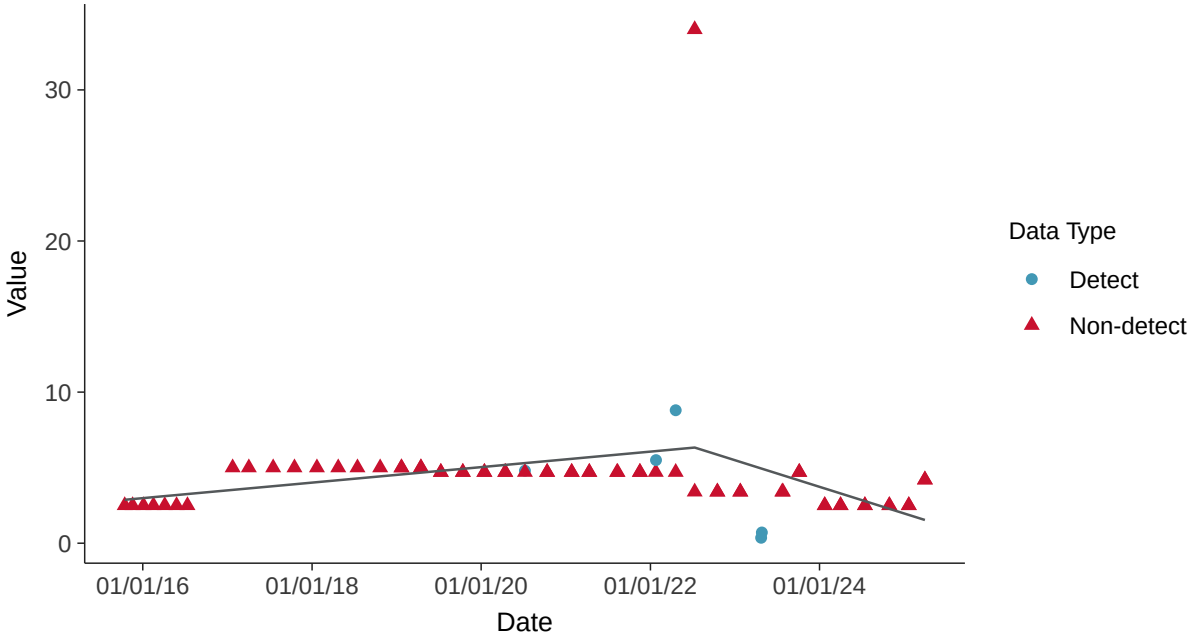
Gamma Q-Q plot using ROS Imputed Estimates

Arsenic, BG-1 & BG-2 (ug/L)



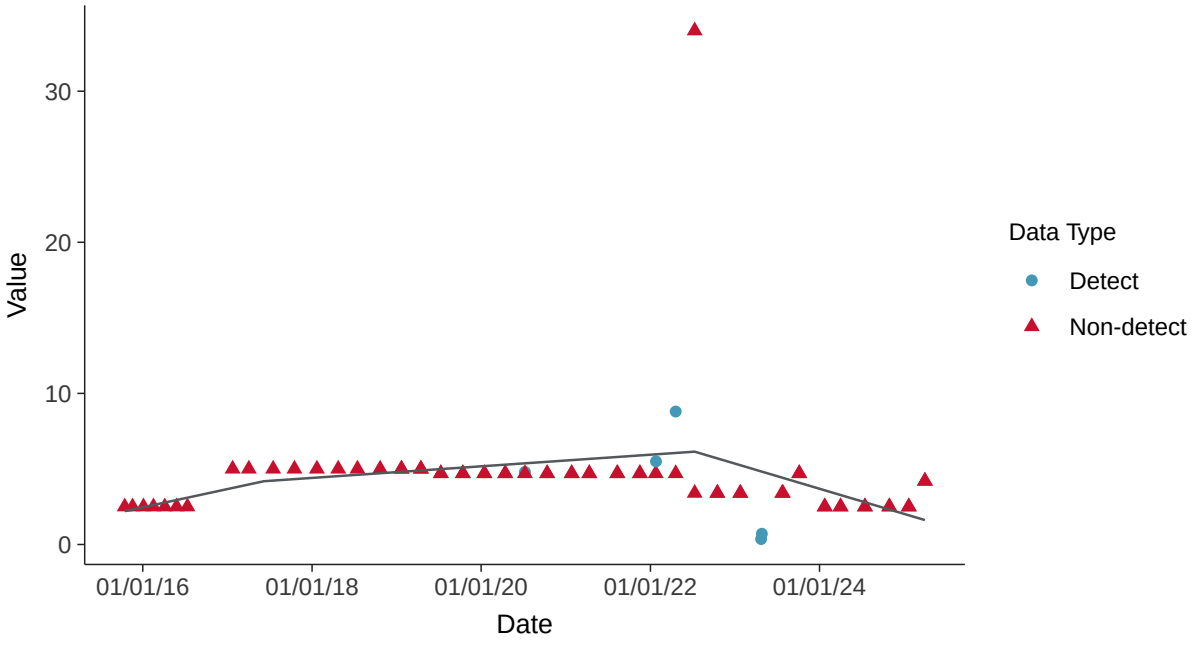
Trend Regression: Piecewise Linear-Linear

Arsenic, BG-1 & BG-2 (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Arsenic, BG-1 & BG-2 (ug/L)

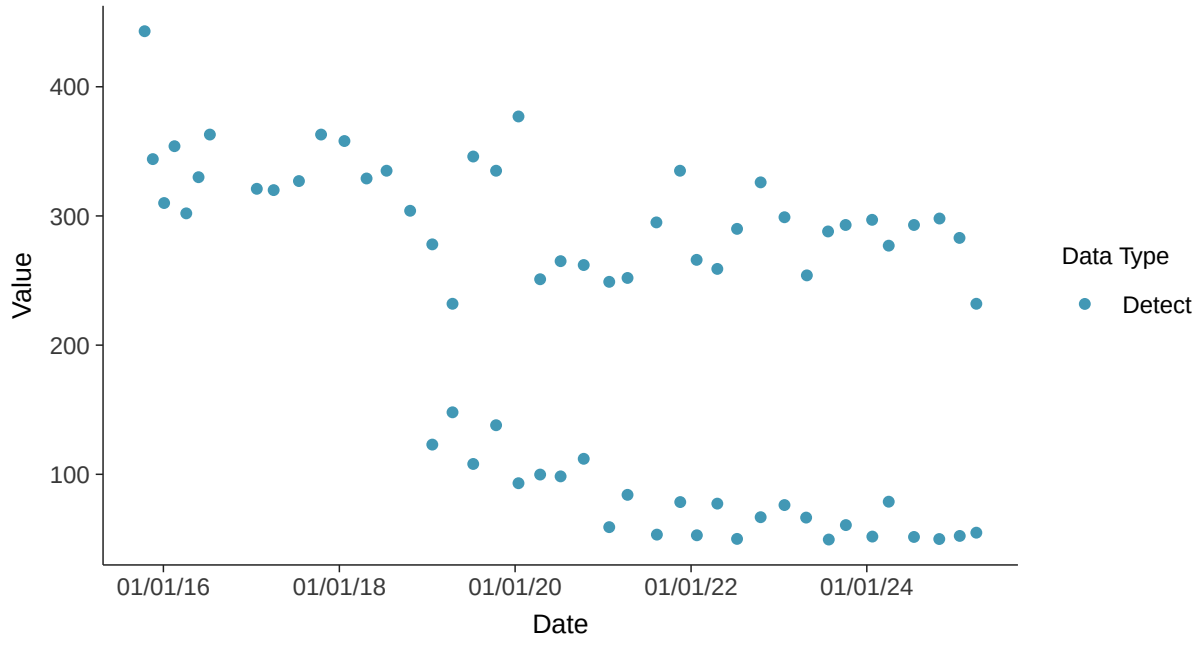


App. IV: Barium, BG-1 & BG-2

ID: 3_103

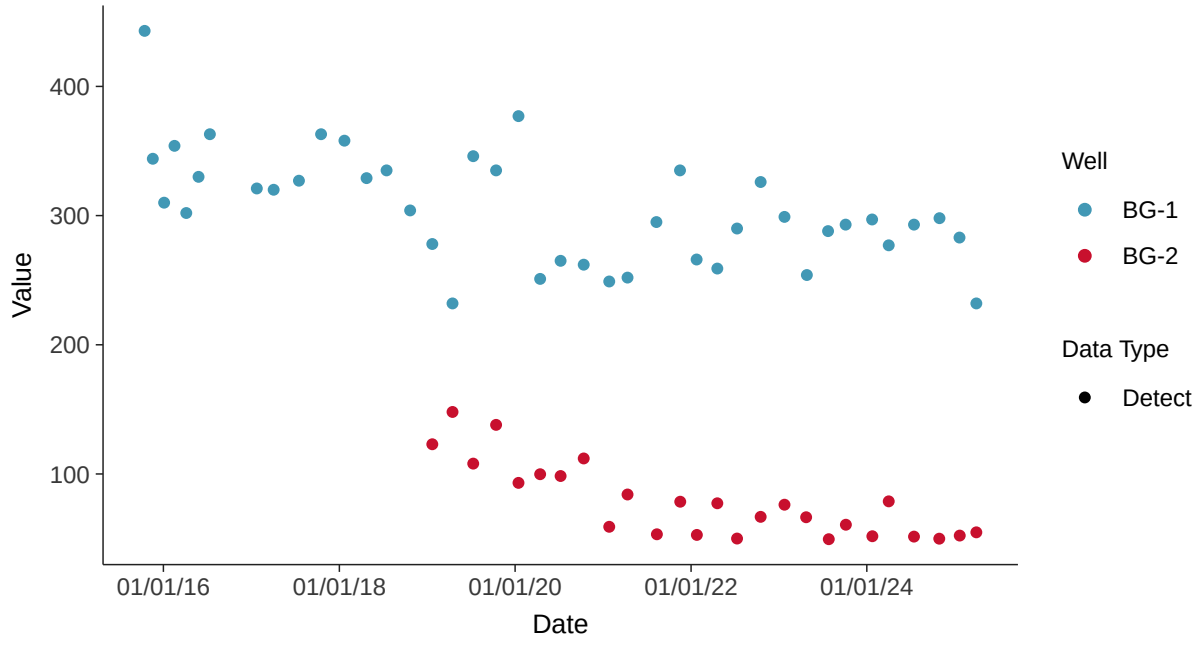
Scatter Plot

Barium, BG-1 & BG-2 (ug/L)



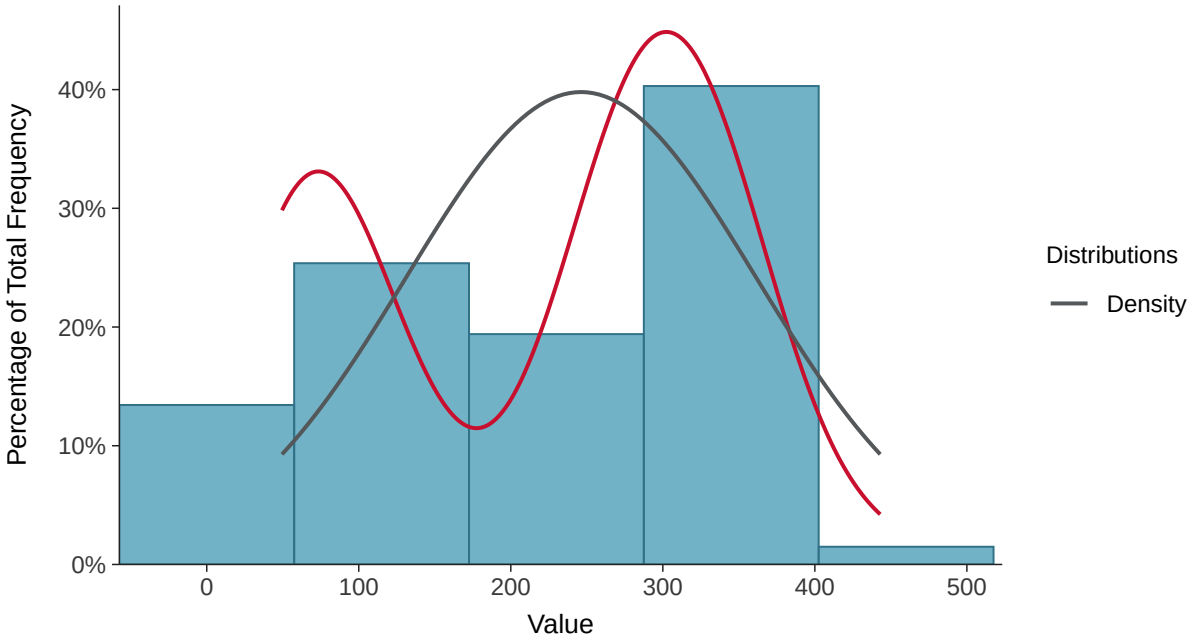
Scatter Plot by Well

Barium, BG-1 & BG-2 (ug/L)



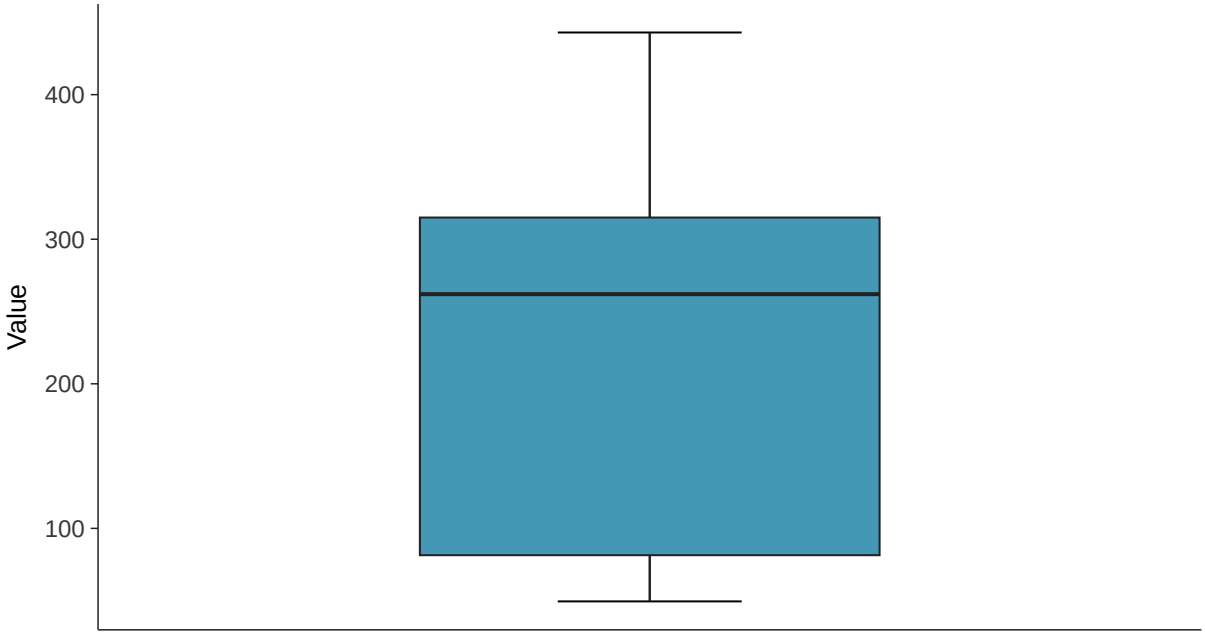
Histogram

Barium, BG-1 & BG-2 (ug/L)



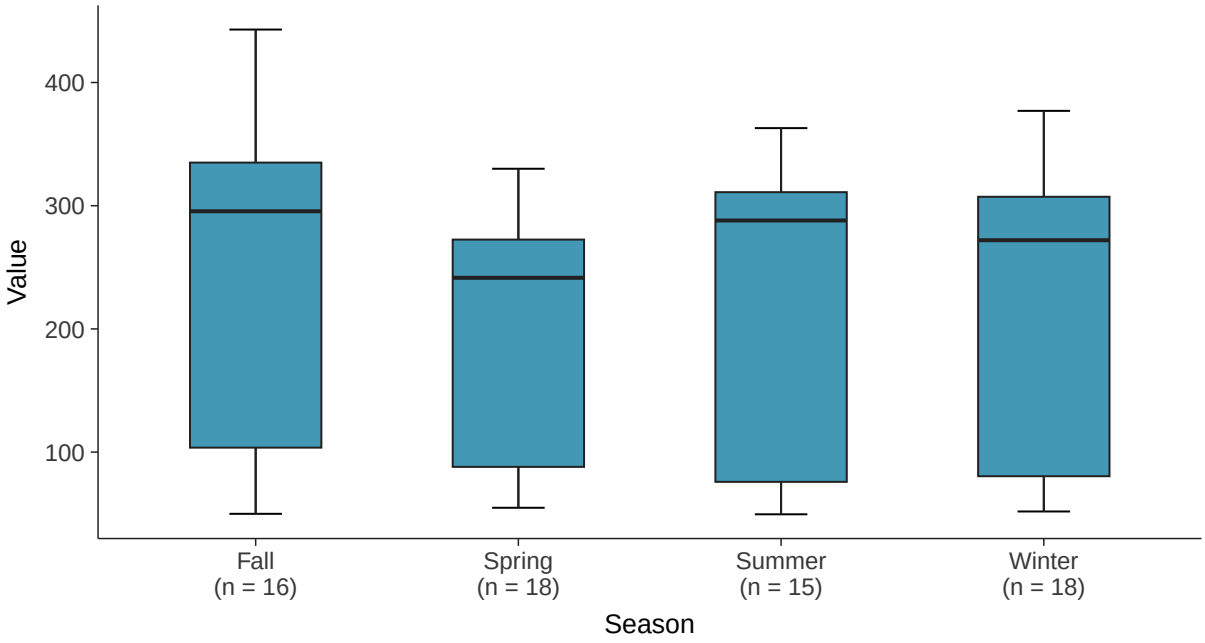
Boxplot

Barium, BG-1 & BG-2 (ug/L)



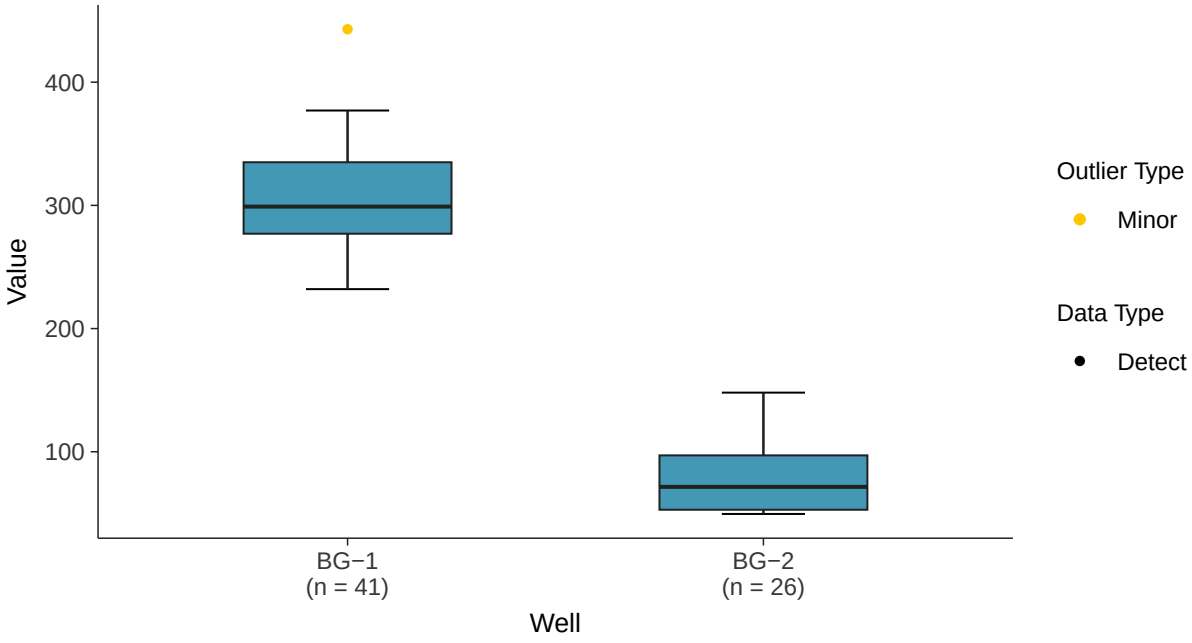
Boxplot by Season

Barium, BG-1 & BG-2 (ug/L)



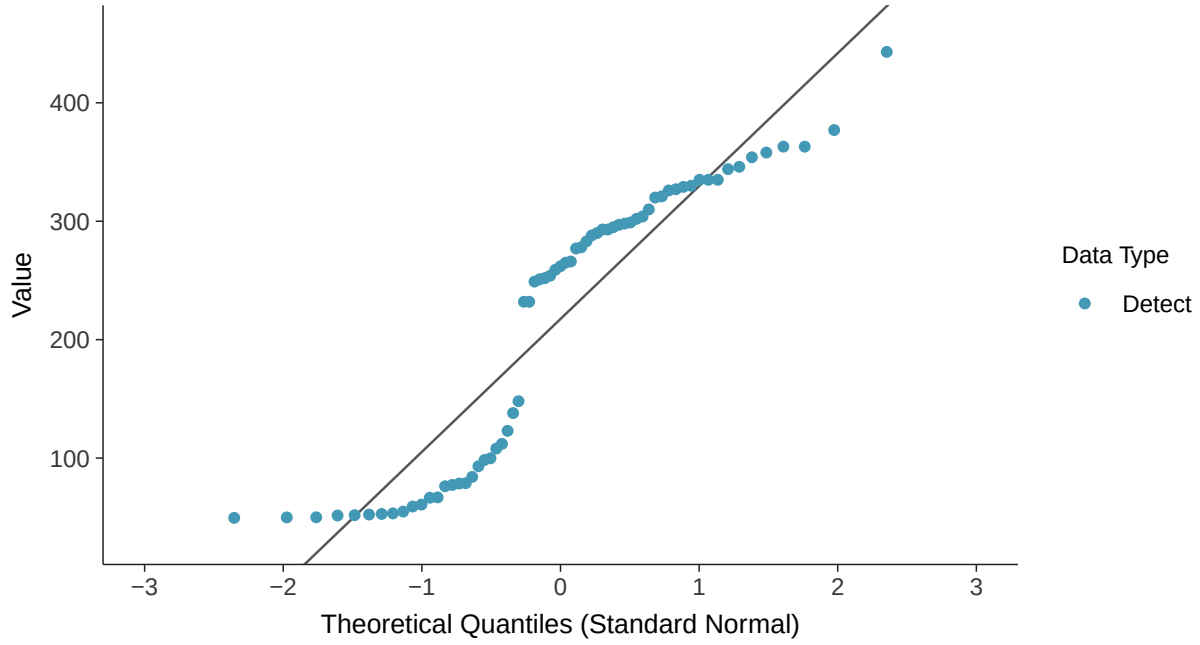
Boxplot by Well

Barium, BG-1 & BG-2 (ug/L)



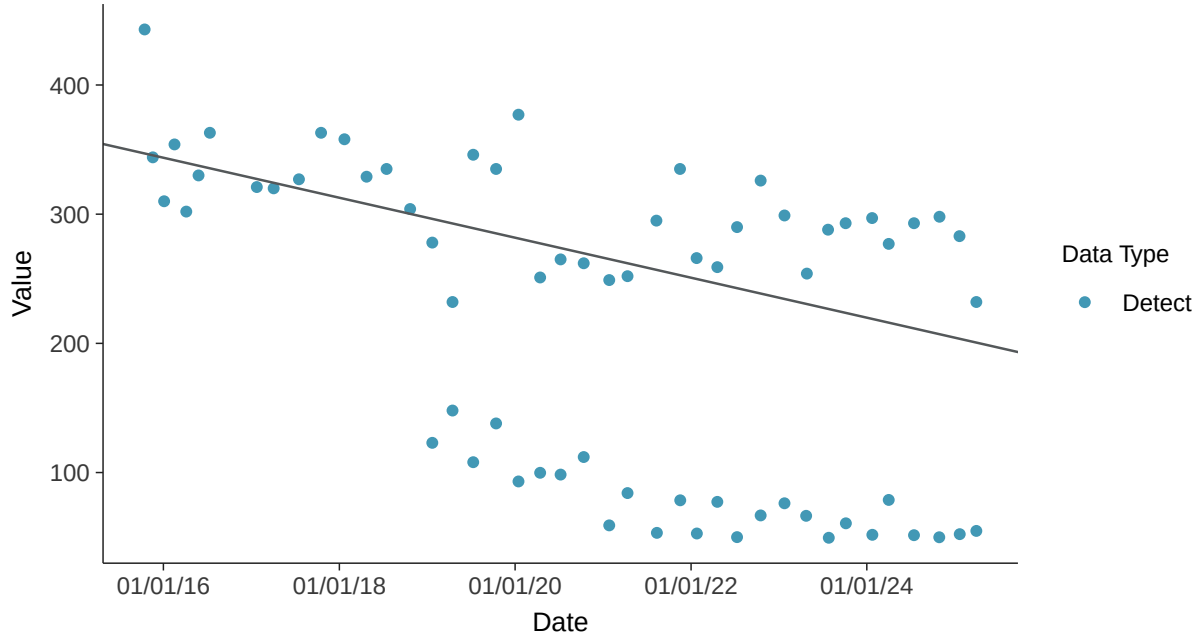
Normal Q-Q plot

Barium, BG-1 & BG-2 (ug/L)



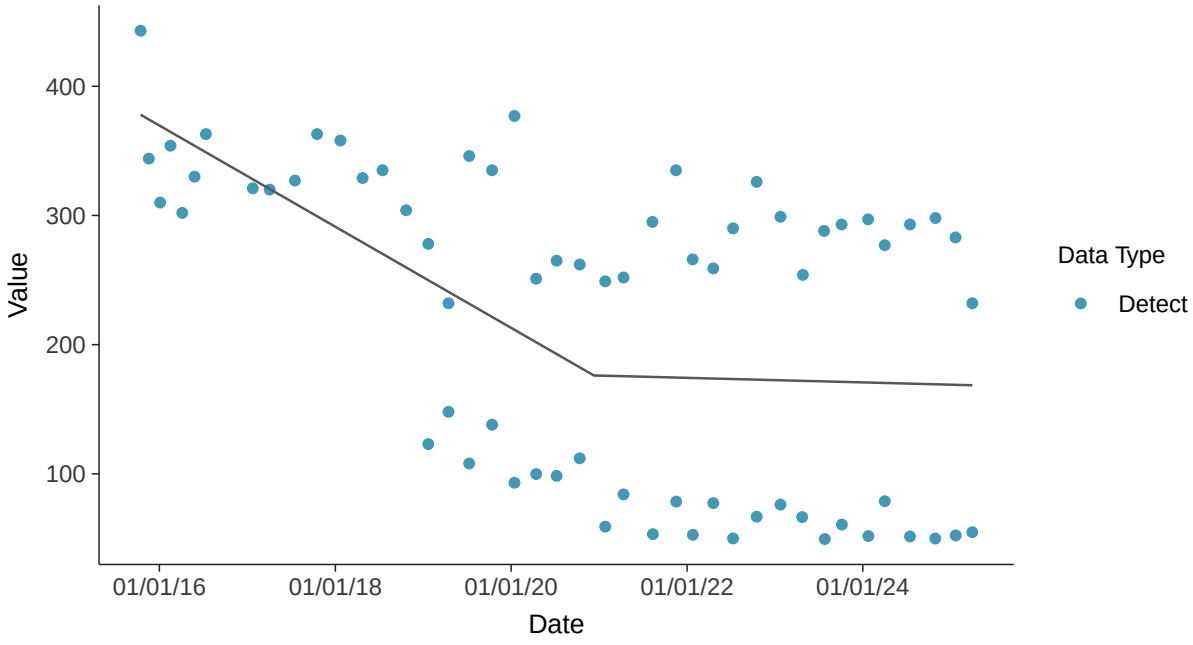
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Barium, BG-1 & BG-2 (ug/L)



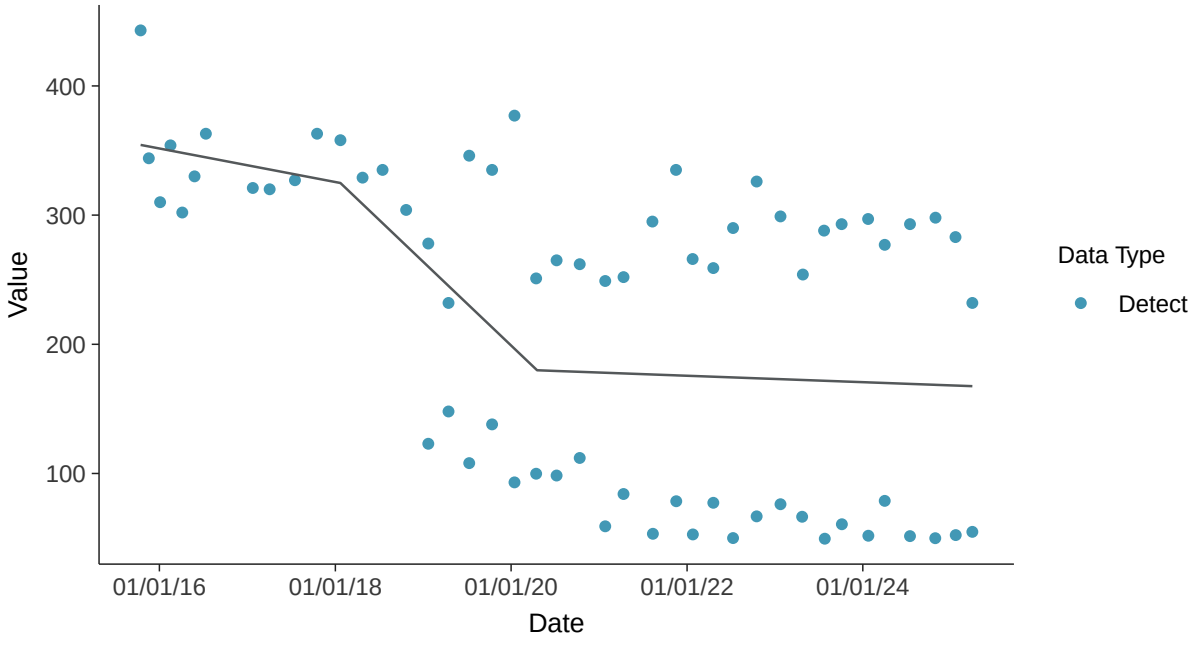
Trend Regression: Piecewise Linear-Linear

Barium, BG-1 & BG-2 (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Barium, BG-1 & BG-2 (ug/L)

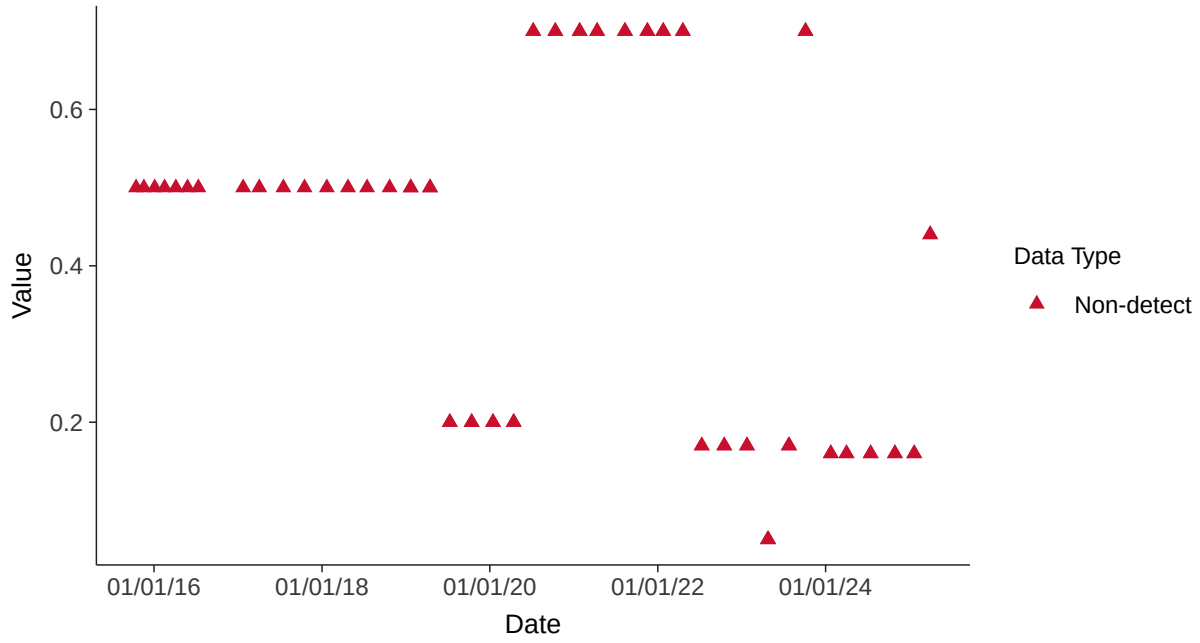


App. IV: Beryllium, BG-1 & BG-2

ID: 3_104

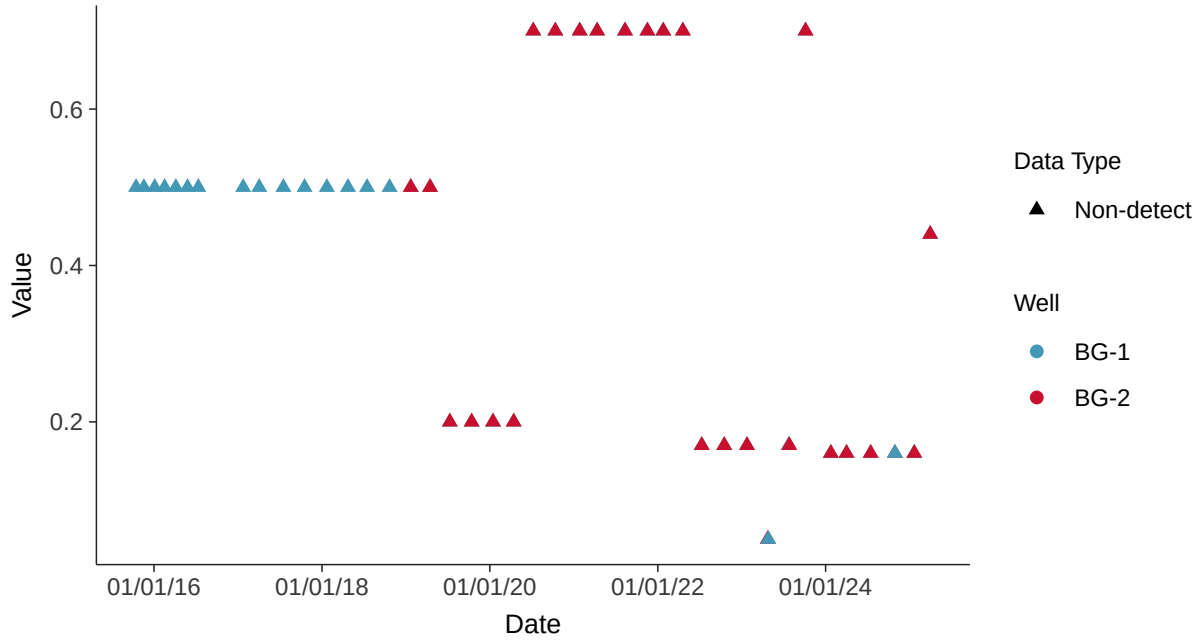
Scatter Plot

Beryllium, BG-1 & BG-2 (ug/L)



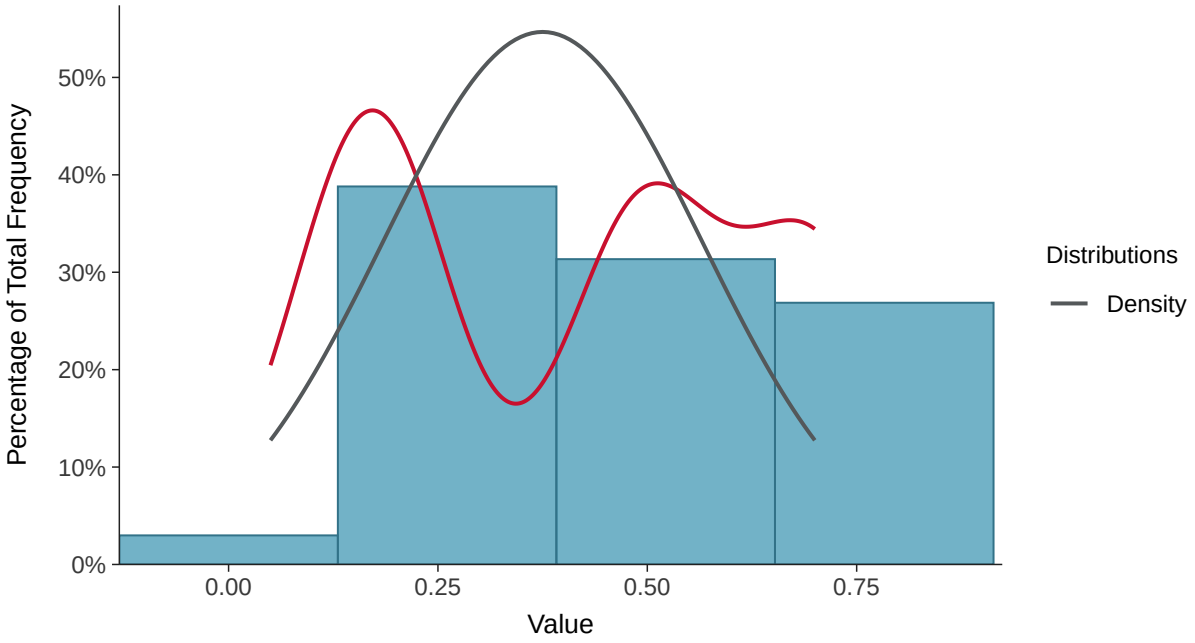
Scatter Plot by Well

Beryllium, BG-1 & BG-2 (ug/L)



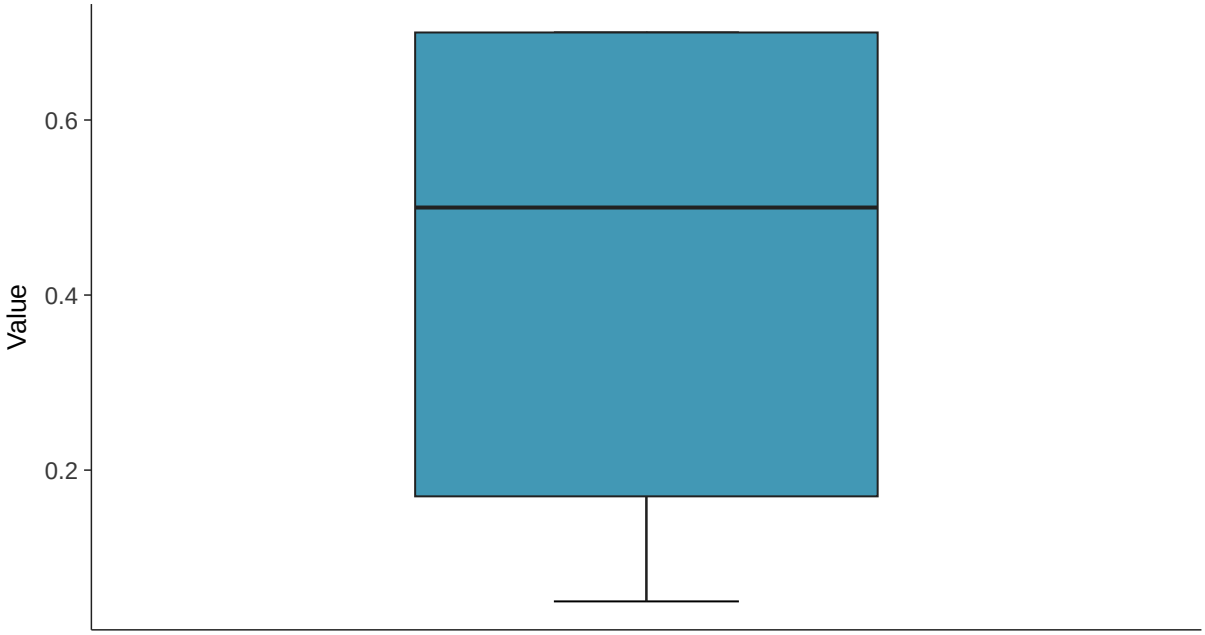
Histogram

Beryllium, BG-1 & BG-2 (ug/L)



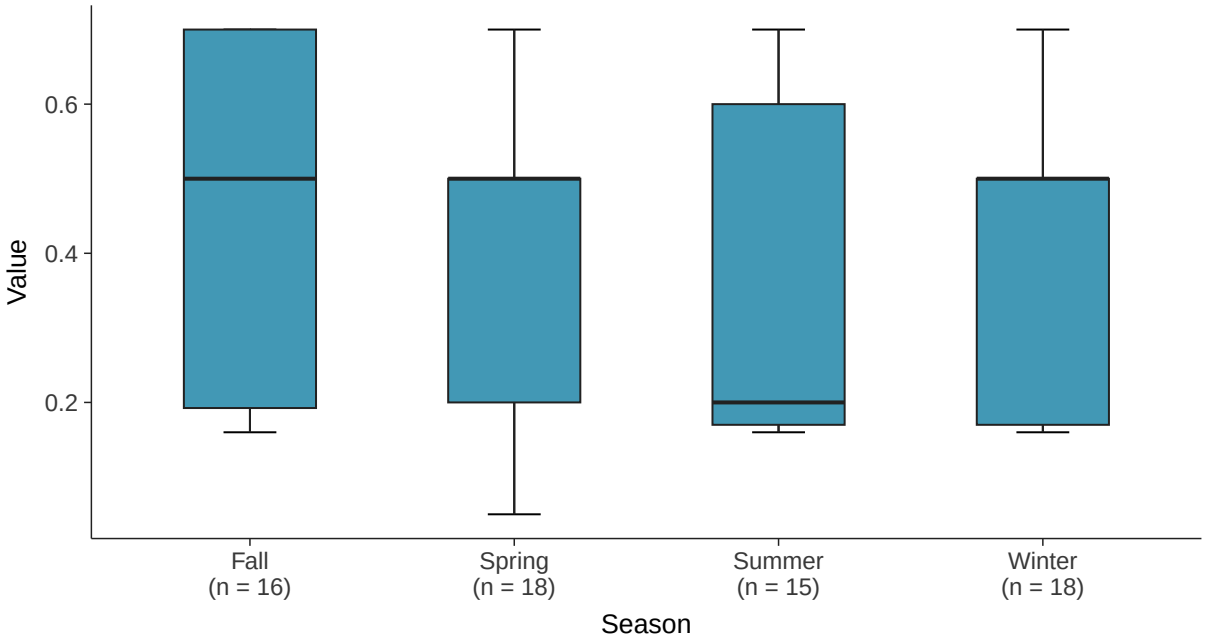
Boxplot

Beryllium, BG-1 & BG-2 (ug/L)



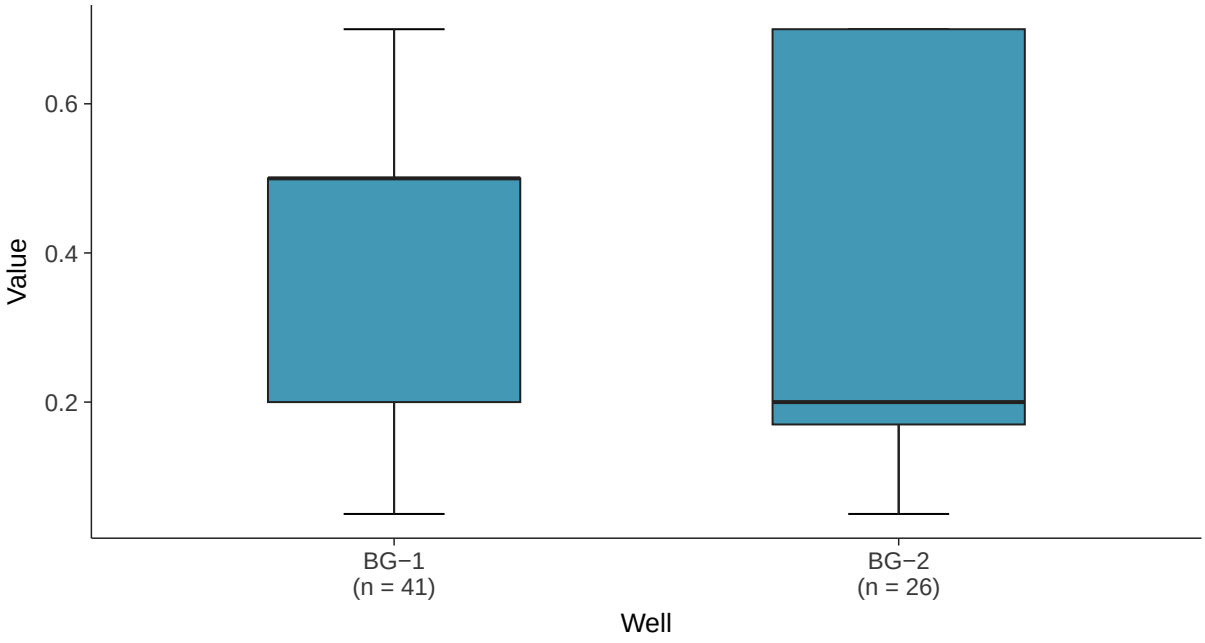
Boxplot by Season

Beryllium, BG-1 & BG-2 (ug/L)



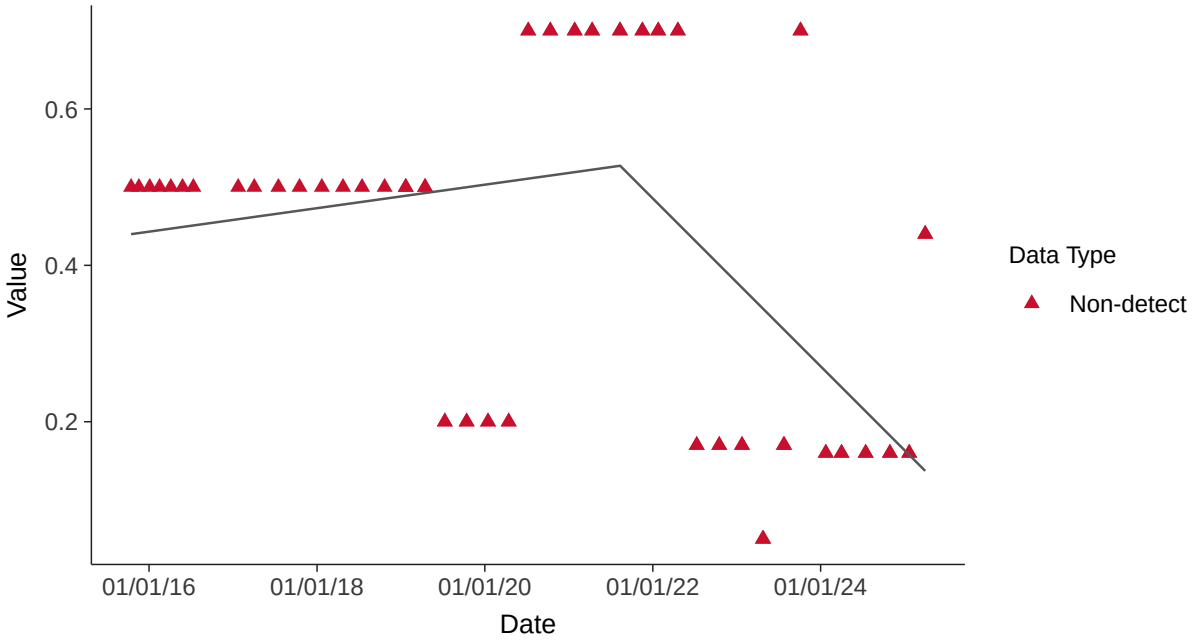
Boxplot by Well

Beryllium, BG-1 & BG-2 (ug/L)



Trend Regression: Piecewise Linear-Linear

Beryllium, BG-1 & BG-2 (ug/L)

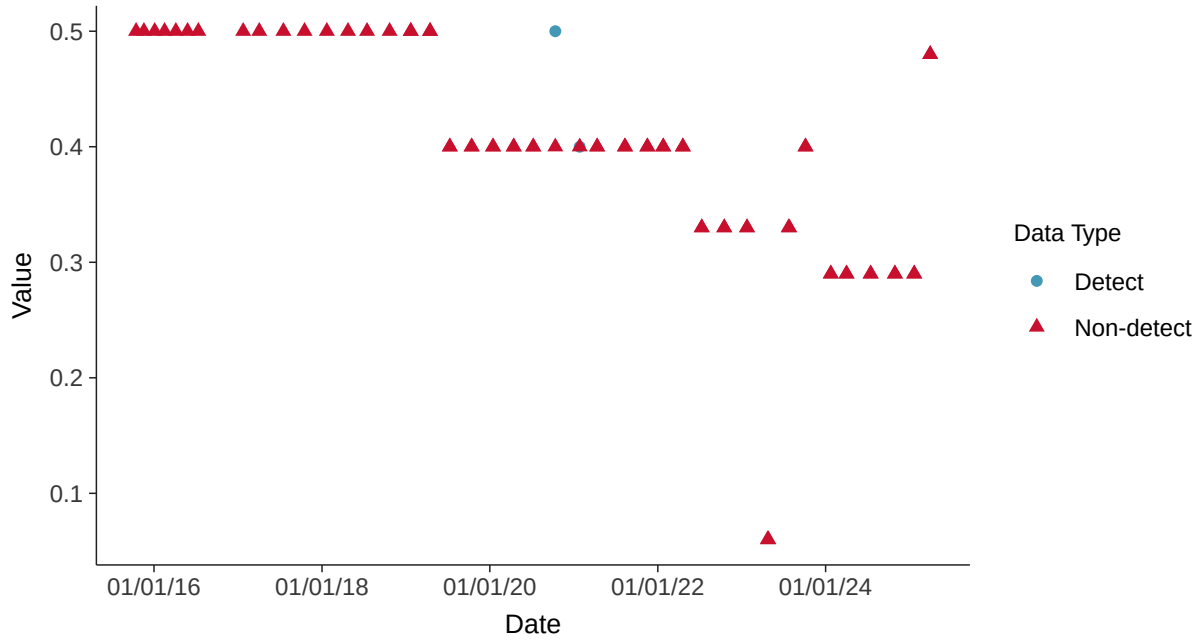


App. IV: Cadmium, BG-1 & BG-2

ID: 3_106

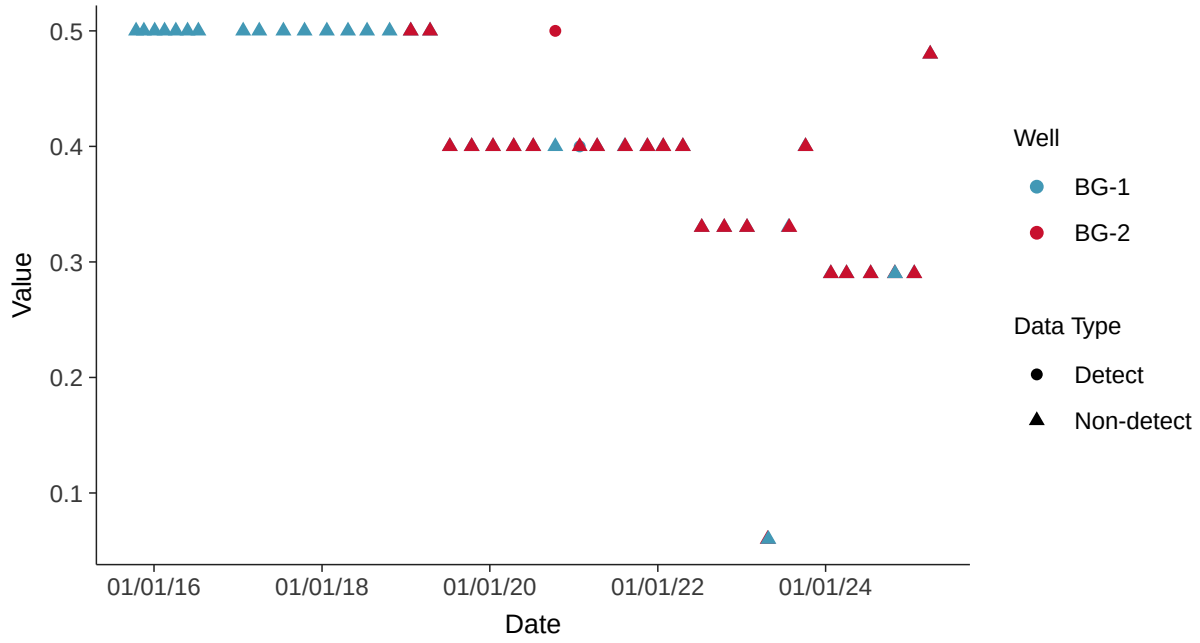
Scatter Plot

Cadmium, BG-1 & BG-2 (ug/L)



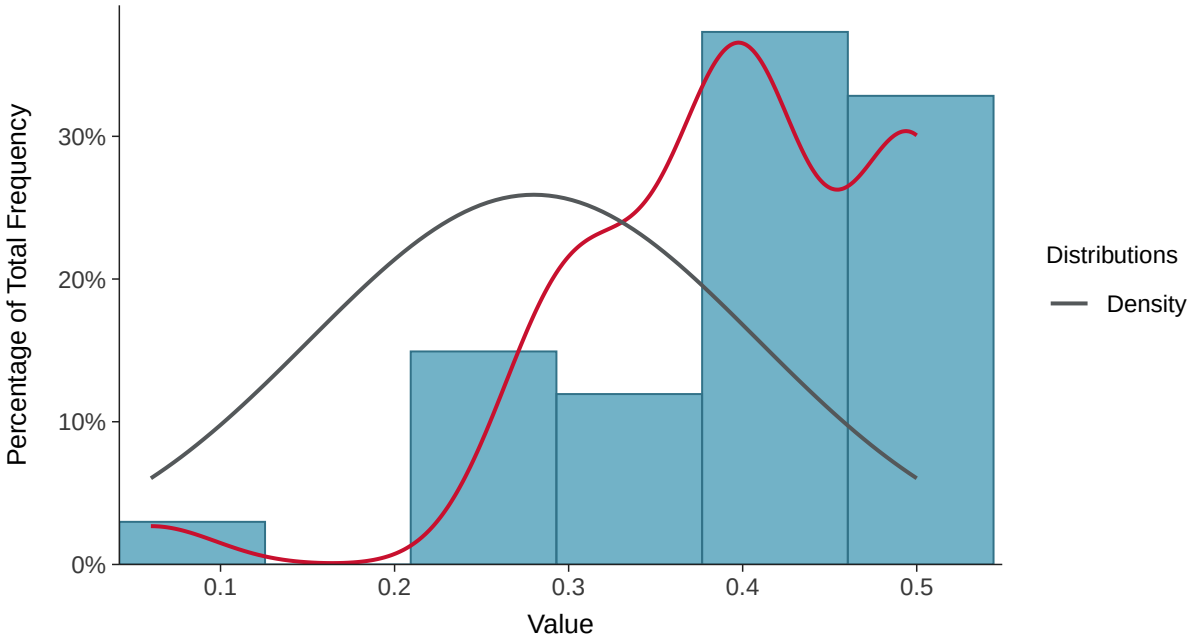
Scatter Plot by Well

Cadmium, BG-1 & BG-2 (ug/L)



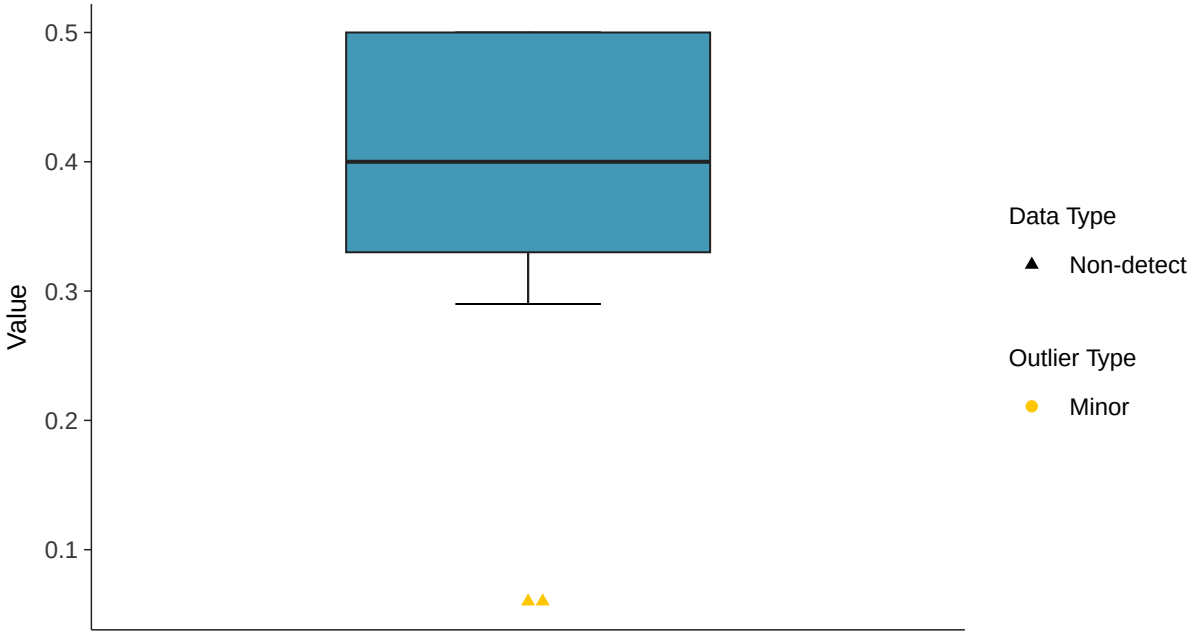
Histogram

Cadmium, BG-1 & BG-2 (ug/L)



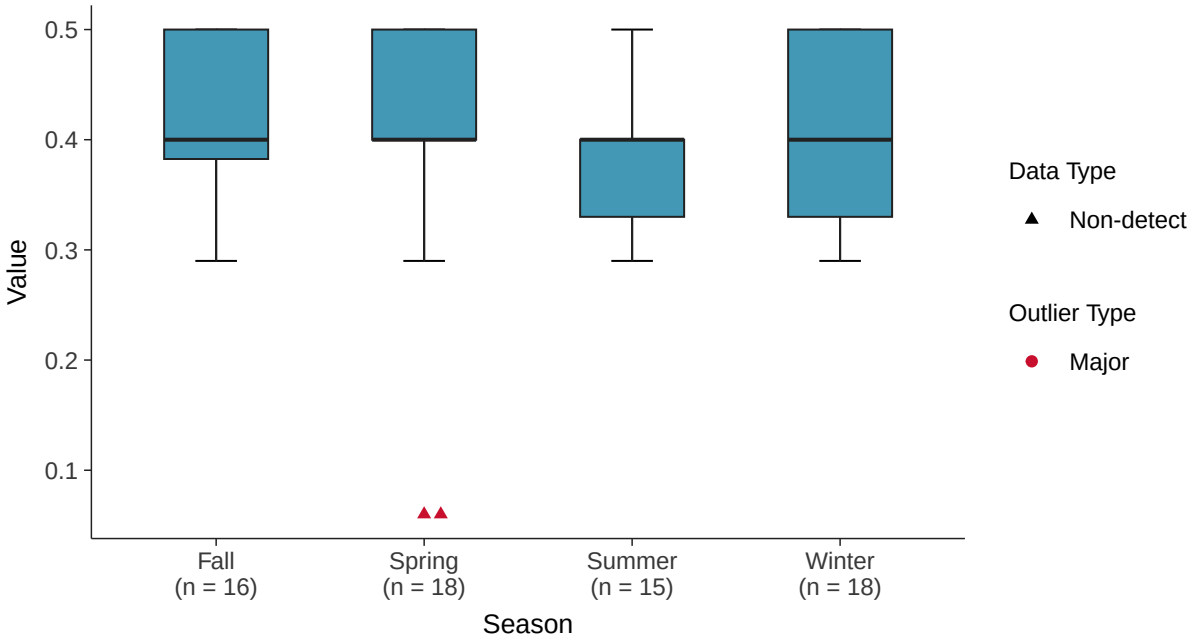
Boxplot

Cadmium, BG-1 & BG-2 (ug/L)



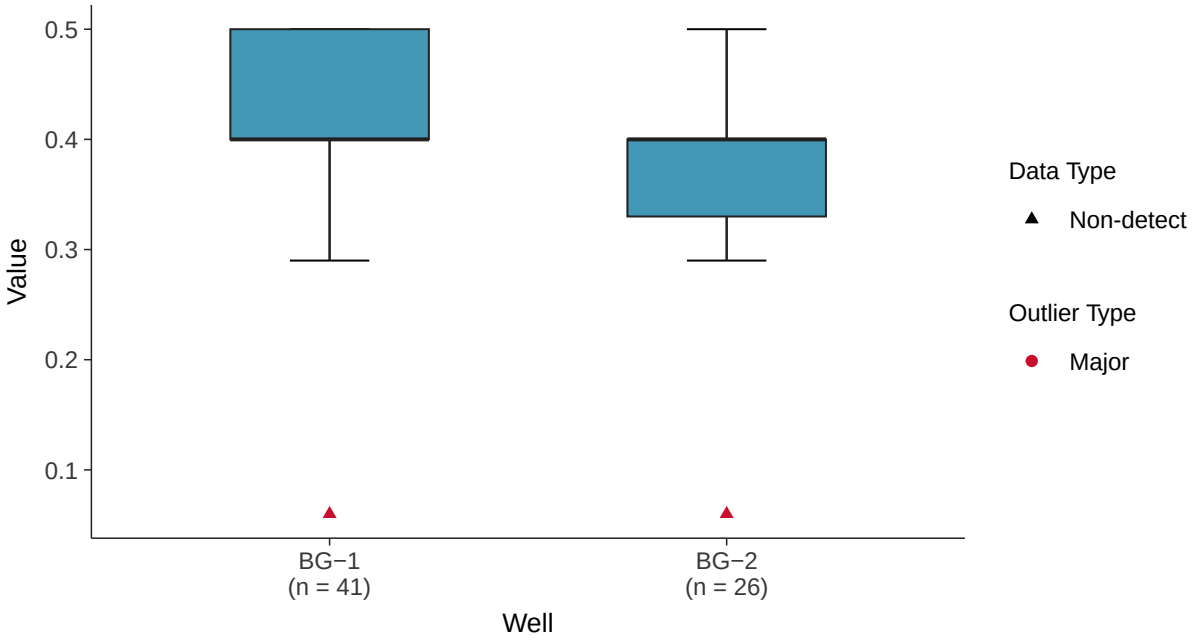
Boxplot by Season

Cadmium, BG-1 & BG-2 (ug/L)



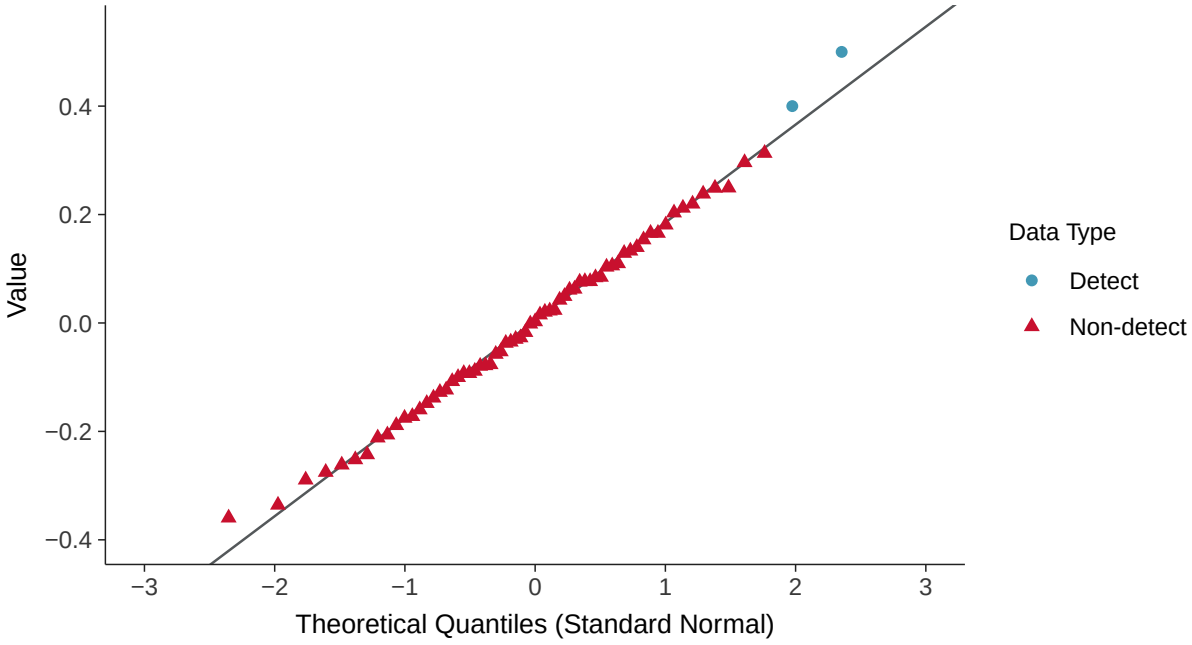
Boxplot by Well

Cadmium, BG-1 & BG-2 (ug/L)



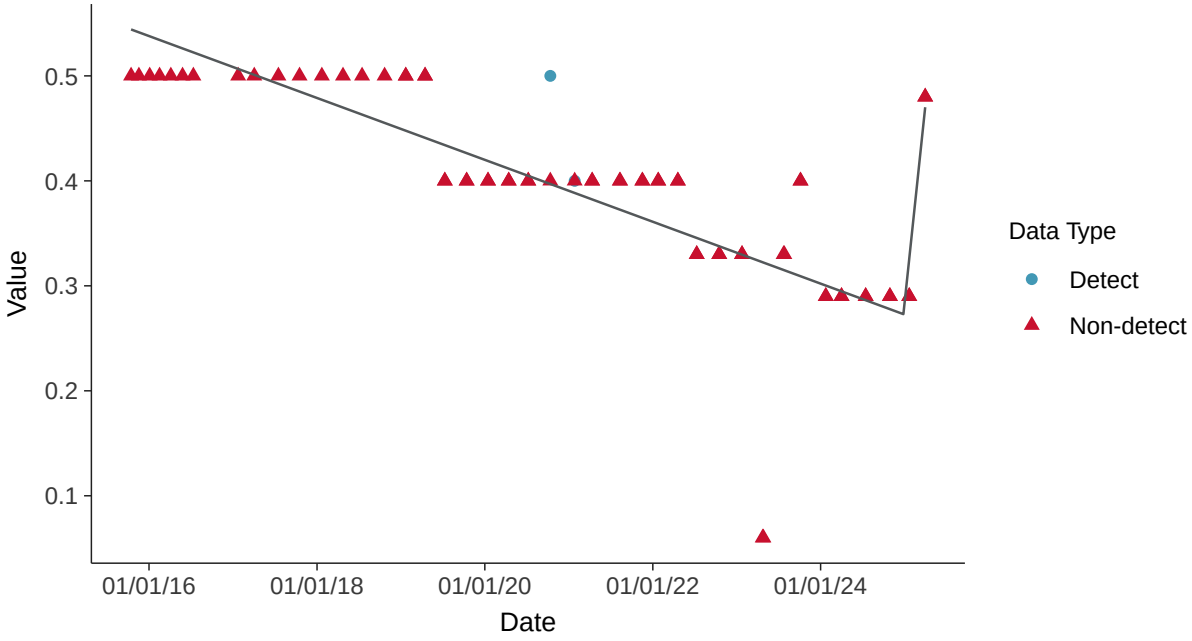
Normal Q-Q plot using ROS Imputed Estimates

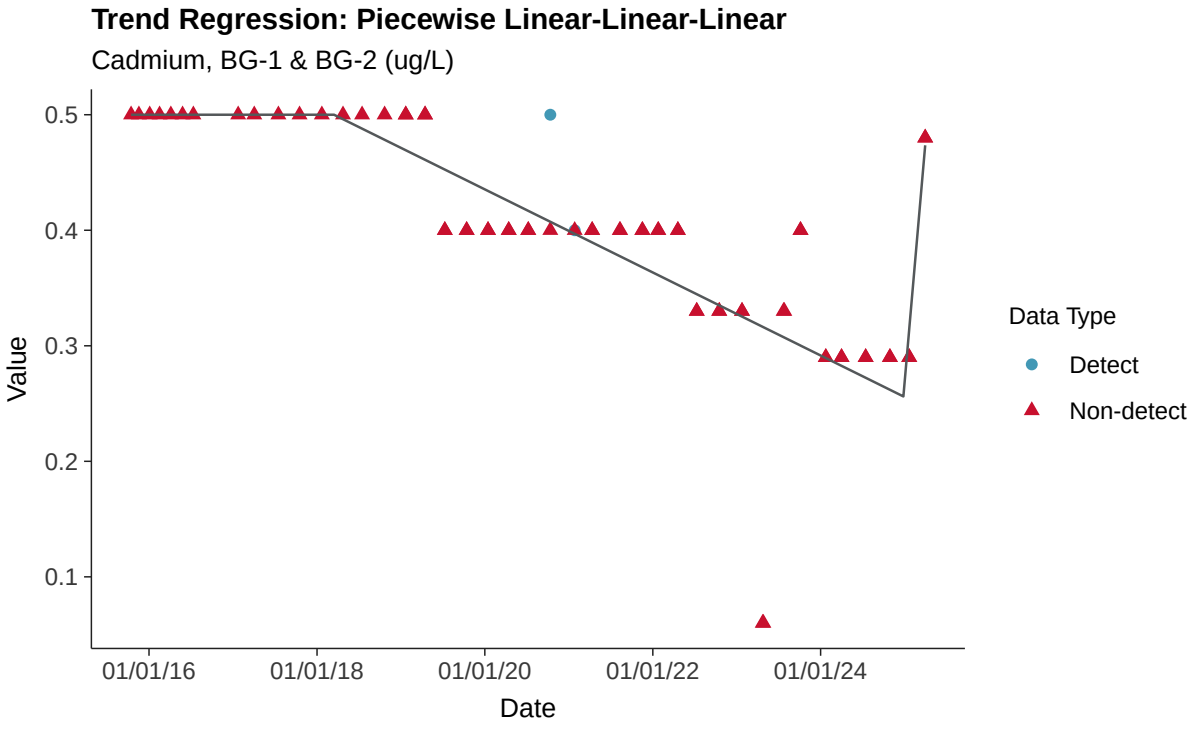
Cadmium, BG-1 & BG-2 (ug/L)



Trend Regression: Piecewise Linear-Linear

Cadmium, BG-1 & BG-2 (ug/L)



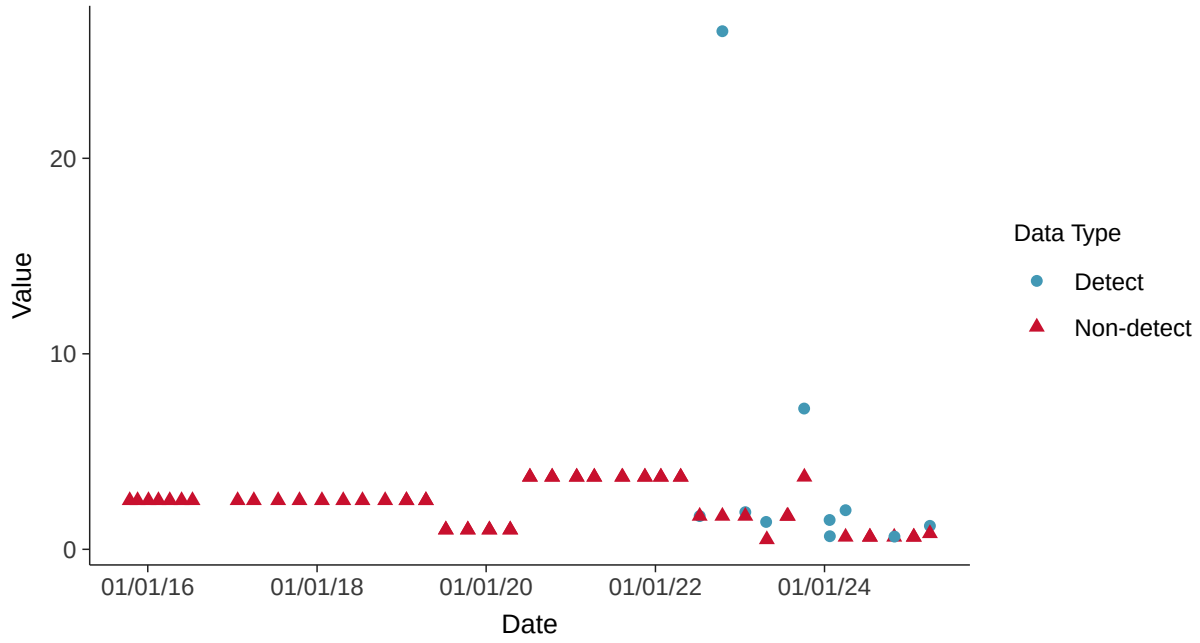

Trend Regression: Piecewise Linear-Linear-Linear
Cadmium, BG-1 & BG-2 (ug/L)
Value
0.5
0.4
0.3
0.2
0.1
01/01/16
01/01/18
01/01/20
01/01/22
01/01/24
Date
Data Type
Detect
Non-detect

App. IV: Chromium, BG-1 & BG-2

ID: 3_109

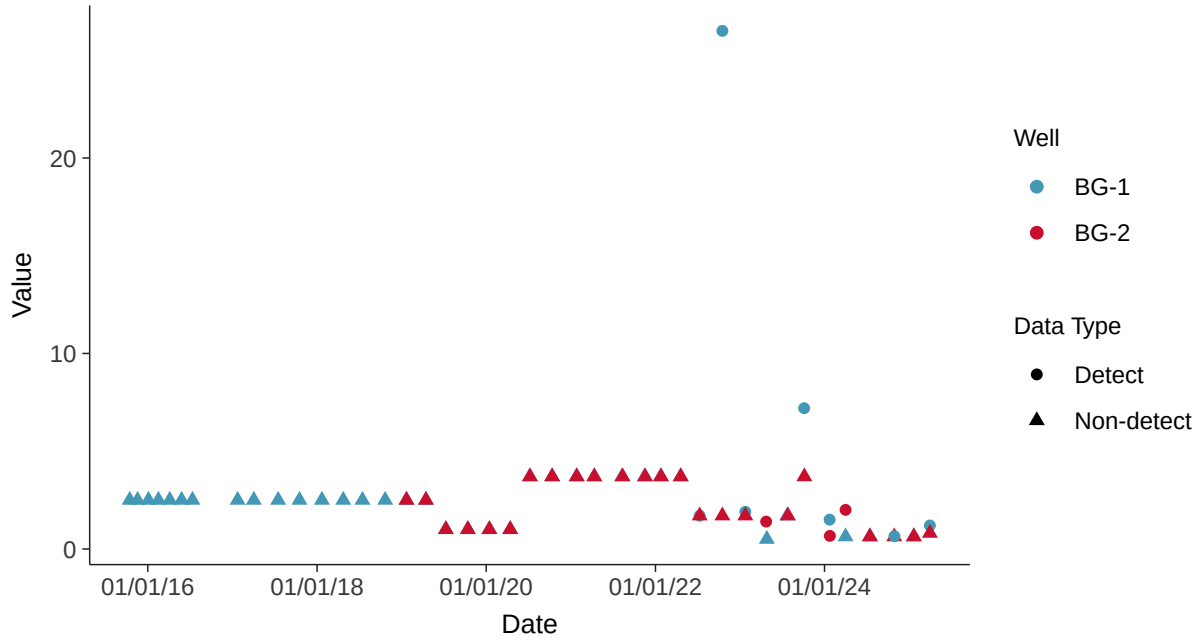
Scatter Plot

Chromium, BG-1 & BG-2 (ug/L)



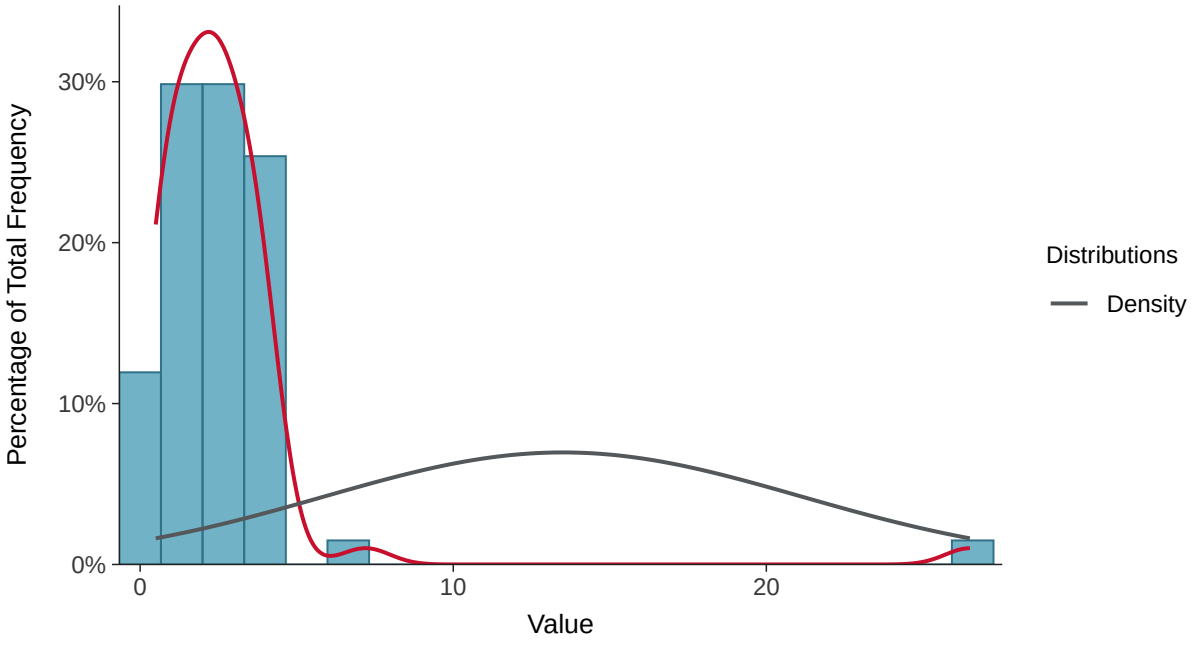
Scatter Plot by Well

Chromium, BG-1 & BG-2 (ug/L)



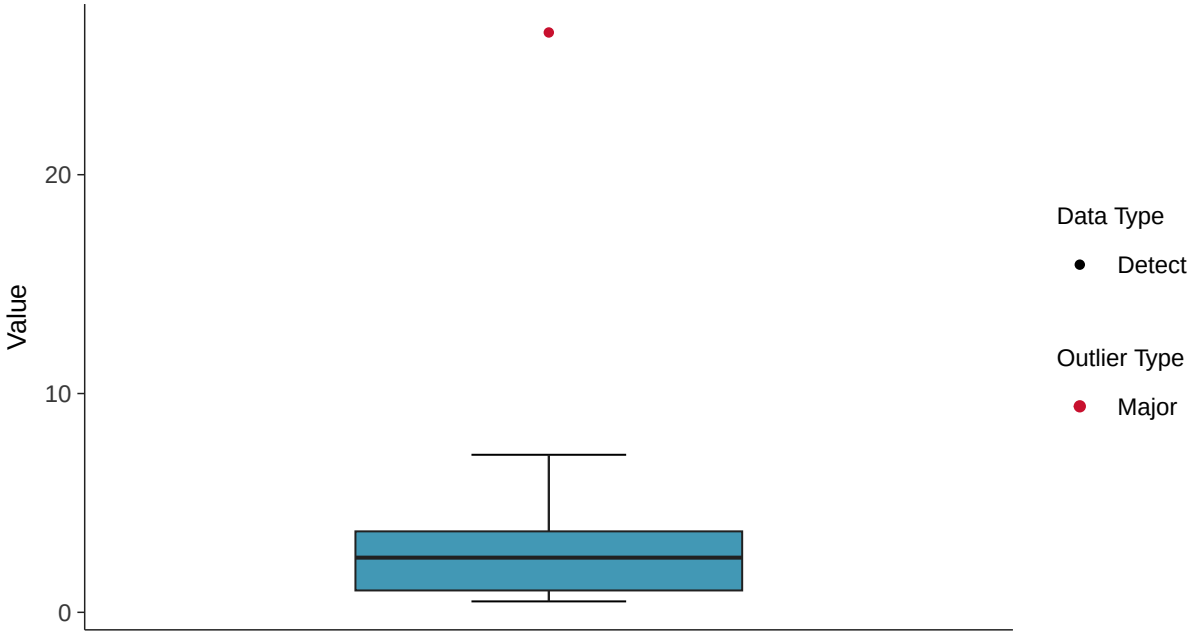
Histogram

Chromium, BG-1 & BG-2 (ug/L)



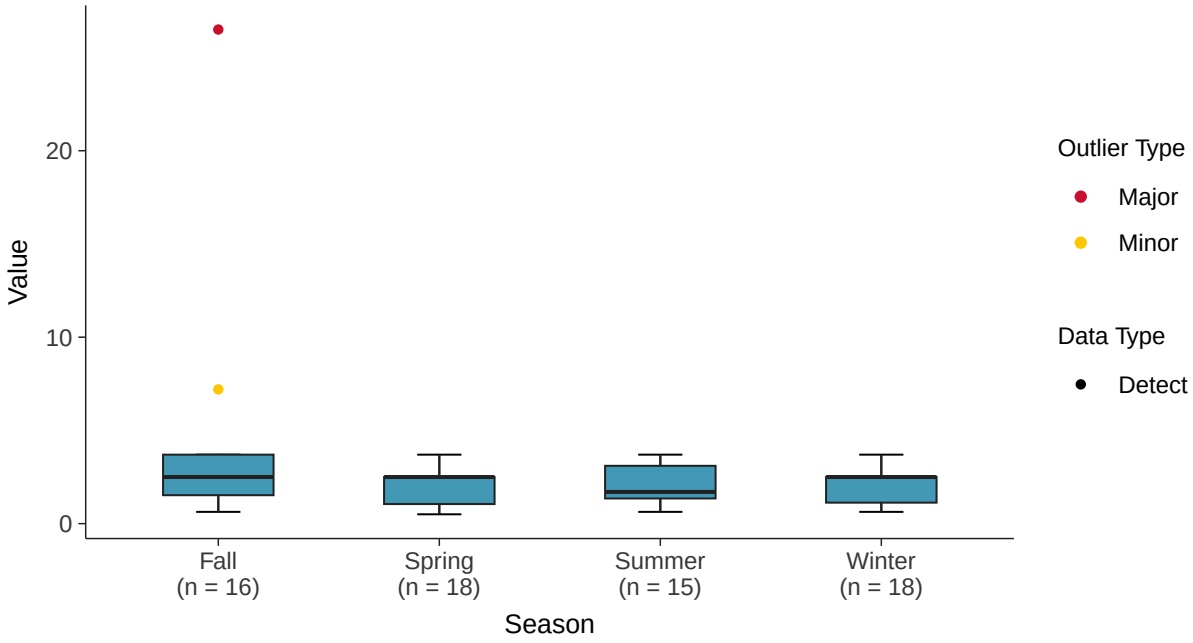
Boxplot

Chromium, BG-1 & BG-2 (ug/L)



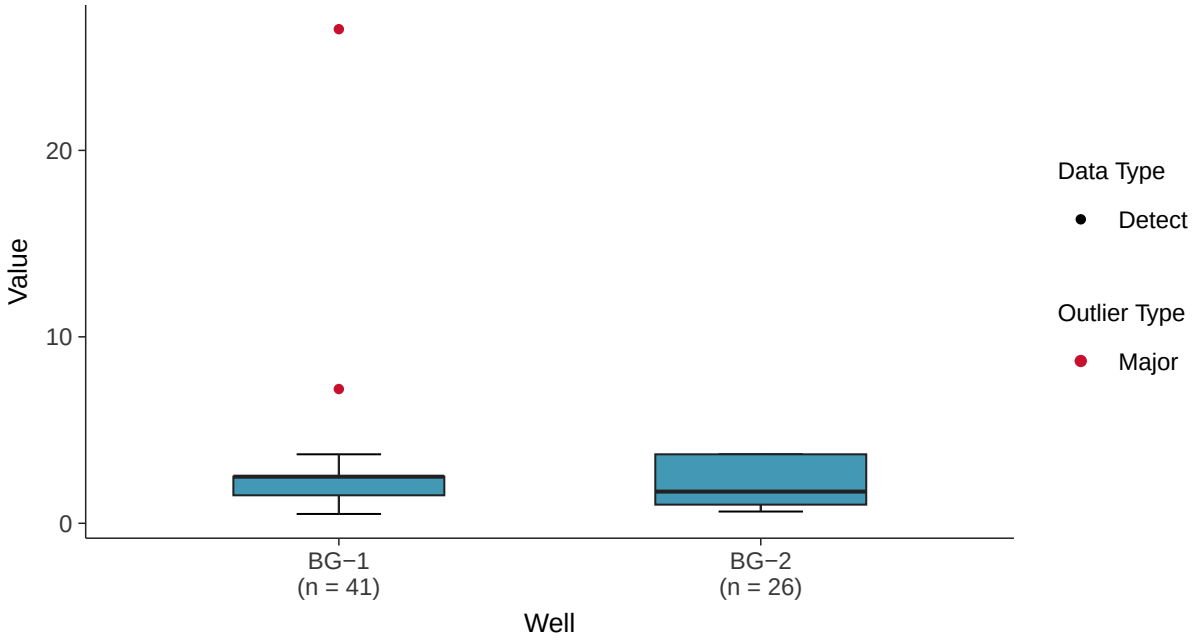
Boxplot by Season

Chromium, BG-1 & BG-2 (ug/L)



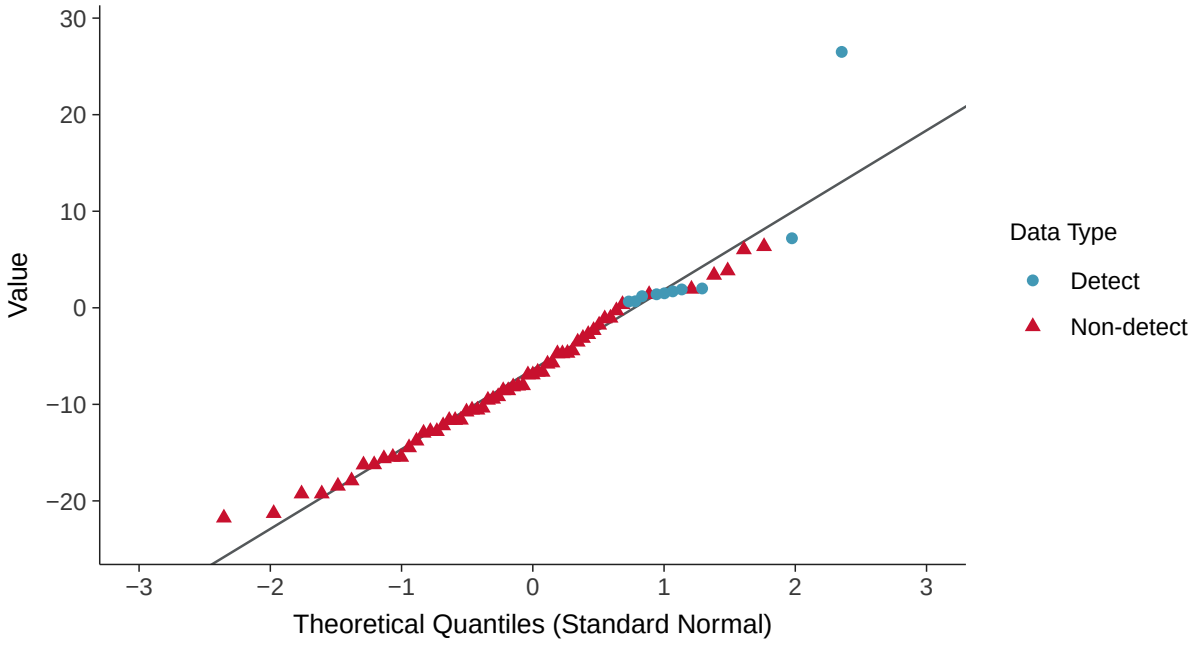
Boxplot by Well

Chromium, BG-1 & BG-2 (ug/L)



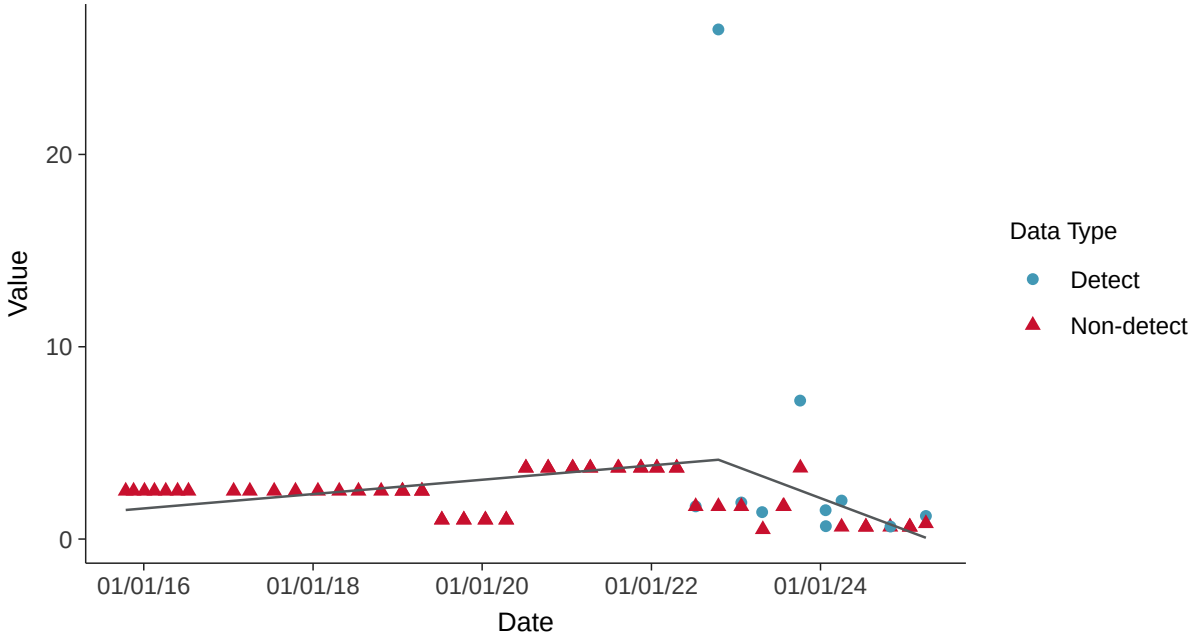
Normal Q-Q plot using ROS Imputed Estimates

Chromium, BG-1 & BG-2 (ug/L)



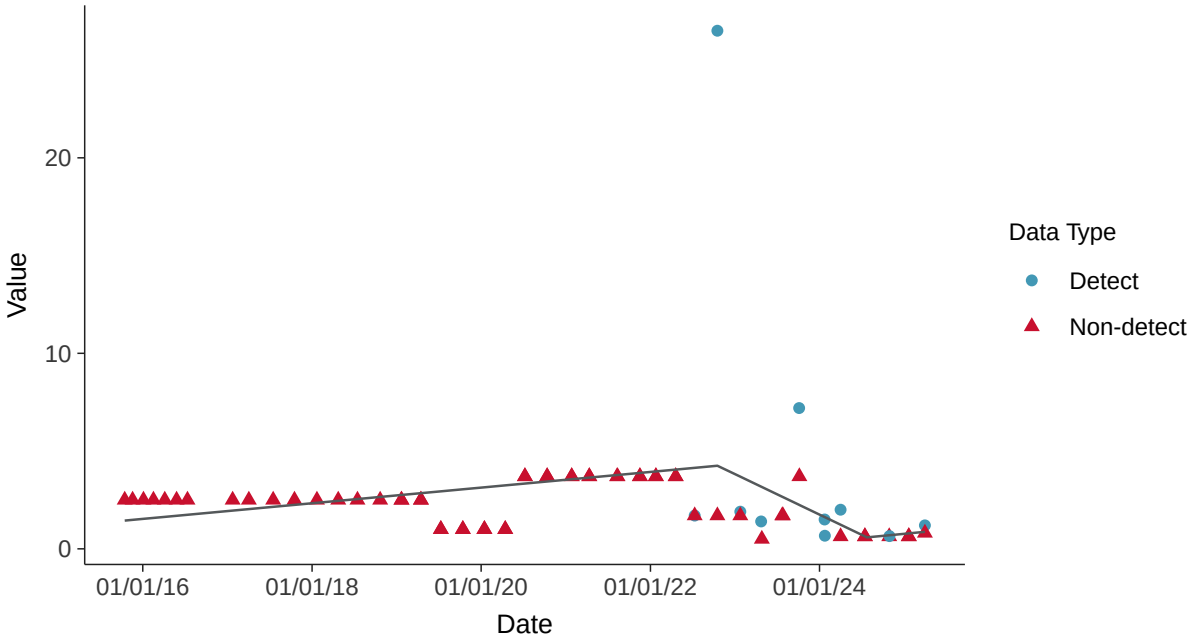
Trend Regression: Piecewise Linear-Linear

Chromium, BG-1 & BG-2 (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Chromium, BG-1 & BG-2 (ug/L)

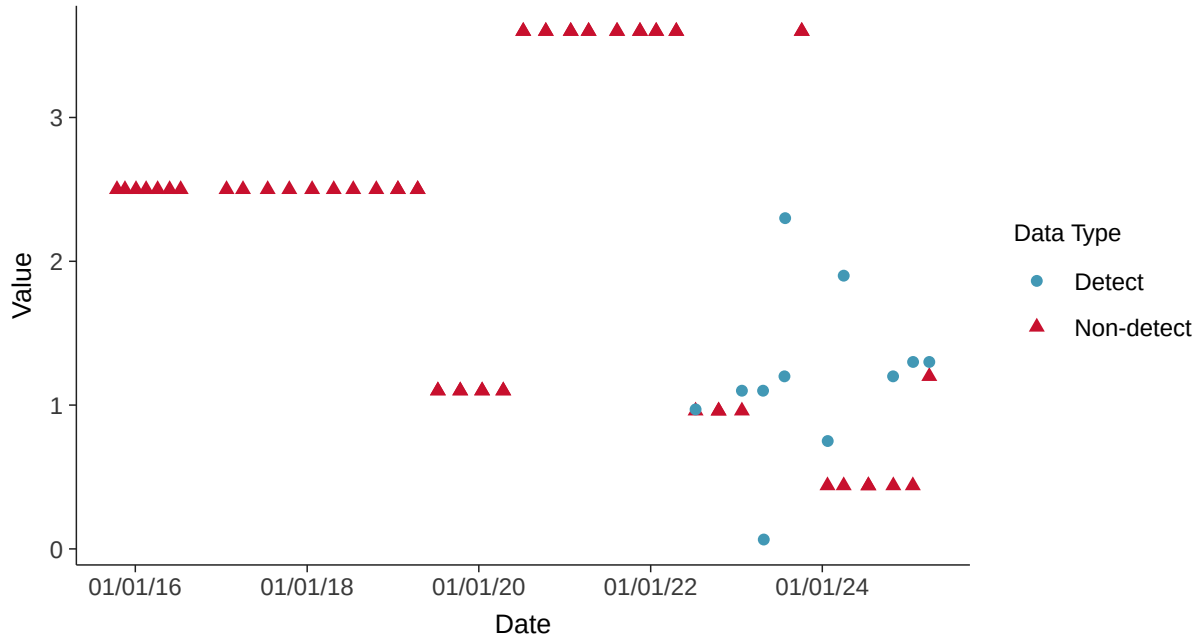


App. IV: Cobalt, BG-1 & BG-2

ID: 3_110

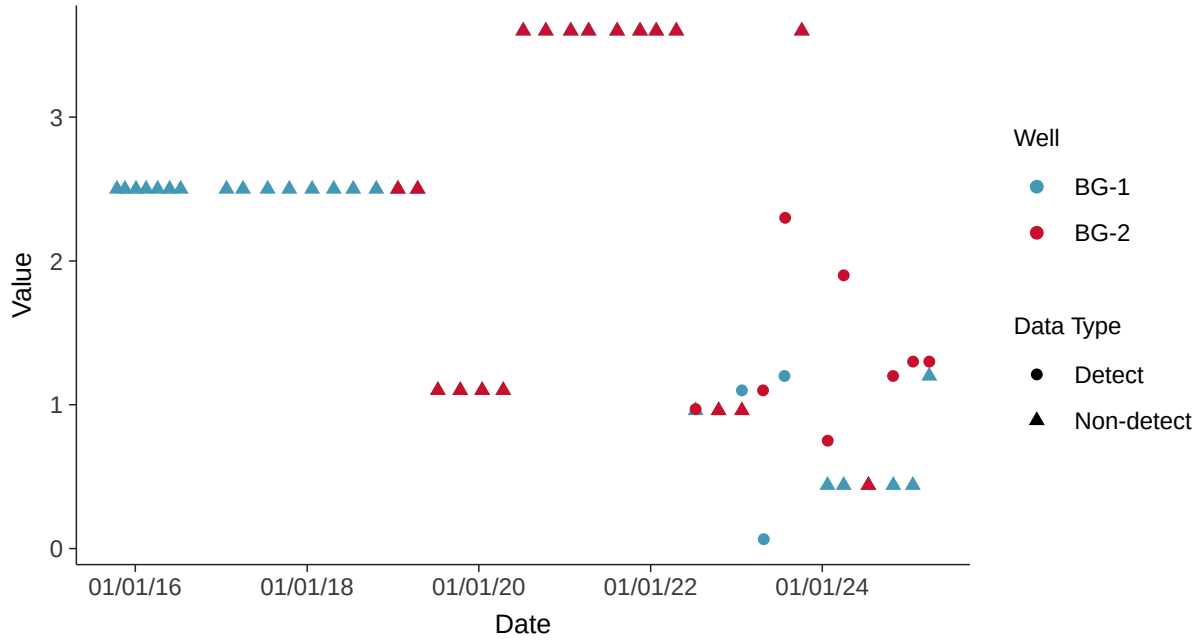
Scatter Plot

Cobalt, BG-1 & BG-2 (ug/L)



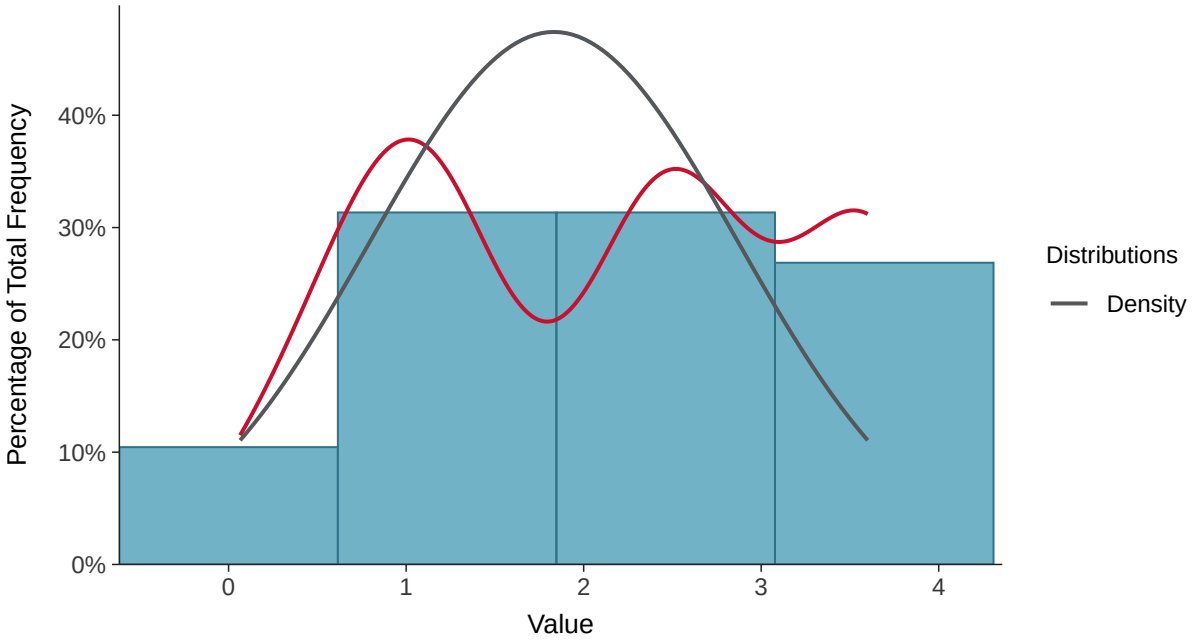
Scatter Plot by Well

Cobalt, BG-1 & BG-2 (ug/L)



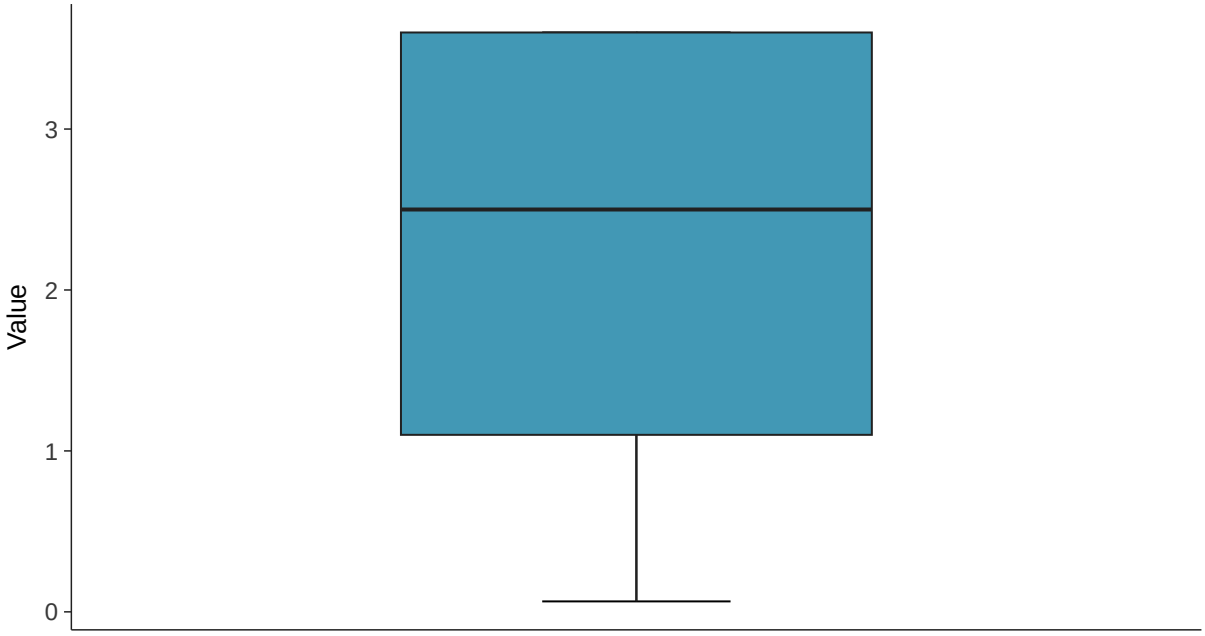
Histogram

Cobalt, BG-1 & BG-2 (ug/L)



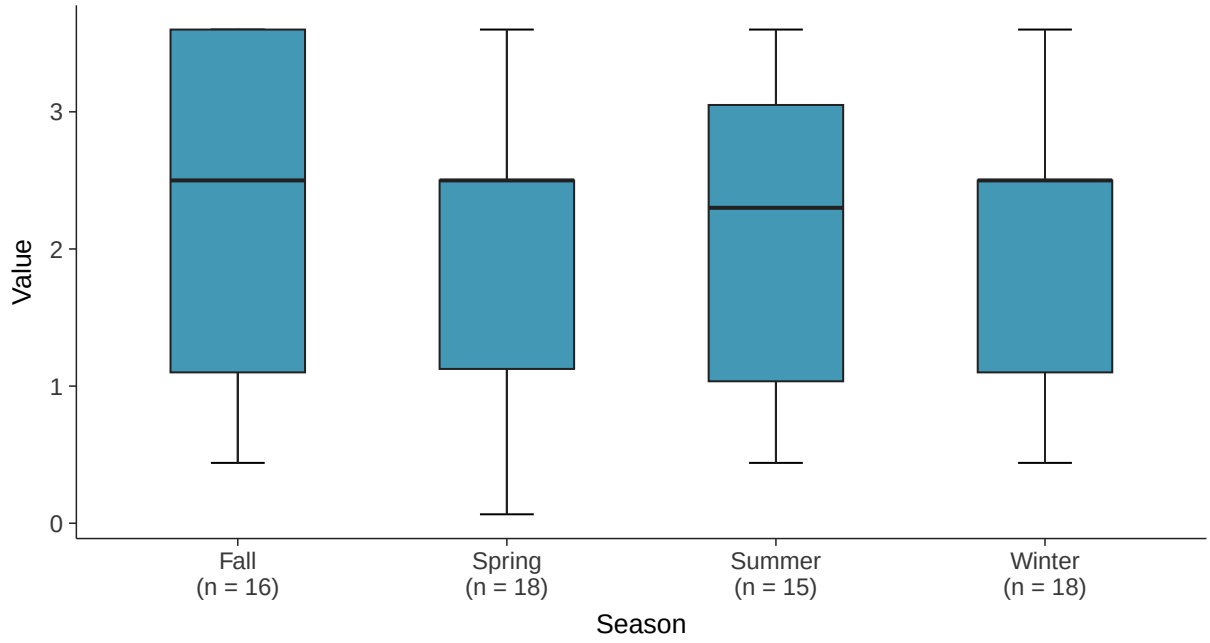
Boxplot

Cobalt, BG-1 & BG-2 (ug/L)



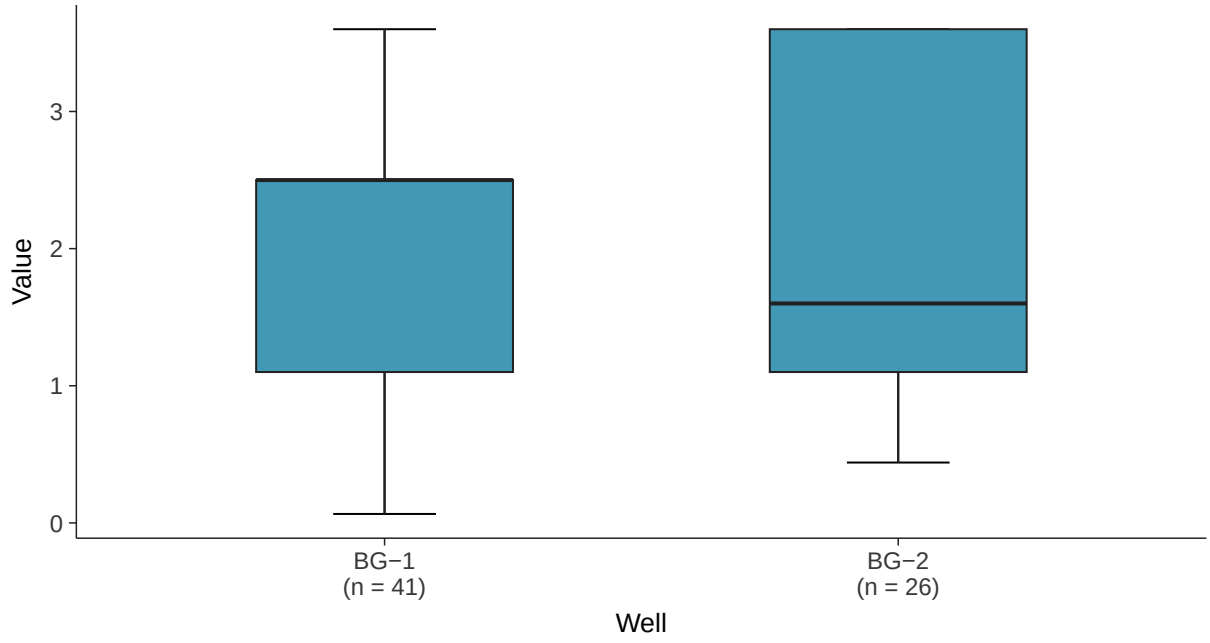
Boxplot by Season

Cobalt, BG-1 & BG-2 (ug/L)



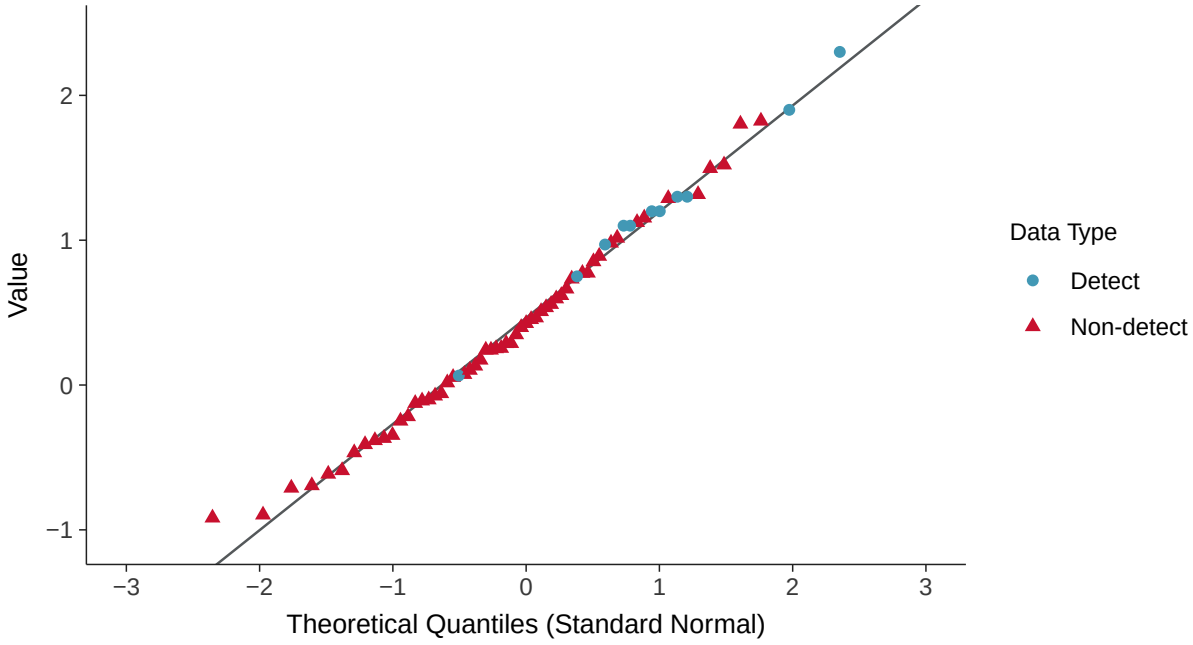
Boxplot by Well

Cobalt, BG-1 & BG-2 (ug/L)



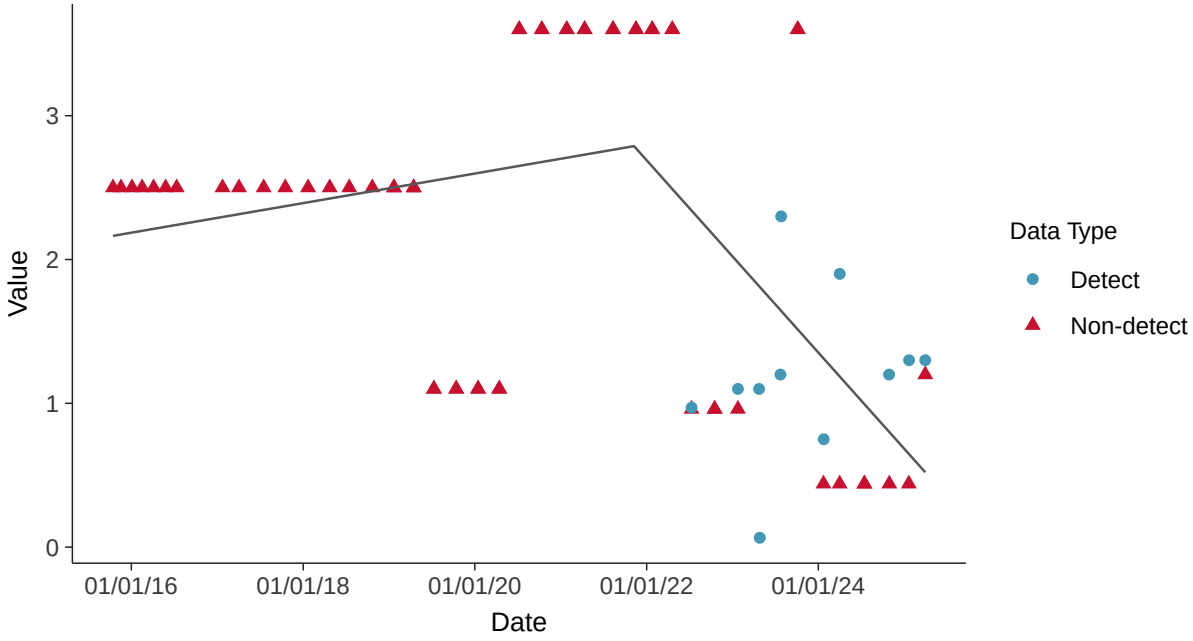
Normal Q-Q plot using ROS Imputed Estimates

Cobalt, BG-1 & BG-2 (ug/L)



Trend Regression: Piecewise Linear-Linear

Cobalt, BG-1 & BG-2 (ug/L)

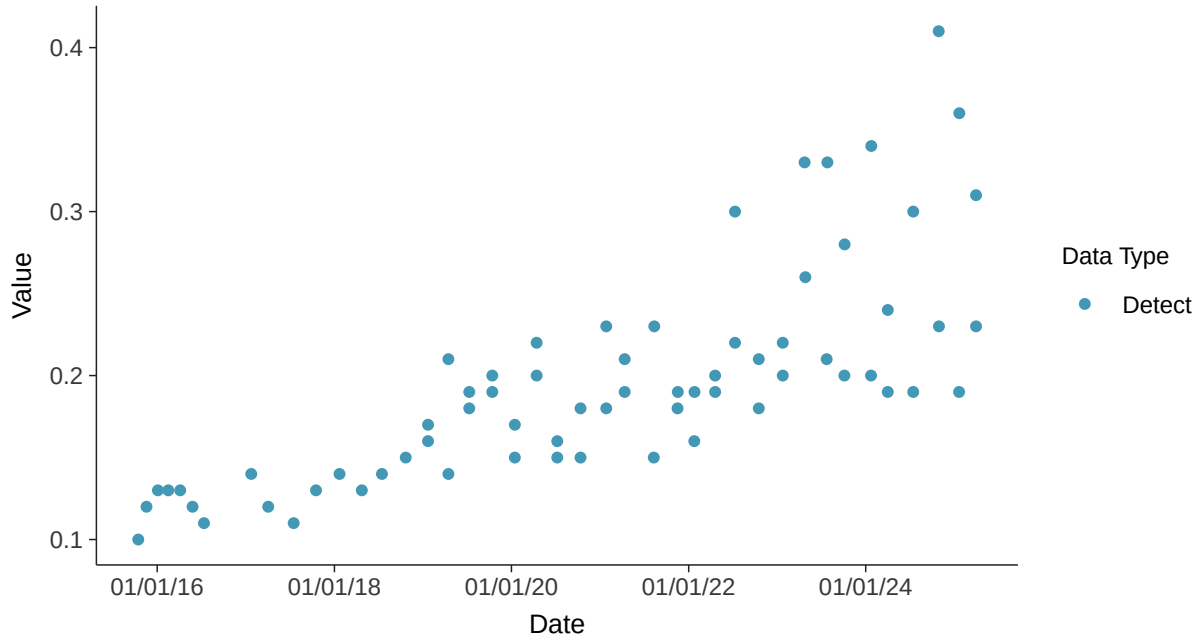


App. IV: Fluoride, BG-1 & BG-2

ID: 3_112

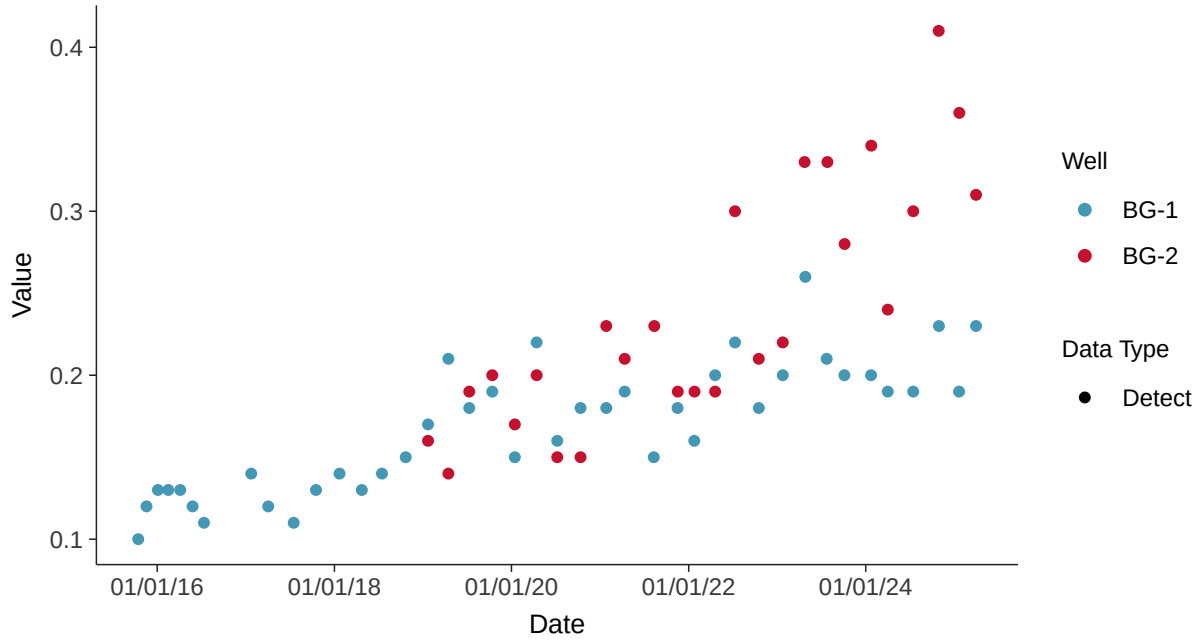
Scatter Plot

Fluoride, BG-1 & BG-2 (mg/L)



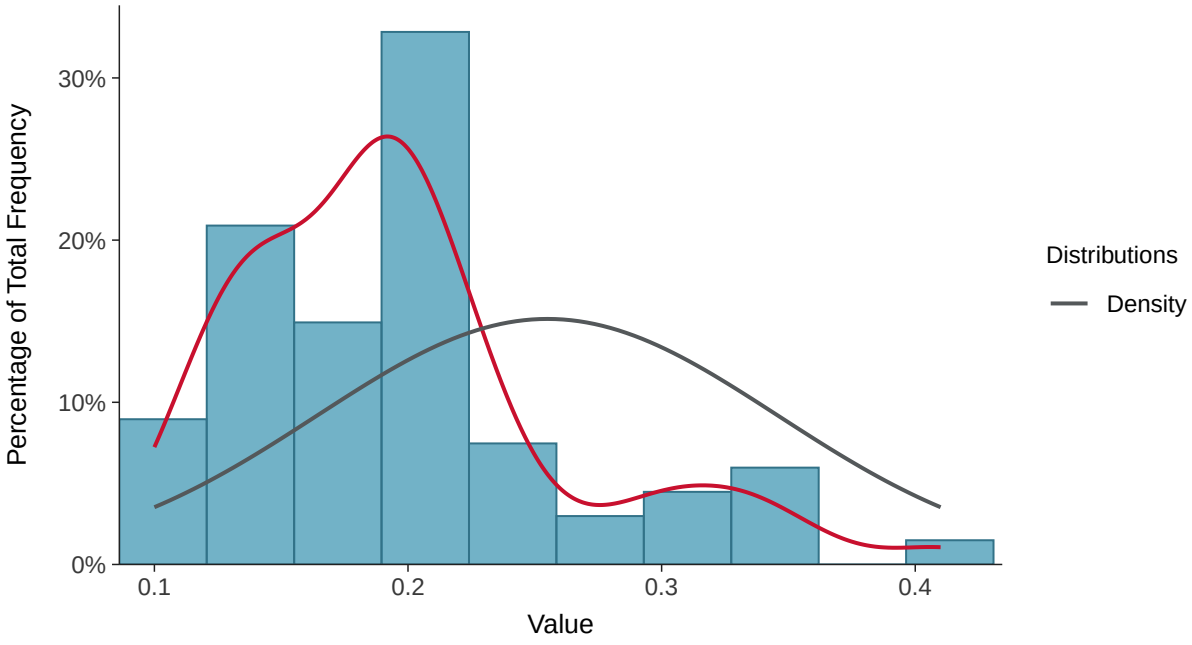
Scatter Plot by Well

Fluoride, BG-1 & BG-2 (mg/L)



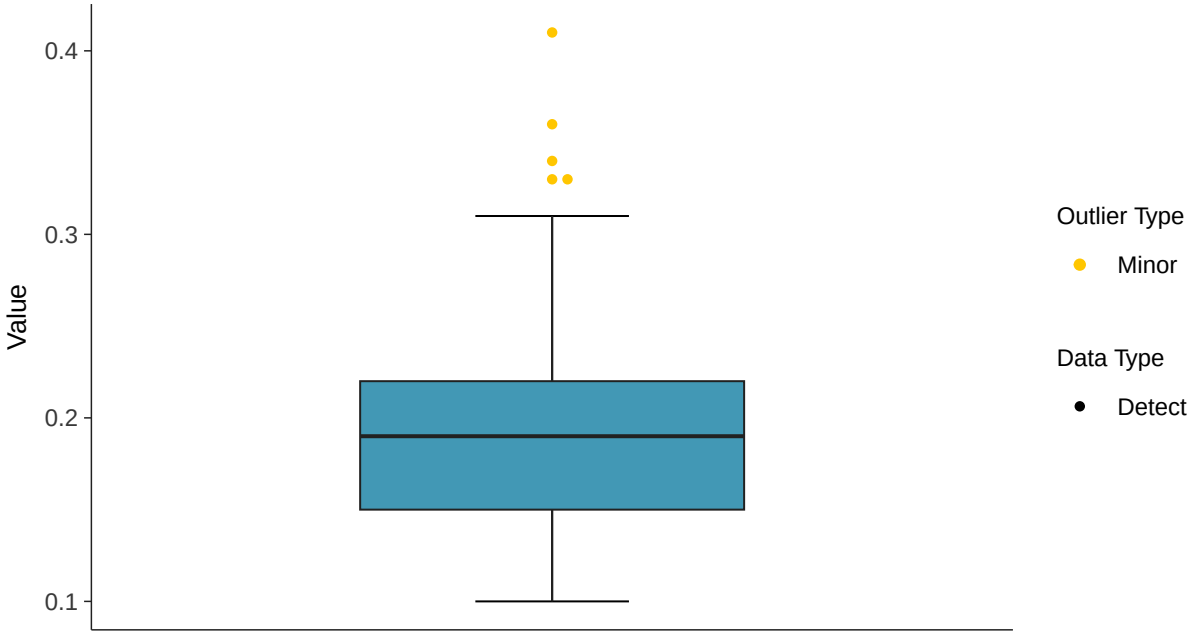
Histogram

Fluoride, BG-1 & BG-2 (mg/L)



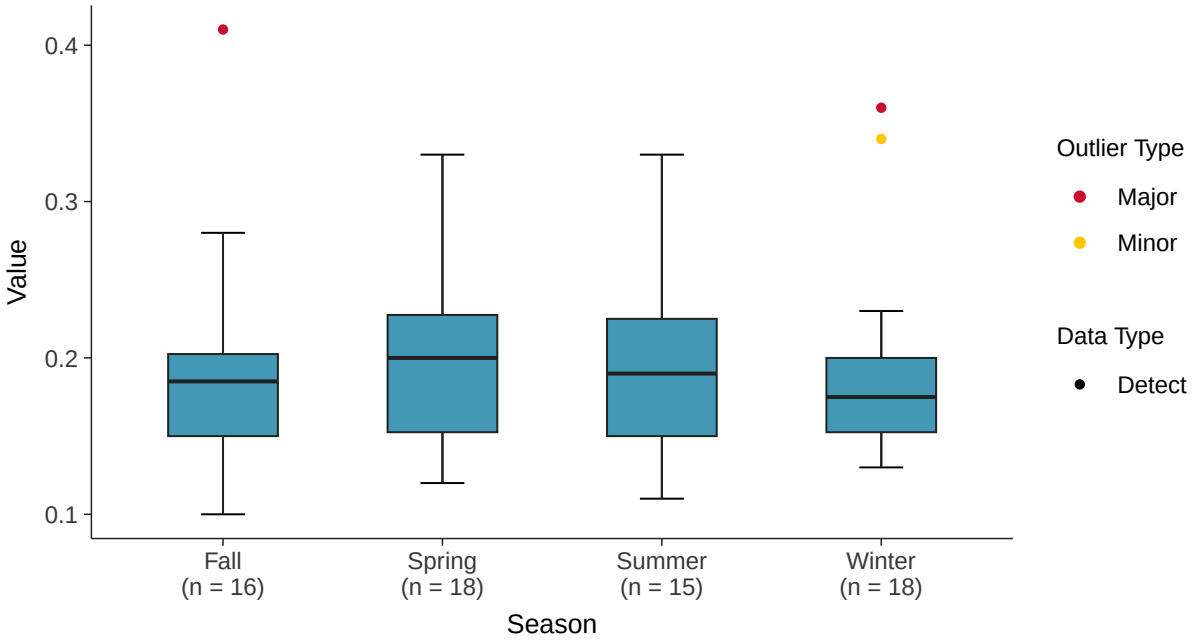
Boxplot

Fluoride, BG-1 & BG-2 (mg/L)



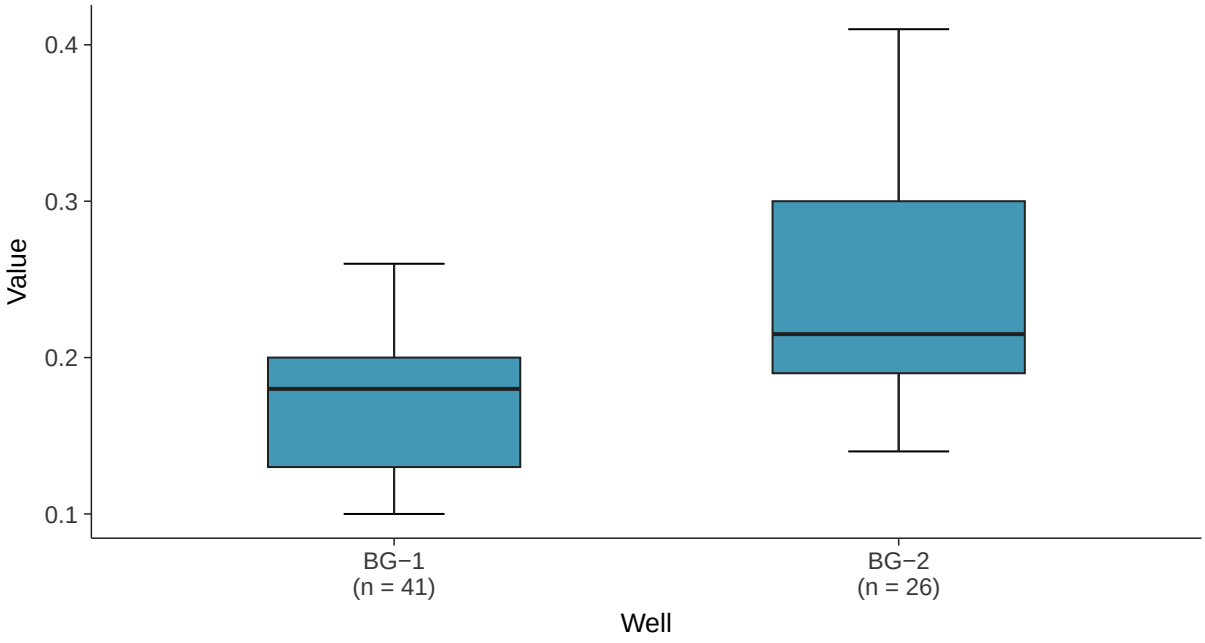
Boxplot by Season

Fluoride, BG-1 & BG-2 (mg/L)



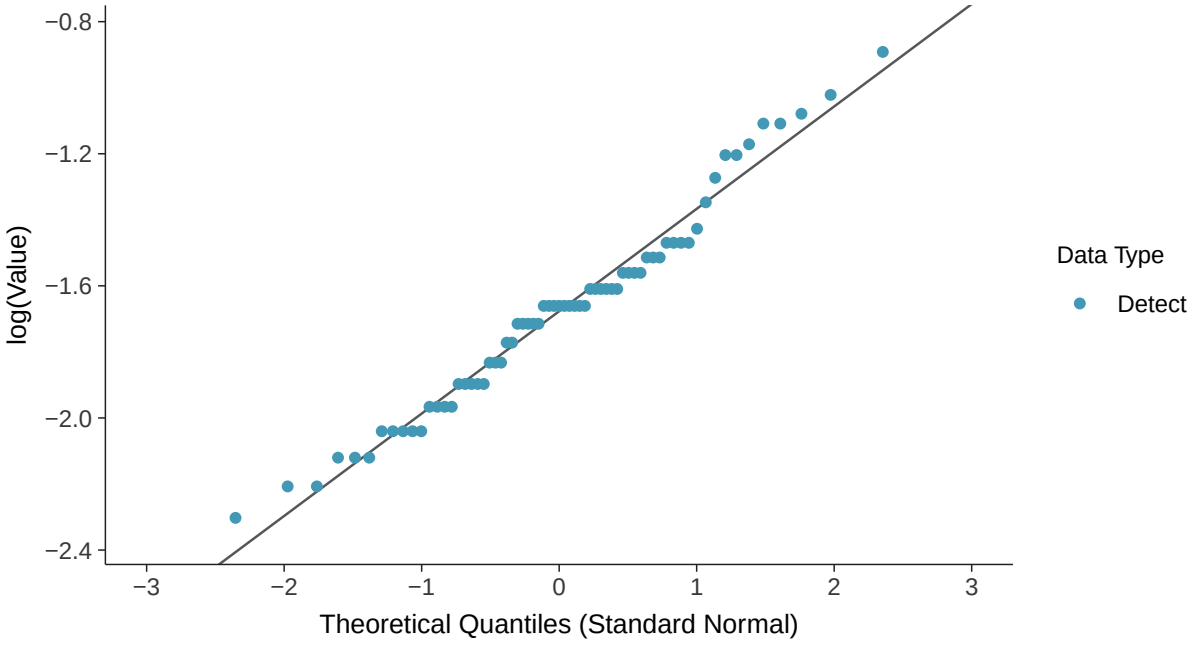
Boxplot by Well

Fluoride, BG-1 & BG-2 (mg/L)



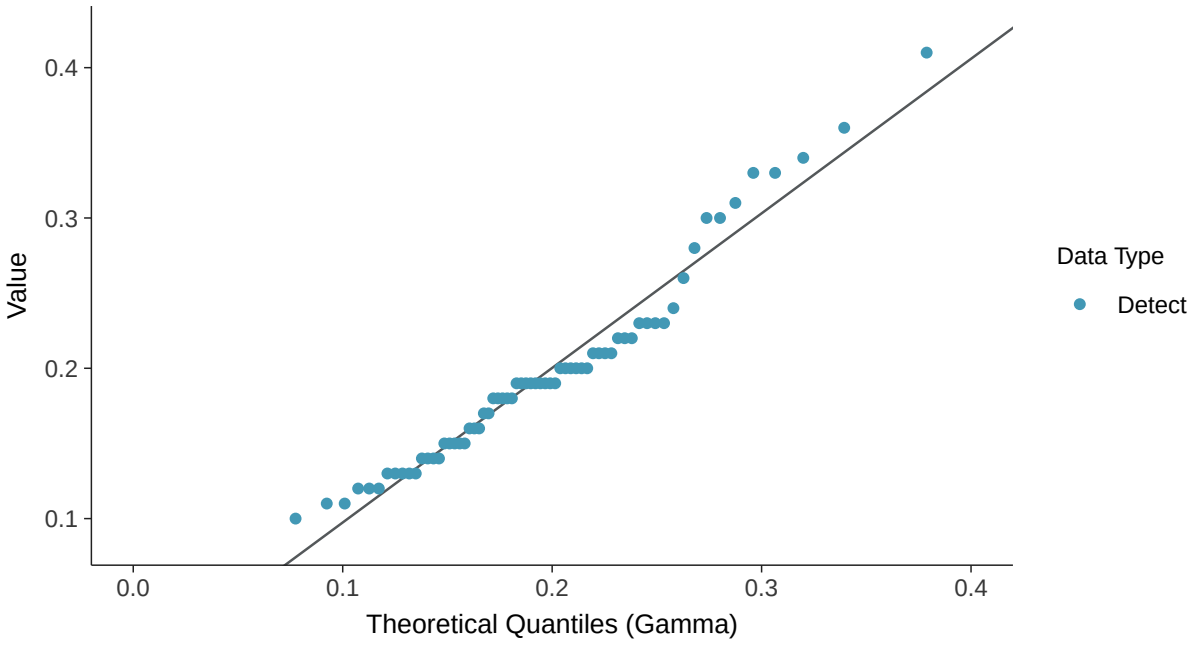
Lognormal Q-Q plot

Fluoride, BG-1 & BG-2 (mg/L)



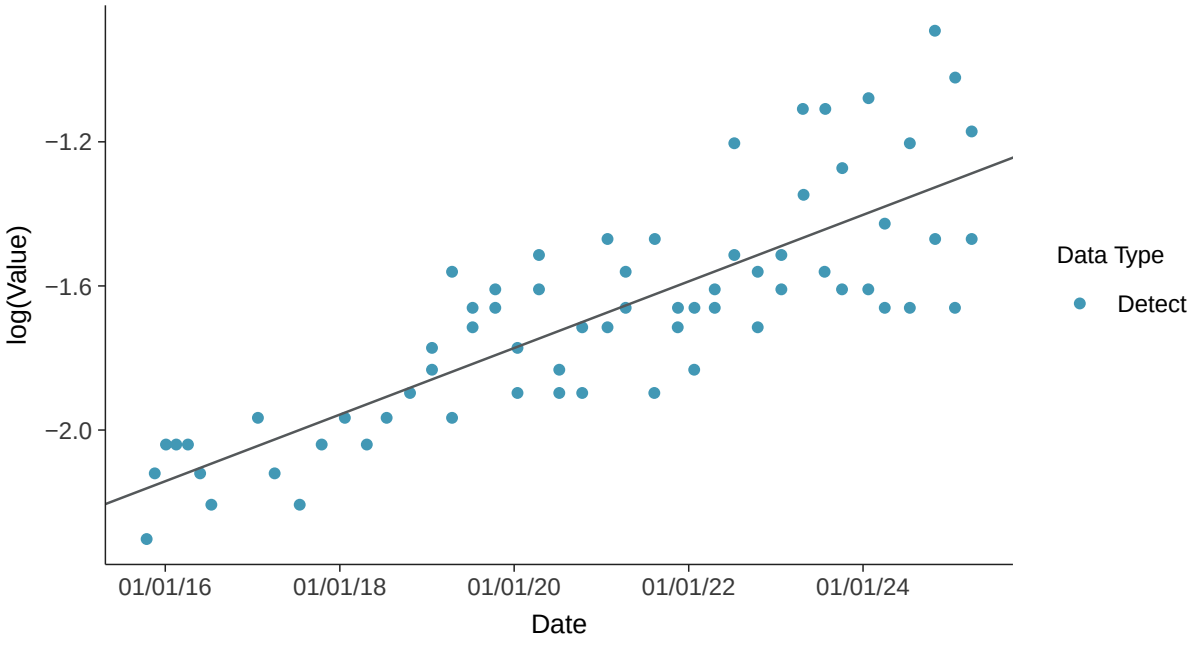
Gamma Q-Q plot

Fluoride, BG-1 & BG-2 (mg/L)



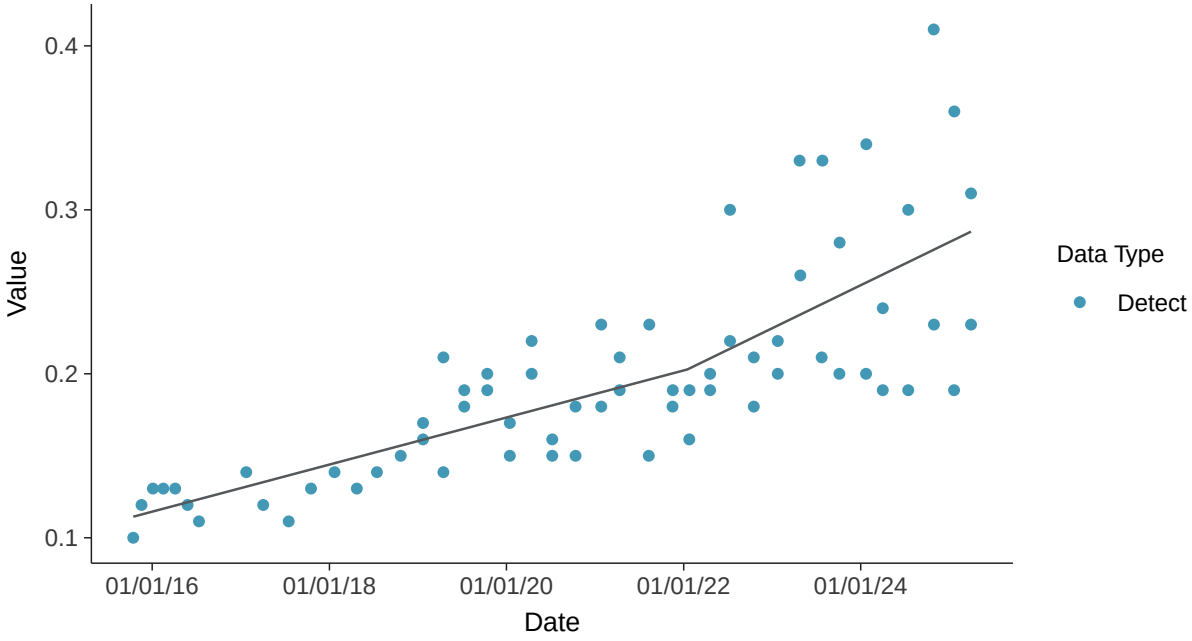
Trend Regression: Lognormal MLE

Fluoride, BG-1 & BG-2 (mg/L)



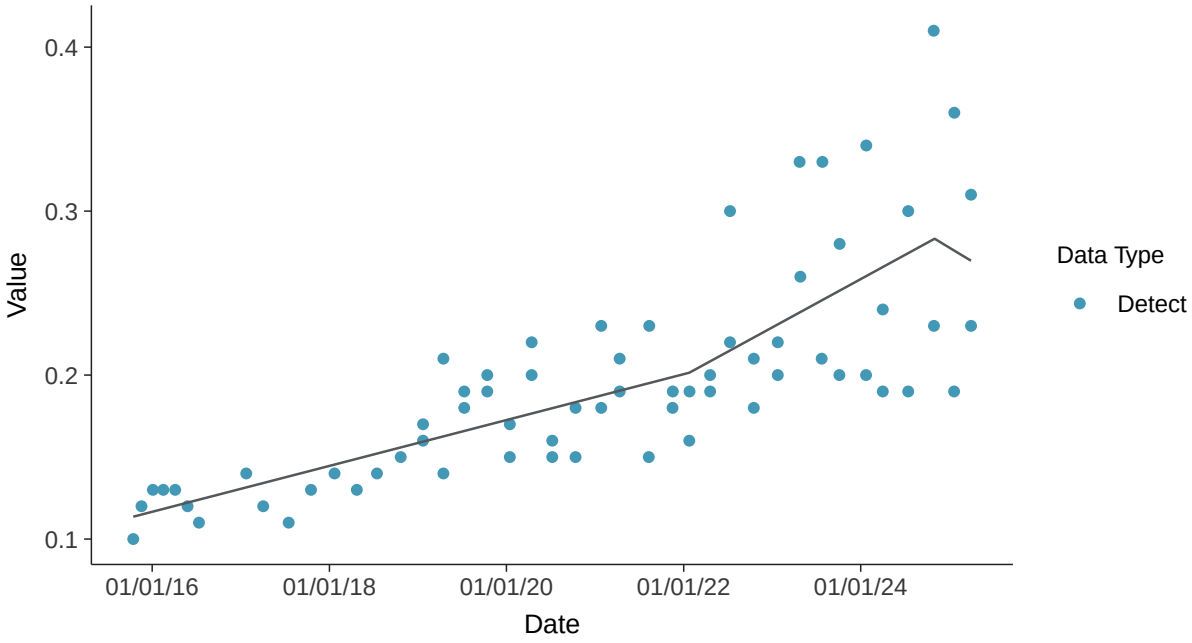
Trend Regression: Piecewise Linear-Linear

Fluoride, BG-1 & BG-2 (mg/L)



Trend Regression: Piecewise Linear-Linear-Linear

Fluoride, BG-1 & BG-2 (mg/L)

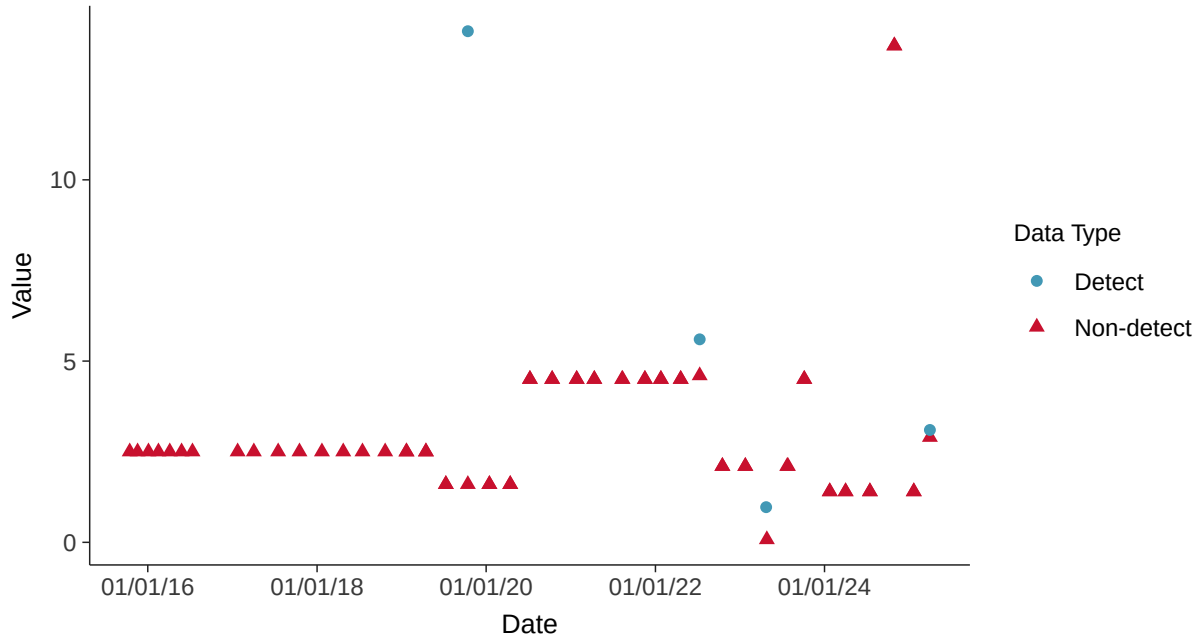


App. IV: Lead, BG-1 & BG-2

ID: 3_113

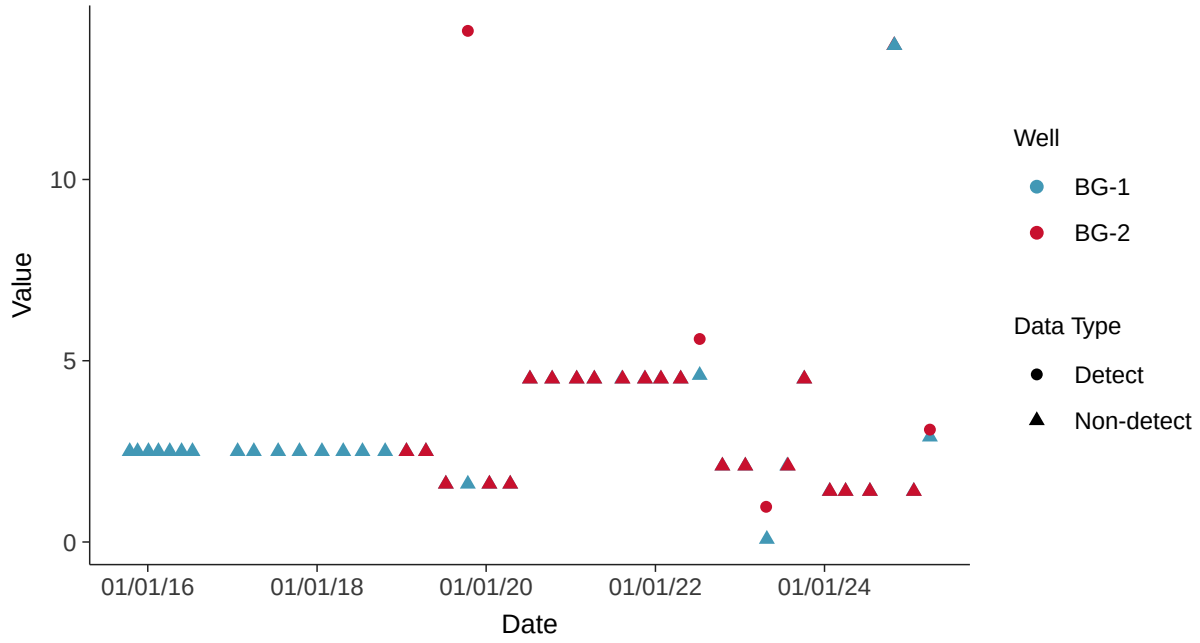
Scatter Plot

Lead, BG-1 & BG-2 (ug/L)



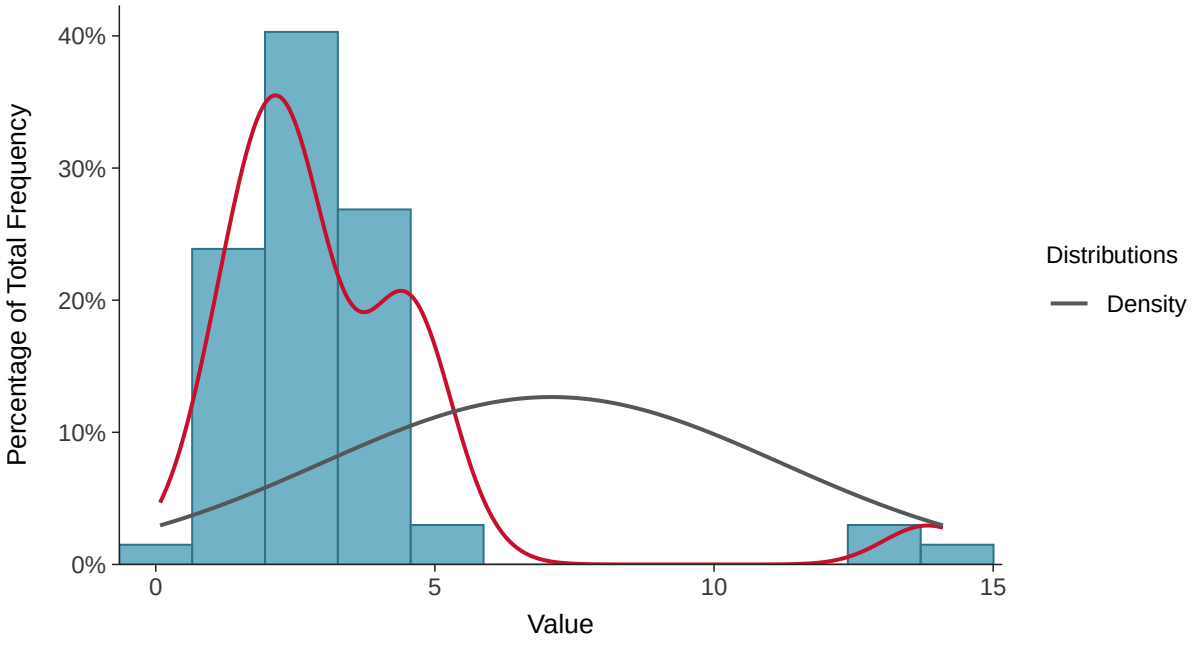
Scatter Plot by Well

Lead, BG-1 & BG-2 (ug/L)



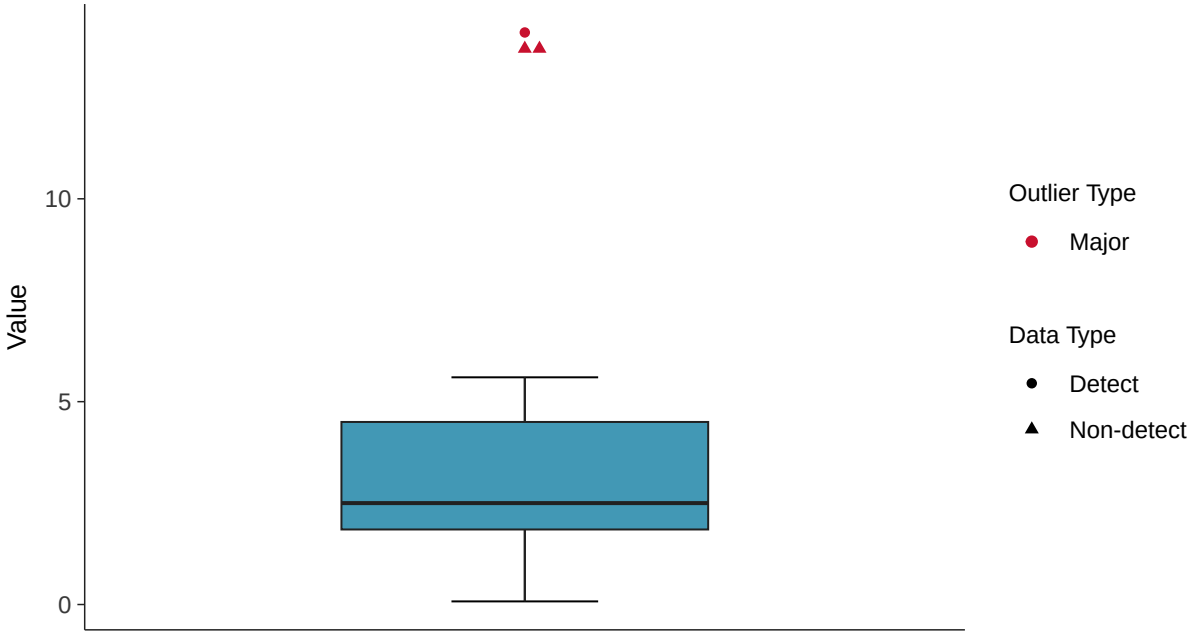
Histogram

Lead, BG-1 & BG-2 (ug/L)



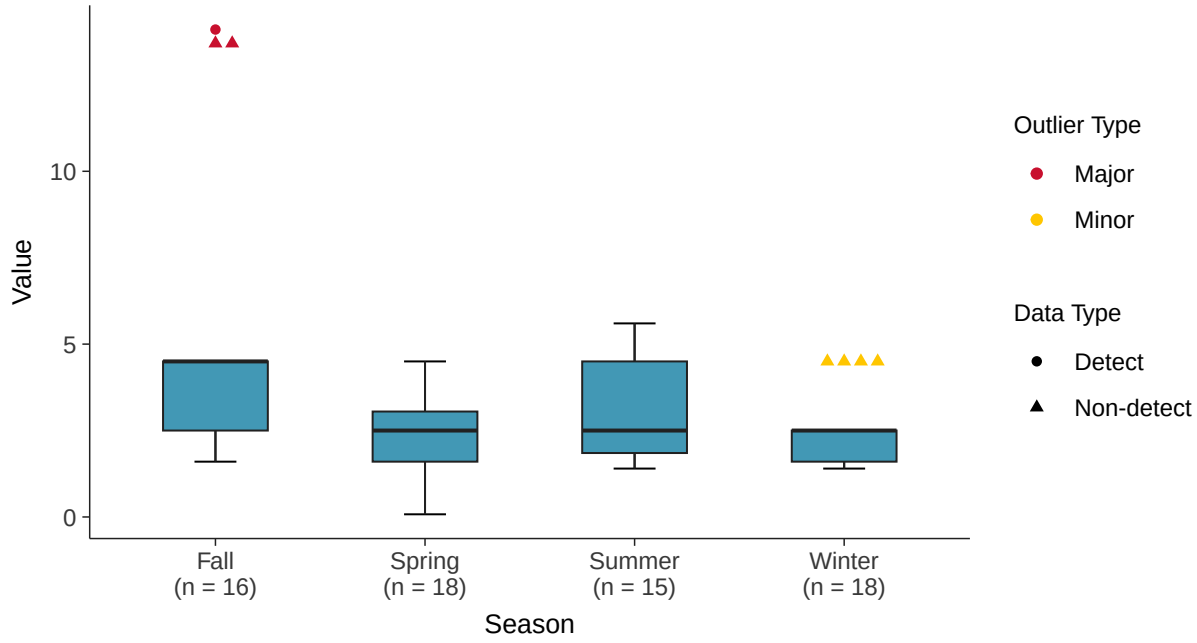
Boxplot

Lead, BG-1 & BG-2 (ug/L)



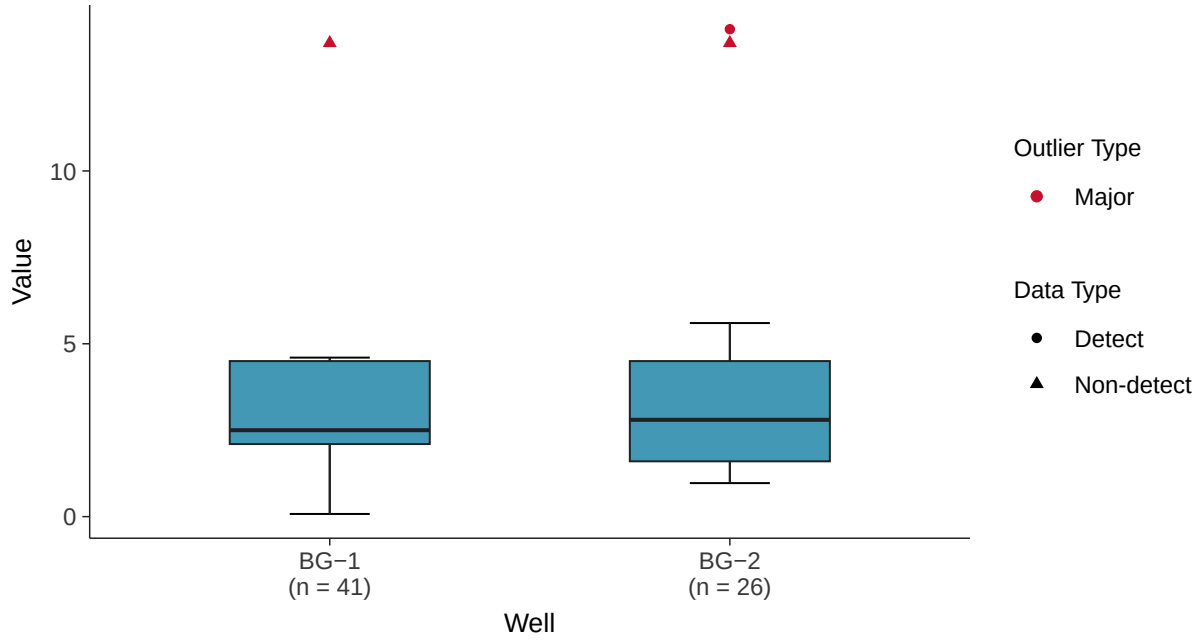
Boxplot by Season

Lead, BG-1 & BG-2 (ug/L)



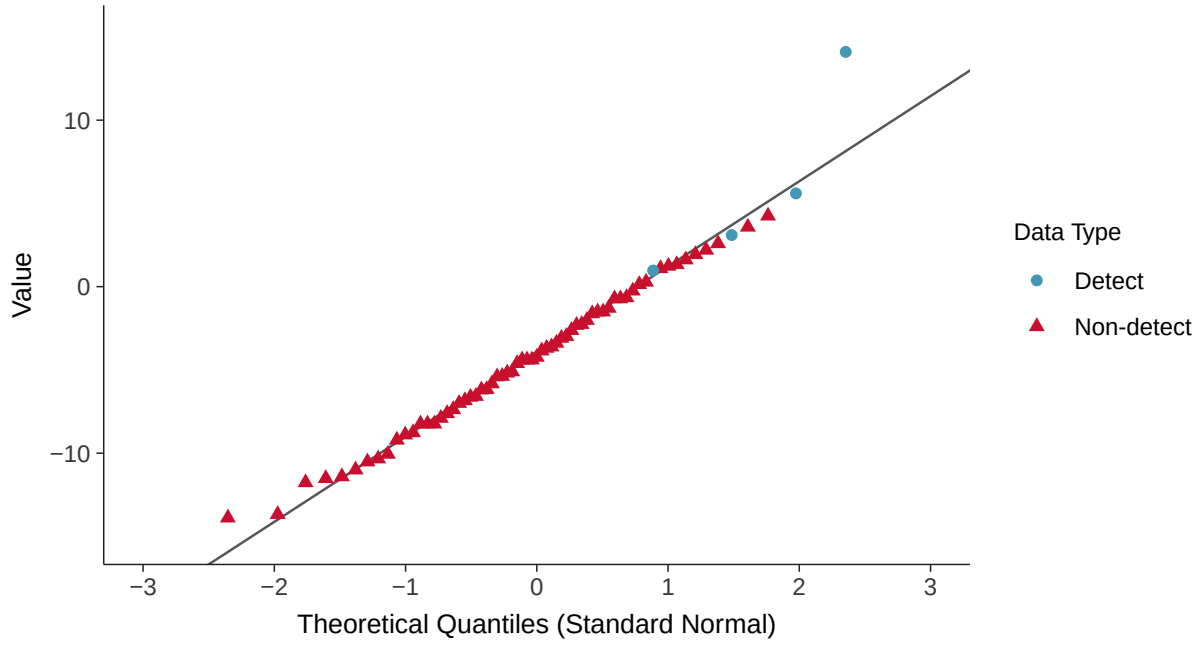
Boxplot by Well

Lead, BG-1 & BG-2 (ug/L)



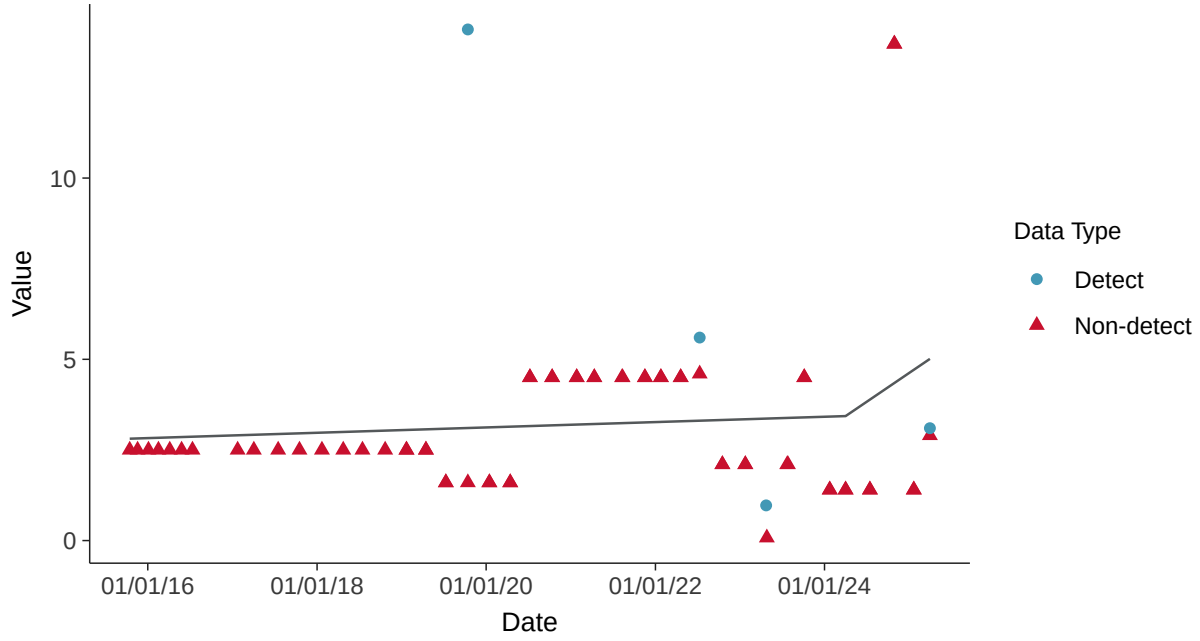
Normal Q-Q plot using ROS Imputed Estimates

Lead, BG-1 & BG-2 (ug/L)



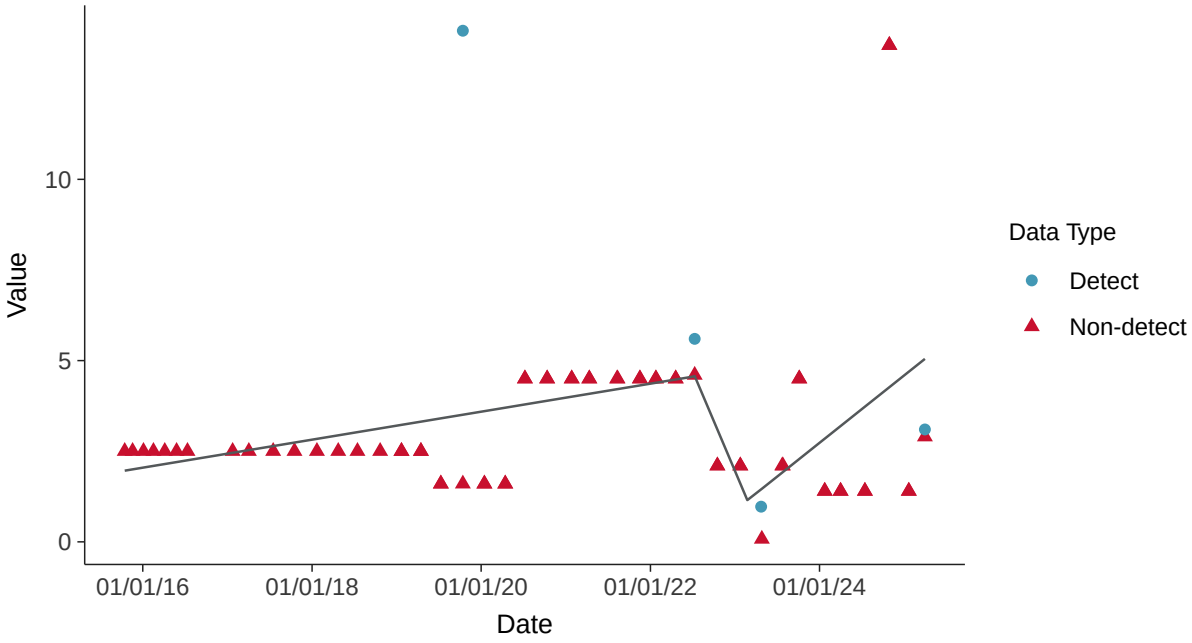
Trend Regression: Piecewise Linear-Linear

Lead, BG-1 & BG-2 (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Lead, BG-1 & BG-2 (ug/L)

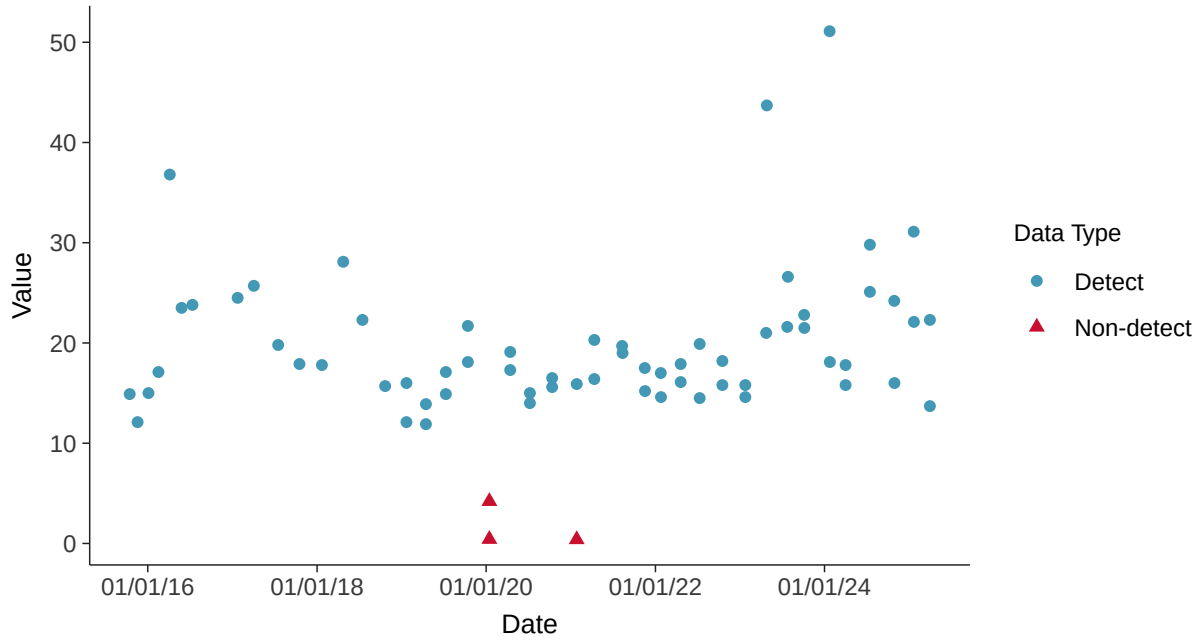


App. IV: Lithium, BG-1 & BG-2

ID: 3_114

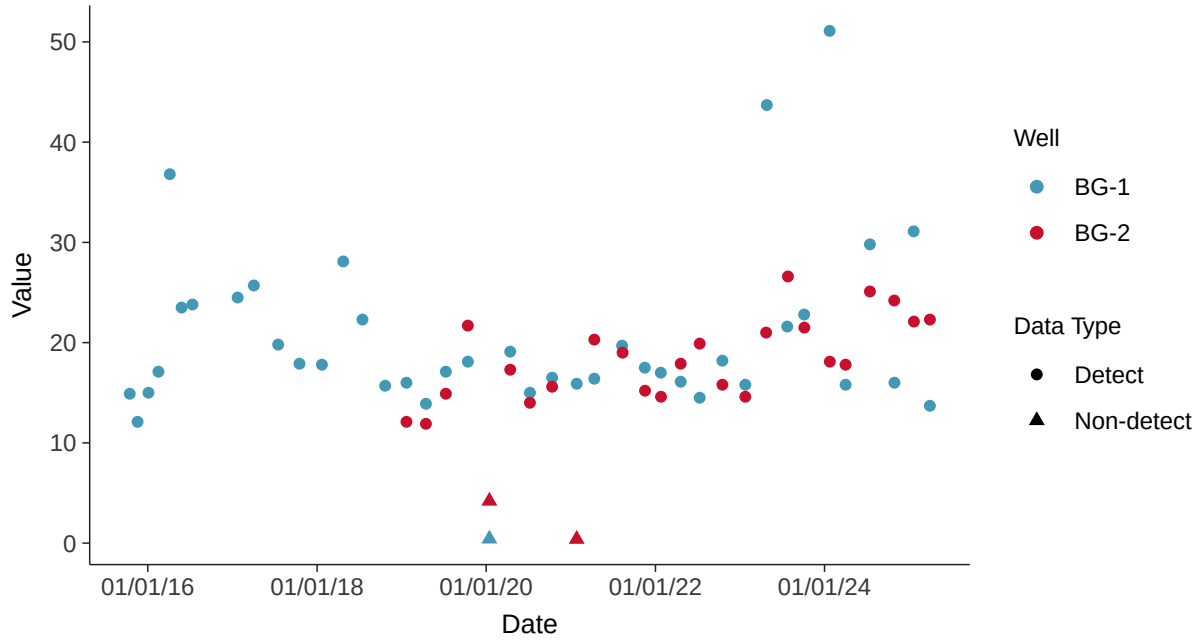
Scatter Plot

Lithium, BG-1 & BG-2 (ug/L)



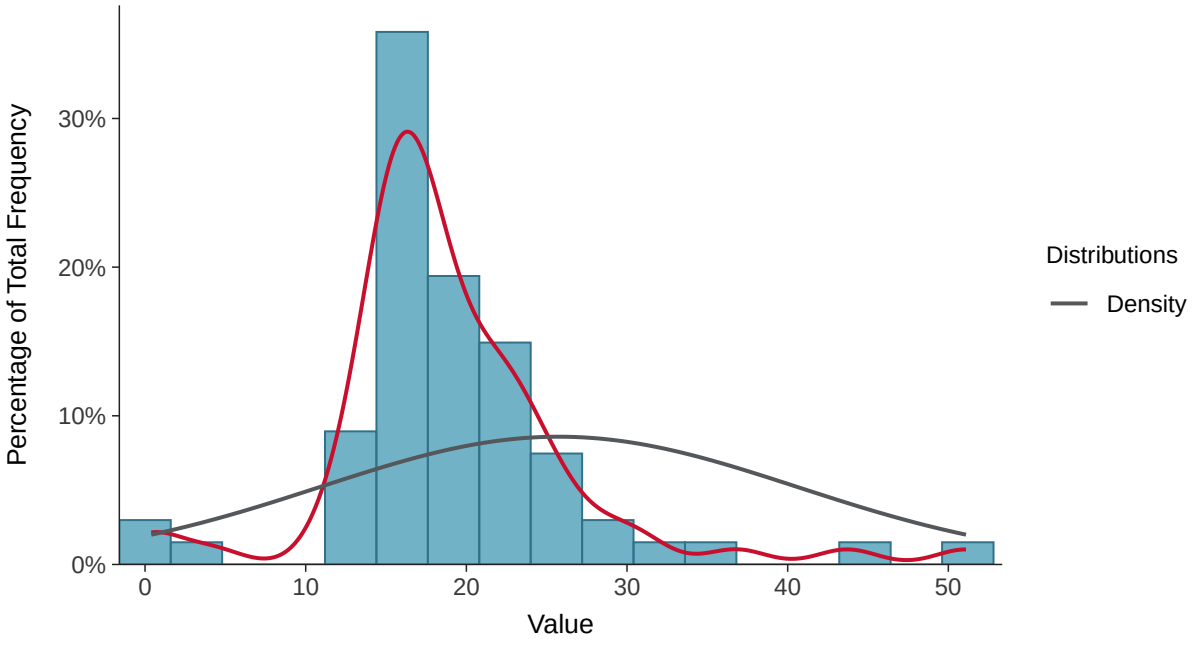
Scatter Plot by Well

Lithium, BG-1 & BG-2 (ug/L)



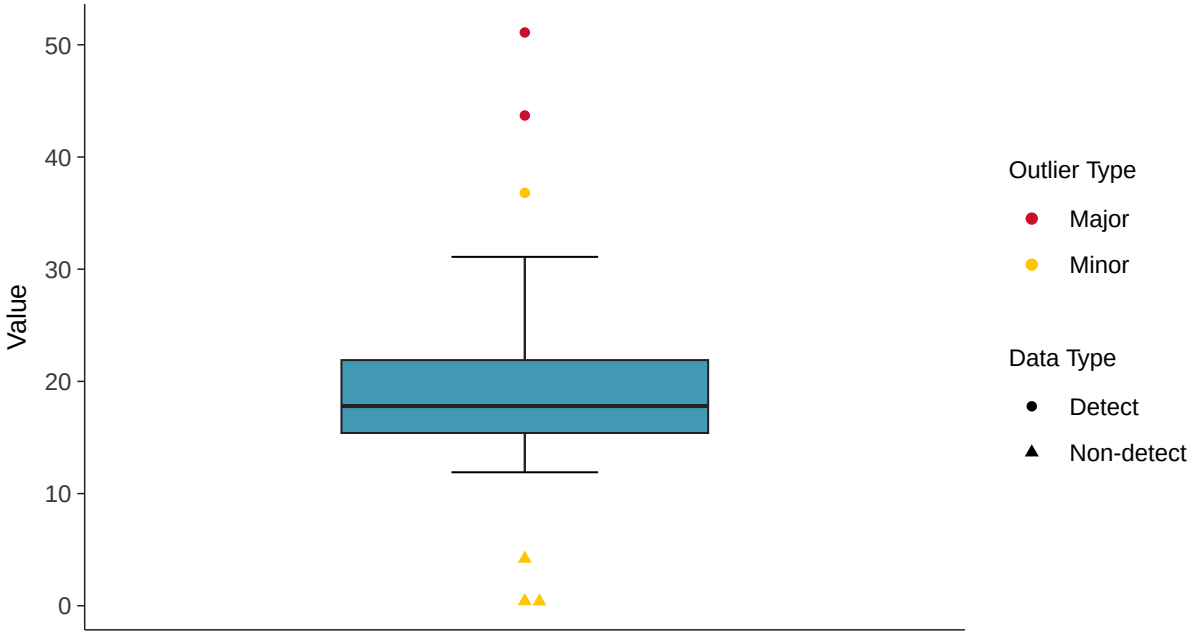
Histogram

Lithium, BG-1 & BG-2 (ug/L)



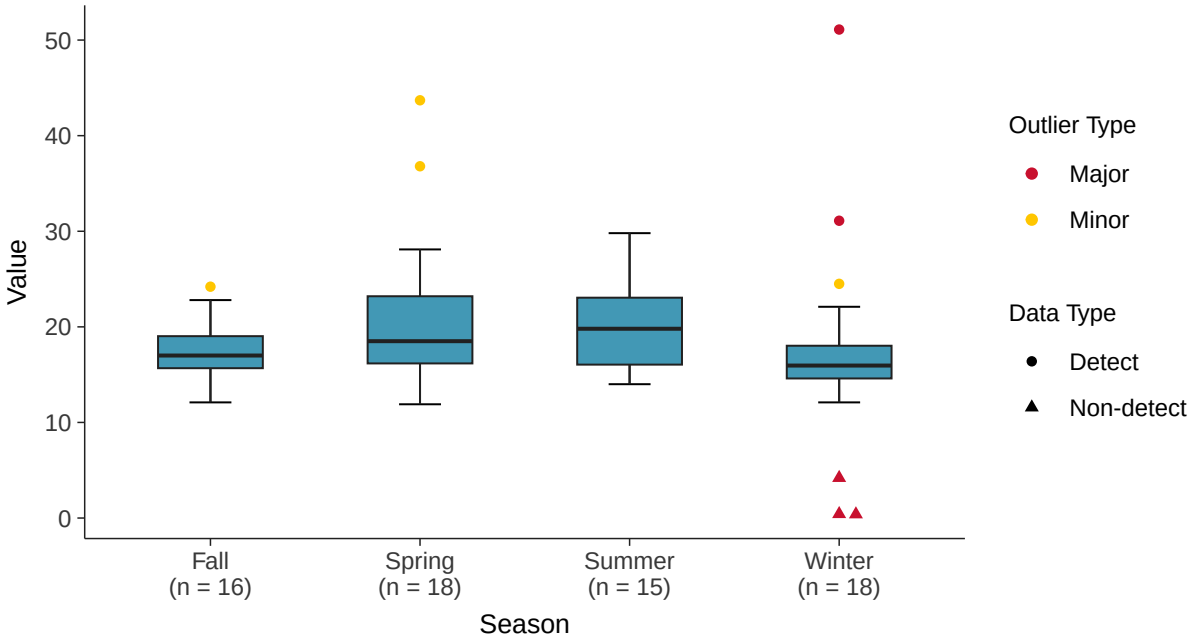
Boxplot

Lithium, BG-1 & BG-2 (ug/L)



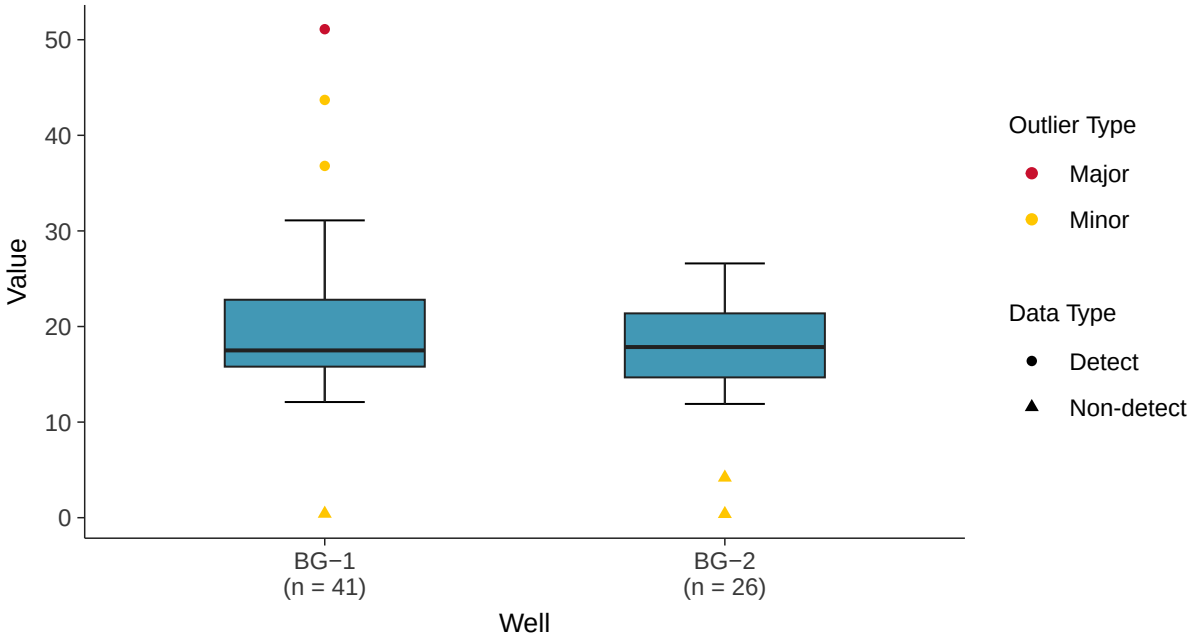
Boxplot by Season

Lithium, BG-1 & BG-2 (ug/L)



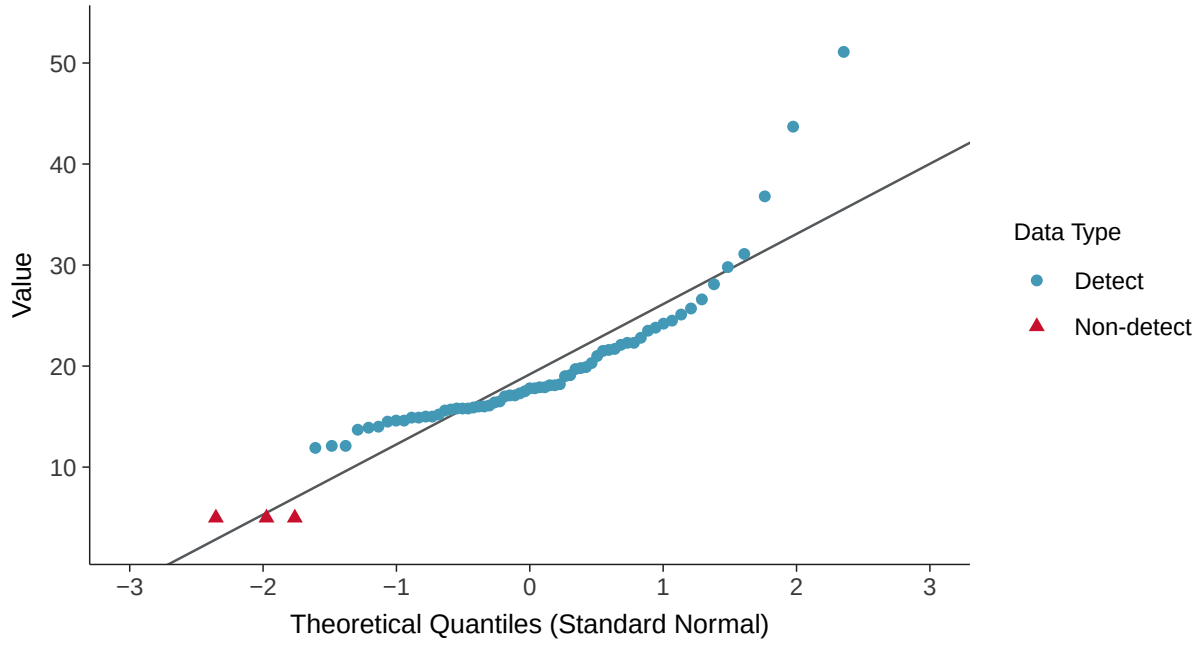
Boxplot by Well

Lithium, BG-1 & BG-2 (ug/L)



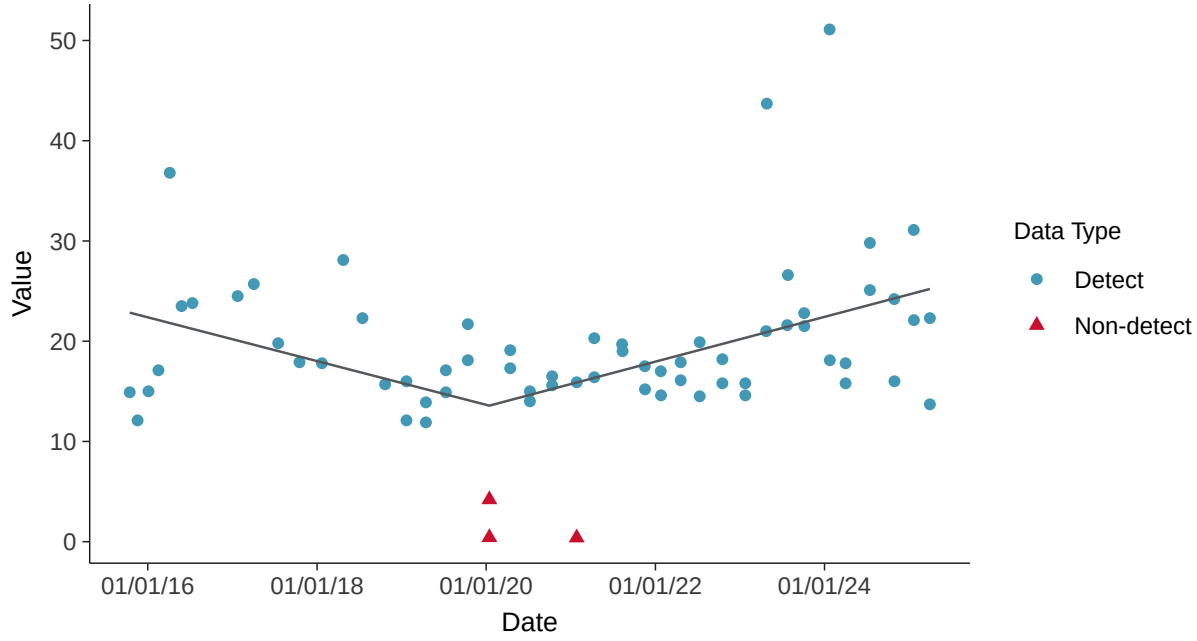
Normal Q-Q plot using ROS Imputed Estimates

Lithium, BG-1 & BG-2 (ug/L)



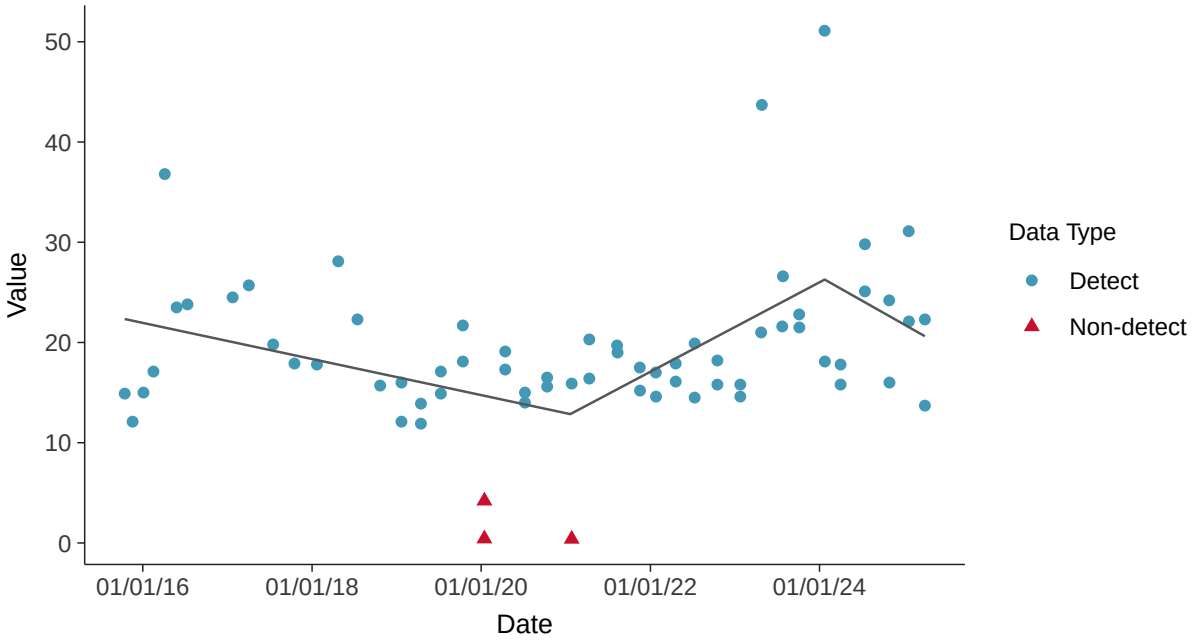
Trend Regression: Piecewise Linear-Linear

Lithium, BG-1 & BG-2 (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Lithium, BG-1 & BG-2 (ug/L)

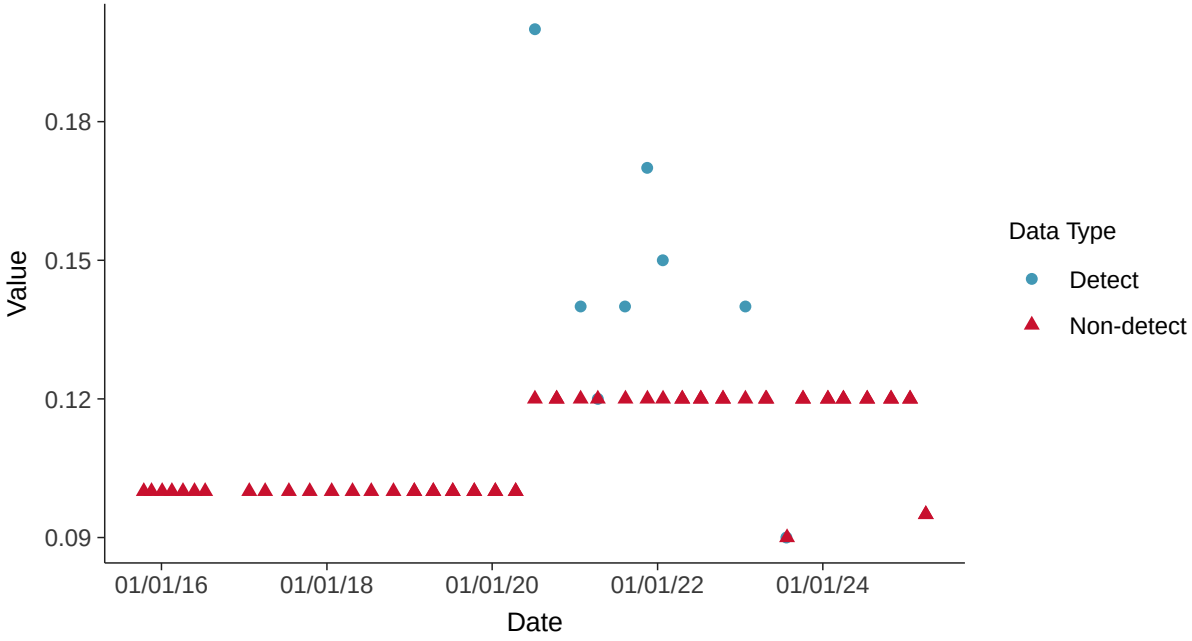


App. IV: Mercury, BG-1 & BG-2

ID: 3_115

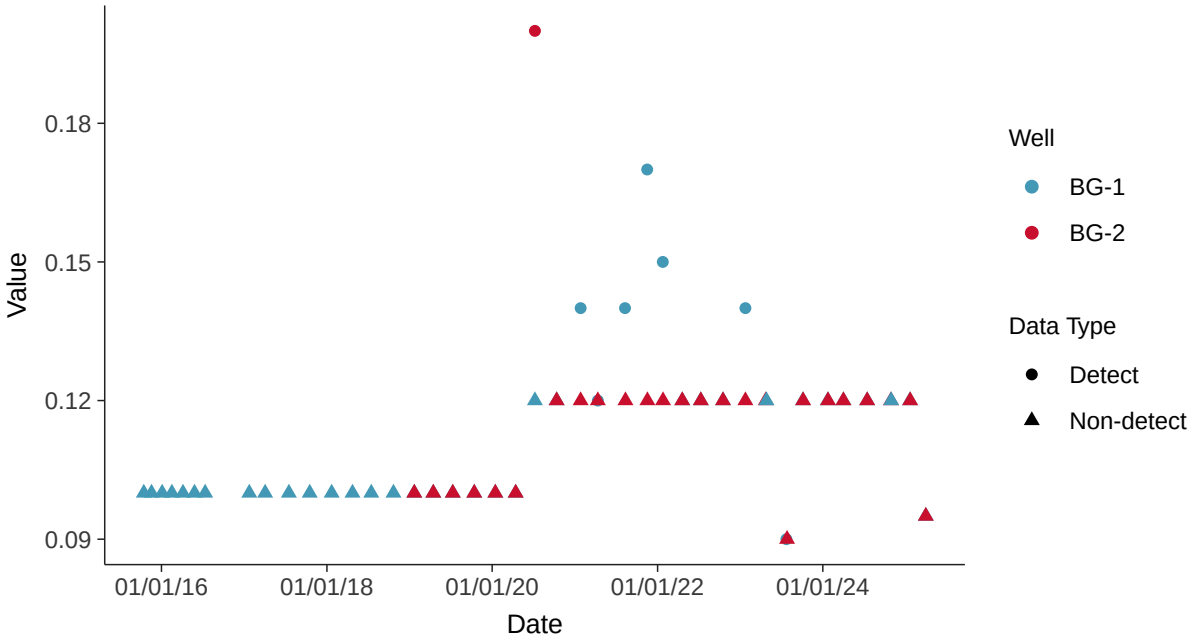
Scatter Plot

Mercury, BG-1 & BG-2 (ug/L)



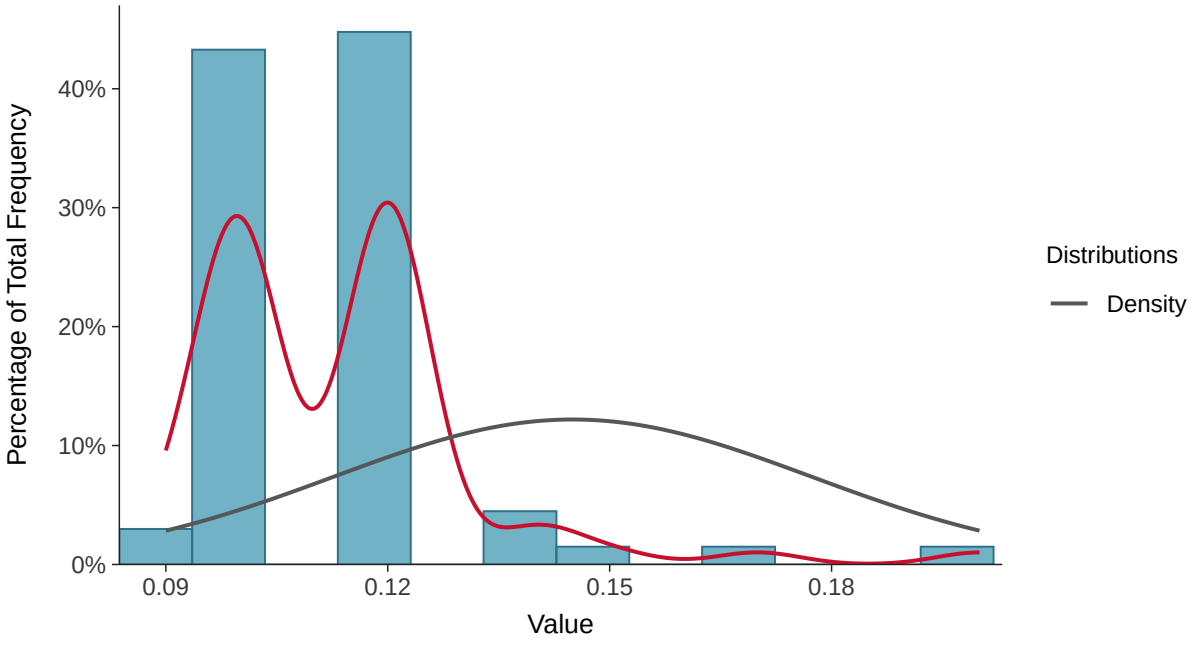
Scatter Plot by Well

Mercury, BG-1 & BG-2 (ug/L)



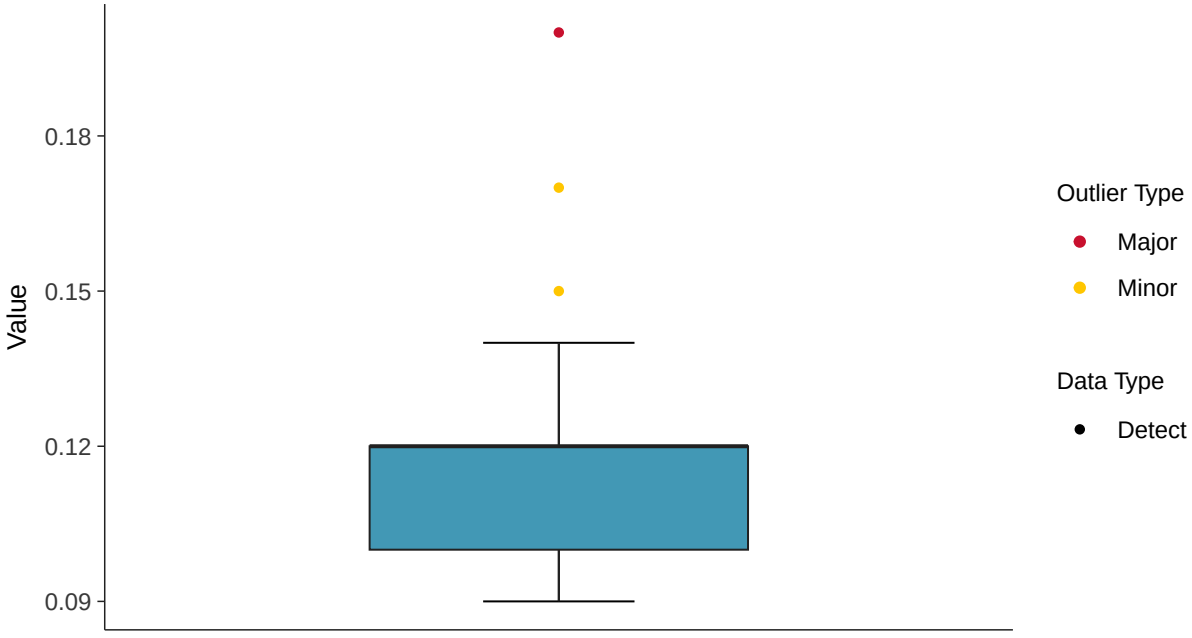
Histogram

Mercury, BG-1 & BG-2 (ug/L)



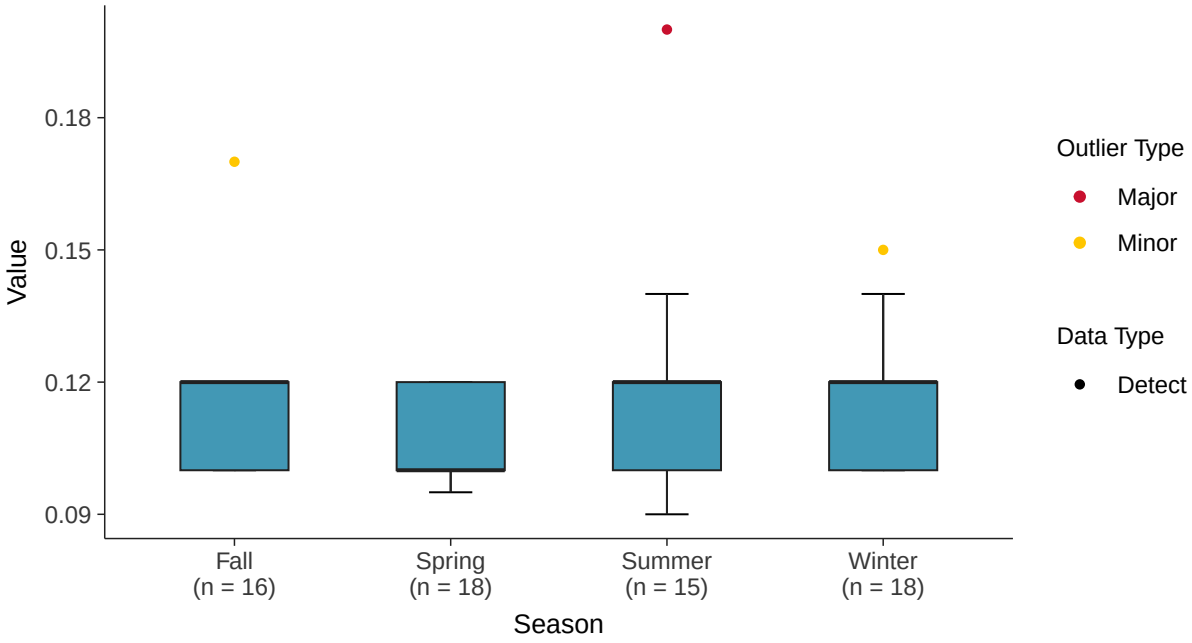
Boxplot

Mercury, BG-1 & BG-2 (ug/L)



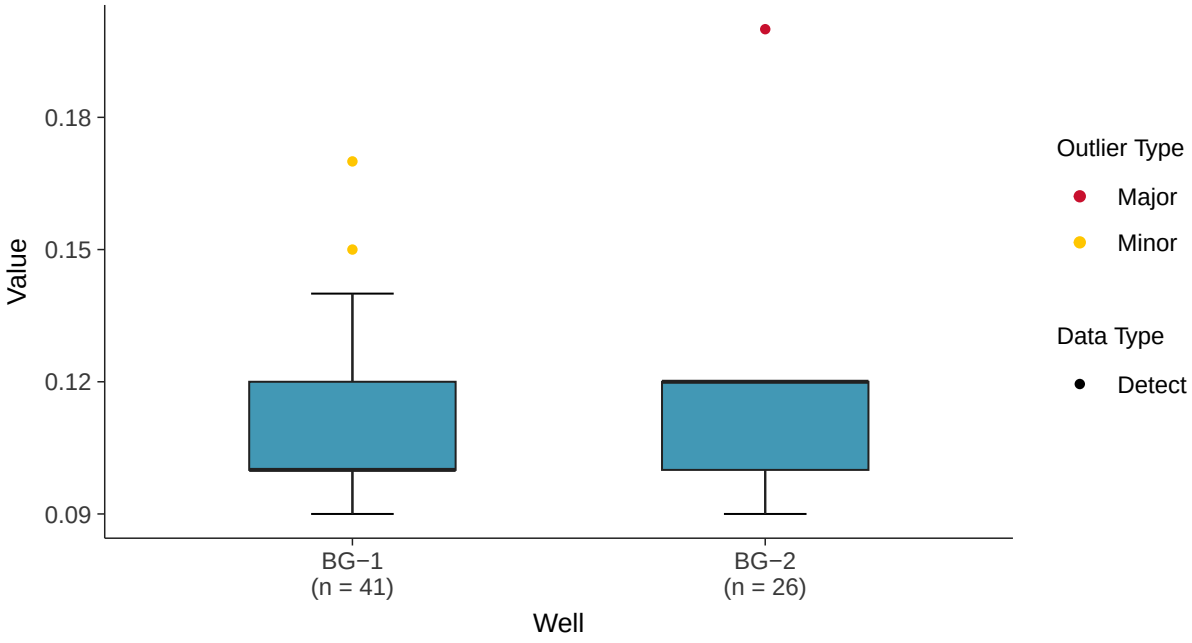
Boxplot by Season

Mercury, BG-1 & BG-2 (ug/L)



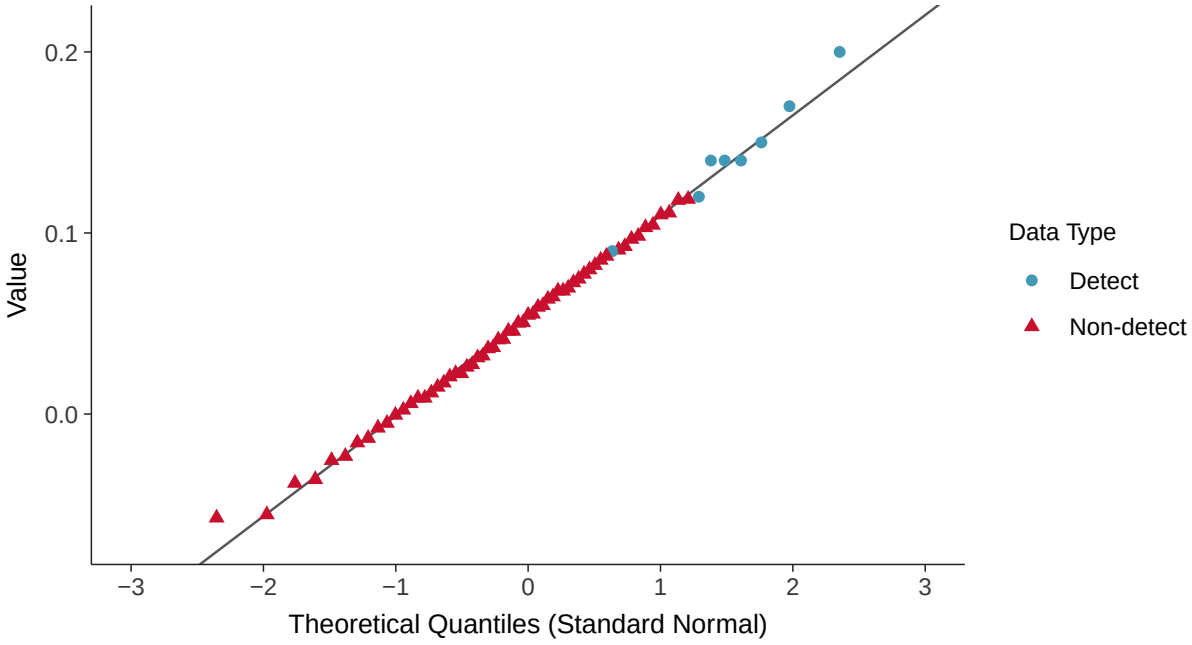
Boxplot by Well

Mercury, BG-1 & BG-2 (ug/L)



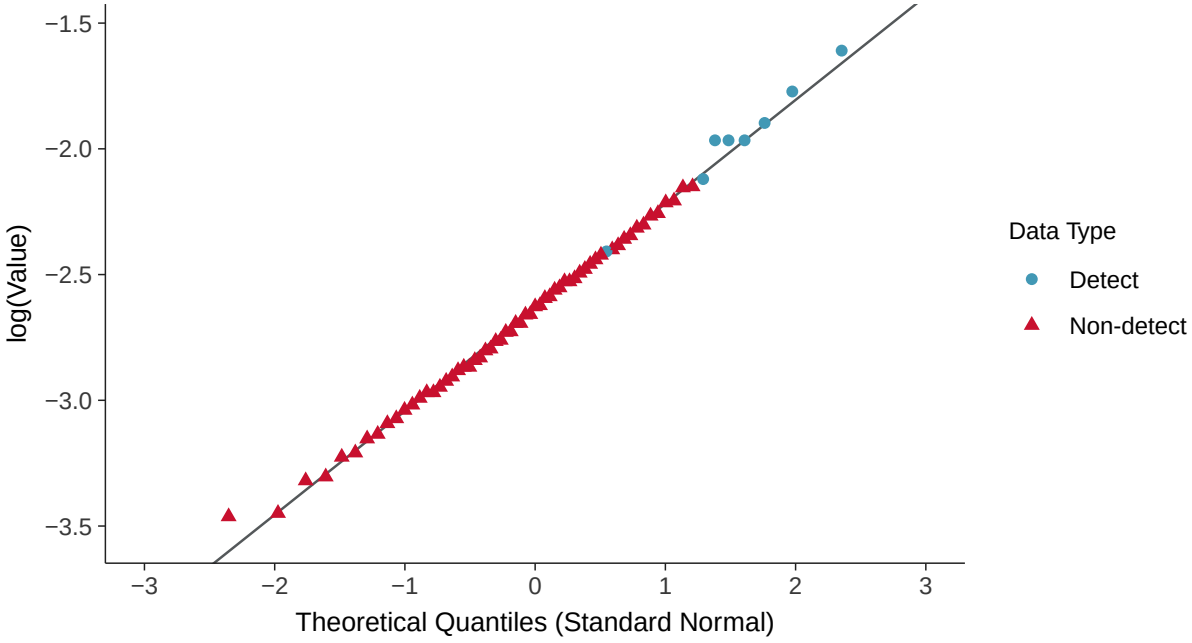
Normal Q-Q plot using ROS Imputed Estimates

Mercury, BG-1 & BG-2 (ug/L)



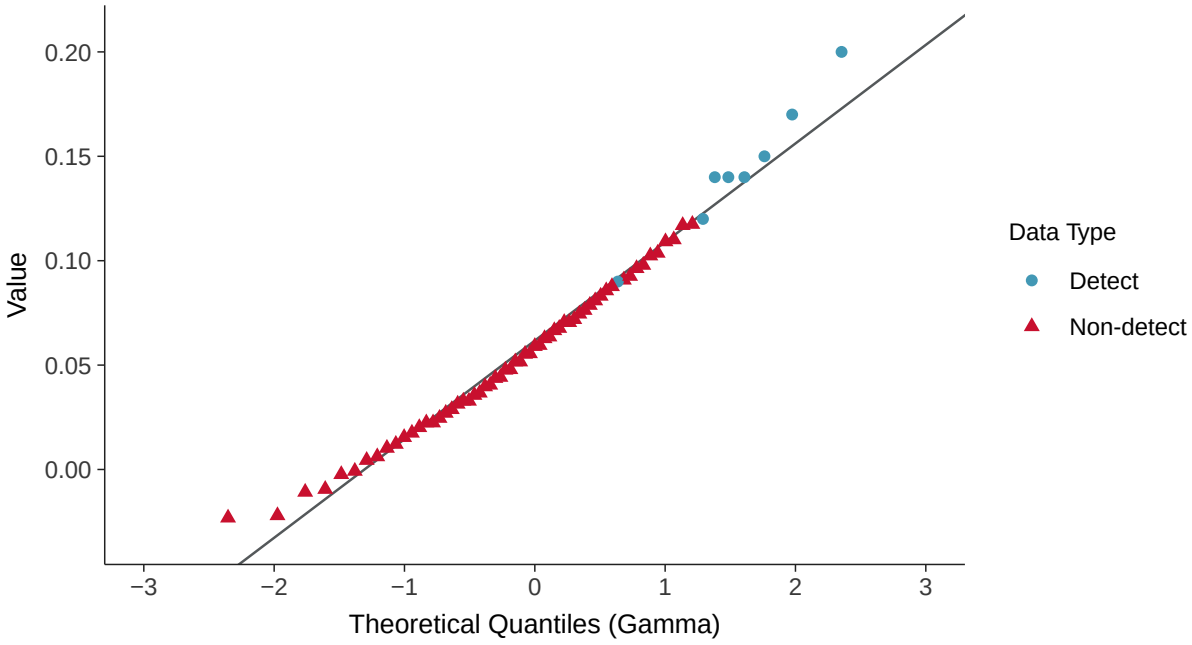
Lognormal Q-Q plot using ROS Imputed Estimates

Mercury, BG-1 & BG-2 (ug/L)



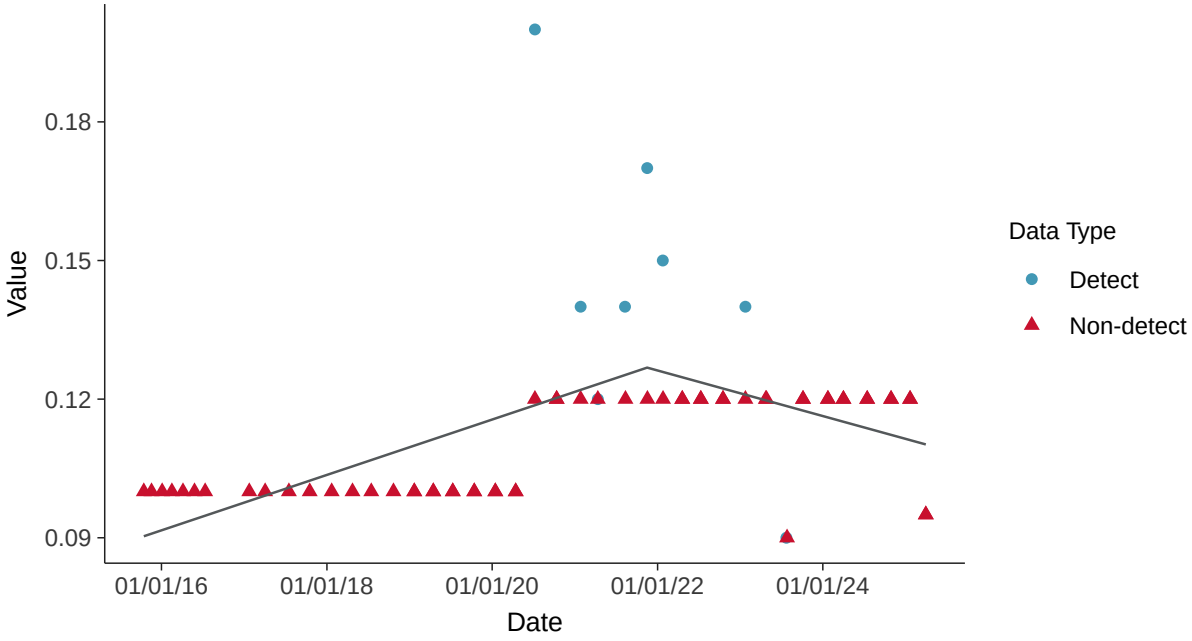
Gamma Q-Q plot using ROS Imputed Estimates

Mercury, BG-1 & BG-2 (ug/L)



Trend Regression: Piecewise Linear-Linear

Mercury, BG-1 & BG-2 (ug/L)

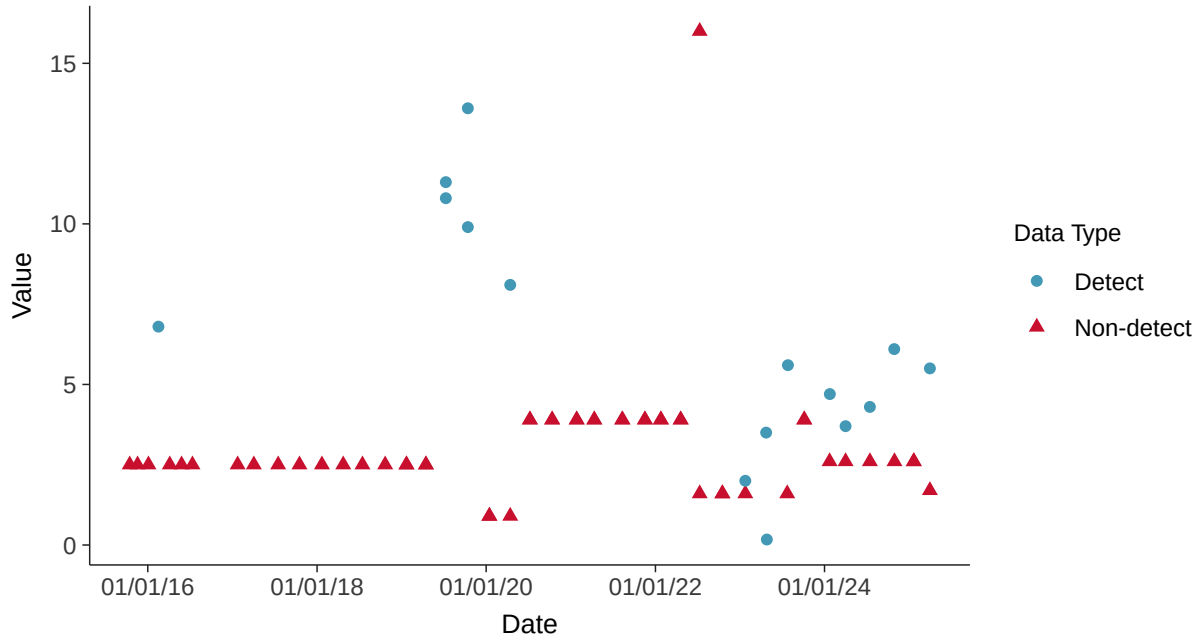


App. IV: Molybdenum, BG-1 & BG-2

ID: 3_116

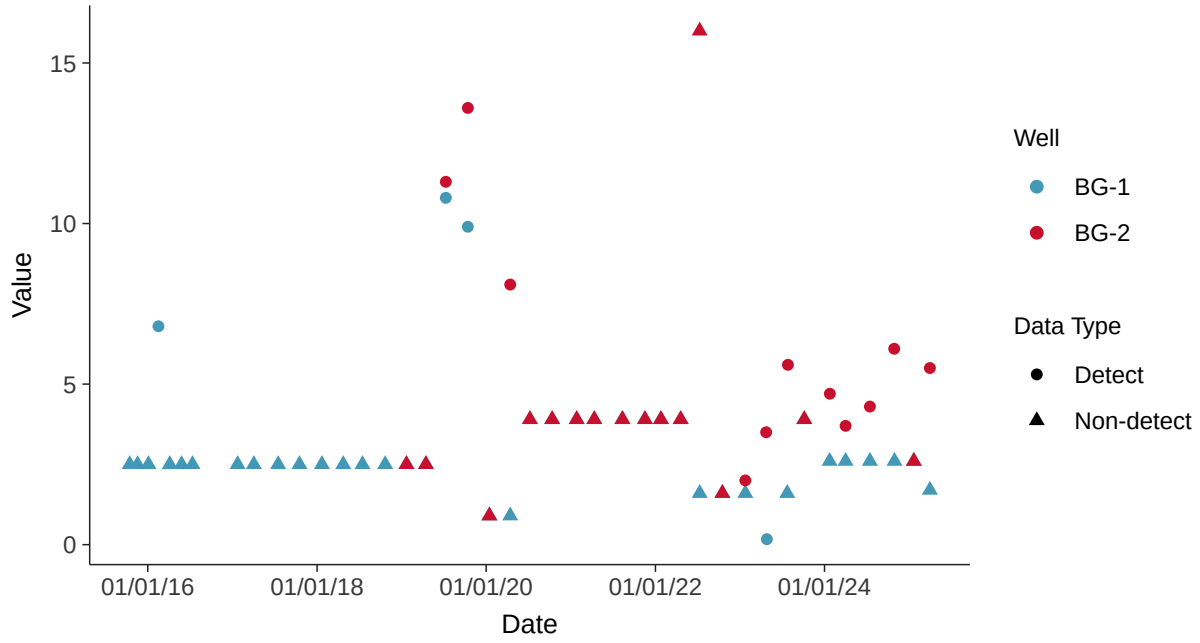
Scatter Plot

Molybdenum, BG-1 & BG-2 (ug/L)



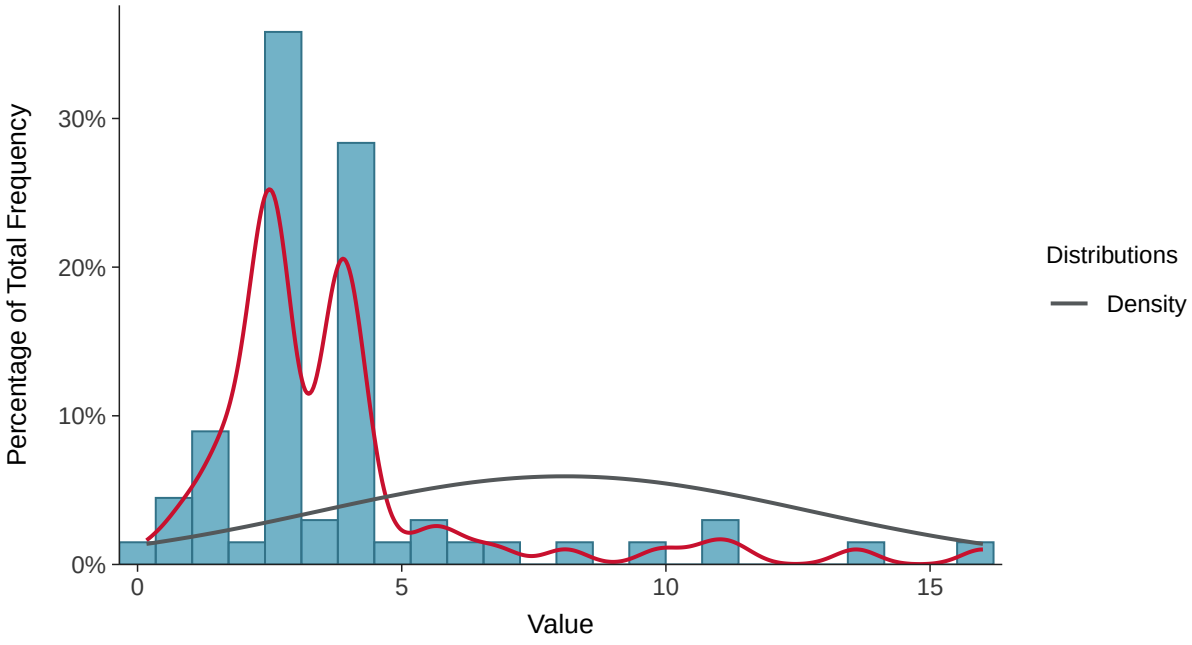
Scatter Plot by Well

Molybdenum, BG-1 & BG-2 (ug/L)



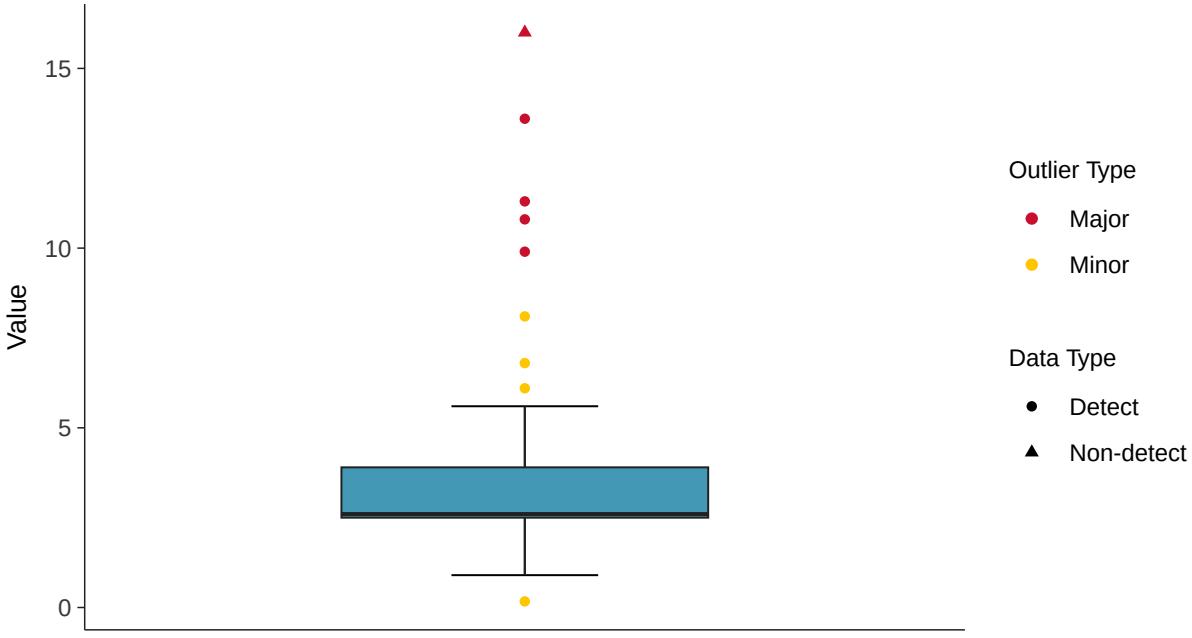
Histogram

Molybdenum, BG-1 & BG-2 (ug/L)



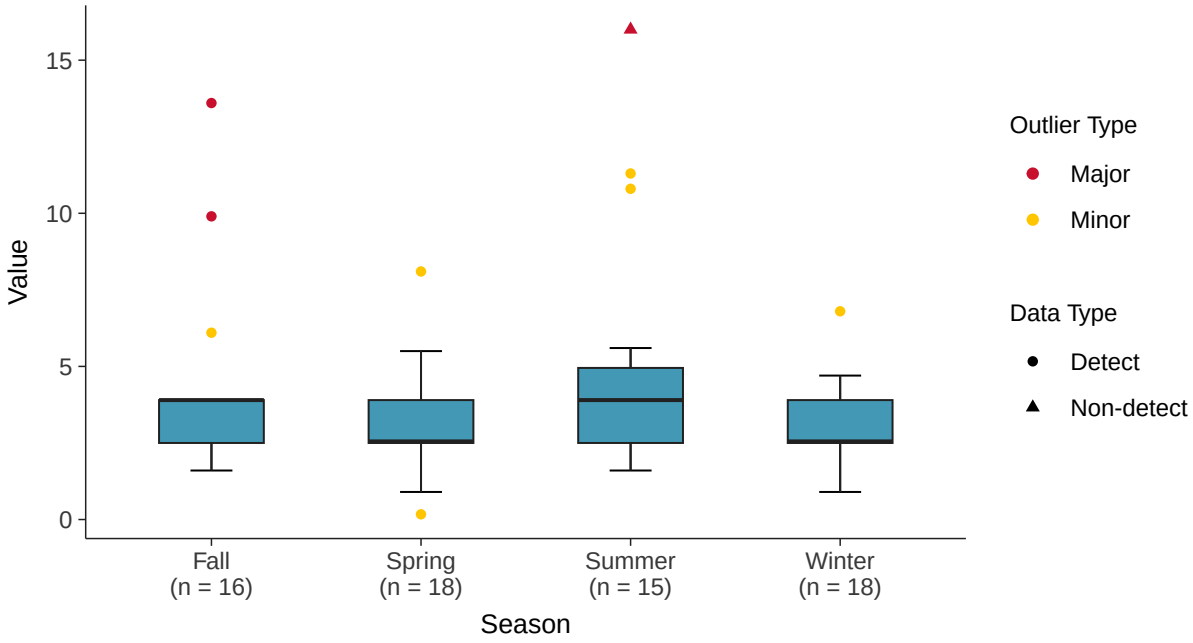
Boxplot

Molybdenum, BG-1 & BG-2 (ug/L)



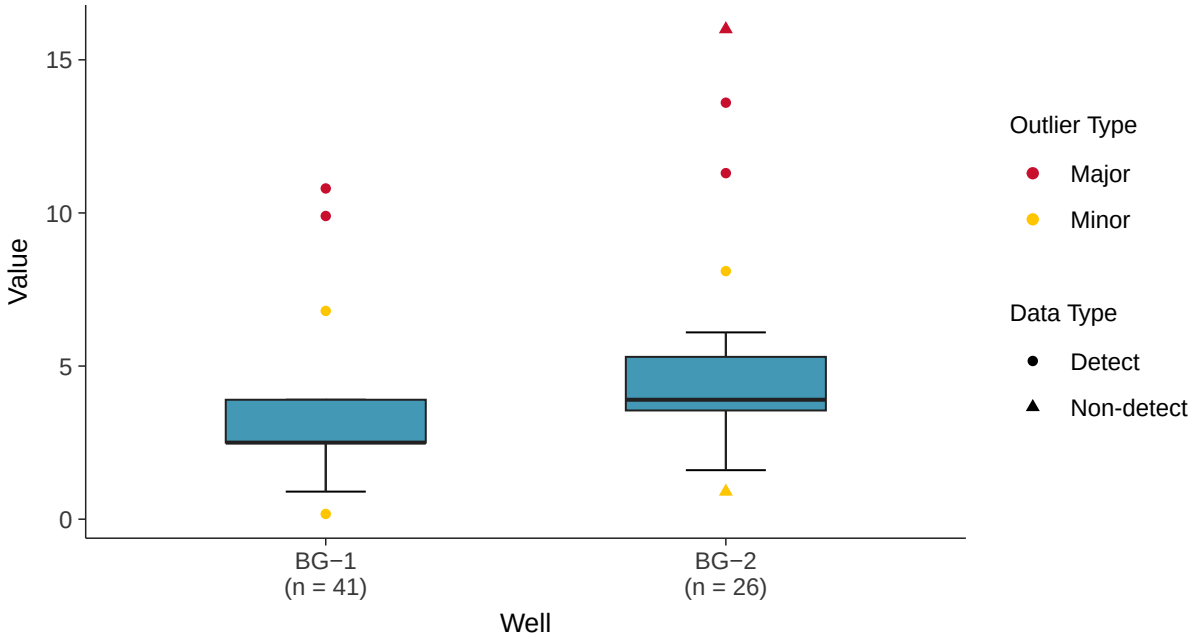
Boxplot by Season

Molybdenum, BG-1 & BG-2 (ug/L)



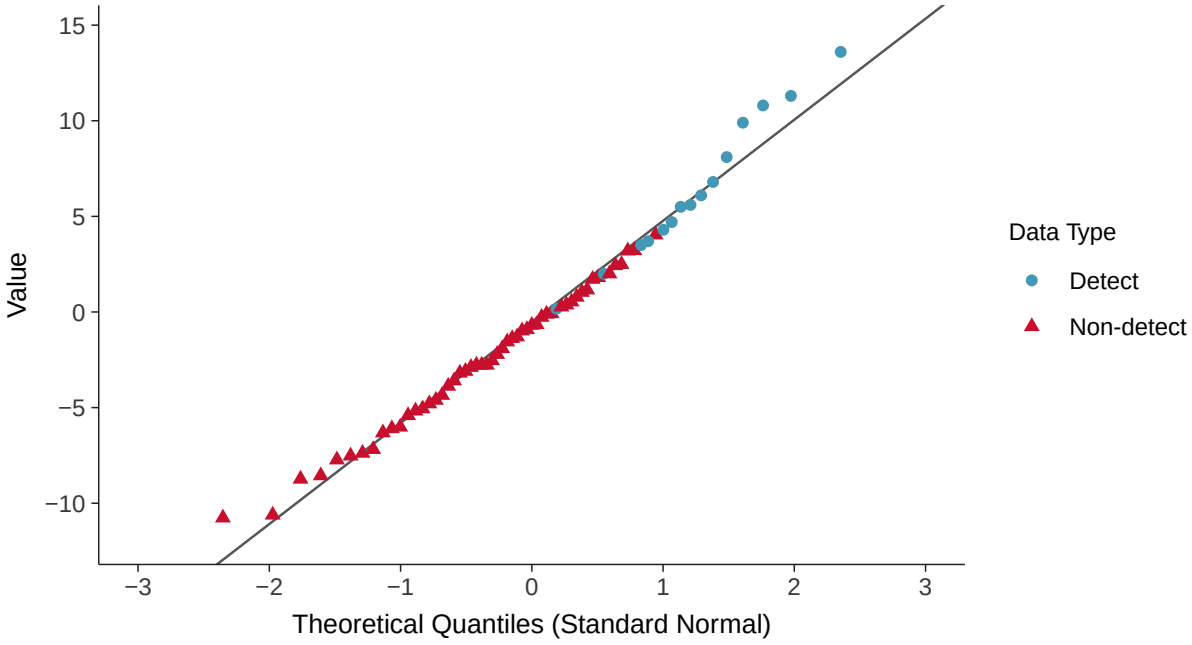
Boxplot by Well

Molybdenum, BG-1 & BG-2 (ug/L)



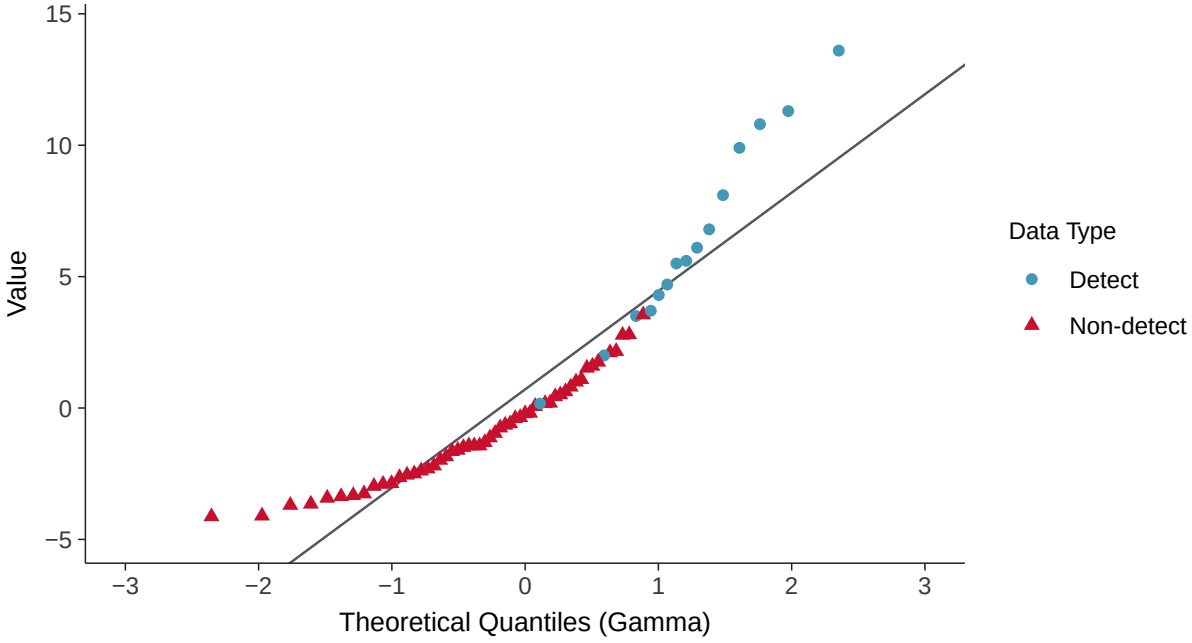
Normal Q-Q plot using ROS Imputed Estimates

Molybdenum, BG-1 & BG-2 (ug/L)



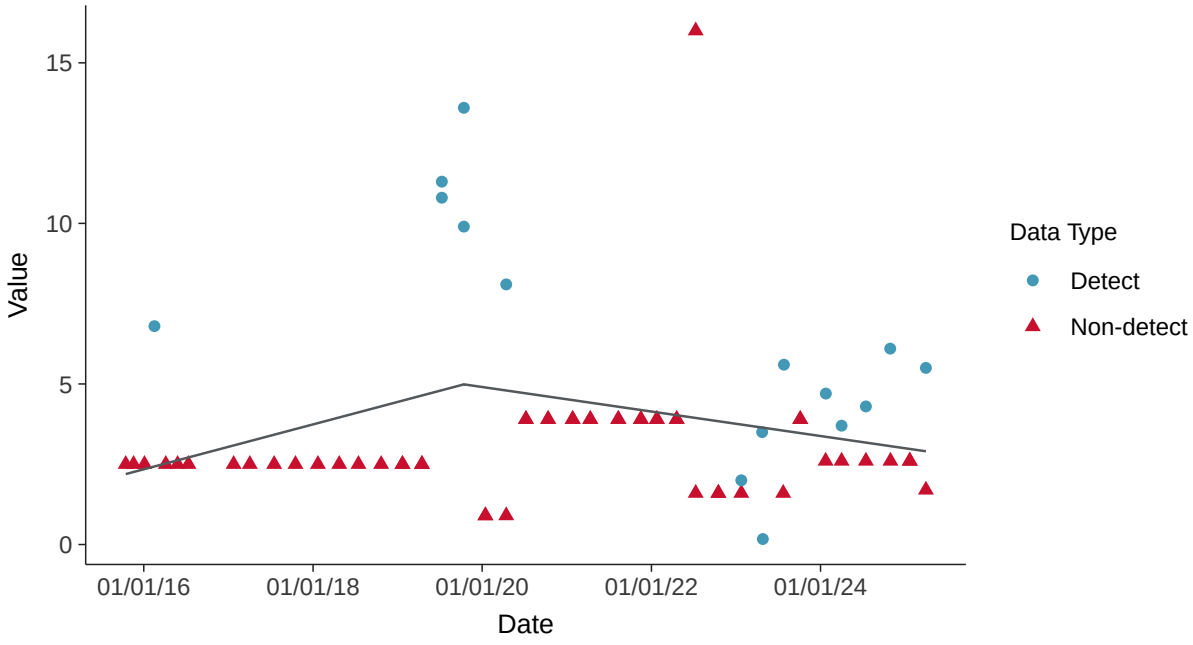
Gamma Q-Q plot using ROS Imputed Estimates

Molybdenum, BG-1 & BG-2 (ug/L)



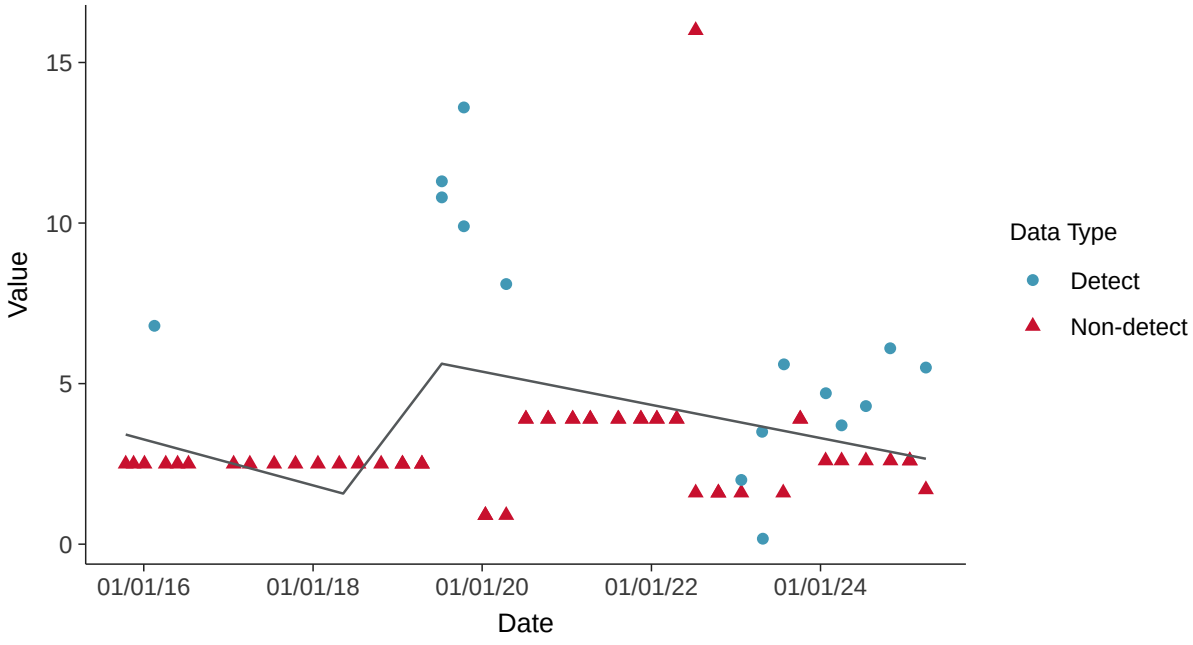
Trend Regression: Piecewise Linear-Linear

Molybdenum, BG-1 & BG-2 (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Molybdenum, BG-1 & BG-2 (ug/L)

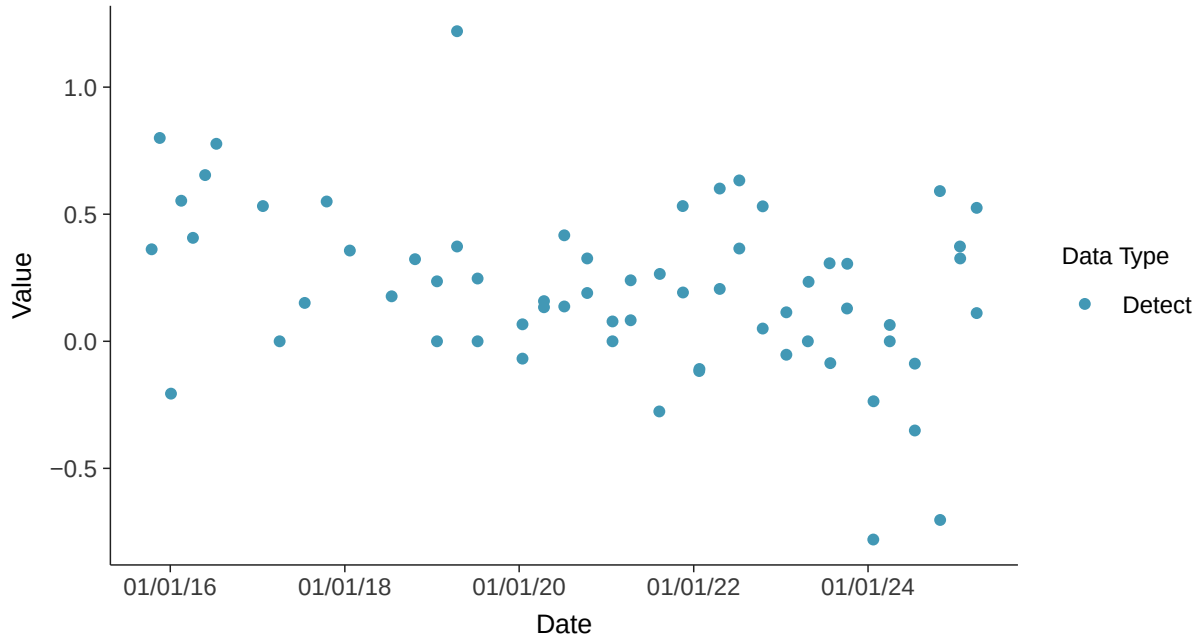


App. IV: Radium-226, BG-1 & BG-2

ID: 3_119

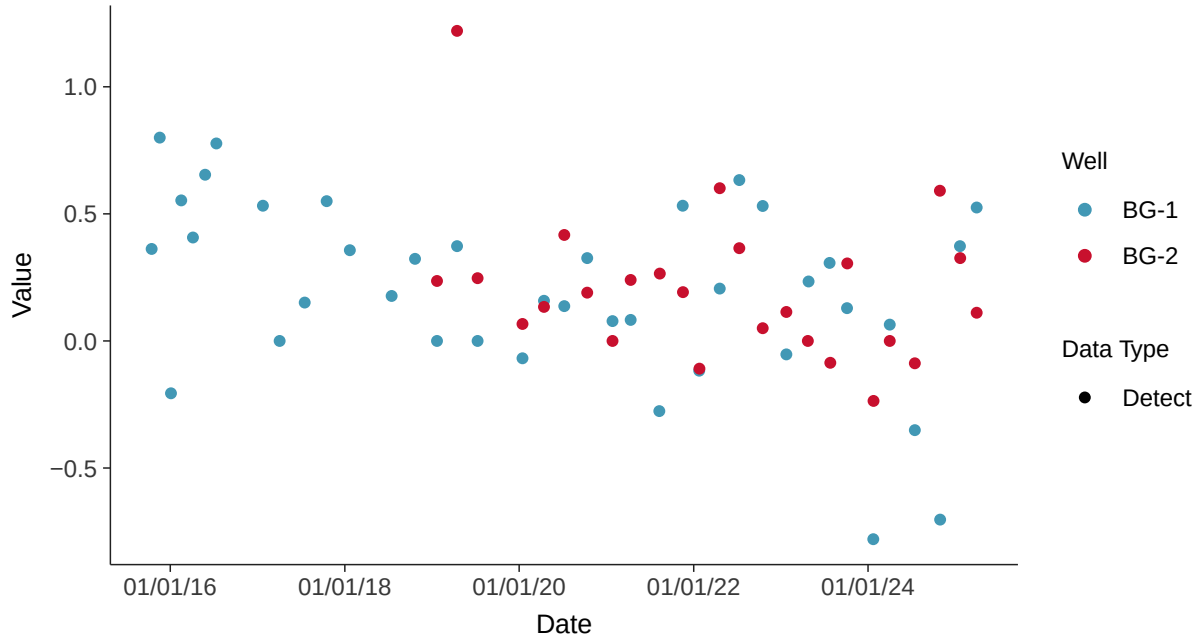
Scatter Plot

Radium-226, BG-1 & BG-2 (pCi/L)



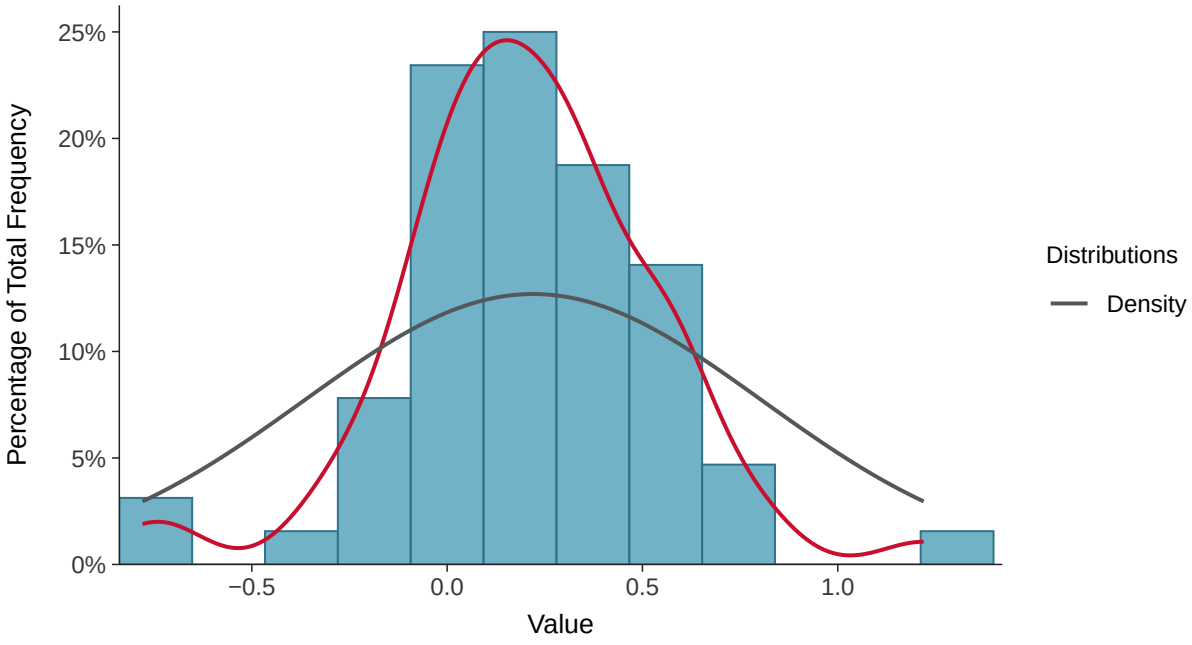
Scatter Plot by Well

Radium-226, BG-1 & BG-2 (pCi/L)



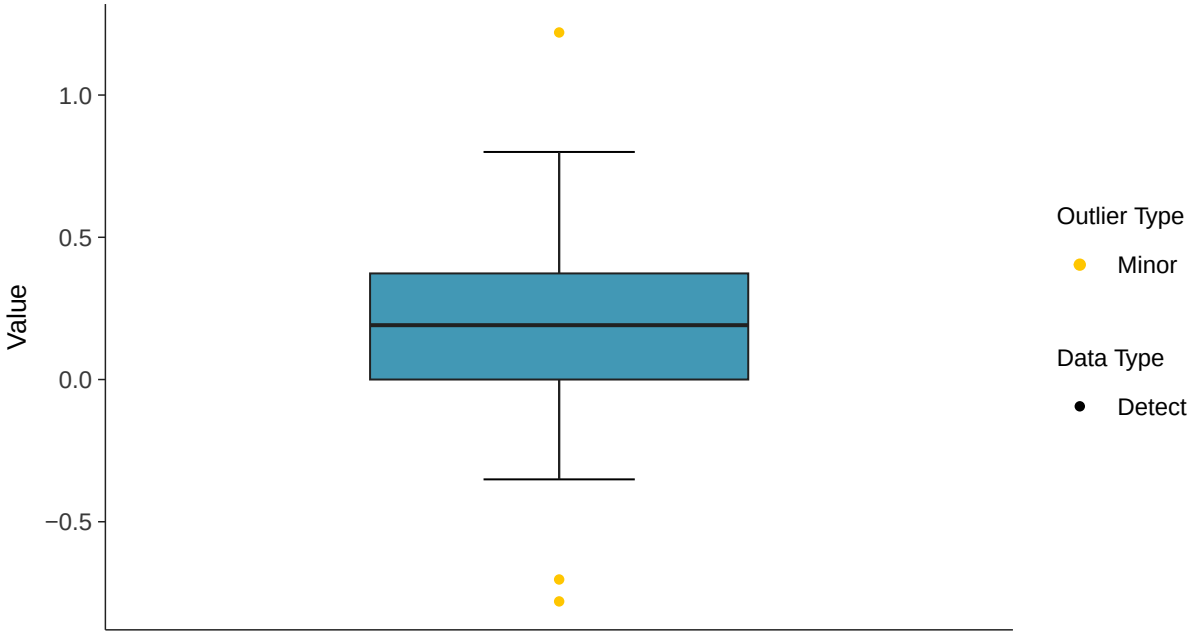
Histogram

Radium-226, BG-1 & BG-2 (pCi/L)



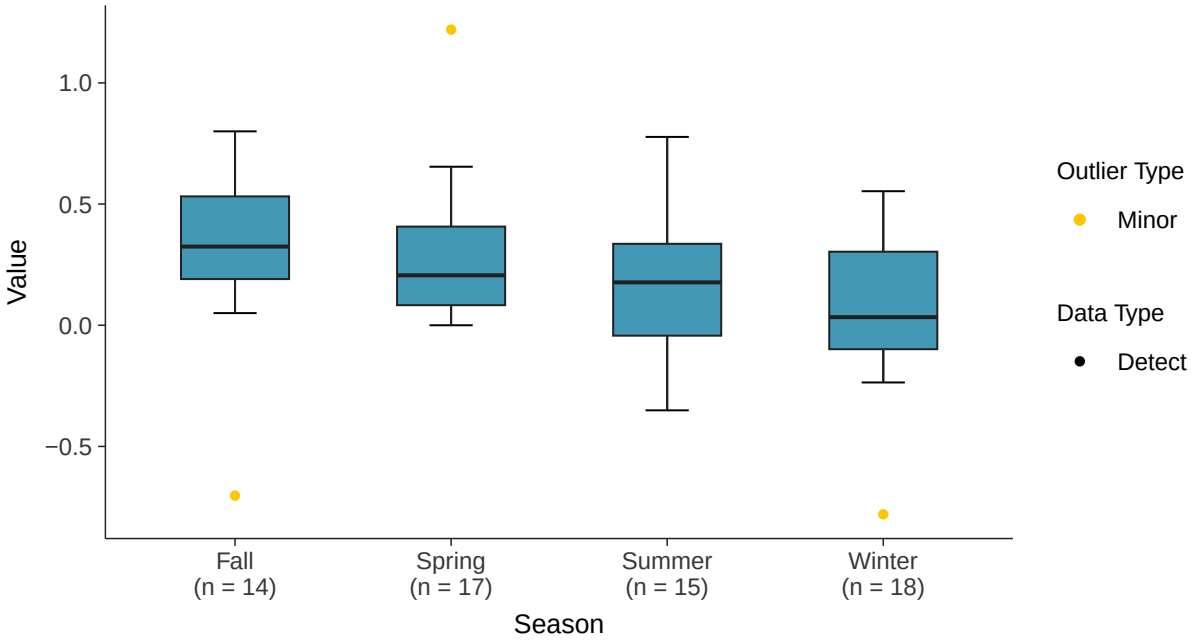
Boxplot

Radium-226, BG-1 & BG-2 (pCi/L)



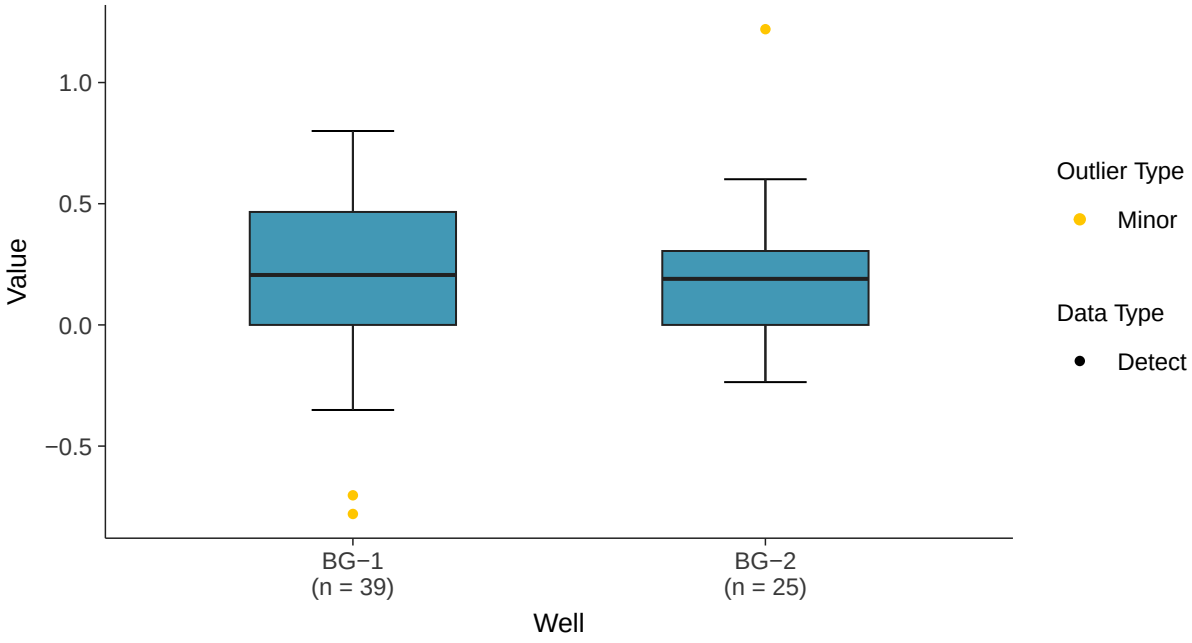
Boxplot by Season

Radium-226, BG-1 & BG-2 (pCi/L)



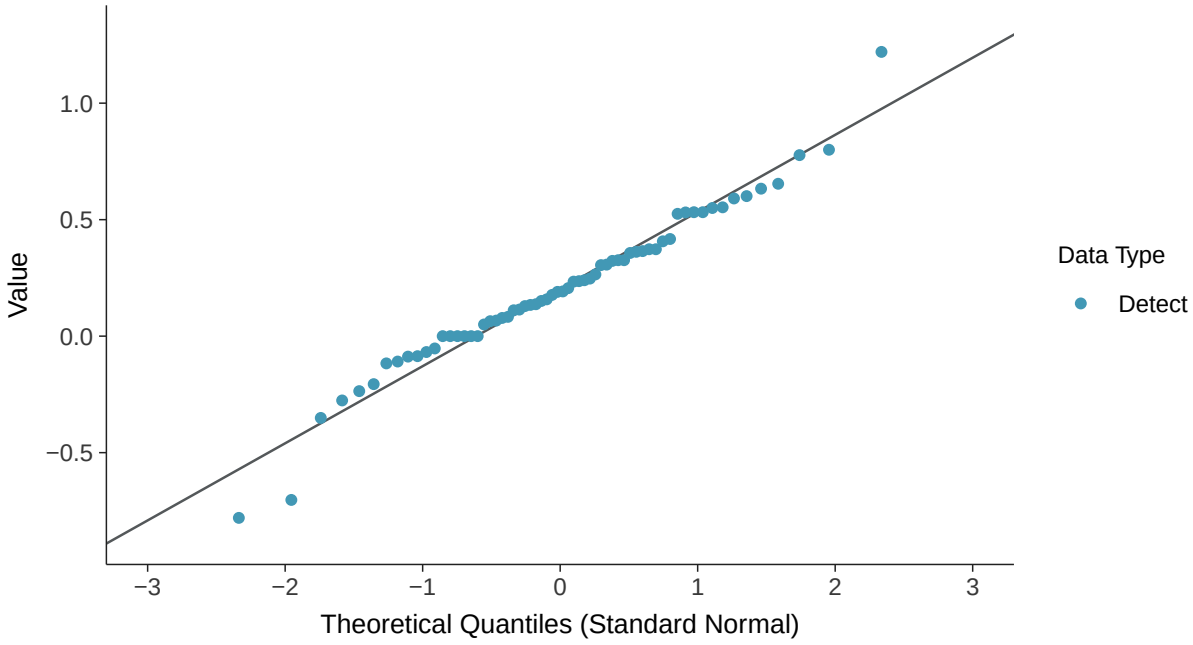
Boxplot by Well

Radium-226, BG-1 & BG-2 (pCi/L)



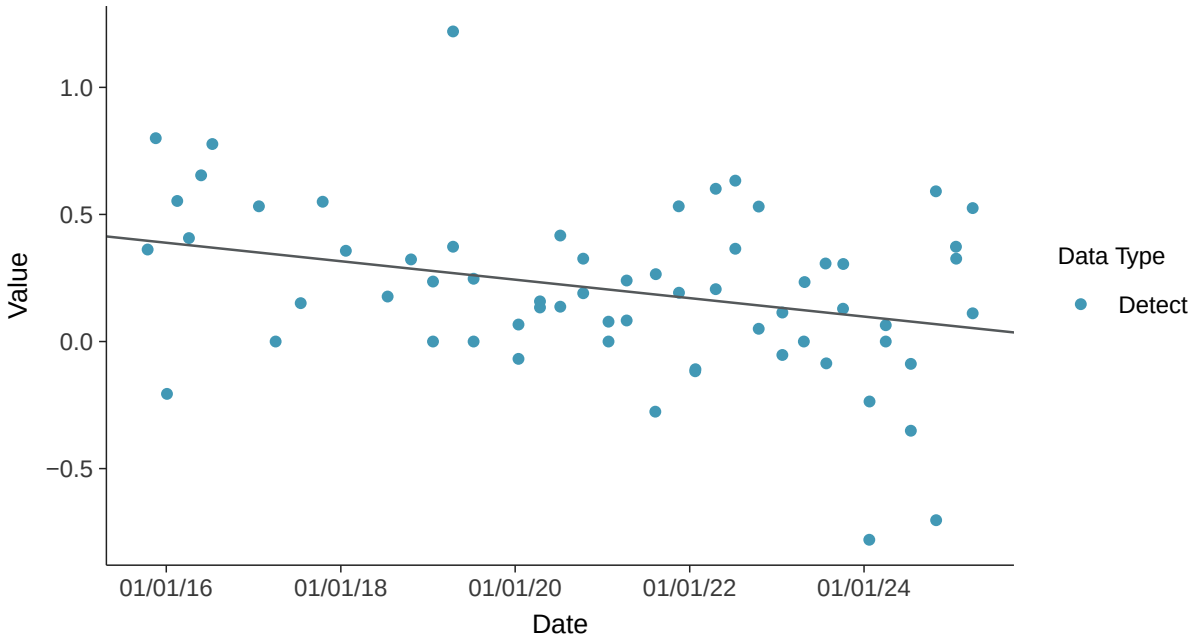
Normal Q-Q plot

Radium-226, BG-1 & BG-2 (pCi/L)



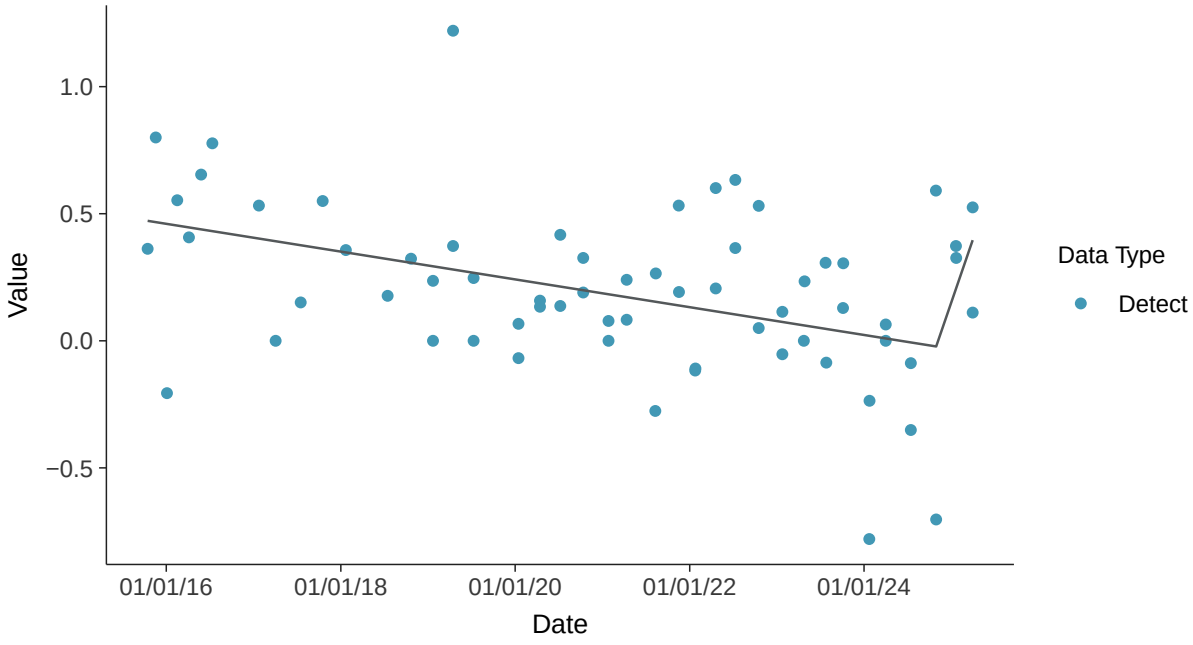
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Radium-226, BG-1 & BG-2 (pCi/L)



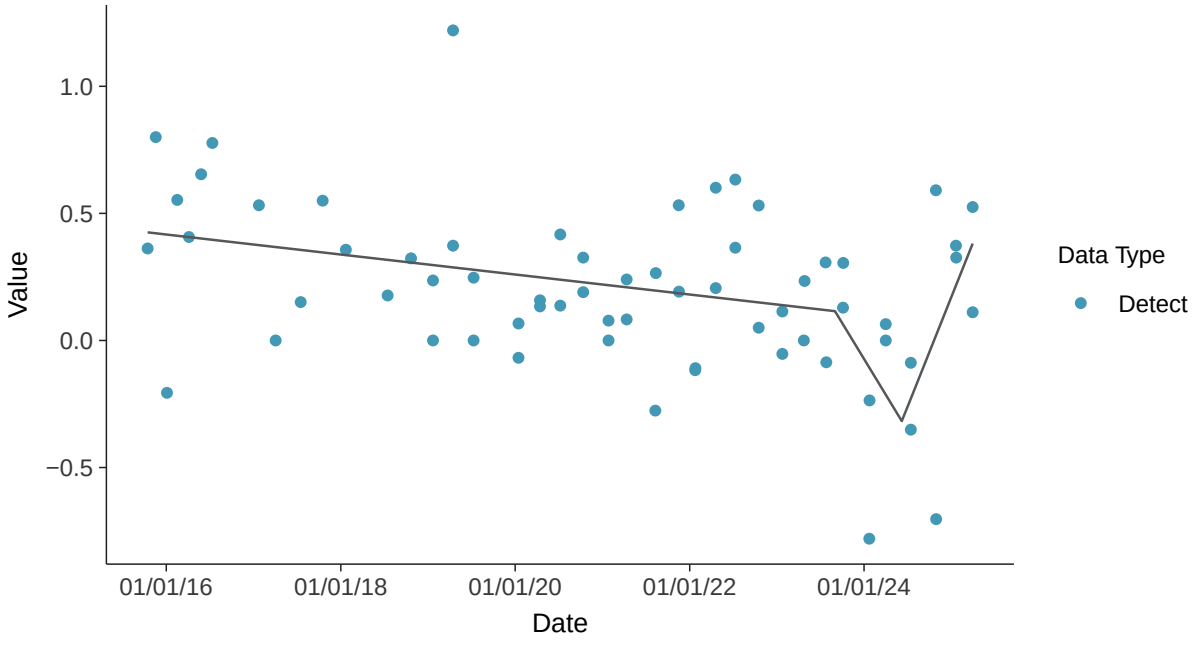
Trend Regression: Piecewise Linear-Linear

Radium-226, BG-1 & BG-2 (pCi/L)



Trend Regression: Piecewise Linear-Linear-Linear

Radium-226, BG-1 & BG-2 (pCi/L)

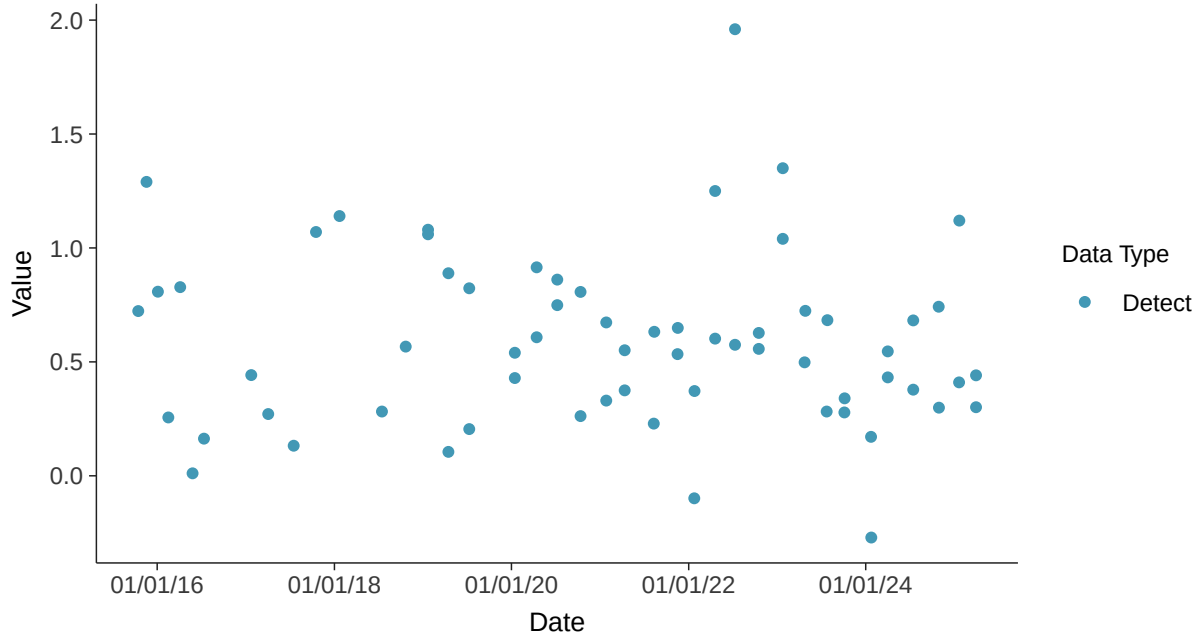


App. IV: Radium-228, BG-1 & BG-2

ID: 3_120

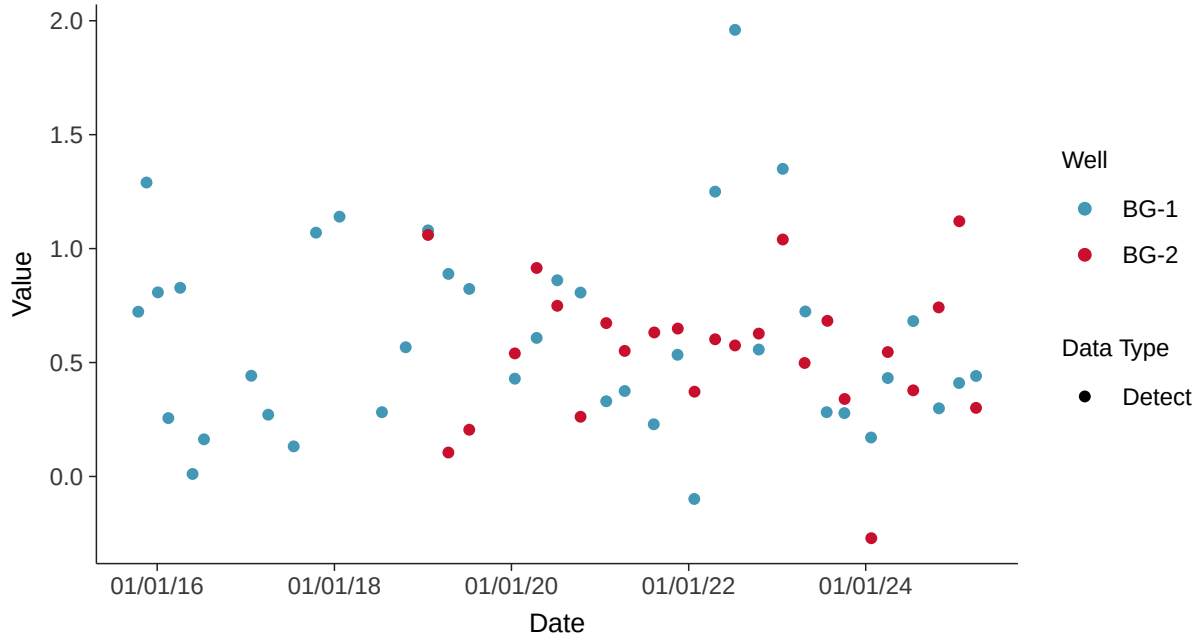
Scatter Plot

Radium-228, BG-1 & BG-2 (pCi/L)



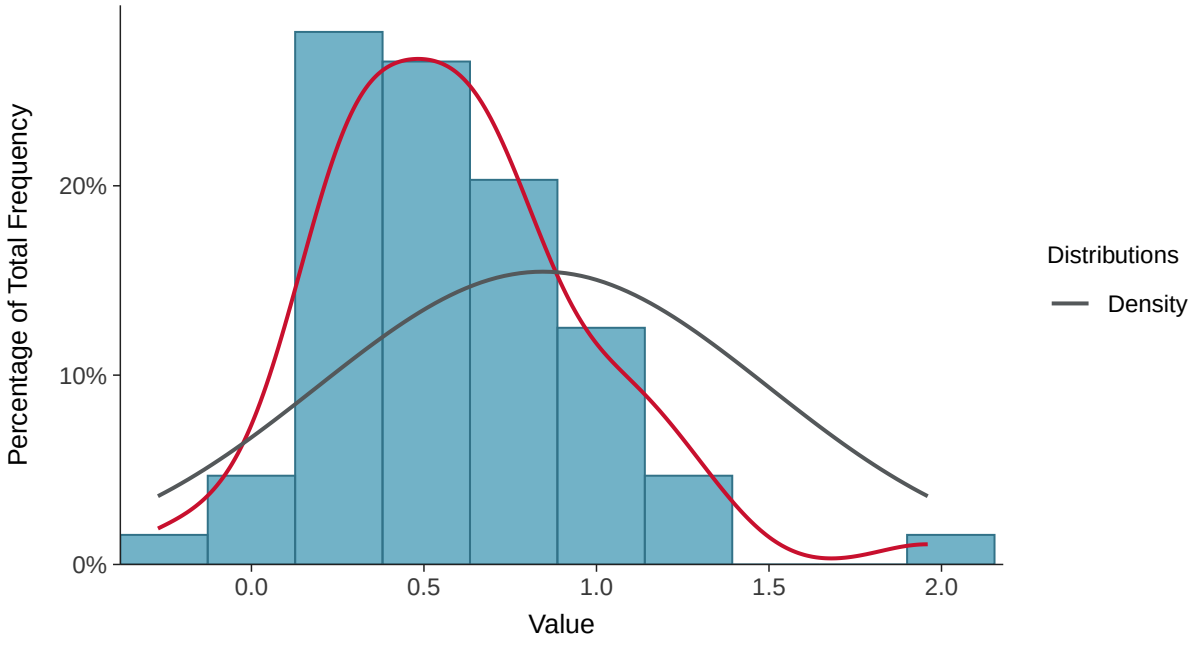
Scatter Plot by Well

Radium-228, BG-1 & BG-2 (pCi/L)



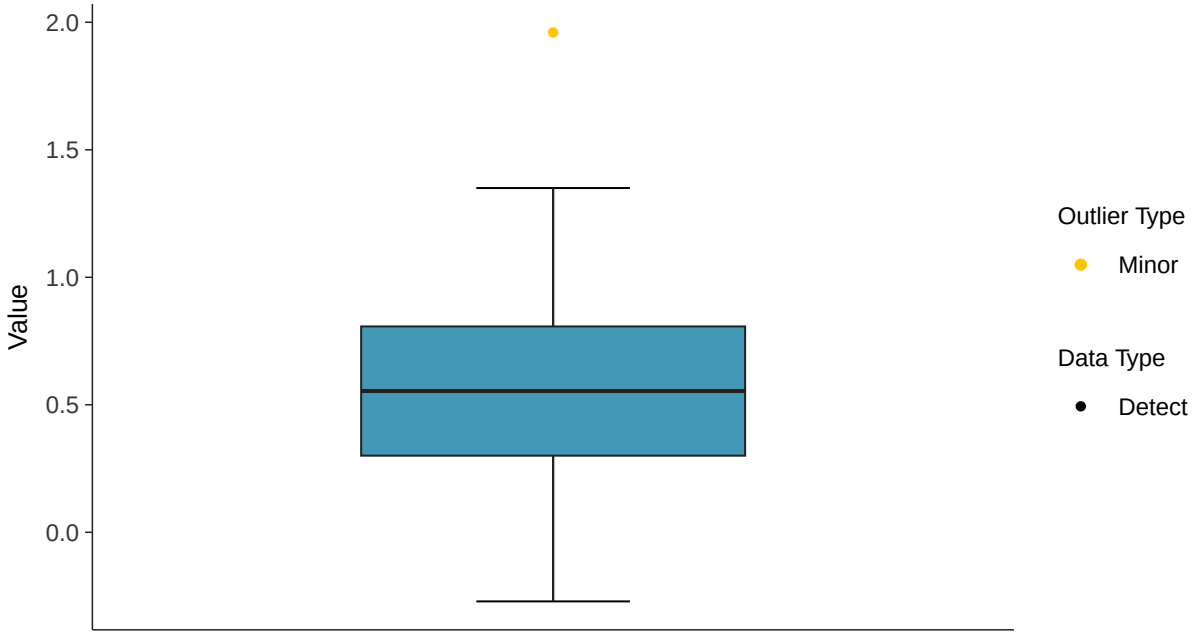
Histogram

Radium-228, BG-1 & BG-2 (pCi/L)



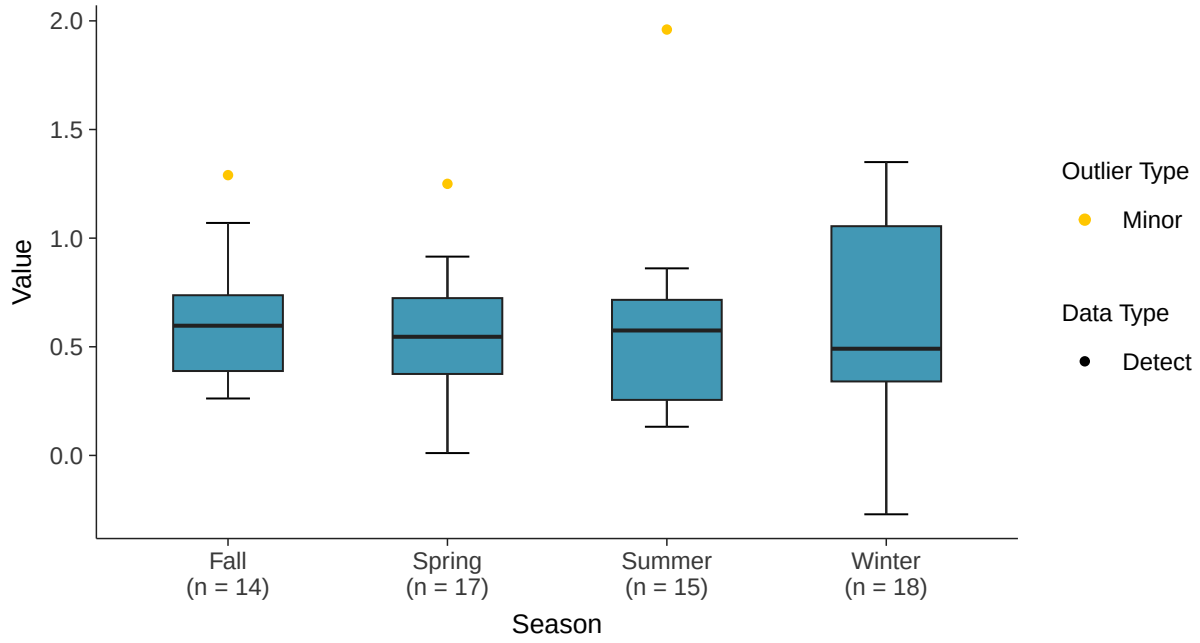
Boxplot

Radium-228, BG-1 & BG-2 (pCi/L)



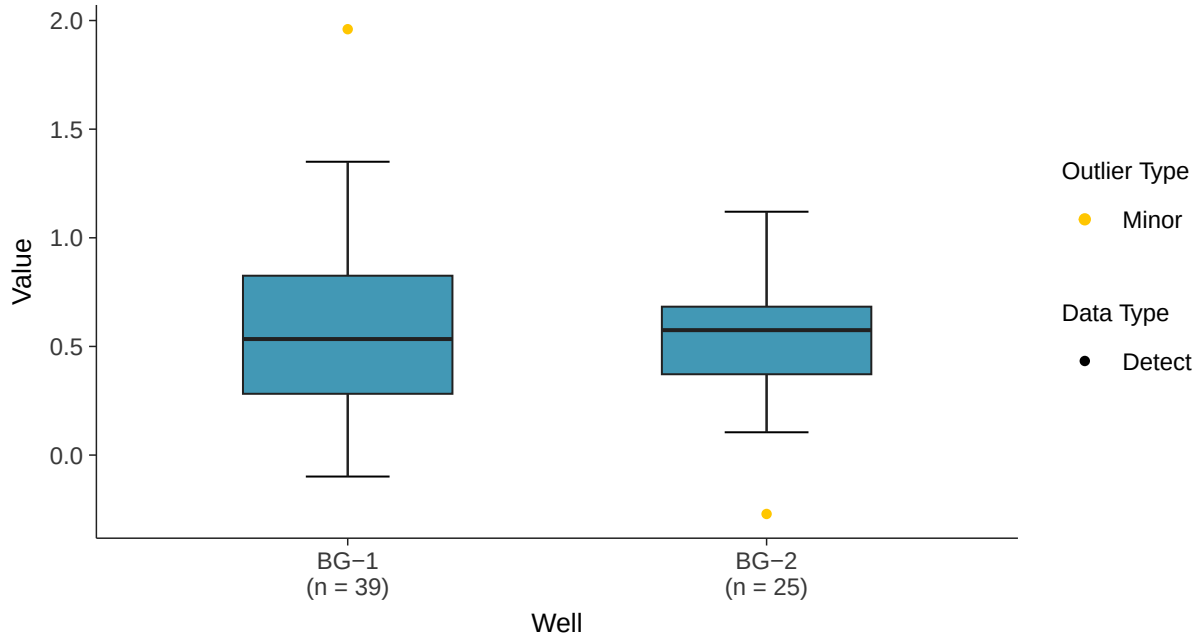
Boxplot by Season

Radium-228, BG-1 & BG-2 (pCi/L)



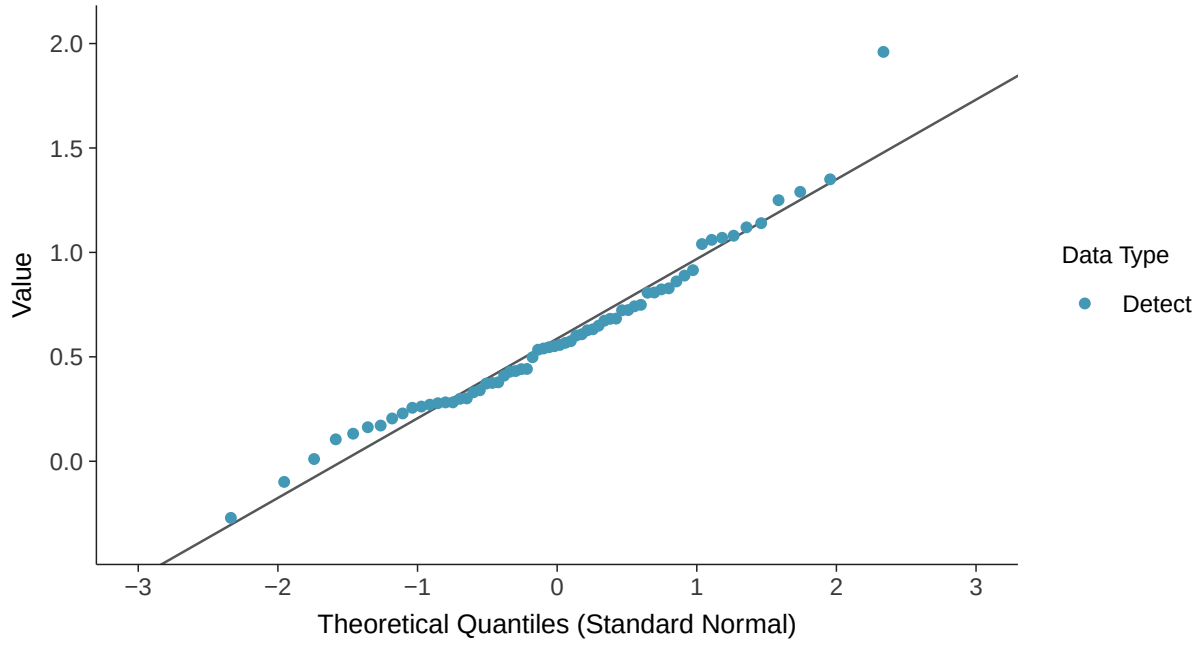
Boxplot by Well

Radium-228, BG-1 & BG-2 (pCi/L)



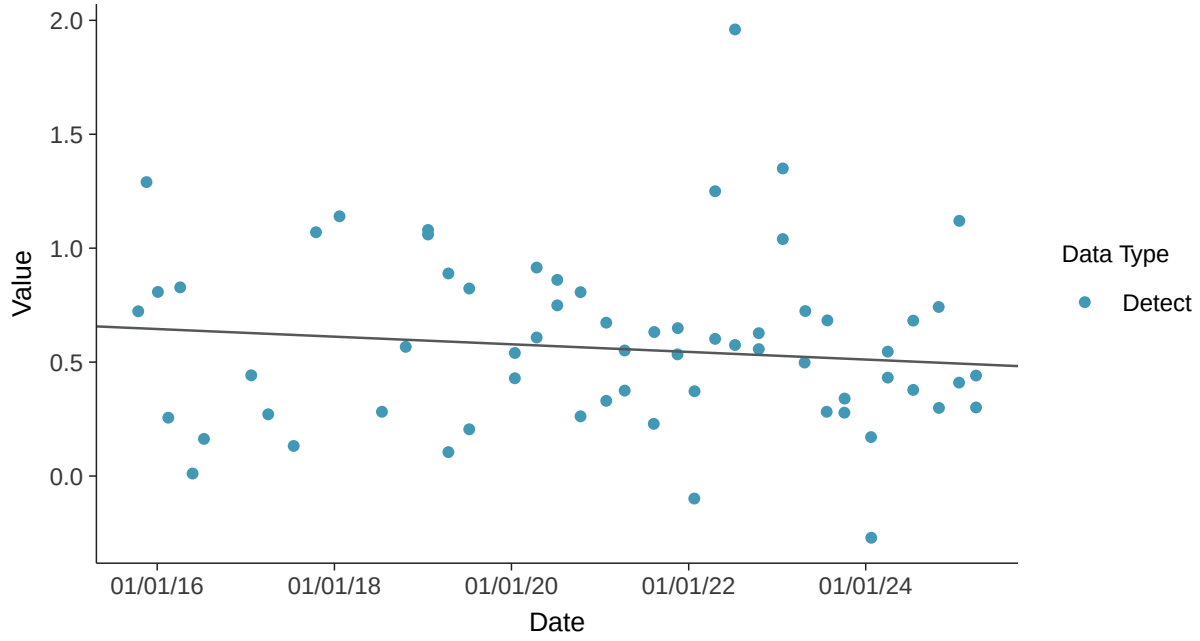
Normal Q-Q plot

Radium-228, BG-1 & BG-2 (pCi/L)



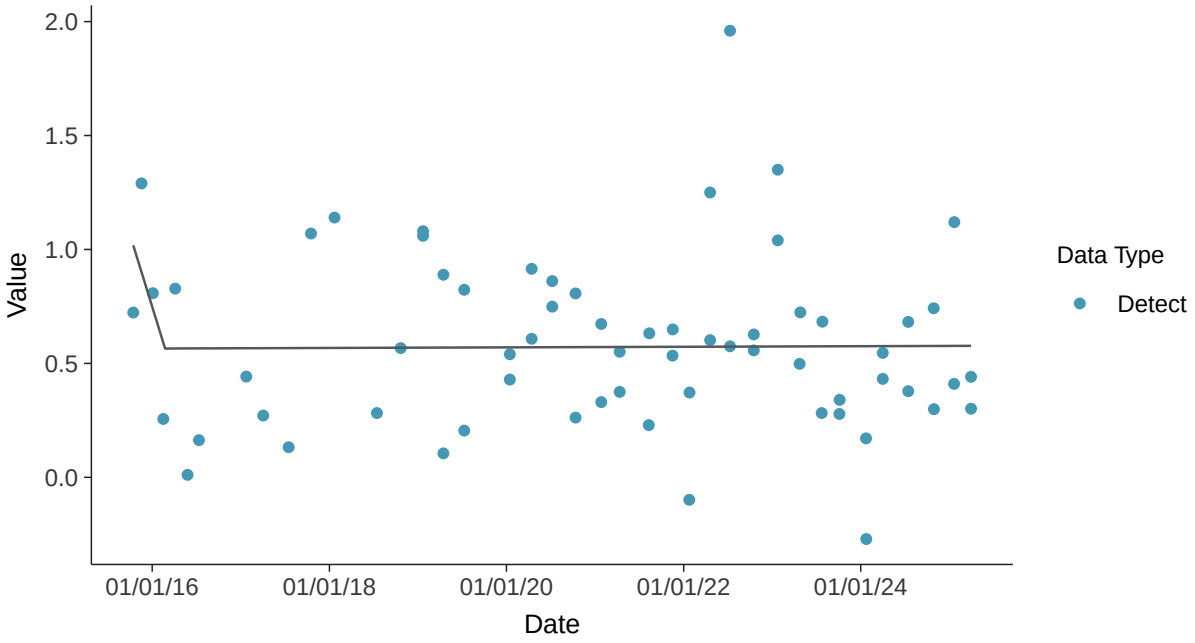
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Radium-228, BG-1 & BG-2 (pCi/L)



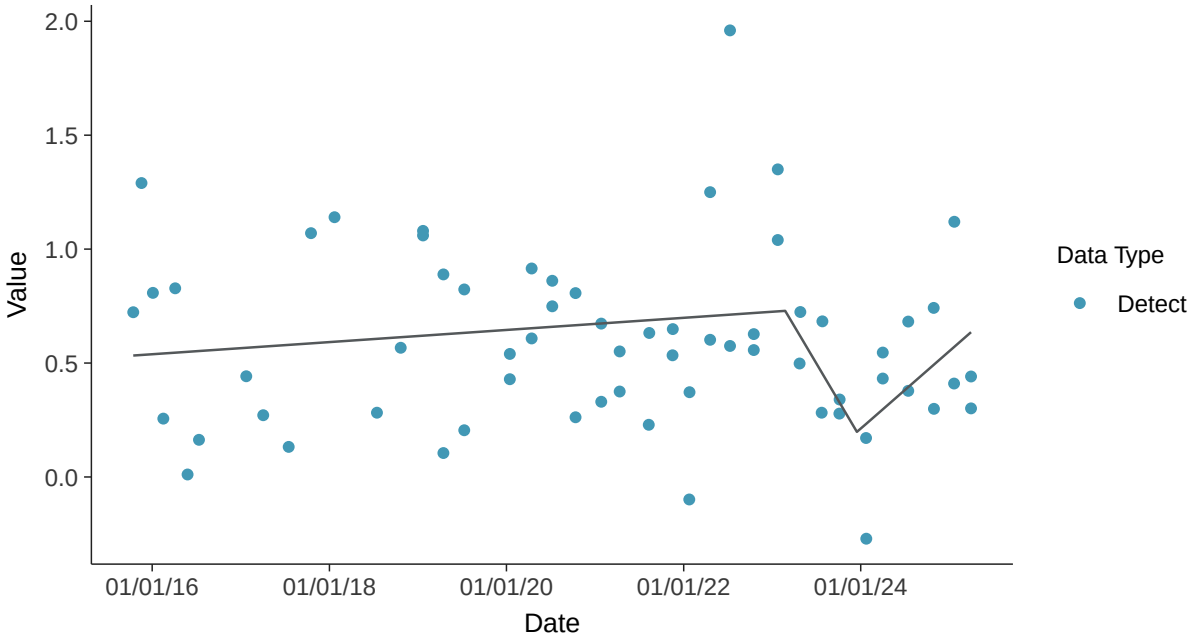
Trend Regression: Piecewise Linear-Linear

Radium-228, BG-1 & BG-2 (pCi/L)



Trend Regression: Piecewise Linear-Linear-Linear

Radium-228, BG-1 & BG-2 (pCi/L)

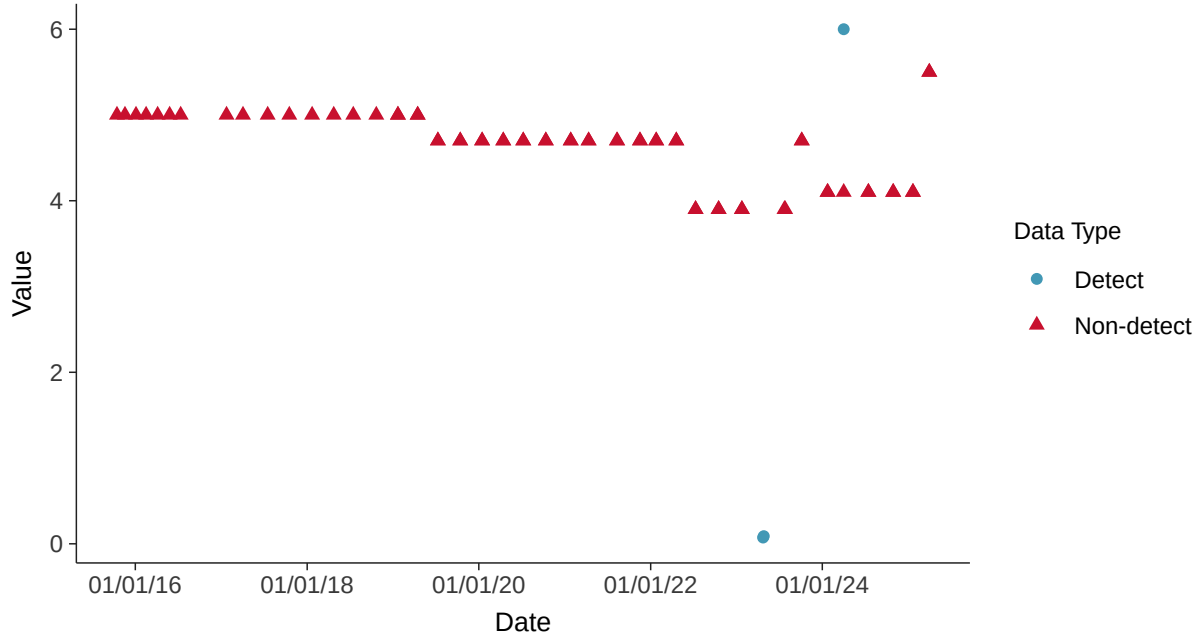


App. IV: Selenium, BG-1 & BG-2

ID: 3_121

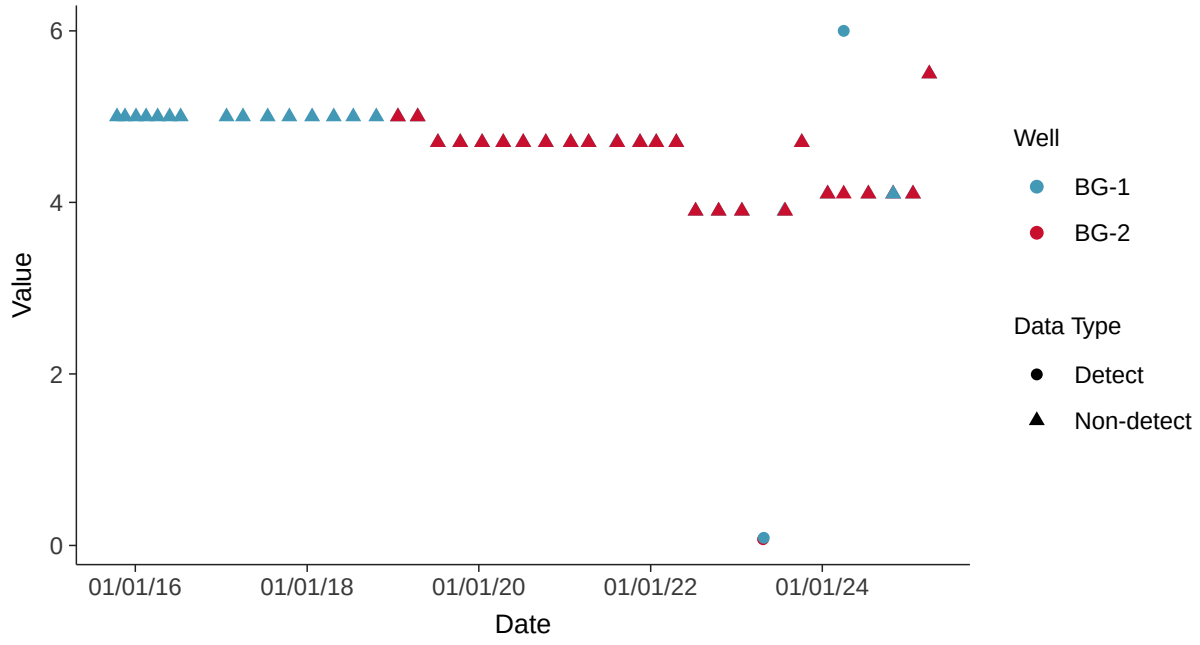
Scatter Plot

Selenium, BG-1 & BG-2 (ug/L)



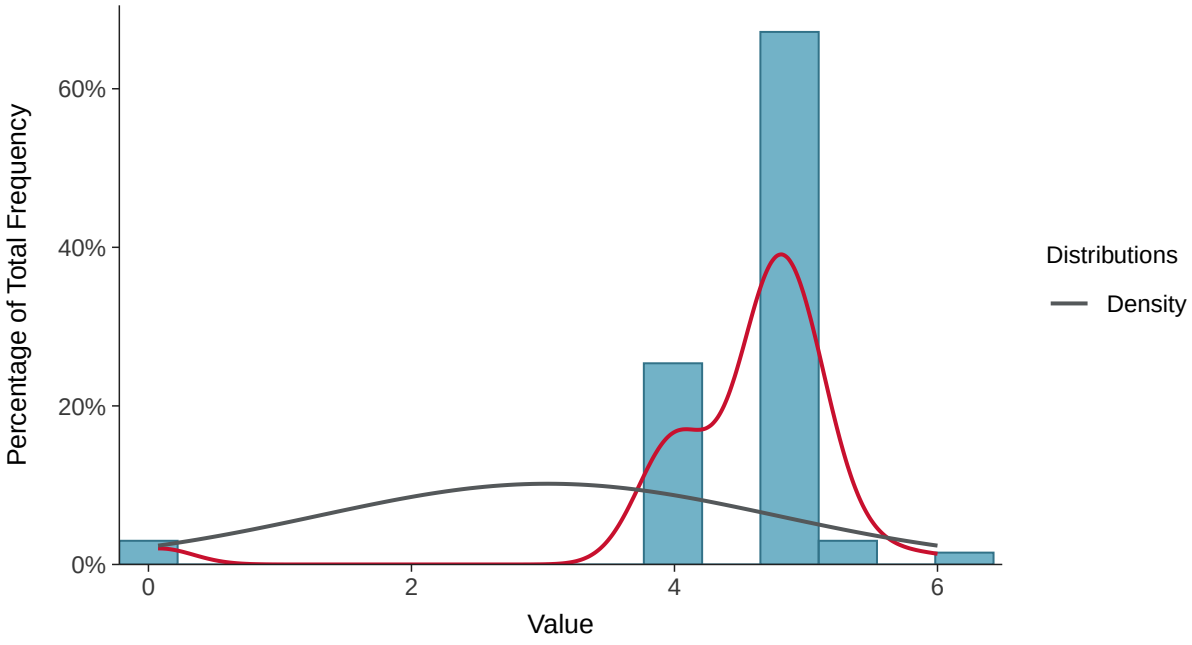
Scatter Plot by Well

Selenium, BG-1 & BG-2 (ug/L)



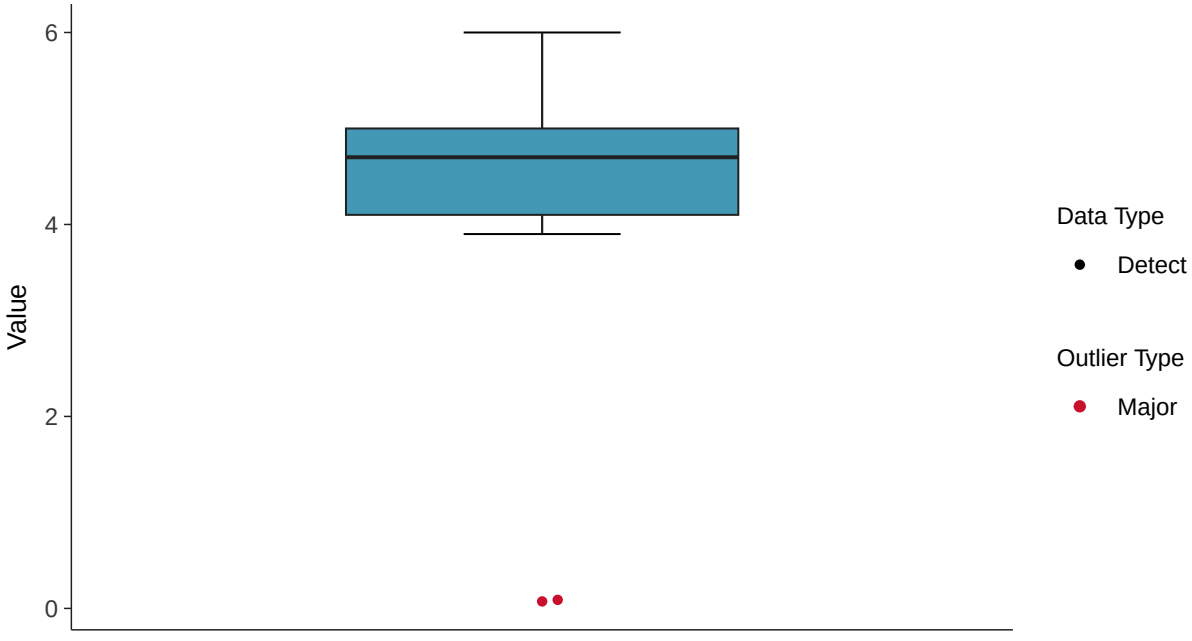
Histogram

Selenium, BG-1 & BG-2 (ug/L)



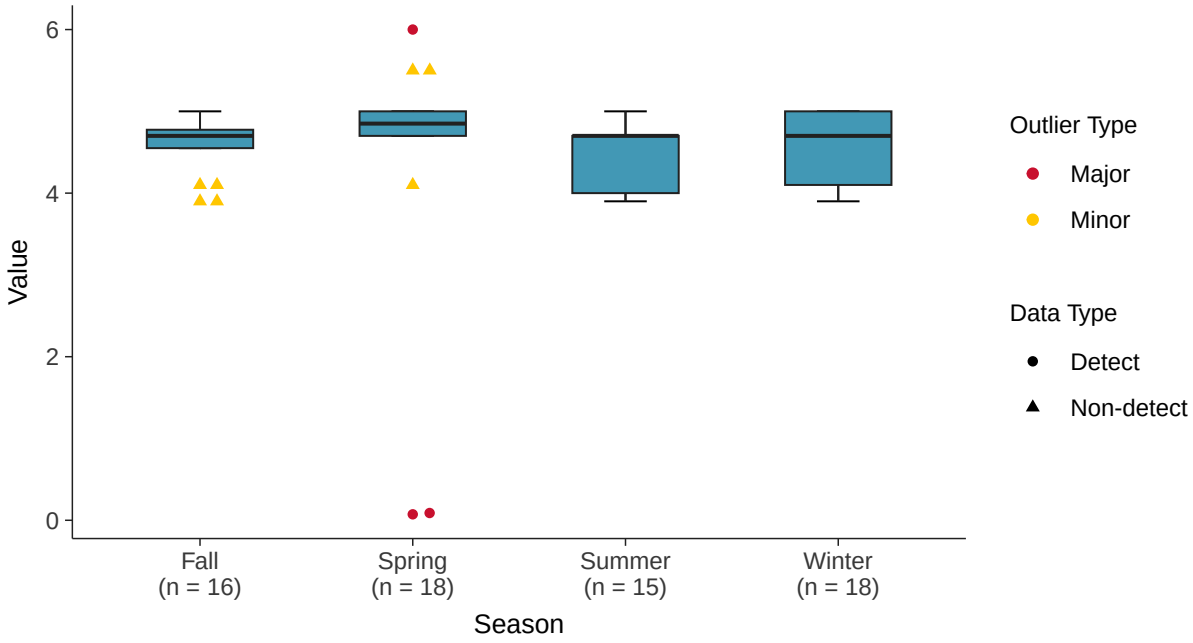
Boxplot

Selenium, BG-1 & BG-2 (ug/L)



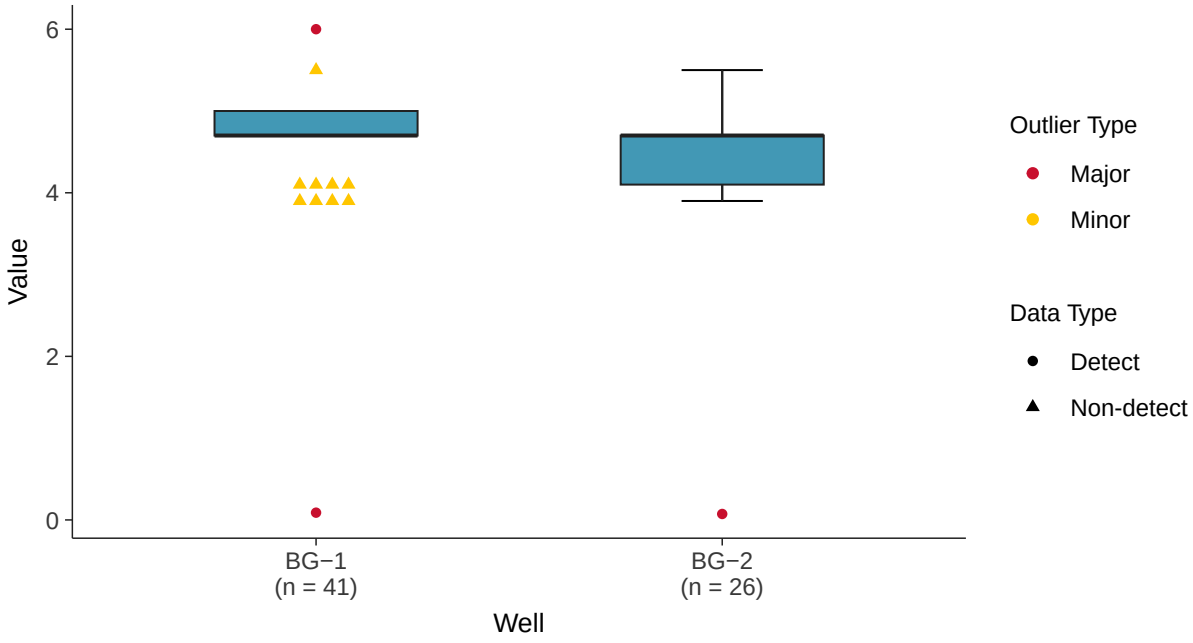
Boxplot by Season

Selenium, BG-1 & BG-2 (ug/L)



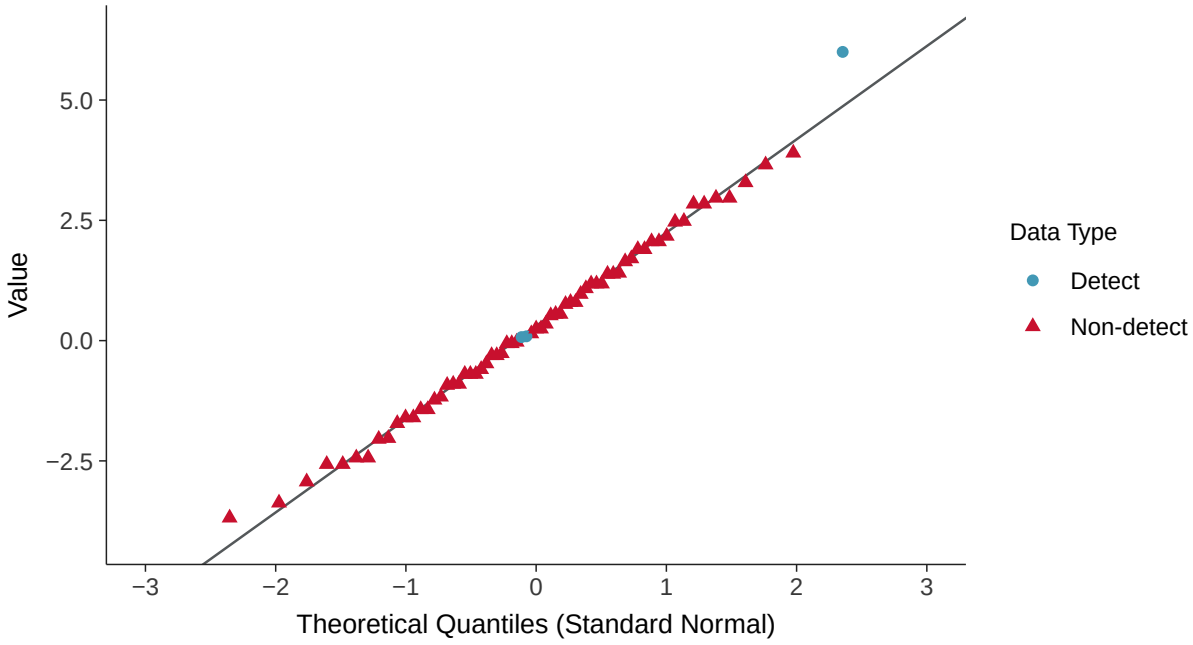
Boxplot by Well

Selenium, BG-1 & BG-2 (ug/L)



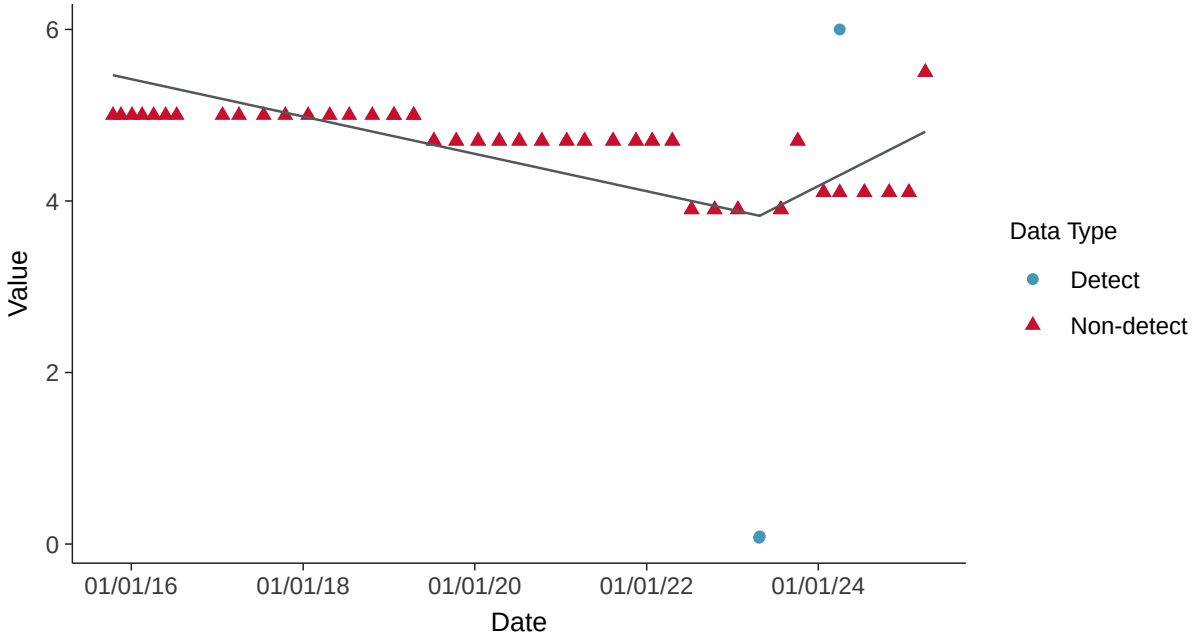
Normal Q-Q plot using ROS Imputed Estimates

Selenium, BG-1 & BG-2 (ug/L)



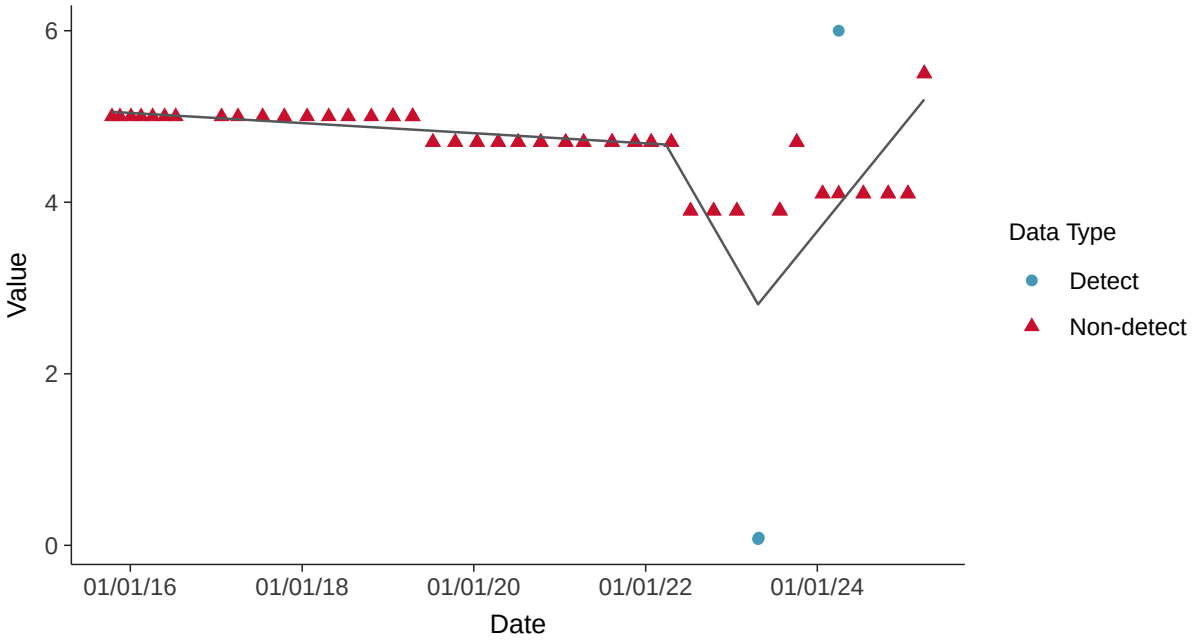
Trend Regression: Piecewise Linear-Linear

Selenium, BG-1 & BG-2 (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Selenium, BG-1 & BG-2 (ug/L)

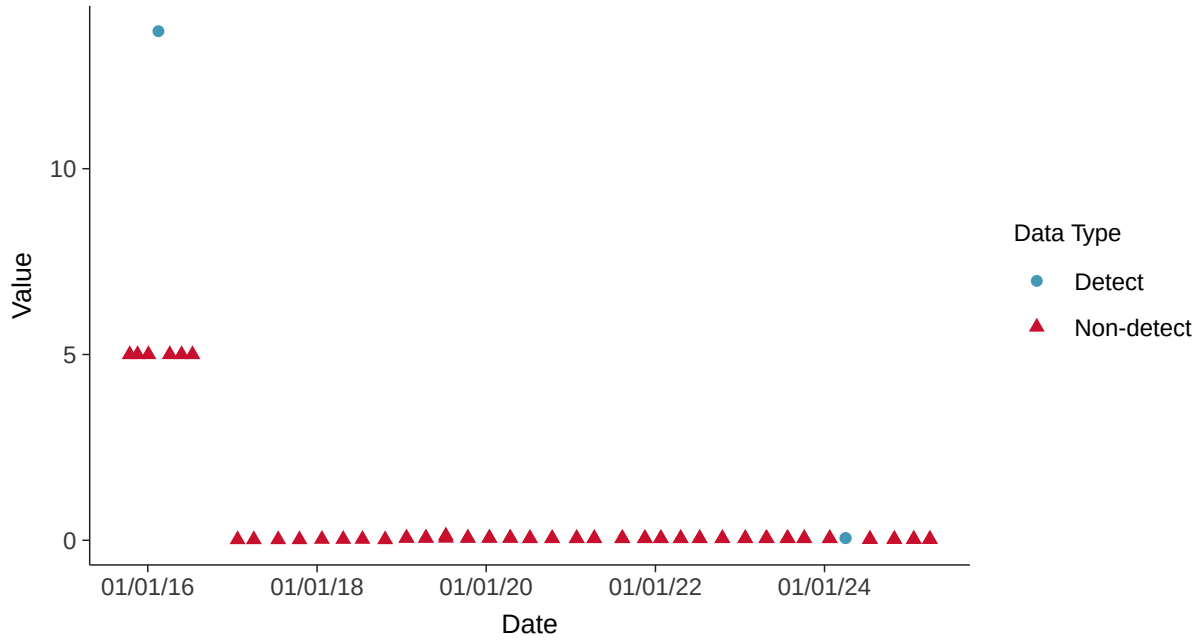


App. IV: Thallium, BG-1 & BG-2

ID: 3_124

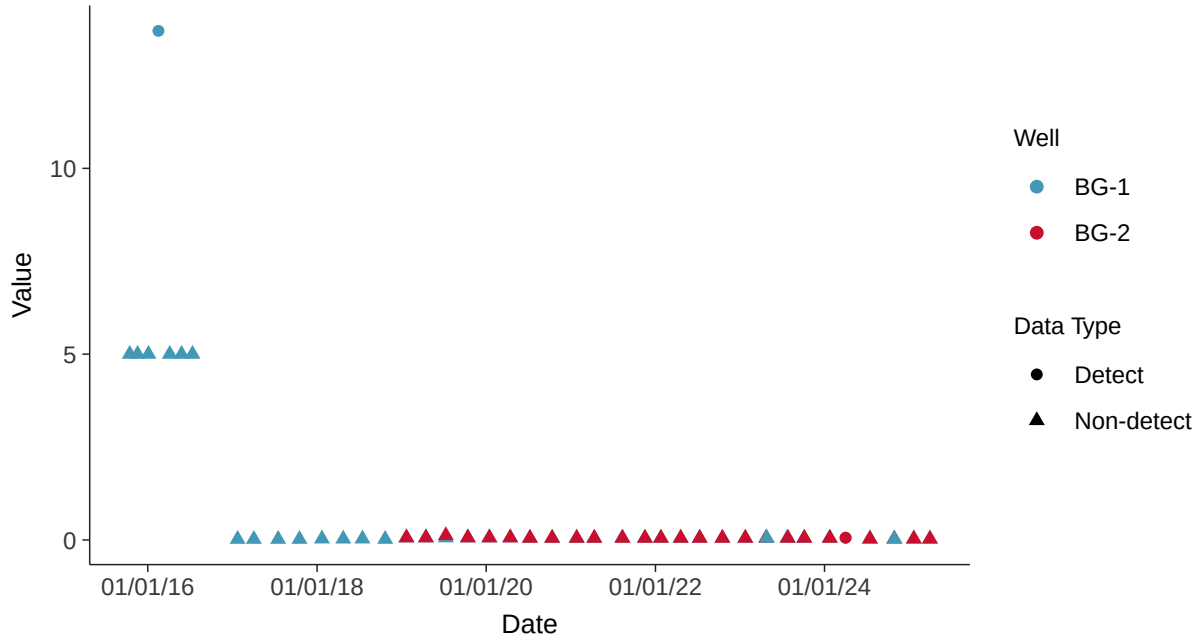
Scatter Plot

Thallium, BG-1 & BG-2 (ug/L)



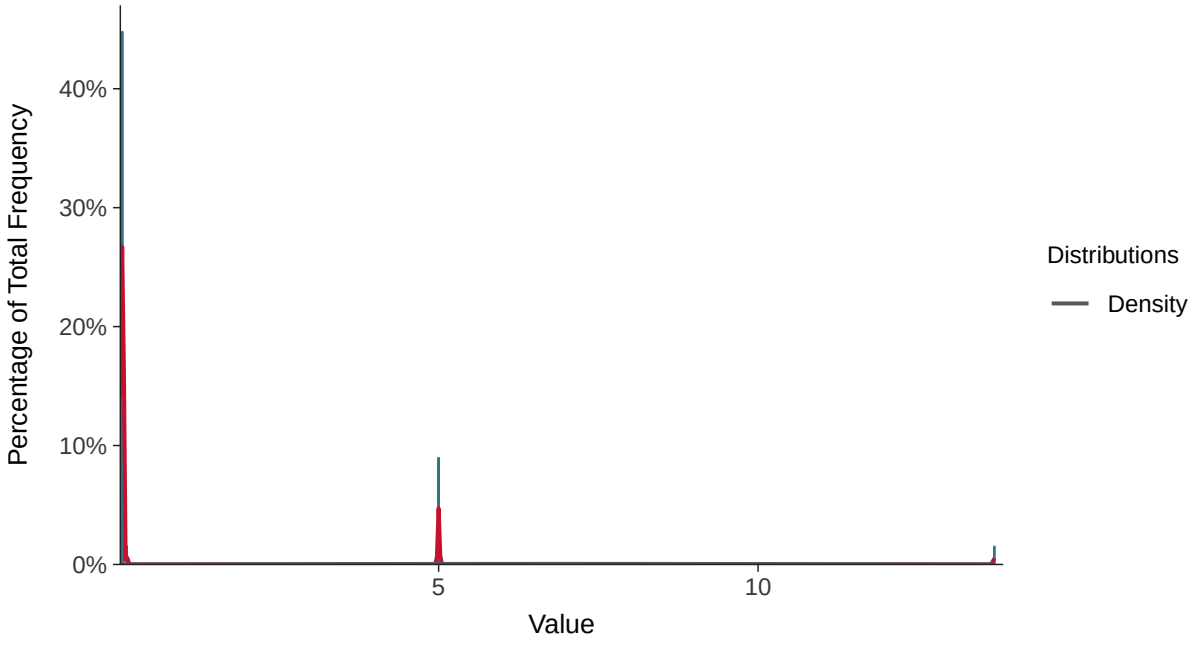
Scatter Plot by Well

Thallium, BG-1 & BG-2 (ug/L)



Histogram

Thallium, BG-1 & BG-2 (ug/L)

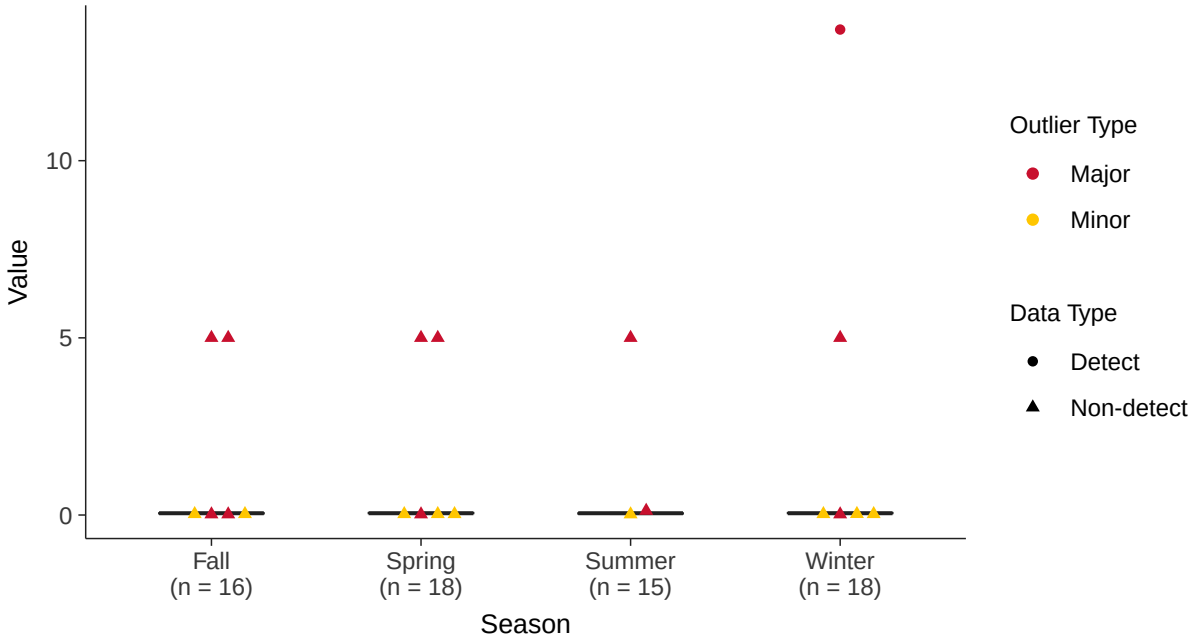


Boxplot

Thallium, BG-1 & BG-2 (ug/L)

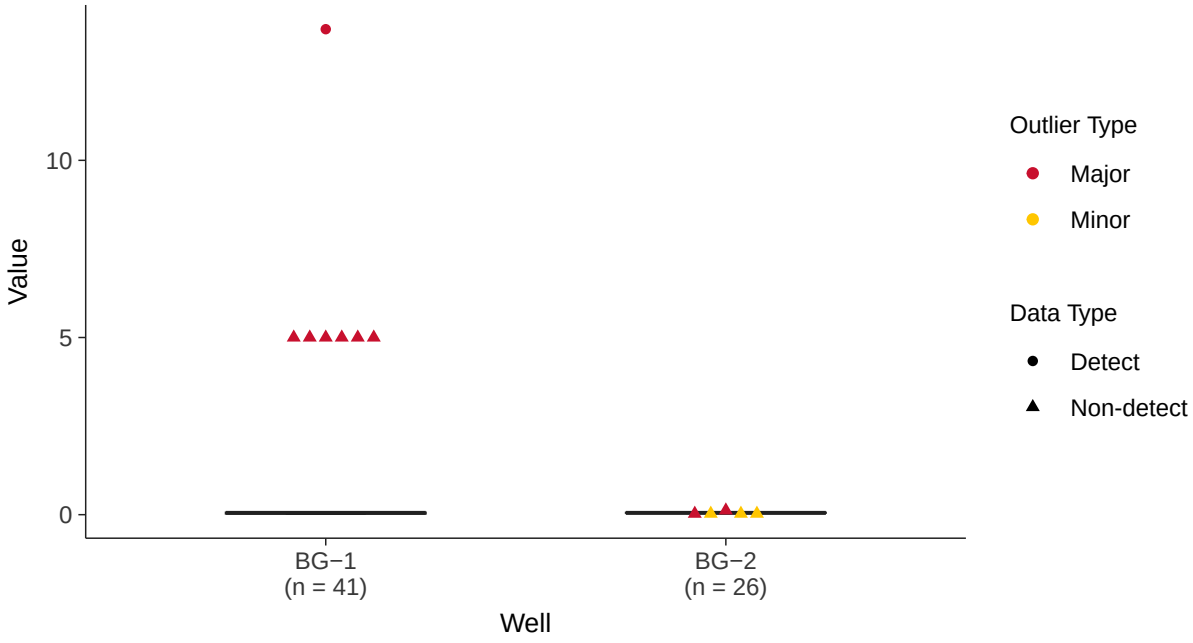
Boxplot by Season

Thallium, BG-1 & BG-2 (ug/L)



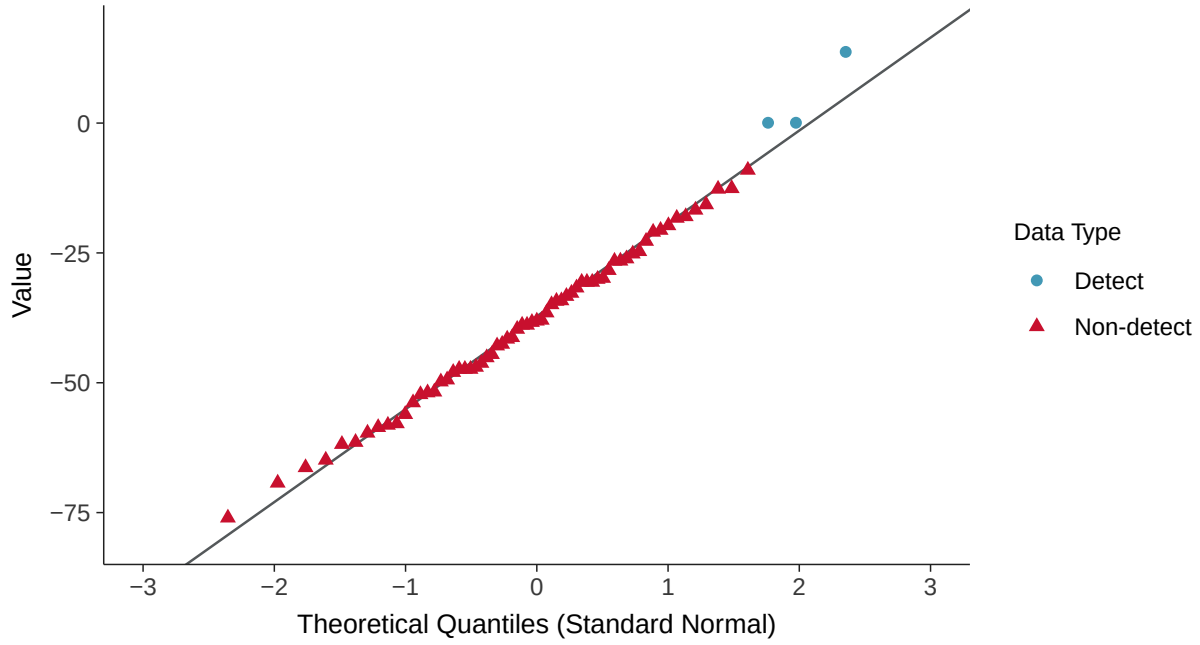
Boxplot by Well

Thallium, BG-1 & BG-2 (ug/L)



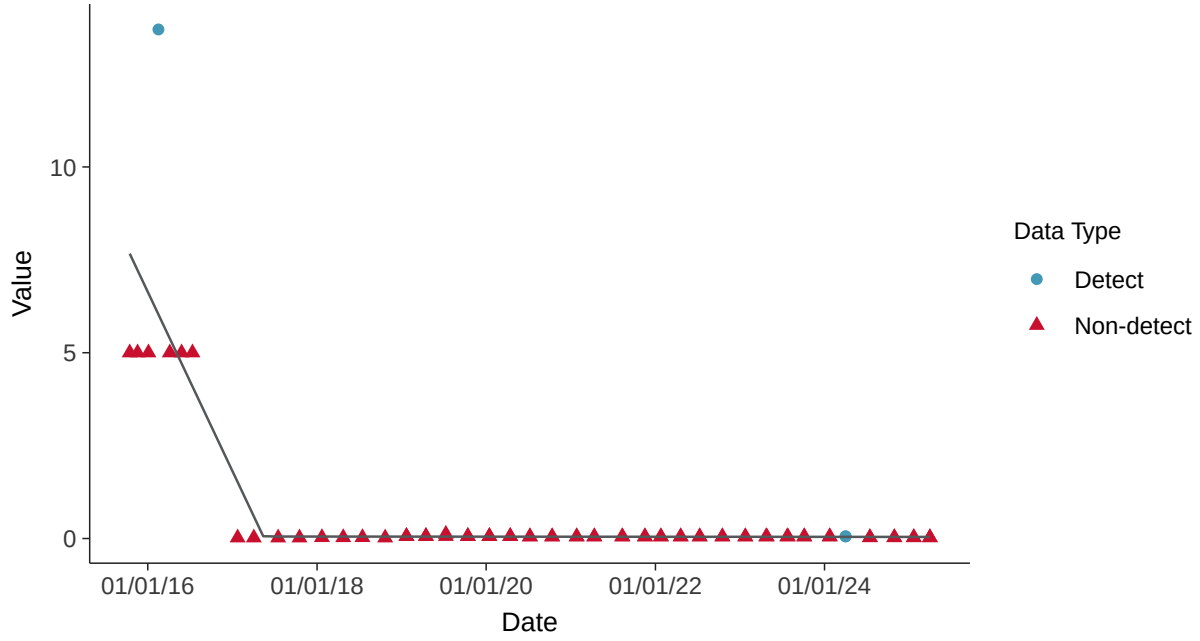
Normal Q-Q plot using ROS Imputed Estimates

Thallium, BG-1 & BG-2 (ug/L)



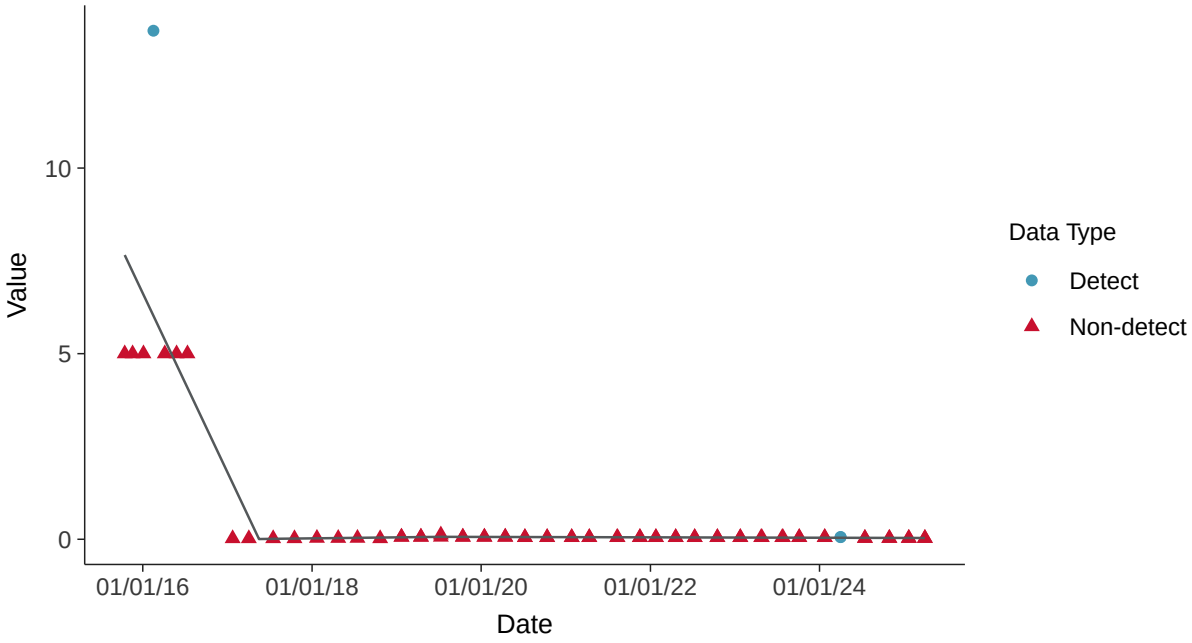
Trend Regression: Piecewise Linear-Linear

Thallium, BG-1 & BG-2 (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Thallium, BG-1 & BG-2 (ug/L)

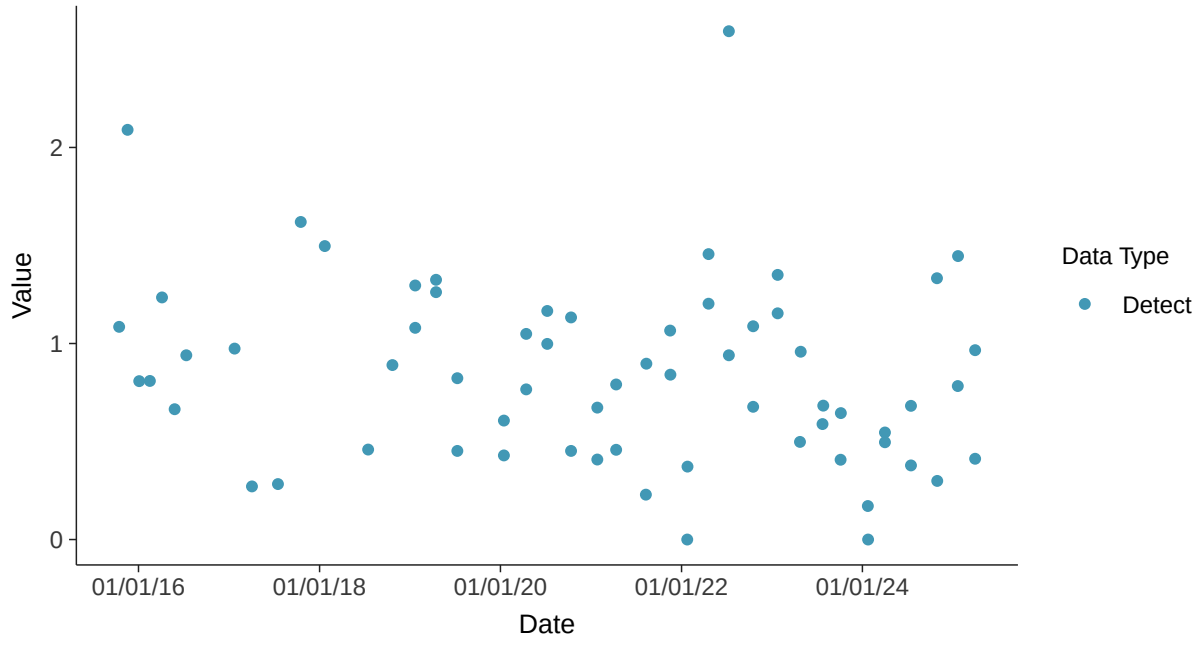


App. IV: Total Radium, BG-1 & BG-2

ID: 3_126

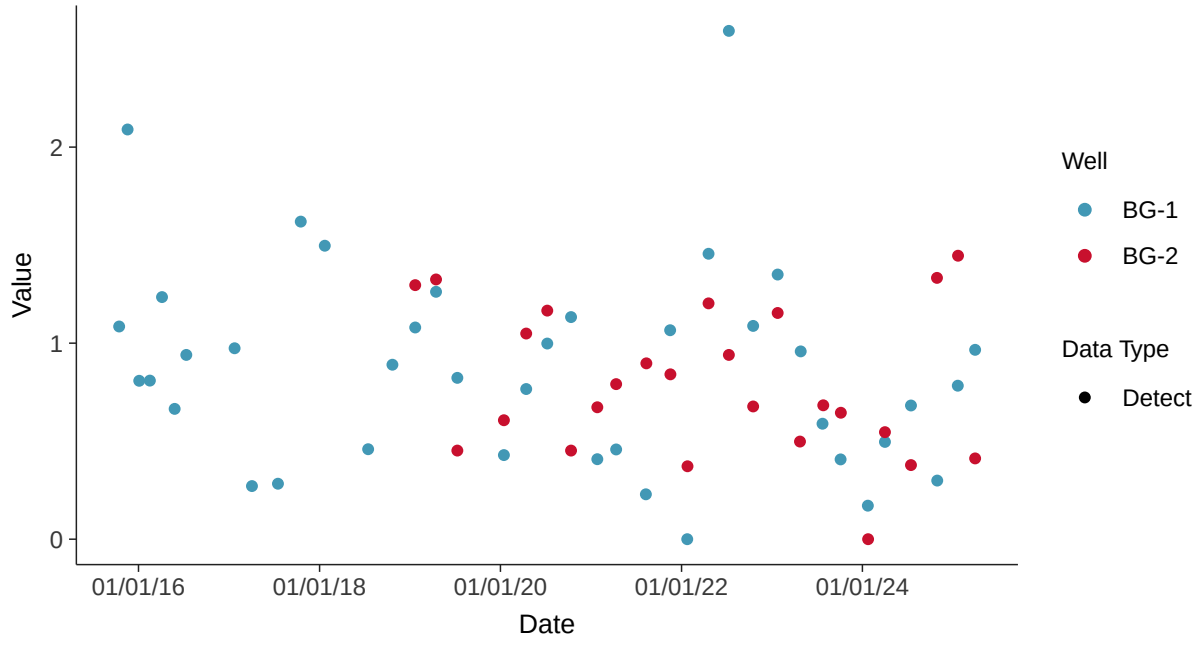
Scatter Plot

Total Radium, BG-1 & BG-2 (pCi/L)



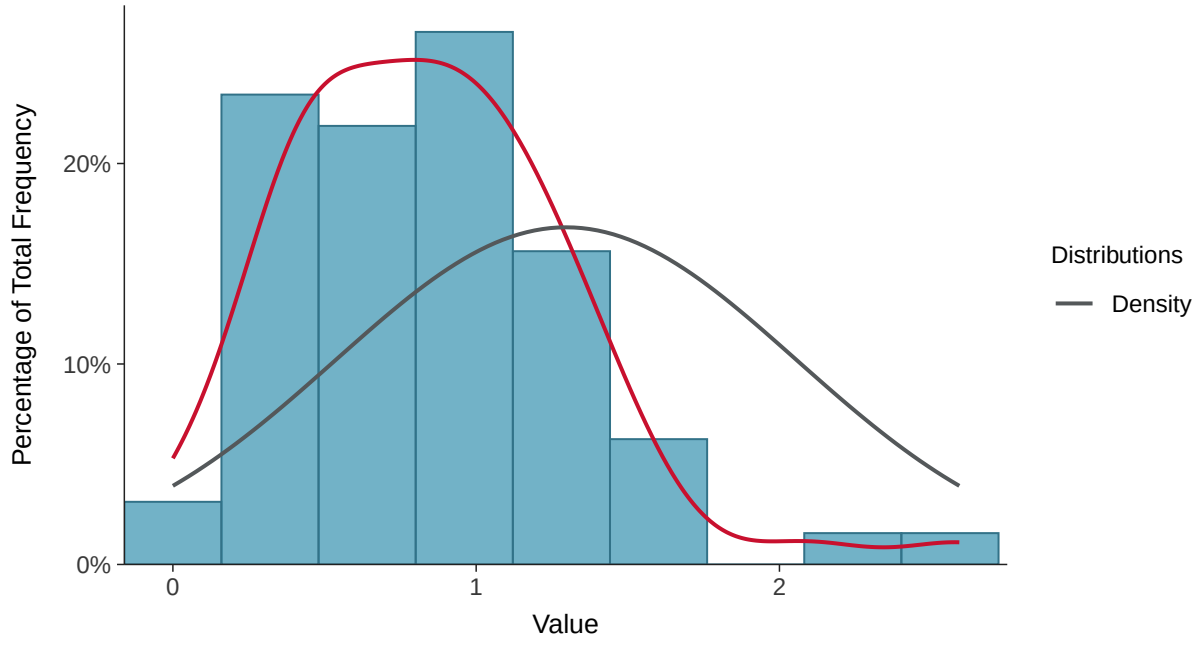
Scatter Plot by Well

Total Radium, BG-1 & BG-2 (pCi/L)



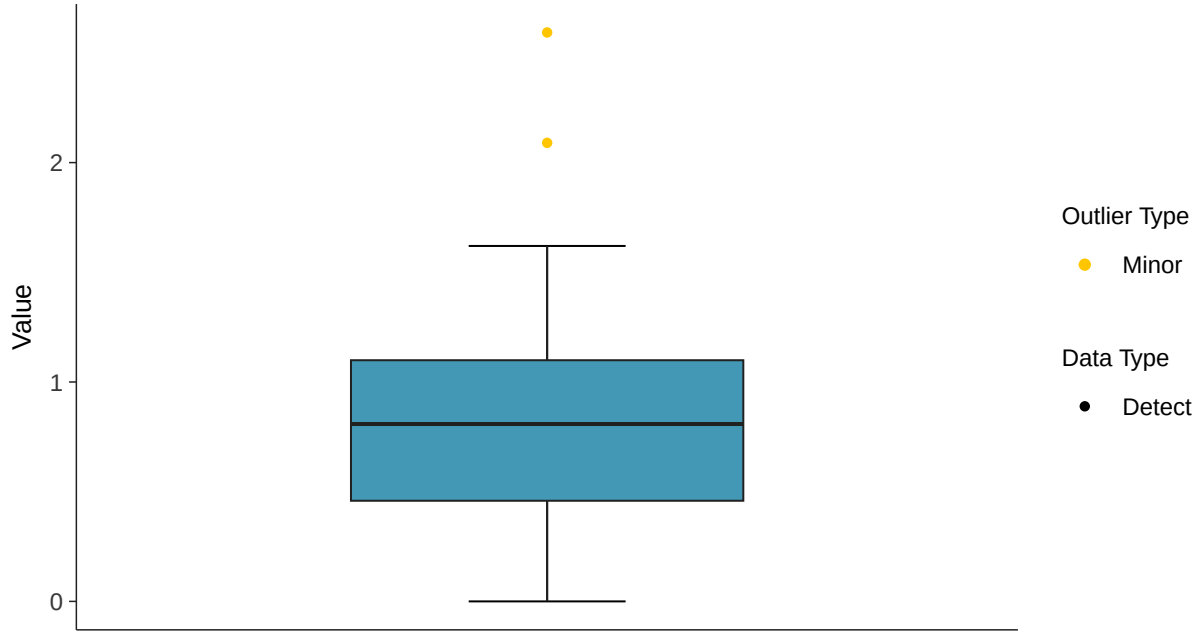
Histogram

Total Radium, BG-1 & BG-2 (pCi/L)



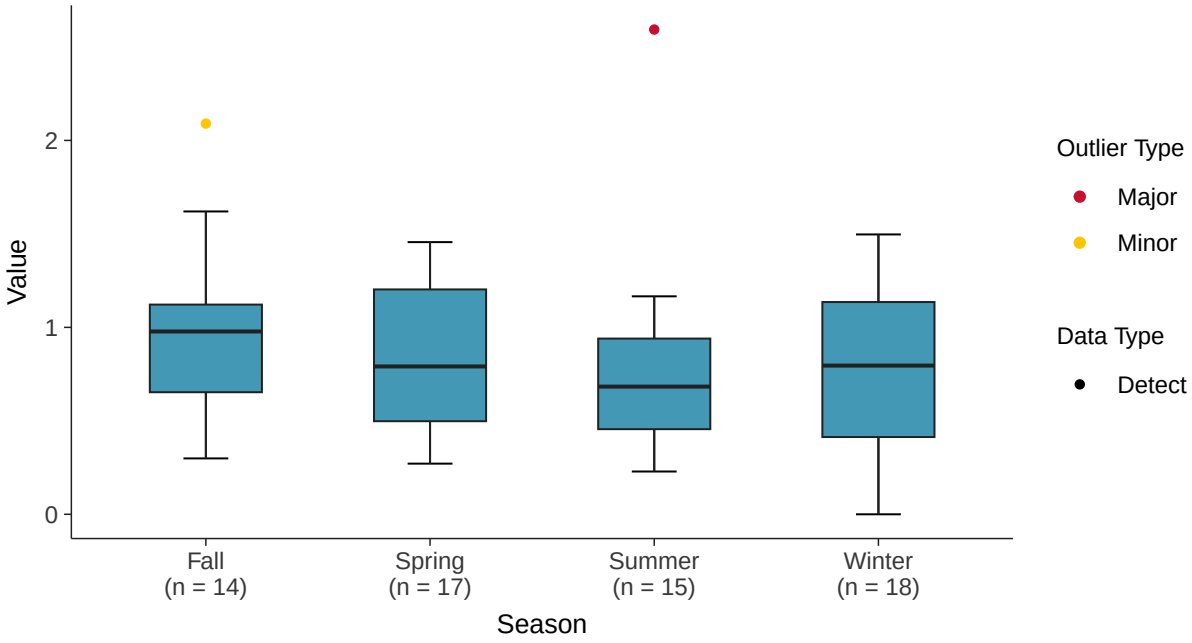
Boxplot

Total Radium, BG-1 & BG-2 (pCi/L)



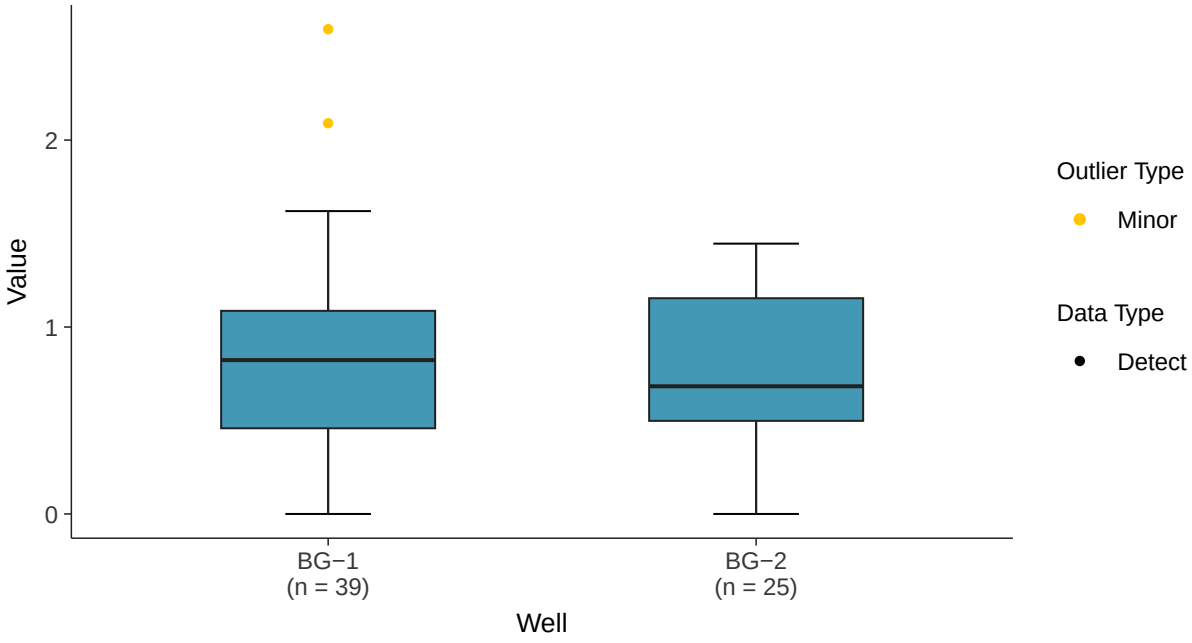
Boxplot by Season

Total Radium, BG-1 & BG-2 (pCi/L)



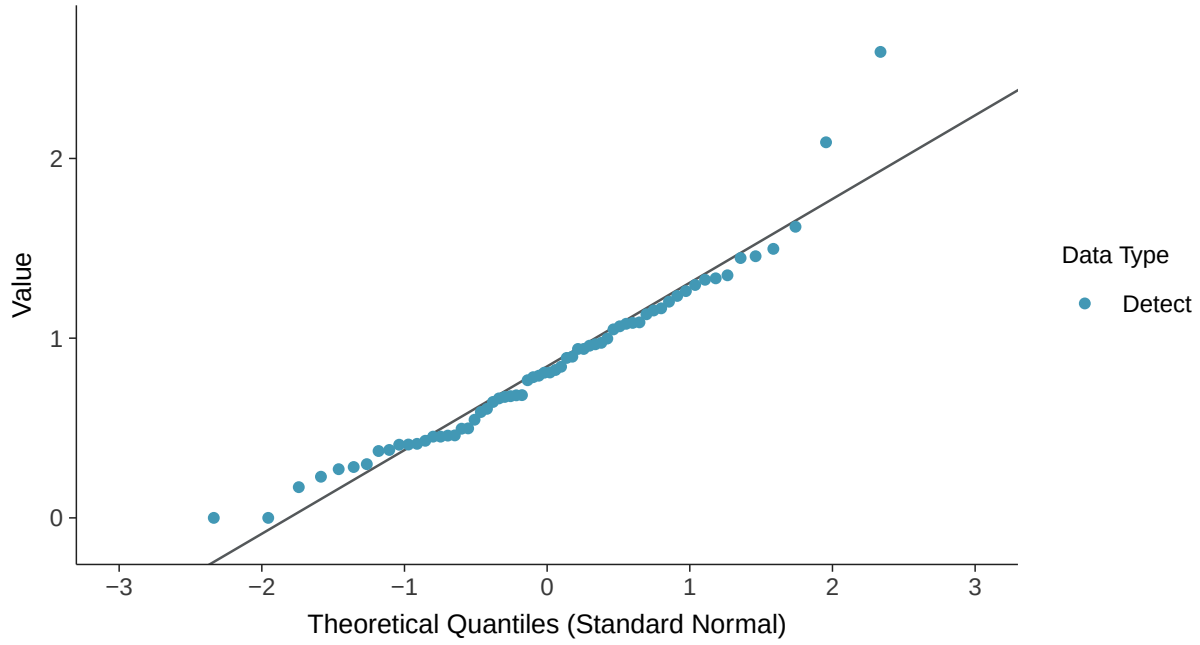
Boxplot by Well

Total Radium, BG-1 & BG-2 (pCi/L)



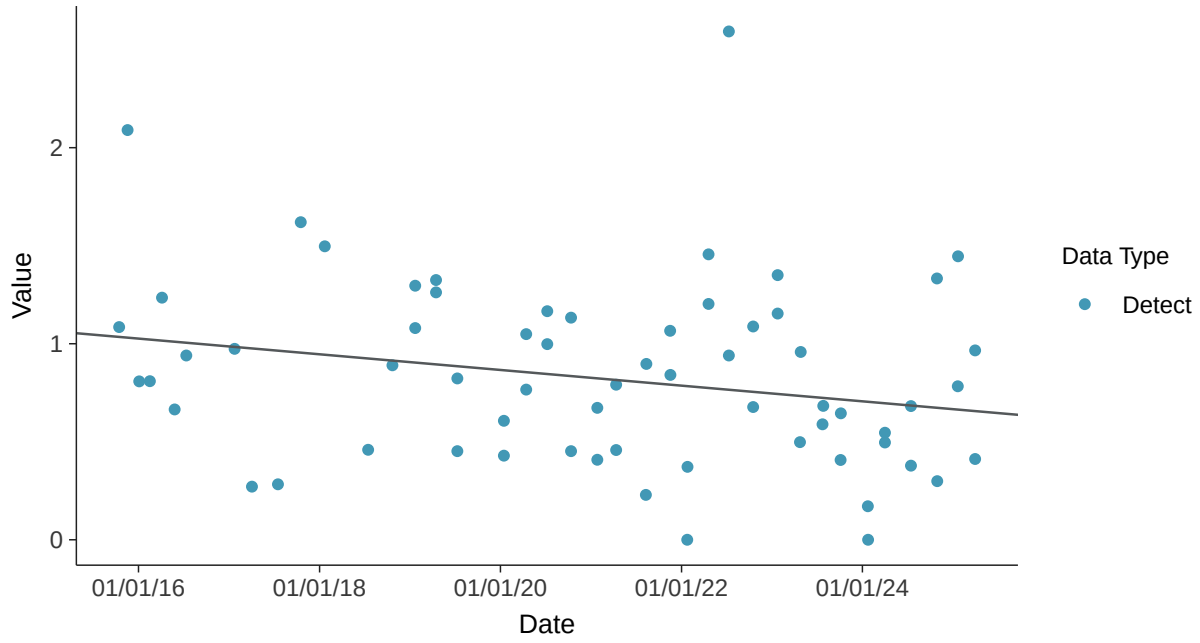
Normal Q-Q plot

Total Radium, BG-1 & BG-2 (pCi/L)



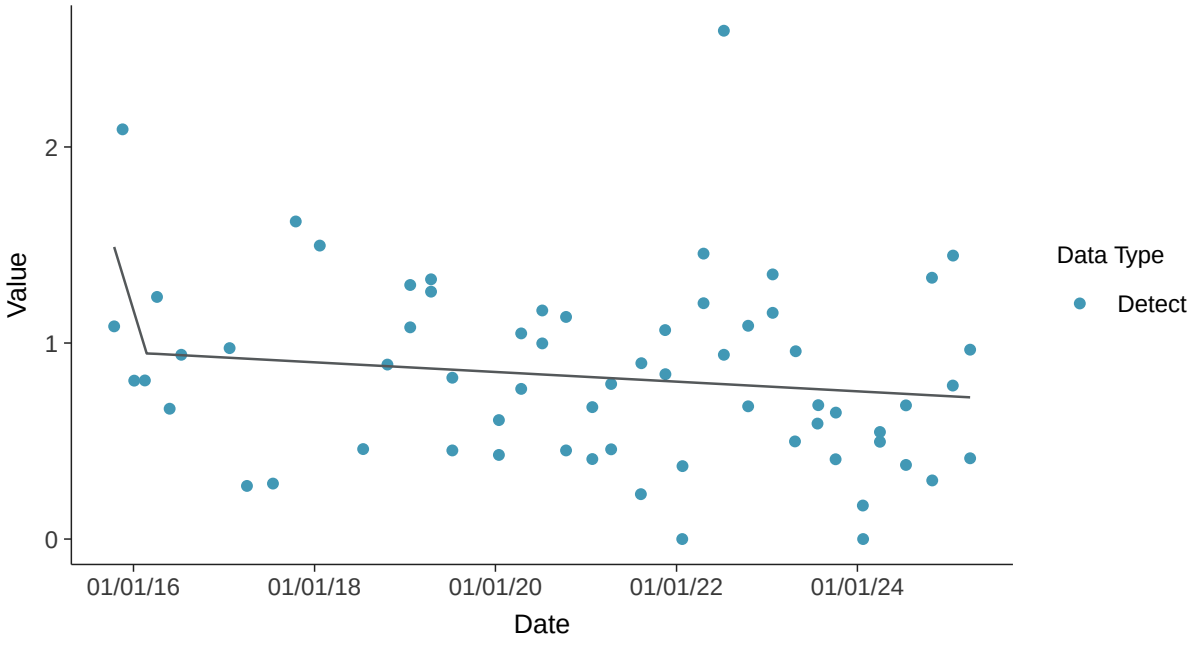
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Total Radium, BG-1 & BG-2 (pCi/L)



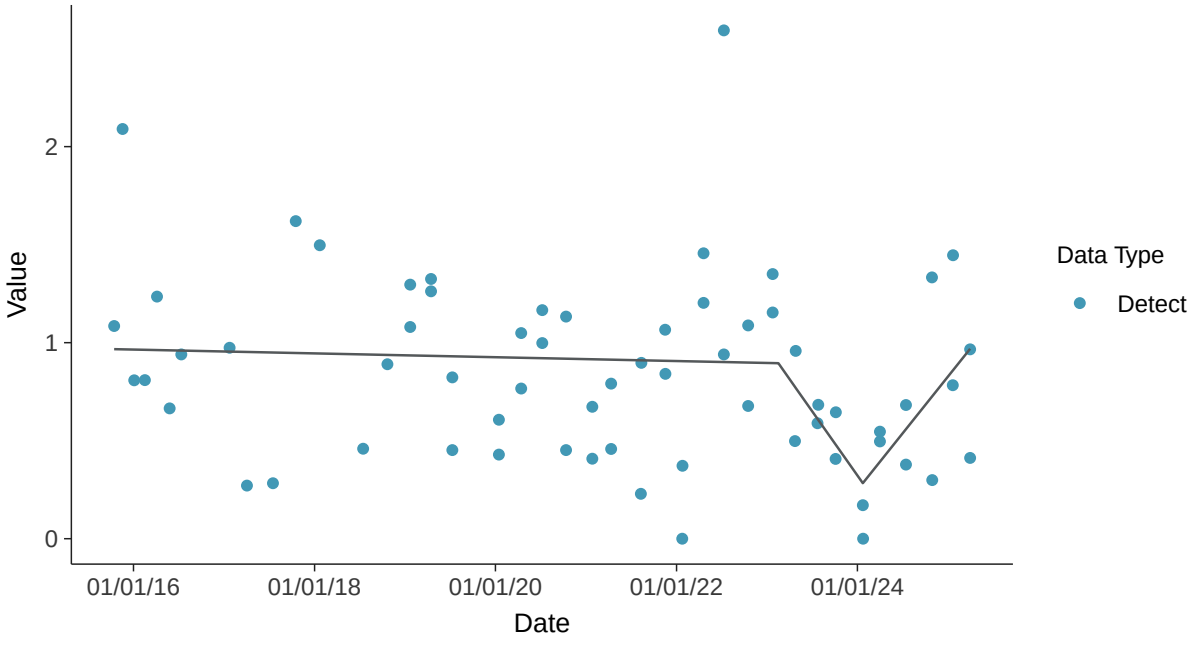
Trend Regression: Piecewise Linear-Linear

Total Radium, BG-1 & BG-2 (pCi/L)



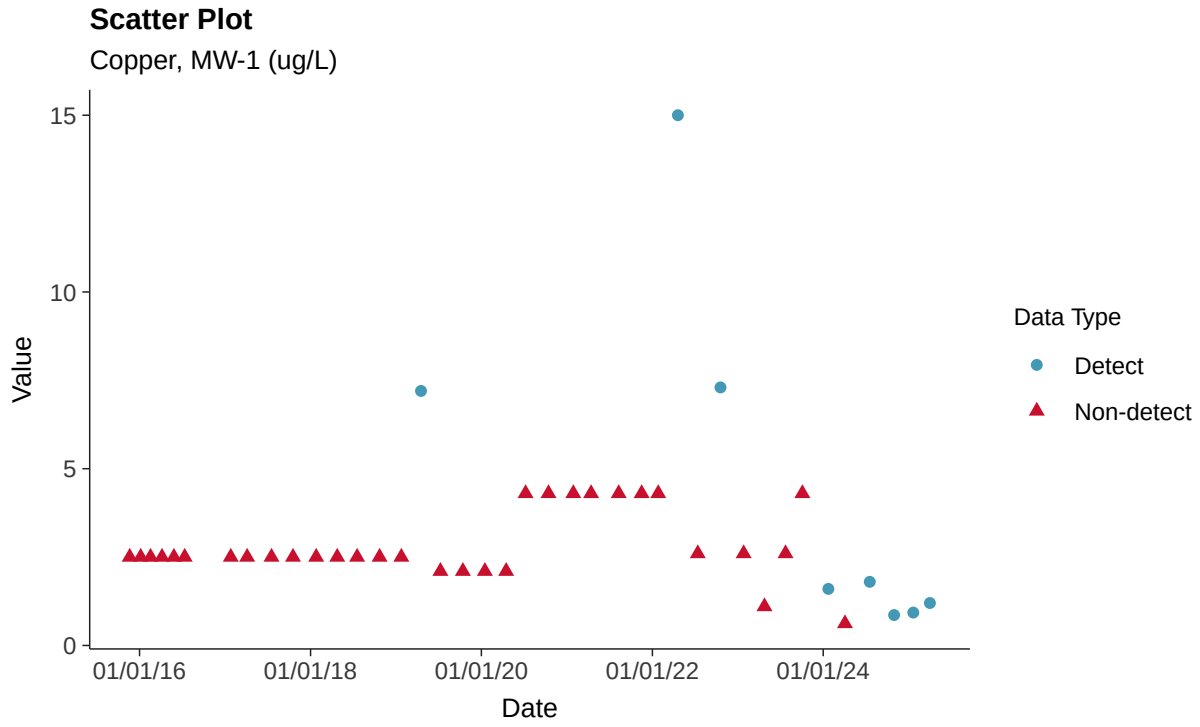
Trend Regression: Piecewise Linear-Linear-Linear

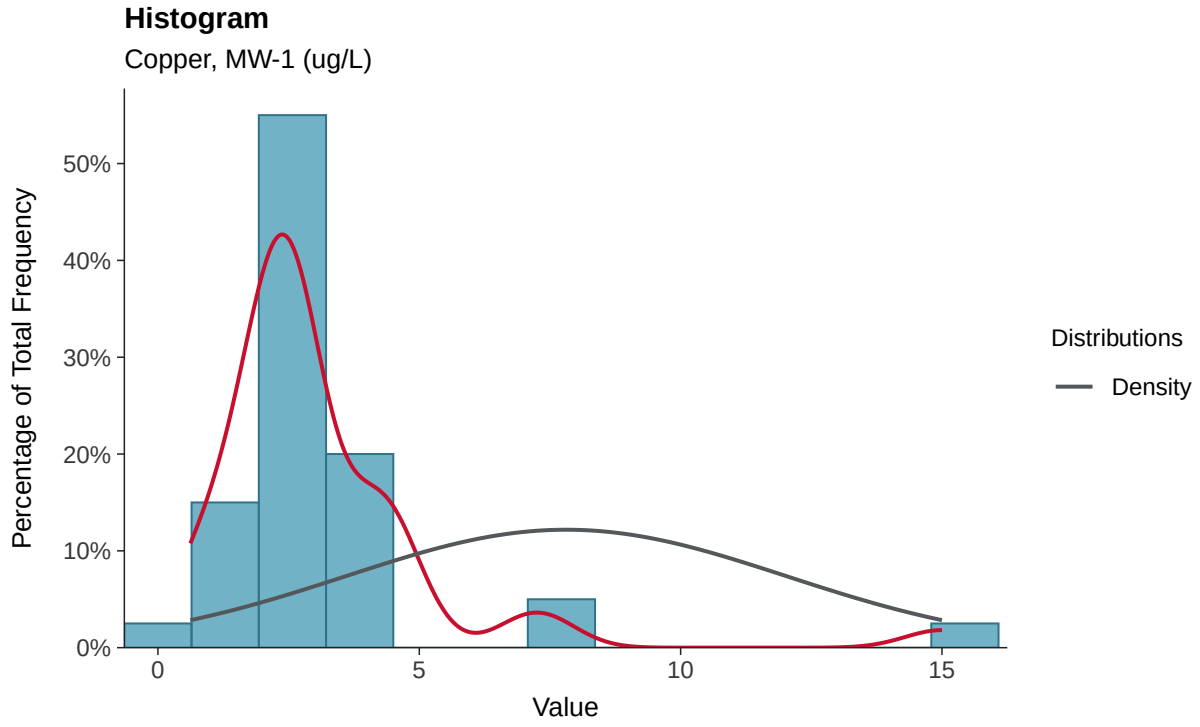
Total Radium, BG-1 & BG-2 (pCi/L)



App. I Metals: Copper, MW-1

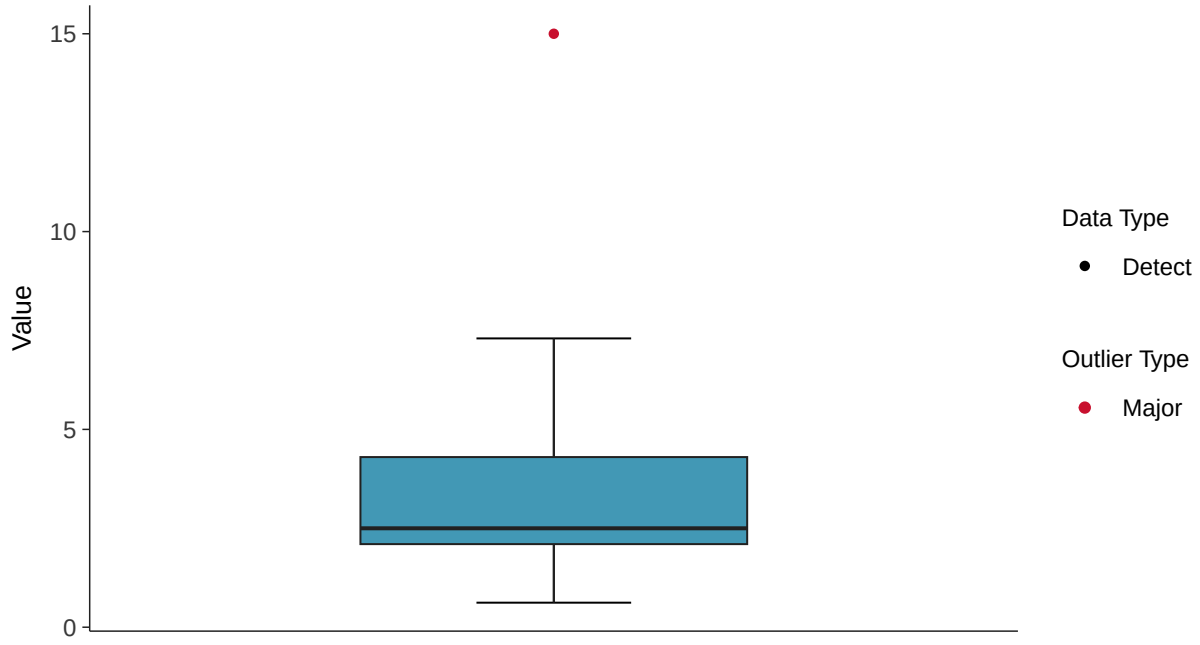
ID: 01_01_111





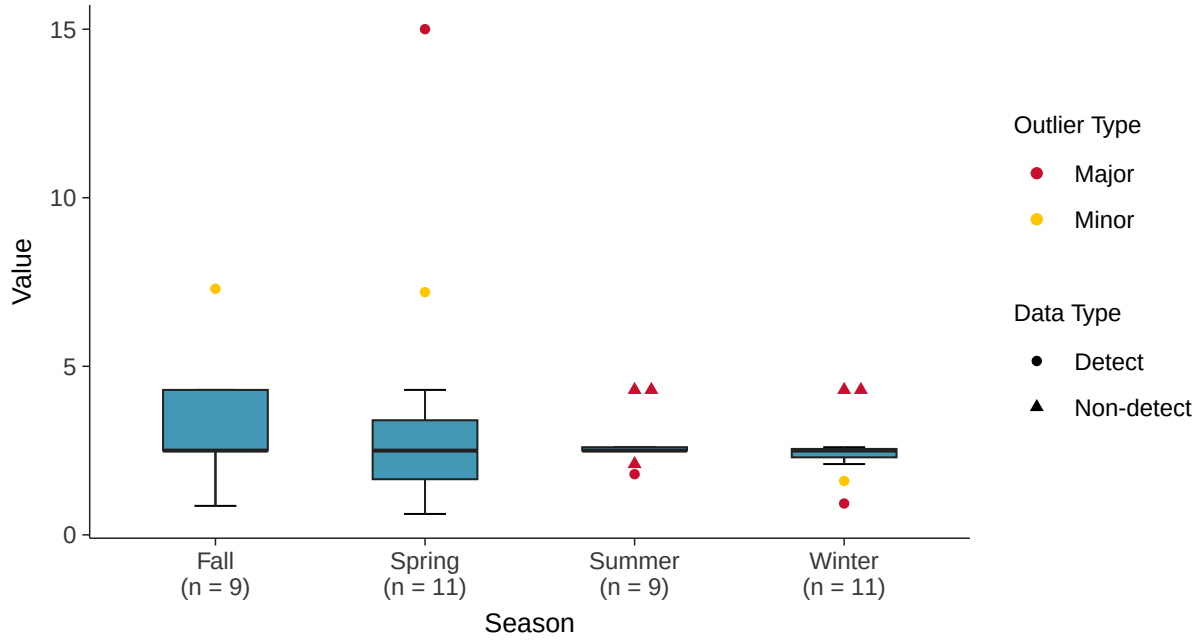
Boxplot

Copper, MW-1 (ug/L)



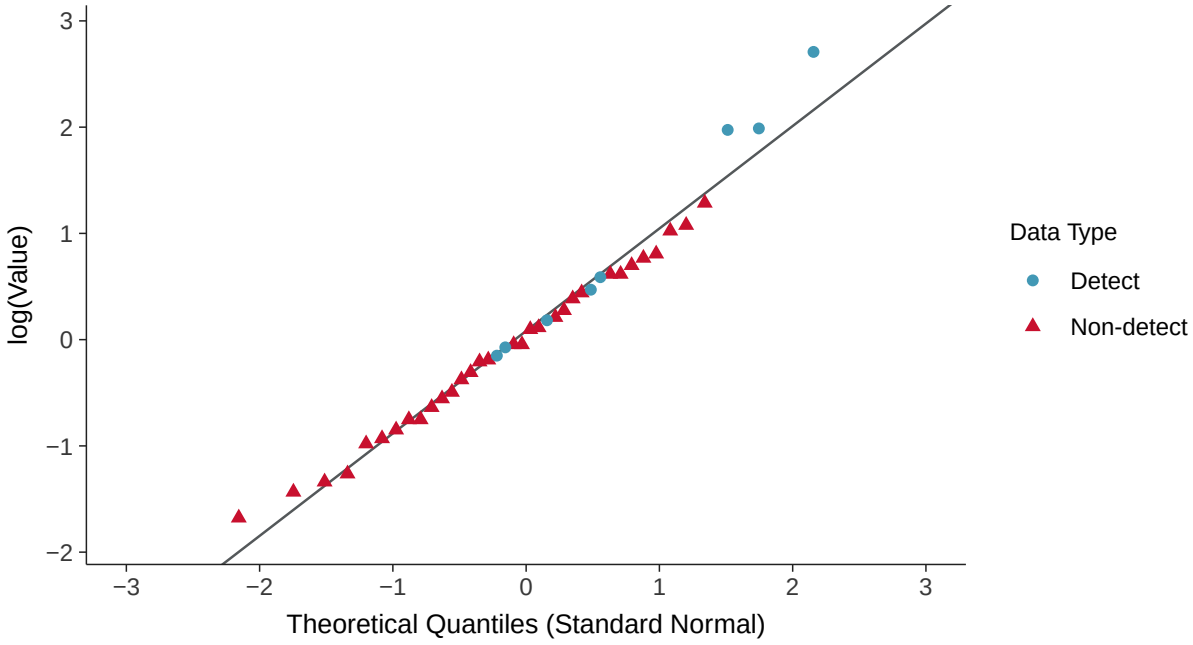
Boxplot by Season

Copper, MW-1 (ug/L)



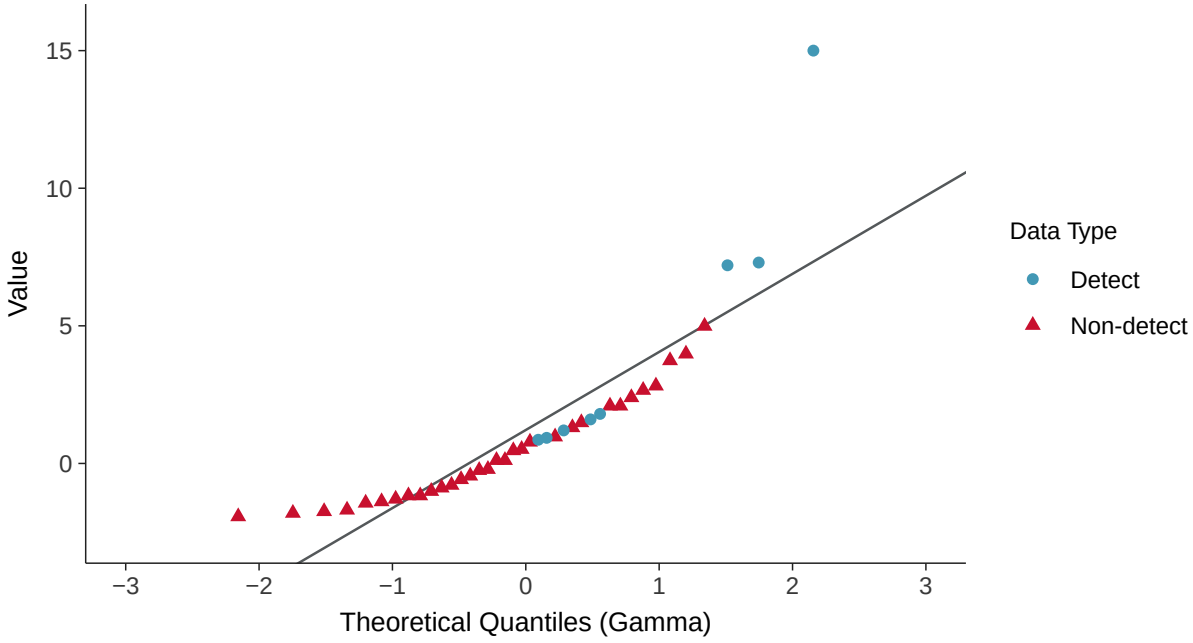
Lognormal Q-Q plot using ROS Imputed Estimates

Copper, MW-1 (ug/L)



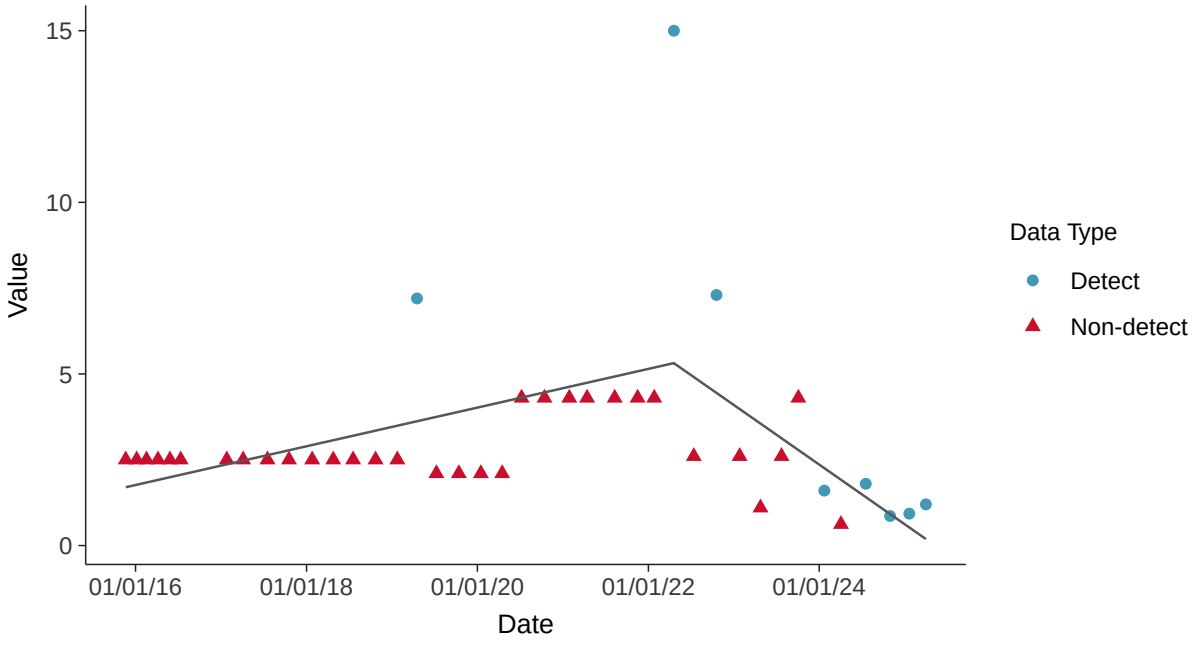
Gamma Q-Q plot using ROS Imputed Estimates

Copper, MW-1 (ug/L)



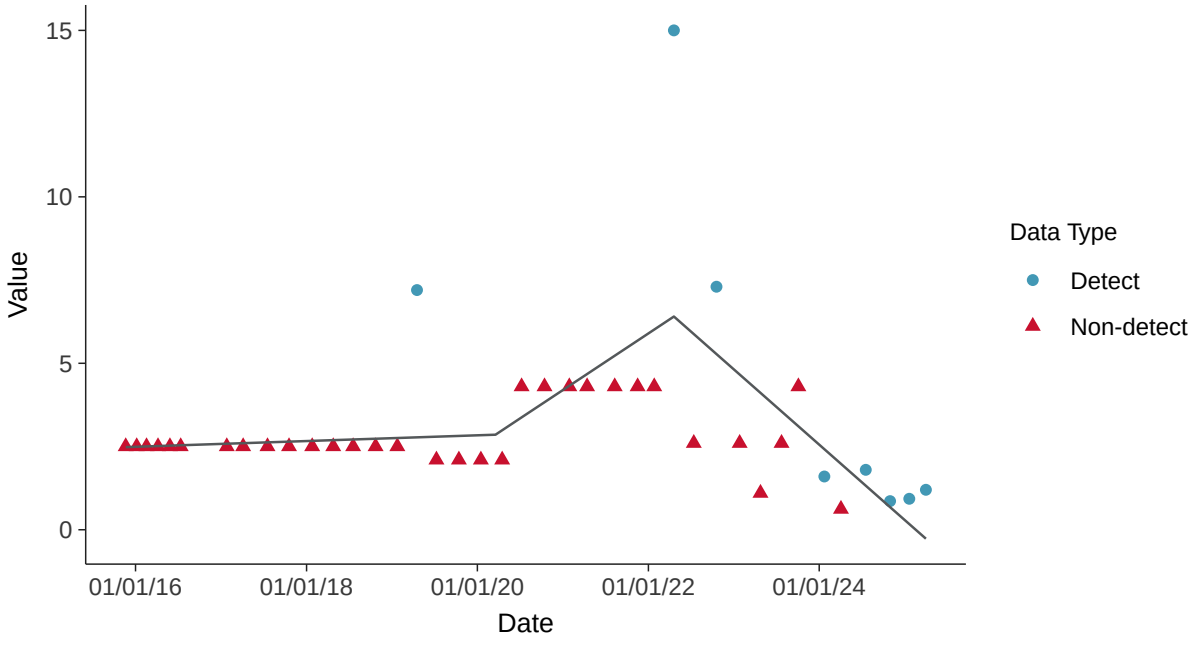
Trend Regression: Piecewise Linear-Linear

Copper, MW-1 (ug/L)



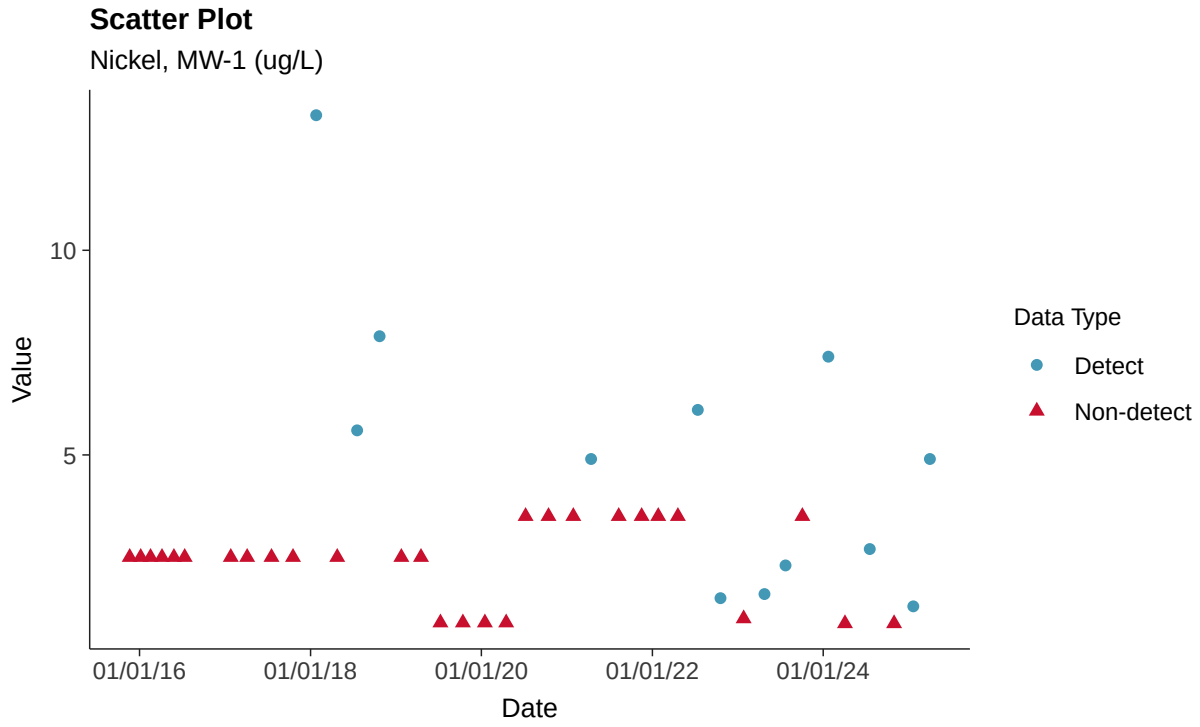
Trend Regression: Piecewise Linear-Linear-Linear

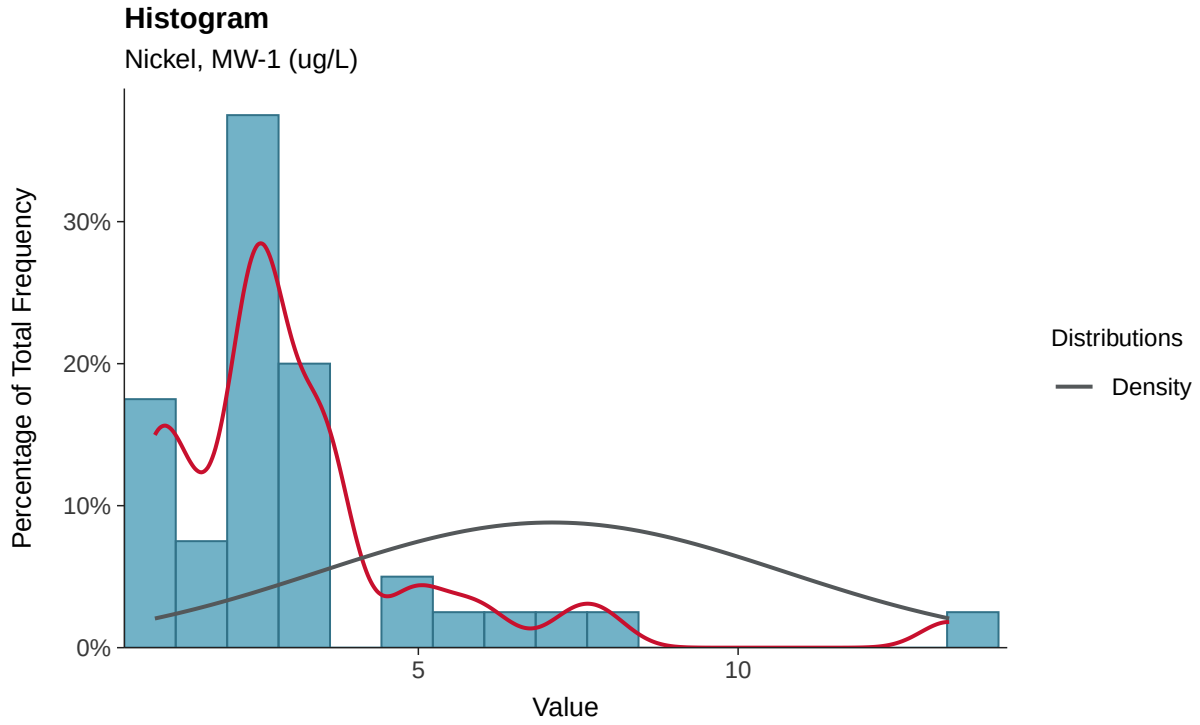
Copper, MW-1 (ug/L)



App. I Metals: Nickel, MW-1

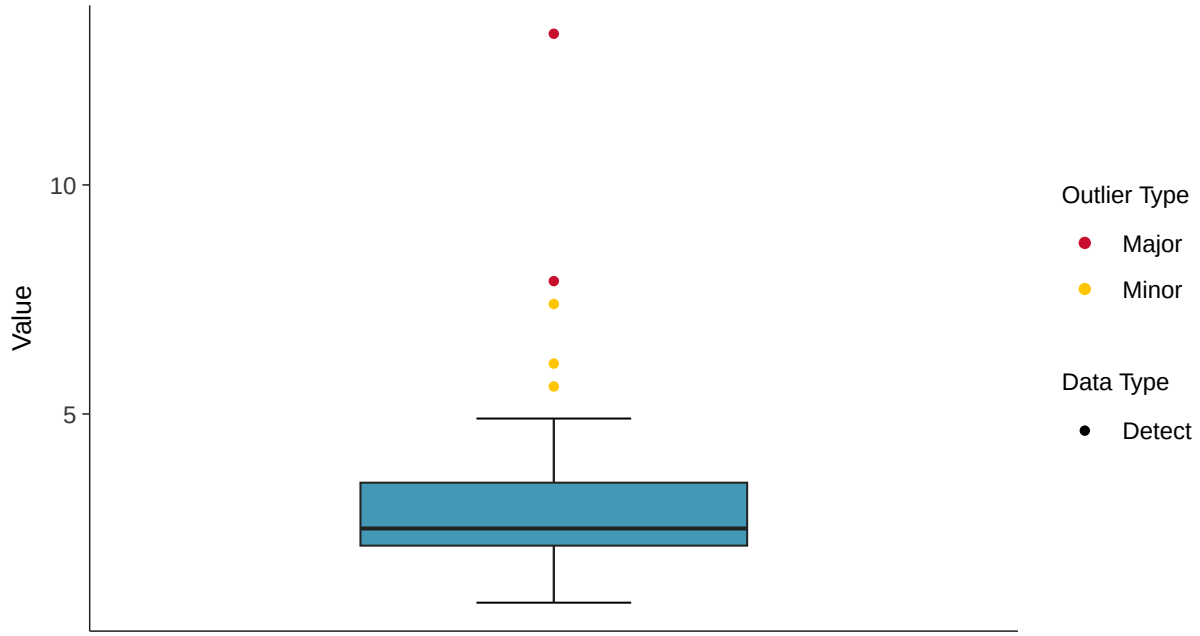
ID: 01_01_117





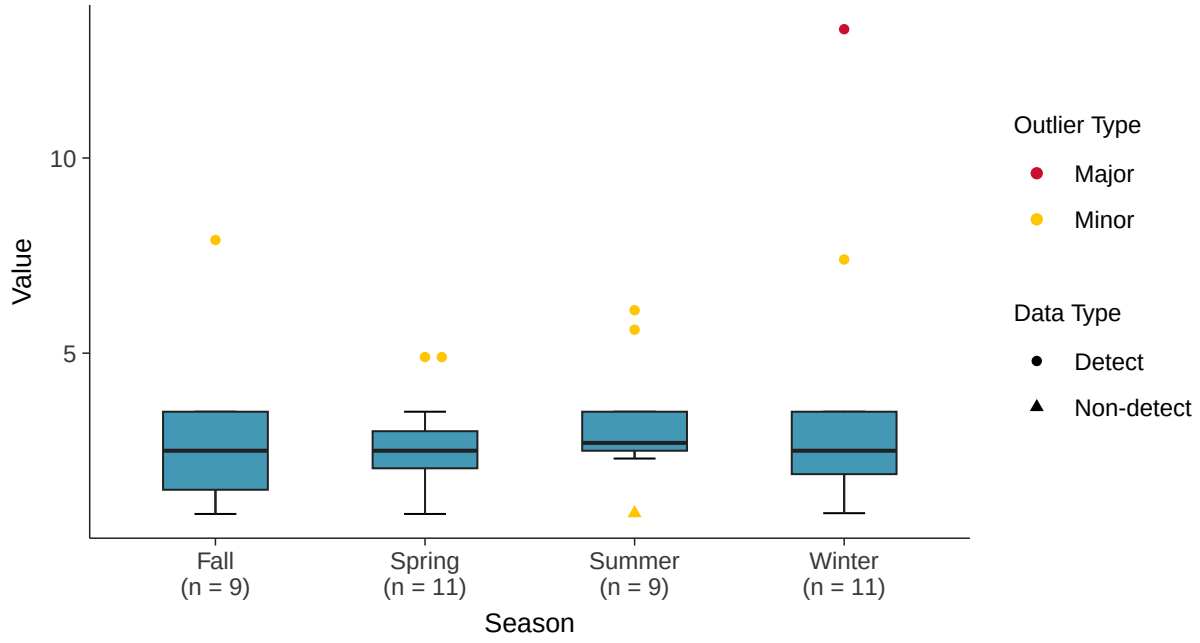
Boxplot

Nickel, MW-1 (ug/L)



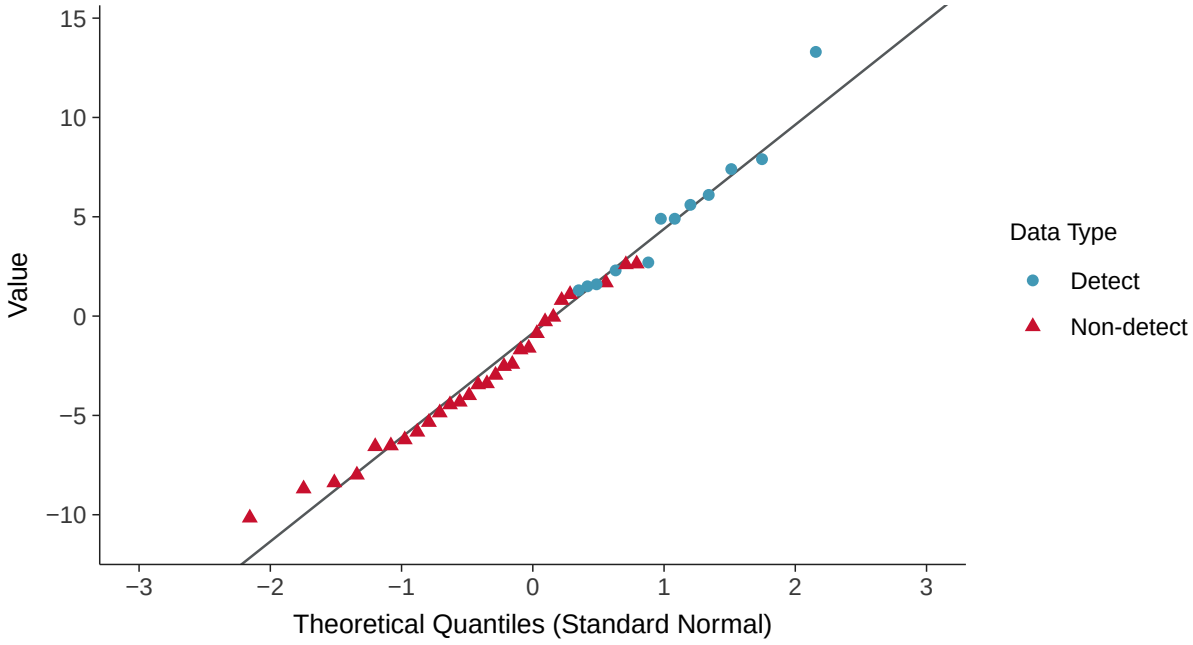
Boxplot by Season

Nickel, MW-1 (ug/L)



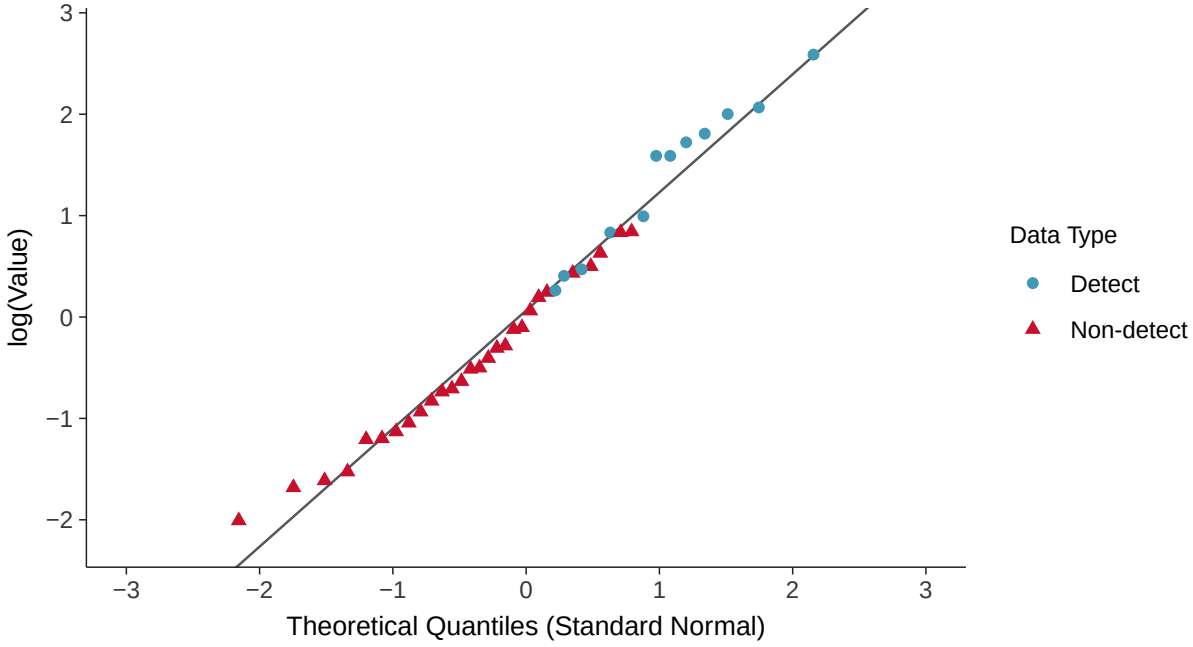
Normal Q-Q plot using ROS Imputed Estimates

Nickel, MW-1 (ug/L)



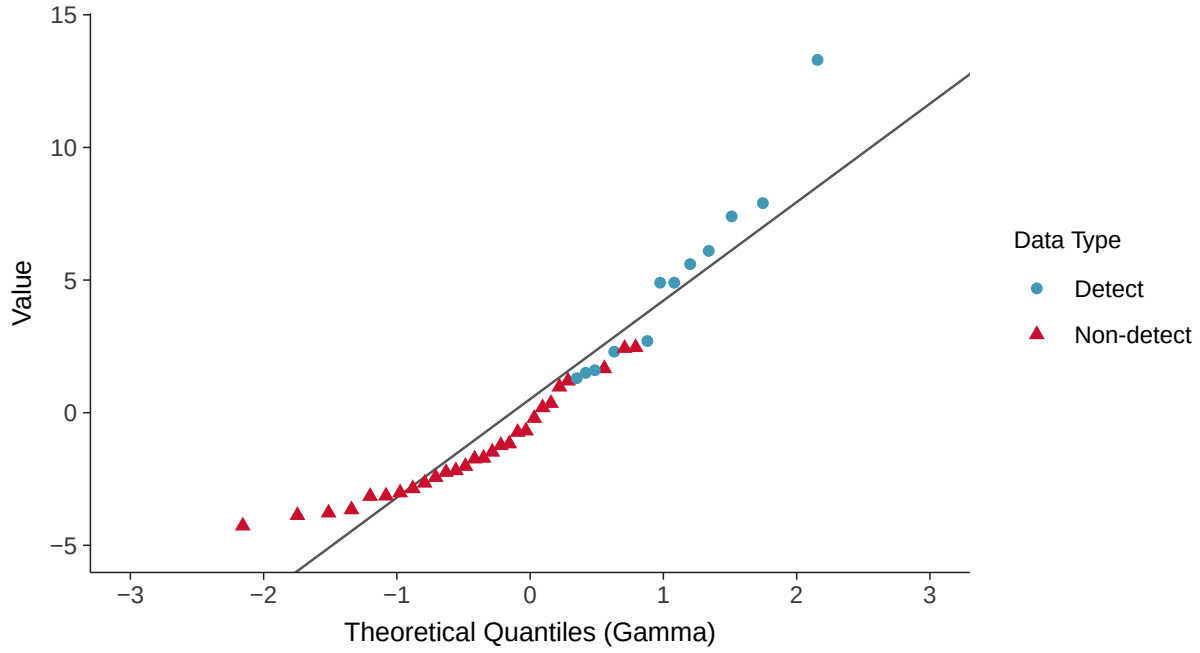
Lognormal Q-Q plot using ROS Imputed Estimates

Nickel, MW-1 (ug/L)



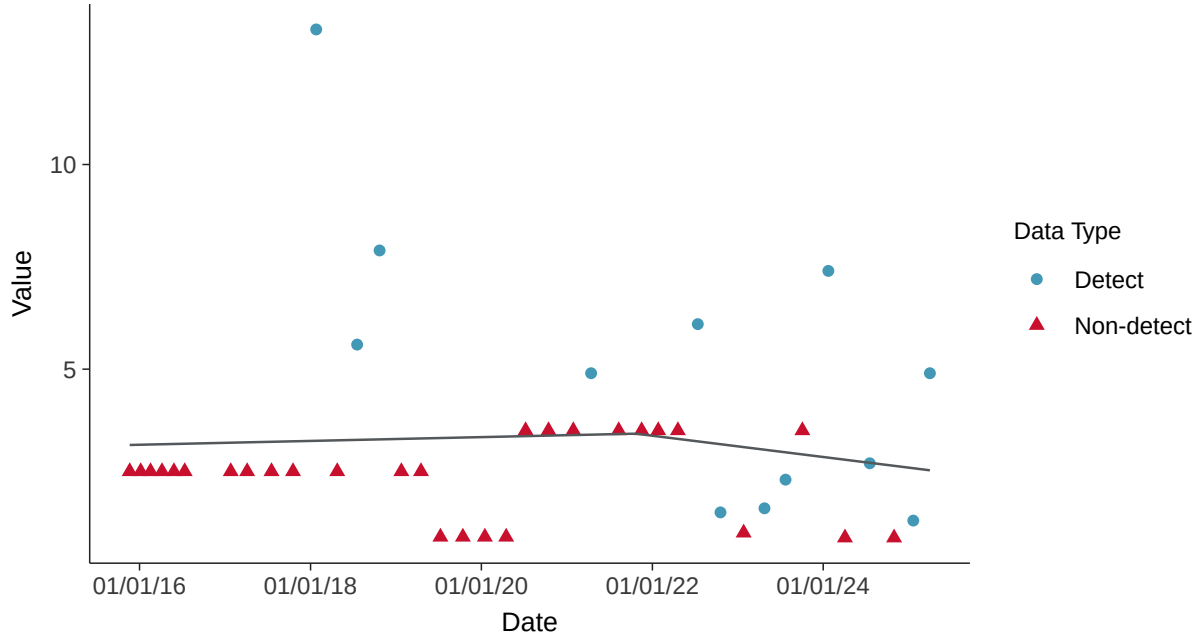
Gamma Q-Q plot using ROS Imputed Estimates

Nickel, MW-1 (ug/L)



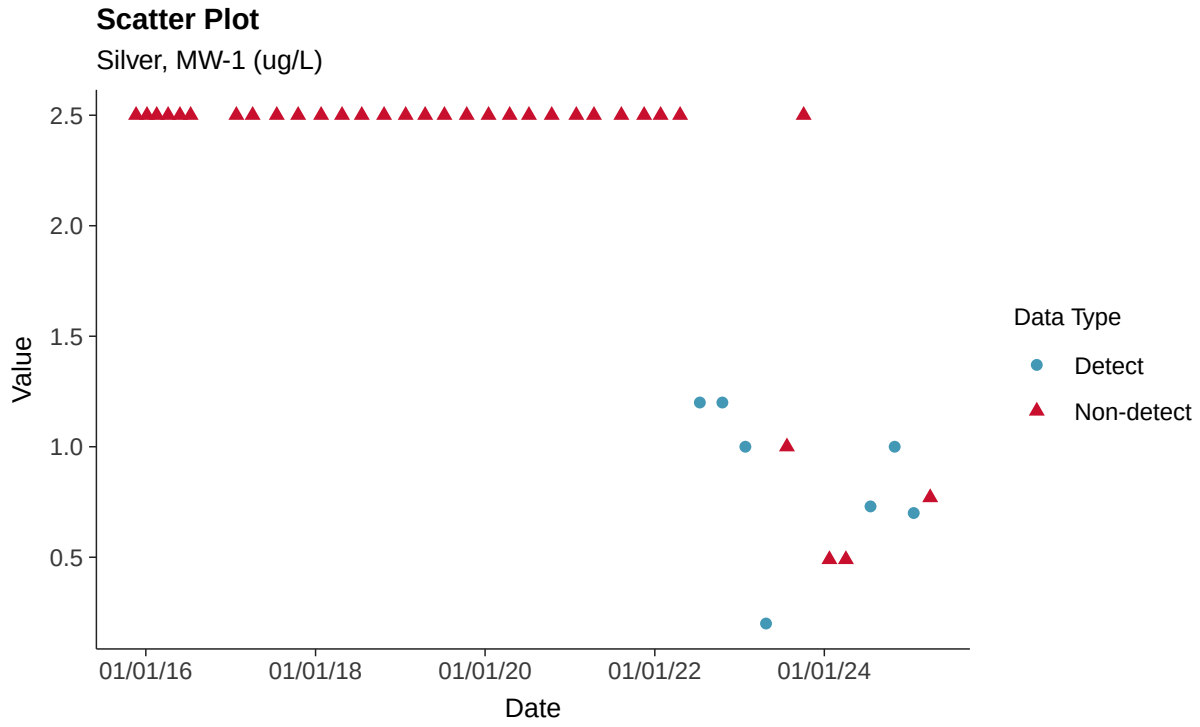
Trend Regression: Piecewise Linear-Linear

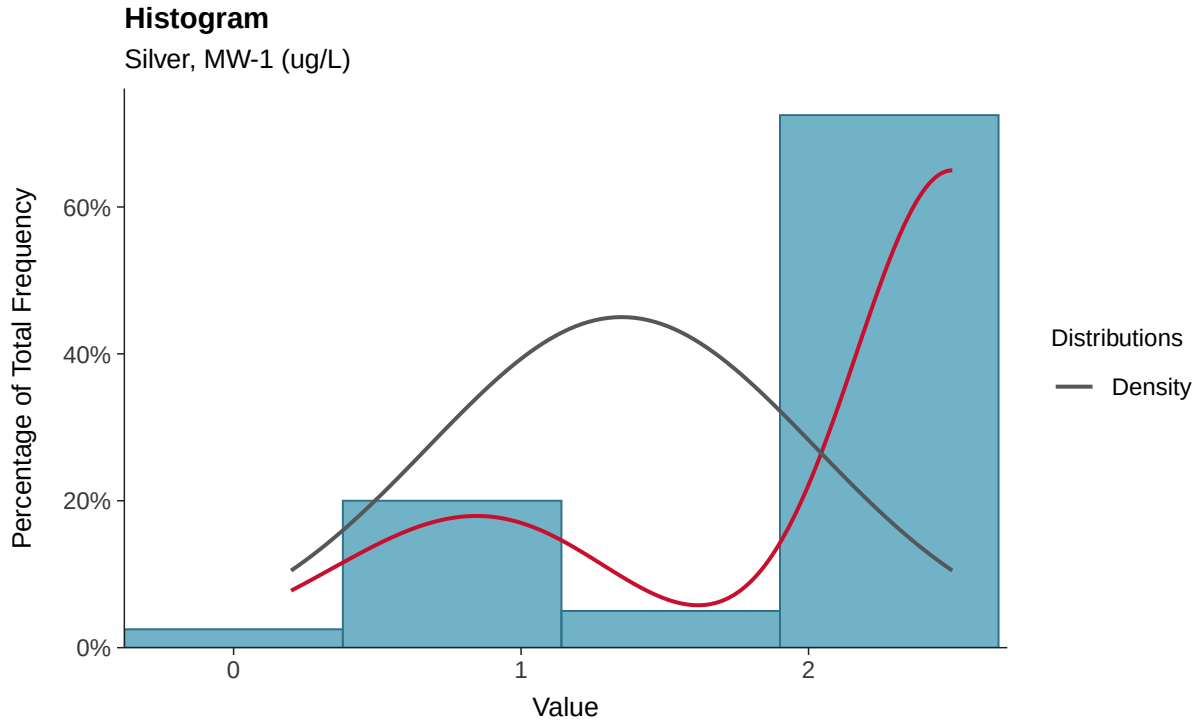
Nickel, MW-1 (ug/L)



App. I Metals: Silver, MW-1

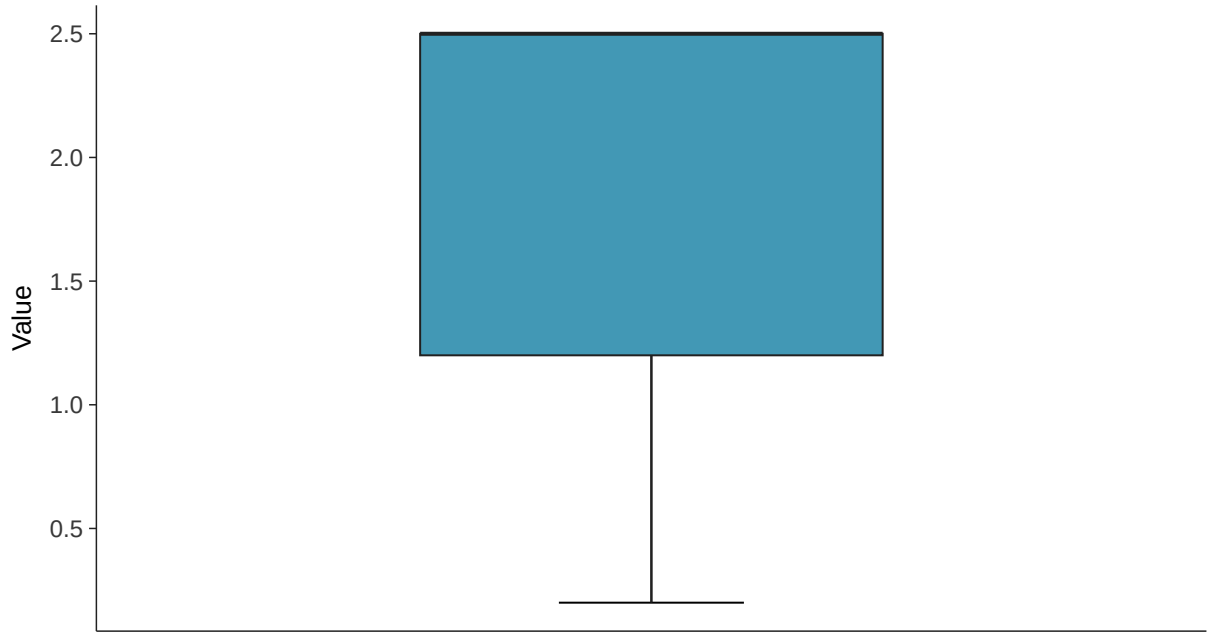
ID: 01_01_122





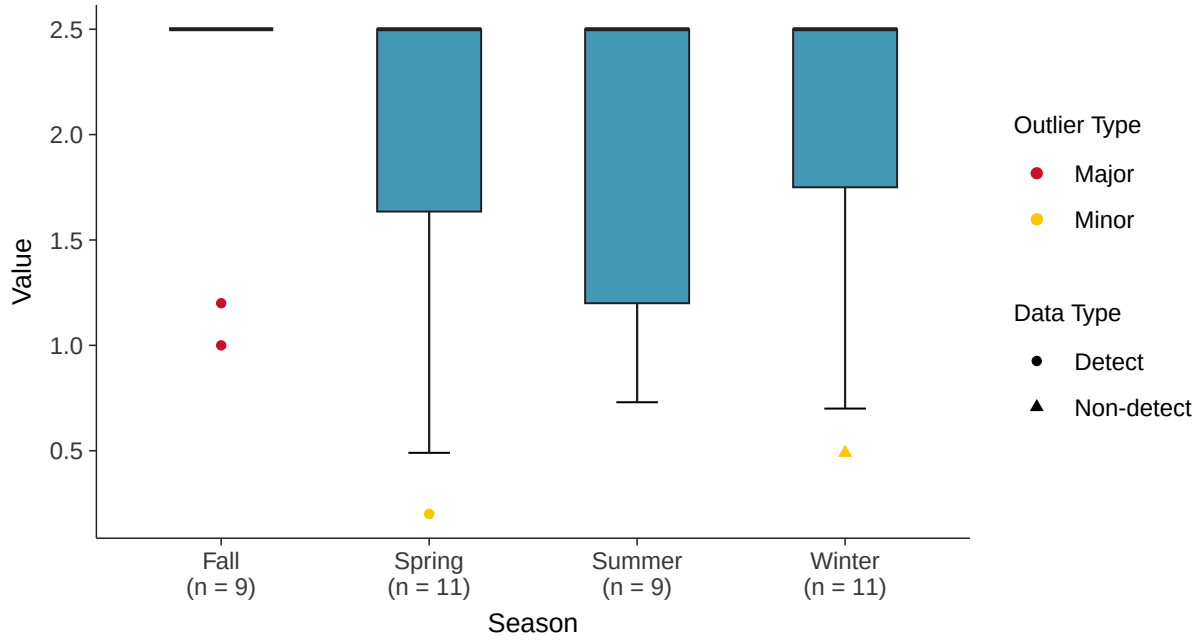
Boxplot

Silver, MW-1 (ug/L)



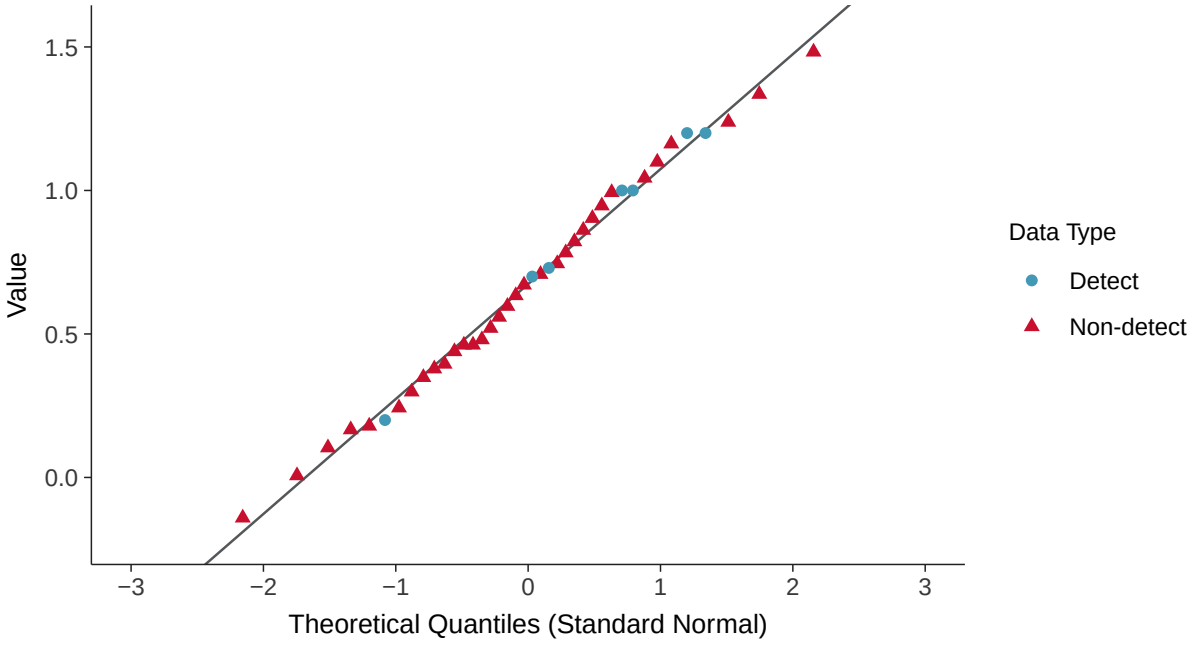
Boxplot by Season

Silver, MW-1 (ug/L)



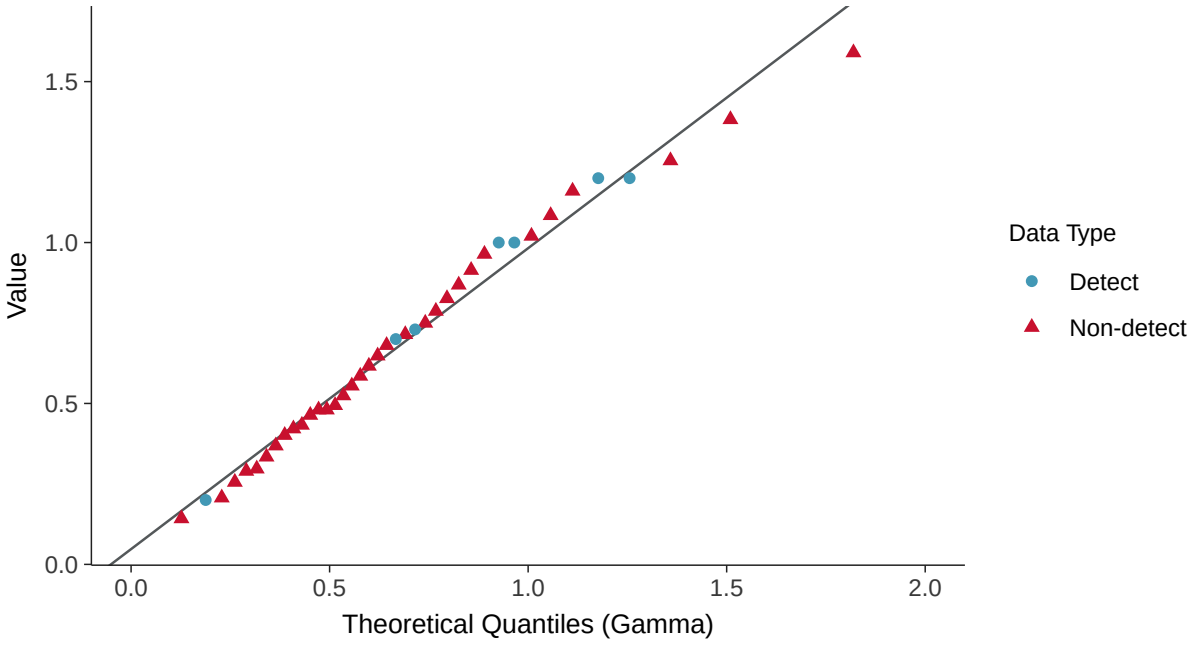
Normal Q-Q plot using ROS Imputed Estimates

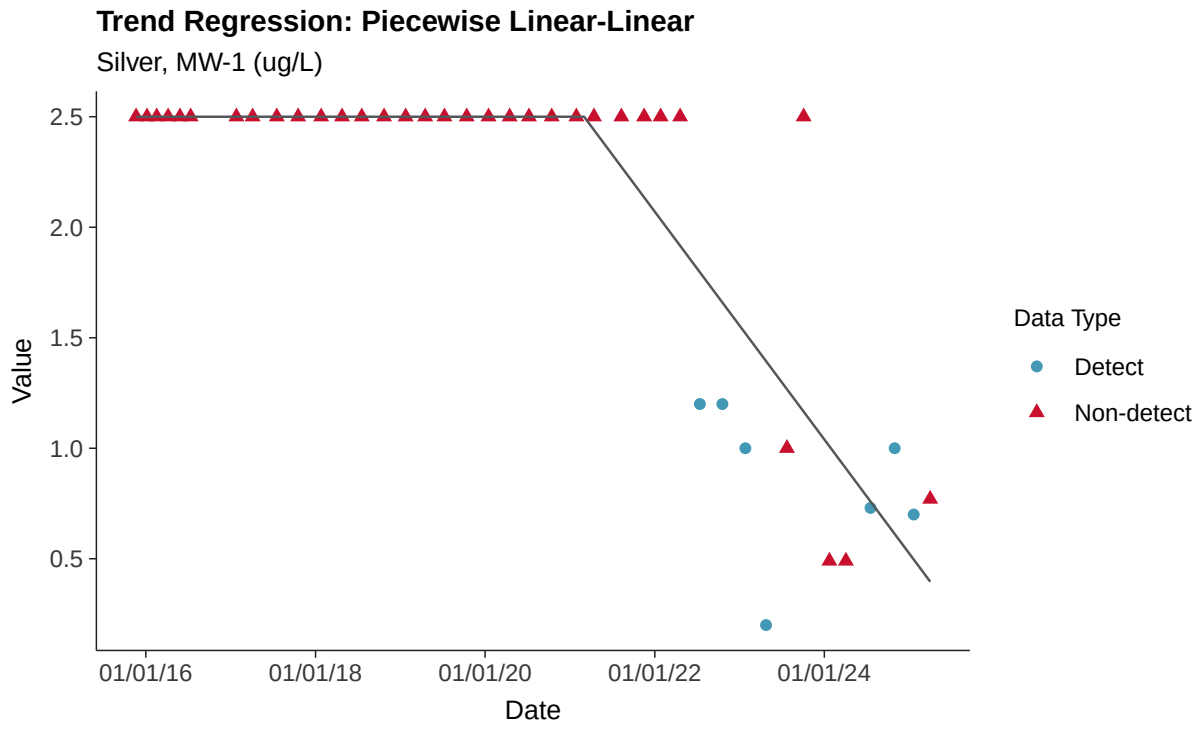
Silver, MW-1 (ug/L)



Gamma Q-Q plot using ROS Imputed Estimates

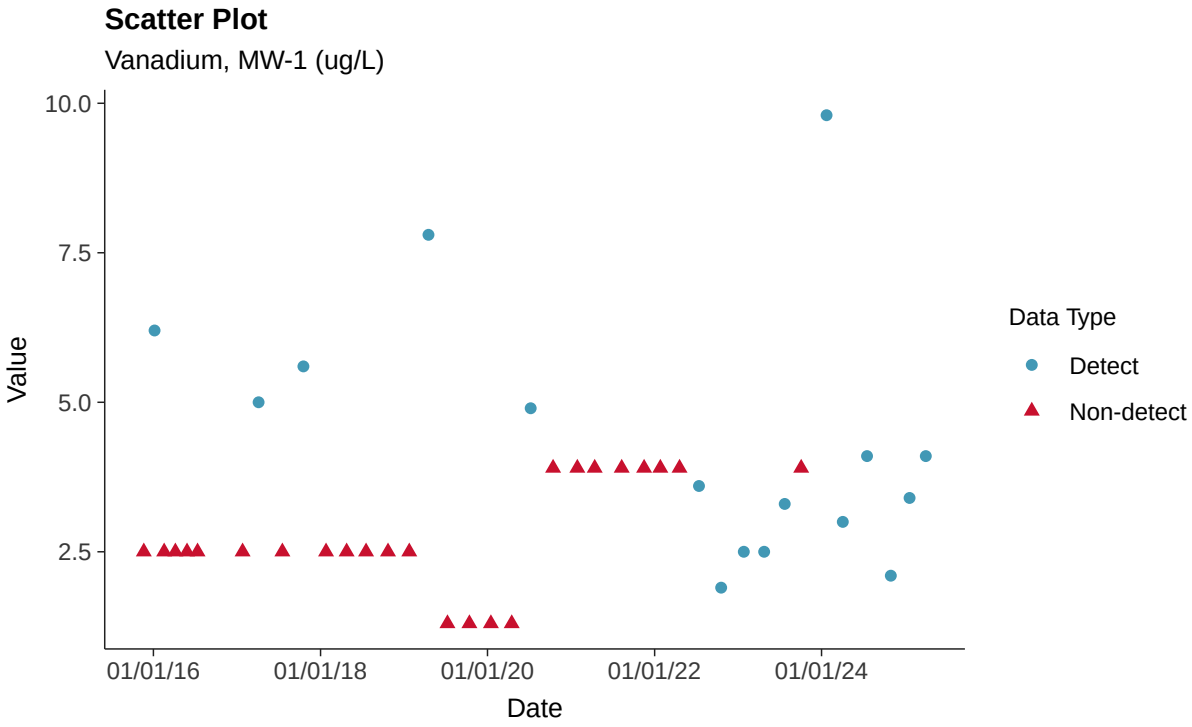
Silver, MW-1 (ug/L)

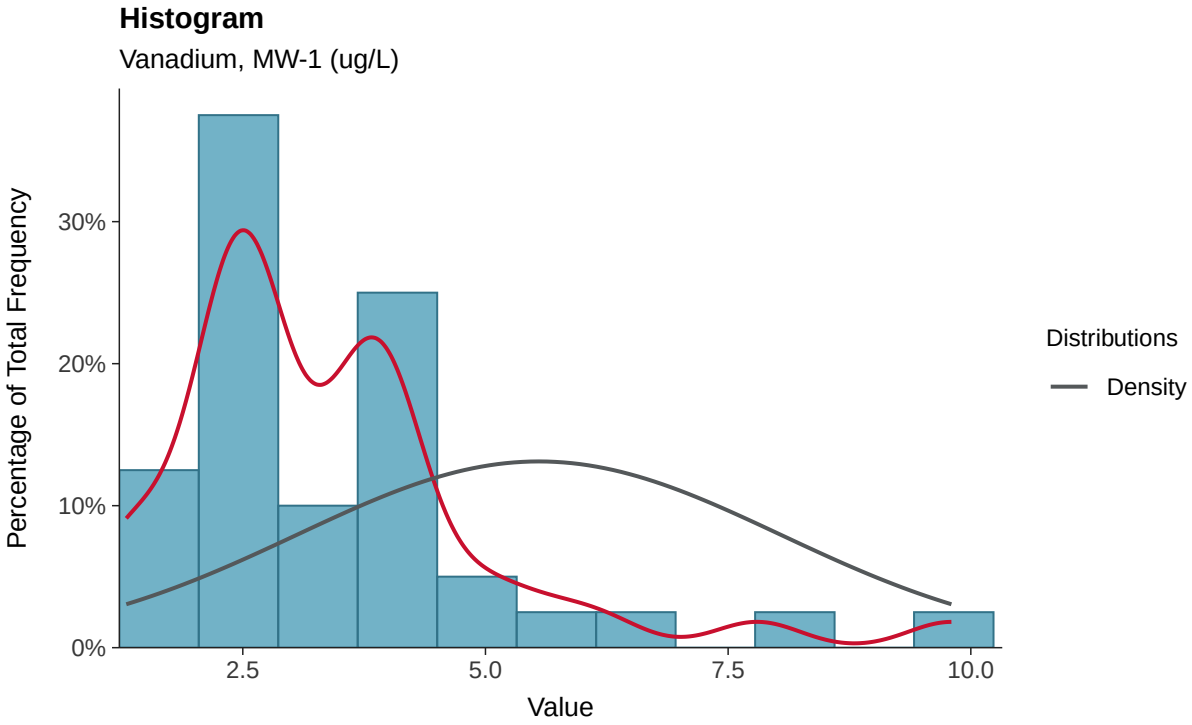



Trend Regression: Piecewise Linear-Linear
Silver, MW-1 (ug/L)
Value
2.5
2.0
1.5
1.0
0.5
01/01/16
01/01/18
01/01/20
01/01/22
01/01/24
Date
Data Type
Detect
Non-detect

App. I Metals: Vanadium, MW-1

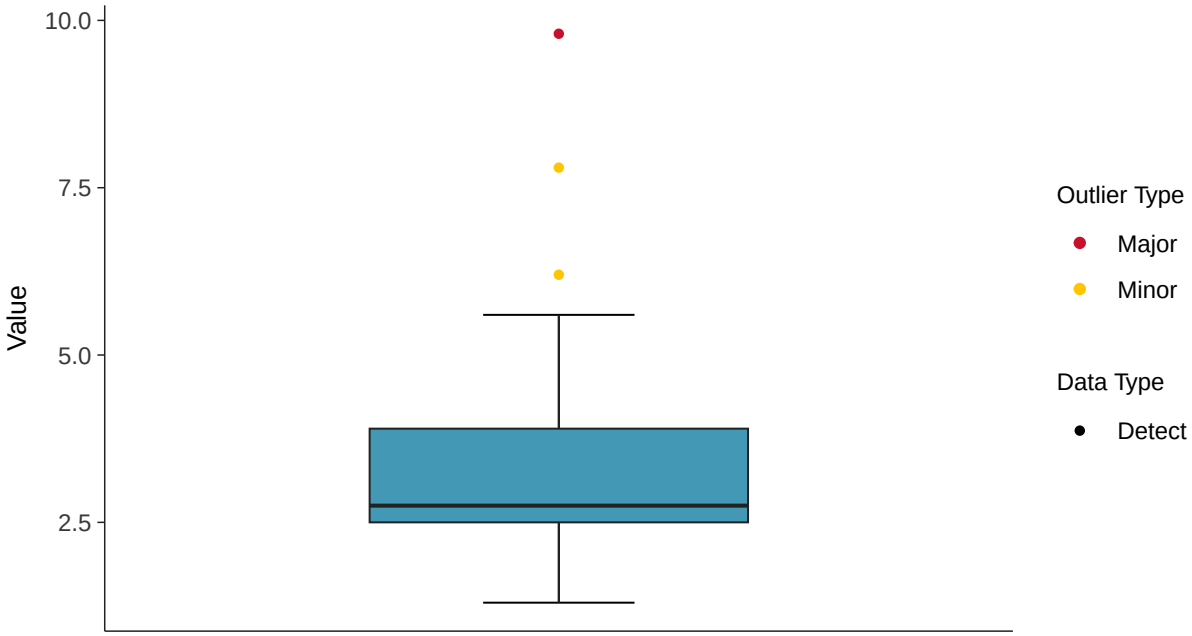
ID: 01_01_127





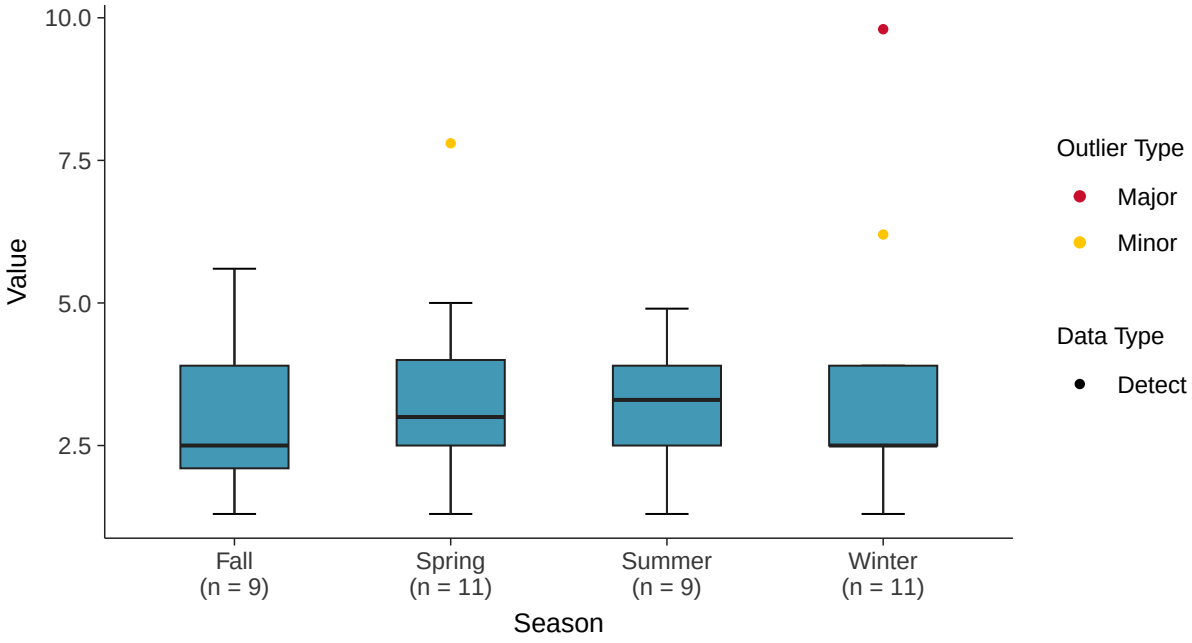
Boxplot

Vanadium, MW-1 (ug/L)



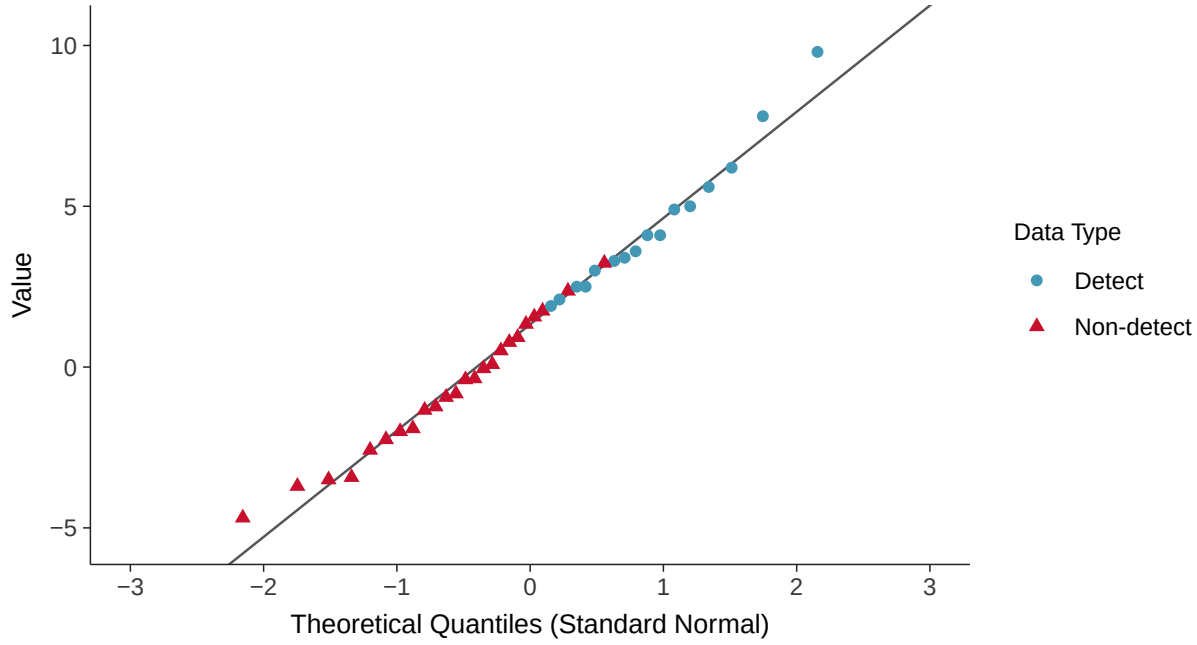
Boxplot by Season

Vanadium, MW-1 (ug/L)



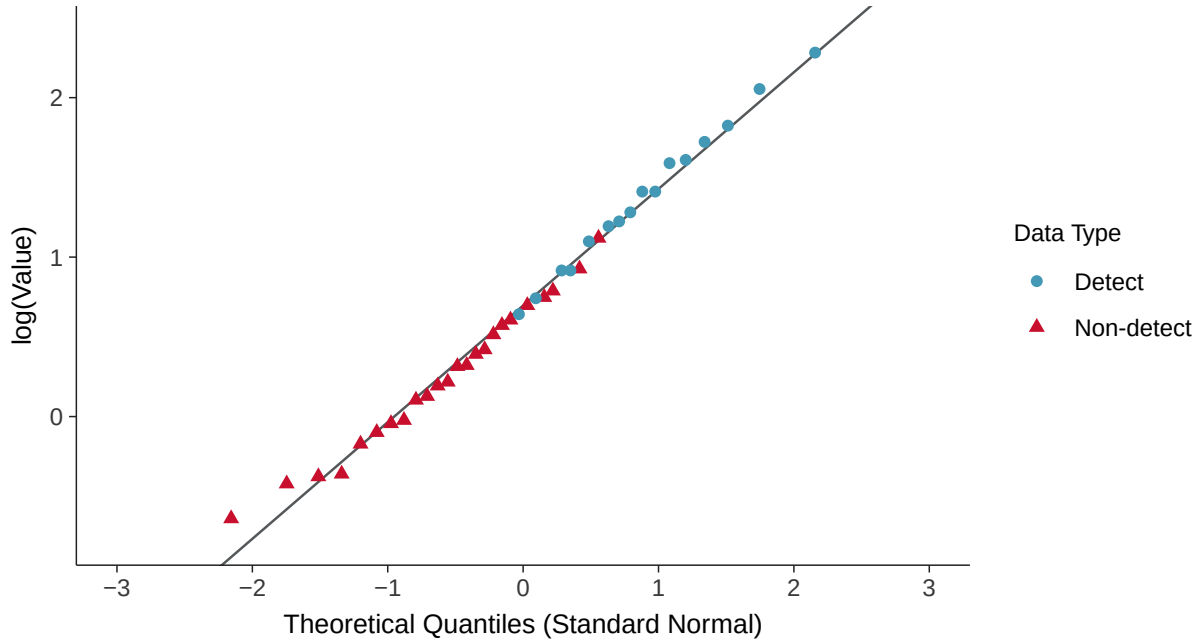
Normal Q-Q plot using ROS Imputed Estimates

Vanadium, MW-1 (ug/L)



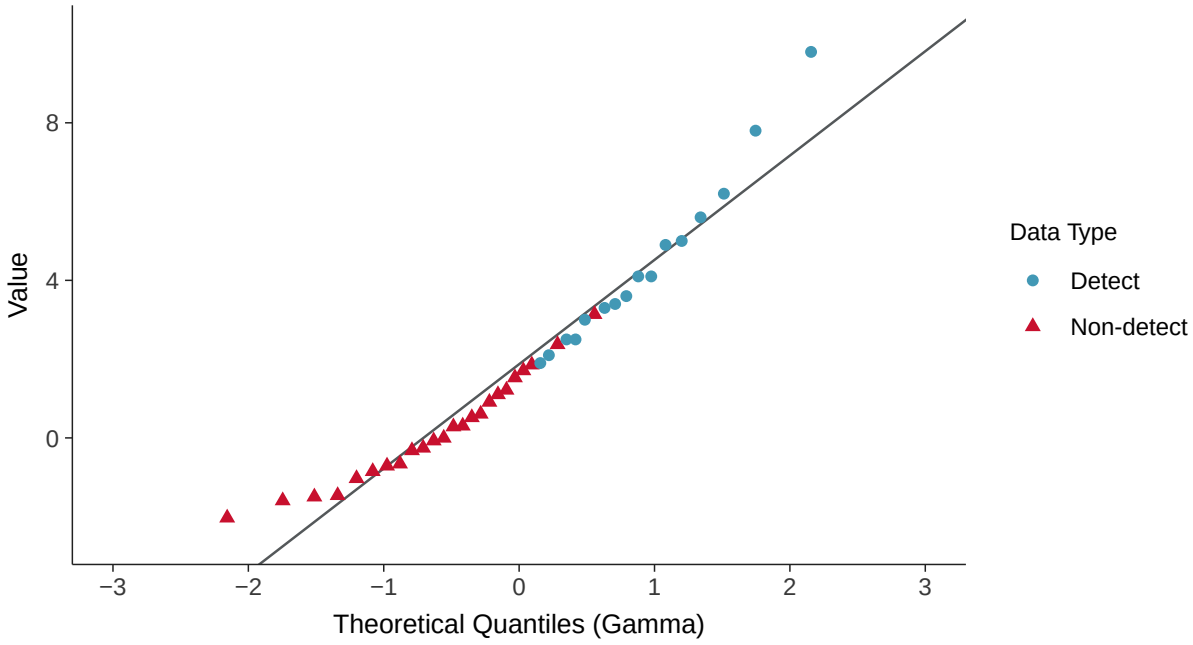
Lognormal Q-Q plot using ROS Imputed Estimates

Vanadium, MW-1 (ug/L)



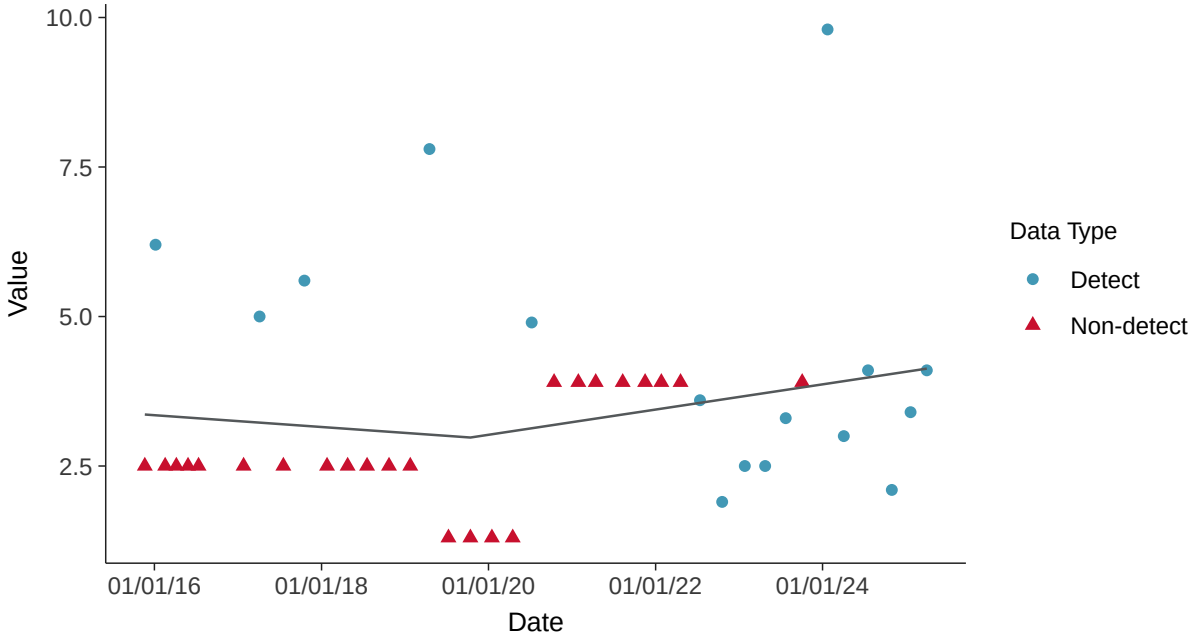
Gamma Q-Q plot using ROS Imputed Estimates

Vanadium, MW-1 (ug/L)



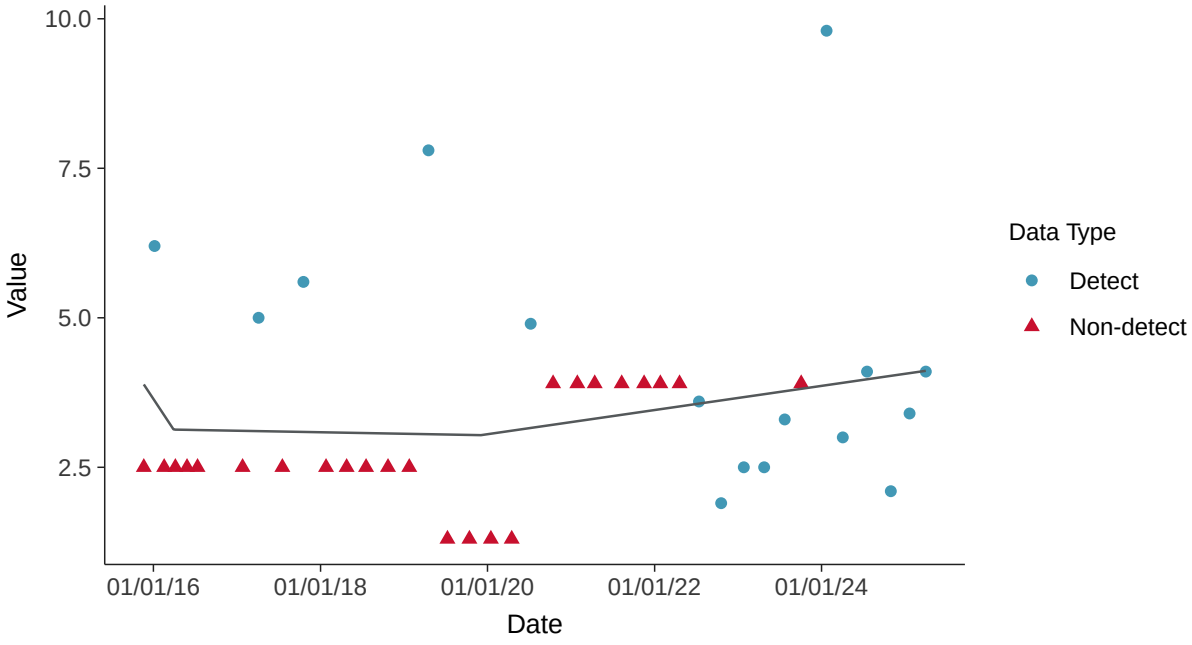
Trend Regression: Piecewise Linear-Linear

Vanadium, MW-1 (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Vanadium, MW-1 (ug/L)

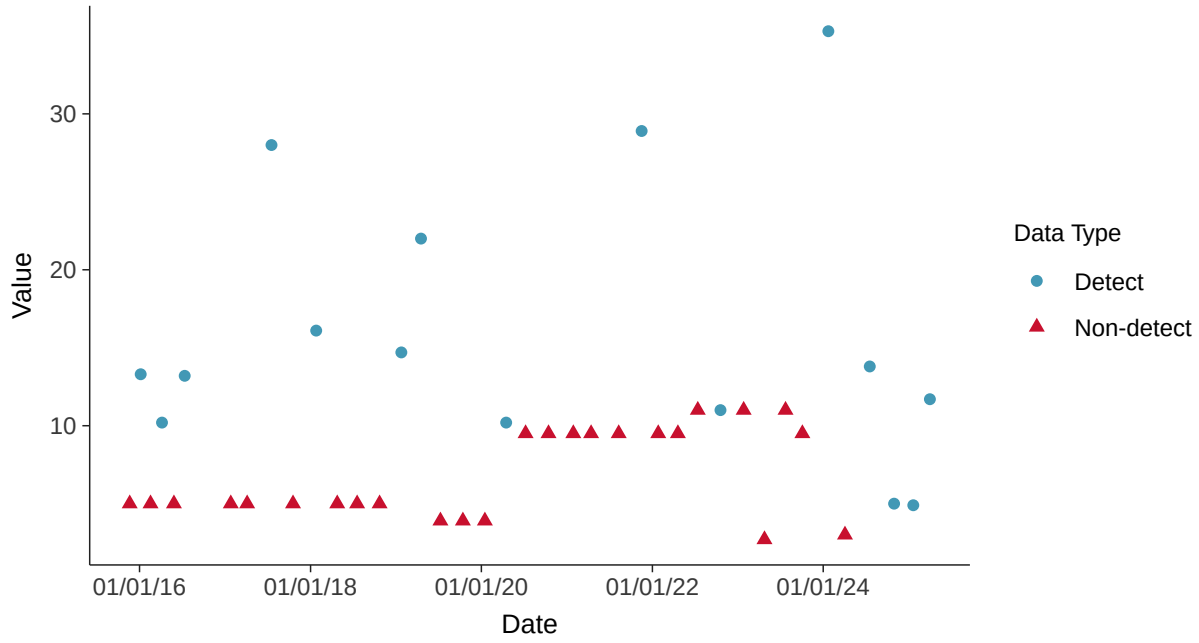


App. I Metals: Zinc, MW-1

ID: 01_01_128

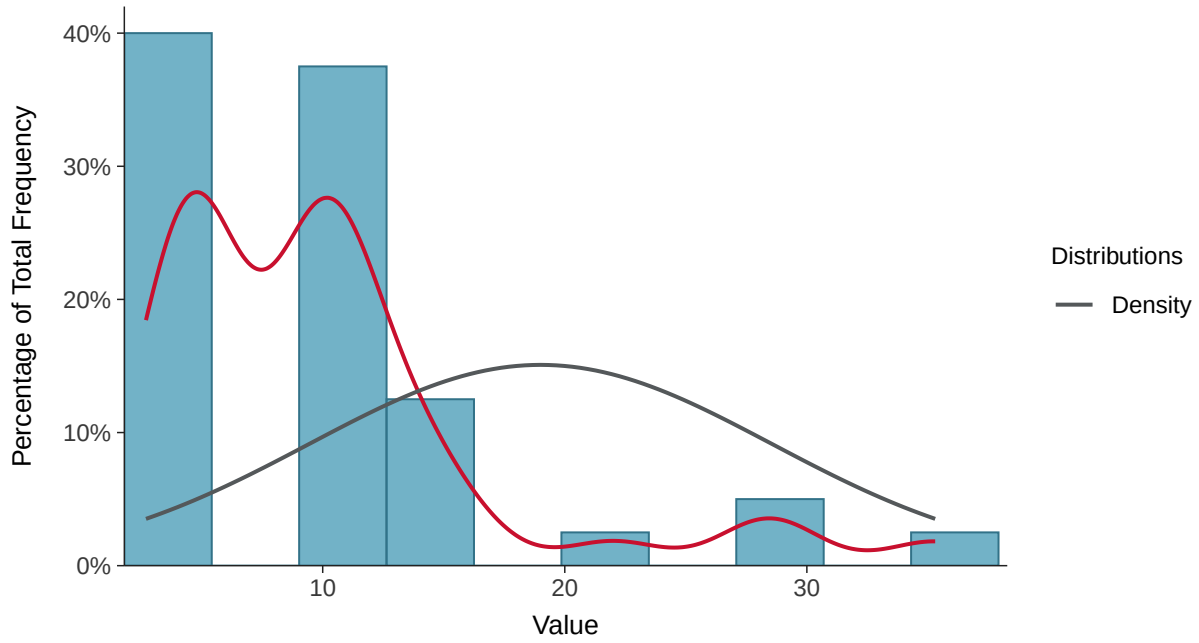
Scatter Plot

Zinc, MW-1 (ug/L)



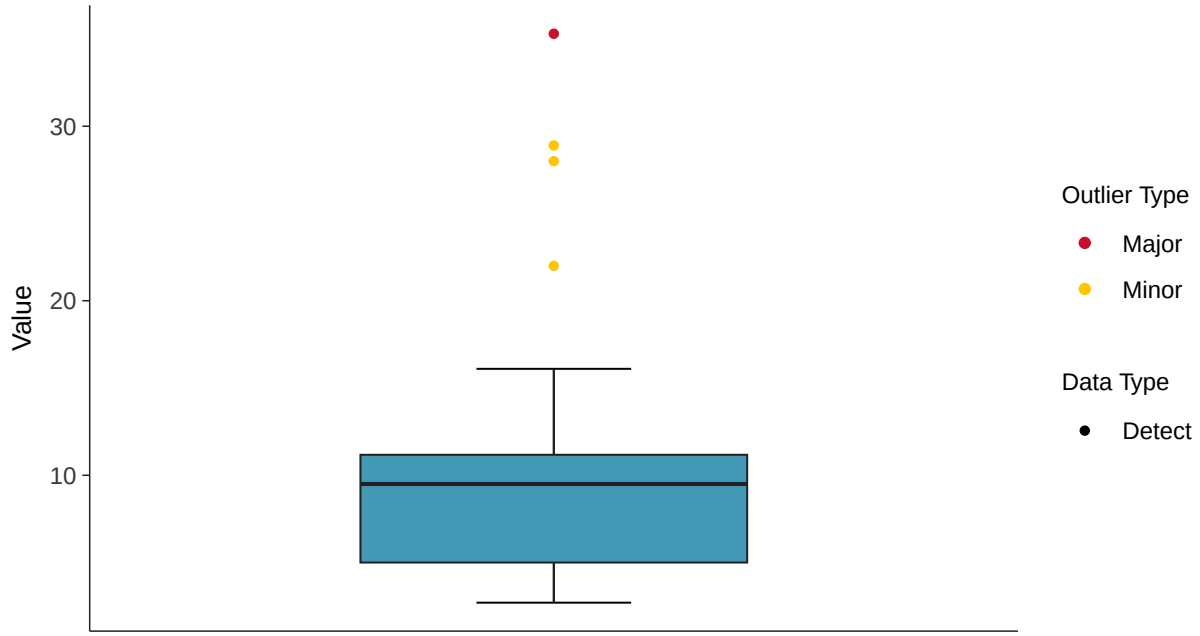
Histogram

Zinc, MW-1 (ug/L)



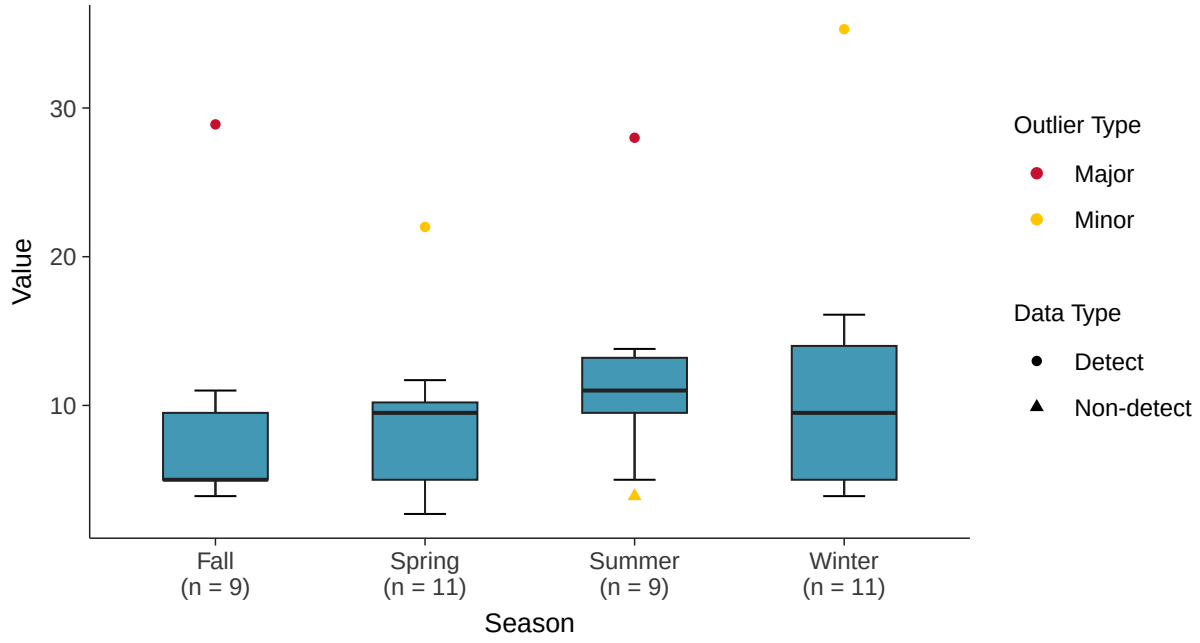
Boxplot

Zinc, MW-1 (ug/L)



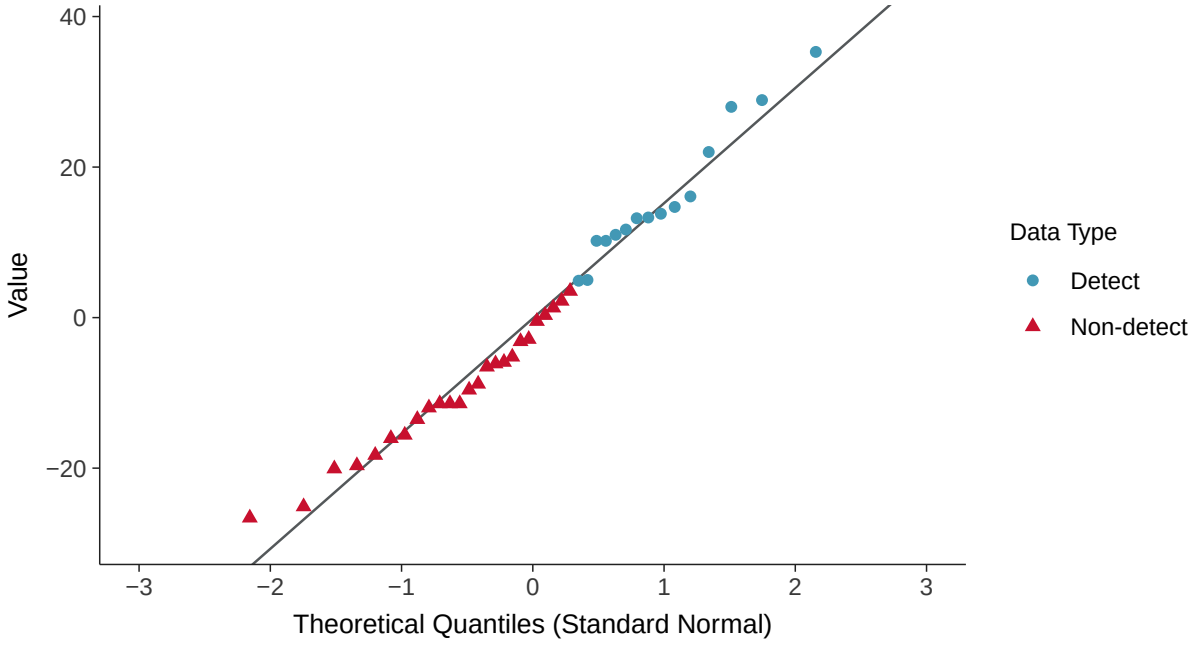
Boxplot by Season

Zinc, MW-1 (ug/L)



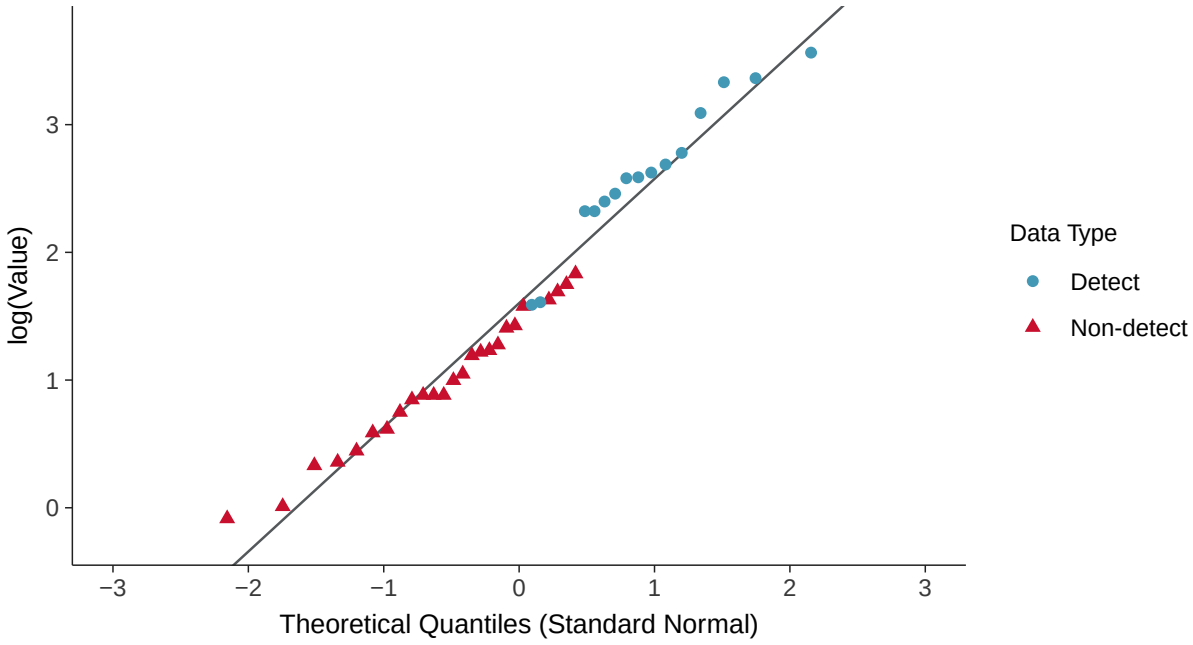
Normal Q-Q plot using ROS Imputed Estimates

Zinc, MW-1 (ug/L)



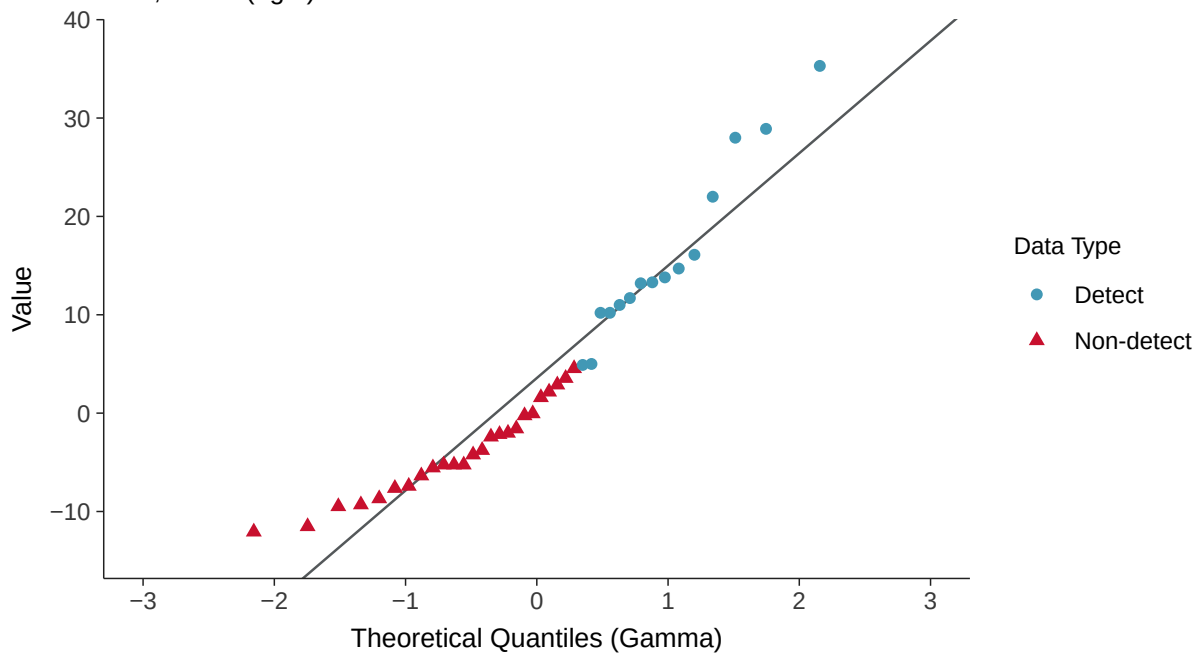
Lognormal Q-Q plot using ROS Imputed Estimates

Zinc, MW-1 (ug/L)



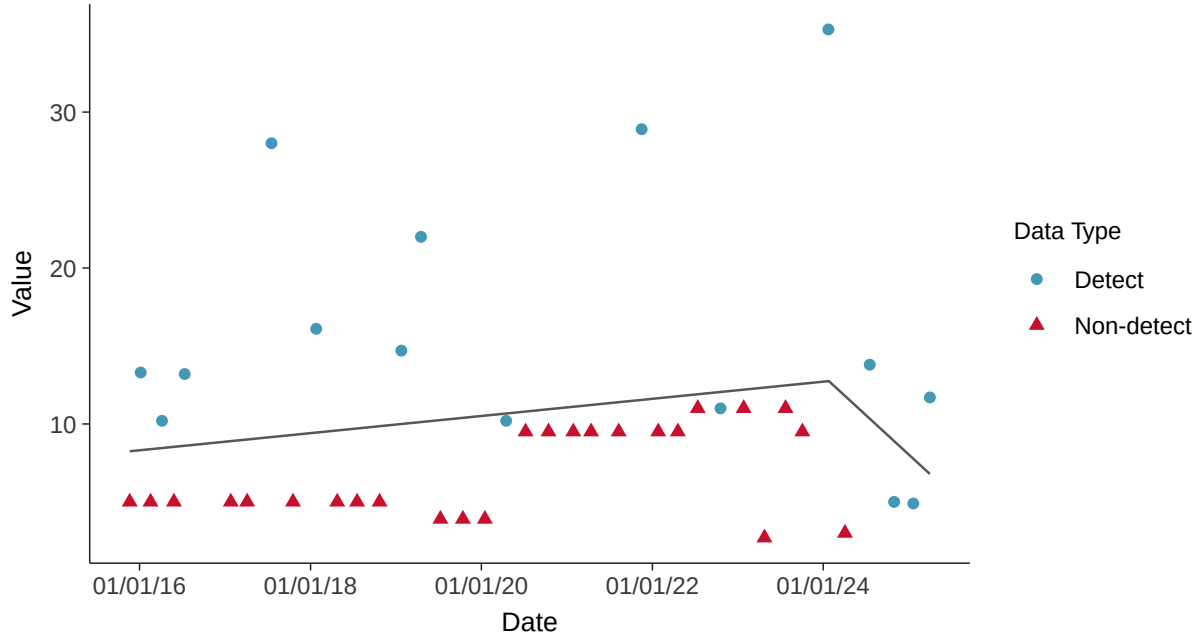
Gamma Q-Q plot using ROS Imputed Estimates

Zinc, MW-1 (ug/L)



Trend Regression: Piecewise Linear-Linear

Zinc, MW-1 (ug/L)

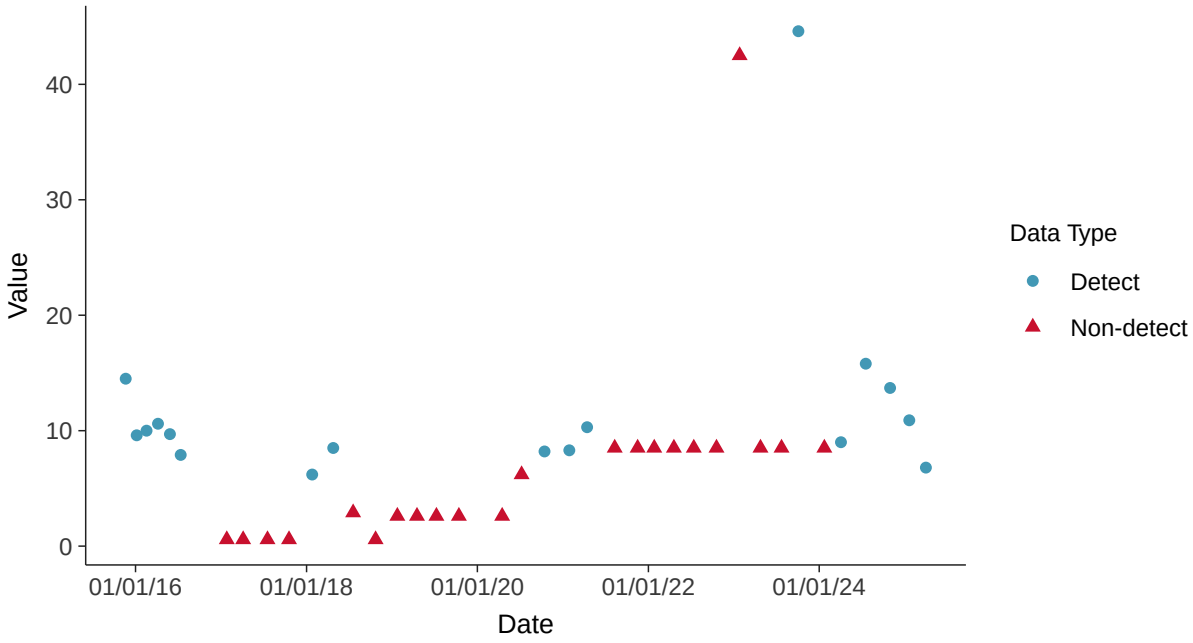


App. III: Boron, MW-1

ID: 01_02_105

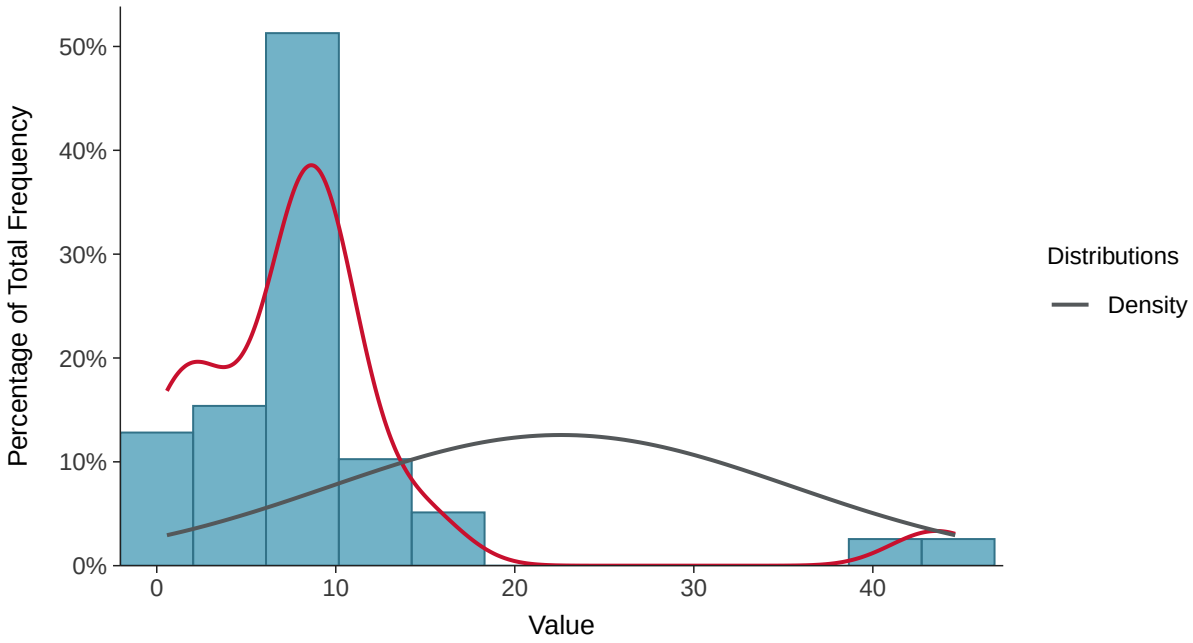
Scatter Plot

Boron, MW-1 (ug/L)



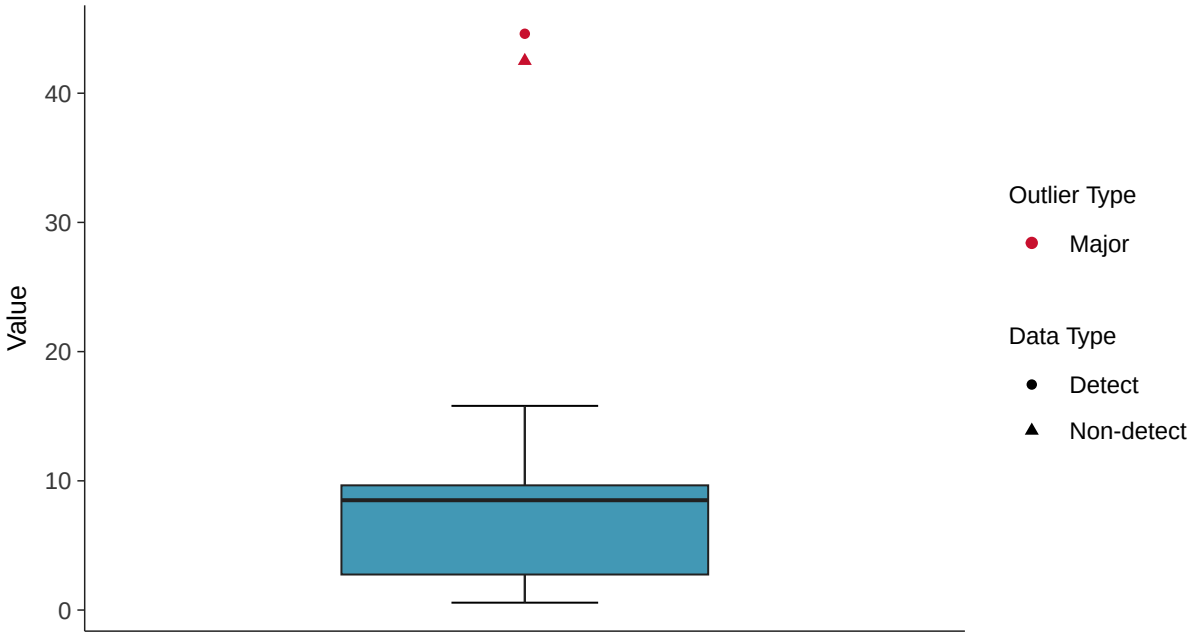
Histogram

Boron, MW-1 (ug/L)



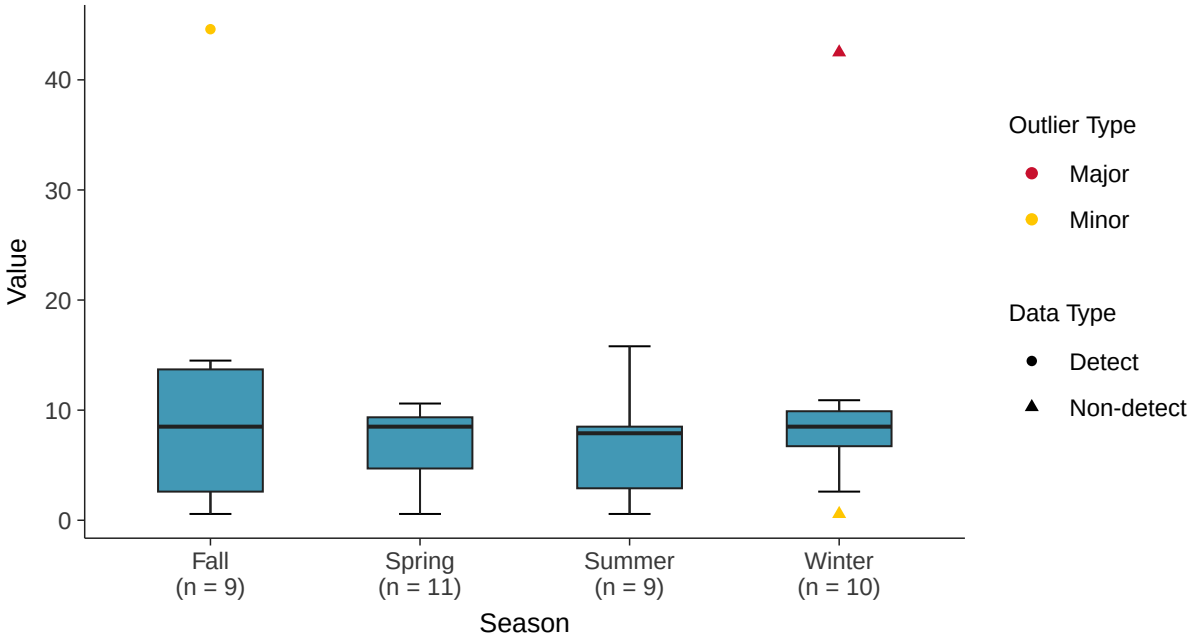
Boxplot

Boron, MW-1 (ug/L)



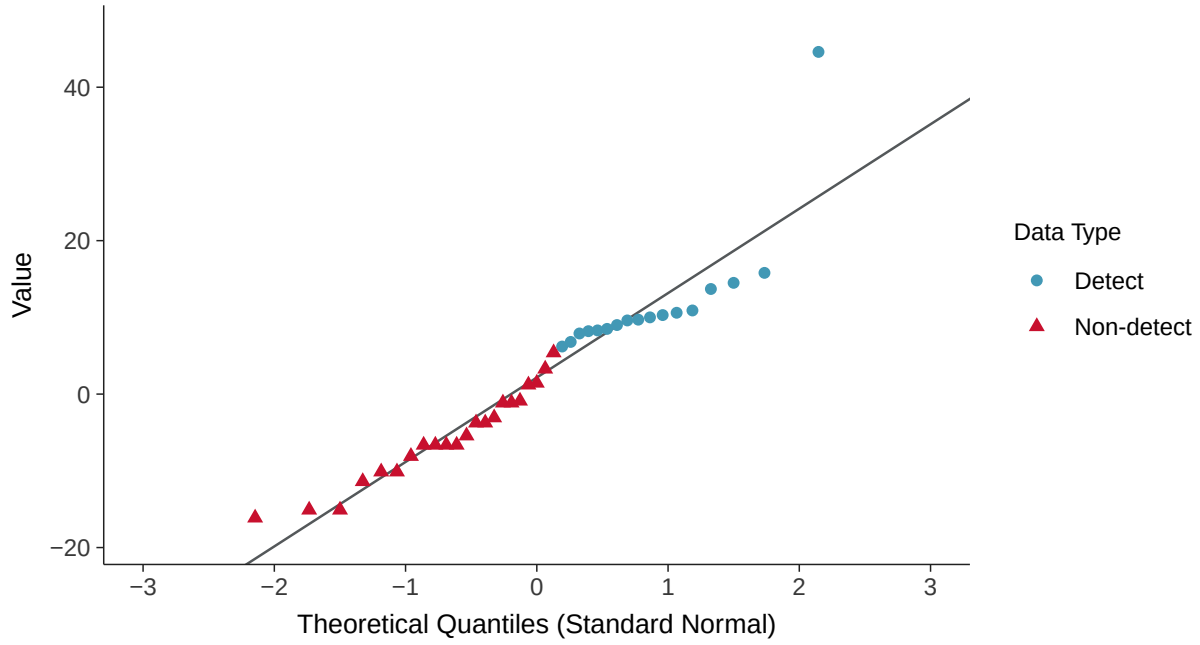
Boxplot by Season

Boron, MW-1 (ug/L)



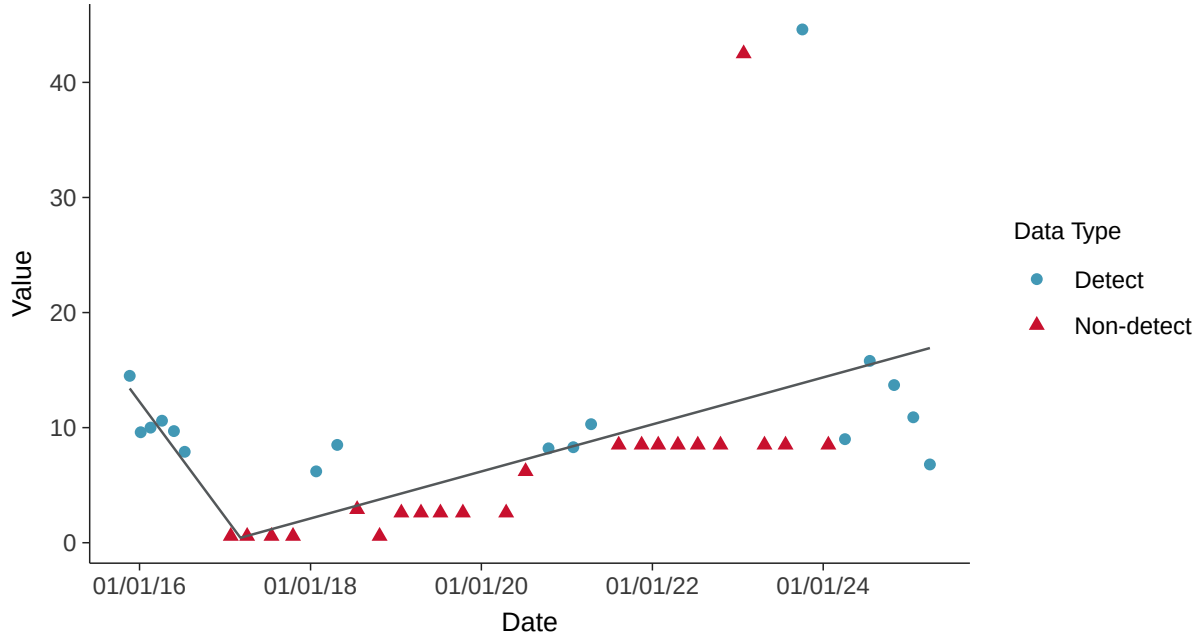
Normal Q-Q plot using ROS Imputed Estimates

Boron, MW-1 (ug/L)



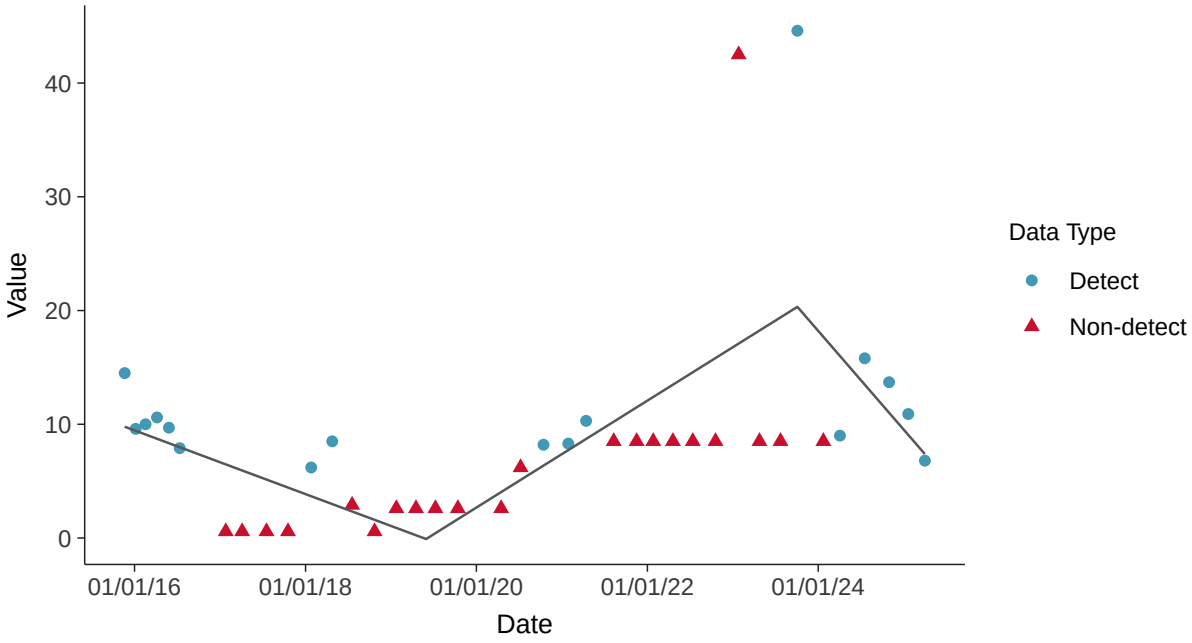
Trend Regression: Piecewise Linear-Linear

Boron, MW-1 (ug/L)



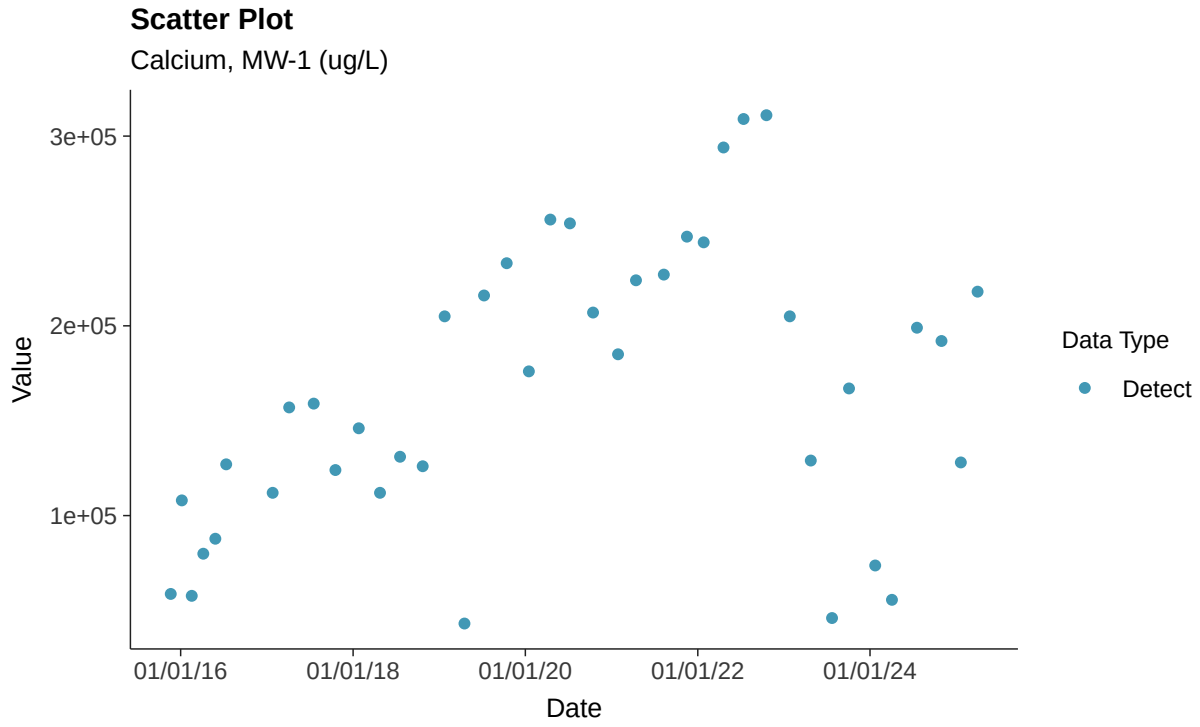
Trend Regression: Piecewise Linear-Linear-Linear

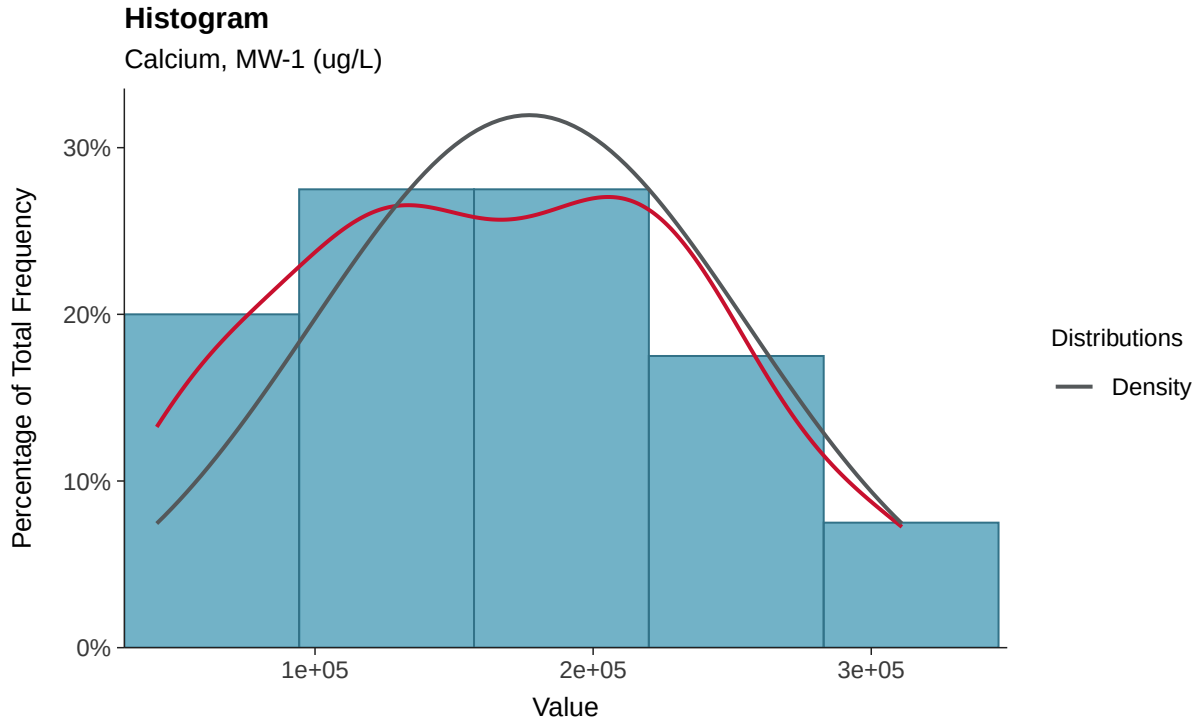
Boron, MW-1 (ug/L)



App. III: Calcium, MW-1

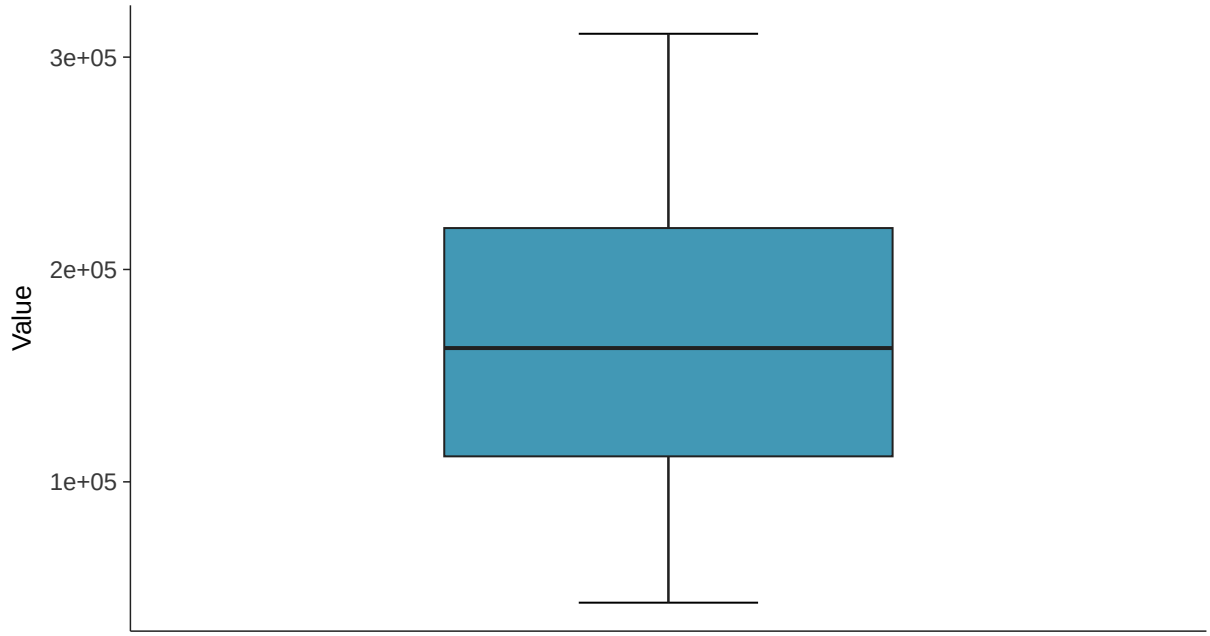
ID: 01_02_107





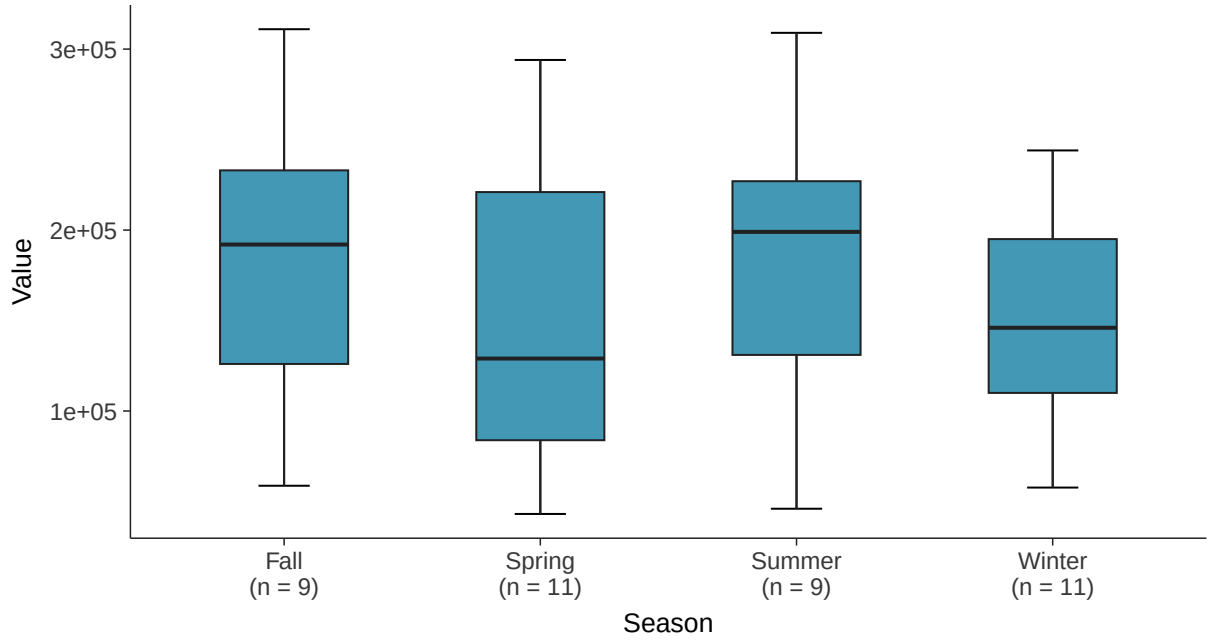
Boxplot

Calcium, MW-1 (ug/L)



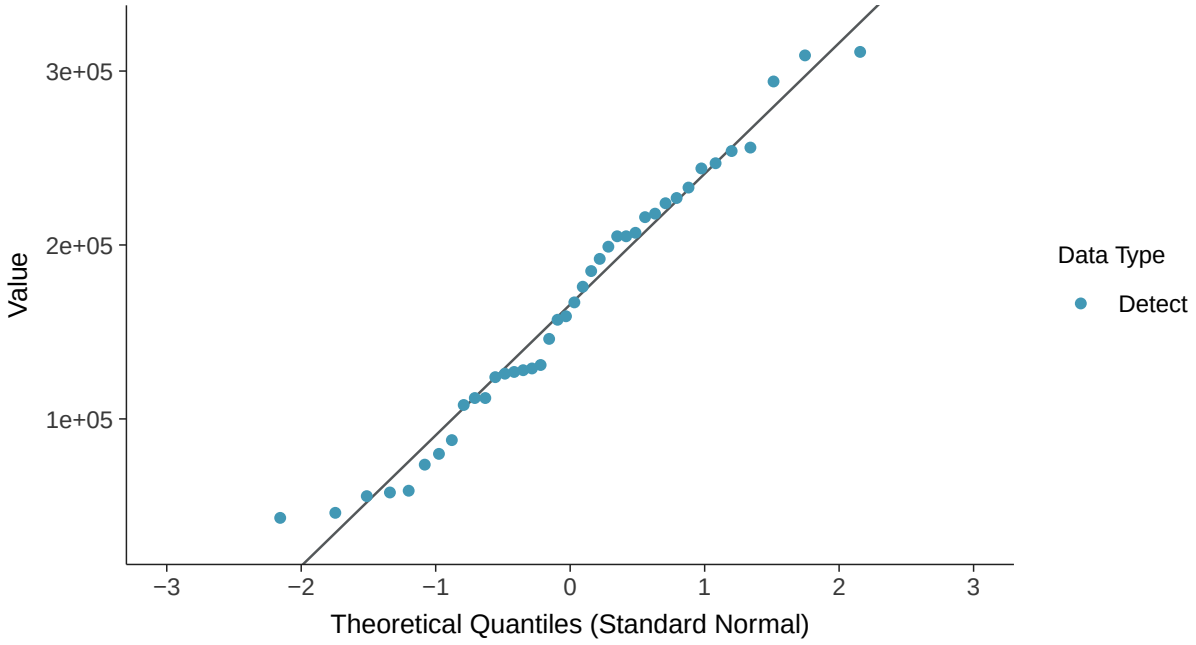
Boxplot by Season

Calcium, MW-1 (ug/L)



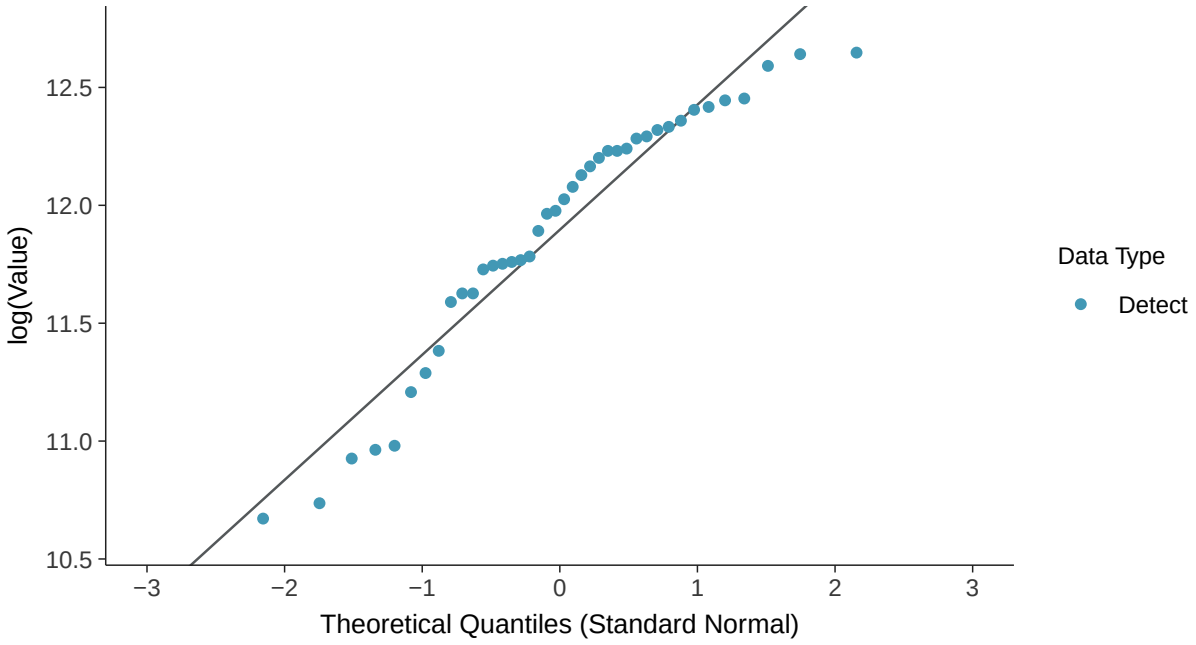
Normal Q-Q plot

Calcium, MW-1 (ug/L)



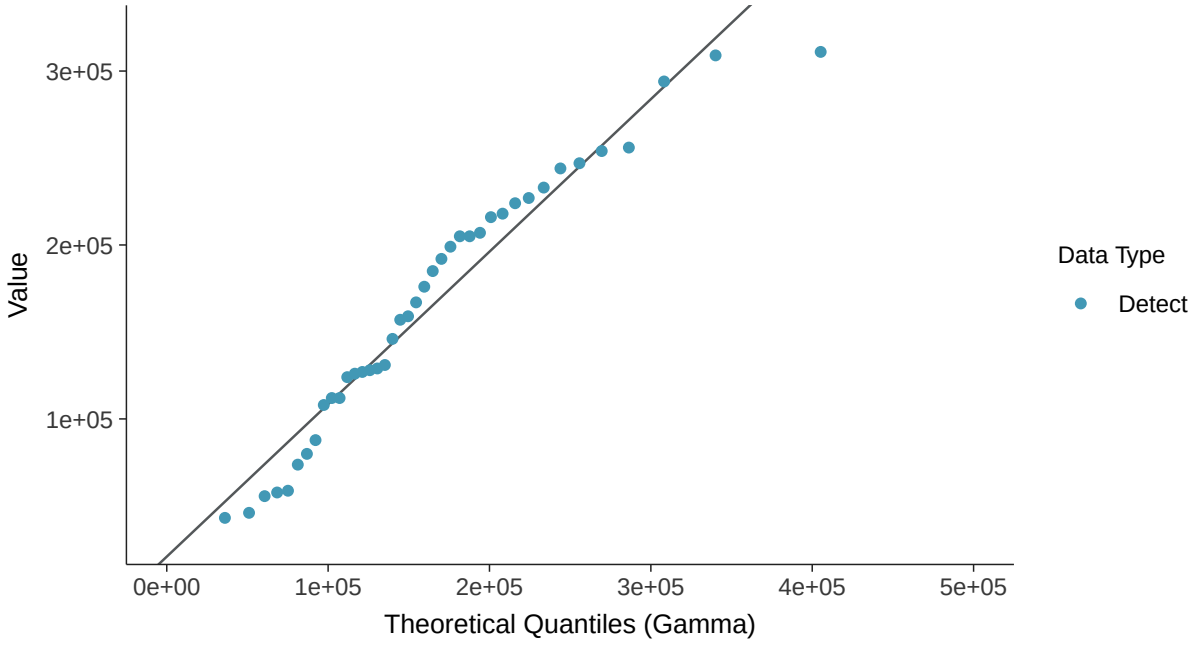
Lognormal Q-Q plot

Calcium, MW-1 (ug/L)



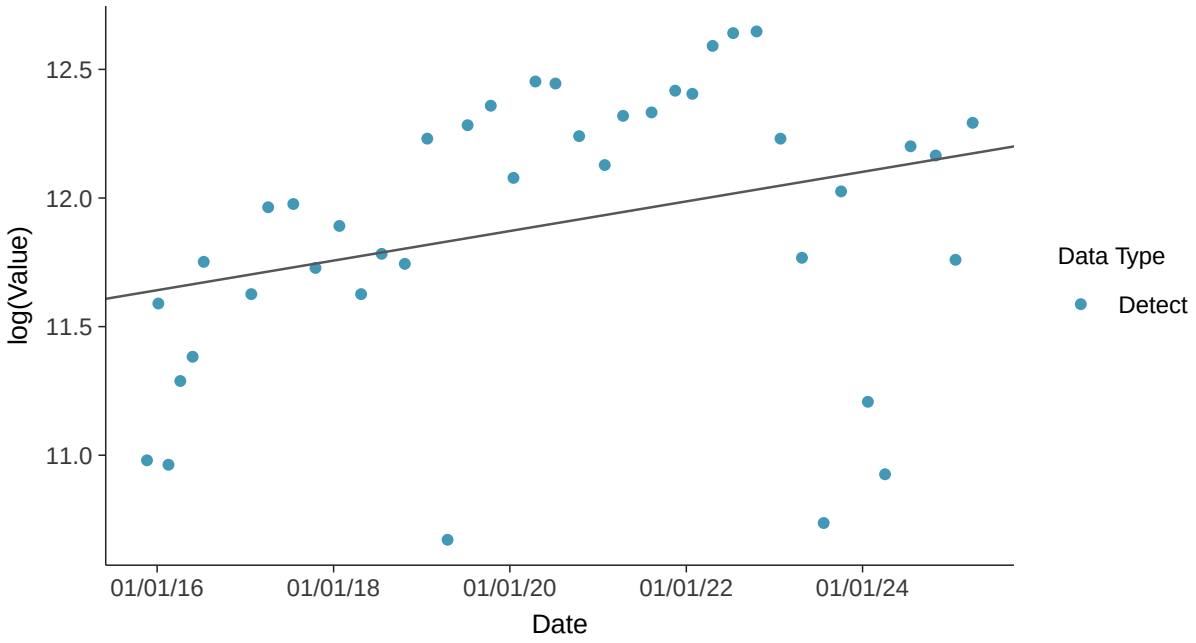
Gamma Q-Q plot

Calcium, MW-1 (ug/L)



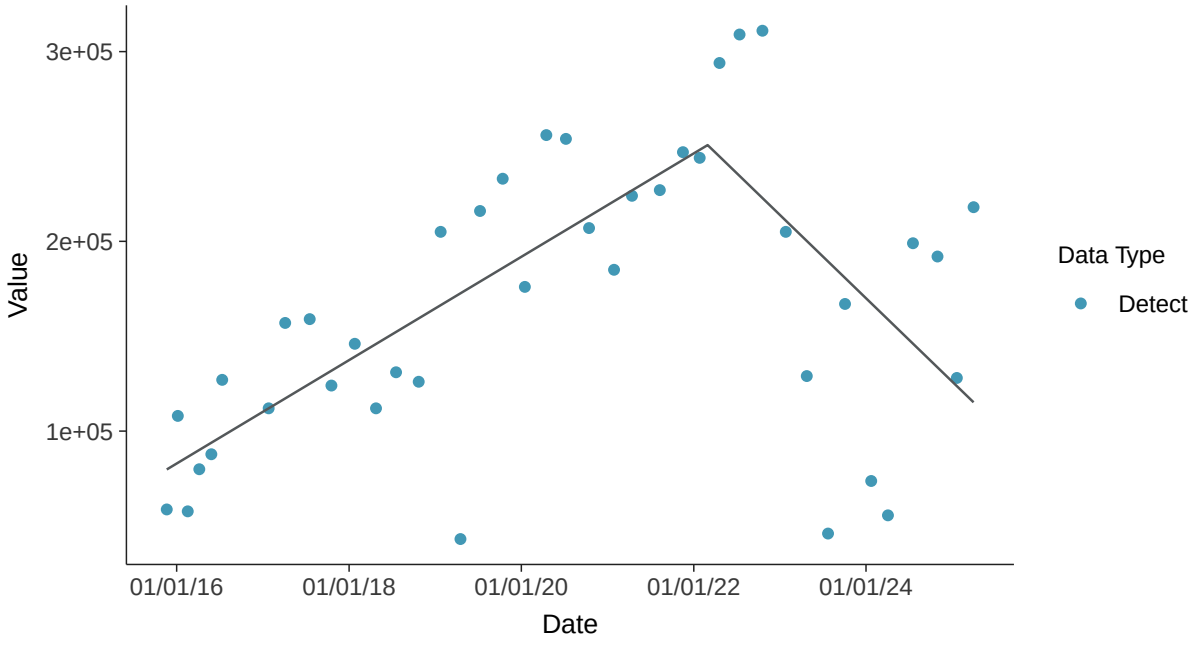
Trend Regression: Lognormal MLE

Calcium, MW-1 (ug/L)



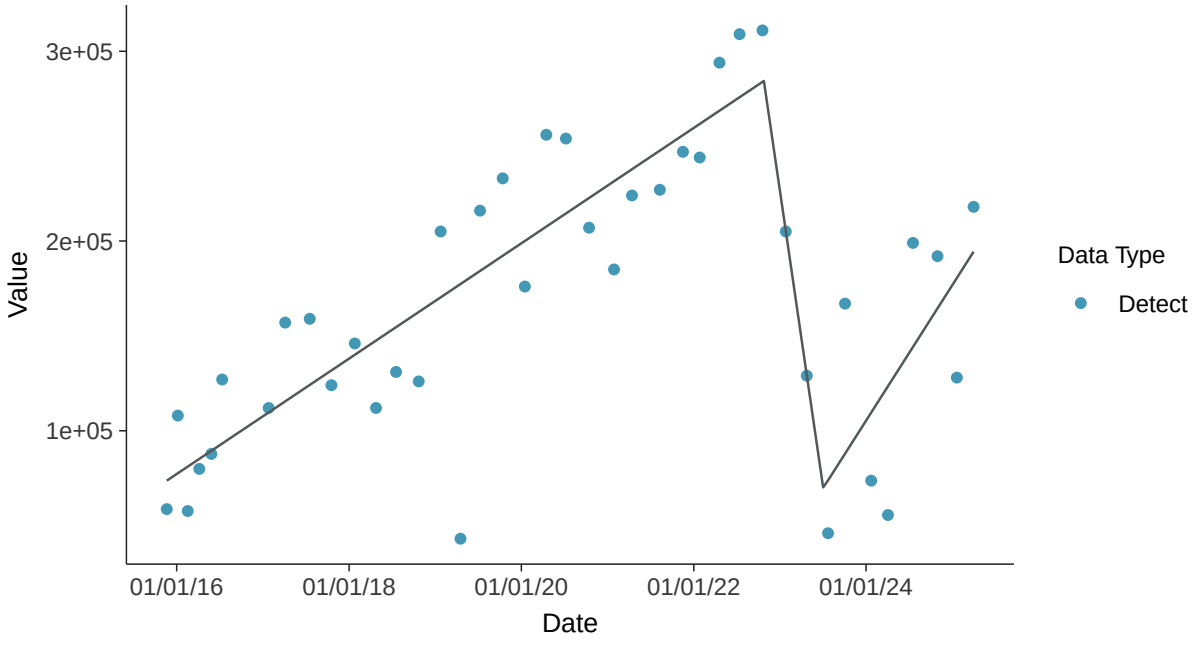
Trend Regression: Piecewise Linear-Linear

Calcium, MW-1 (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Calcium, MW-1 (ug/L)

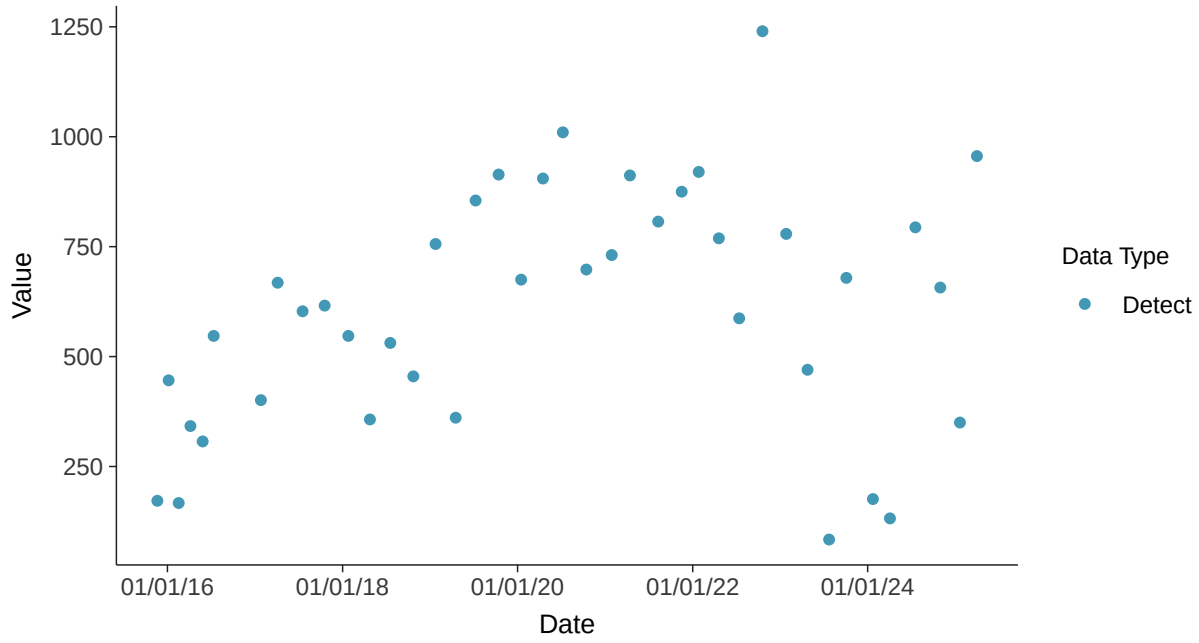


App. III: Chloride, MW-1

ID: 01_02_108

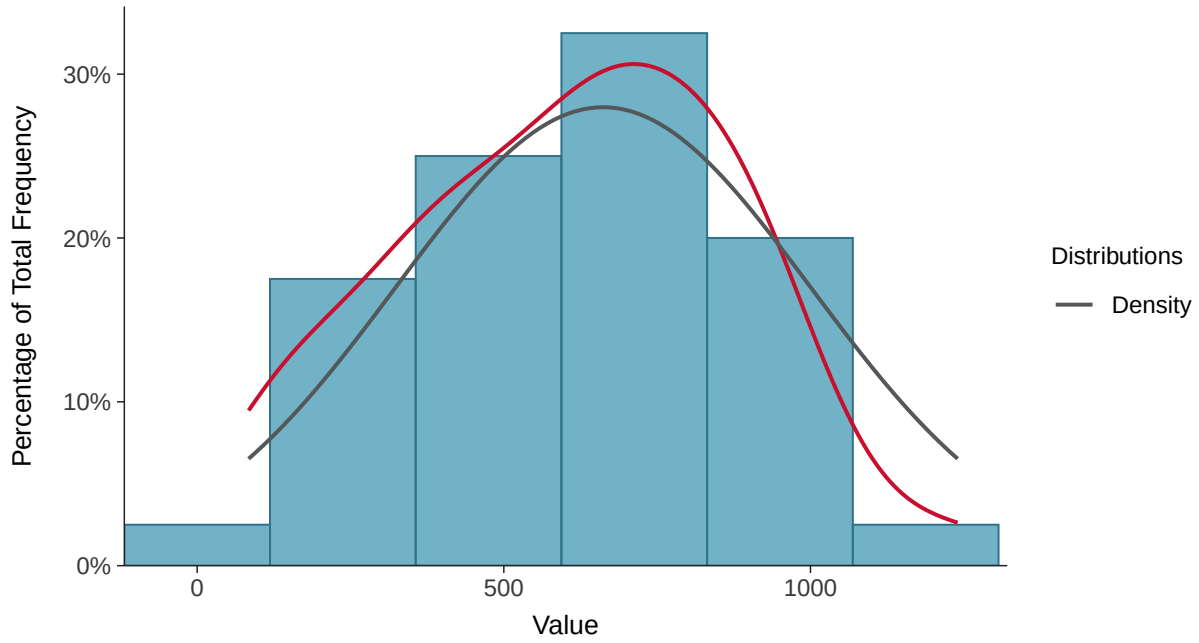
Scatter Plot

Chloride, MW-1 (mg/L)



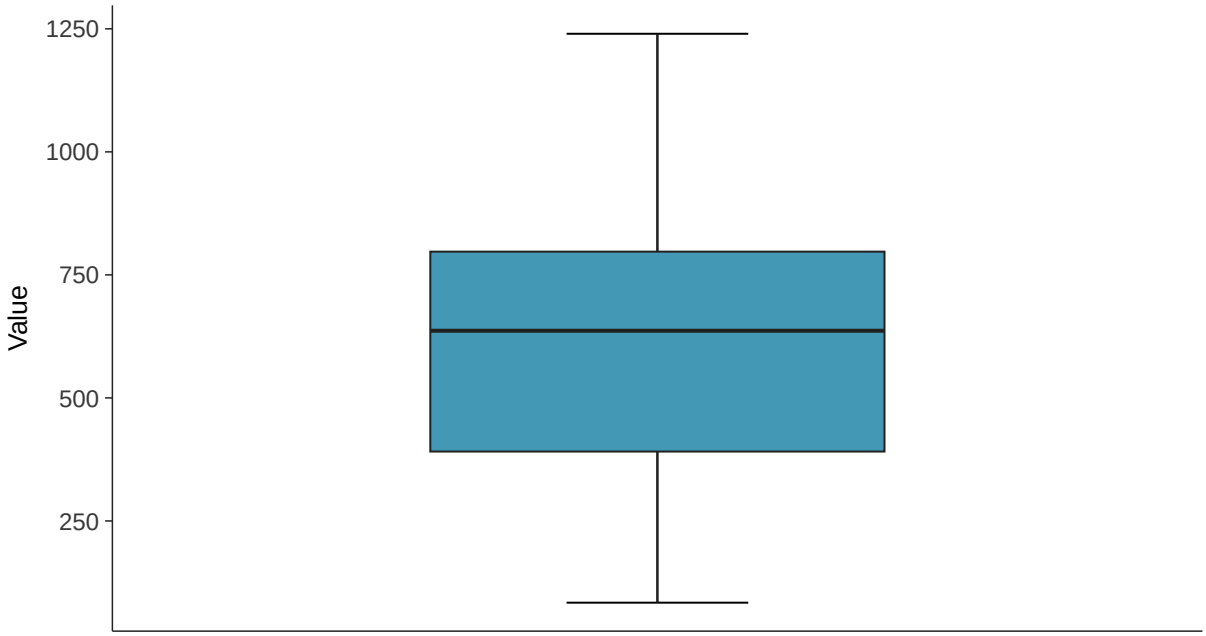
Histogram

Chloride, MW-1 (mg/L)



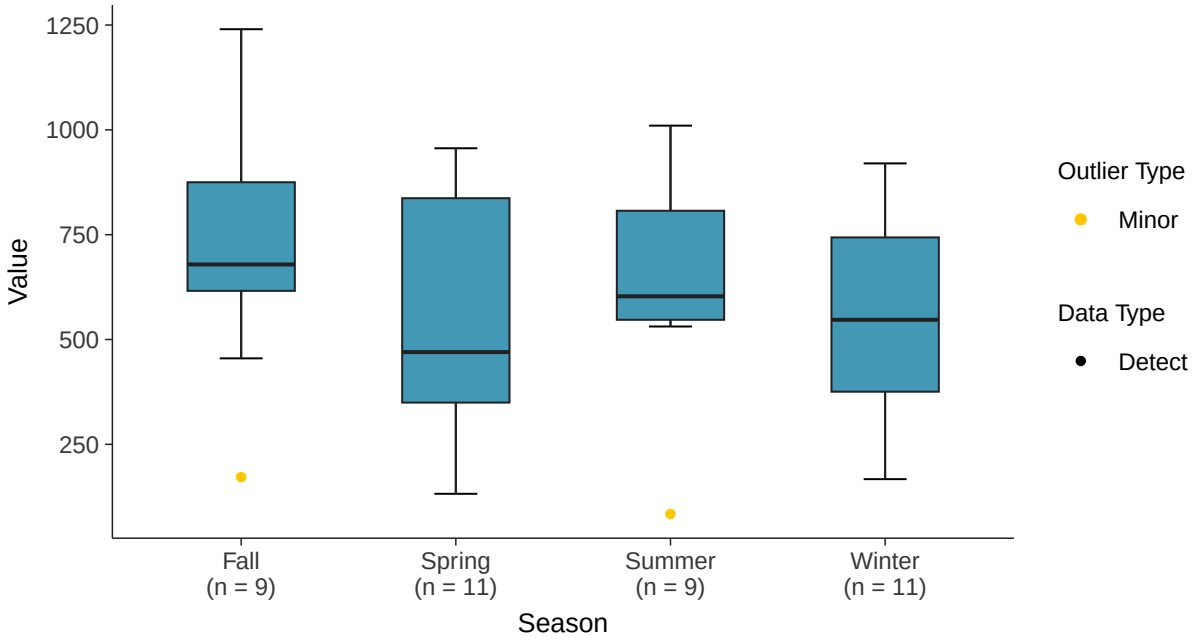
Boxplot

Chloride, MW-1 (mg/L)



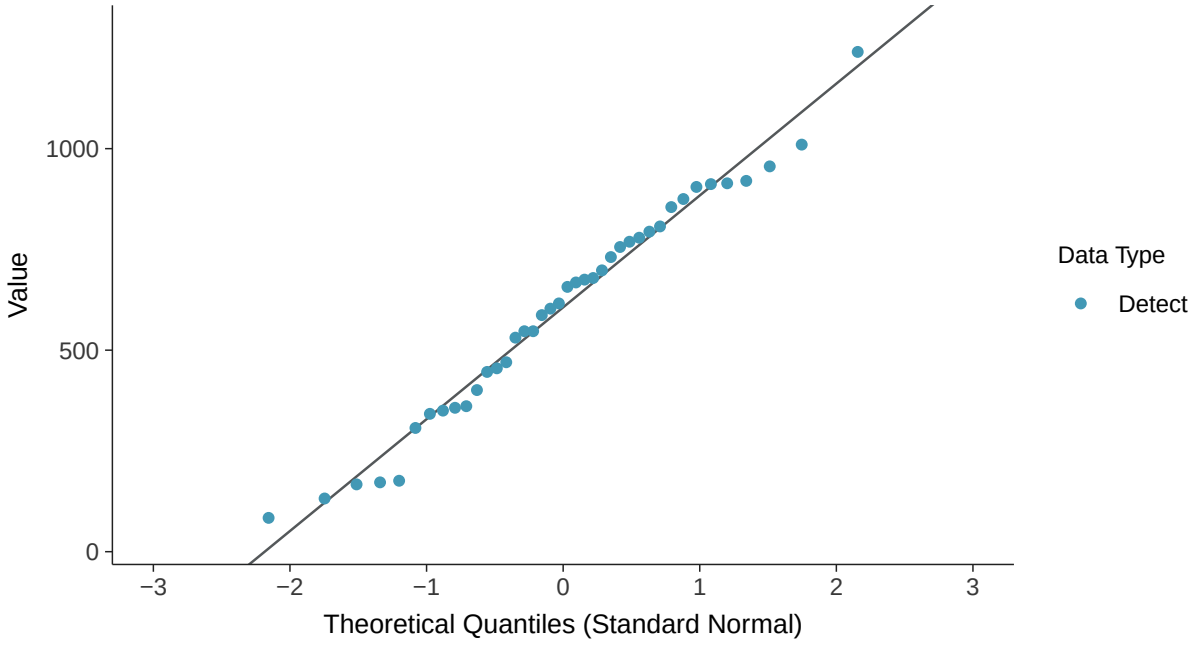
Boxplot by Season

Chloride, MW-1 (mg/L)



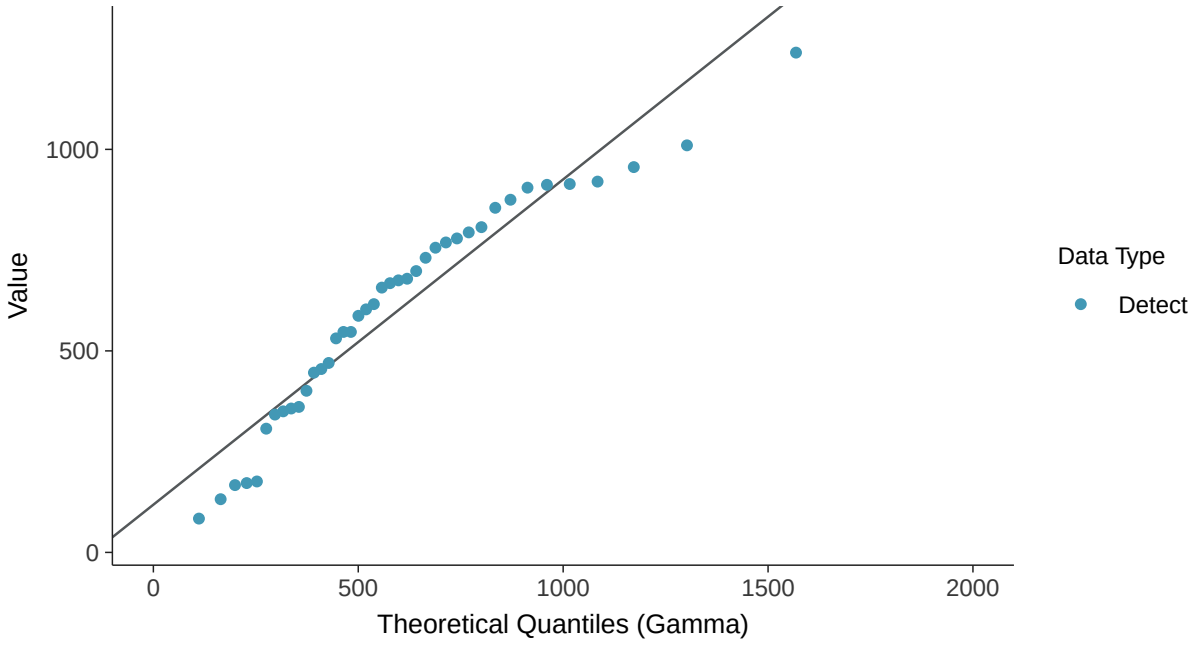
Normal Q-Q plot

Chloride, MW-1 (mg/L)



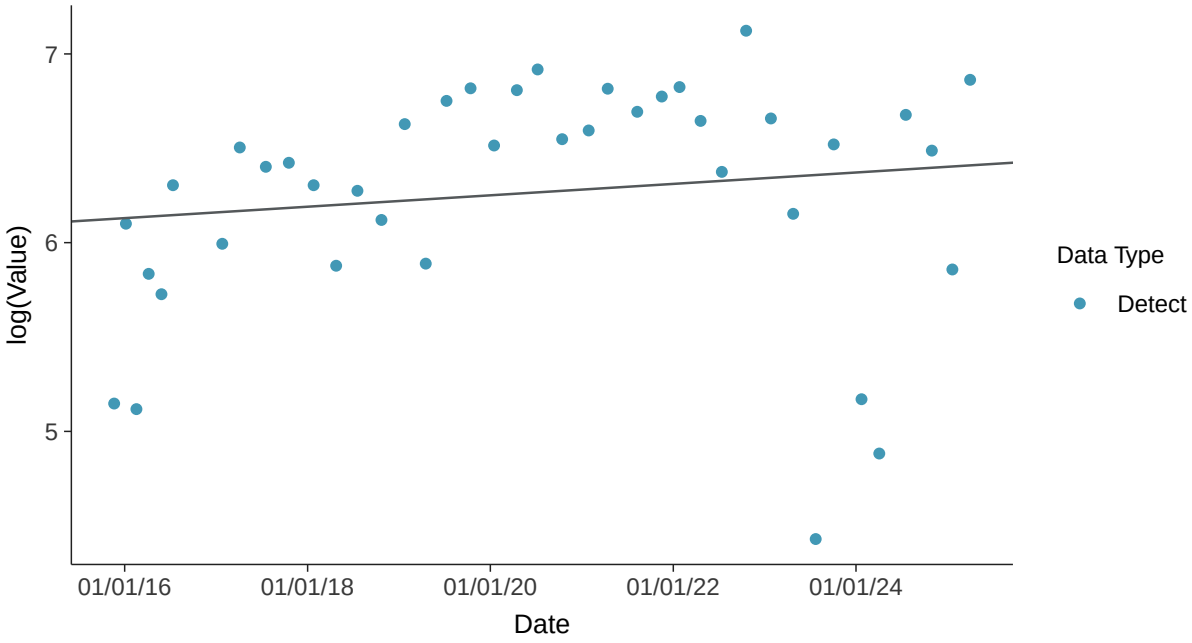
Gamma Q-Q plot

Chloride, MW-1 (mg/L)



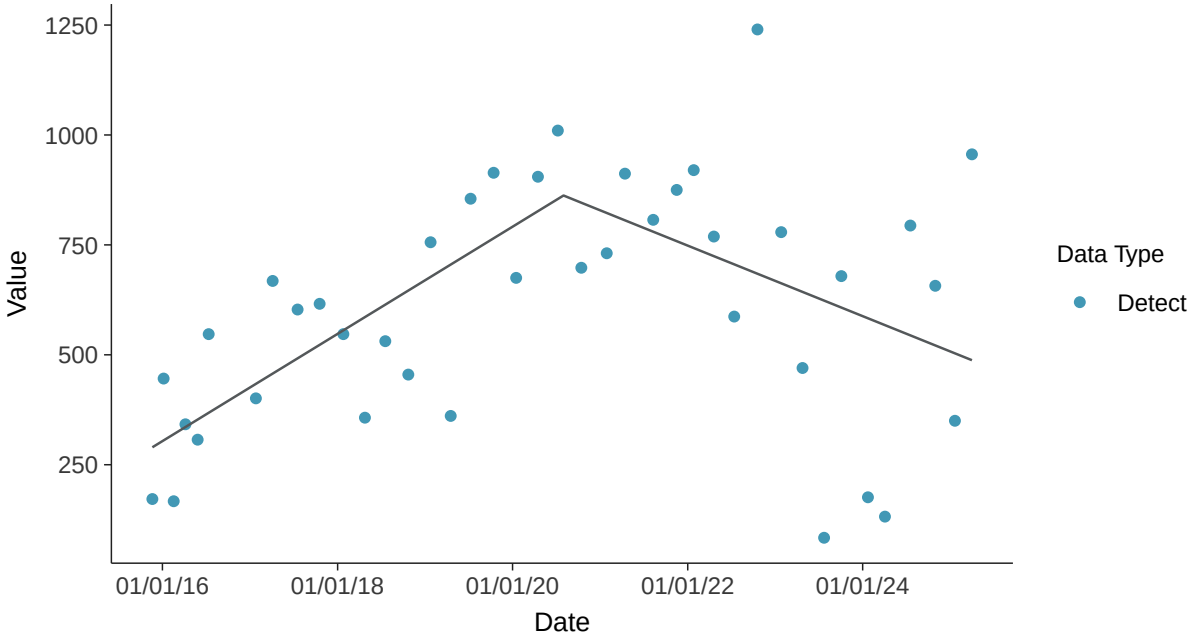
Trend Regression: Lognormal MLE

Chloride, MW-1 (mg/L)



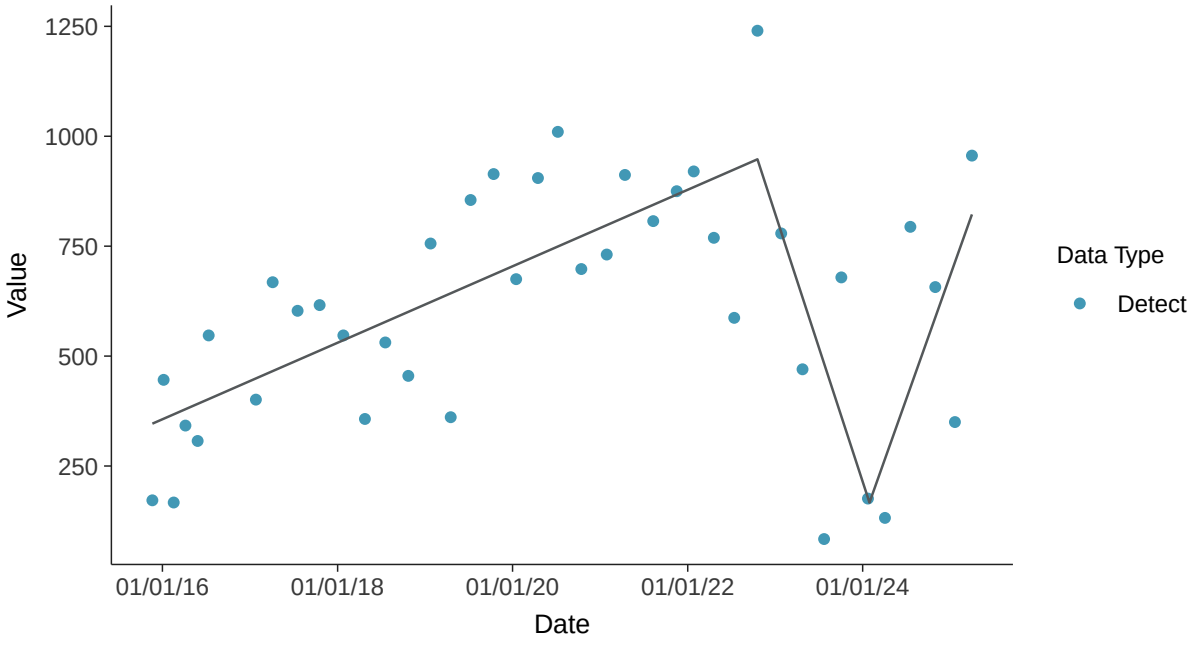
Trend Regression: Piecewise Linear-Linear

Chloride, MW-1 (mg/L)



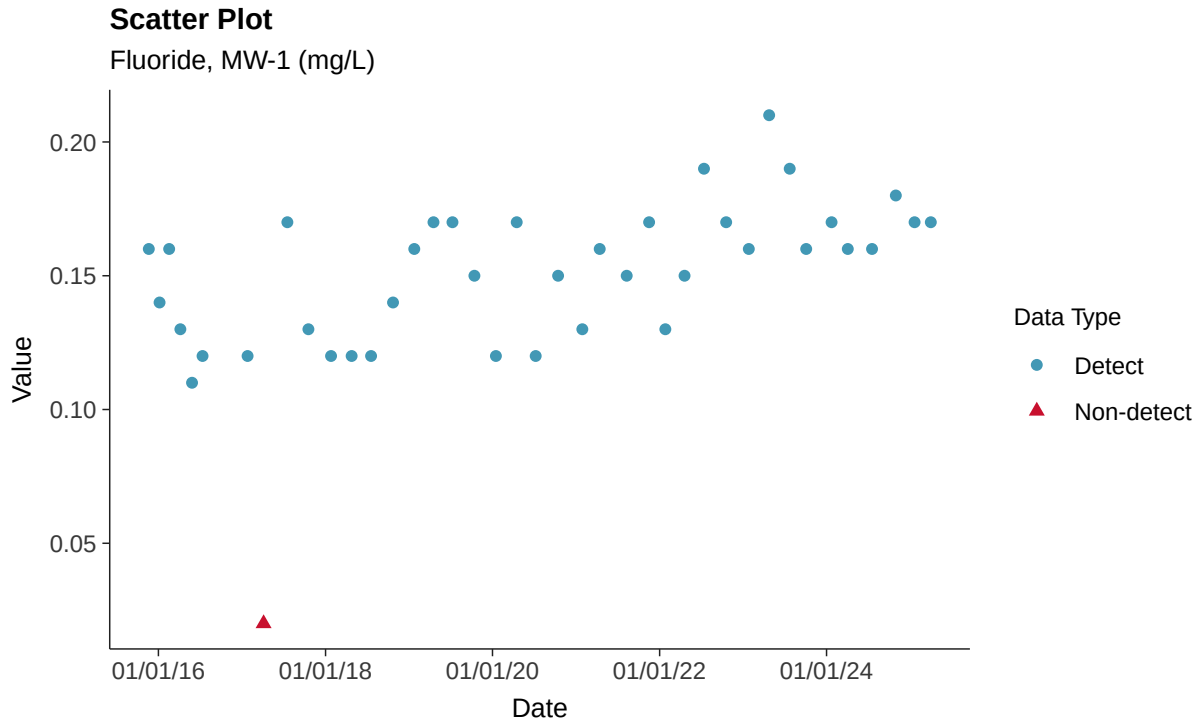
Trend Regression: Piecewise Linear-Linear-Linear

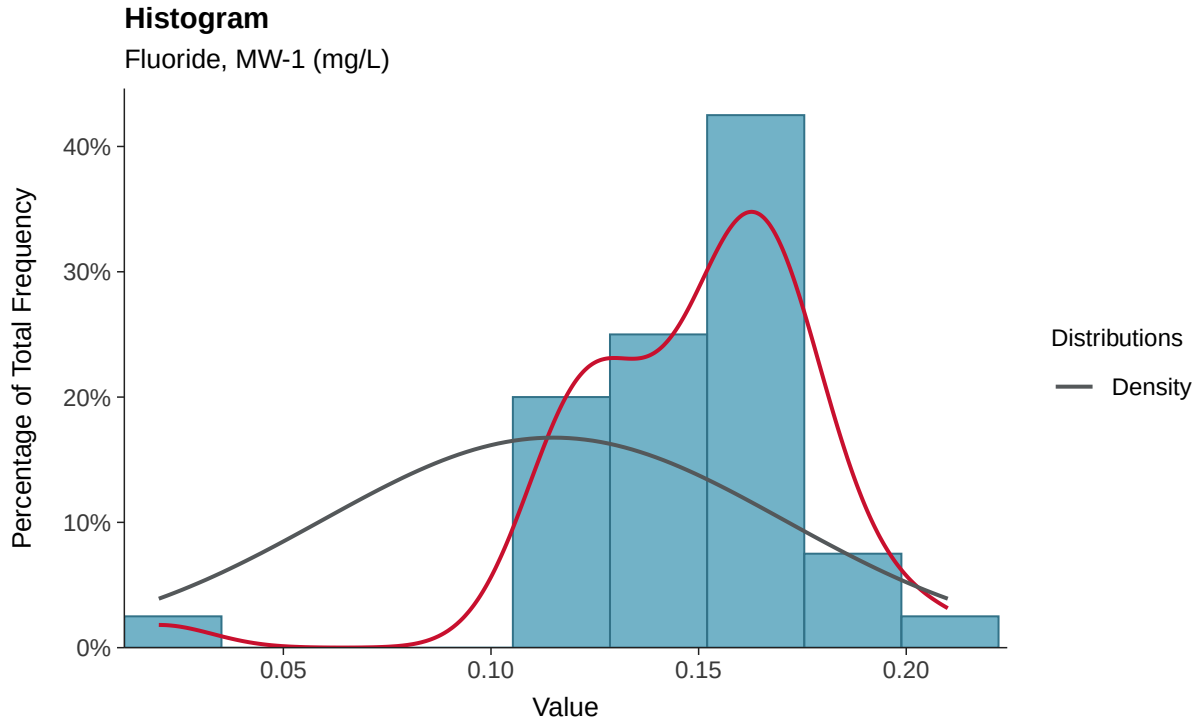
Chloride, MW-1 (mg/L)



App. III: Fluoride, MW-1

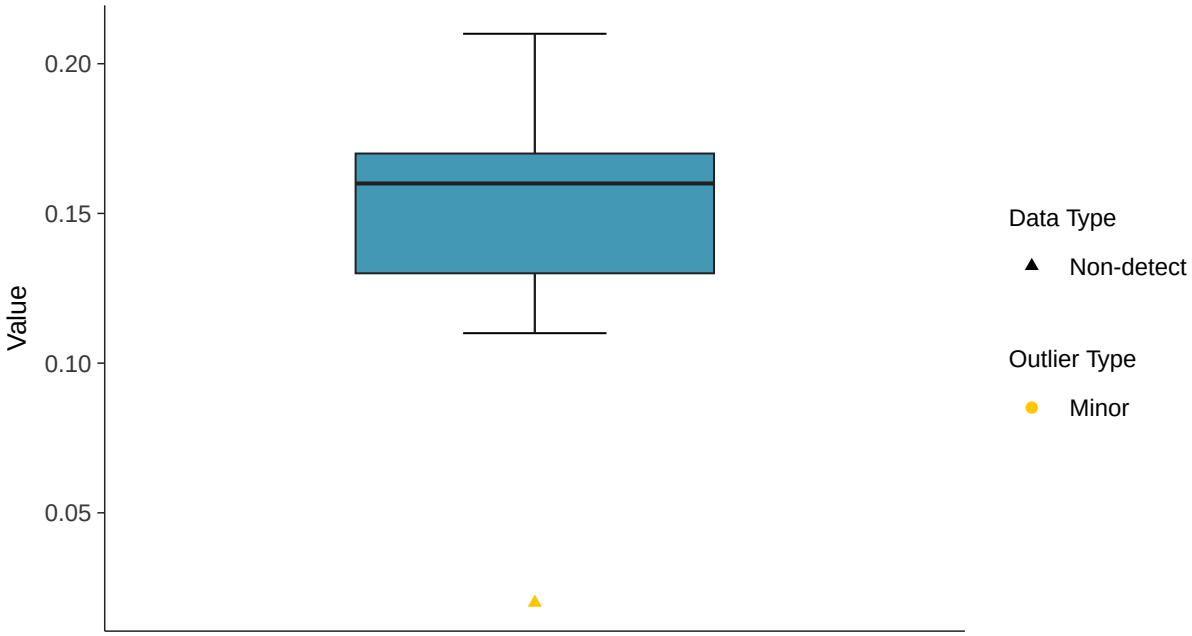
ID: 01_02_112





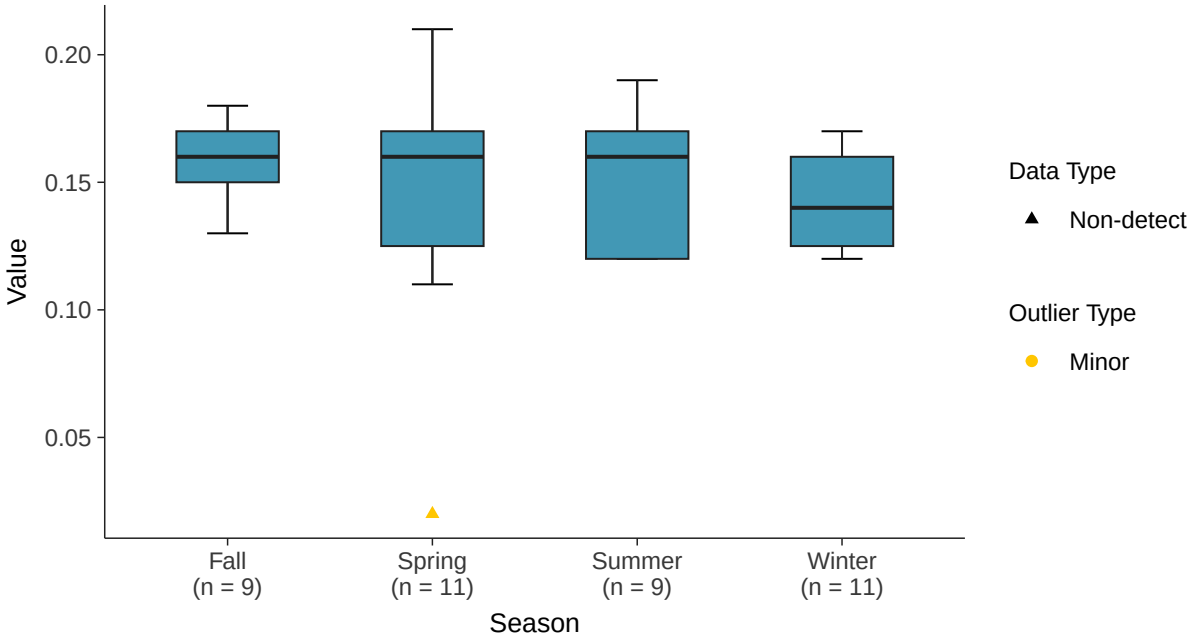
Boxplot

Fluoride, MW-1 (mg/L)



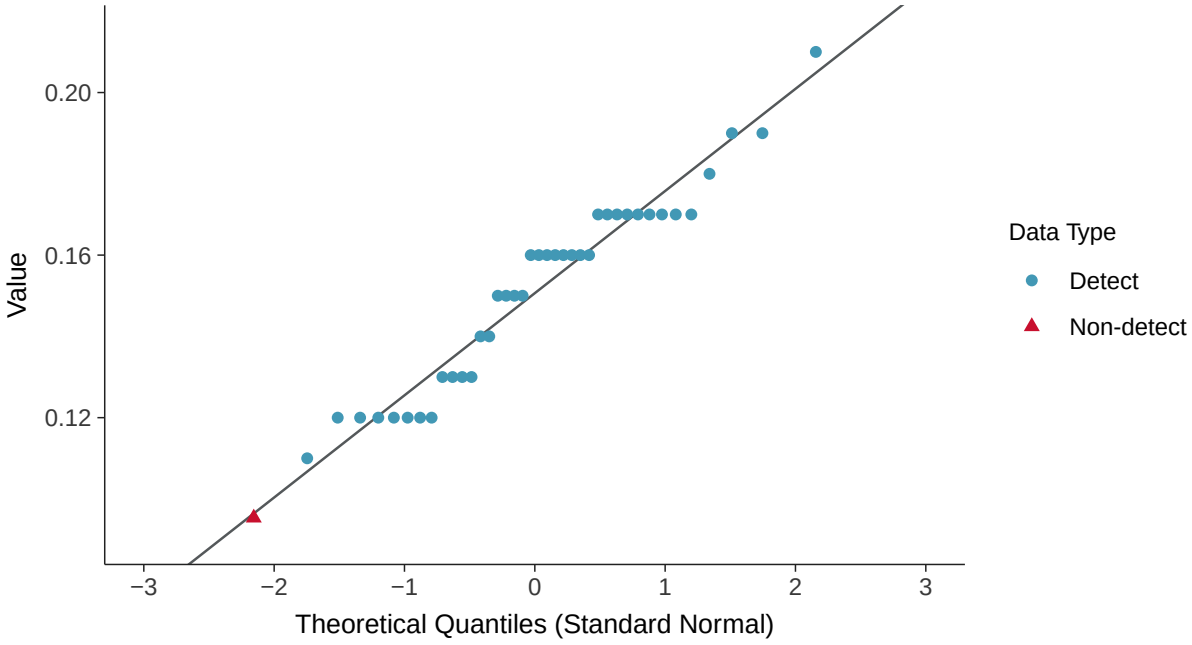
Boxplot by Season

Fluoride, MW-1 (mg/L)



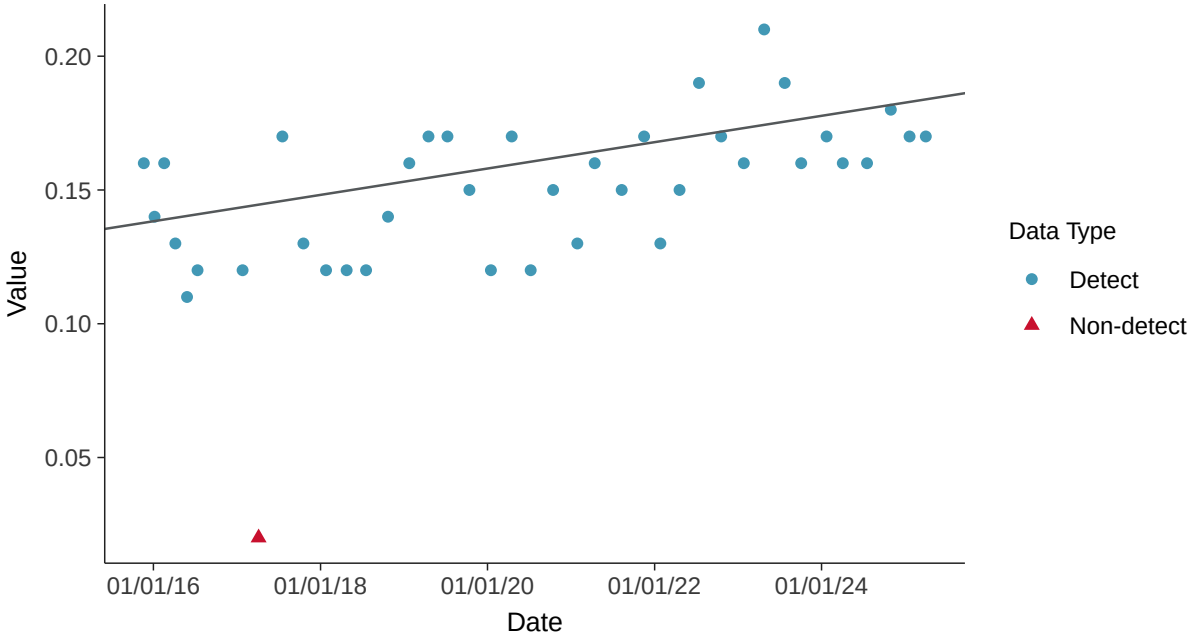
Normal Q-Q plot using ROS Imputed Estimates

Fluoride, MW-1 (mg/L)



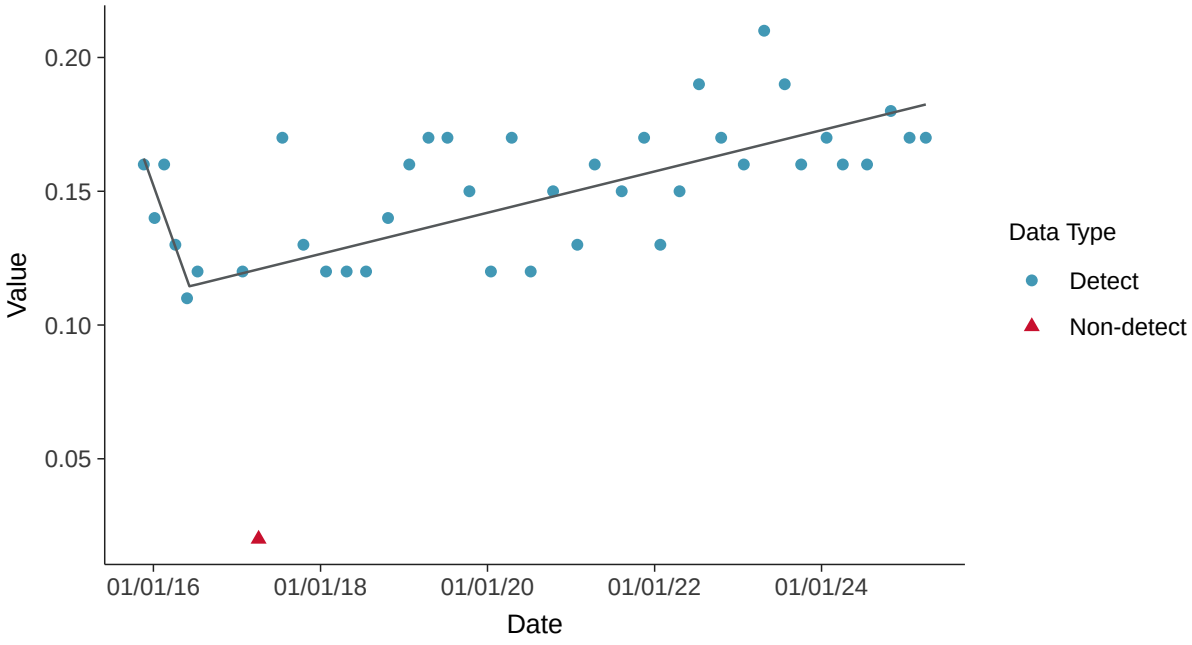
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Fluoride, MW-1 (mg/L)



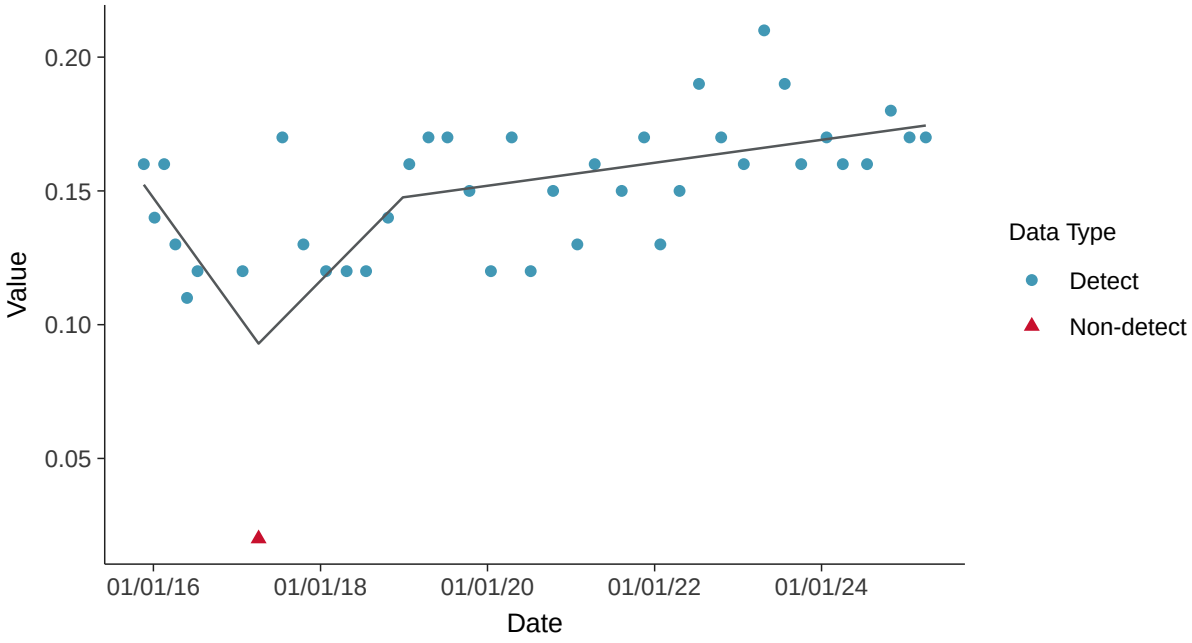
Trend Regression: Piecewise Linear-Linear

Fluoride, MW-1 (mg/L)



Trend Regression: Piecewise Linear-Linear-Linear

Fluoride, MW-1 (mg/L)

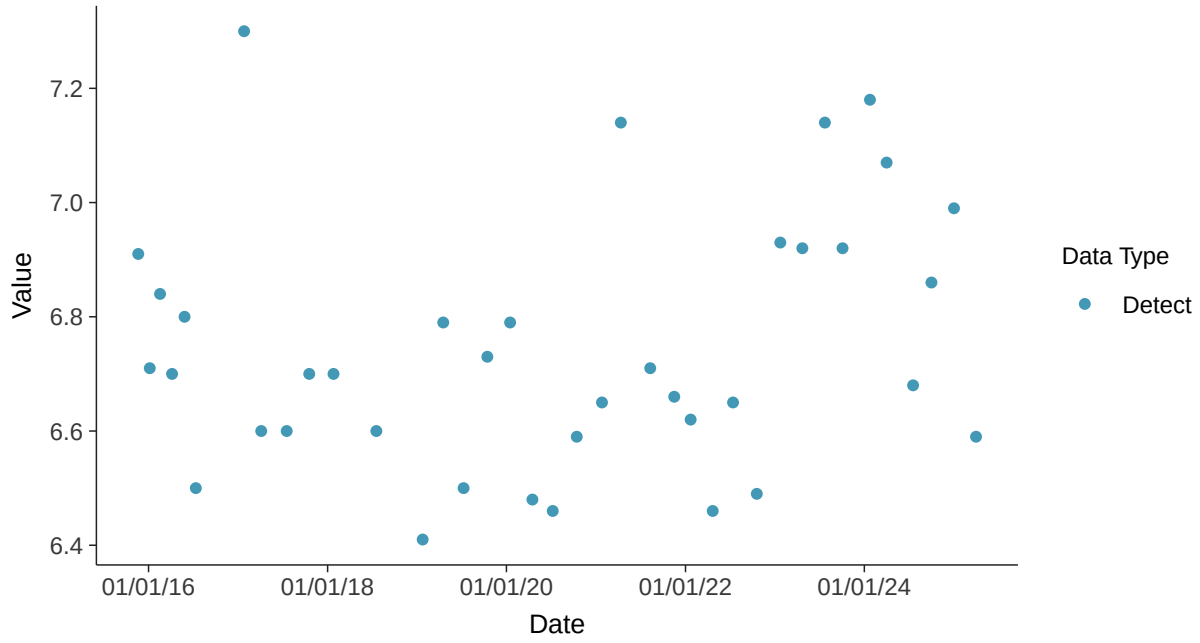


App. III: pH (Field), MW-1

ID: 01_02_118

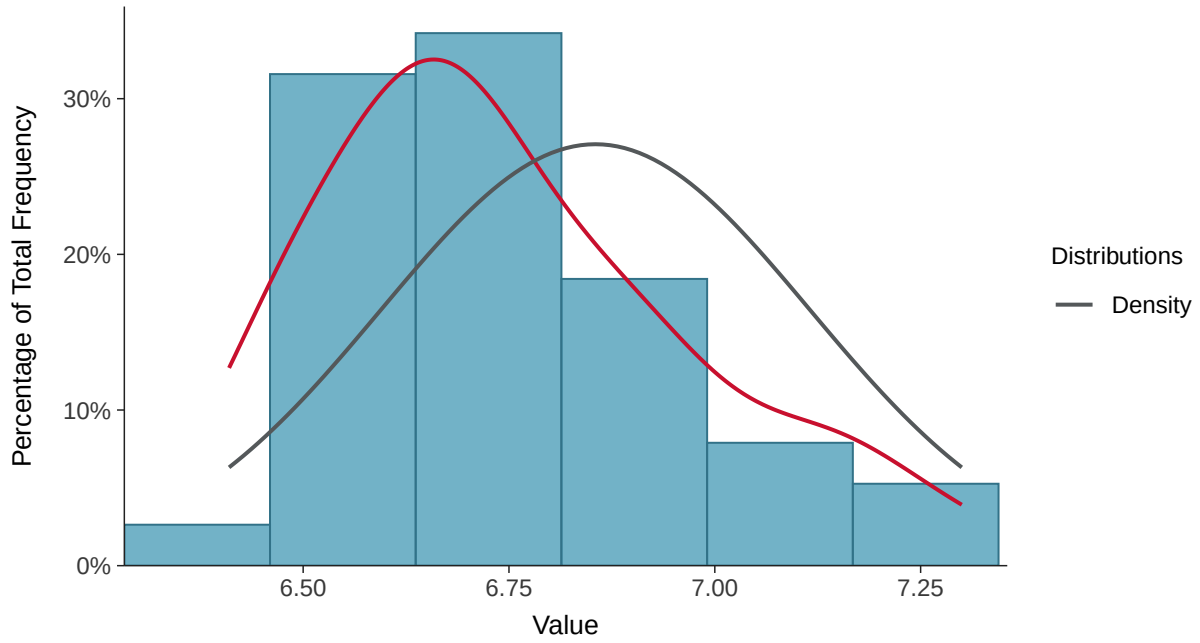
Scatter Plot

pH (Field), MW-1 (S.U.)



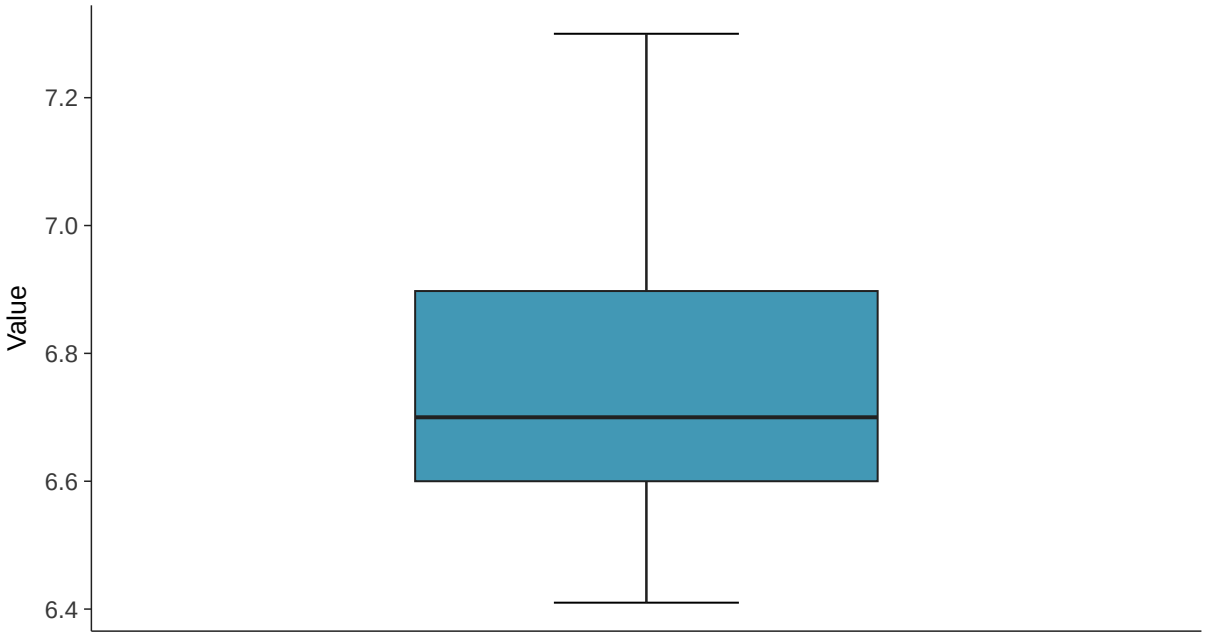
Histogram

pH (Field), MW-1 (S.U.)



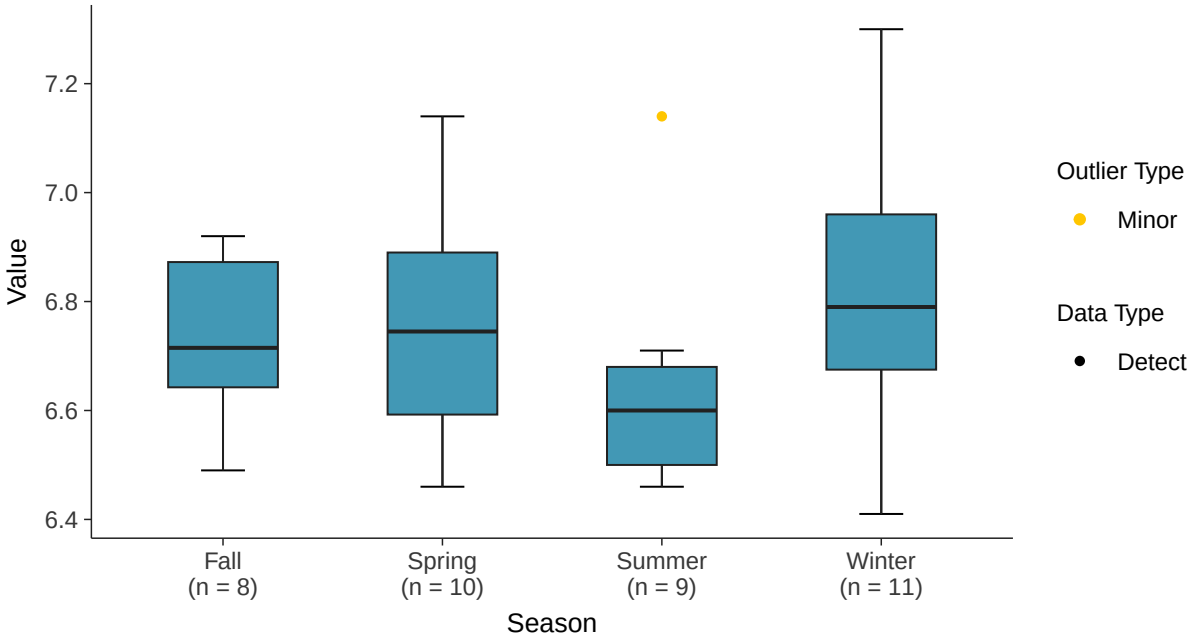
Boxplot

pH (Field), MW-1 (S.U.)



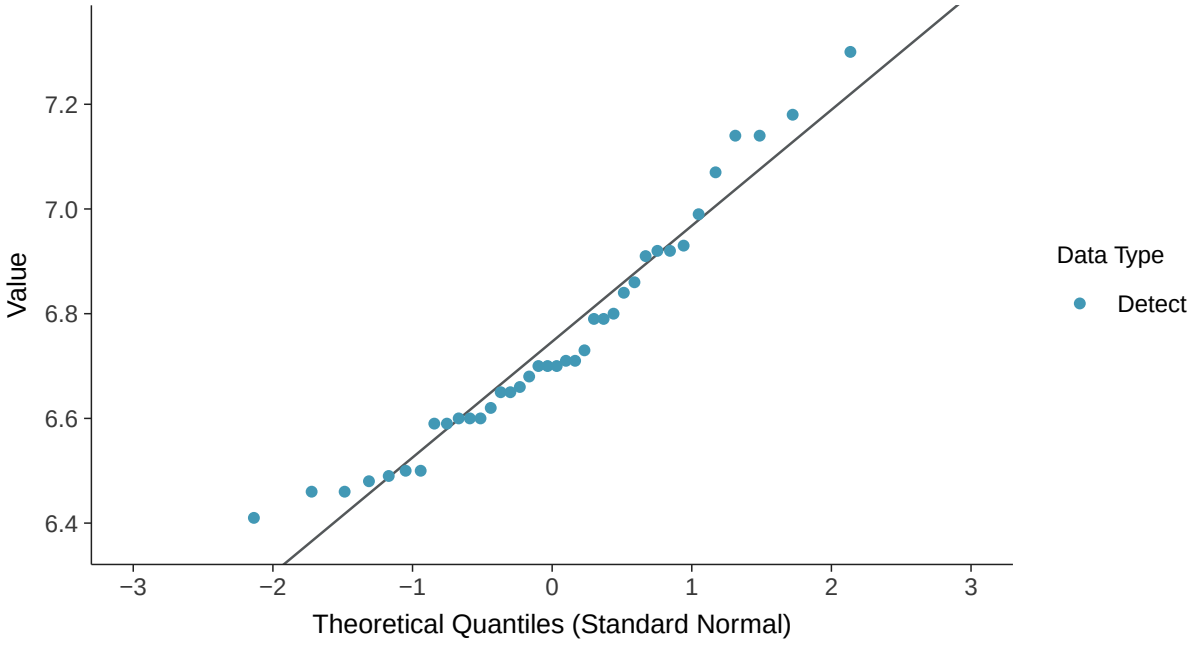
Boxplot by Season

pH (Field), MW-1 (S.U.)



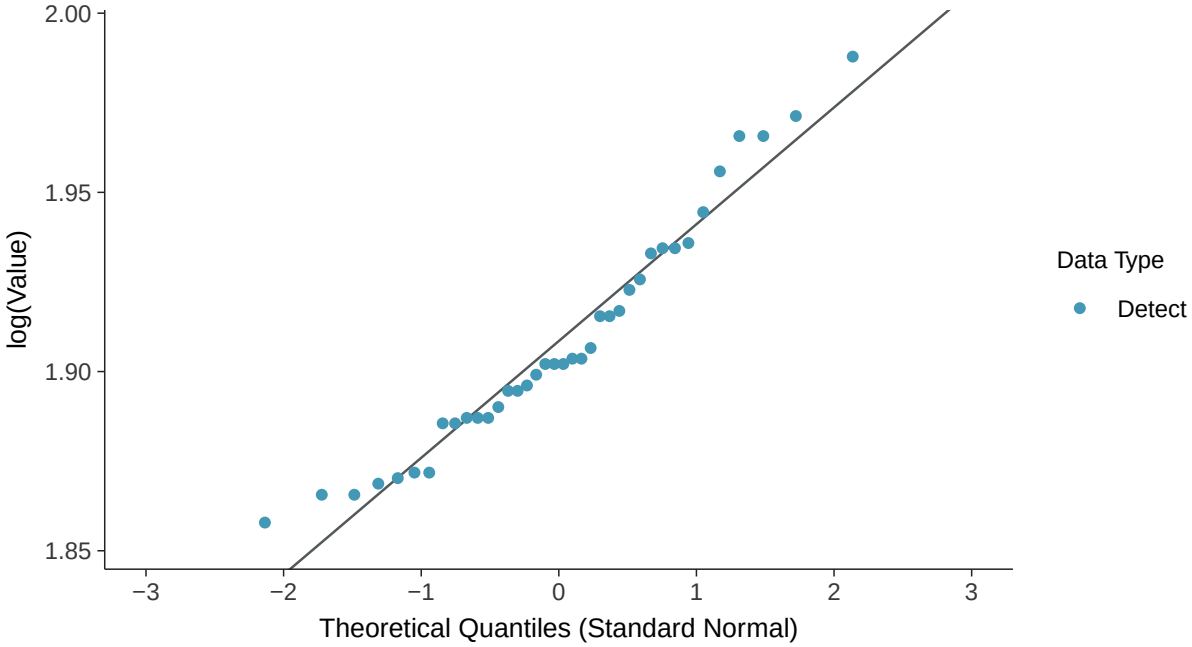
Normal Q-Q plot

pH (Field), MW-1 (S.U.)



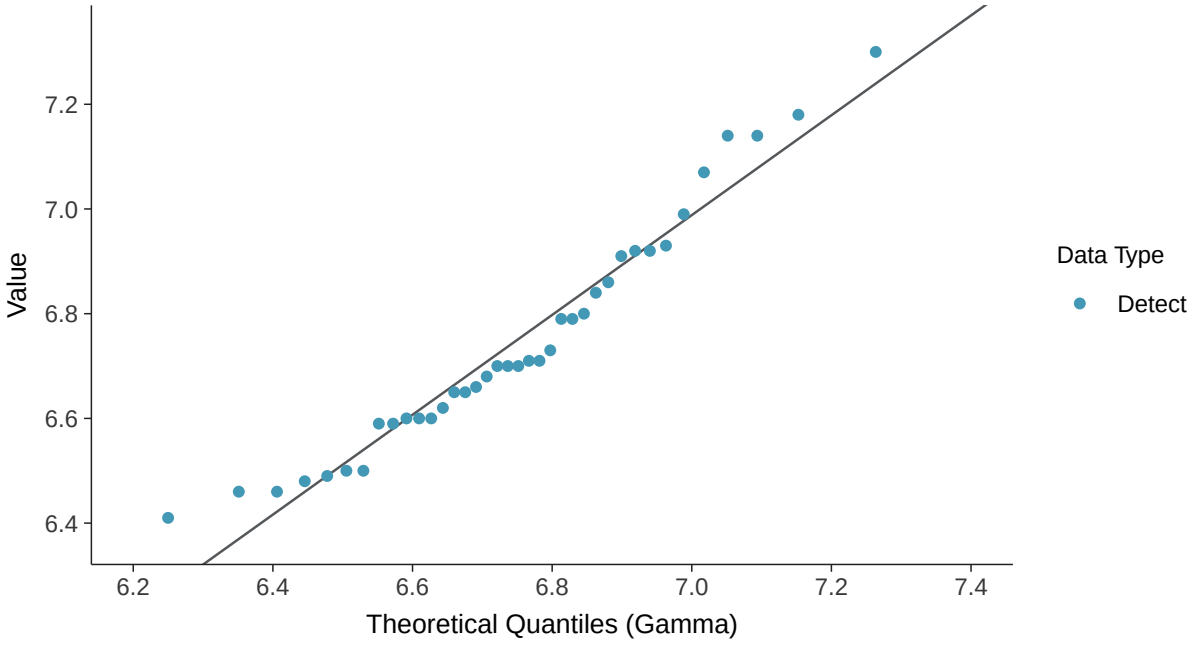
Lognormal Q-Q plot

pH (Field), MW-1 (S.U.)



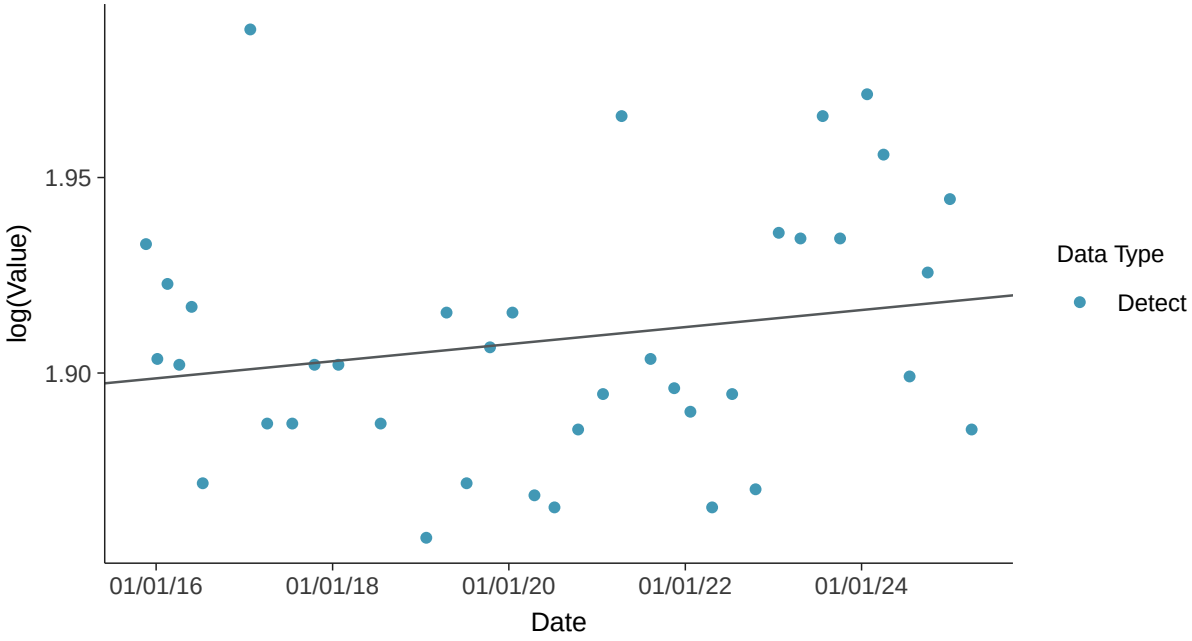
Gamma Q-Q plot

pH (Field), MW-1 (S.U.)



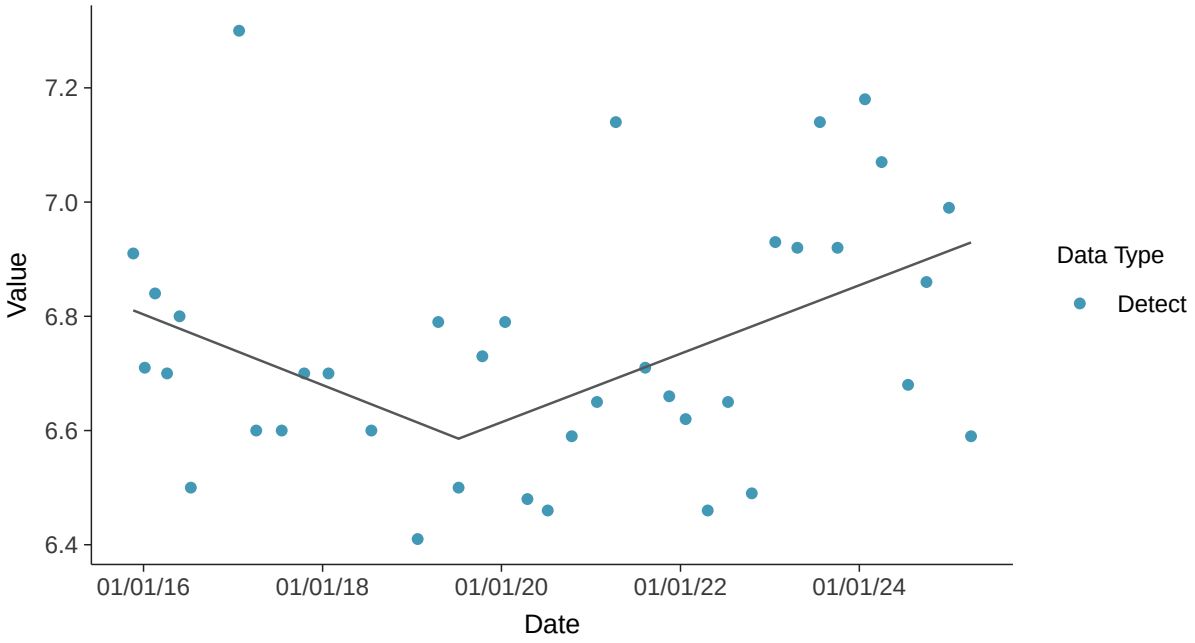
Trend Regression: Lognormal MLE

pH (Field), MW-1 (S.U.)



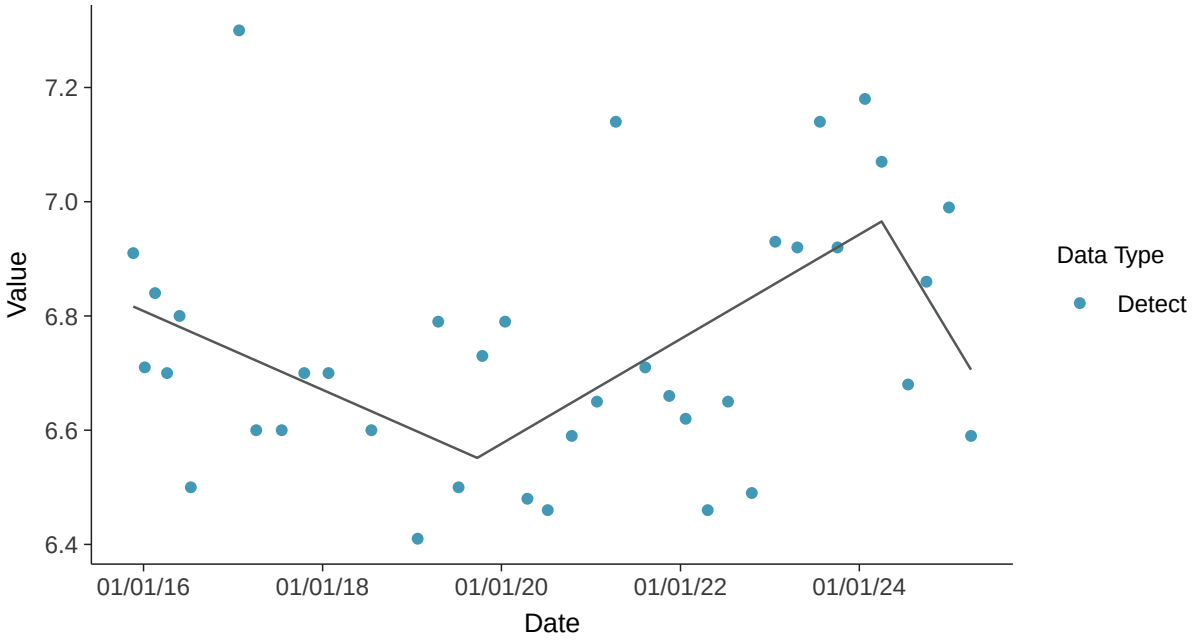
Trend Regression: Piecewise Linear-Linear

pH (Field), MW-1 (S.U.)



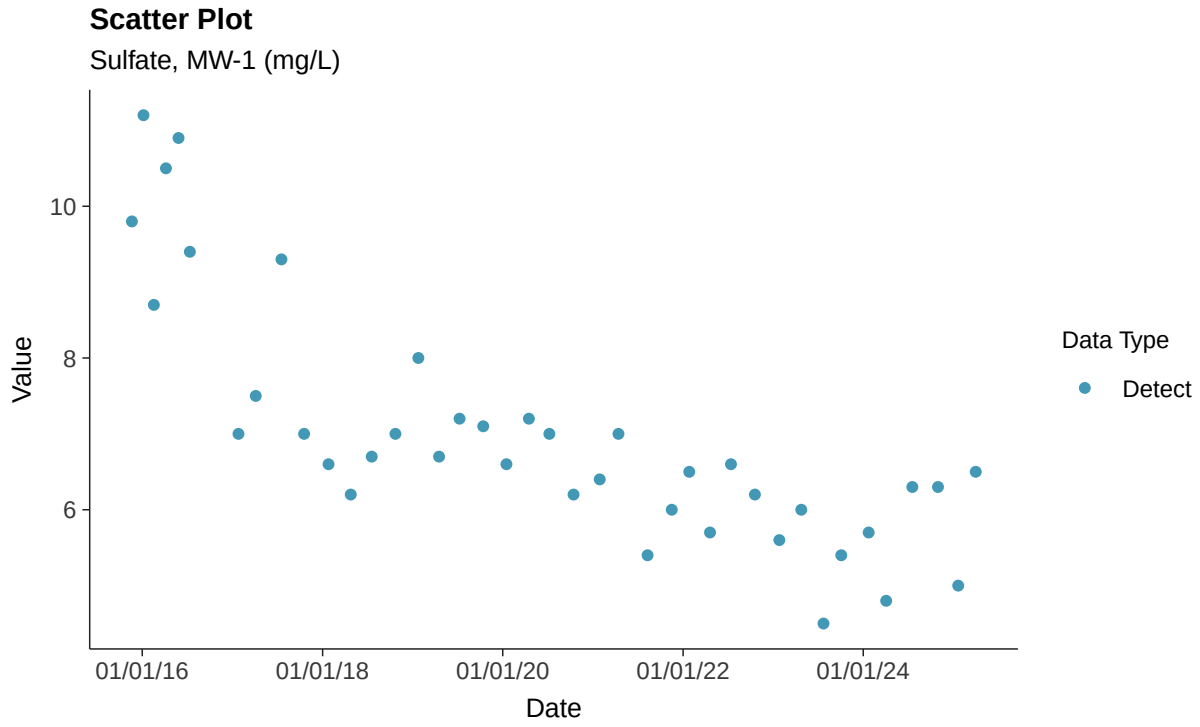
Trend Regression: Piecewise Linear-Linear-Linear

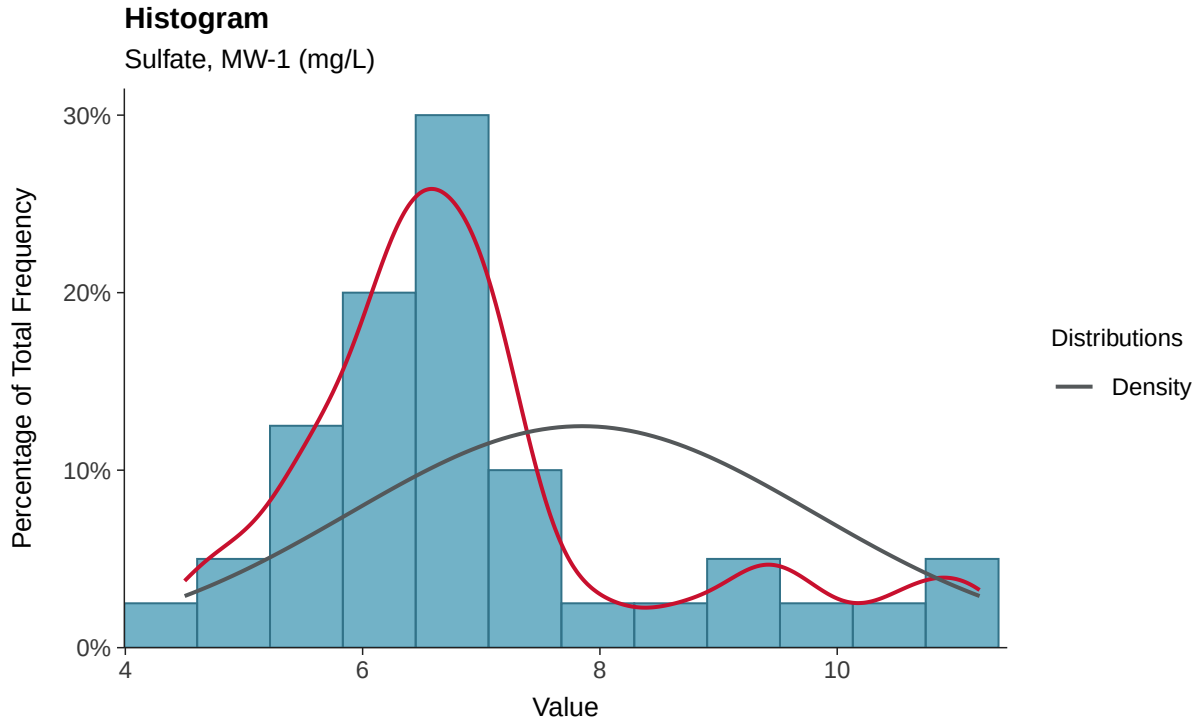
pH (Field), MW-1 (S.U.)



App. III: Sulfate, MW-1

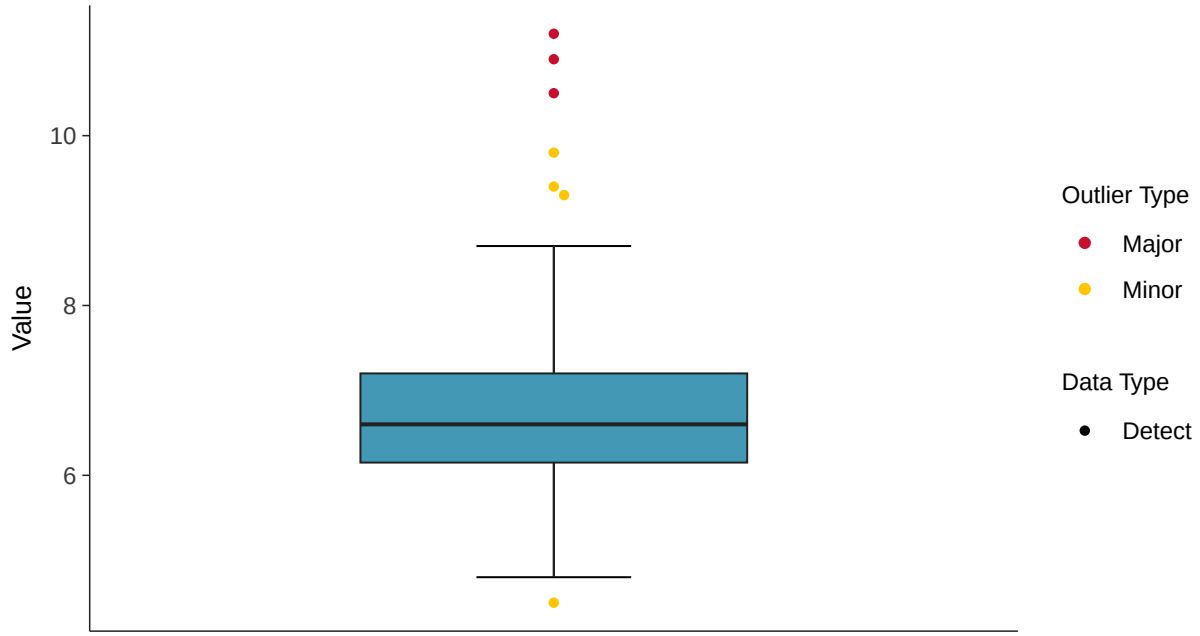
ID: 01_02_123





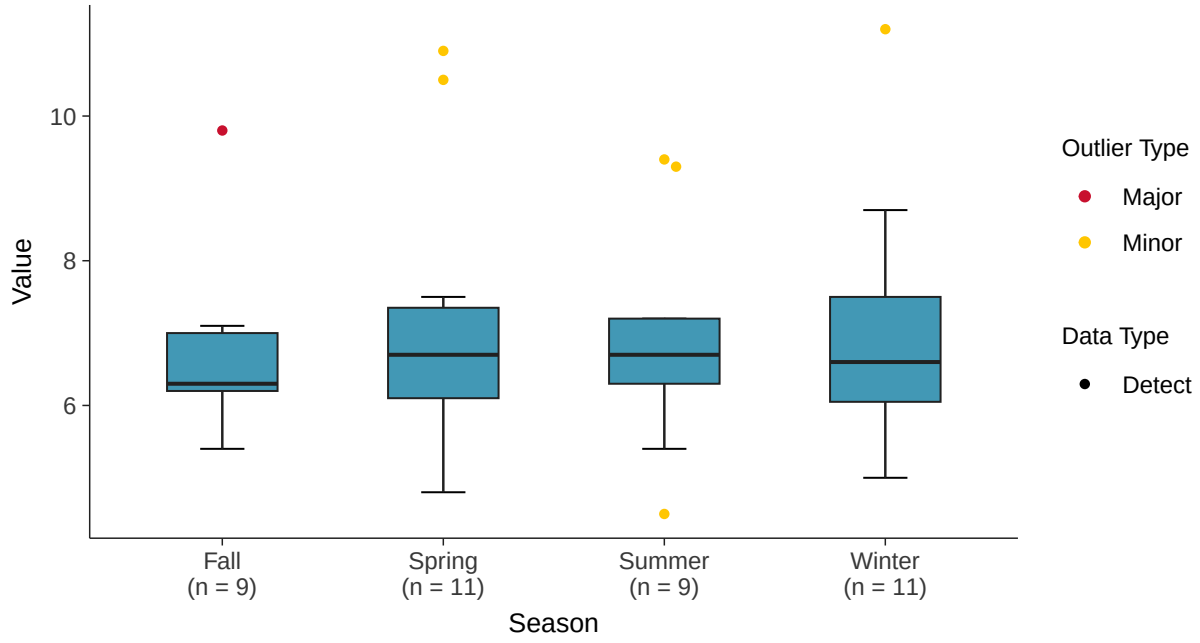
Boxplot

Sulfate, MW-1 (mg/L)



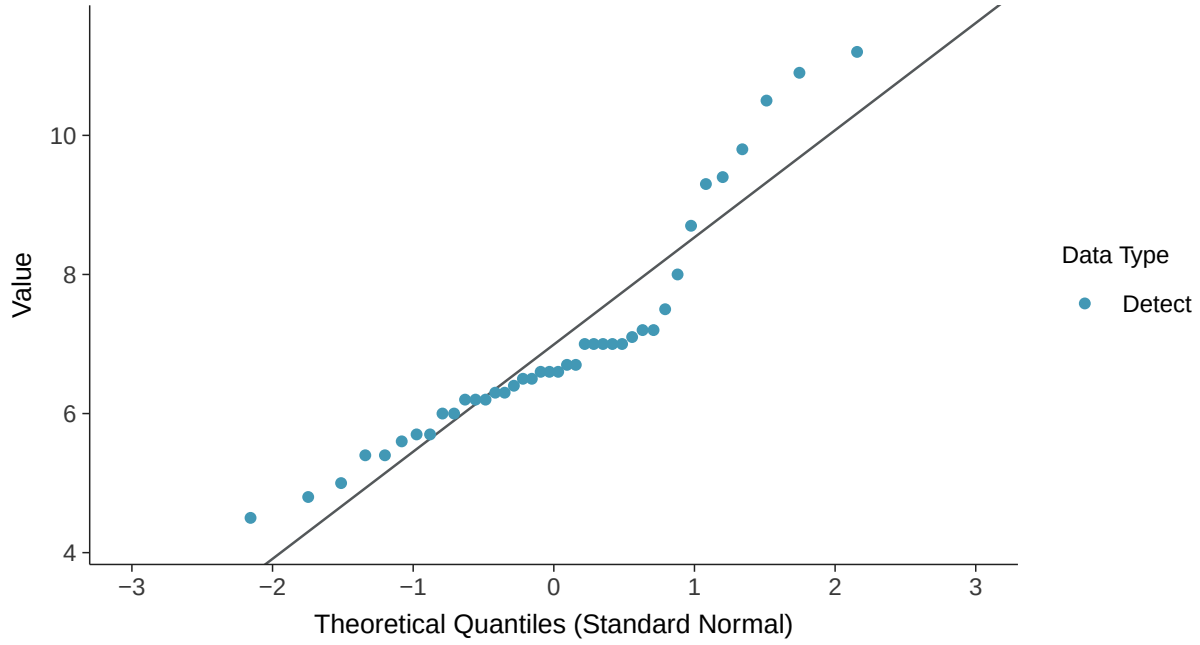
Boxplot by Season

Sulfate, MW-1 (mg/L)



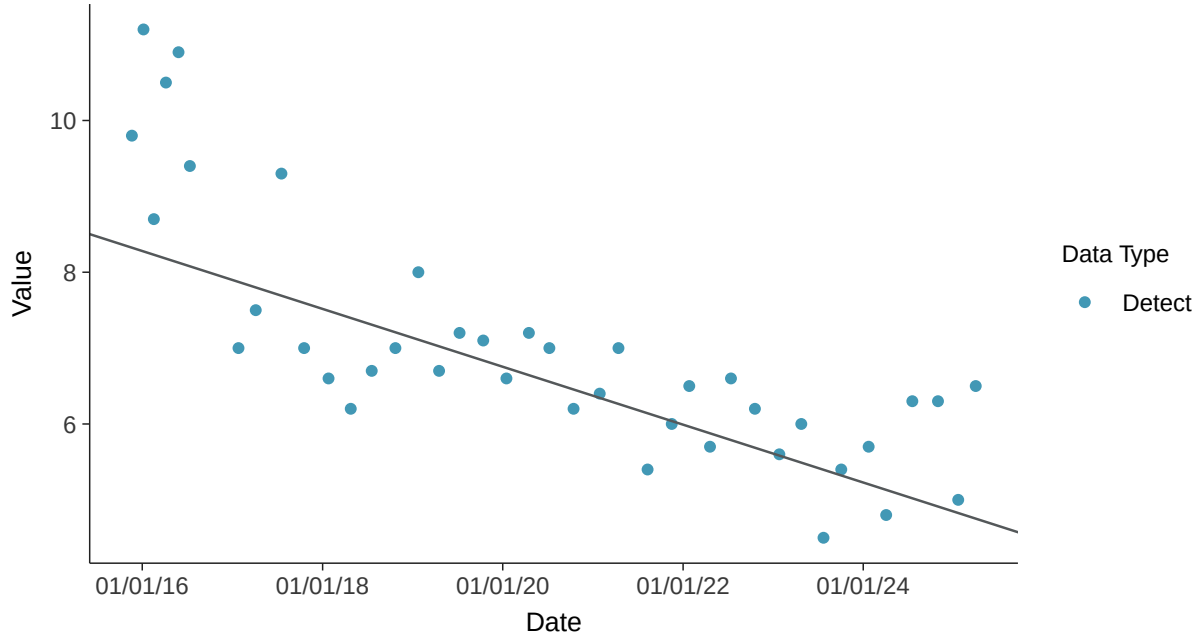
Normal Q-Q plot

Sulfate, MW-1 (mg/L)



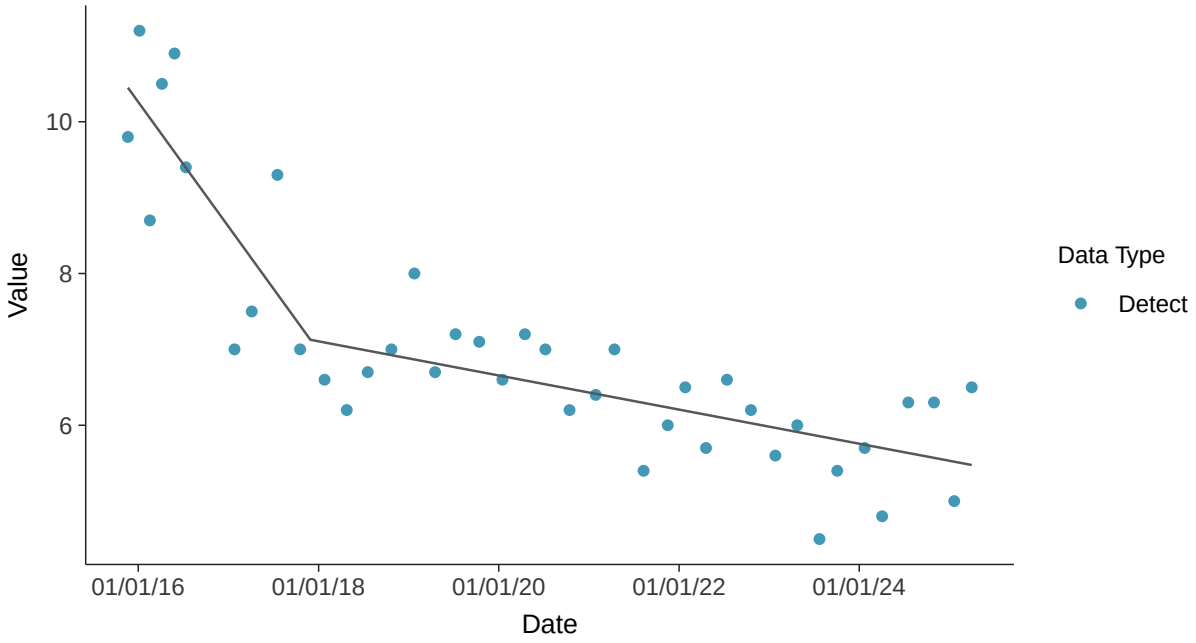
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Sulfate, MW-1 (mg/L)



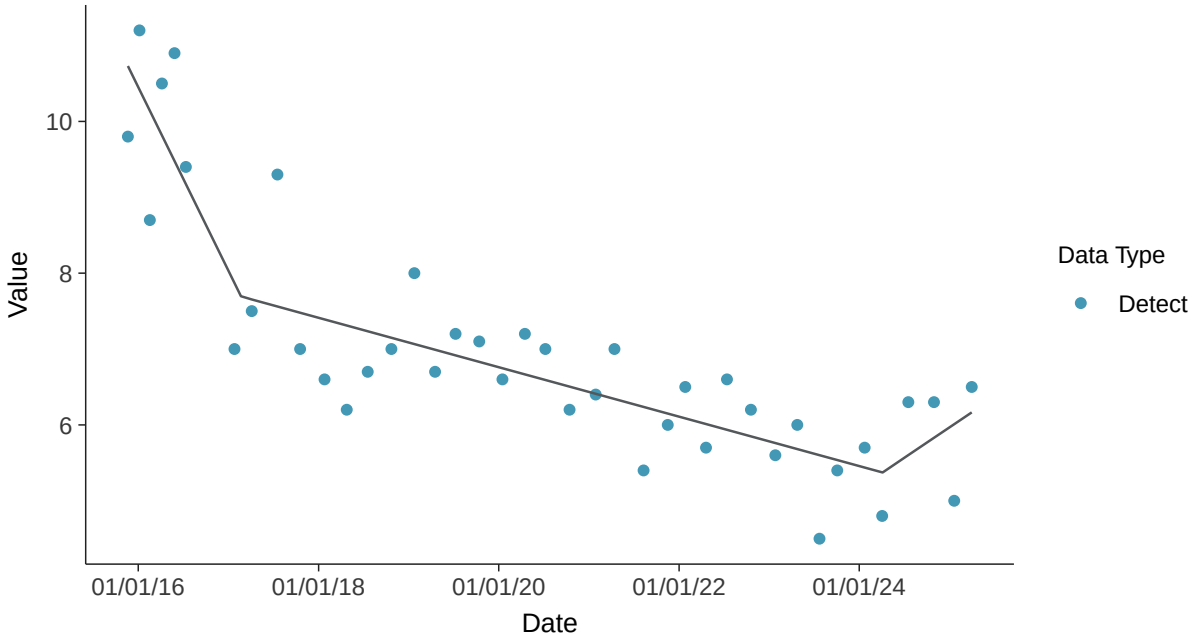
Trend Regression: Piecewise Linear-Linear

Sulfate, MW-1 (mg/L)



Trend Regression: Piecewise Linear-Linear-Linear

Sulfate, MW-1 (mg/L)

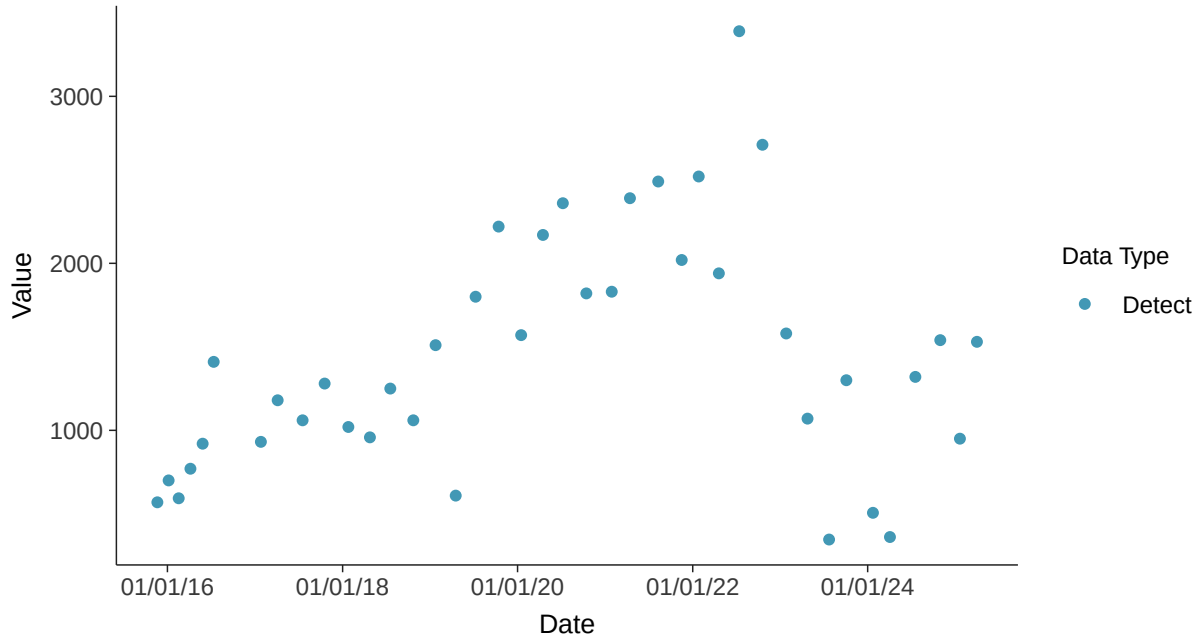


App. III: Total Dissolved Solids, MW-1

ID: 01_02_125

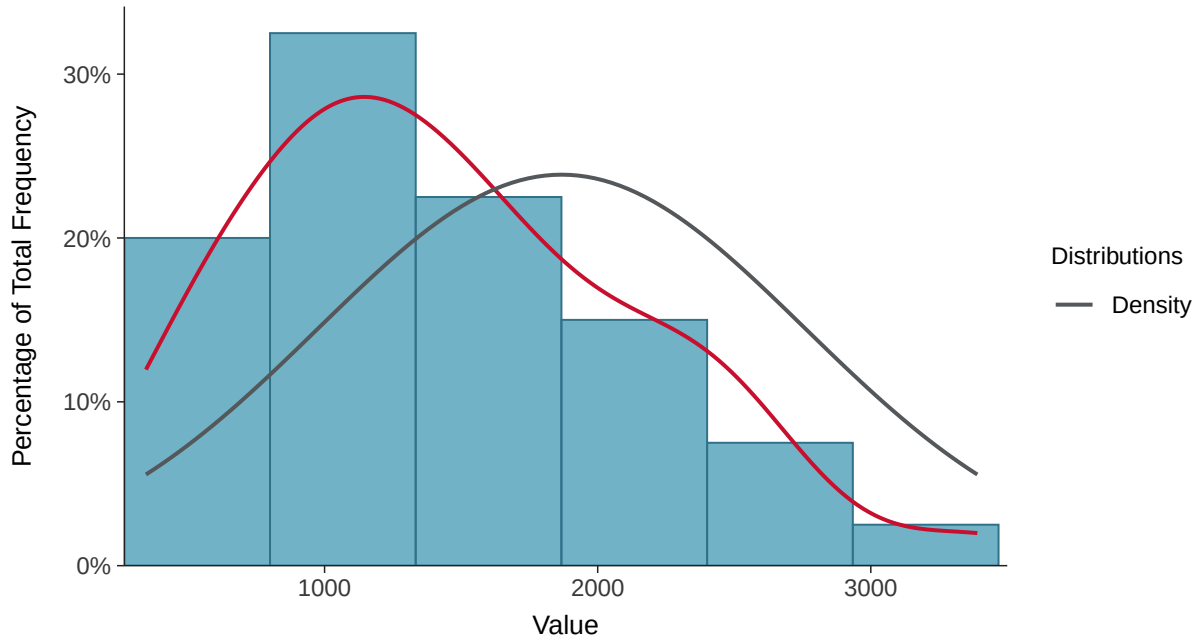
Scatter Plot

Total Dissolved Solids, MW-1 (mg/L)



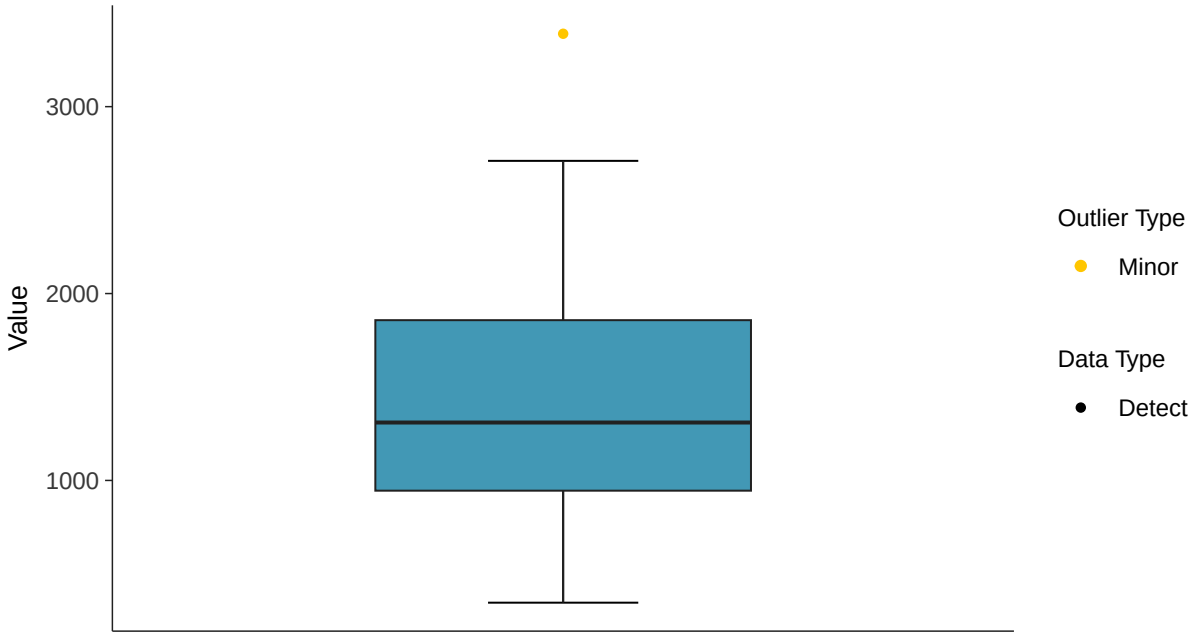
Histogram

Total Dissolved Solids, MW-1 (mg/L)



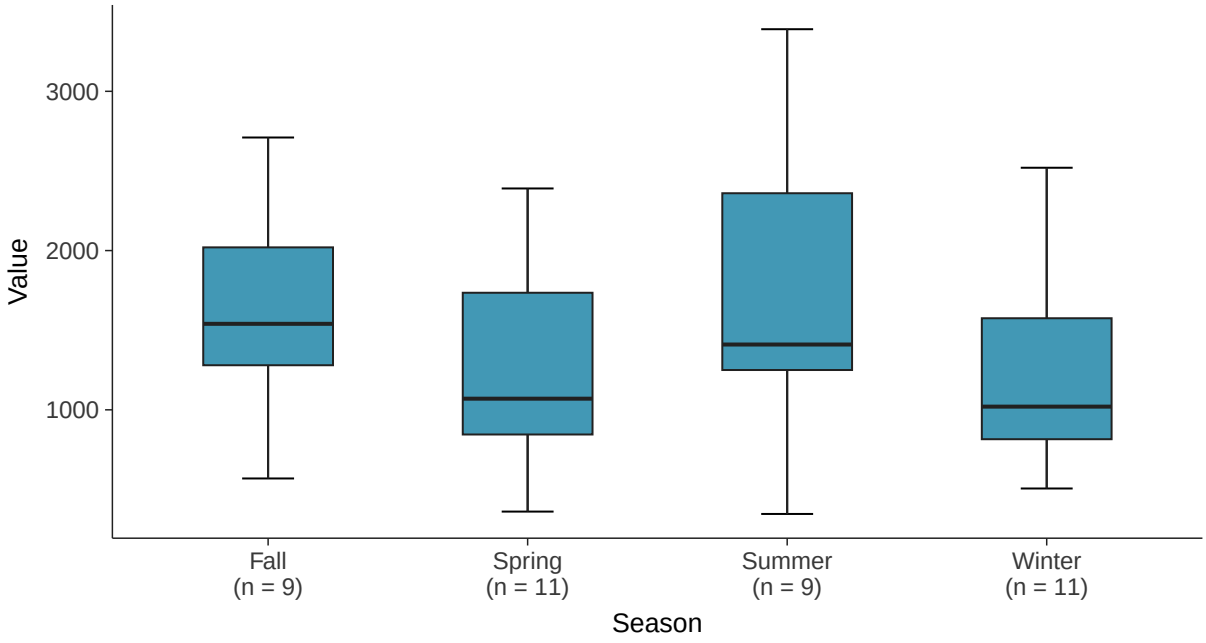
Boxplot

Total Dissolved Solids, MW-1 (mg/L)



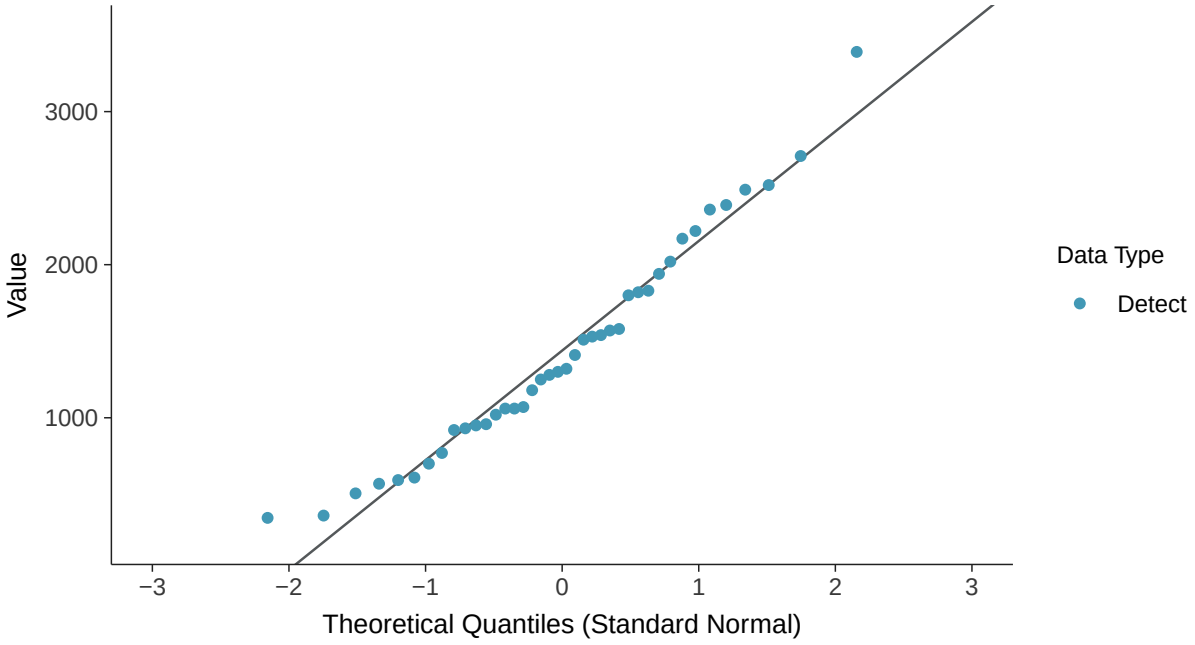
Boxplot by Season

Total Dissolved Solids, MW-1 (mg/L)



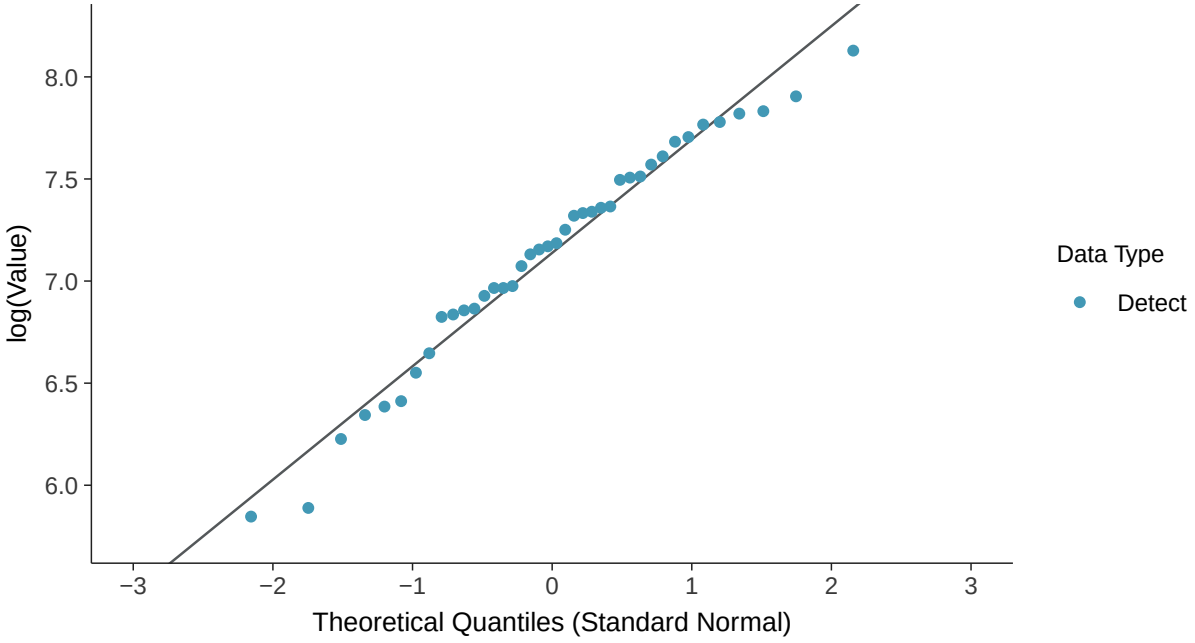
Normal Q-Q plot

Total Dissolved Solids, MW-1 (mg/L)



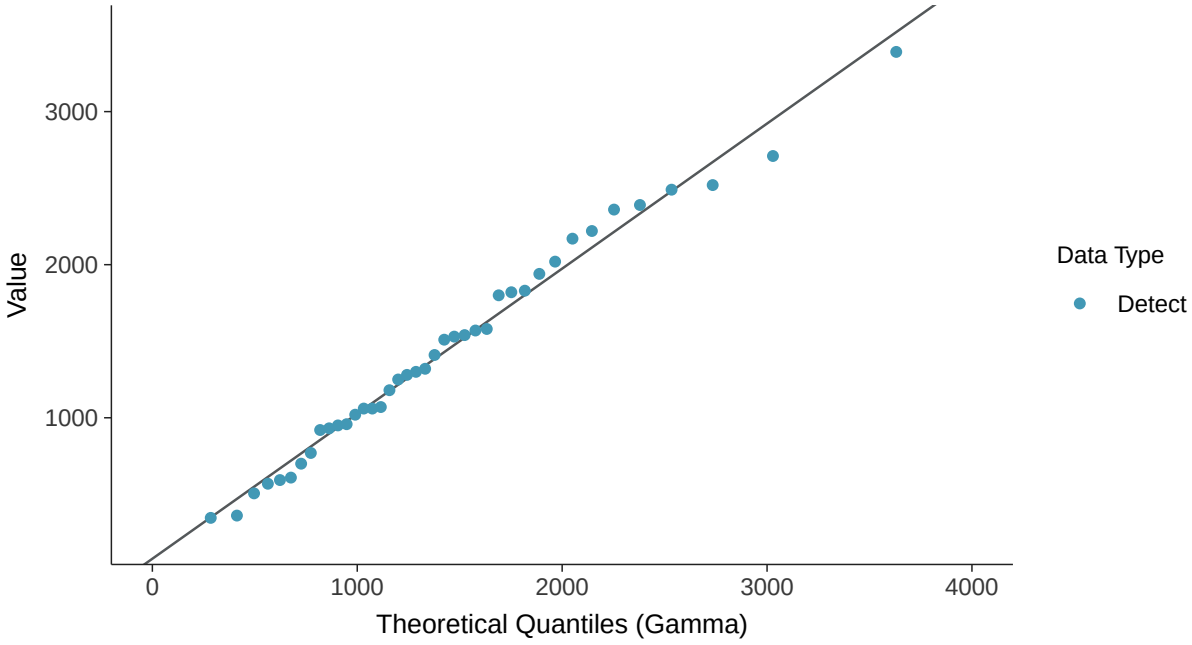
Lognormal Q-Q plot

Total Dissolved Solids, MW-1 (mg/L)



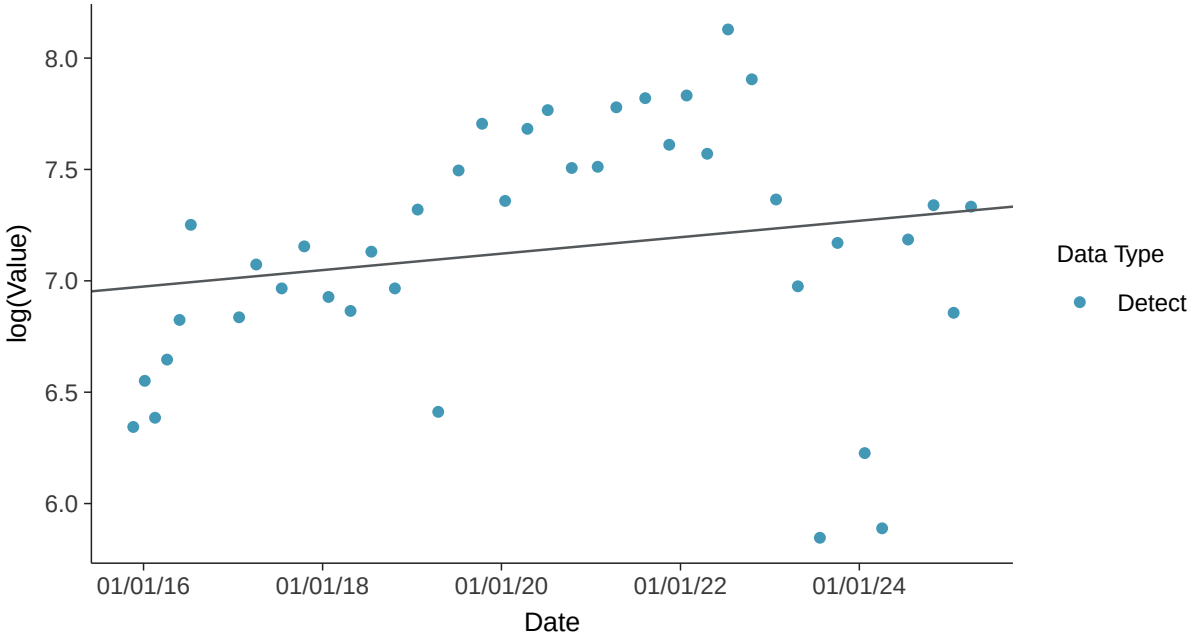
Gamma Q-Q plot

Total Dissolved Solids, MW-1 (mg/L)



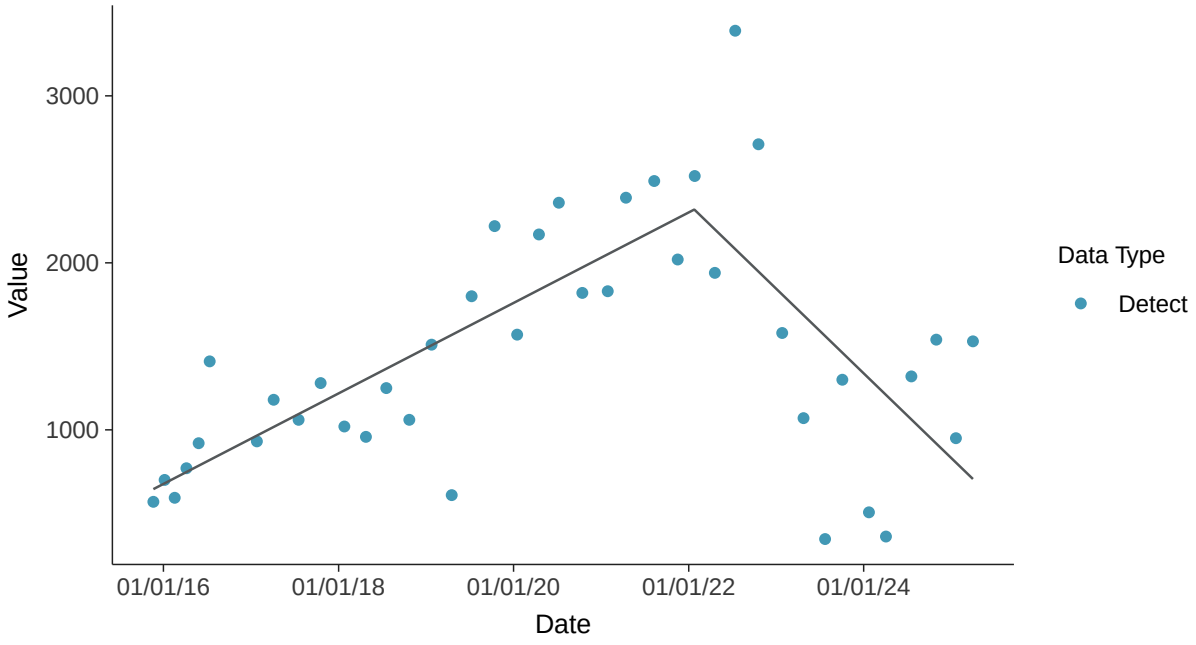
Trend Regression: Lognormal MLE

Total Dissolved Solids, MW-1 (mg/L)



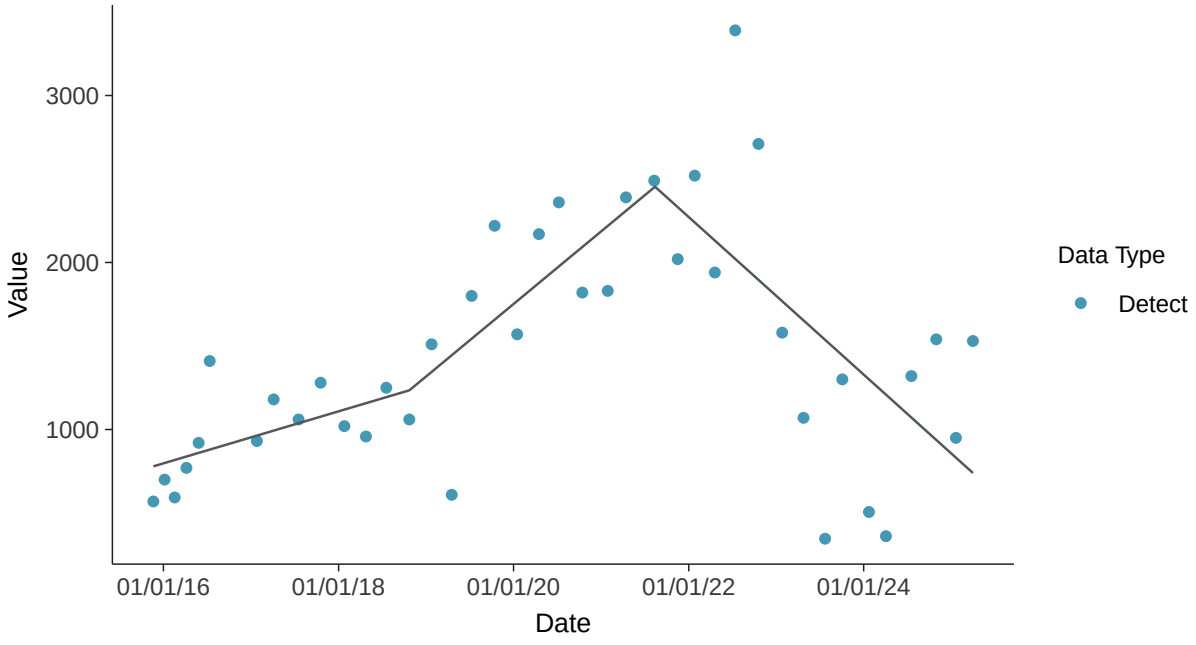
Trend Regression: Piecewise Linear-Linear

Total Dissolved Solids, MW-1 (mg/L)



Trend Regression: Piecewise Linear-Linear-Linear

Total Dissolved Solids, MW-1 (mg/L)

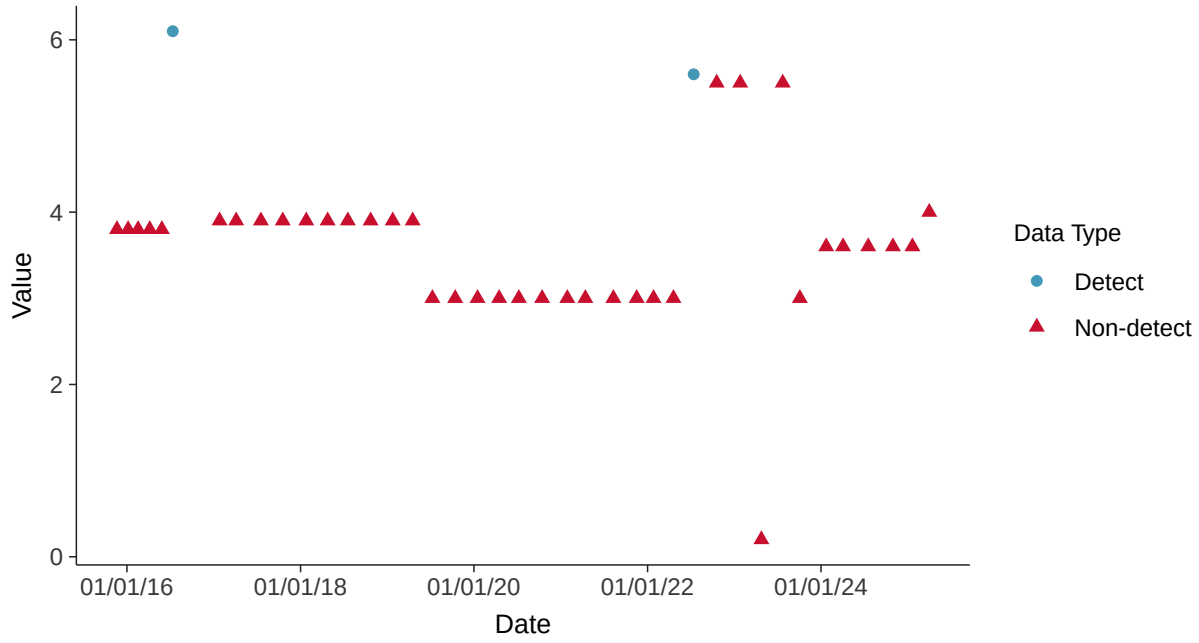


App. IV: Antimony, MW-1

ID: 01_03_101

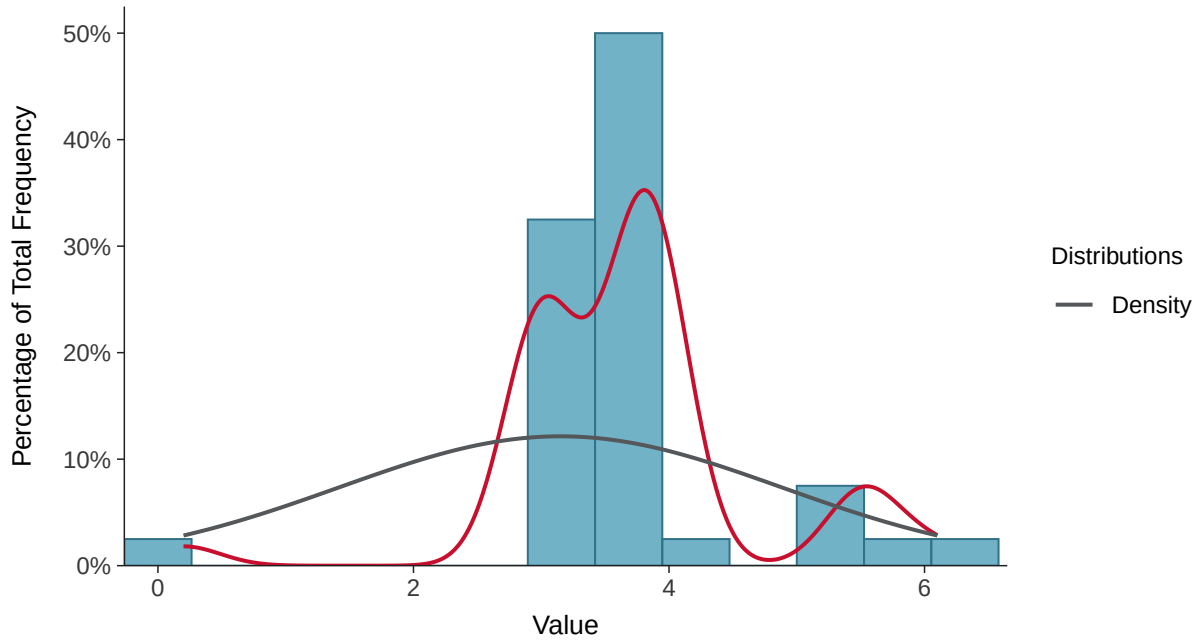
Scatter Plot

Antimony, MW-1 (ug/L)



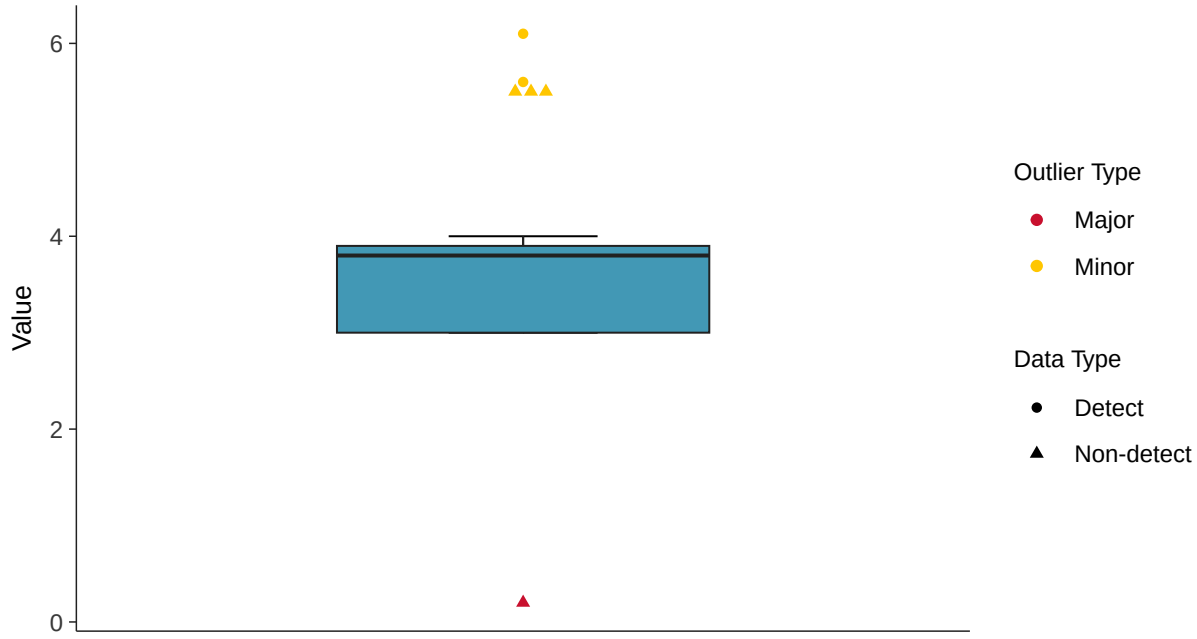
Histogram

Antimony, MW-1 (ug/L)



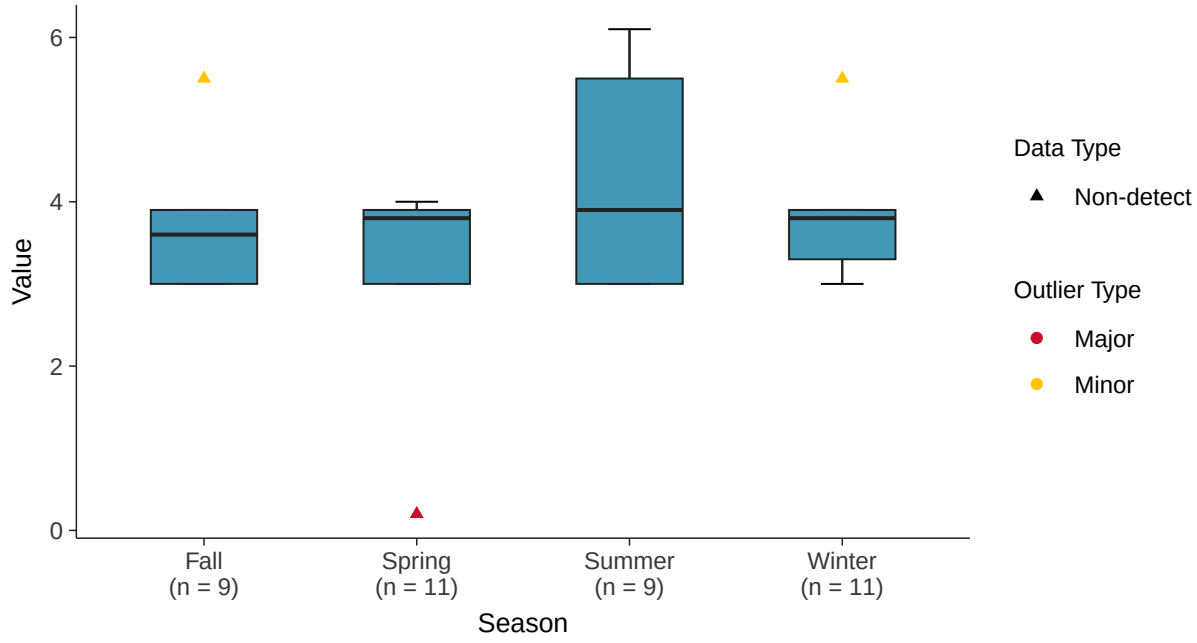
Boxplot

Antimony, MW-1 (ug/L)



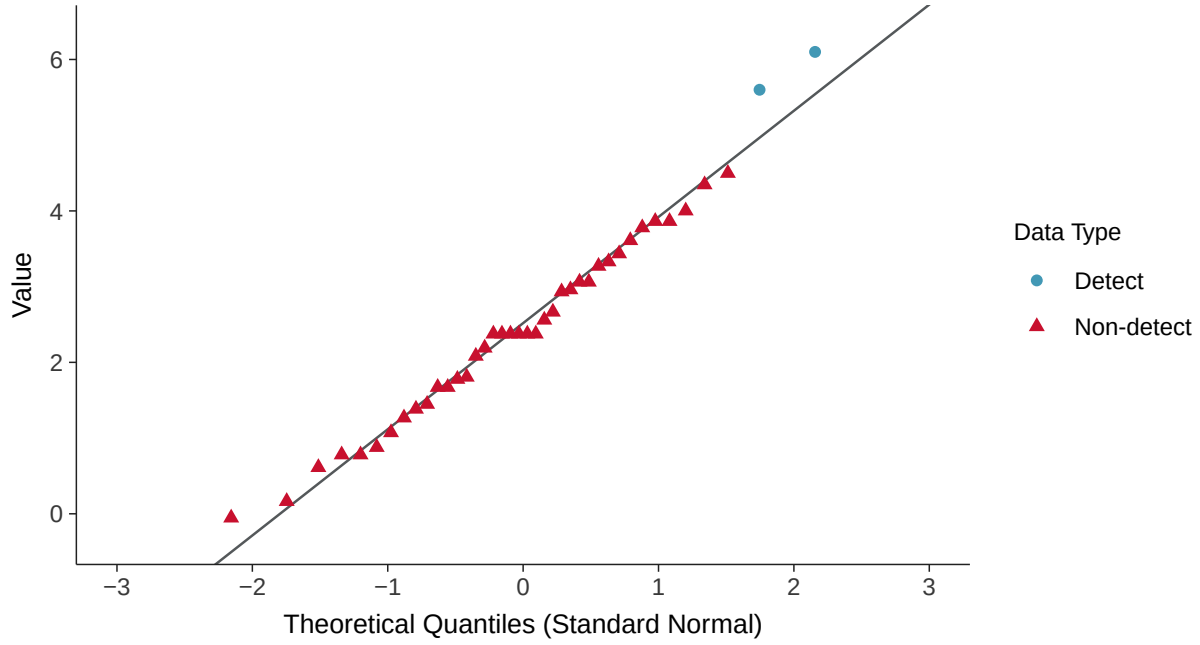
Boxplot by Season

Antimony, MW-1 (ug/L)



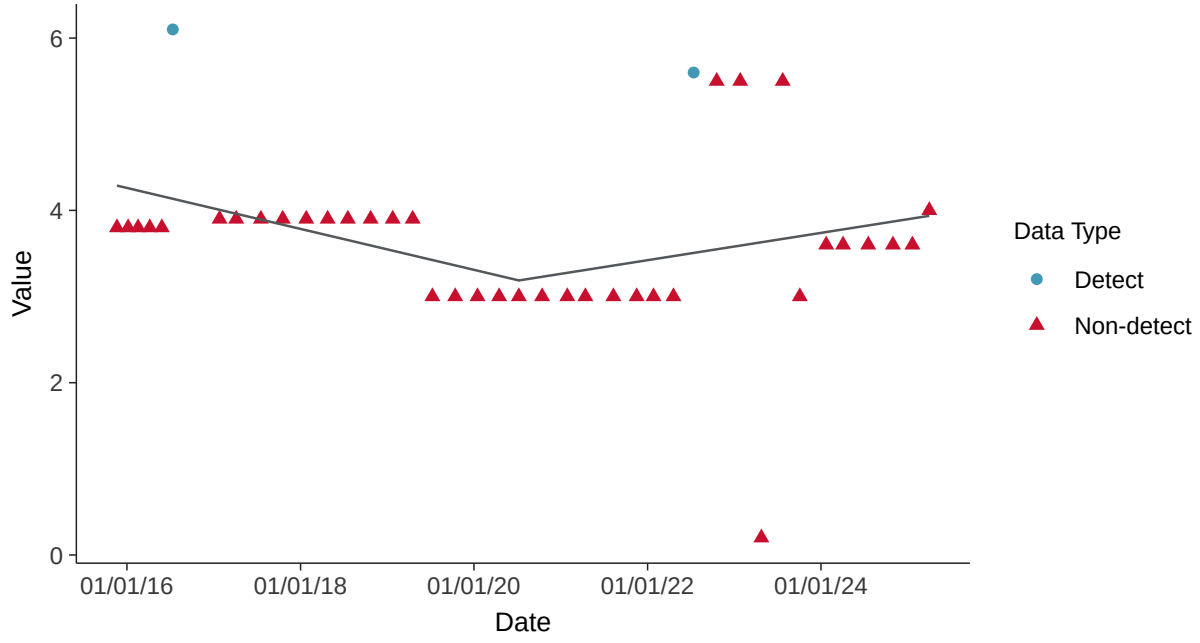
Normal Q-Q plot using ROS Imputed Estimates

Antimony, MW-1 (ug/L)



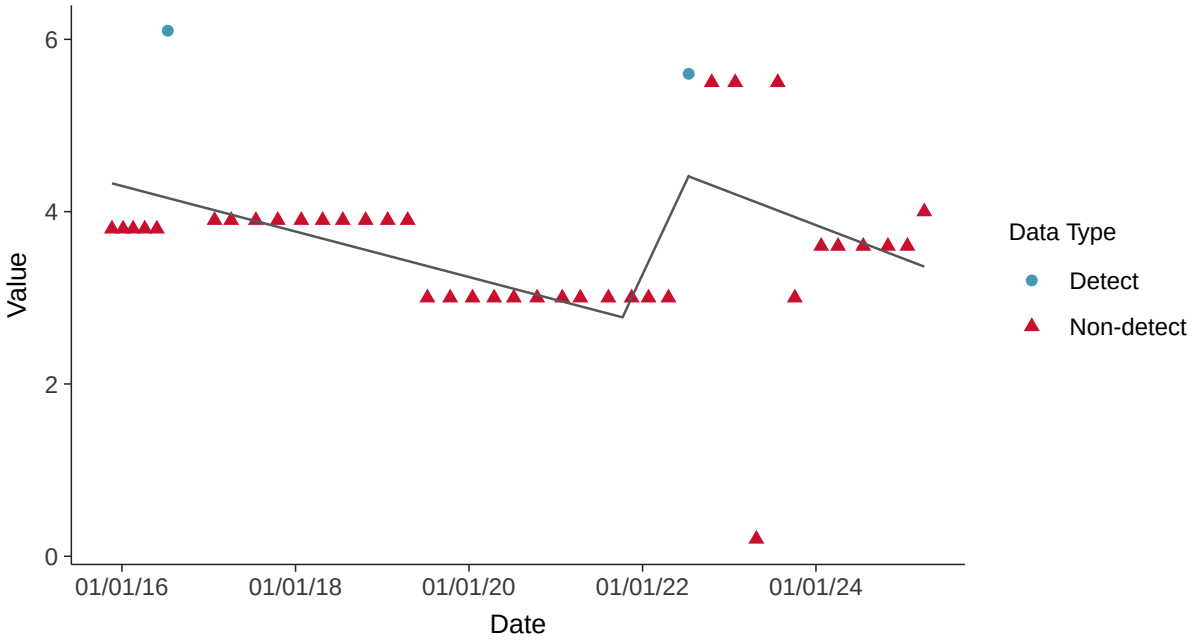
Trend Regression: Piecewise Linear-Linear

Antimony, MW-1 (ug/L)



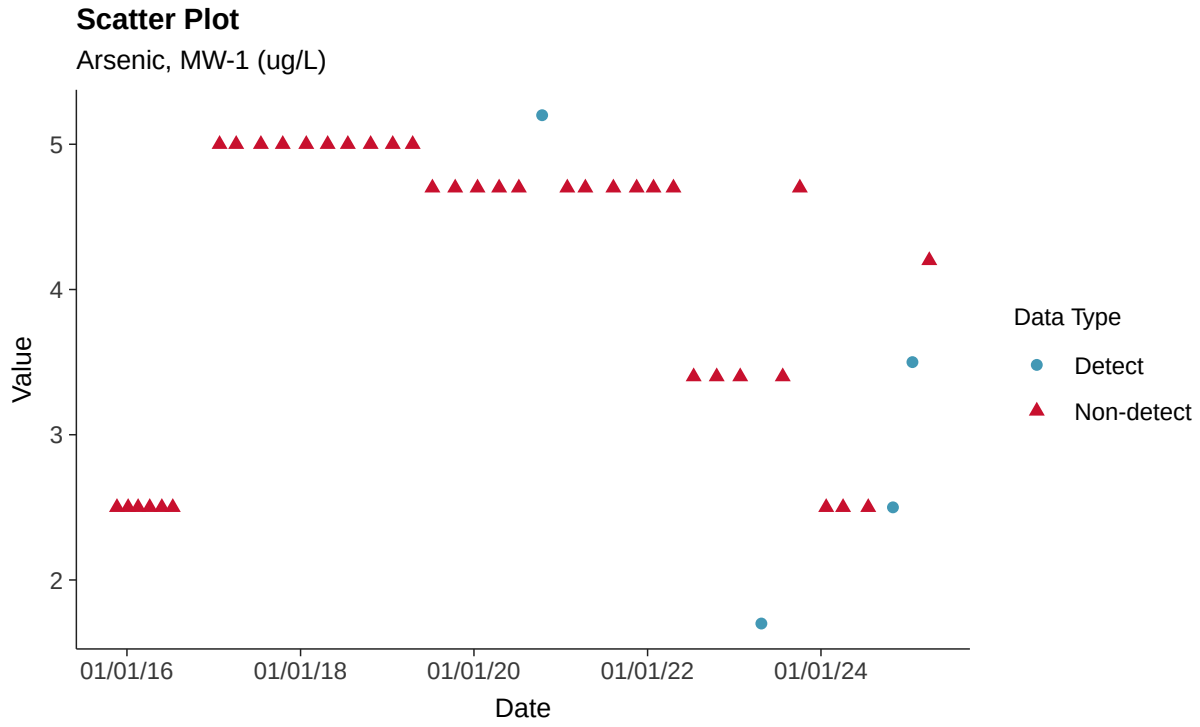
Trend Regression: Piecewise Linear-Linear-Linear

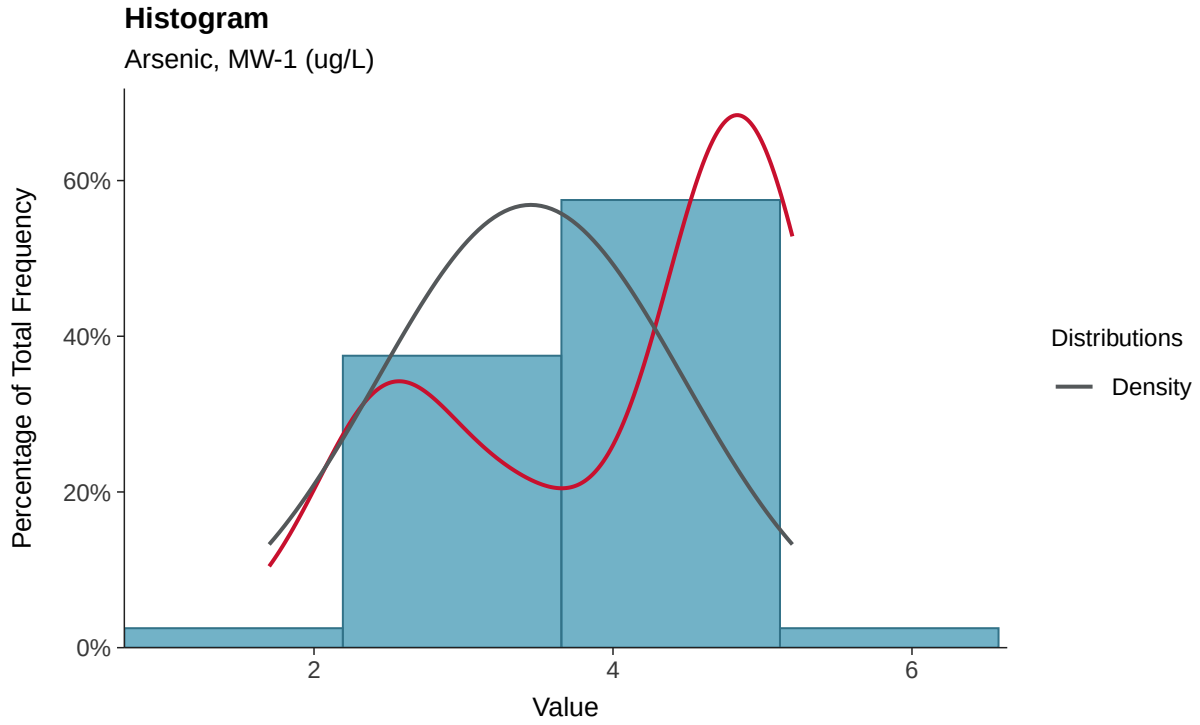
Antimony, MW-1 (ug/L)



App. IV: Arsenic, MW-1

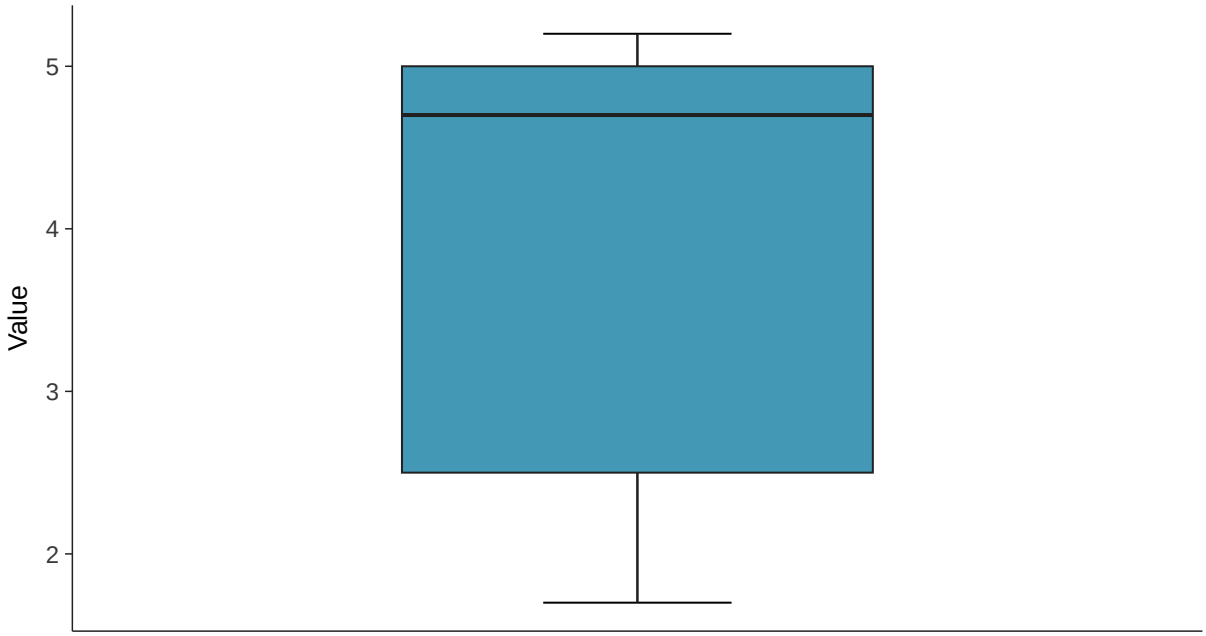
ID: 01_03_102





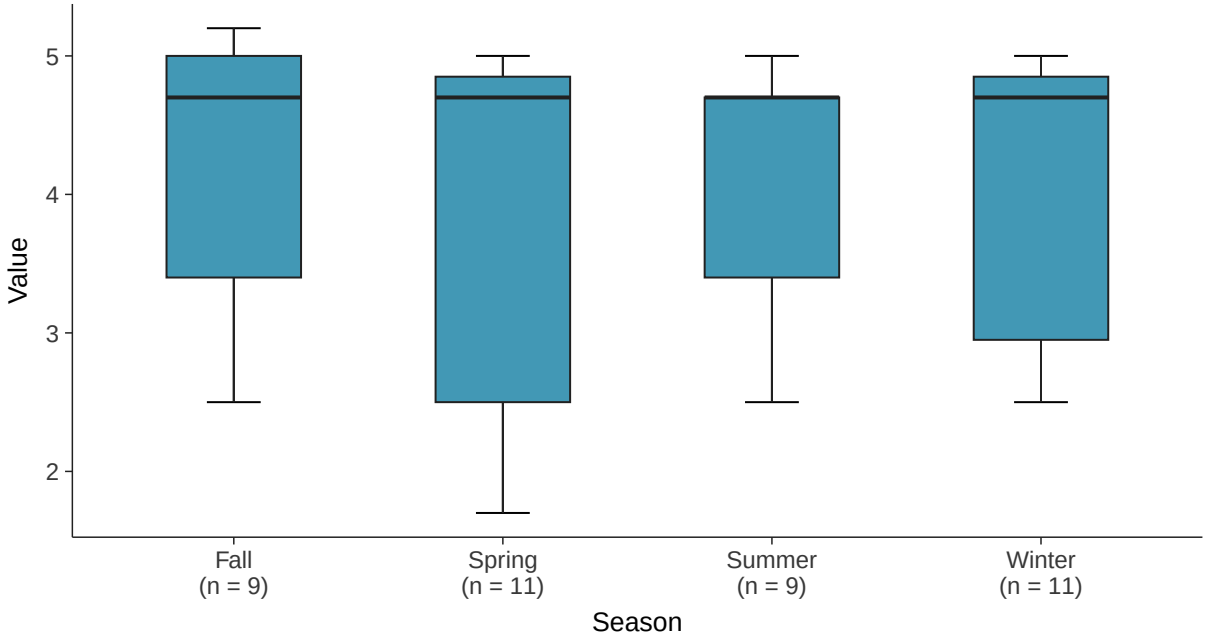
Boxplot

Arsenic, MW-1 (ug/L)



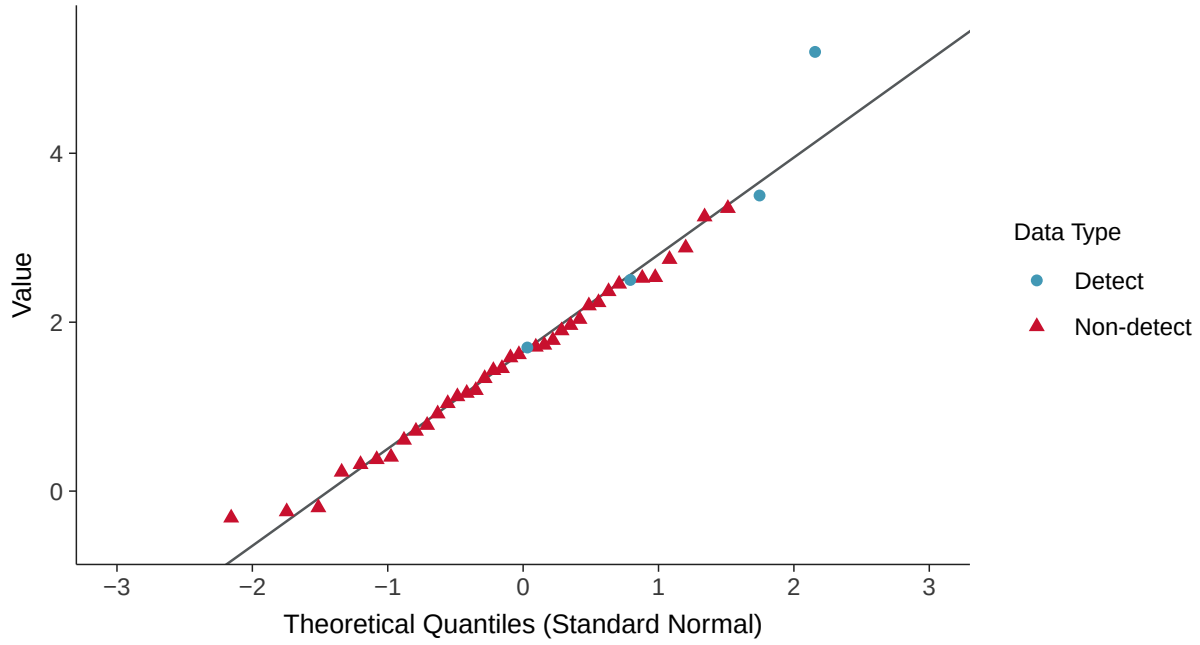
Boxplot by Season

Arsenic, MW-1 (ug/L)



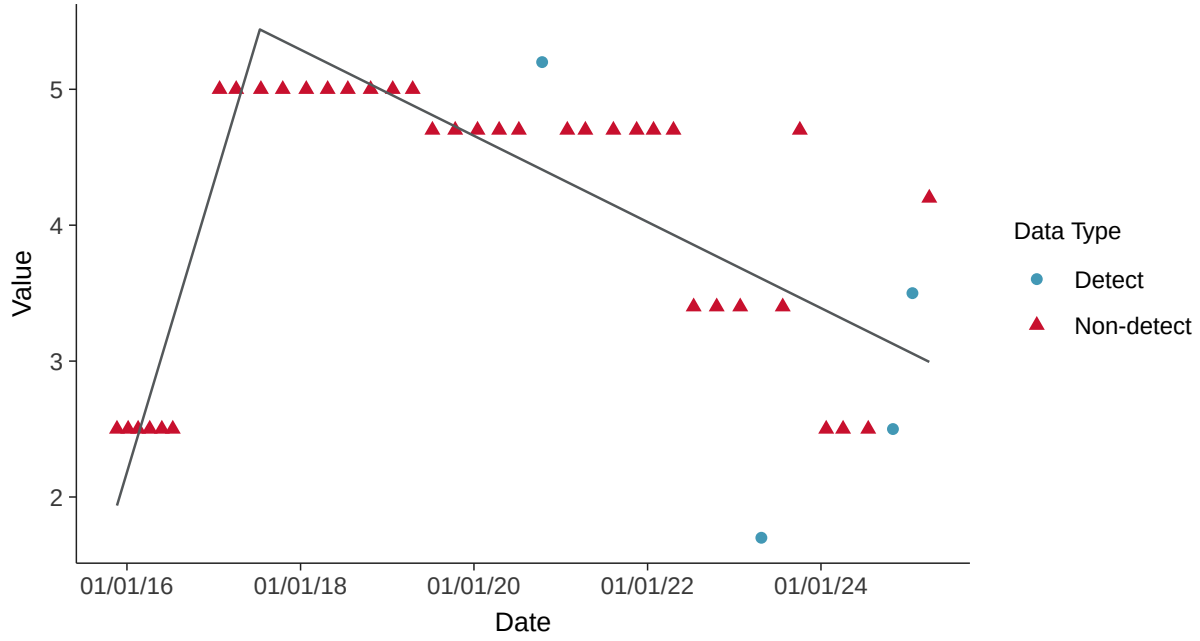
Normal Q-Q plot using ROS Imputed Estimates

Arsenic, MW-1 (ug/L)



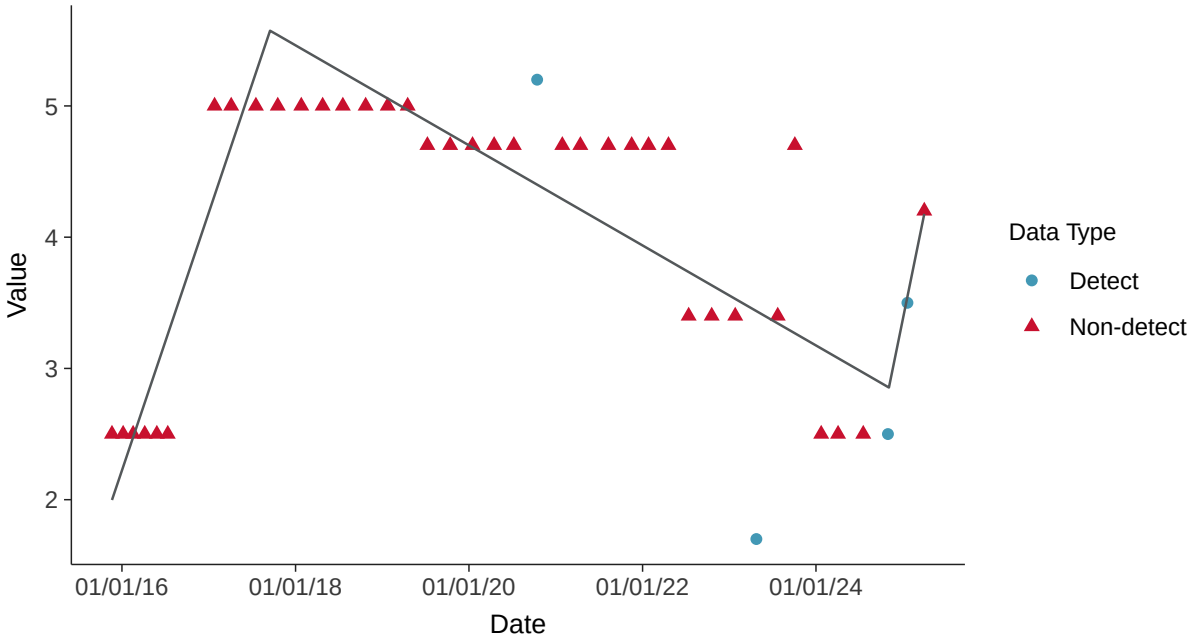
Trend Regression: Piecewise Linear-Linear

Arsenic, MW-1 (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Arsenic, MW-1 (ug/L)

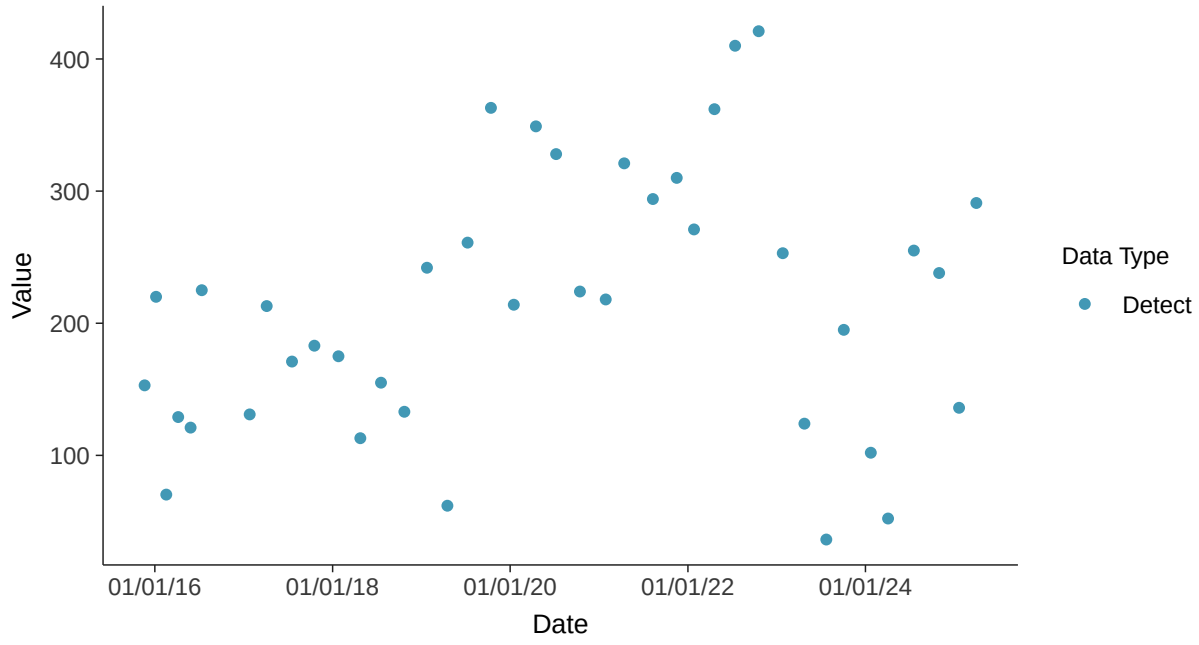


App. IV: Barium, MW-1

ID: 01_03_103

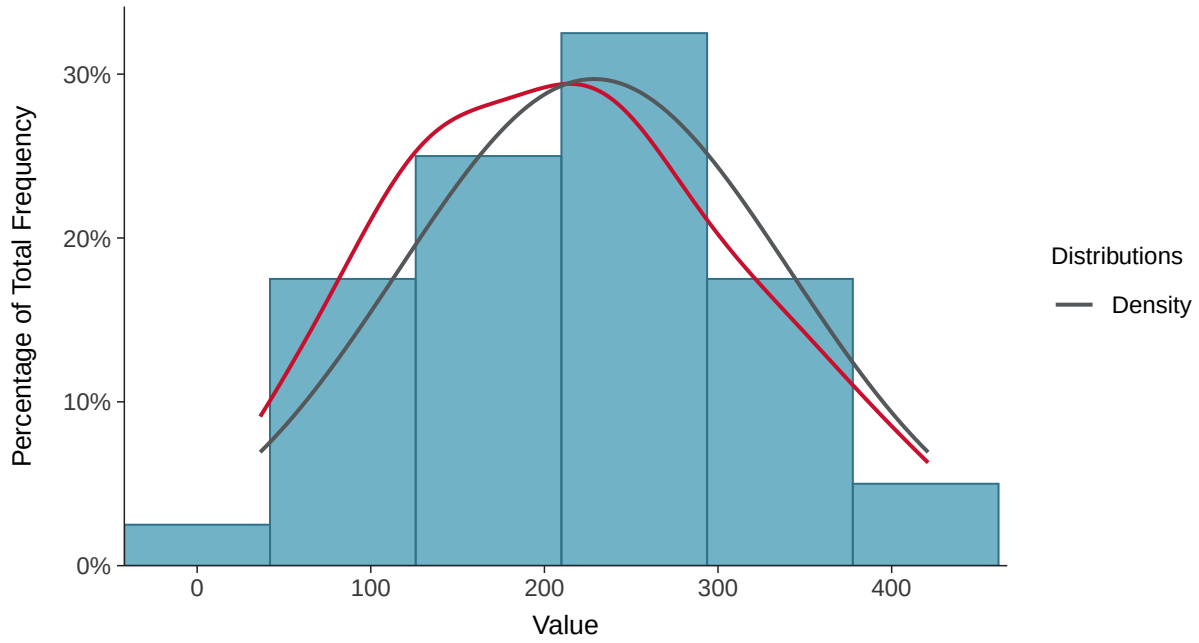
Scatter Plot

Barium, MW-1 (ug/L)



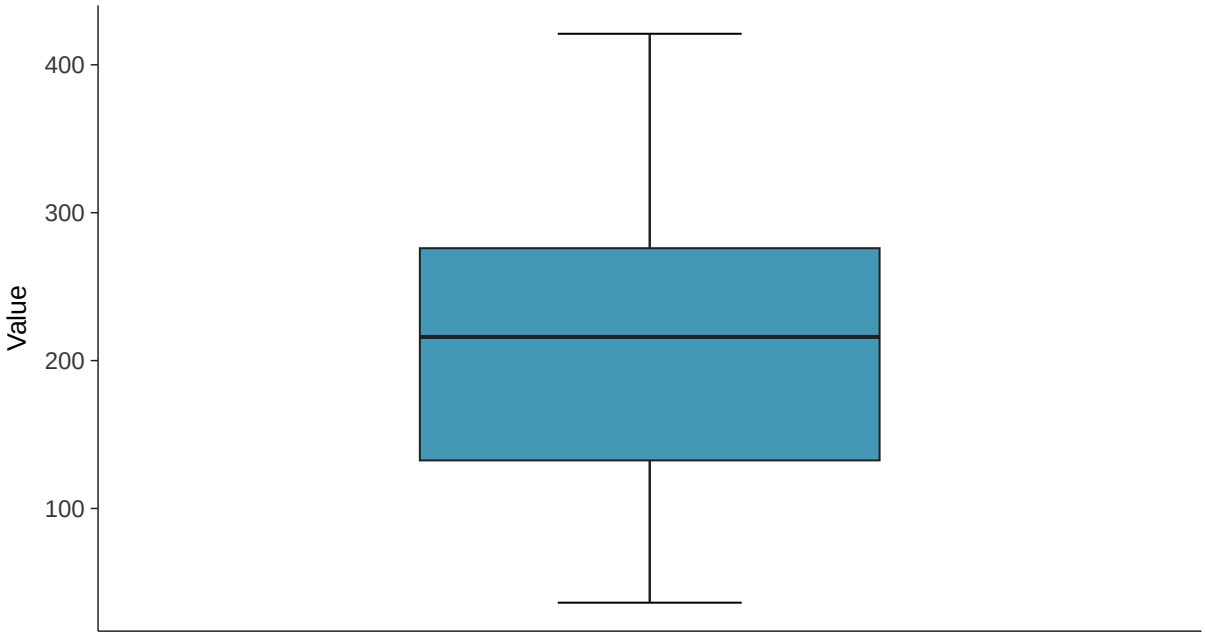
Histogram

Barium, MW-1 (ug/L)



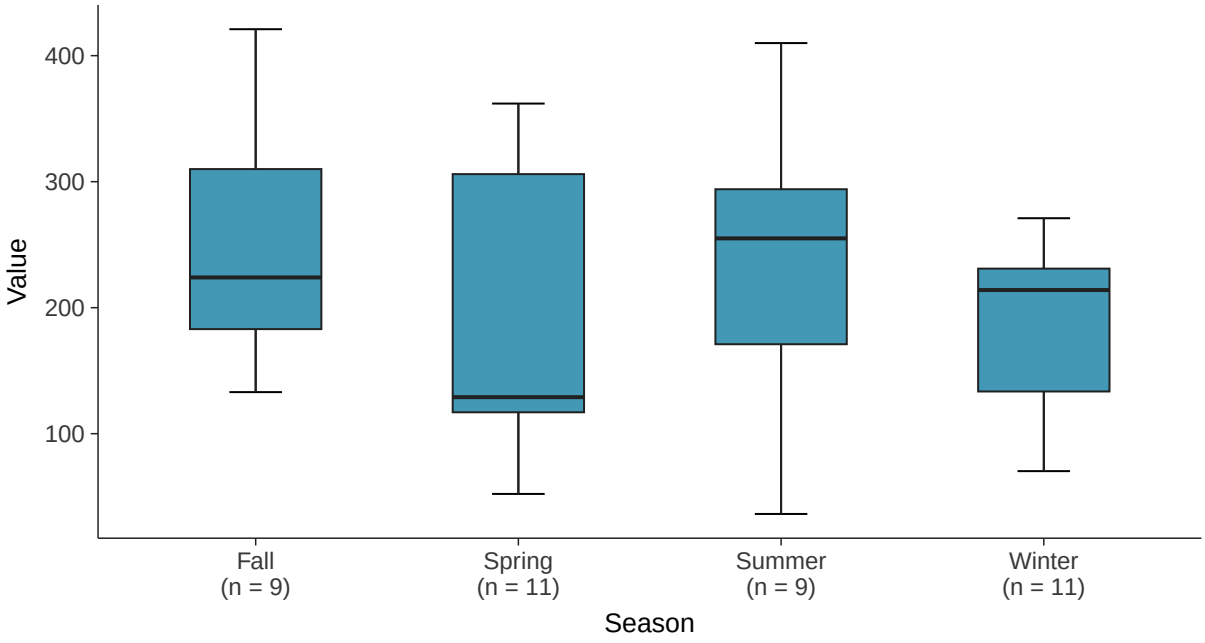
Boxplot

Barium, MW-1 (ug/L)



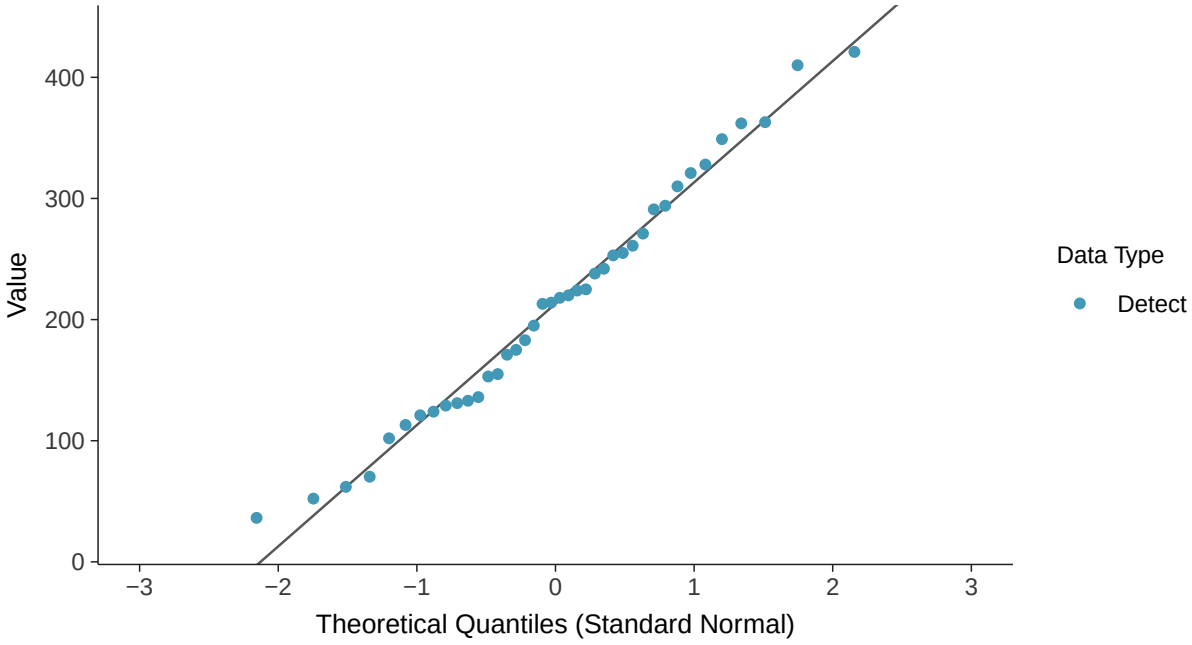
Boxplot by Season

Barium, MW-1 (ug/L)



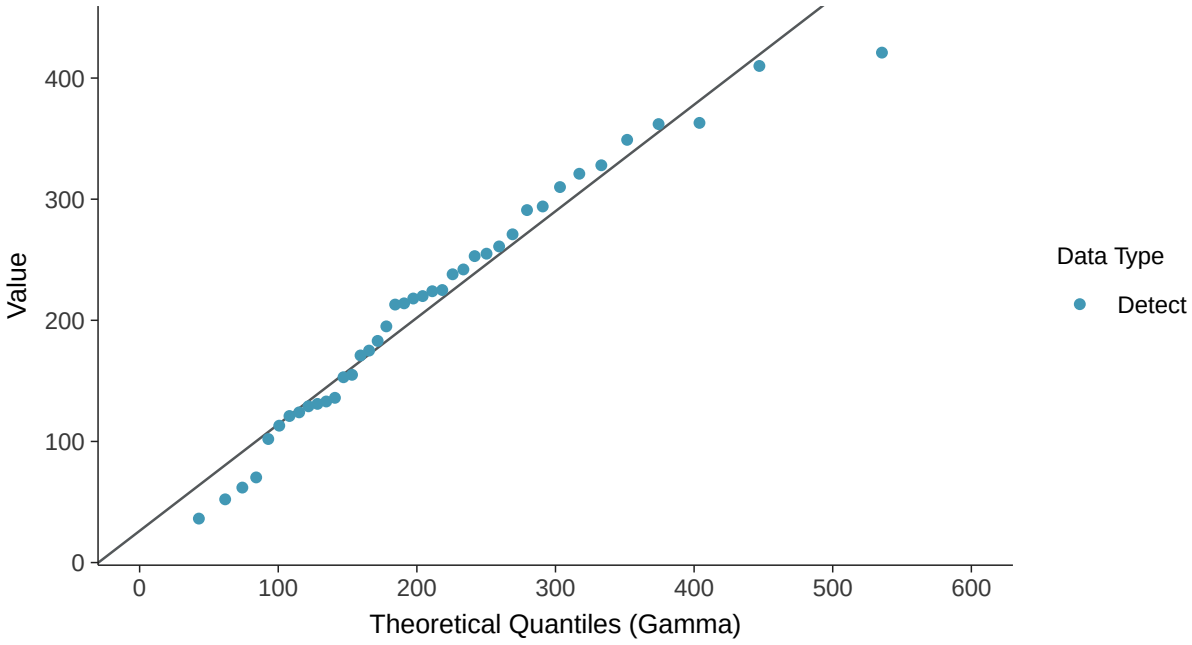
Normal Q-Q plot

Barium, MW-1 (ug/L)



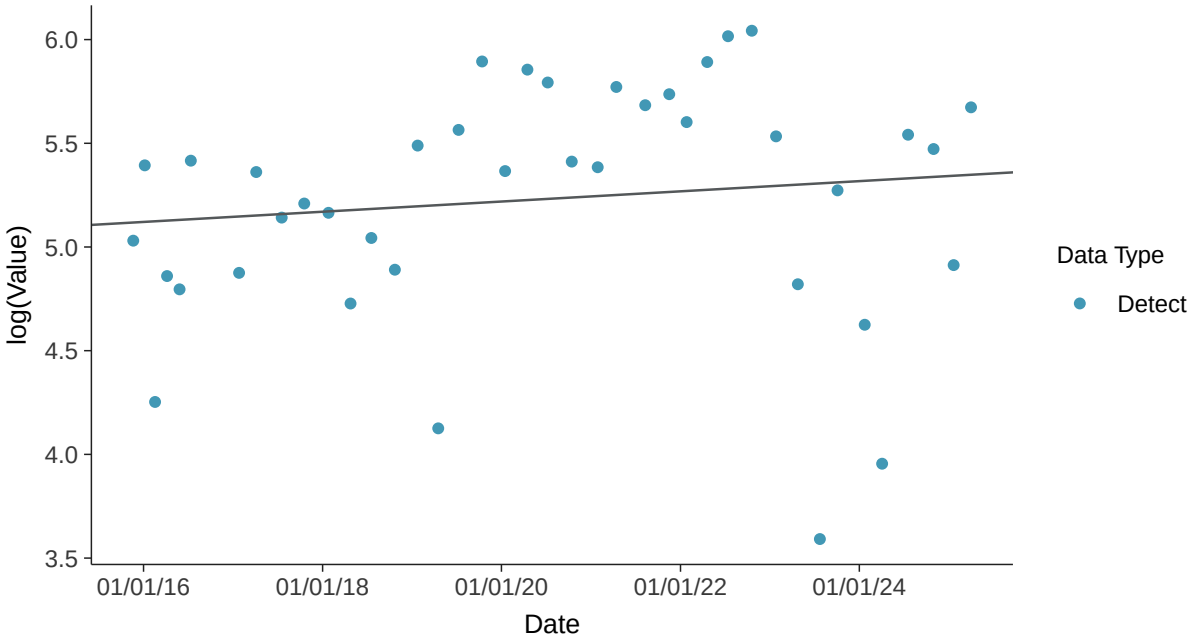
Gamma Q-Q plot

Barium, MW-1 (ug/L)



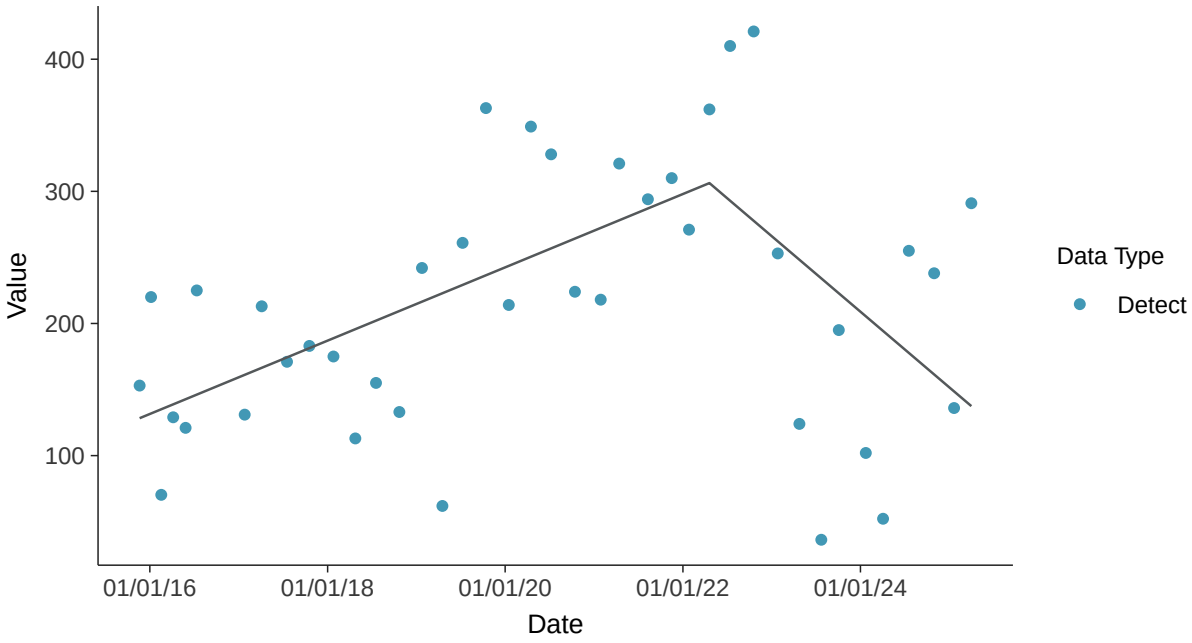
Trend Regression: Lognormal MLE

Barium, MW-1 (ug/L)



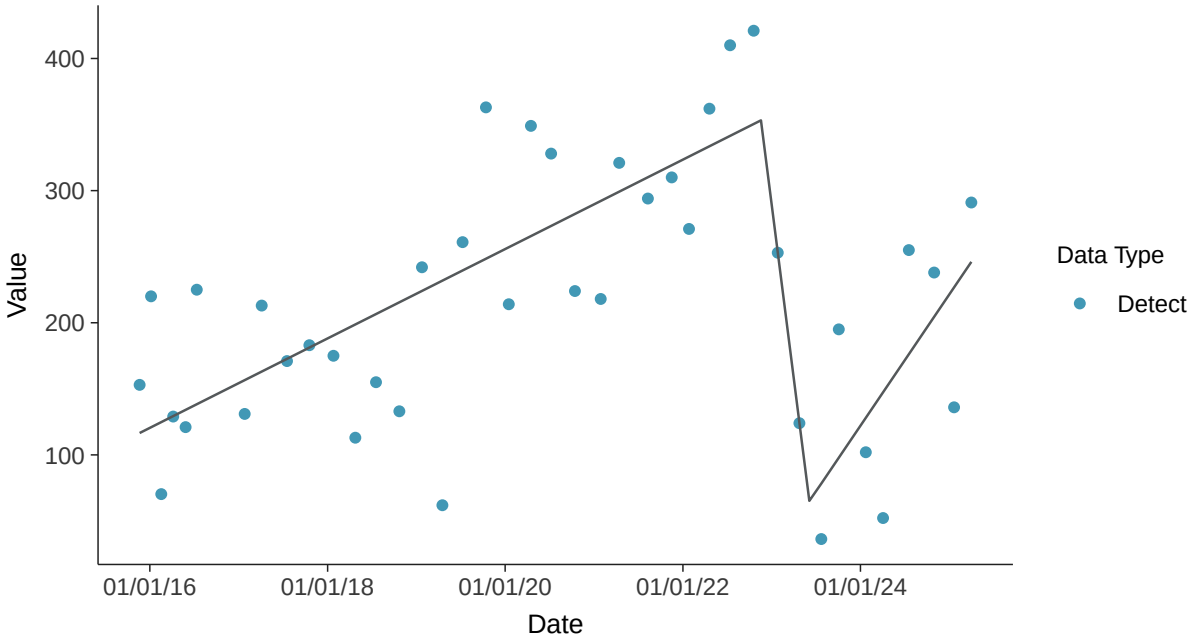
Trend Regression: Piecewise Linear-Linear

Barium, MW-1 (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Barium, MW-1 (ug/L)

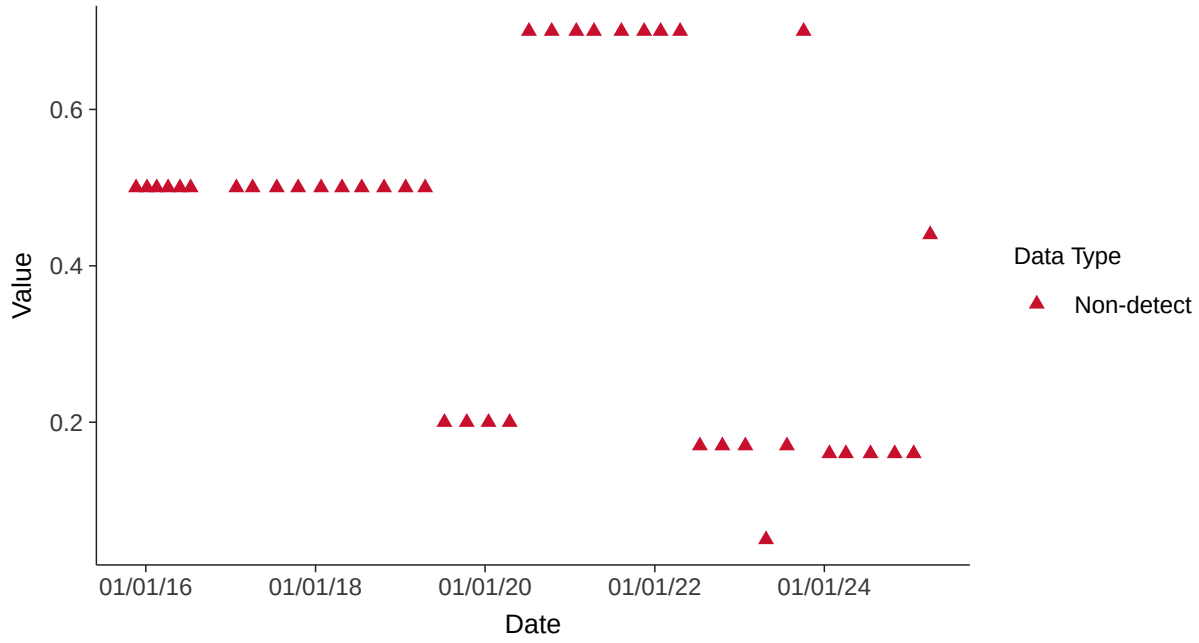


App. IV: Beryllium, MW-1

ID: 01_03_104

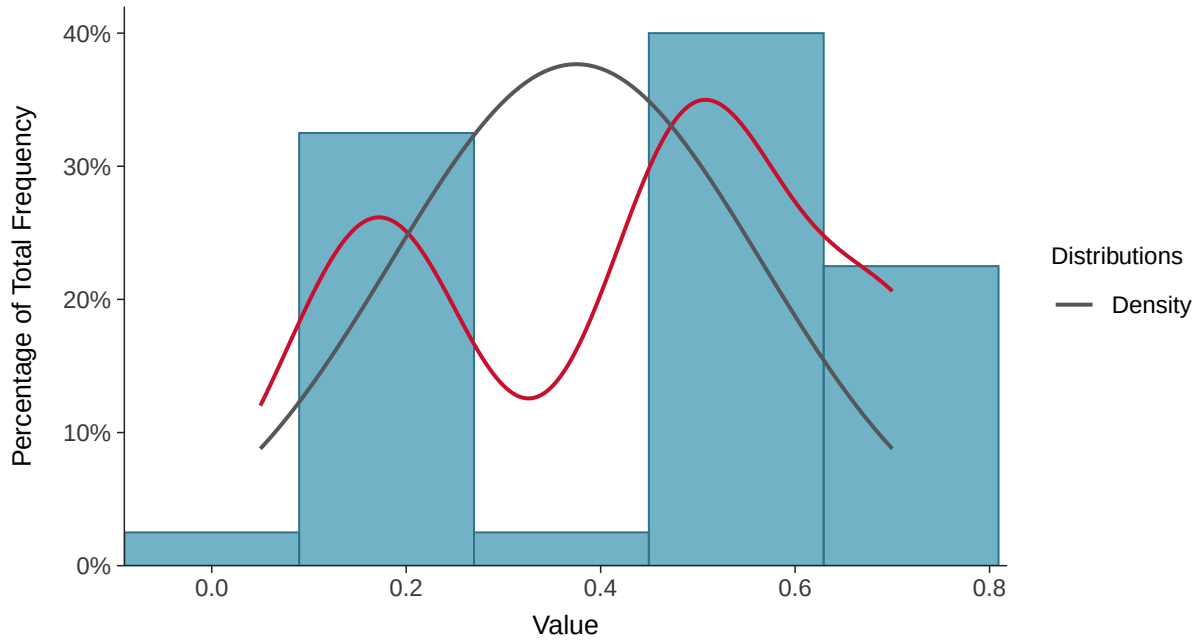
Scatter Plot

Beryllium, MW-1 (ug/L)



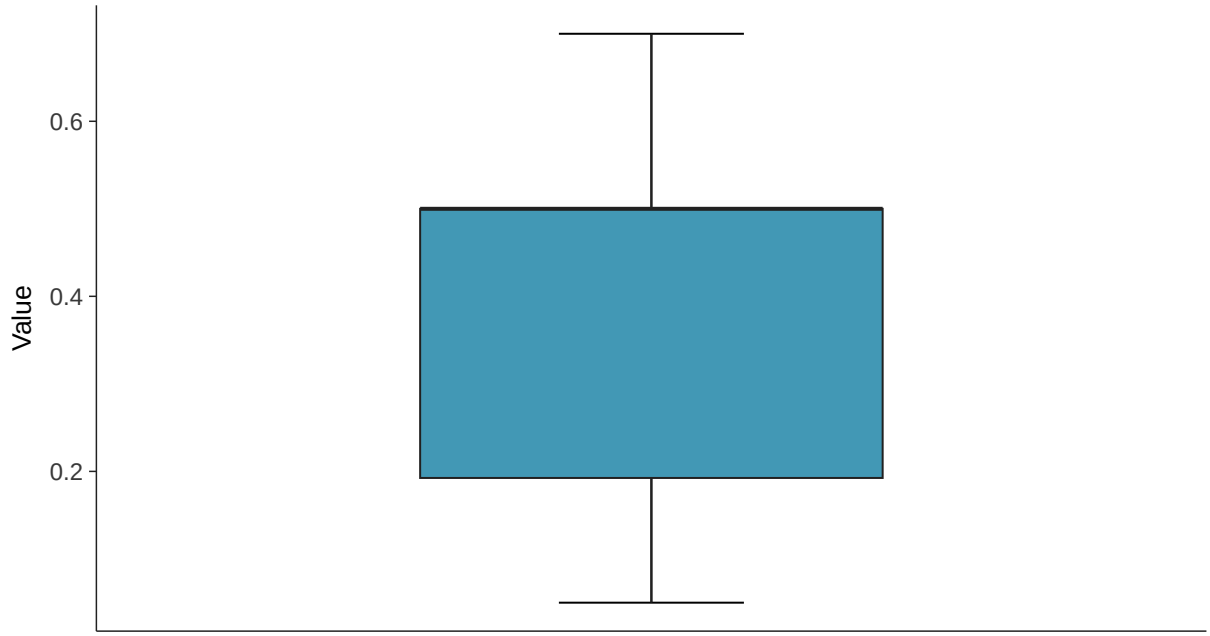
Histogram

Beryllium, MW-1 (ug/L)



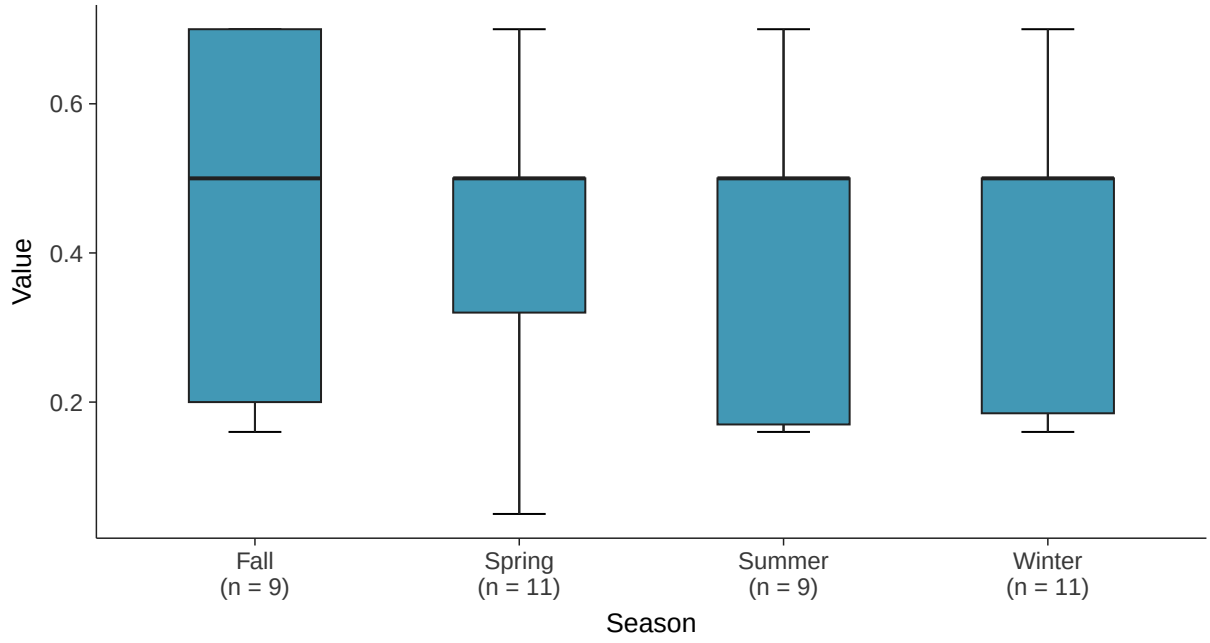
Boxplot

Beryllium, MW-1 (ug/L)



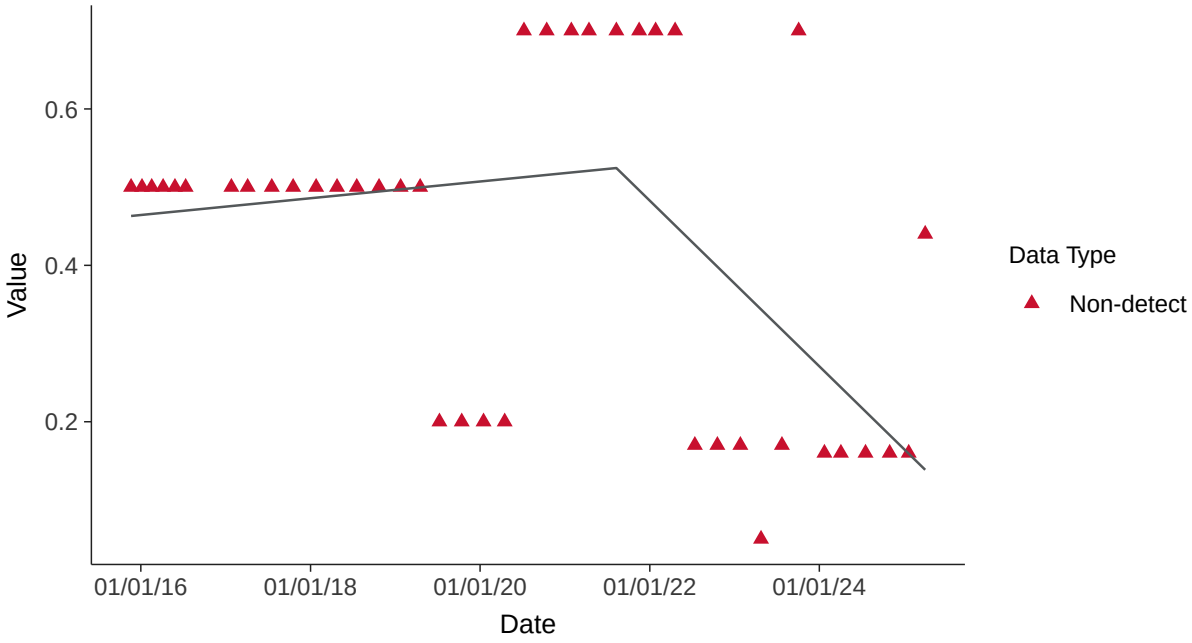
Boxplot by Season

Beryllium, MW-1 (ug/L)



Trend Regression: Piecewise Linear-Linear

Beryllium, MW-1 (ug/L)

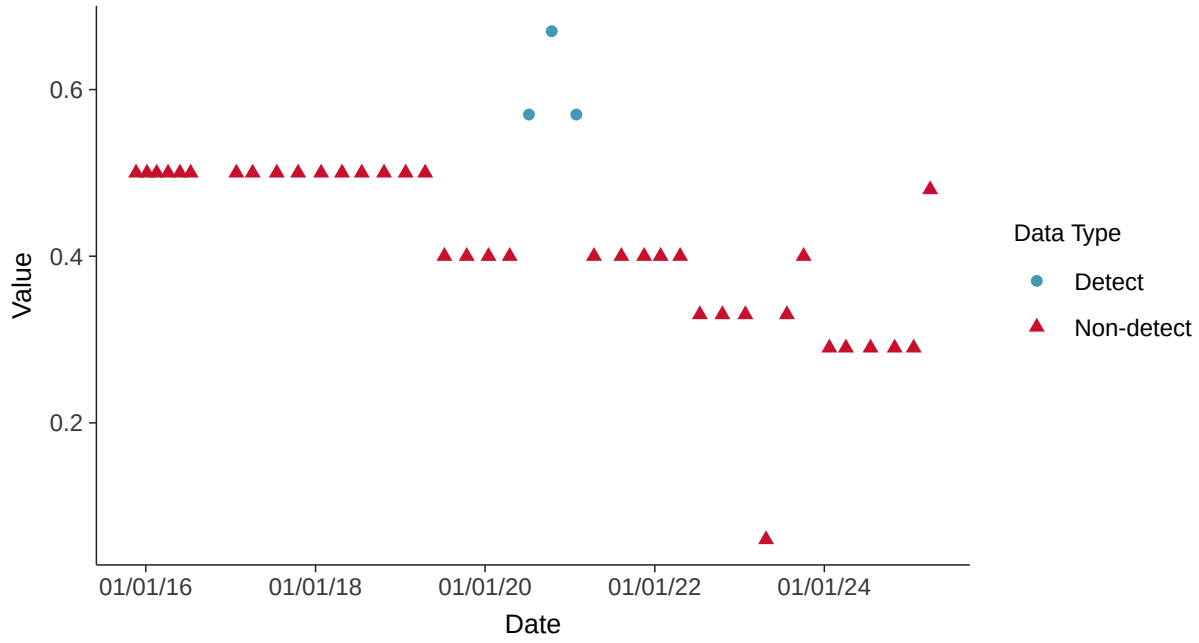


App. IV: Cadmium, MW-1

ID: 01_03_106

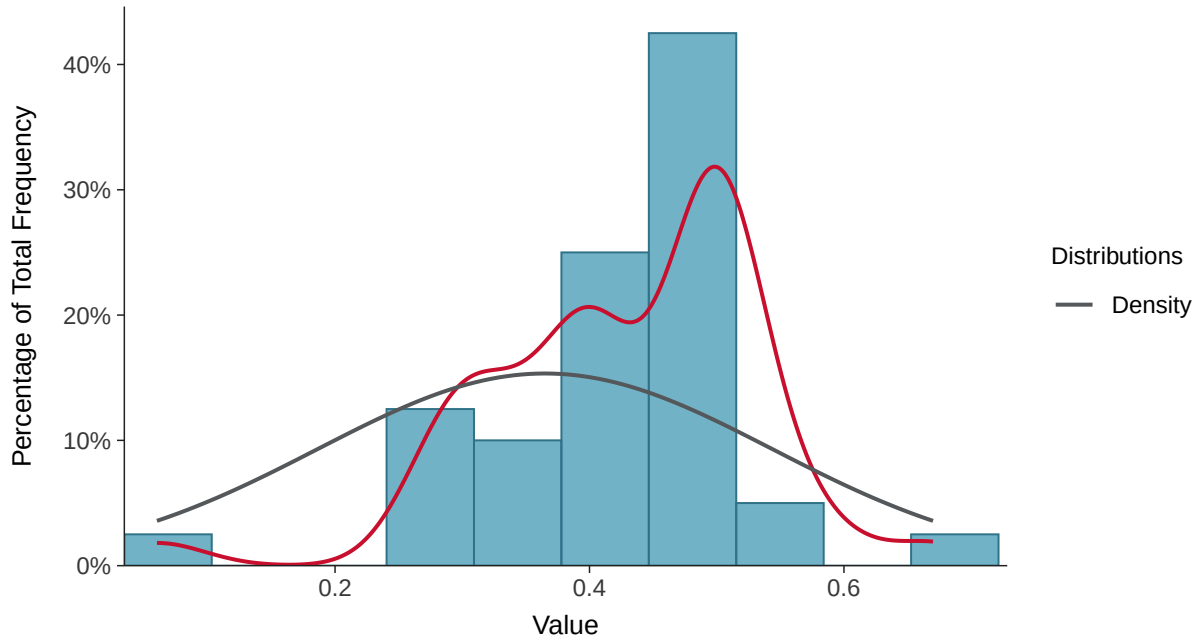
Scatter Plot

Cadmium, MW-1 (ug/L)



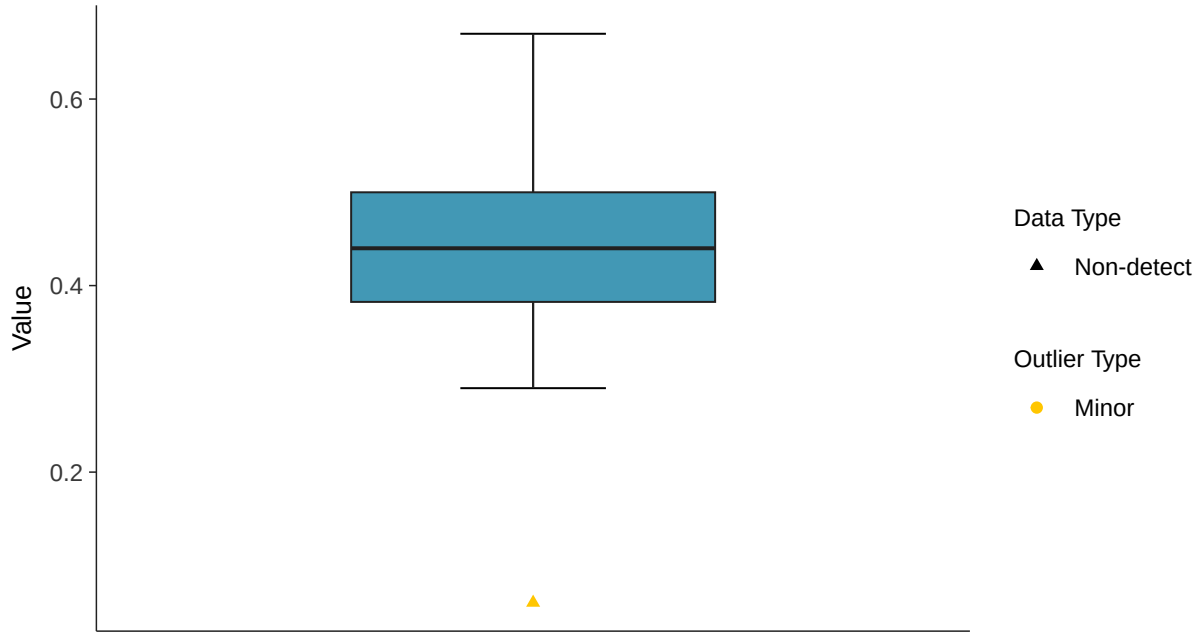
Histogram

Cadmium, MW-1 (ug/L)



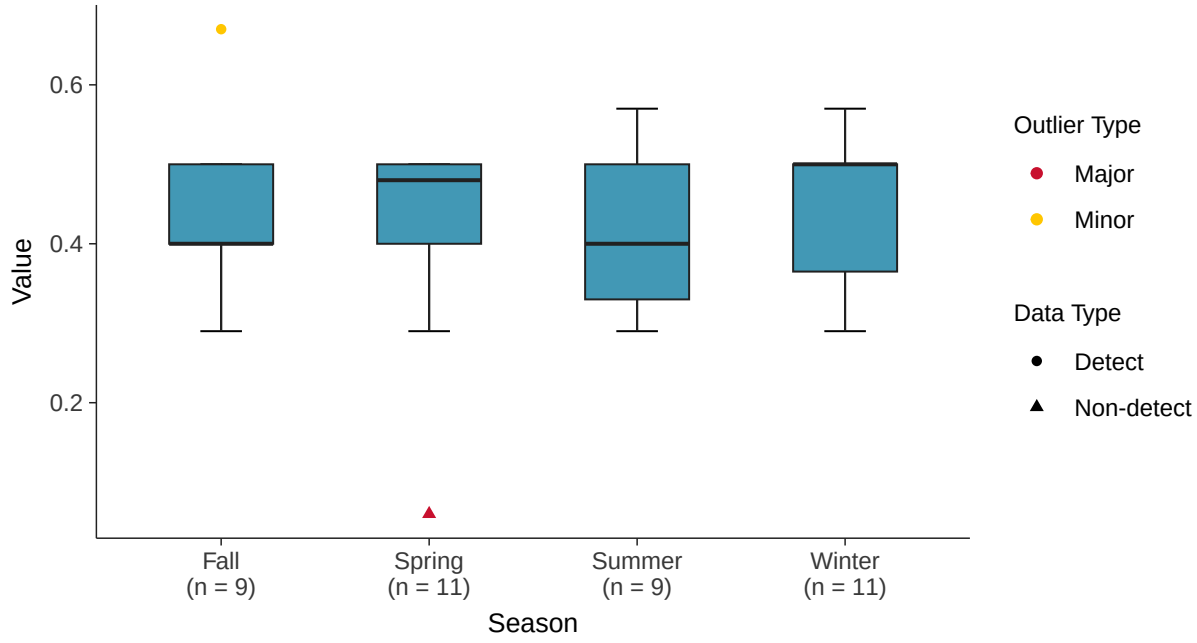
Boxplot

Cadmium, MW-1 (ug/L)



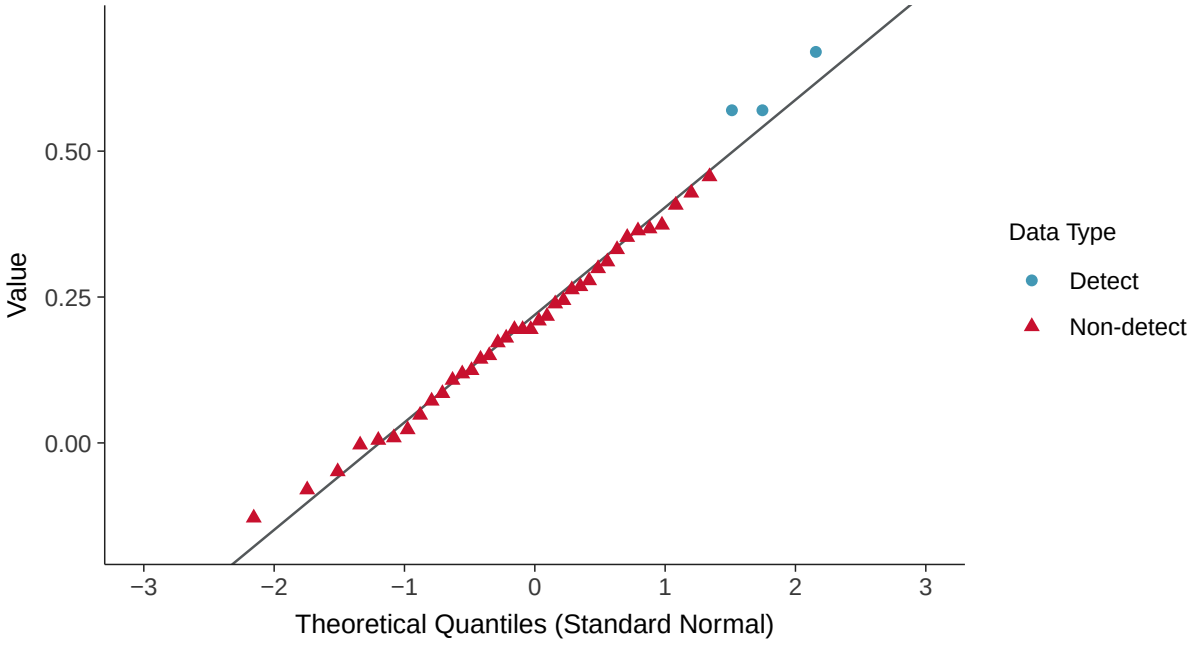
Boxplot by Season

Cadmium, MW-1 (ug/L)



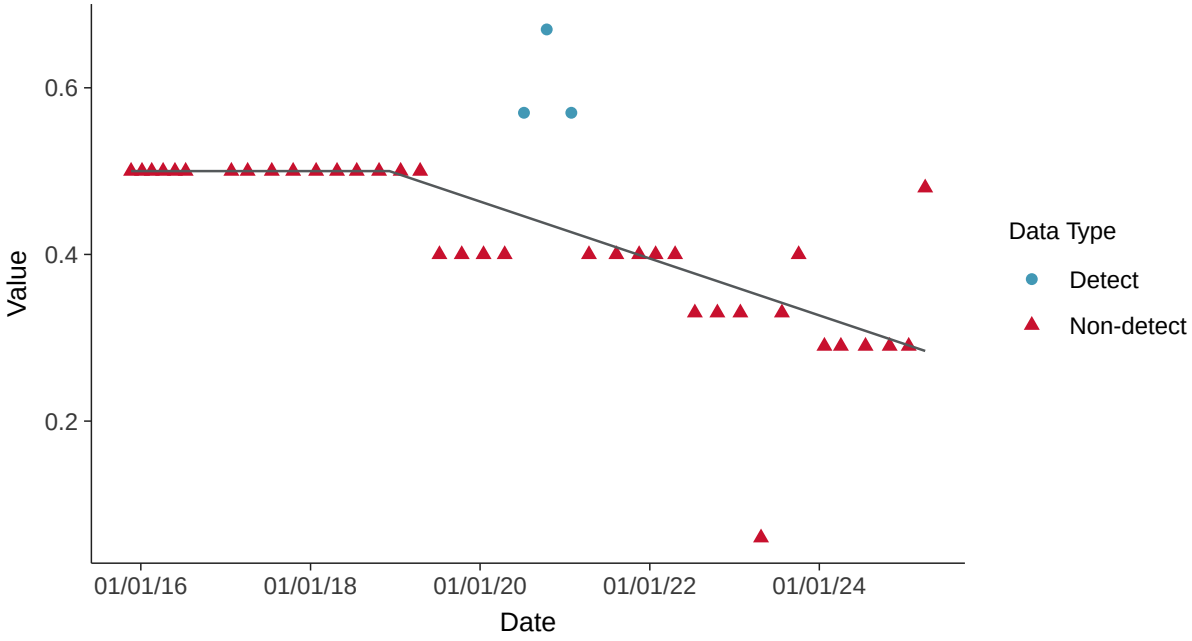
Normal Q-Q plot using ROS Imputed Estimates

Cadmium, MW-1 (ug/L)



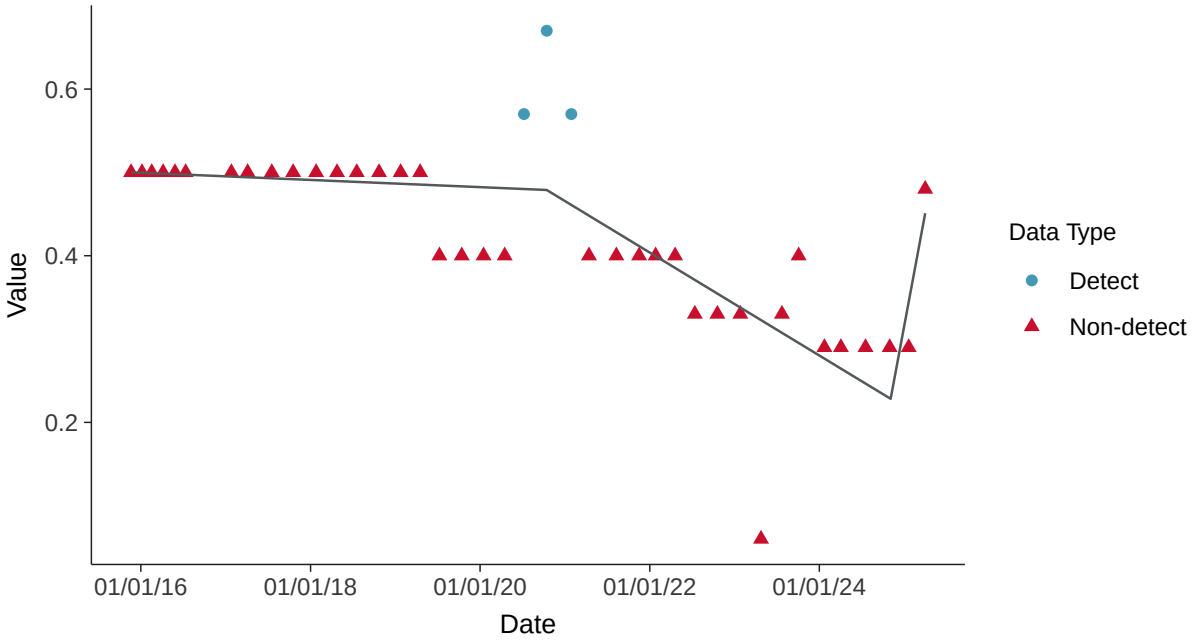
Trend Regression: Piecewise Linear-Linear

Cadmium, MW-1 (ug/L)



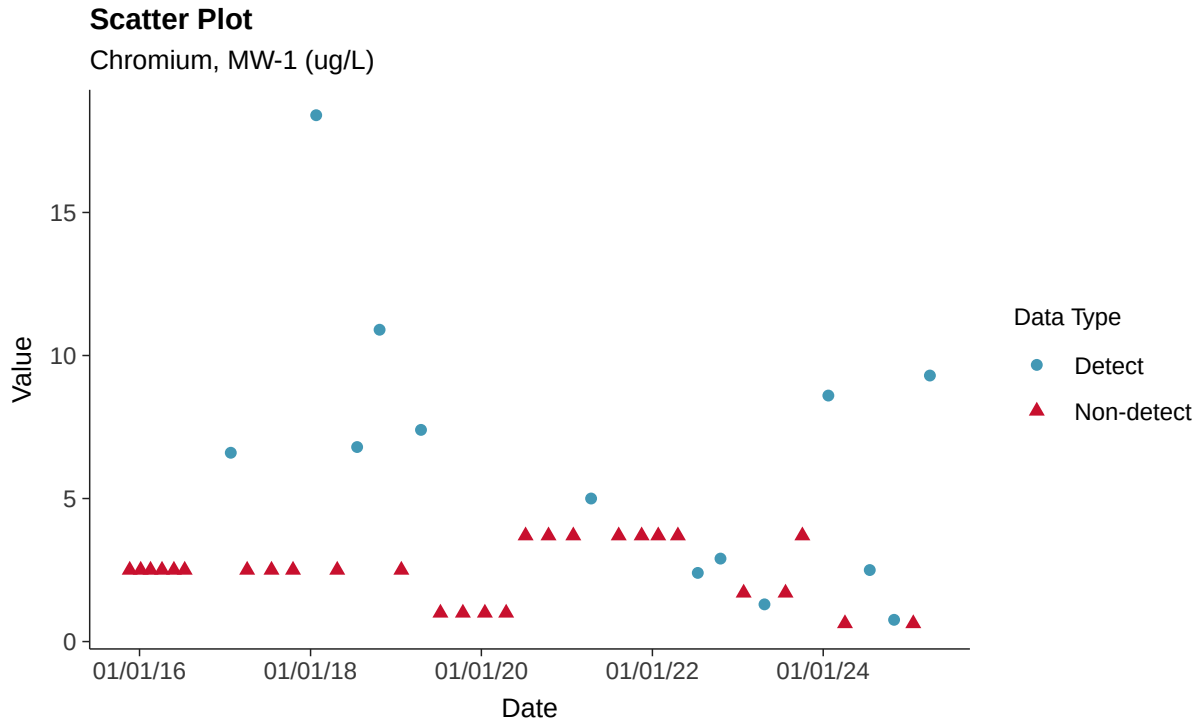
Trend Regression: Piecewise Linear-Linear-Linear

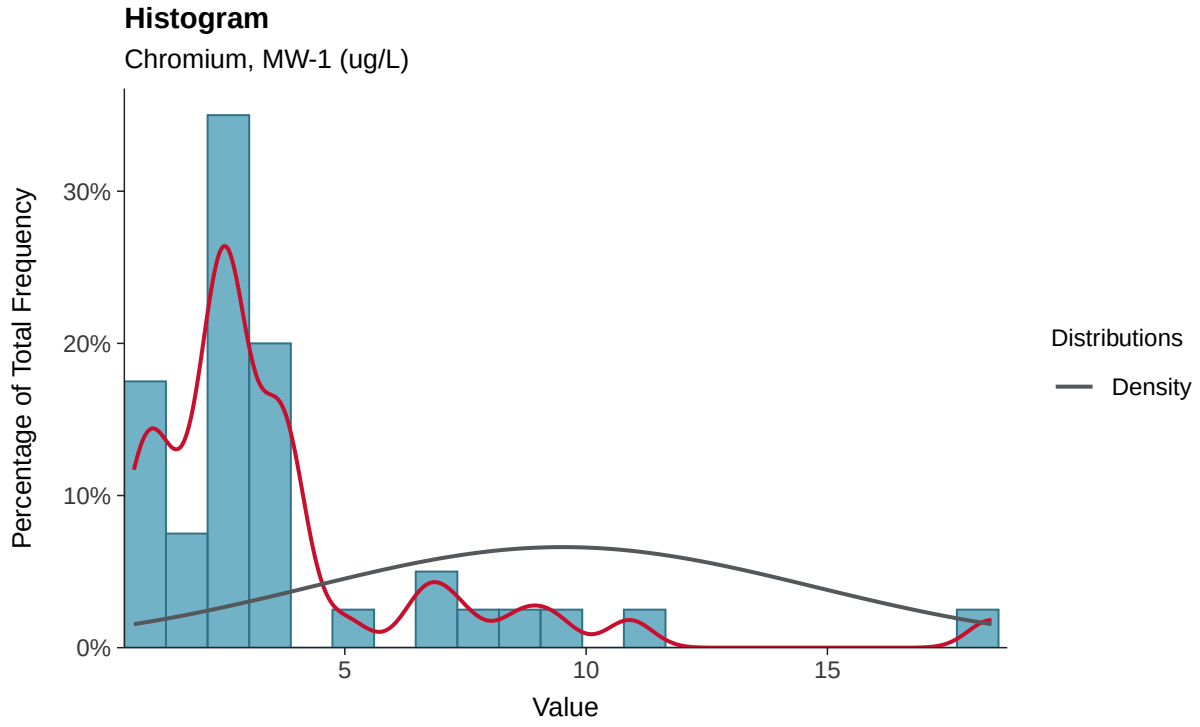
Cadmium, MW-1 (ug/L)



App. IV: Chromium, MW-1

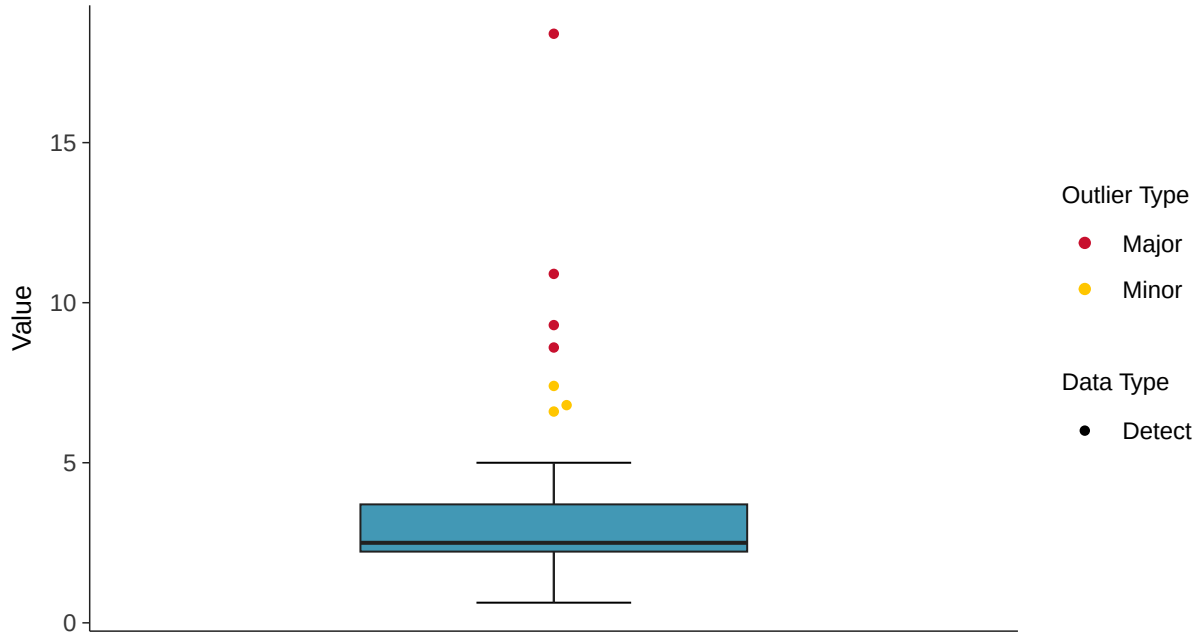
ID: 01_03_109





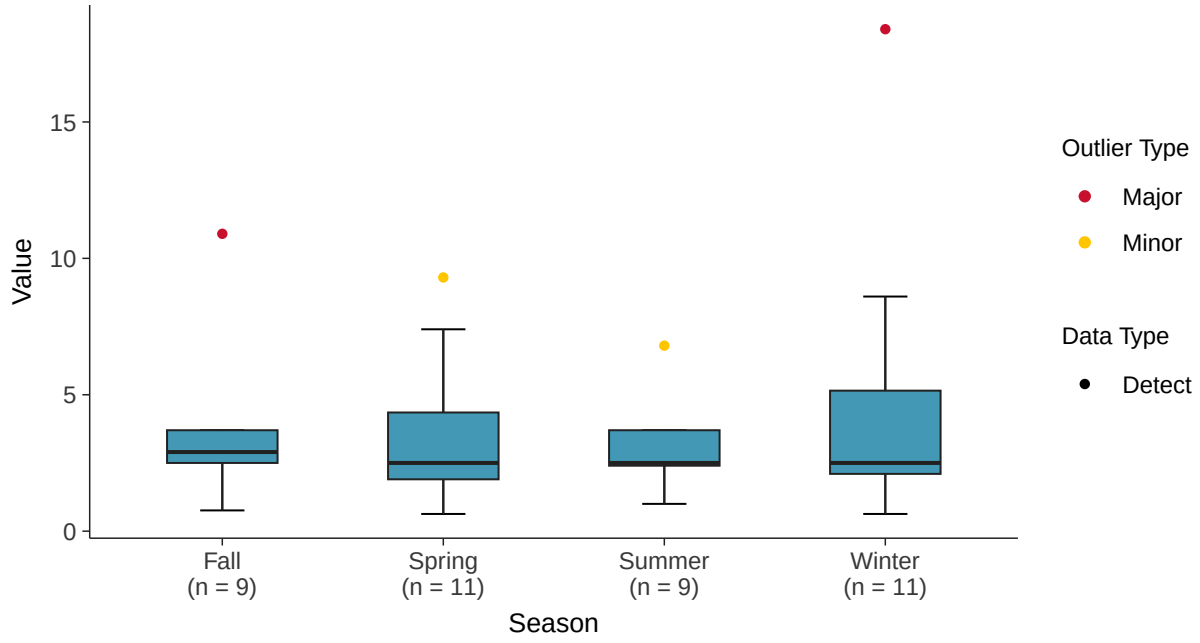
Boxplot

Chromium, MW-1 (ug/L)



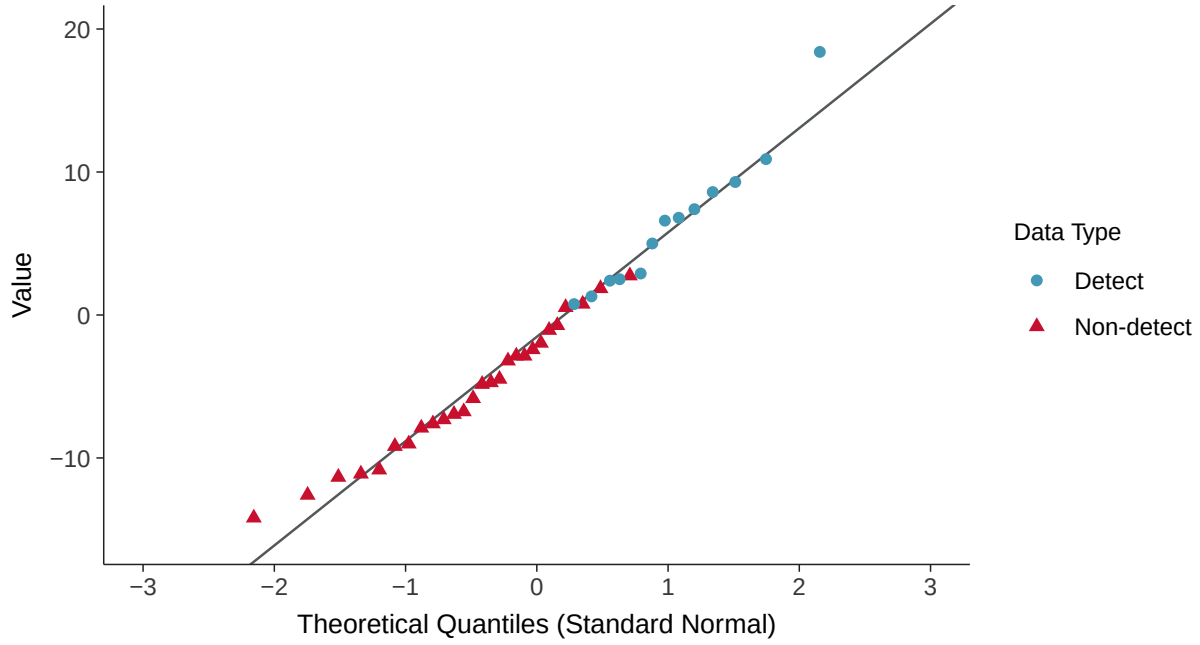
Boxplot by Season

Chromium, MW-1 (ug/L)



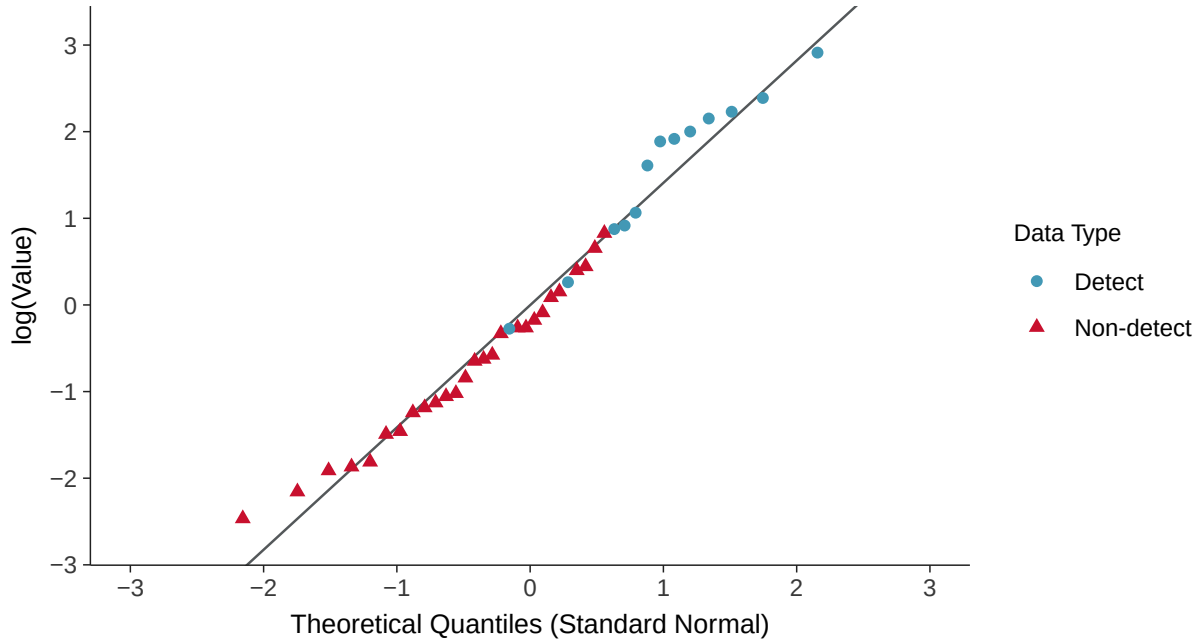
Normal Q-Q plot using ROS Imputed Estimates

Chromium, MW-1 (ug/L)



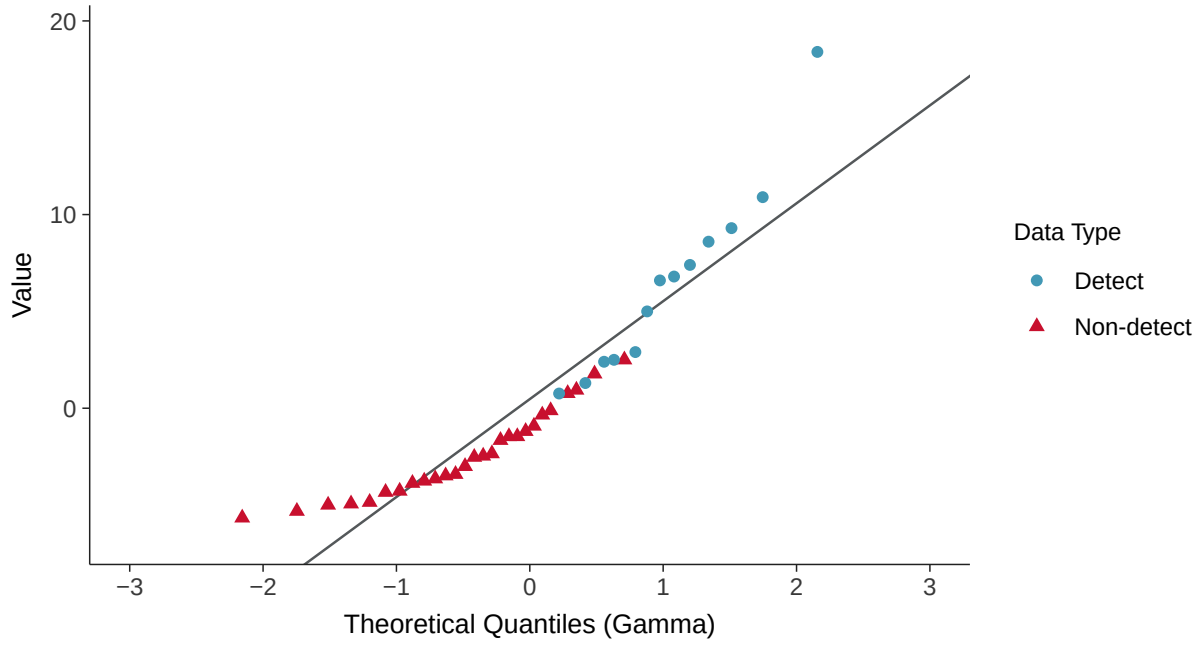
Lognormal Q-Q plot using ROS Imputed Estimates

Chromium, MW-1 (ug/L)



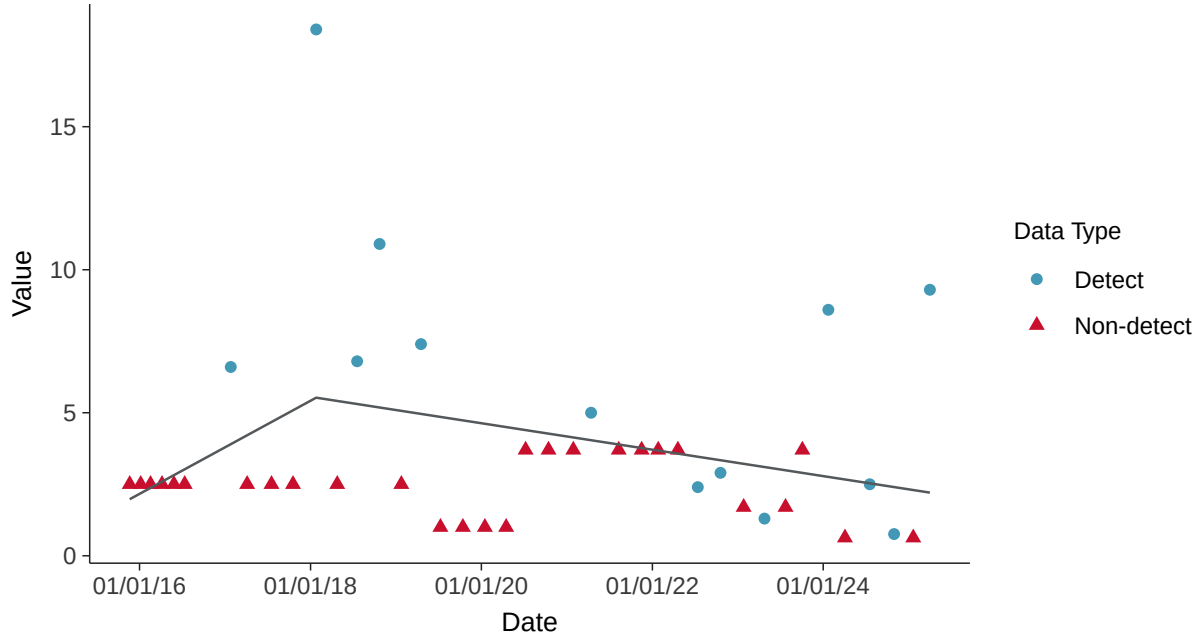
Gamma Q-Q plot using ROS Imputed Estimates

Chromium, MW-1 (ug/L)



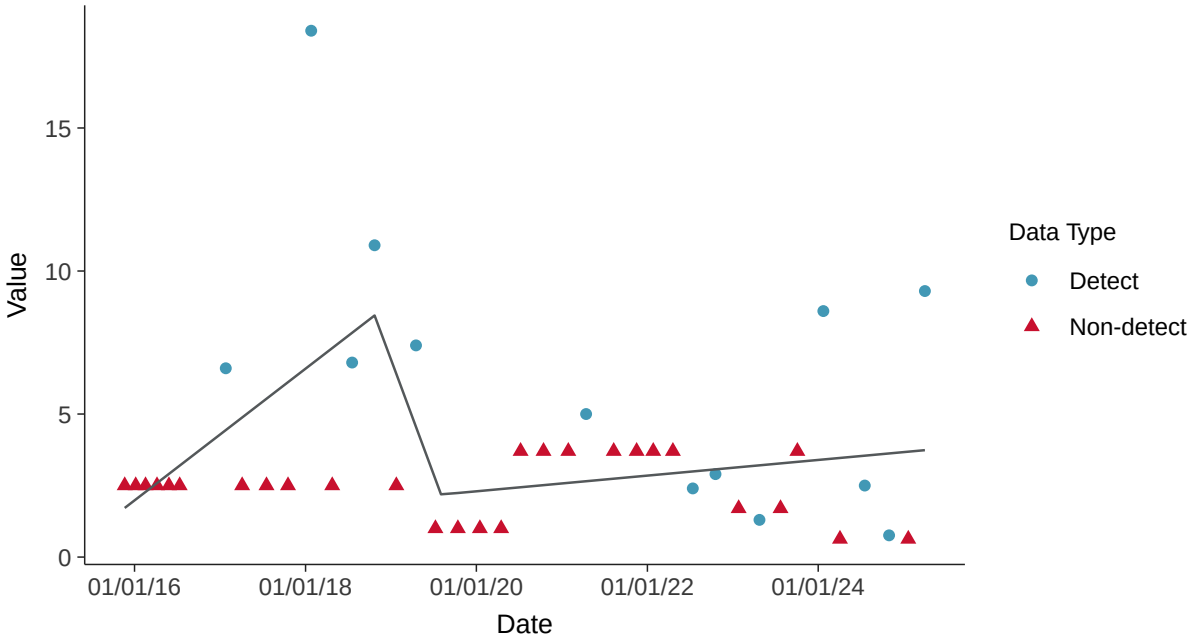
Trend Regression: Piecewise Linear-Linear

Chromium, MW-1 (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Chromium, MW-1 (ug/L)

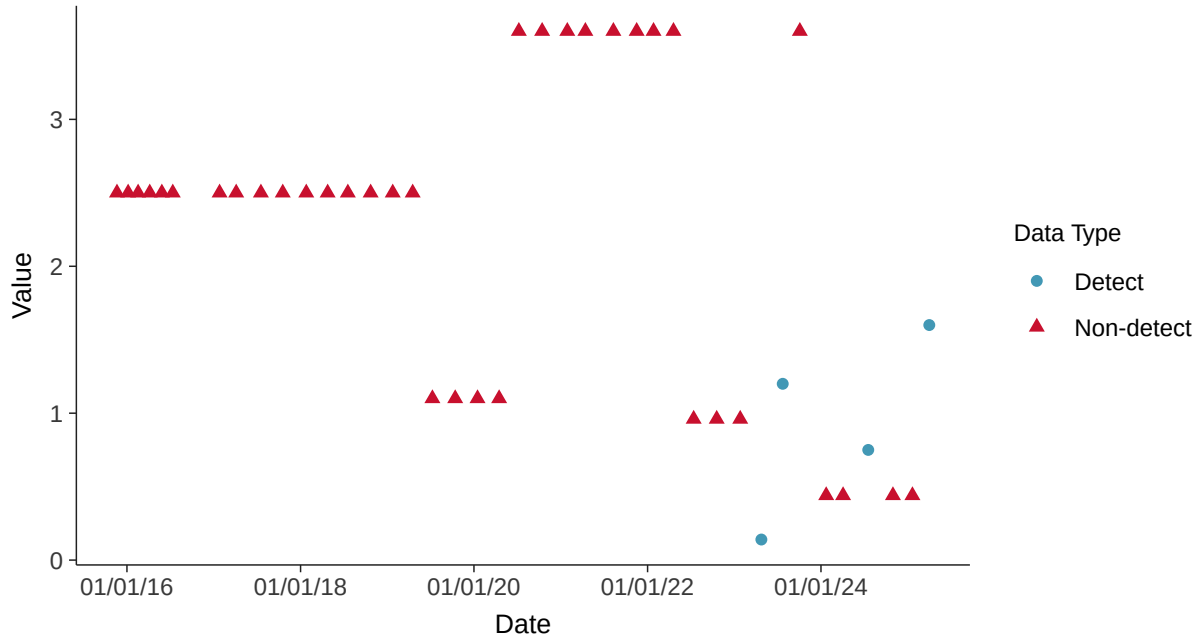


App. IV: Cobalt, MW-1

ID: 01_03_110

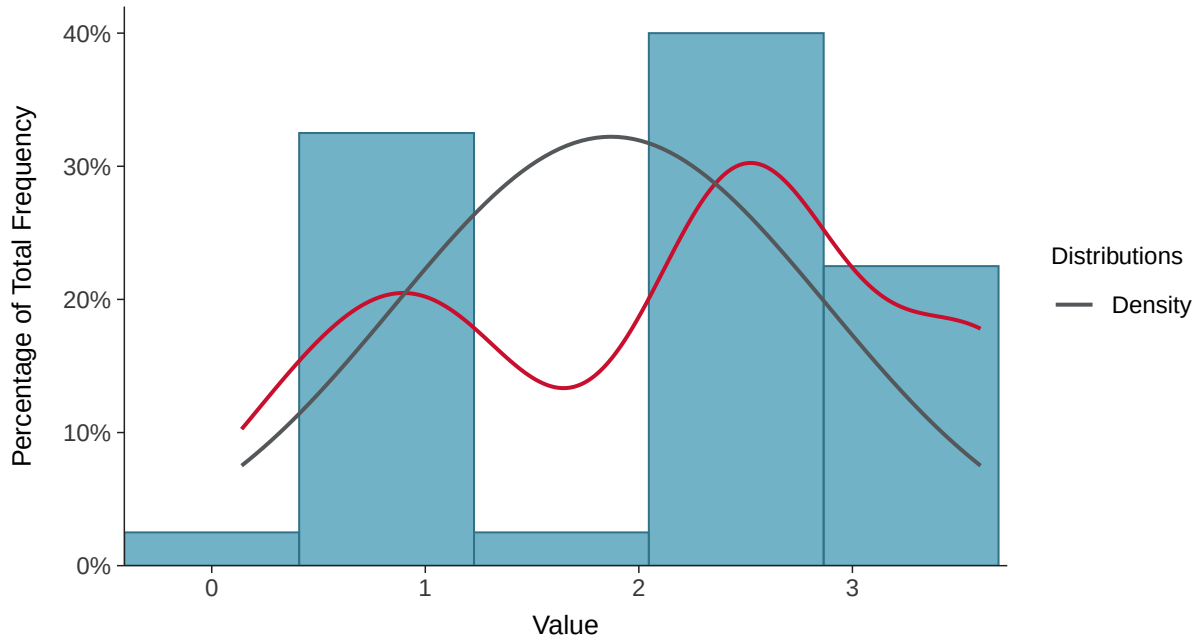
Scatter Plot

Cobalt, MW-1 (ug/L)



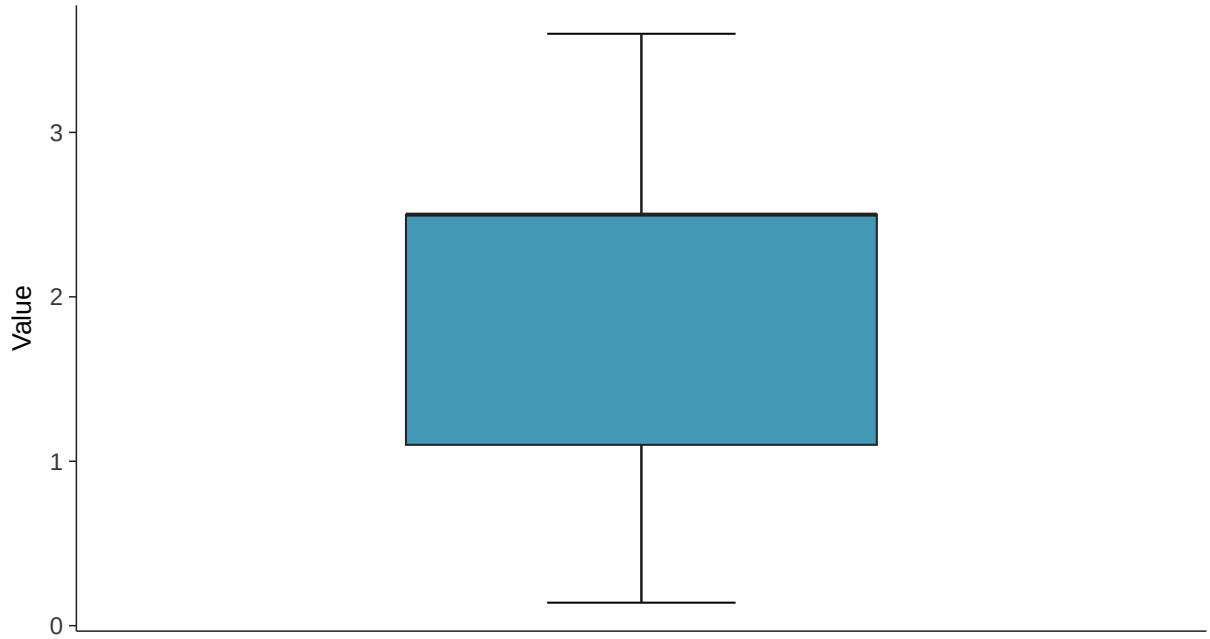
Histogram

Cobalt, MW-1 (ug/L)



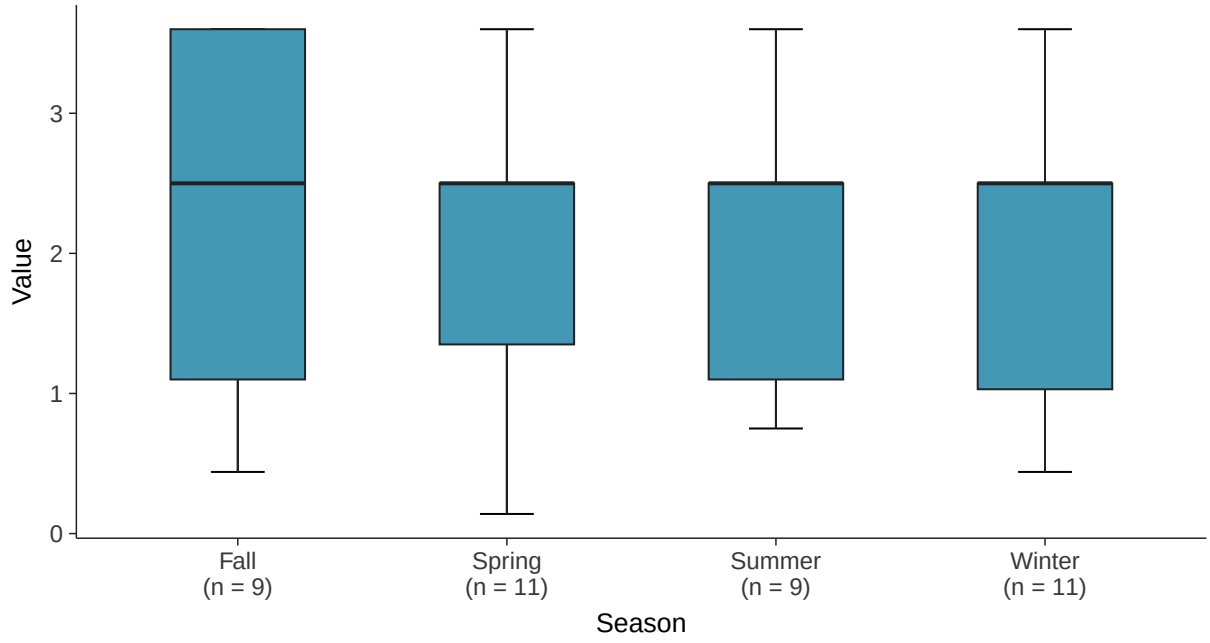
Boxplot

Cobalt, MW-1 (ug/L)



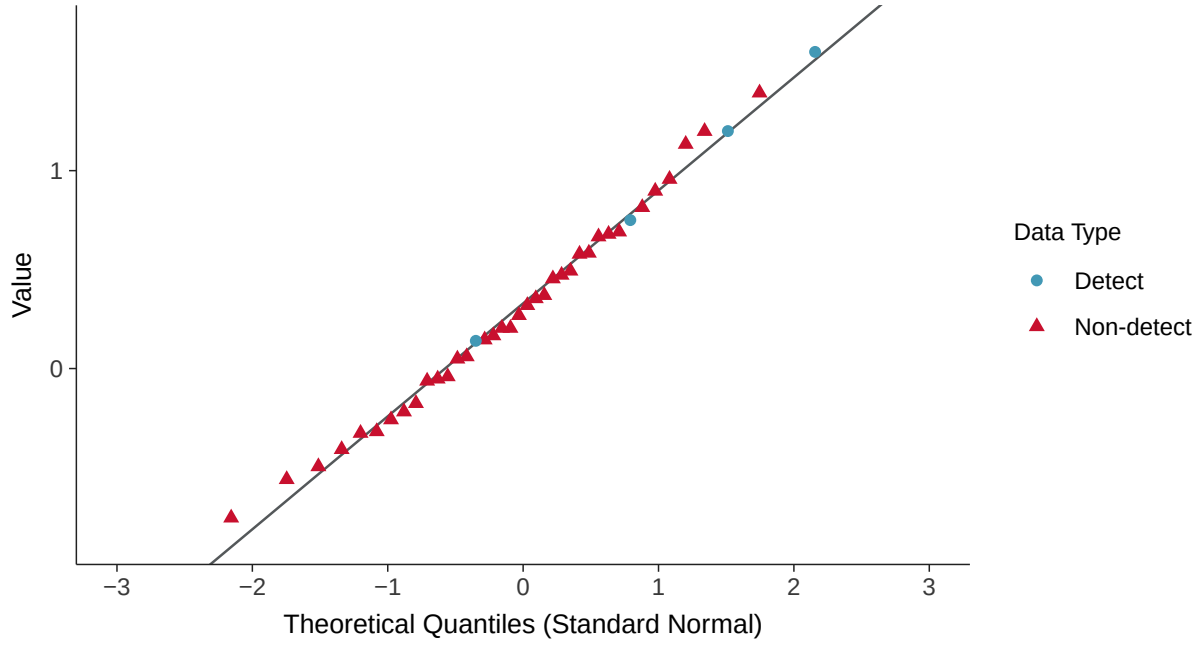
Boxplot by Season

Cobalt, MW-1 (ug/L)



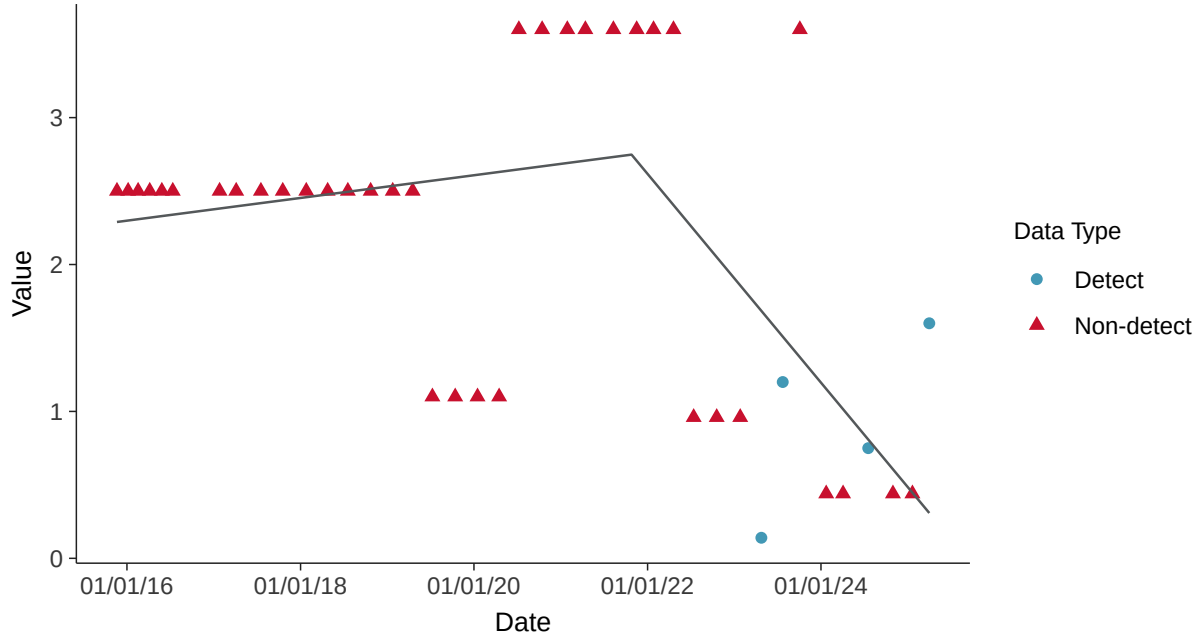
Normal Q-Q plot using ROS Imputed Estimates

Cobalt, MW-1 (ug/L)



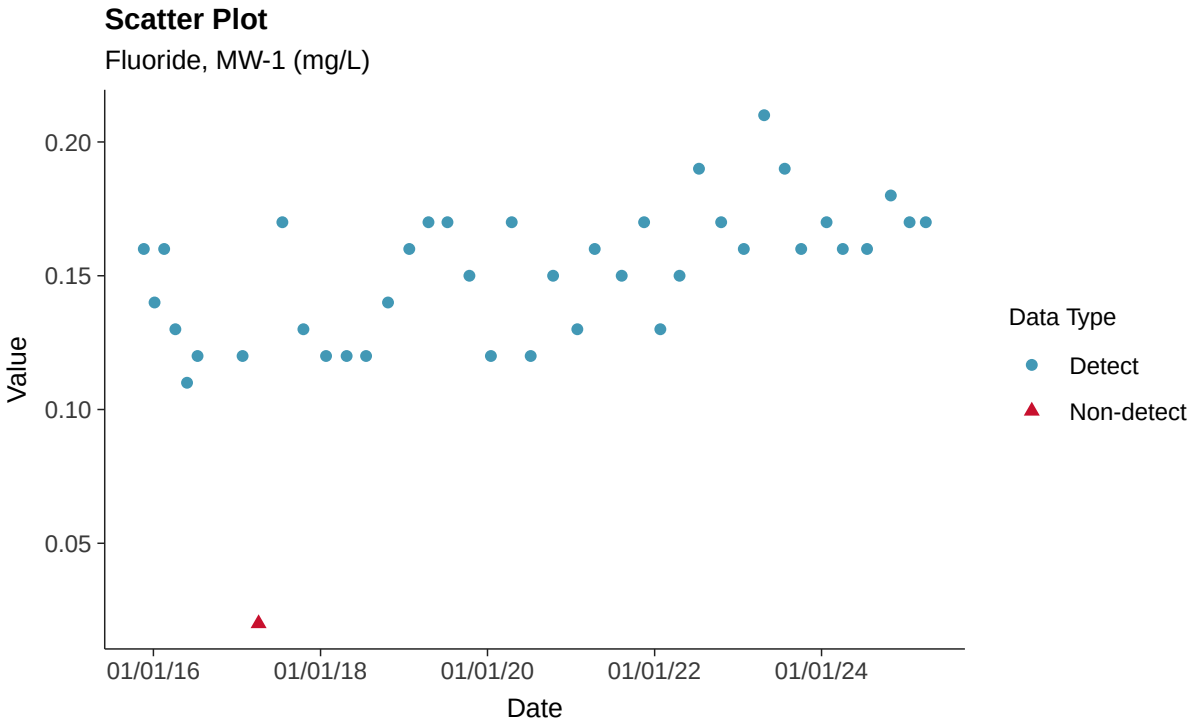
Trend Regression: Piecewise Linear-Linear

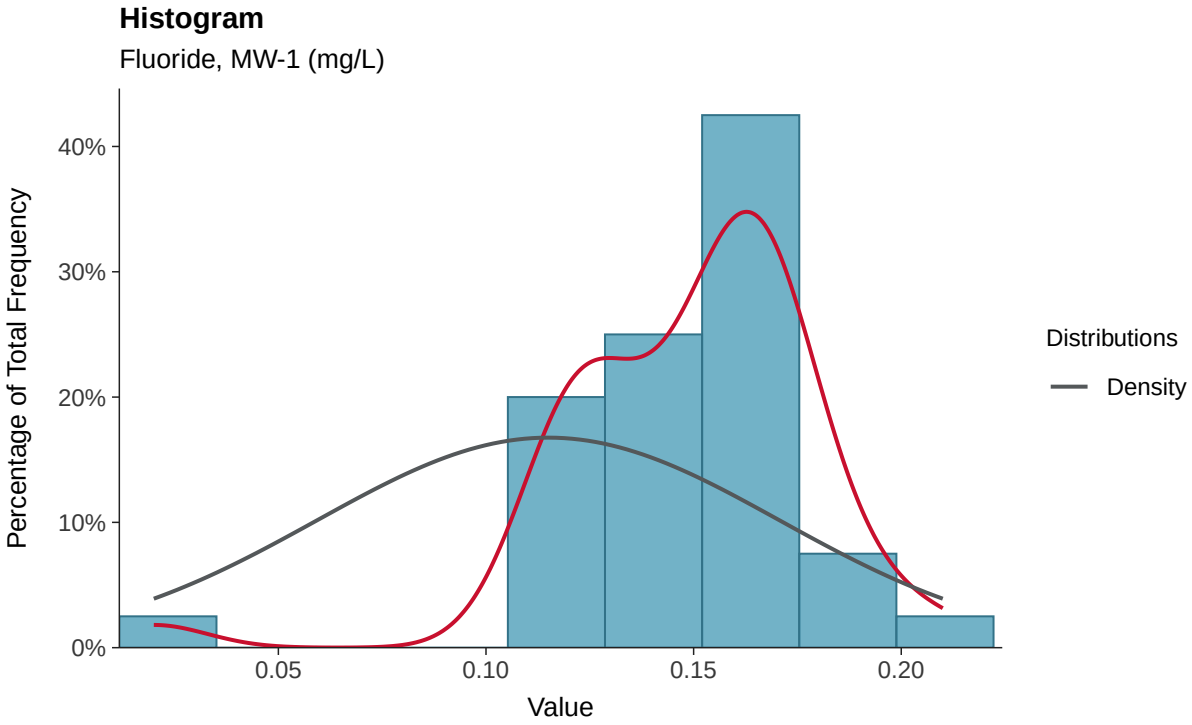
Cobalt, MW-1 (ug/L)



App. IV: Fluoride, MW-1

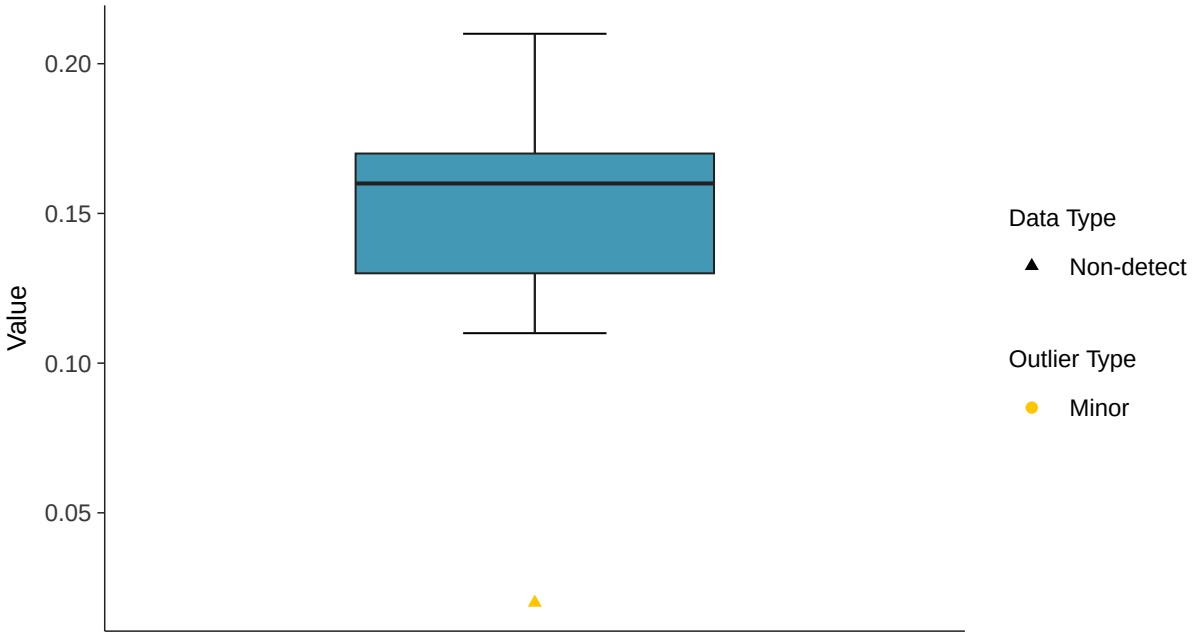
ID: 01_03_112





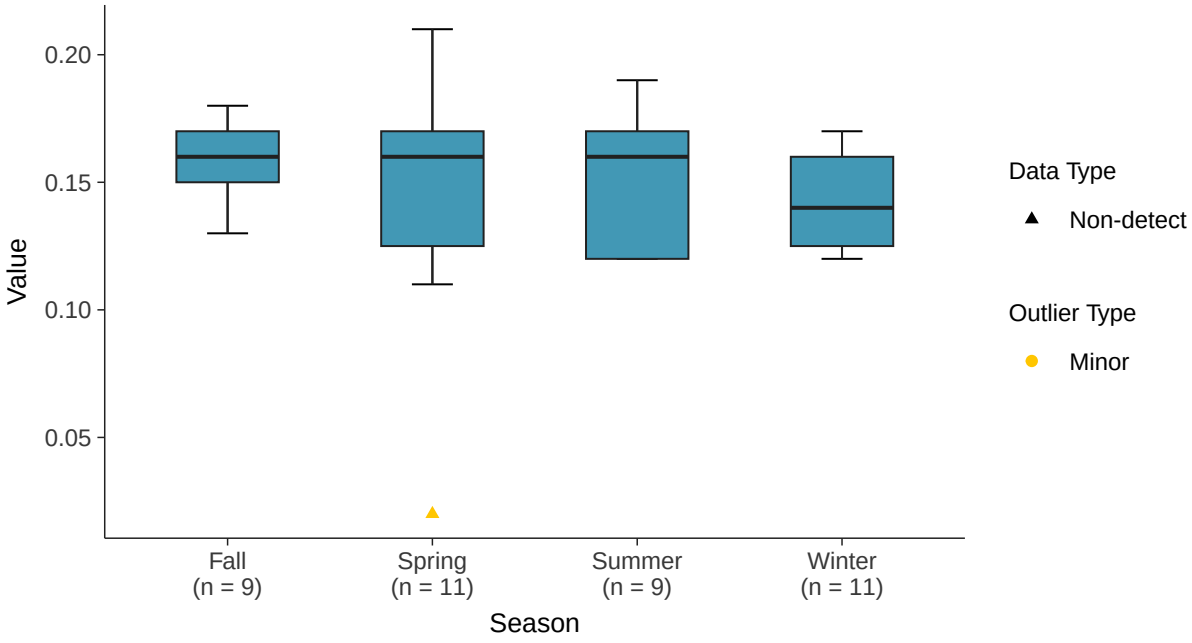
Boxplot

Fluoride, MW-1 (mg/L)



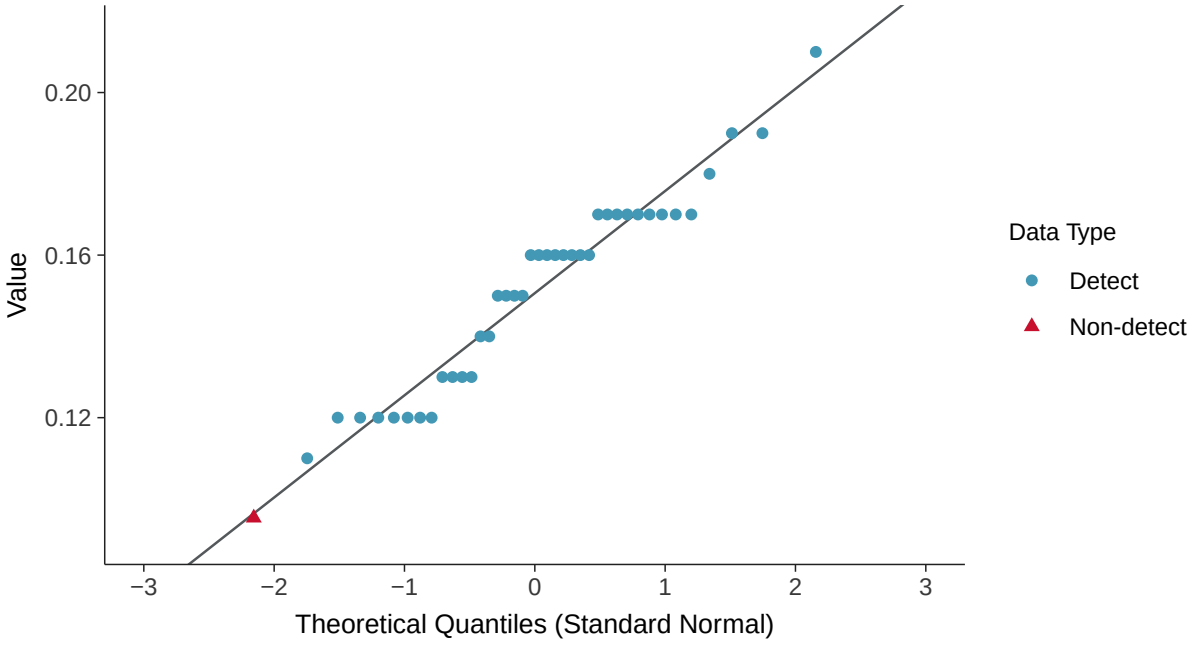
Boxplot by Season

Fluoride, MW-1 (mg/L)



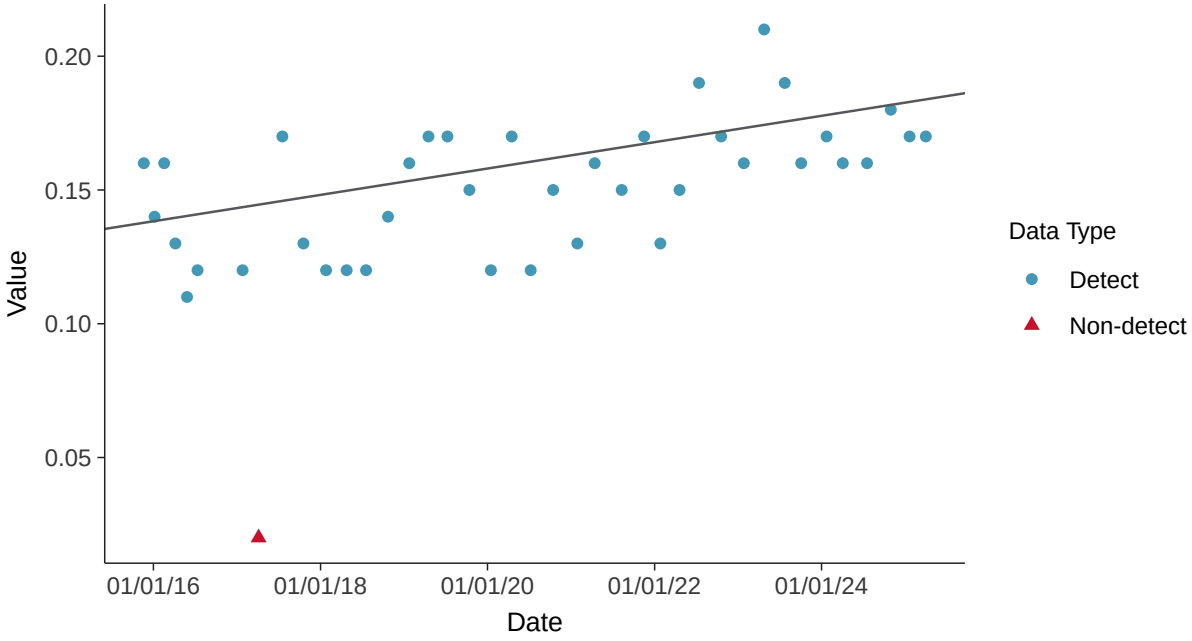
Normal Q-Q plot using ROS Imputed Estimates

Fluoride, MW-1 (mg/L)



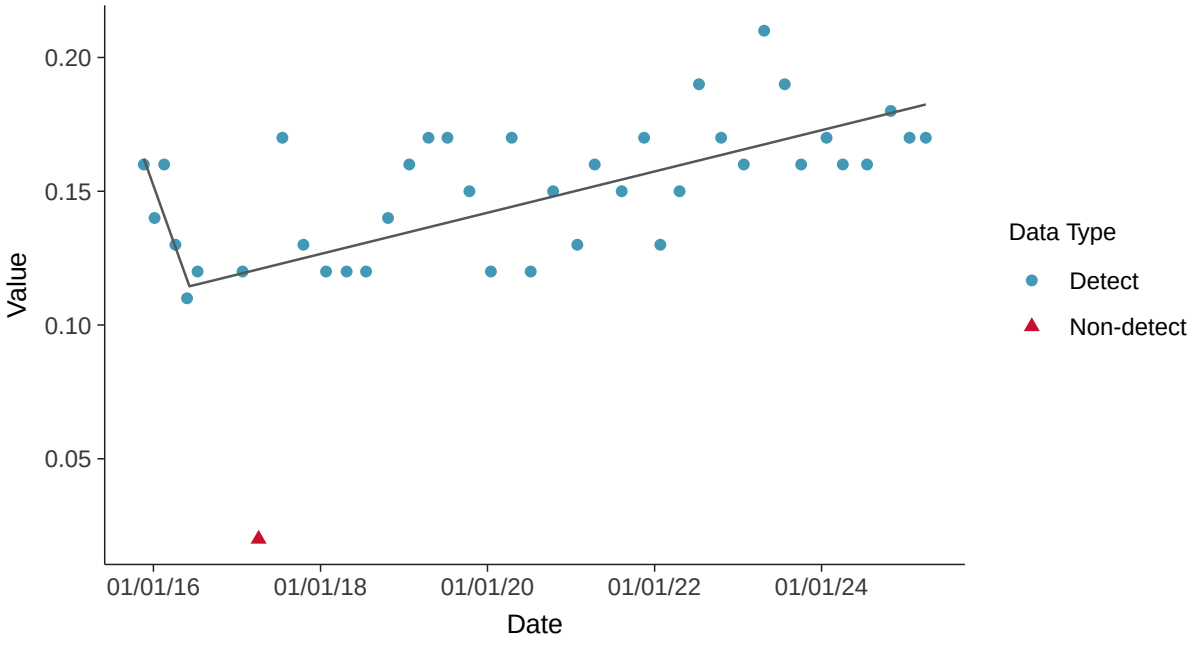
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Fluoride, MW-1 (mg/L)



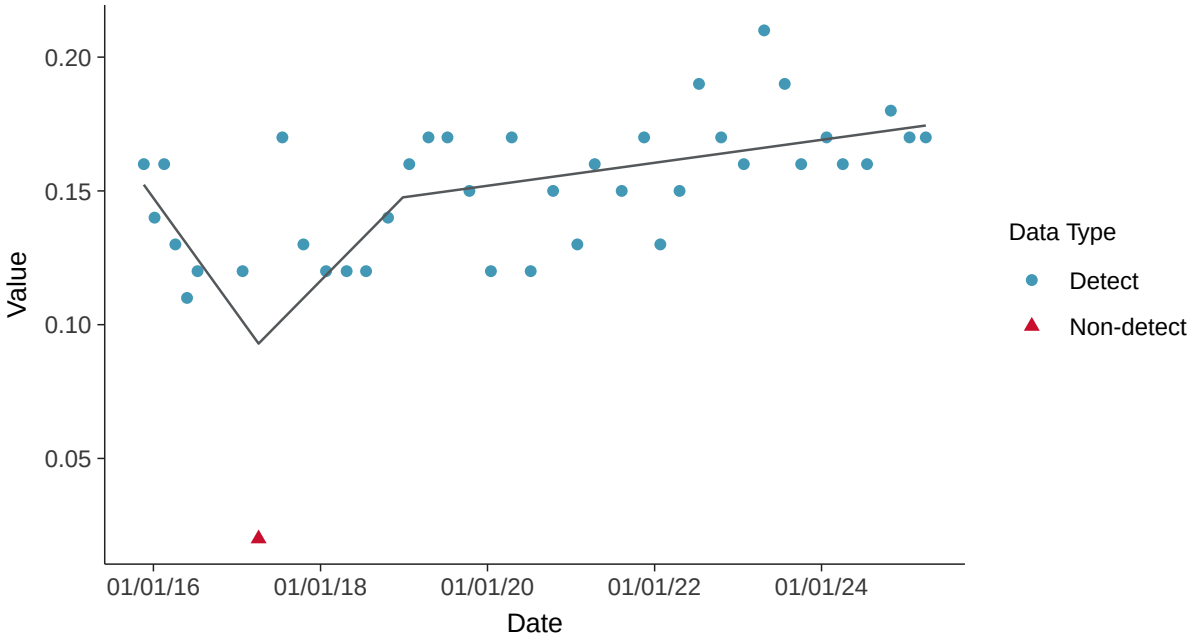
Trend Regression: Piecewise Linear-Linear

Fluoride, MW-1 (mg/L)



Trend Regression: Piecewise Linear-Linear-Linear

Fluoride, MW-1 (mg/L)

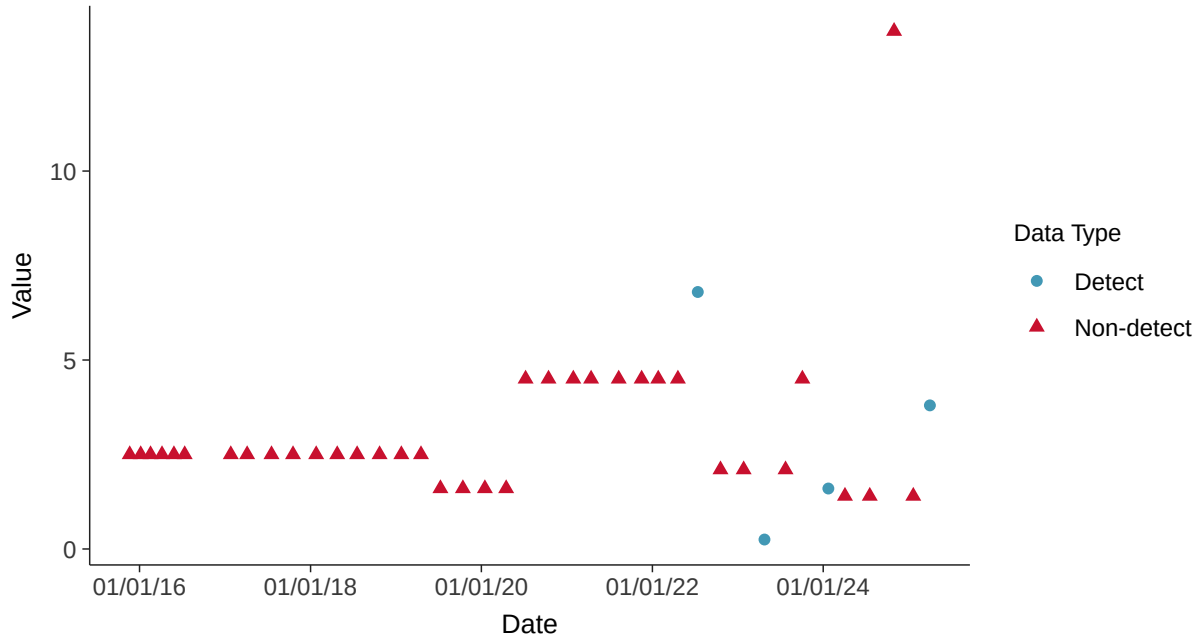


App. IV: Lead, MW-1

ID: 01_03_113

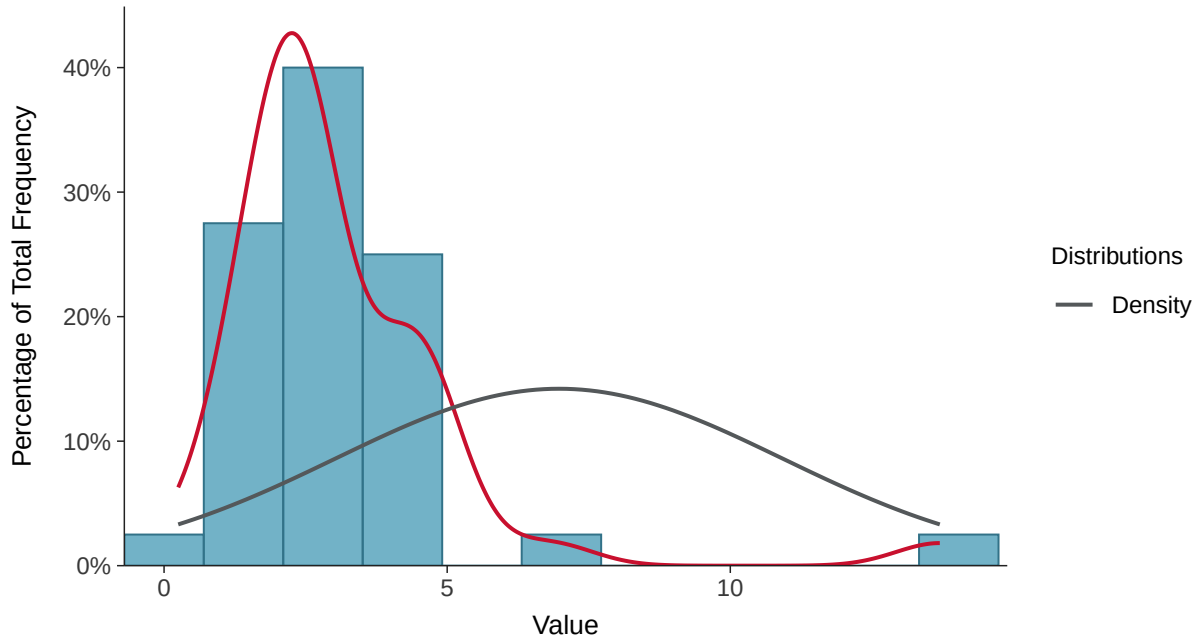
Scatter Plot

Lead, MW-1 (ug/L)



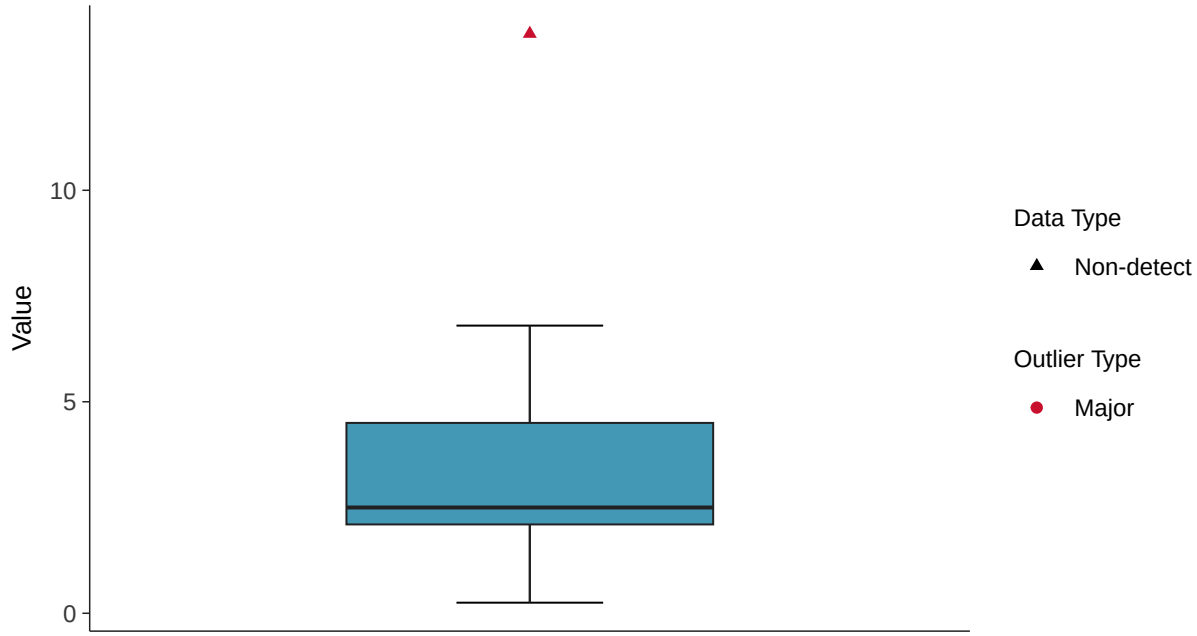
Histogram

Lead, MW-1 (ug/L)



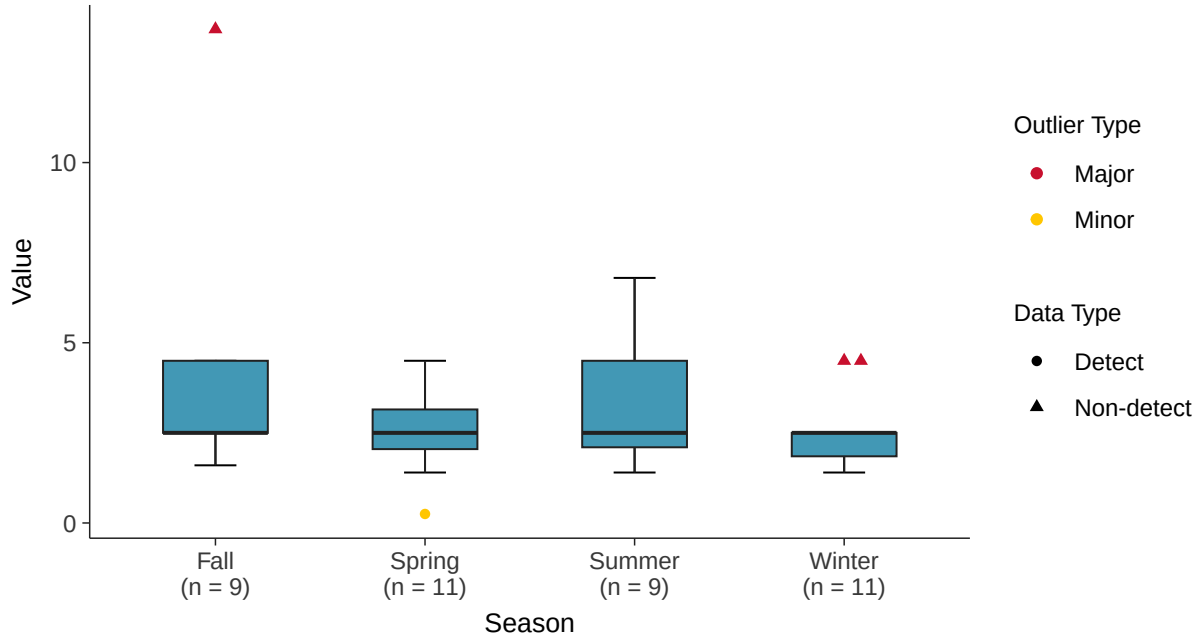
Boxplot

Lead, MW-1 (ug/L)



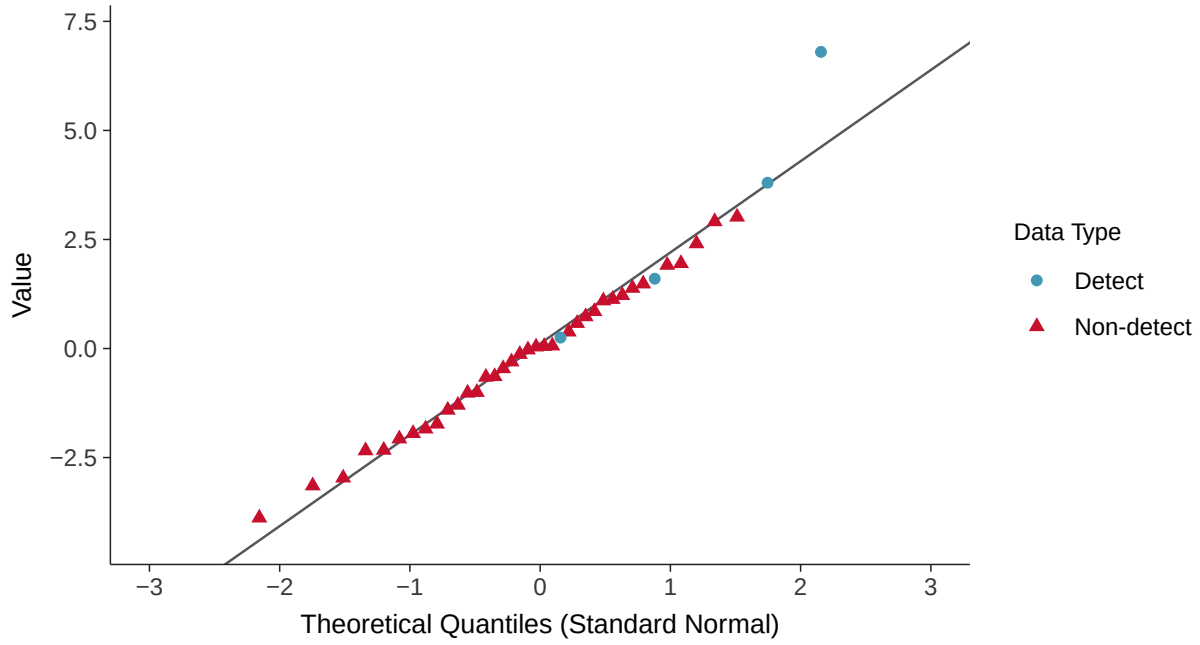
Boxplot by Season

Lead, MW-1 (ug/L)



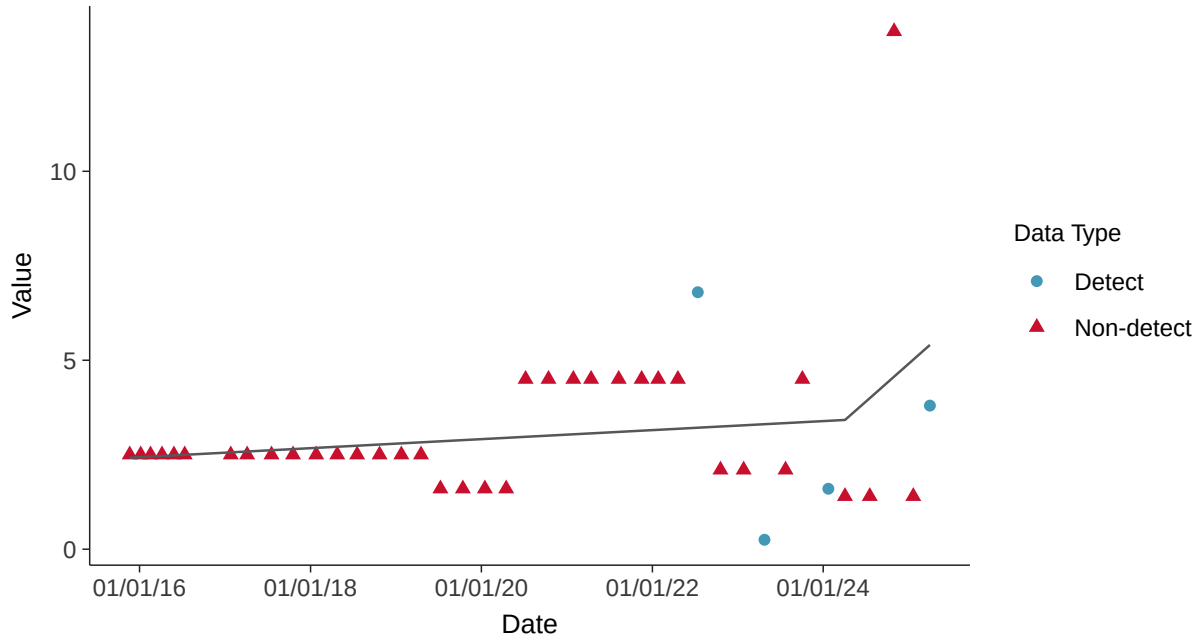
Normal Q-Q plot using ROS Imputed Estimates

Lead, MW-1 (ug/L)



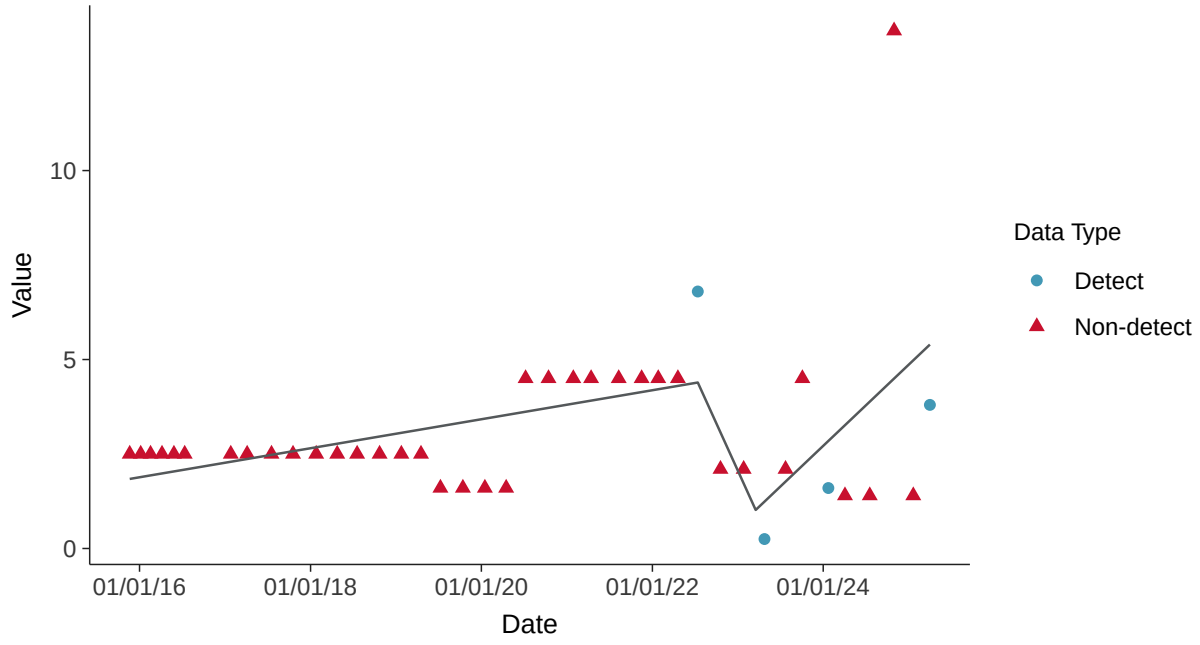
Trend Regression: Piecewise Linear-Linear

Lead, MW-1 (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Lead, MW-1 (ug/L)

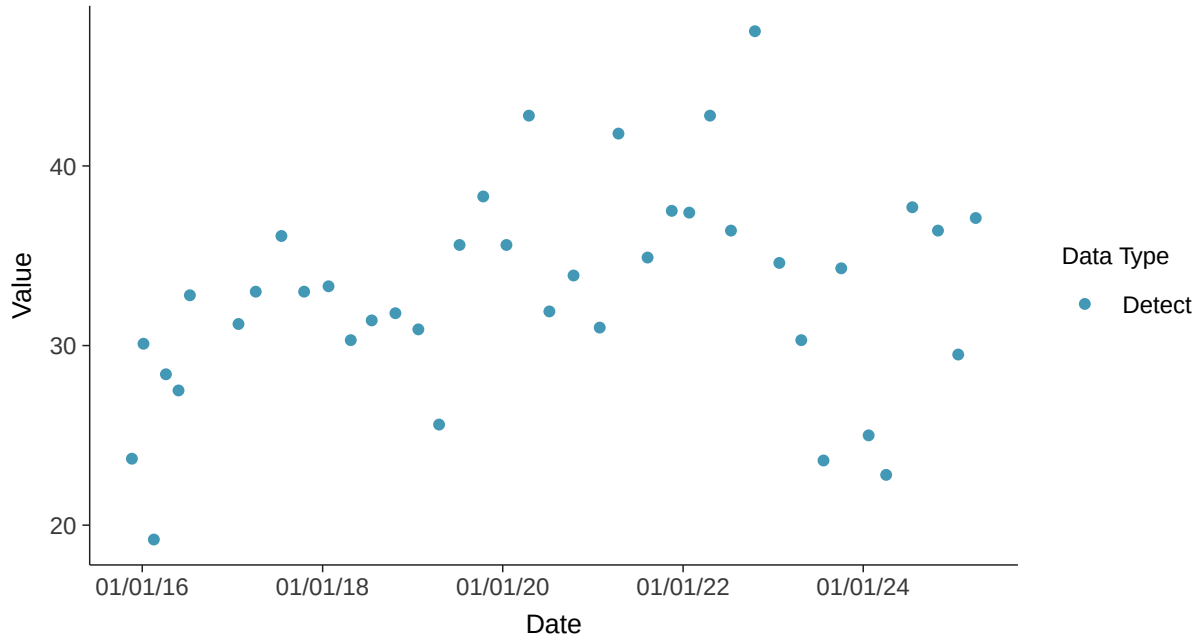


App. IV: Lithium, MW-1

ID: 01_03_114

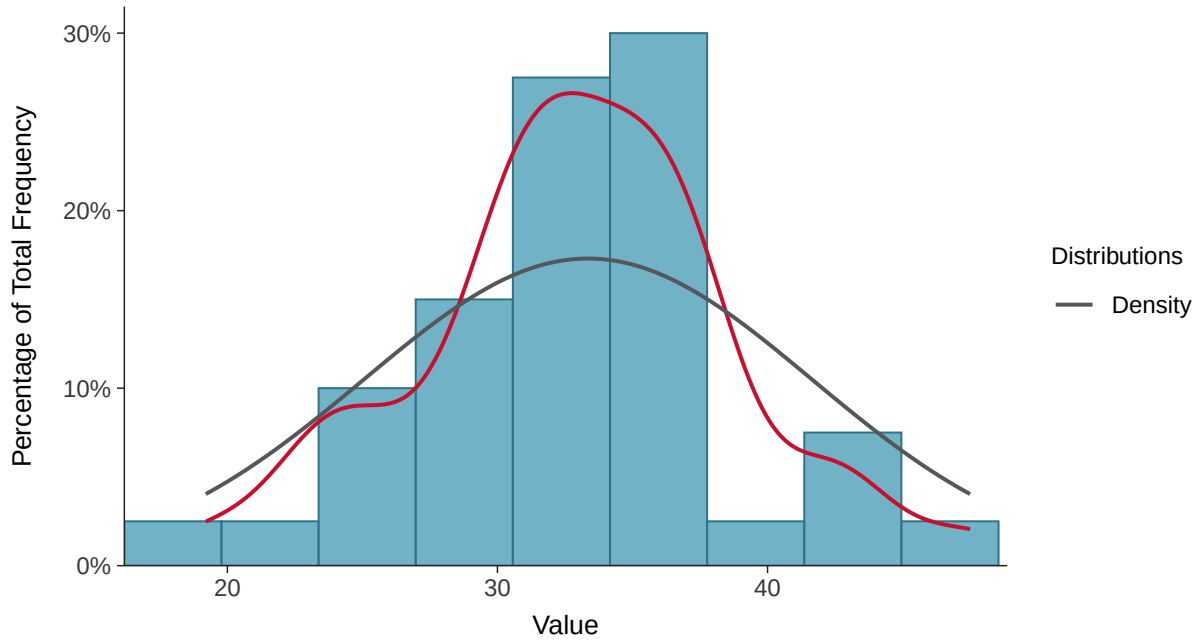
Scatter Plot

Lithium, MW-1 (ug/L)



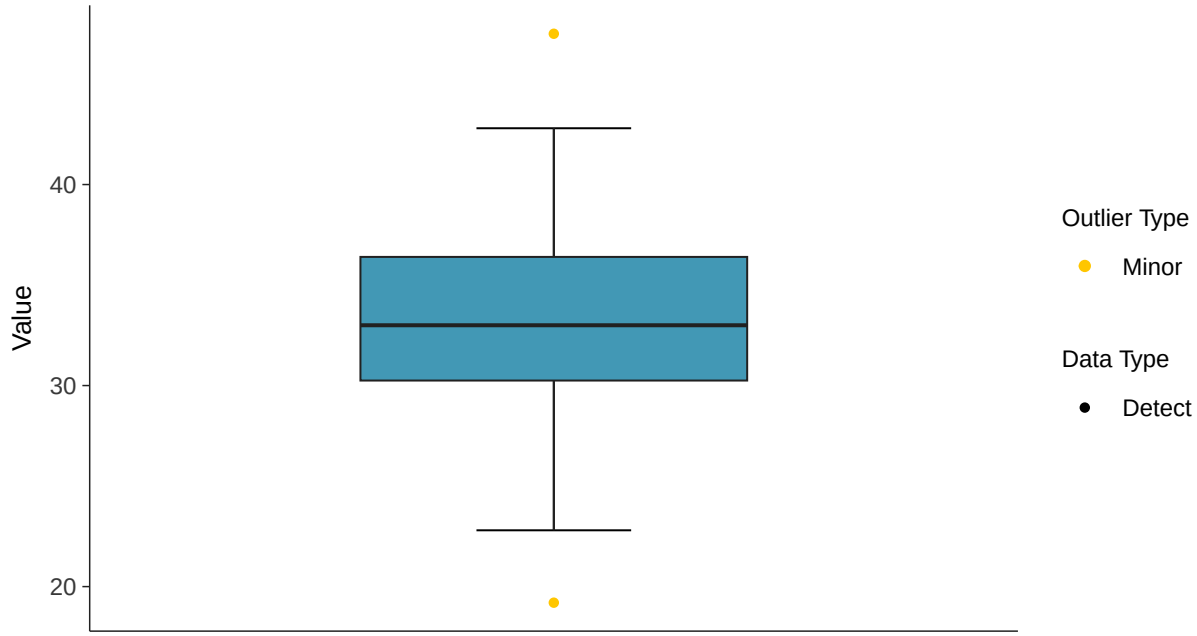
Histogram

Lithium, MW-1 (ug/L)



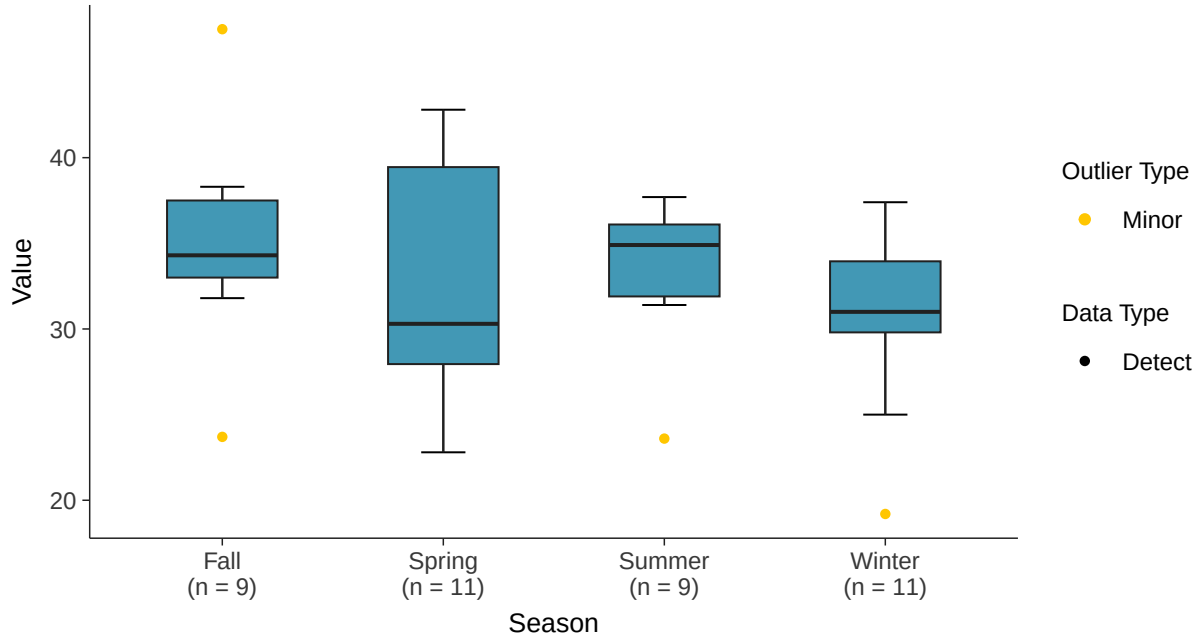
Boxplot

Lithium, MW-1 (ug/L)



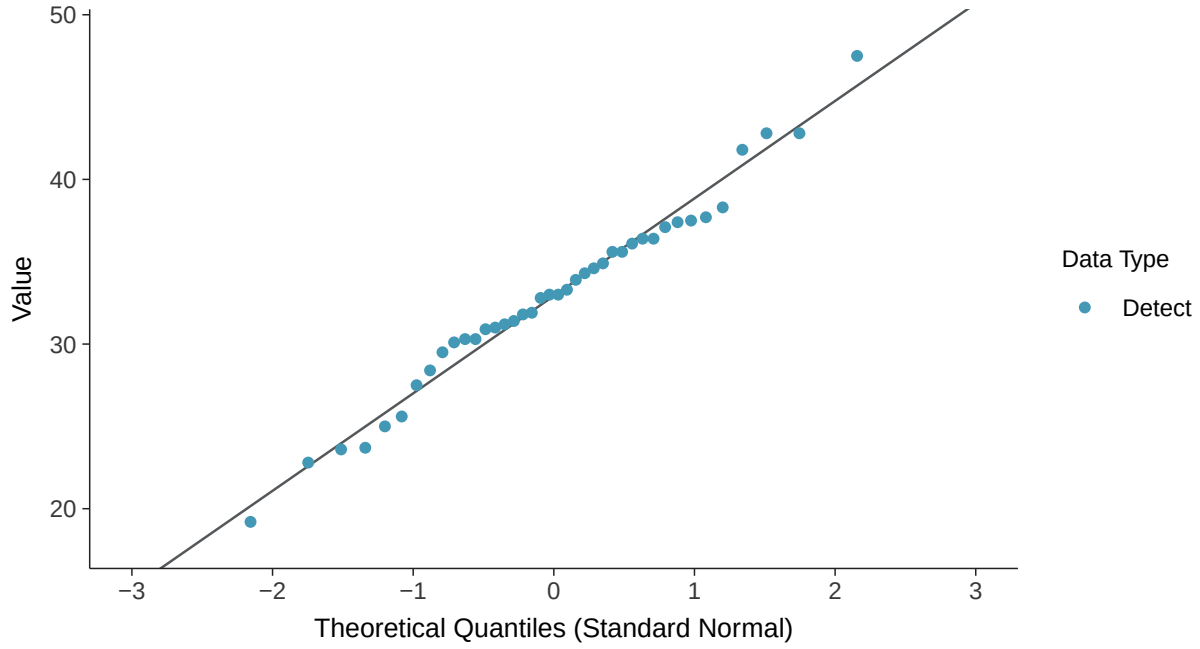
Boxplot by Season

Lithium, MW-1 (ug/L)



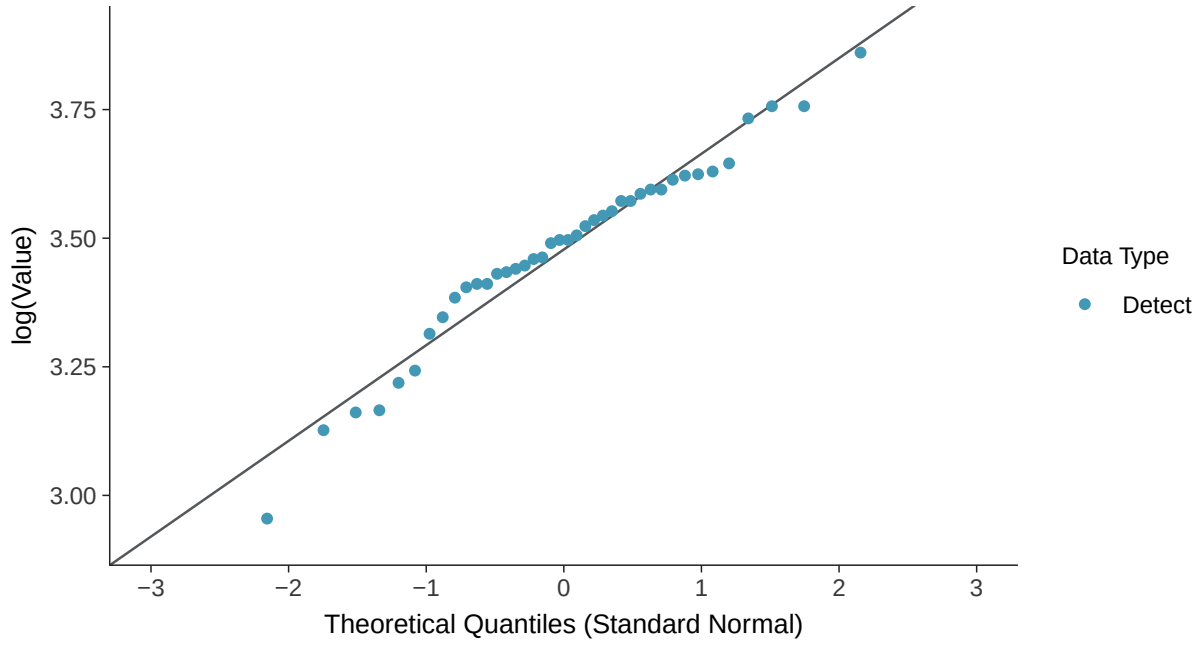
Normal Q-Q plot

Lithium, MW-1 (ug/L)



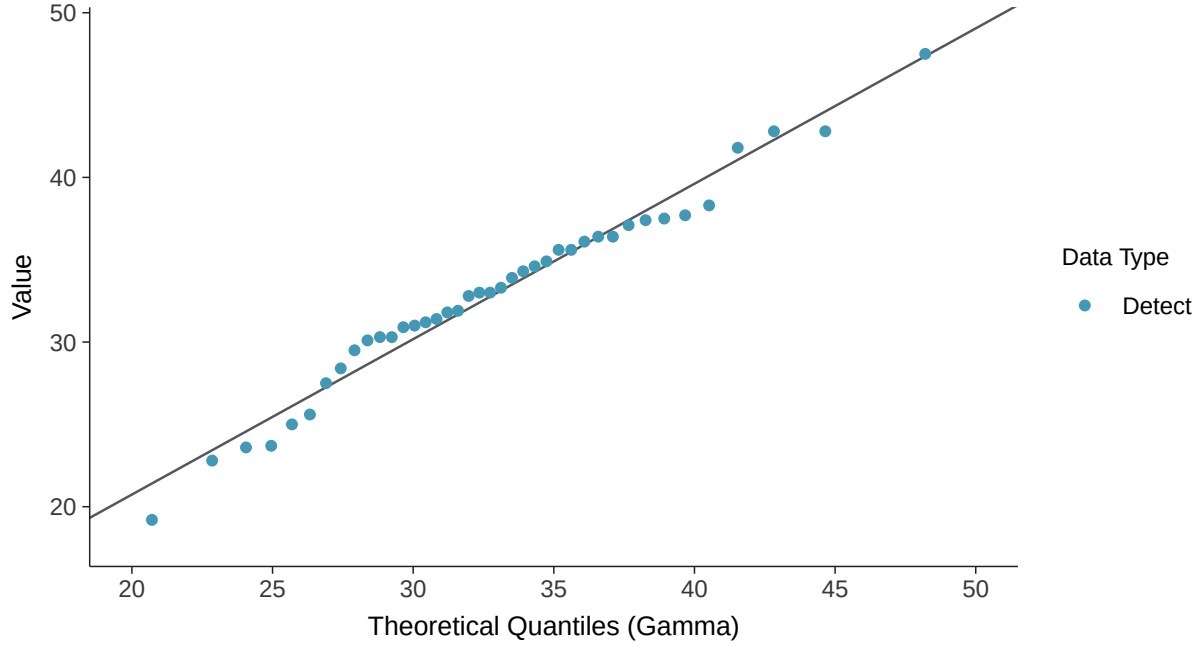
Lognormal Q-Q plot

Lithium, MW-1 (ug/L)



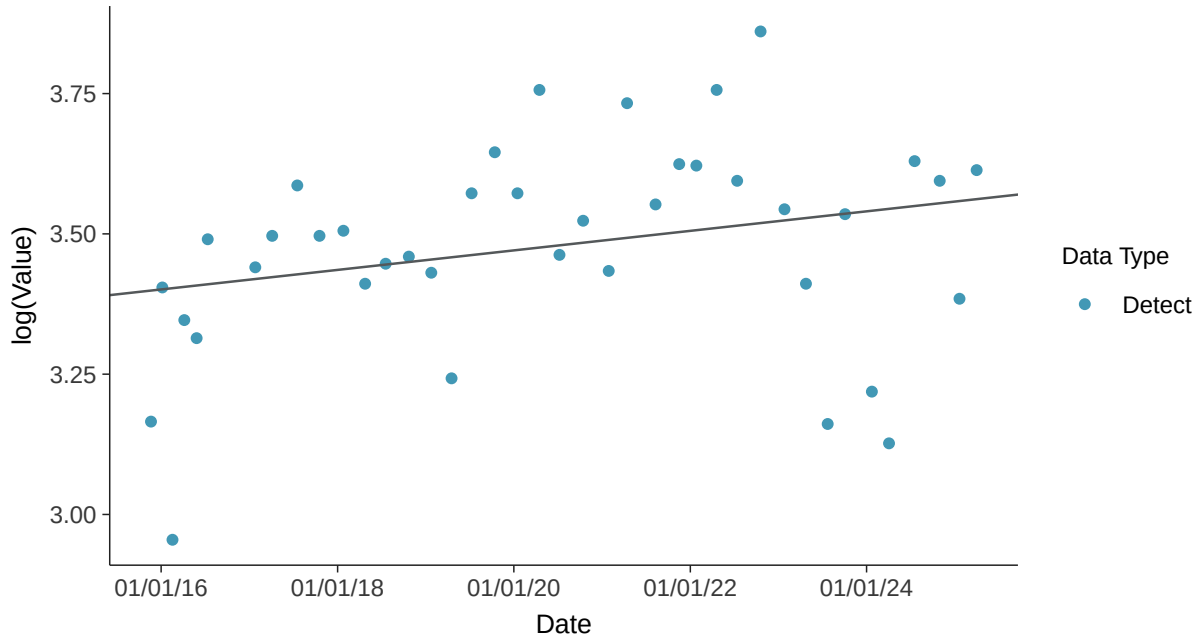
Gamma Q-Q plot

Lithium, MW-1 (ug/L)



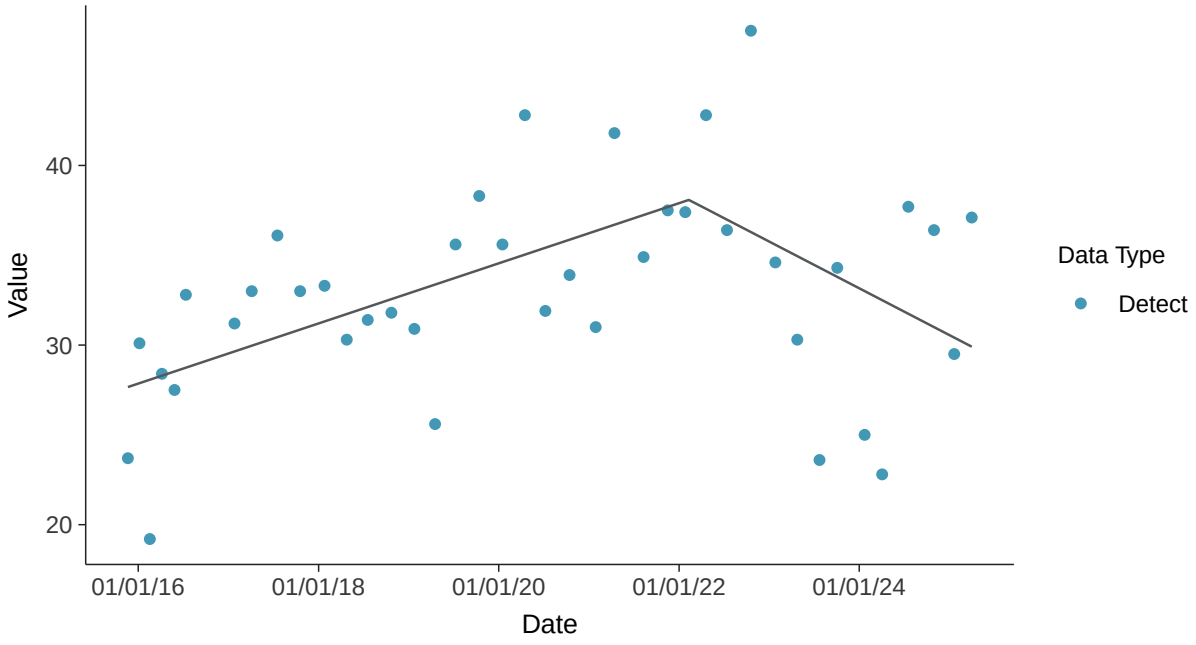
Trend Regression: Lognormal MLE

Lithium, MW-1 (ug/L)



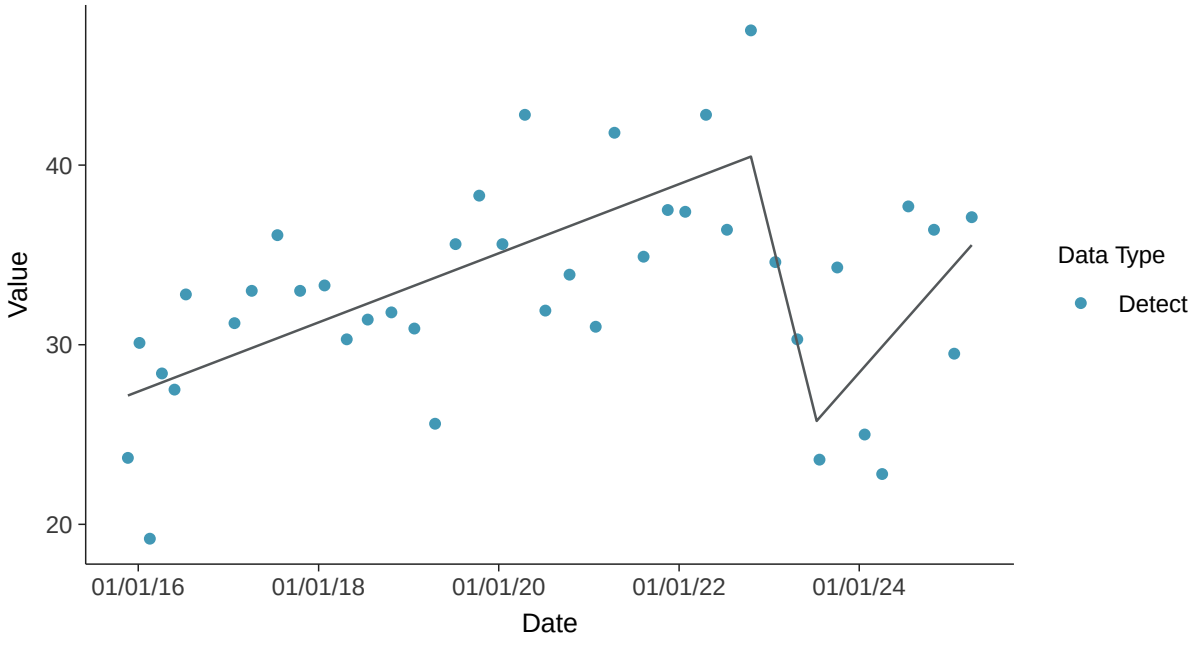
Trend Regression: Piecewise Linear-Linear

Lithium, MW-1 (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Lithium, MW-1 (ug/L)

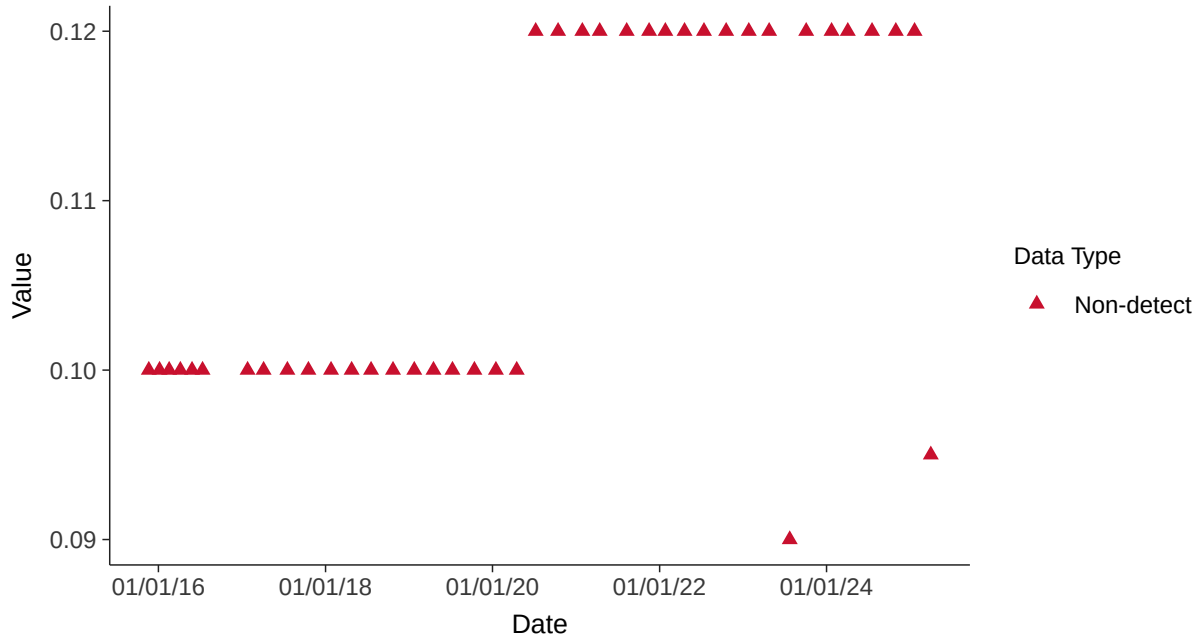


App. IV: Mercury, MW-1

ID: 01_03_115

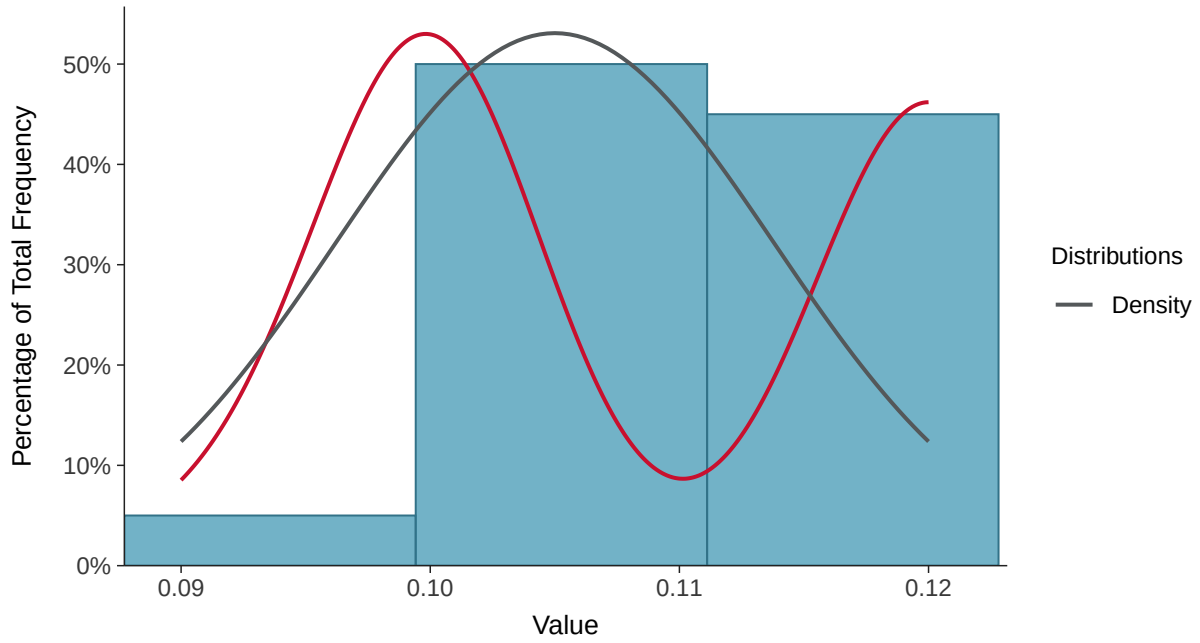
Scatter Plot

Mercury, MW-1 (ug/L)



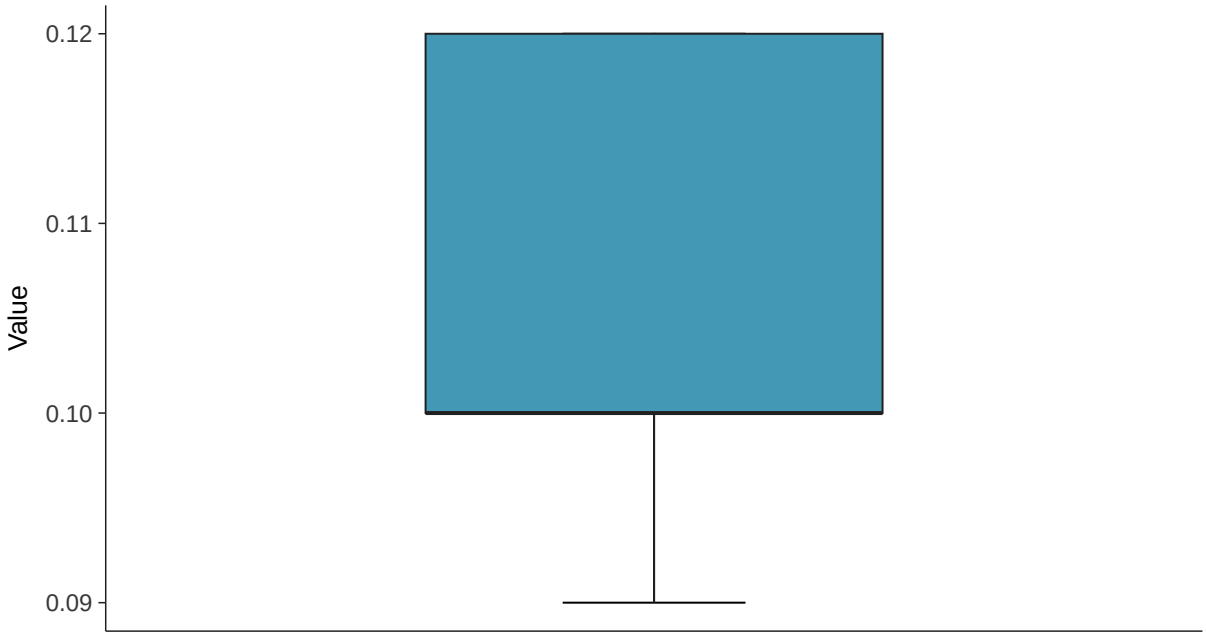
Histogram

Mercury, MW-1 (ug/L)



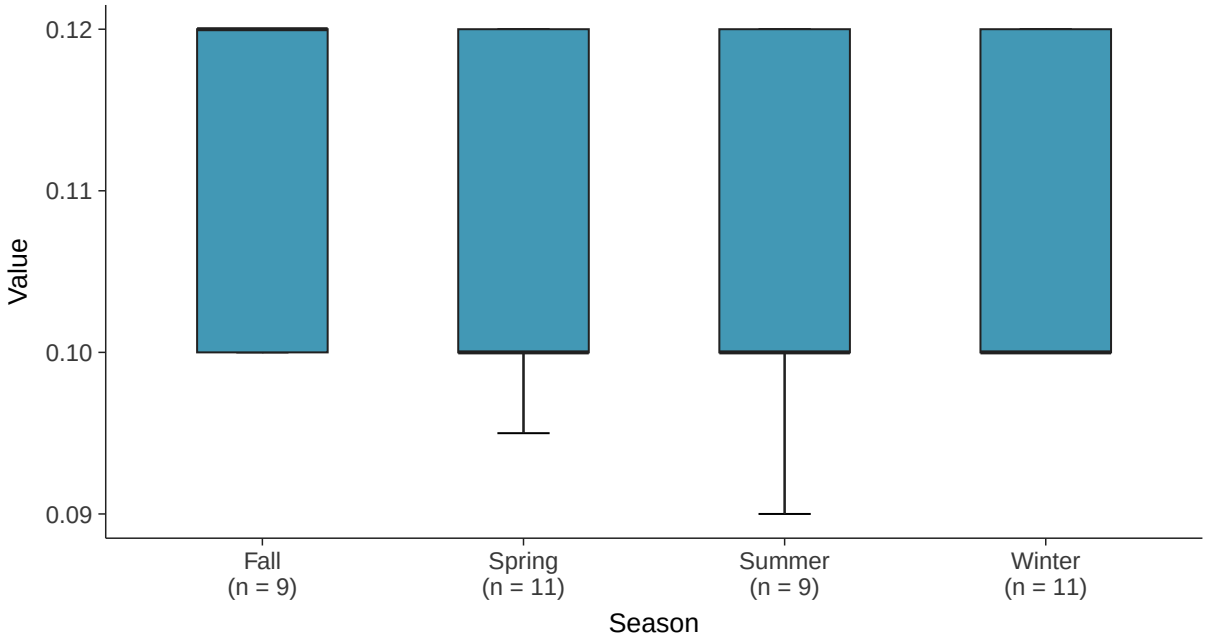
Boxplot

Mercury, MW-1 (ug/L)



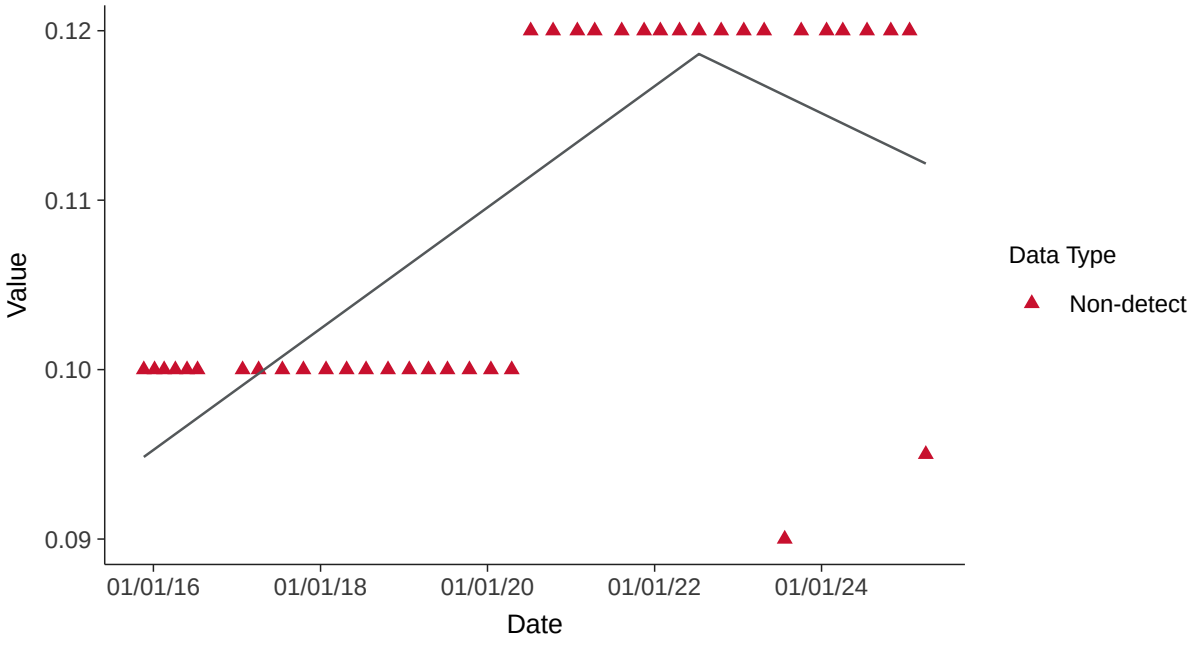
Boxplot by Season

Mercury, MW-1 (ug/L)



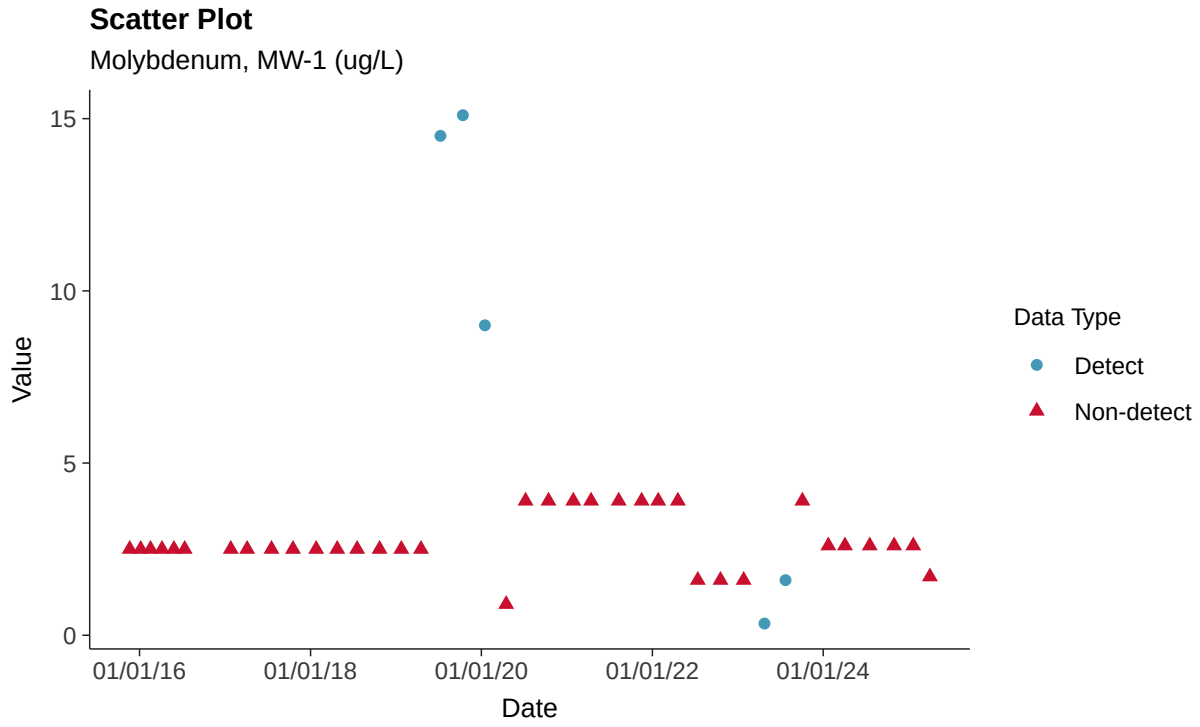
Trend Regression: Piecewise Linear-Linear

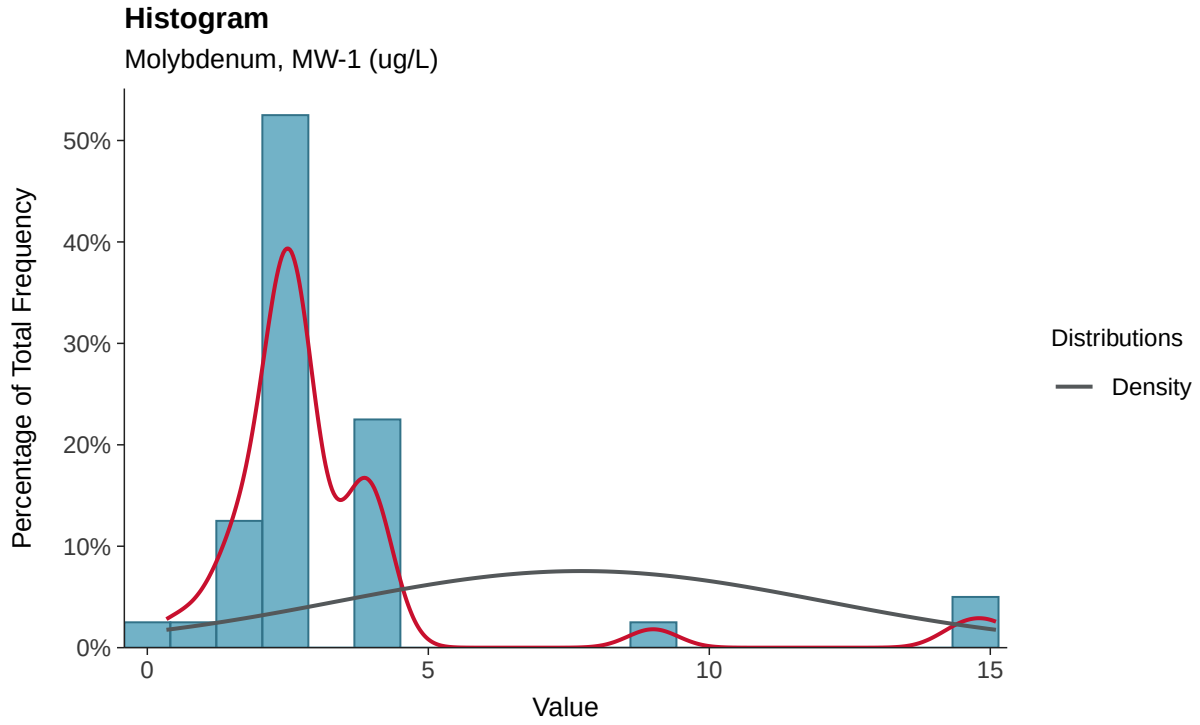
Mercury, MW-1 (ug/L)



App. IV: Molybdenum, MW-1

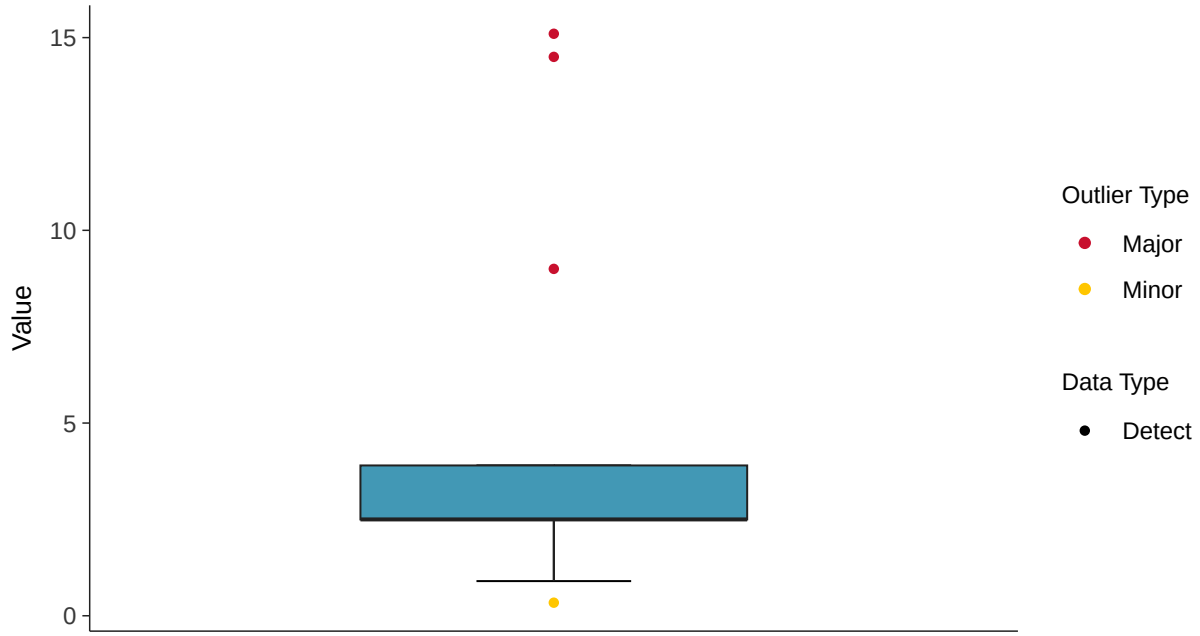
ID: 01_03_116





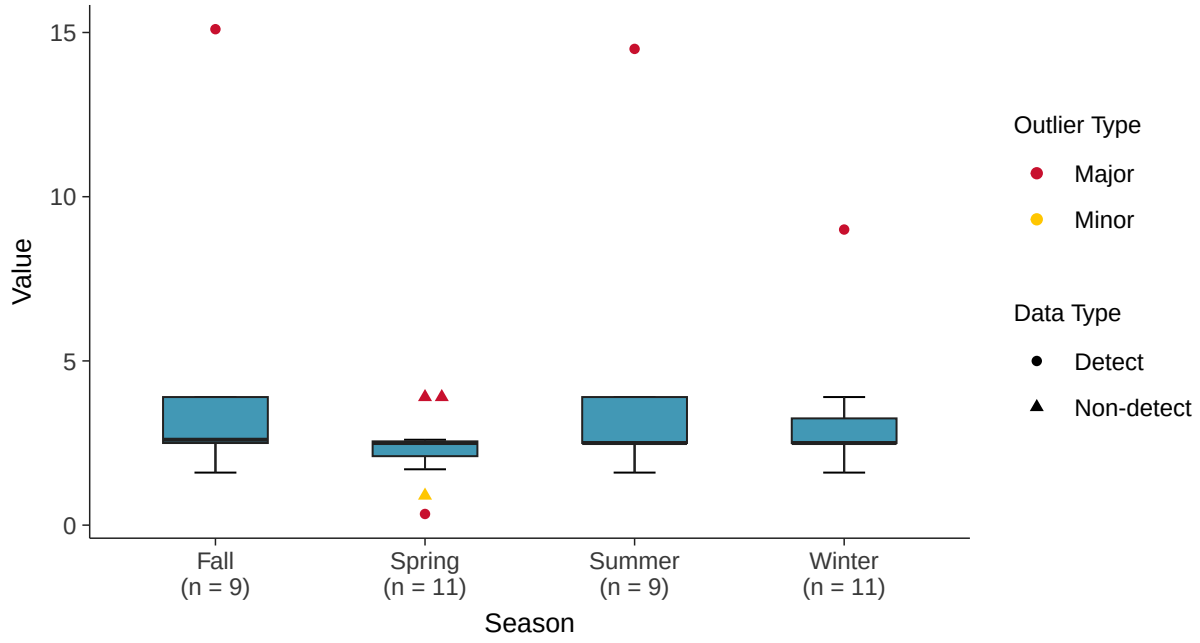
Boxplot

Molybdenum, MW-1 (ug/L)



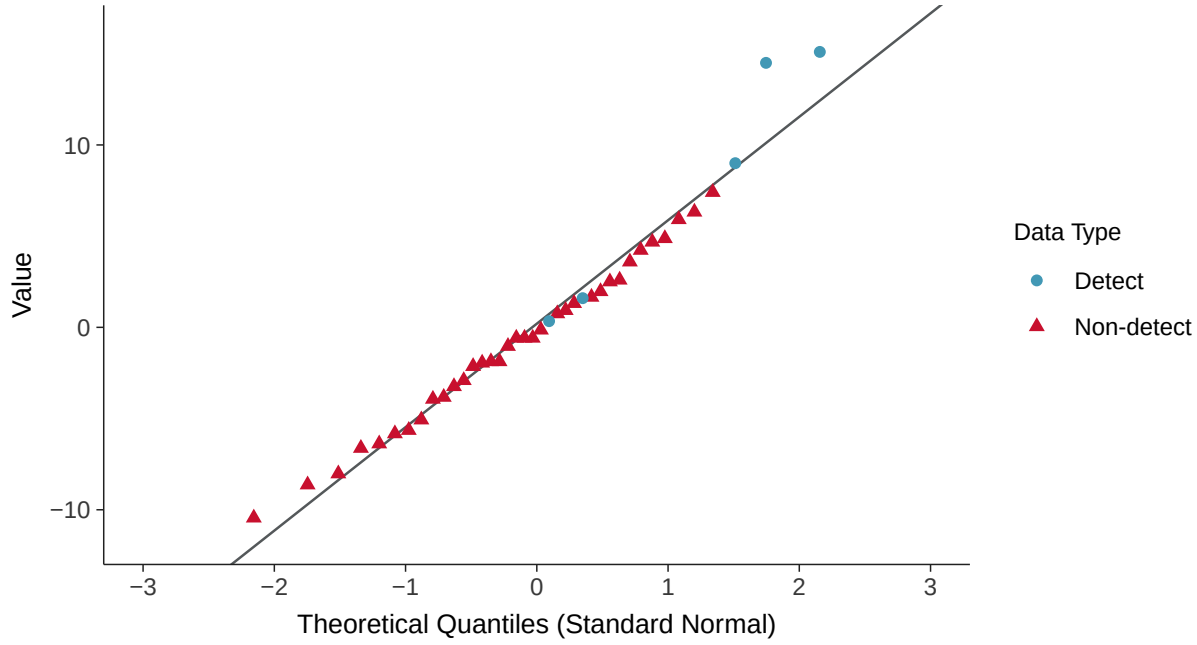
Boxplot by Season

Molybdenum, MW-1 (ug/L)



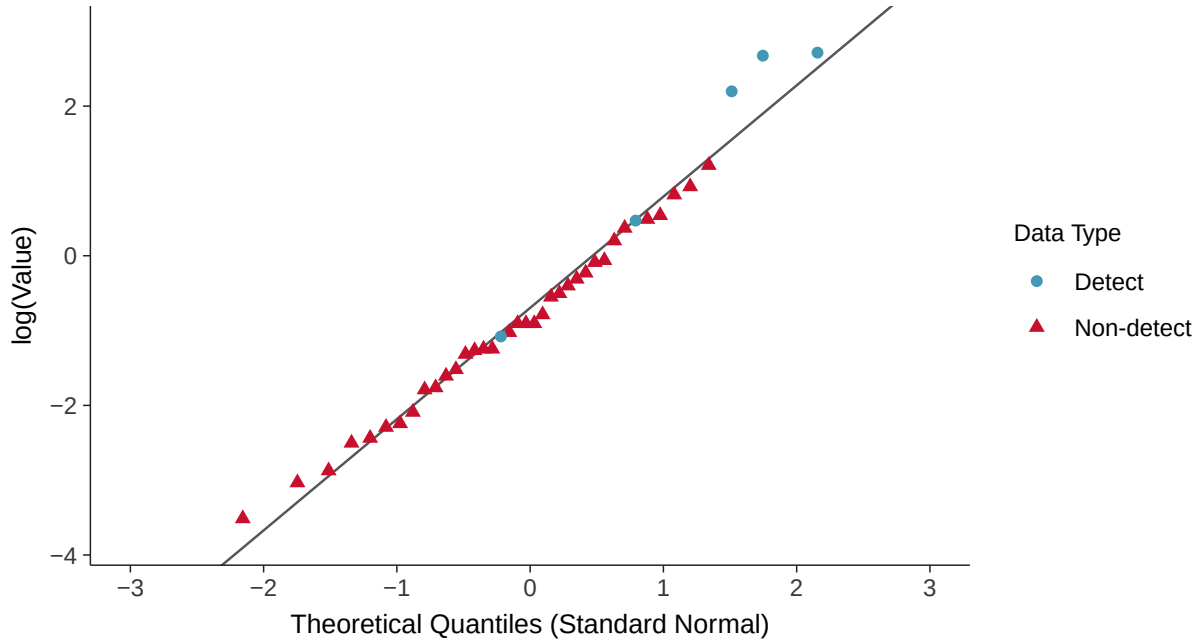
Normal Q-Q plot using ROS Imputed Estimates

Molybdenum, MW-1 (ug/L)



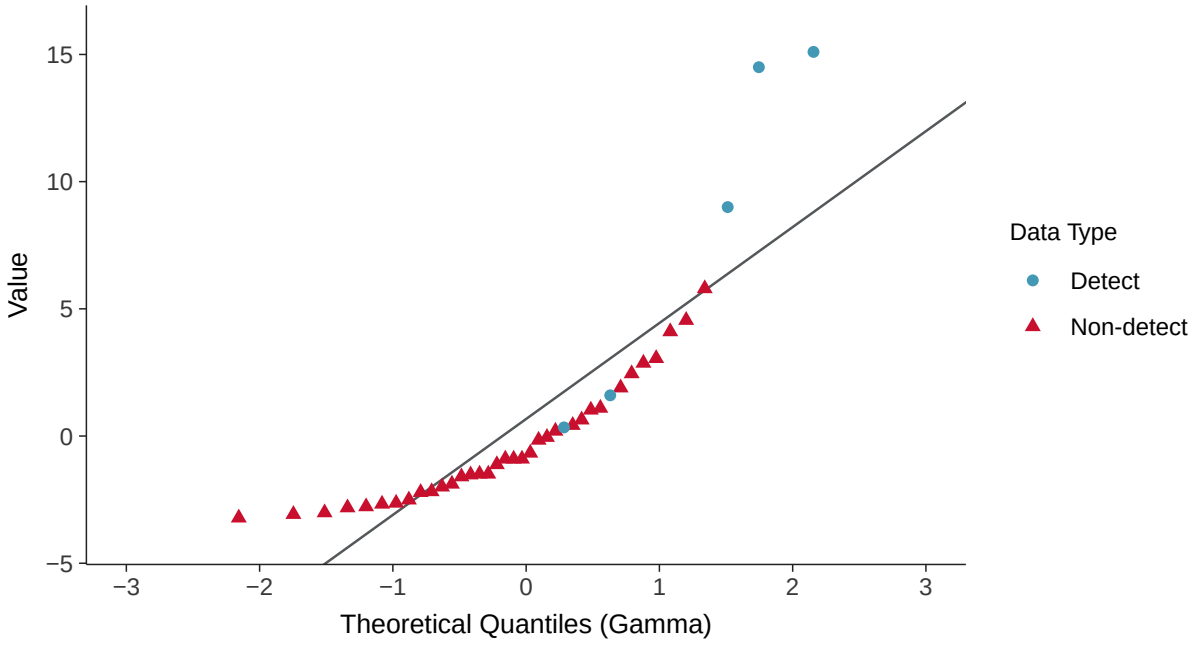
Lognormal Q-Q plot using ROS Imputed Estimates

Molybdenum, MW-1 (ug/L)



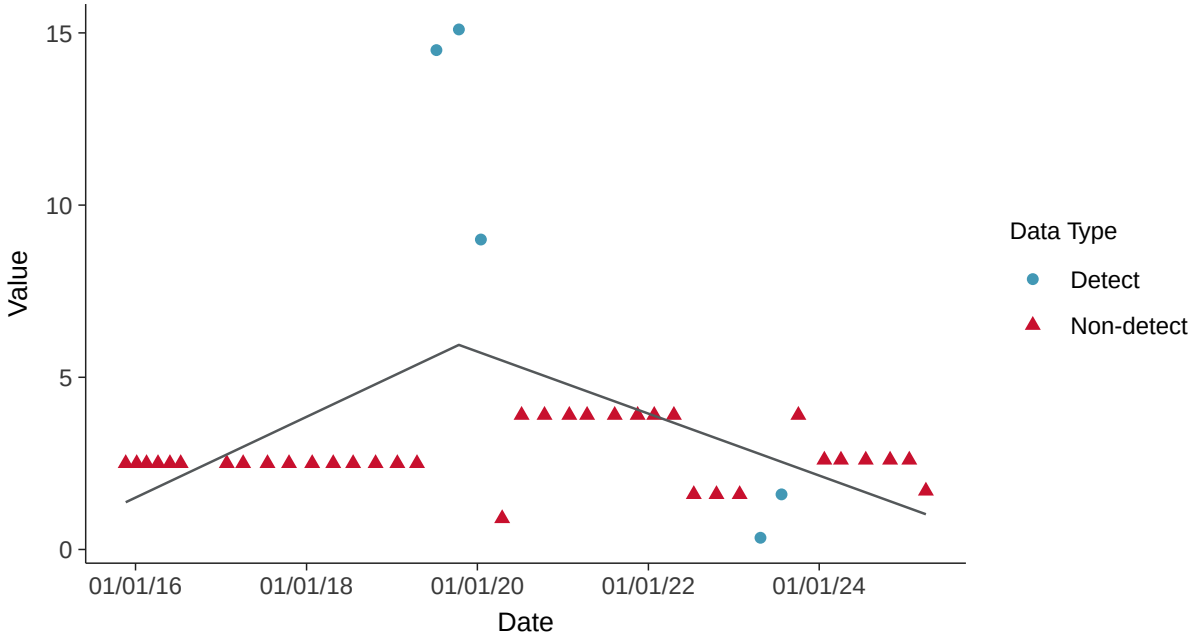
Gamma Q-Q plot using ROS Imputed Estimates

Molybdenum, MW-1 (ug/L)



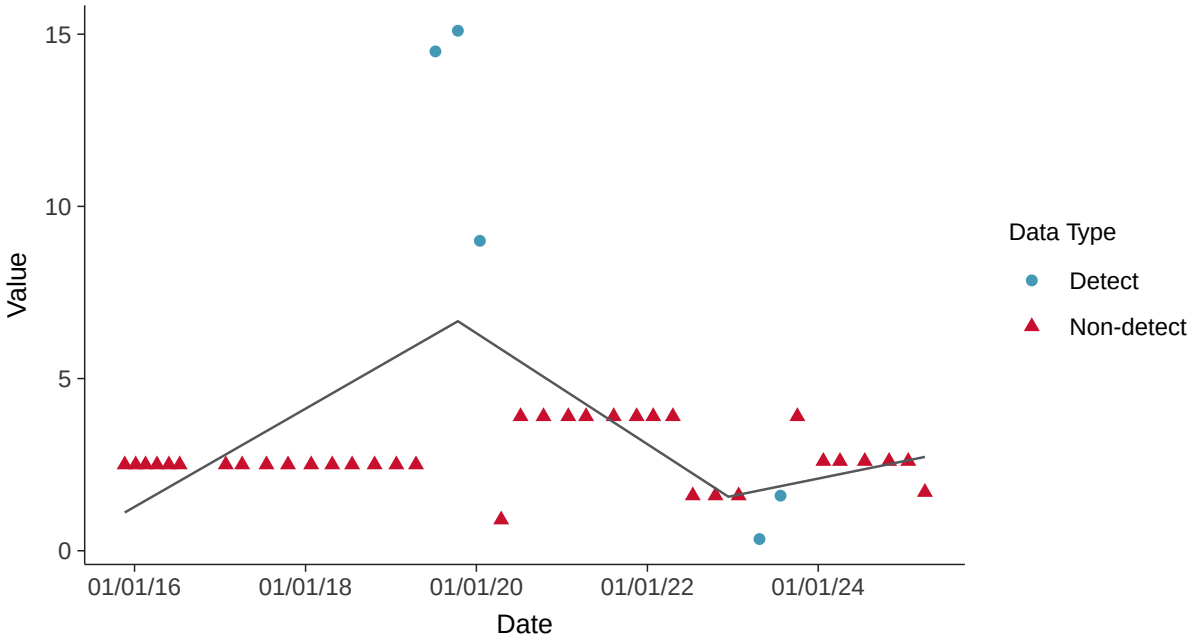
Trend Regression: Piecewise Linear-Linear

Molybdenum, MW-1 (ug/L)



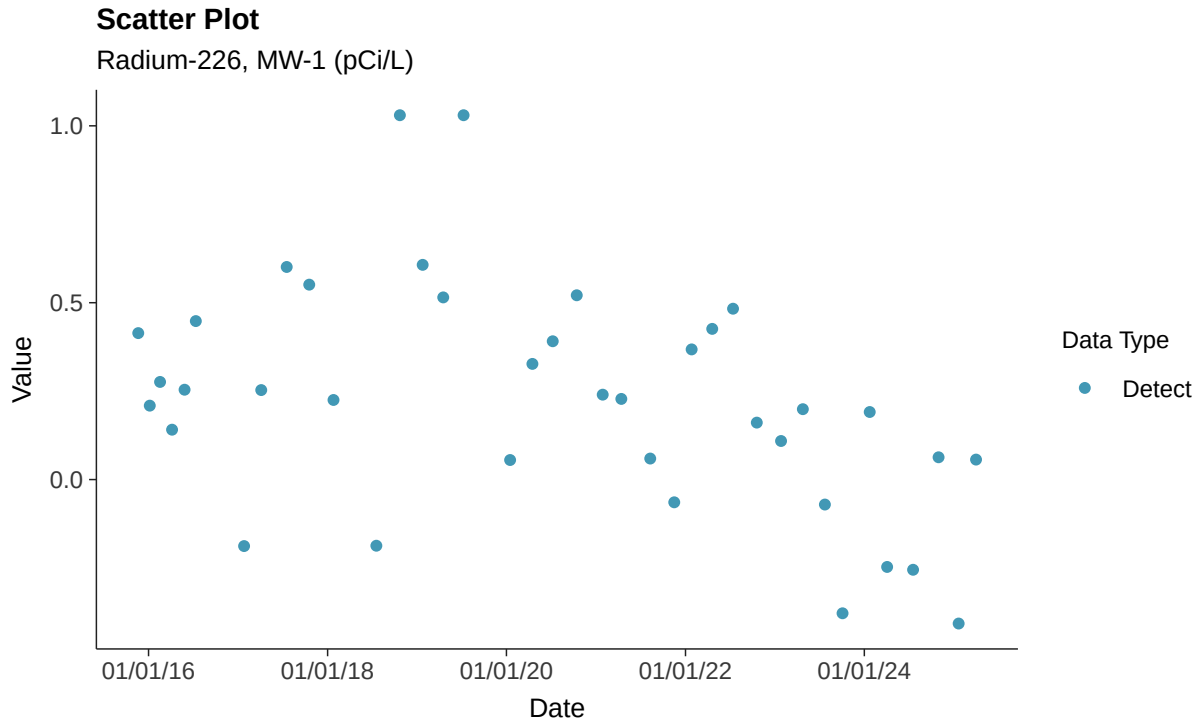
Trend Regression: Piecewise Linear-Linear-Linear

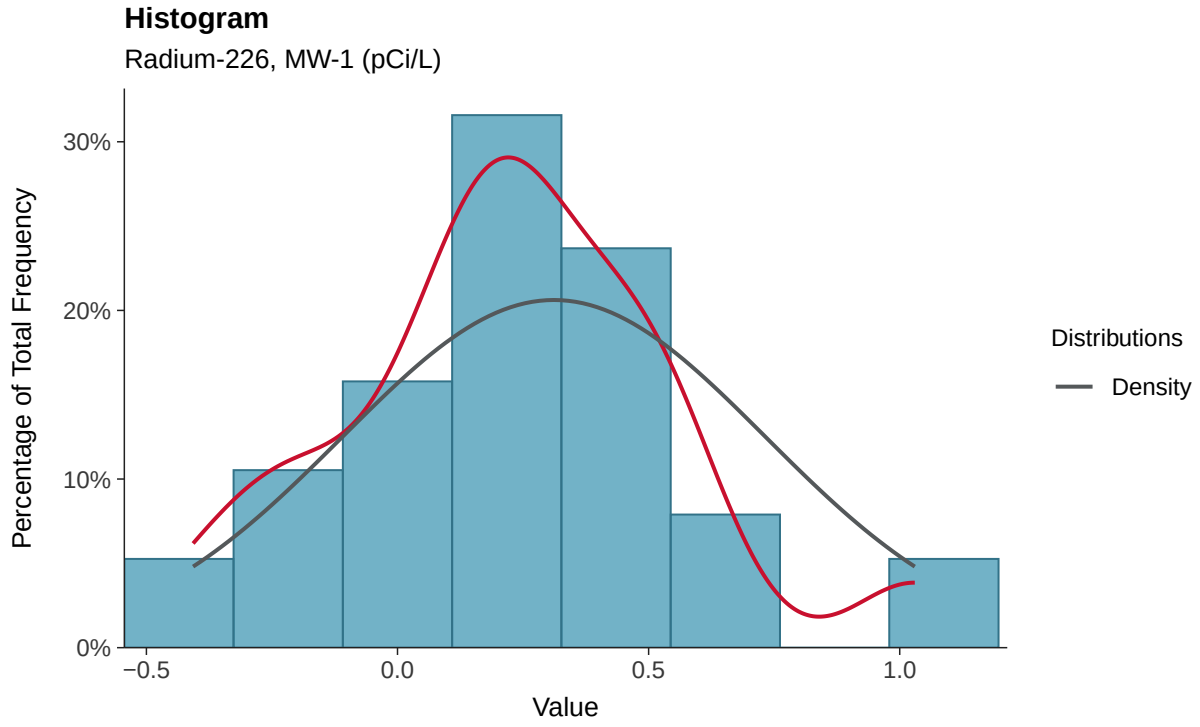
Molybdenum, MW-1 (ug/L)



App. IV: Radium-226, MW-1

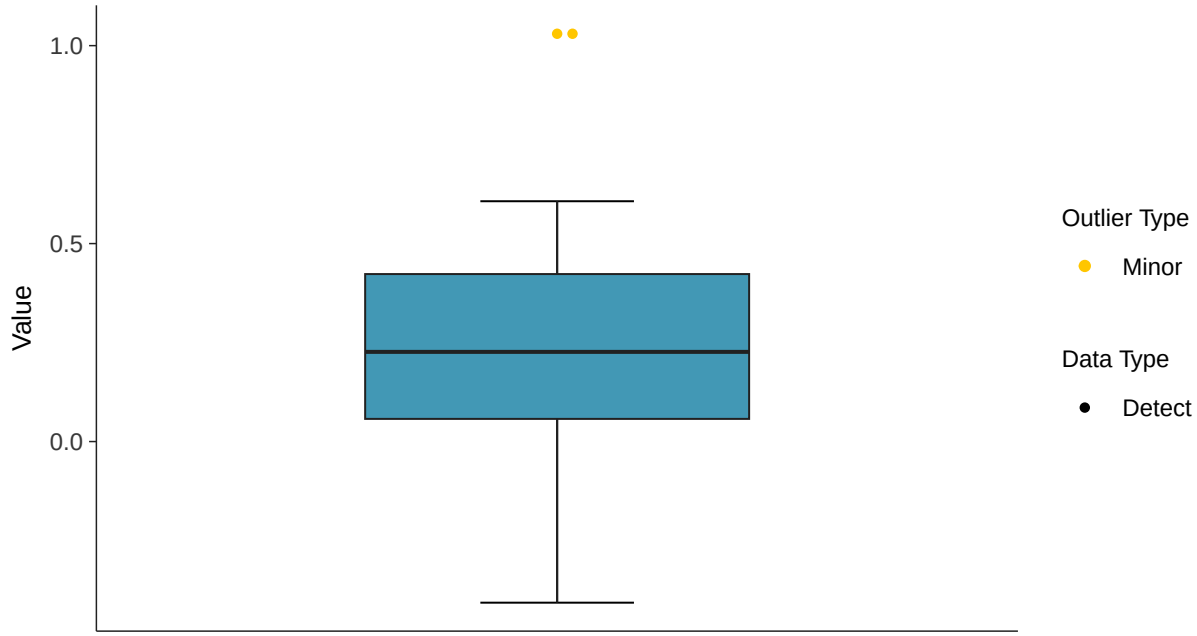
ID: 01_03_119





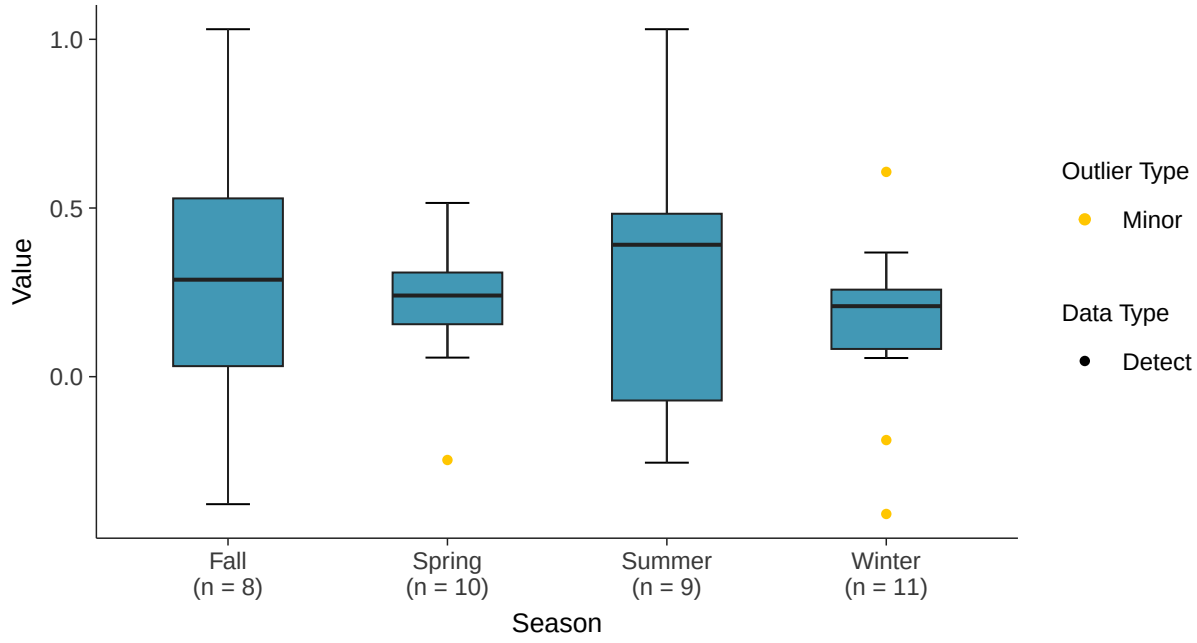
Boxplot

Radium-226, MW-1 (pCi/L)



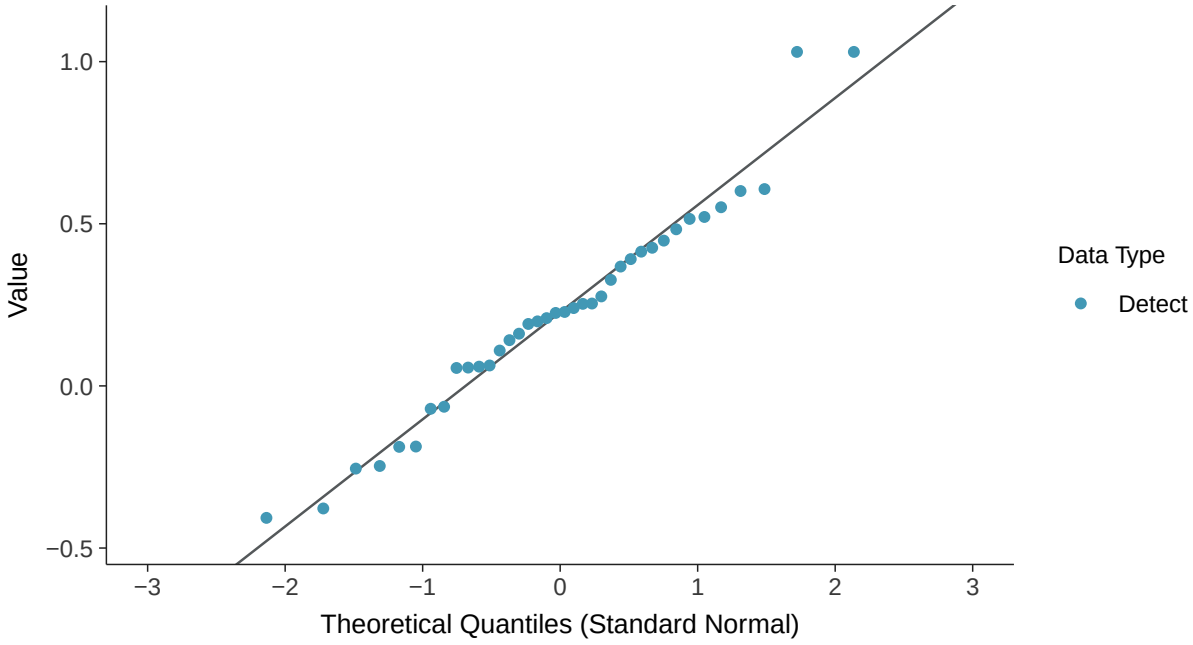
Boxplot by Season

Radium-226, MW-1 (pCi/L)



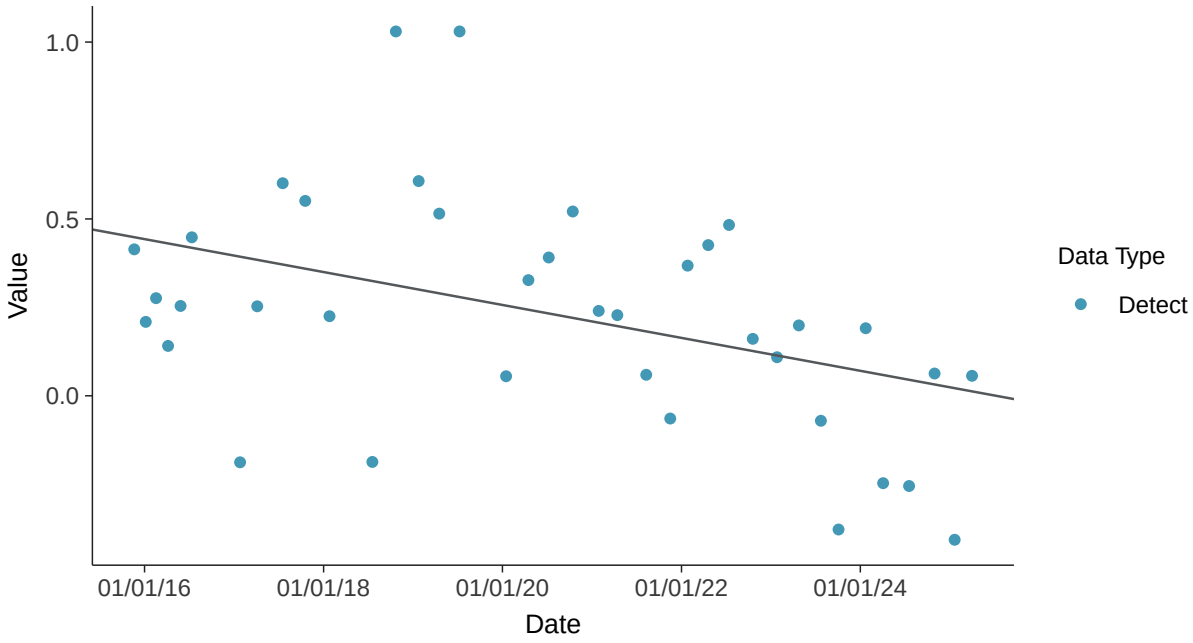
Normal Q-Q plot

Radium-226, MW-1 (pCi/L)



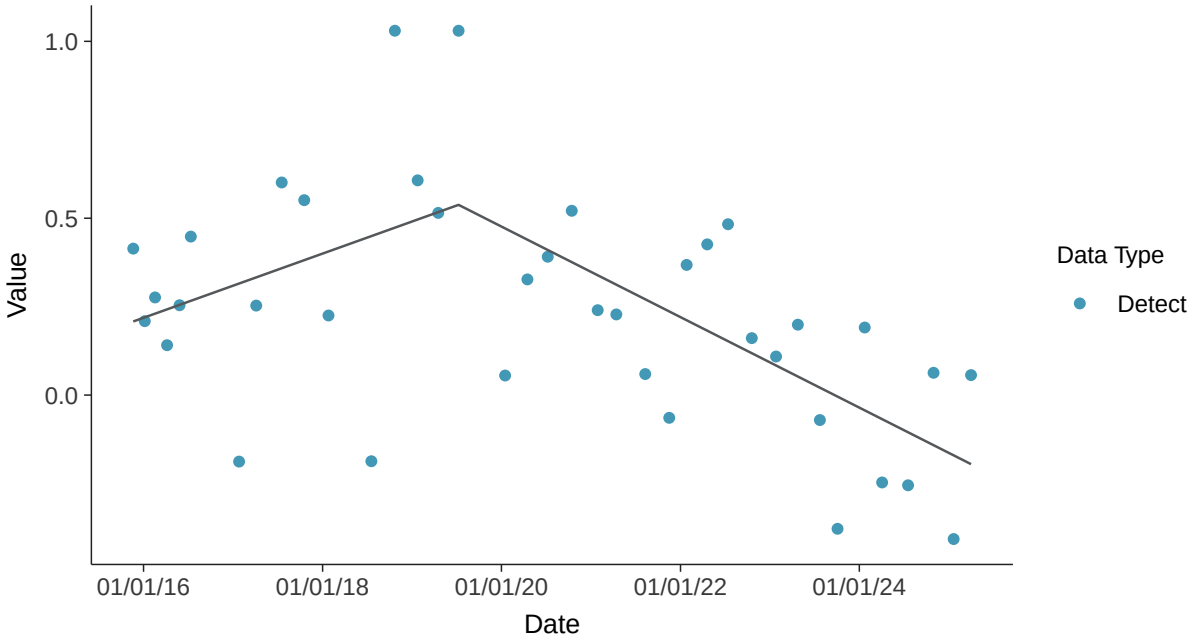
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Radium-226, MW-1 (pCi/L)



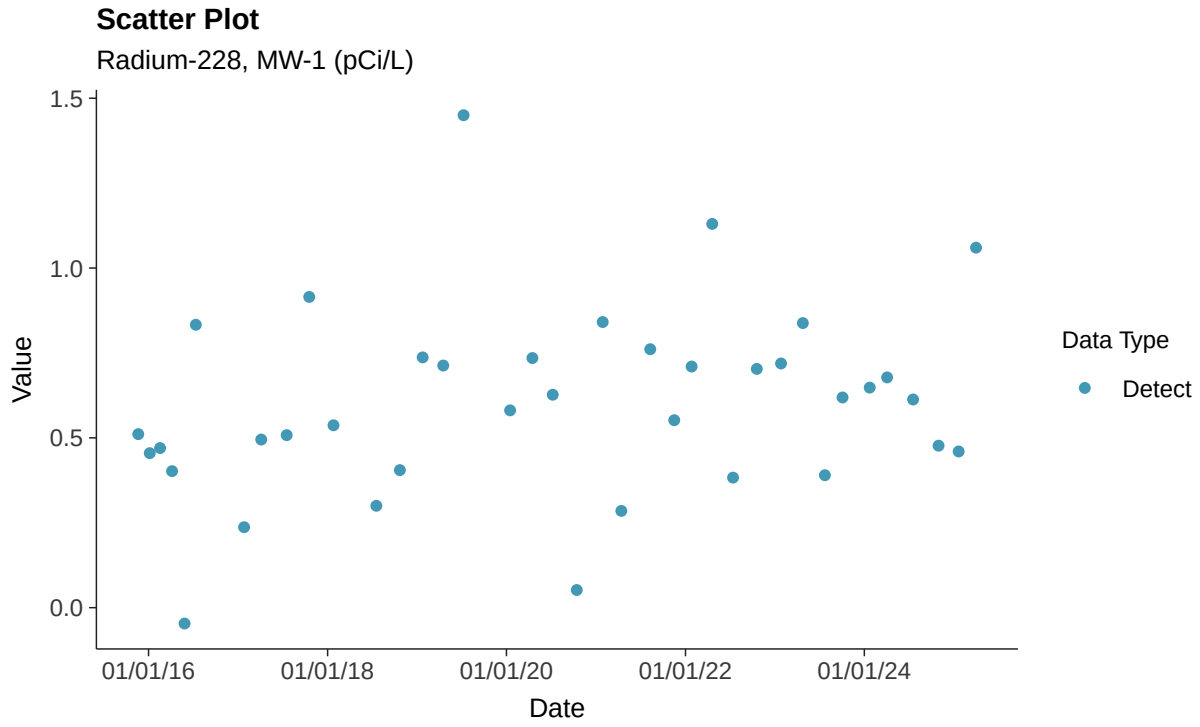
Trend Regression: Piecewise Linear-Linear

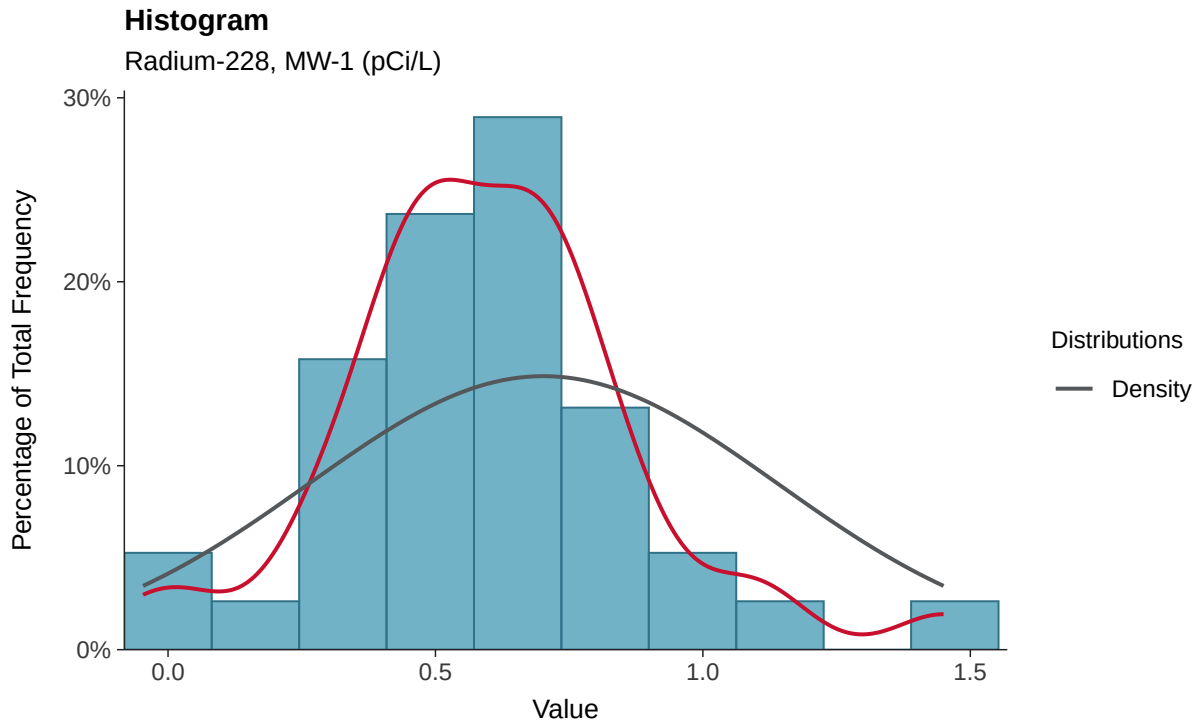
Radium-226, MW-1 (pCi/L)



App. IV: Radium-228, MW-1

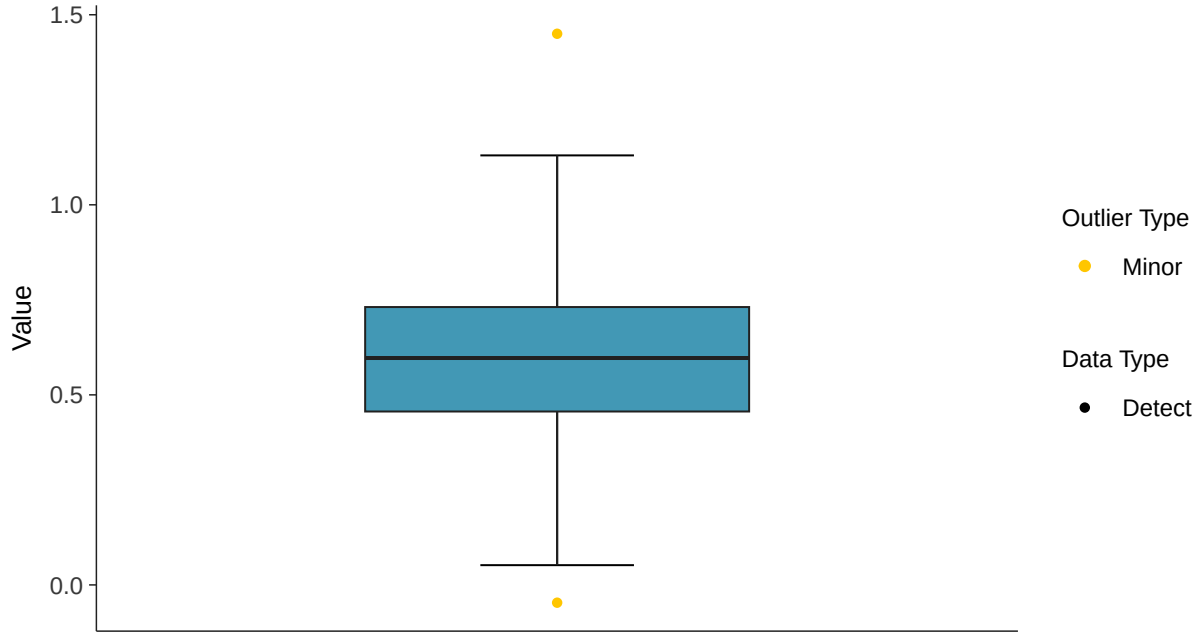
ID: 01_03_120





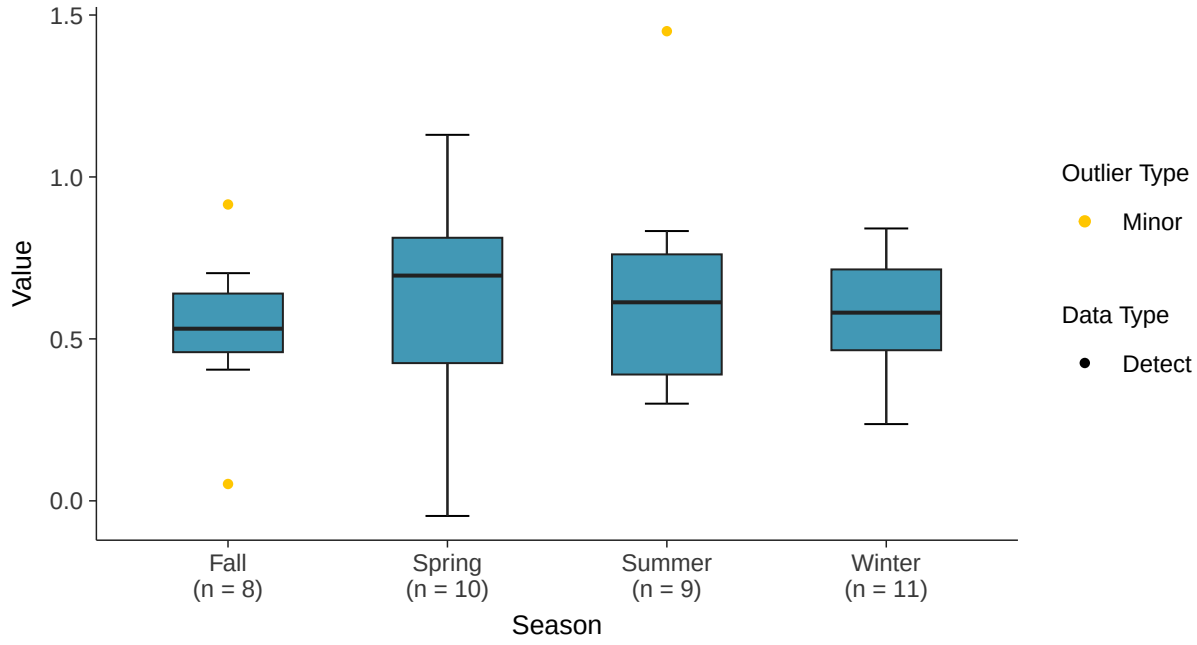
Boxplot

Radium-228, MW-1 (pCi/L)



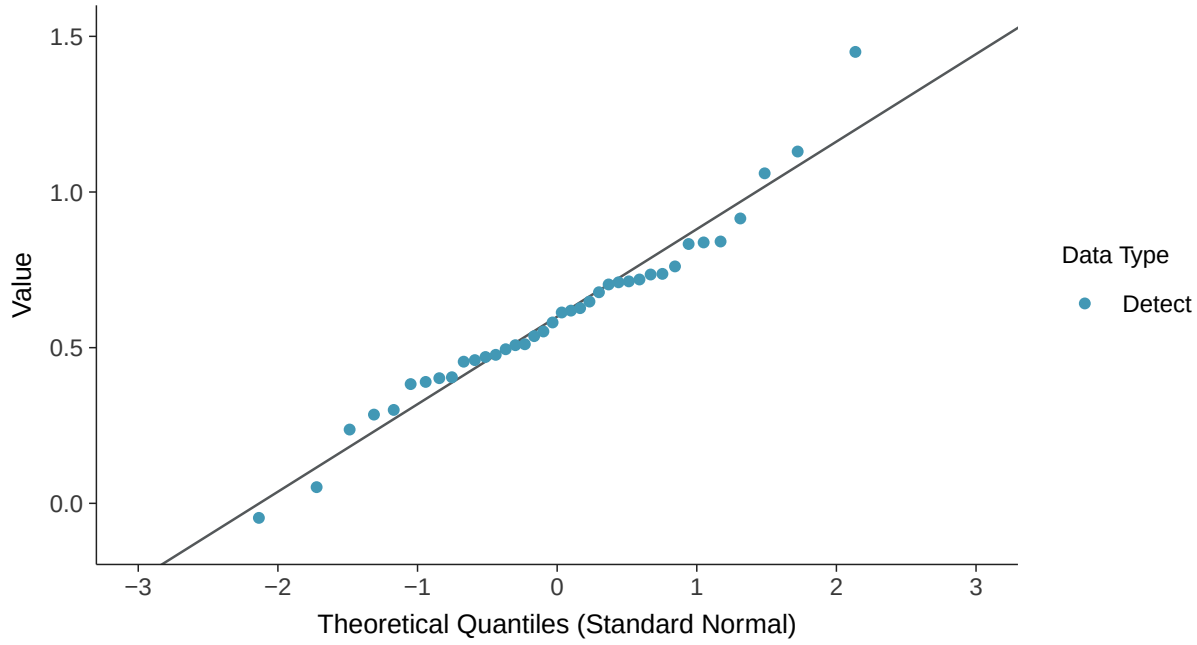
Boxplot by Season

Radium-228, MW-1 (pCi/L)



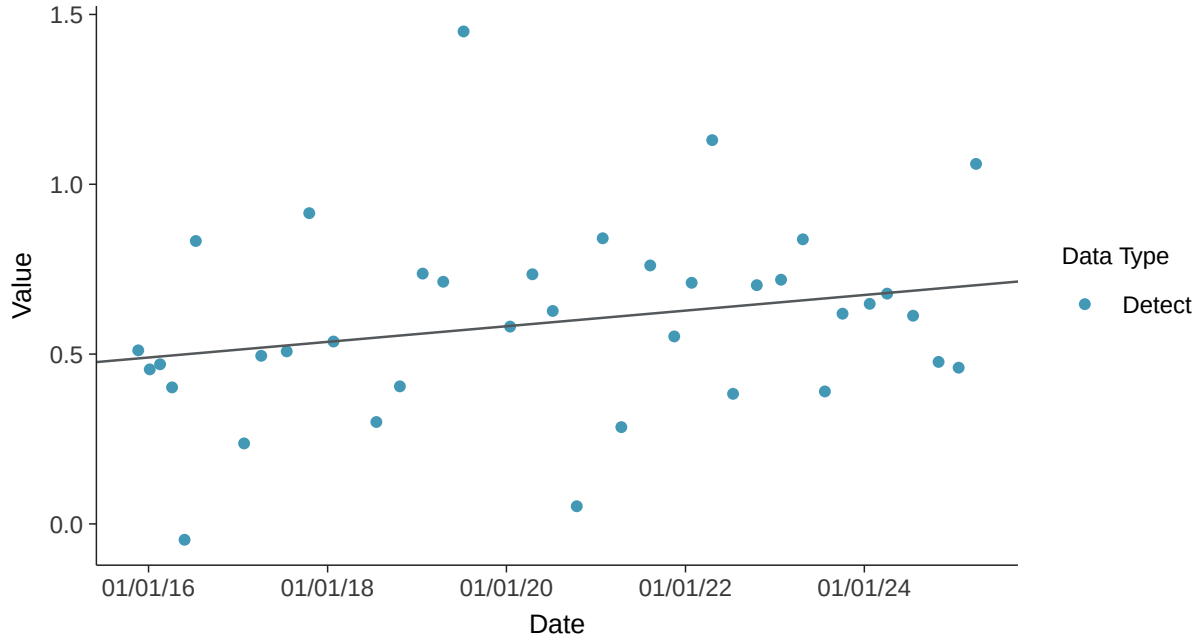
Normal Q-Q plot

Radium-228, MW-1 (pCi/L)



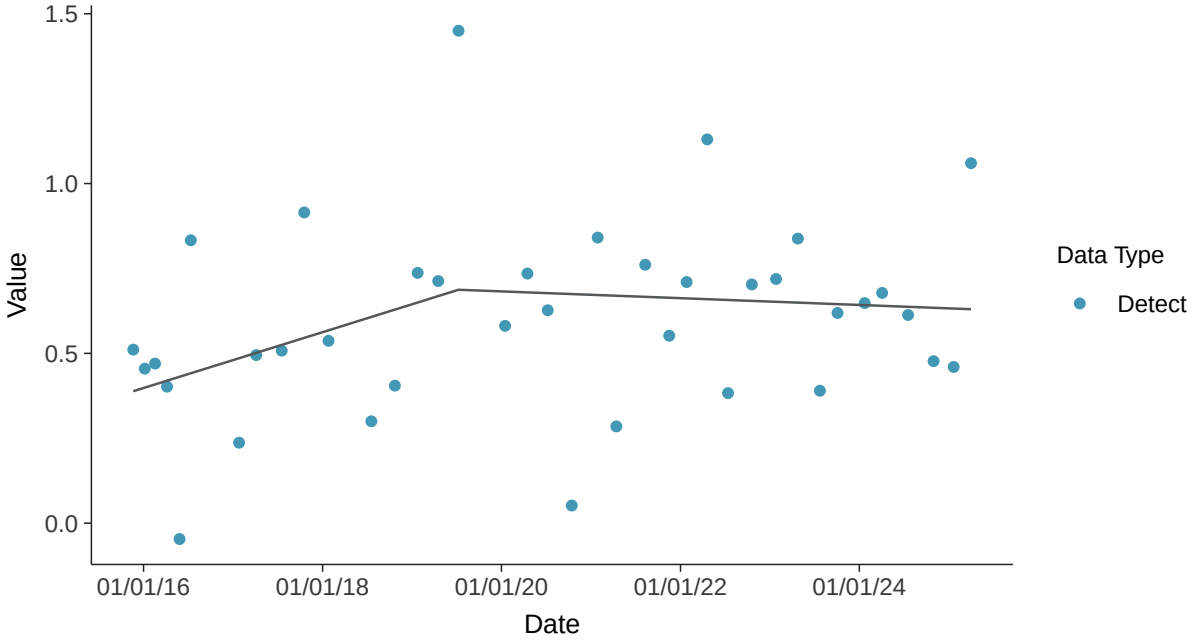
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Radium-228, MW-1 (pCi/L)



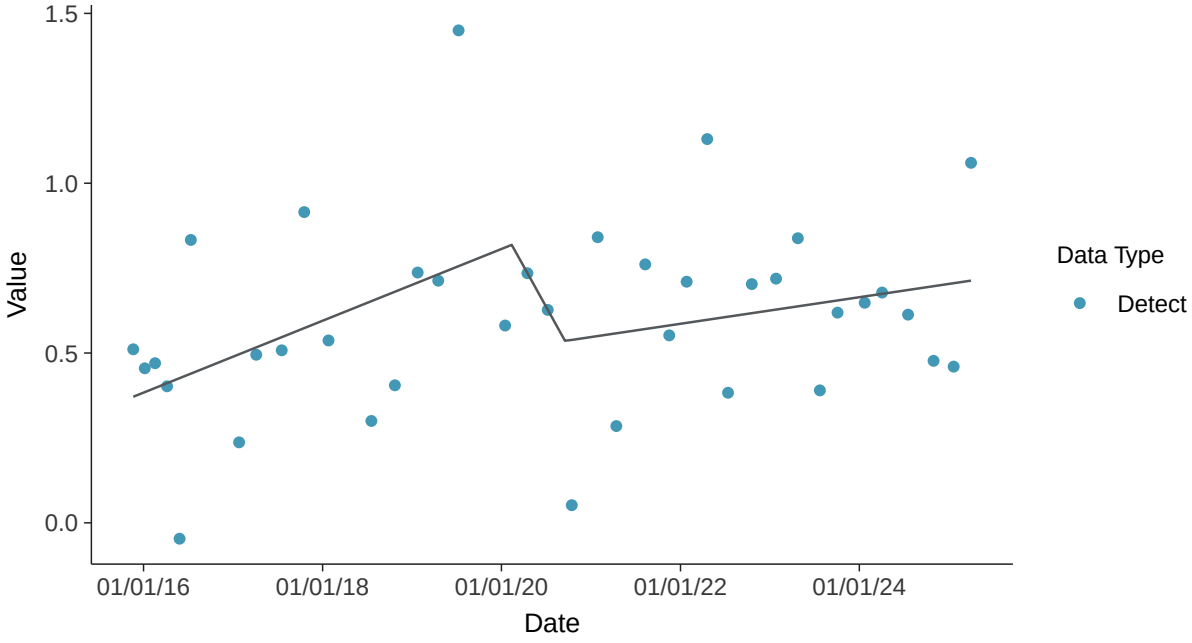
Trend Regression: Piecewise Linear-Linear

Radium-228, MW-1 (pCi/L)



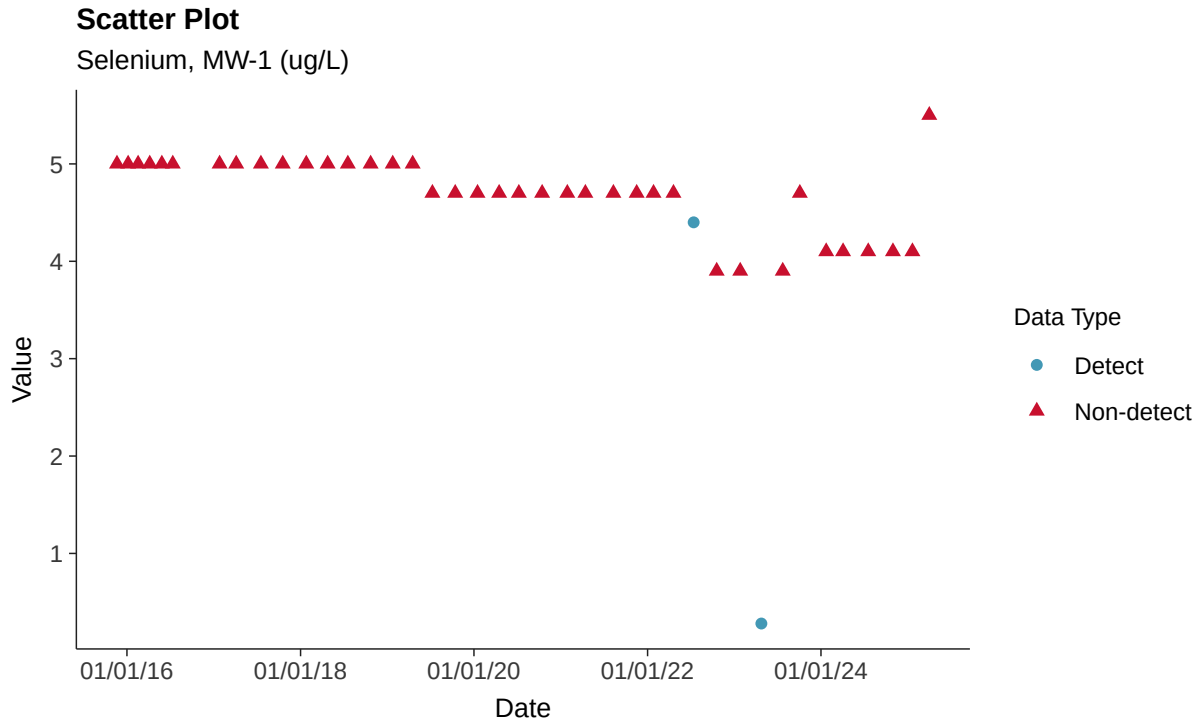
Trend Regression: Piecewise Linear-Linear-Linear

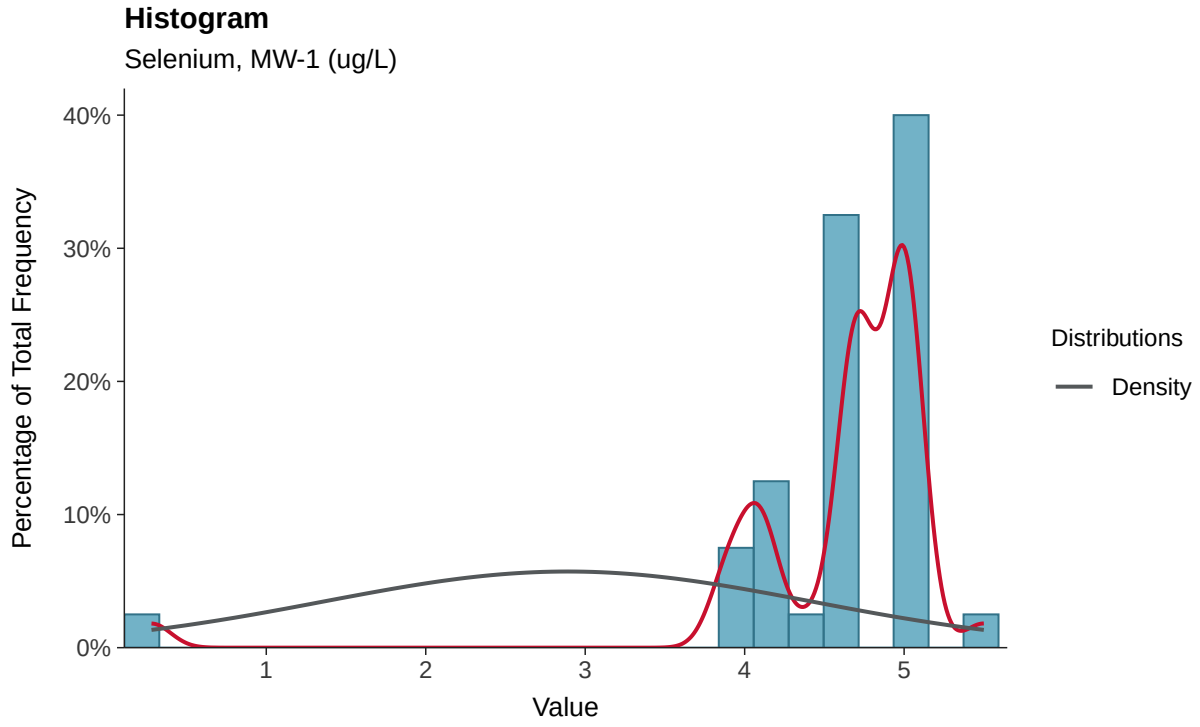
Radium-228, MW-1 (pCi/L)



App. IV: Selenium, MW-1

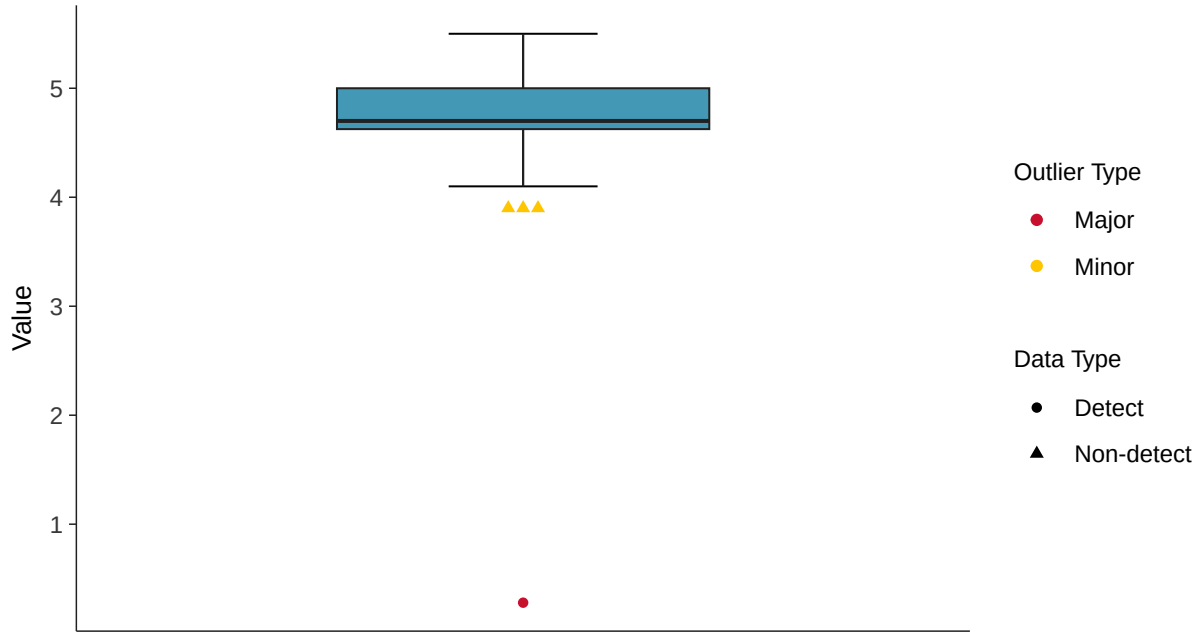
ID: 01_03_121





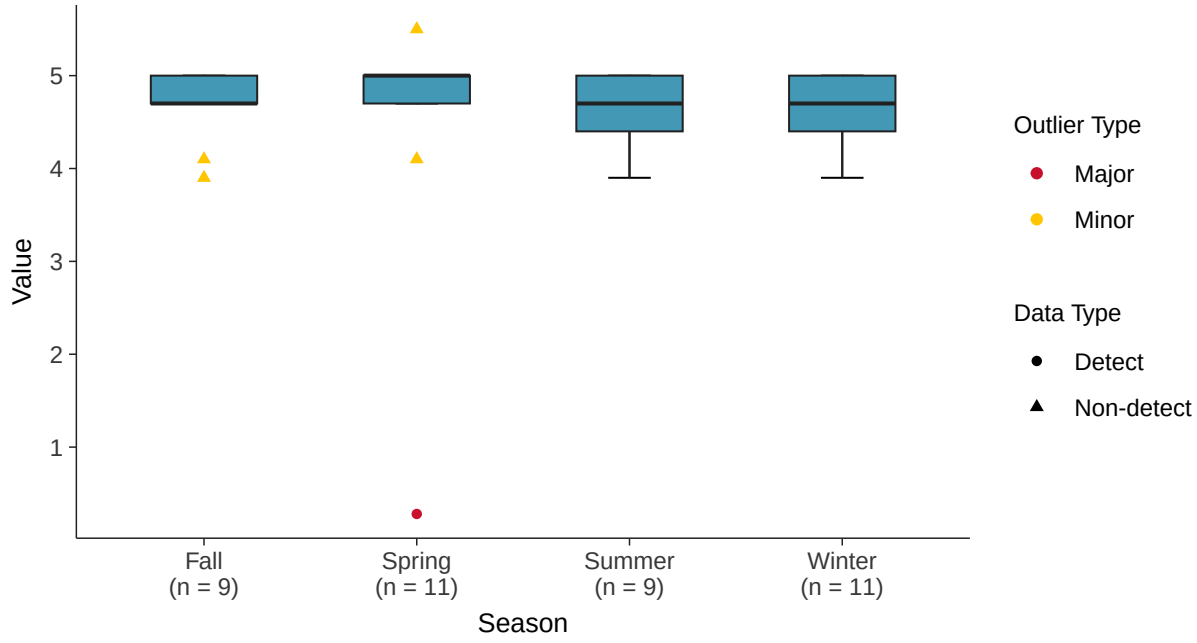
Boxplot

Selenium, MW-1 (ug/L)



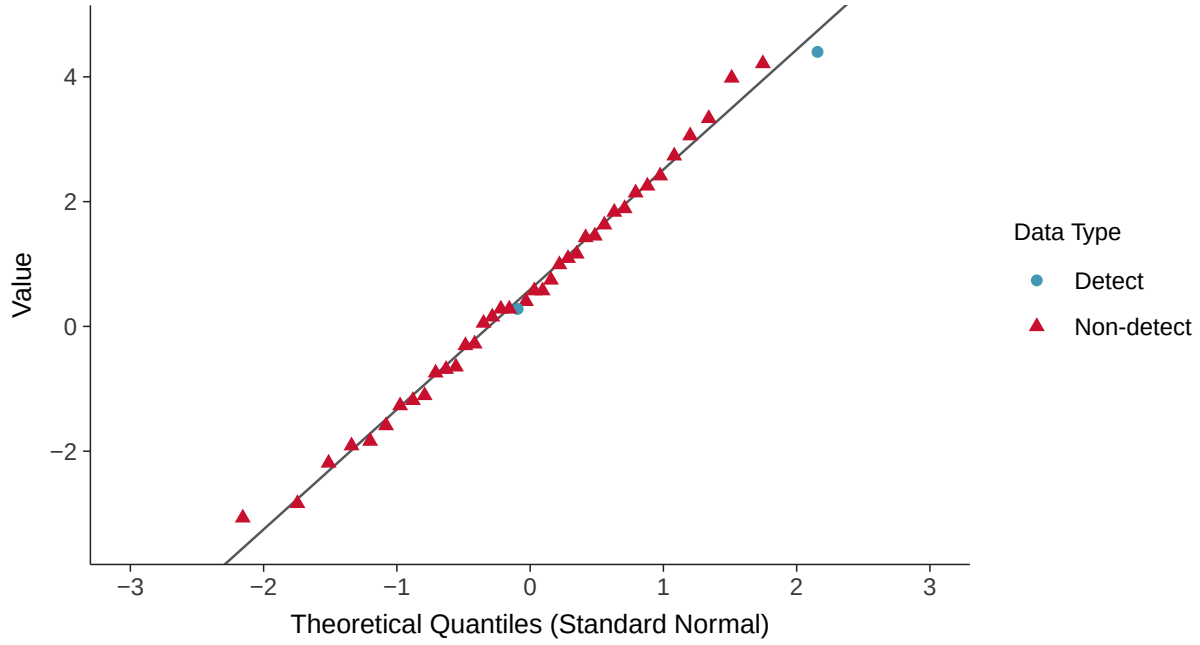
Boxplot by Season

Selenium, MW-1 (ug/L)



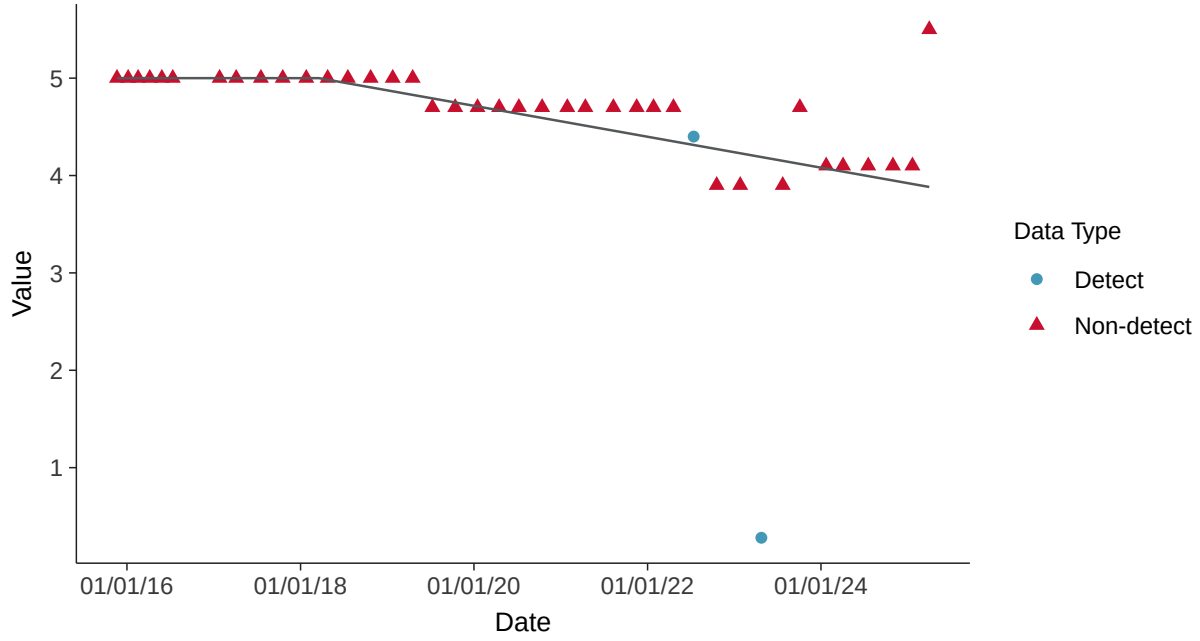
Normal Q-Q plot using ROS Imputed Estimates

Selenium, MW-1 (ug/L)



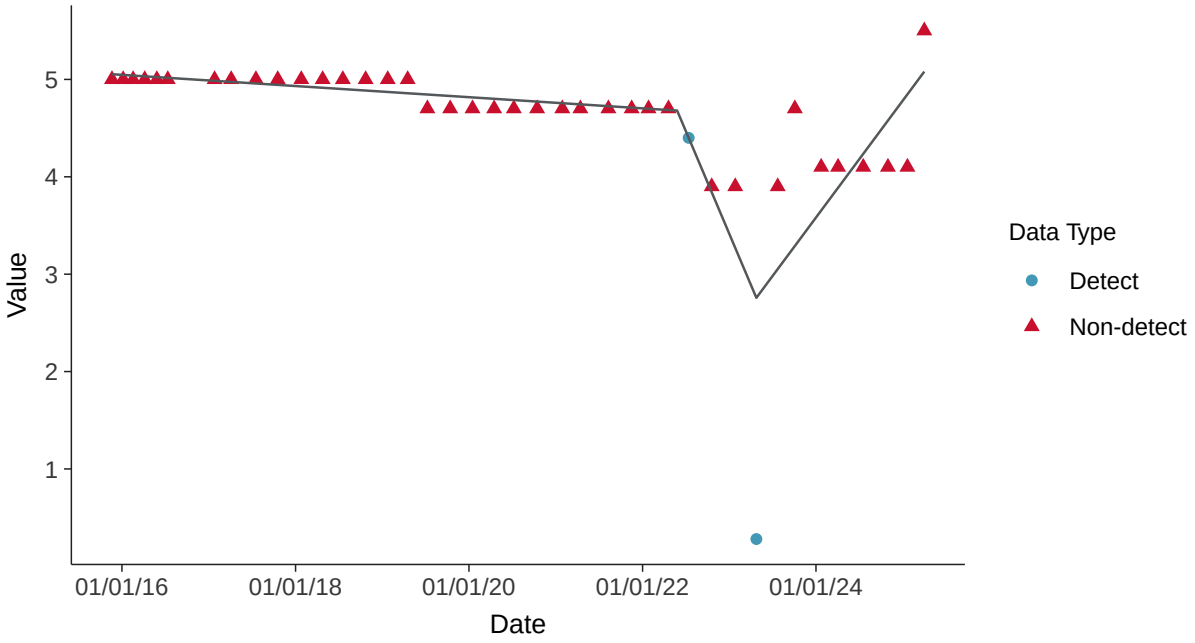
Trend Regression: Piecewise Linear-Linear

Selenium, MW-1 (ug/L)



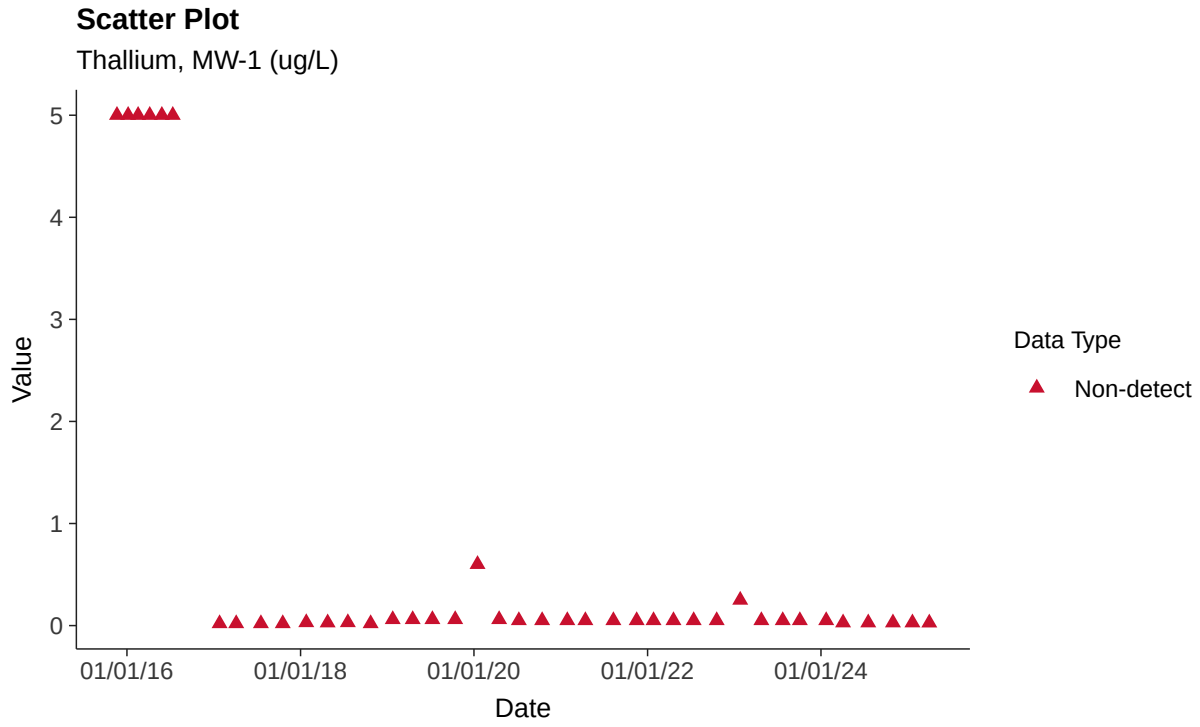
Trend Regression: Piecewise Linear-Linear-Linear

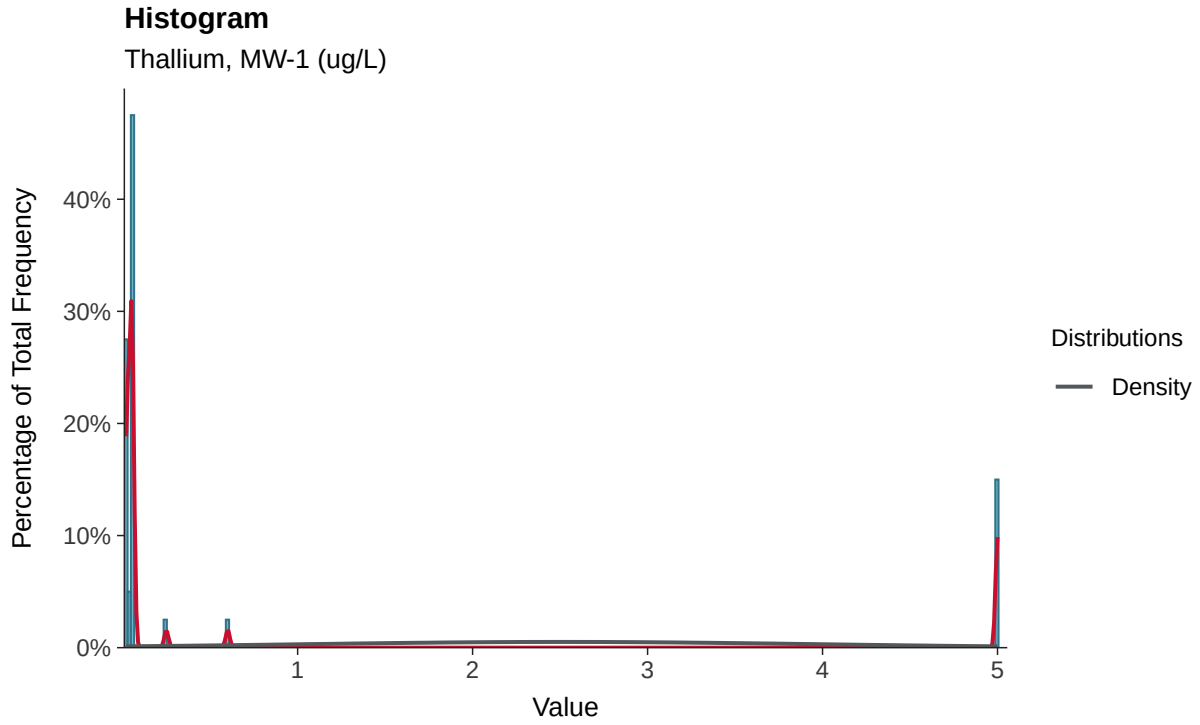
Selenium, MW-1 (ug/L)



App. IV: Thallium, MW-1

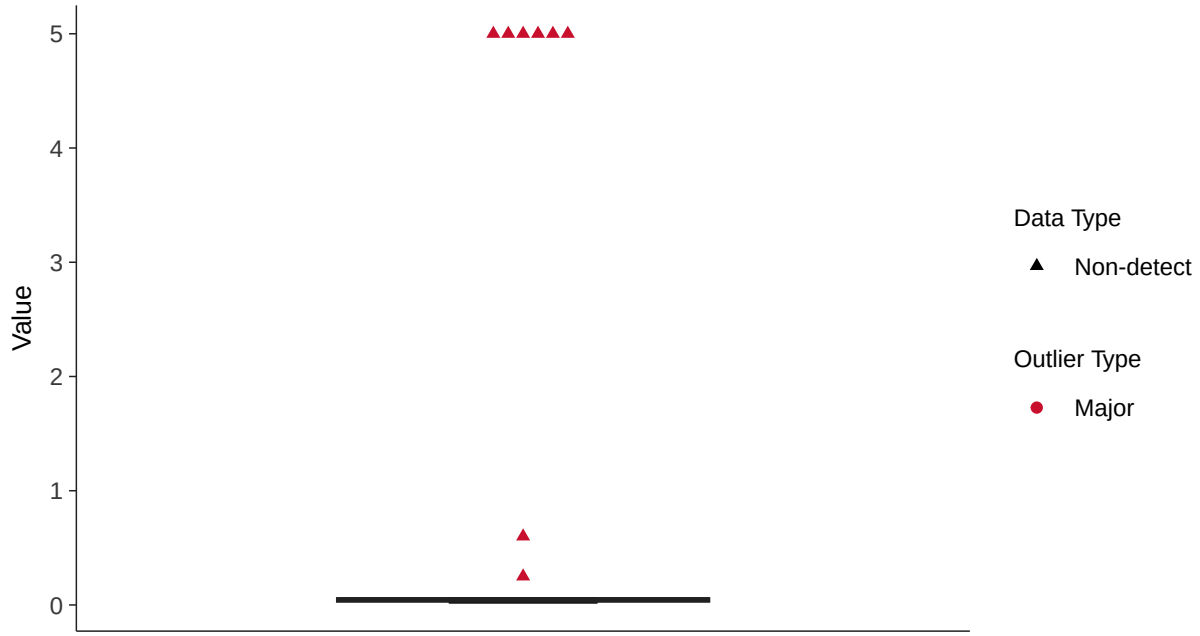
ID: 01_03_124





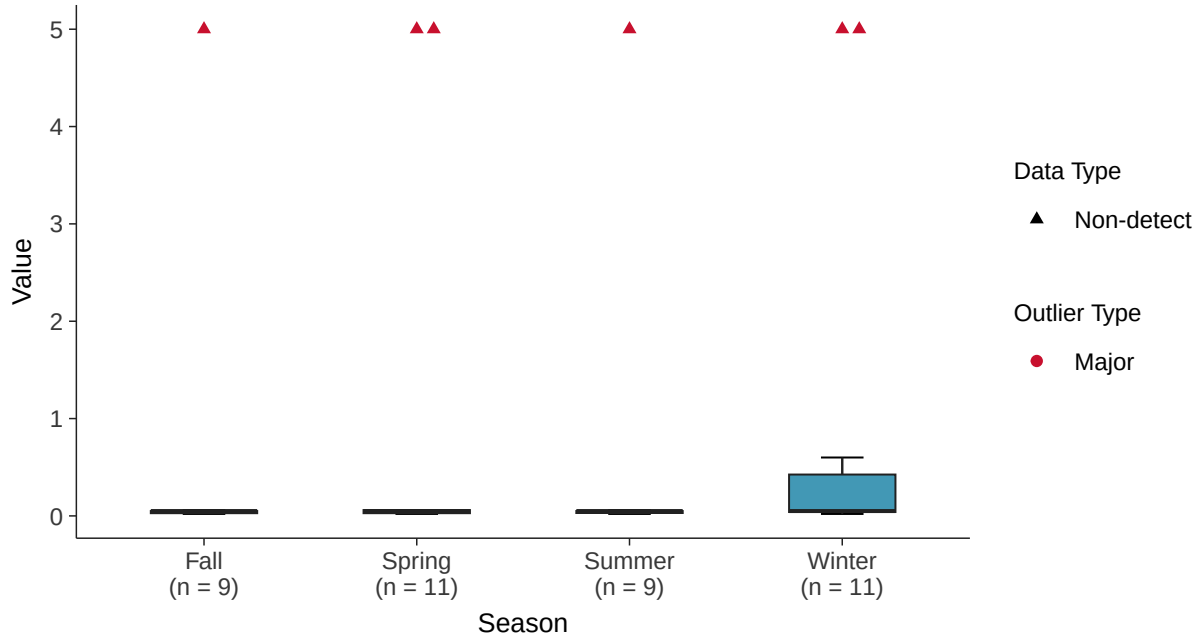
Boxplot

Thallium, MW-1 (ug/L)



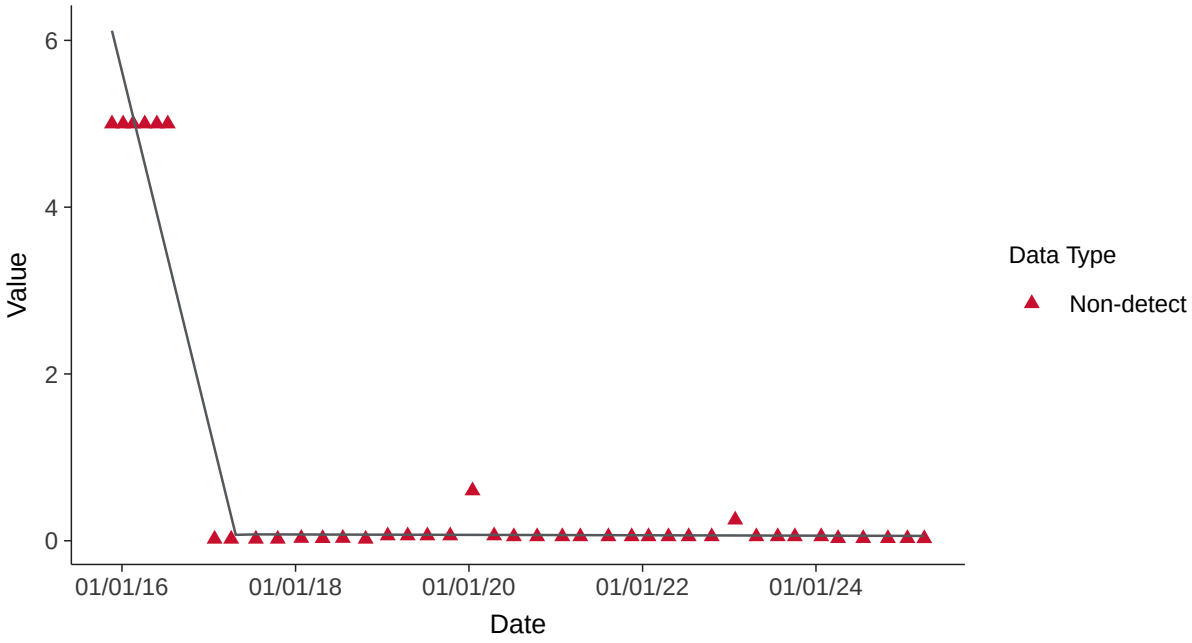
Boxplot by Season

Thallium, MW-1 (ug/L)



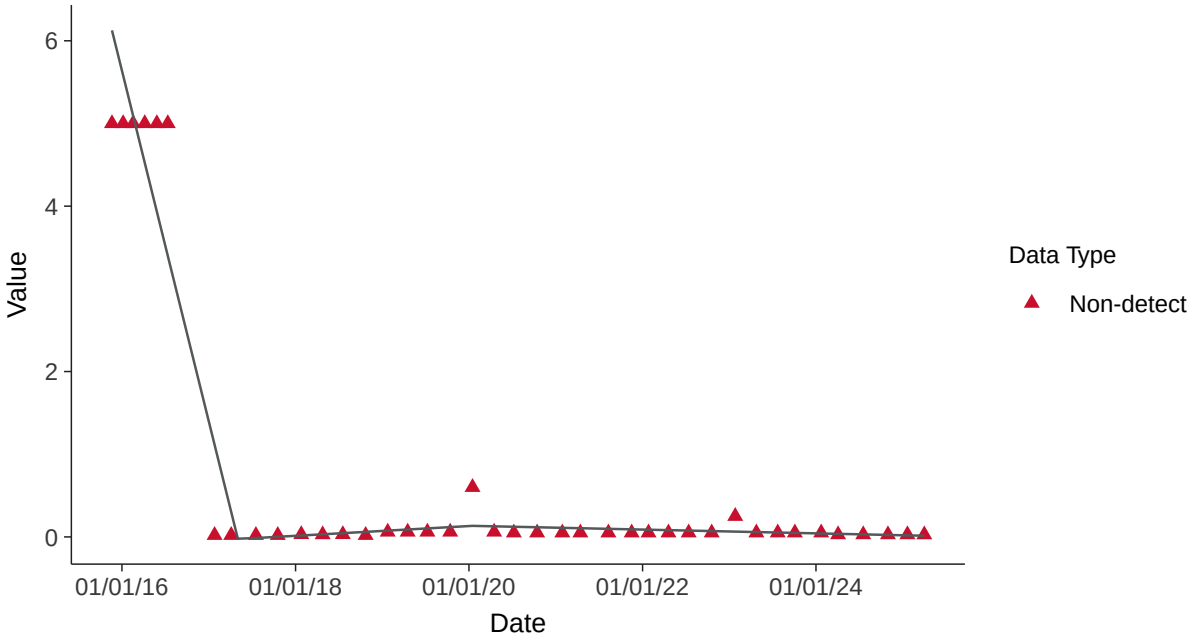
Trend Regression: Piecewise Linear-Linear

Thallium, MW-1 (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Thallium, MW-1 (ug/L)

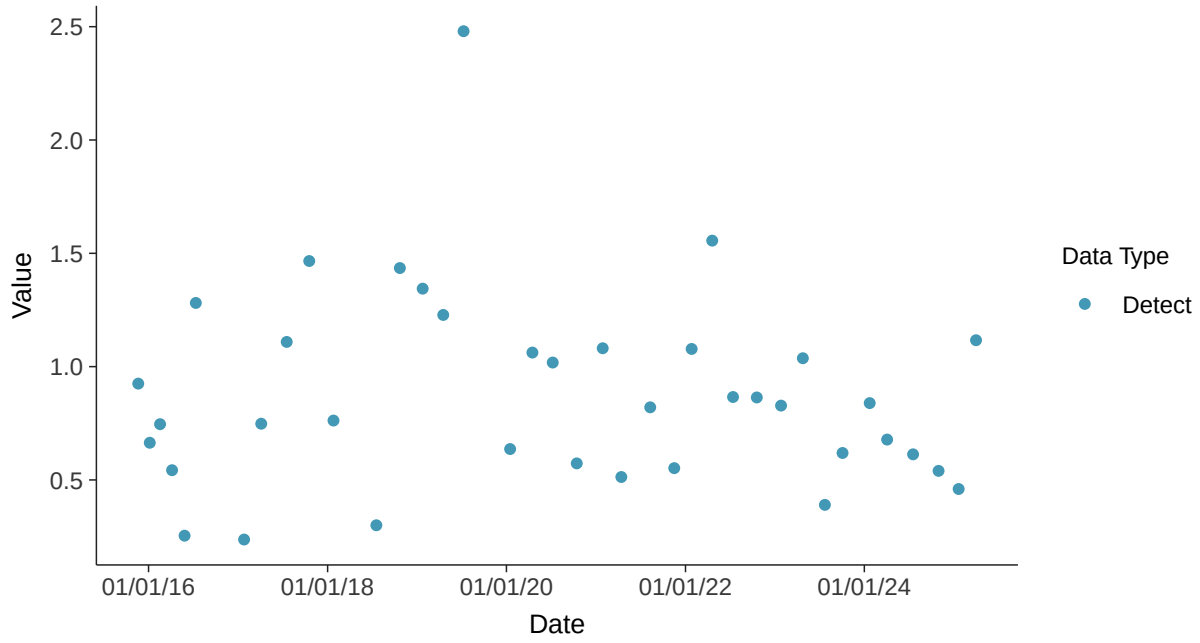


App. IV: Total Radium, MW-1

ID: 01_03_126

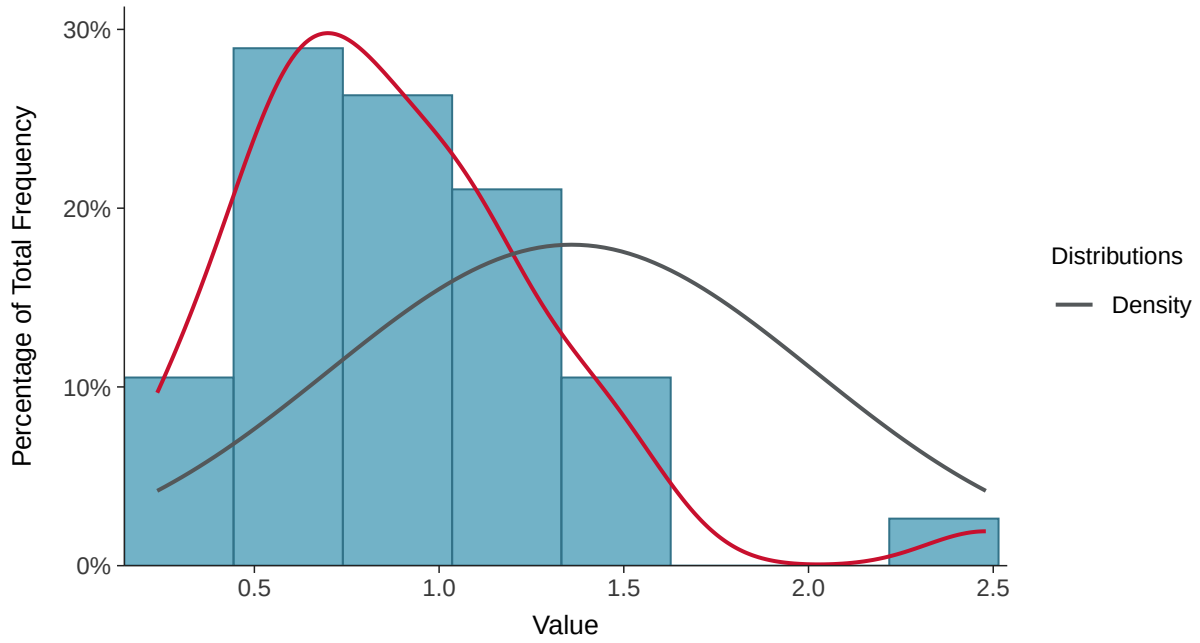
Scatter Plot

Total Radium, MW-1 (pCi/L)



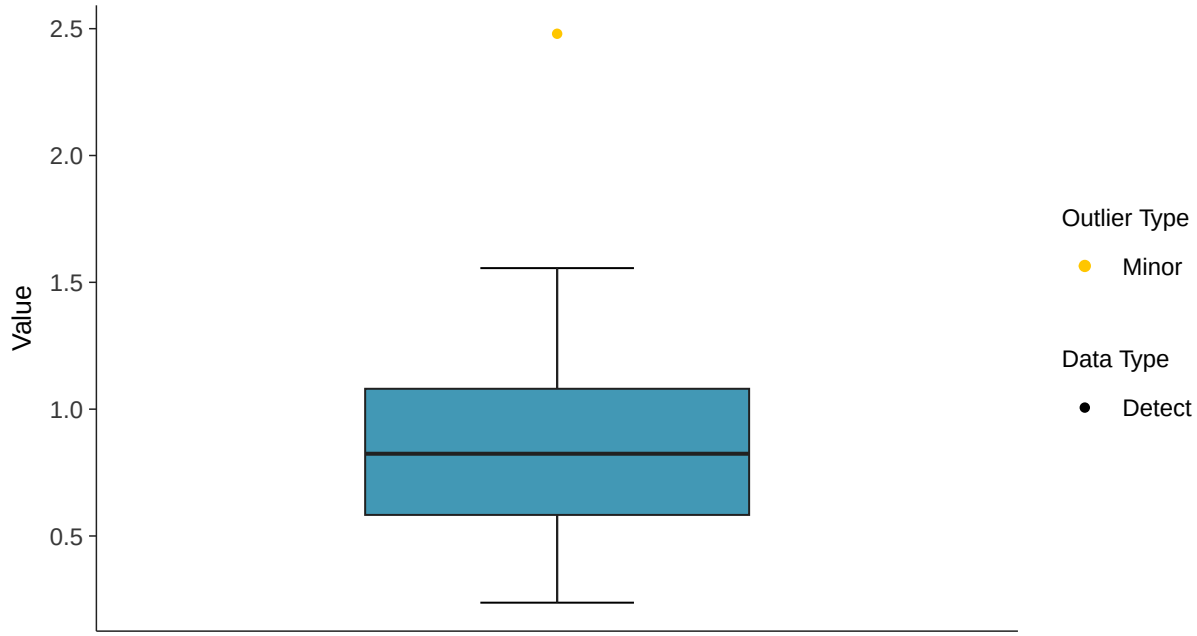
Histogram

Total Radium, MW-1 (pCi/L)



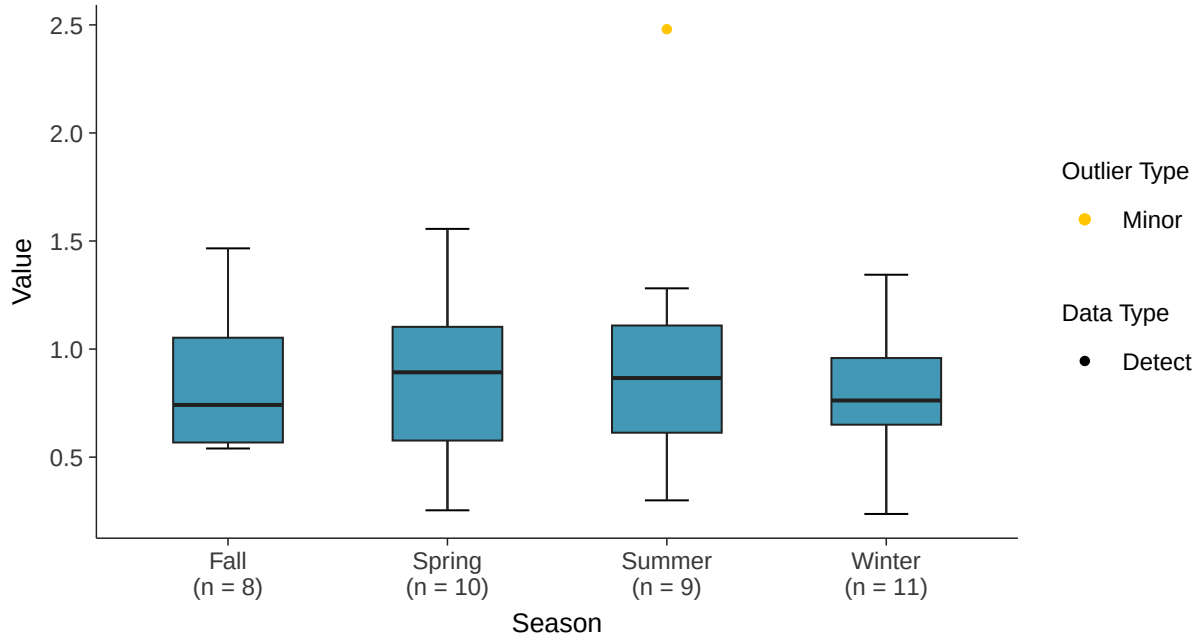
Boxplot

Total Radium, MW-1 (pCi/L)



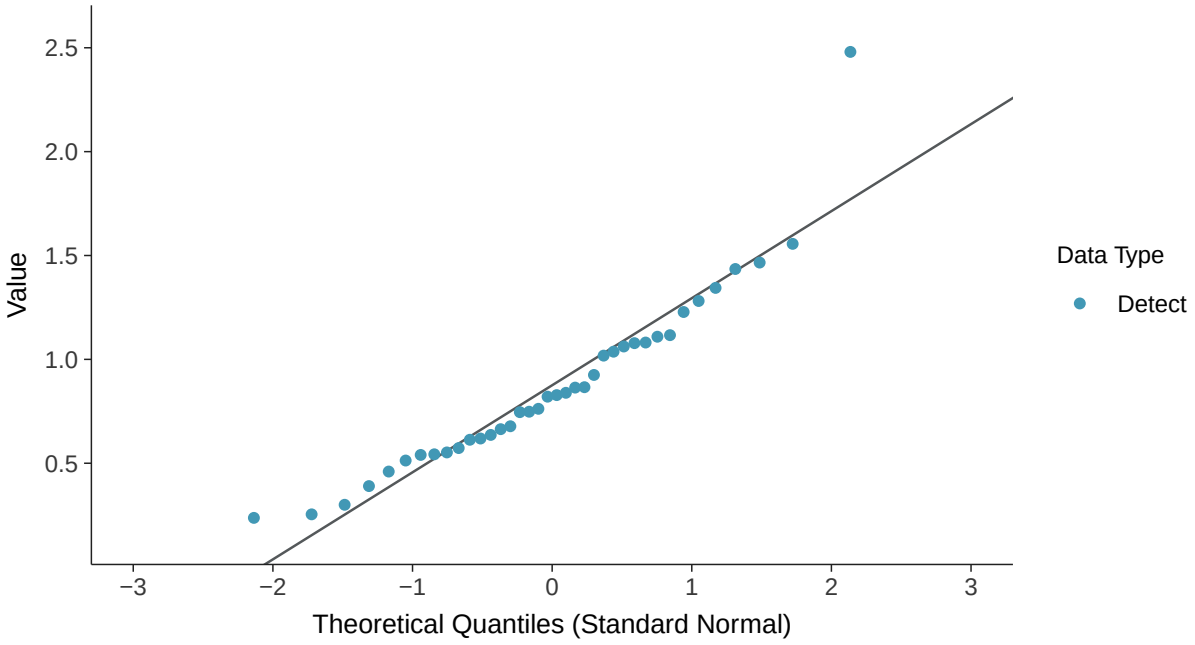
Boxplot by Season

Total Radium, MW-1 (pCi/L)



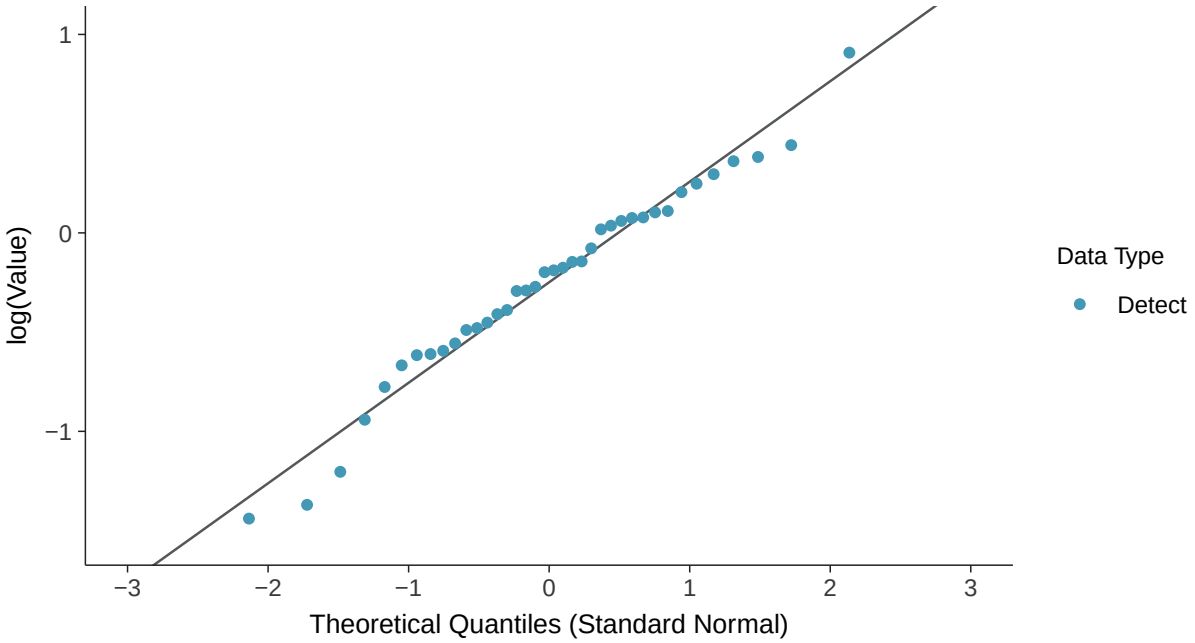
Normal Q-Q plot

Total Radium, MW-1 (pCi/L)



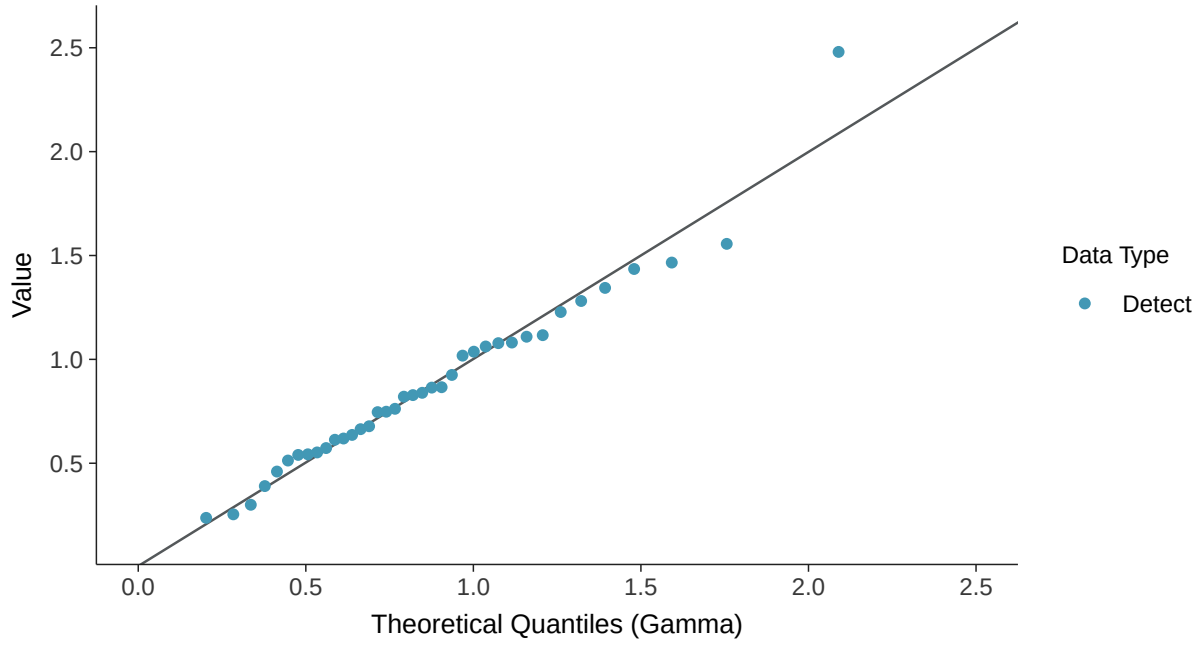
Lognormal Q-Q plot

Total Radium, MW-1 (pCi/L)



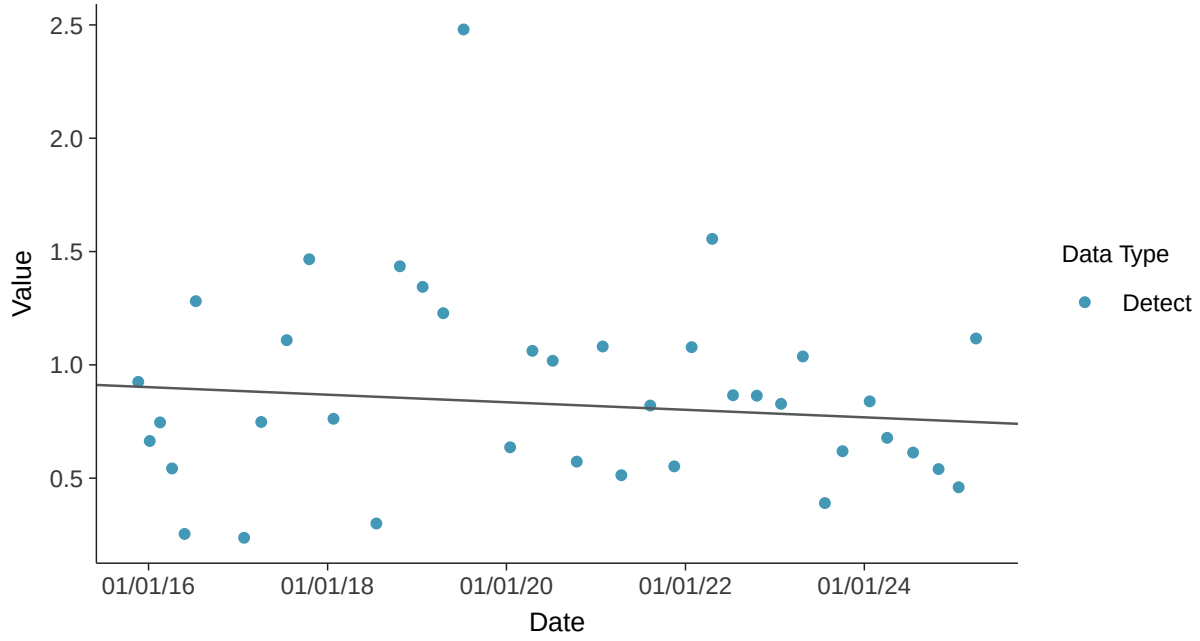
Gamma Q-Q plot

Total Radium, MW-1 (pCi/L)



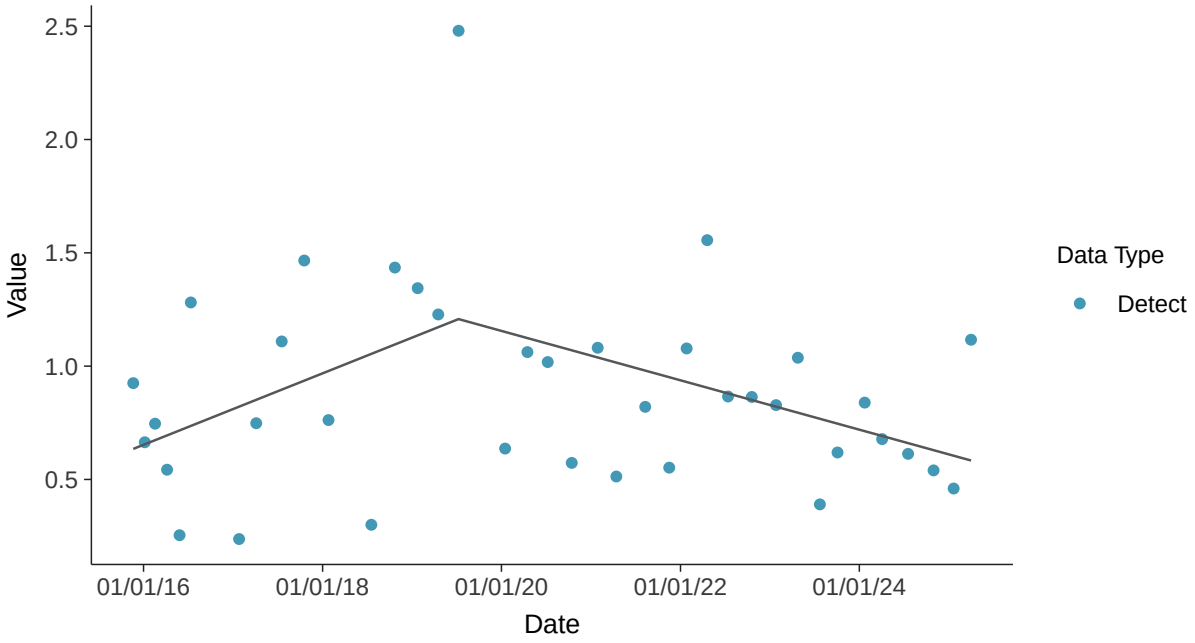
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Total Radium, MW-1 (pCi/L)



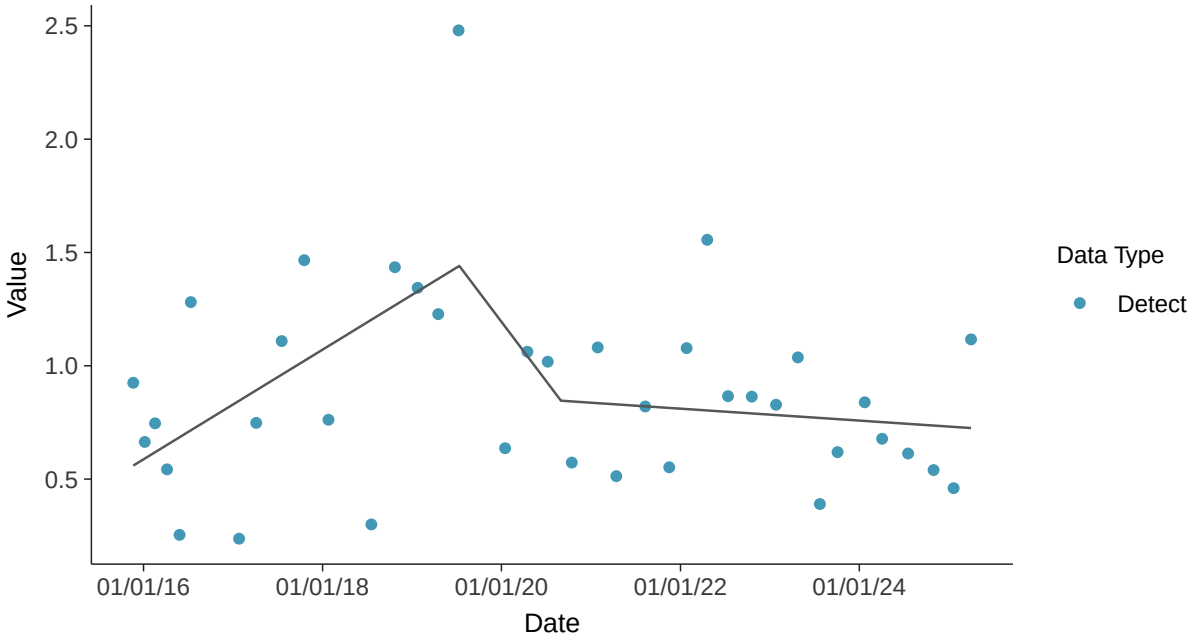
Trend Regression: Piecewise Linear-Linear

Total Radium, MW-1 (pCi/L)



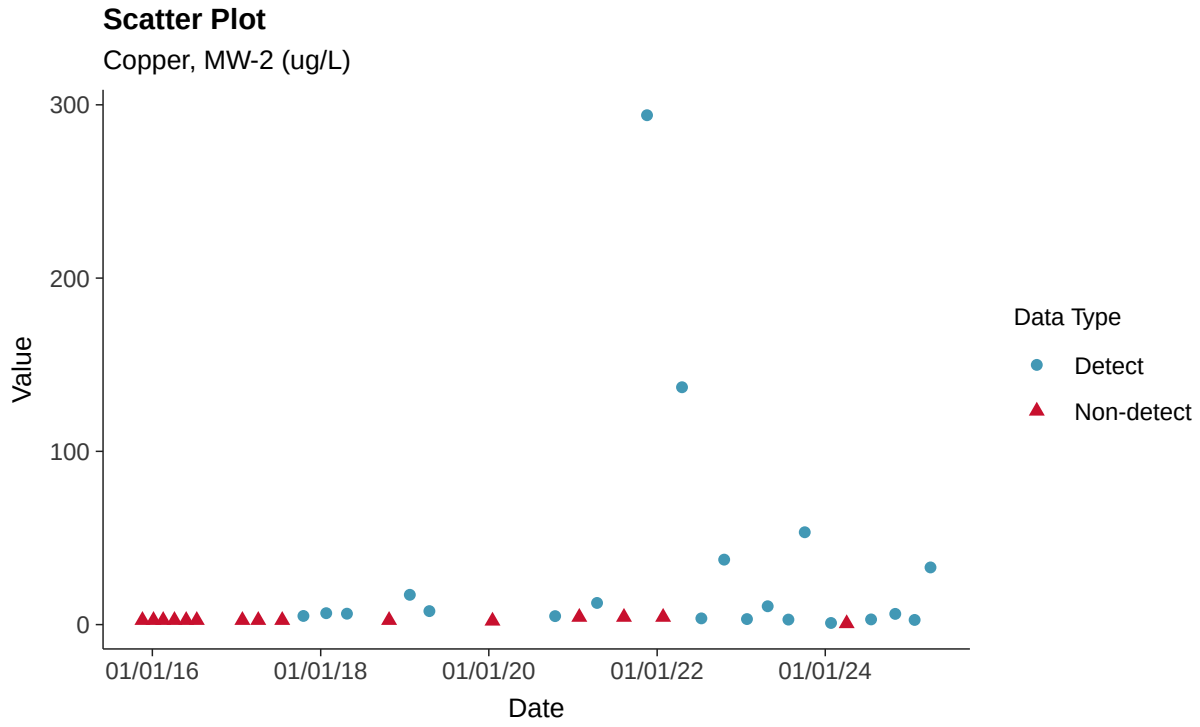
Trend Regression: Piecewise Linear-Linear-Linear

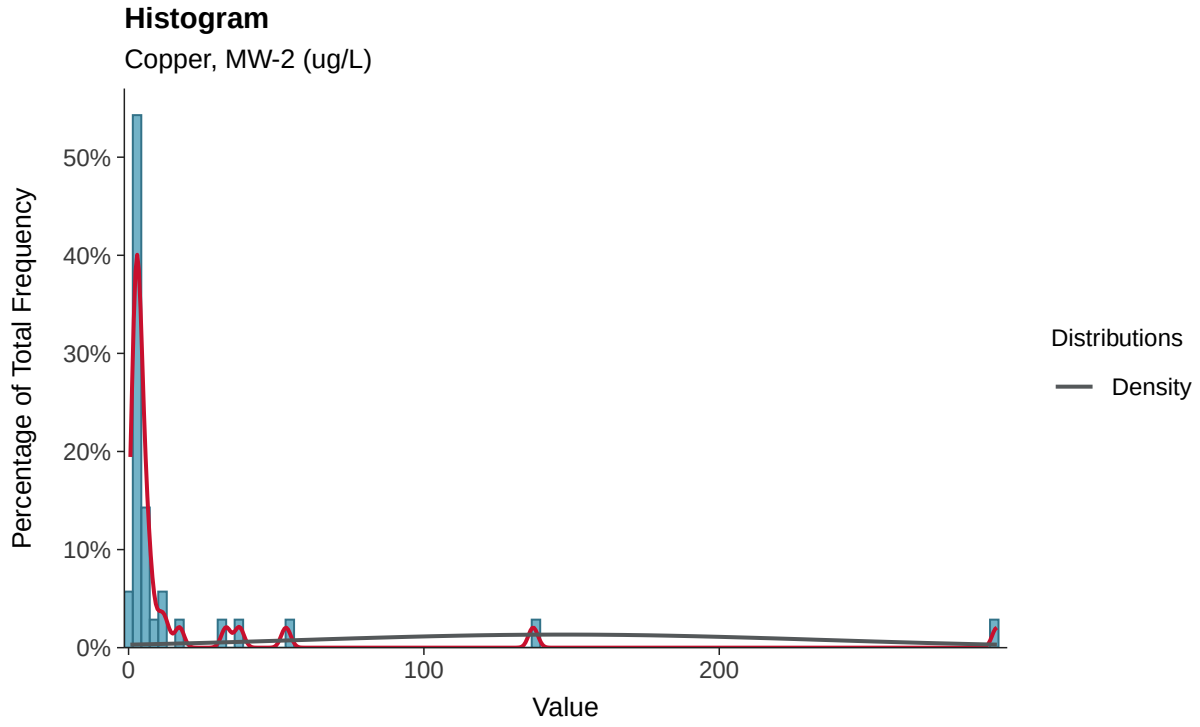
Total Radium, MW-1 (pCi/L)



App. I Metals: Copper, MW-2

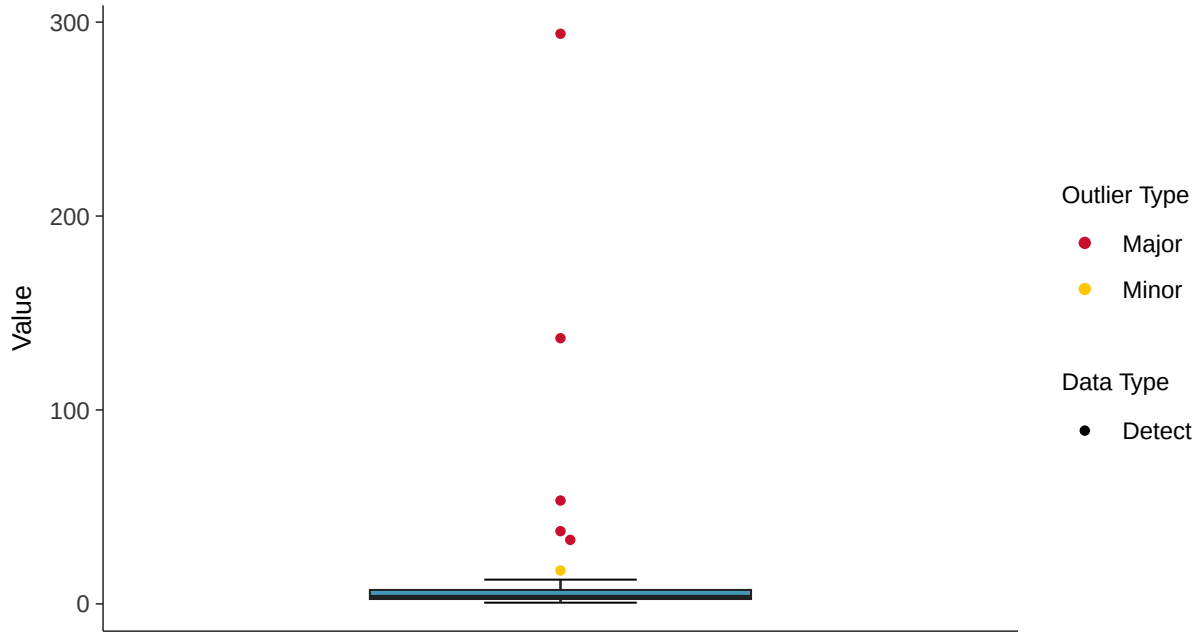
ID: 02_01_111





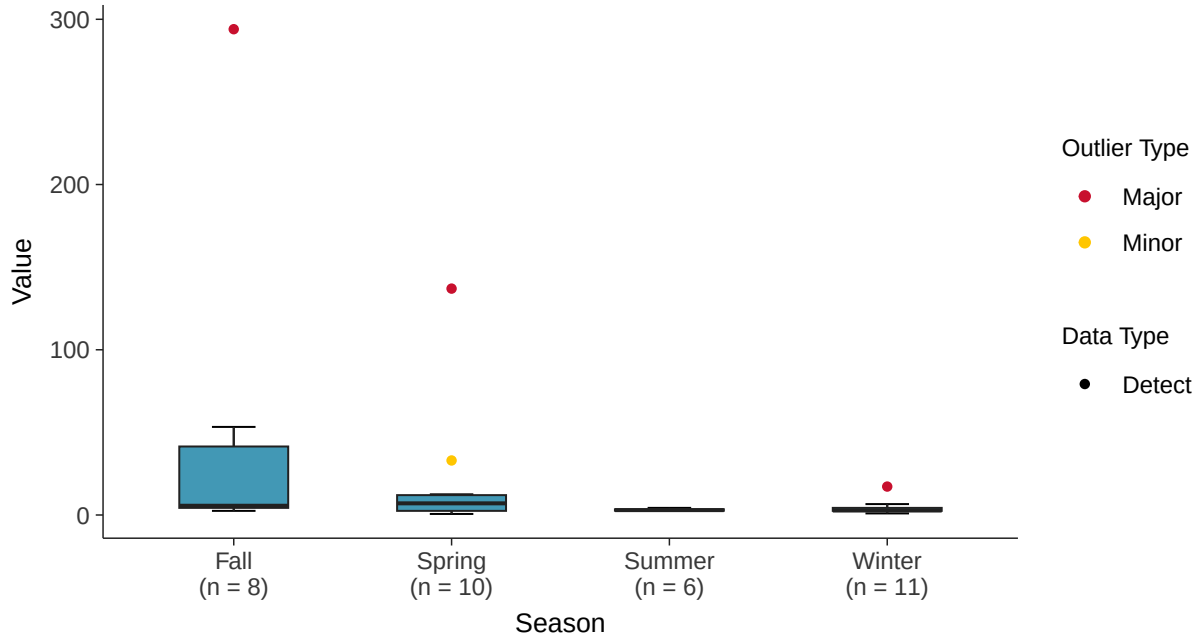
Boxplot

Copper, MW-2 (ug/L)



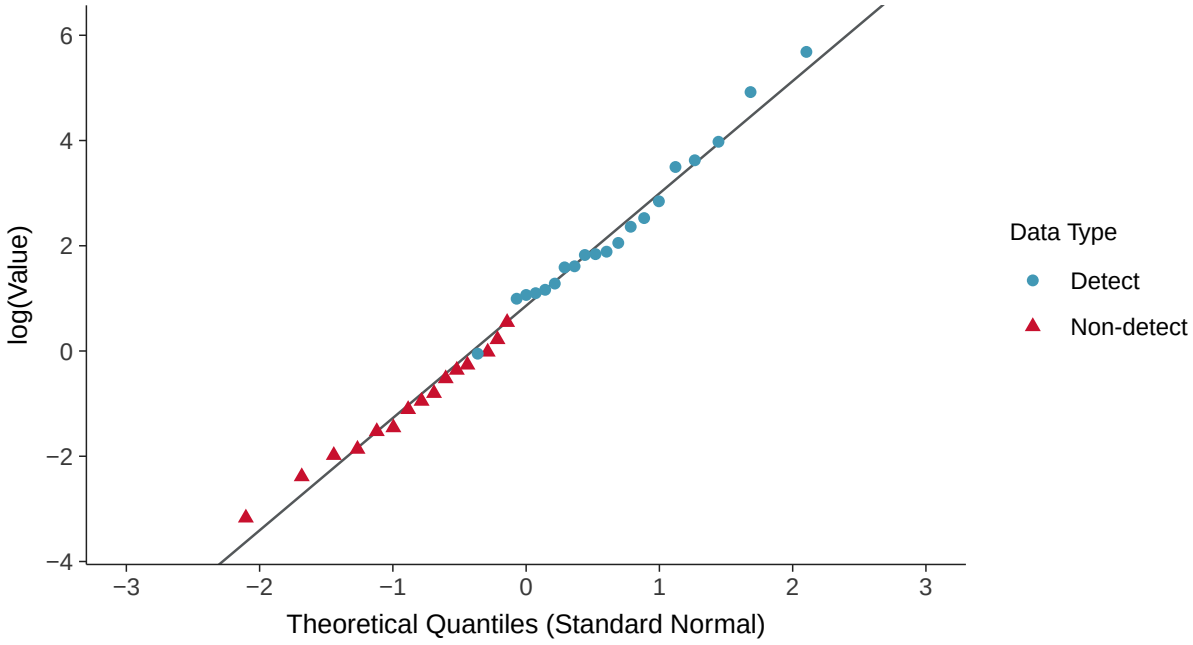
Boxplot by Season

Copper, MW-2 (ug/L)



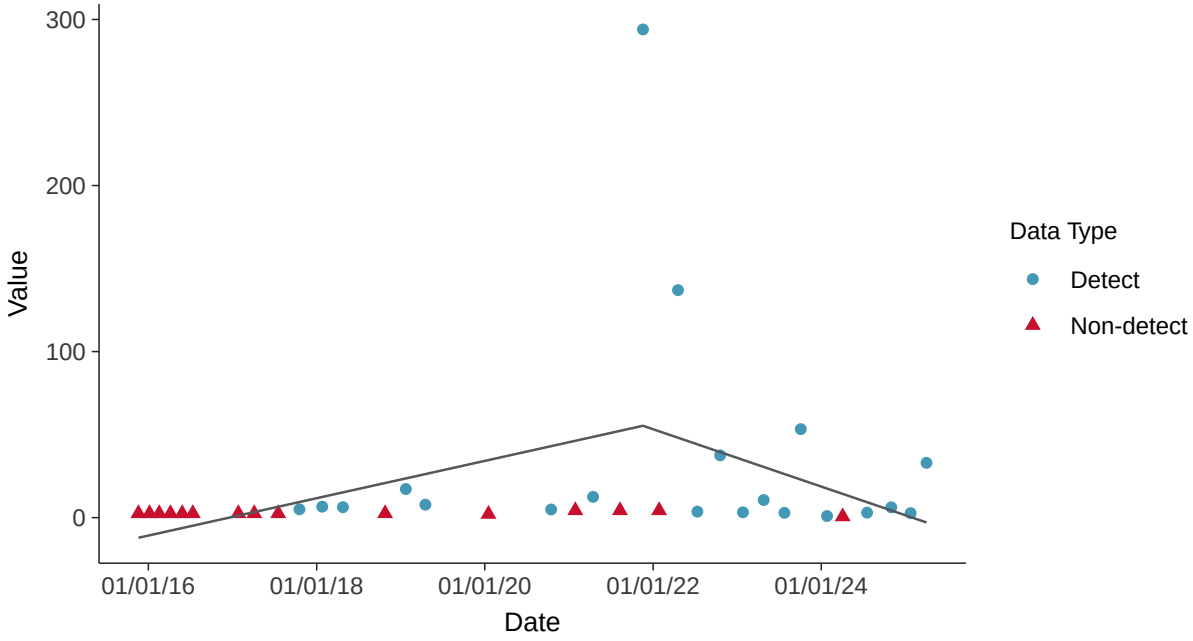
Lognormal Q-Q plot using ROS Imputed Estimates

Copper, MW-2 (ug/L)



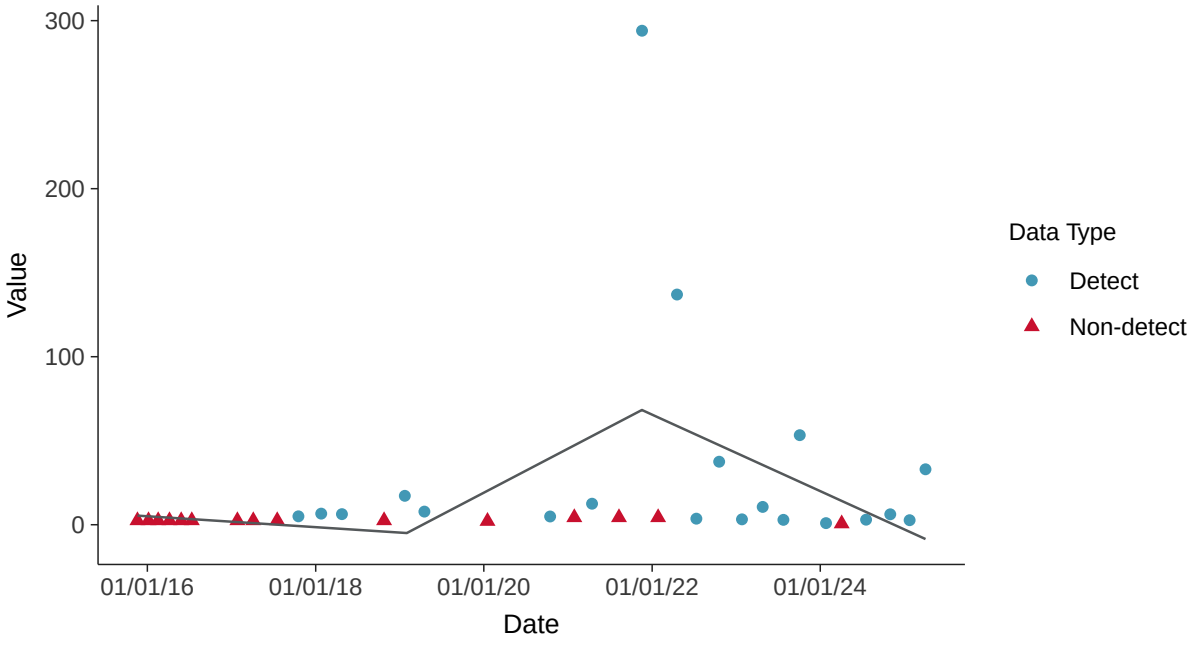
Trend Regression: Piecewise Linear-Linear

Copper, MW-2 (ug/L)



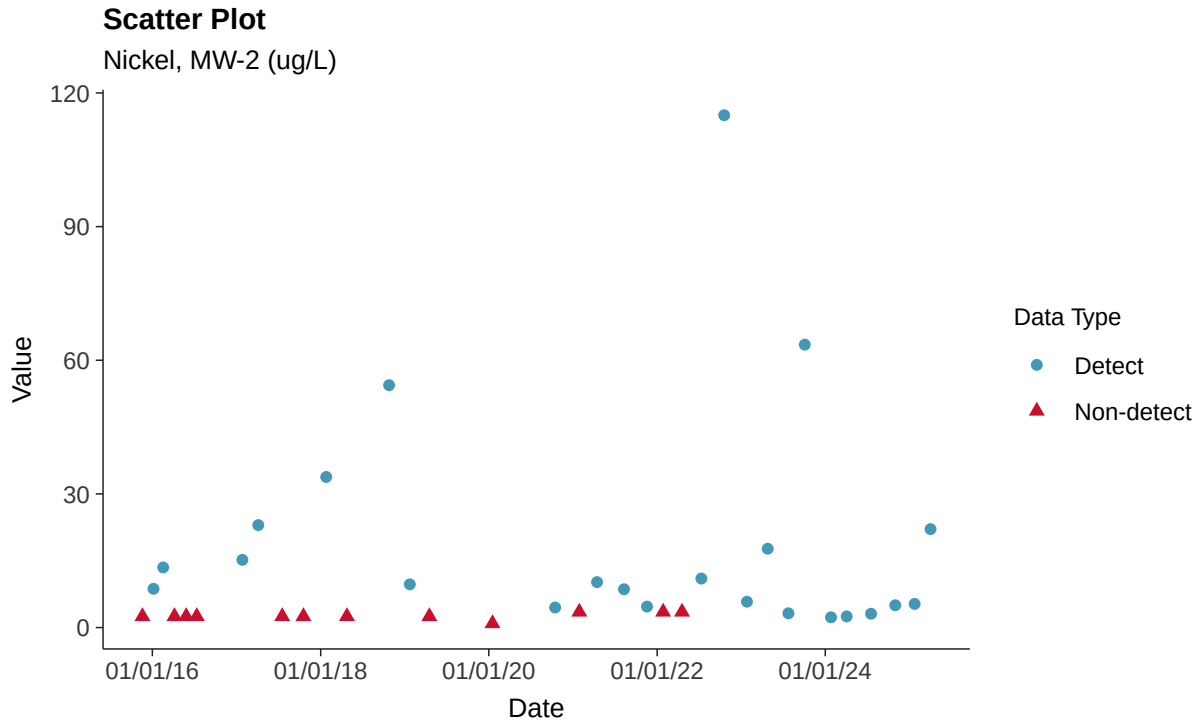
Trend Regression: Piecewise Linear-Linear-Linear

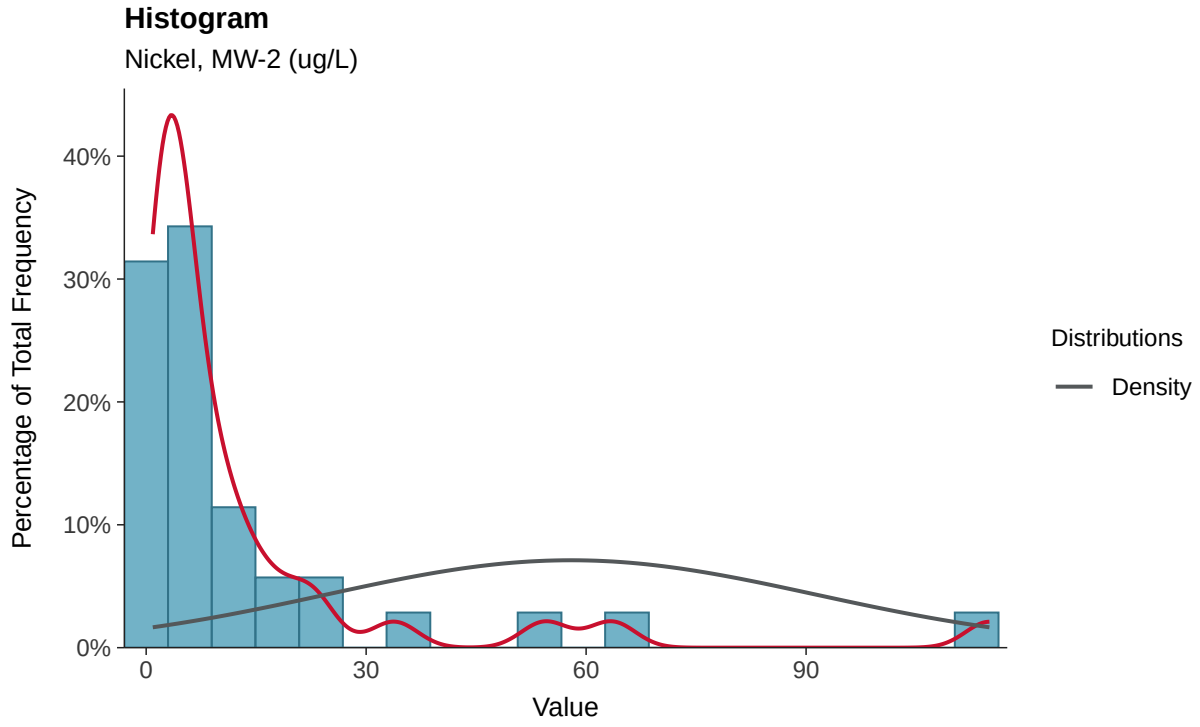
Copper, MW-2 (ug/L)



App. I Metals: Nickel, MW-2

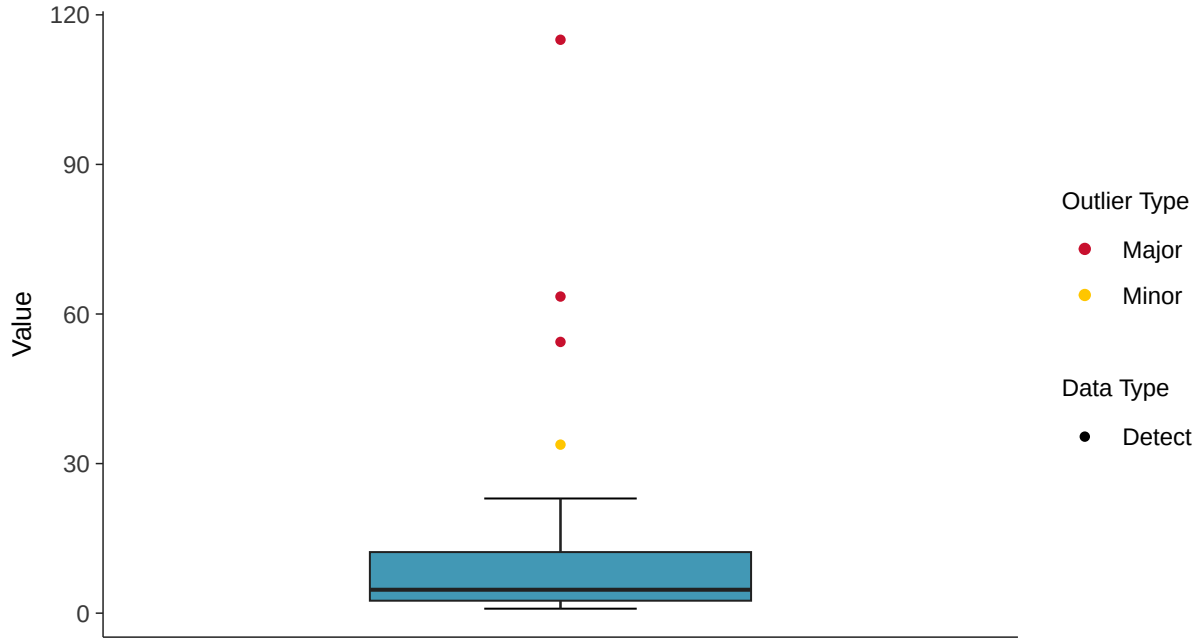
ID: 02_01_117





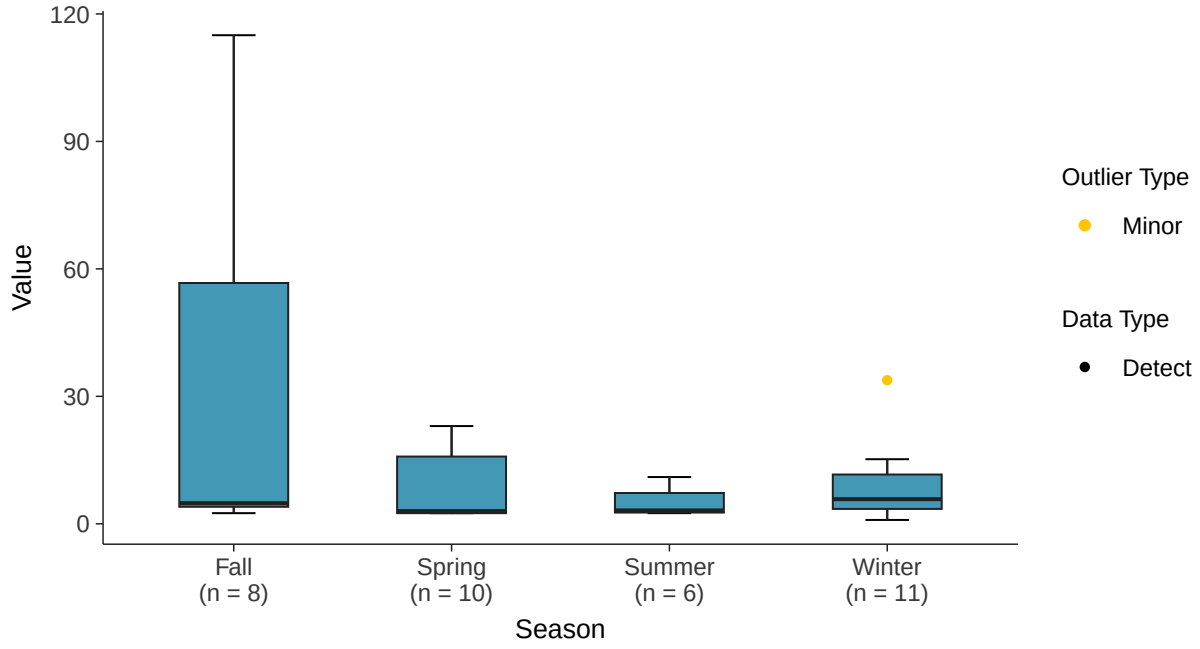
Boxplot

Nickel, MW-2 (ug/L)



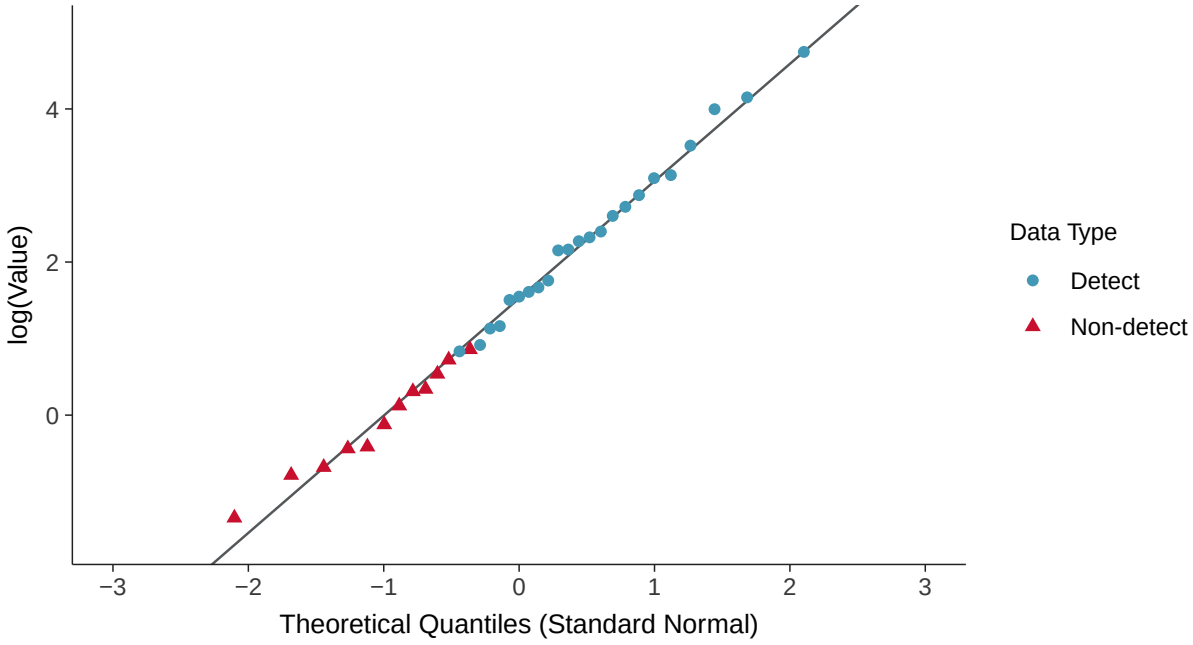
Boxplot by Season

Nickel, MW-2 (ug/L)



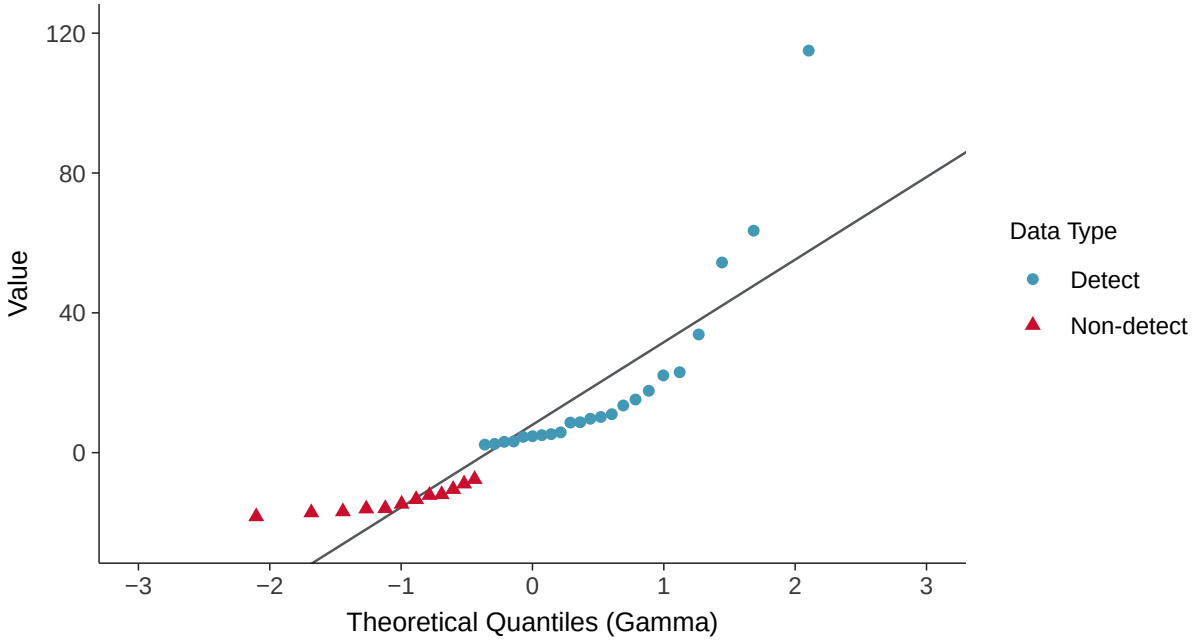
Lognormal Q-Q plot using ROS Imputed Estimates

Nickel, MW-2 (ug/L)



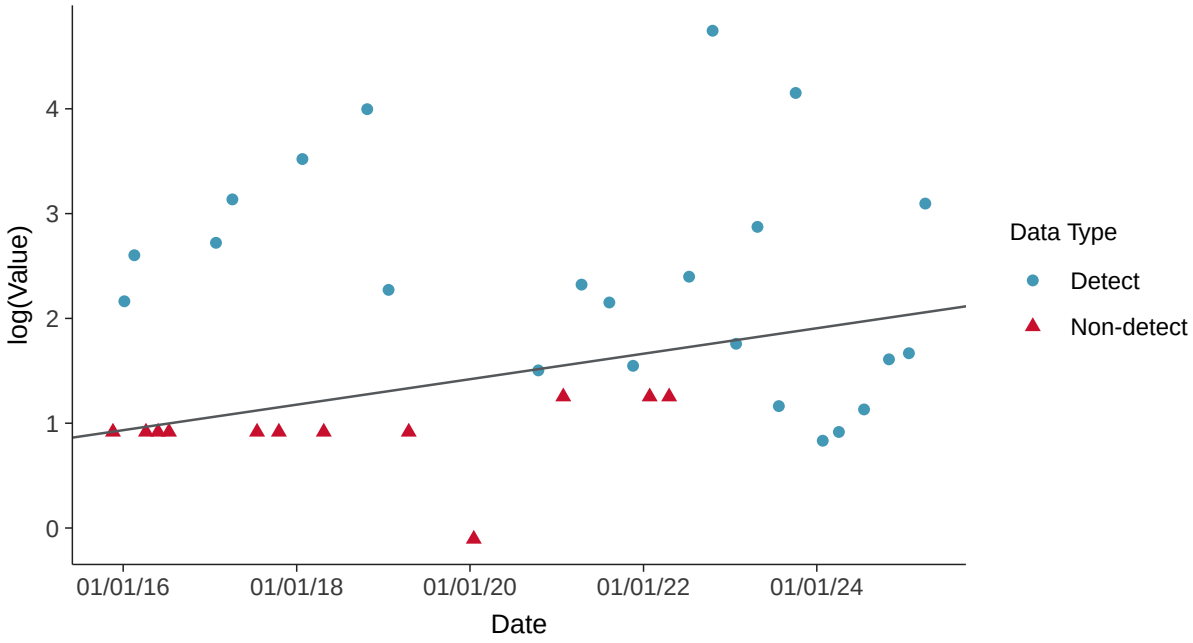
Gamma Q-Q plot using ROS Imputed Estimates

Nickel, MW-2 (ug/L)



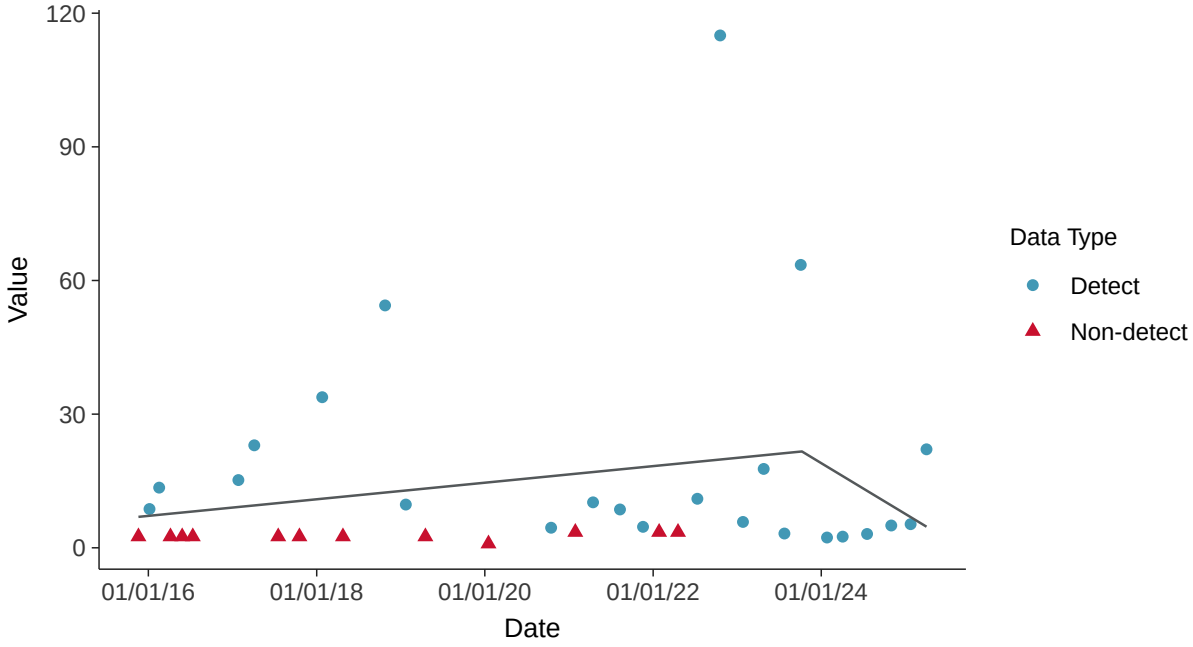
Trend Regression: Lognormal MLE

Nickel, MW-2 (ug/L)



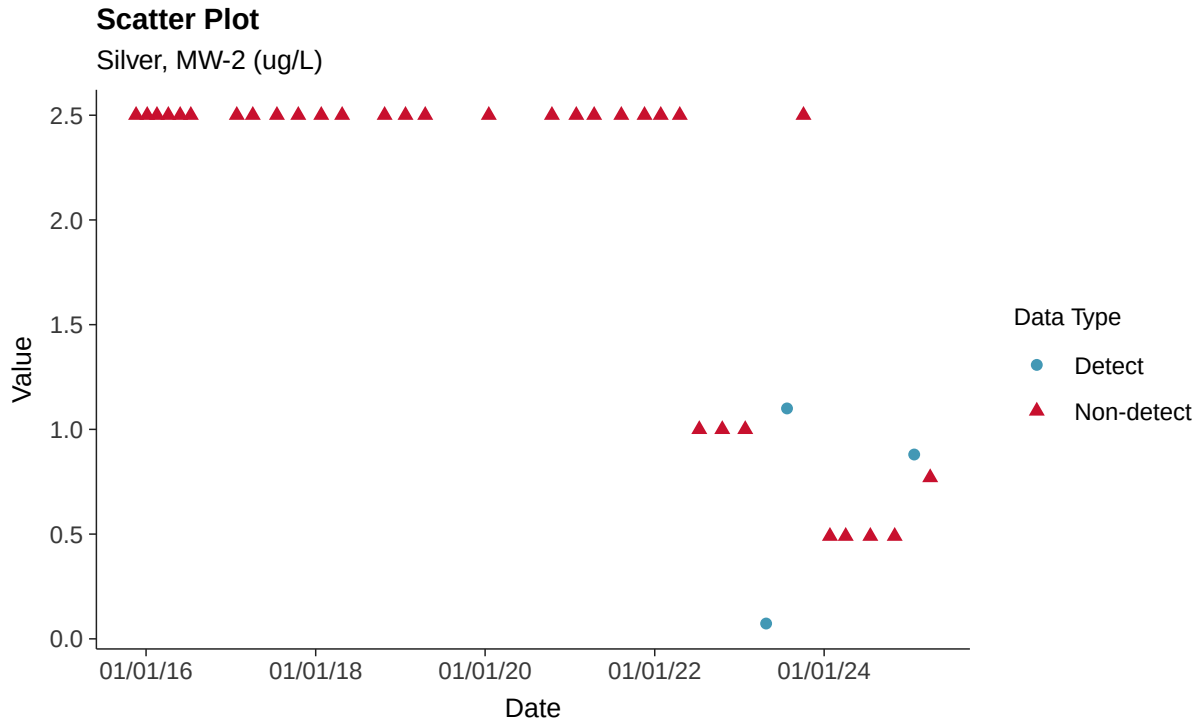
Trend Regression: Piecewise Linear-Linear

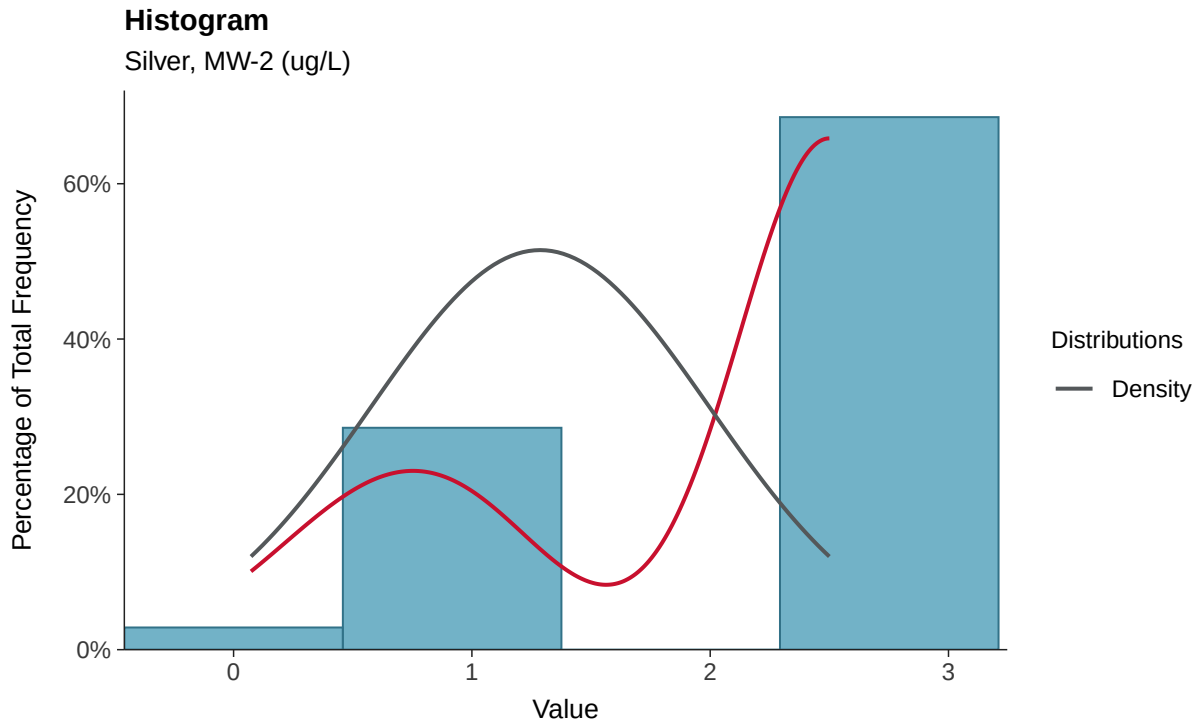
Nickel, MW-2 (ug/L)



App. I Metals: Silver, MW-2

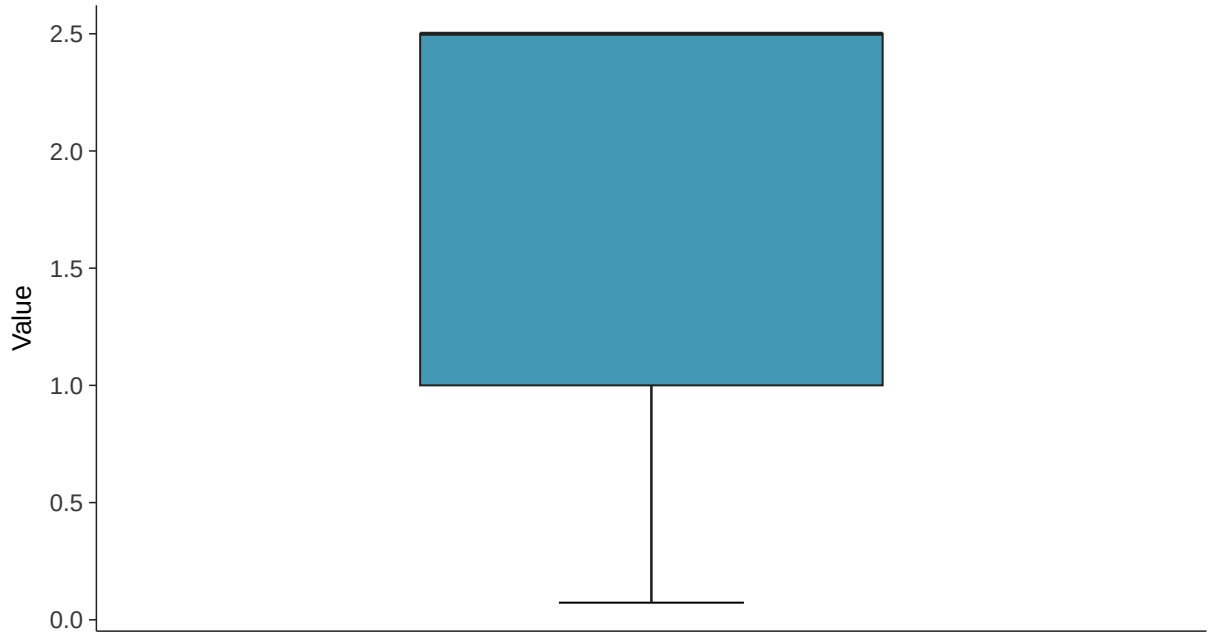
ID: 02_01_122





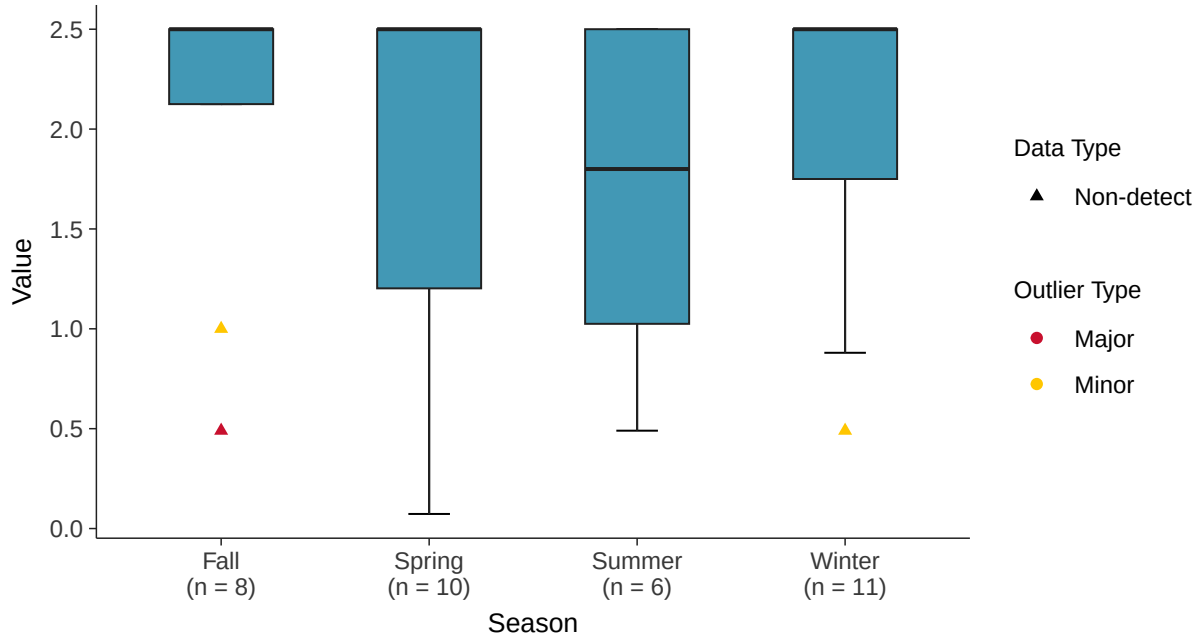
Boxplot

Silver, MW-2 (ug/L)



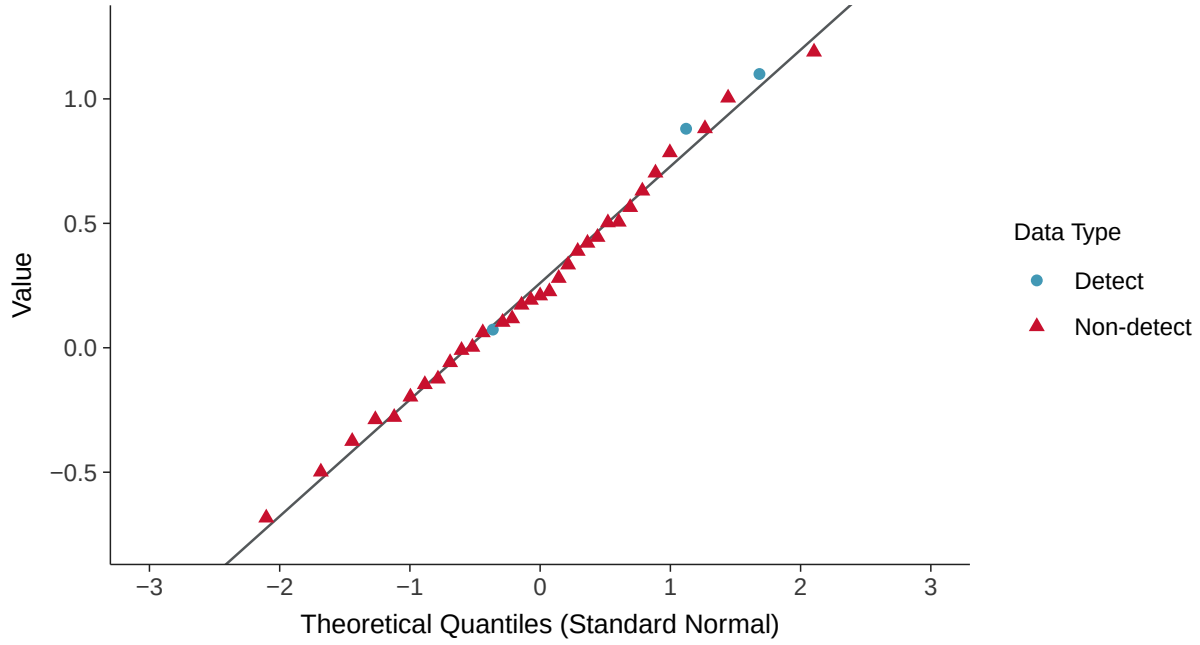
Boxplot by Season

Silver, MW-2 (ug/L)



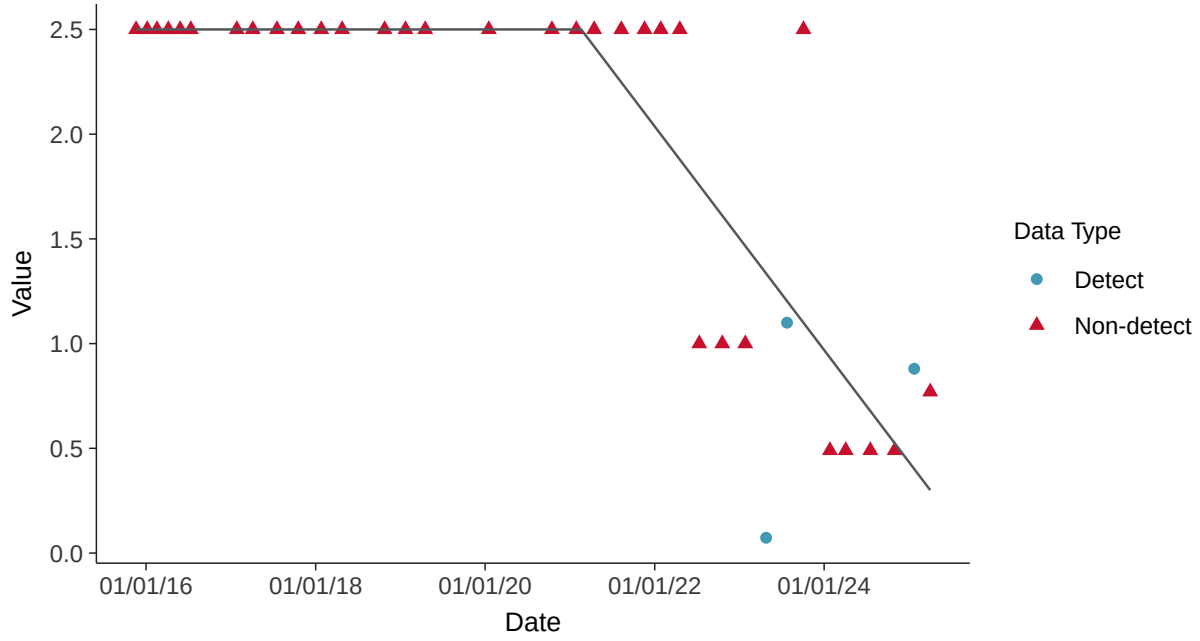
Normal Q-Q plot using ROS Imputed Estimates

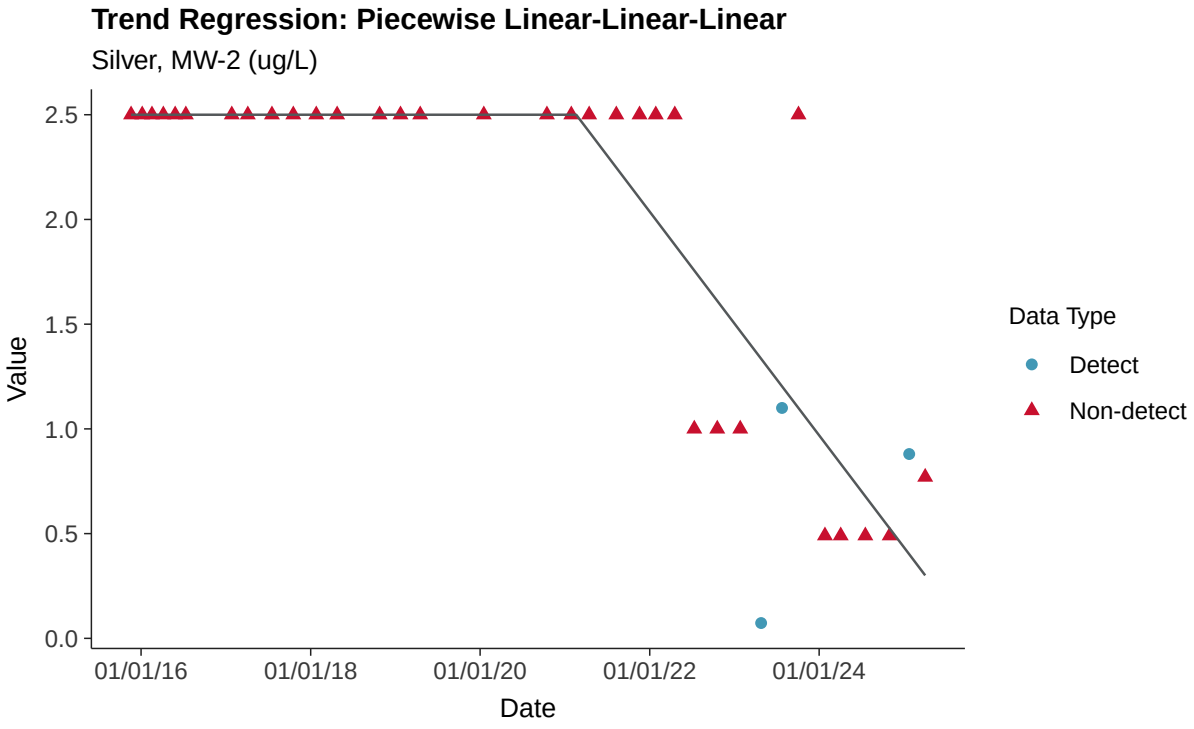
Silver, MW-2 (ug/L)



Trend Regression: Piecewise Linear-Linear

Silver, MW-2 (ug/L)



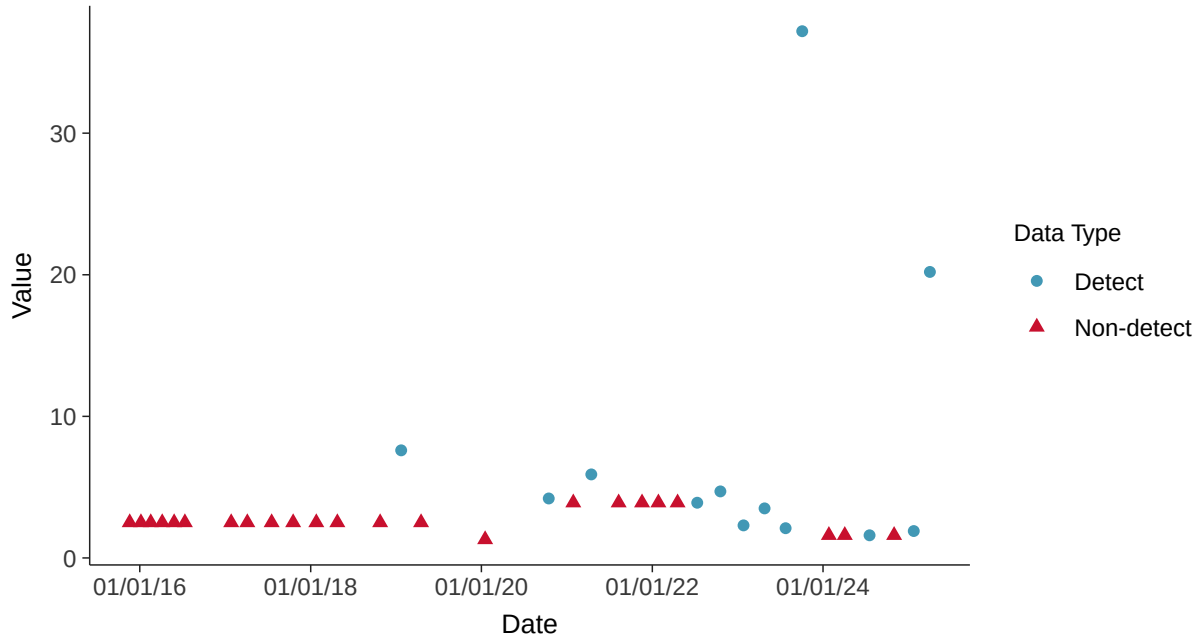

Trend Regression: Piecewise Linear-Linear-Linear
Silver, MW-2 (ug/L)
Value
2.5
2.0
1.5
1.0
0.5
0.0
01/01/16
01/01/18
01/01/20
01/01/22
01/01/24
Date
Data Type
Detect
Non-detect

App. I Metals: Vanadium, MW-2

ID: 02_01_127

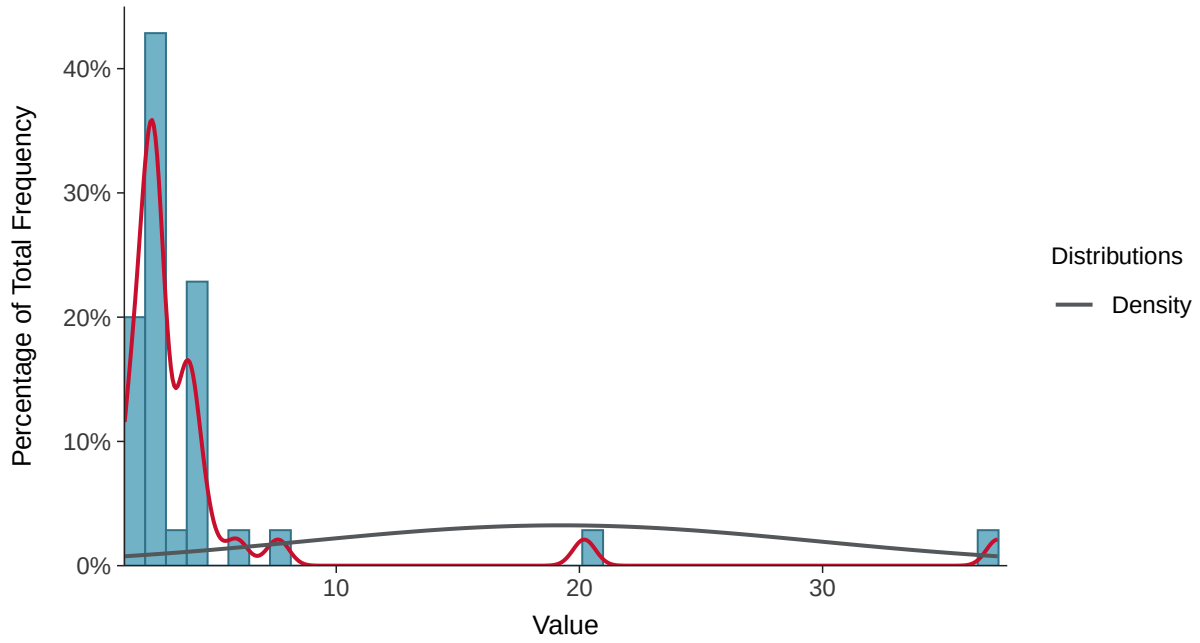
Scatter Plot

Vanadium, MW-2 (ug/L)



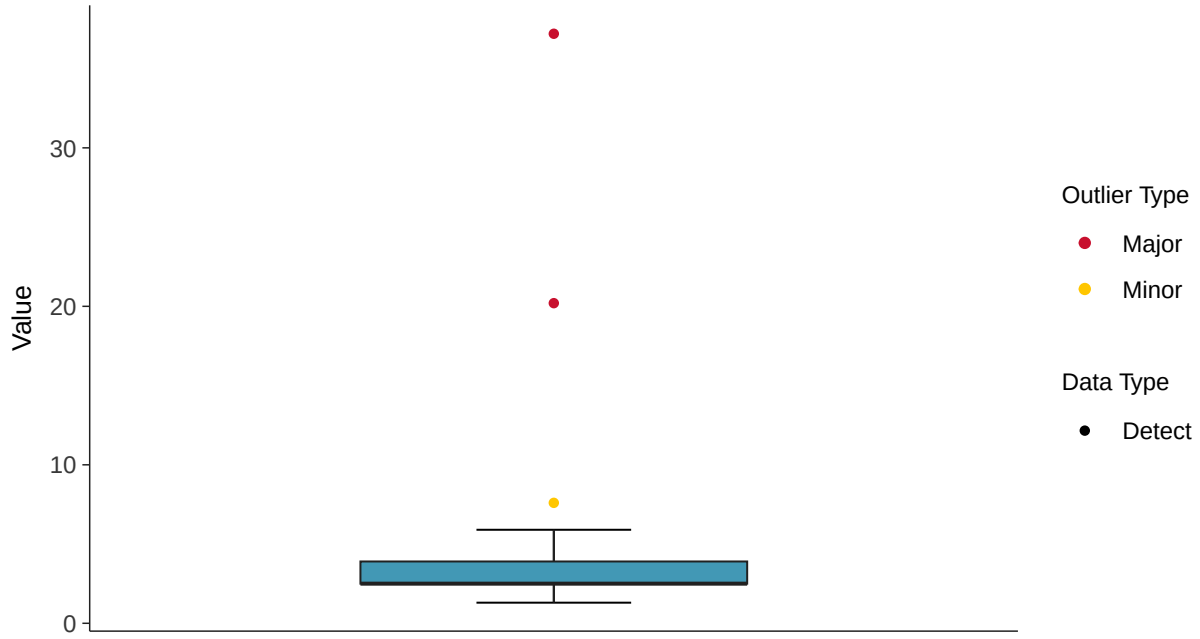
Histogram

Vanadium, MW-2 (ug/L)



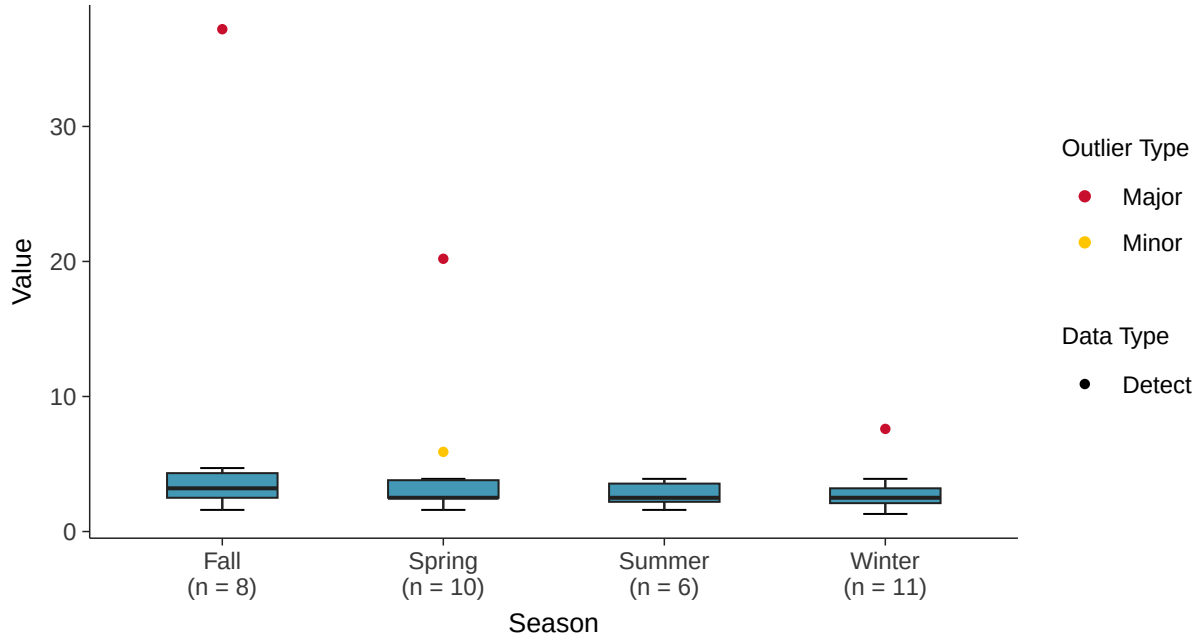
Boxplot

Vanadium, MW-2 (ug/L)



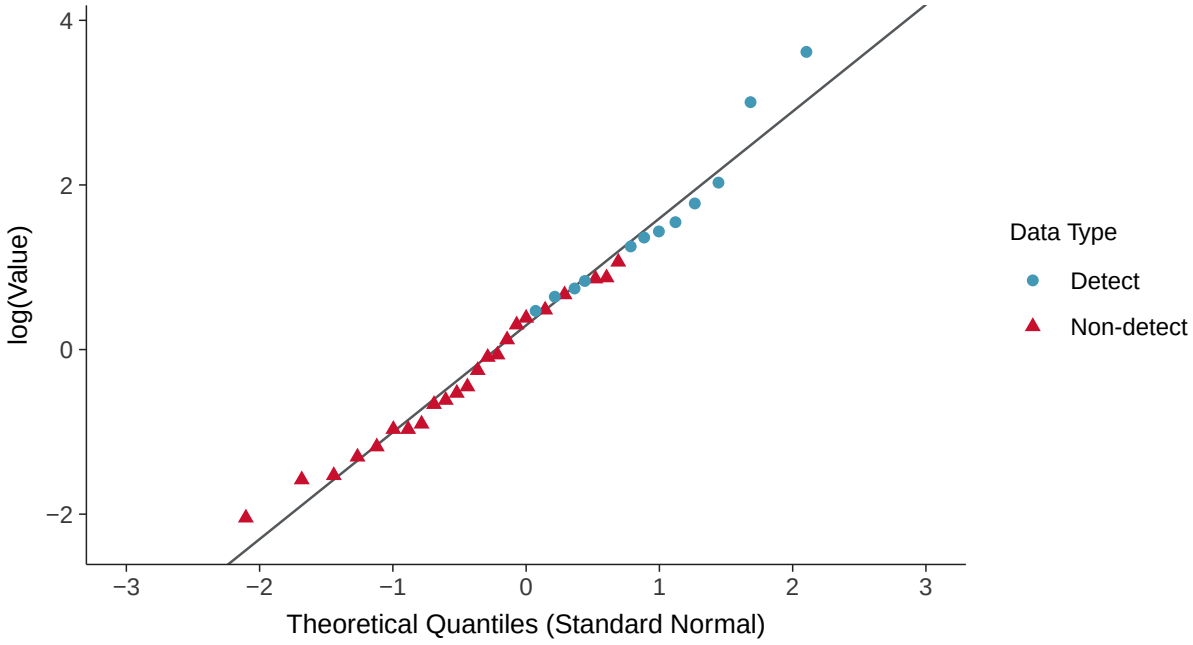
Boxplot by Season

Vanadium, MW-2 (ug/L)



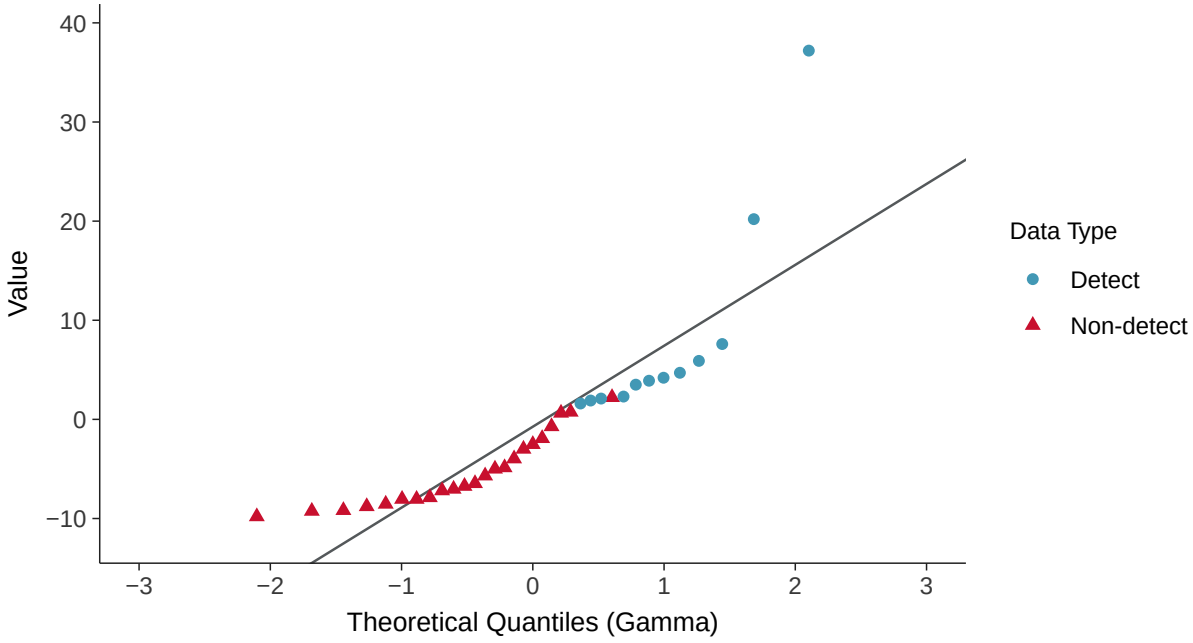
Lognormal Q-Q plot using ROS Imputed Estimates

Vanadium, MW-2 (ug/L)



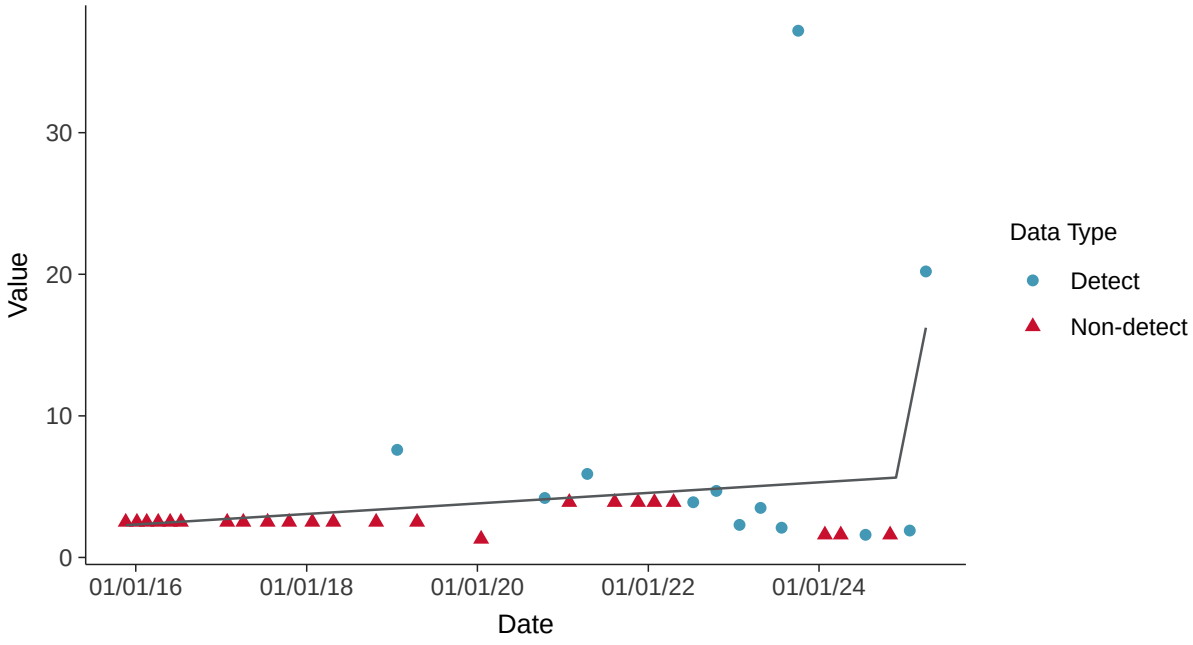
Gamma Q-Q plot using ROS Imputed Estimates

Vanadium, MW-2 (ug/L)



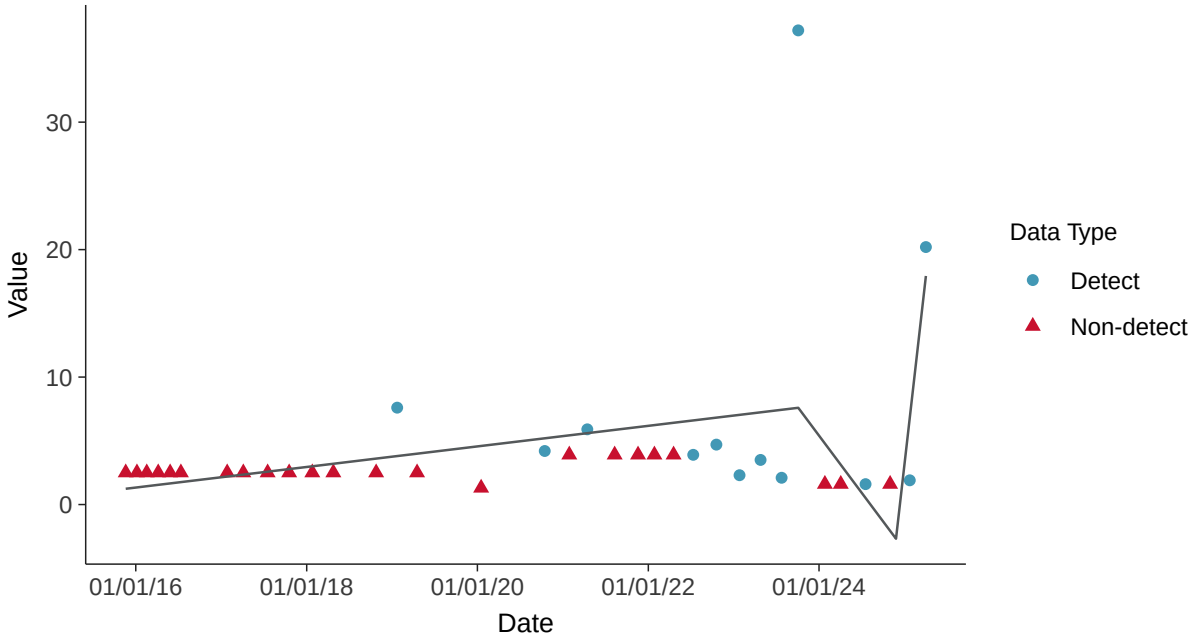
Trend Regression: Piecewise Linear-Linear

Vanadium, MW-2 (ug/L)



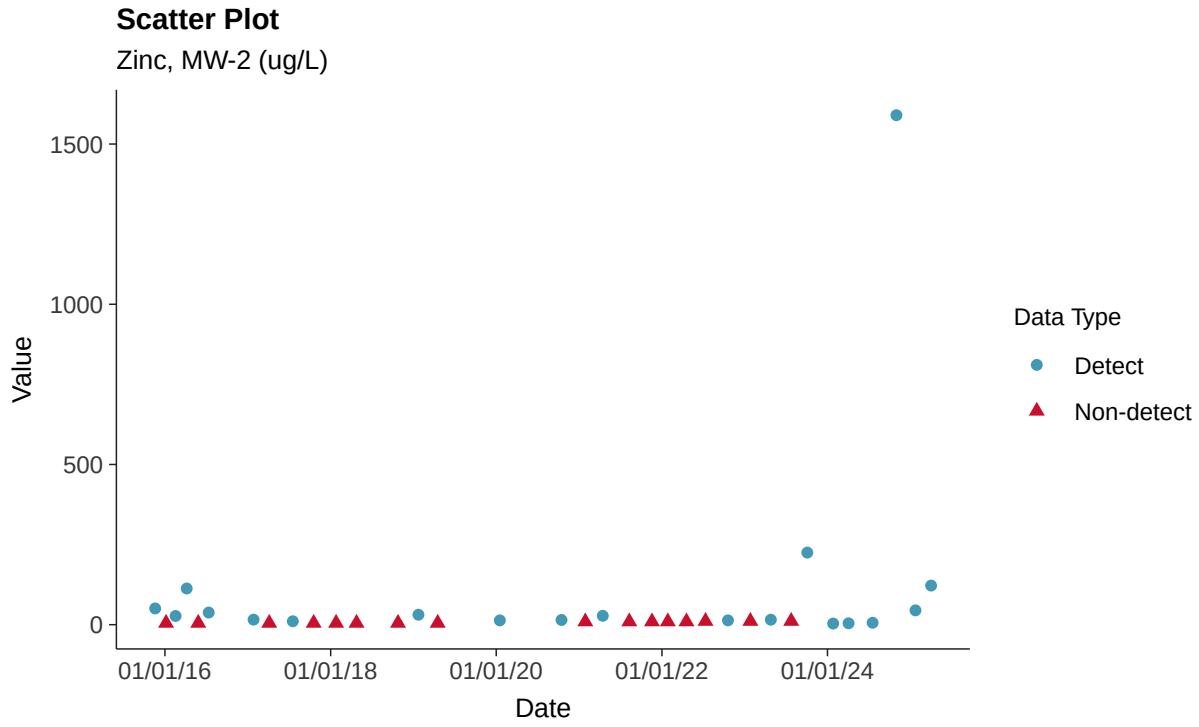
Trend Regression: Piecewise Linear-Linear-Linear

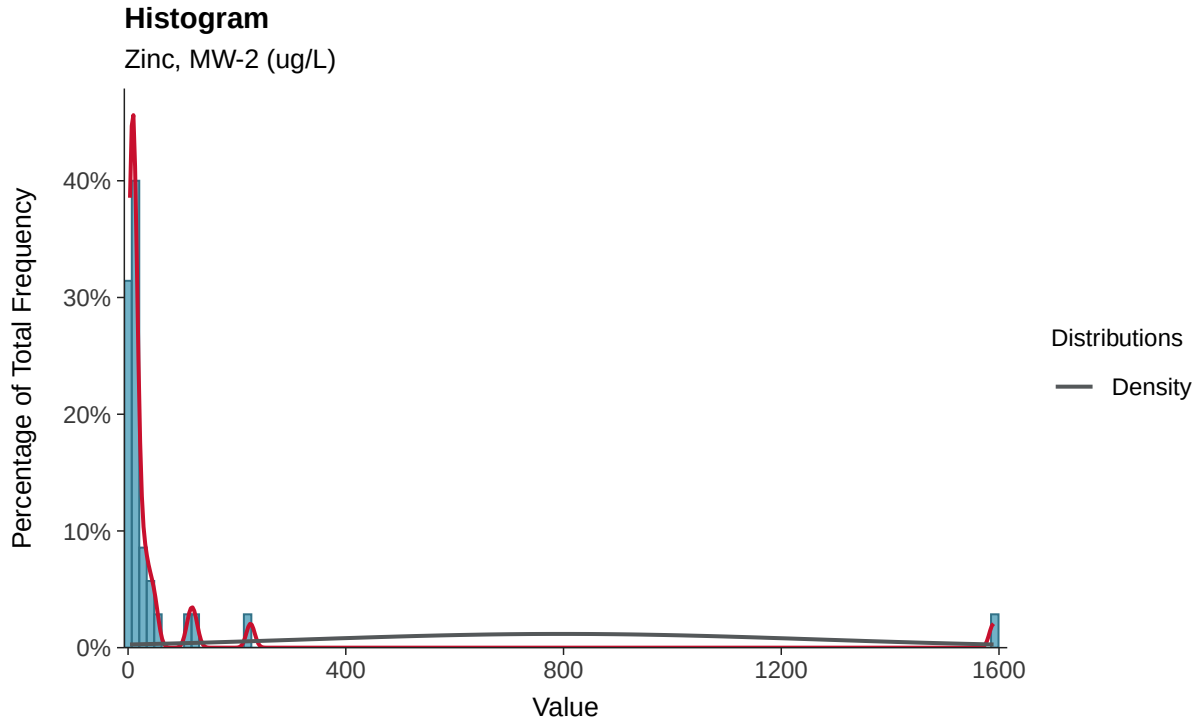
Vanadium, MW-2 (ug/L)



App. I Metals: Zinc, MW-2

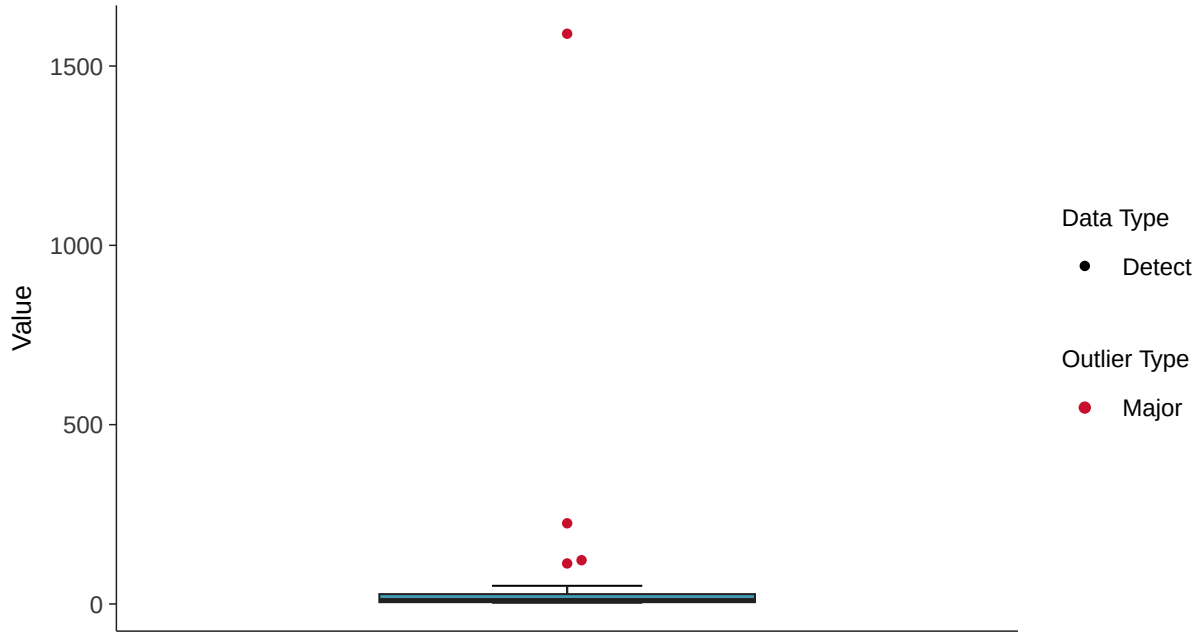
ID: 02_01_128





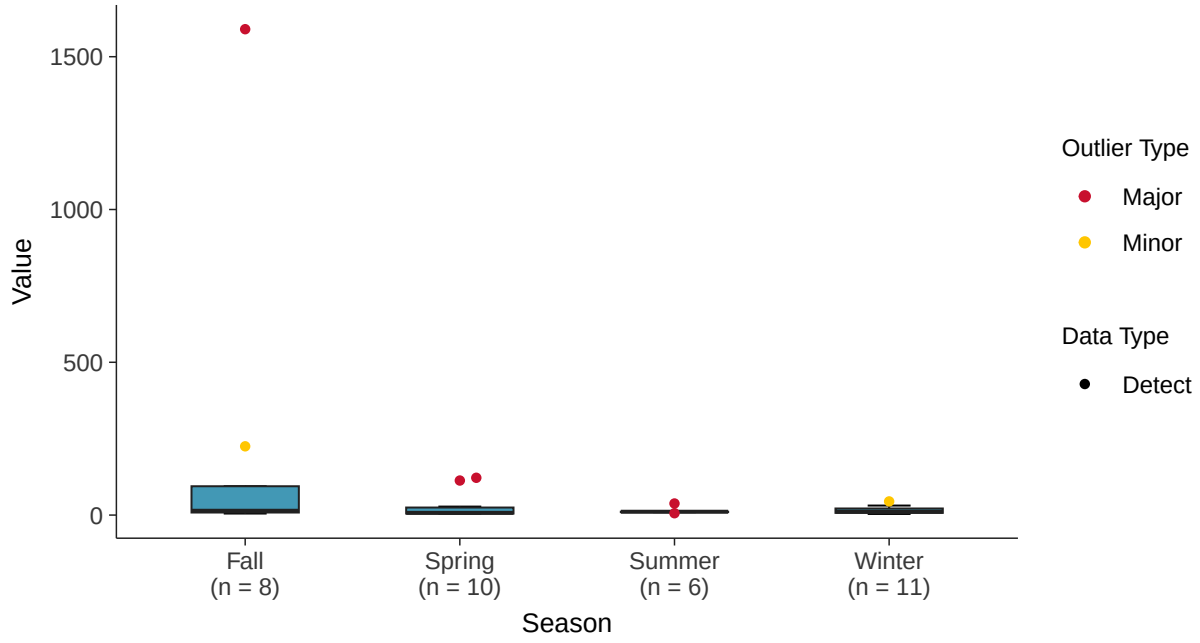
Boxplot

Zinc, MW-2 (ug/L)



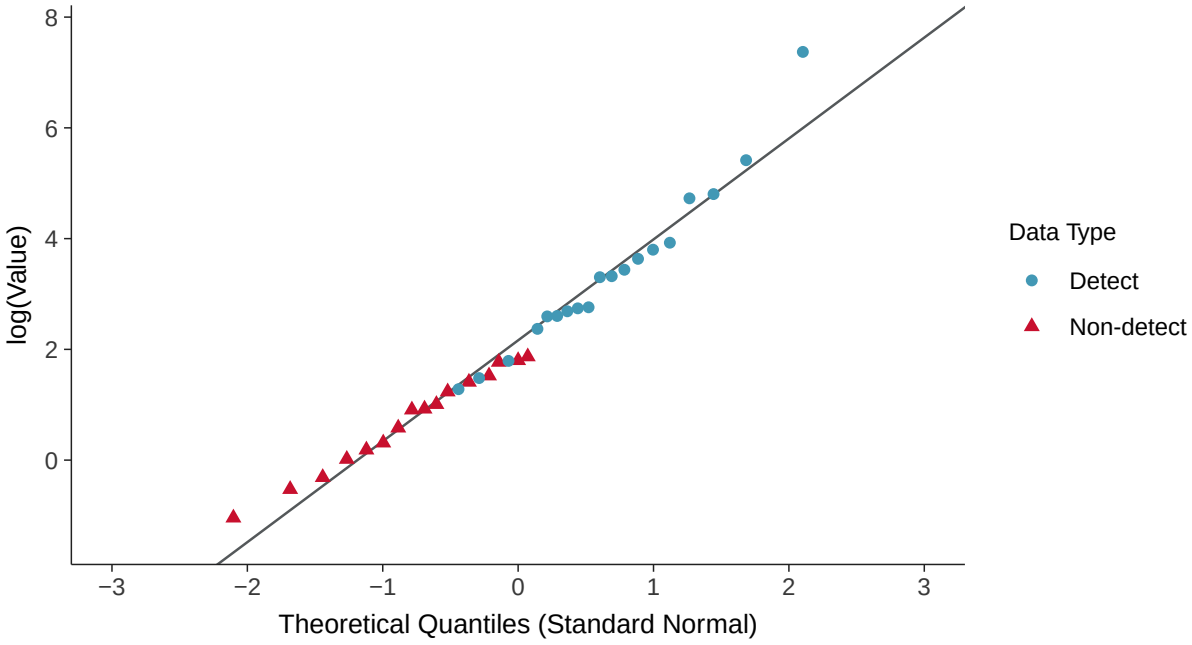
Boxplot by Season

Zinc, MW-2 (ug/L)



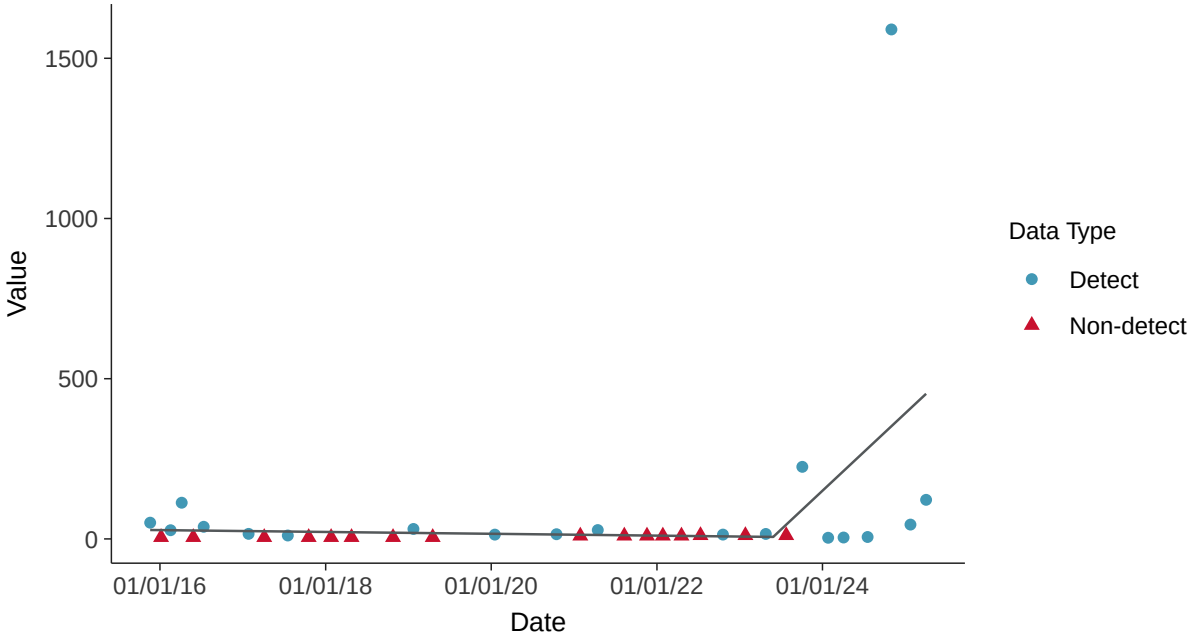
Lognormal Q-Q plot using ROS Imputed Estimates

Zinc, MW-2 (ug/L)



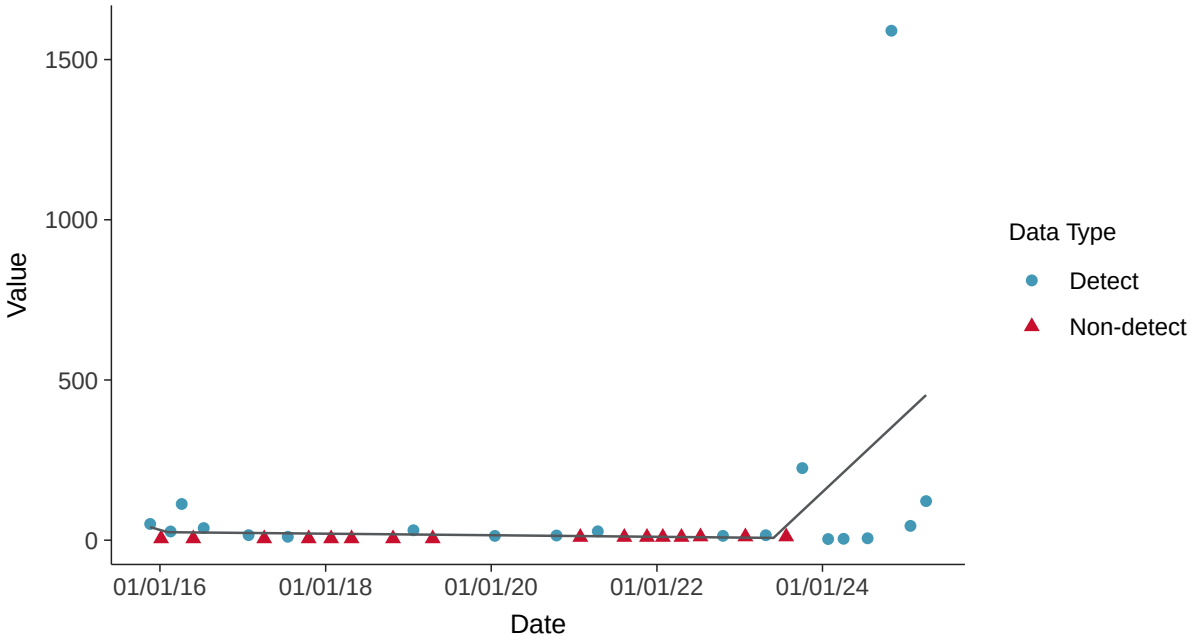
Trend Regression: Piecewise Linear-Linear

Zinc, MW-2 (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Zinc, MW-2 (ug/L)

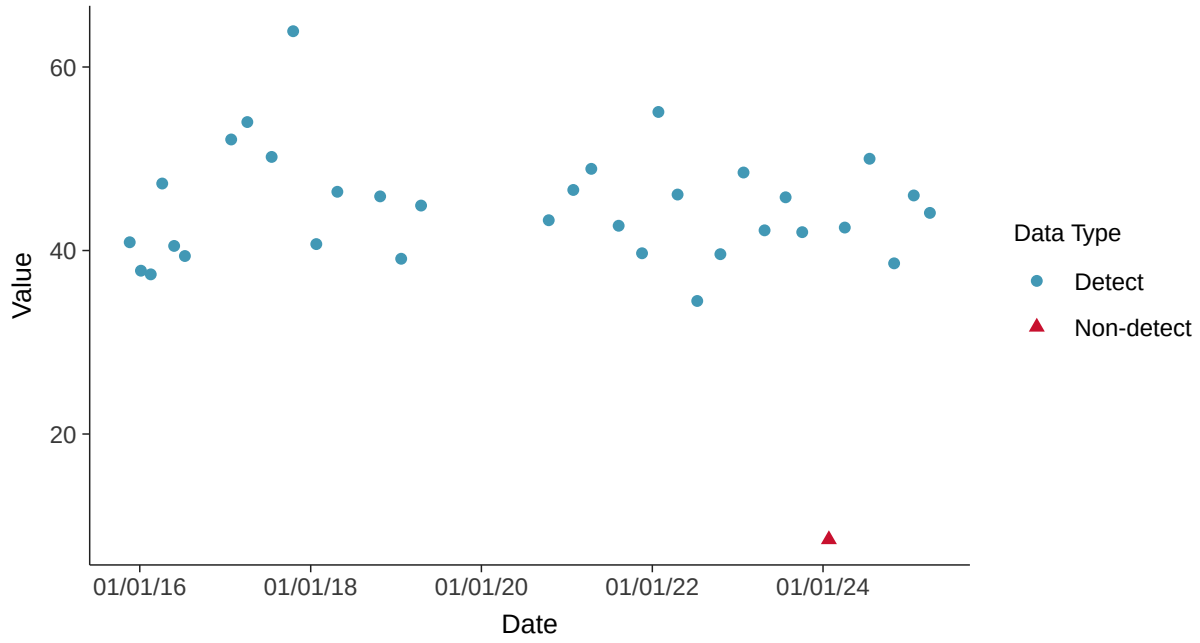


App. III: Boron, MW-2

ID: 02_02_105

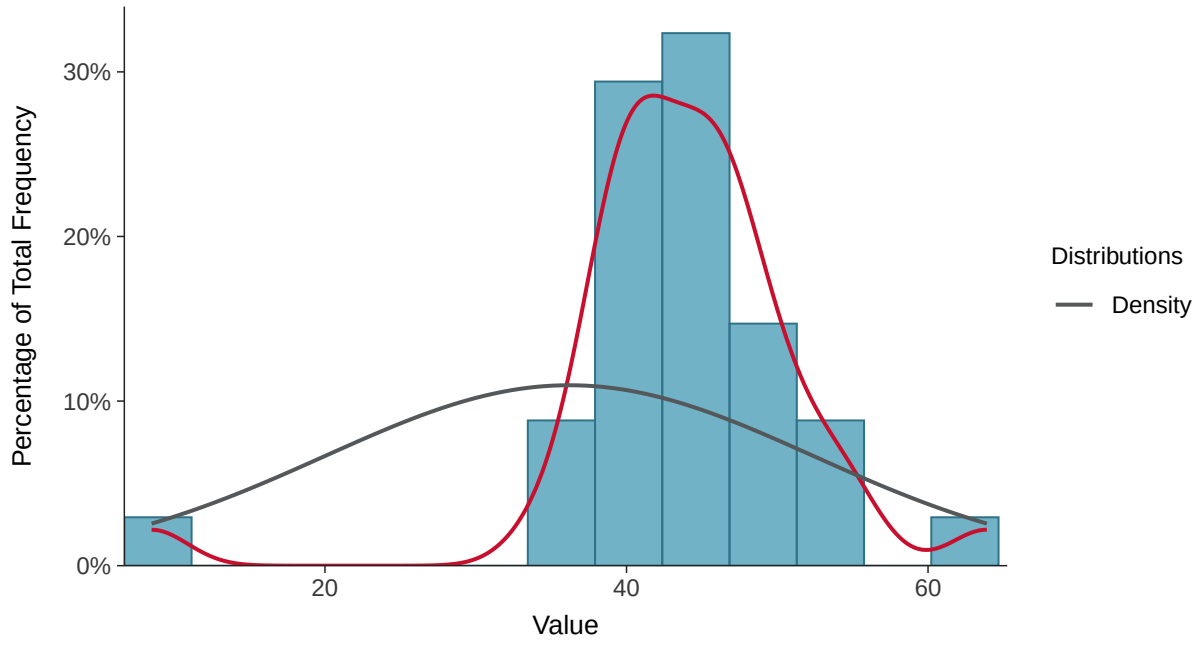
Scatter Plot

Boron, MW-2 (ug/L)



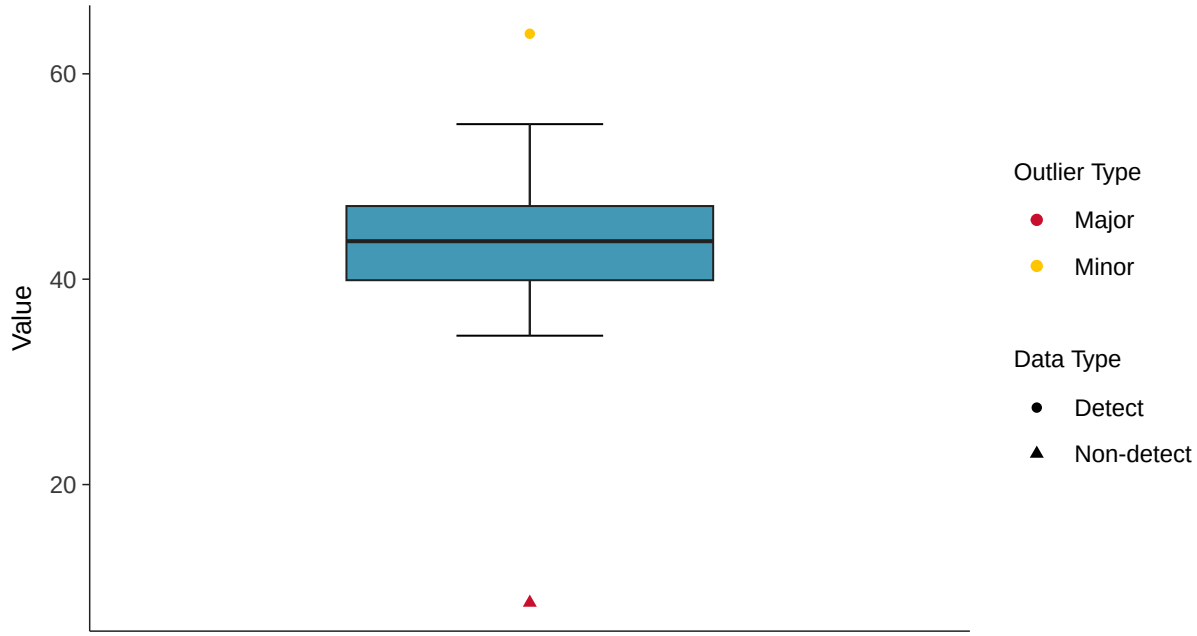
Histogram

Boron, MW-2 (ug/L)



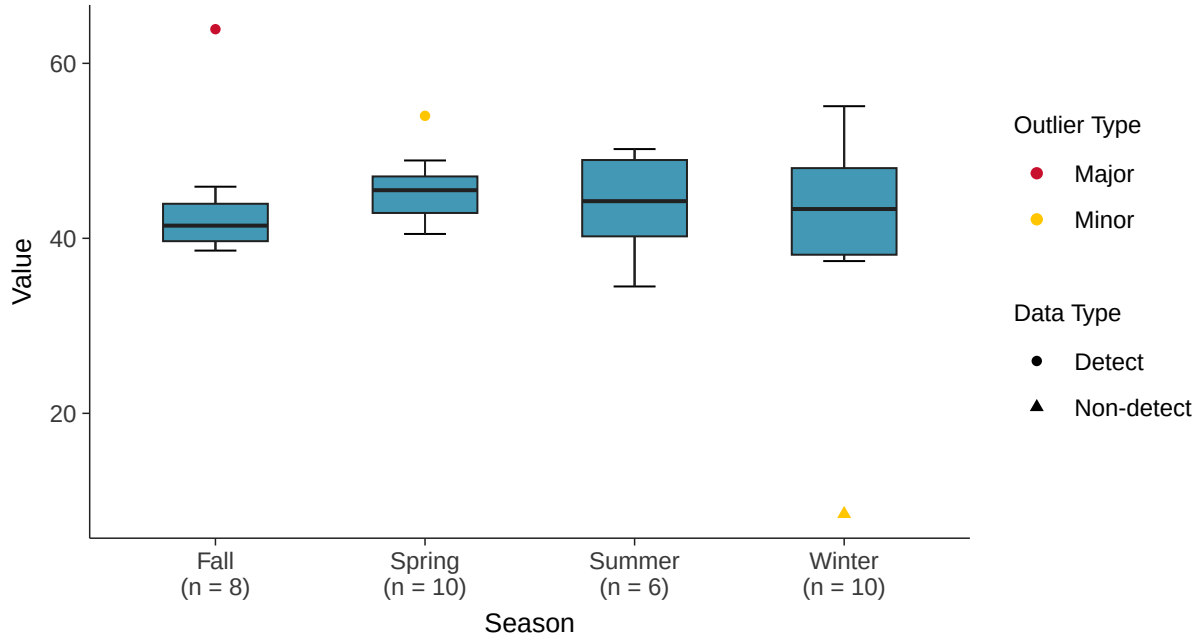
Boxplot

Boron, MW-2 (ug/L)



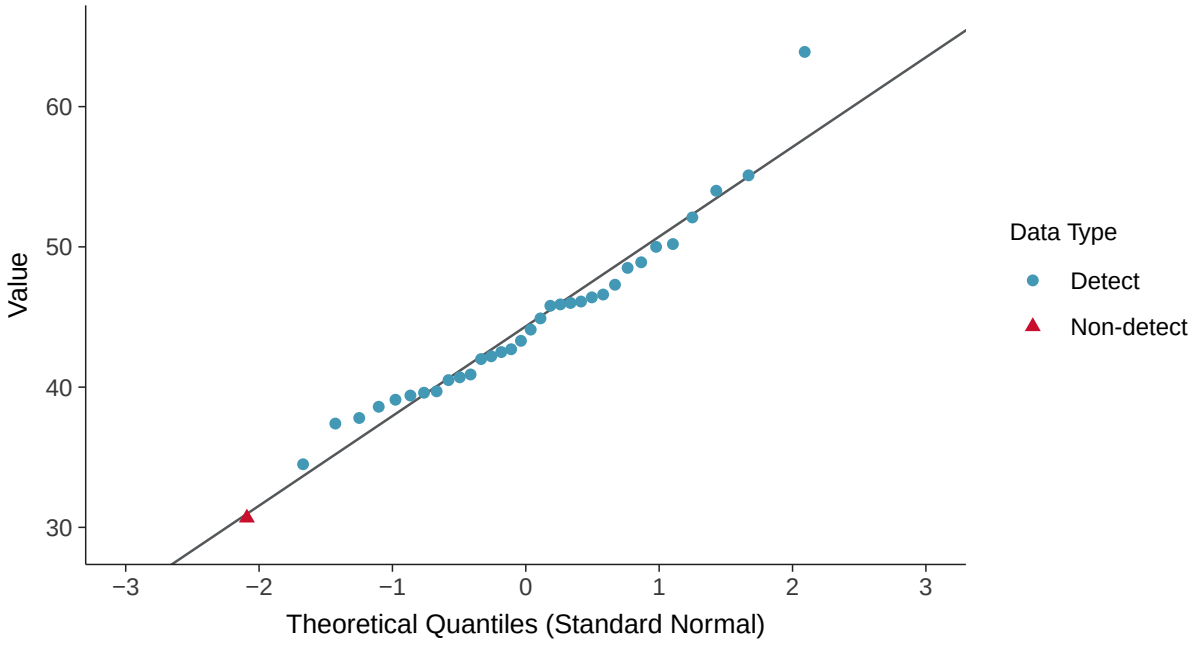
Boxplot by Season

Boron, MW-2 (ug/L)



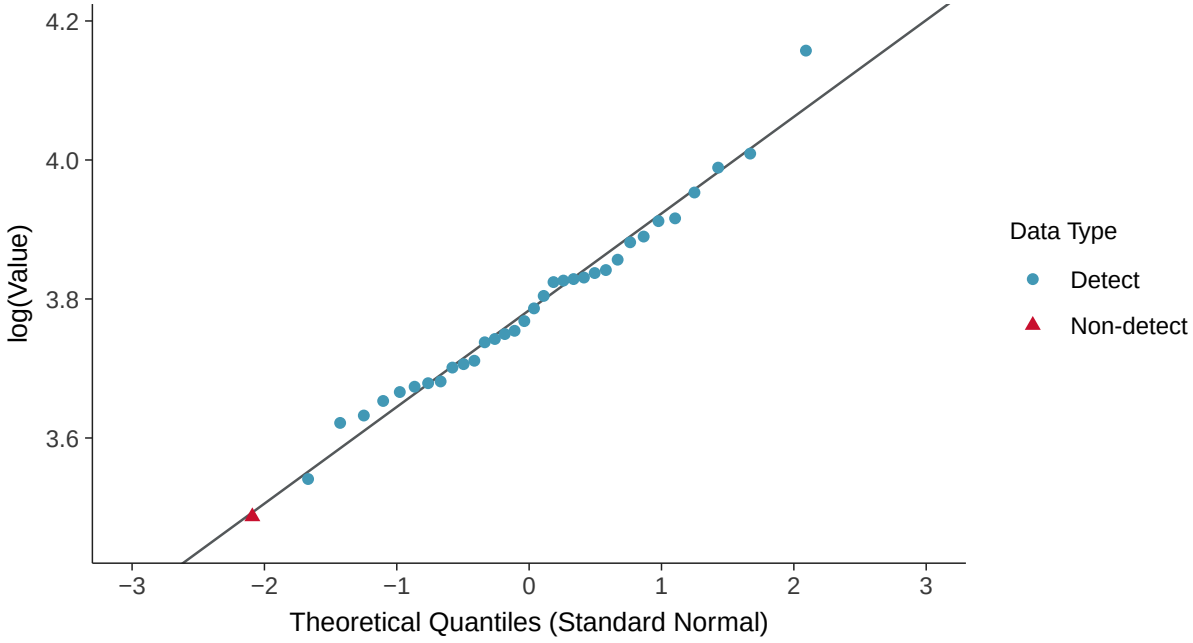
Normal Q-Q plot using ROS Imputed Estimates

Boron, MW-2 (ug/L)



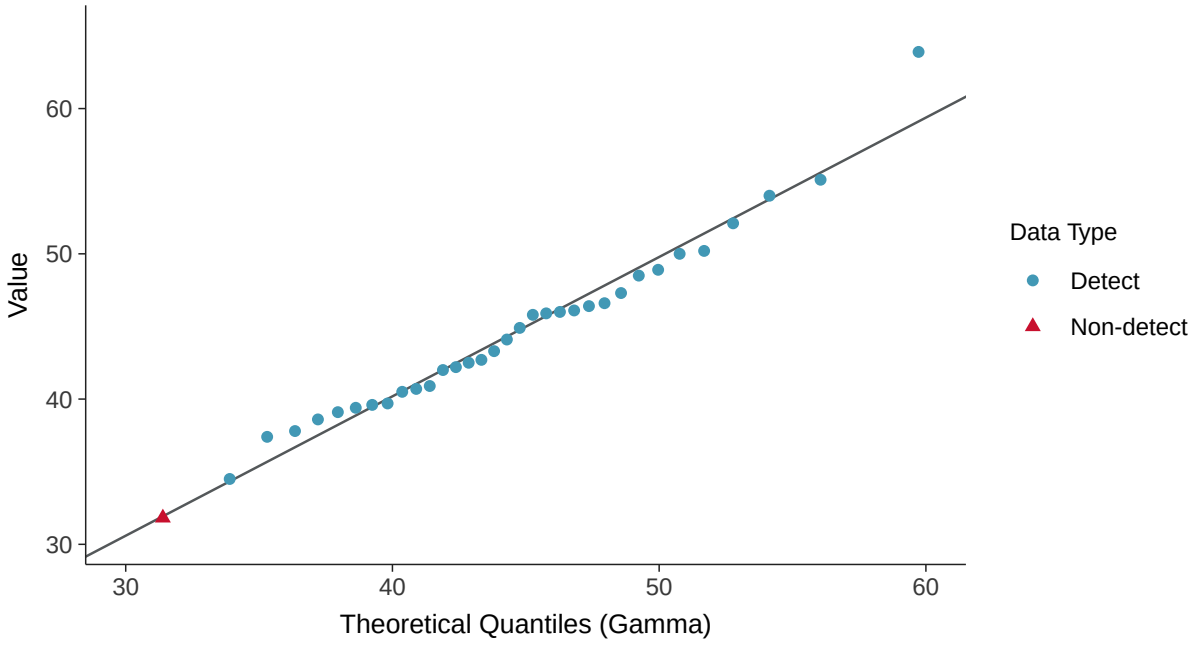
Lognormal Q-Q plot using ROS Imputed Estimates

Boron, MW-2 (ug/L)



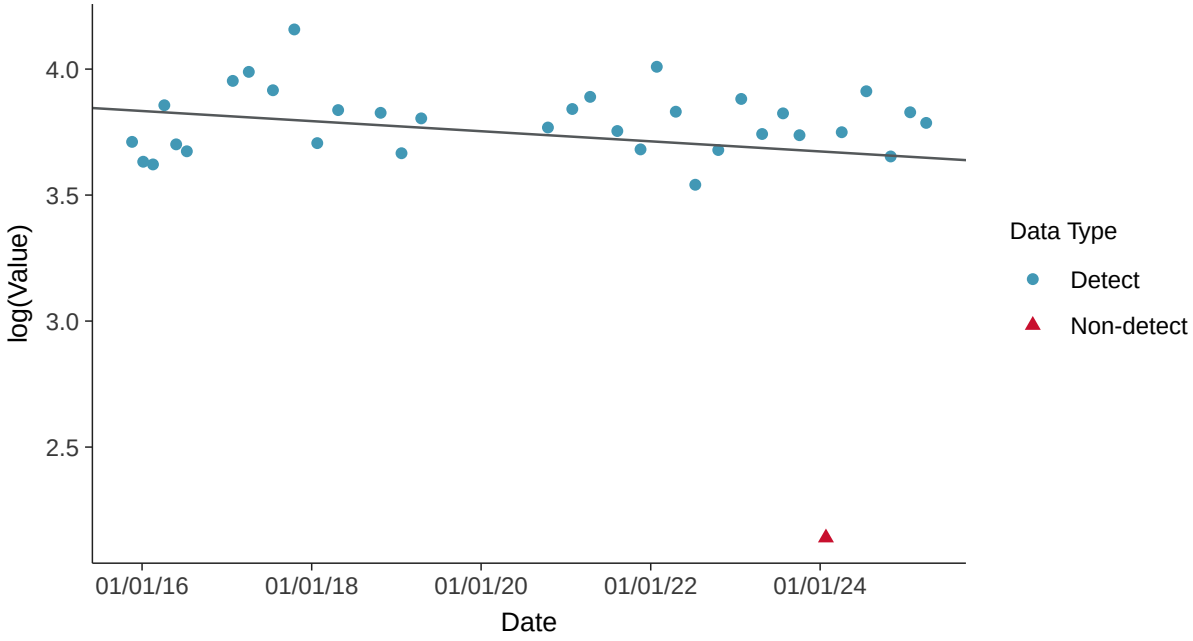
Gamma Q-Q plot using ROS Imputed Estimates

Boron, MW-2 (ug/L)



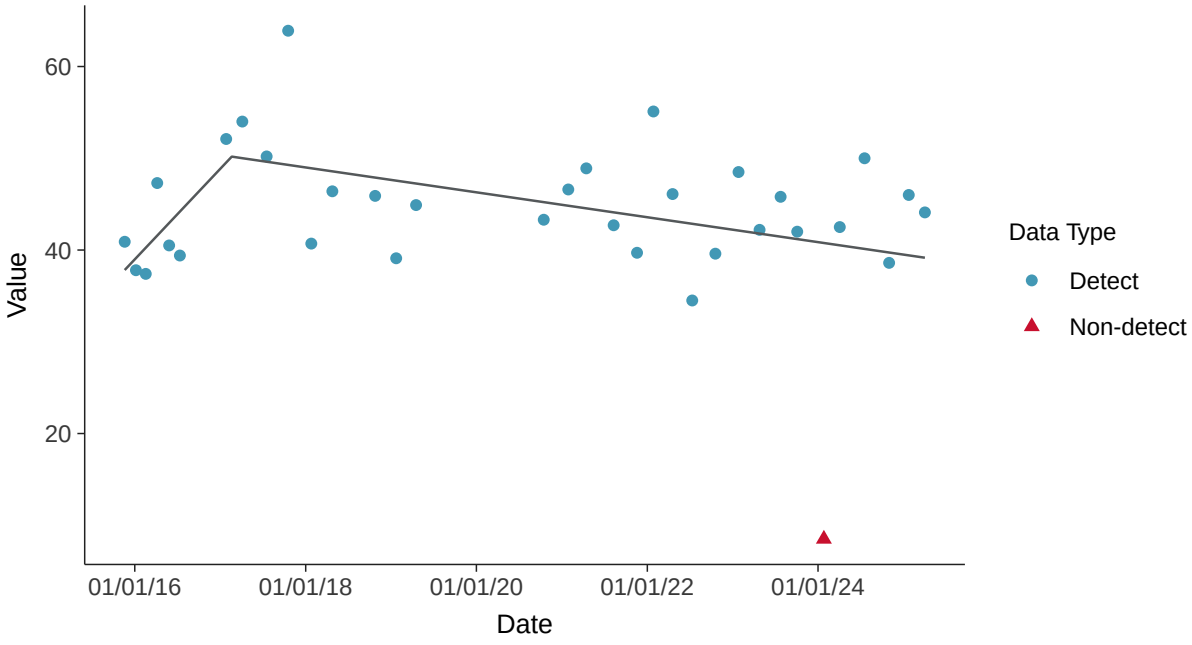
Trend Regression: Lognormal MLE

Boron, MW-2 (ug/L)



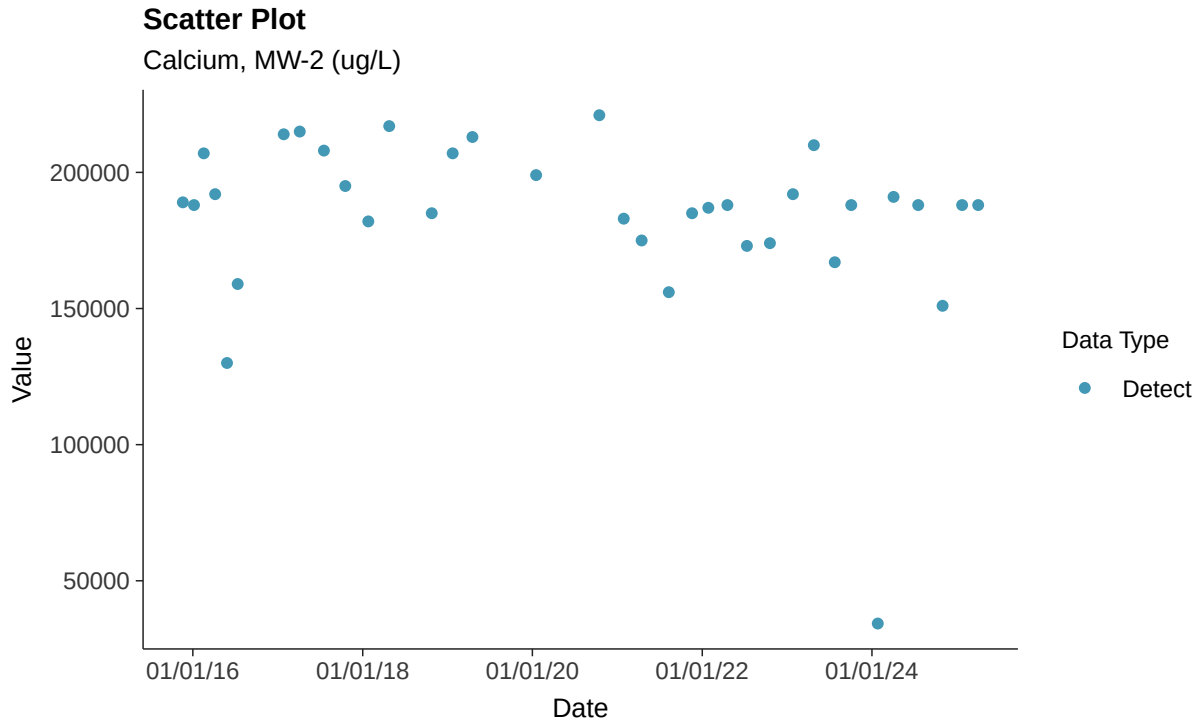
Trend Regression: Piecewise Linear-Linear

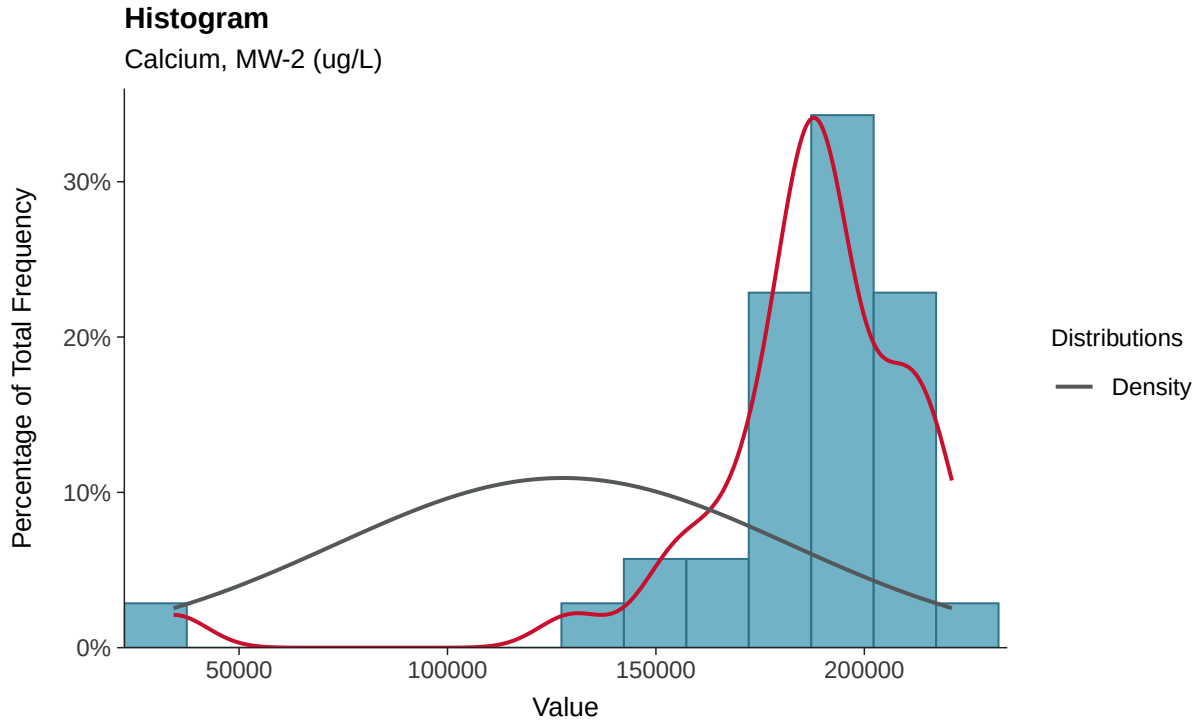
Boron, MW-2 (ug/L)



App. III: Calcium, MW-2

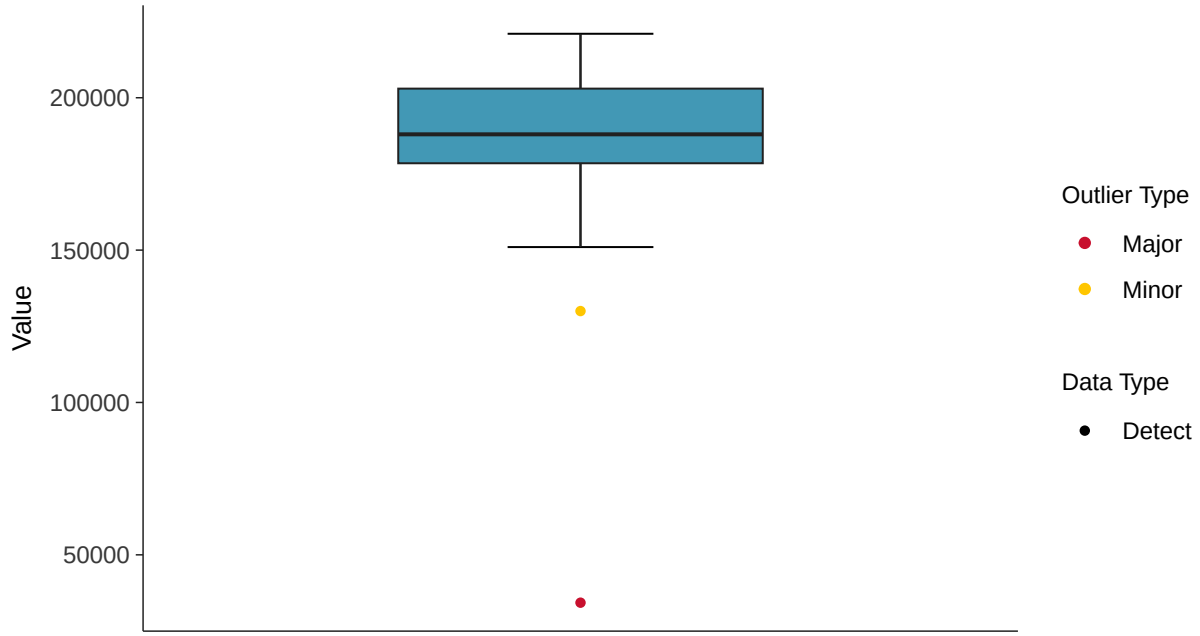
ID: 02_02_107





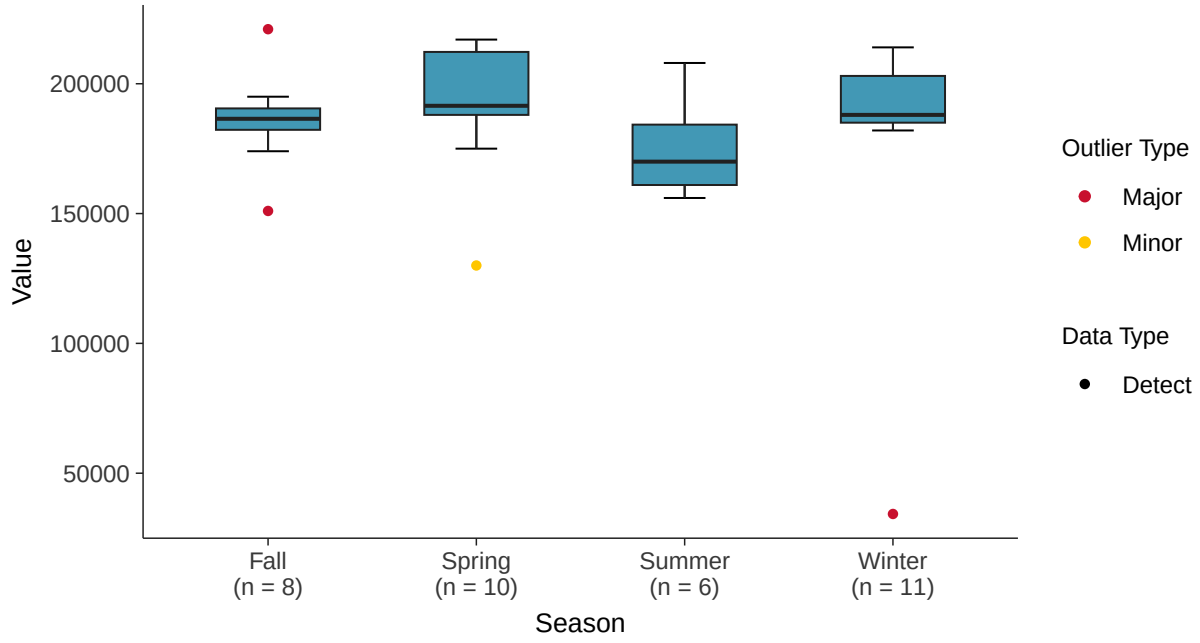
Boxplot

Calcium, MW-2 (ug/L)



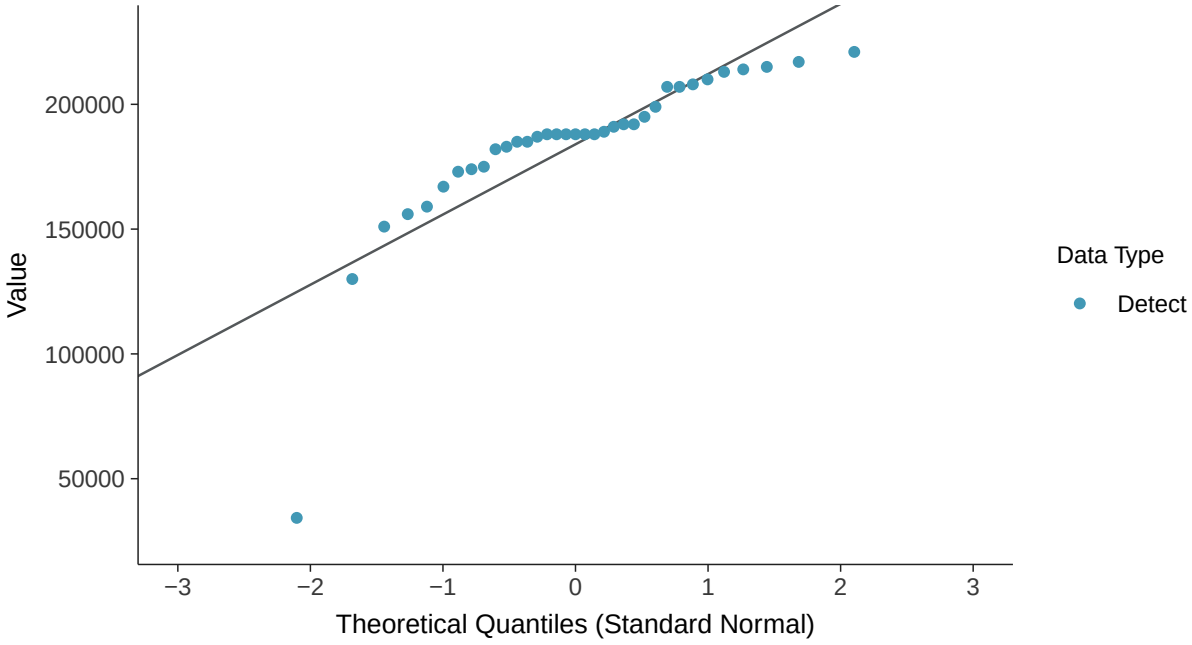
Boxplot by Season

Calcium, MW-2 (ug/L)



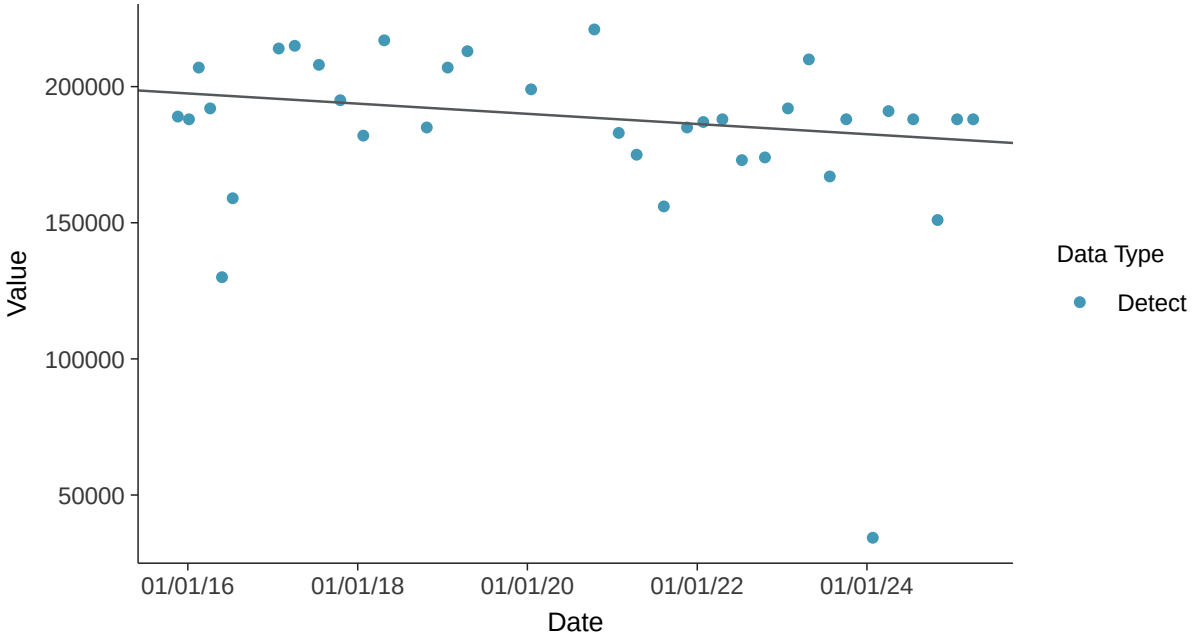
Normal Q-Q plot

Calcium, MW-2 (ug/L)



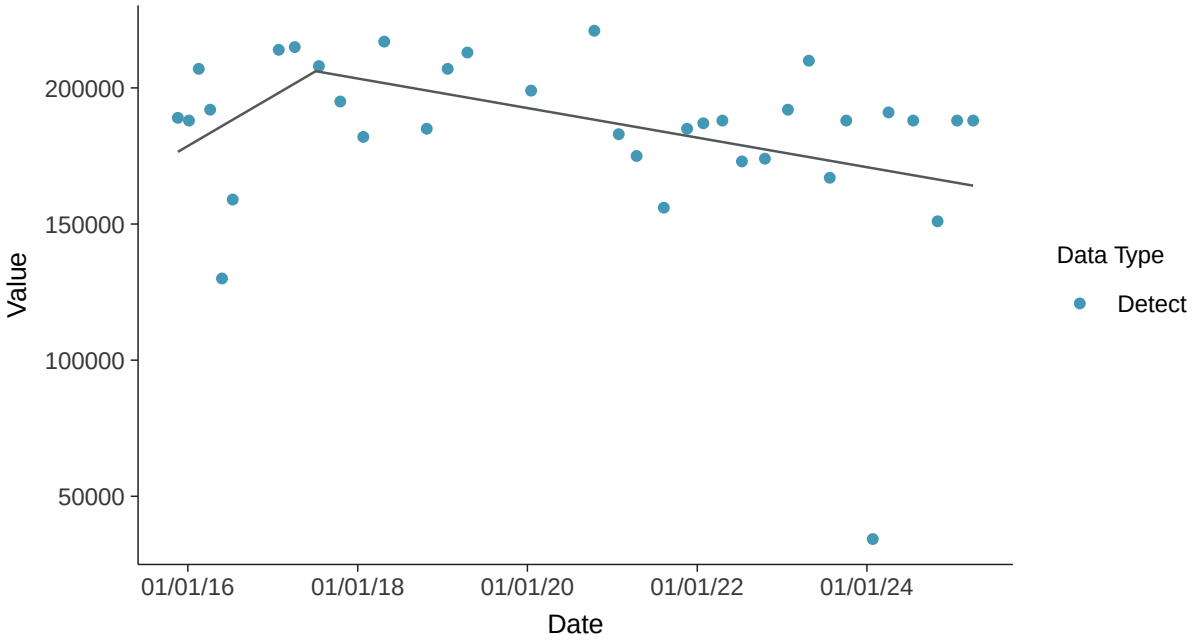
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Calcium, MW-2 (ug/L)



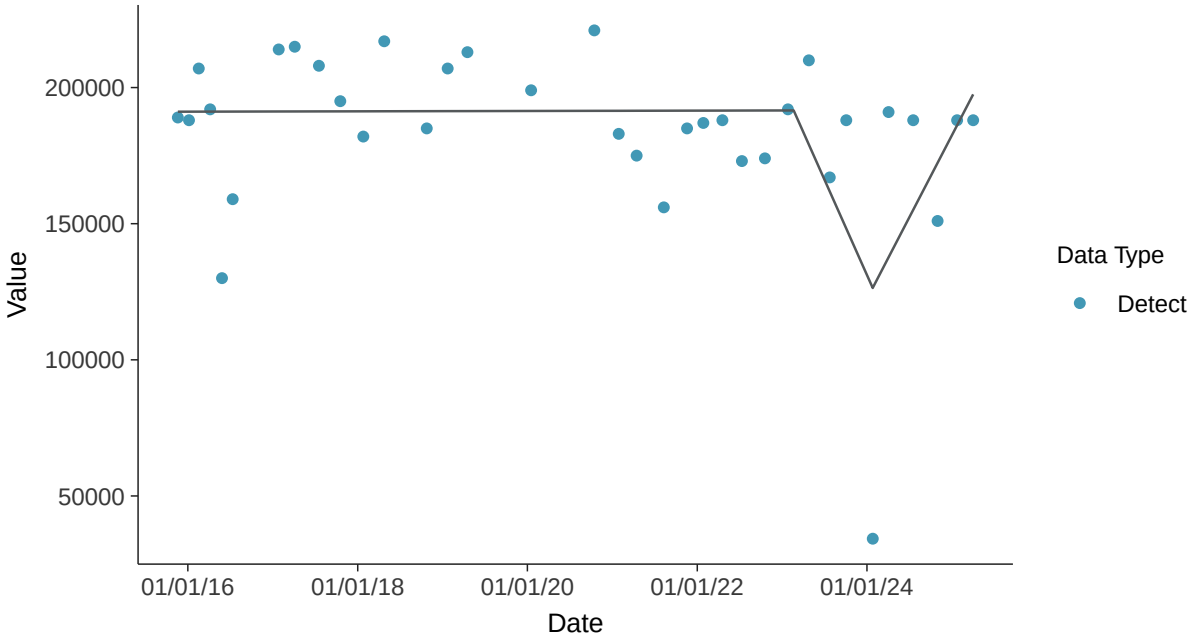
Trend Regression: Piecewise Linear-Linear

Calcium, MW-2 (ug/L)



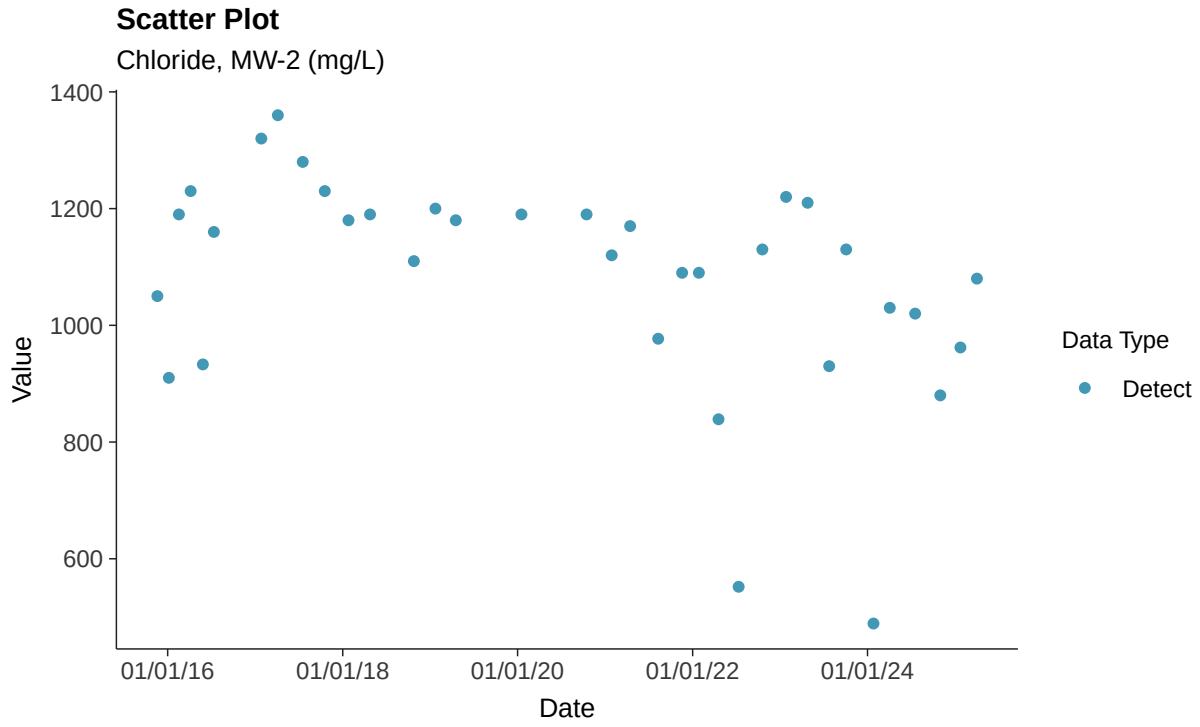
Trend Regression: Piecewise Linear-Linear-Linear

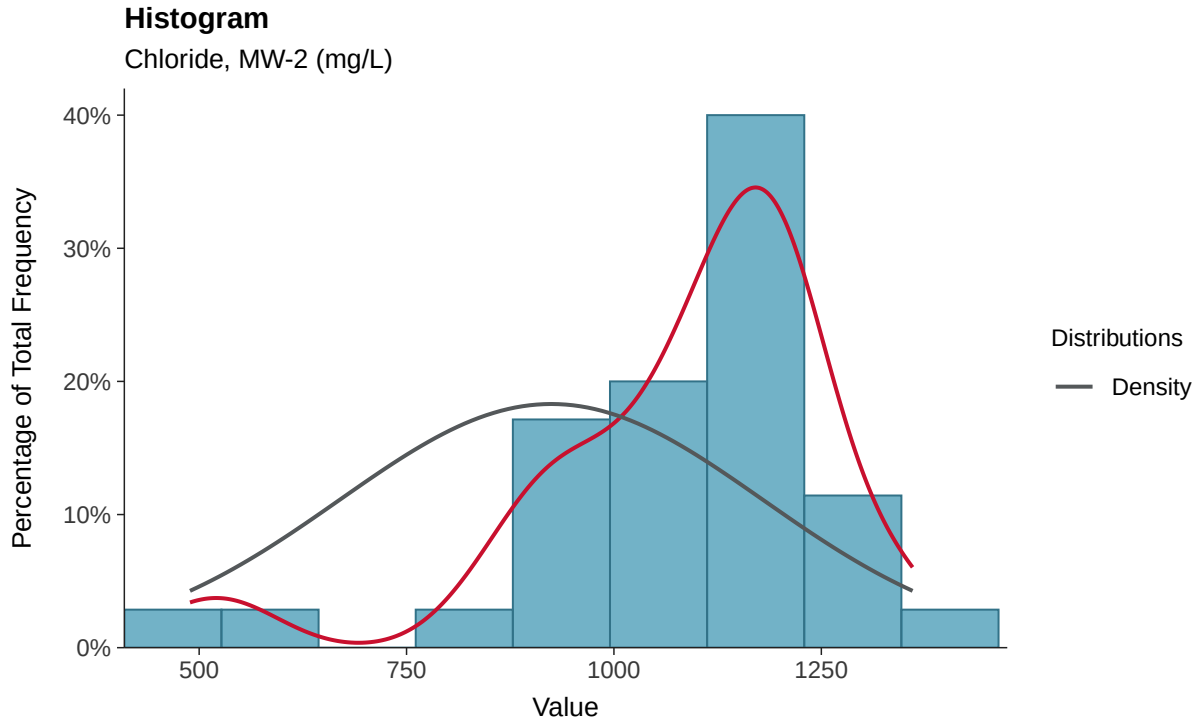
Calcium, MW-2 (ug/L)



App. III: Chloride, MW-2

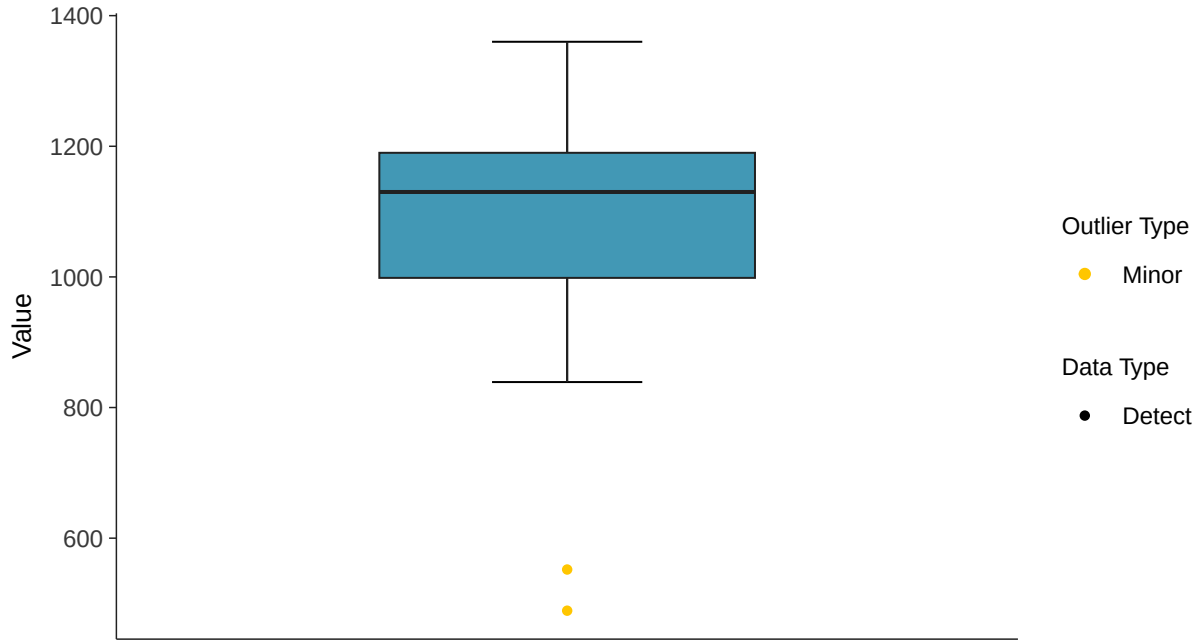
ID: 02_02_108





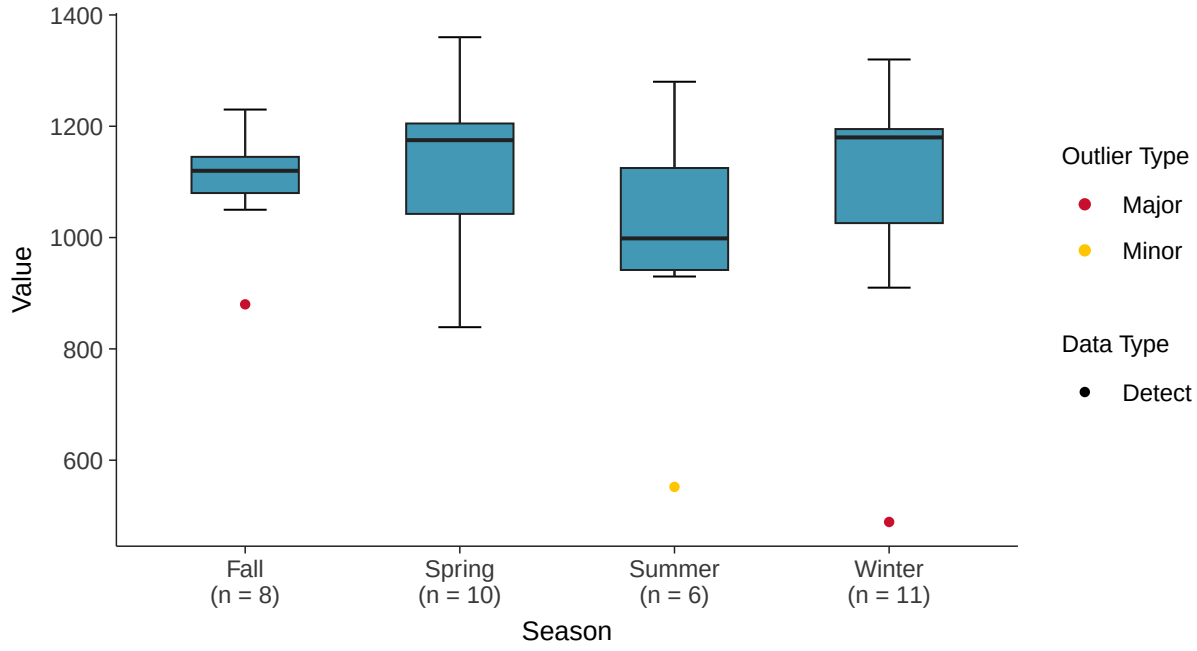
Boxplot

Chloride, MW-2 (mg/L)



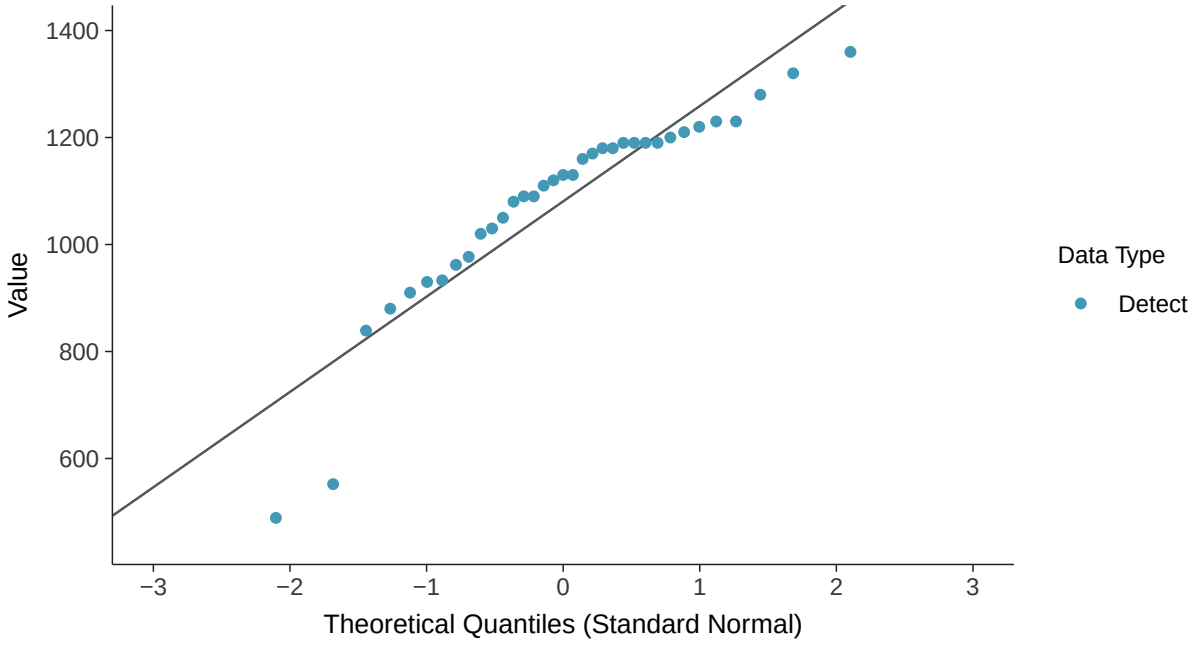
Boxplot by Season

Chloride, MW-2 (mg/L)



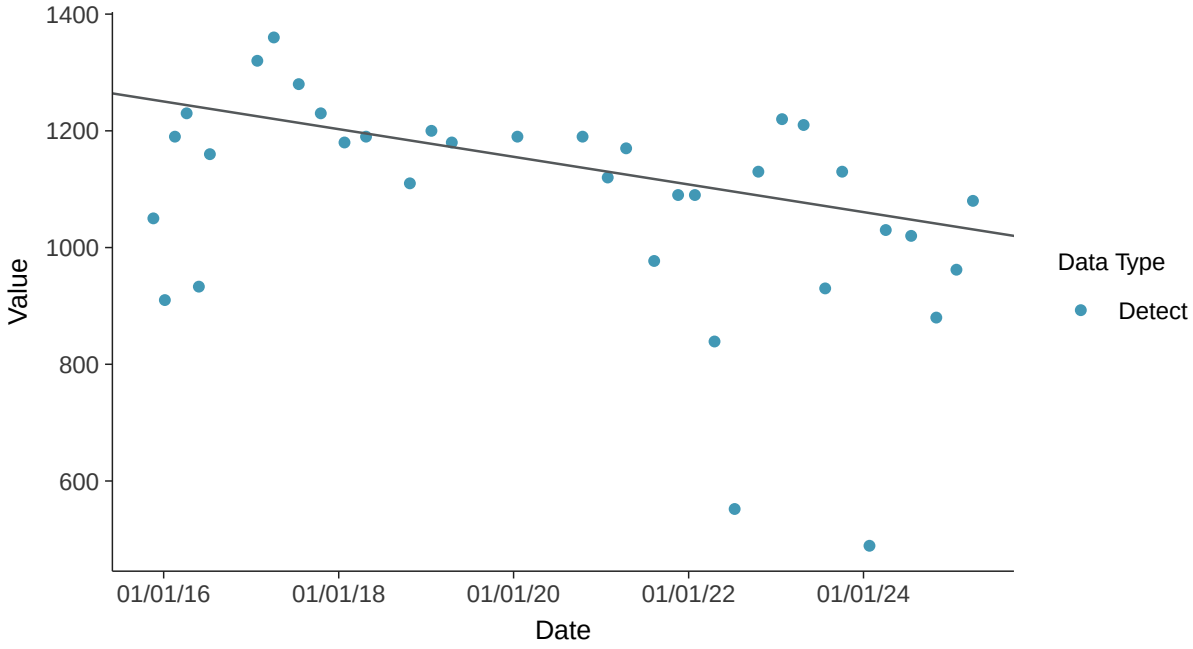
Normal Q-Q plot

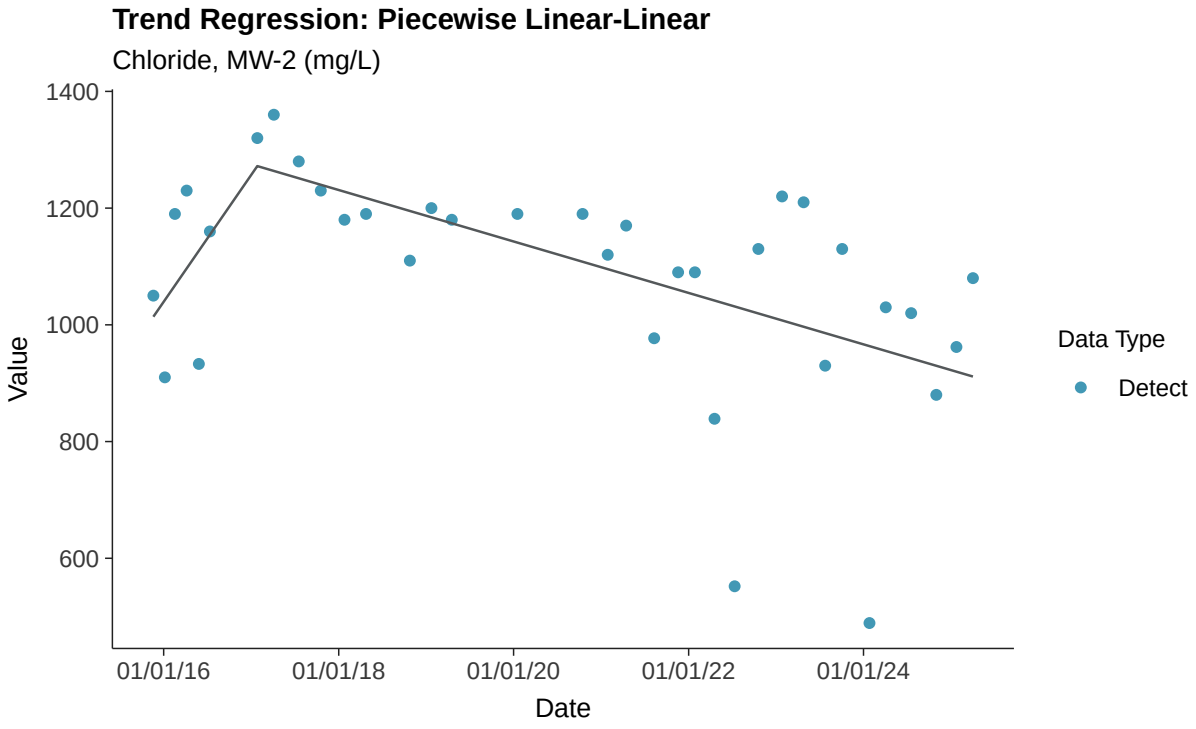
Chloride, MW-2 (mg/L)

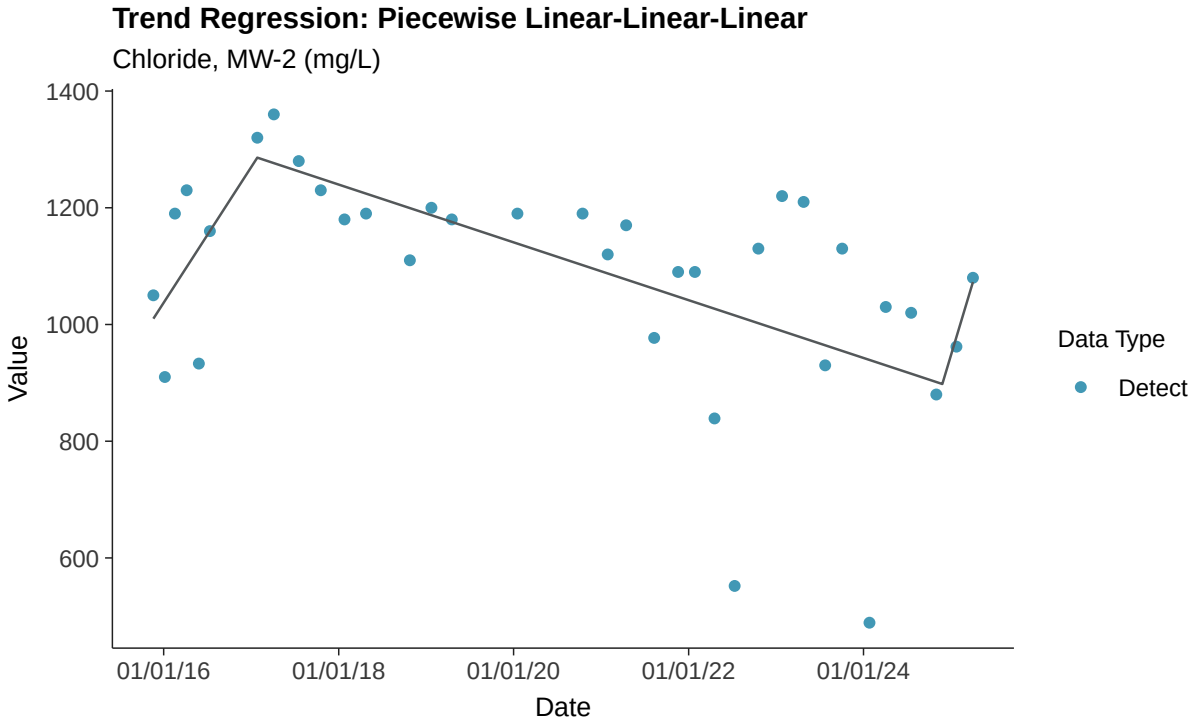


Trend Regression: Mann-Kendall/Theil-Sen Estimate

Chloride, MW-2 (mg/L)




Trend Regression: Piecewise Linear-Linear
Chloride, MW-2 (mg/L)
Value
1400
1200
1000
800
600
01/01/16
01/01/18
01/01/20
01/01/22
01/01/24
Date
Data Type
Detect

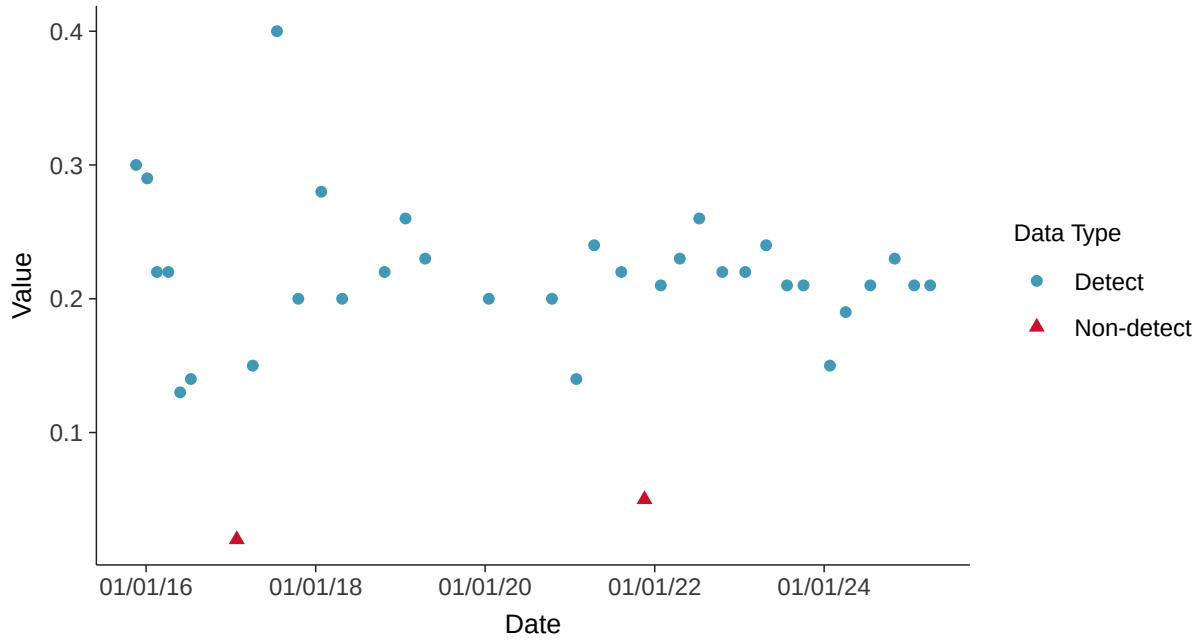

Trend Regression: Piecewise Linear-Linear-Linear
Chloride, MW-2 (mg/L)
Value
1400
1200
1000
800
600
01/01/16
01/01/18
01/01/20
01/01/22
01/01/24
Date
Data Type
Detect

App. III: Fluoride, MW-2

ID: 02_02_112

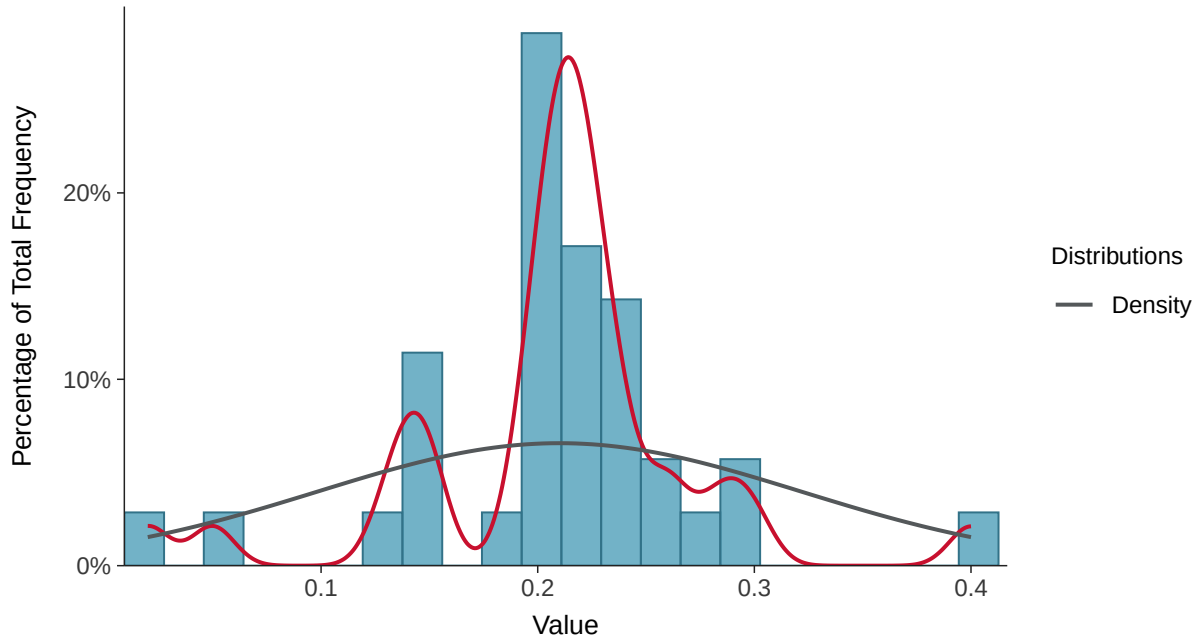
Scatter Plot

Fluoride, MW-2 (mg/L)



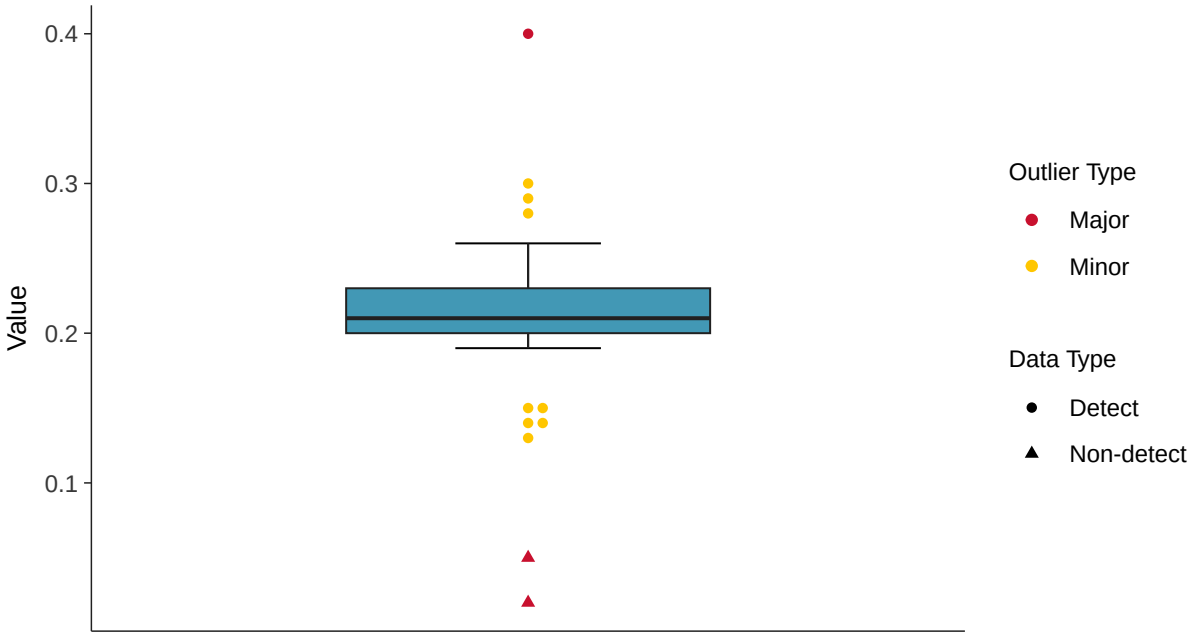
Histogram

Fluoride, MW-2 (mg/L)



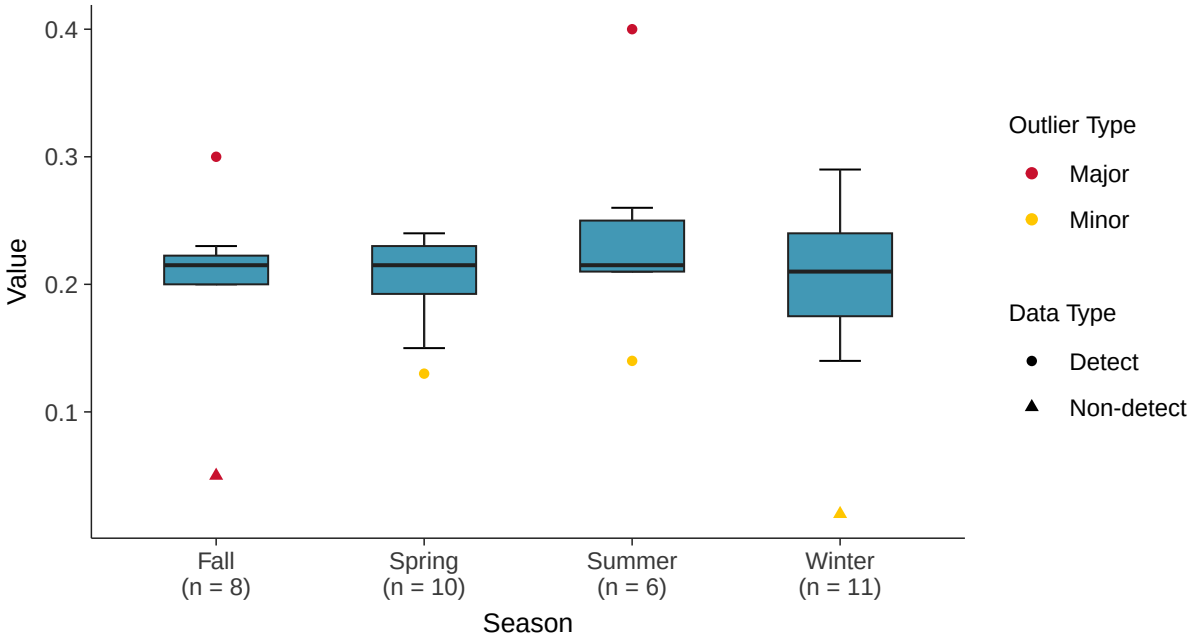
Boxplot

Fluoride, MW-2 (mg/L)



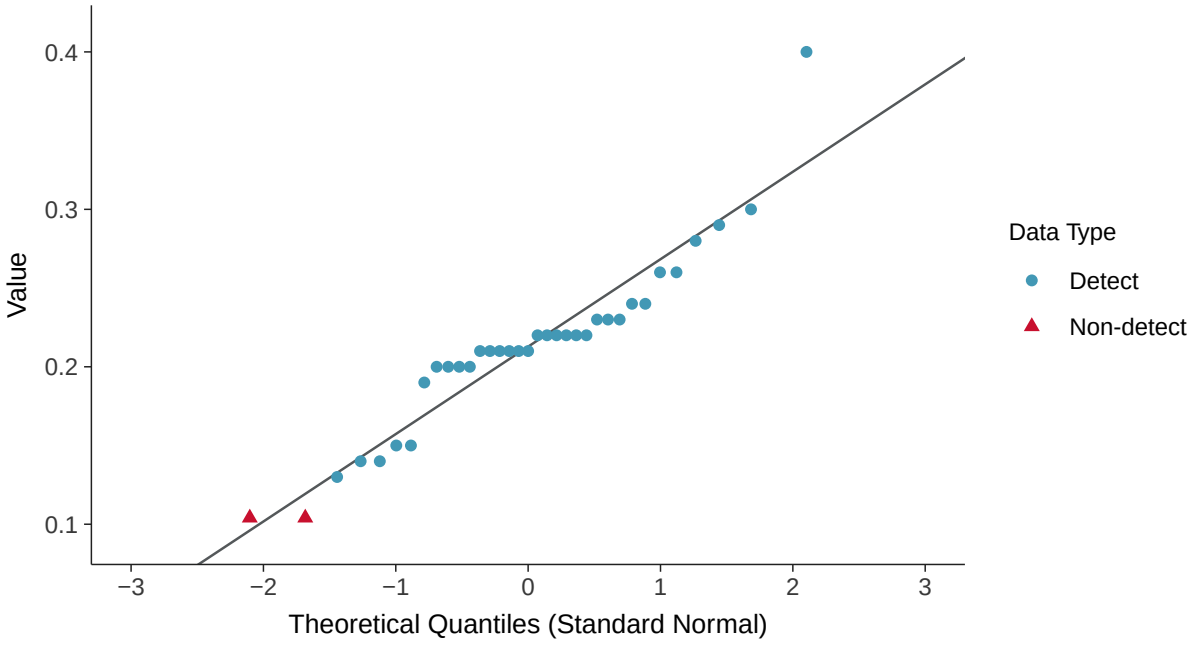
Boxplot by Season

Fluoride, MW-2 (mg/L)



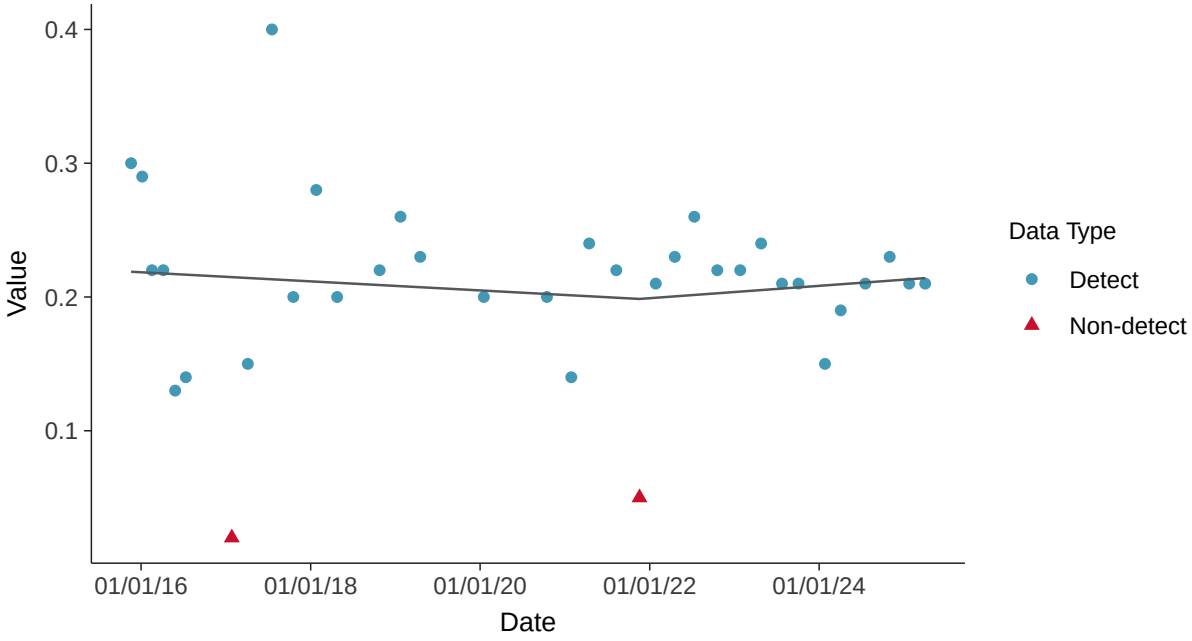
Normal Q-Q plot using ROS Imputed Estimates

Fluoride, MW-2 (mg/L)



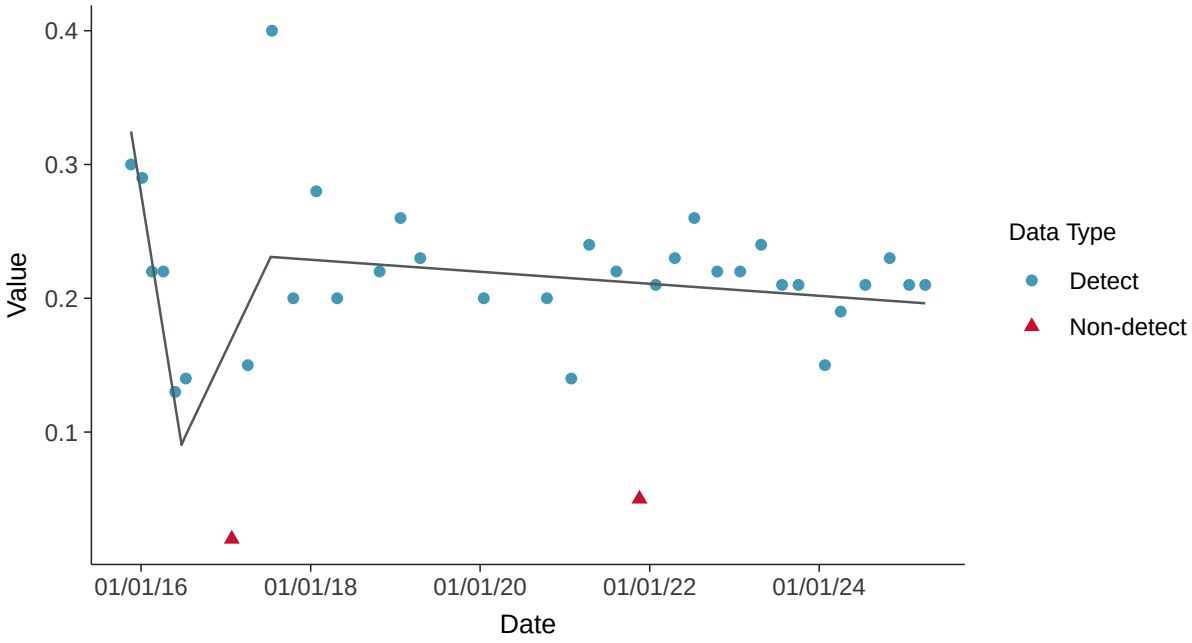
Trend Regression: Piecewise Linear-Linear

Fluoride, MW-2 (mg/L)



Trend Regression: Piecewise Linear-Linear-Linear

Fluoride, MW-2 (mg/L)

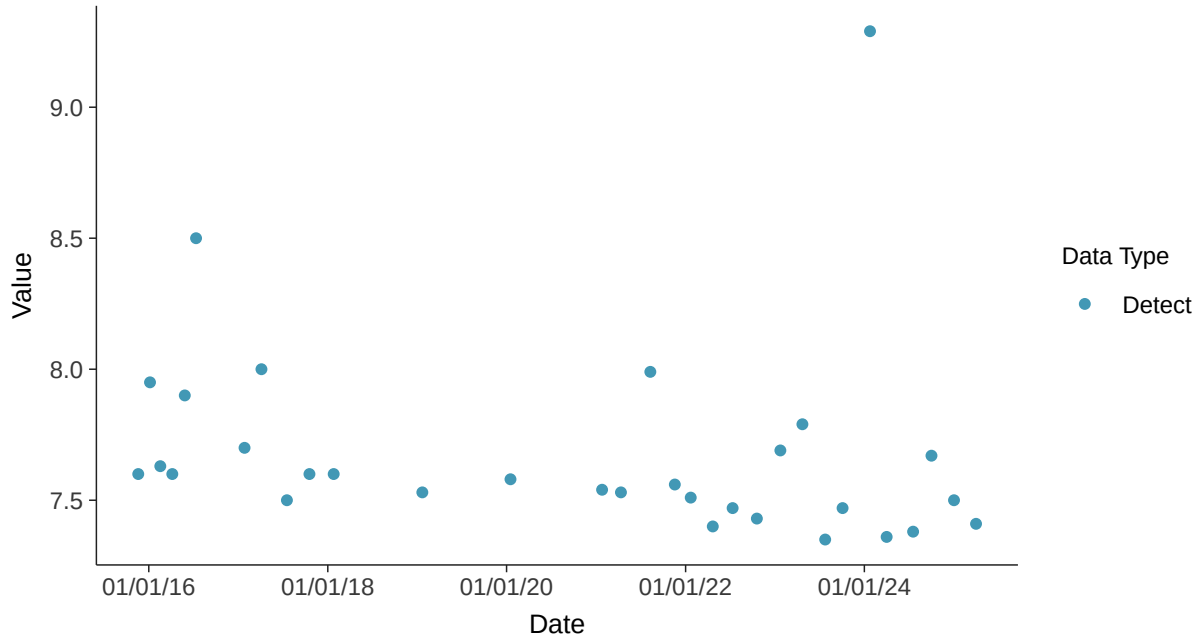


App. III: pH (Field), MW-2

ID: 02_02_118

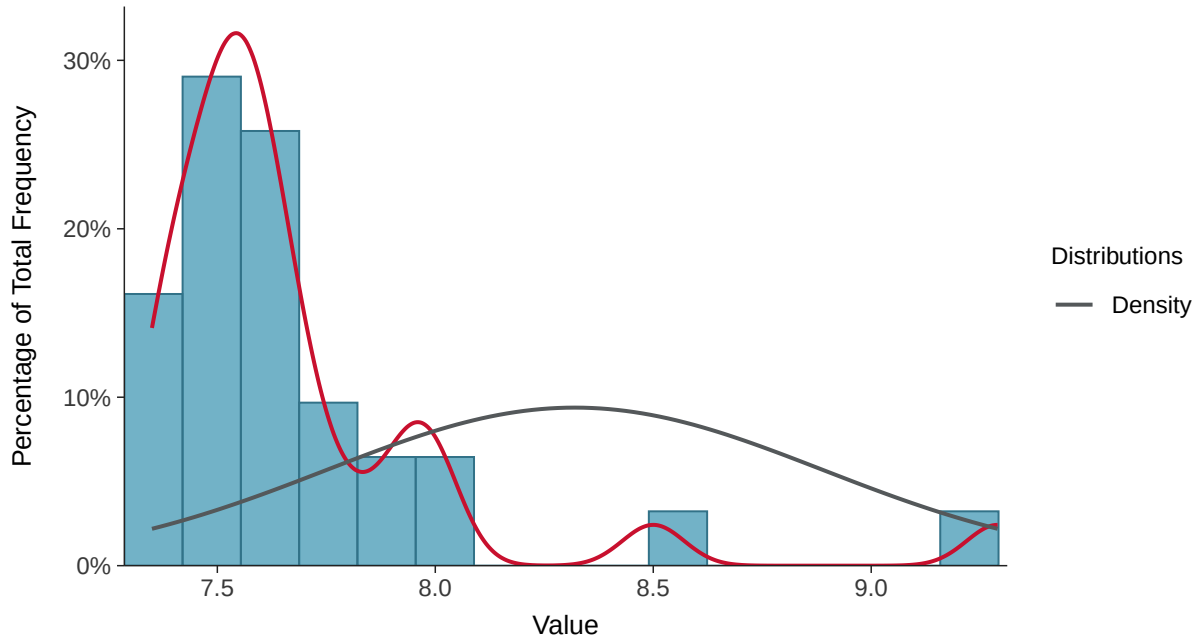
Scatter Plot

pH (Field), MW-2 (S.U.)



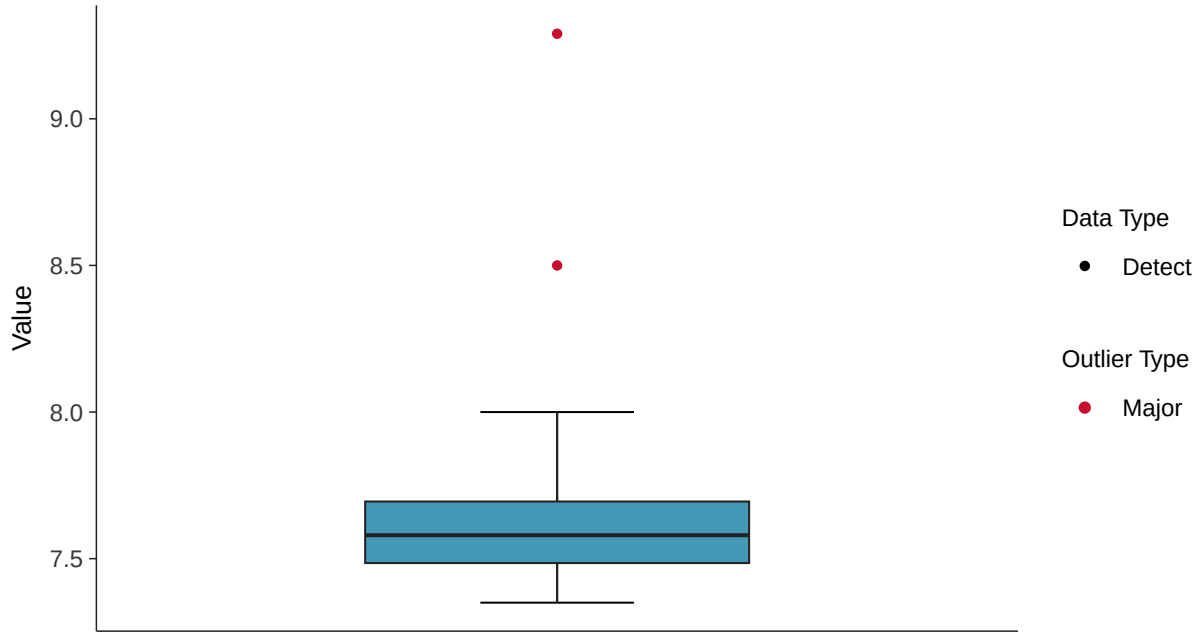
Histogram

pH (Field), MW-2 (S.U.)



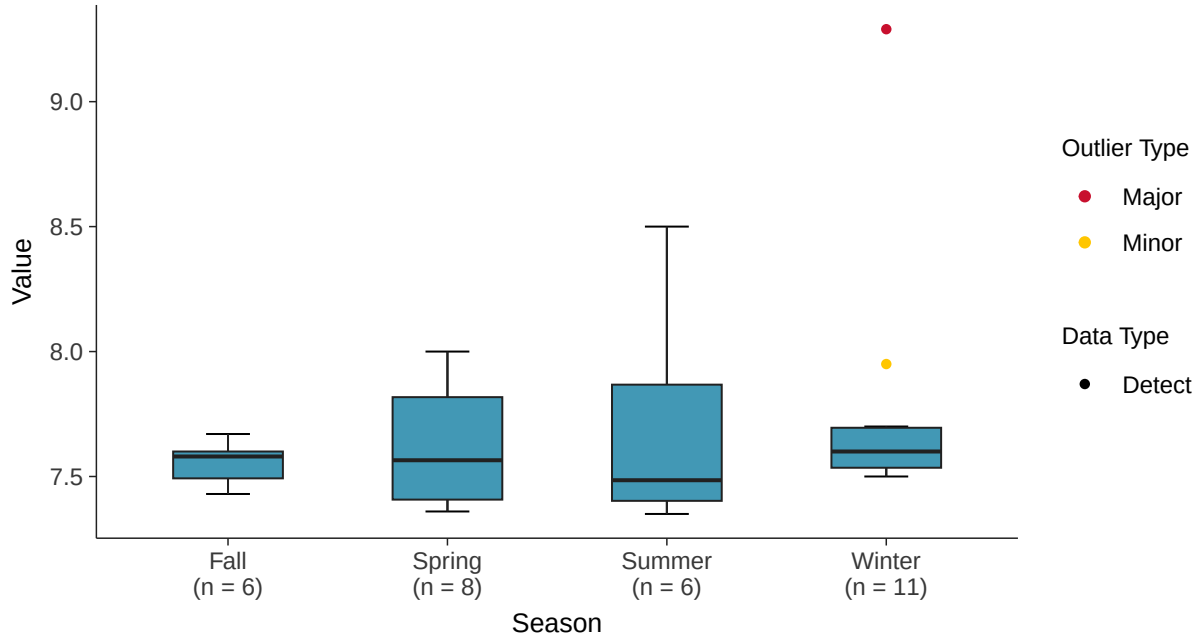
Boxplot

pH (Field), MW-2 (S.U.)



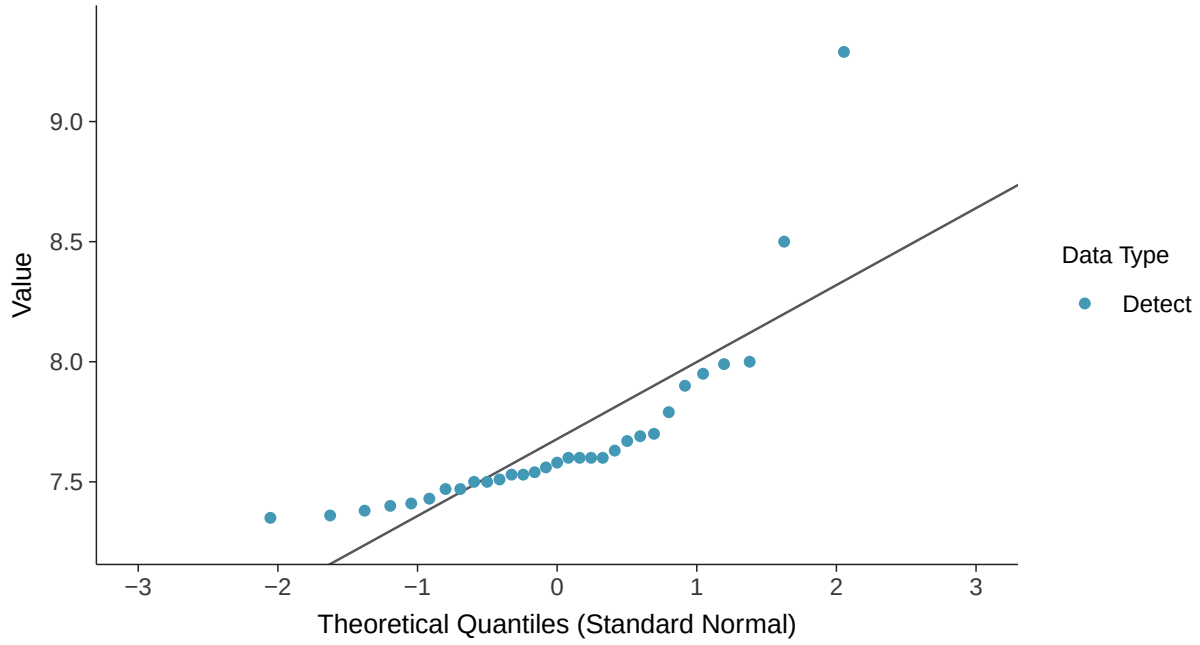
Boxplot by Season

pH (Field), MW-2 (S.U.)



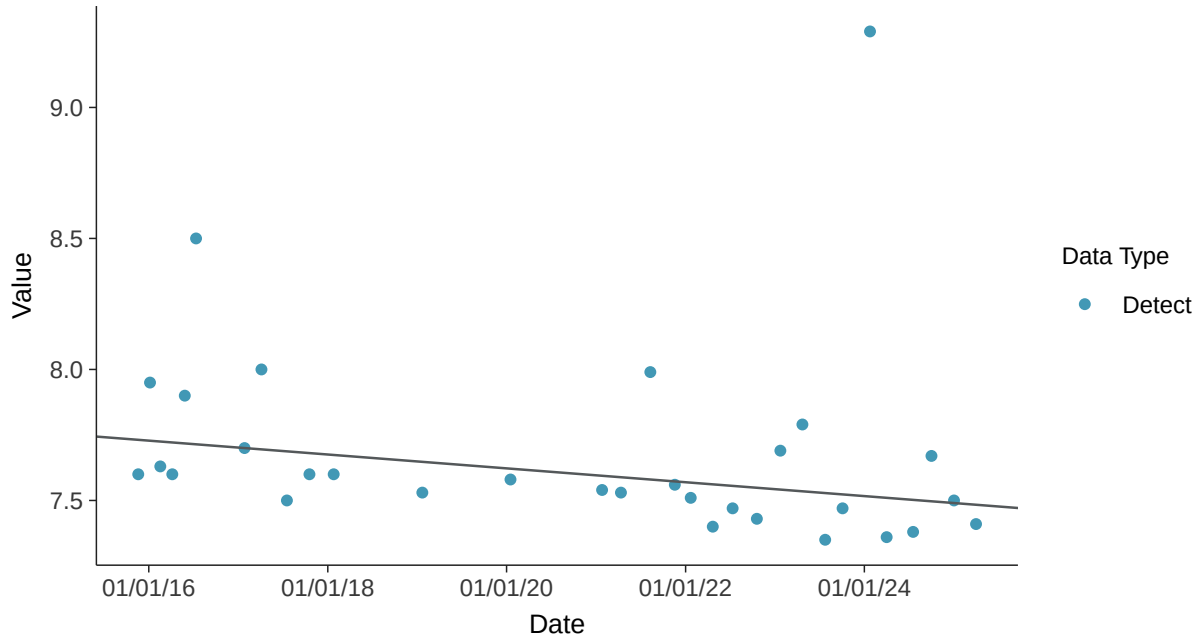
Normal Q-Q plot

pH (Field), MW-2 (S.U.)



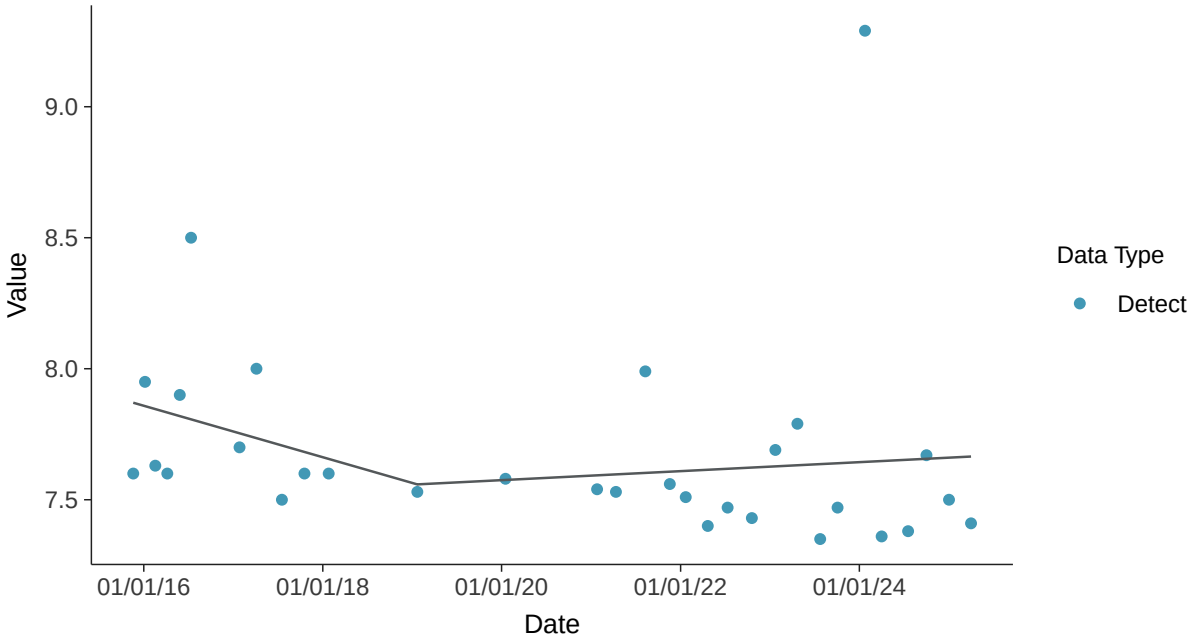
Trend Regression: Mann-Kendall/Theil-Sen Estimate

pH (Field), MW-2 (S.U.)



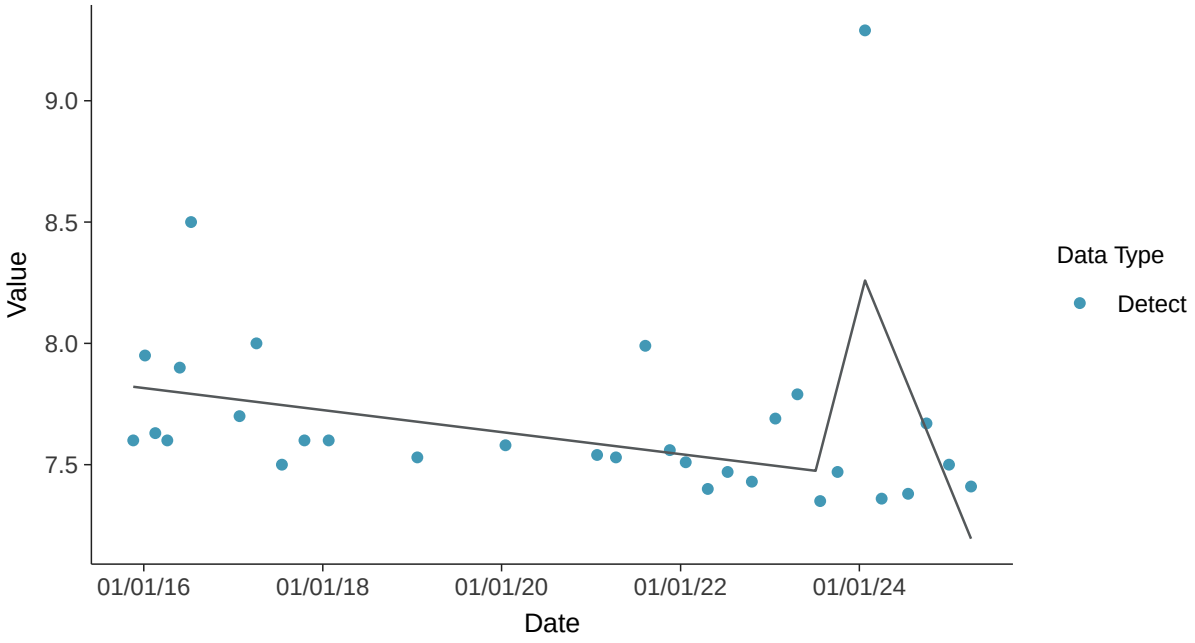
Trend Regression: Piecewise Linear-Linear

pH (Field), MW-2 (S.U.)



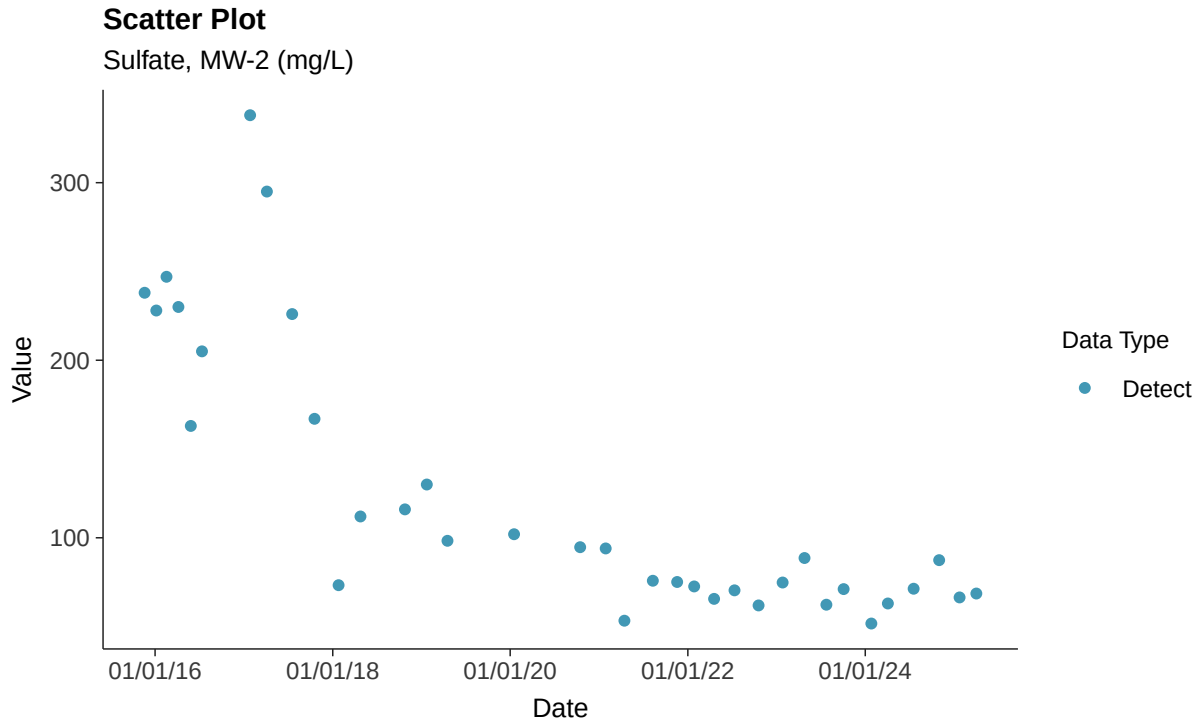
Trend Regression: Piecewise Linear-Linear-Linear

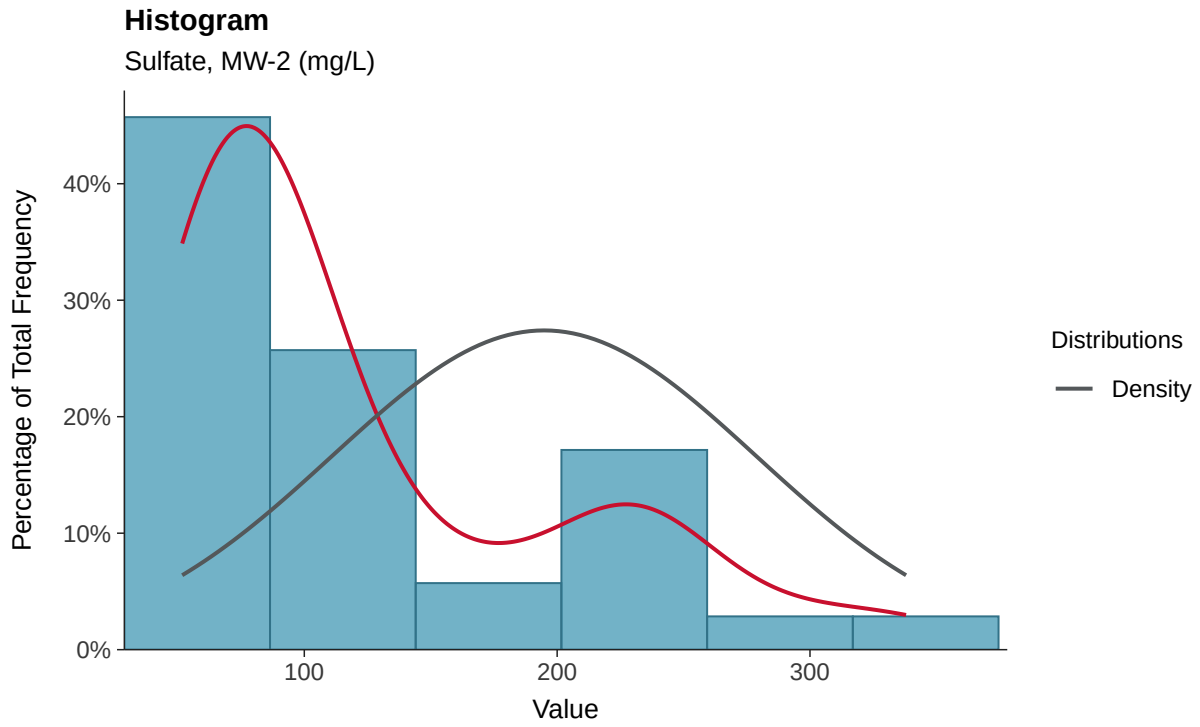
pH (Field), MW-2 (S.U.)



App. III: Sulfate, MW-2

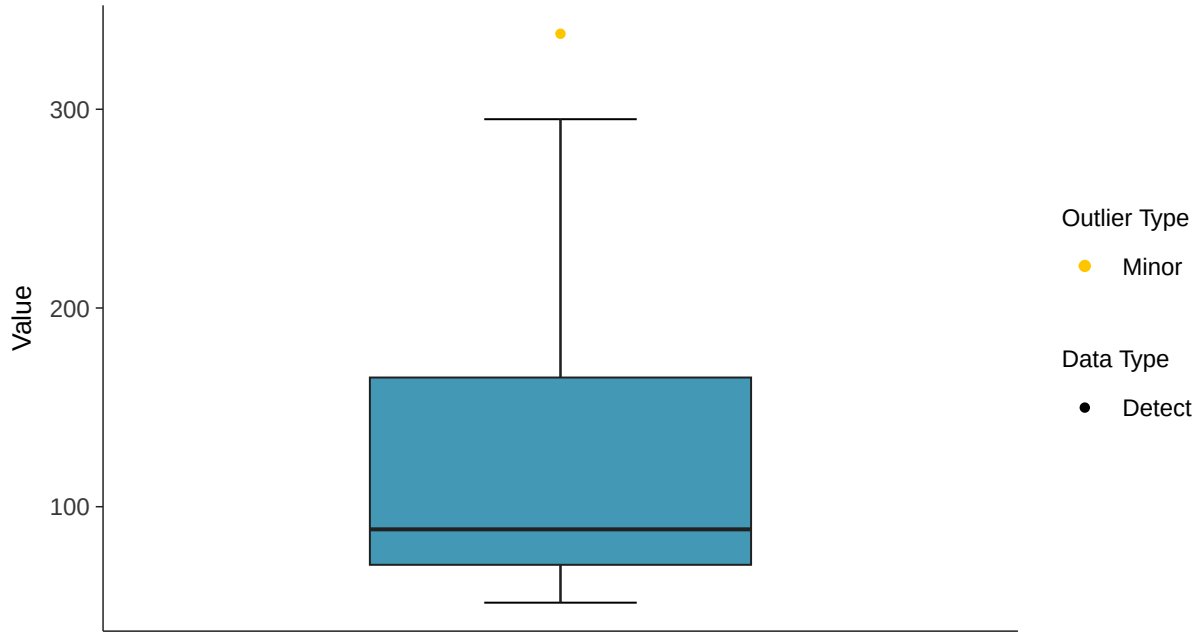
ID: 02_02_123





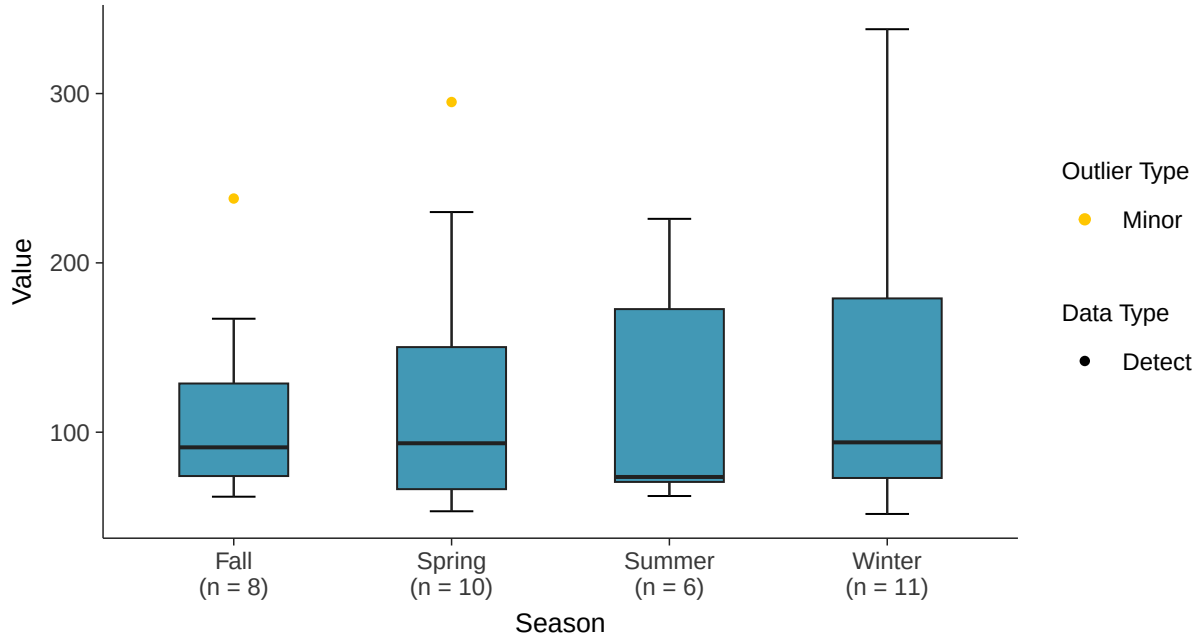
Boxplot

Sulfate, MW-2 (mg/L)



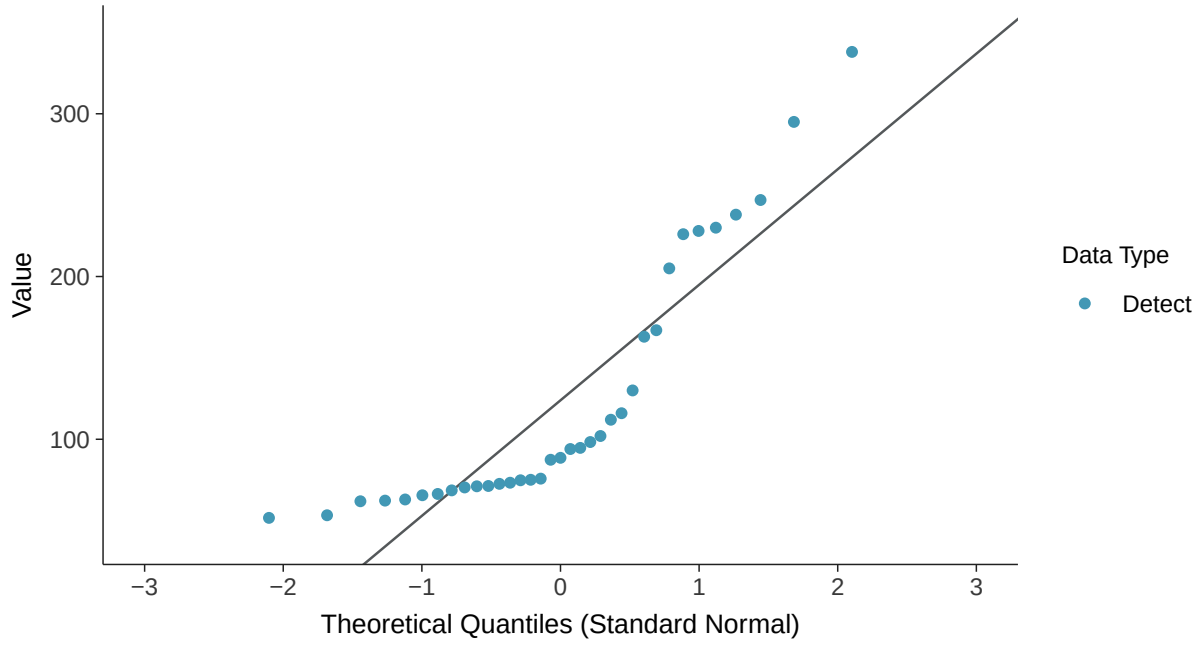
Boxplot by Season

Sulfate, MW-2 (mg/L)



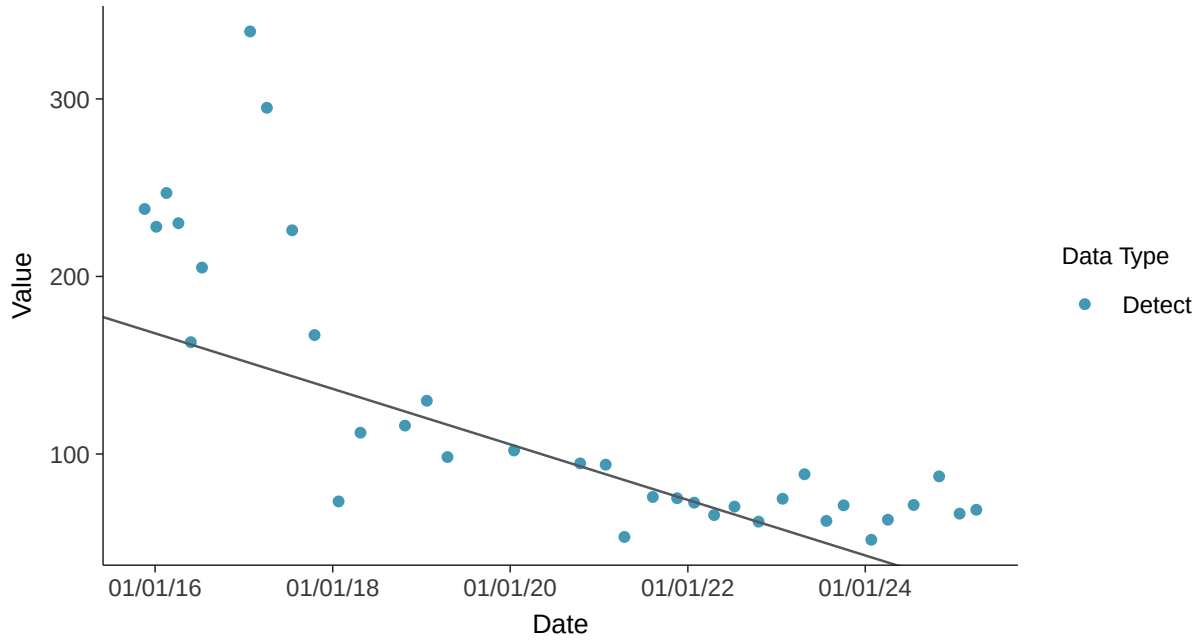
Normal Q-Q plot

Sulfate, MW-2 (mg/L)



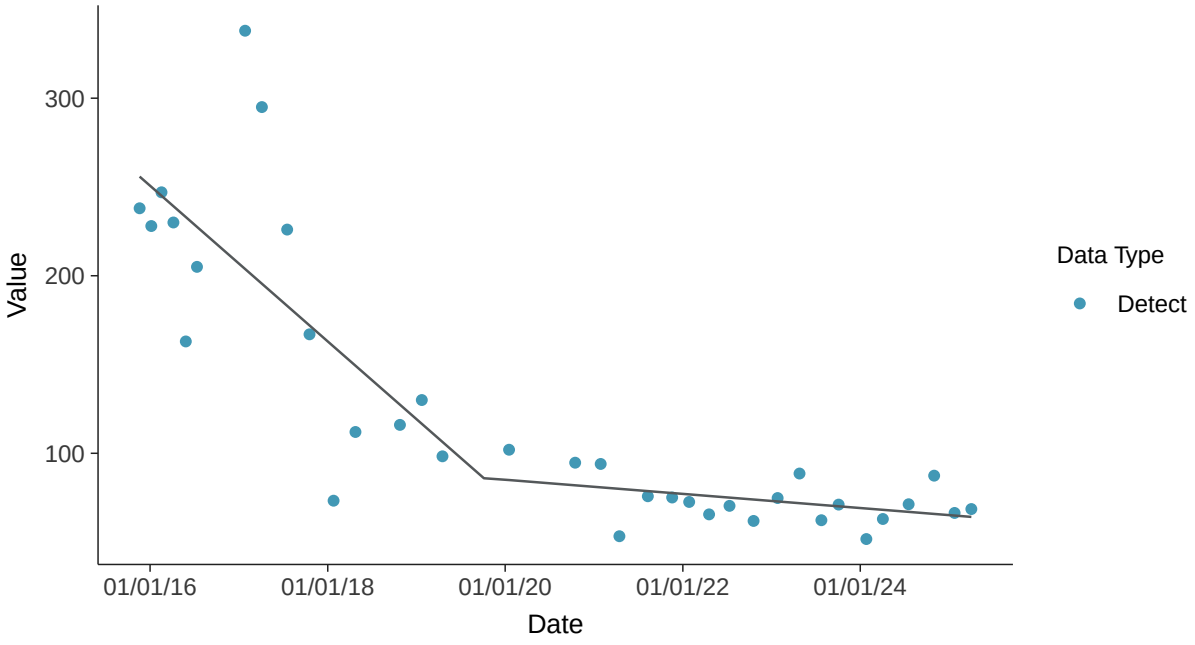
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Sulfate, MW-2 (mg/L)



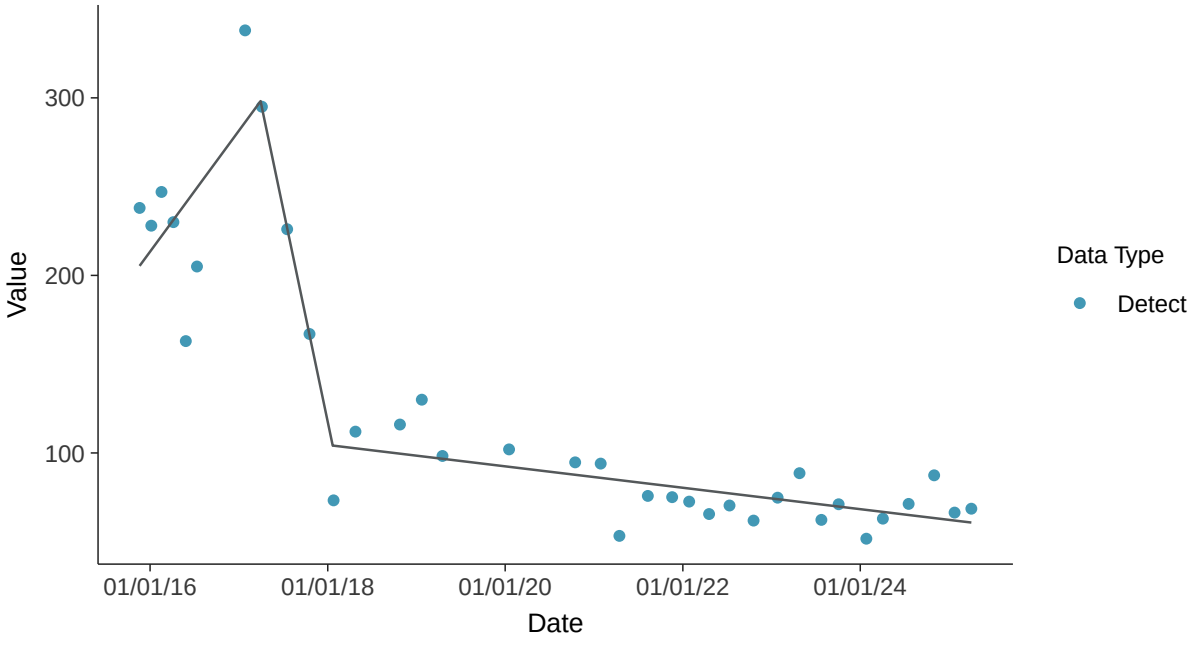
Trend Regression: Piecewise Linear-Linear

Sulfate, MW-2 (mg/L)



Trend Regression: Piecewise Linear-Linear-Linear

Sulfate, MW-2 (mg/L)

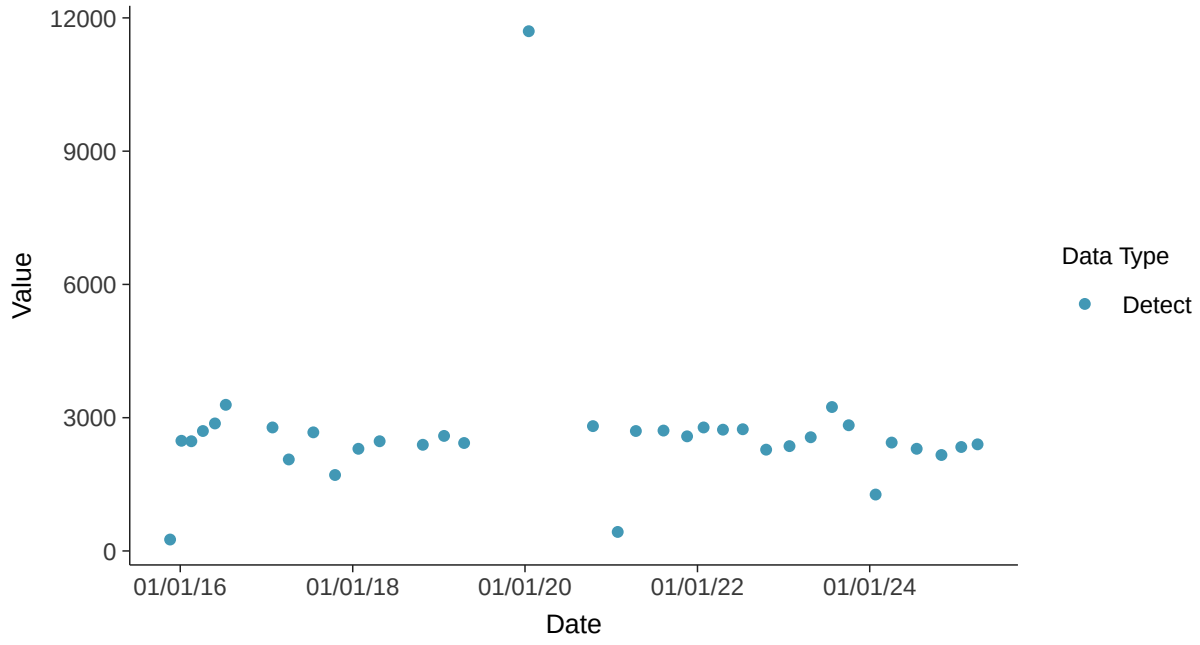


App. III: Total Dissolved Solids, MW-2

ID: 02_02_125

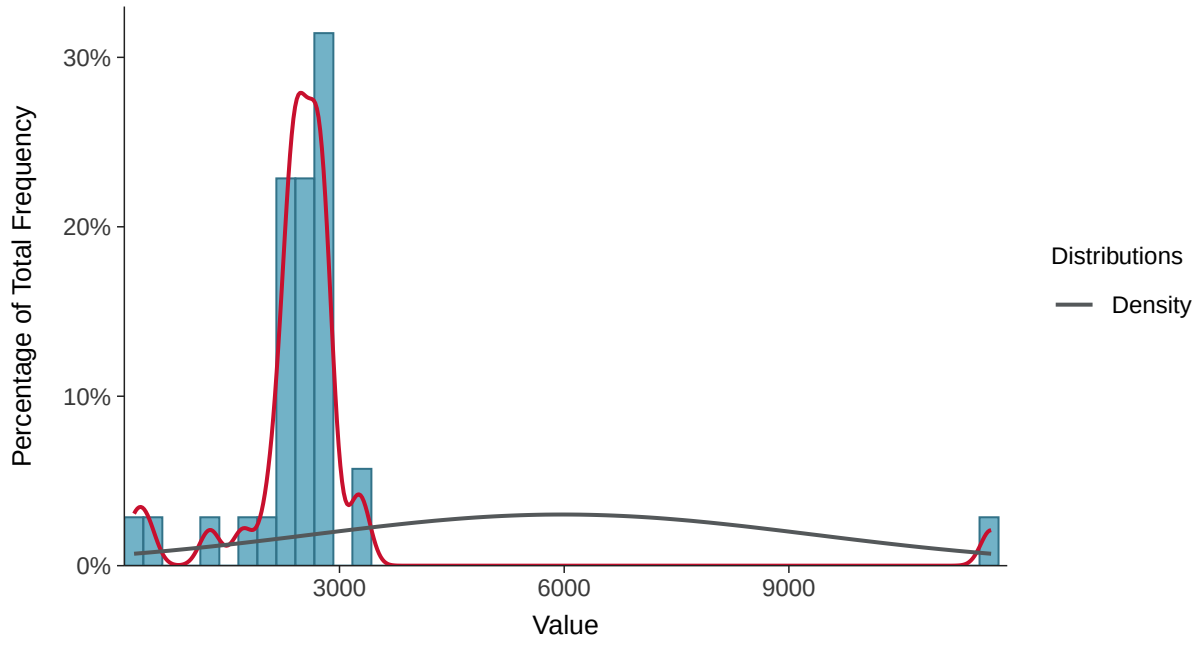
Scatter Plot

Total Dissolved Solids, MW-2 (mg/L)



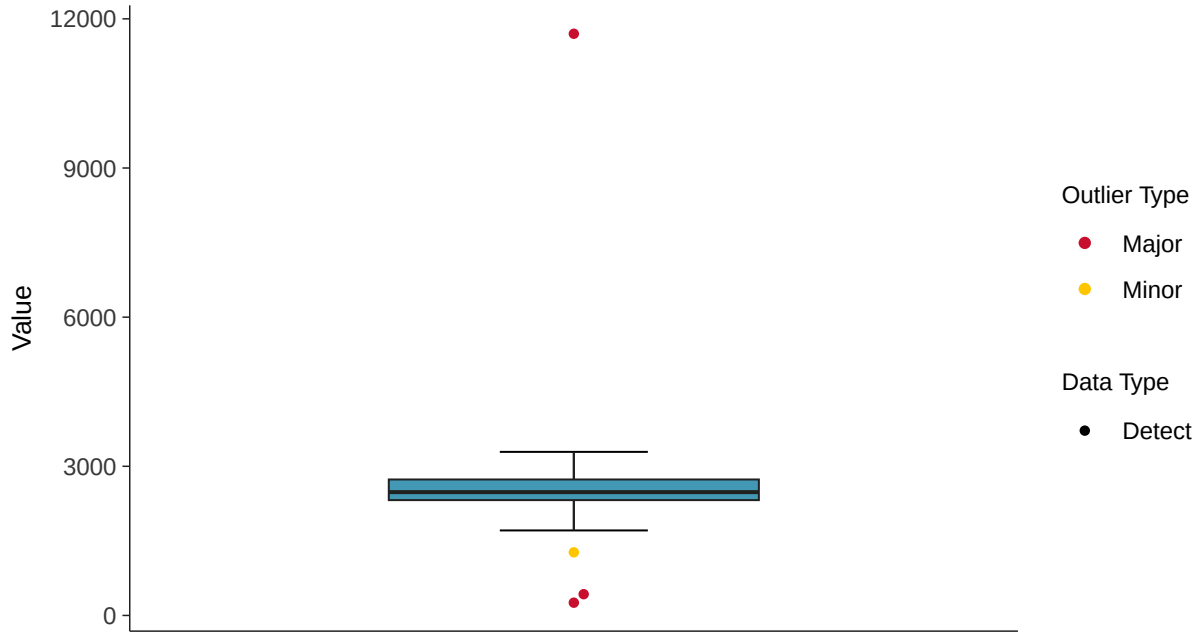
Histogram

Total Dissolved Solids, MW-2 (mg/L)



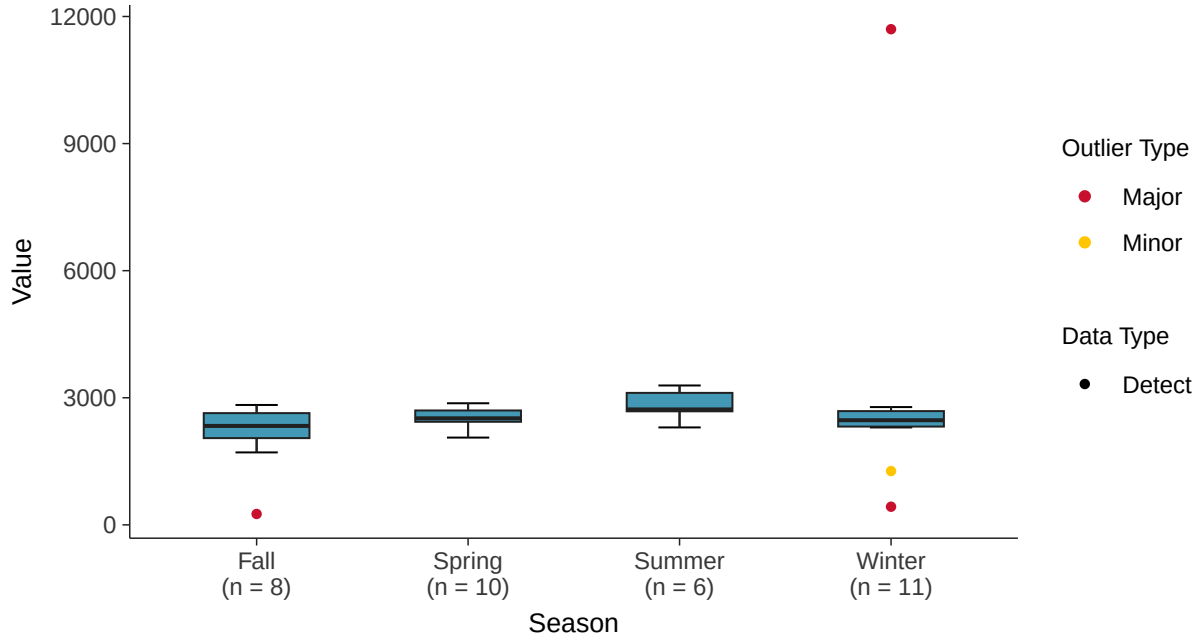
Boxplot

Total Dissolved Solids, MW-2 (mg/L)



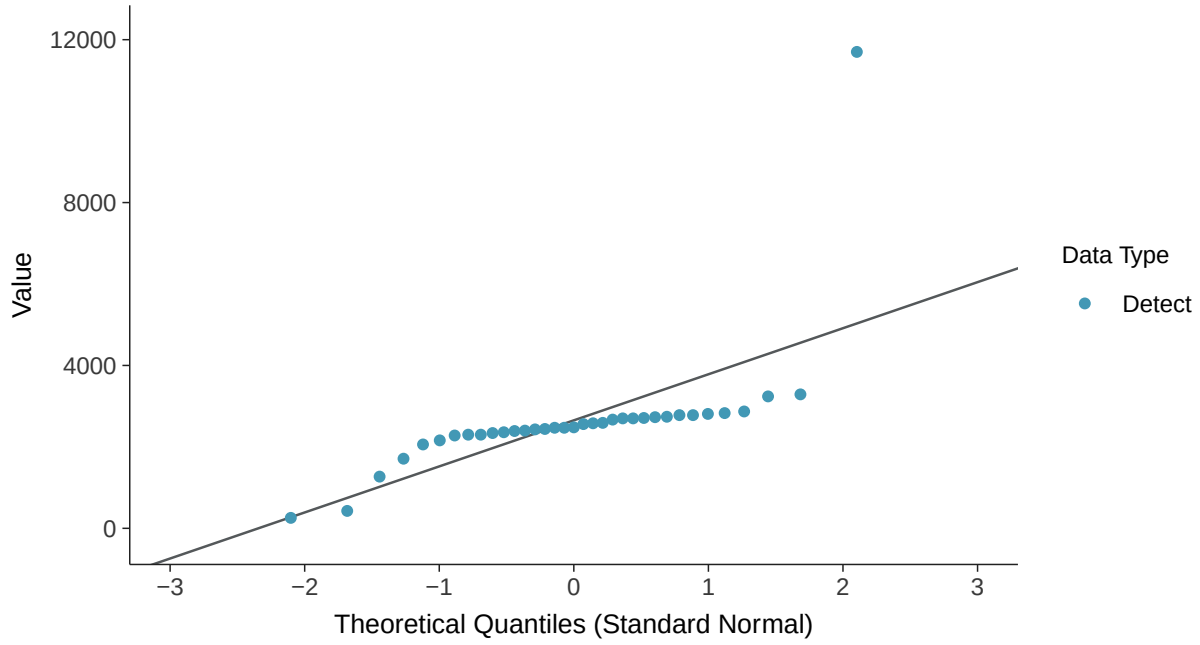
Boxplot by Season

Total Dissolved Solids, MW-2 (mg/L)



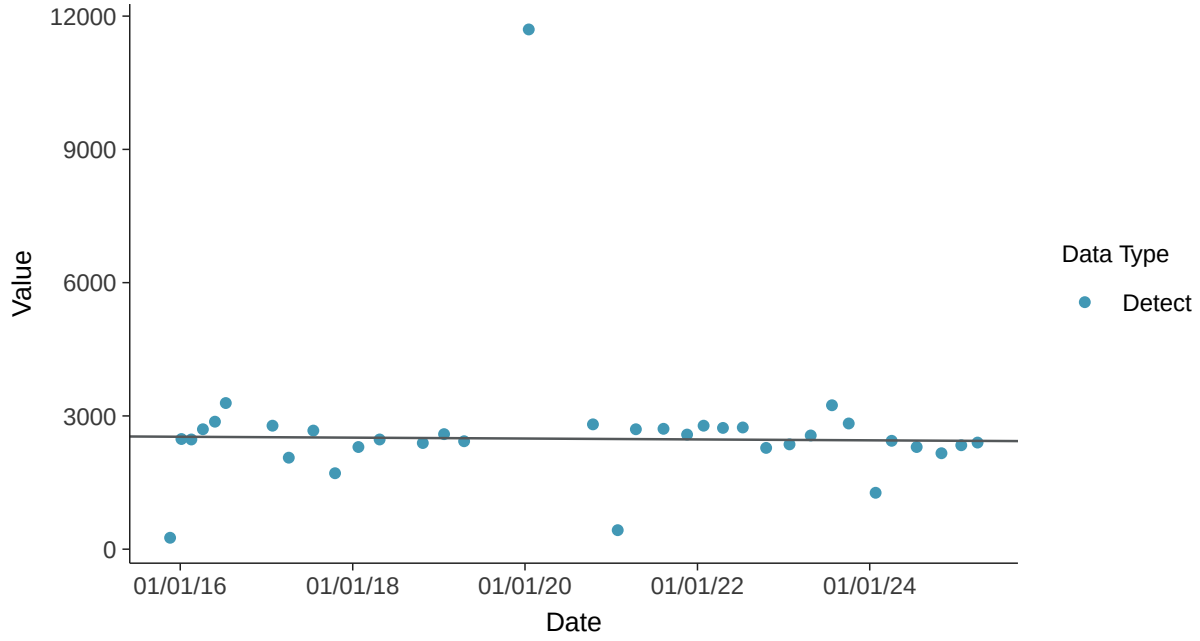
Normal Q-Q plot

Total Dissolved Solids, MW-2 (mg/L)



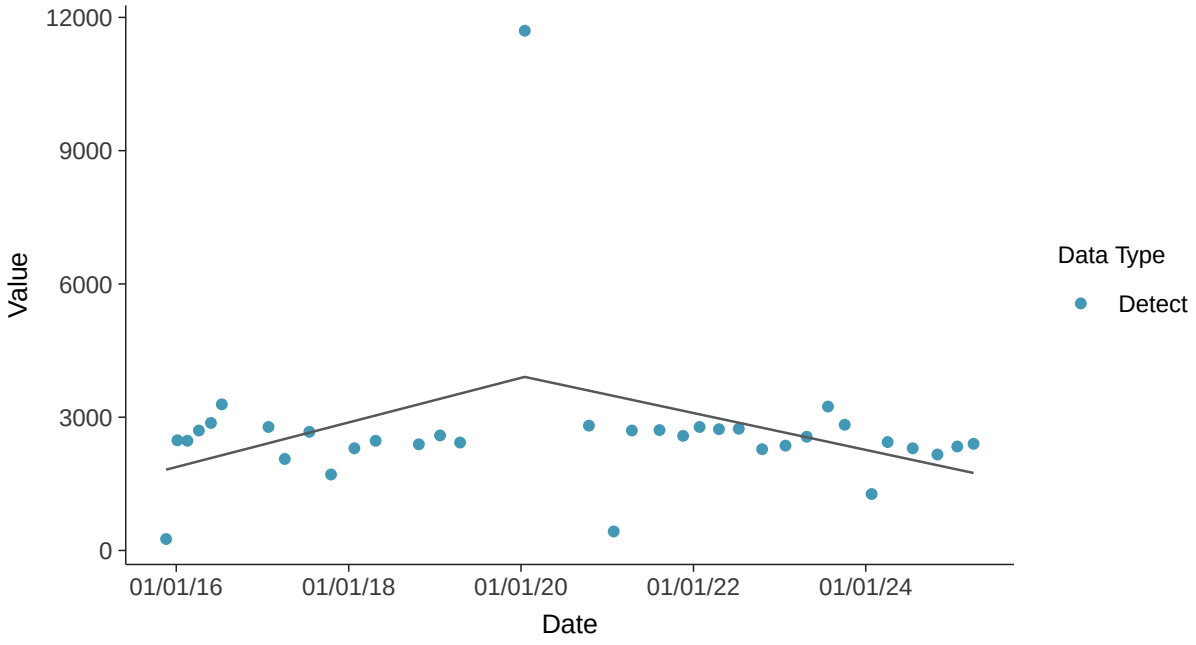
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Total Dissolved Solids, MW-2 (mg/L)



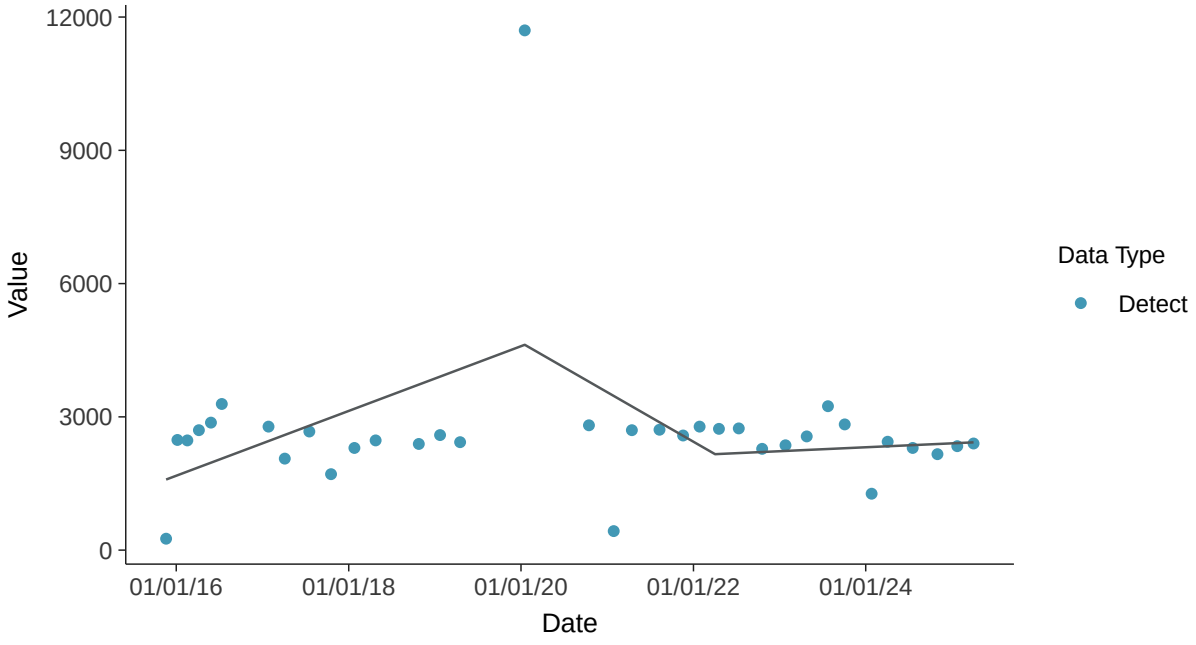
Trend Regression: Piecewise Linear-Linear

Total Dissolved Solids, MW-2 (mg/L)



Trend Regression: Piecewise Linear-Linear-Linear

Total Dissolved Solids, MW-2 (mg/L)

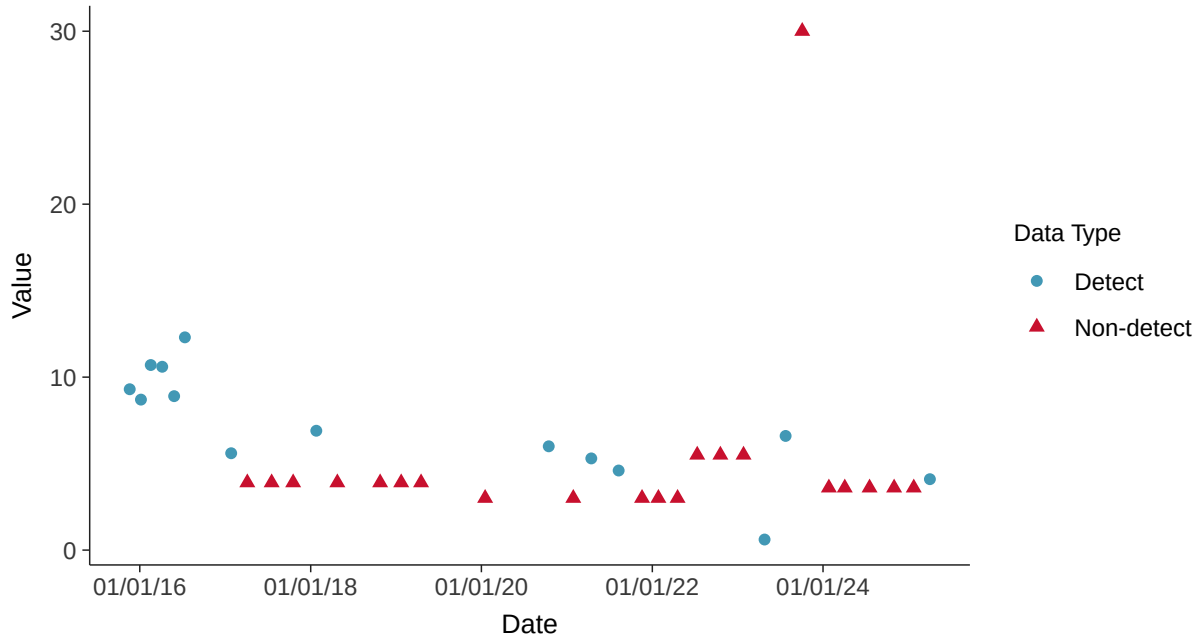


App. IV: Antimony, MW-2

ID: 02_03_101

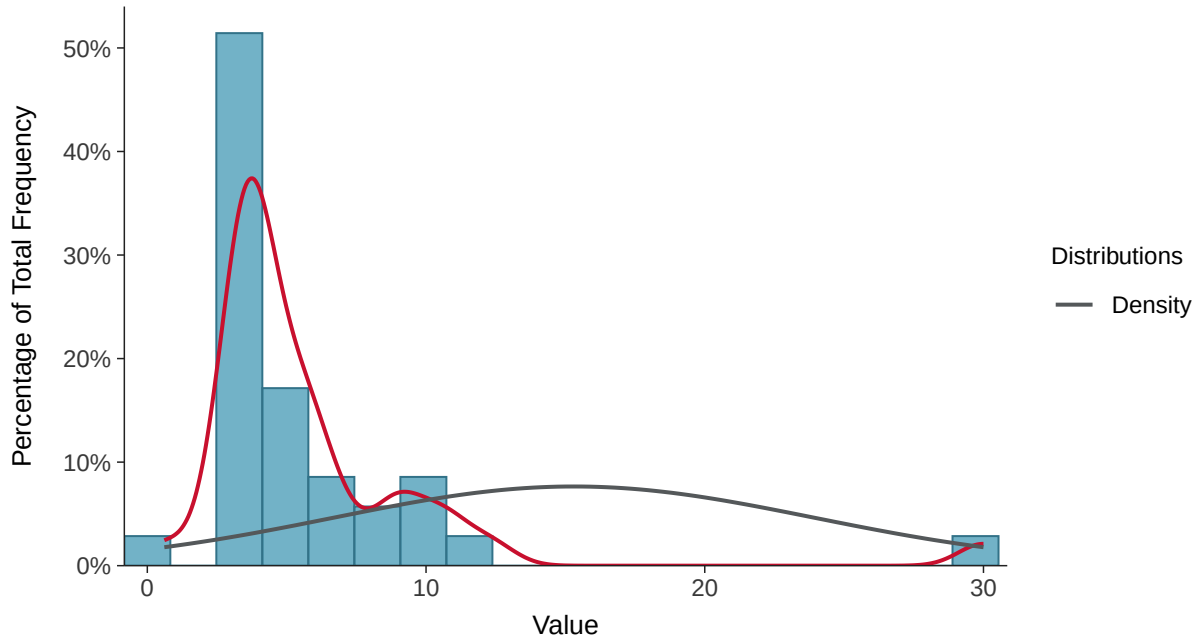
Scatter Plot

Antimony, MW-2 (ug/L)



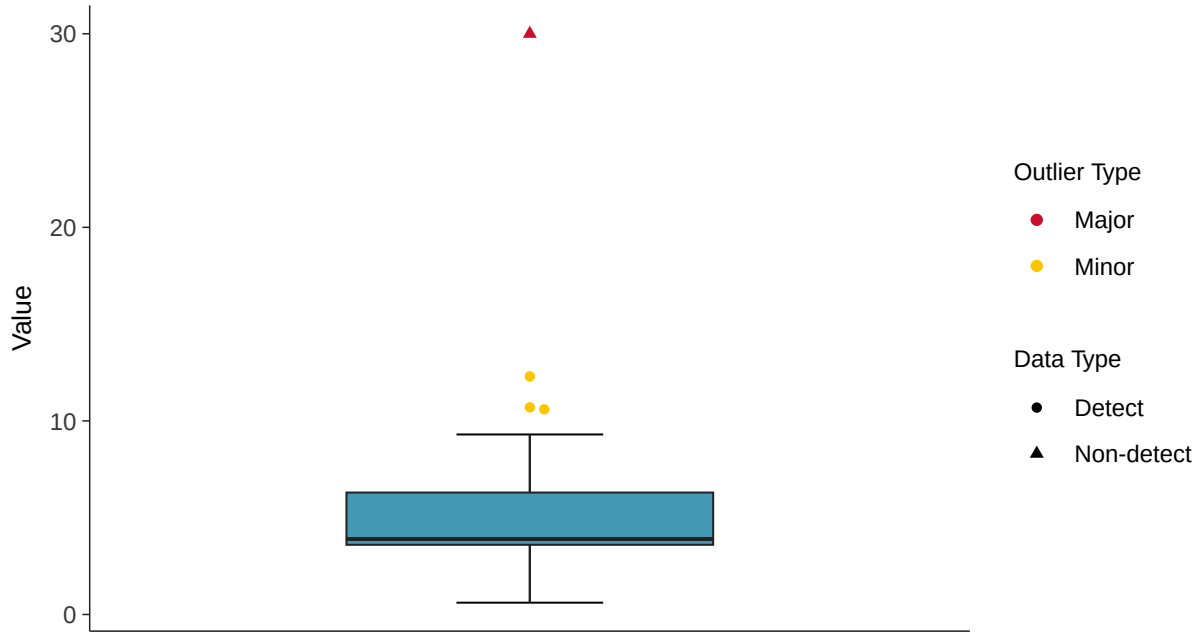
Histogram

Antimony, MW-2 (ug/L)



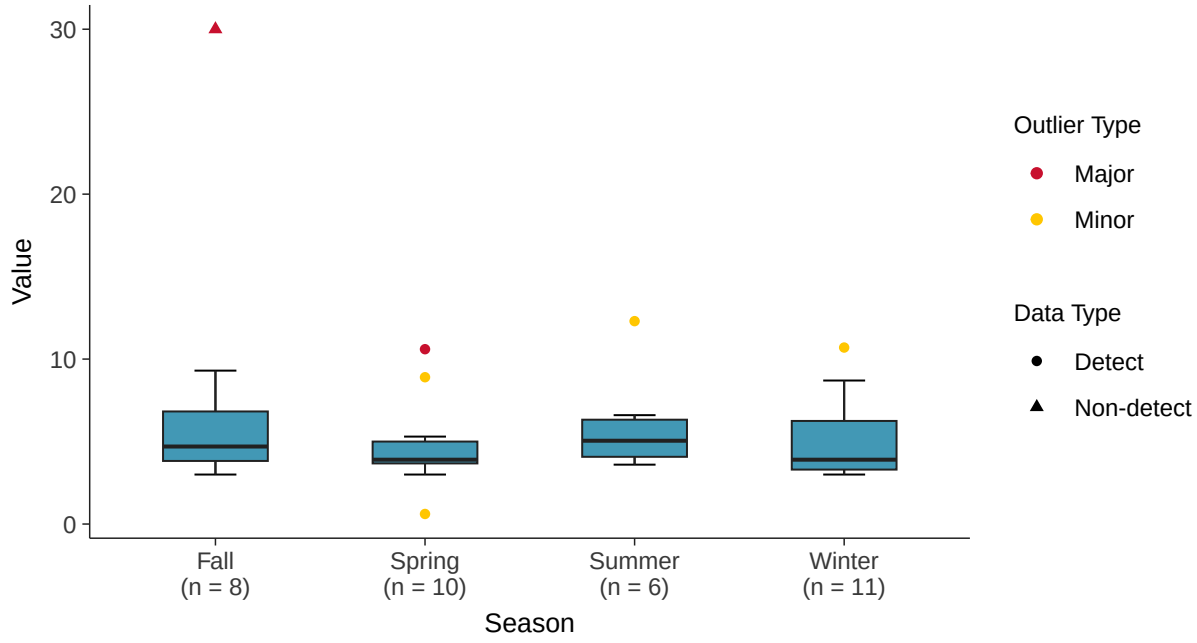
Boxplot

Antimony, MW-2 (ug/L)



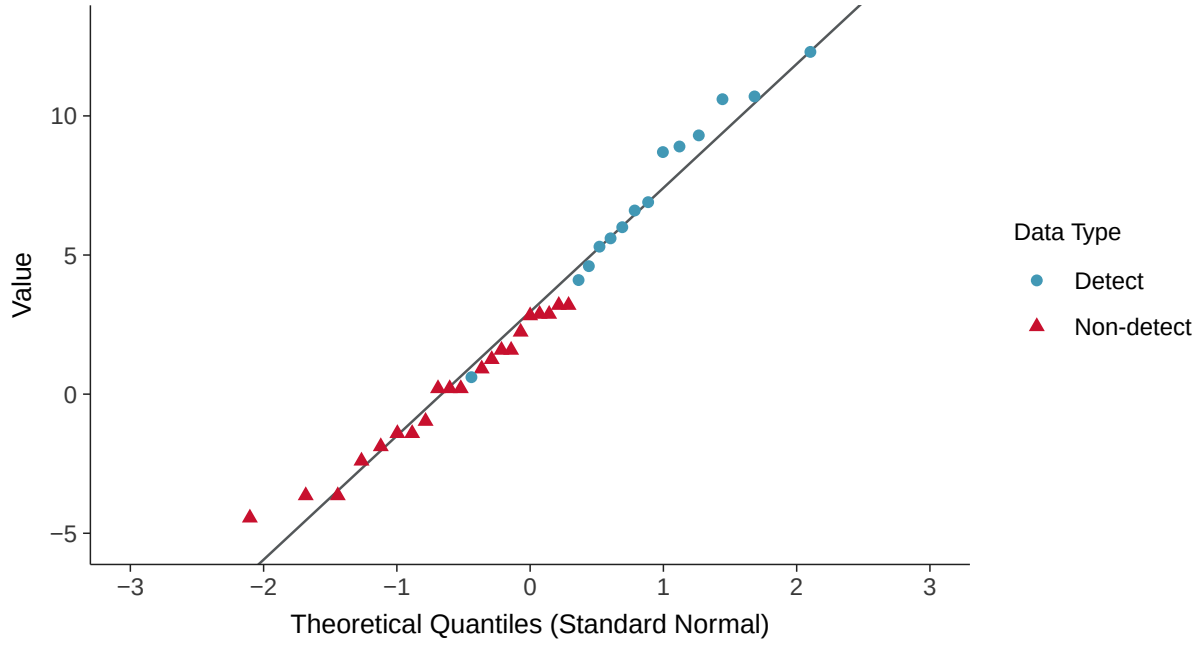
Boxplot by Season

Antimony, MW-2 (ug/L)



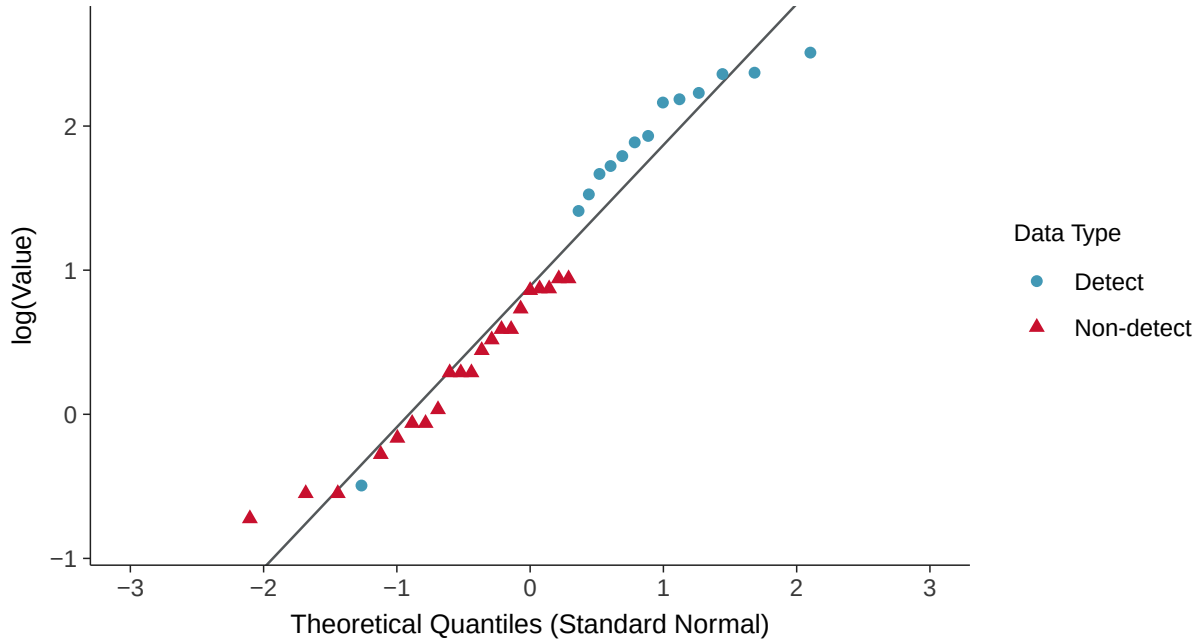
Normal Q-Q plot using ROS Imputed Estimates

Antimony, MW-2 (ug/L)



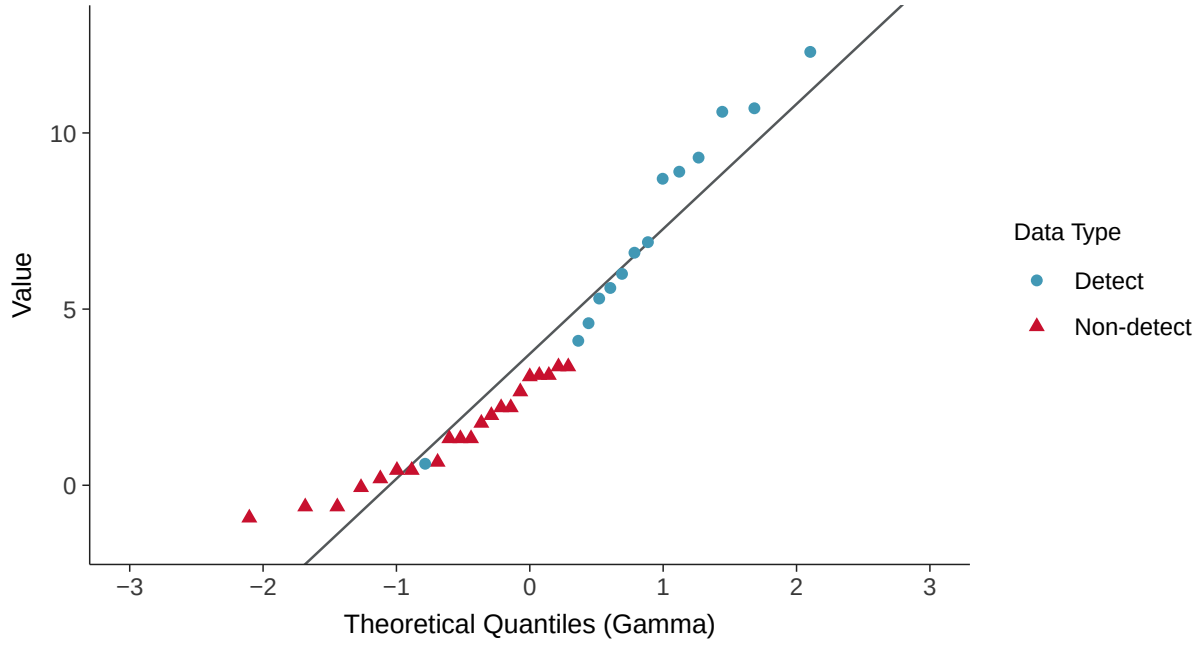
Lognormal Q-Q plot using ROS Imputed Estimates

Antimony, MW-2 (ug/L)



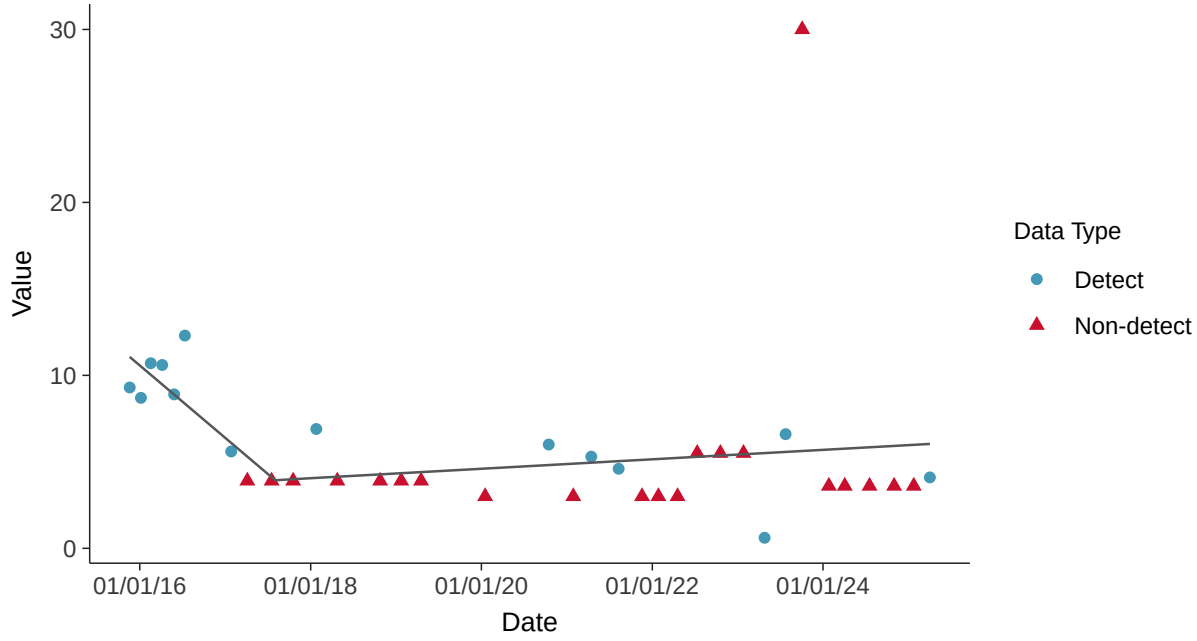
Gamma Q-Q plot using ROS Imputed Estimates

Antimony, MW-2 (ug/L)



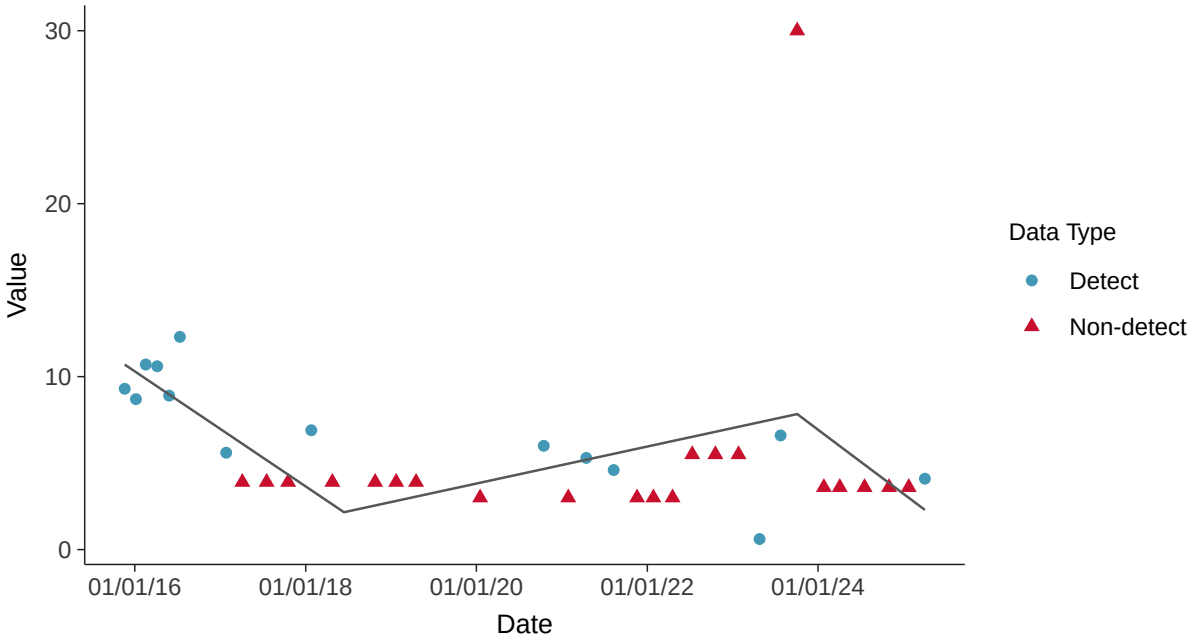
Trend Regression: Piecewise Linear-Linear

Antimony, MW-2 (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Antimony, MW-2 (ug/L)

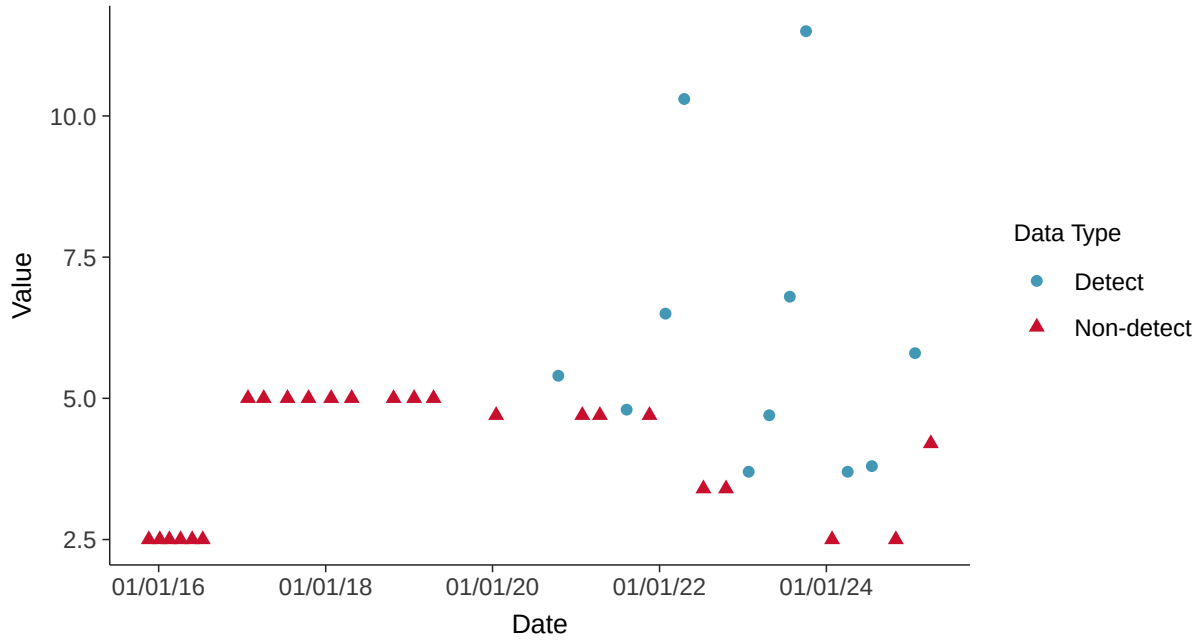


App. IV: Arsenic, MW-2

ID: 02_03_102

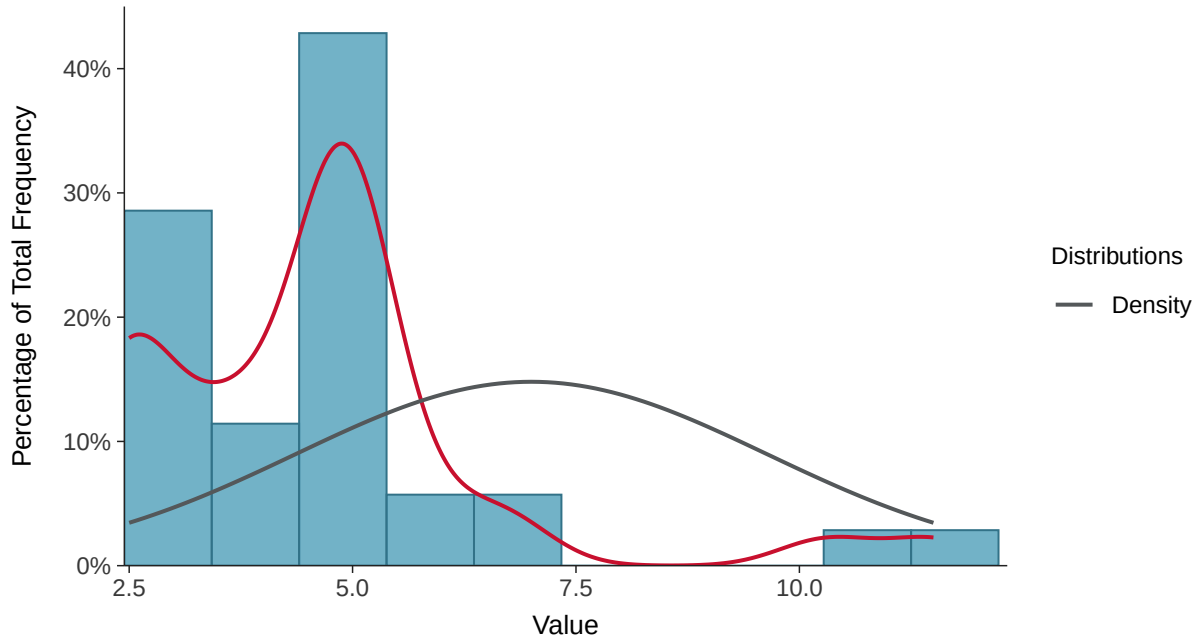
Scatter Plot

Arsenic, MW-2 (ug/L)



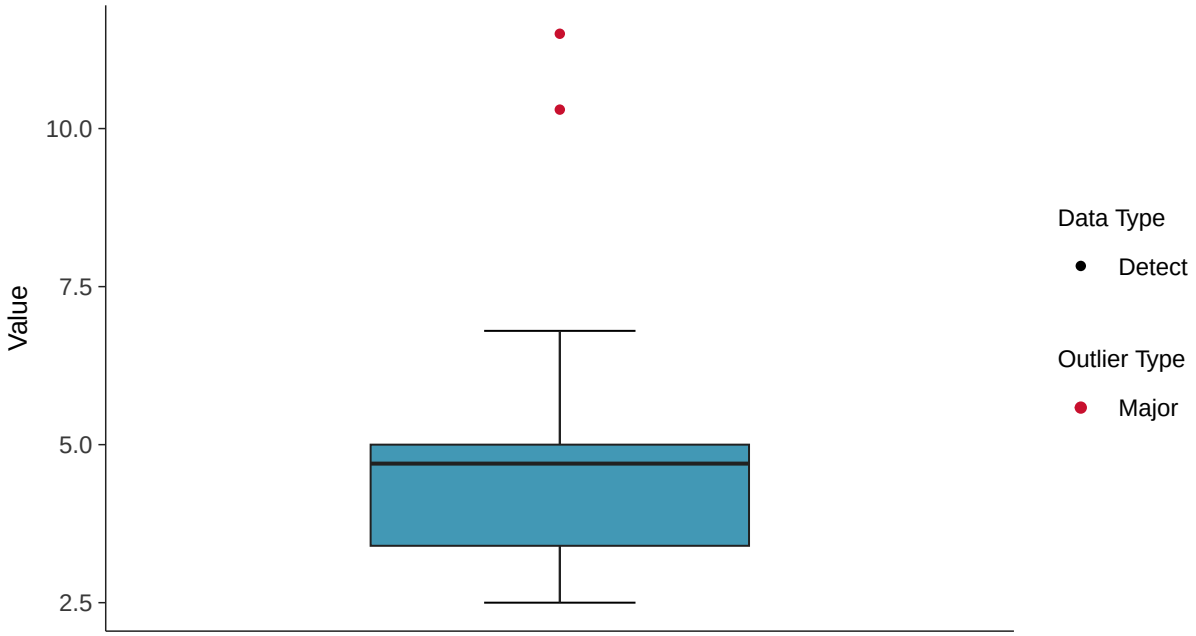
Histogram

Arsenic, MW-2 (ug/L)



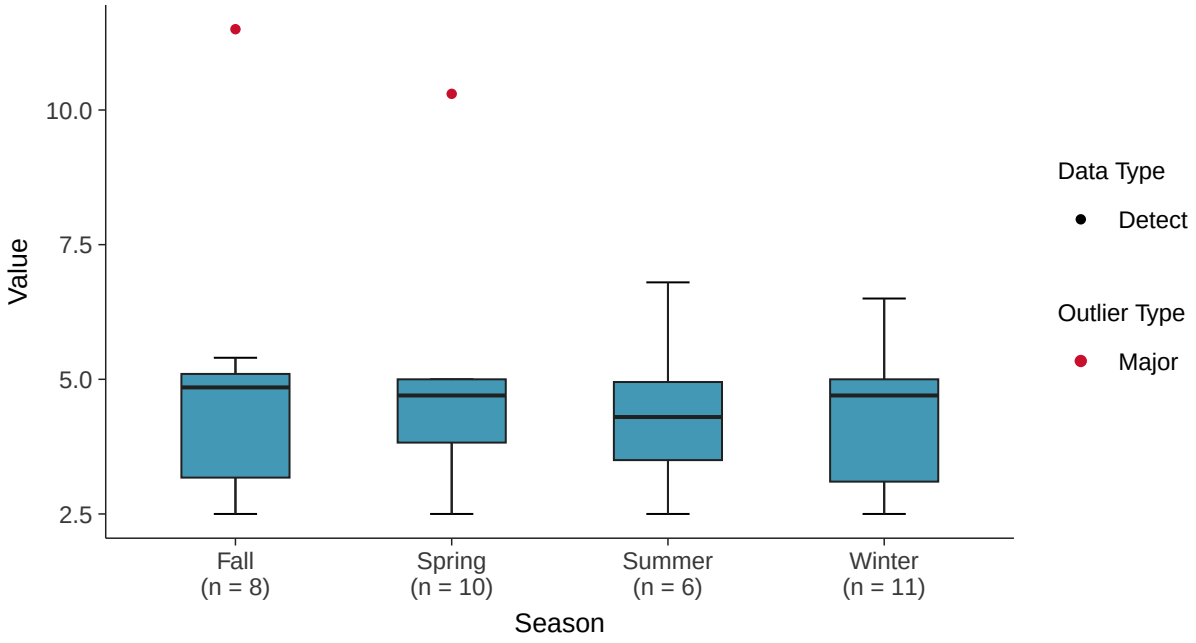
Boxplot

Arsenic, MW-2 (ug/L)



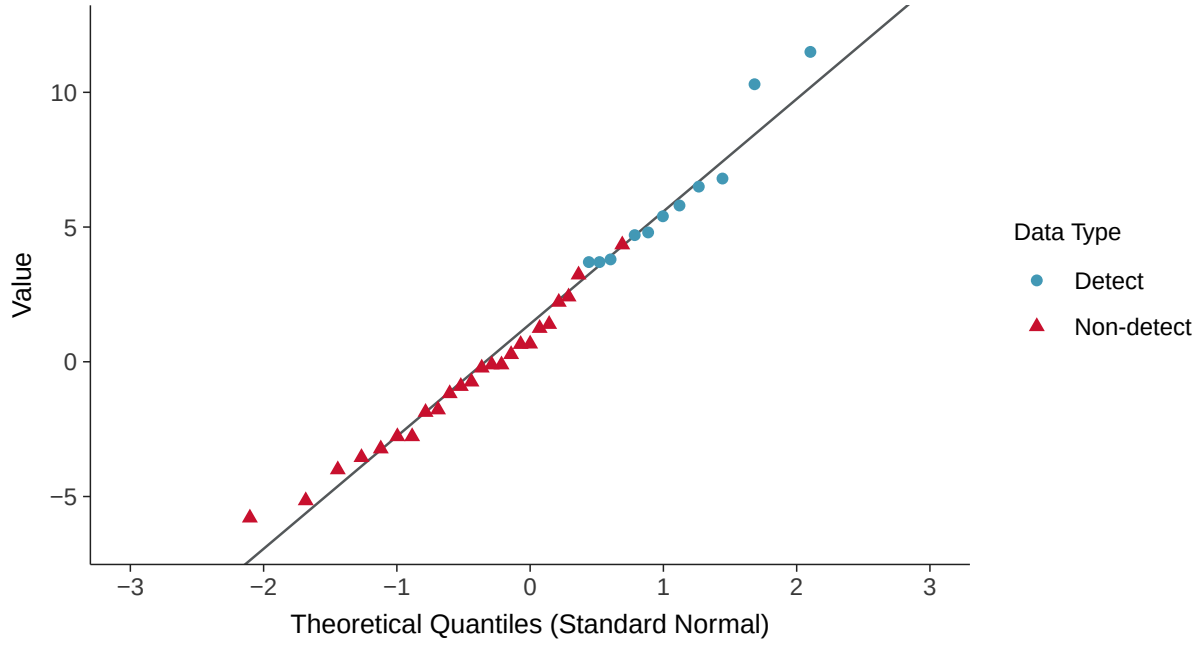
Boxplot by Season

Arsenic, MW-2 (ug/L)



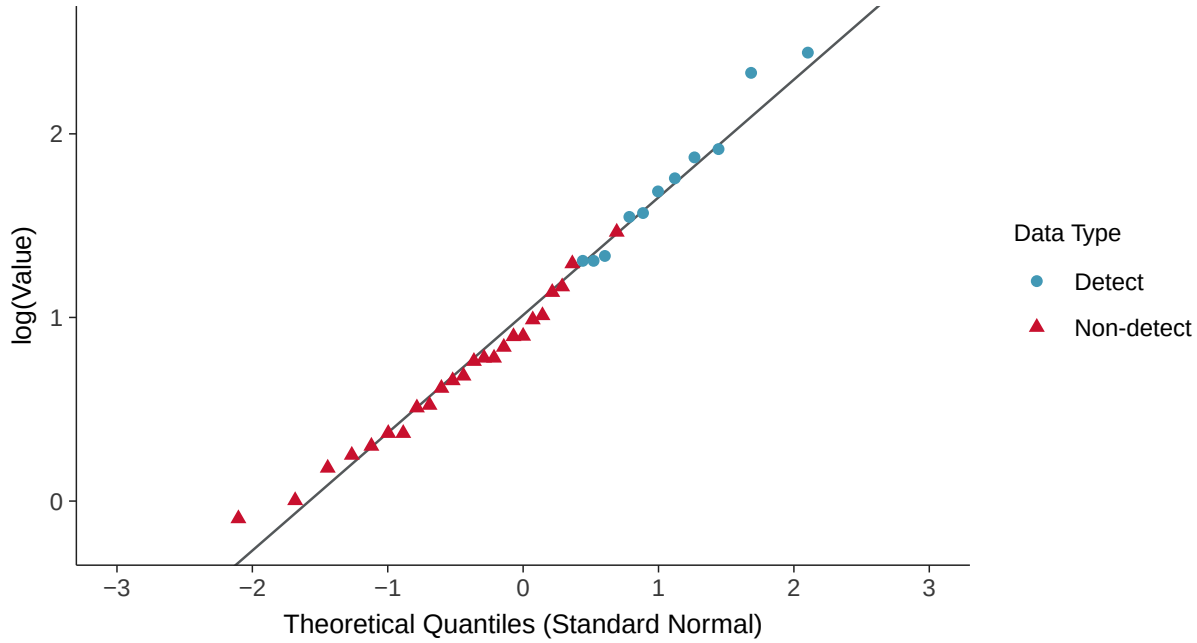
Normal Q-Q plot using ROS Imputed Estimates

Arsenic, MW-2 (ug/L)



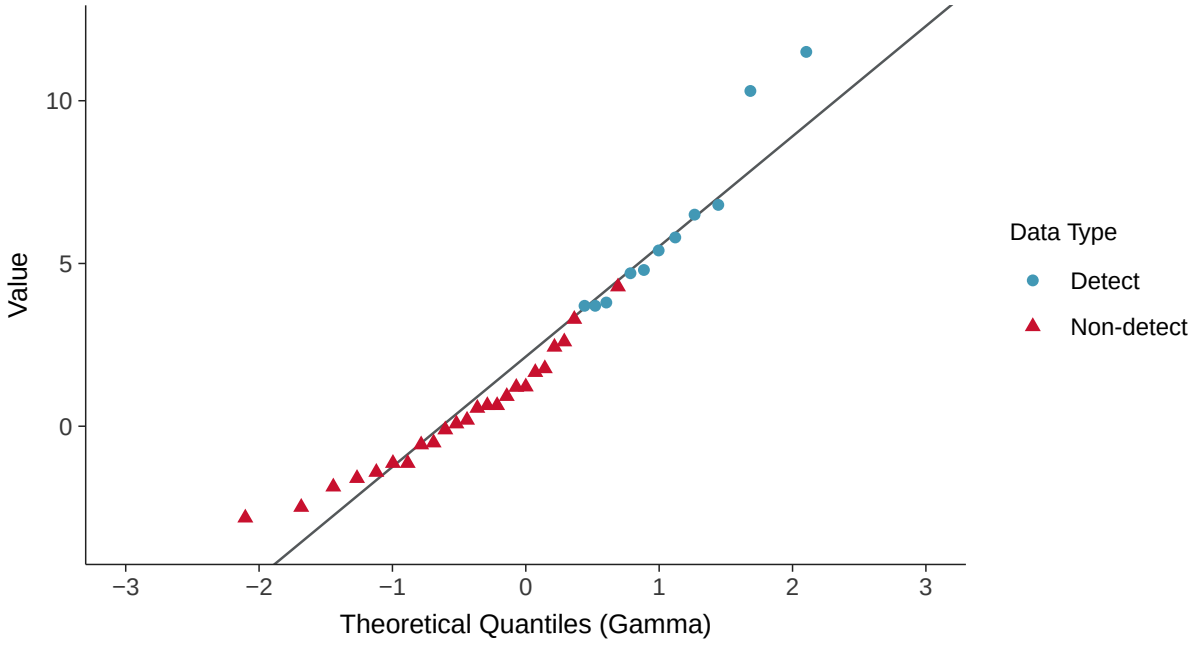
Lognormal Q-Q plot using ROS Imputed Estimates

Arsenic, MW-2 (ug/L)



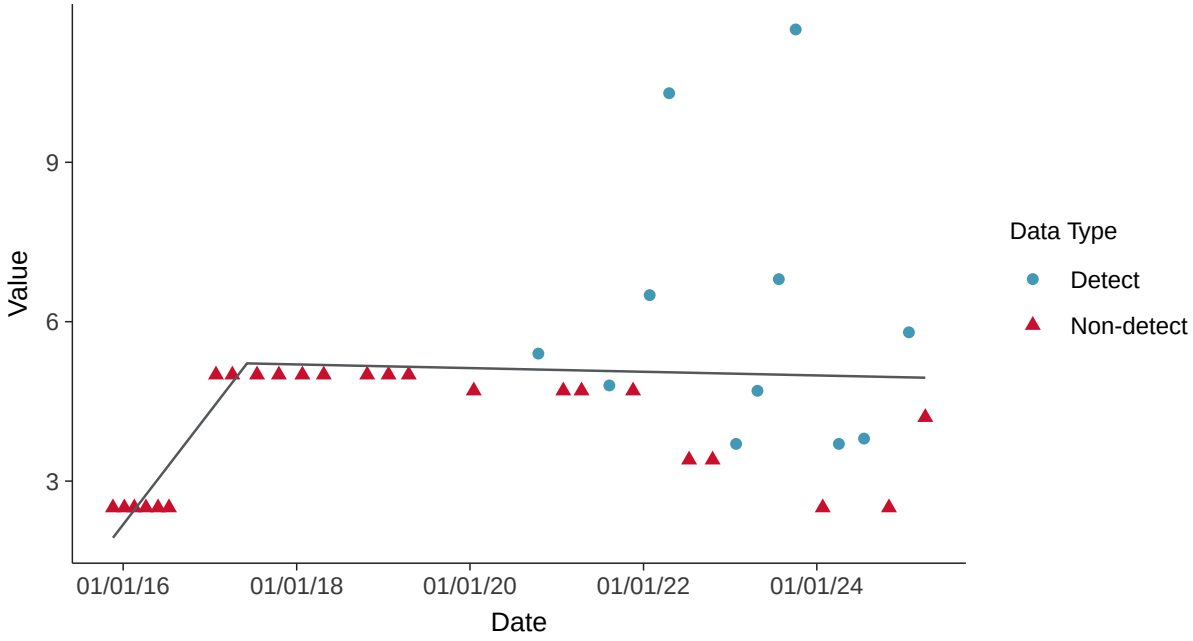
Gamma Q-Q plot using ROS Imputed Estimates

Arsenic, MW-2 (ug/L)



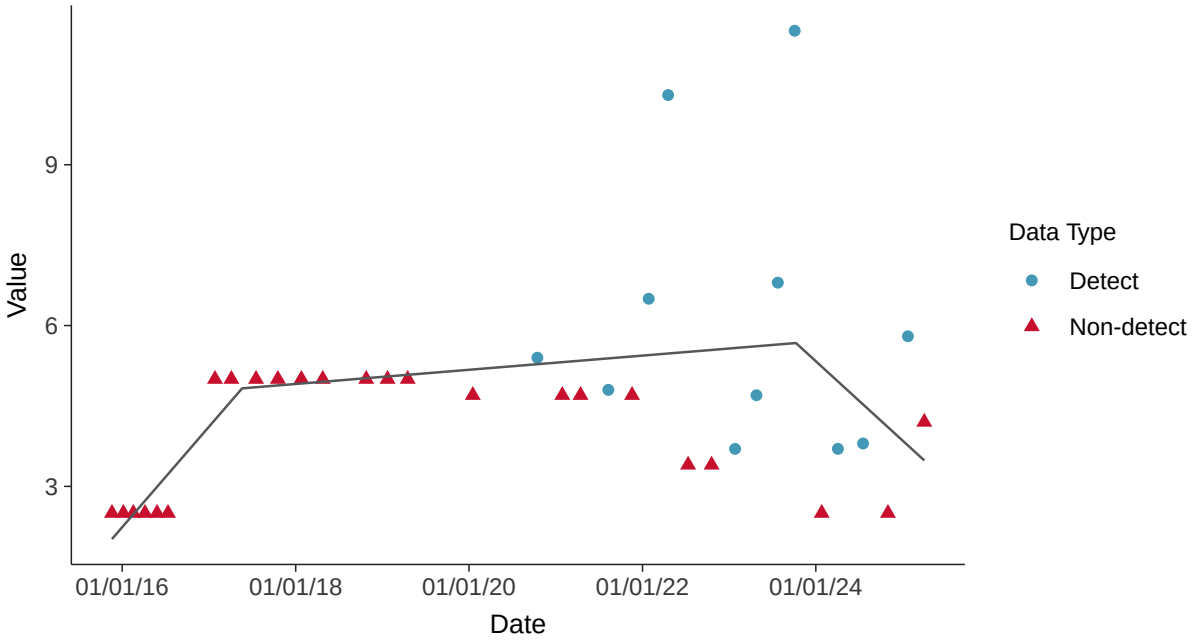
Trend Regression: Piecewise Linear-Linear

Arsenic, MW-2 (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Arsenic, MW-2 (ug/L)

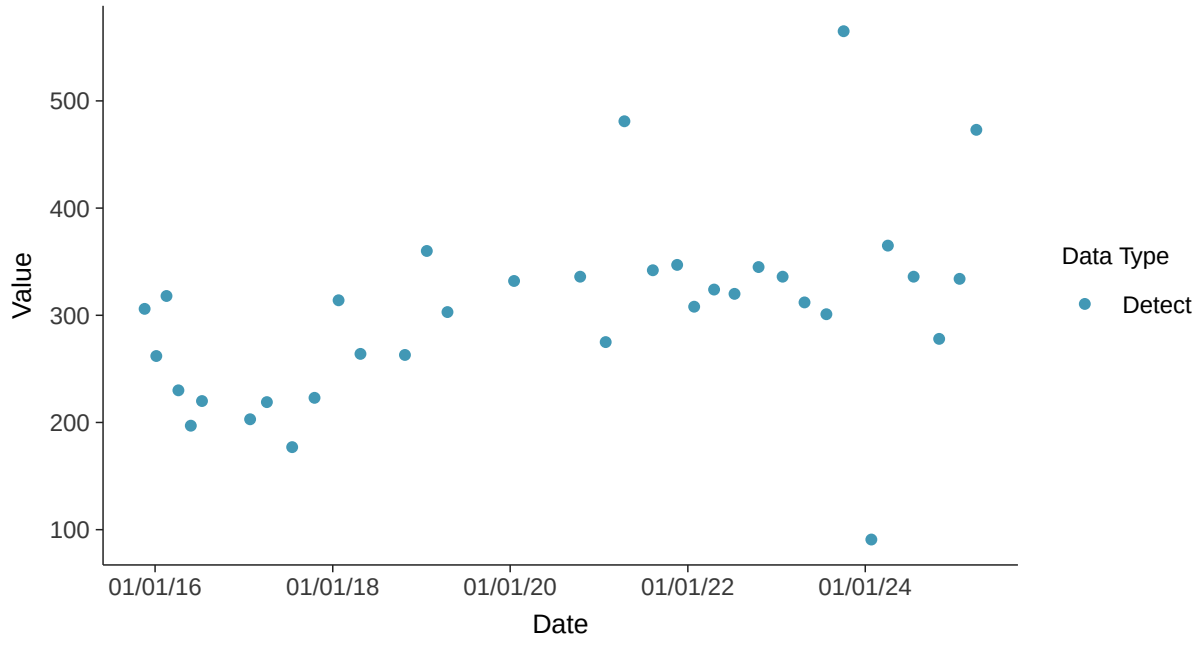


App. IV: Barium, MW-2

ID: 02_03_103

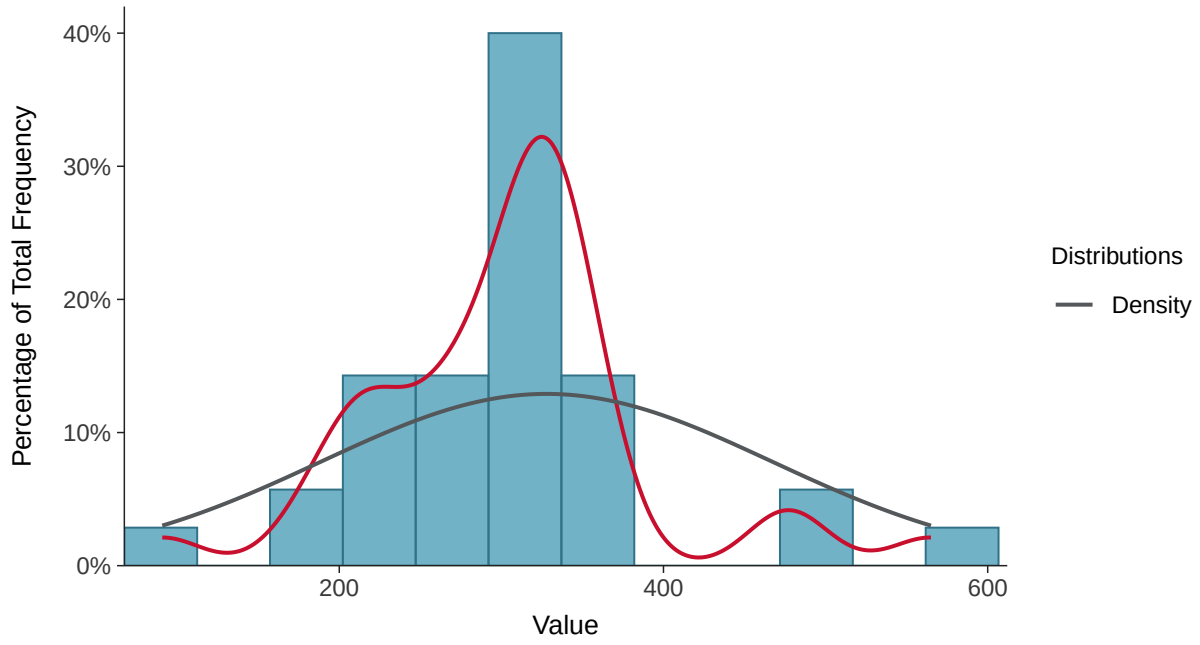
Scatter Plot

Barium, MW-2 (ug/L)



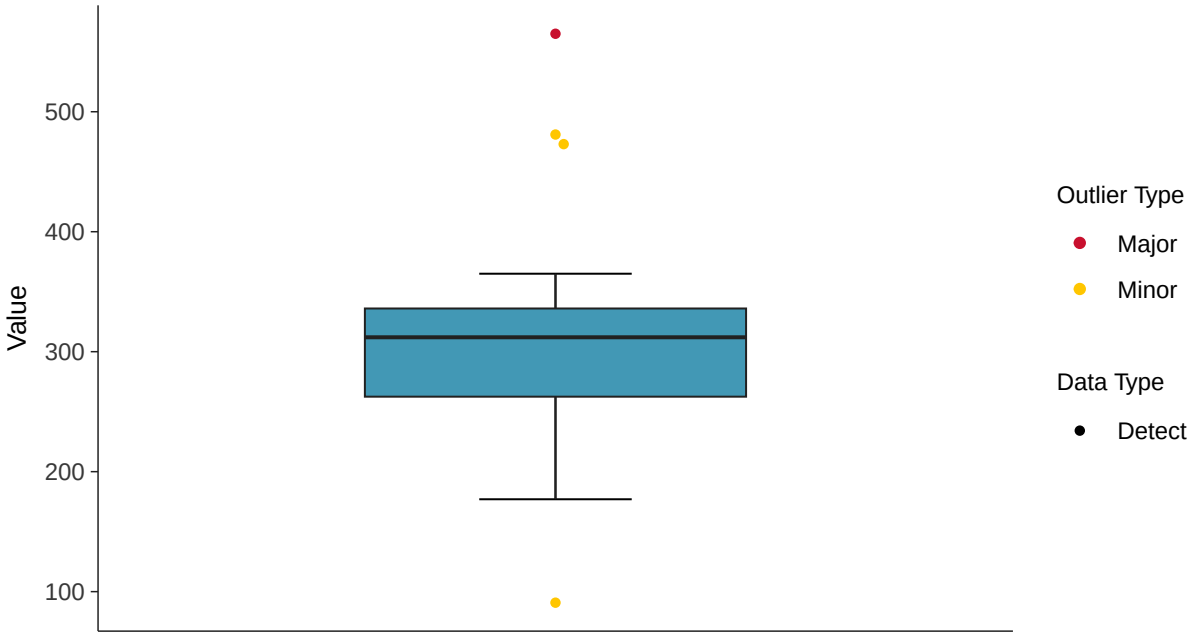
Histogram

Barium, MW-2 (ug/L)



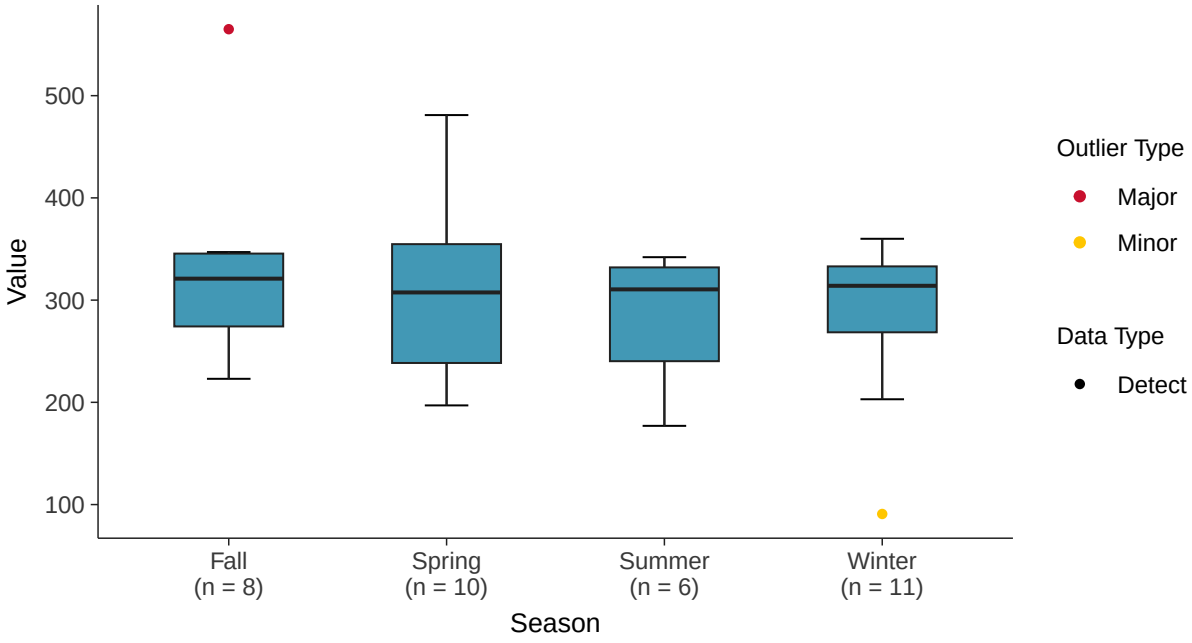
Boxplot

Barium, MW-2 (ug/L)



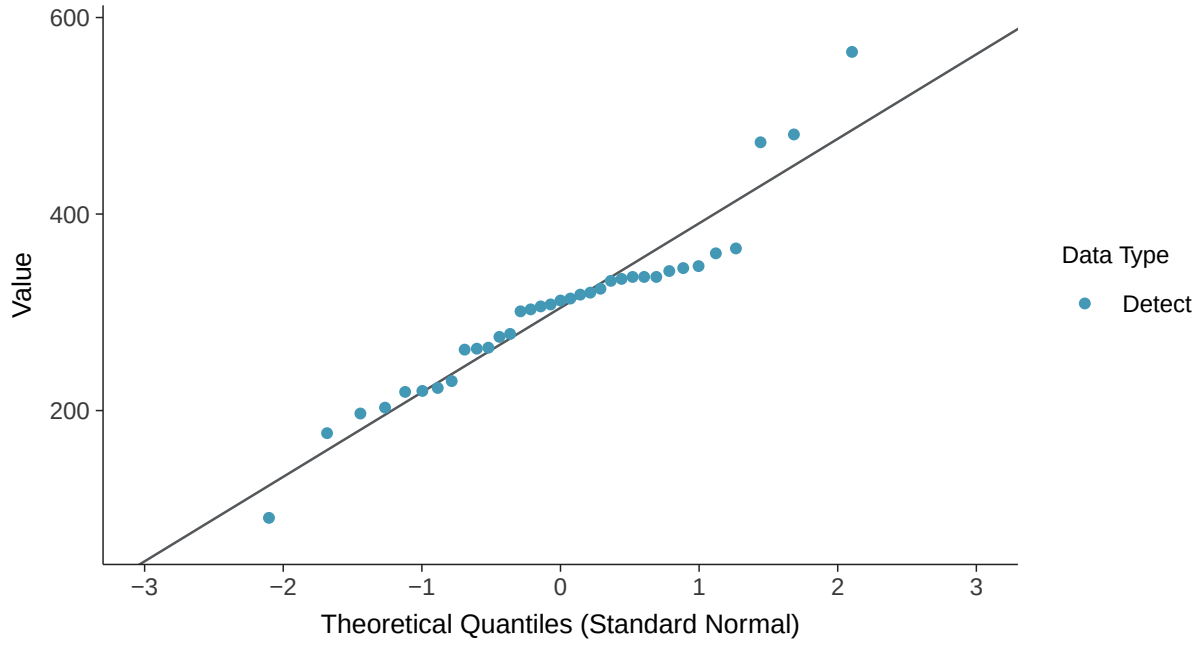
Boxplot by Season

Barium, MW-2 (ug/L)



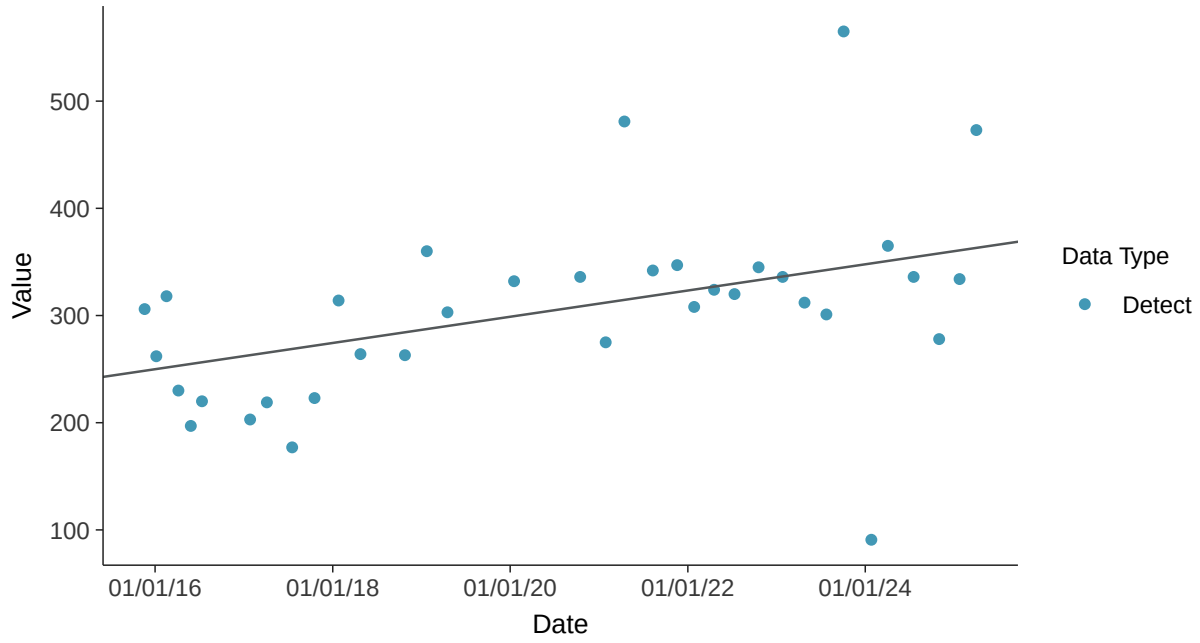
Normal Q-Q plot

Barium, MW-2 (ug/L)



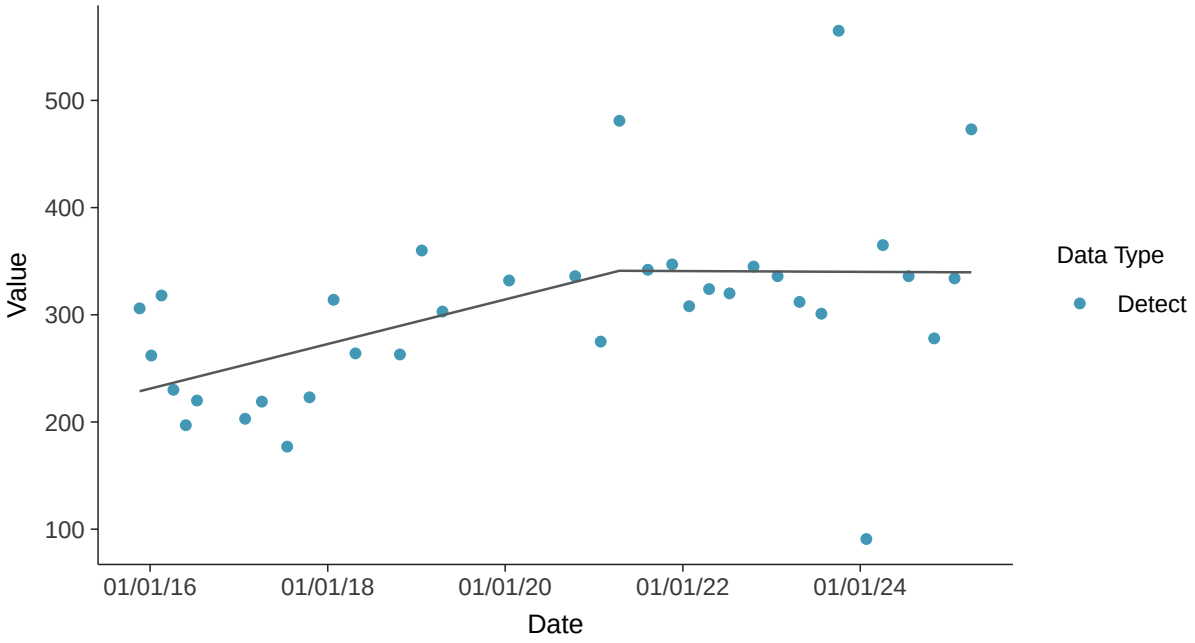
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Barium, MW-2 (ug/L)



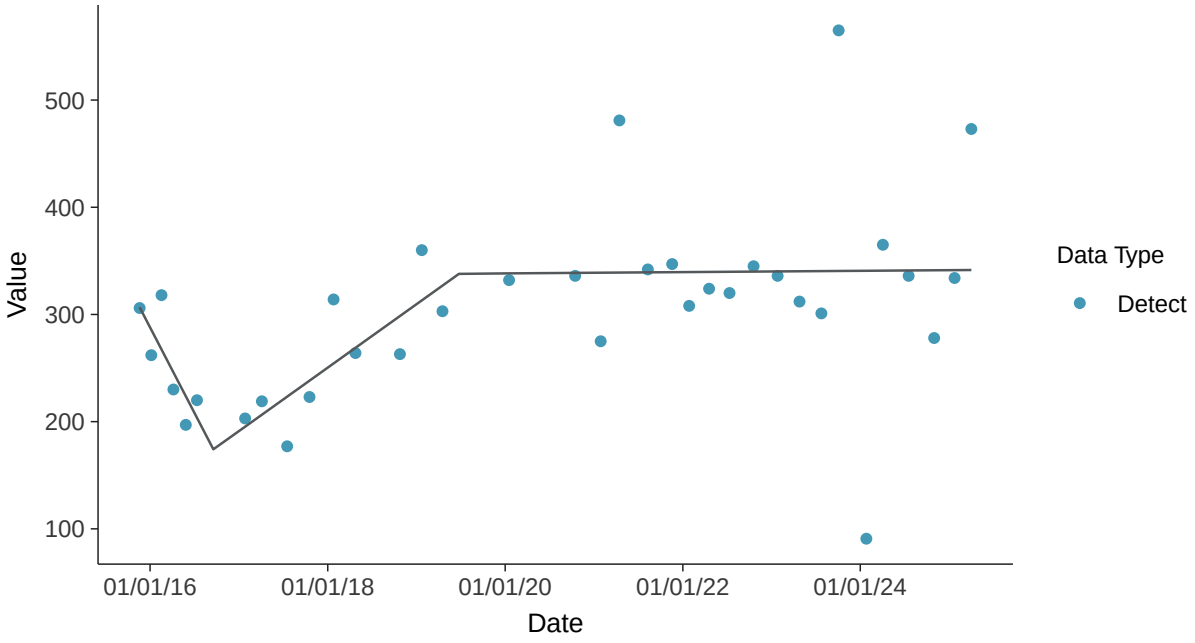
Trend Regression: Piecewise Linear-Linear

Barium, MW-2 (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Barium, MW-2 (ug/L)

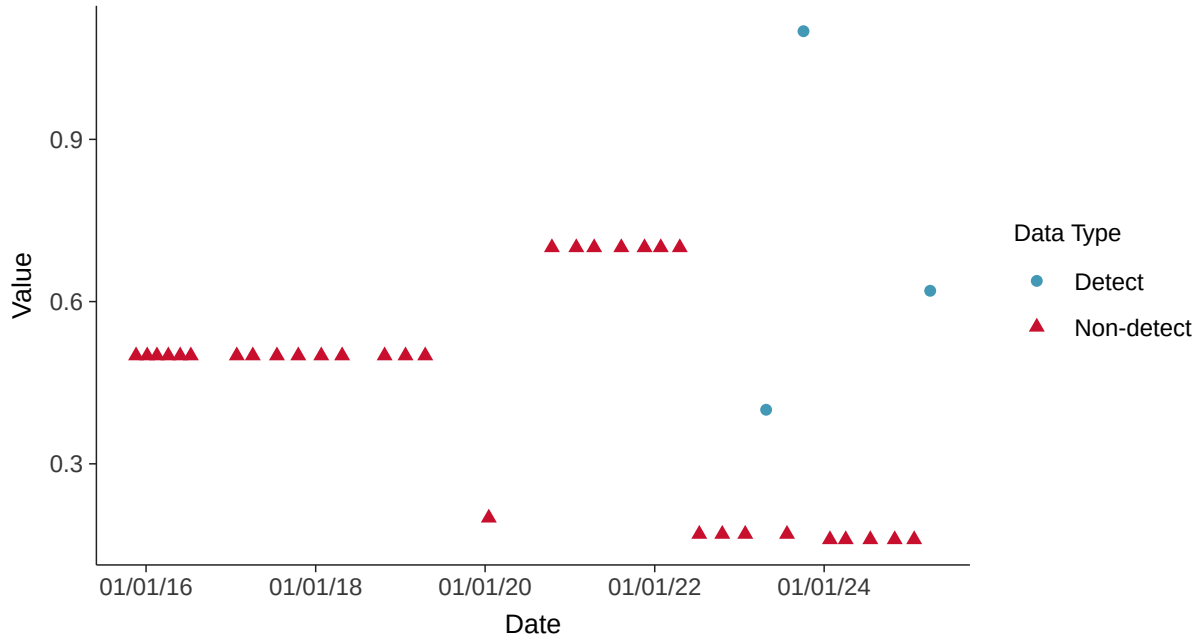


App. IV: Beryllium, MW-2

ID: 02_03_104

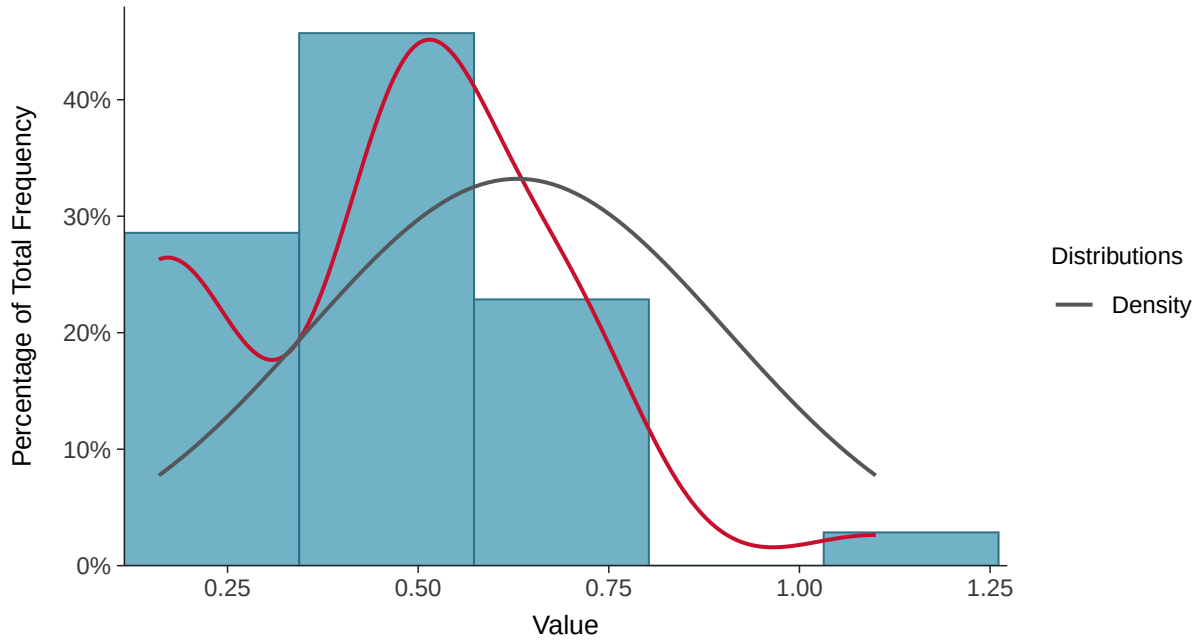
Scatter Plot

Beryllium, MW-2 (ug/L)



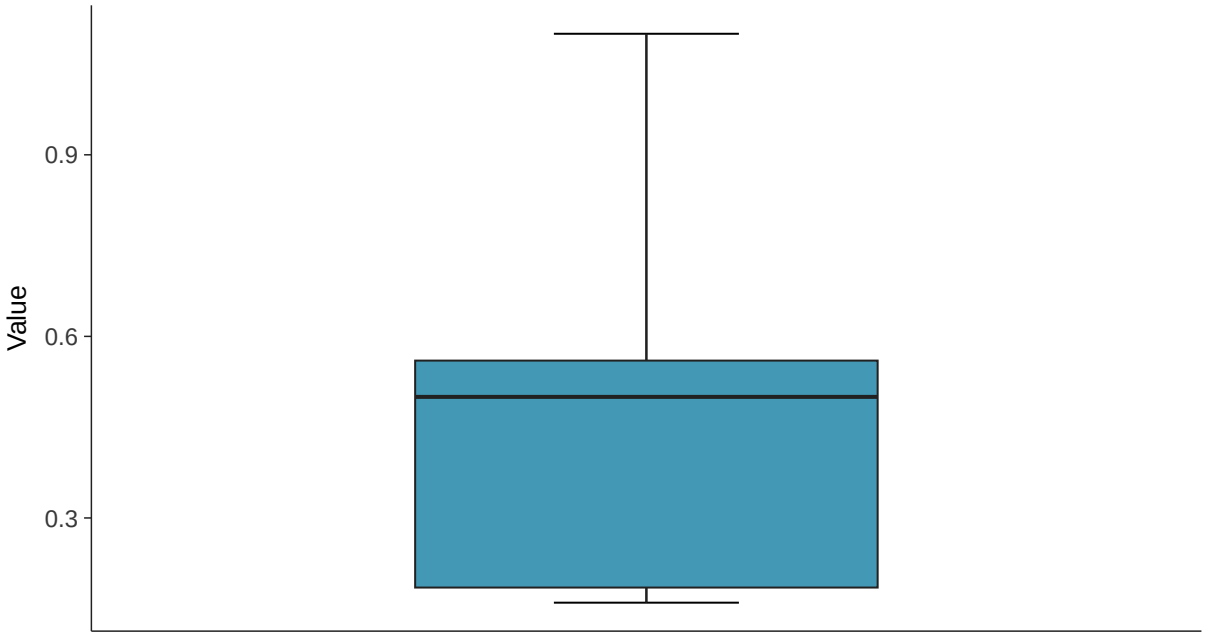
Histogram

Beryllium, MW-2 (ug/L)



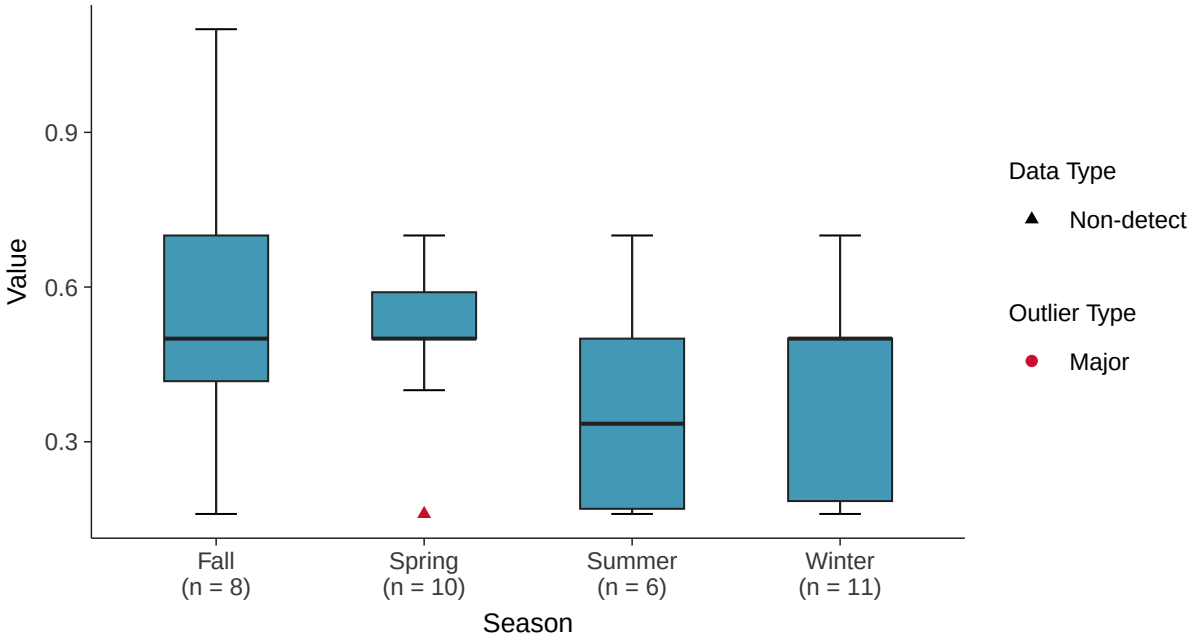
Boxplot

Beryllium, MW-2 (ug/L)



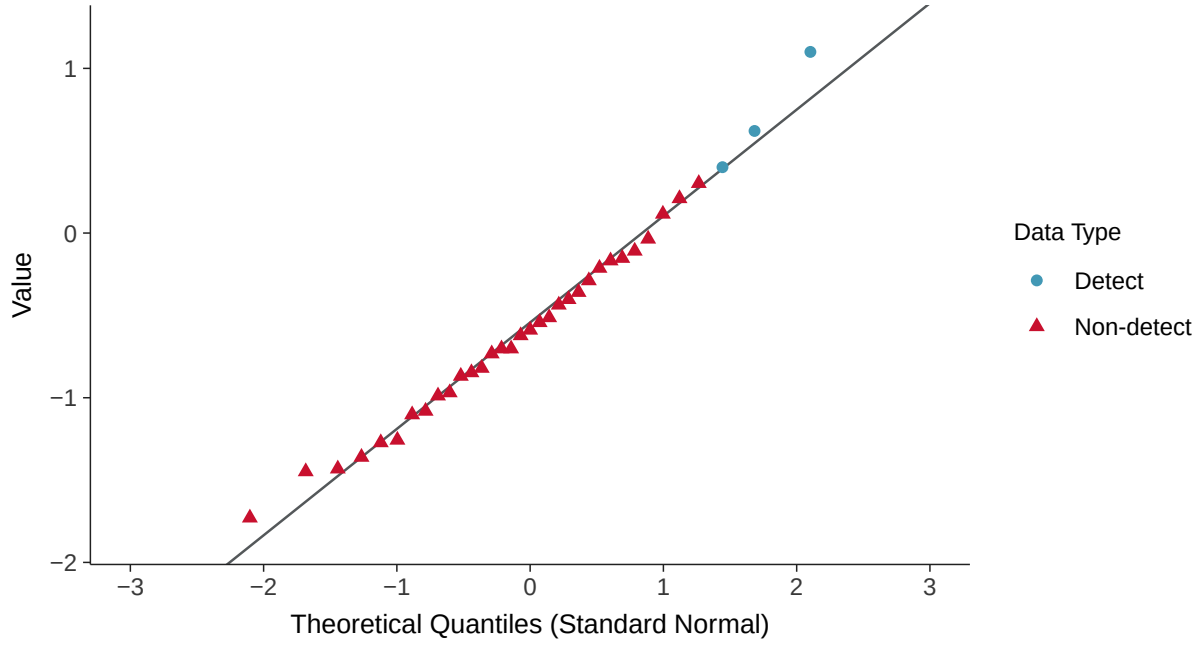
Boxplot by Season

Beryllium, MW-2 (ug/L)



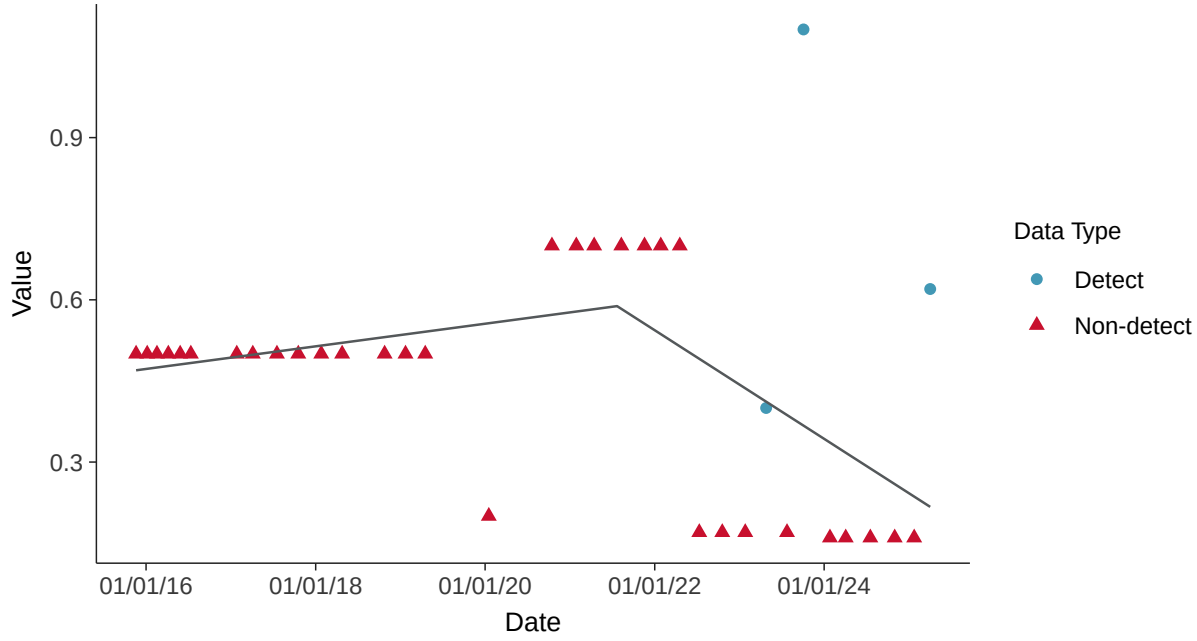
Normal Q-Q plot using ROS Imputed Estimates

Beryllium, MW-2 (ug/L)



Trend Regression: Piecewise Linear-Linear

Beryllium, MW-2 (ug/L)

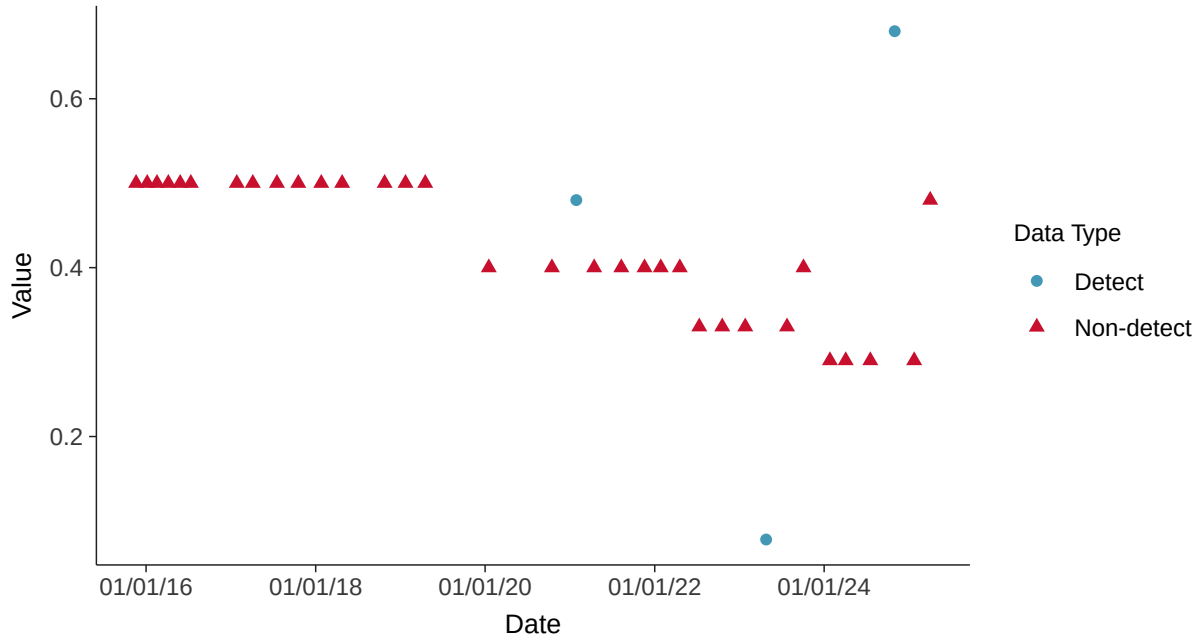


App. IV: Cadmium, MW-2

ID: 02_03_106

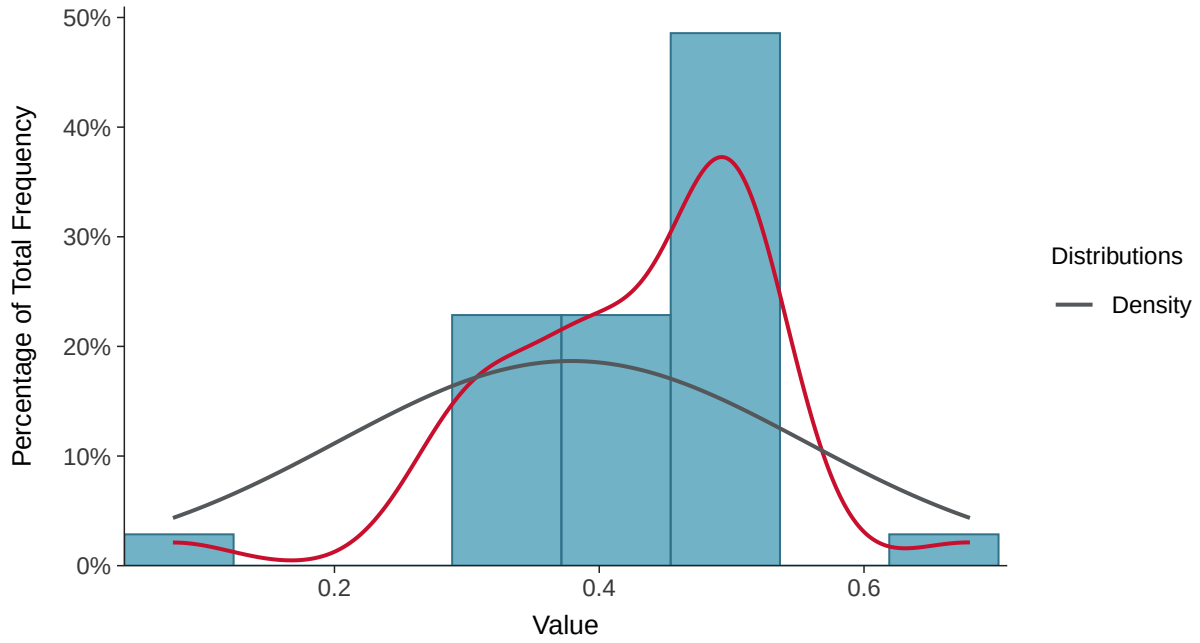
Scatter Plot

Cadmium, MW-2 (ug/L)



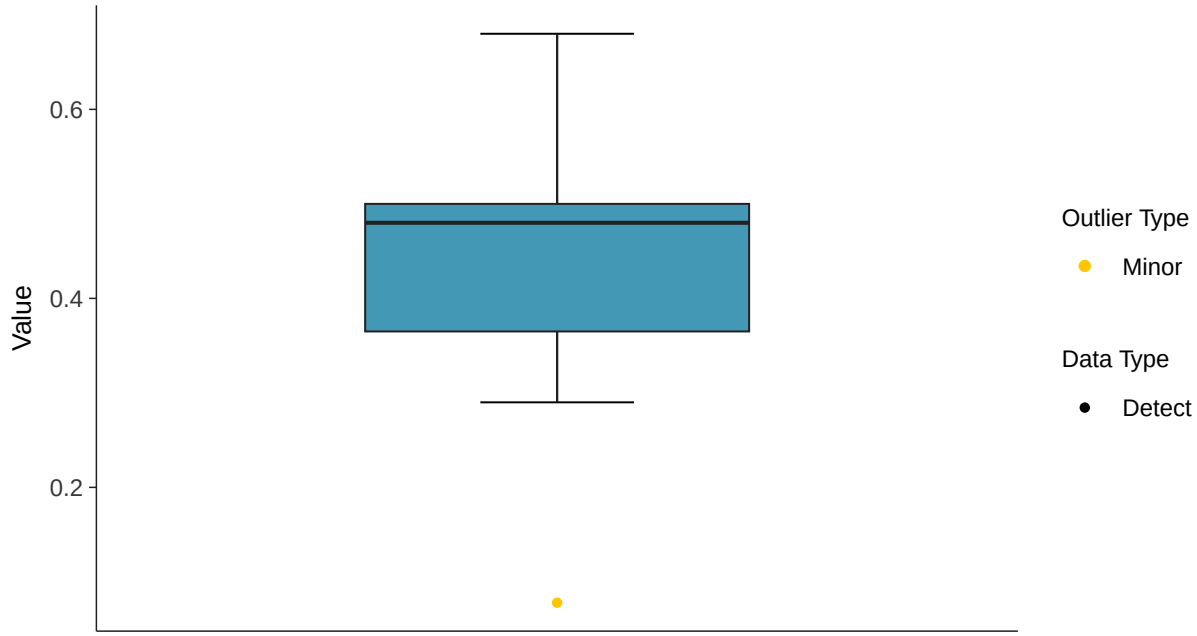
Histogram

Cadmium, MW-2 (ug/L)



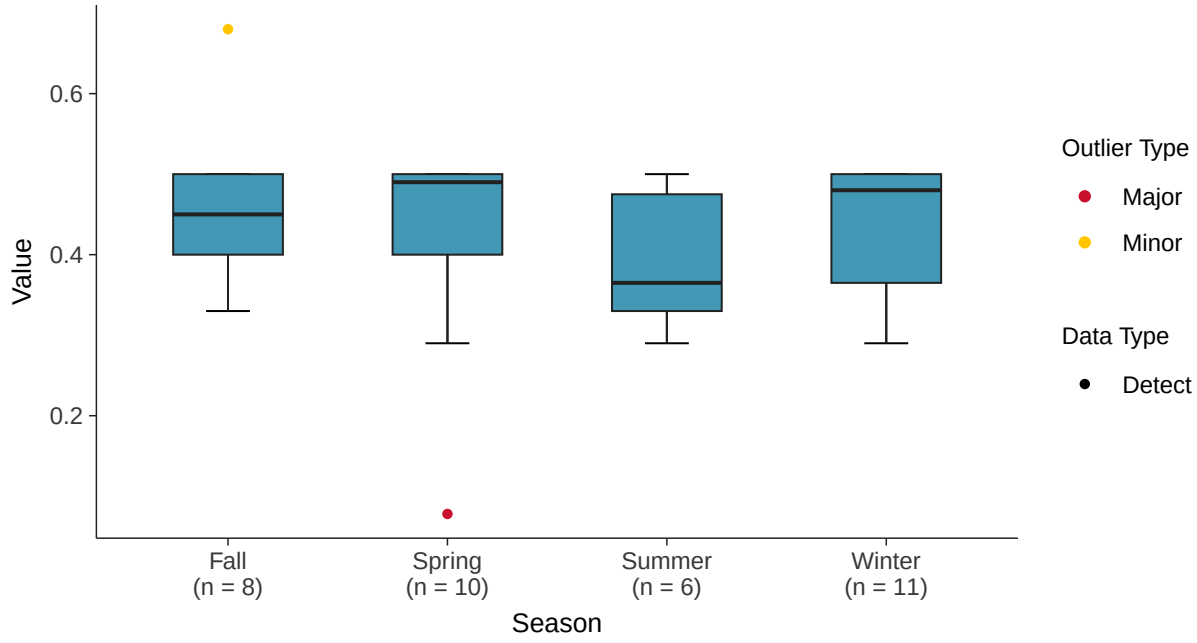
Boxplot

Cadmium, MW-2 (ug/L)



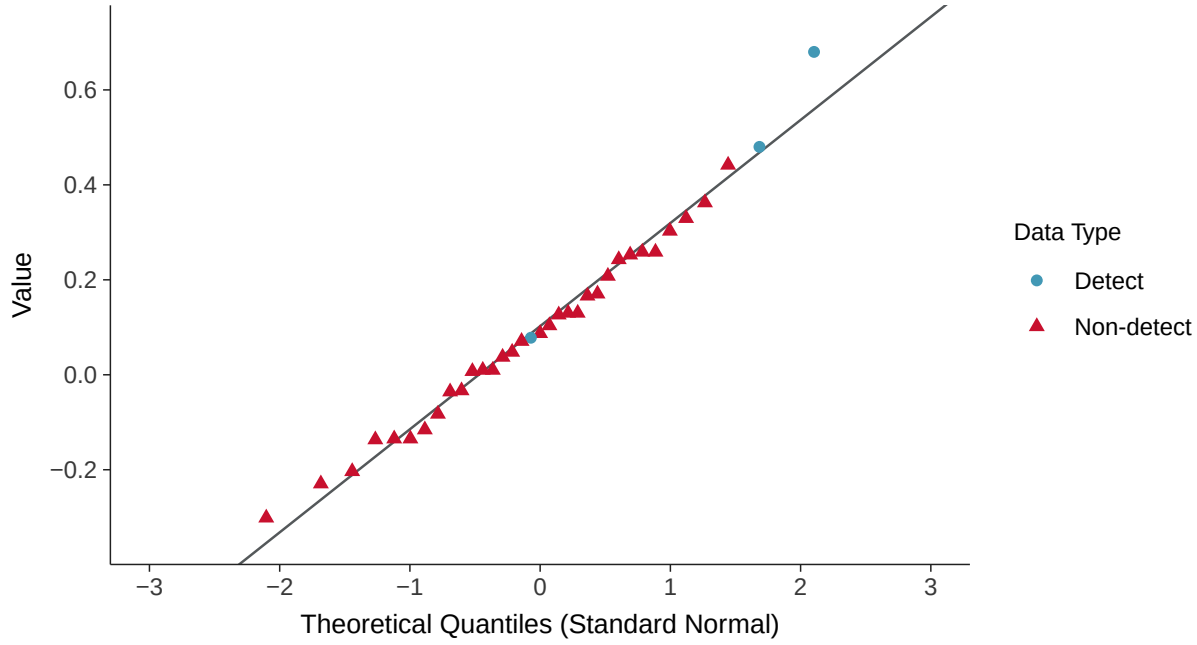
Boxplot by Season

Cadmium, MW-2 (ug/L)



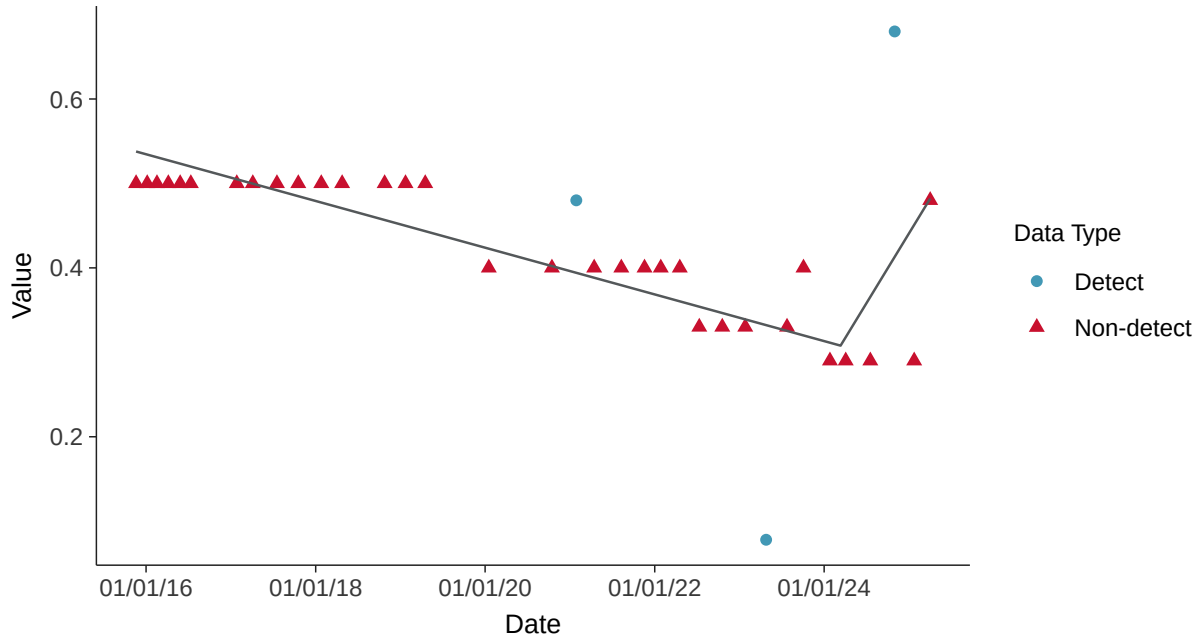
Normal Q-Q plot using ROS Imputed Estimates

Cadmium, MW-2 (ug/L)



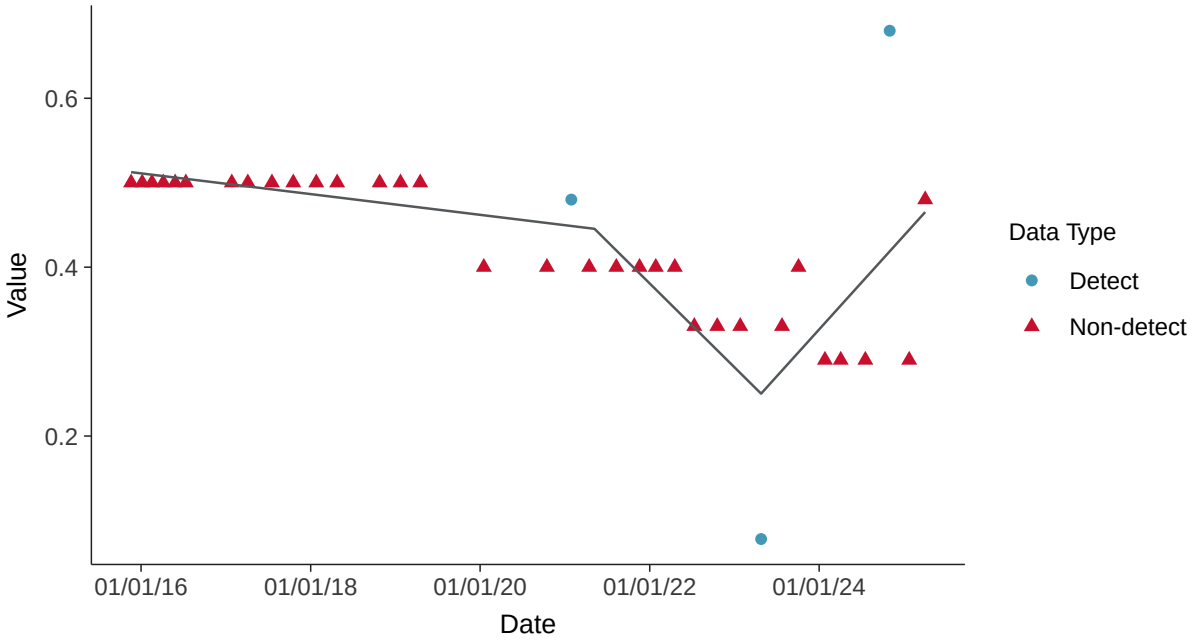
Trend Regression: Piecewise Linear-Linear

Cadmium, MW-2 (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Cadmium, MW-2 (ug/L)

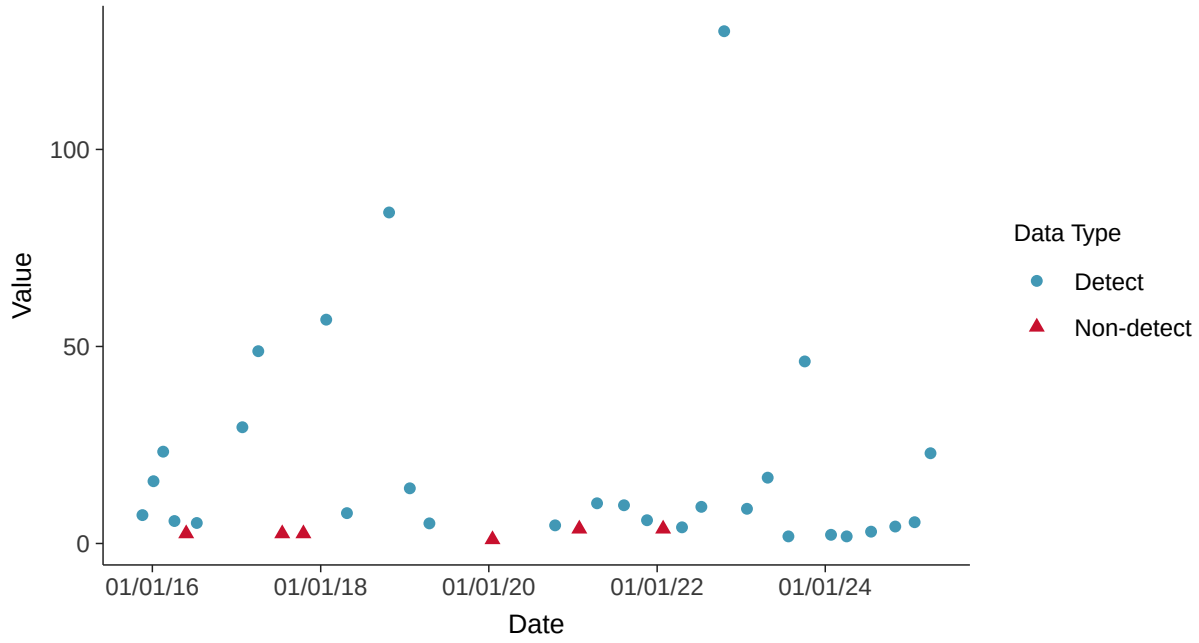


App. IV: Chromium, MW-2

ID: 02_03_109

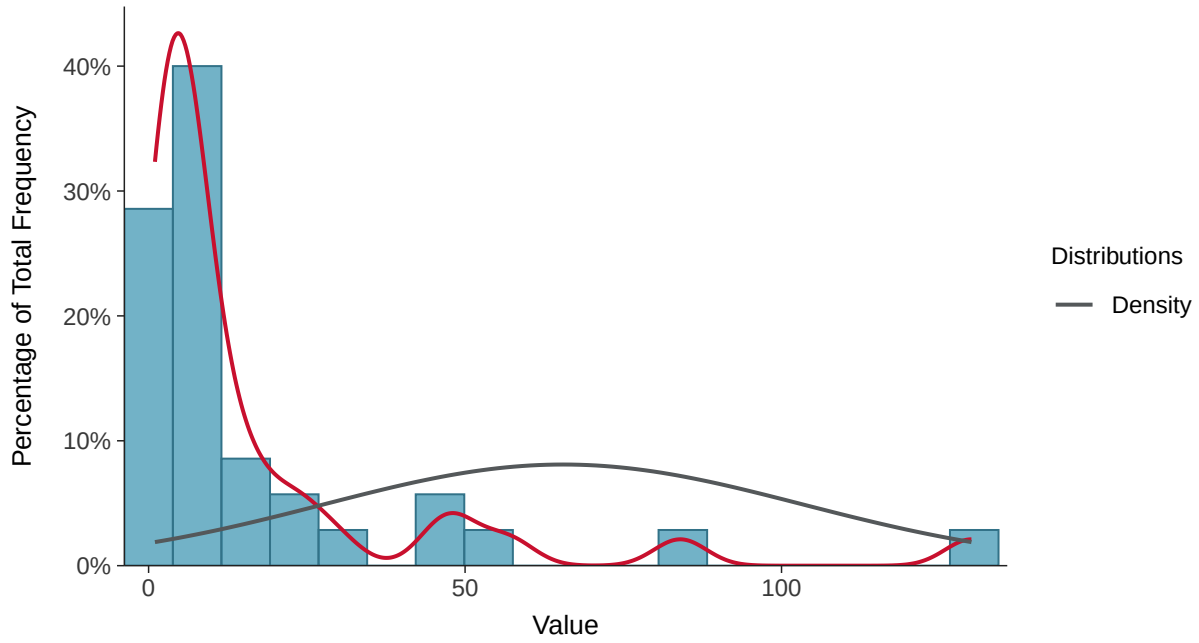
Scatter Plot

Chromium, MW-2 (ug/L)



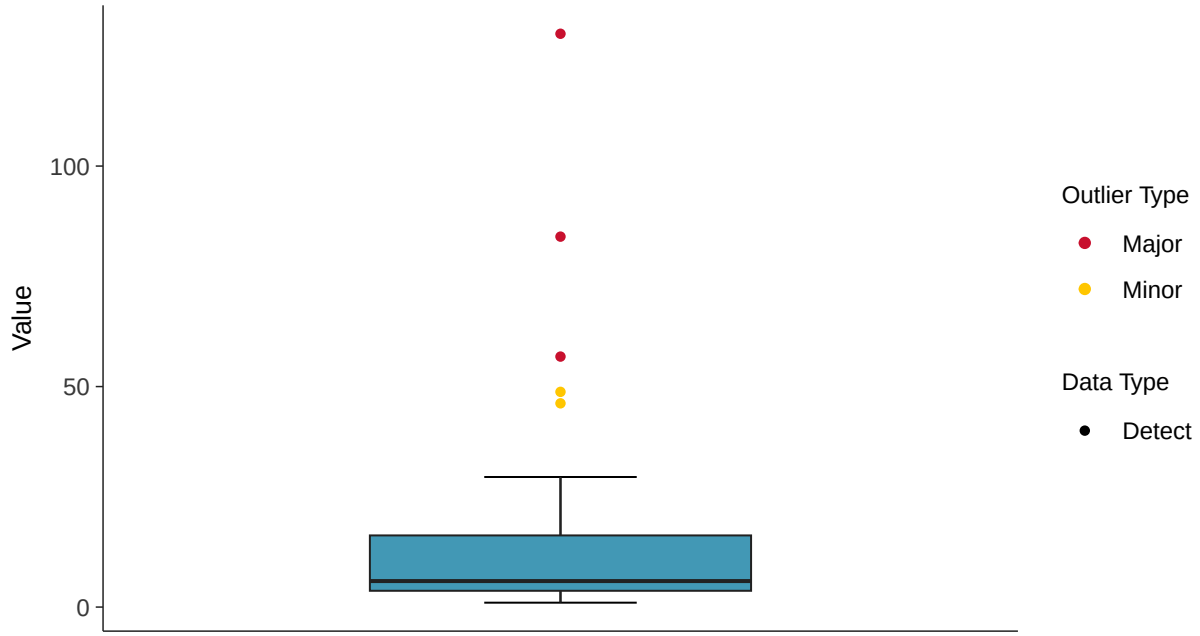
Histogram

Chromium, MW-2 (ug/L)



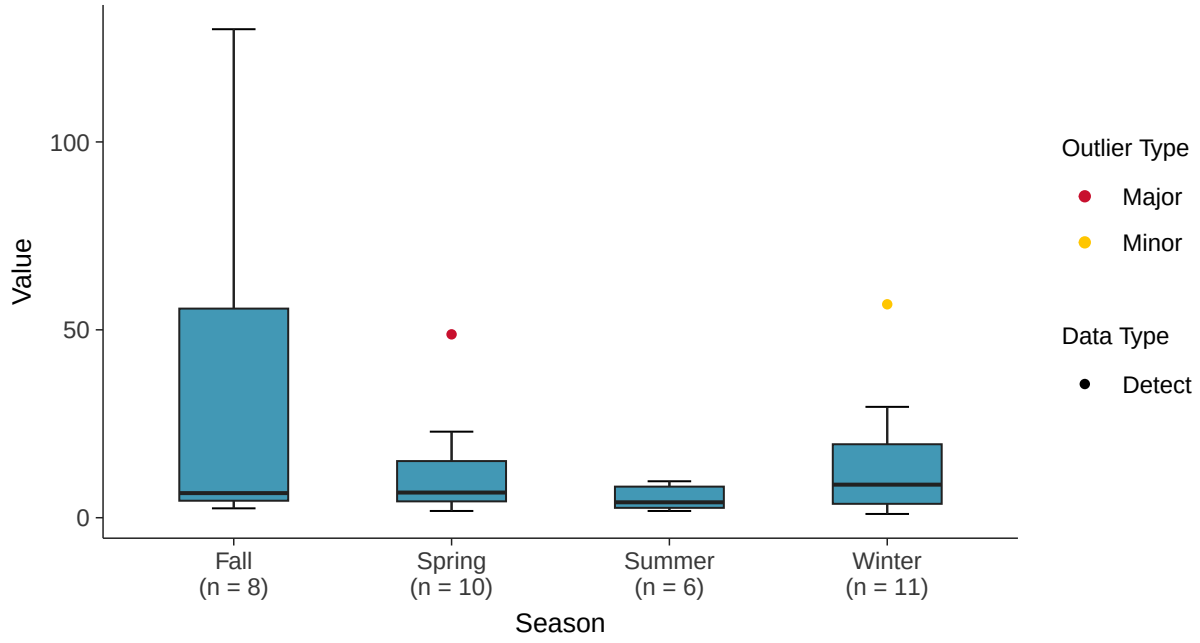
Boxplot

Chromium, MW-2 (ug/L)



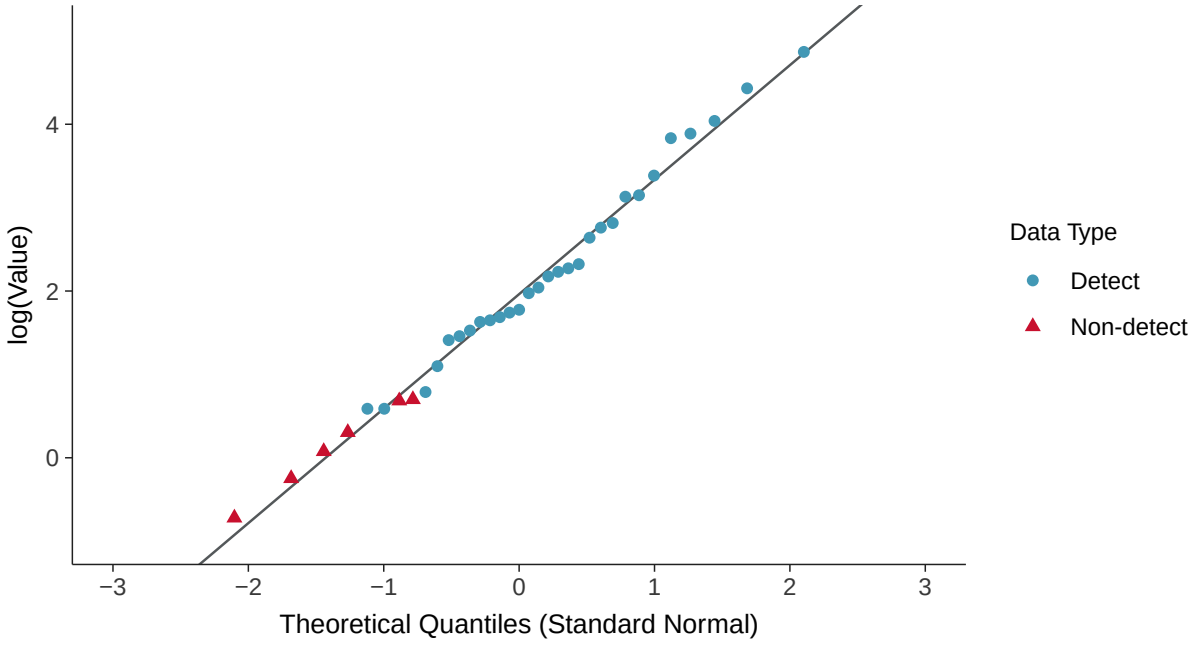
Boxplot by Season

Chromium, MW-2 (ug/L)



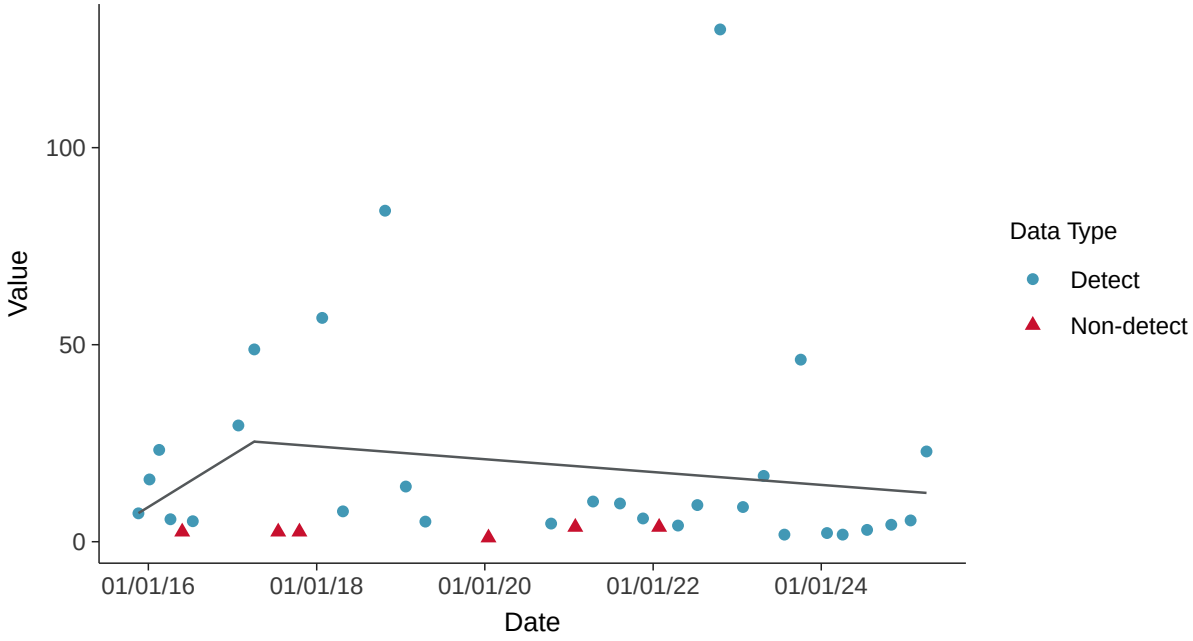
Lognormal Q-Q plot using ROS Imputed Estimates

Chromium, MW-2 (ug/L)



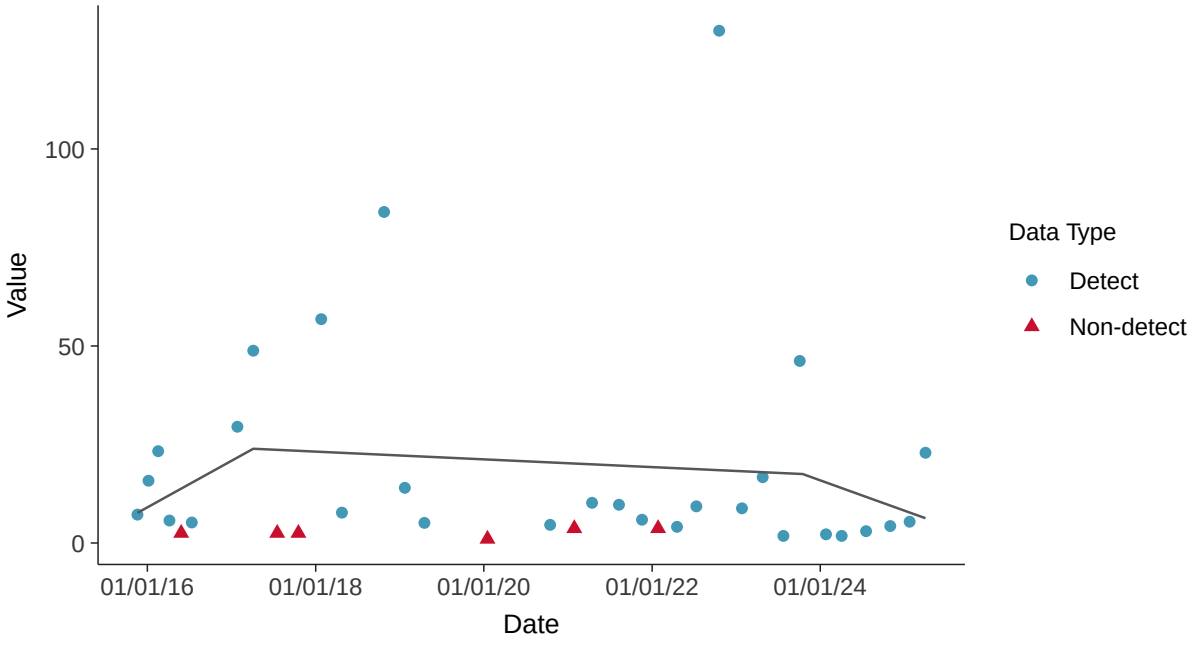
Trend Regression: Piecewise Linear-Linear

Chromium, MW-2 (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Chromium, MW-2 (ug/L)

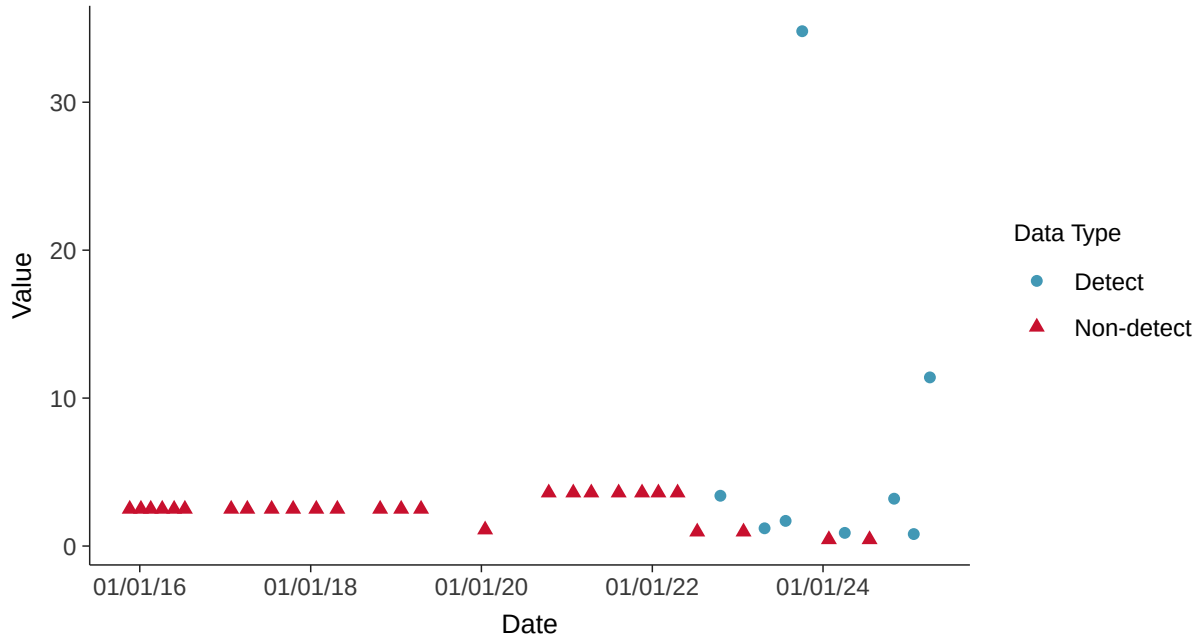


App. IV: Cobalt, MW-2

ID: 02_03_110

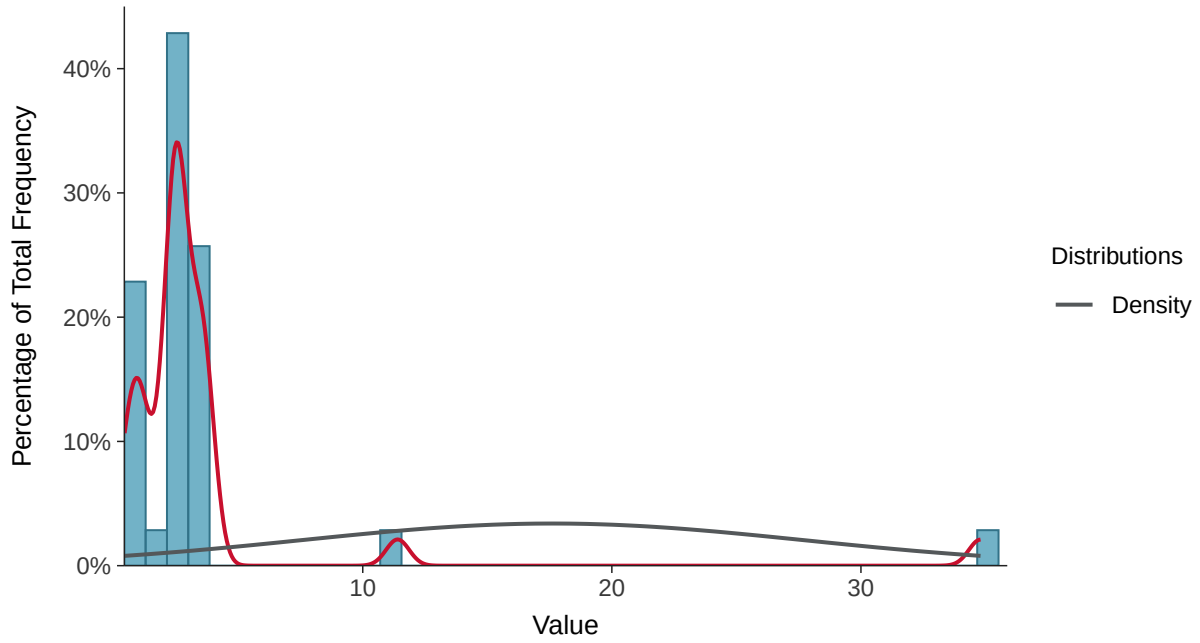
Scatter Plot

Cobalt, MW-2 (ug/L)



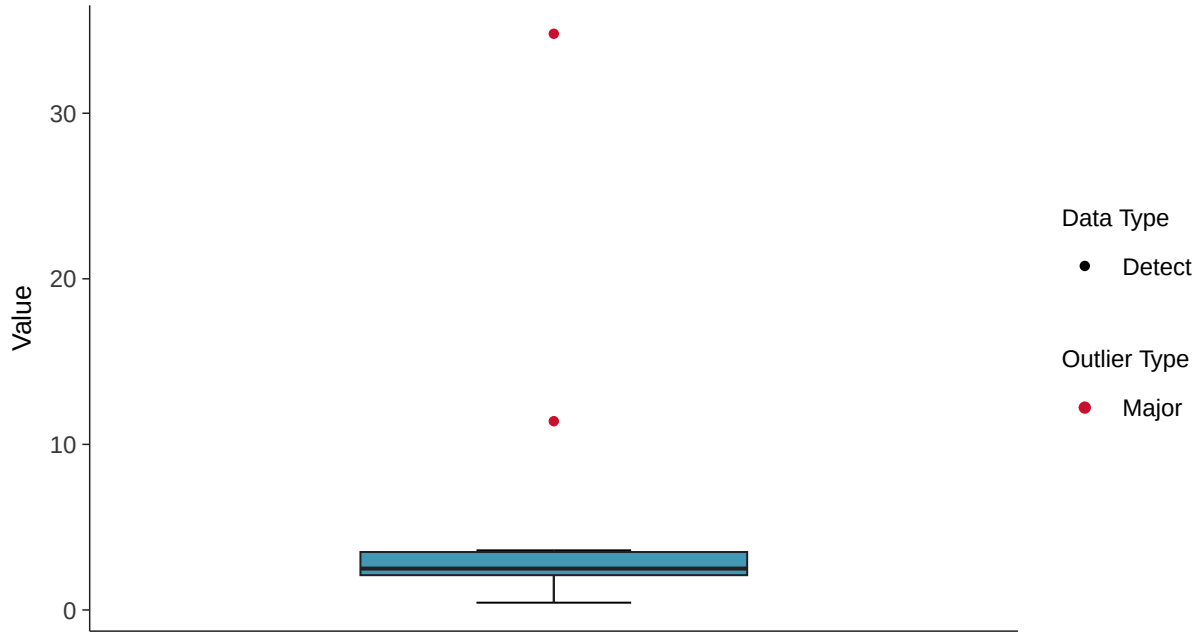
Histogram

Cobalt, MW-2 (ug/L)



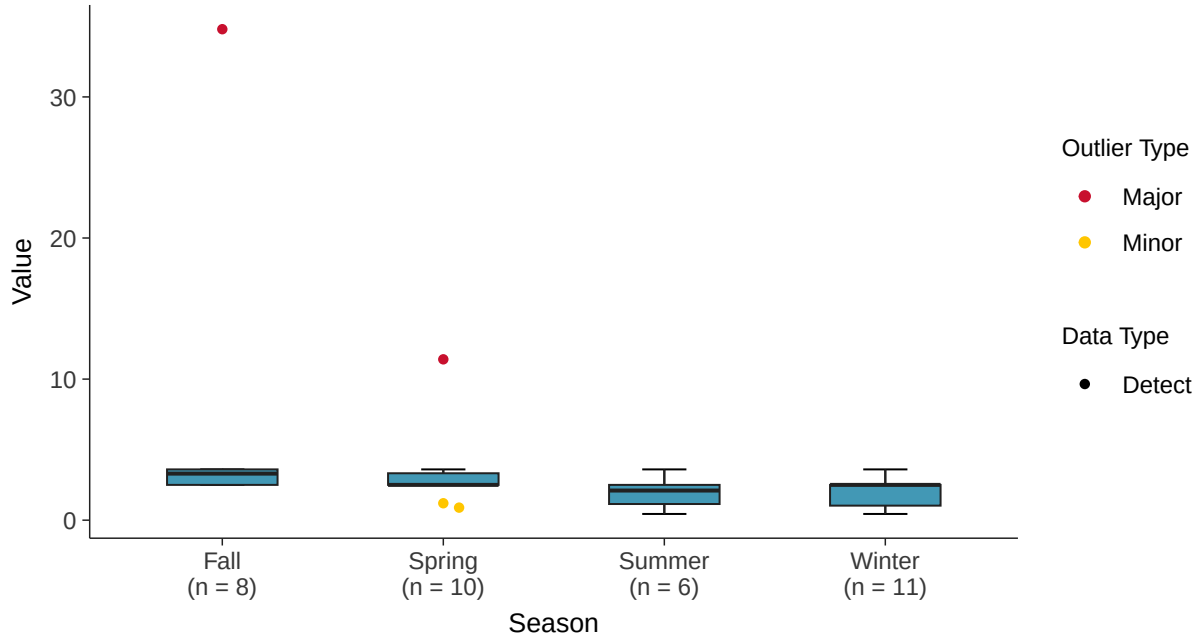
Boxplot

Cobalt, MW-2 (ug/L)



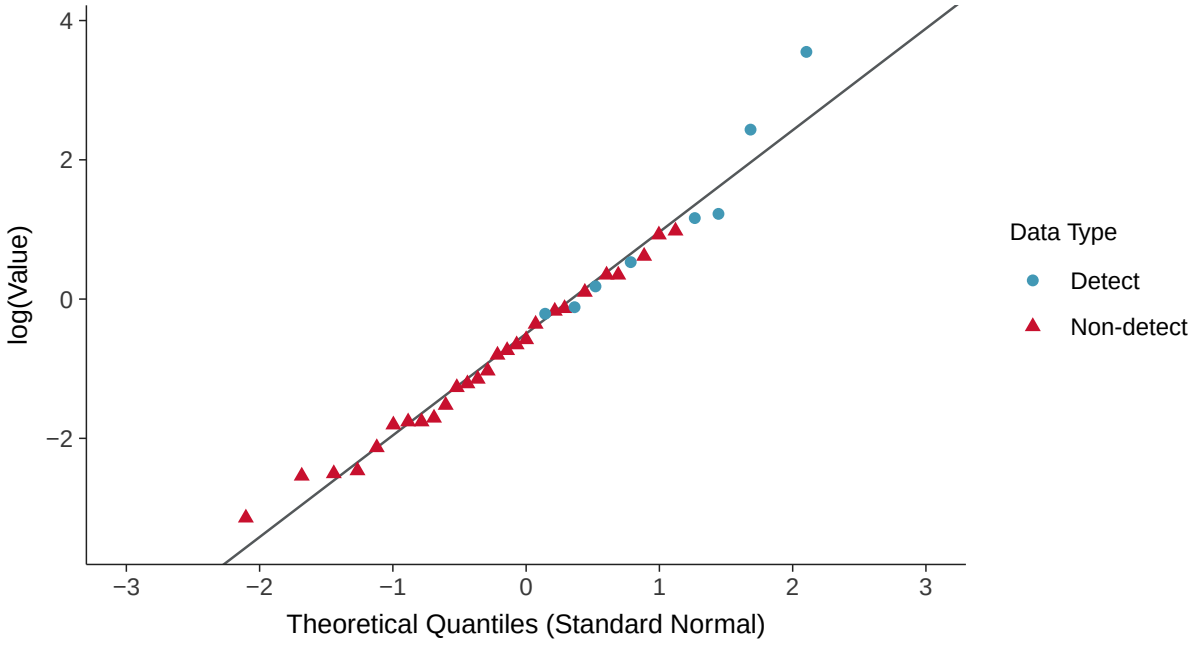
Boxplot by Season

Cobalt, MW-2 (ug/L)



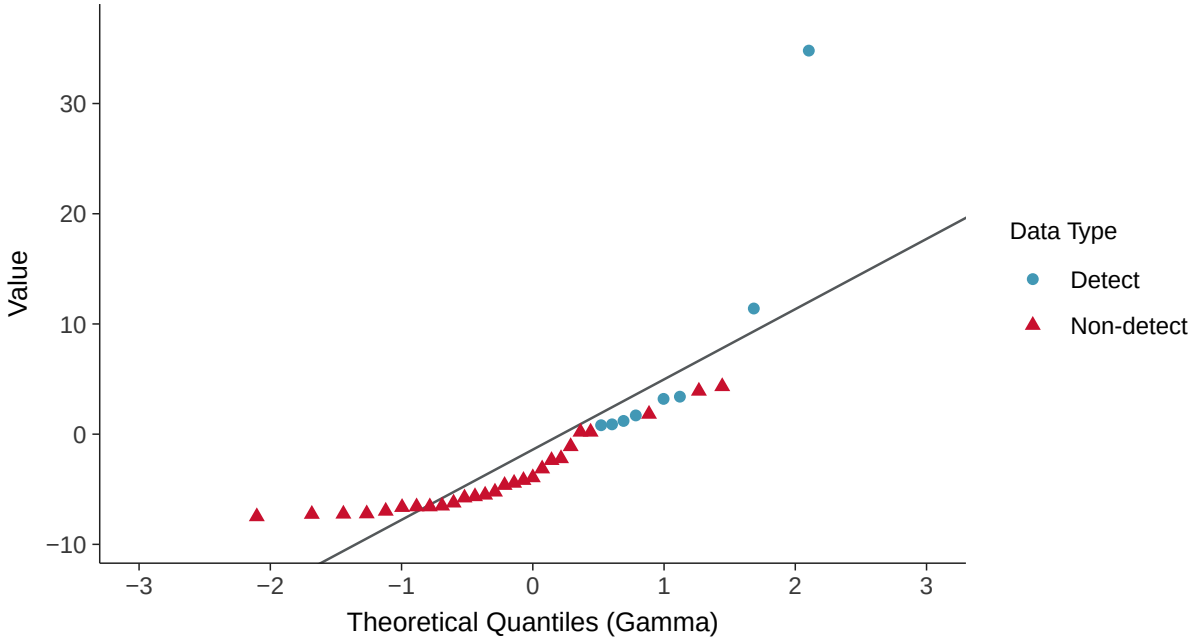
Lognormal Q-Q plot using ROS Imputed Estimates

Cobalt, MW-2 (ug/L)



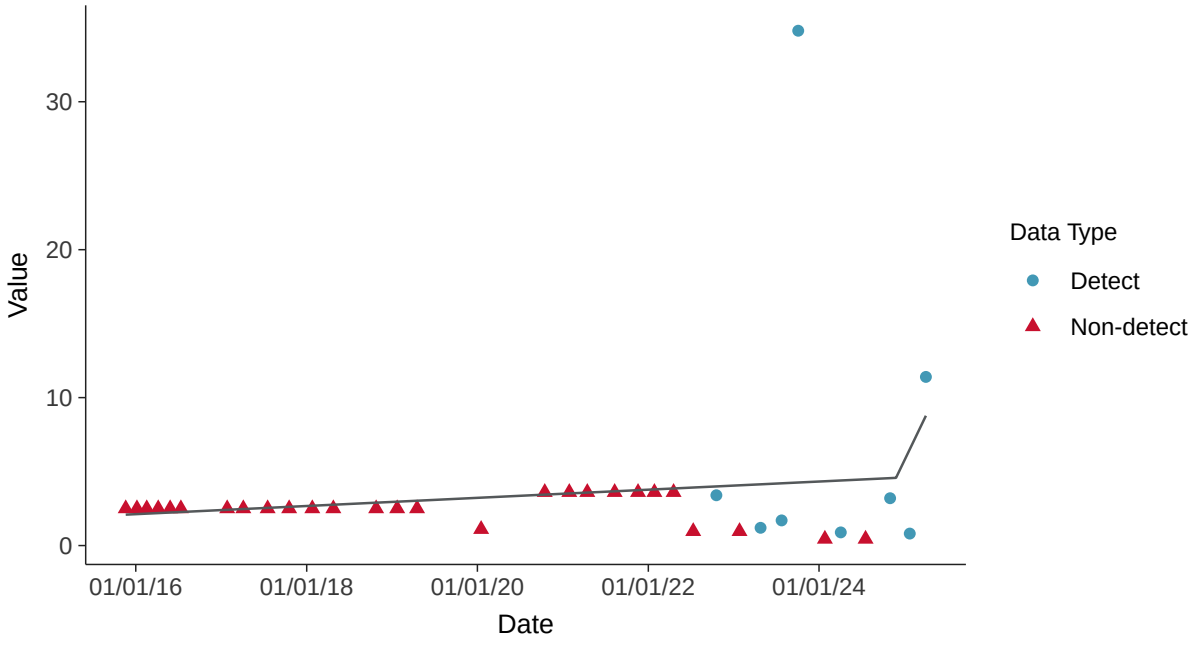
Gamma Q-Q plot using ROS Imputed Estimates

Cobalt, MW-2 (ug/L)



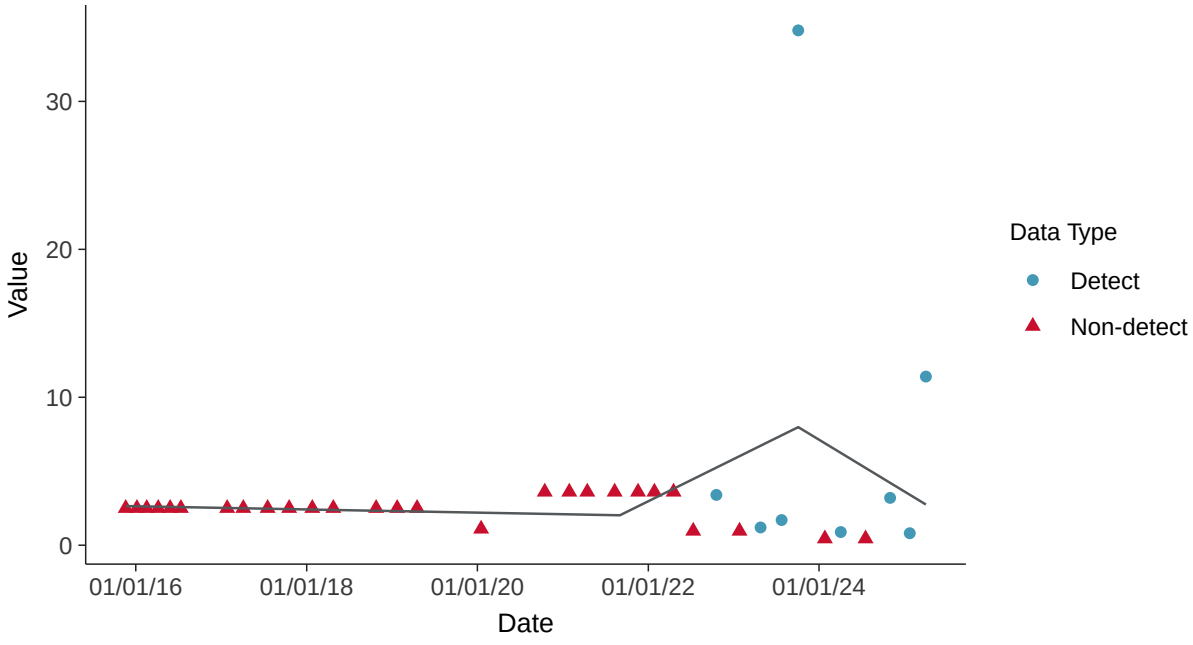
Trend Regression: Piecewise Linear-Linear

Cobalt, MW-2 (ug/L)



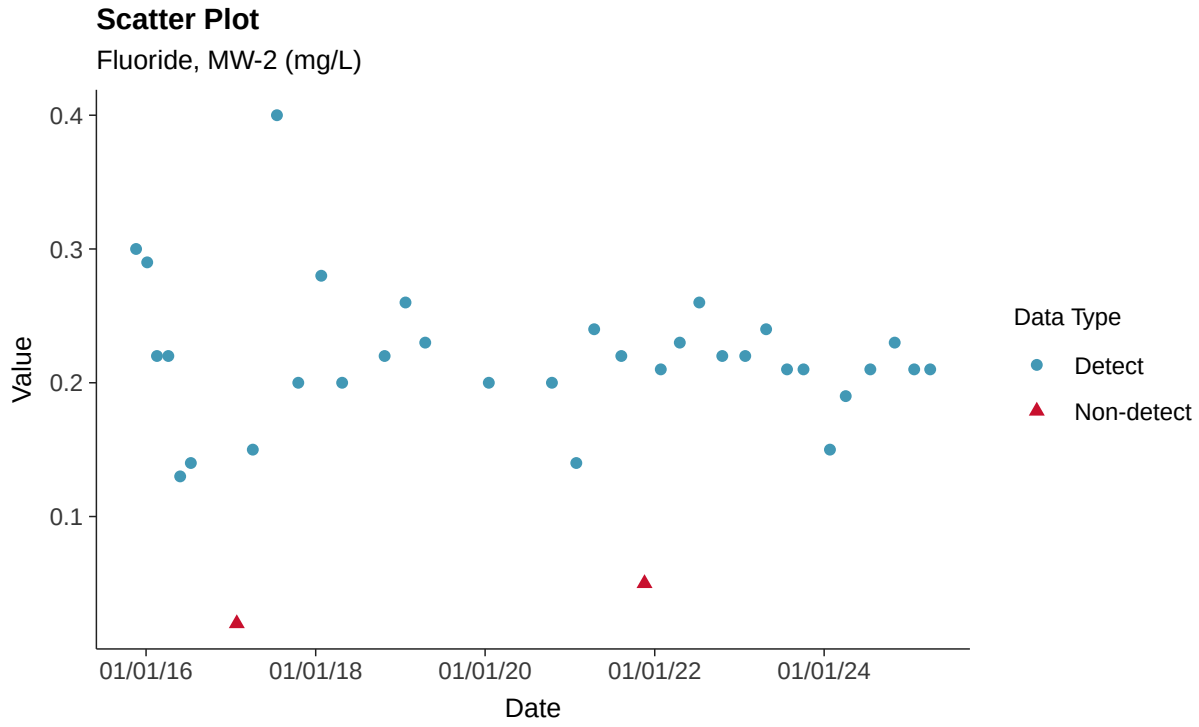
Trend Regression: Piecewise Linear-Linear-Linear

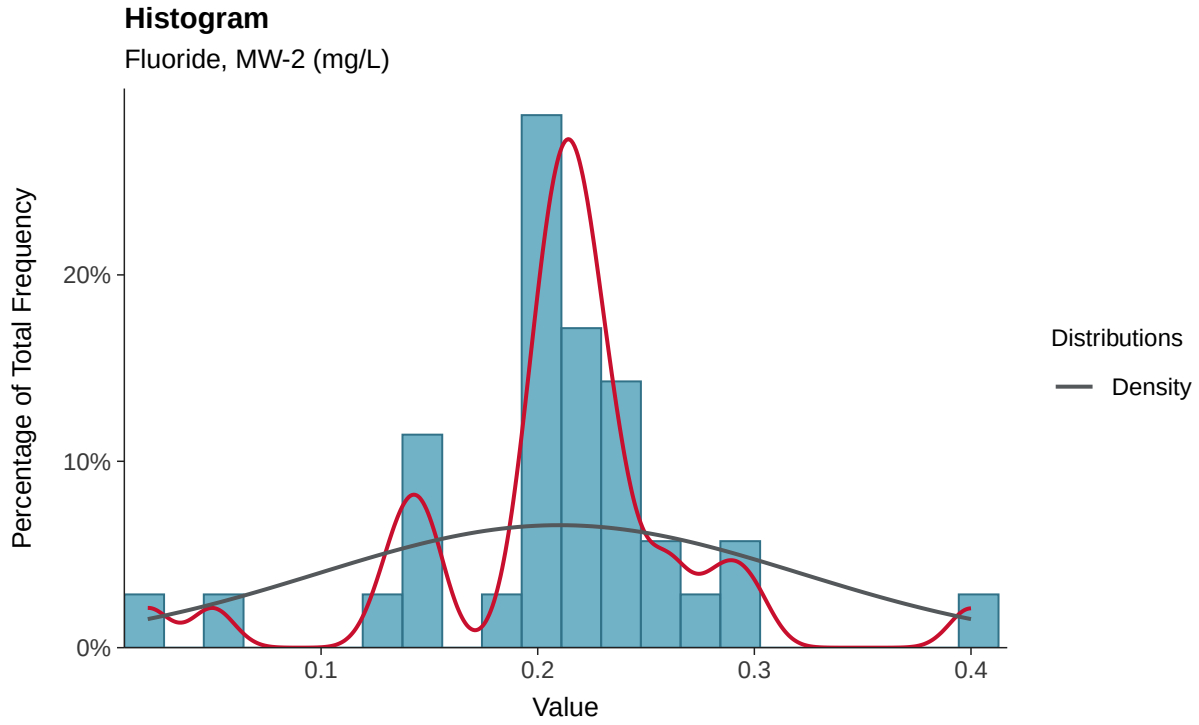
Cobalt, MW-2 (ug/L)



App. IV: Fluoride, MW-2

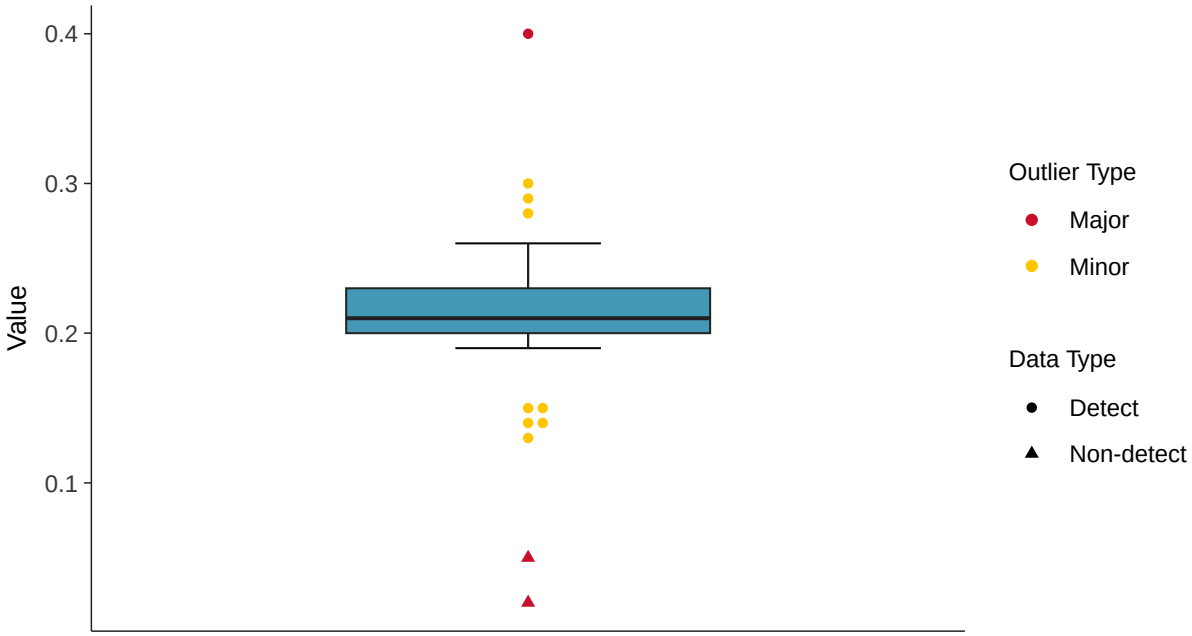
ID: 02_03_112





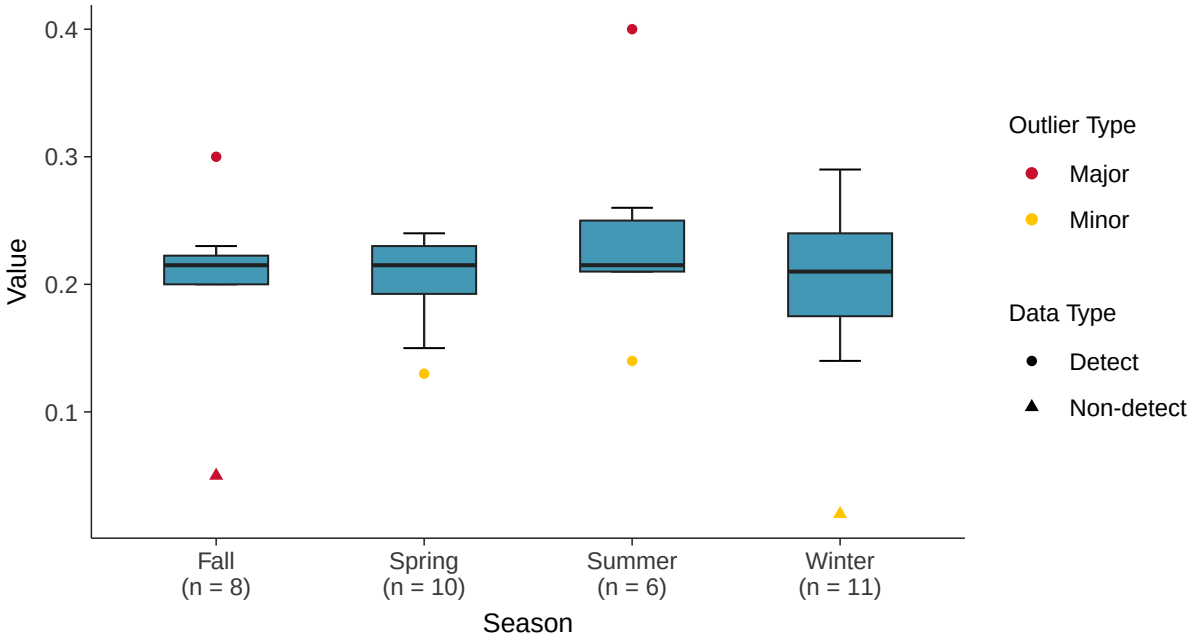
Boxplot

Fluoride, MW-2 (mg/L)



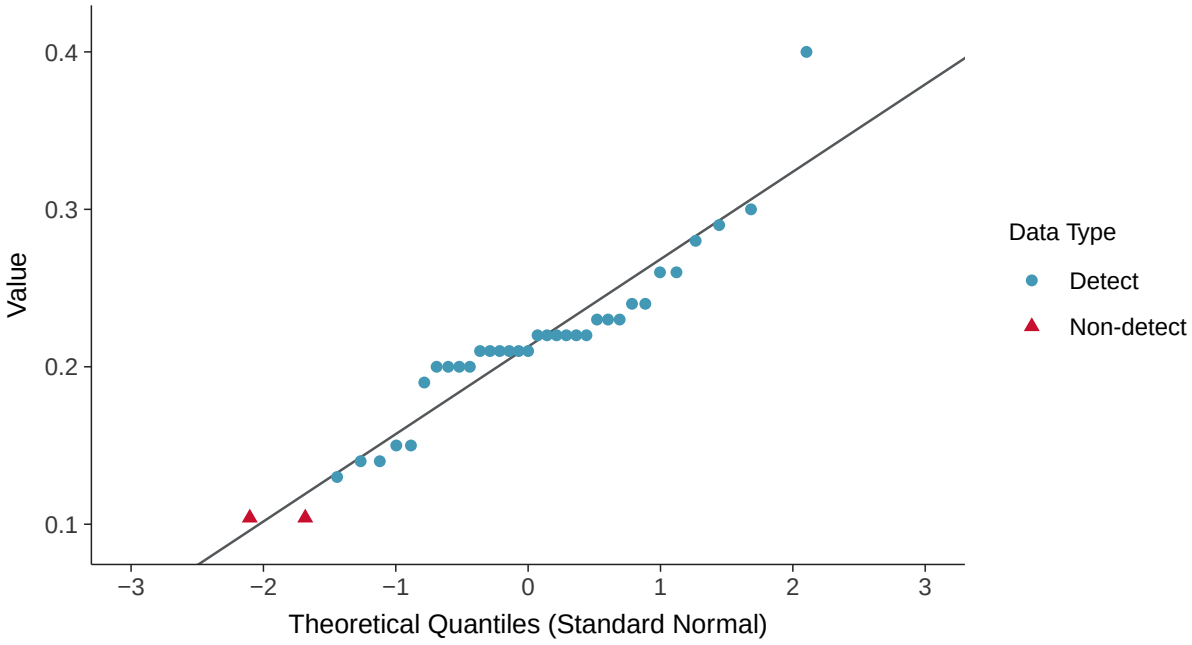
Boxplot by Season

Fluoride, MW-2 (mg/L)



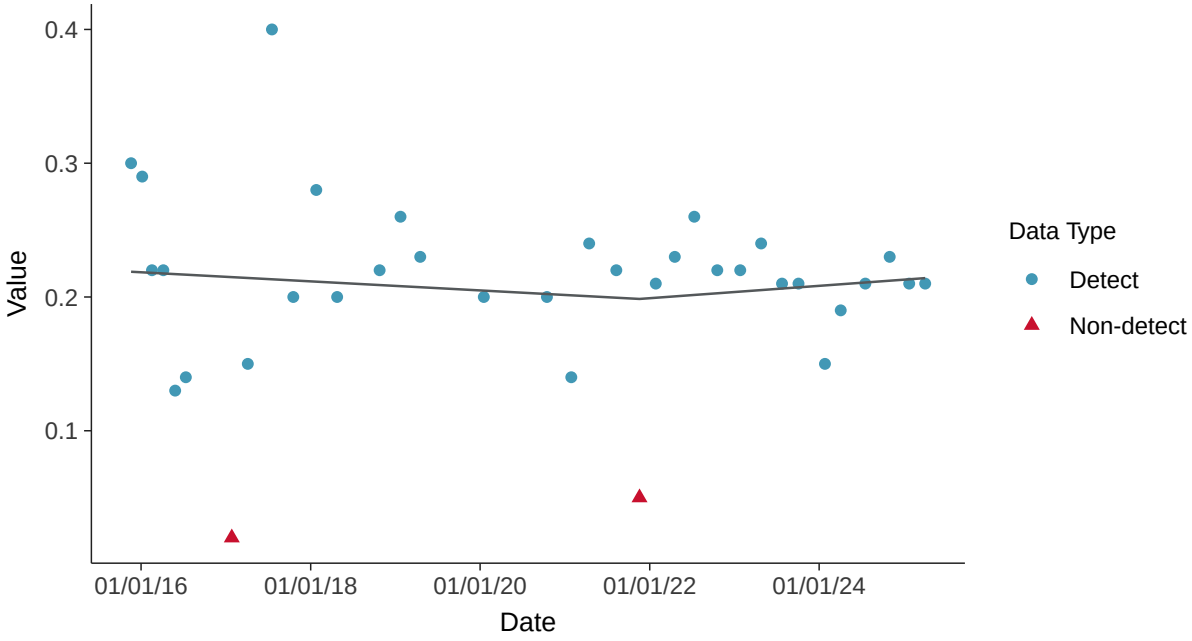
Normal Q-Q plot using ROS Imputed Estimates

Fluoride, MW-2 (mg/L)



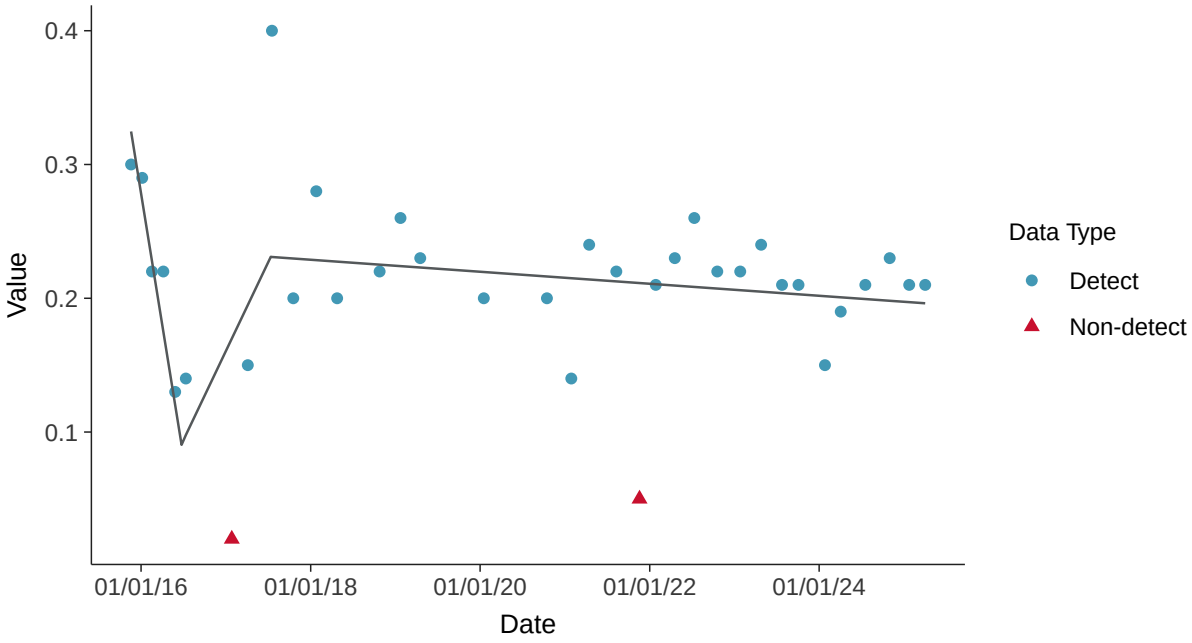
Trend Regression: Piecewise Linear-Linear

Fluoride, MW-2 (mg/L)



Trend Regression: Piecewise Linear-Linear-Linear

Fluoride, MW-2 (mg/L)

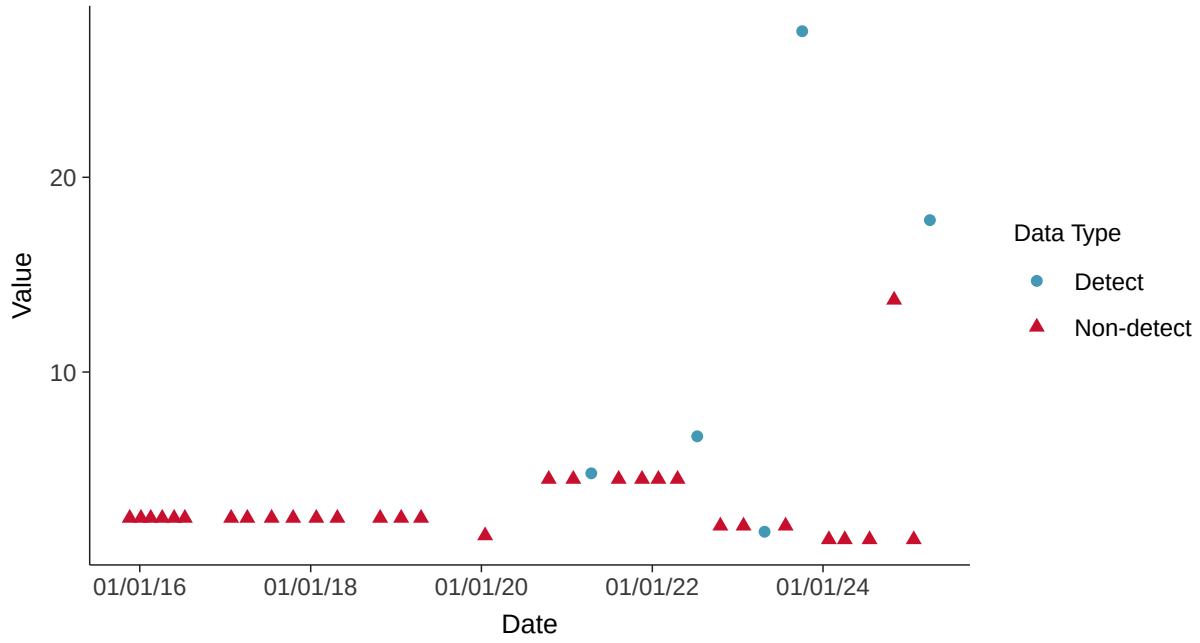


App. IV: Lead, MW-2

ID: 02_03_113

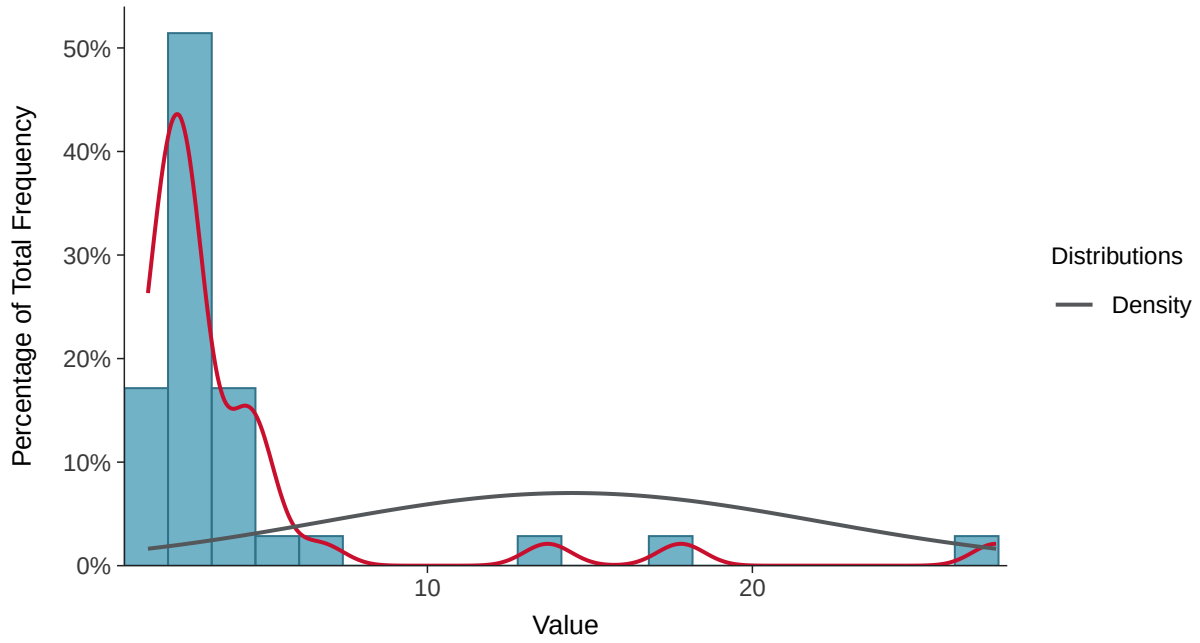
Scatter Plot

Lead, MW-2 (ug/L)



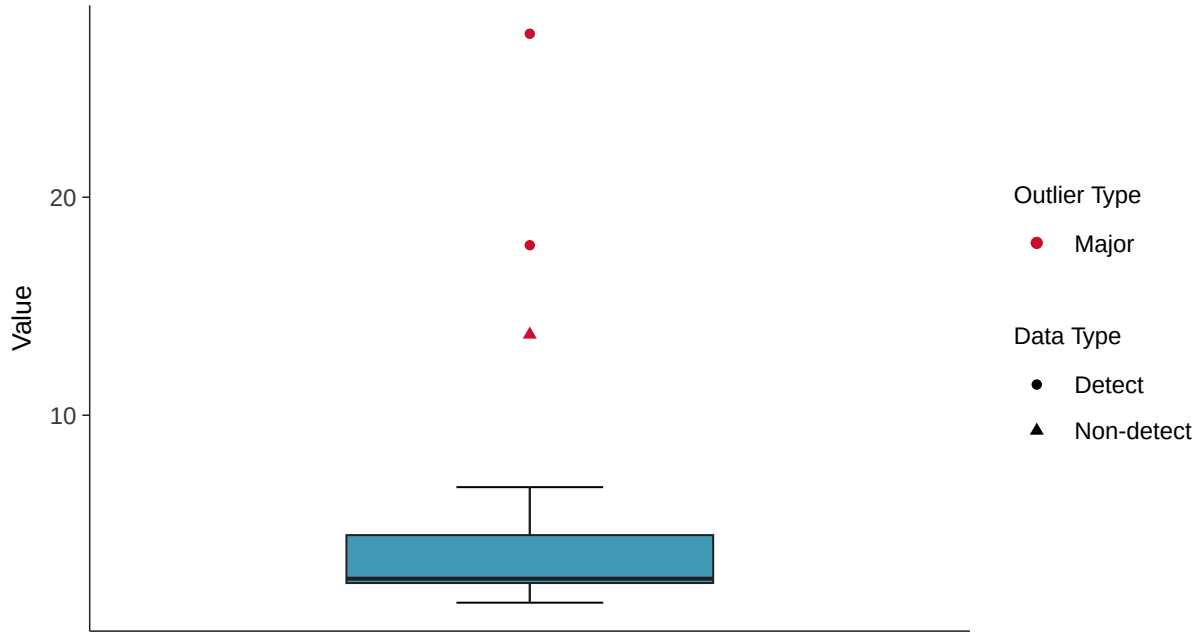
Histogram

Lead, MW-2 (ug/L)



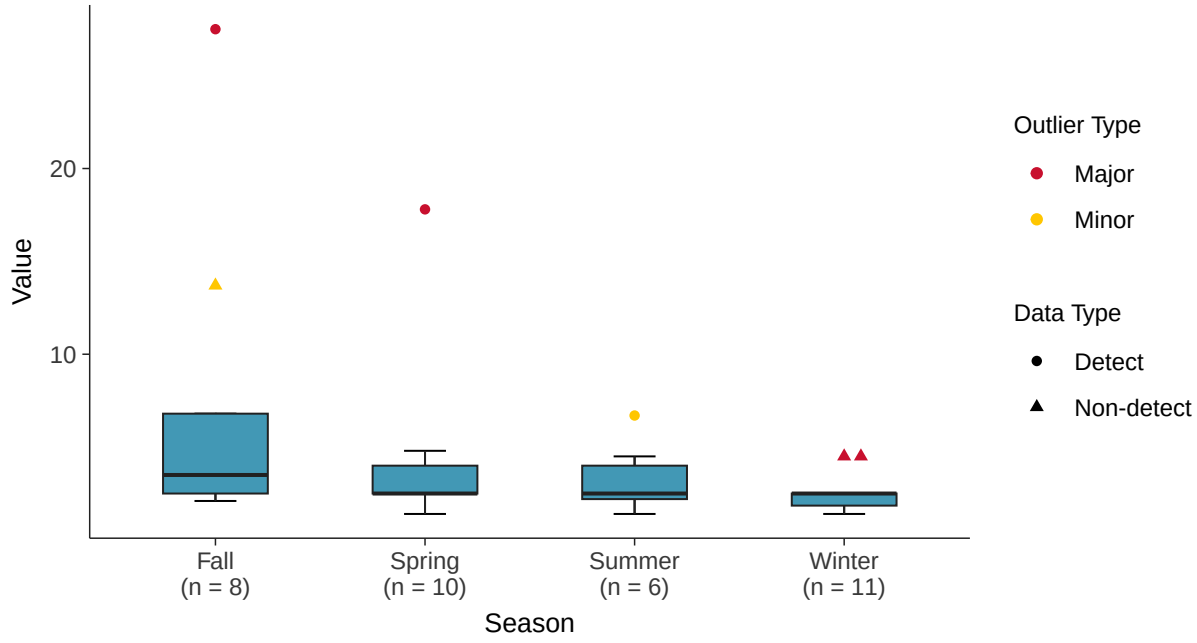
Boxplot

Lead, MW-2 (ug/L)



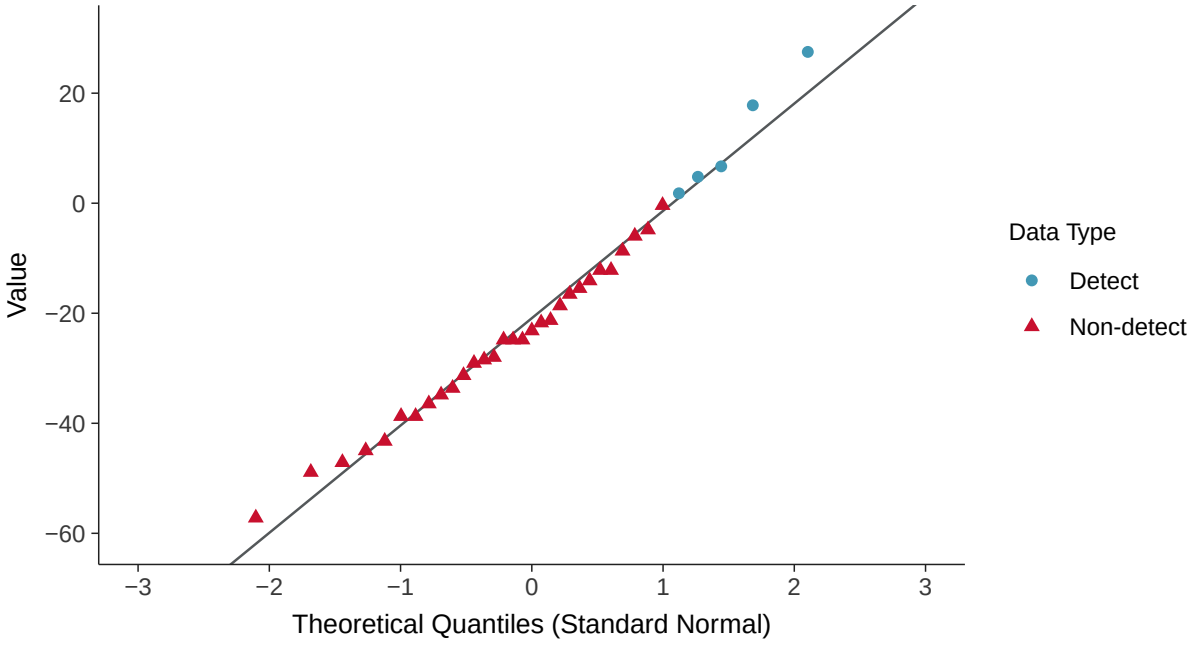
Boxplot by Season

Lead, MW-2 (ug/L)



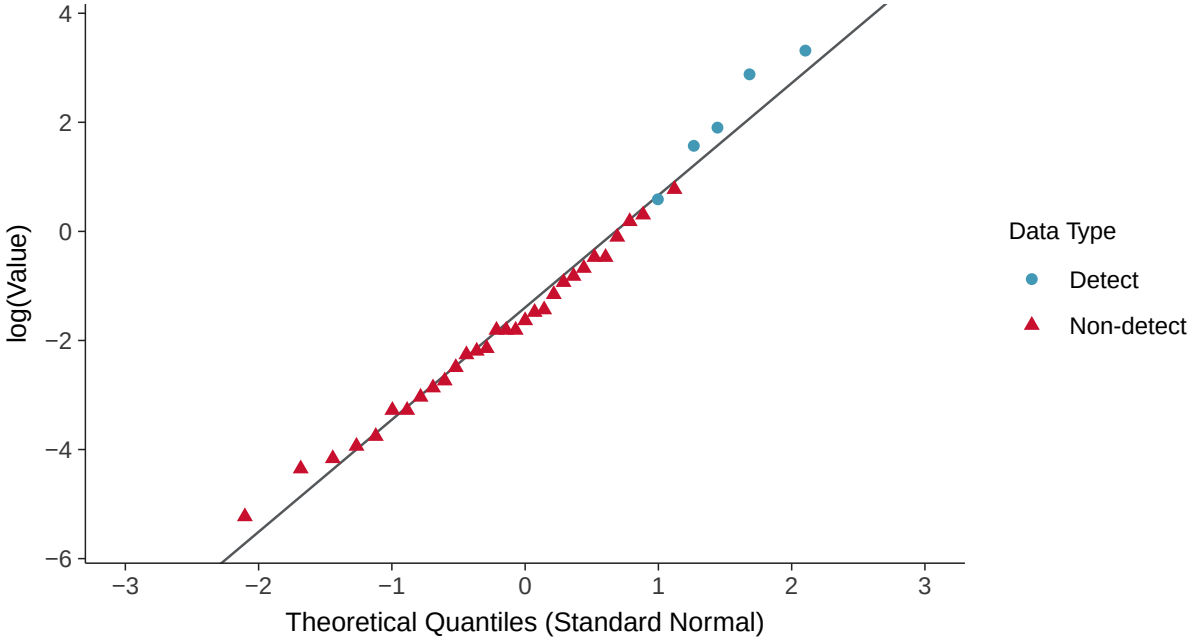
Normal Q-Q plot using ROS Imputed Estimates

Lead, MW-2 (ug/L)



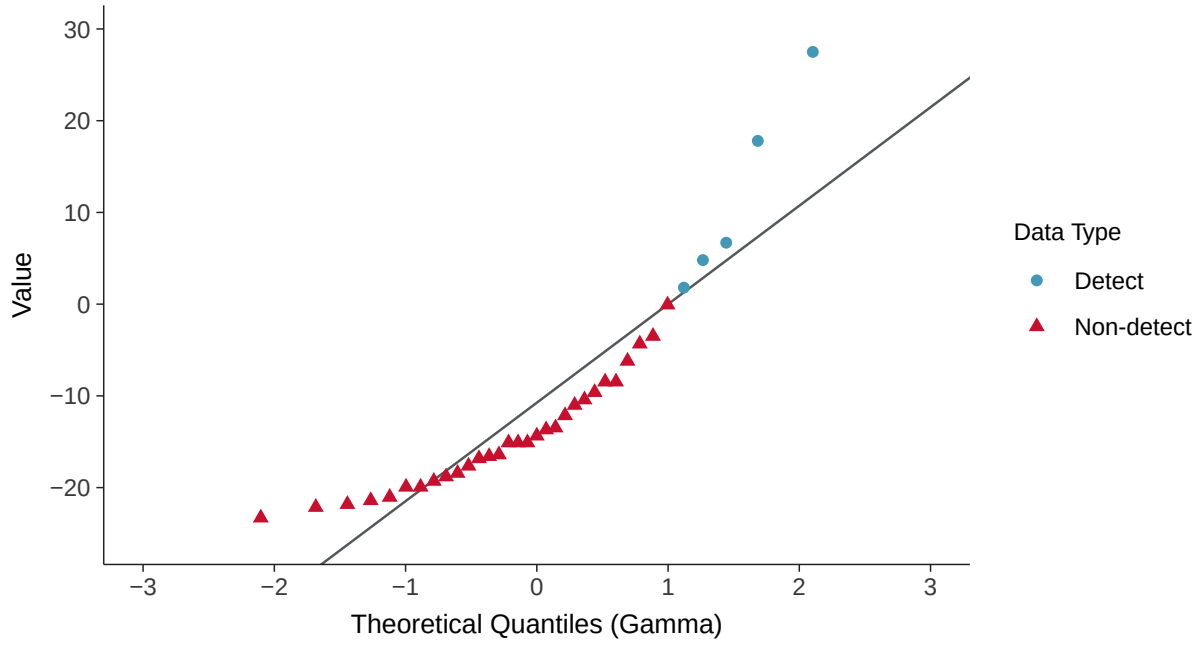
Lognormal Q-Q plot using ROS Imputed Estimates

Lead, MW-2 (ug/L)



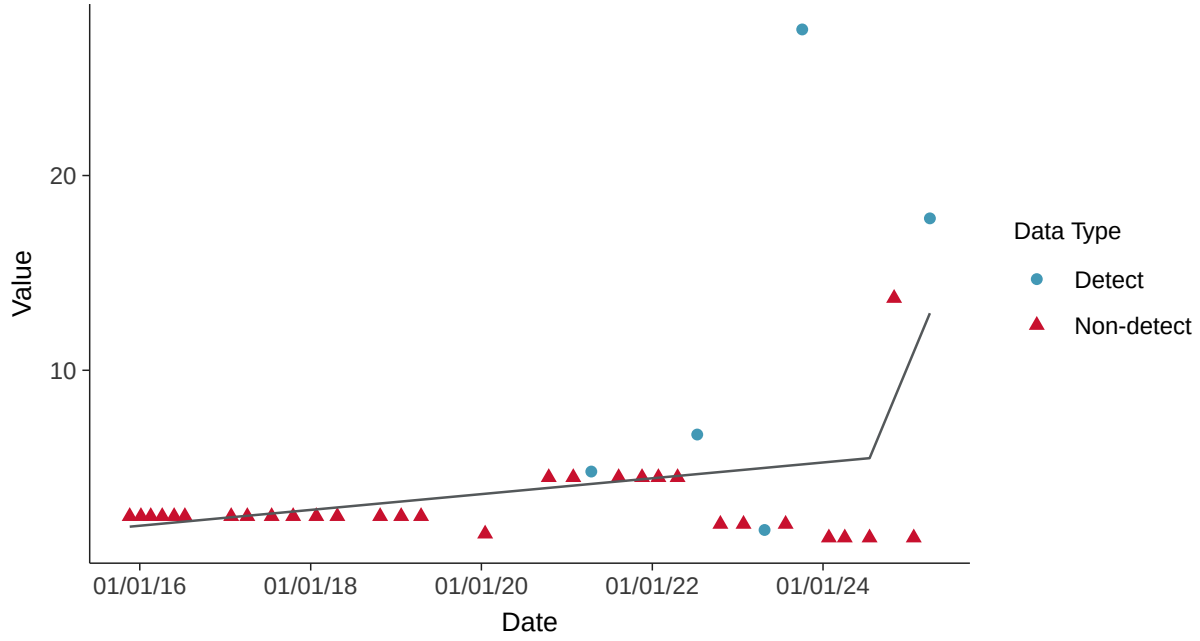
Gamma Q-Q plot using ROS Imputed Estimates

Lead, MW-2 (ug/L)



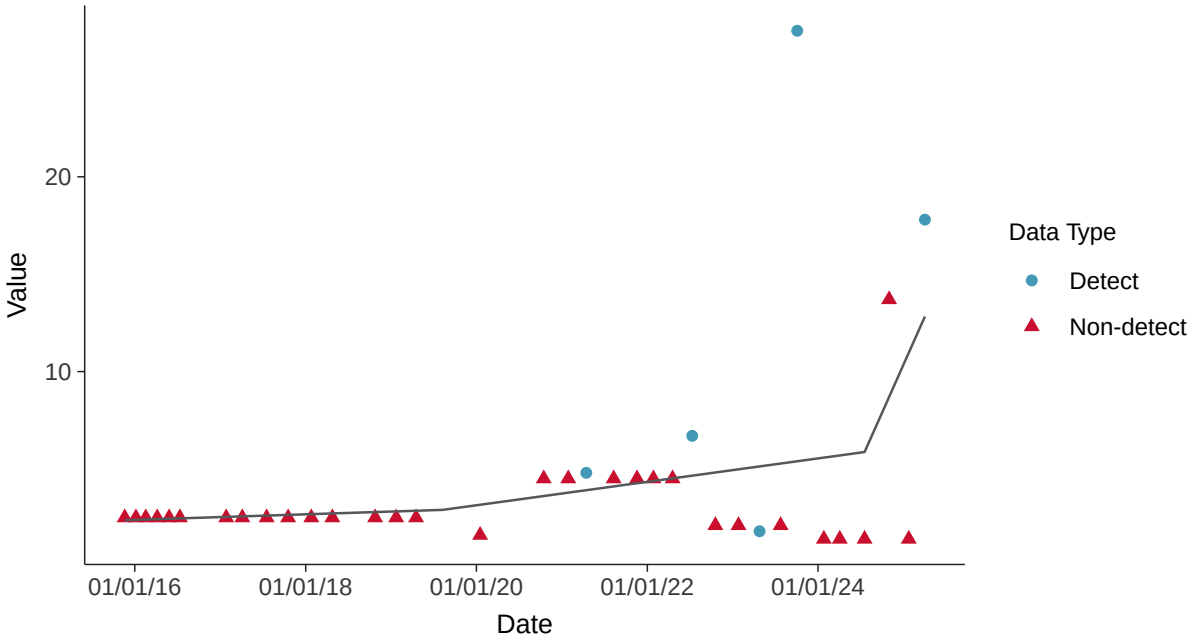
Trend Regression: Piecewise Linear-Linear

Lead, MW-2 (ug/L)



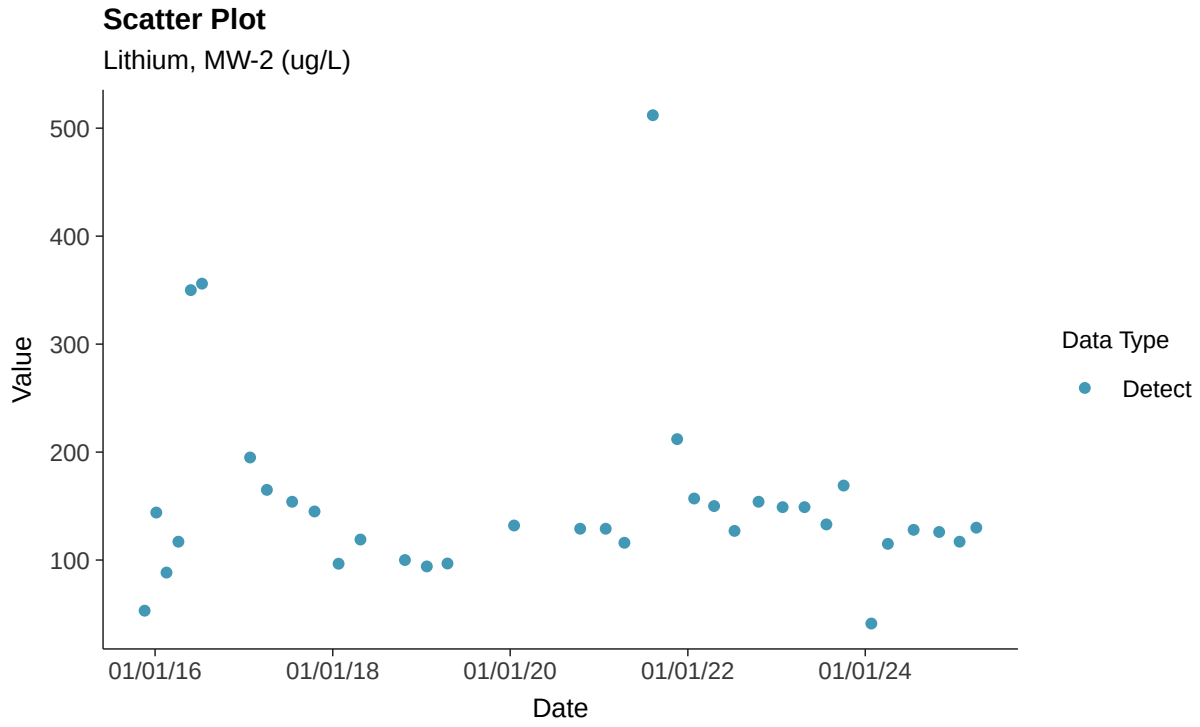
Trend Regression: Piecewise Linear-Linear-Linear

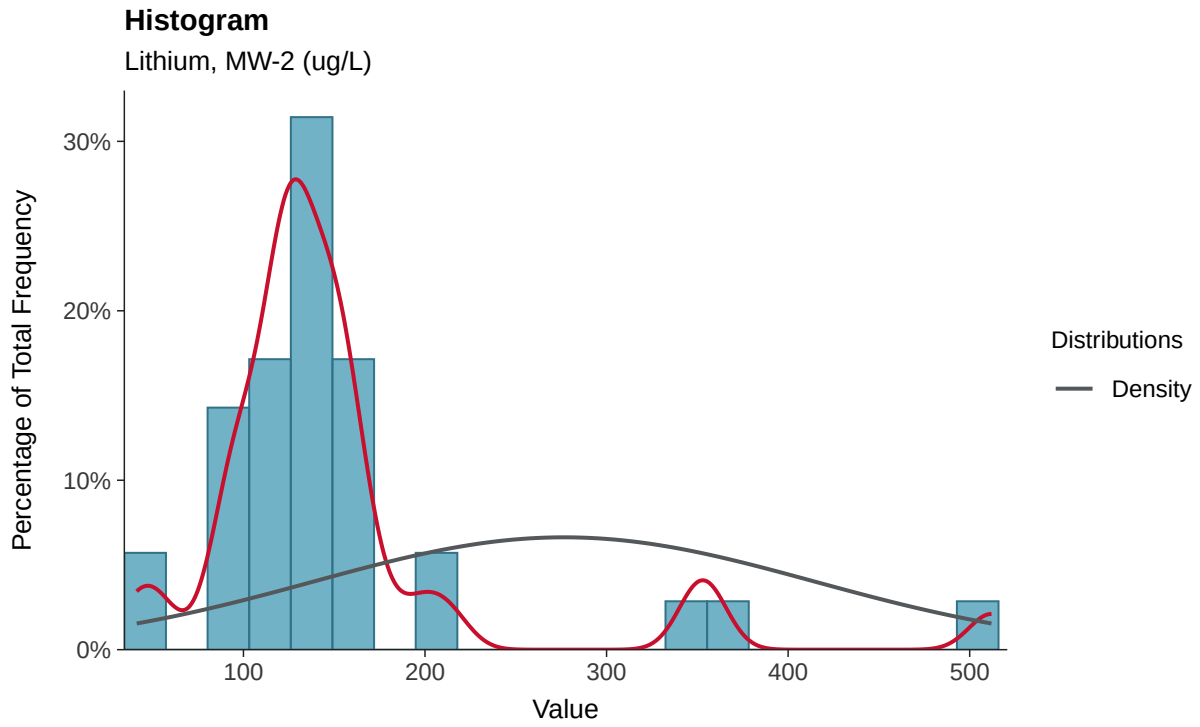
Lead, MW-2 (ug/L)



App. IV: Lithium, MW-2

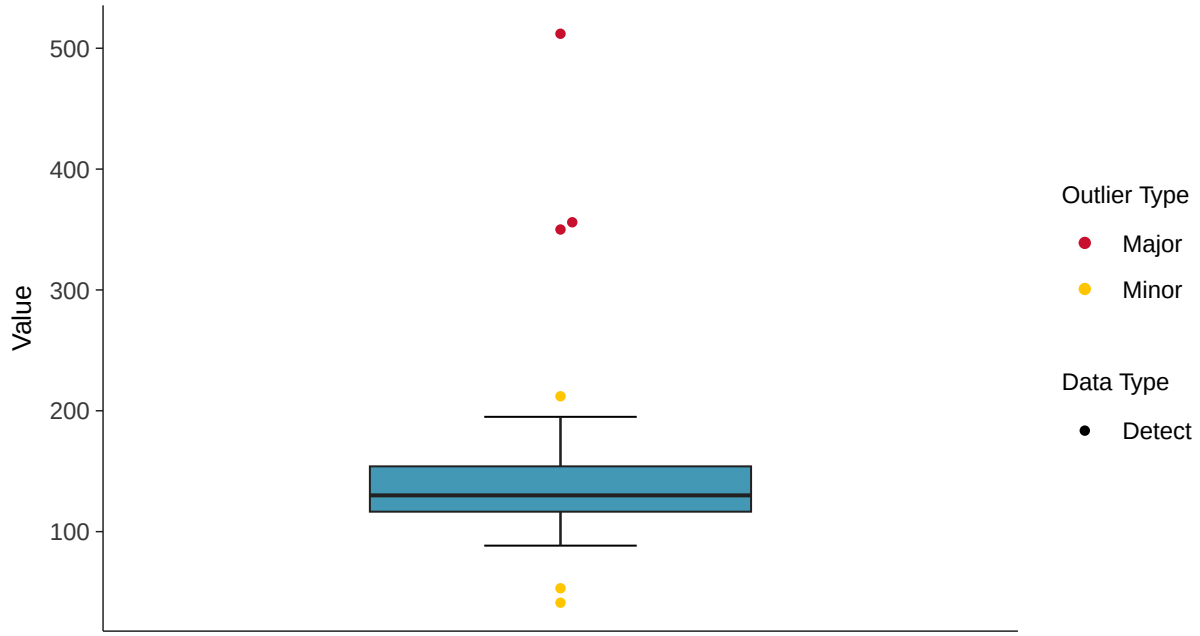
ID: 02_03_114





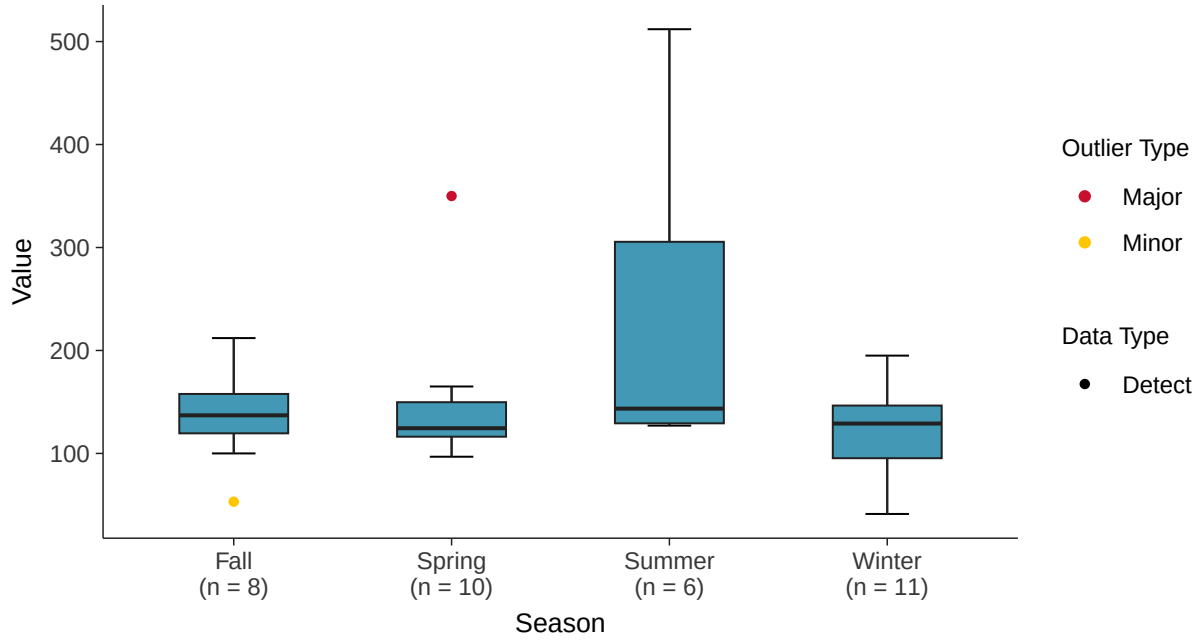
Boxplot

Lithium, MW-2 (ug/L)



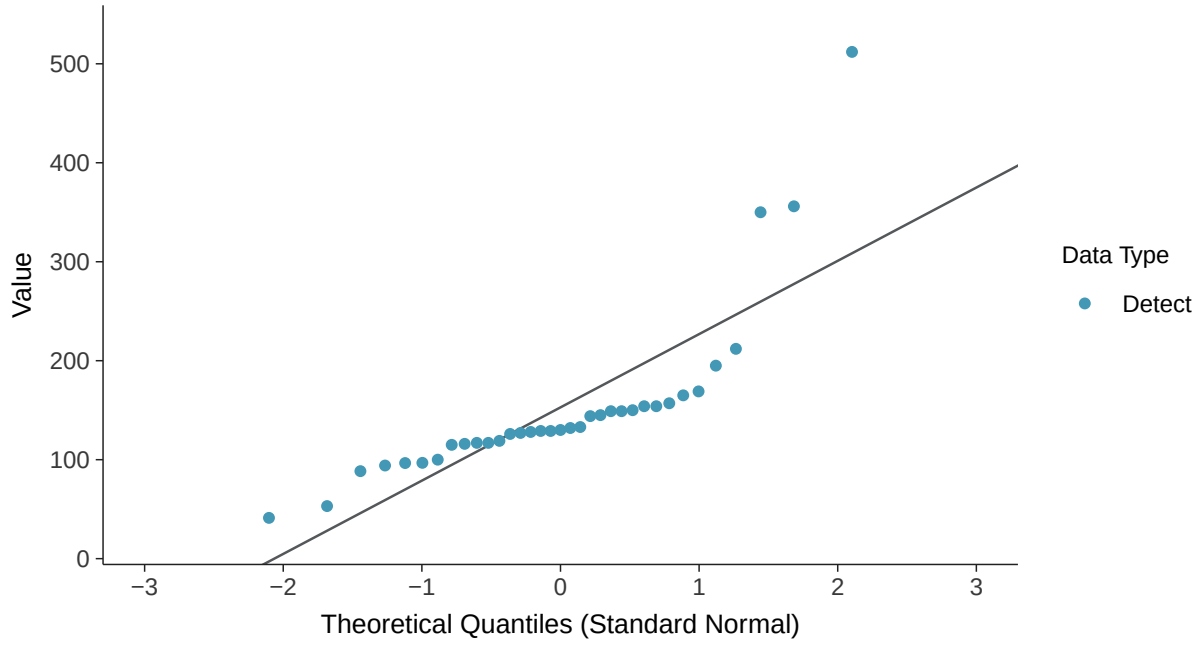
Boxplot by Season

Lithium, MW-2 (ug/L)



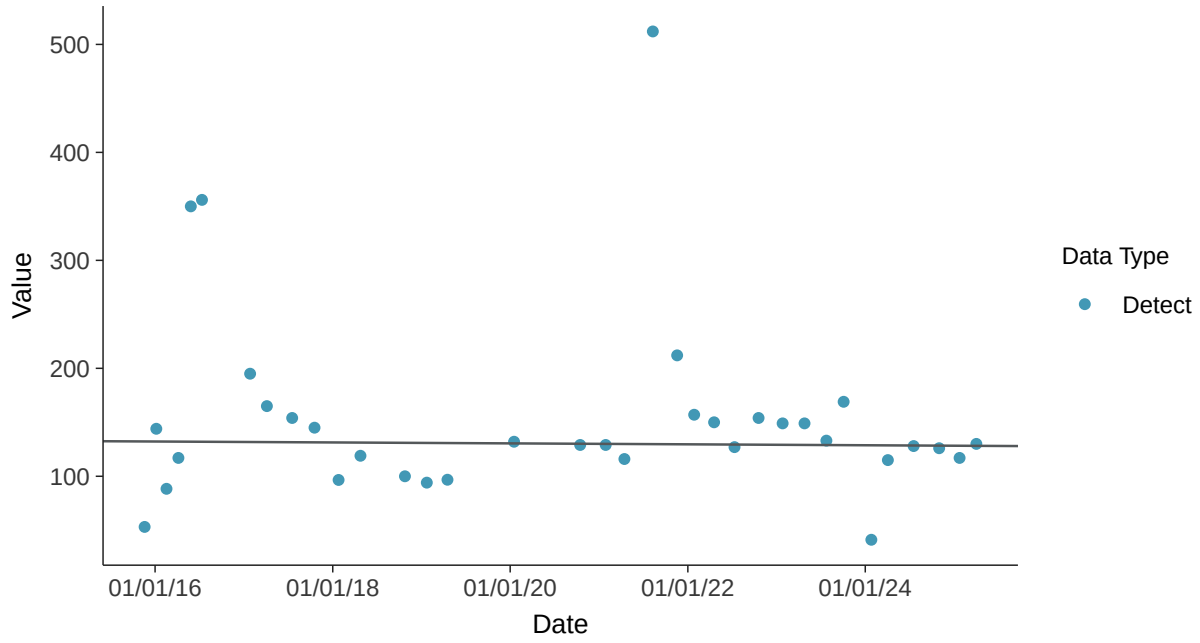
Normal Q-Q plot

Lithium, MW-2 (ug/L)



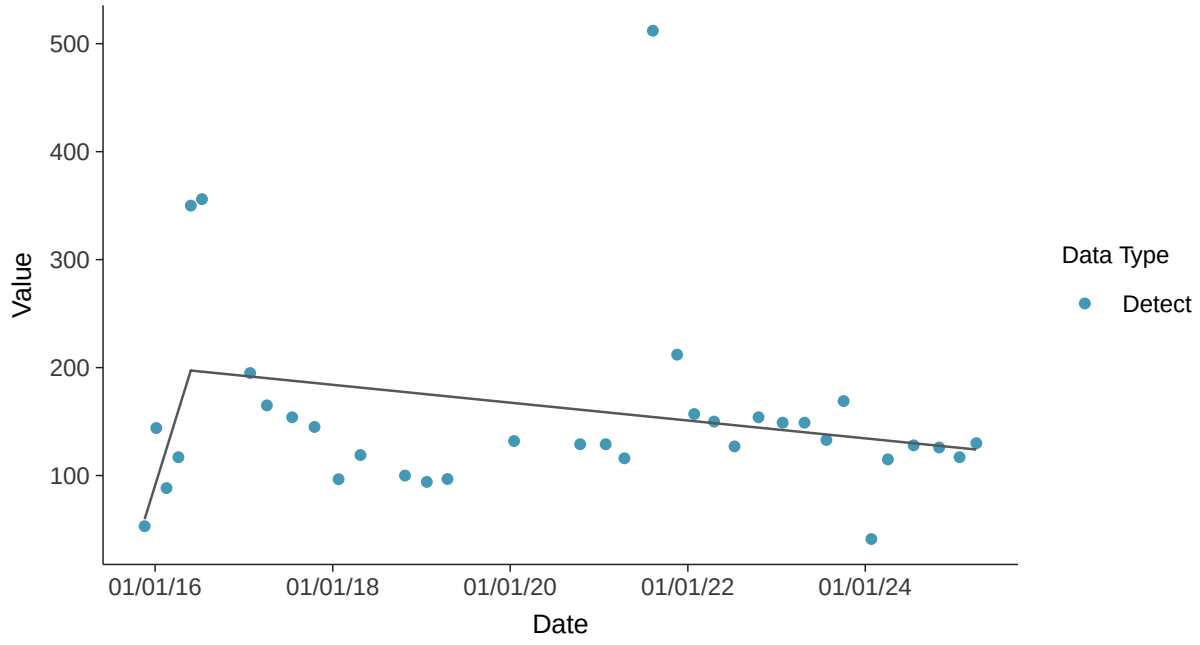
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Lithium, MW-2 (ug/L)



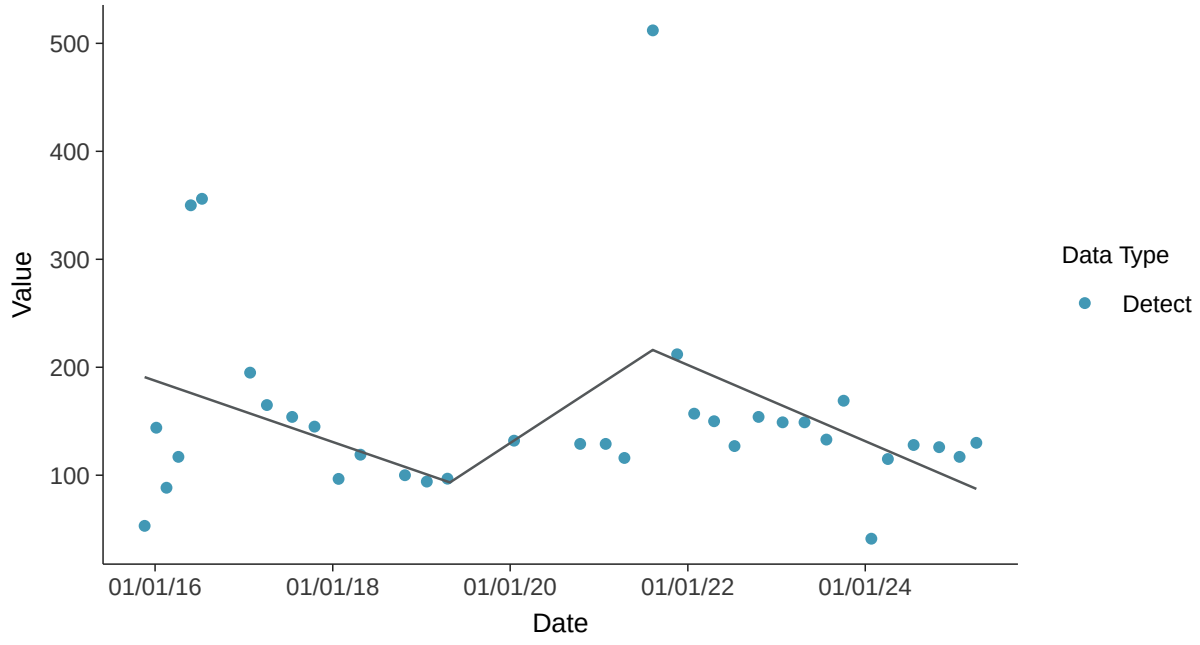
Trend Regression: Piecewise Linear-Linear

Lithium, MW-2 (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Lithium, MW-2 (ug/L)

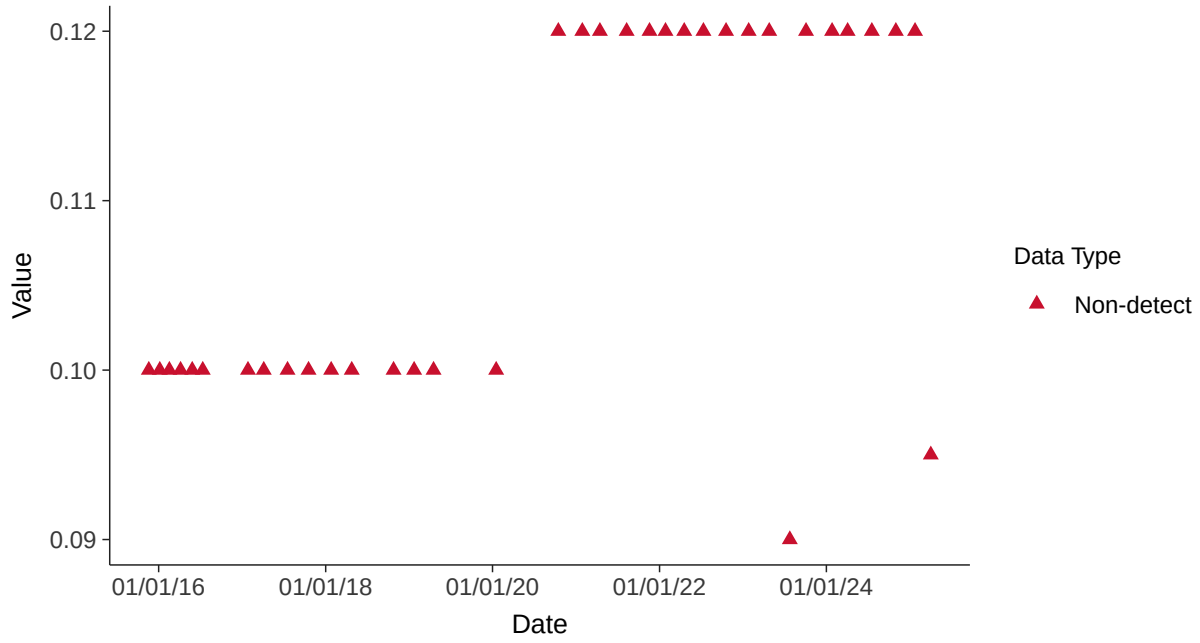


App. IV: Mercury, MW-2

ID: 02_03_115

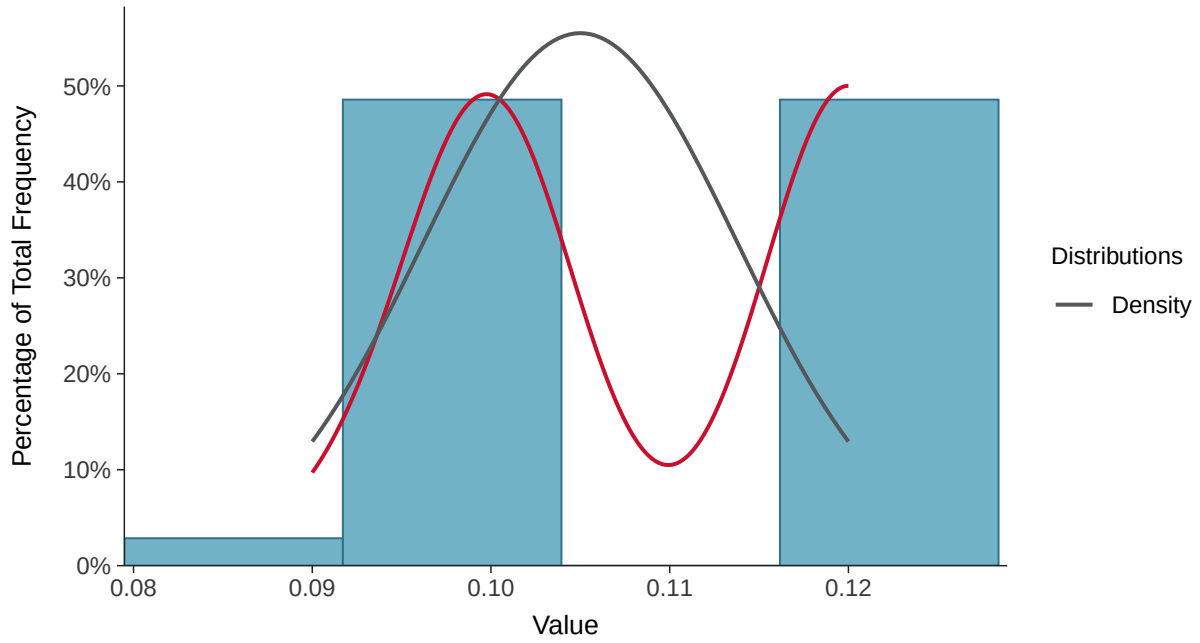
Scatter Plot

Mercury, MW-2 (ug/L)



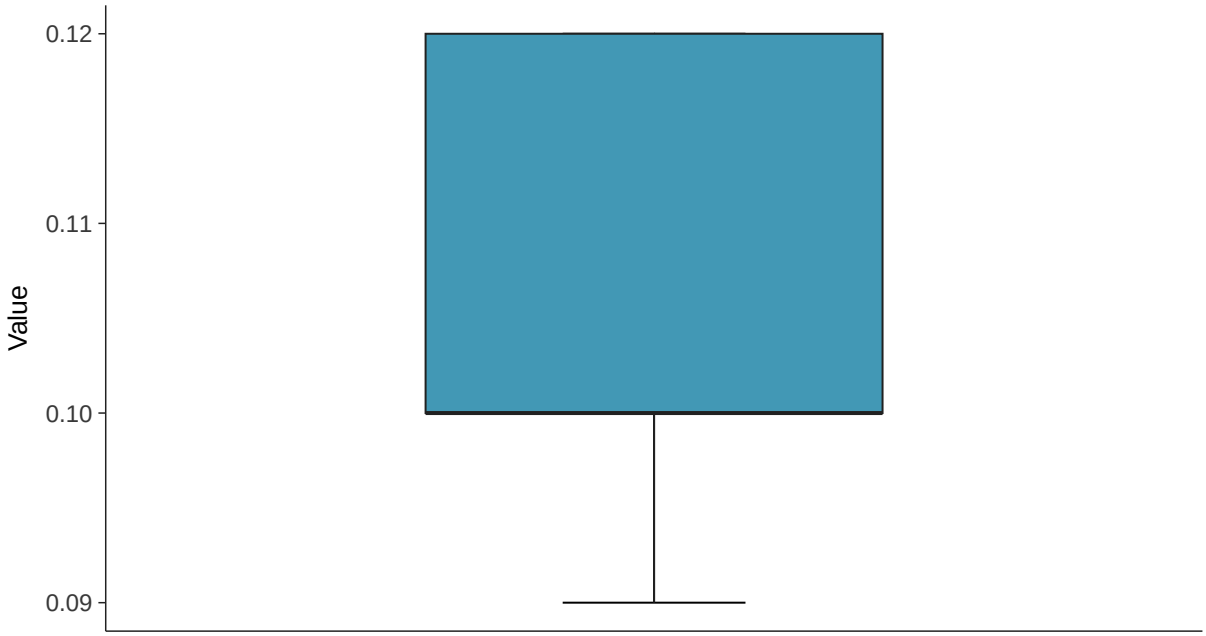
Histogram

Mercury, MW-2 (ug/L)



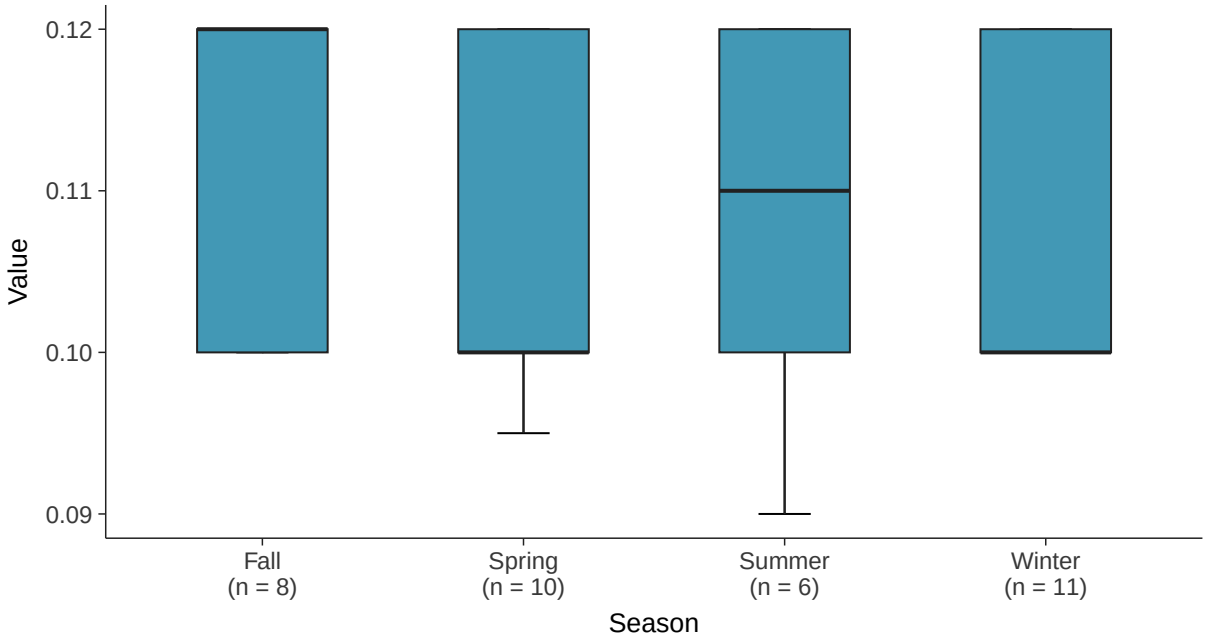
Boxplot

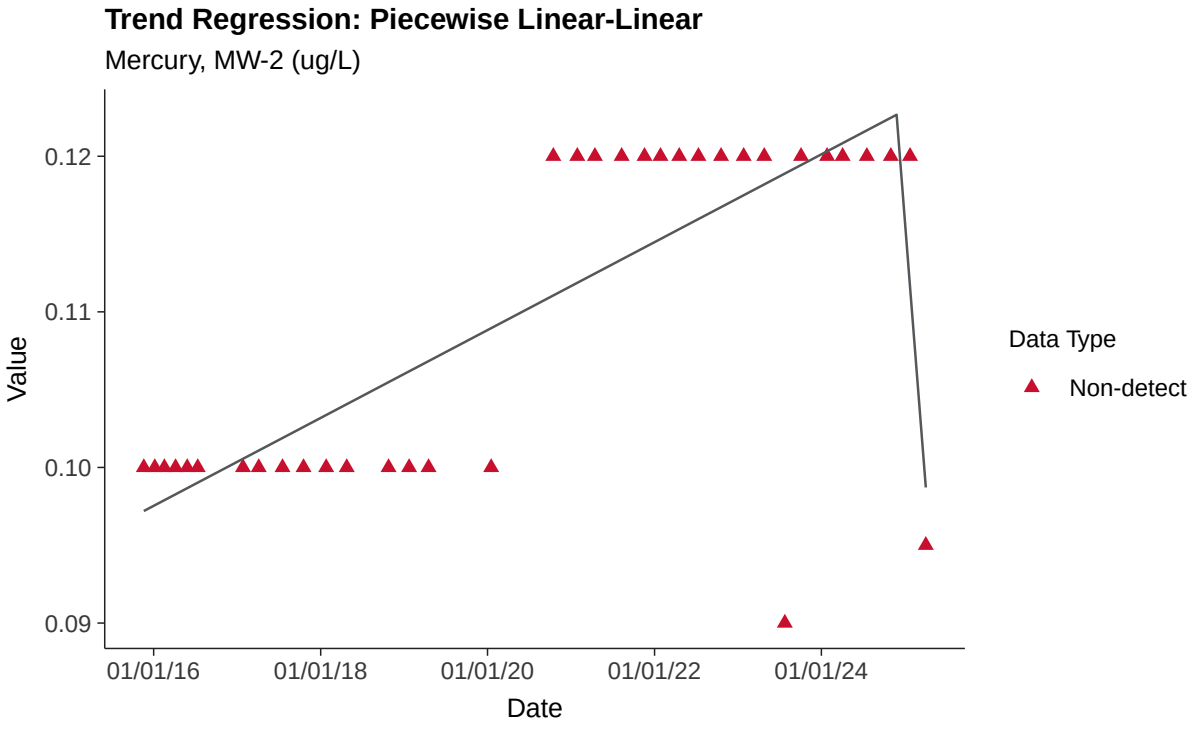
Mercury, MW-2 (ug/L)



Boxplot by Season

Mercury, MW-2 (ug/L)



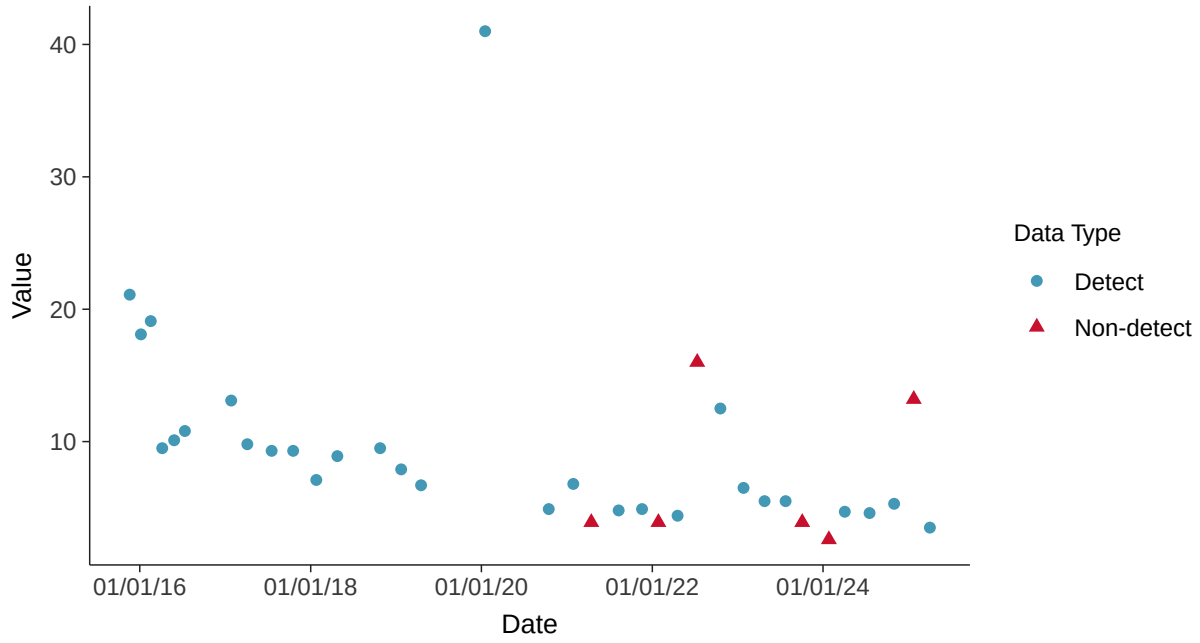

Trend Regression: Piecewise Linear-Linear
Mercury, MW-2 (ug/L)
Value
0.12
0.11
0.10
0.09
01/01/16
01/01/18
01/01/20
01/01/22
01/01/24
Date
Data Type
Non-detect

App. IV: Molybdenum, MW-2

ID: 02_03_116

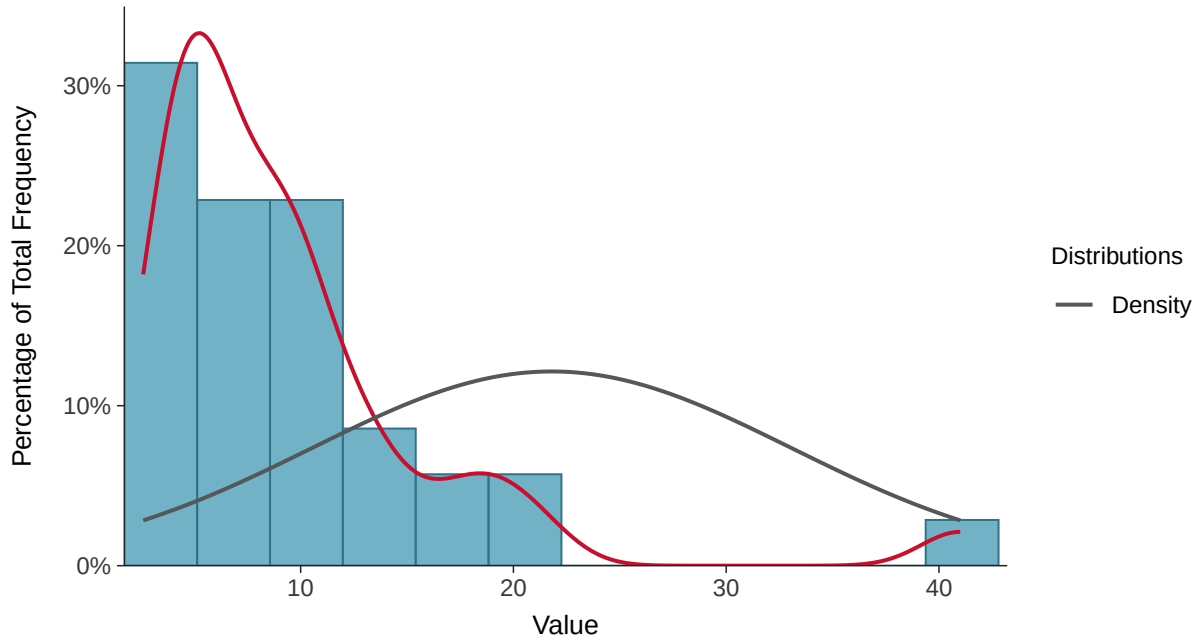
Scatter Plot

Molybdenum, MW-2 (ug/L)



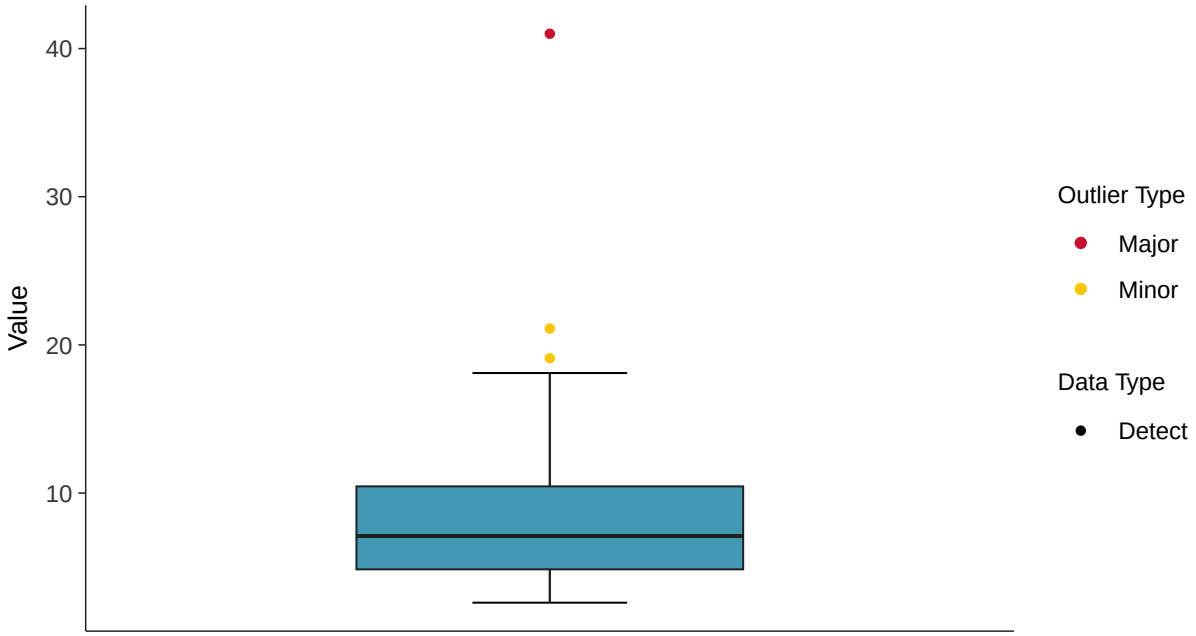
Histogram

Molybdenum, MW-2 (ug/L)



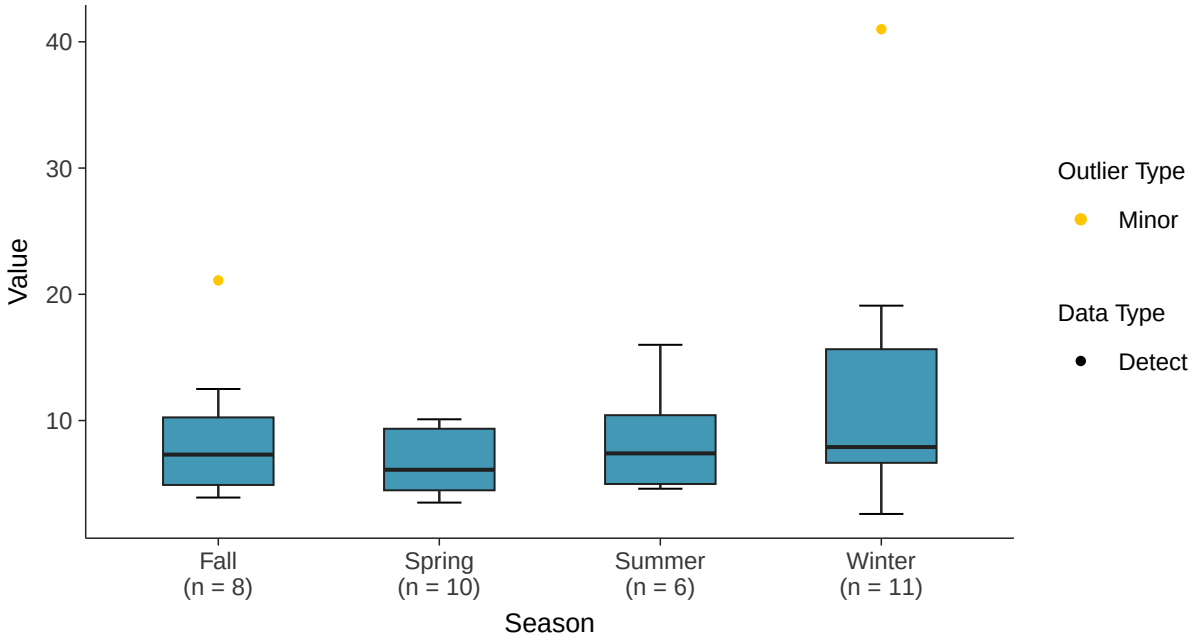
Boxplot

Molybdenum, MW-2 (ug/L)



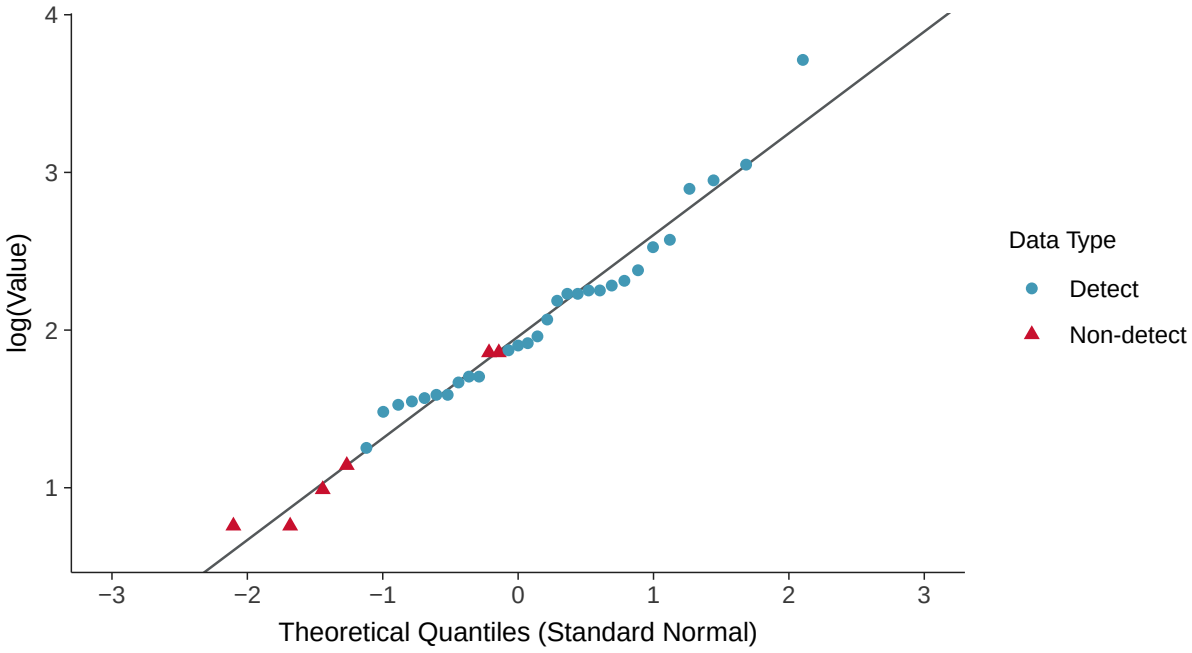
Boxplot by Season

Molybdenum, MW-2 (ug/L)



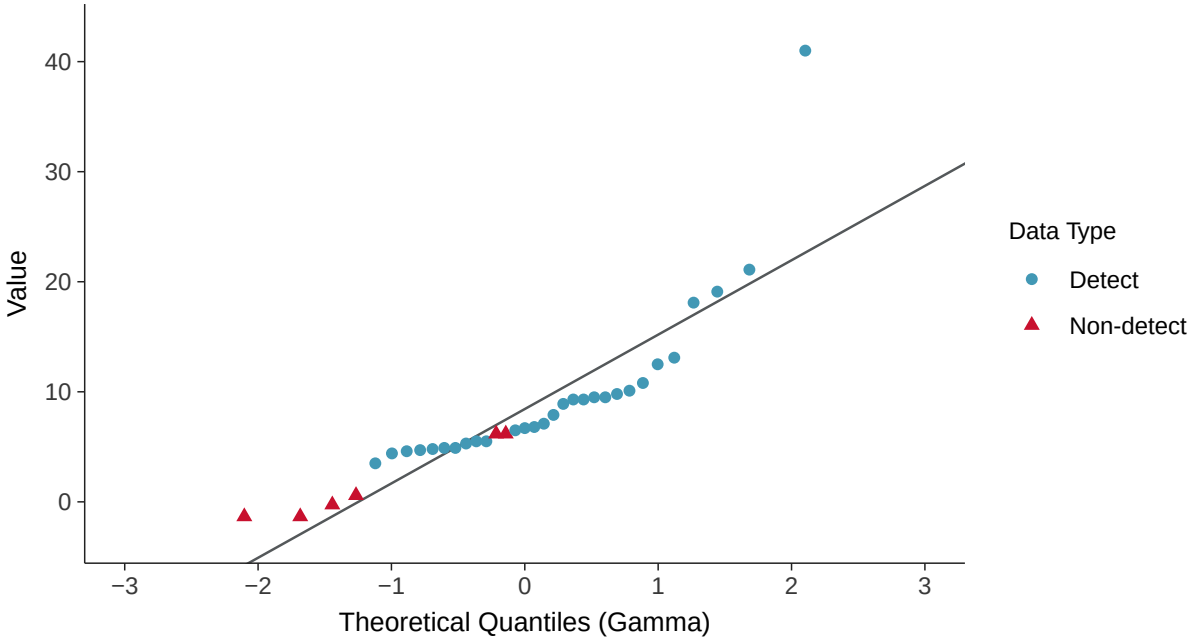
Lognormal Q-Q plot using ROS Imputed Estimates

Molybdenum, MW-2 (ug/L)



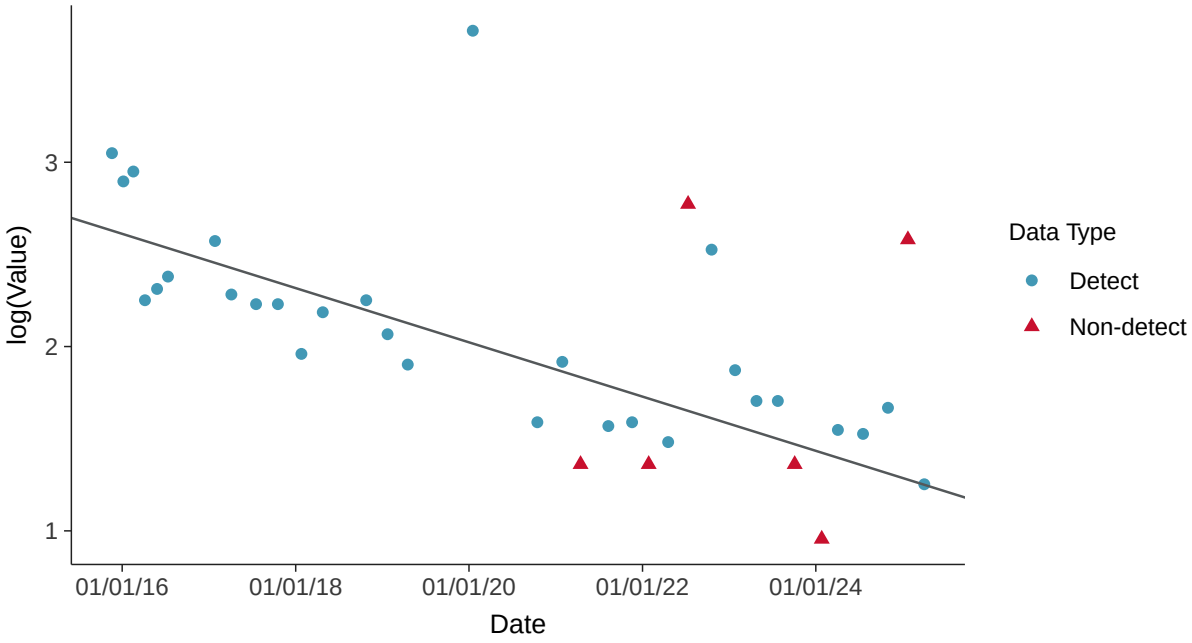
Gamma Q-Q plot using ROS Imputed Estimates

Molybdenum, MW-2 (ug/L)



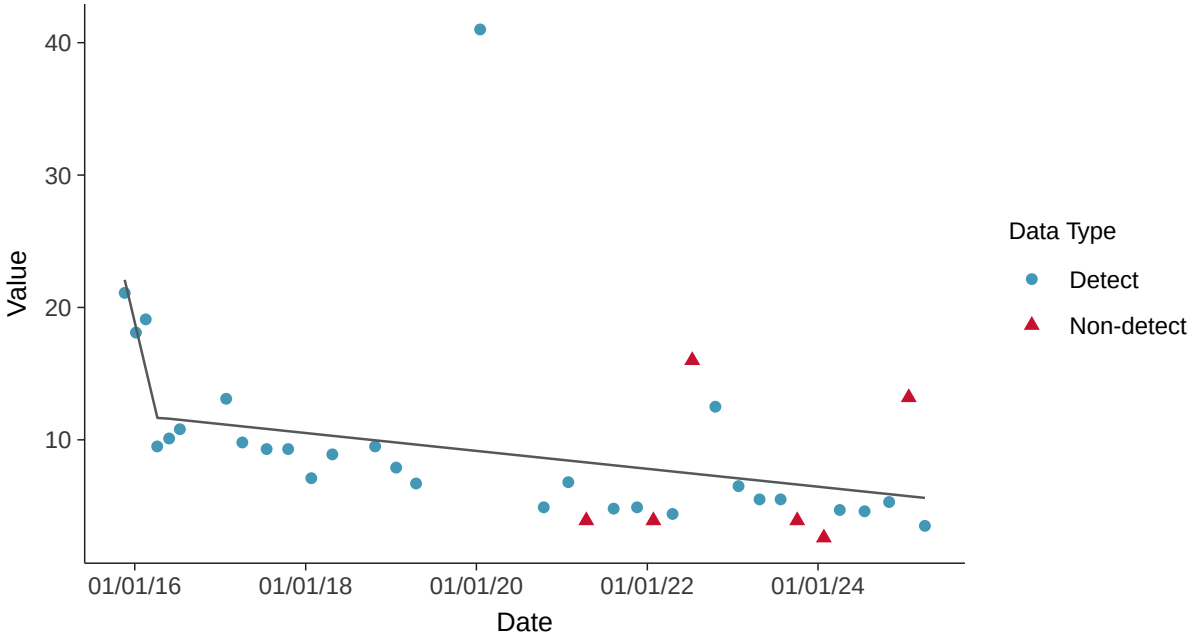
Trend Regression: Lognormal MLE

Molybdenum, MW-2 (ug/L)



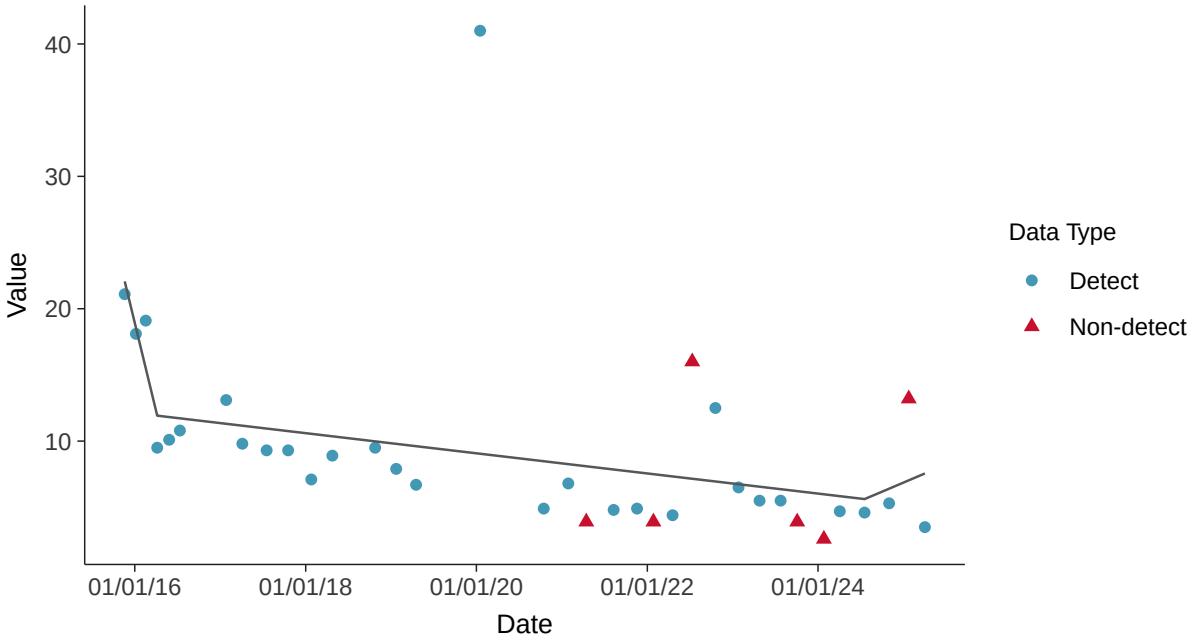
Trend Regression: Piecewise Linear-Linear

Molybdenum, MW-2 (ug/L)



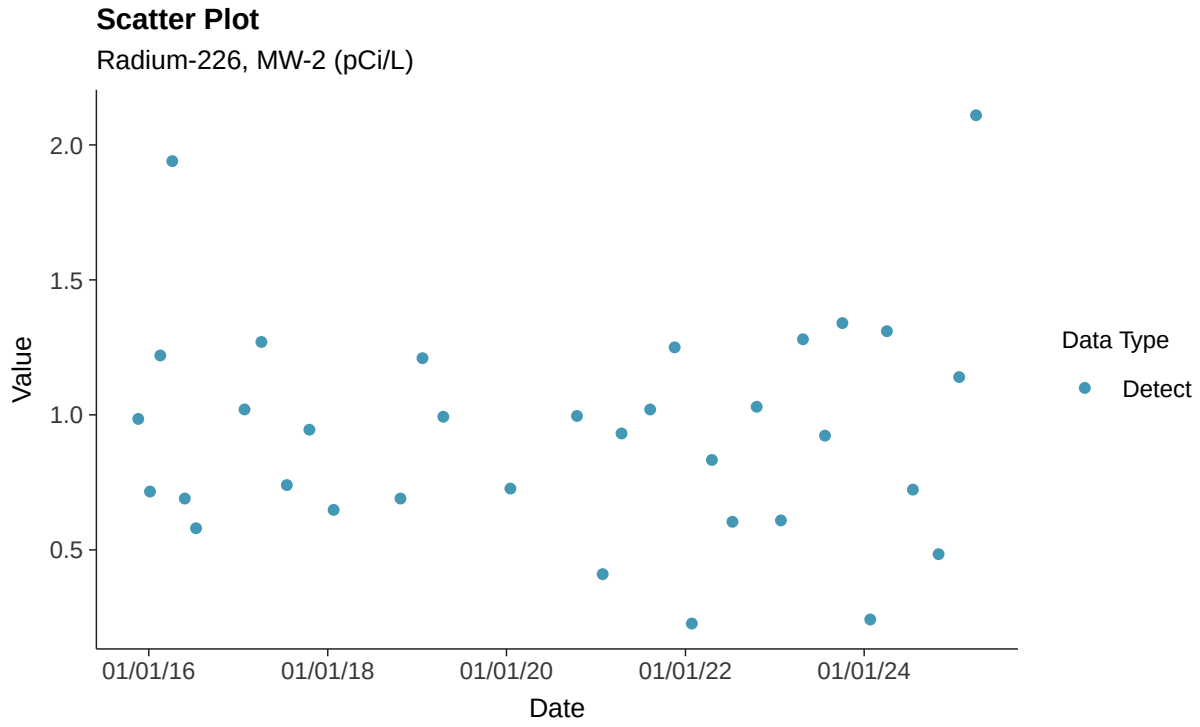
Trend Regression: Piecewise Linear-Linear-Linear

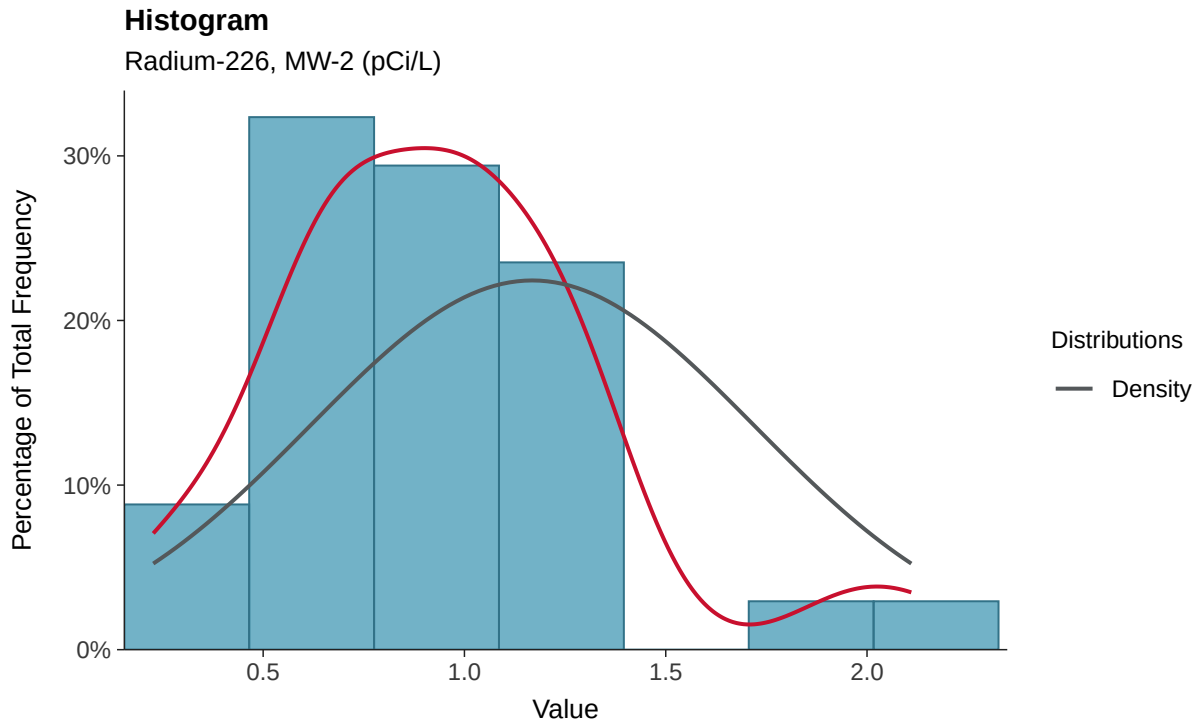
Molybdenum, MW-2 (ug/L)



App. IV: Radium-226, MW-2

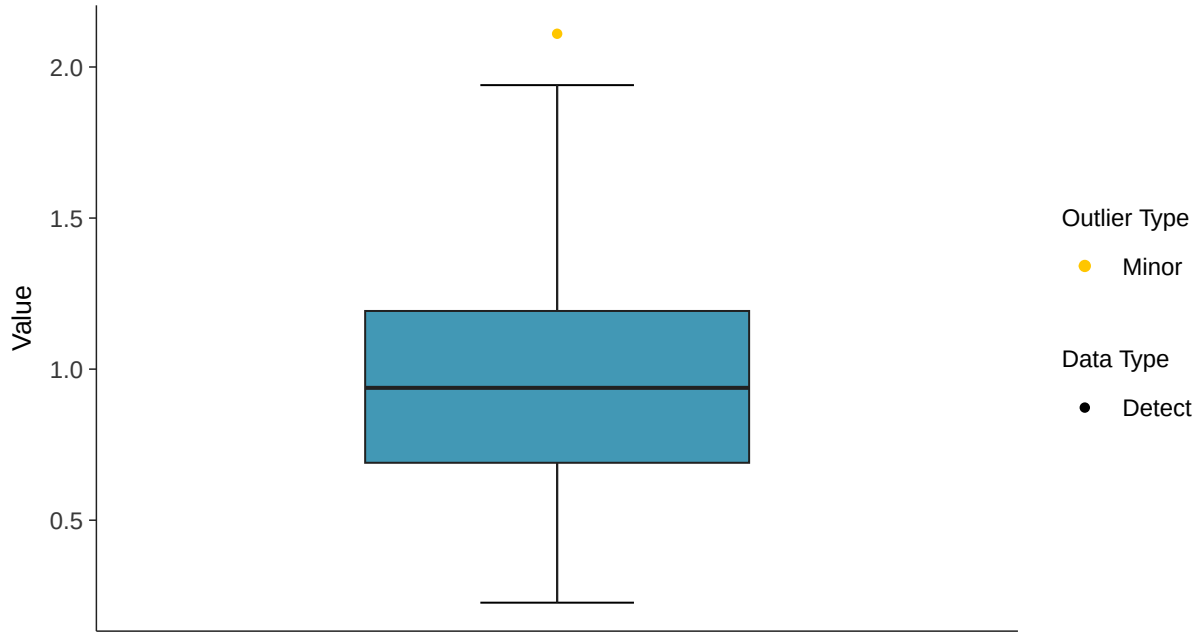
ID: 02_03_119





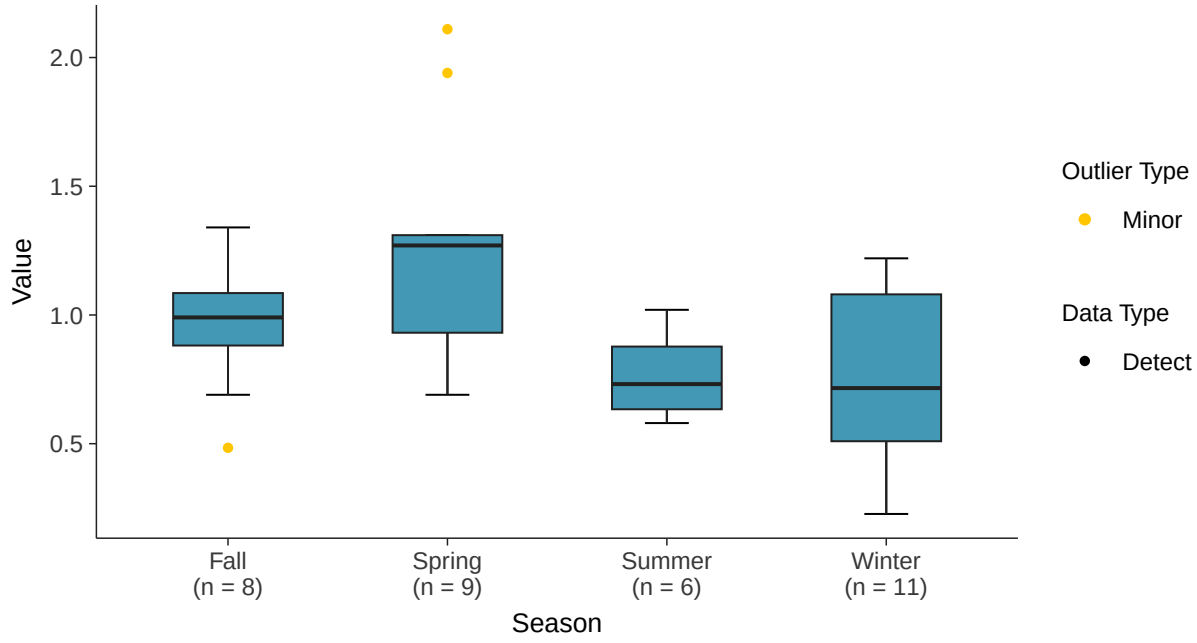
Boxplot

Radium-226, MW-2 (pCi/L)



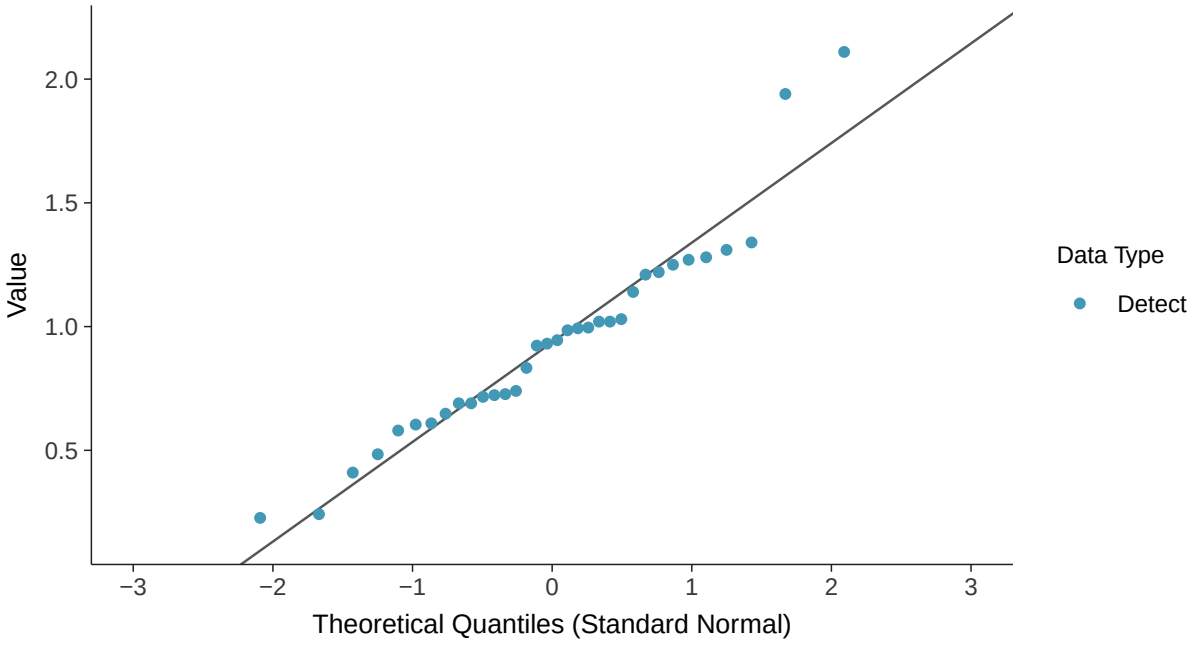
Boxplot by Season

Radium-226, MW-2 (pCi/L)



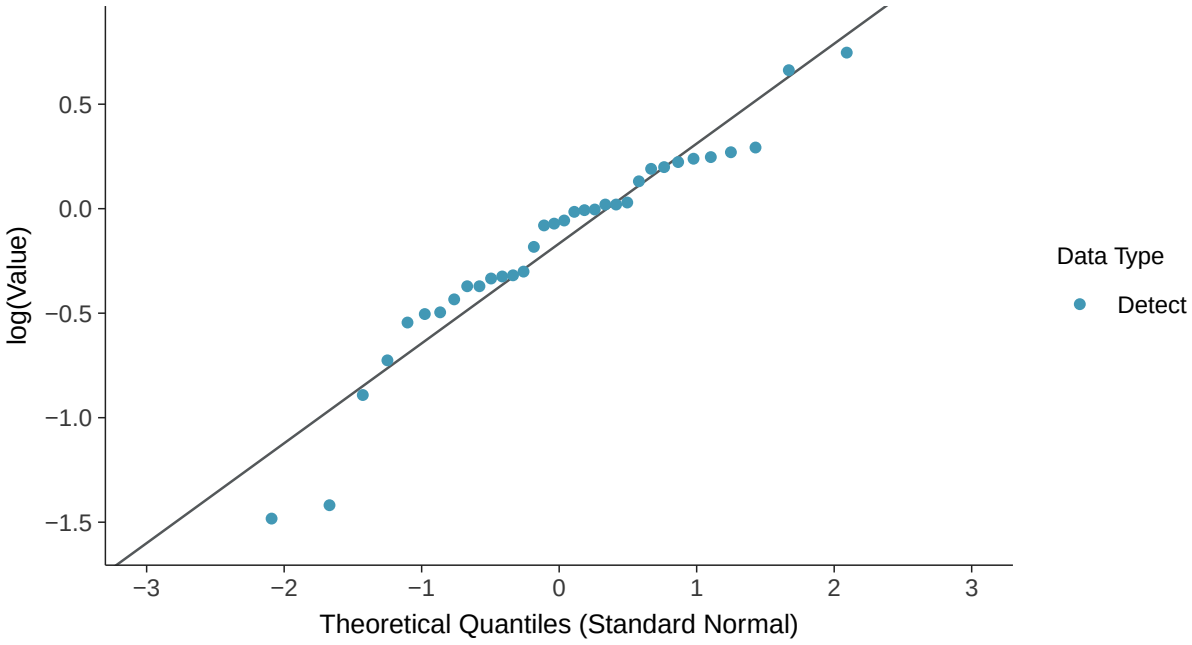
Normal Q-Q plot

Radium-226, MW-2 (pCi/L)



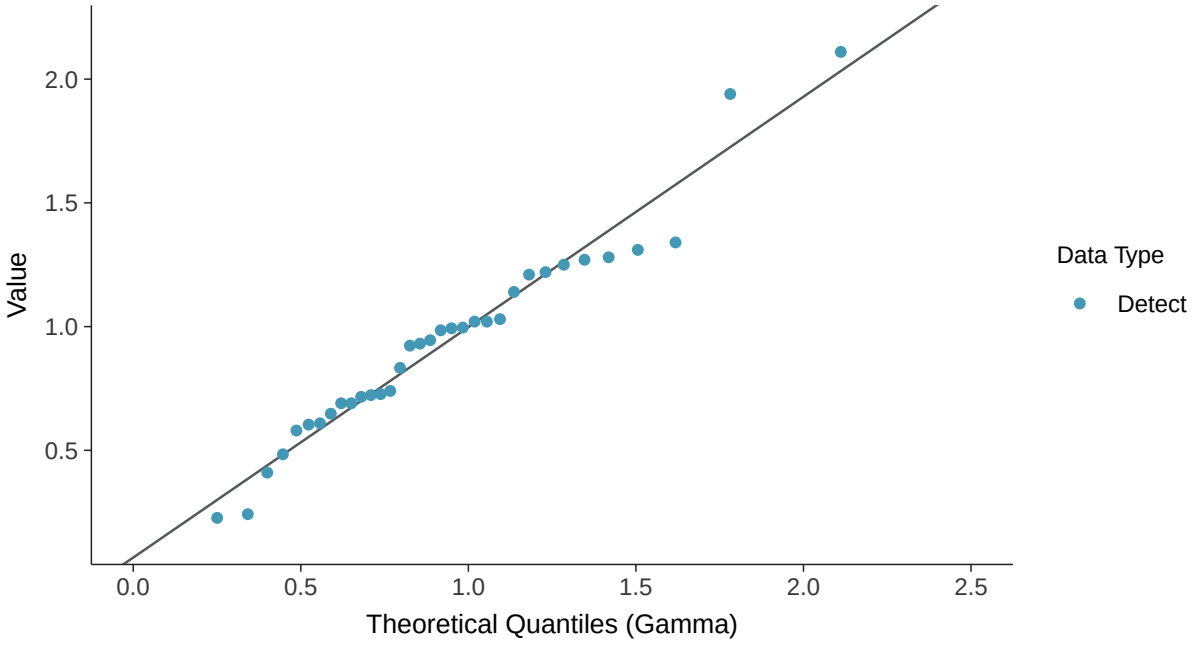
Lognormal Q-Q plot

Radium-226, MW-2 (pCi/L)



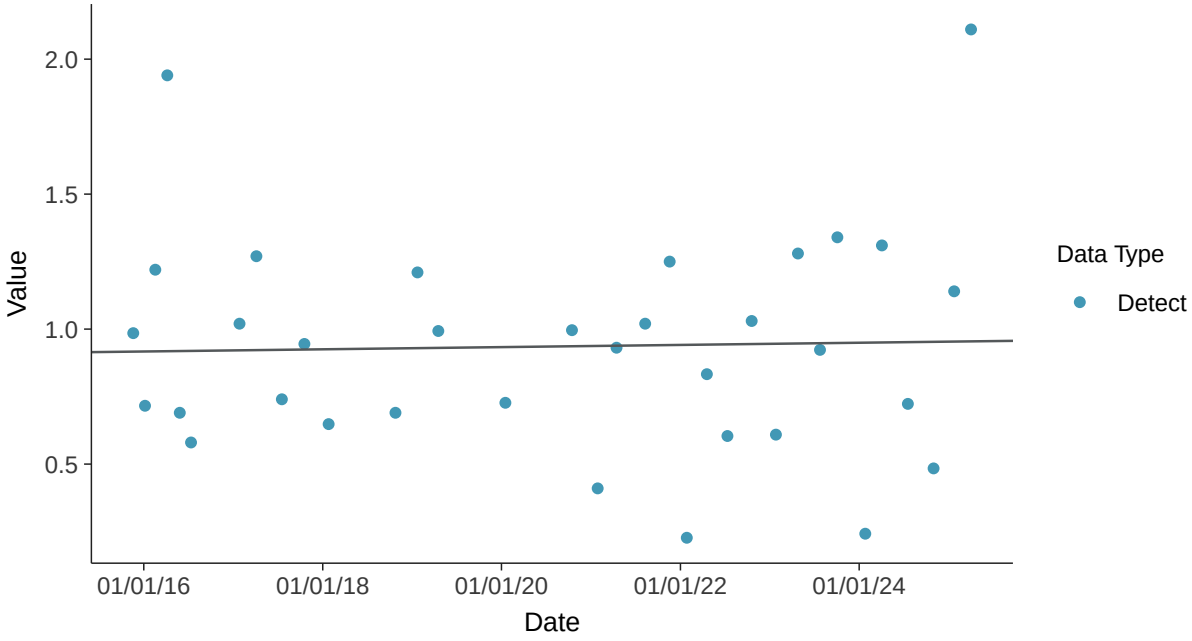
Gamma Q-Q plot

Radium-226, MW-2 (pCi/L)



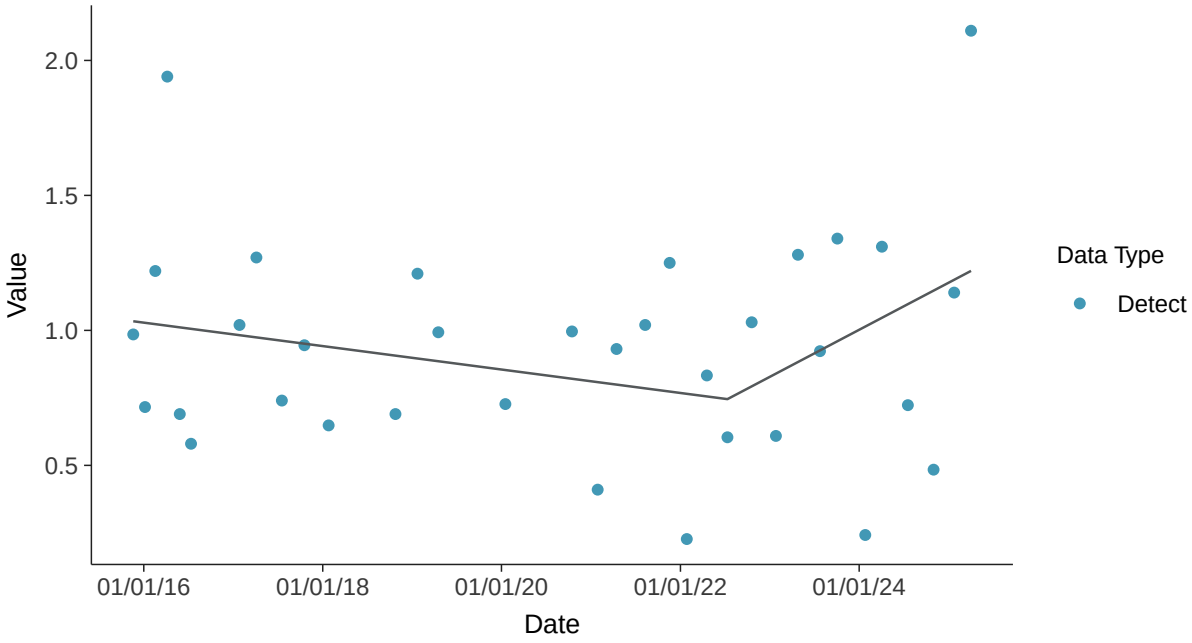
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Radium-226, MW-2 (pCi/L)



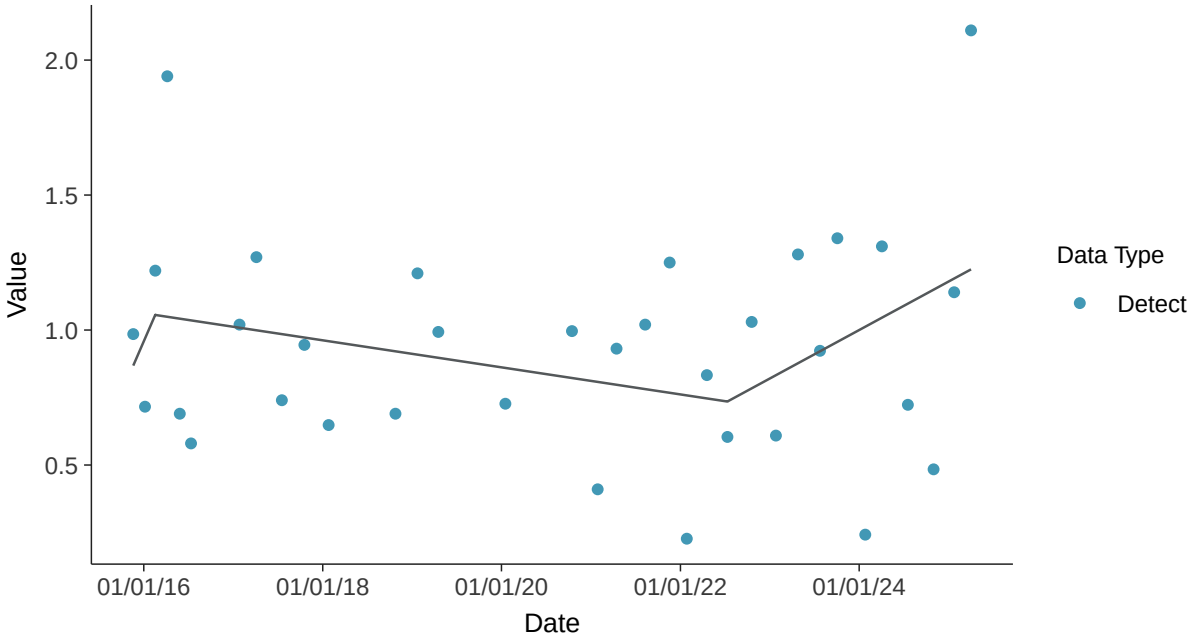
Trend Regression: Piecewise Linear-Linear

Radium-226, MW-2 (pCi/L)



Trend Regression: Piecewise Linear-Linear-Linear

Radium-226, MW-2 (pCi/L)

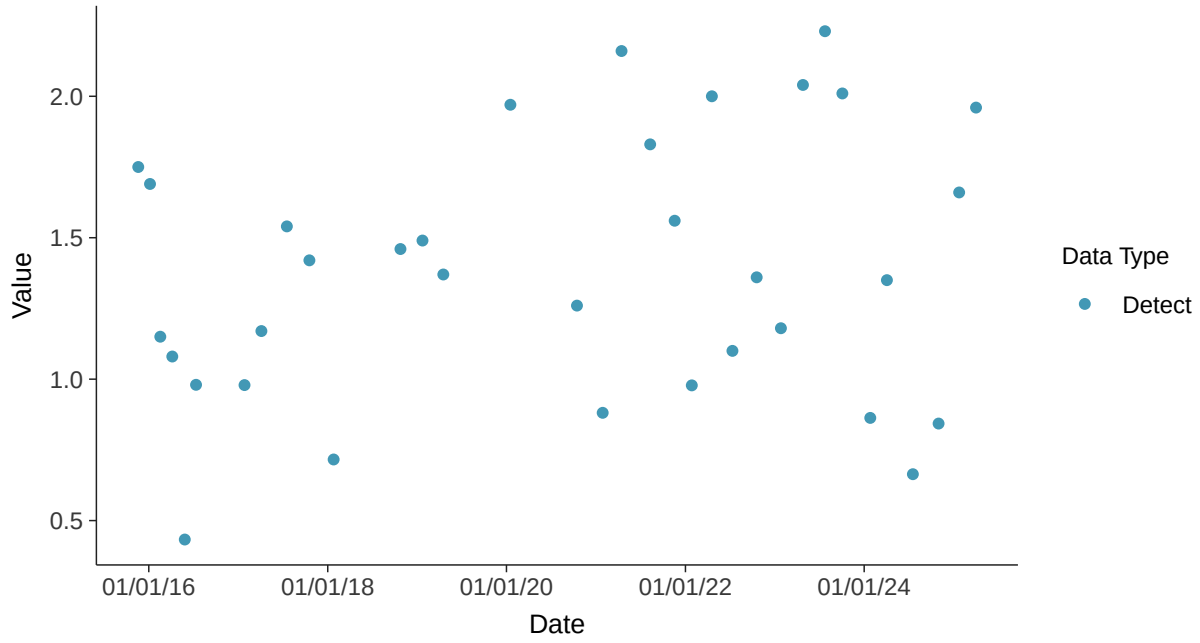


App. IV: Radium-228, MW-2

ID: 02_03_120

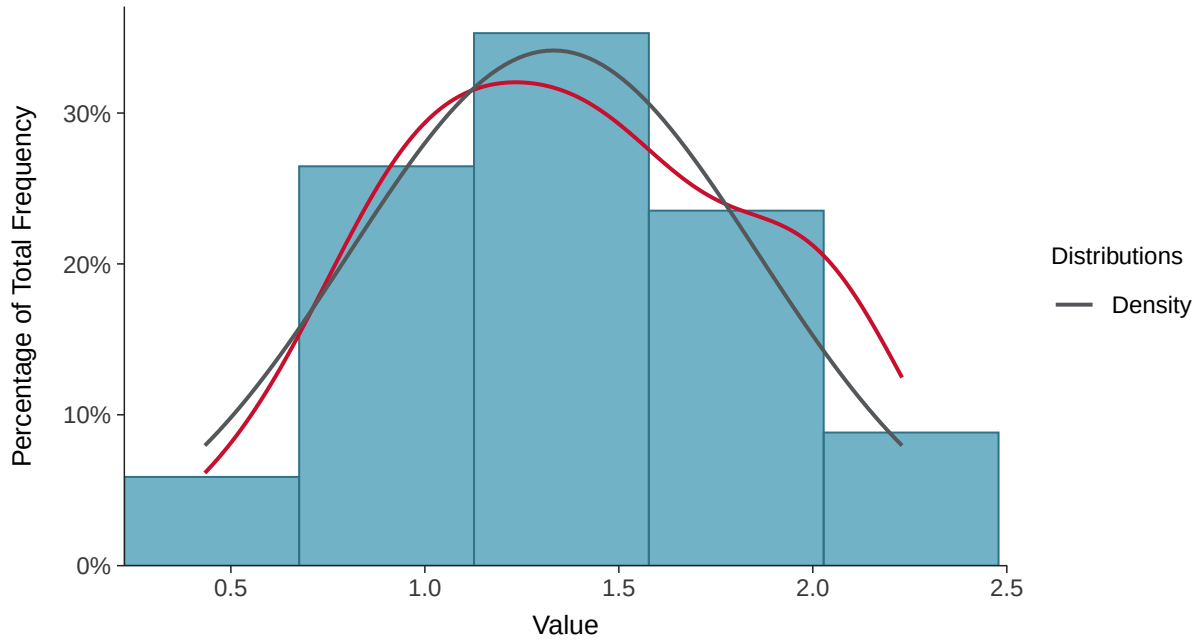
Scatter Plot

Radium-228, MW-2 (pCi/L)



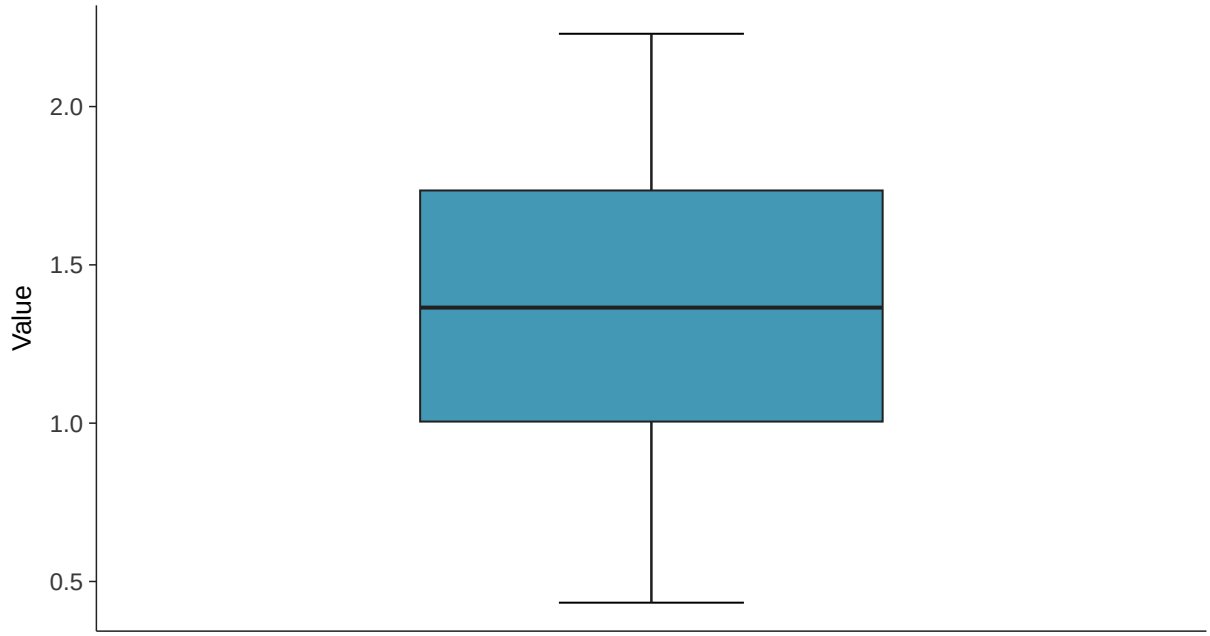
Histogram

Radium-228, MW-2 (pCi/L)



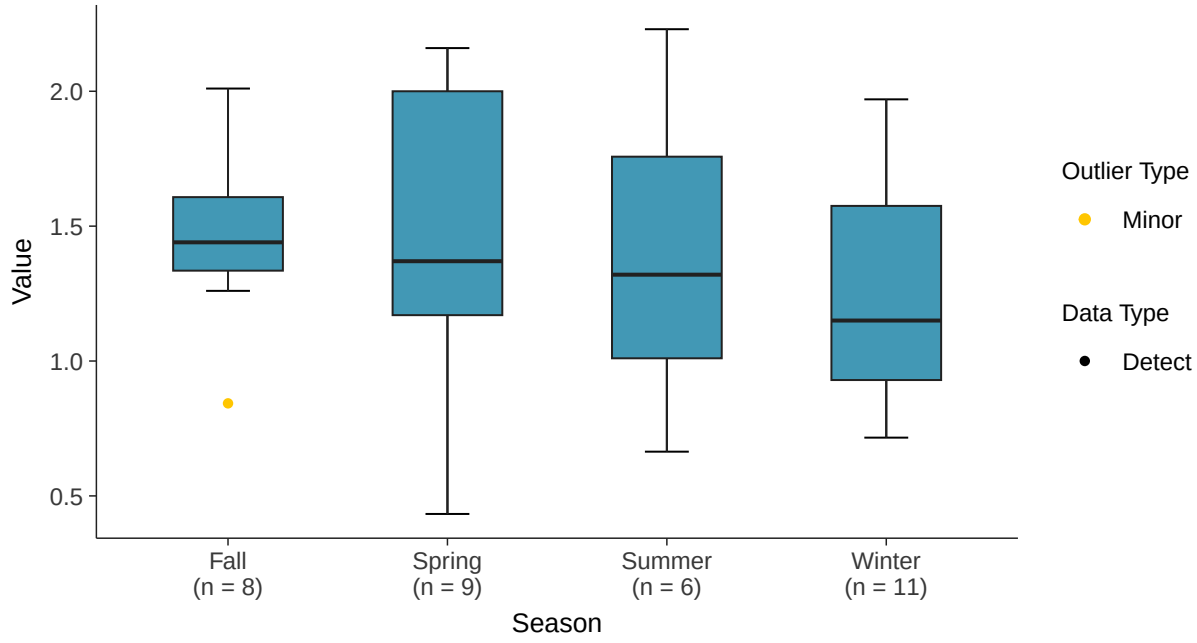
Boxplot

Radium-228, MW-2 (pCi/L)



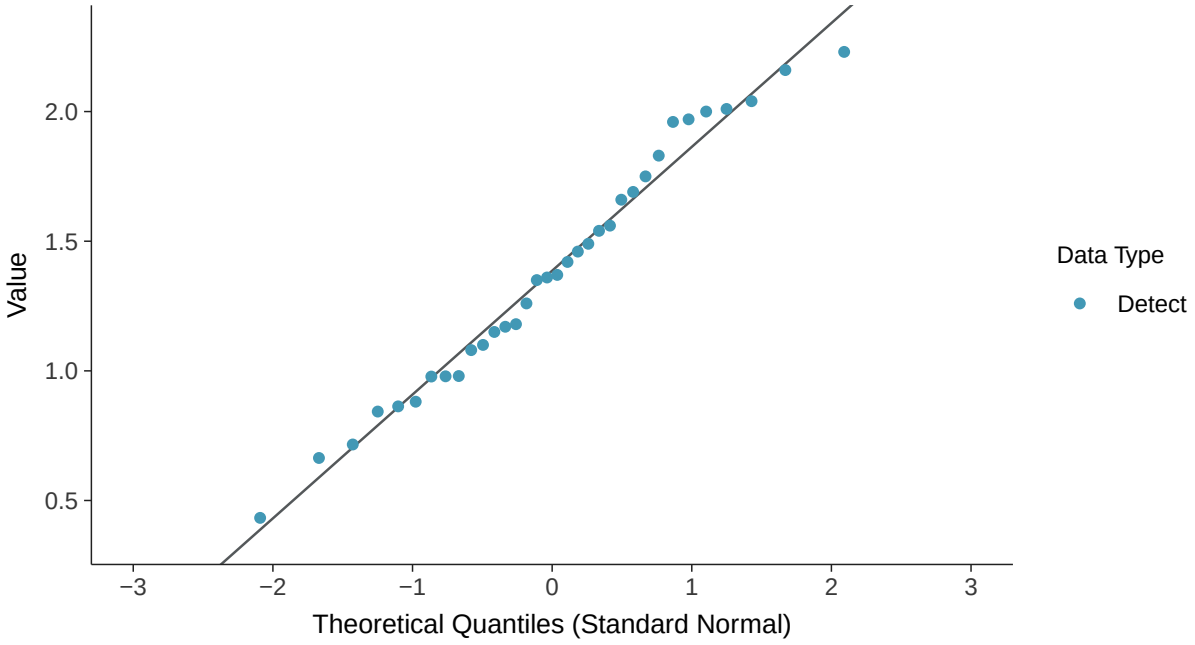
Boxplot by Season

Radium-228, MW-2 (pCi/L)



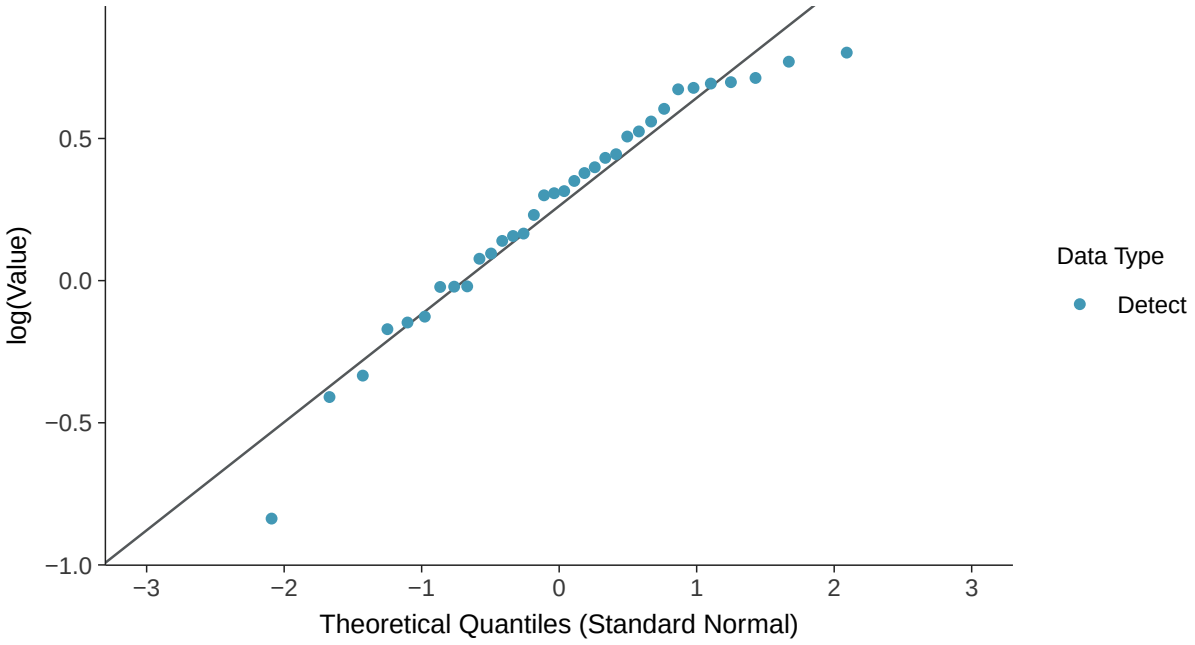
Normal Q-Q plot

Radium-228, MW-2 (pCi/L)



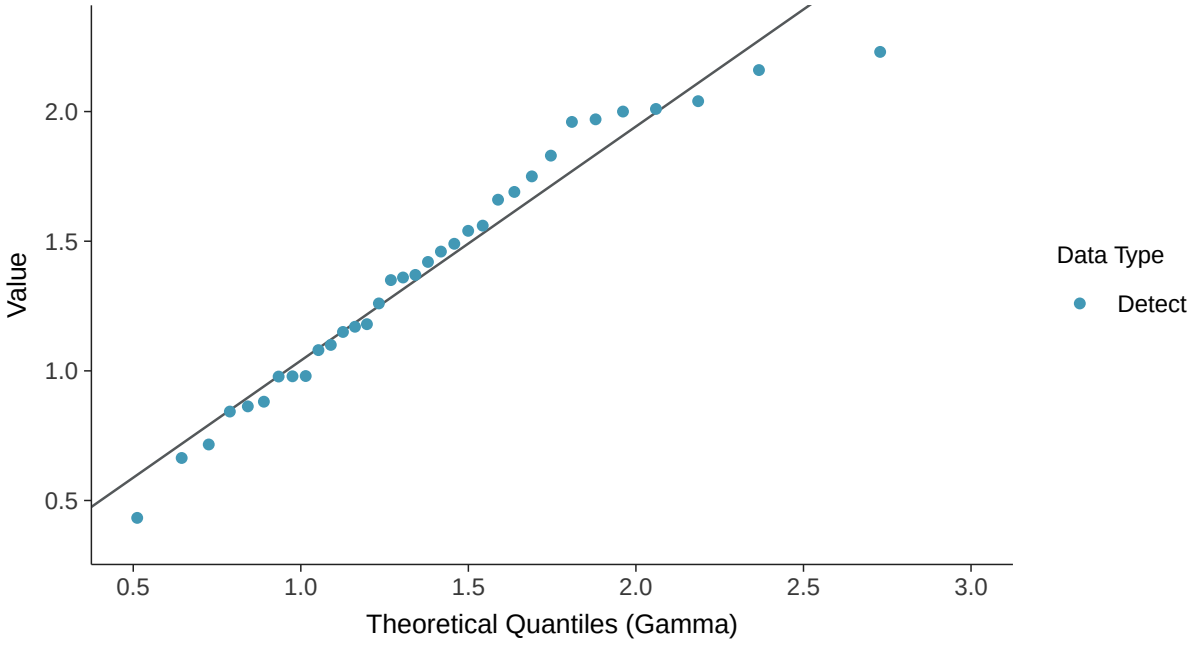
Lognormal Q-Q plot

Radium-228, MW-2 (pCi/L)



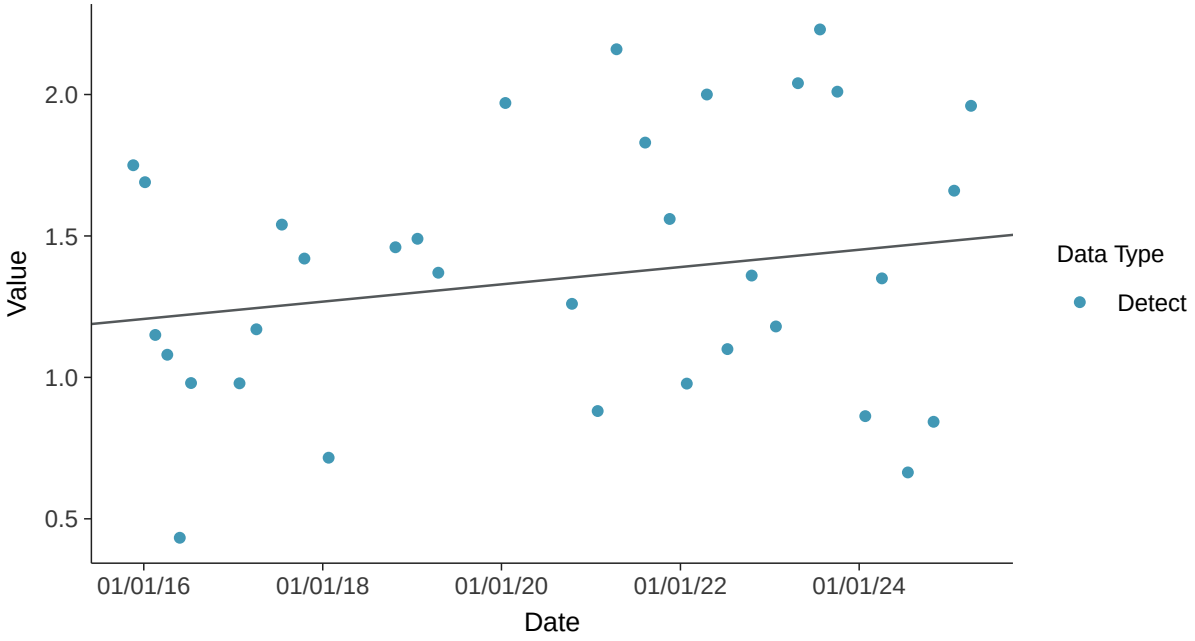
Gamma Q-Q plot

Radium-228, MW-2 (pCi/L)



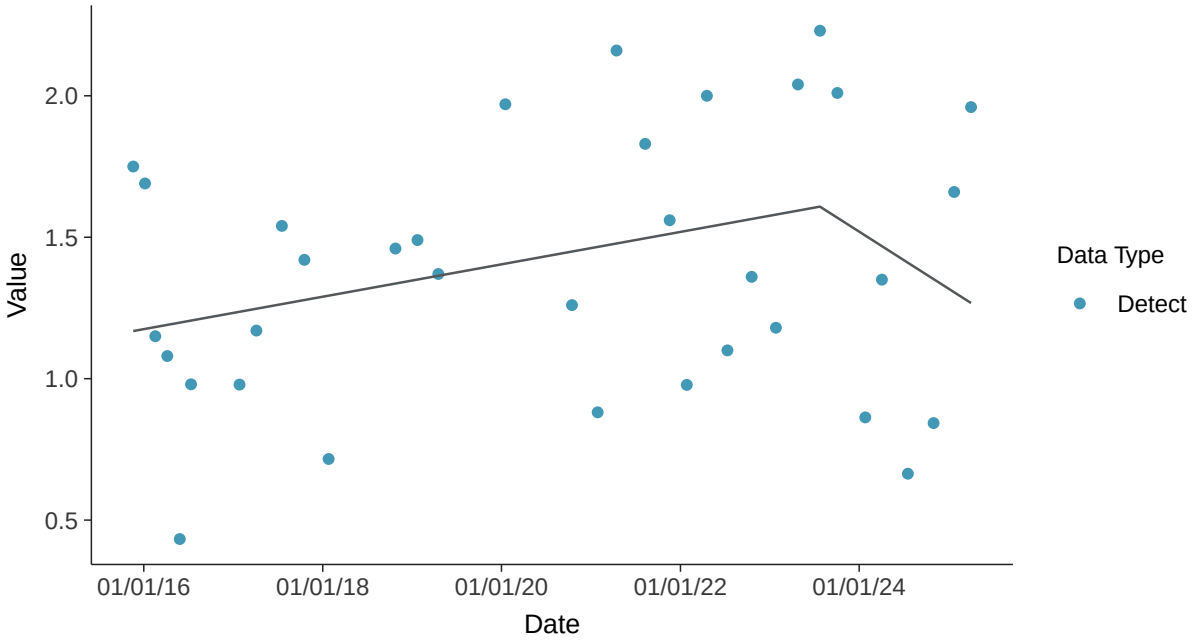
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Radium-228, MW-2 (pCi/L)



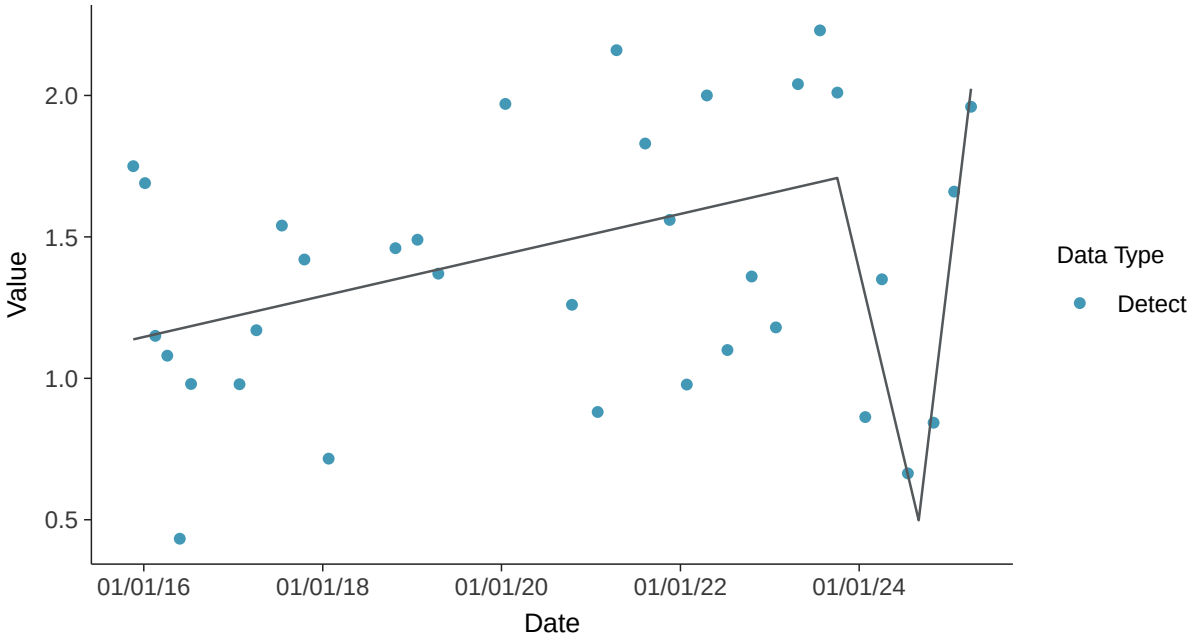
Trend Regression: Piecewise Linear-Linear

Radium-228, MW-2 (pCi/L)



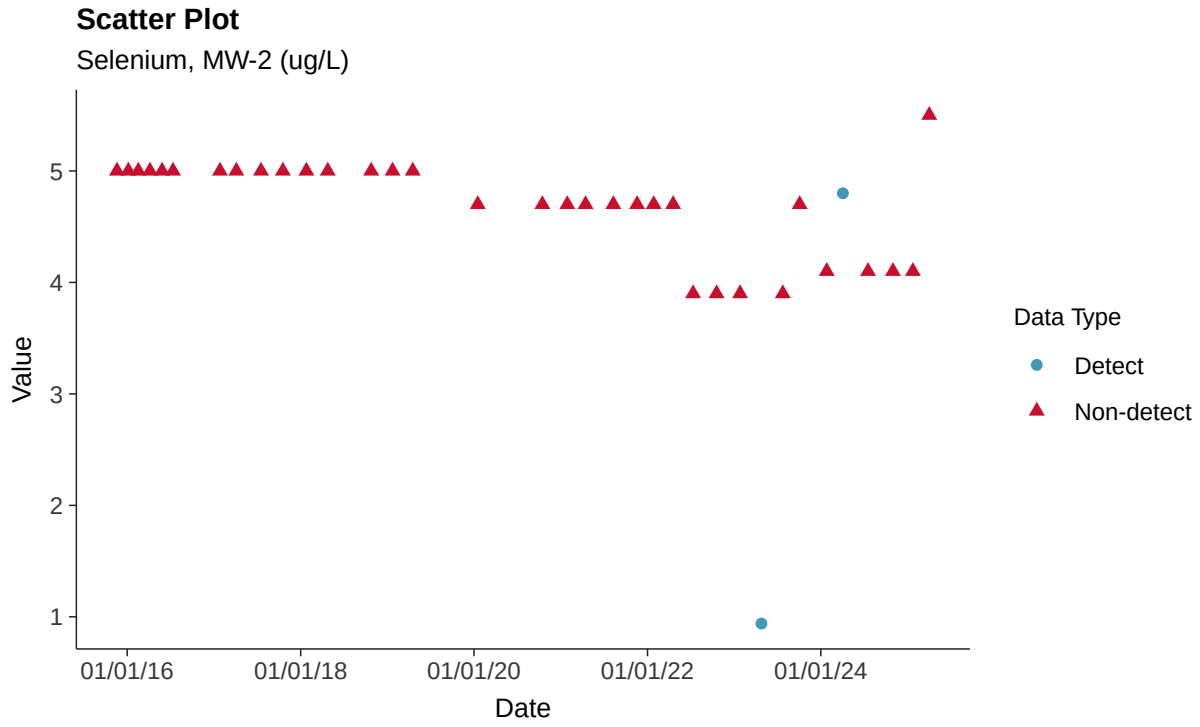
Trend Regression: Piecewise Linear-Linear-Linear

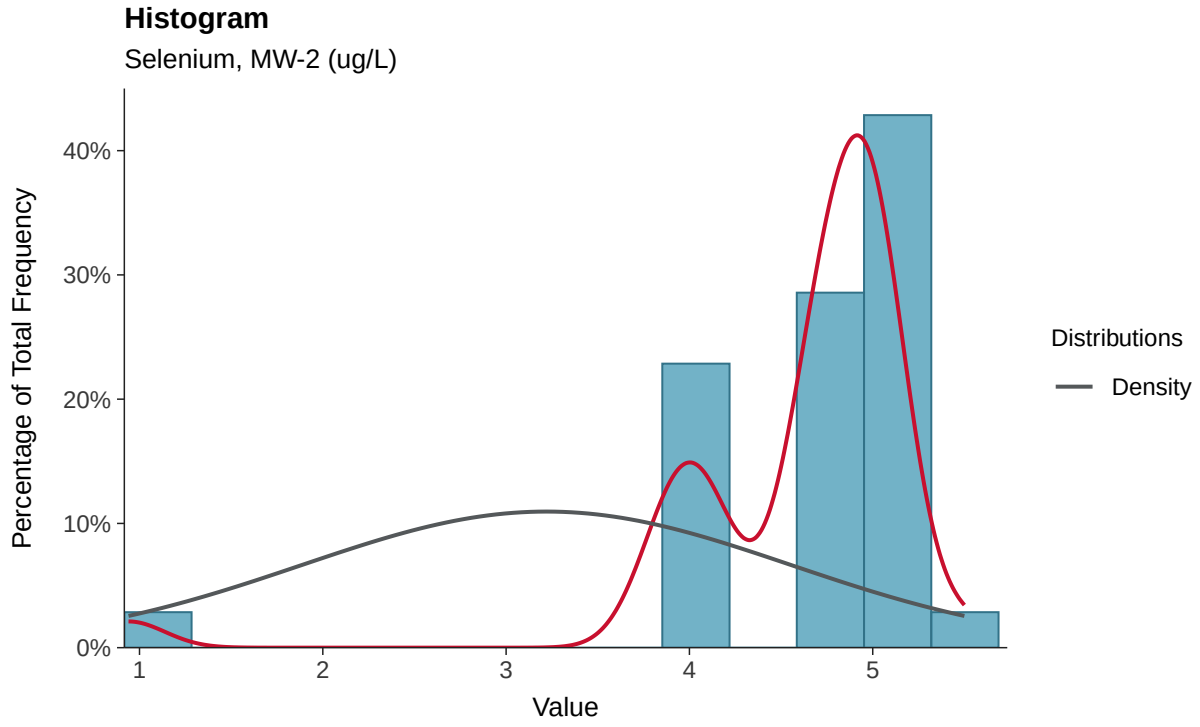
Radium-228, MW-2 (pCi/L)



App. IV: Selenium, MW-2

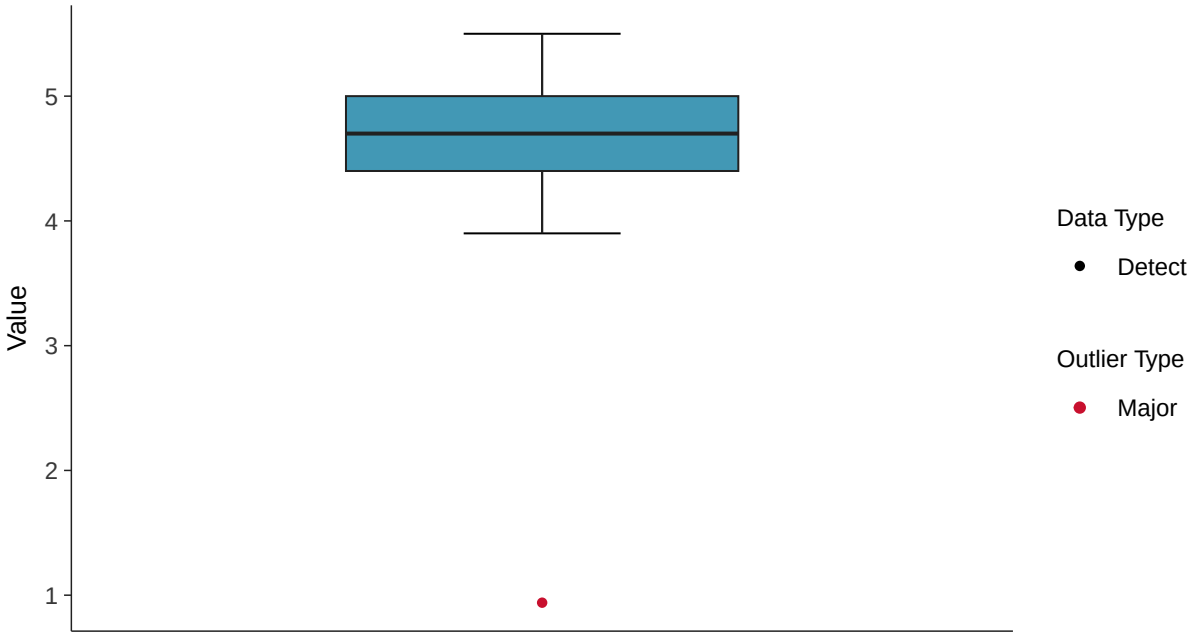
ID: 02_03_121





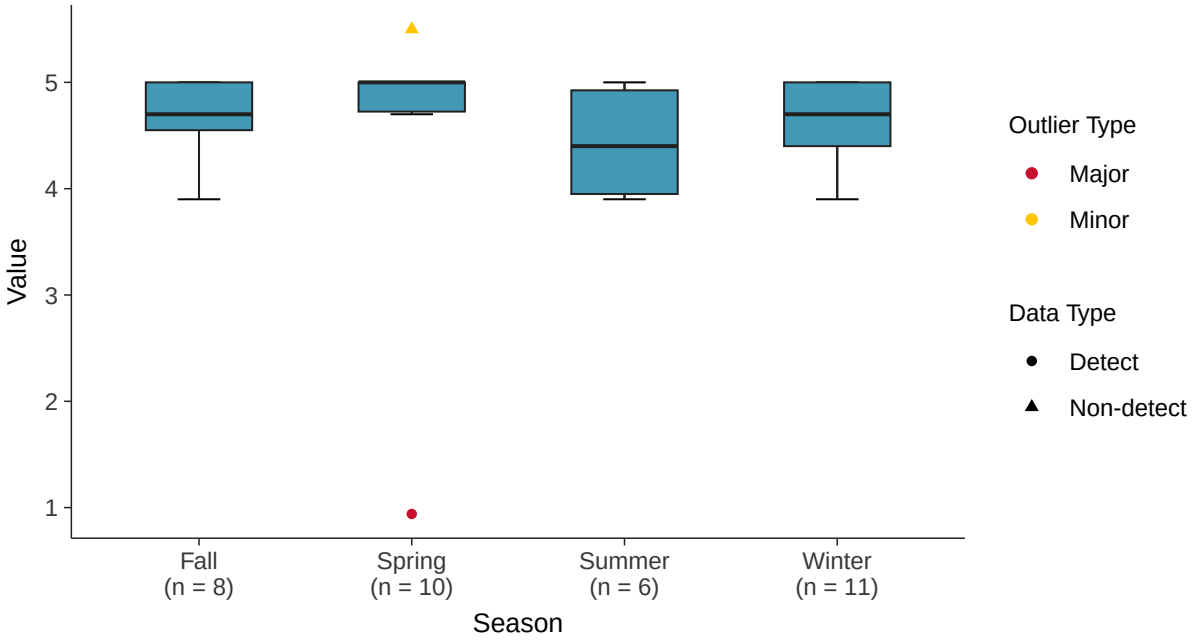
Boxplot

Selenium, MW-2 (ug/L)



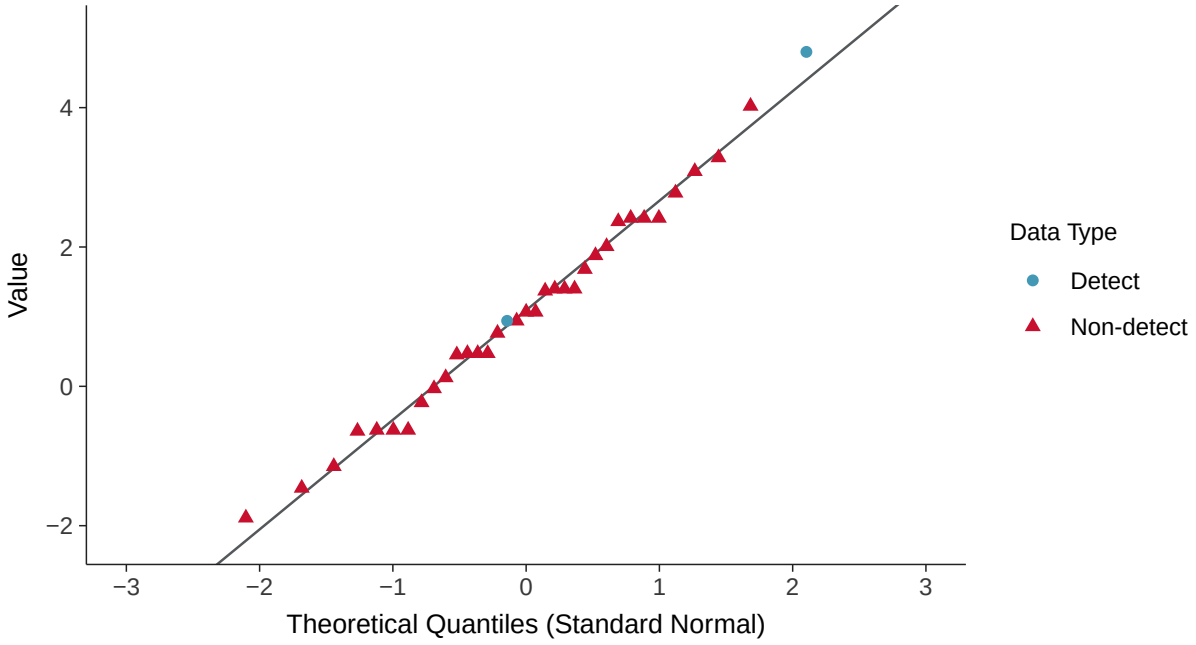
Boxplot by Season

Selenium, MW-2 (ug/L)



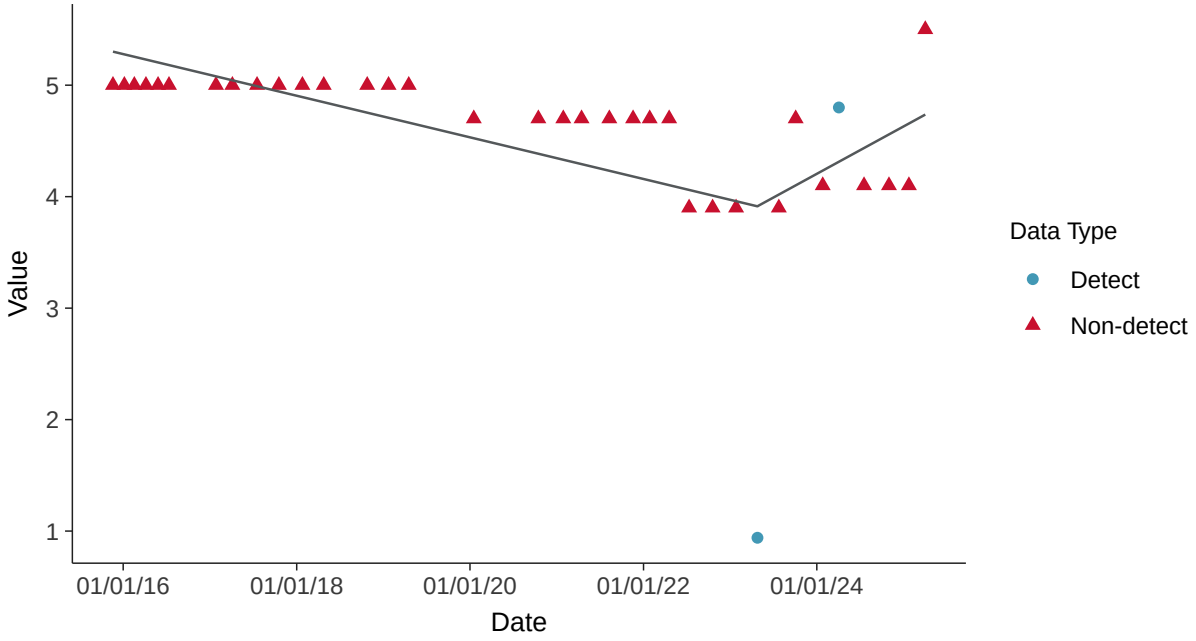
Normal Q-Q plot using ROS Imputed Estimates

Selenium, MW-2 (ug/L)



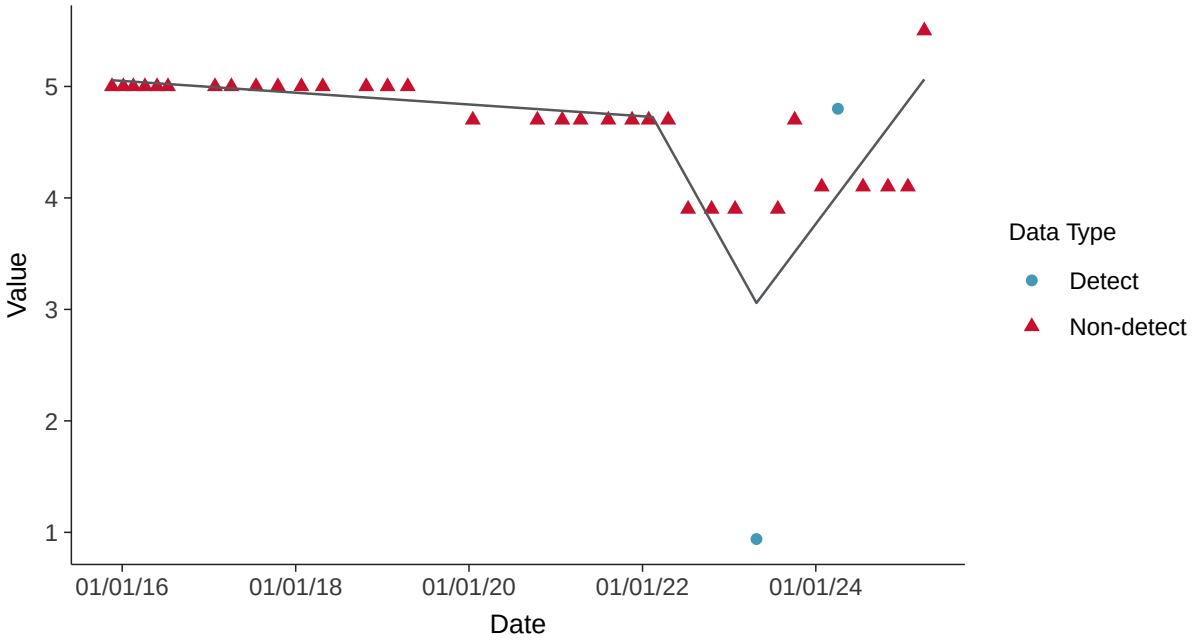
Trend Regression: Piecewise Linear-Linear

Selenium, MW-2 (ug/L)



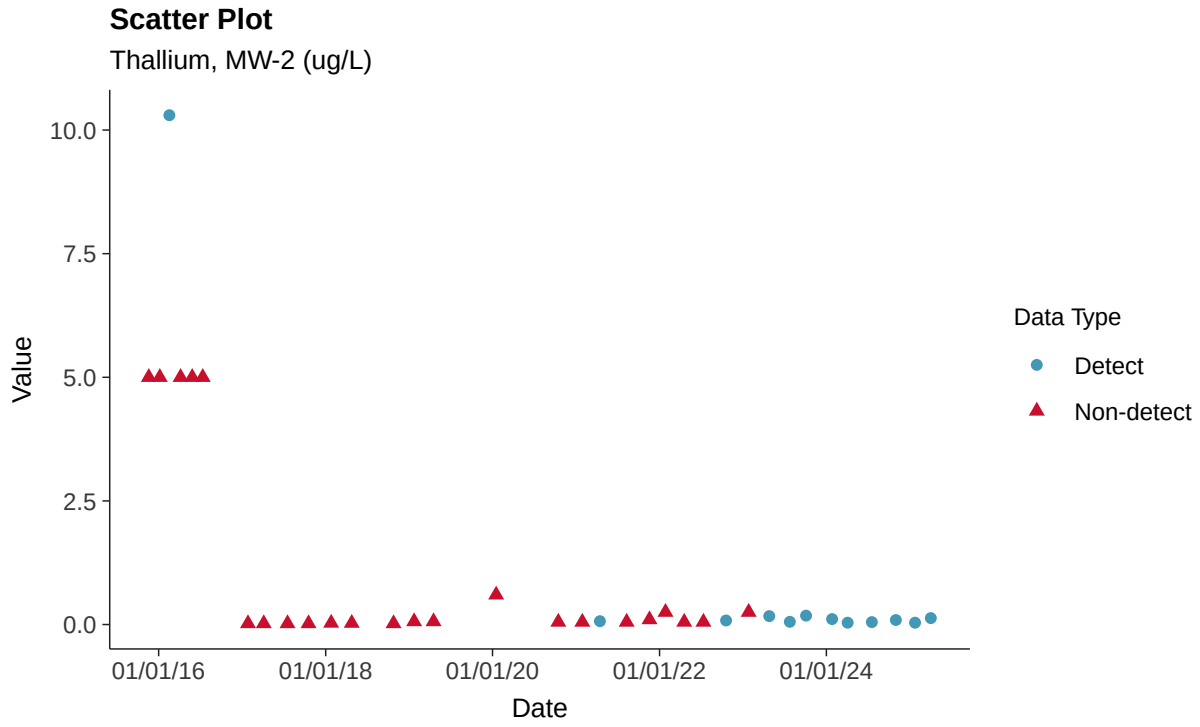
Trend Regression: Piecewise Linear-Linear-Linear

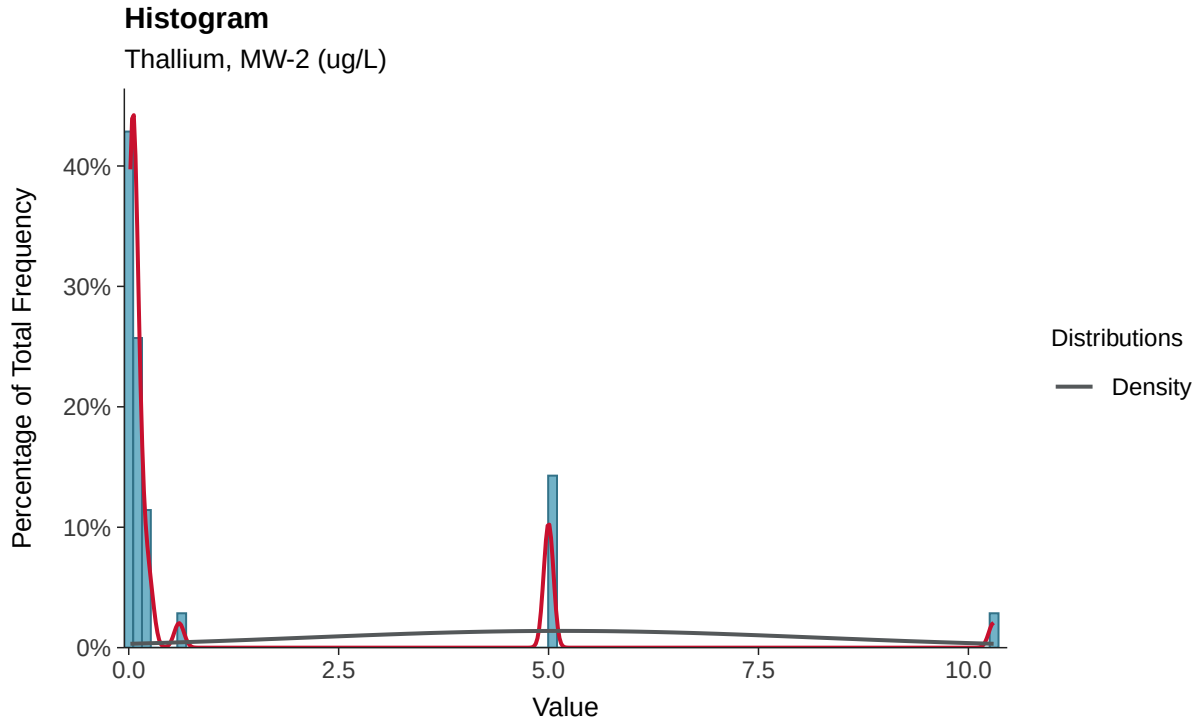
Selenium, MW-2 (ug/L)



App. IV: Thallium, MW-2

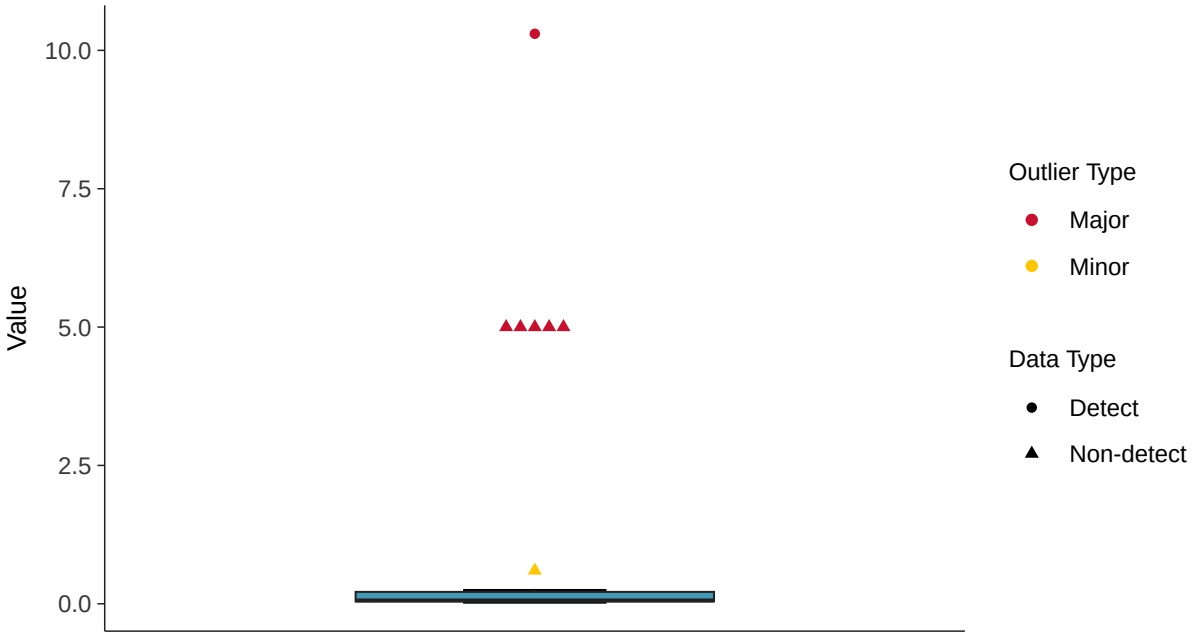
ID: 02_03_124





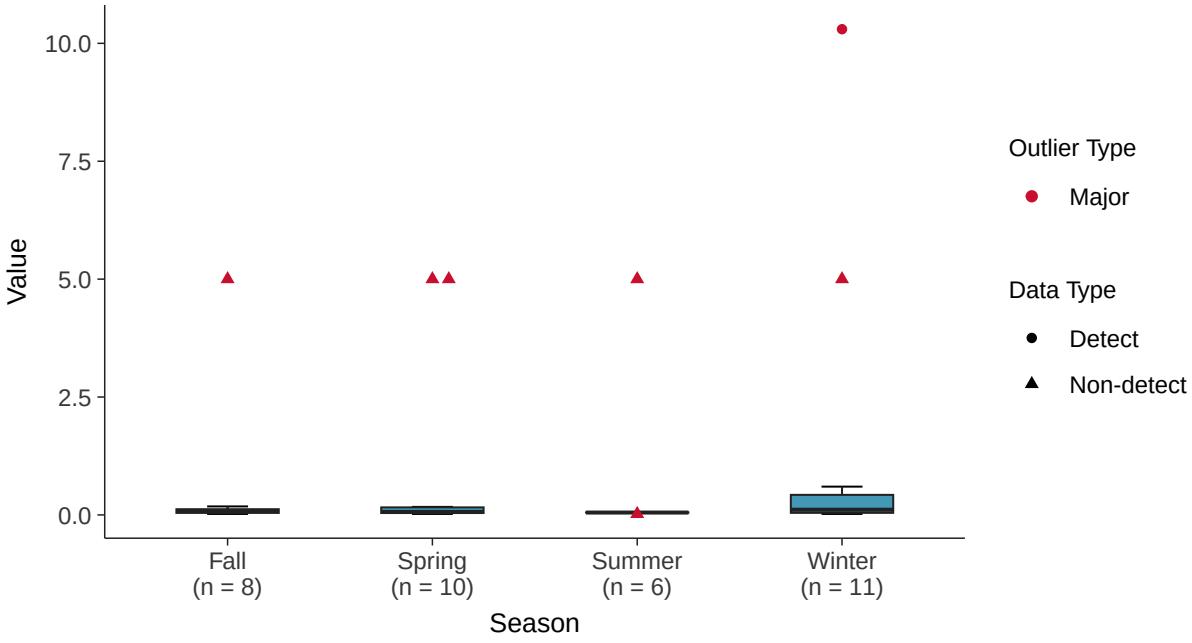
Boxplot

Thallium, MW-2 (ug/L)



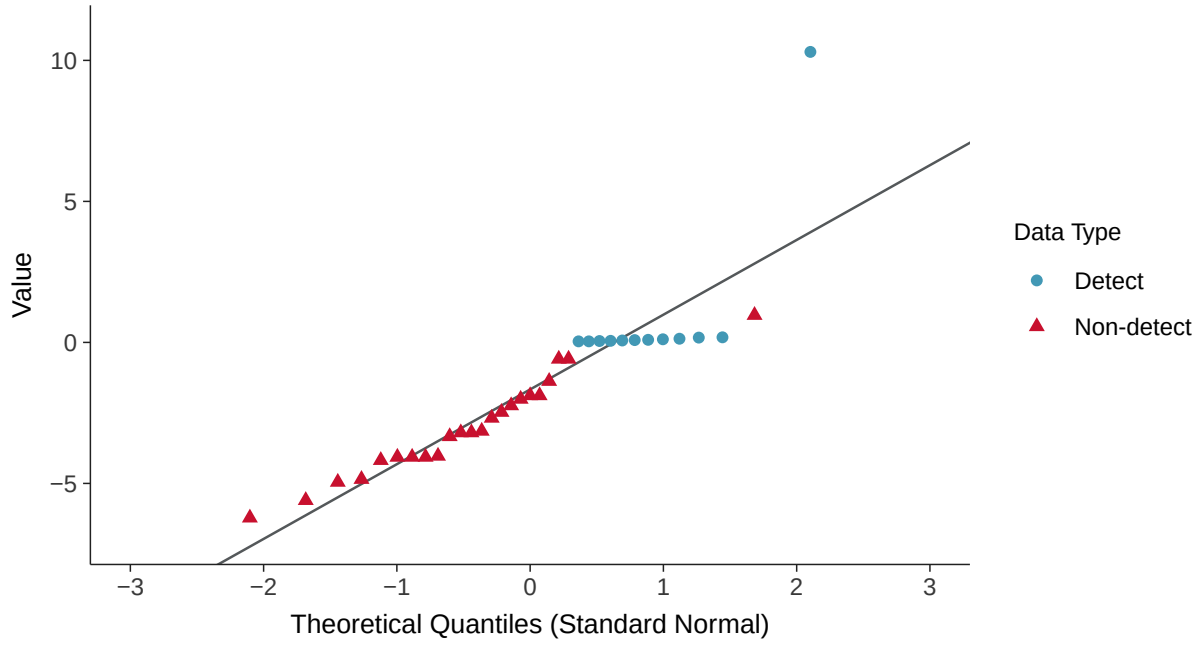
Boxplot by Season

Thallium, MW-2 (ug/L)



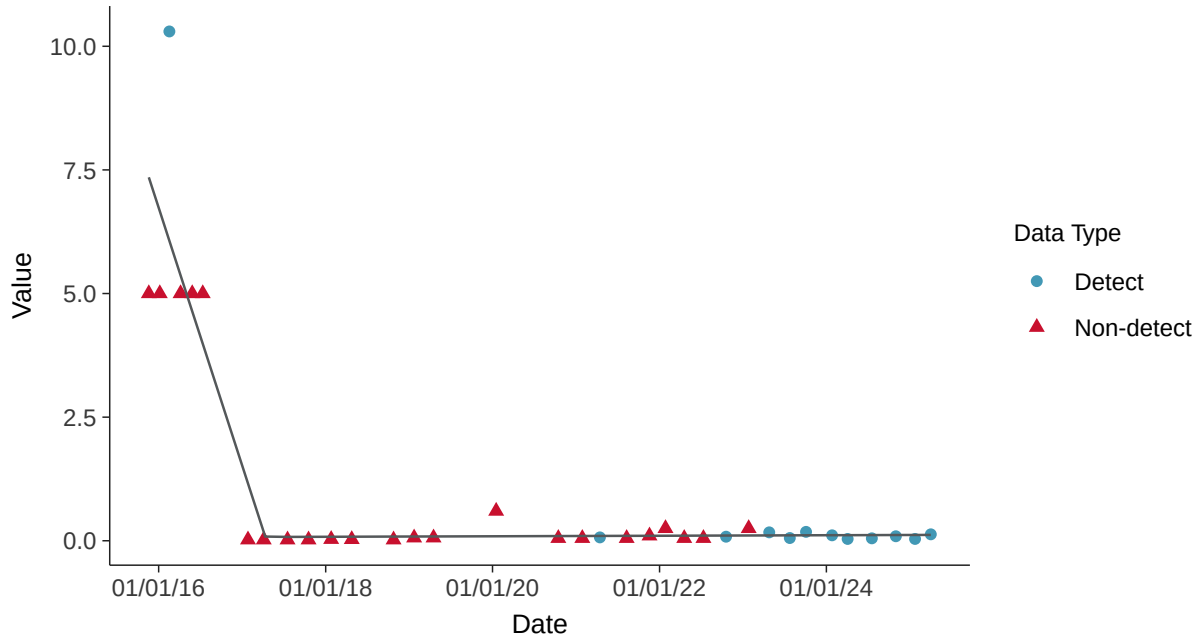
Normal Q-Q plot using ROS Imputed Estimates

Thallium, MW-2 (ug/L)



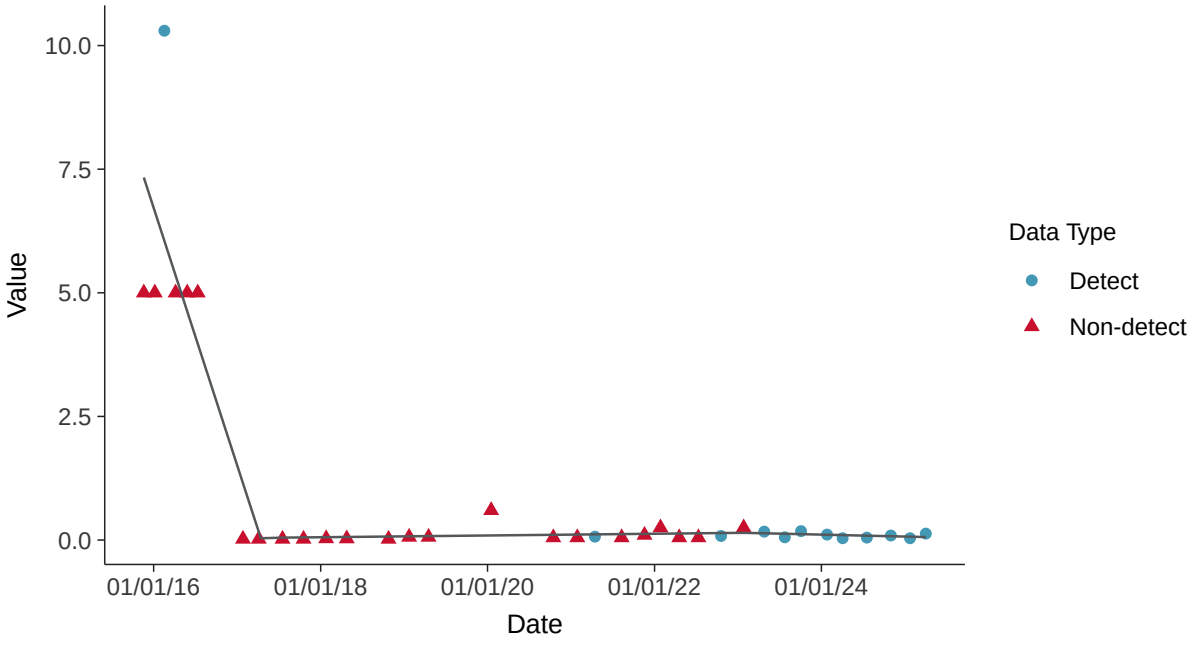
Trend Regression: Piecewise Linear-Linear

Thallium, MW-2 (ug/L)



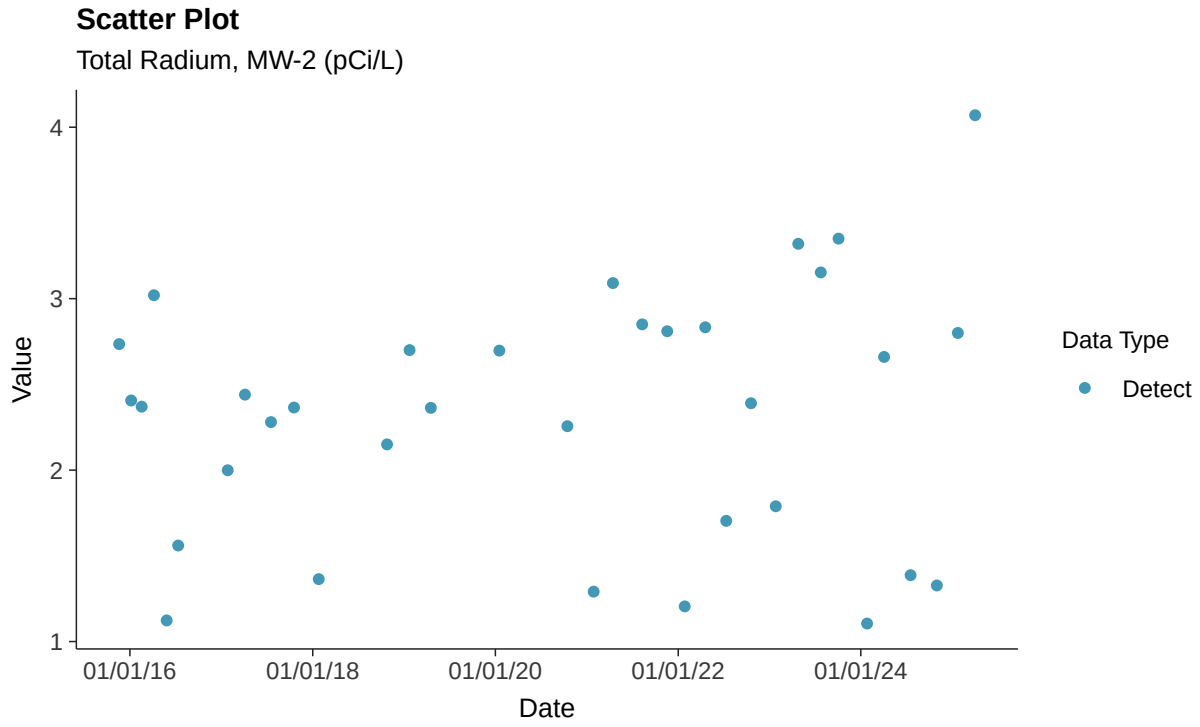
Trend Regression: Piecewise Linear-Linear-Linear

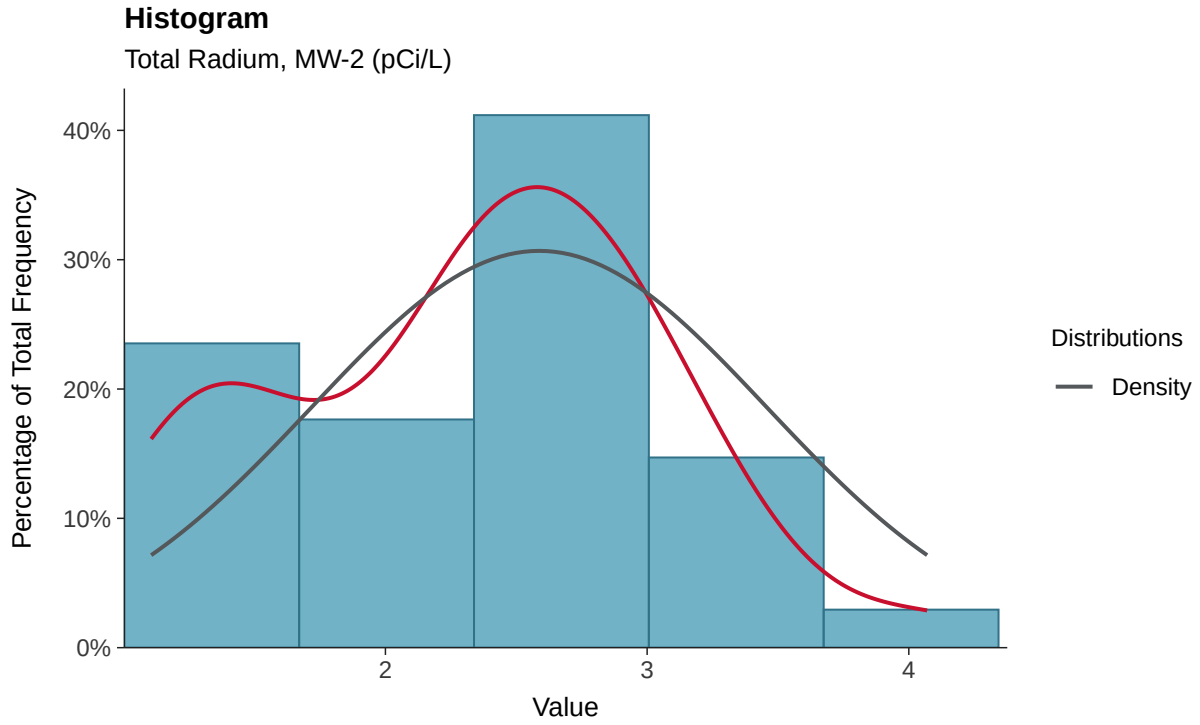
Thallium, MW-2 (ug/L)



App. IV: Total Radium, MW-2

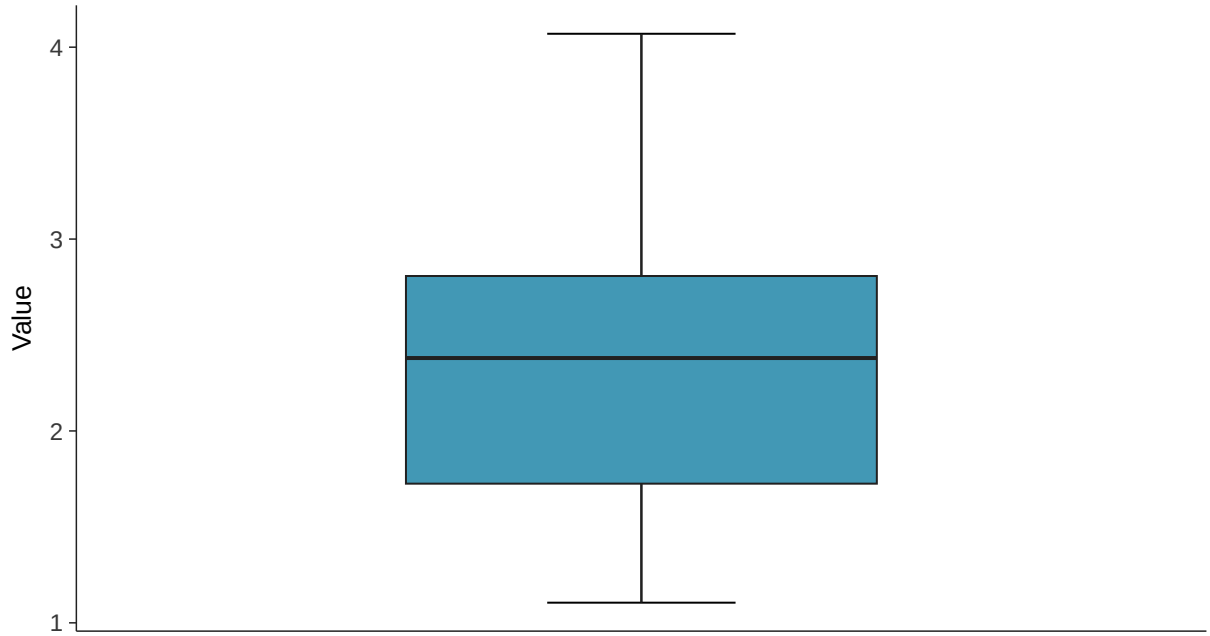
ID: 02_03_126





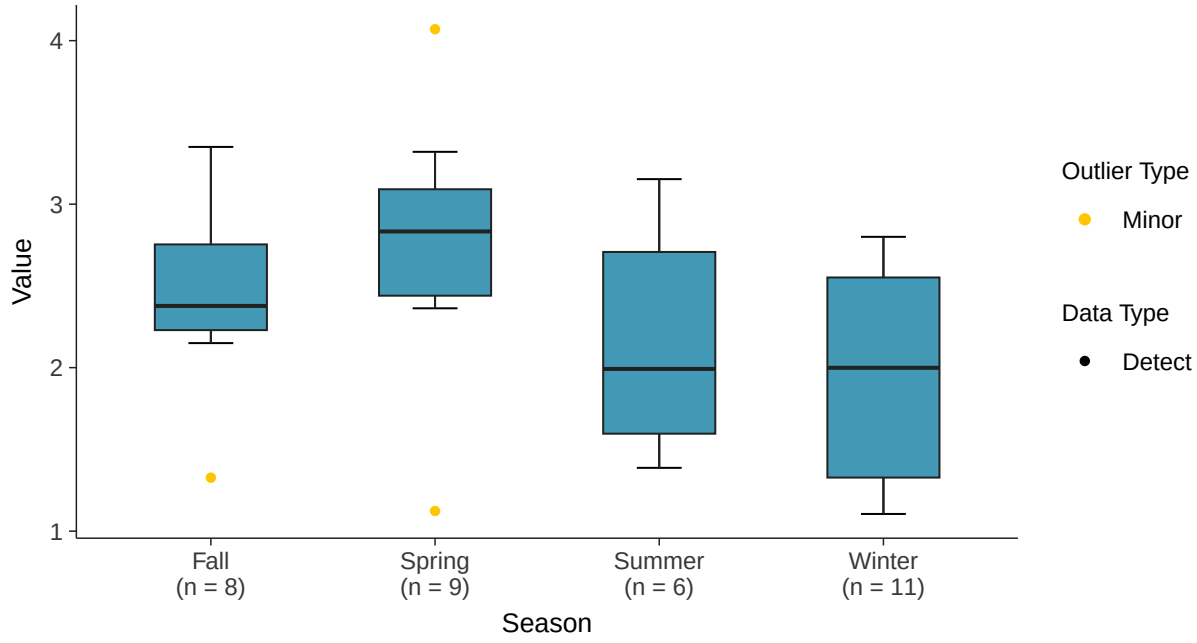
Boxplot

Total Radium, MW-2 (pCi/L)



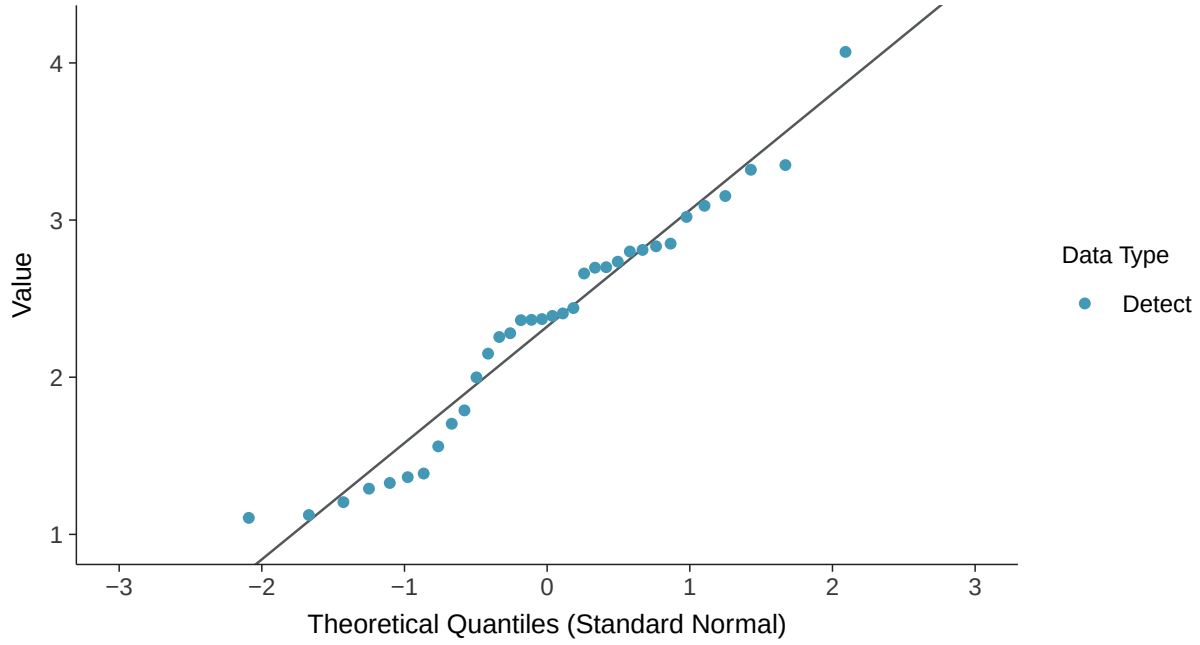
Boxplot by Season

Total Radium, MW-2 (pCi/L)



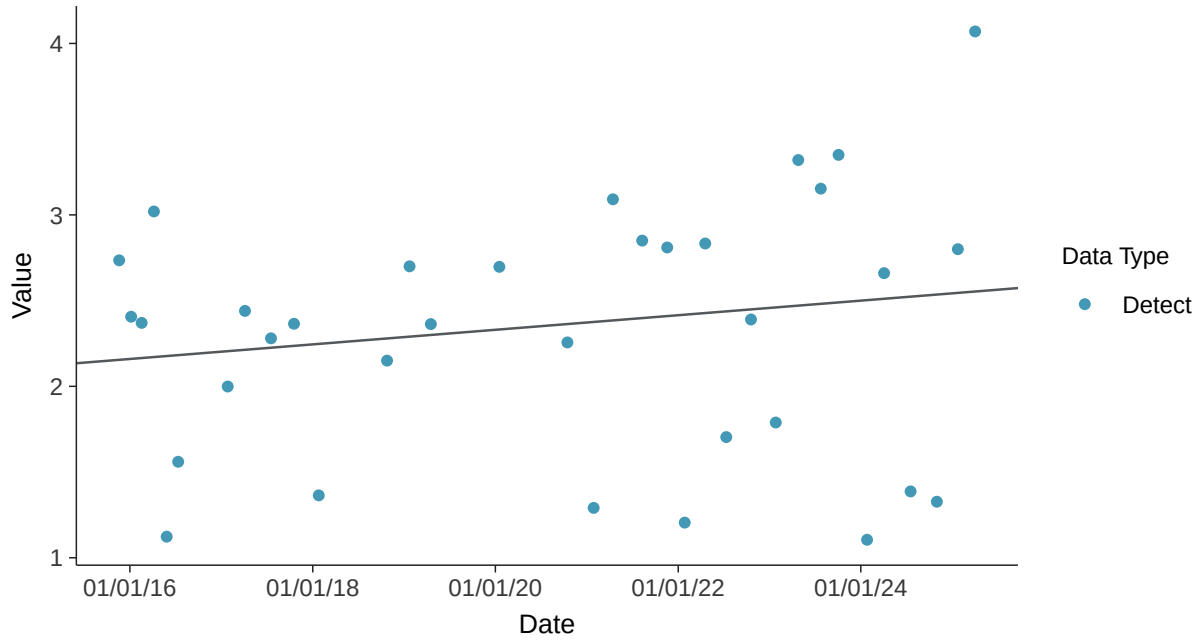
Normal Q-Q plot

Total Radium, MW-2 (pCi/L)



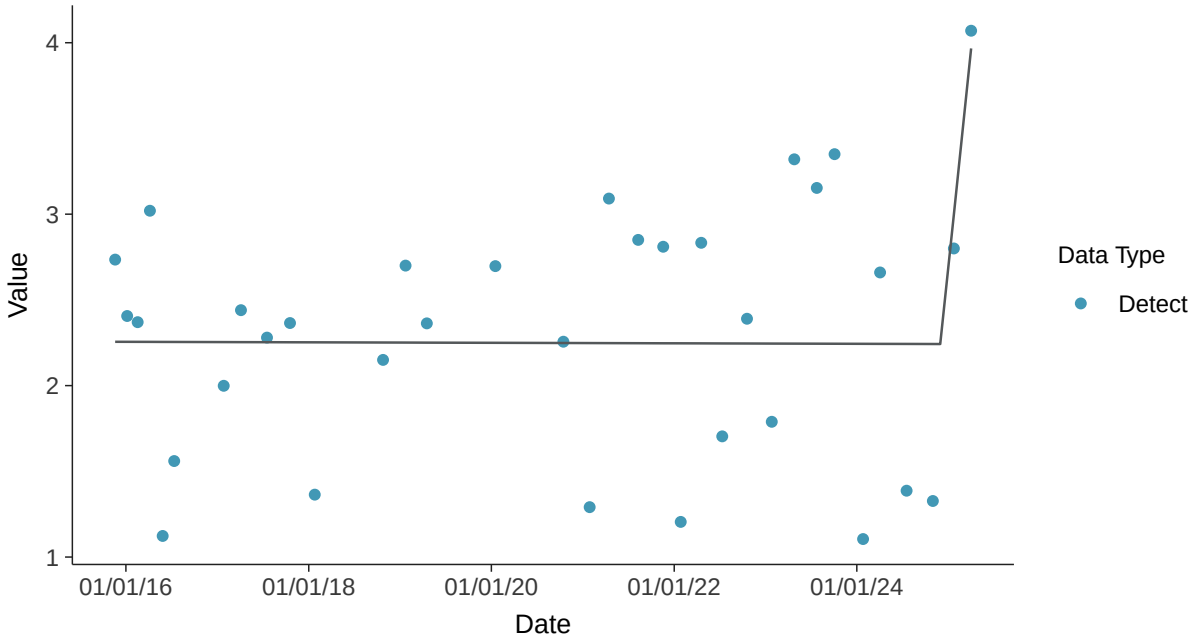
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Total Radium, MW-2 (pCi/L)



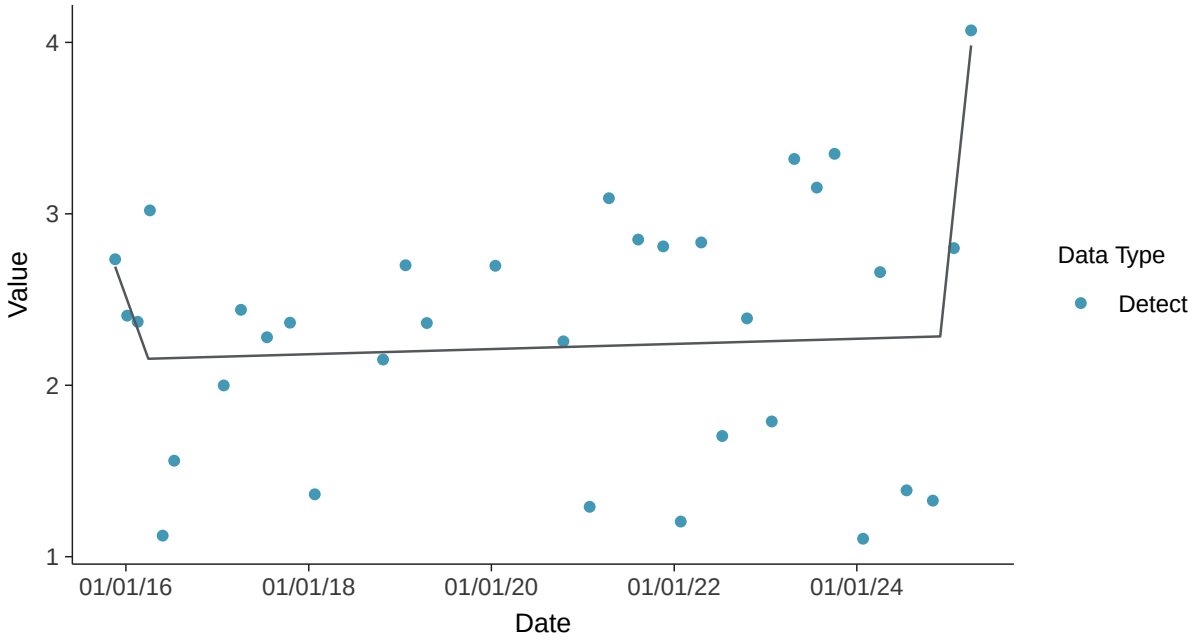
Trend Regression: Piecewise Linear-Linear

Total Radium, MW-2 (pCi/L)



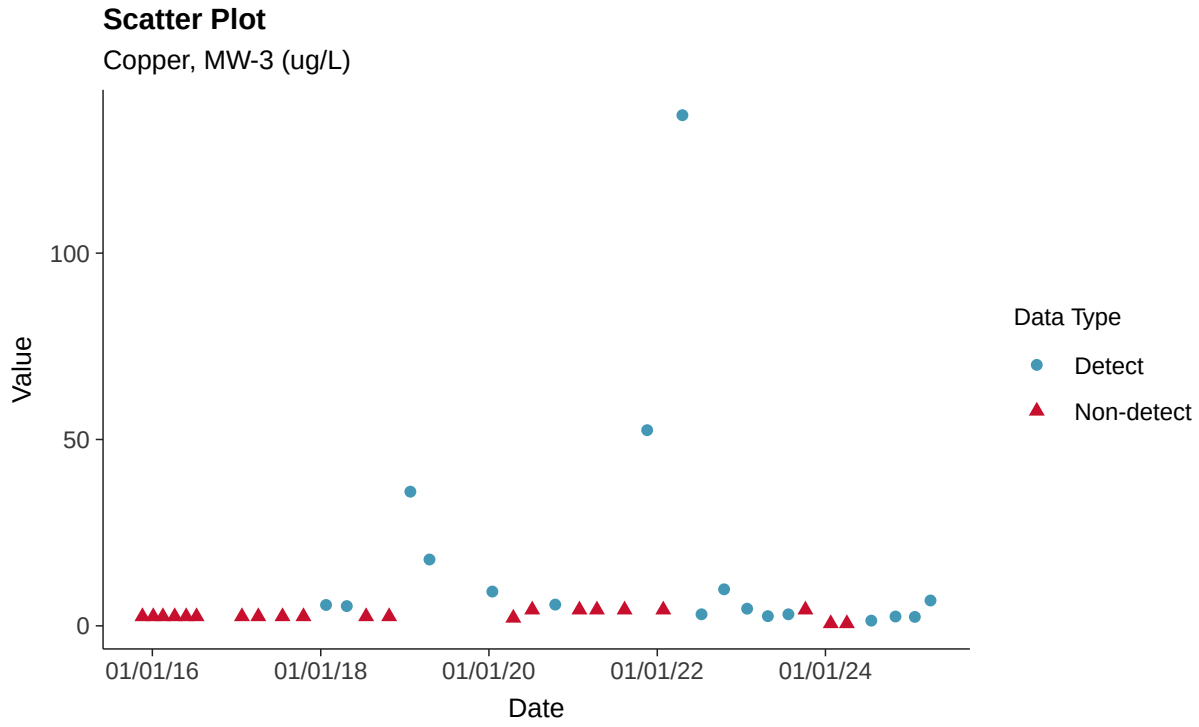
Trend Regression: Piecewise Linear-Linear-Linear

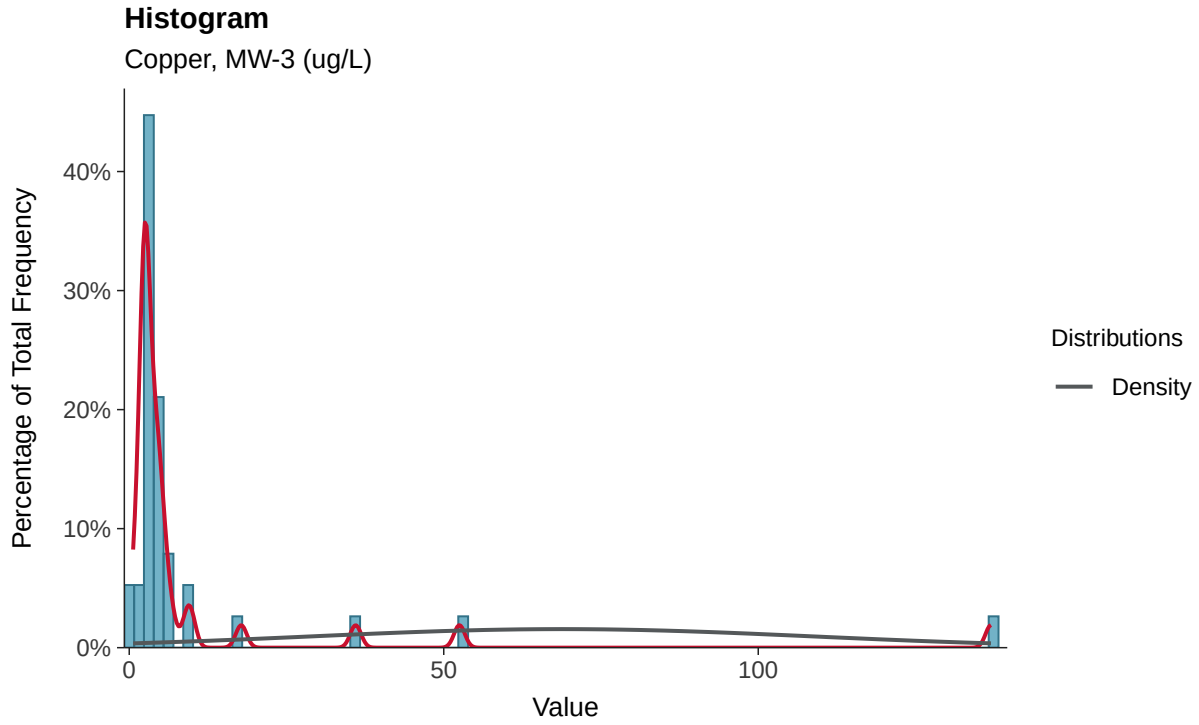
Total Radium, MW-2 (pCi/L)



App. I Metals: Copper, MW-3

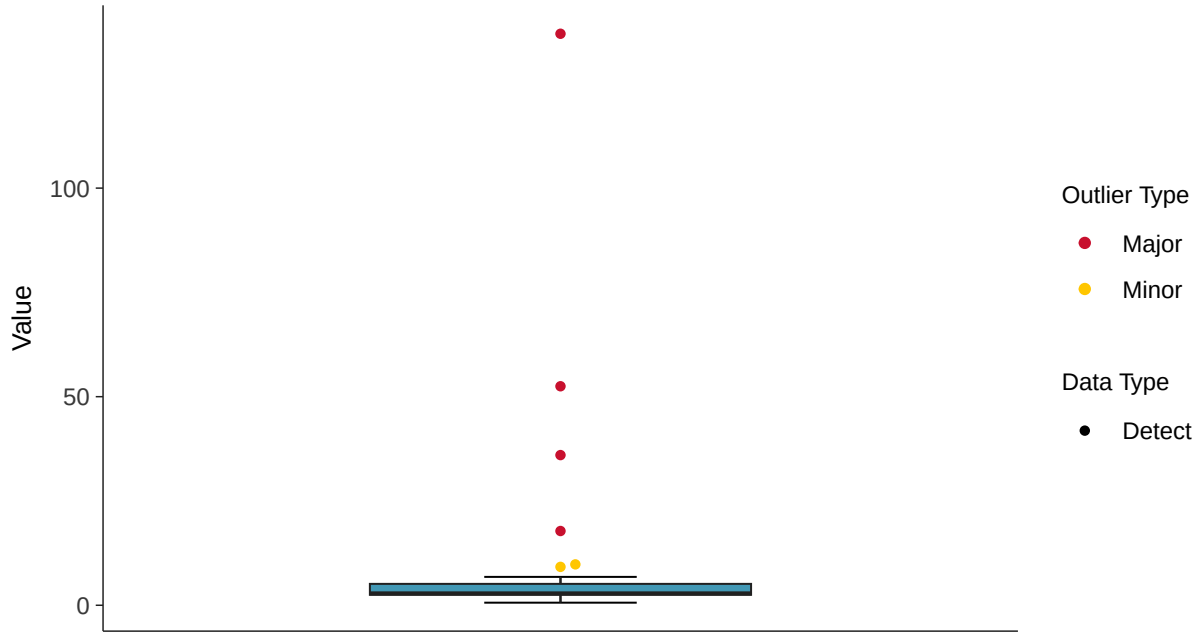
ID: 03_01_111





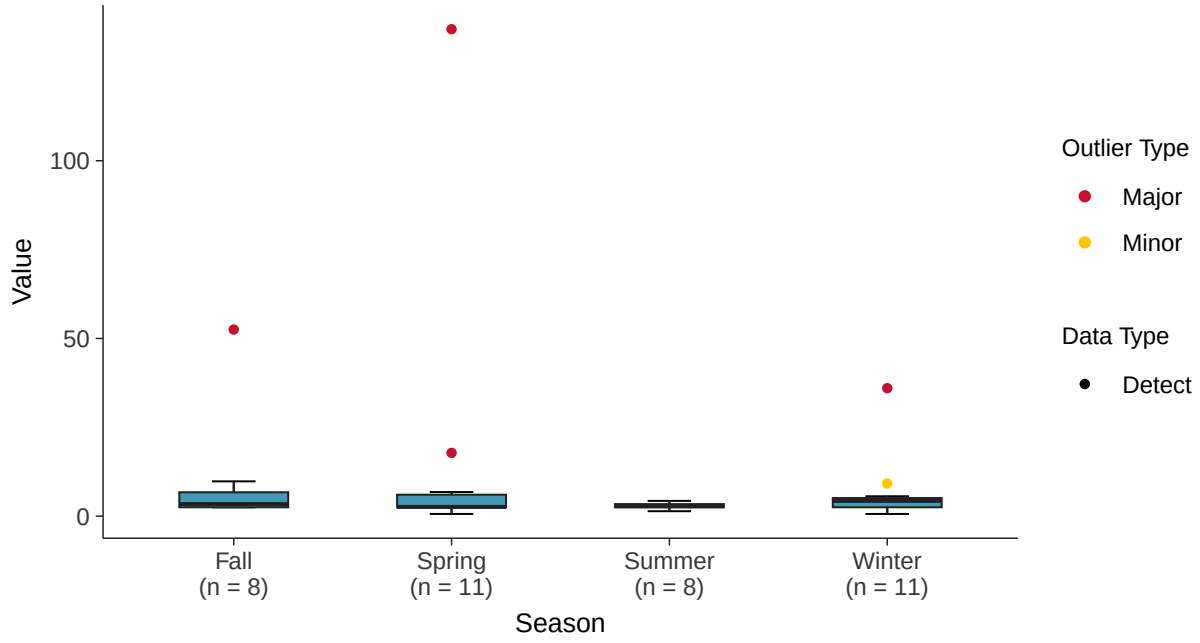
Boxplot

Copper, MW-3 (ug/L)



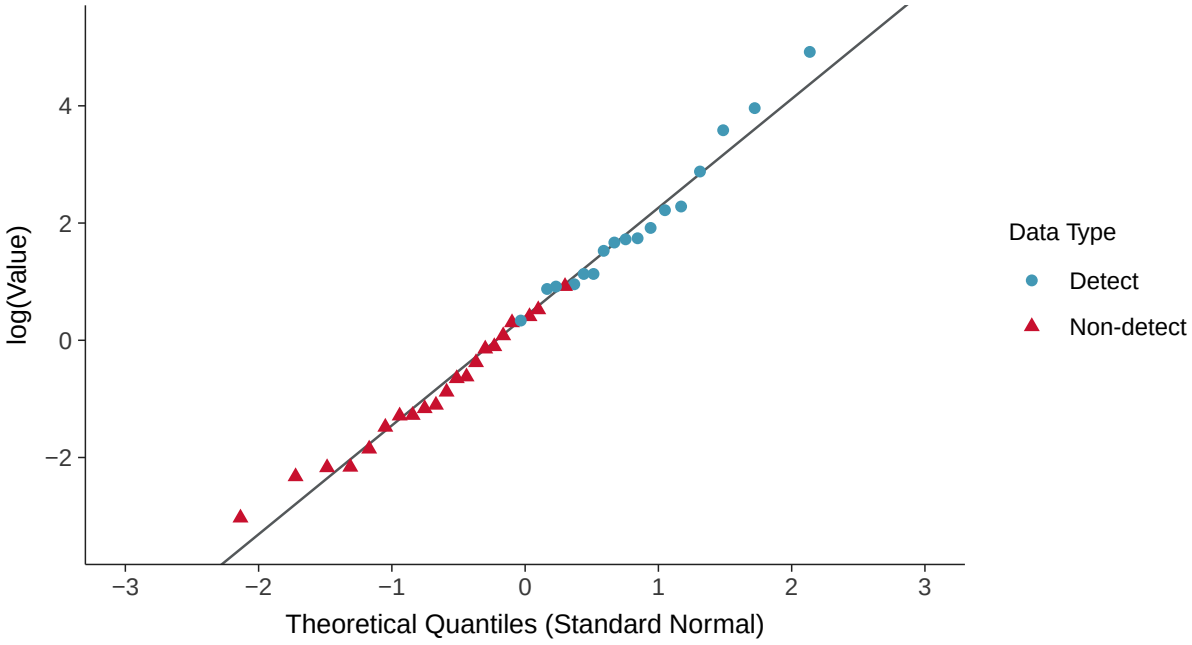
Boxplot by Season

Copper, MW-3 (ug/L)



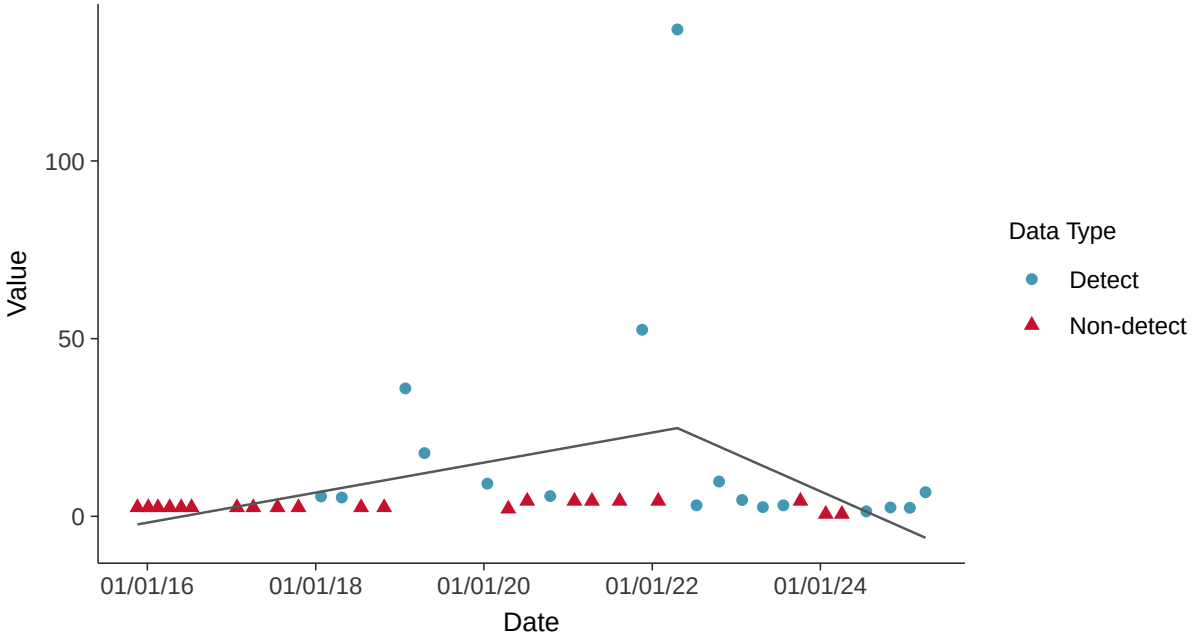
Lognormal Q-Q plot using ROS Imputed Estimates

Copper, MW-3 (ug/L)



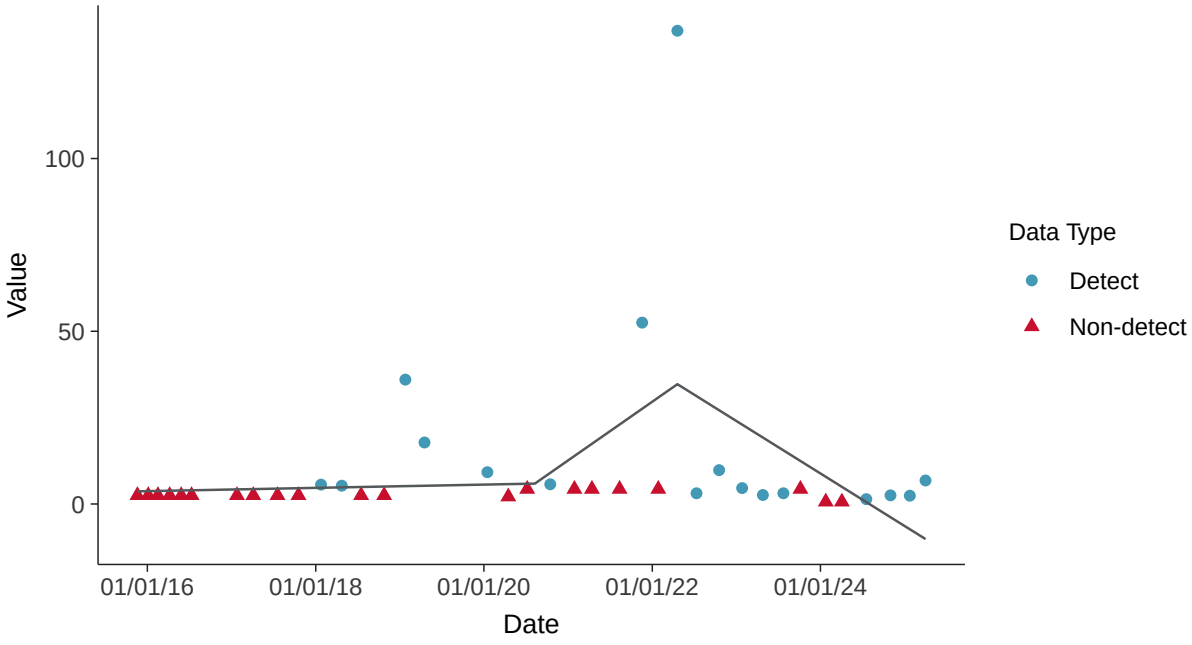
Trend Regression: Piecewise Linear-Linear

Copper, MW-3 (ug/L)



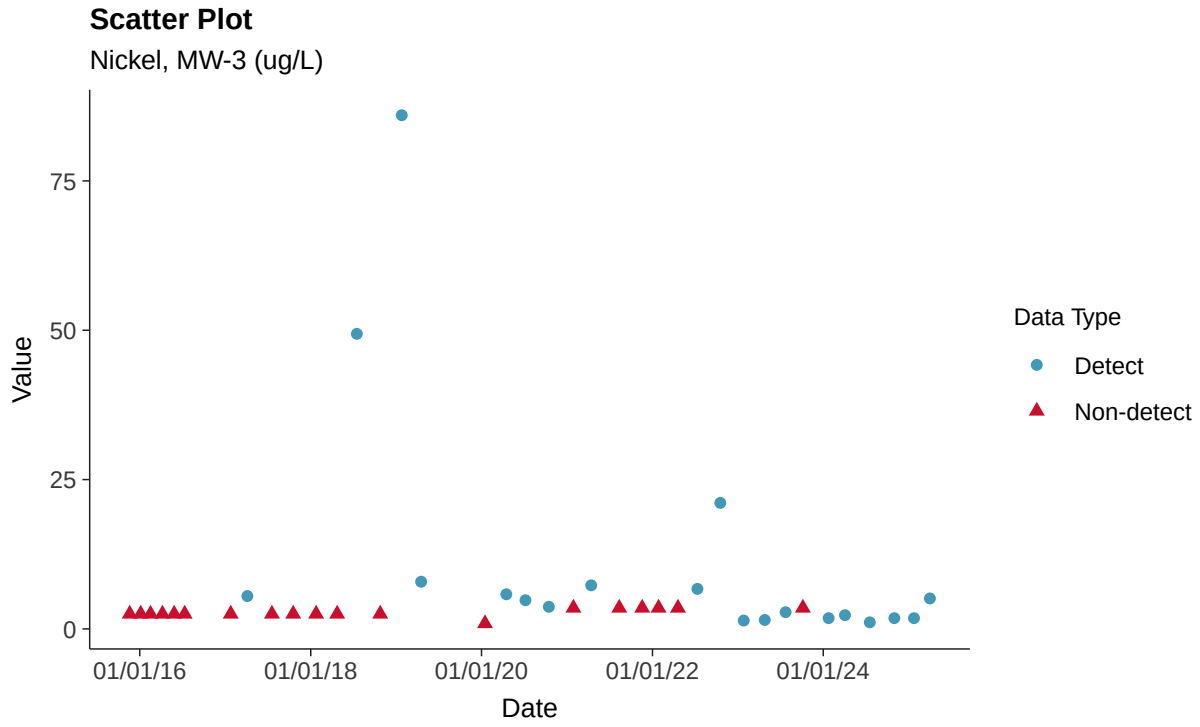
Trend Regression: Piecewise Linear-Linear-Linear

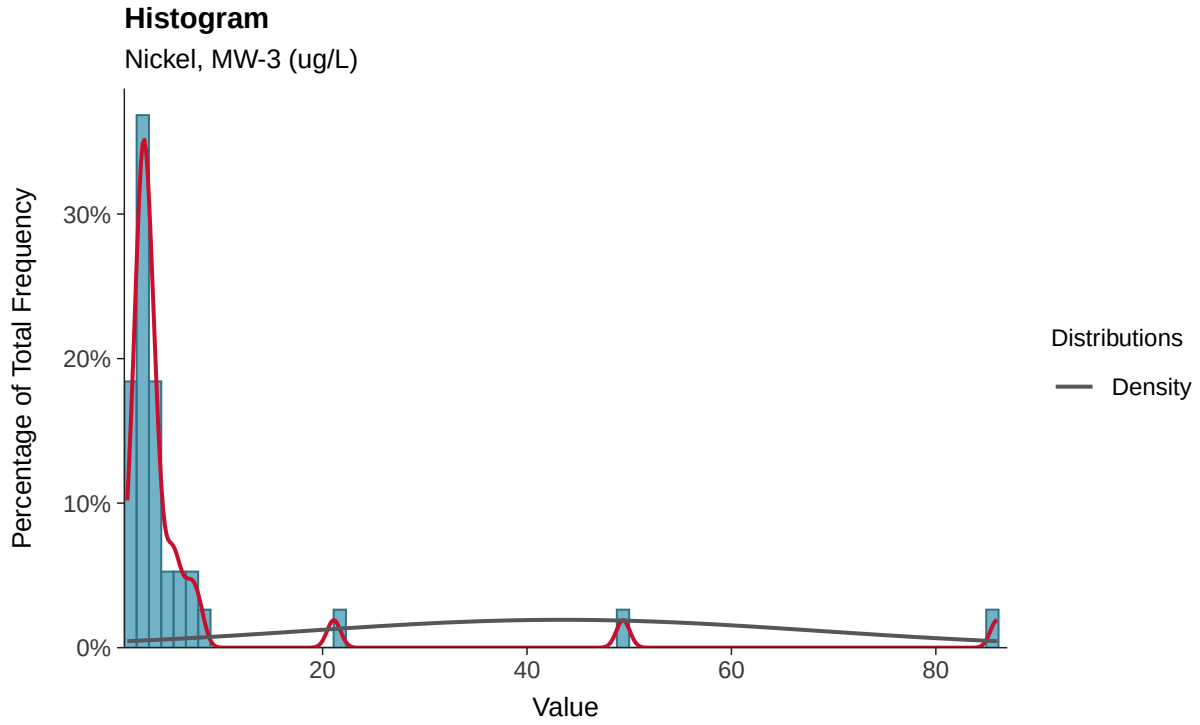
Copper, MW-3 (ug/L)



App. I Metals: Nickel, MW-3

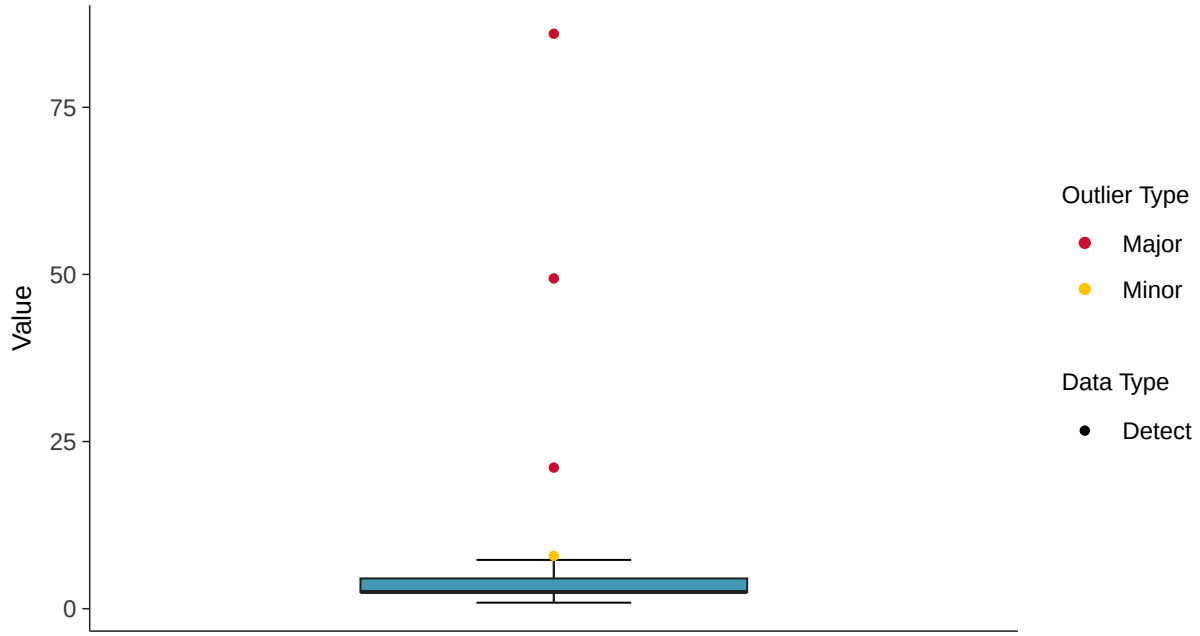
ID: 03_01_117





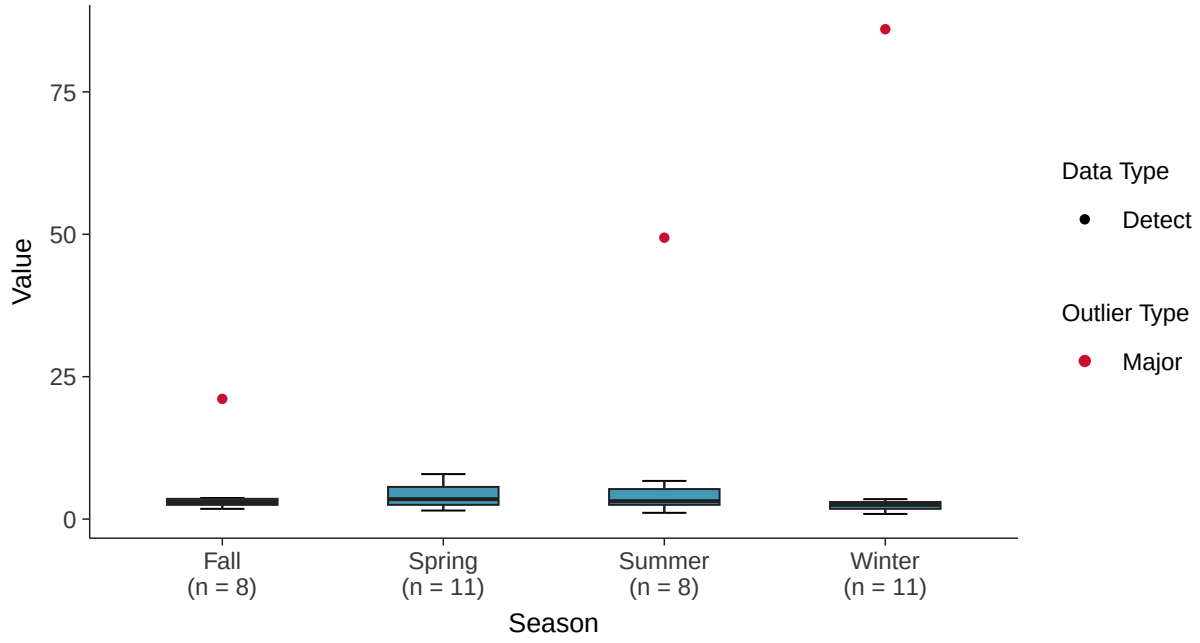
Boxplot

Nickel, MW-3 (ug/L)



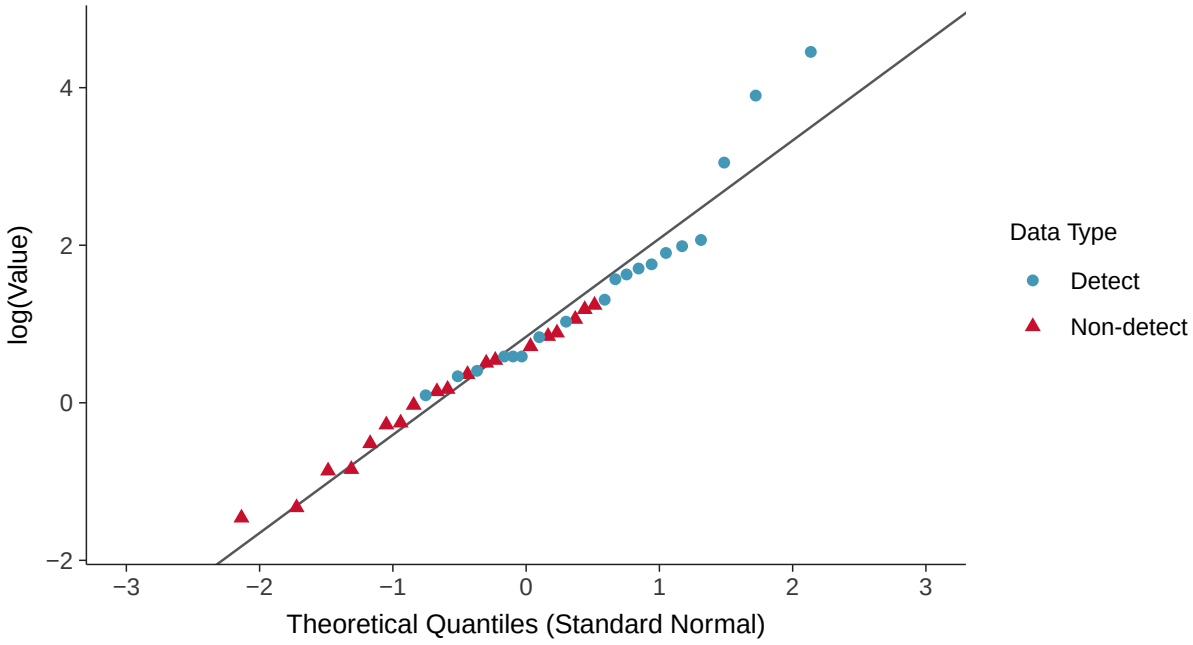
Boxplot by Season

Nickel, MW-3 (ug/L)



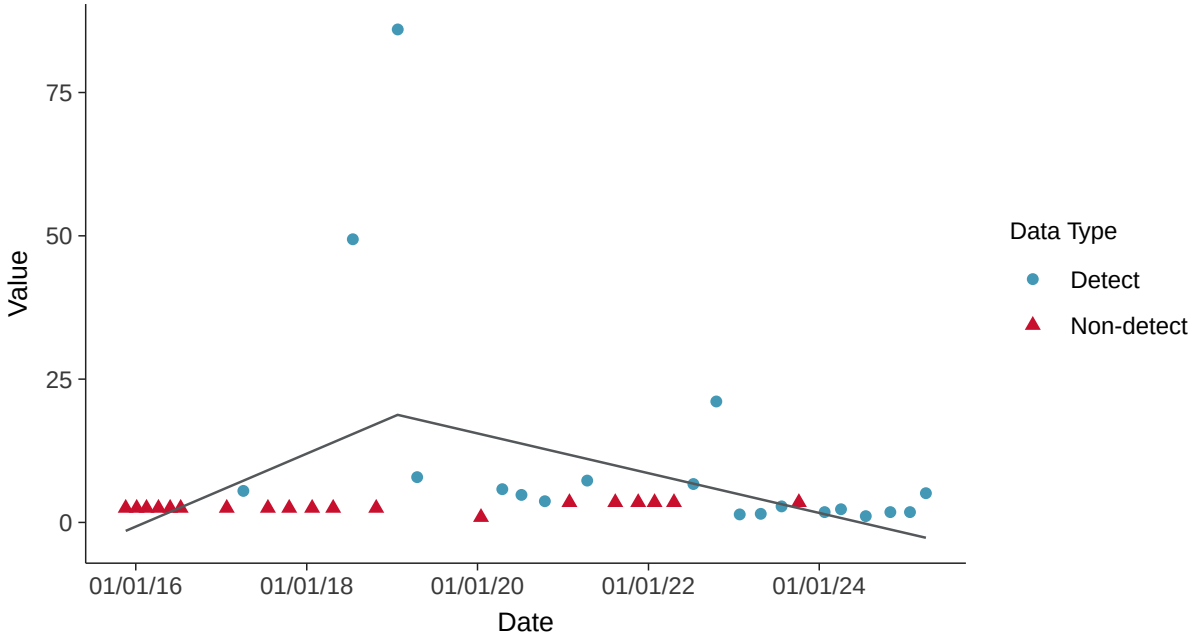
Lognormal Q-Q plot using ROS Imputed Estimates

Nickel, MW-3 (ug/L)



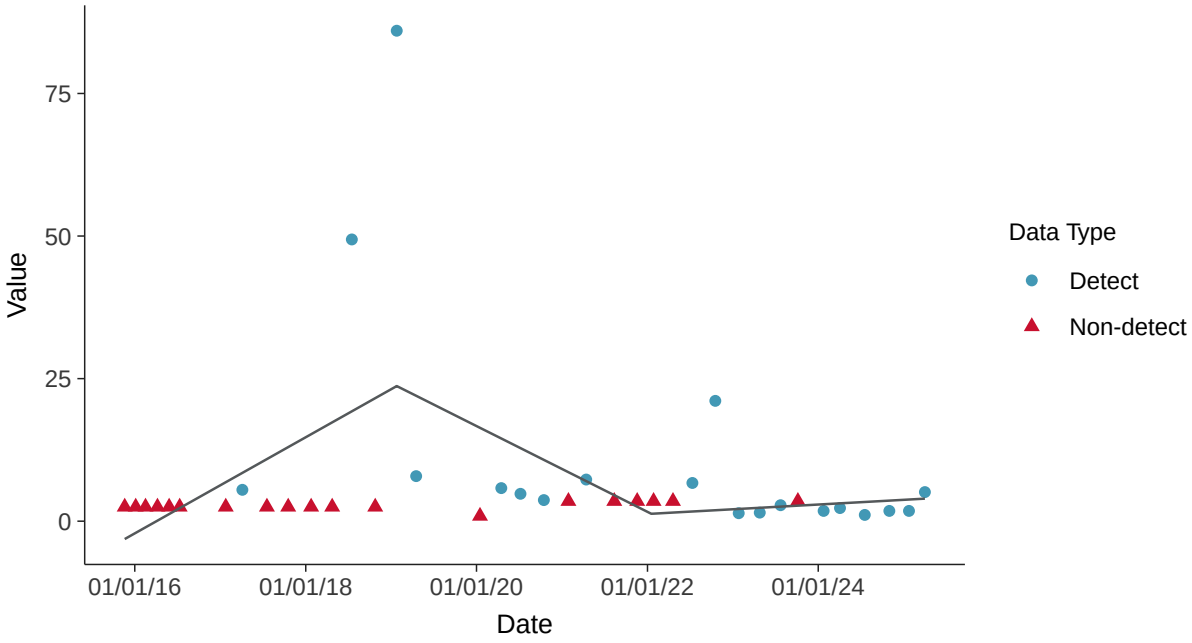
Trend Regression: Piecewise Linear-Linear

Nickel, MW-3 (ug/L)



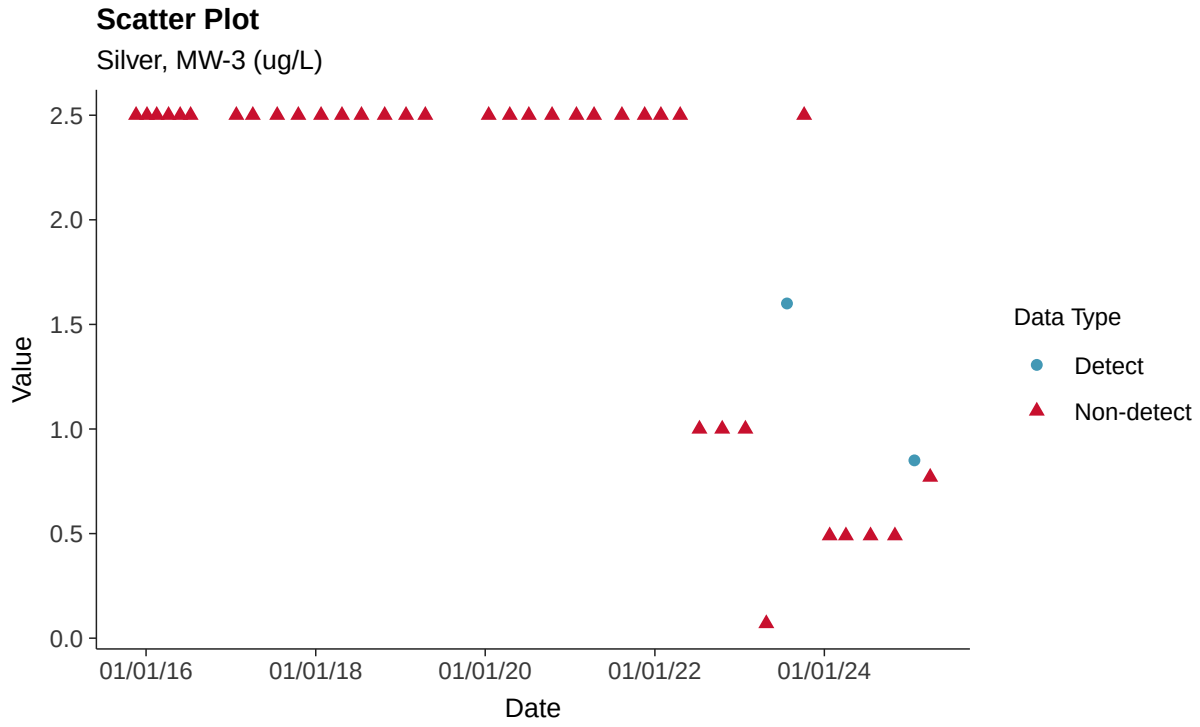
Trend Regression: Piecewise Linear-Linear-Linear

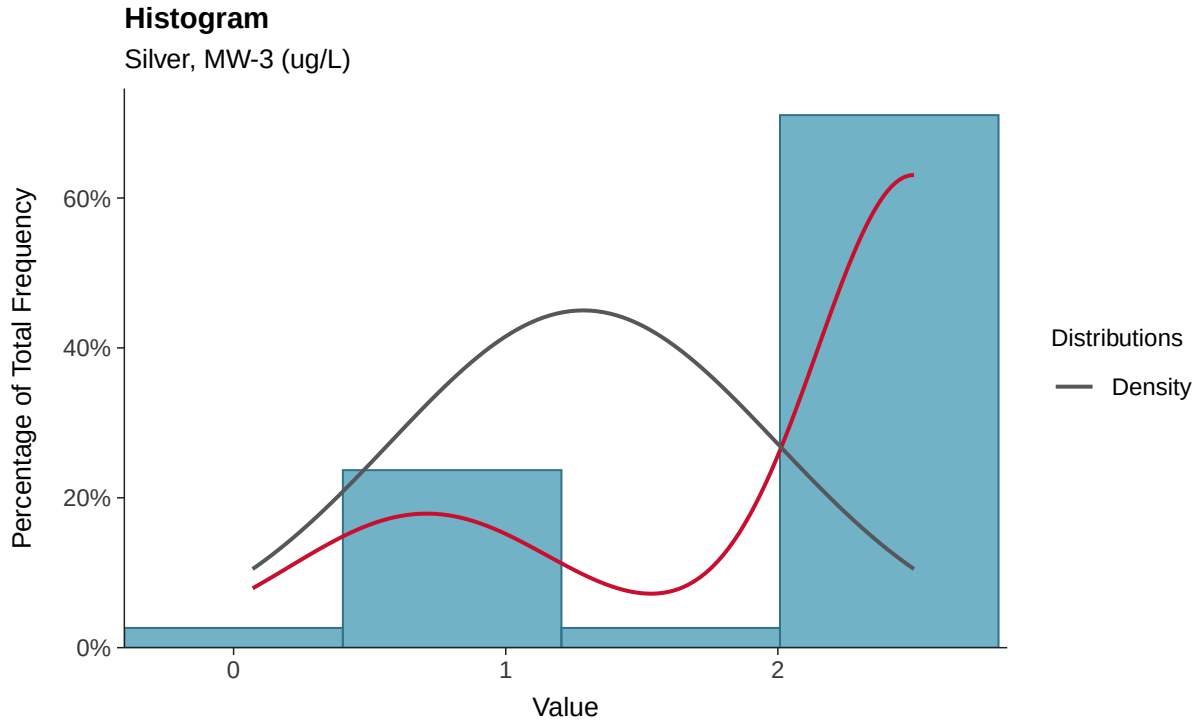
Nickel, MW-3 (ug/L)



App. I Metals: Silver, MW-3

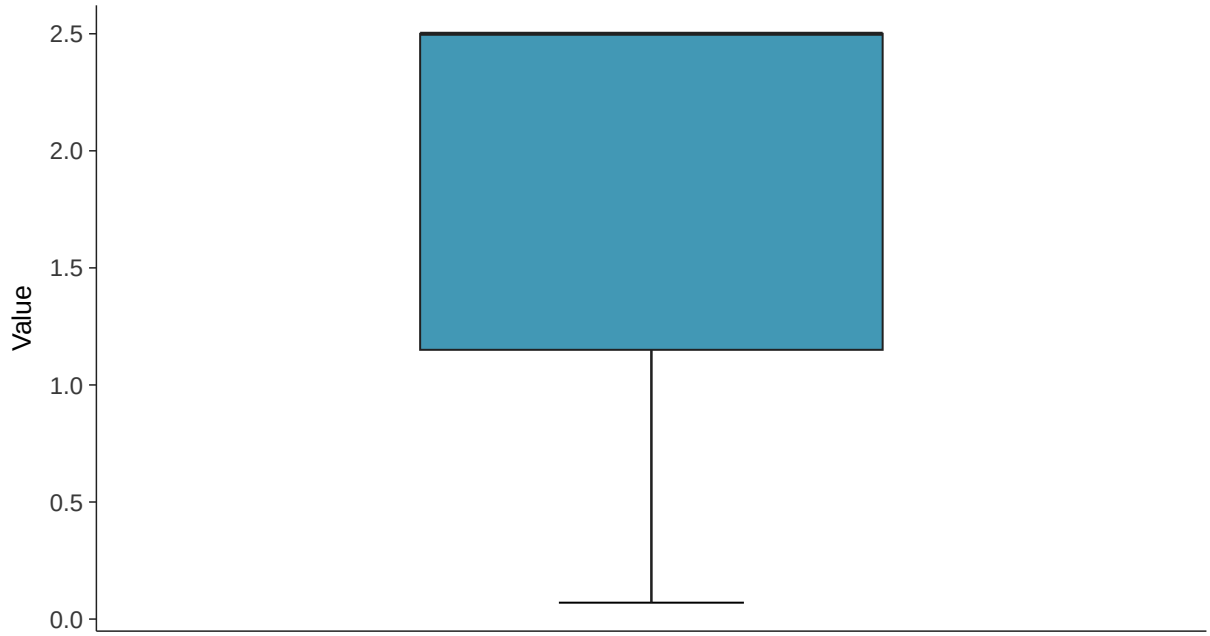
ID: 03_01_122





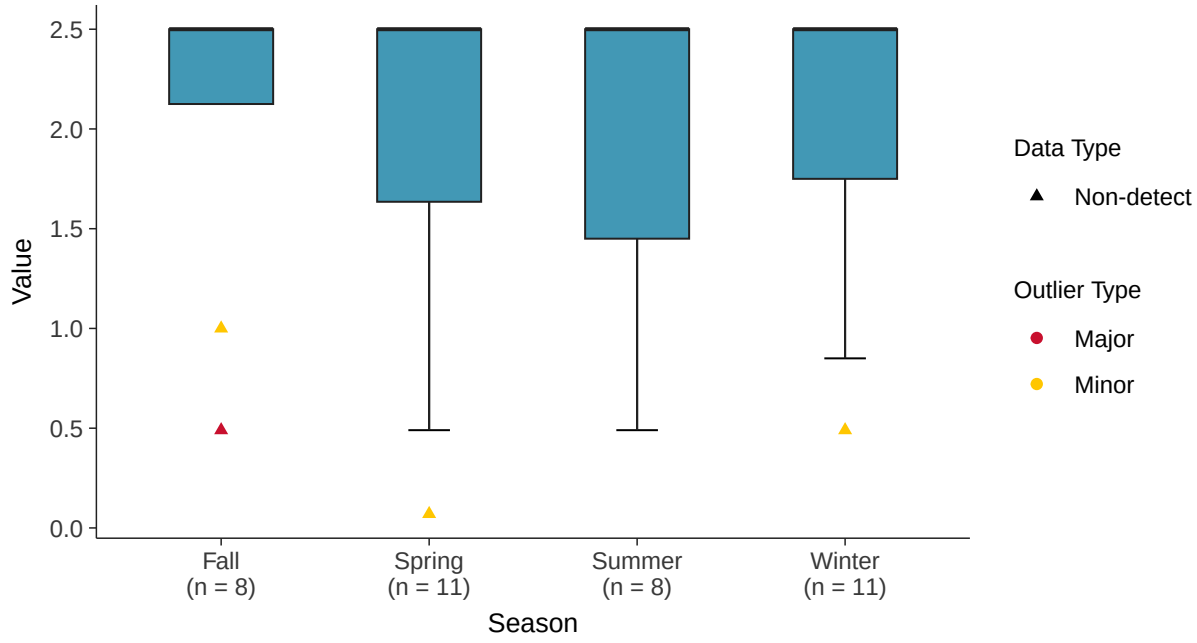
Boxplot

Silver, MW-3 (ug/L)



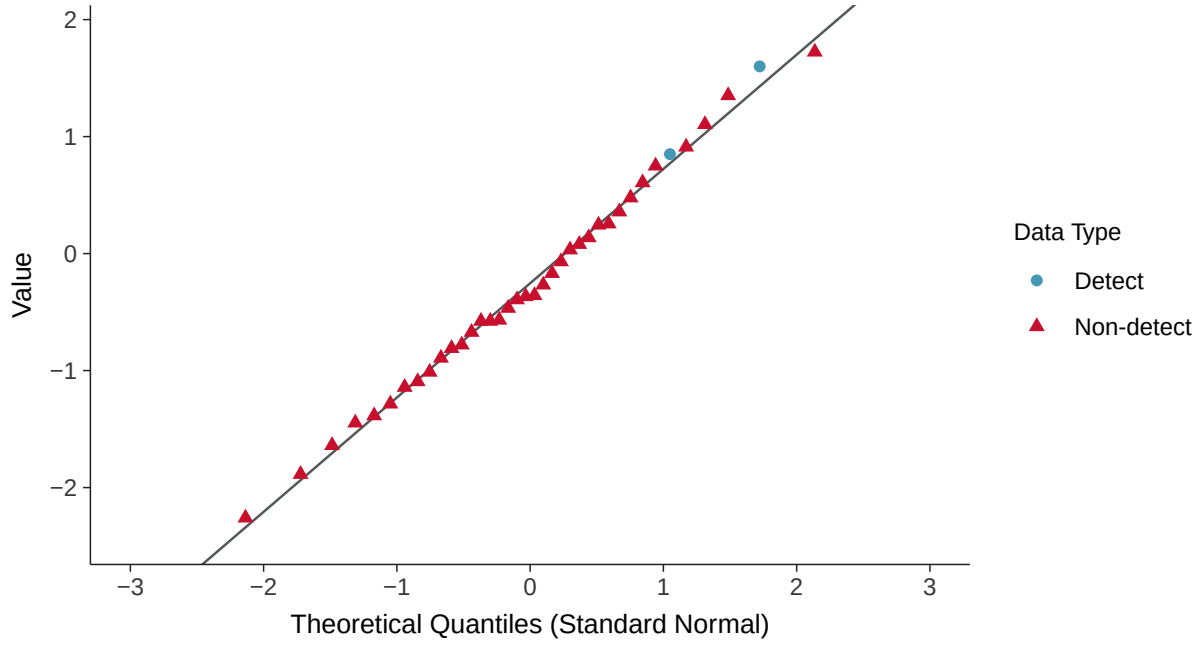
Boxplot by Season

Silver, MW-3 (ug/L)



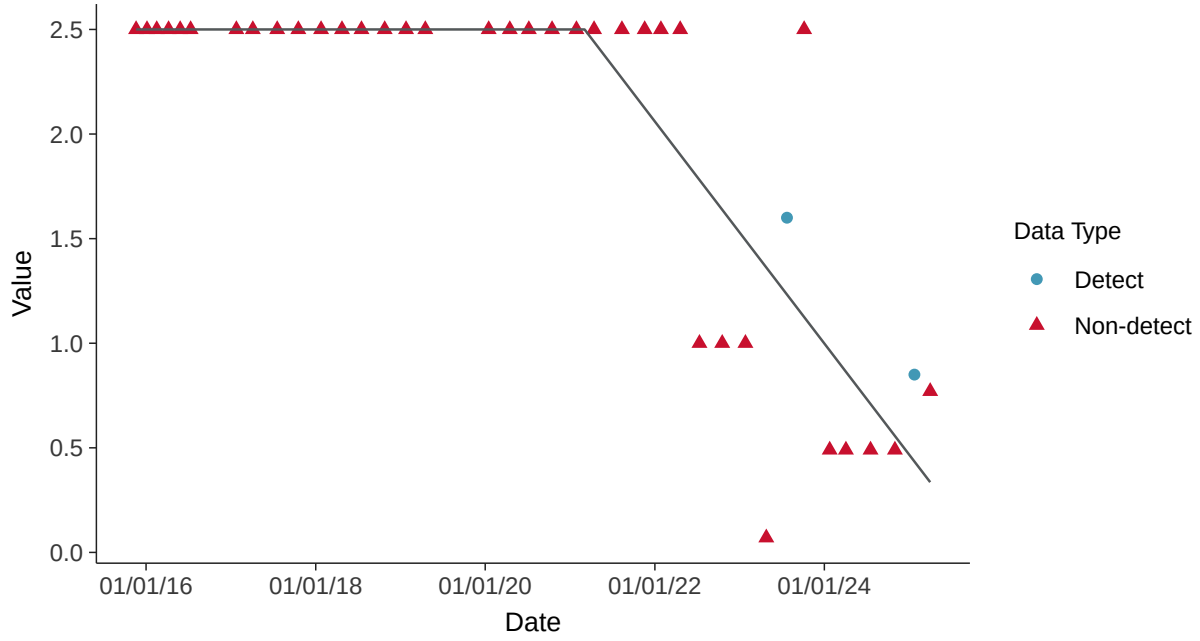
Normal Q-Q plot using ROS Imputed Estimates

Silver, MW-3 (ug/L)



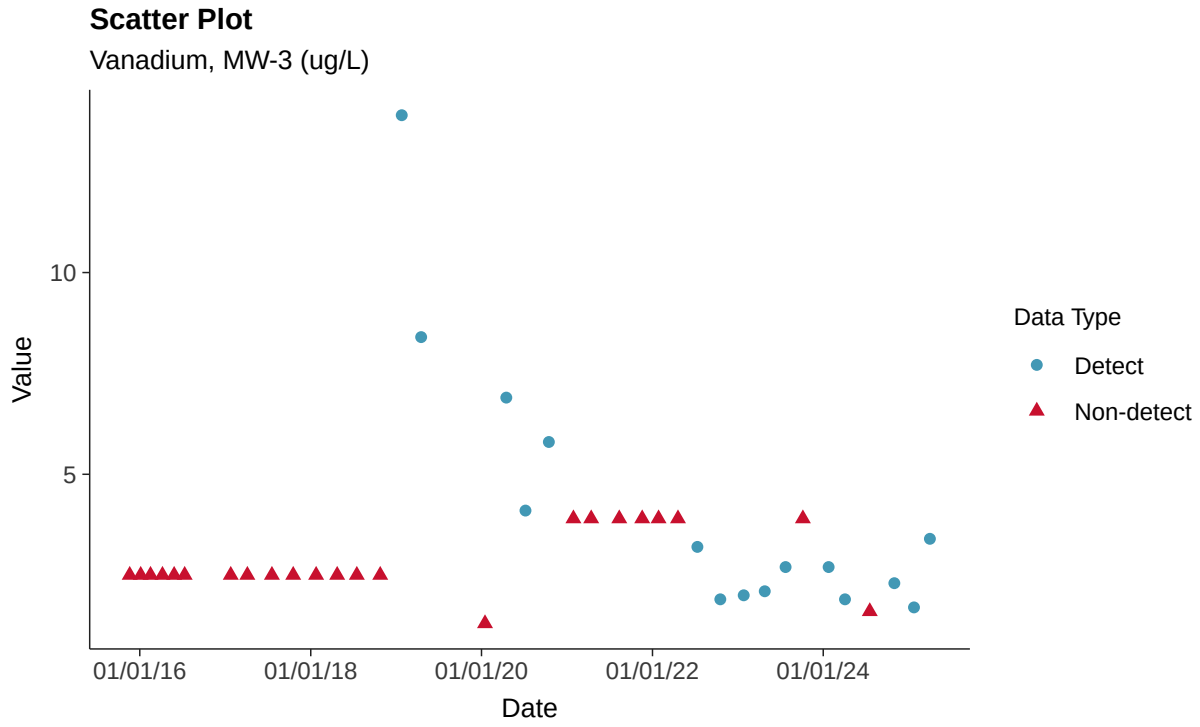
Trend Regression: Piecewise Linear-Linear

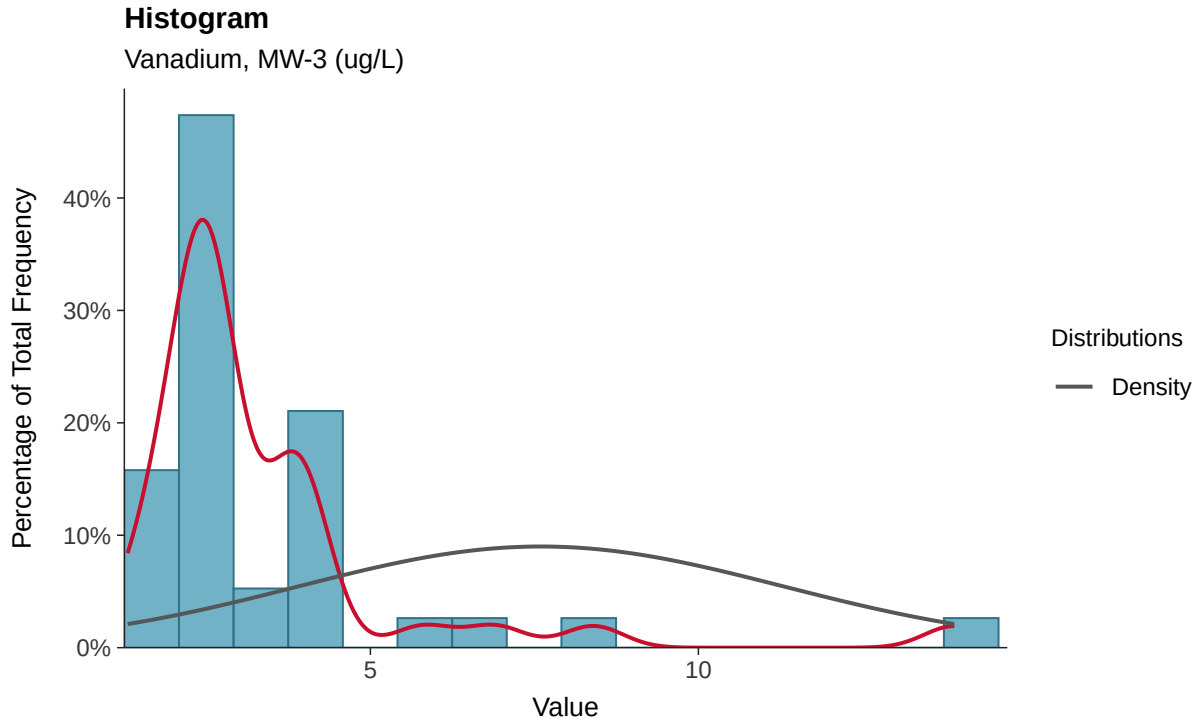
Silver, MW-3 (ug/L)



App. I Metals: Vanadium, MW-3

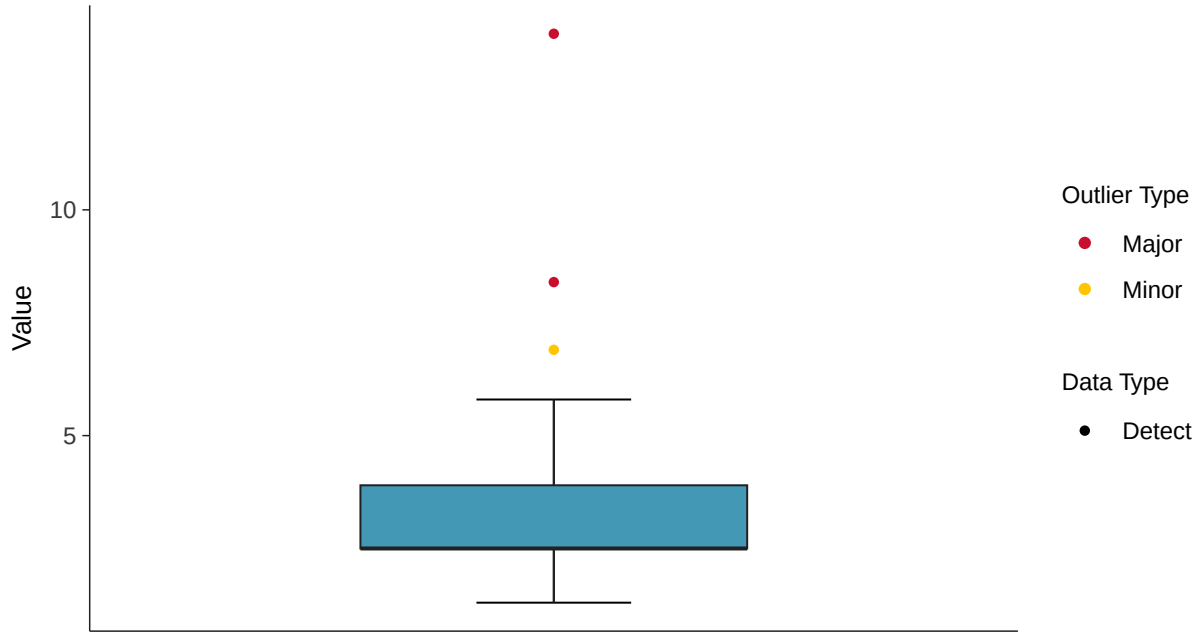
ID: 03_01_127





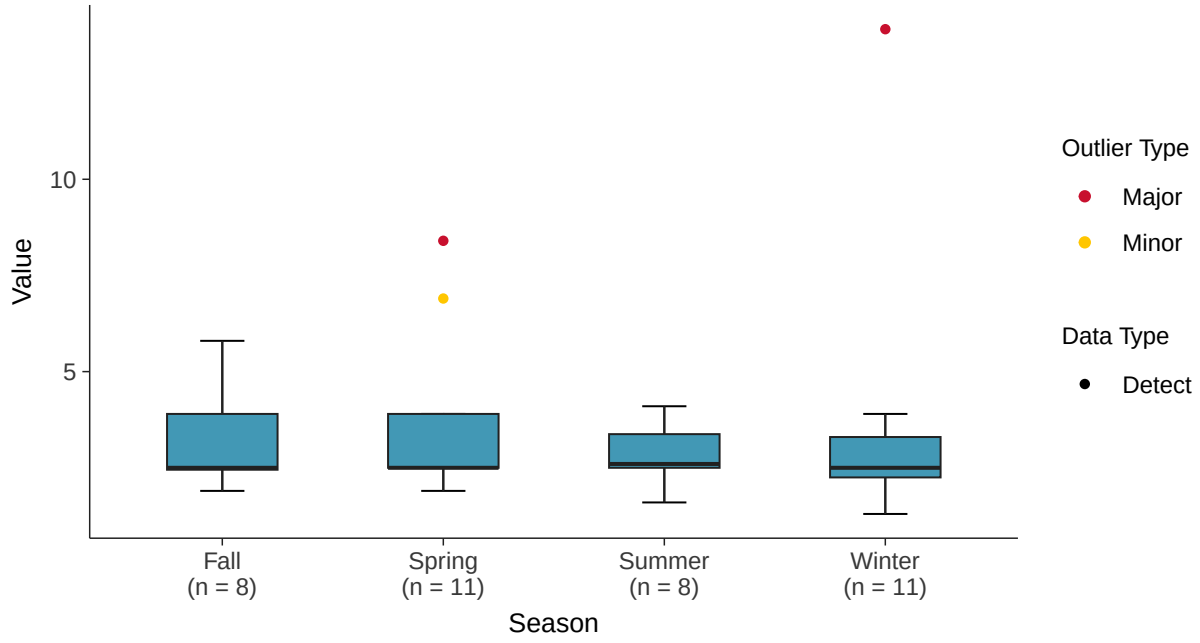
Boxplot

Vanadium, MW-3 (ug/L)



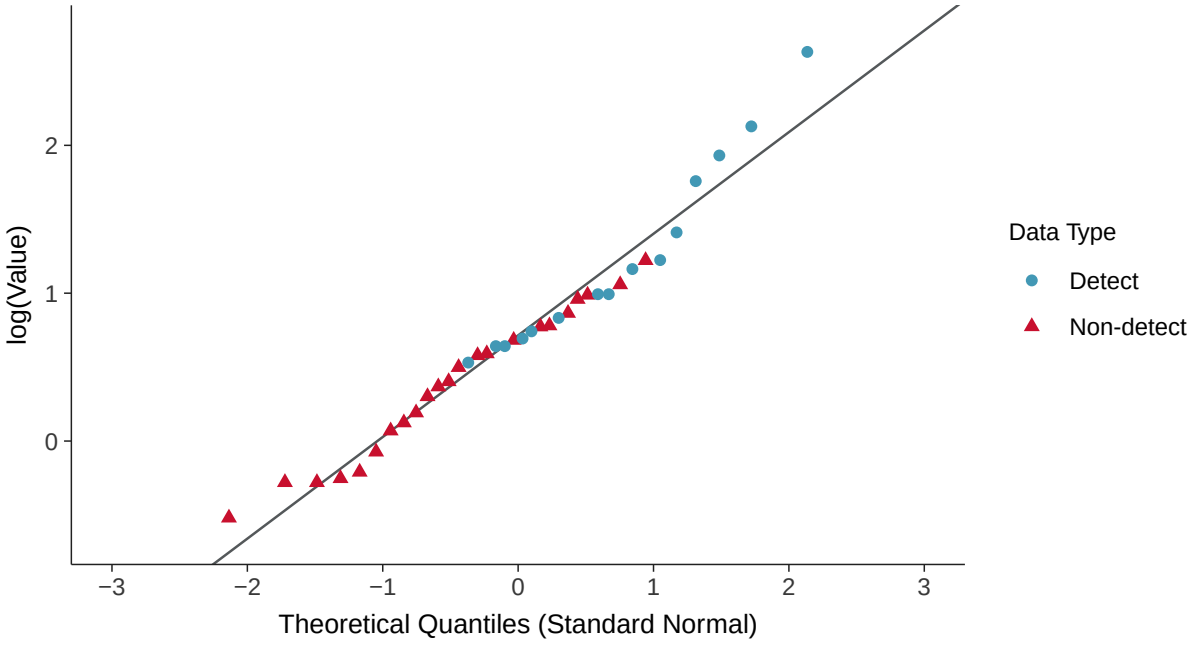
Boxplot by Season

Vanadium, MW-3 (ug/L)



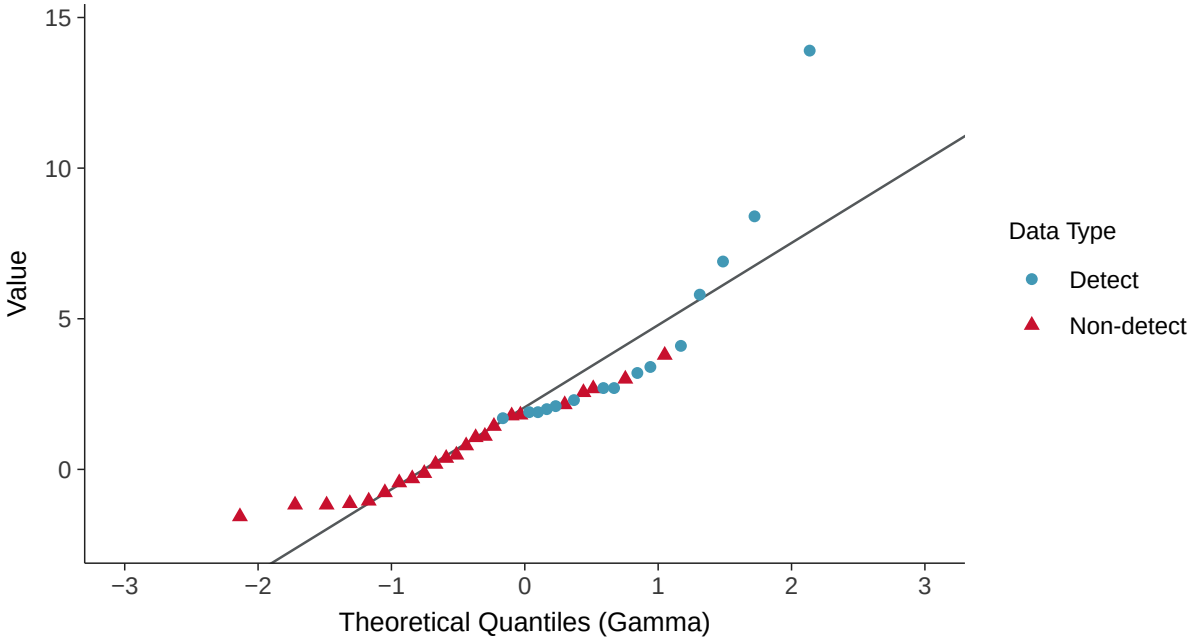
Lognormal Q-Q plot using ROS Imputed Estimates

Vanadium, MW-3 (ug/L)



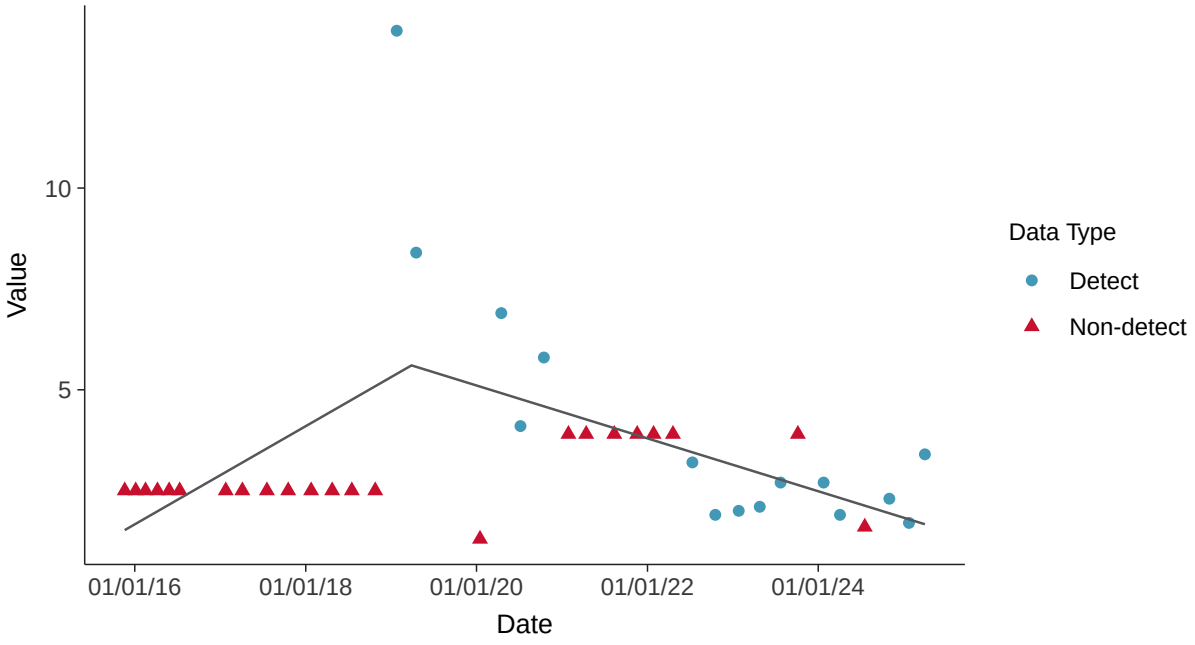
Gamma Q-Q plot using ROS Imputed Estimates

Vanadium, MW-3 (ug/L)



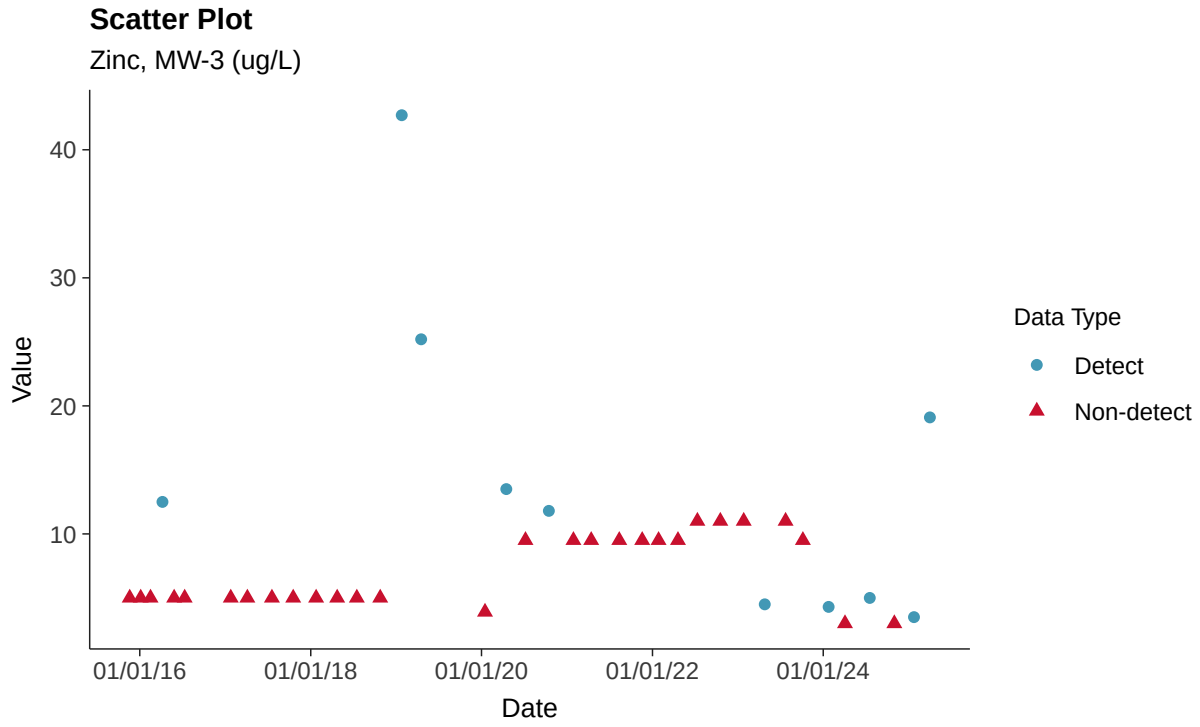
Trend Regression: Piecewise Linear-Linear

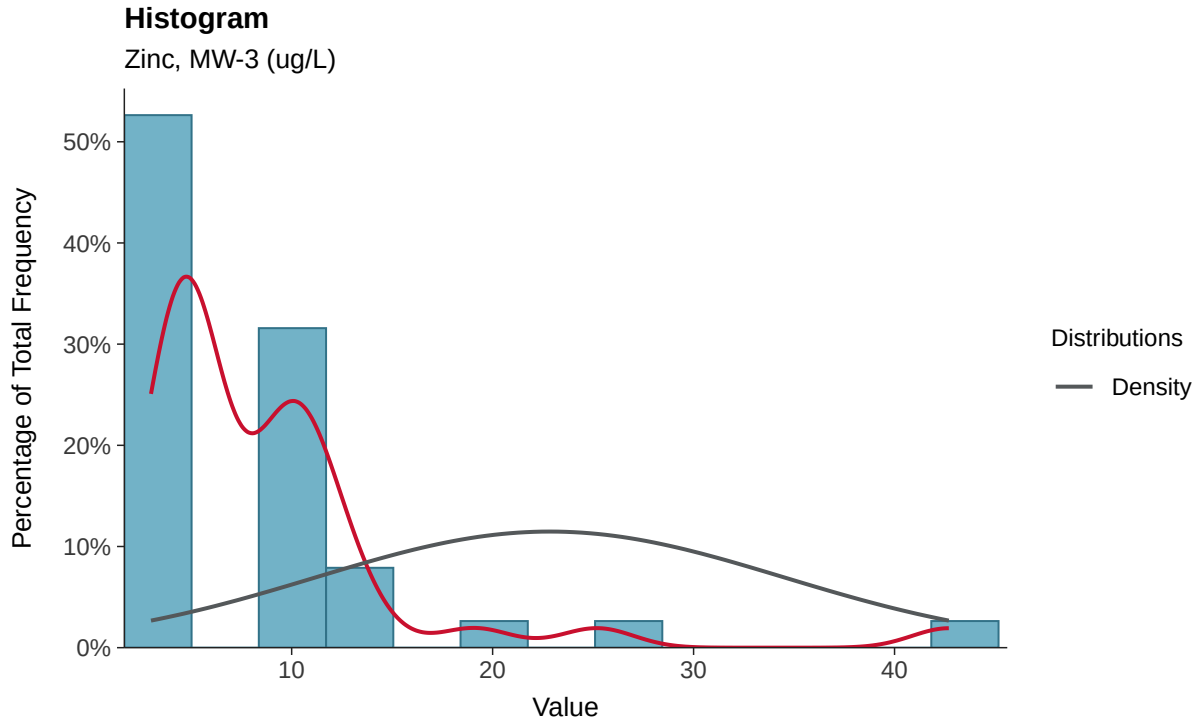
Vanadium, MW-3 (ug/L)



App. I Metals: Zinc, MW-3

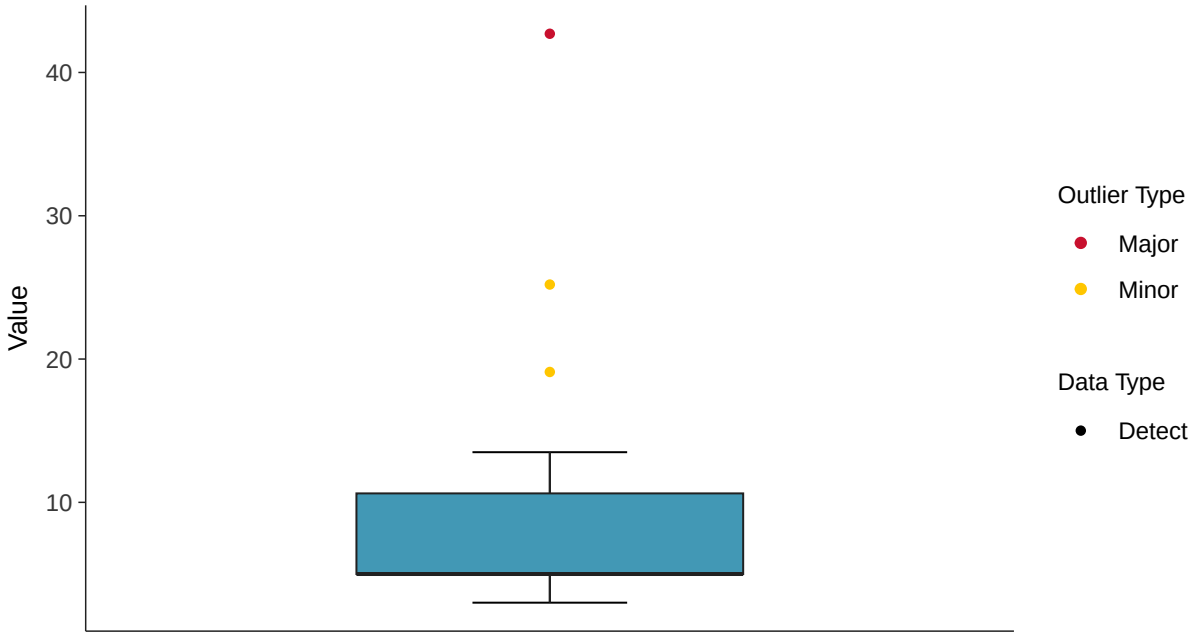
ID: 03_01_128





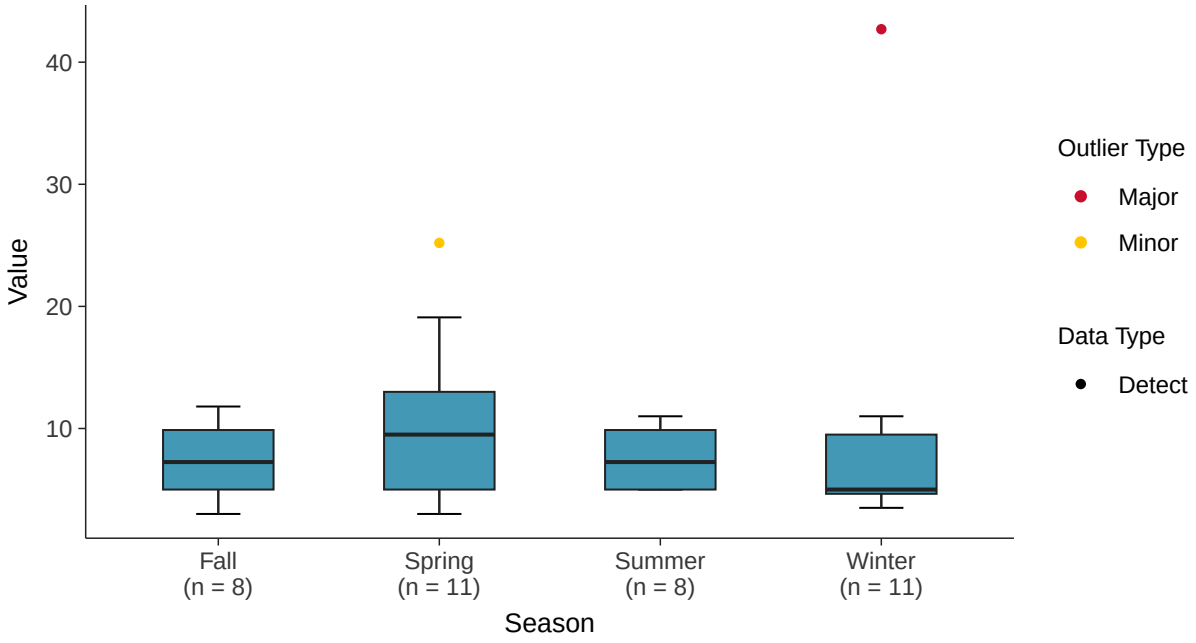
Boxplot

Zinc, MW-3 (ug/L)



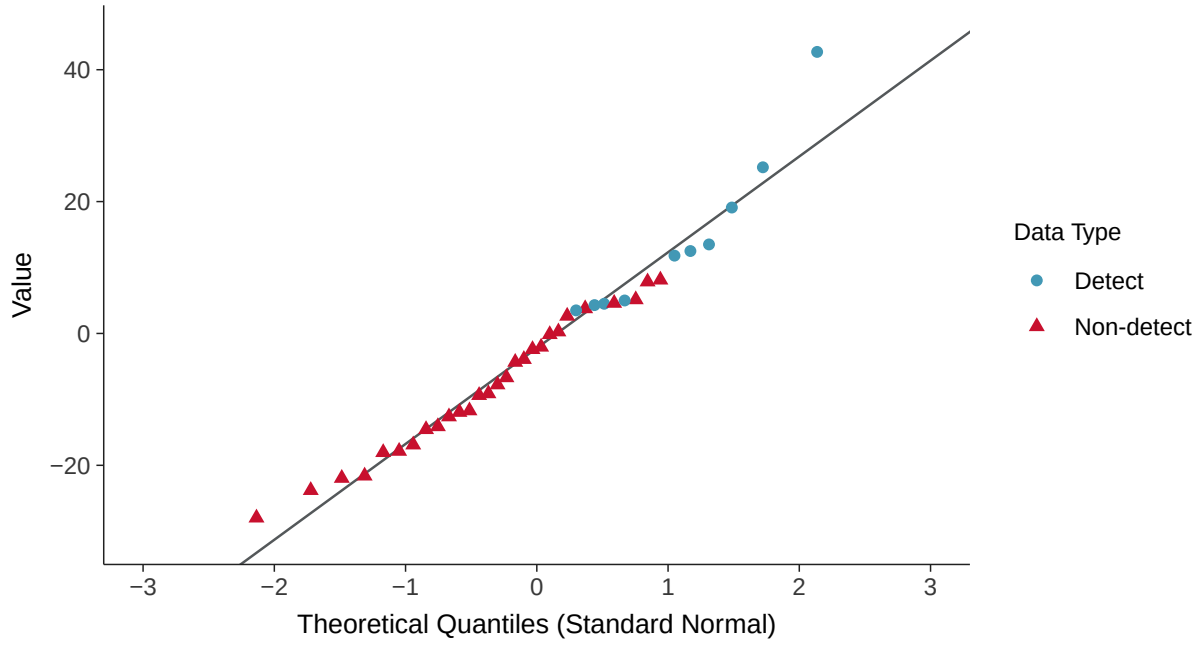
Boxplot by Season

Zinc, MW-3 (ug/L)



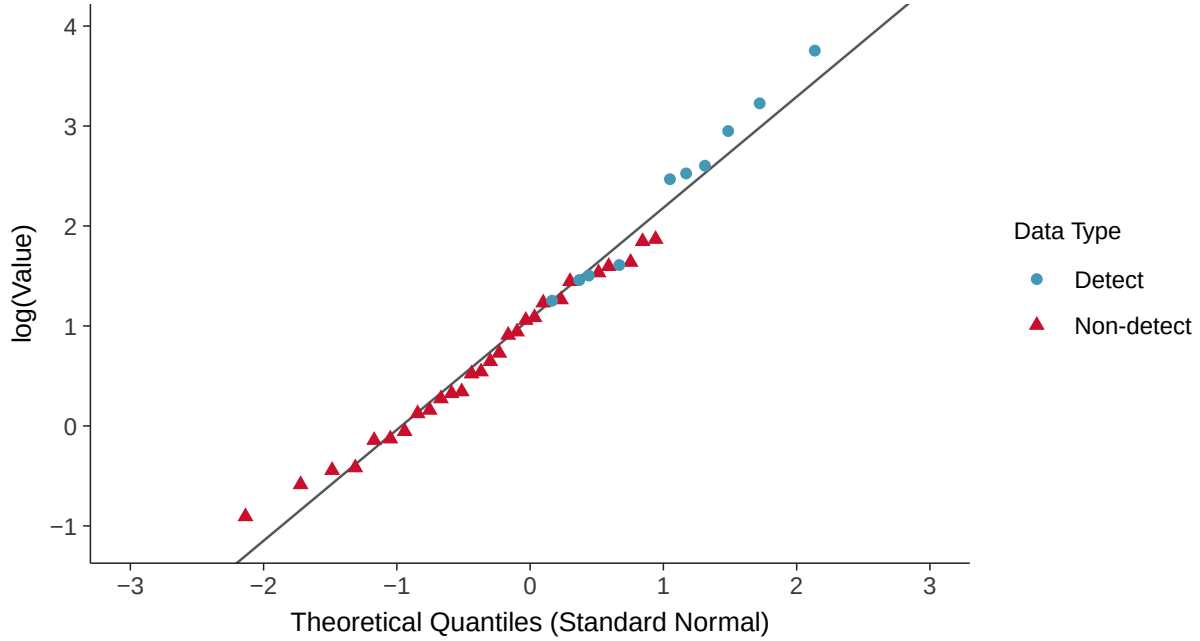
Normal Q-Q plot using ROS Imputed Estimates

Zinc, MW-3 (ug/L)



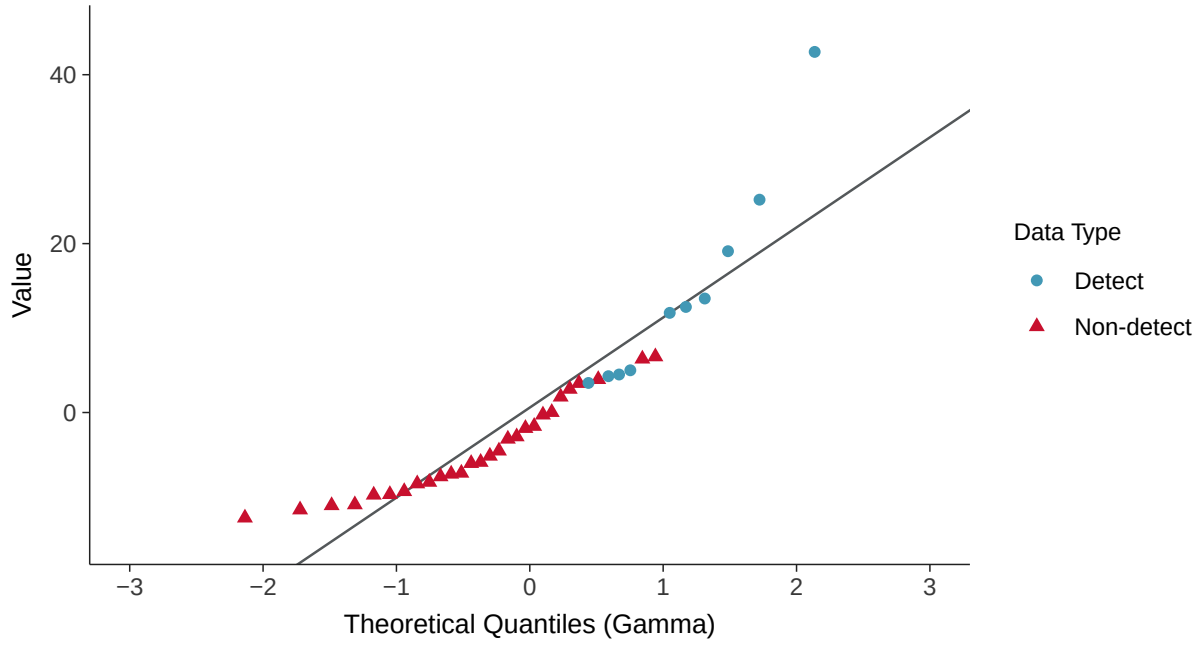
Lognormal Q-Q plot using ROS Imputed Estimates

Zinc, MW-3 (ug/L)



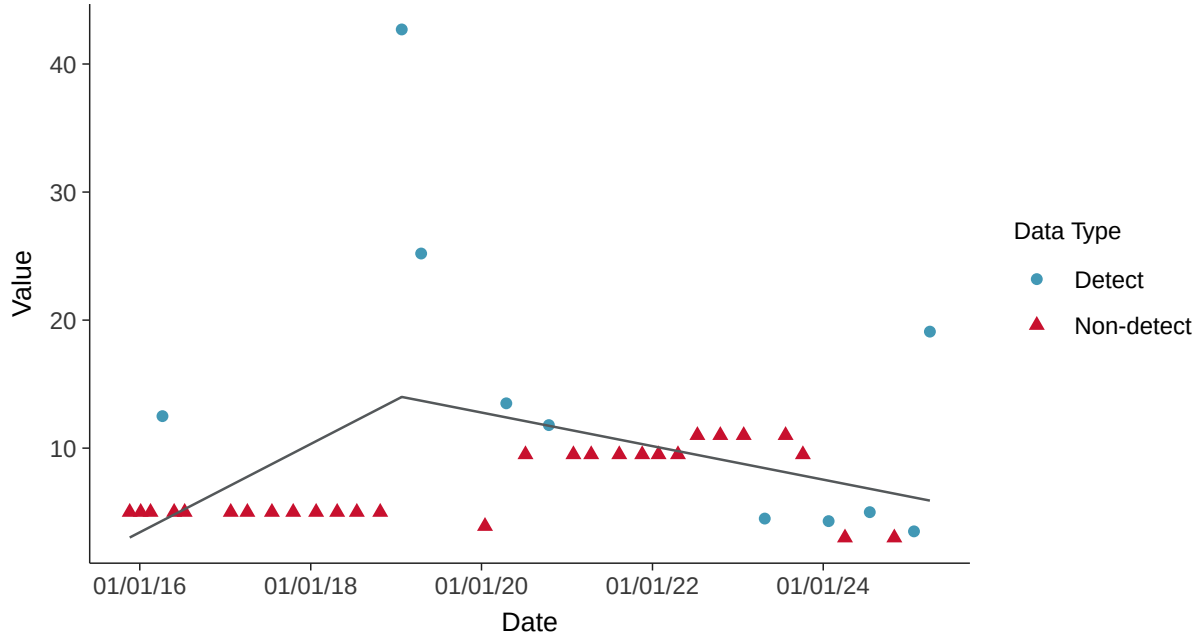
Gamma Q-Q plot using ROS Imputed Estimates

Zinc, MW-3 (ug/L)



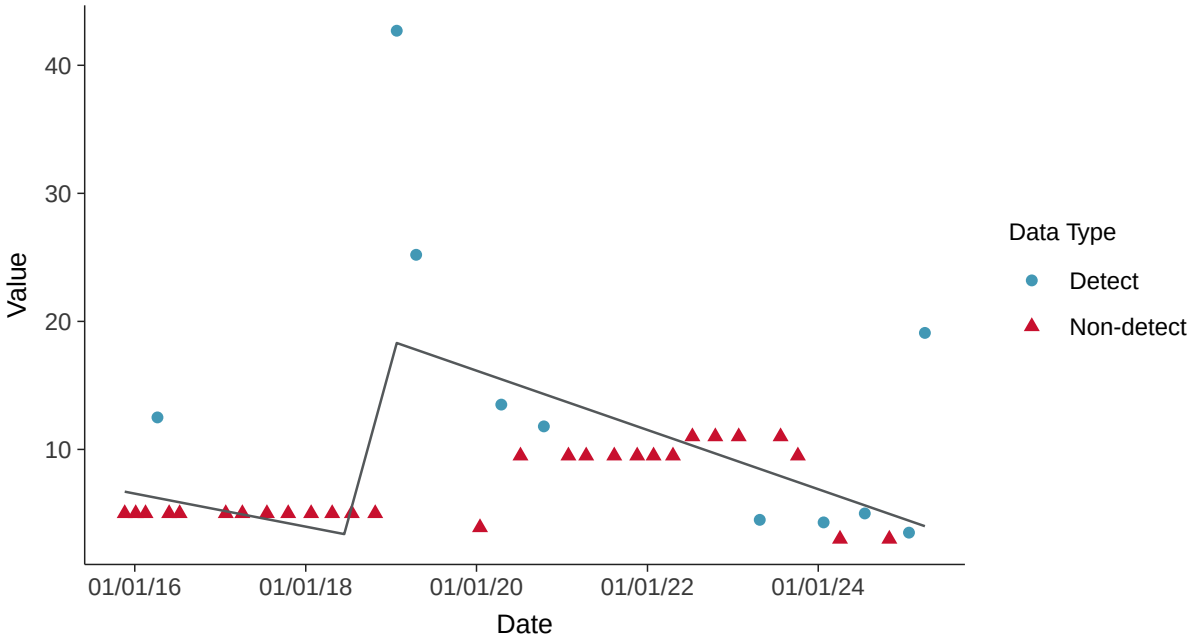
Trend Regression: Piecewise Linear-Linear

Zinc, MW-3 (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Zinc, MW-3 (ug/L)

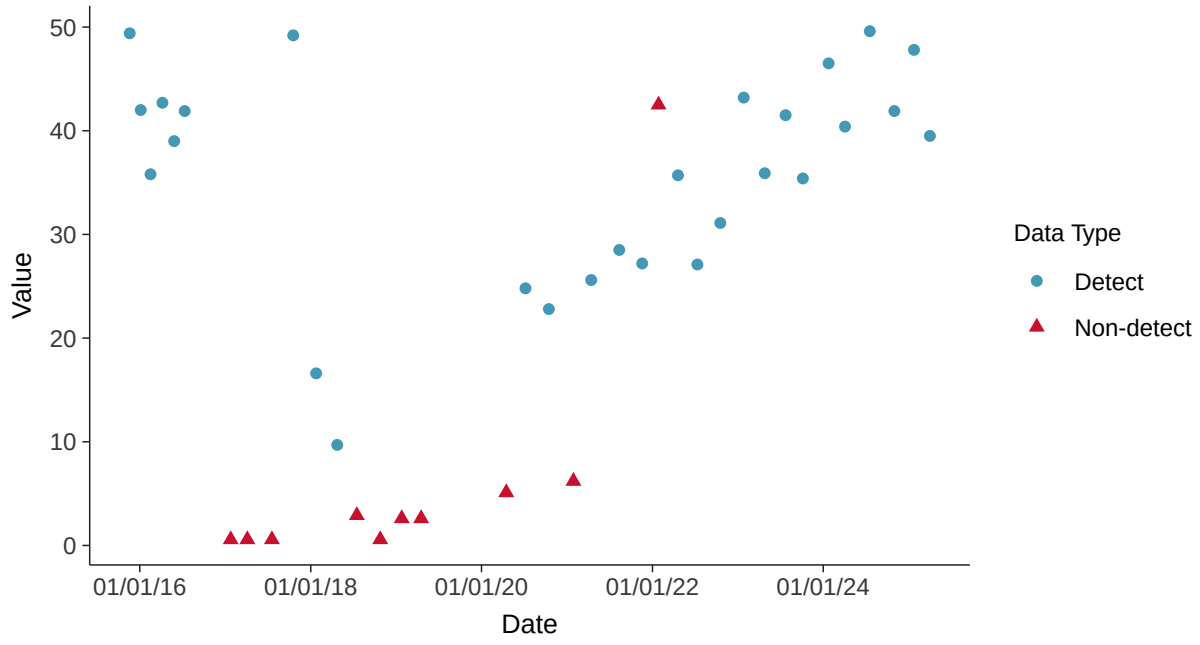


App. III: Boron, MW-3

ID: 03_02_105

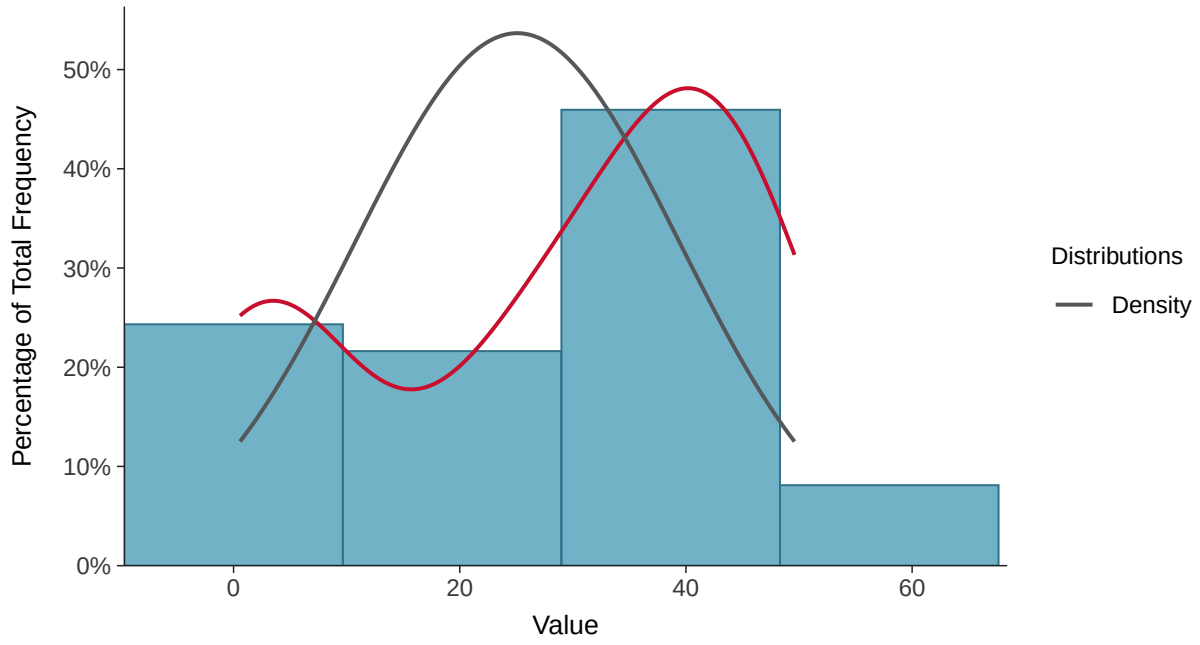
Scatter Plot

Boron, MW-3 (ug/L)



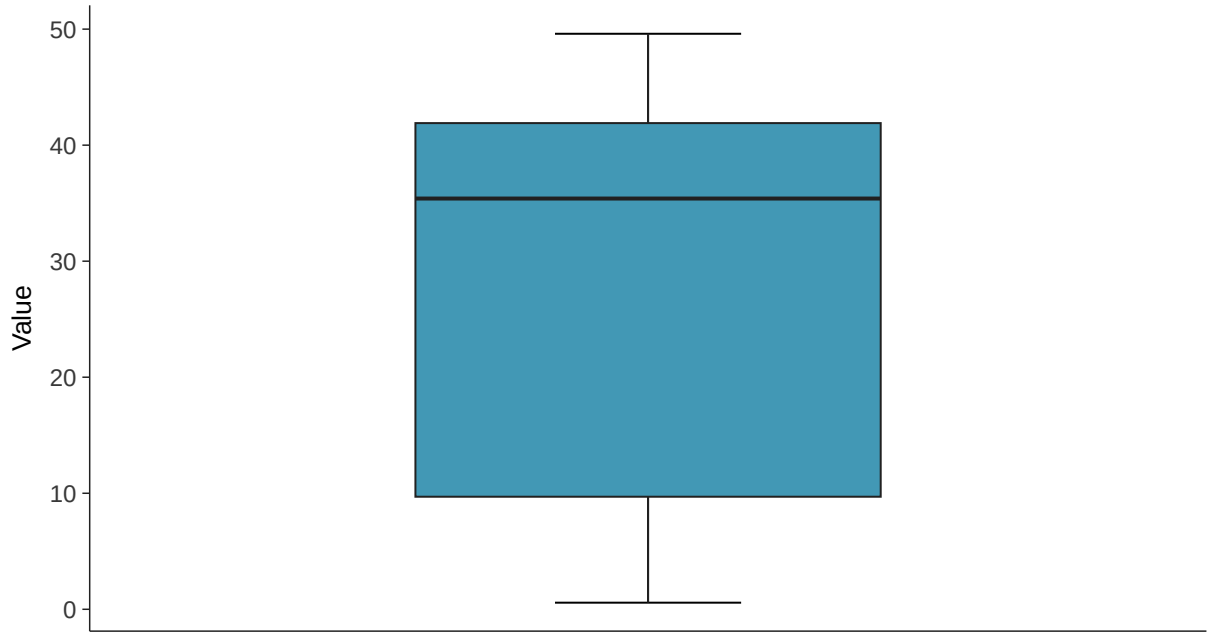
Histogram

Boron, MW-3 (ug/L)



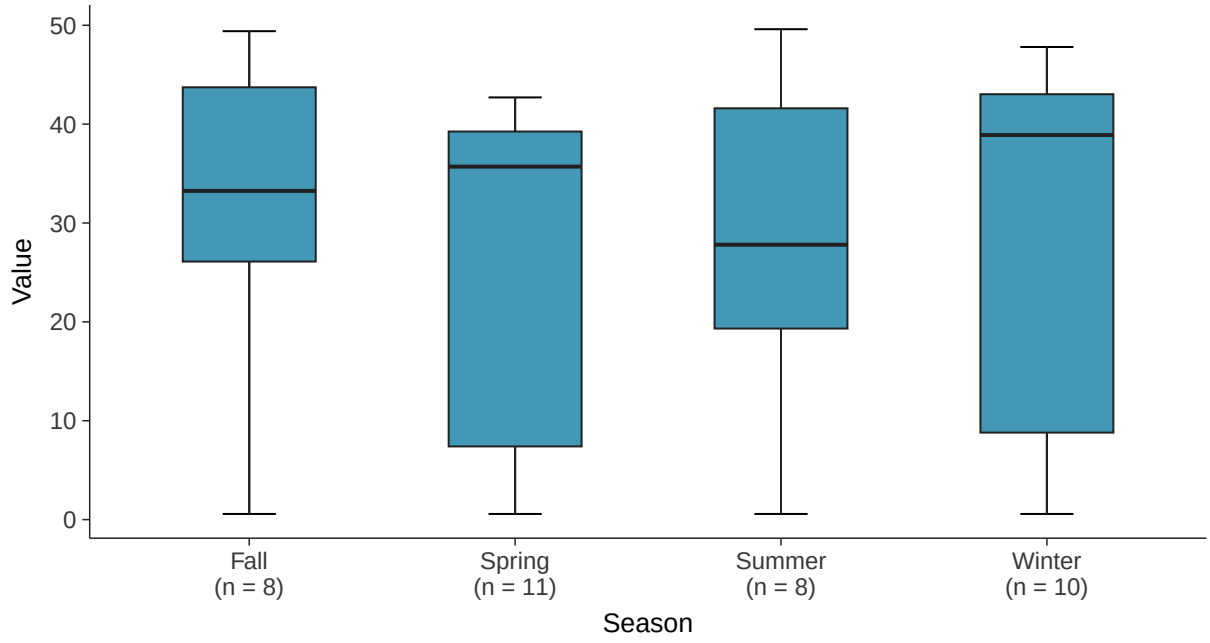
Boxplot

Boron, MW-3 (ug/L)



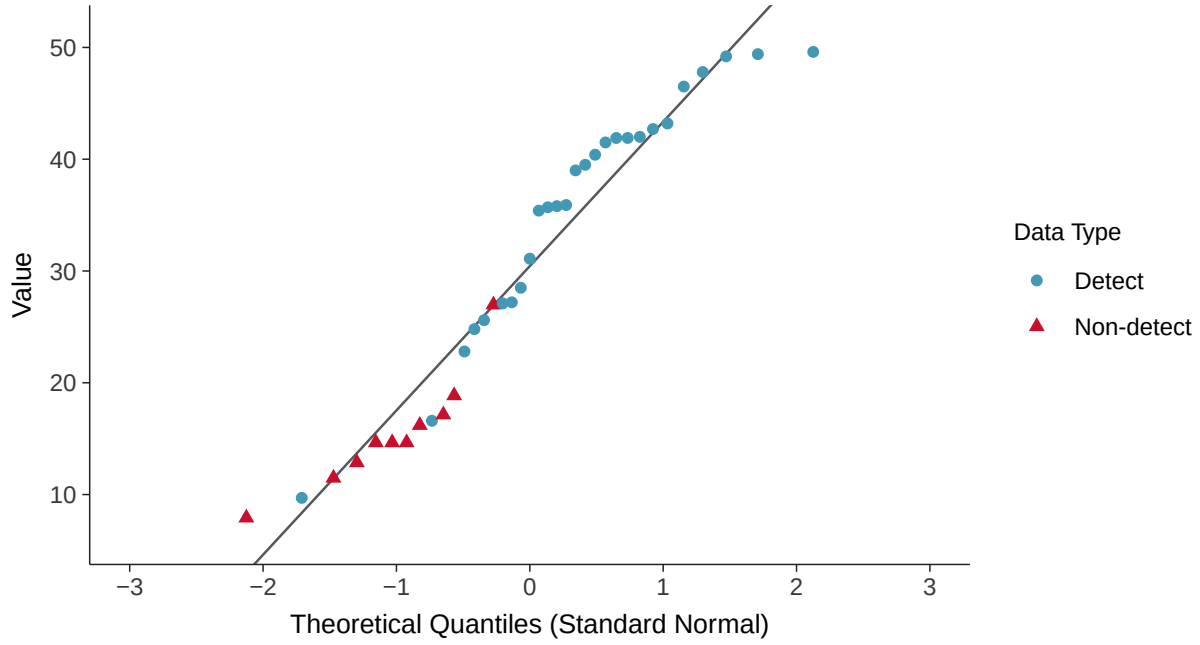
Boxplot by Season

Boron, MW-3 (ug/L)



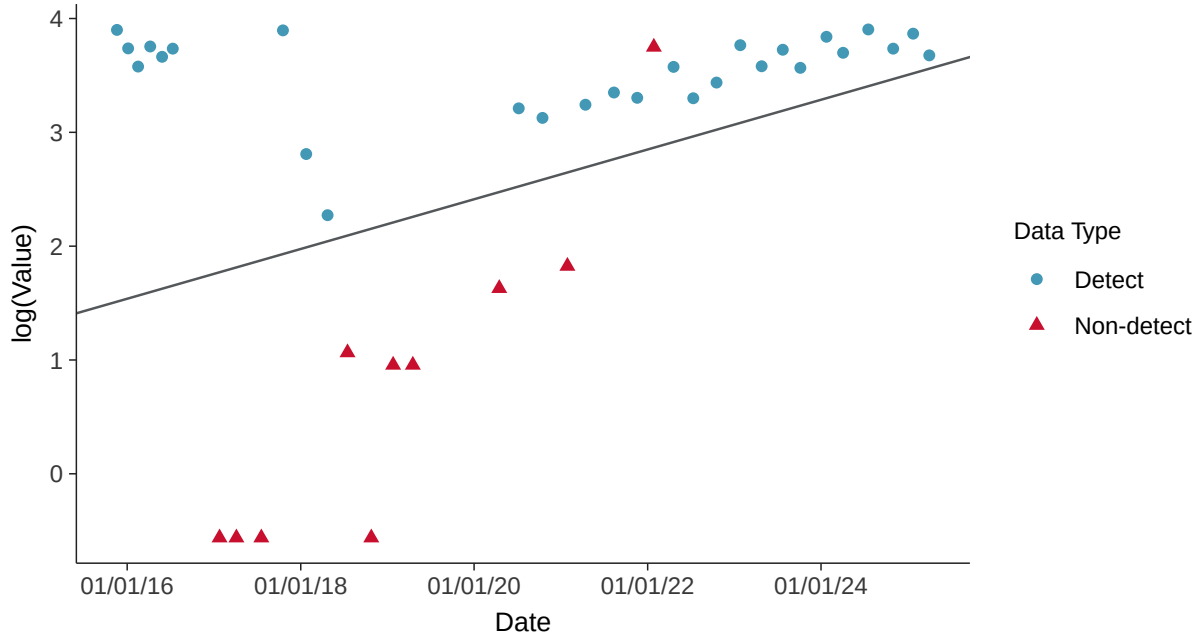
Normal Q-Q plot using ROS Imputed Estimates

Boron, MW-3 (ug/L)



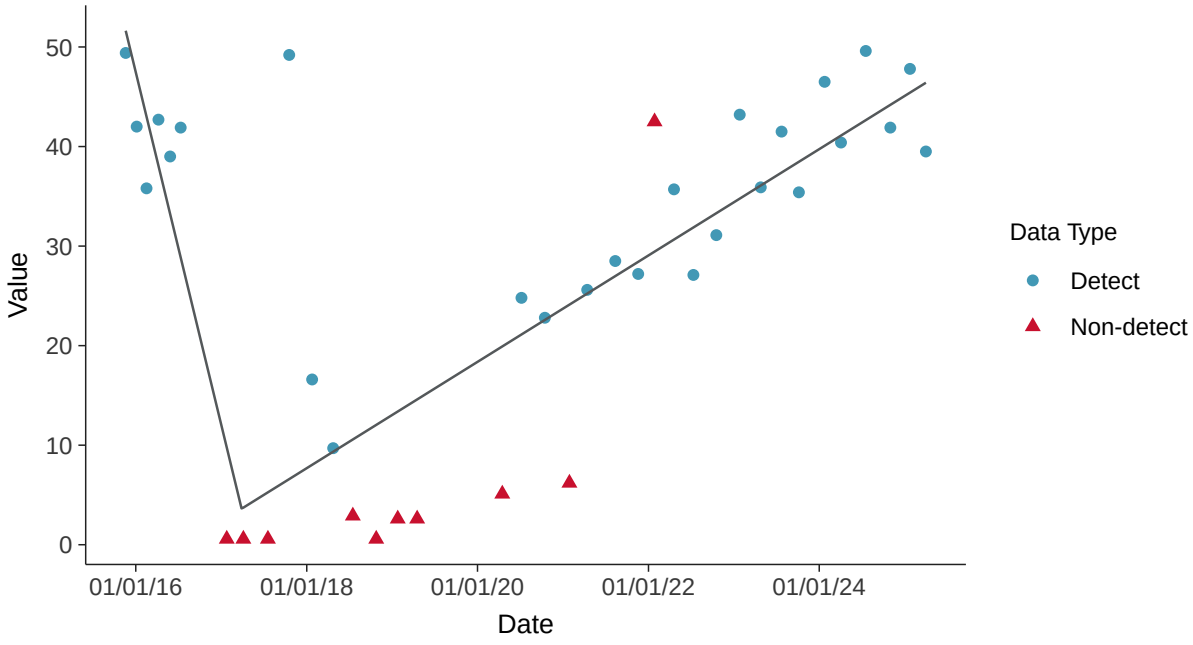
Trend Regression: Lognormal MLE

Boron, MW-3 (ug/L)



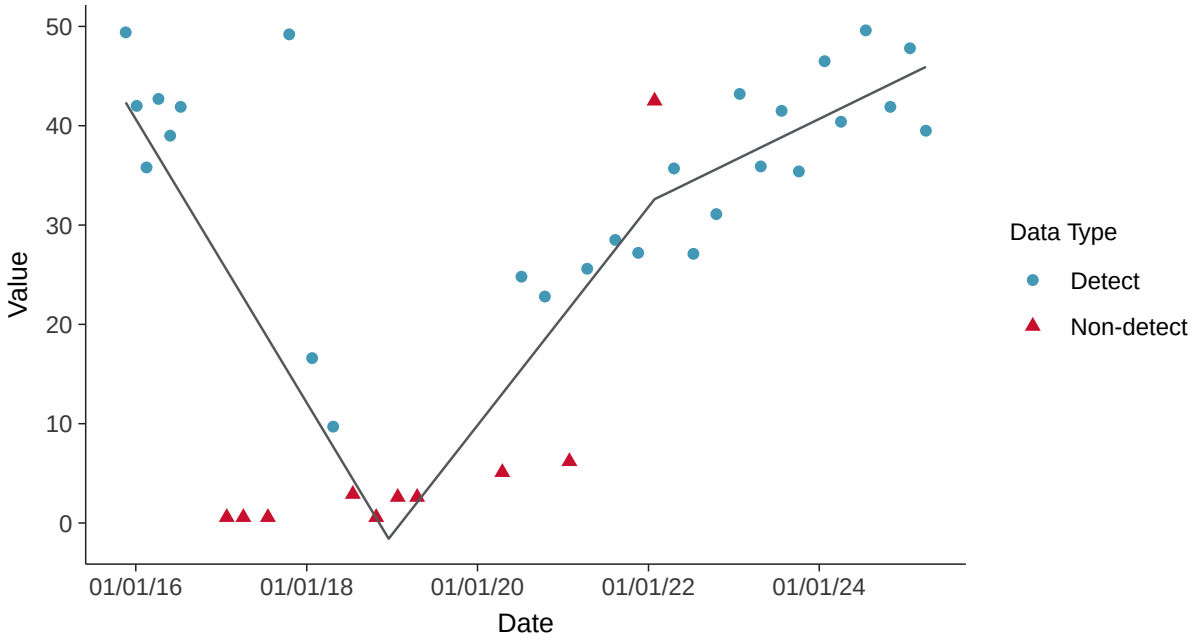
Trend Regression: Piecewise Linear-Linear

Boron, MW-3 (ug/L)



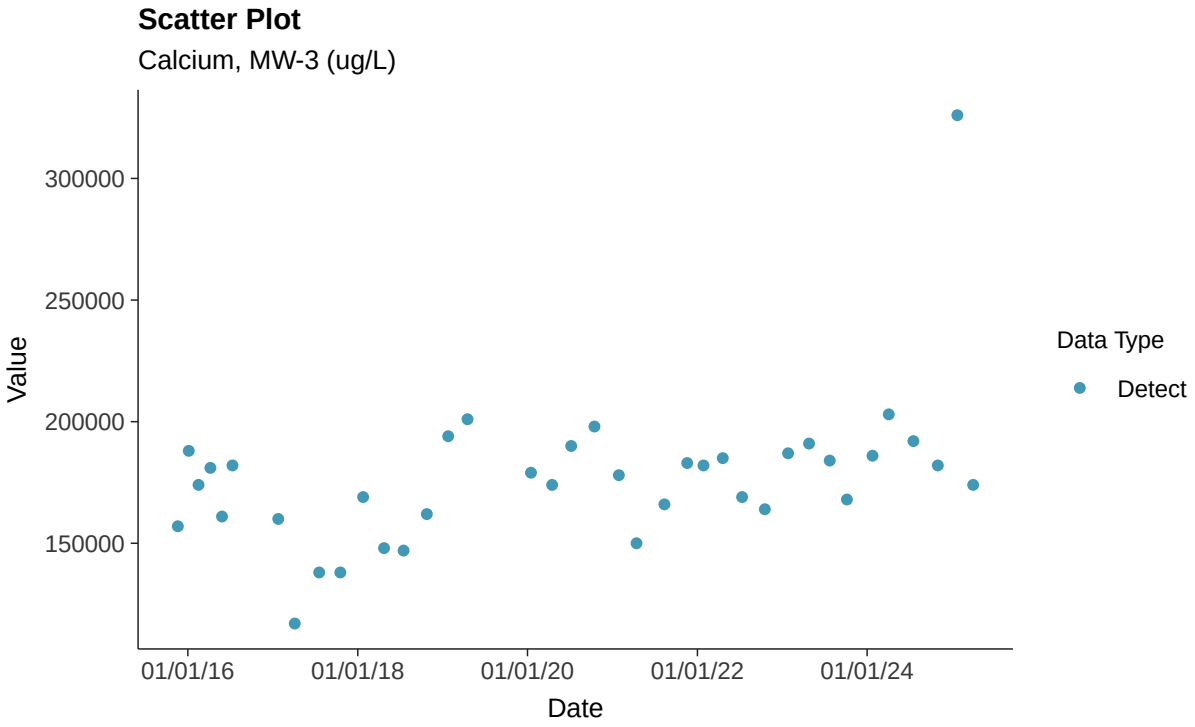
Trend Regression: Piecewise Linear-Linear-Linear

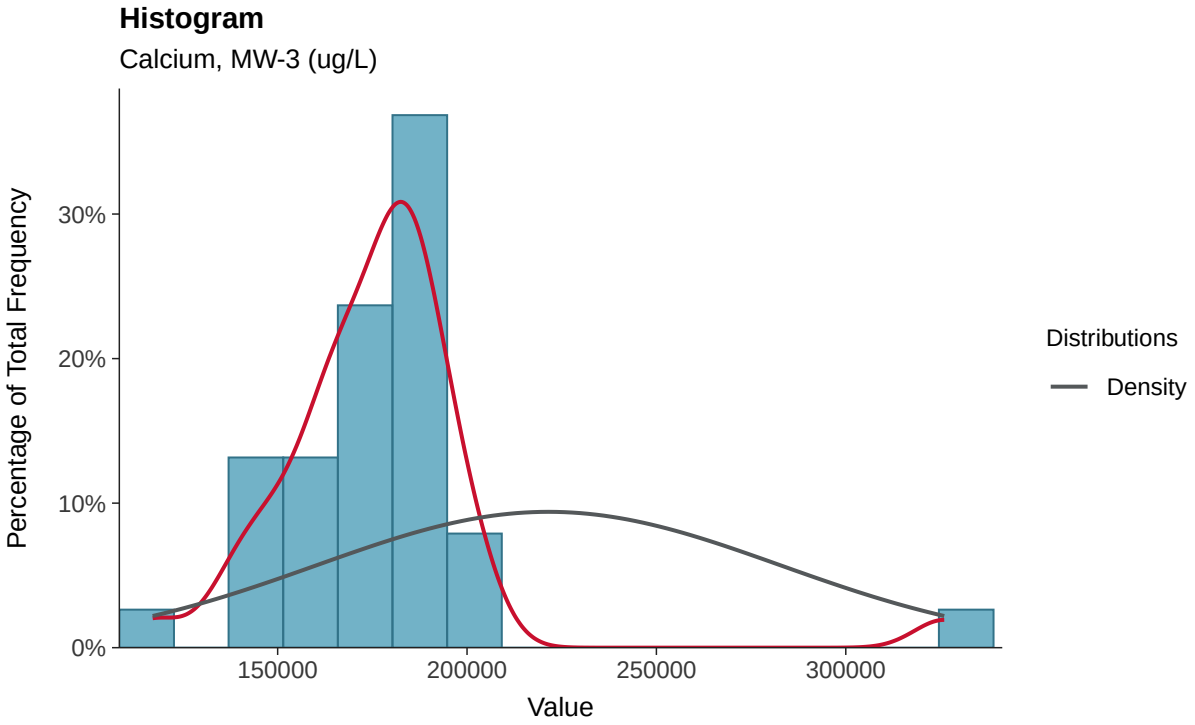
Boron, MW-3 (ug/L)



App. III: Calcium, MW-3

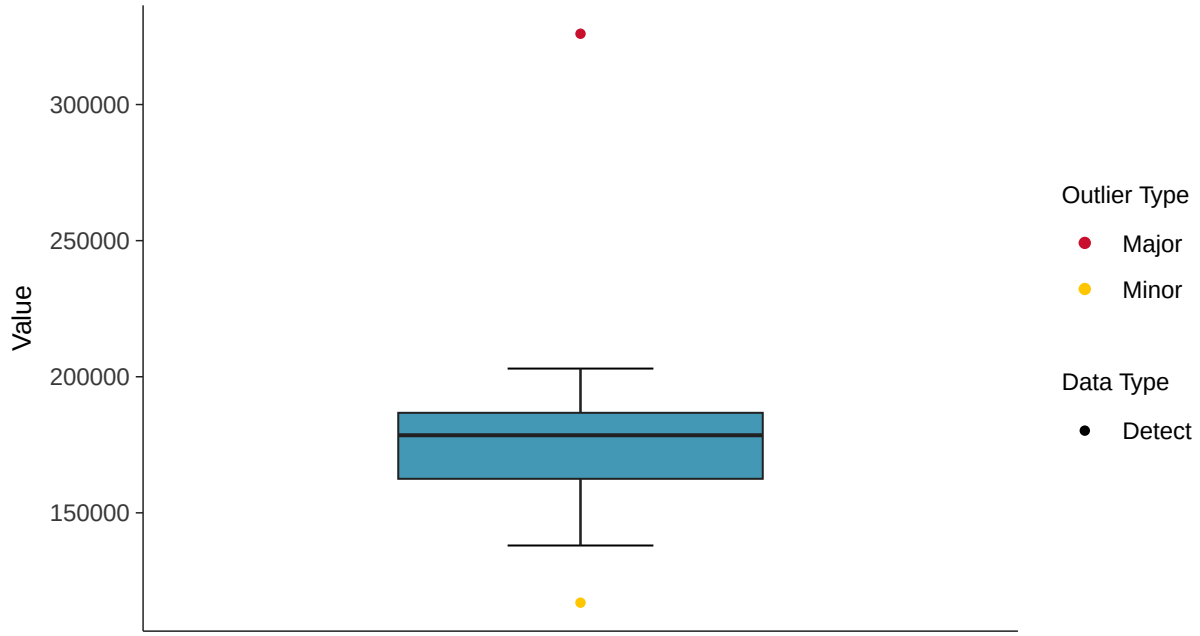
ID: 03_02_107





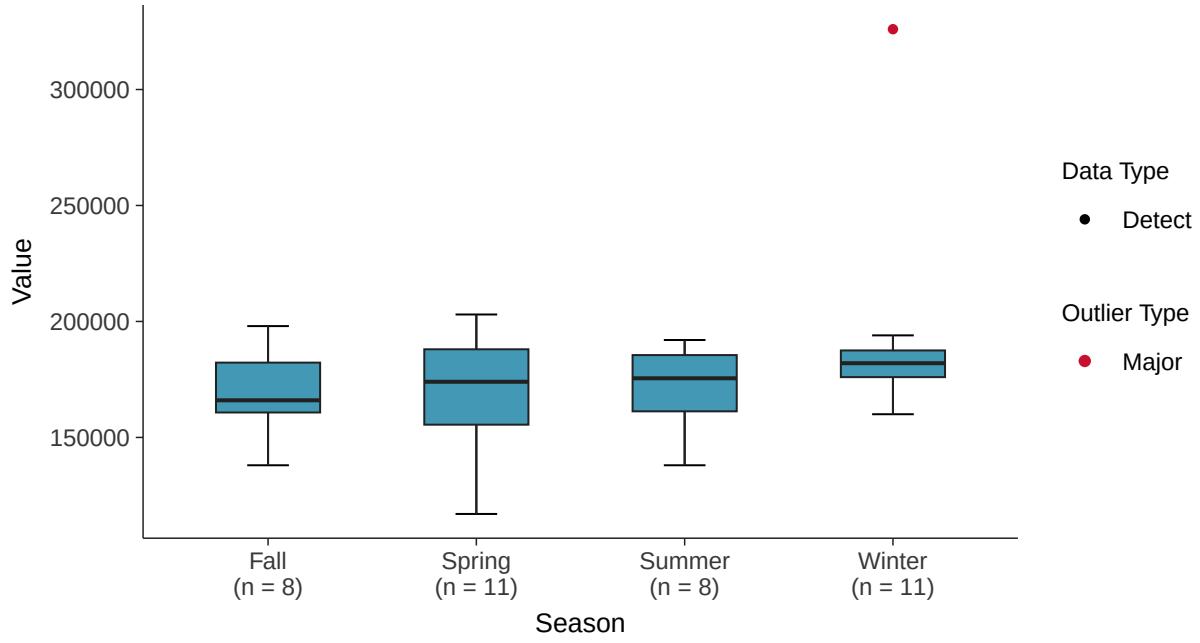
Boxplot

Calcium, MW-3 (ug/L)



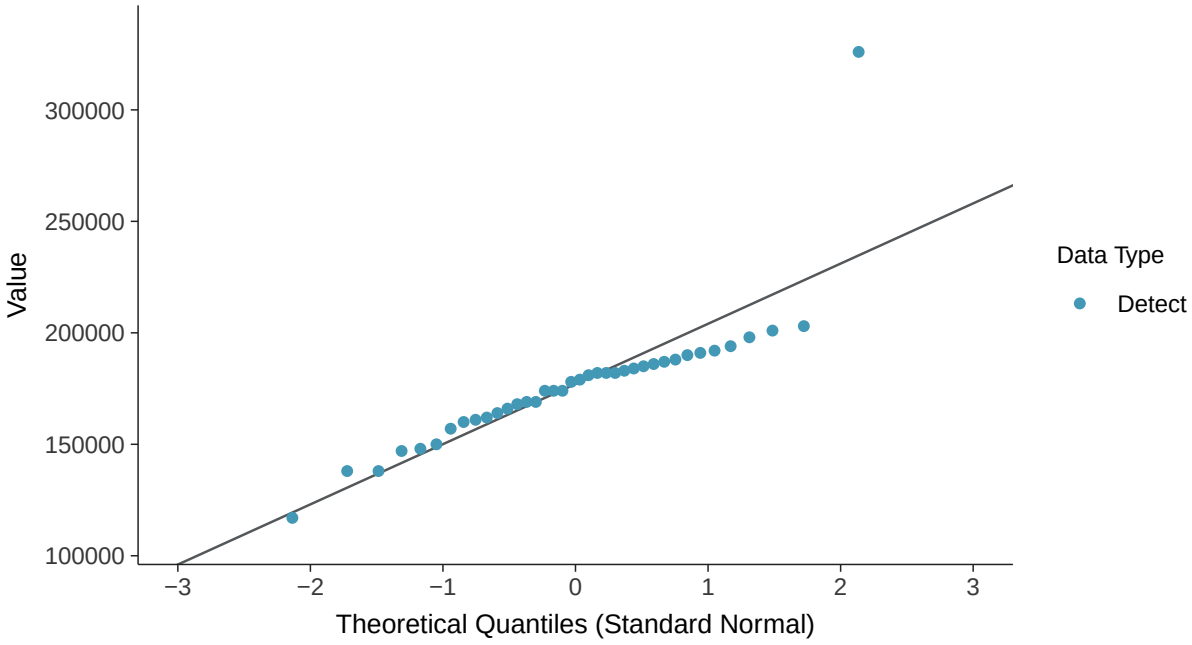
Boxplot by Season

Calcium, MW-3 (ug/L)



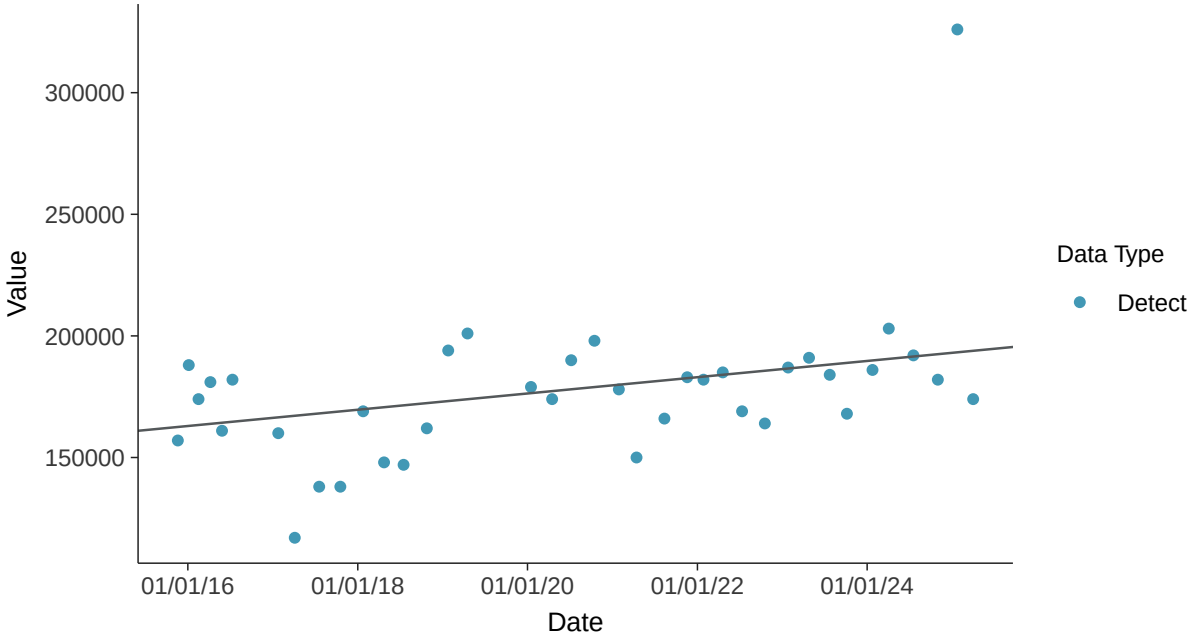
Normal Q-Q plot

Calcium, MW-3 (ug/L)



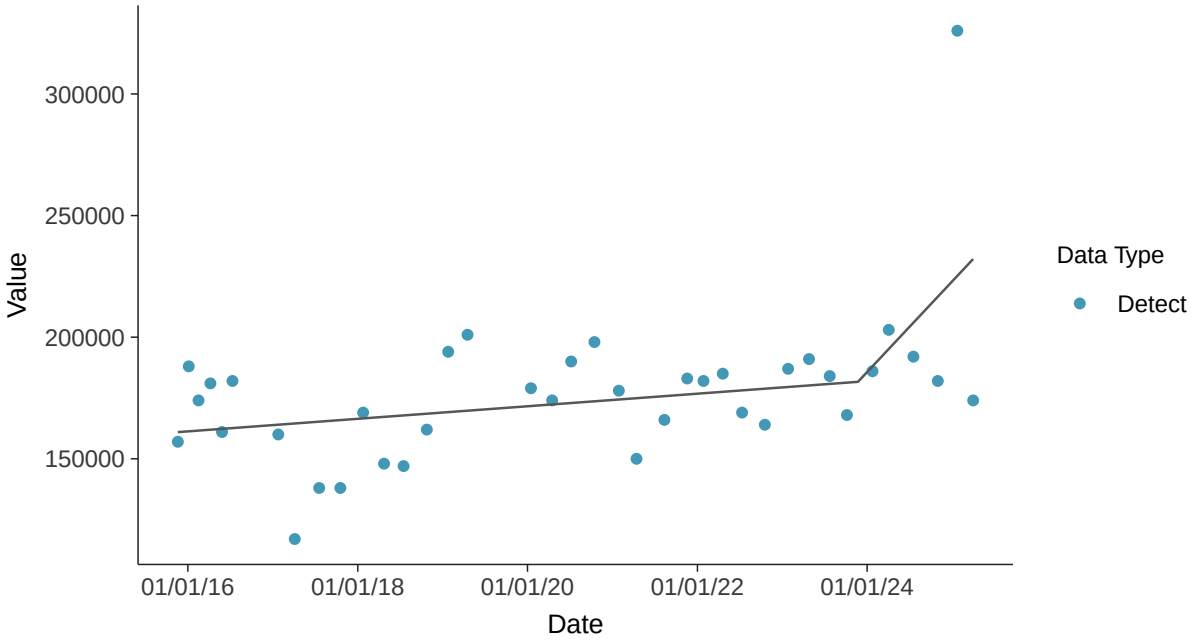
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Calcium, MW-3 (ug/L)



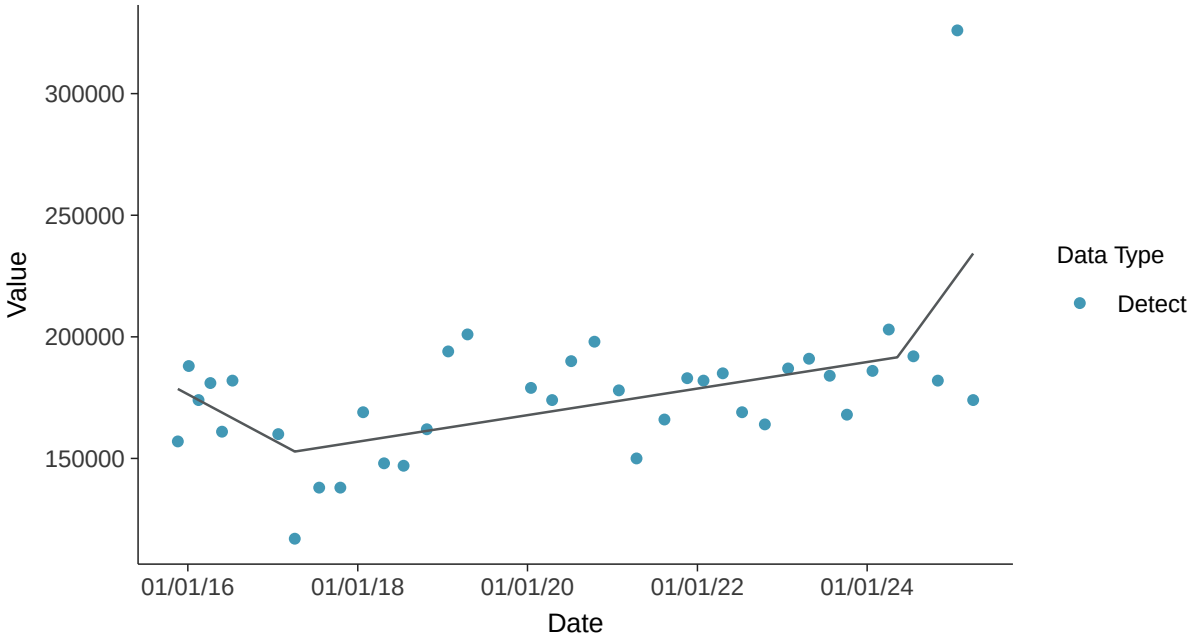
Trend Regression: Piecewise Linear-Linear

Calcium, MW-3 (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Calcium, MW-3 (ug/L)

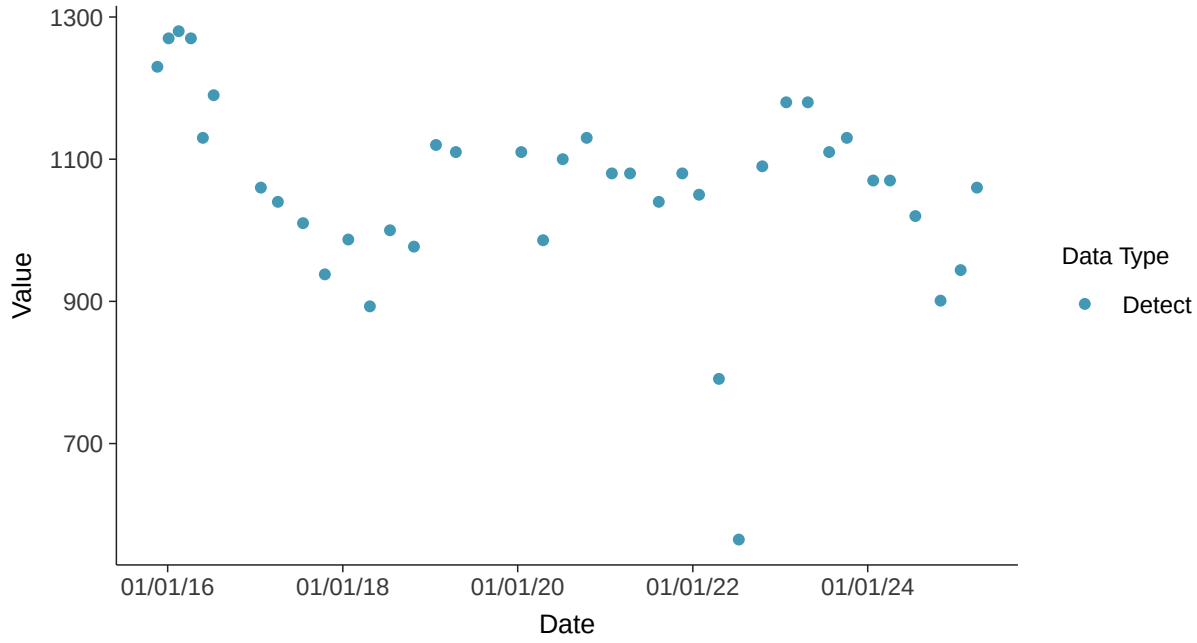


App. III: Chloride, MW-3

ID: 03_02_108

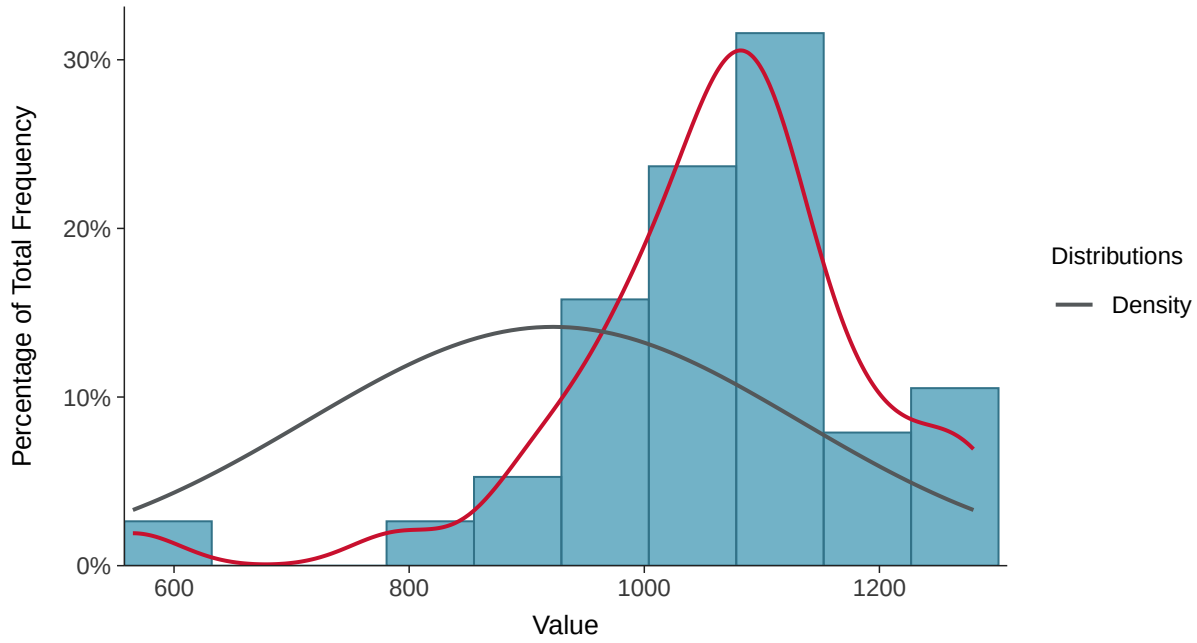
Scatter Plot

Chloride, MW-3 (mg/L)



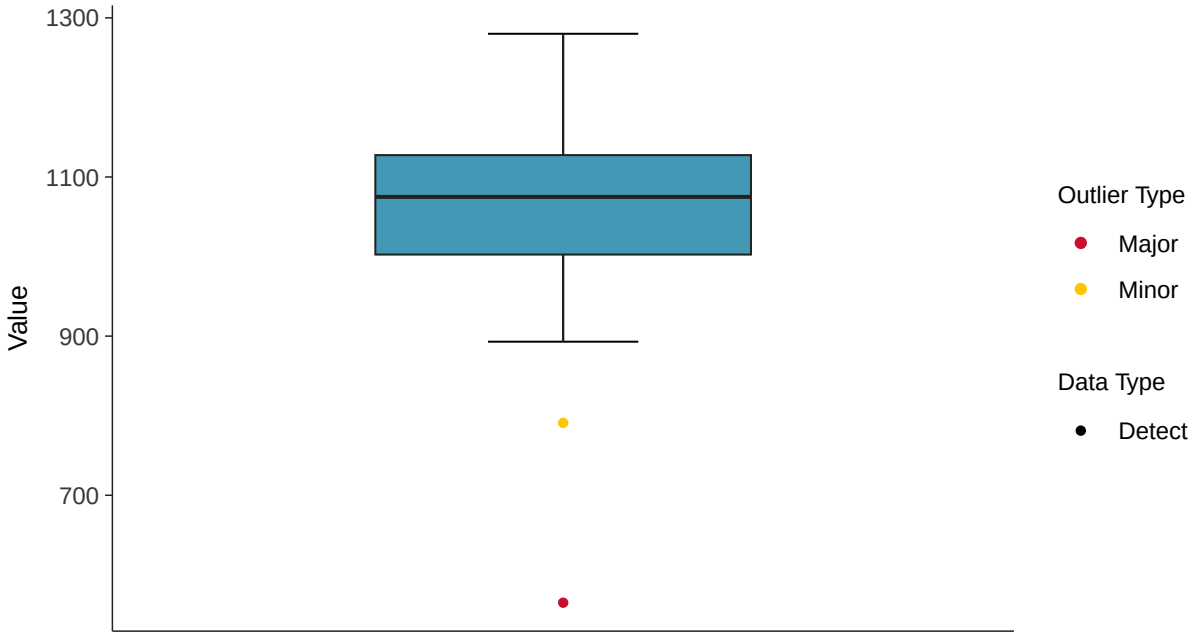
Histogram

Chloride, MW-3 (mg/L)



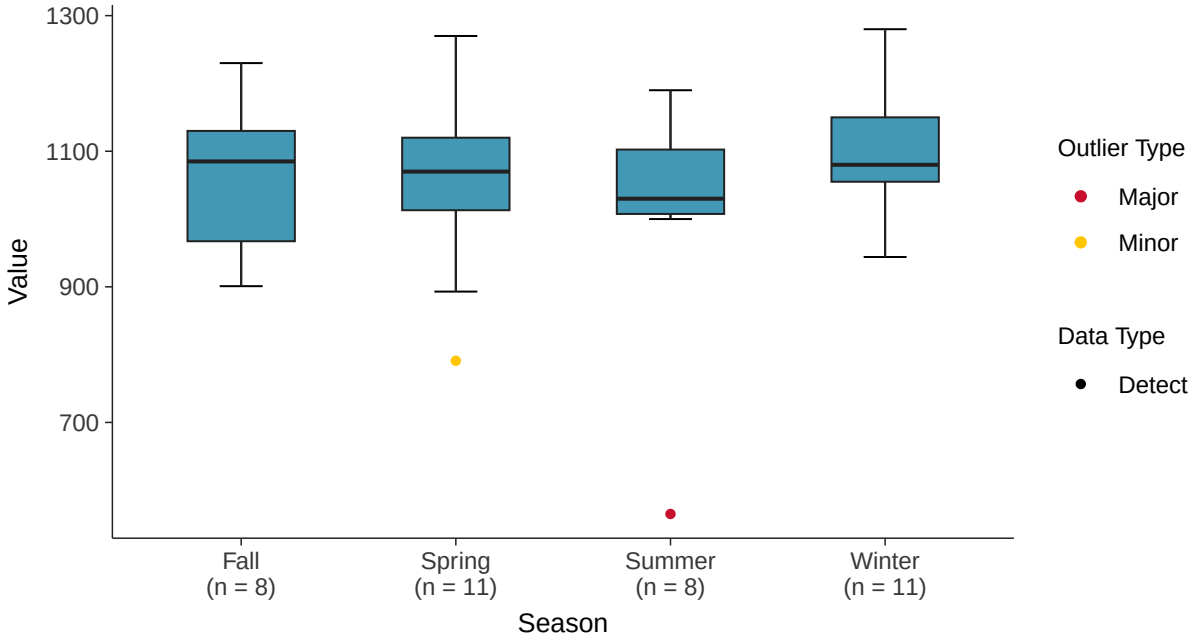
Boxplot

Chloride, MW-3 (mg/L)



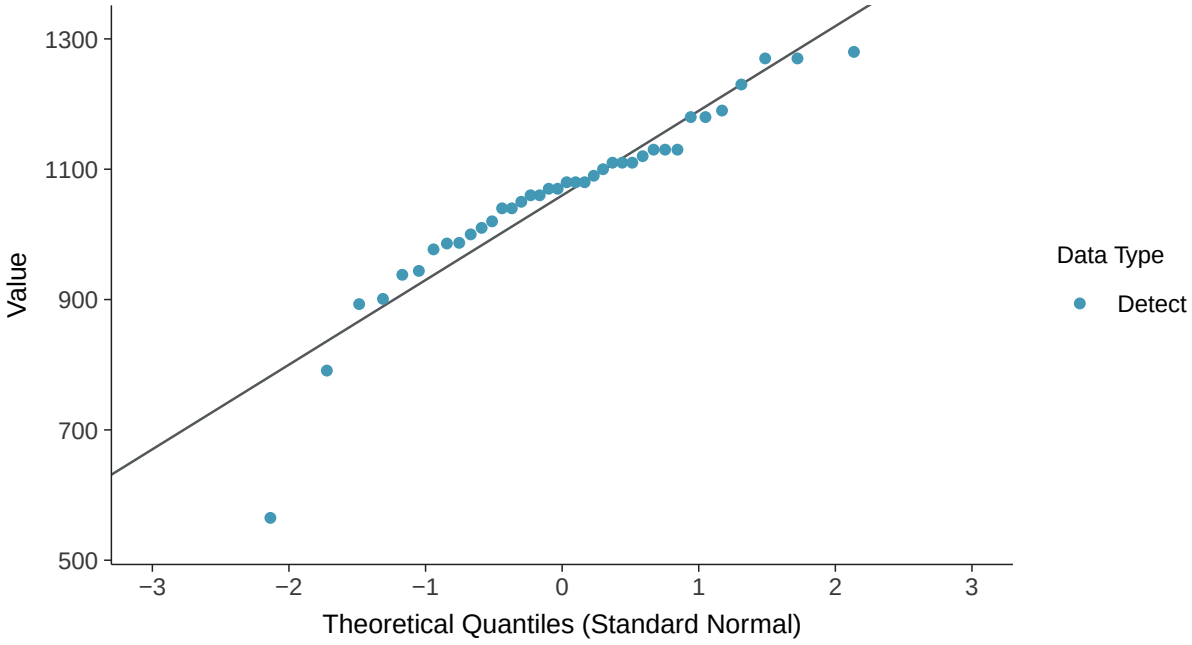
Boxplot by Season

Chloride, MW-3 (mg/L)



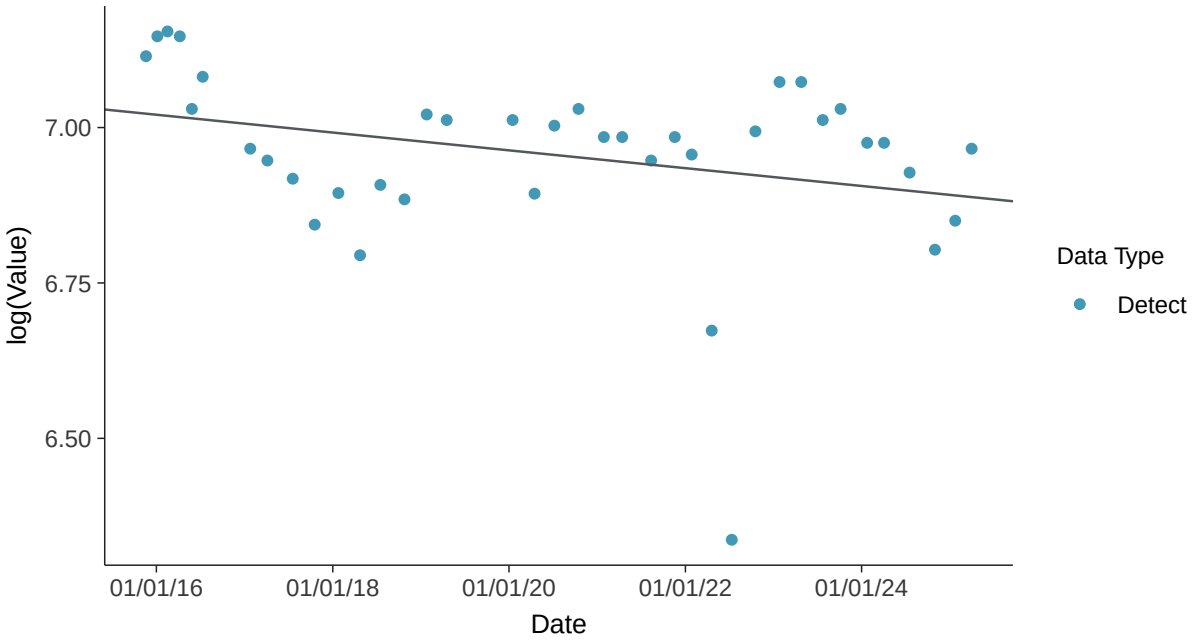
Normal Q-Q plot

Chloride, MW-3 (mg/L)



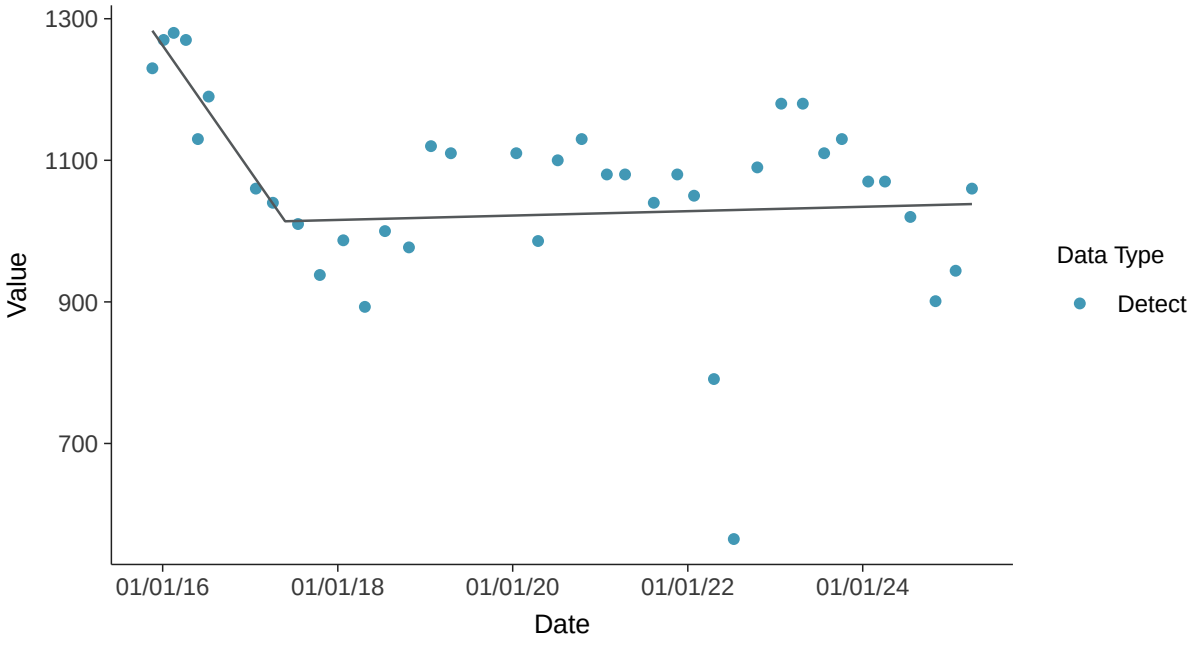
Trend Regression: Lognormal MLE

Chloride, MW-3 (mg/L)



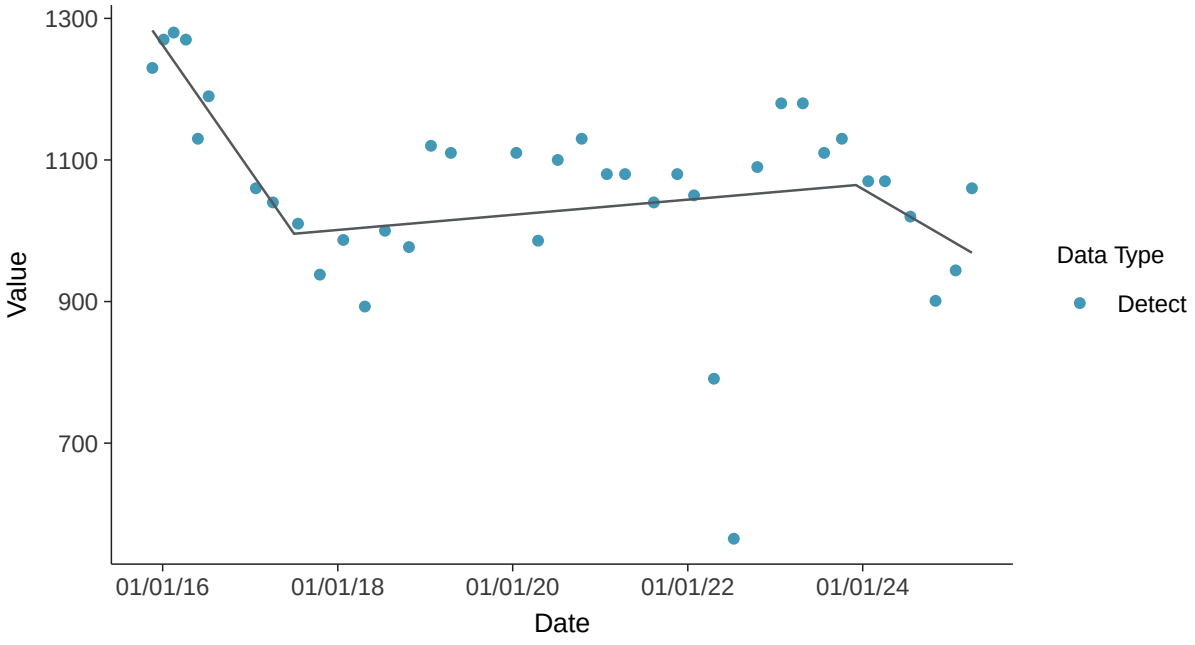
Trend Regression: Piecewise Linear-Linear

Chloride, MW-3 (mg/L)



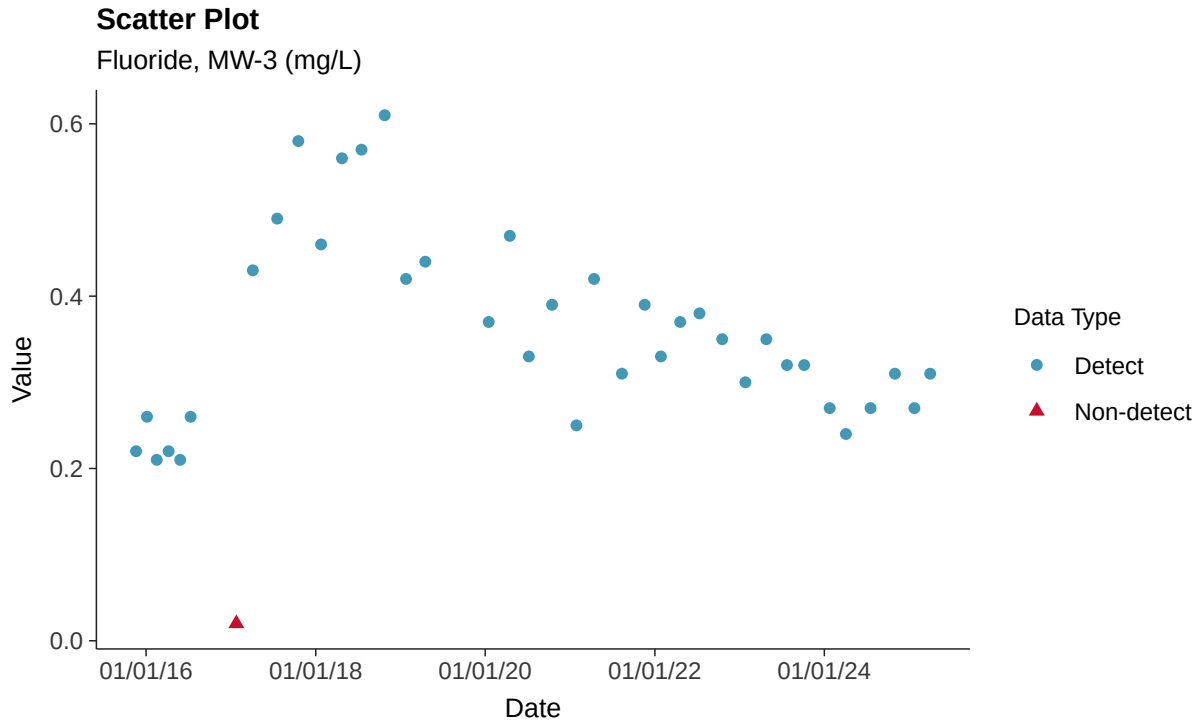
Trend Regression: Piecewise Linear-Linear-Linear

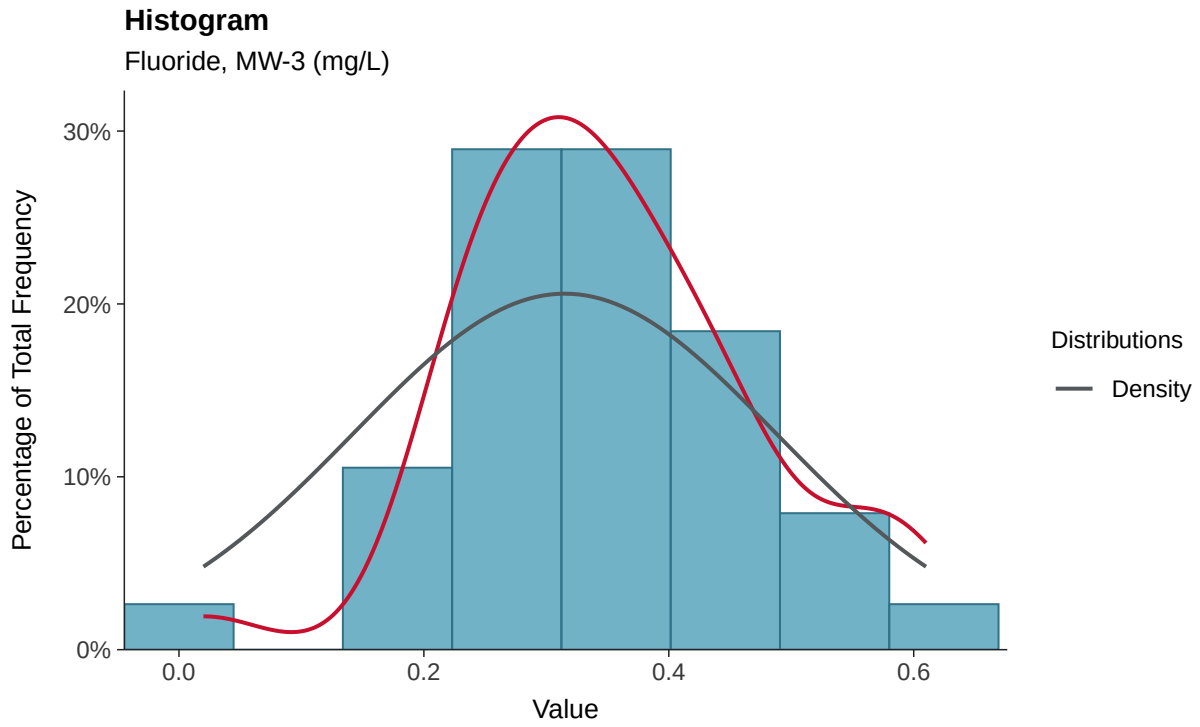
Chloride, MW-3 (mg/L)



App. III: Fluoride, MW-3

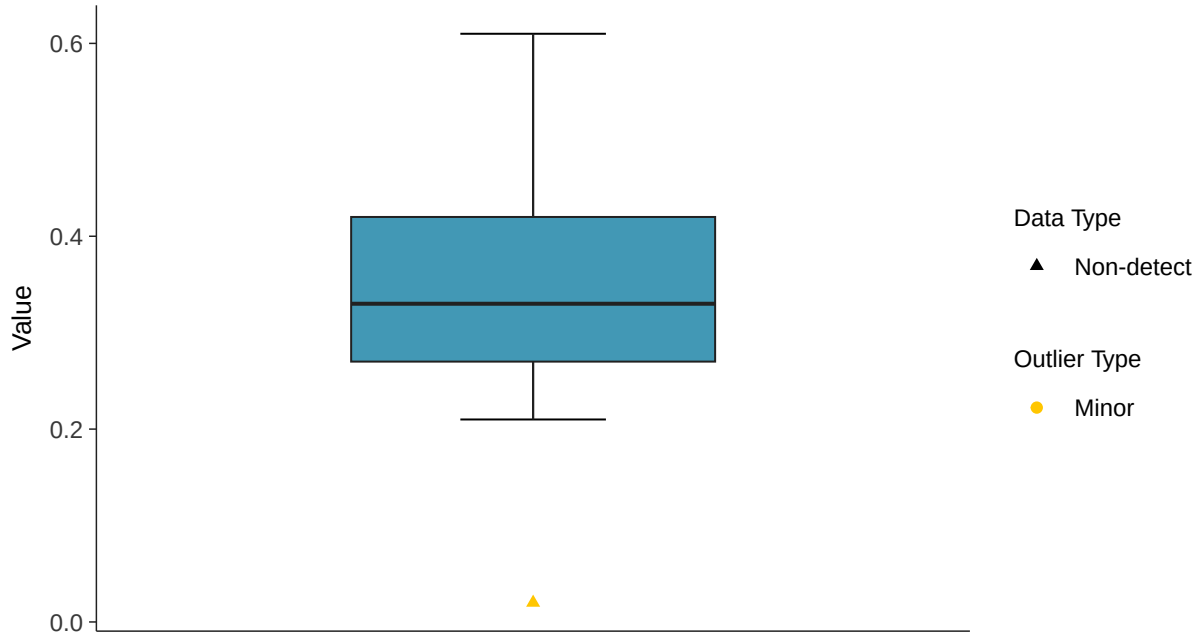
ID: 03_02_112





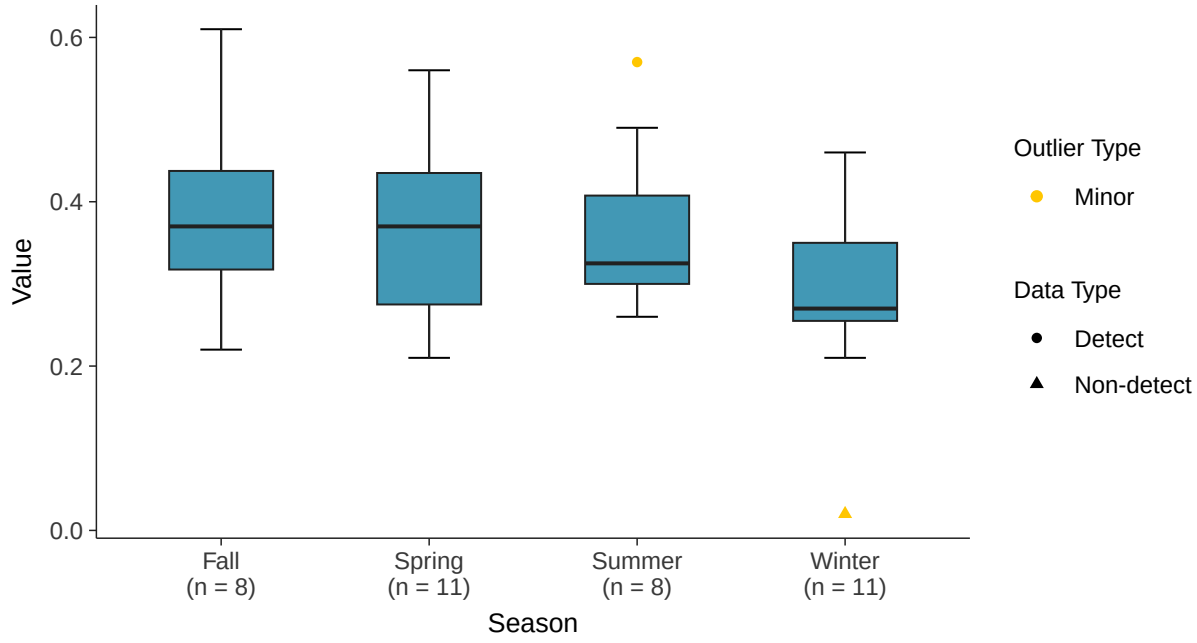
Boxplot

Fluoride, MW-3 (mg/L)



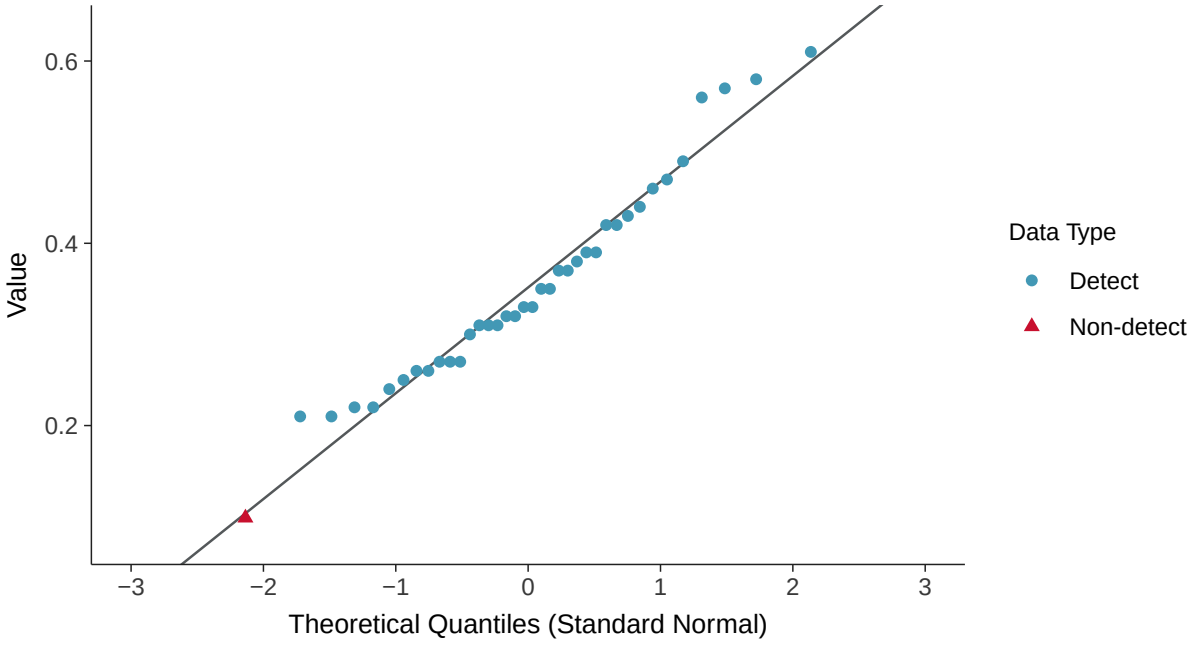
Boxplot by Season

Fluoride, MW-3 (mg/L)



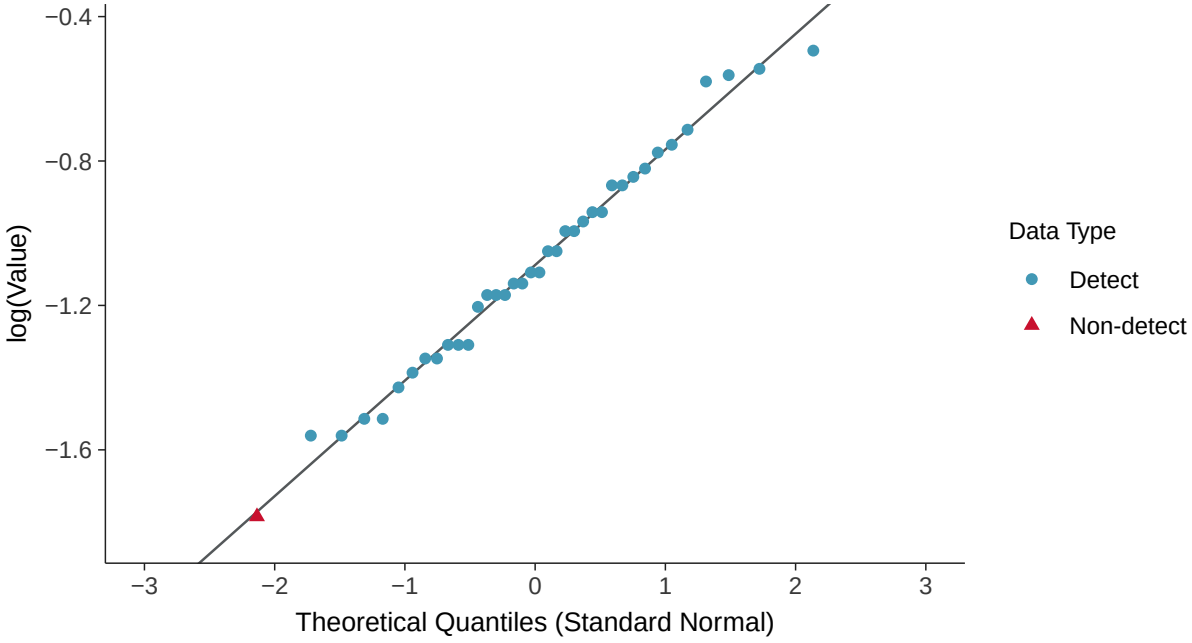
Normal Q-Q plot using ROS Imputed Estimates

Fluoride, MW-3 (mg/L)



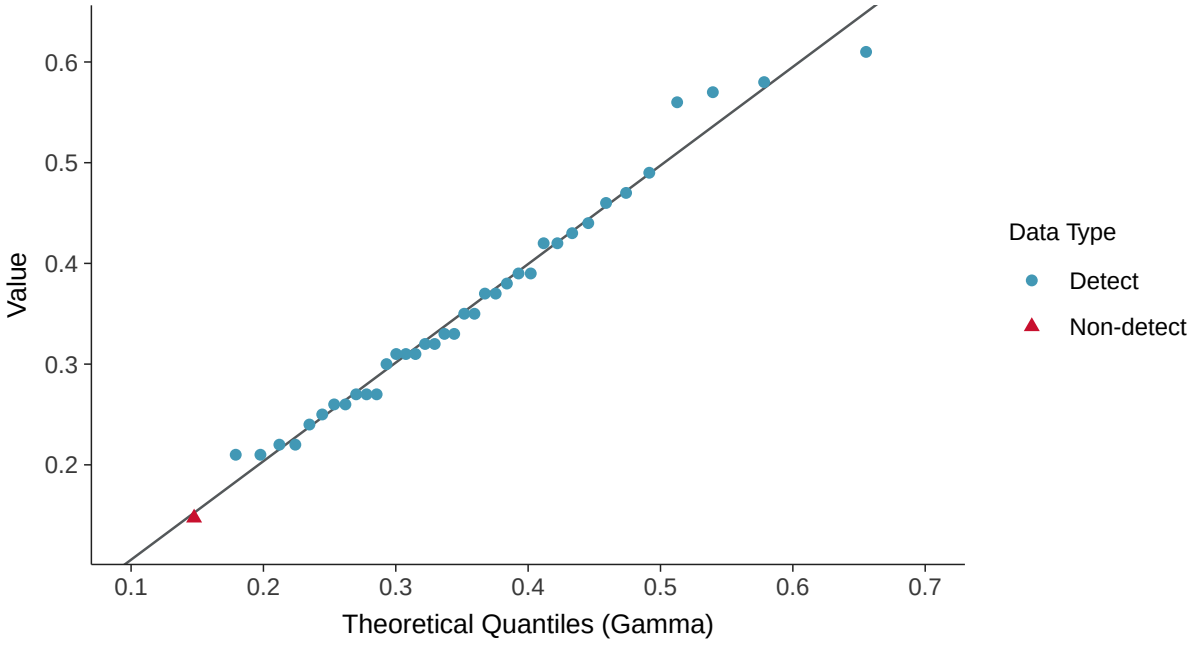
Lognormal Q-Q plot using ROS Imputed Estimates

Fluoride, MW-3 (mg/L)



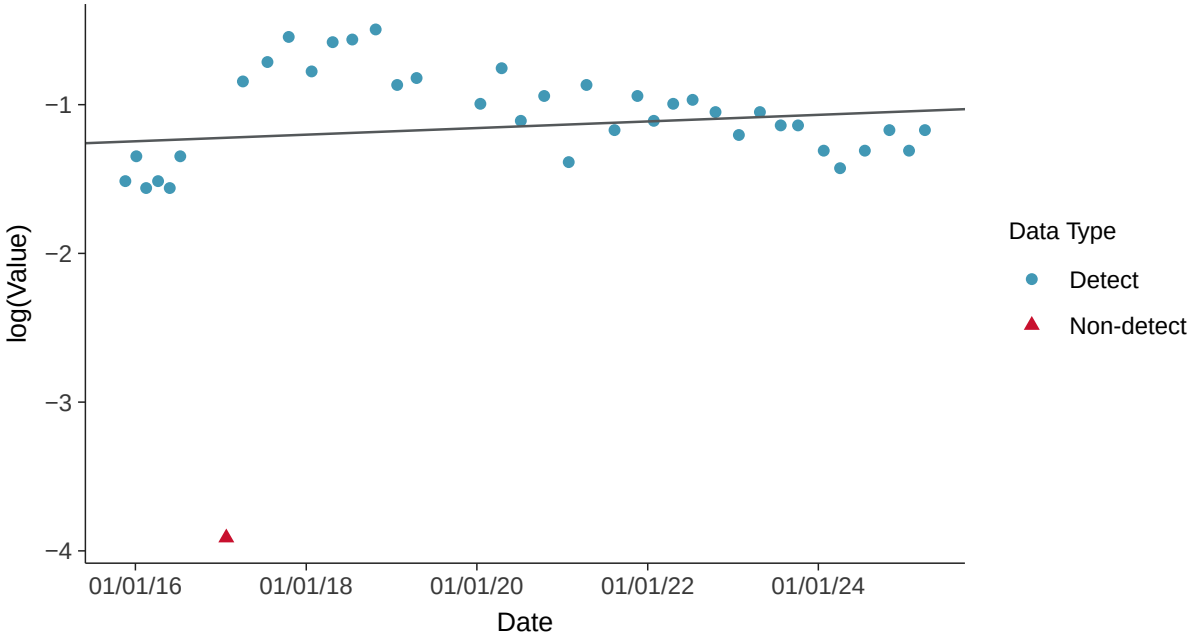
Gamma Q-Q plot using ROS Imputed Estimates

Fluoride, MW-3 (mg/L)



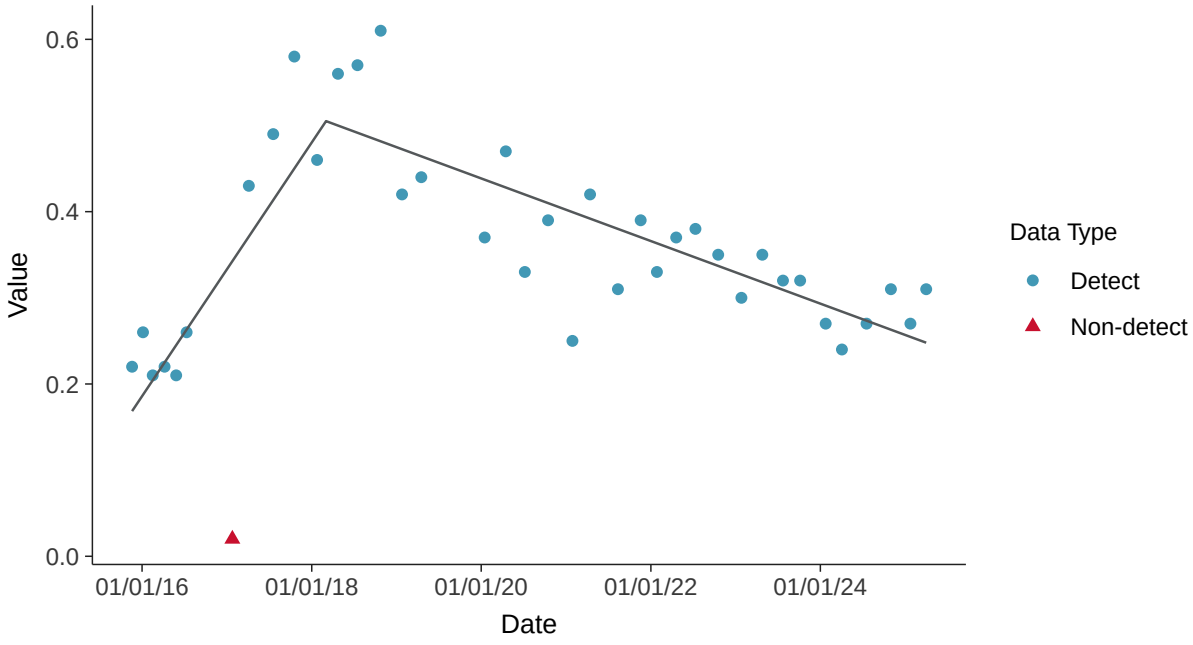
Trend Regression: Lognormal MLE

Fluoride, MW-3 (mg/L)



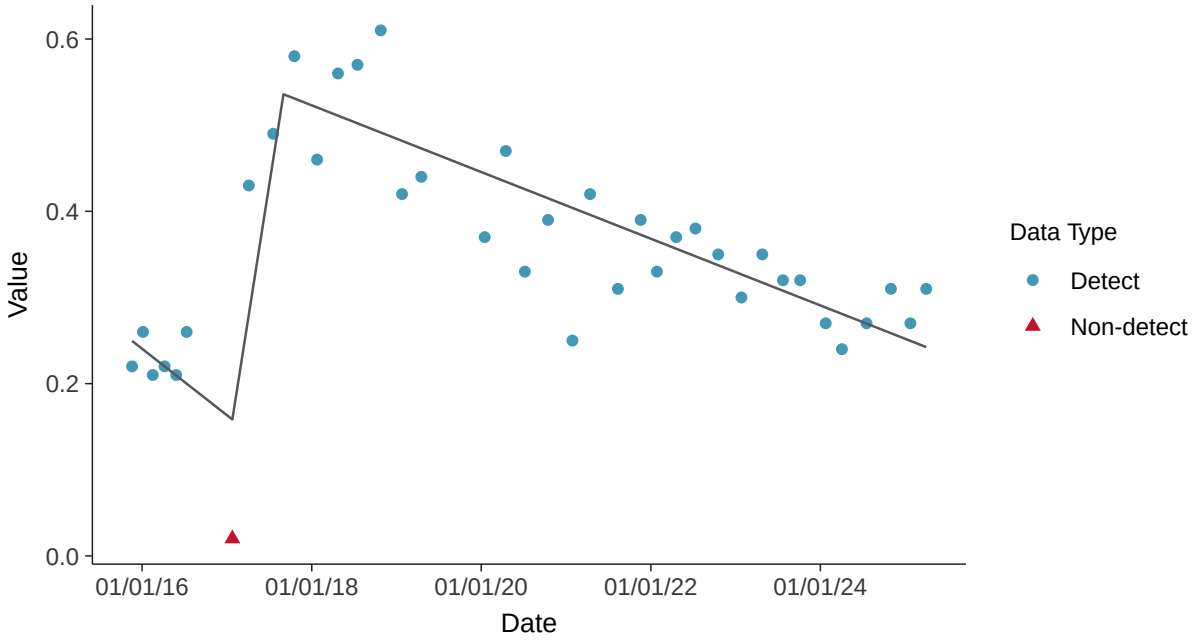
Trend Regression: Piecewise Linear-Linear

Fluoride, MW-3 (mg/L)



Trend Regression: Piecewise Linear-Linear-Linear

Fluoride, MW-3 (mg/L)

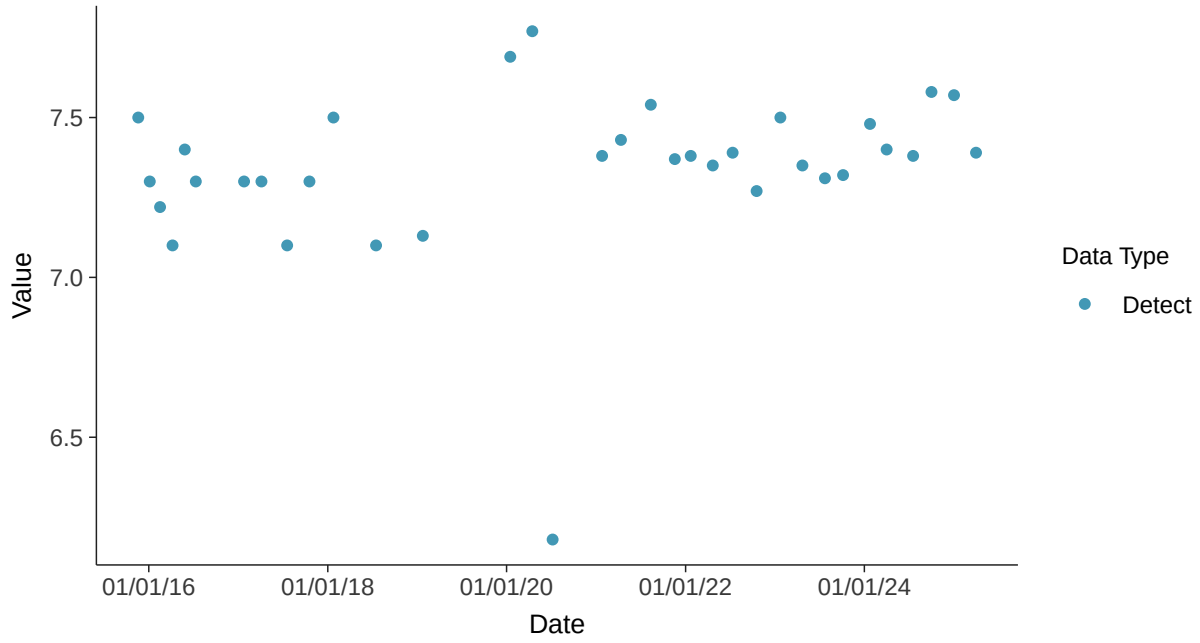


App. III: pH (Field), MW-3

ID: 03_02_118

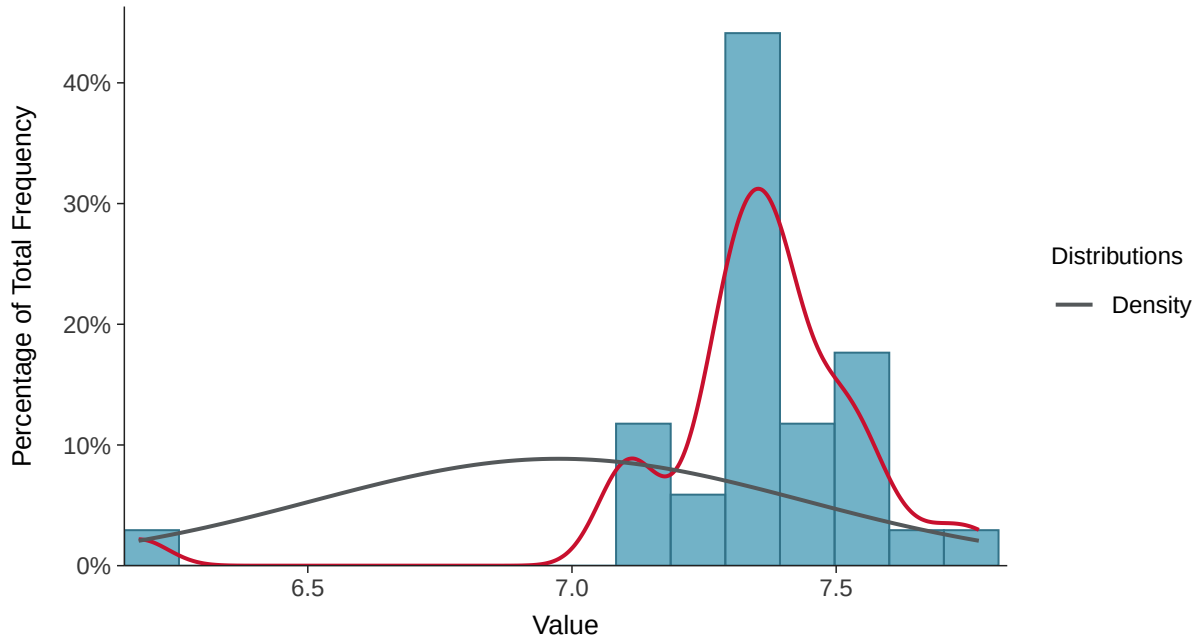
Scatter Plot

pH (Field), MW-3 (S.U.)



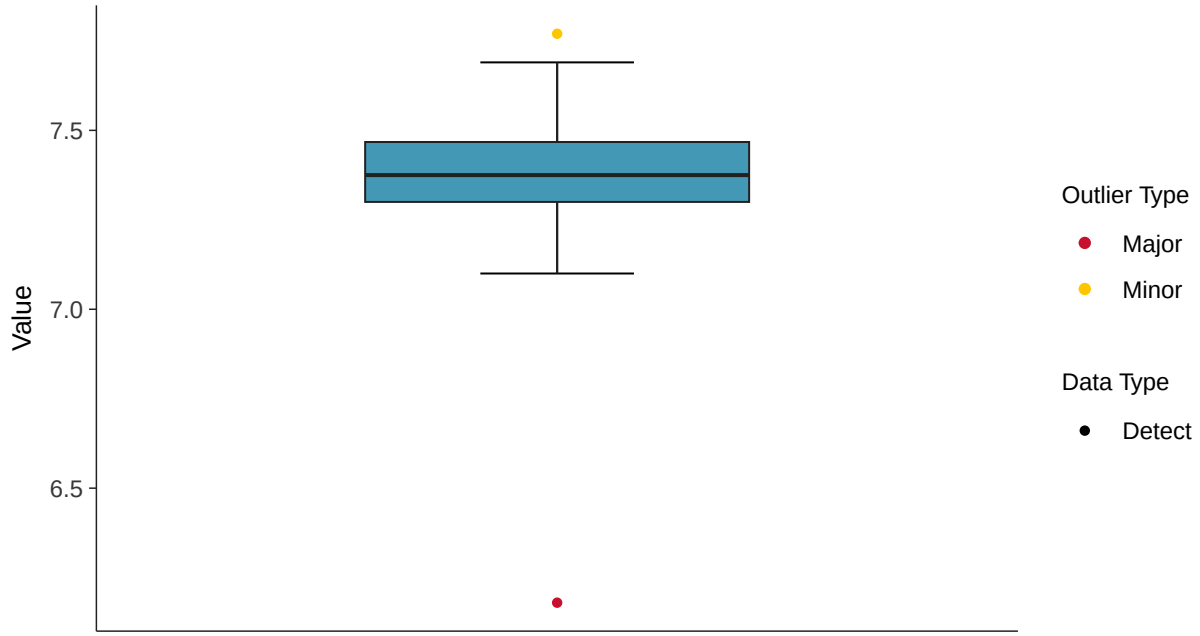
Histogram

pH (Field), MW-3 (S.U.)



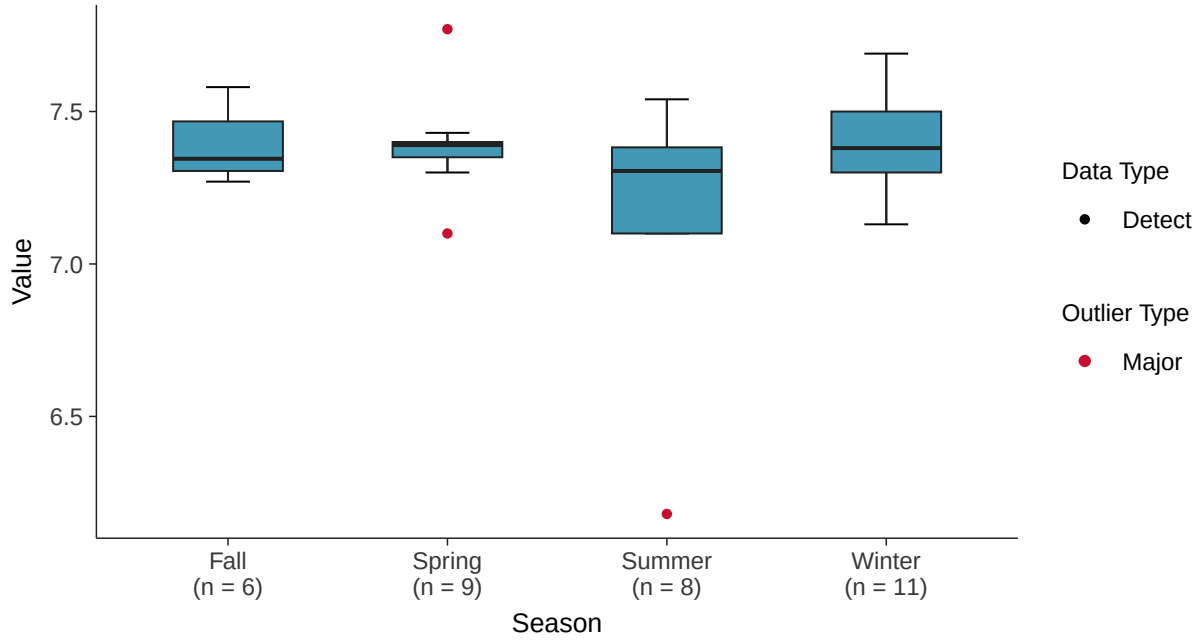
Boxplot

pH (Field), MW-3 (S.U.)



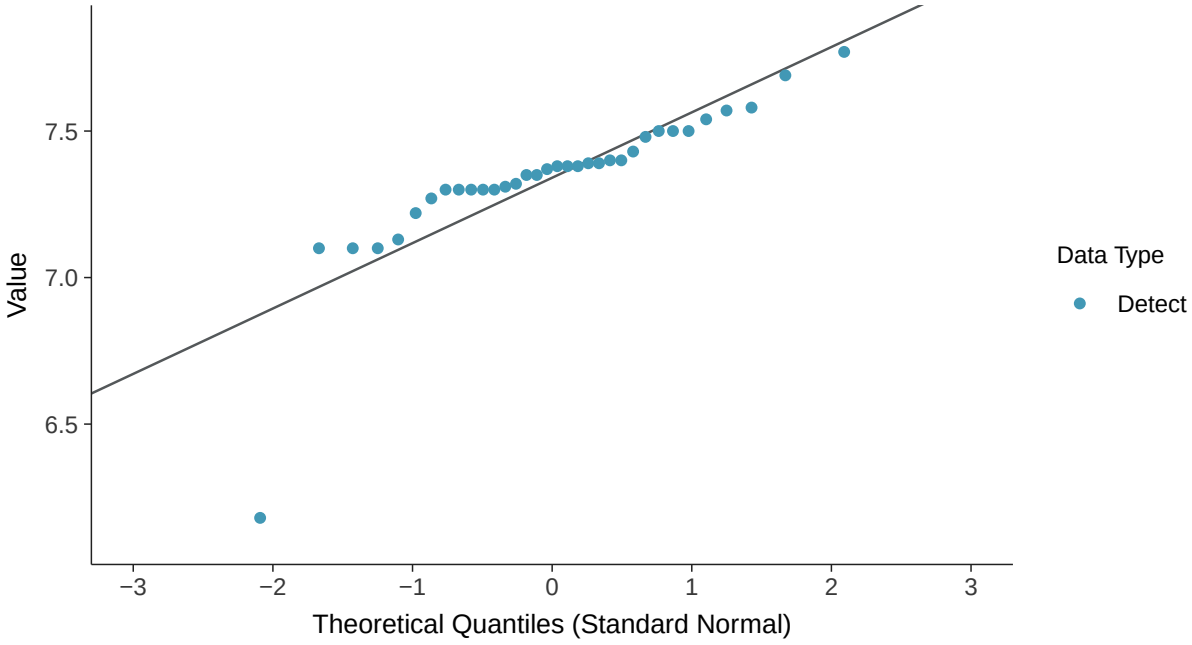
Boxplot by Season

pH (Field), MW-3 (S.U.)



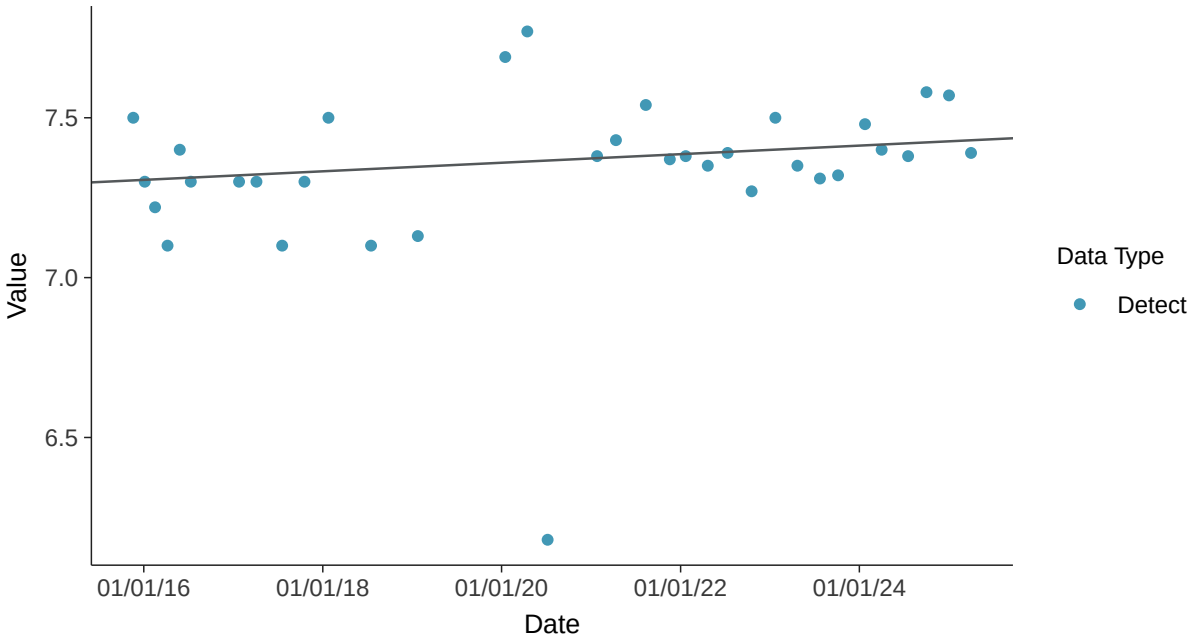
Normal Q-Q plot

pH (Field), MW-3 (S.U.)



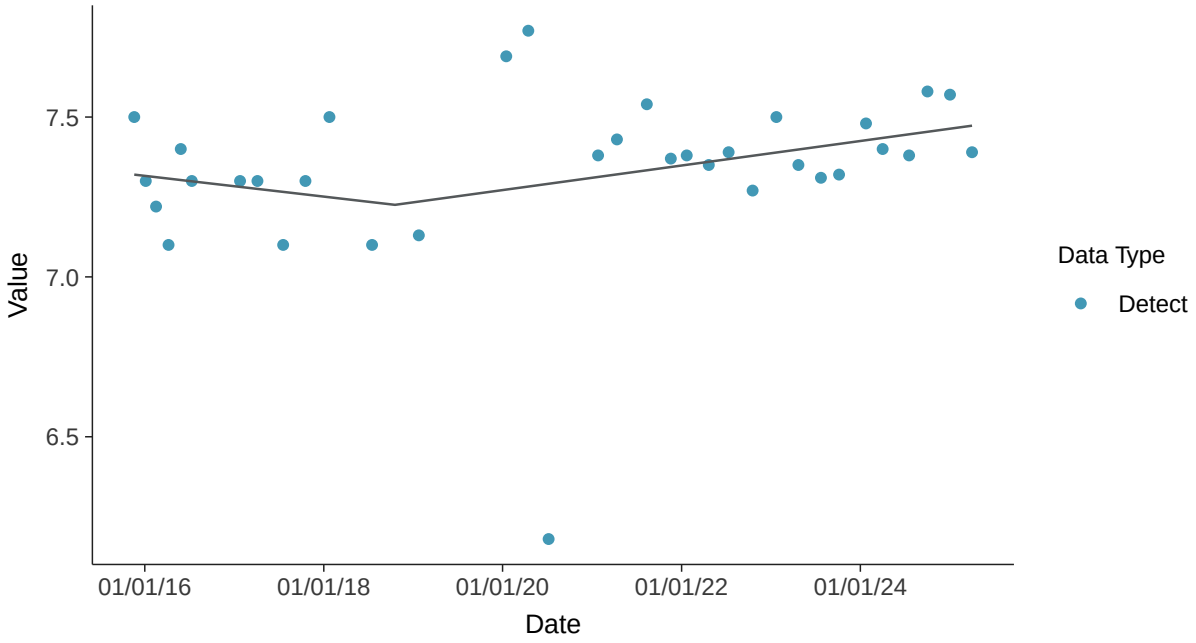
Trend Regression: Mann-Kendall/Theil-Sen Estimate

pH (Field), MW-3 (S.U.)



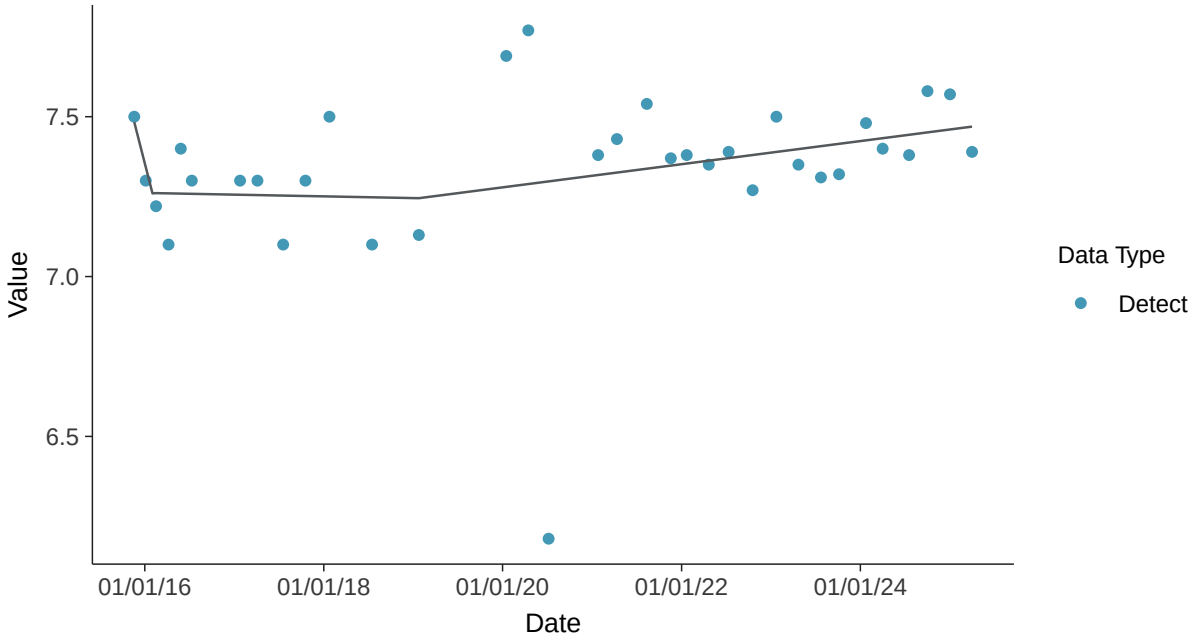
Trend Regression: Piecewise Linear-Linear

pH (Field), MW-3 (S.U.)



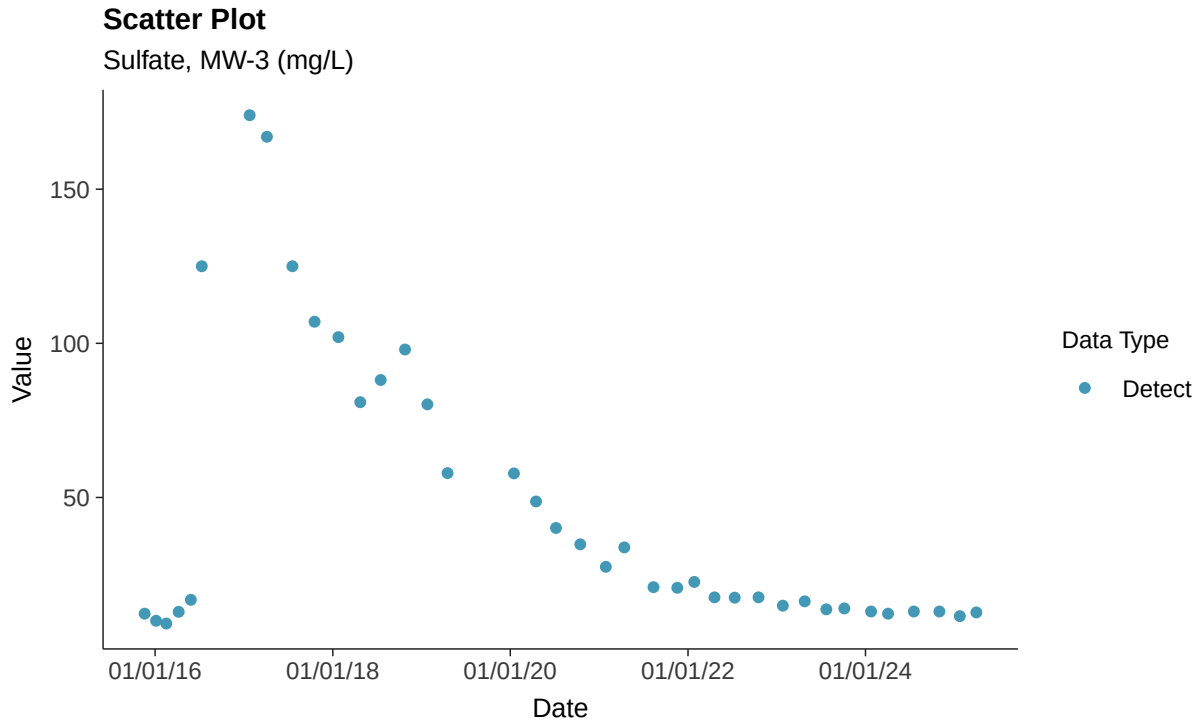
Trend Regression: Piecewise Linear-Linear-Linear

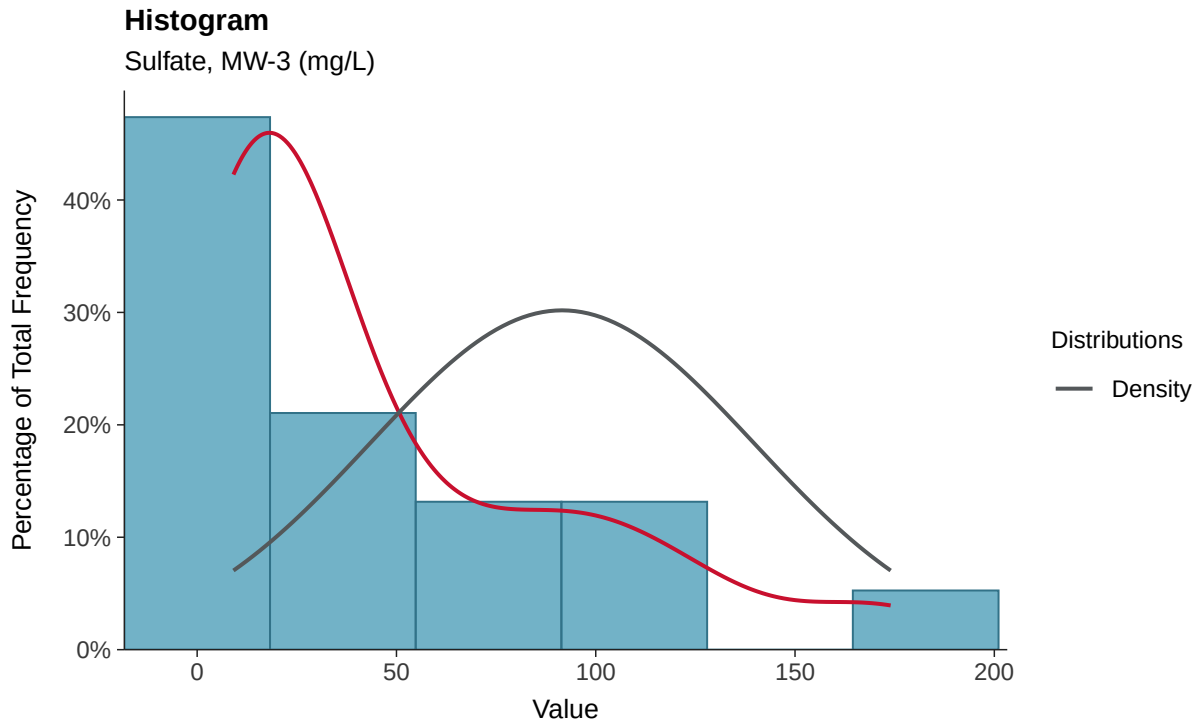
pH (Field), MW-3 (S.U.)



App. III: Sulfate, MW-3

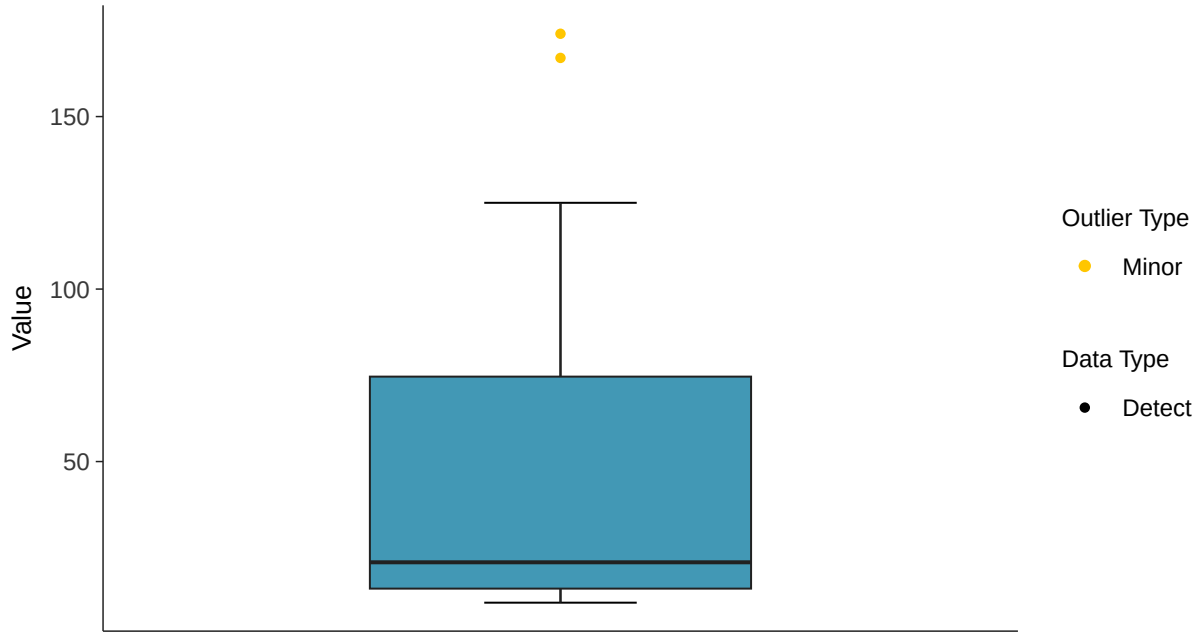
ID: 03_02_123





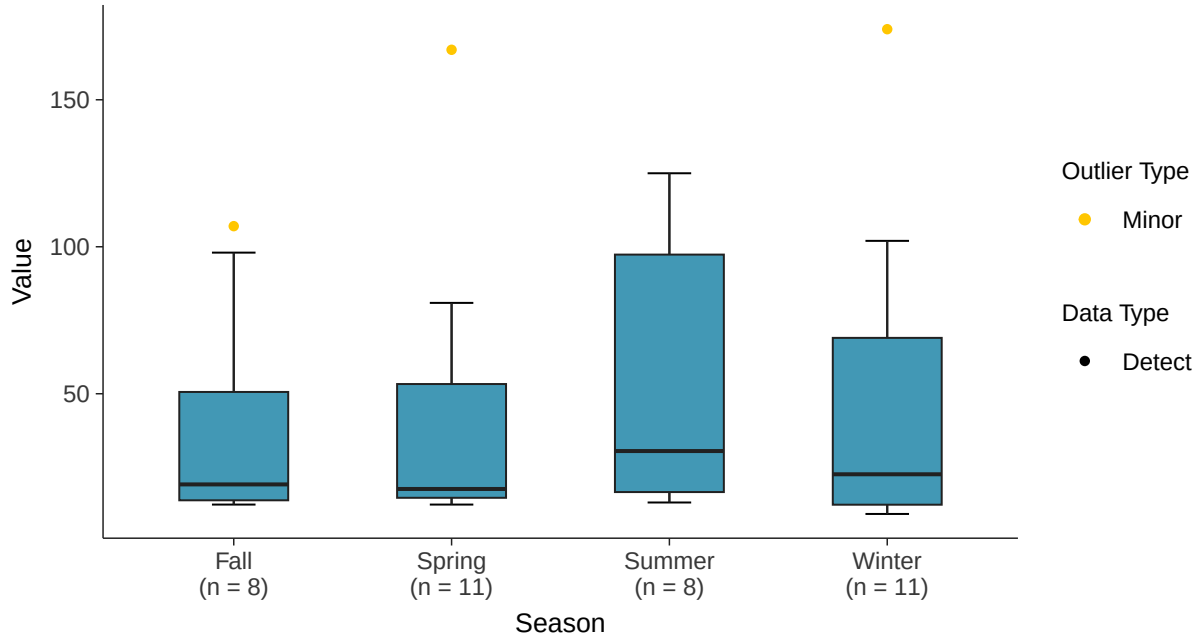
Boxplot

Sulfate, MW-3 (mg/L)



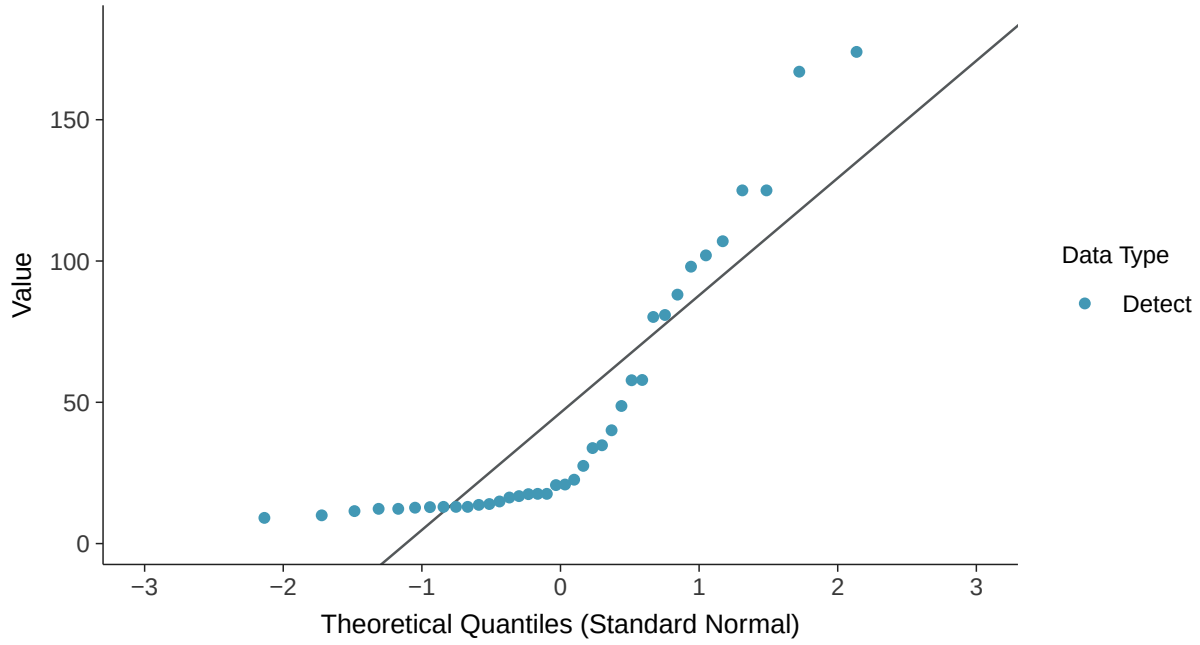
Boxplot by Season

Sulfate, MW-3 (mg/L)



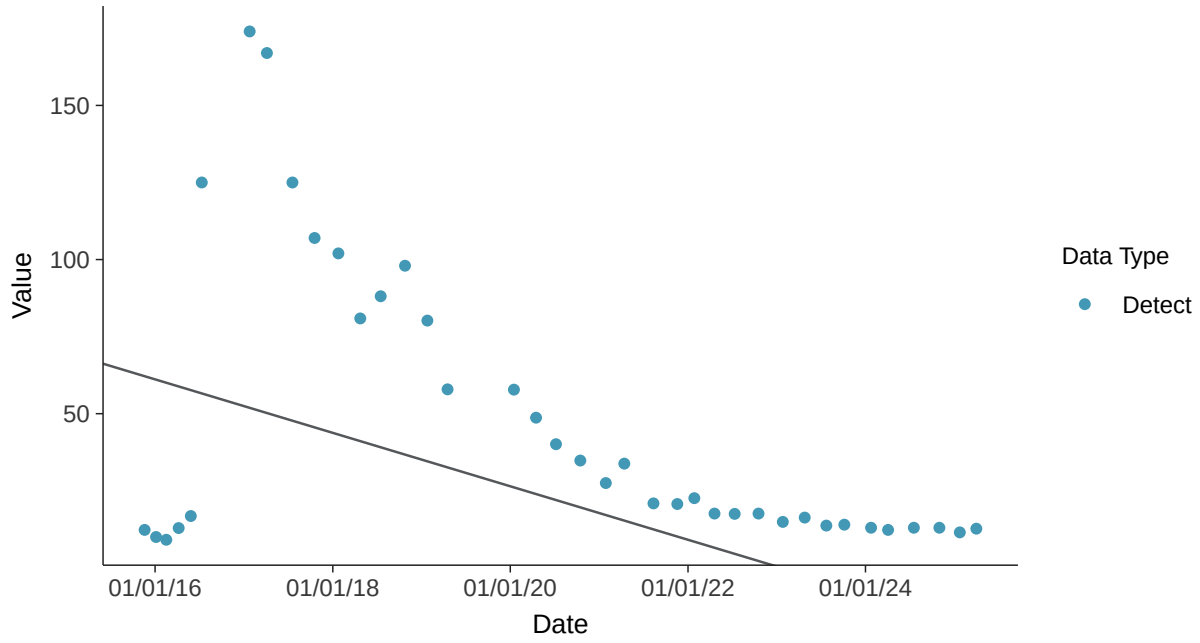
Normal Q-Q plot

Sulfate, MW-3 (mg/L)



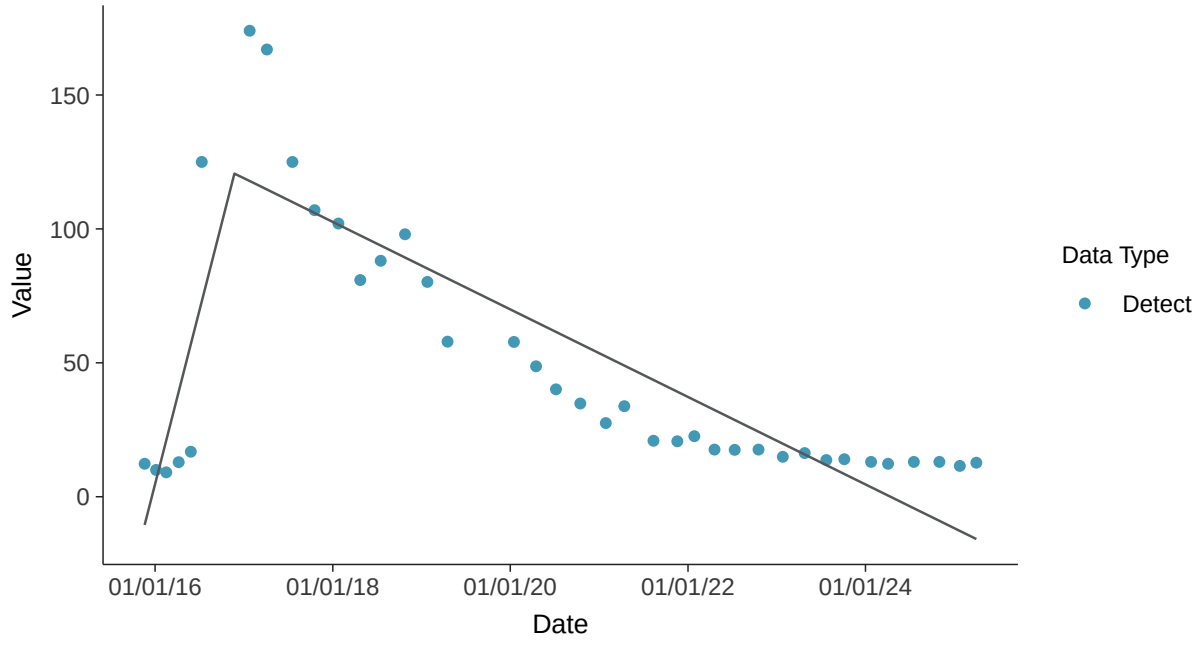
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Sulfate, MW-3 (mg/L)



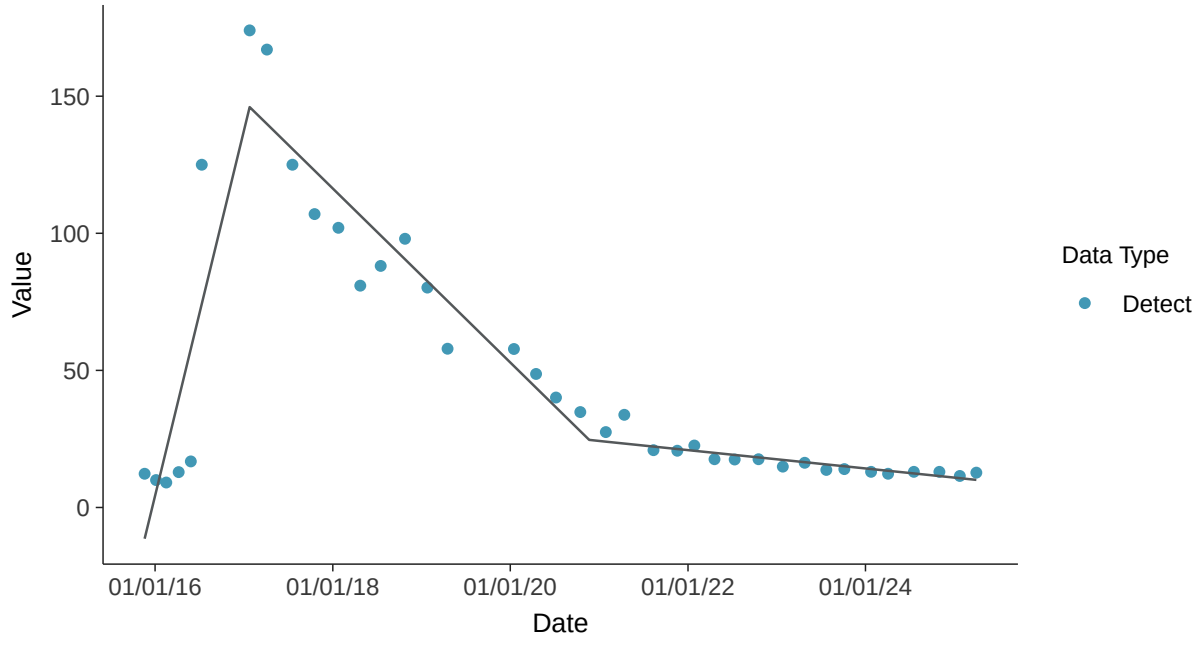
Trend Regression: Piecewise Linear-Linear

Sulfate, MW-3 (mg/L)



Trend Regression: Piecewise Linear-Linear-Linear

Sulfate, MW-3 (mg/L)

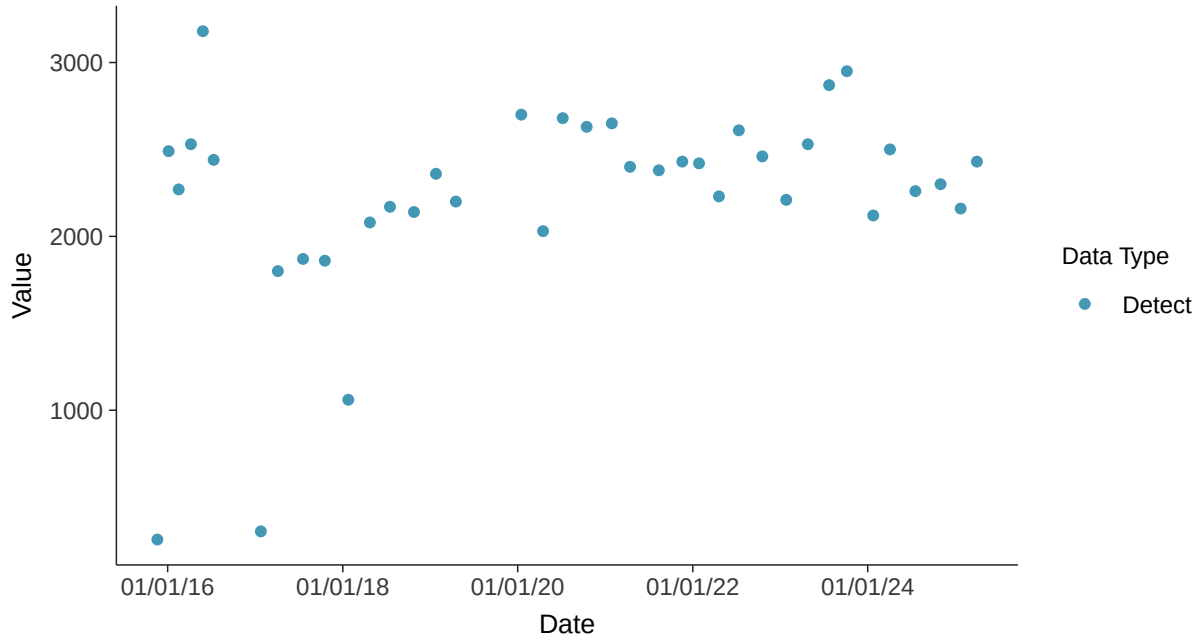


App. III: Total Dissolved Solids, MW-3

ID: 03_02_125

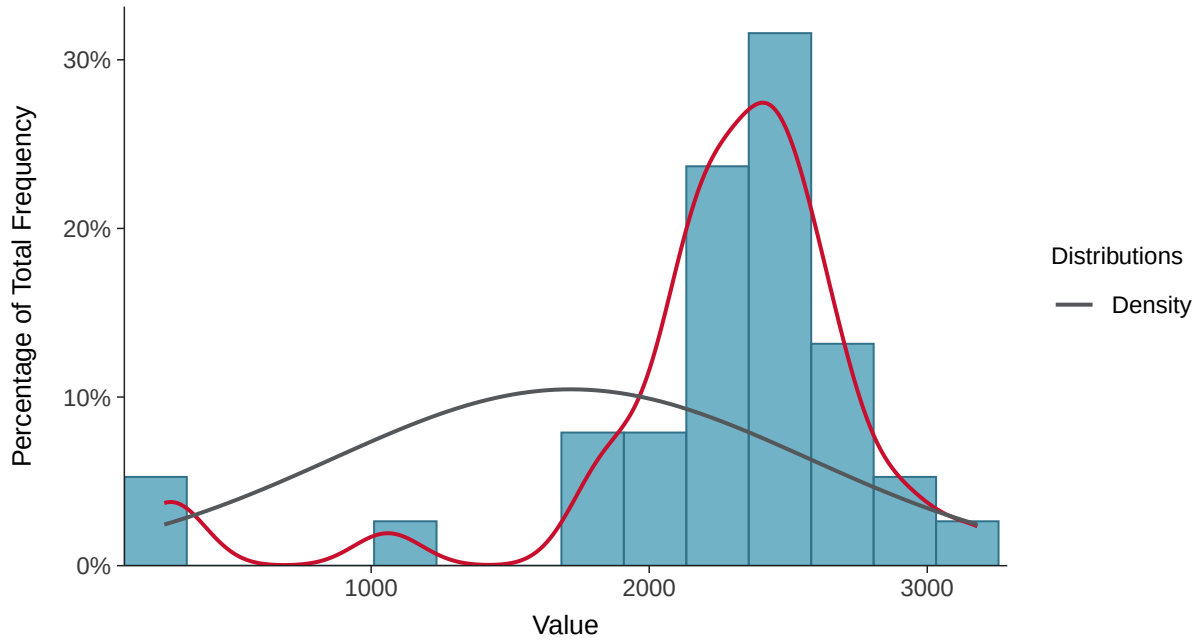
Scatter Plot

Total Dissolved Solids, MW-3 (mg/L)



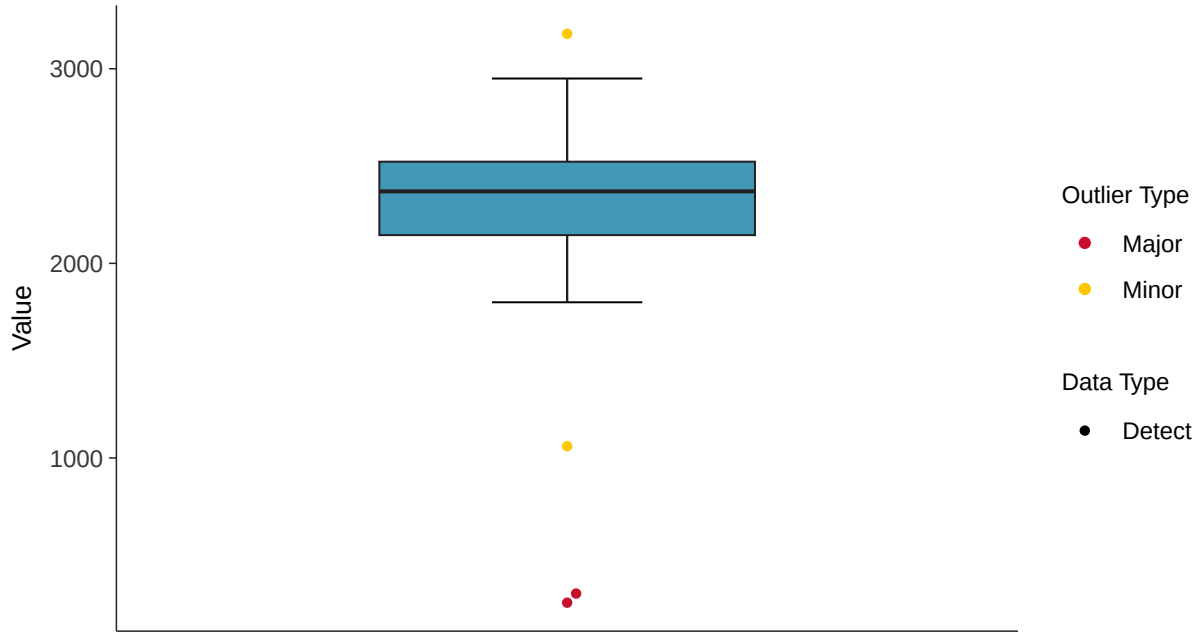
Histogram

Total Dissolved Solids, MW-3 (mg/L)



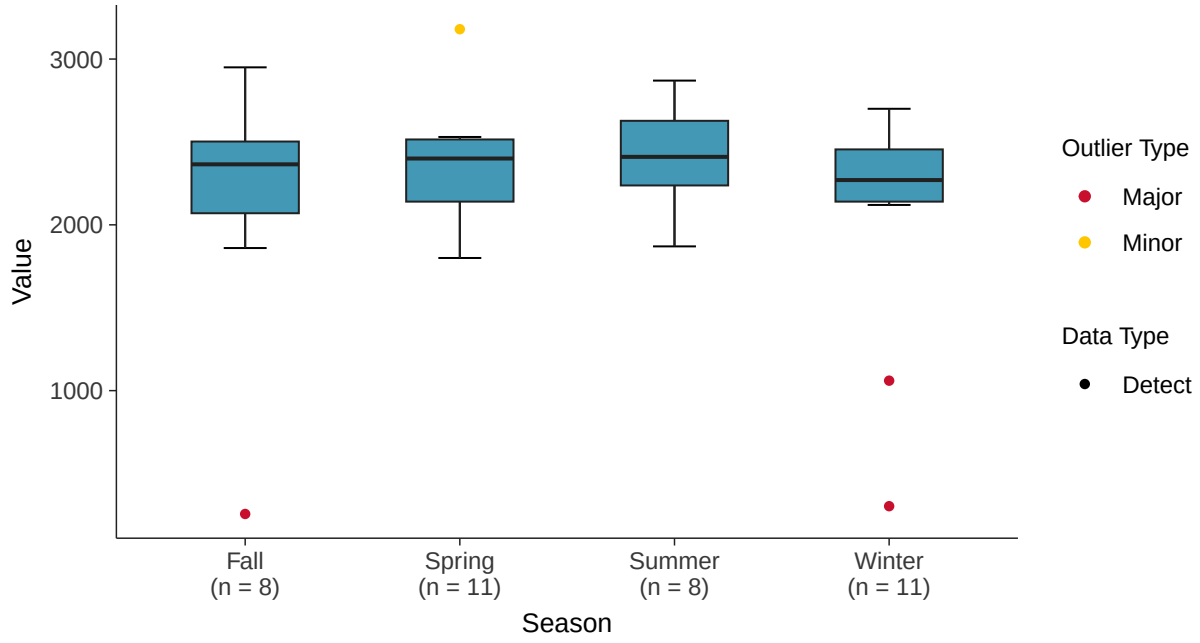
Boxplot

Total Dissolved Solids, MW-3 (mg/L)



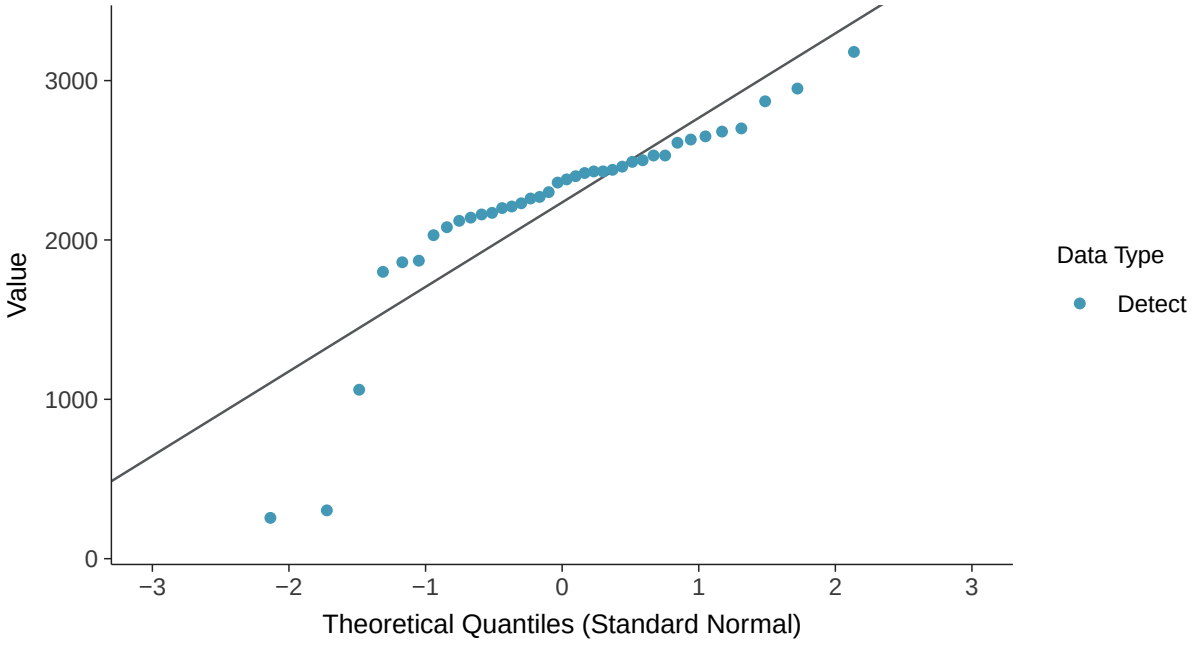
Boxplot by Season

Total Dissolved Solids, MW-3 (mg/L)



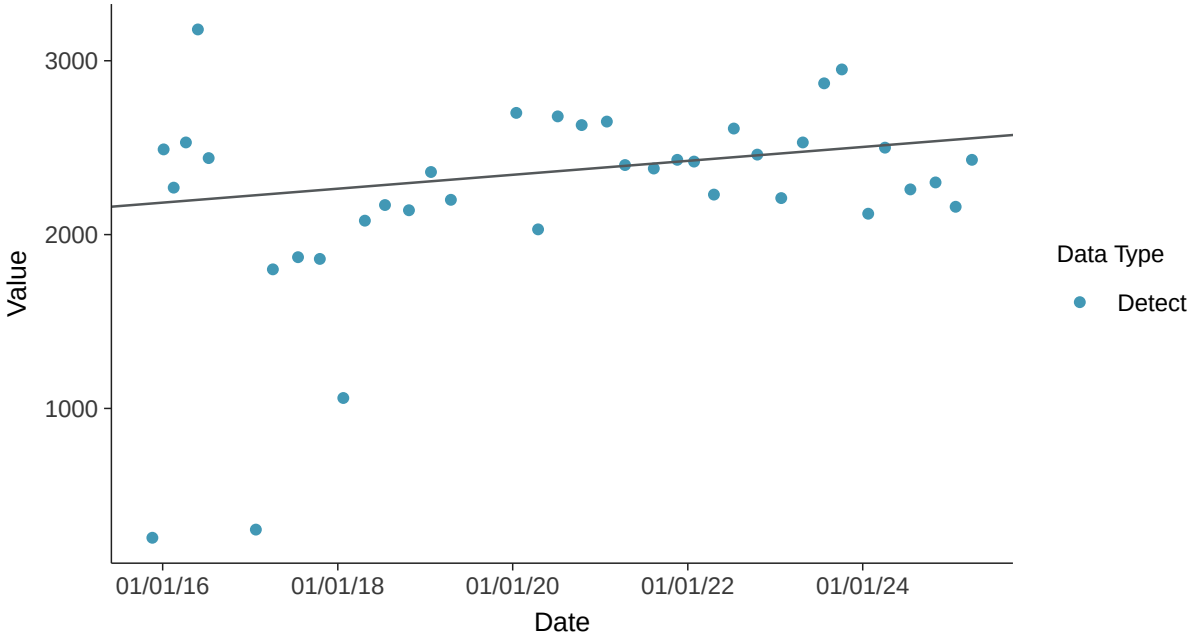
Normal Q-Q plot

Total Dissolved Solids, MW-3 (mg/L)



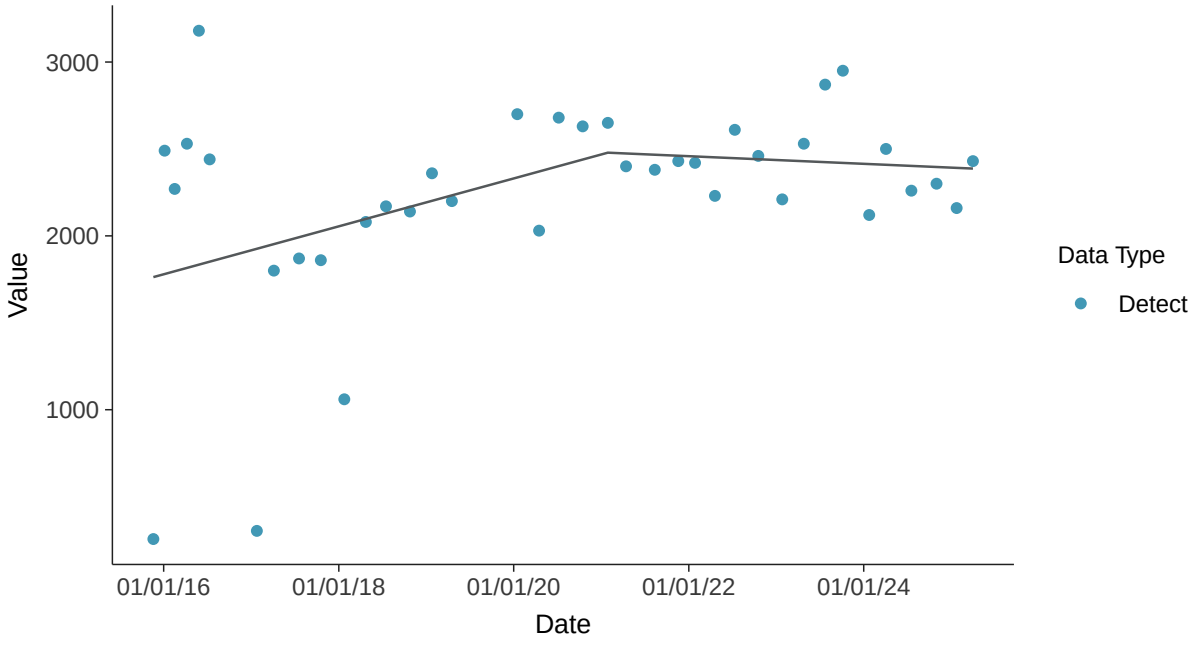
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Total Dissolved Solids, MW-3 (mg/L)



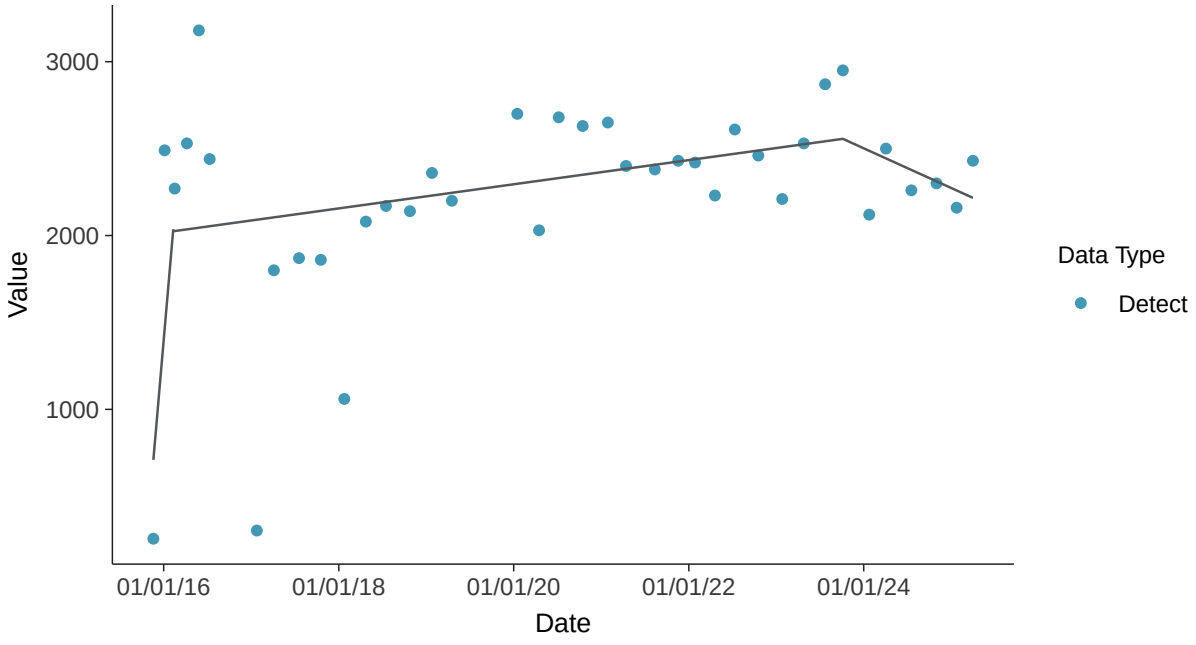
Trend Regression: Piecewise Linear-Linear

Total Dissolved Solids, MW-3 (mg/L)



Trend Regression: Piecewise Linear-Linear-Linear

Total Dissolved Solids, MW-3 (mg/L)

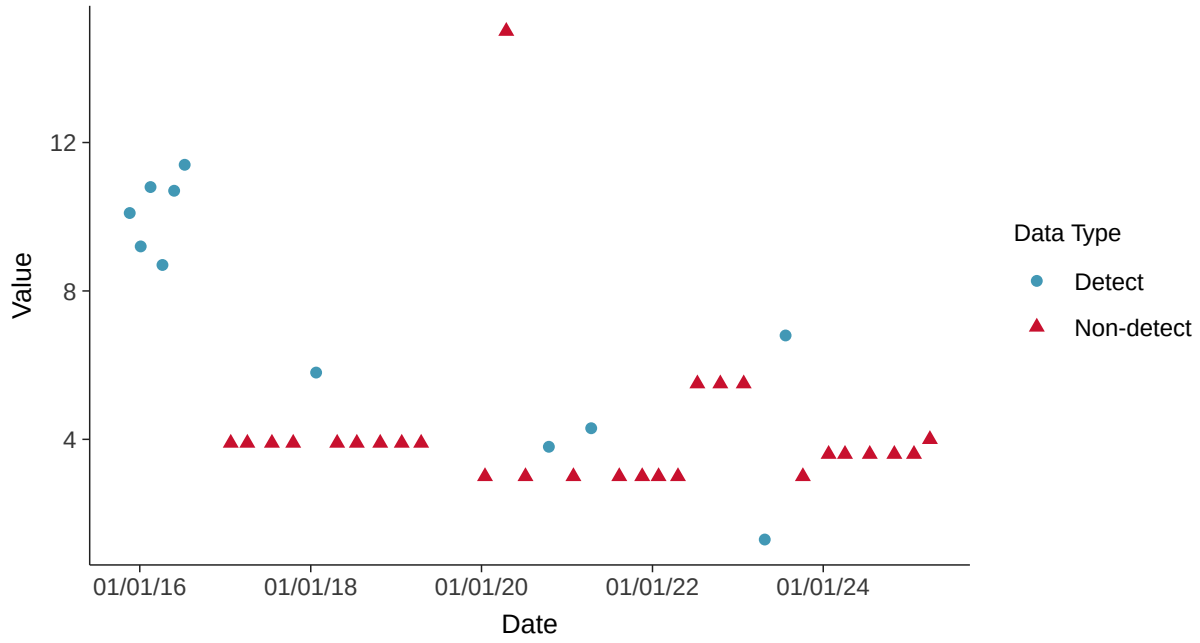


App. IV: Antimony, MW-3

ID: 03_03_101

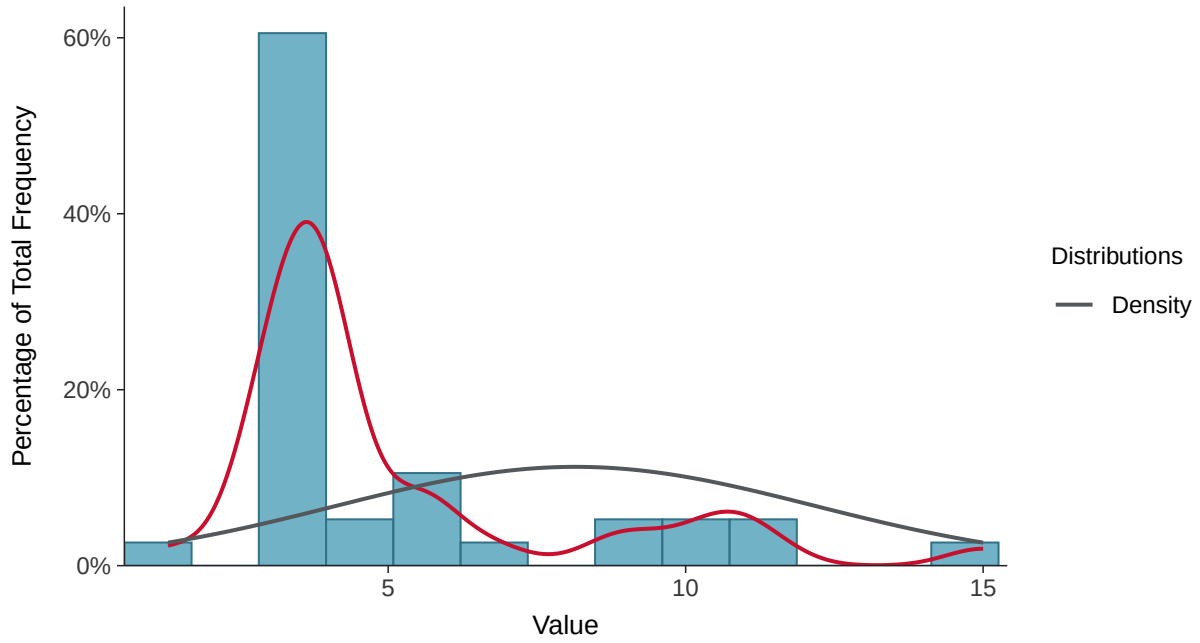
Scatter Plot

Antimony, MW-3 (ug/L)



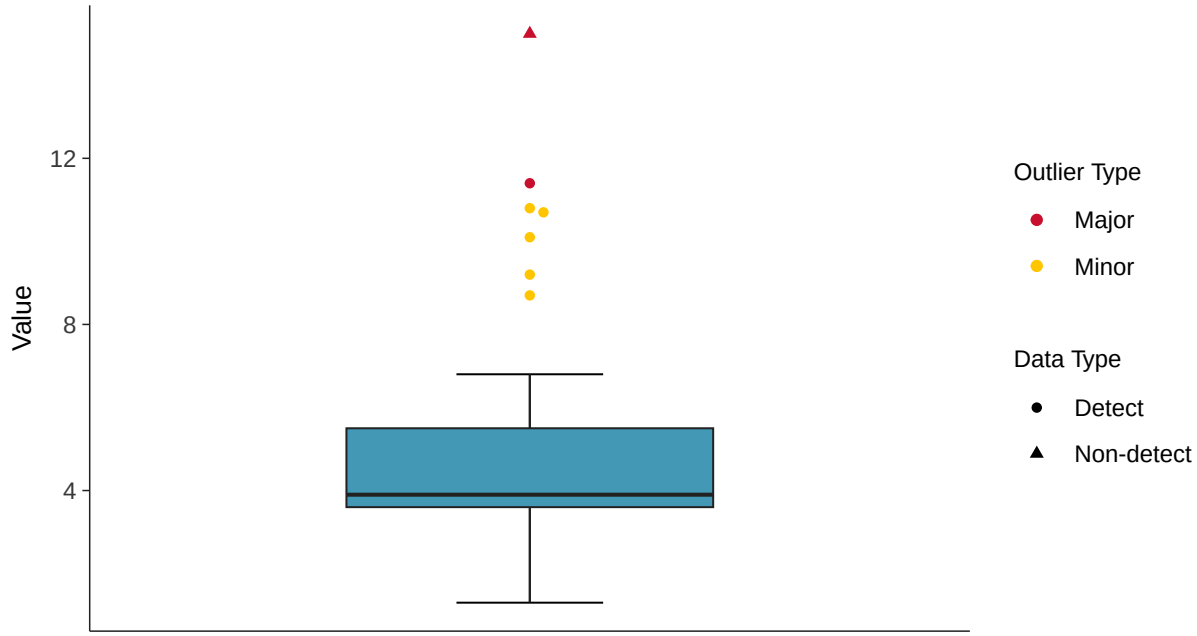
Histogram

Antimony, MW-3 (ug/L)



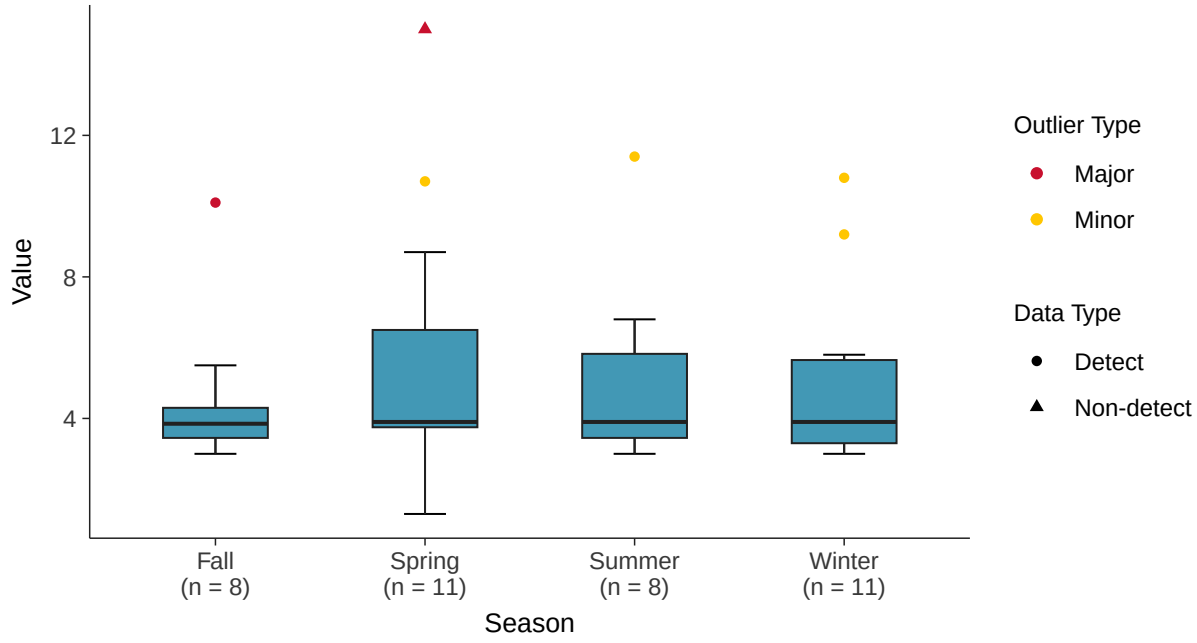
Boxplot

Antimony, MW-3 (ug/L)



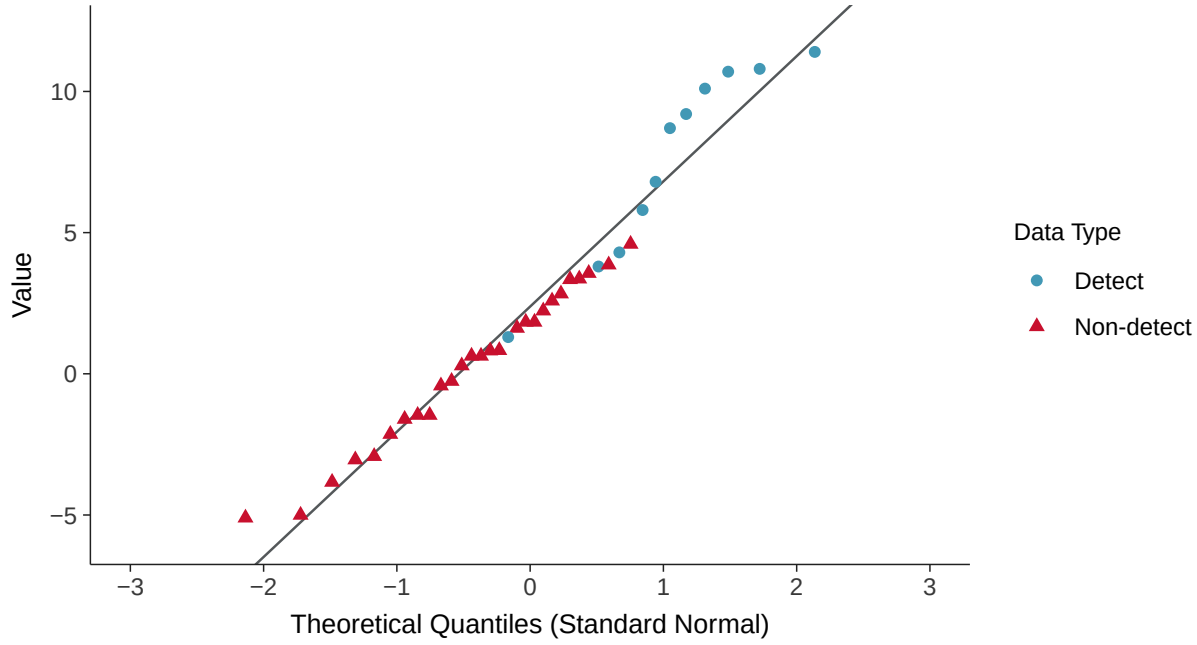
Boxplot by Season

Antimony, MW-3 (ug/L)



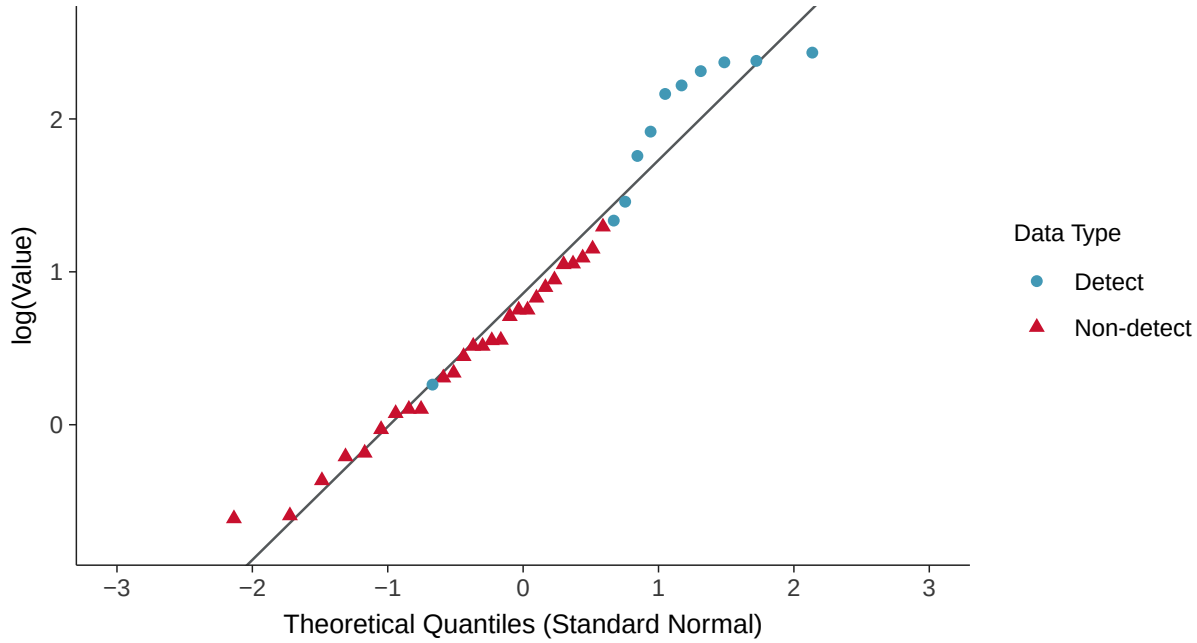
Normal Q-Q plot using ROS Imputed Estimates

Antimony, MW-3 (ug/L)



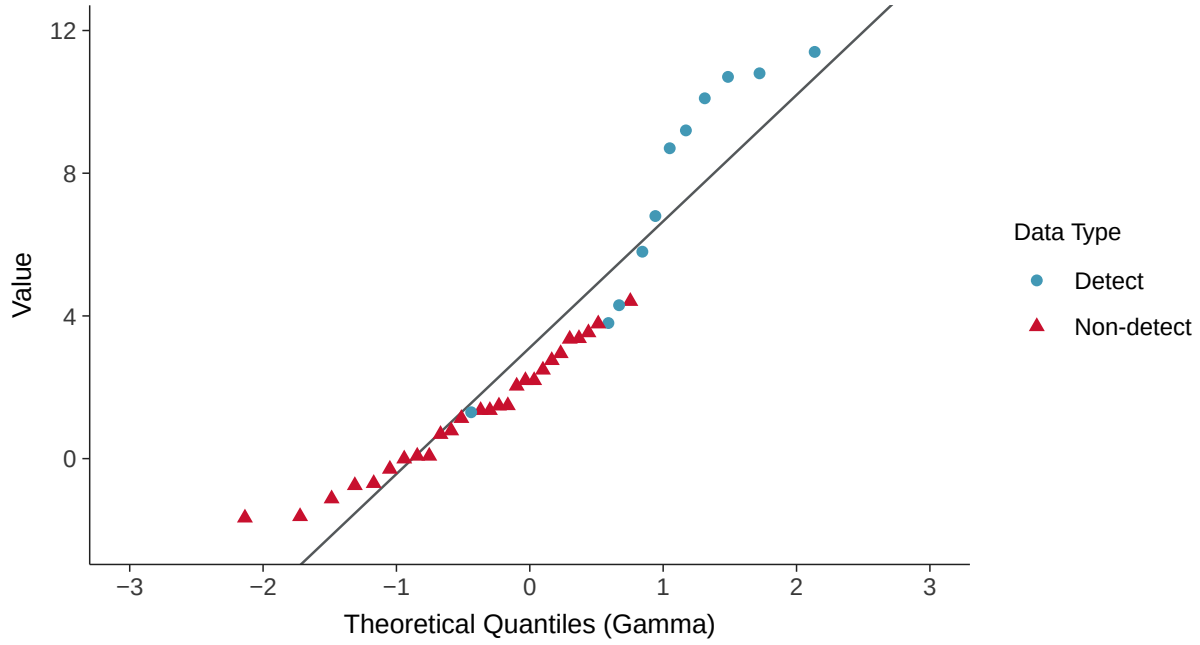
Lognormal Q-Q plot using ROS Imputed Estimates

Antimony, MW-3 (ug/L)



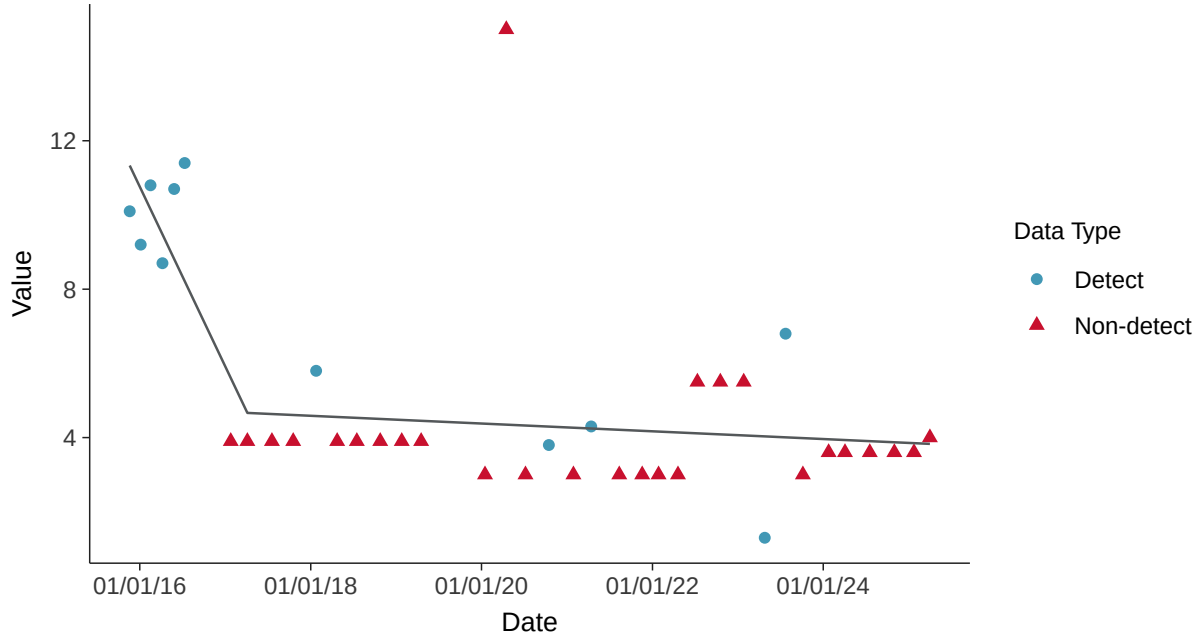
Gamma Q-Q plot using ROS Imputed Estimates

Antimony, MW-3 (ug/L)



Trend Regression: Piecewise Linear-Linear

Antimony, MW-3 (ug/L)

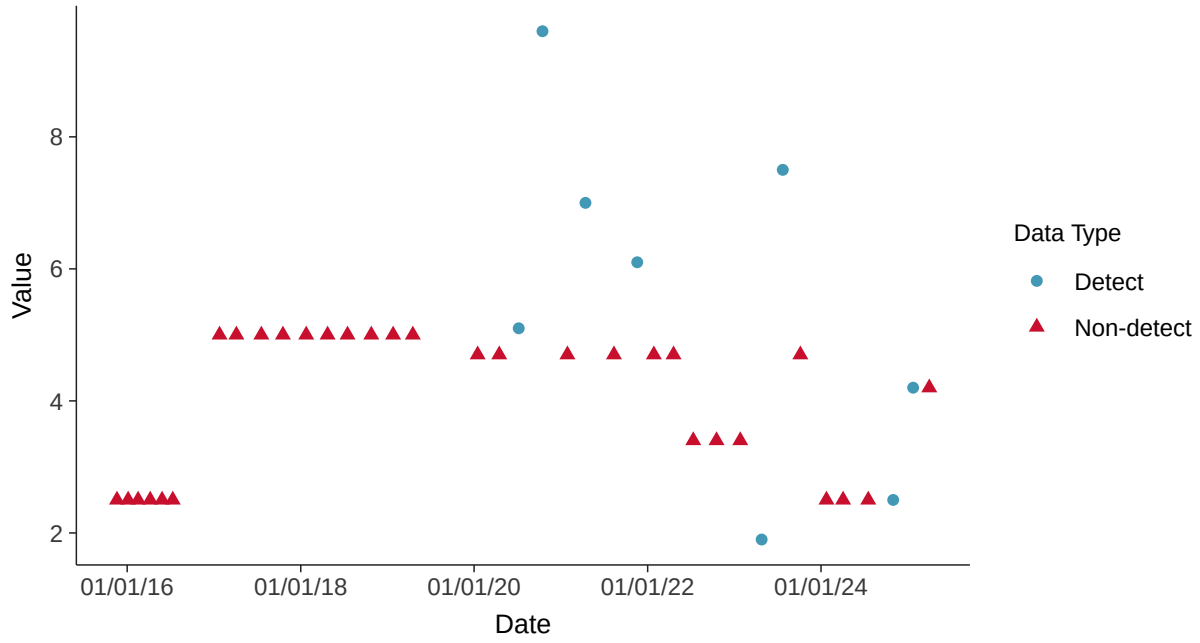


App. IV: Arsenic, MW-3

ID: 03_03_102

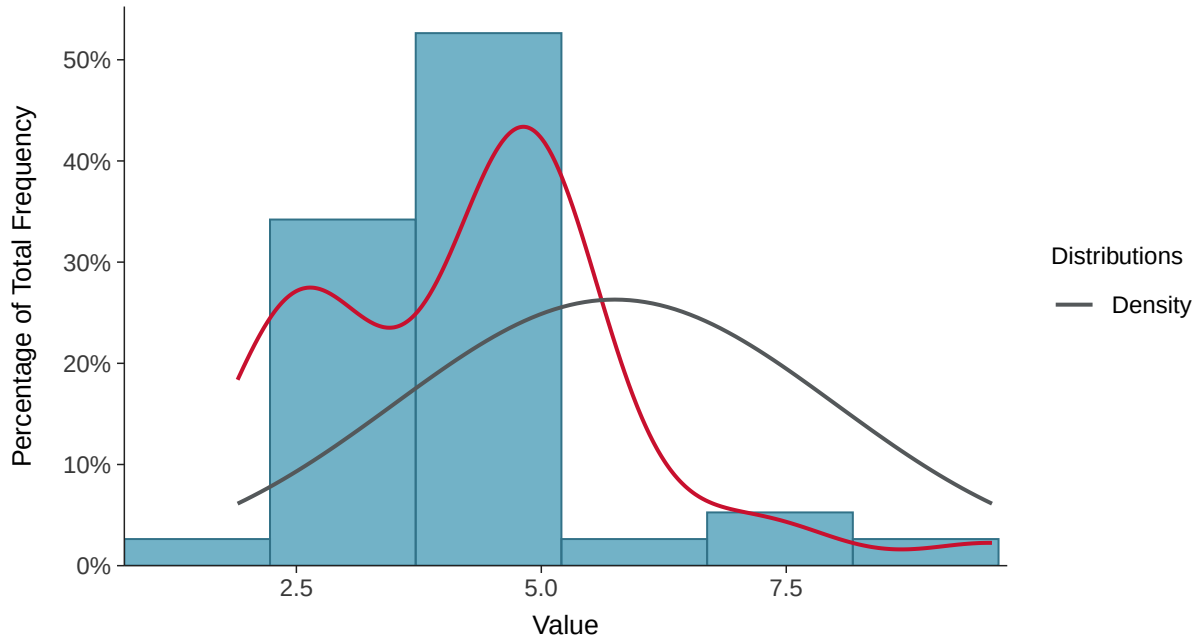
Scatter Plot

Arsenic, MW-3 (ug/L)



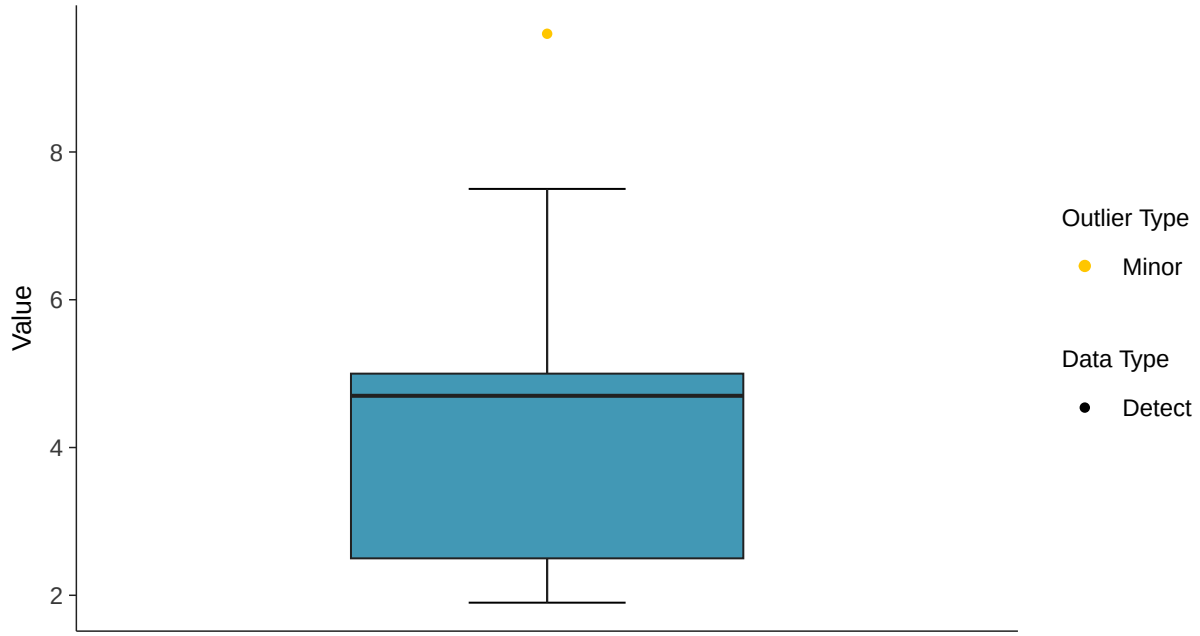
Histogram

Arsenic, MW-3 (ug/L)



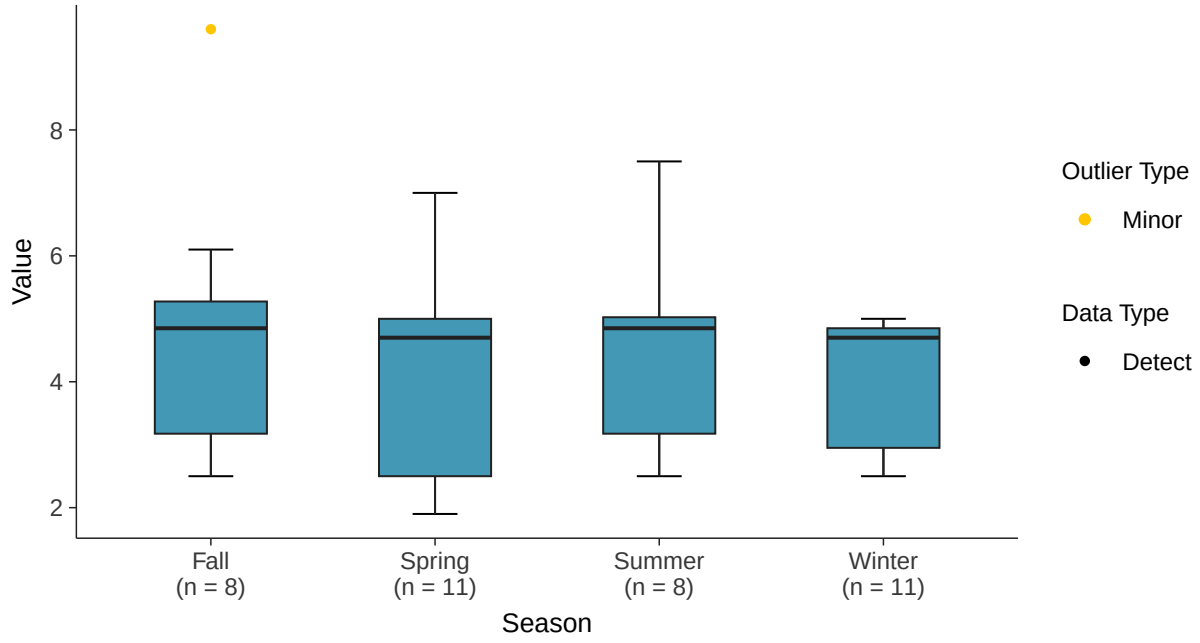
Boxplot

Arsenic, MW-3 (ug/L)



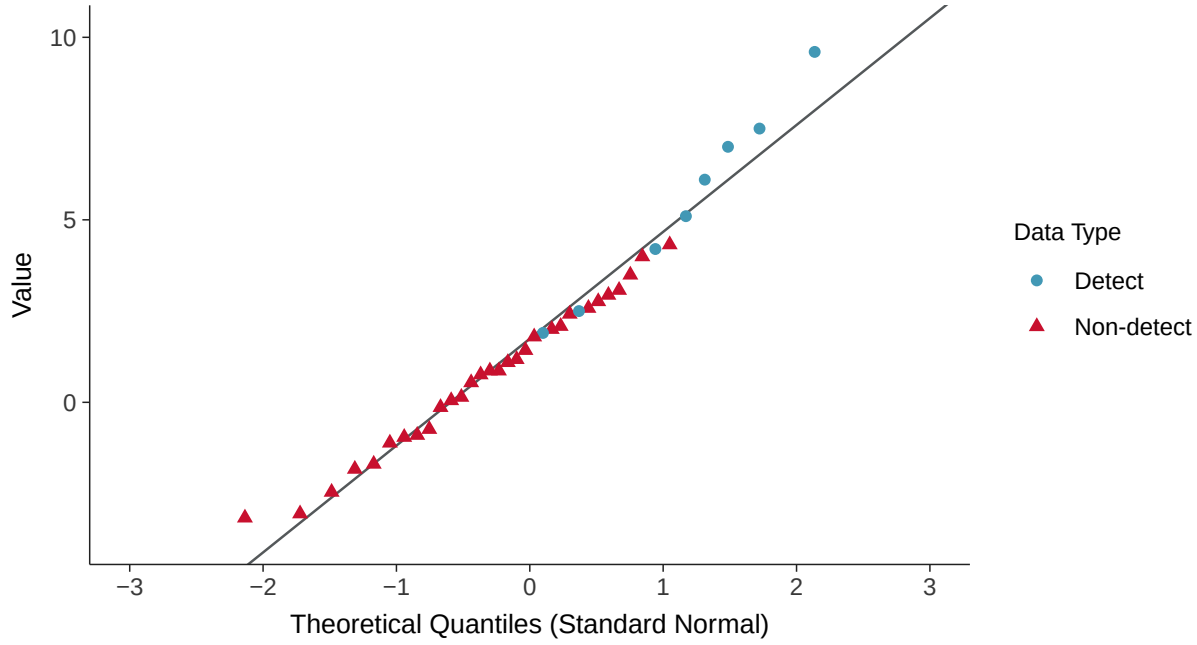
Boxplot by Season

Arsenic, MW-3 (ug/L)



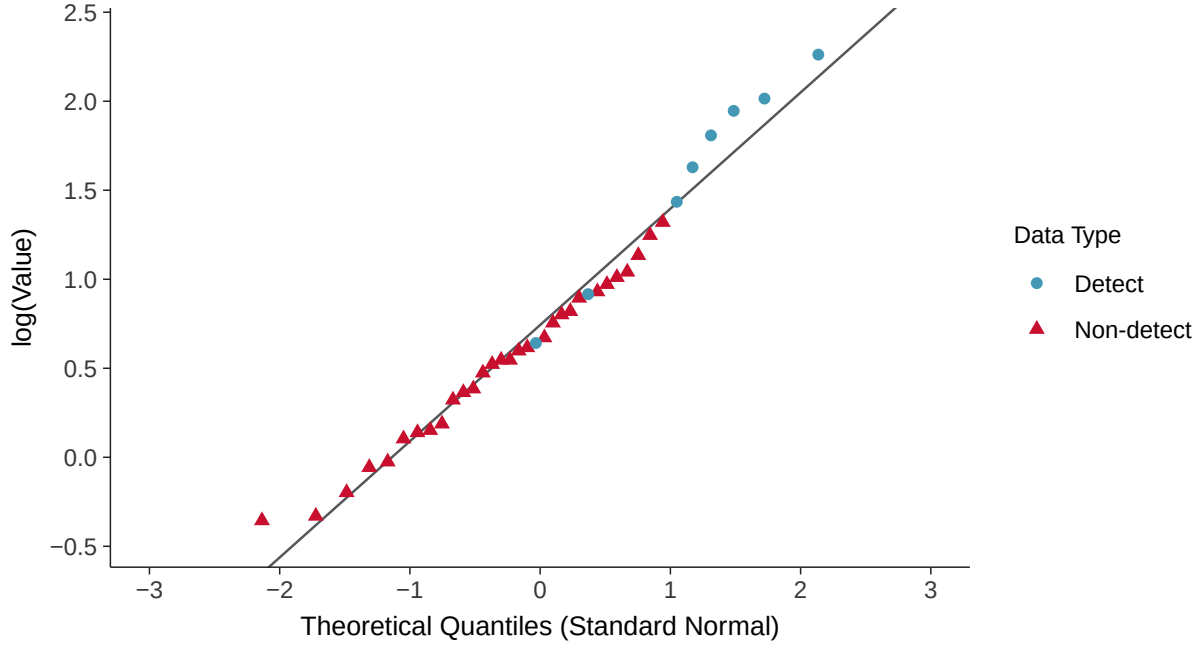
Normal Q-Q plot using ROS Imputed Estimates

Arsenic, MW-3 (ug/L)



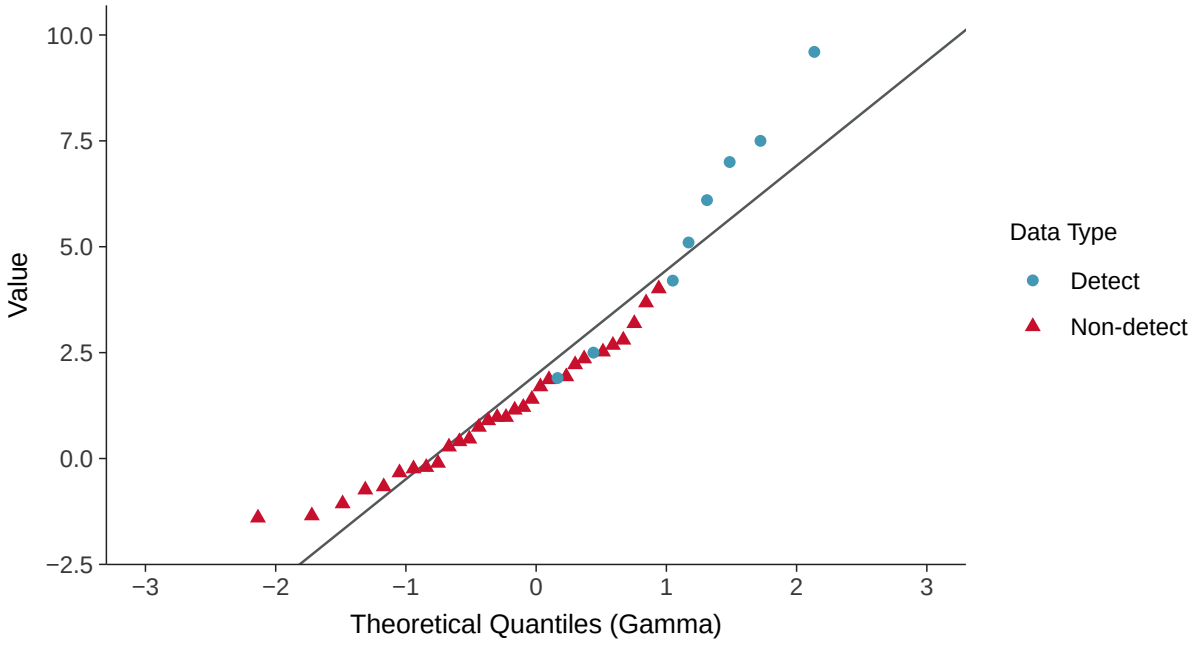
Lognormal Q-Q plot using ROS Imputed Estimates

Arsenic, MW-3 (ug/L)



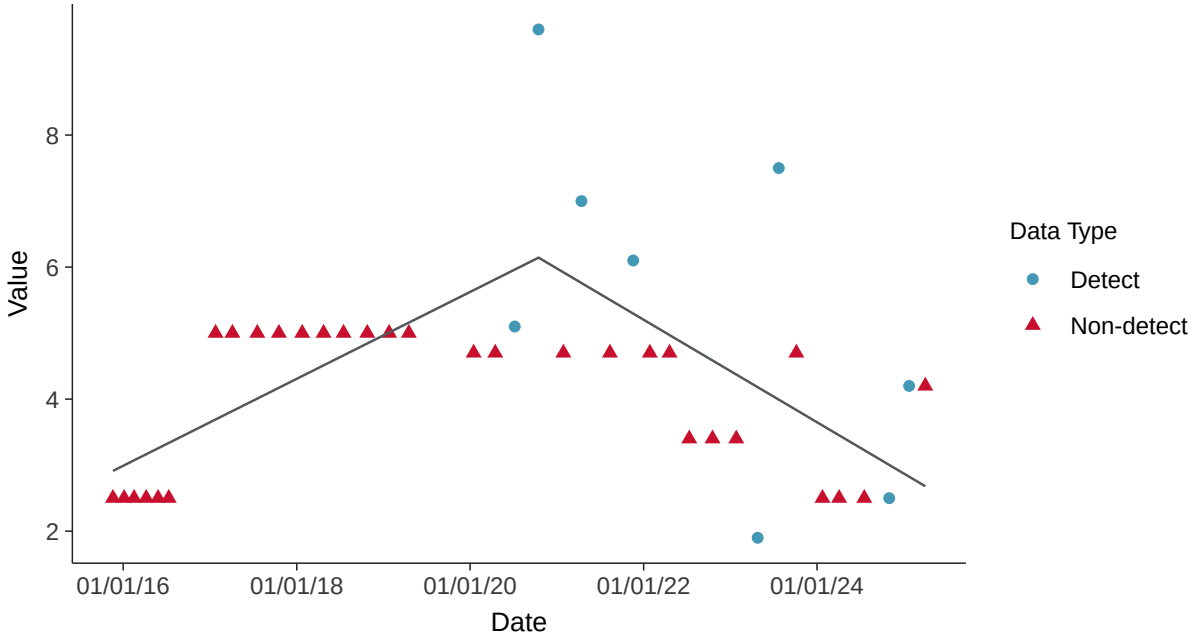
Gamma Q-Q plot using ROS Imputed Estimates

Arsenic, MW-3 (ug/L)



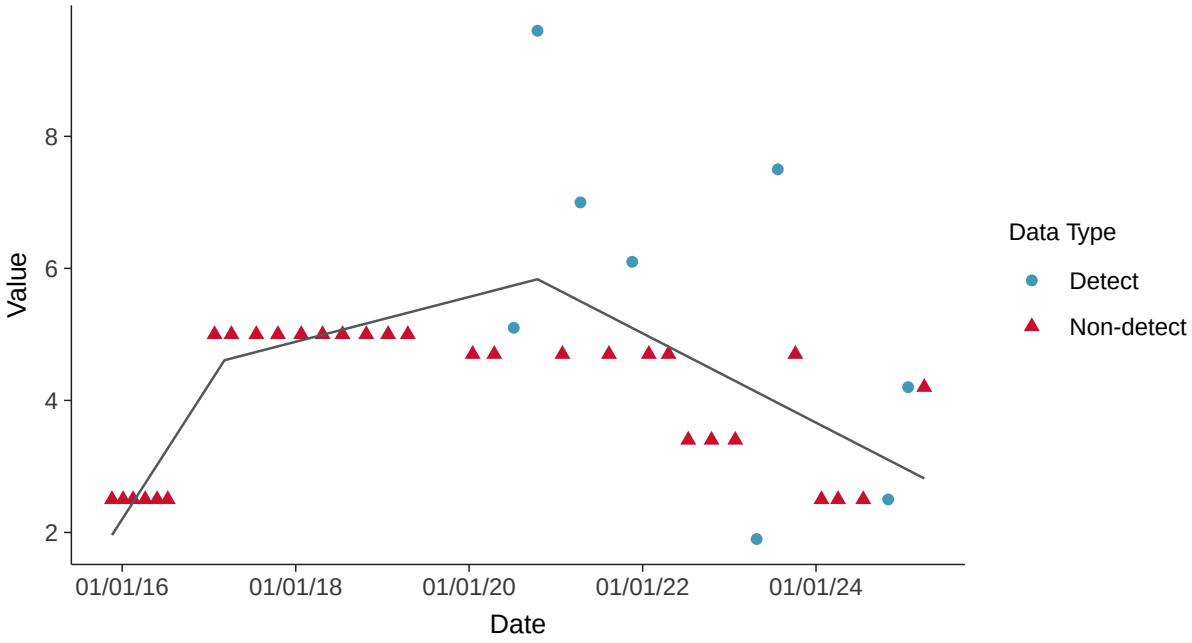
Trend Regression: Piecewise Linear-Linear

Arsenic, MW-3 (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Arsenic, MW-3 (ug/L)

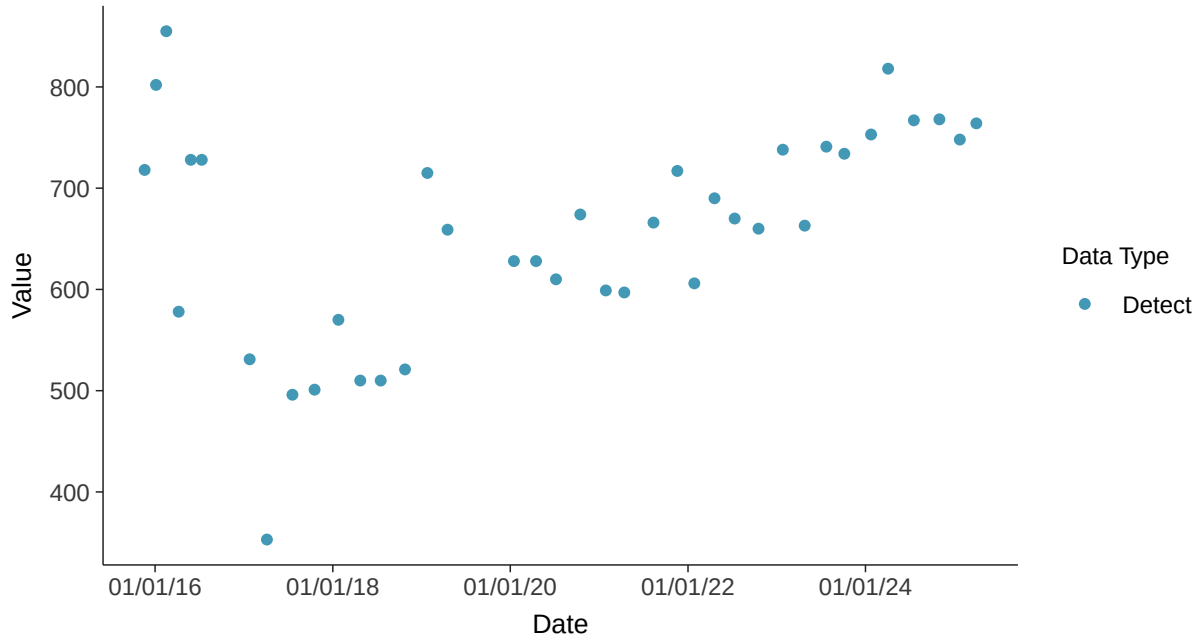


App. IV: Barium, MW-3

ID: 03_03_103

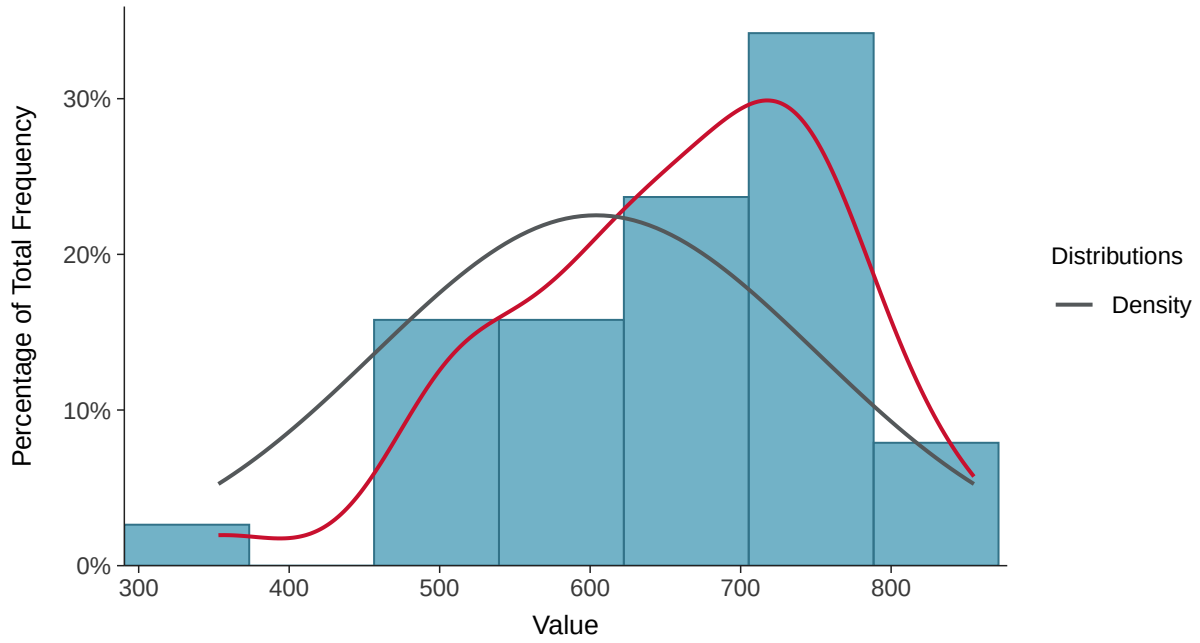
Scatter Plot

Barium, MW-3 (ug/L)



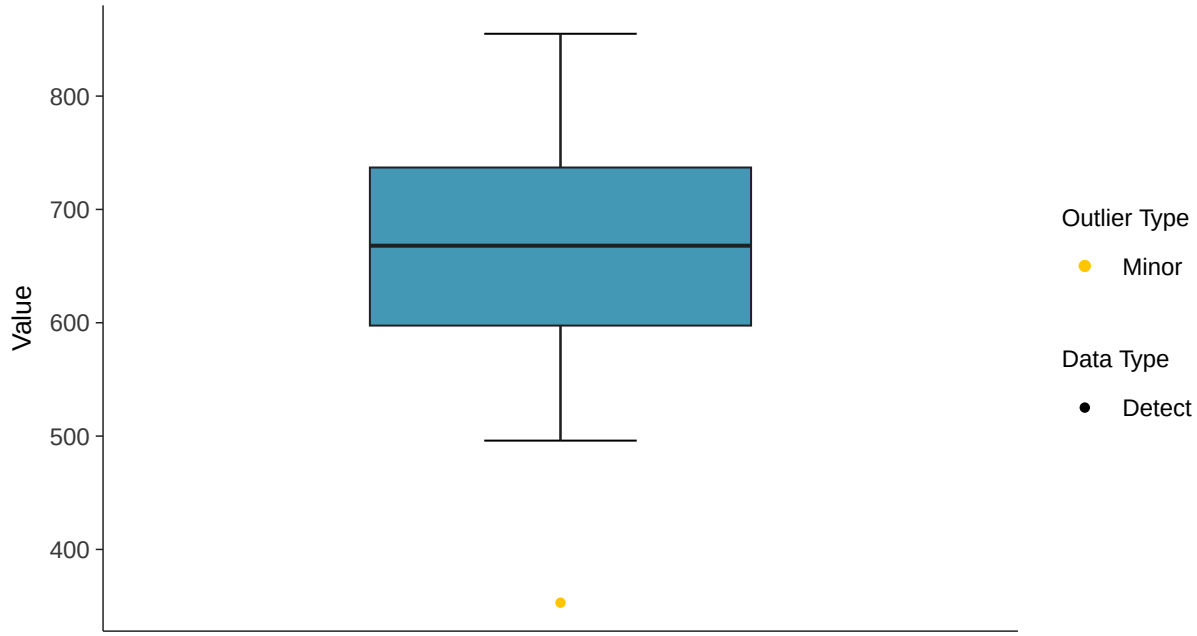
Histogram

Barium, MW-3 (ug/L)



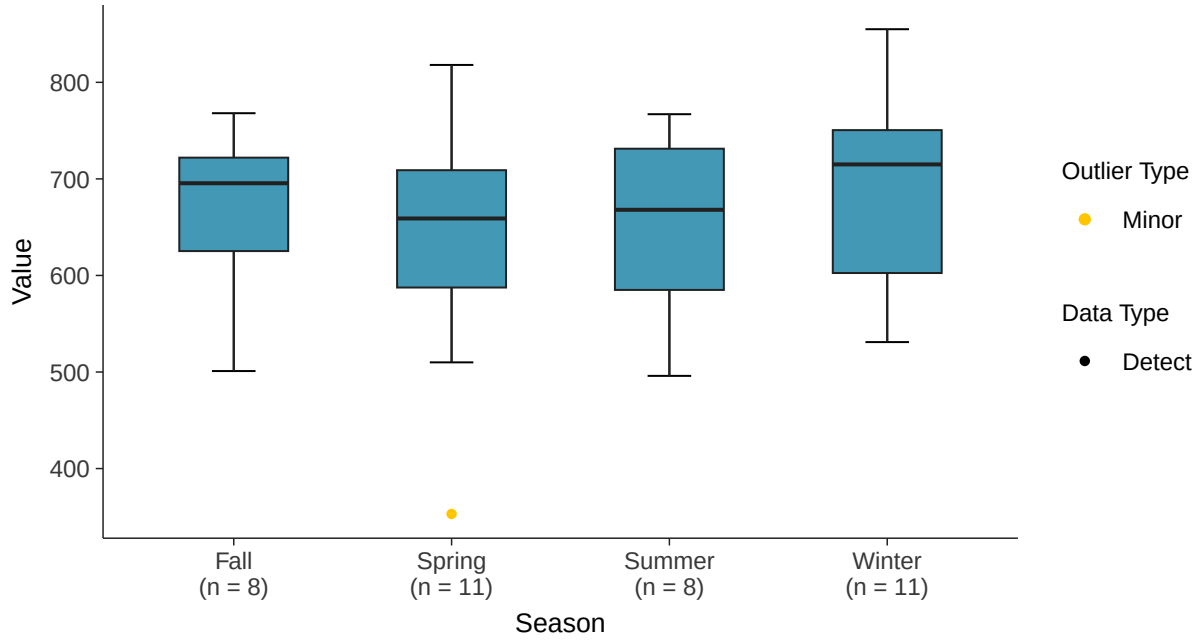
Boxplot

Barium, MW-3 (ug/L)



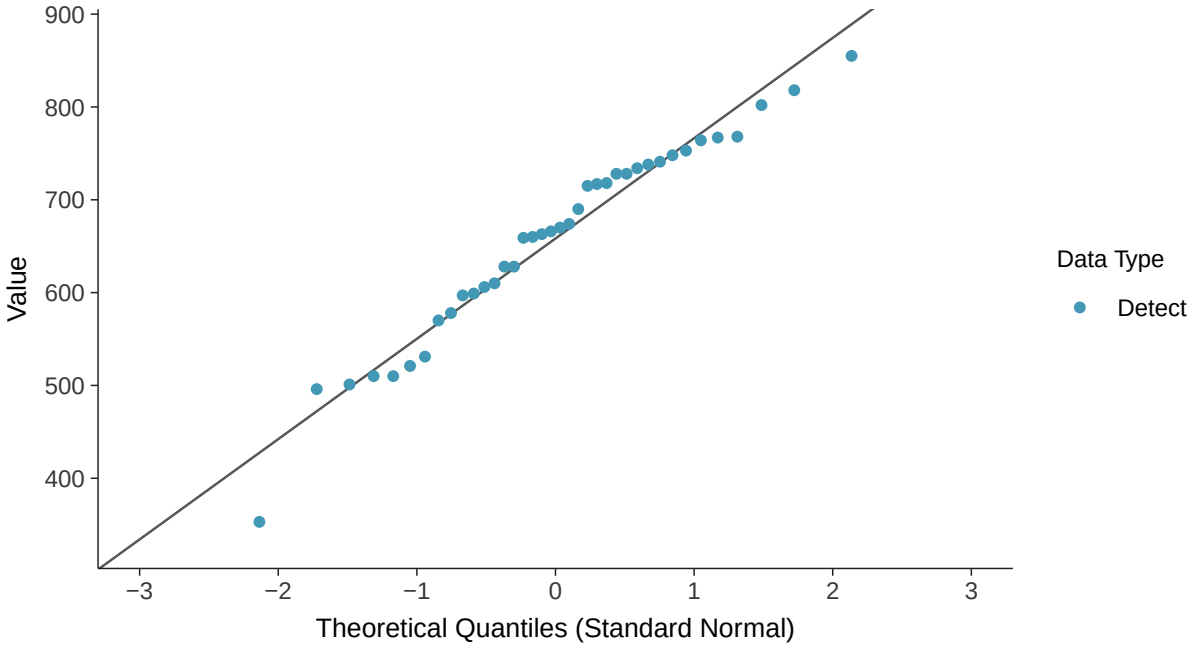
Boxplot by Season

Barium, MW-3 (ug/L)



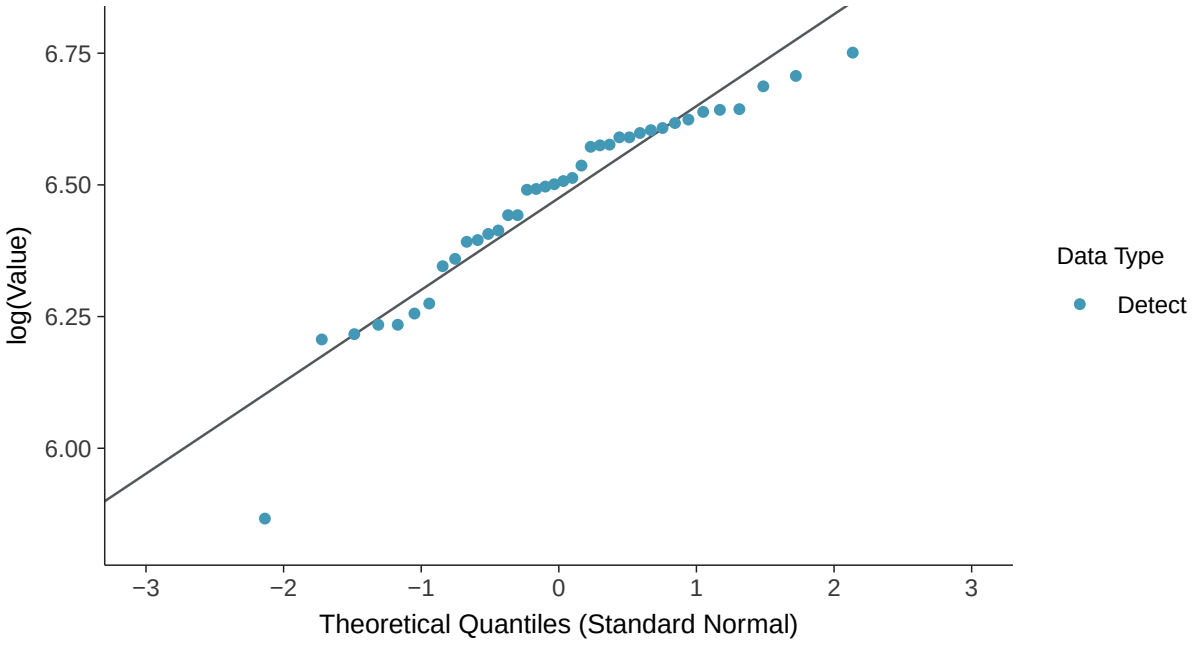
Normal Q-Q plot

Barium, MW-3 (ug/L)



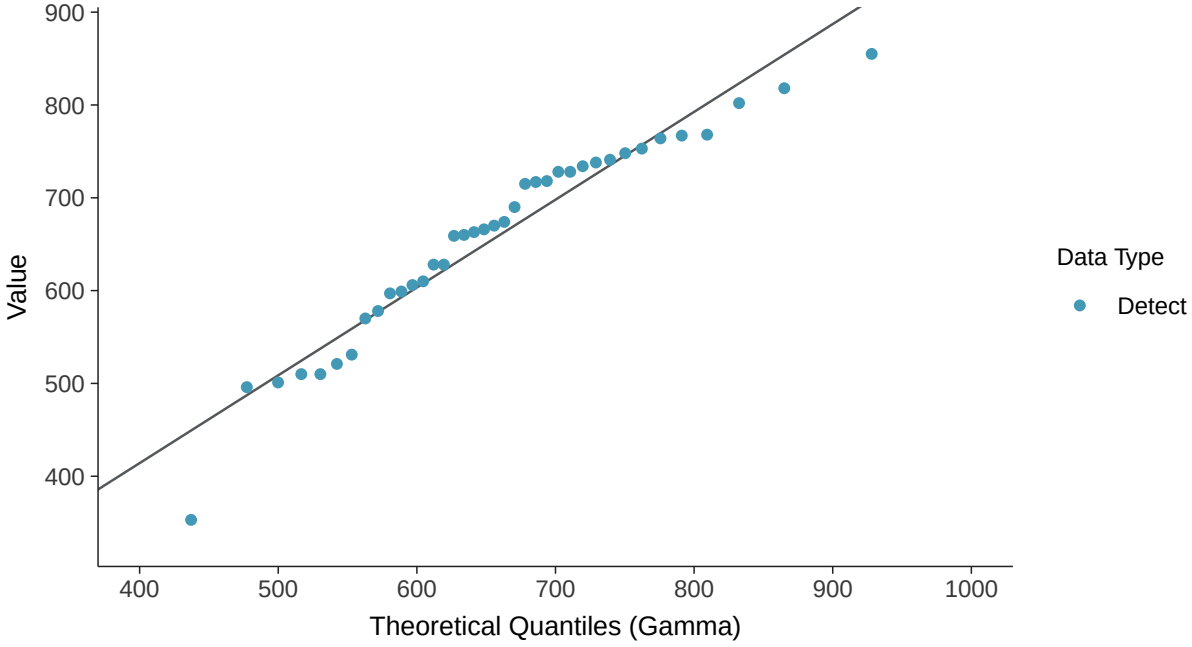
Lognormal Q-Q plot

Barium, MW-3 (ug/L)



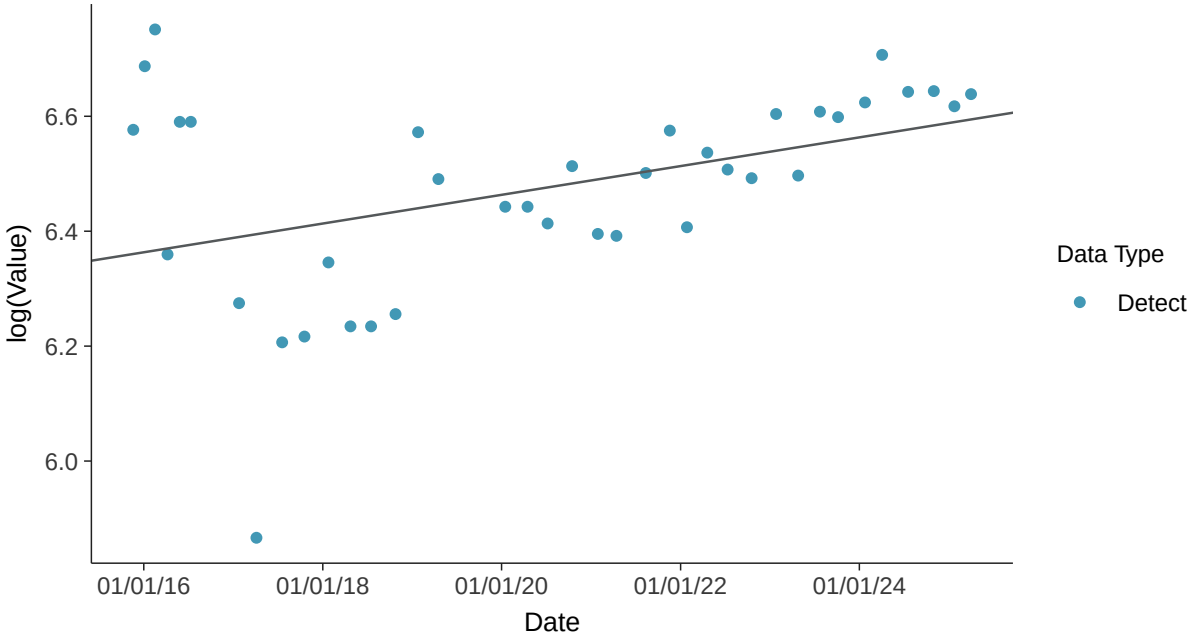
Gamma Q-Q plot

Barium, MW-3 (ug/L)



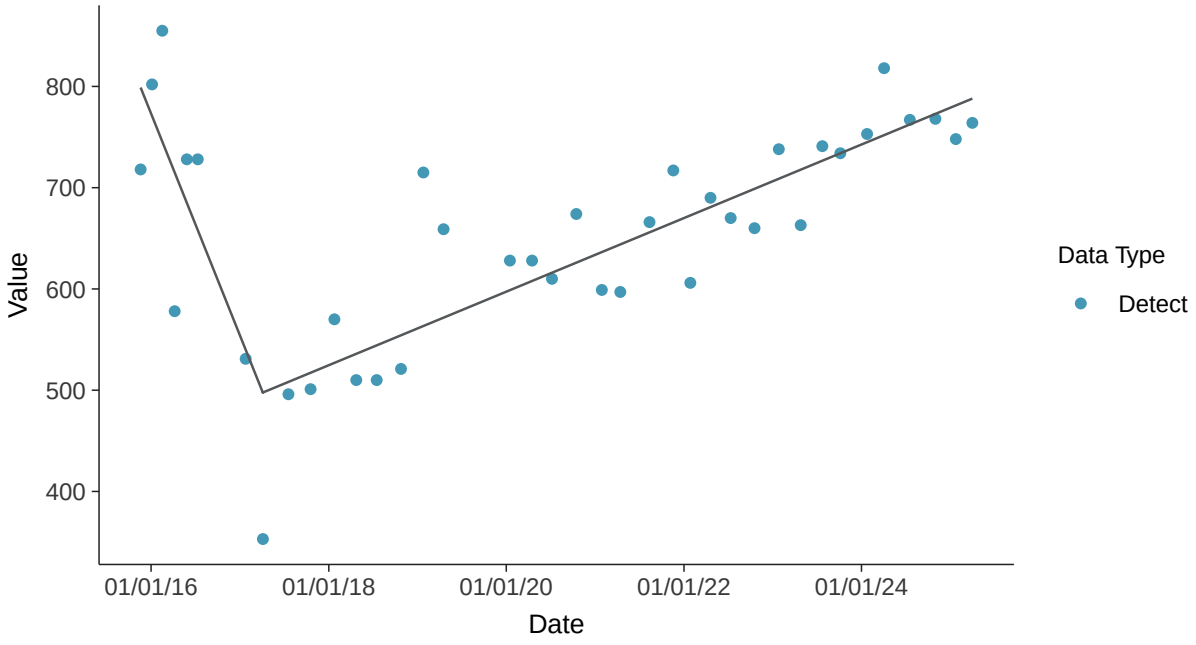
Trend Regression: Lognormal MLE

Barium, MW-3 (ug/L)



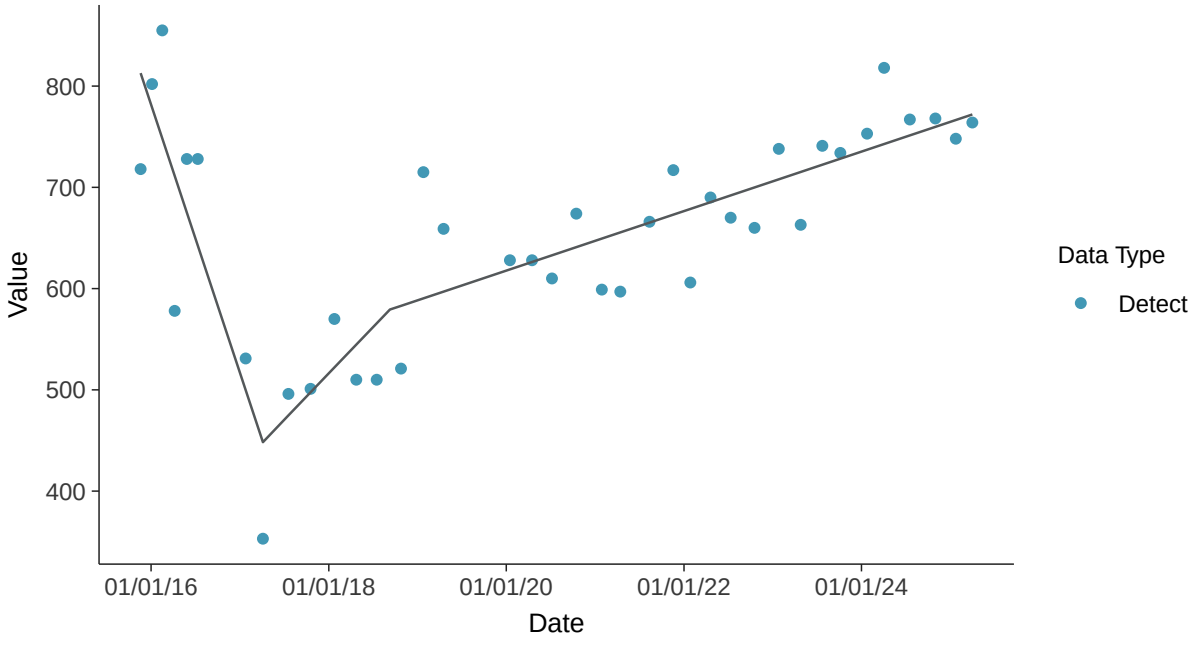
Trend Regression: Piecewise Linear-Linear

Barium, MW-3 (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Barium, MW-3 (ug/L)

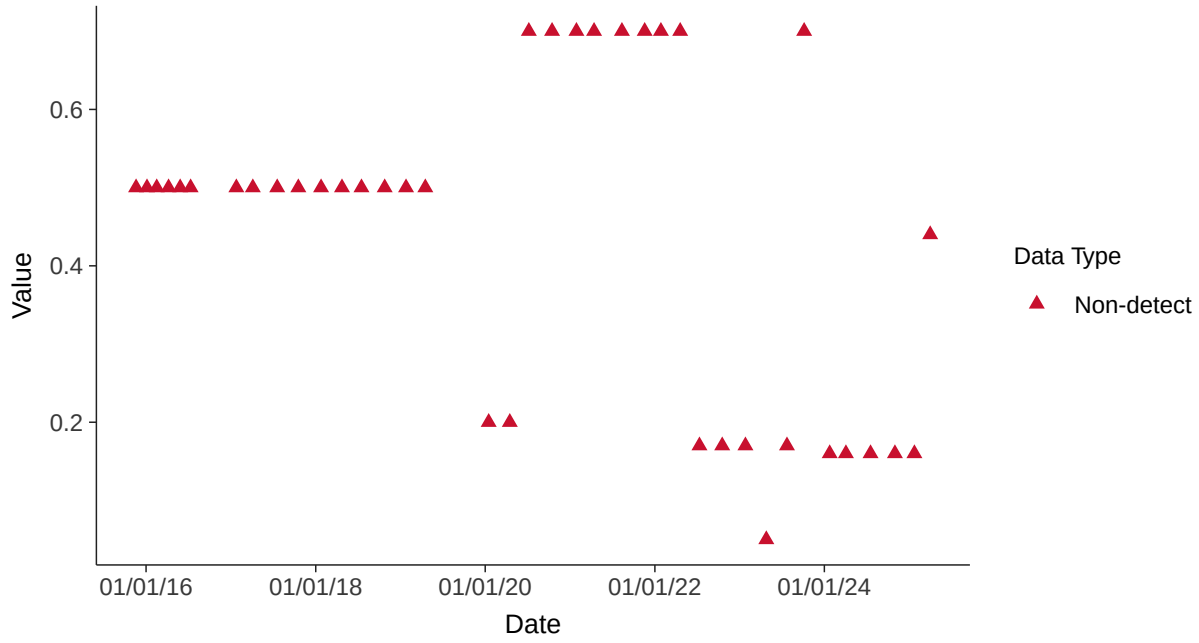


App. IV: Beryllium, MW-3

ID: 03_03_104

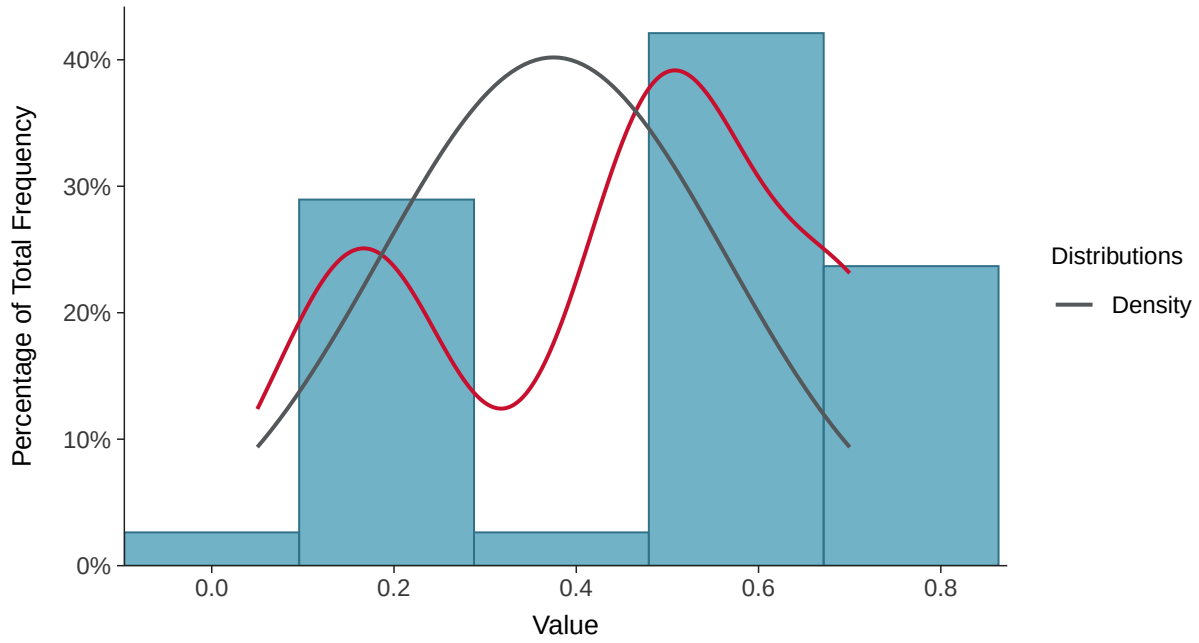
Scatter Plot

Beryllium, MW-3 (ug/L)



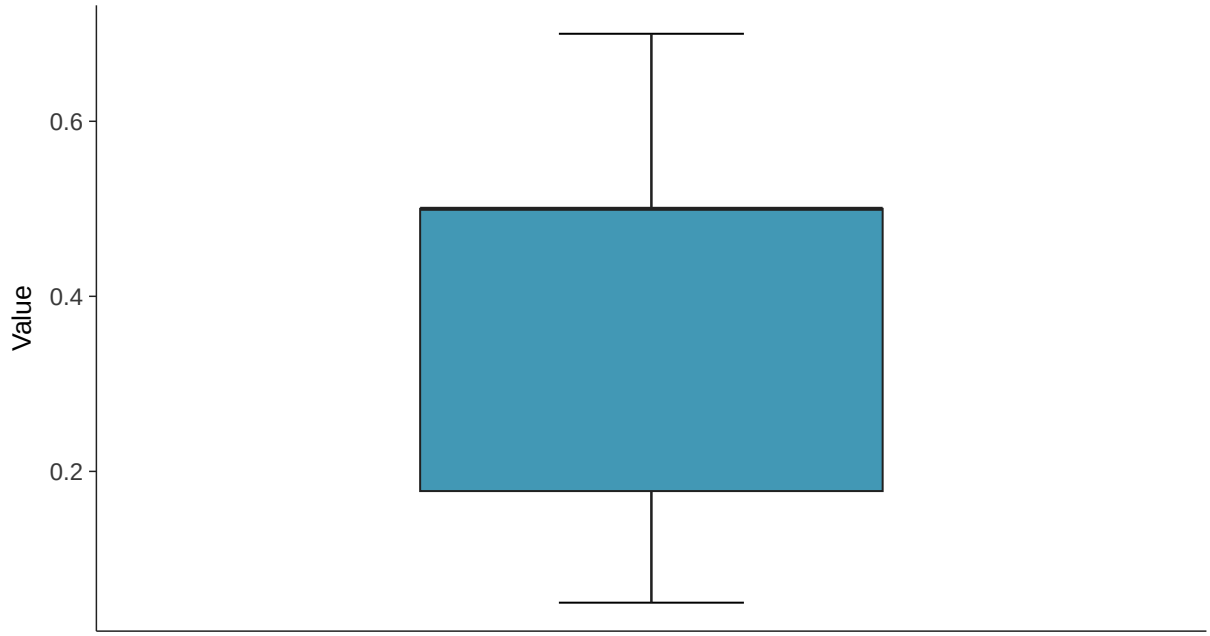
Histogram

Beryllium, MW-3 (ug/L)



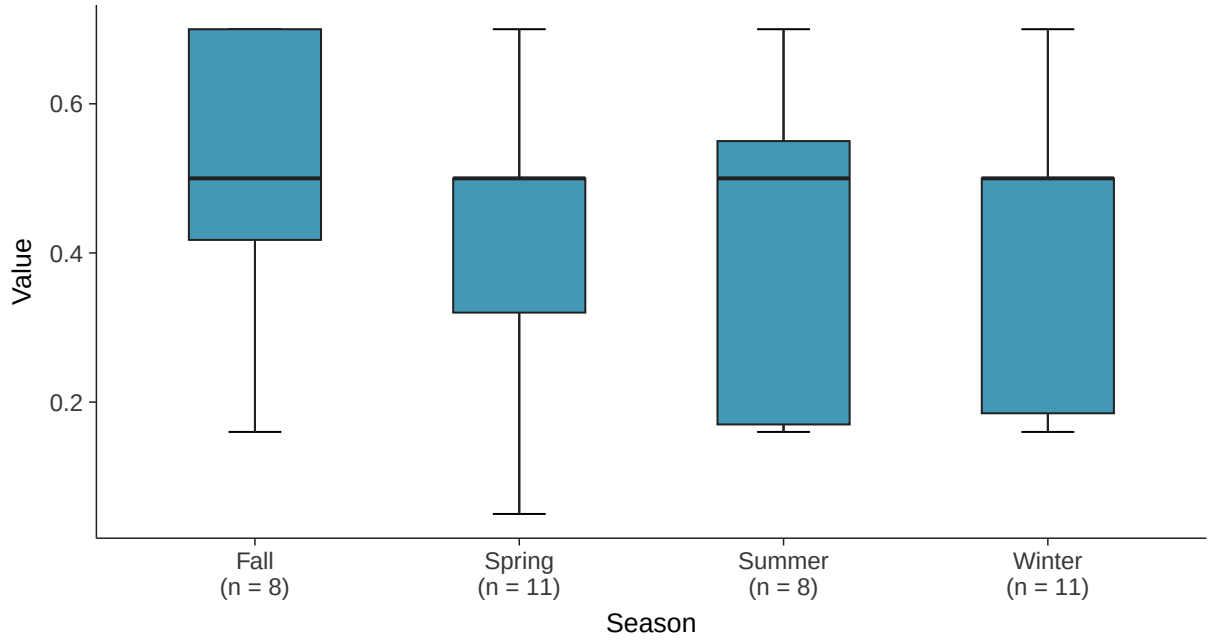
Boxplot

Beryllium, MW-3 (ug/L)



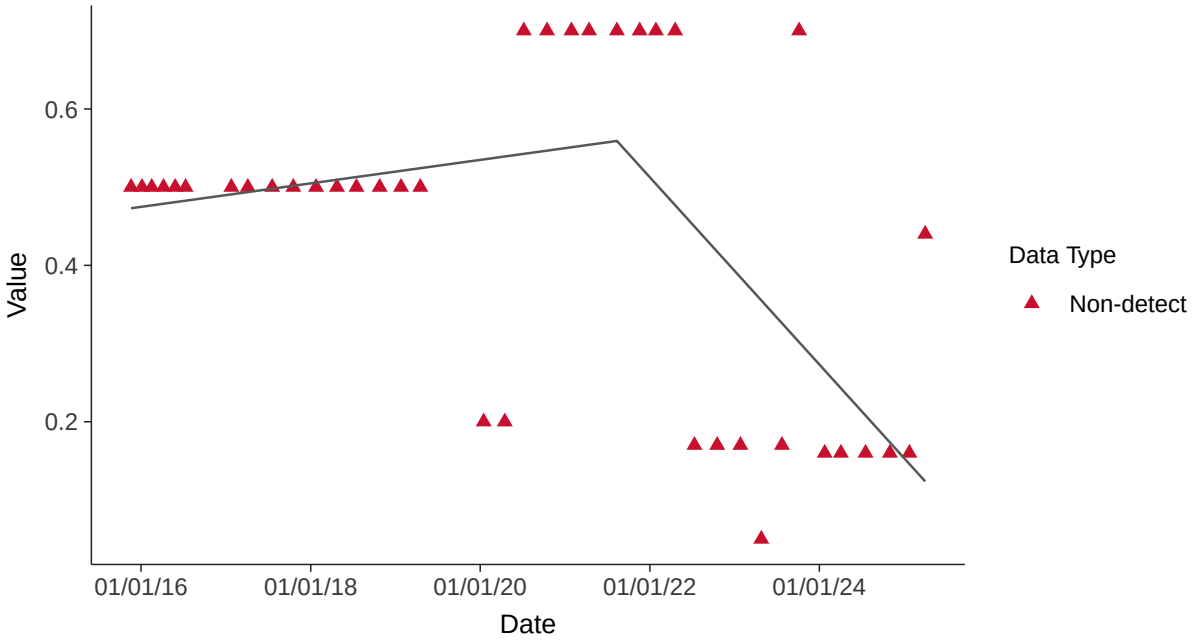
Boxplot by Season

Beryllium, MW-3 (ug/L)



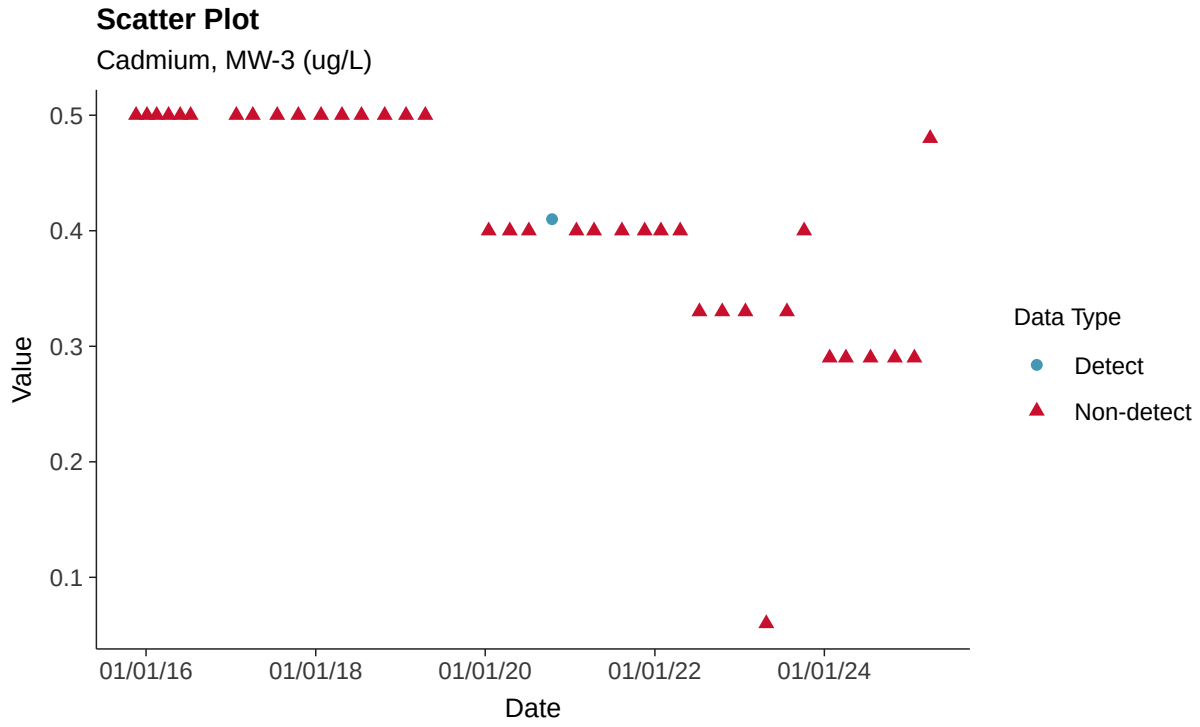
Trend Regression: Piecewise Linear-Linear

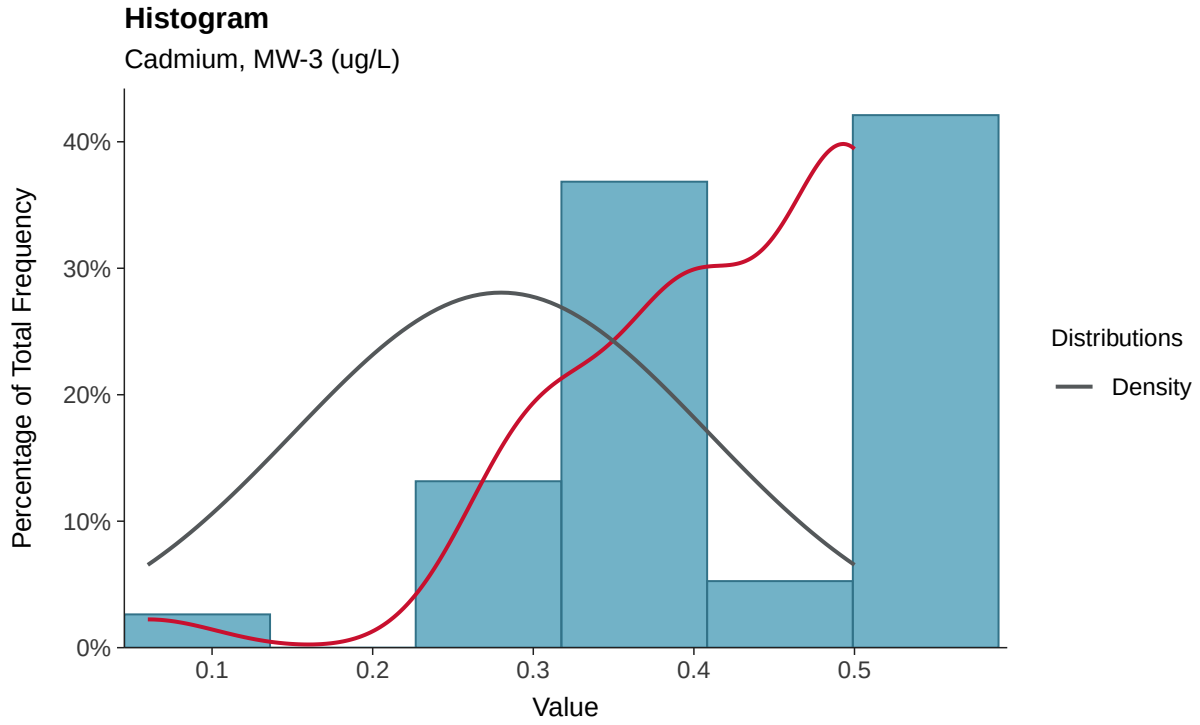
Beryllium, MW-3 (ug/L)



App. IV: Cadmium, MW-3

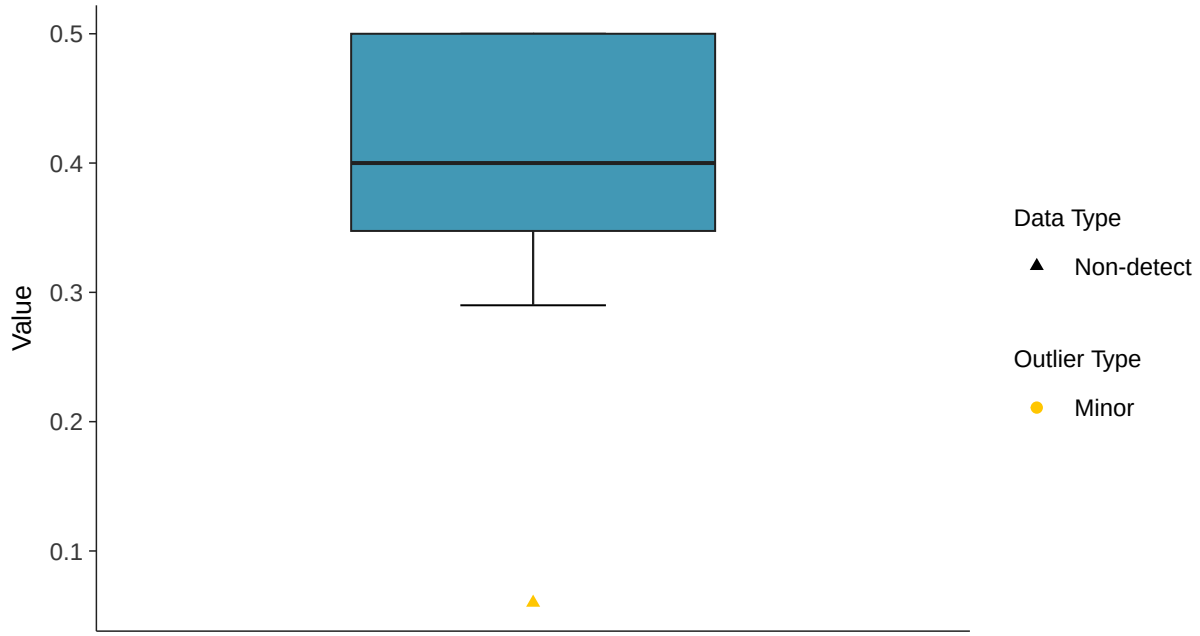
ID: 03_03_106





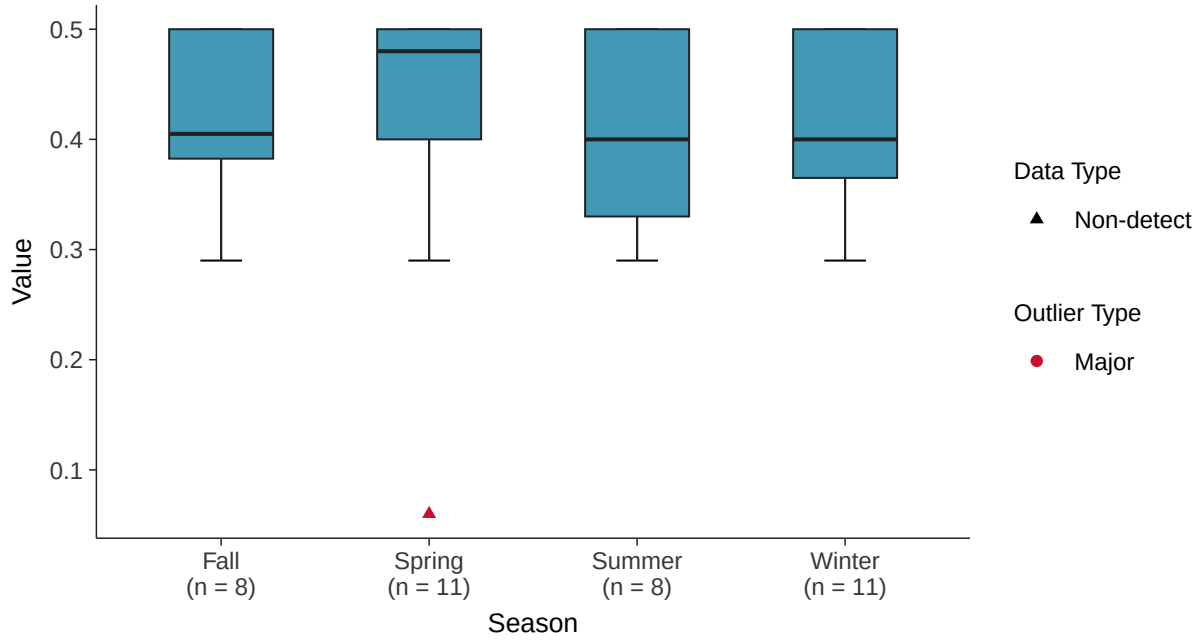
Boxplot

Cadmium, MW-3 (ug/L)



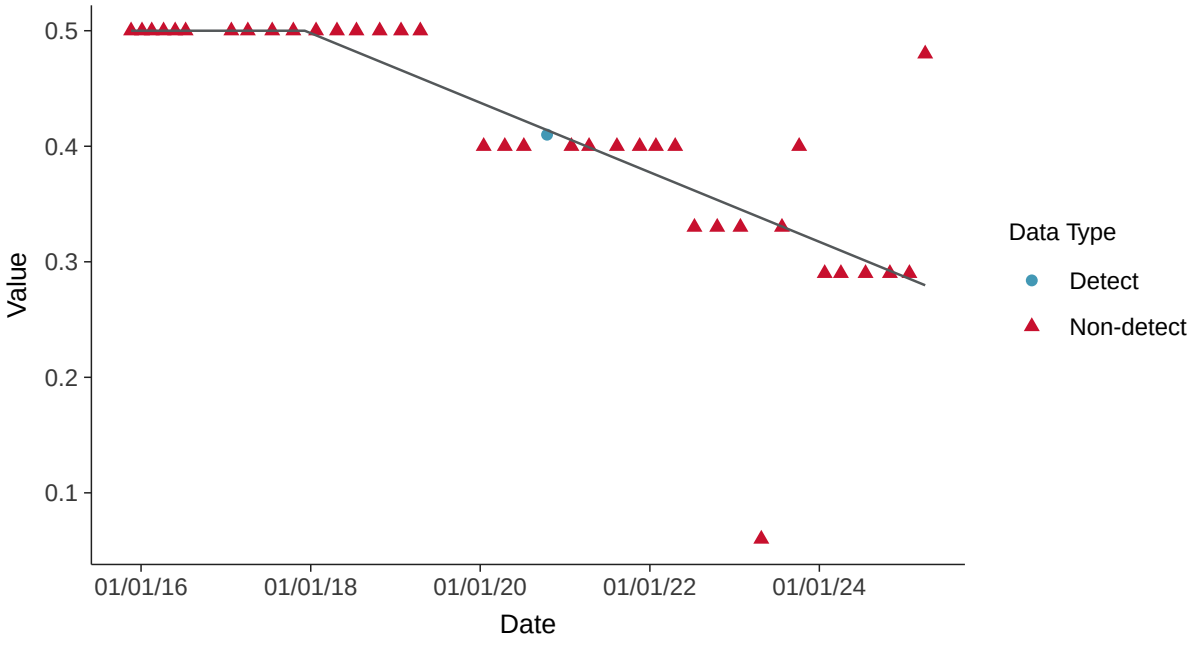
Boxplot by Season

Cadmium, MW-3 (ug/L)



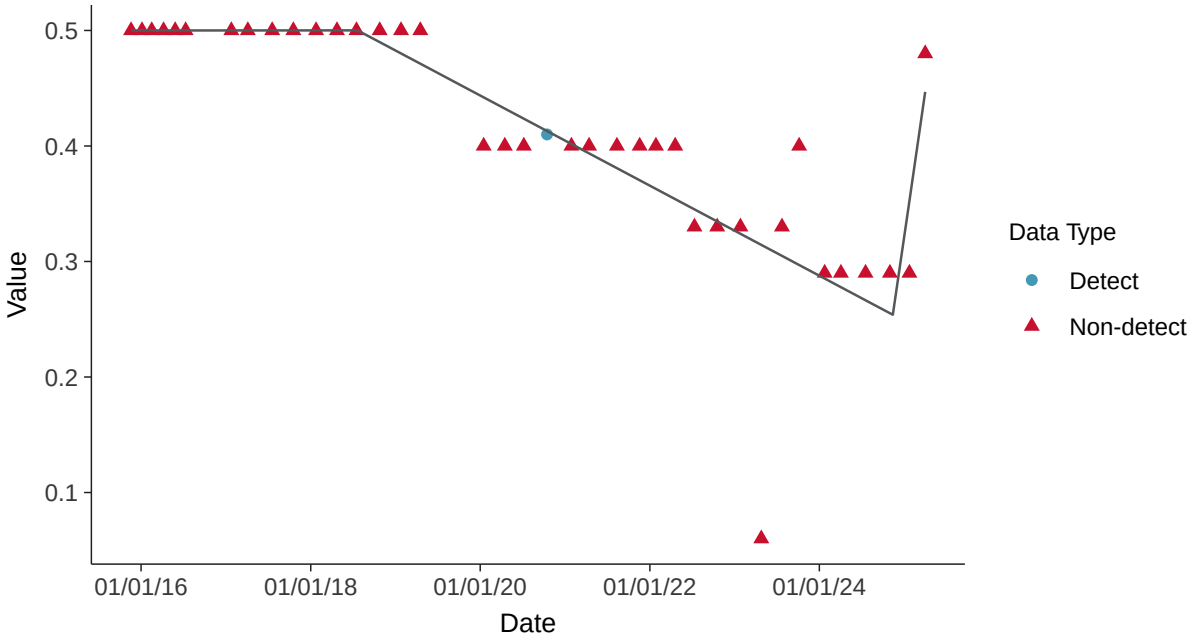
Trend Regression: Piecewise Linear-Linear

Cadmium, MW-3 (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Cadmium, MW-3 (ug/L)

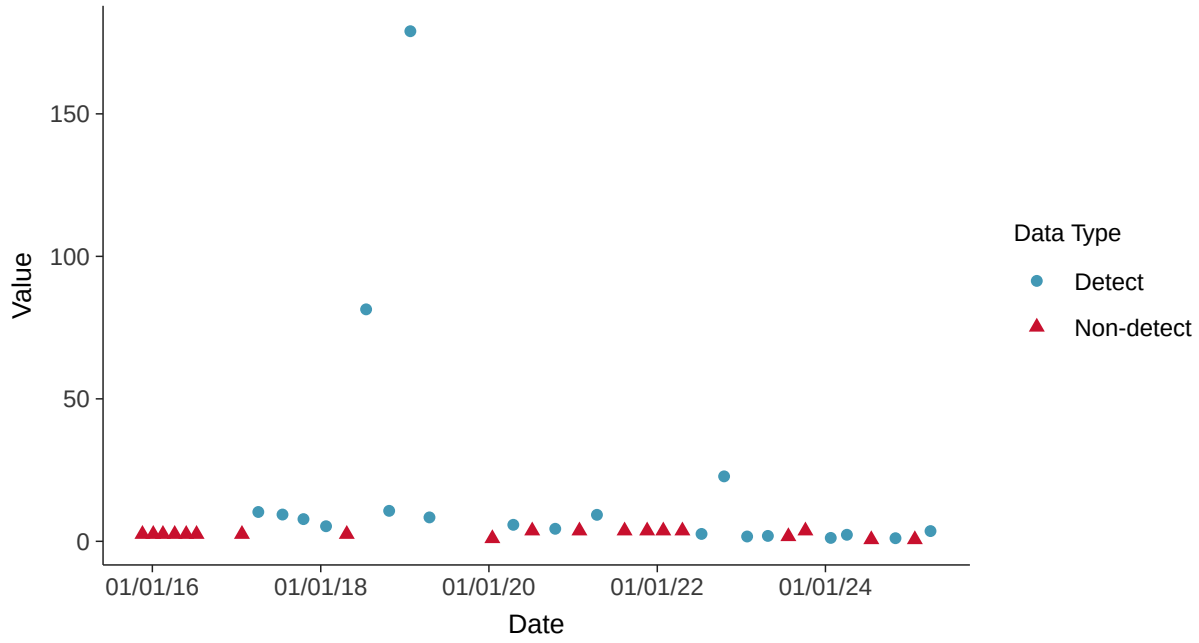


App. IV: Chromium, MW-3

ID: 03_03_109

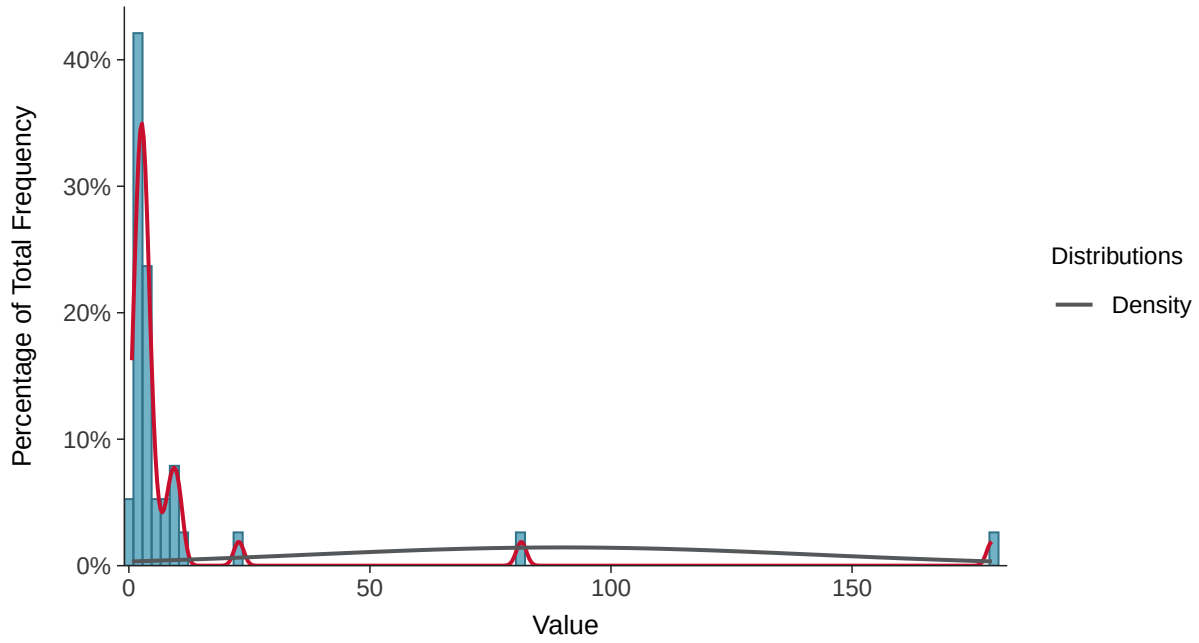
Scatter Plot

Chromium, MW-3 (ug/L)



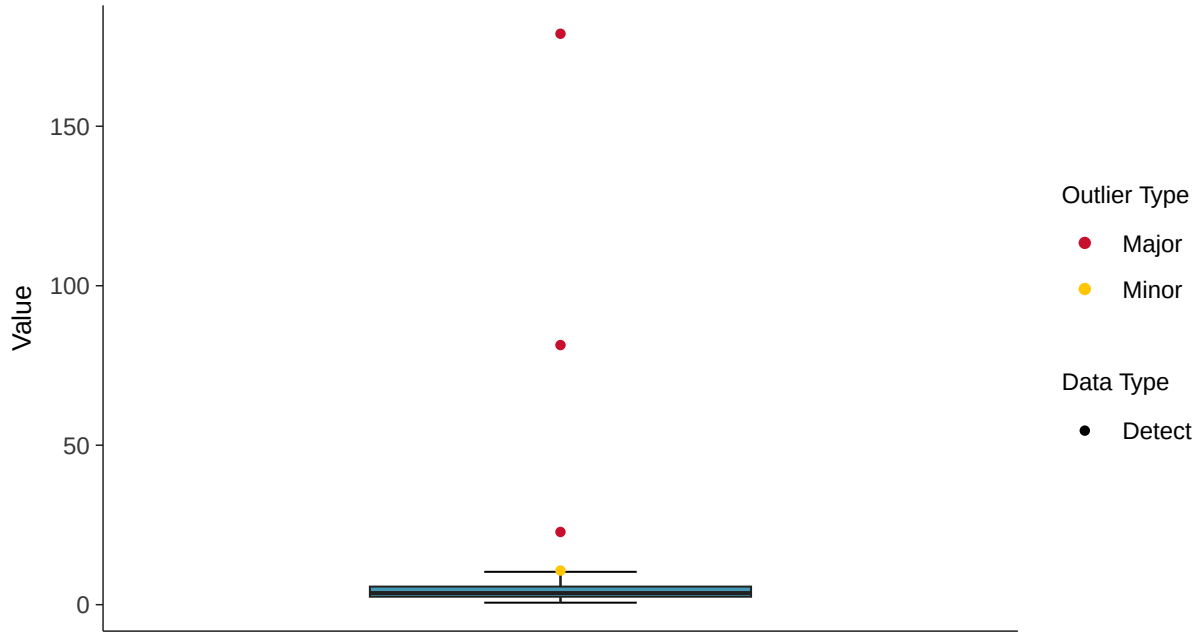
Histogram

Chromium, MW-3 (ug/L)



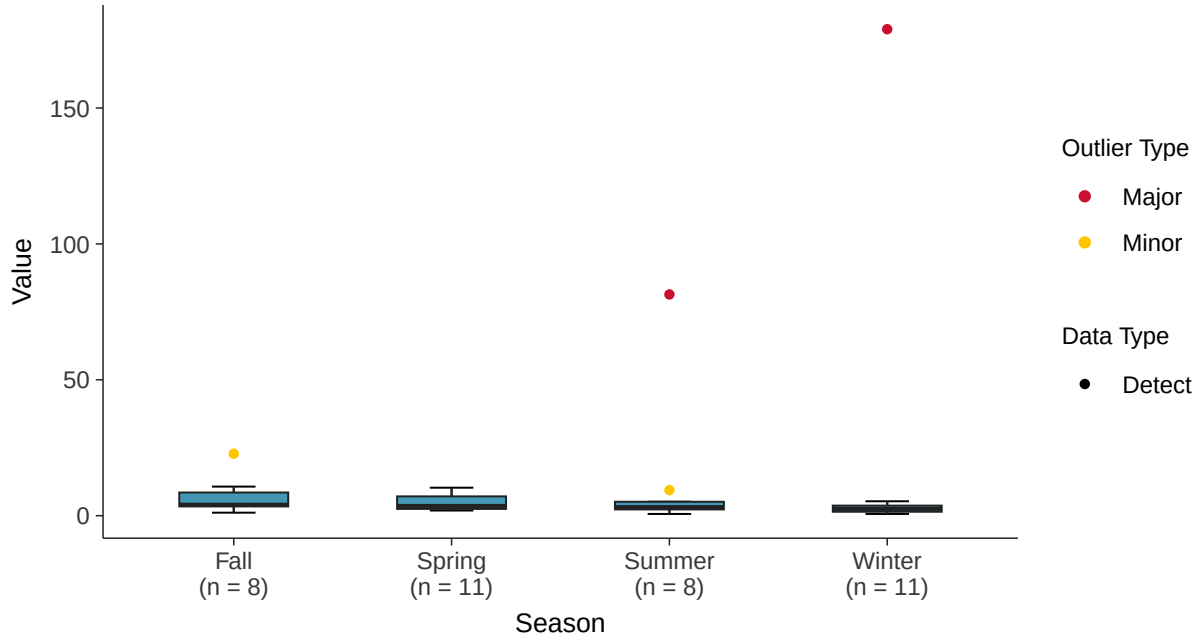
Boxplot

Chromium, MW-3 (ug/L)



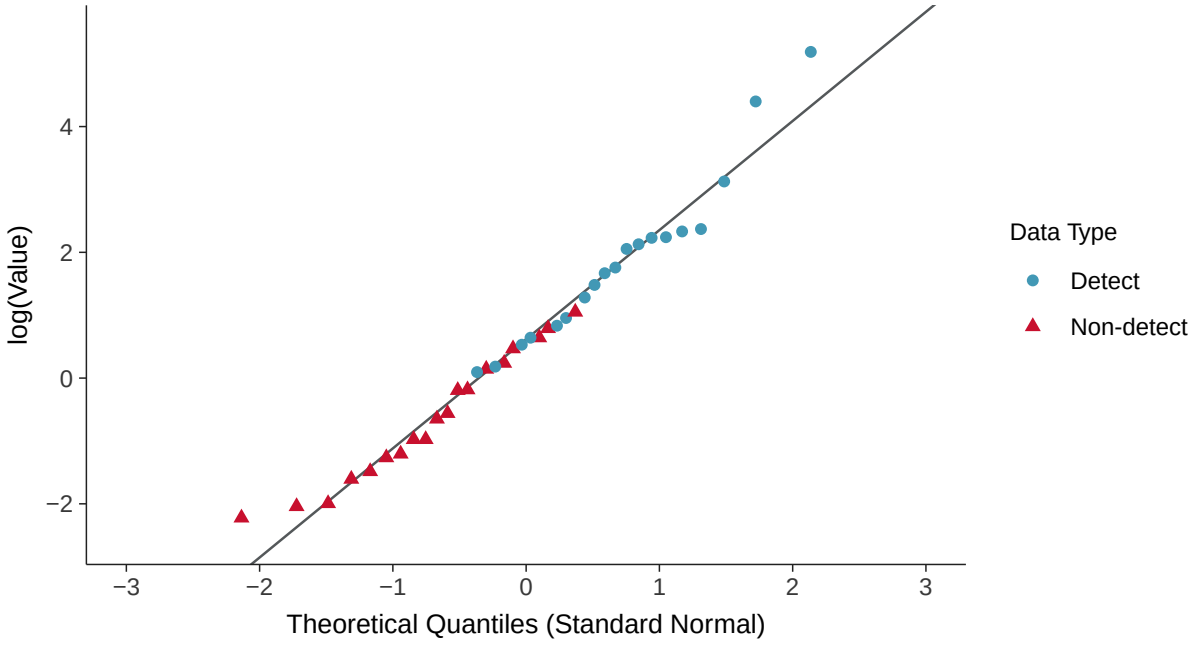
Boxplot by Season

Chromium, MW-3 (ug/L)



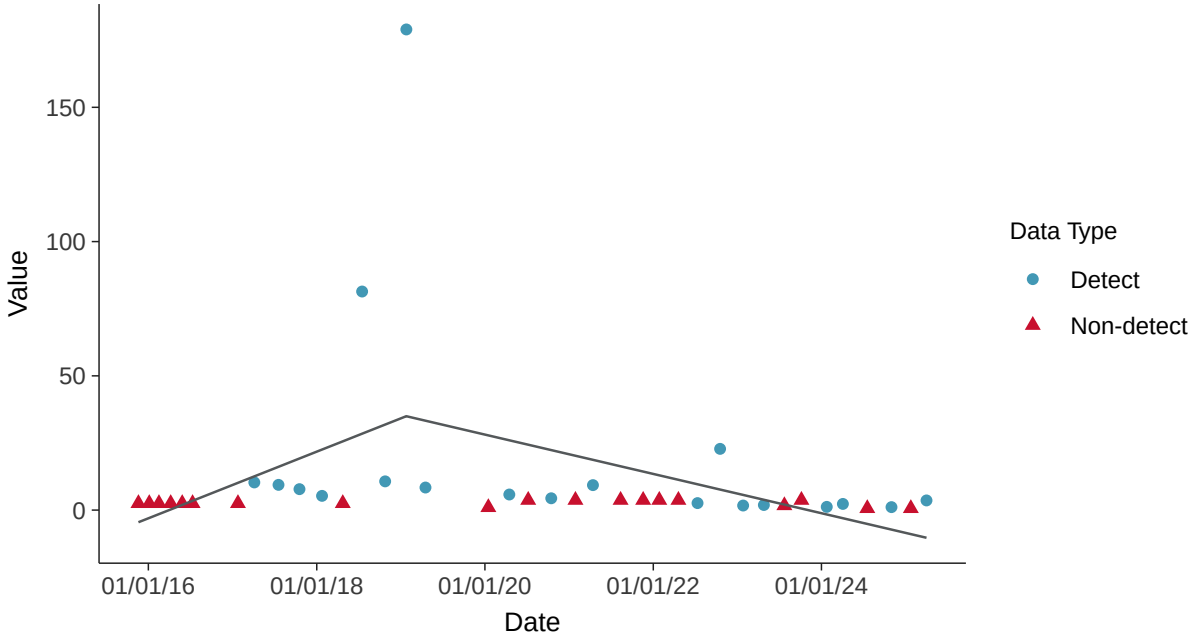
Lognormal Q-Q plot using ROS Imputed Estimates

Chromium, MW-3 (ug/L)



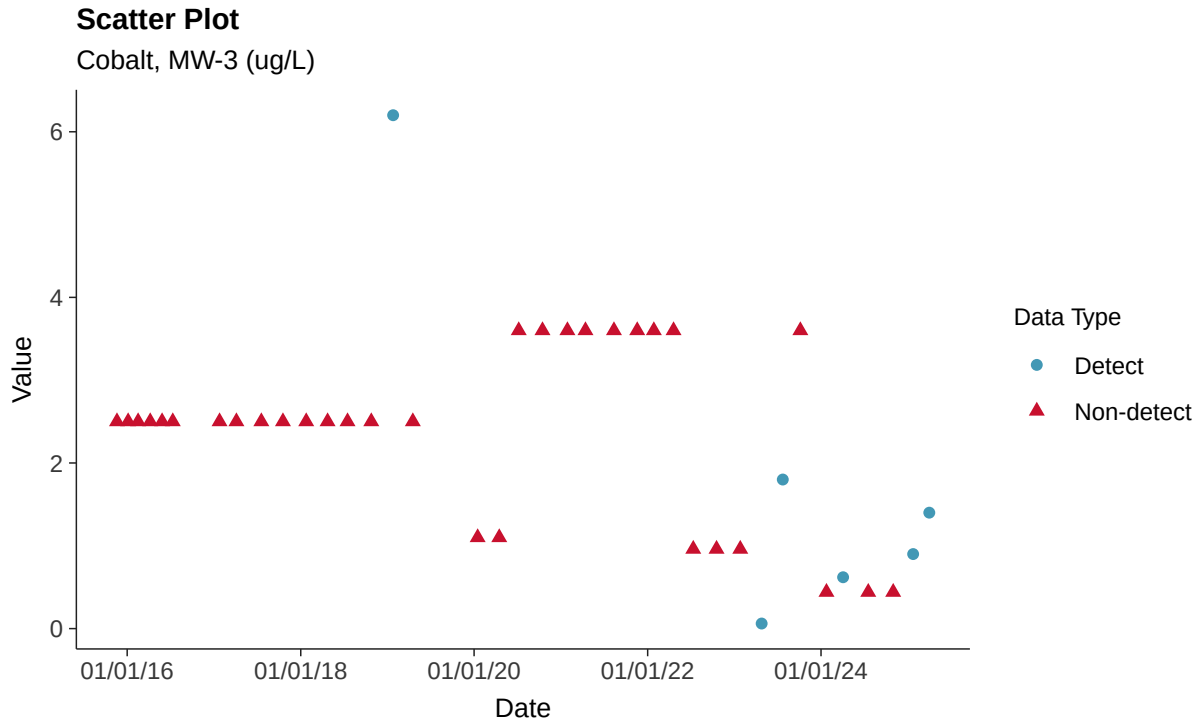
Trend Regression: Piecewise Linear-Linear

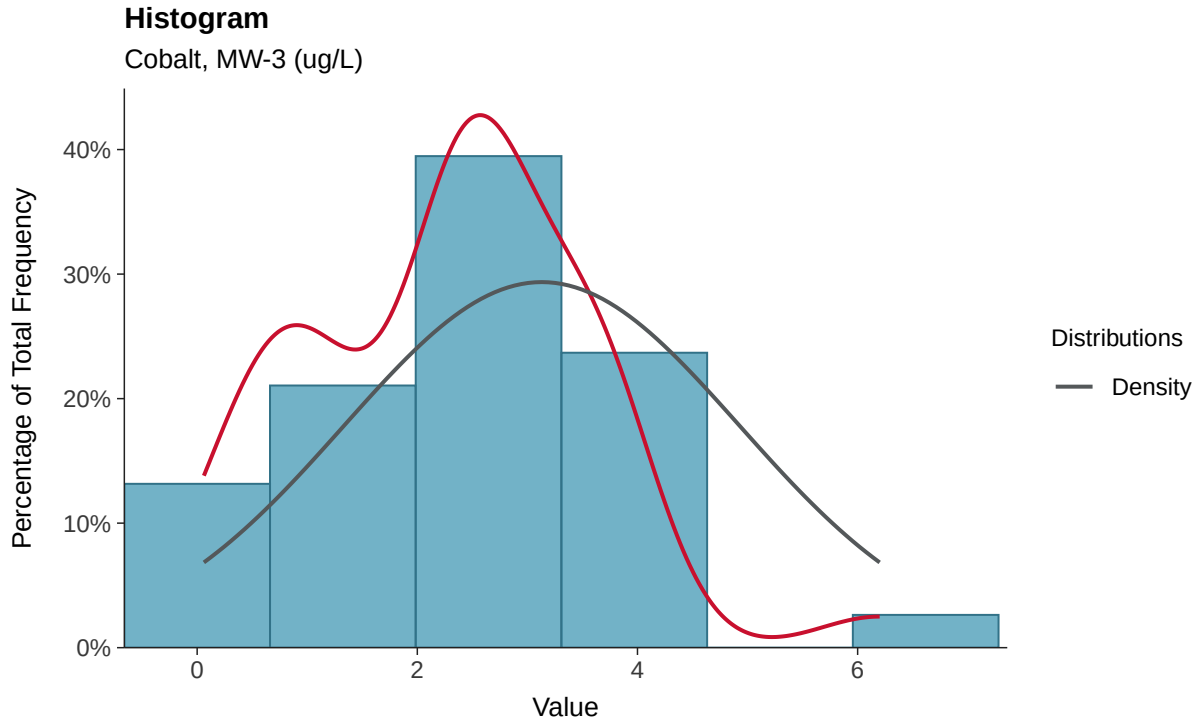
Chromium, MW-3 (ug/L)



App. IV: Cobalt, MW-3

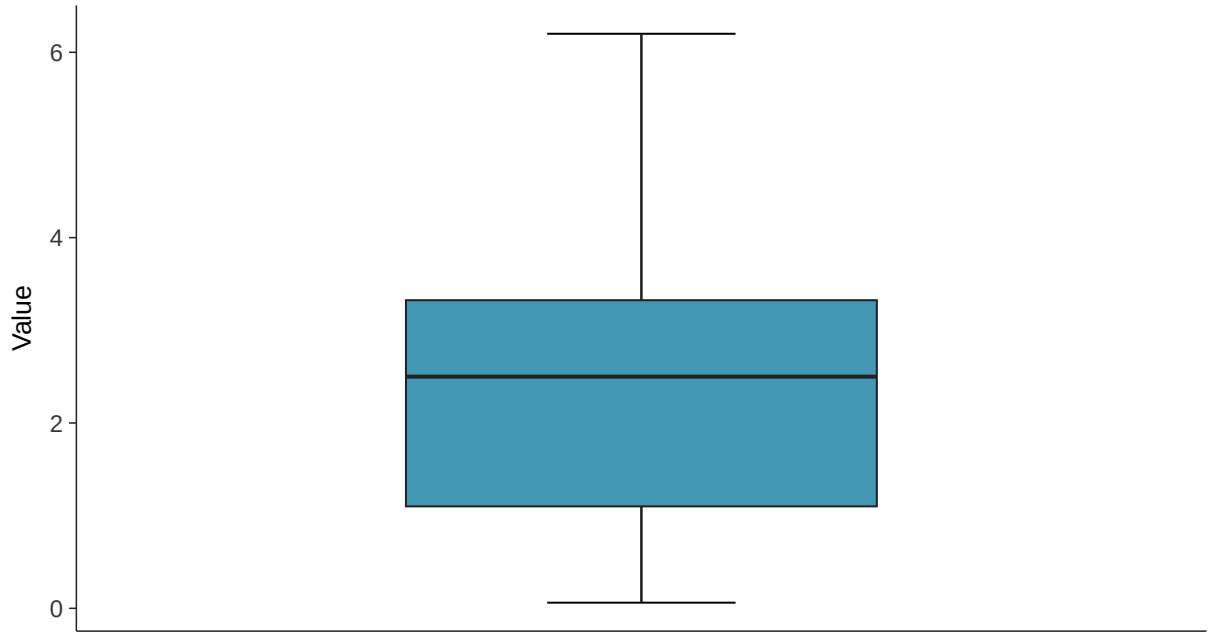
ID: 03_03_110





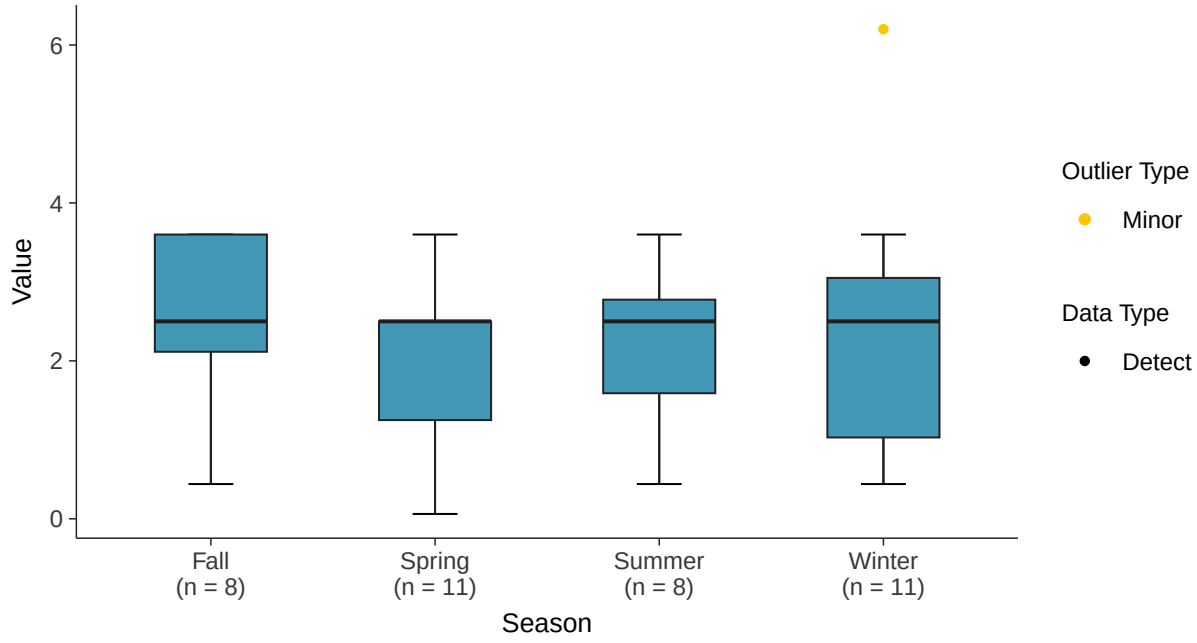
Boxplot

Cobalt, MW-3 (ug/L)



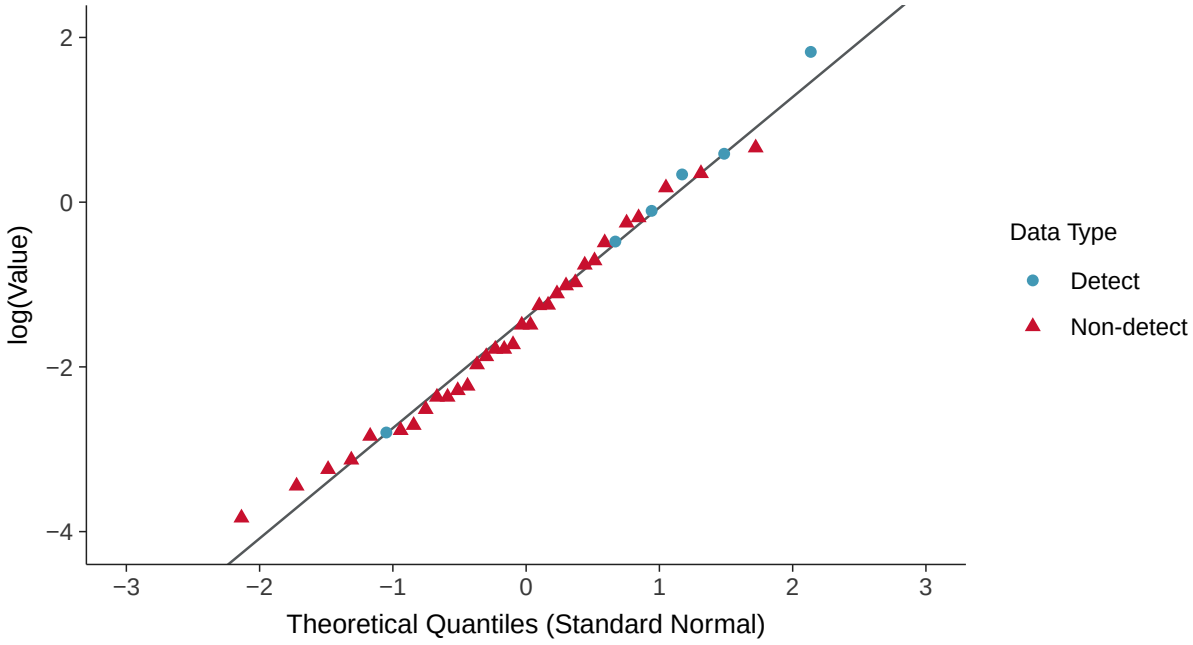
Boxplot by Season

Cobalt, MW-3 (ug/L)



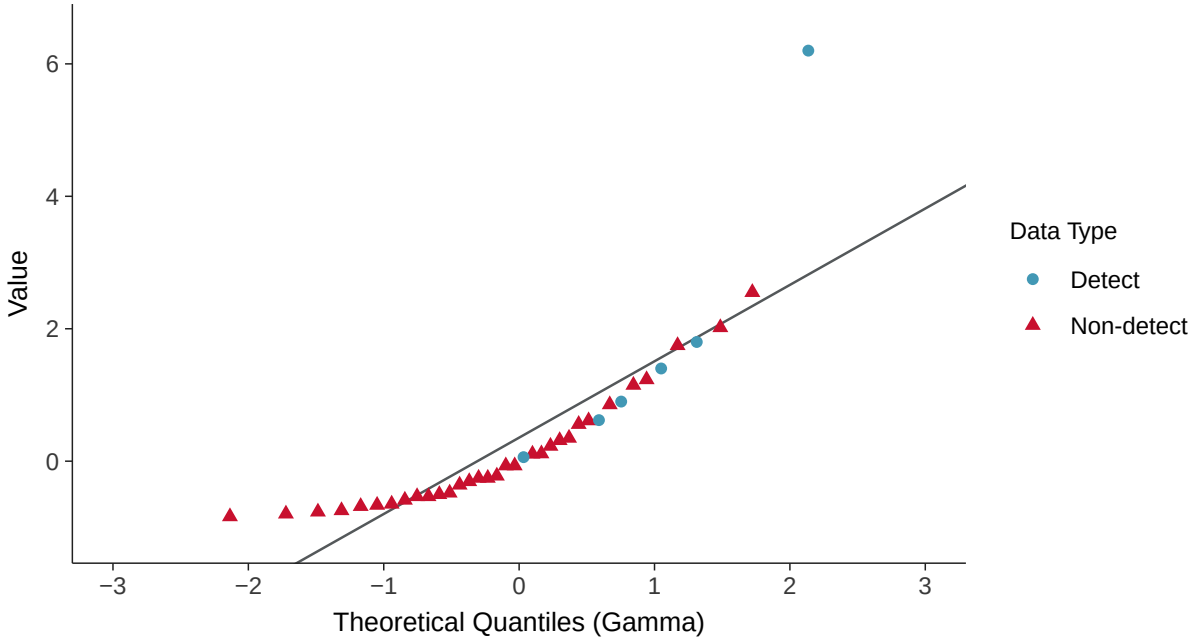
Lognormal Q-Q plot using ROS Imputed Estimates

Cobalt, MW-3 (ug/L)



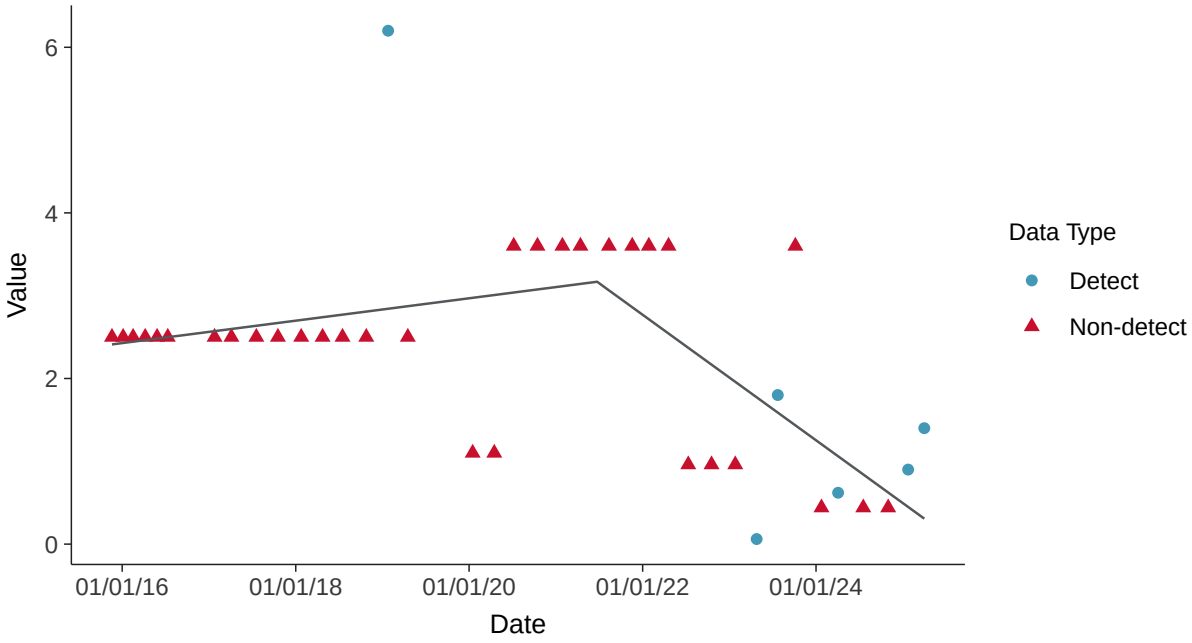
Gamma Q-Q plot using ROS Imputed Estimates

Cobalt, MW-3 (ug/L)



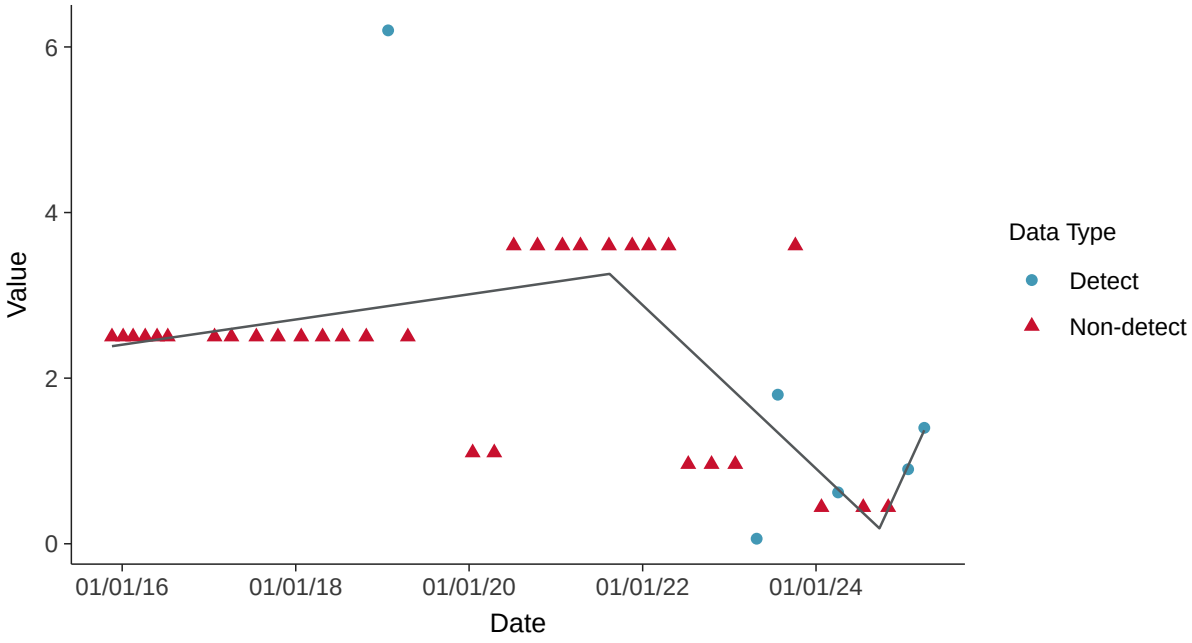
Trend Regression: Piecewise Linear-Linear

Cobalt, MW-3 (ug/L)



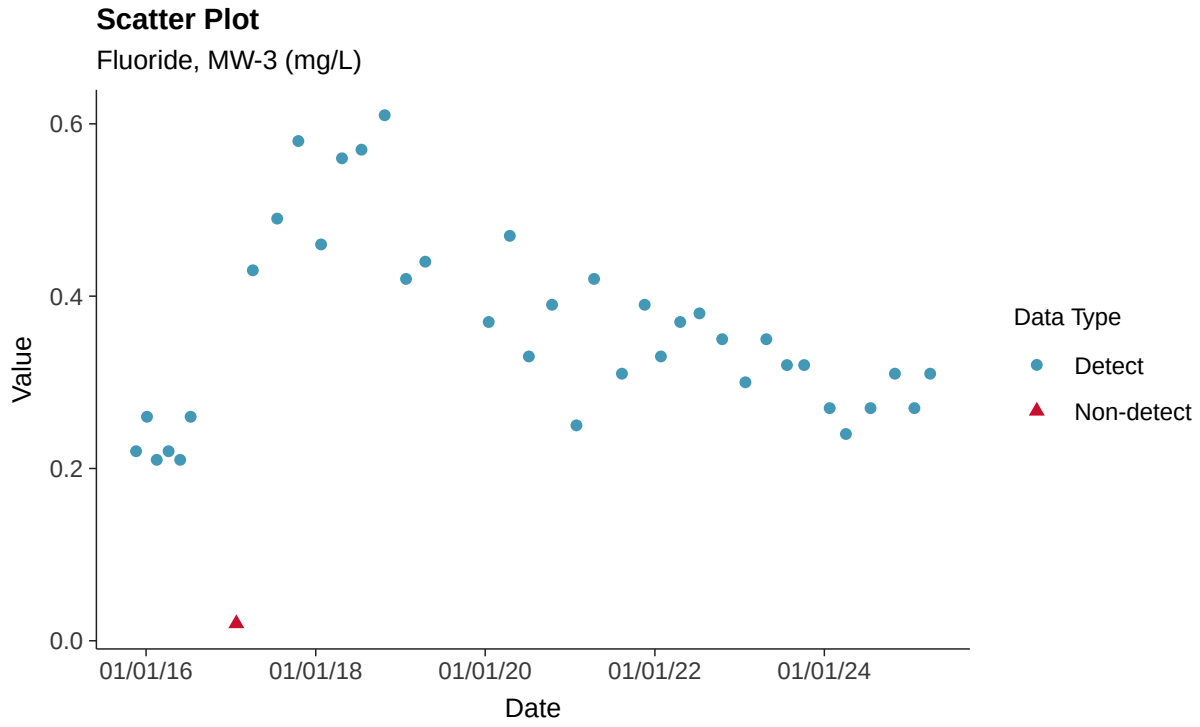
Trend Regression: Piecewise Linear-Linear-Linear

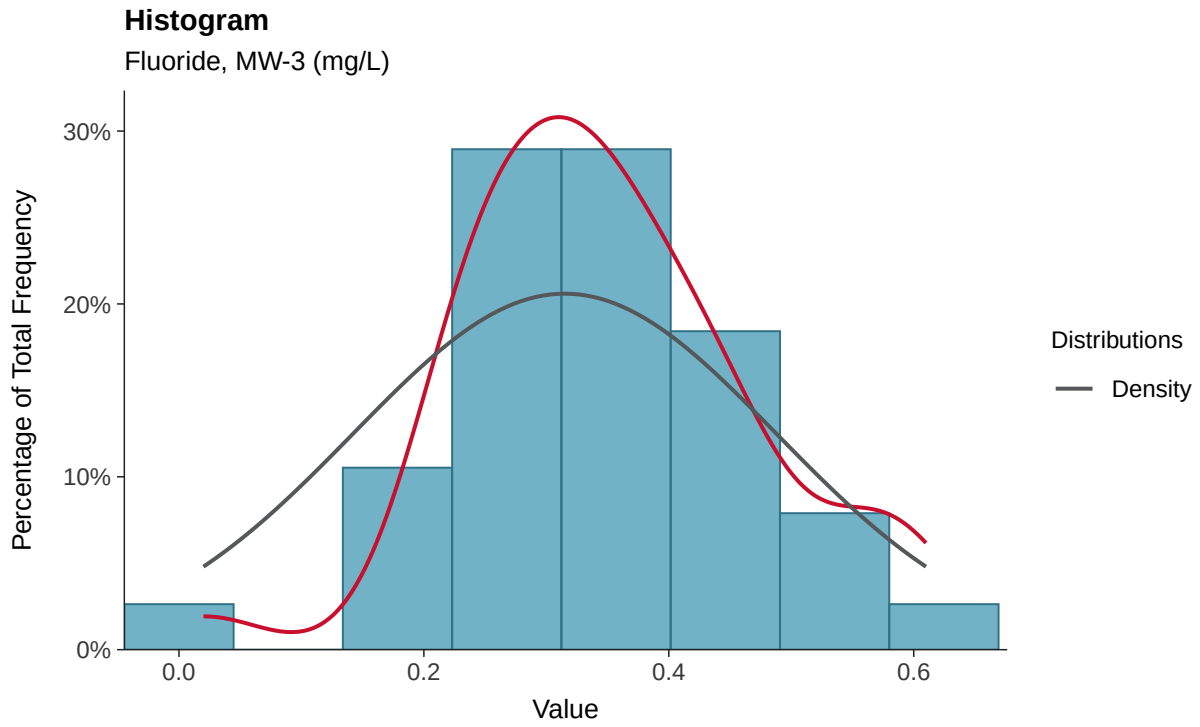
Cobalt, MW-3 (ug/L)



App. IV: Fluoride, MW-3

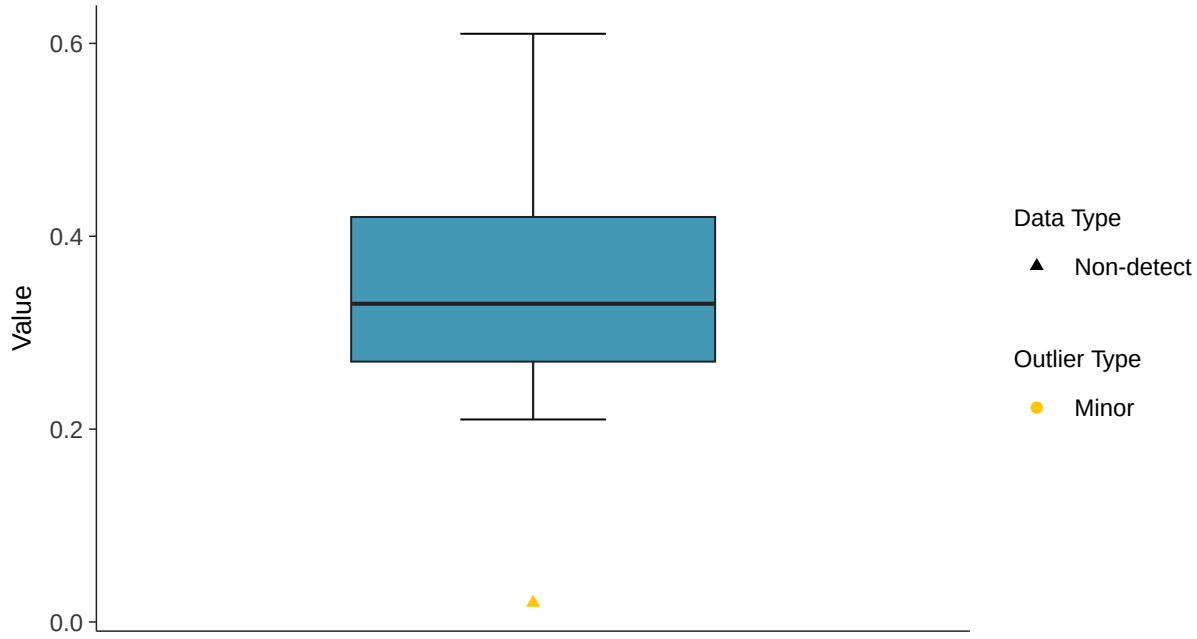
ID: 03_03_112





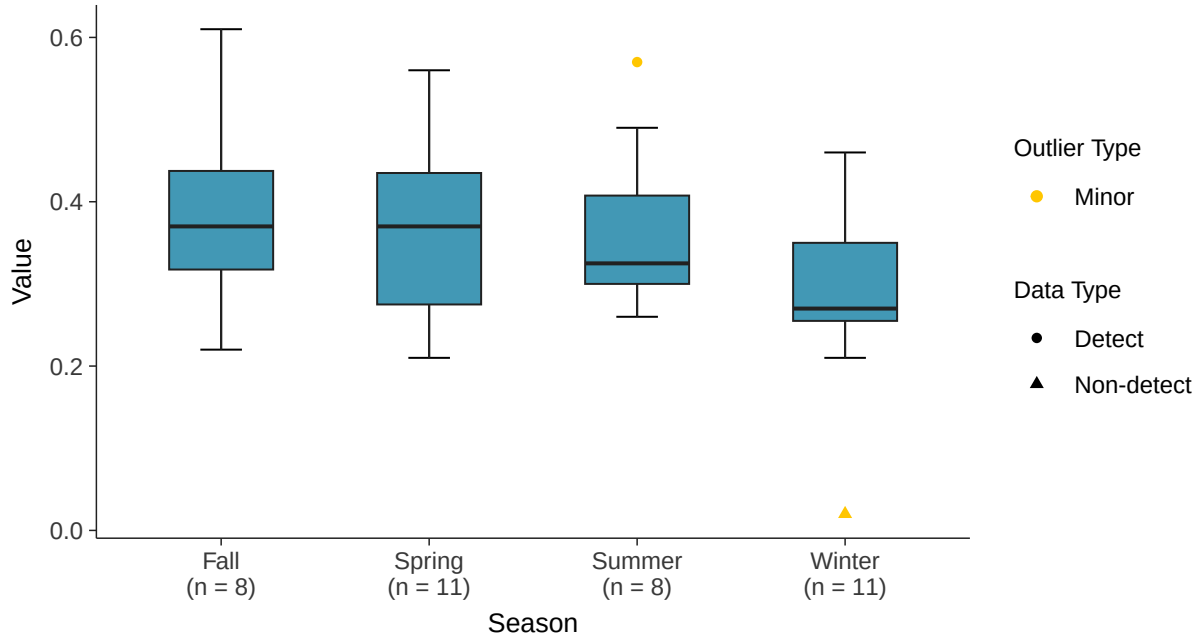
Boxplot

Fluoride, MW-3 (mg/L)



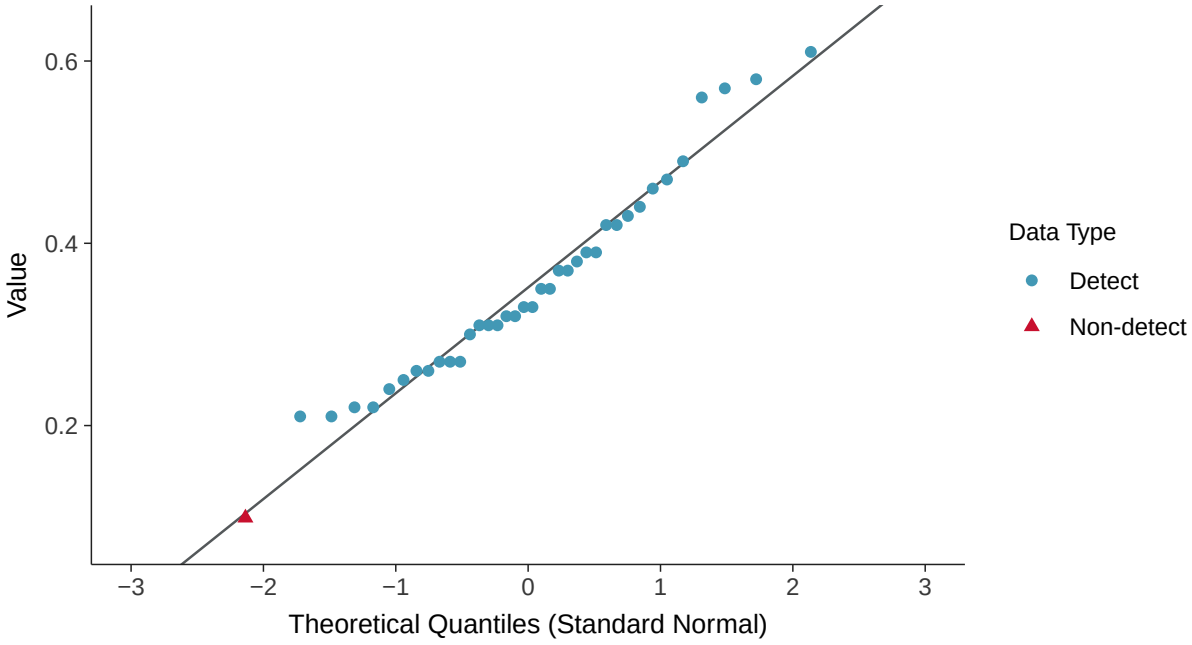
Boxplot by Season

Fluoride, MW-3 (mg/L)



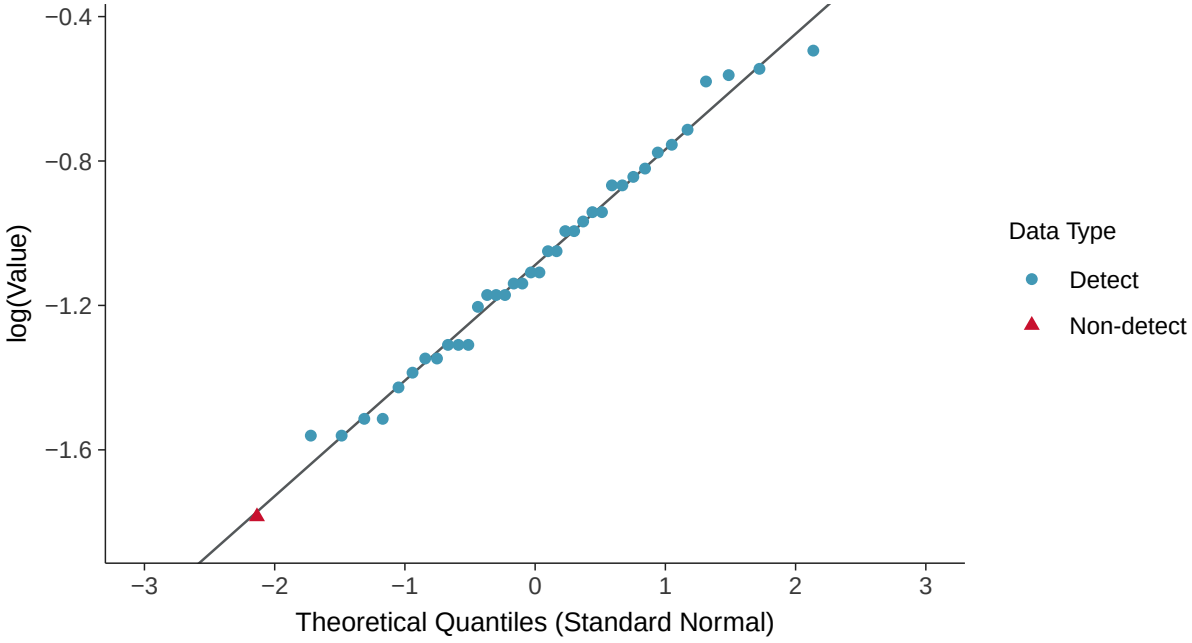
Normal Q-Q plot using ROS Imputed Estimates

Fluoride, MW-3 (mg/L)



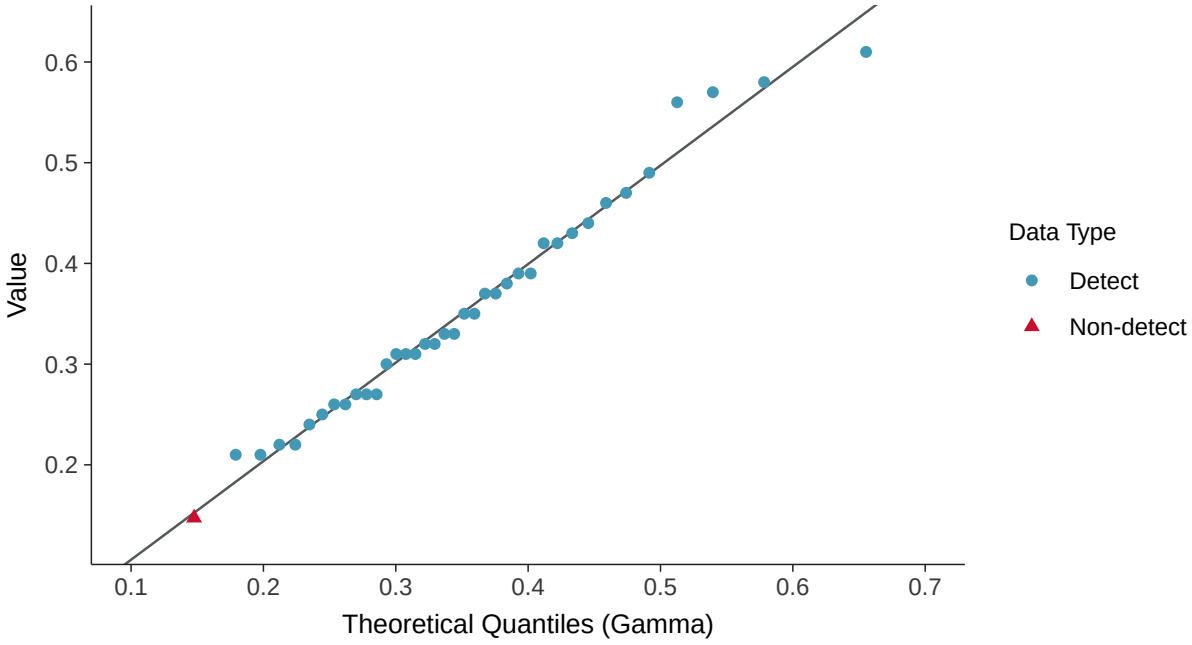
Lognormal Q-Q plot using ROS Imputed Estimates

Fluoride, MW-3 (mg/L)



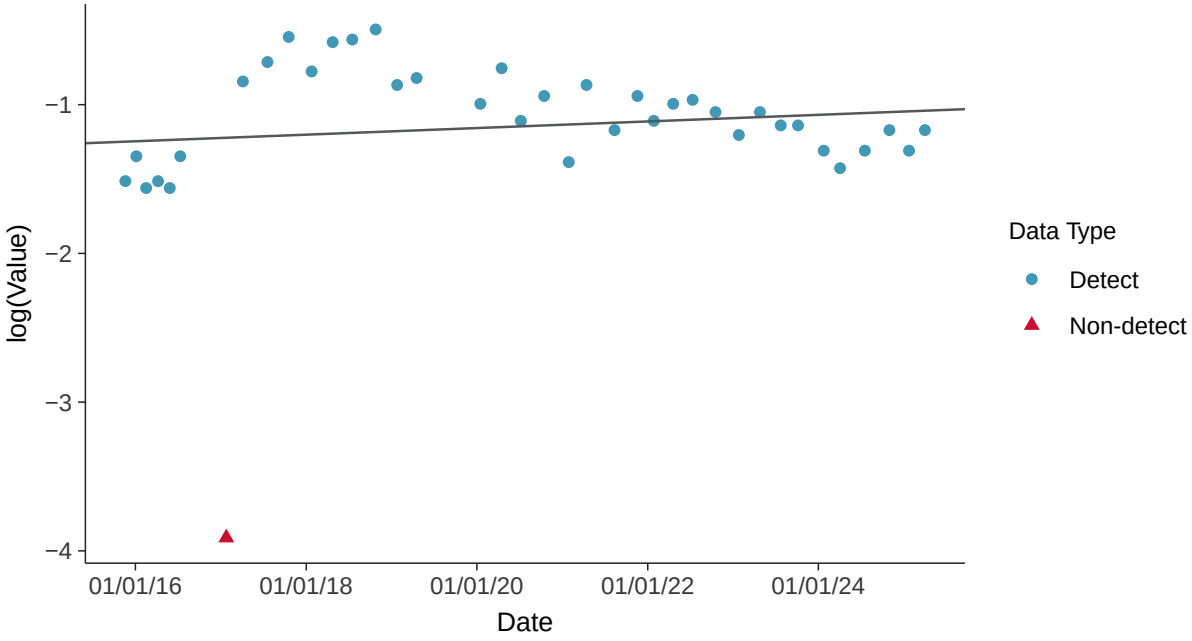
Gamma Q-Q plot using ROS Imputed Estimates

Fluoride, MW-3 (mg/L)



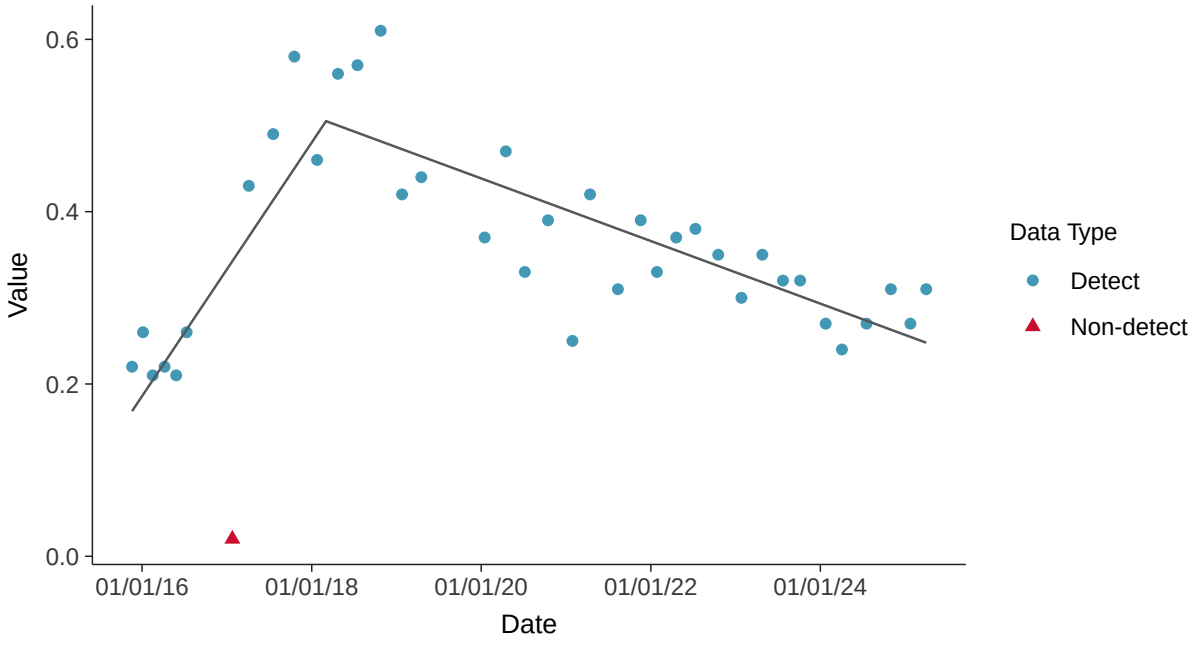
Trend Regression: Lognormal MLE

Fluoride, MW-3 (mg/L)



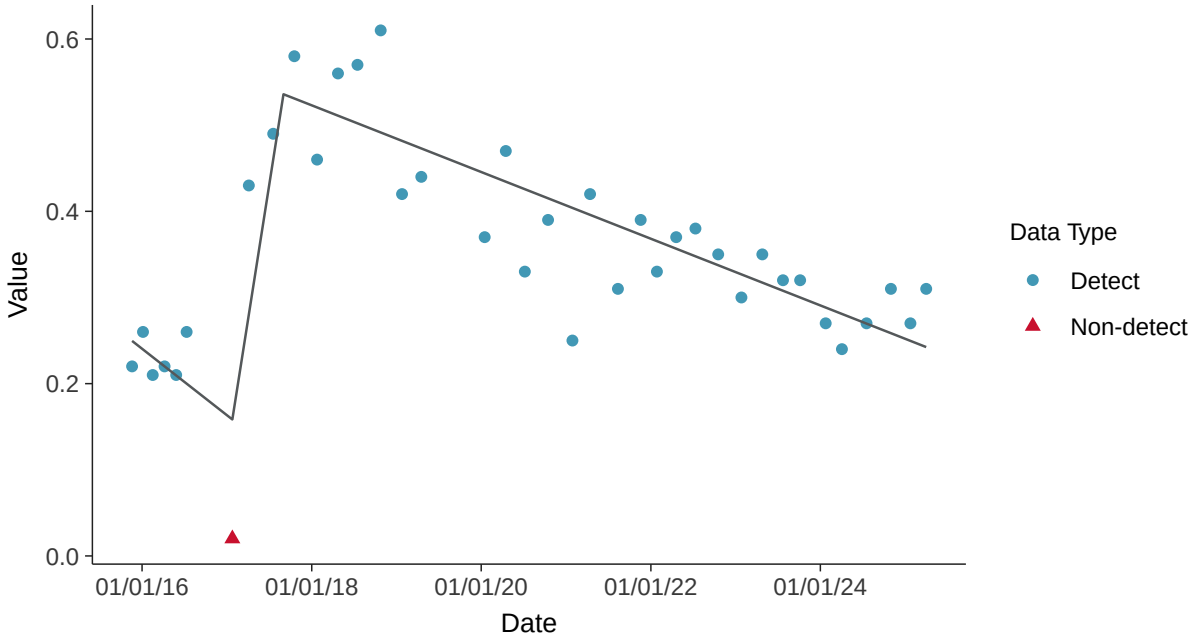
Trend Regression: Piecewise Linear-Linear

Fluoride, MW-3 (mg/L)



Trend Regression: Piecewise Linear-Linear-Linear

Fluoride, MW-3 (mg/L)

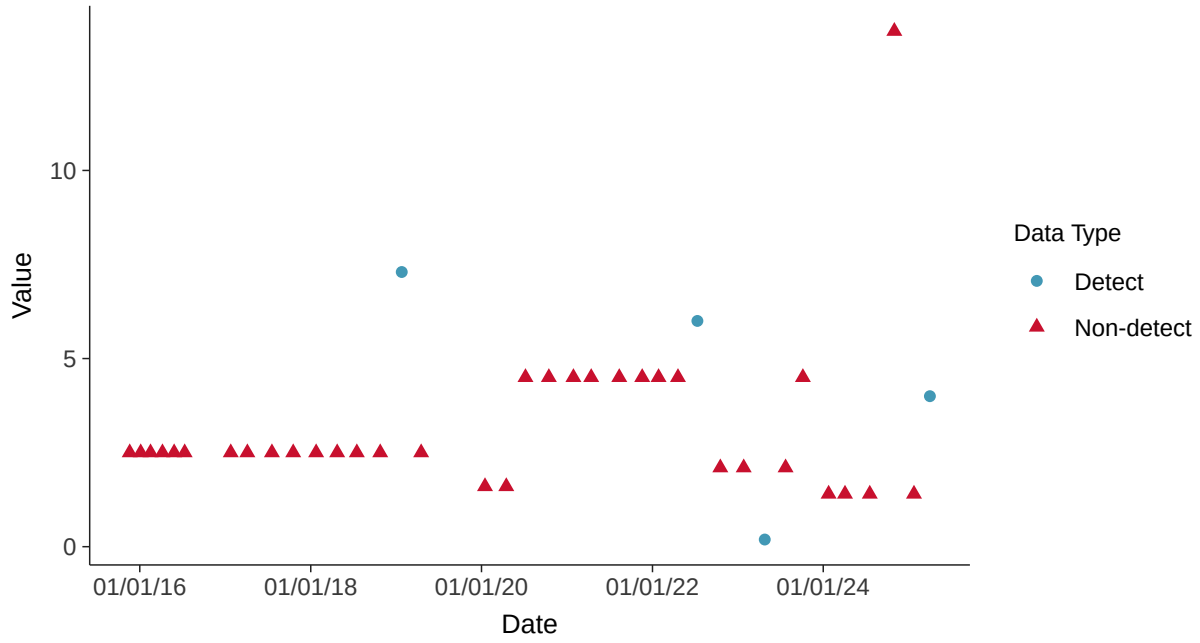


App. IV: Lead, MW-3

ID: 03_03_113

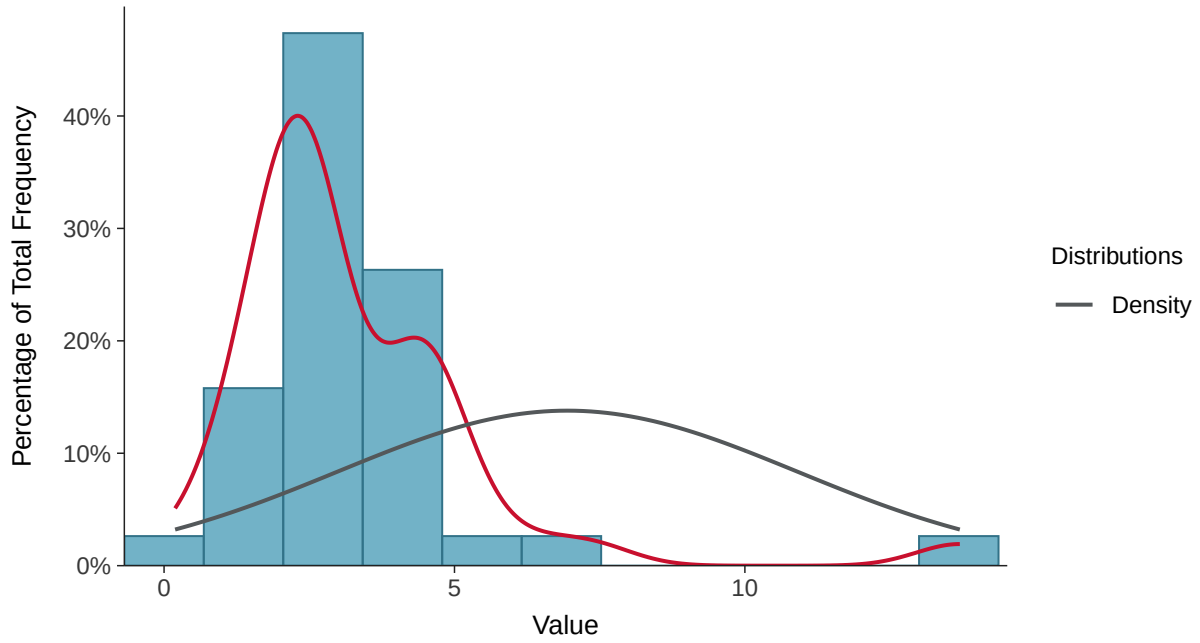
Scatter Plot

Lead, MW-3 (ug/L)



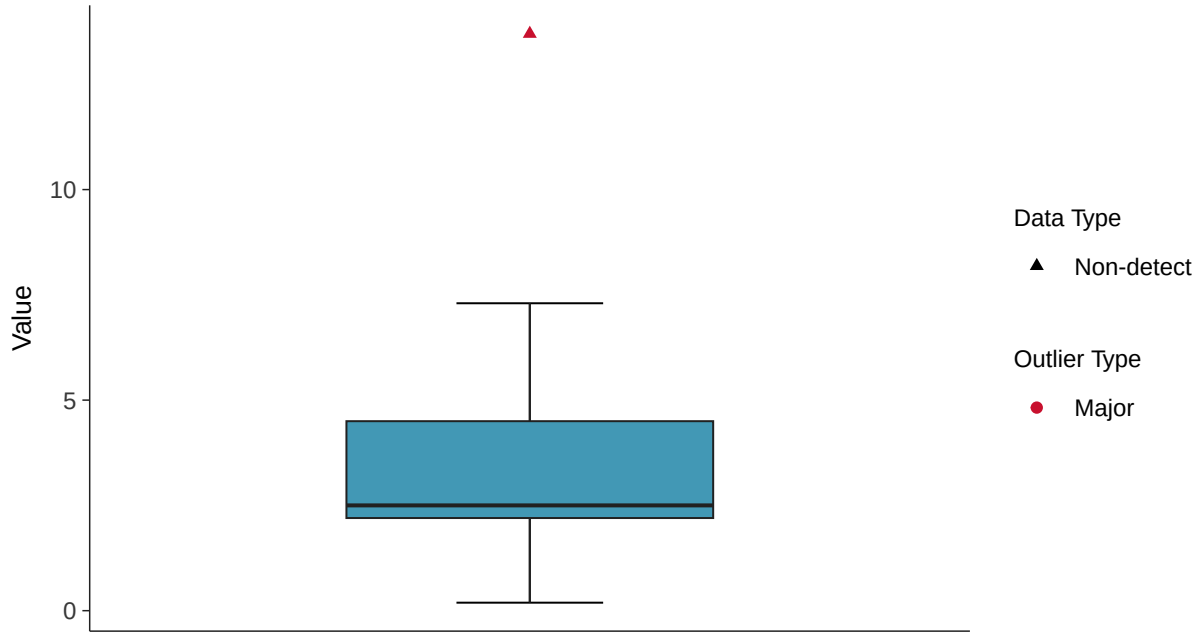
Histogram

Lead, MW-3 (ug/L)



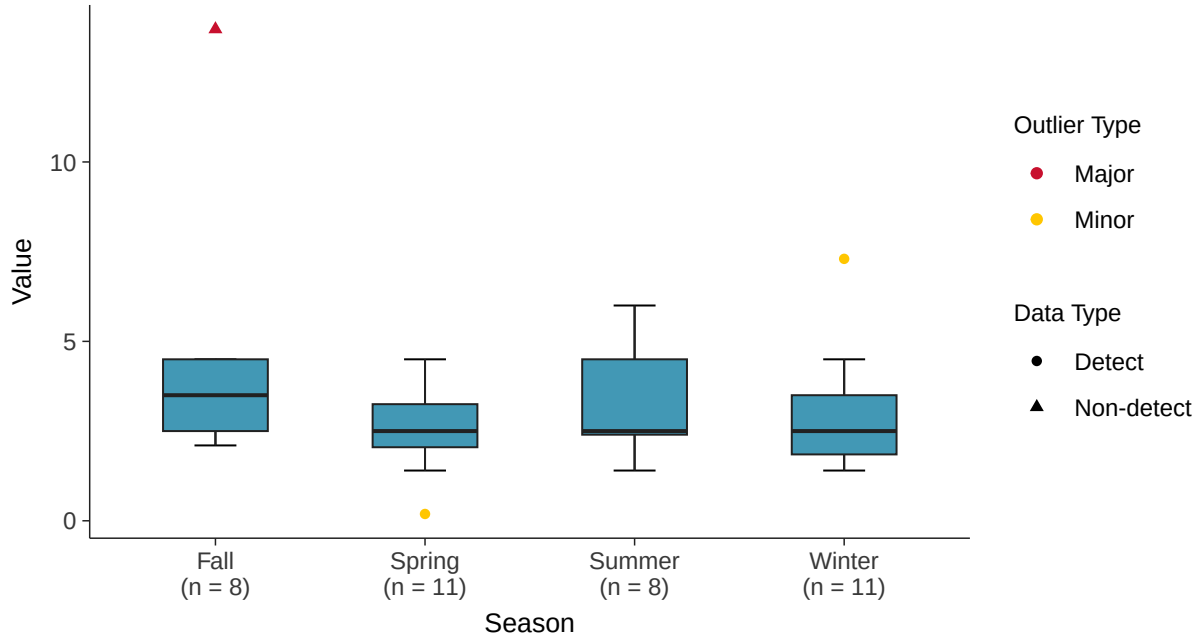
Boxplot

Lead, MW-3 (ug/L)



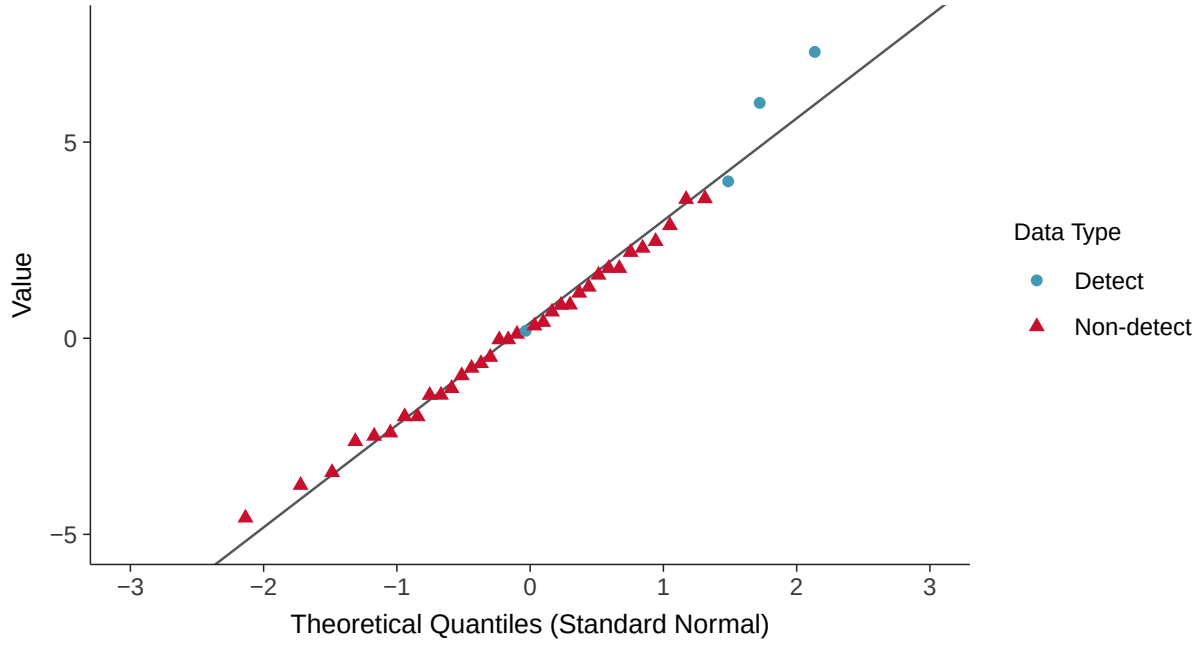
Boxplot by Season

Lead, MW-3 (ug/L)



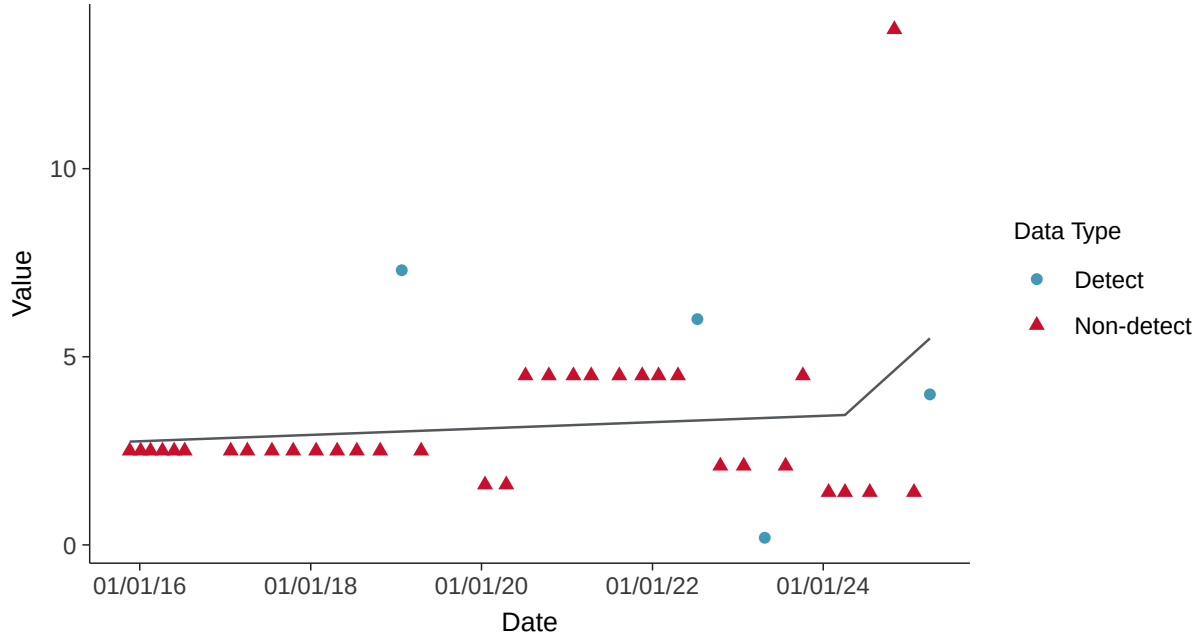
Normal Q-Q plot using ROS Imputed Estimates

Lead, MW-3 (ug/L)



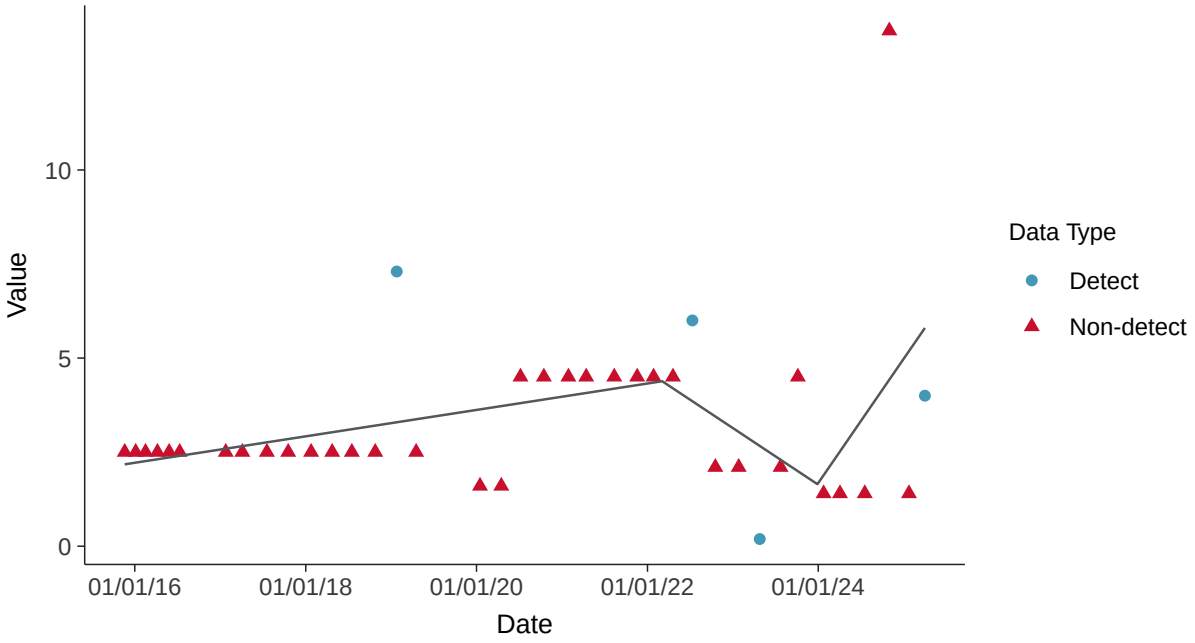
Trend Regression: Piecewise Linear-Linear

Lead, MW-3 (ug/L)



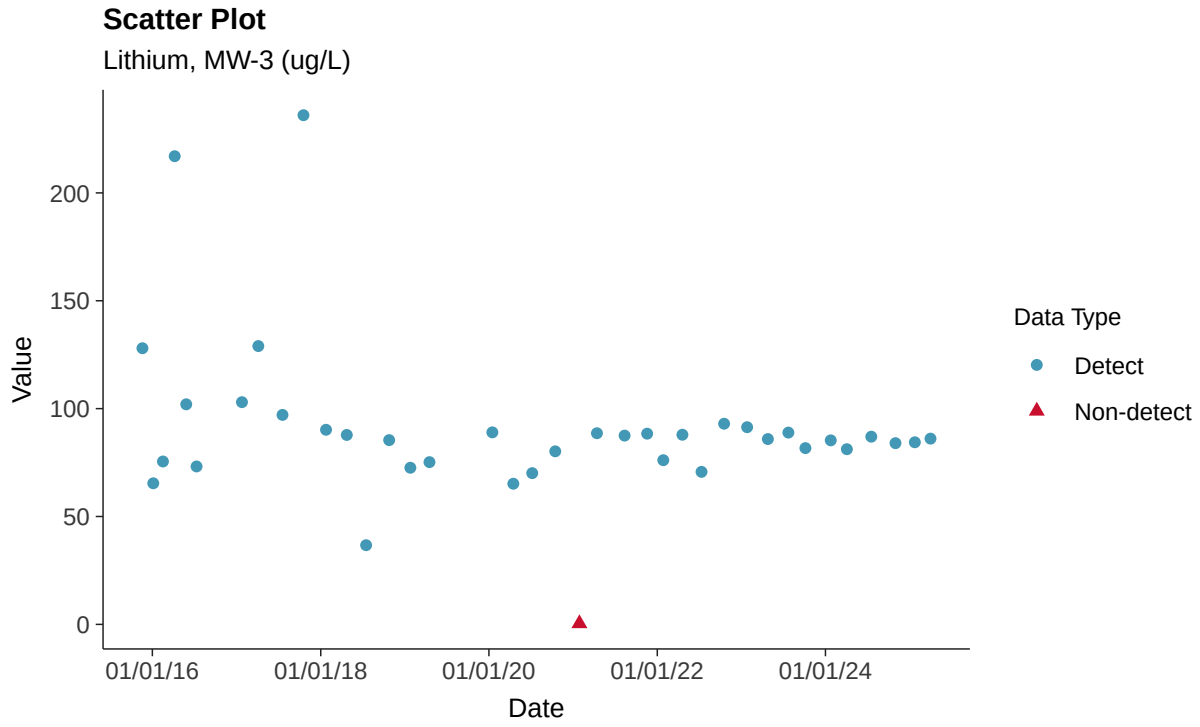
Trend Regression: Piecewise Linear-Linear-Linear

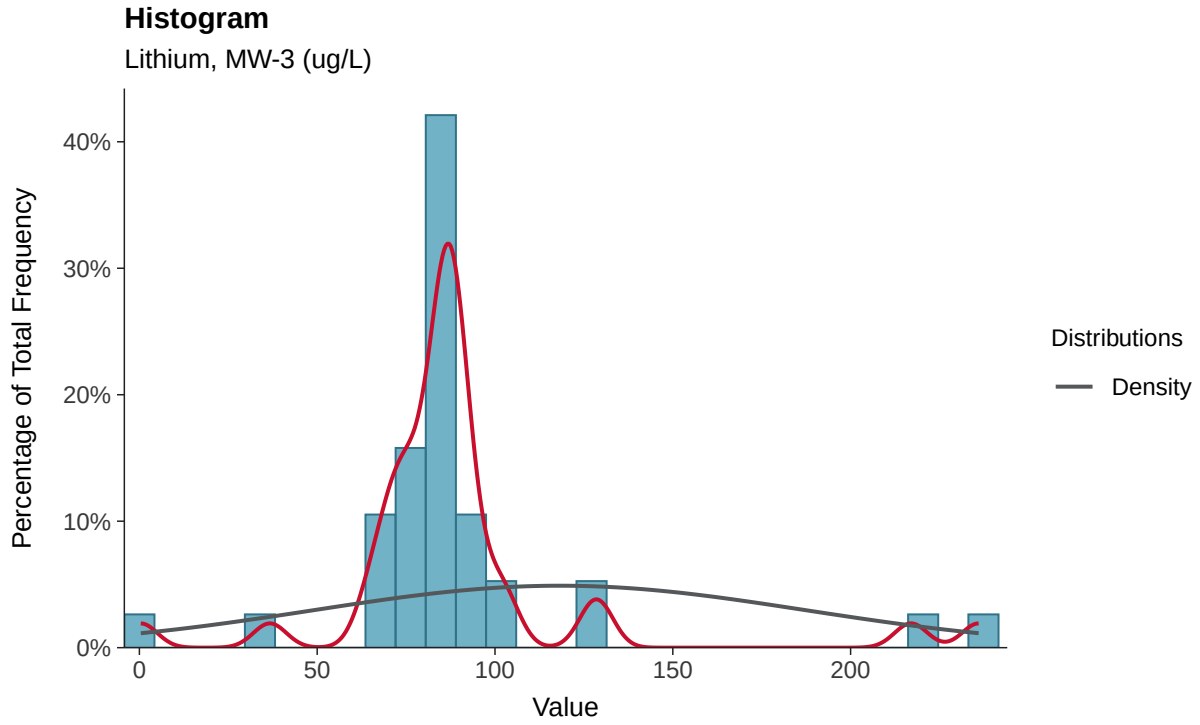
Lead, MW-3 (ug/L)



App. IV: Lithium, MW-3

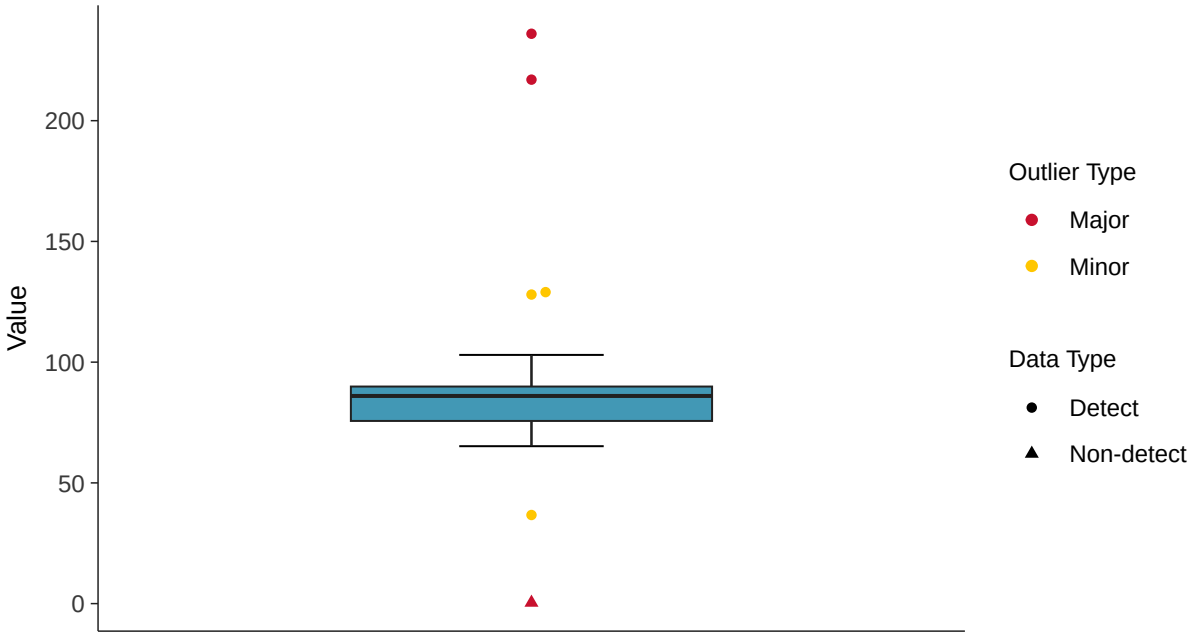
ID: 03_03_114





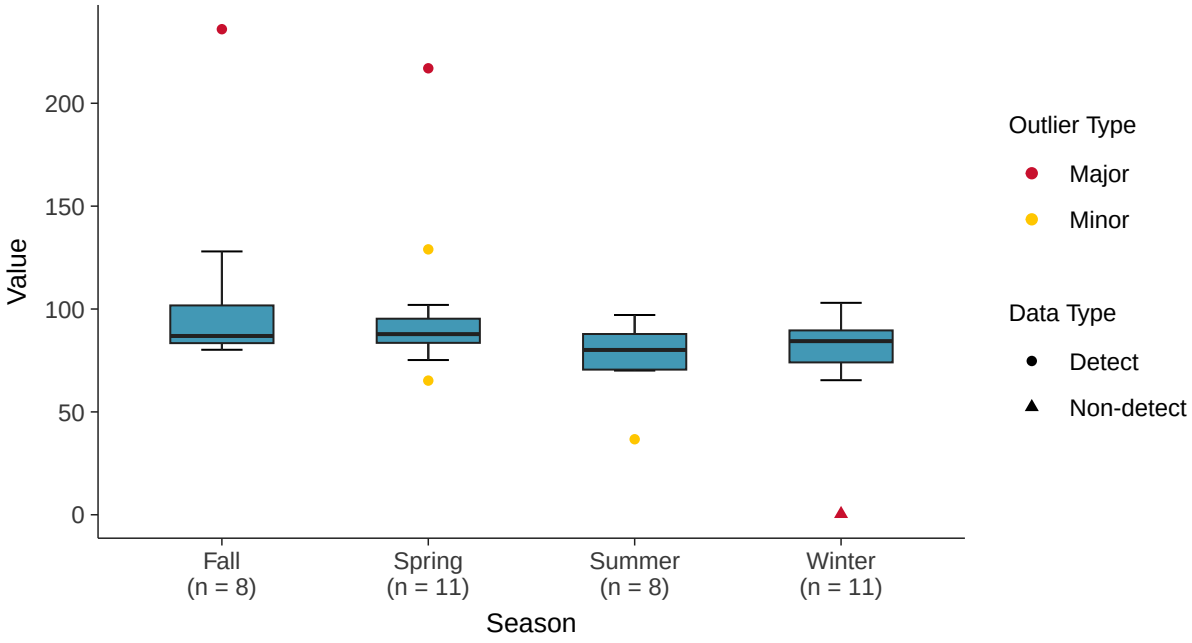
Boxplot

Lithium, MW-3 (ug/L)



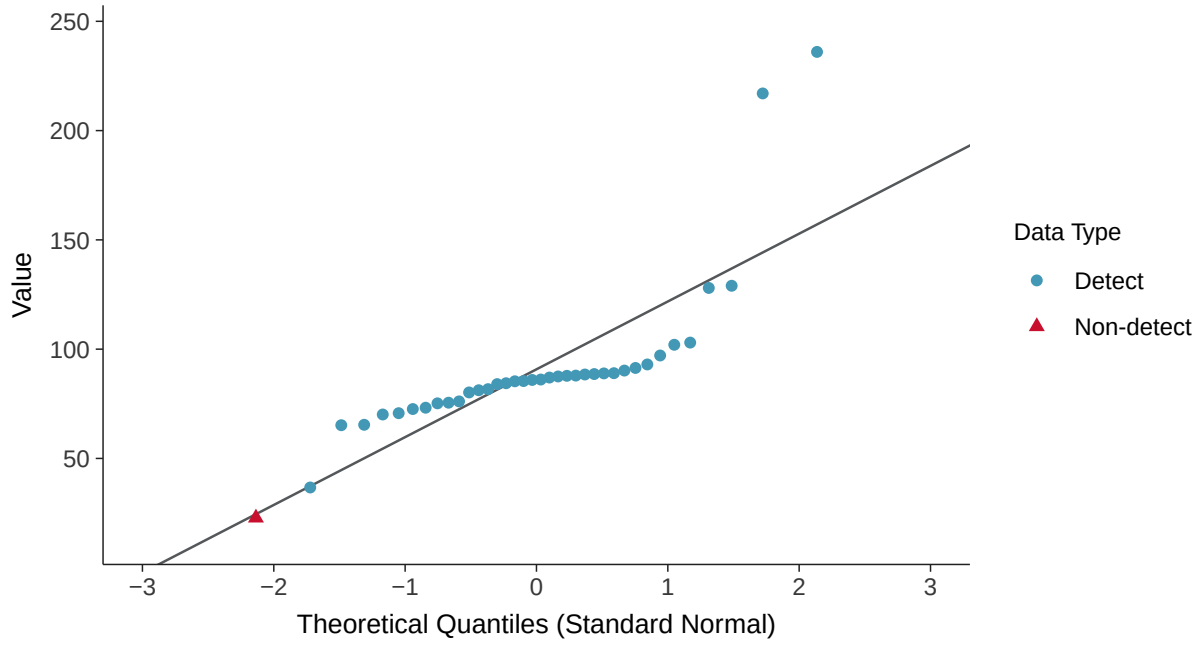
Boxplot by Season

Lithium, MW-3 (ug/L)



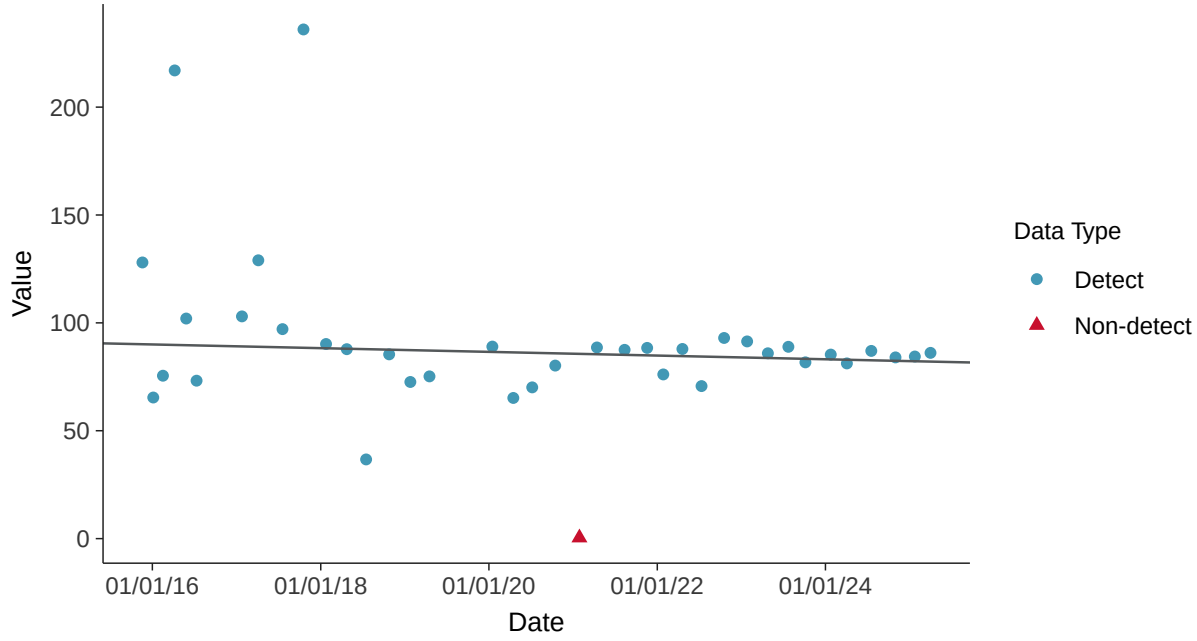
Normal Q-Q plot using ROS Imputed Estimates

Lithium, MW-3 (ug/L)



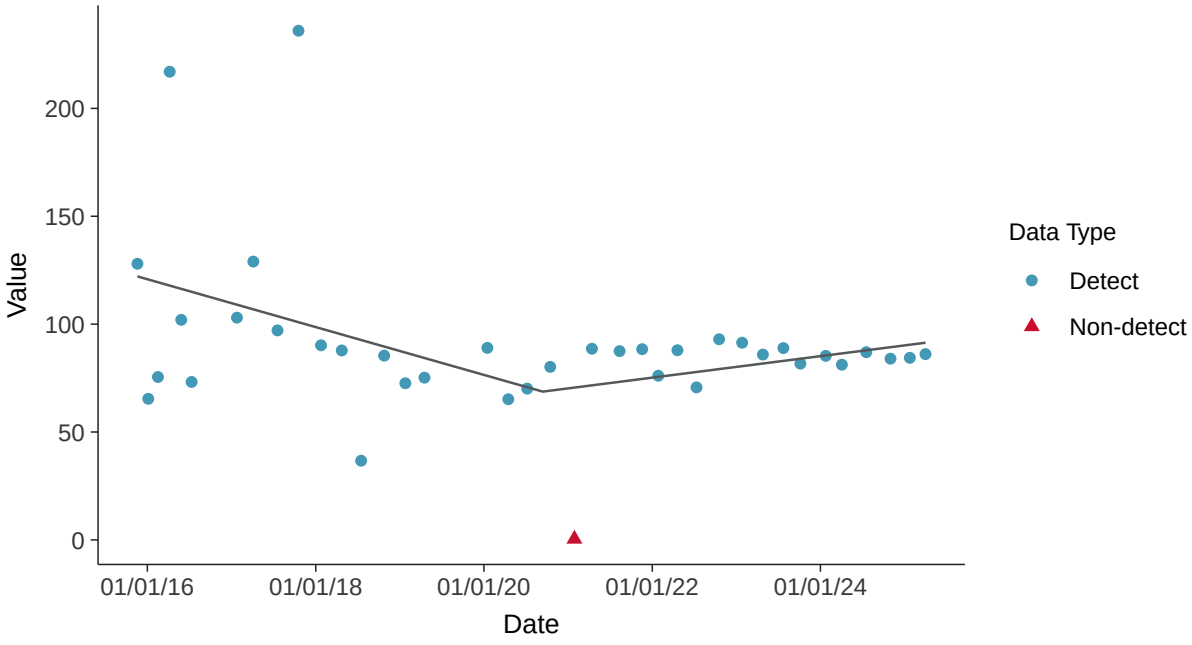
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Lithium, MW-3 (ug/L)



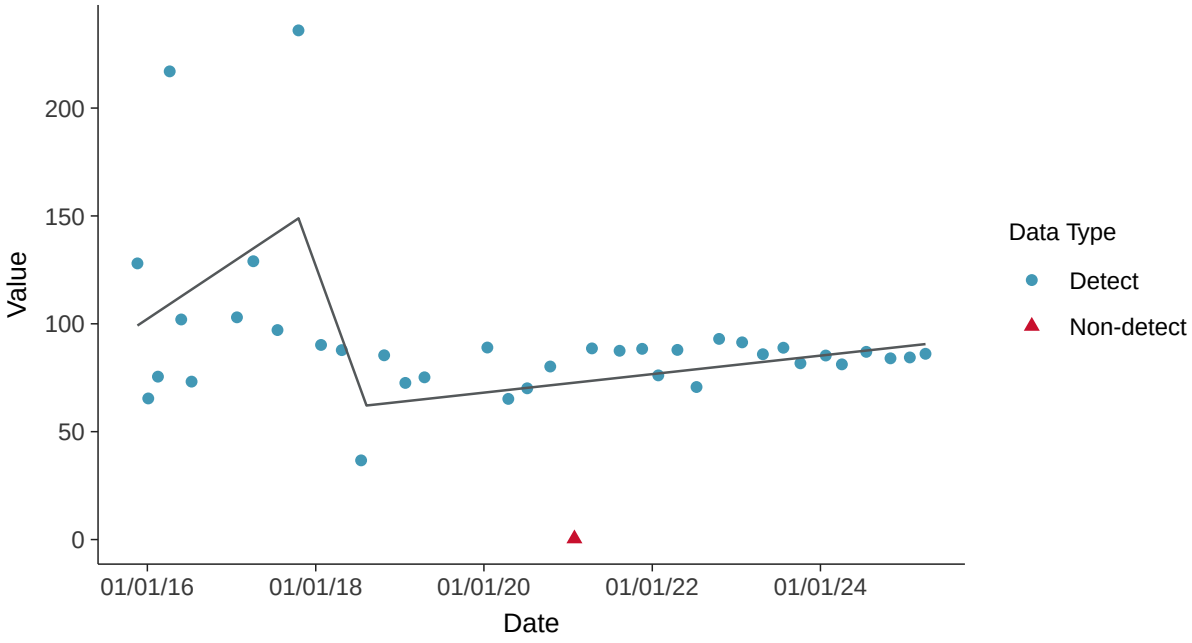
Trend Regression: Piecewise Linear-Linear

Lithium, MW-3 (ug/L)



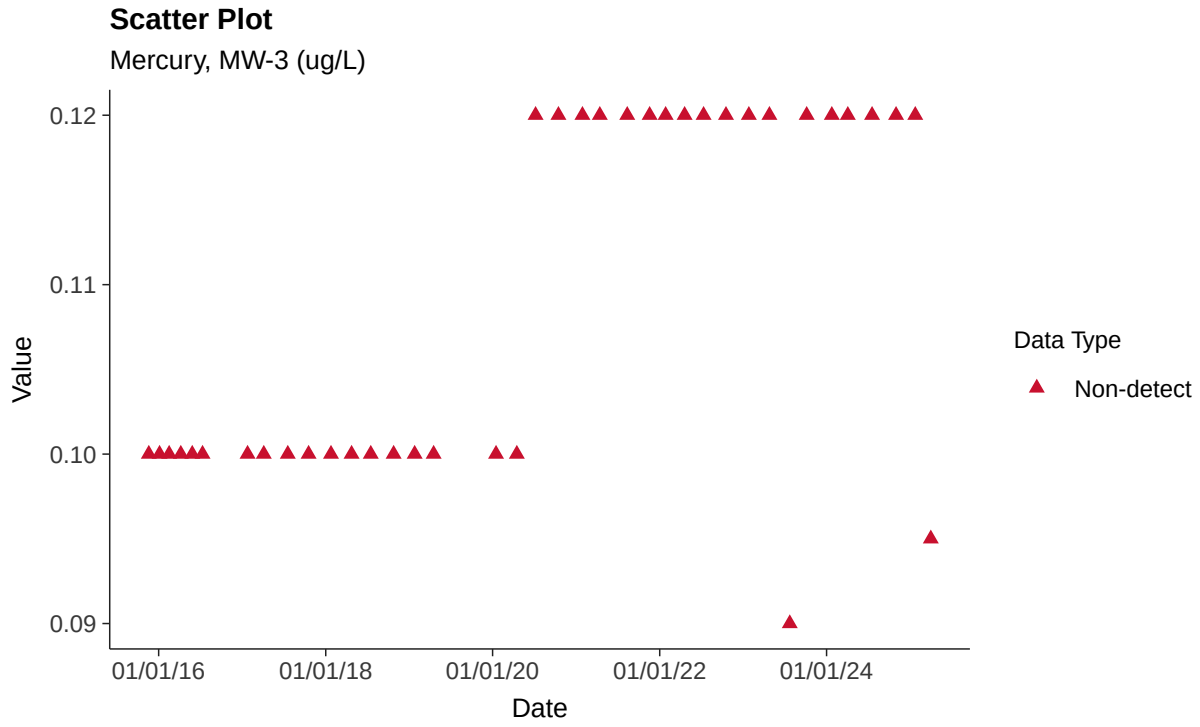
Trend Regression: Piecewise Linear-Linear-Linear

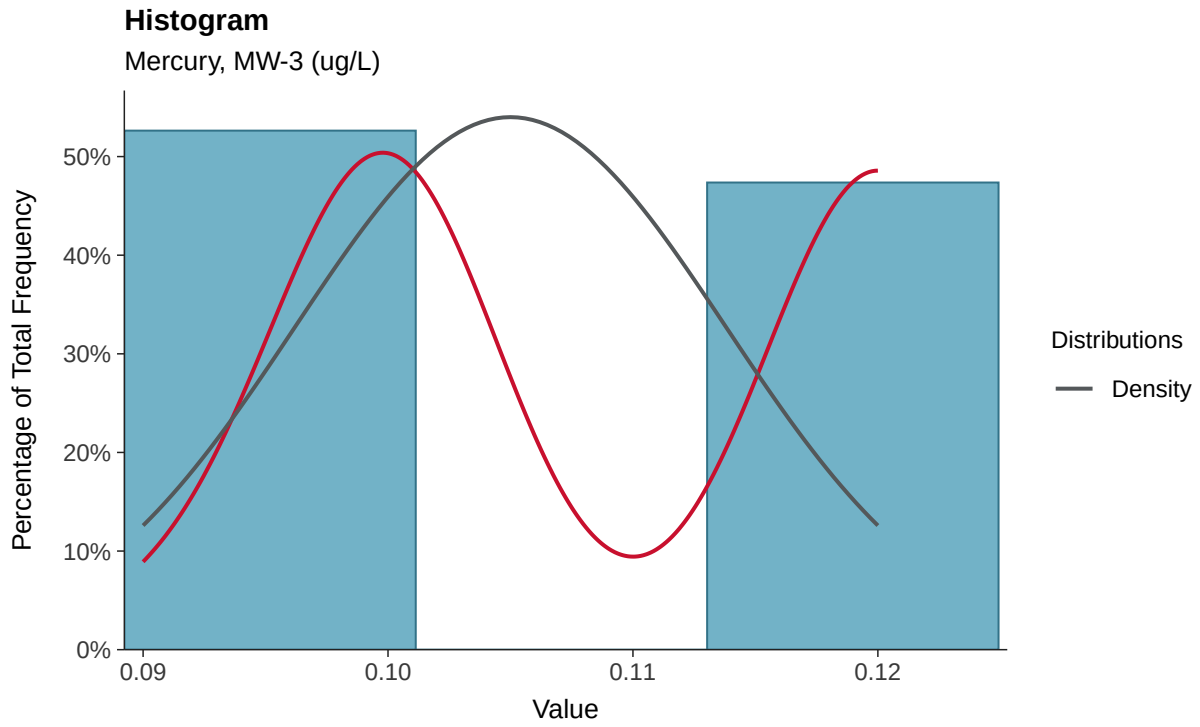
Lithium, MW-3 (ug/L)



App. IV: Mercury, MW-3

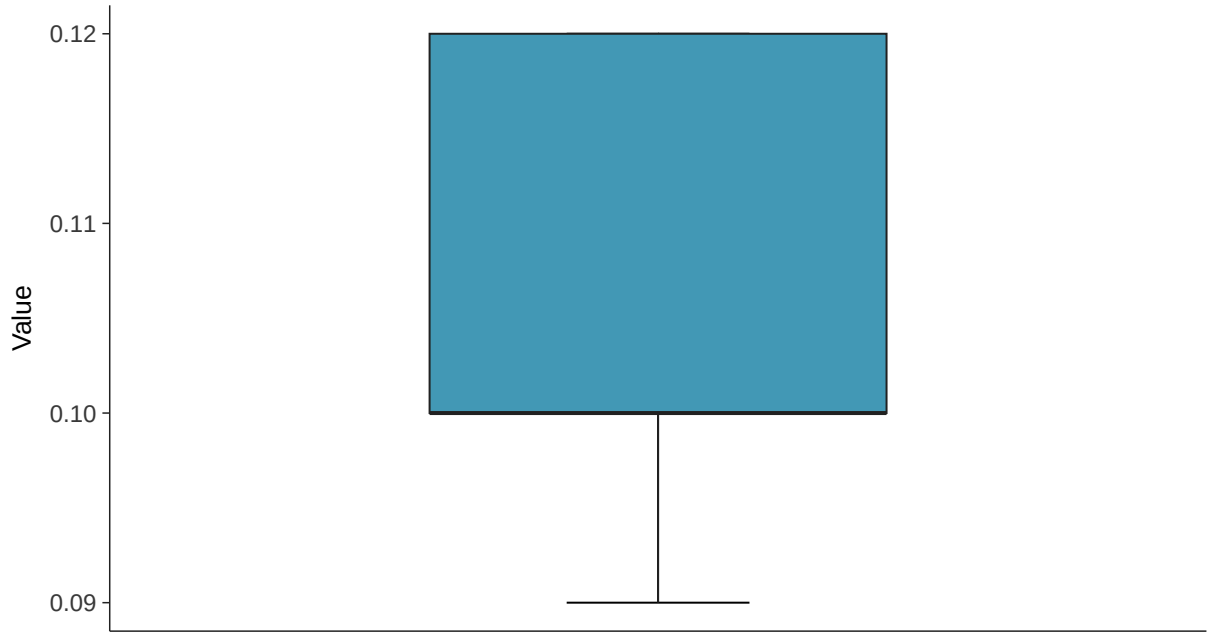
ID: 03_03_115





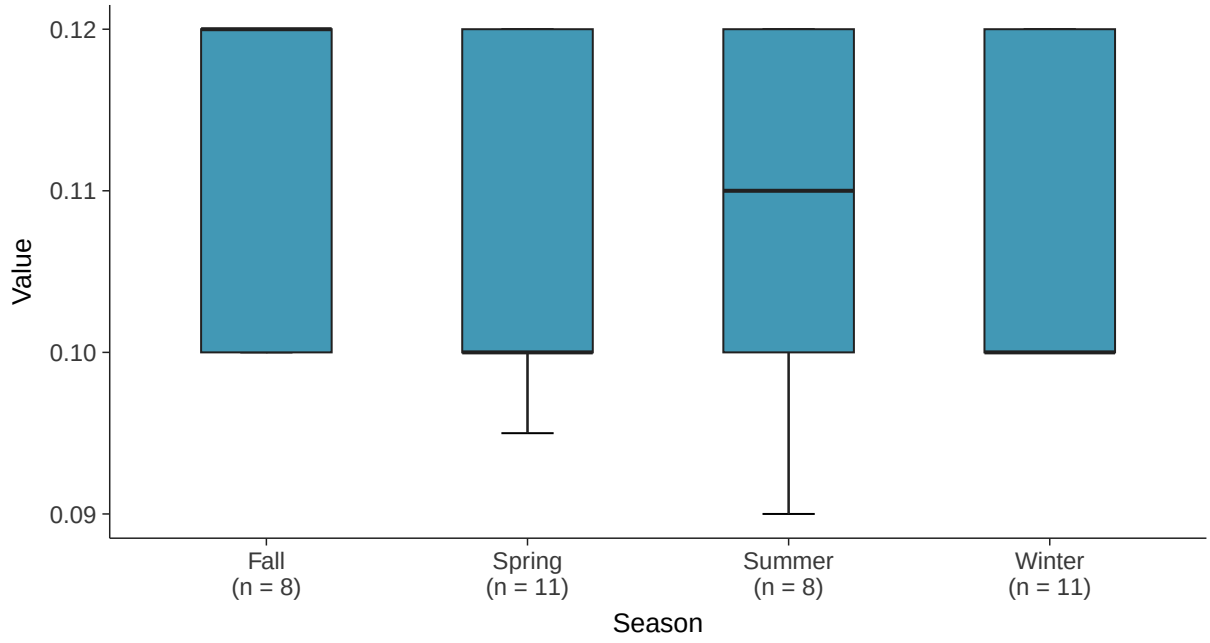
Boxplot

Mercury, MW-3 (ug/L)



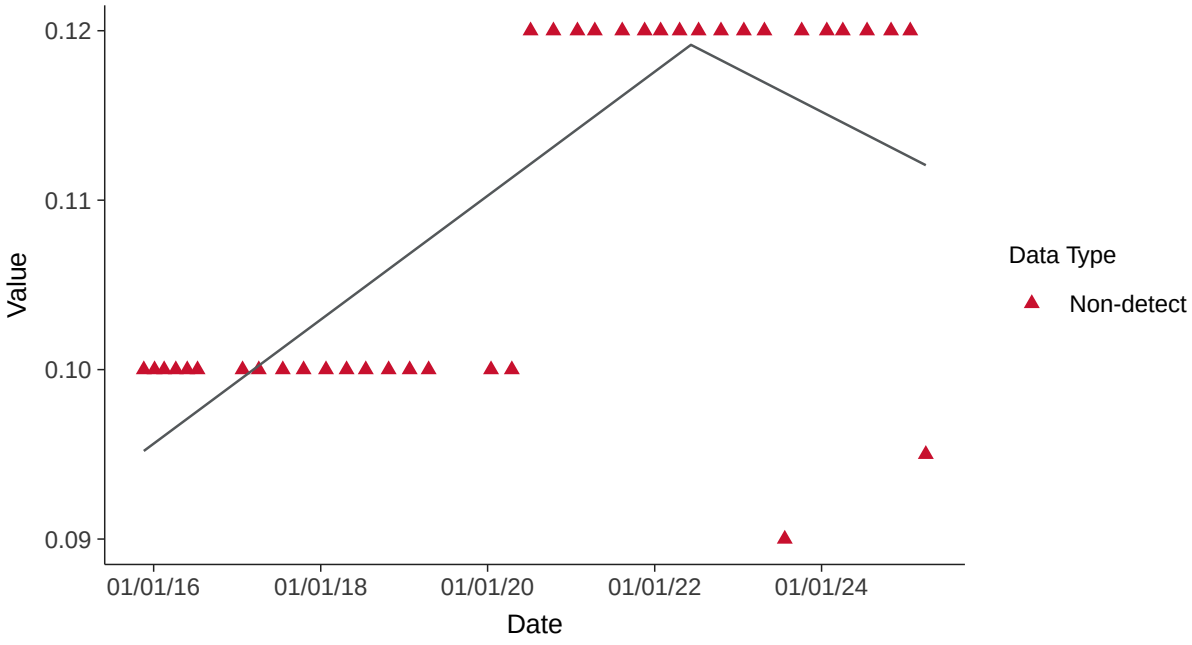
Boxplot by Season

Mercury, MW-3 (ug/L)



Trend Regression: Piecewise Linear-Linear

Mercury, MW-3 (ug/L)

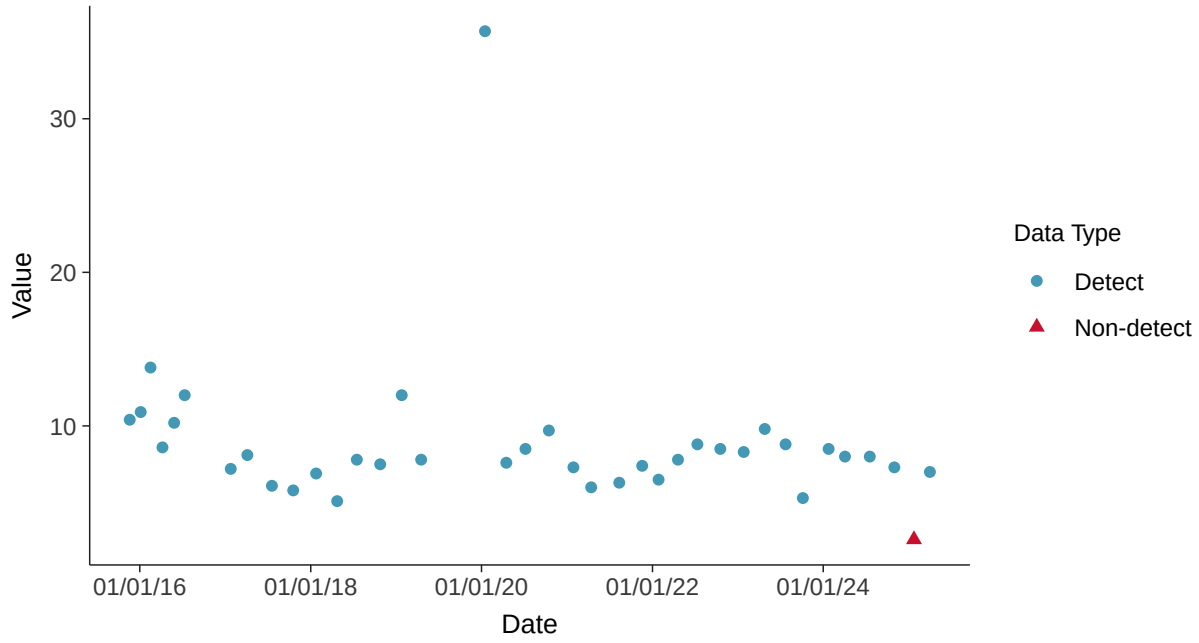


App. IV: Molybdenum, MW-3

ID: 03_03_116

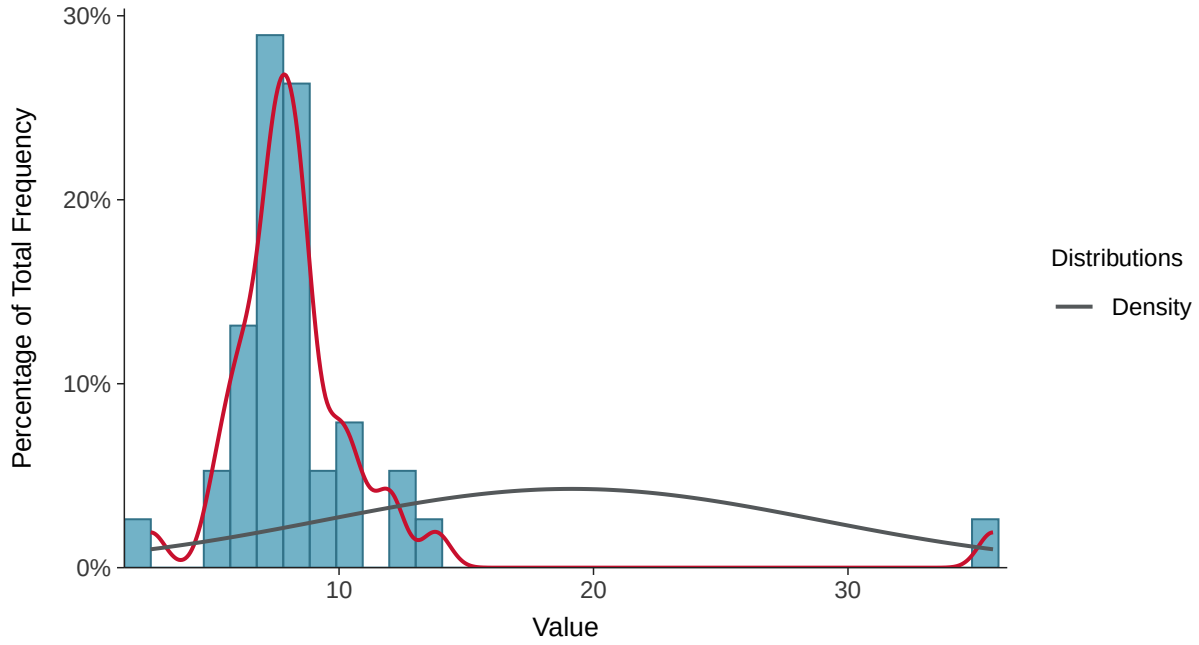
Scatter Plot

Molybdenum, MW-3 (ug/L)



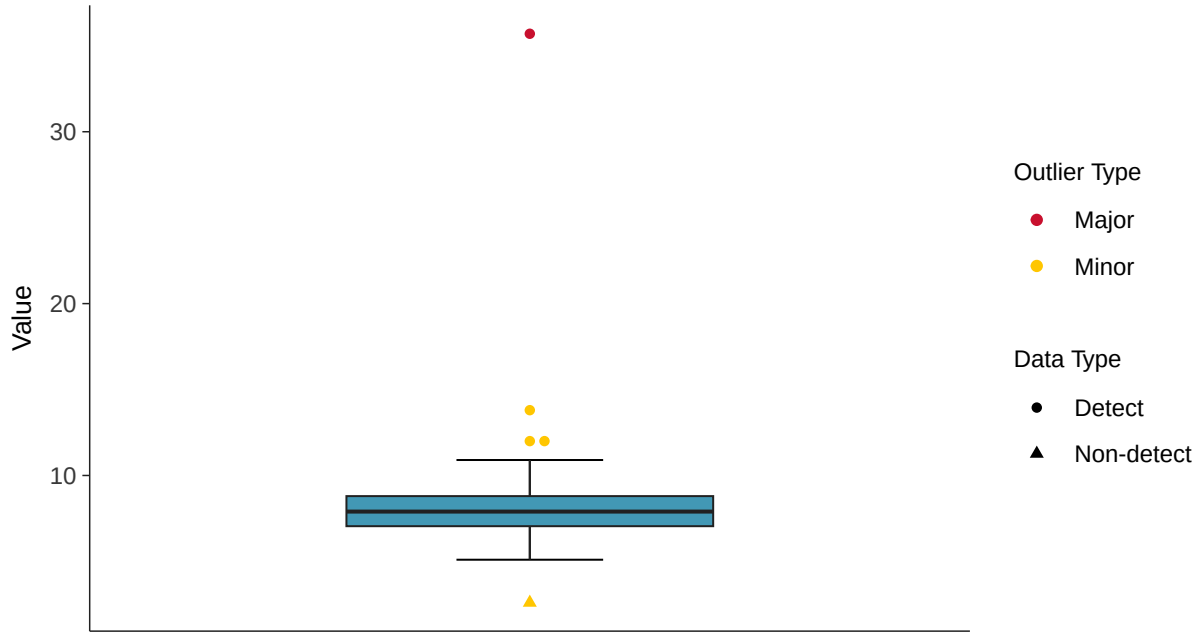
Histogram

Molybdenum, MW-3 (ug/L)



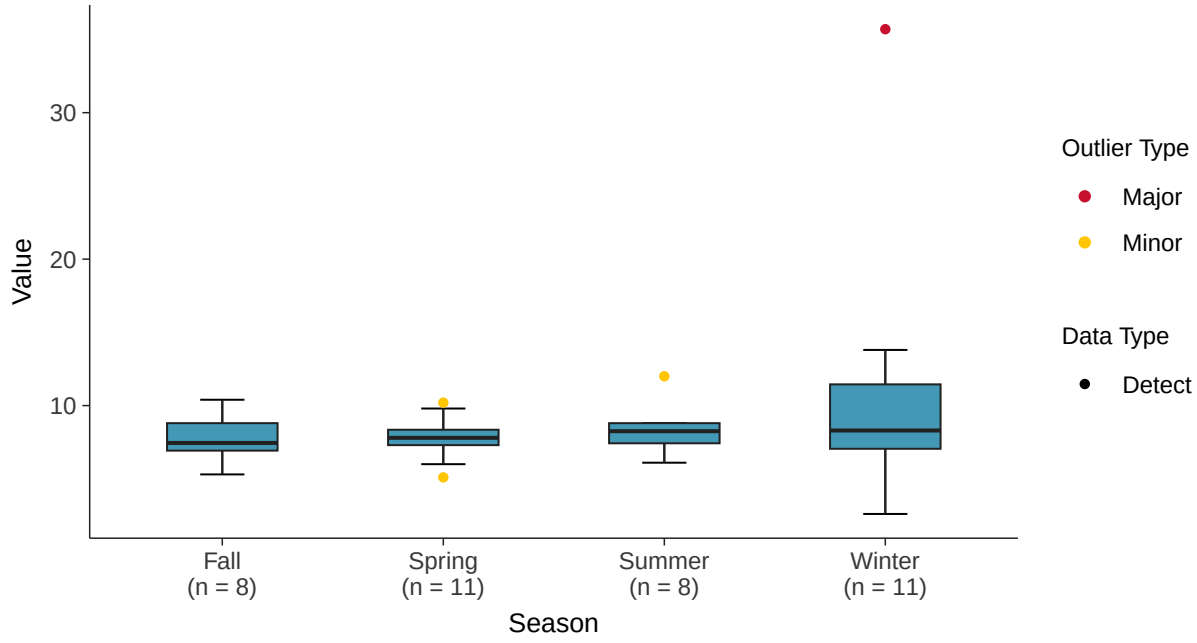
Boxplot

Molybdenum, MW-3 (ug/L)



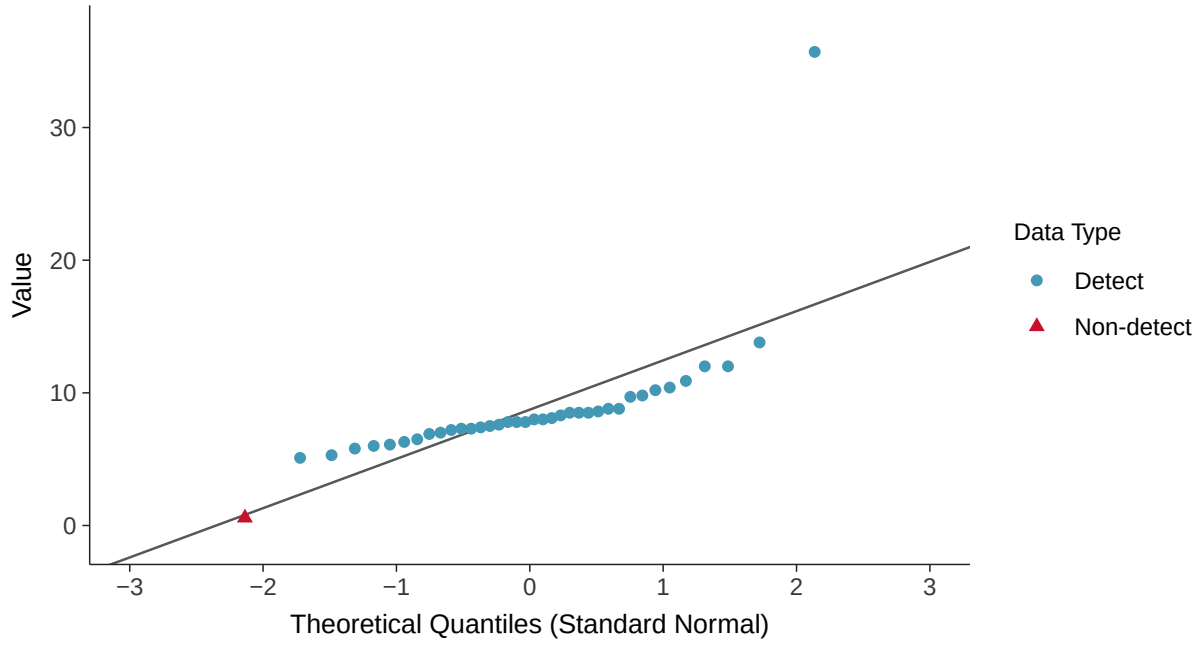
Boxplot by Season

Molybdenum, MW-3 (ug/L)



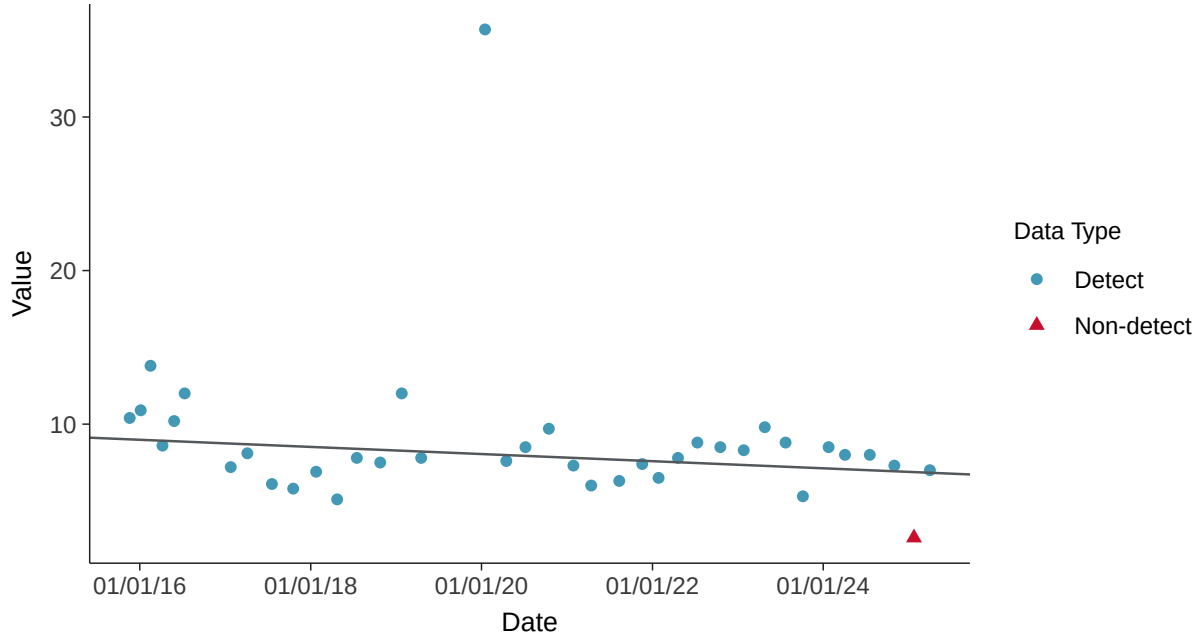
Normal Q-Q plot using ROS Imputed Estimates

Molybdenum, MW-3 (ug/L)



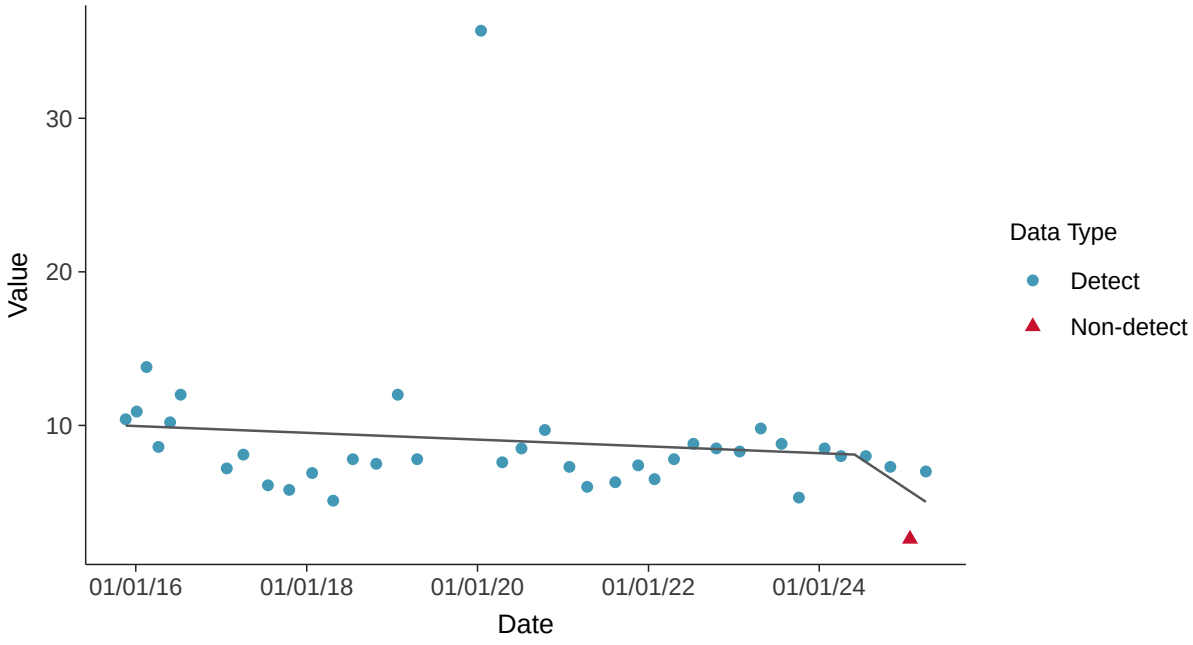
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Molybdenum, MW-3 (ug/L)



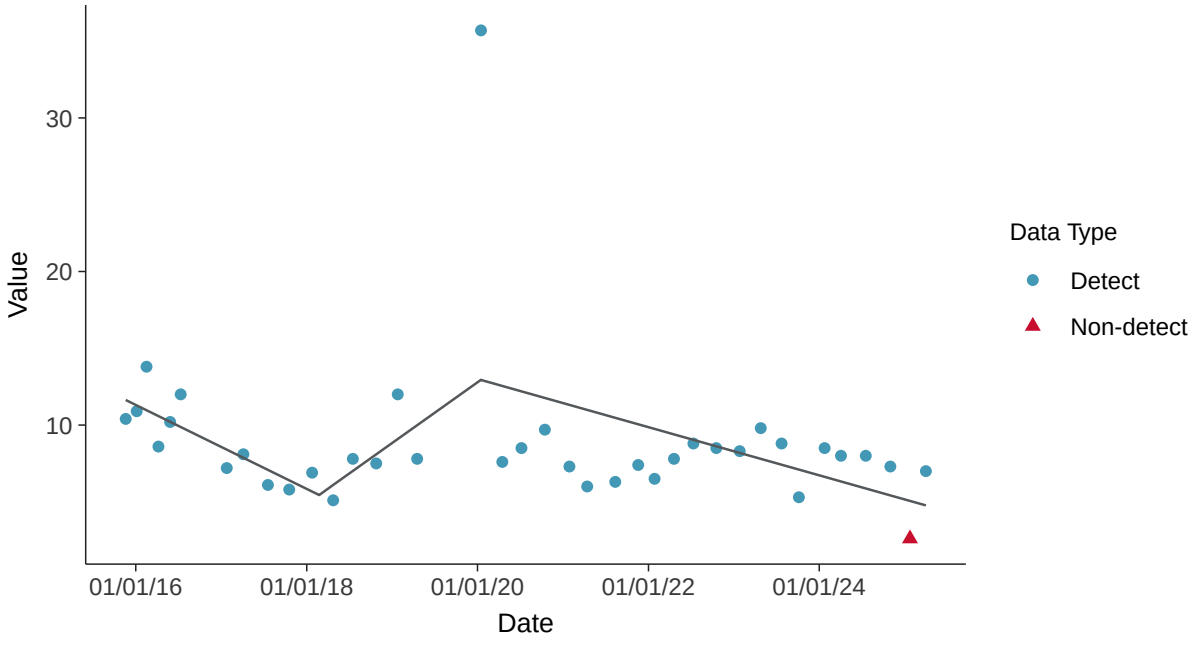
Trend Regression: Piecewise Linear-Linear

Molybdenum, MW-3 (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Molybdenum, MW-3 (ug/L)

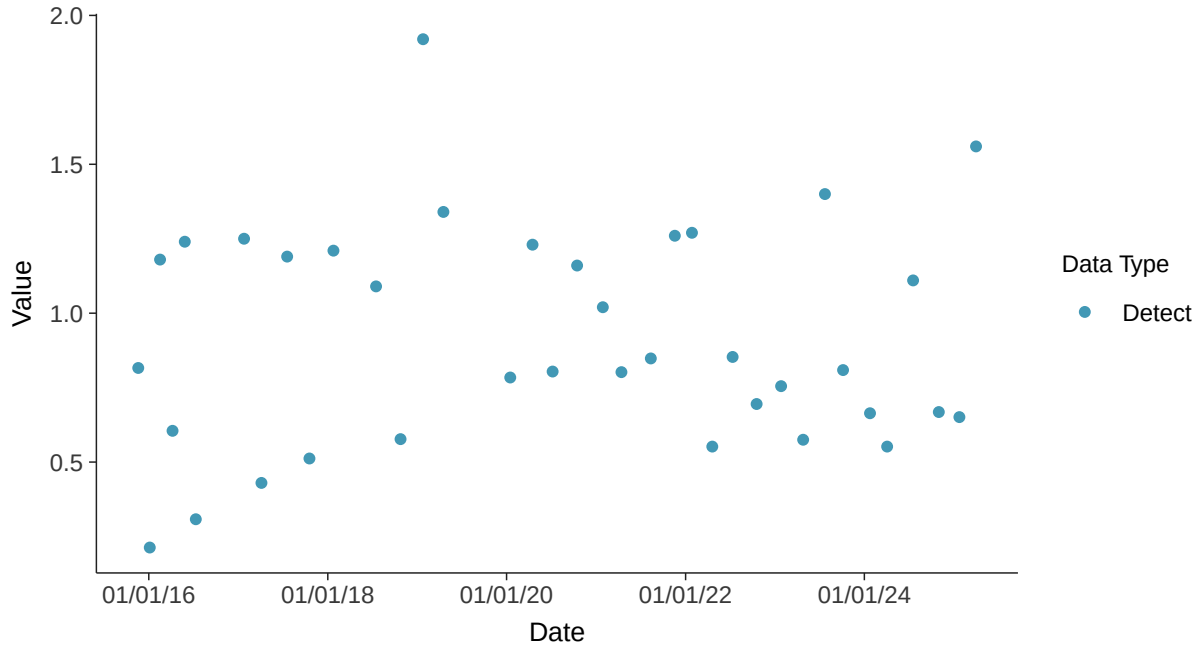


App. IV: Radium-226, MW-3

ID: 03_03_119

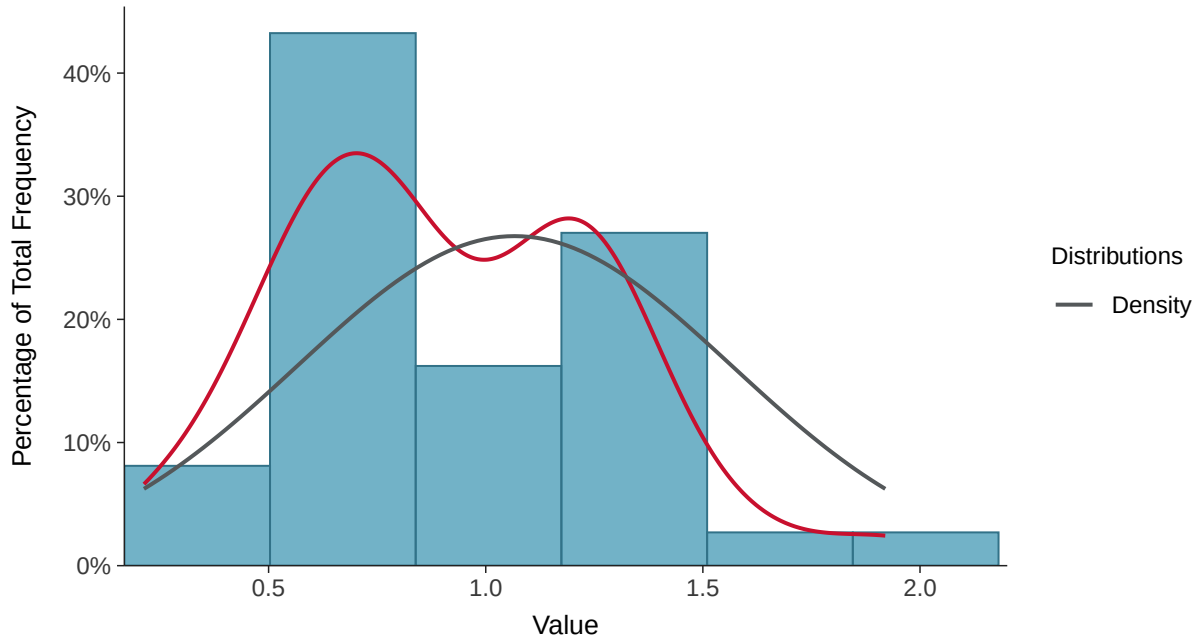
Scatter Plot

Radium-226, MW-3 (pCi/L)



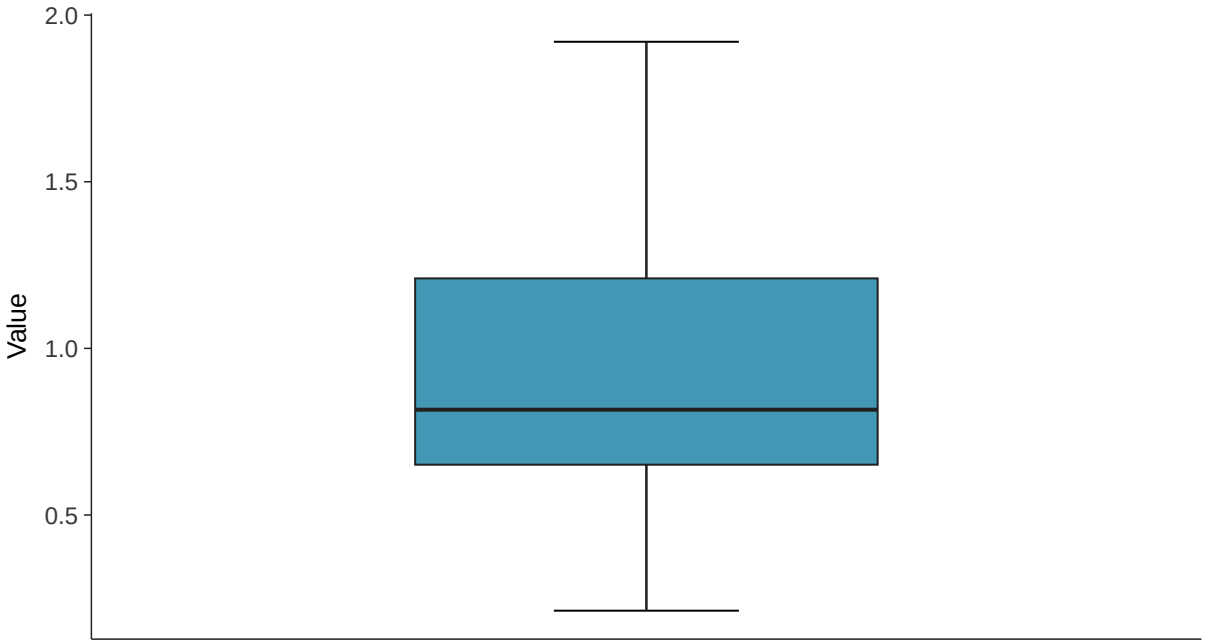
Histogram

Radium-226, MW-3 (pCi/L)



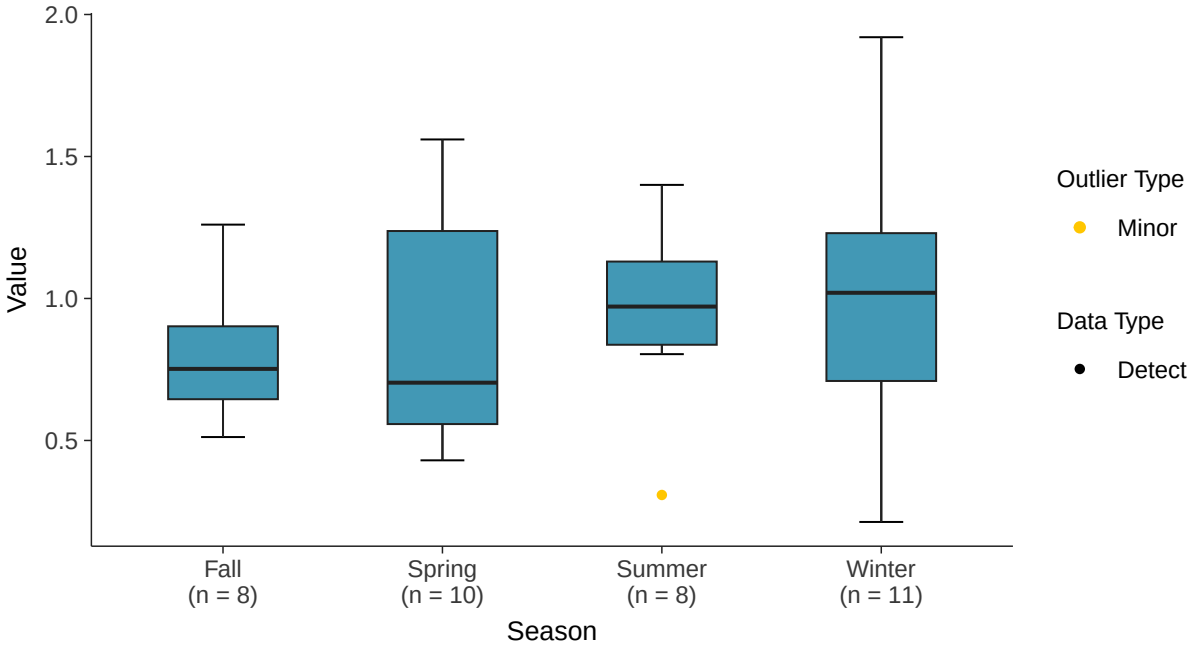
Boxplot

Radium-226, MW-3 (pCi/L)



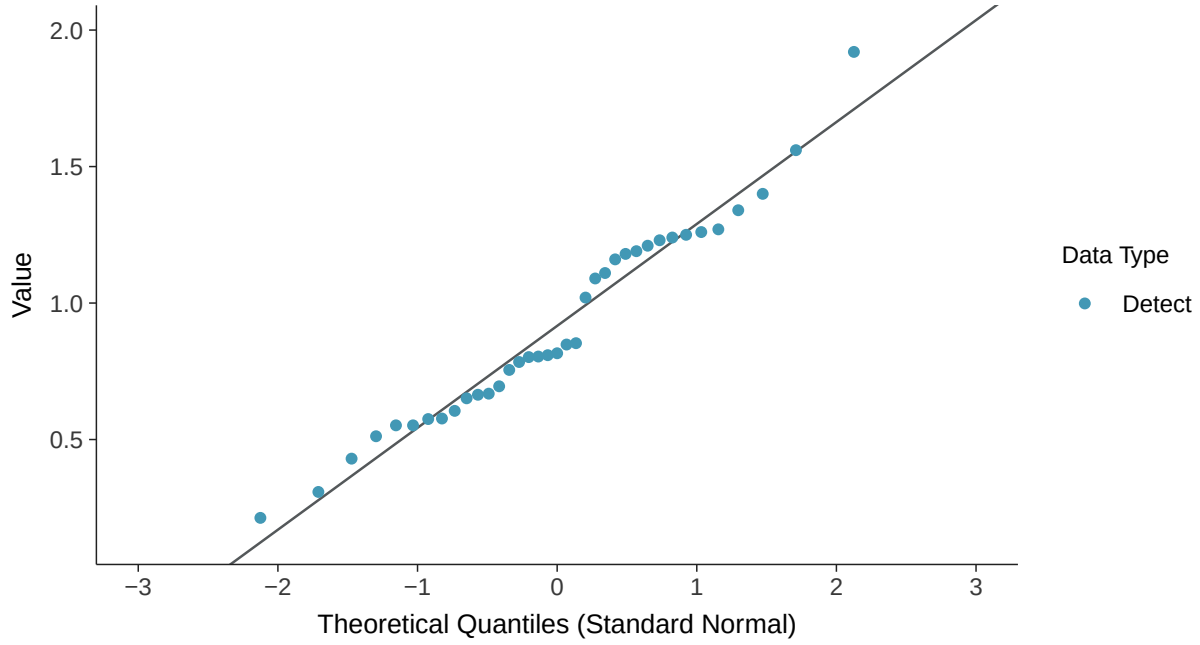
Boxplot by Season

Radium-226, MW-3 (pCi/L)



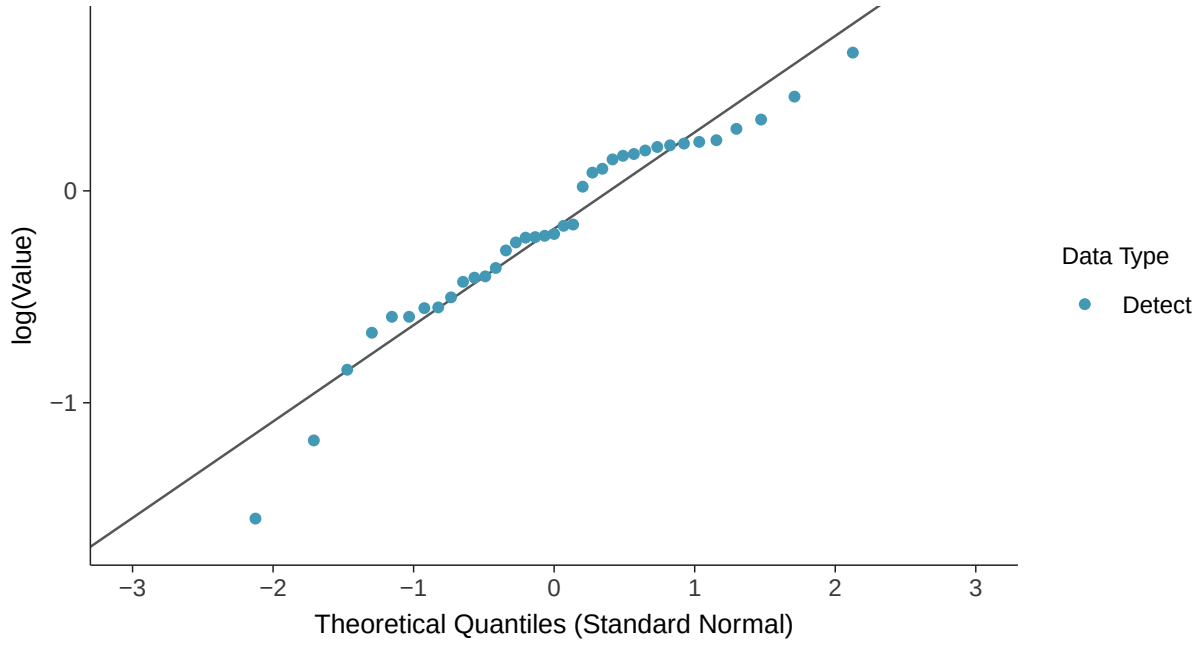
Normal Q-Q plot

Radium-226, MW-3 (pCi/L)



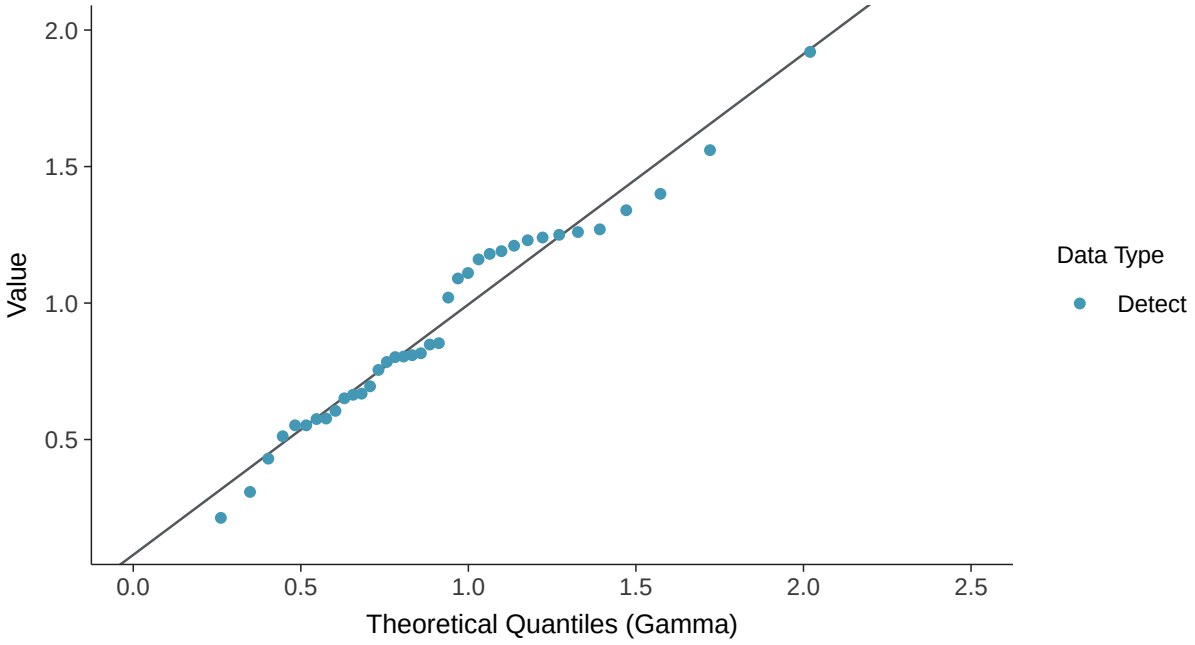
Lognormal Q-Q plot

Radium-226, MW-3 (pCi/L)



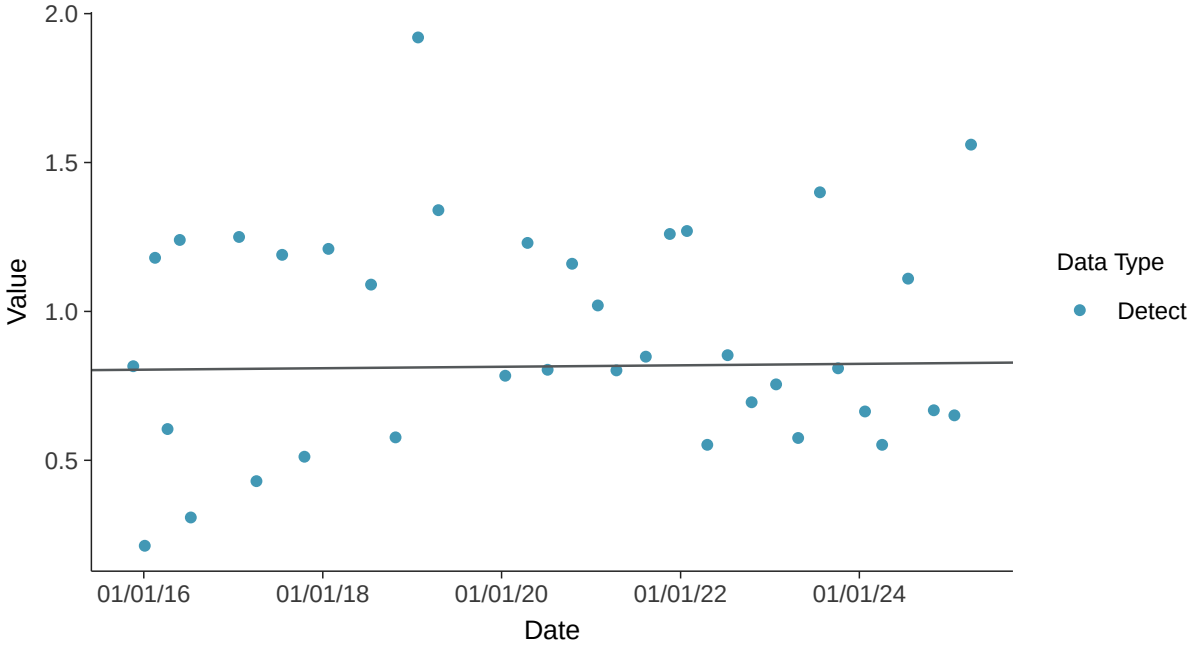
Gamma Q-Q plot

Radium-226, MW-3 (pCi/L)



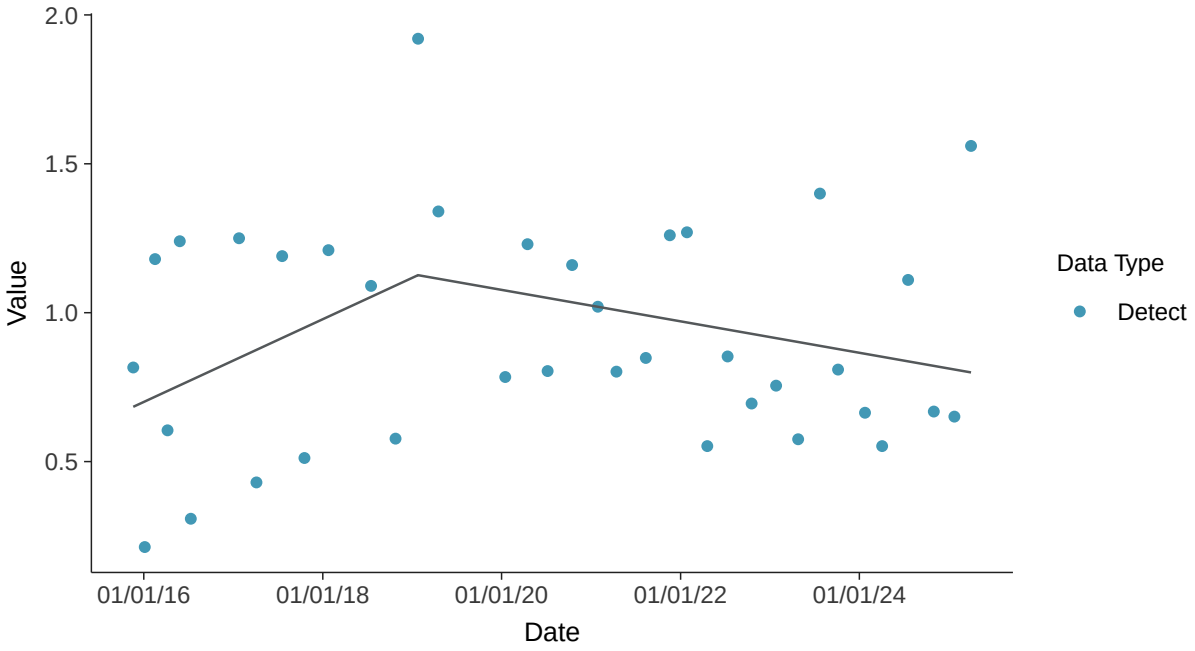
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Radium-226, MW-3 (pCi/L)



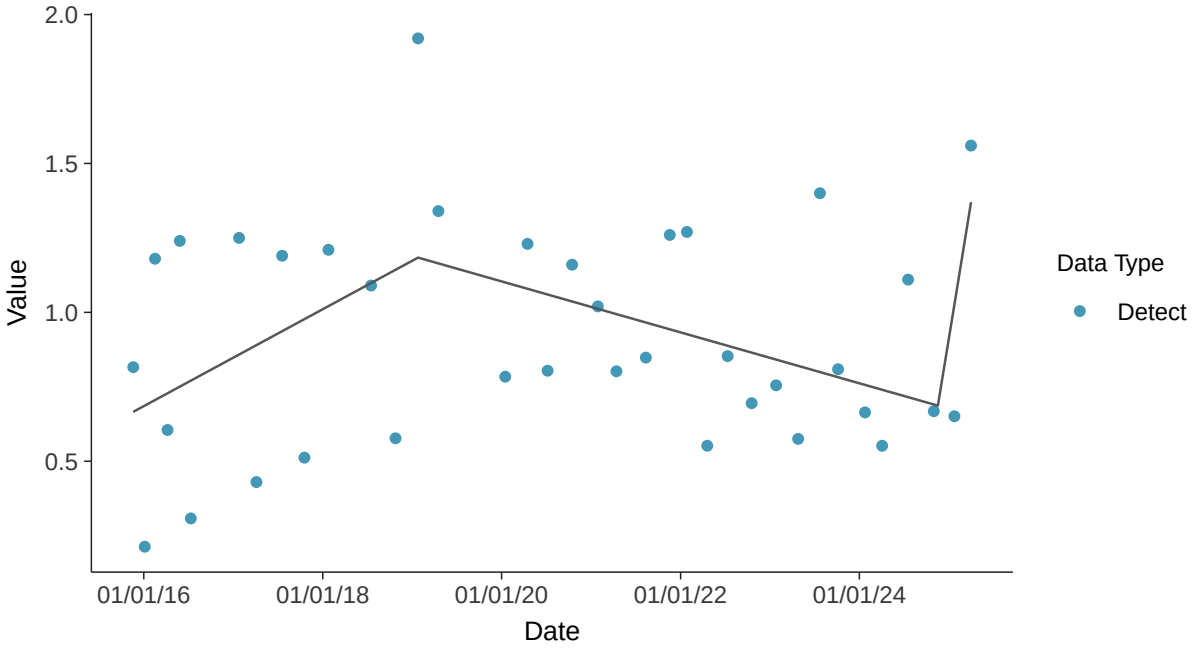
Trend Regression: Piecewise Linear-Linear

Radium-226, MW-3 (pCi/L)



Trend Regression: Piecewise Linear-Linear-Linear

Radium-226, MW-3 (pCi/L)

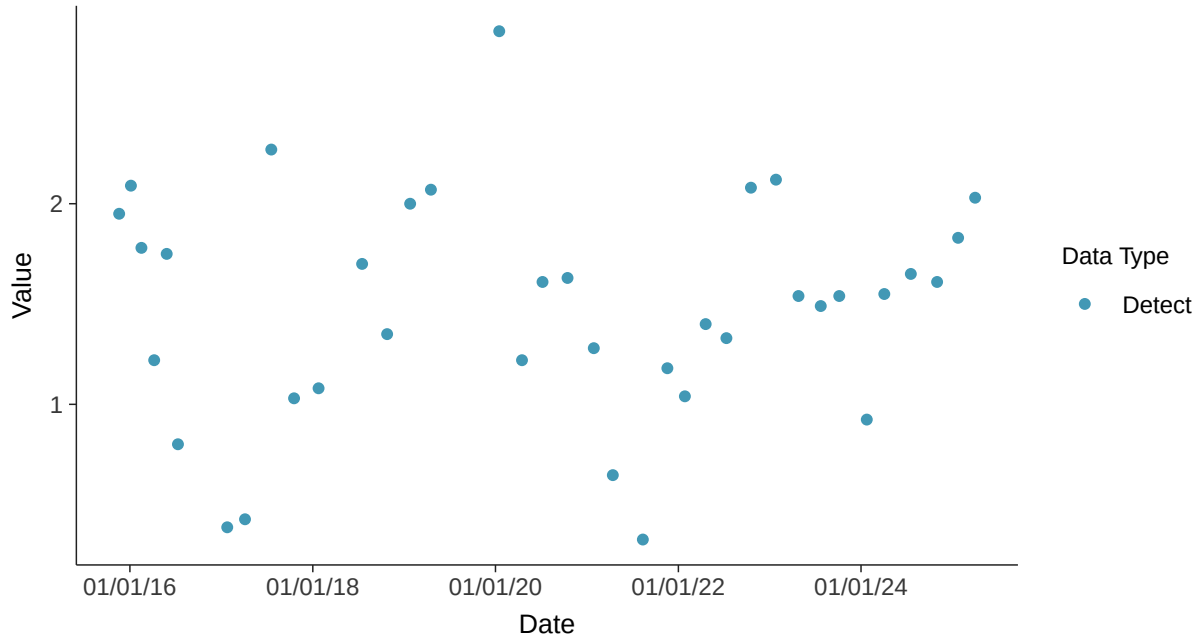


App. IV: Radium-228, MW-3

ID: 03_03_120

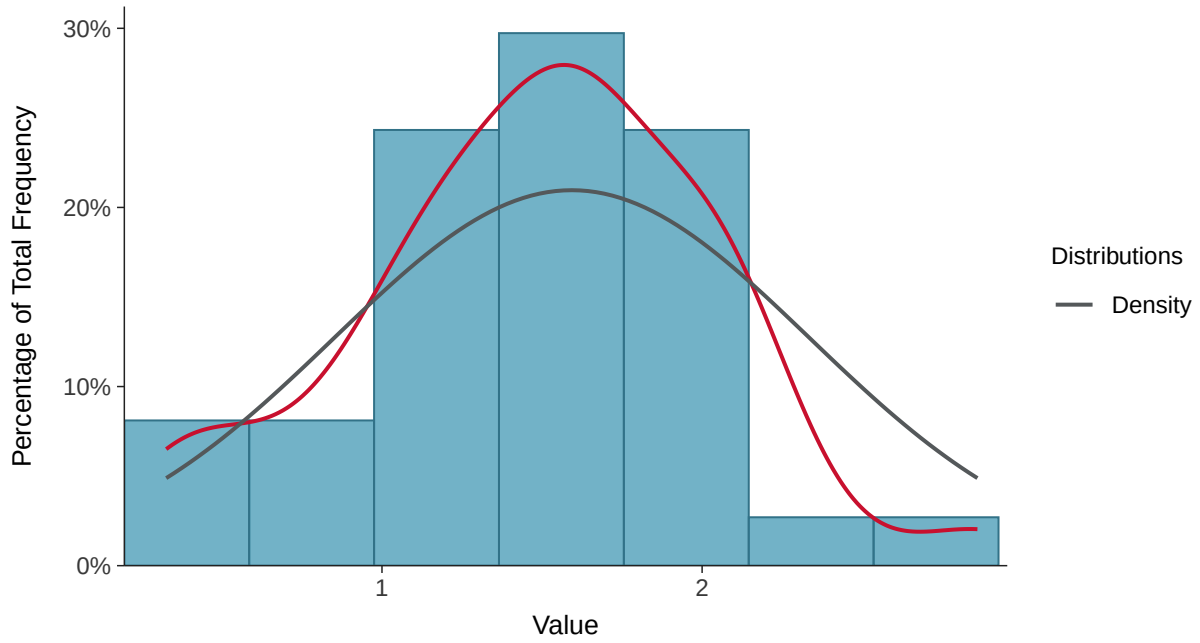
Scatter Plot

Radium-228, MW-3 (pCi/L)



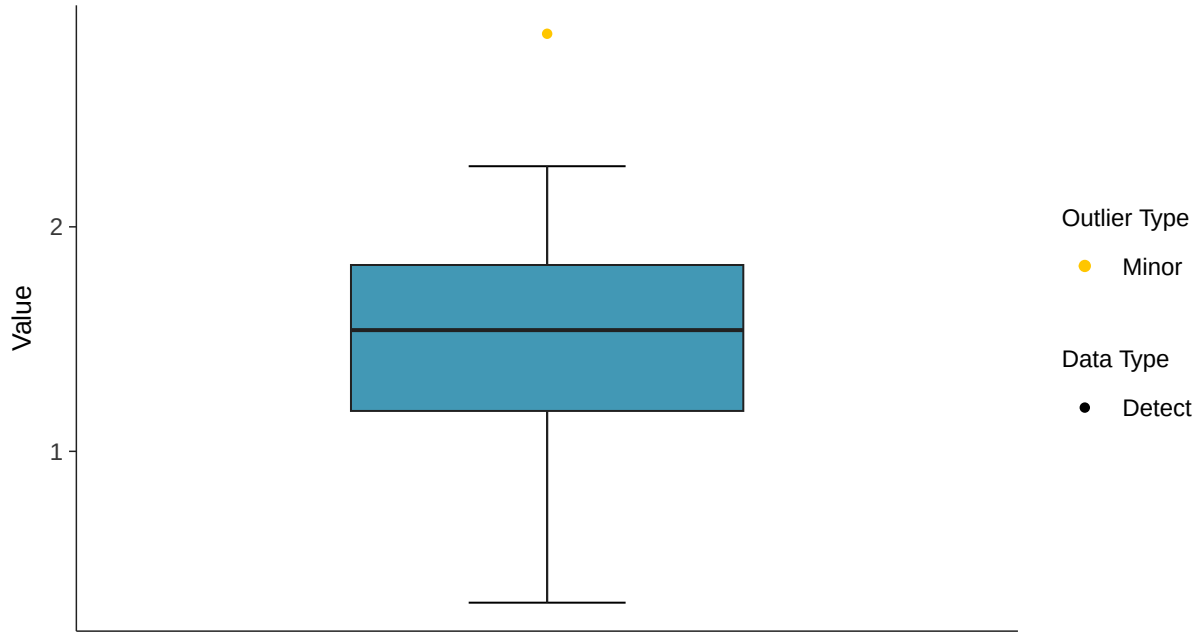
Histogram

Radium-228, MW-3 (pCi/L)



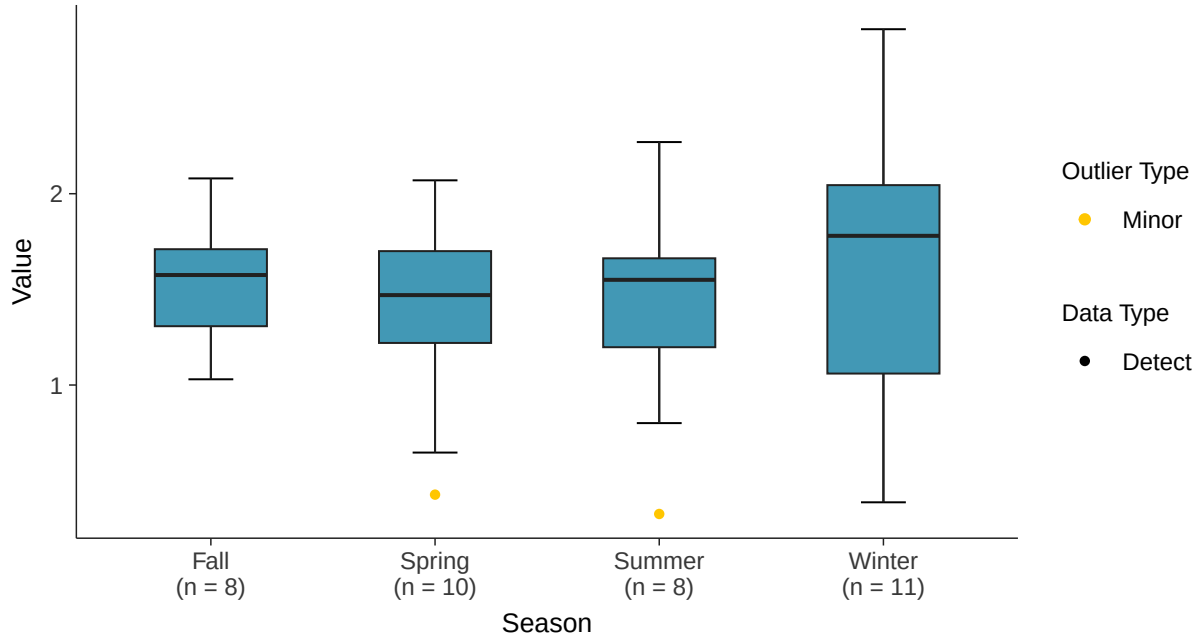
Boxplot

Radium-228, MW-3 (pCi/L)



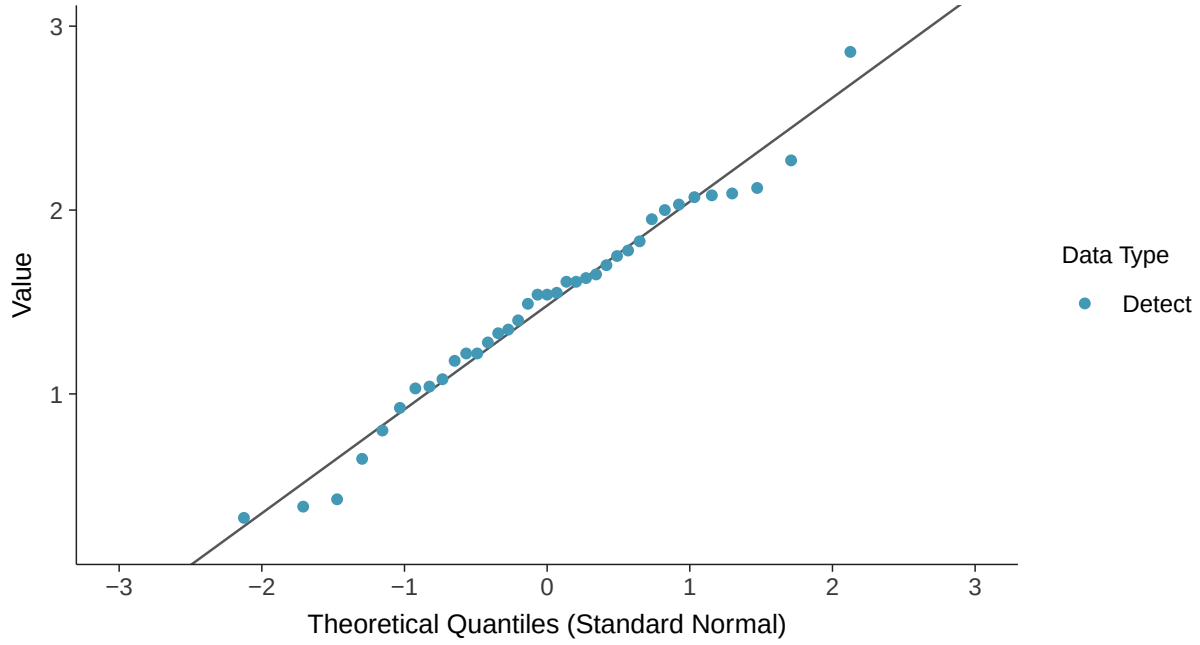
Boxplot by Season

Radium-228, MW-3 (pCi/L)



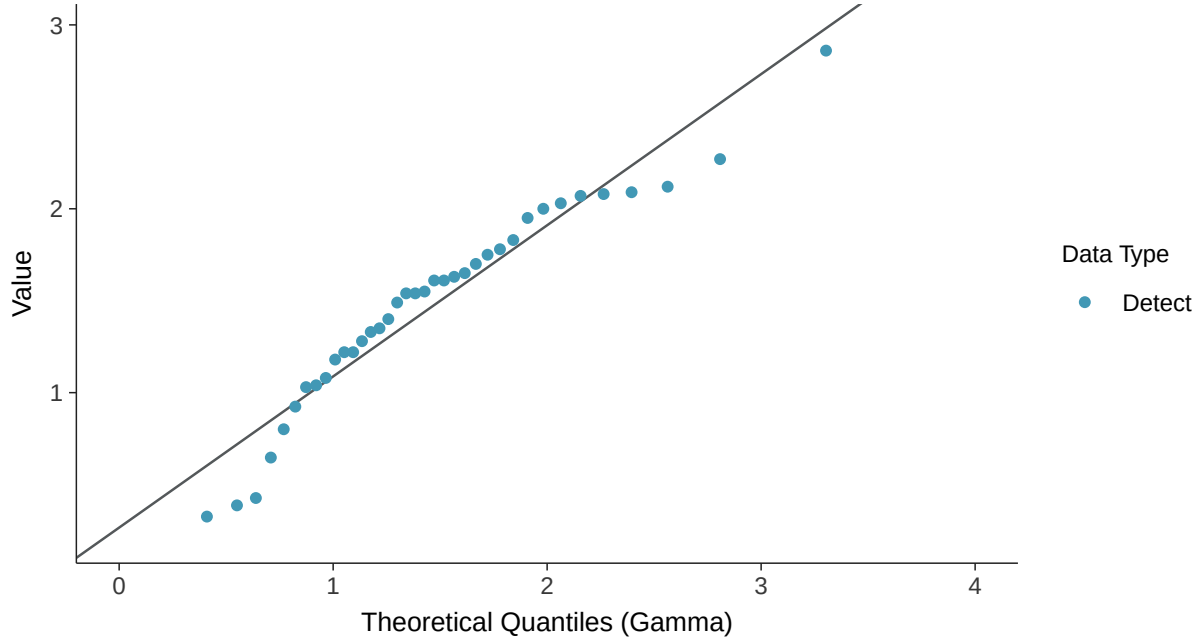
Normal Q-Q plot

Radium-228, MW-3 (pCi/L)



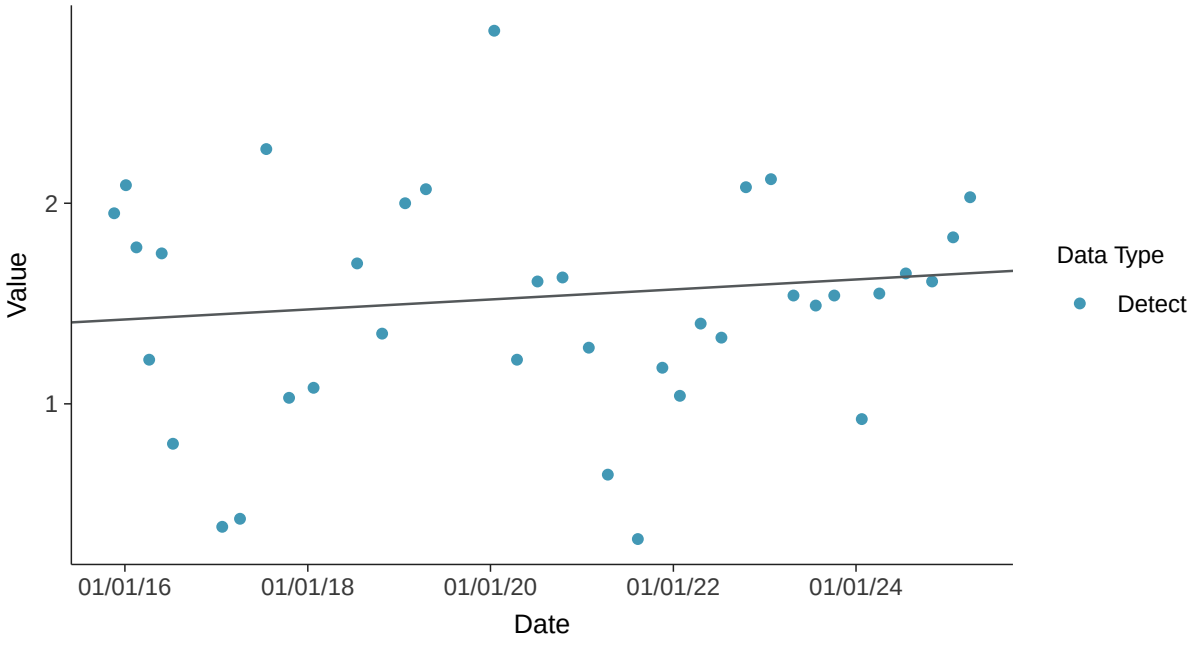
Gamma Q-Q plot

Radium-228, MW-3 (pCi/L)



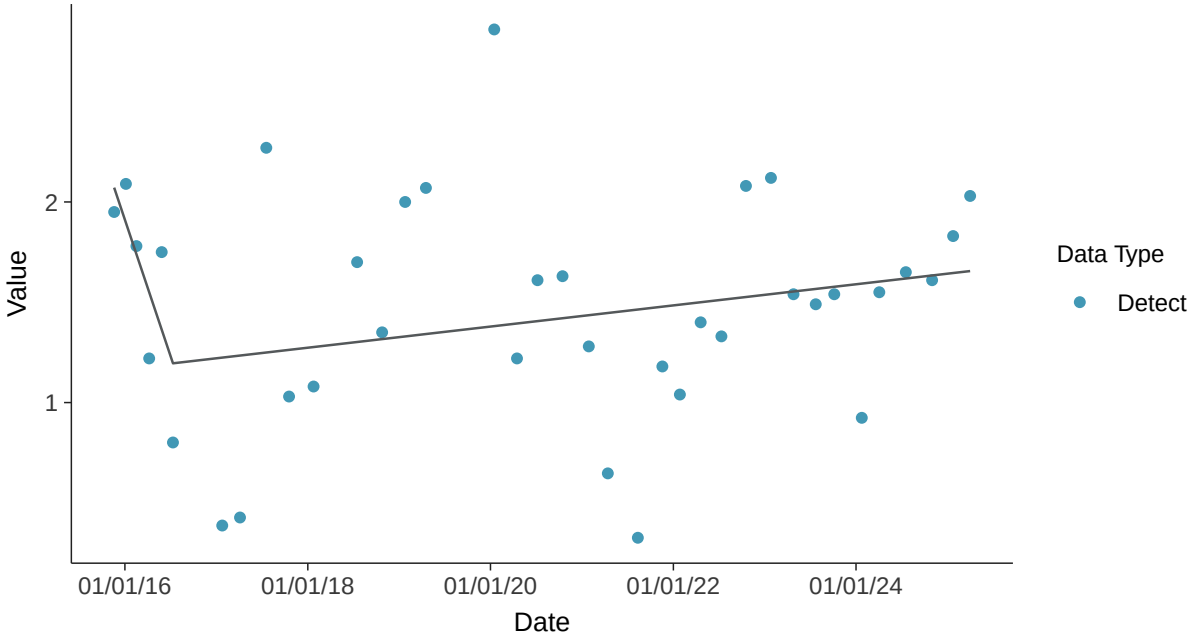
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Radium-228, MW-3 (pCi/L)



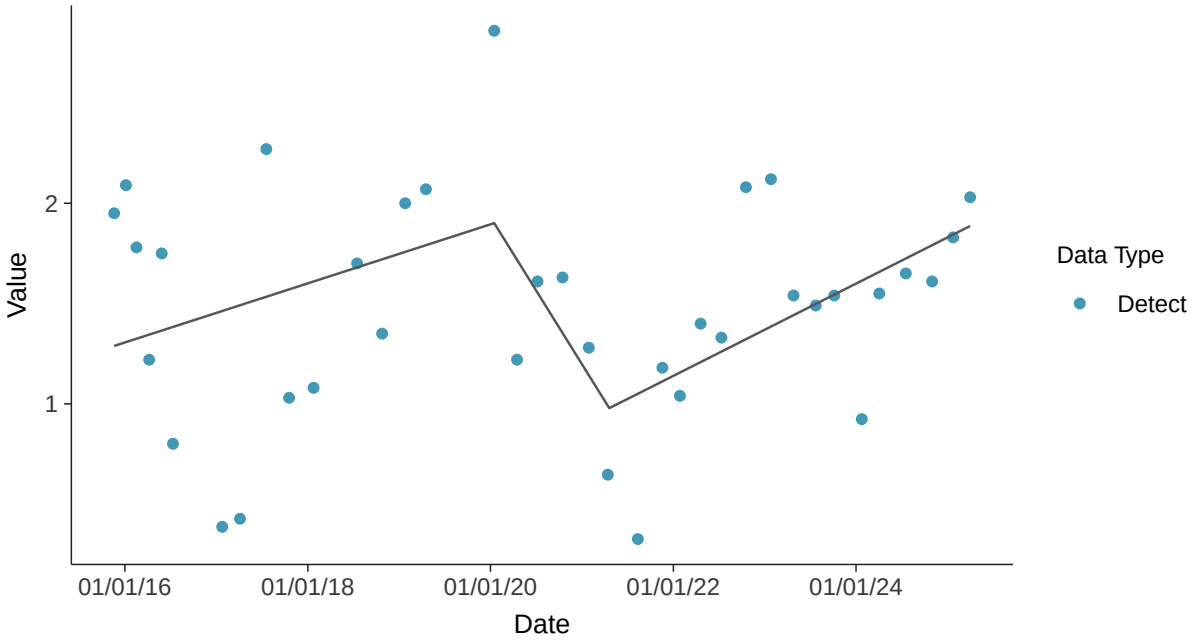
Trend Regression: Piecewise Linear-Linear

Radium-228, MW-3 (pCi/L)



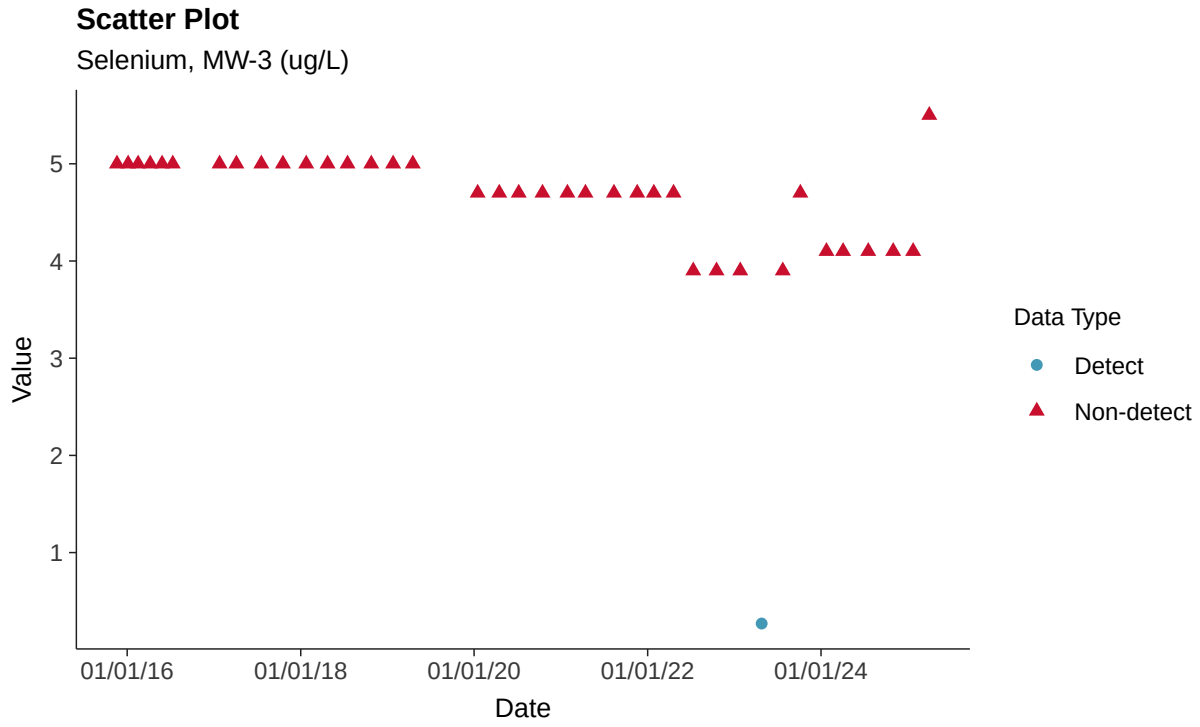
Trend Regression: Piecewise Linear-Linear-Linear

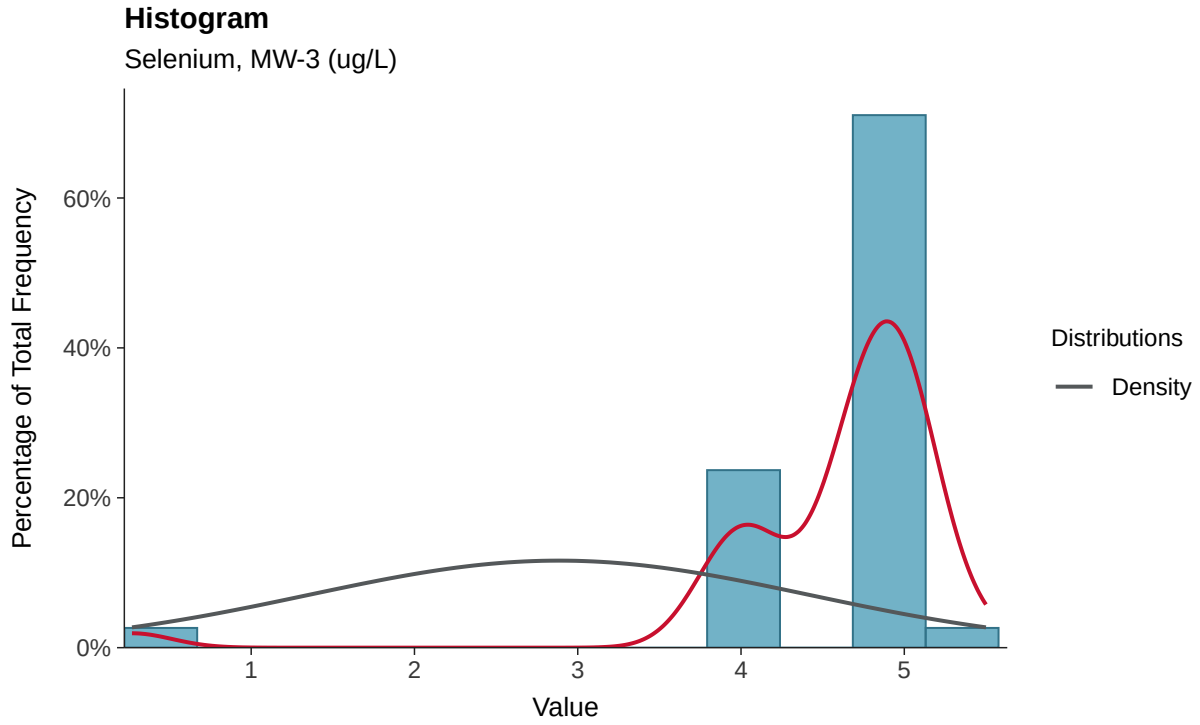
Radium-228, MW-3 (pCi/L)



App. IV: Selenium, MW-3

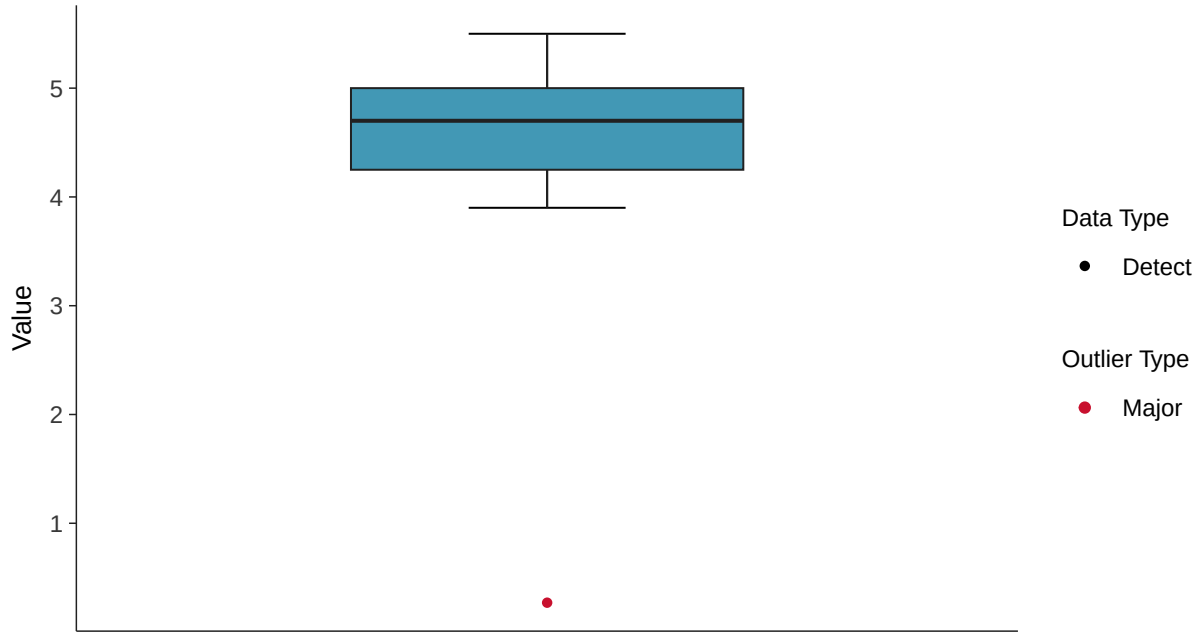
ID: 03_03_121





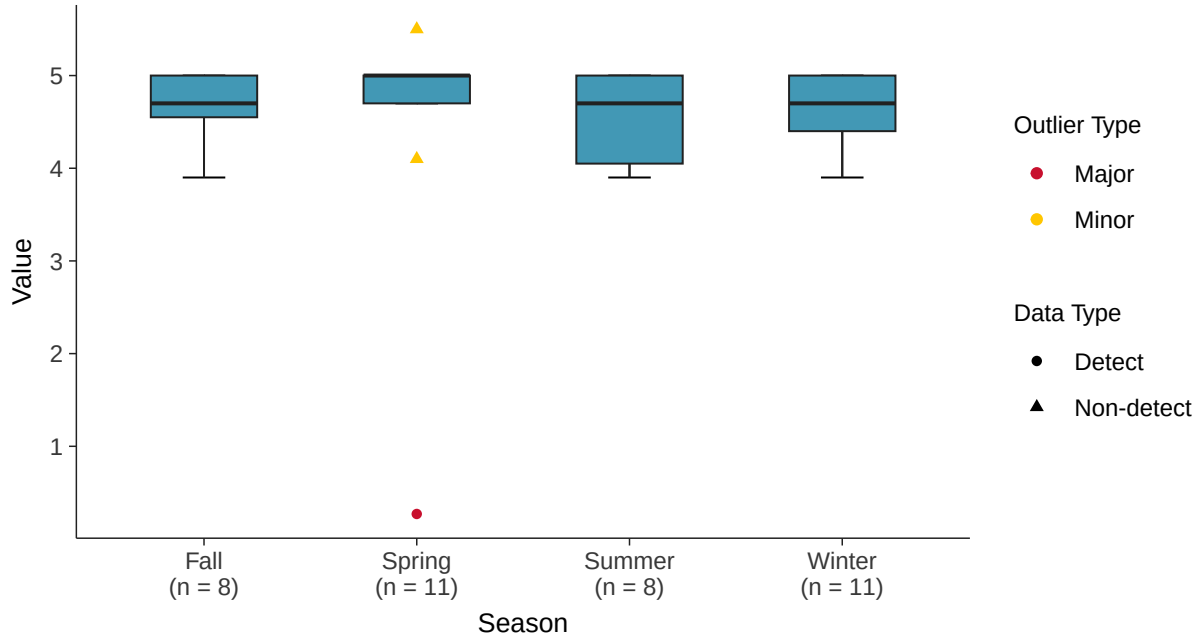
Boxplot

Selenium, MW-3 (ug/L)



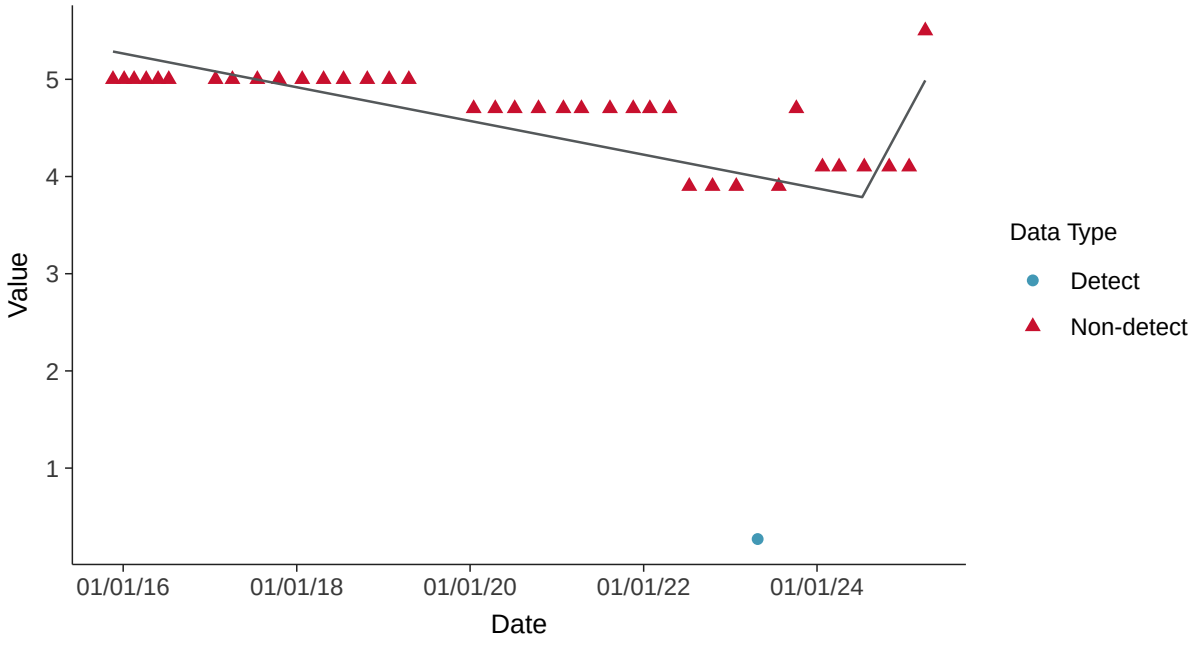
Boxplot by Season

Selenium, MW-3 (ug/L)



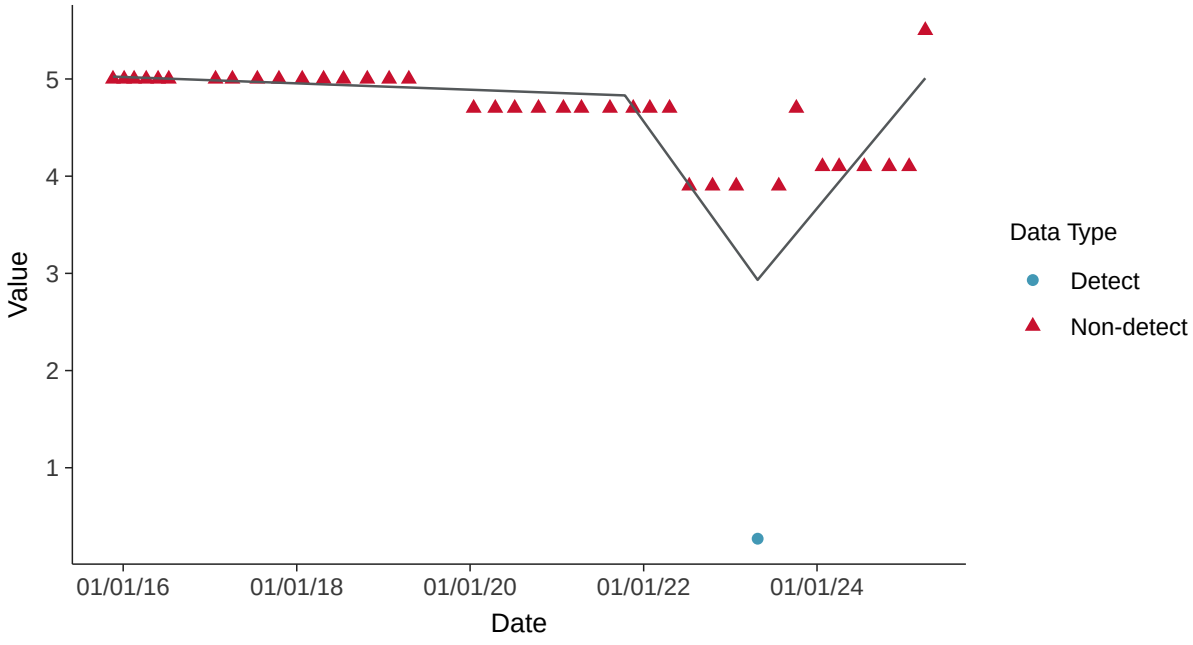
Trend Regression: Piecewise Linear-Linear

Selenium, MW-3 (ug/L)



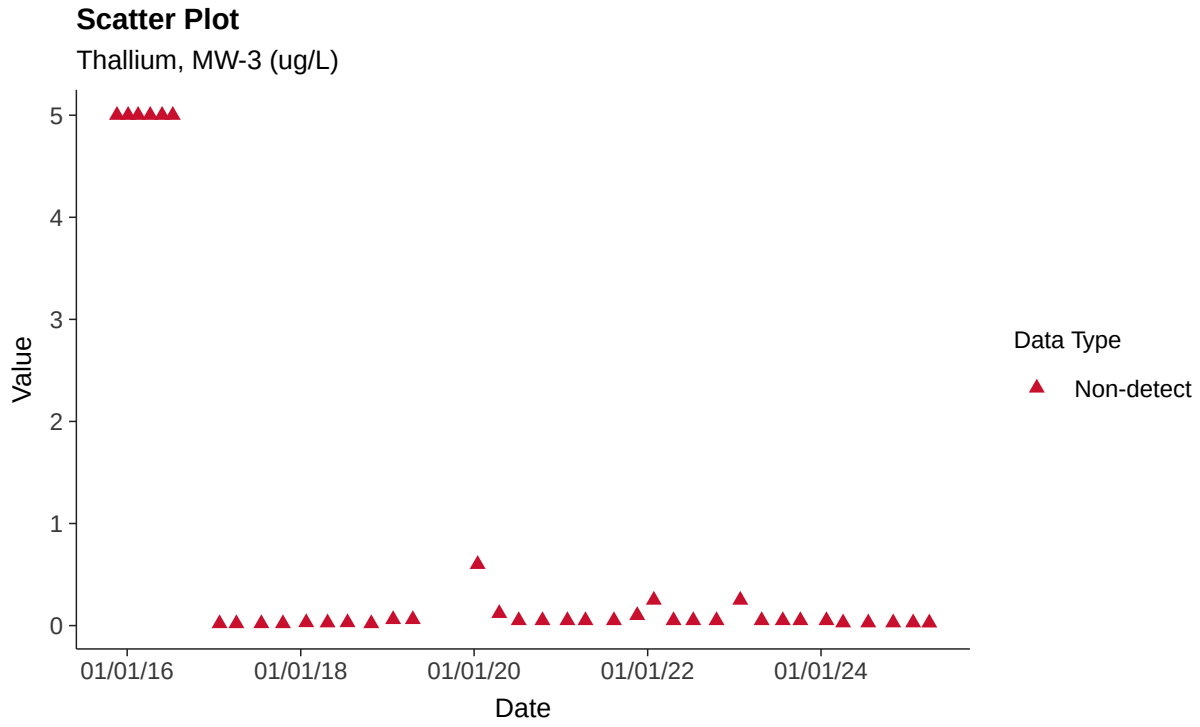
Trend Regression: Piecewise Linear-Linear-Linear

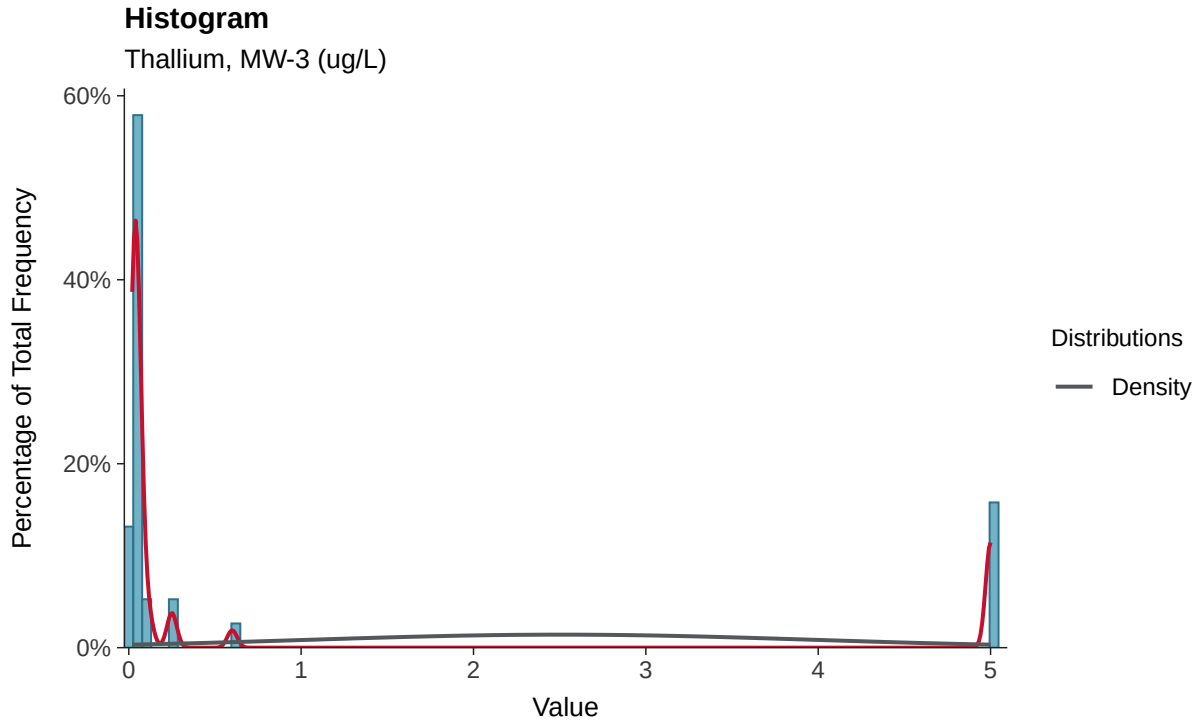
Selenium, MW-3 (ug/L)



App. IV: Thallium, MW-3

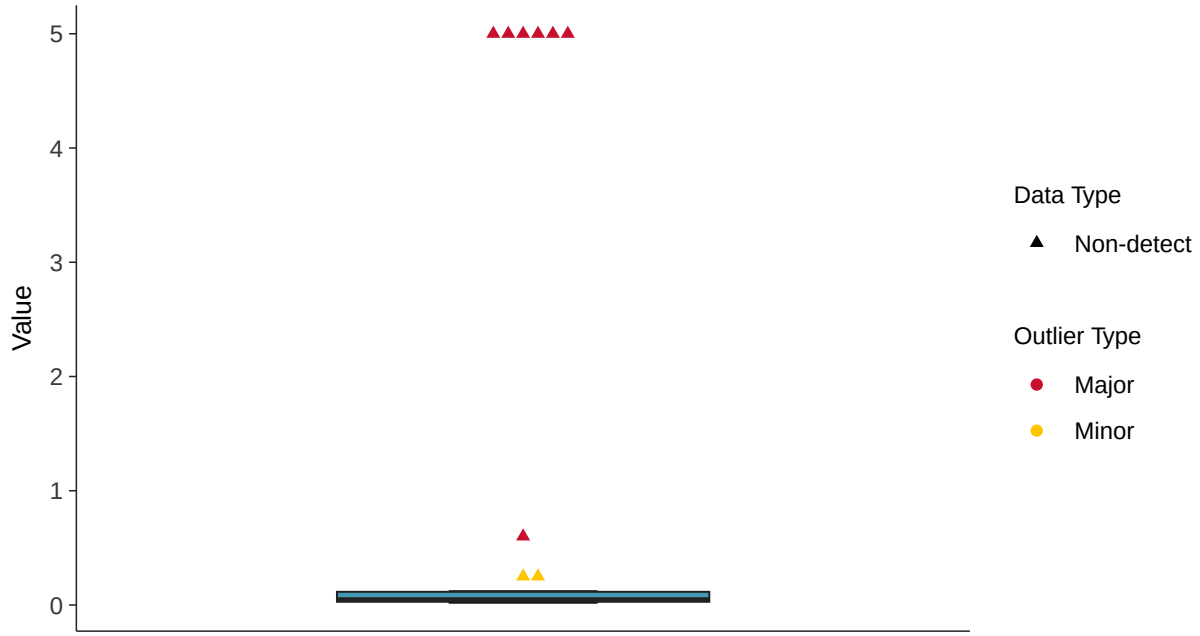
ID: 03_03_124





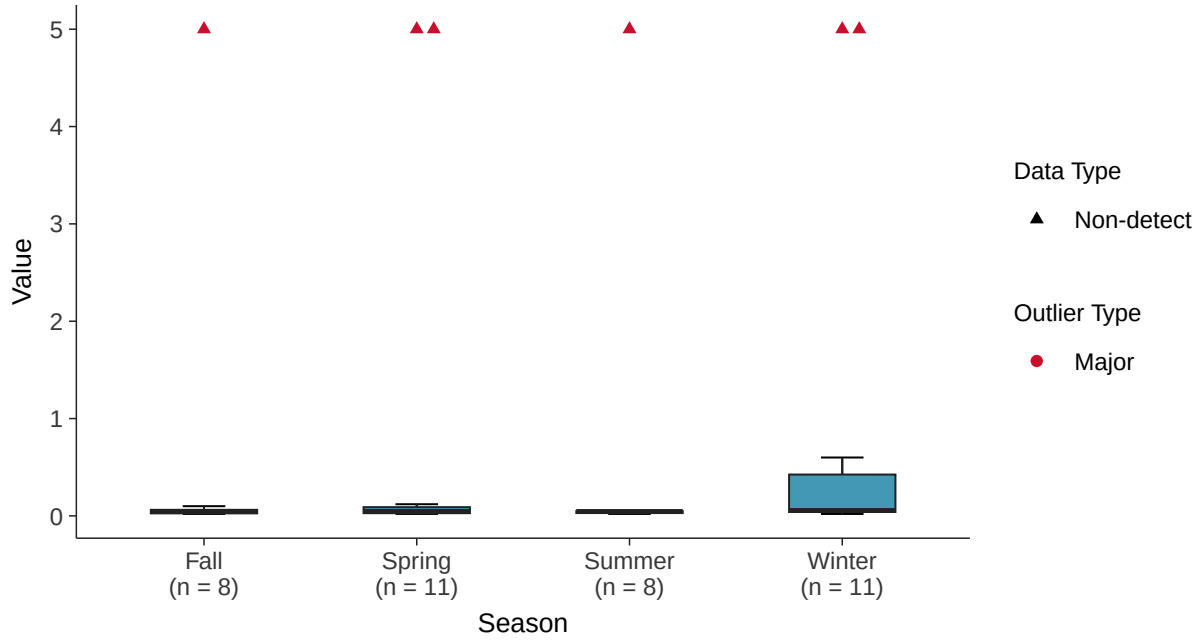
Boxplot

Thallium, MW-3 (ug/L)



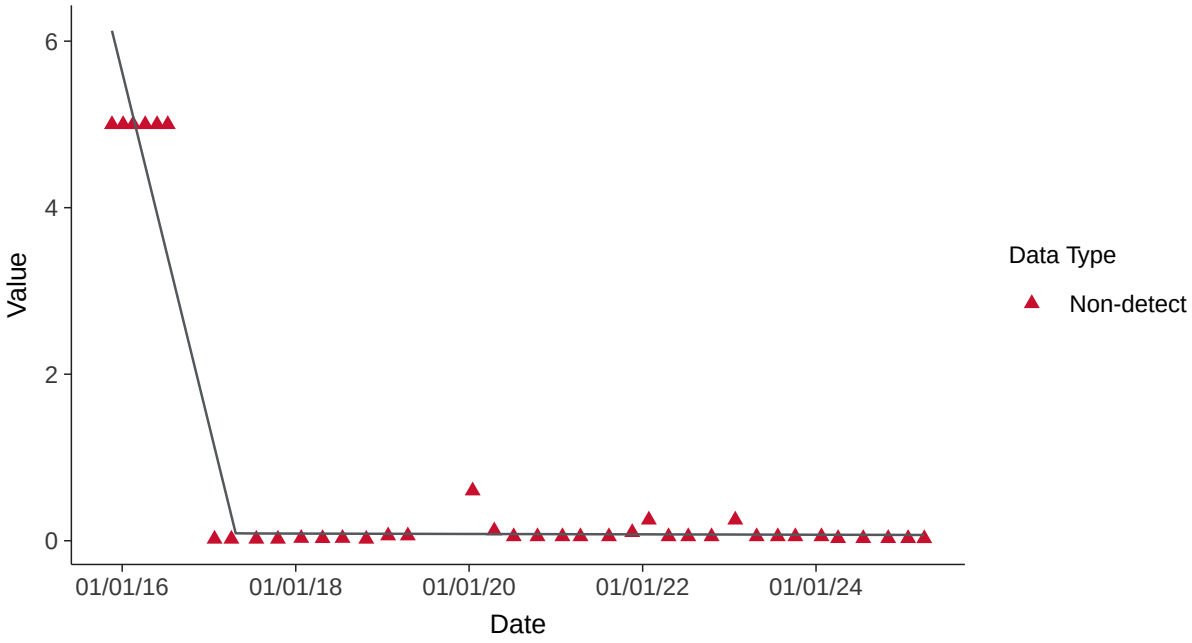
Boxplot by Season

Thallium, MW-3 (ug/L)



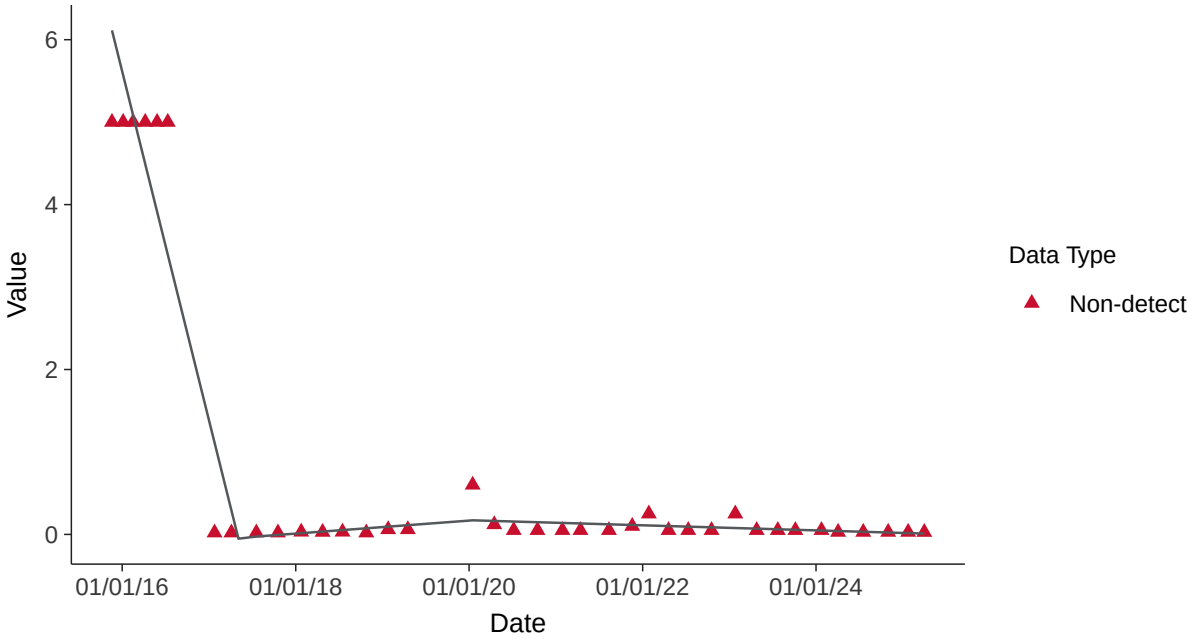
Trend Regression: Piecewise Linear-Linear

Thallium, MW-3 (ug/L)



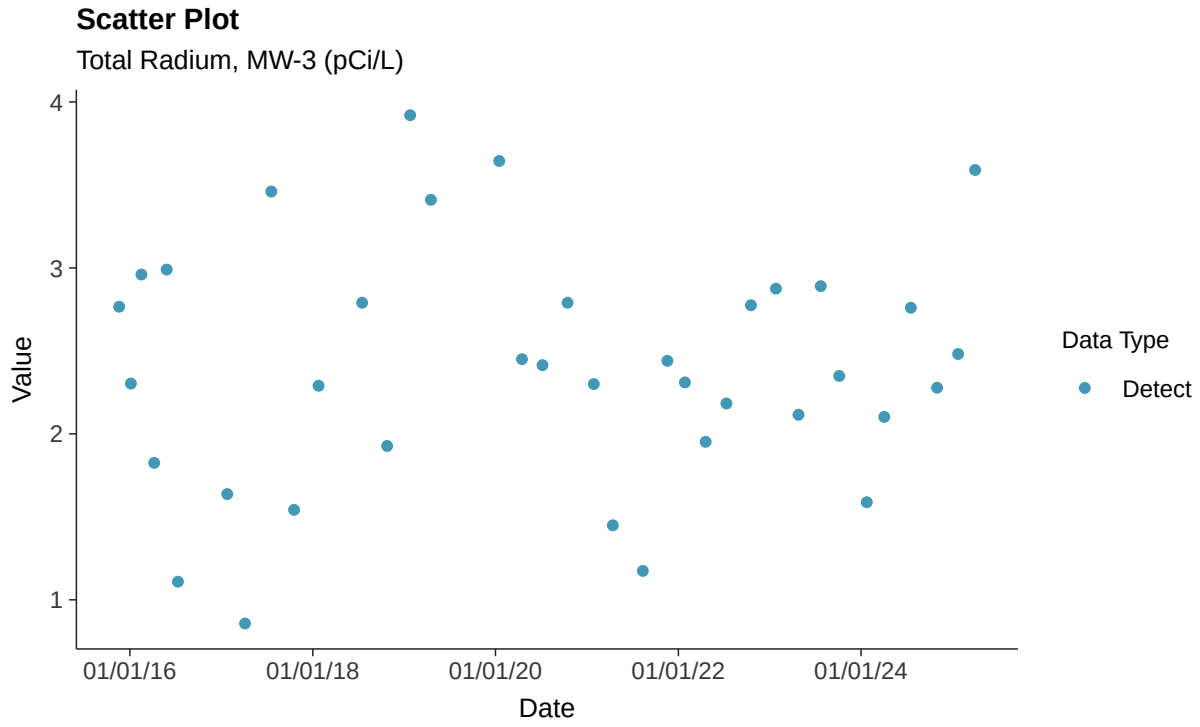
Trend Regression: Piecewise Linear-Linear-Linear

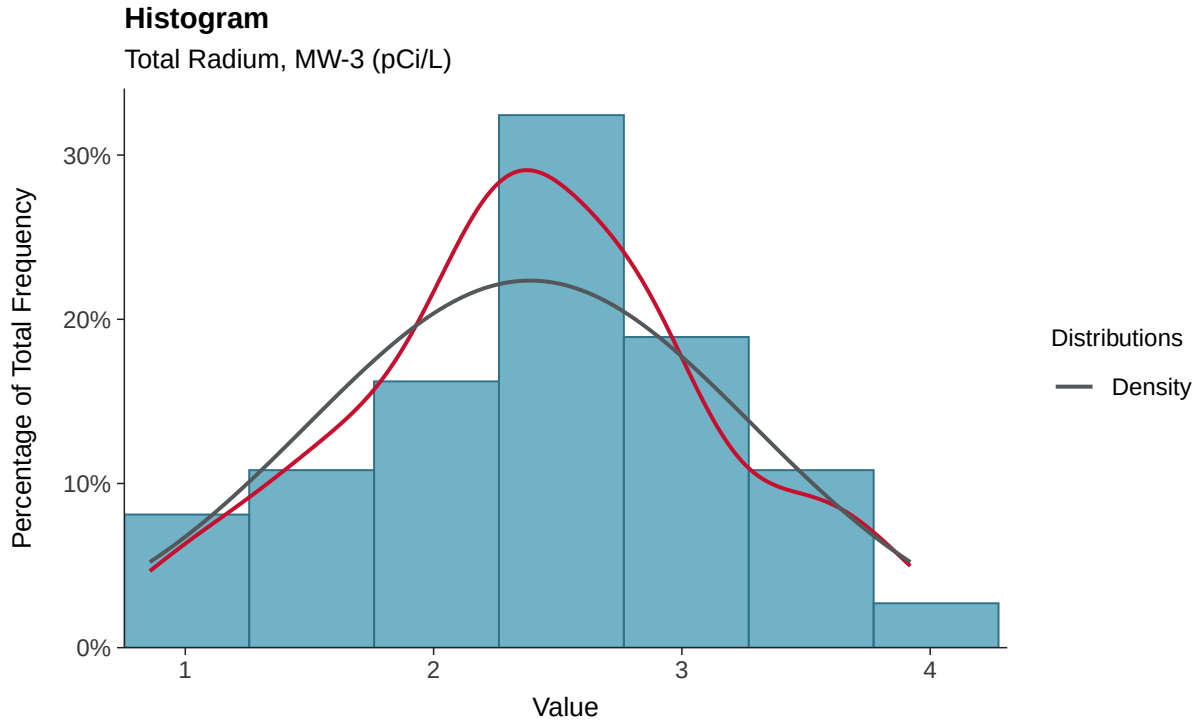
Thallium, MW-3 (ug/L)



App. IV: Total Radium, MW-3

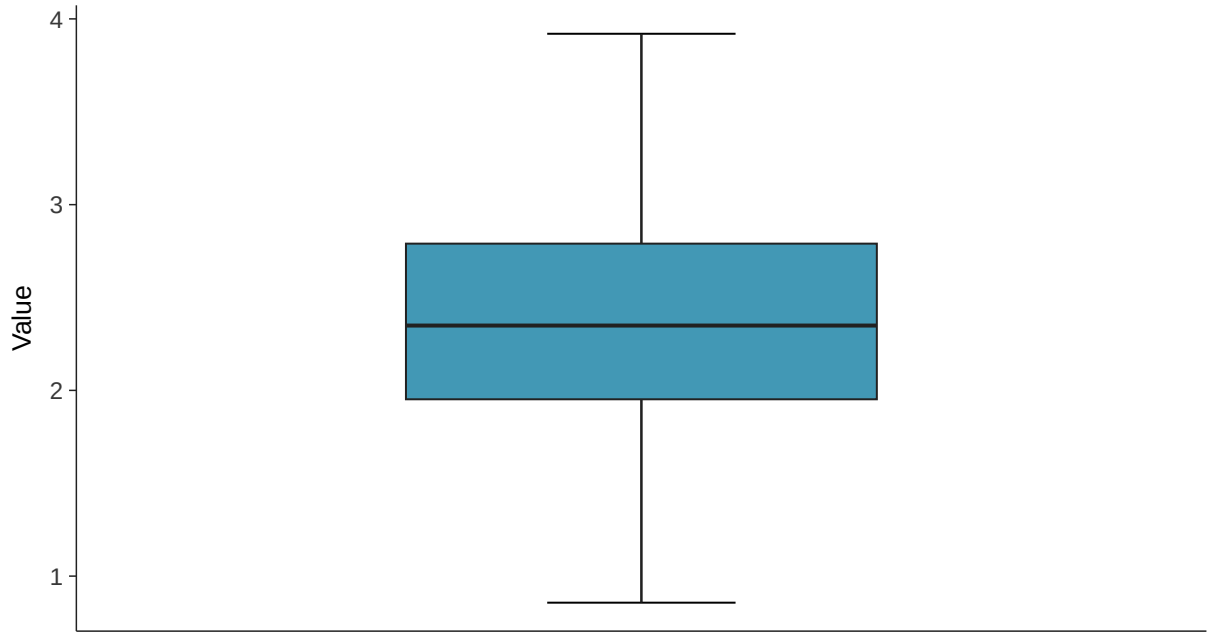
ID: 03_03_126





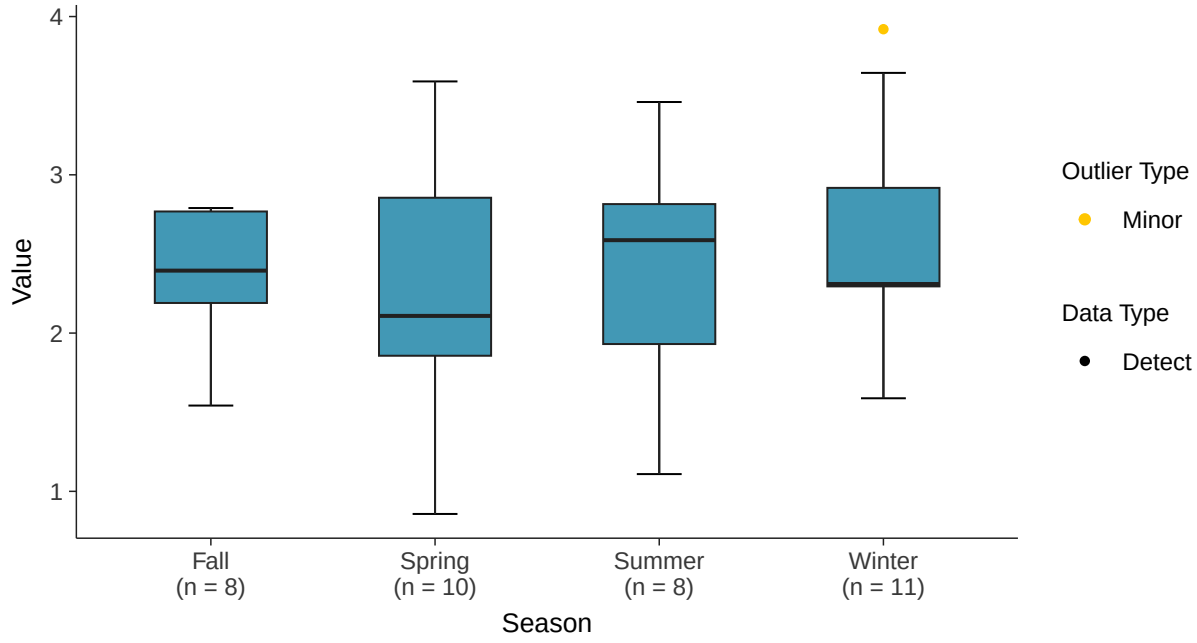
Boxplot

Total Radium, MW-3 (pCi/L)



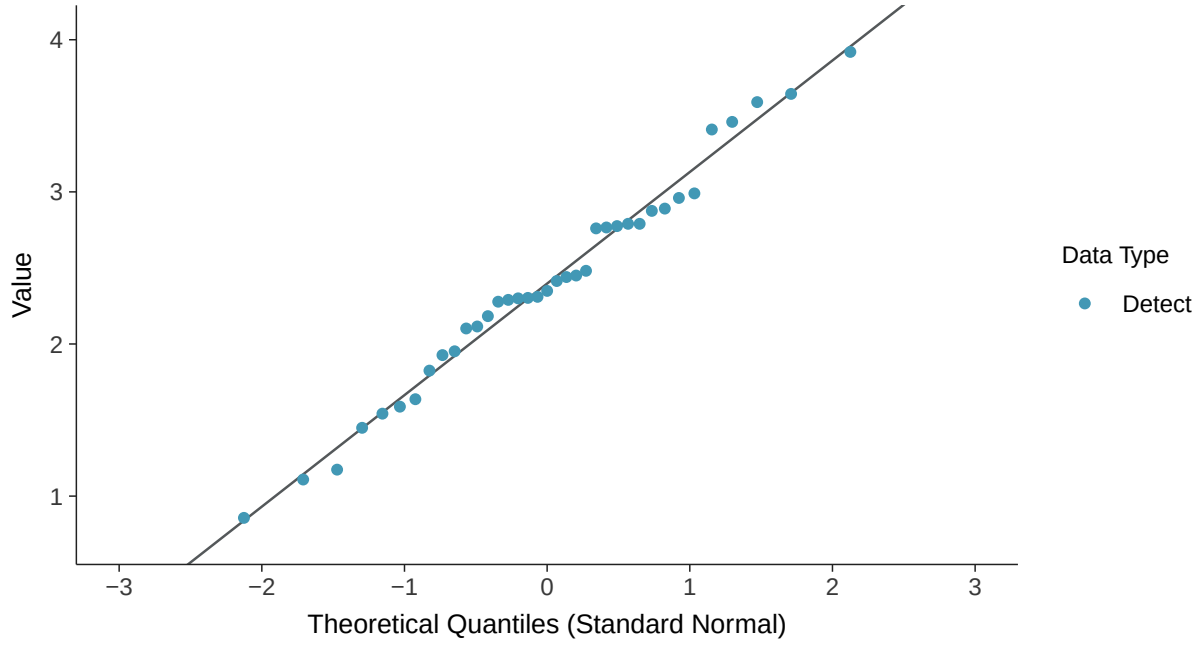
Boxplot by Season

Total Radium, MW-3 (pCi/L)



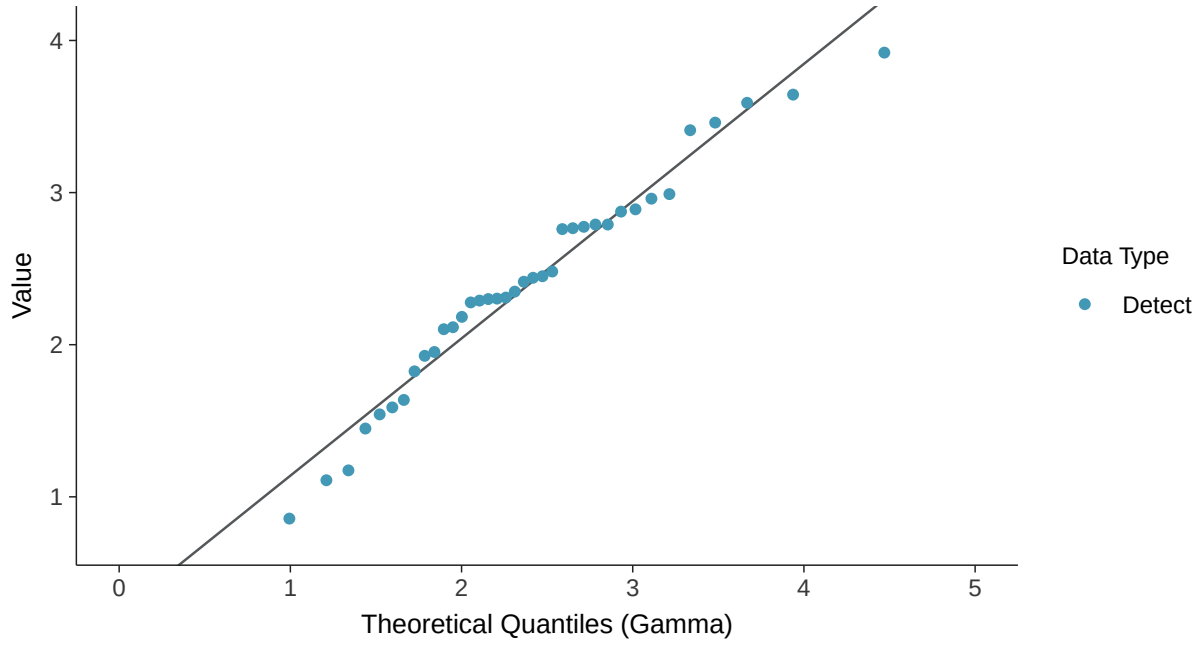
Normal Q-Q plot

Total Radium, MW-3 (pCi/L)



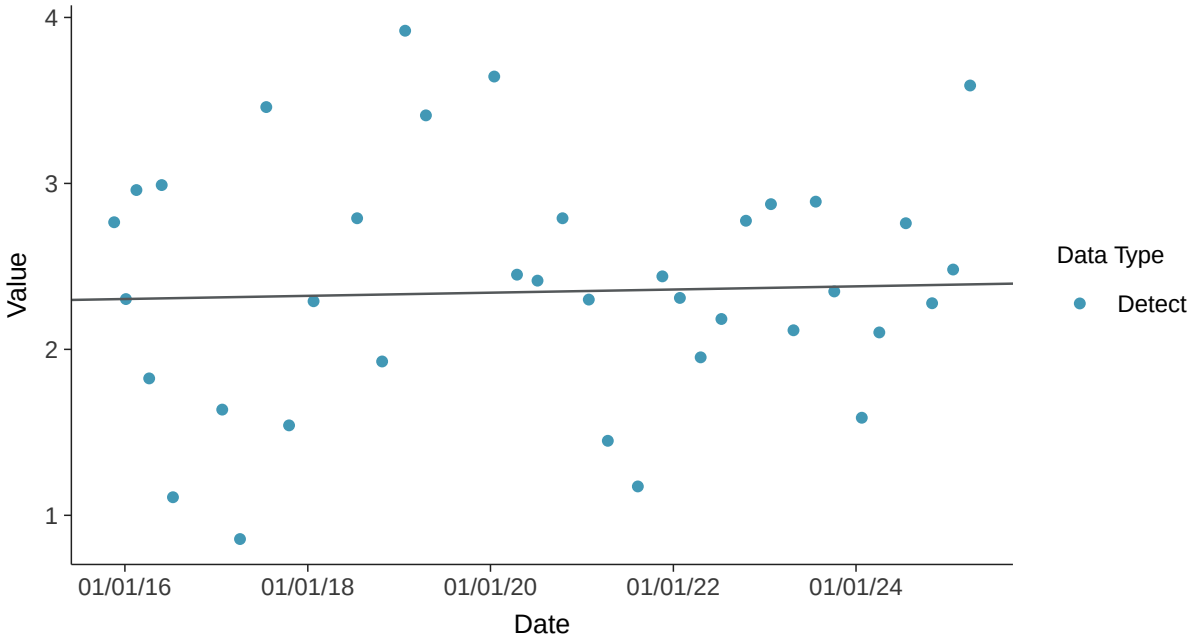
Gamma Q-Q plot

Total Radium, MW-3 (pCi/L)



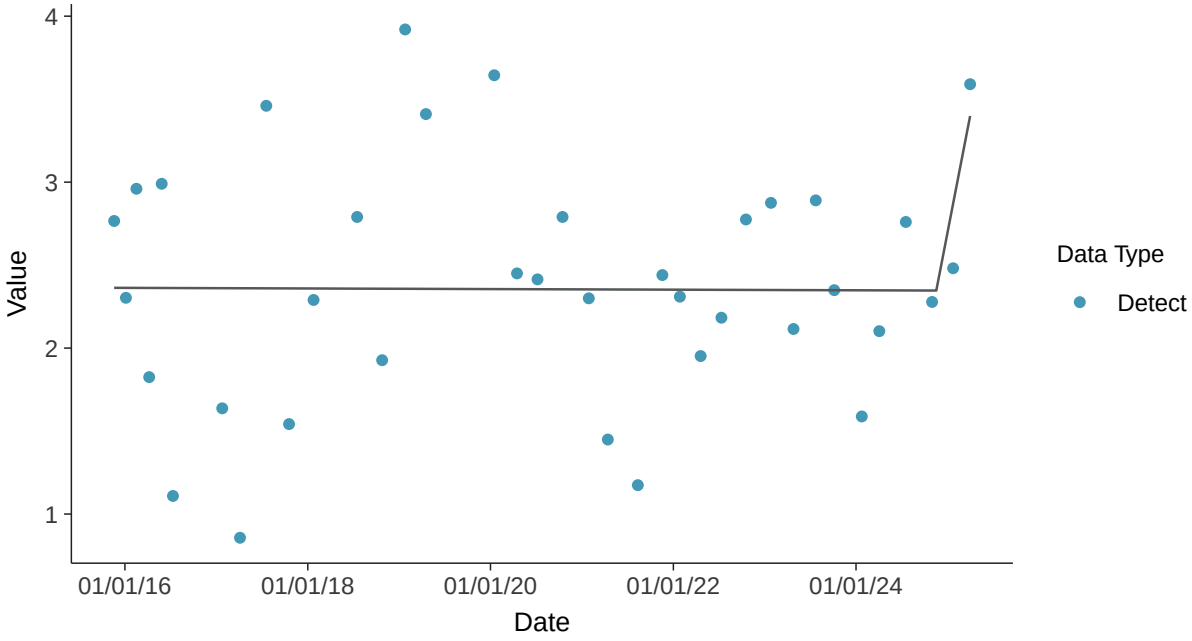
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Total Radium, MW-3 (pCi/L)



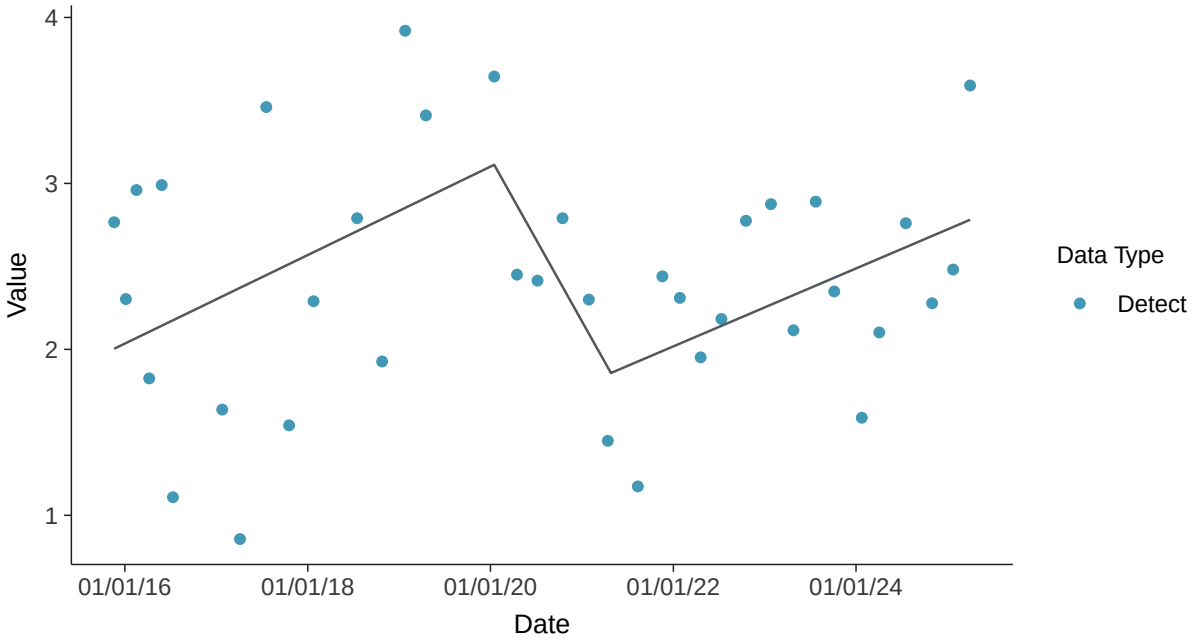
Trend Regression: Piecewise Linear-Linear

Total Radium, MW-3 (pCi/L)



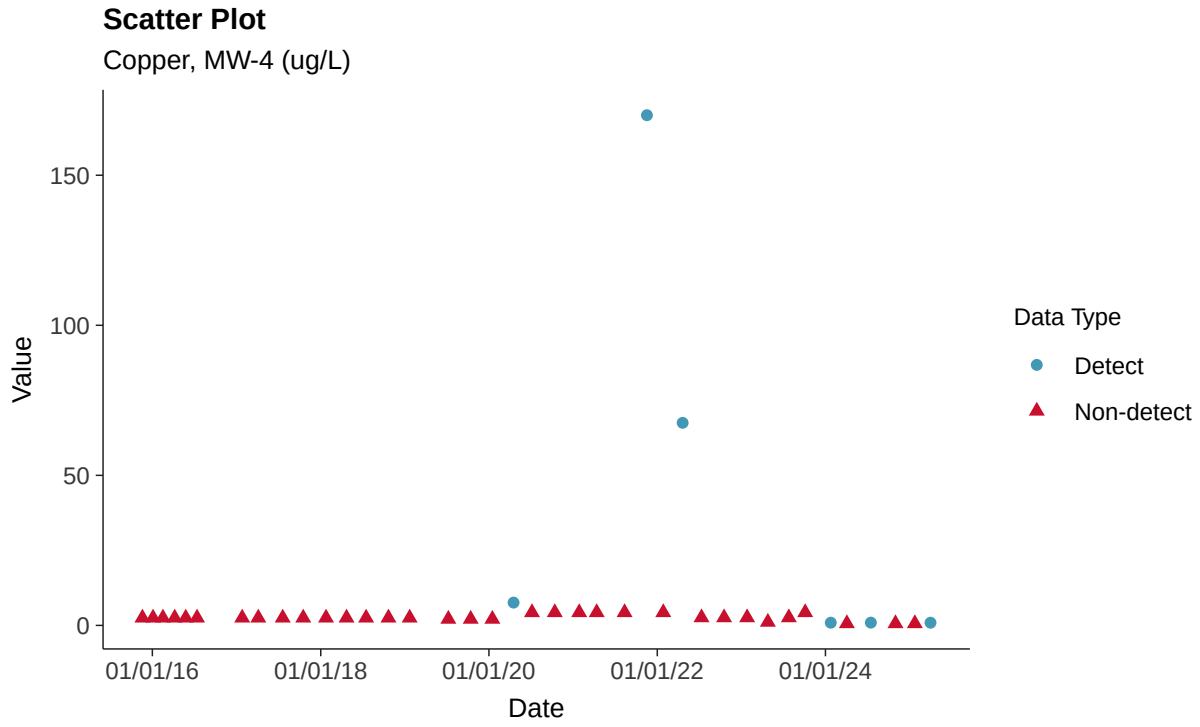
Trend Regression: Piecewise Linear-Linear-Linear

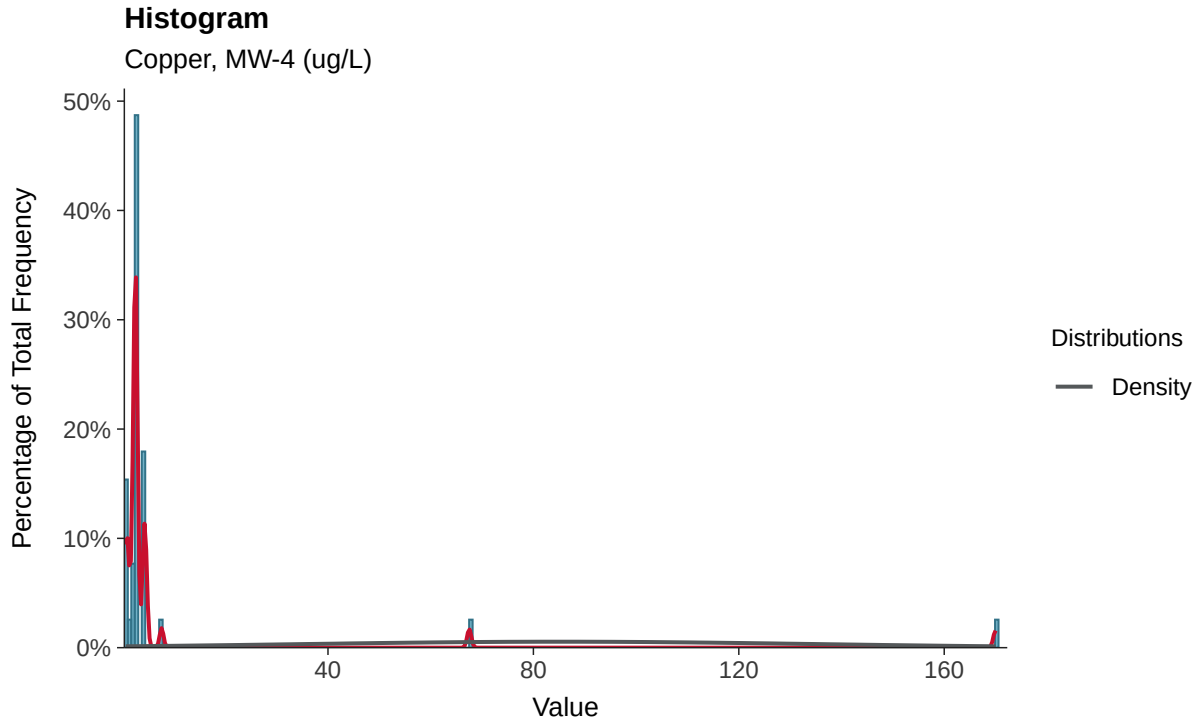
Total Radium, MW-3 (pCi/L)



App. I Metals: Copper, MW-4

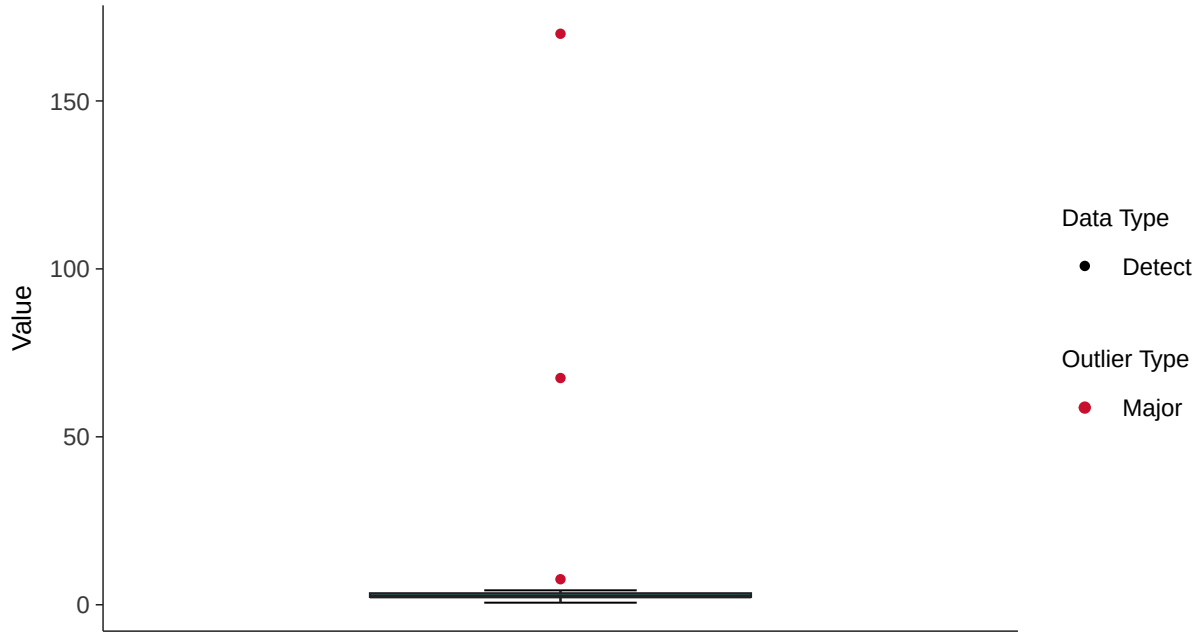
ID: 04_01_111





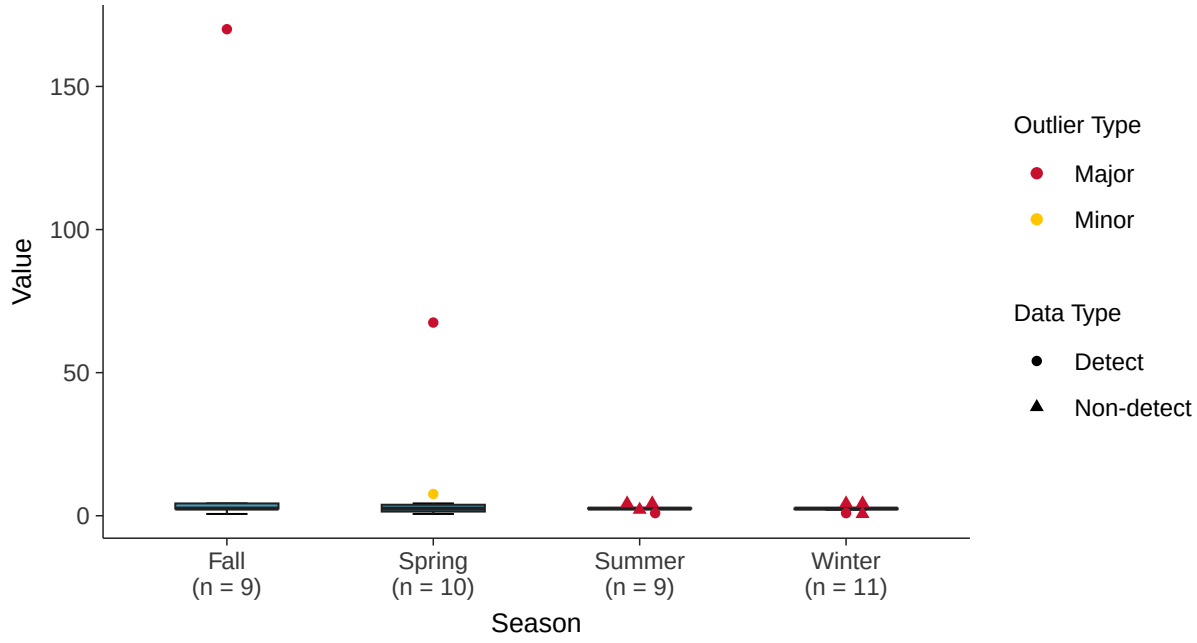
Boxplot

Copper, MW-4 (ug/L)



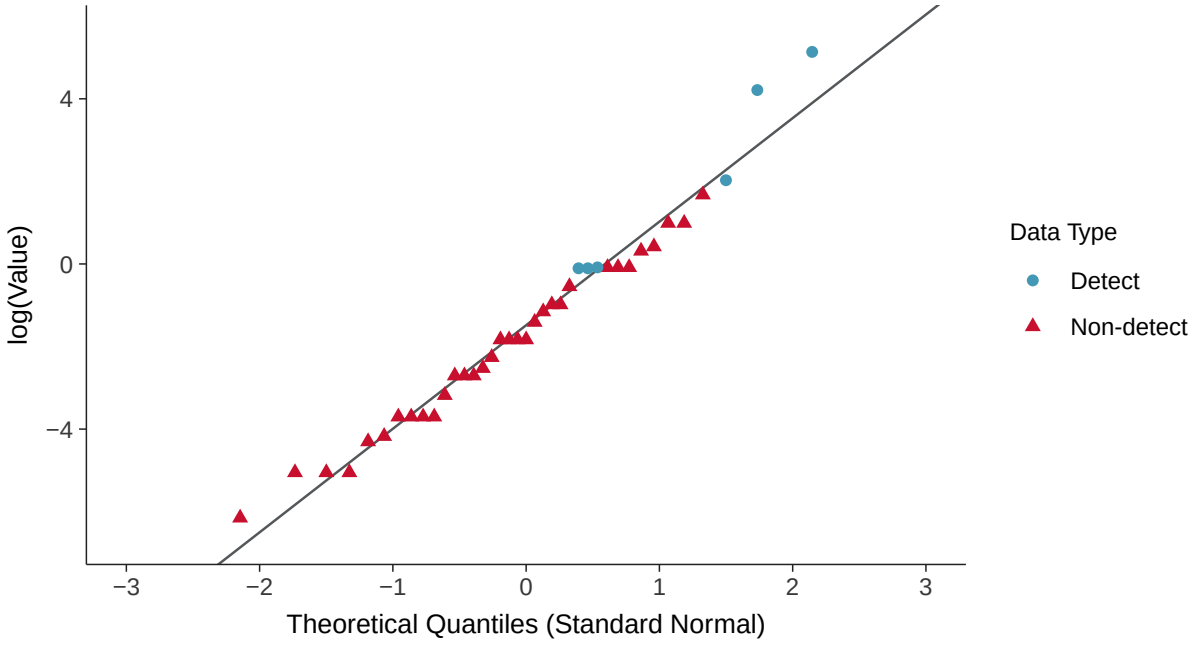
Boxplot by Season

Copper, MW-4 (ug/L)



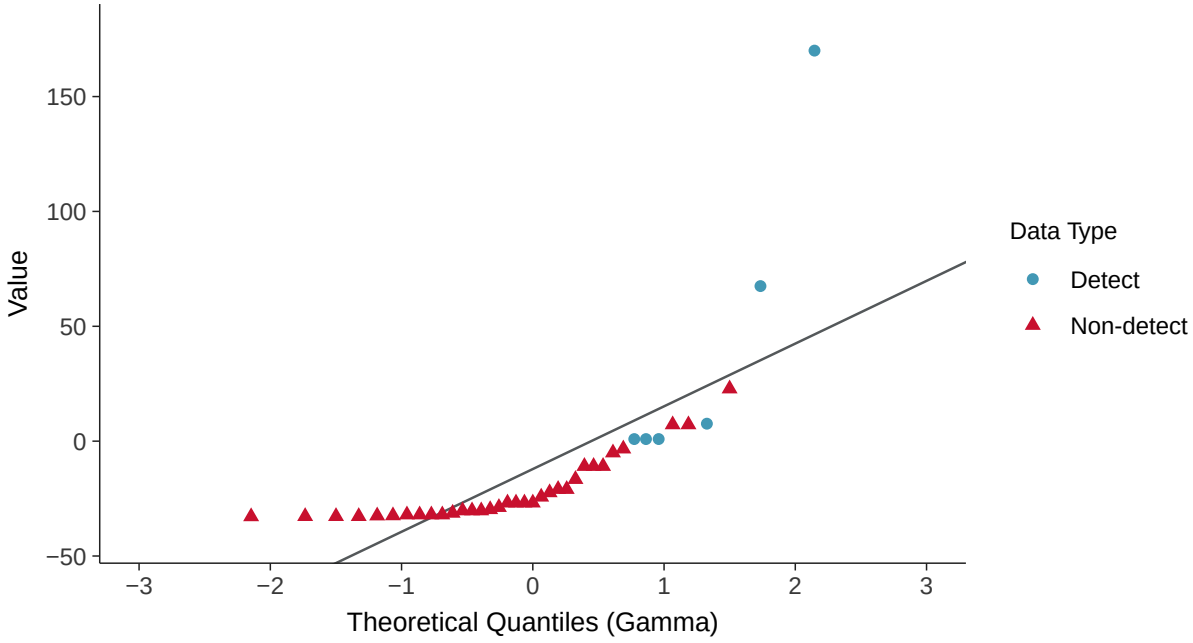
Lognormal Q-Q plot using ROS Imputed Estimates

Copper, MW-4 (ug/L)



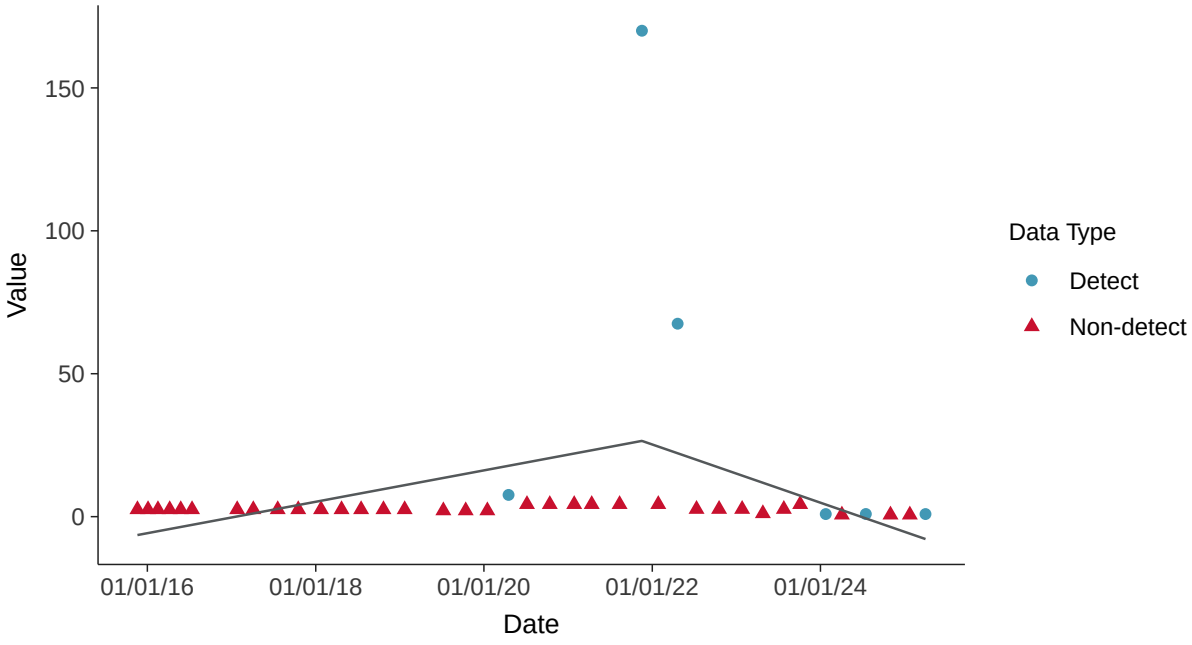
Gamma Q-Q plot using ROS Imputed Estimates

Copper, MW-4 (ug/L)



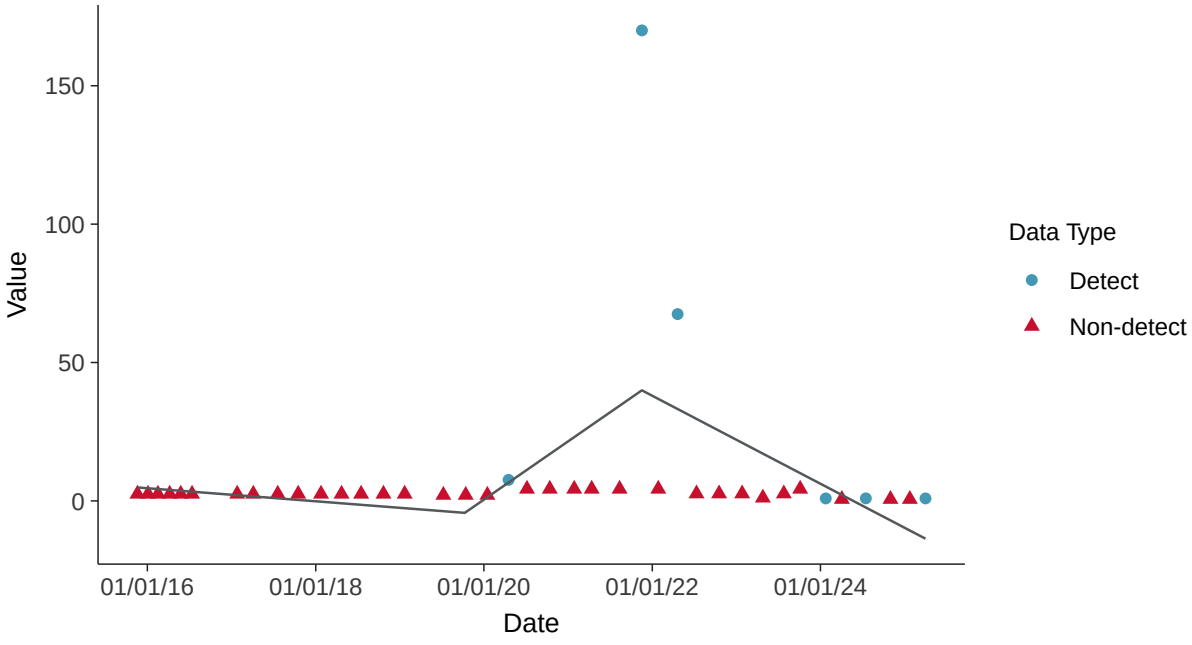
Trend Regression: Piecewise Linear-Linear

Copper, MW-4 (ug/L)



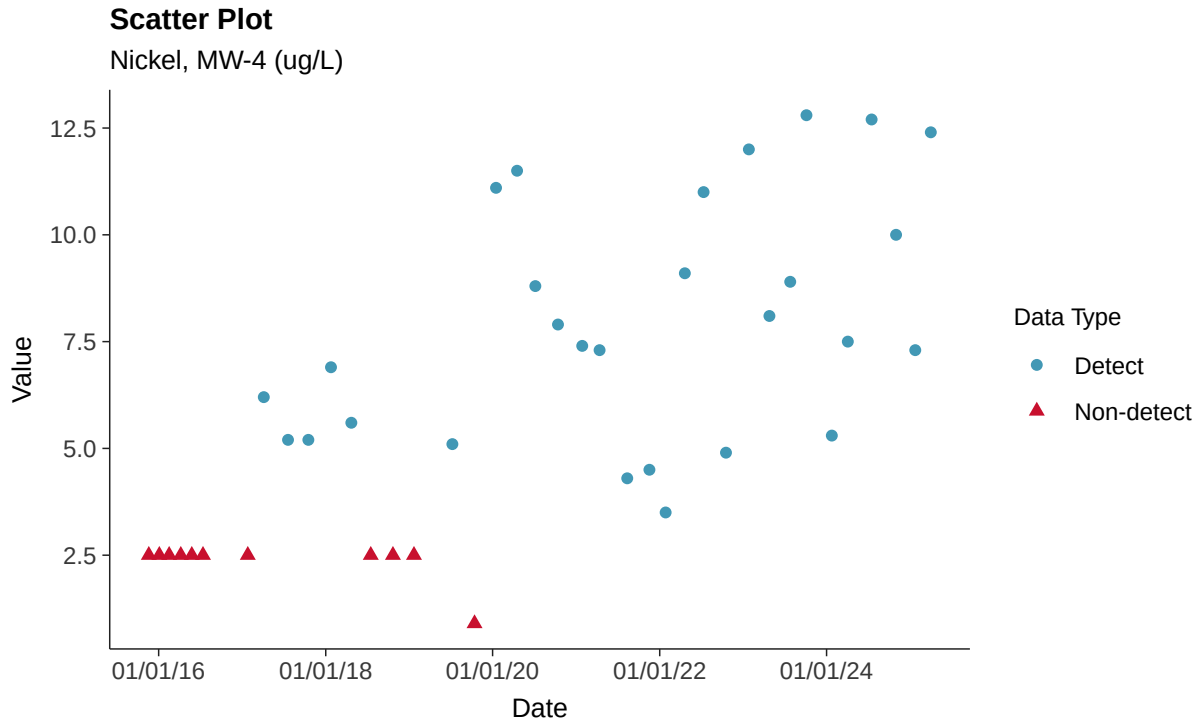
Trend Regression: Piecewise Linear-Linear-Linear

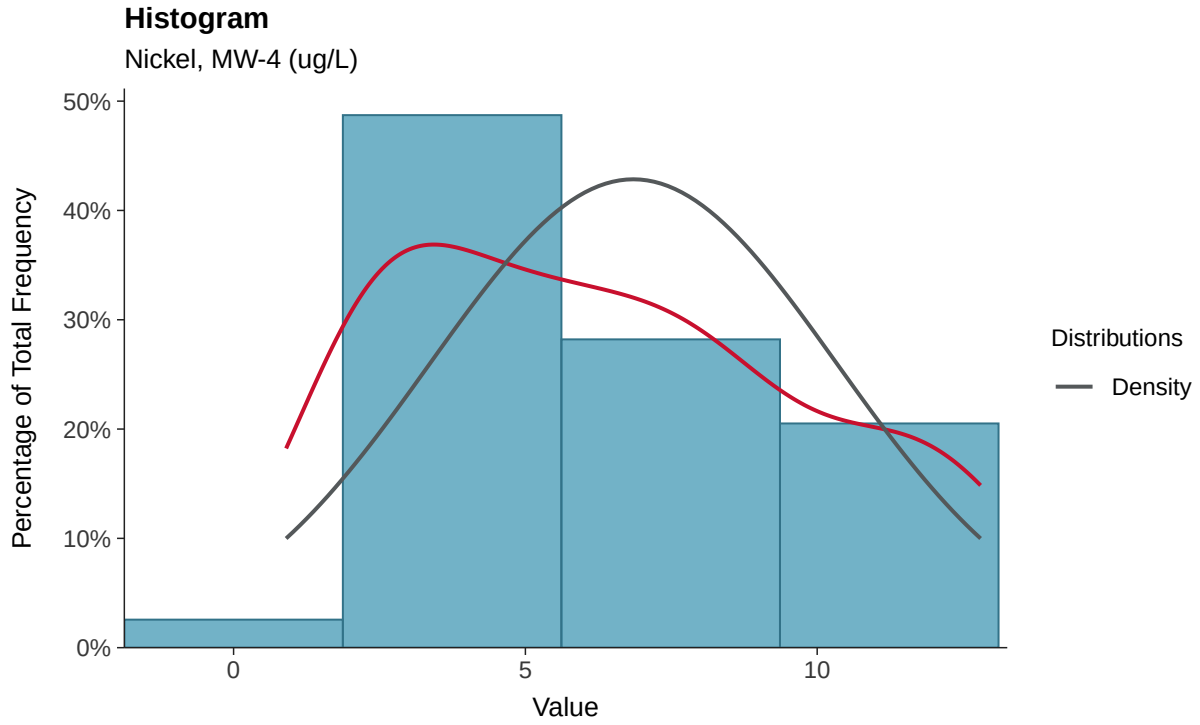
Copper, MW-4 (ug/L)



App. I Metals: Nickel, MW-4

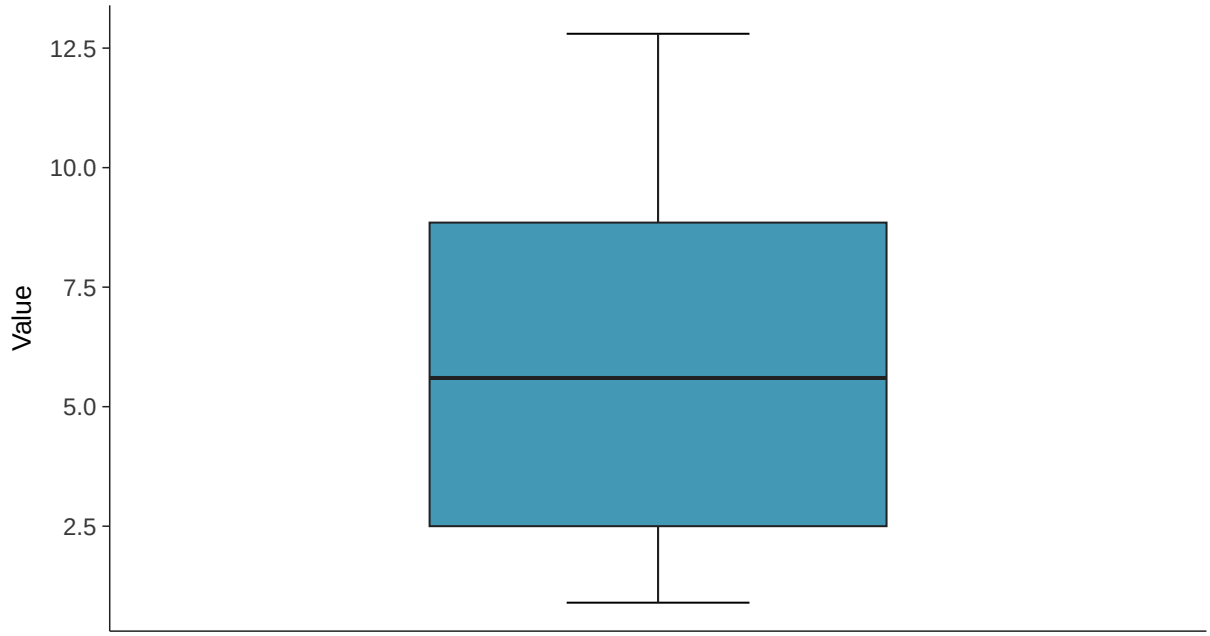
ID: 04_01_117





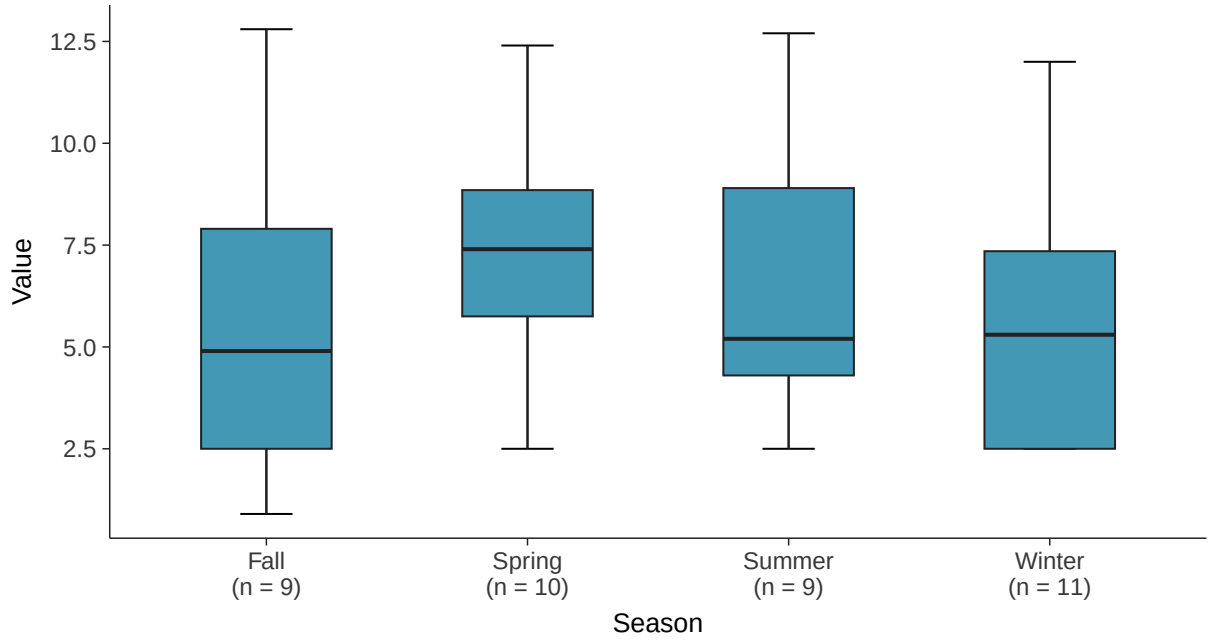
Boxplot

Nickel, MW-4 (ug/L)



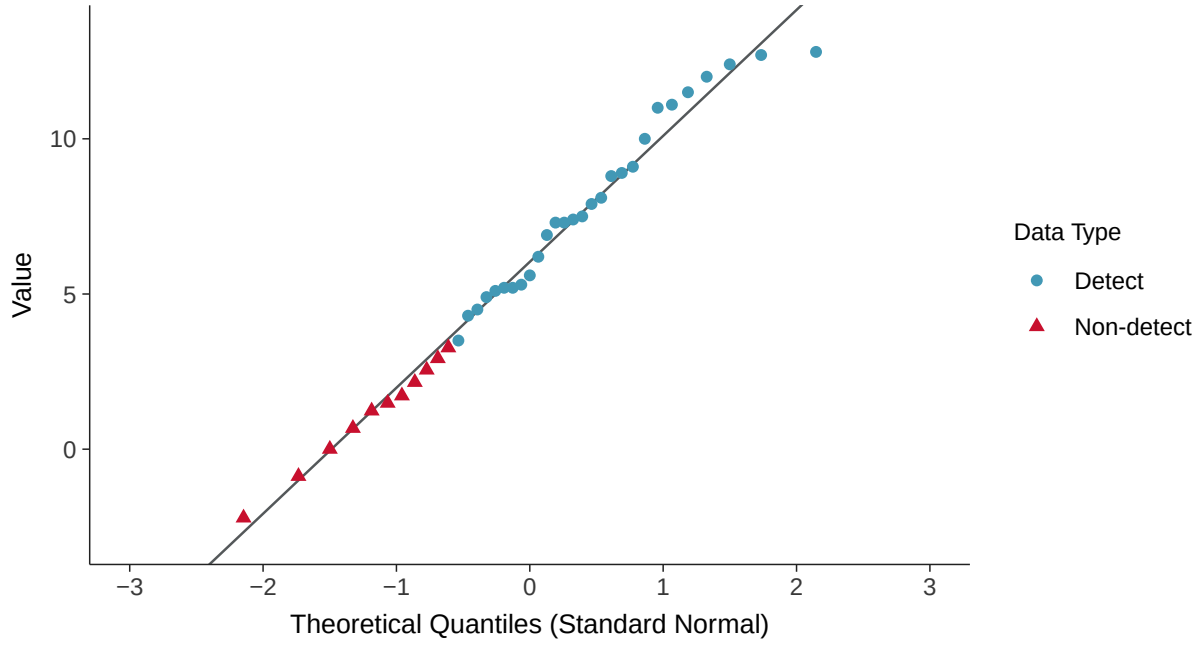
Boxplot by Season

Nickel, MW-4 (ug/L)



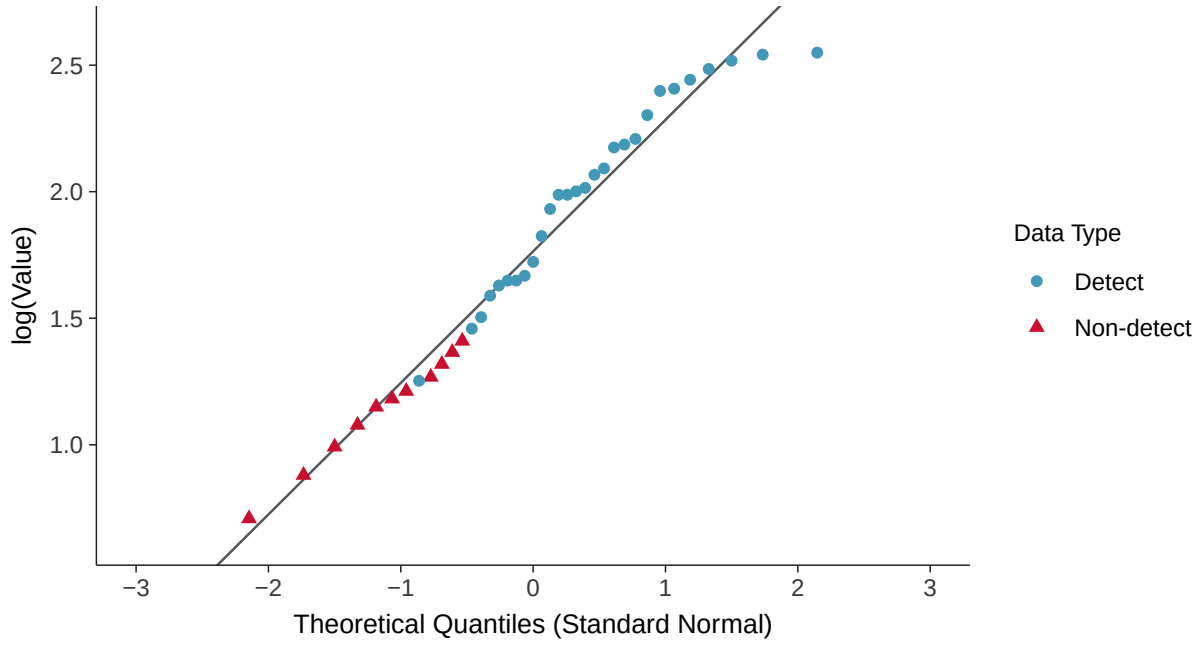
Normal Q-Q plot using ROS Imputed Estimates

Nickel, MW-4 (ug/L)



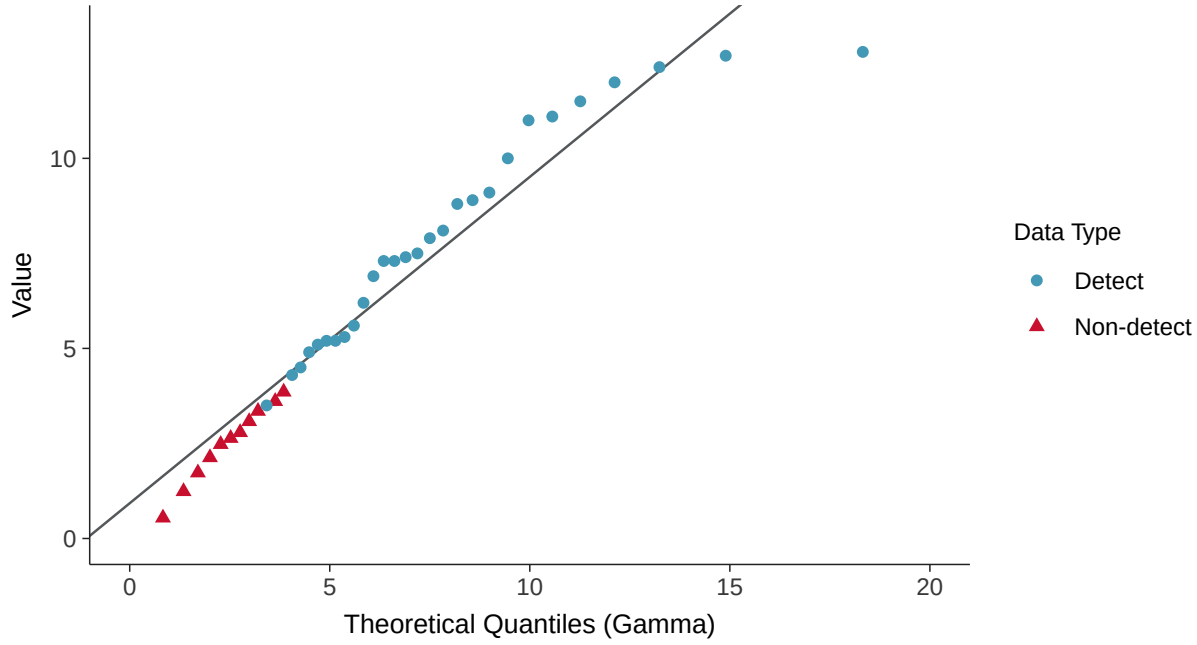
Lognormal Q-Q plot using ROS Imputed Estimates

Nickel, MW-4 (ug/L)



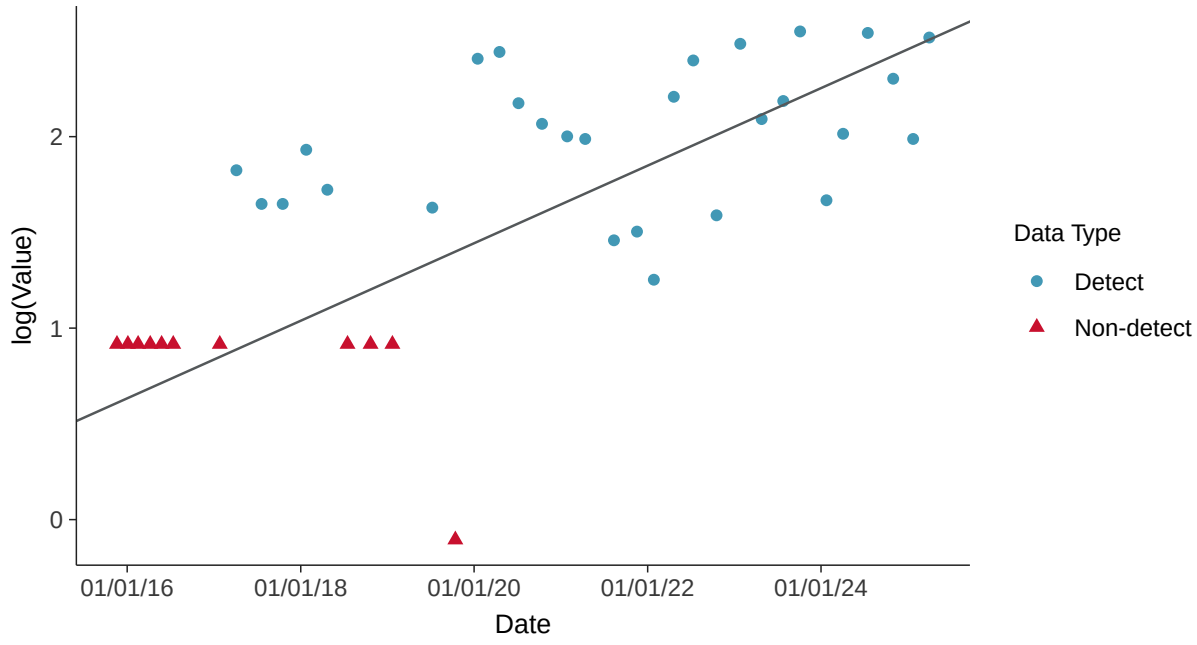
Gamma Q-Q plot using ROS Imputed Estimates

Nickel, MW-4 (ug/L)



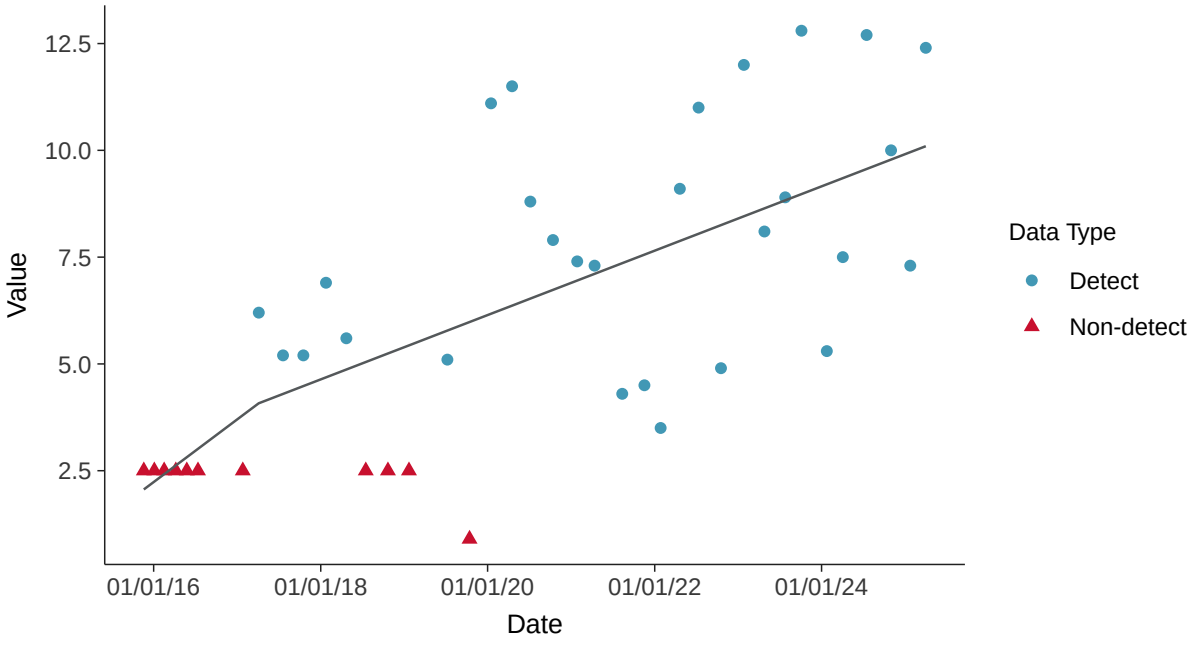
Trend Regression: Lognormal MLE

Nickel, MW-4 (ug/L)



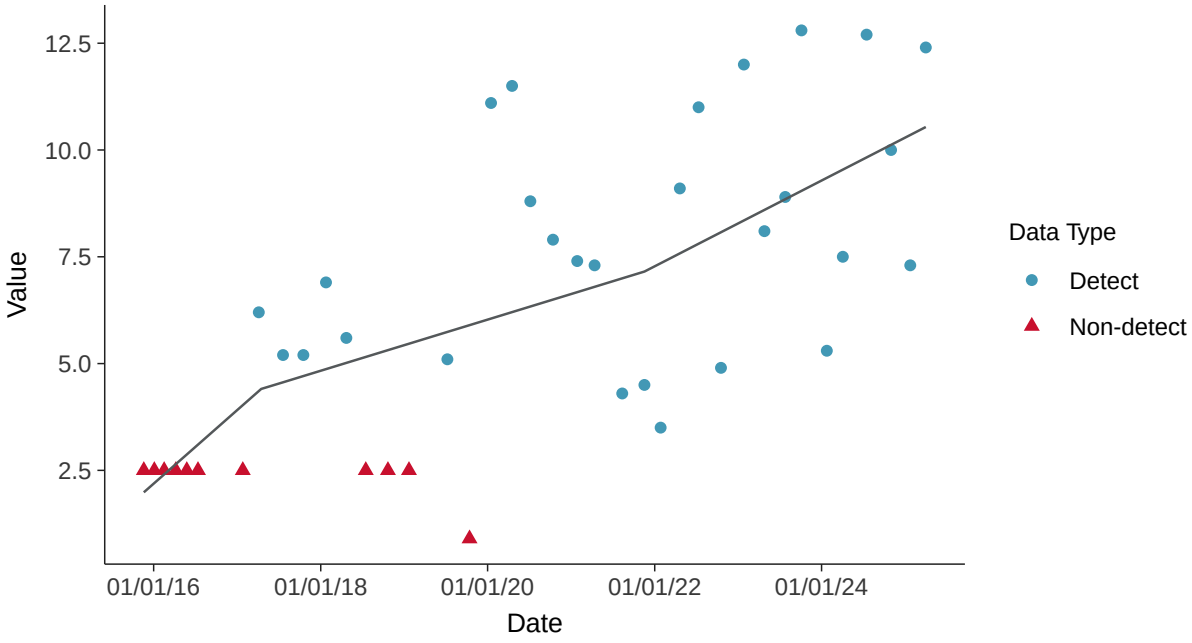
Trend Regression: Piecewise Linear-Linear

Nickel, MW-4 (ug/L)



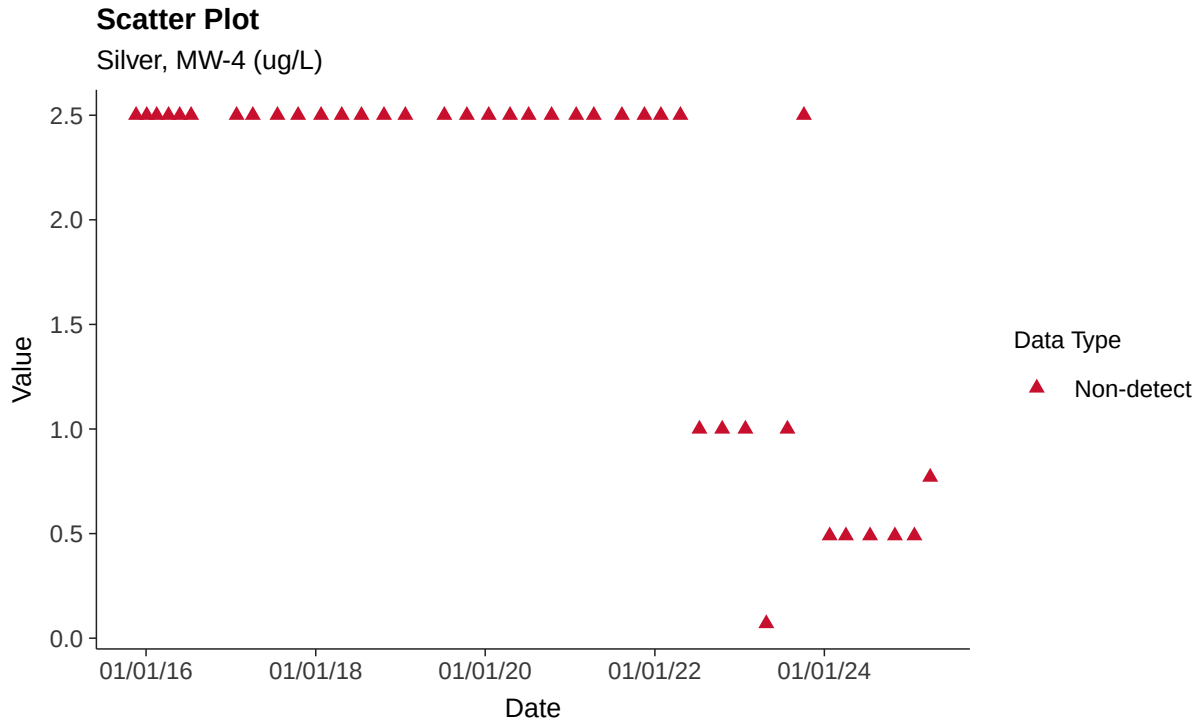
Trend Regression: Piecewise Linear-Linear-Linear

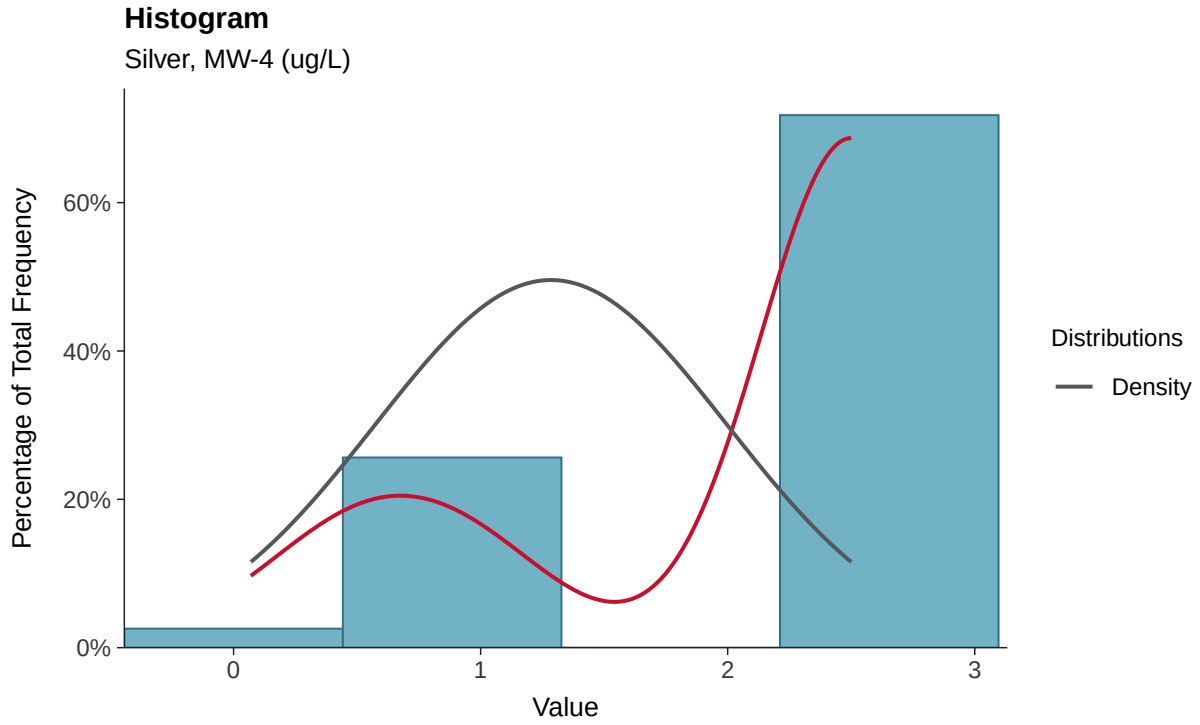
Nickel, MW-4 (ug/L)



App. I Metals: Silver, MW-4

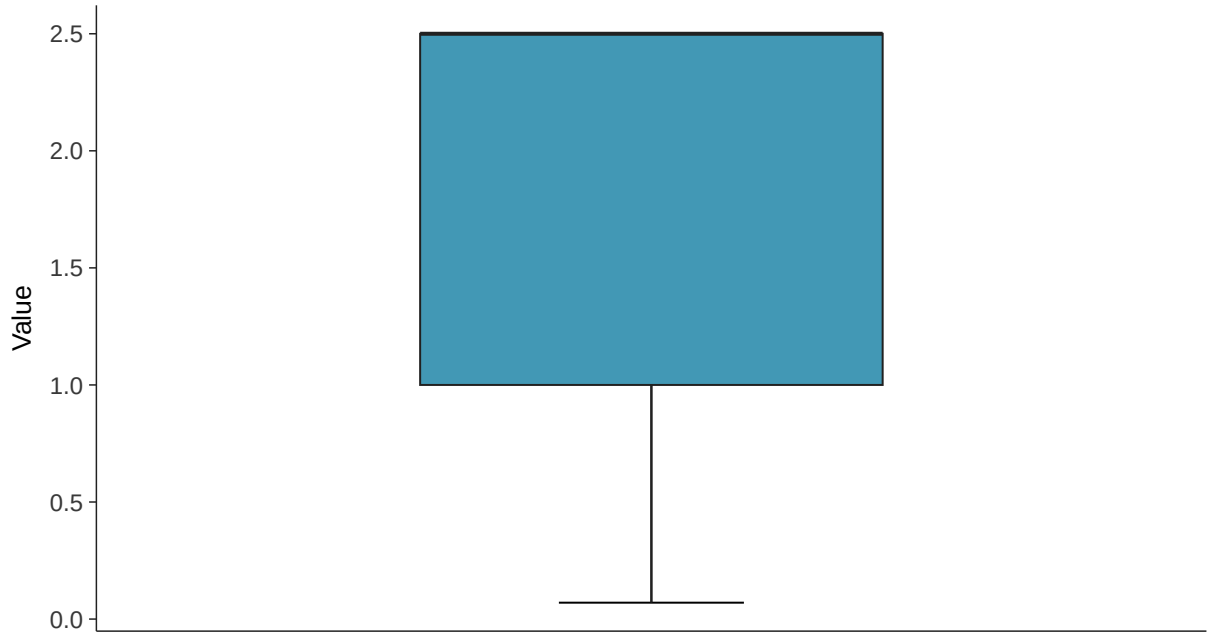
ID: 04_01_122





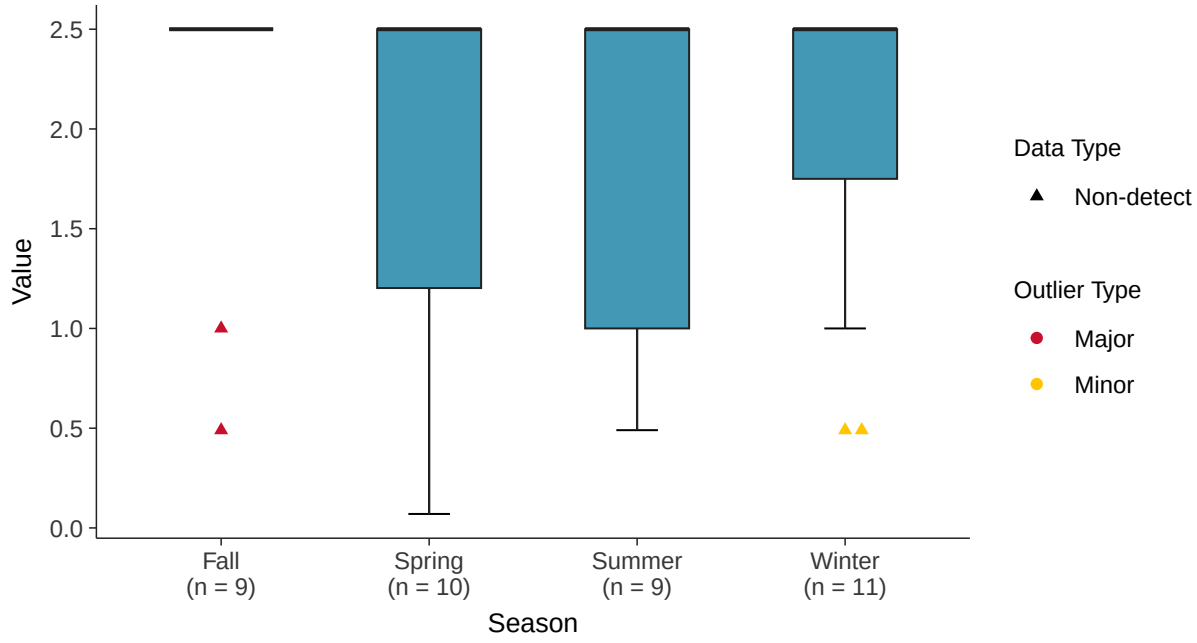
Boxplot

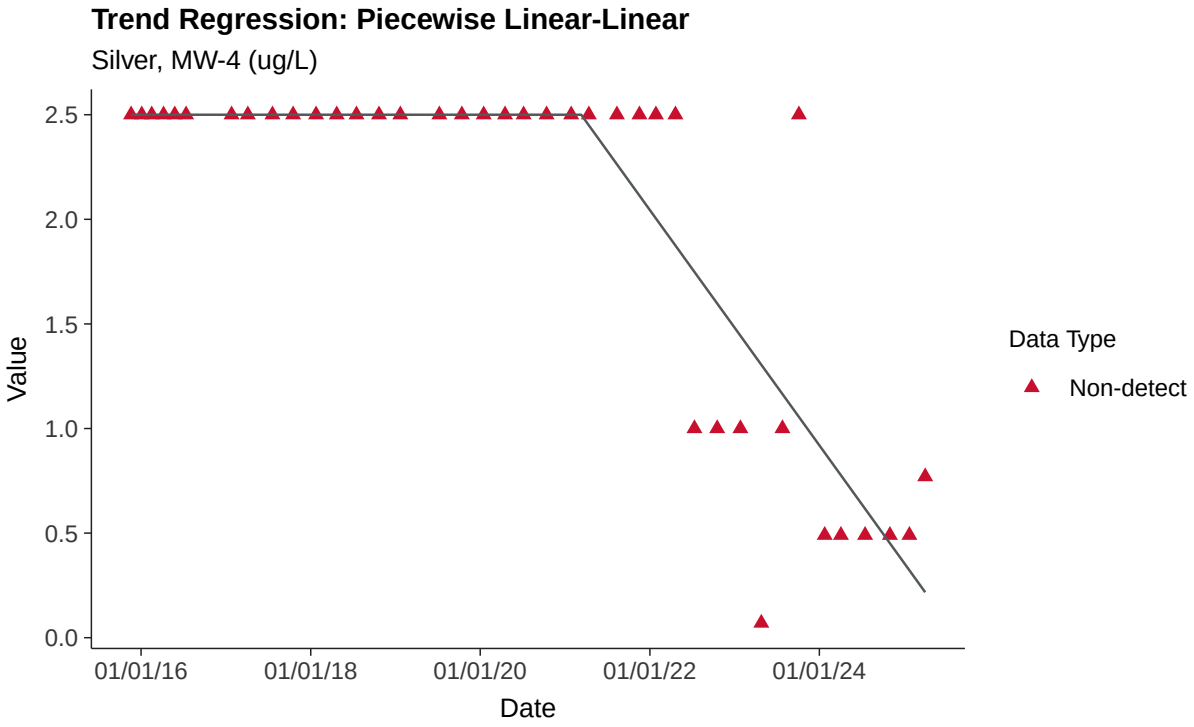
Silver, MW-4 (ug/L)



Boxplot by Season

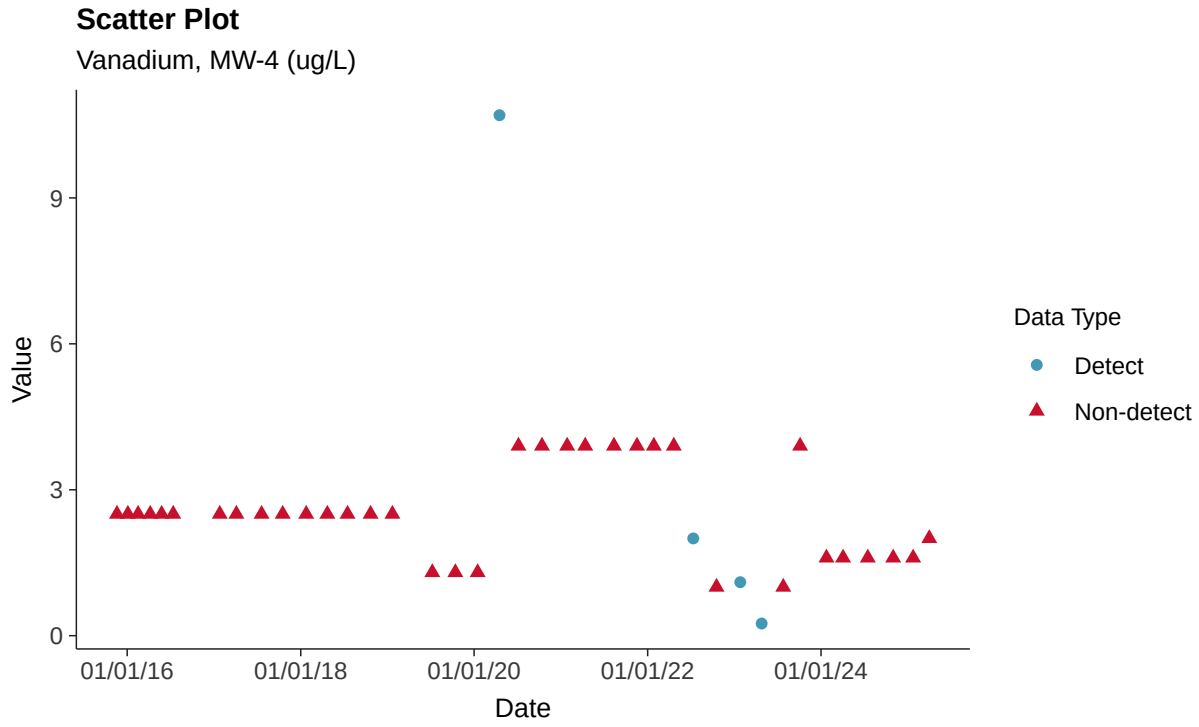
Silver, MW-4 (ug/L)

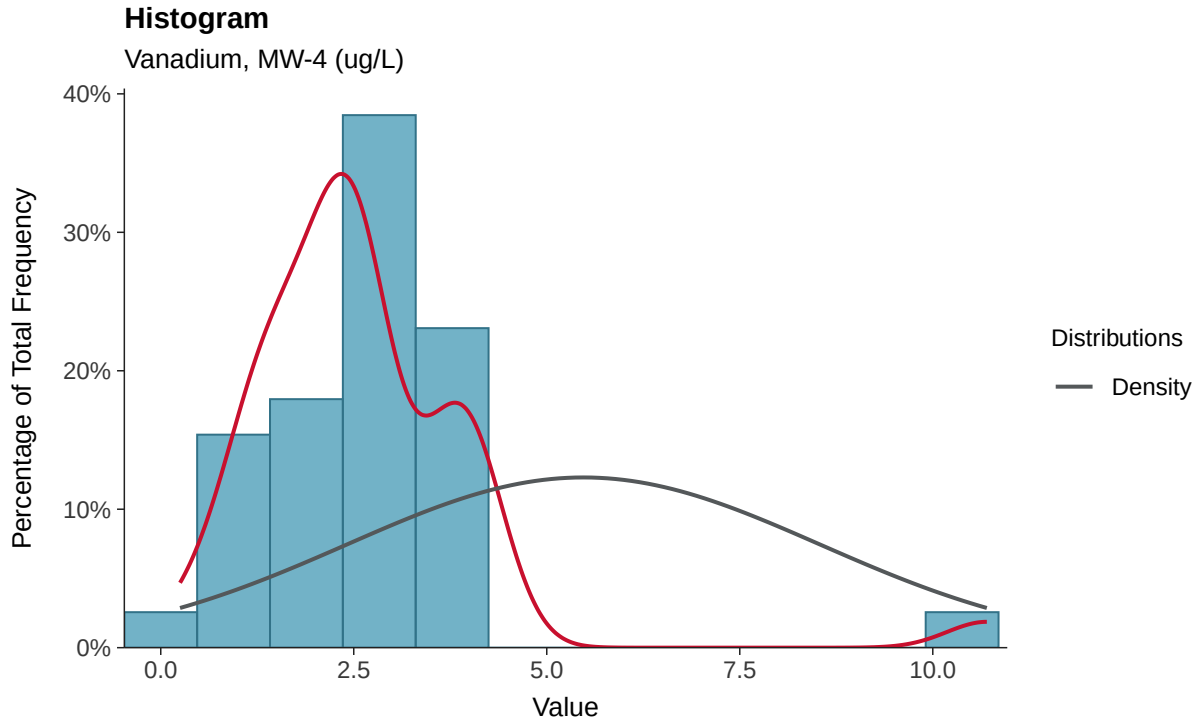



Trend Regression: Piecewise Linear-Linear
Silver, MW-4 (ug/L)
Value
2.5
2.0
1.5
1.0
0.5
0.0
01/01/16
01/01/18
01/01/20
01/01/22
01/01/24
Date
Data Type
Non-detect

App. I Metals: Vanadium, MW-4

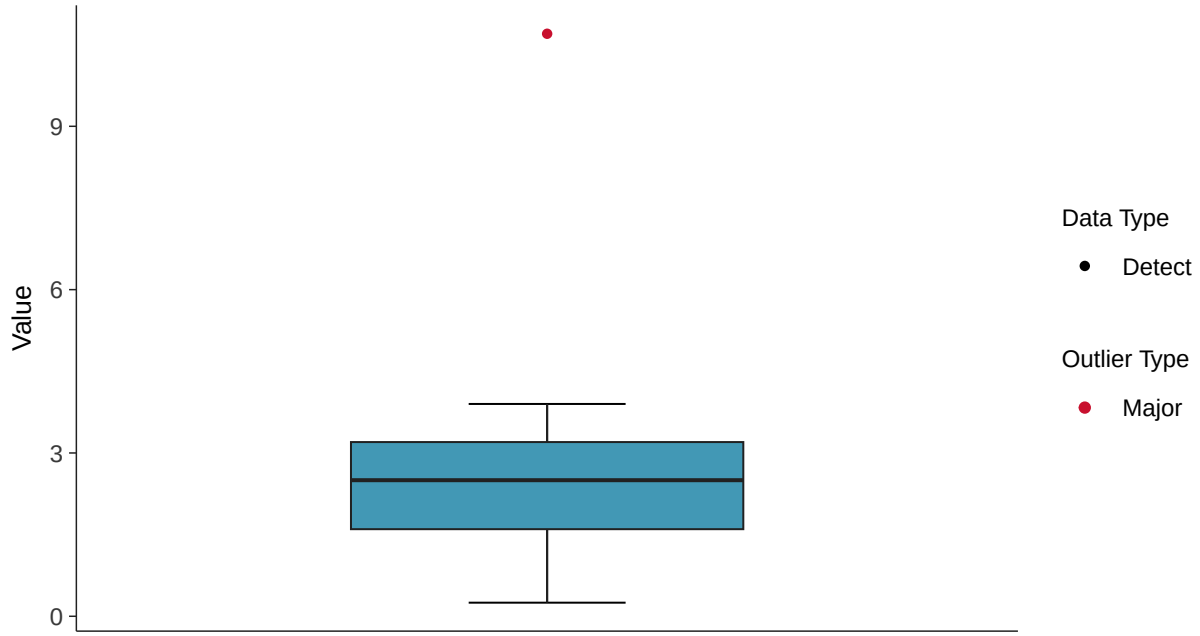
ID: 04_01_127





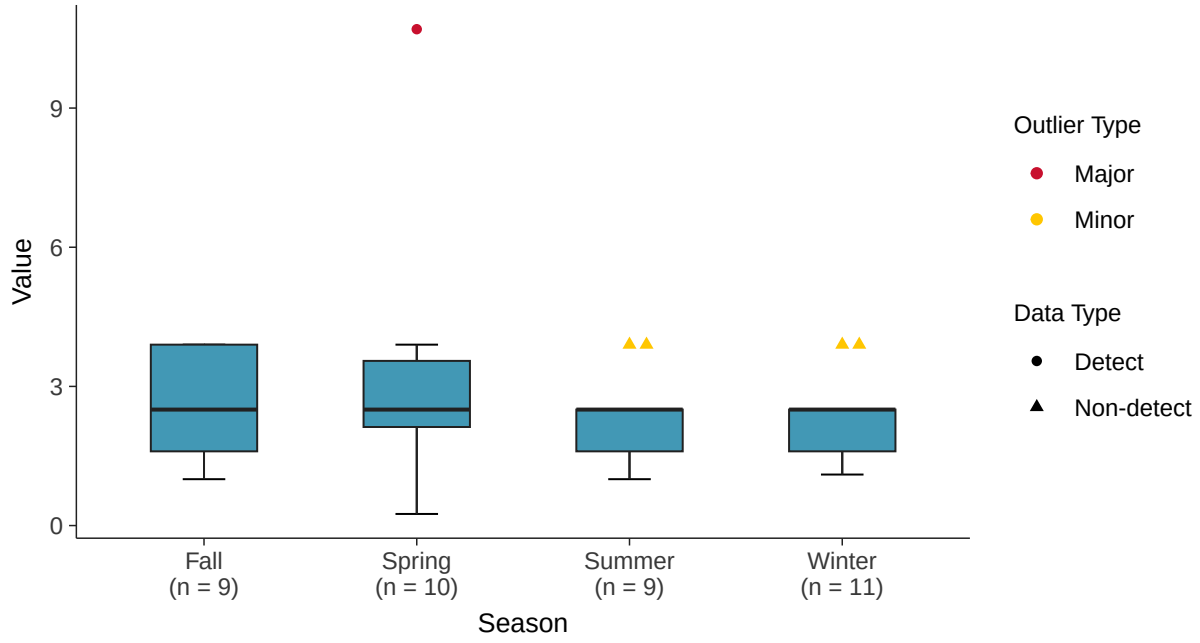
Boxplot

Vanadium, MW-4 (ug/L)



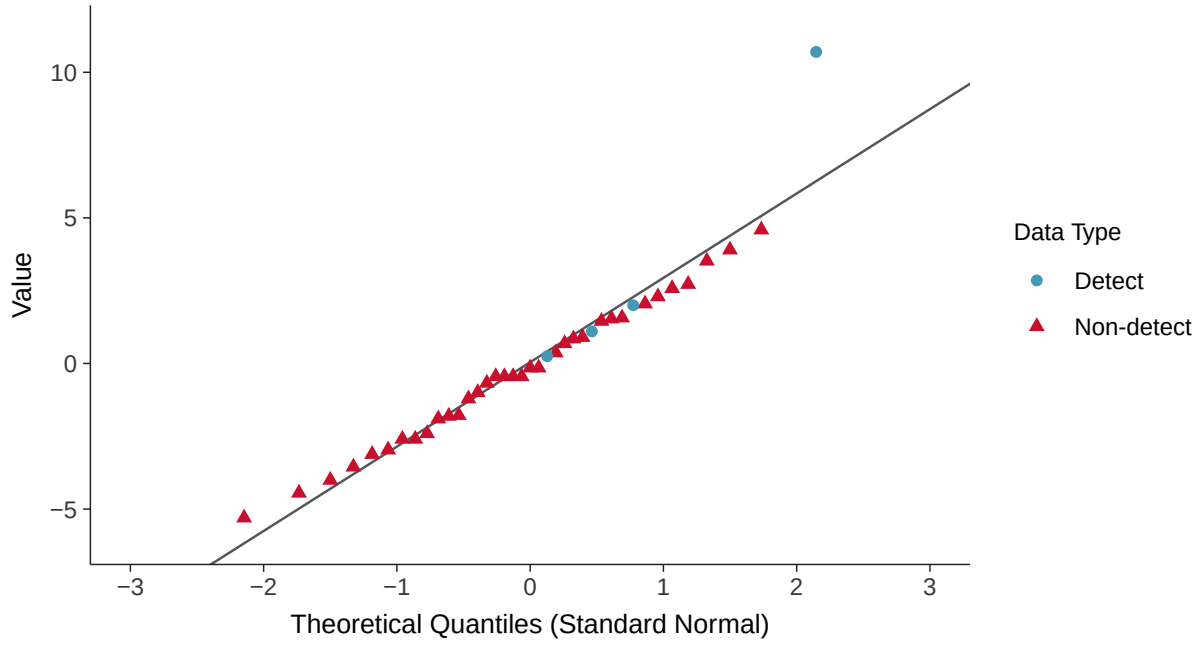
Boxplot by Season

Vanadium, MW-4 (ug/L)



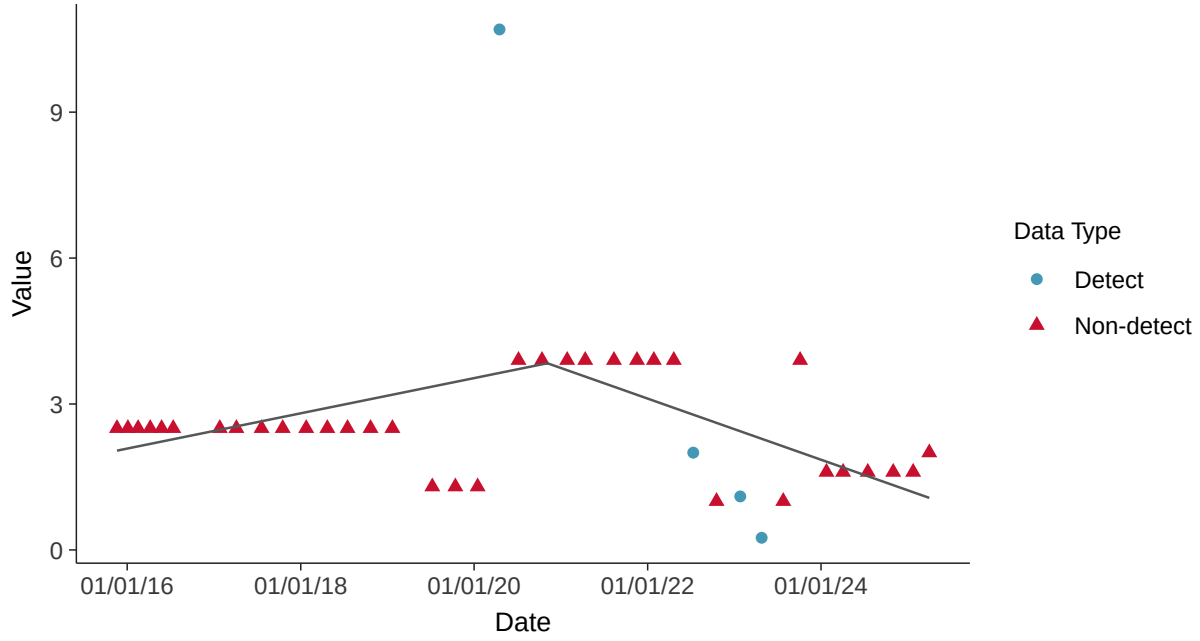
Normal Q-Q plot using ROS Imputed Estimates

Vanadium, MW-4 (ug/L)



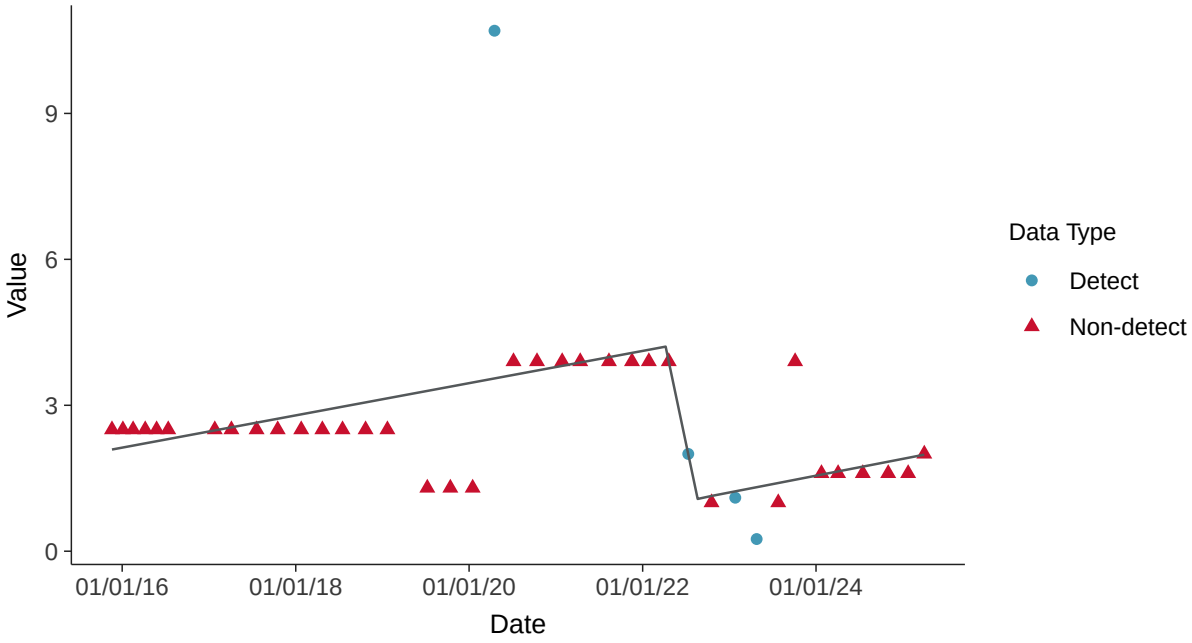
Trend Regression: Piecewise Linear-Linear

Vanadium, MW-4 (ug/L)



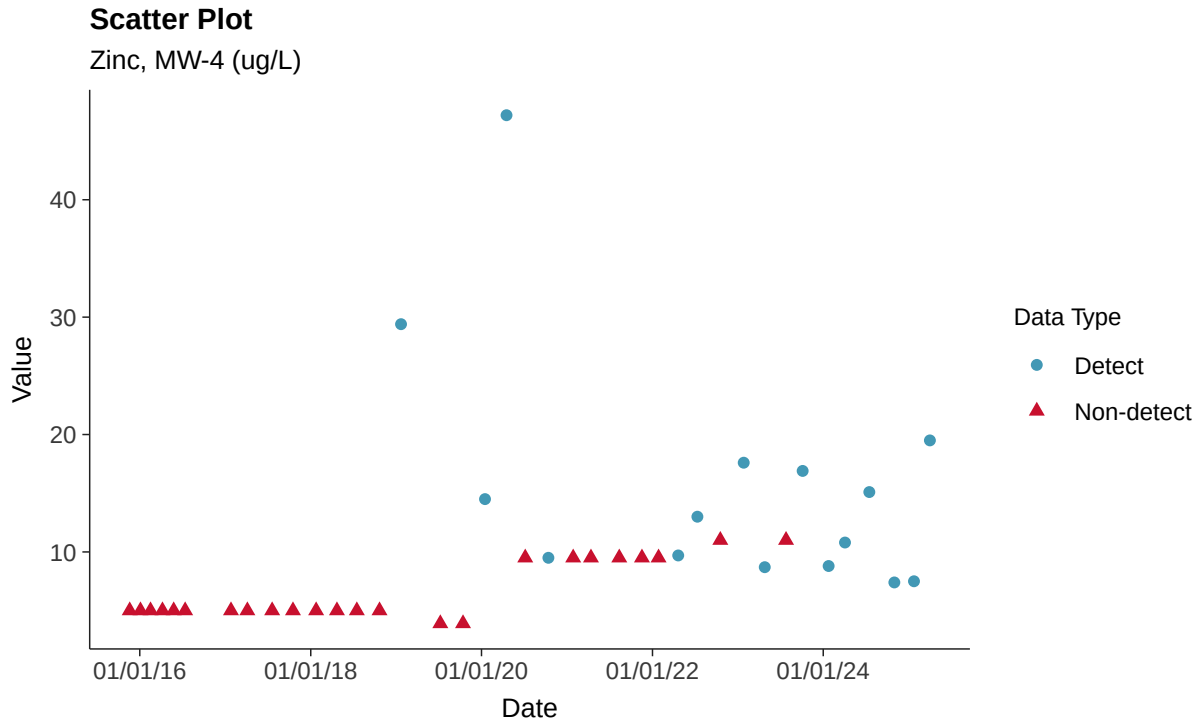
Trend Regression: Piecewise Linear-Linear-Linear

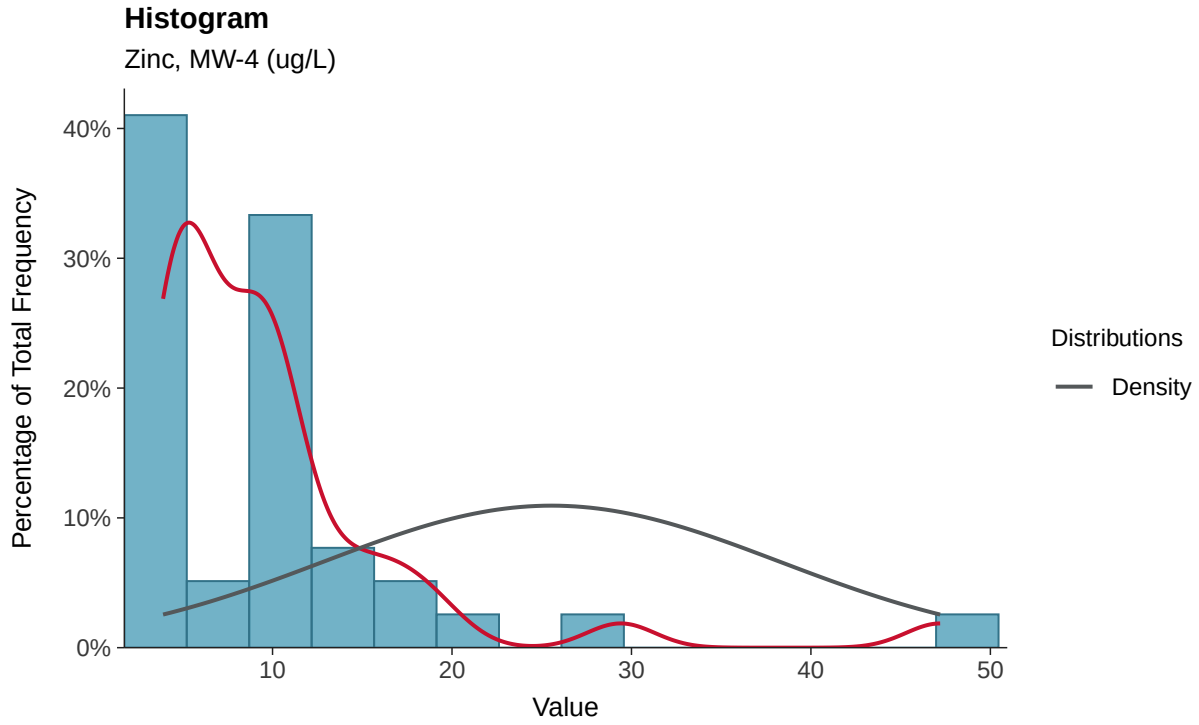
Vanadium, MW-4 (ug/L)



App. I Metals: Zinc, MW-4

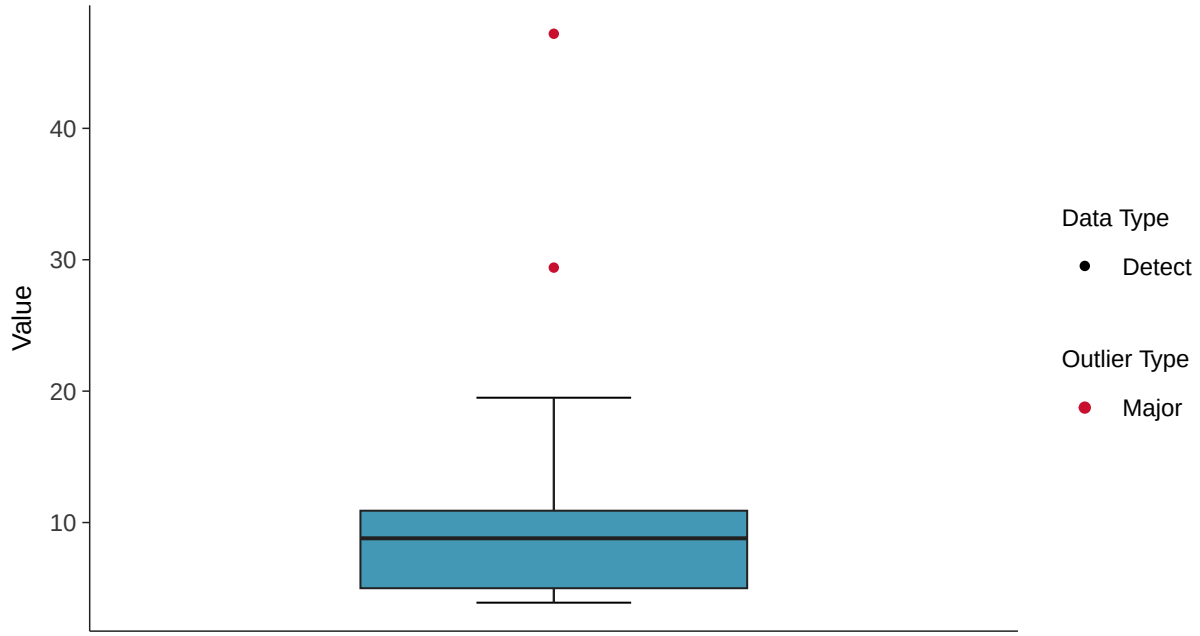
ID: 04_01_128





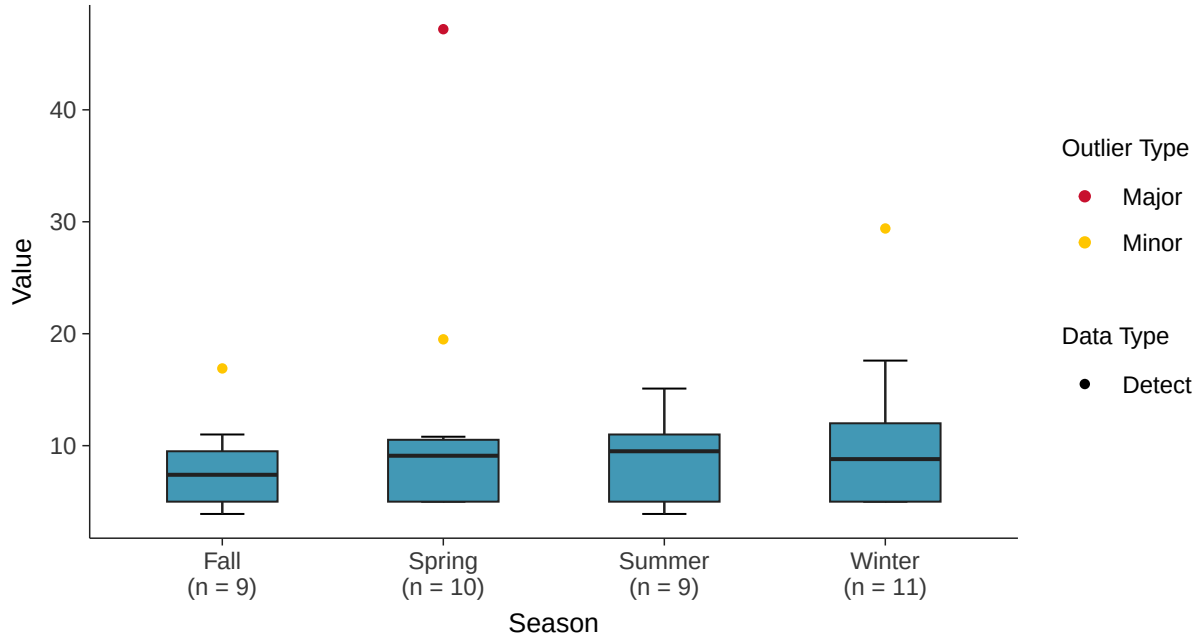
Boxplot

Zinc, MW-4 (ug/L)



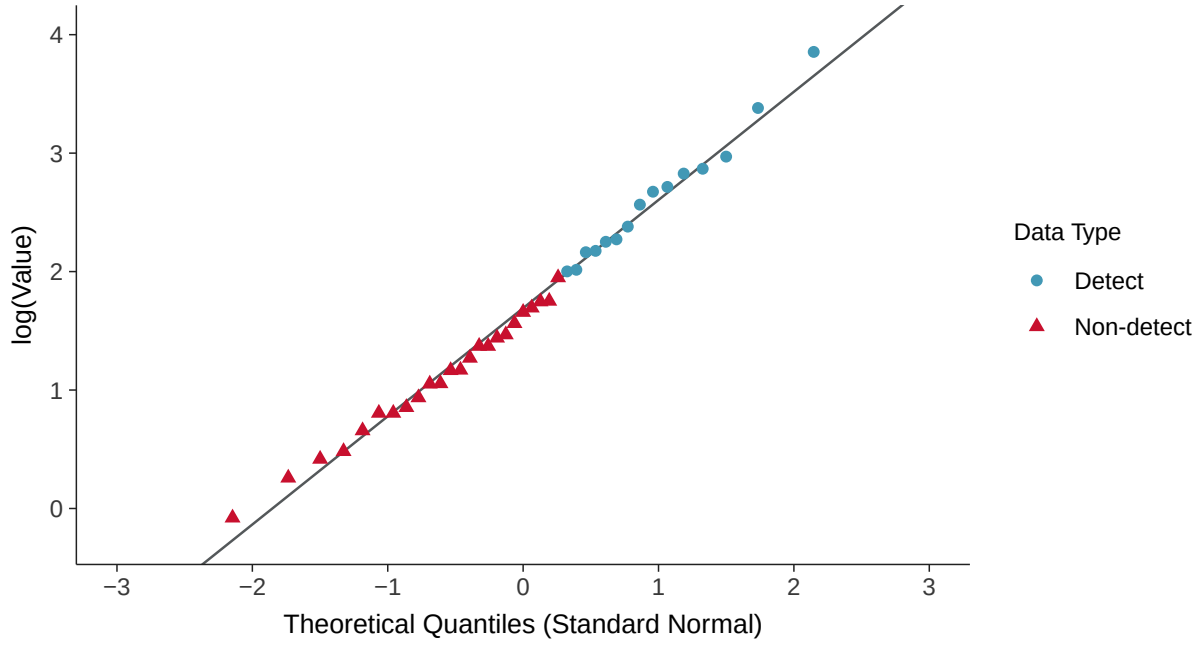
Boxplot by Season

Zinc, MW-4 (ug/L)



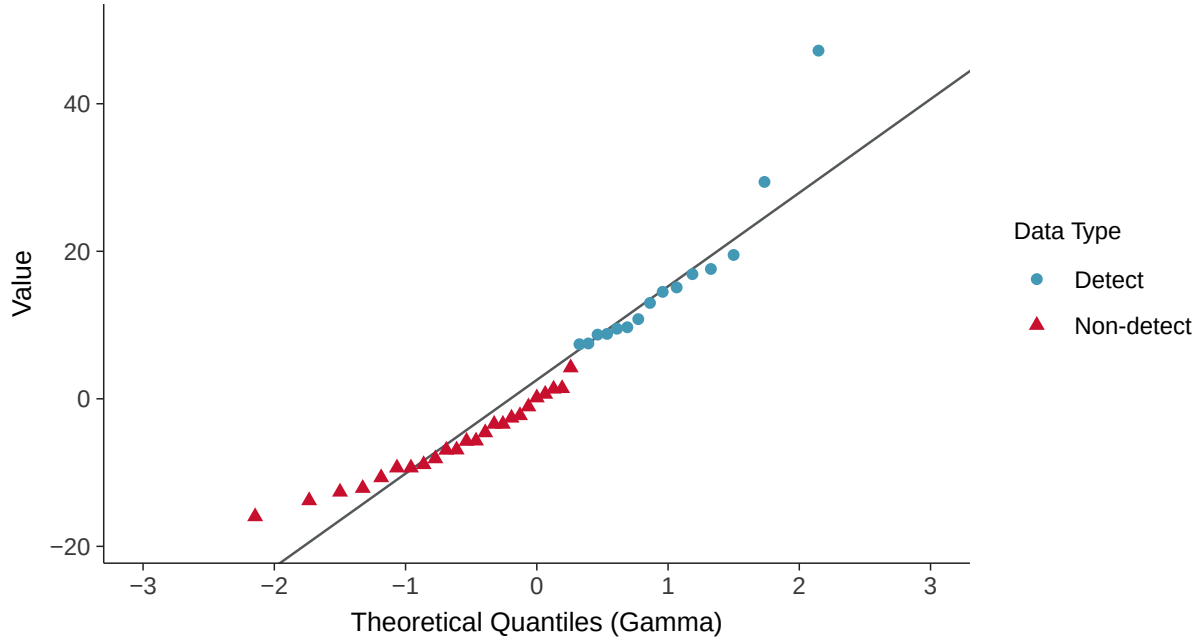
Lognormal Q-Q plot using ROS Imputed Estimates

Zinc, MW-4 (ug/L)



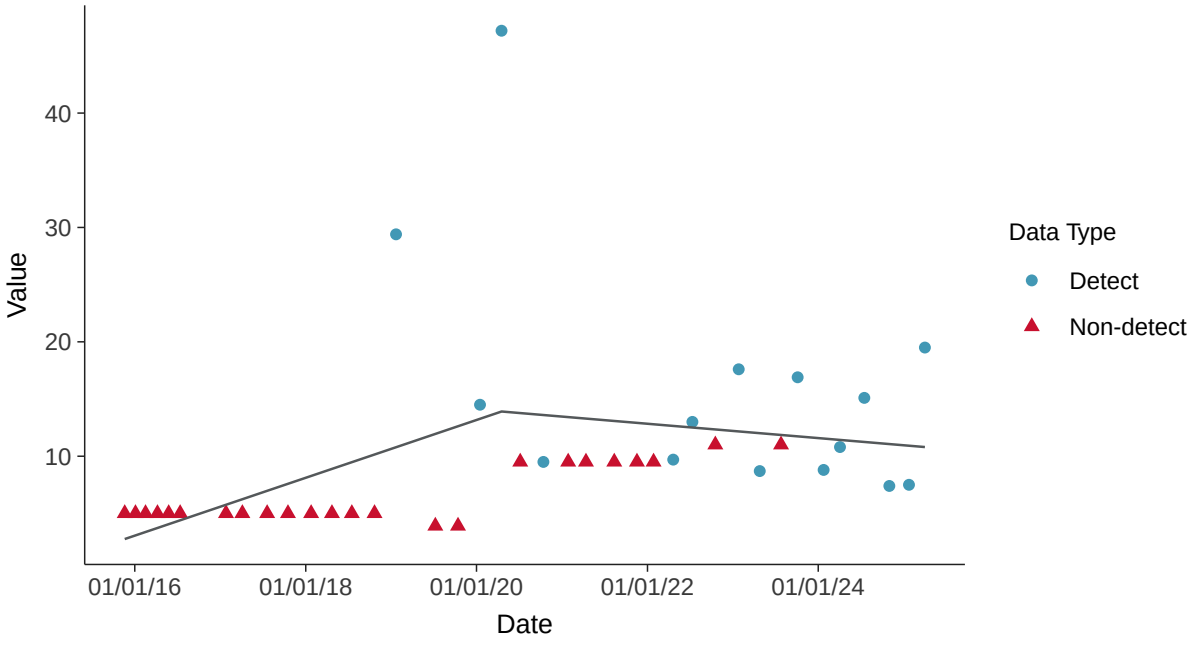
Gamma Q-Q plot using ROS Imputed Estimates

Zinc, MW-4 (ug/L)



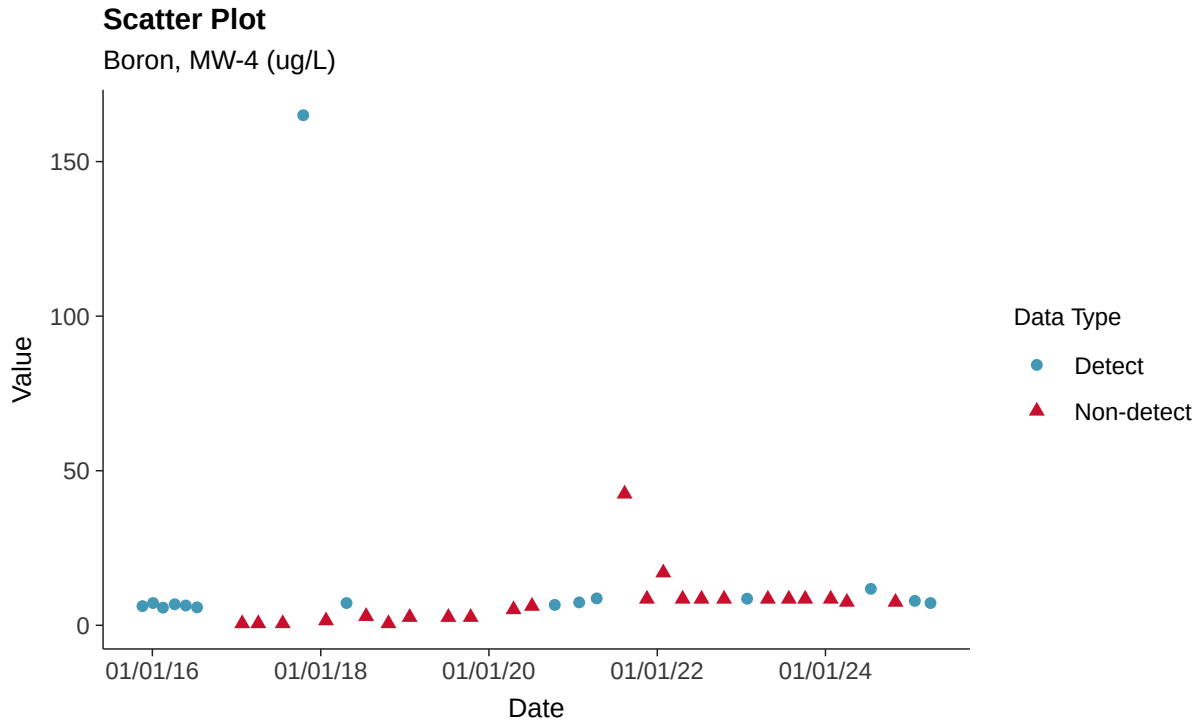
Trend Regression: Piecewise Linear-Linear

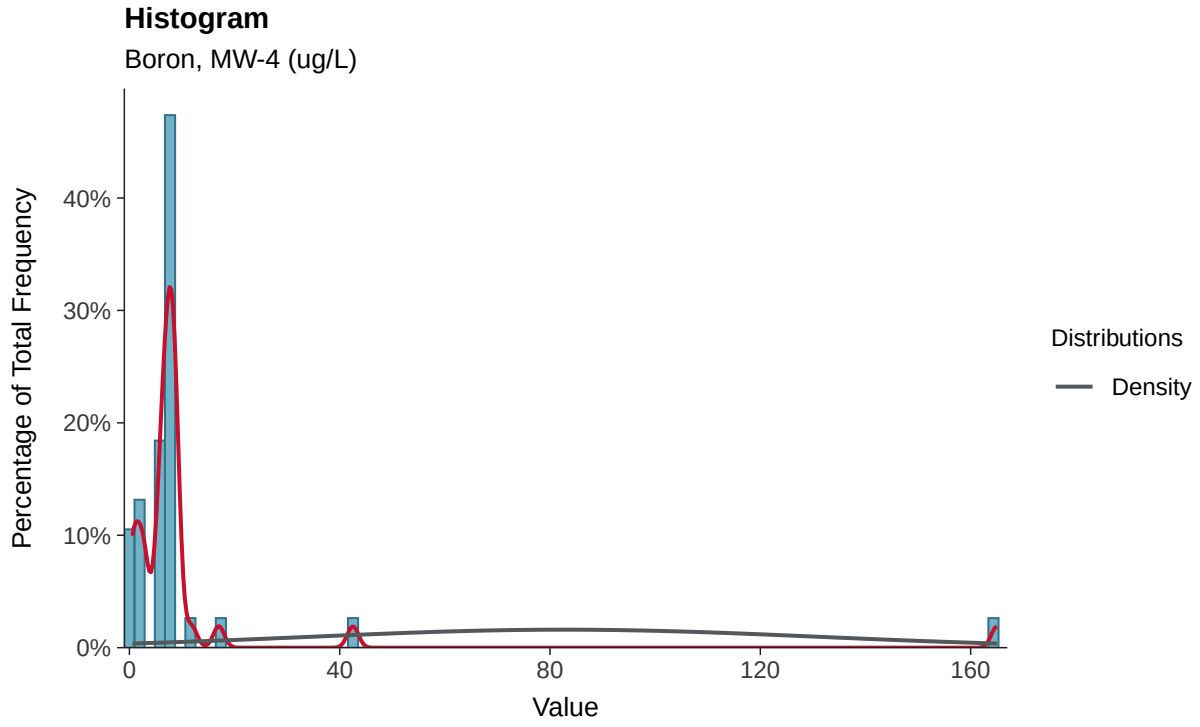
Zinc, MW-4 (ug/L)



App. III: Boron, MW-4

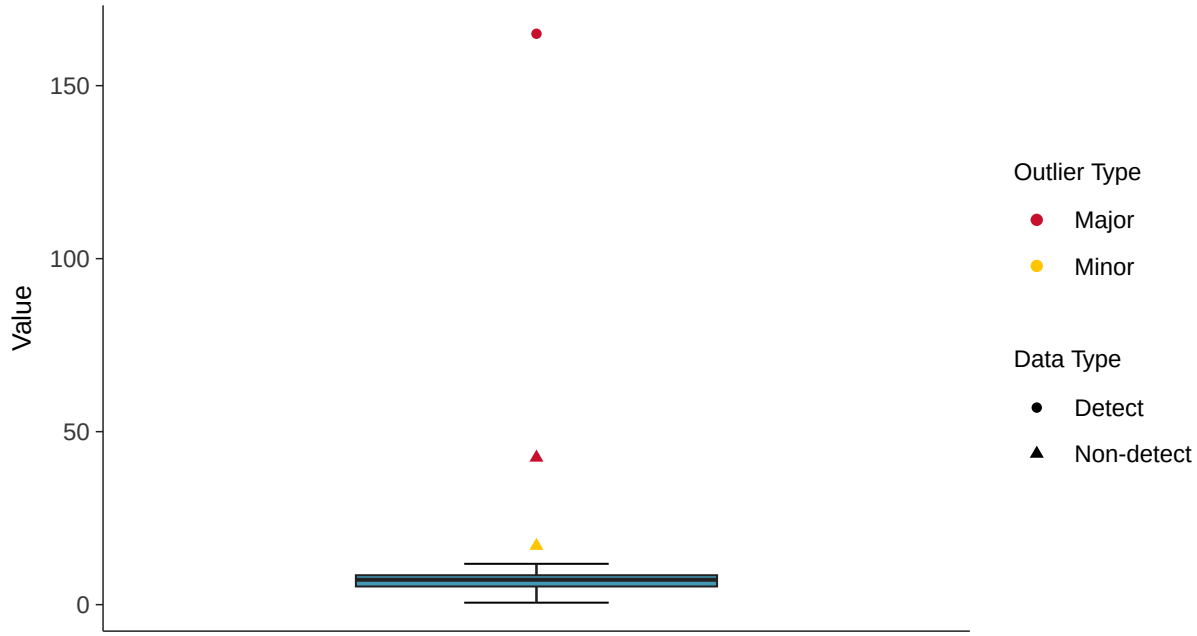
ID: 04_02_105





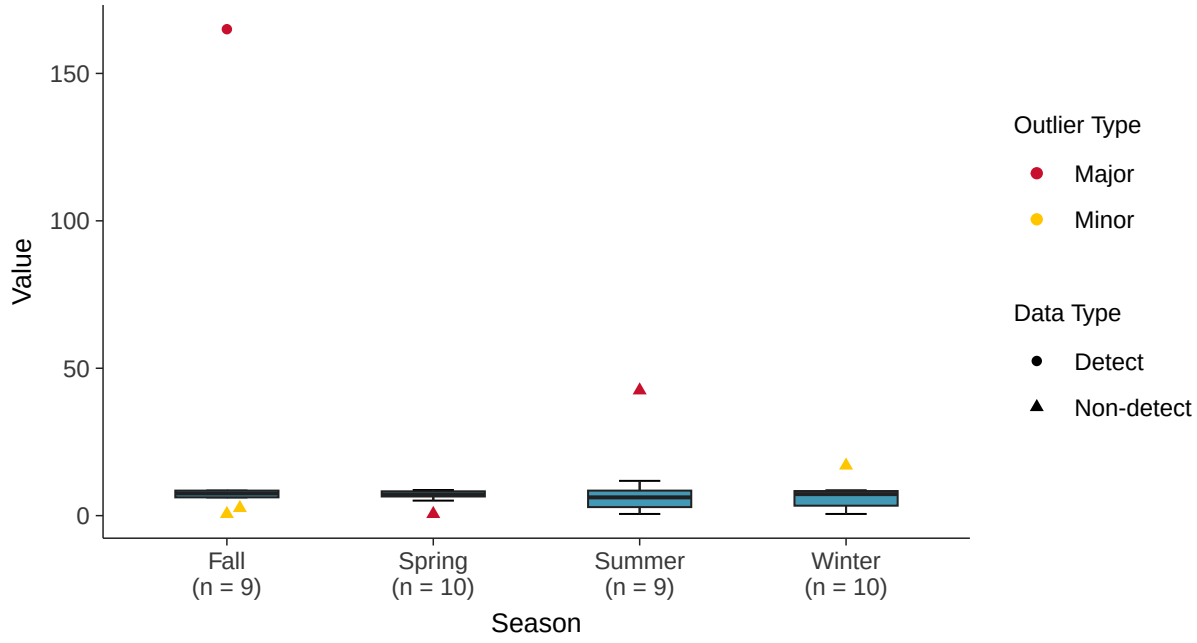
Boxplot

Boron, MW-4 (ug/L)



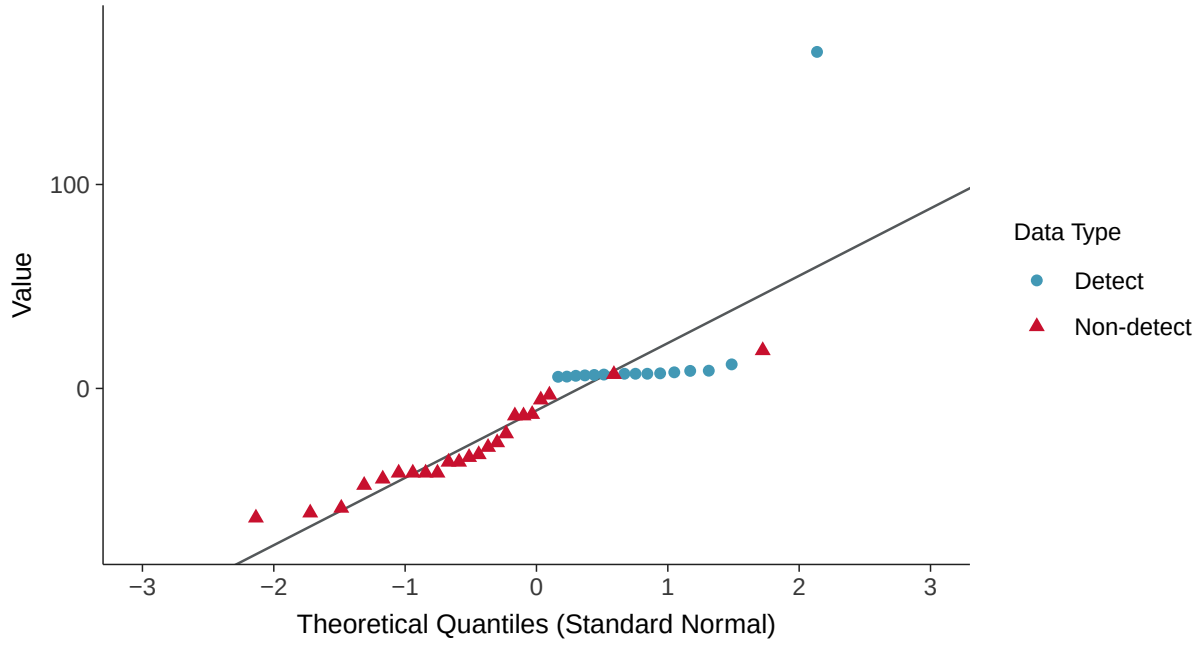
Boxplot by Season

Boron, MW-4 (ug/L)



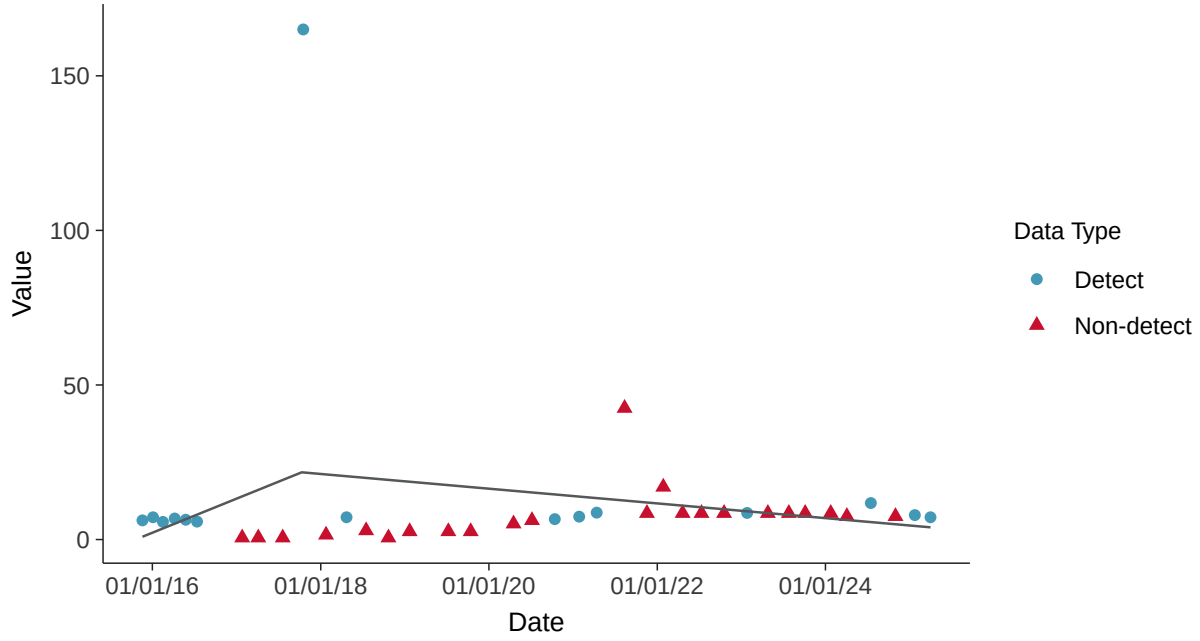
Normal Q-Q plot using ROS Imputed Estimates

Boron, MW-4 (ug/L)



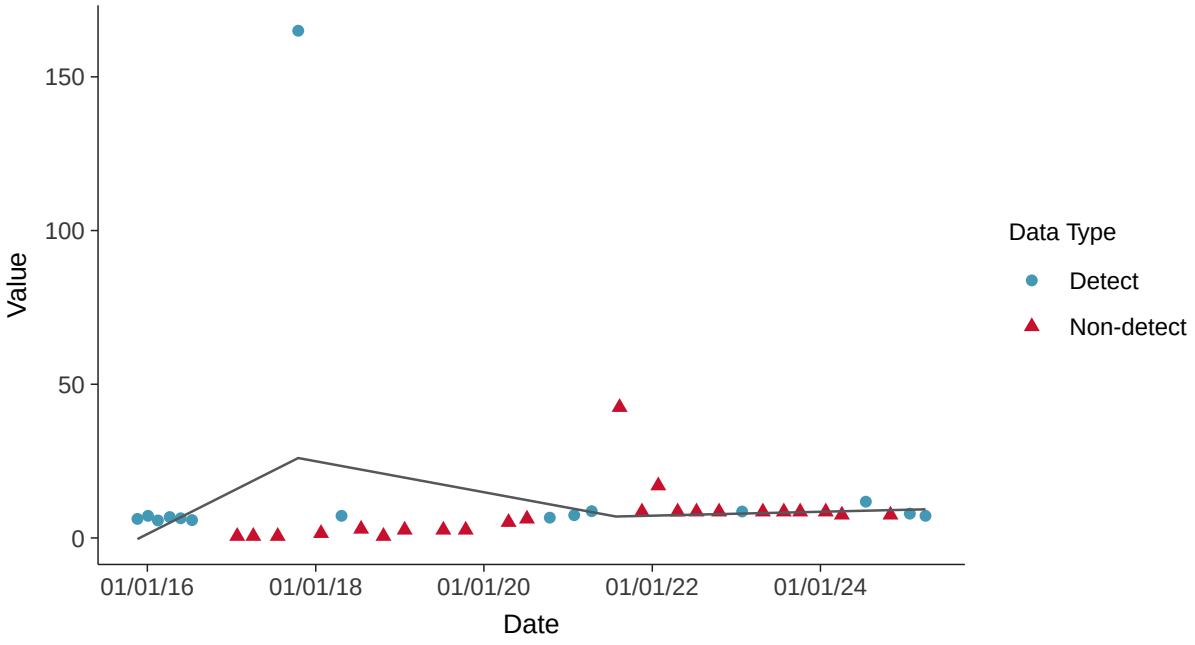
Trend Regression: Piecewise Linear-Linear

Boron, MW-4 (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Boron, MW-4 (ug/L)

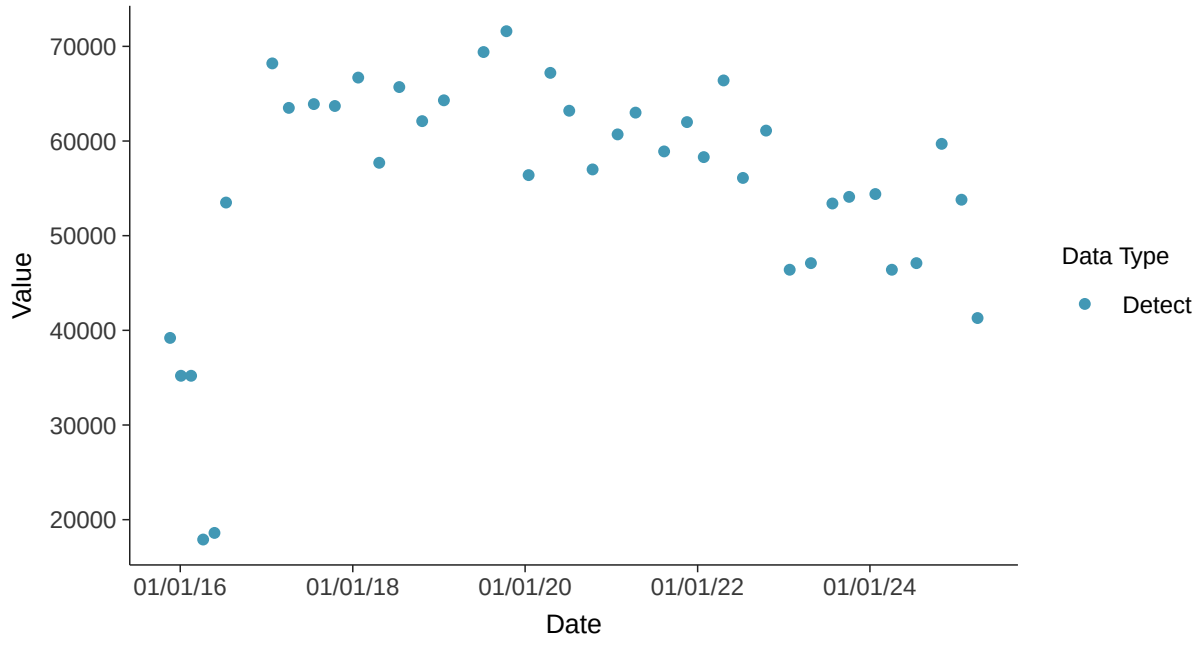


App. III: Calcium, MW-4

ID: 04_02_107

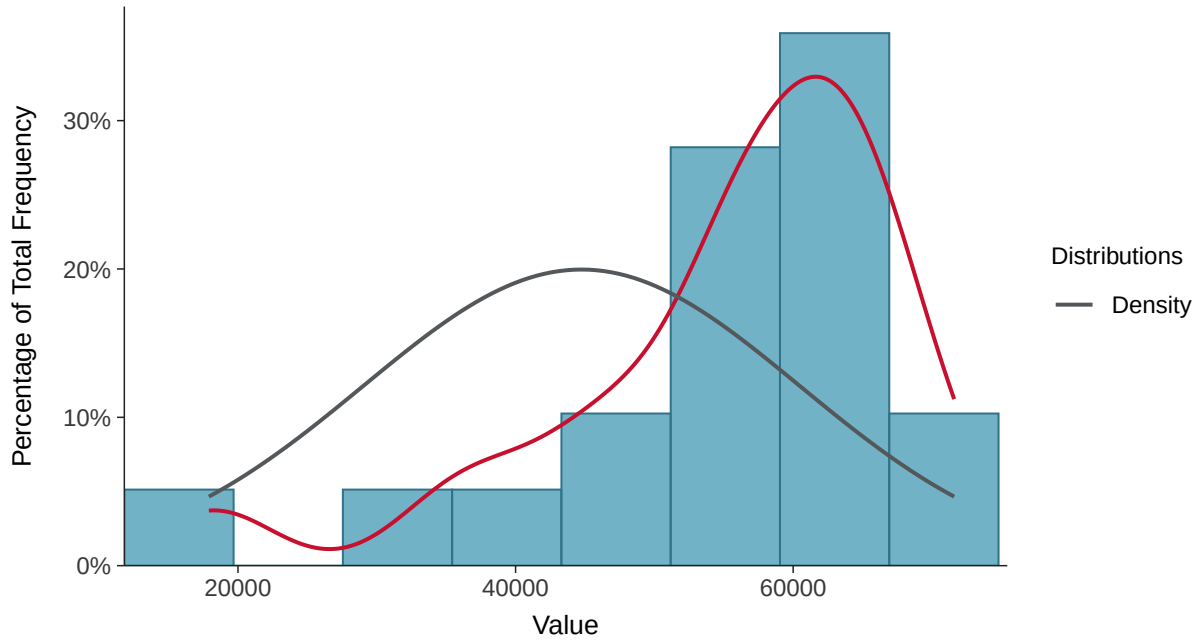
Scatter Plot

Calcium, MW-4 (ug/L)



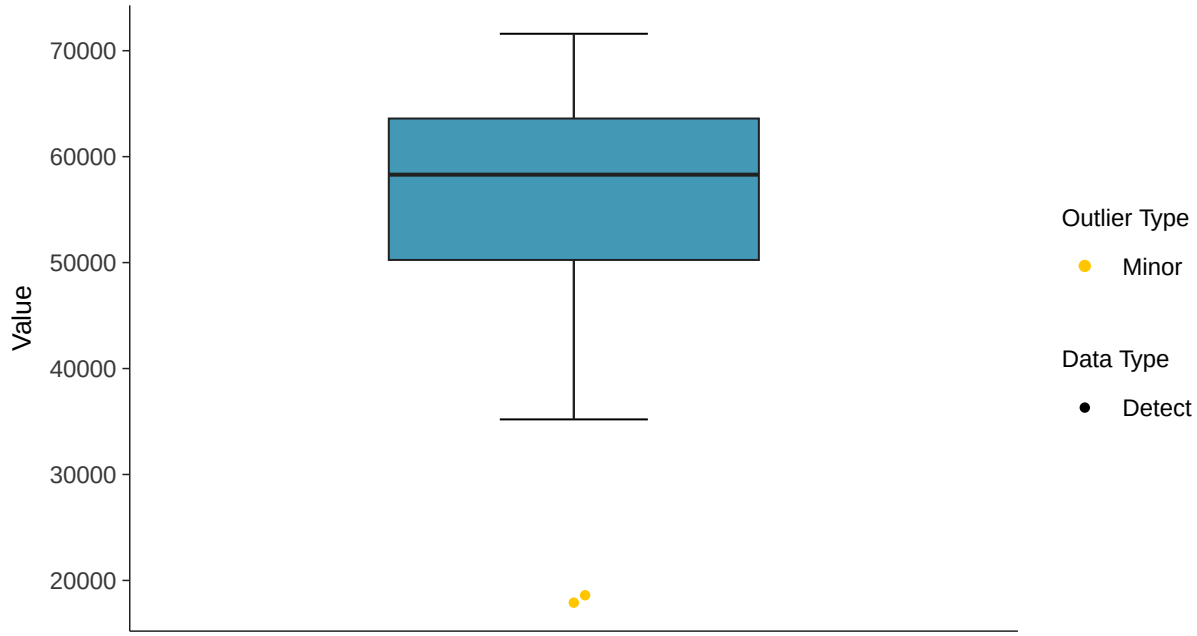
Histogram

Calcium, MW-4 (ug/L)



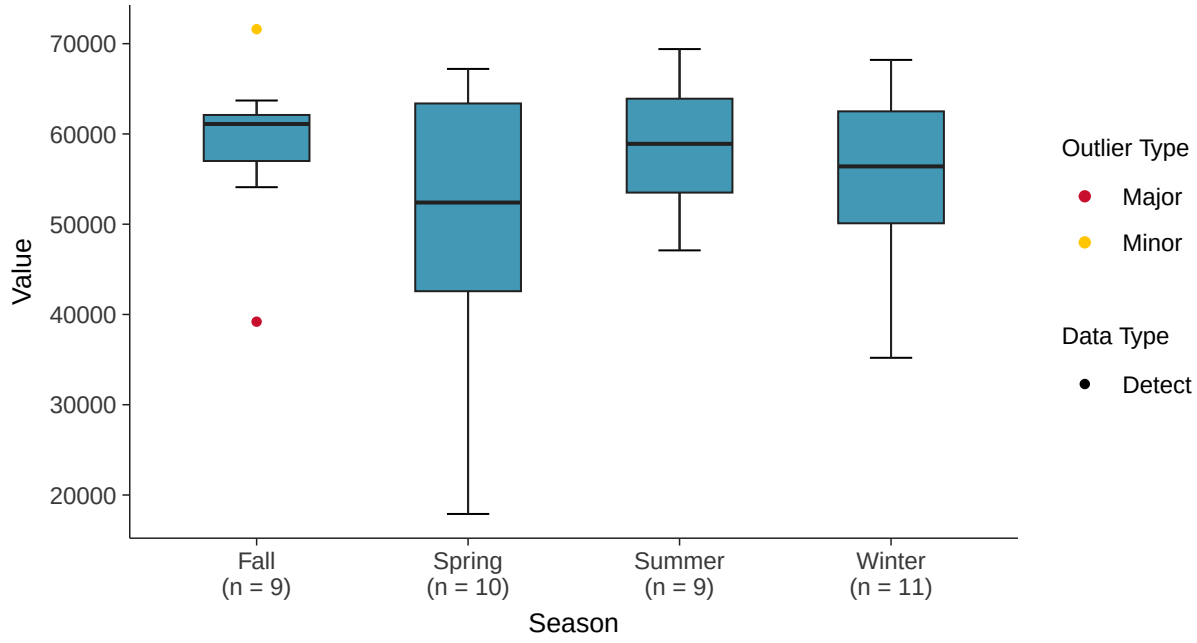
Boxplot

Calcium, MW-4 (ug/L)



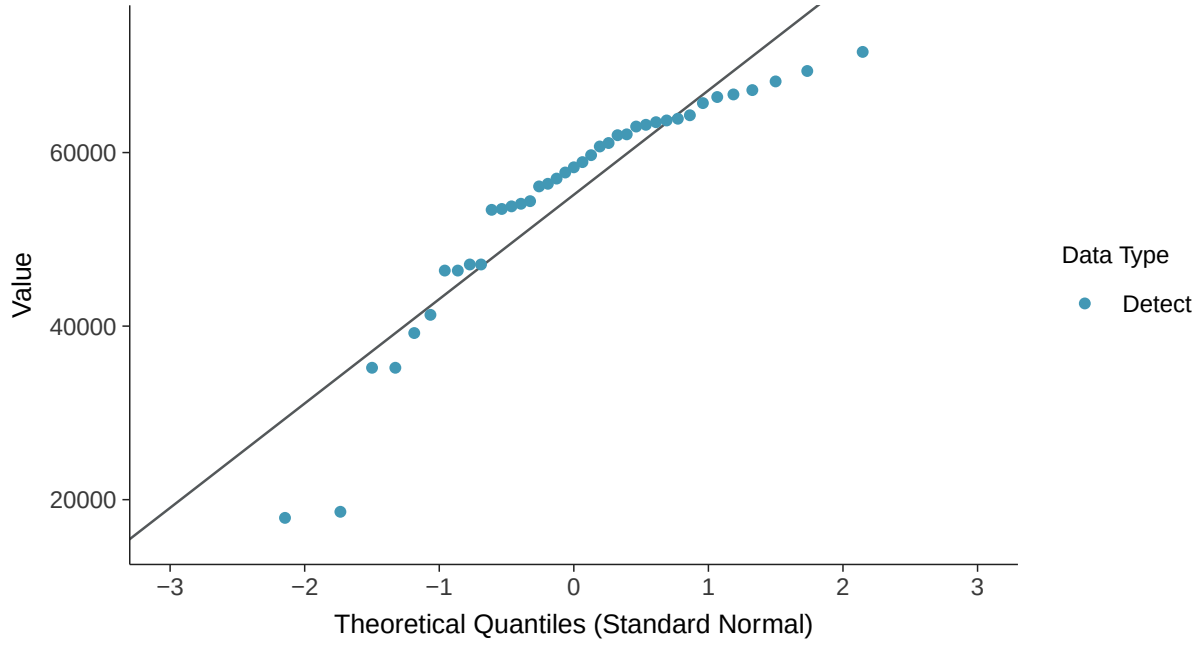
Boxplot by Season

Calcium, MW-4 (ug/L)



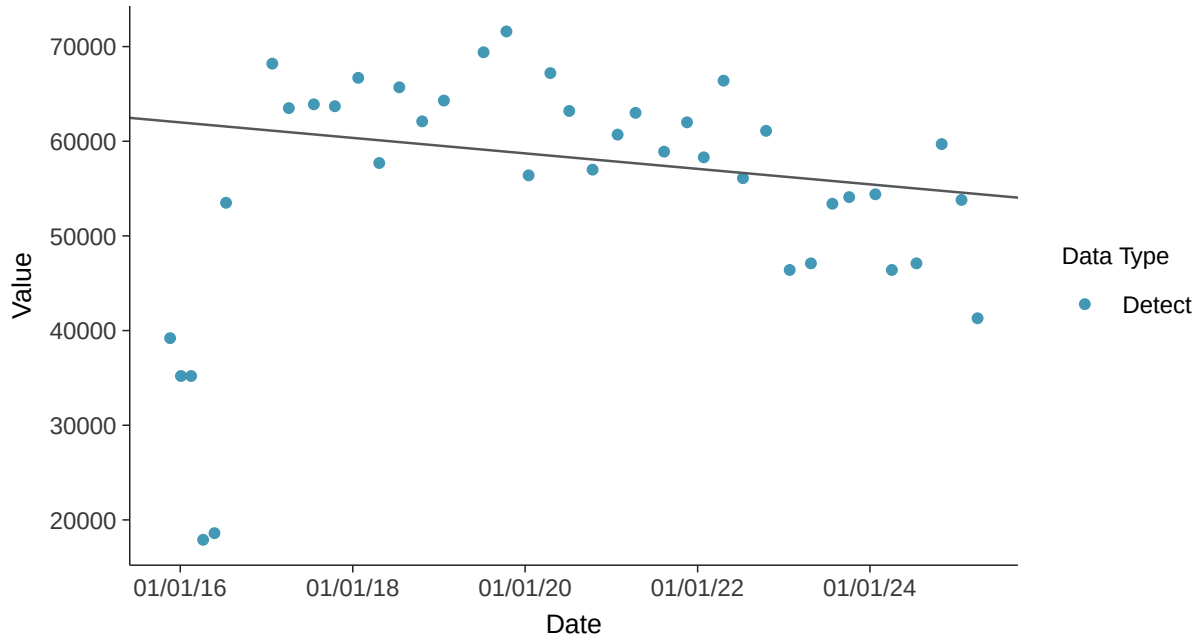
Normal Q-Q plot

Calcium, MW-4 (ug/L)



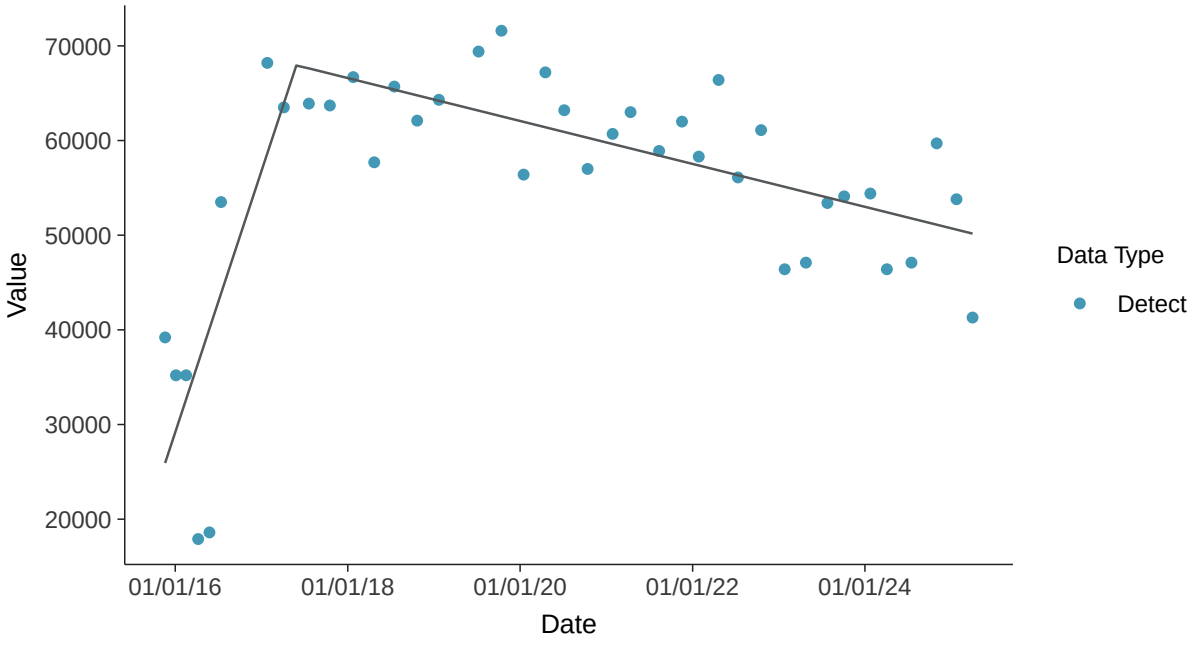
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Calcium, MW-4 (ug/L)



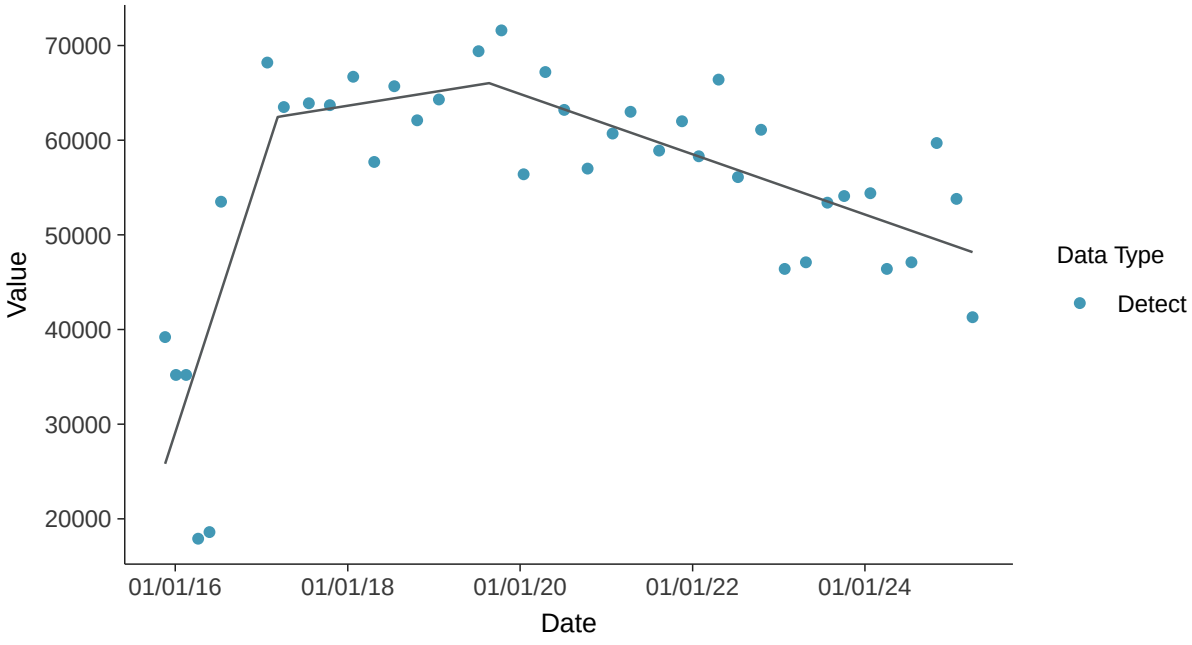
Trend Regression: Piecewise Linear-Linear

Calcium, MW-4 (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Calcium, MW-4 (ug/L)

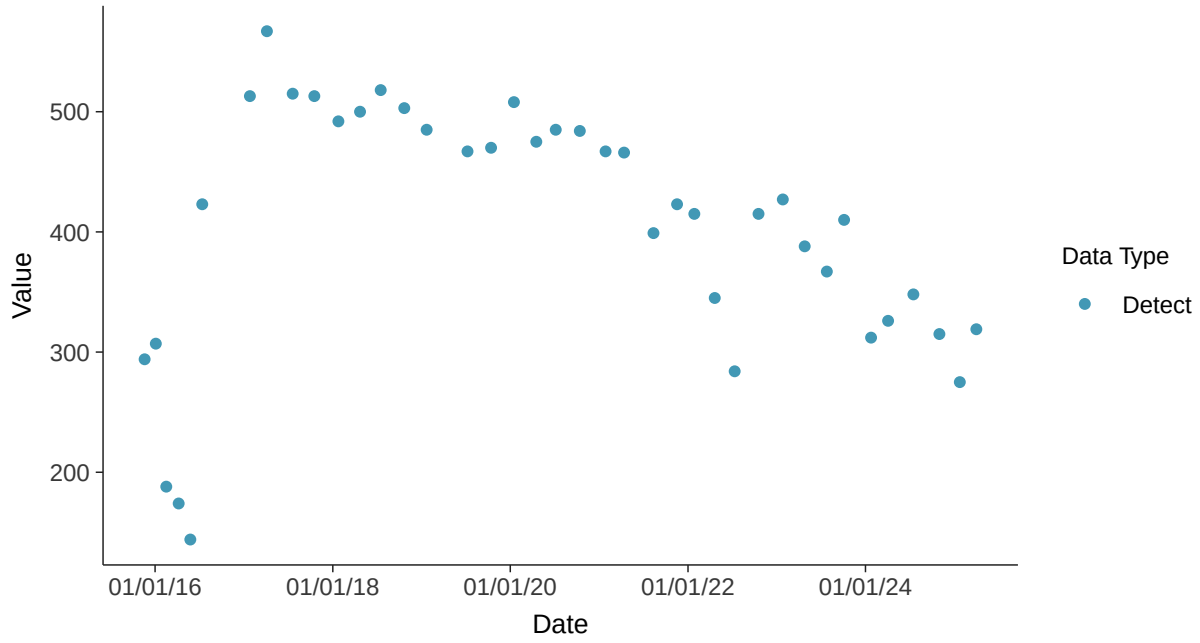


App. III: Chloride, MW-4

ID: 04_02_108

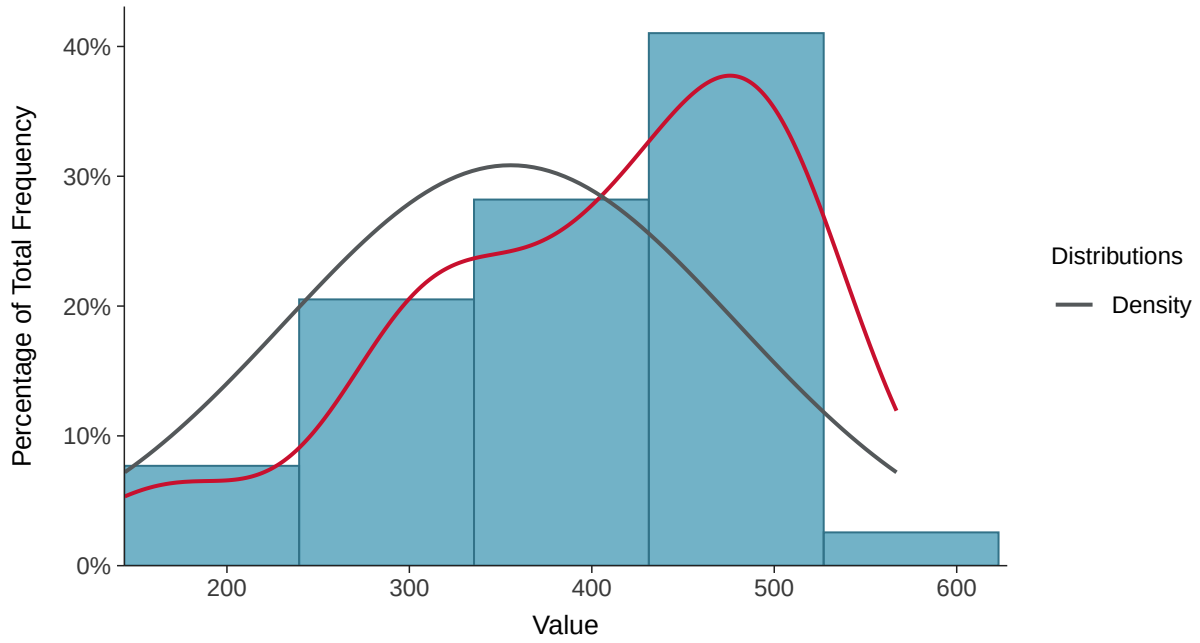
Scatter Plot

Chloride, MW-4 (mg/L)



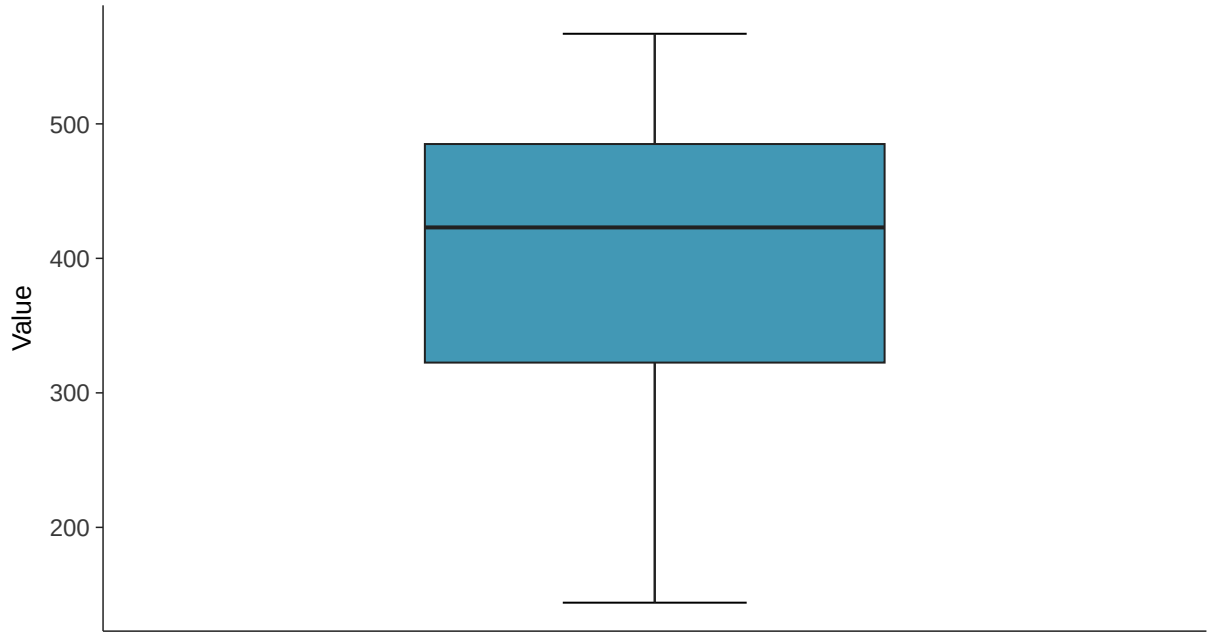
Histogram

Chloride, MW-4 (mg/L)



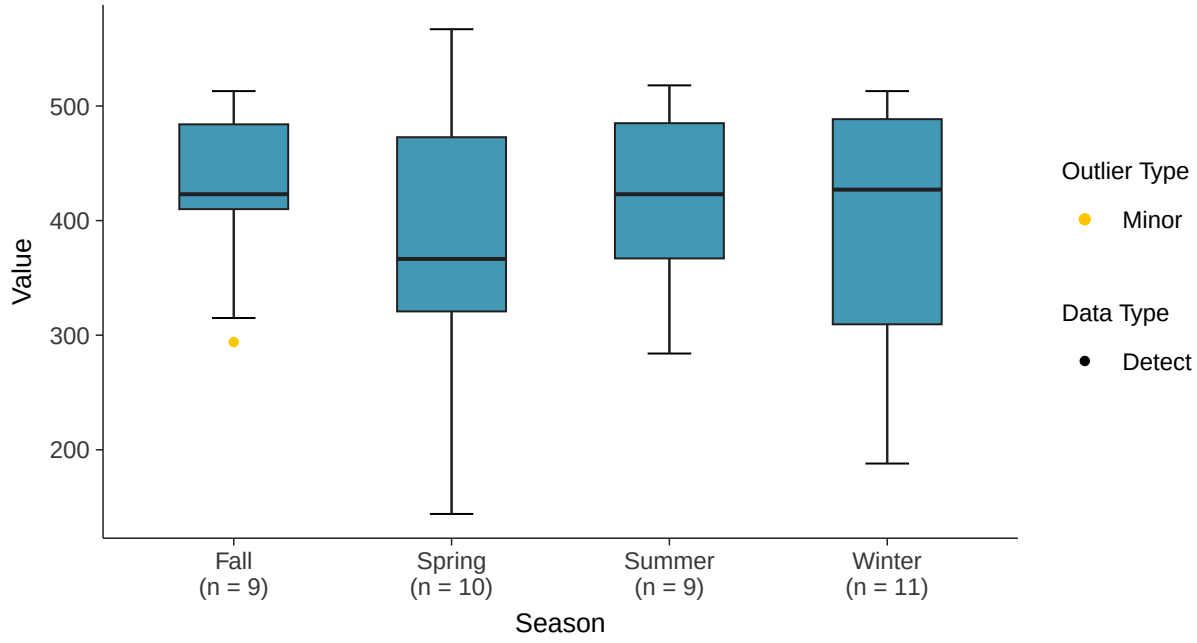
Boxplot

Chloride, MW-4 (mg/L)



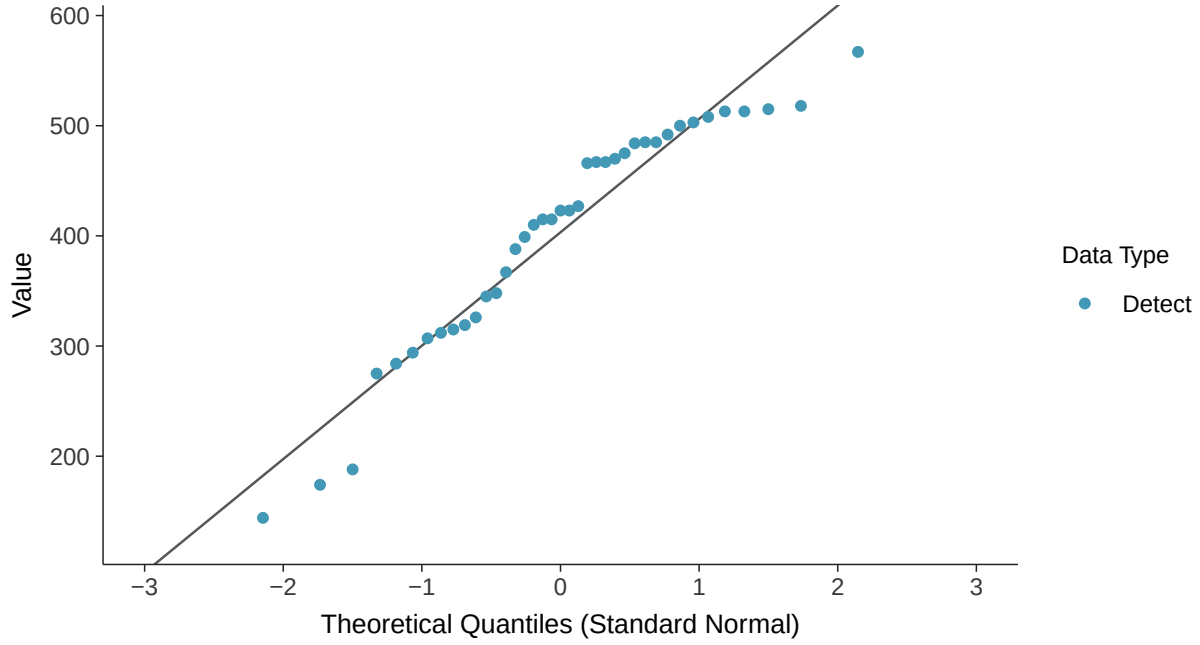
Boxplot by Season

Chloride, MW-4 (mg/L)



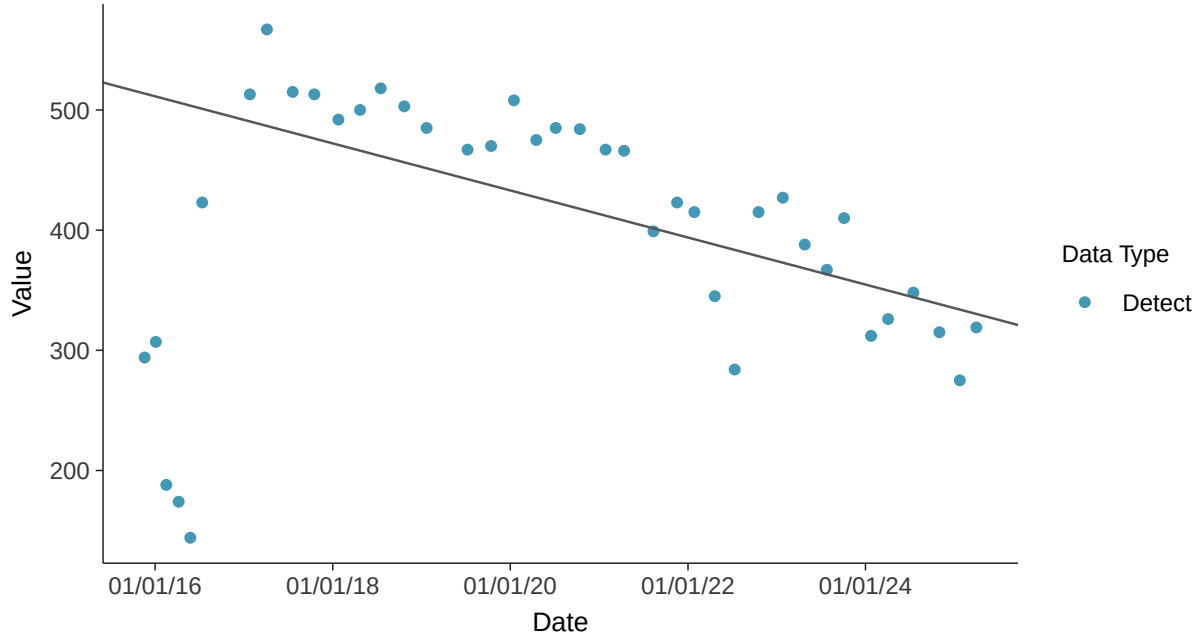
Normal Q-Q plot

Chloride, MW-4 (mg/L)



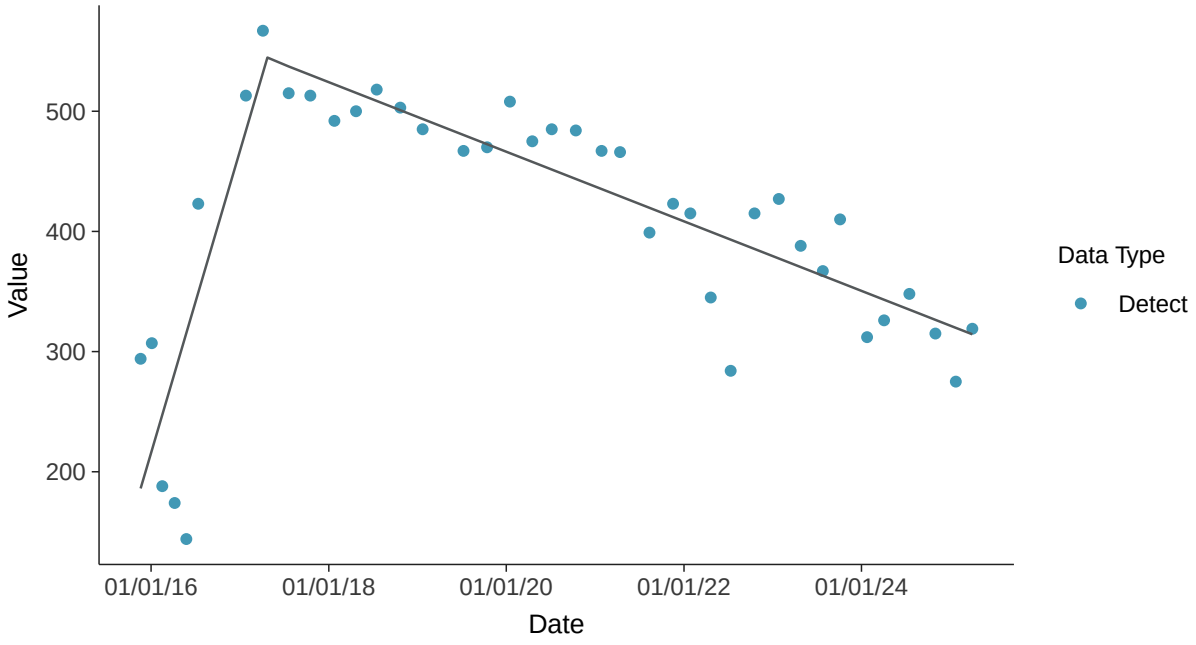
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Chloride, MW-4 (mg/L)



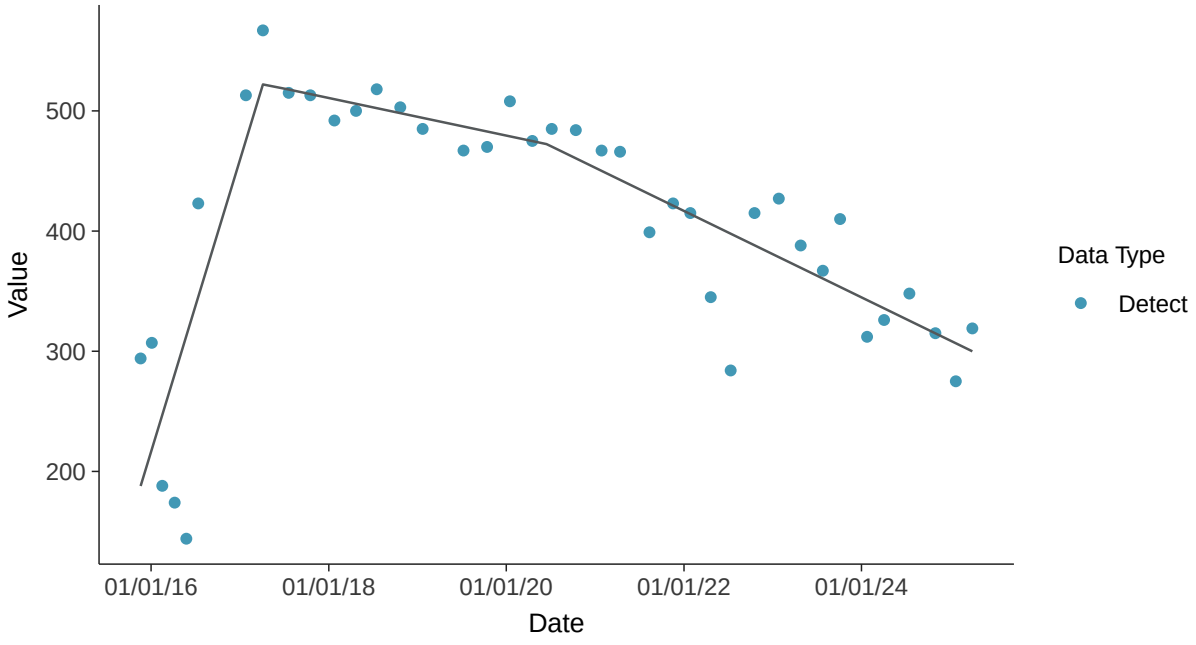
Trend Regression: Piecewise Linear-Linear

Chloride, MW-4 (mg/L)



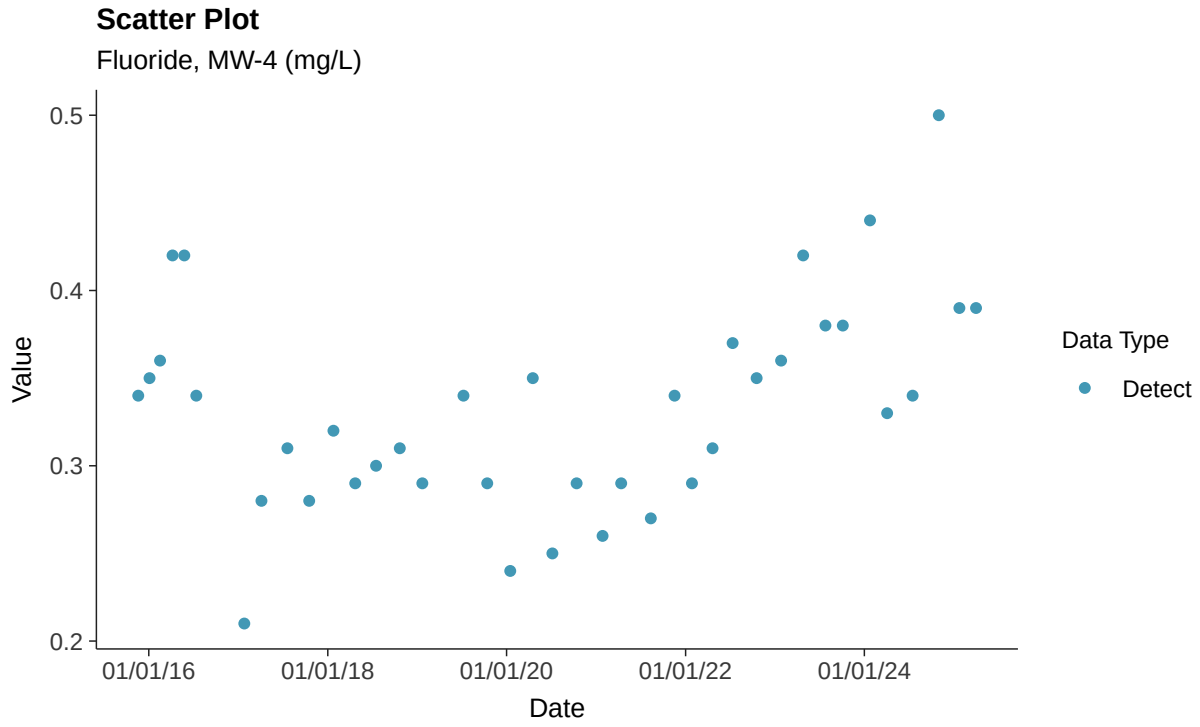
Trend Regression: Piecewise Linear-Linear-Linear

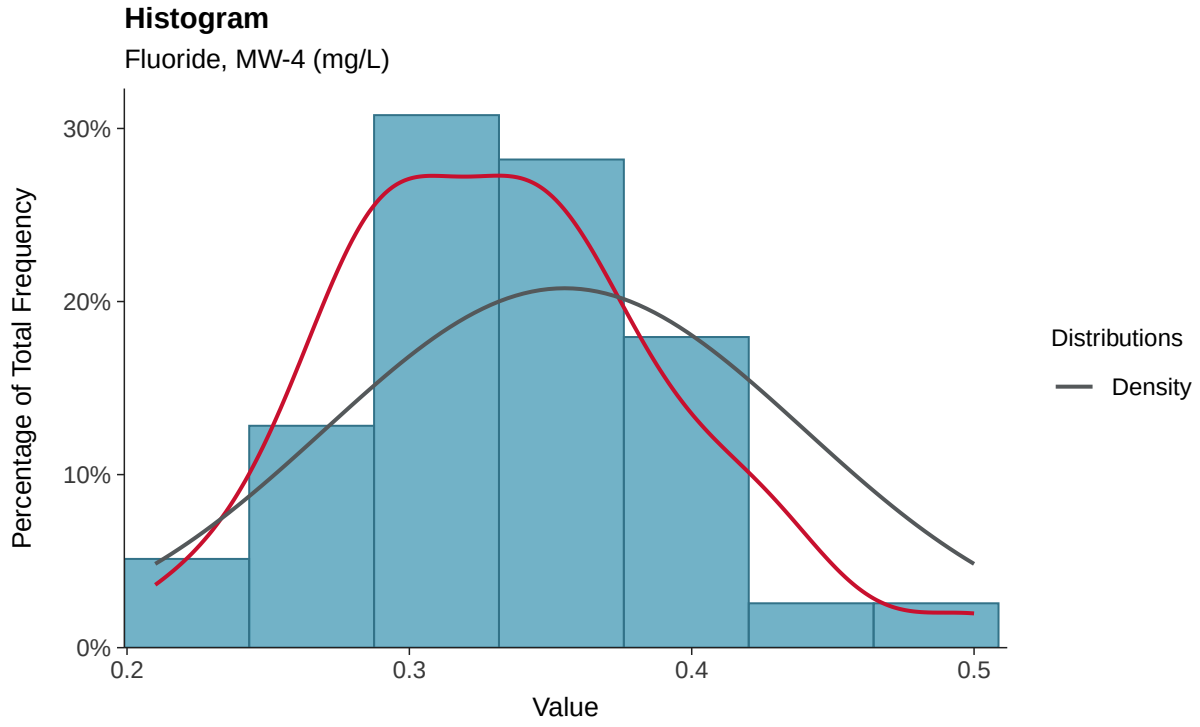
Chloride, MW-4 (mg/L)



App. III: Fluoride, MW-4

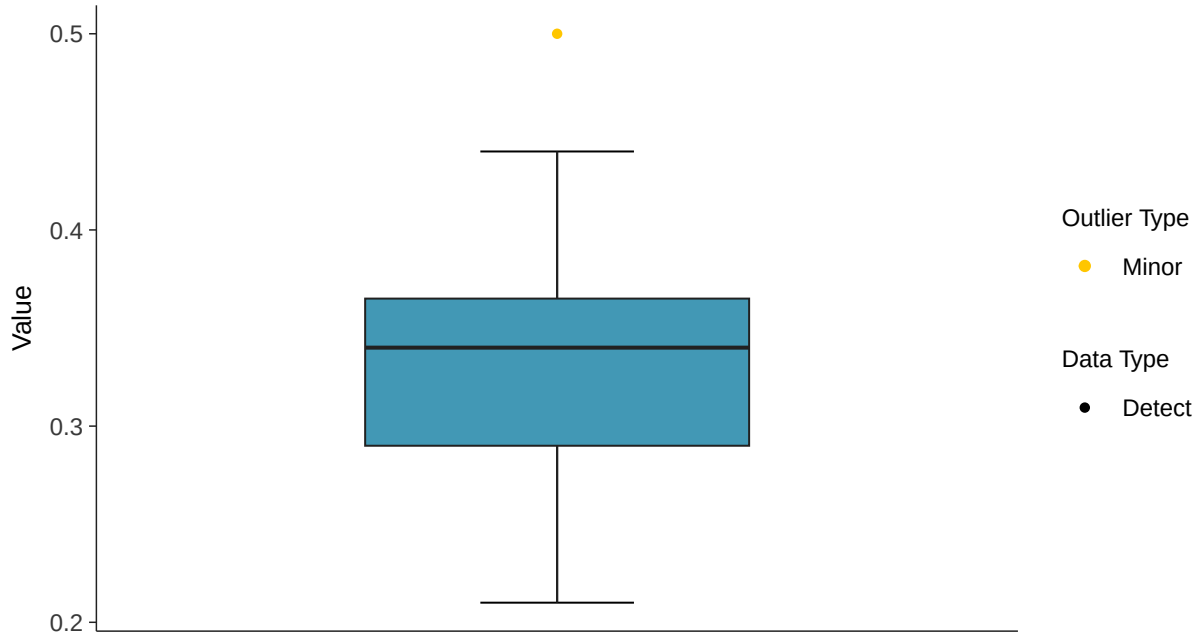
ID: 04_02_112





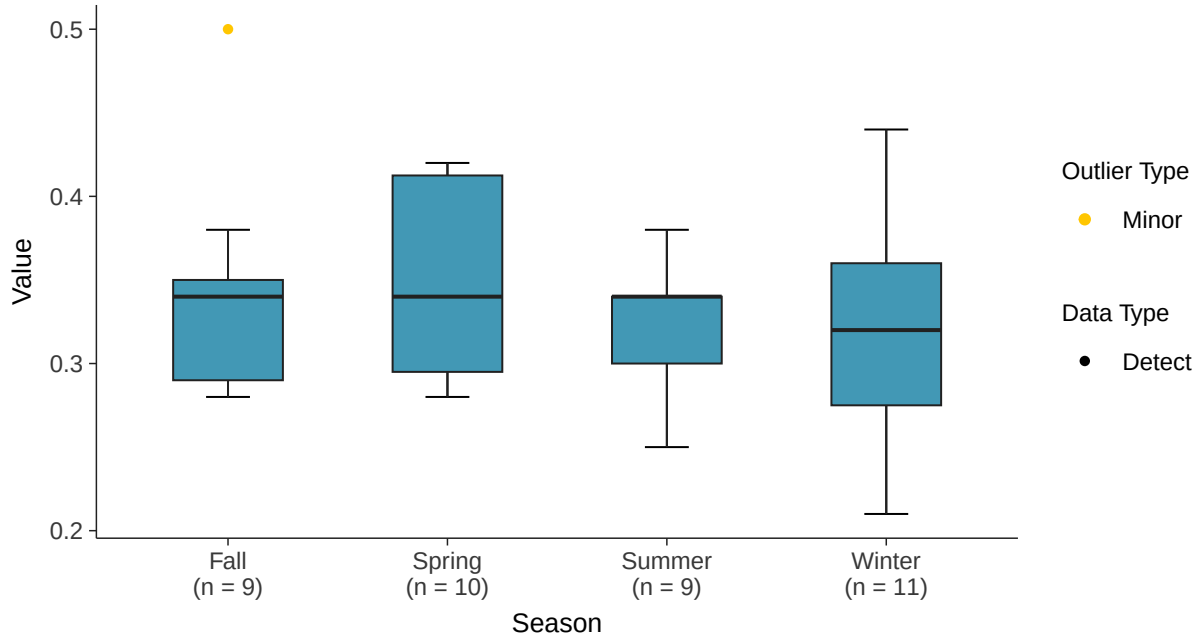
Boxplot

Fluoride, MW-4 (mg/L)



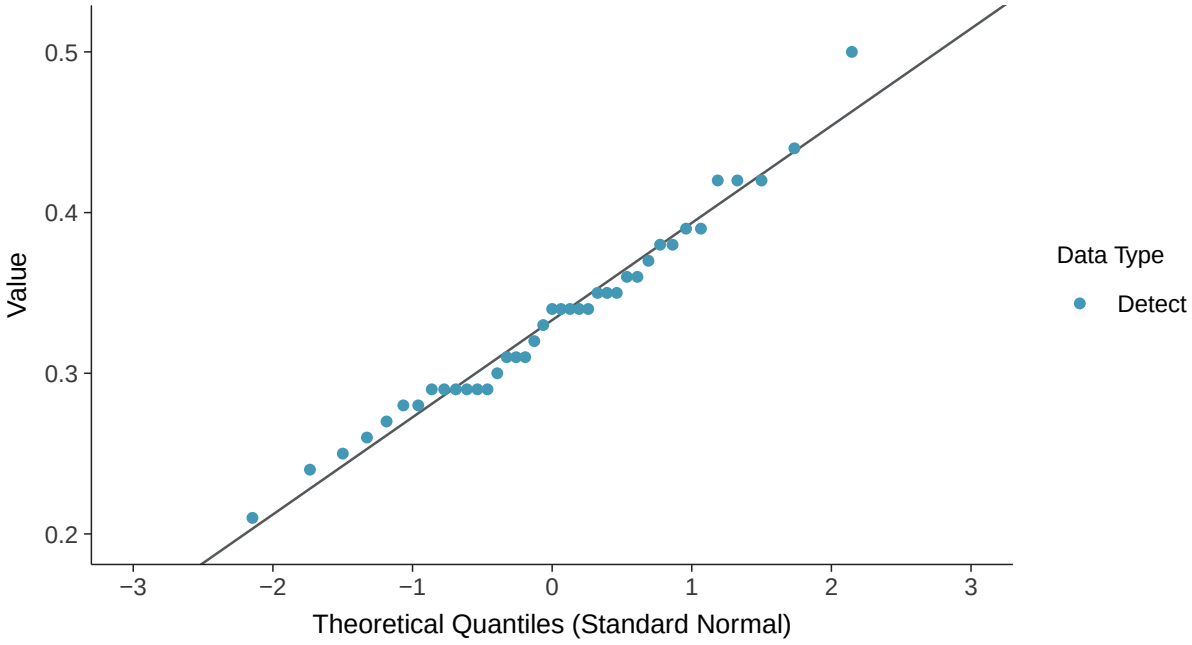
Boxplot by Season

Fluoride, MW-4 (mg/L)



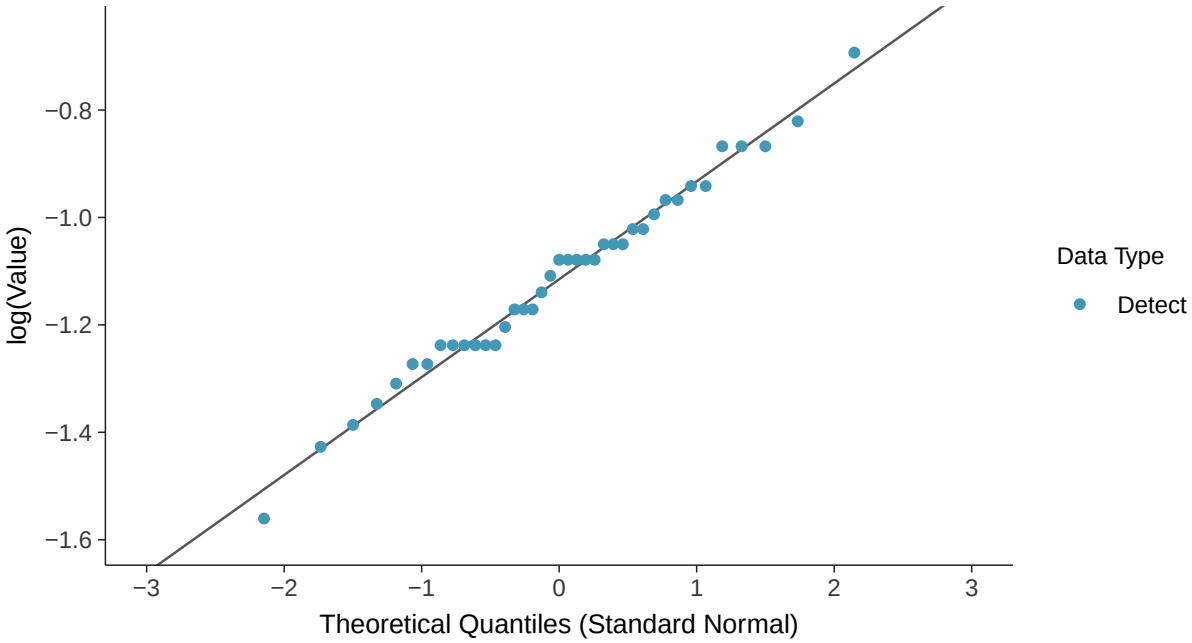
Normal Q-Q plot

Fluoride, MW-4 (mg/L)



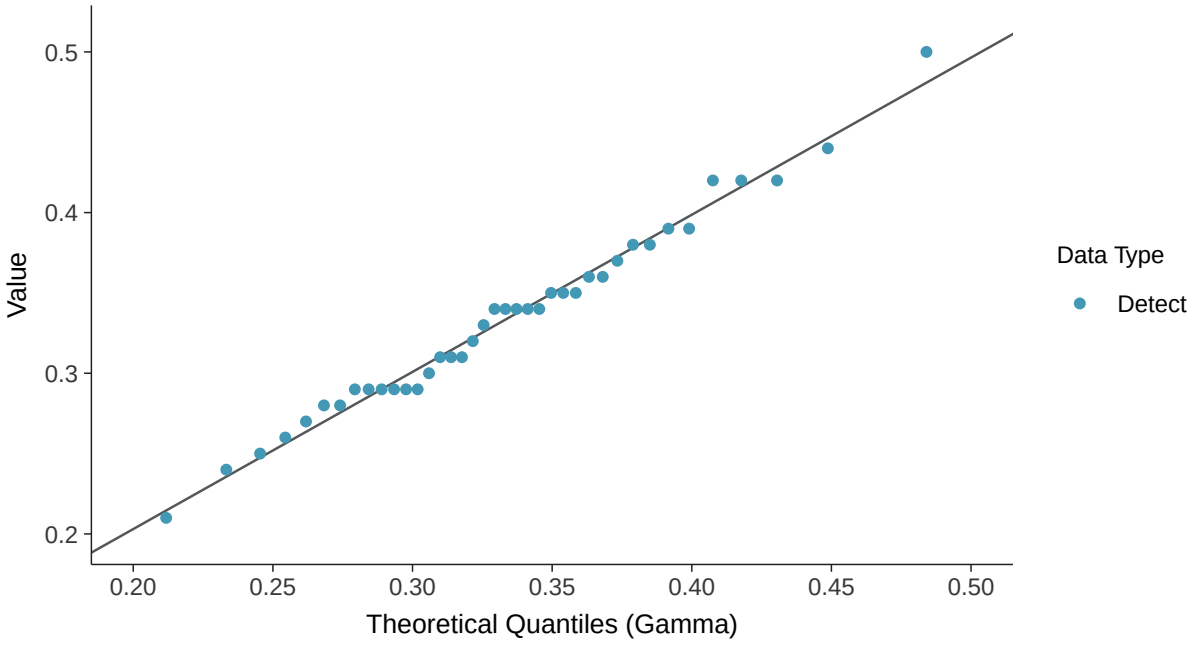
Lognormal Q-Q plot

Fluoride, MW-4 (mg/L)



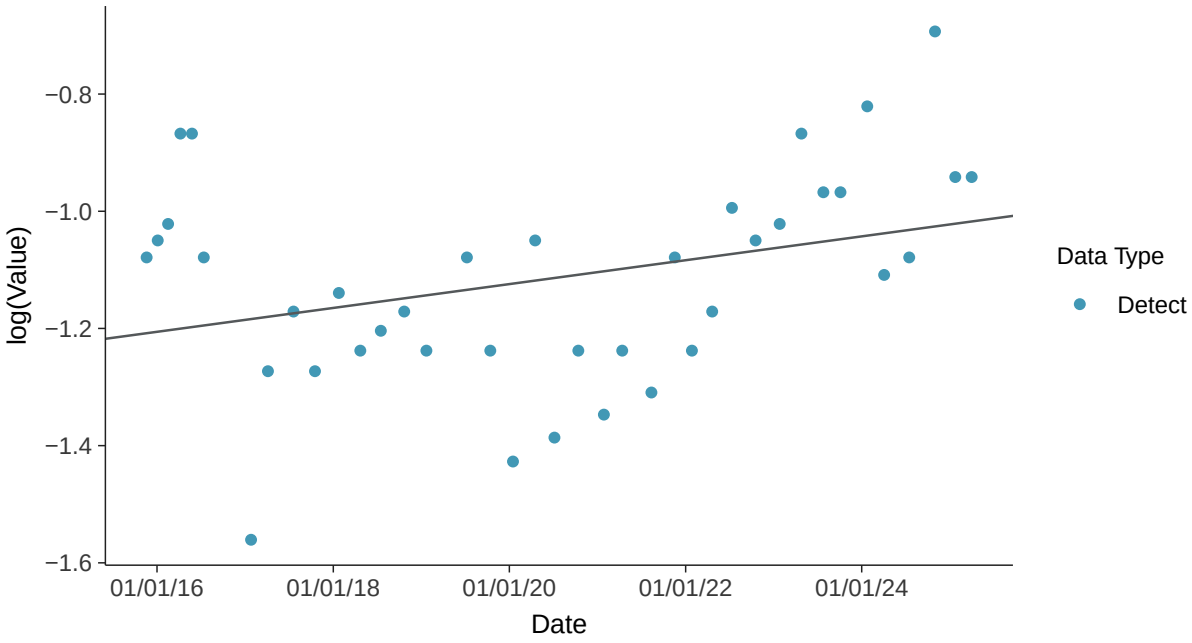
Gamma Q-Q plot

Fluoride, MW-4 (mg/L)



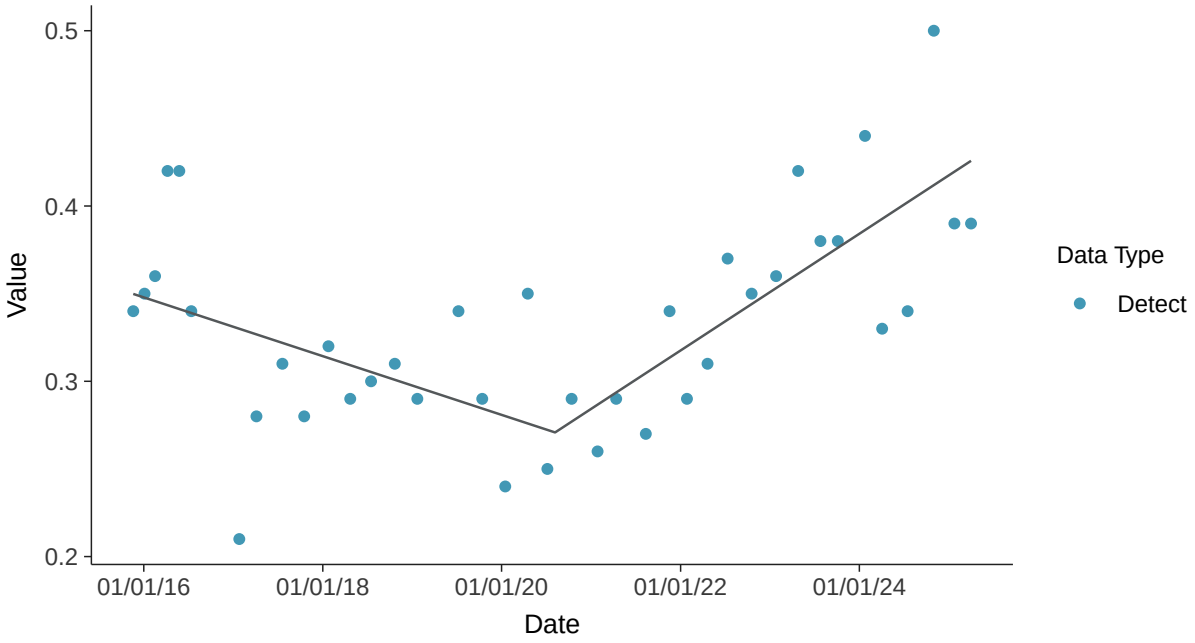
Trend Regression: Lognormal MLE

Fluoride, MW-4 (mg/L)



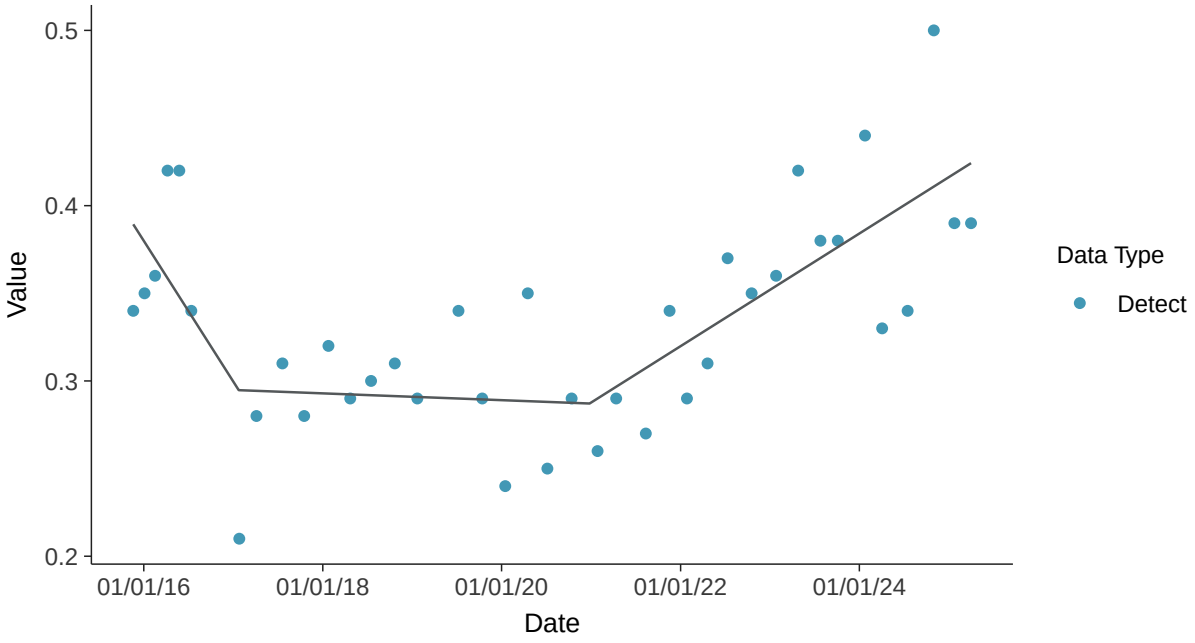
Trend Regression: Piecewise Linear-Linear

Fluoride, MW-4 (mg/L)



Trend Regression: Piecewise Linear-Linear-Linear

Fluoride, MW-4 (mg/L)

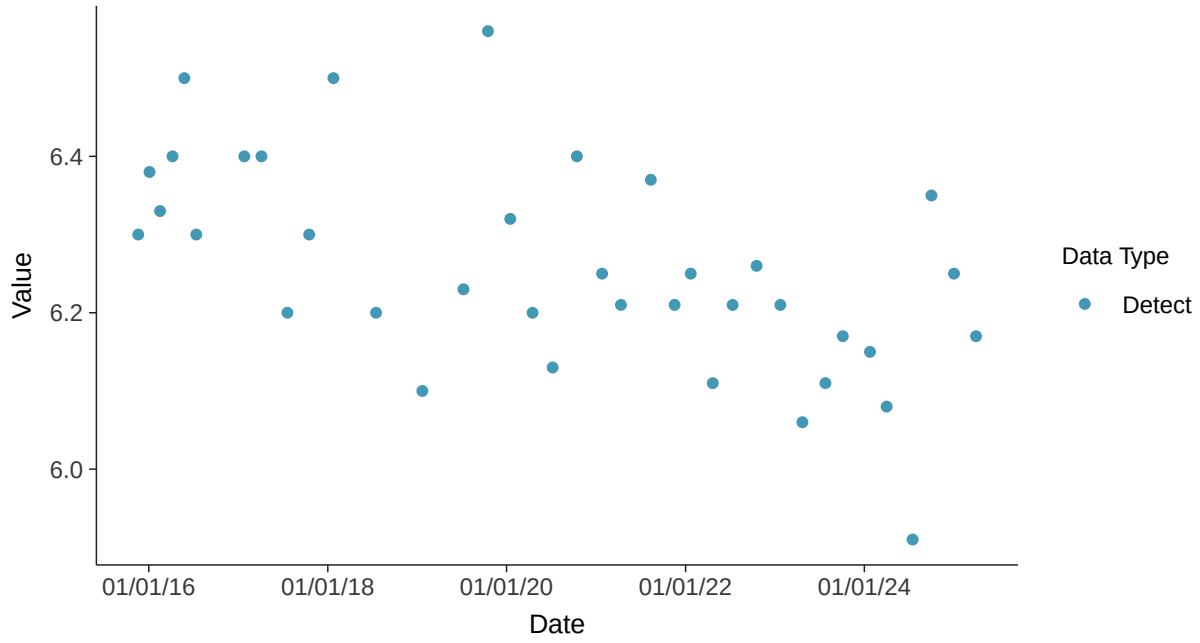


App. III: pH (Field), MW-4

ID: 04_02_118

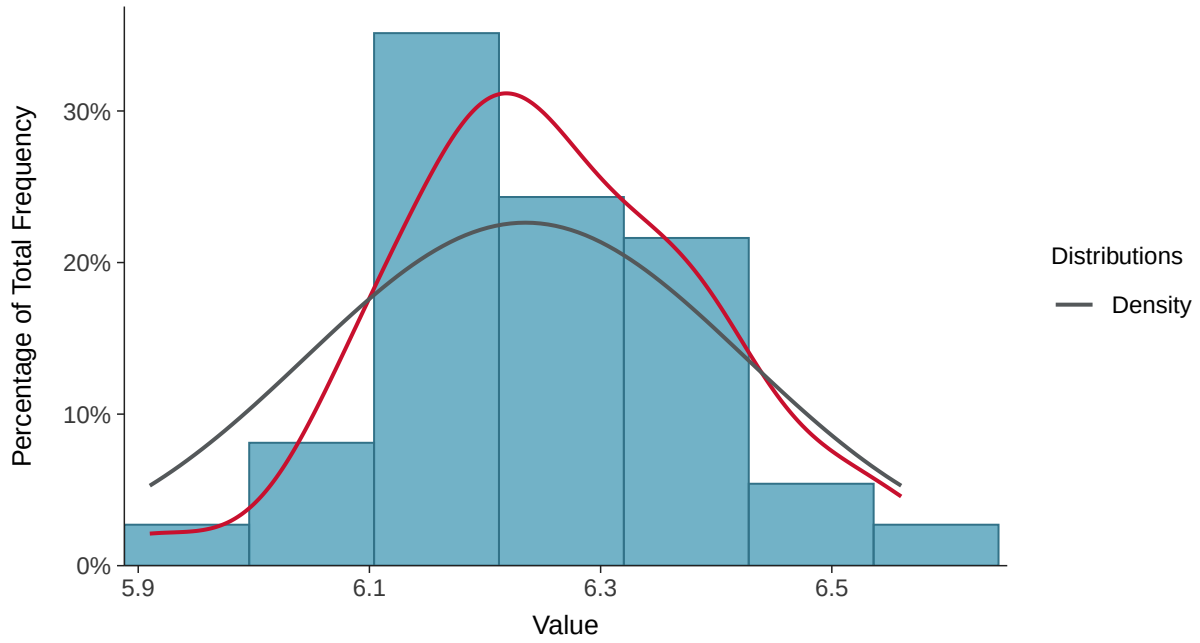
Scatter Plot

pH (Field), MW-4 (S.U.)



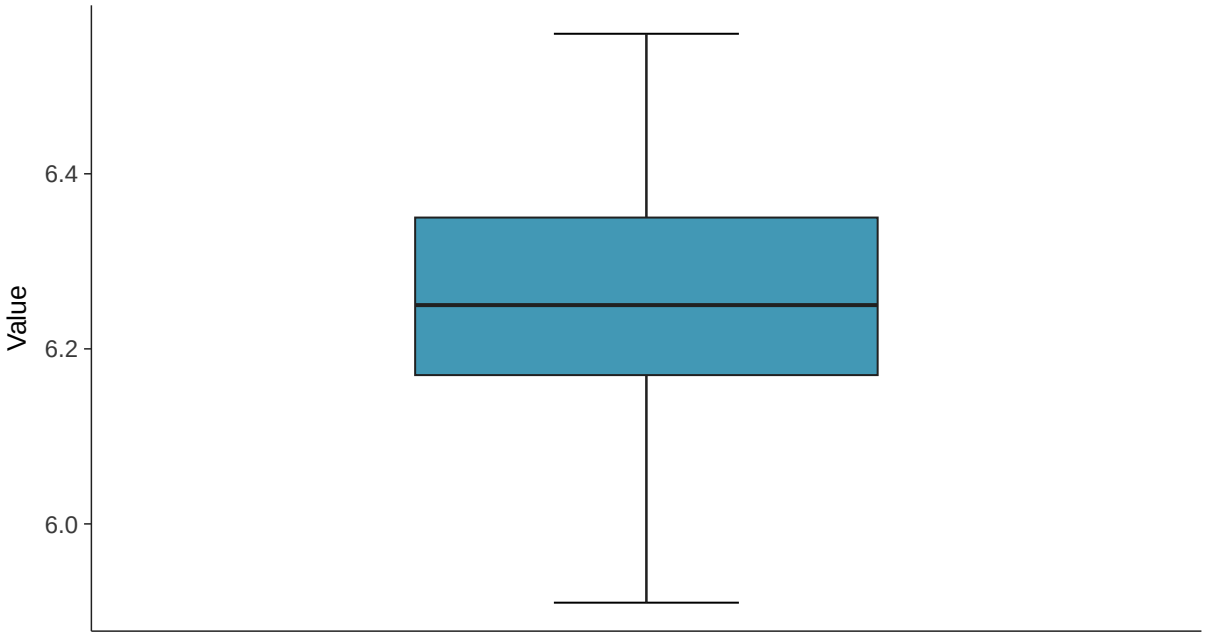
Histogram

pH (Field), MW-4 (S.U.)



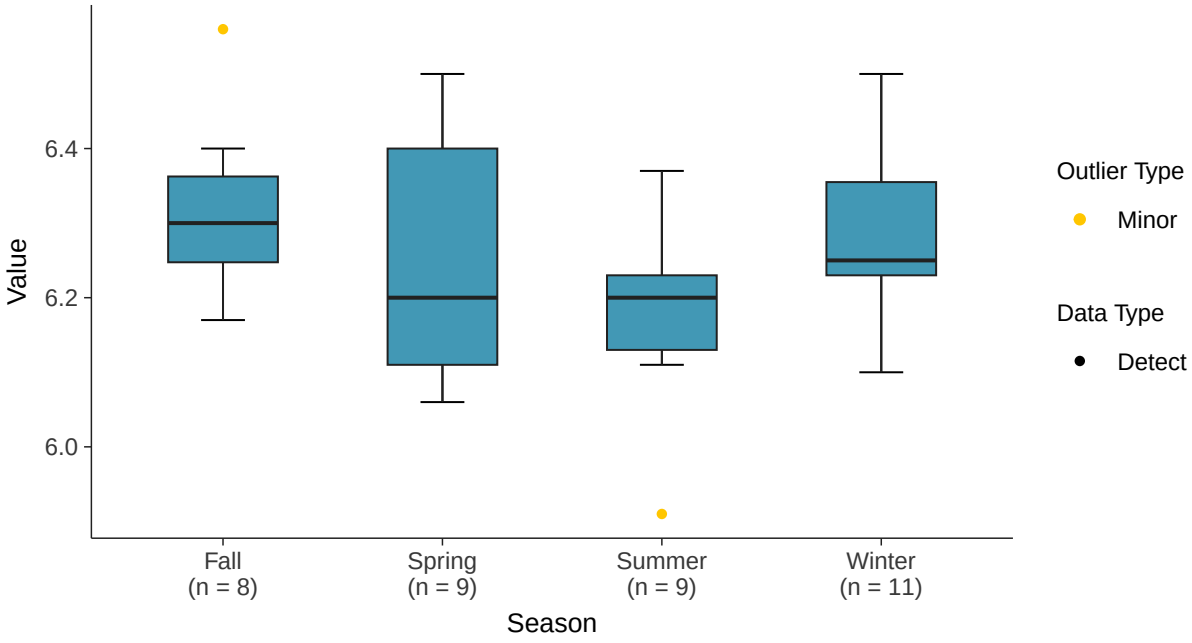
Boxplot

pH (Field), MW-4 (S.U.)



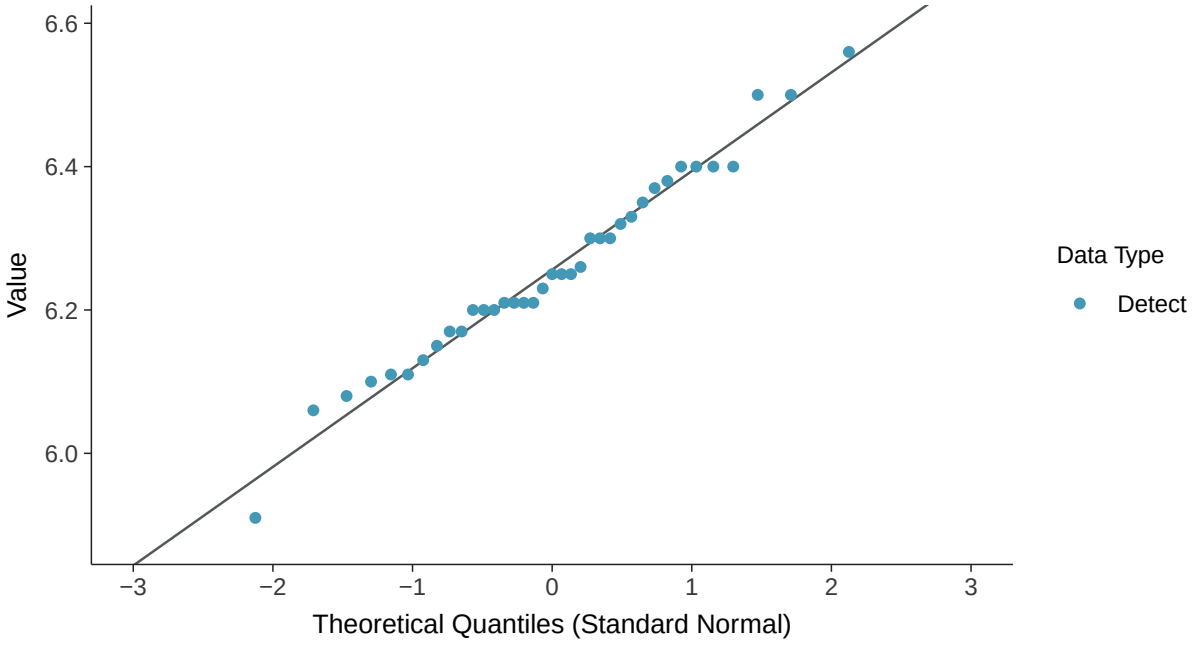
Boxplot by Season

pH (Field), MW-4 (S.U.)



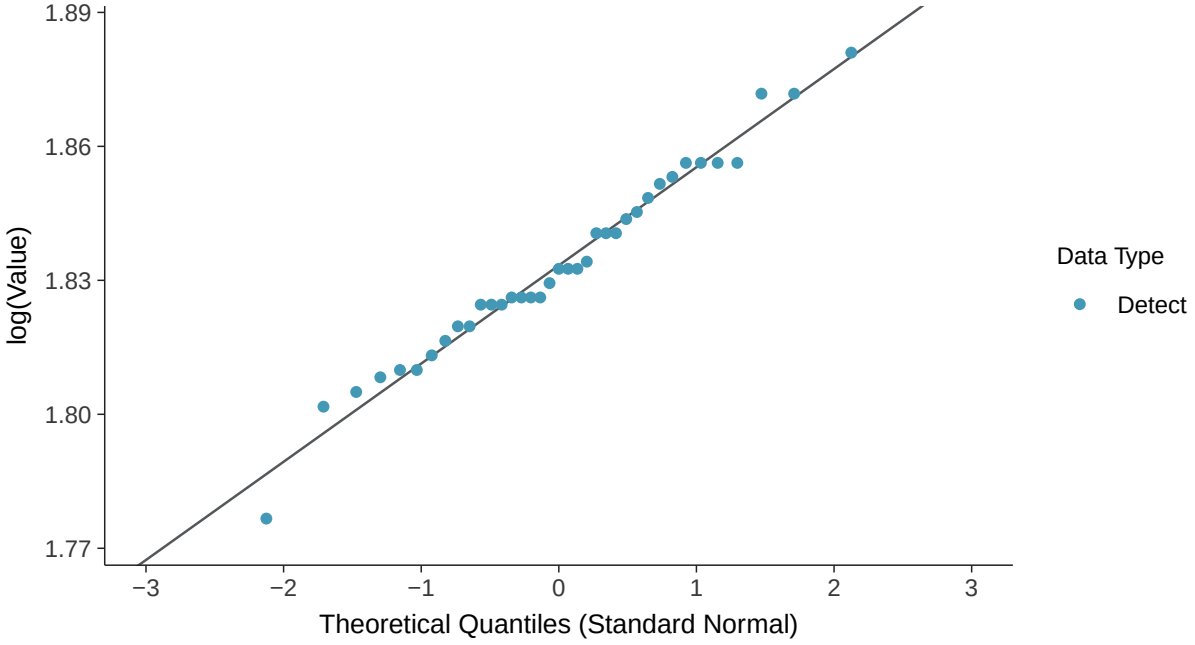
Normal Q-Q plot

pH (Field), MW-4 (S.U.)



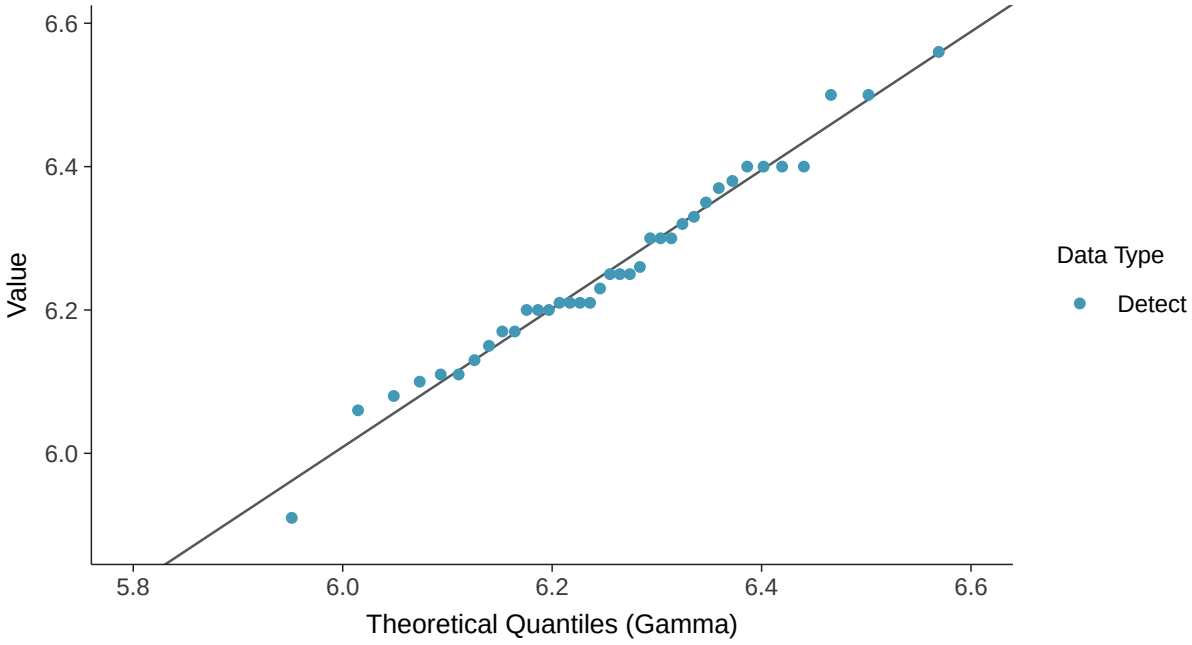
Lognormal Q-Q plot

pH (Field), MW-4 (S.U.)



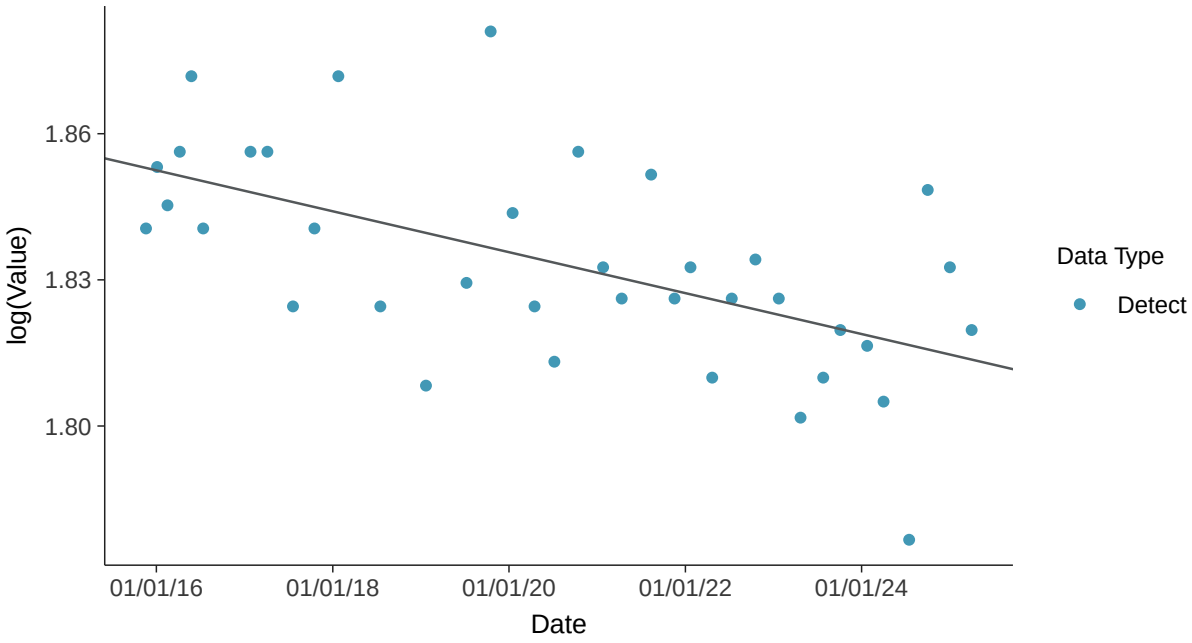
Gamma Q-Q plot

pH (Field), MW-4 (S.U.)



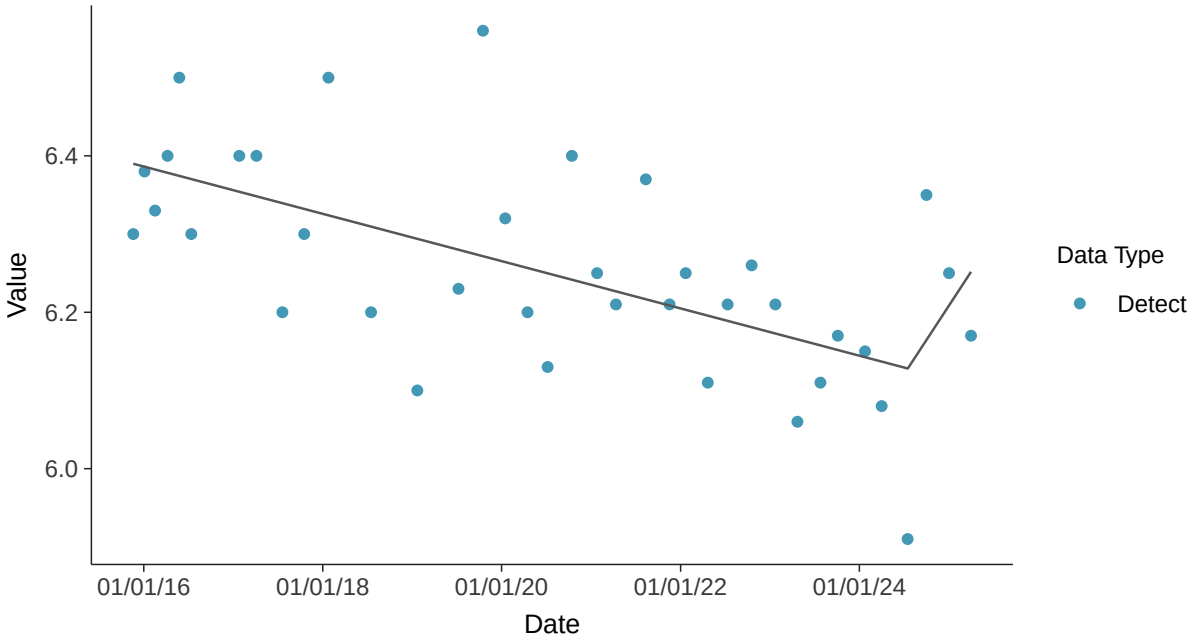
Trend Regression: Lognormal MLE

pH (Field), MW-4 (S.U.)



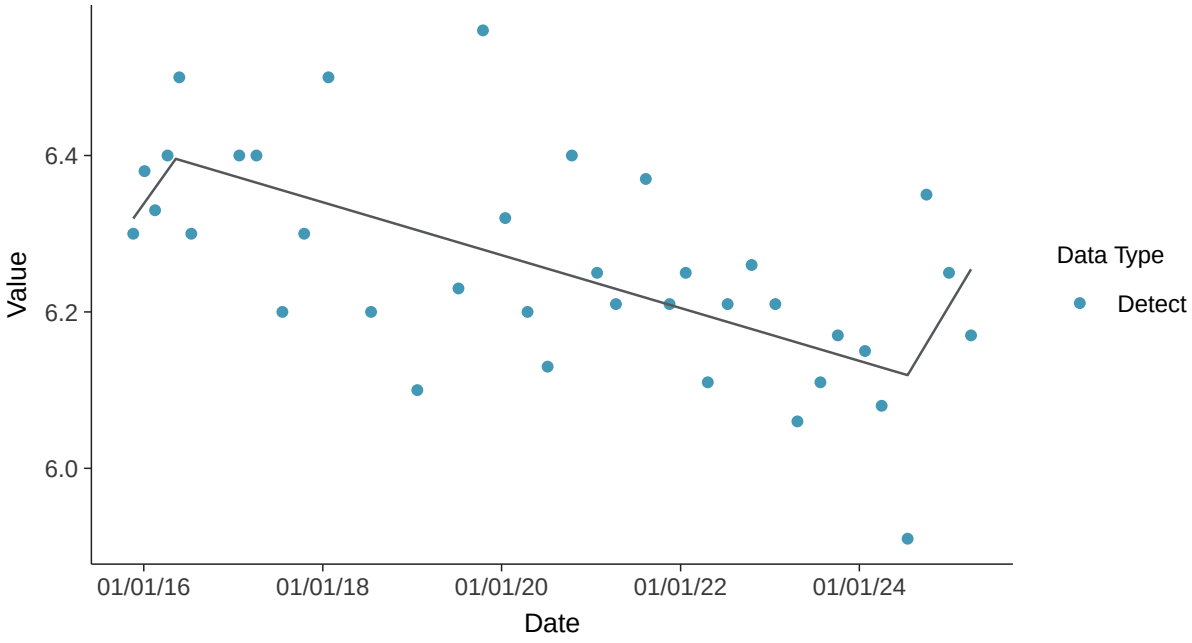
Trend Regression: Piecewise Linear-Linear

pH (Field), MW-4 (S.U.)



Trend Regression: Piecewise Linear-Linear-Linear

pH (Field), MW-4 (S.U.)

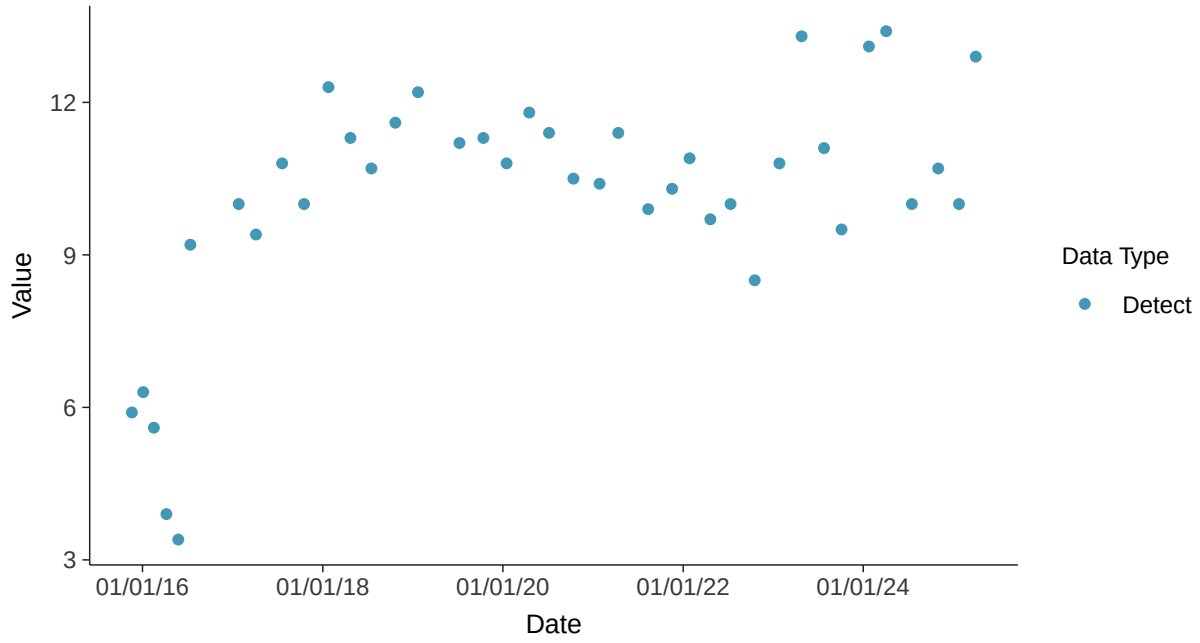


App. III: Sulfate, MW-4

ID: 04_02_123

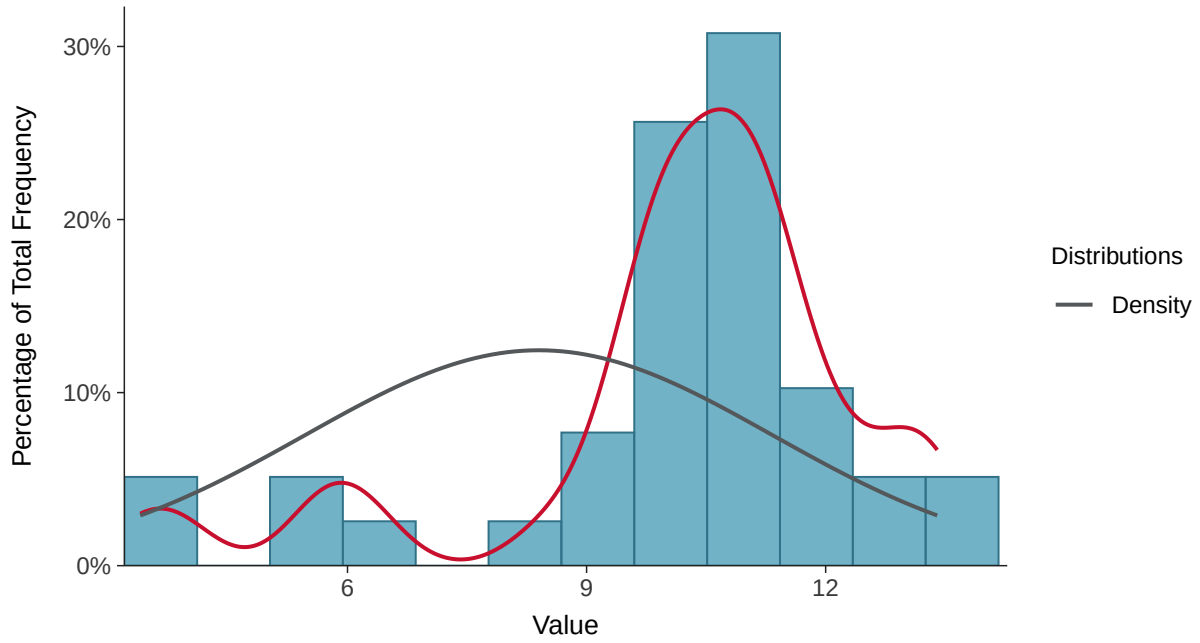
Scatter Plot

Sulfate, MW-4 (mg/L)



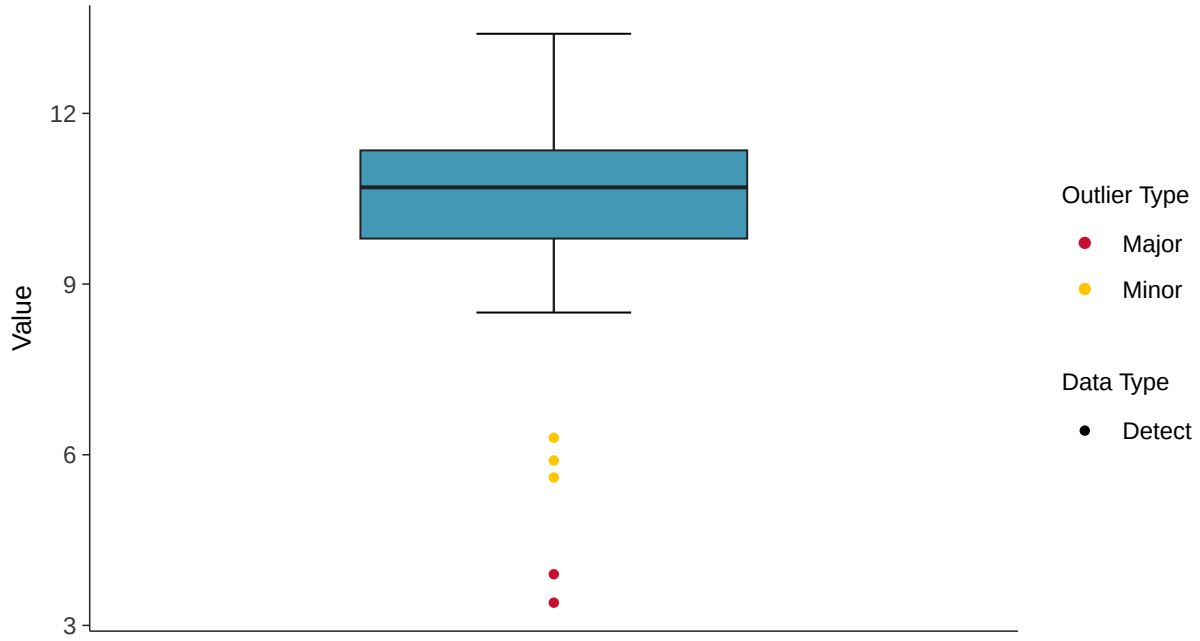
Histogram

Sulfate, MW-4 (mg/L)



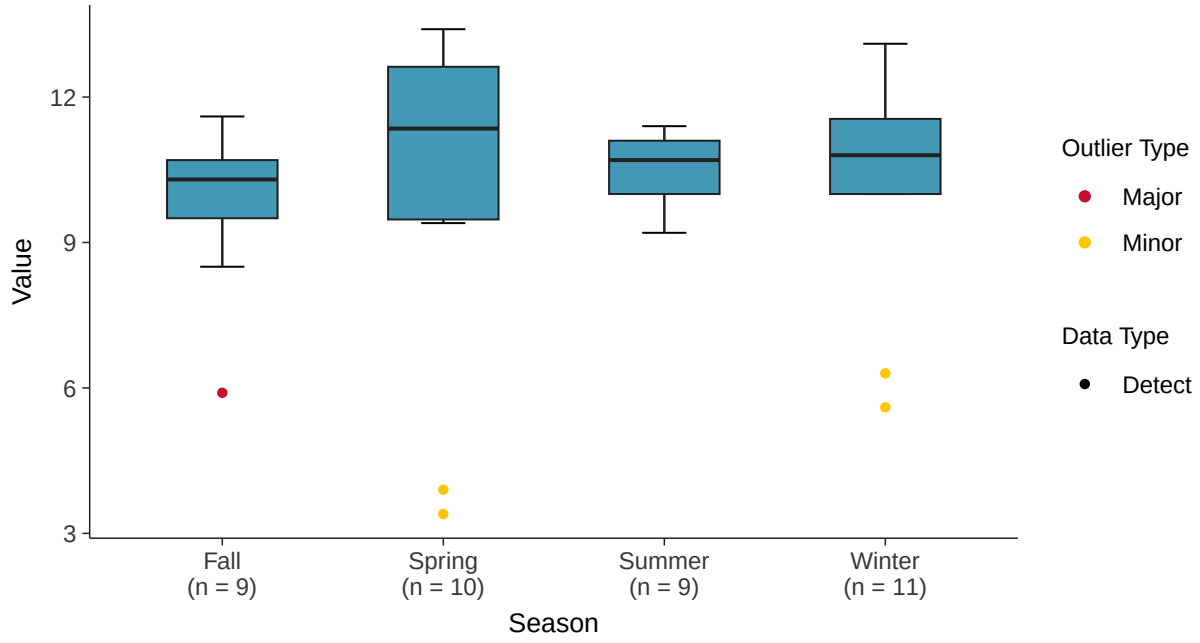
Boxplot

Sulfate, MW-4 (mg/L)



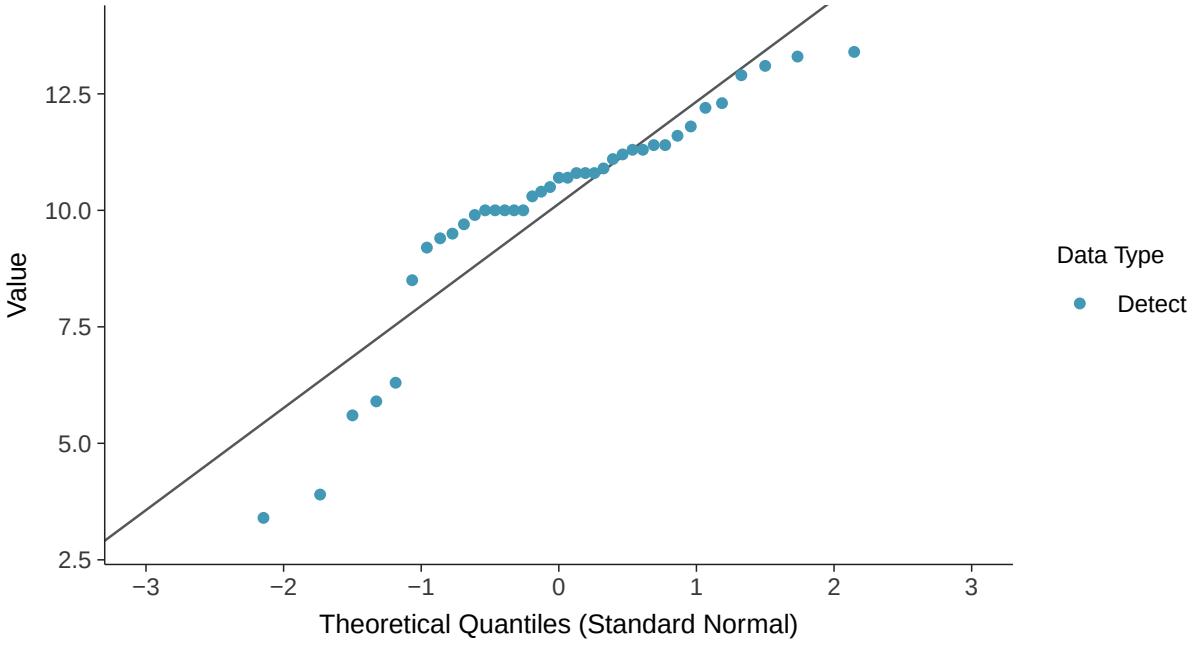
Boxplot by Season

Sulfate, MW-4 (mg/L)



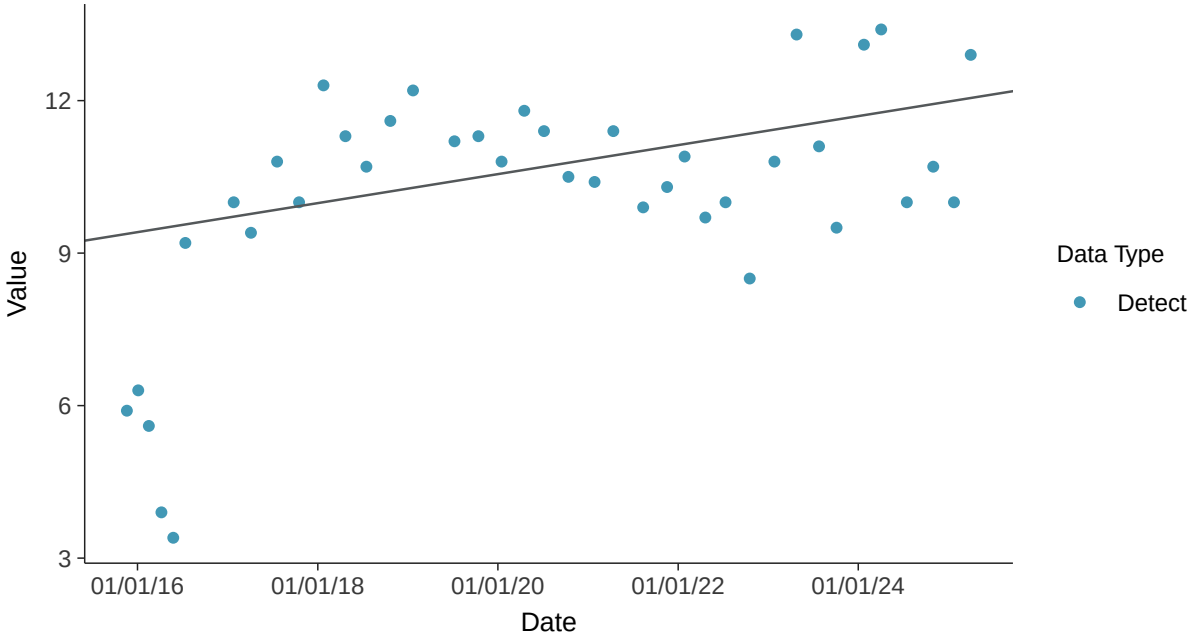
Normal Q-Q plot

Sulfate, MW-4 (mg/L)



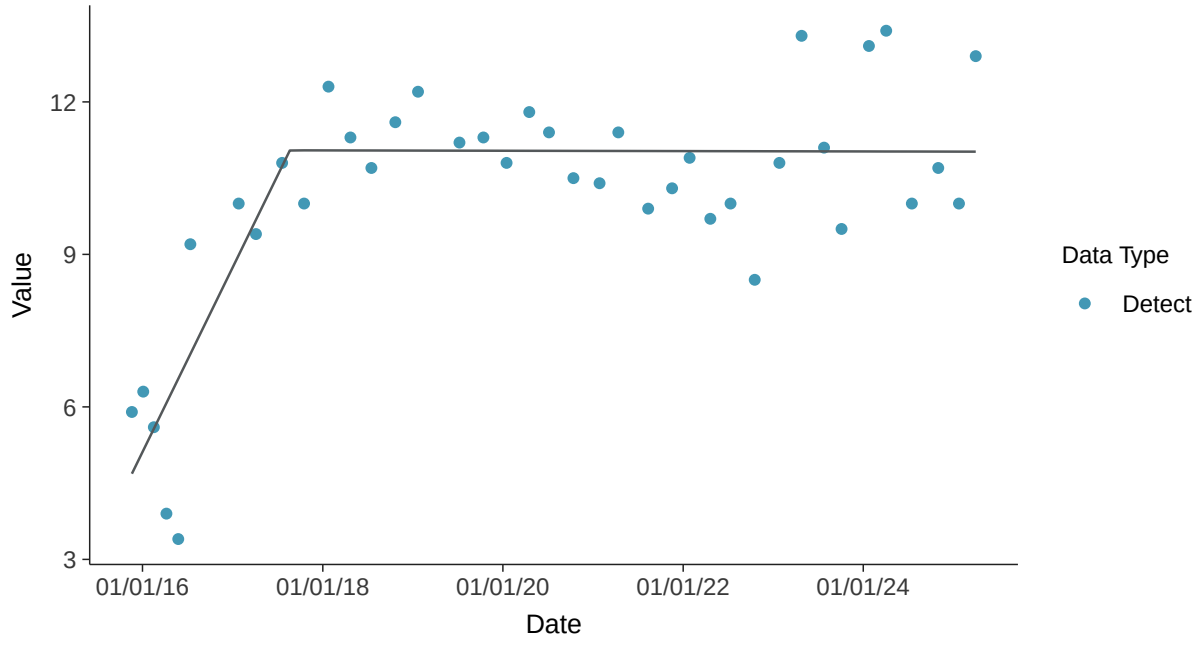
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Sulfate, MW-4 (mg/L)



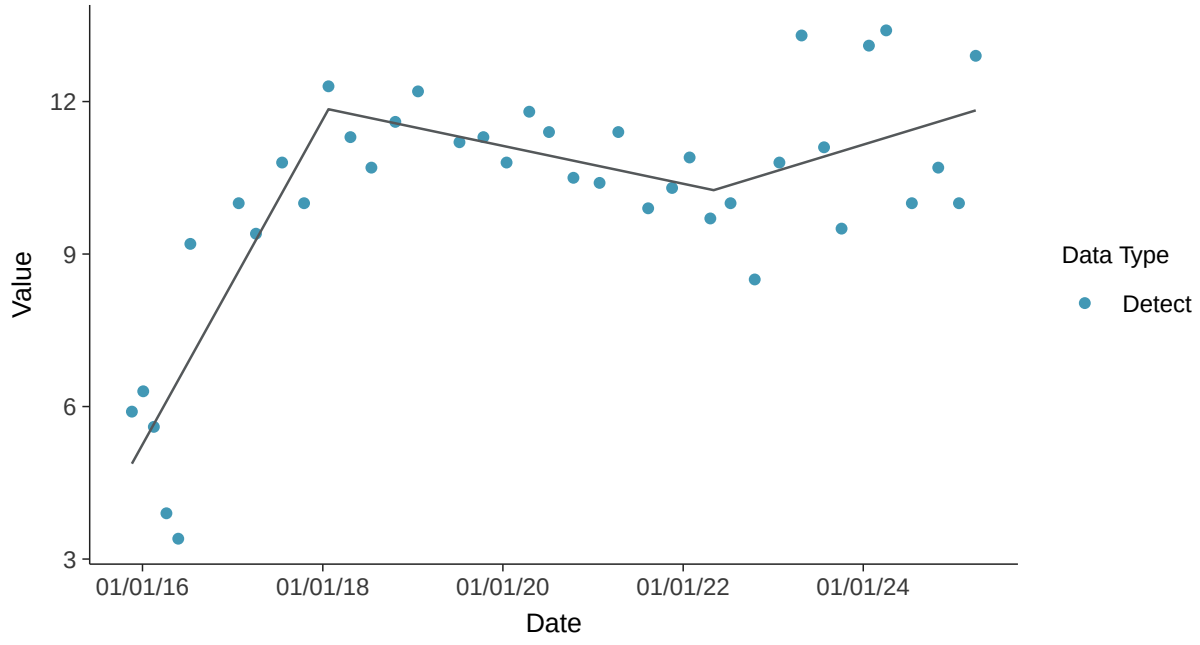
Trend Regression: Piecewise Linear-Linear

Sulfate, MW-4 (mg/L)



Trend Regression: Piecewise Linear-Linear-Linear

Sulfate, MW-4 (mg/L)

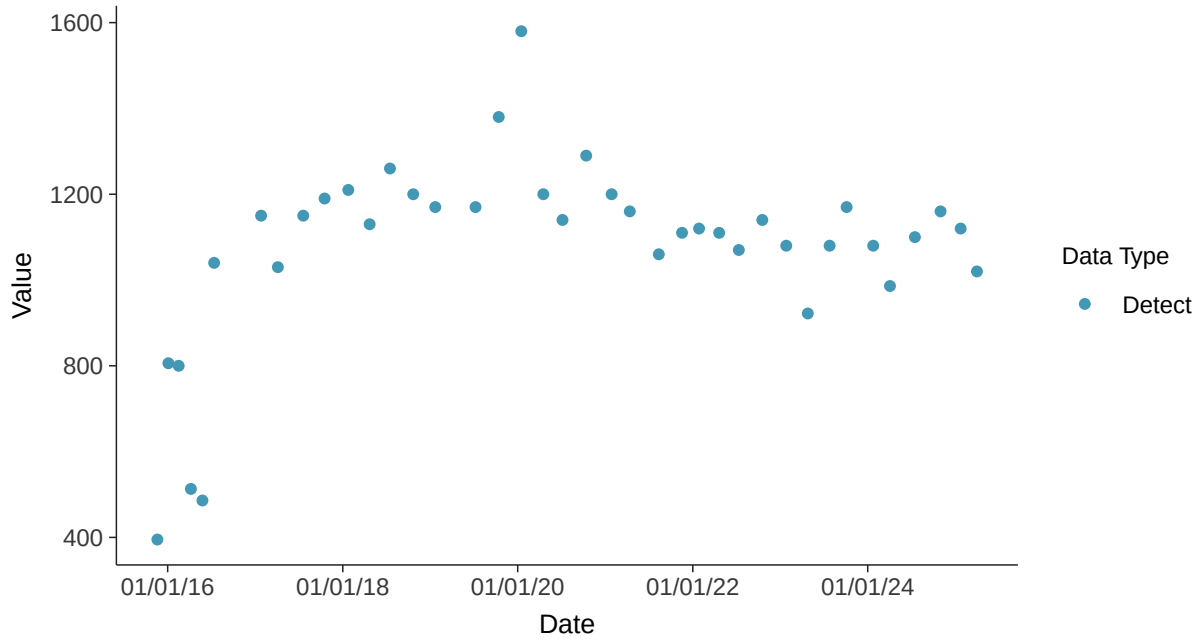


App. III: Total Dissolved Solids, MW-4

ID: 04_02_125

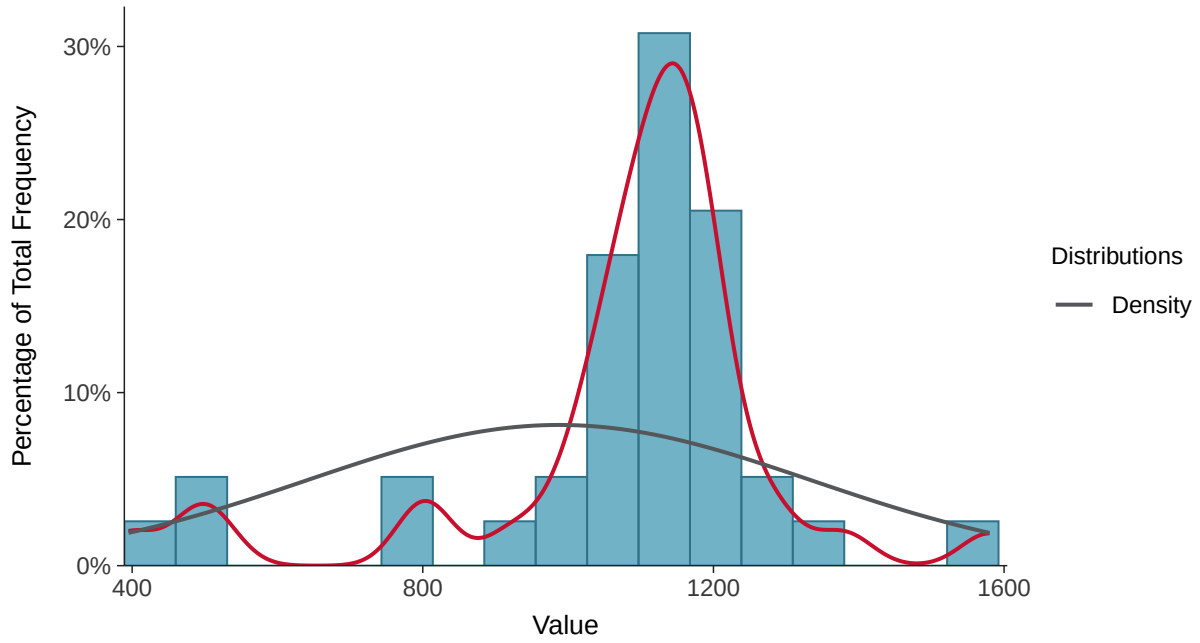
Scatter Plot

Total Dissolved Solids, MW-4 (mg/L)



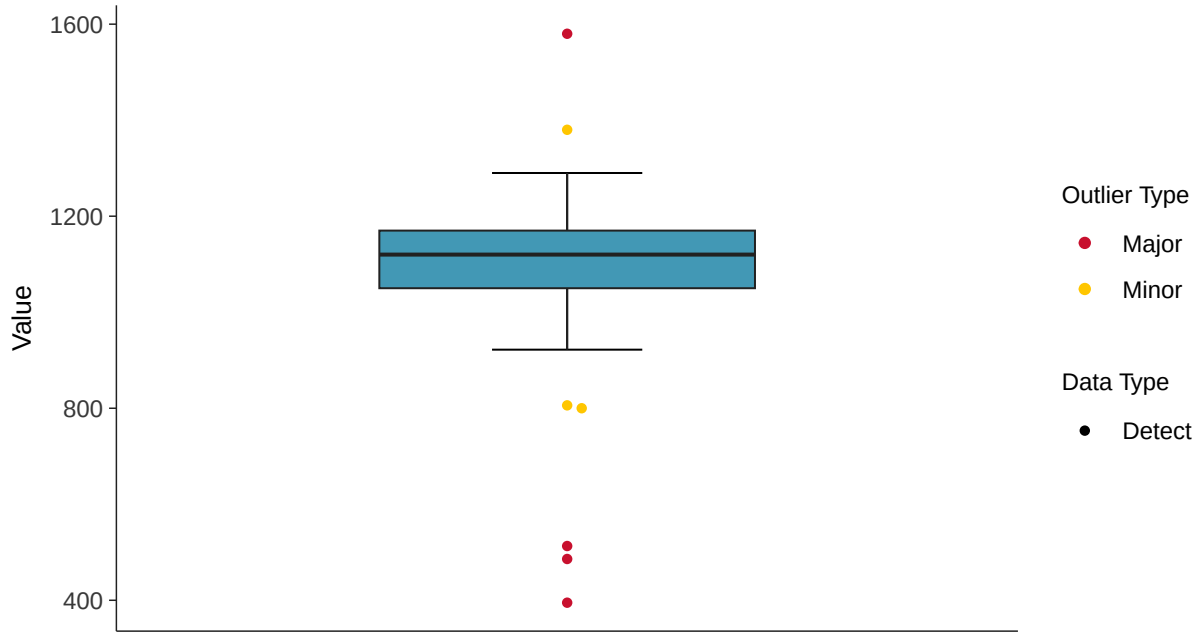
Histogram

Total Dissolved Solids, MW-4 (mg/L)



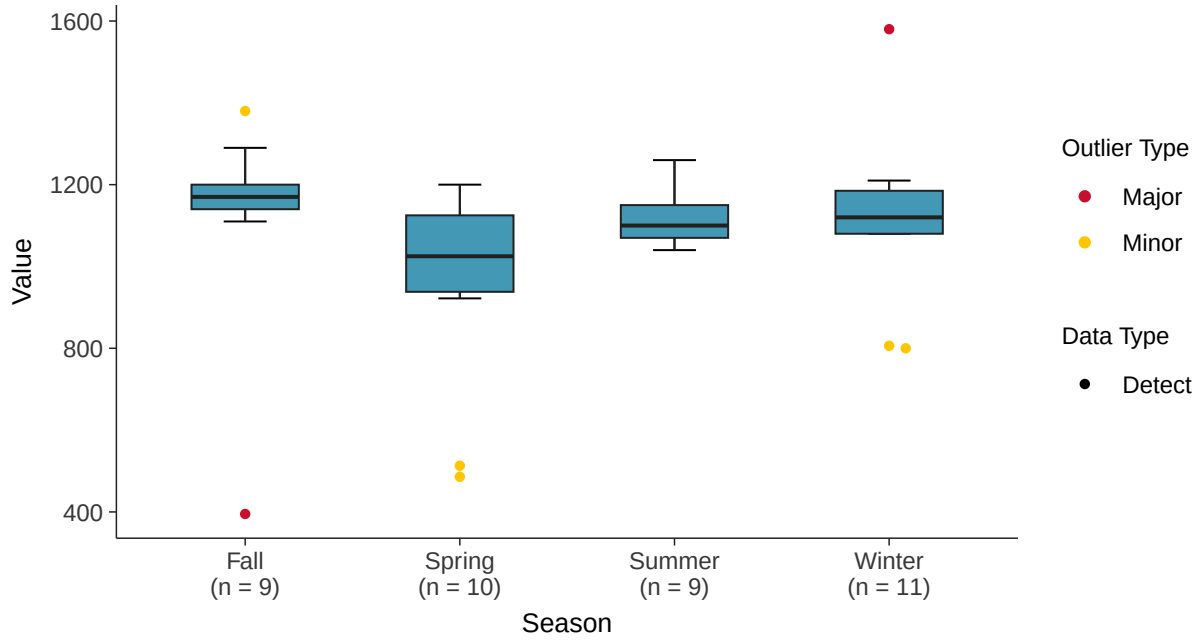
Boxplot

Total Dissolved Solids, MW-4 (mg/L)



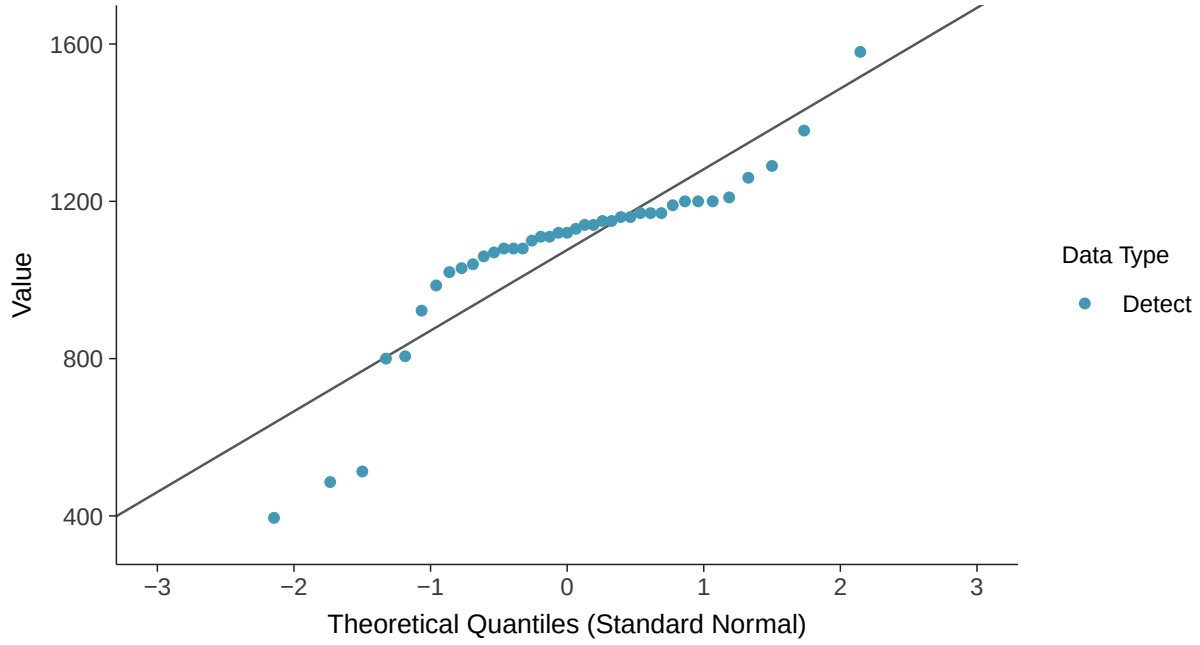
Boxplot by Season

Total Dissolved Solids, MW-4 (mg/L)



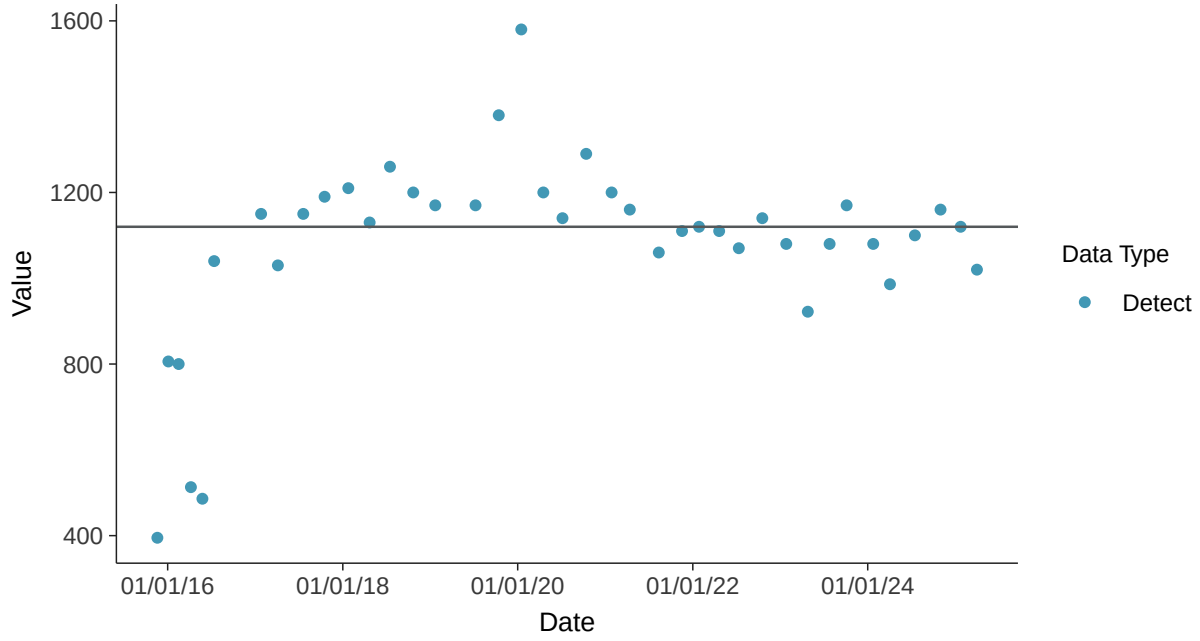
Normal Q-Q plot

Total Dissolved Solids, MW-4 (mg/L)



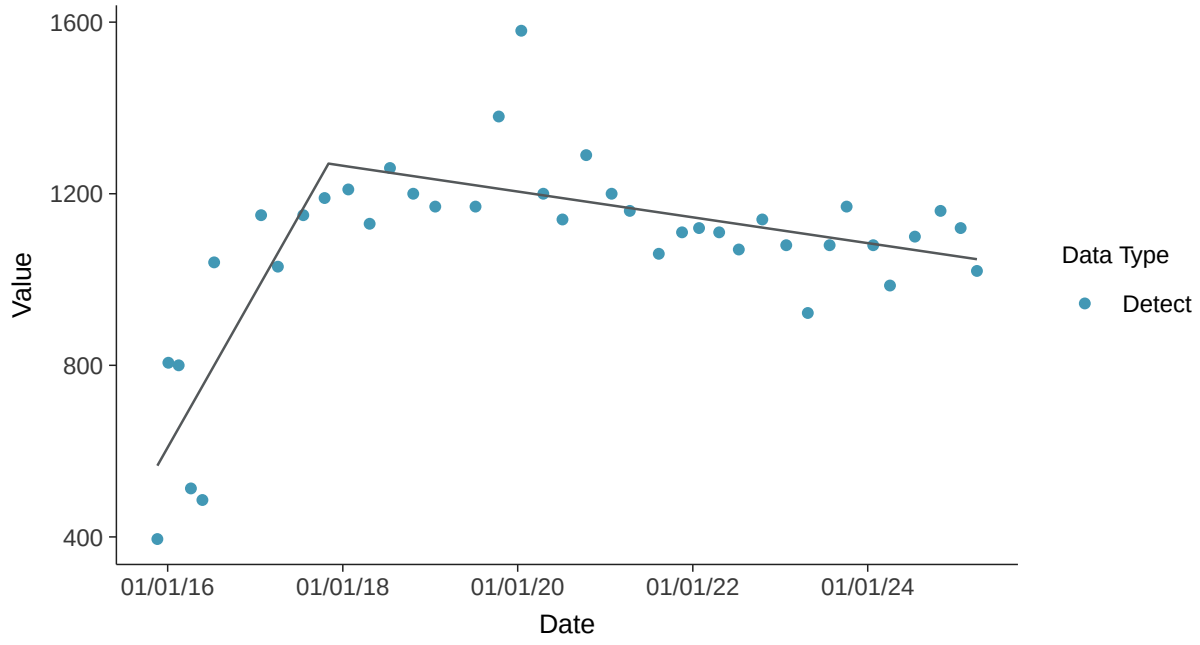
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Total Dissolved Solids, MW-4 (mg/L)



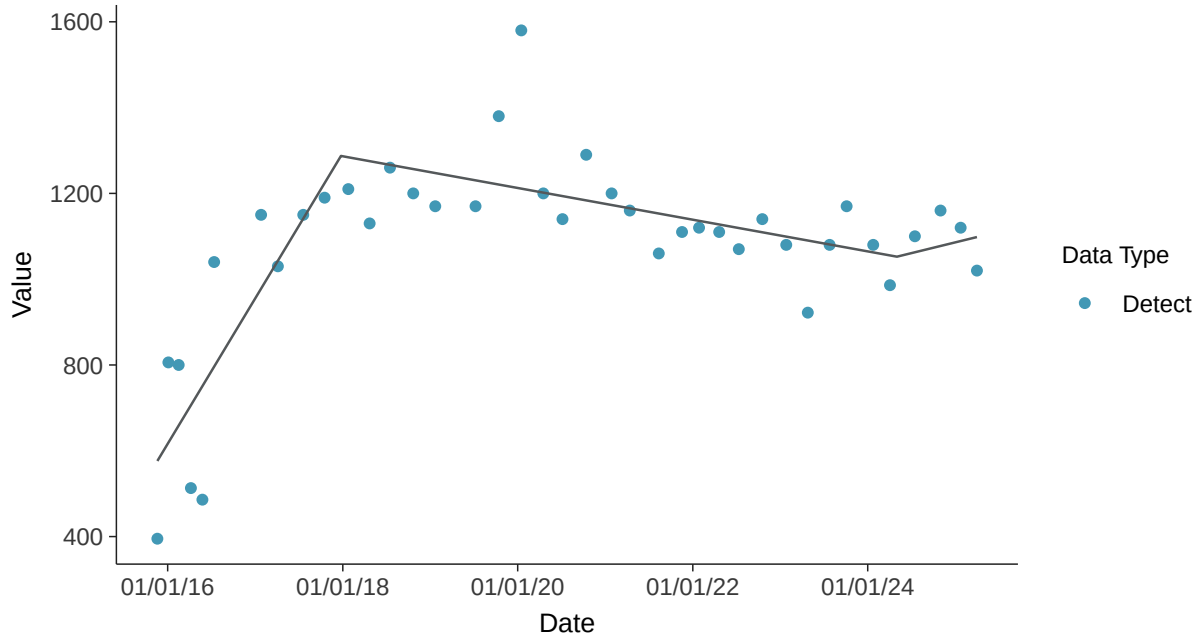
Trend Regression: Piecewise Linear-Linear

Total Dissolved Solids, MW-4 (mg/L)



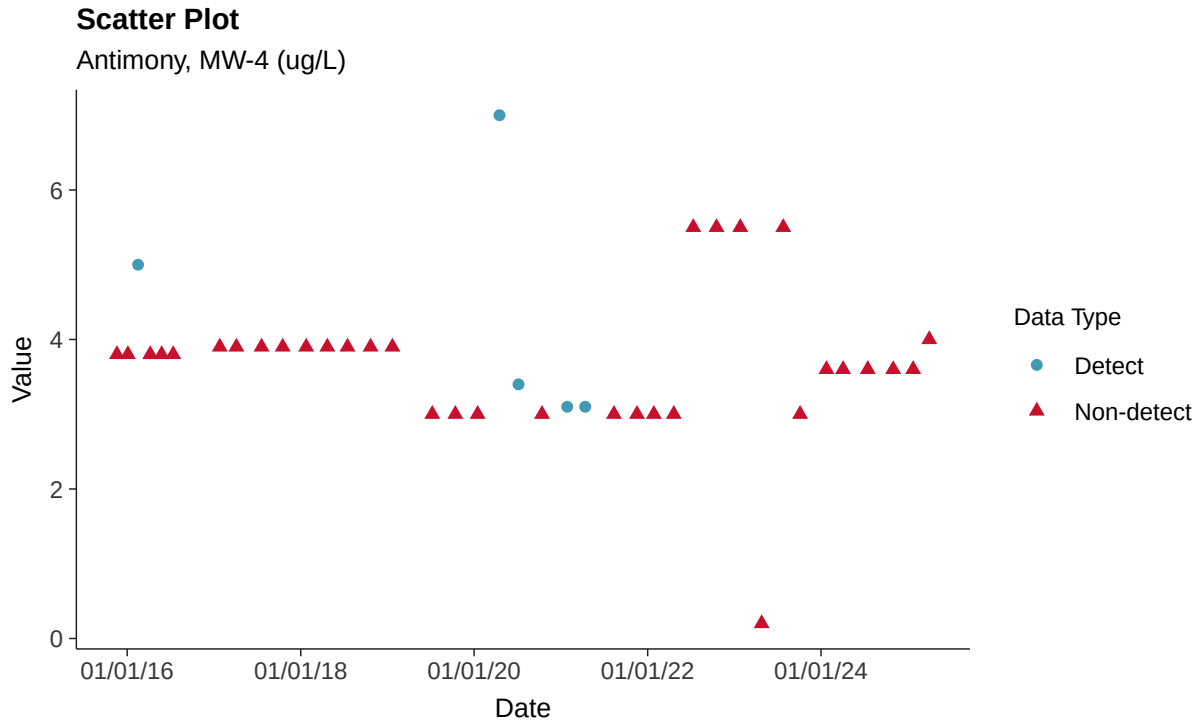
Trend Regression: Piecewise Linear-Linear-Linear

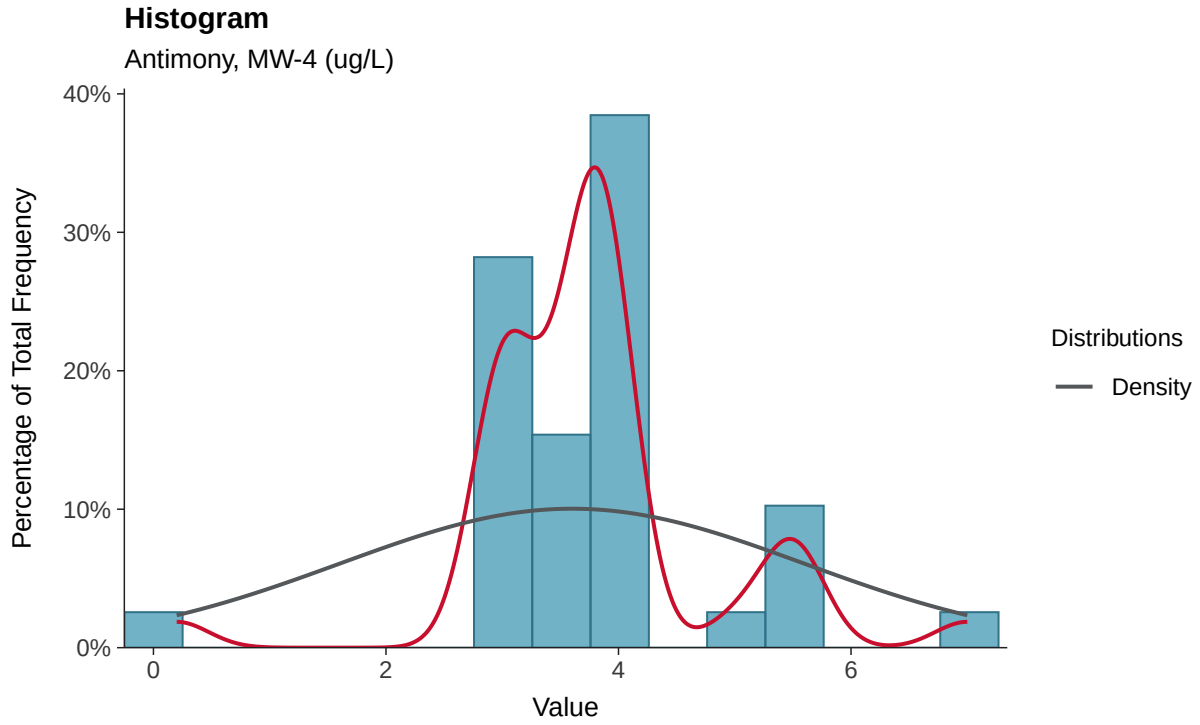
Total Dissolved Solids, MW-4 (mg/L)



App. IV: Antimony, MW-4

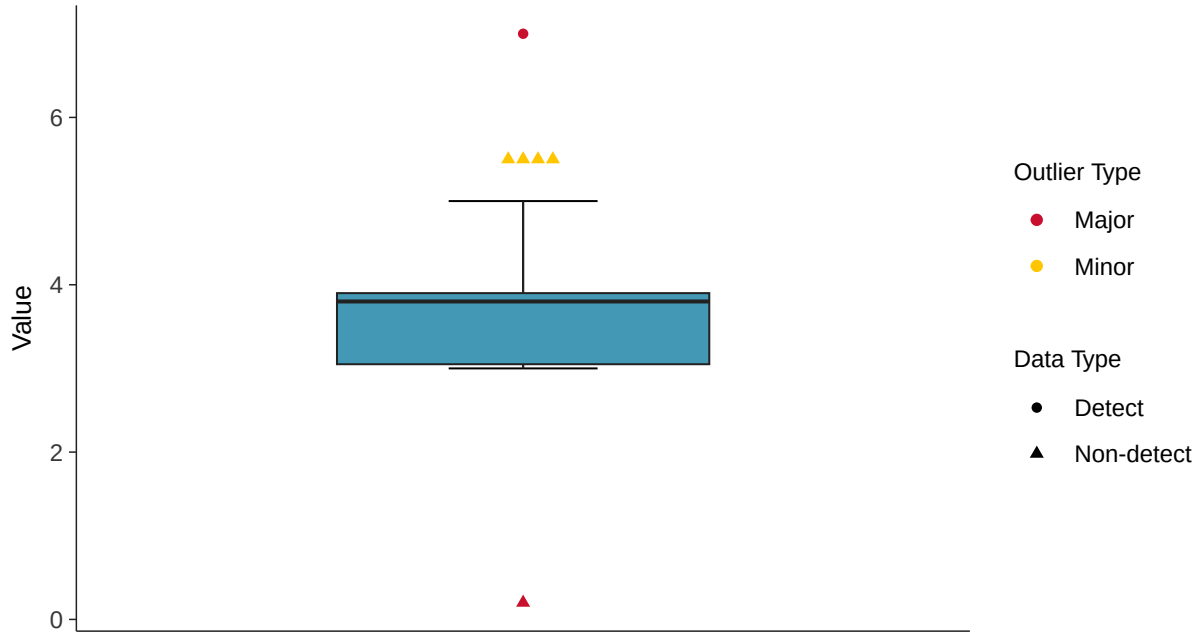
ID: 04_03_101





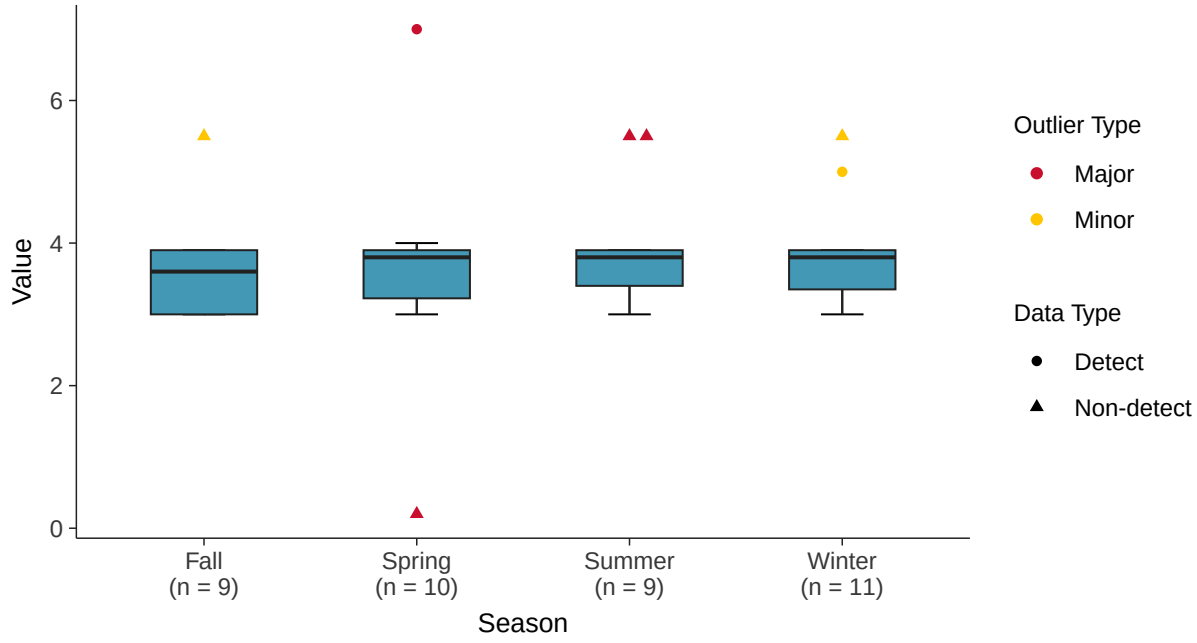
Boxplot

Antimony, MW-4 (ug/L)



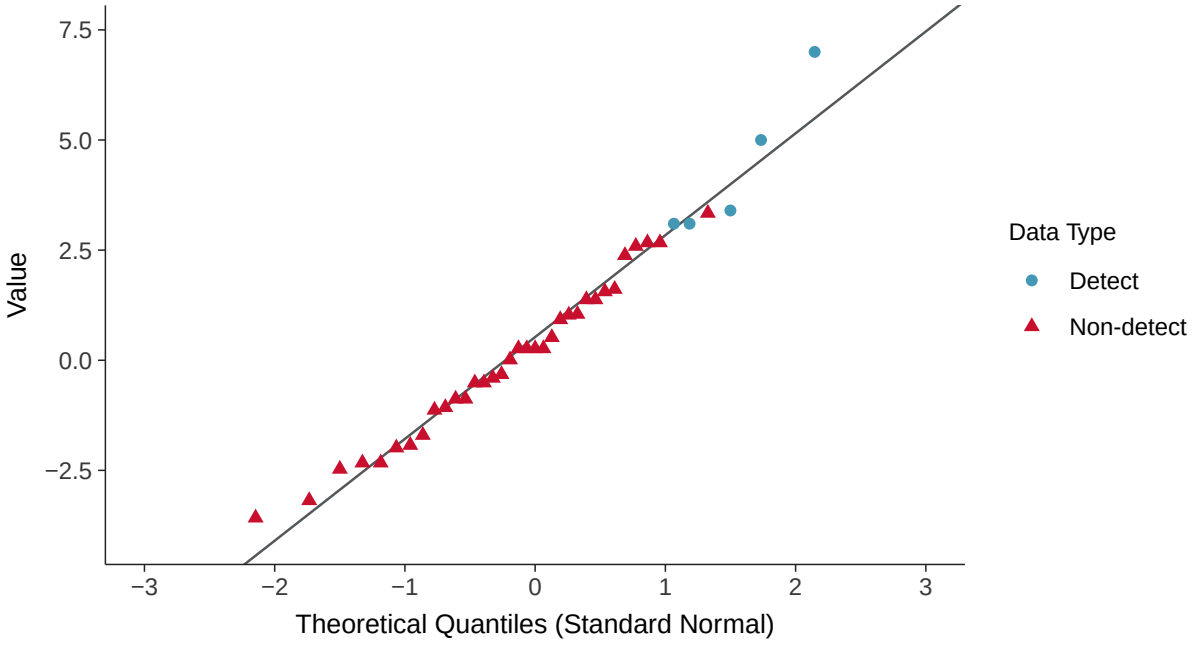
Boxplot by Season

Antimony, MW-4 (ug/L)



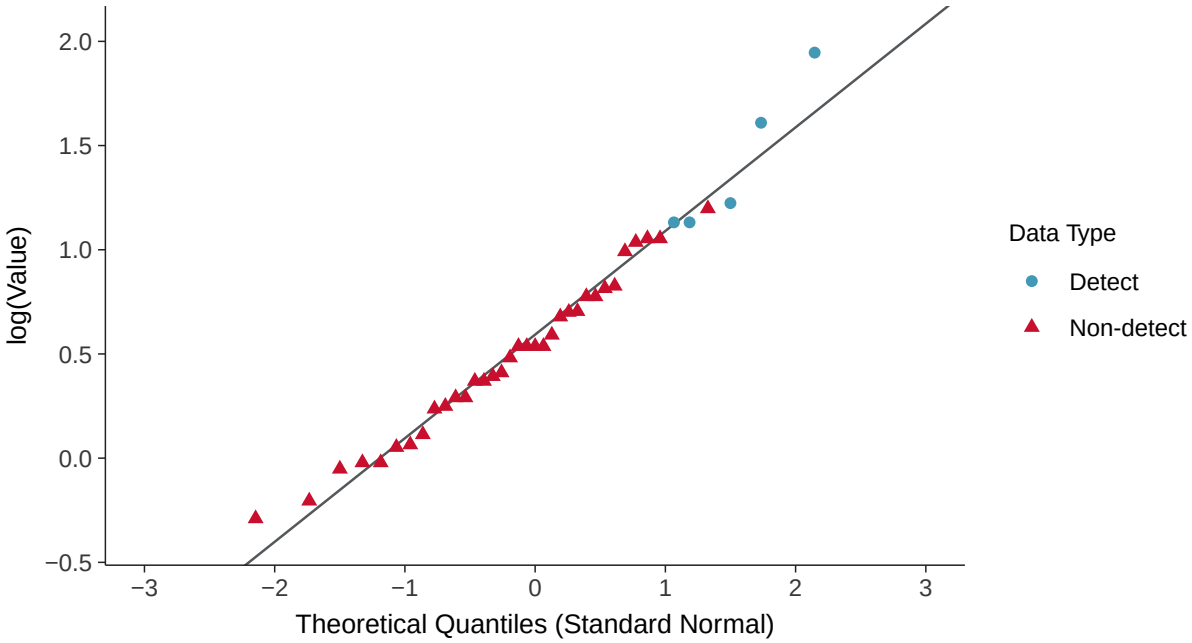
Normal Q-Q plot using ROS Imputed Estimates

Antimony, MW-4 (ug/L)



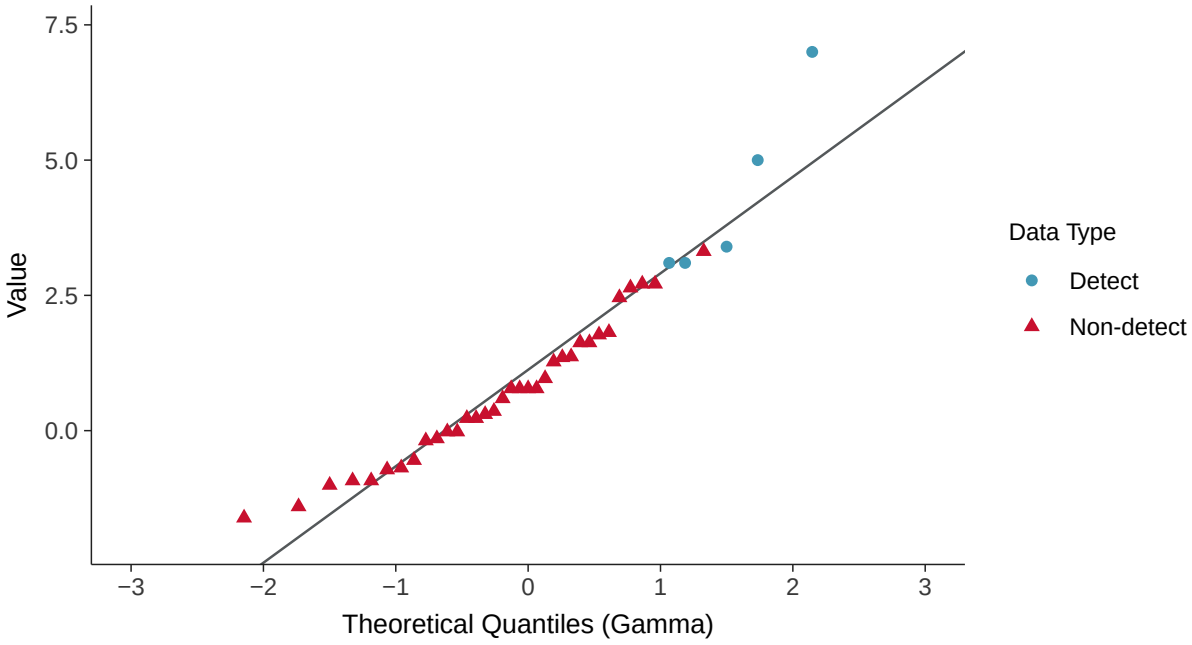
Lognormal Q-Q plot using ROS Imputed Estimates

Antimony, MW-4 (ug/L)



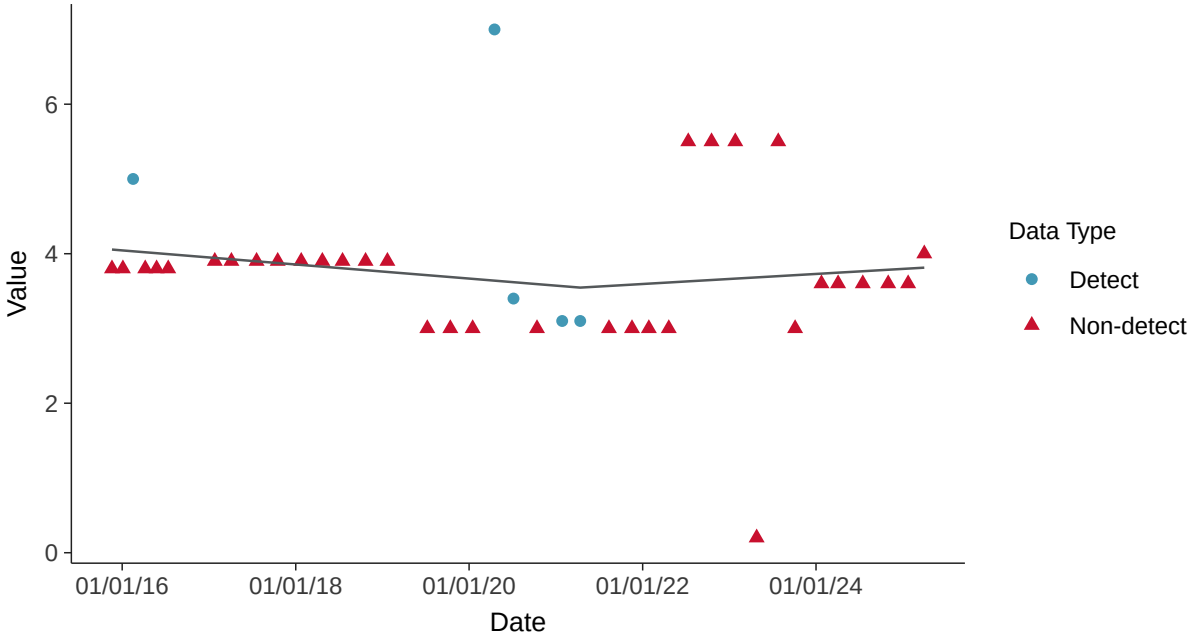
Gamma Q-Q plot using ROS Imputed Estimates

Antimony, MW-4 (ug/L)



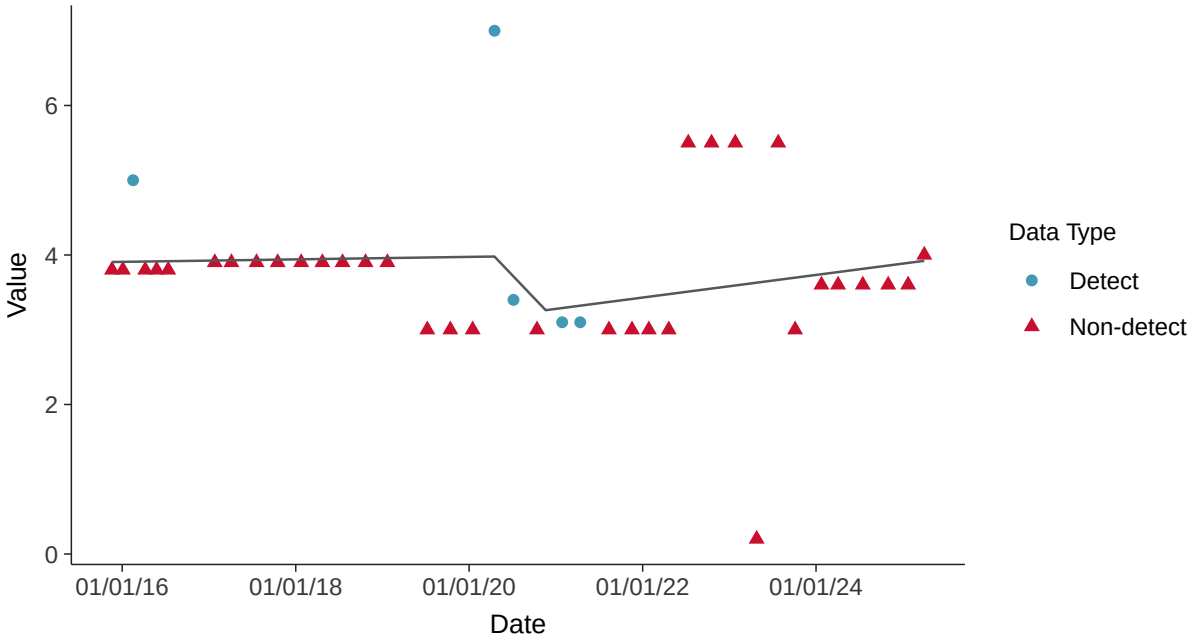
Trend Regression: Piecewise Linear-Linear

Antimony, MW-4 (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Antimony, MW-4 (ug/L)

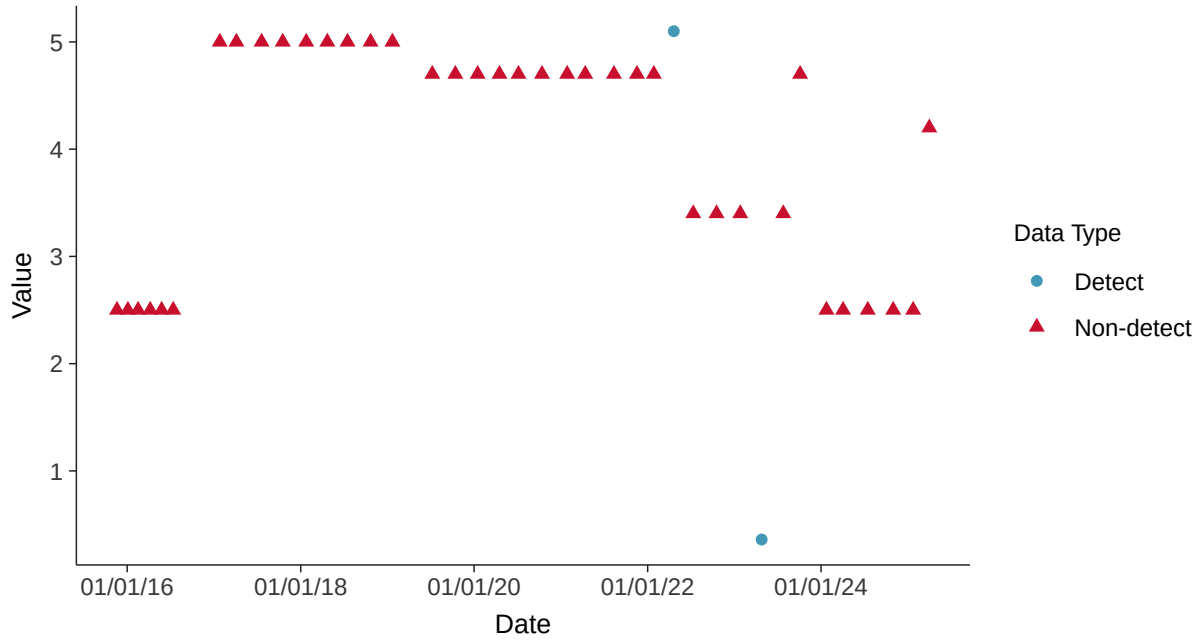


App. IV: Arsenic, MW-4

ID: 04_03_102

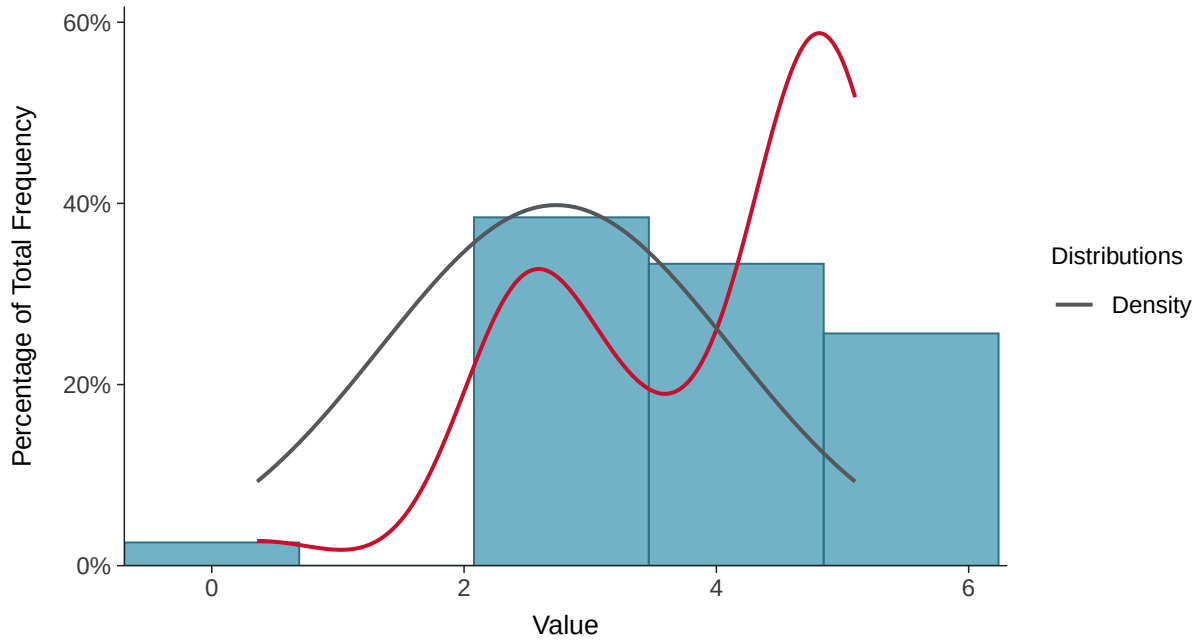
Scatter Plot

Arsenic, MW-4 (ug/L)



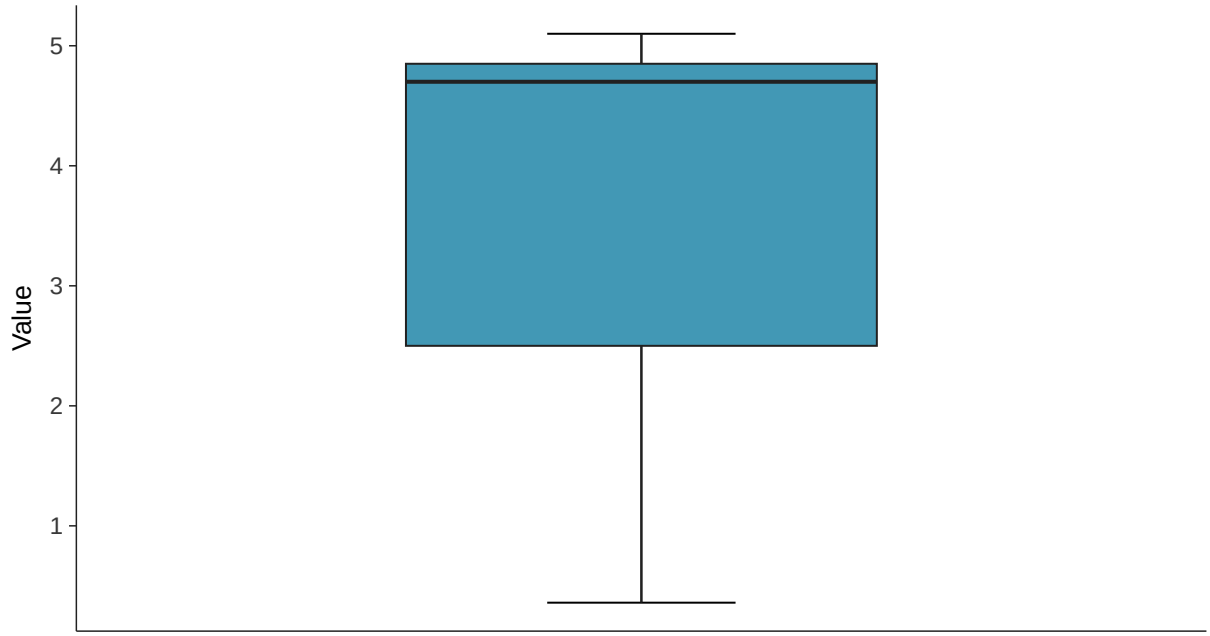
Histogram

Arsenic, MW-4 (ug/L)



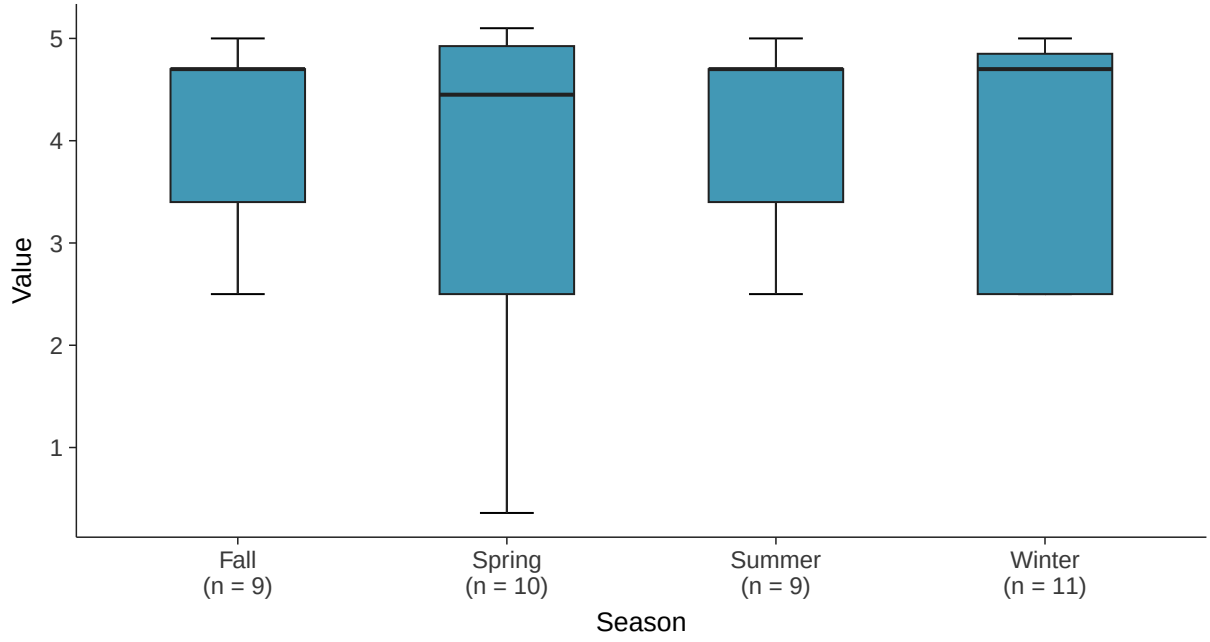
Boxplot

Arsenic, MW-4 (ug/L)



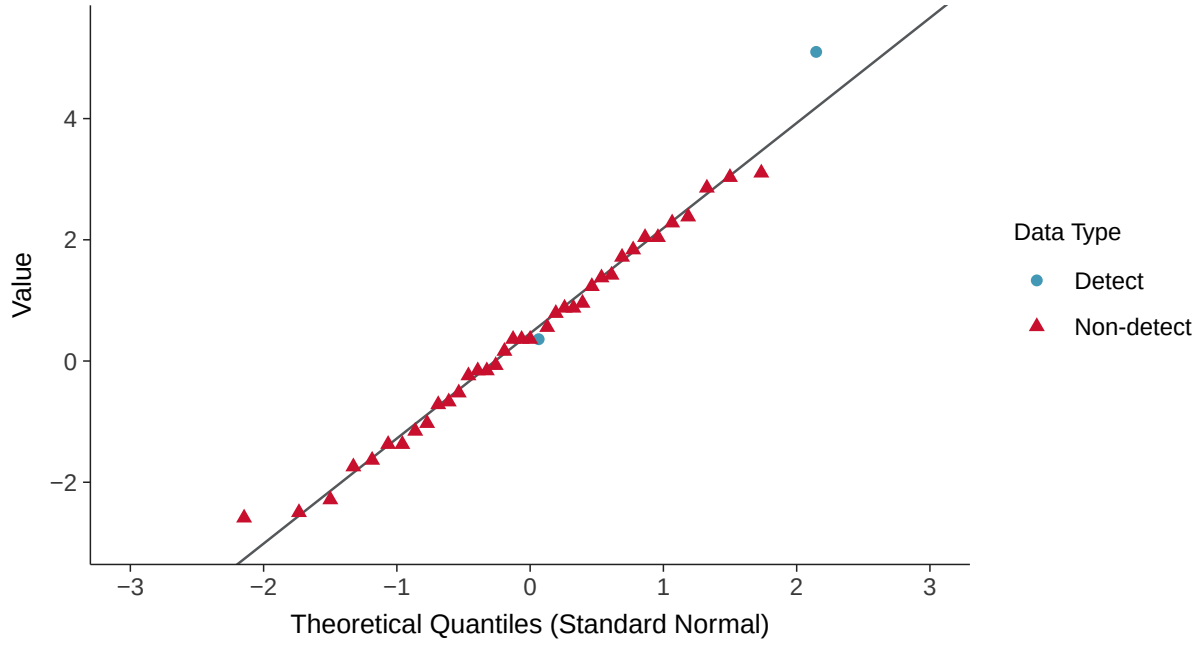
Boxplot by Season

Arsenic, MW-4 (ug/L)



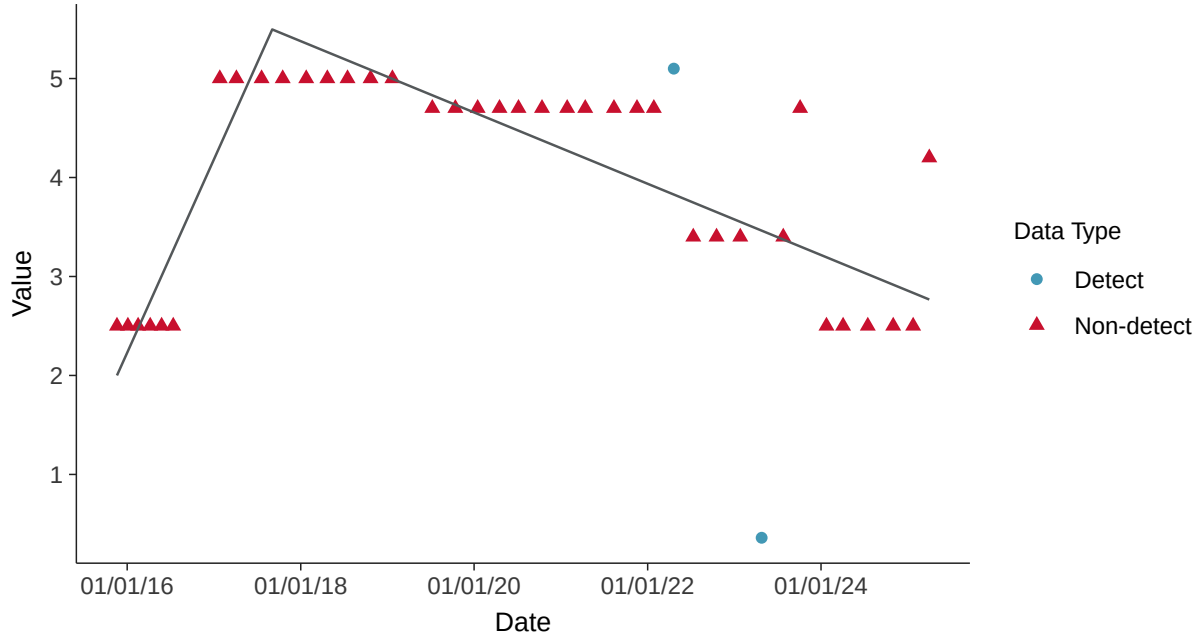
Normal Q-Q plot using ROS Imputed Estimates

Arsenic, MW-4 (ug/L)



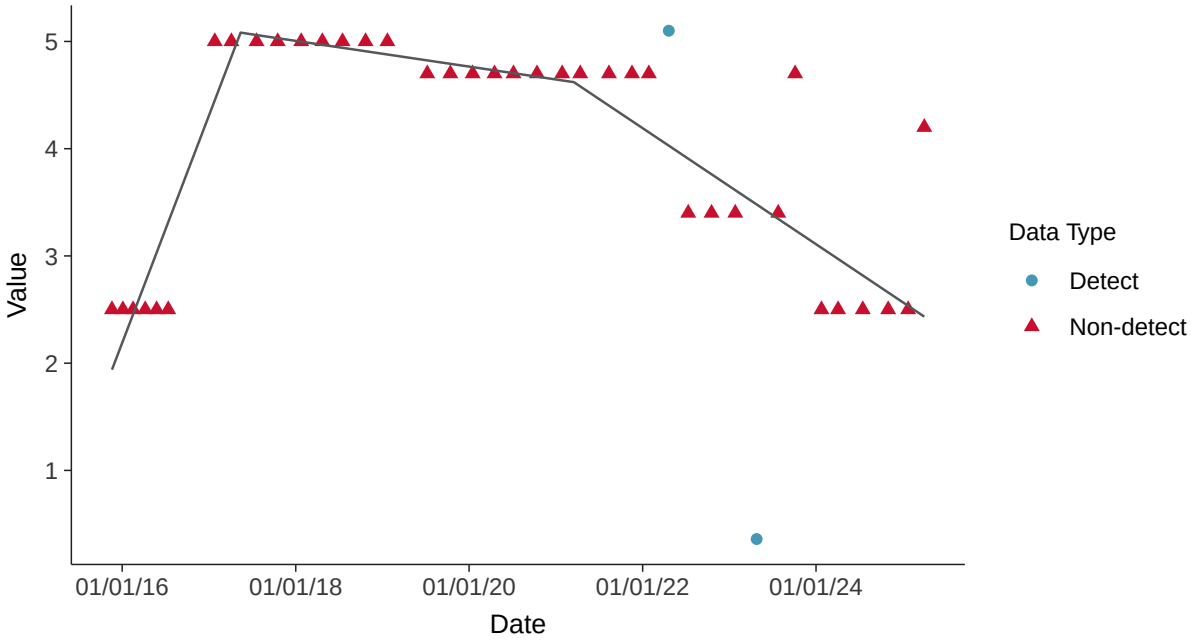
Trend Regression: Piecewise Linear-Linear

Arsenic, MW-4 (ug/L)



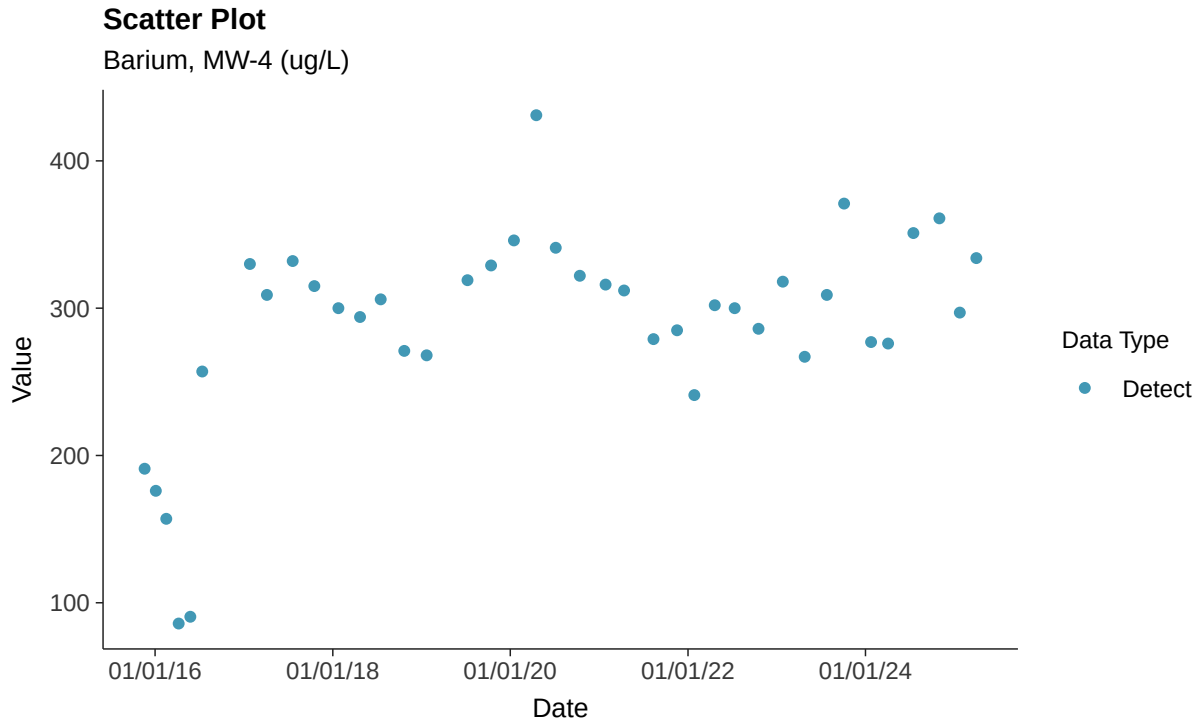
Trend Regression: Piecewise Linear-Linear-Linear

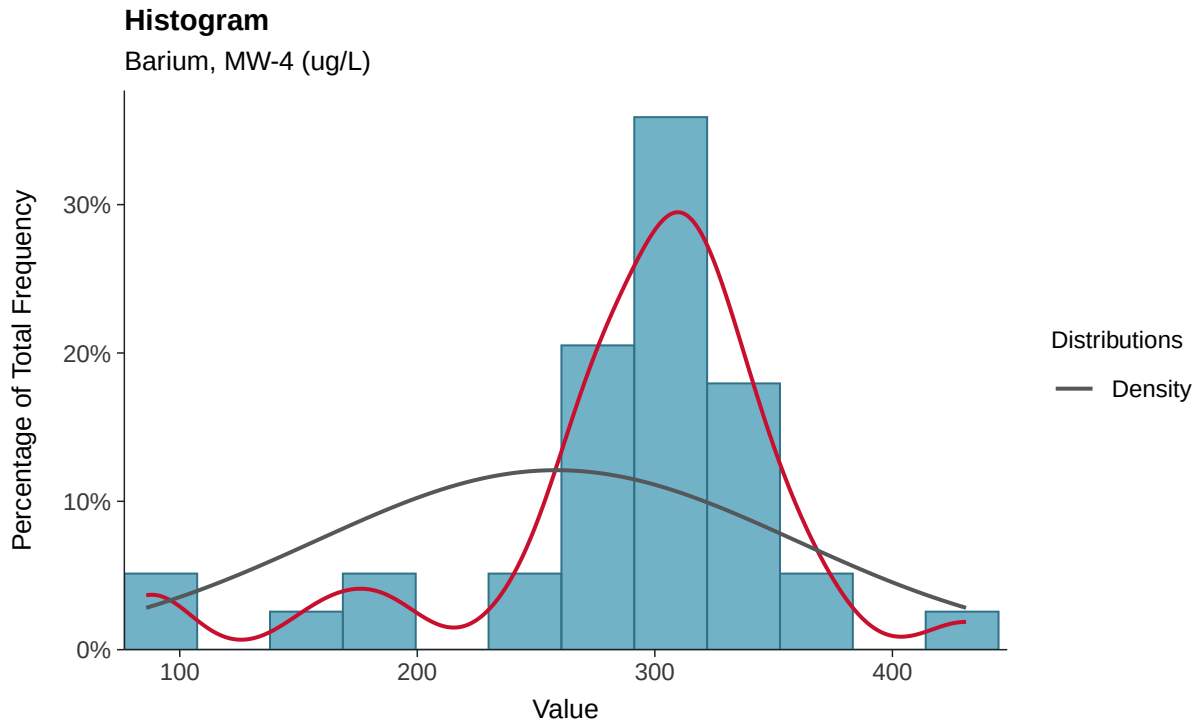
Arsenic, MW-4 (ug/L)



App. IV: Barium, MW-4

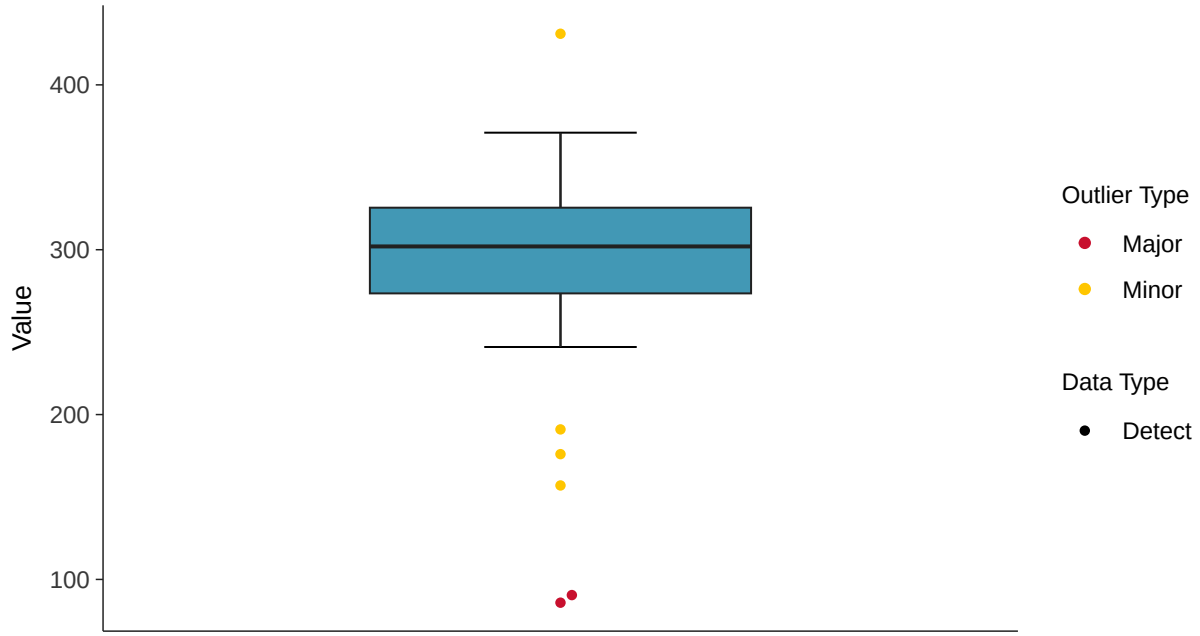
ID: 04_03_103





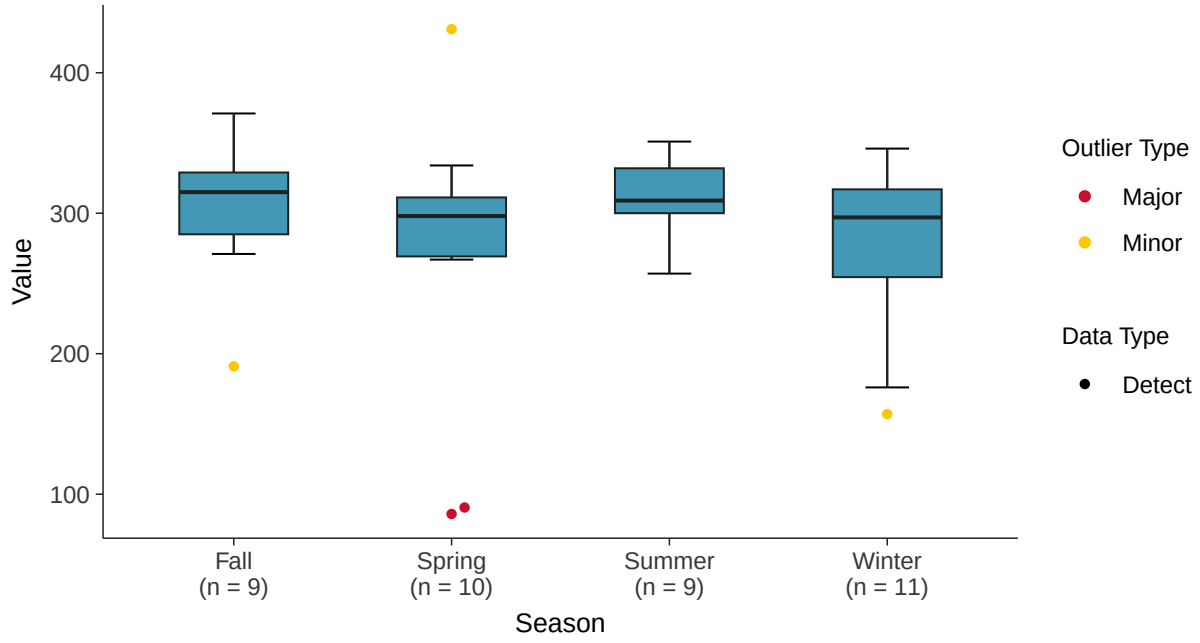
Boxplot

Barium, MW-4 (ug/L)



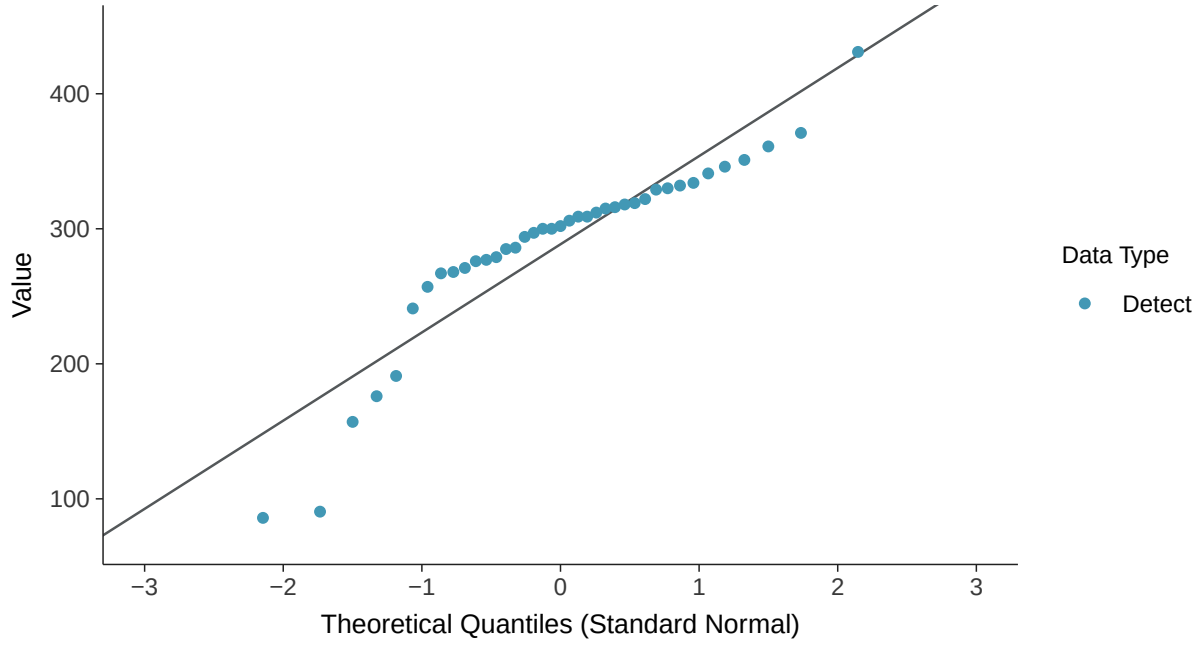
Boxplot by Season

Barium, MW-4 (ug/L)



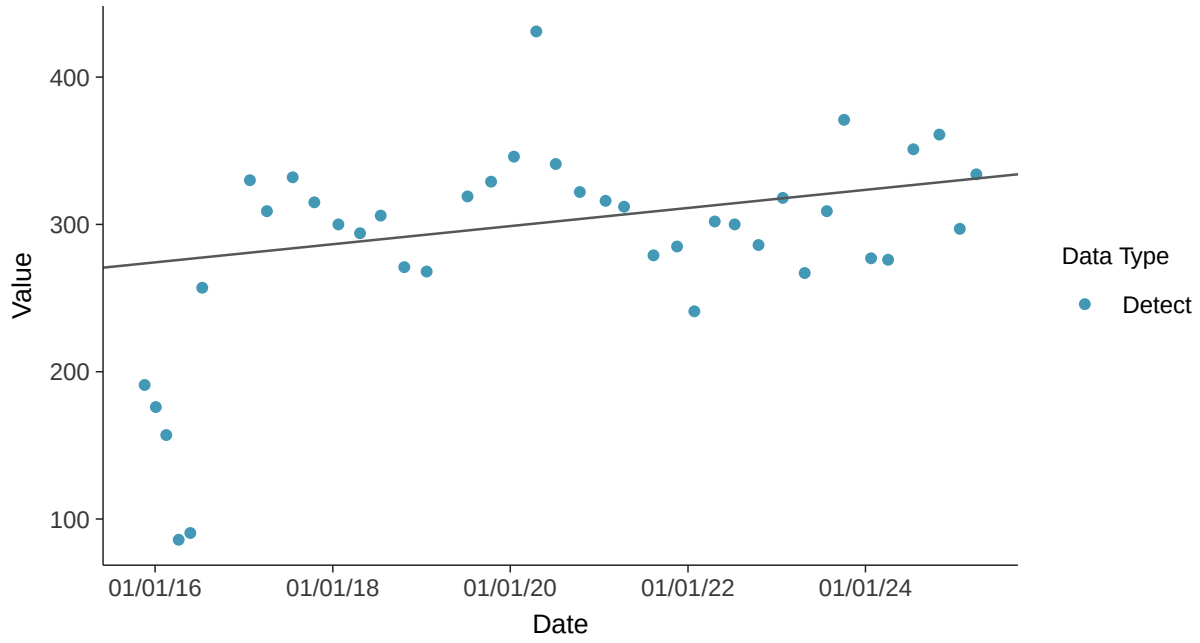
Normal Q-Q plot

Barium, MW-4 (ug/L)



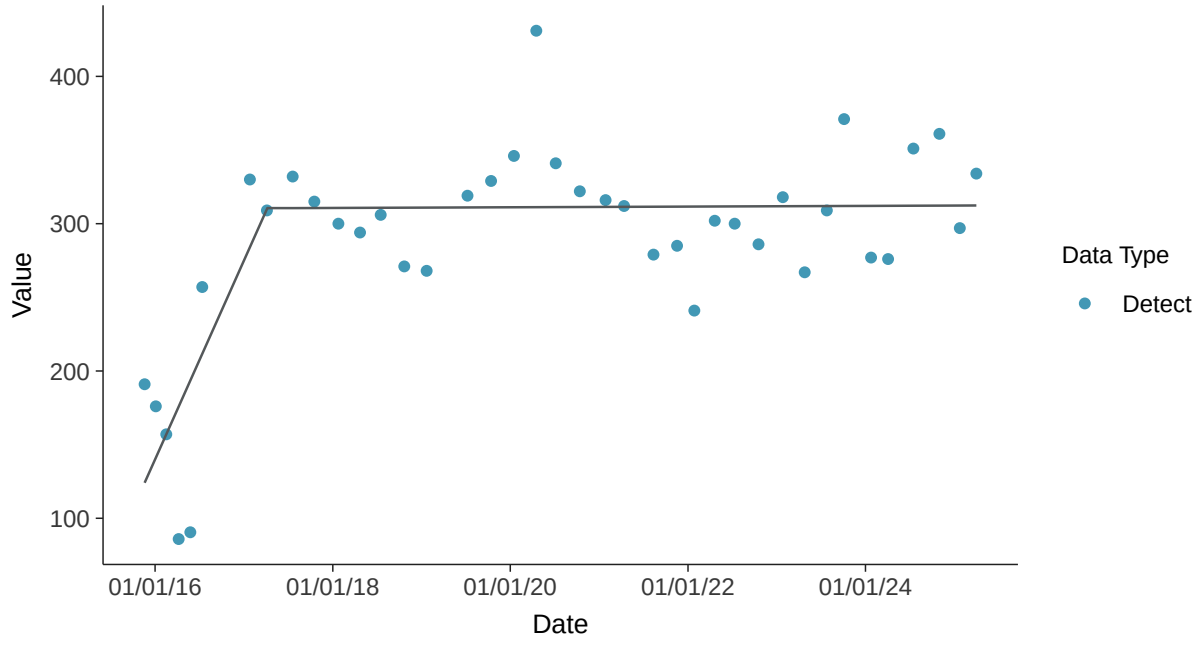
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Barium, MW-4 (ug/L)



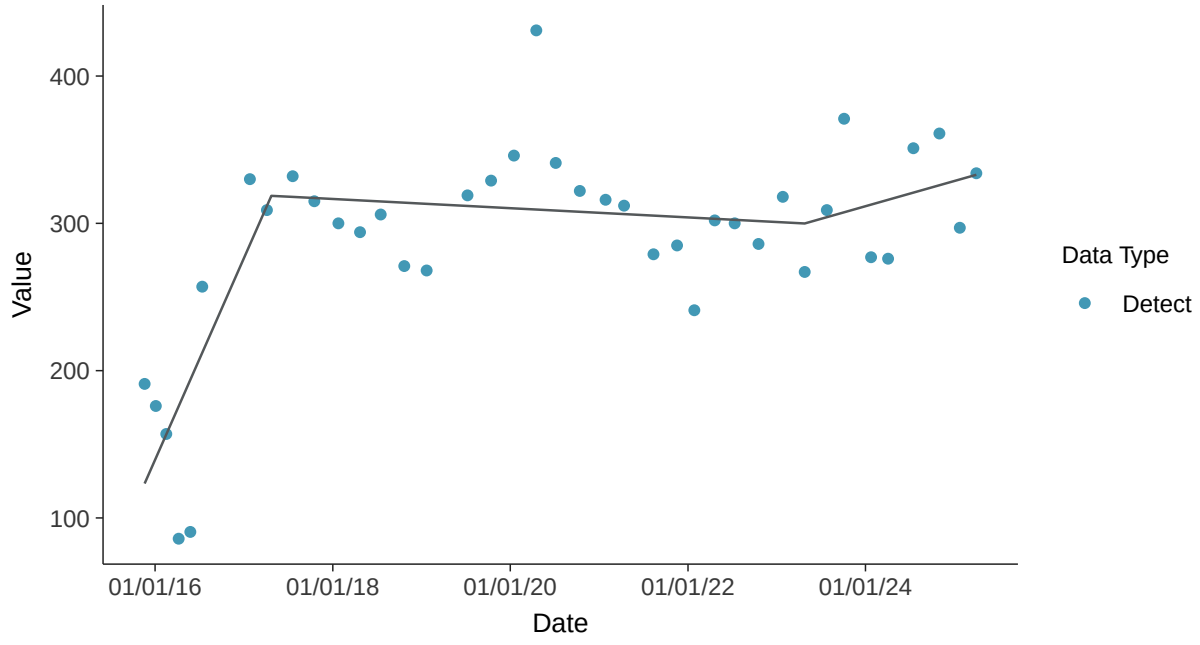
Trend Regression: Piecewise Linear-Linear

Barium, MW-4 (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Barium, MW-4 (ug/L)

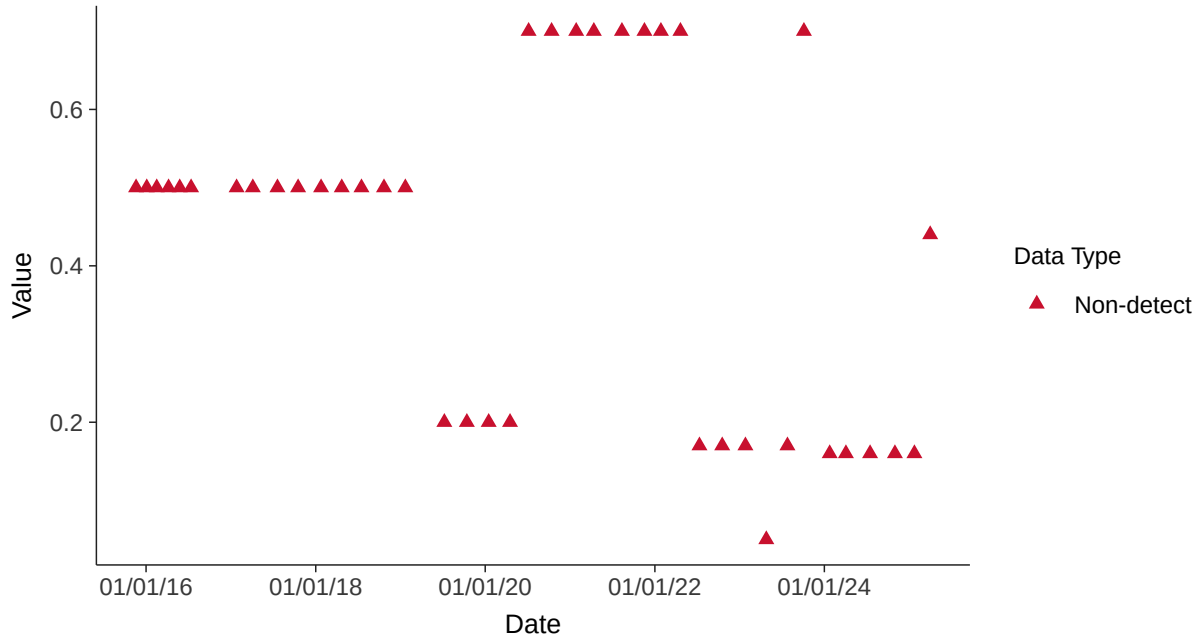


App. IV: Beryllium, MW-4

ID: 04_03_104

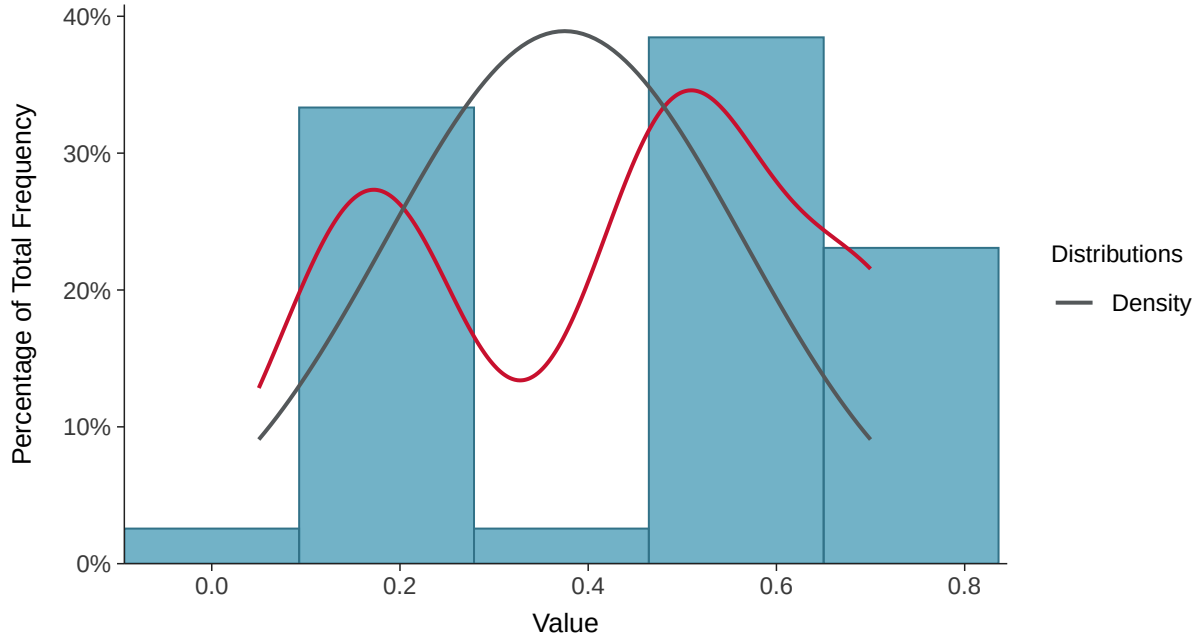
Scatter Plot

Beryllium, MW-4 (ug/L)



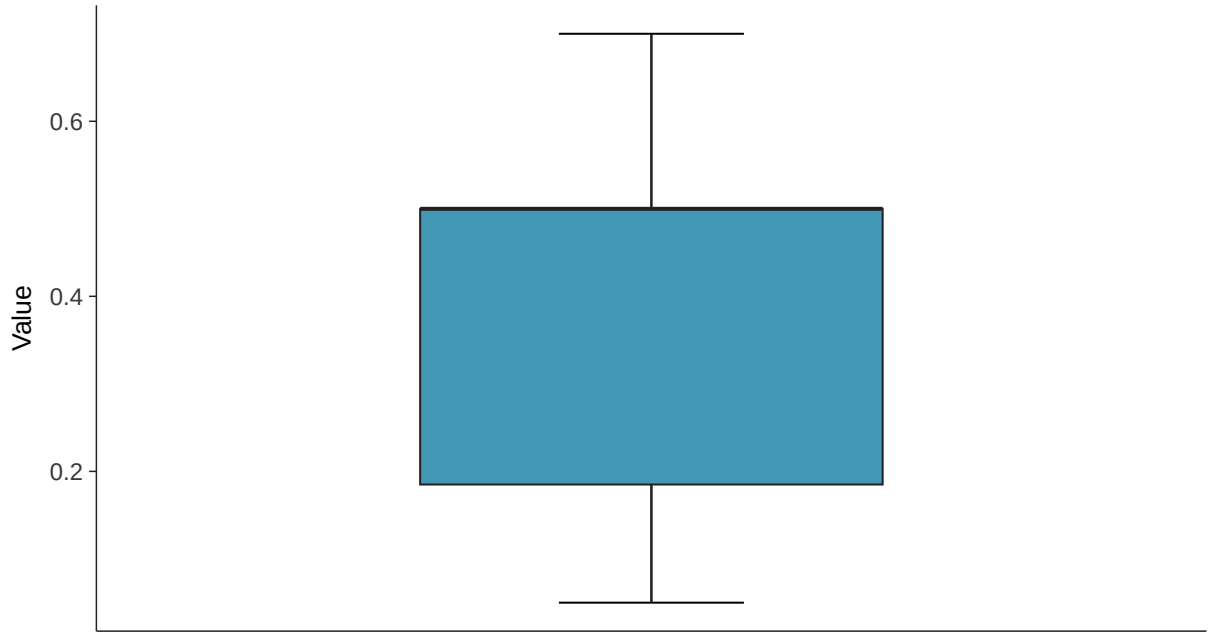
Histogram

Beryllium, MW-4 (ug/L)



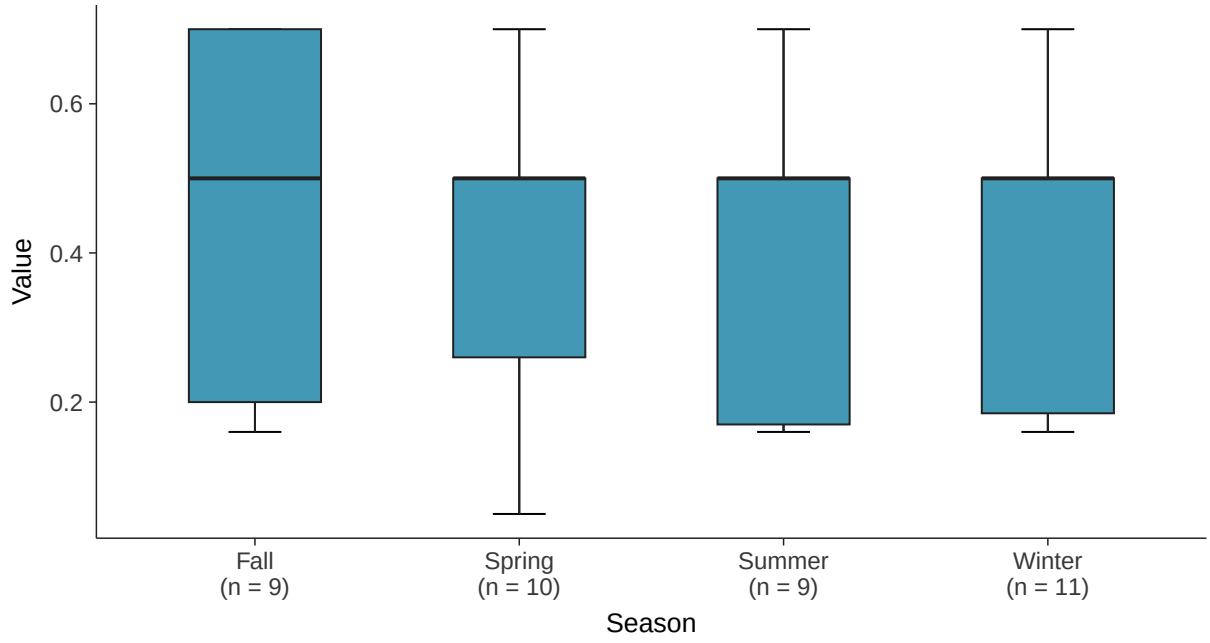
Boxplot

Beryllium, MW-4 (ug/L)



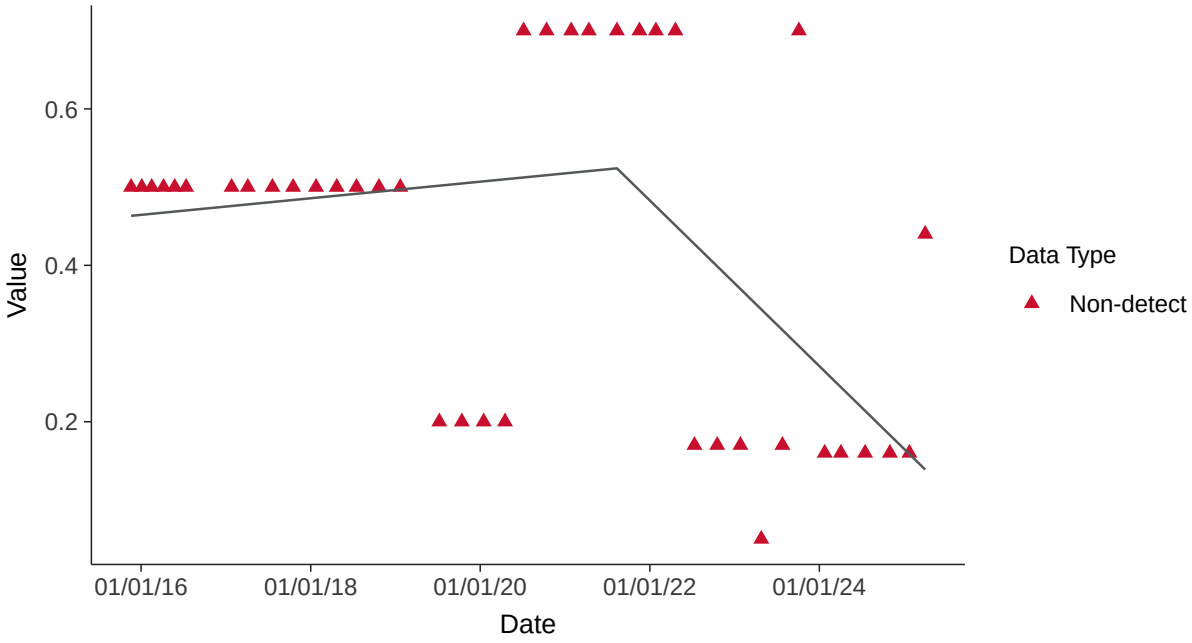
Boxplot by Season

Beryllium, MW-4 (ug/L)



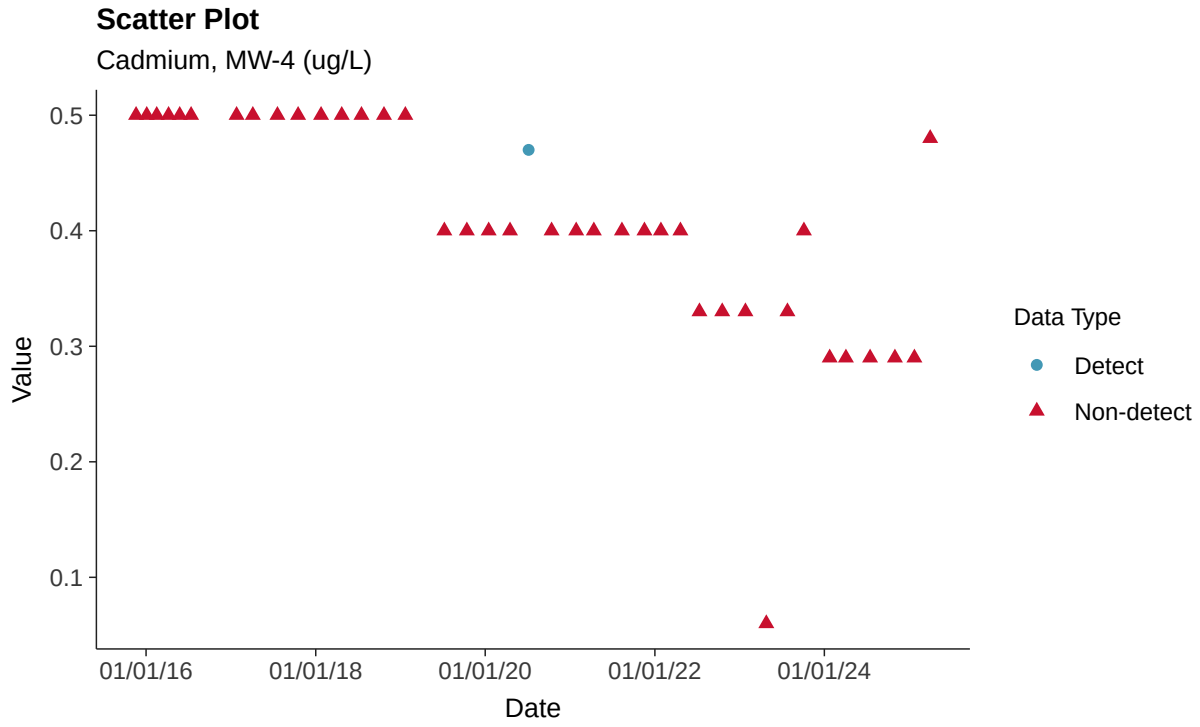
Trend Regression: Piecewise Linear-Linear

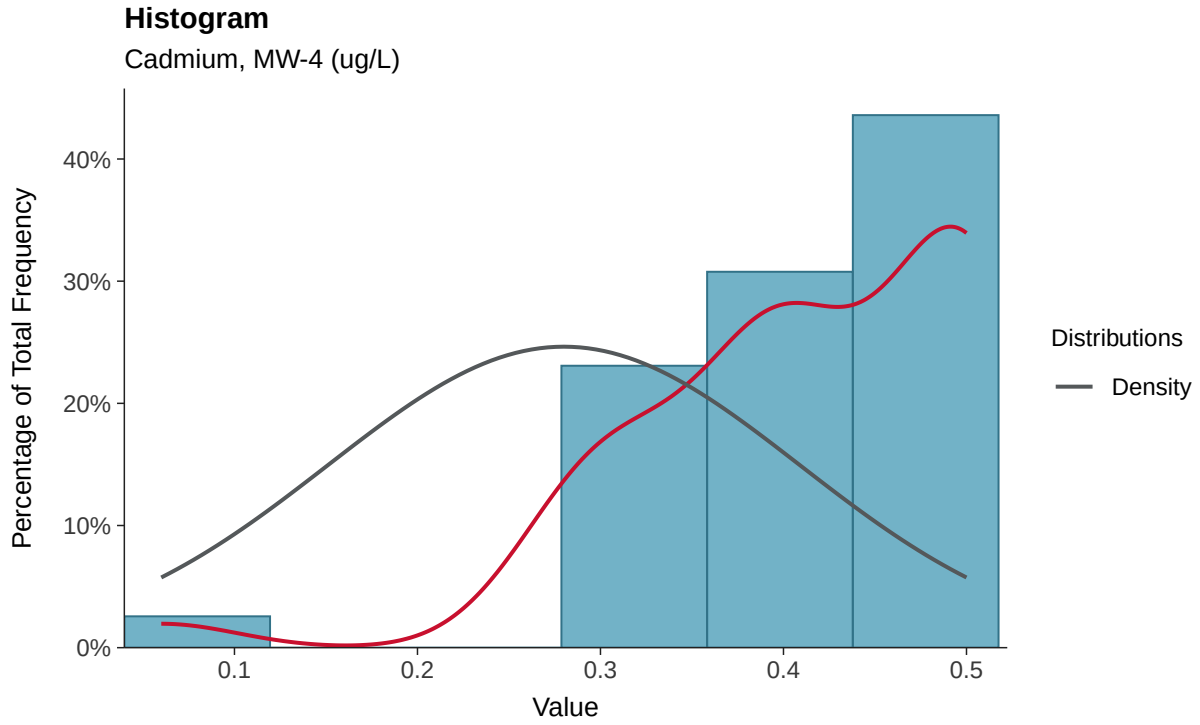
Beryllium, MW-4 (ug/L)



App. IV: Cadmium, MW-4

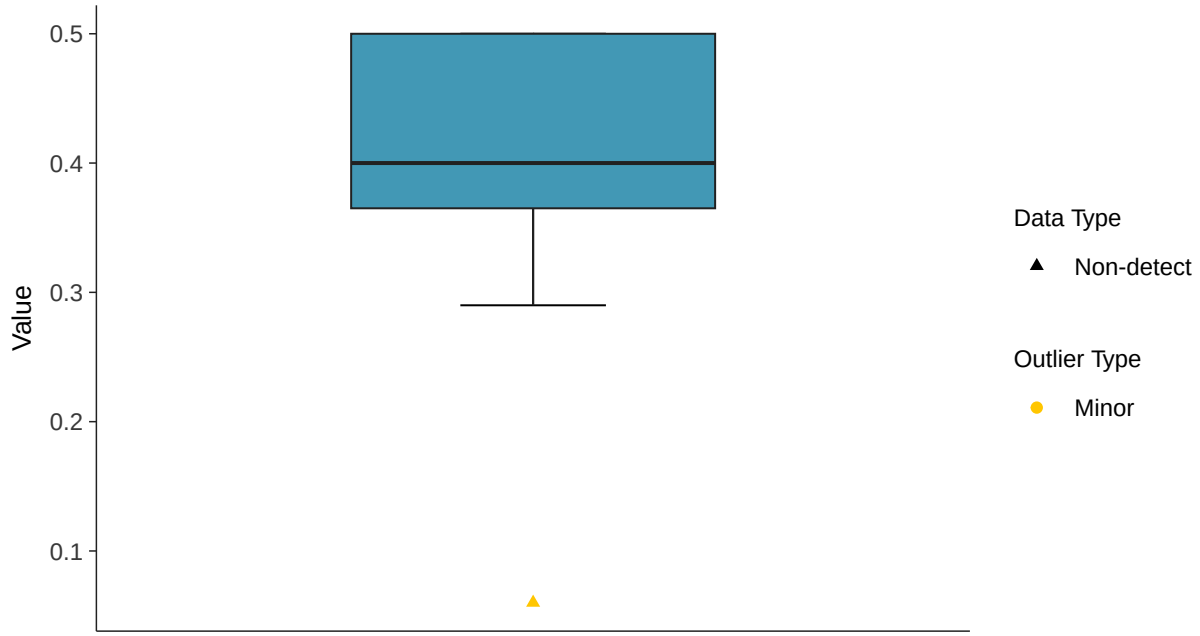
ID: 04_03_106





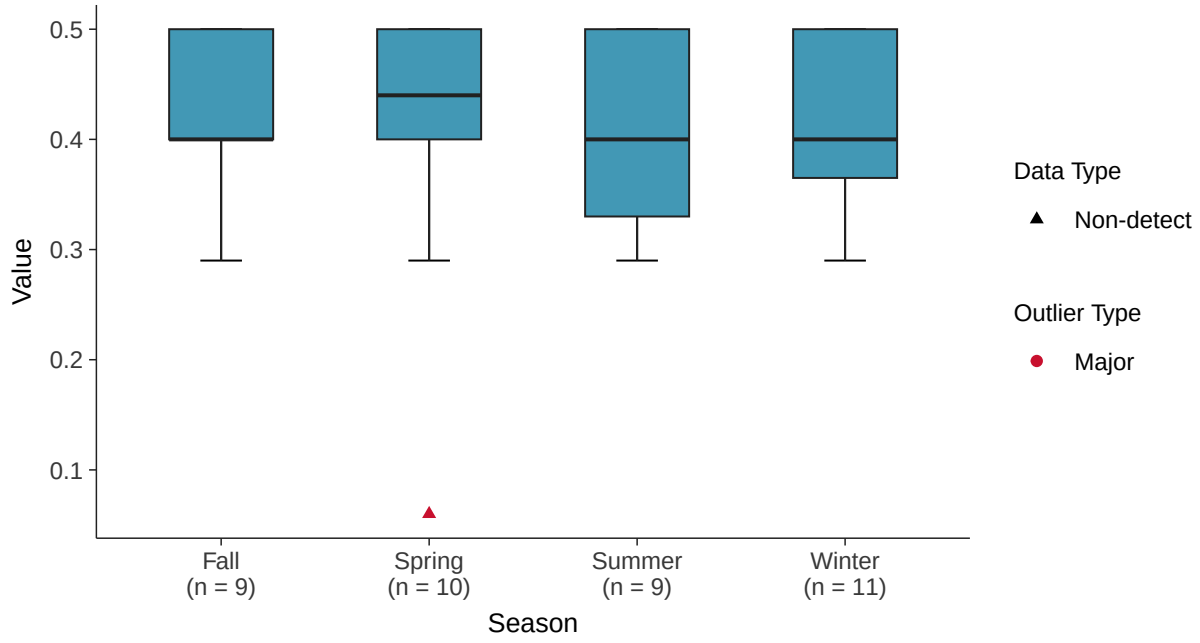
Boxplot

Cadmium, MW-4 (ug/L)



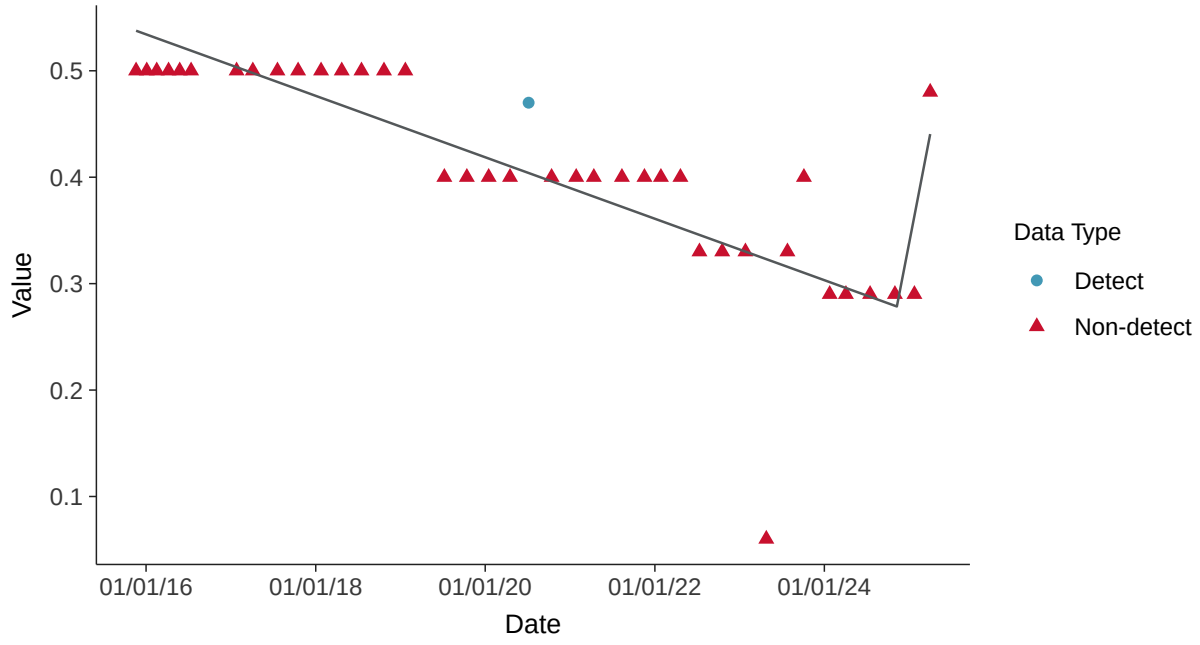
Boxplot by Season

Cadmium, MW-4 (ug/L)



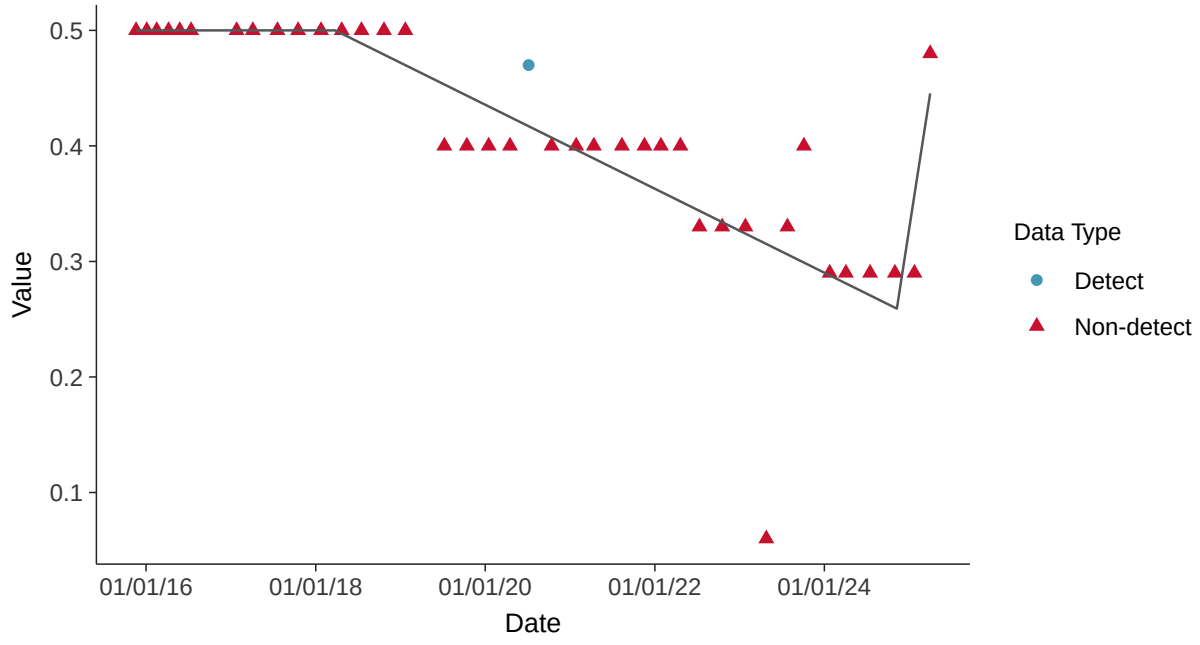
Trend Regression: Piecewise Linear-Linear

Cadmium, MW-4 (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Cadmium, MW-4 (ug/L)

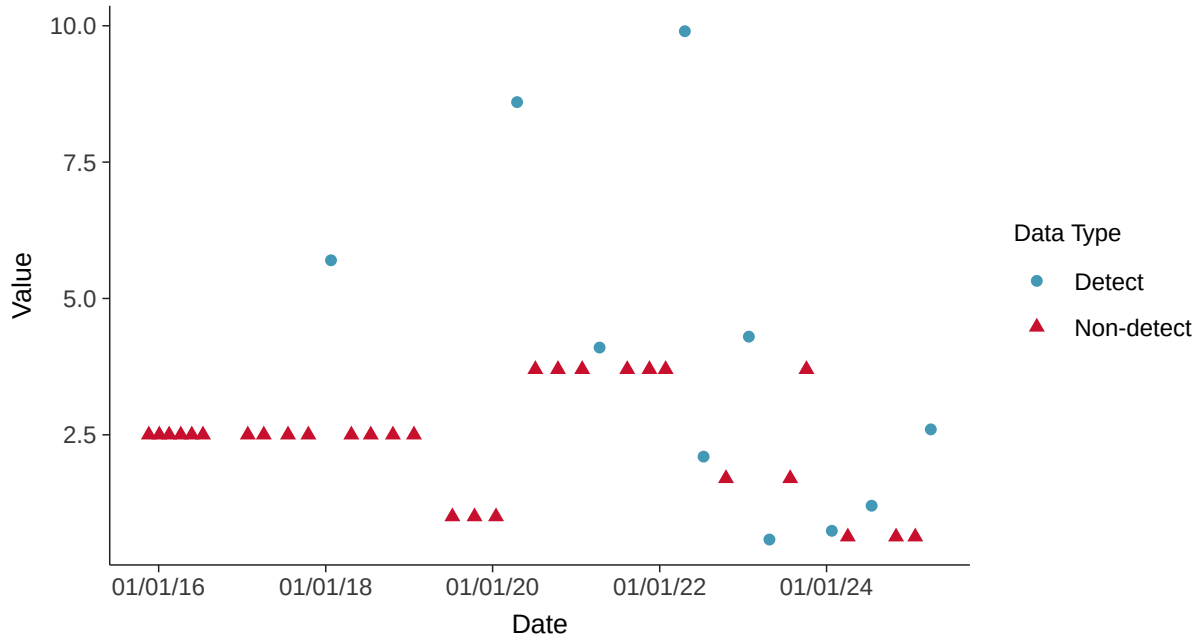


App. IV: Chromium, MW-4

ID: 04_03_109

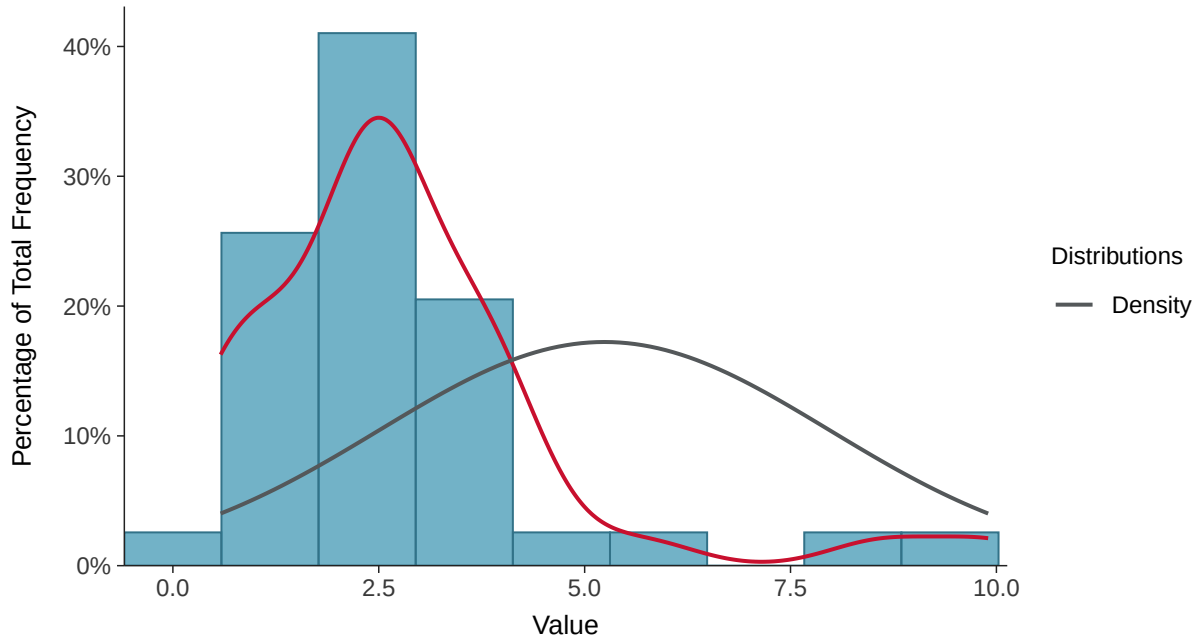
Scatter Plot

Chromium, MW-4 (ug/L)



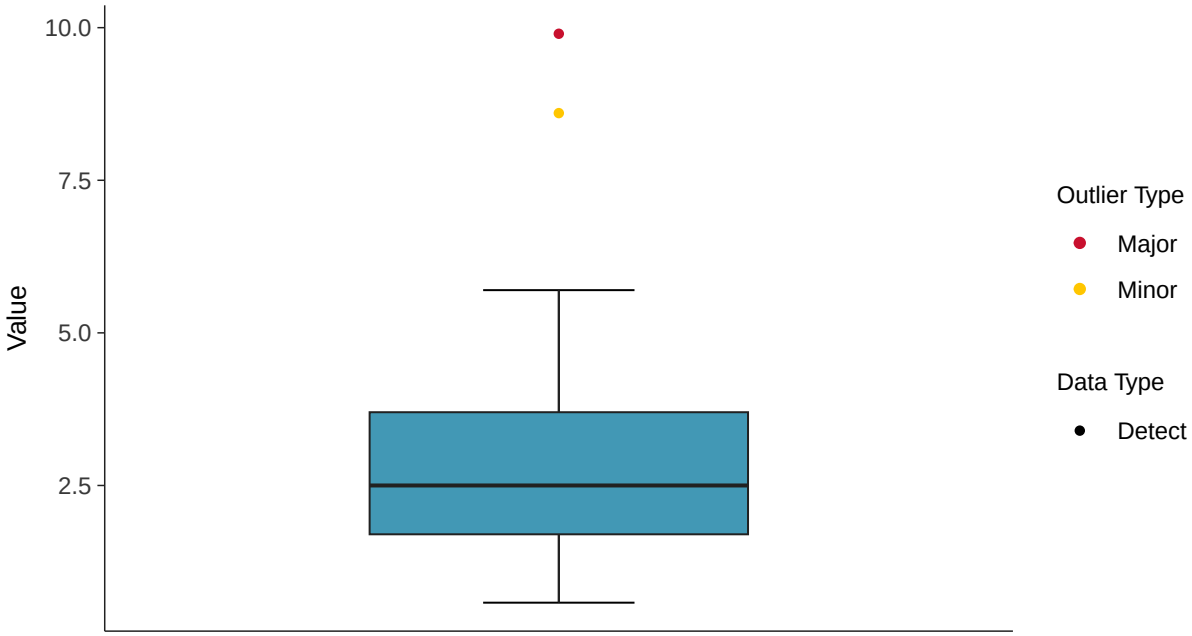
Histogram

Chromium, MW-4 (ug/L)



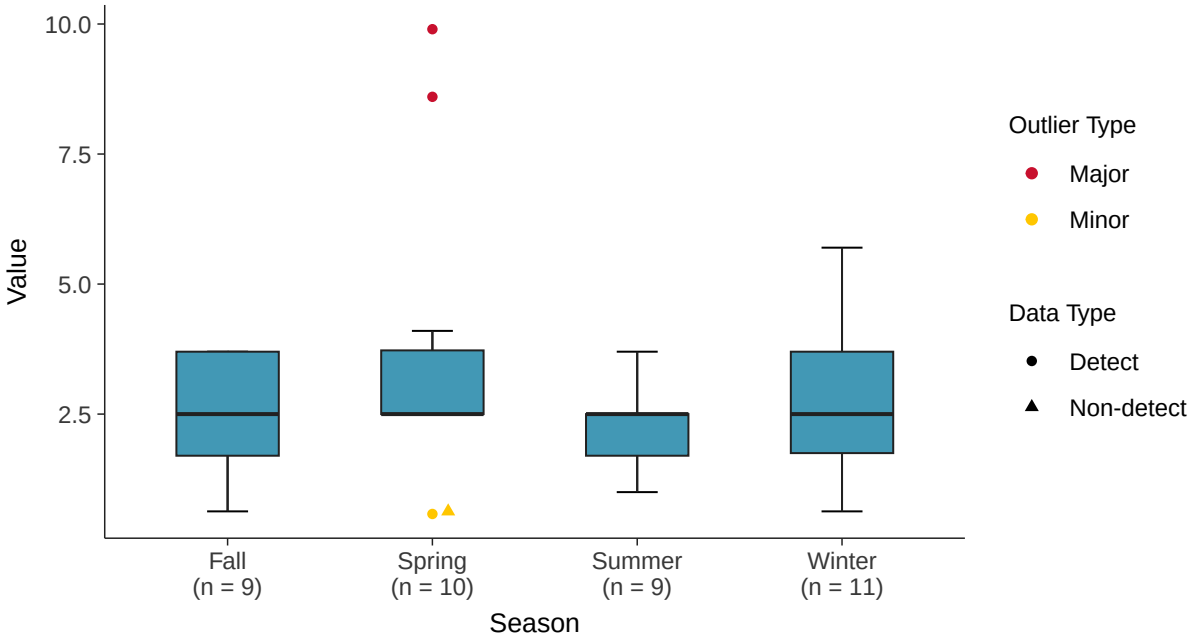
Boxplot

Chromium, MW-4 (ug/L)



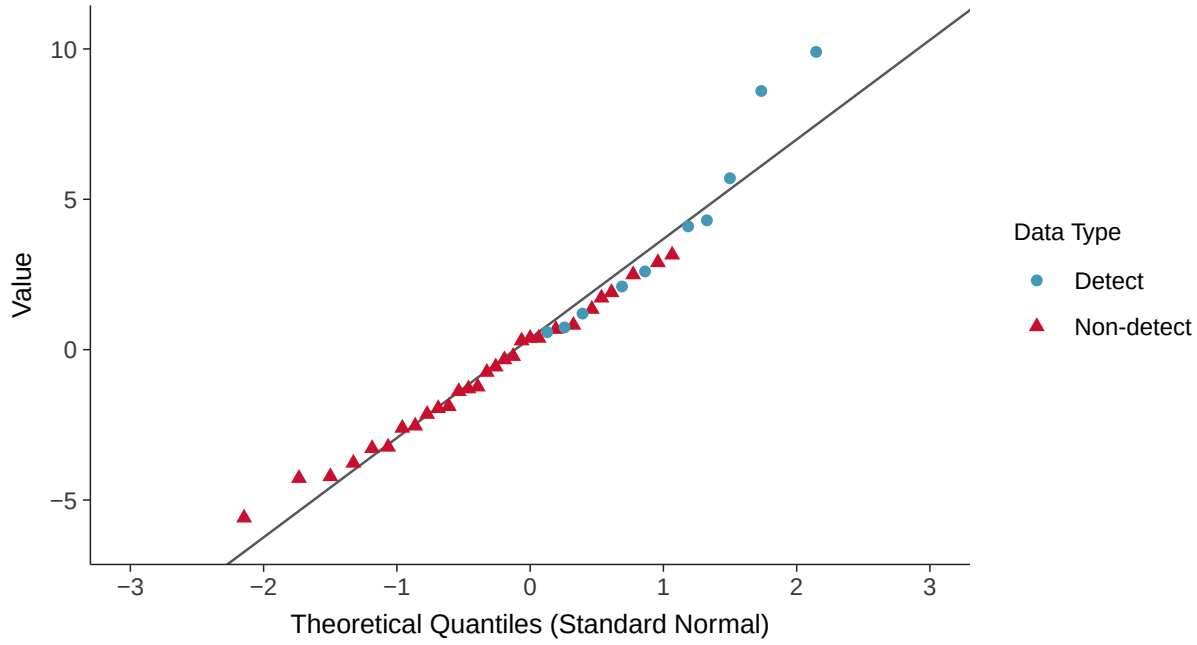
Boxplot by Season

Chromium, MW-4 (ug/L)



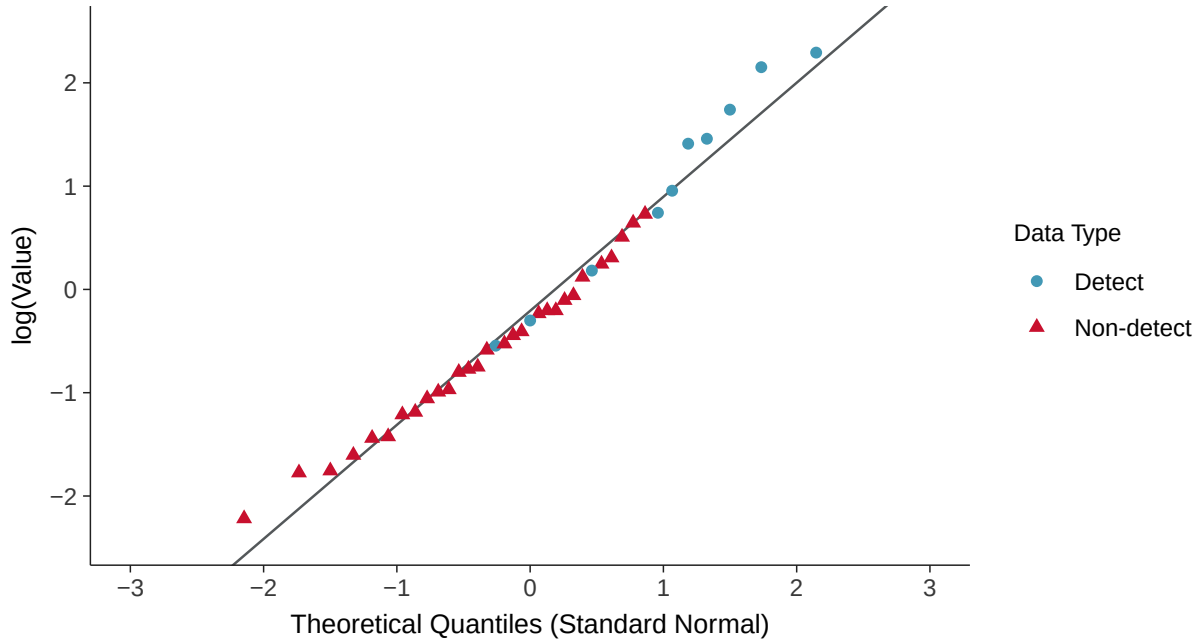
Normal Q-Q plot using ROS Imputed Estimates

Chromium, MW-4 (ug/L)



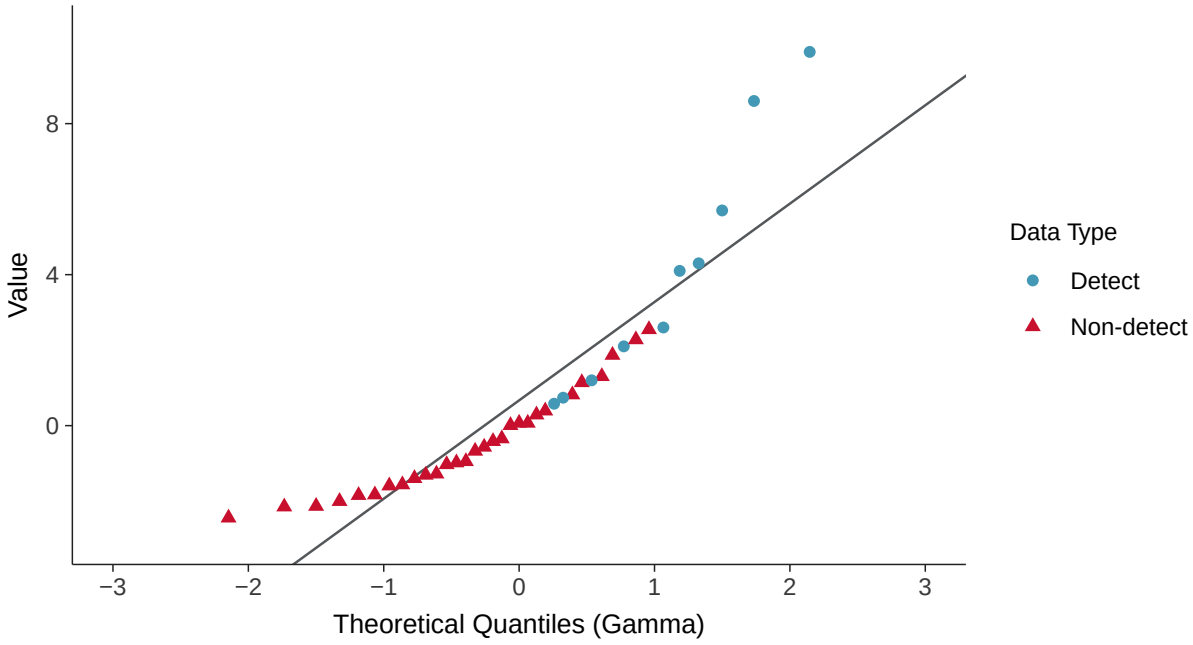
Lognormal Q-Q plot using ROS Imputed Estimates

Chromium, MW-4 (ug/L)



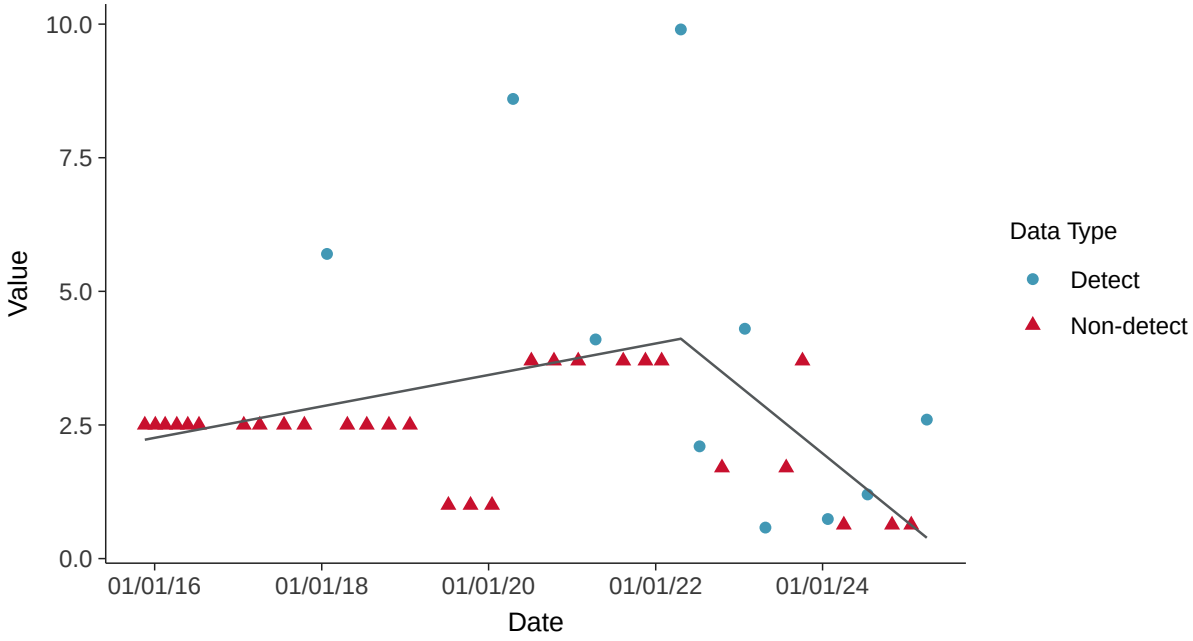
Gamma Q-Q plot using ROS Imputed Estimates

Chromium, MW-4 (ug/L)



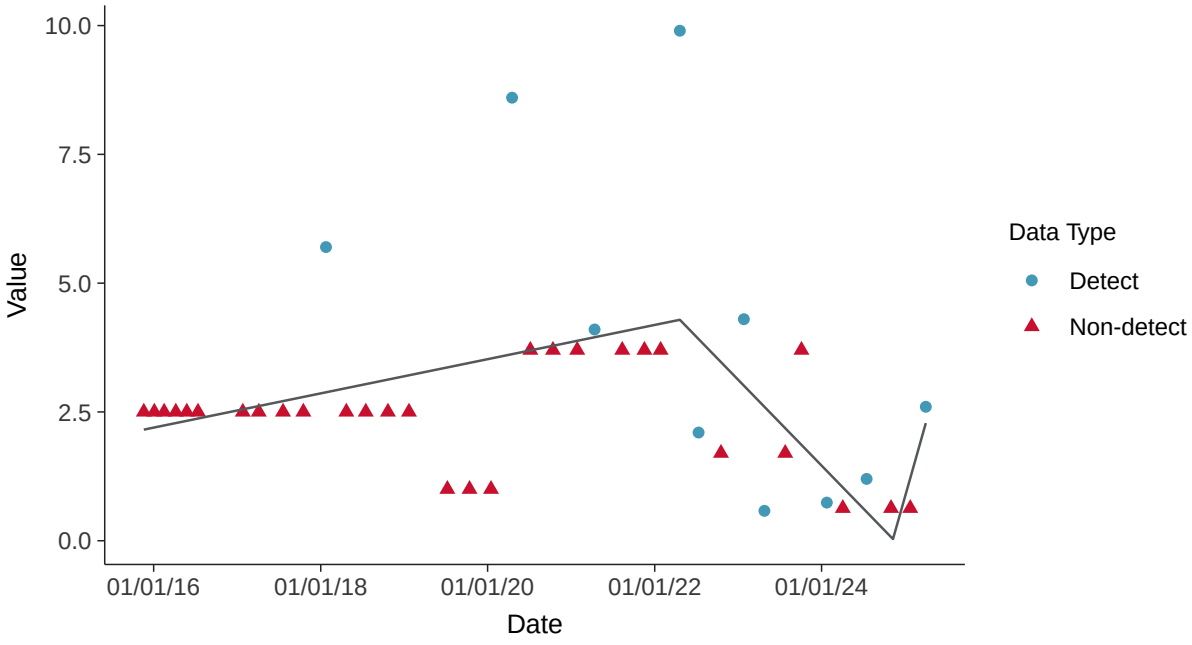
Trend Regression: Piecewise Linear-Linear

Chromium, MW-4 (ug/L)



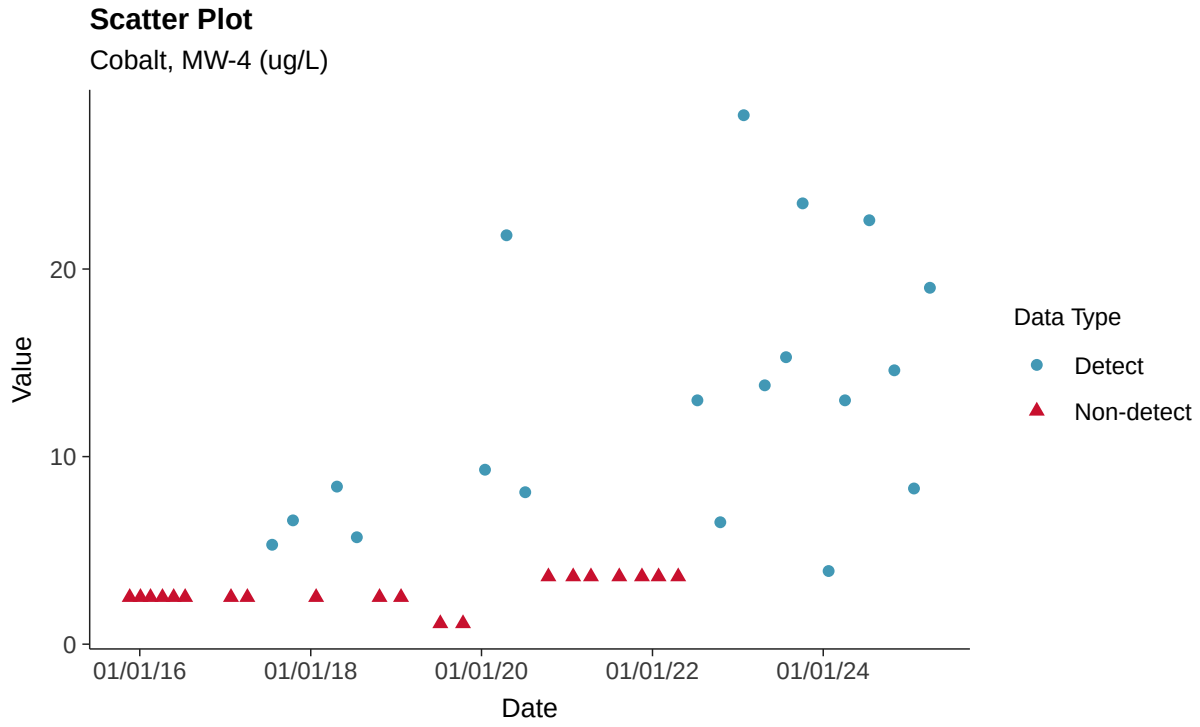
Trend Regression: Piecewise Linear-Linear-Linear

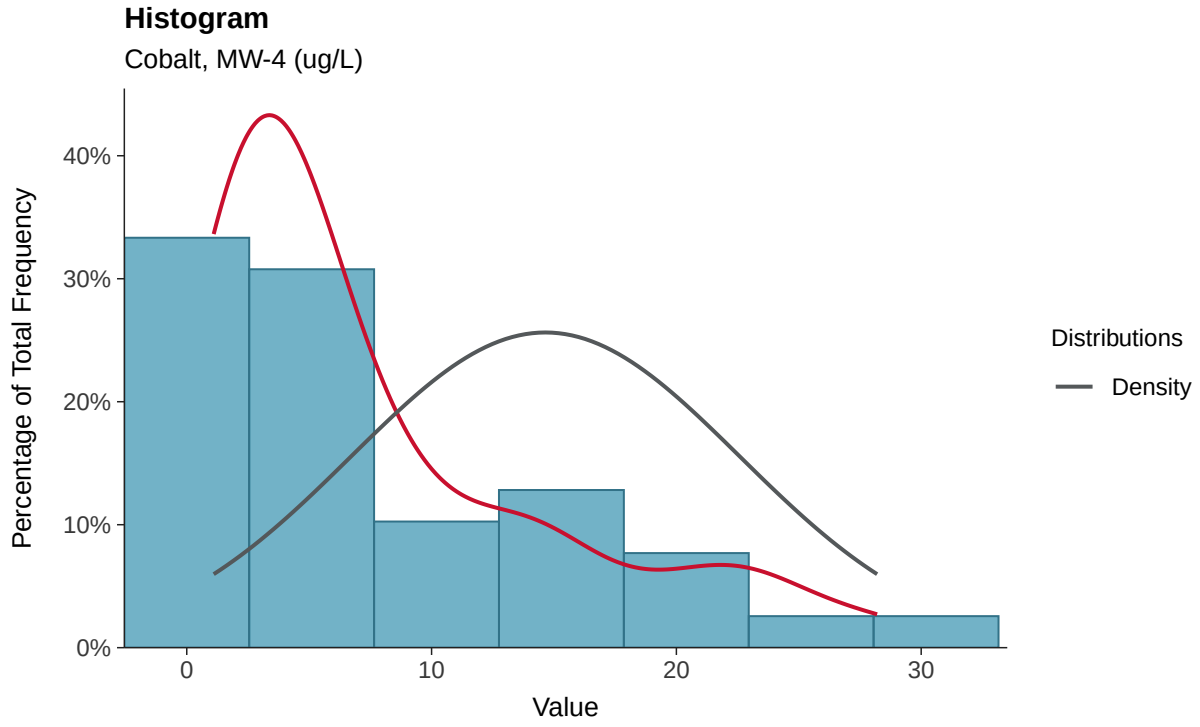
Chromium, MW-4 (ug/L)



App. IV: Cobalt, MW-4

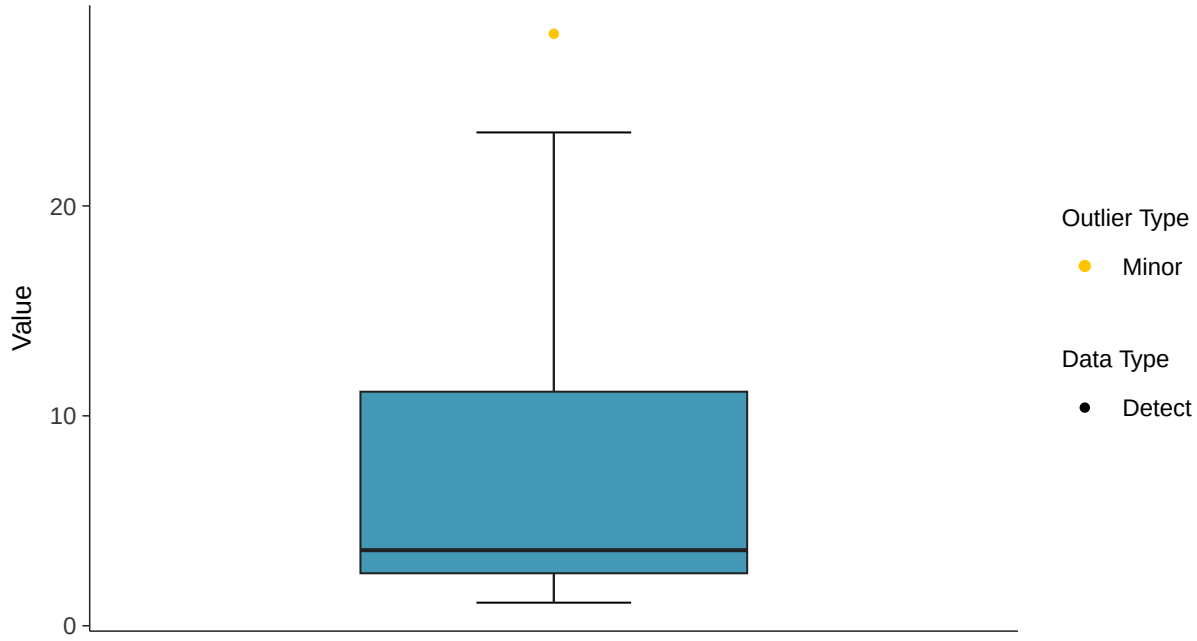
ID: 04_03_110





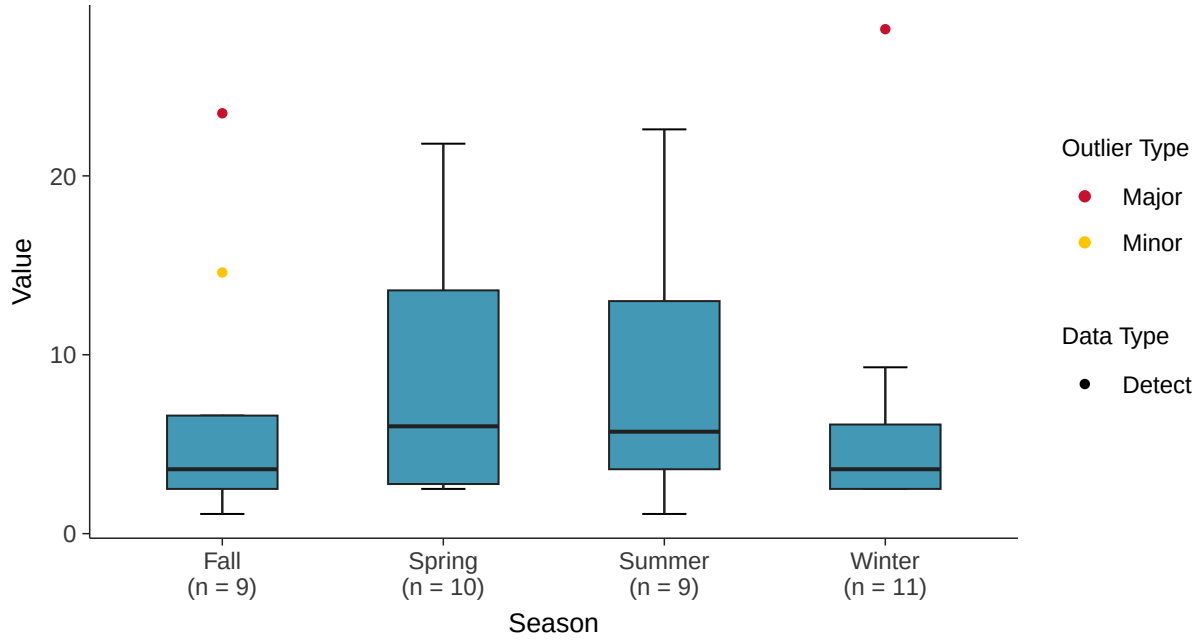
Boxplot

Cobalt, MW-4 (ug/L)



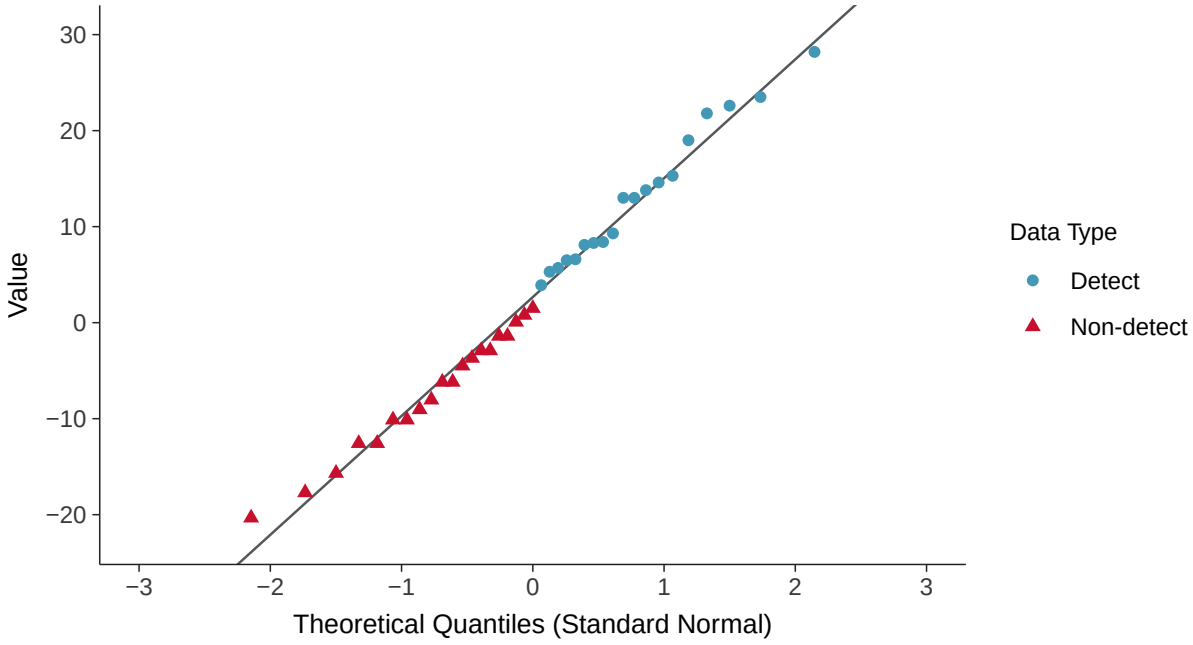
Boxplot by Season

Cobalt, MW-4 (ug/L)



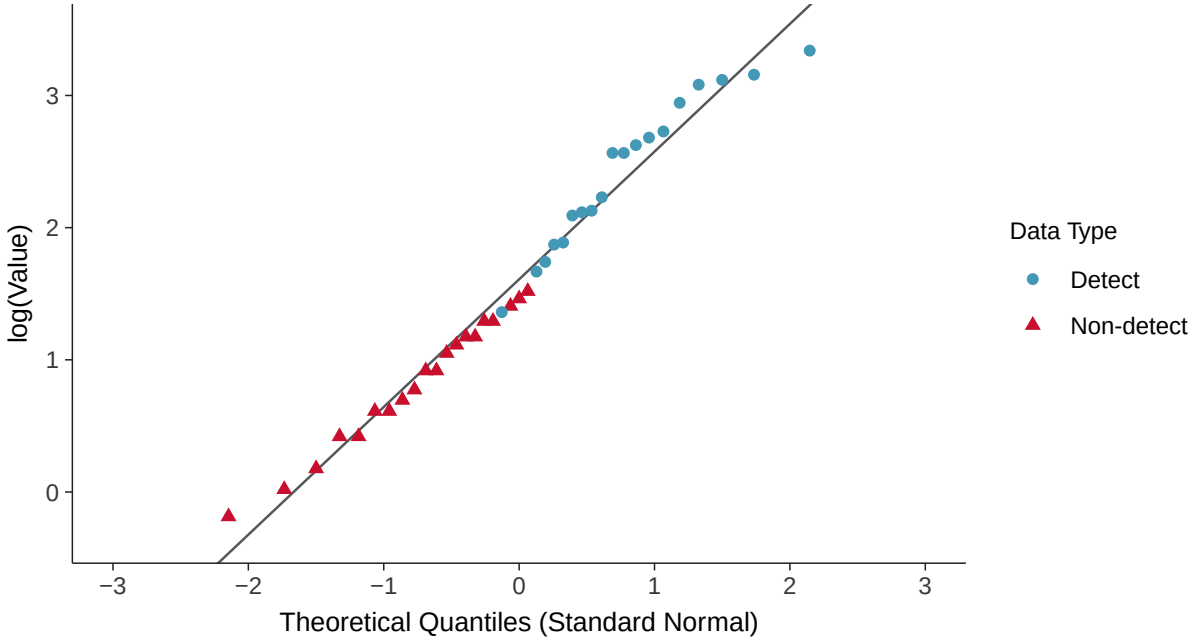
Normal Q-Q plot using ROS Imputed Estimates

Cobalt, MW-4 (ug/L)



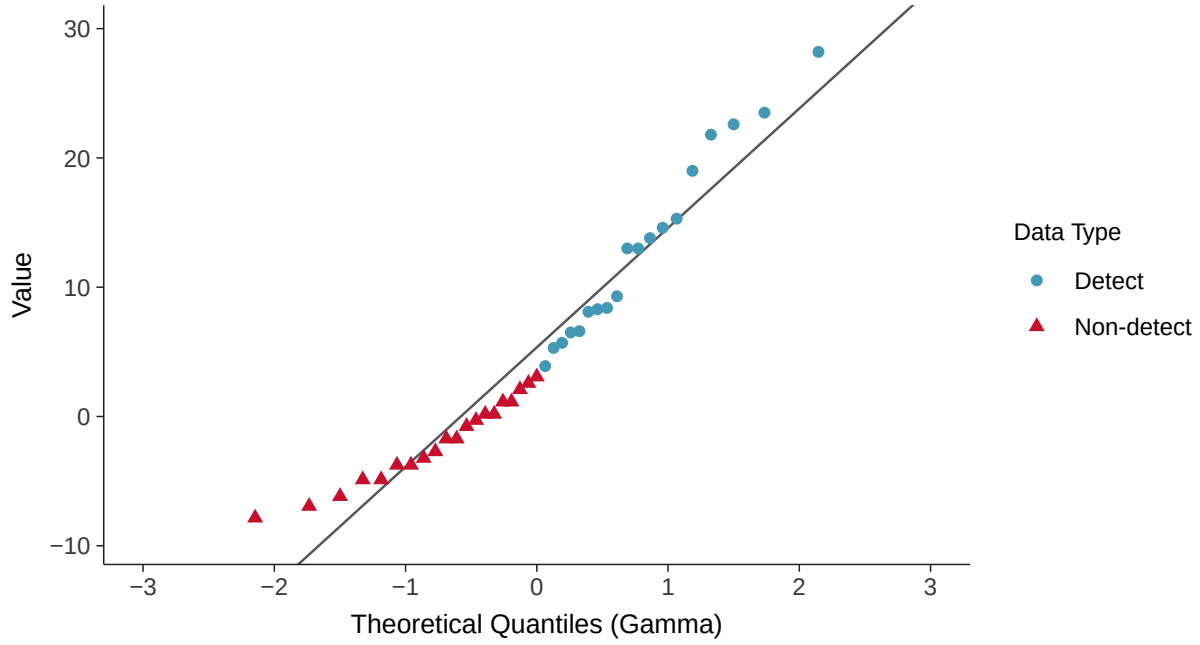
Lognormal Q-Q plot using ROS Imputed Estimates

Cobalt, MW-4 (ug/L)



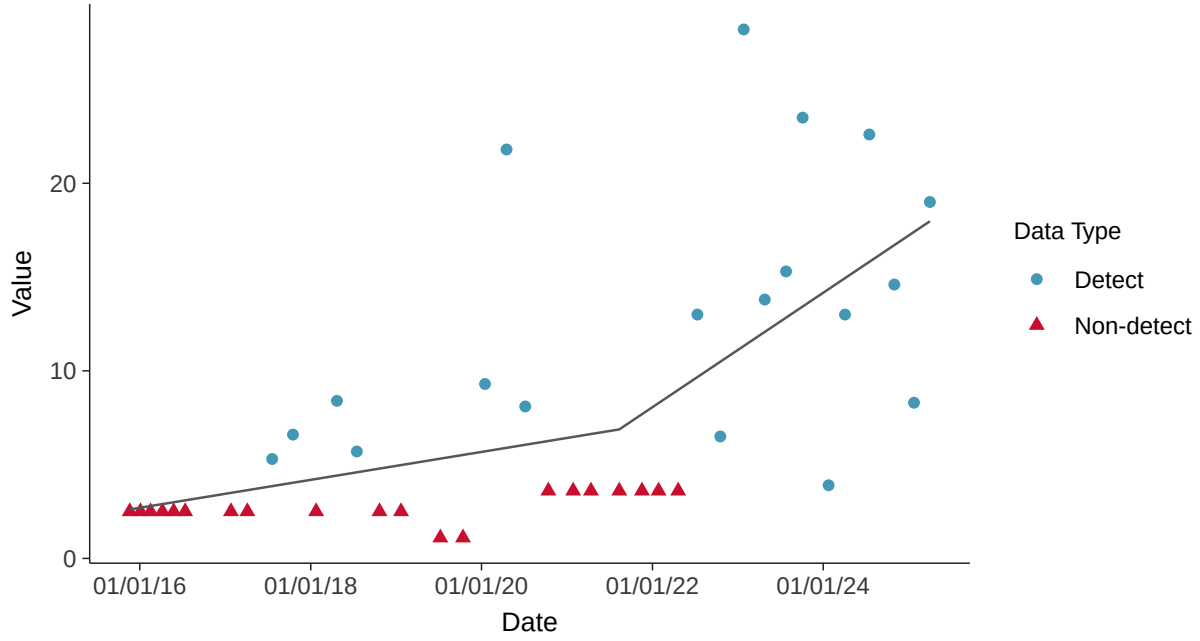
Gamma Q-Q plot using ROS Imputed Estimates

Cobalt, MW-4 (ug/L)



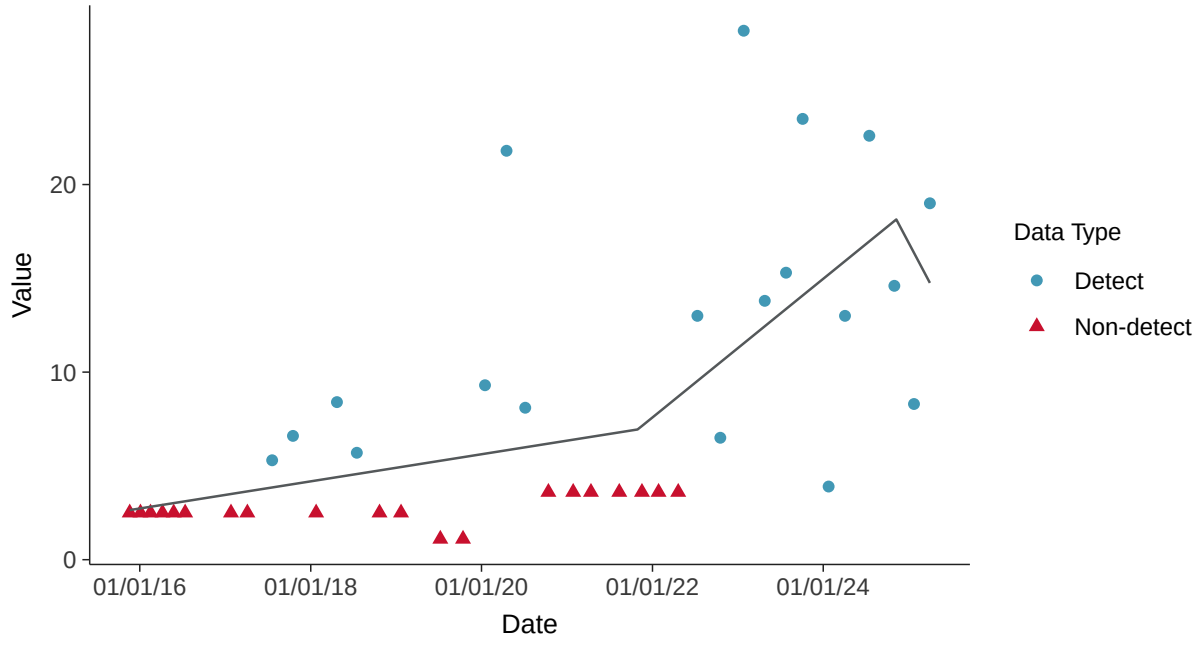
Trend Regression: Piecewise Linear-Linear

Cobalt, MW-4 (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Cobalt, MW-4 (ug/L)

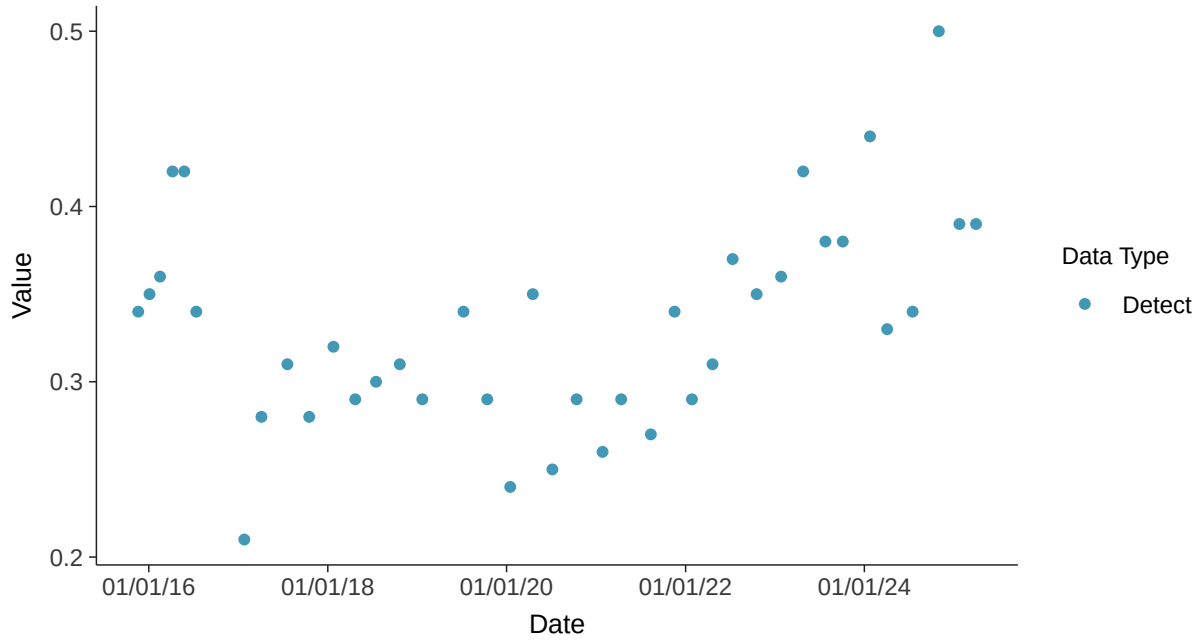


App. IV: Fluoride, MW-4

ID: 04_03_112

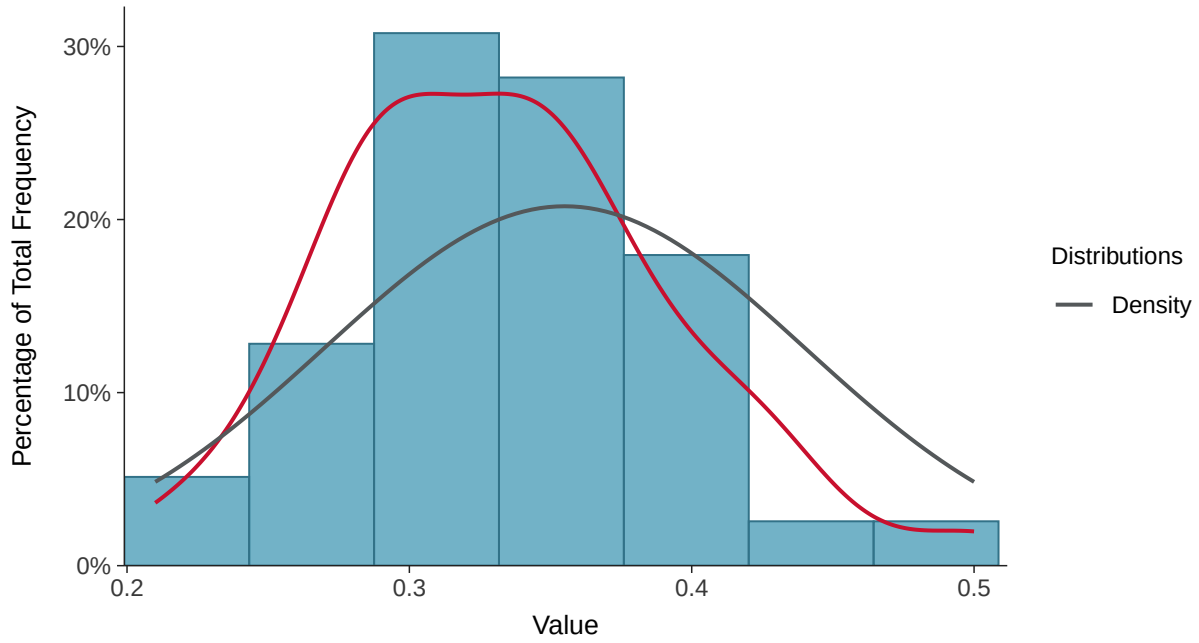
Scatter Plot

Fluoride, MW-4 (mg/L)



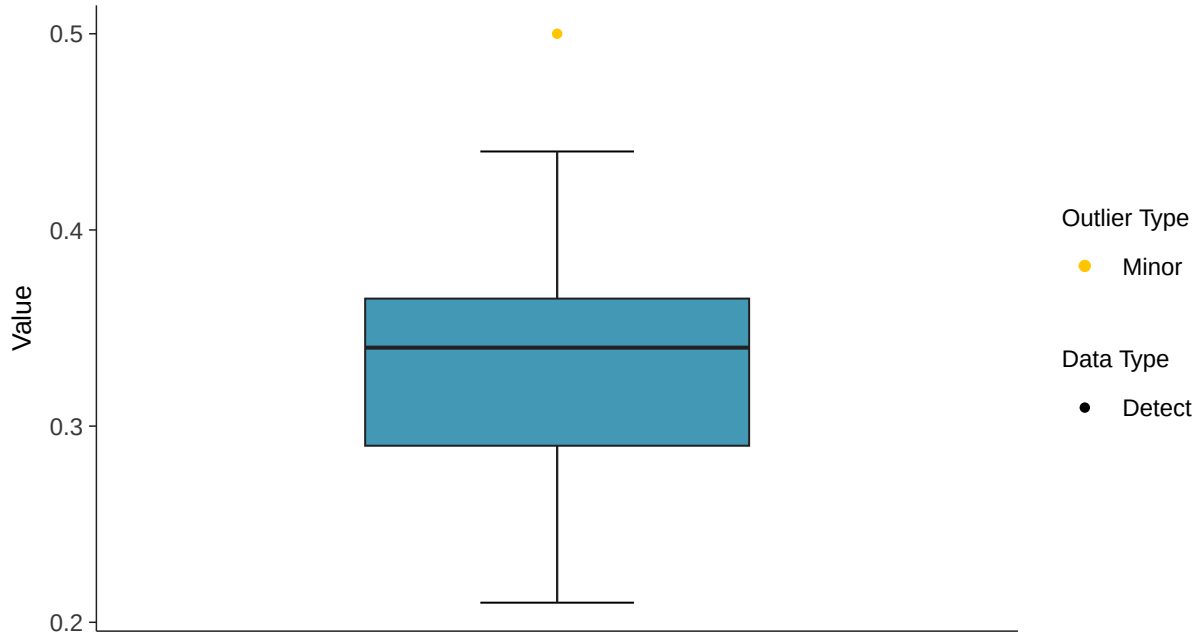
Histogram

Fluoride, MW-4 (mg/L)



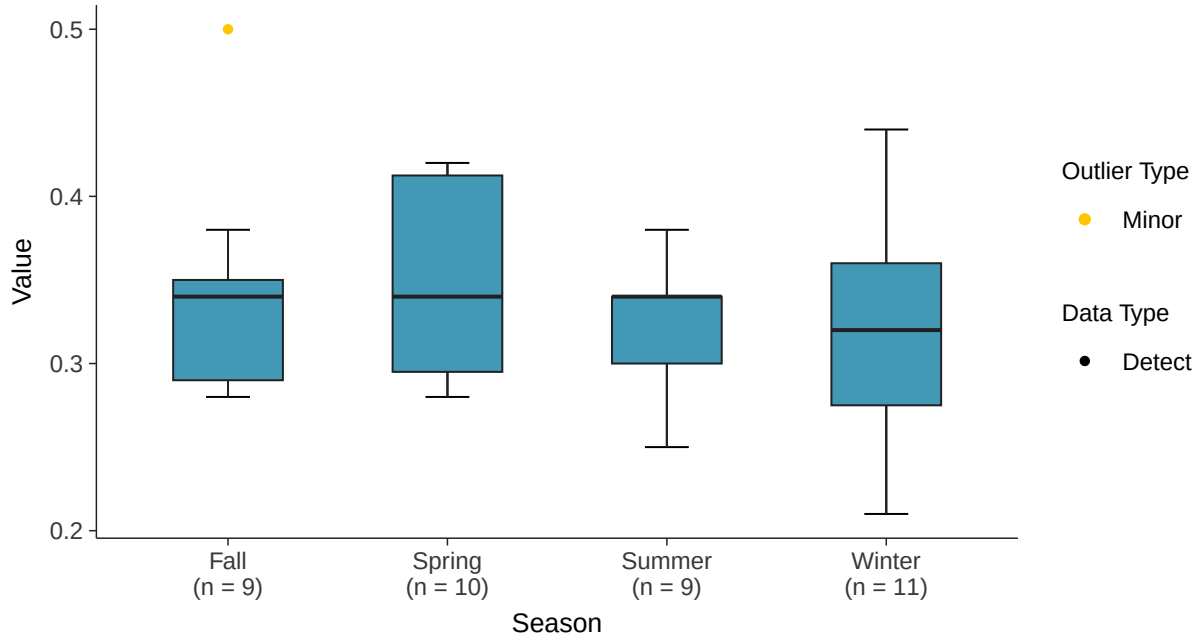
Boxplot

Fluoride, MW-4 (mg/L)



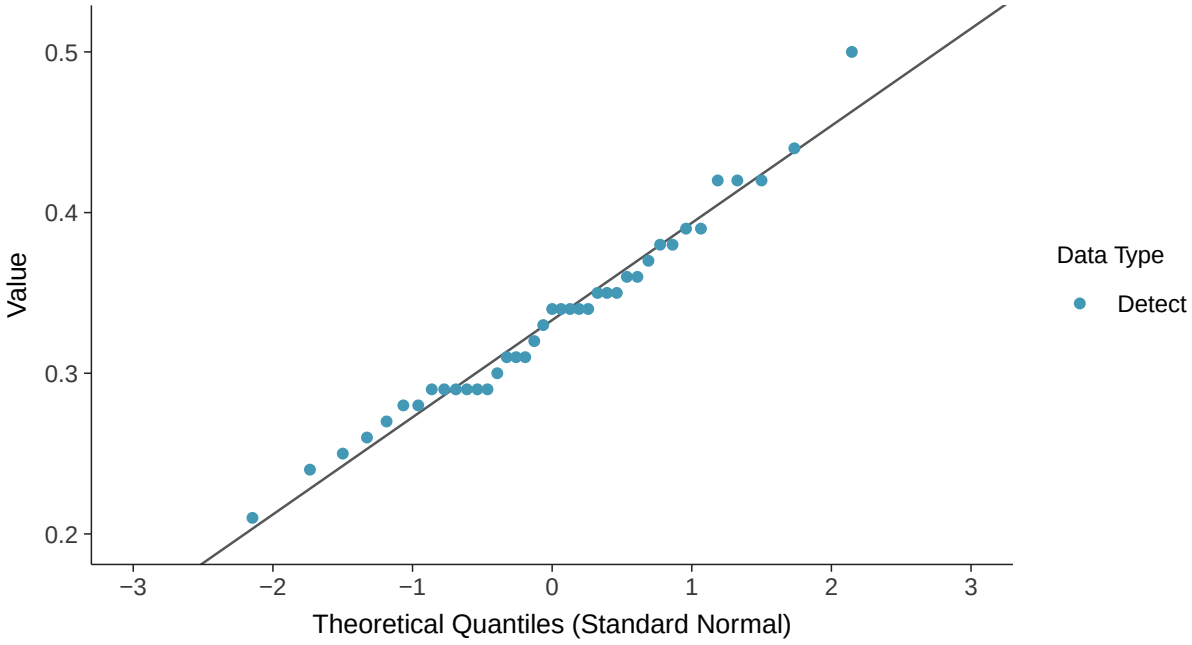
Boxplot by Season

Fluoride, MW-4 (mg/L)



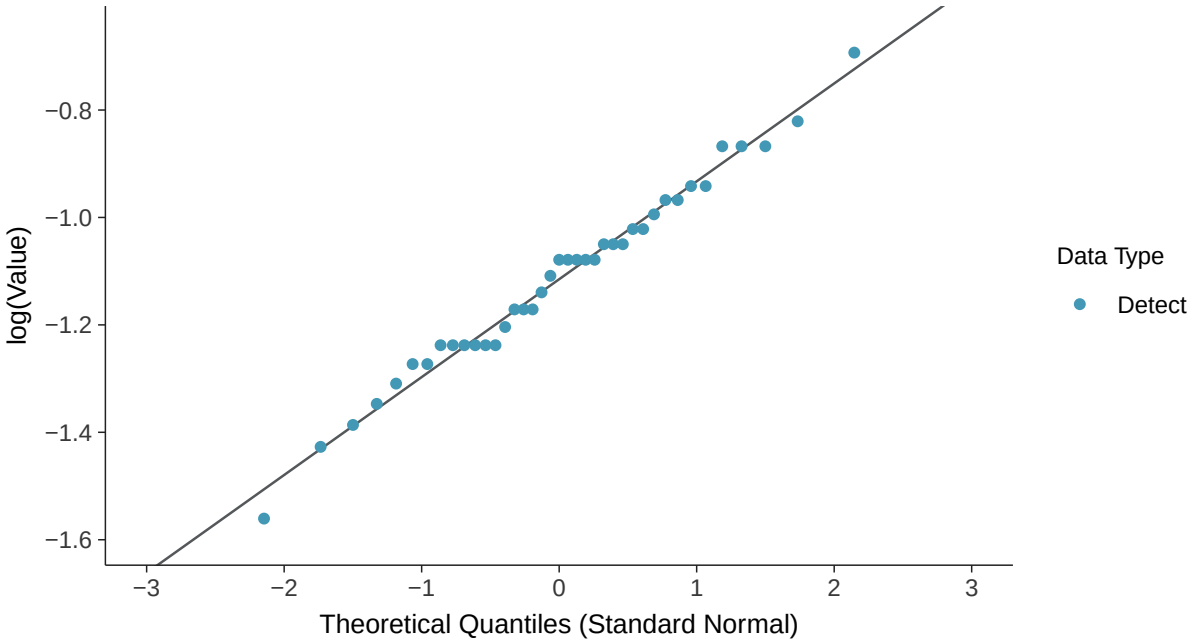
Normal Q-Q plot

Fluoride, MW-4 (mg/L)



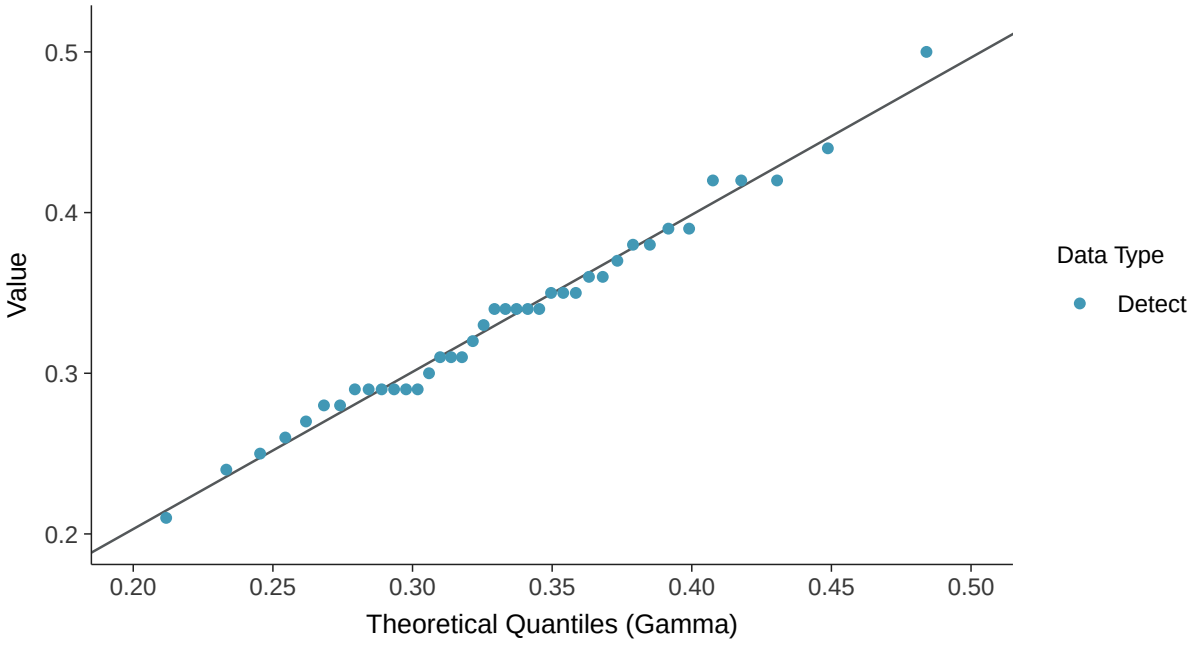
Lognormal Q-Q plot

Fluoride, MW-4 (mg/L)



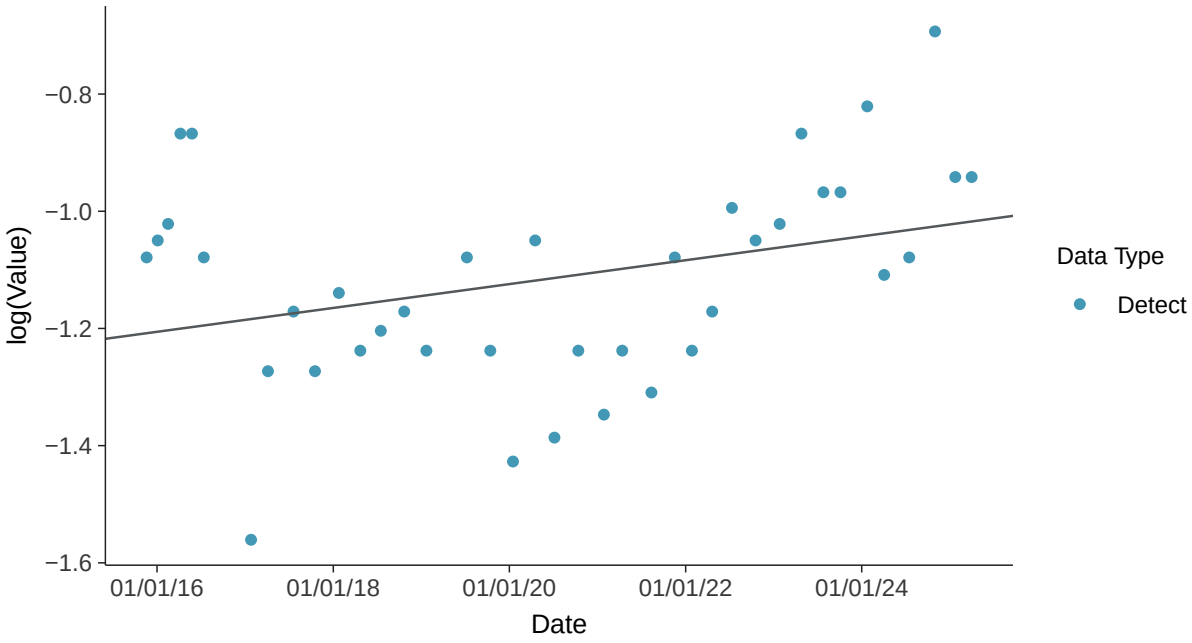
Gamma Q-Q plot

Fluoride, MW-4 (mg/L)



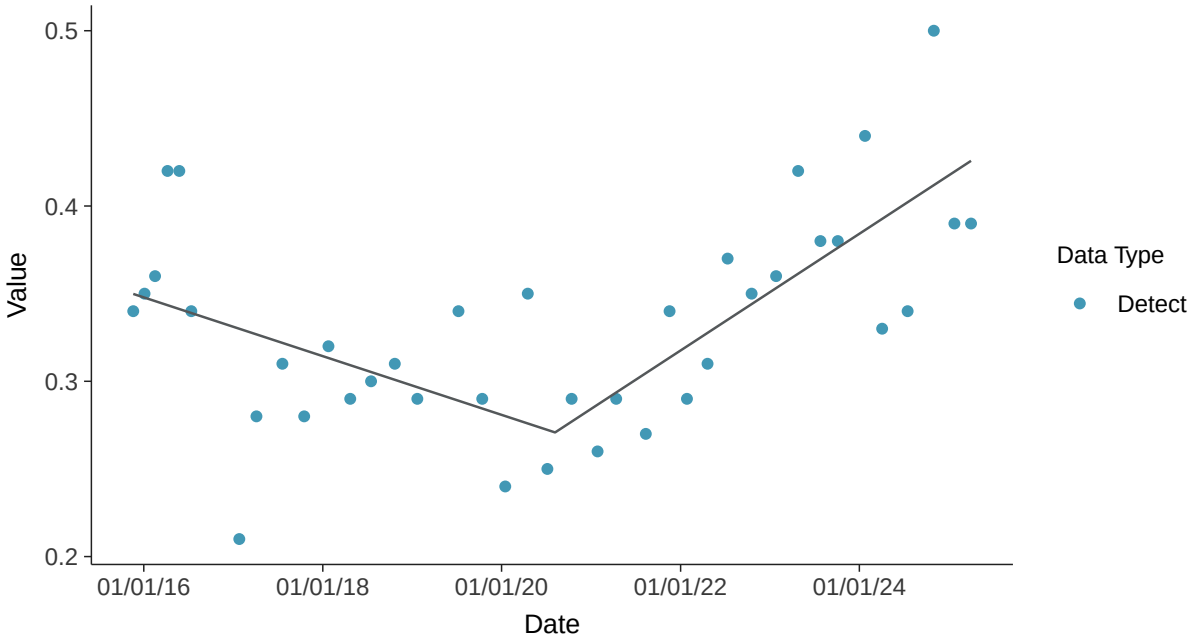
Trend Regression: Lognormal MLE

Fluoride, MW-4 (mg/L)



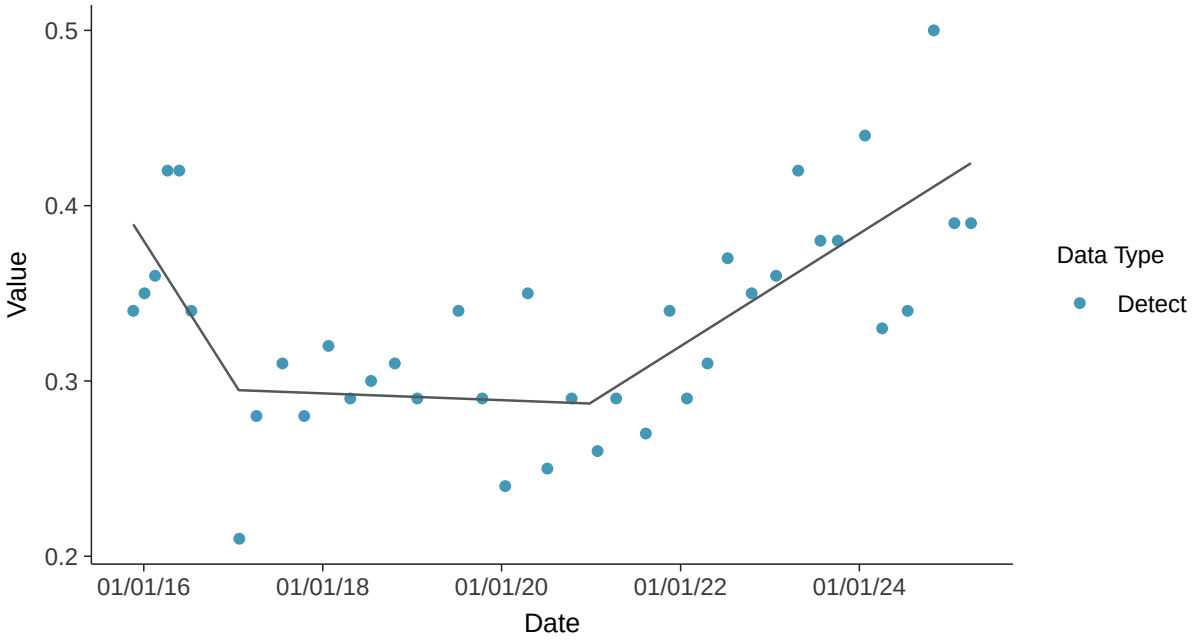
Trend Regression: Piecewise Linear-Linear

Fluoride, MW-4 (mg/L)



Trend Regression: Piecewise Linear-Linear-Linear

Fluoride, MW-4 (mg/L)

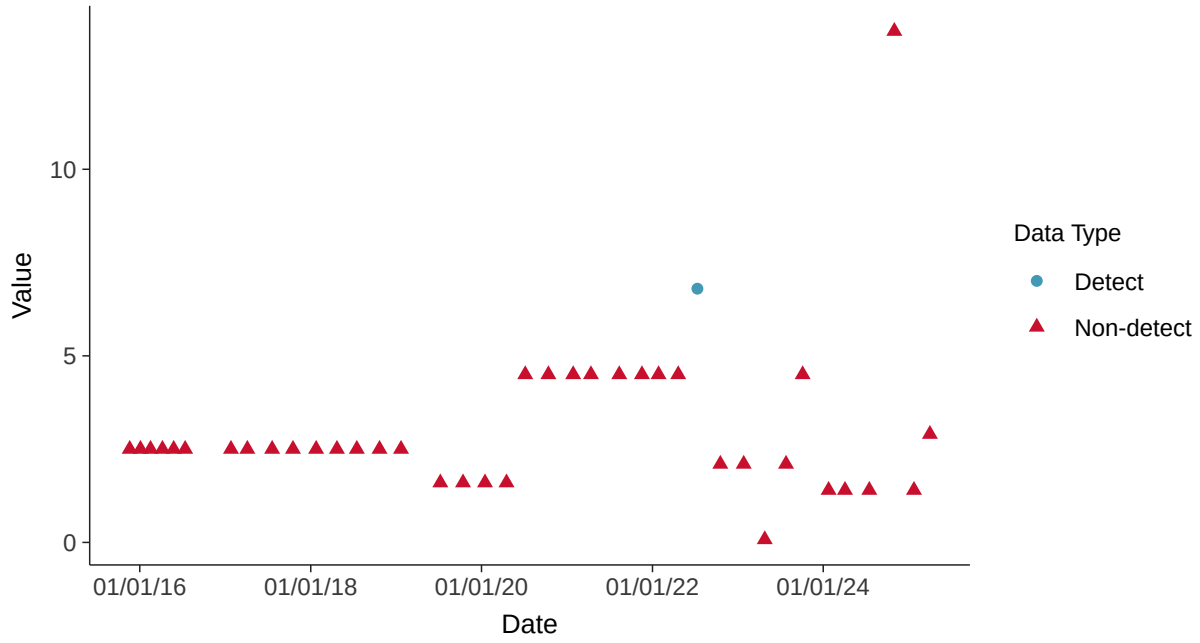


App. IV: Lead, MW-4

ID: 04_03_113

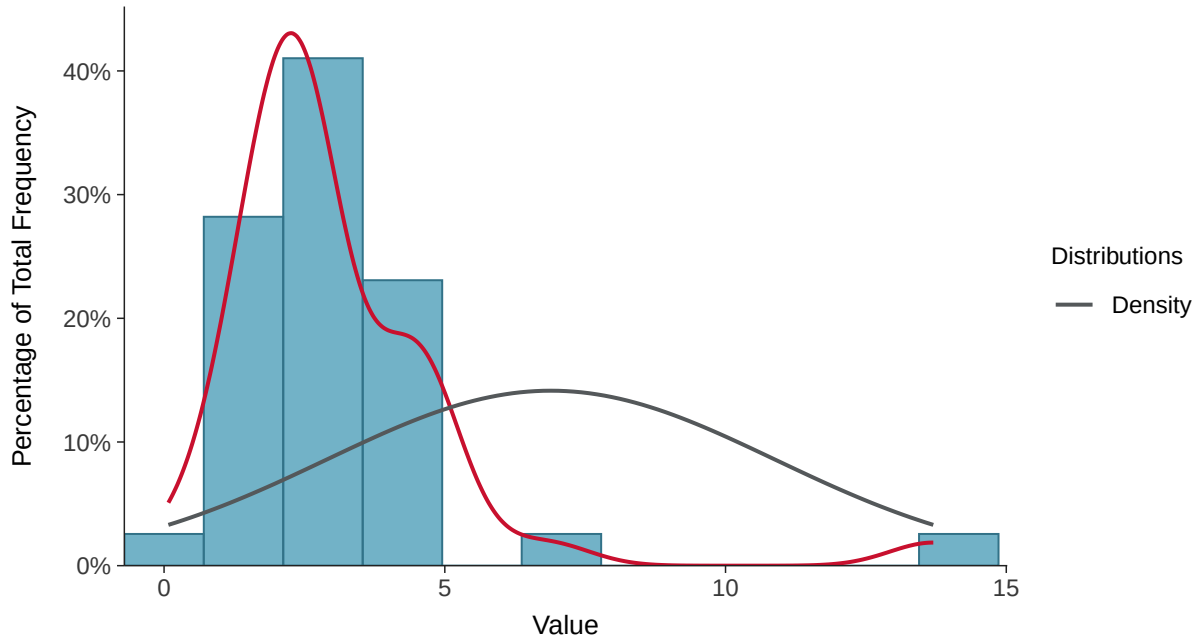
Scatter Plot

Lead, MW-4 (ug/L)



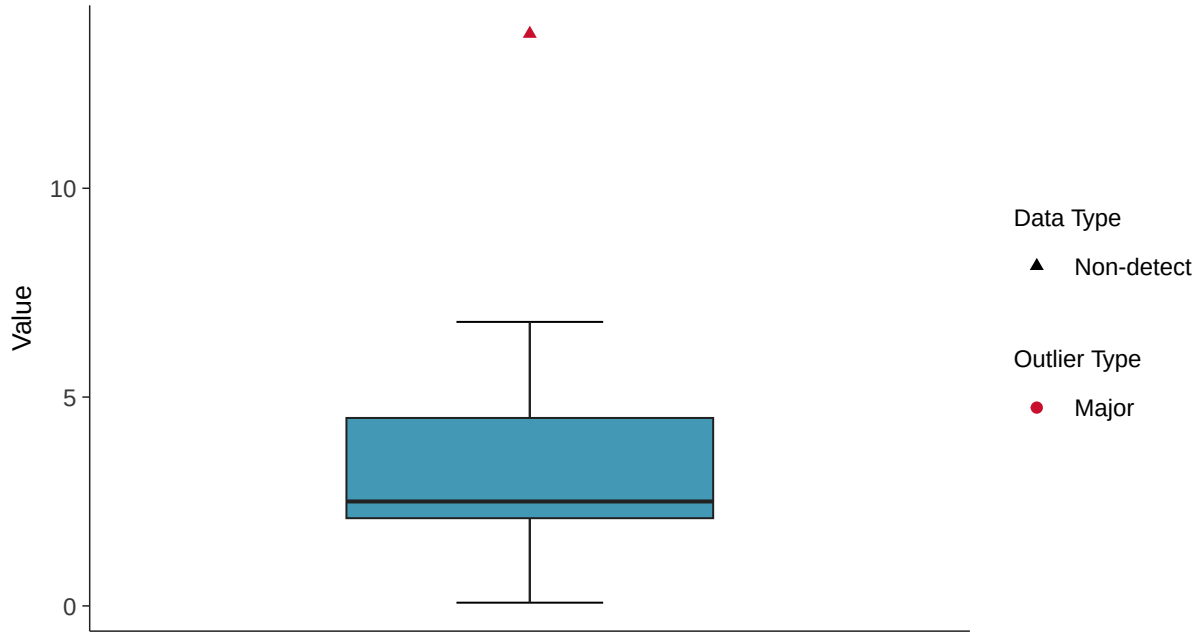
Histogram

Lead, MW-4 (ug/L)



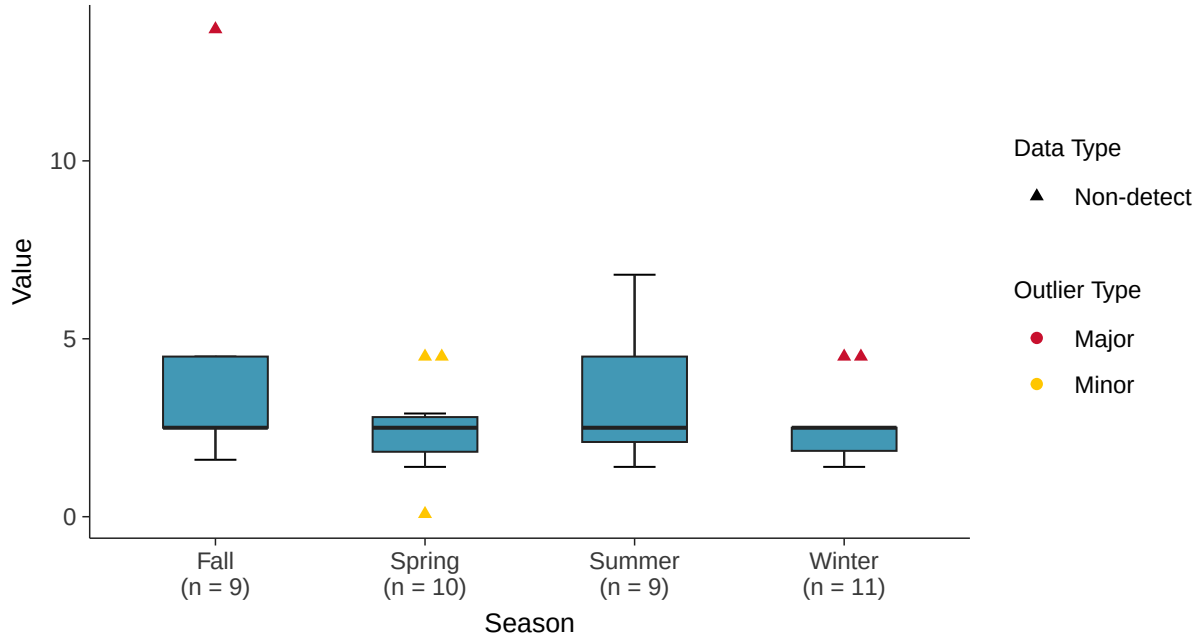
Boxplot

Lead, MW-4 (ug/L)



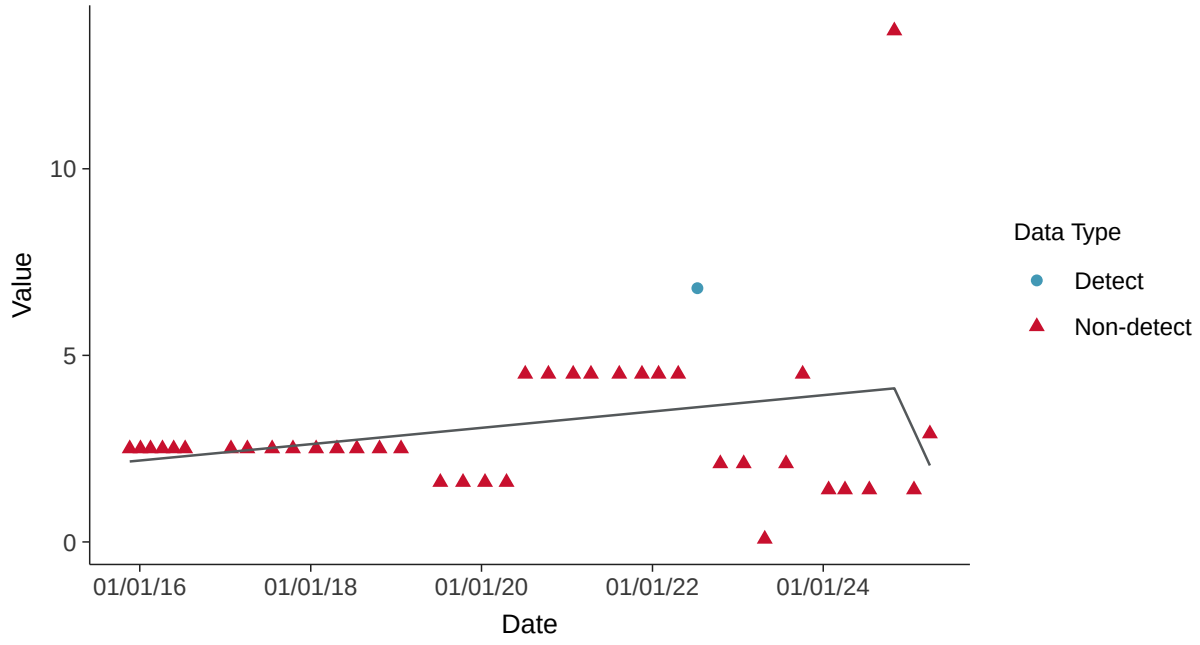
Boxplot by Season

Lead, MW-4 (ug/L)



Trend Regression: Piecewise Linear-Linear

Lead, MW-4 (ug/L)

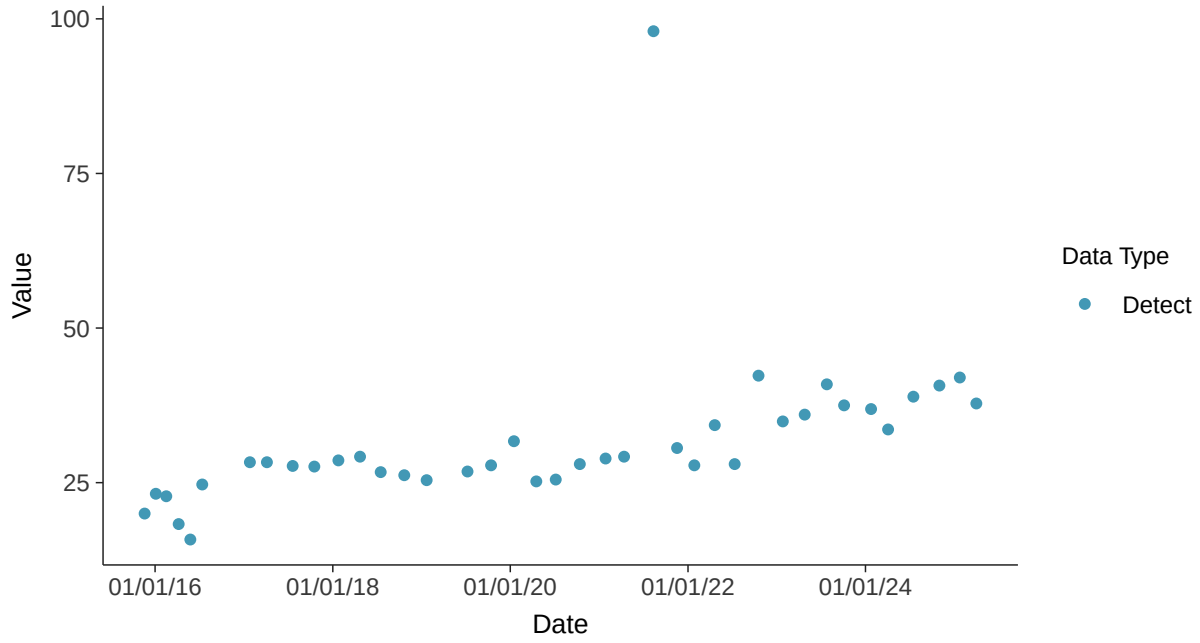


App. IV: Lithium, MW-4

ID: 04_03_114

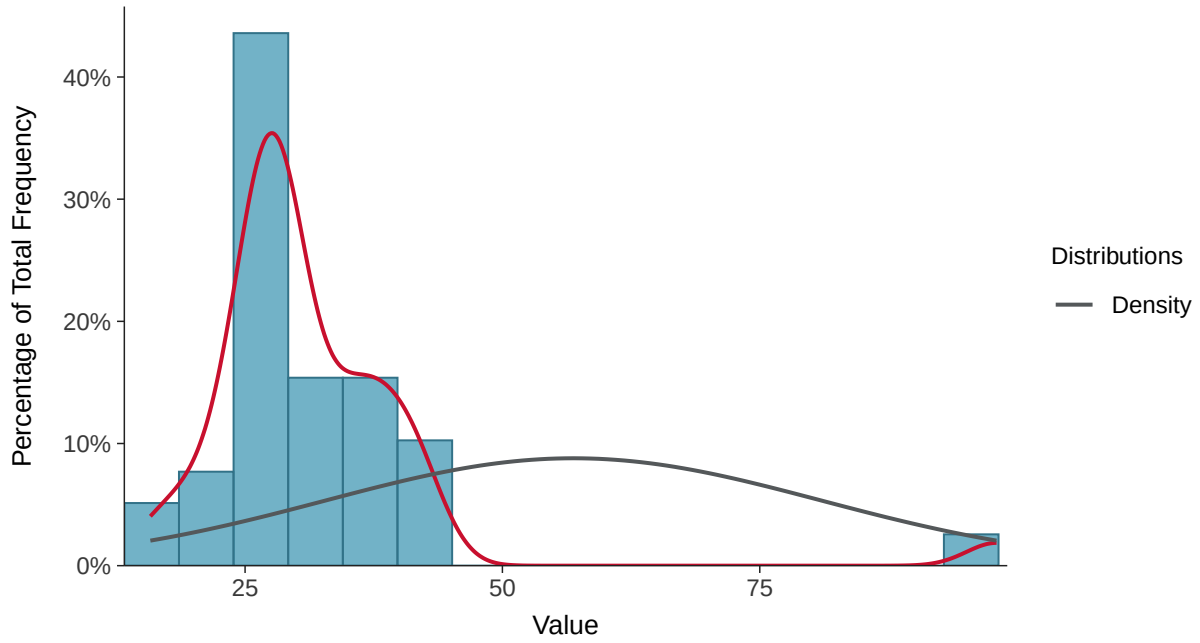
Scatter Plot

Lithium, MW-4 (ug/L)



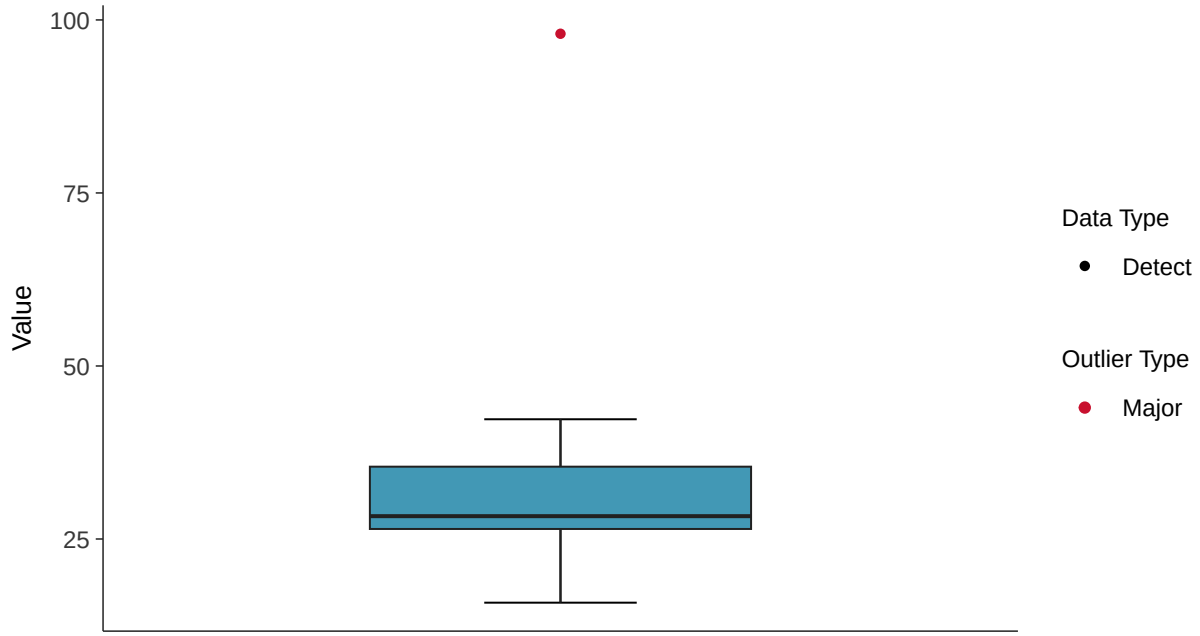
Histogram

Lithium, MW-4 (ug/L)



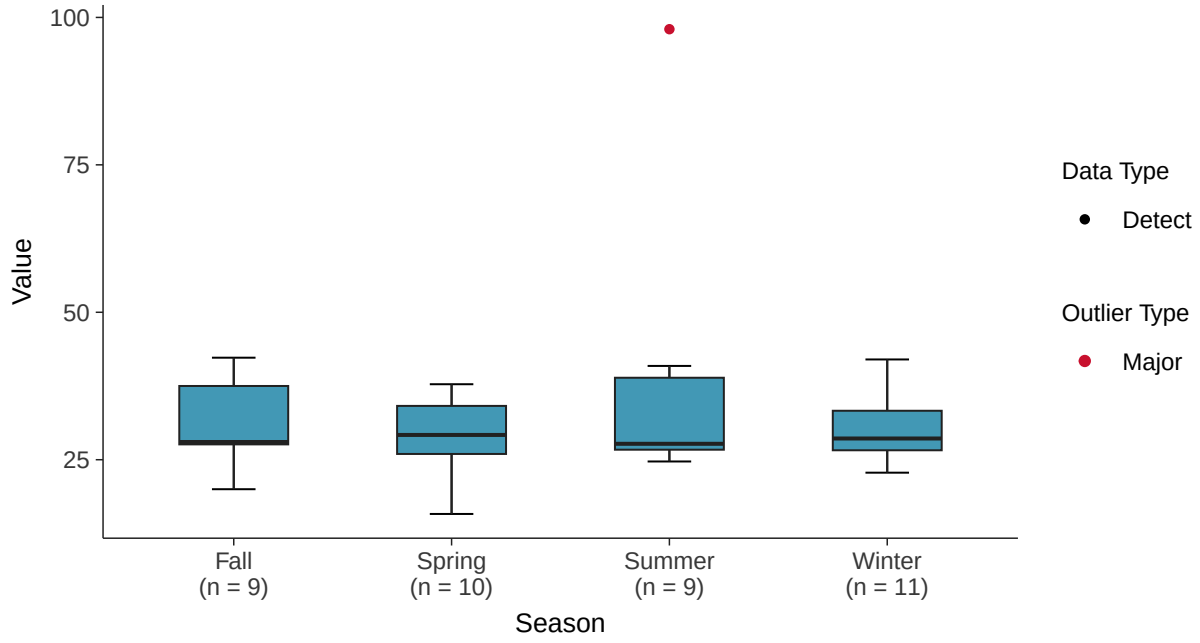
Boxplot

Lithium, MW-4 (ug/L)



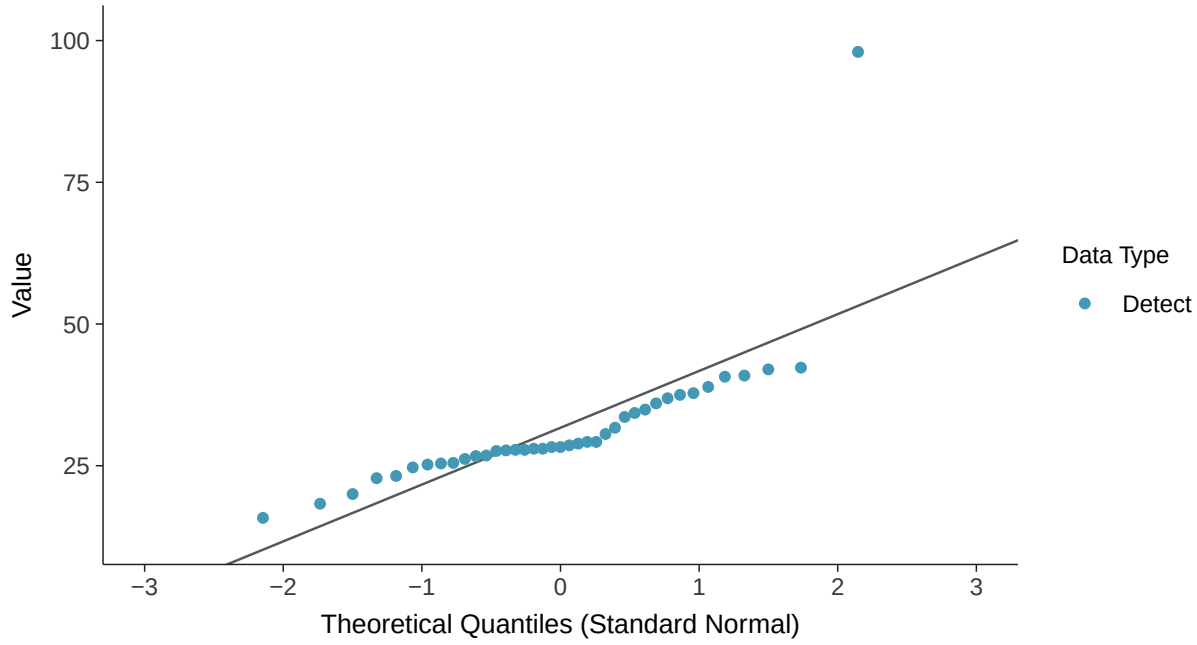
Boxplot by Season

Lithium, MW-4 (ug/L)



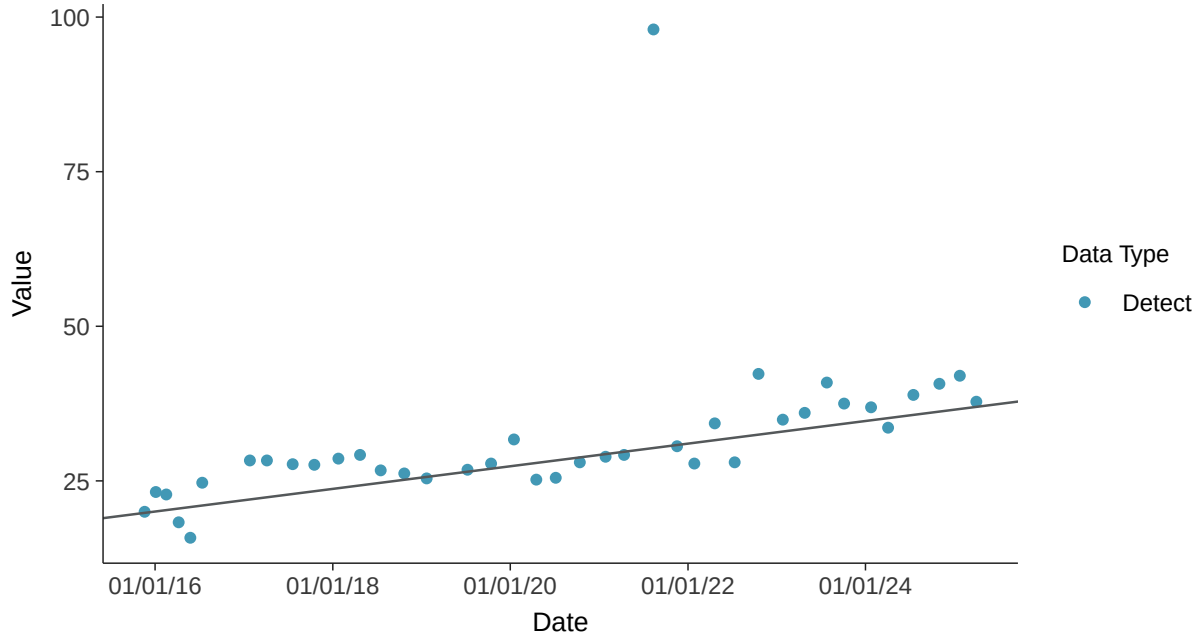
Normal Q-Q plot

Lithium, MW-4 (ug/L)



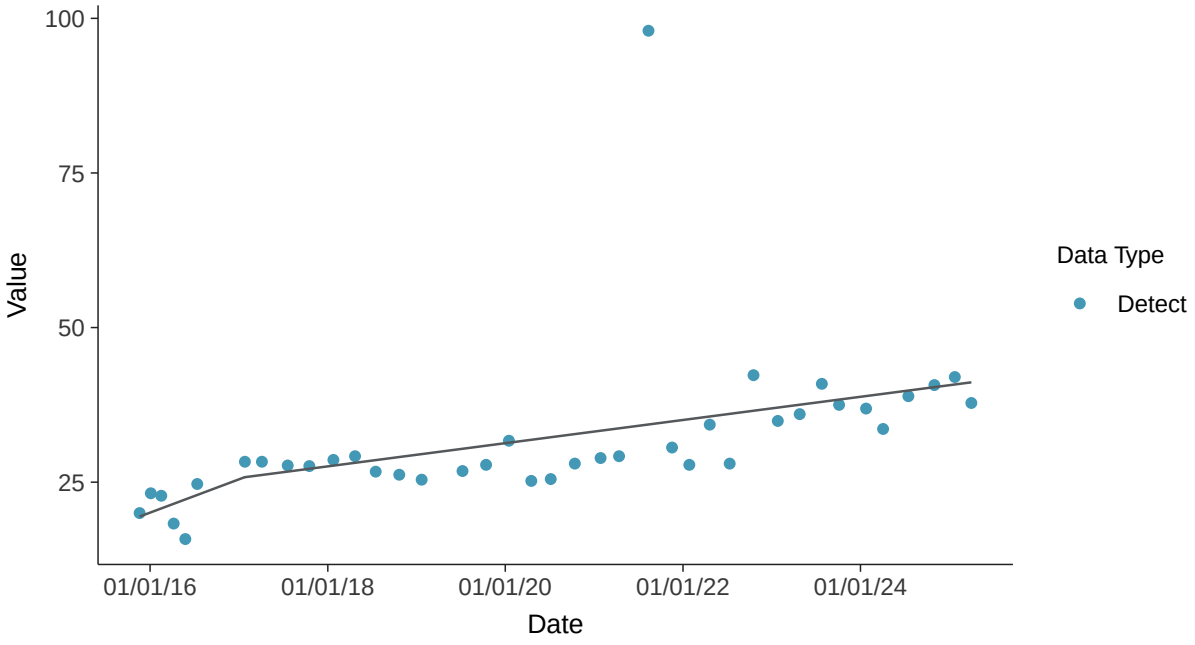
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Lithium, MW-4 (ug/L)



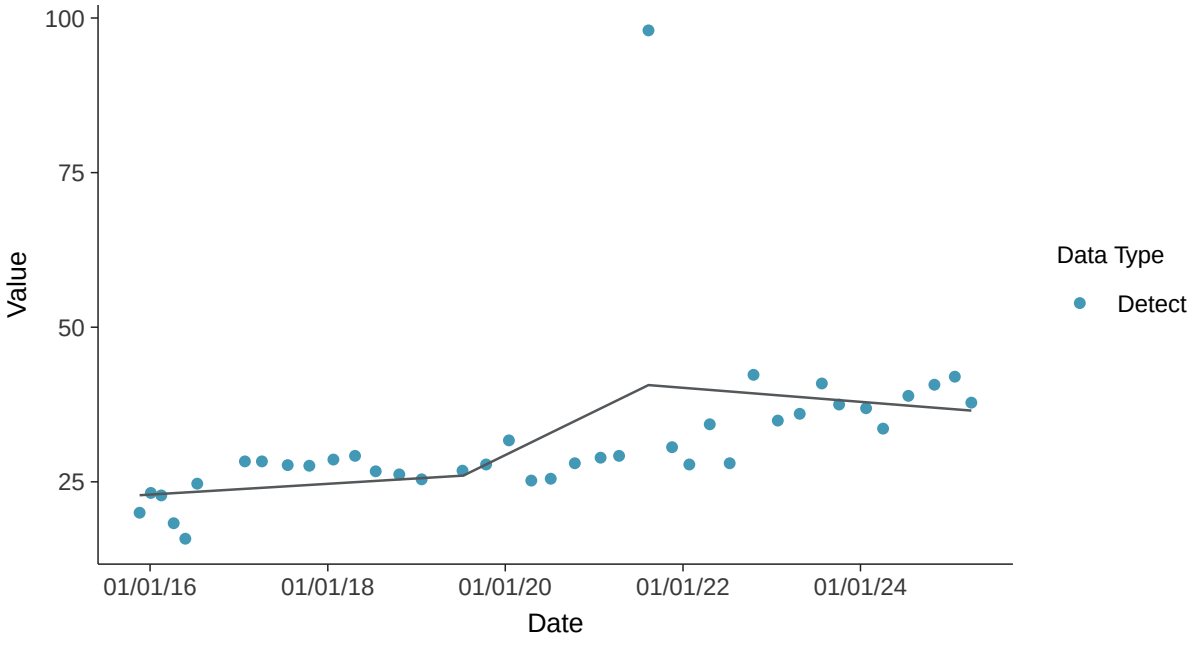
Trend Regression: Piecewise Linear-Linear

Lithium, MW-4 (ug/L)



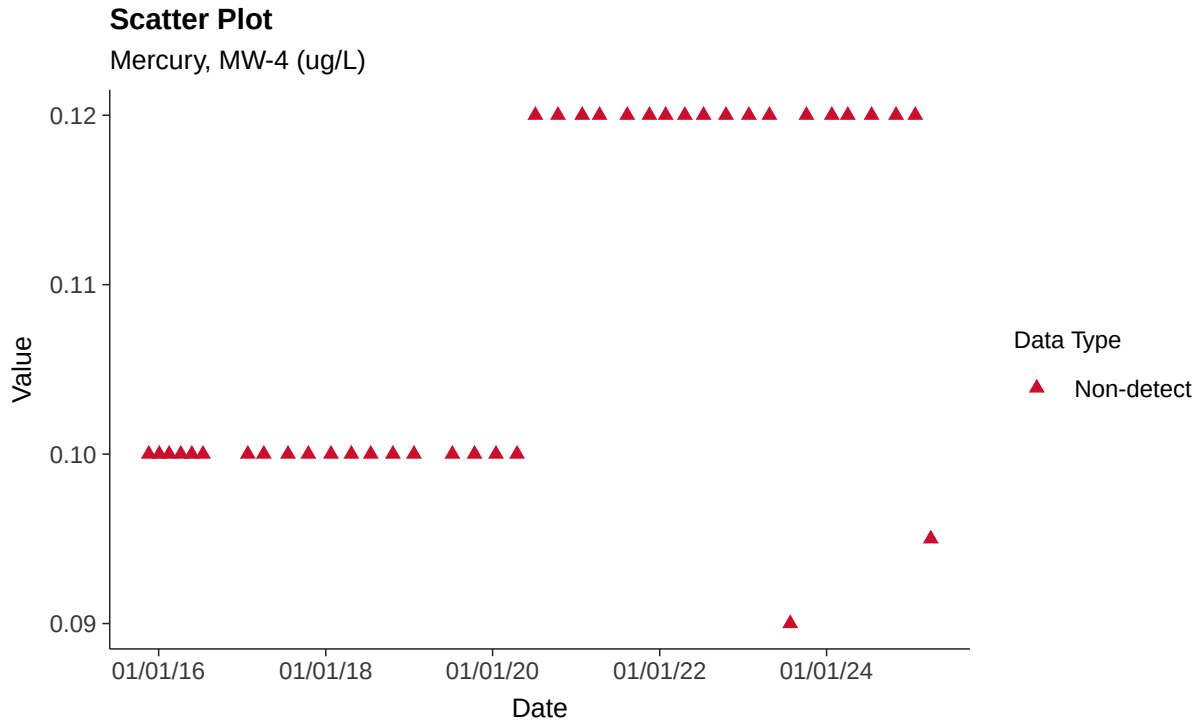
Trend Regression: Piecewise Linear-Linear-Linear

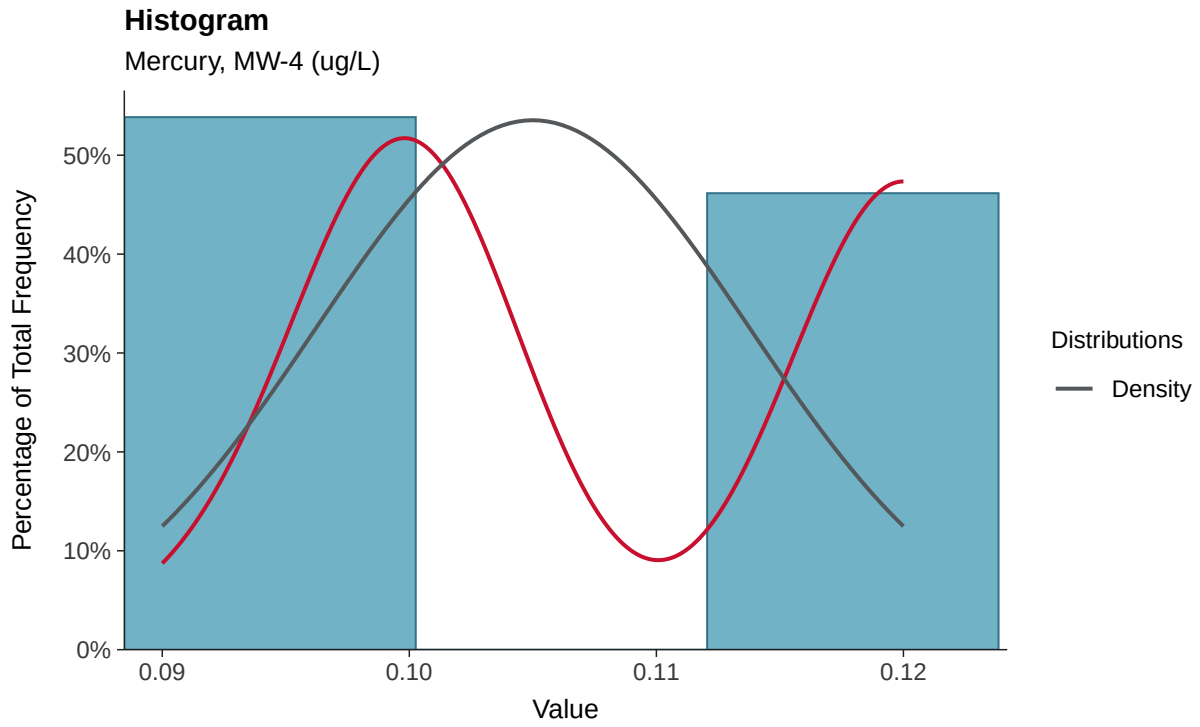
Lithium, MW-4 (ug/L)



App. IV: Mercury, MW-4

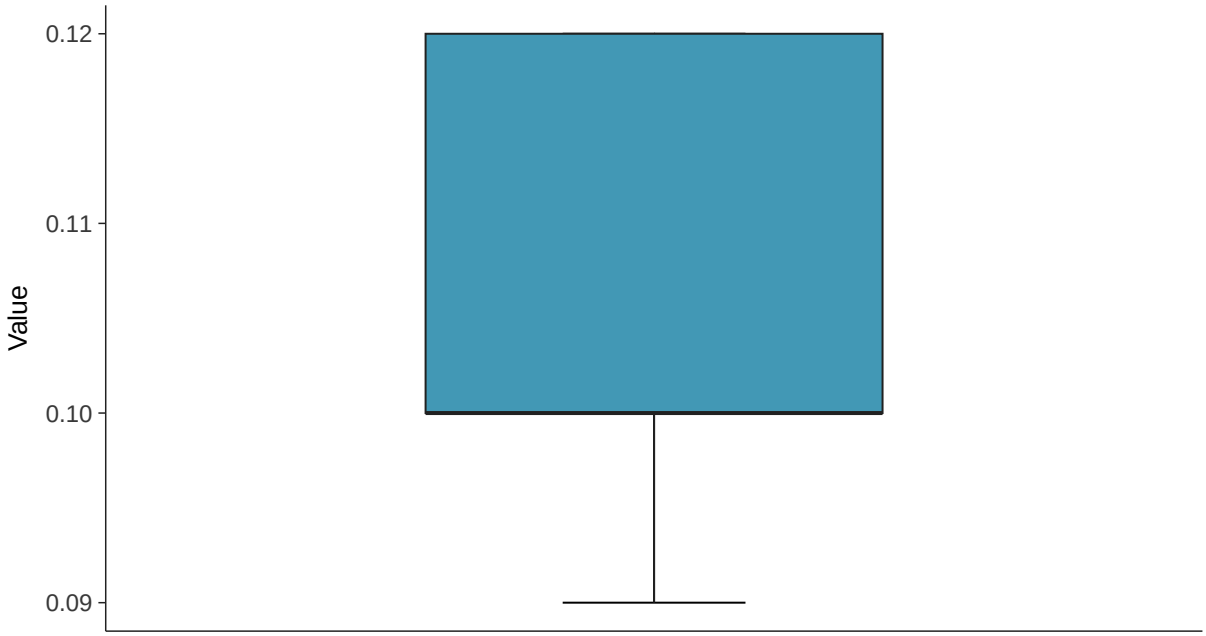
ID: 04_03_115





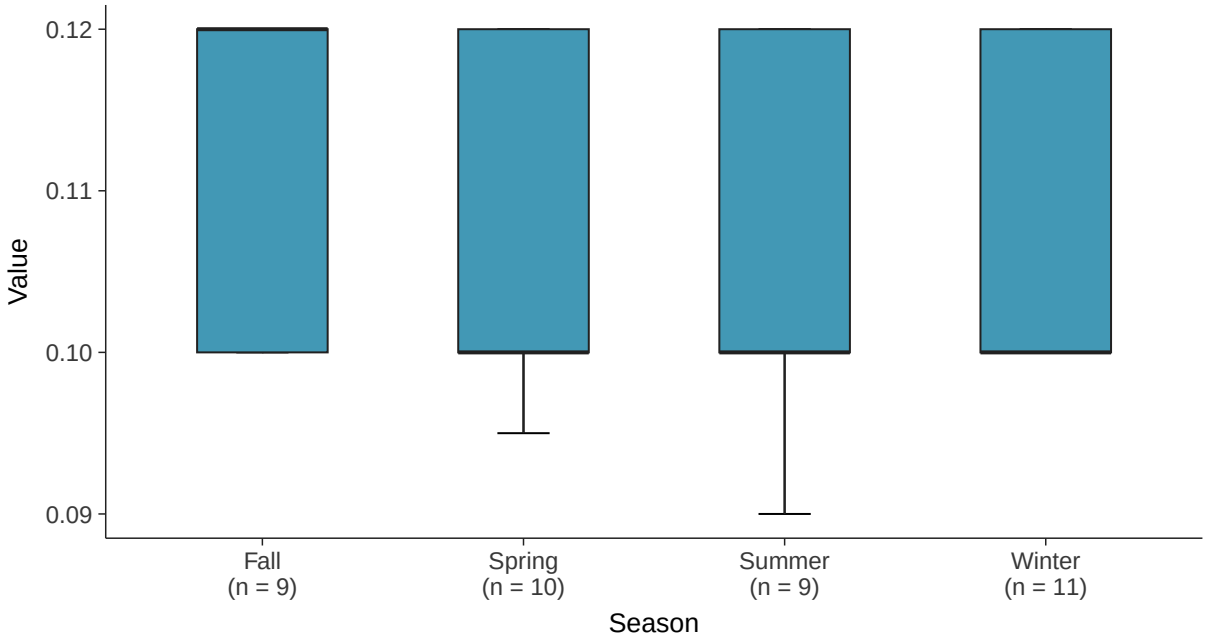
Boxplot

Mercury, MW-4 (ug/L)



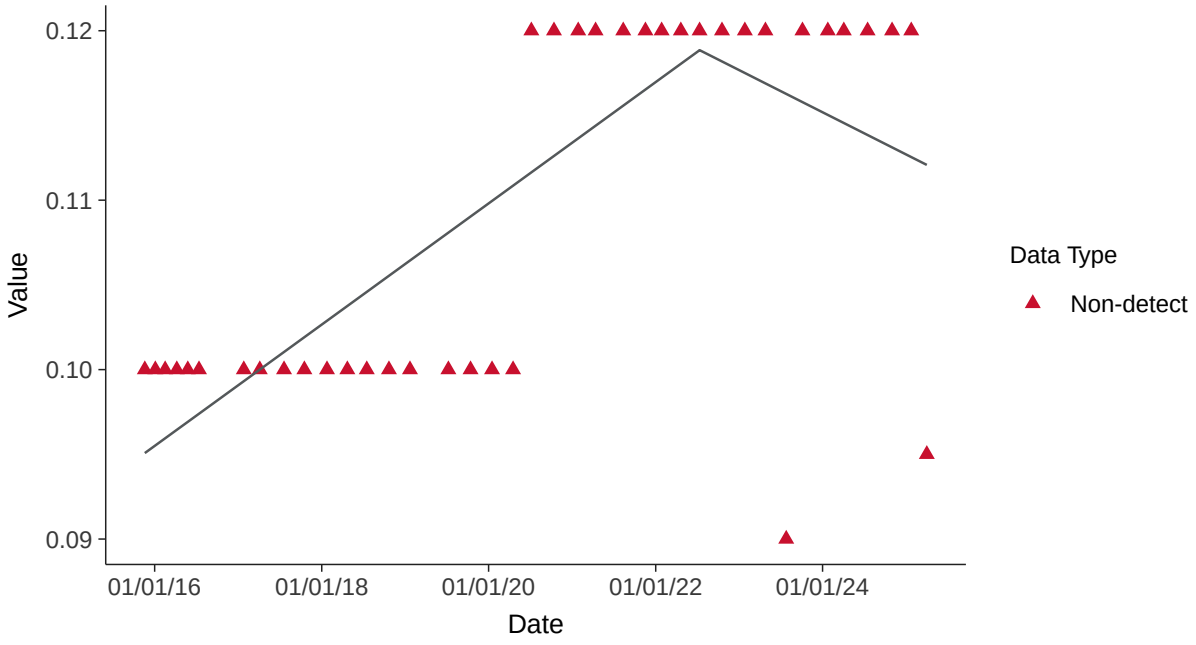
Boxplot by Season

Mercury, MW-4 (ug/L)



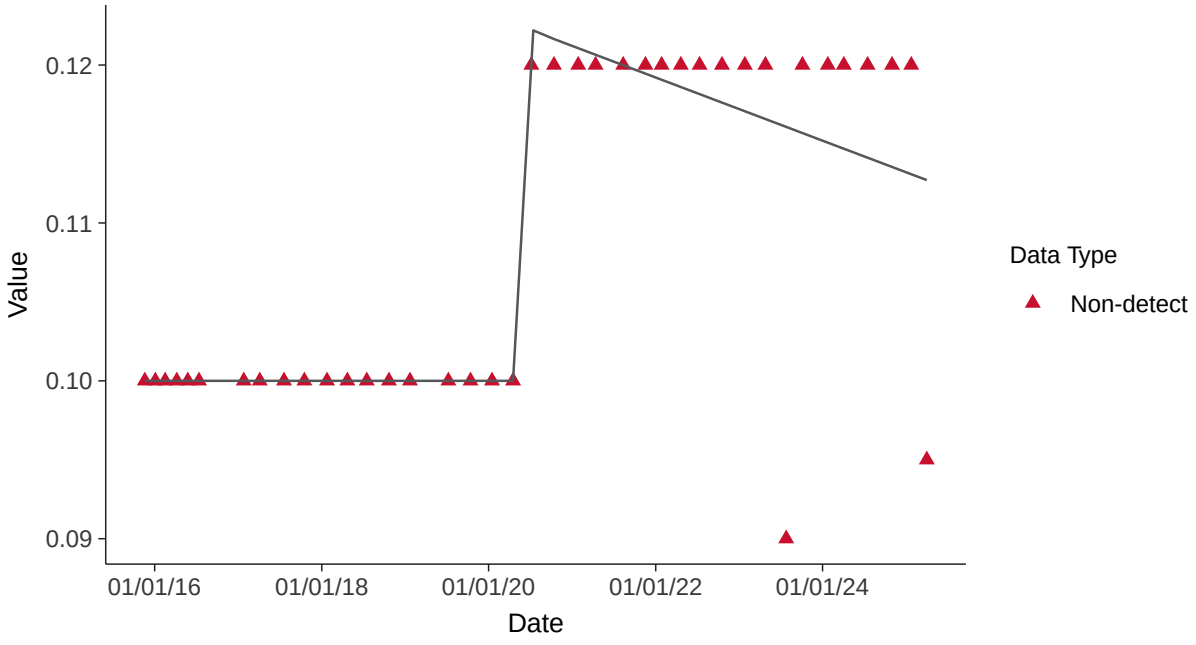
Trend Regression: Piecewise Linear-Linear

Mercury, MW-4 (ug/L)



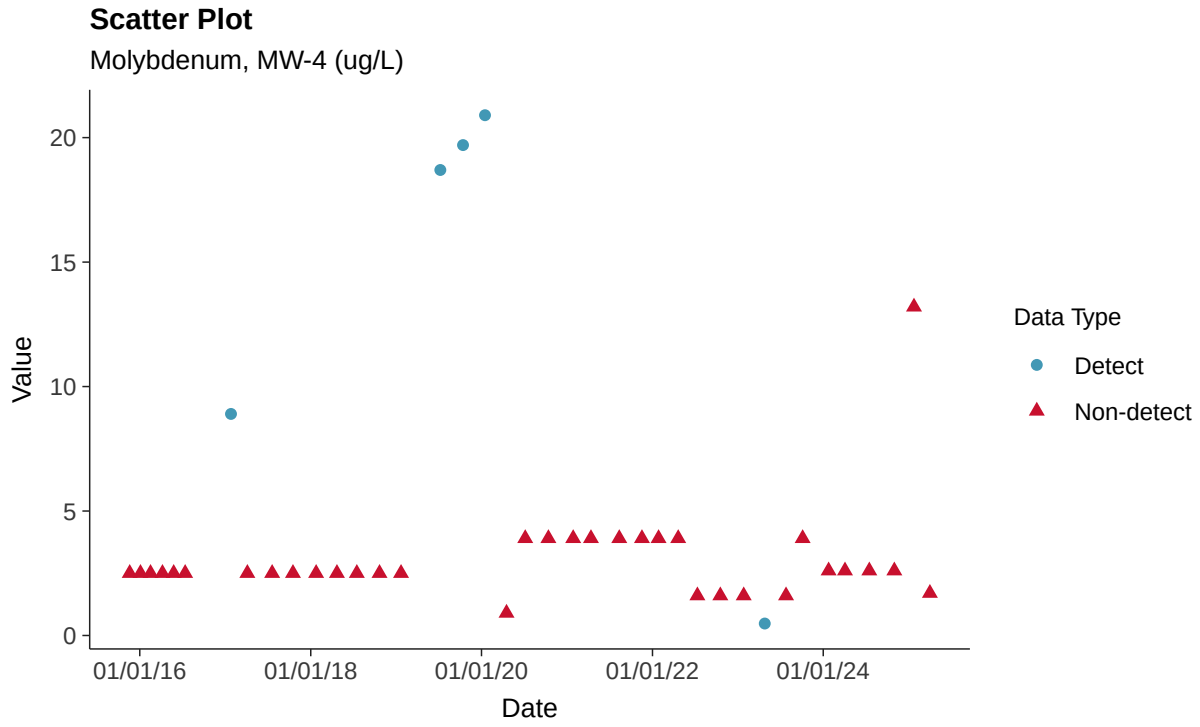
Trend Regression: Piecewise Linear-Linear-Linear

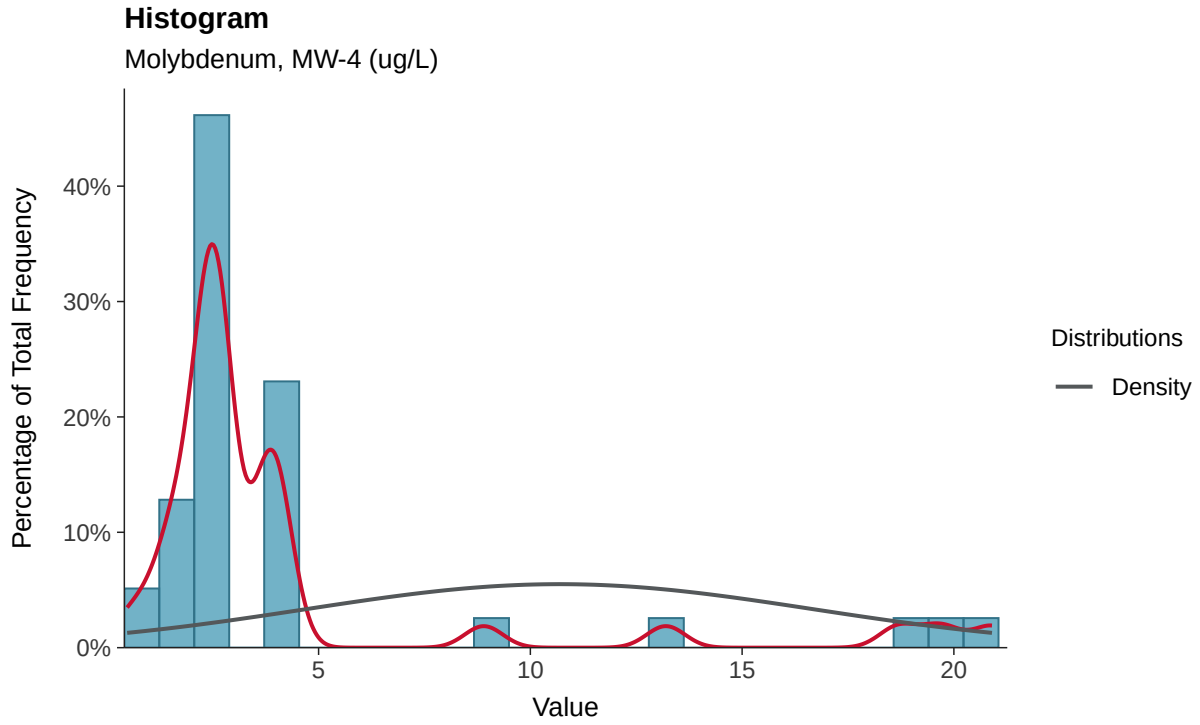
Mercury, MW-4 (ug/L)



App. IV: Molybdenum, MW-4

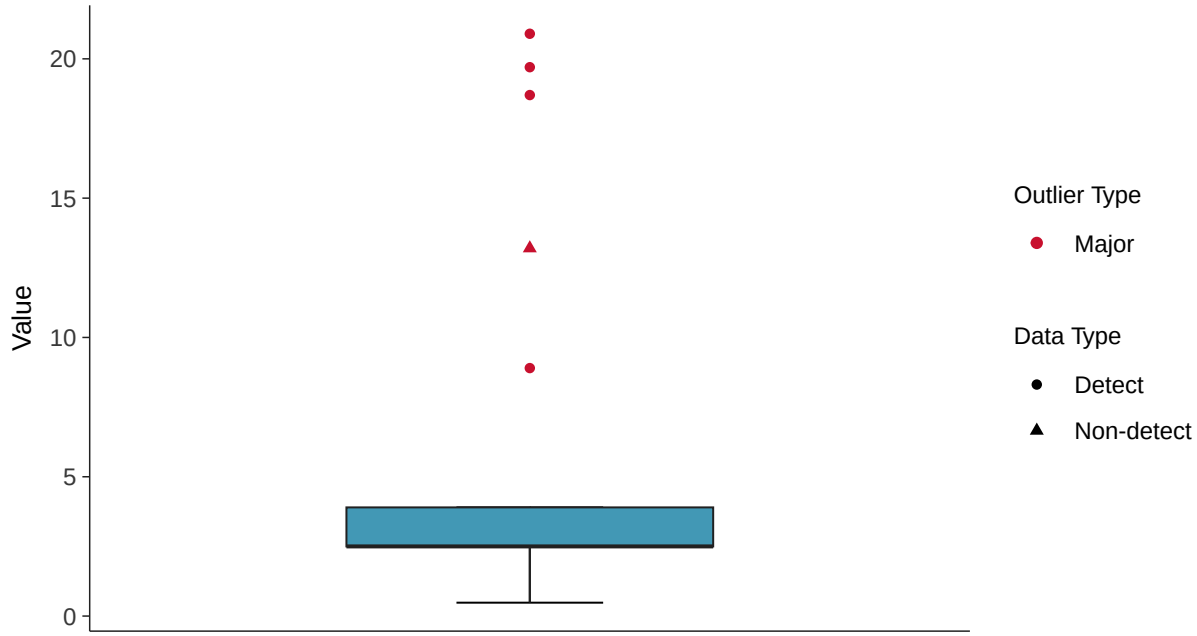
ID: 04_03_116





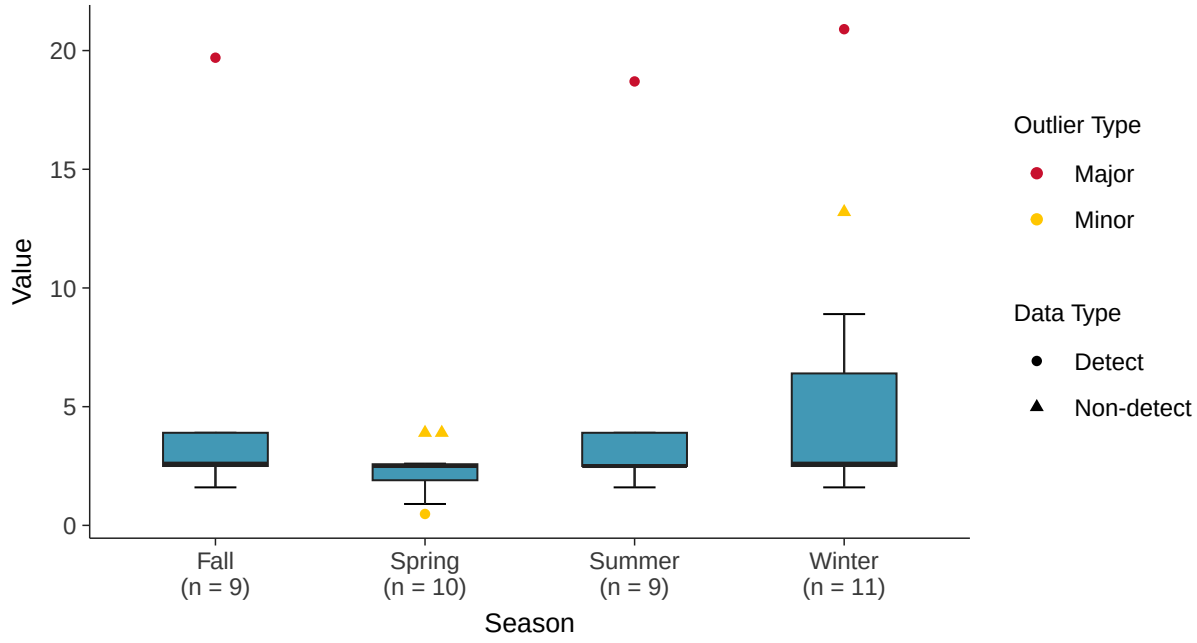
Boxplot

Molybdenum, MW-4 (ug/L)



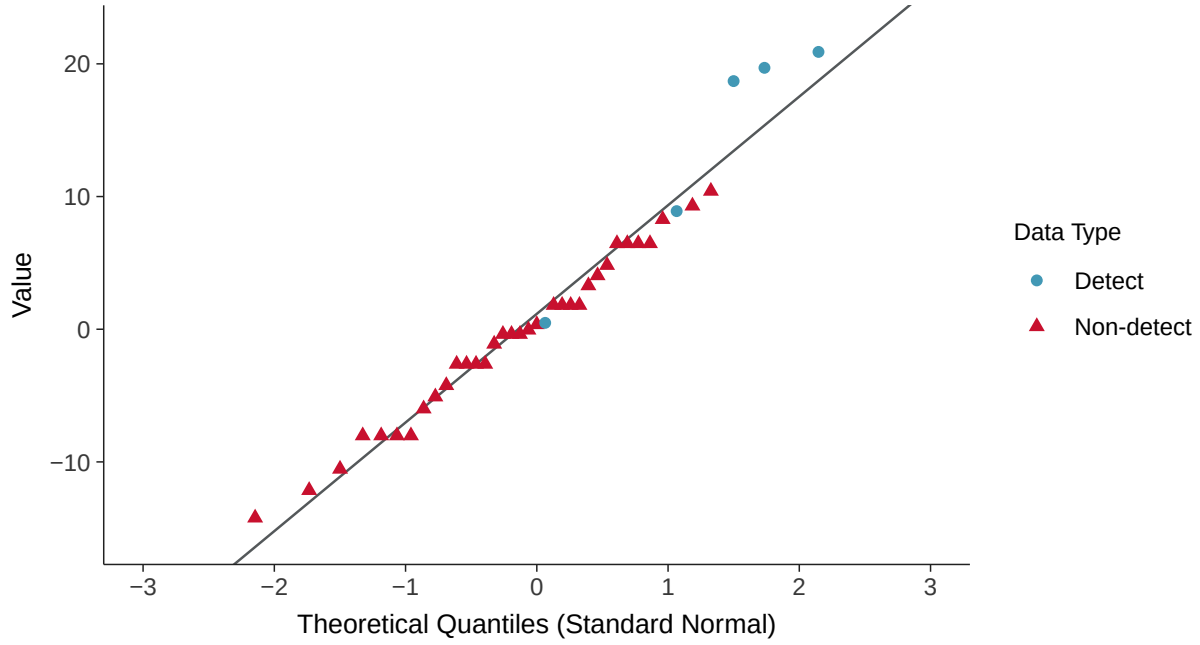
Boxplot by Season

Molybdenum, MW-4 (ug/L)



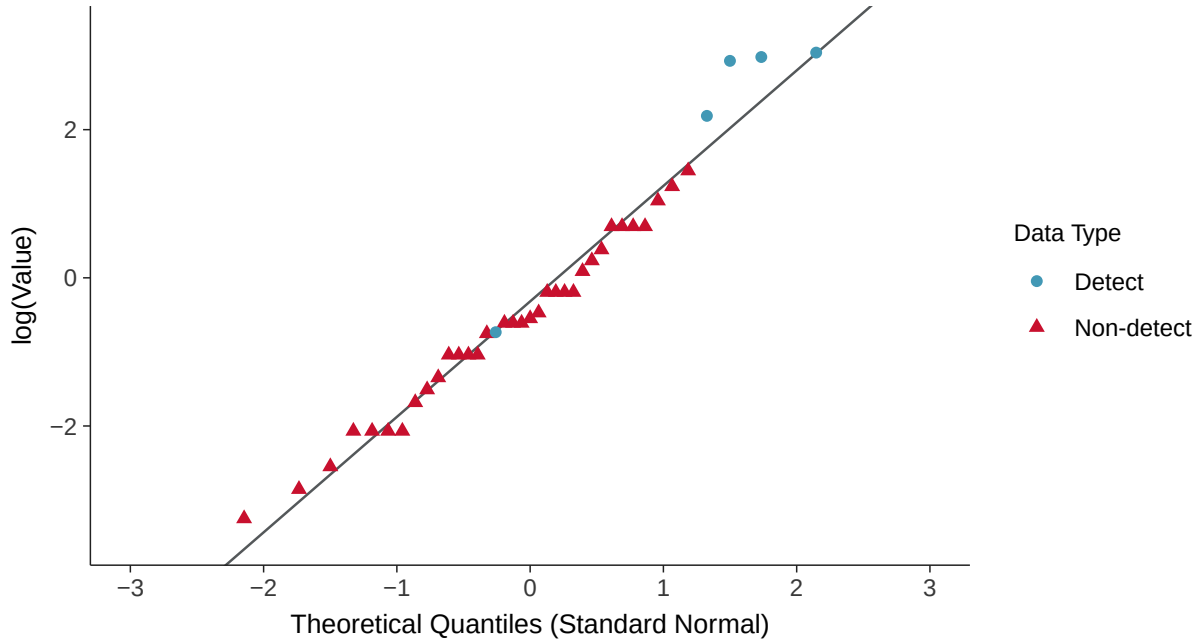
Normal Q-Q plot using ROS Imputed Estimates

Molybdenum, MW-4 (ug/L)



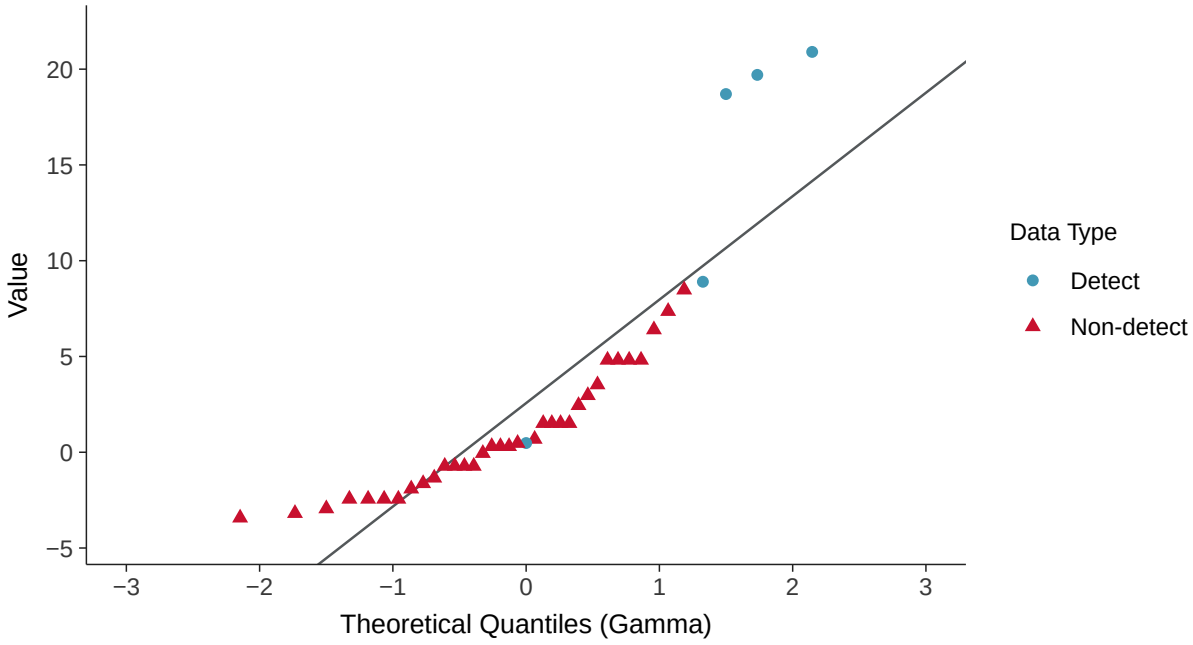
Lognormal Q-Q plot using ROS Imputed Estimates

Molybdenum, MW-4 (ug/L)



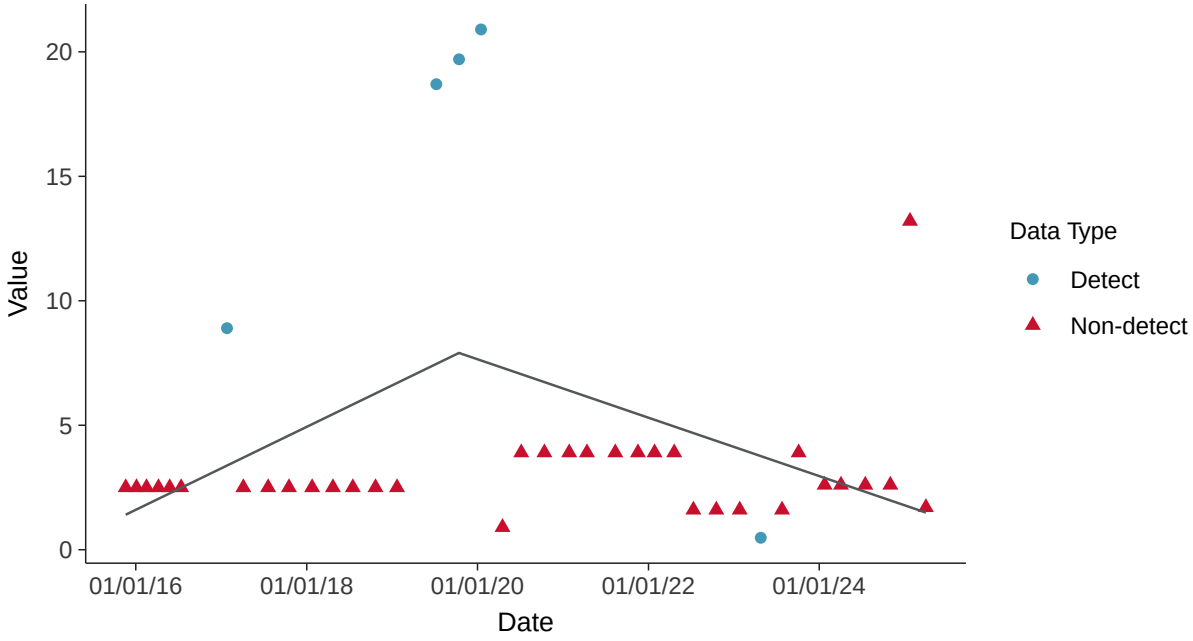
Gamma Q-Q plot using ROS Imputed Estimates

Molybdenum, MW-4 (ug/L)



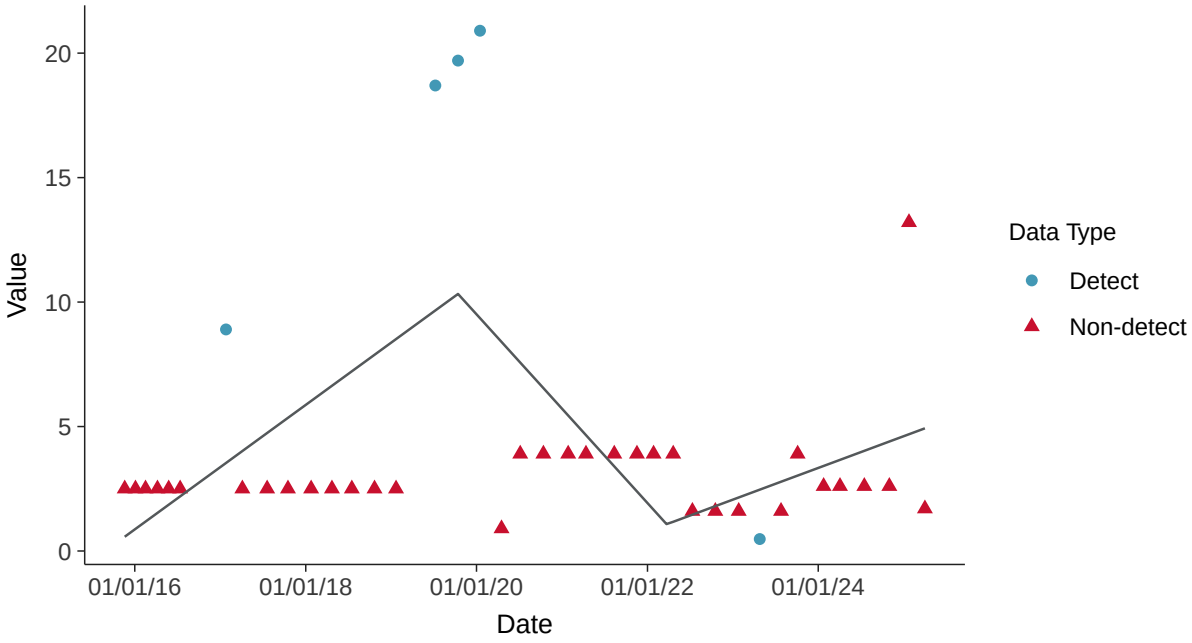
Trend Regression: Piecewise Linear-Linear

Molybdenum, MW-4 (ug/L)



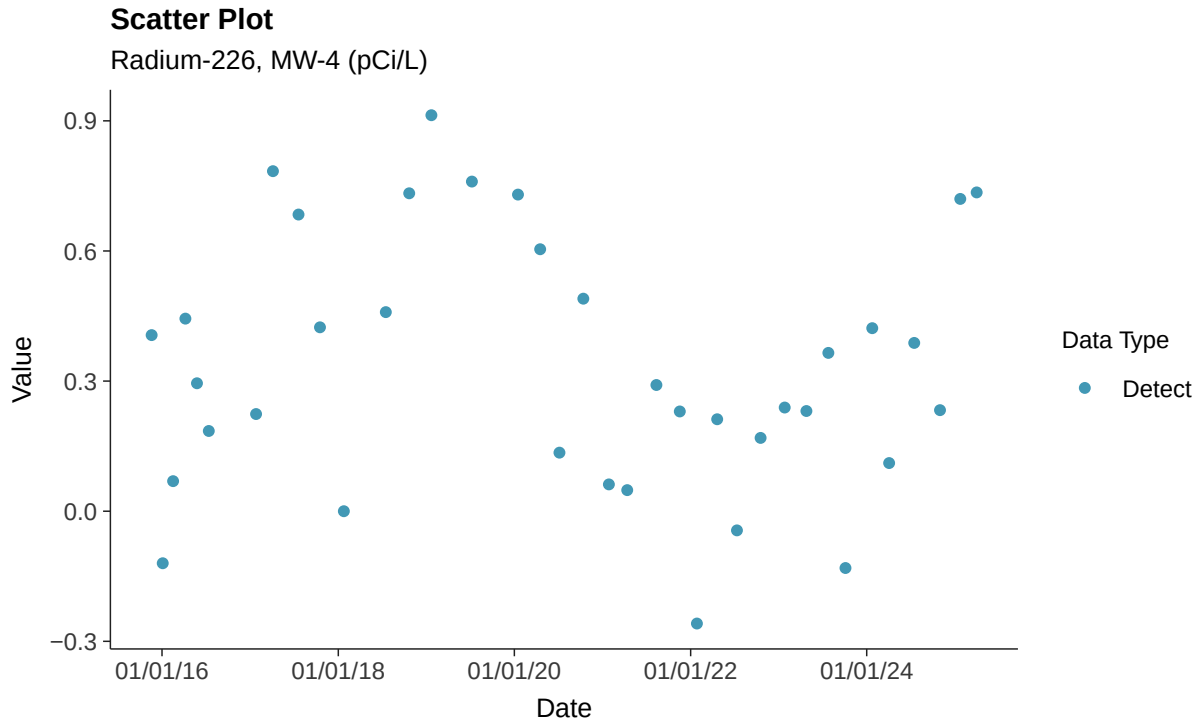
Trend Regression: Piecewise Linear-Linear-Linear

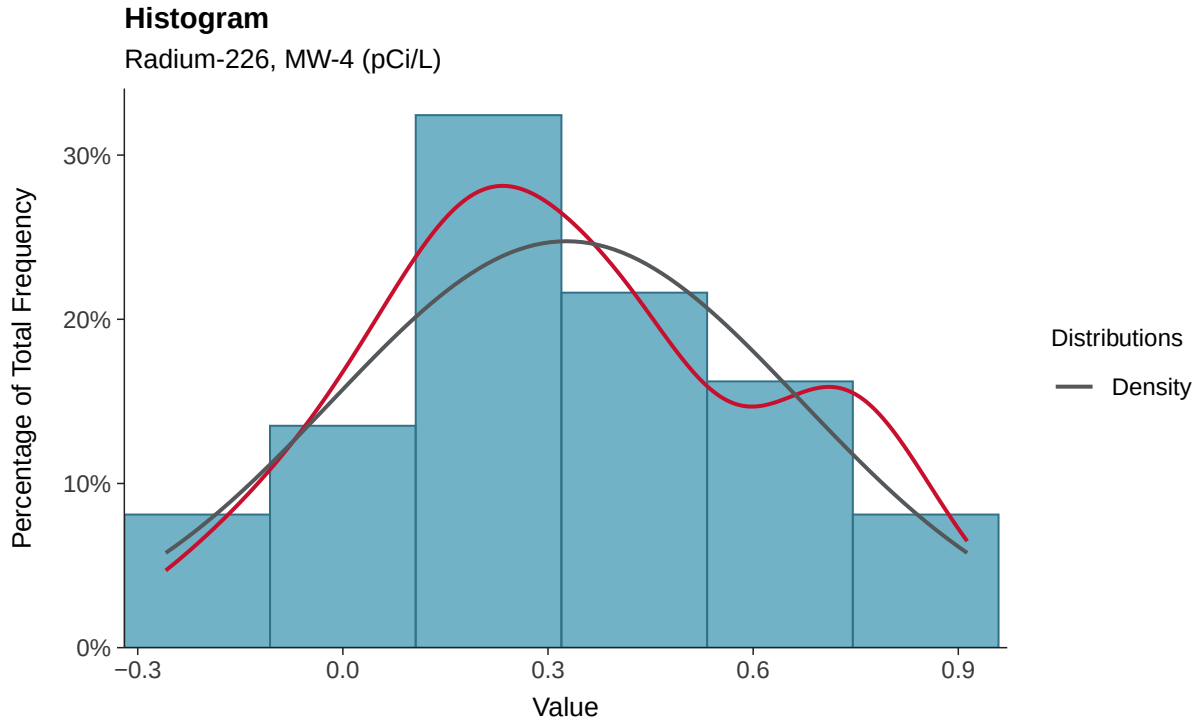
Molybdenum, MW-4 (ug/L)



App. IV: Radium-226, MW-4

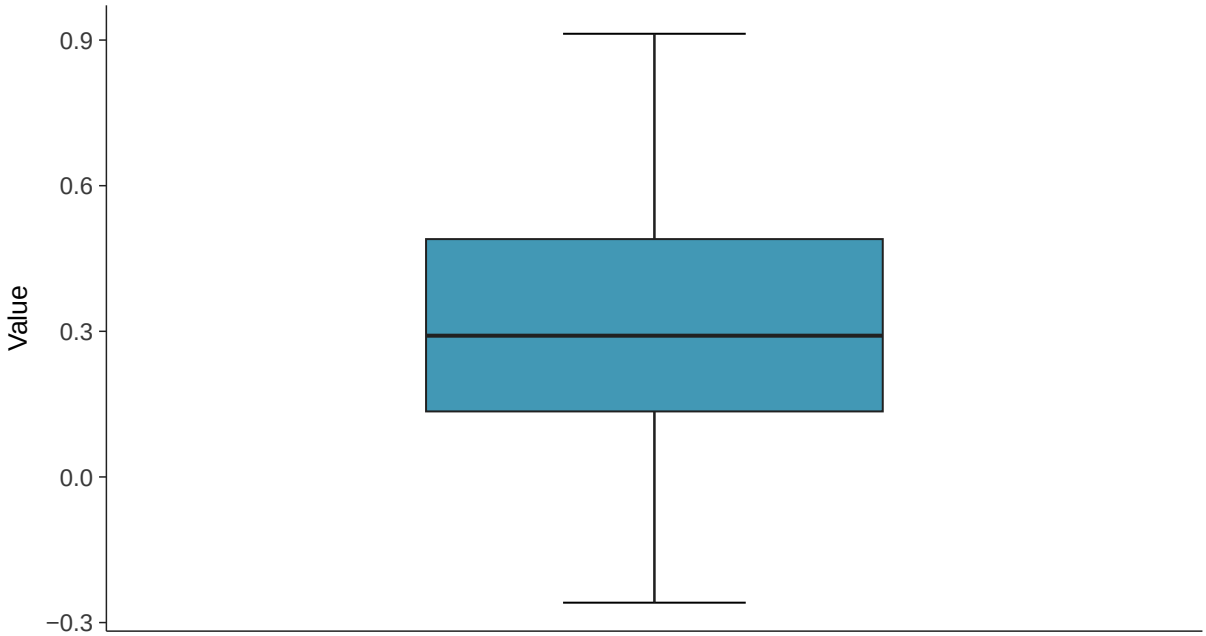
ID: 04_03_119





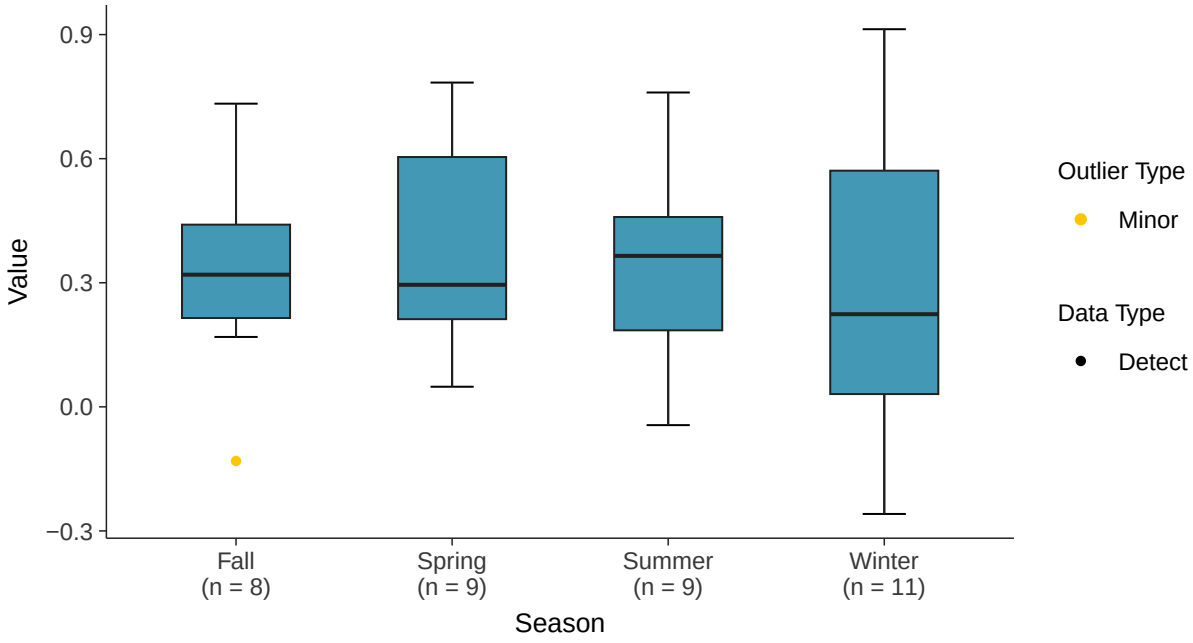
Boxplot

Radium-226, MW-4 (pCi/L)



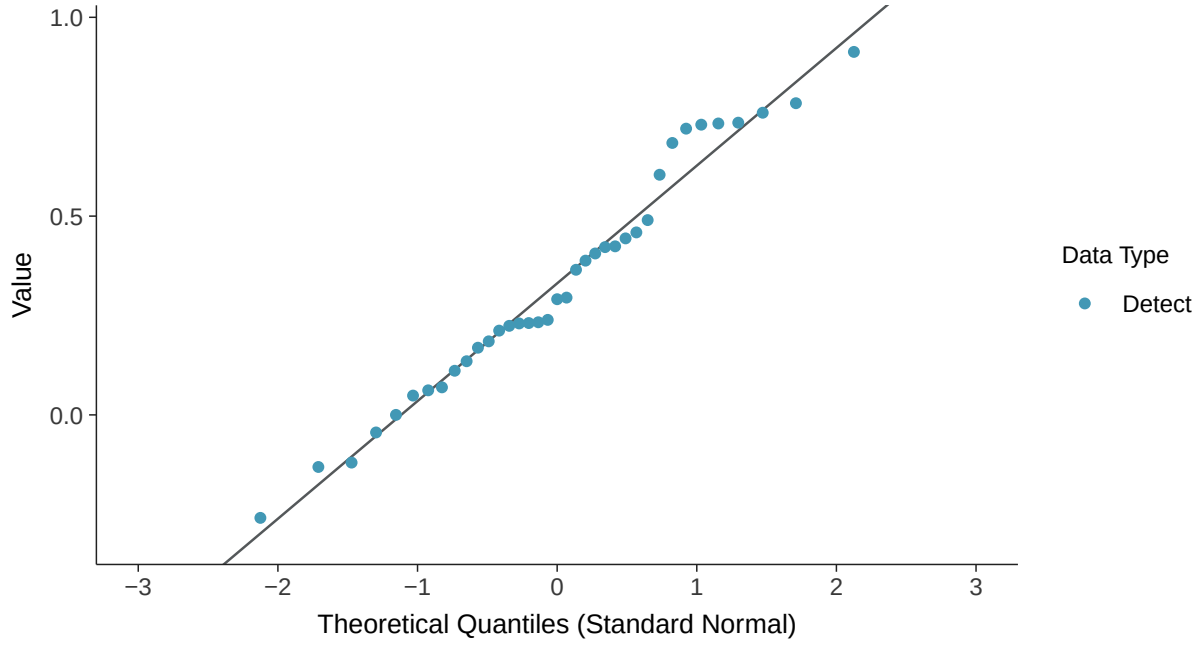
Boxplot by Season

Radium-226, MW-4 (pCi/L)



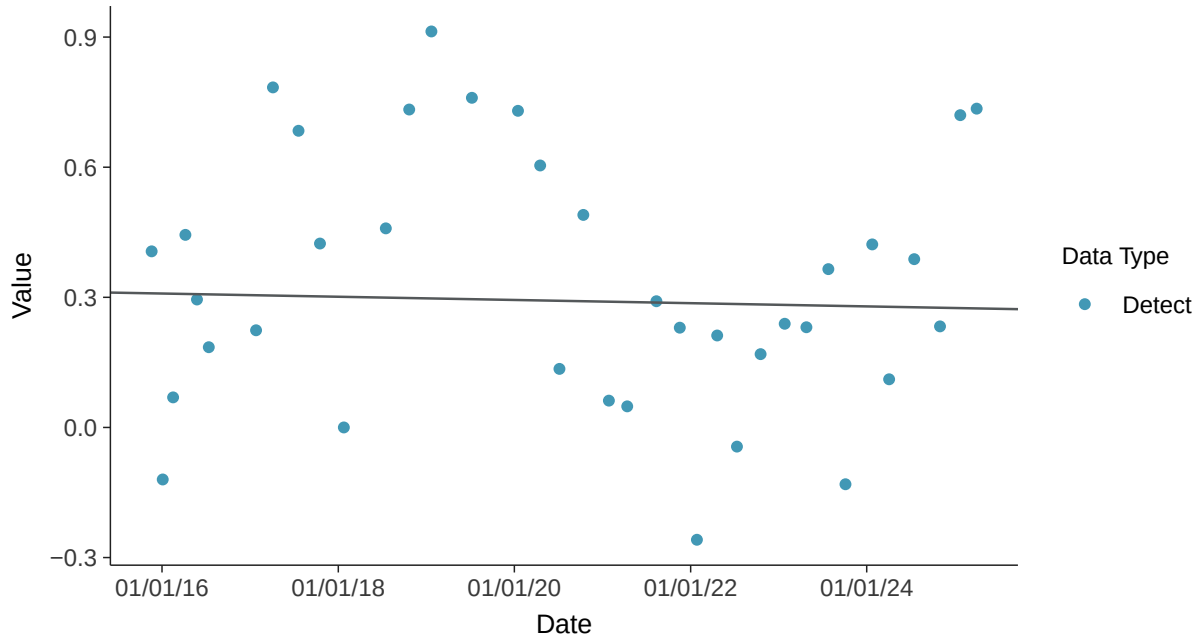
Normal Q-Q plot

Radium-226, MW-4 (pCi/L)



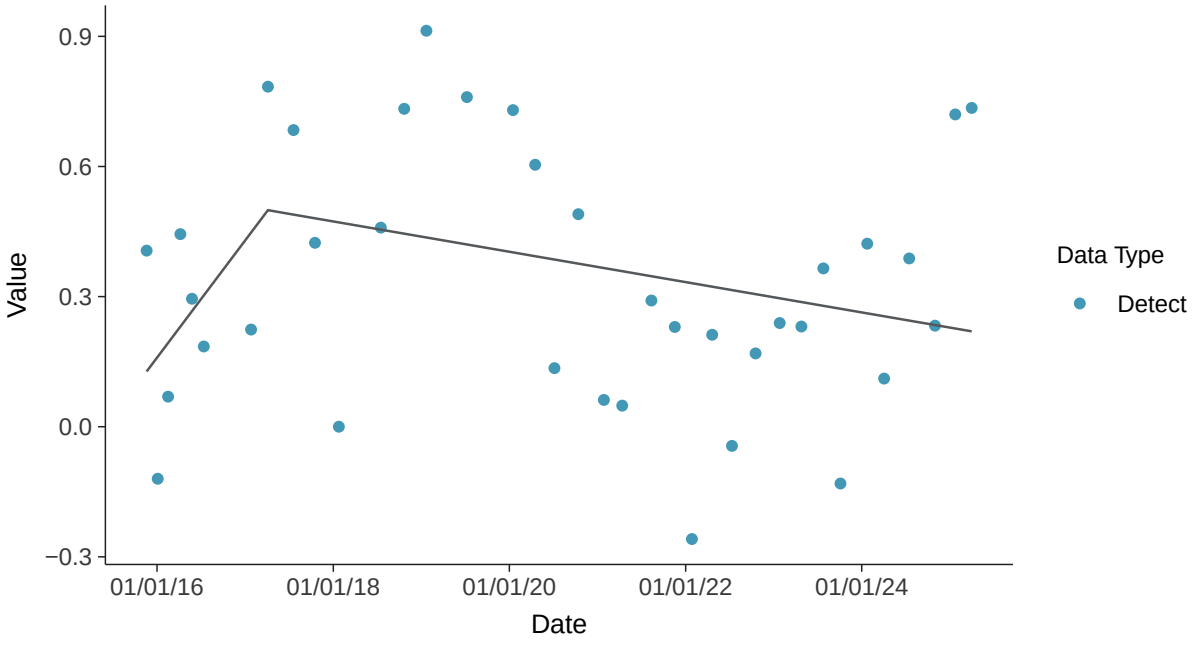
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Radium-226, MW-4 (pCi/L)



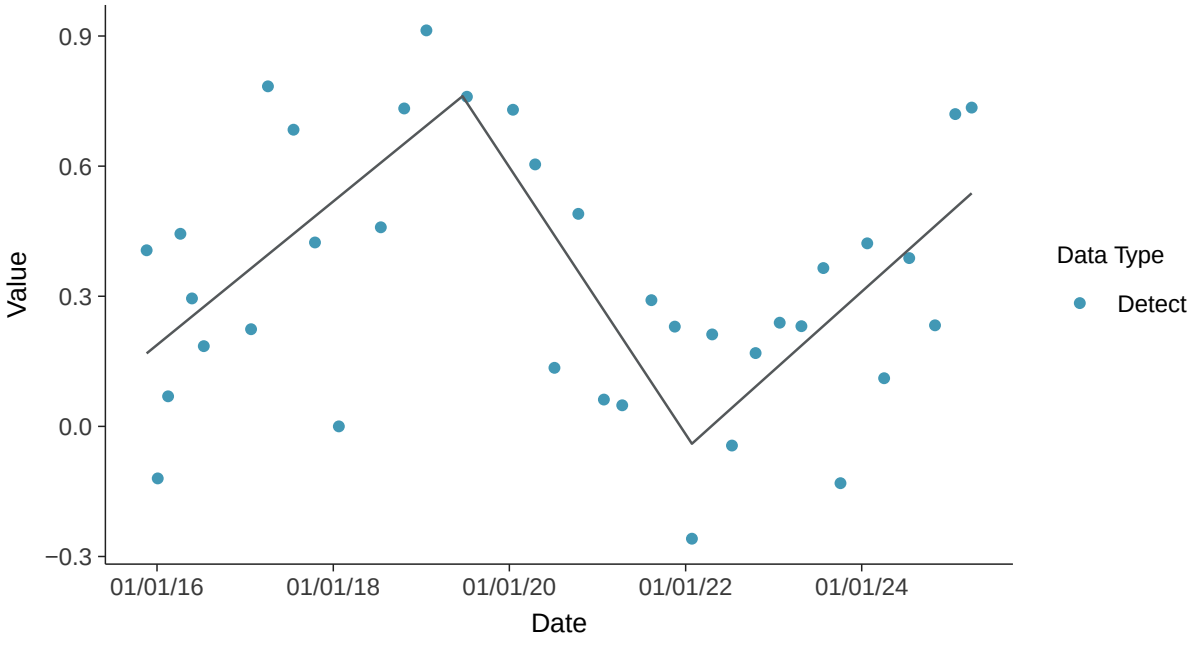
Trend Regression: Piecewise Linear-Linear

Radium-226, MW-4 (pCi/L)



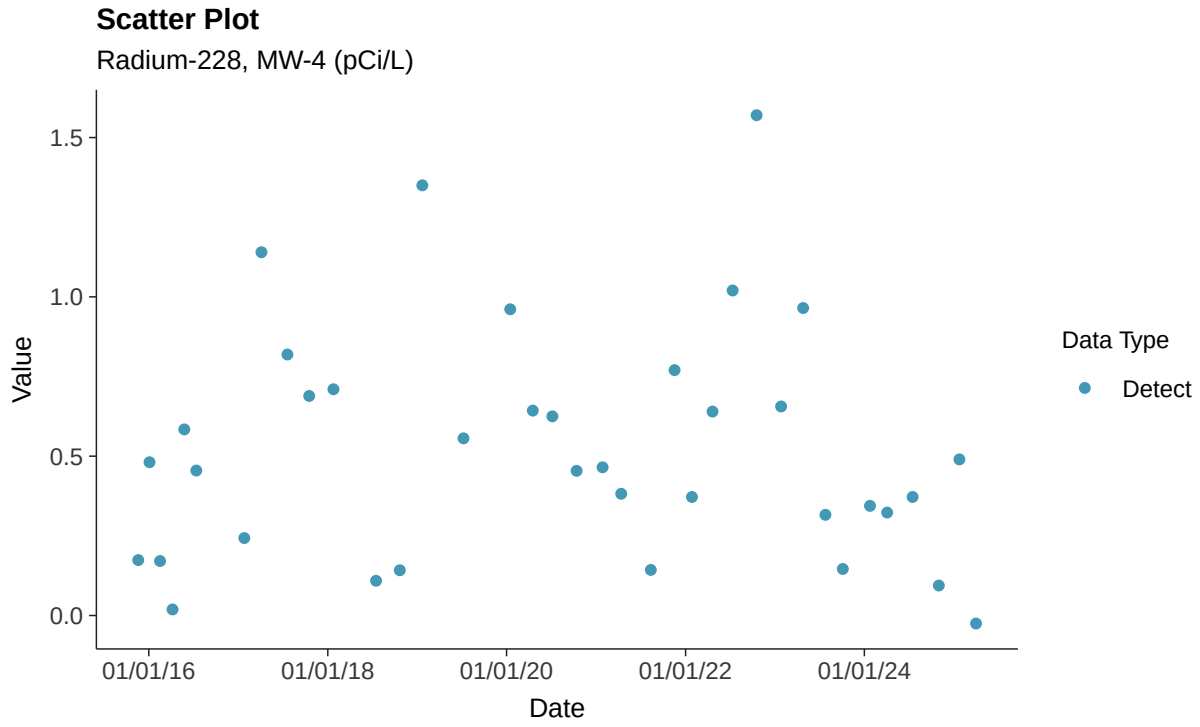
Trend Regression: Piecewise Linear-Linear-Linear

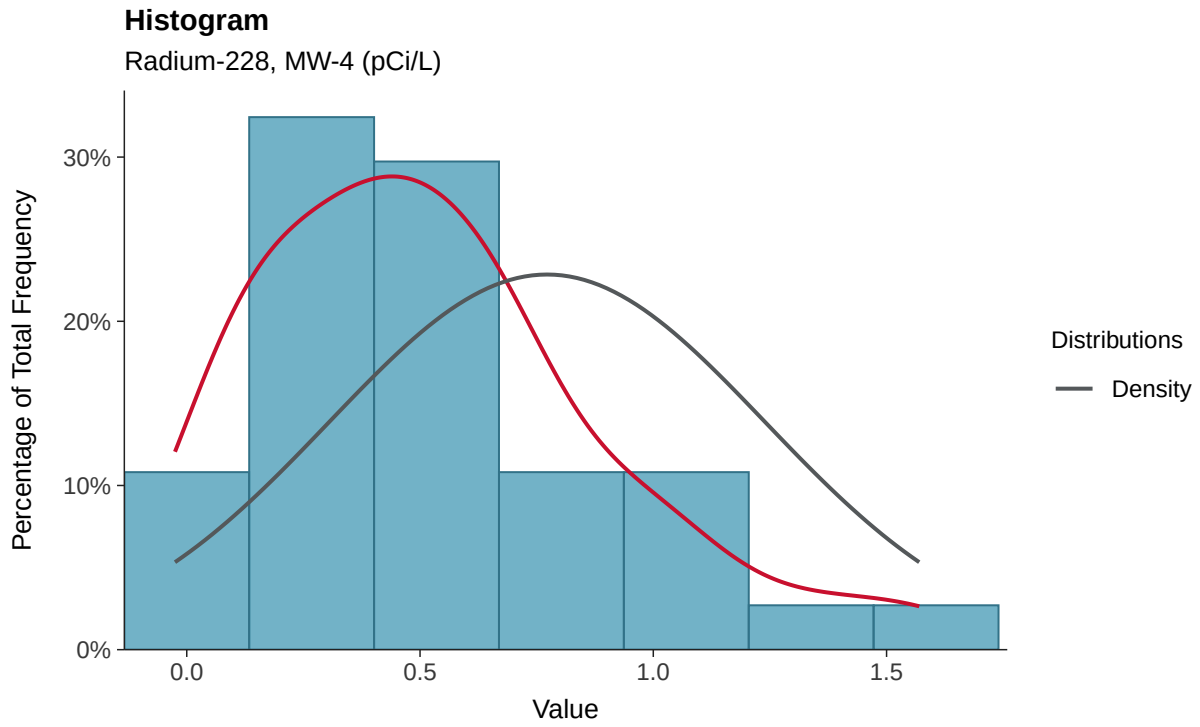
Radium-226, MW-4 (pCi/L)



App. IV: Radium-228, MW-4

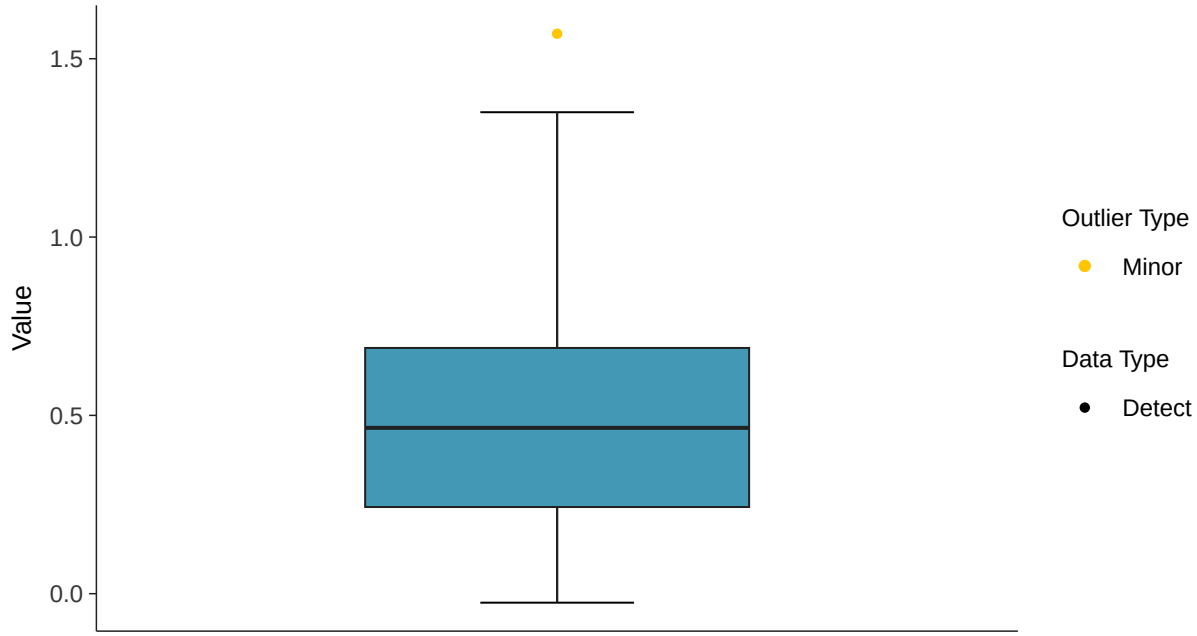
ID: 04_03_120





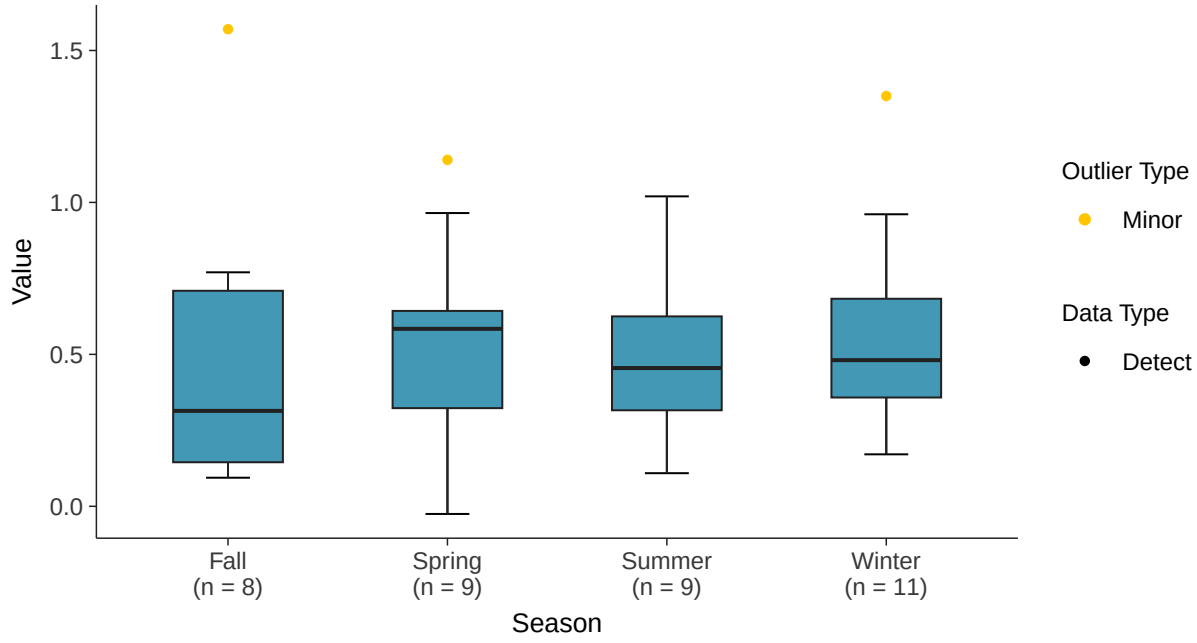
Boxplot

Radium-228, MW-4 (pCi/L)



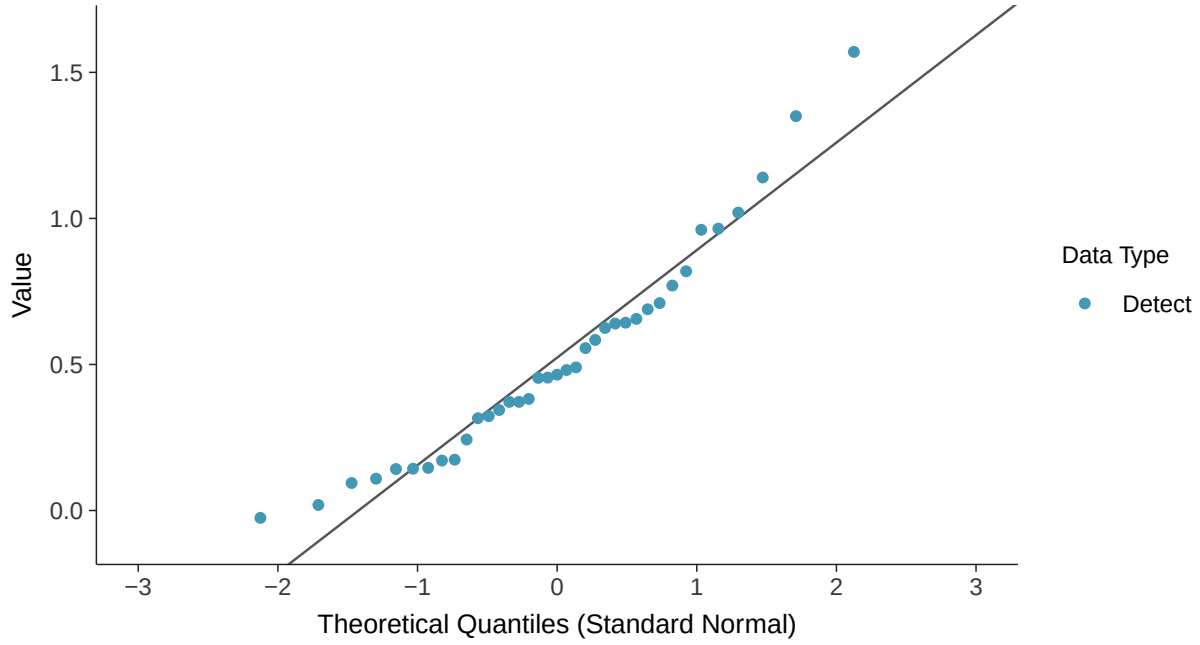
Boxplot by Season

Radium-228, MW-4 (pCi/L)



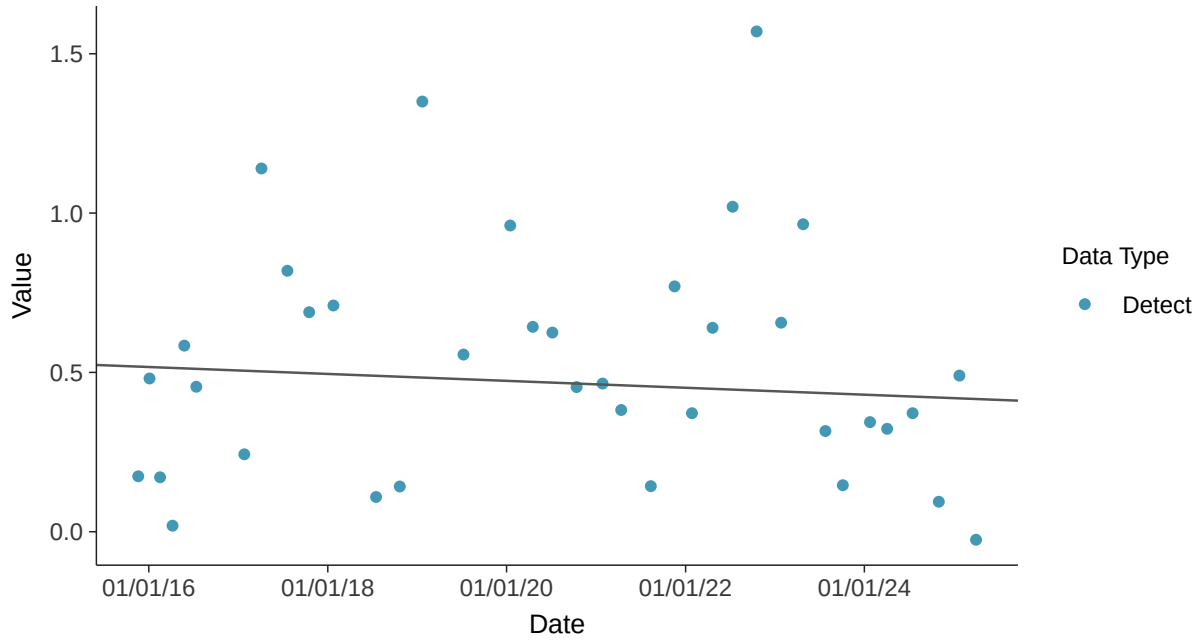
Normal Q-Q plot

Radium-228, MW-4 (pCi/L)



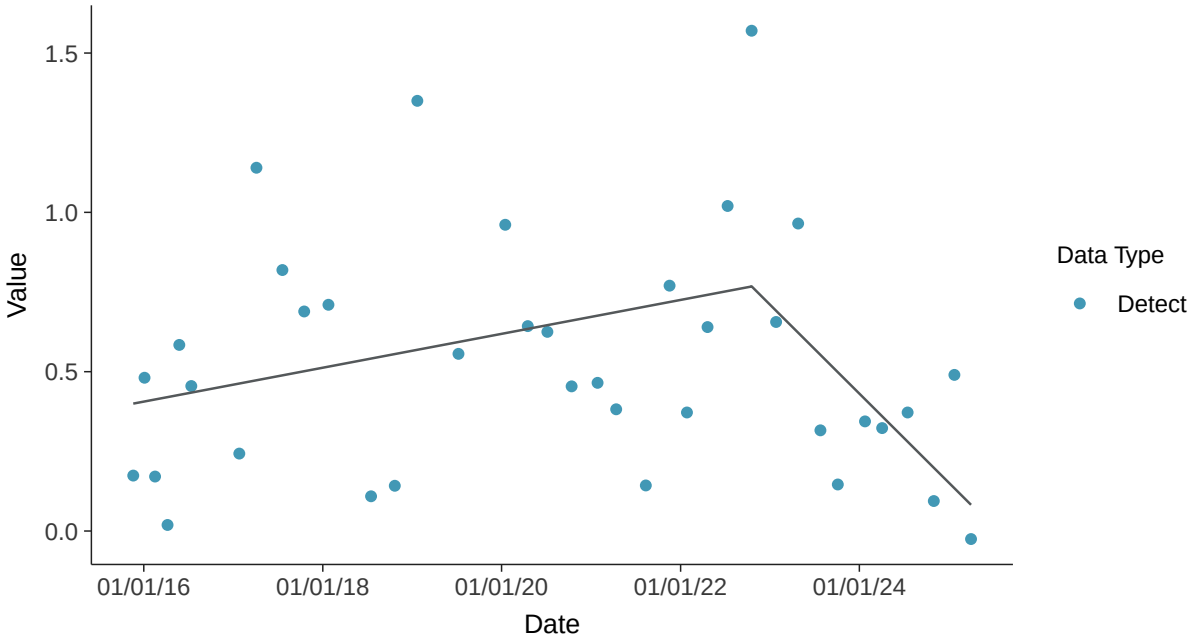
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Radium-228, MW-4 (pCi/L)



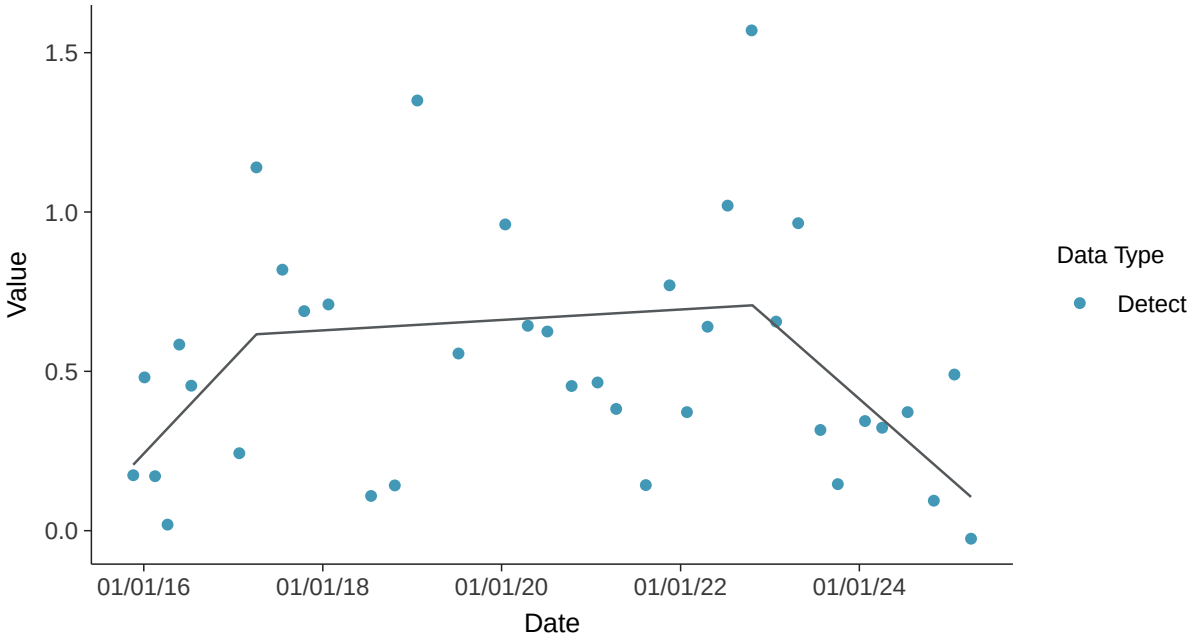
Trend Regression: Piecewise Linear-Linear

Radium-228, MW-4 (pCi/L)



Trend Regression: Piecewise Linear-Linear-Linear

Radium-228, MW-4 (pCi/L)

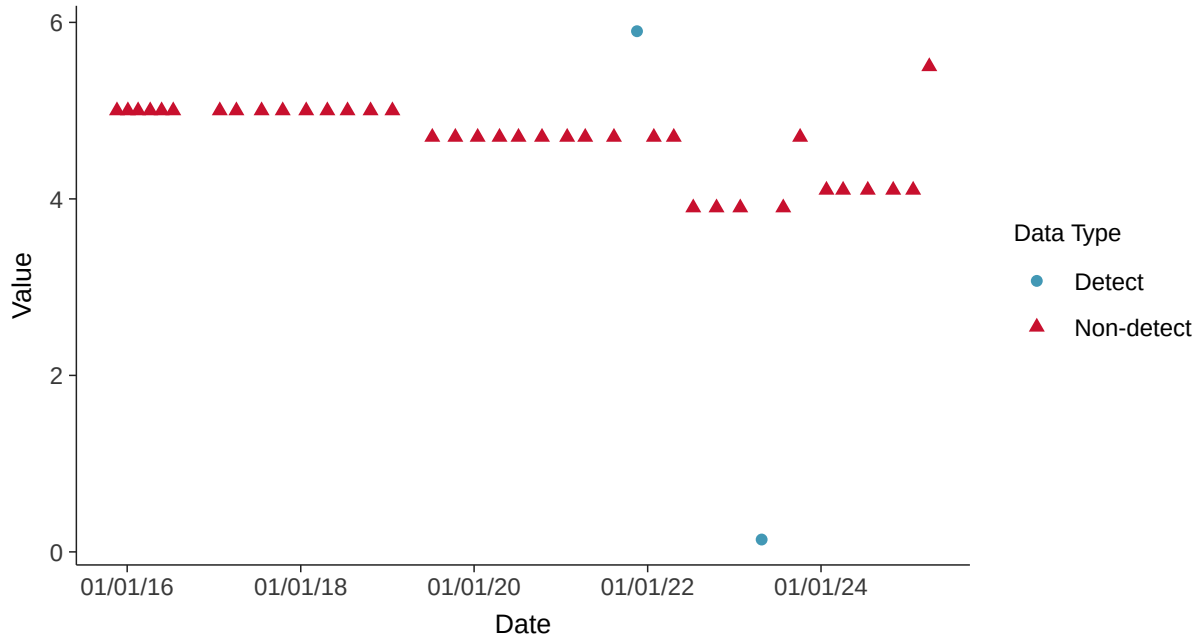


App. IV: Selenium, MW-4

ID: 04_03_121

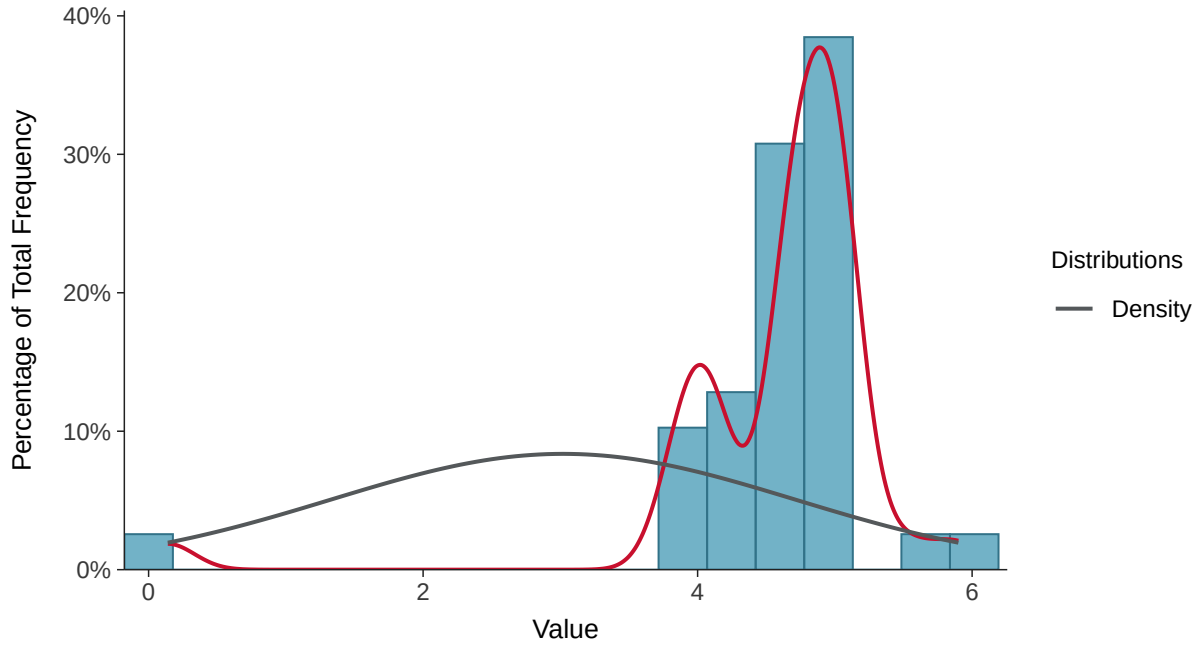
Scatter Plot

Selenium, MW-4 (ug/L)



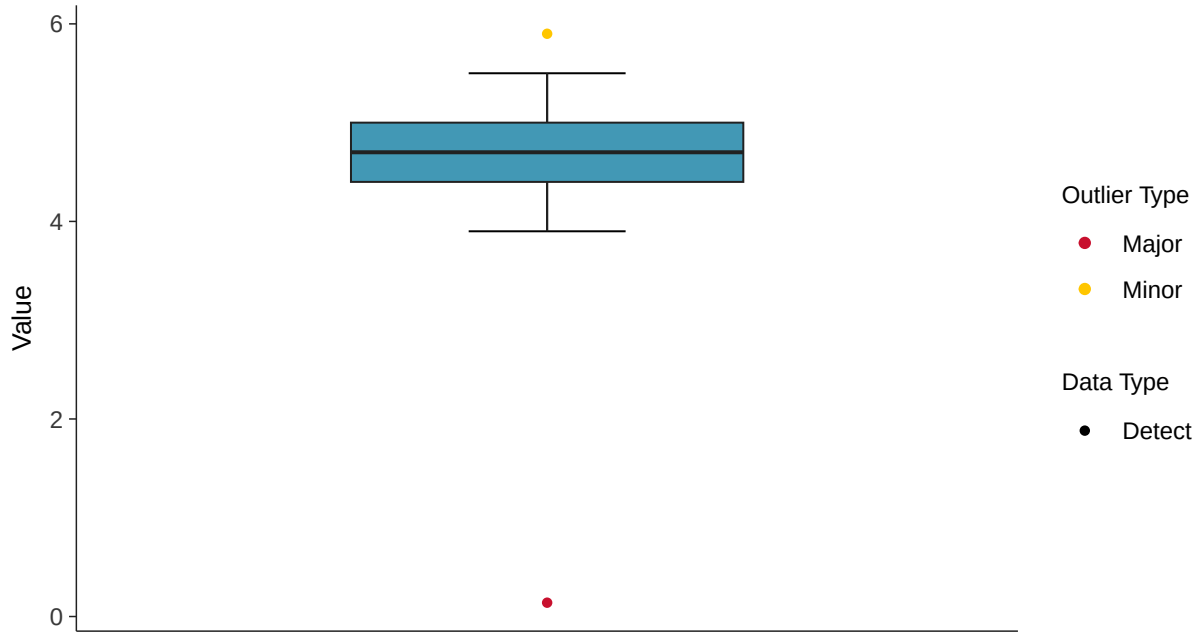
Histogram

Selenium, MW-4 (ug/L)



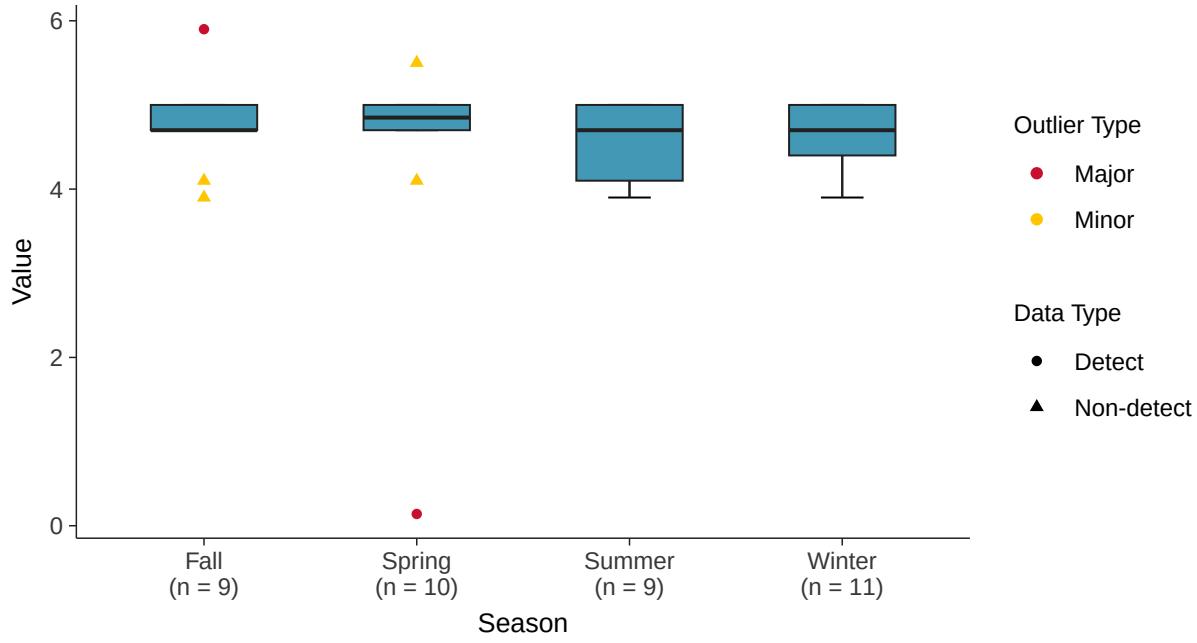
Boxplot

Selenium, MW-4 (ug/L)



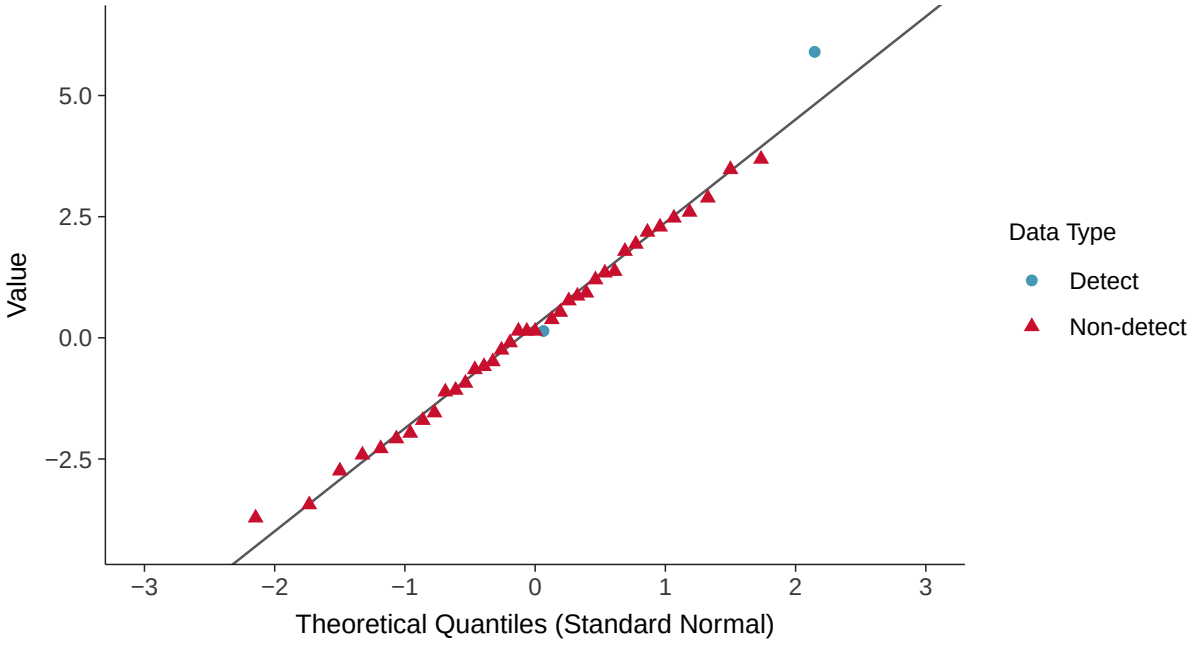
Boxplot by Season

Selenium, MW-4 (ug/L)



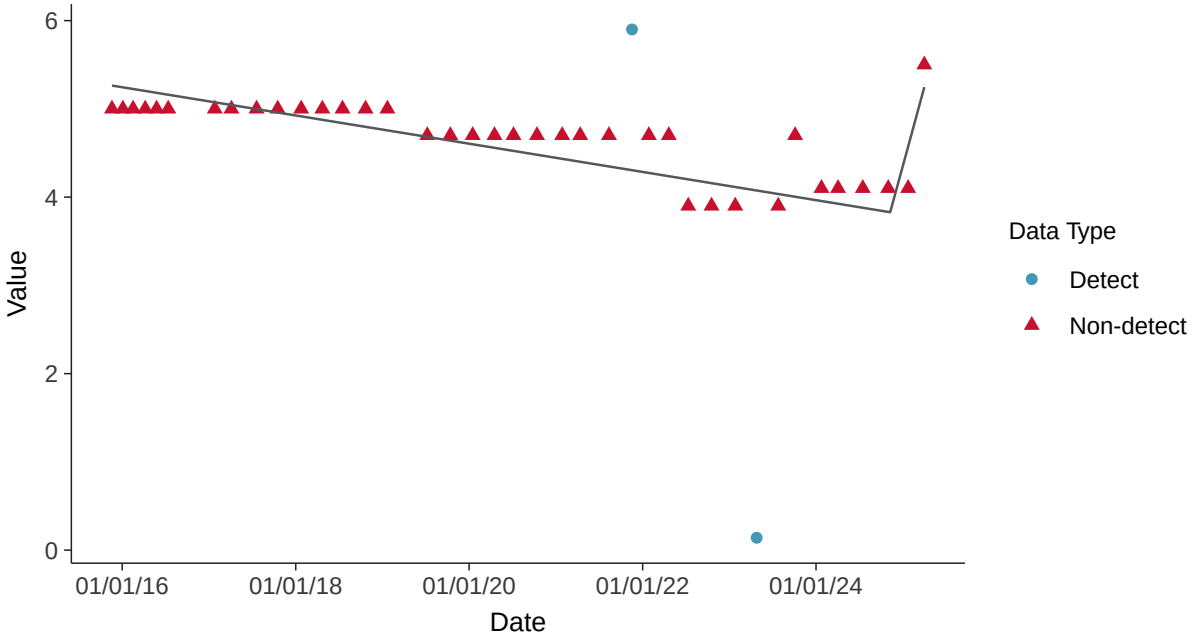
Normal Q-Q plot using ROS Imputed Estimates

Selenium, MW-4 (ug/L)



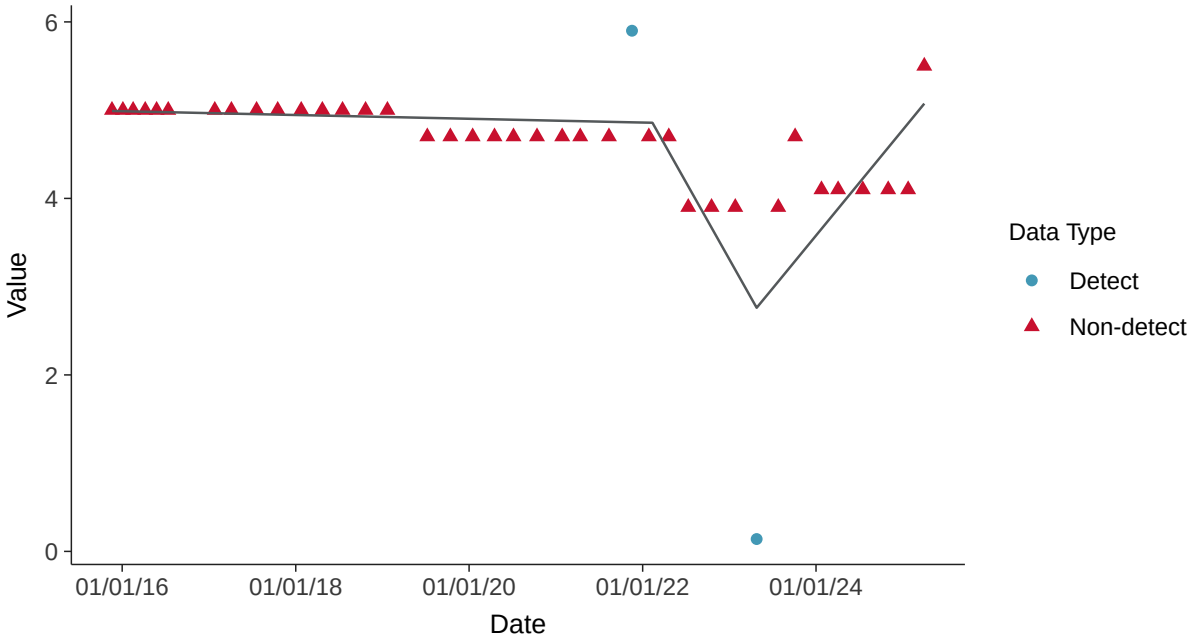
Trend Regression: Piecewise Linear-Linear

Selenium, MW-4 (ug/L)



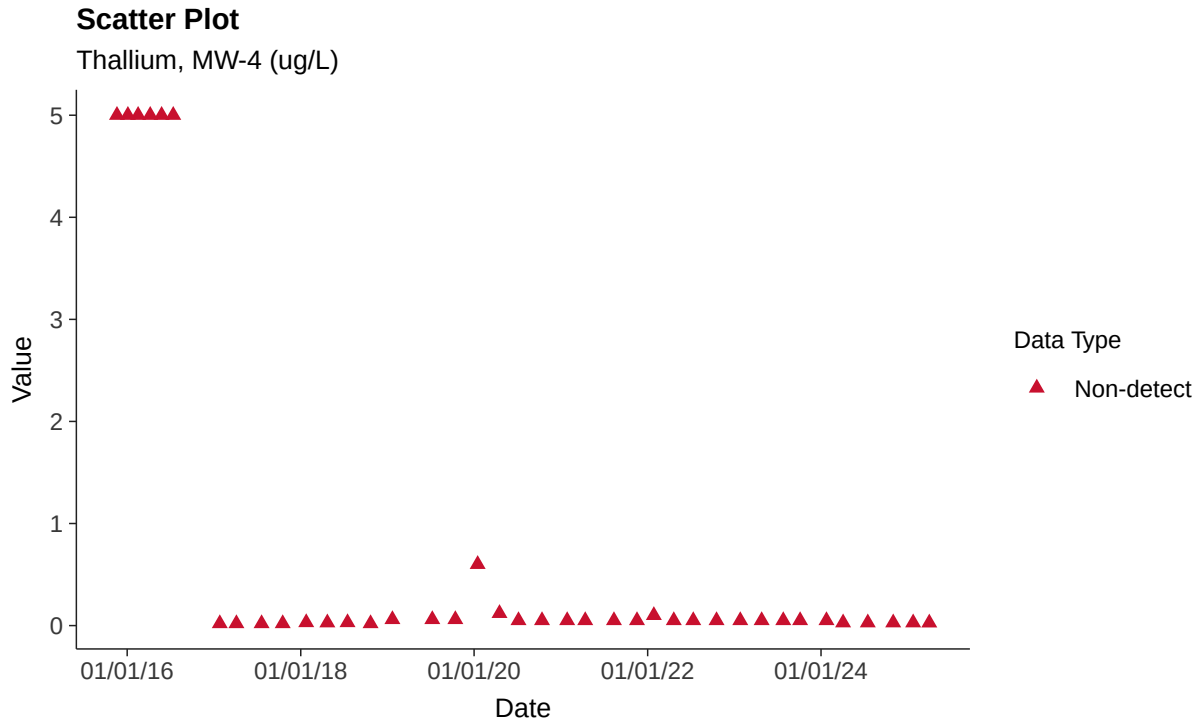
Trend Regression: Piecewise Linear-Linear-Linear

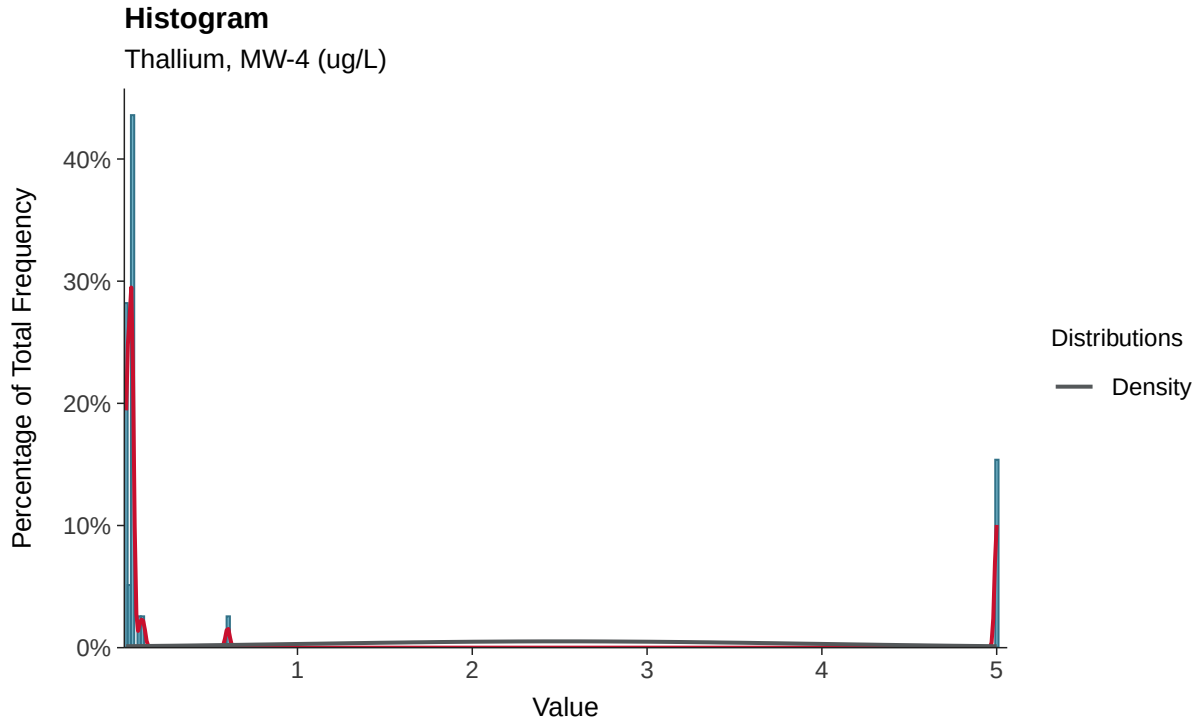
Selenium, MW-4 (ug/L)



App. IV: Thallium, MW-4

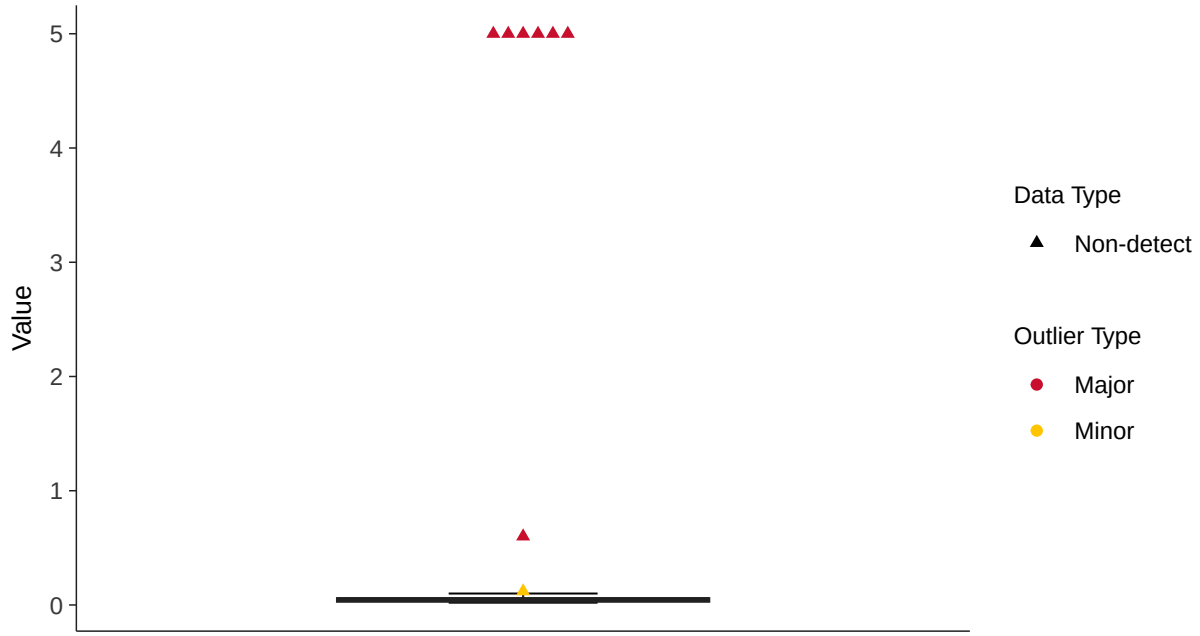
ID: 04_03_124





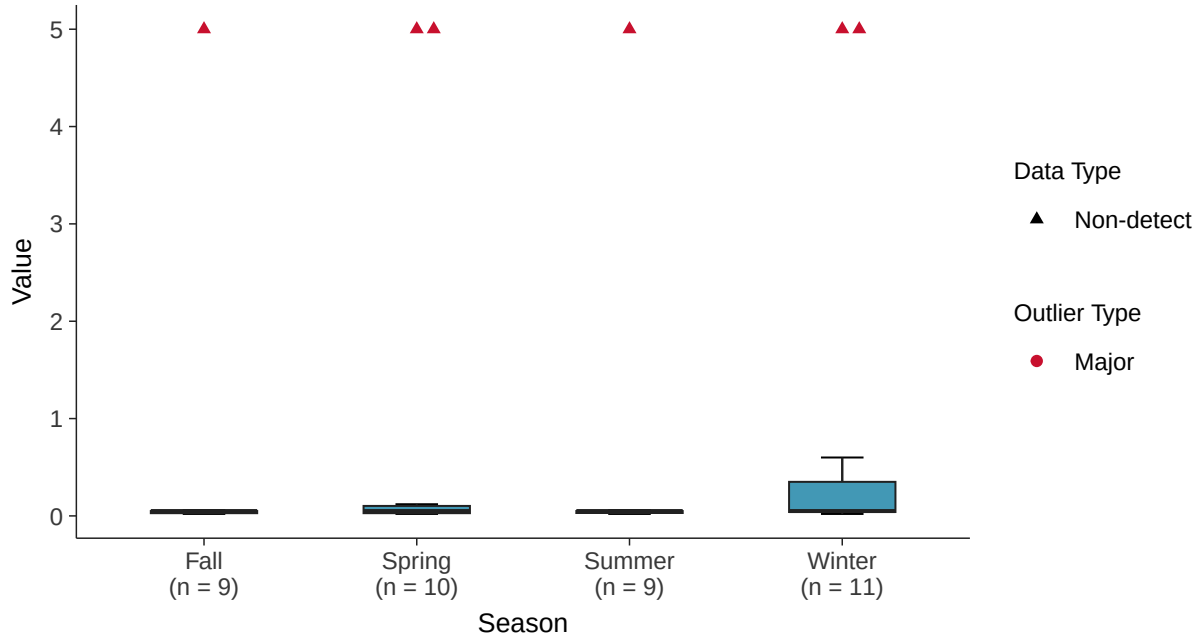
Boxplot

Thallium, MW-4 (ug/L)



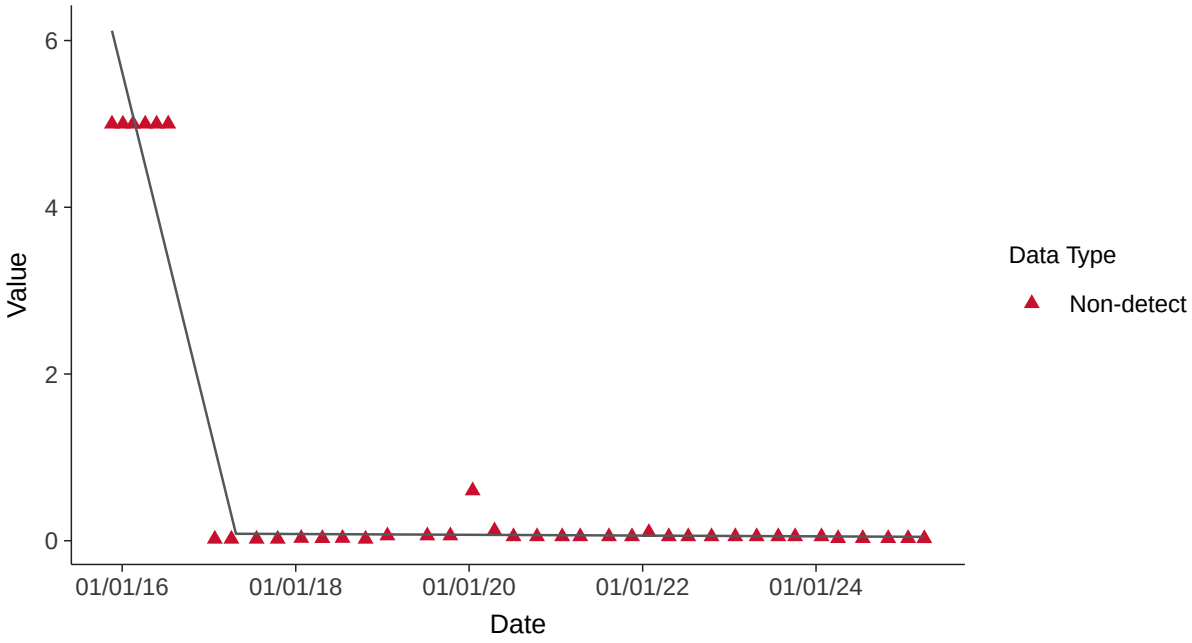
Boxplot by Season

Thallium, MW-4 (ug/L)



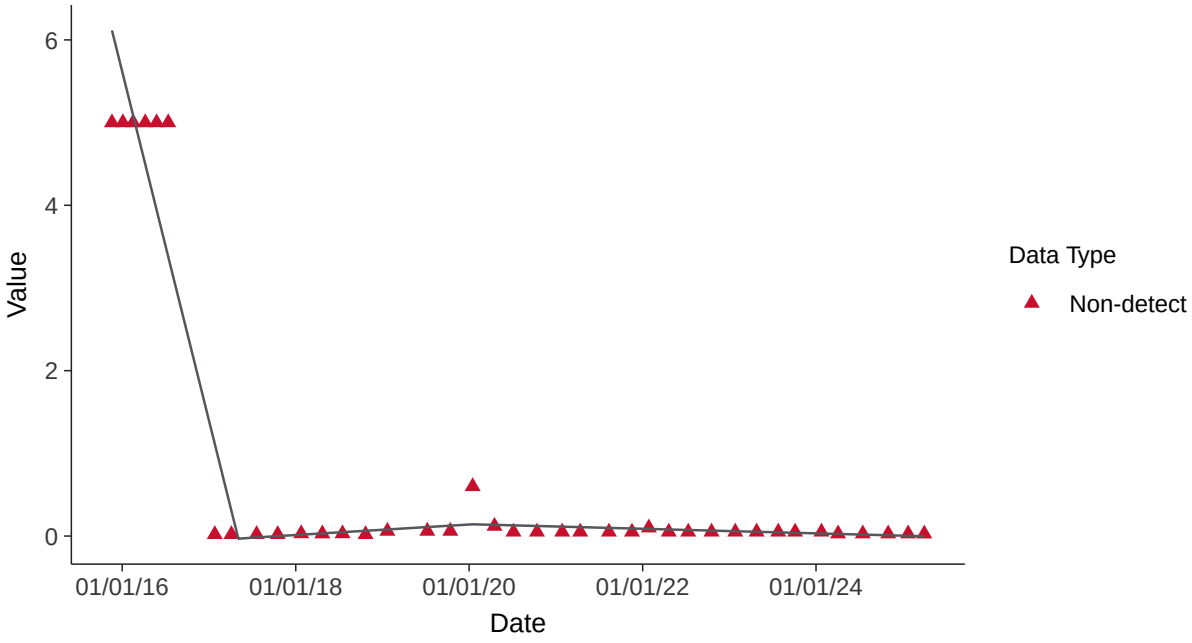
Trend Regression: Piecewise Linear-Linear

Thallium, MW-4 (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Thallium, MW-4 (ug/L)

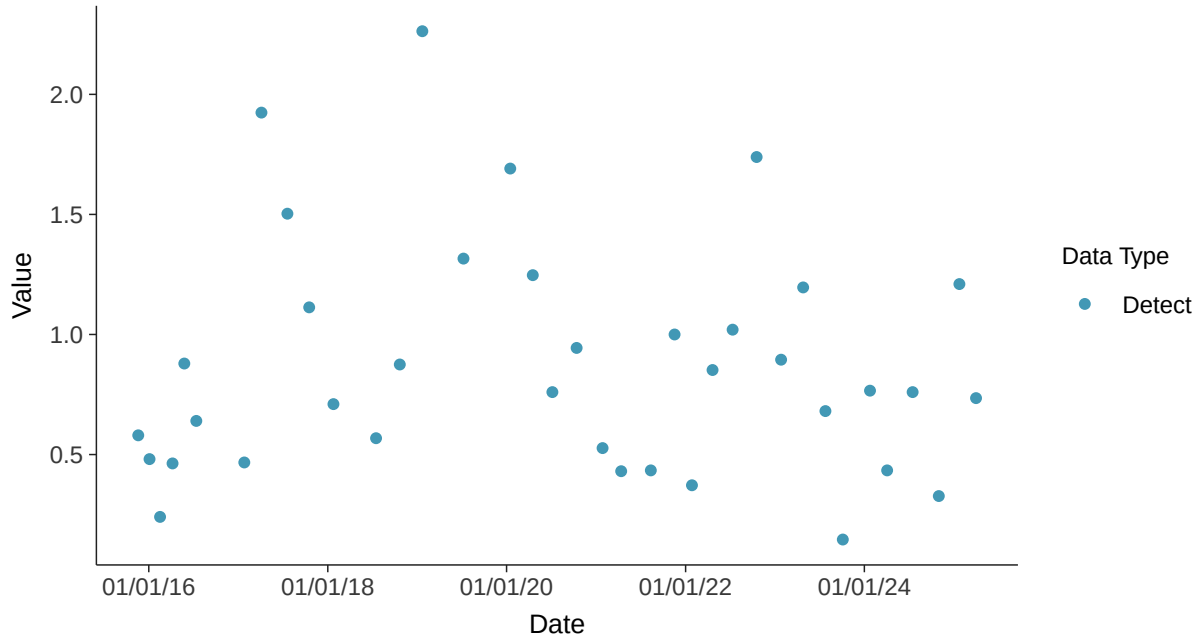


App. IV: Total Radium, MW-4

ID: 04_03_126

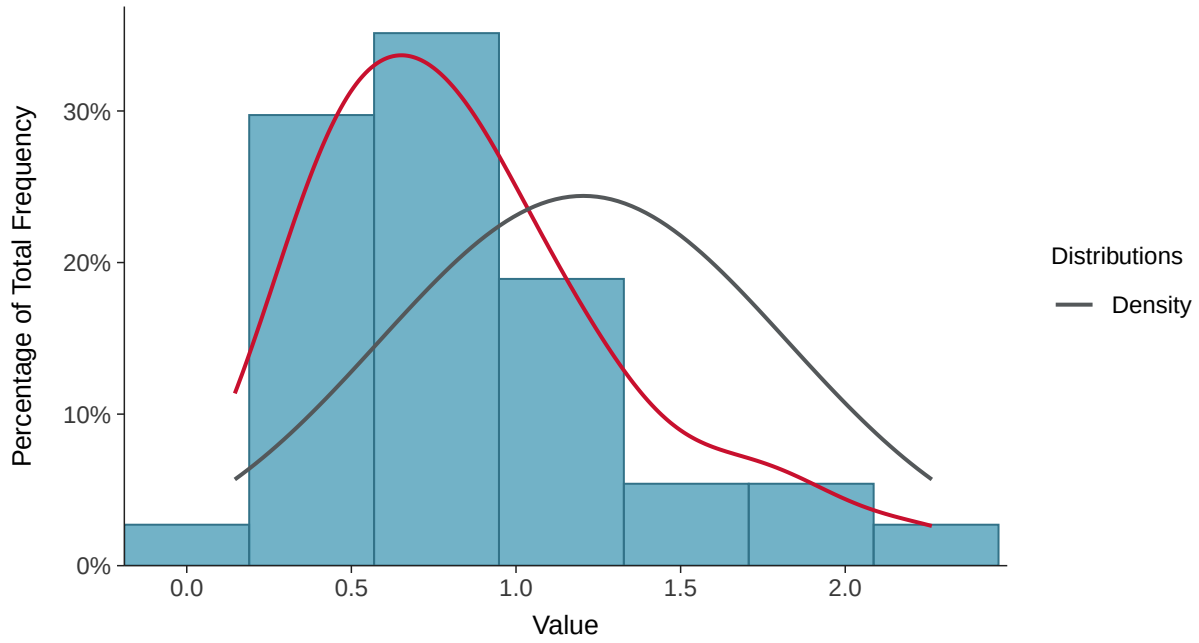
Scatter Plot

Total Radium, MW-4 (pCi/L)



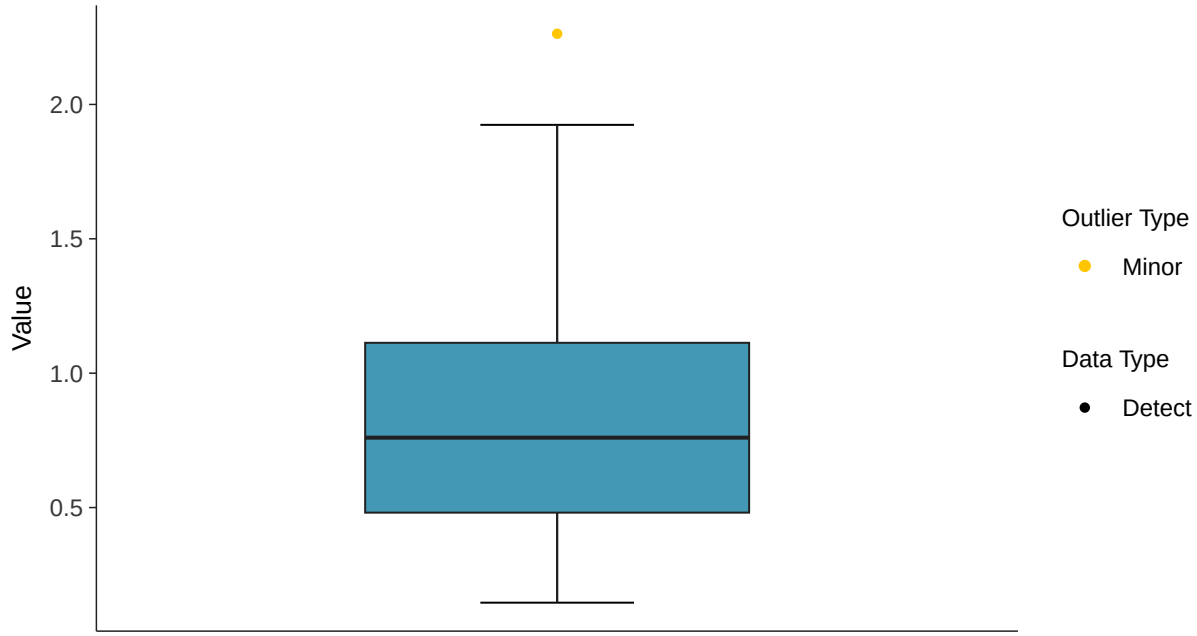
Histogram

Total Radium, MW-4 (pCi/L)



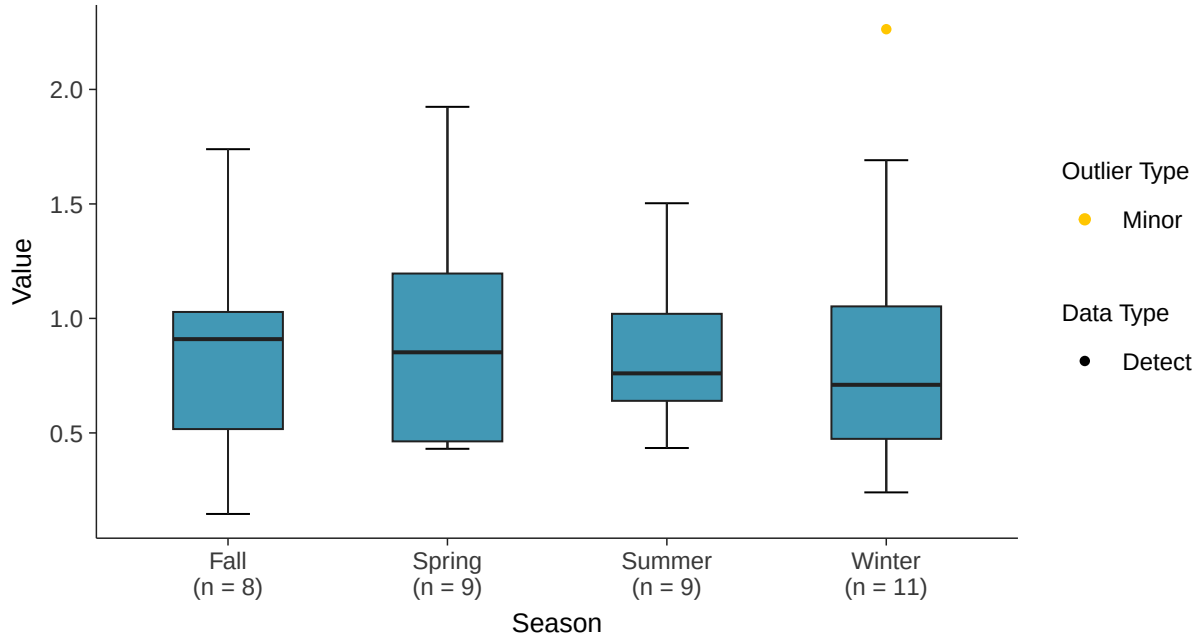
Boxplot

Total Radium, MW-4 (pCi/L)



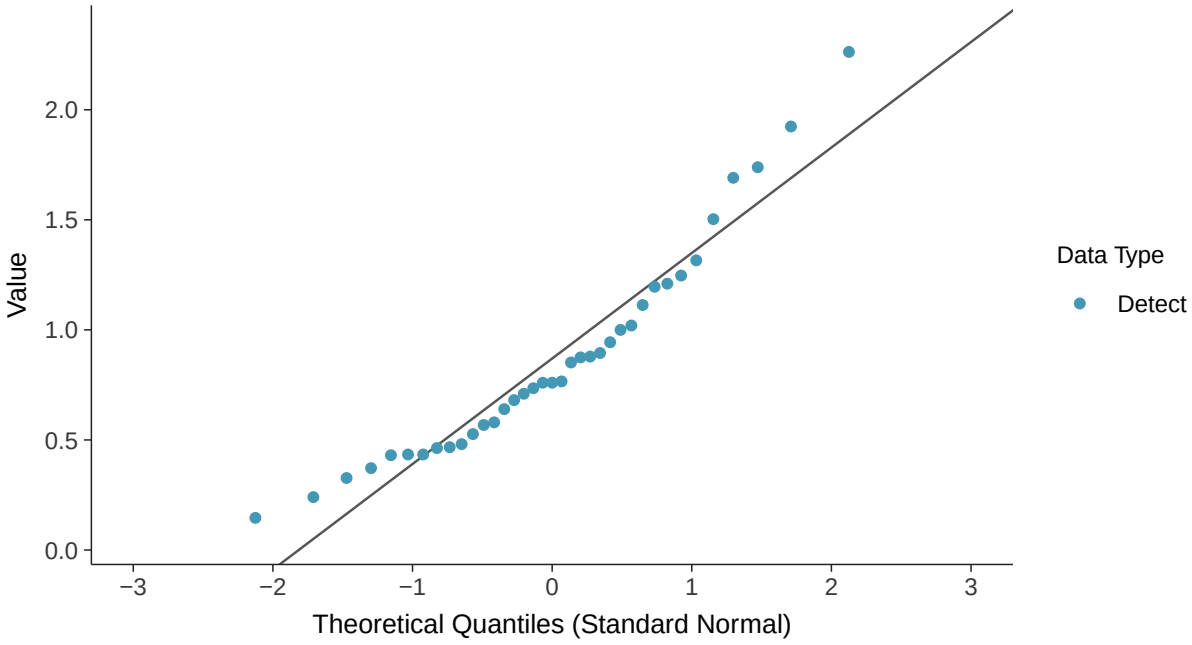
Boxplot by Season

Total Radium, MW-4 (pCi/L)



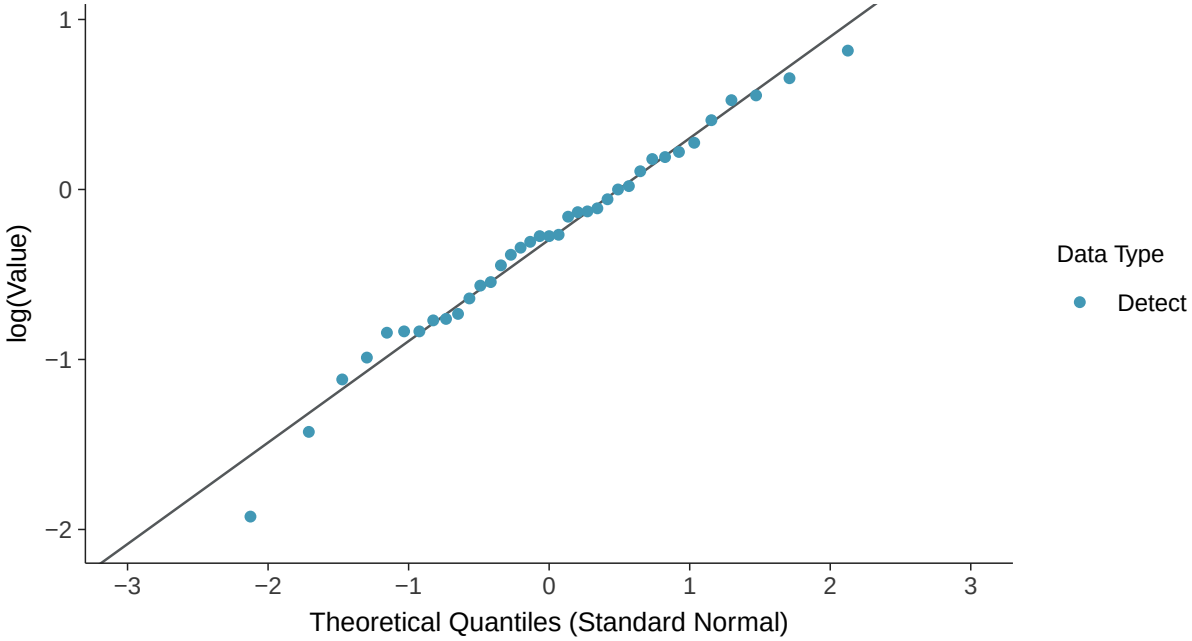
Normal Q-Q plot

Total Radium, MW-4 (pCi/L)



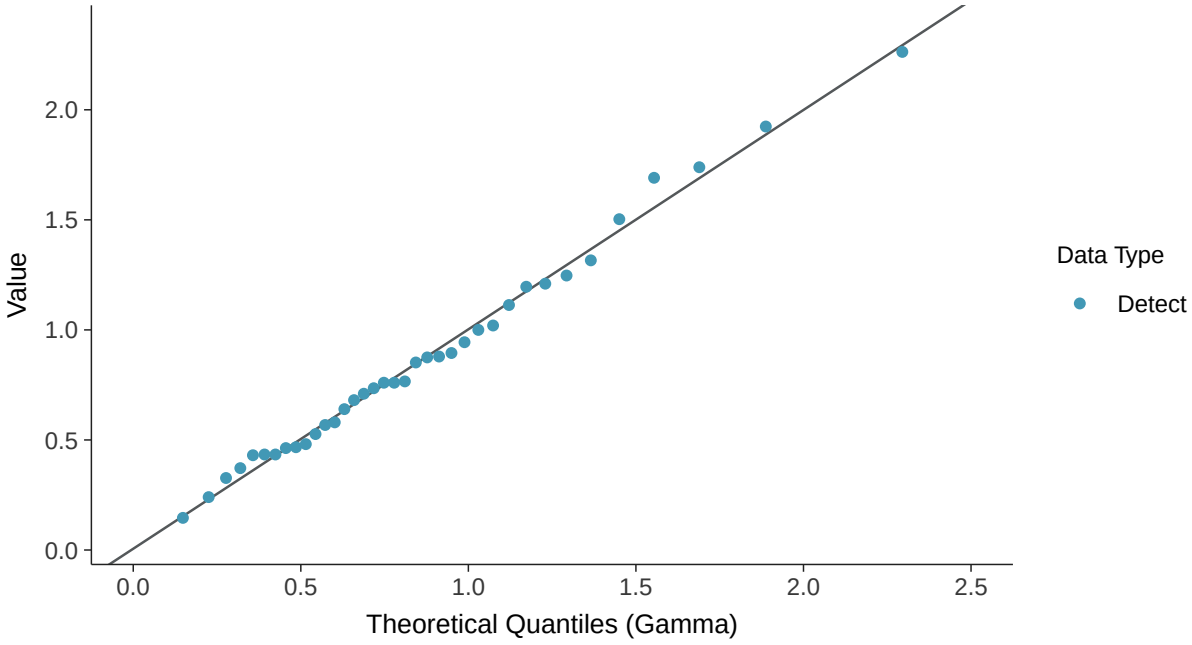
Lognormal Q-Q plot

Total Radium, MW-4 (pCi/L)



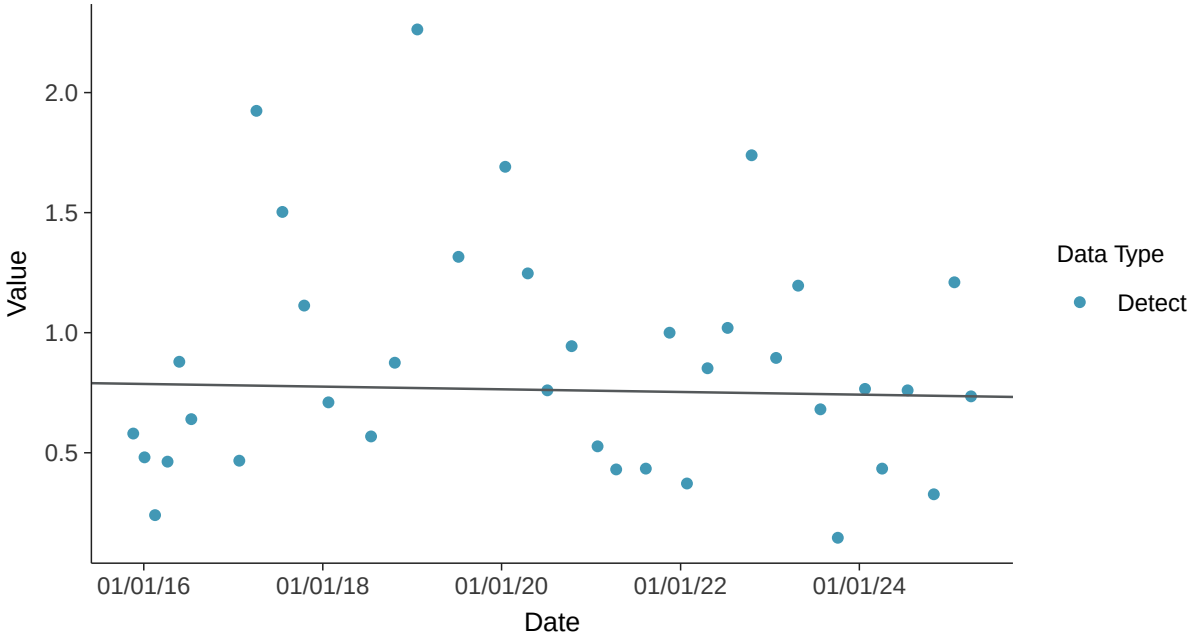
Gamma Q-Q plot

Total Radium, MW-4 (pCi/L)



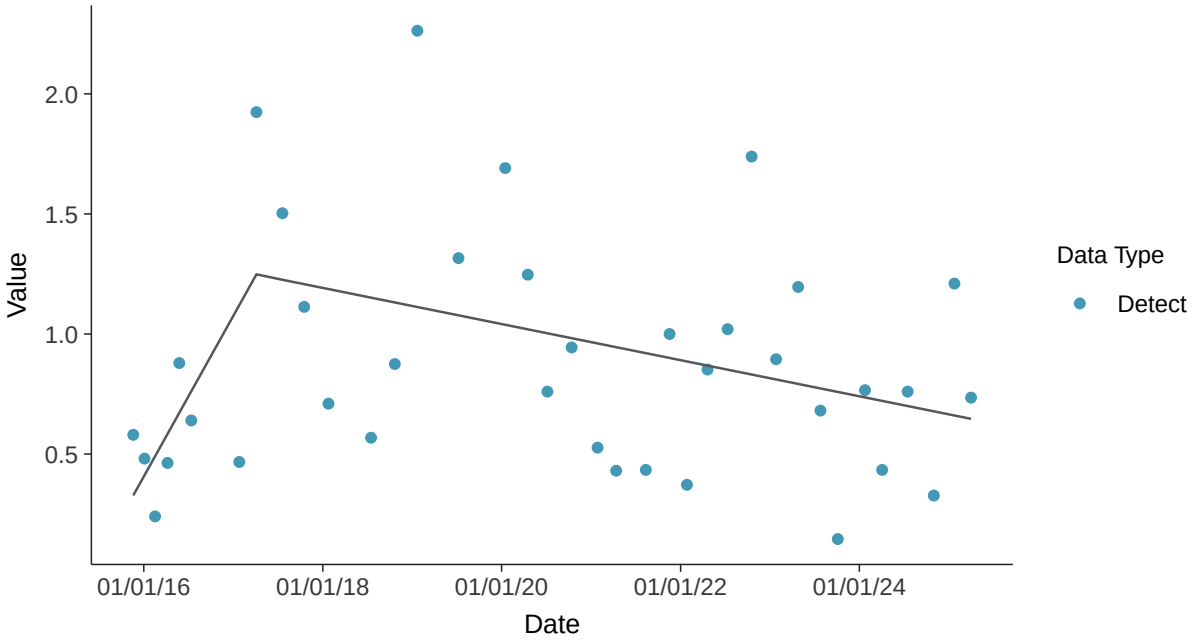
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Total Radium, MW-4 (pCi/L)



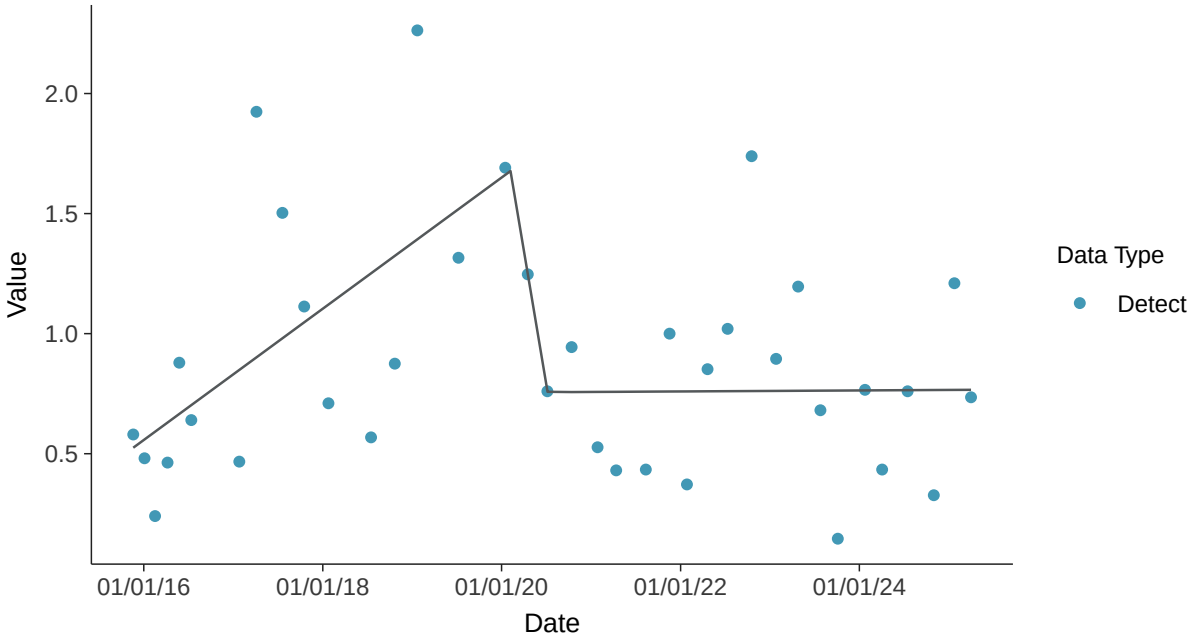
Trend Regression: Piecewise Linear-Linear

Total Radium, MW-4 (pCi/L)



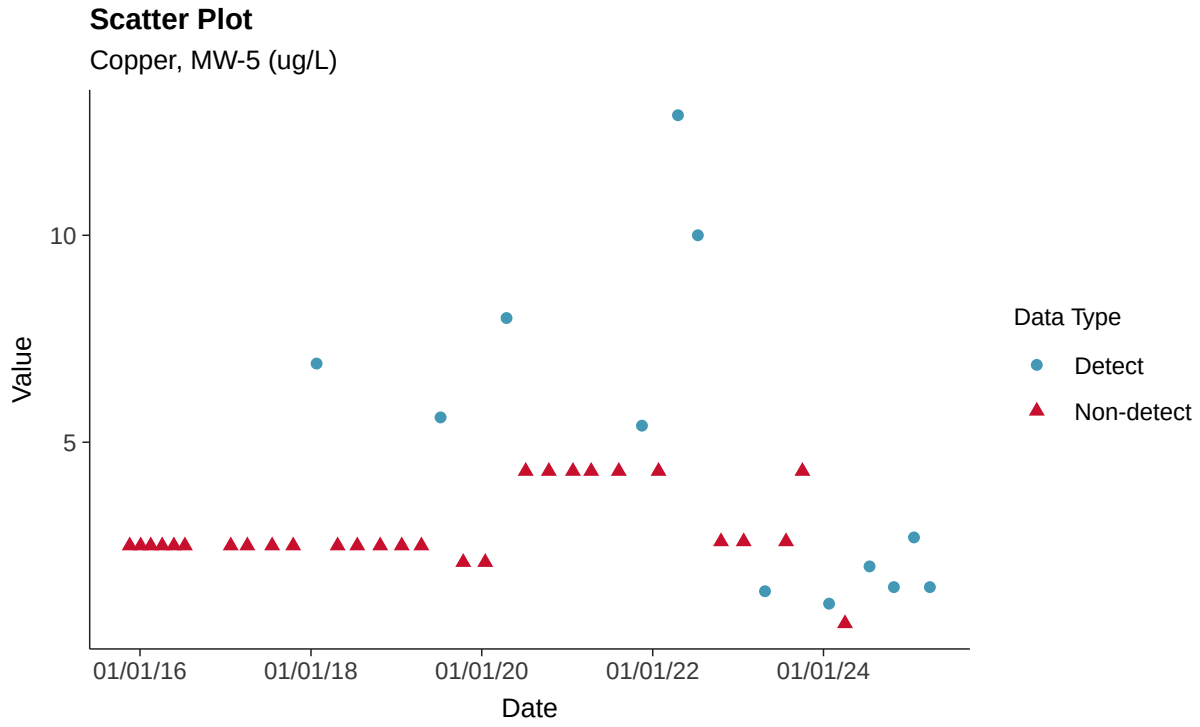
Trend Regression: Piecewise Linear-Linear-Linear

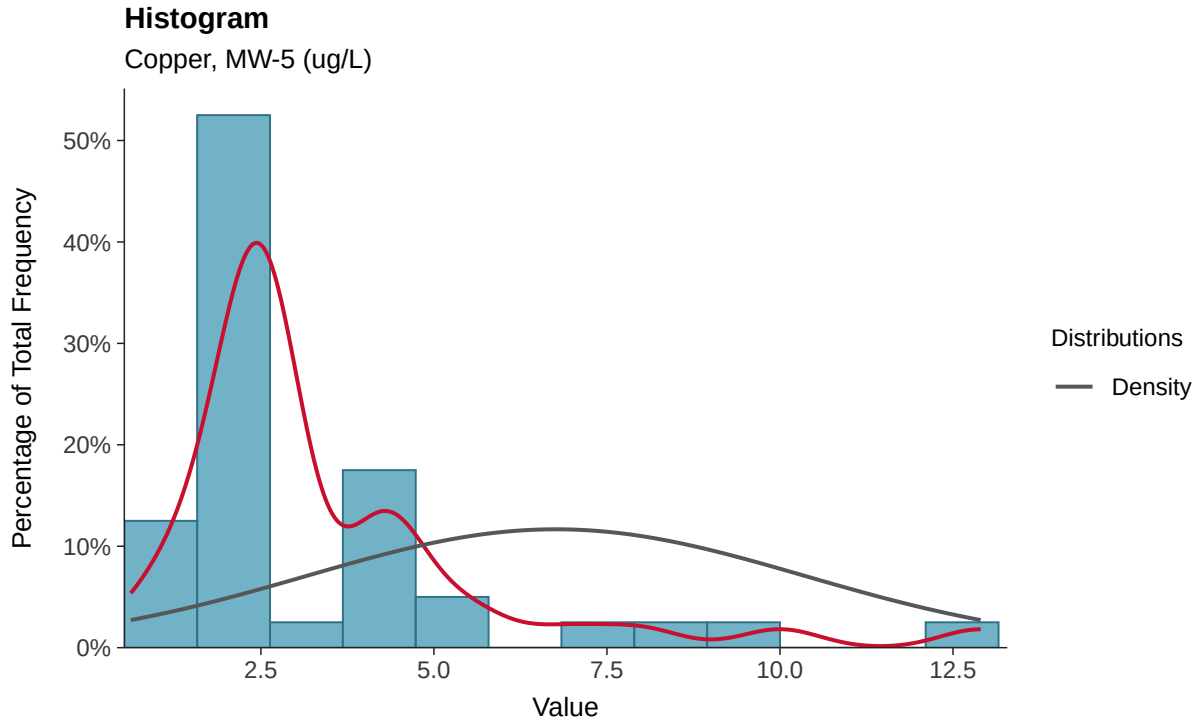
Total Radium, MW-4 (pCi/L)



App. I Metals: Copper, MW-5

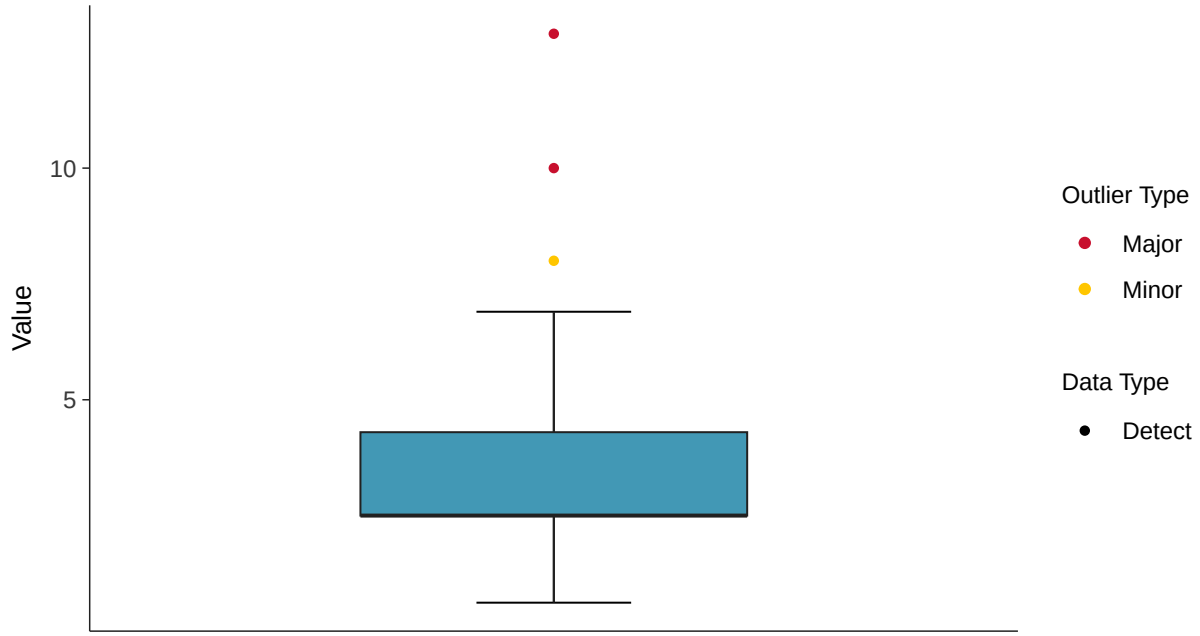
ID: 05_01_111





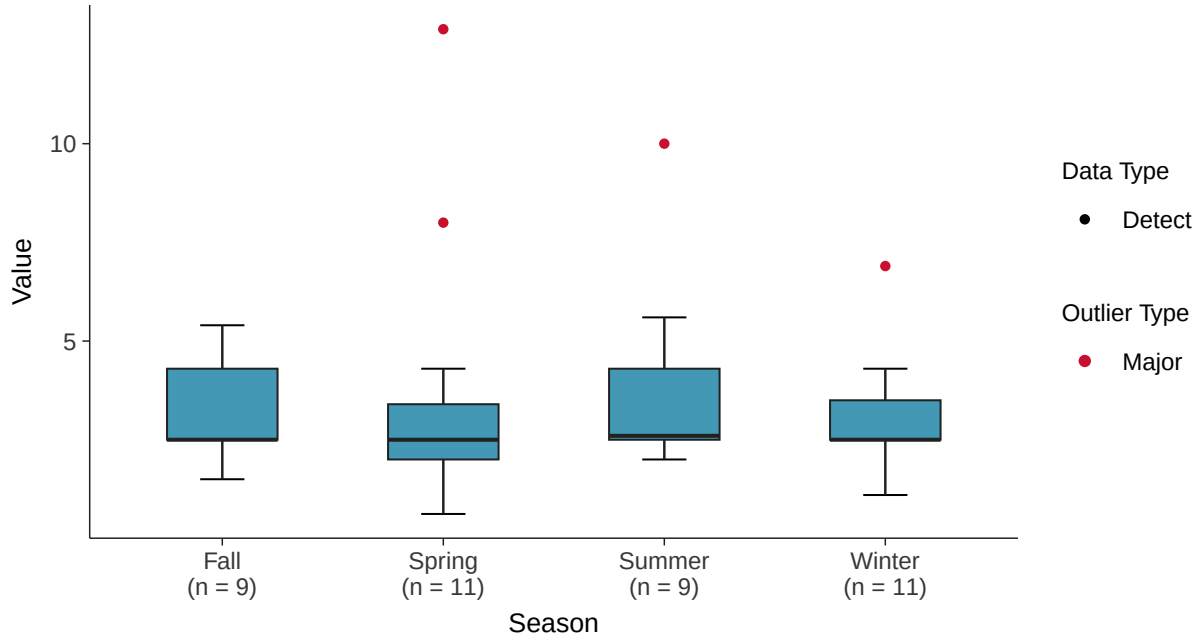
Boxplot

Copper, MW-5 (ug/L)



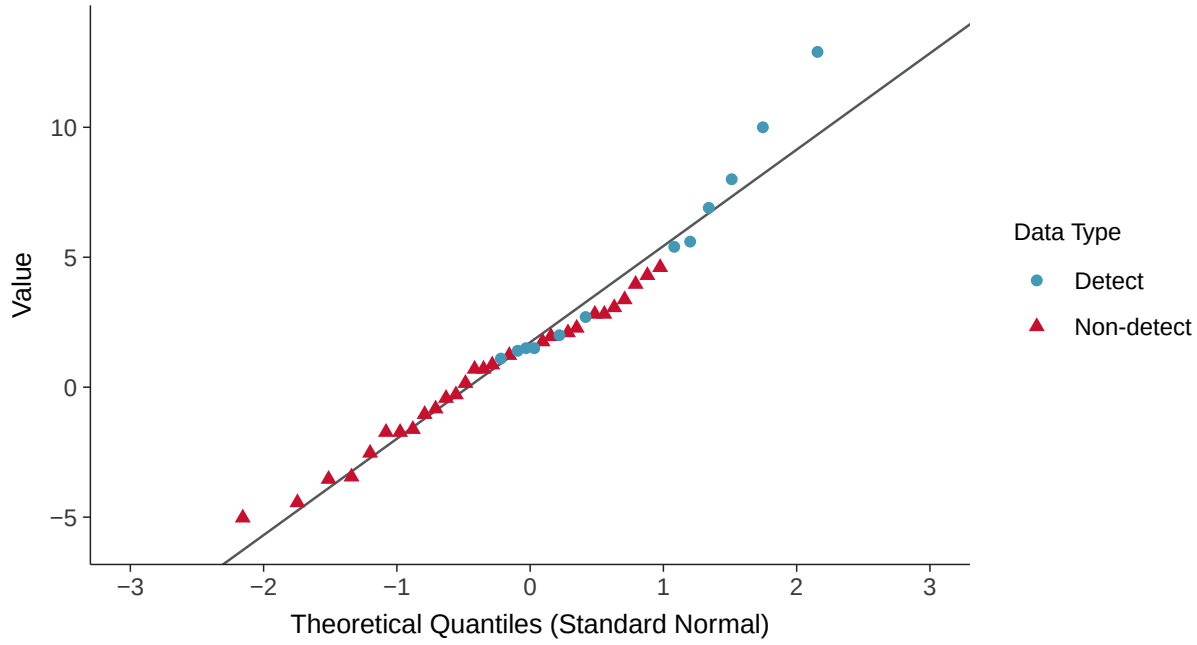
Boxplot by Season

Copper, MW-5 (ug/L)



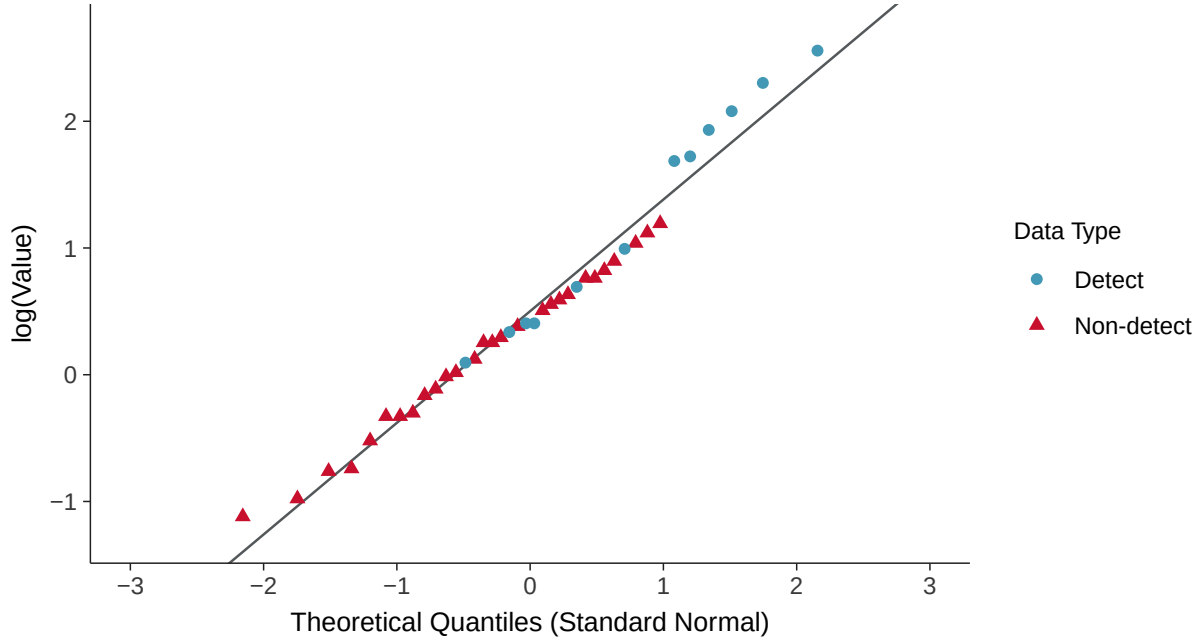
Normal Q-Q plot using ROS Imputed Estimates

Copper, MW-5 (ug/L)



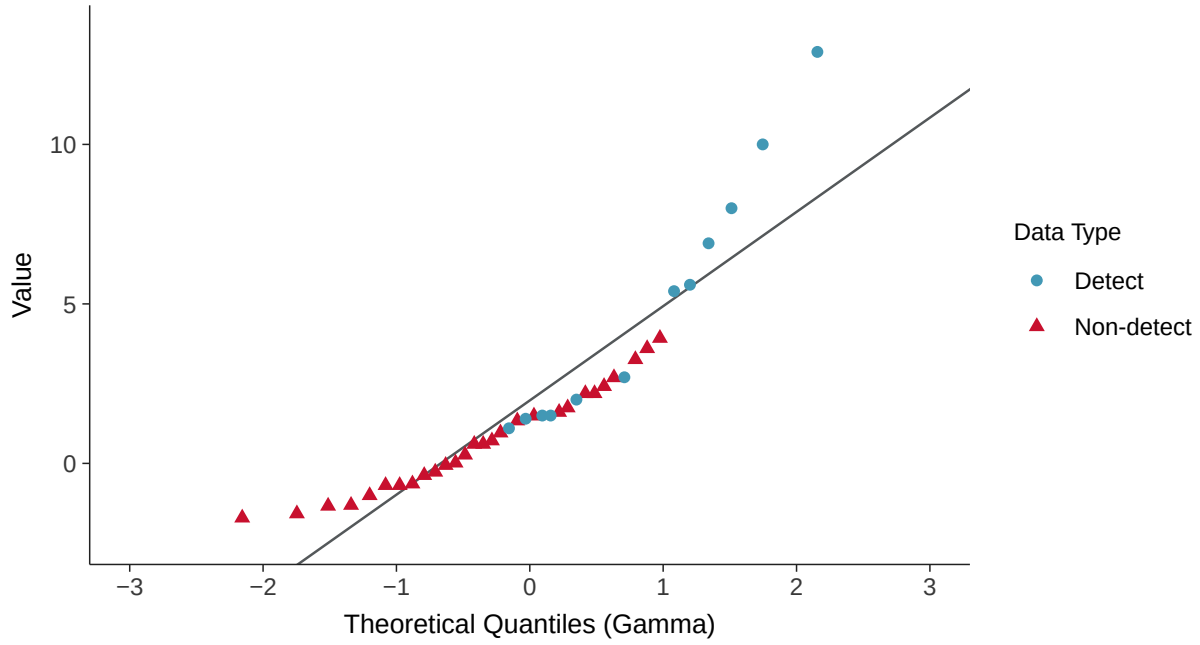
Lognormal Q-Q plot using ROS Imputed Estimates

Copper, MW-5 (ug/L)



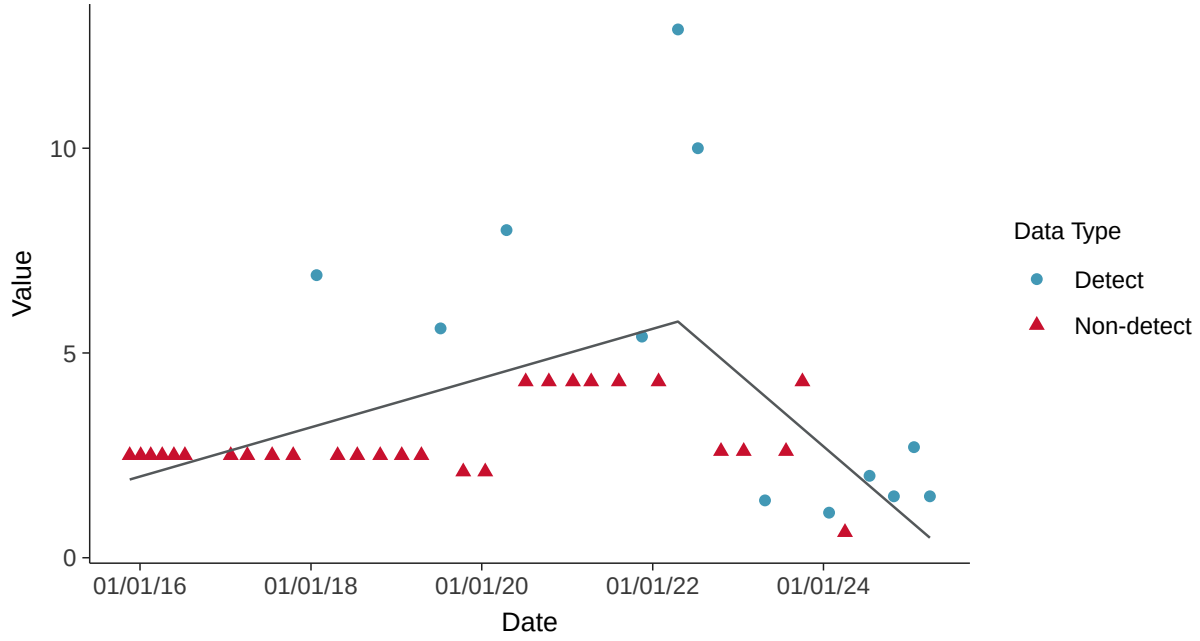
Gamma Q-Q plot using ROS Imputed Estimates

Copper, MW-5 (ug/L)



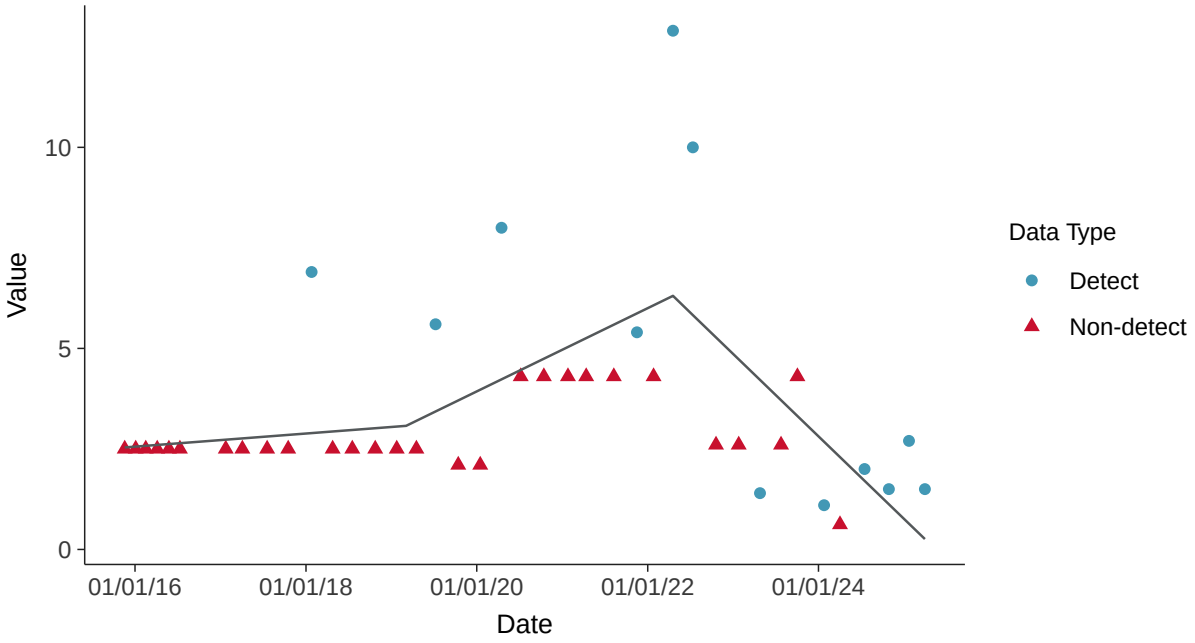
Trend Regression: Piecewise Linear-Linear

Copper, MW-5 (ug/L)



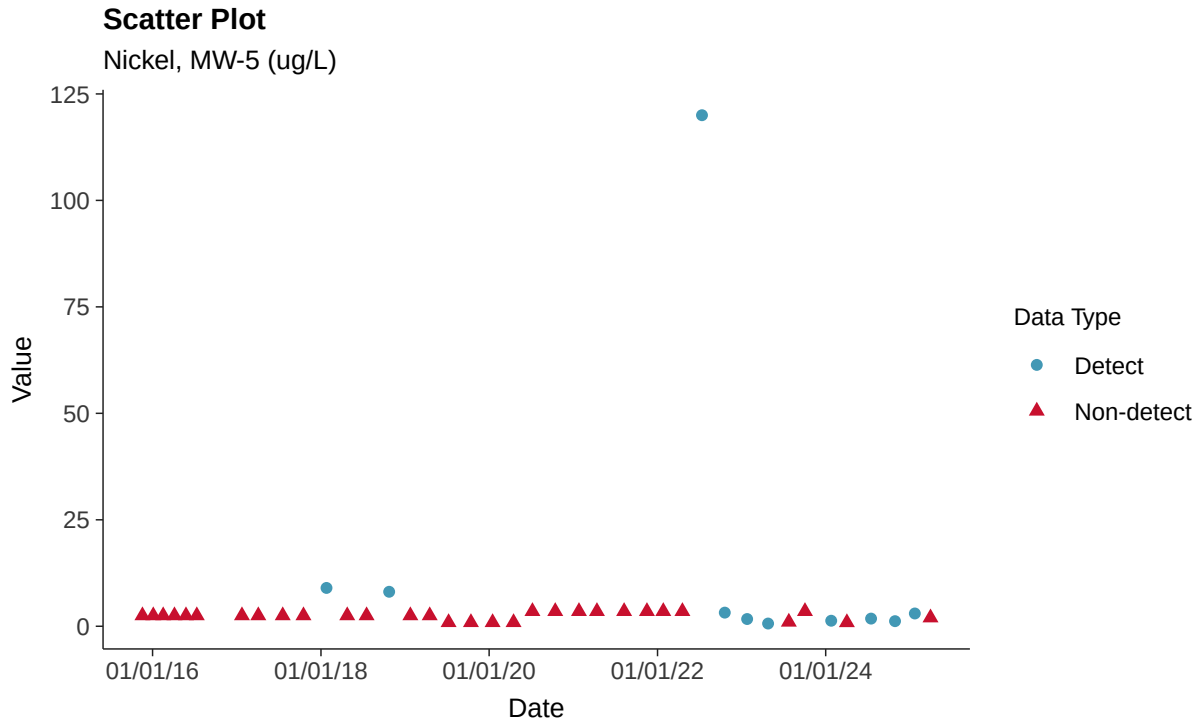
Trend Regression: Piecewise Linear-Linear-Linear

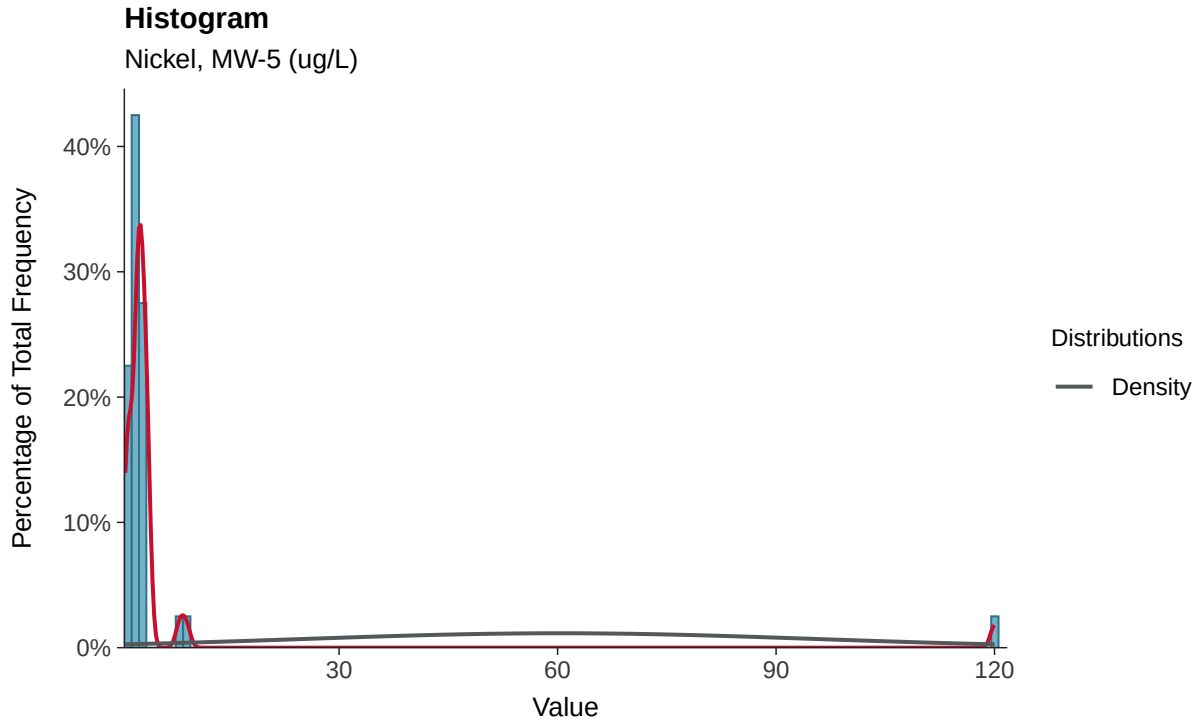
Copper, MW-5 (ug/L)



App. I Metals: Nickel, MW-5

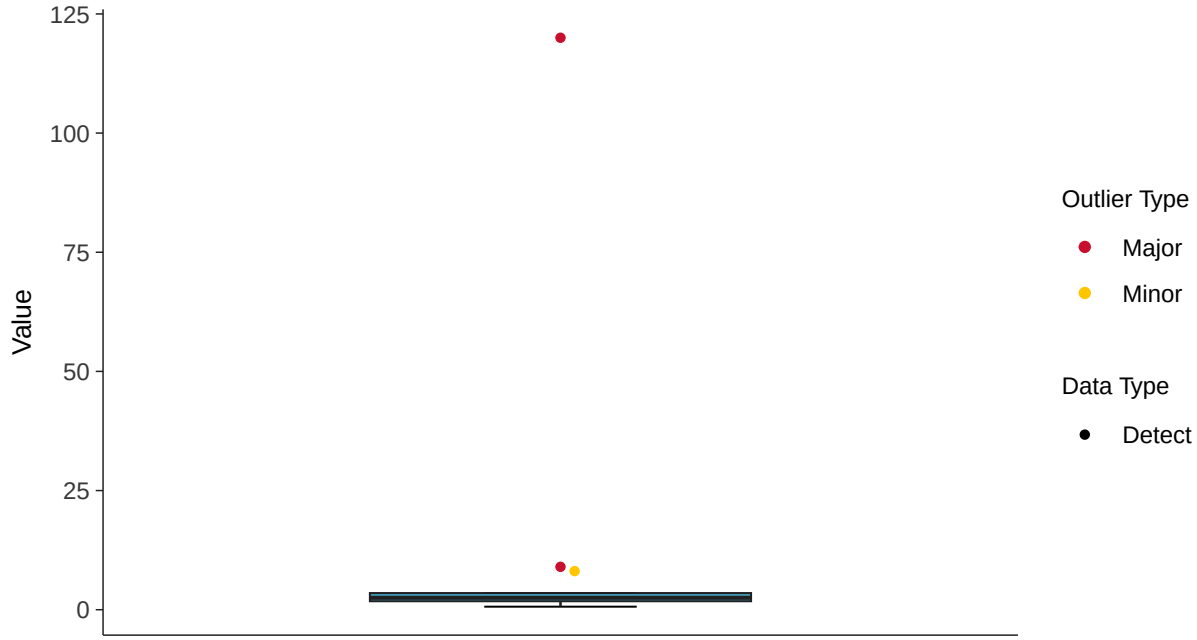
ID: 05_01_117





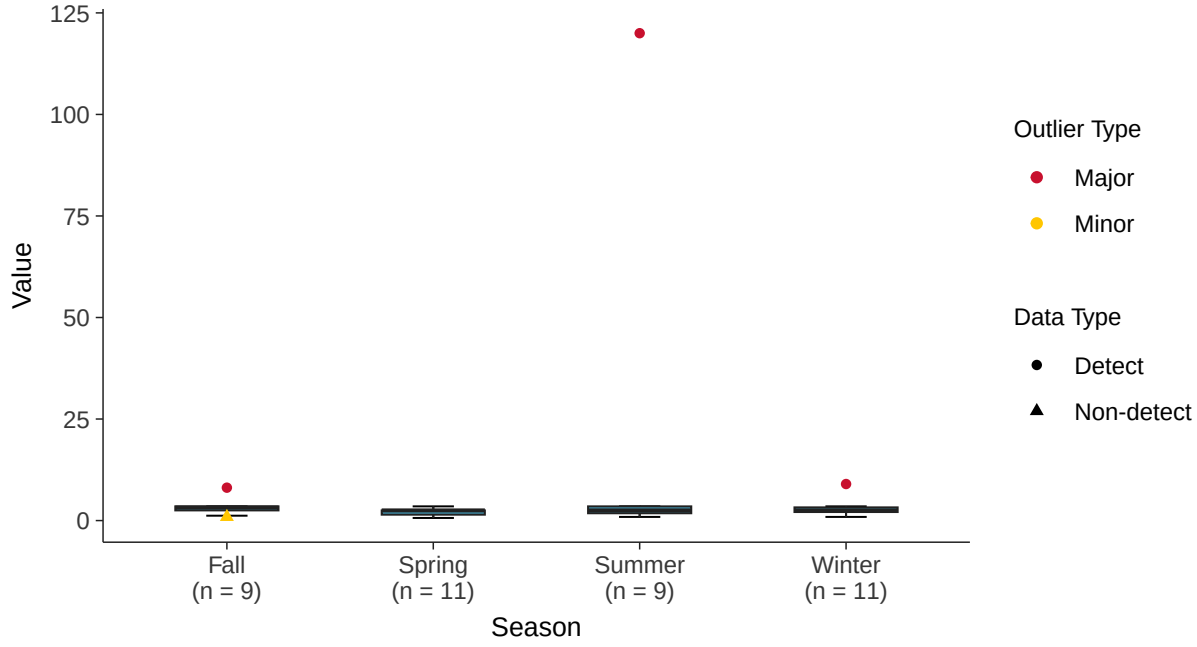
Boxplot

Nickel, MW-5 (ug/L)



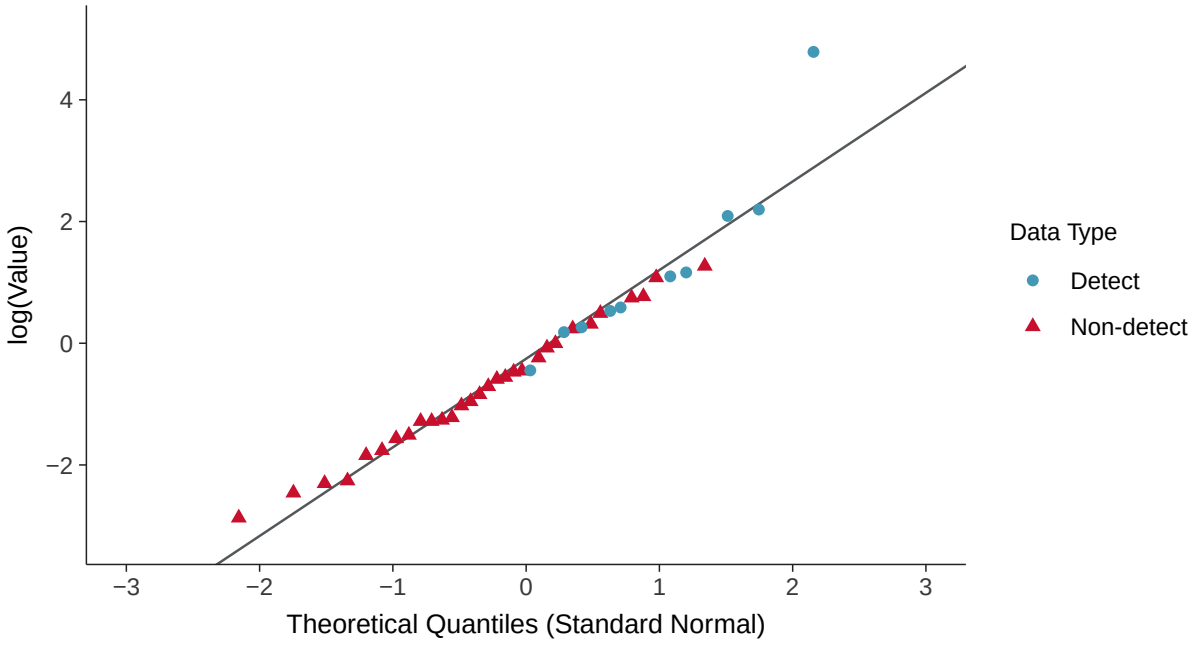
Boxplot by Season

Nickel, MW-5 (ug/L)



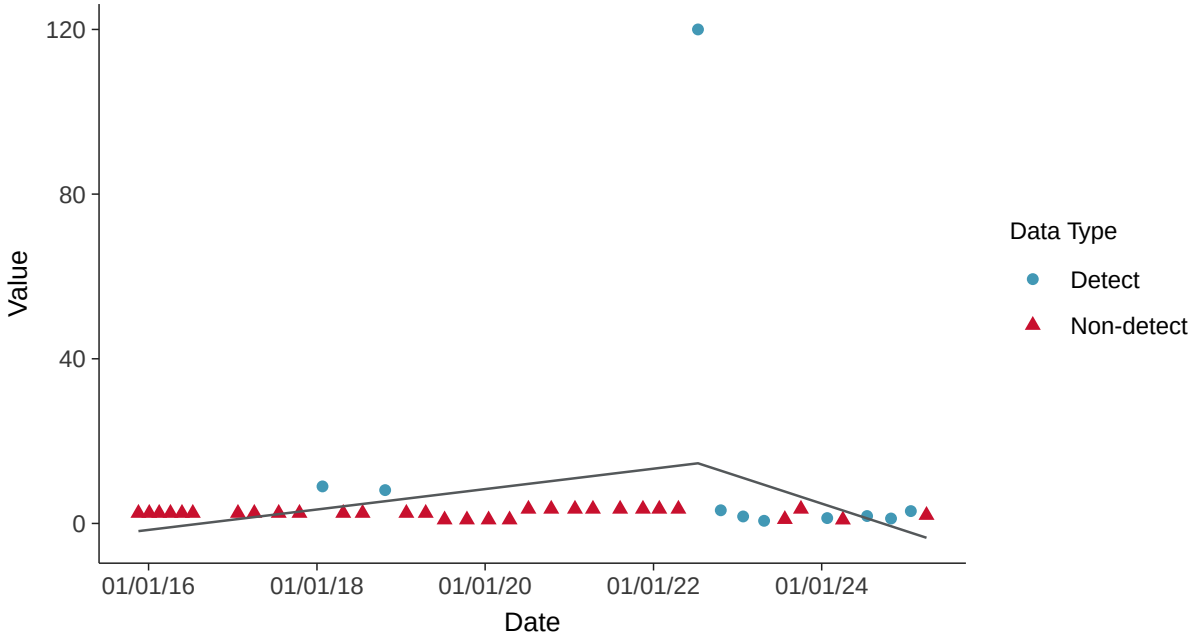
Lognormal Q-Q plot using ROS Imputed Estimates

Nickel, MW-5 (ug/L)



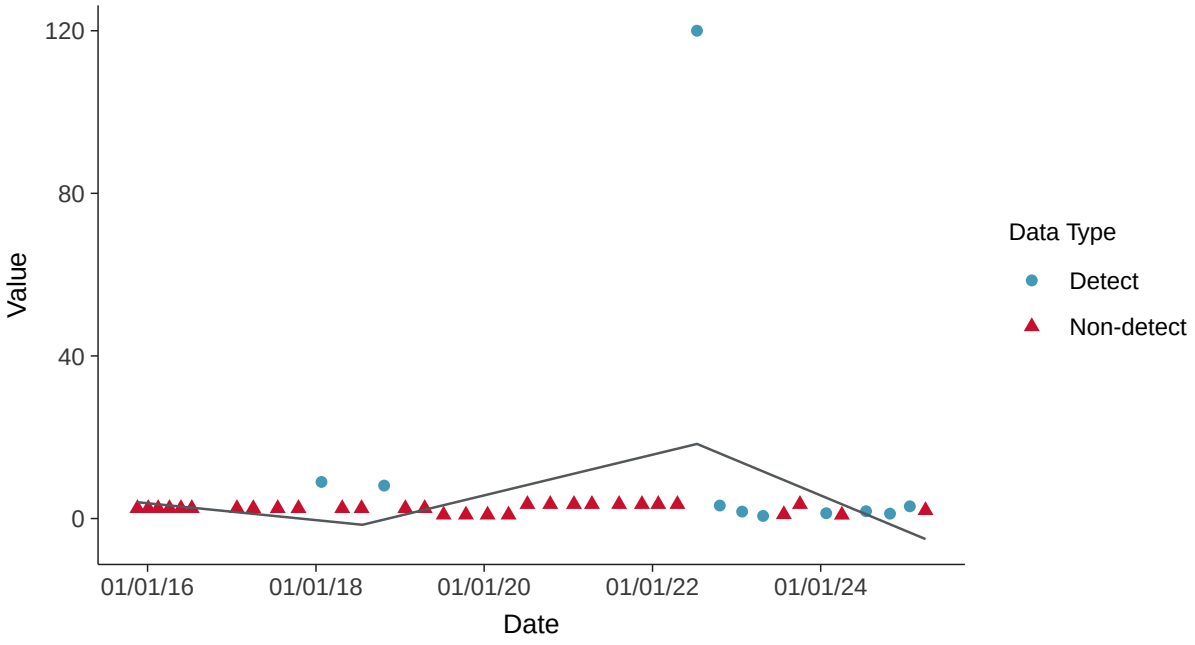
Trend Regression: Piecewise Linear-Linear

Nickel, MW-5 (ug/L)



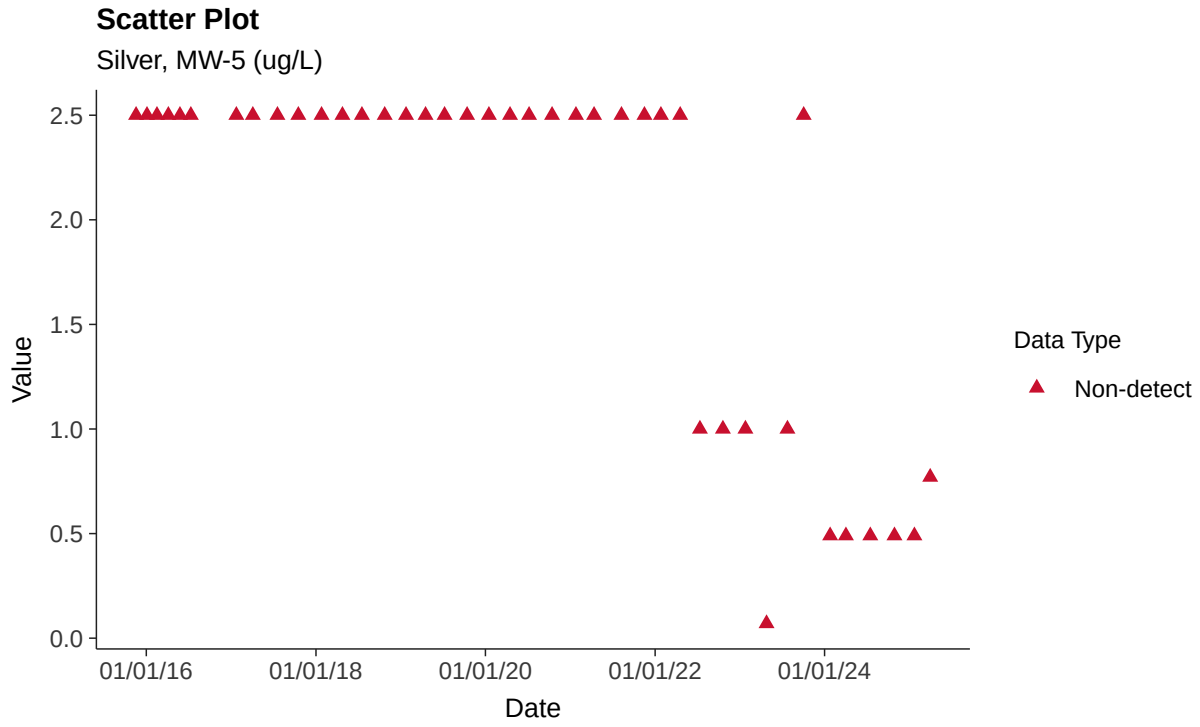
Trend Regression: Piecewise Linear-Linear-Linear

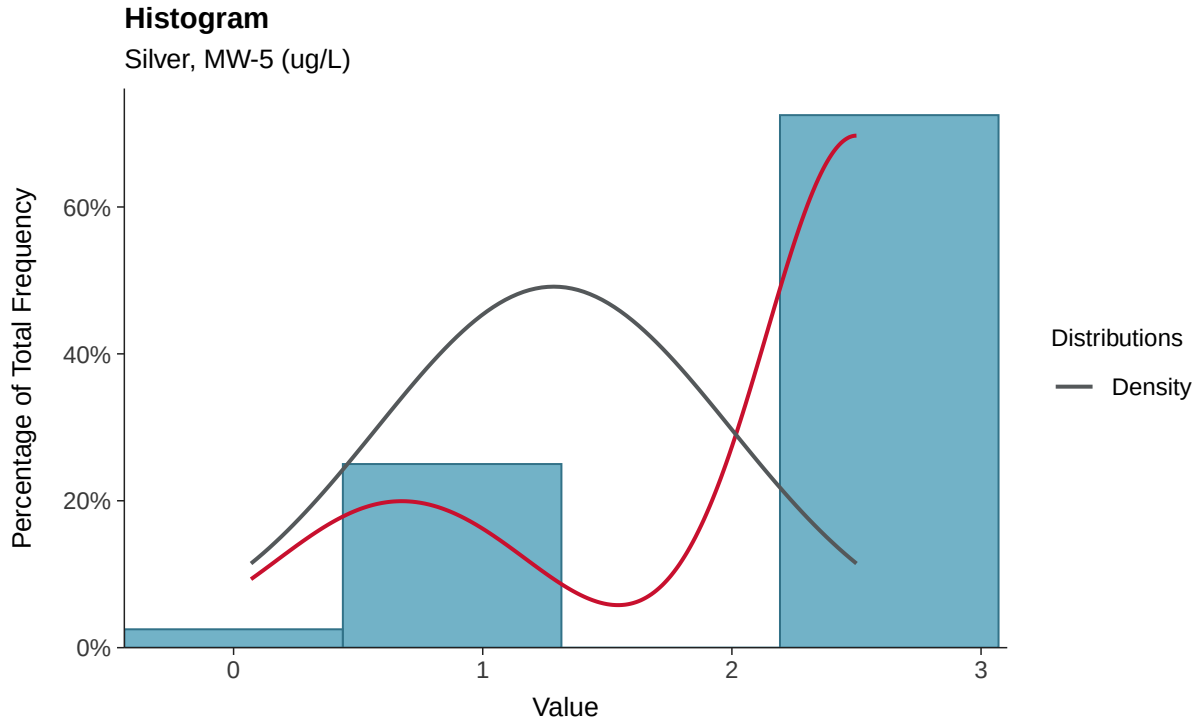
Nickel, MW-5 (ug/L)



App. I Metals: Silver, MW-5

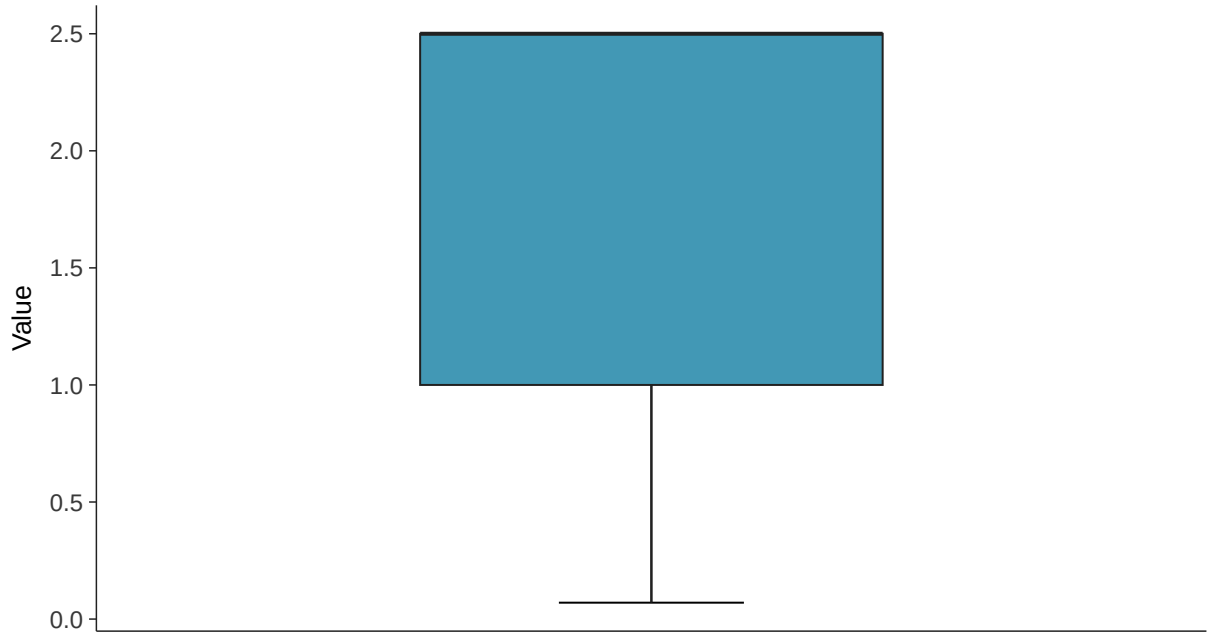
ID: 05_01_122





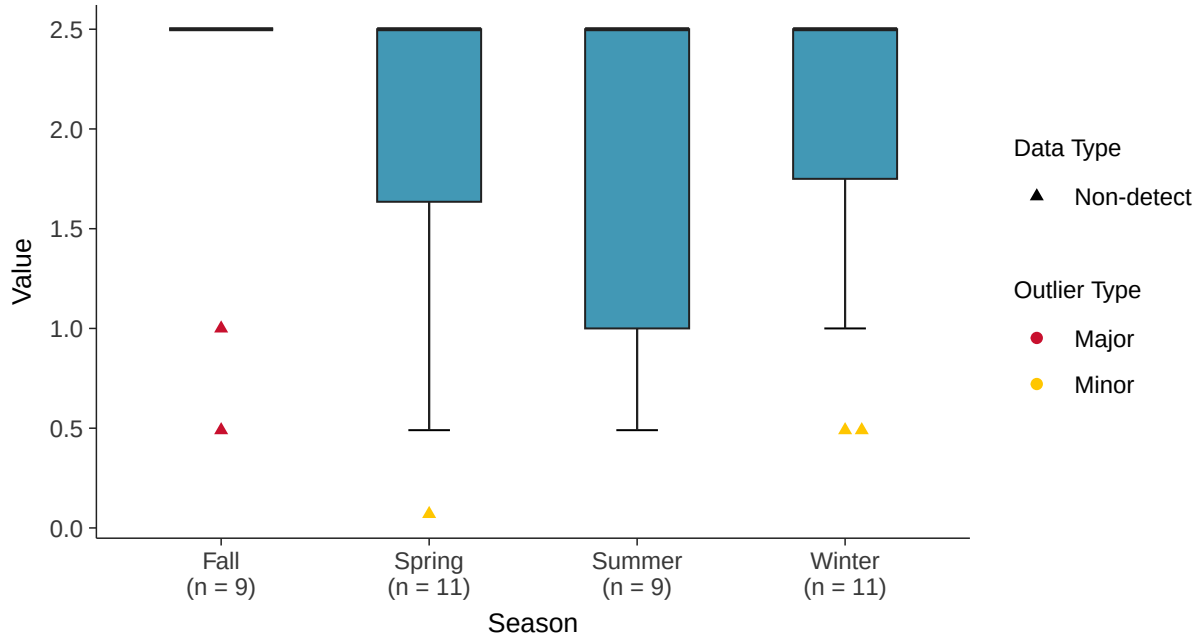
Boxplot

Silver, MW-5 (ug/L)



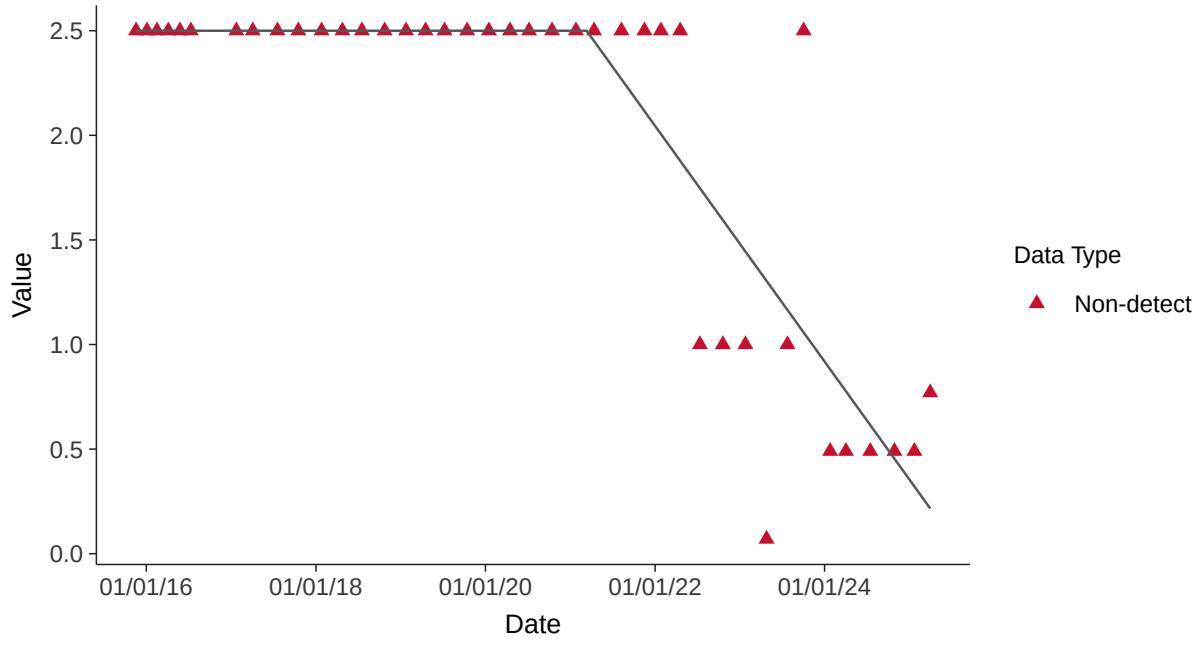
Boxplot by Season

Silver, MW-5 (ug/L)



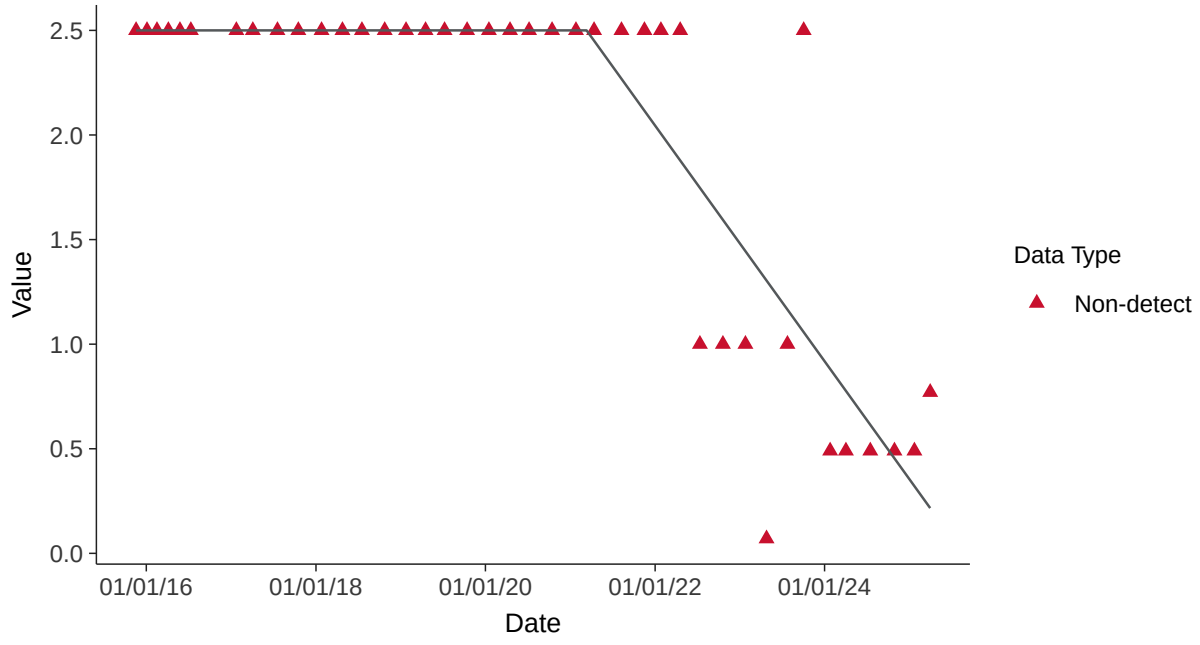
Trend Regression: Piecewise Linear-Linear

Silver, MW-5 (ug/L)



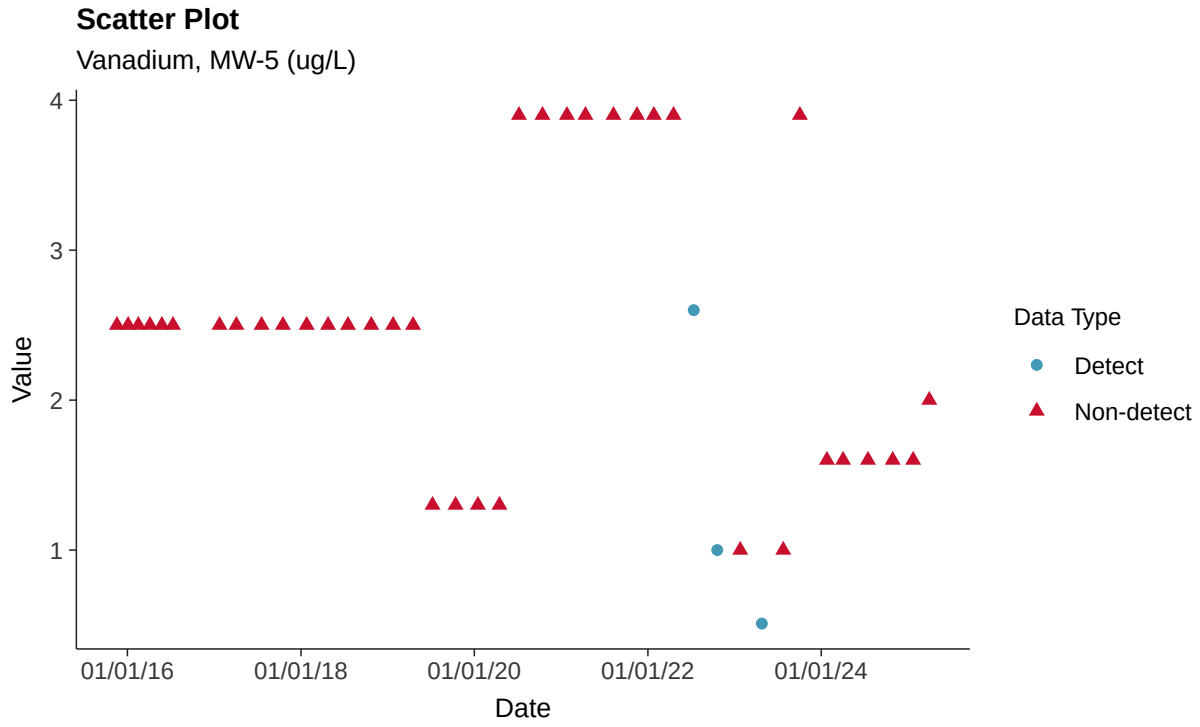
Trend Regression: Piecewise Linear-Linear-Linear

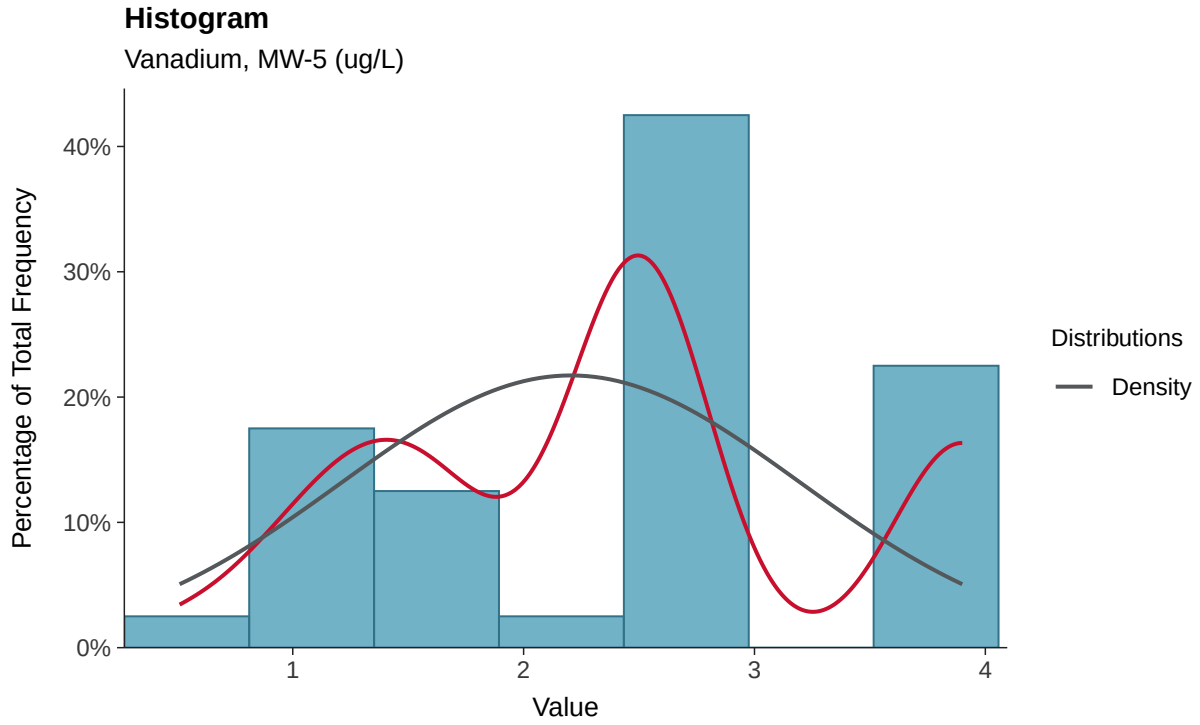
Silver, MW-5 (ug/L)



App. I Metals: Vanadium, MW-5

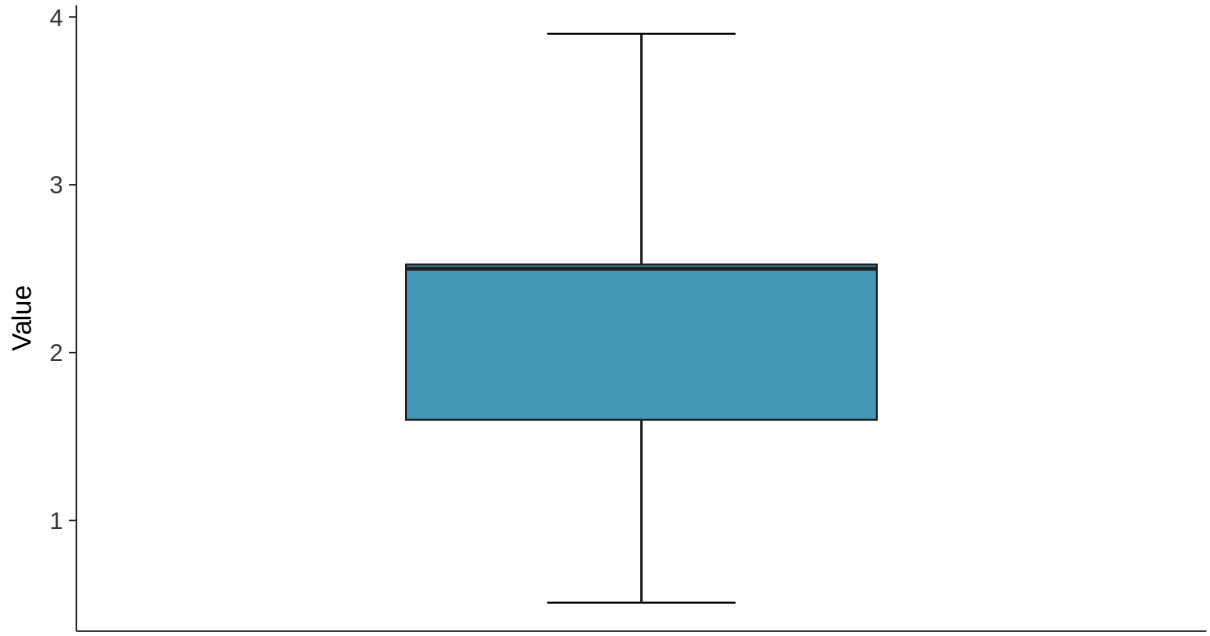
ID: 05_01_127





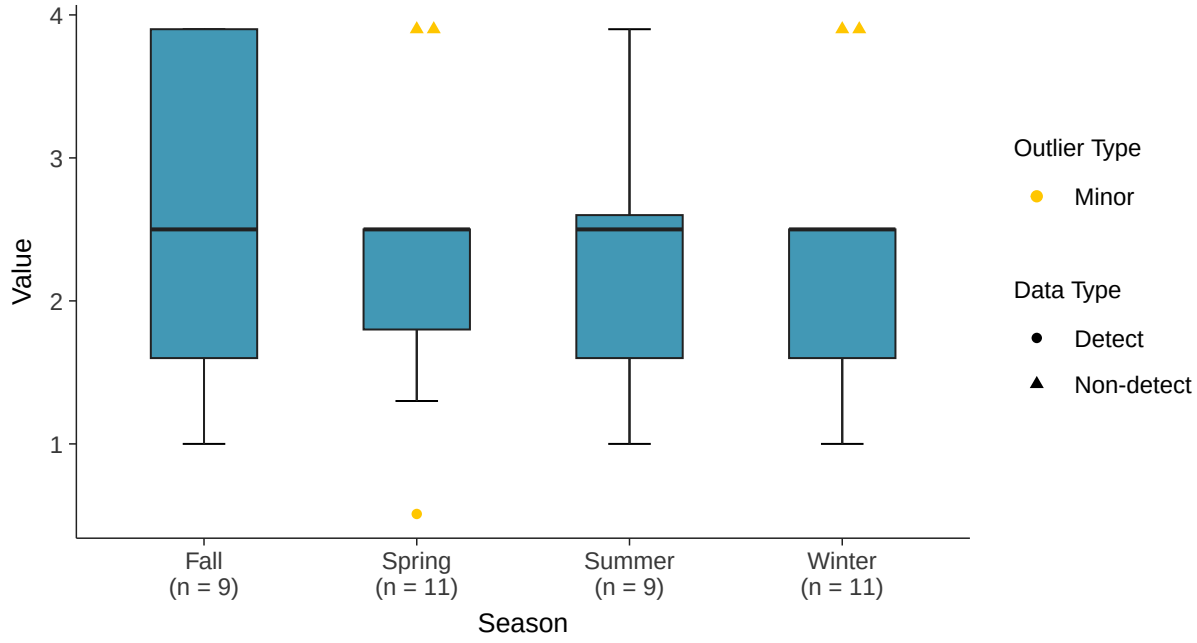
Boxplot

Vanadium, MW-5 (ug/L)



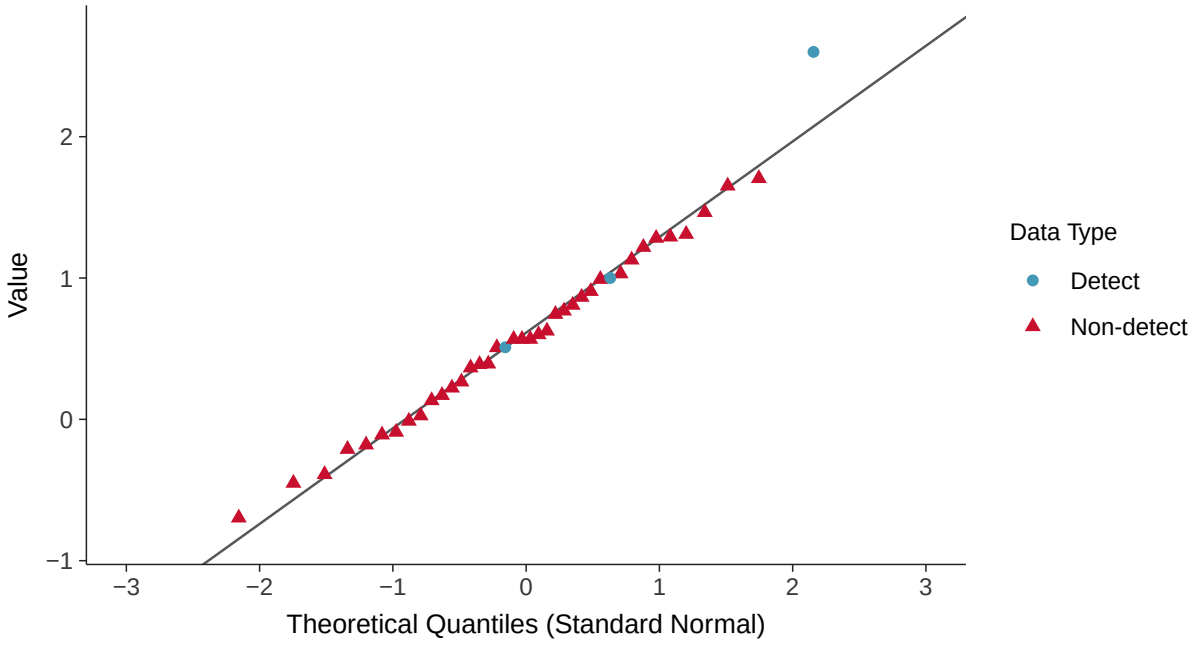
Boxplot by Season

Vanadium, MW-5 (ug/L)



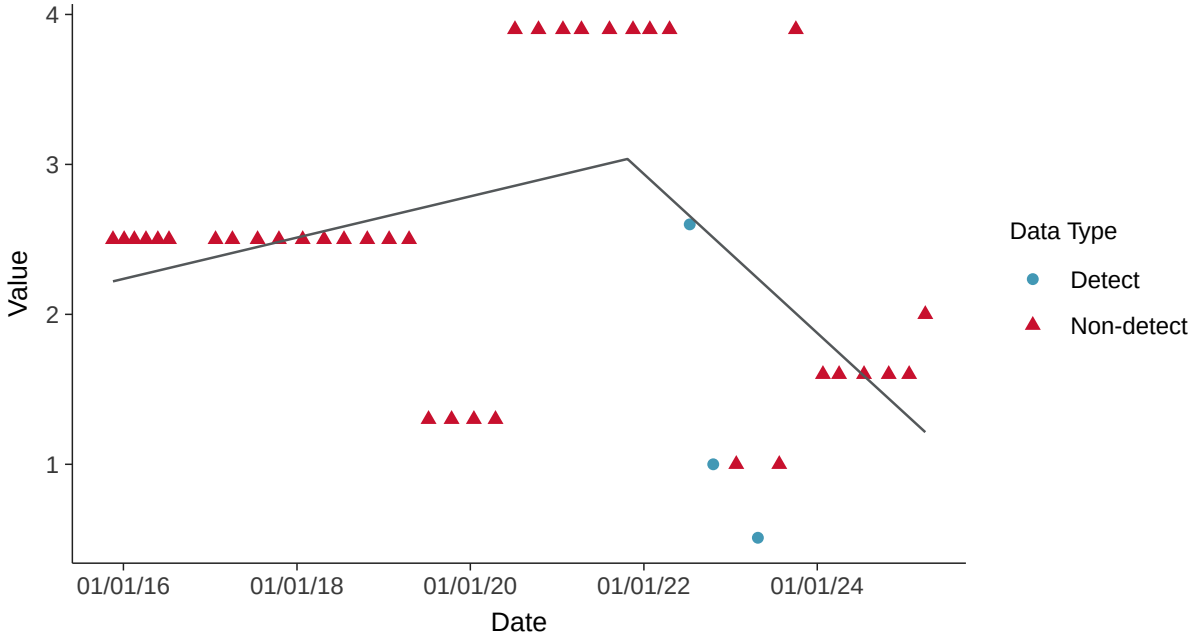
Normal Q-Q plot using ROS Imputed Estimates

Vanadium, MW-5 (ug/L)



Trend Regression: Piecewise Linear-Linear

Vanadium, MW-5 (ug/L)

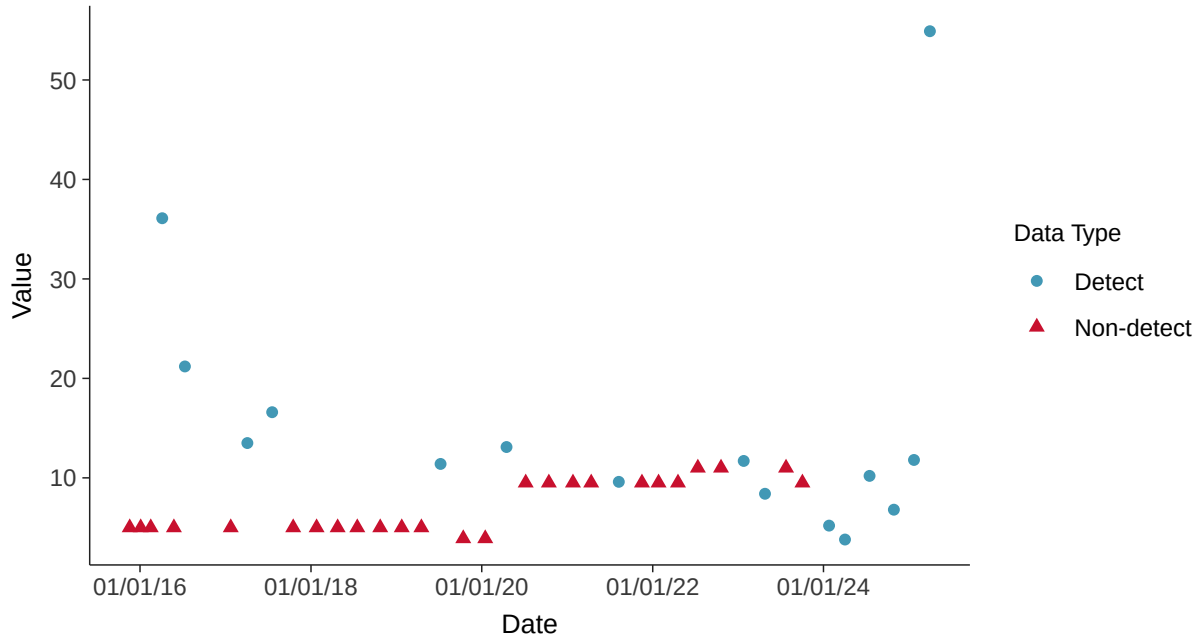


App. I Metals: Zinc, MW-5

ID: 05_01_128

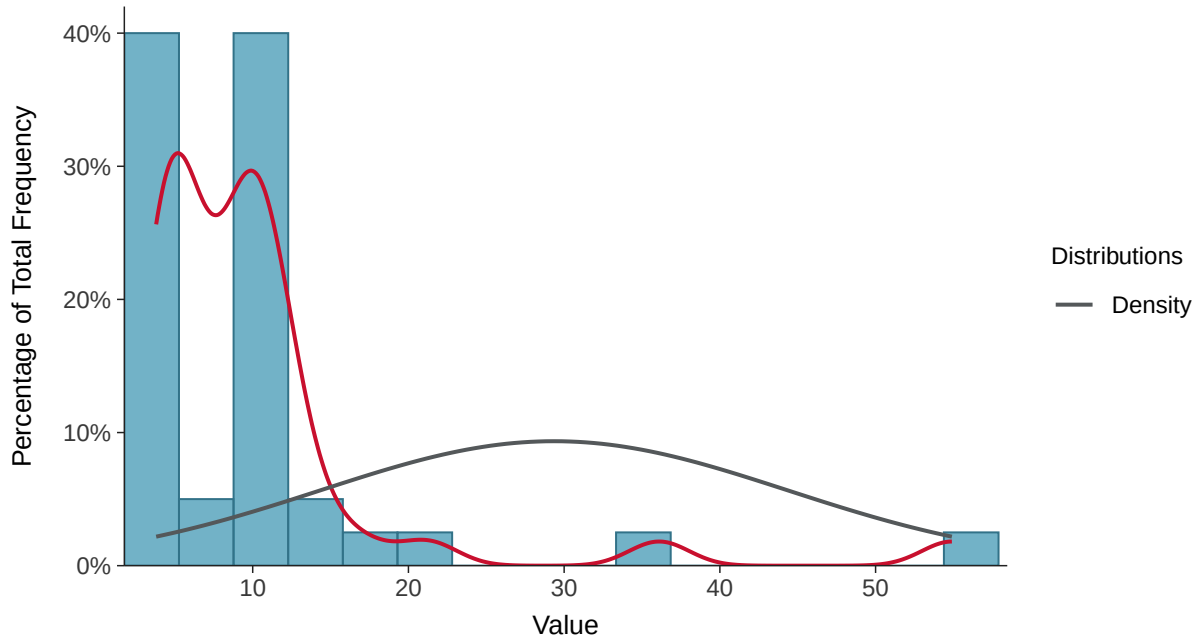
Scatter Plot

Zinc, MW-5 (ug/L)



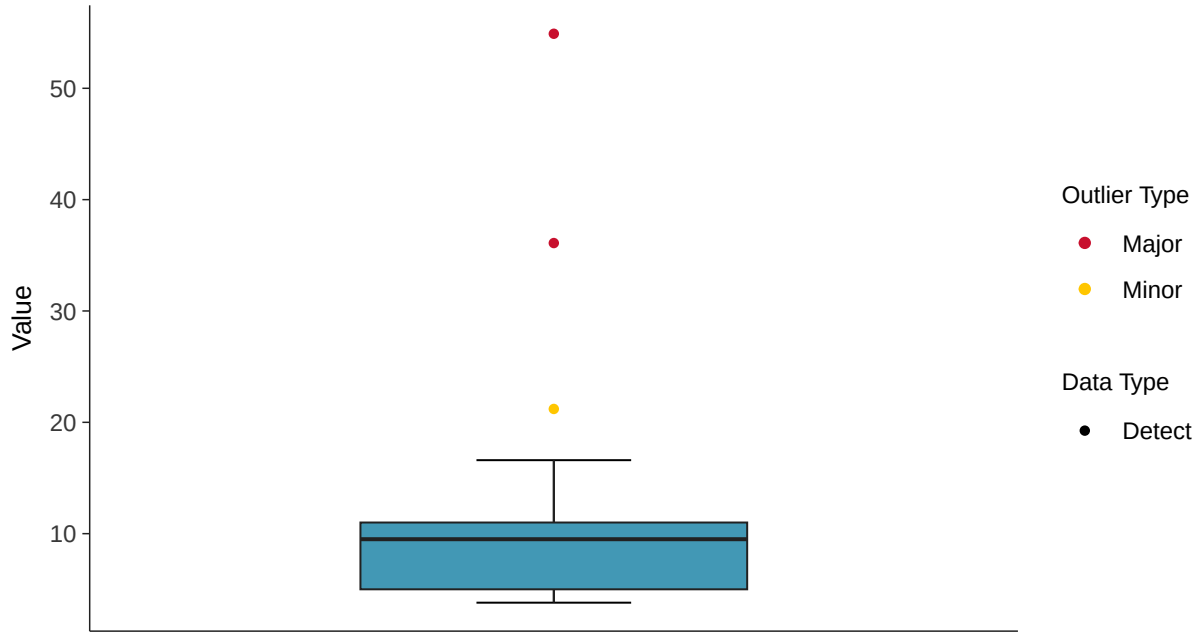
Histogram

Zinc, MW-5 (ug/L)



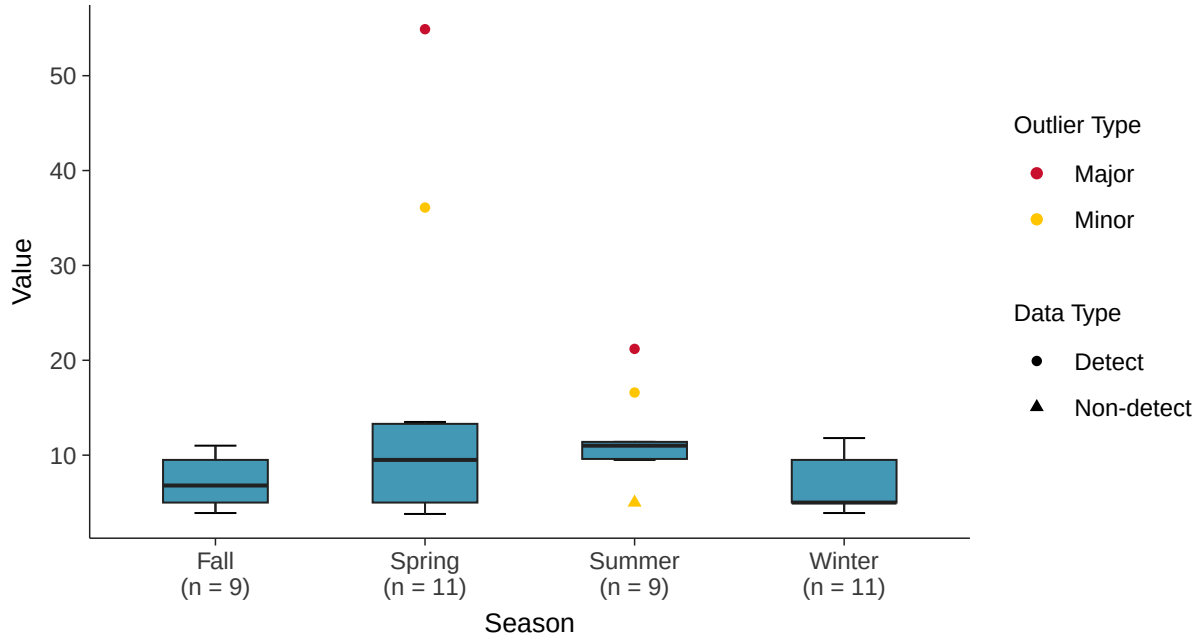
Boxplot

Zinc, MW-5 (ug/L)



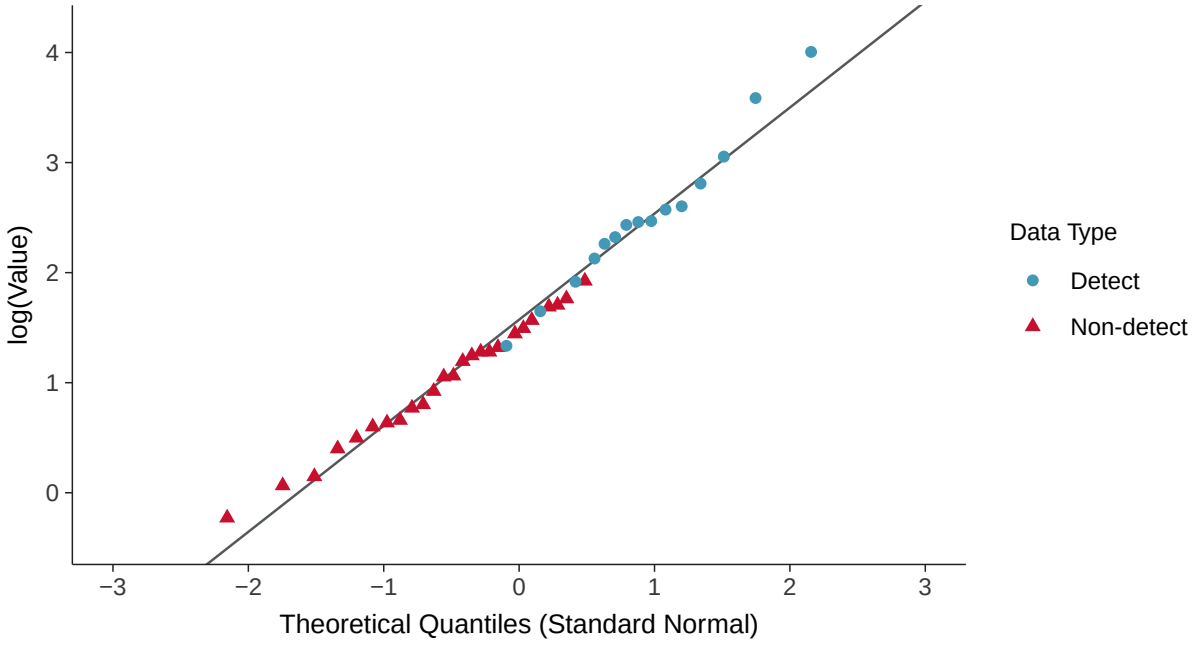
Boxplot by Season

Zinc, MW-5 (ug/L)



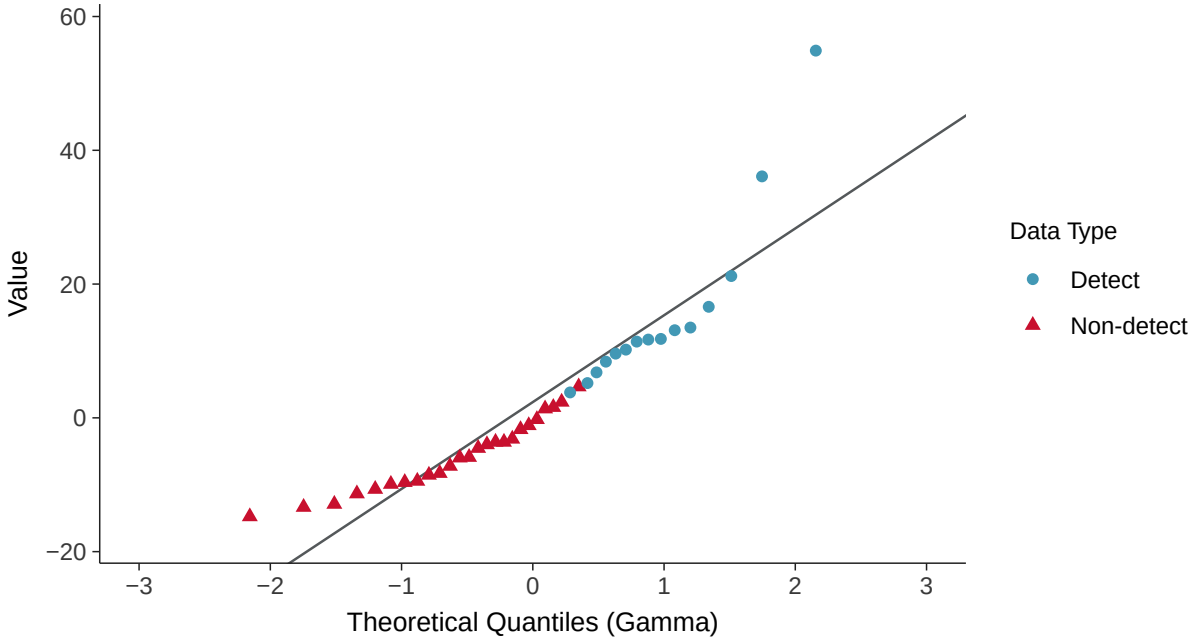
Lognormal Q-Q plot using ROS Imputed Estimates

Zinc, MW-5 (ug/L)



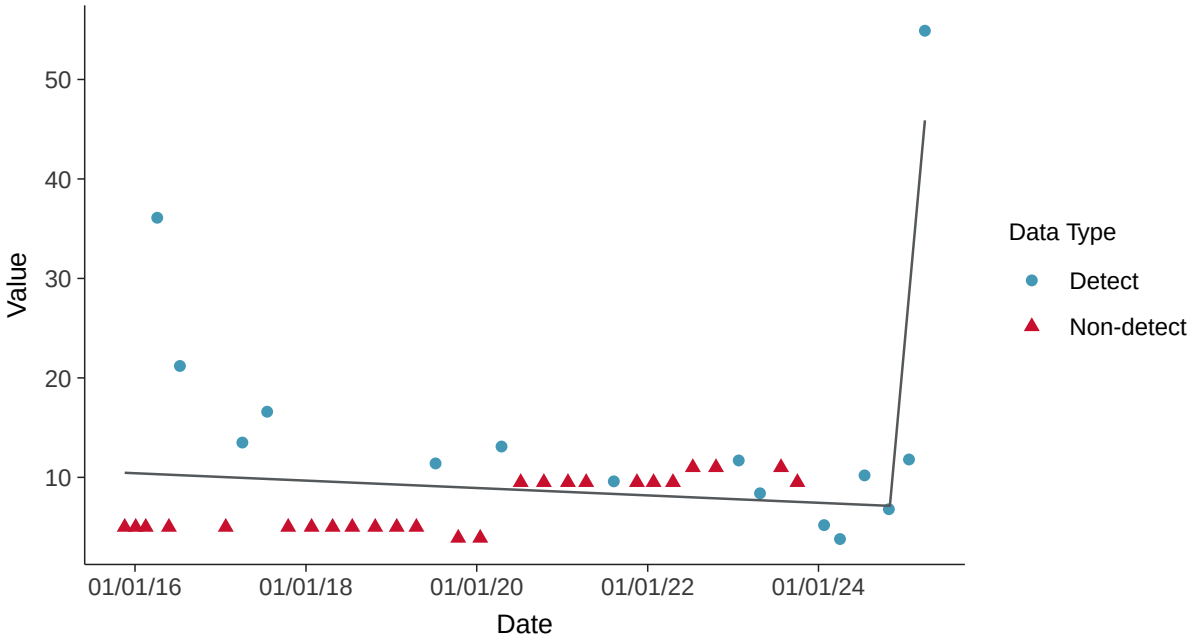
Gamma Q-Q plot using ROS Imputed Estimates

Zinc, MW-5 (ug/L)



Trend Regression: Piecewise Linear-Linear

Zinc, MW-5 (ug/L)

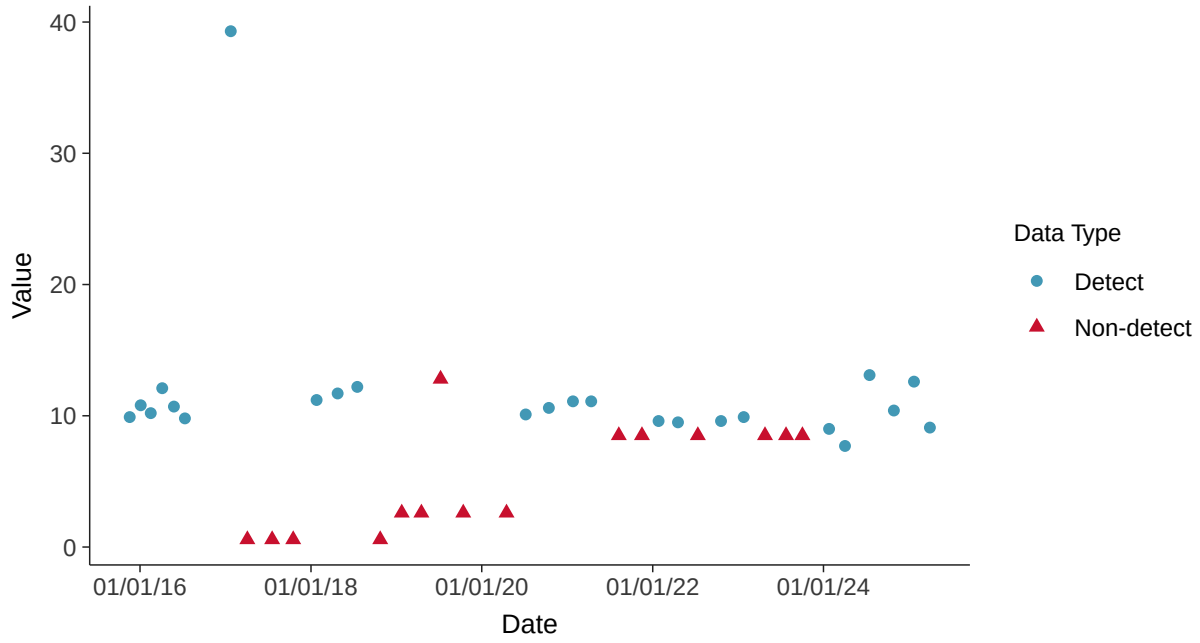


App. III: Boron, MW-5

ID: 05_02_105

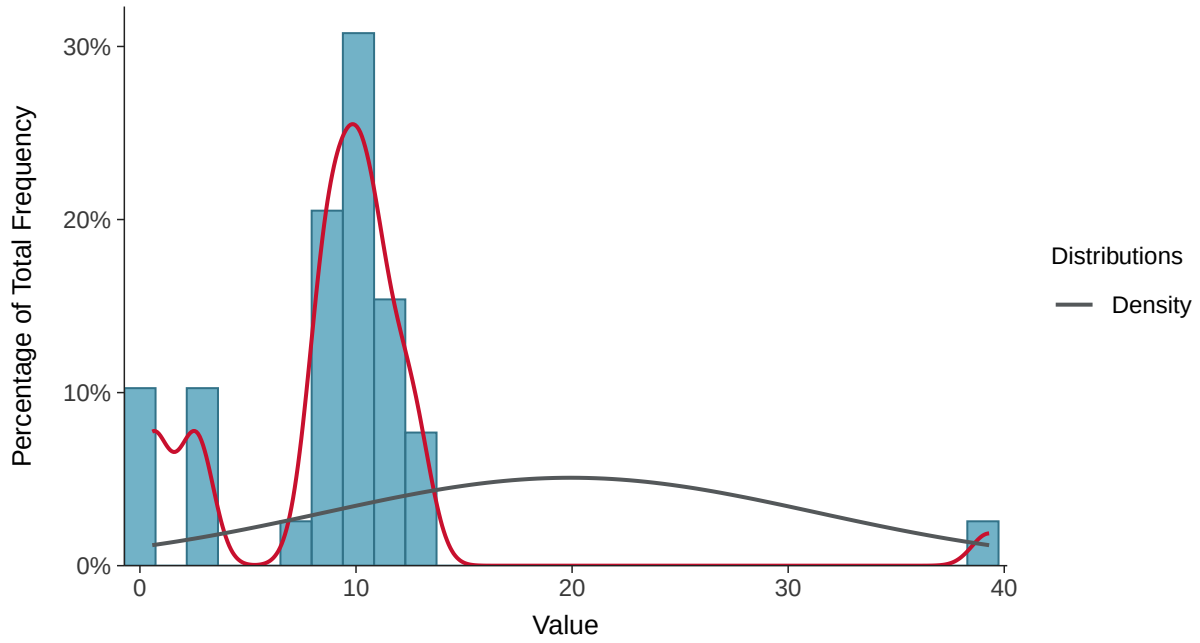
Scatter Plot

Boron, MW-5 (ug/L)



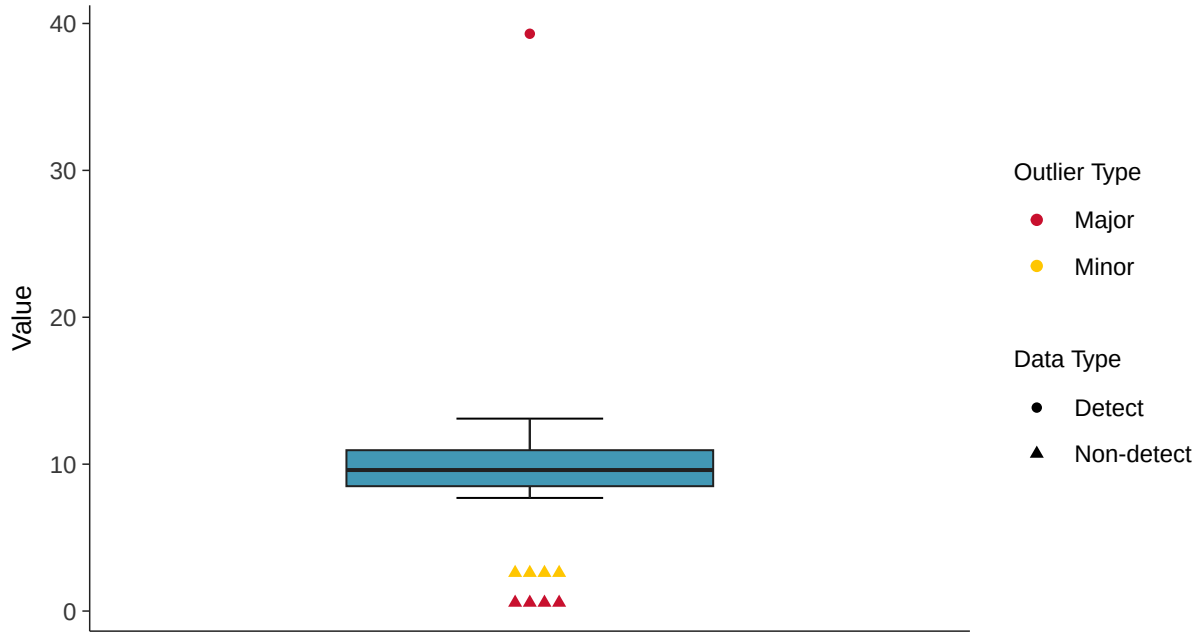
Histogram

Boron, MW-5 (ug/L)



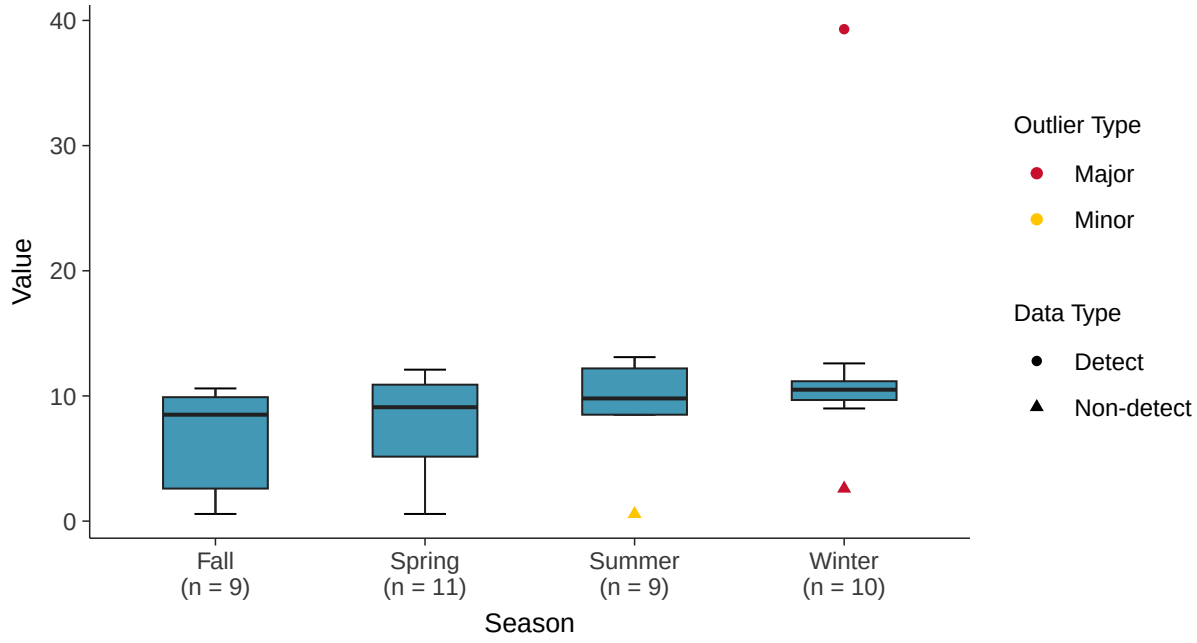
Boxplot

Boron, MW-5 (ug/L)



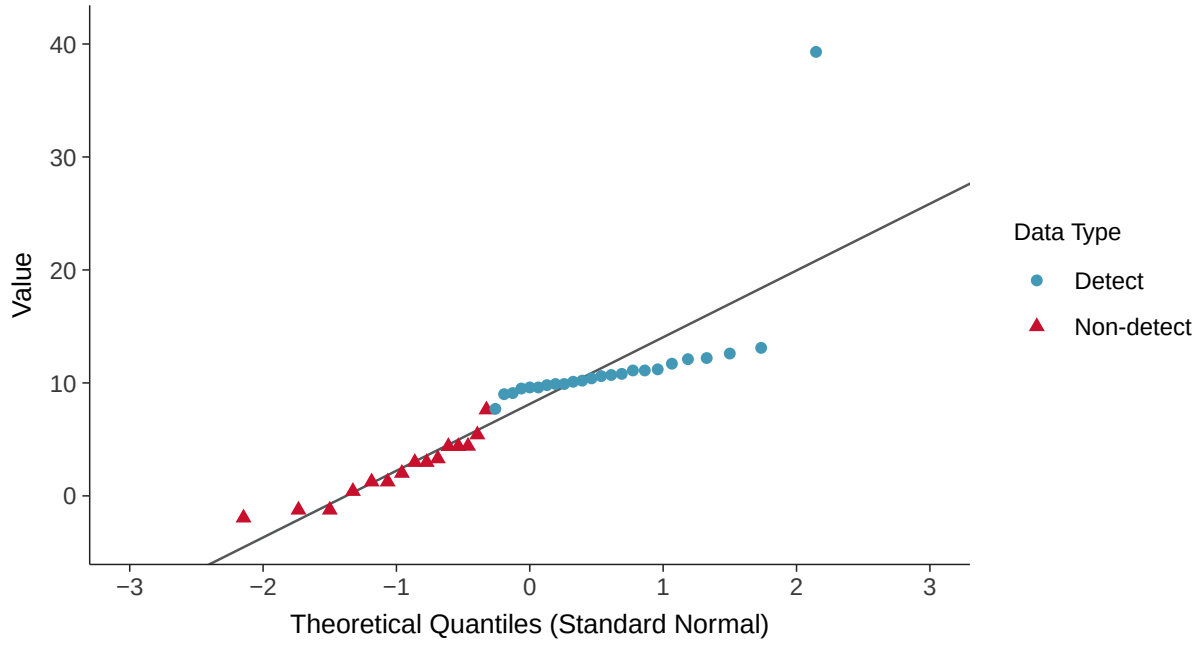
Boxplot by Season

Boron, MW-5 (ug/L)



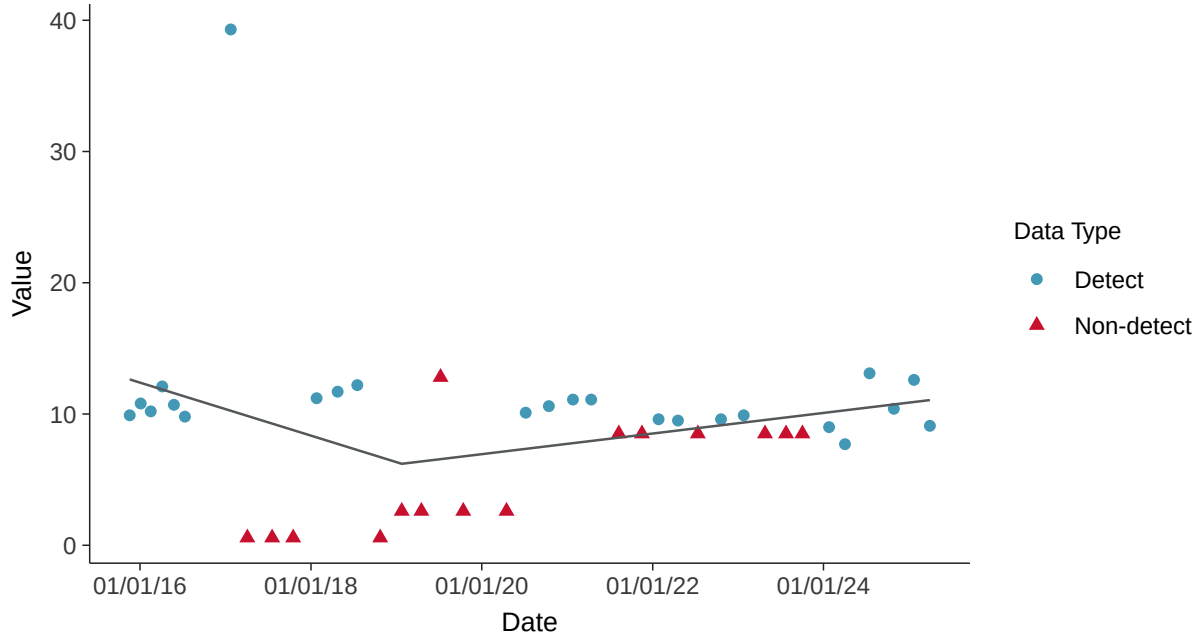
Normal Q-Q plot using ROS Imputed Estimates

Boron, MW-5 (ug/L)



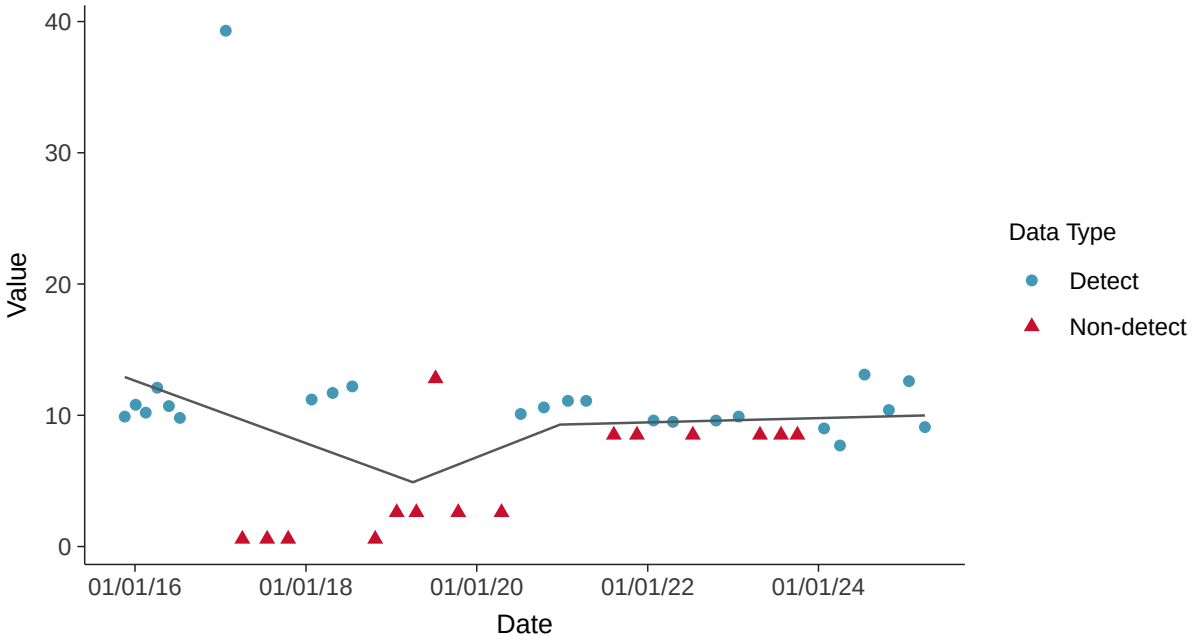
Trend Regression: Piecewise Linear-Linear

Boron, MW-5 (ug/L)



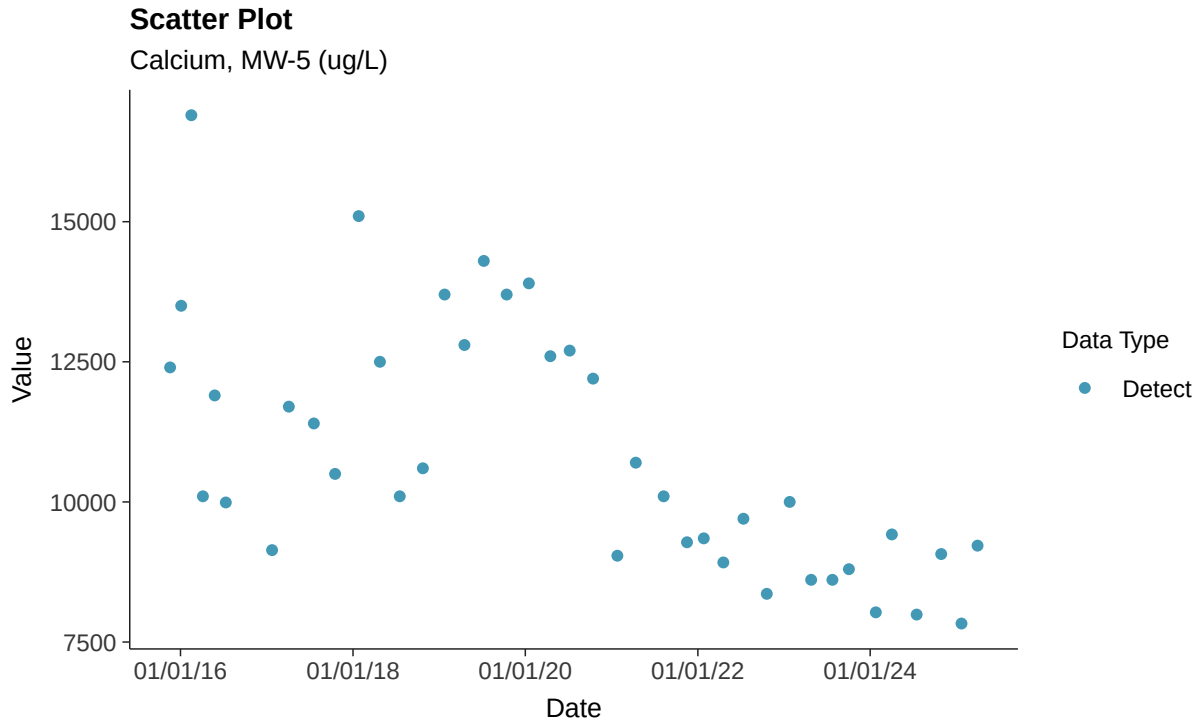
Trend Regression: Piecewise Linear-Linear-Linear

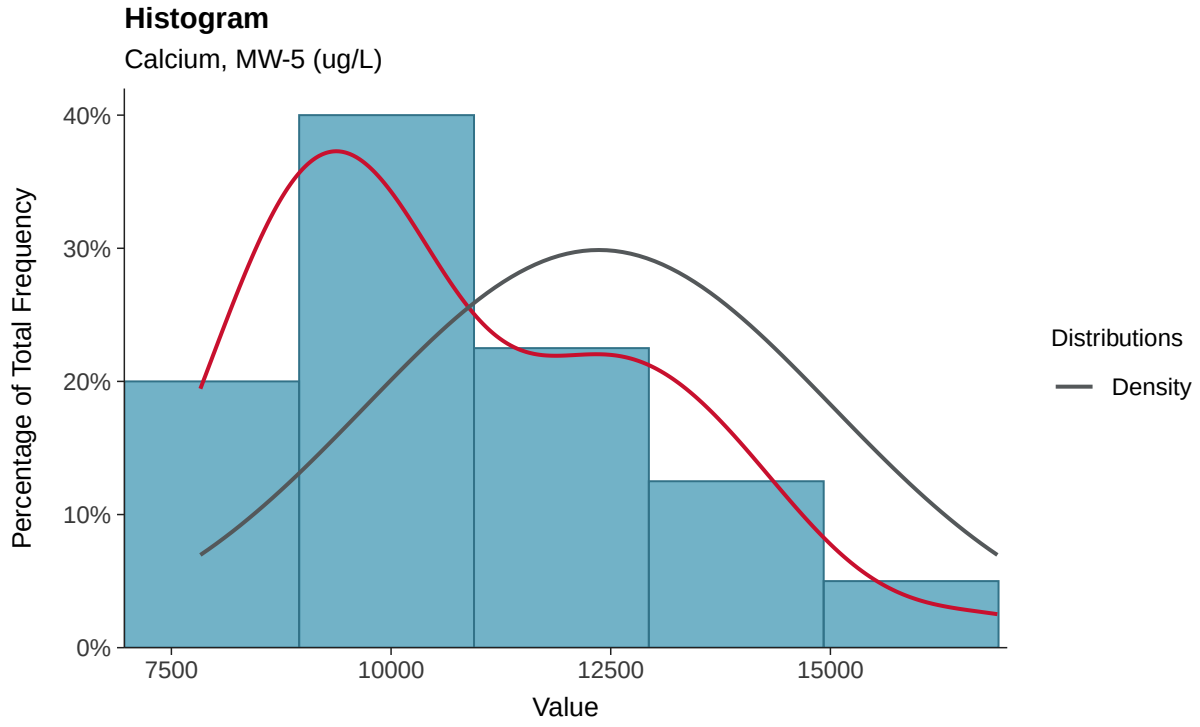
Boron, MW-5 (ug/L)



App. III: Calcium, MW-5

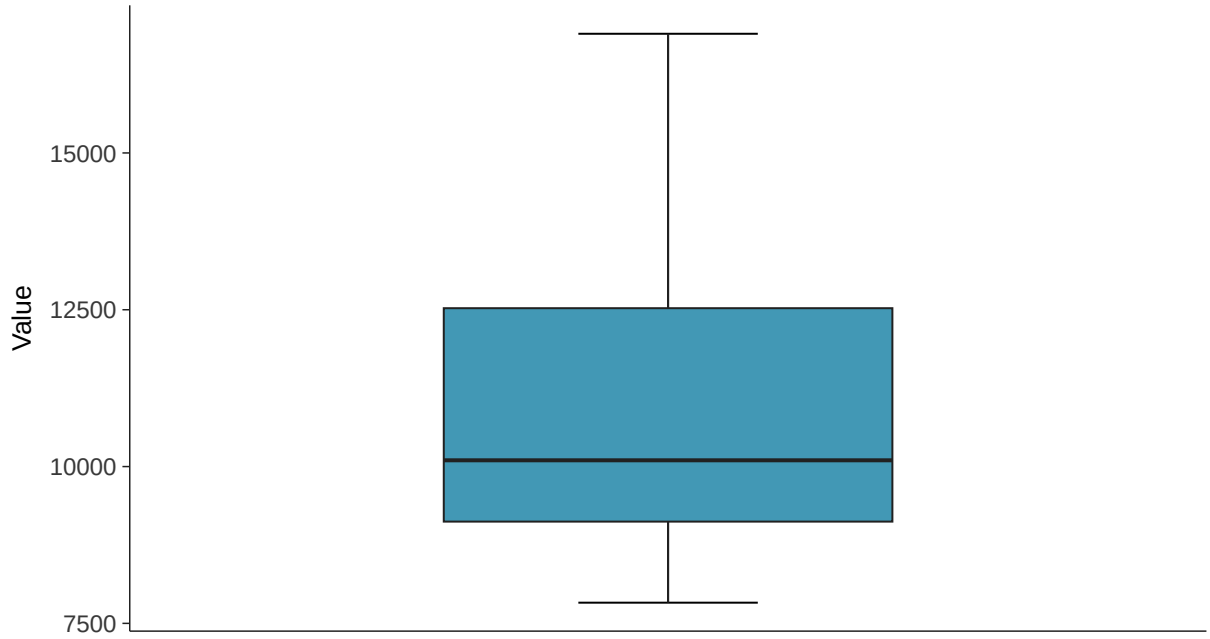
ID: 05_02_107





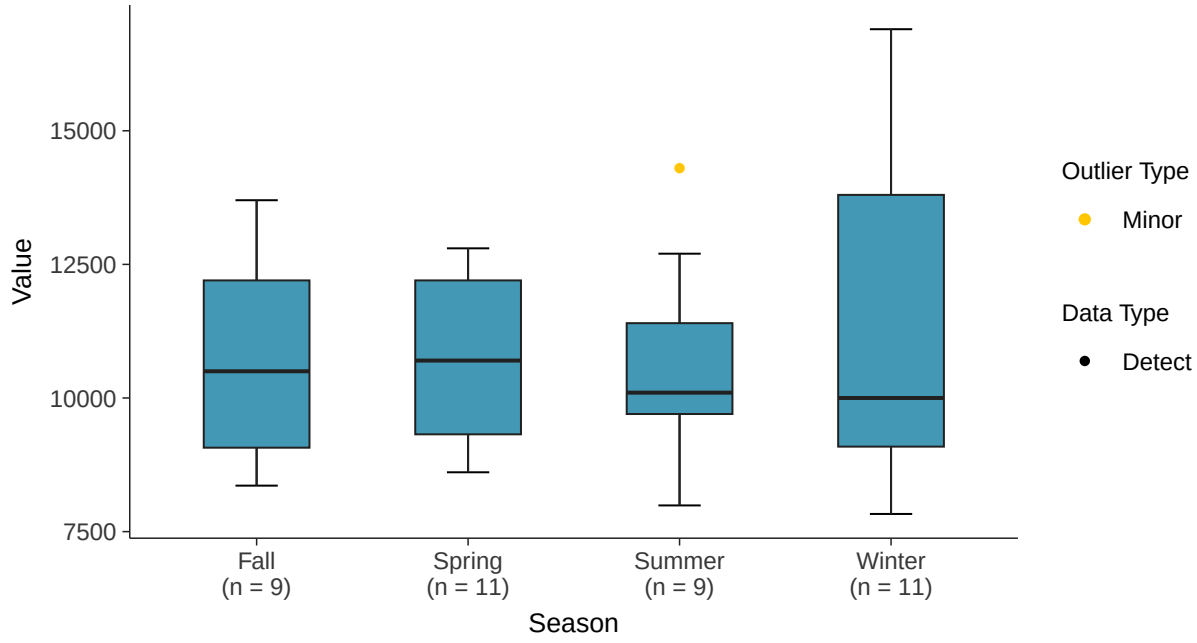
Boxplot

Calcium, MW-5 (ug/L)



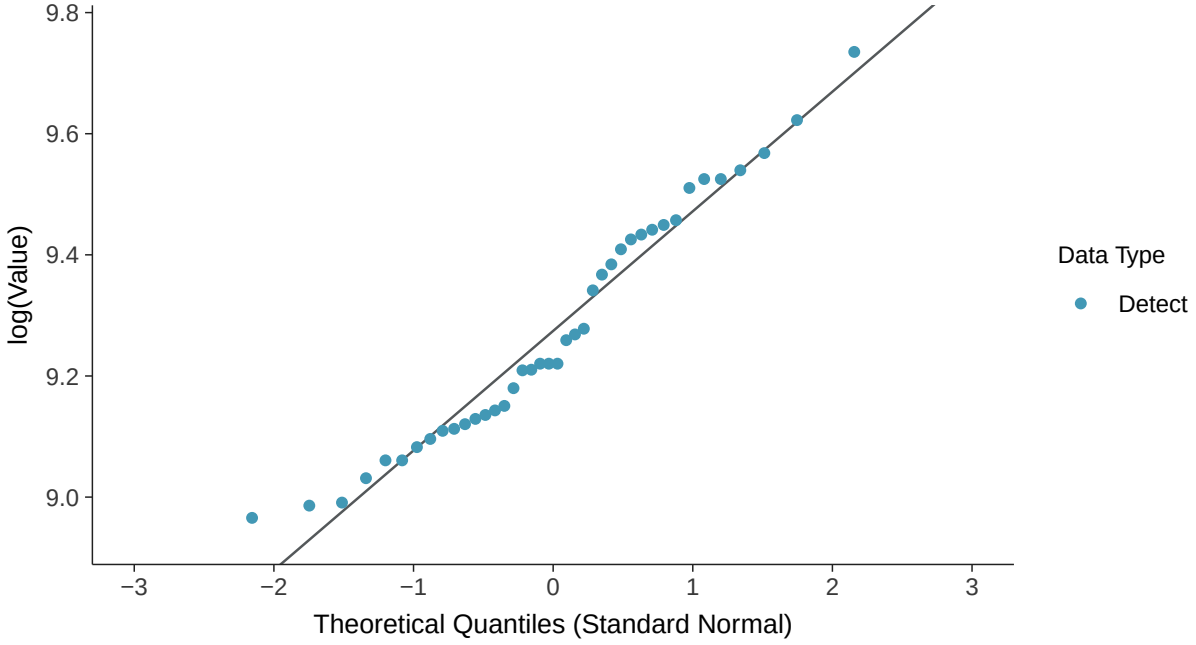
Boxplot by Season

Calcium, MW-5 (ug/L)



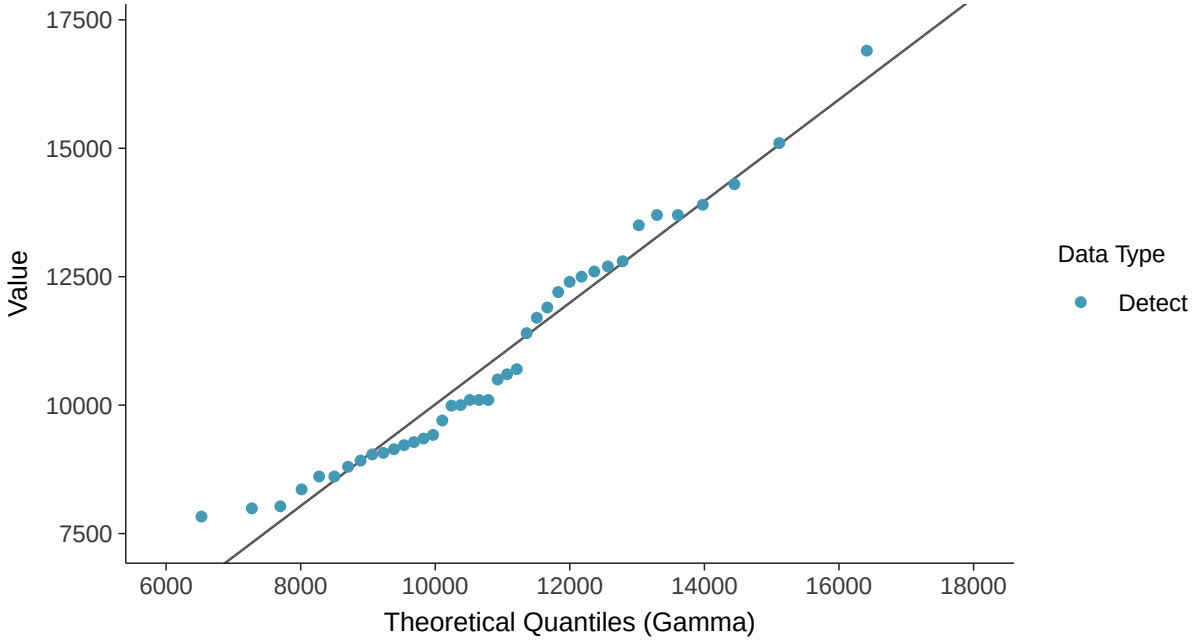
Lognormal Q-Q plot

Calcium, MW-5 (ug/L)



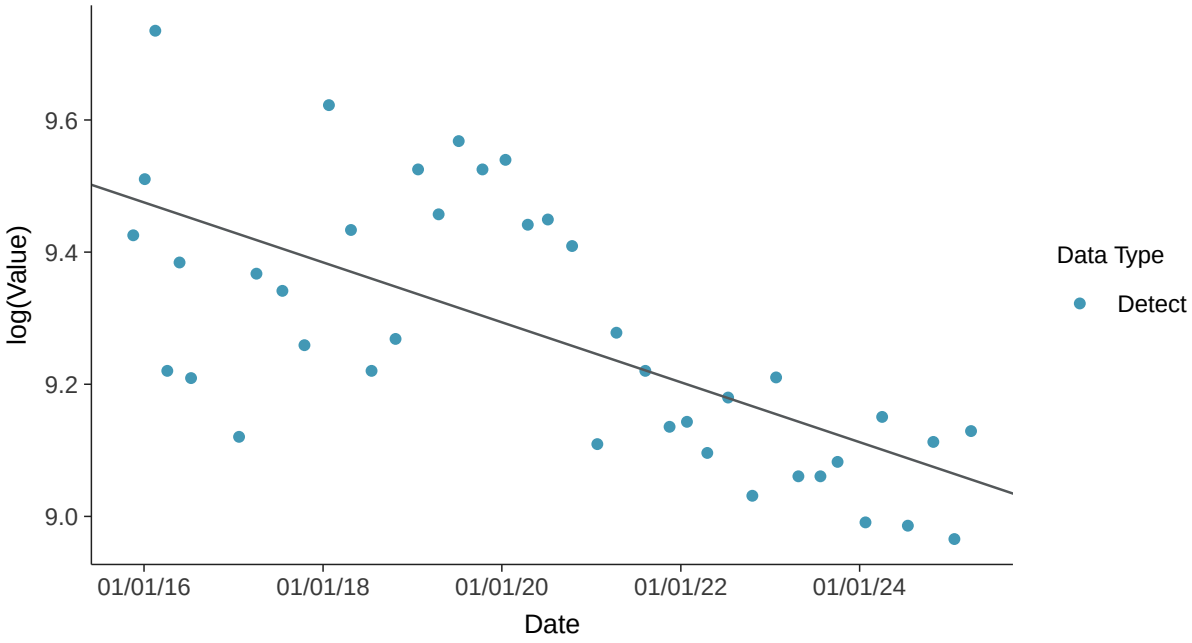
Gamma Q-Q plot

Calcium, MW-5 (ug/L)



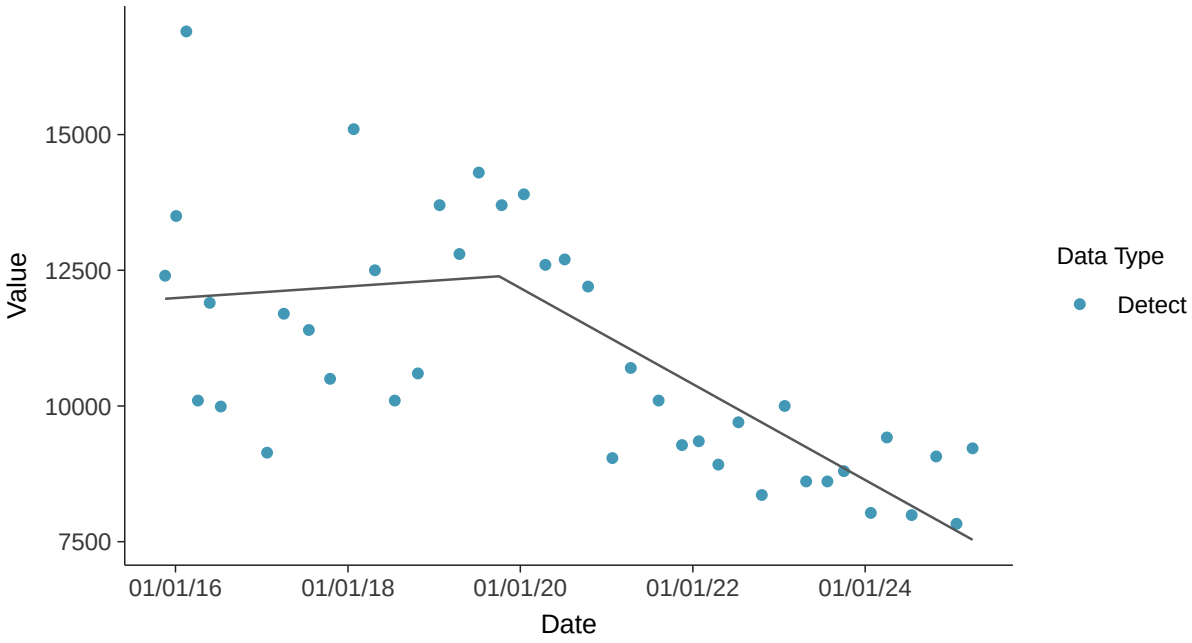
Trend Regression: Lognormal MLE

Calcium, MW-5 (ug/L)



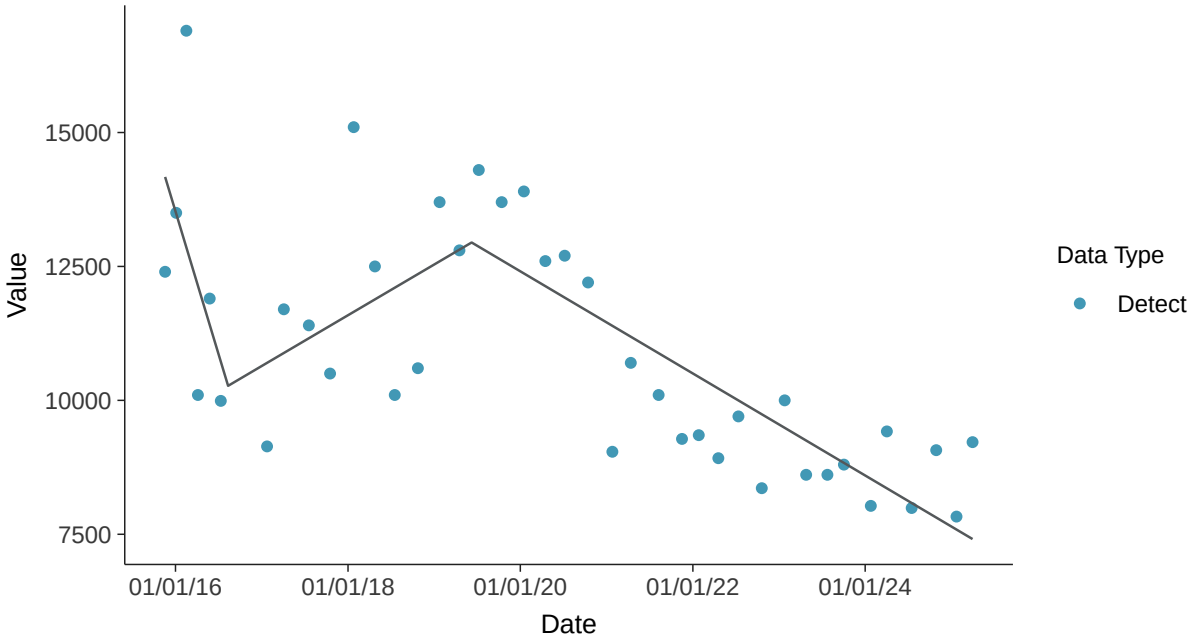
Trend Regression: Piecewise Linear-Linear

Calcium, MW-5 (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Calcium, MW-5 (ug/L)

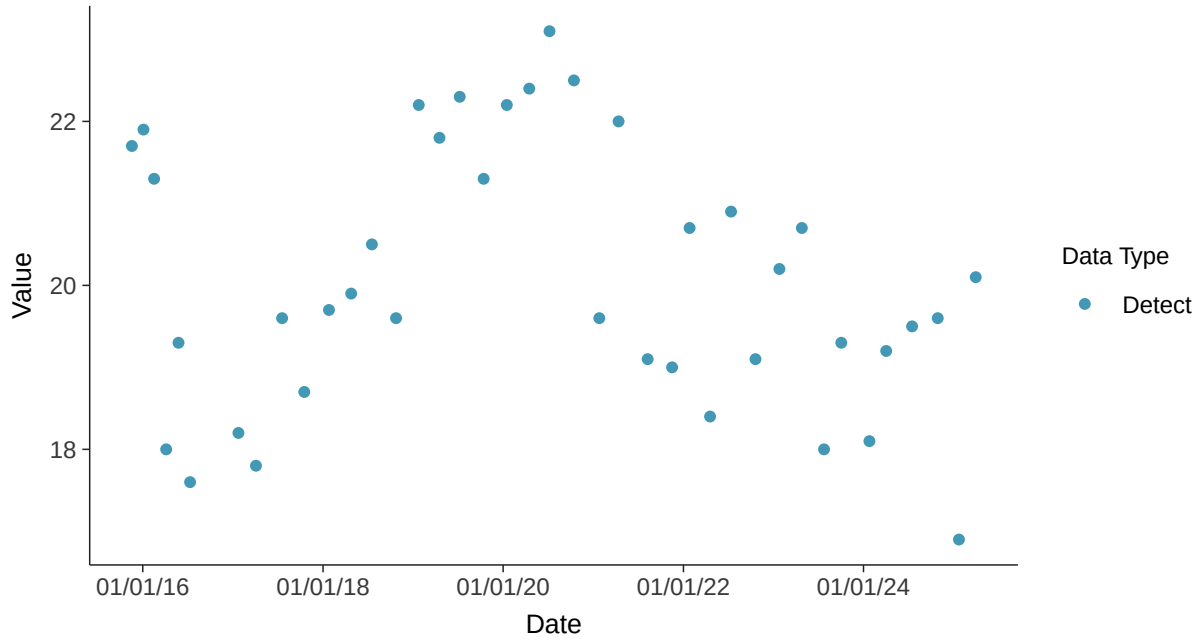


App. III: Chloride, MW-5

ID: 05_02_108

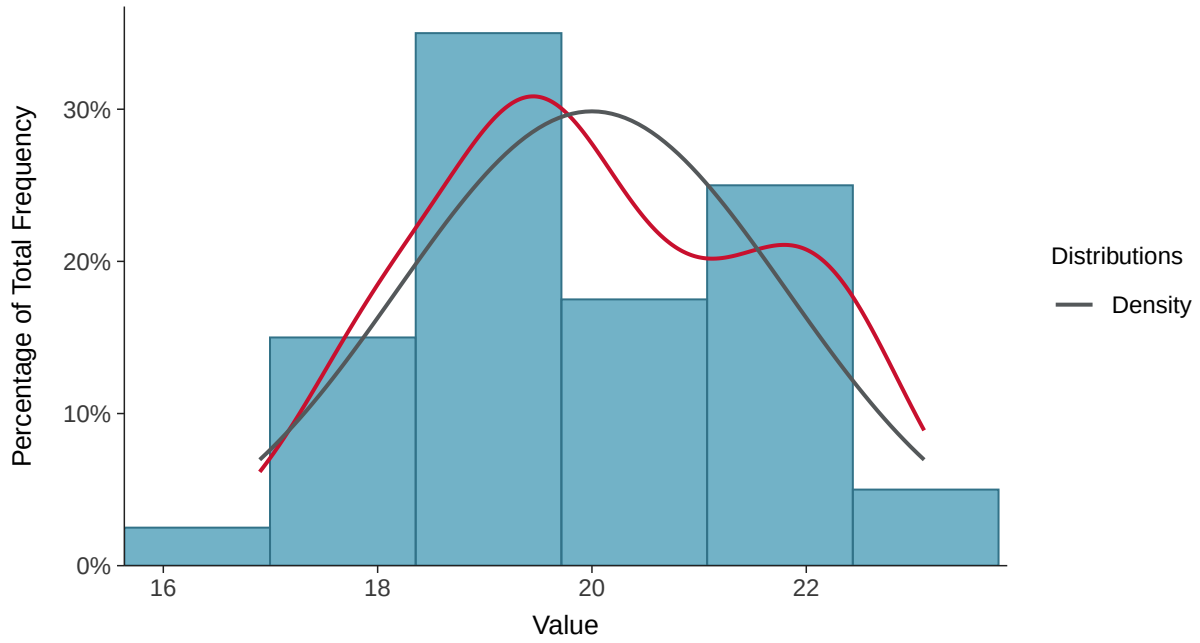
Scatter Plot

Chloride, MW-5 (mg/L)



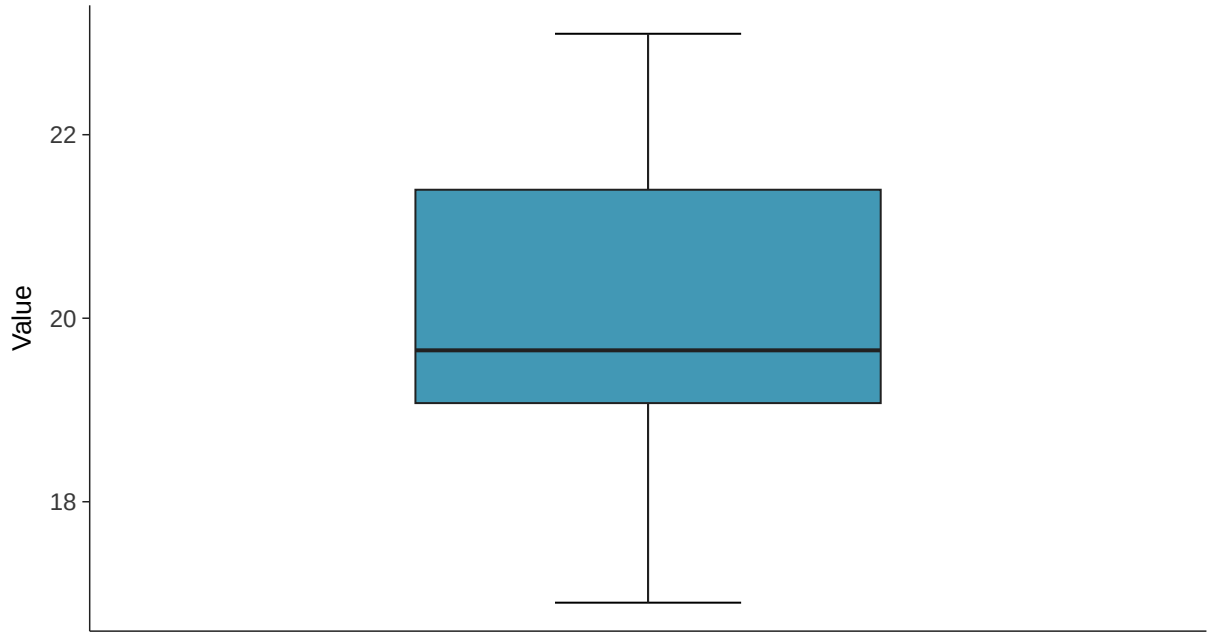
Histogram

Chloride, MW-5 (mg/L)



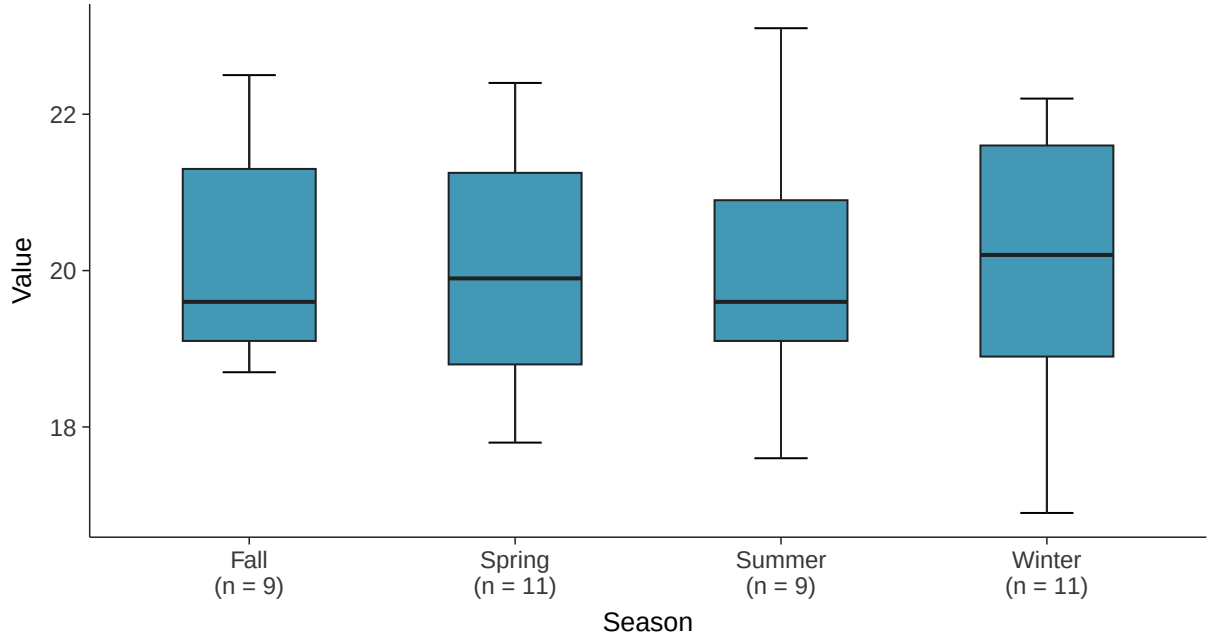
Boxplot

Chloride, MW-5 (mg/L)



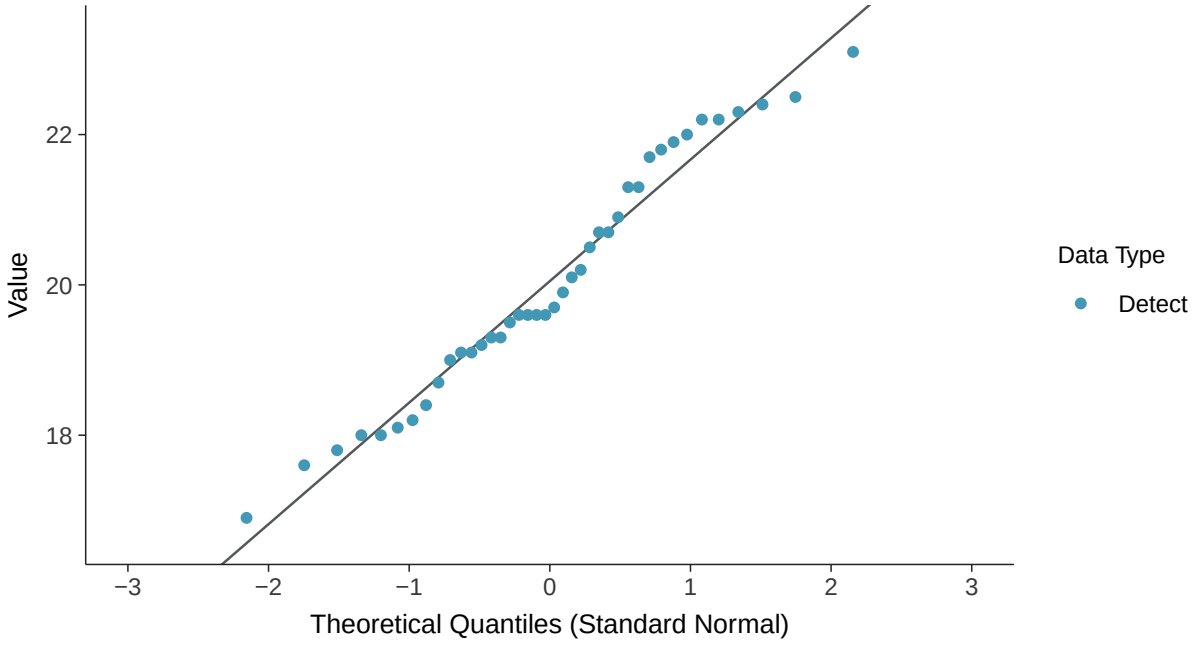
Boxplot by Season

Chloride, MW-5 (mg/L)



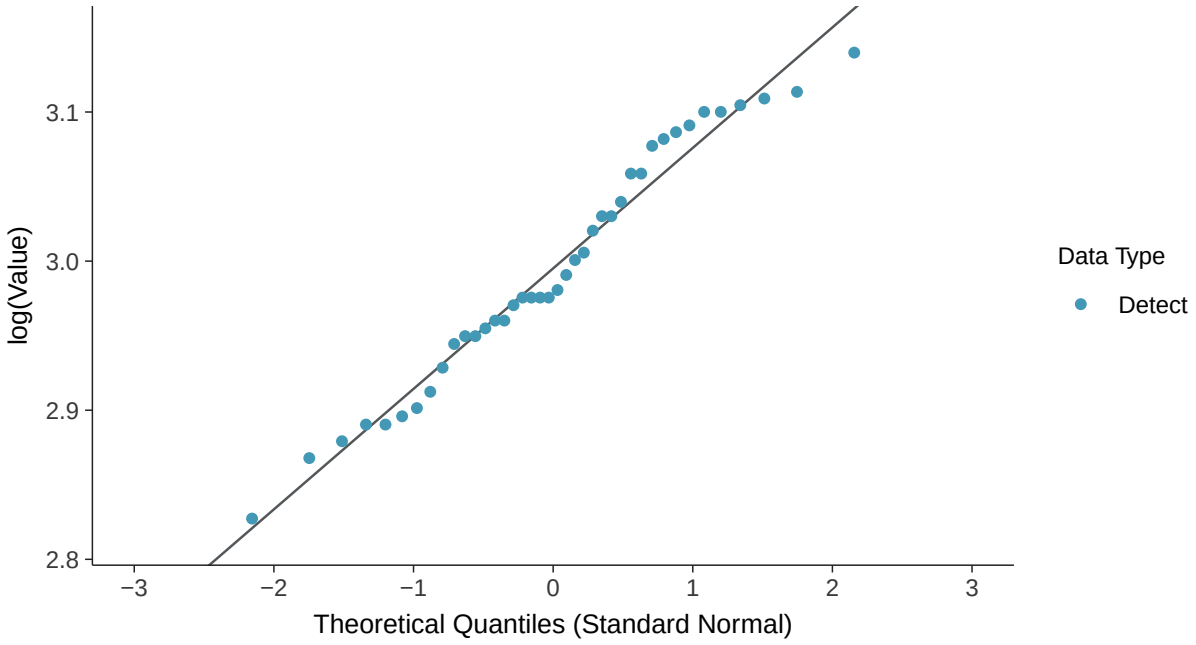
Normal Q-Q plot

Chloride, MW-5 (mg/L)



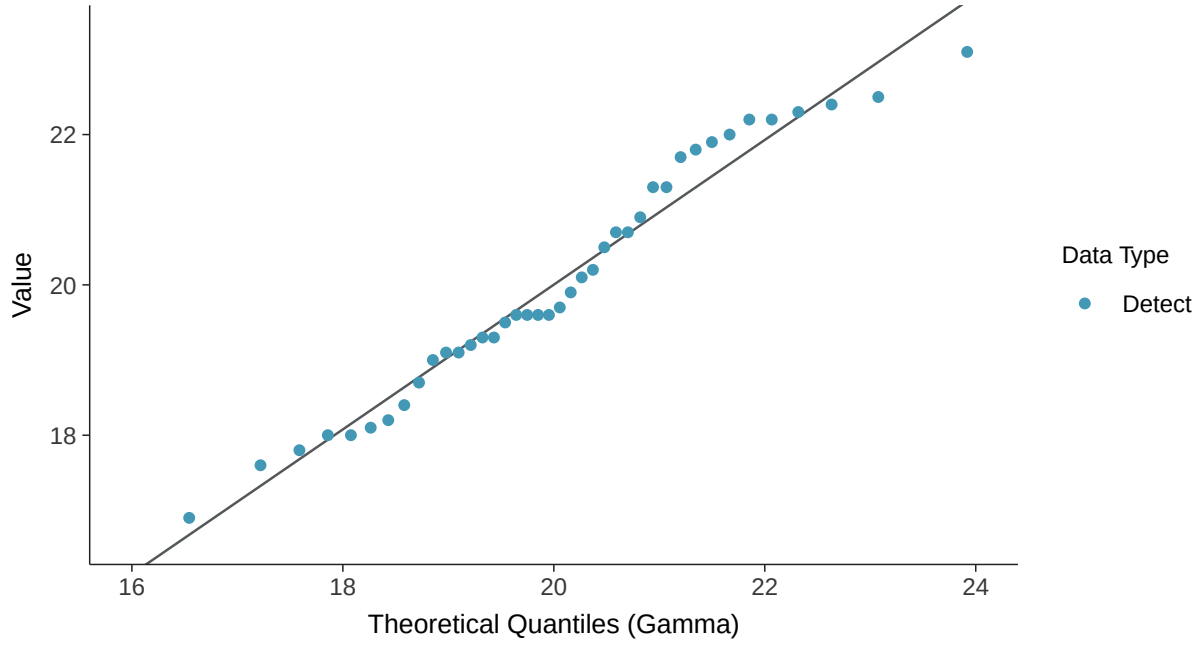
Lognormal Q-Q plot

Chloride, MW-5 (mg/L)



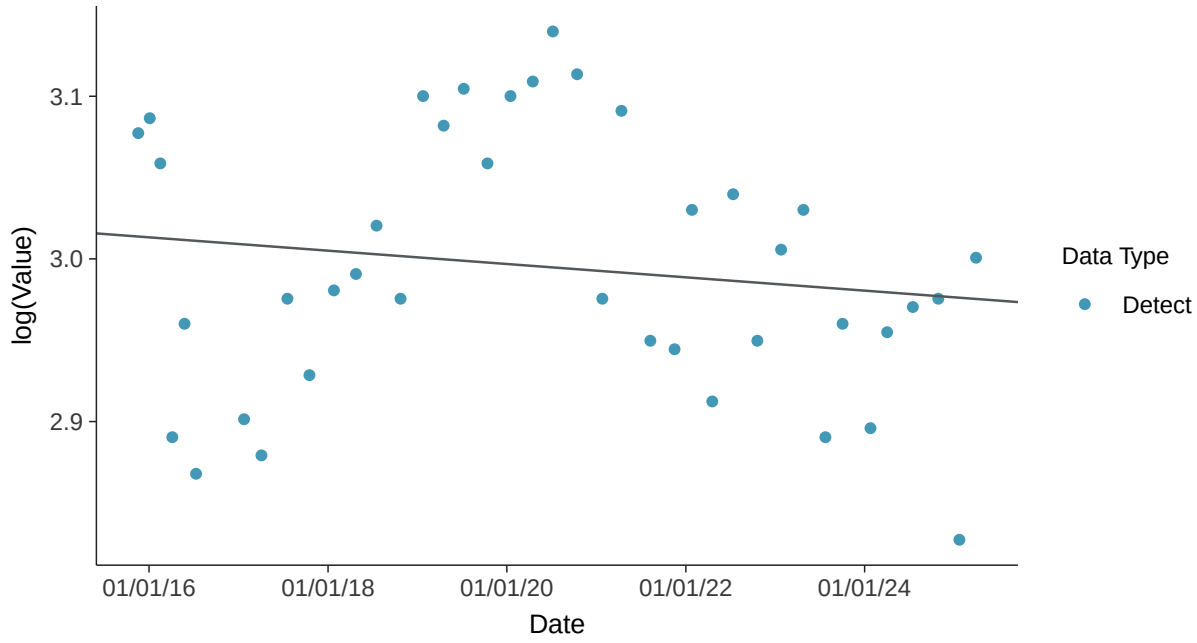
Gamma Q-Q plot

Chloride, MW-5 (mg/L)



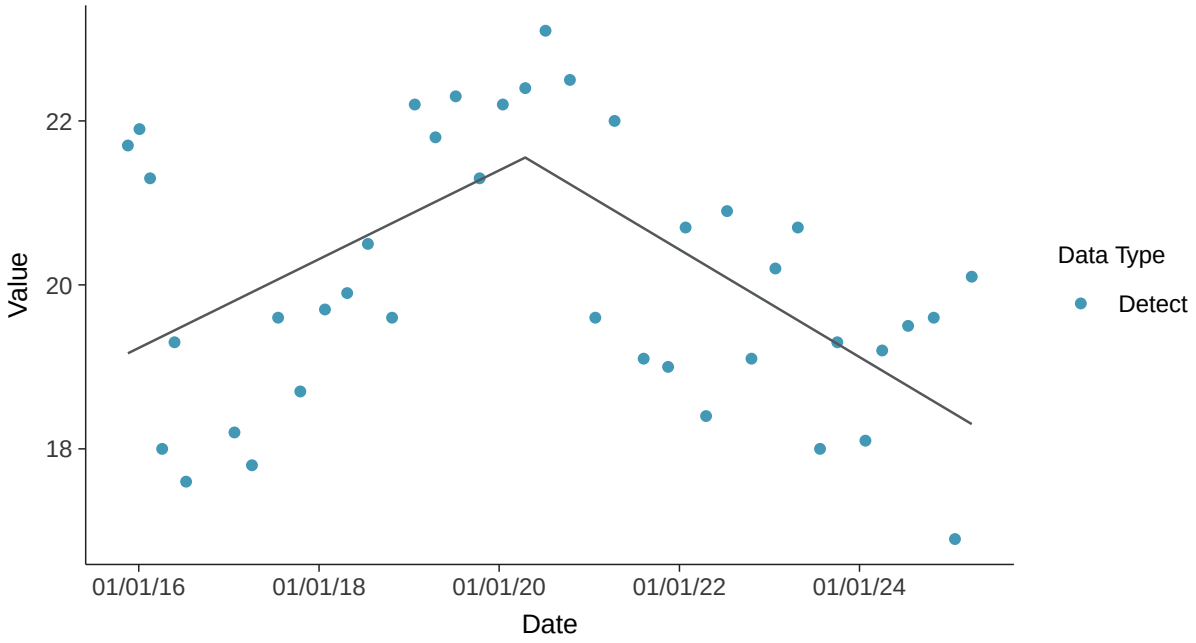
Trend Regression: Lognormal MLE

Chloride, MW-5 (mg/L)



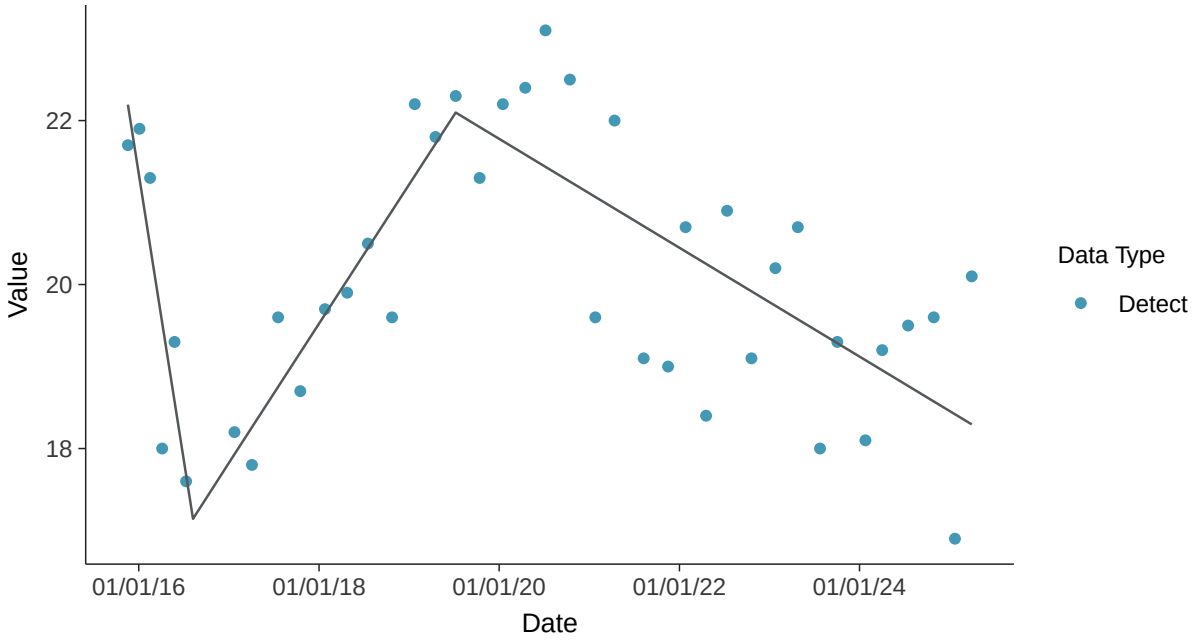
Trend Regression: Piecewise Linear-Linear

Chloride, MW-5 (mg/L)



Trend Regression: Piecewise Linear-Linear-Linear

Chloride, MW-5 (mg/L)

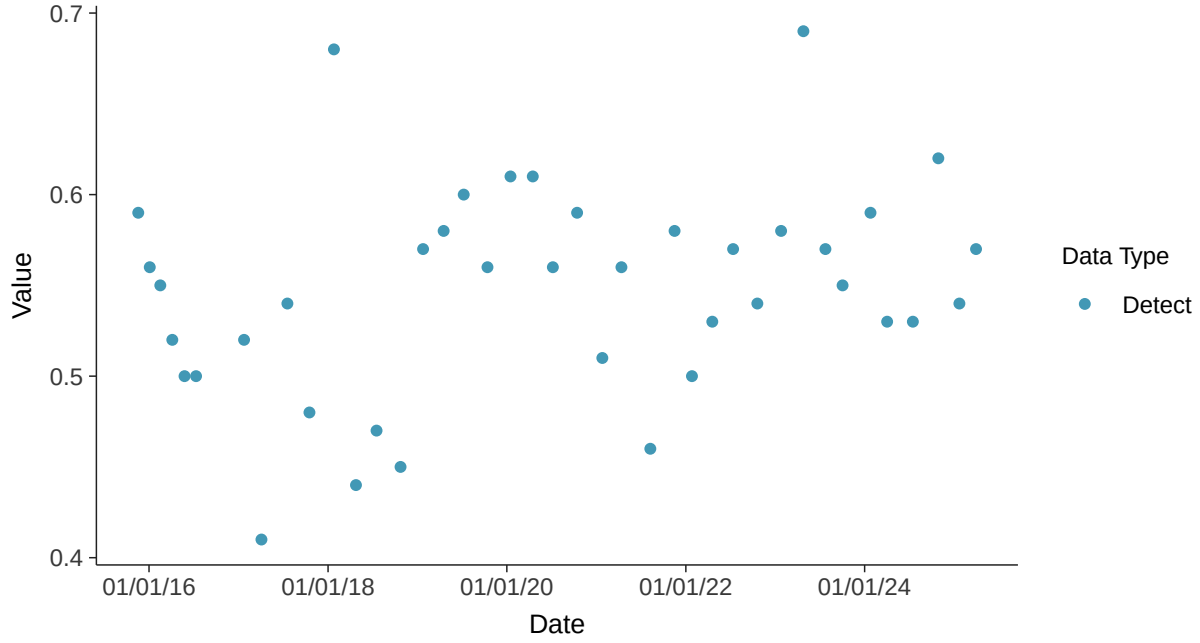


App. III: Fluoride, MW-5

ID: 05_02_112

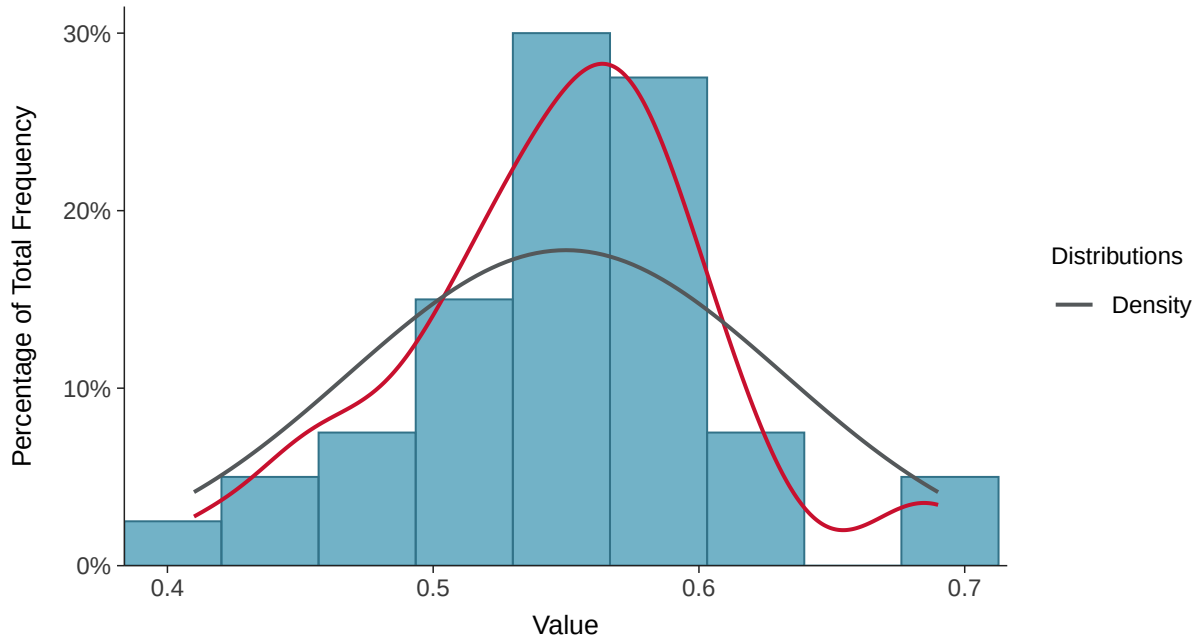
Scatter Plot

Fluoride, MW-5 (mg/L)



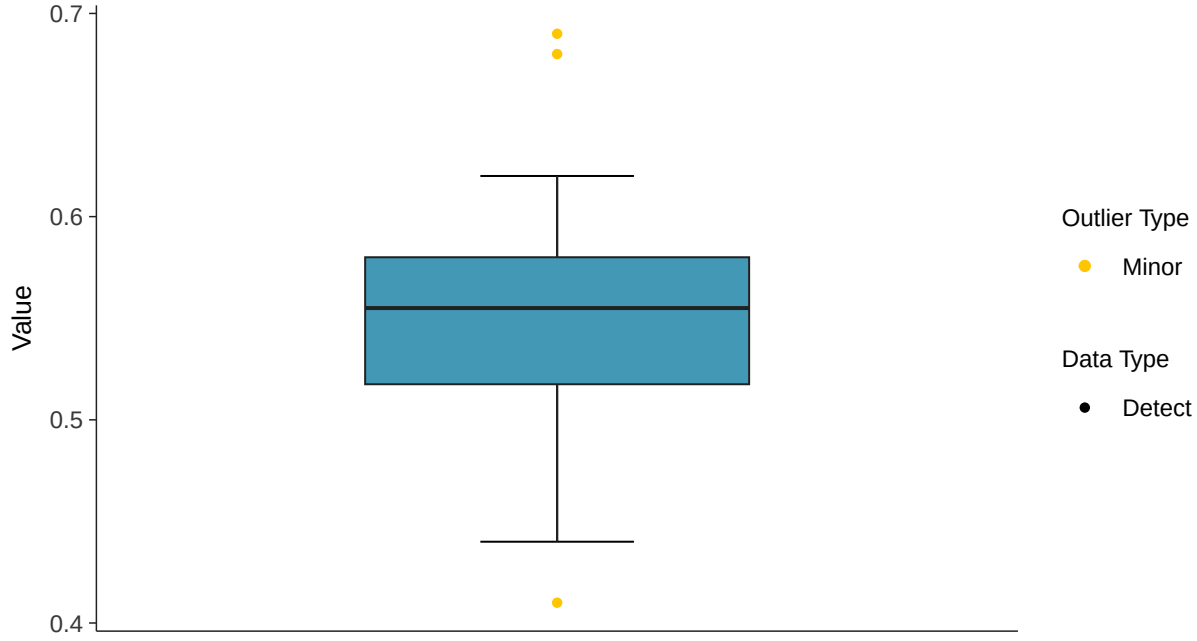
Histogram

Fluoride, MW-5 (mg/L)



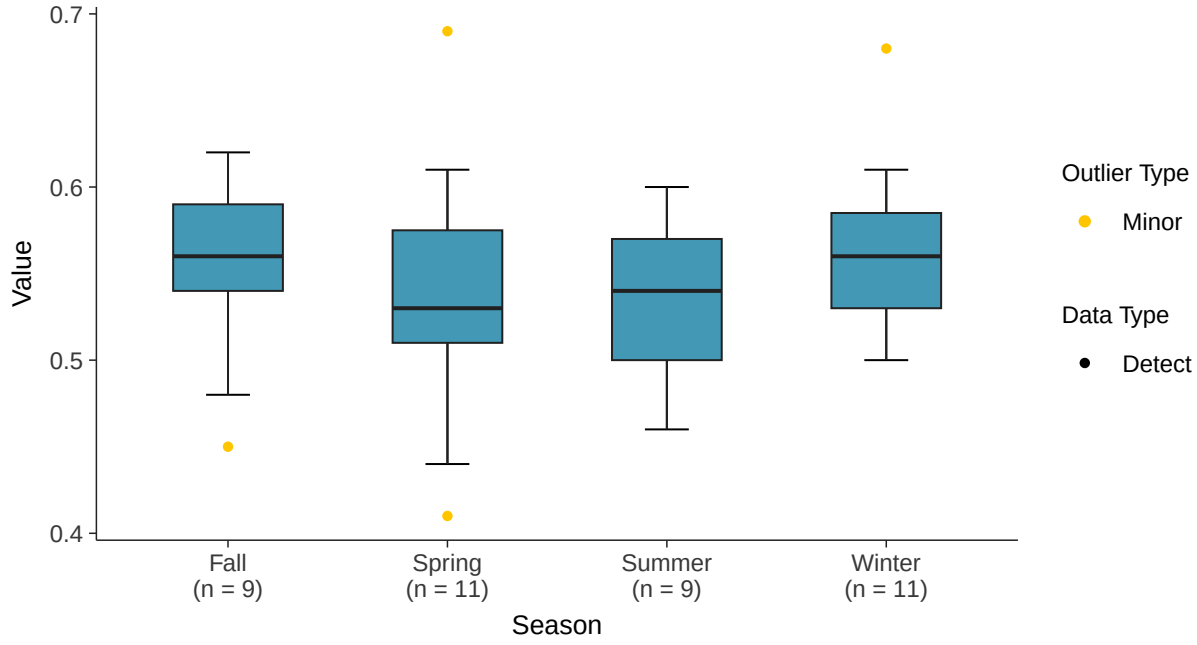
Boxplot

Fluoride, MW-5 (mg/L)



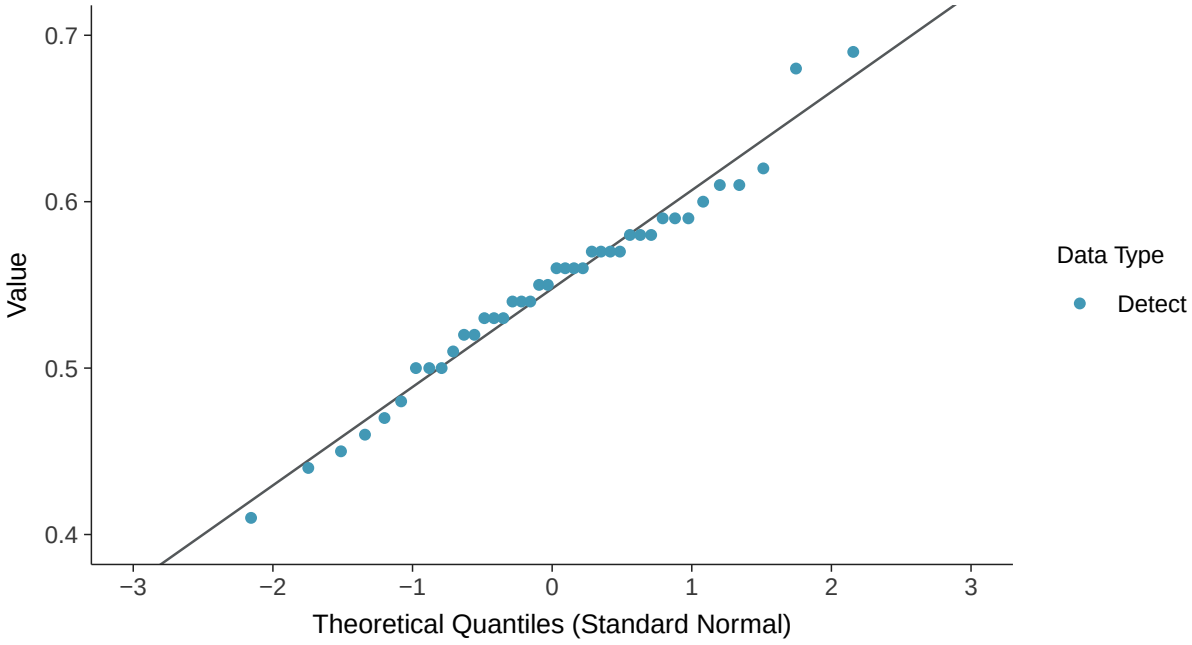
Boxplot by Season

Fluoride, MW-5 (mg/L)



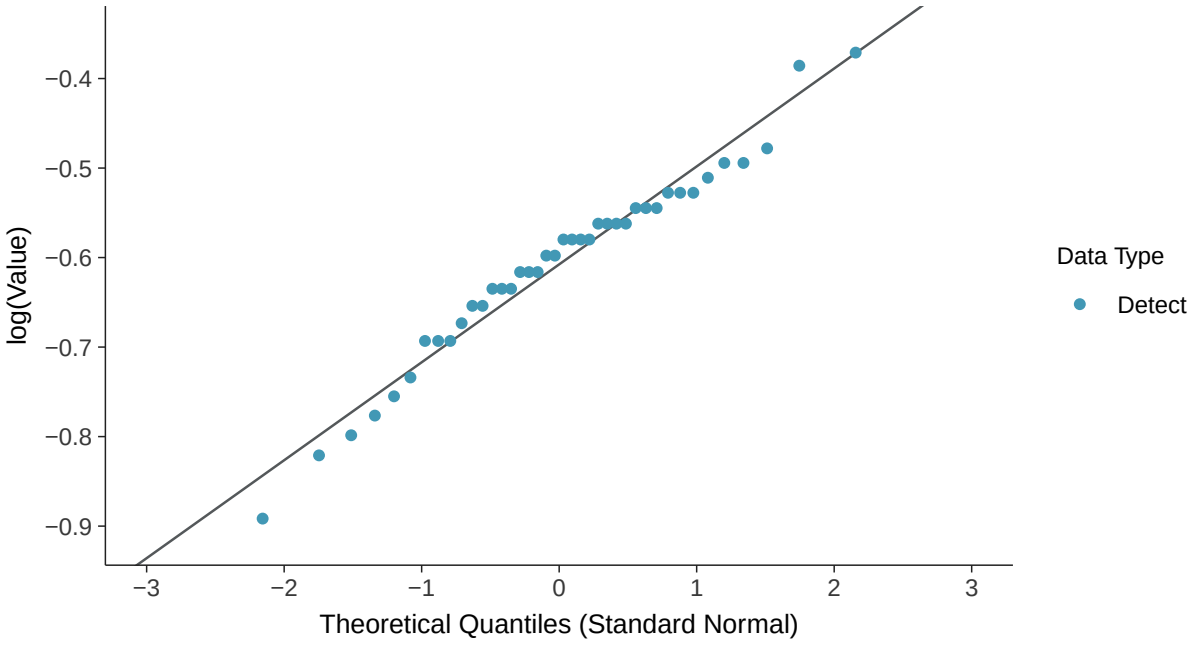
Normal Q-Q plot

Fluoride, MW-5 (mg/L)



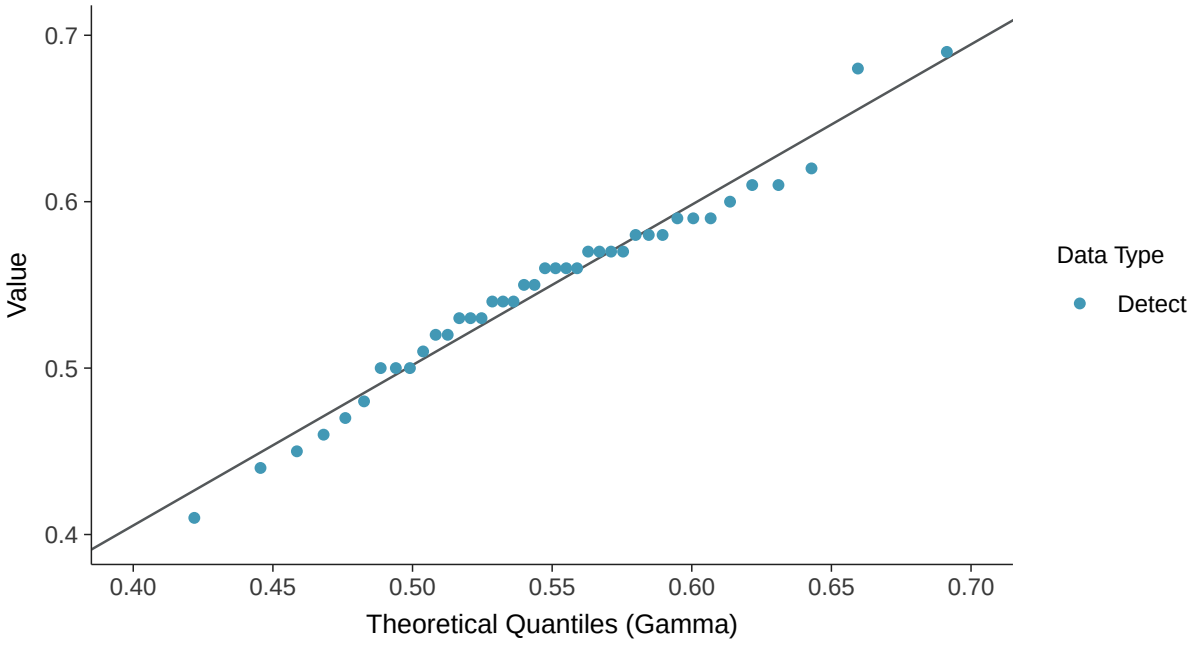
Lognormal Q-Q plot

Fluoride, MW-5 (mg/L)



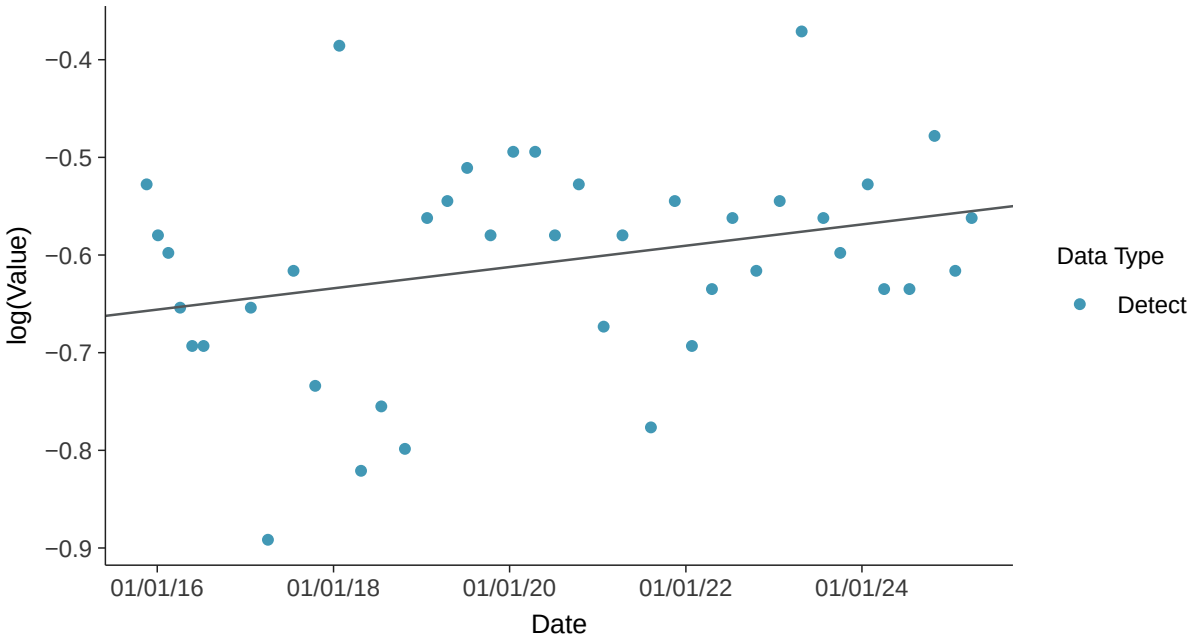
Gamma Q-Q plot

Fluoride, MW-5 (mg/L)



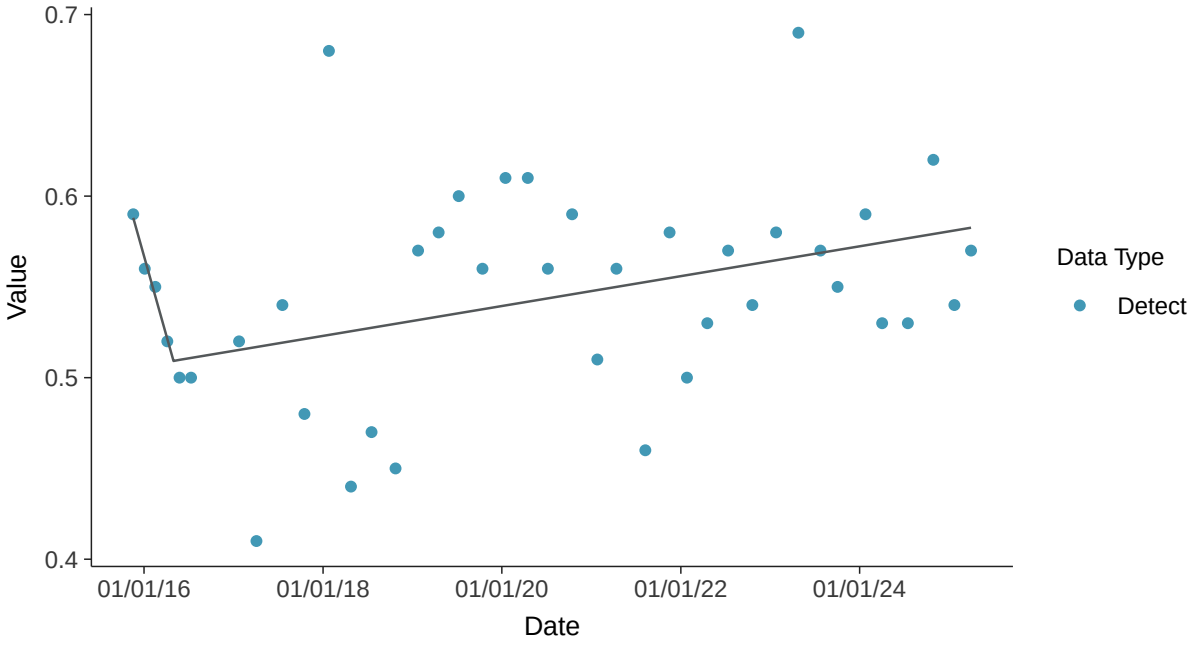
Trend Regression: Lognormal MLE

Fluoride, MW-5 (mg/L)



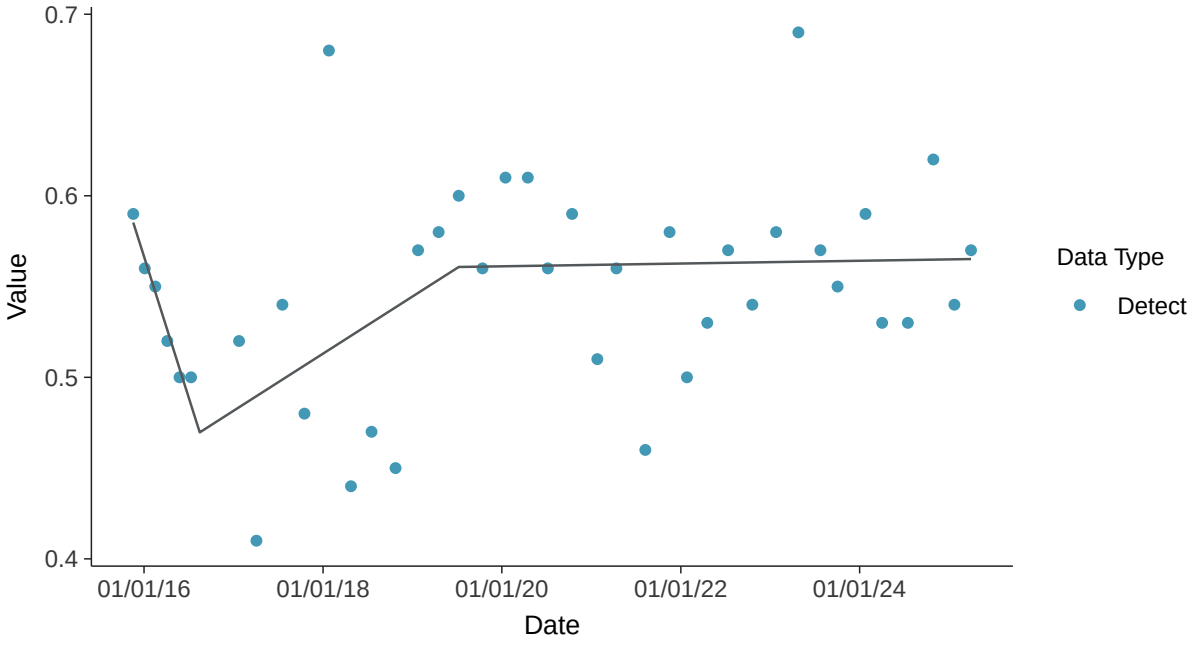
Trend Regression: Piecewise Linear-Linear

Fluoride, MW-5 (mg/L)



Trend Regression: Piecewise Linear-Linear-Linear

Fluoride, MW-5 (mg/L)

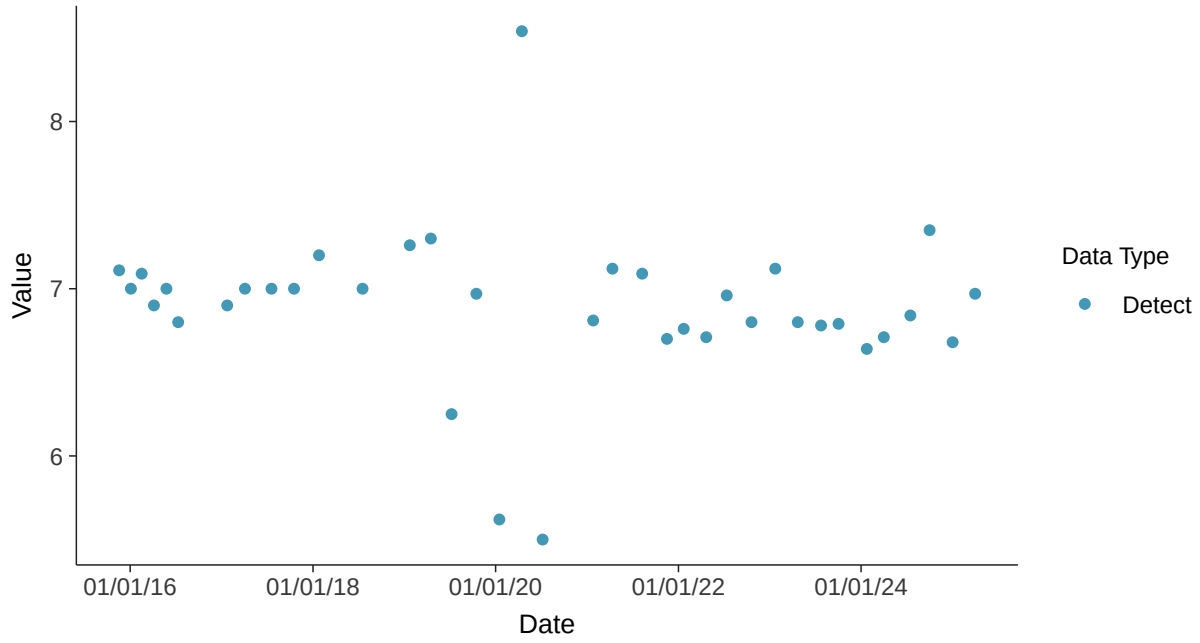


App. III: pH (Field), MW-5

ID: 05_02_118

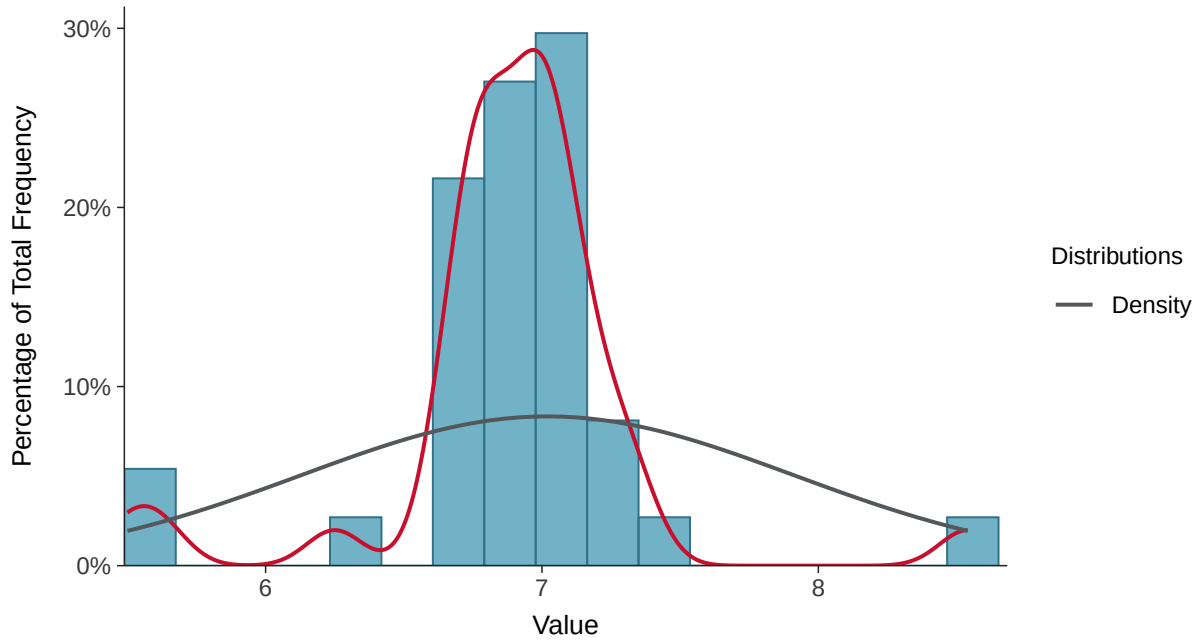
Scatter Plot

pH (Field), MW-5 (S.U.)



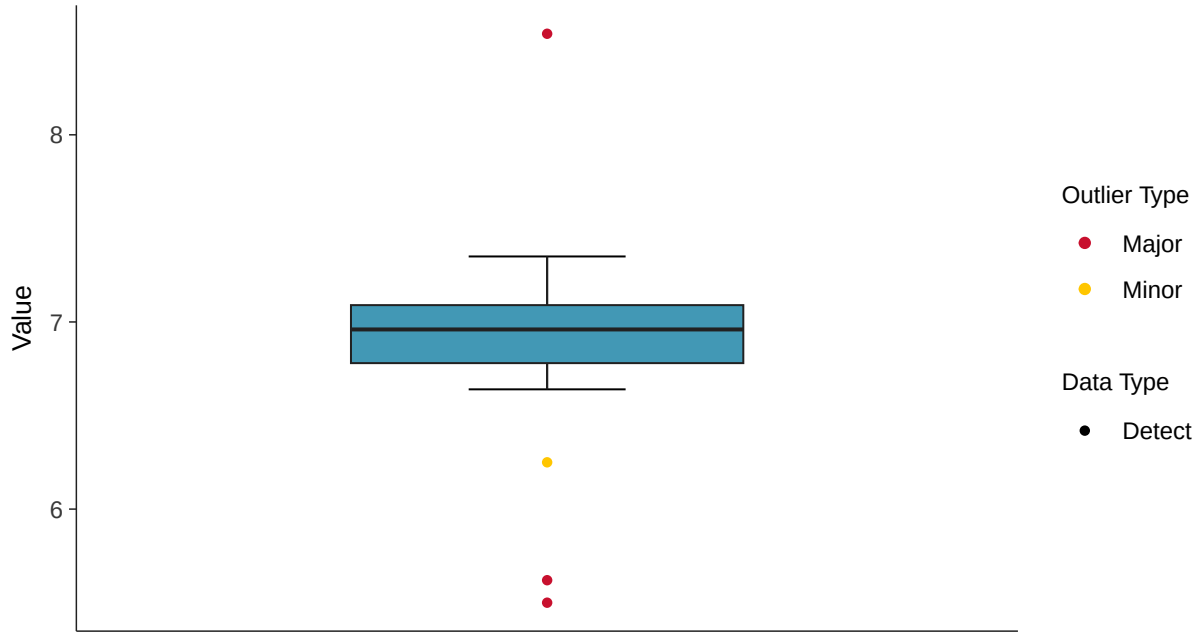
Histogram

pH (Field), MW-5 (S.U.)



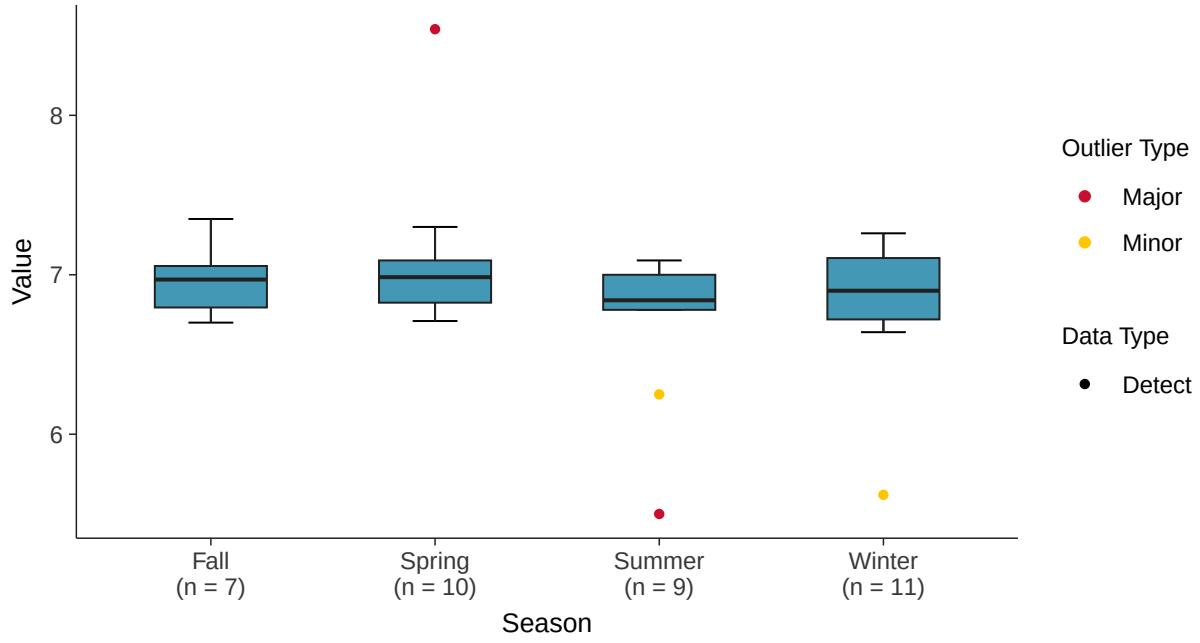
Boxplot

pH (Field), MW-5 (S.U.)



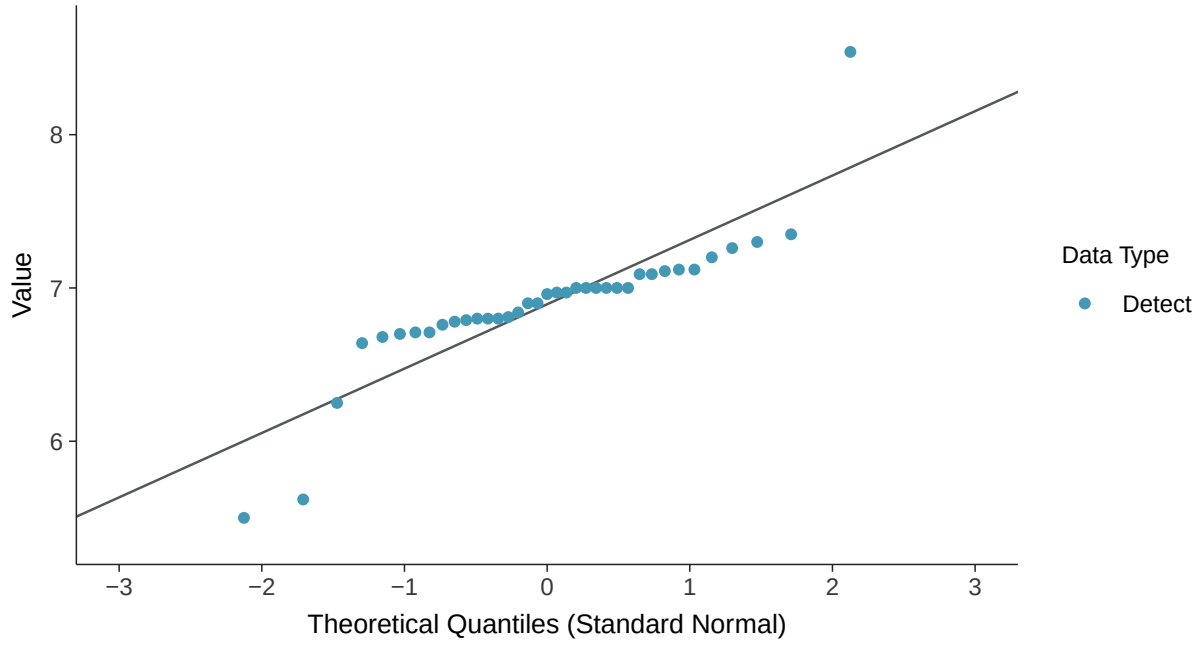
Boxplot by Season

pH (Field), MW-5 (S.U.)



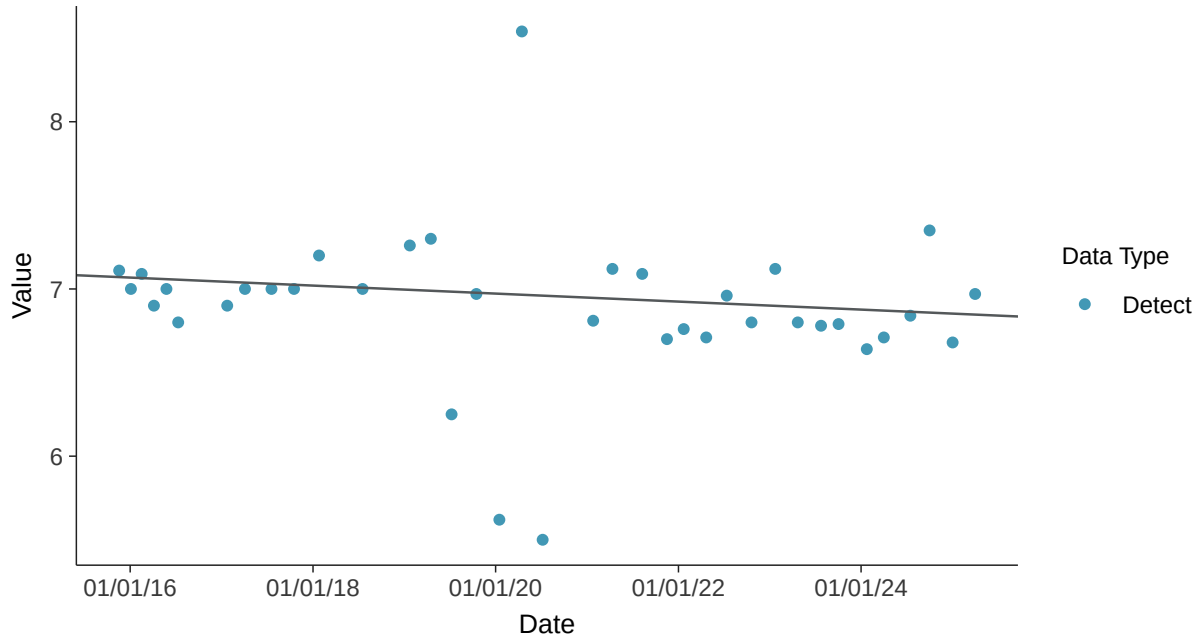
Normal Q-Q plot

pH (Field), MW-5 (S.U.)



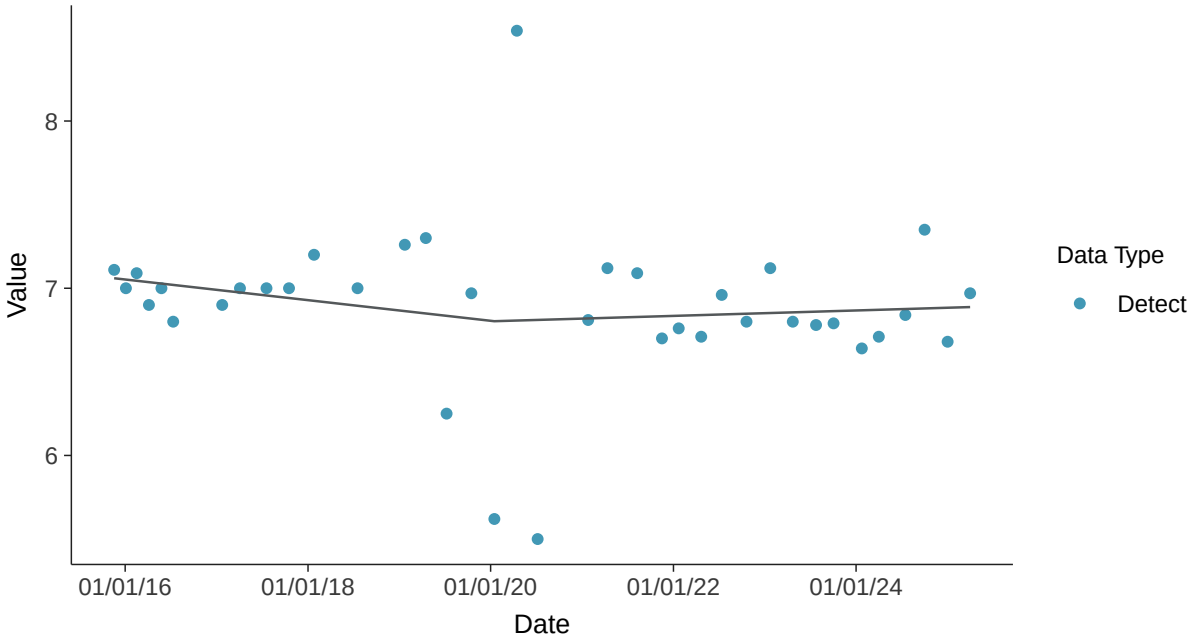
Trend Regression: Mann-Kendall/Theil-Sen Estimate

pH (Field), MW-5 (S.U.)



Trend Regression: Piecewise Linear-Linear

pH (Field), MW-5 (S.U.)

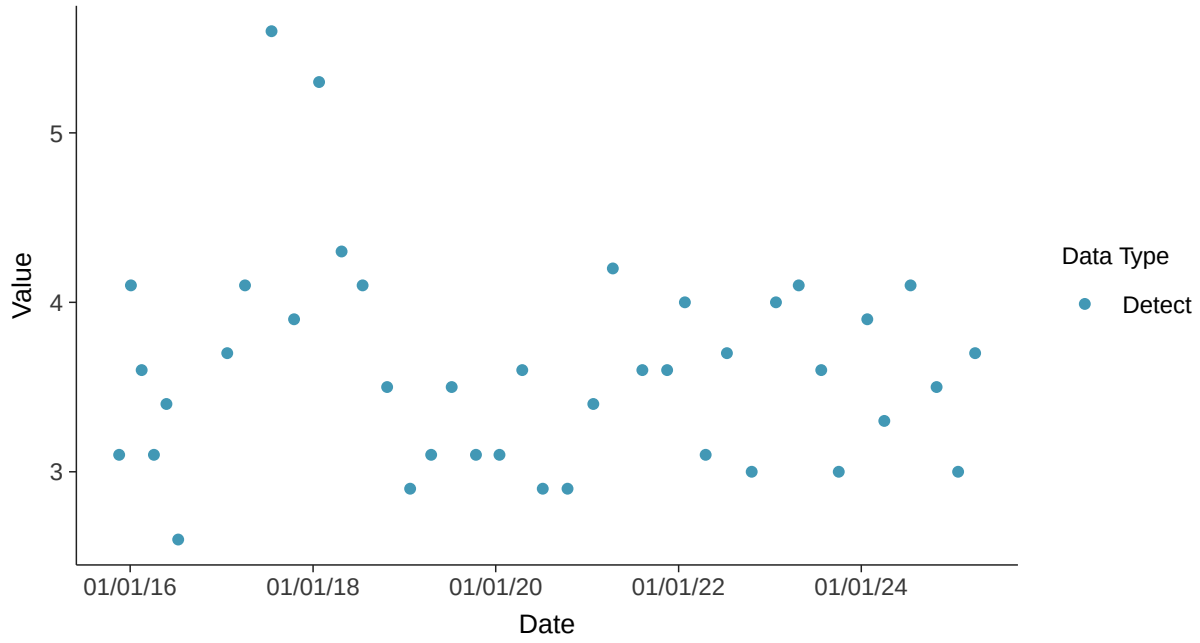


App. III: Sulfate, MW-5

ID: 05_02_123

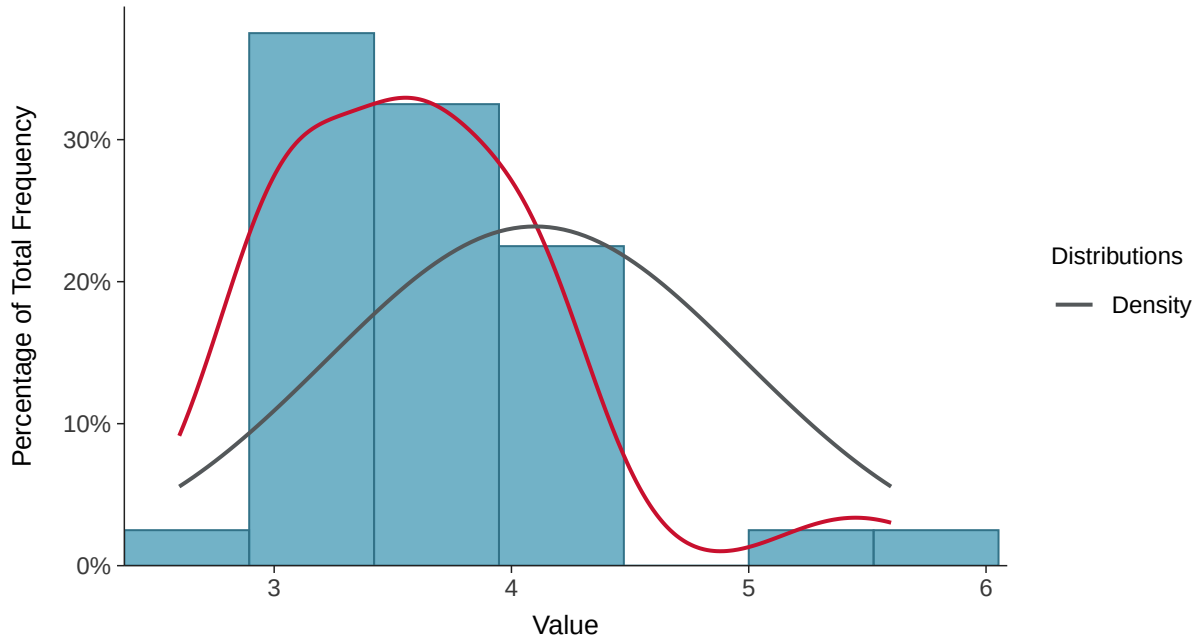
Scatter Plot

Sulfate, MW-5 (mg/L)



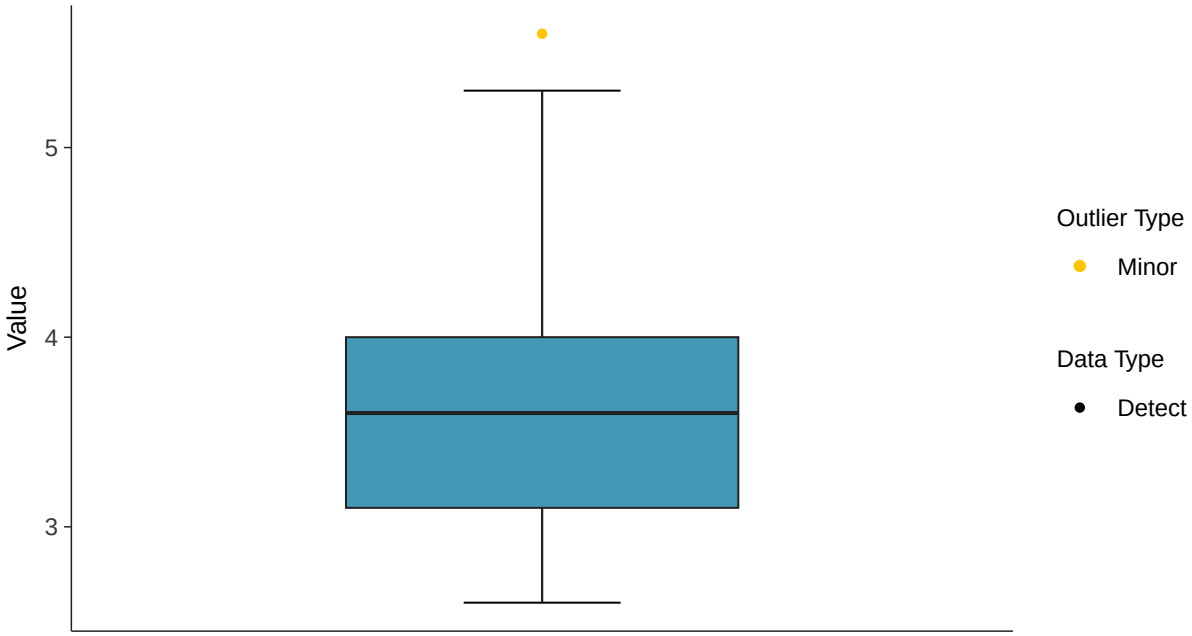
Histogram

Sulfate, MW-5 (mg/L)



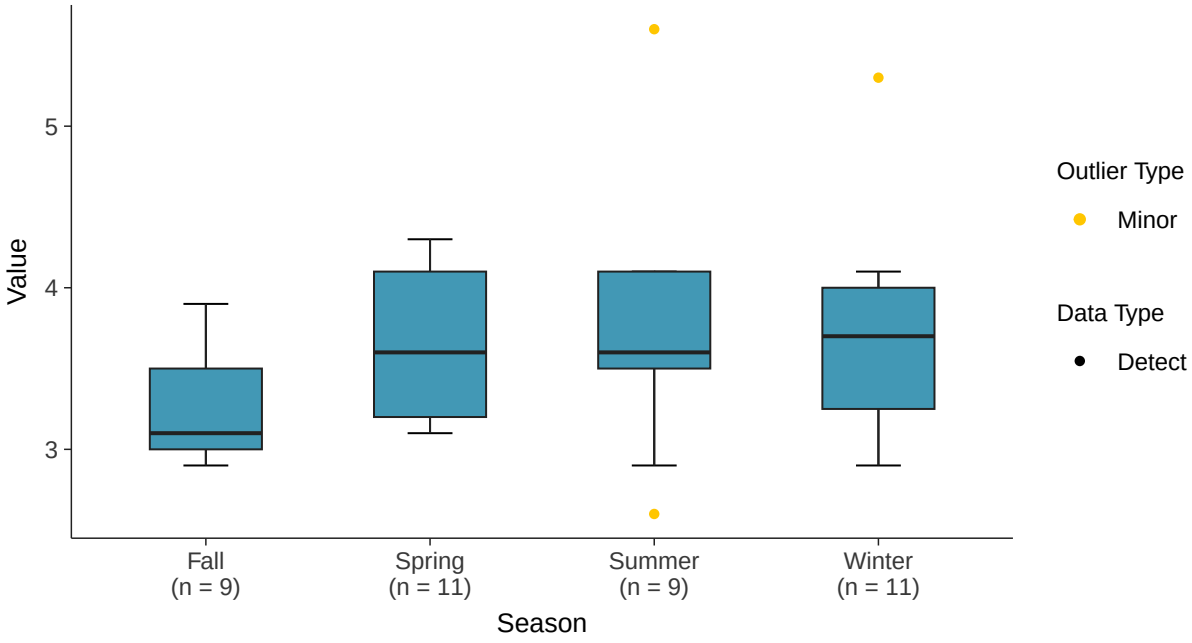
Boxplot

Sulfate, MW-5 (mg/L)



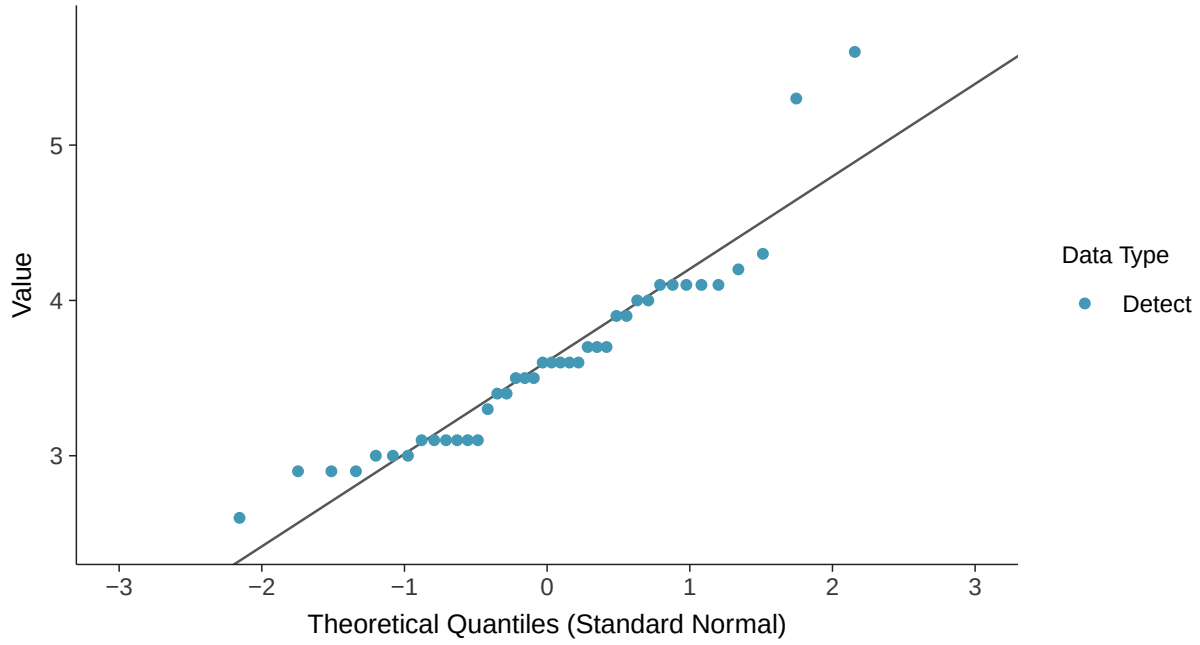
Boxplot by Season

Sulfate, MW-5 (mg/L)



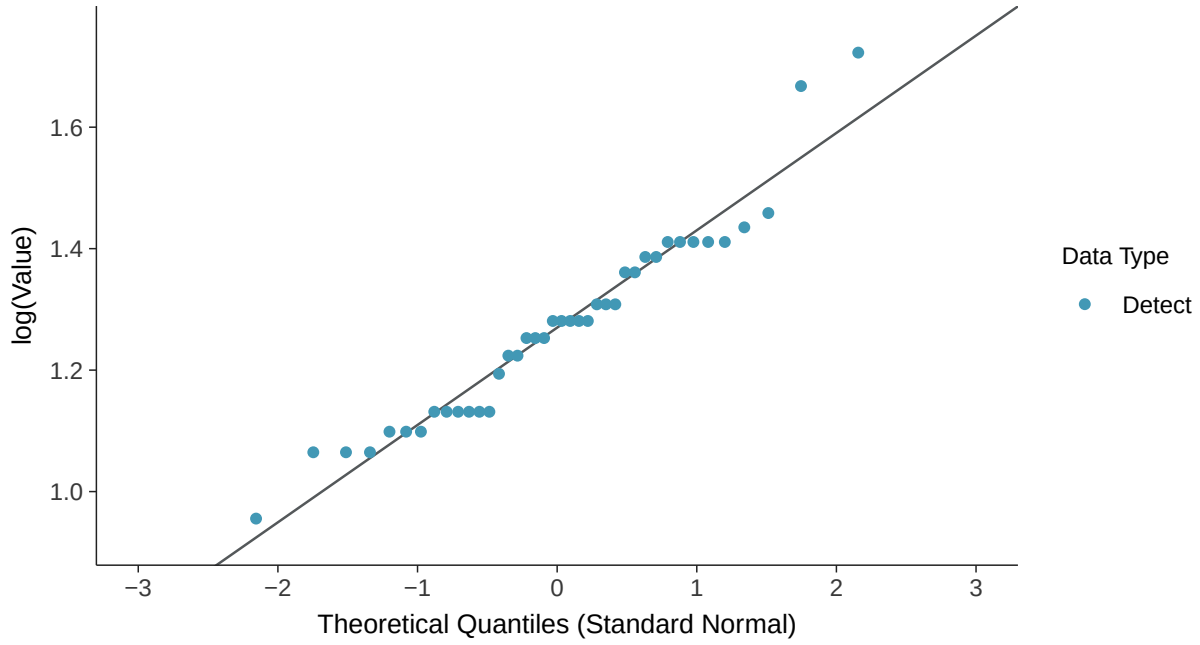
Normal Q-Q plot

Sulfate, MW-5 (mg/L)



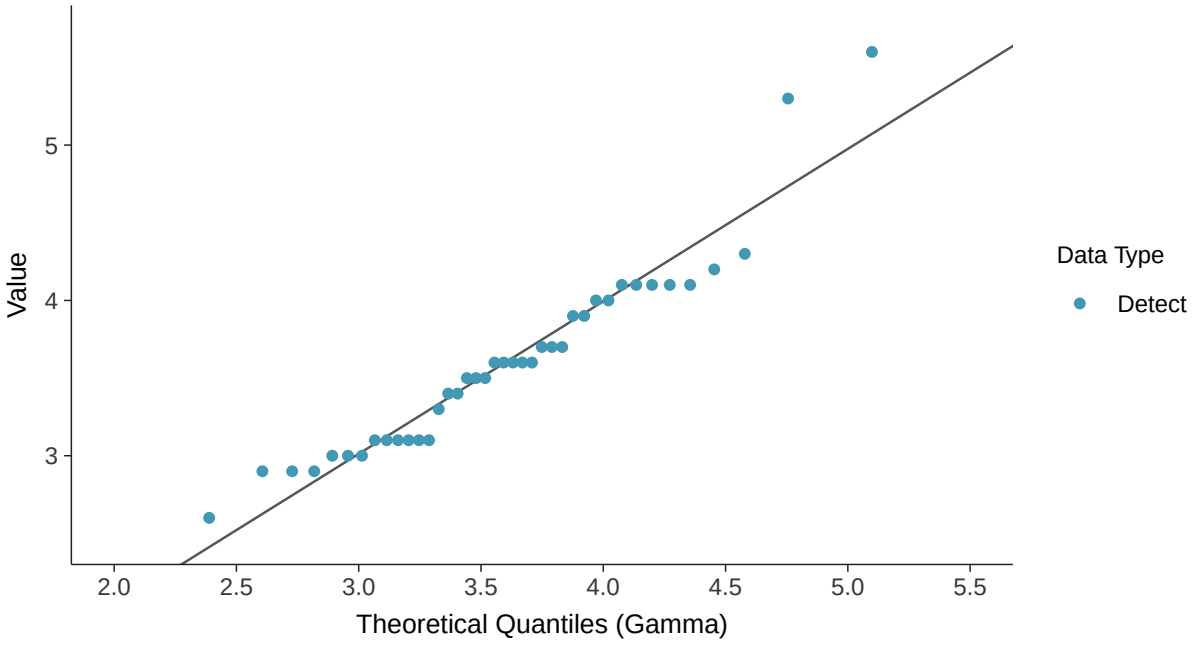
Lognormal Q-Q plot

Sulfate, MW-5 (mg/L)



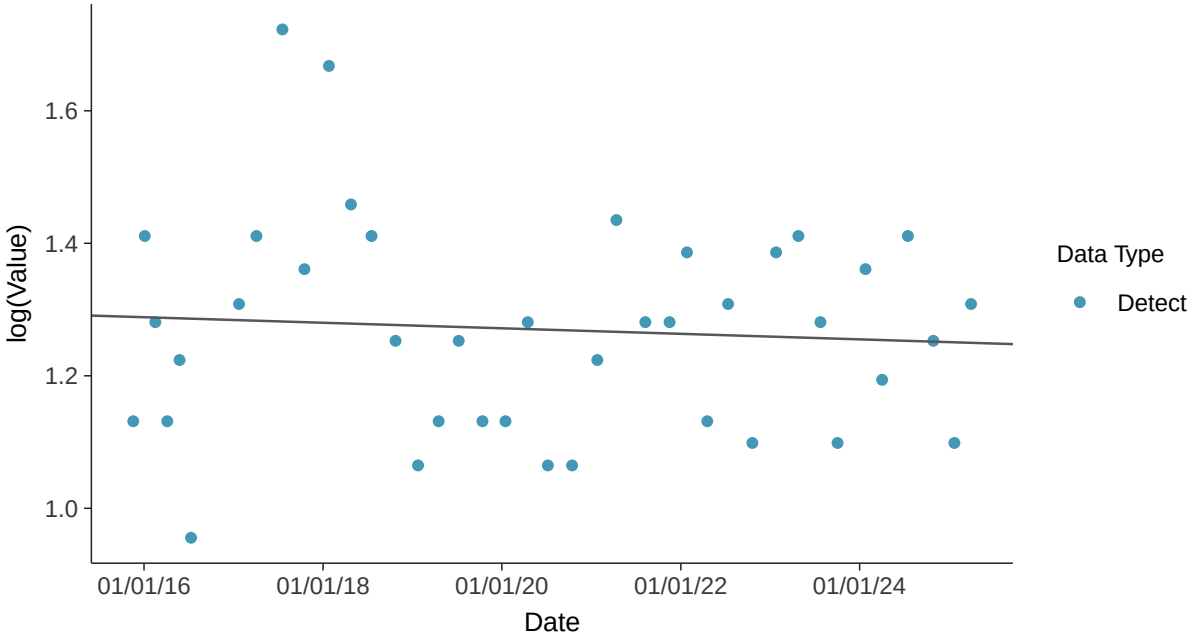
Gamma Q-Q plot

Sulfate, MW-5 (mg/L)



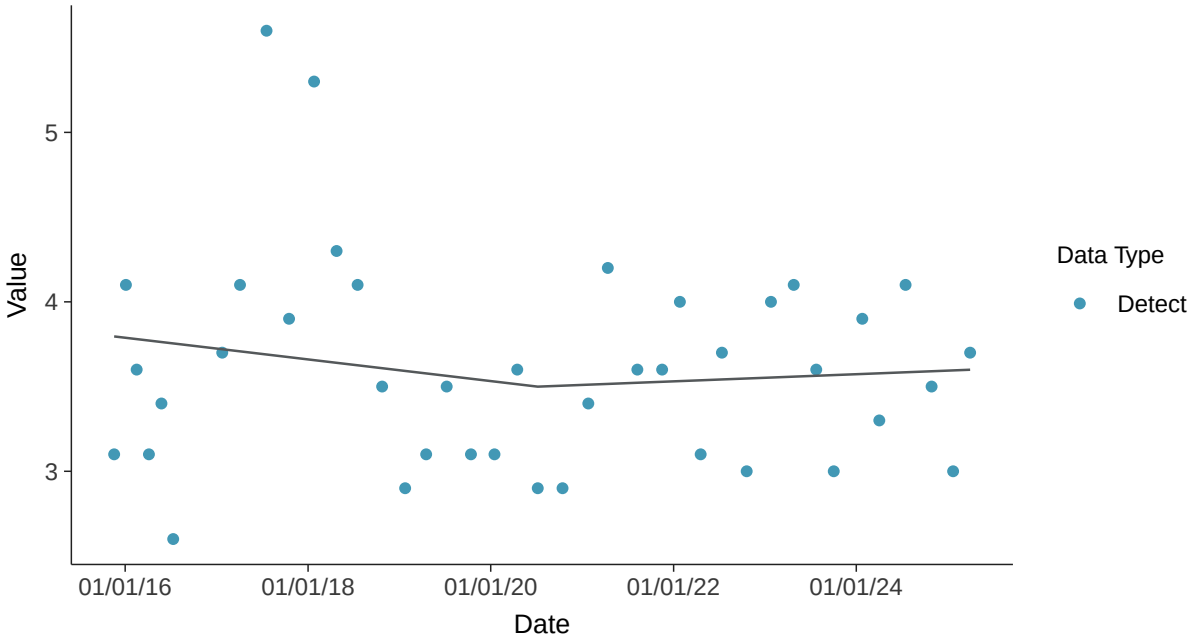
Trend Regression: Lognormal MLE

Sulfate, MW-5 (mg/L)



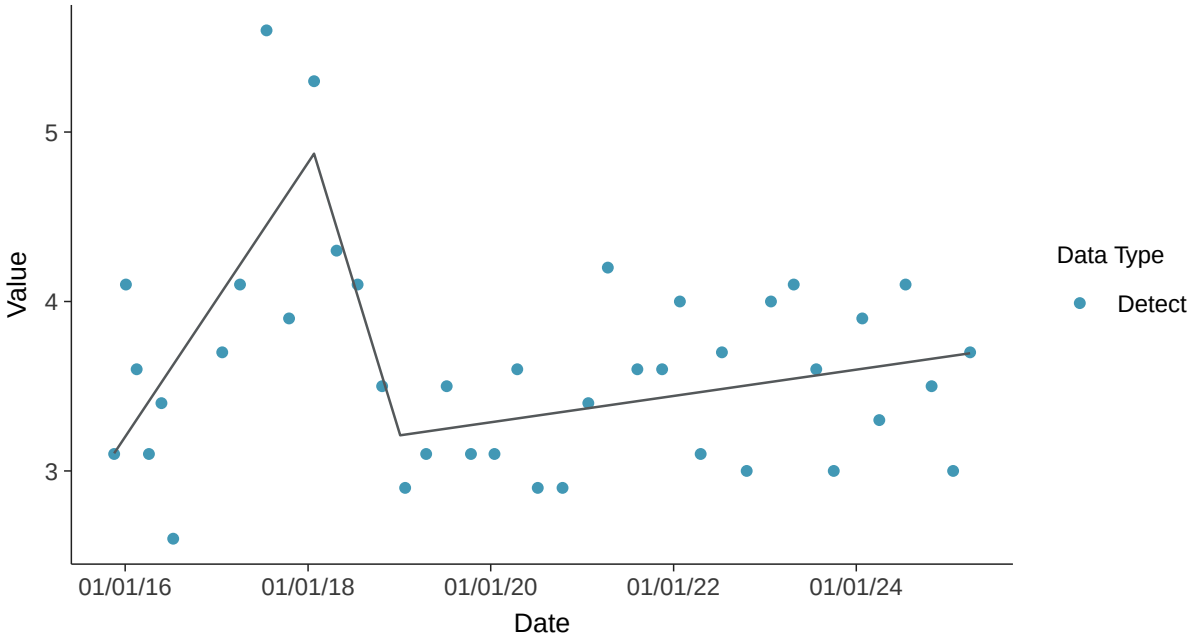
Trend Regression: Piecewise Linear-Linear

Sulfate, MW-5 (mg/L)



Trend Regression: Piecewise Linear-Linear-Linear

Sulfate, MW-5 (mg/L)

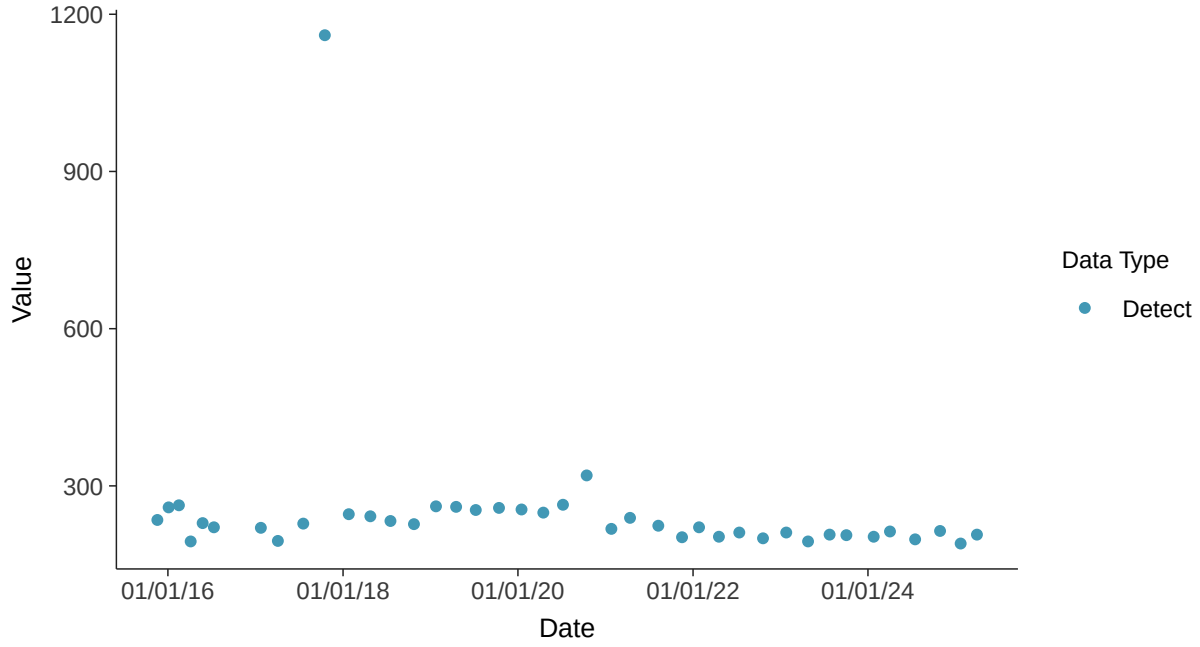


App. III: Total Dissolved Solids, MW-5

ID: 05_02_125

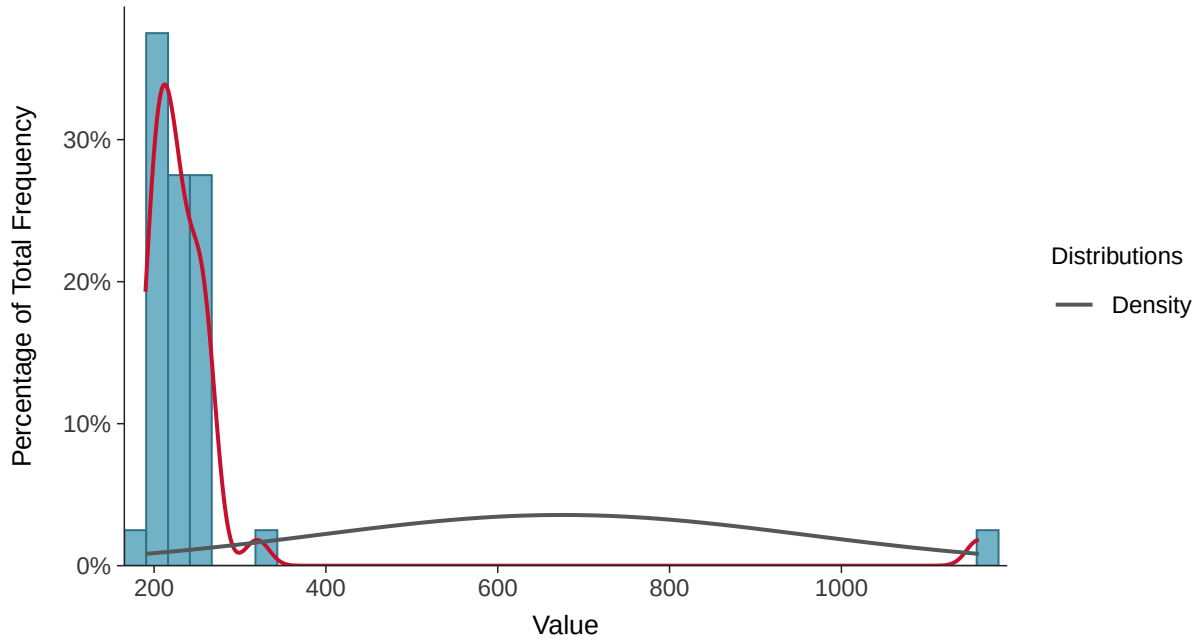
Scatter Plot

Total Dissolved Solids, MW-5 (mg/L)



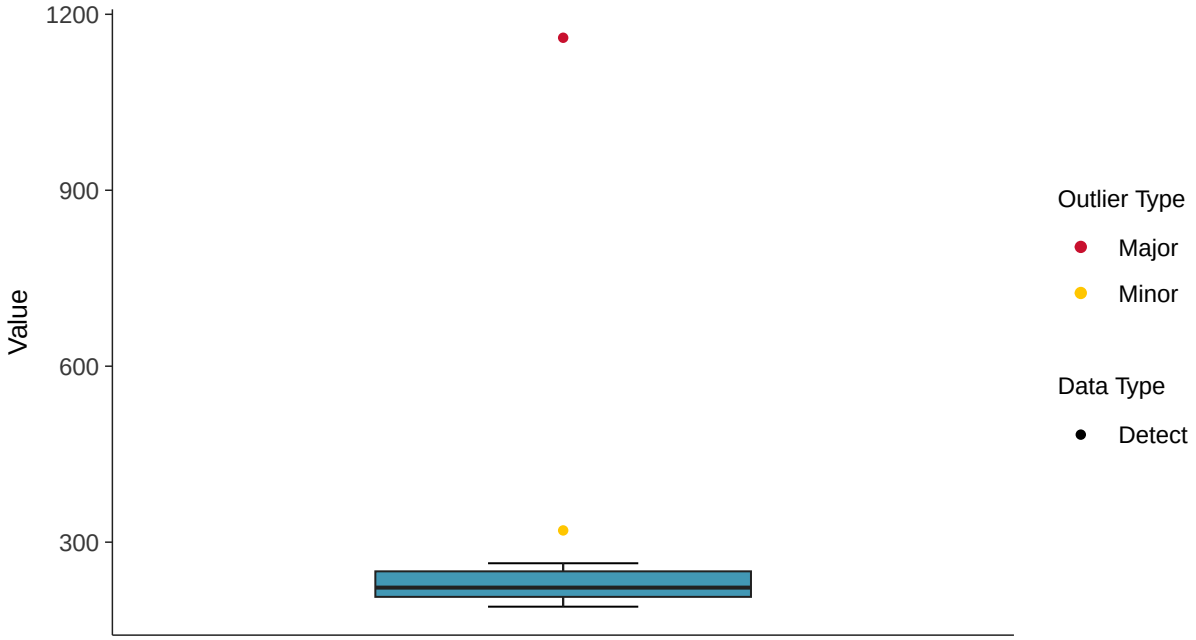
Histogram

Total Dissolved Solids, MW-5 (mg/L)



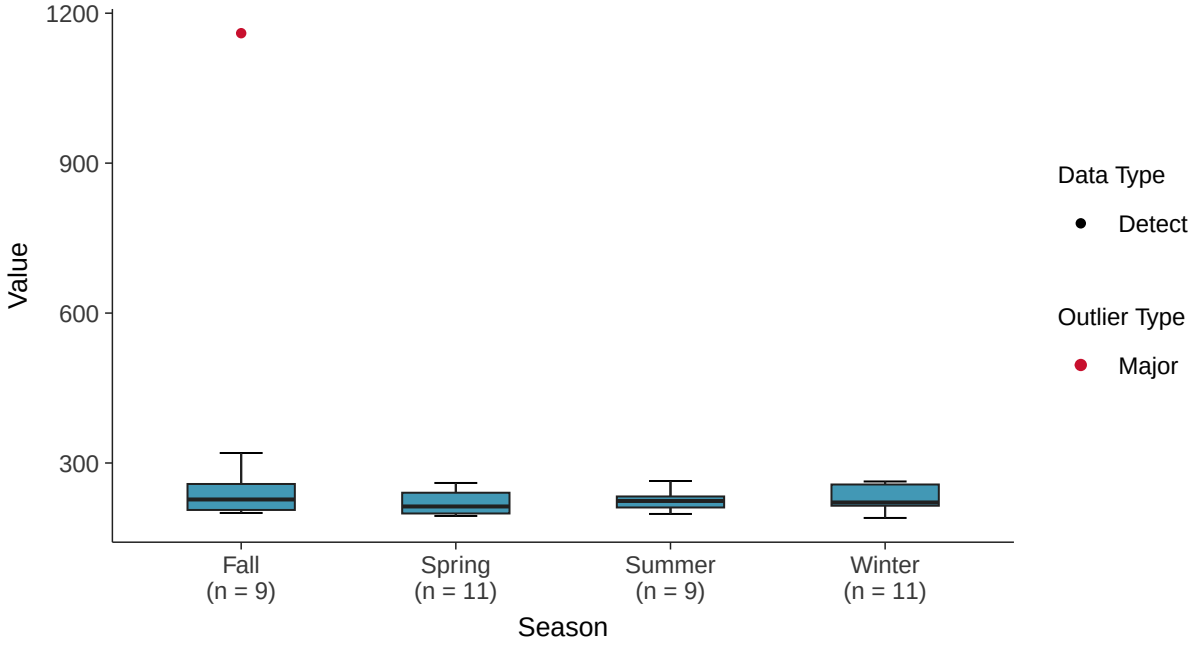
Boxplot

Total Dissolved Solids, MW-5 (mg/L)



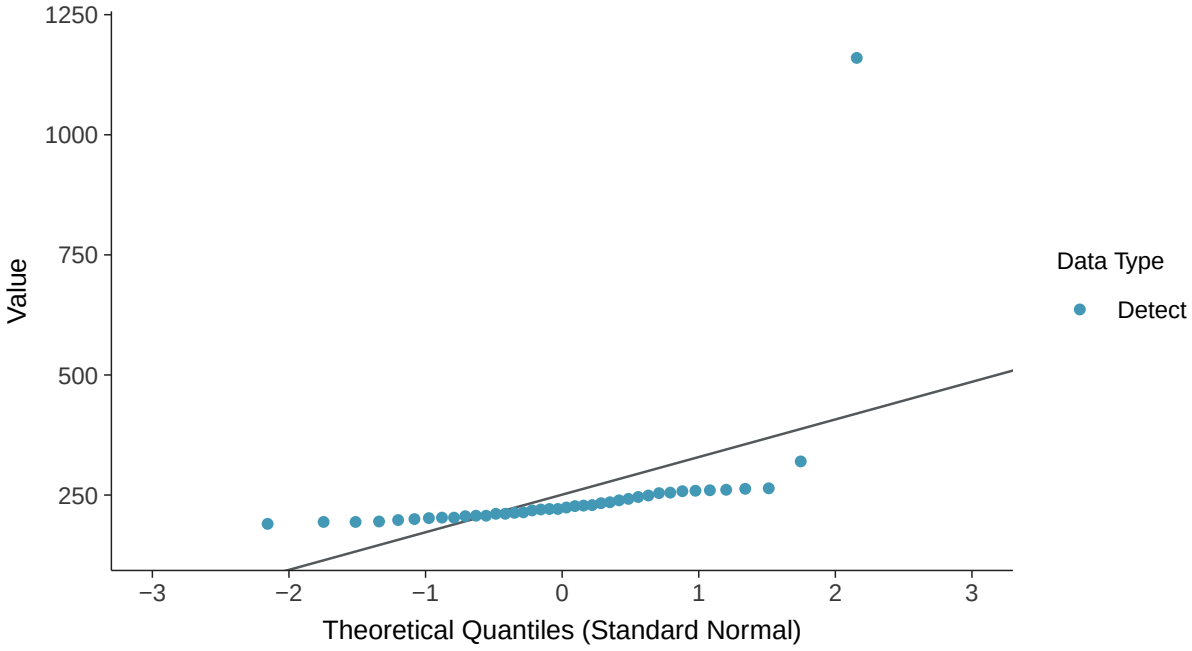
Boxplot by Season

Total Dissolved Solids, MW-5 (mg/L)



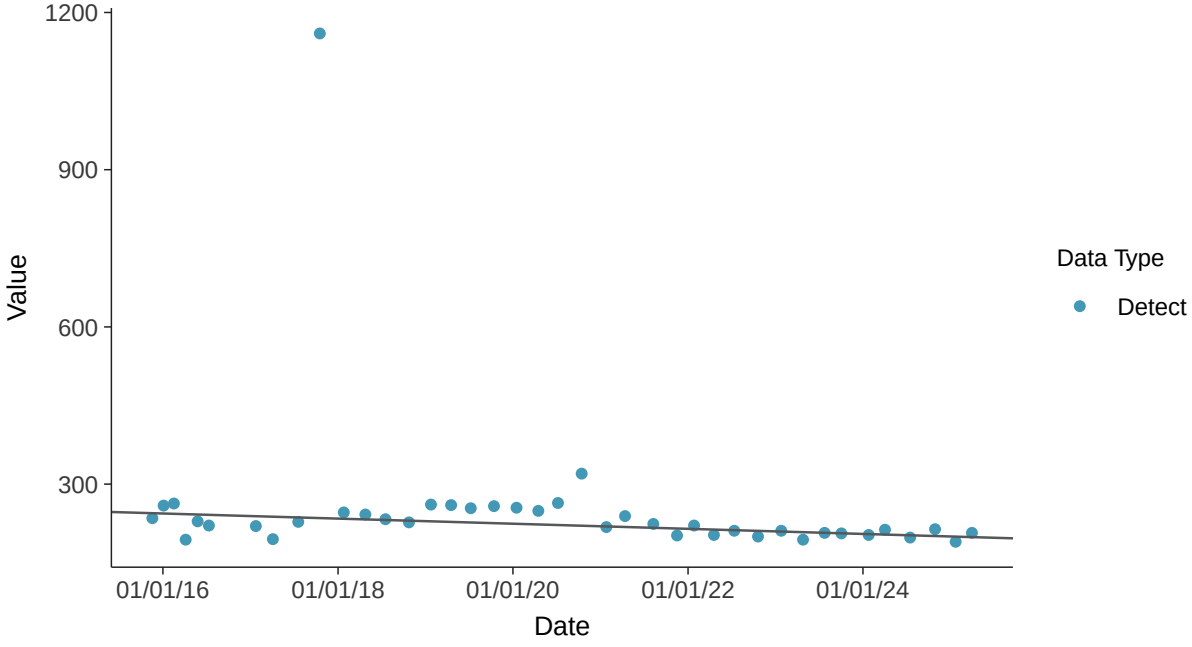
Normal Q-Q plot

Total Dissolved Solids, MW-5 (mg/L)



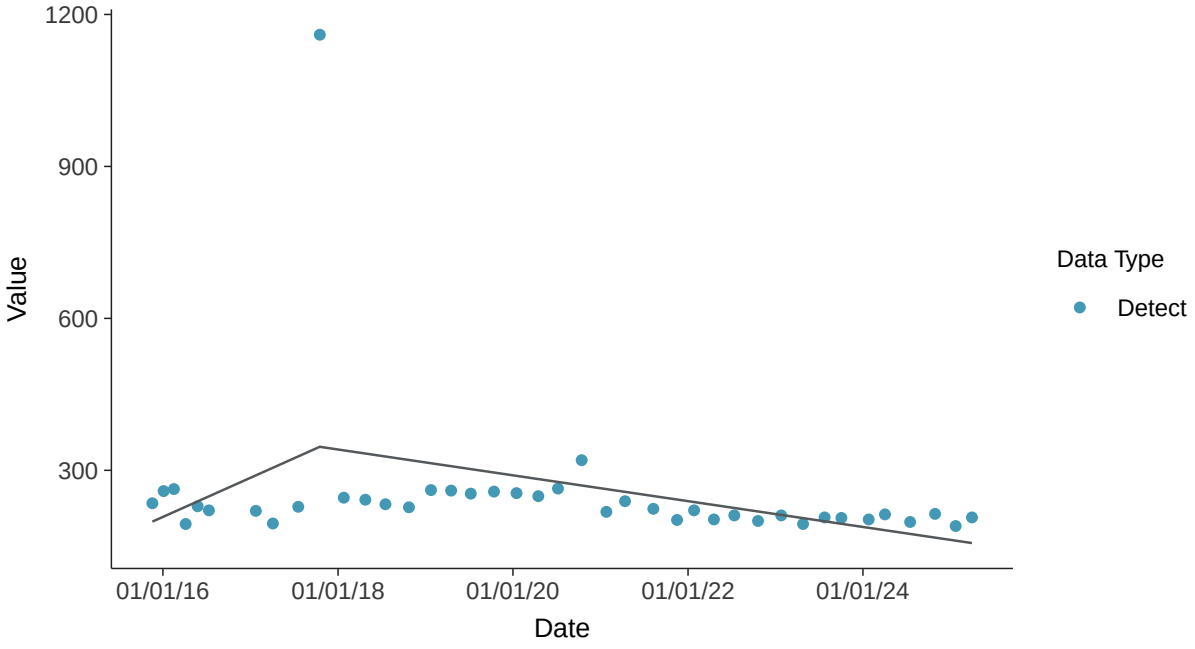
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Total Dissolved Solids, MW-5 (mg/L)



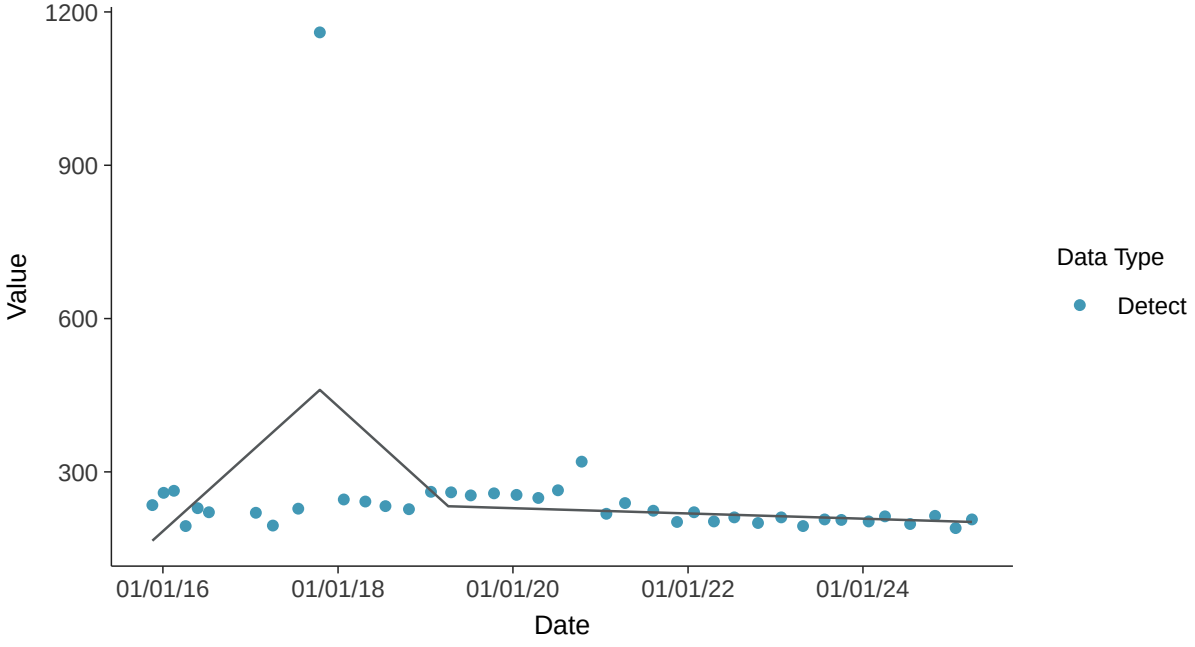
Trend Regression: Piecewise Linear-Linear

Total Dissolved Solids, MW-5 (mg/L)



Trend Regression: Piecewise Linear-Linear-Linear

Total Dissolved Solids, MW-5 (mg/L)

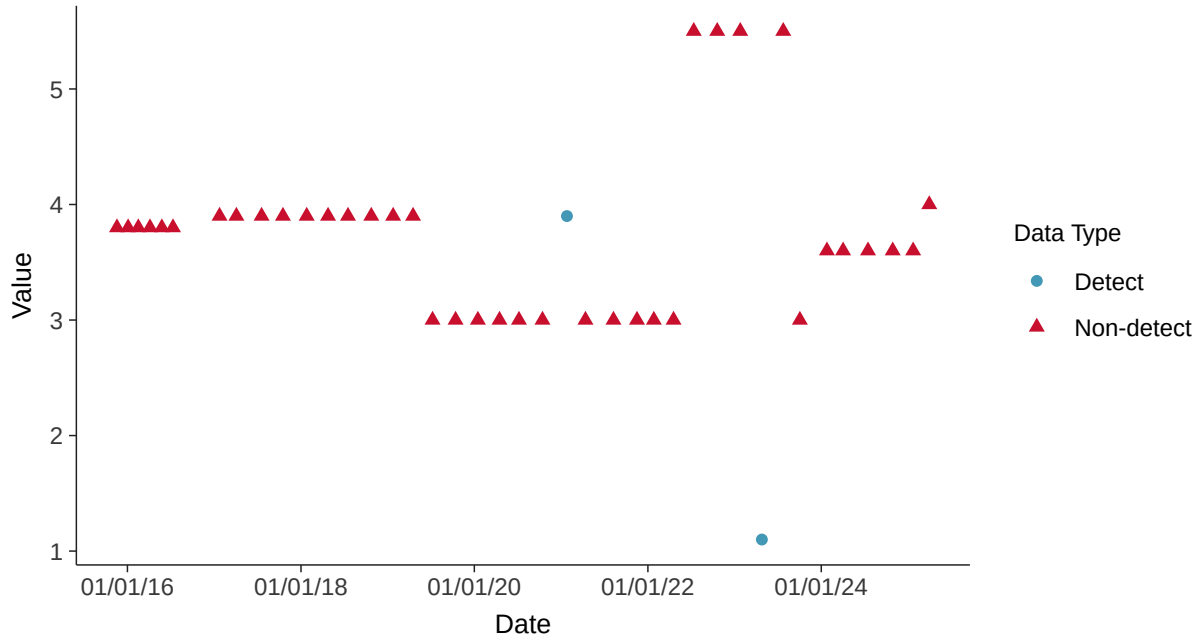


App. IV: Antimony, MW-5

ID: 05_03_101

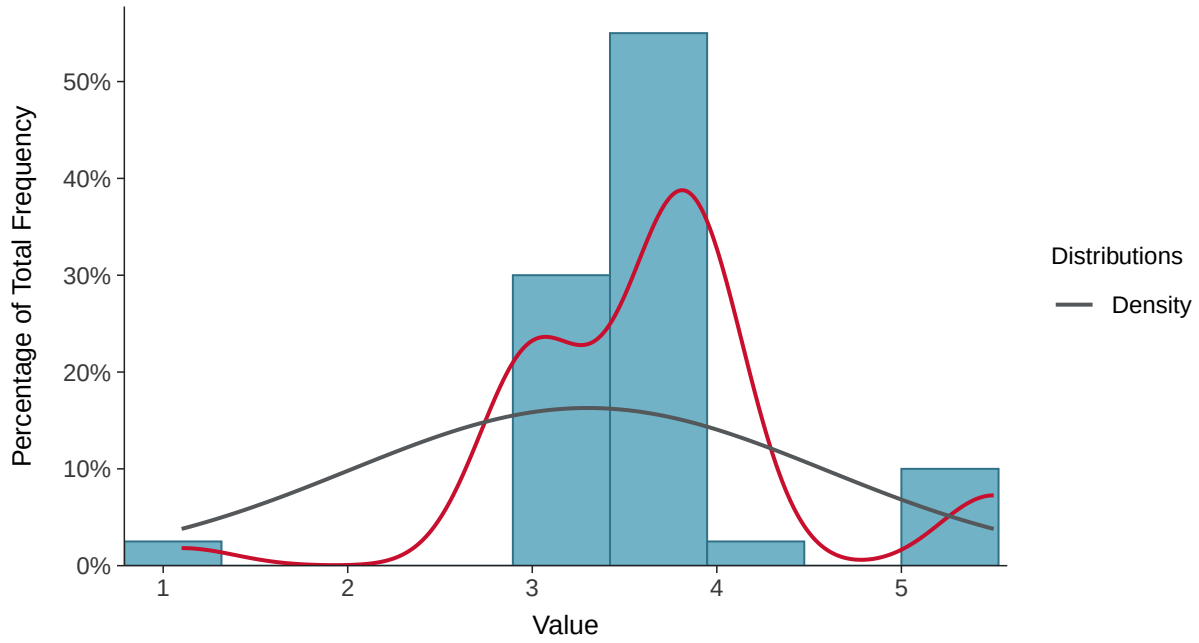
Scatter Plot

Antimony, MW-5 (ug/L)



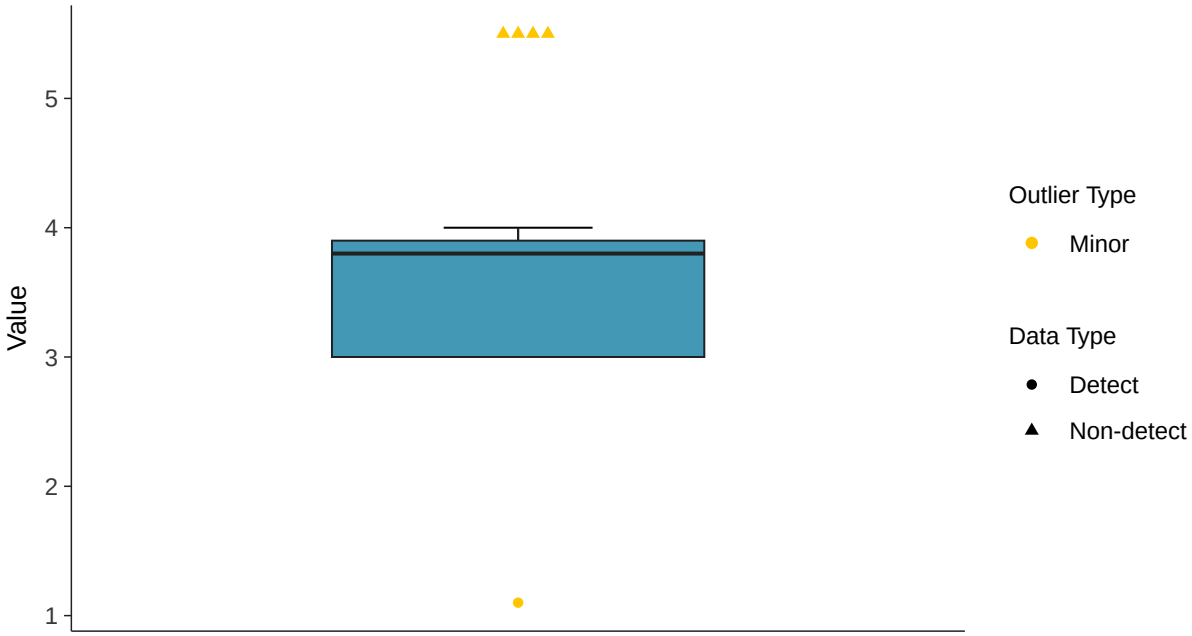
Histogram

Antimony, MW-5 (ug/L)



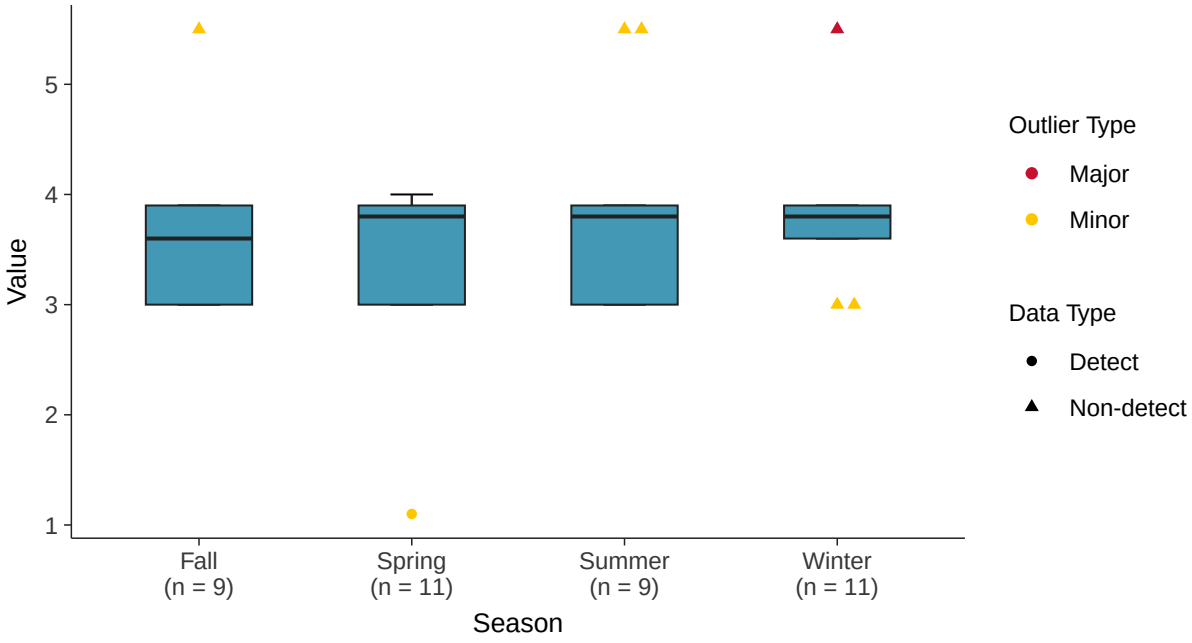
Boxplot

Antimony, MW-5 (ug/L)



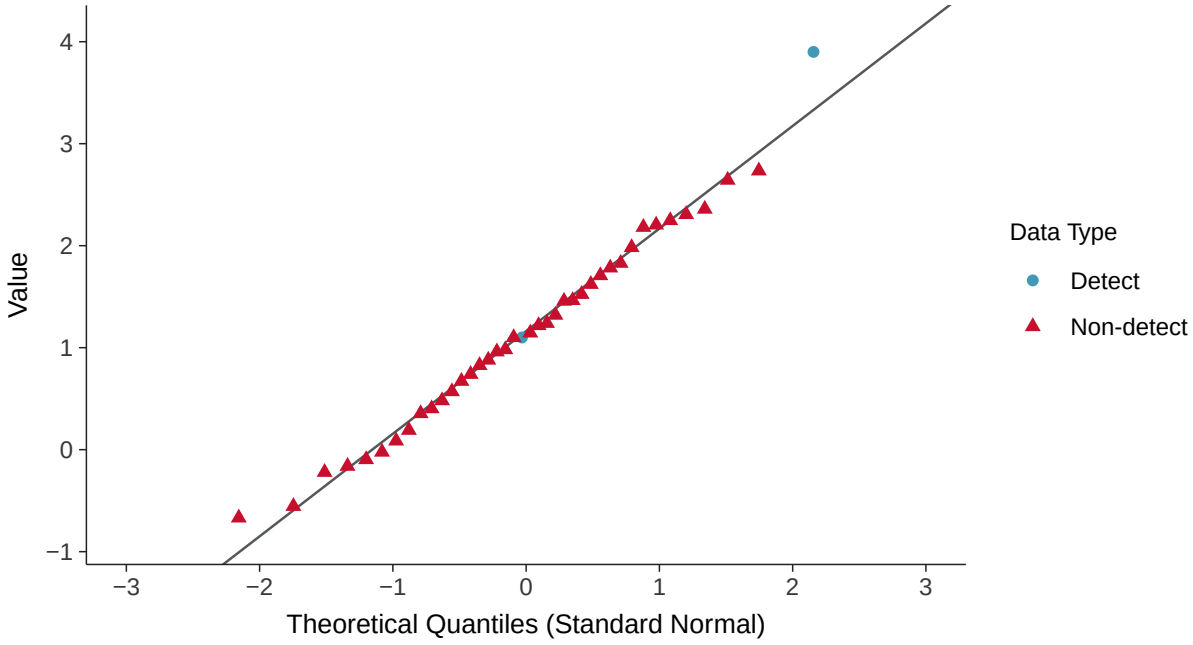
Boxplot by Season

Antimony, MW-5 (ug/L)



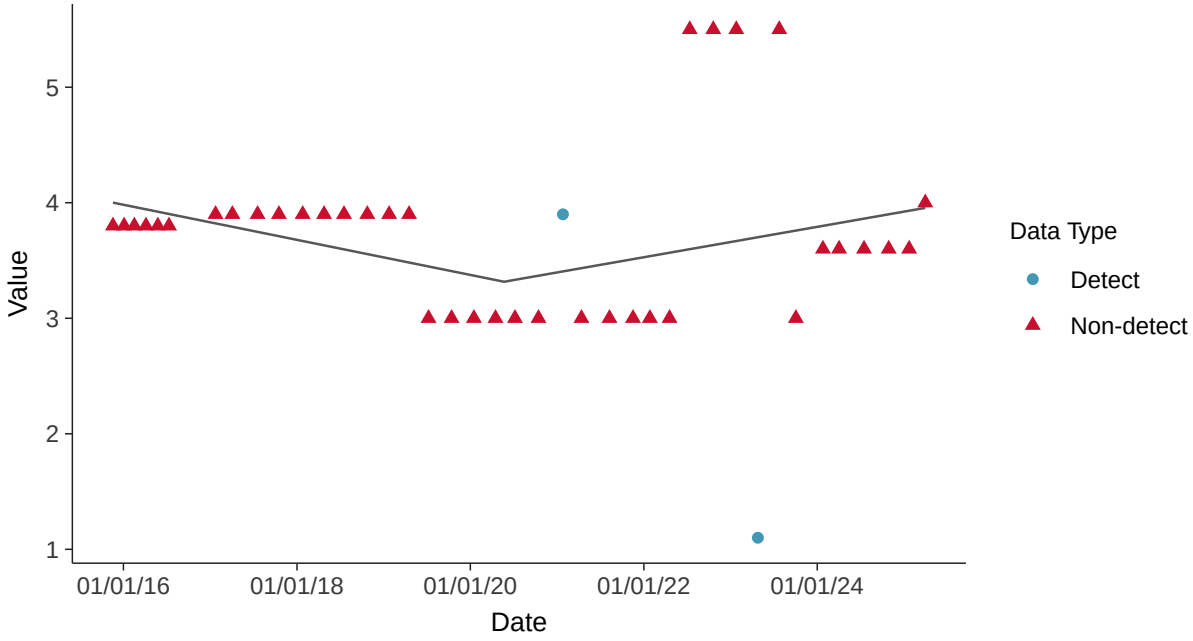
Normal Q-Q plot using ROS Imputed Estimates

Antimony, MW-5 (ug/L)



Trend Regression: Piecewise Linear-Linear

Antimony, MW-5 (ug/L)

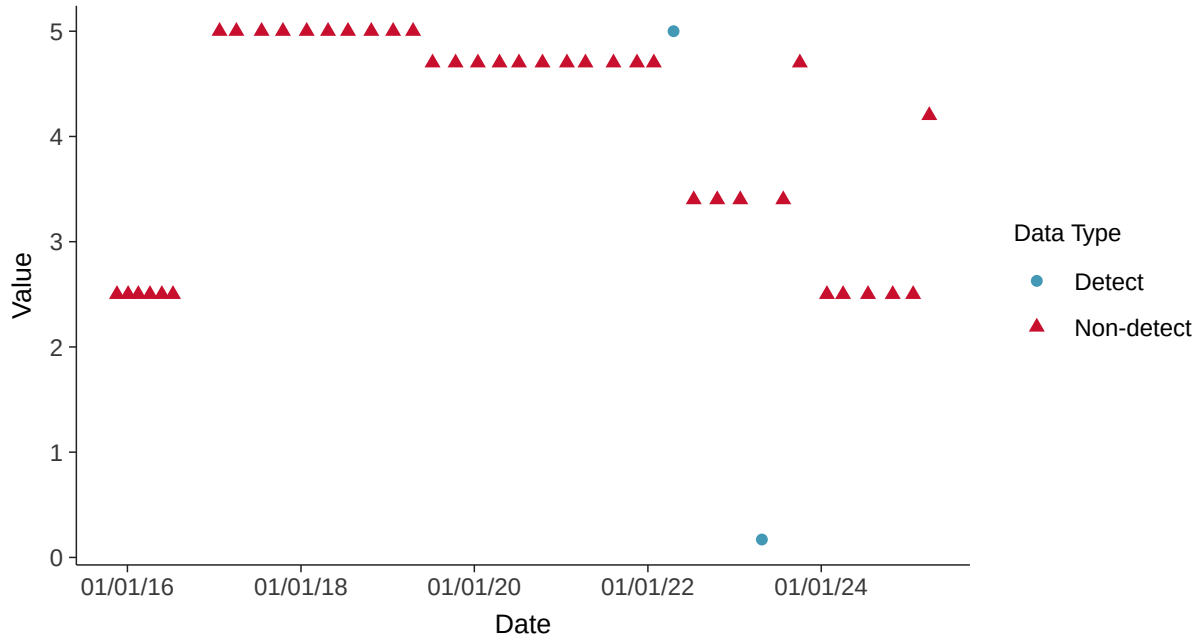


App. IV: Arsenic, MW-5

ID: 05_03_102

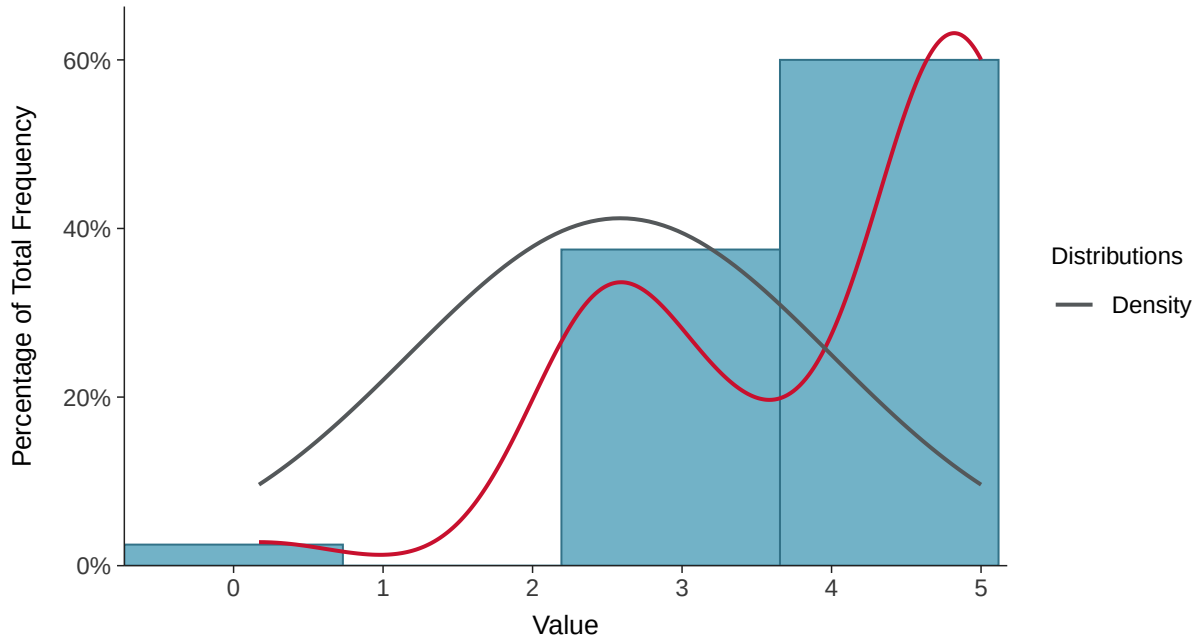
Scatter Plot

Arsenic, MW-5 (ug/L)



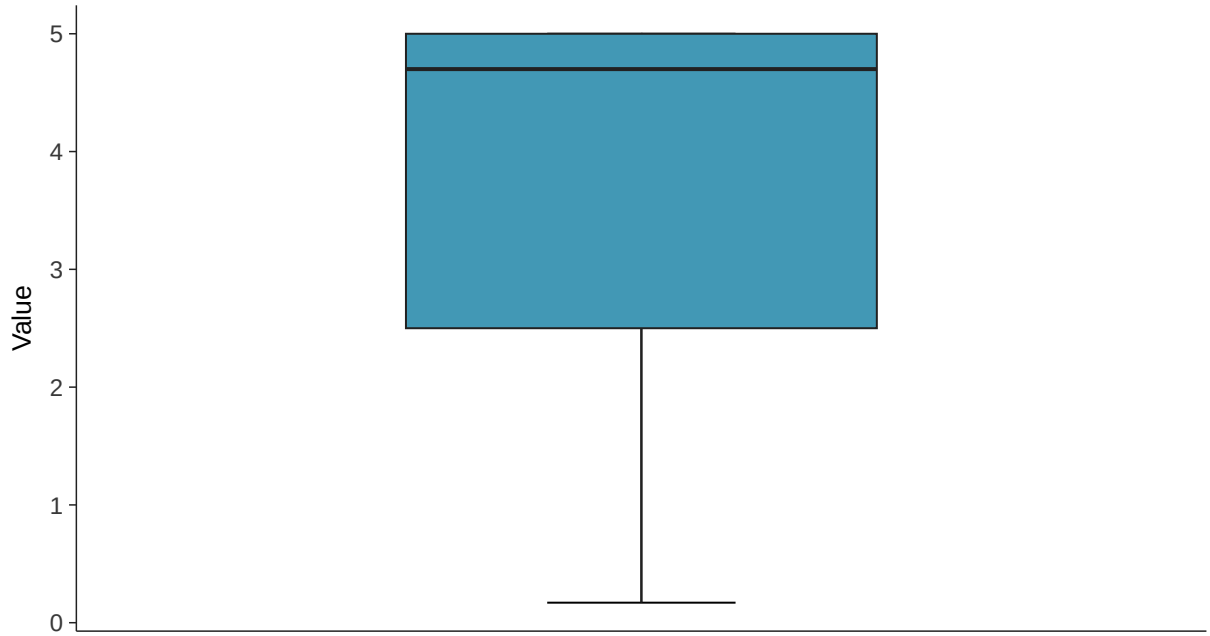
Histogram

Arsenic, MW-5 (ug/L)



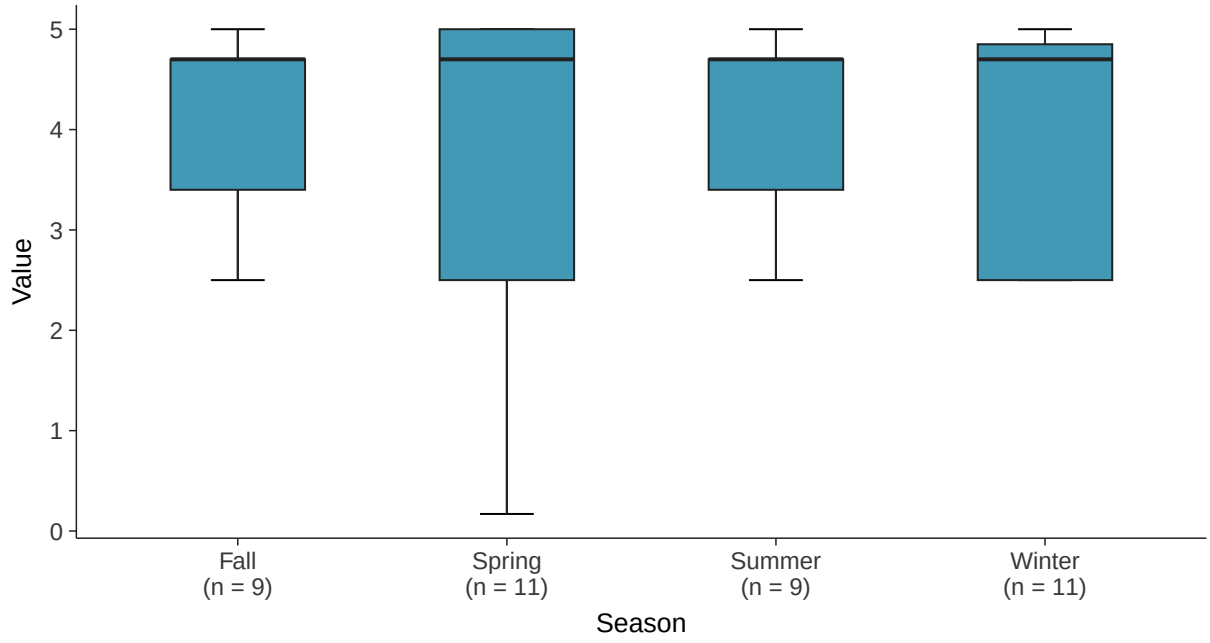
Boxplot

Arsenic, MW-5 (ug/L)



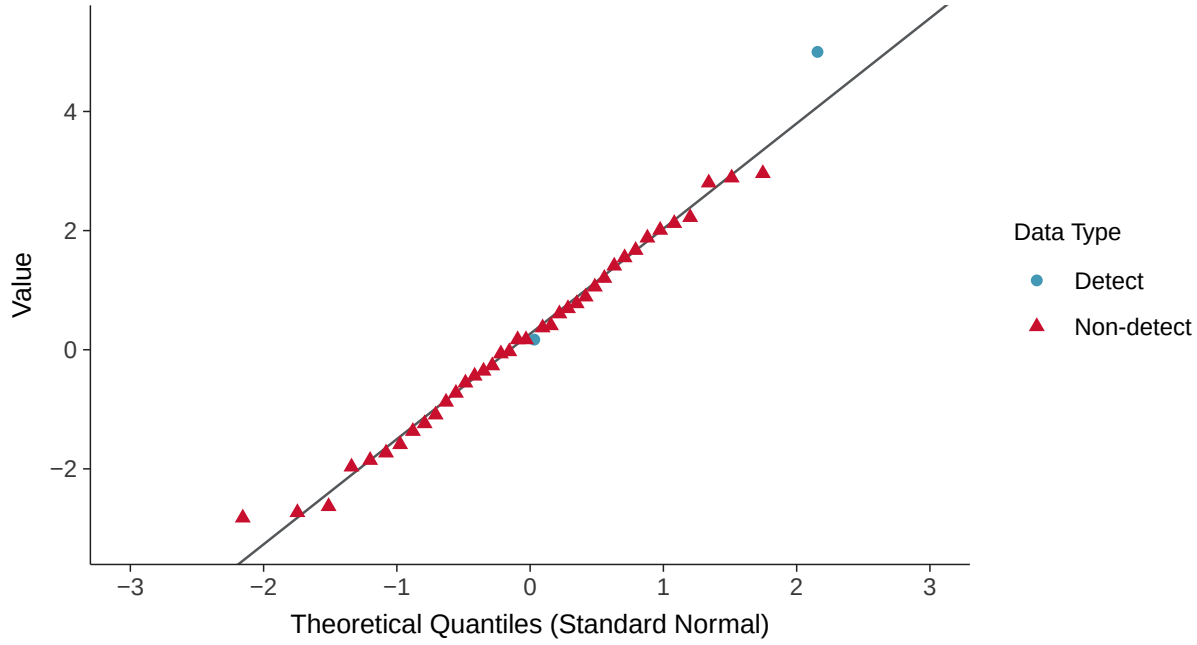
Boxplot by Season

Arsenic, MW-5 (ug/L)



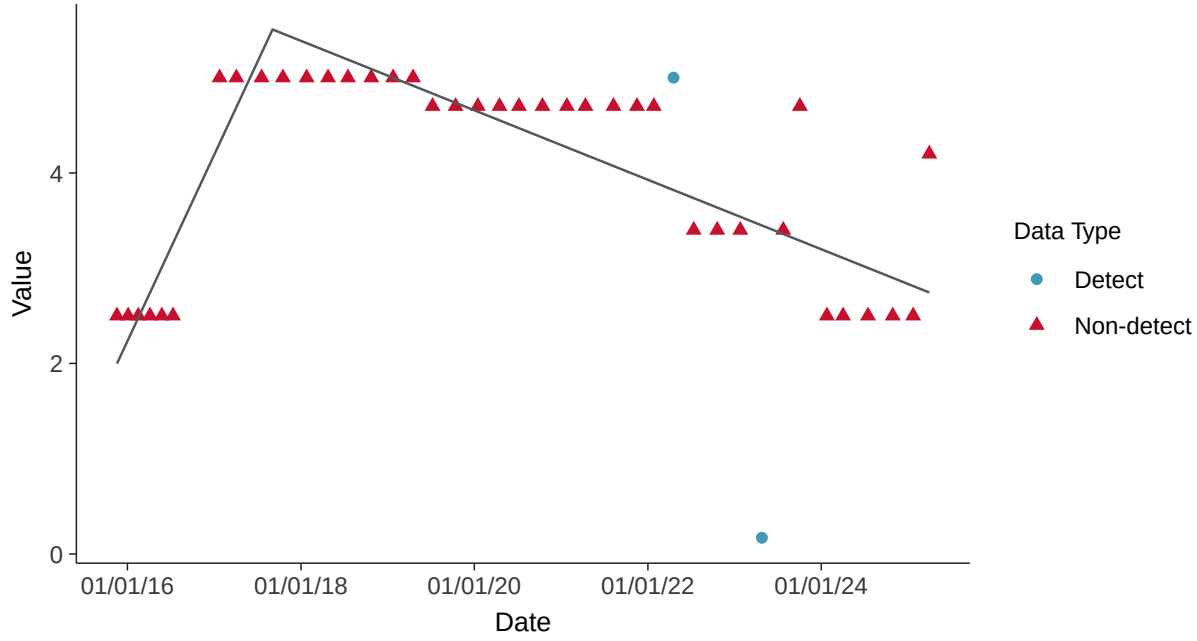
Normal Q-Q plot using ROS Imputed Estimates

Arsenic, MW-5 (ug/L)



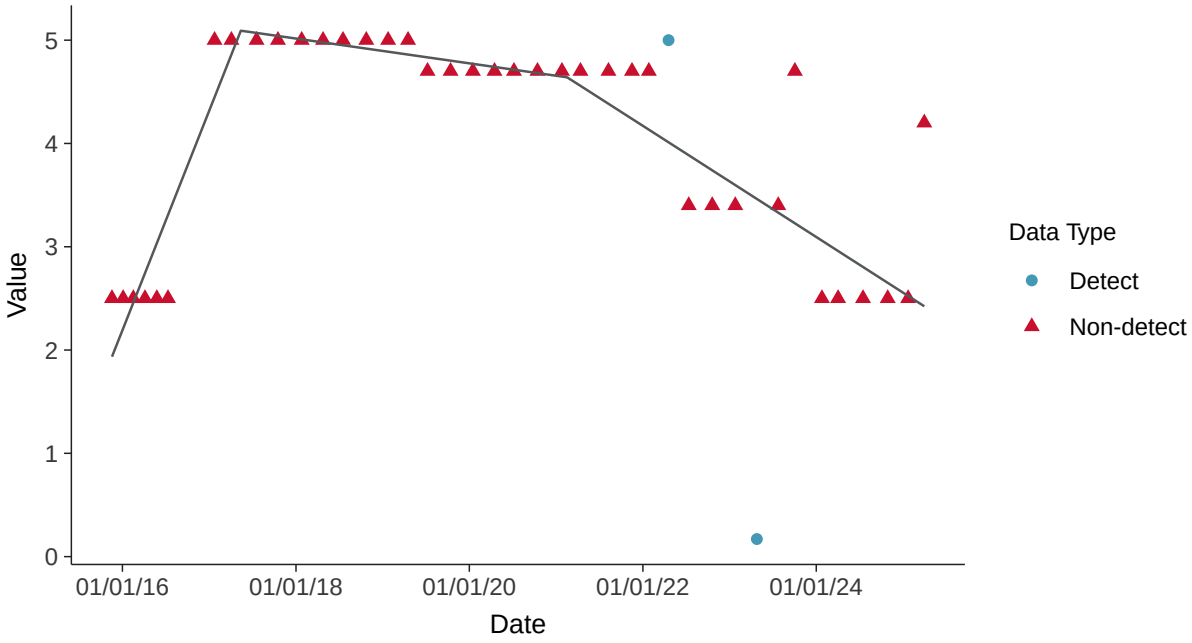
Trend Regression: Piecewise Linear-Linear

Arsenic, MW-5 (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Arsenic, MW-5 (ug/L)

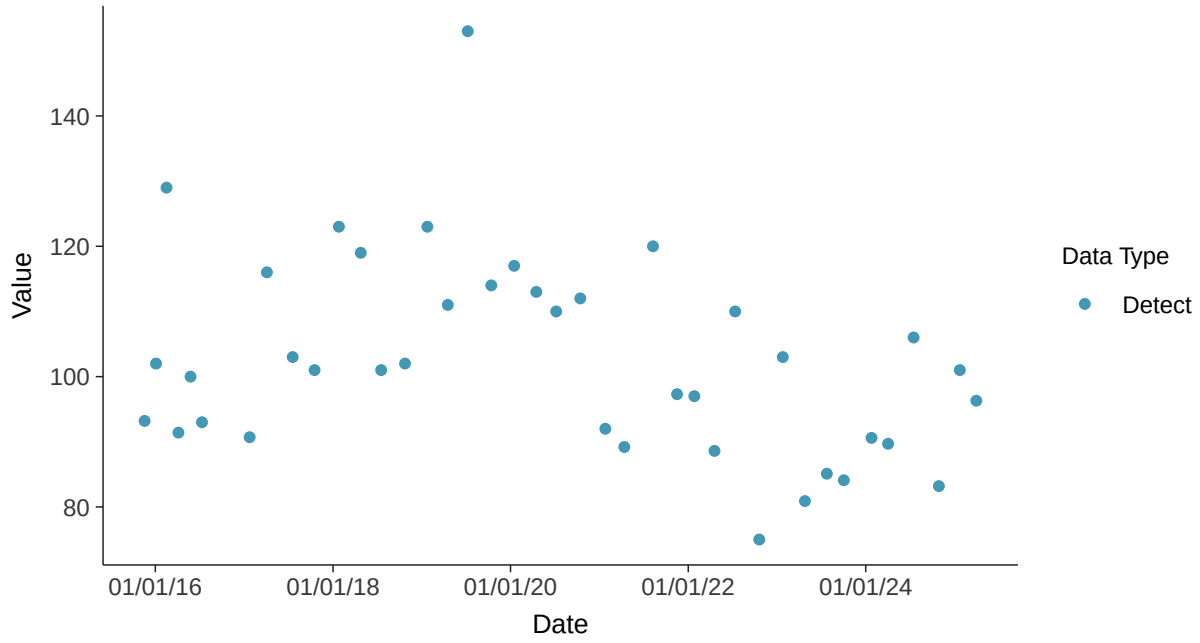


App. IV: Barium, MW-5

ID: 05_03_103

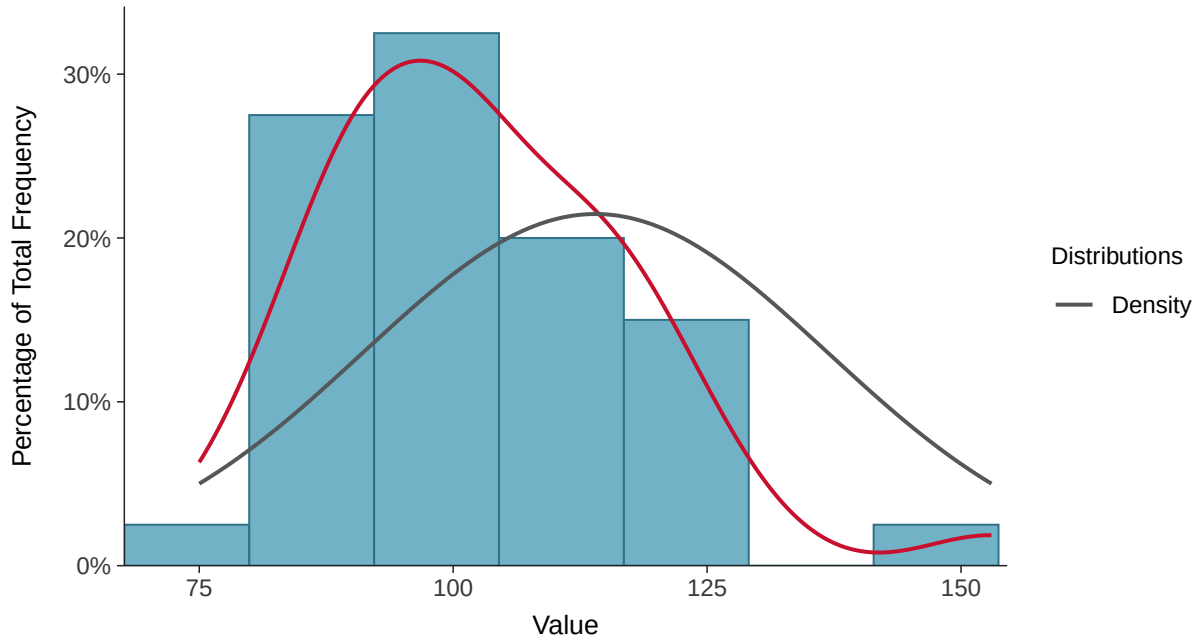
Scatter Plot

Barium, MW-5 (ug/L)



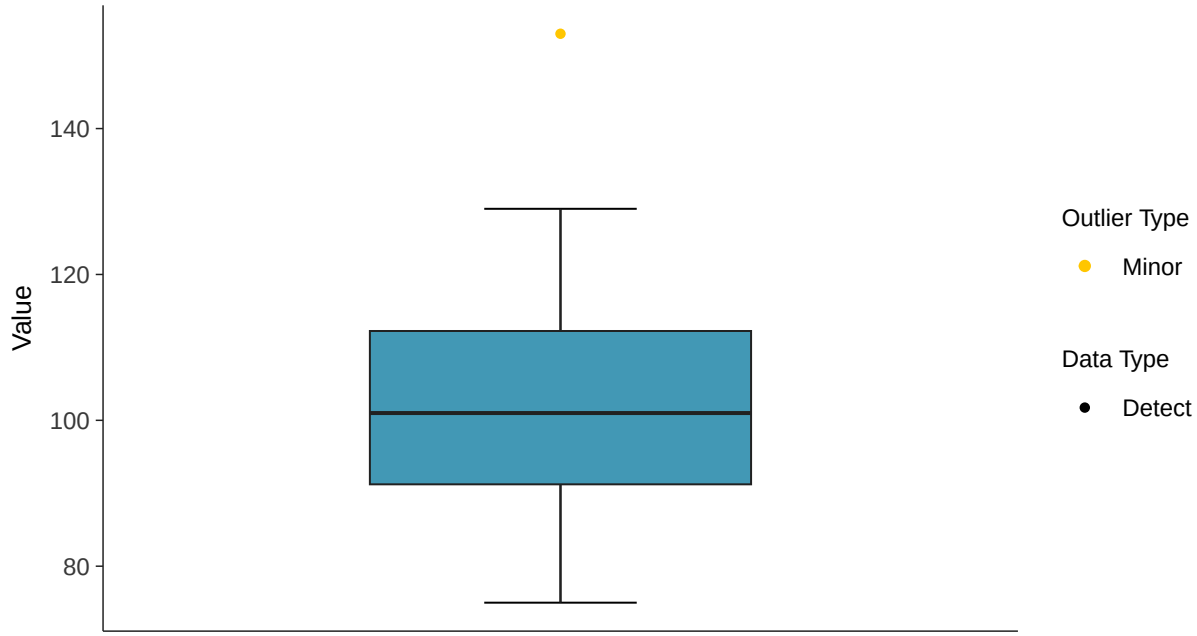
Histogram

Barium, MW-5 (ug/L)



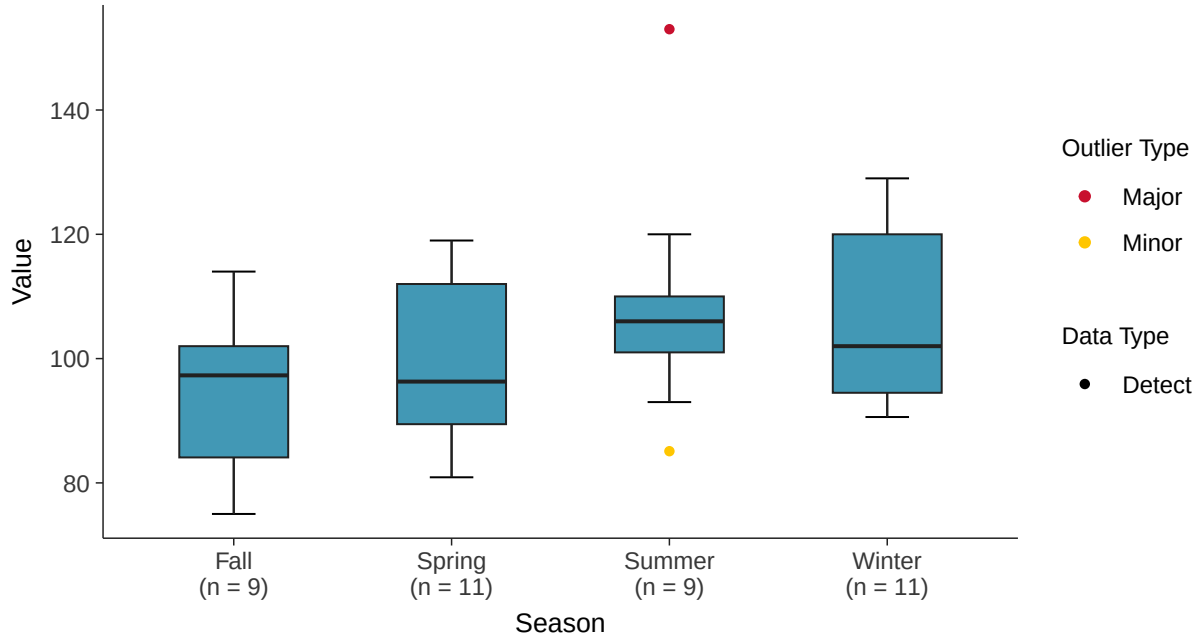
Boxplot

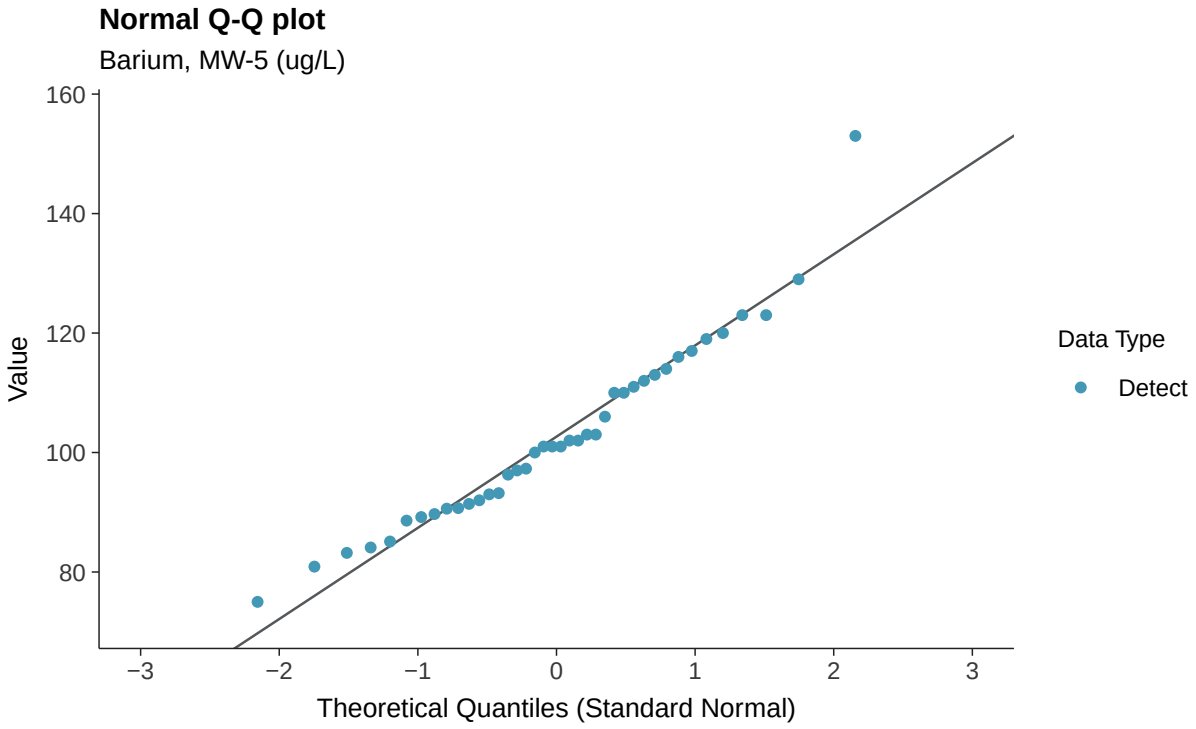
Barium, MW-5 (ug/L)

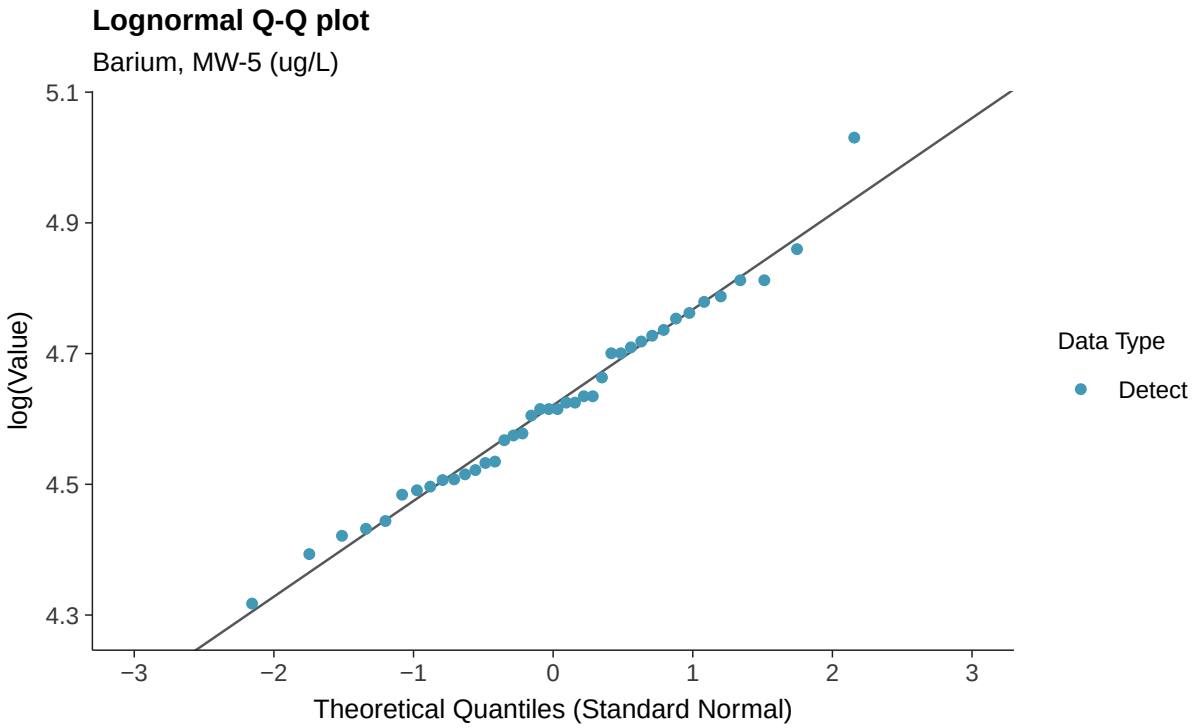


Boxplot by Season

Barium, MW-5 (ug/L)

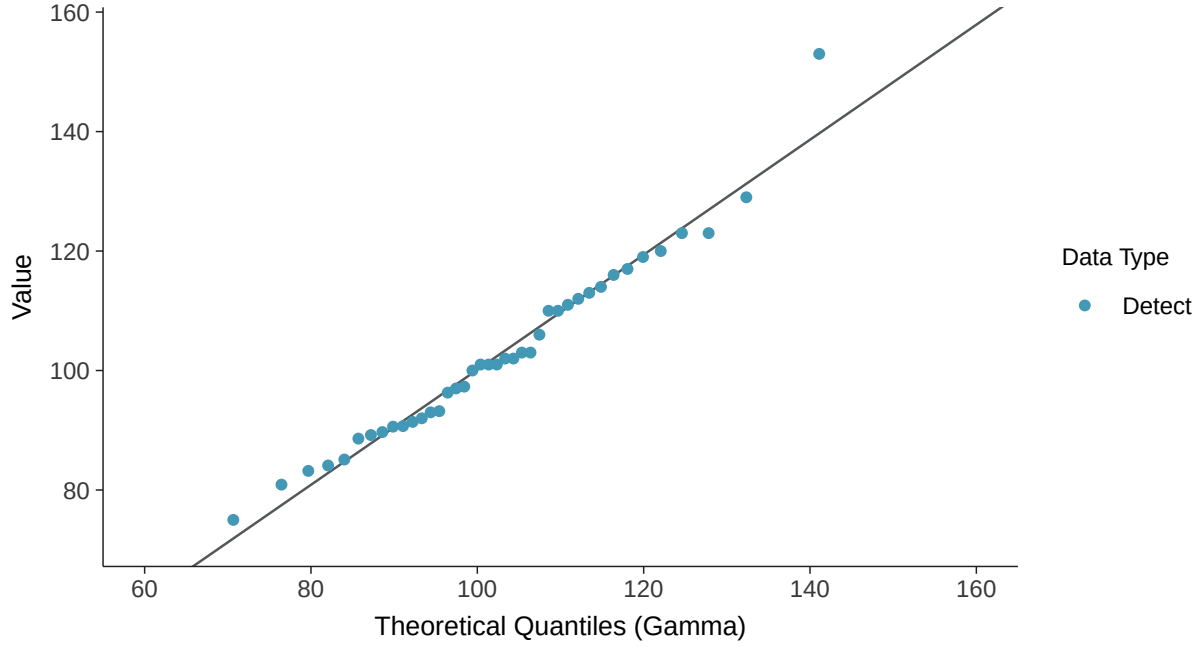



Normal Q-Q plot
Barium, MW-5 (ug/L)
Value
160
140
120
100
80
−3
−2
−1
0
1
2
3
Theoretical Quantiles (Standard Normal)
Data Type
Detect


Lognormal Q-Q plot
Barium, MW-5 (ug/L)
log(Value)
5.1
4.9
4.7
4.5
4.3
−3
−2
−1
0
1
2
3
Theoretical Quantiles (Standard Normal)
Data Type
Detect

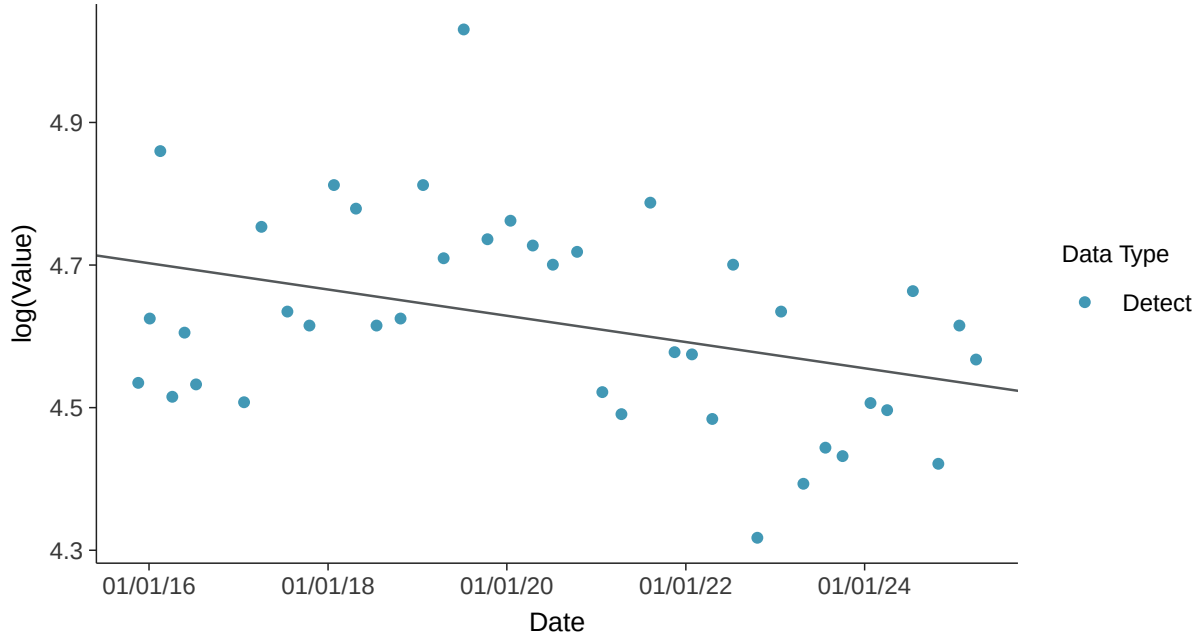
Gamma Q-Q plot

Barium, MW-5 (ug/L)



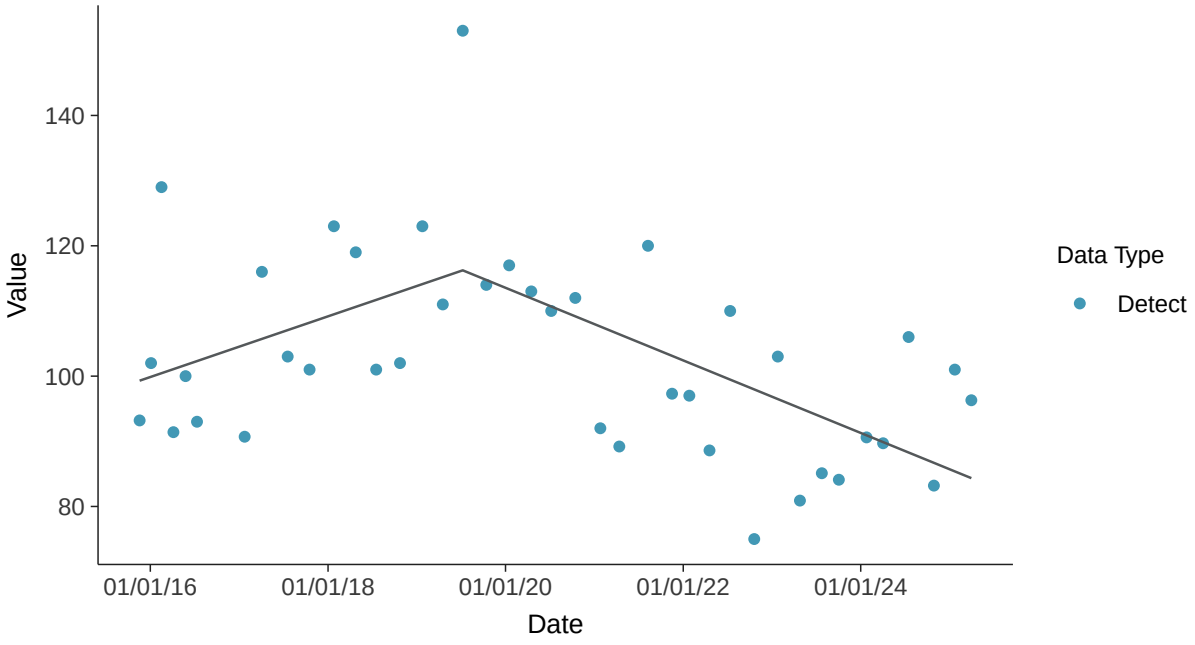
Trend Regression: Lognormal MLE

Barium, MW-5 (ug/L)



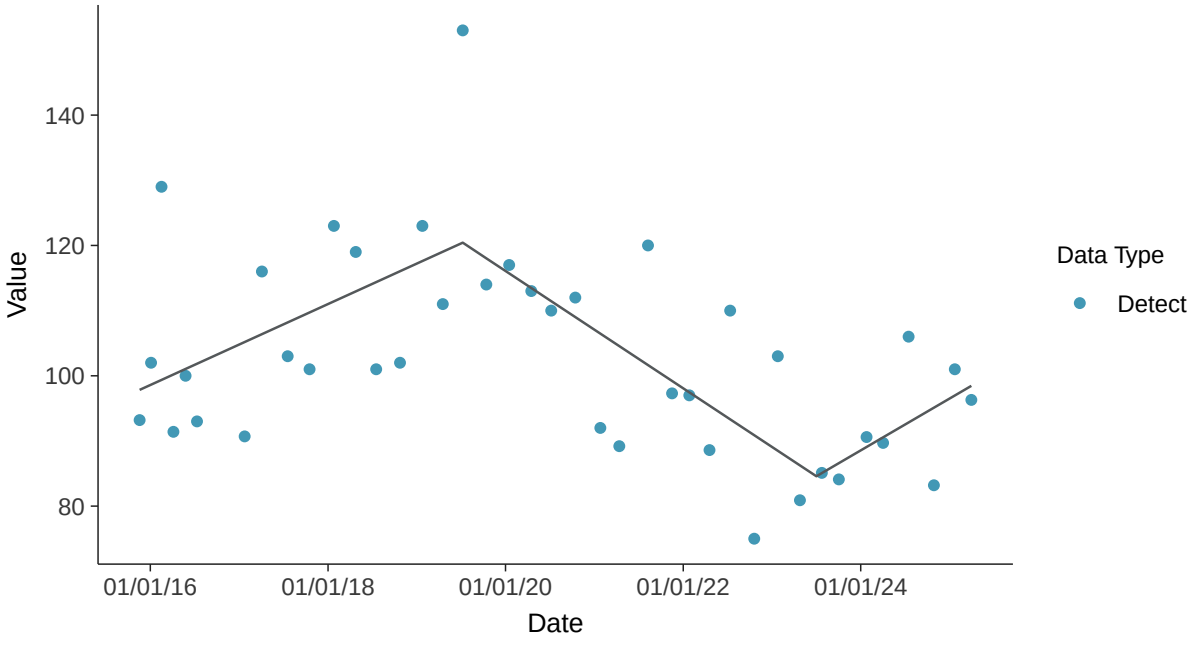
Trend Regression: Piecewise Linear-Linear

Barium, MW-5 (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Barium, MW-5 (ug/L)

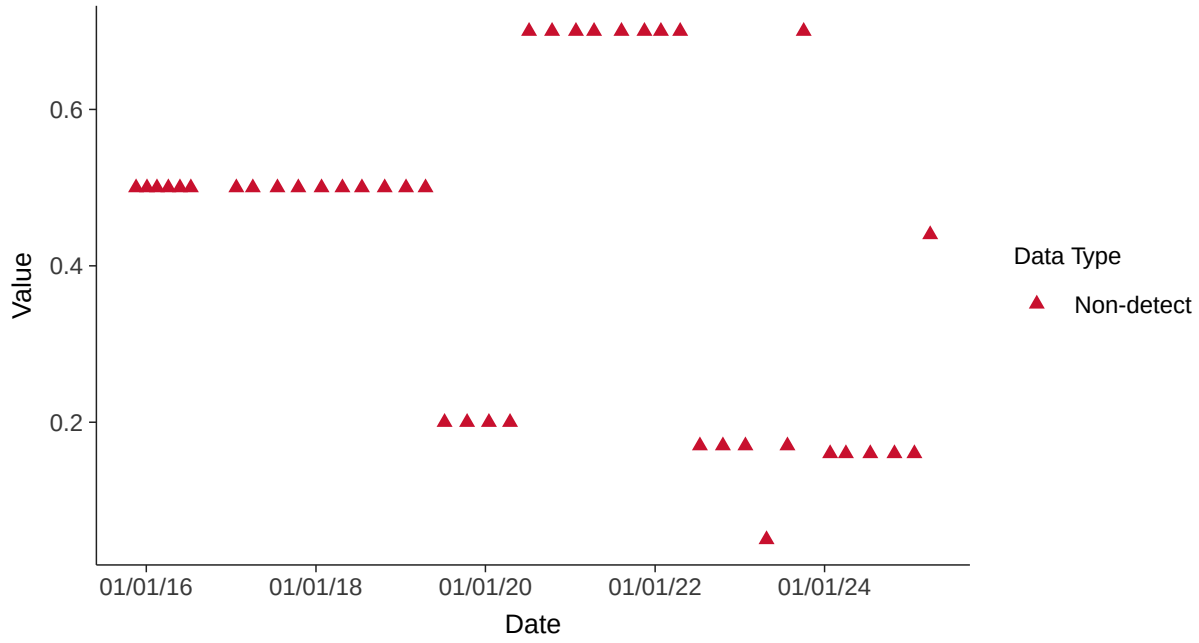


App. IV: Beryllium, MW-5

ID: 05_03_104

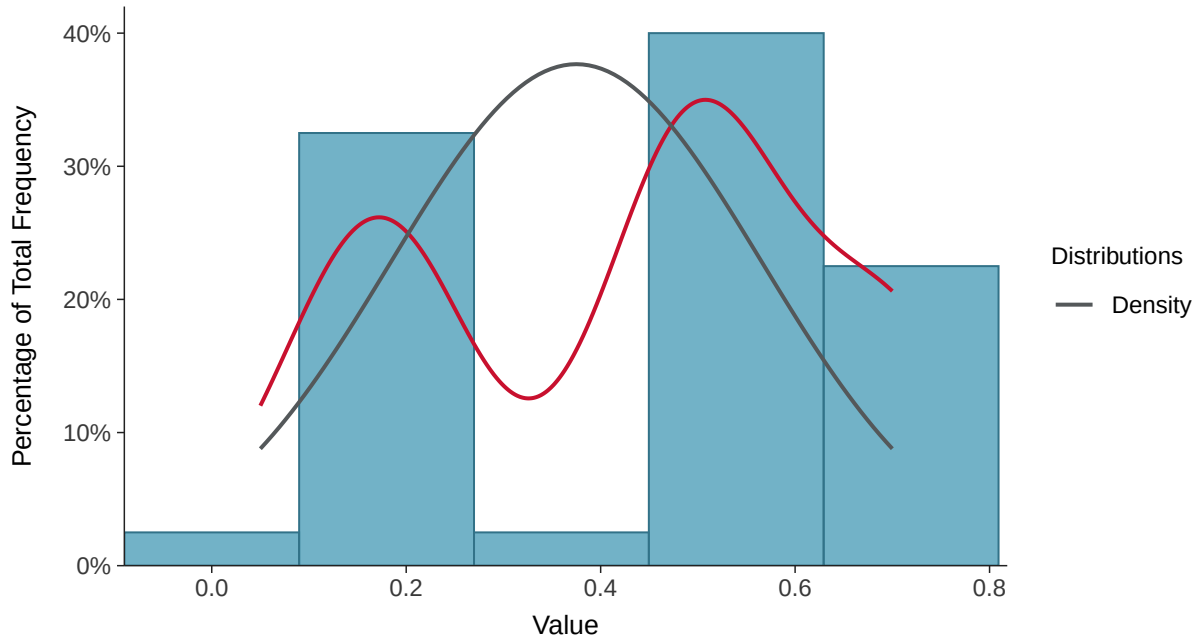
Scatter Plot

Beryllium, MW-5 (ug/L)



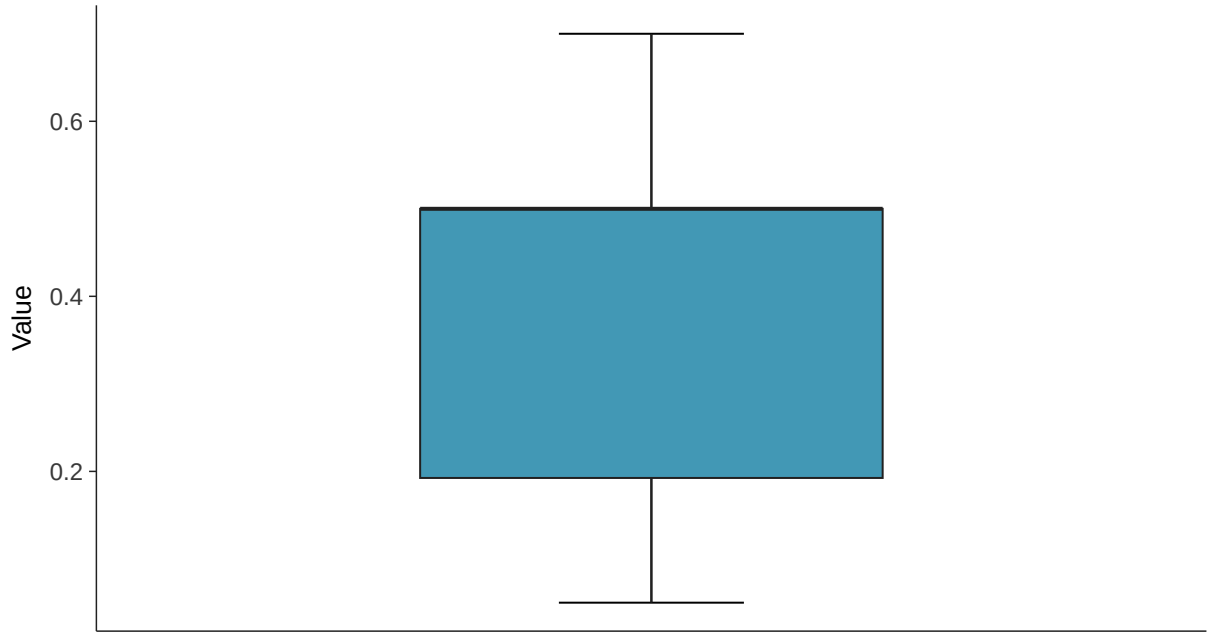
Histogram

Beryllium, MW-5 (ug/L)



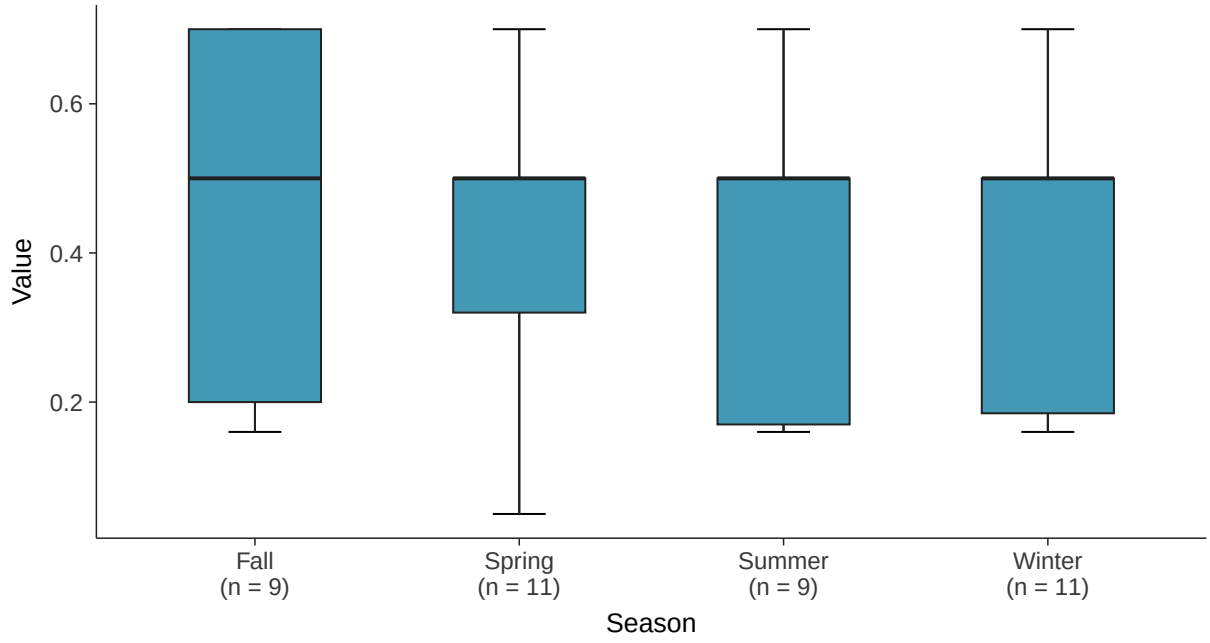
Boxplot

Beryllium, MW-5 (ug/L)



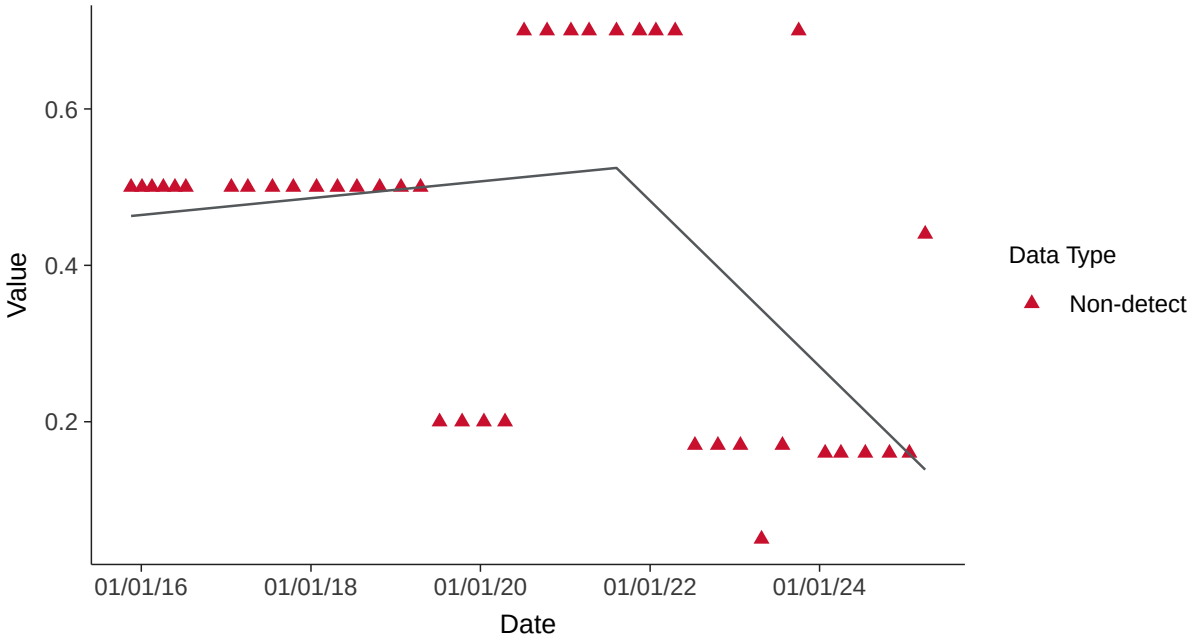
Boxplot by Season

Beryllium, MW-5 (ug/L)



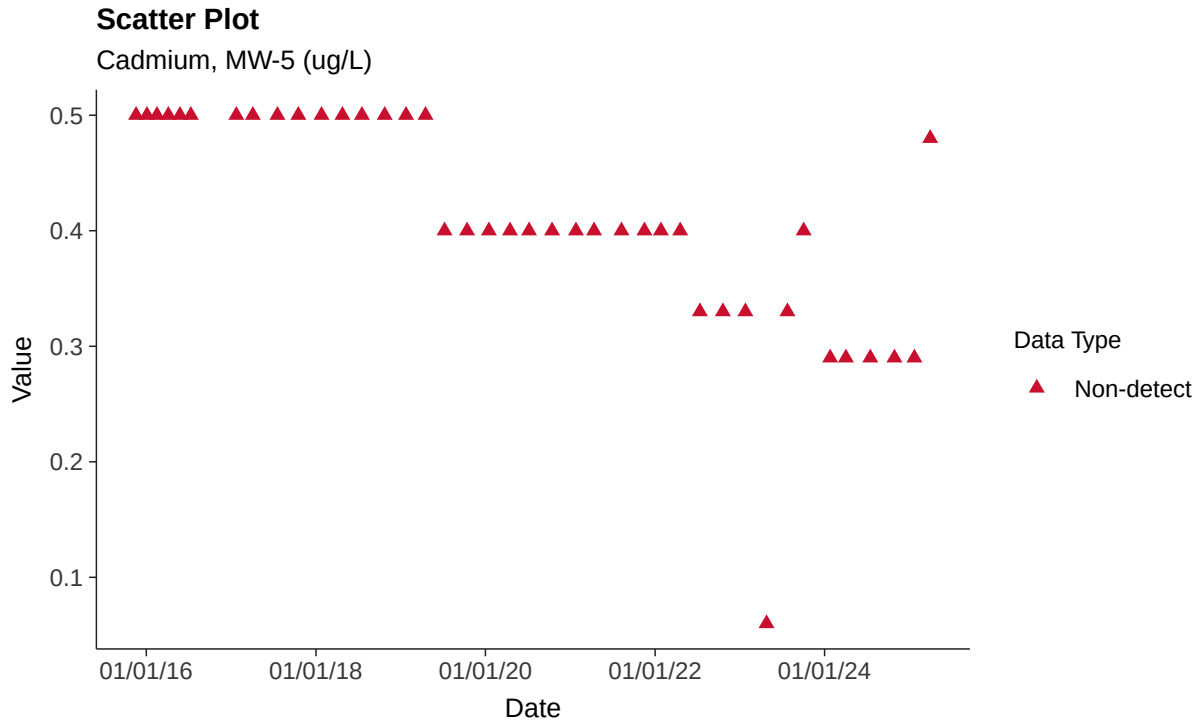
Trend Regression: Piecewise Linear-Linear

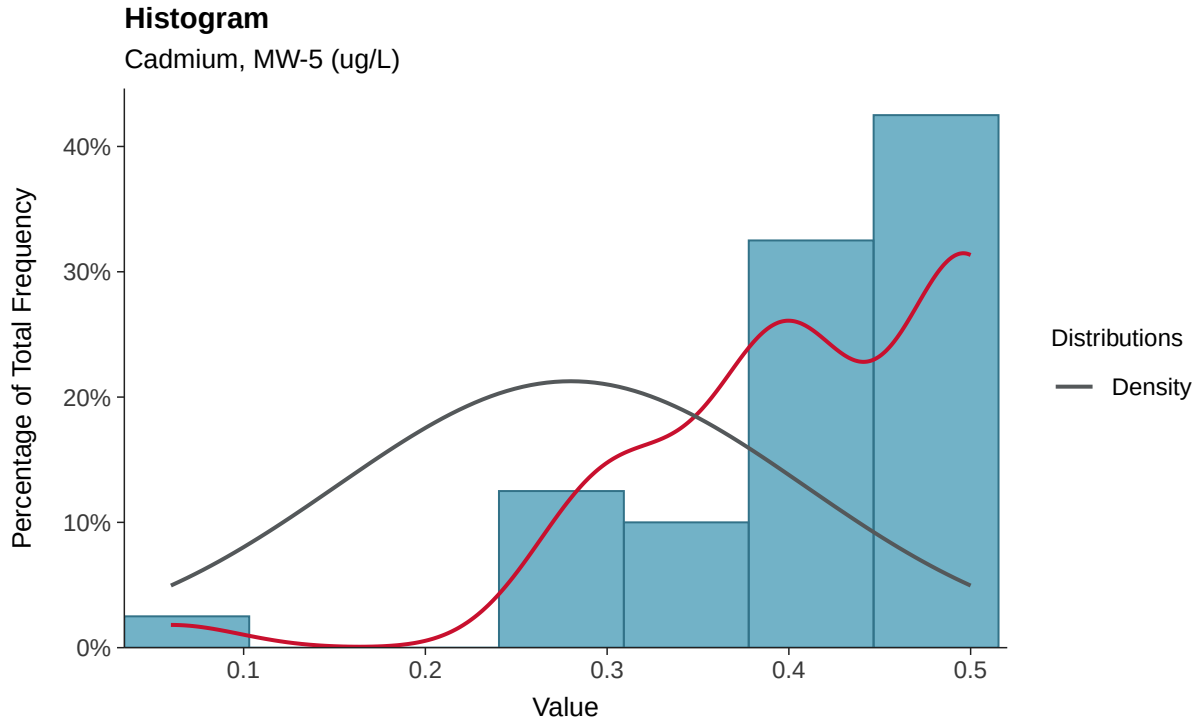
Beryllium, MW-5 (ug/L)



App. IV: Cadmium, MW-5

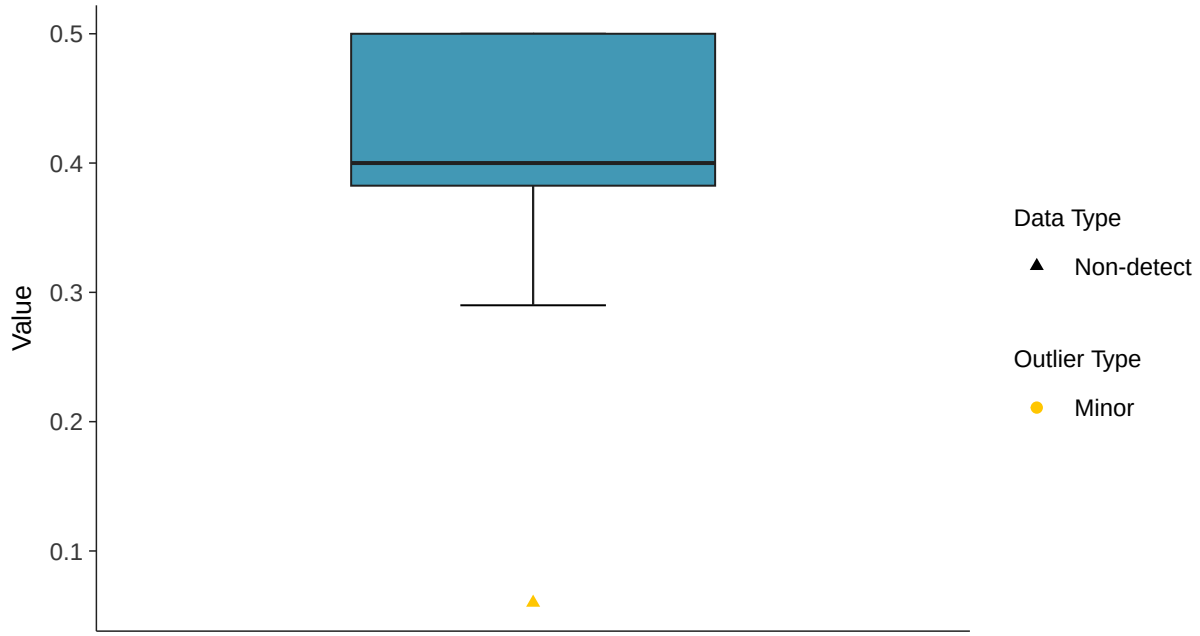
ID: 05_03_106





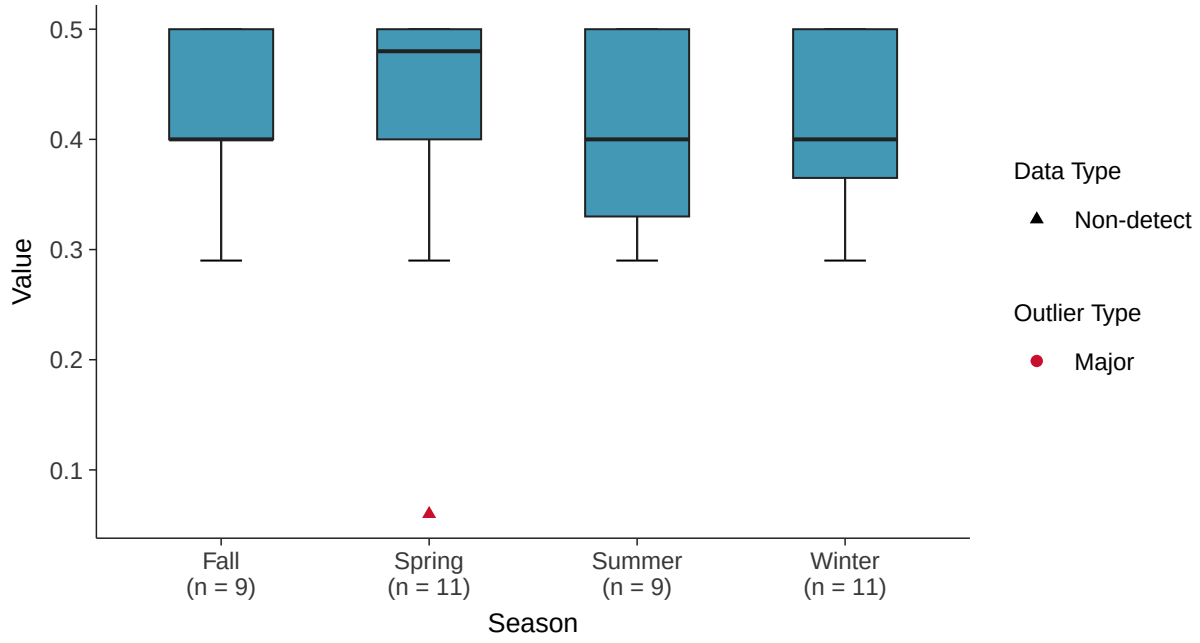
Boxplot

Cadmium, MW-5 (ug/L)



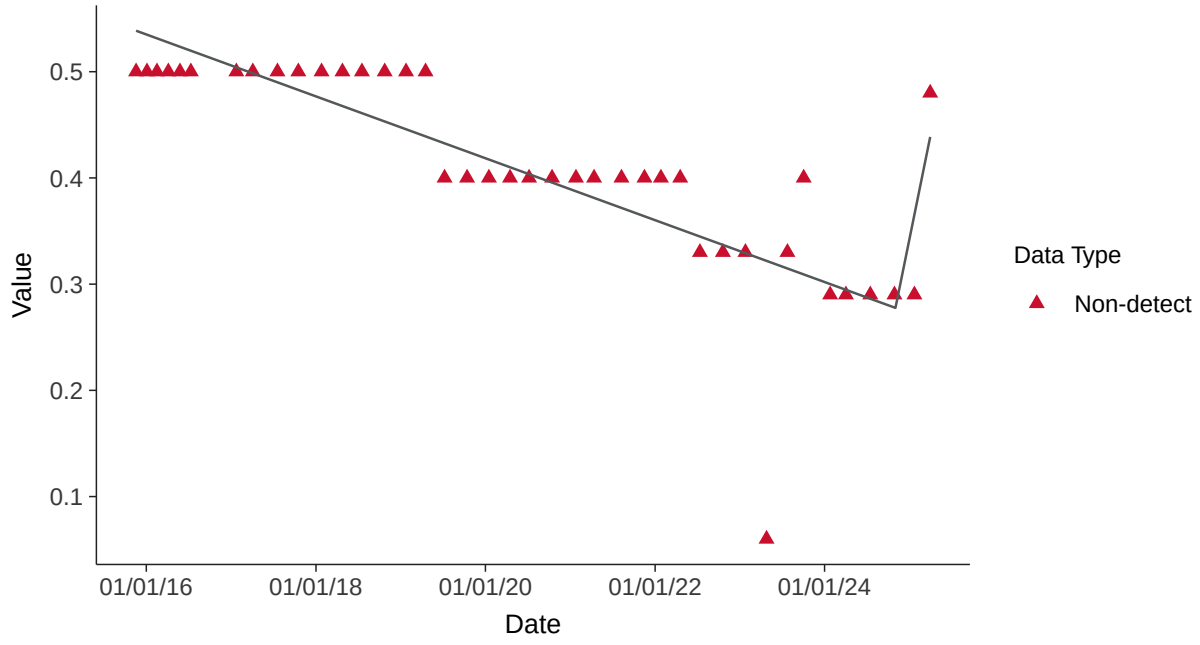
Boxplot by Season

Cadmium, MW-5 (ug/L)



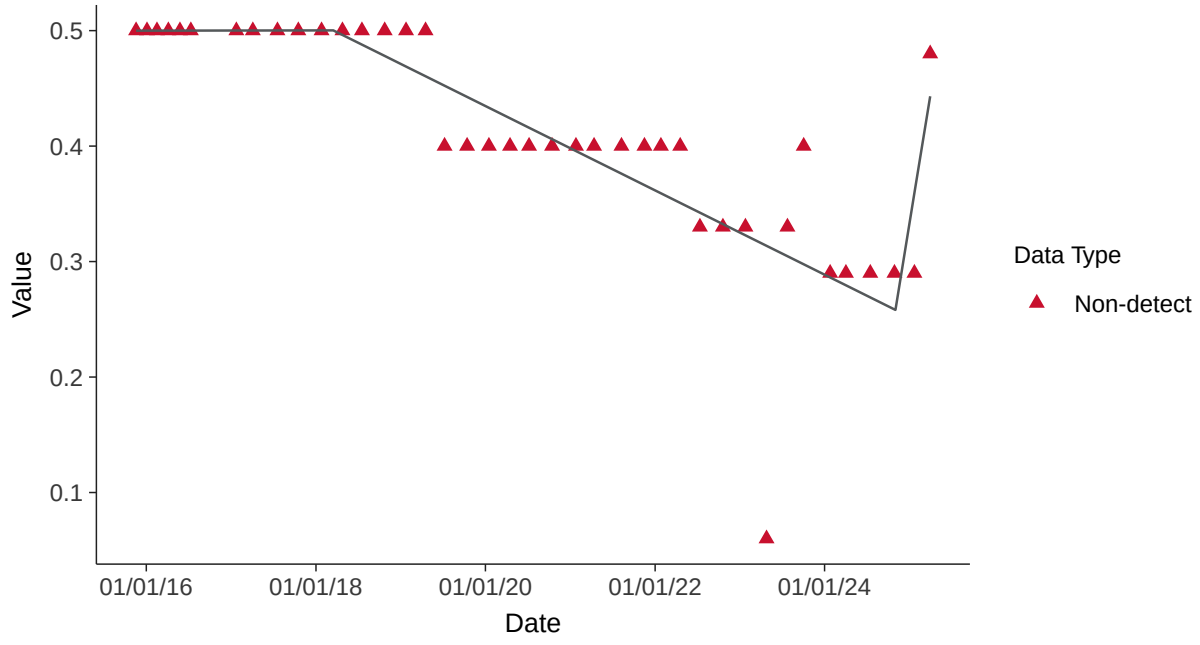
Trend Regression: Piecewise Linear-Linear

Cadmium, MW-5 (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Cadmium, MW-5 (ug/L)

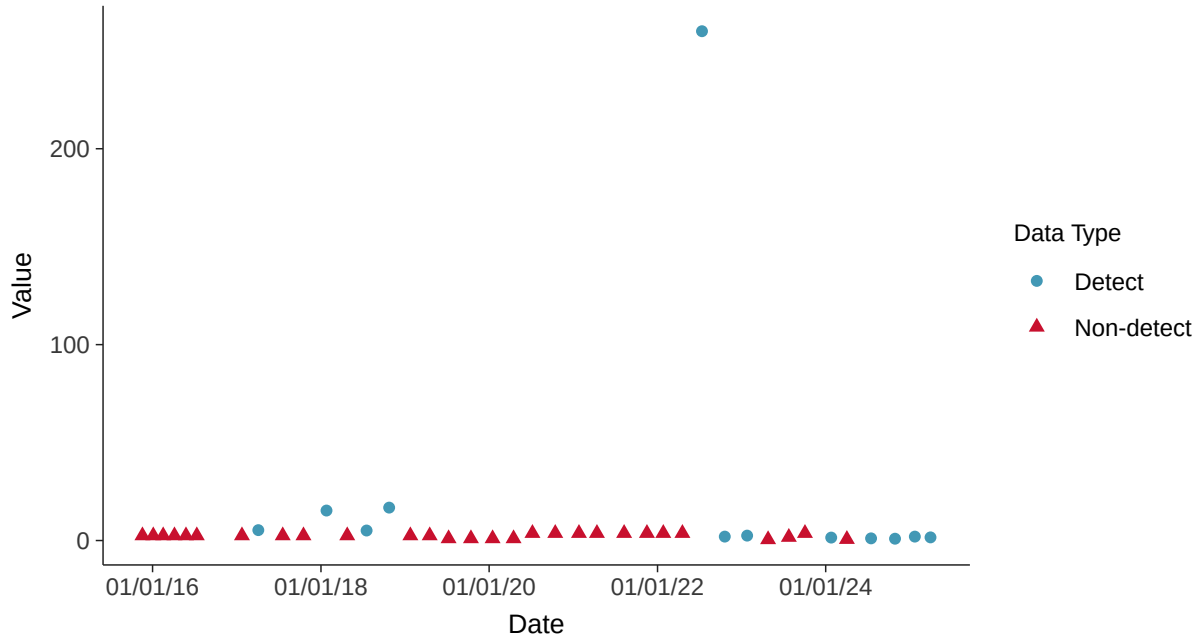


App. IV: Chromium, MW-5

ID: 05_03_109

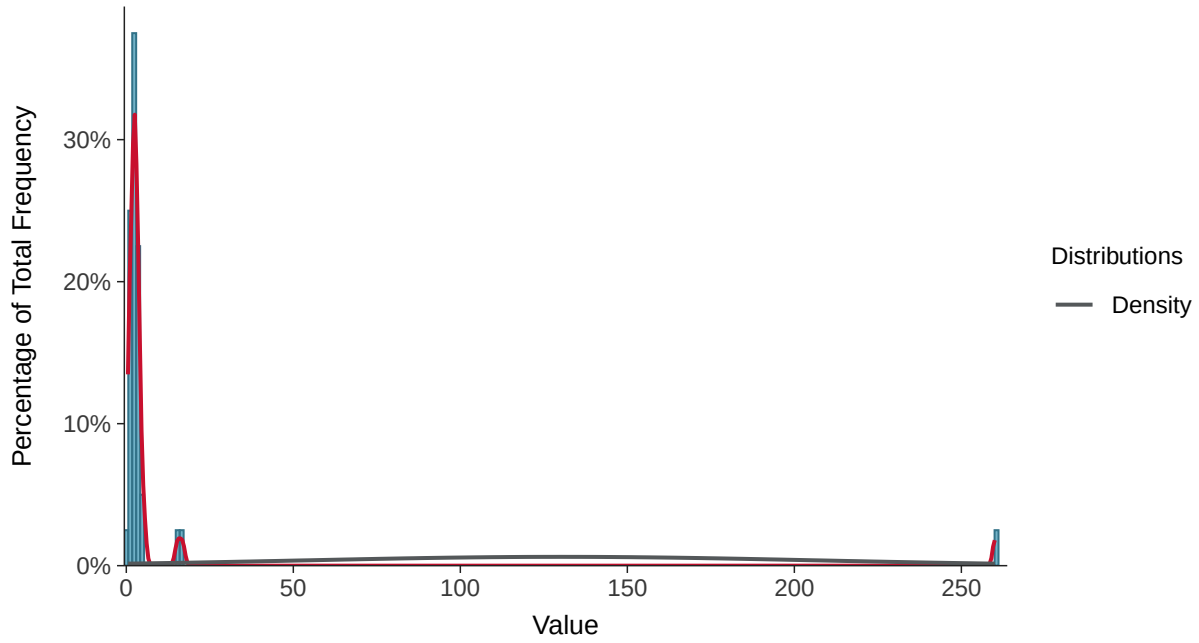
Scatter Plot

Chromium, MW-5 (ug/L)



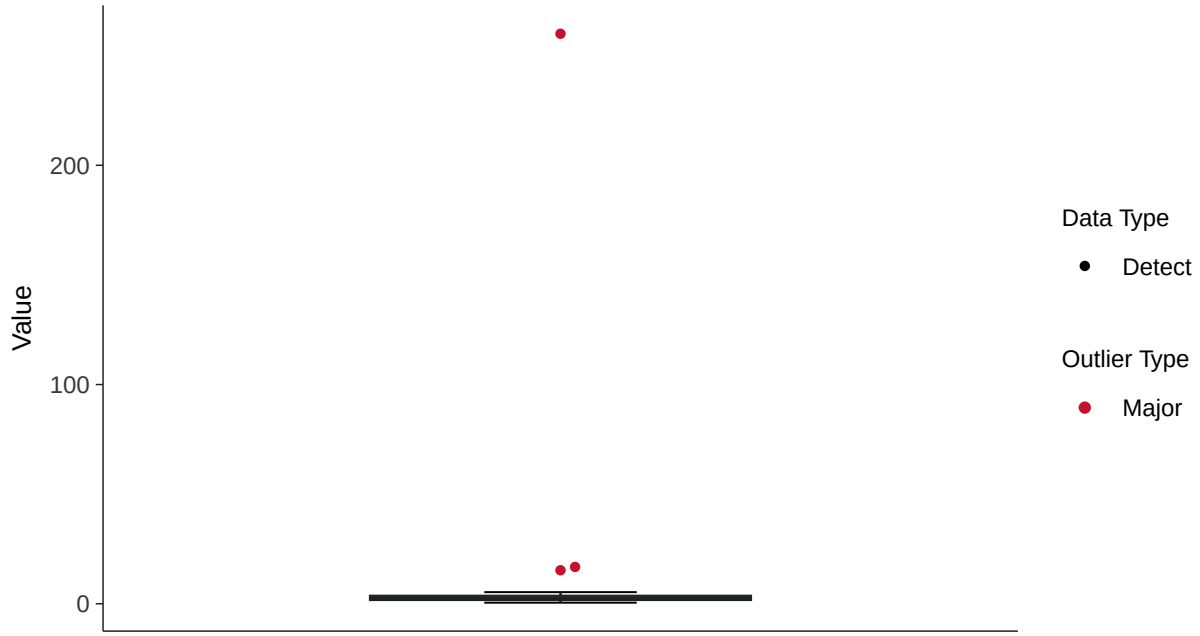
Histogram

Chromium, MW-5 (ug/L)



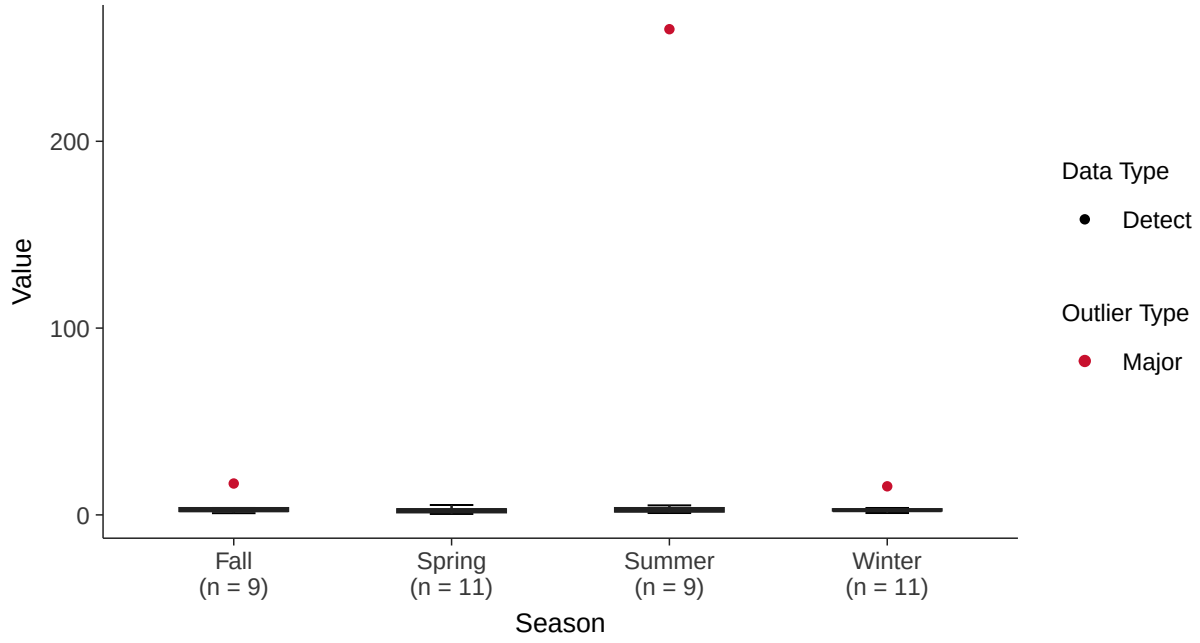
Boxplot

Chromium, MW-5 (ug/L)



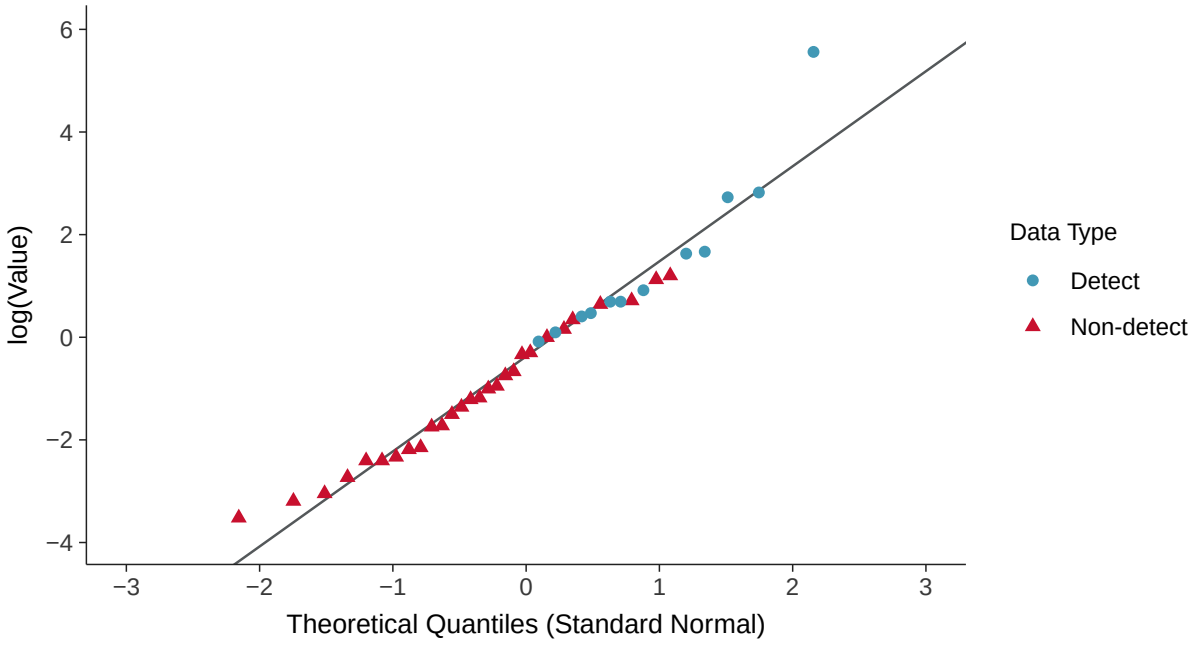
Boxplot by Season

Chromium, MW-5 (ug/L)



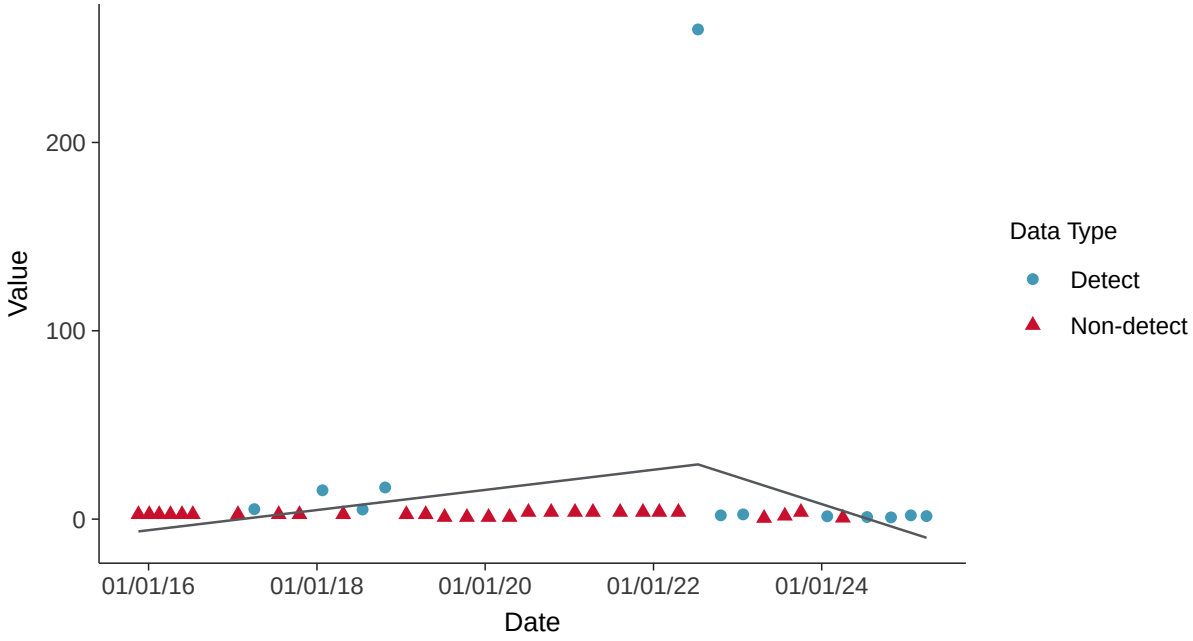
Lognormal Q-Q plot using ROS Imputed Estimates

Chromium, MW-5 (ug/L)



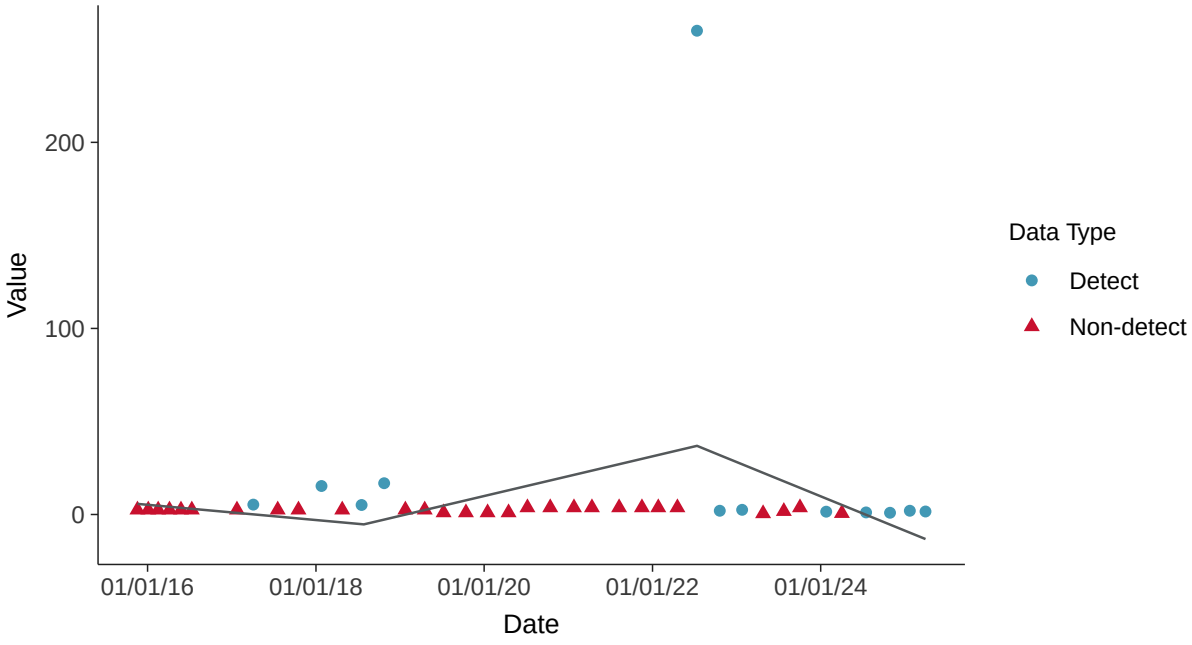
Trend Regression: Piecewise Linear-Linear

Chromium, MW-5 (ug/L)



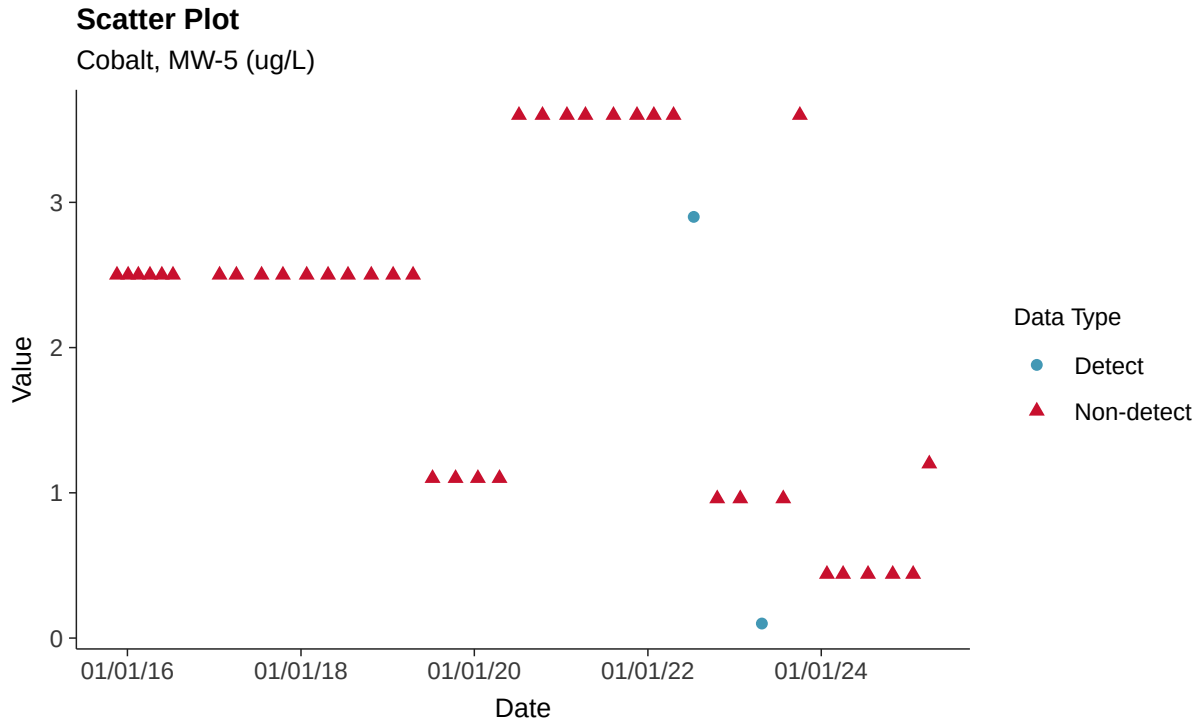
Trend Regression: Piecewise Linear-Linear-Linear

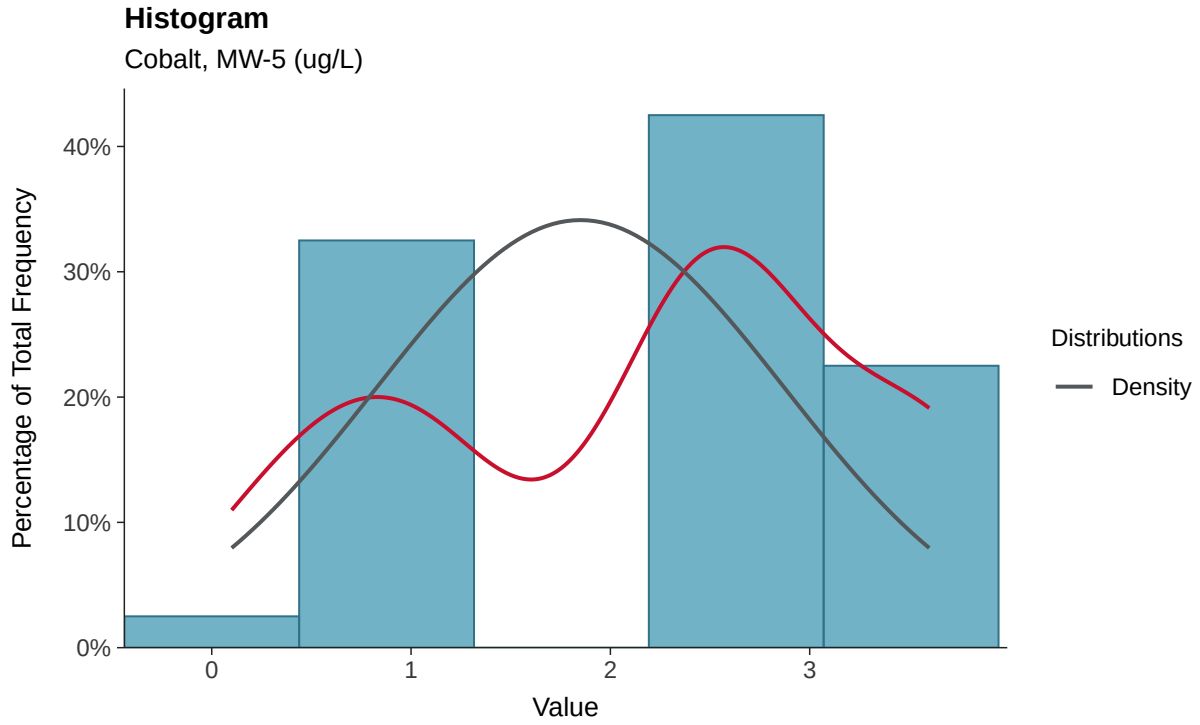
Chromium, MW-5 (ug/L)



App. IV: Cobalt, MW-5

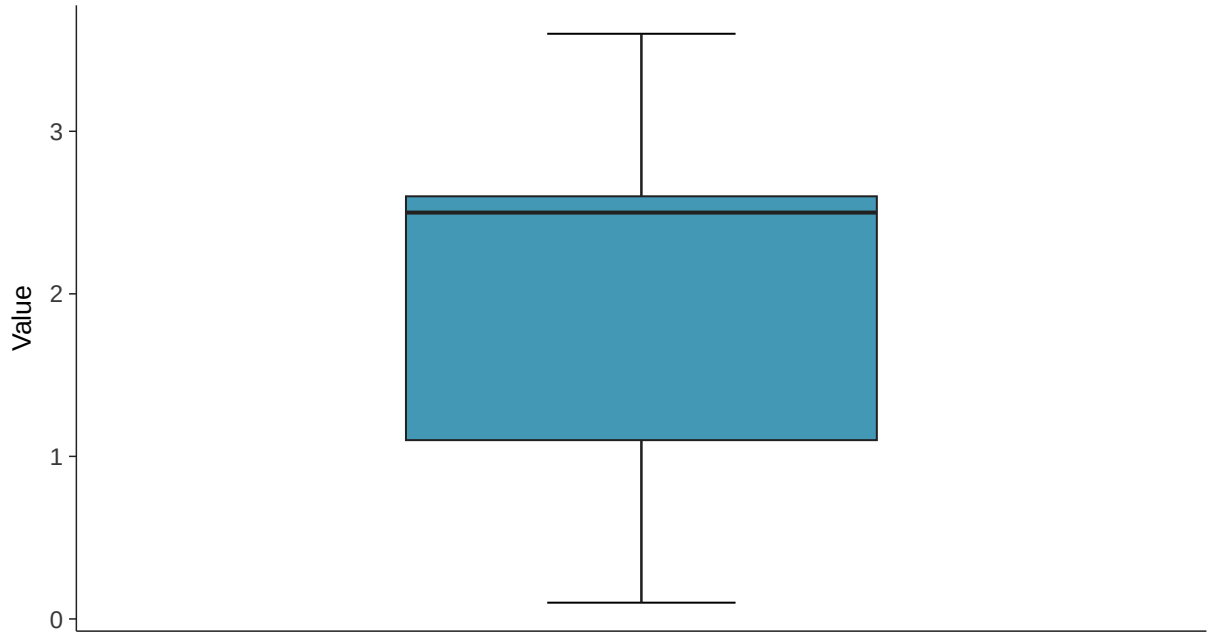
ID: 05_03_110





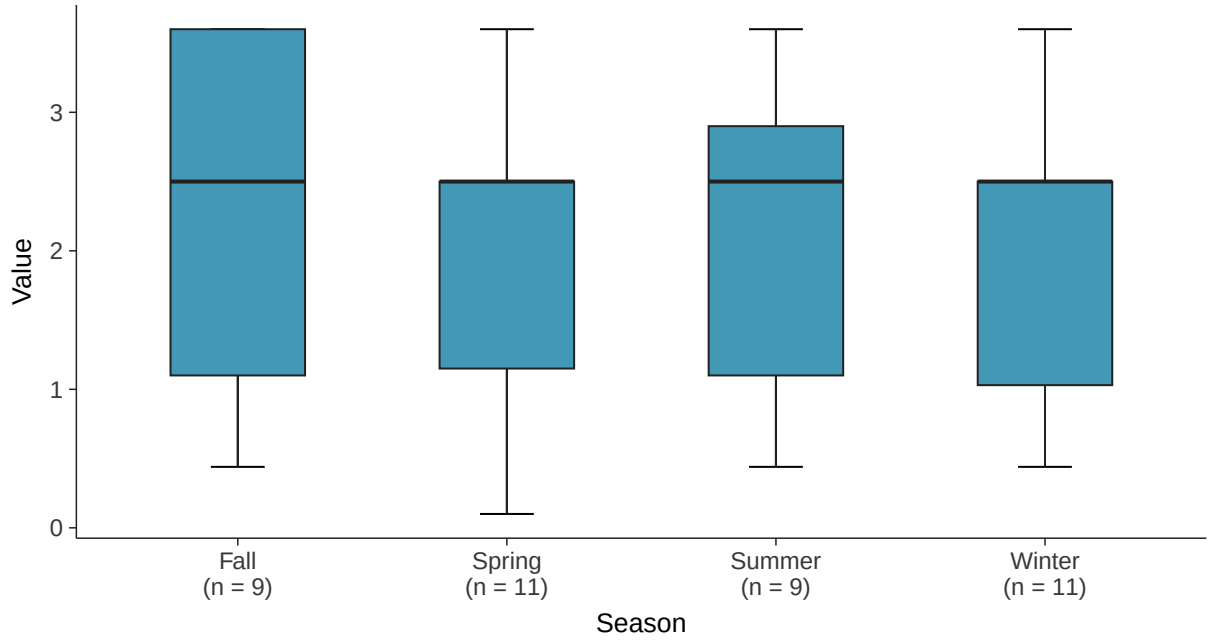
Boxplot

Cobalt, MW-5 (ug/L)



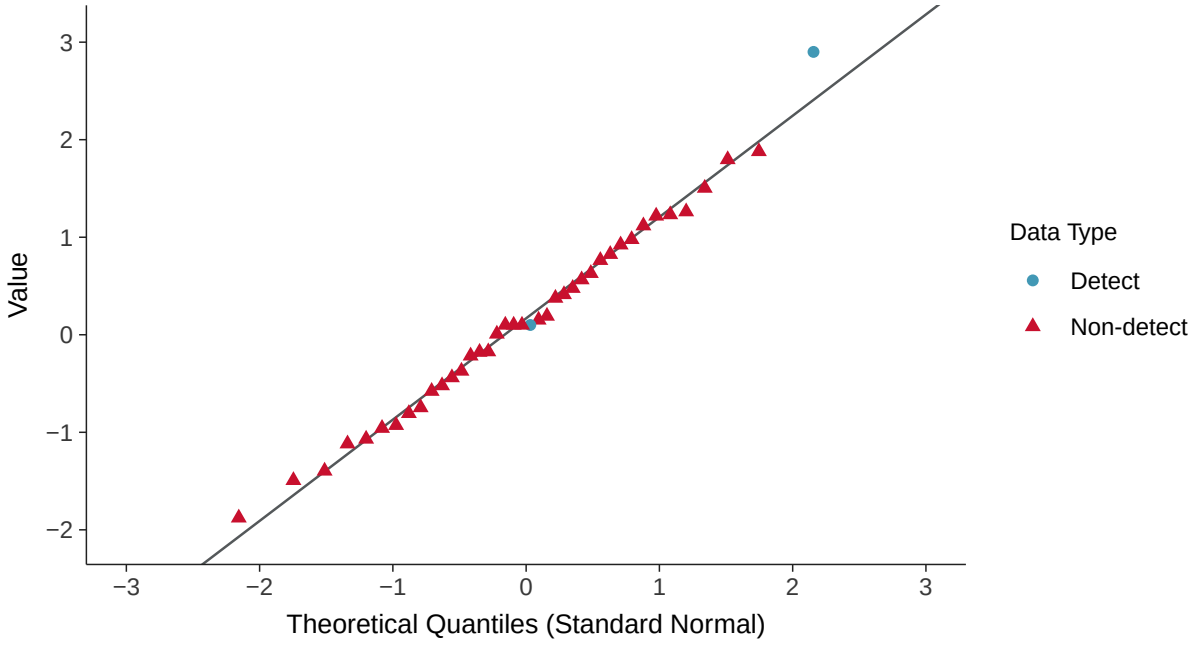
Boxplot by Season

Cobalt, MW-5 (ug/L)



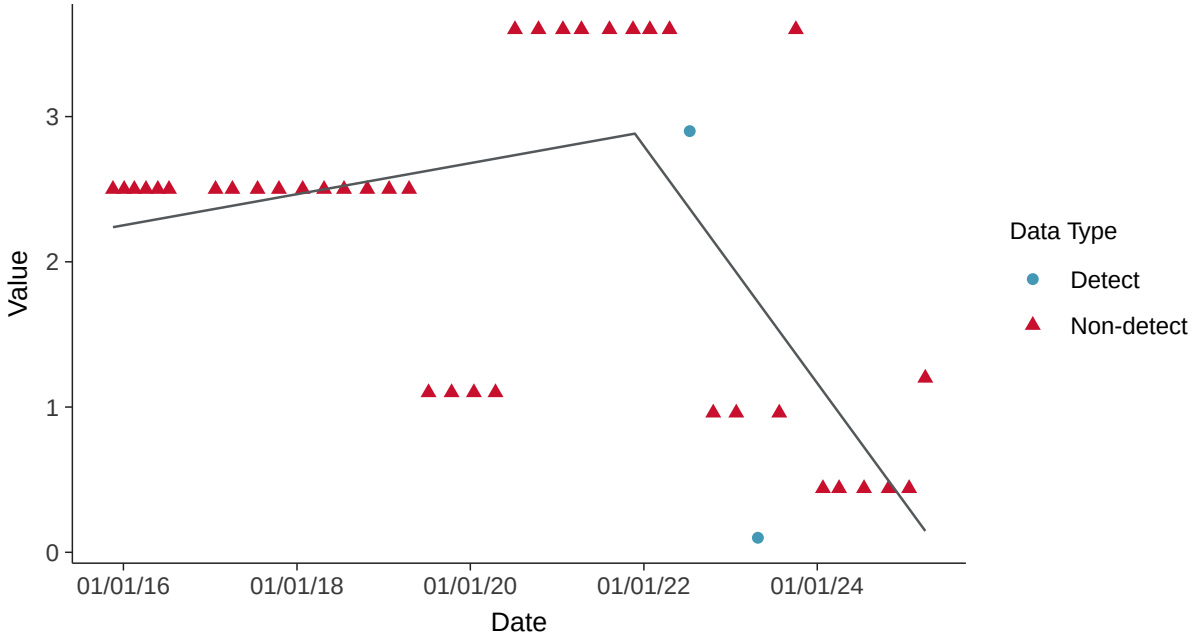
Normal Q-Q plot using ROS Imputed Estimates

Cobalt, MW-5 (ug/L)



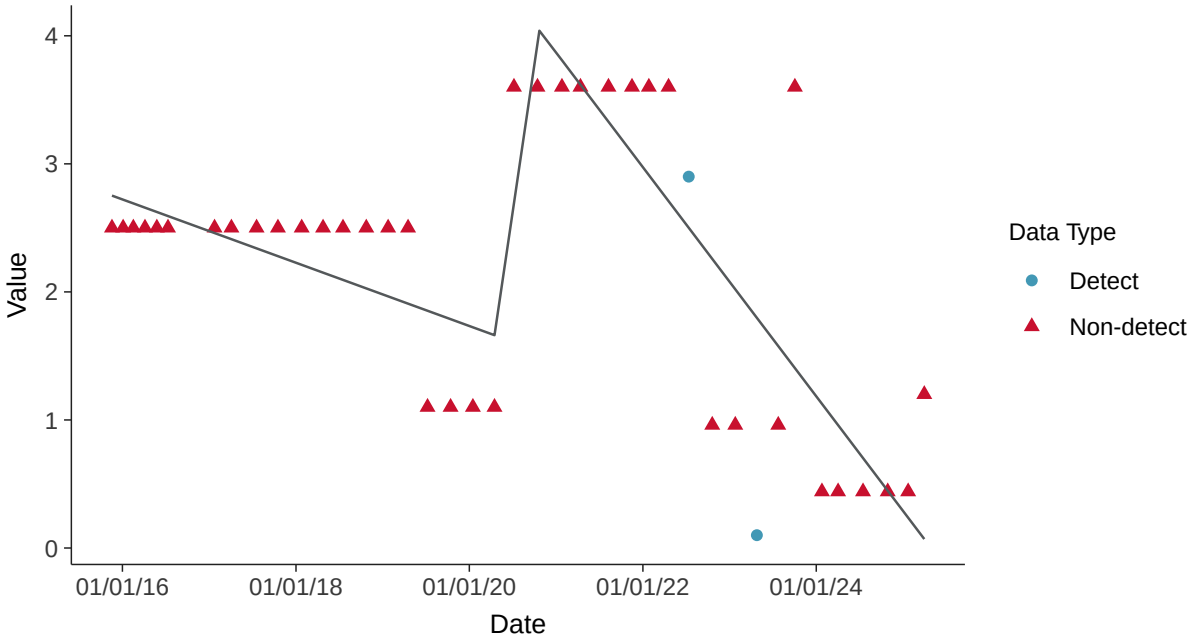
Trend Regression: Piecewise Linear-Linear

Cobalt, MW-5 (ug/L)



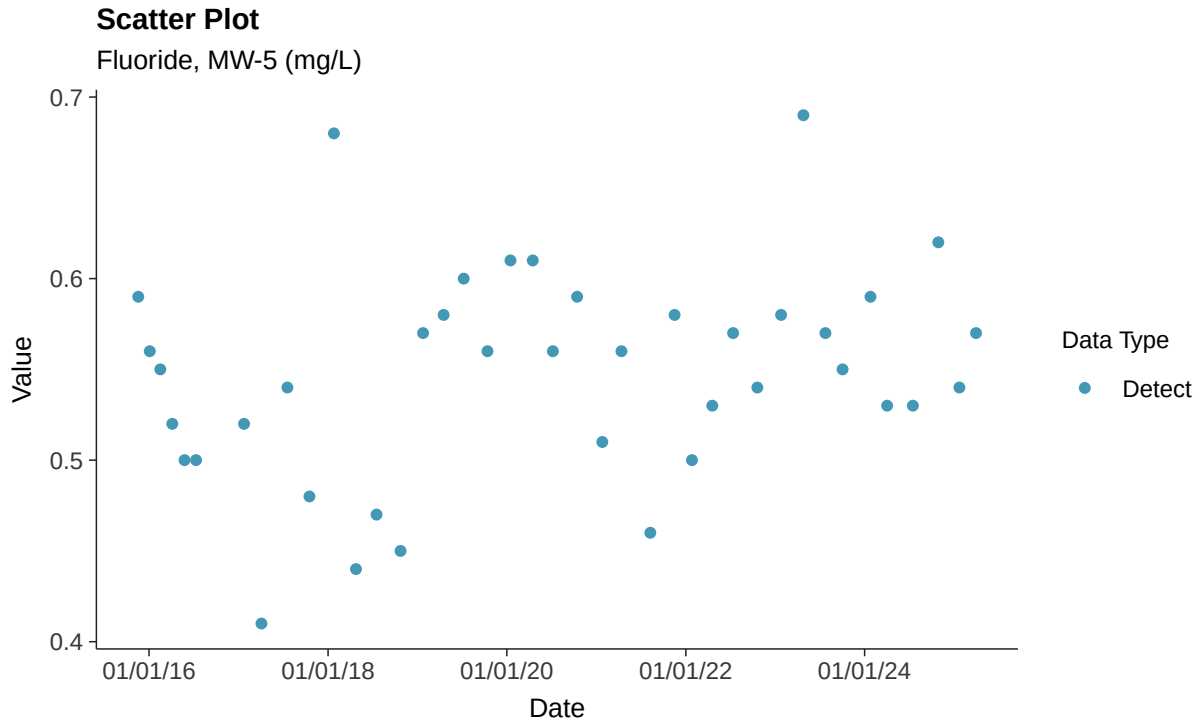
Trend Regression: Piecewise Linear-Linear-Linear

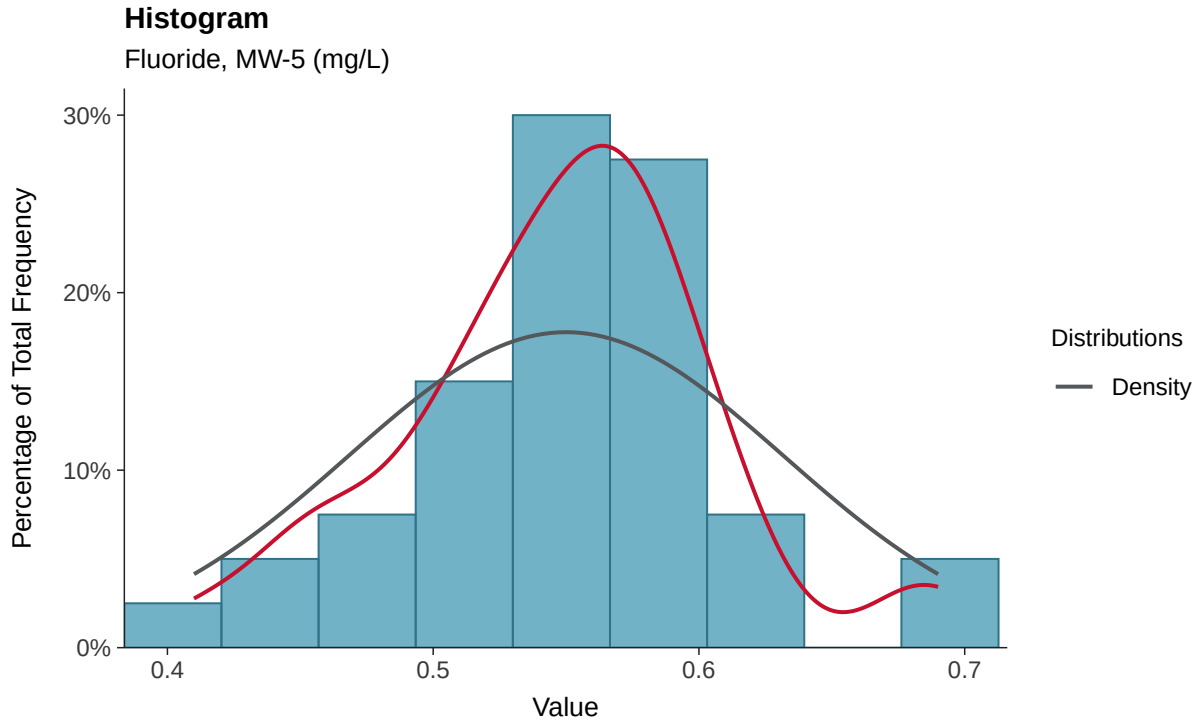
Cobalt, MW-5 (ug/L)



App. IV: Fluoride, MW-5

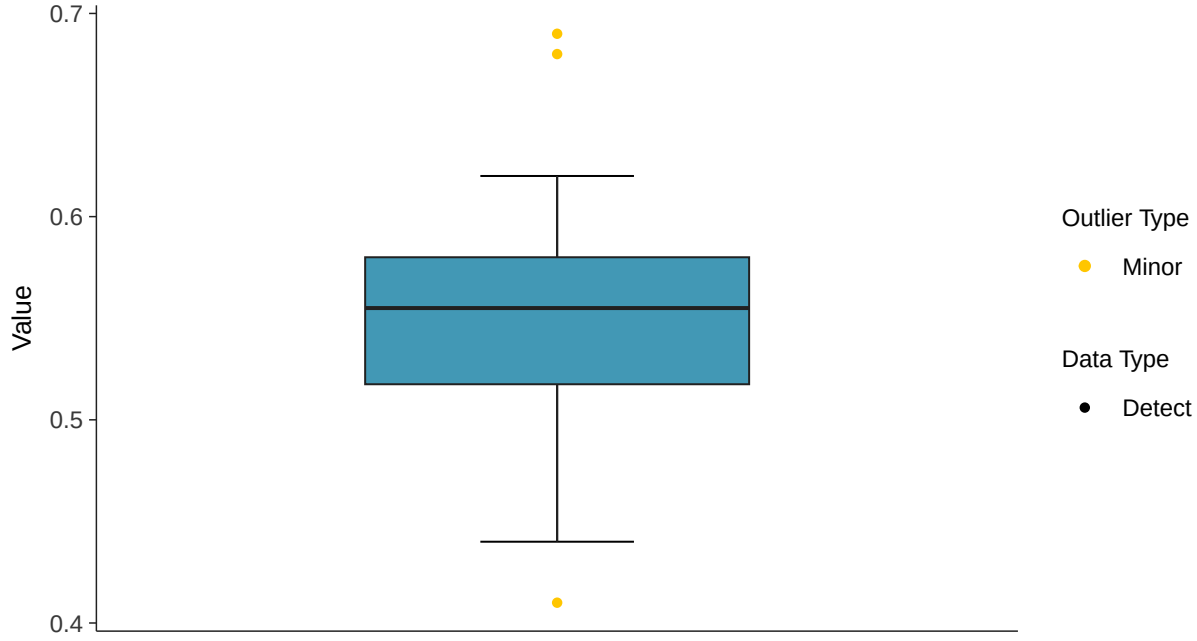
ID: 05_03_112





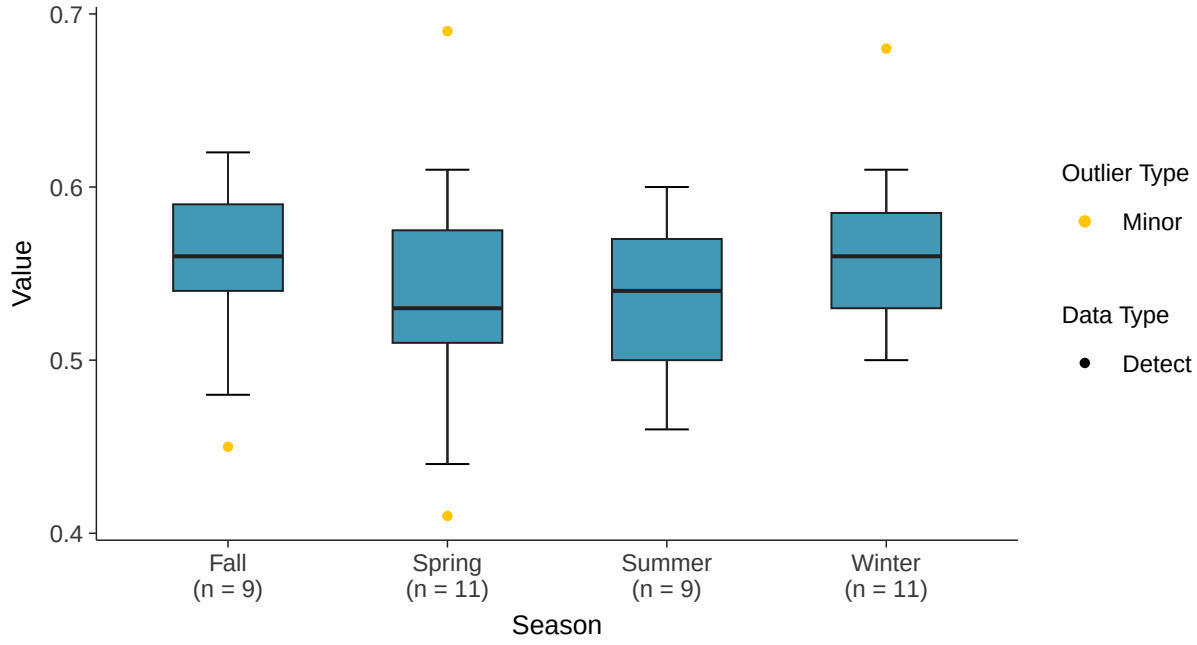
Boxplot

Fluoride, MW-5 (mg/L)



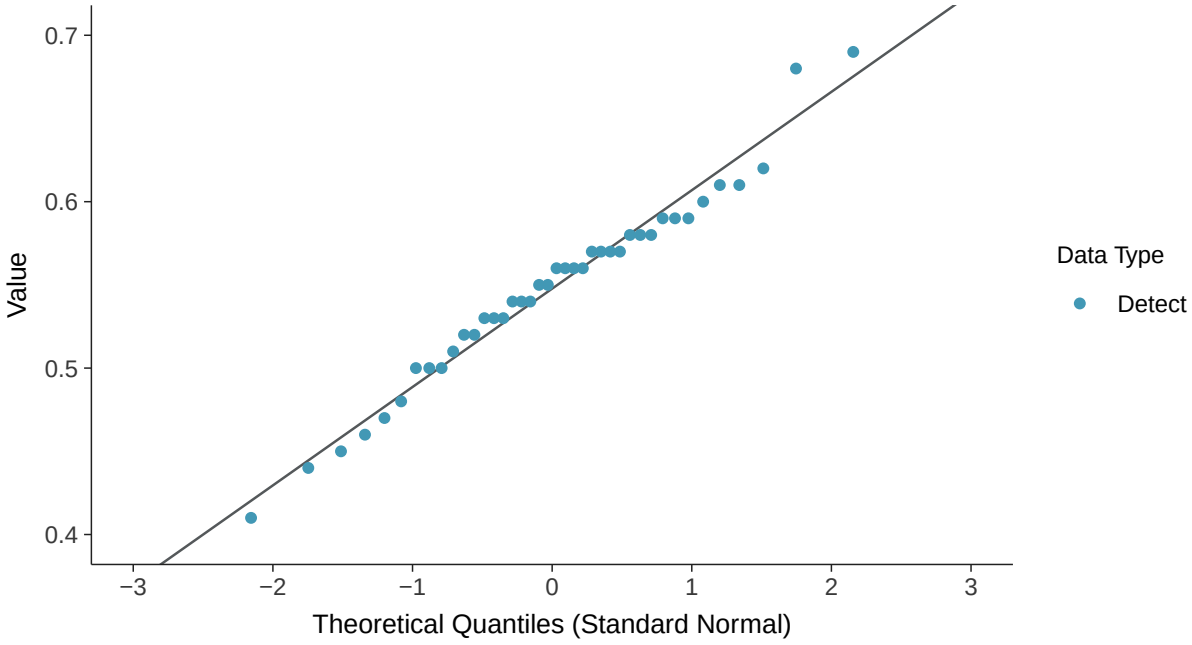
Boxplot by Season

Fluoride, MW-5 (mg/L)



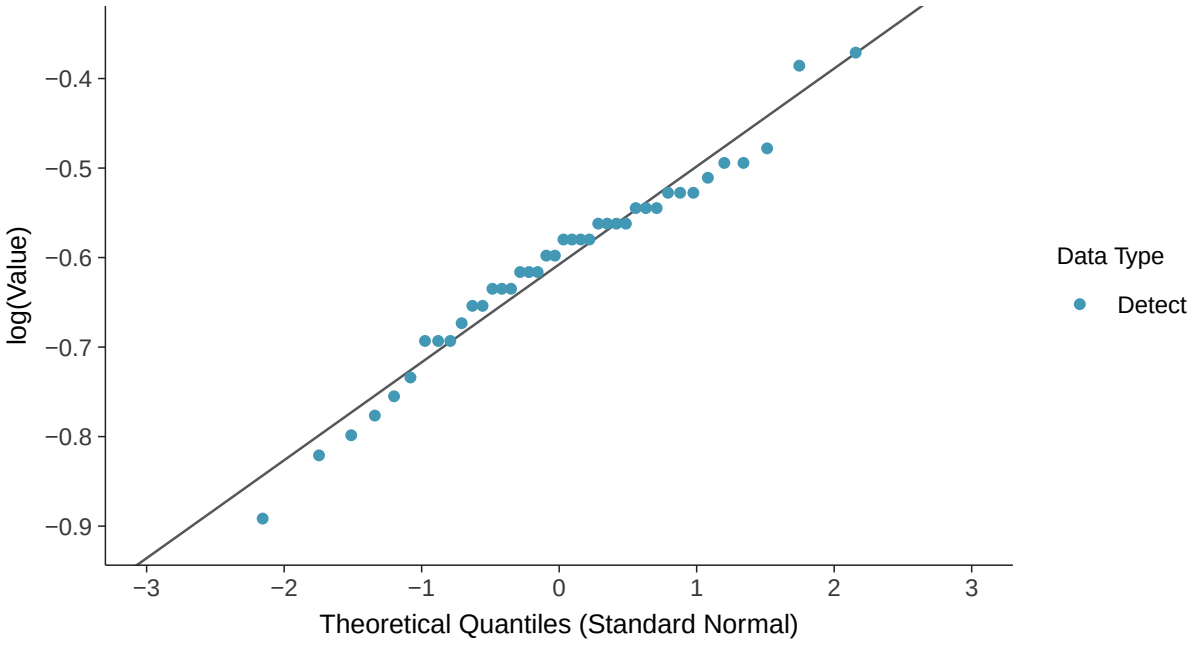
Normal Q-Q plot

Fluoride, MW-5 (mg/L)



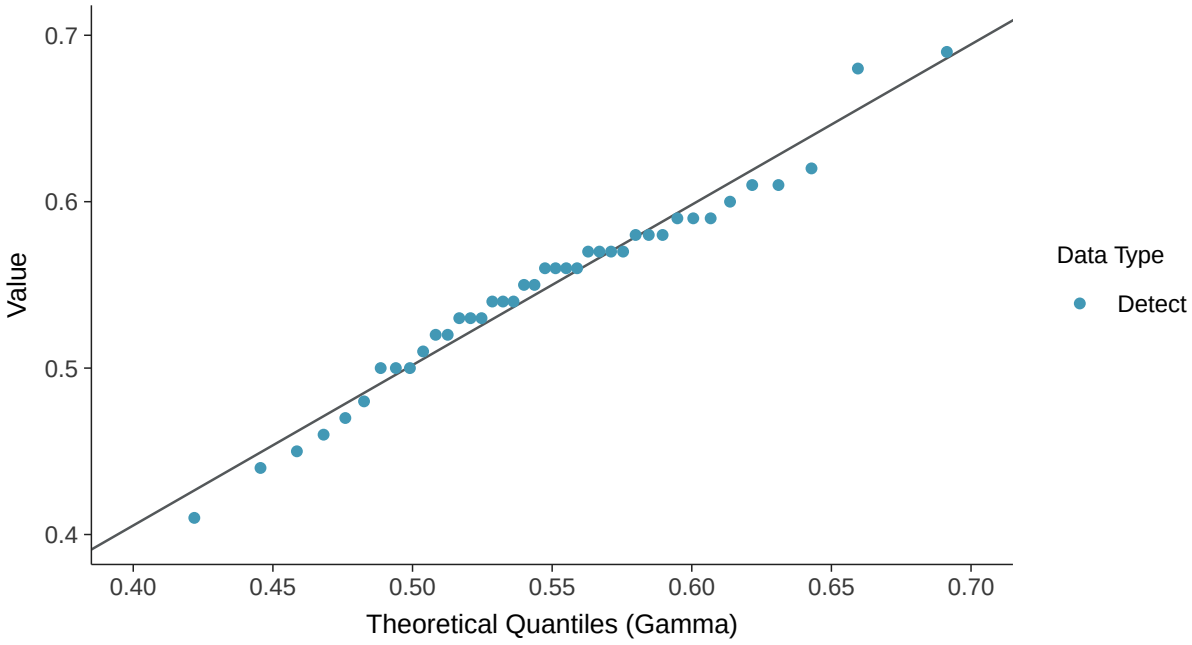
Lognormal Q-Q plot

Fluoride, MW-5 (mg/L)



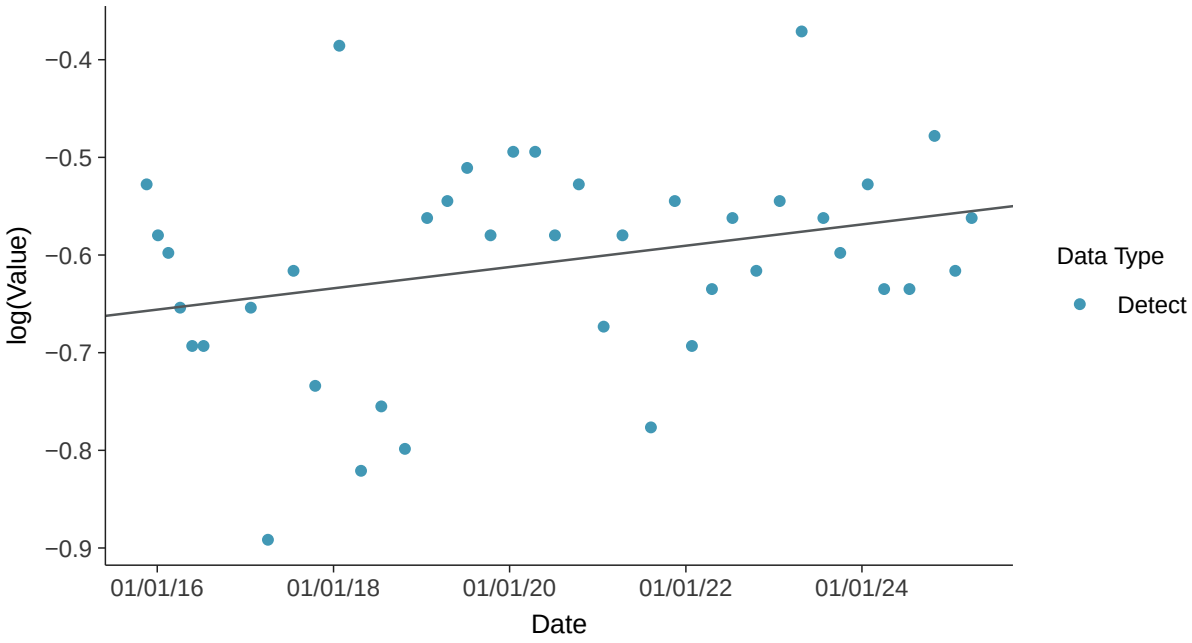
Gamma Q-Q plot

Fluoride, MW-5 (mg/L)



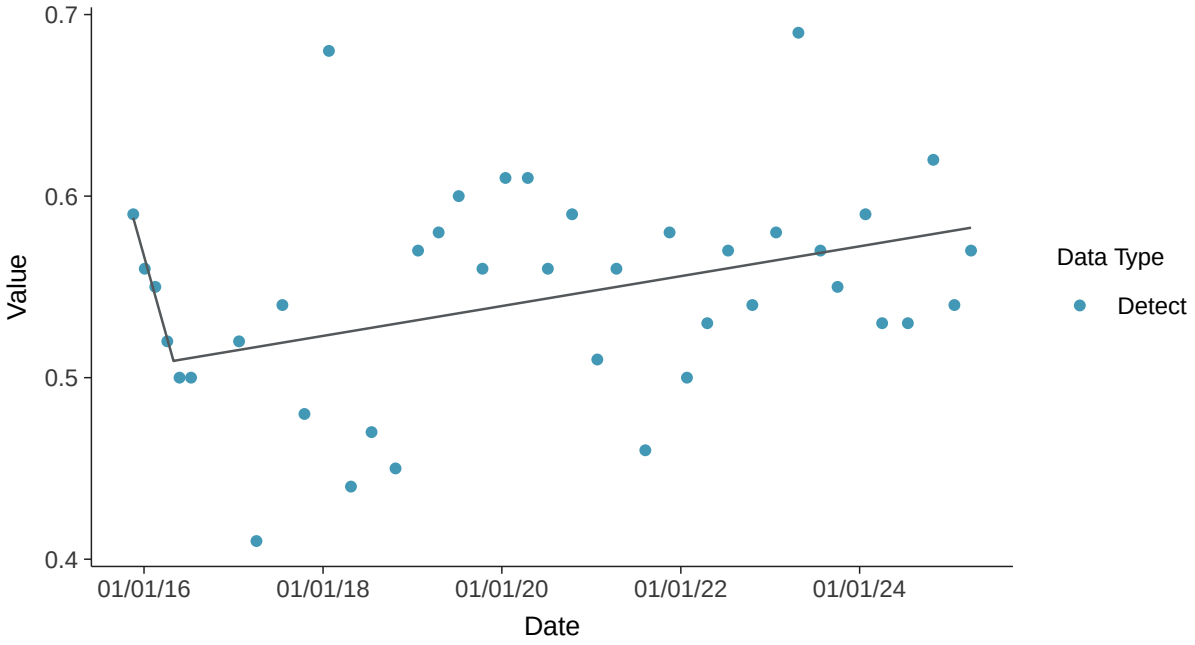
Trend Regression: Lognormal MLE

Fluoride, MW-5 (mg/L)



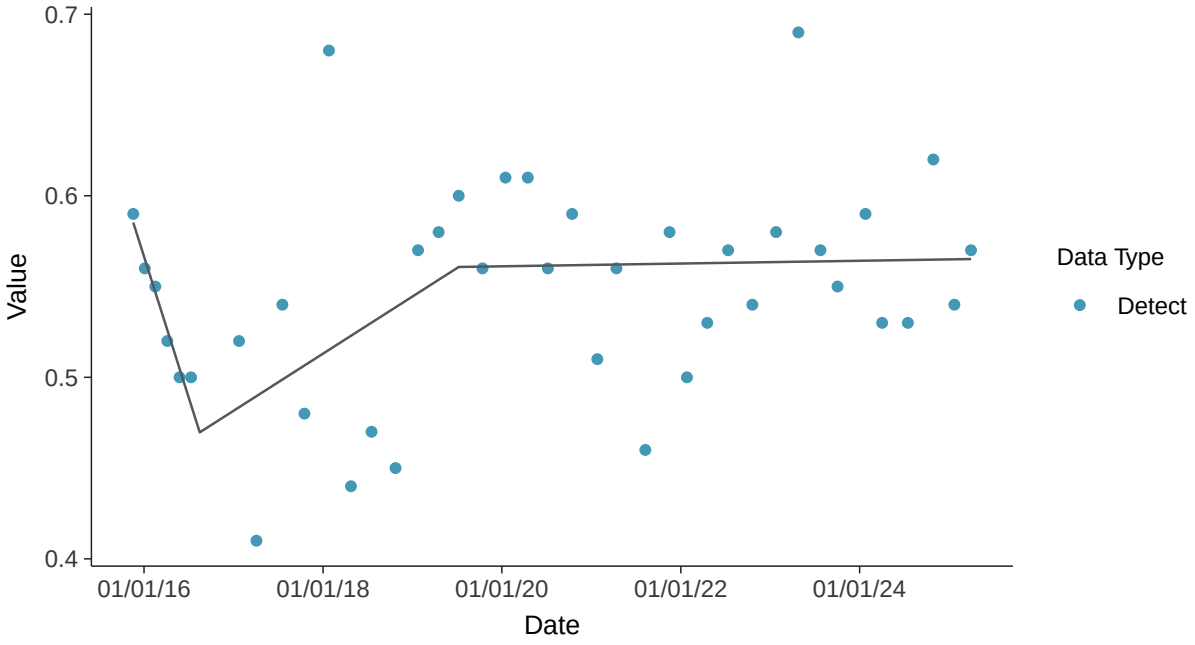
Trend Regression: Piecewise Linear-Linear

Fluoride, MW-5 (mg/L)



Trend Regression: Piecewise Linear-Linear-Linear

Fluoride, MW-5 (mg/L)

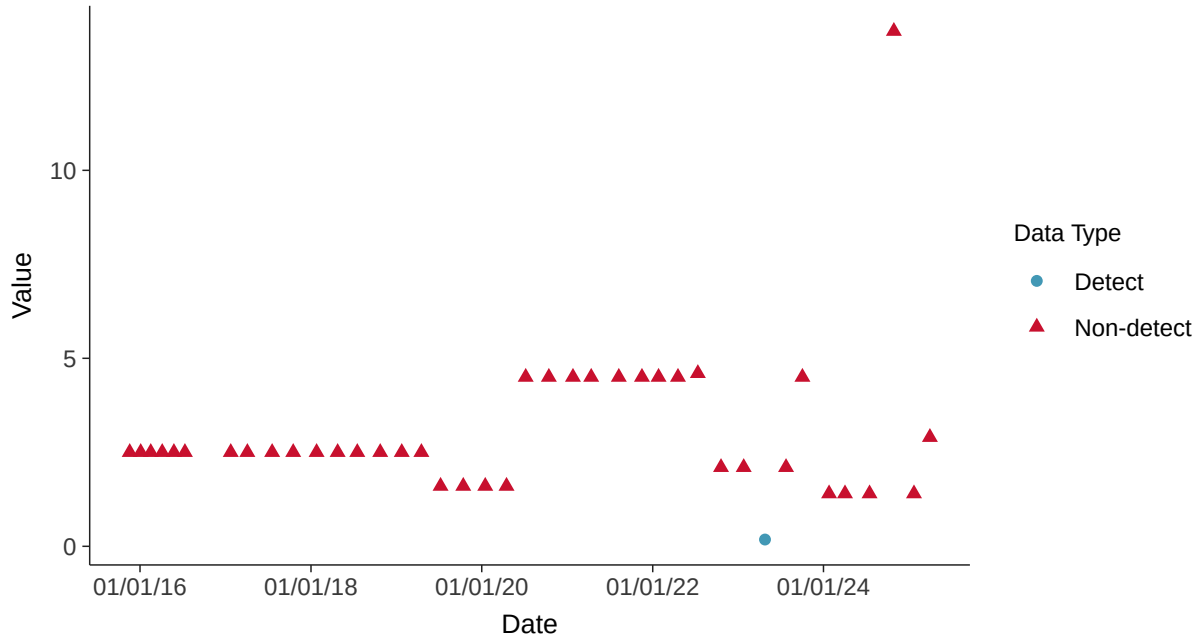


App. IV: Lead, MW-5

ID: 05_03_113

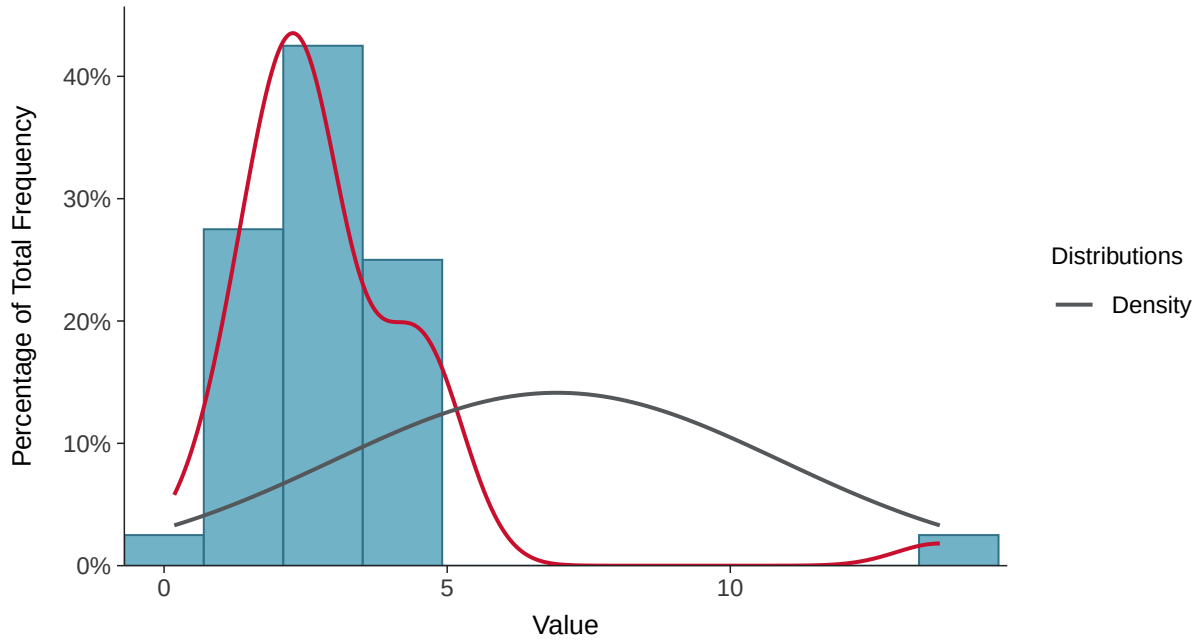
Scatter Plot

Lead, MW-5 (ug/L)



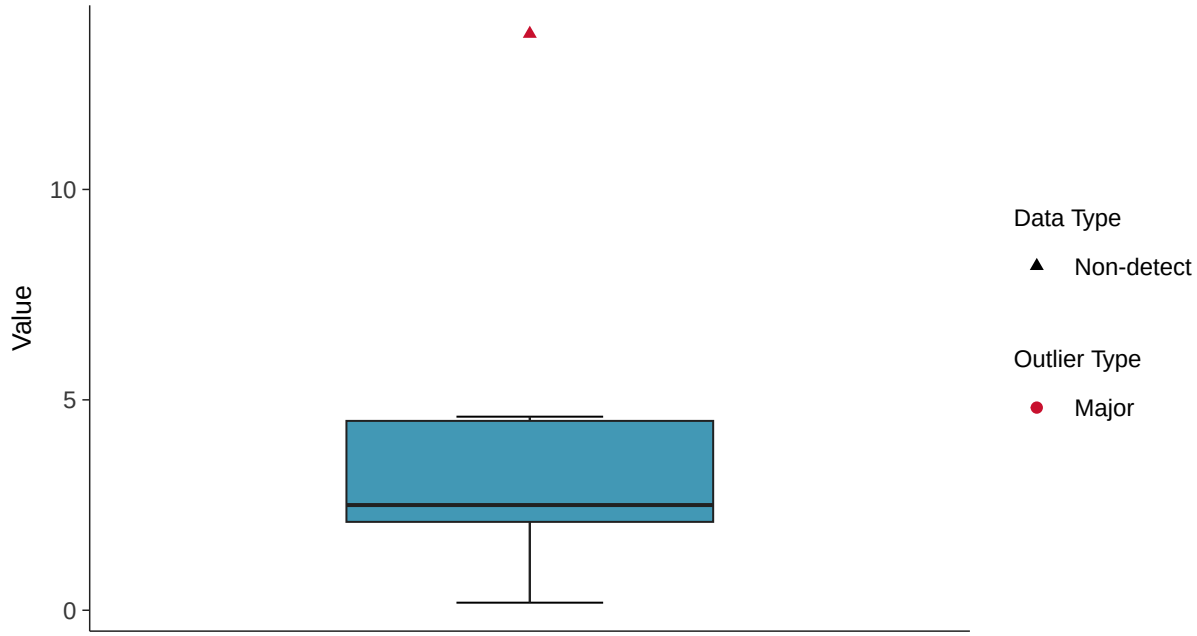
Histogram

Lead, MW-5 (ug/L)



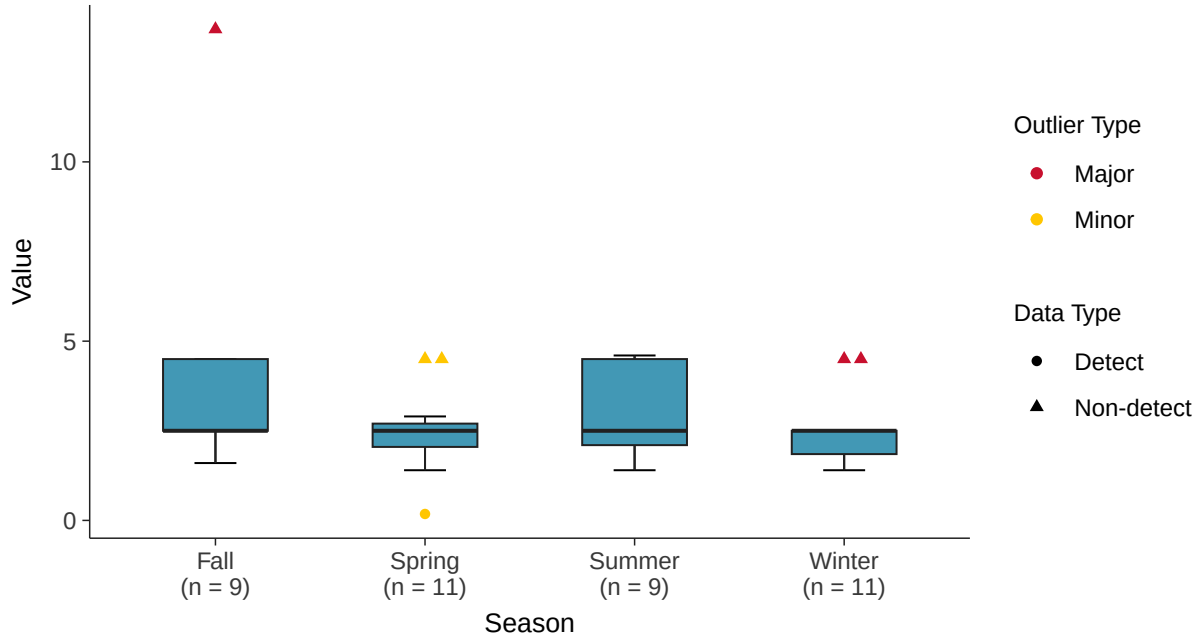
Boxplot

Lead, MW-5 (ug/L)



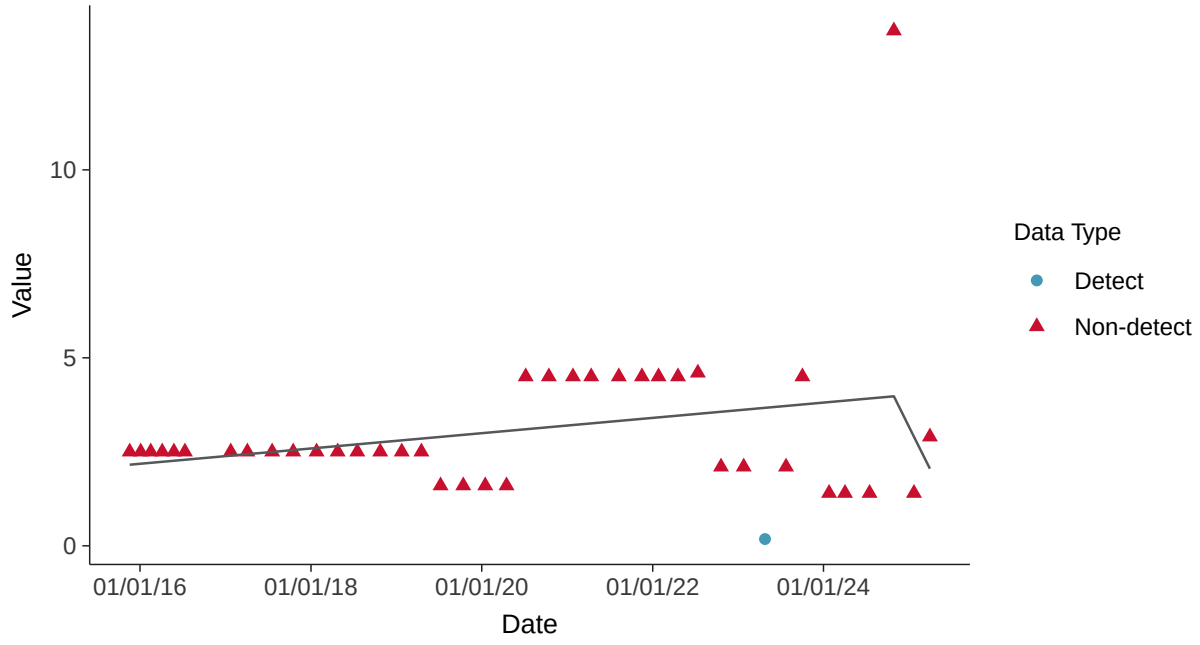
Boxplot by Season

Lead, MW-5 (ug/L)



Trend Regression: Piecewise Linear-Linear

Lead, MW-5 (ug/L)

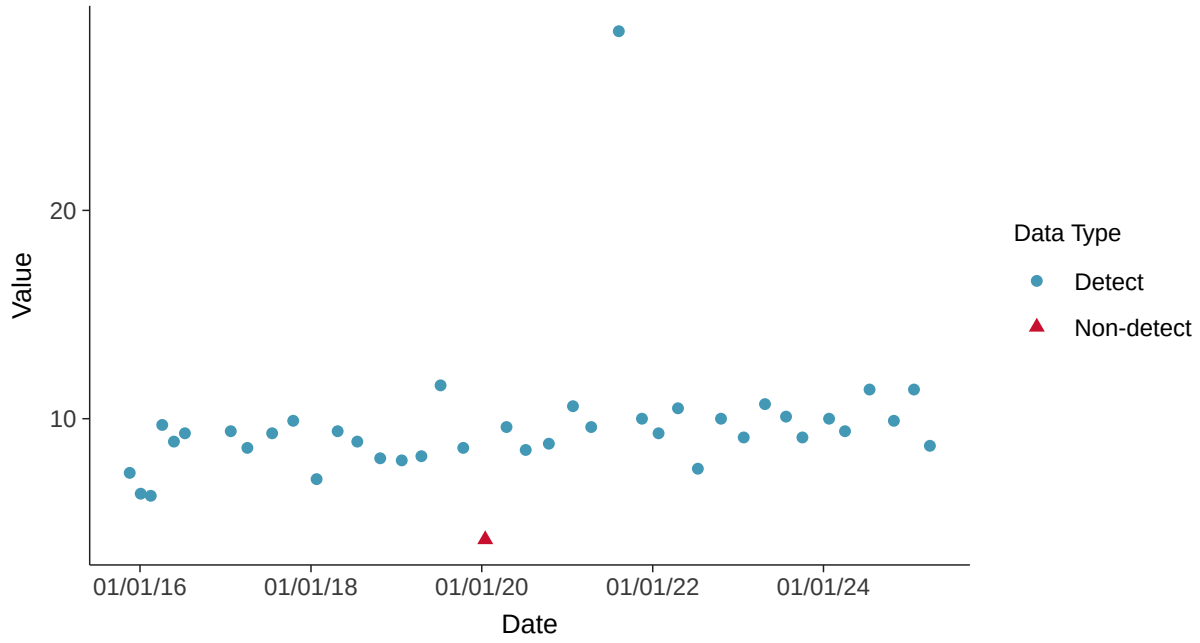


App. IV: Lithium, MW-5

ID: 05_03_114

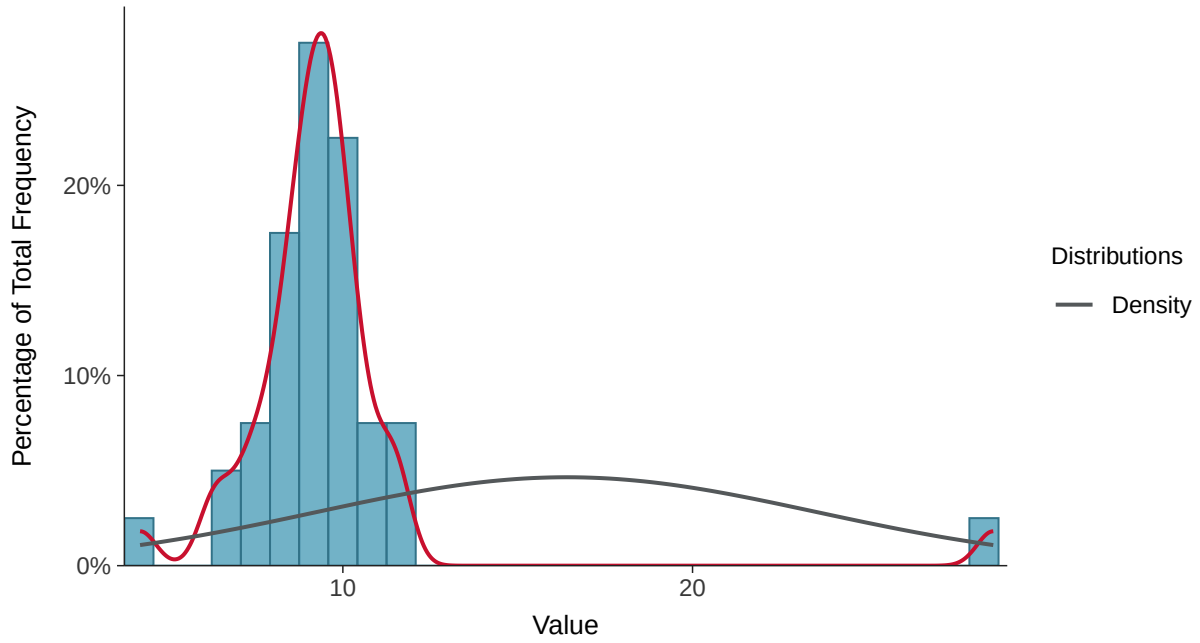
Scatter Plot

Lithium, MW-5 (ug/L)



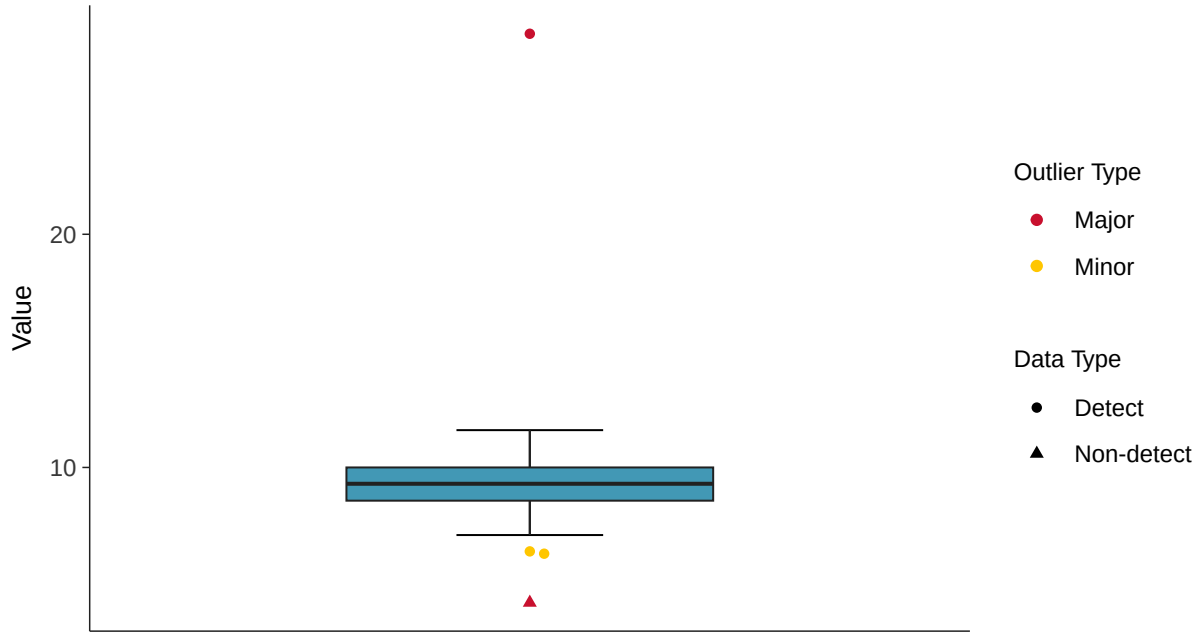
Histogram

Lithium, MW-5 (ug/L)



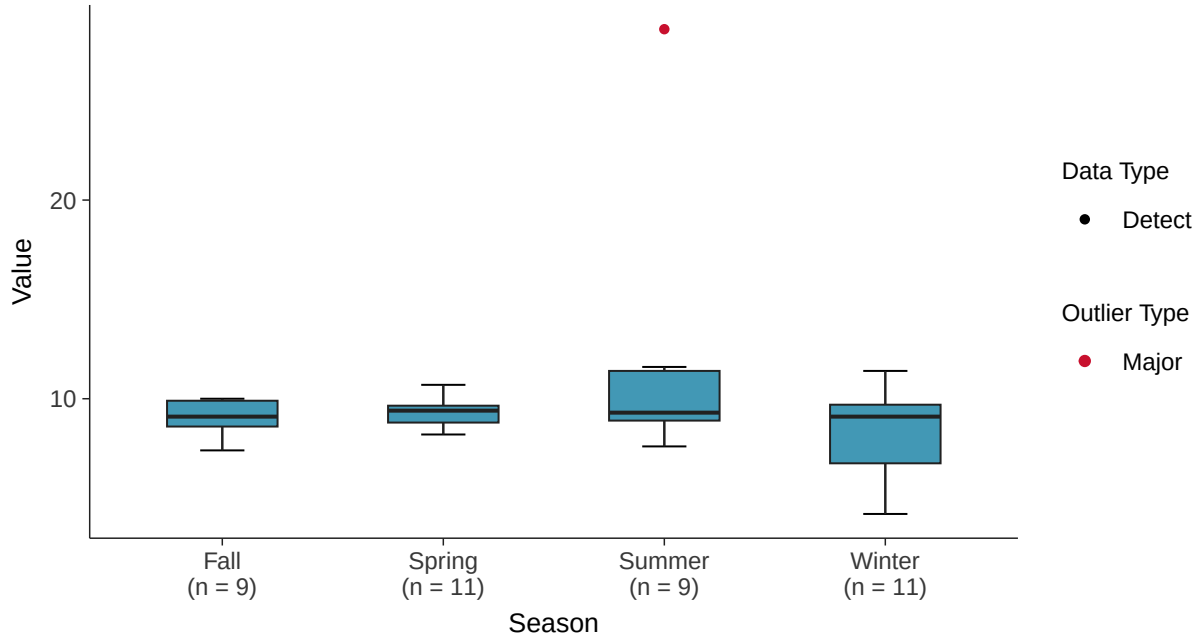
Boxplot

Lithium, MW-5 (ug/L)



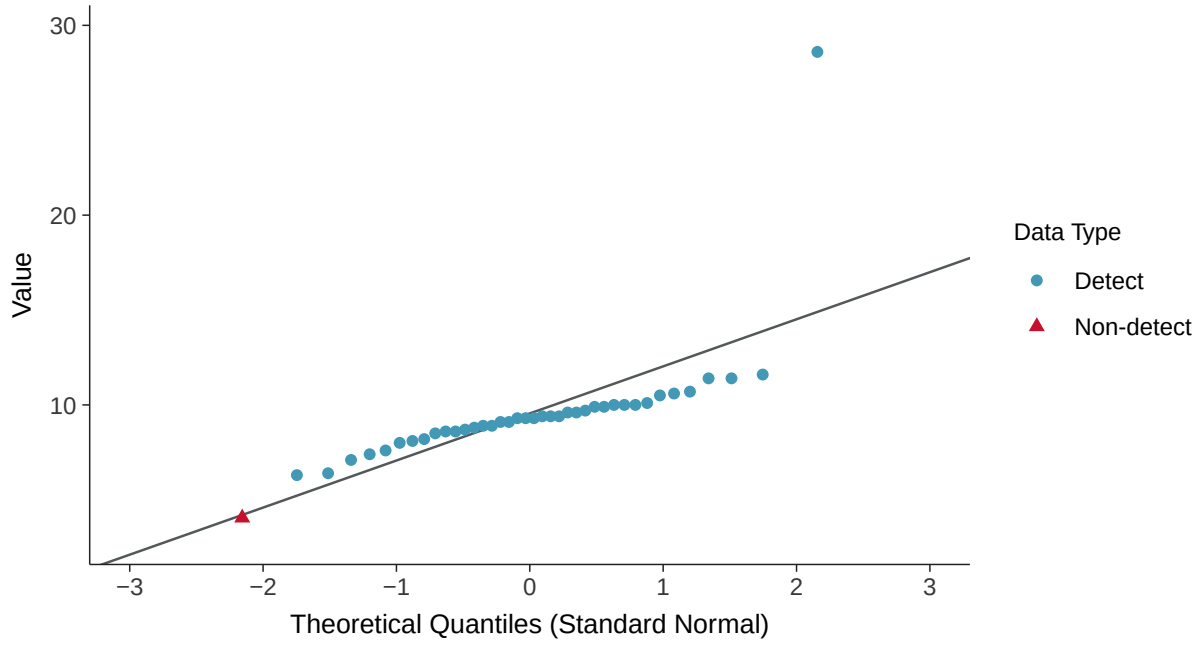
Boxplot by Season

Lithium, MW-5 (ug/L)



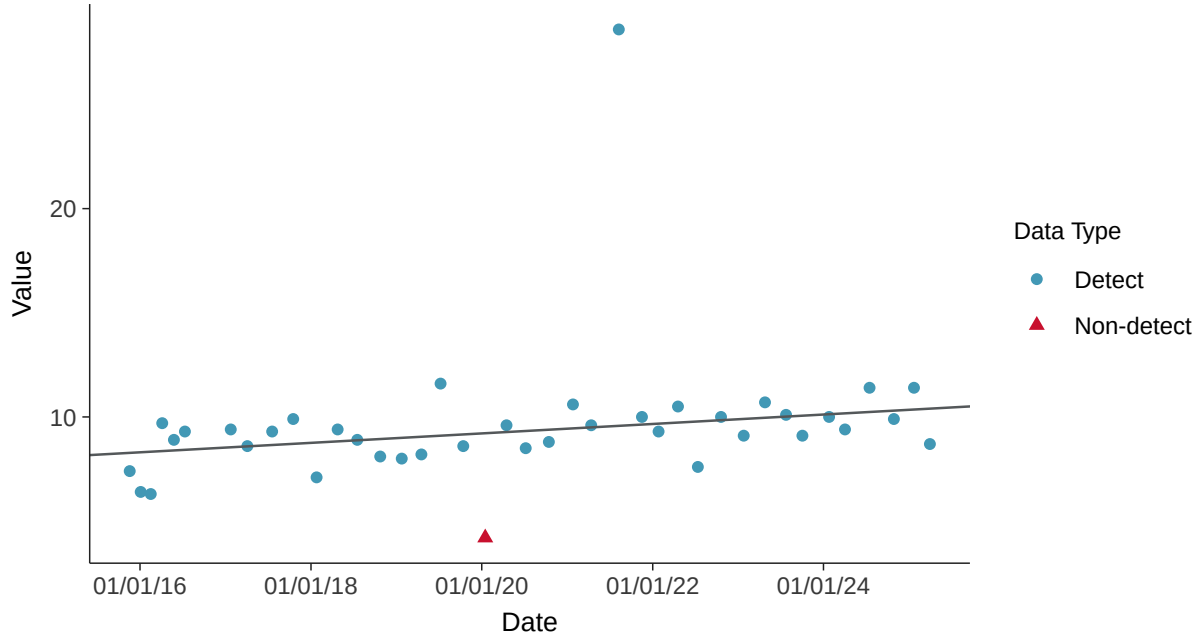
Normal Q-Q plot using ROS Imputed Estimates

Lithium, MW-5 (ug/L)



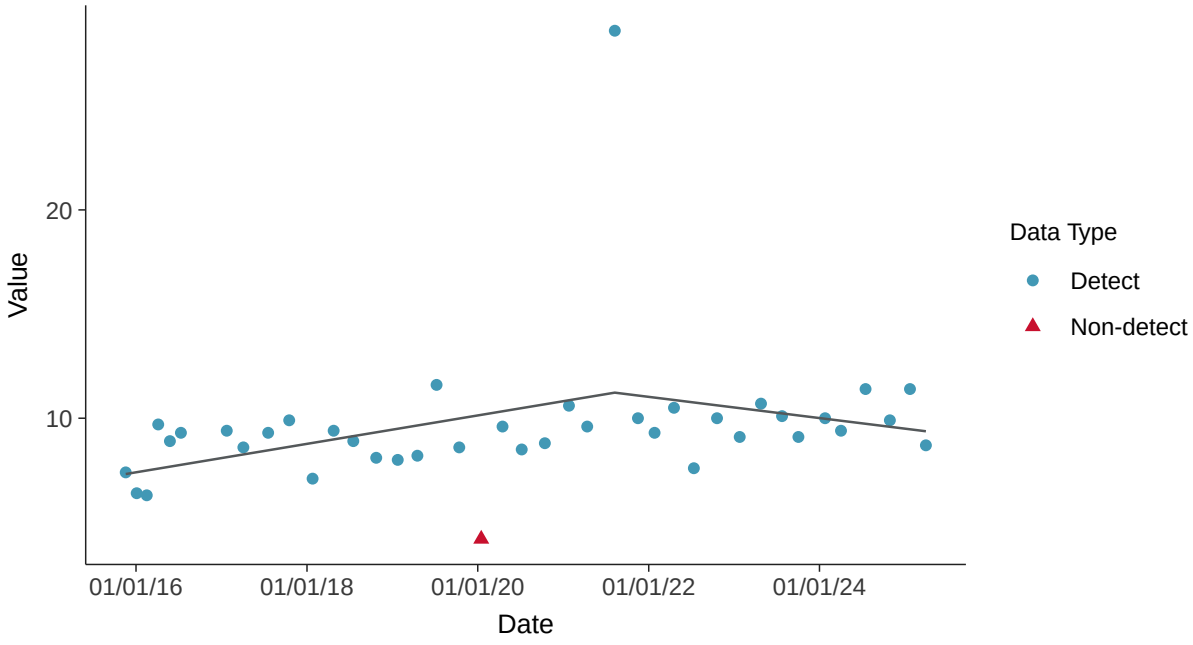
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Lithium, MW-5 (ug/L)



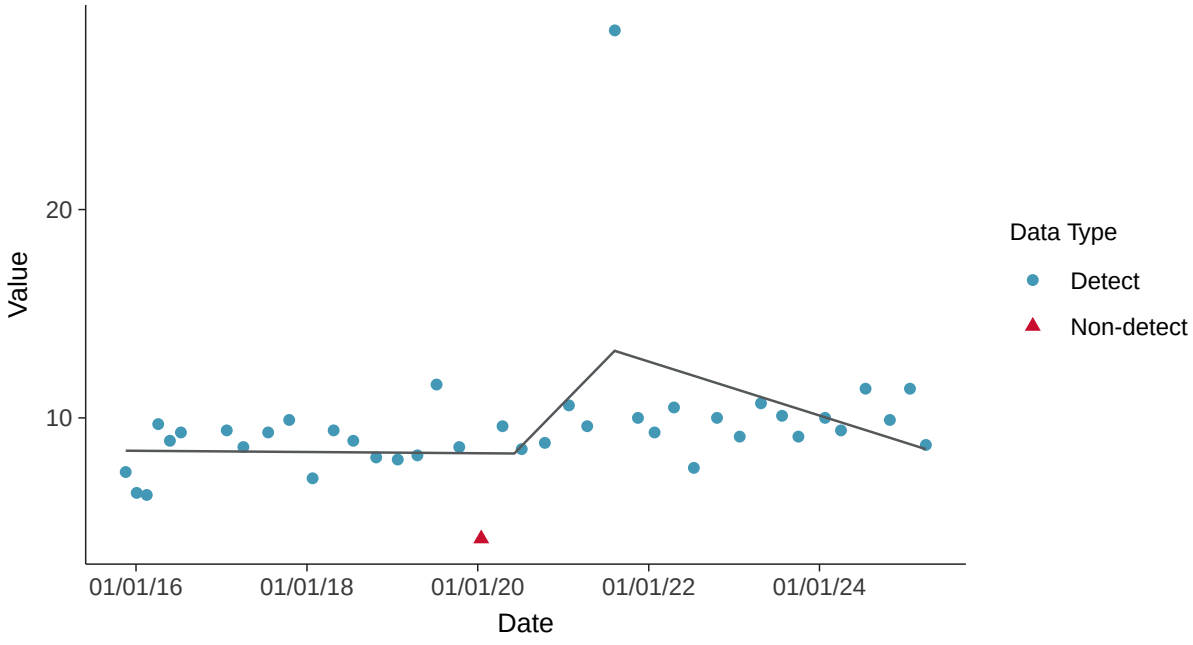
Trend Regression: Piecewise Linear-Linear

Lithium, MW-5 (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Lithium, MW-5 (ug/L)

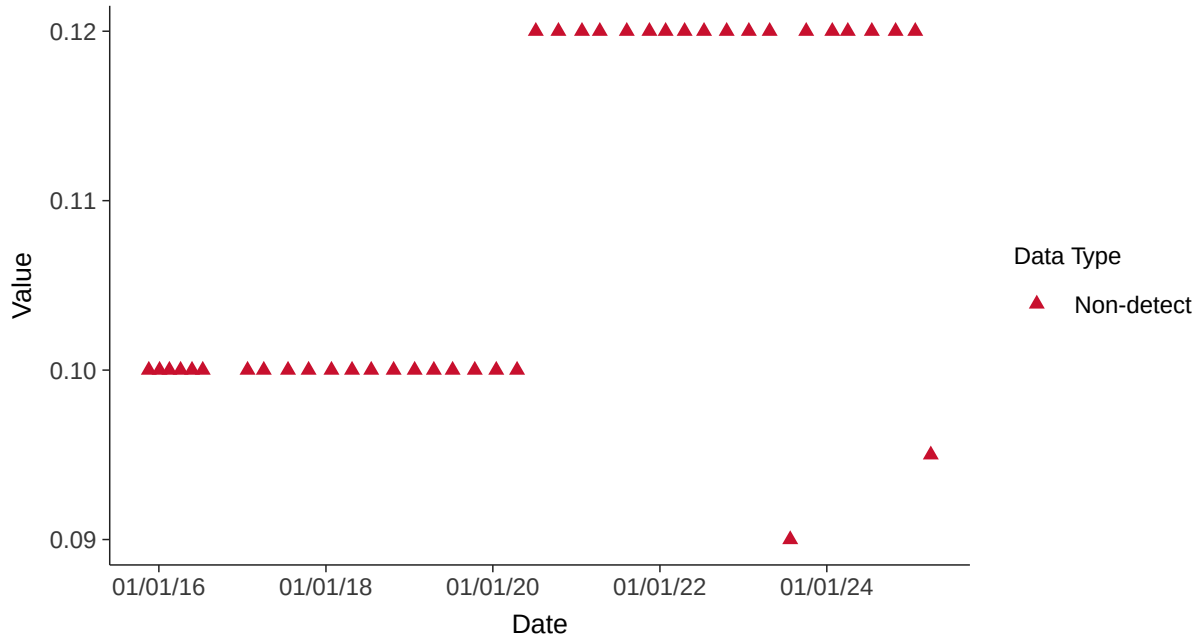


App. IV: Mercury, MW-5

ID: 05_03_115

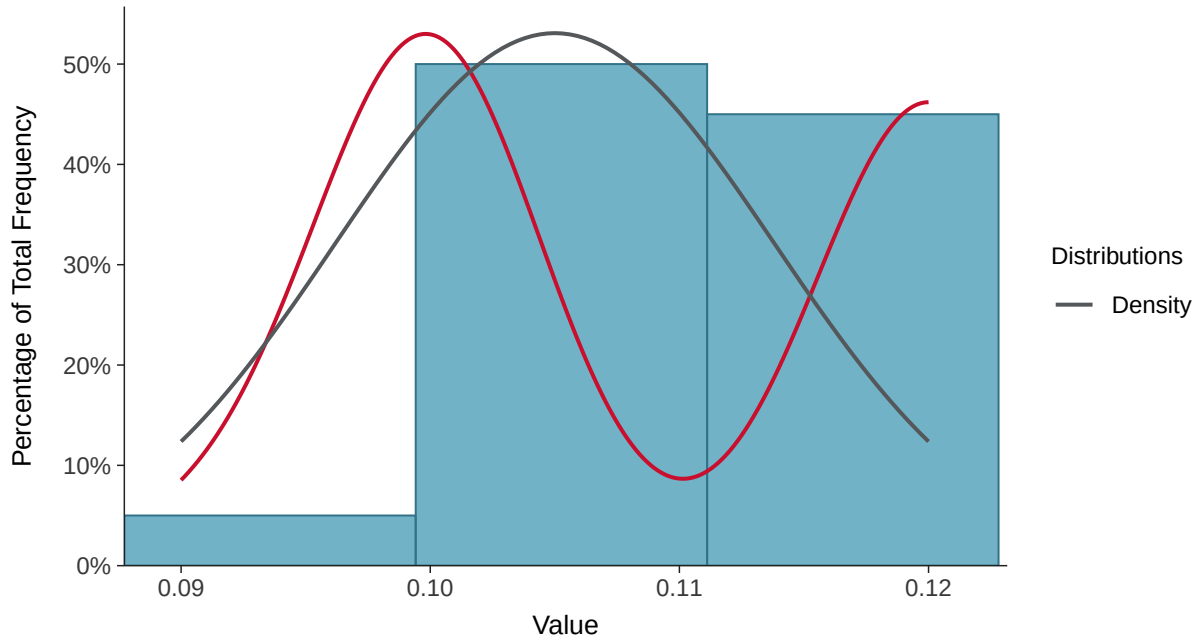
Scatter Plot

Mercury, MW-5 (ug/L)



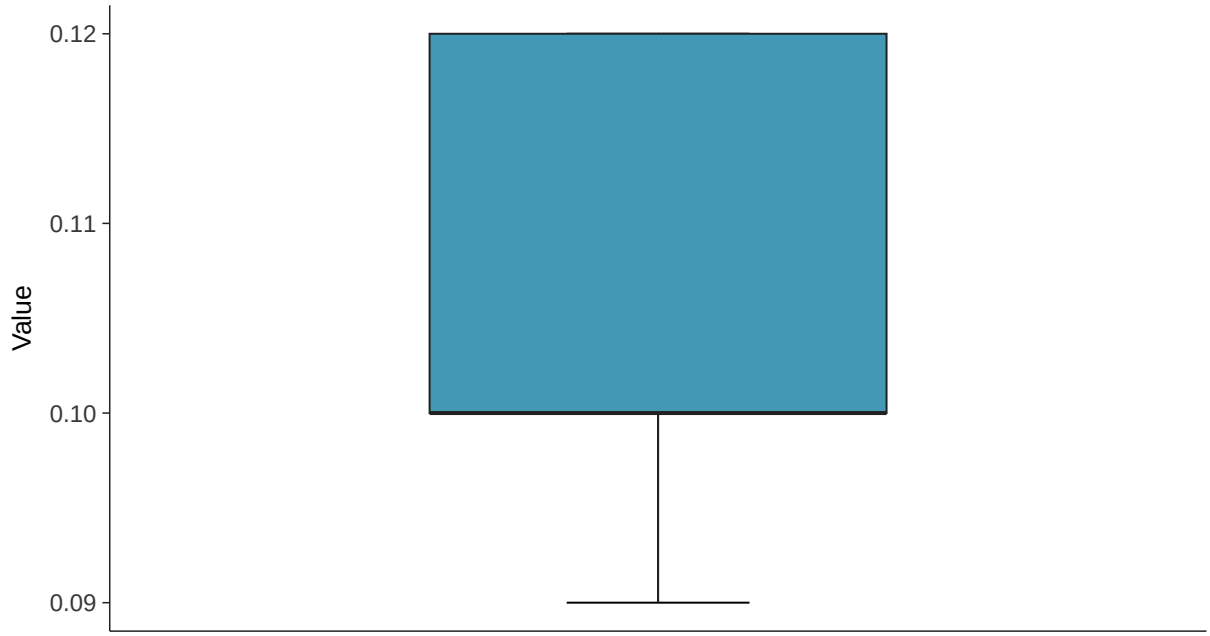
Histogram

Mercury, MW-5 (ug/L)



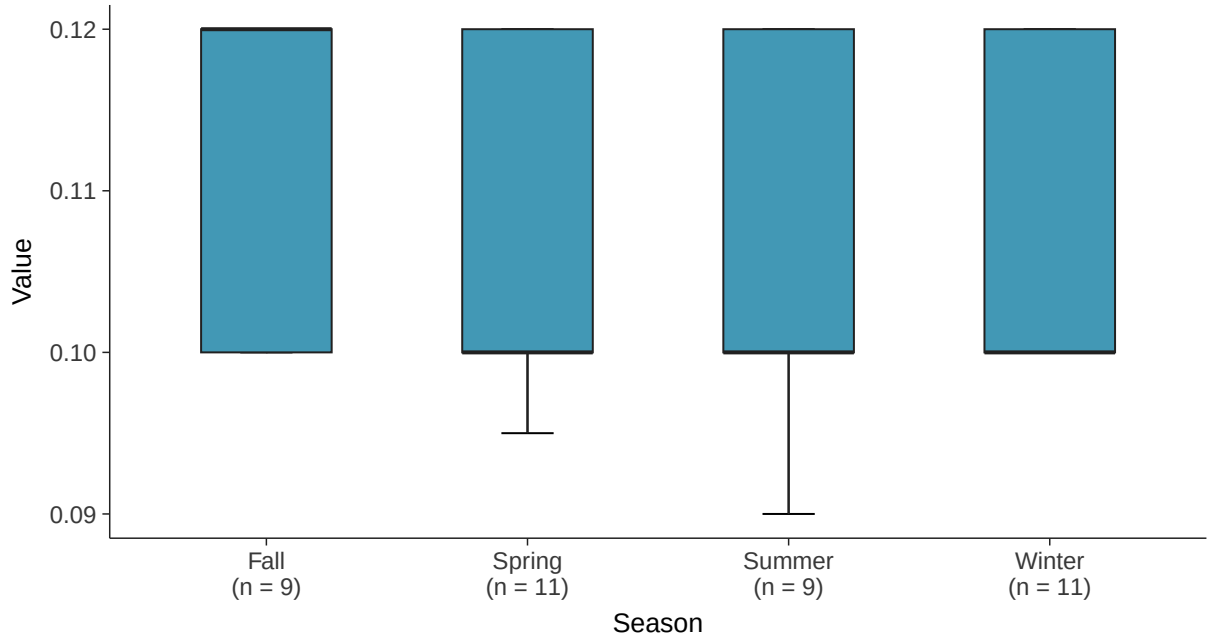
Boxplot

Mercury, MW-5 (ug/L)



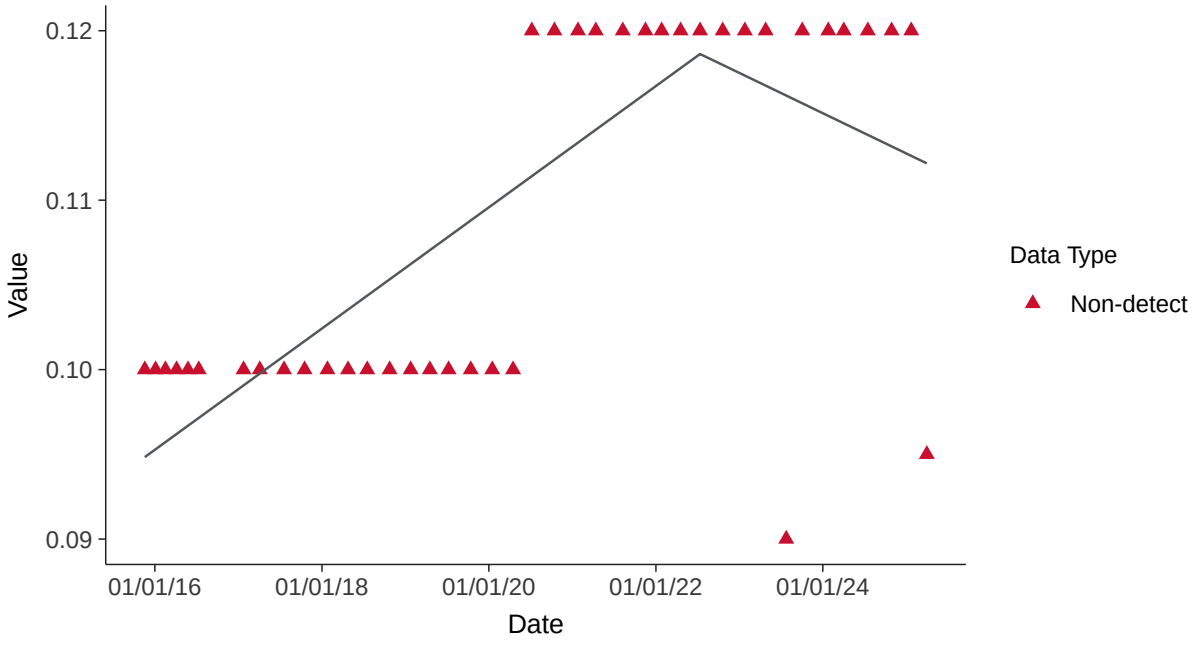
Boxplot by Season

Mercury, MW-5 (ug/L)



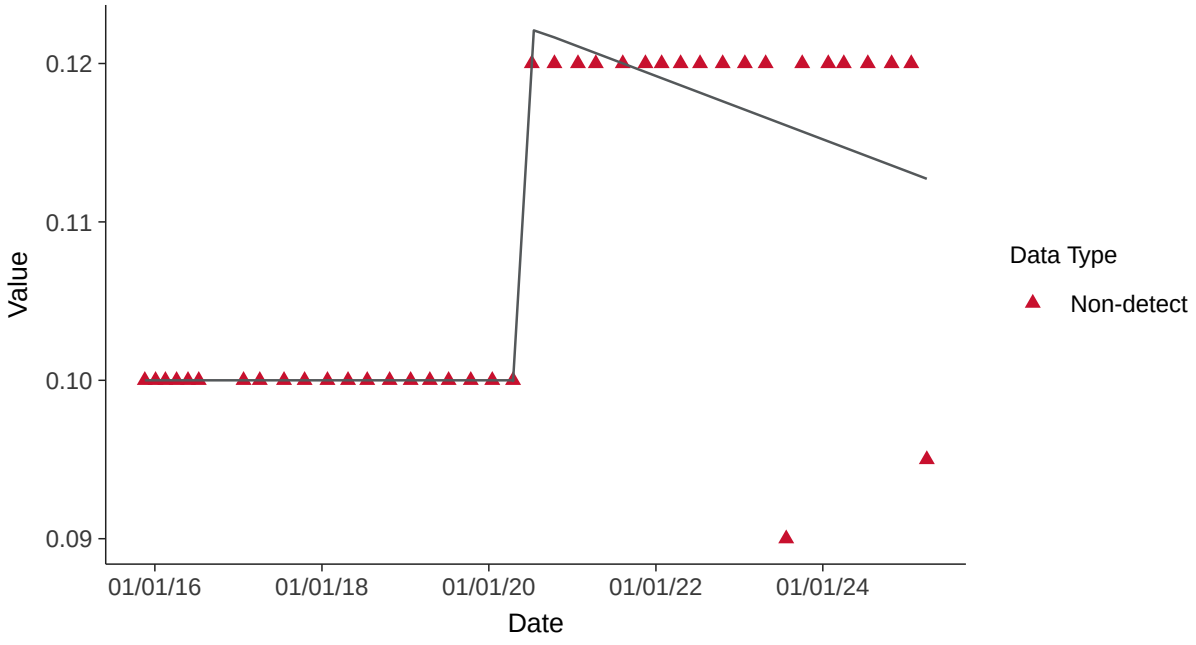
Trend Regression: Piecewise Linear-Linear

Mercury, MW-5 (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Mercury, MW-5 (ug/L)

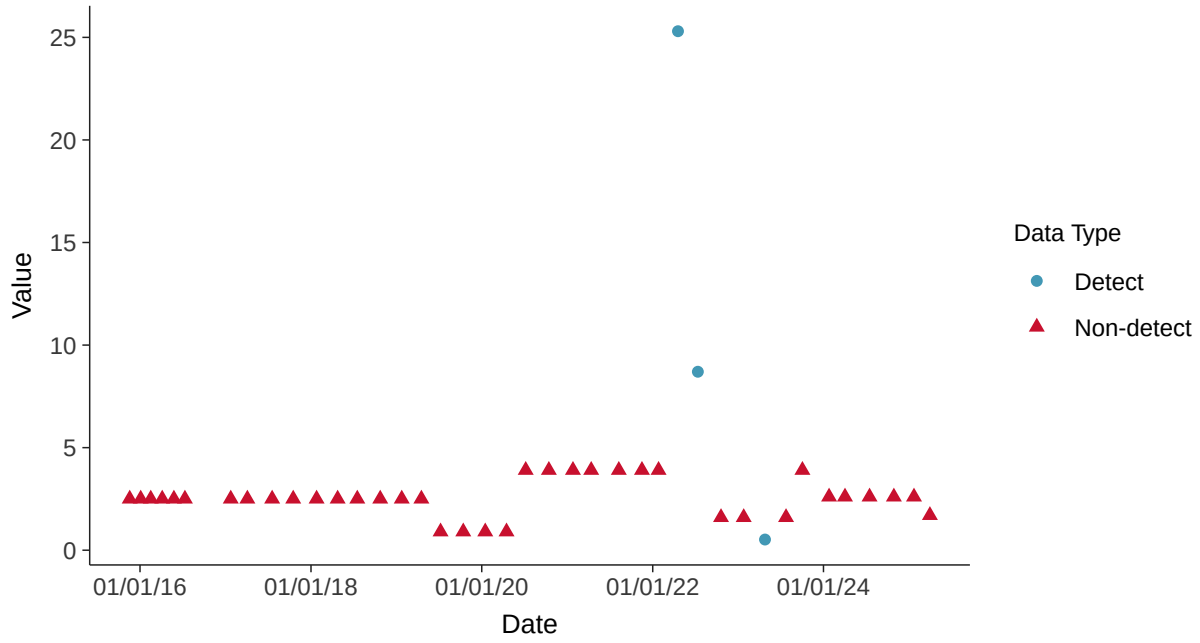


App. IV: Molybdenum, MW-5

ID: 05_03_116

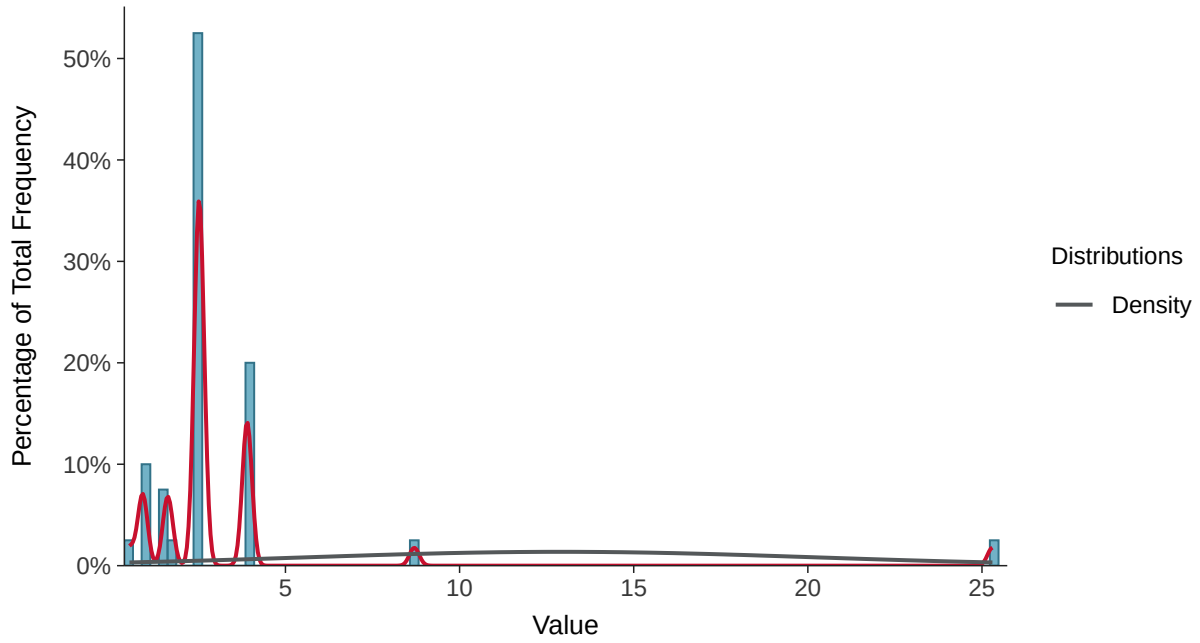
Scatter Plot

Molybdenum, MW-5 (ug/L)



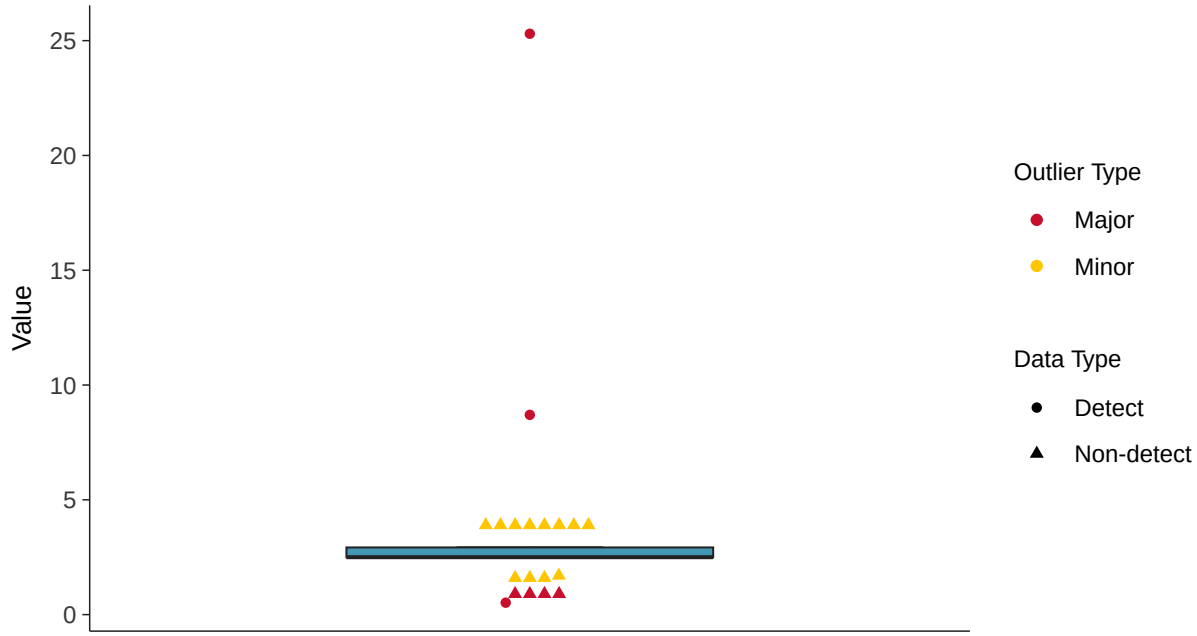
Histogram

Molybdenum, MW-5 (ug/L)



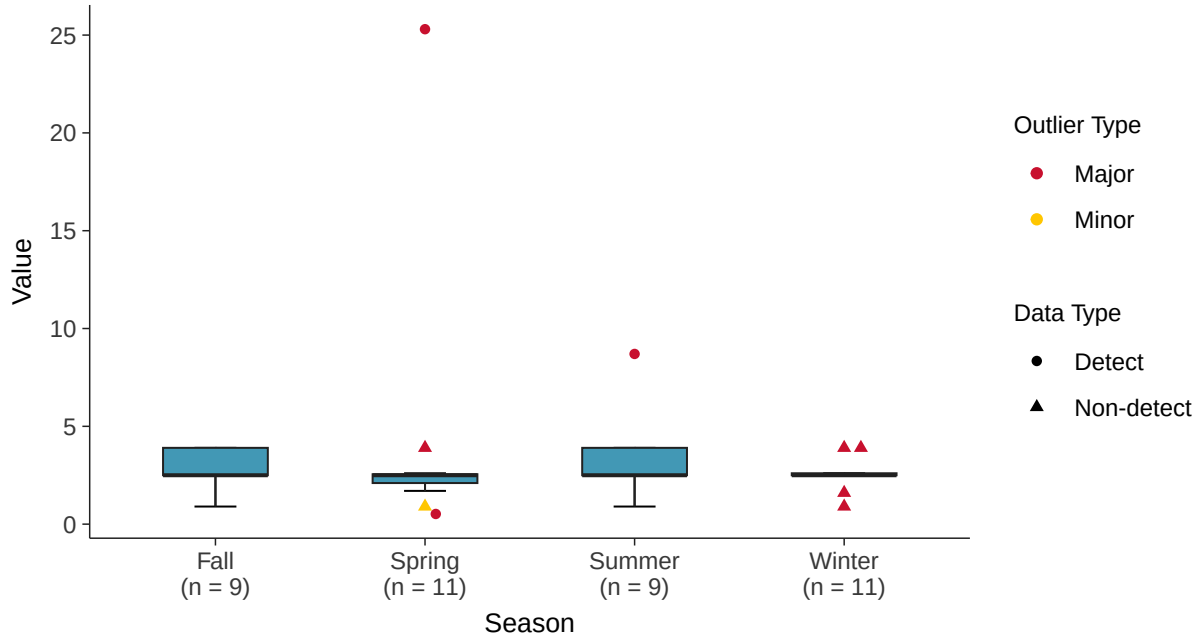
Boxplot

Molybdenum, MW-5 (ug/L)



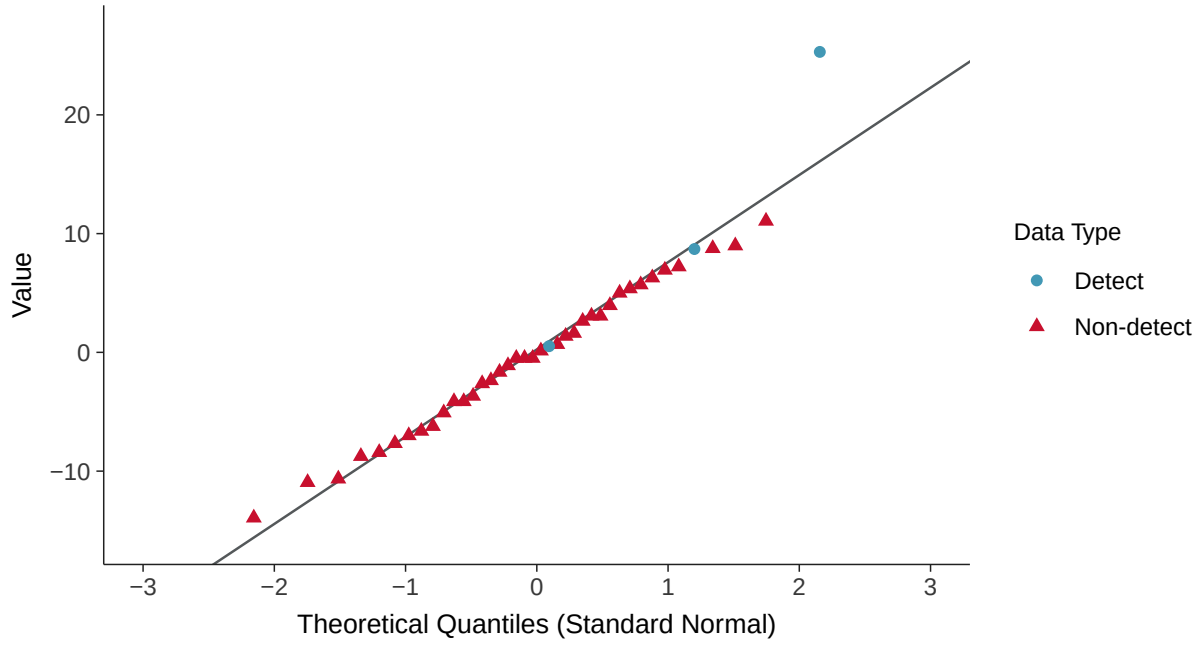
Boxplot by Season

Molybdenum, MW-5 (ug/L)



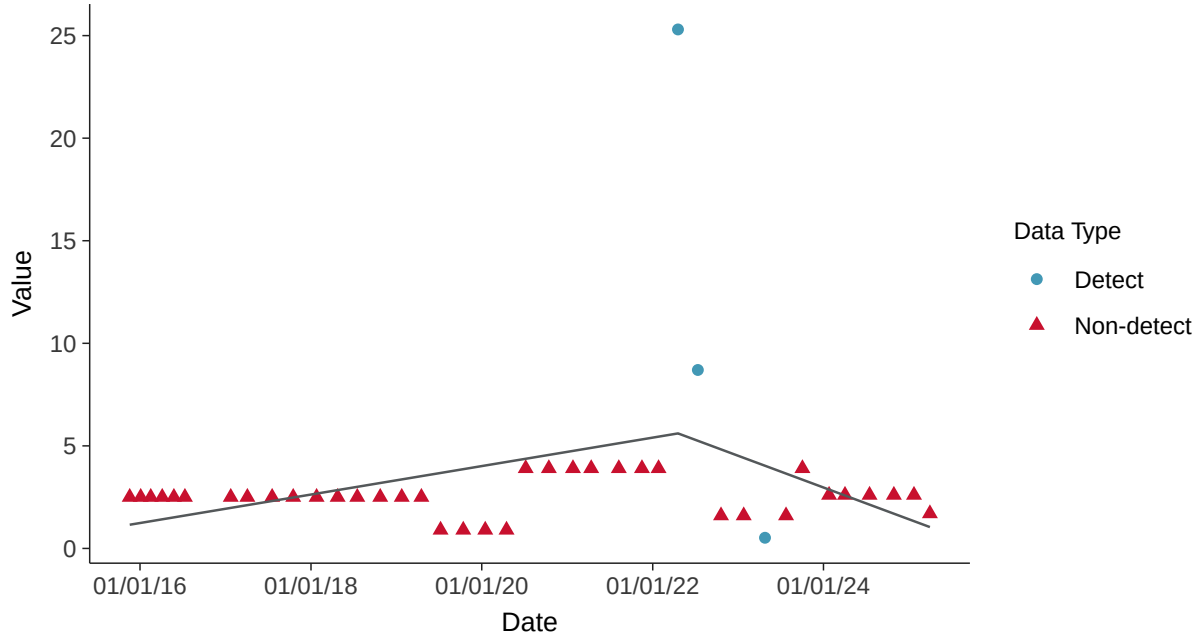
Normal Q-Q plot using ROS Imputed Estimates

Molybdenum, MW-5 (ug/L)



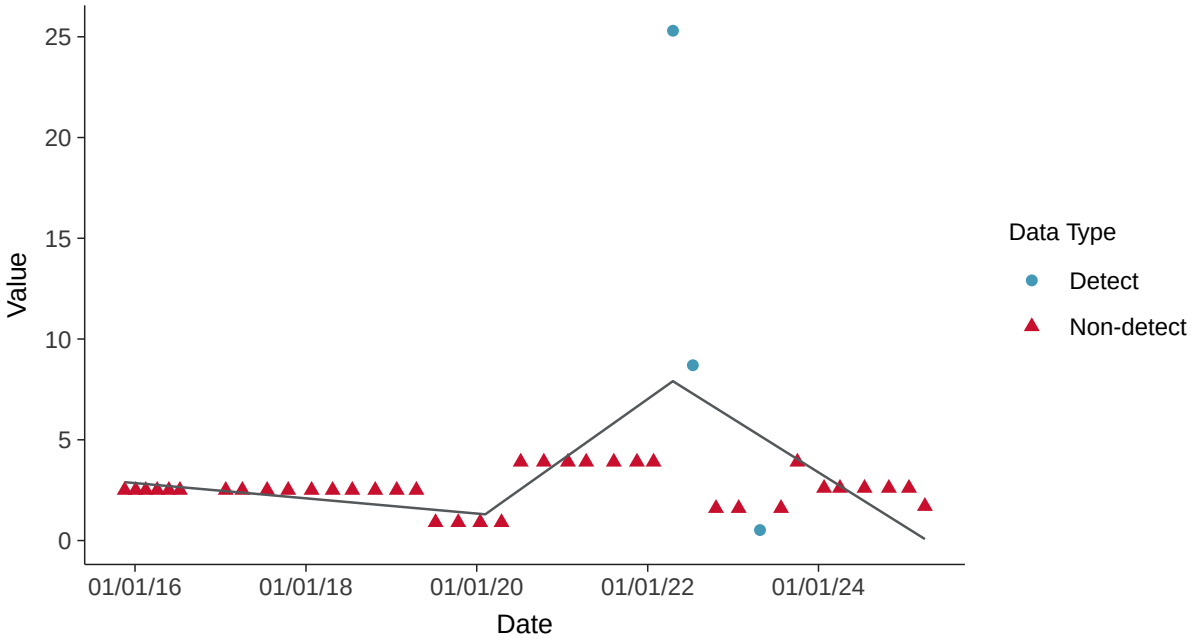
Trend Regression: Piecewise Linear-Linear

Molybdenum, MW-5 (ug/L)



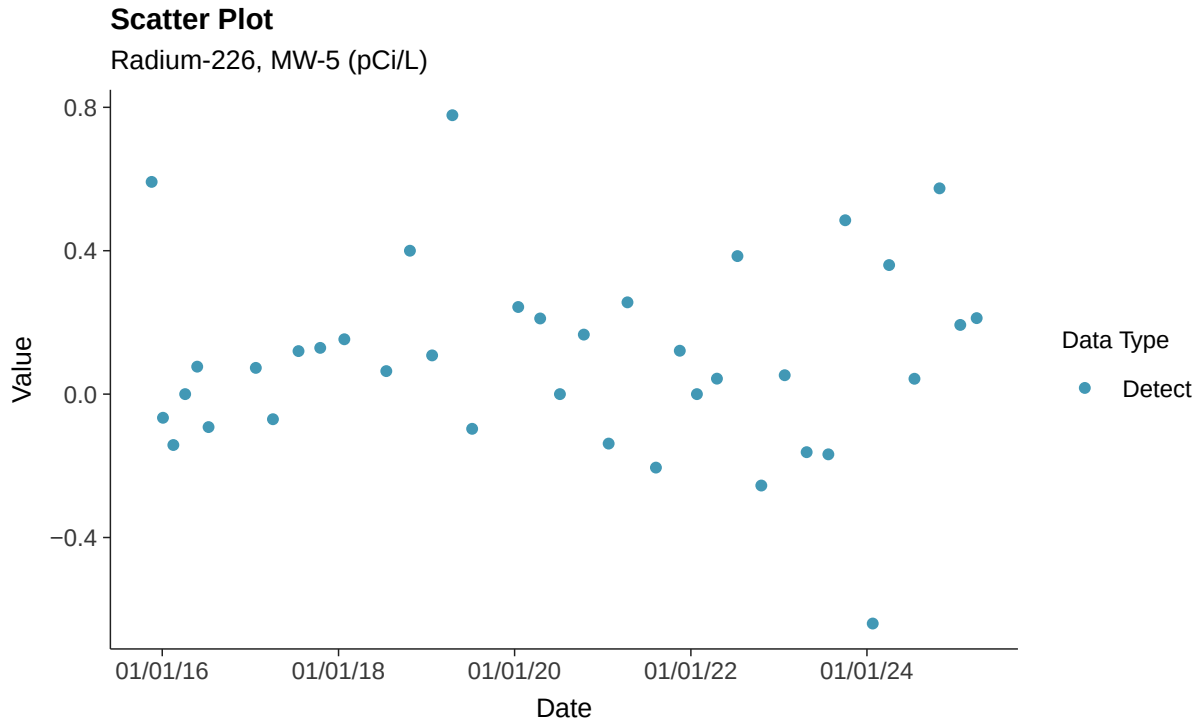
Trend Regression: Piecewise Linear-Linear-Linear

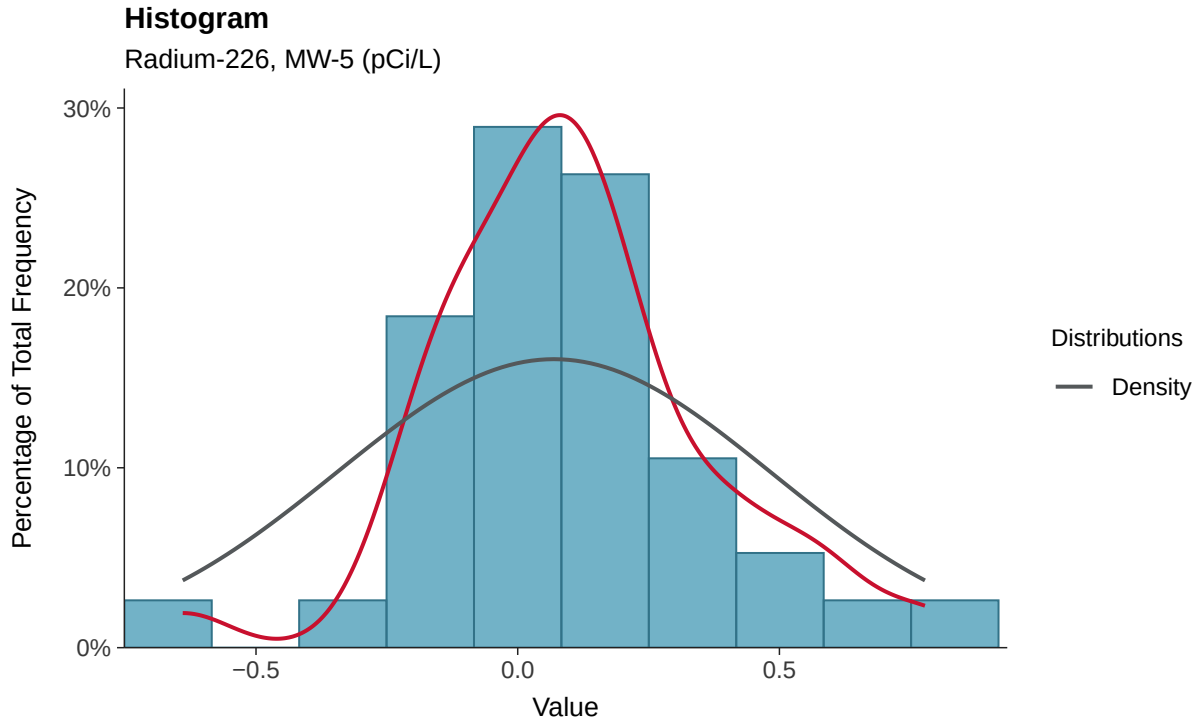
Molybdenum, MW-5 (ug/L)



App. IV: Radium-226, MW-5

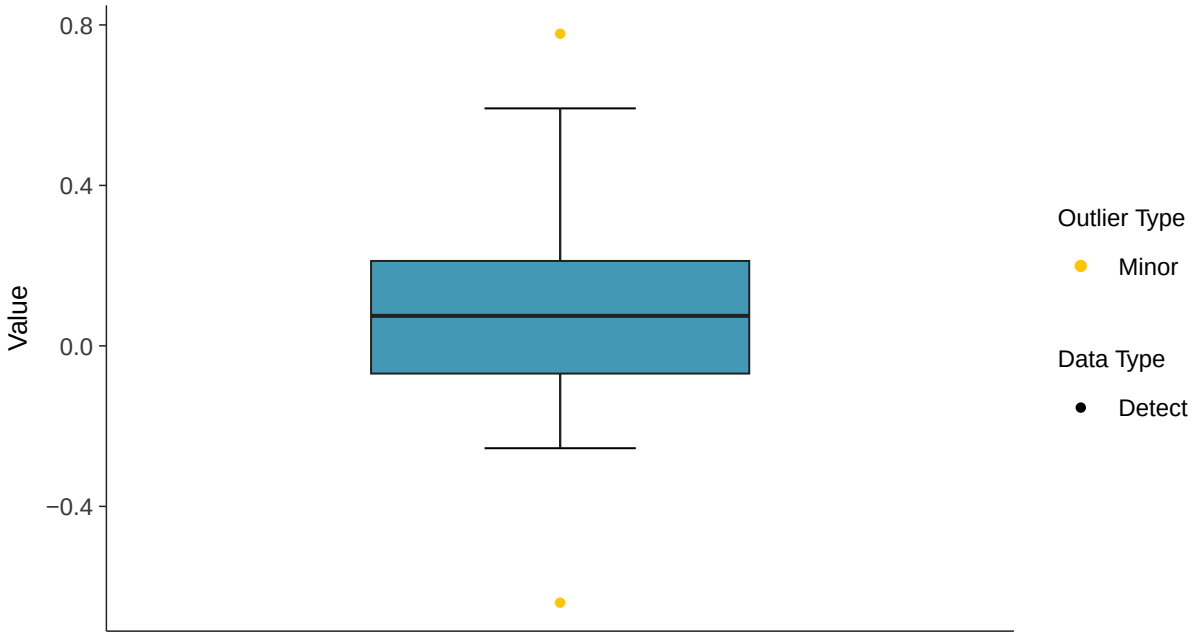
ID: 05_03_119





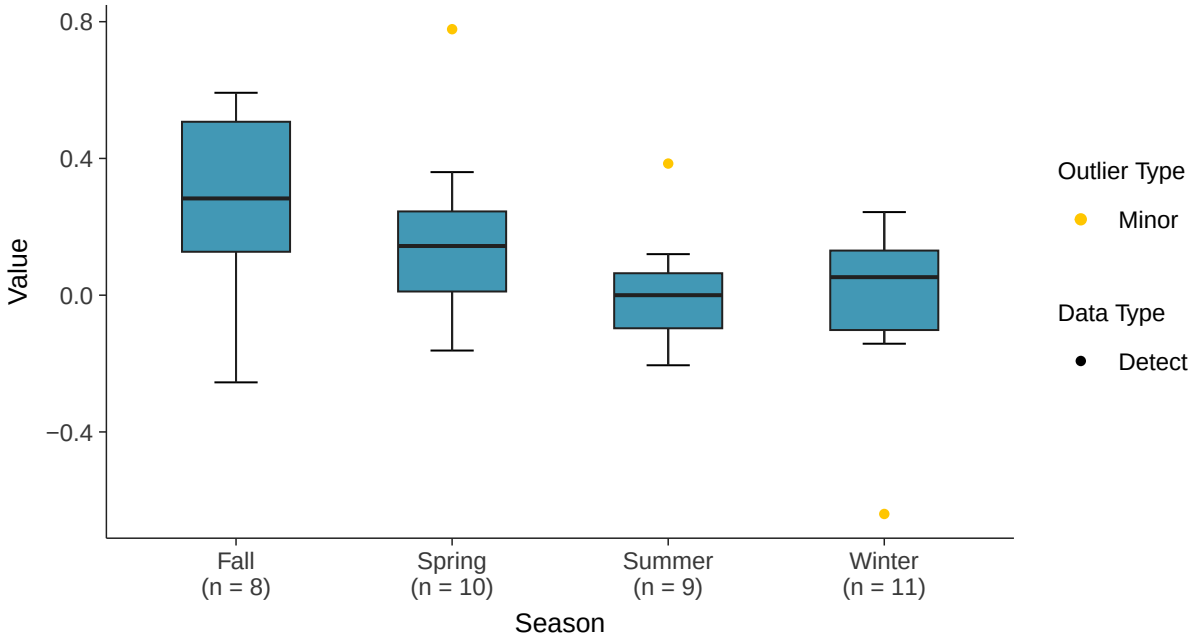
Boxplot

Radium-226, MW-5 (pCi/L)



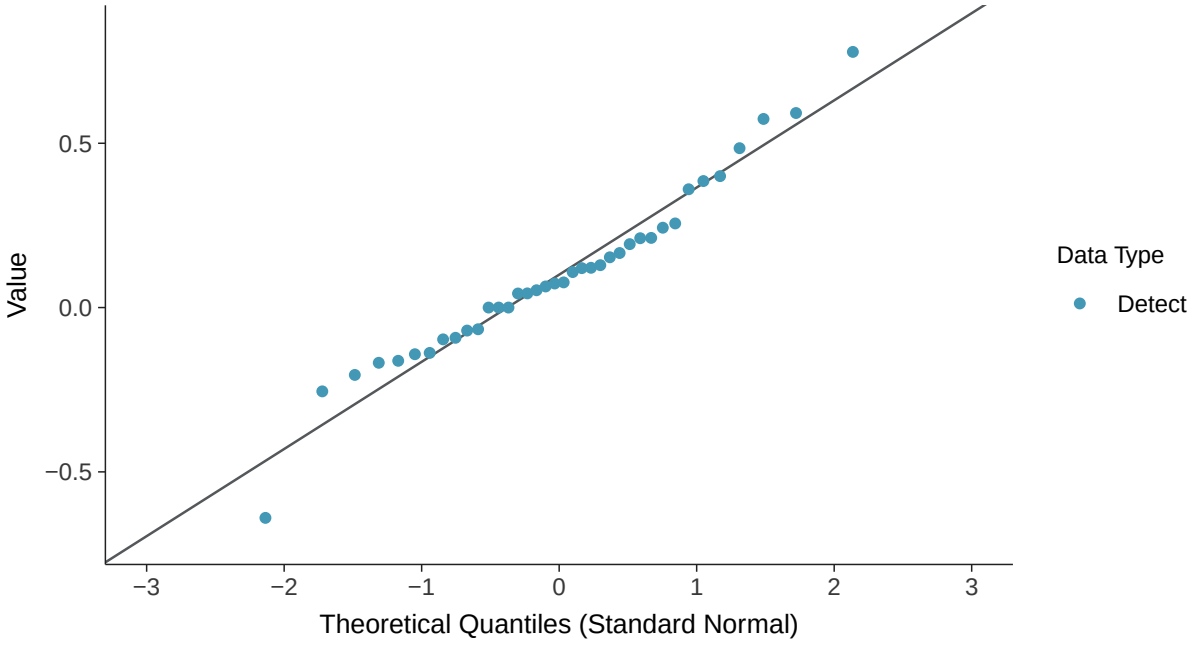
Boxplot by Season

Radium-226, MW-5 (pCi/L)



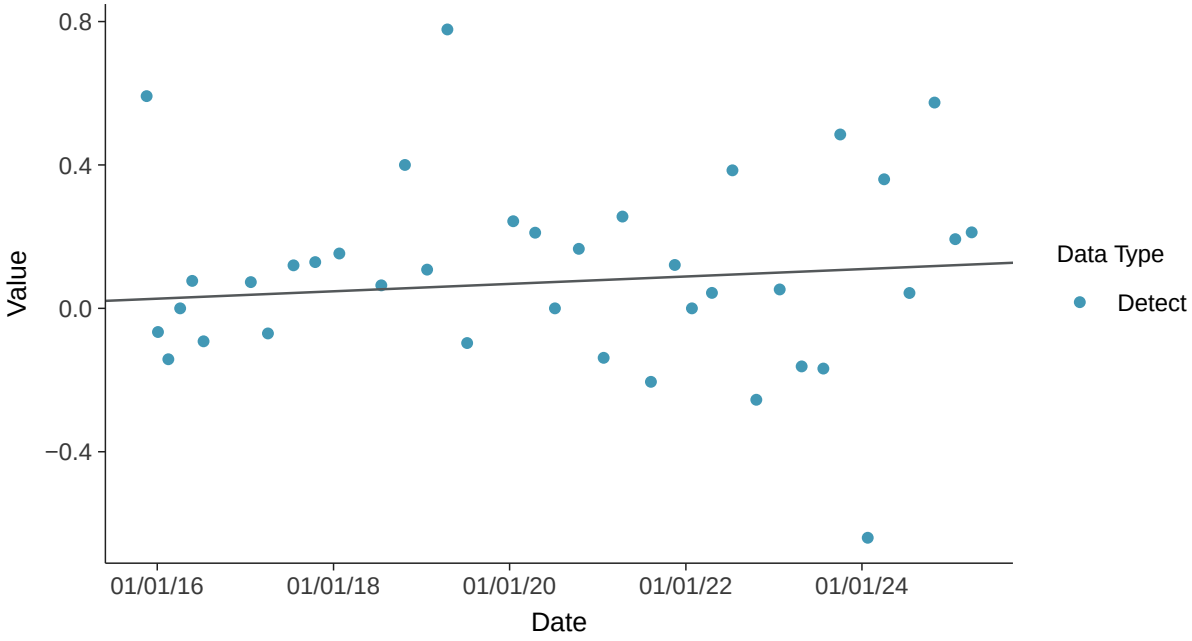
Normal Q-Q plot

Radium-226, MW-5 (pCi/L)



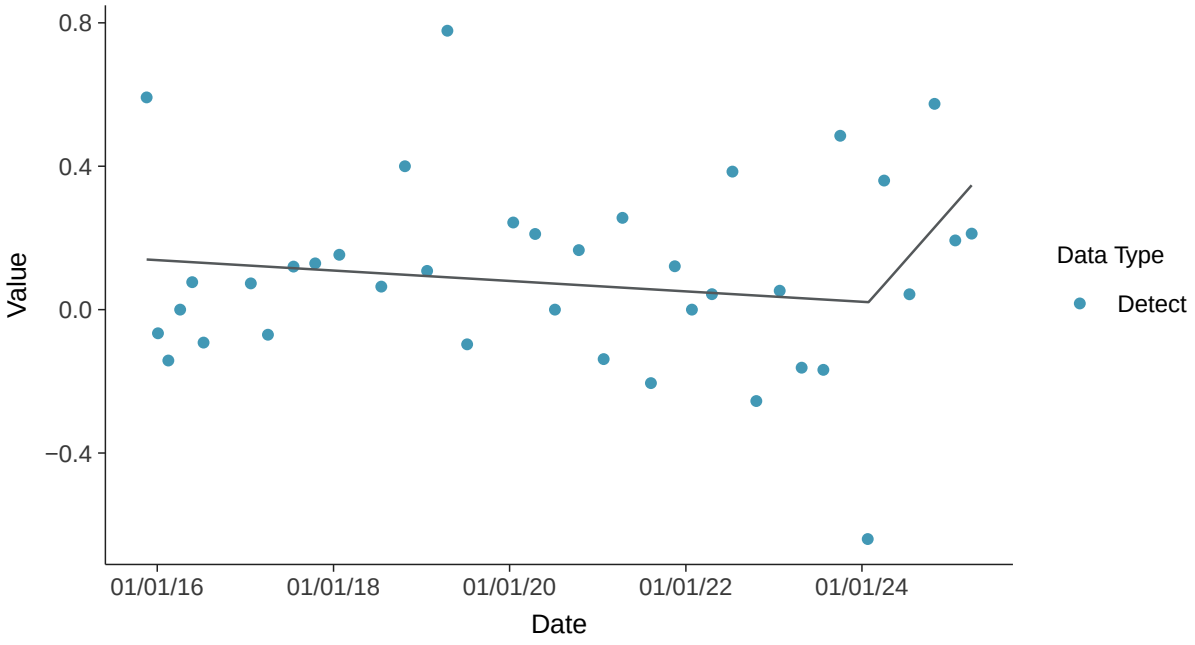
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Radium-226, MW-5 (pCi/L)



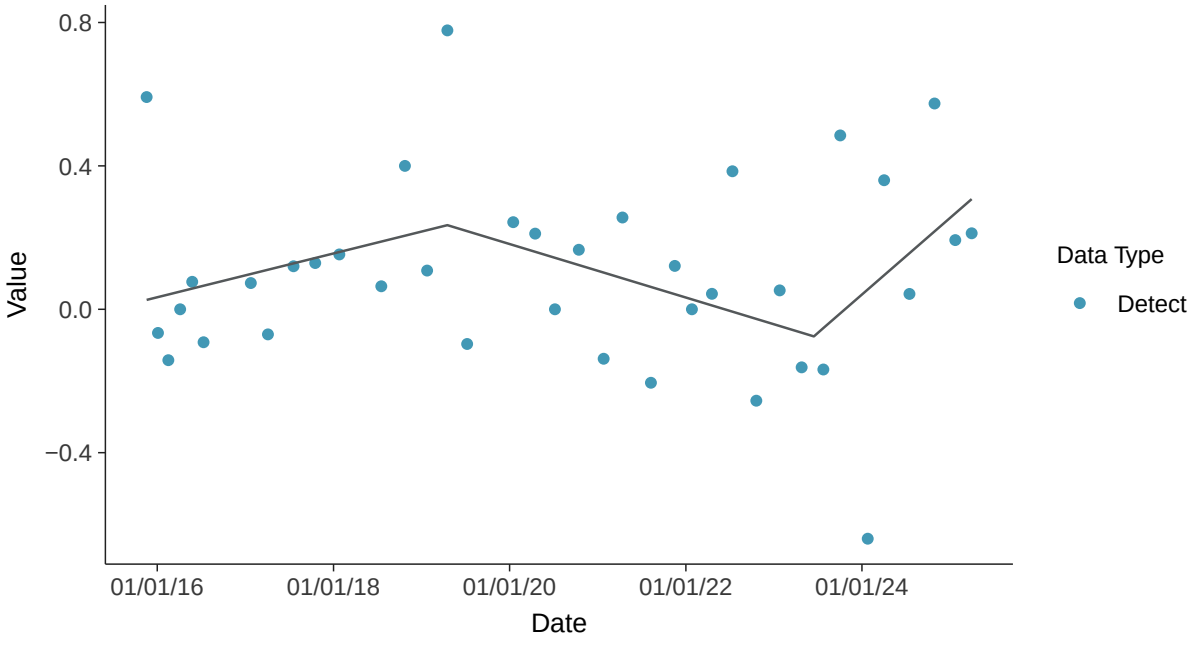
Trend Regression: Piecewise Linear-Linear

Radium-226, MW-5 (pCi/L)



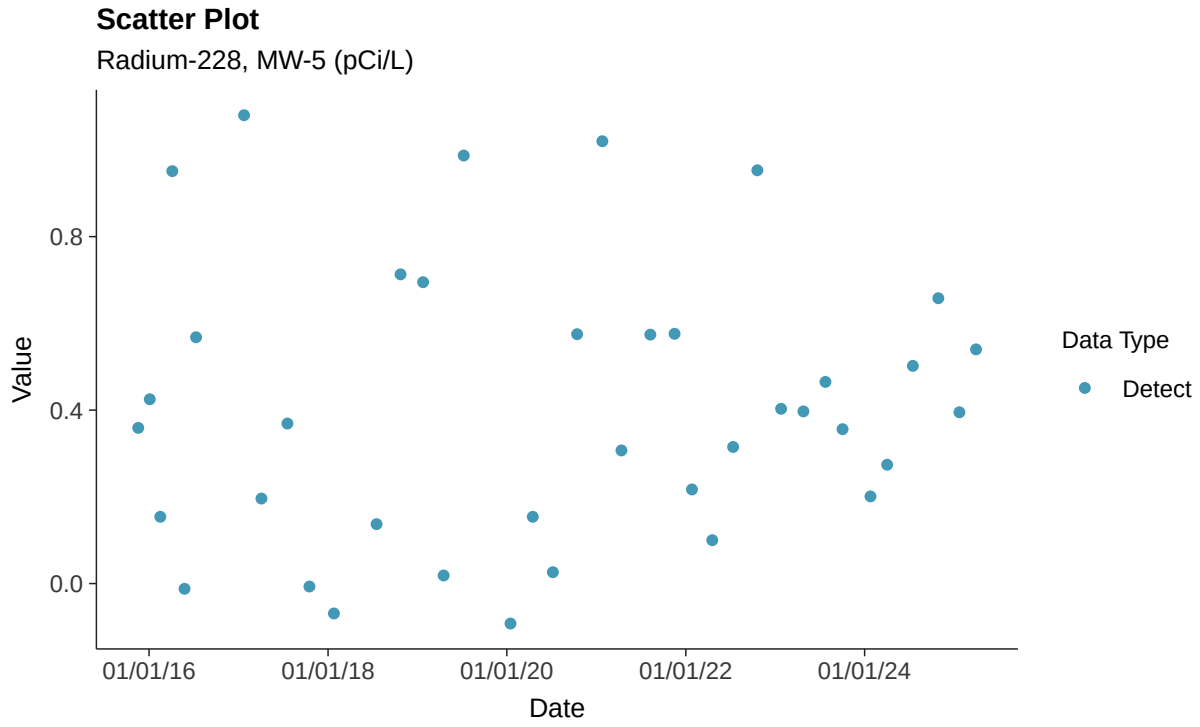
Trend Regression: Piecewise Linear-Linear-Linear

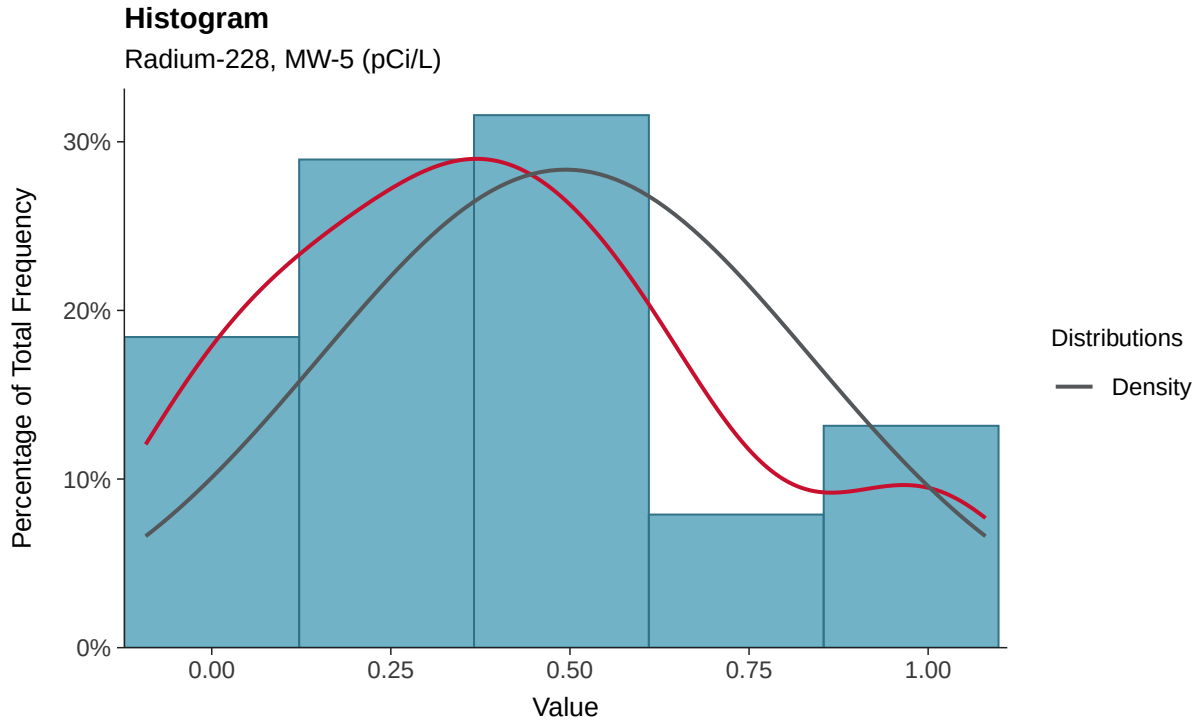
Radium-226, MW-5 (pCi/L)



App. IV: Radium-228, MW-5

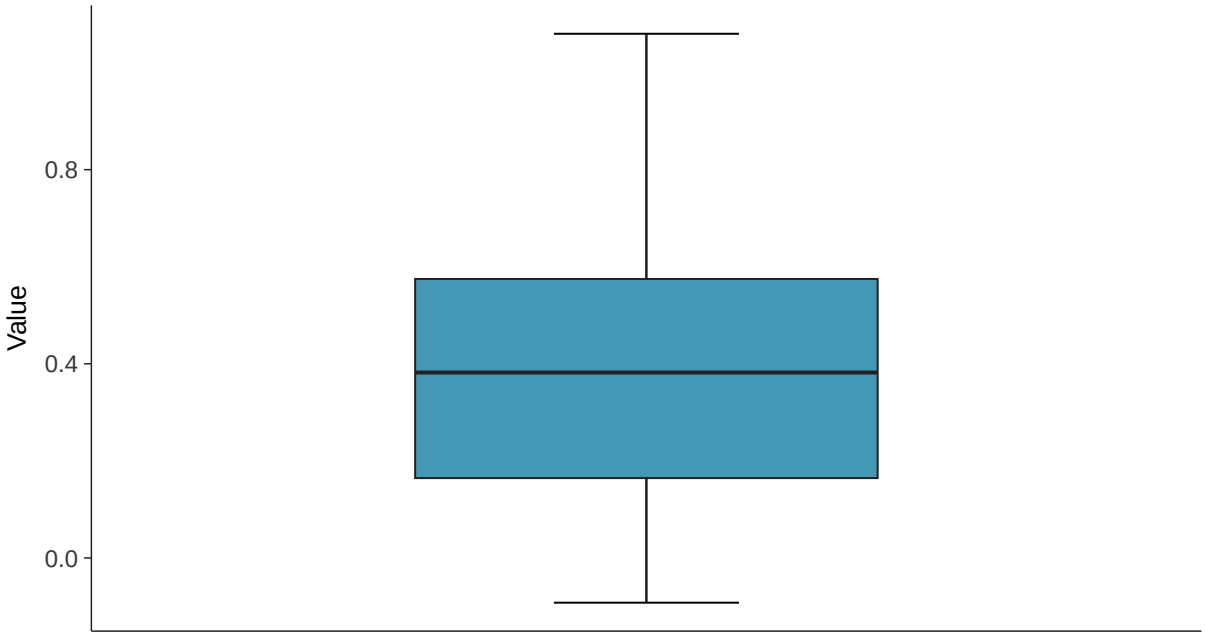
ID: 05_03_120





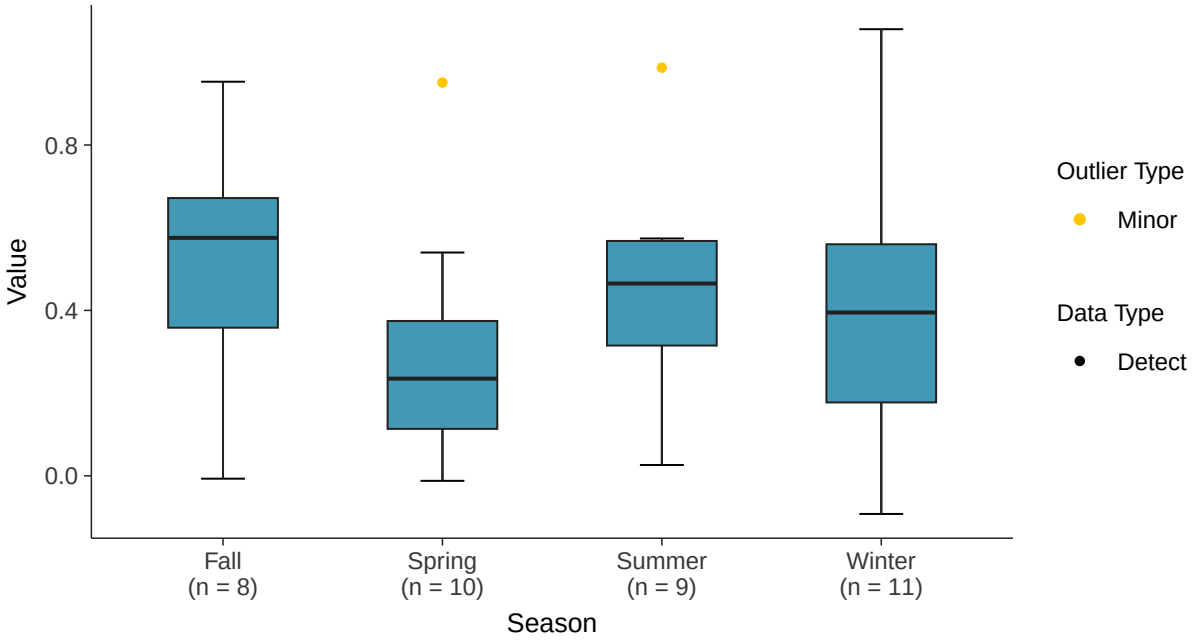
Boxplot

Radium-228, MW-5 (pCi/L)



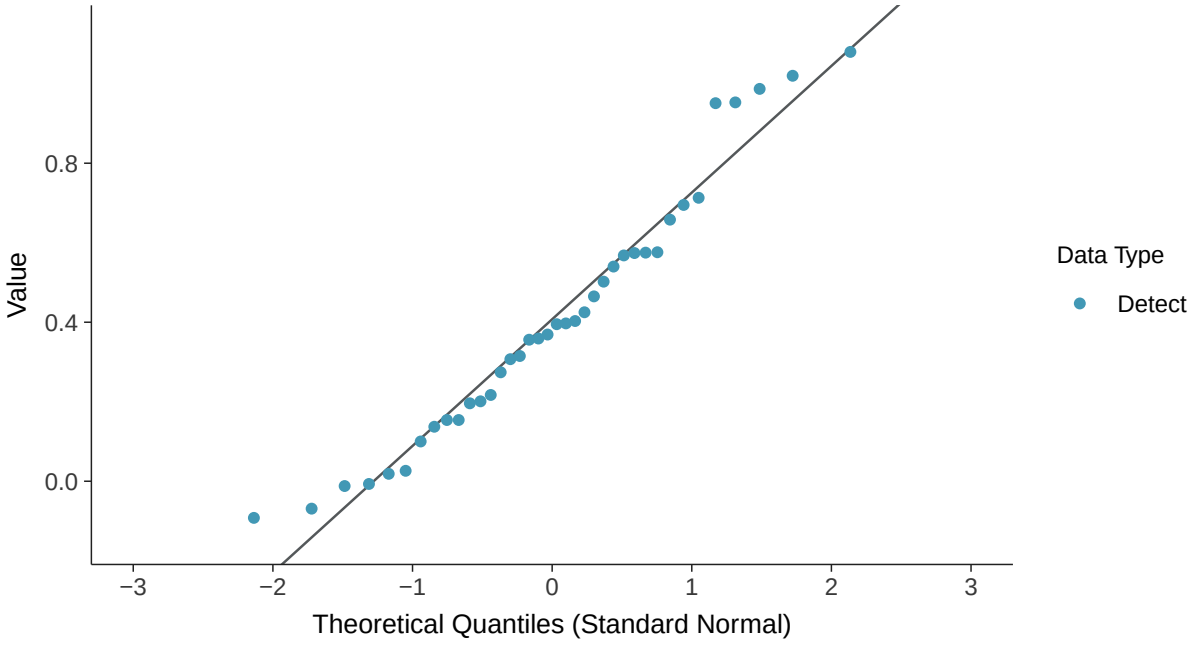
Boxplot by Season

Radium-228, MW-5 (pCi/L)



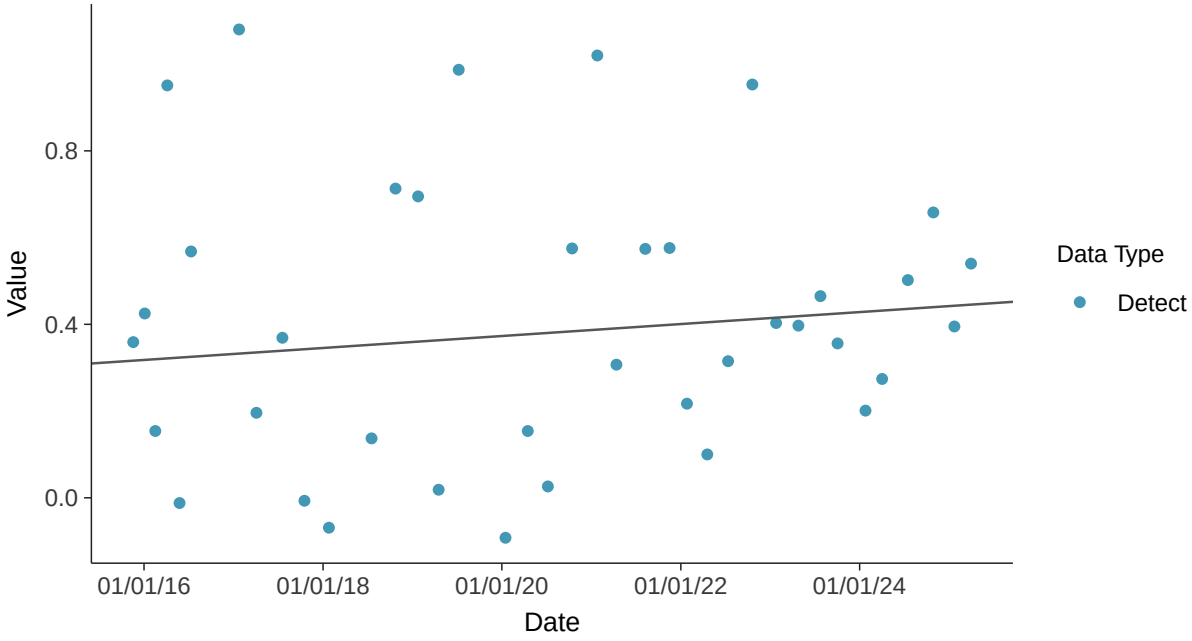
Normal Q-Q plot

Radium-228, MW-5 (pCi/L)



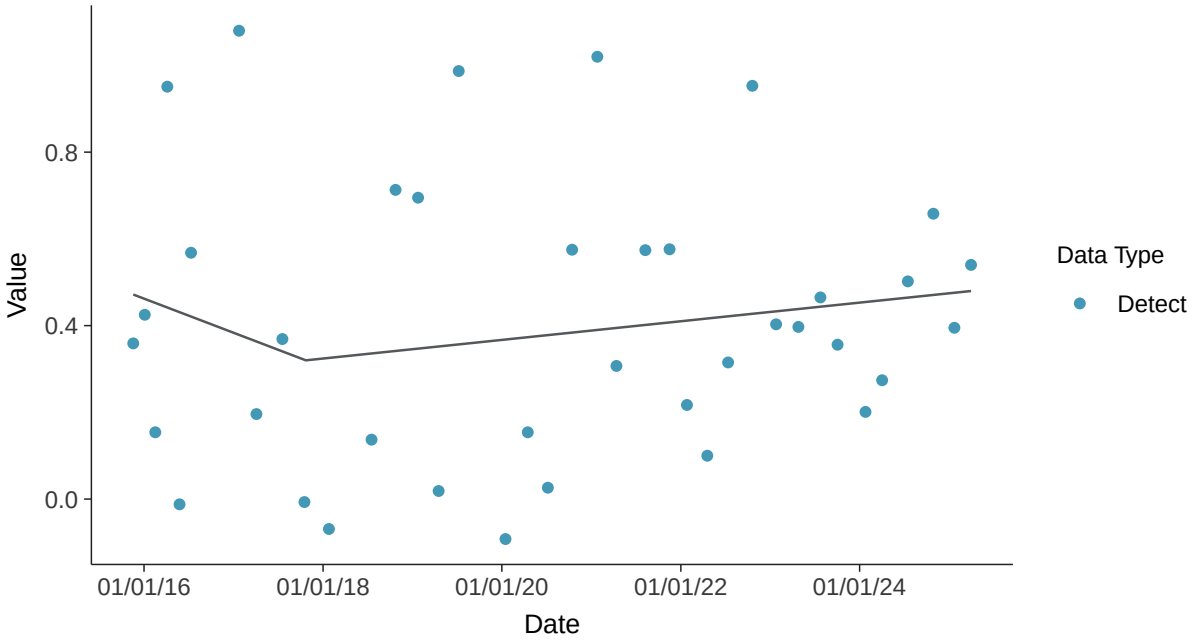
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Radium-228, MW-5 (pCi/L)



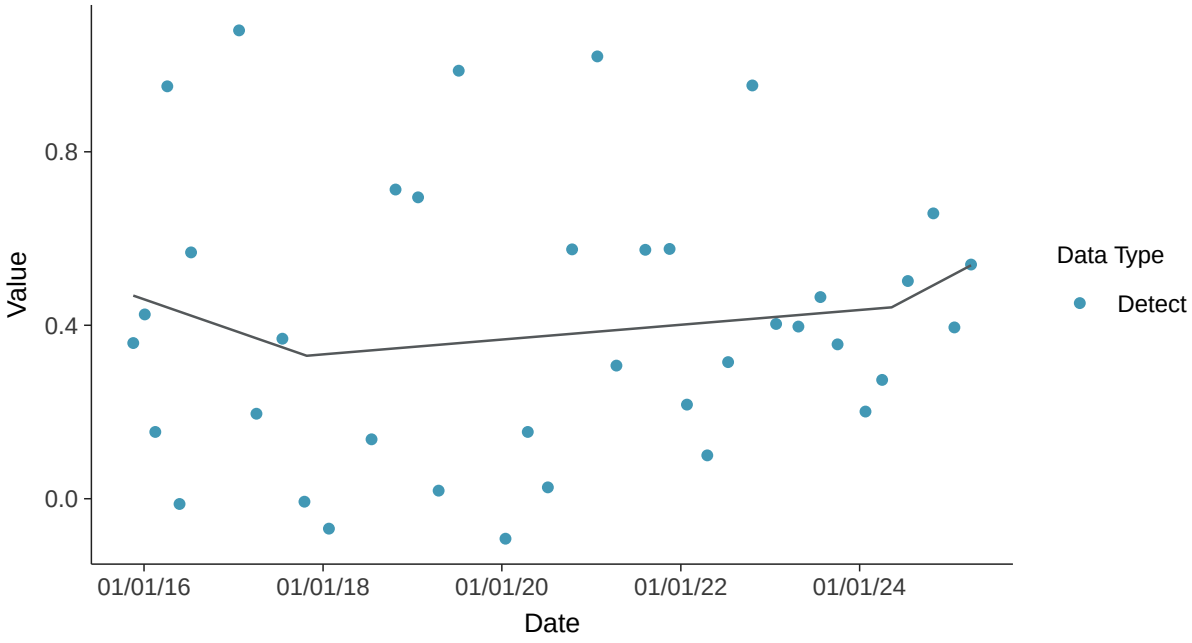
Trend Regression: Piecewise Linear-Linear

Radium-228, MW-5 (pCi/L)



Trend Regression: Piecewise Linear-Linear-Linear

Radium-228, MW-5 (pCi/L)

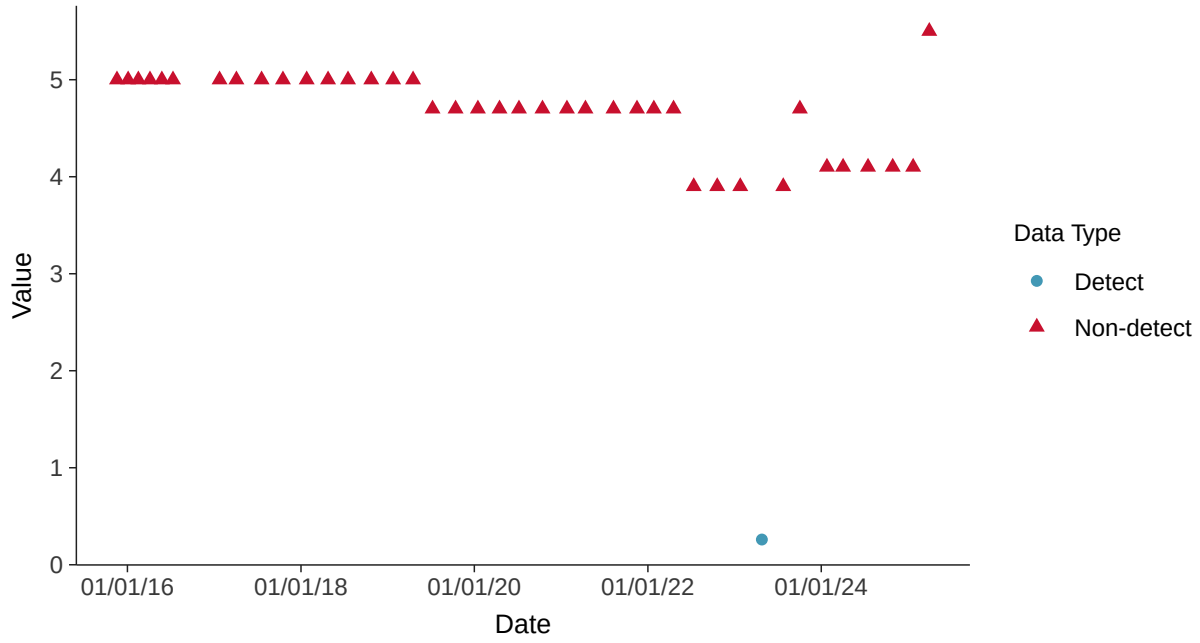


App. IV: Selenium, MW-5

ID: 05_03_121

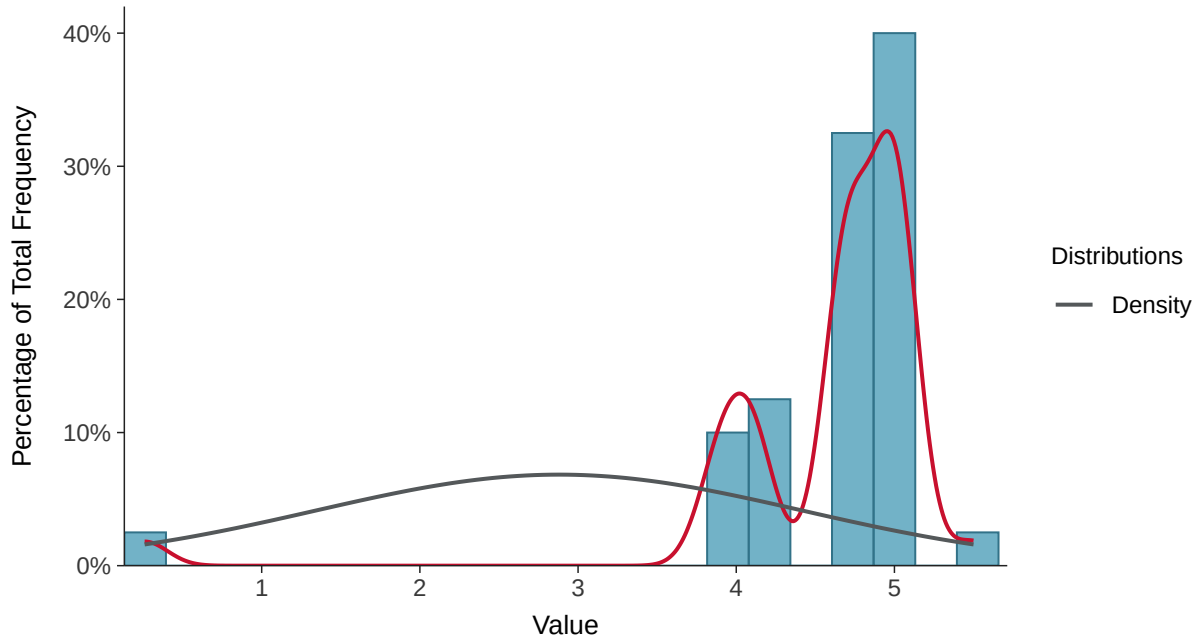
Scatter Plot

Selenium, MW-5 (ug/L)



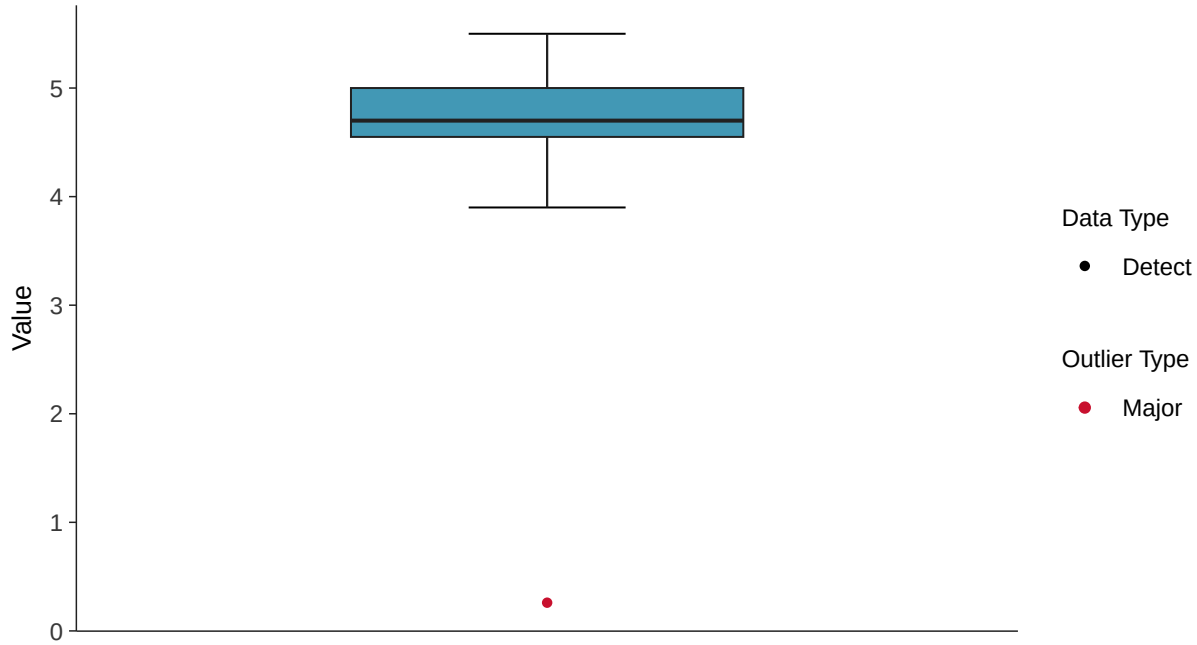
Histogram

Selenium, MW-5 (ug/L)



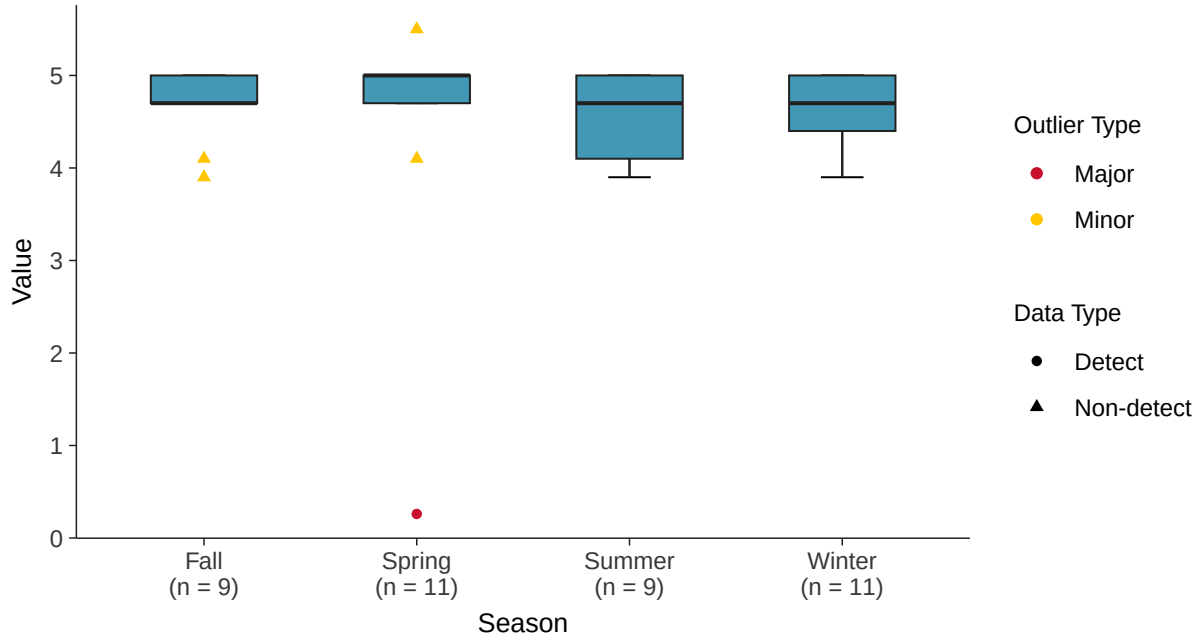
Boxplot

Selenium, MW-5 (ug/L)



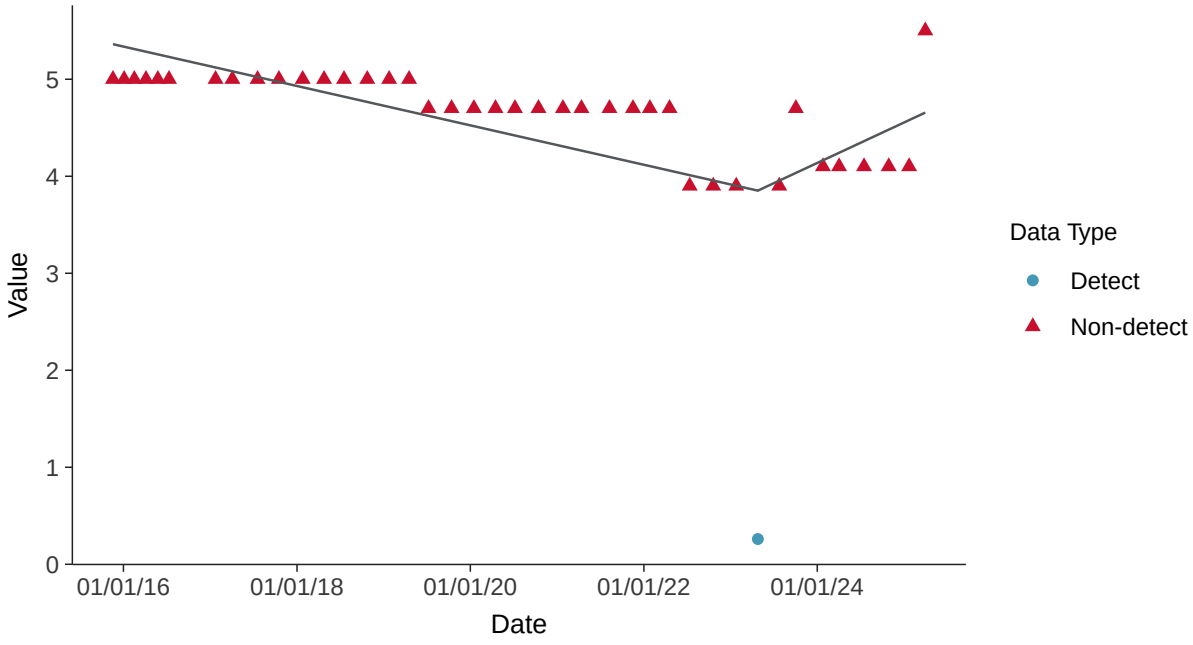
Boxplot by Season

Selenium, MW-5 (ug/L)



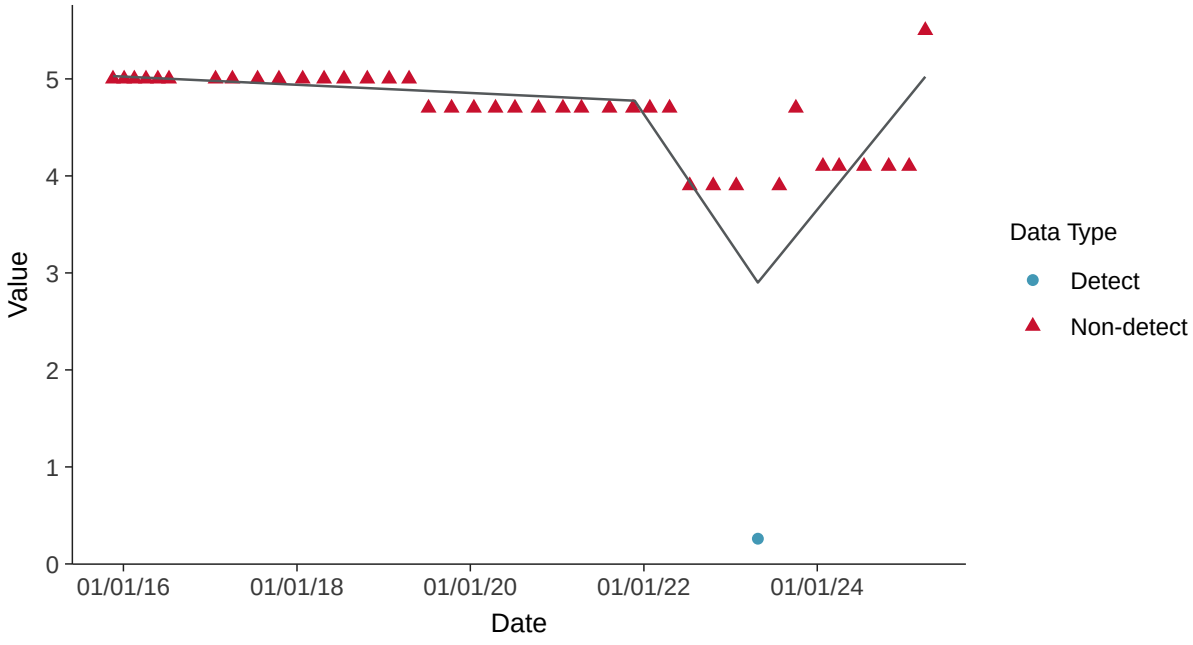
Trend Regression: Piecewise Linear-Linear

Selenium, MW-5 (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Selenium, MW-5 (ug/L)

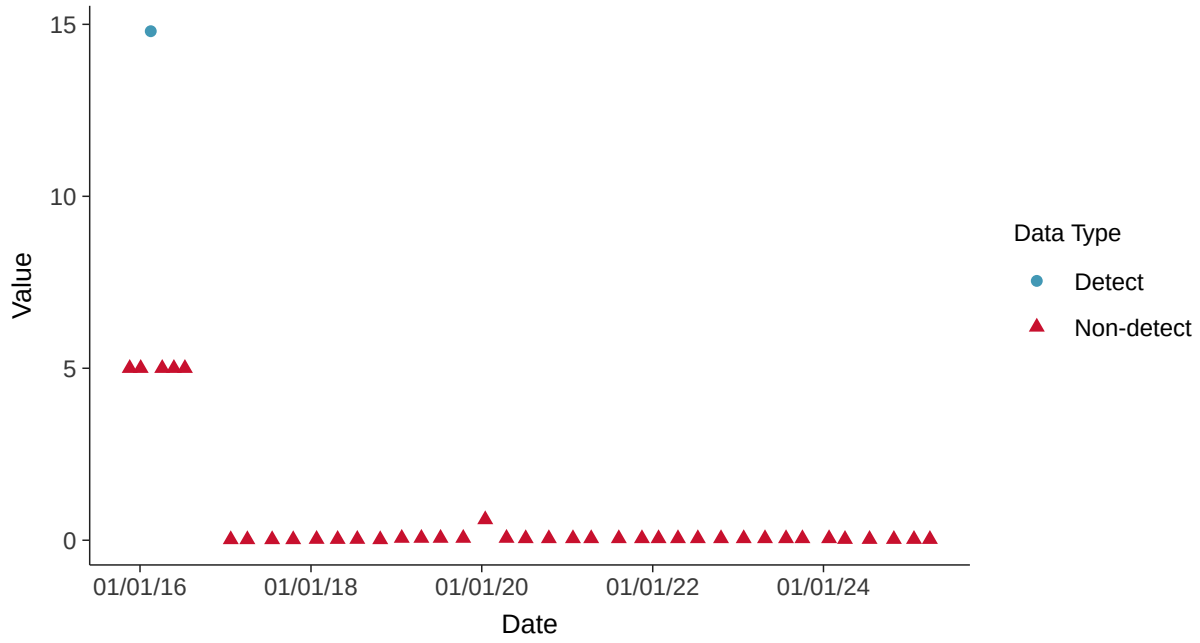


App. IV: Thallium, MW-5

ID: 05_03_124

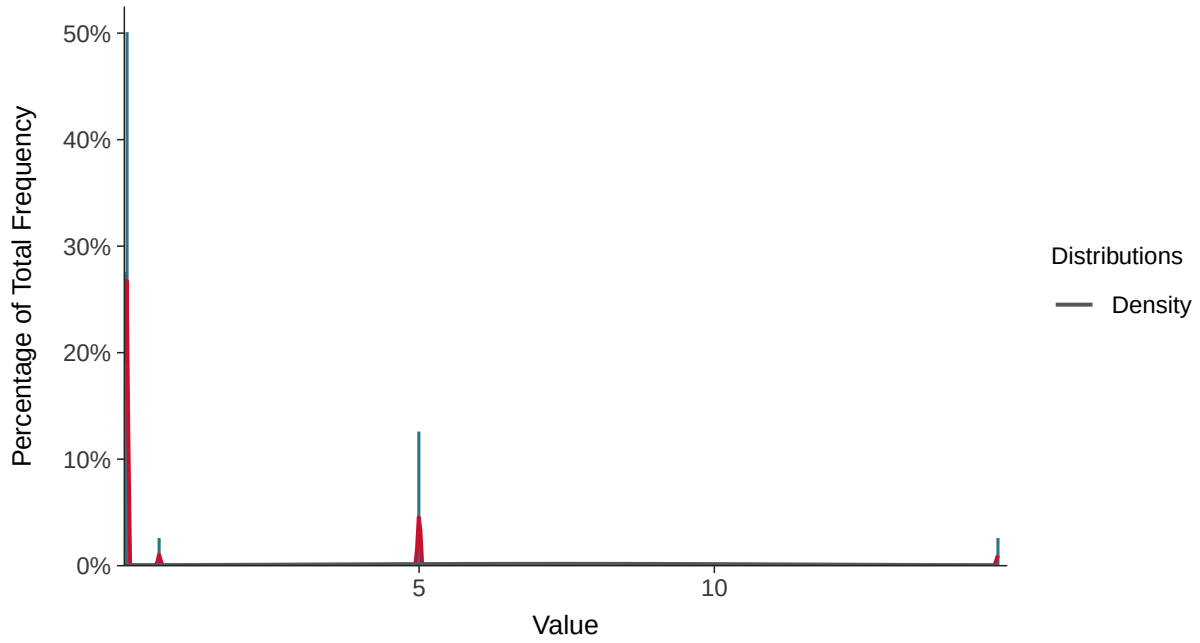
Scatter Plot

Thallium, MW-5 (ug/L)



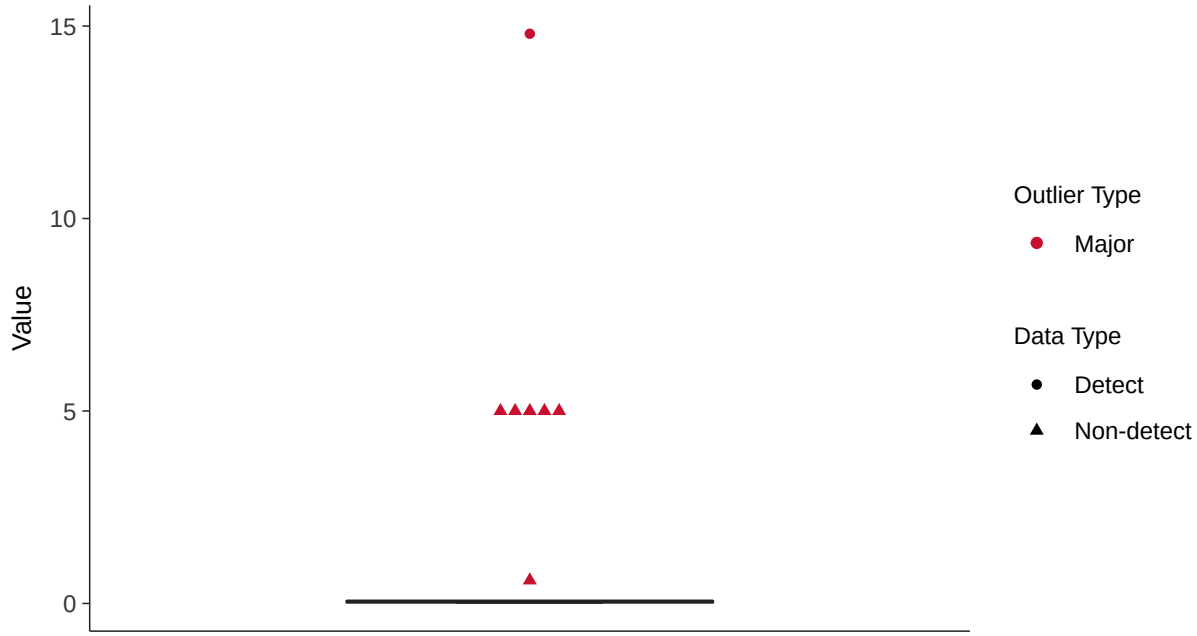
Histogram

Thallium, MW-5 (ug/L)



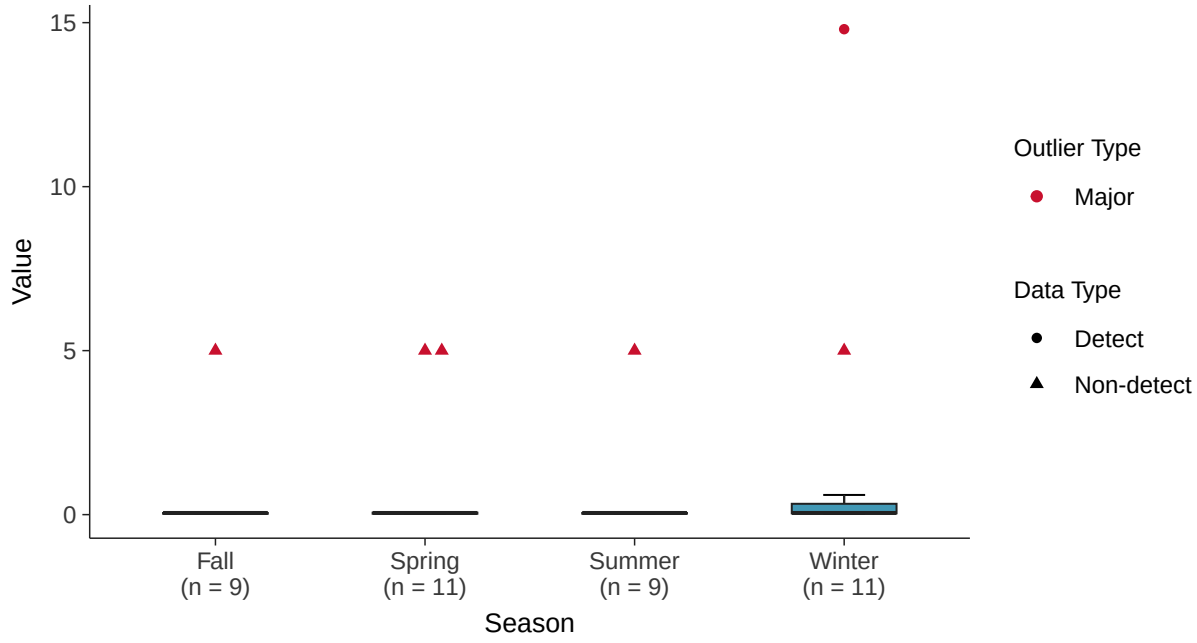
Boxplot

Thallium, MW-5 (ug/L)



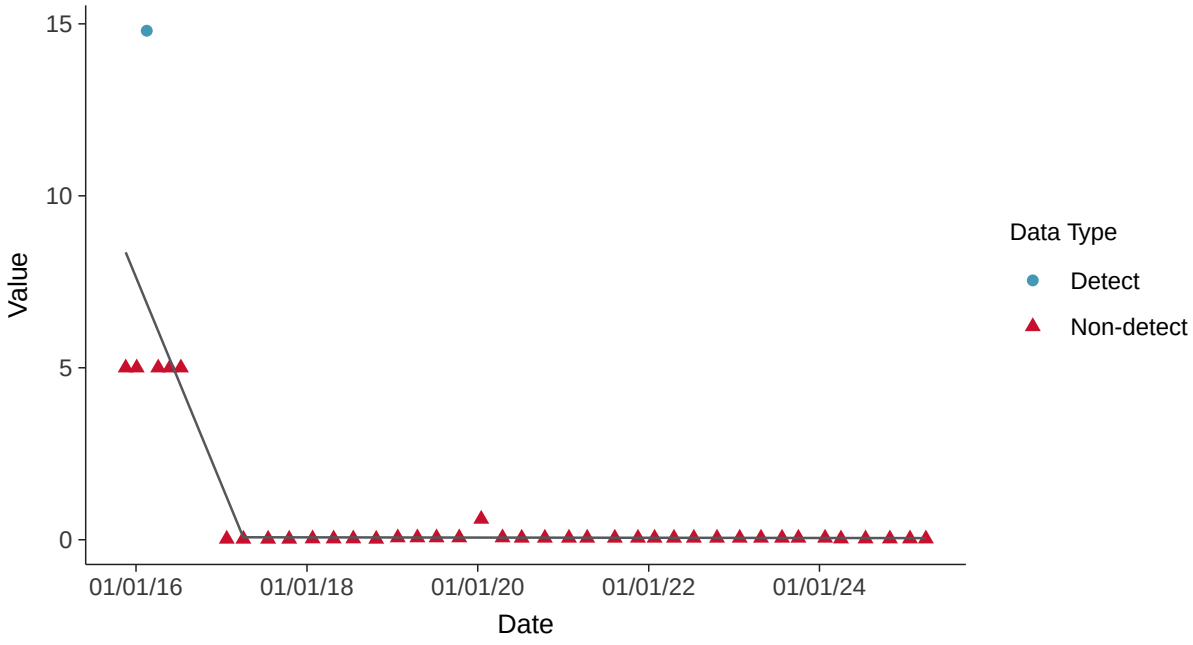
Boxplot by Season

Thallium, MW-5 (ug/L)



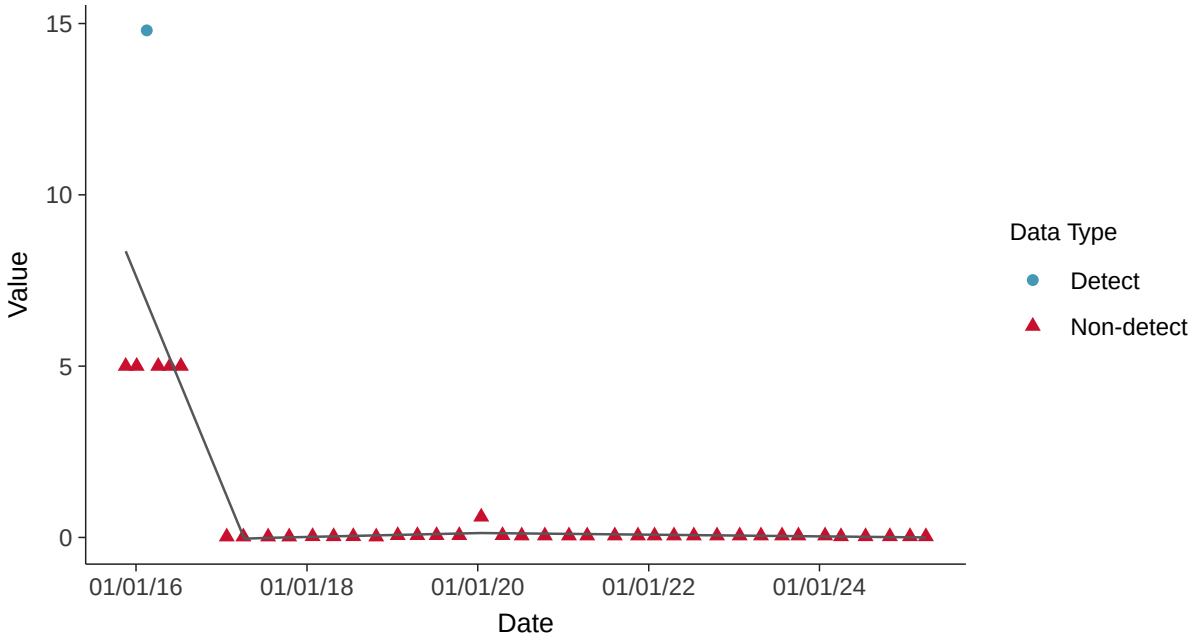
Trend Regression: Piecewise Linear-Linear

Thallium, MW-5 (ug/L)



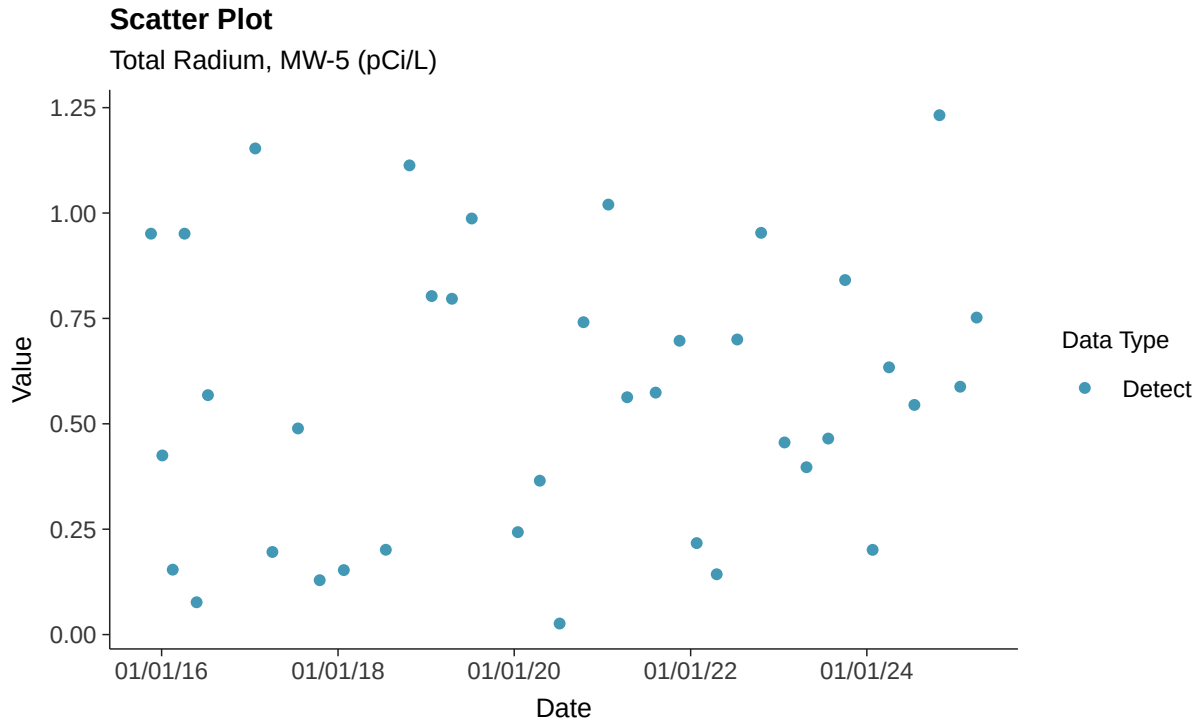
Trend Regression: Piecewise Linear-Linear-Linear

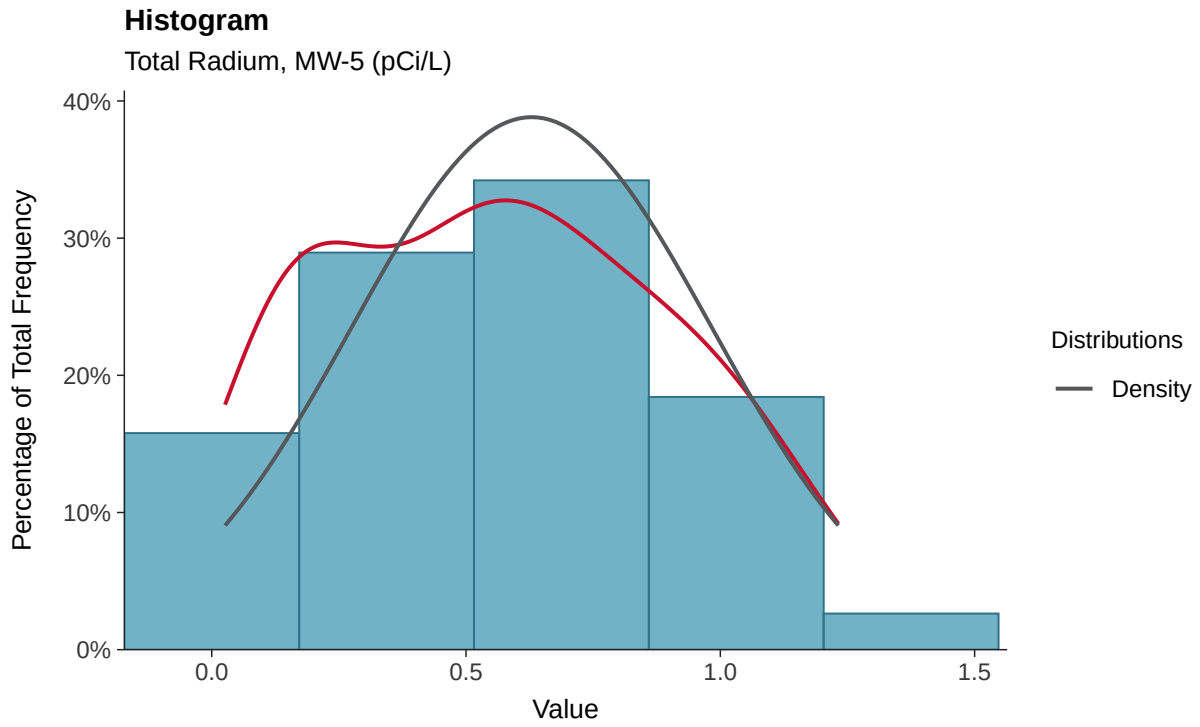
Thallium, MW-5 (ug/L)



App. IV: Total Radium, MW-5

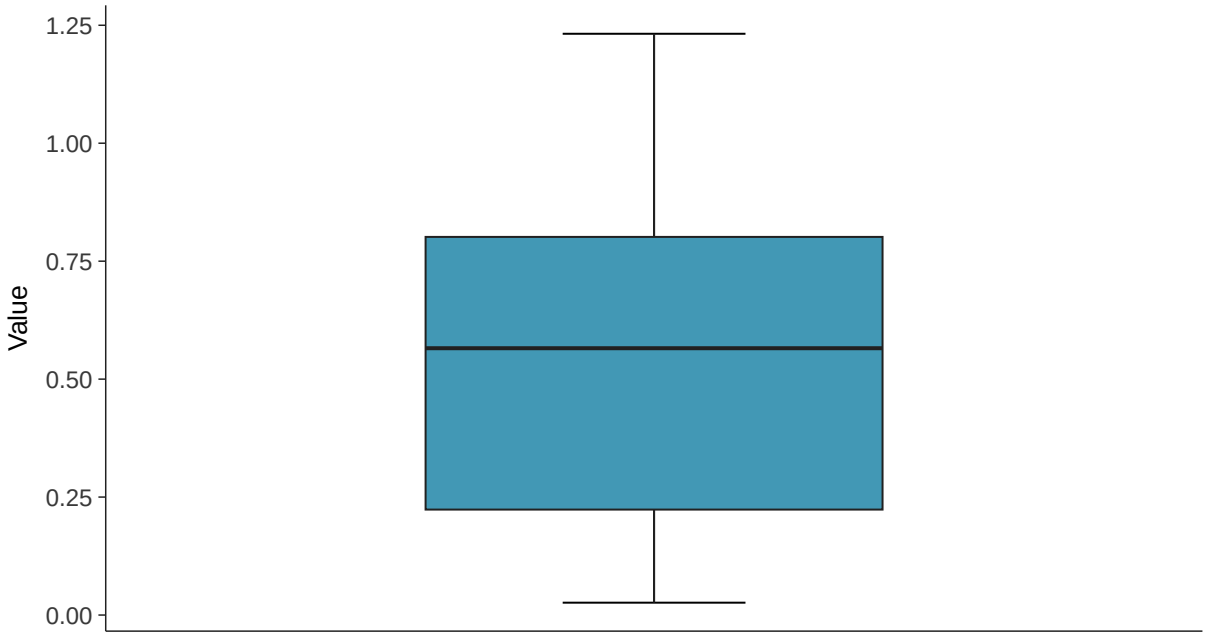
ID: 05_03_126





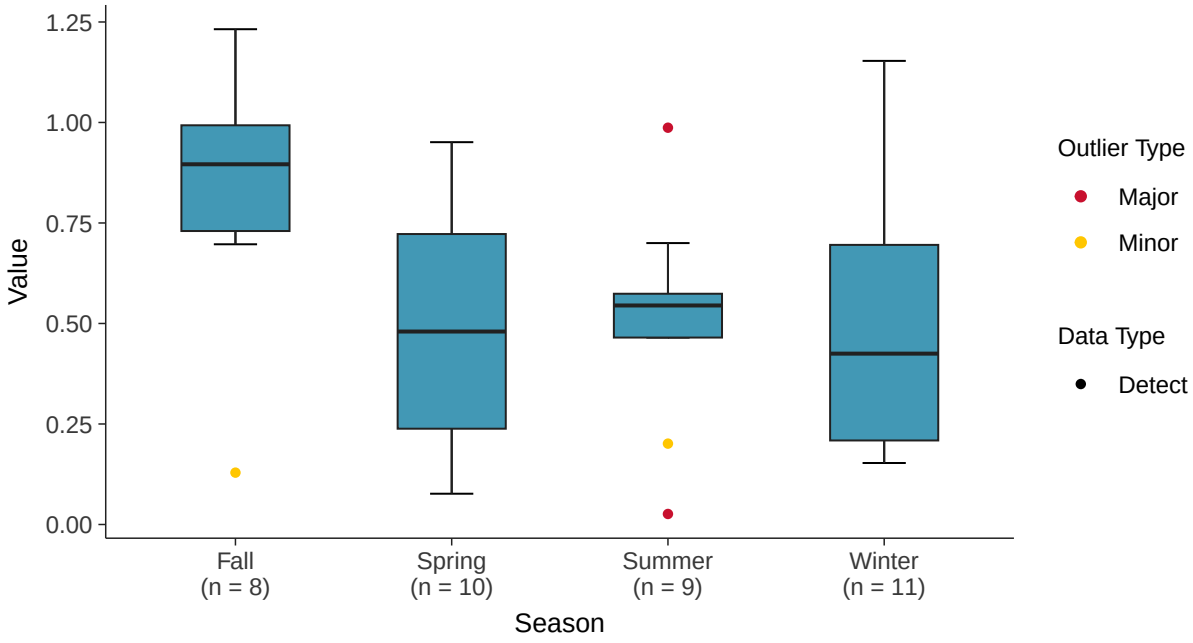
Boxplot

Total Radium, MW-5 (pCi/L)



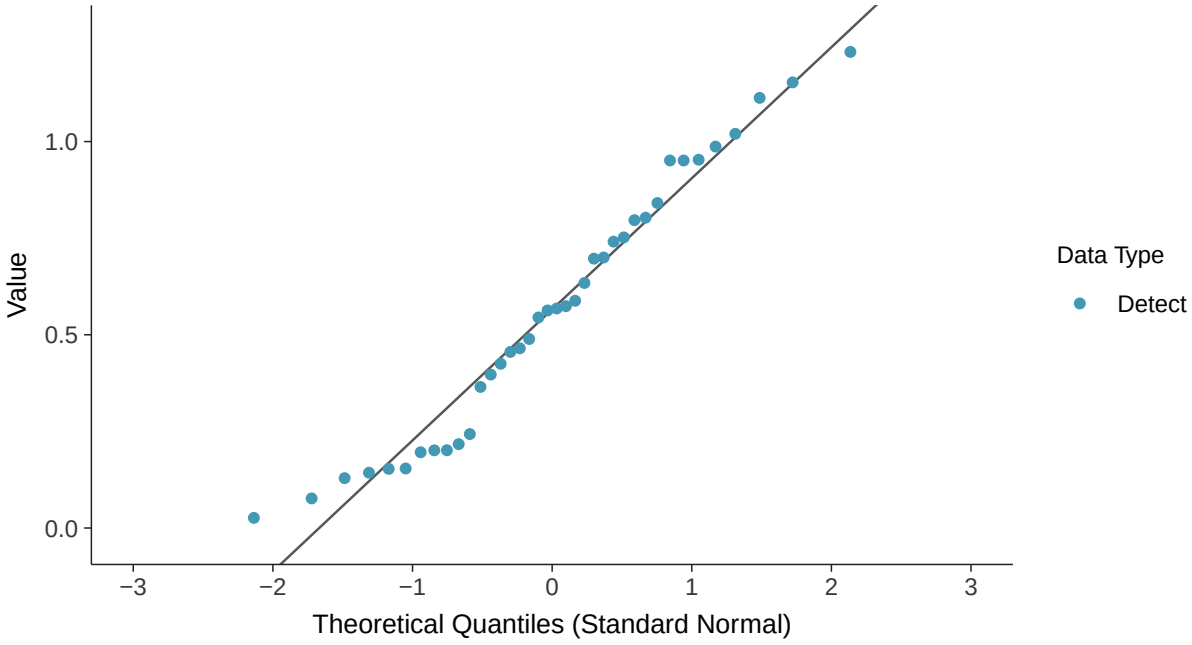
Boxplot by Season

Total Radium, MW-5 (pCi/L)



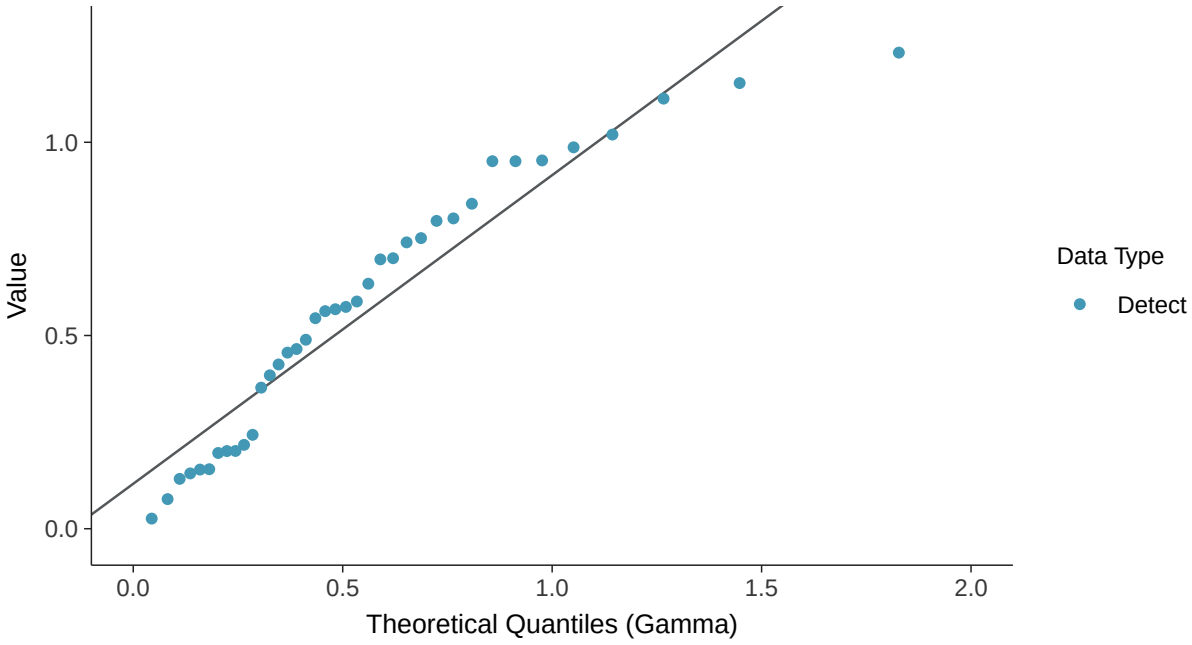
Normal Q-Q plot

Total Radium, MW-5 (pCi/L)



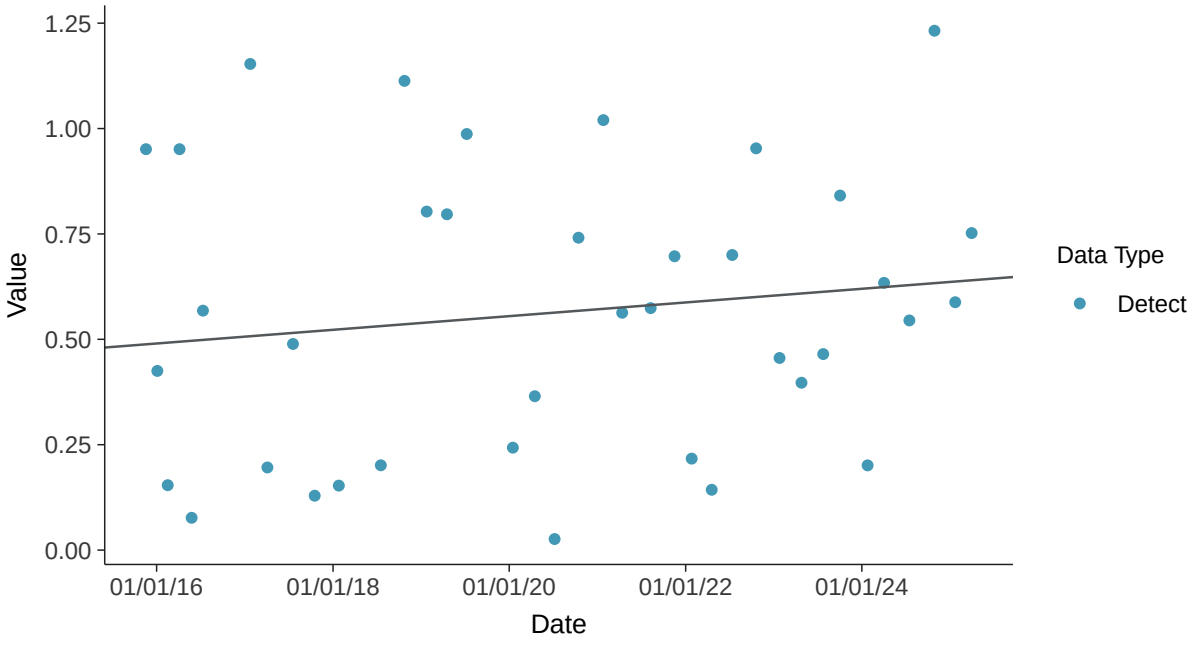
Gamma Q-Q plot

Total Radium, MW-5 (pCi/L)



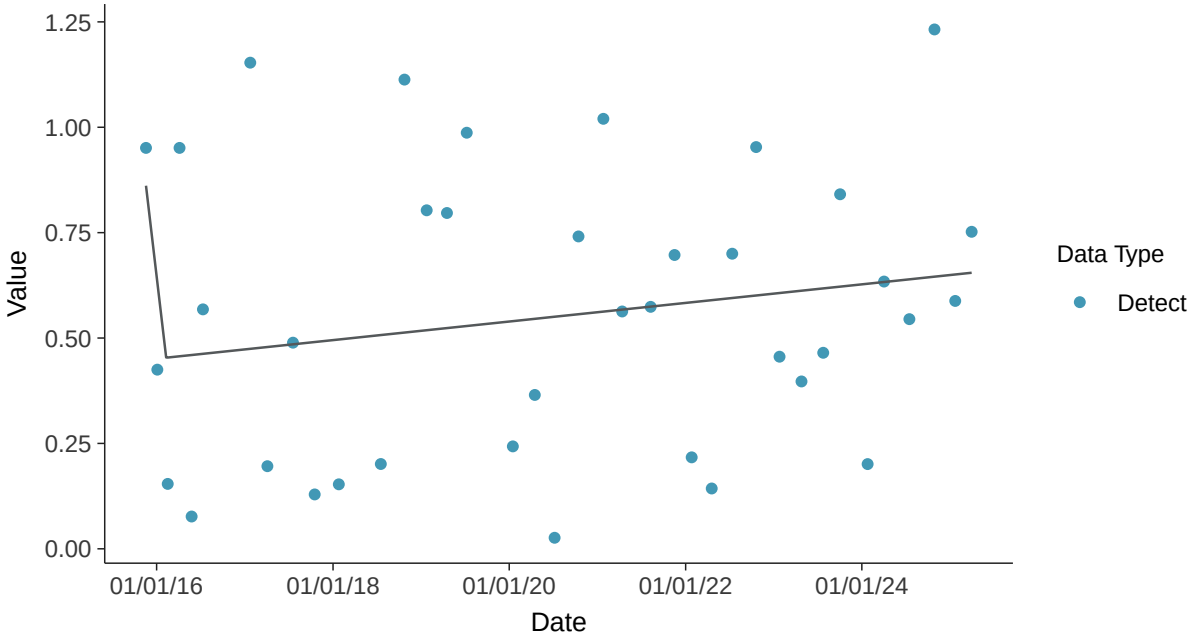
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Total Radium, MW-5 (pCi/L)



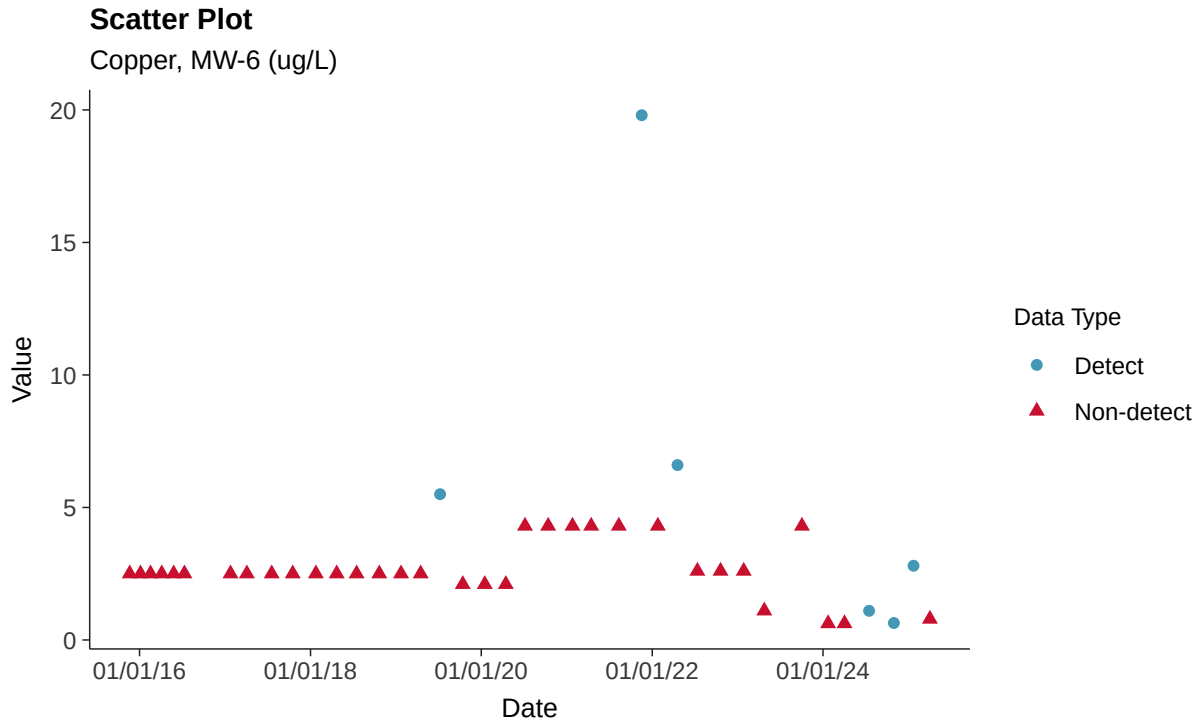
Trend Regression: Piecewise Linear-Linear

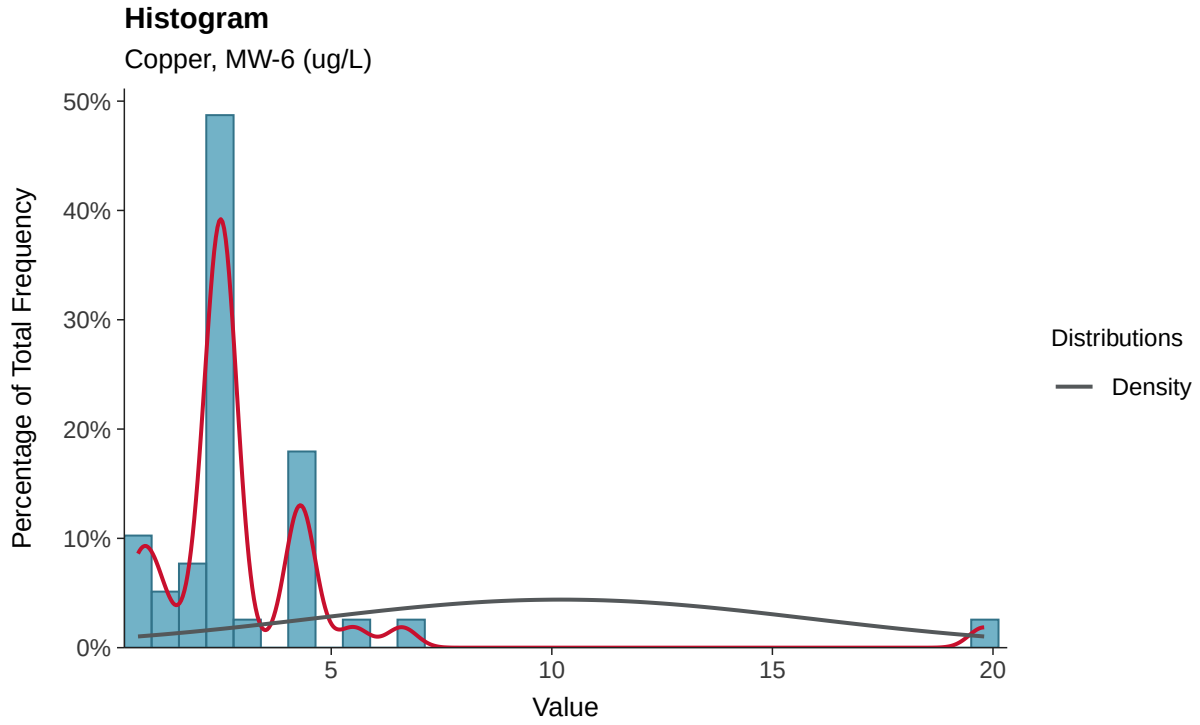
Total Radium, MW-5 (pCi/L)



App. I Metals: Copper, MW-6

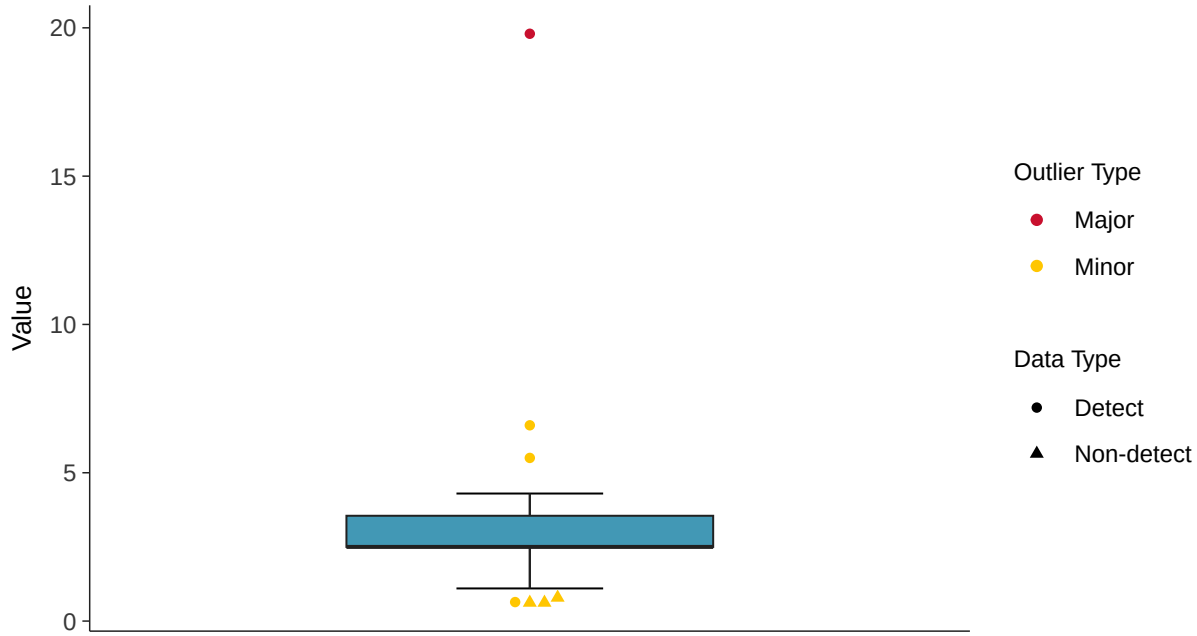
ID: 06_01_111





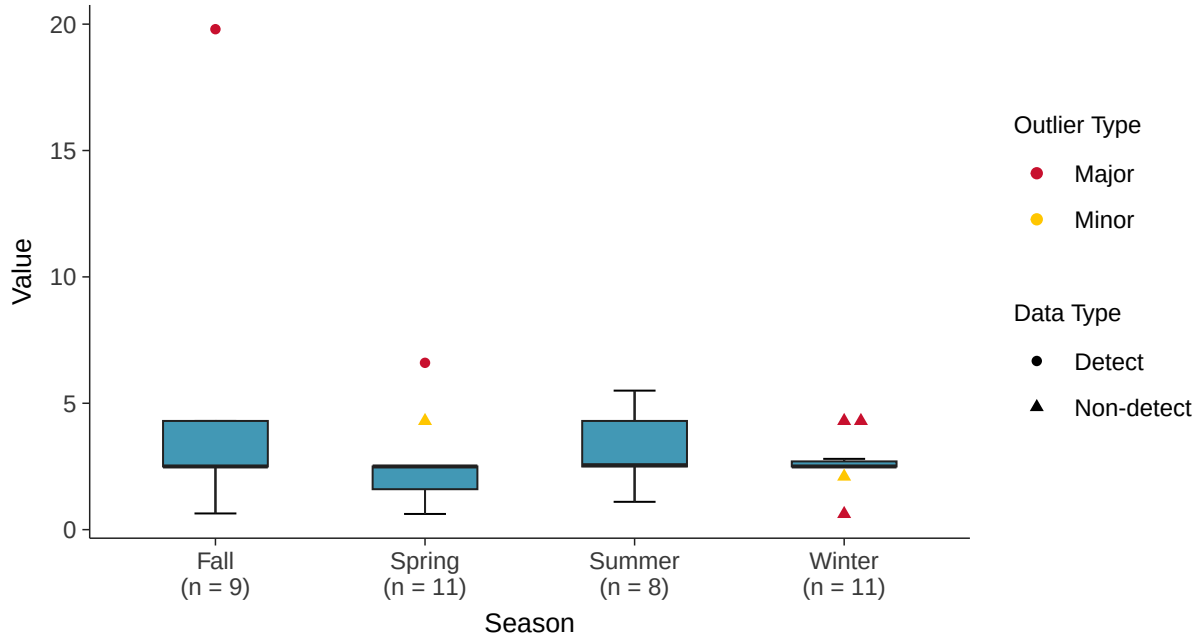
Boxplot

Copper, MW-6 (ug/L)



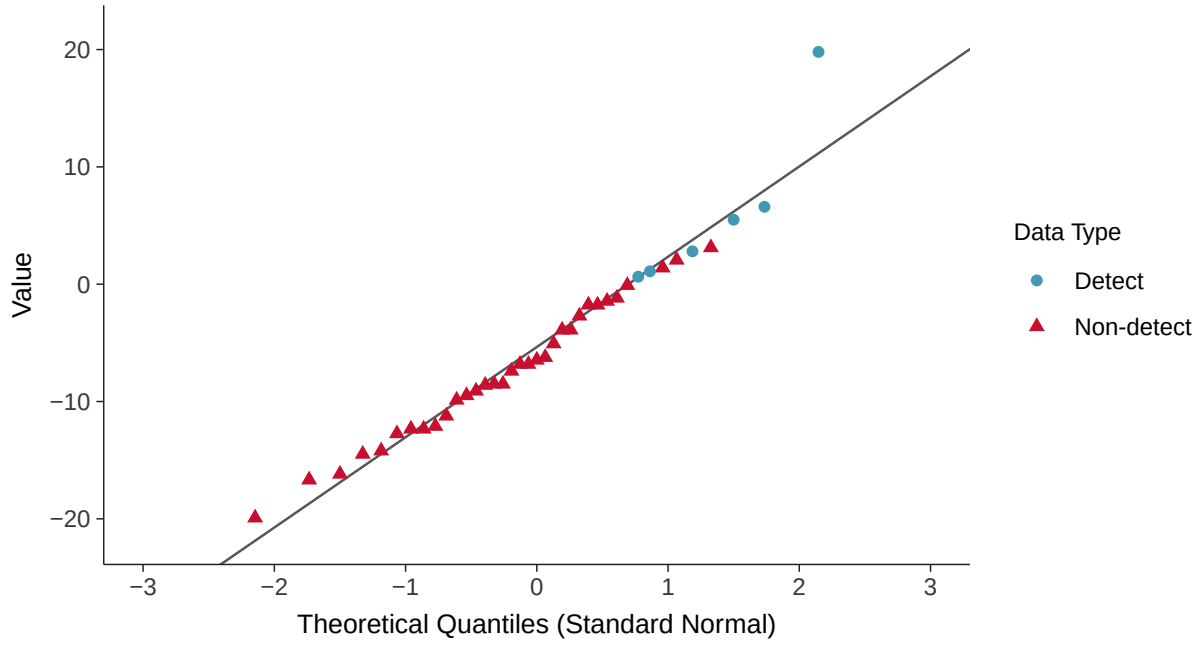
Boxplot by Season

Copper, MW-6 (ug/L)



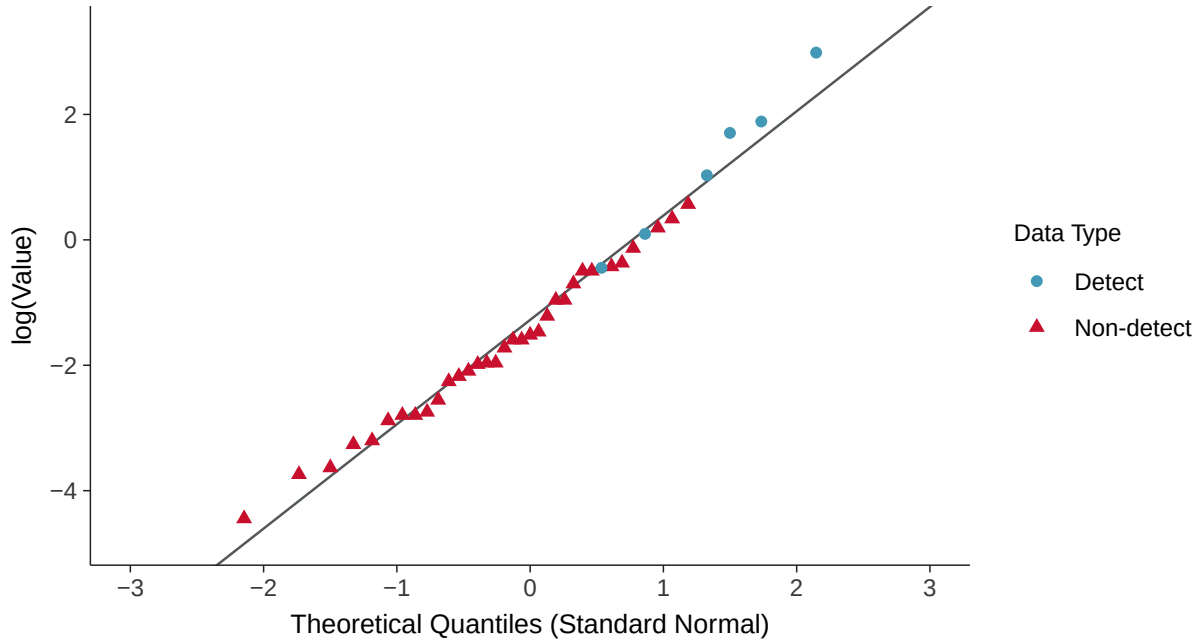
Normal Q-Q plot using ROS Imputed Estimates

Copper, MW-6 (ug/L)



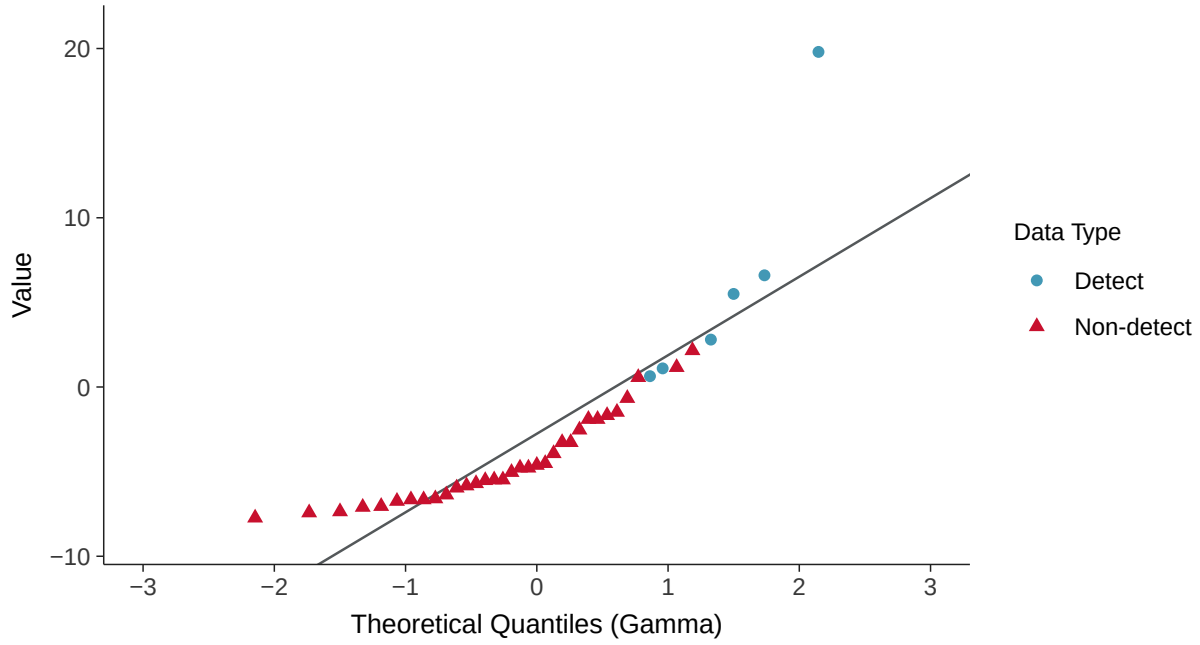
Lognormal Q-Q plot using ROS Imputed Estimates

Copper, MW-6 (ug/L)



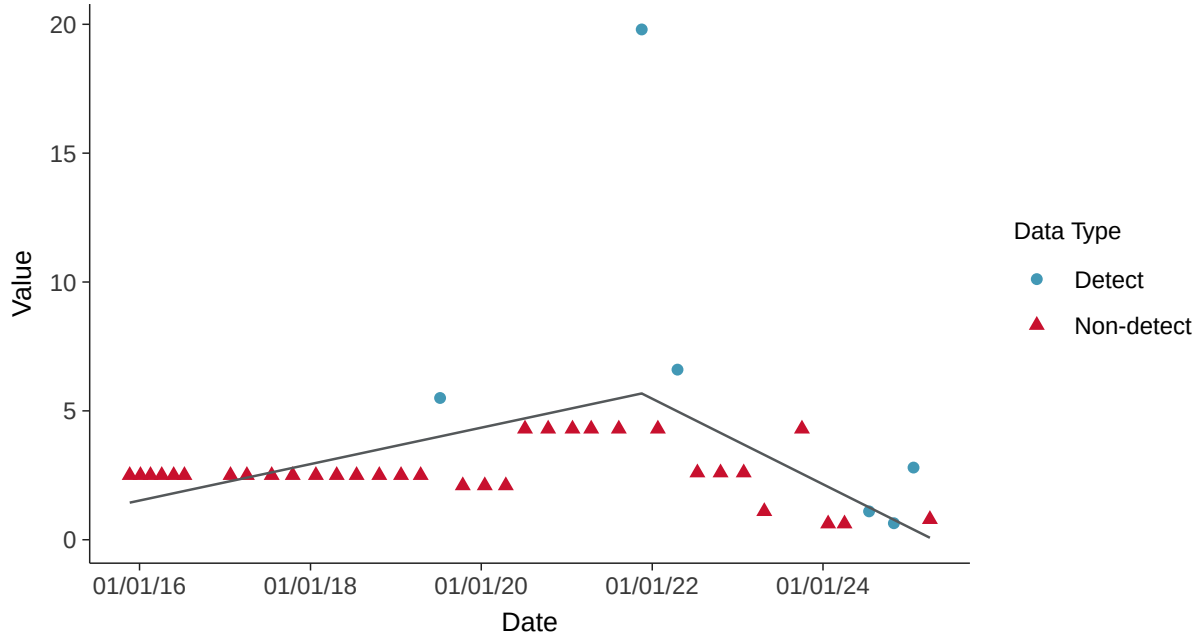
Gamma Q-Q plot using ROS Imputed Estimates

Copper, MW-6 (ug/L)



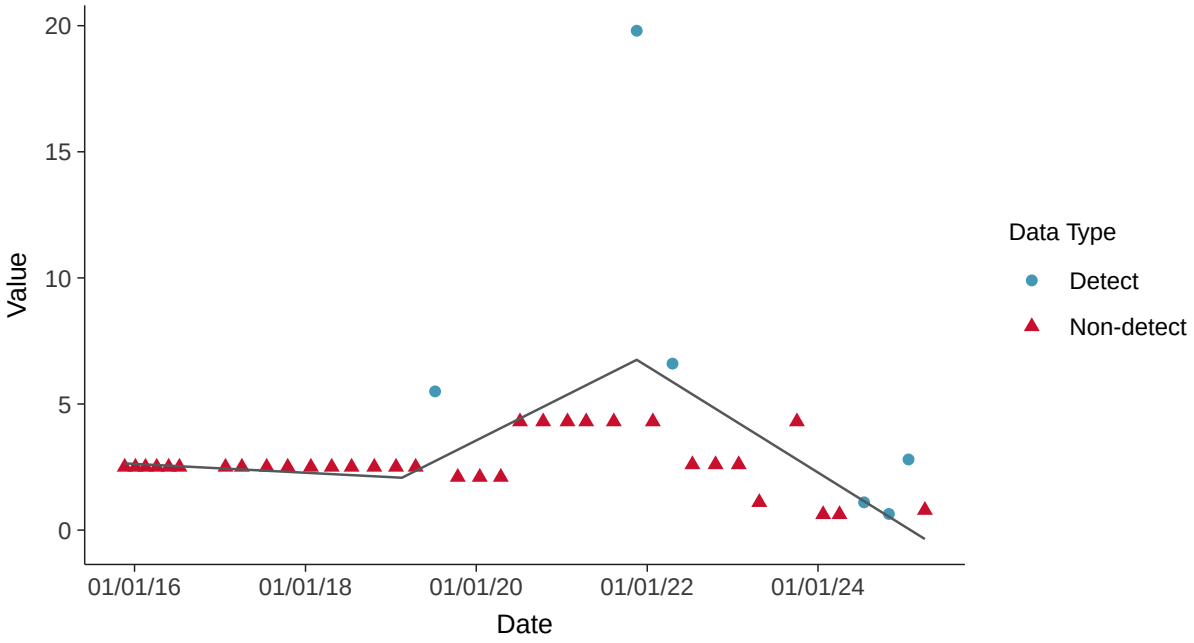
Trend Regression: Piecewise Linear-Linear

Copper, MW-6 (ug/L)



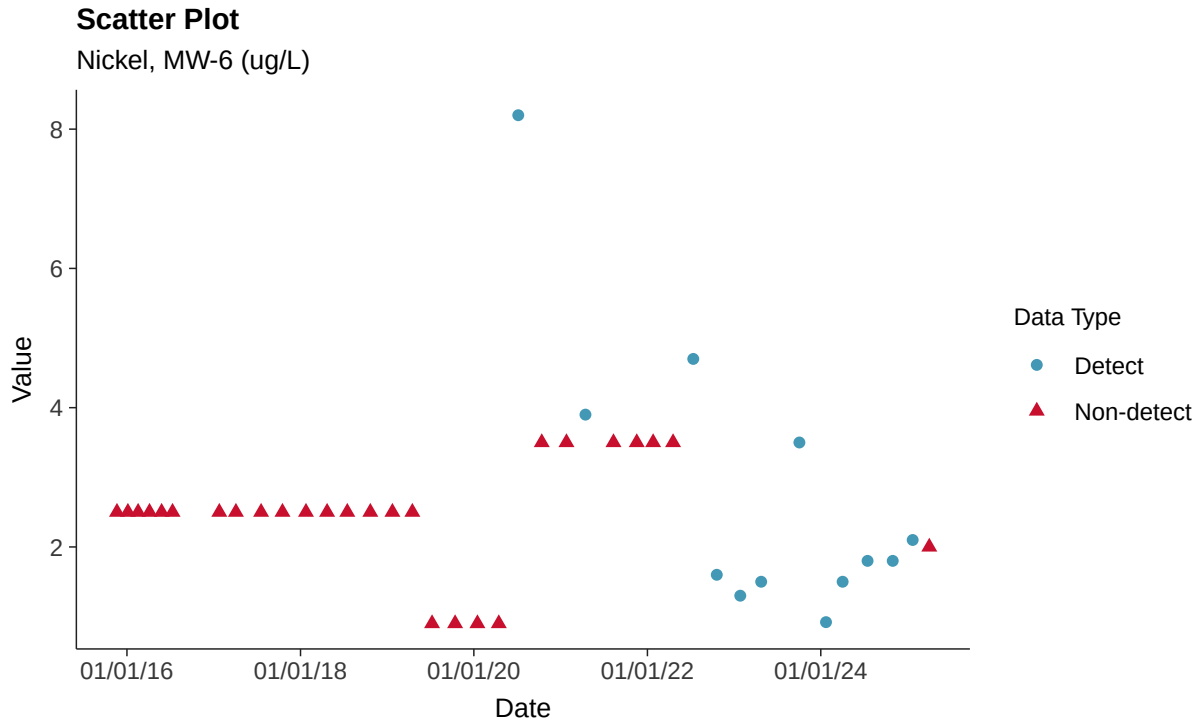
Trend Regression: Piecewise Linear-Linear-Linear

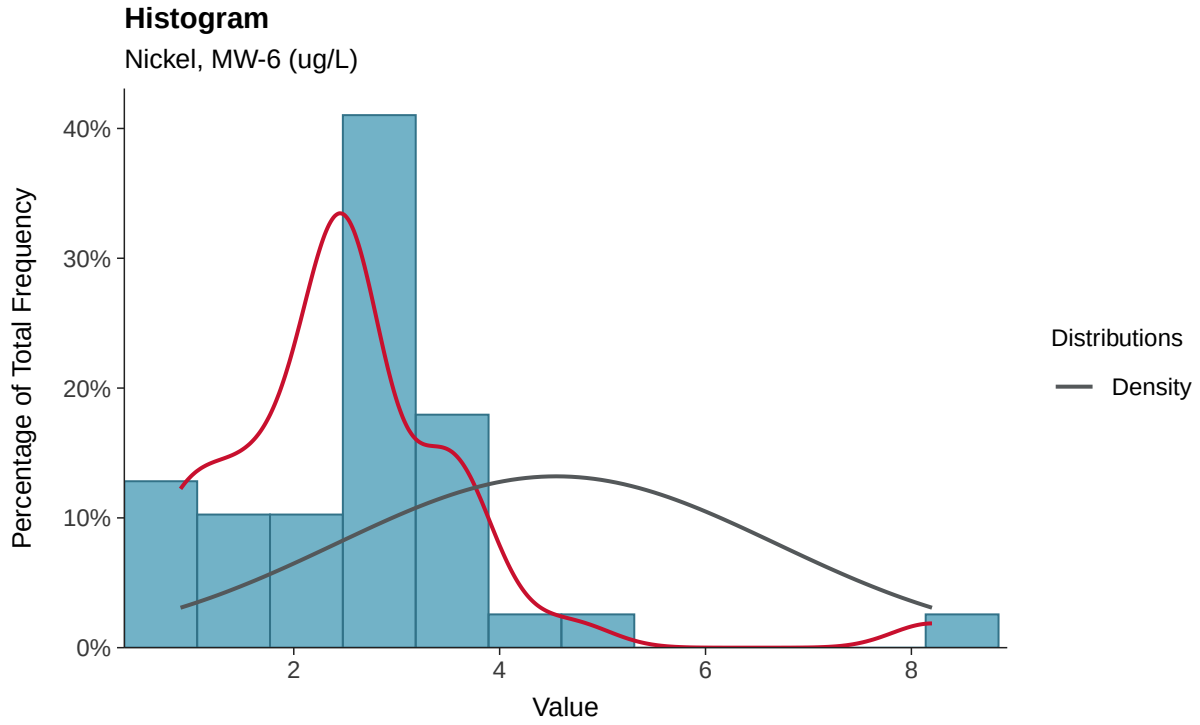
Copper, MW-6 (ug/L)



App. I Metals: Nickel, MW-6

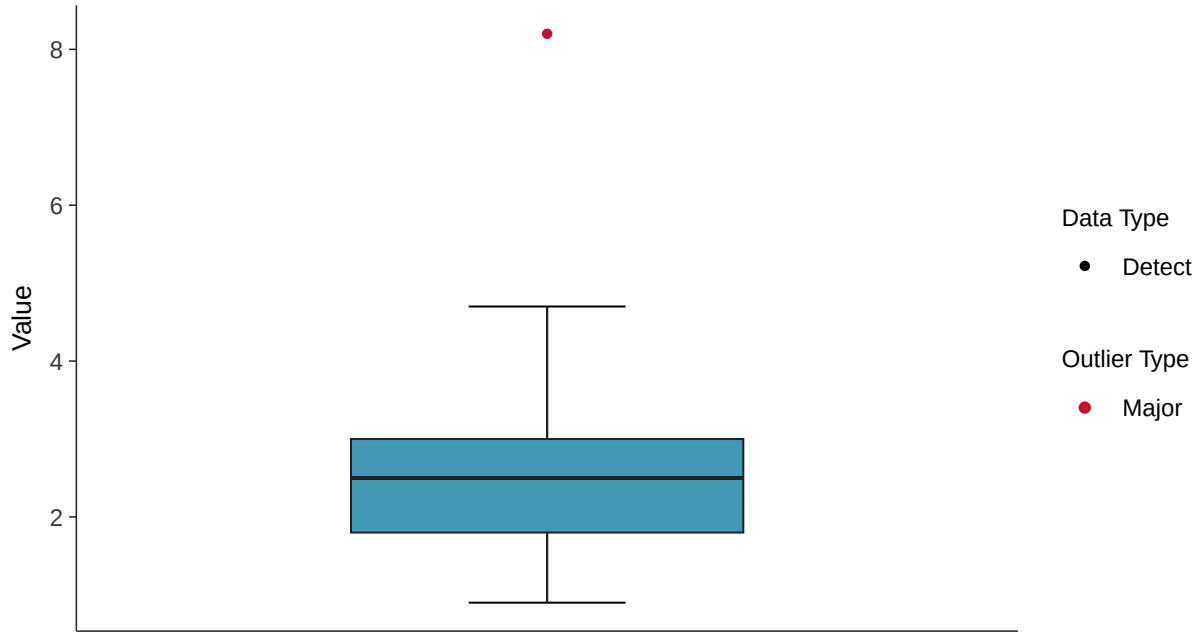
ID: 06_01_117





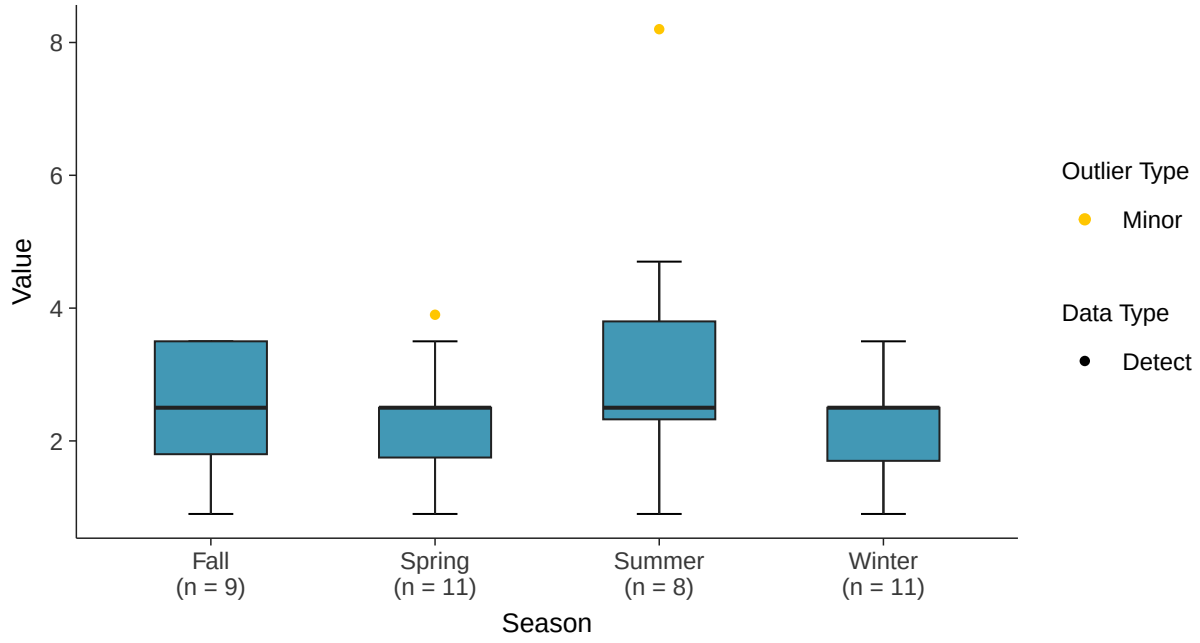
Boxplot

Nickel, MW-6 (ug/L)



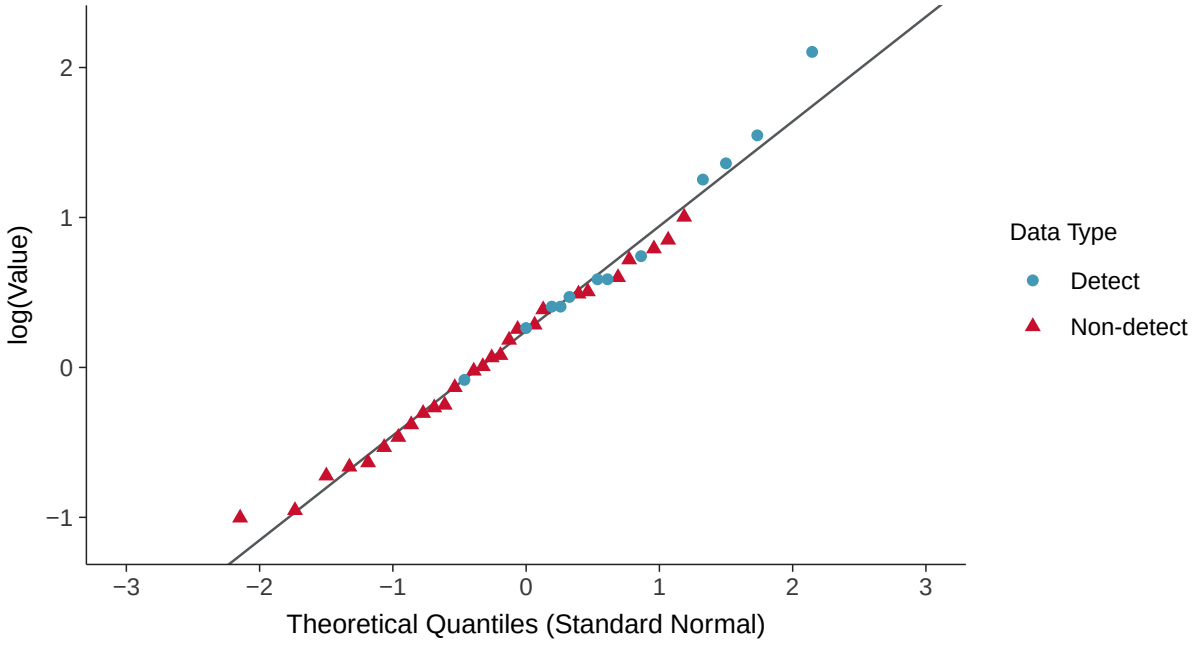
Boxplot by Season

Nickel, MW-6 (ug/L)



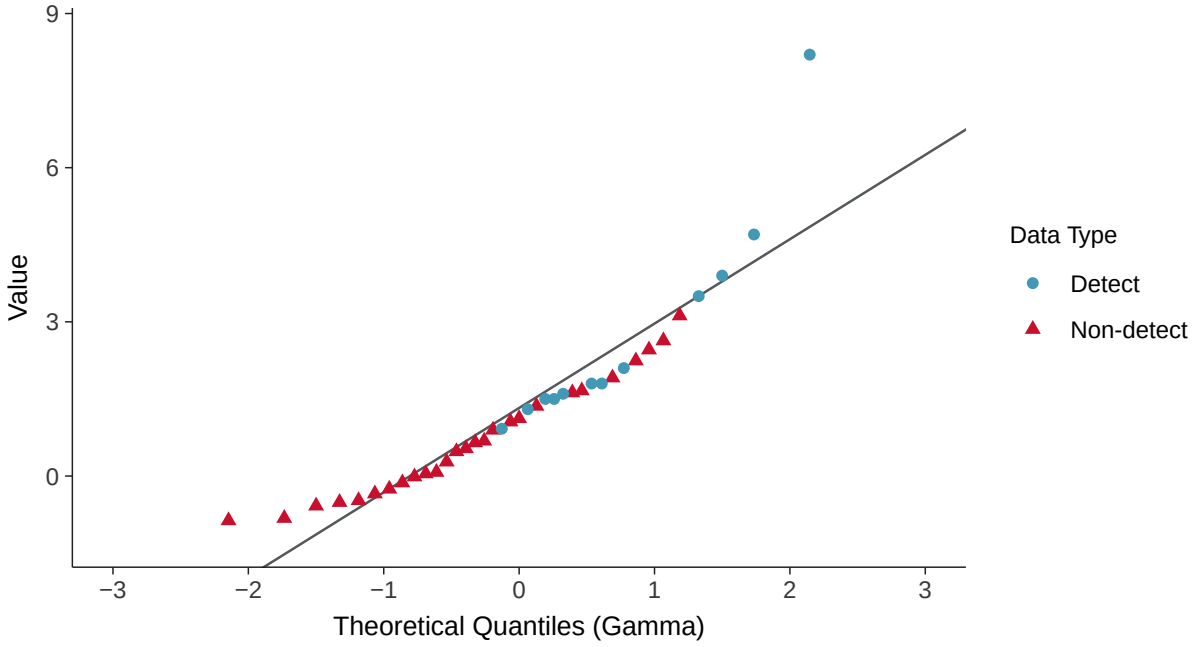
Lognormal Q-Q plot using ROS Imputed Estimates

Nickel, MW-6 (ug/L)



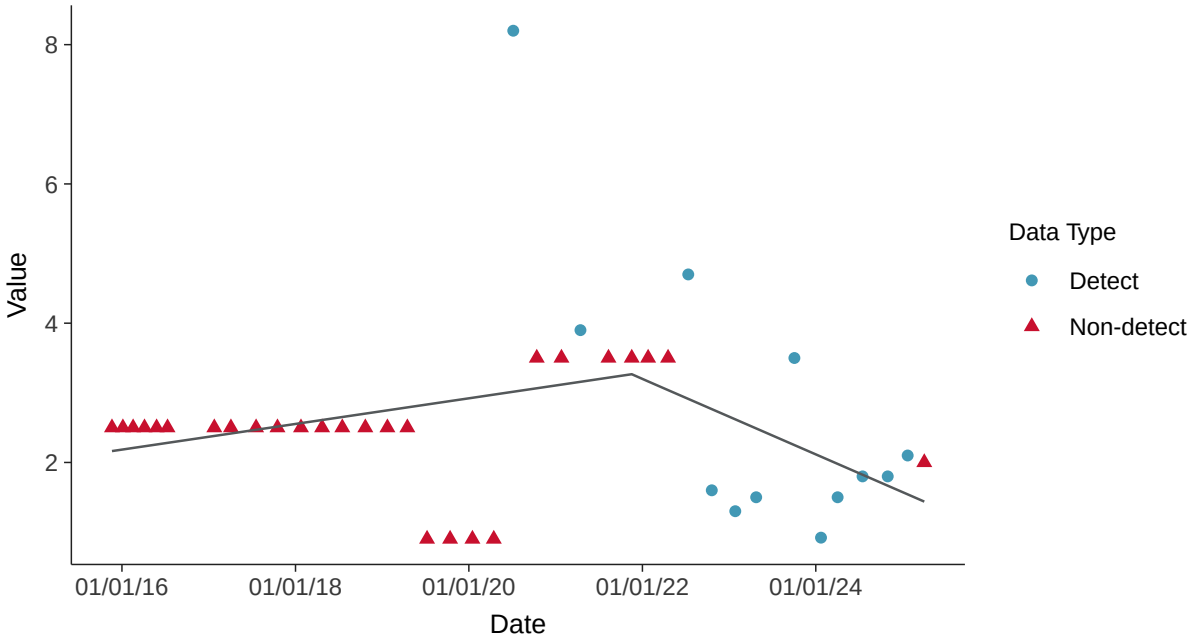
Gamma Q-Q plot using ROS Imputed Estimates

Nickel, MW-6 (ug/L)



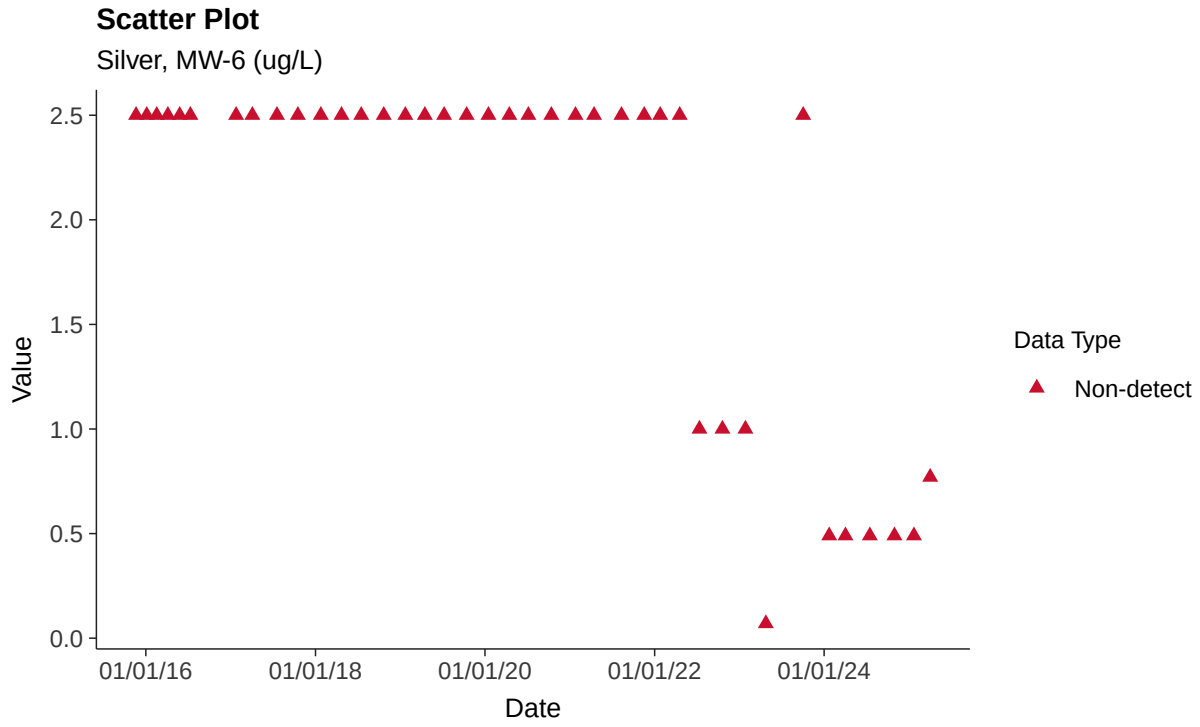
Trend Regression: Piecewise Linear-Linear

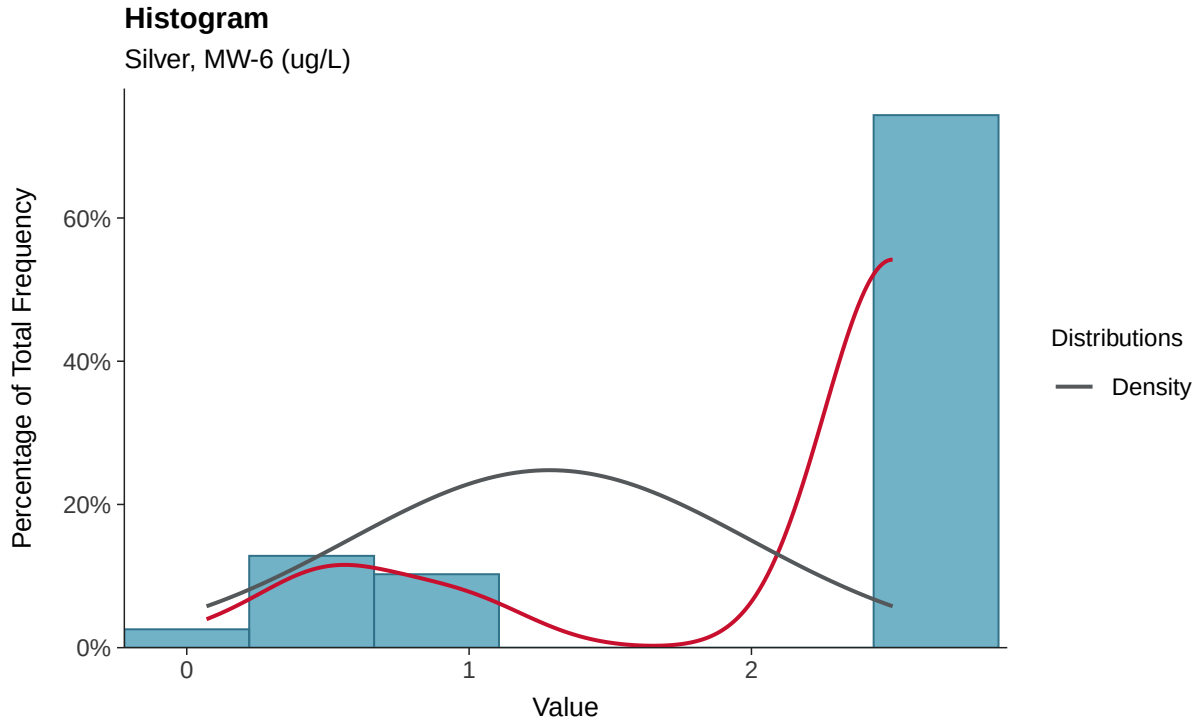
Nickel, MW-6 (ug/L)



App. I Metals: Silver, MW-6

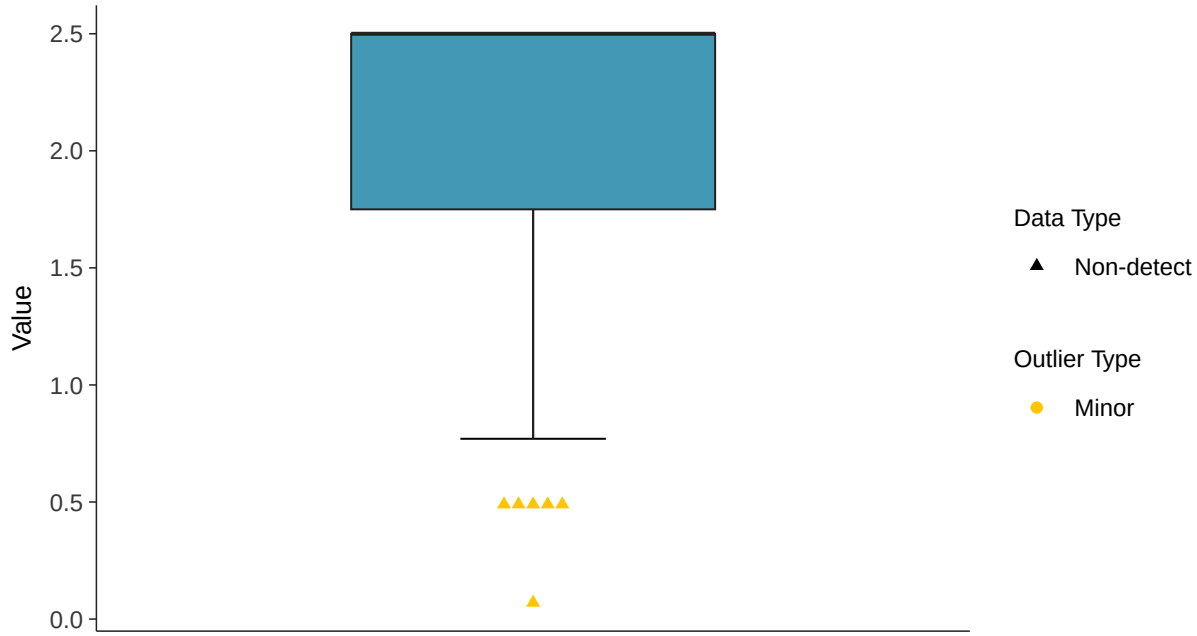
ID: 06_01_122





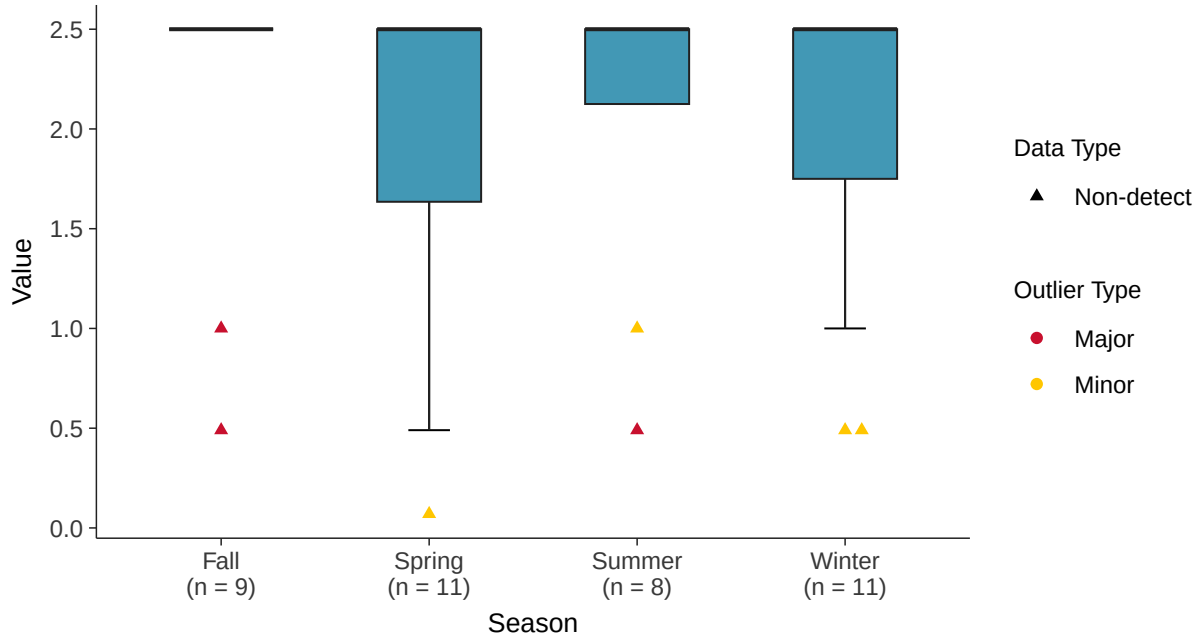
Boxplot

Silver, MW-6 (ug/L)



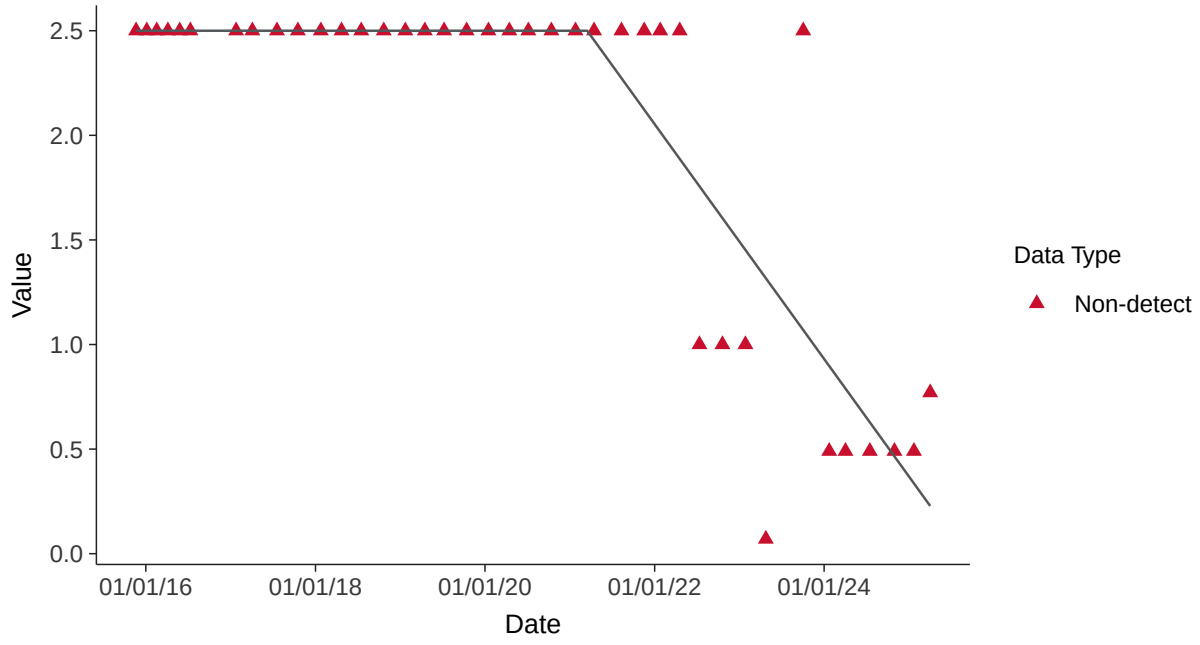
Boxplot by Season

Silver, MW-6 (ug/L)



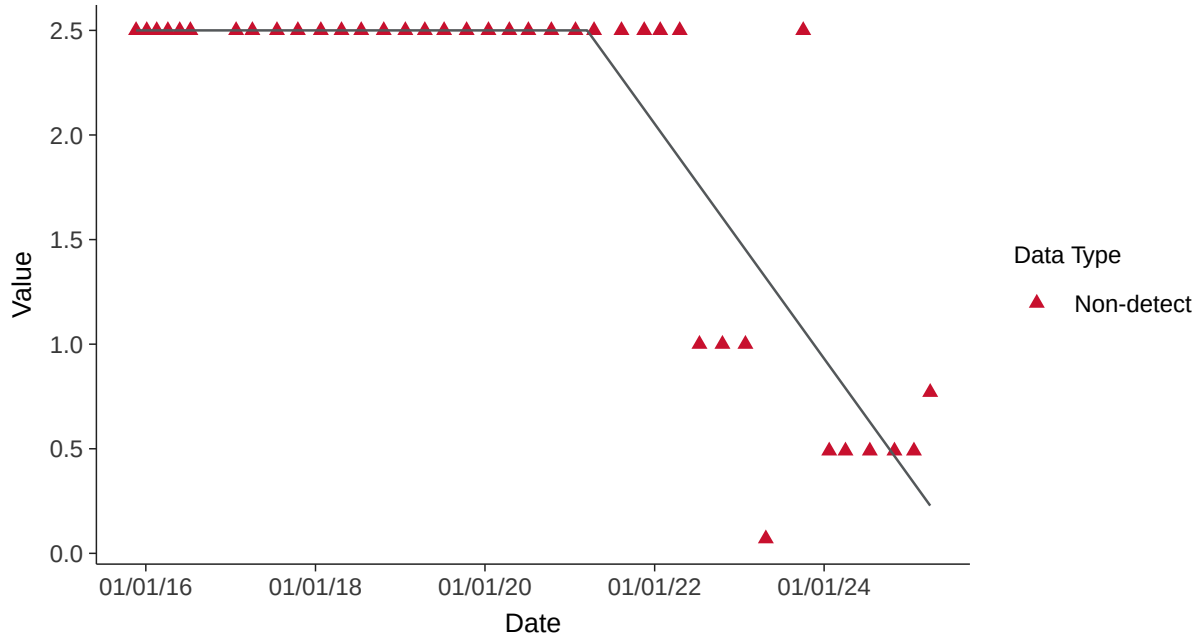
Trend Regression: Piecewise Linear-Linear

Silver, MW-6 (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Silver, MW-6 (ug/L)

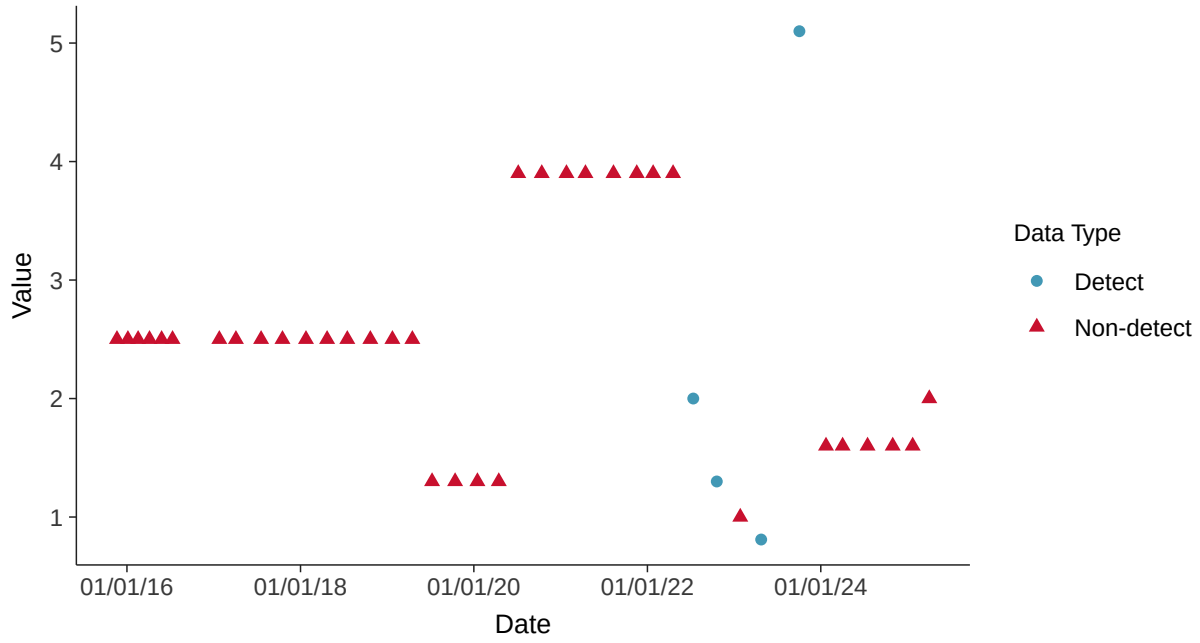


App. I Metals: Vanadium, MW-6

ID: 06_01_127

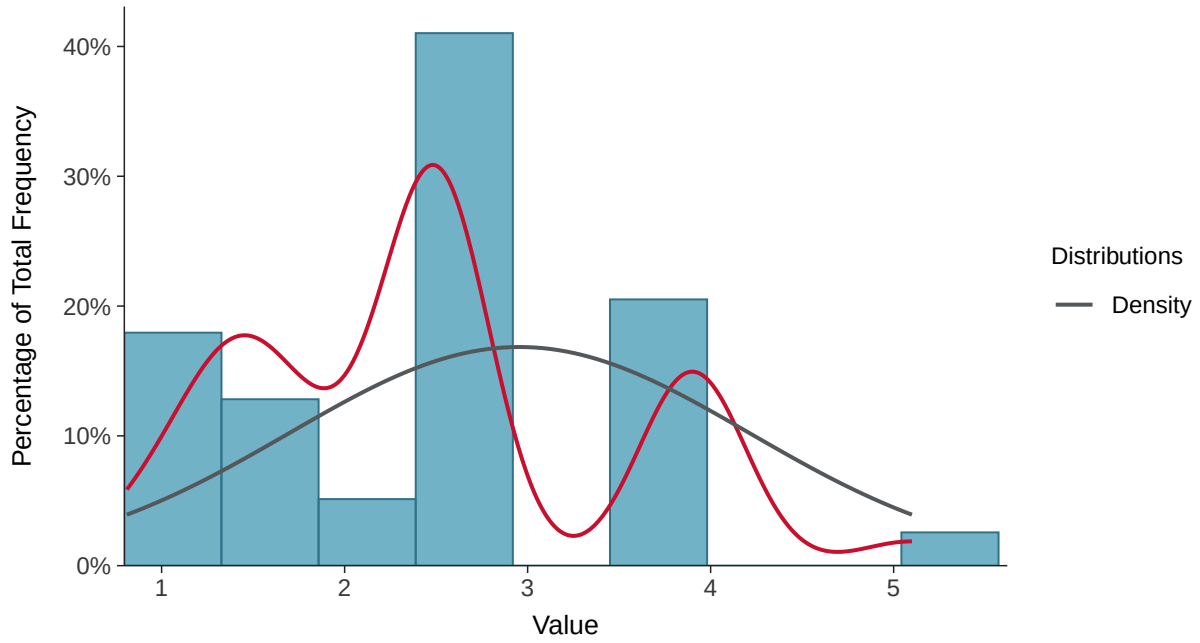
Scatter Plot

Vanadium, MW-6 (ug/L)



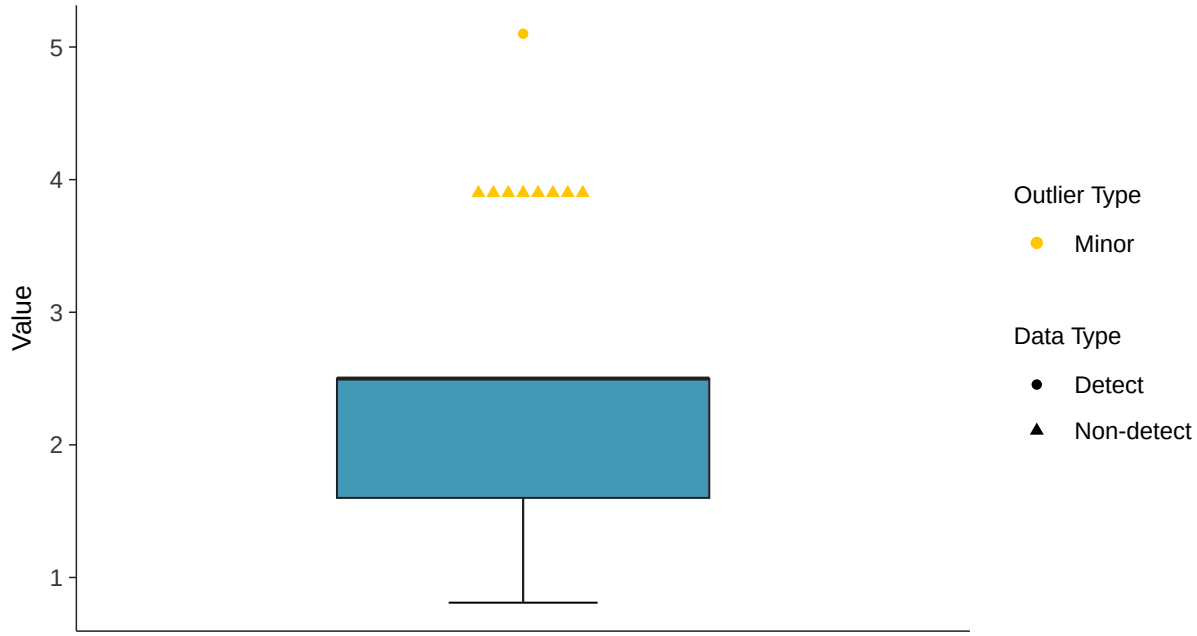
Histogram

Vanadium, MW-6 (ug/L)



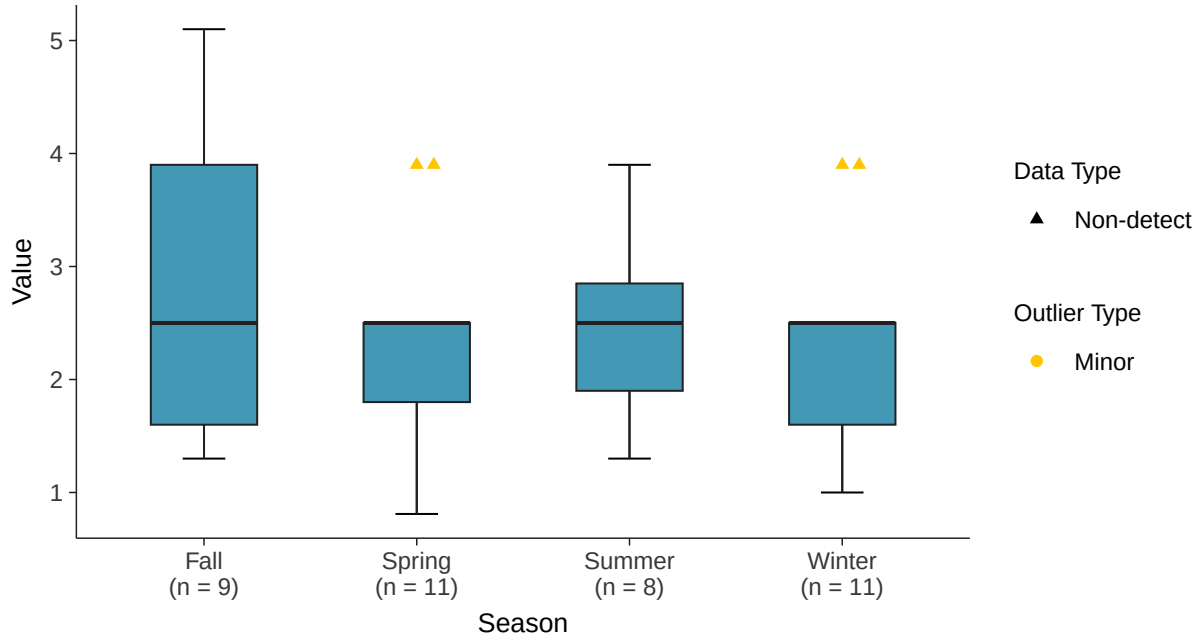
Boxplot

Vanadium, MW-6 (ug/L)



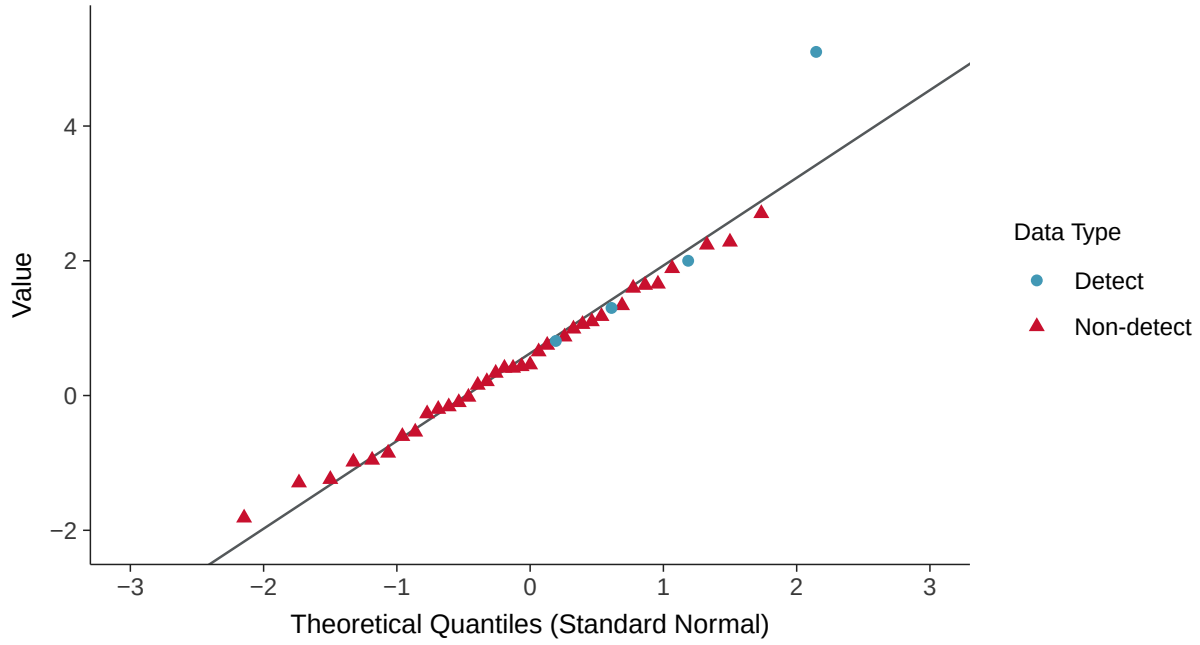
Boxplot by Season

Vanadium, MW-6 (ug/L)



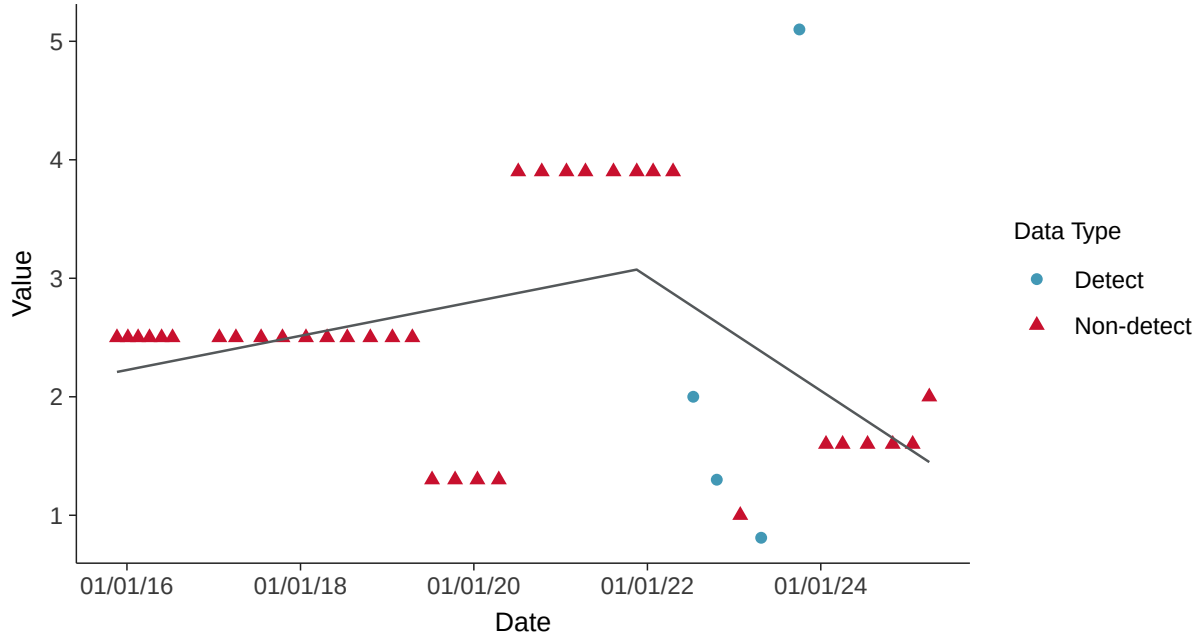
Normal Q-Q plot using ROS Imputed Estimates

Vanadium, MW-6 (ug/L)



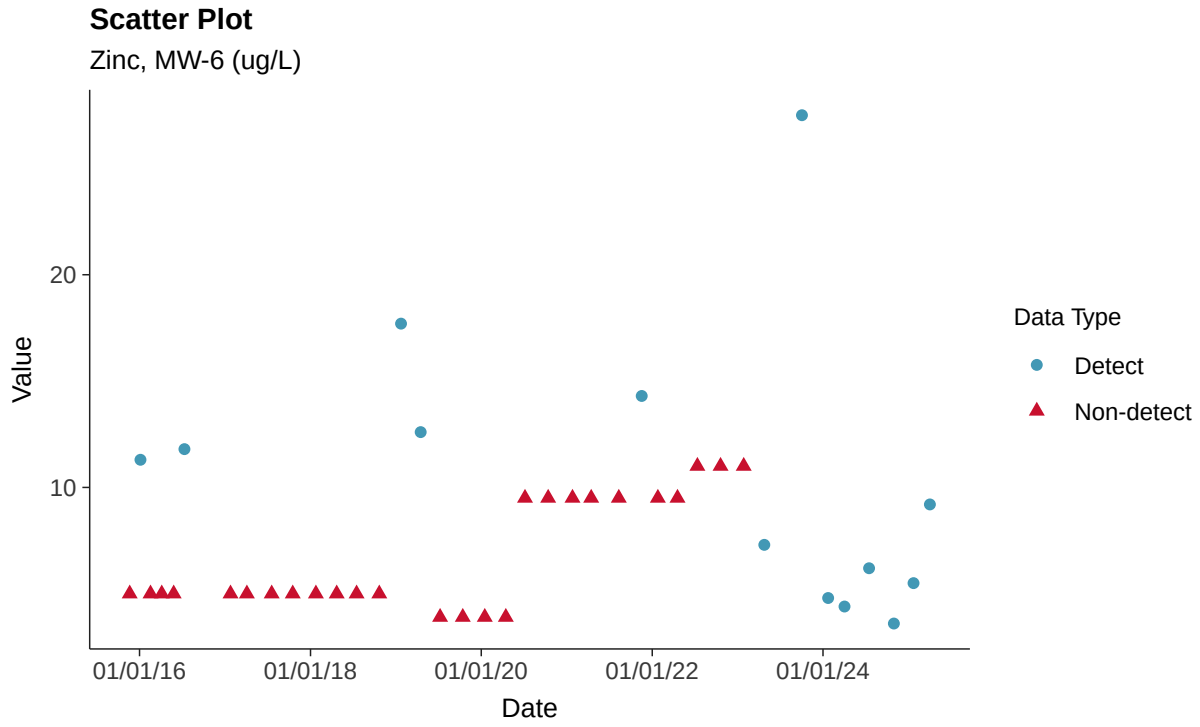
Trend Regression: Piecewise Linear-Linear

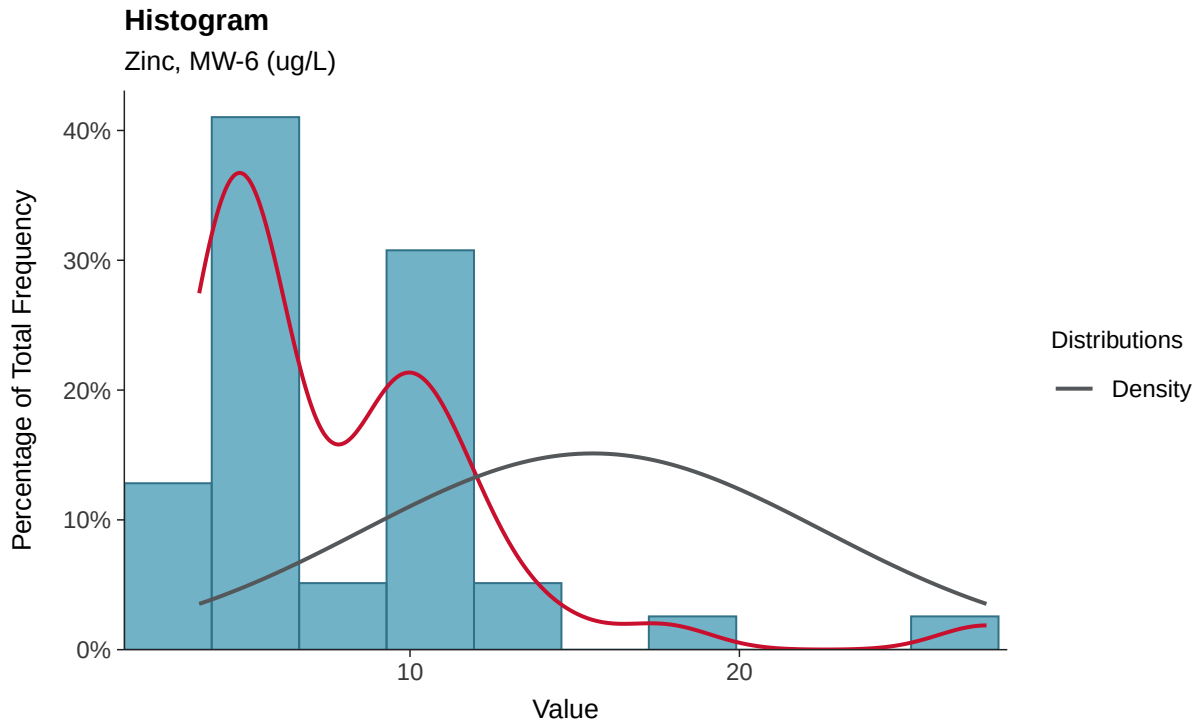
Vanadium, MW-6 (ug/L)



App. I Metals: Zinc, MW-6

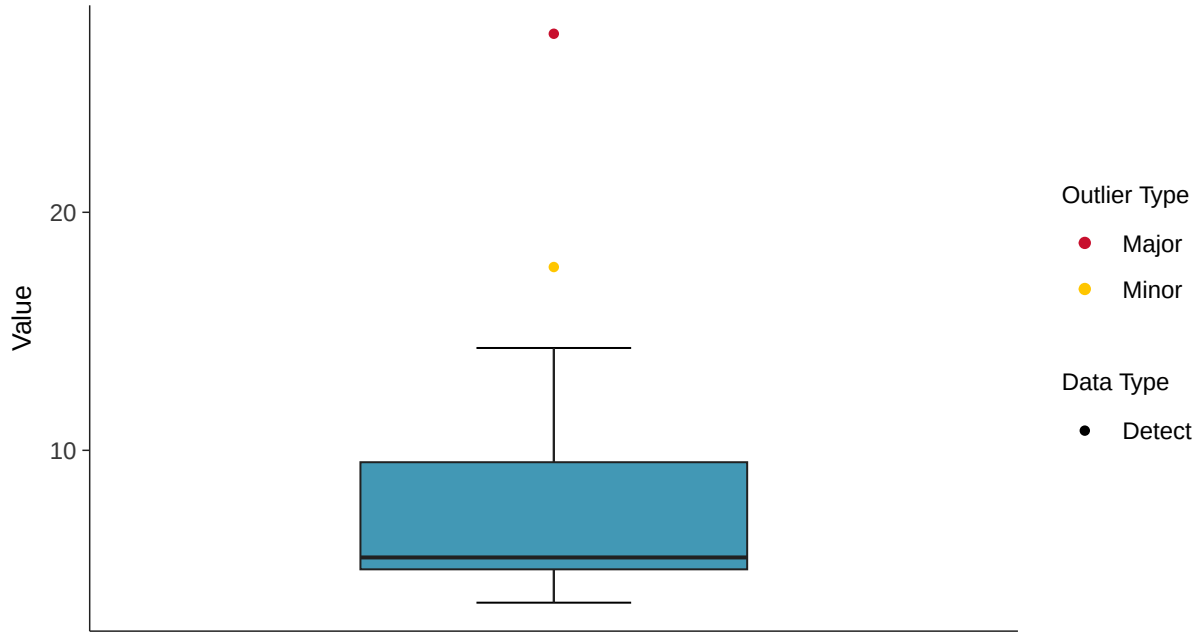
ID: 06_01_128





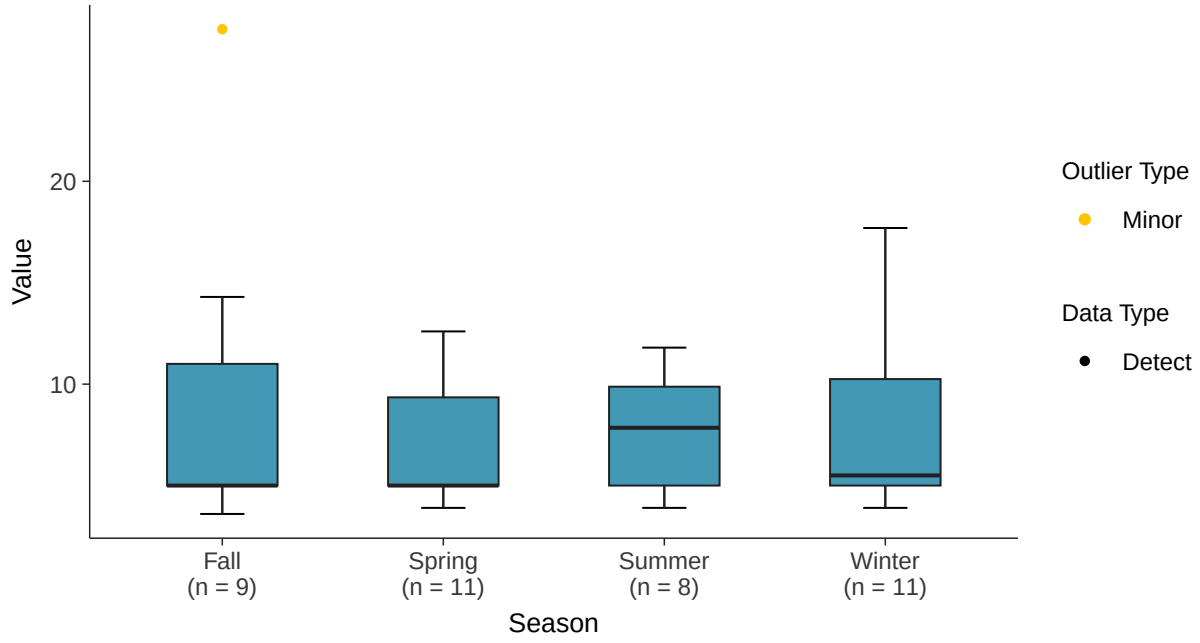
Boxplot

Zinc, MW-6 (ug/L)



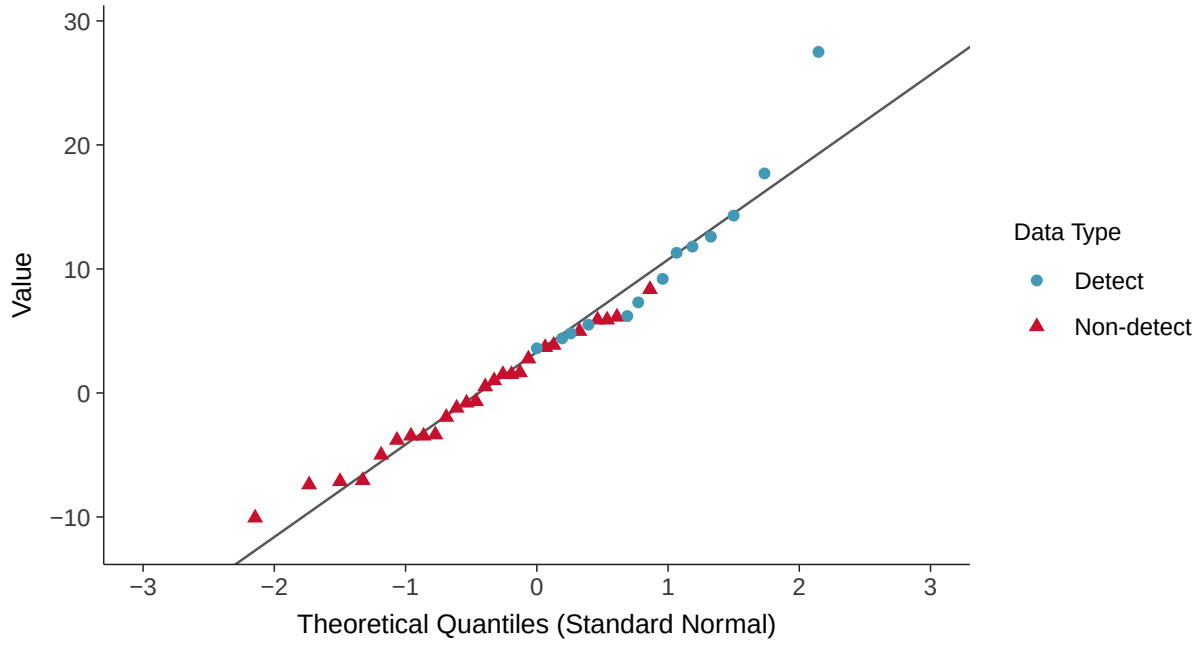
Boxplot by Season

Zinc, MW-6 (ug/L)



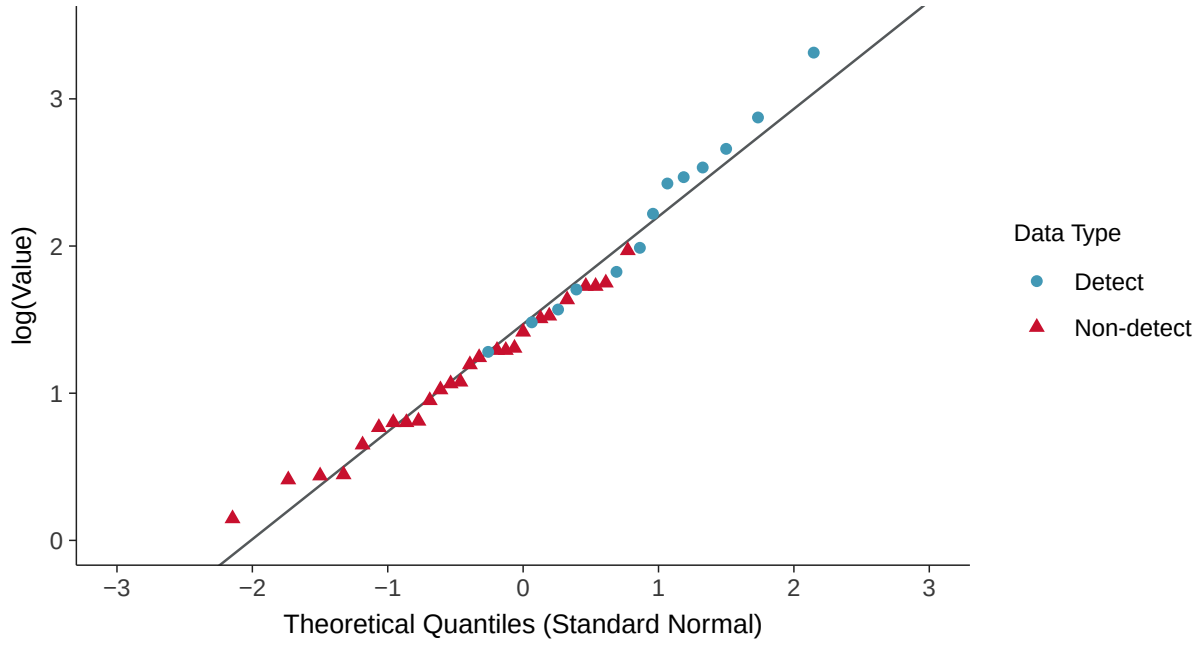
Normal Q-Q plot using ROS Imputed Estimates

Zinc, MW-6 (ug/L)



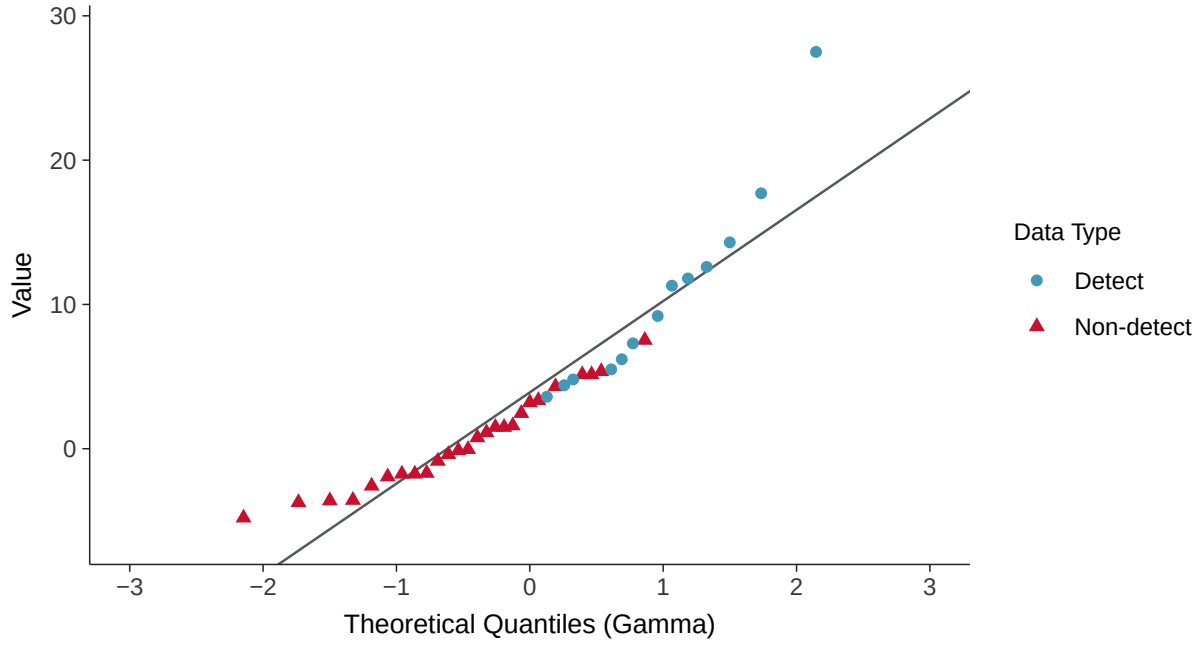
Lognormal Q-Q plot using ROS Imputed Estimates

Zinc, MW-6 (ug/L)



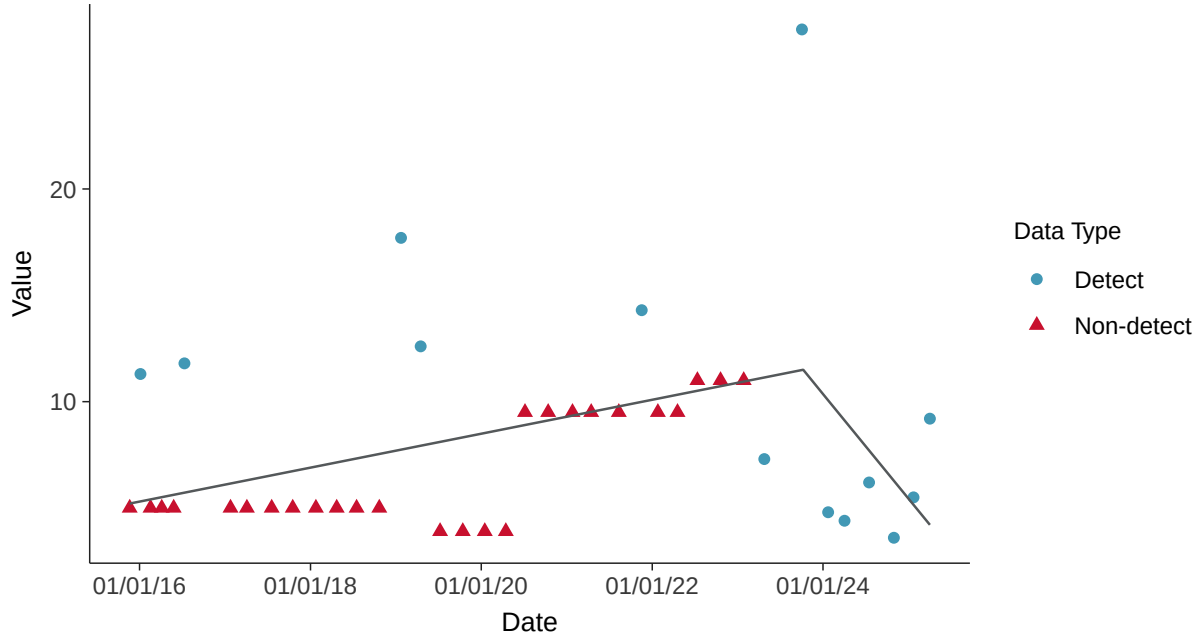
Gamma Q-Q plot using ROS Imputed Estimates

Zinc, MW-6 (ug/L)



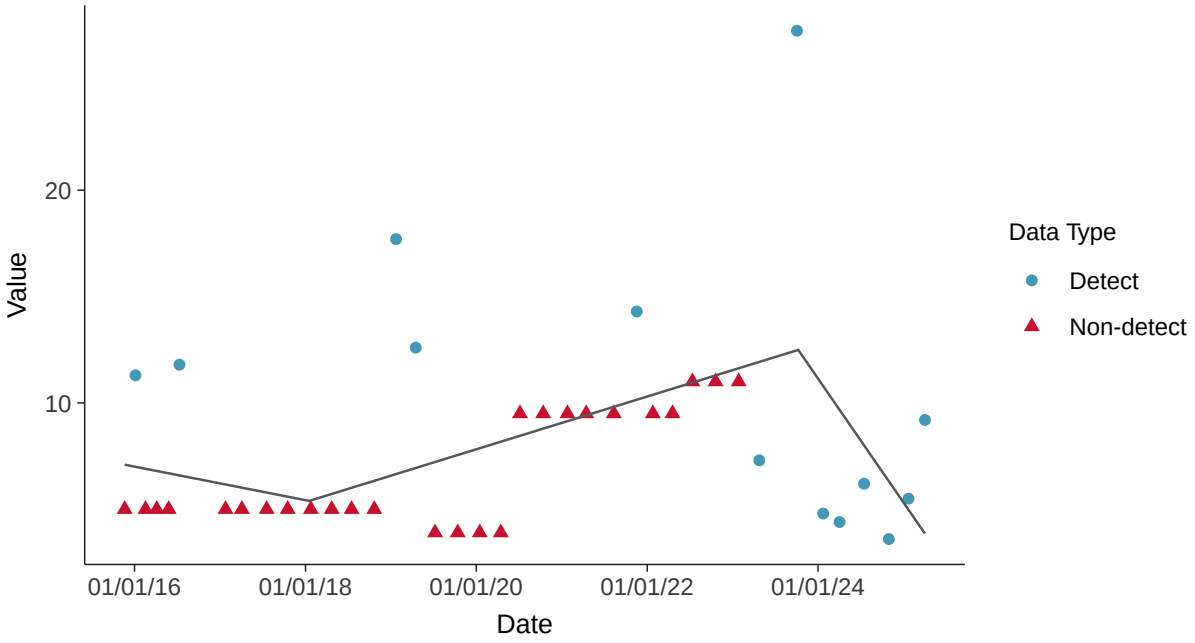
Trend Regression: Piecewise Linear-Linear

Zinc, MW-6 (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Zinc, MW-6 (ug/L)

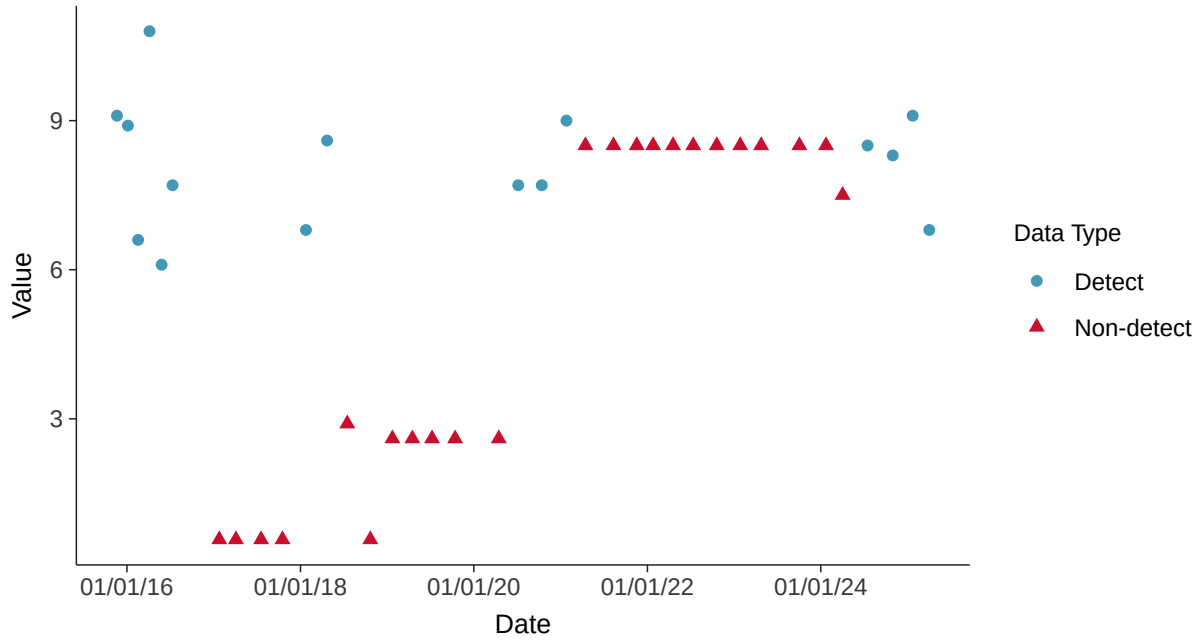


App. III: Boron, MW-6

ID: 06_02_105

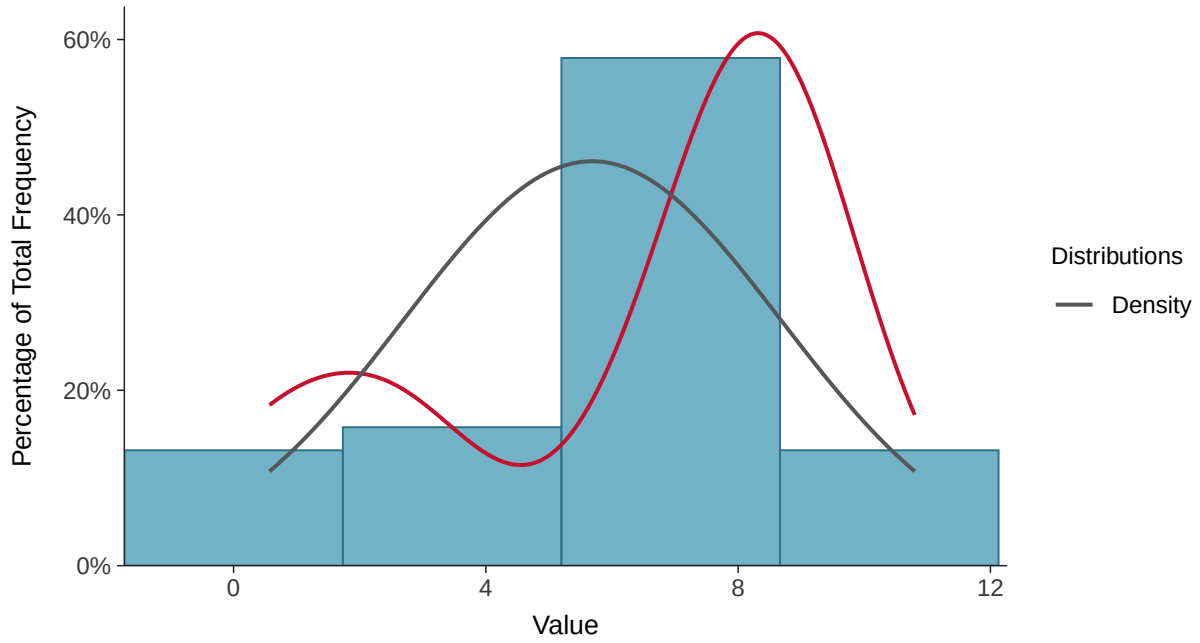
Scatter Plot

Boron, MW-6 (ug/L)



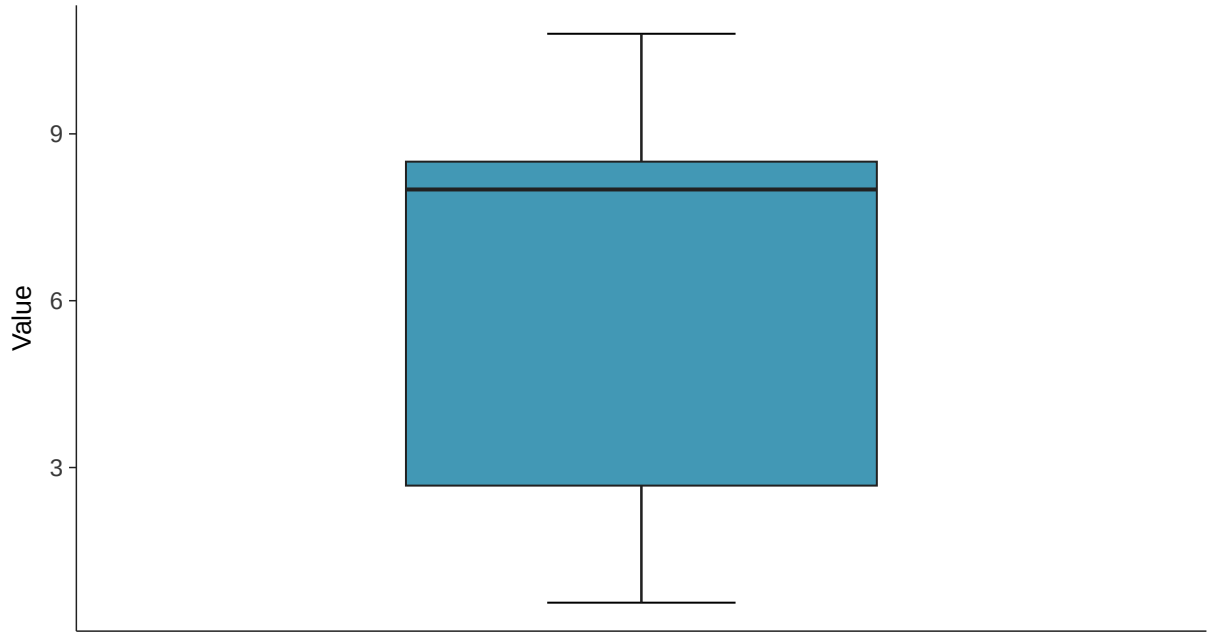
Histogram

Boron, MW-6 (ug/L)



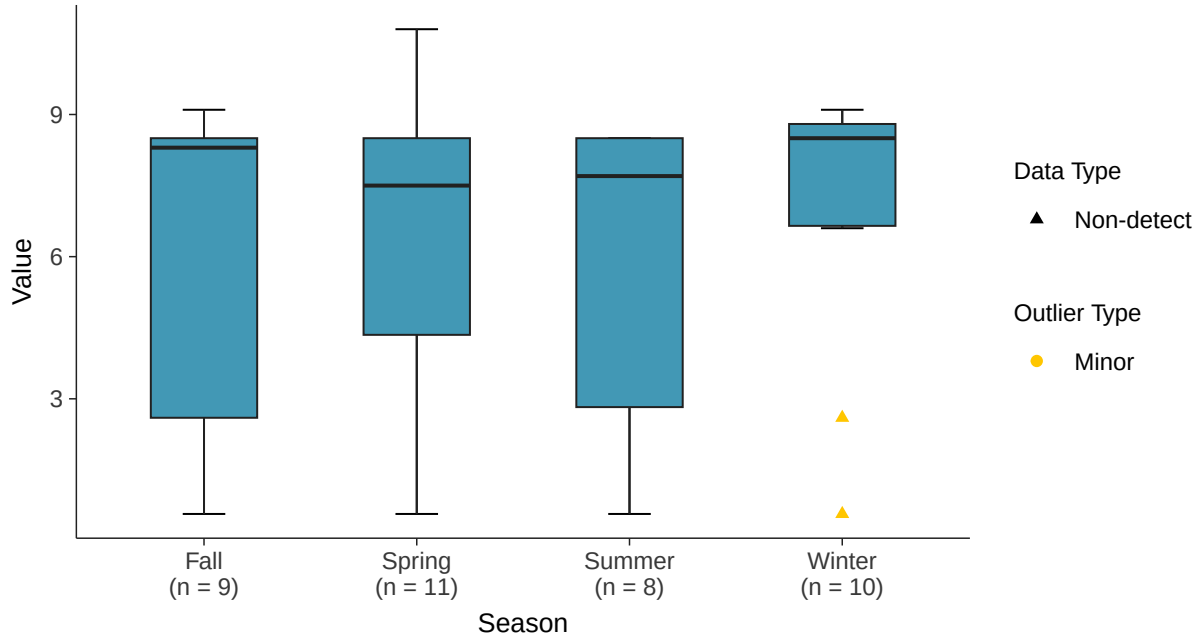
Boxplot

Boron, MW-6 (ug/L)



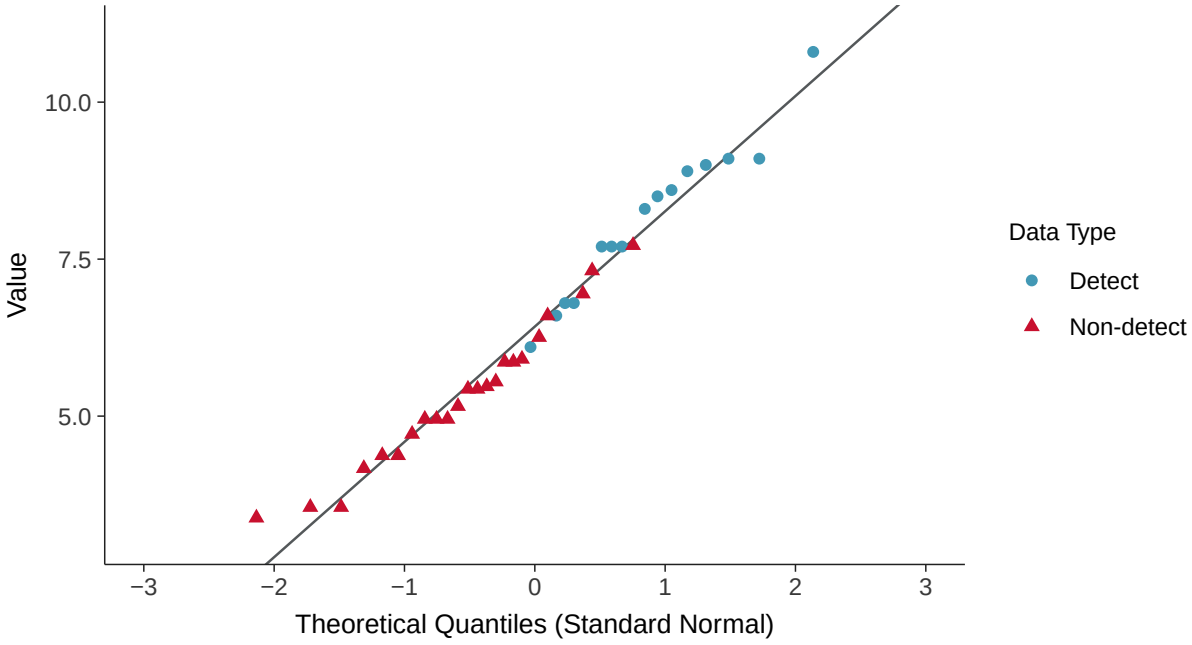
Boxplot by Season

Boron, MW-6 (ug/L)



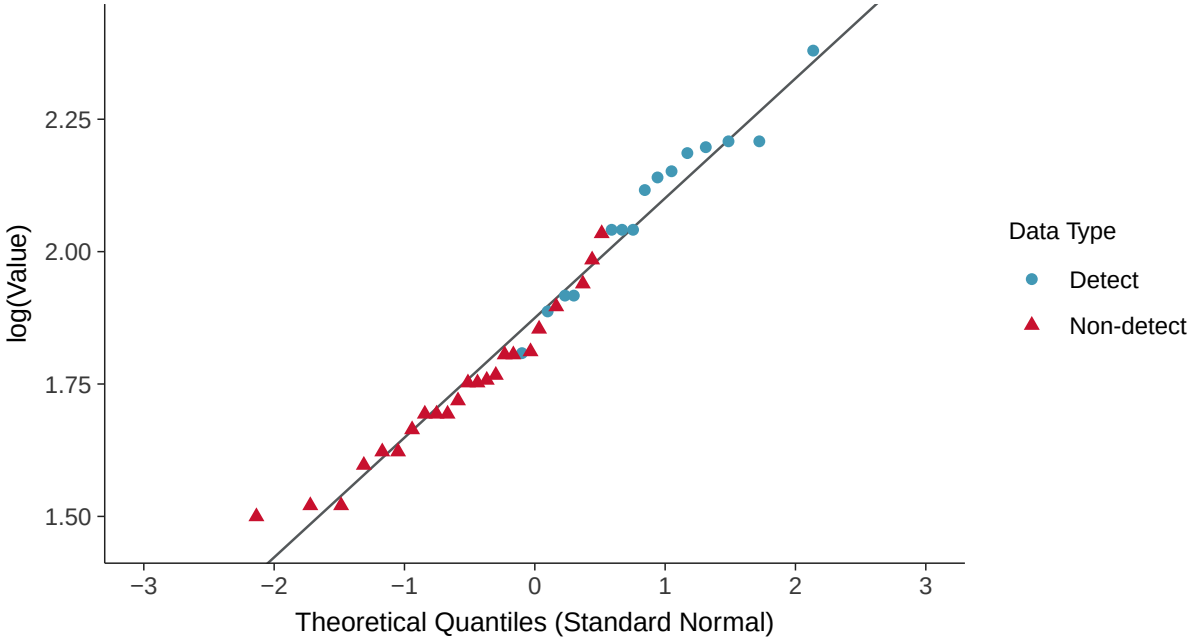
Normal Q-Q plot using ROS Imputed Estimates

Boron, MW-6 (ug/L)



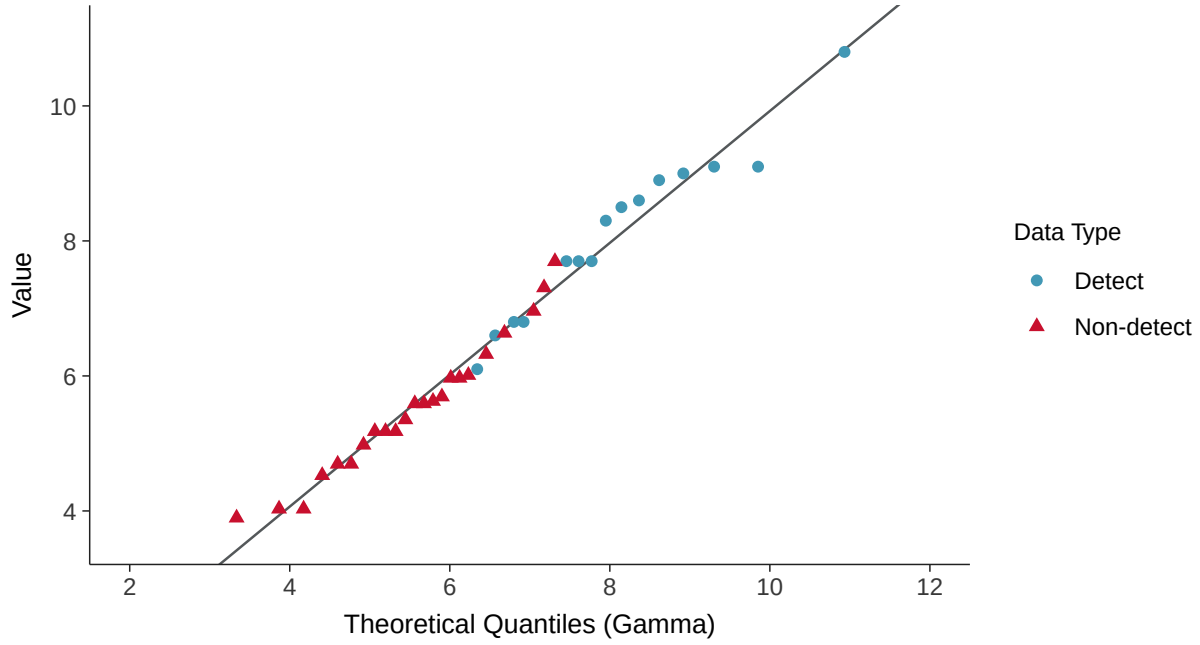
Lognormal Q-Q plot using ROS Imputed Estimates

Boron, MW-6 (ug/L)



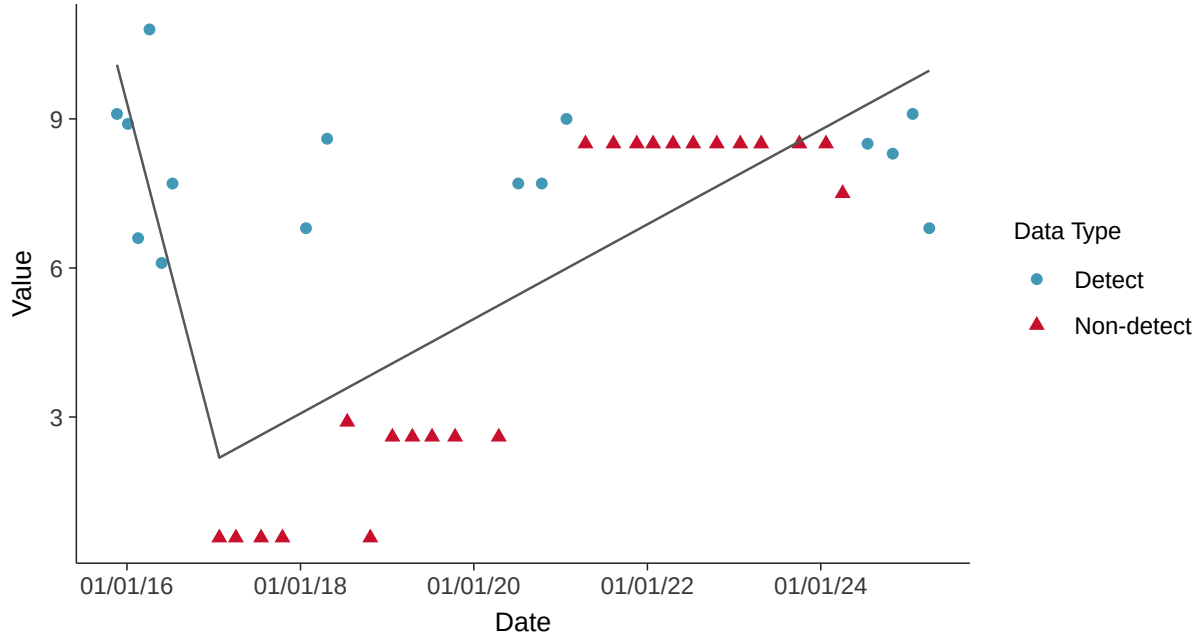
Gamma Q-Q plot using ROS Imputed Estimates

Boron, MW-6 (ug/L)



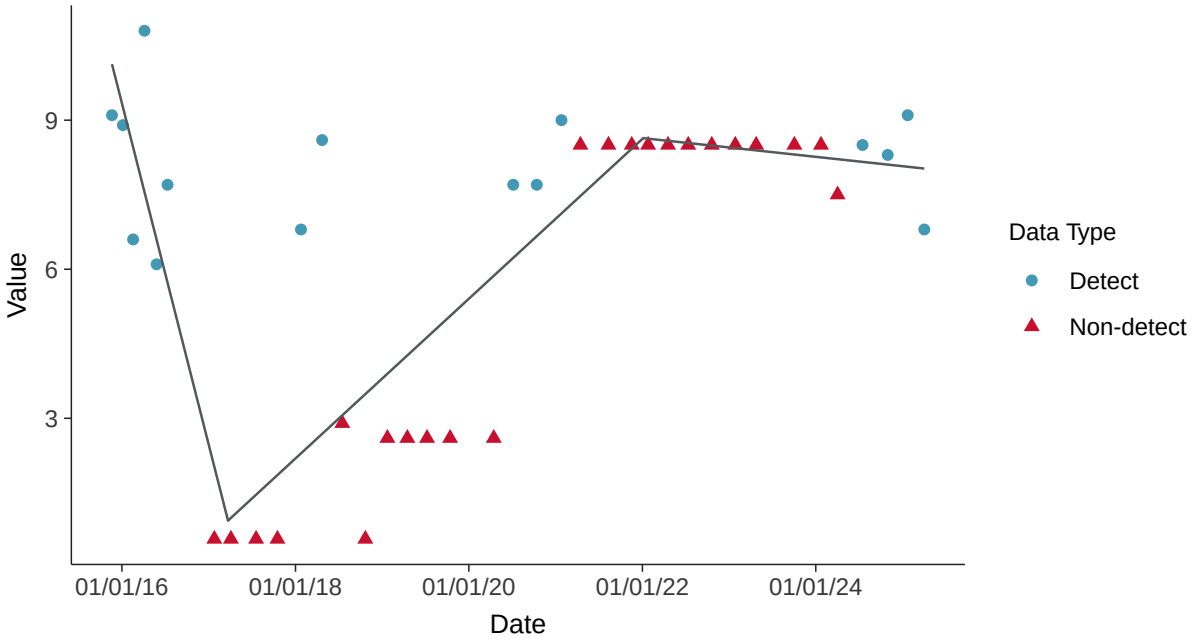
Trend Regression: Piecewise Linear-Linear

Boron, MW-6 (ug/L)



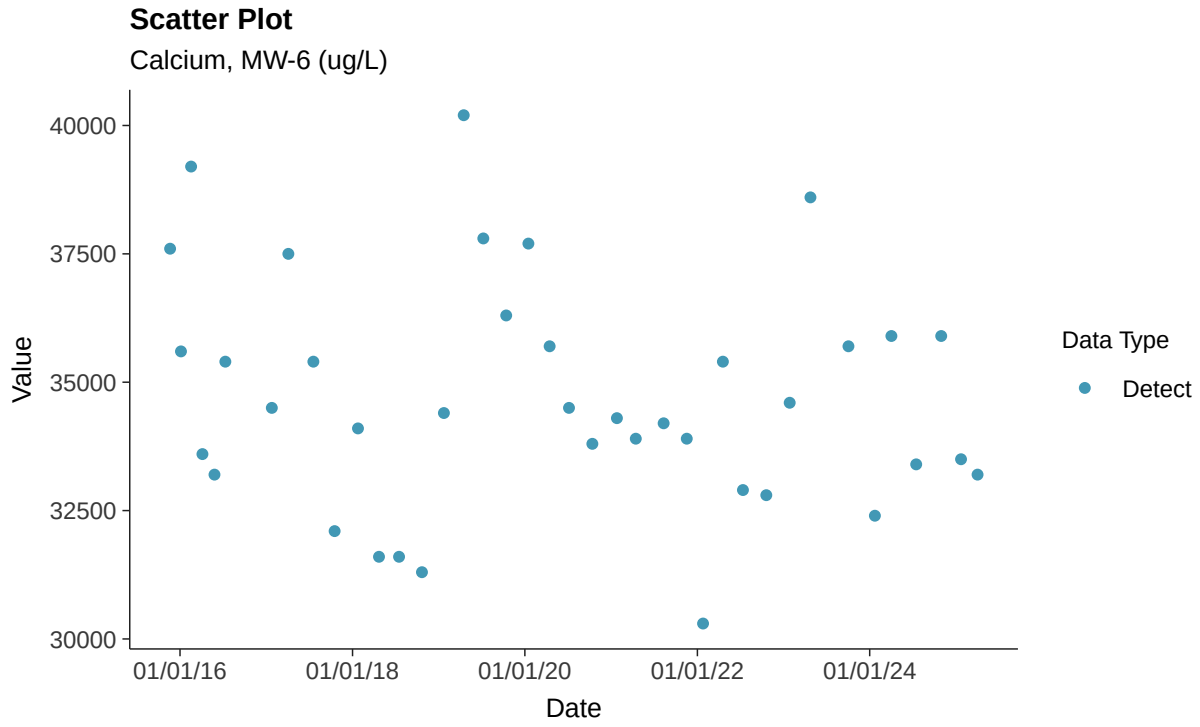
Trend Regression: Piecewise Linear-Linear-Linear

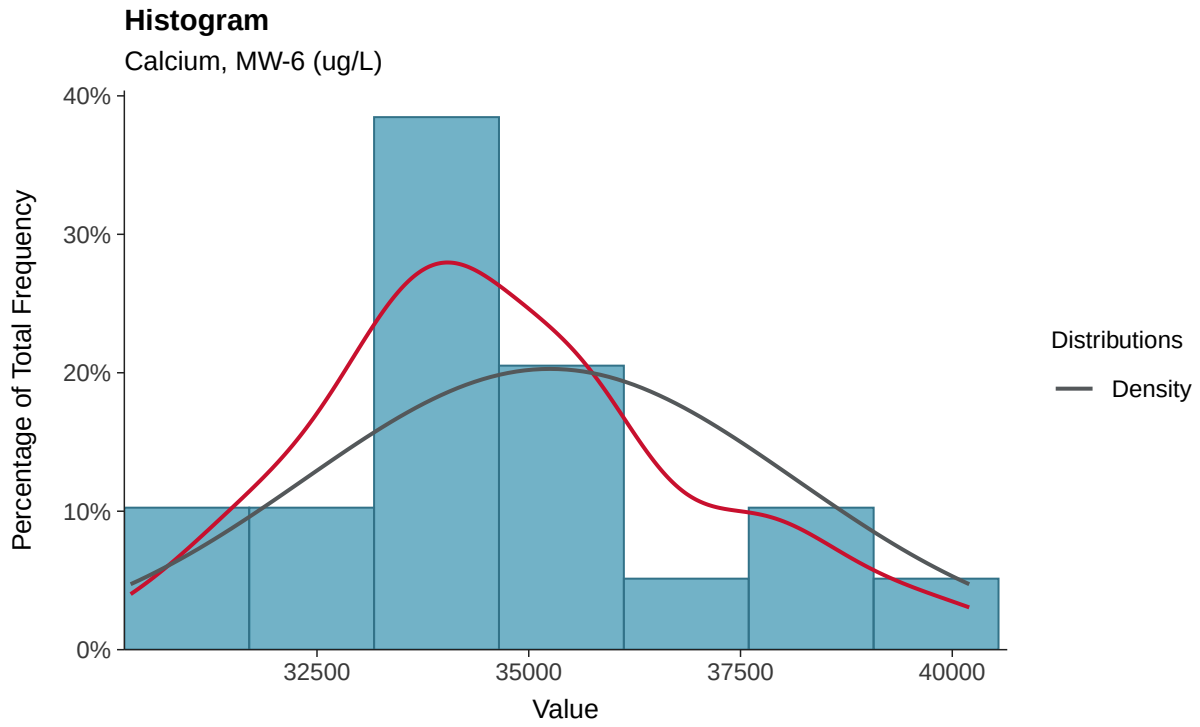
Boron, MW-6 (ug/L)



App. III: Calcium, MW-6

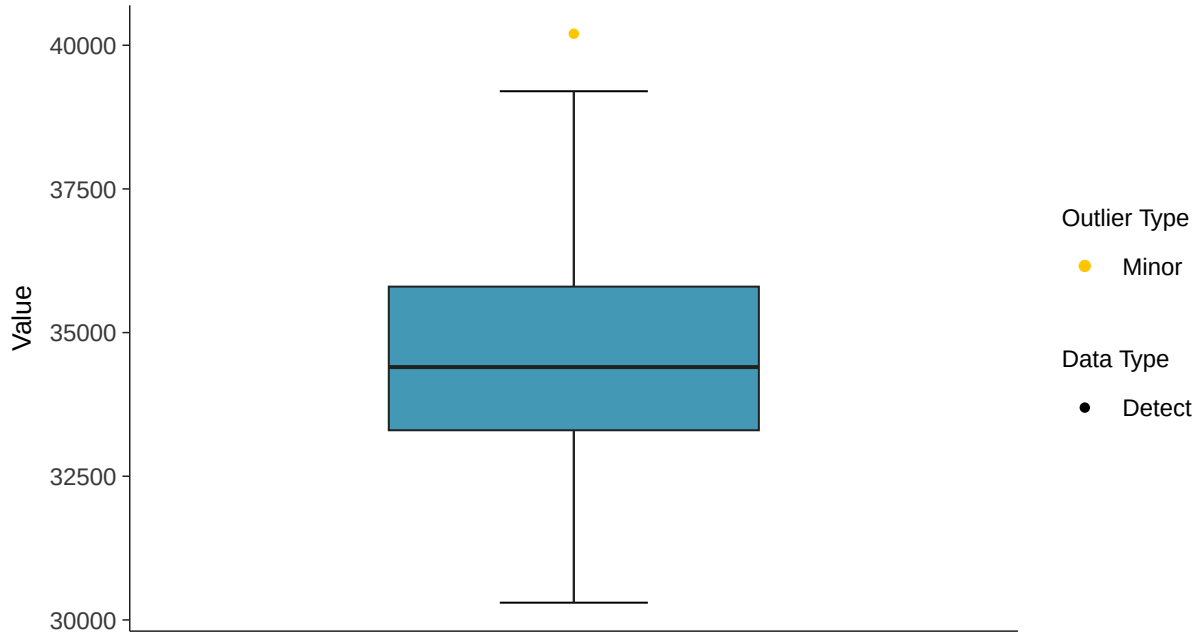
ID: 06_02_107





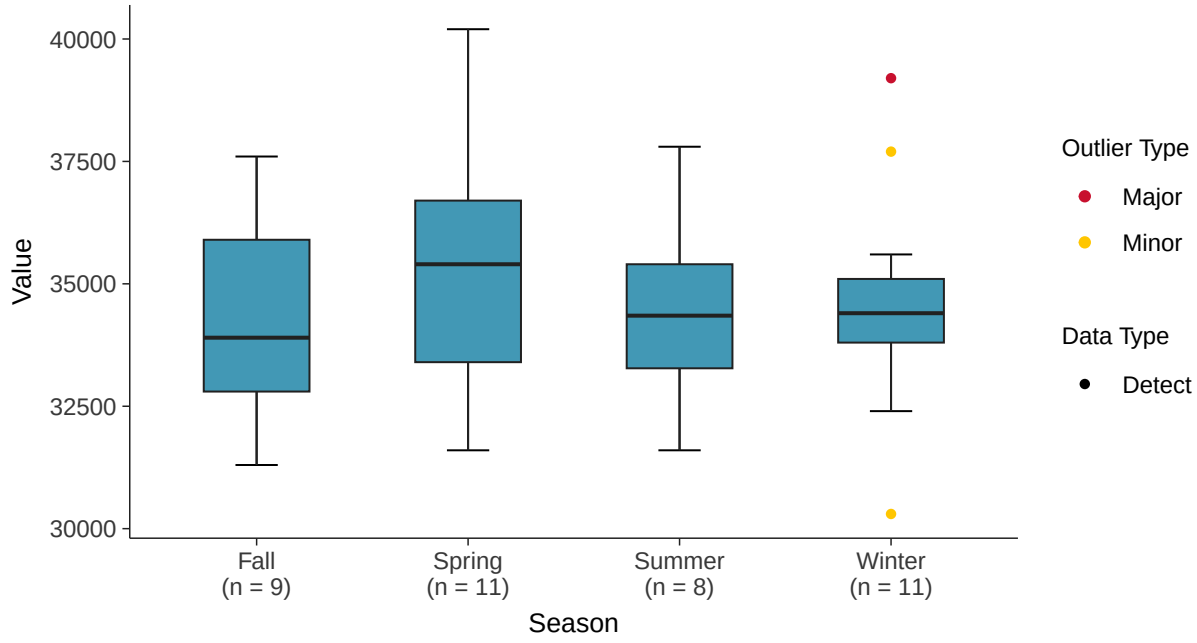
Boxplot

Calcium, MW-6 (ug/L)



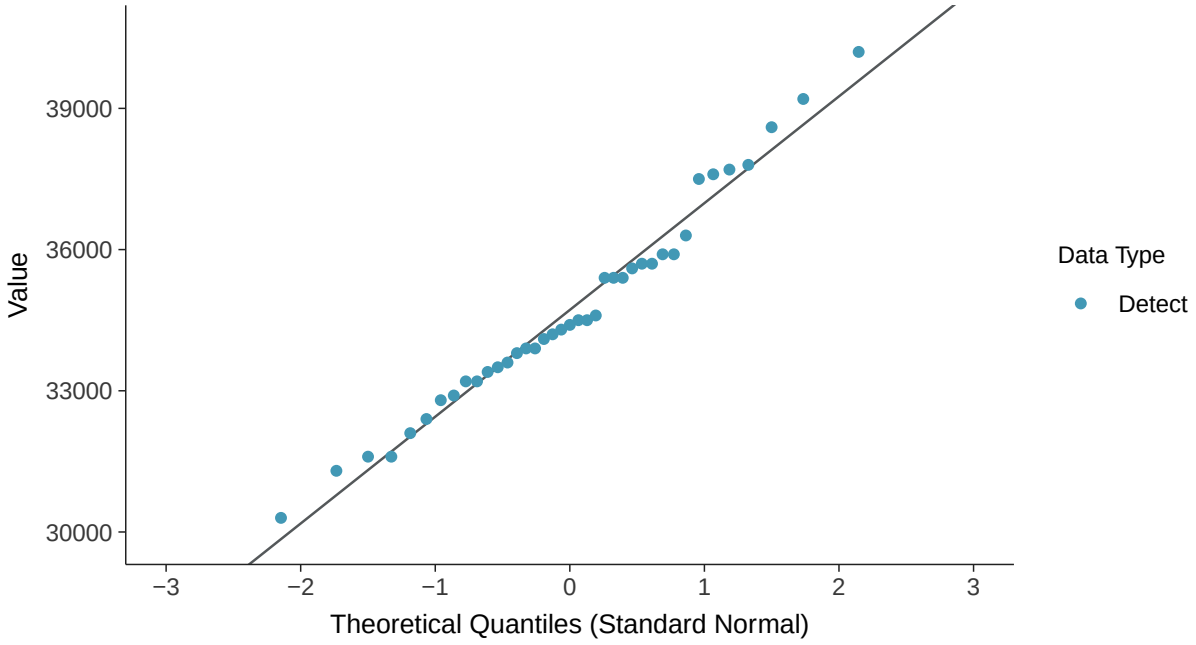
Boxplot by Season

Calcium, MW-6 (ug/L)



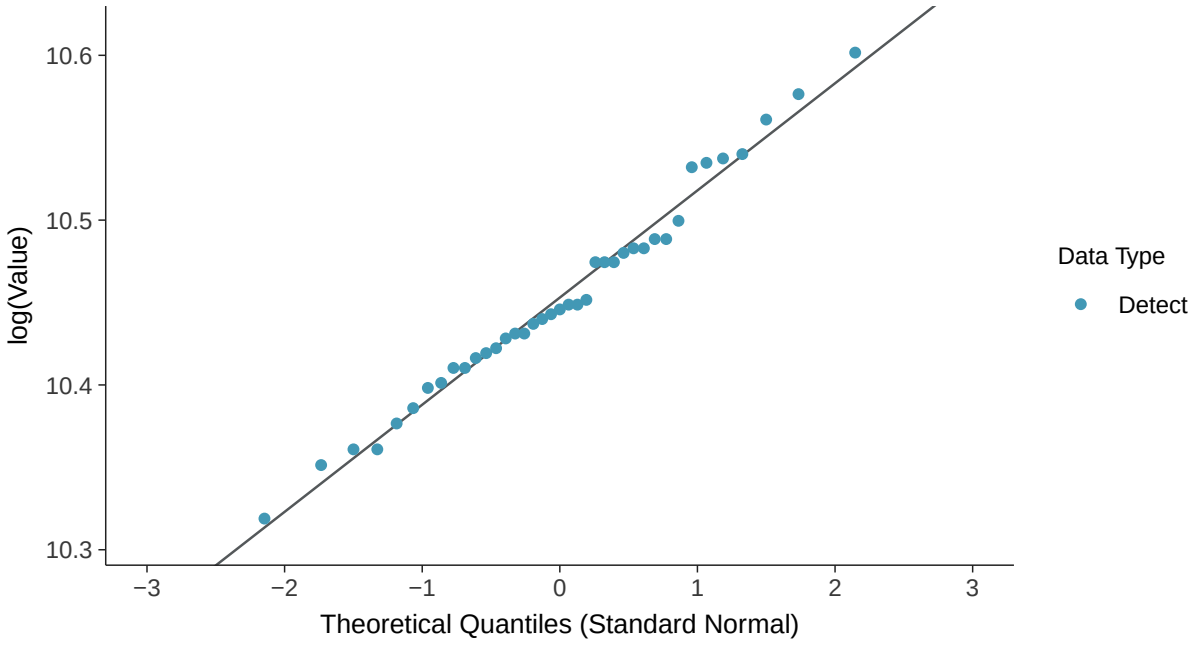
Normal Q-Q plot

Calcium, MW-6 (ug/L)



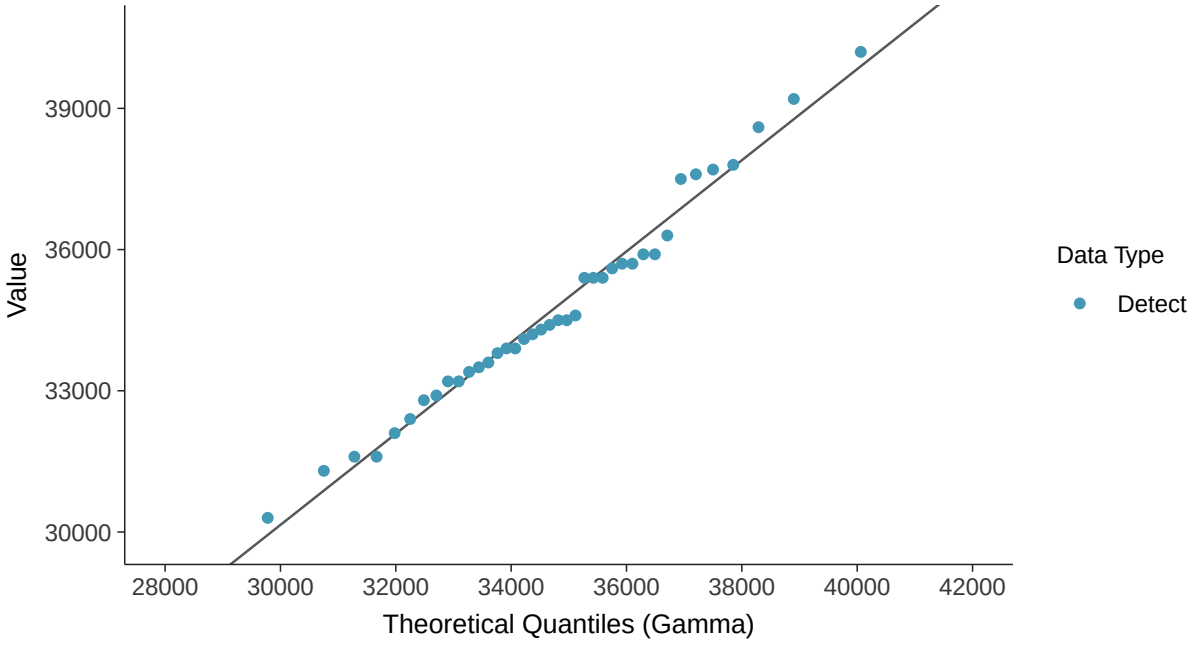
Lognormal Q-Q plot

Calcium, MW-6 (ug/L)



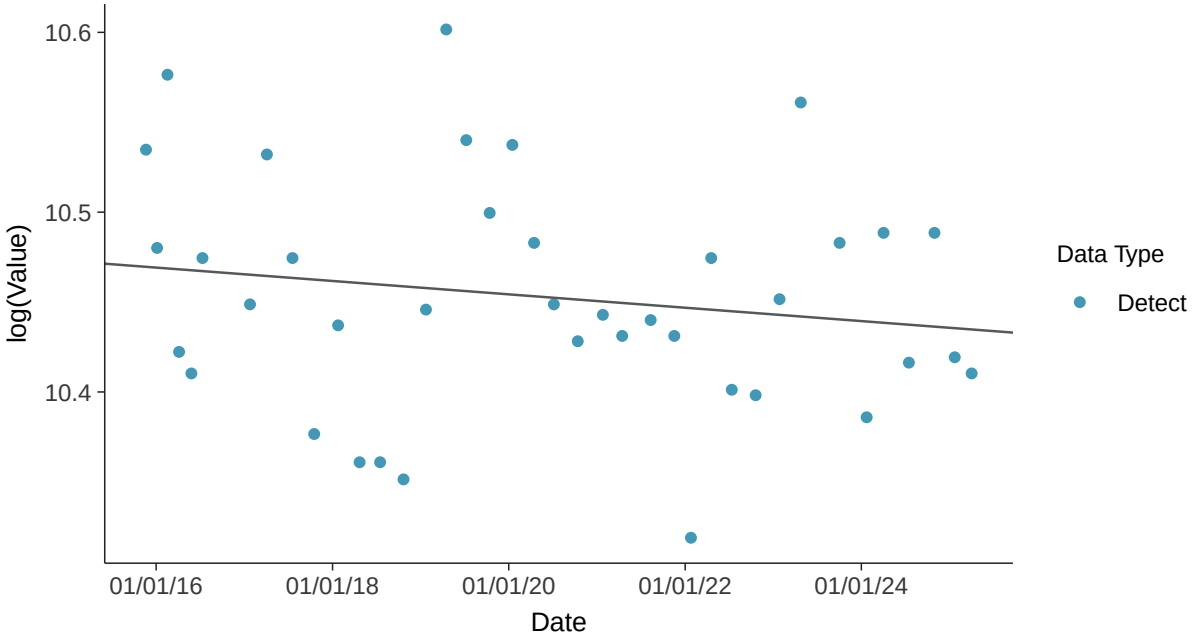
Gamma Q-Q plot

Calcium, MW-6 (ug/L)



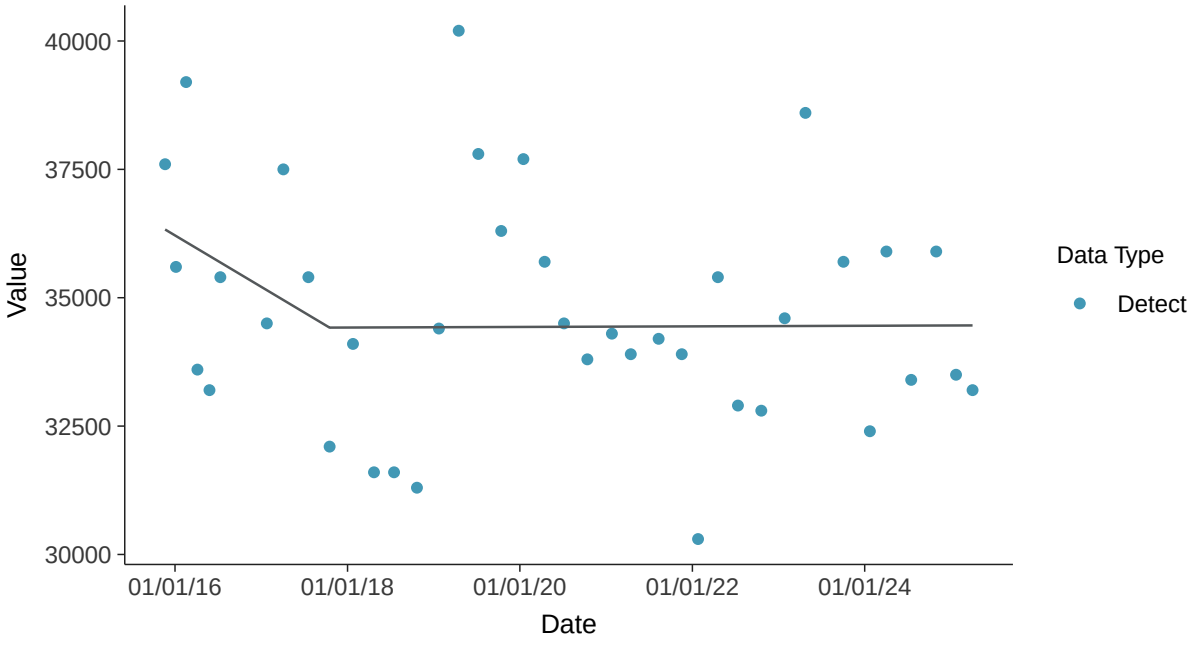
Trend Regression: Lognormal MLE

Calcium, MW-6 (ug/L)



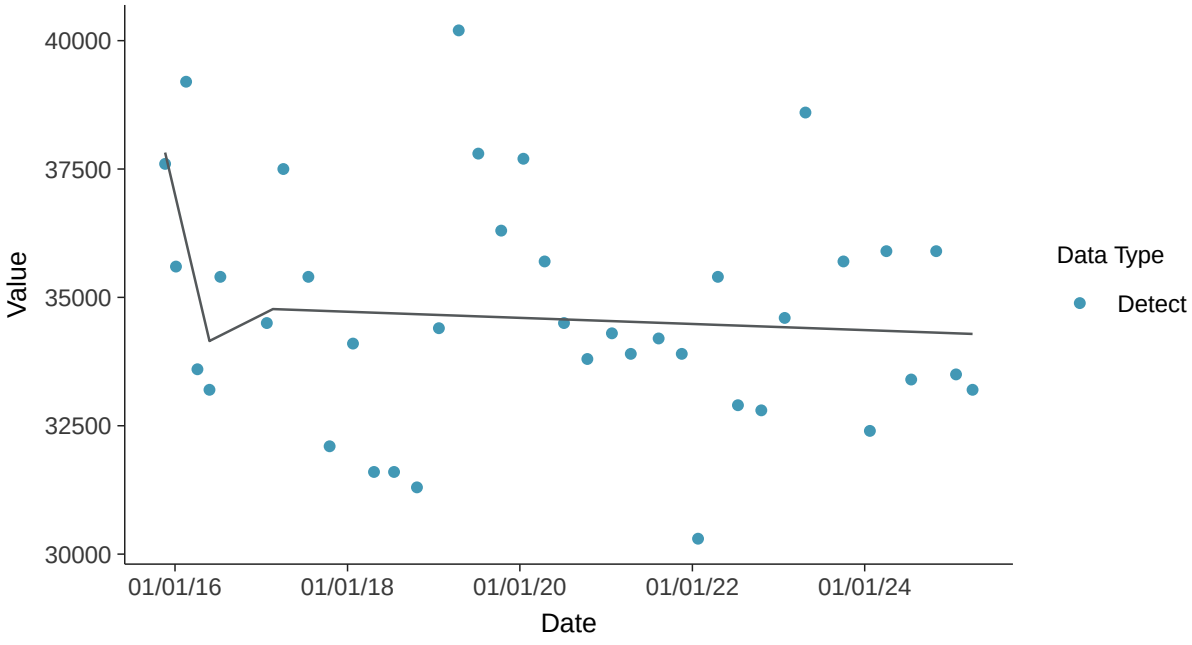
Trend Regression: Piecewise Linear-Linear

Calcium, MW-6 (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Calcium, MW-6 (ug/L)

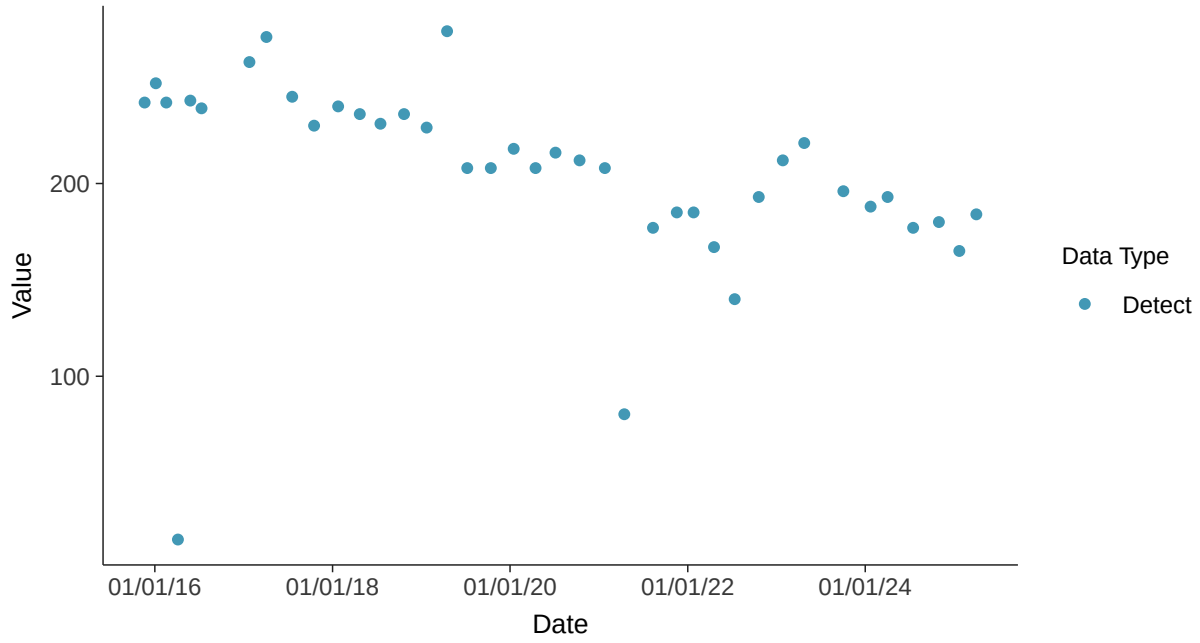


App. III: Chloride, MW-6

ID: 06_02_108

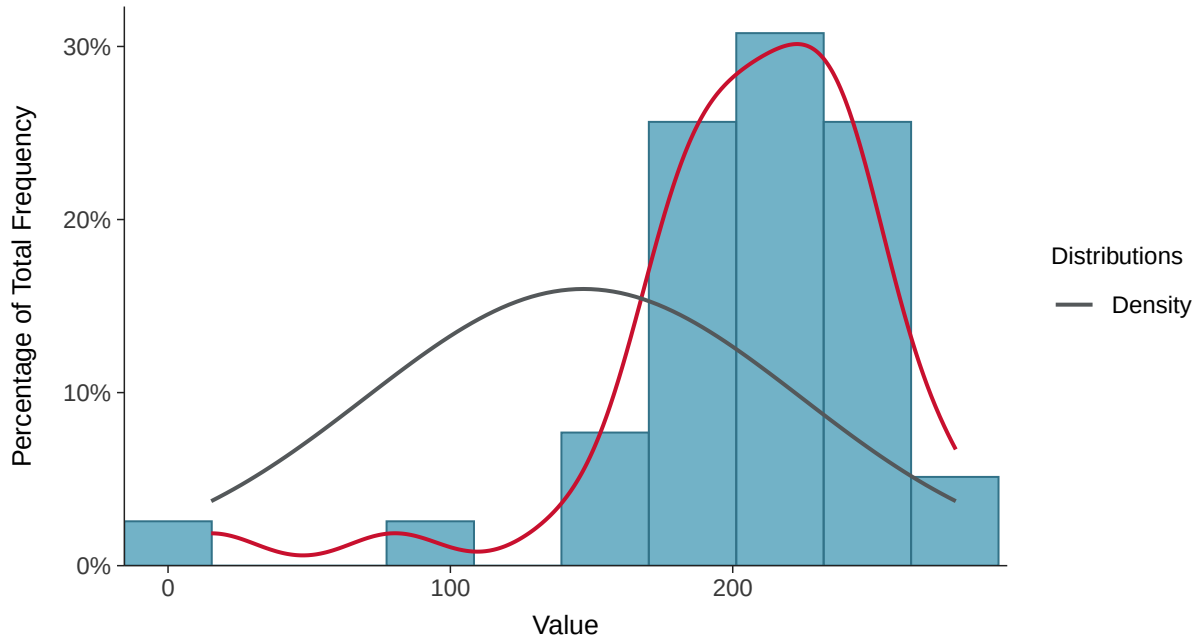
Scatter Plot

Chloride, MW-6 (mg/L)



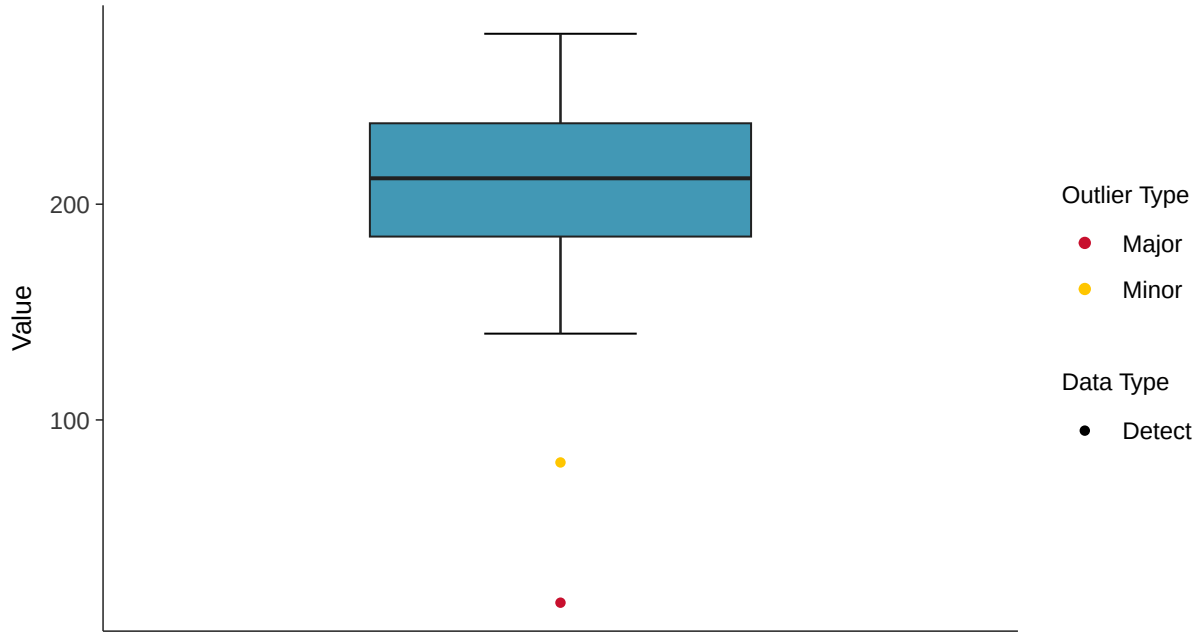
Histogram

Chloride, MW-6 (mg/L)



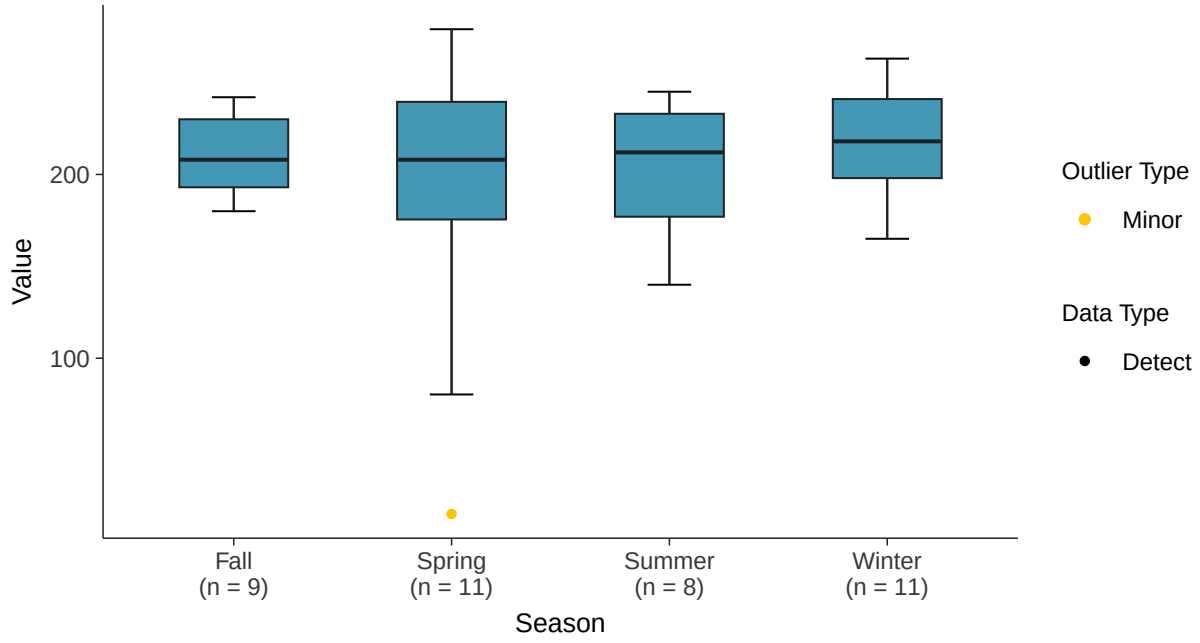
Boxplot

Chloride, MW-6 (mg/L)



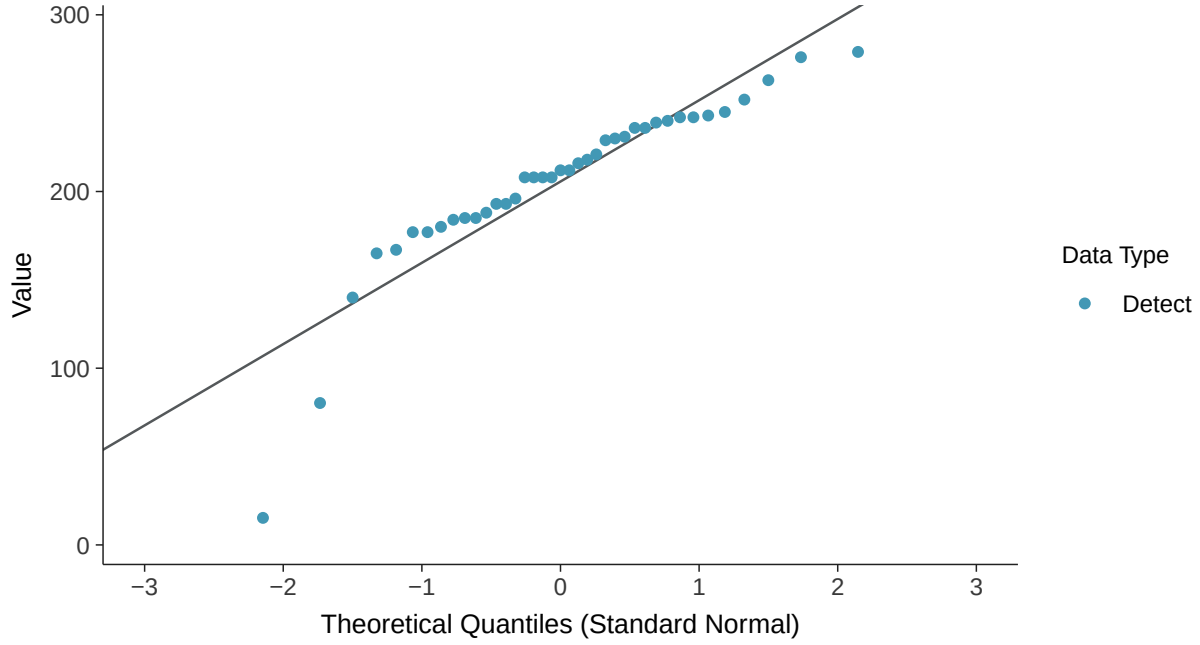
Boxplot by Season

Chloride, MW-6 (mg/L)



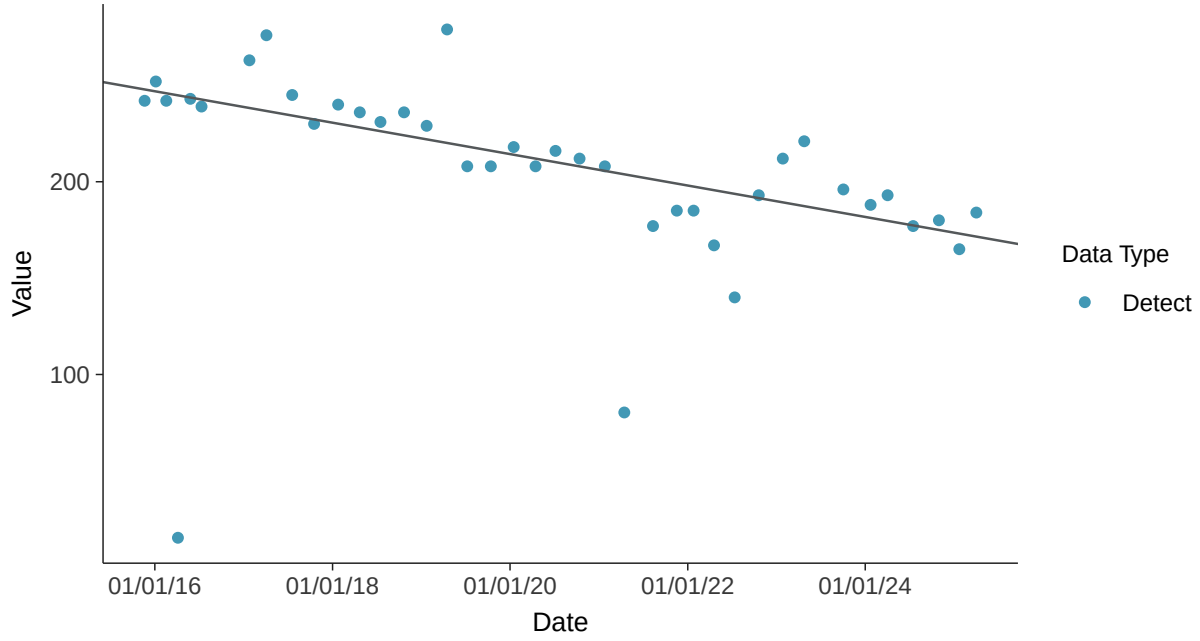
Normal Q-Q plot

Chloride, MW-6 (mg/L)



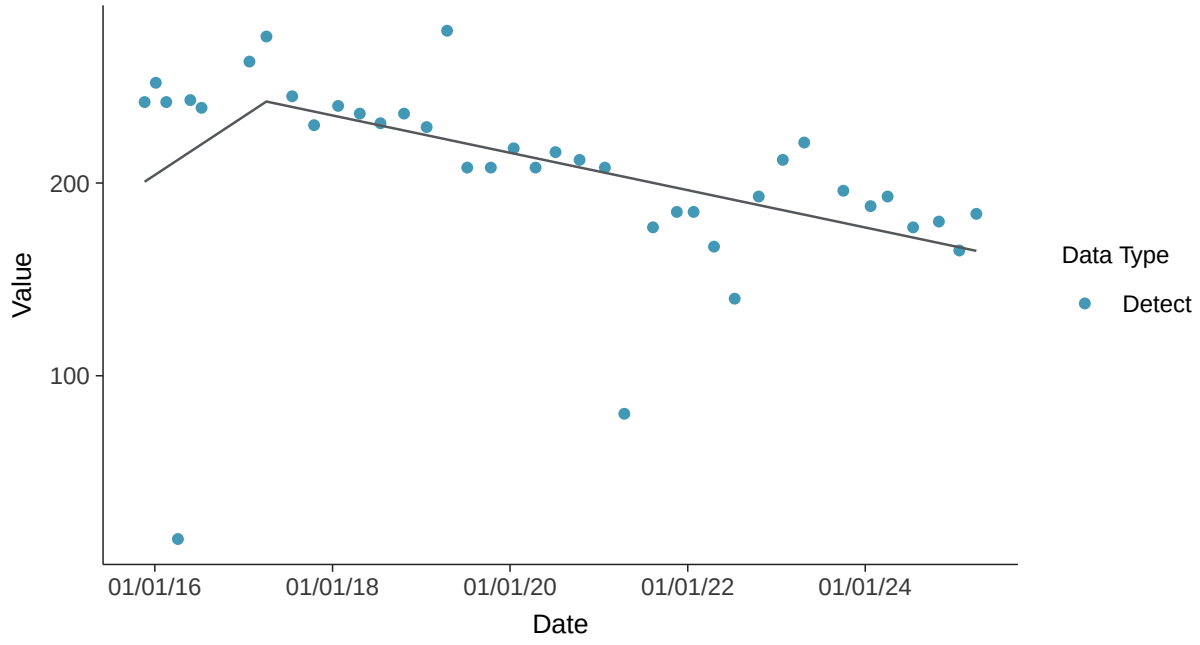
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Chloride, MW-6 (mg/L)



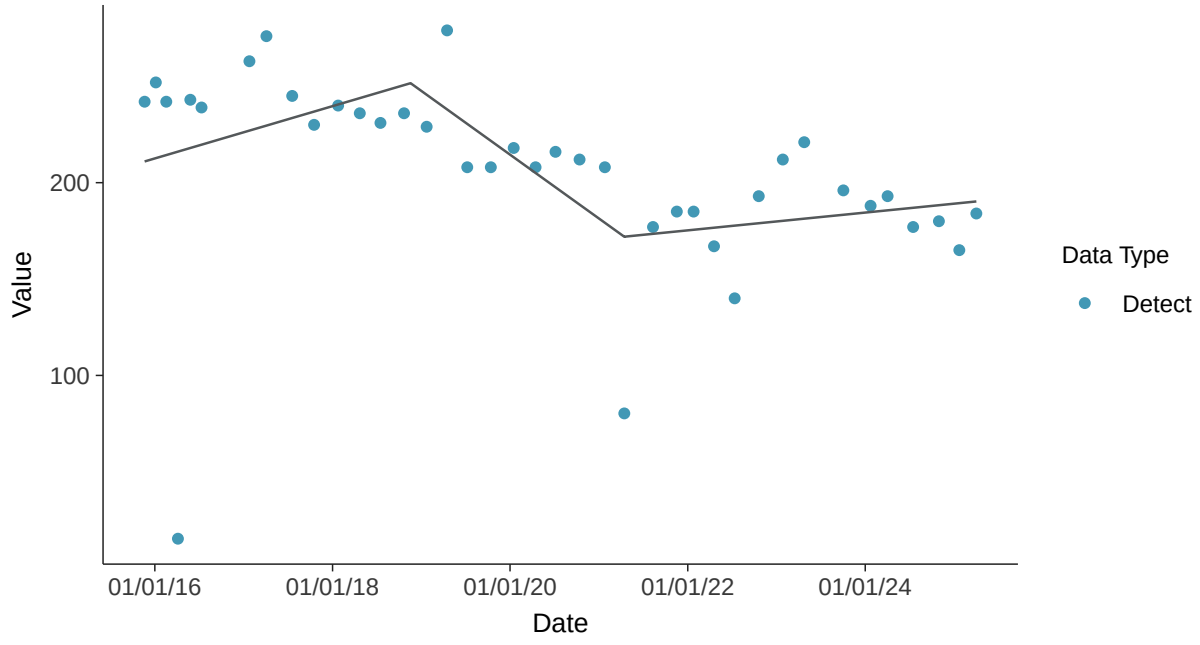
Trend Regression: Piecewise Linear-Linear

Chloride, MW-6 (mg/L)



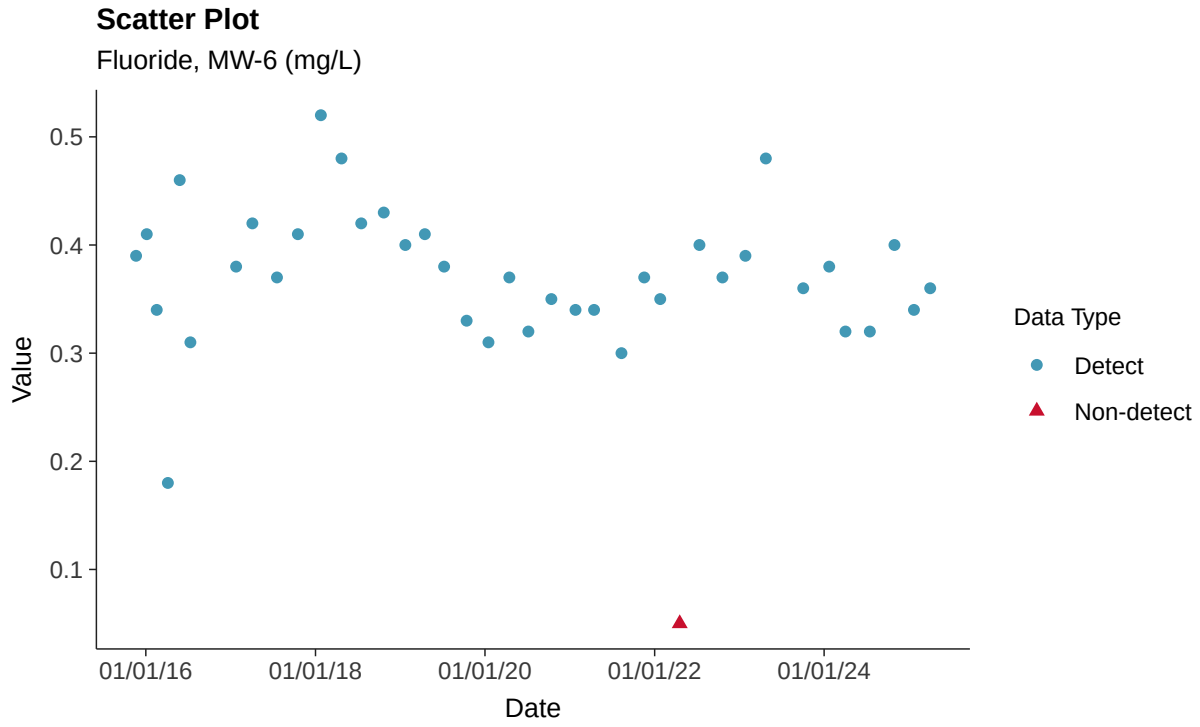
Trend Regression: Piecewise Linear-Linear-Linear

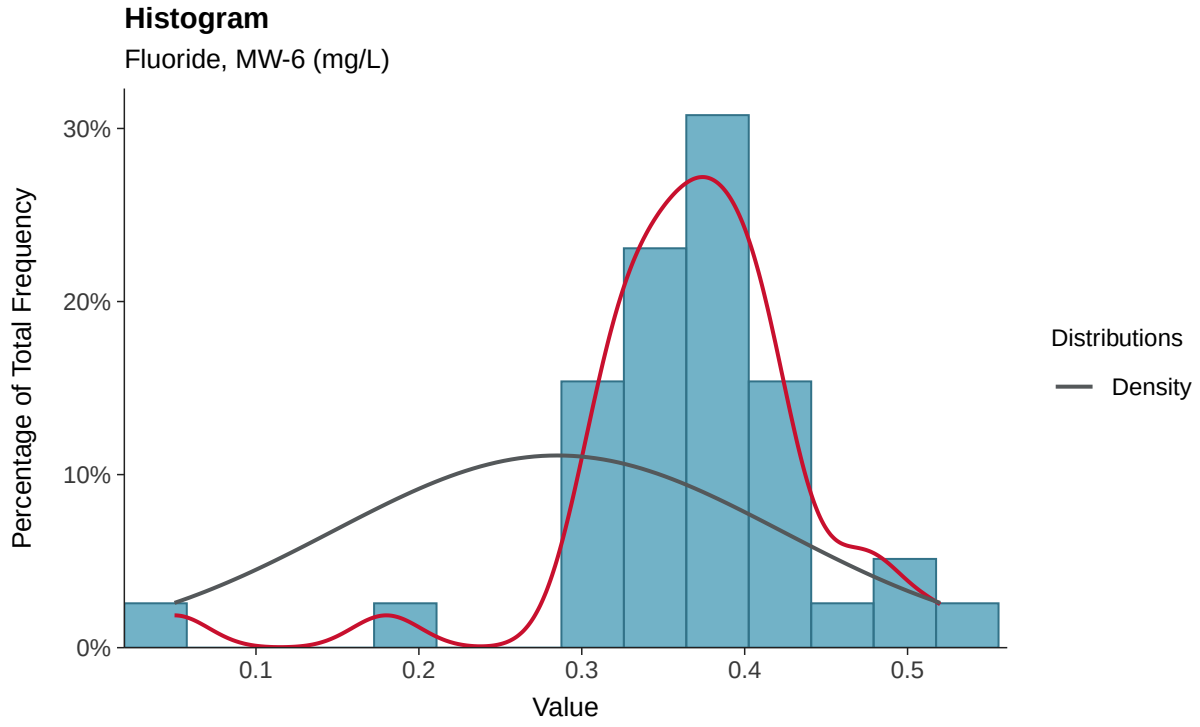
Chloride, MW-6 (mg/L)



App. III: Fluoride, MW-6

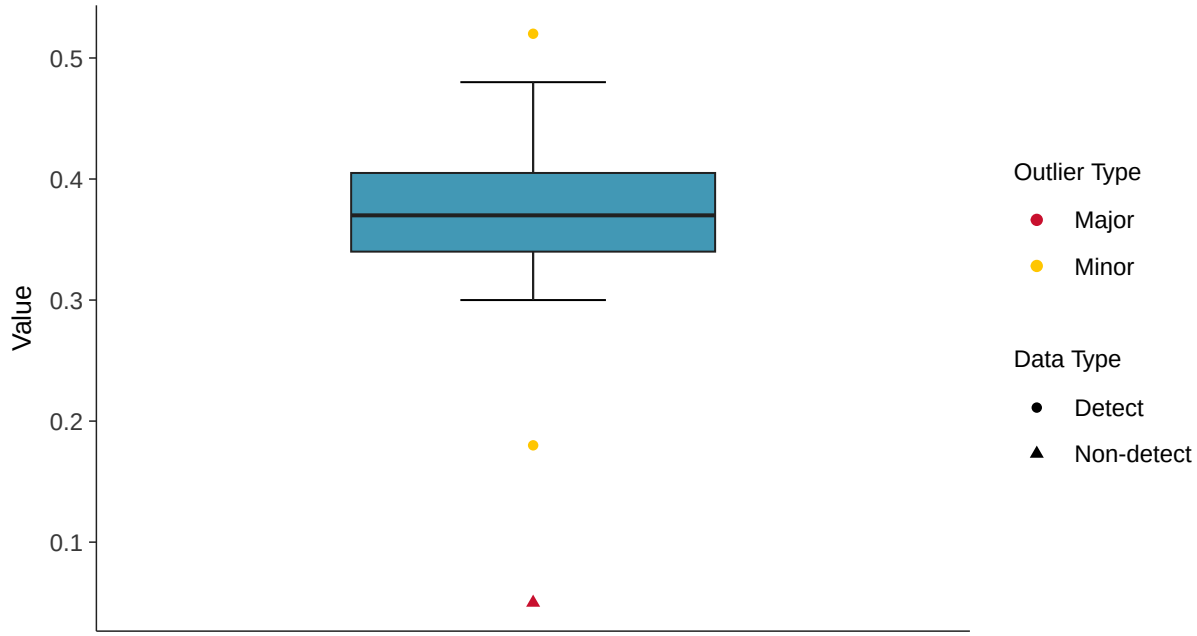
ID: 06_02_112





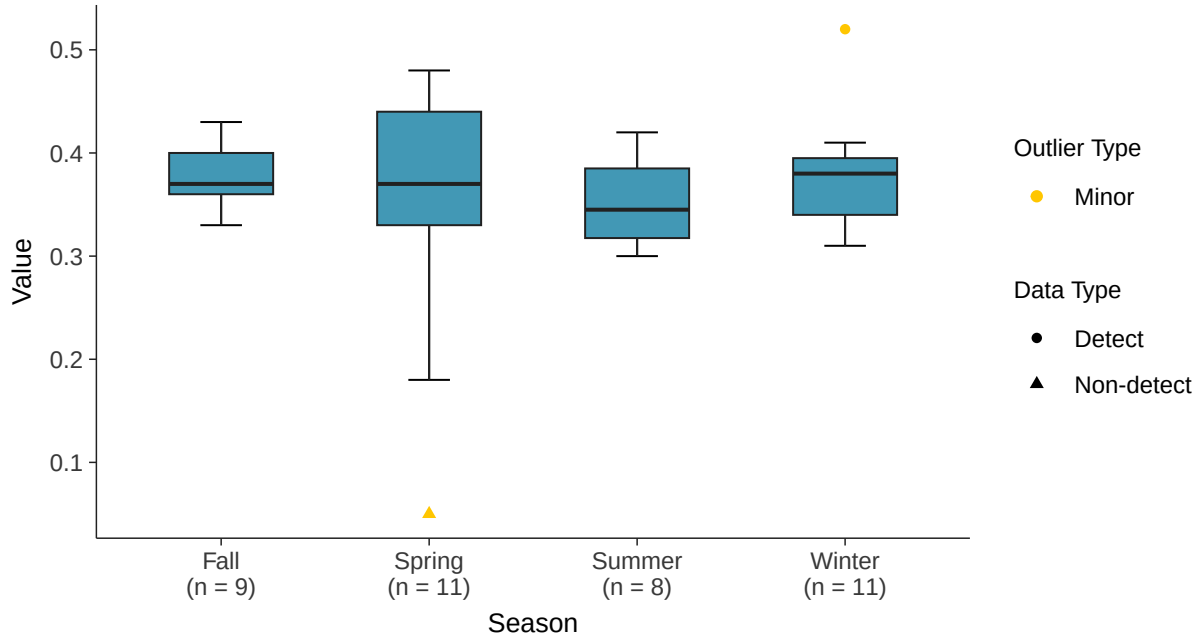
Boxplot

Fluoride, MW-6 (mg/L)



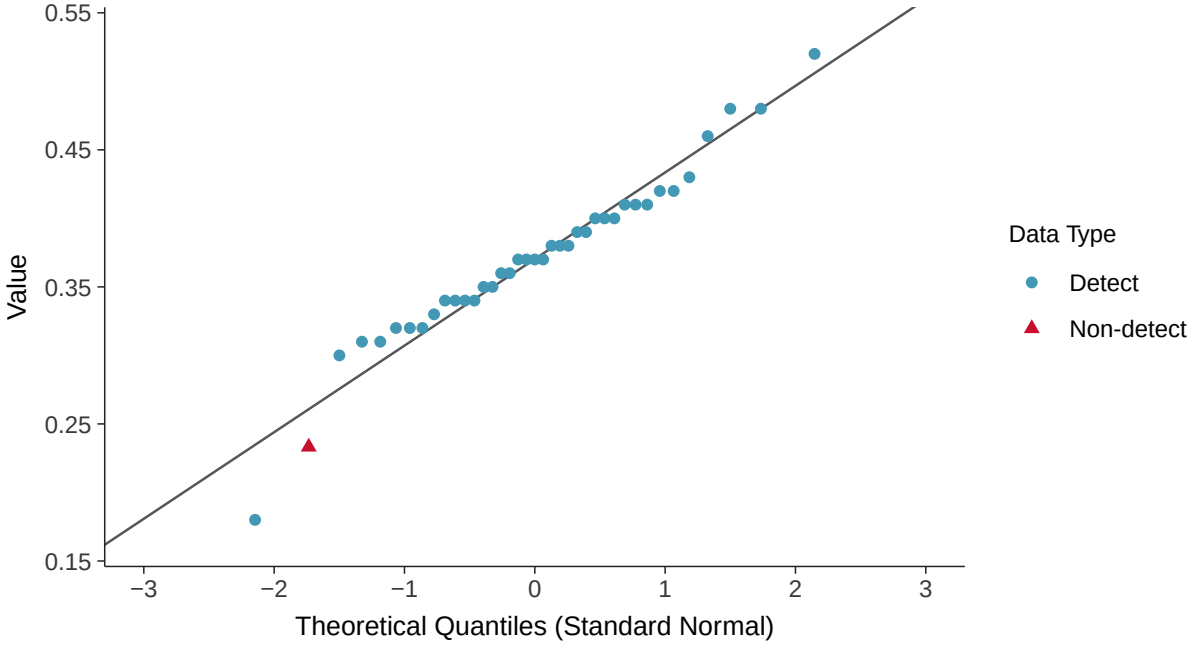
Boxplot by Season

Fluoride, MW-6 (mg/L)



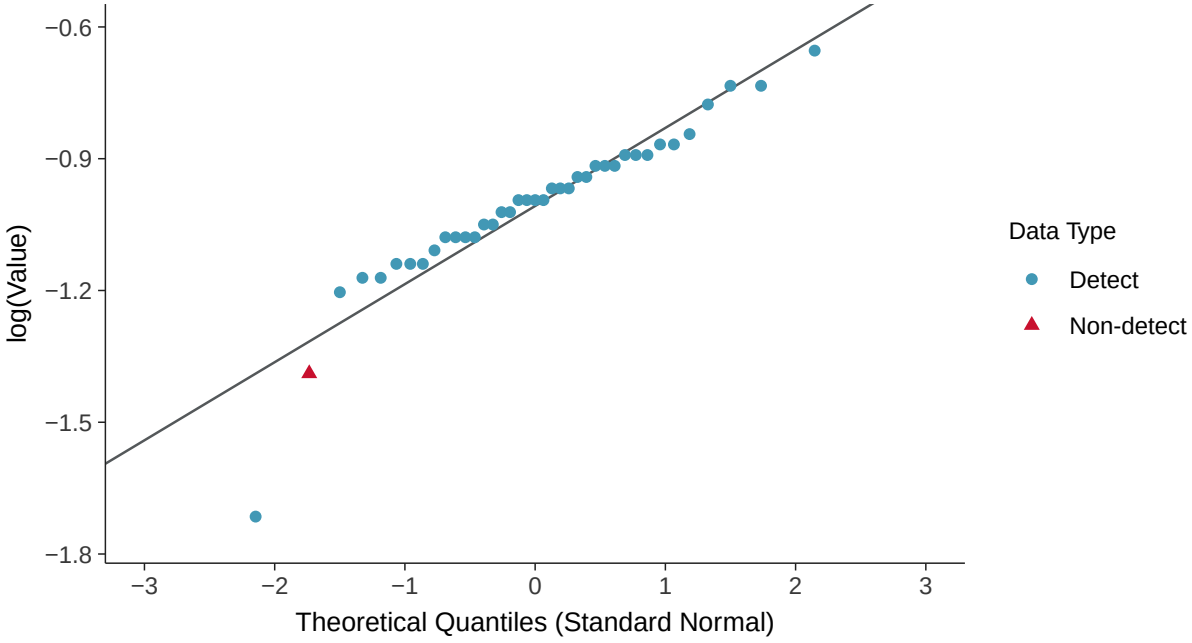
Normal Q-Q plot using ROS Imputed Estimates

Fluoride, MW-6 (mg/L)



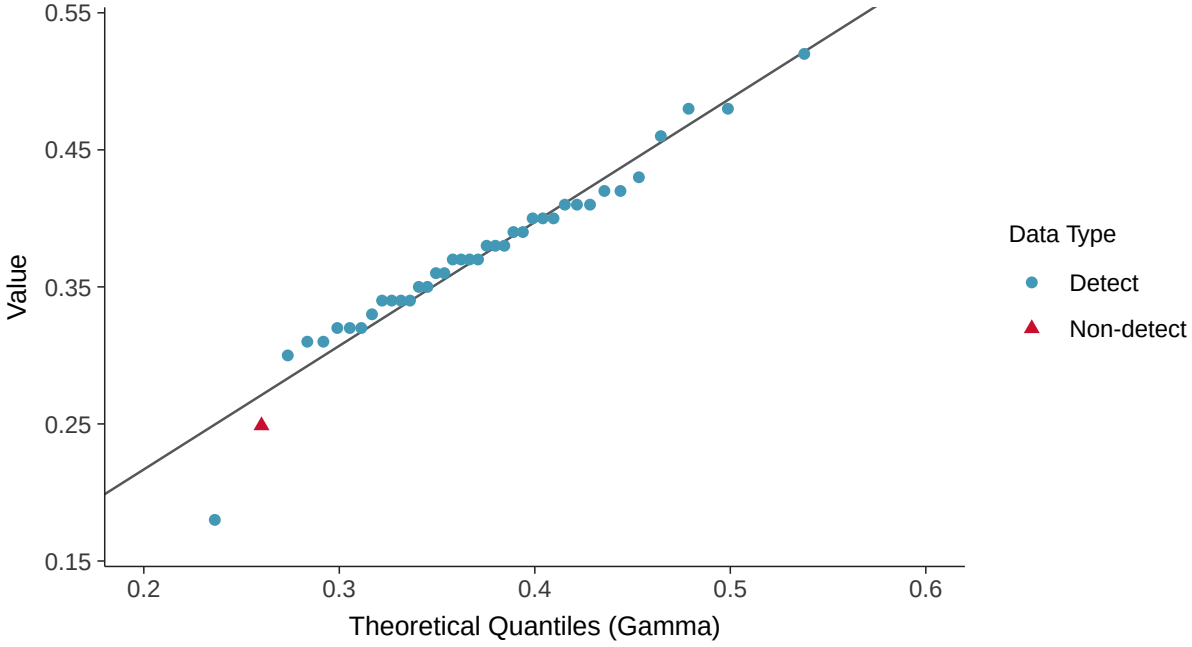
Lognormal Q-Q plot using ROS Imputed Estimates

Fluoride, MW-6 (mg/L)



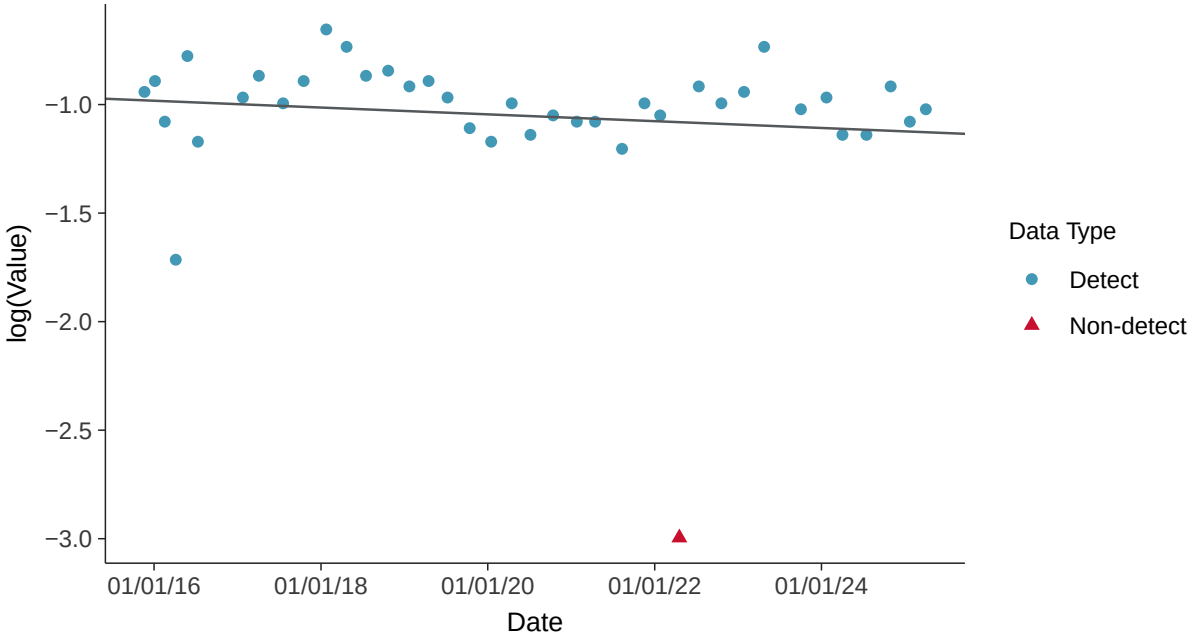
Gamma Q-Q plot using ROS Imputed Estimates

Fluoride, MW-6 (mg/L)



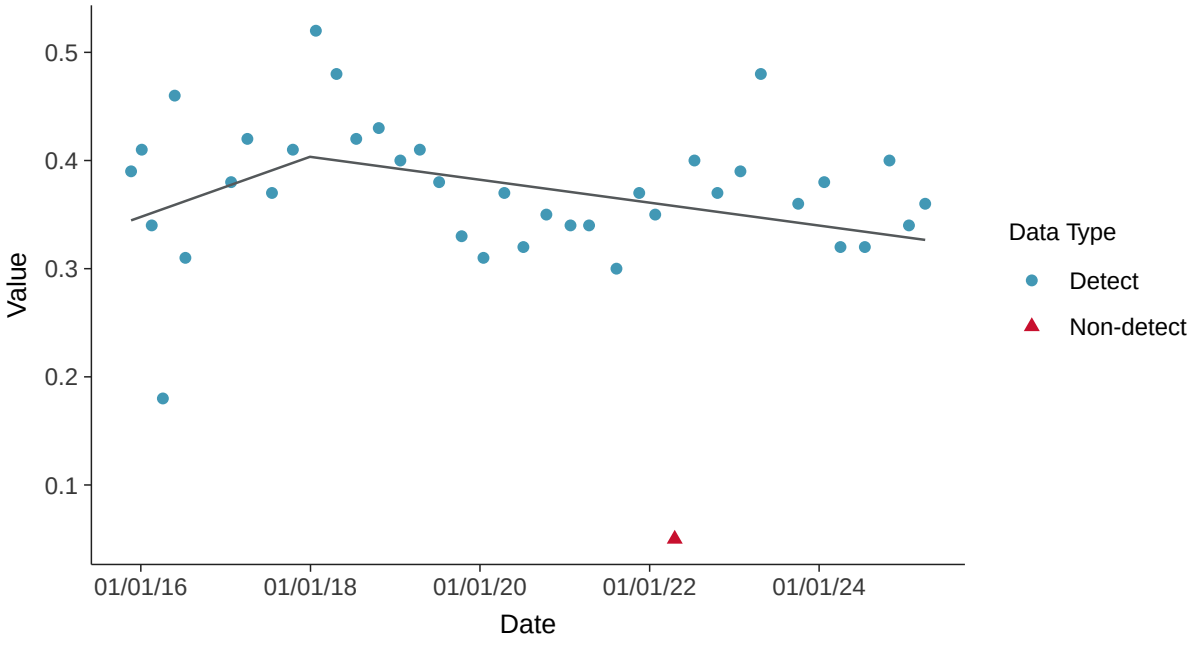
Trend Regression: Lognormal MLE

Fluoride, MW-6 (mg/L)



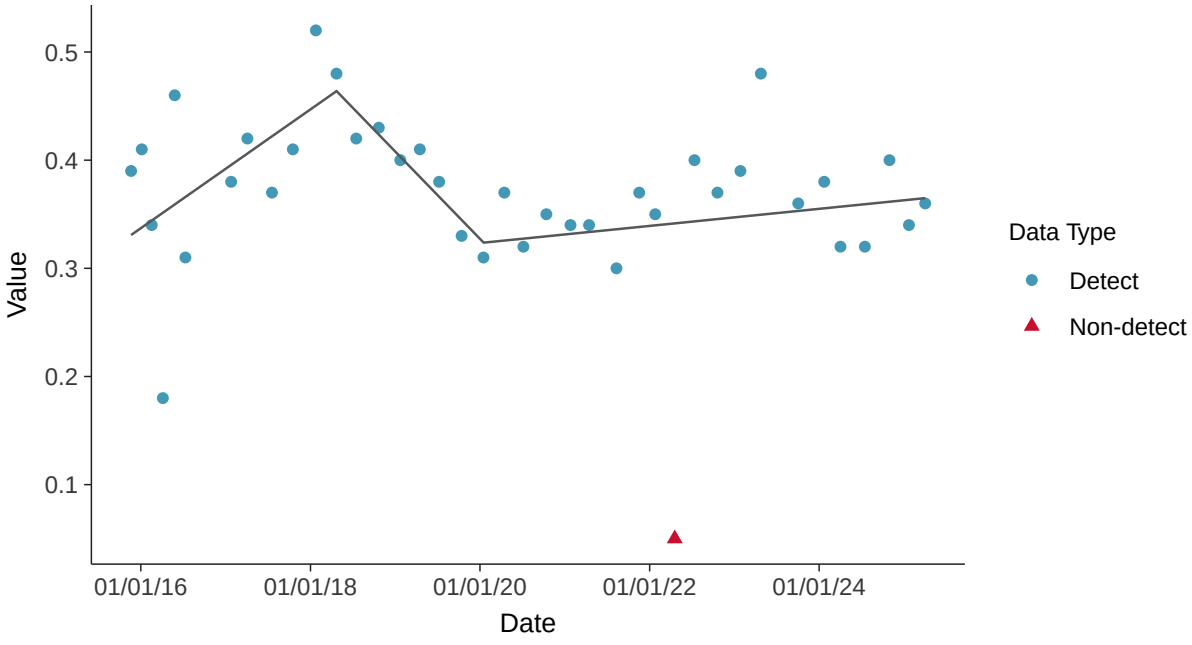
Trend Regression: Piecewise Linear-Linear

Fluoride, MW-6 (mg/L)



Trend Regression: Piecewise Linear-Linear-Linear

Fluoride, MW-6 (mg/L)

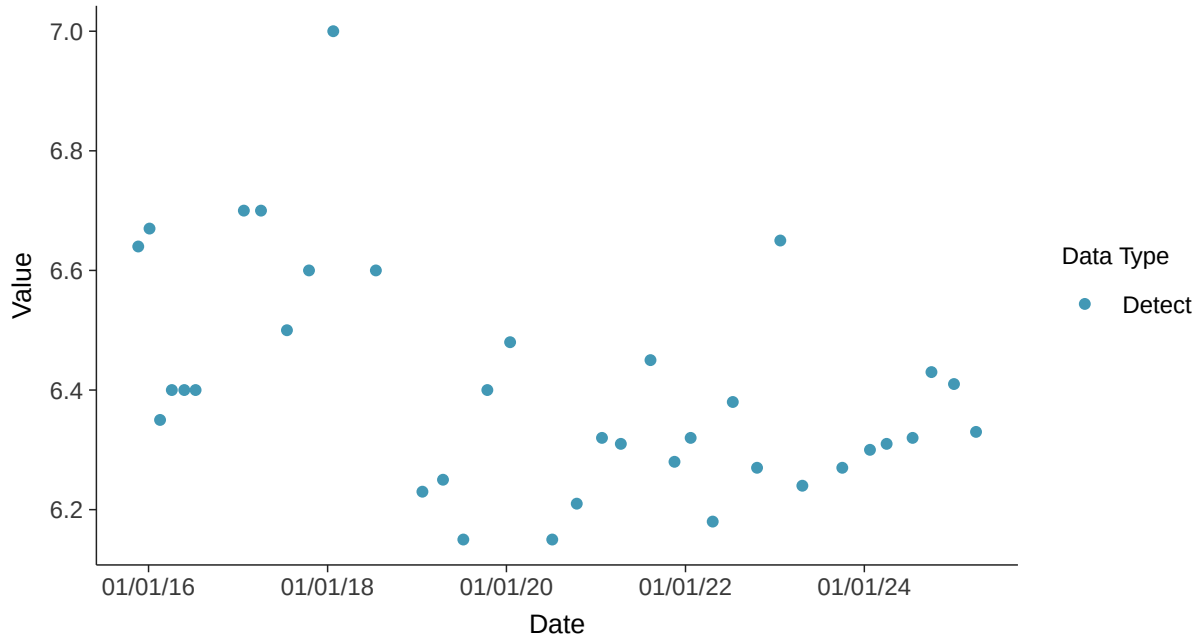


App. III: pH (Field), MW-6

ID: 06_02_118

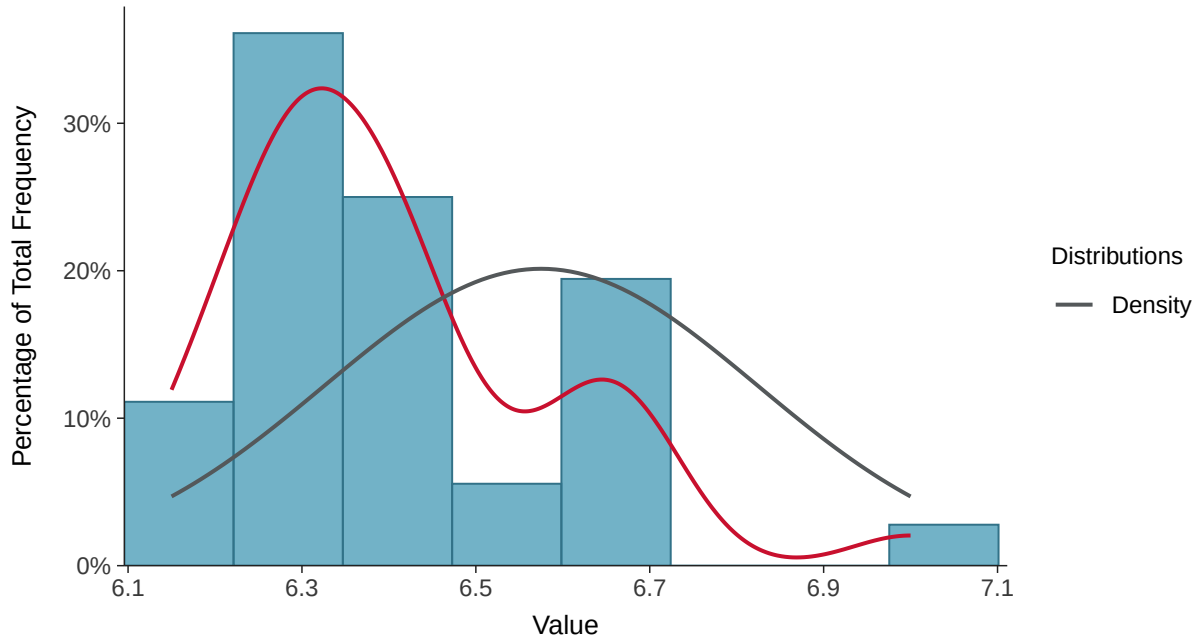
Scatter Plot

pH (Field), MW-6 (S.U.)



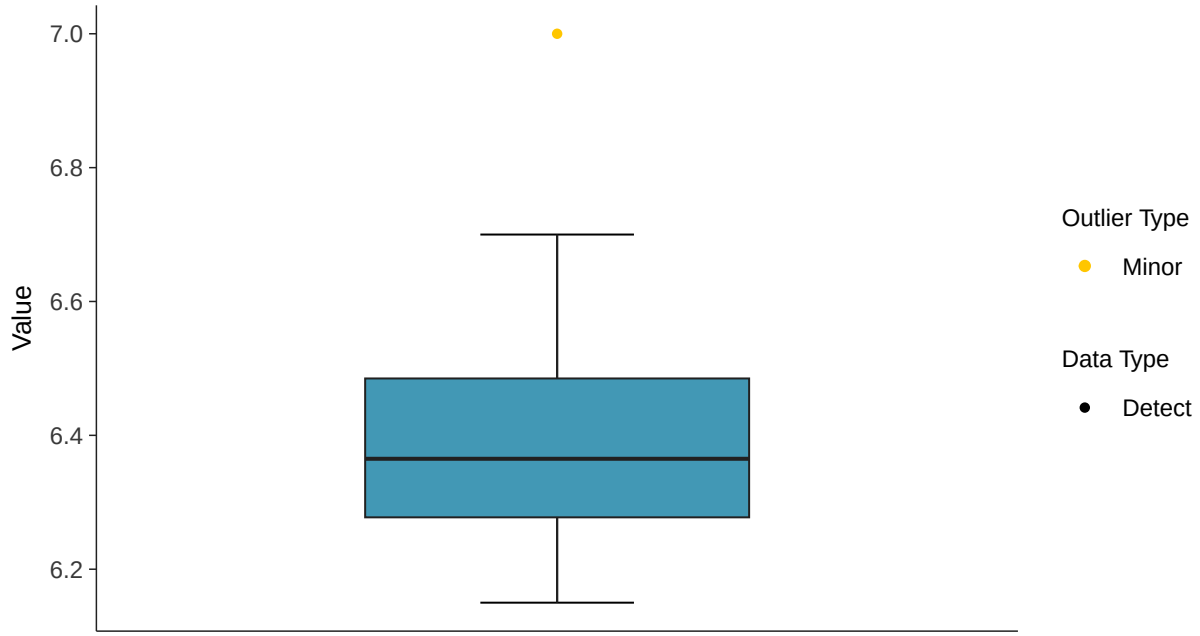
Histogram

pH (Field), MW-6 (S.U.)



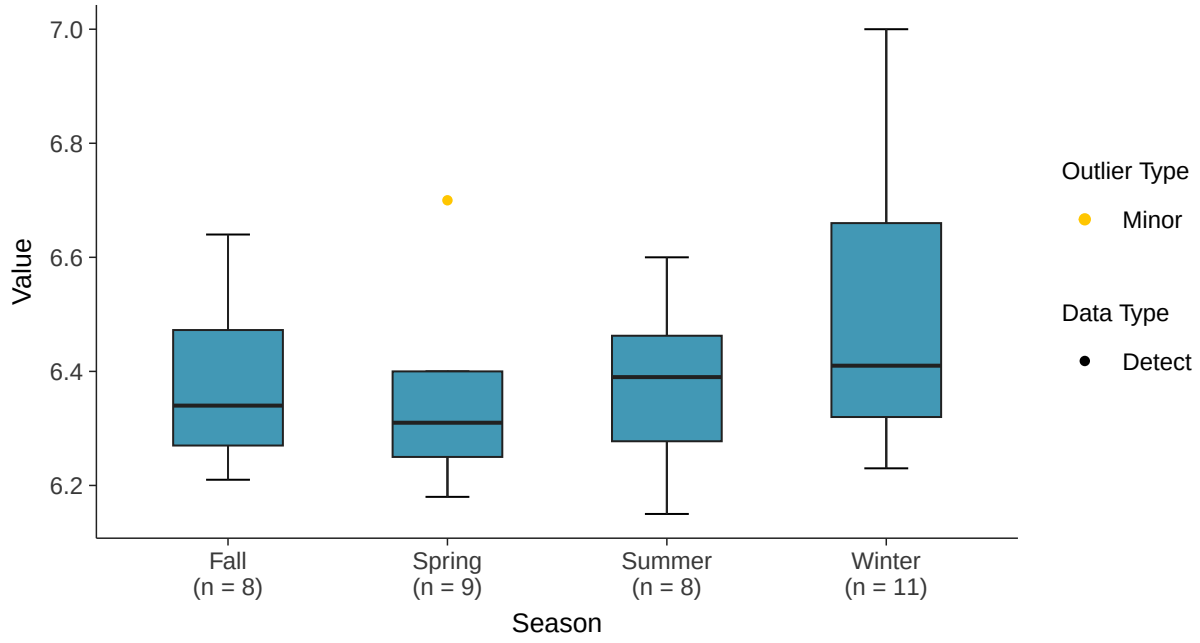
Boxplot

pH (Field), MW-6 (S.U.)



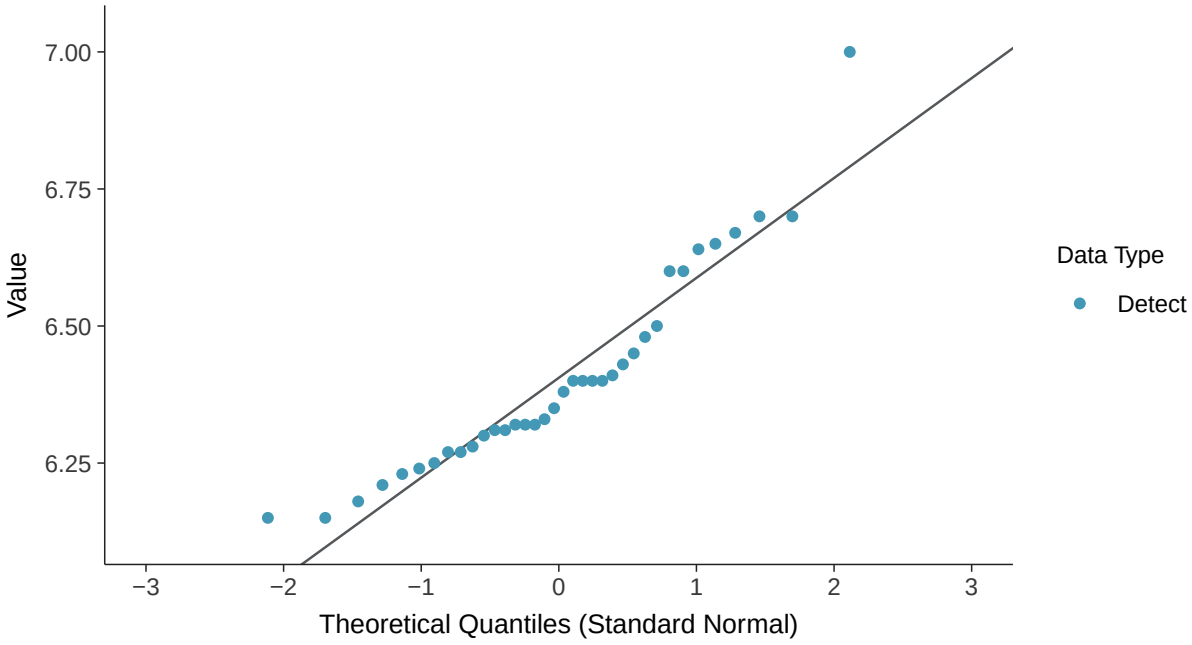
Boxplot by Season

pH (Field), MW-6 (S.U.)



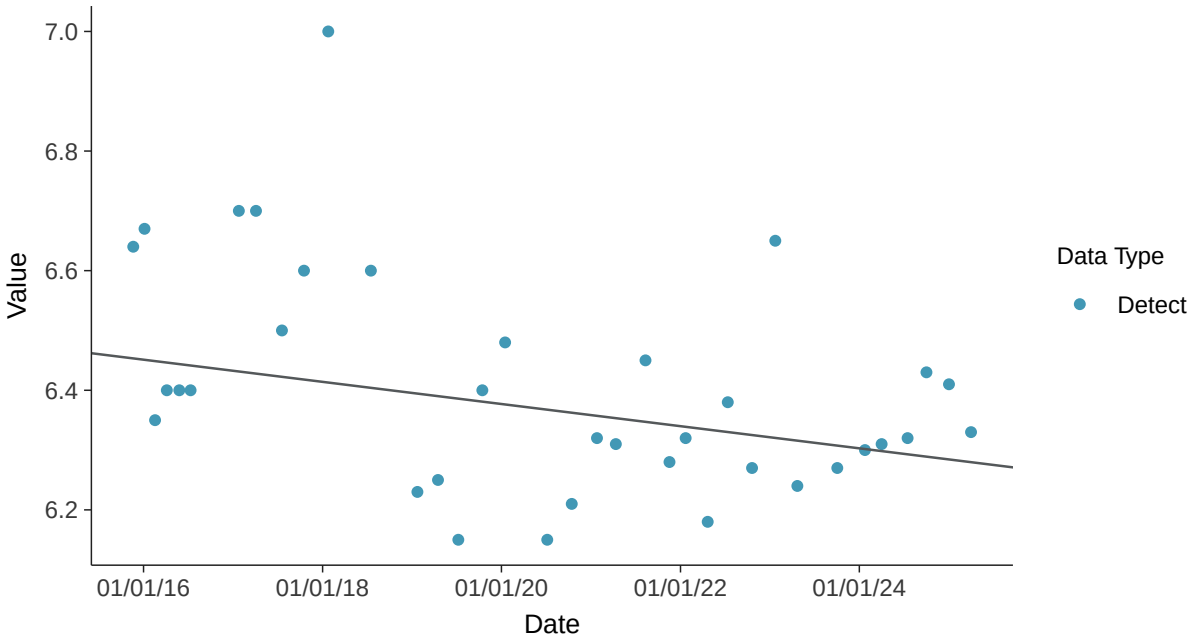
Normal Q-Q plot

pH (Field), MW-6 (S.U.)



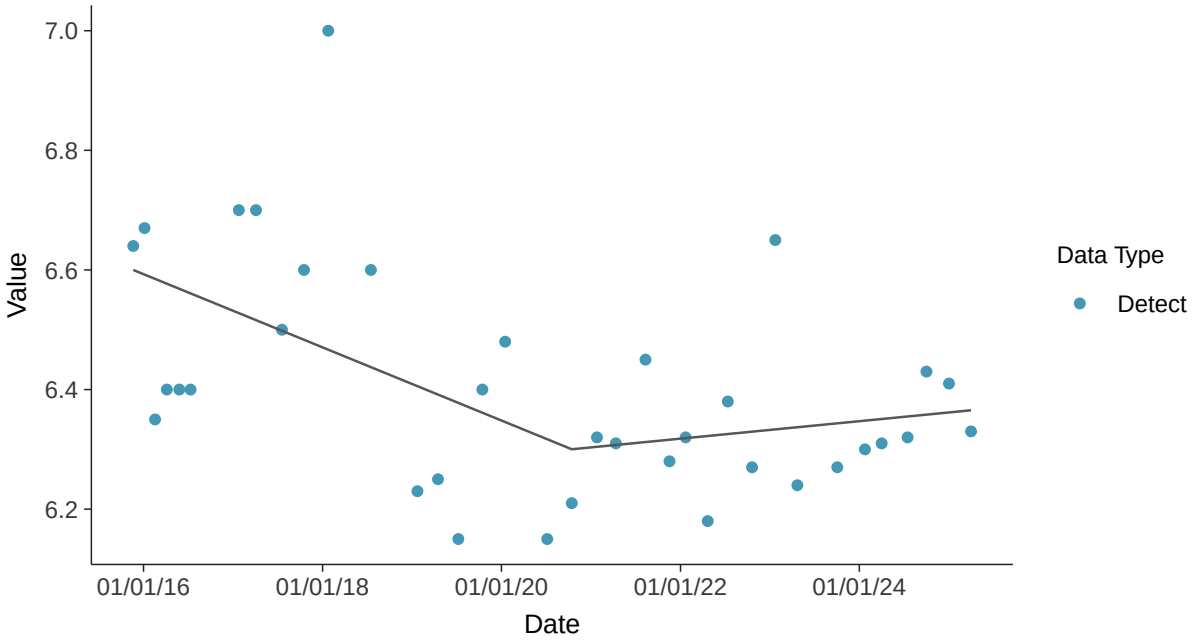
Trend Regression: Mann-Kendall/Theil-Sen Estimate

pH (Field), MW-6 (S.U.)



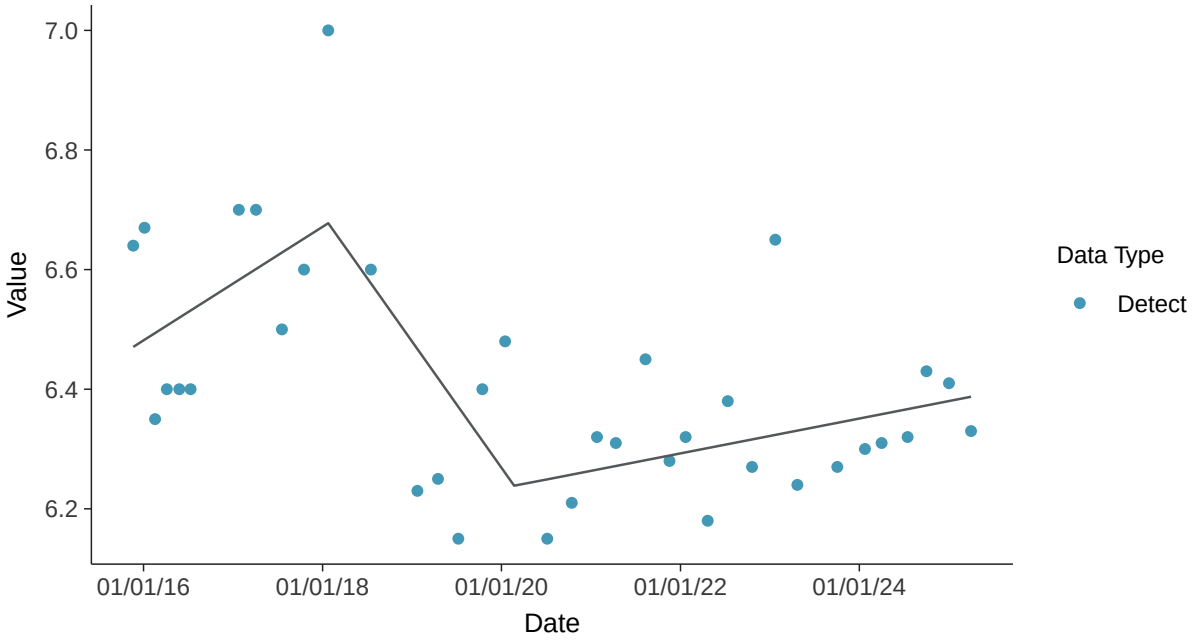
Trend Regression: Piecewise Linear-Linear

pH (Field), MW-6 (S.U.)



Trend Regression: Piecewise Linear-Linear-Linear

pH (Field), MW-6 (S.U.)

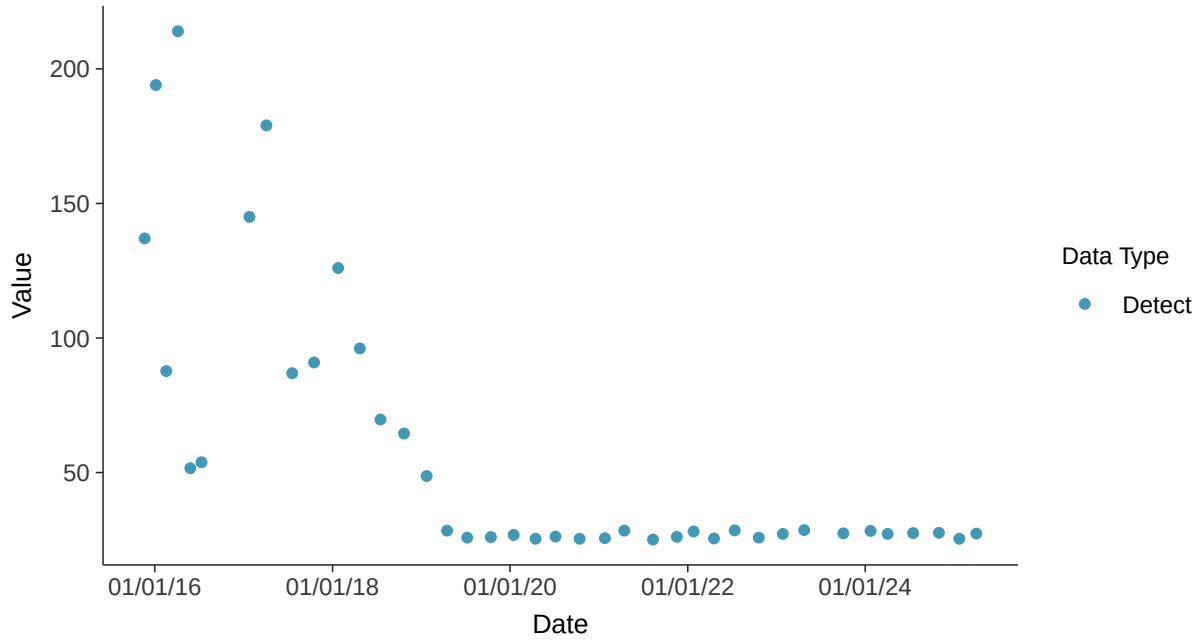


App. III: Sulfate, MW-6

ID: 06_02_123

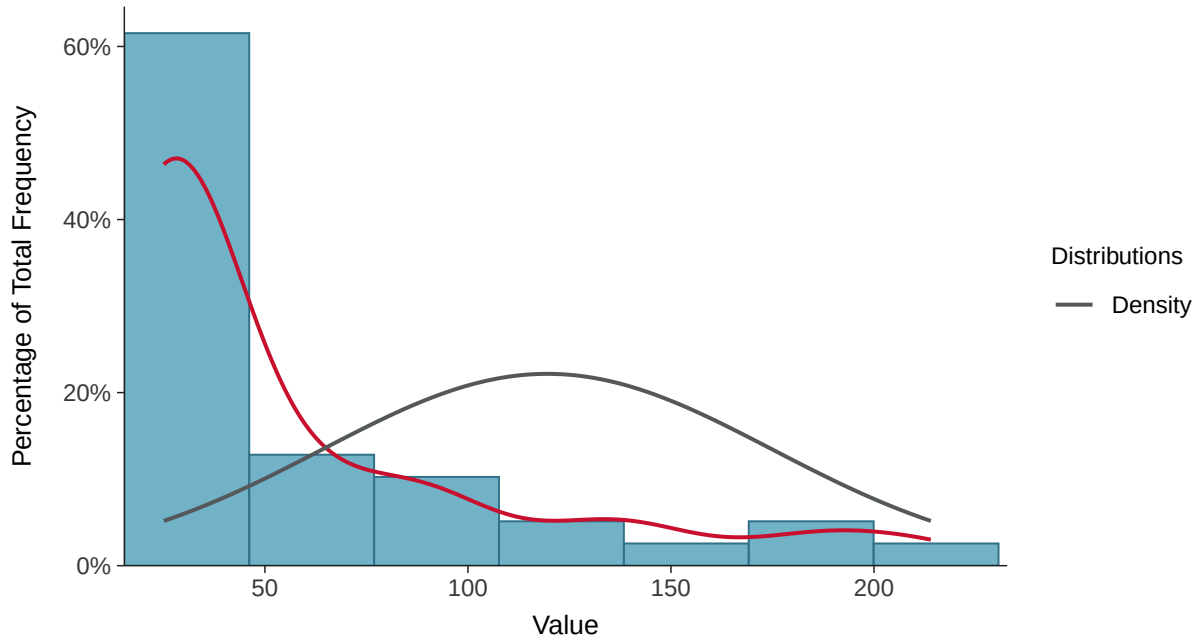
Scatter Plot

Sulfate, MW-6 (mg/L)



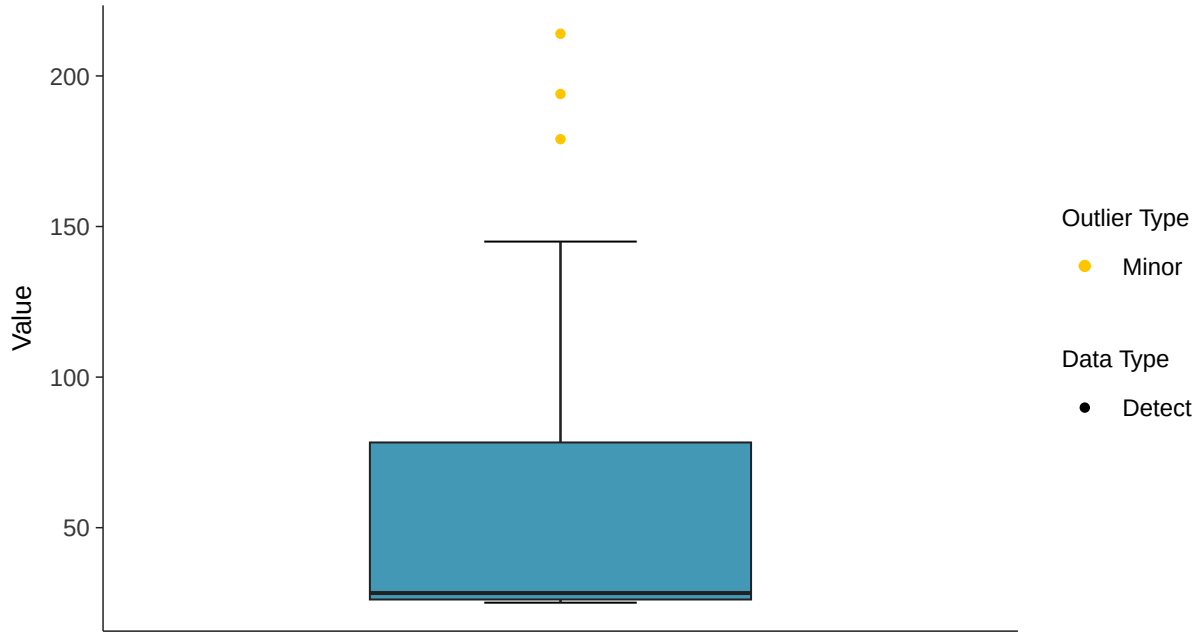
Histogram

Sulfate, MW-6 (mg/L)



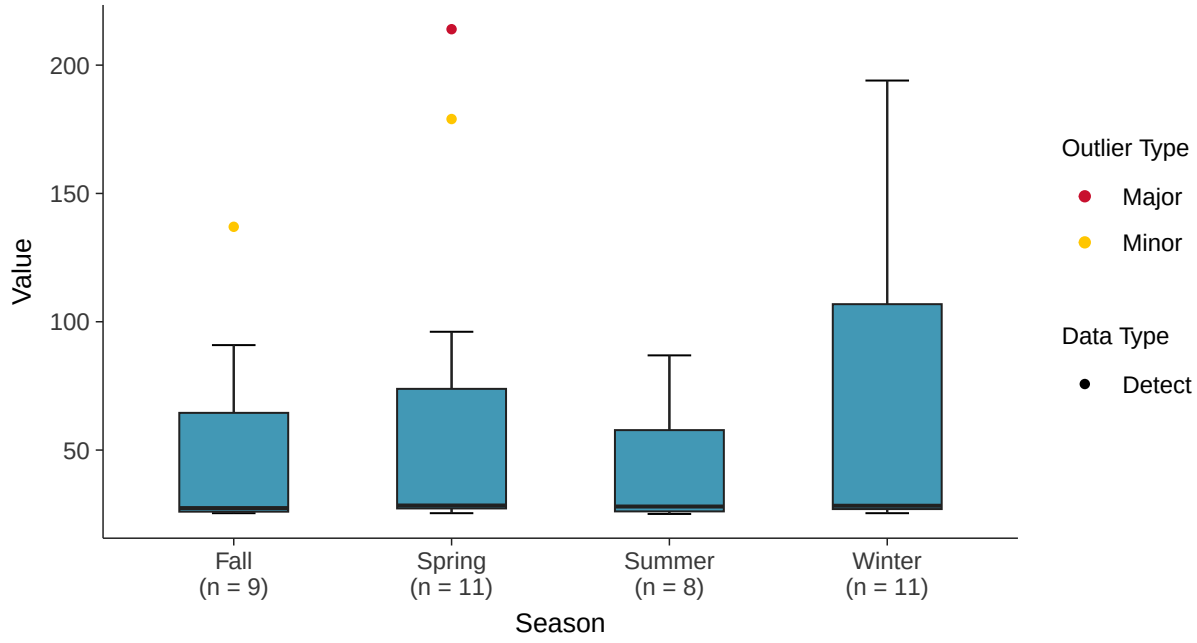
Boxplot

Sulfate, MW-6 (mg/L)



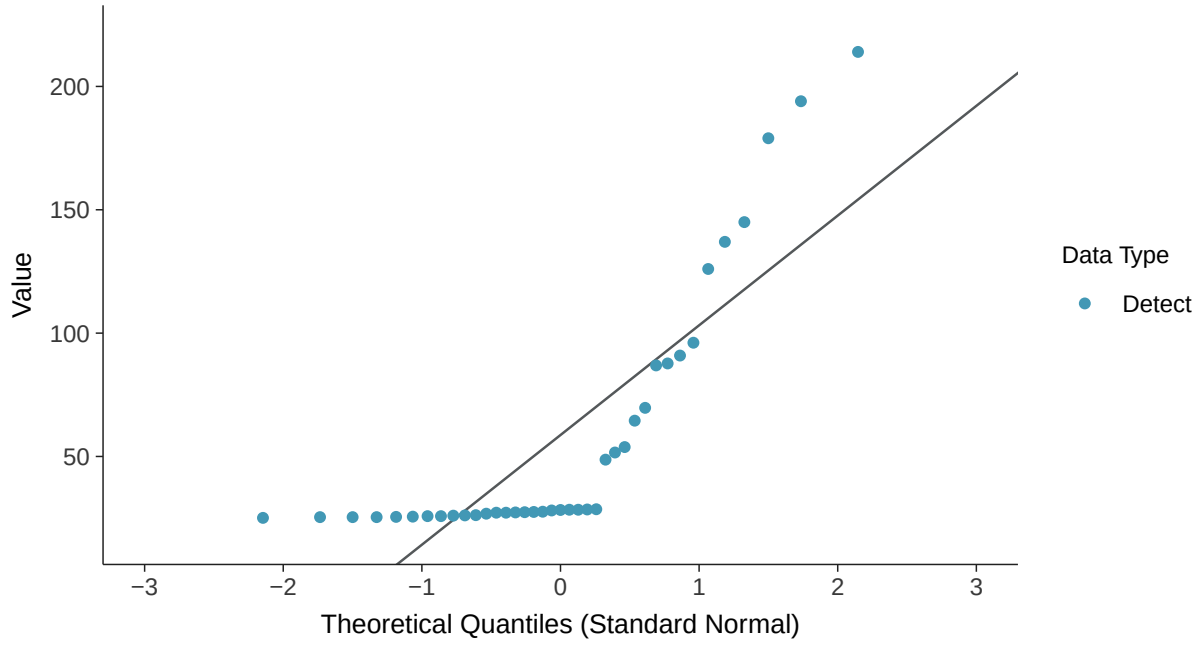
Boxplot by Season

Sulfate, MW-6 (mg/L)



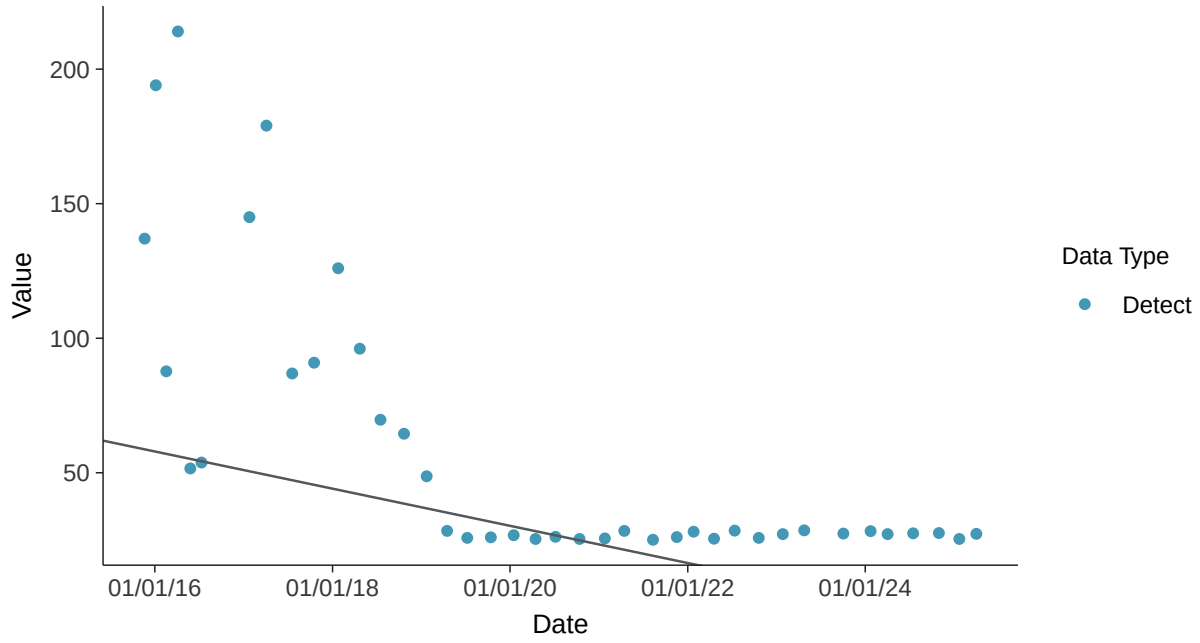
Normal Q-Q plot

Sulfate, MW-6 (mg/L)



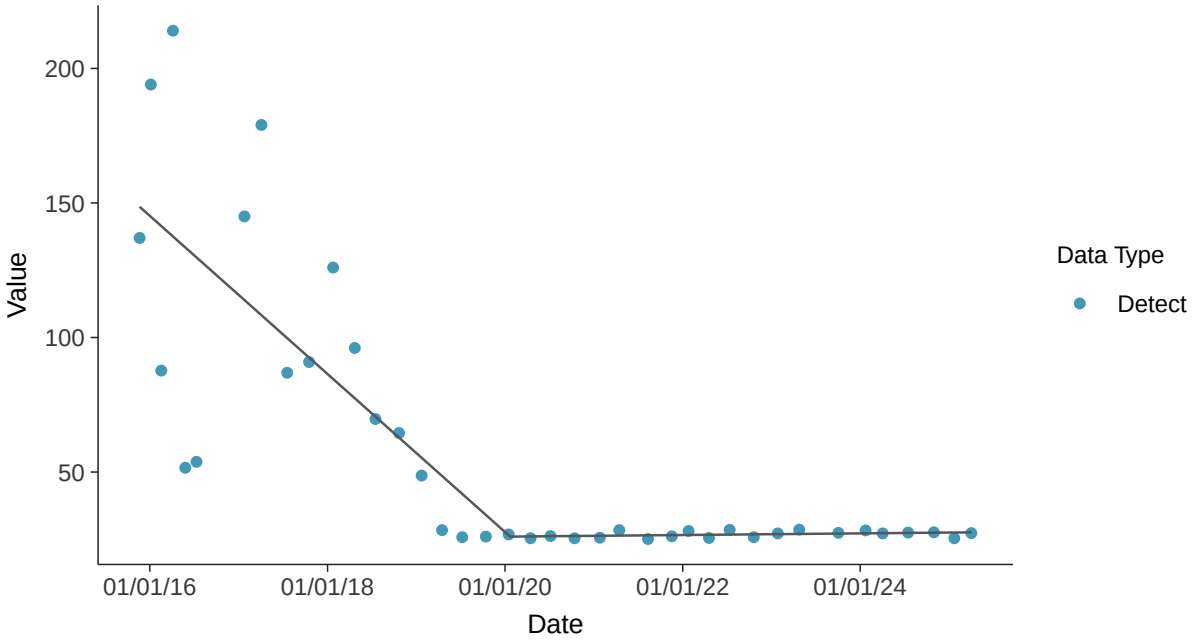
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Sulfate, MW-6 (mg/L)



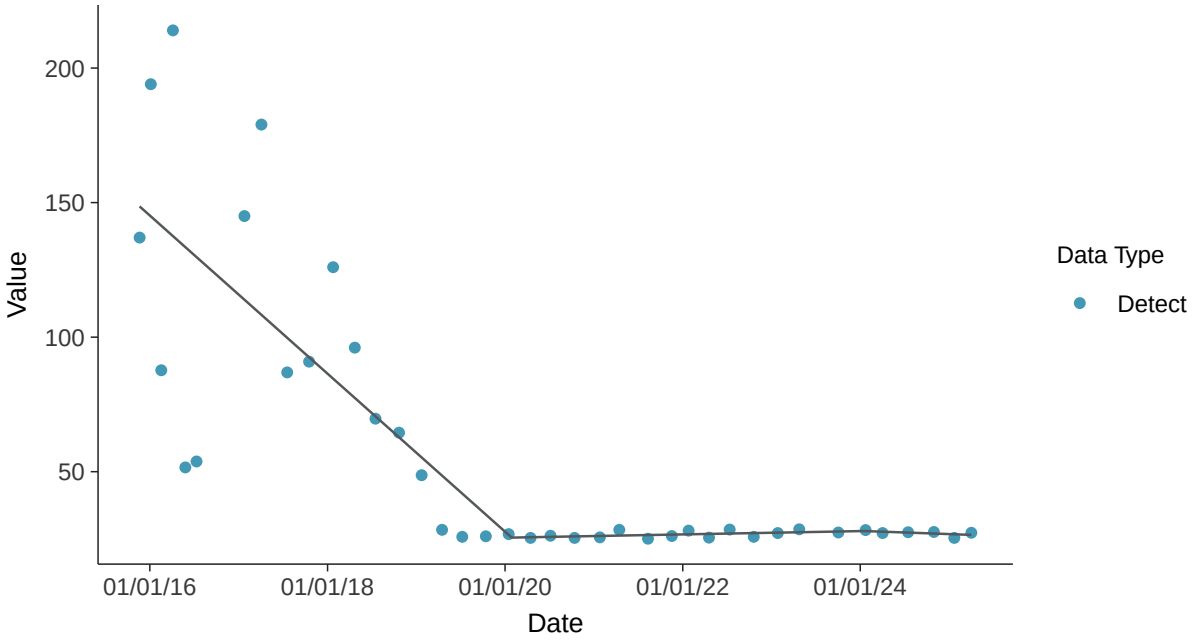
Trend Regression: Piecewise Linear-Linear

Sulfate, MW-6 (mg/L)



Trend Regression: Piecewise Linear-Linear-Linear

Sulfate, MW-6 (mg/L)

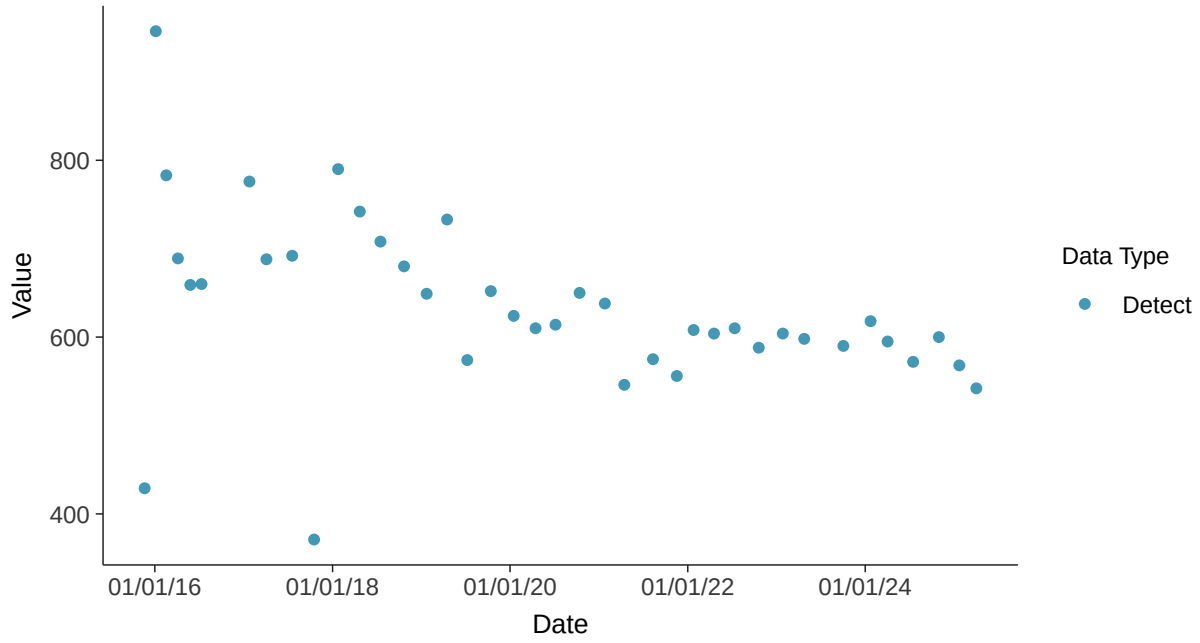


App. III: Total Dissolved Solids, MW-6

ID: 06_02_125

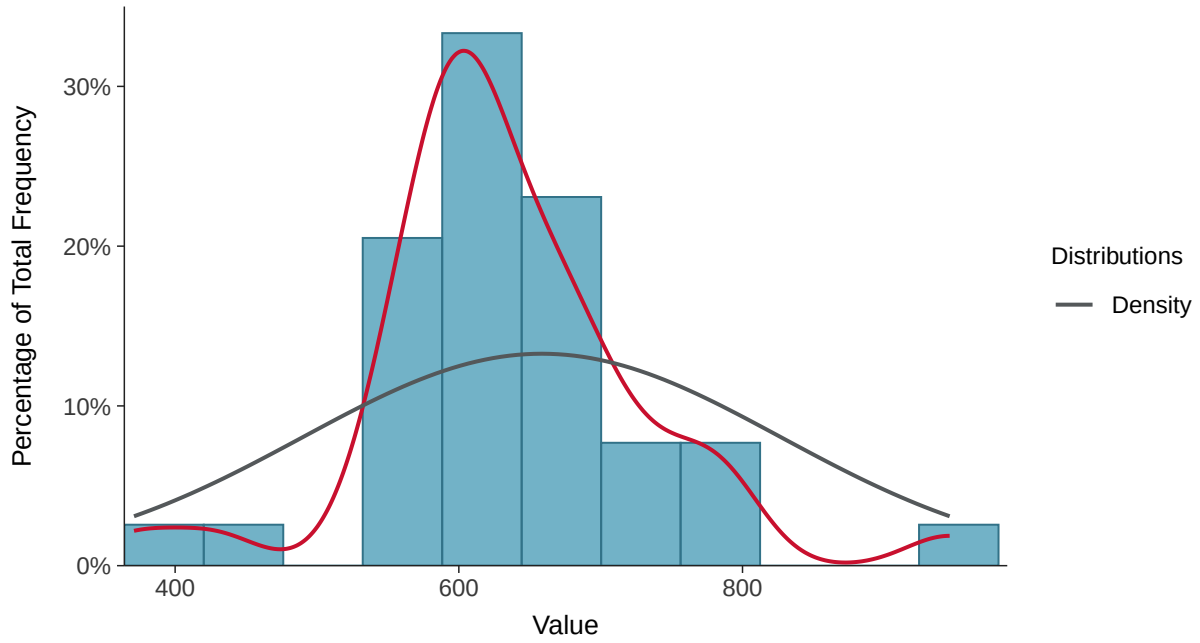
Scatter Plot

Total Dissolved Solids, MW-6 (mg/L)



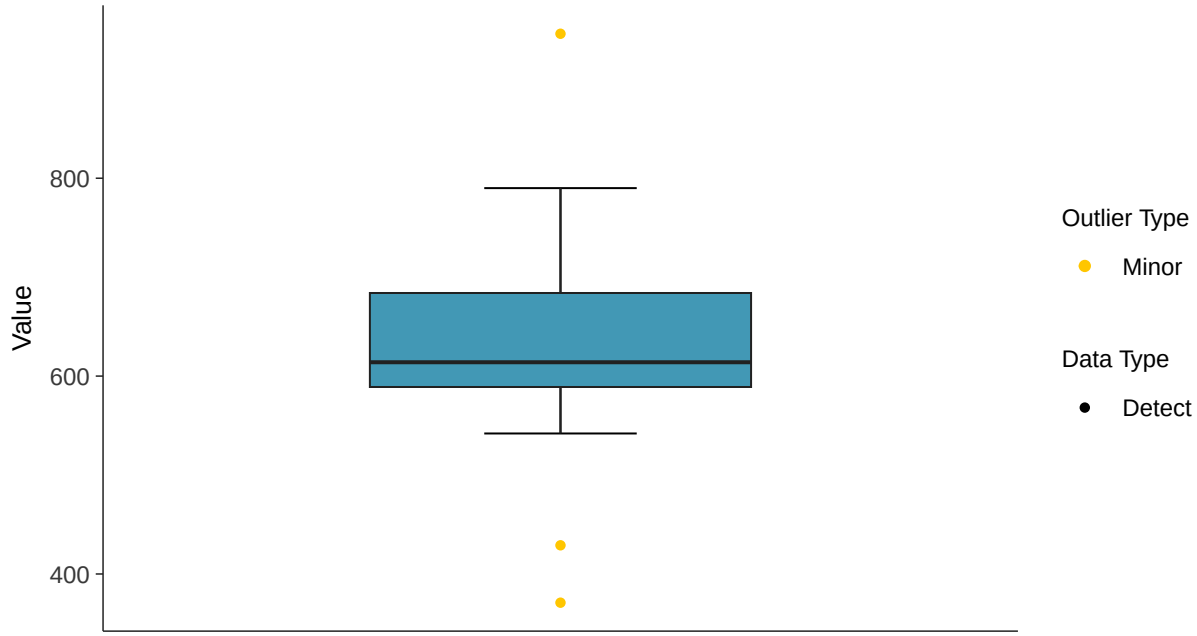
Histogram

Total Dissolved Solids, MW-6 (mg/L)



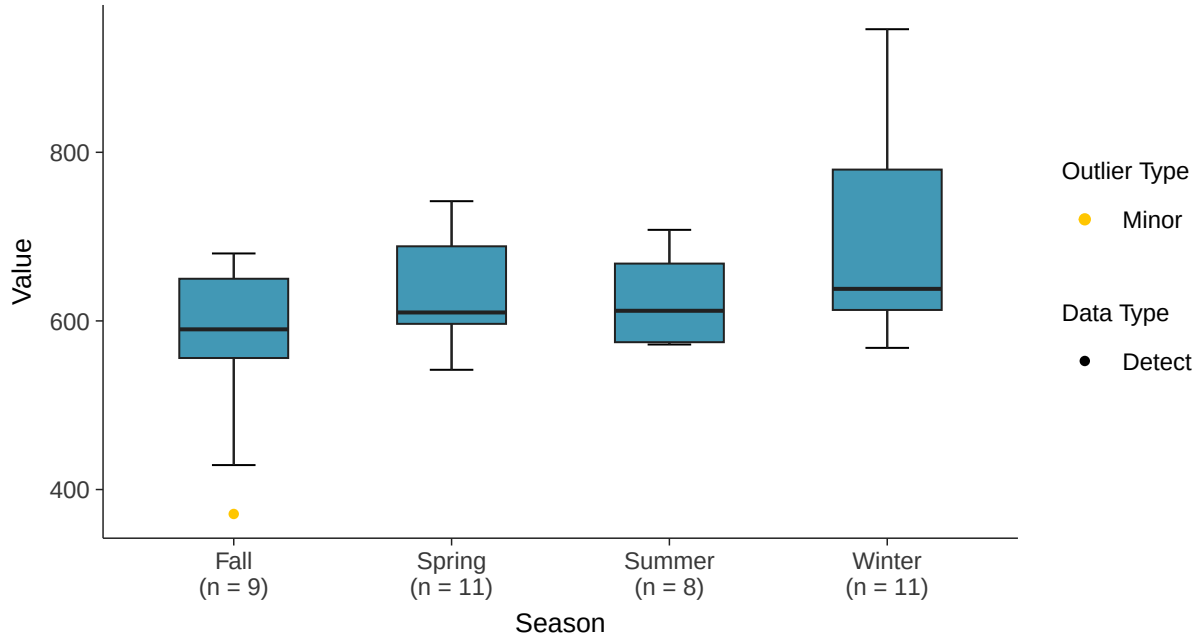
Boxplot

Total Dissolved Solids, MW-6 (mg/L)



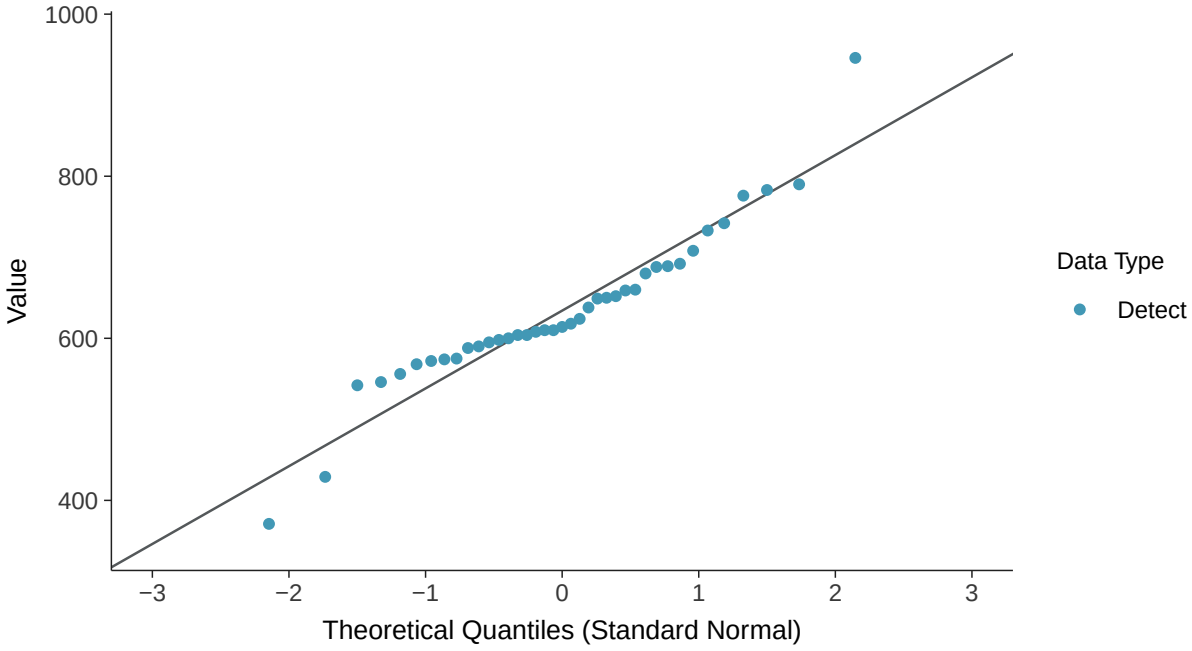
Boxplot by Season

Total Dissolved Solids, MW-6 (mg/L)



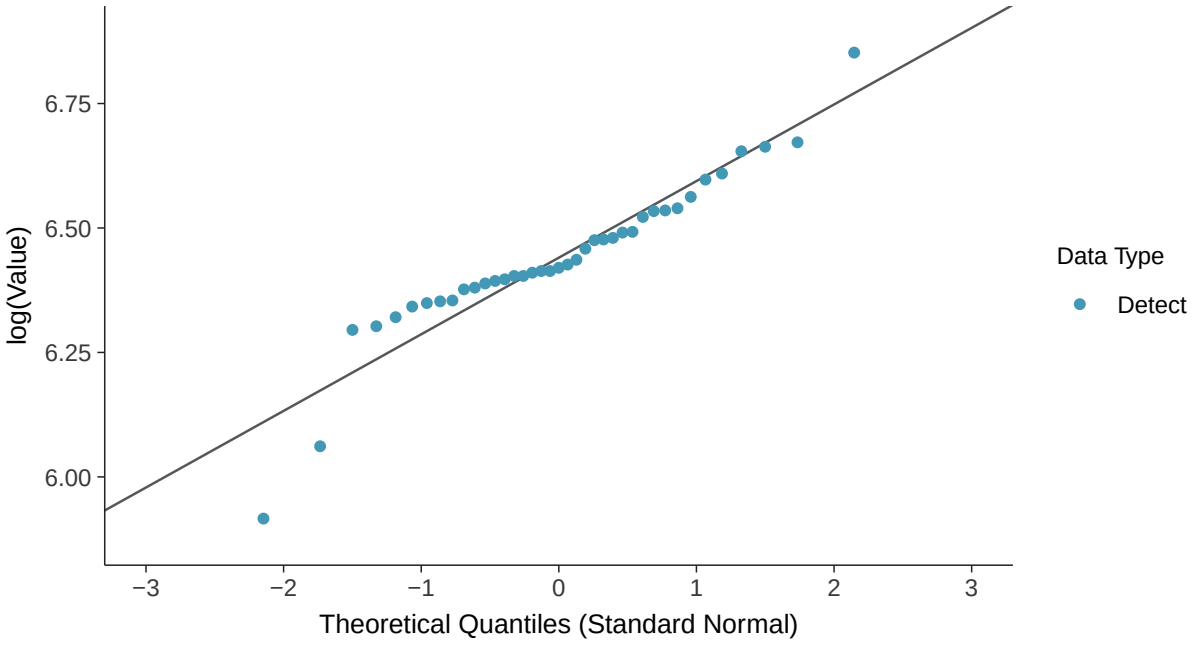
Normal Q-Q plot

Total Dissolved Solids, MW-6 (mg/L)



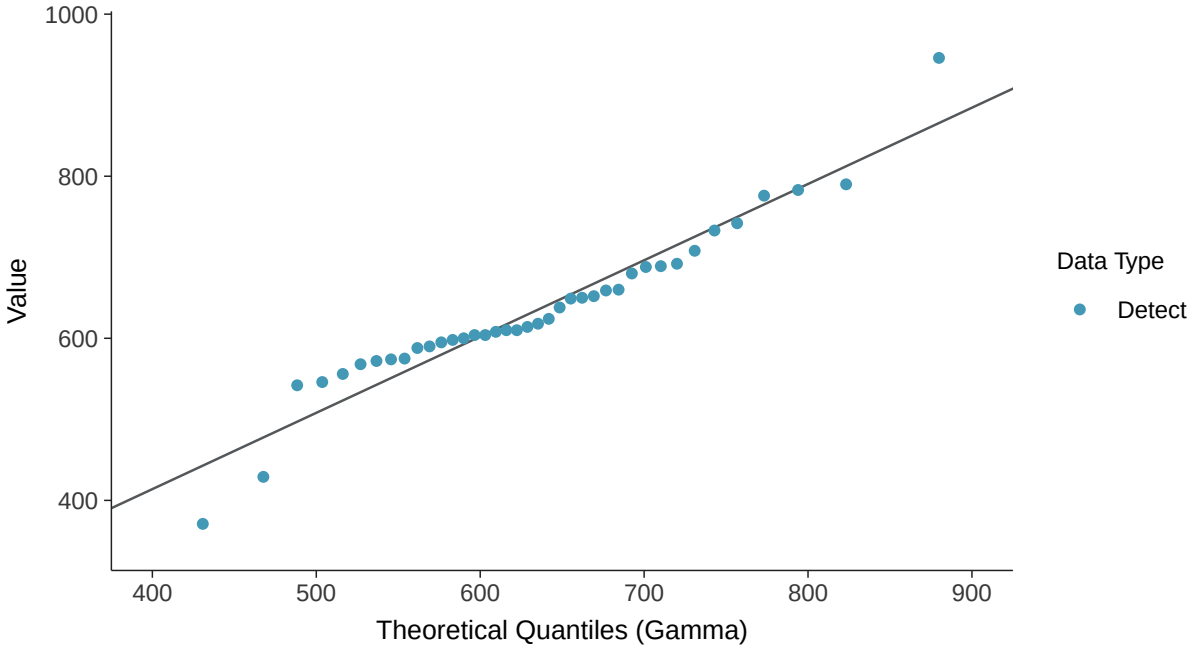
Lognormal Q-Q plot

Total Dissolved Solids, MW-6 (mg/L)



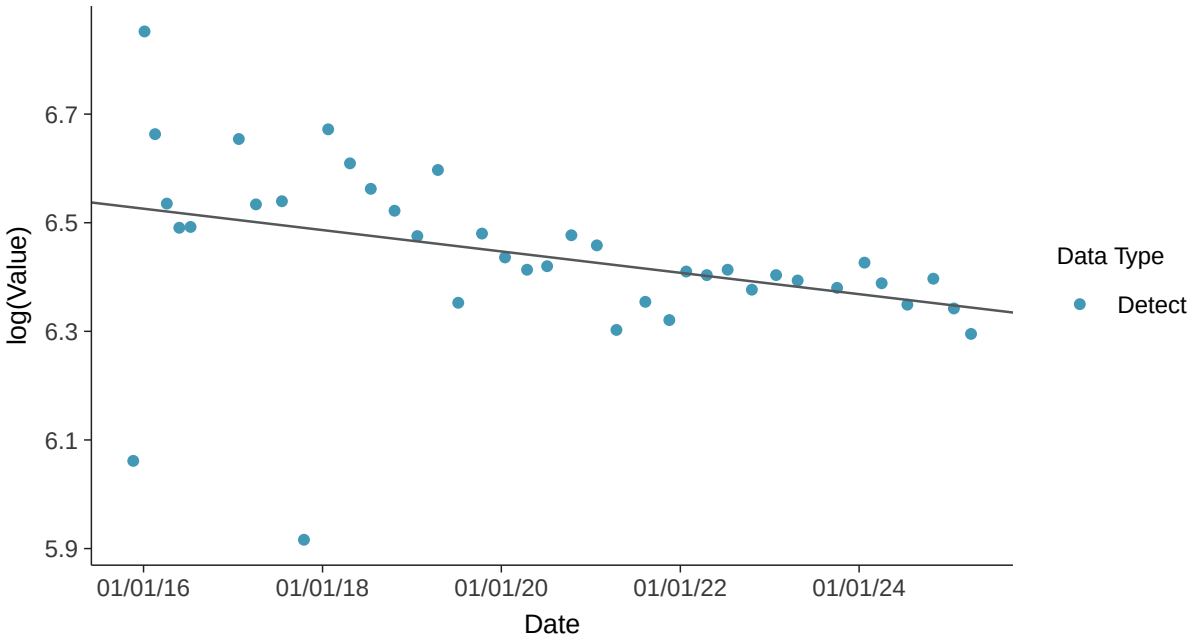
Gamma Q-Q plot

Total Dissolved Solids, MW-6 (mg/L)



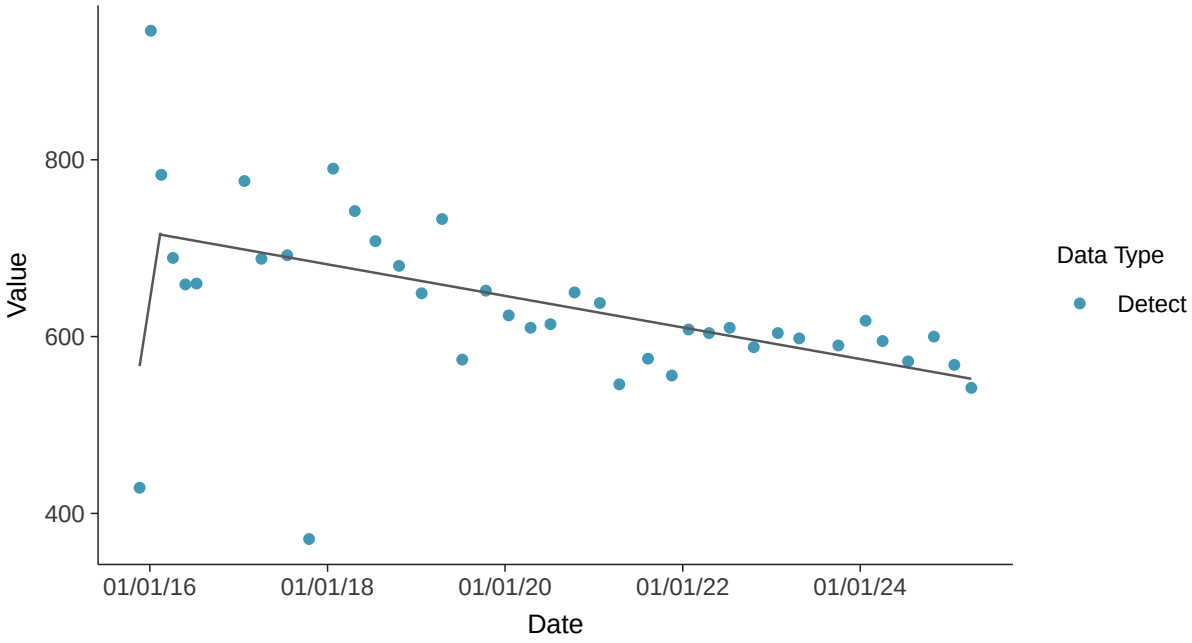
Trend Regression: Lognormal MLE

Total Dissolved Solids, MW-6 (mg/L)



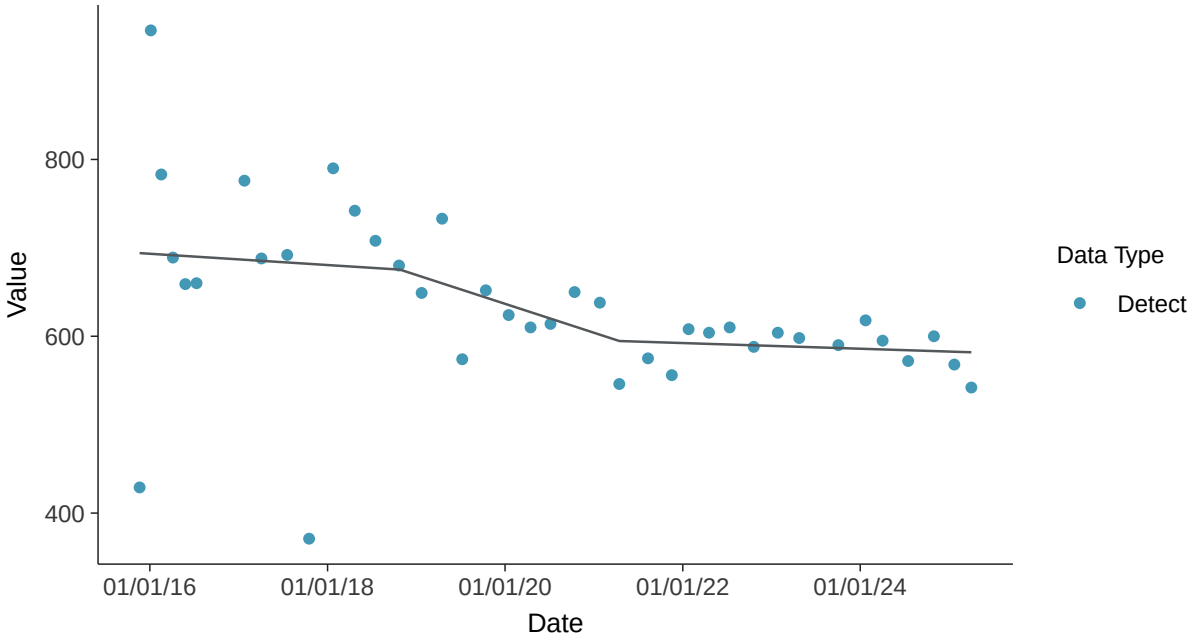
Trend Regression: Piecewise Linear-Linear

Total Dissolved Solids, MW-6 (mg/L)



Trend Regression: Piecewise Linear-Linear-Linear

Total Dissolved Solids, MW-6 (mg/L)

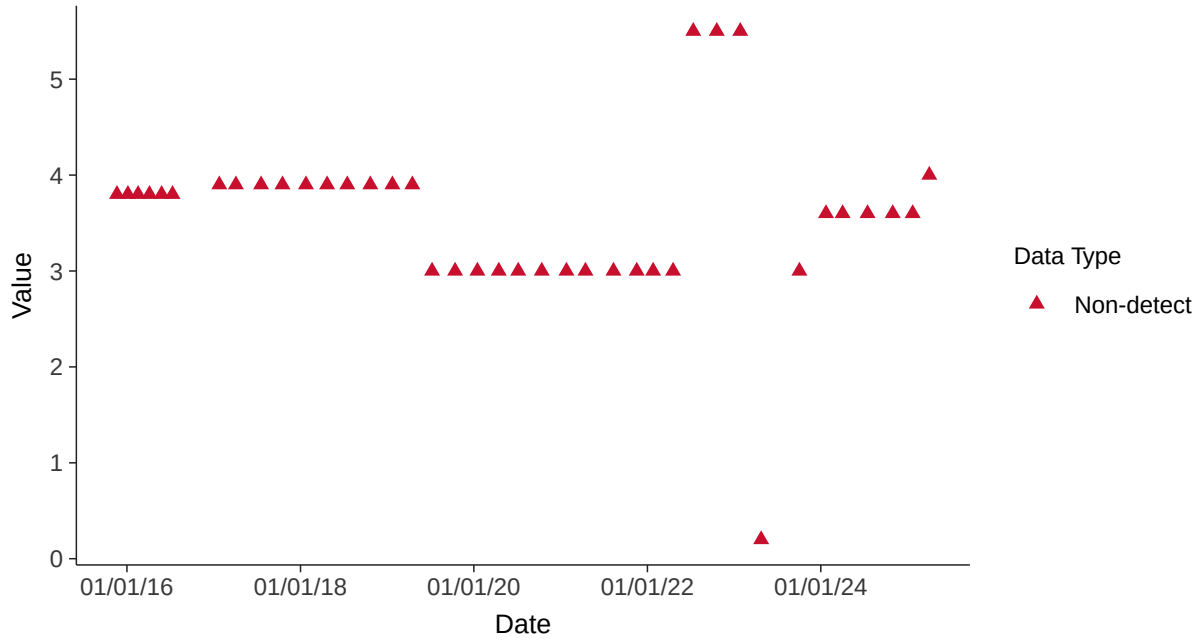


App. IV: Antimony, MW-6

ID: 06_03_101

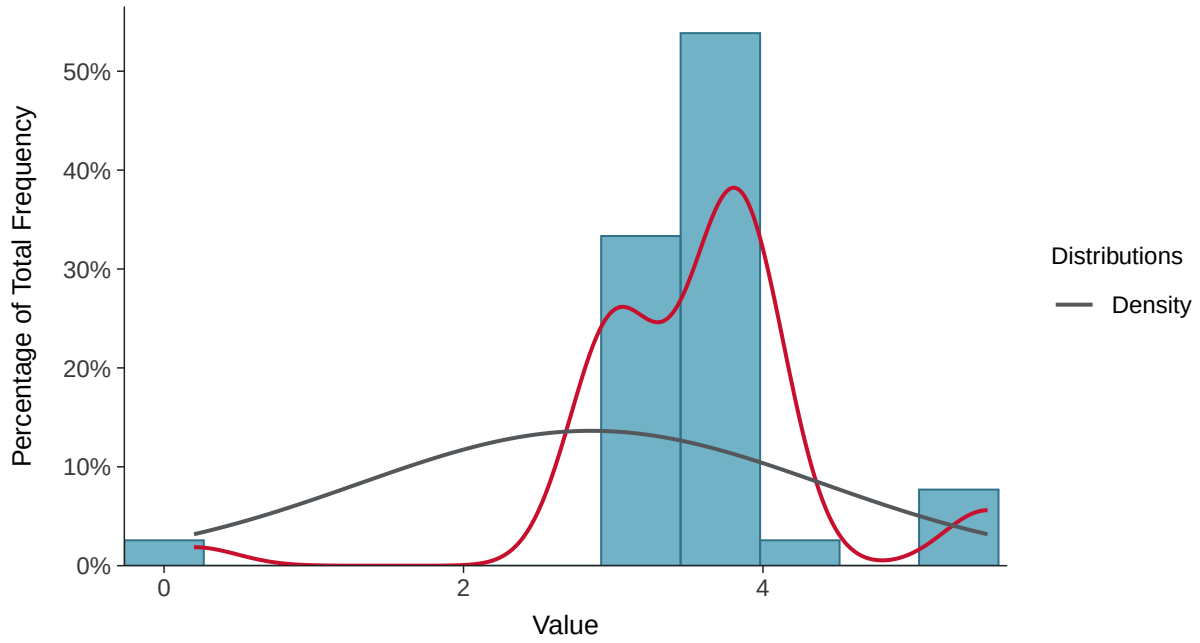
Scatter Plot

Antimony, MW-6 (ug/L)



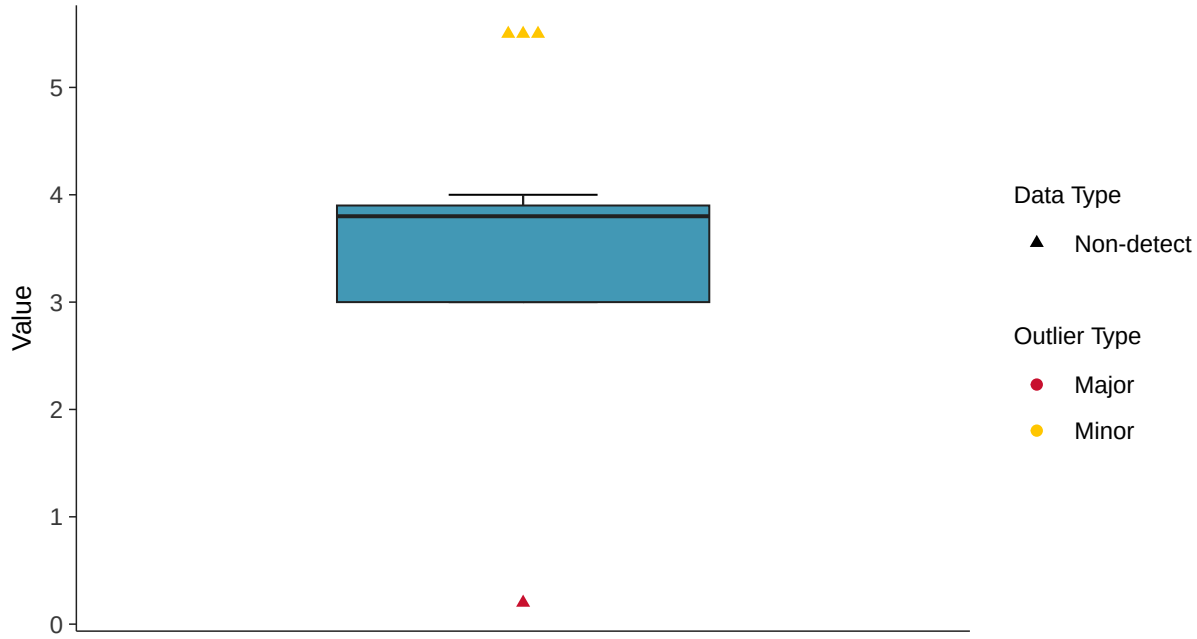
Histogram

Antimony, MW-6 (ug/L)



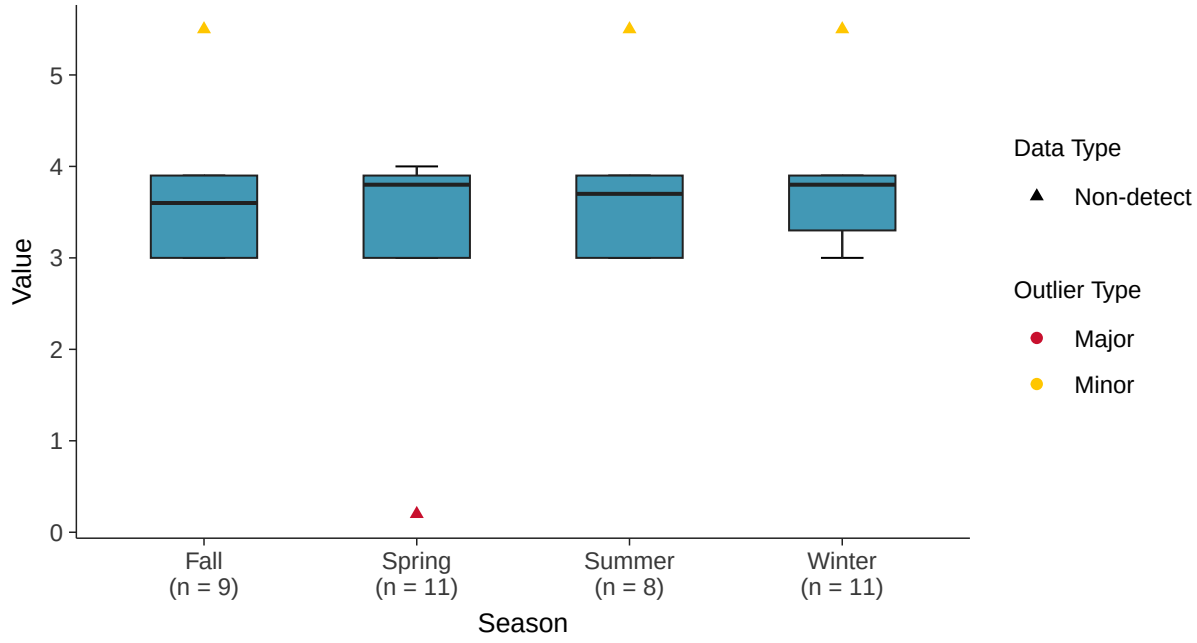
Boxplot

Antimony, MW-6 (ug/L)



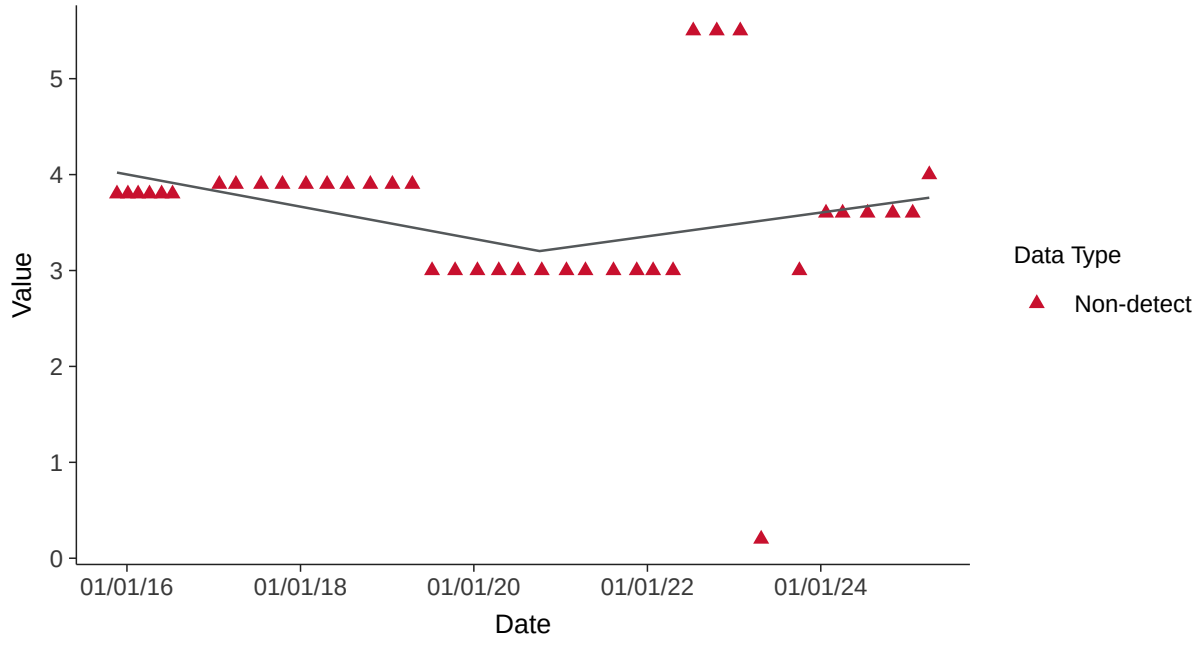
Boxplot by Season

Antimony, MW-6 (ug/L)



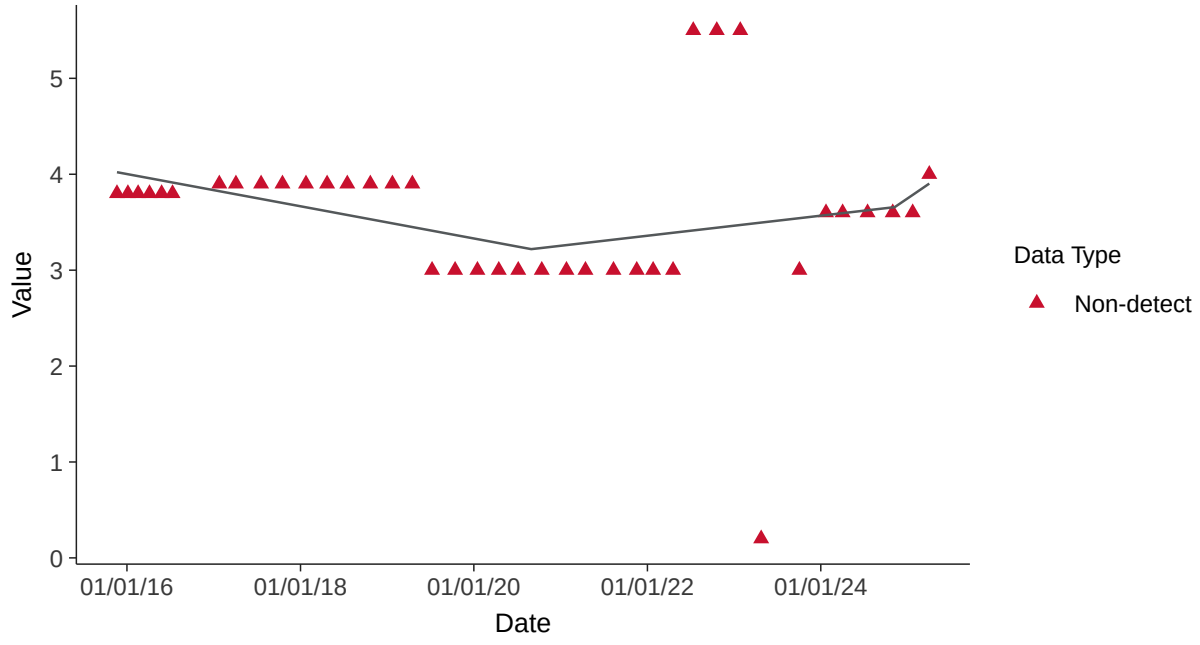
Trend Regression: Piecewise Linear-Linear

Antimony, MW-6 (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Antimony, MW-6 (ug/L)

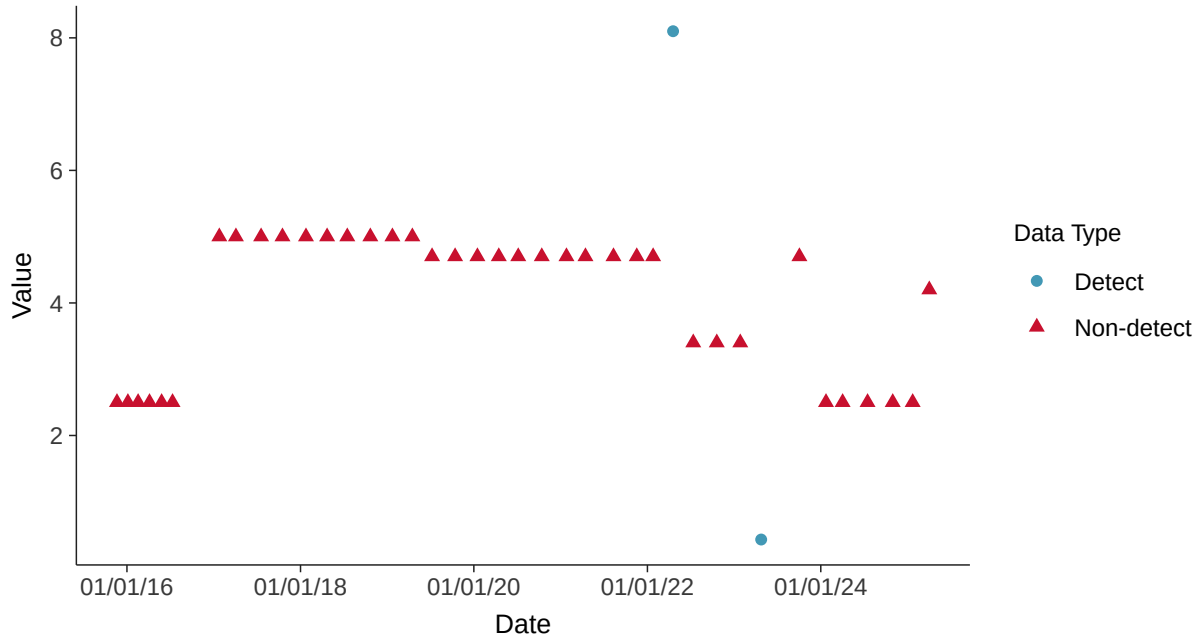


App. IV: Arsenic, MW-6

ID: 06_03_102

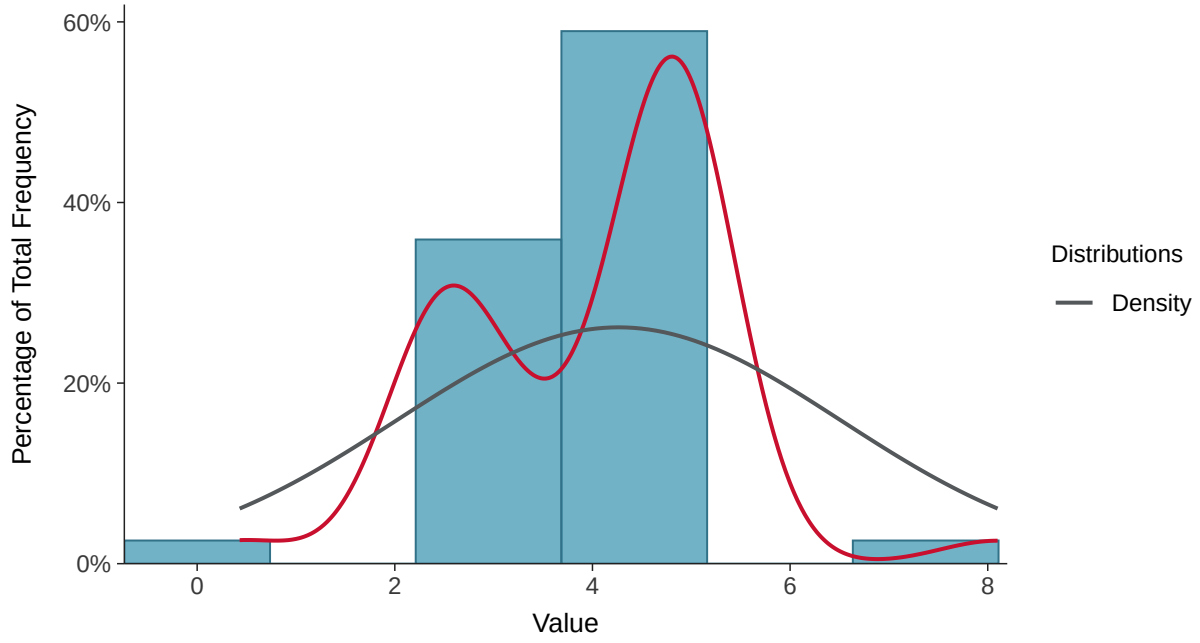
Scatter Plot

Arsenic, MW-6 (ug/L)



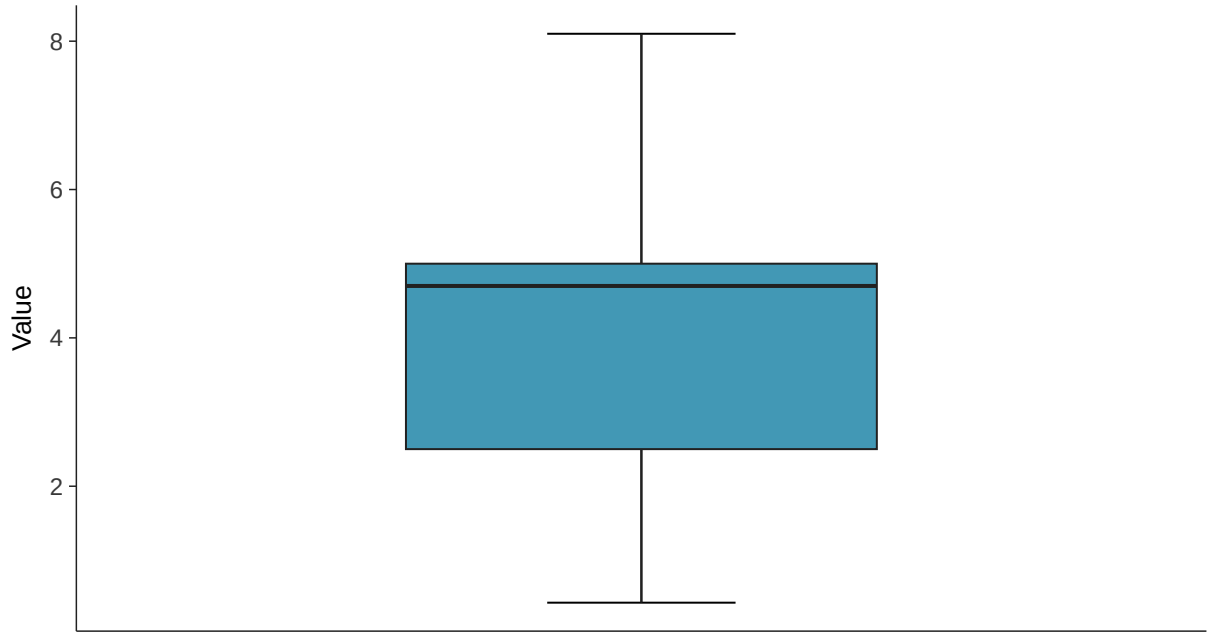
Histogram

Arsenic, MW-6 (ug/L)



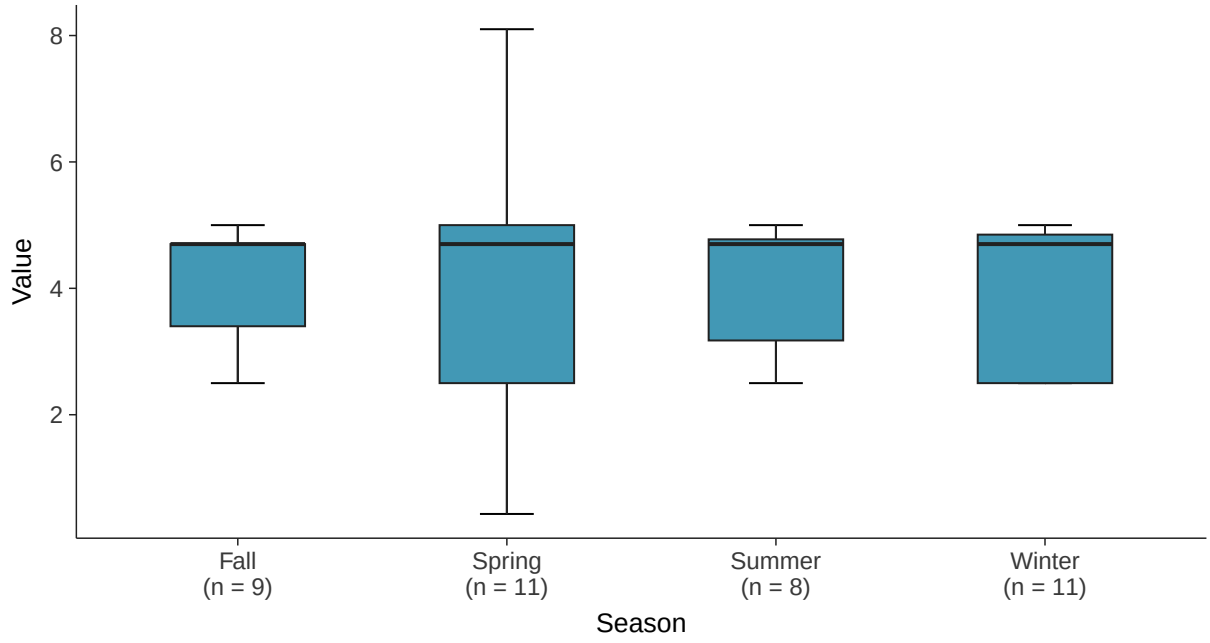
Boxplot

Arsenic, MW-6 (ug/L)



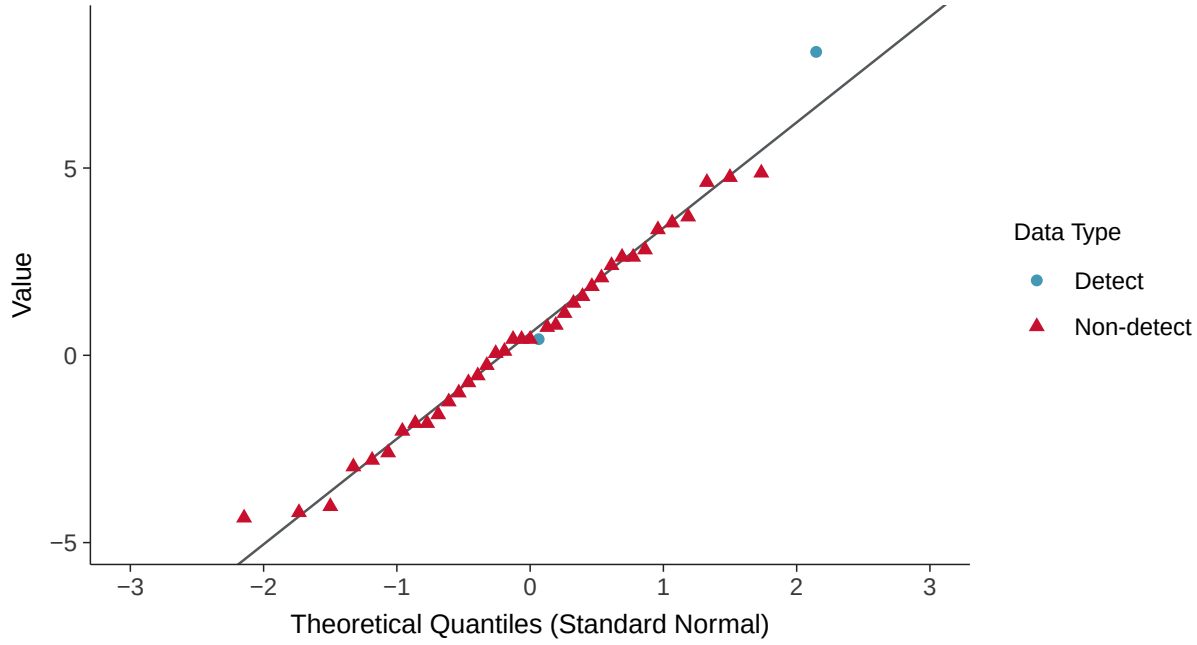
Boxplot by Season

Arsenic, MW-6 (ug/L)



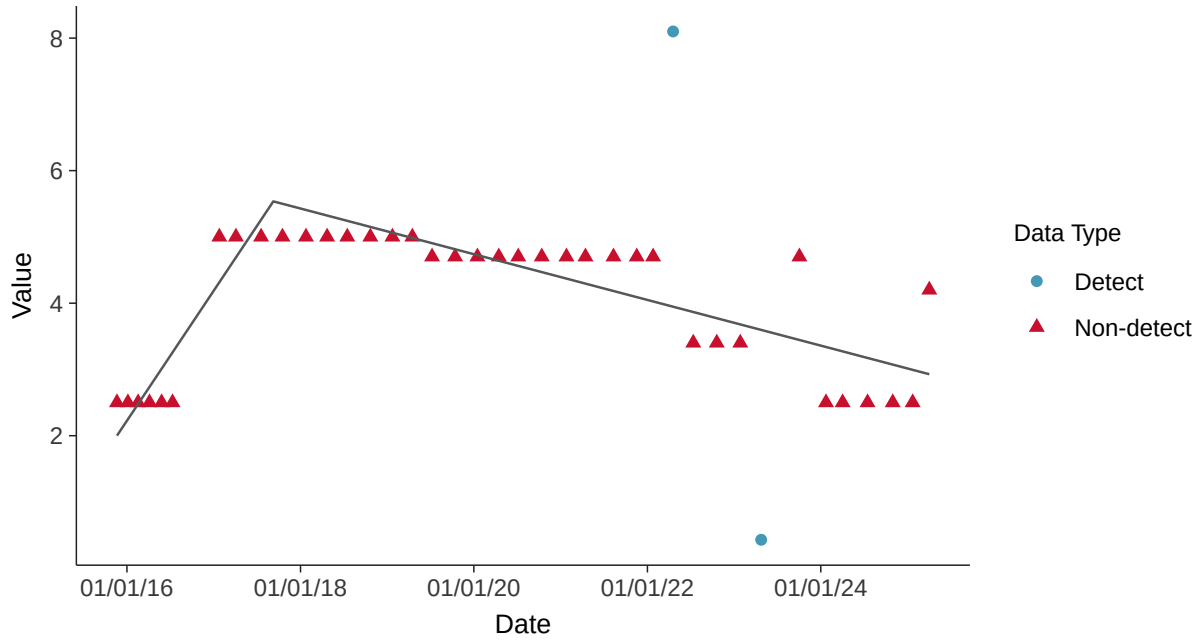
Normal Q-Q plot using ROS Imputed Estimates

Arsenic, MW-6 (ug/L)



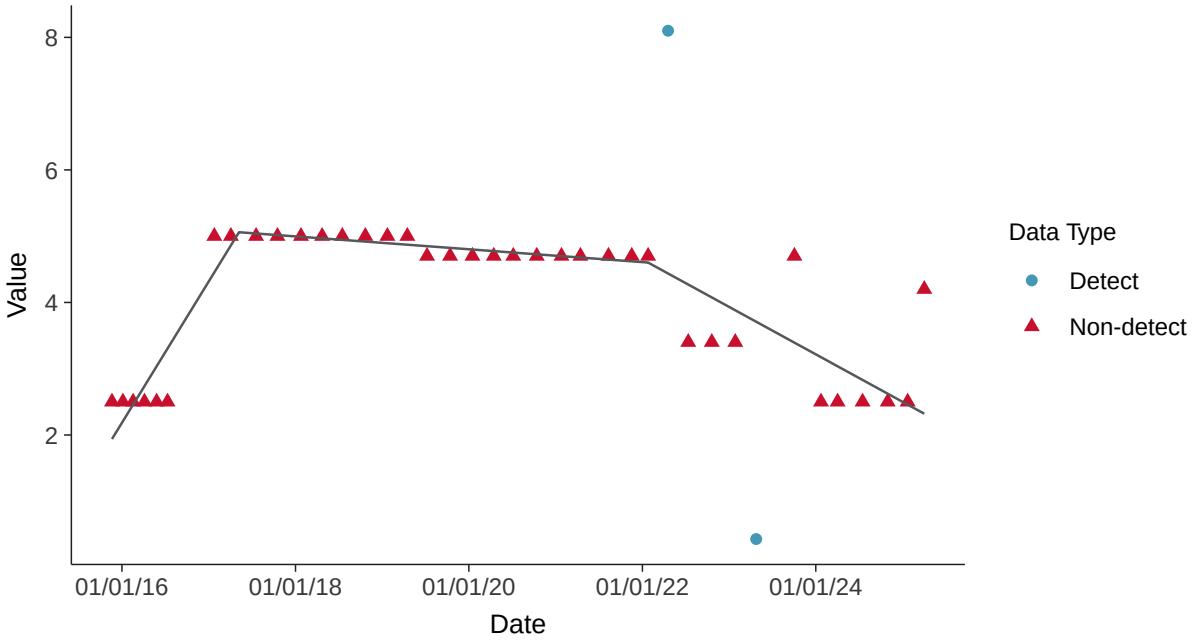
Trend Regression: Piecewise Linear-Linear

Arsenic, MW-6 (ug/L)



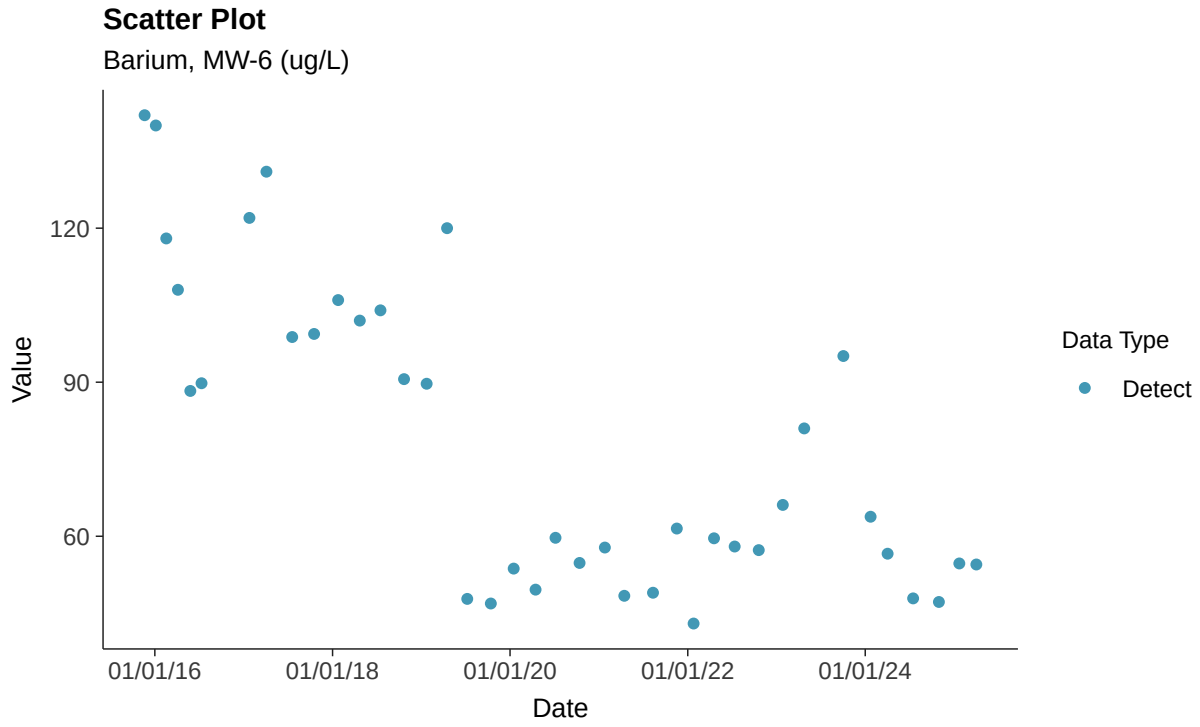
Trend Regression: Piecewise Linear-Linear-Linear

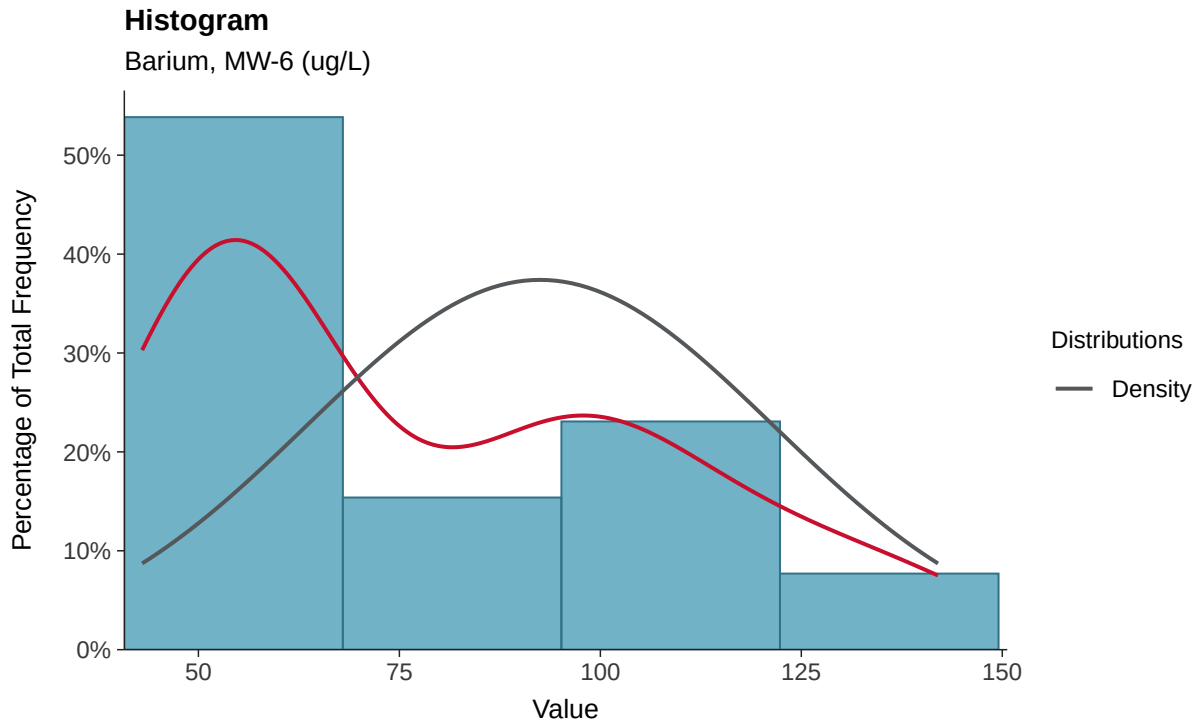
Arsenic, MW-6 (ug/L)



App. IV: Barium, MW-6

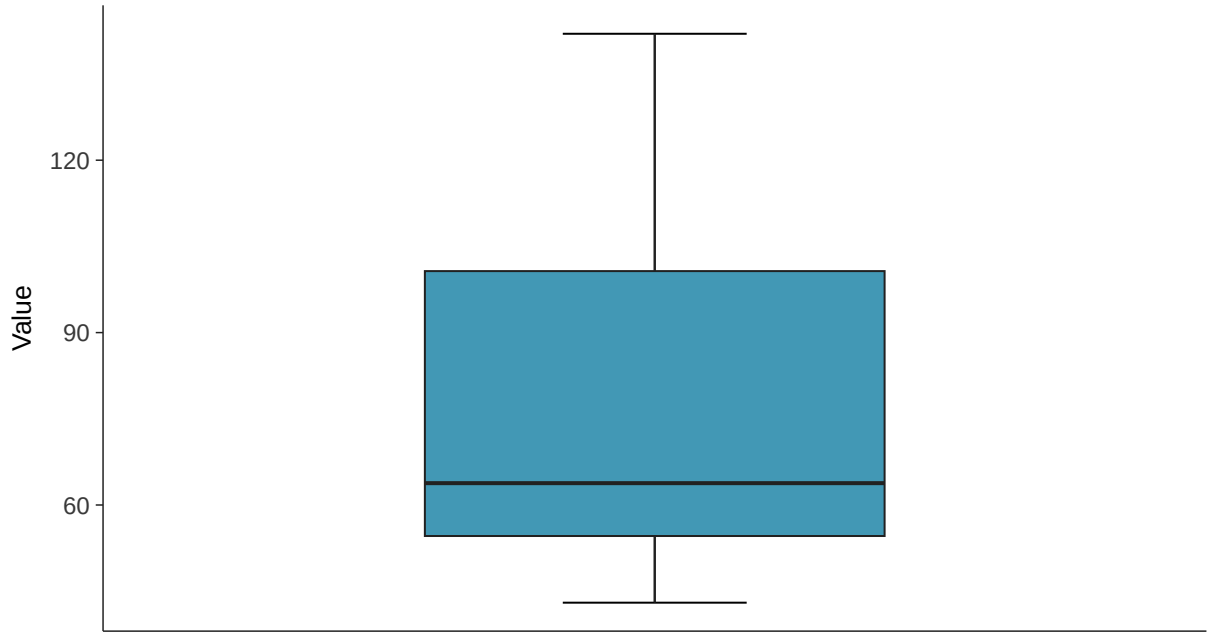
ID: 06_03_103





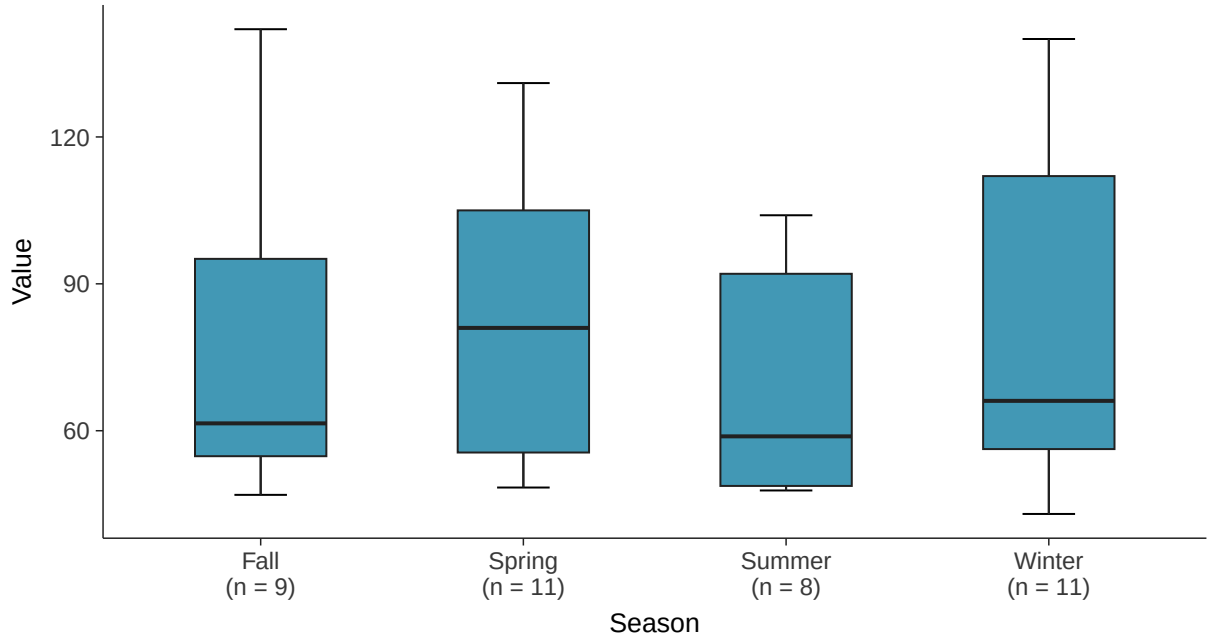
Boxplot

Barium, MW-6 (ug/L)



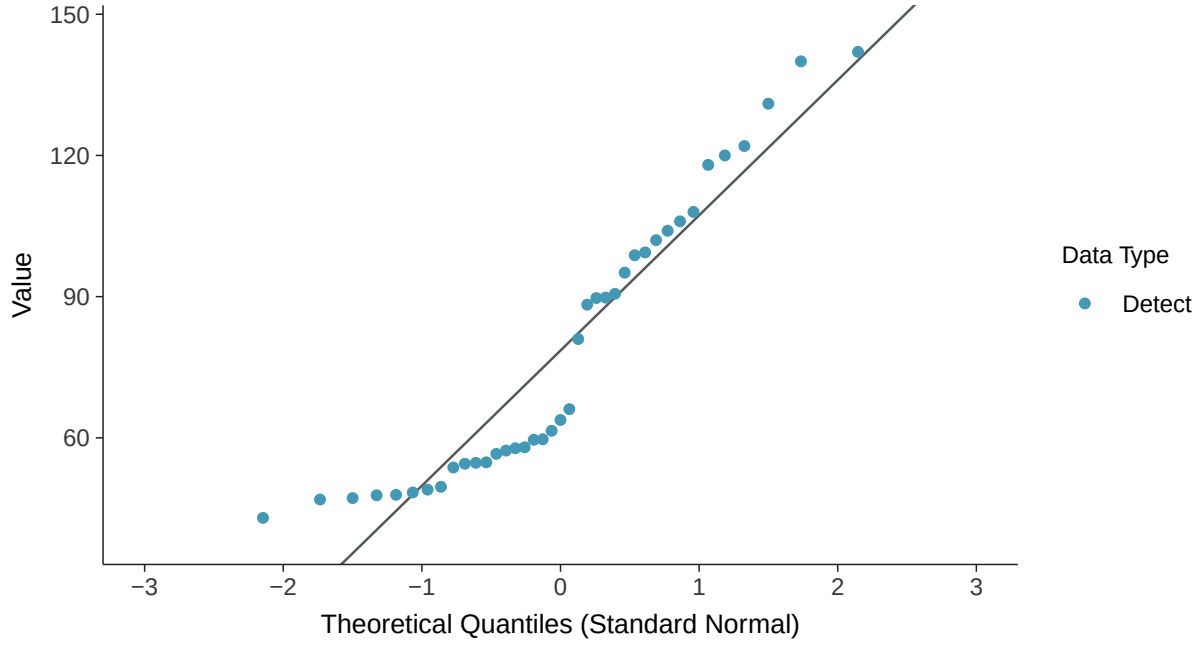
Boxplot by Season

Barium, MW-6 (ug/L)



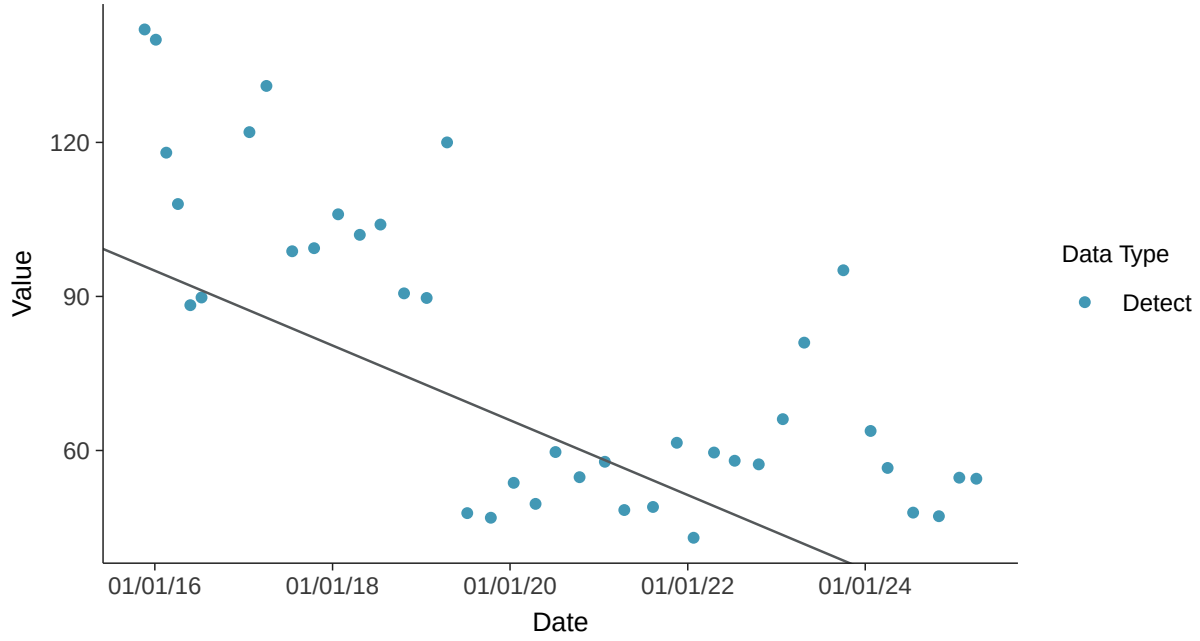
Normal Q-Q plot

Barium, MW-6 (ug/L)



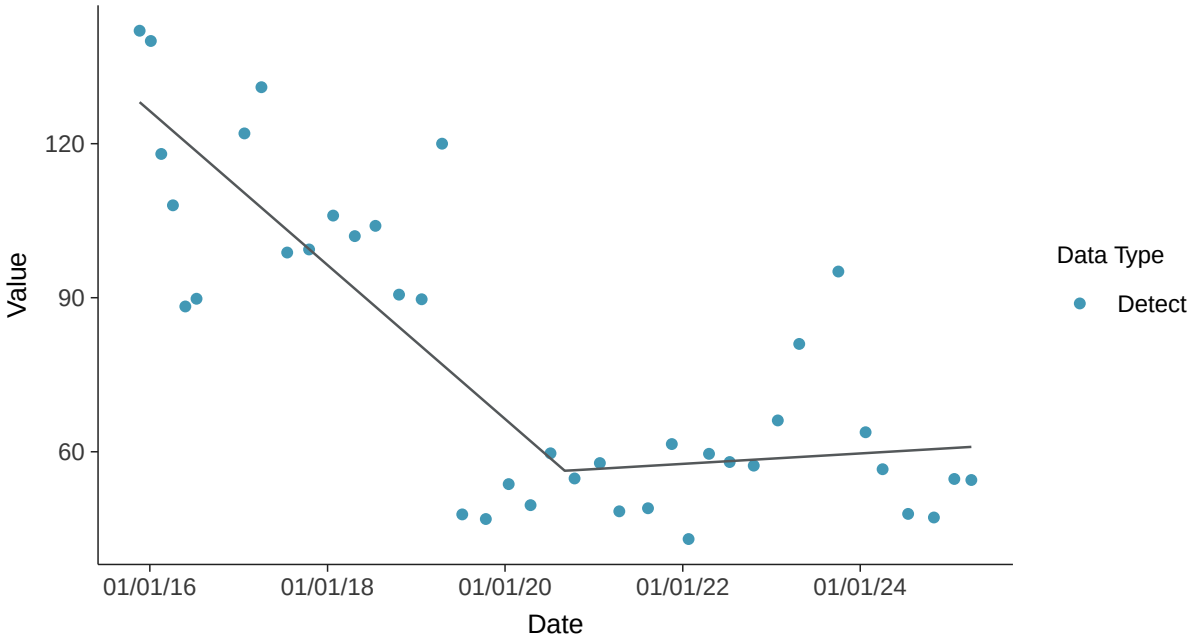
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Barium, MW-6 (ug/L)



Trend Regression: Piecewise Linear-Linear

Barium, MW-6 (ug/L)

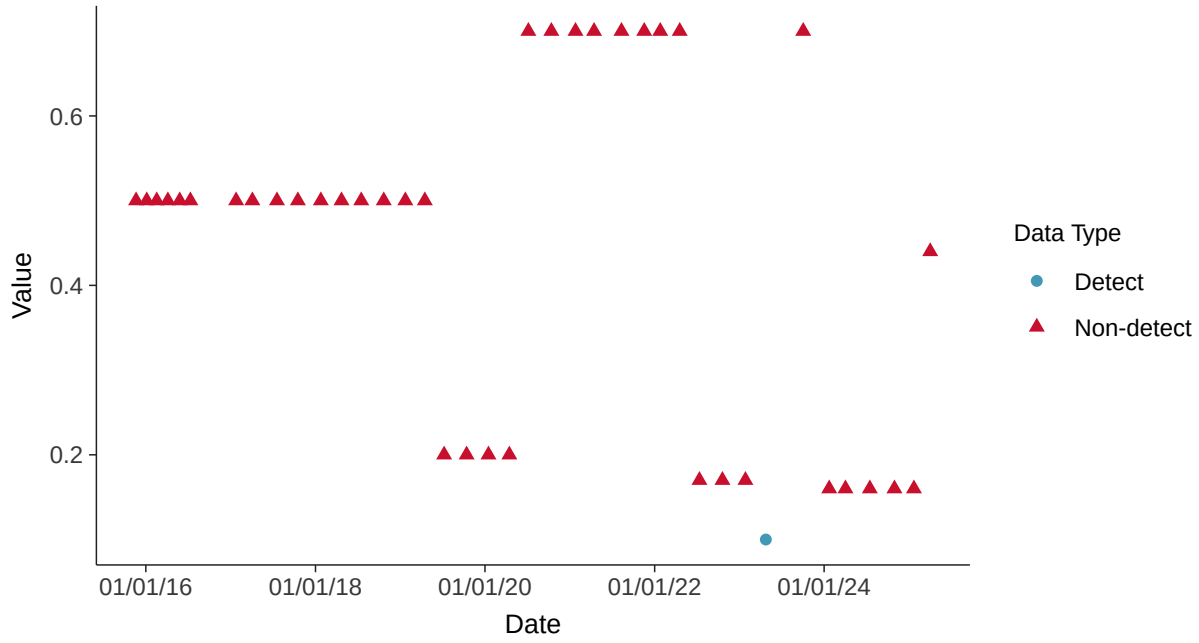


App. IV: Beryllium, MW-6

ID: 06_03_104

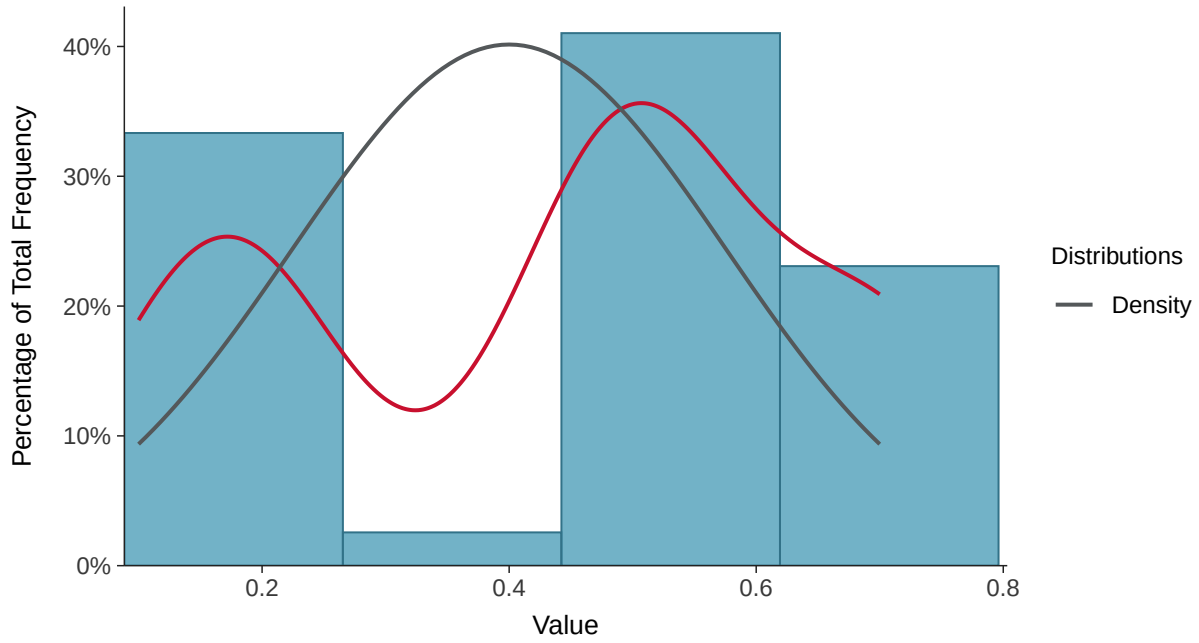
Scatter Plot

Beryllium, MW-6 (ug/L)



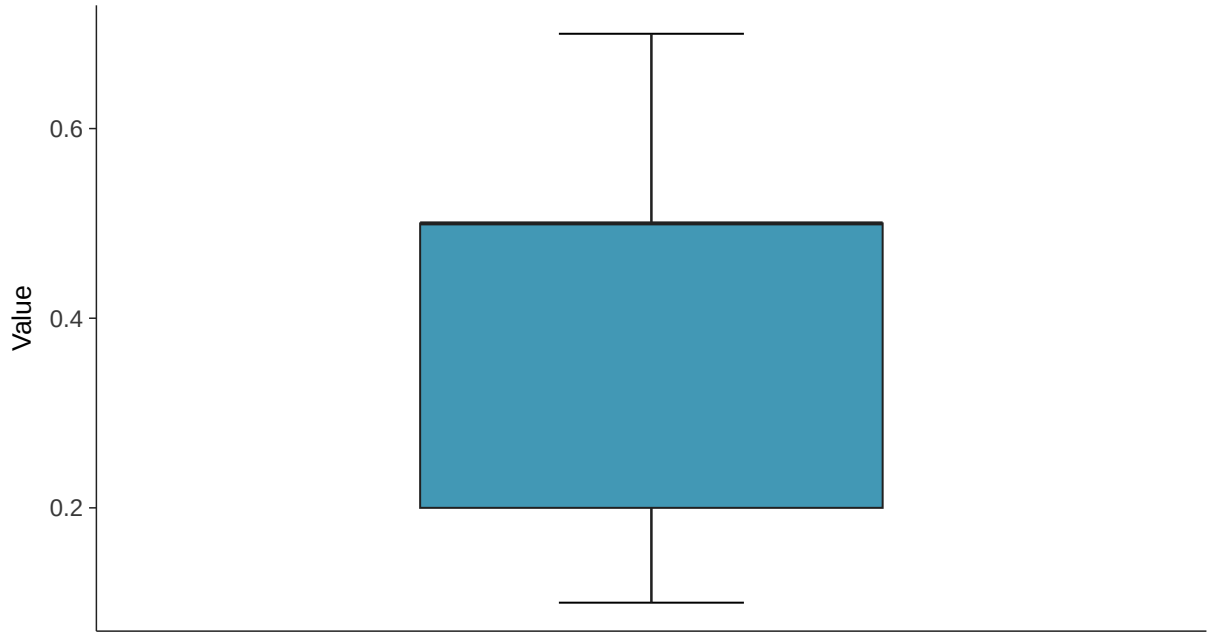
Histogram

Beryllium, MW-6 (ug/L)



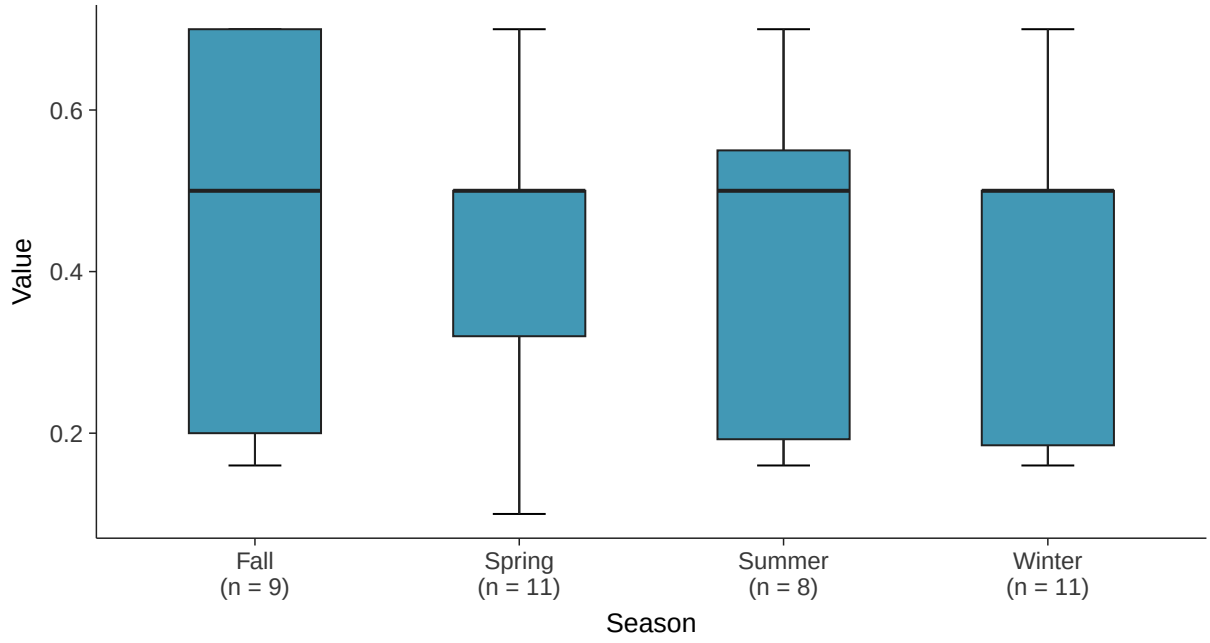
Boxplot

Beryllium, MW-6 (ug/L)



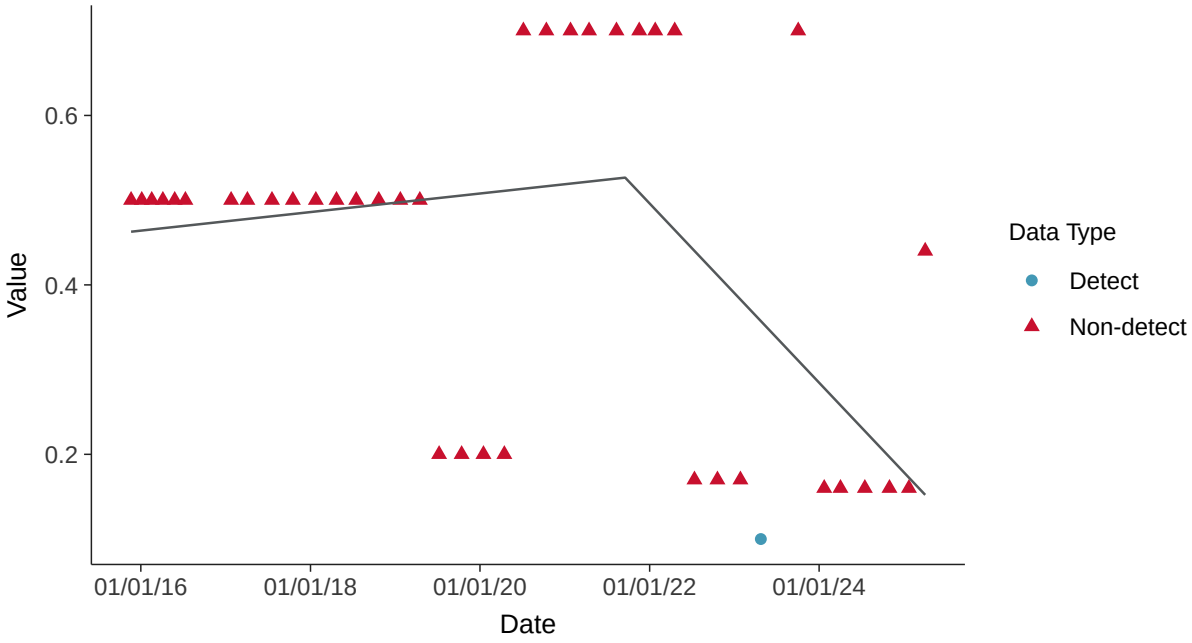
Boxplot by Season

Beryllium, MW-6 (ug/L)



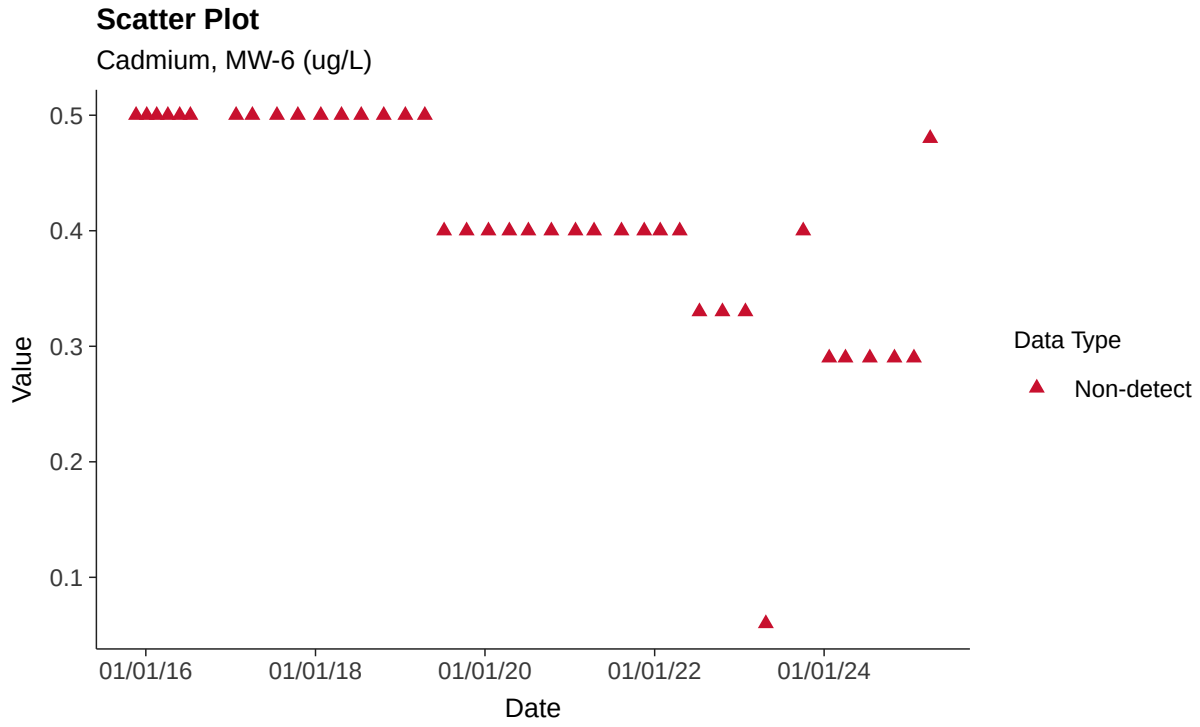
Trend Regression: Piecewise Linear-Linear

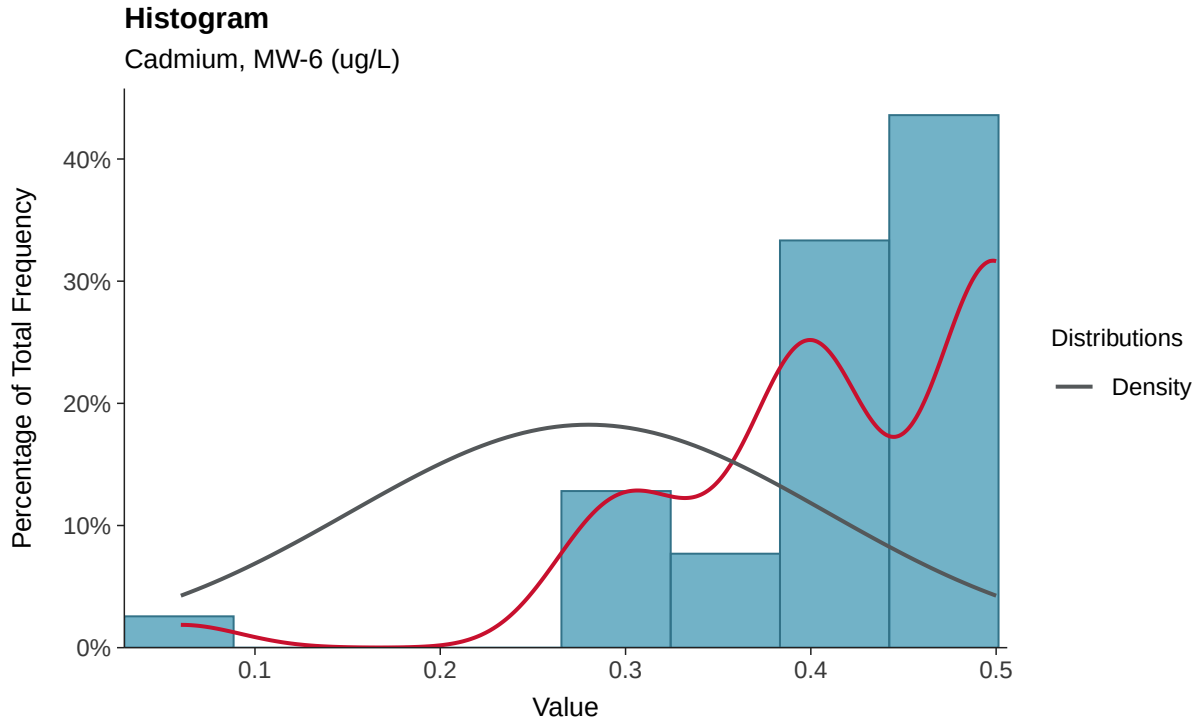
Beryllium, MW-6 (ug/L)



App. IV: Cadmium, MW-6

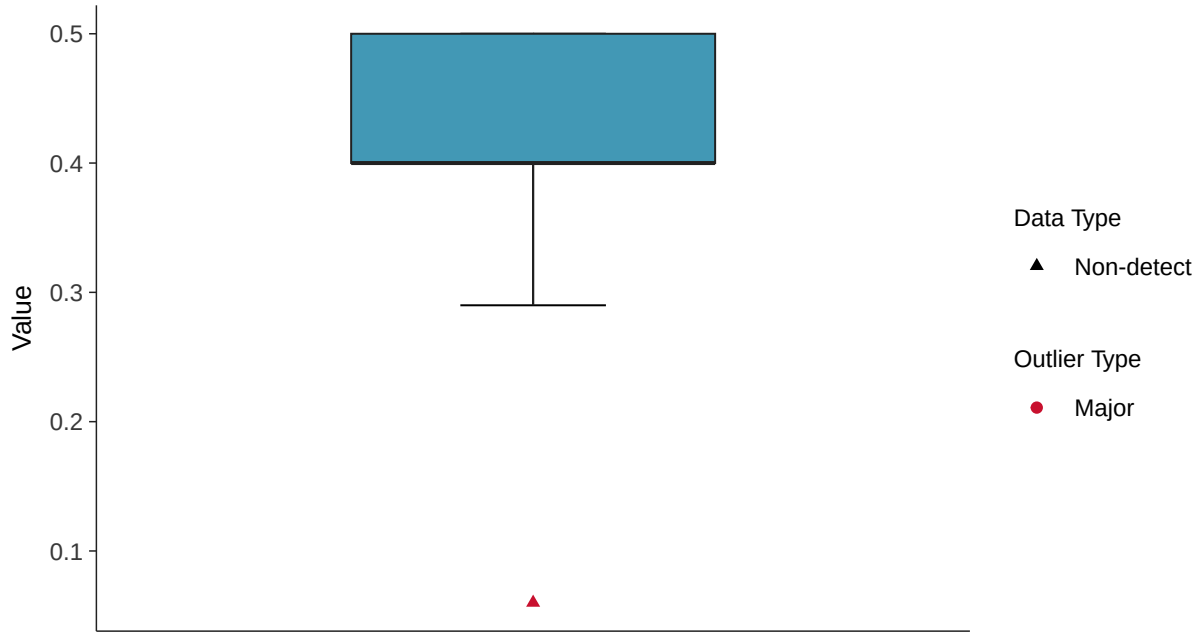
ID: 06_03_106





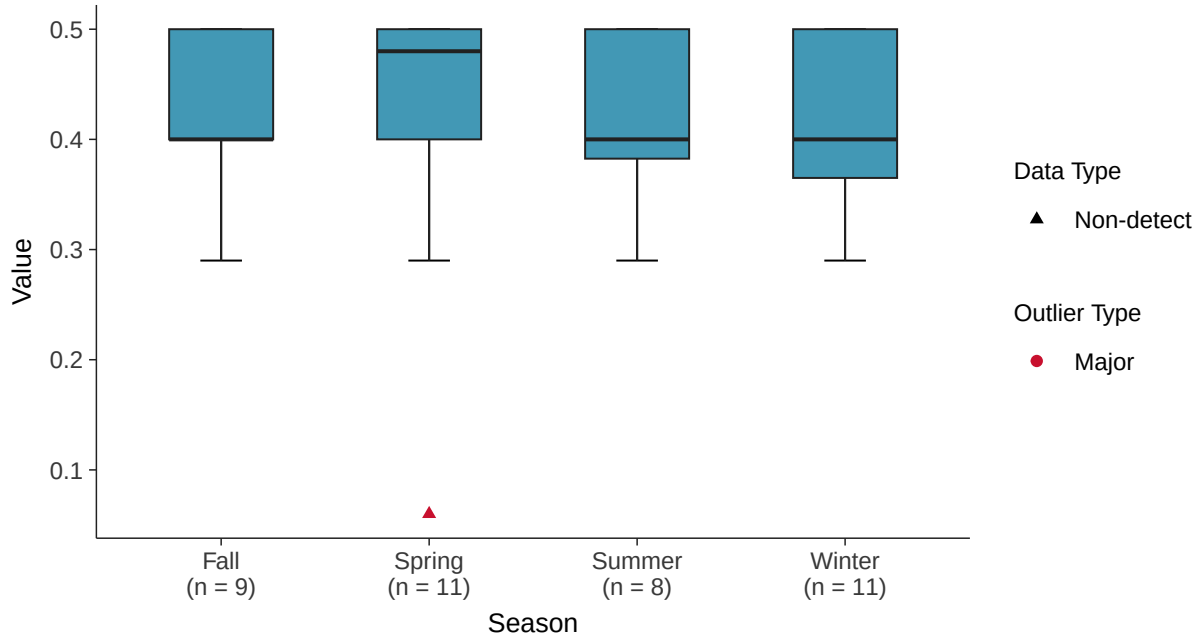
Boxplot

Cadmium, MW-6 (ug/L)



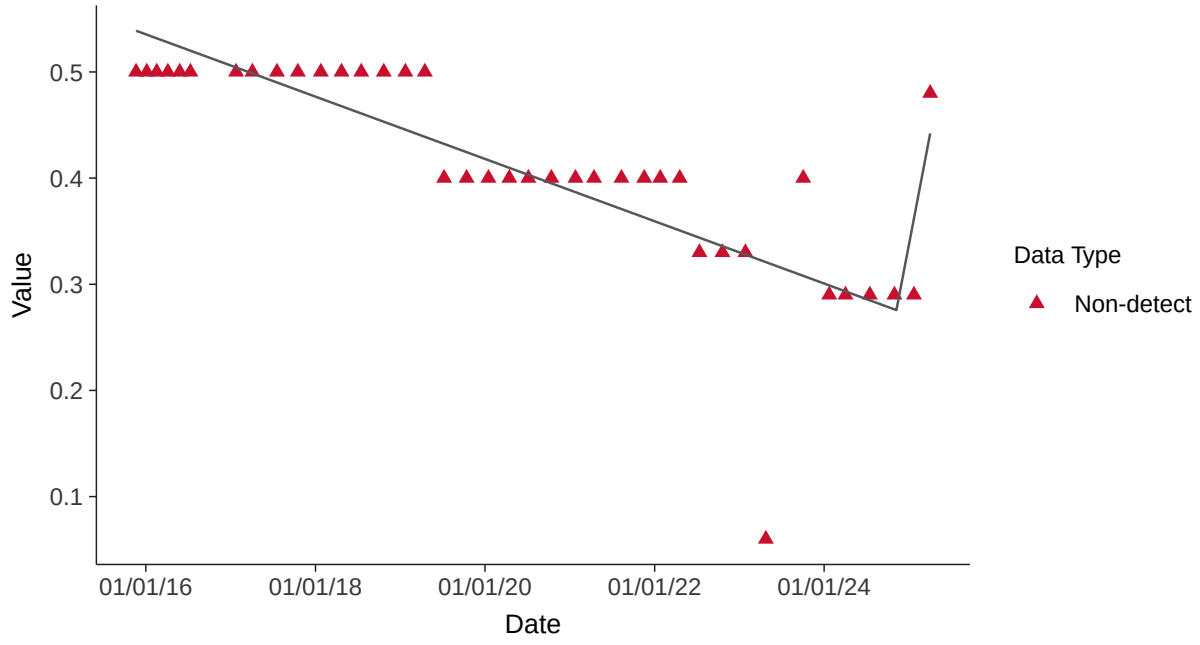
Boxplot by Season

Cadmium, MW-6 (ug/L)



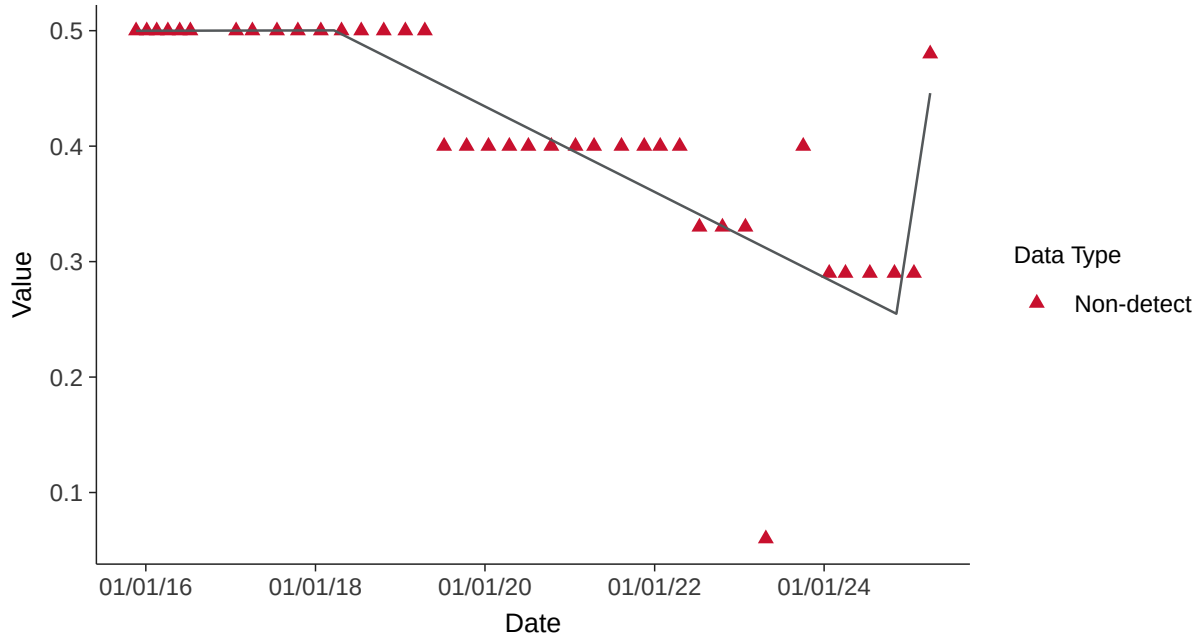
Trend Regression: Piecewise Linear-Linear

Cadmium, MW-6 (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Cadmium, MW-6 (ug/L)

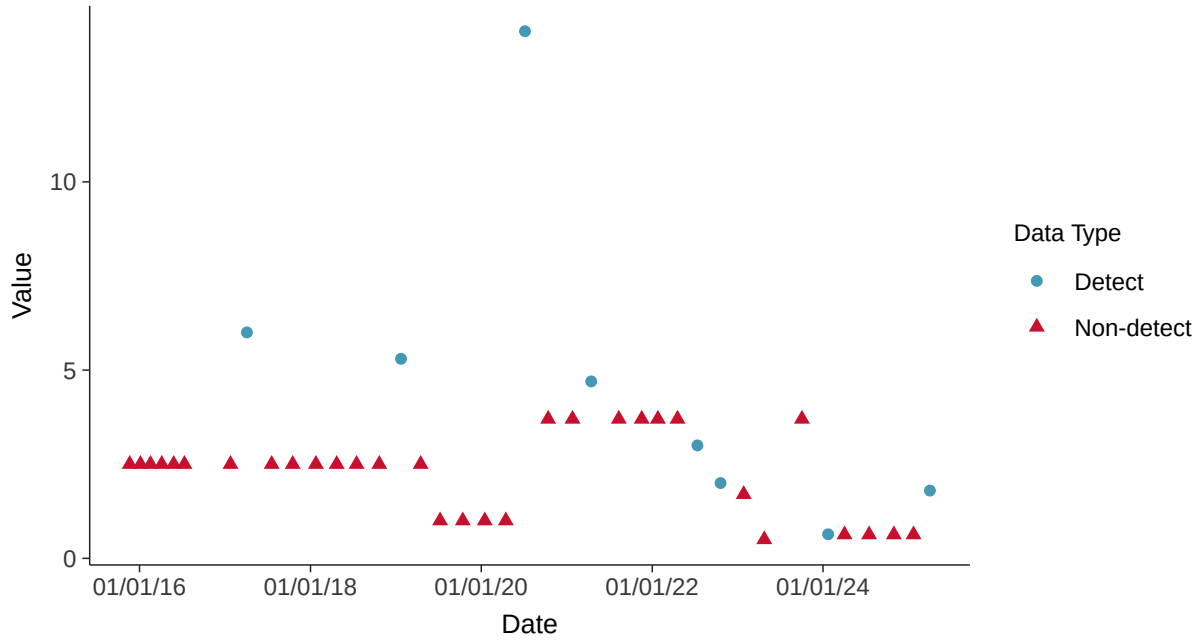


App. IV: Chromium, MW-6

ID: 06_03_109

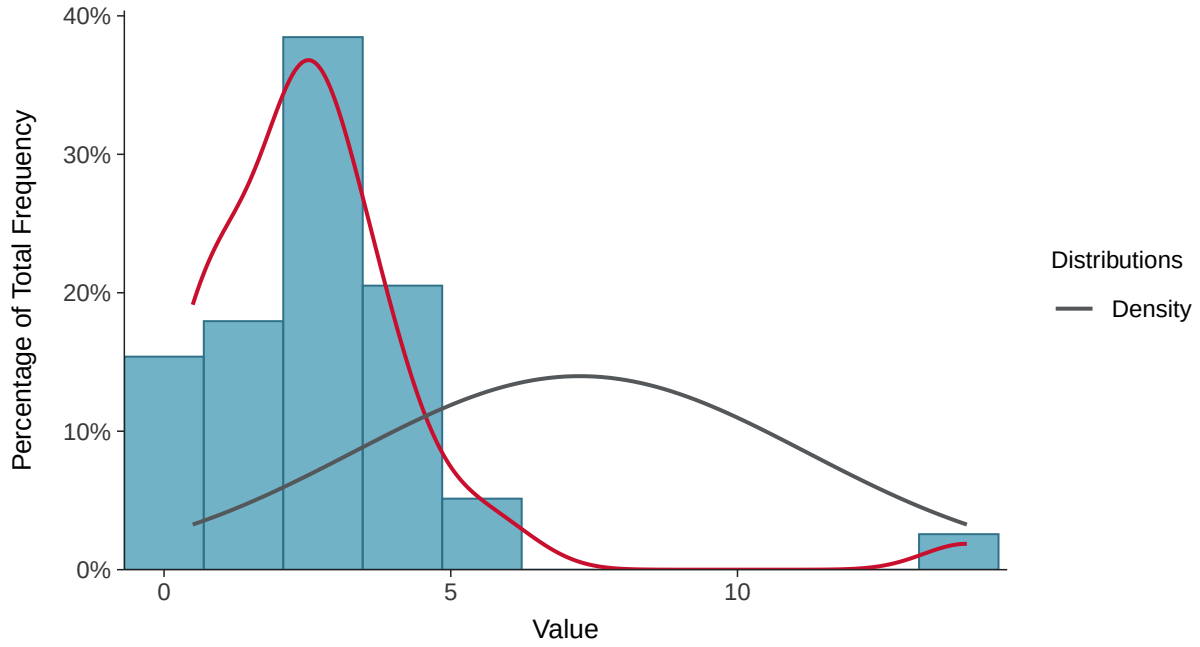
Scatter Plot

Chromium, MW-6 (ug/L)



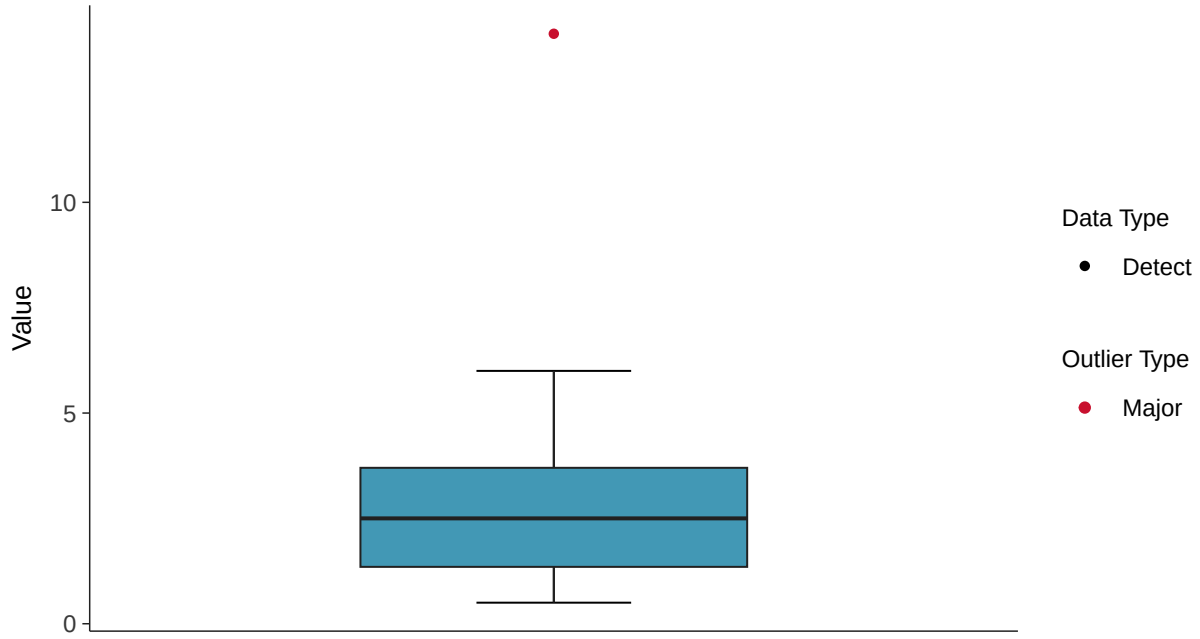
Histogram

Chromium, MW-6 (ug/L)



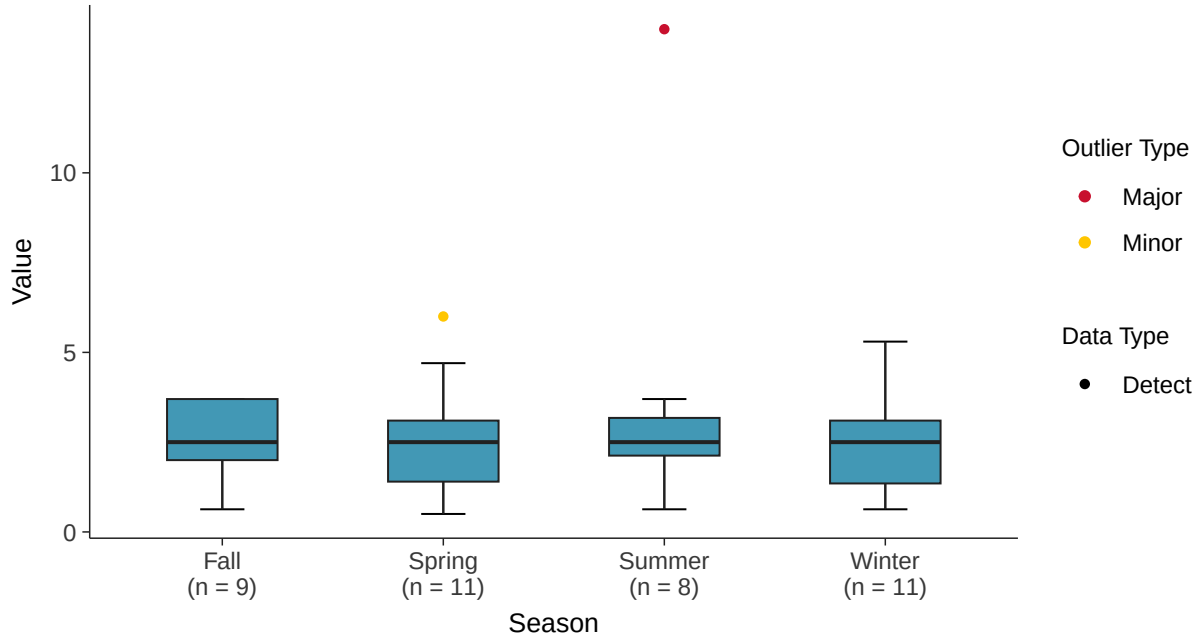
Boxplot

Chromium, MW-6 (ug/L)



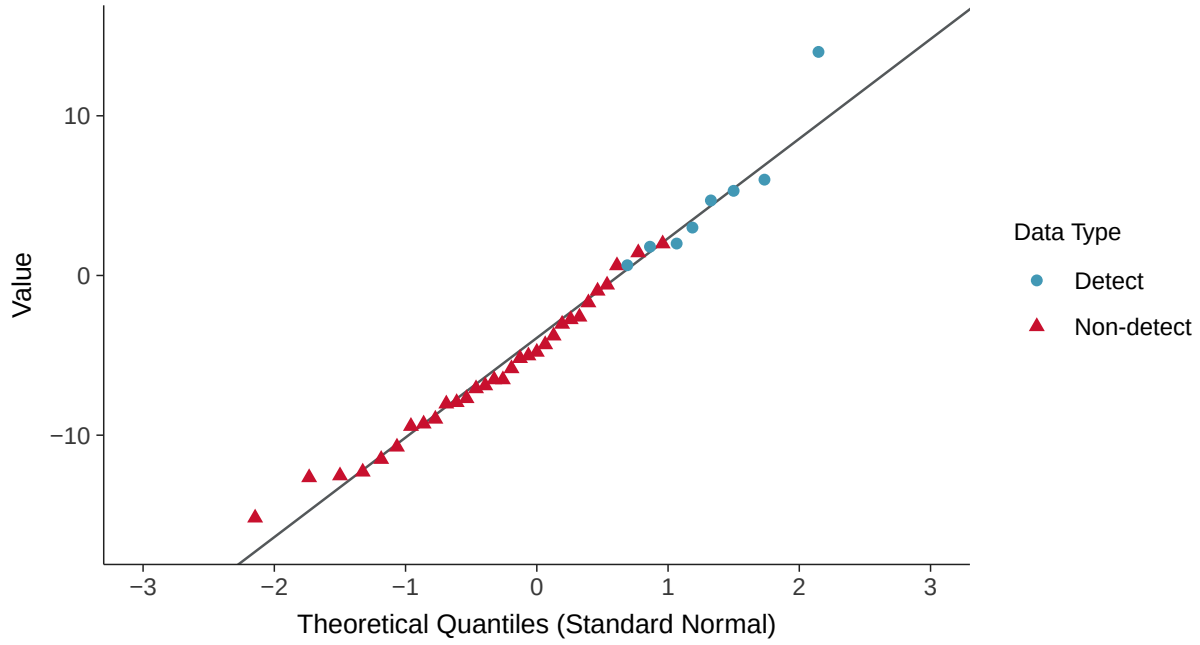
Boxplot by Season

Chromium, MW-6 (ug/L)



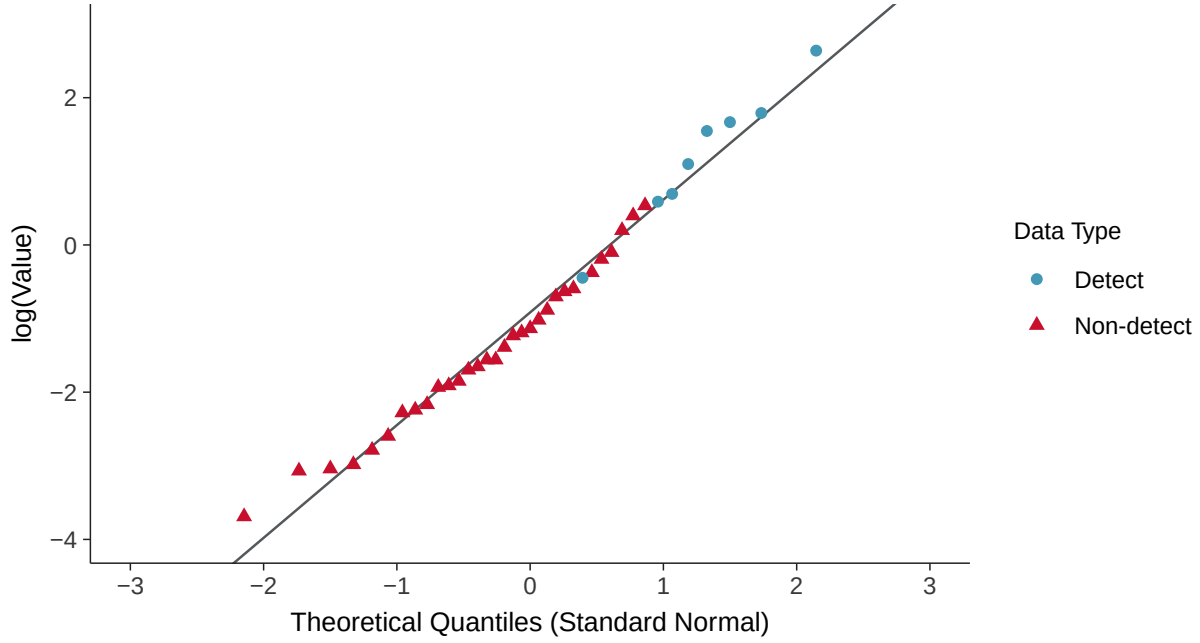
Normal Q-Q plot using ROS Imputed Estimates

Chromium, MW-6 (ug/L)



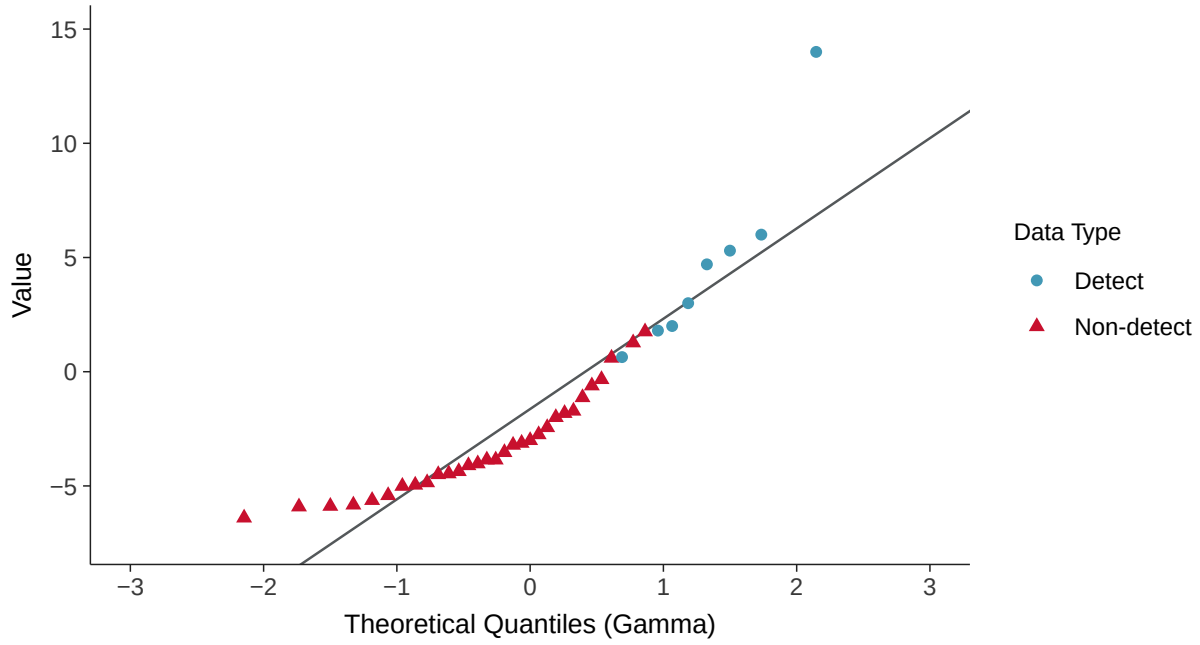
Lognormal Q-Q plot using ROS Imputed Estimates

Chromium, MW-6 (ug/L)



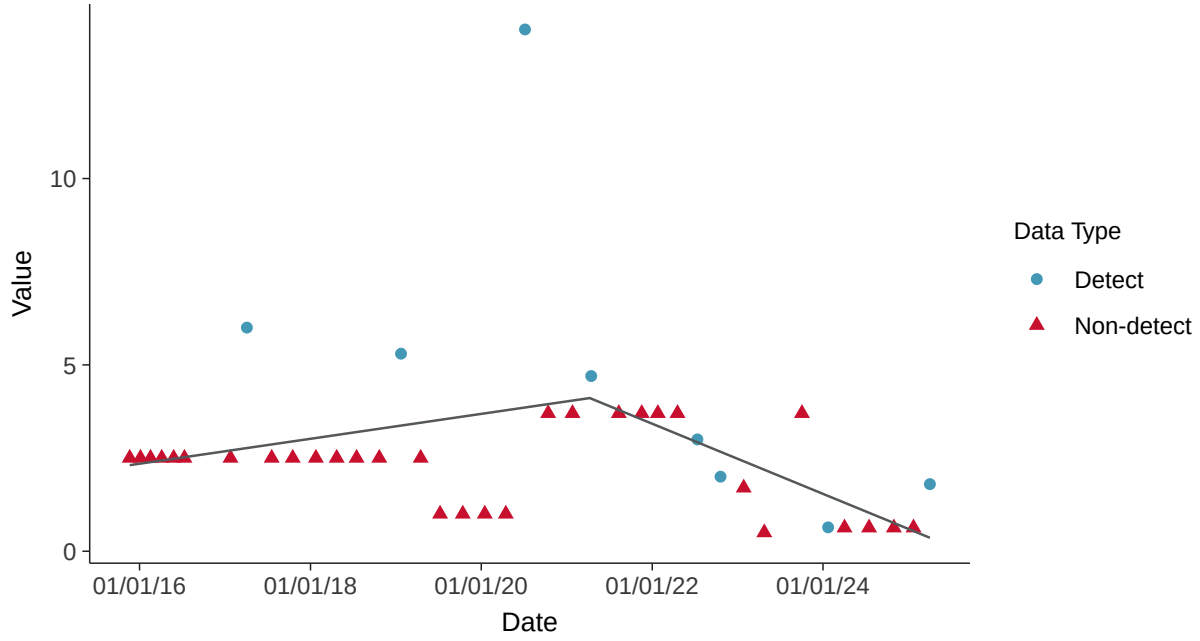
Gamma Q-Q plot using ROS Imputed Estimates

Chromium, MW-6 (ug/L)



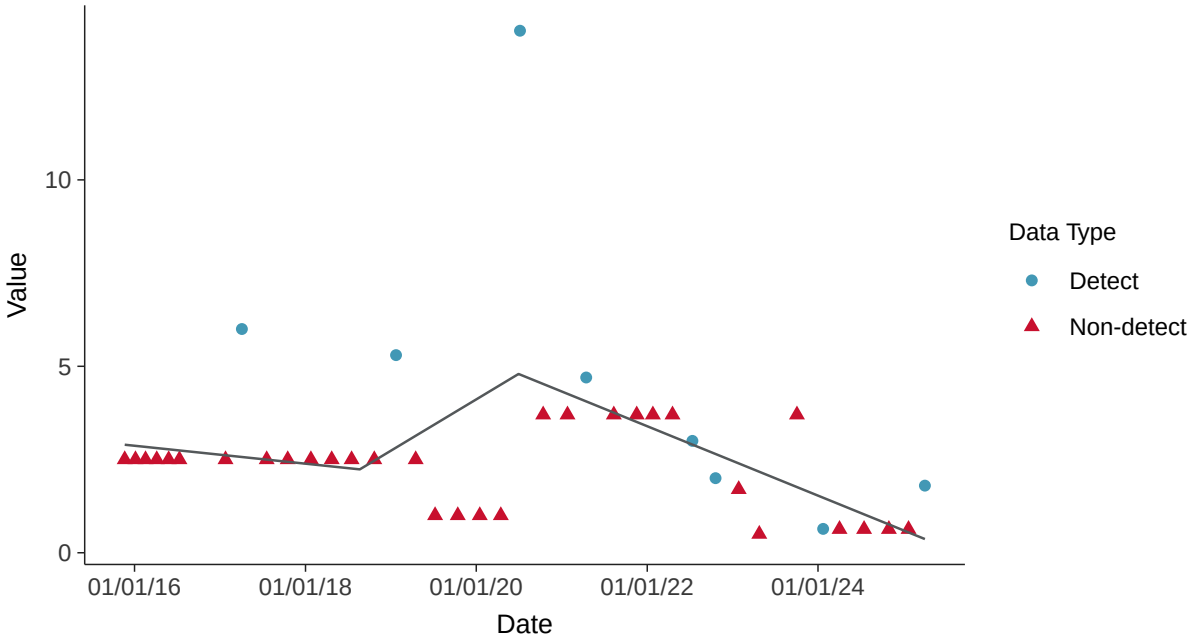
Trend Regression: Piecewise Linear-Linear

Chromium, MW-6 (ug/L)



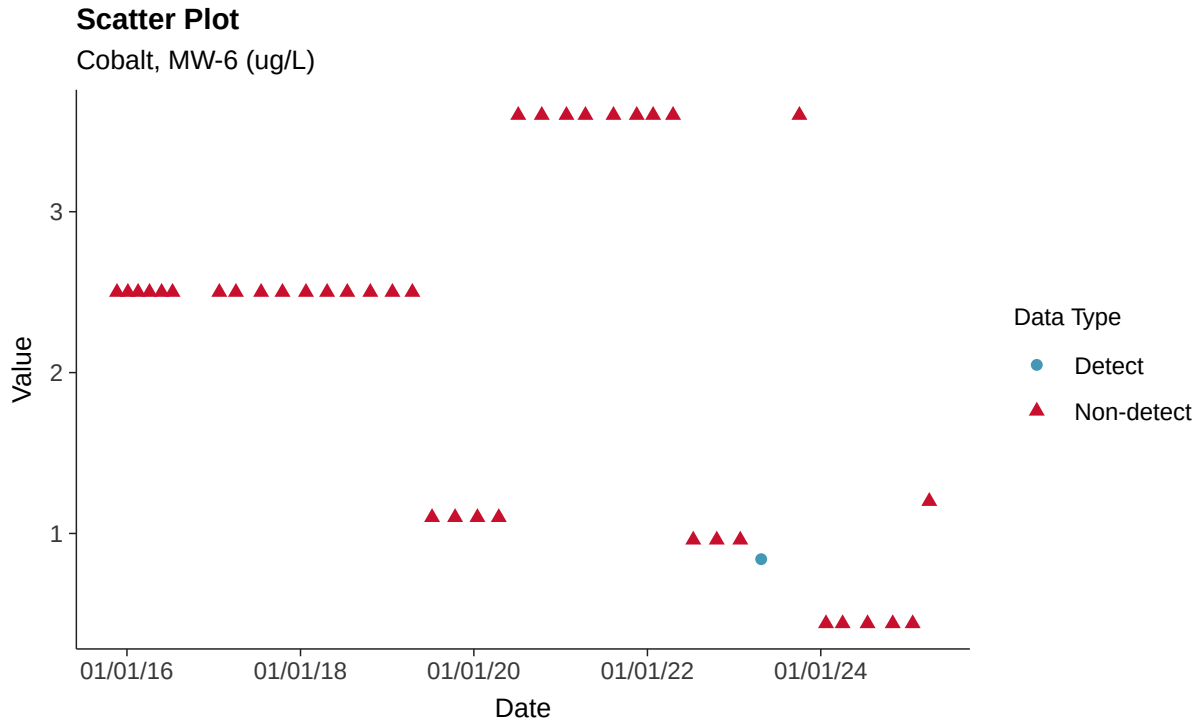
Trend Regression: Piecewise Linear-Linear-Linear

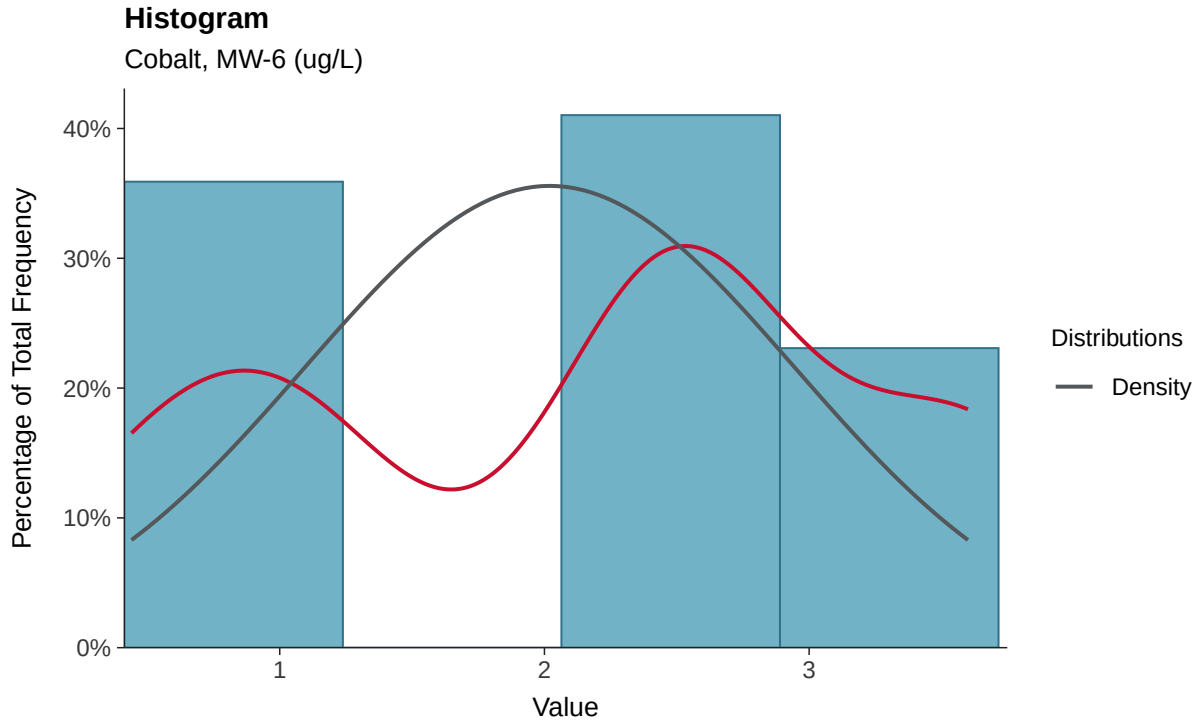
Chromium, MW-6 (ug/L)



App. IV: Cobalt, MW-6

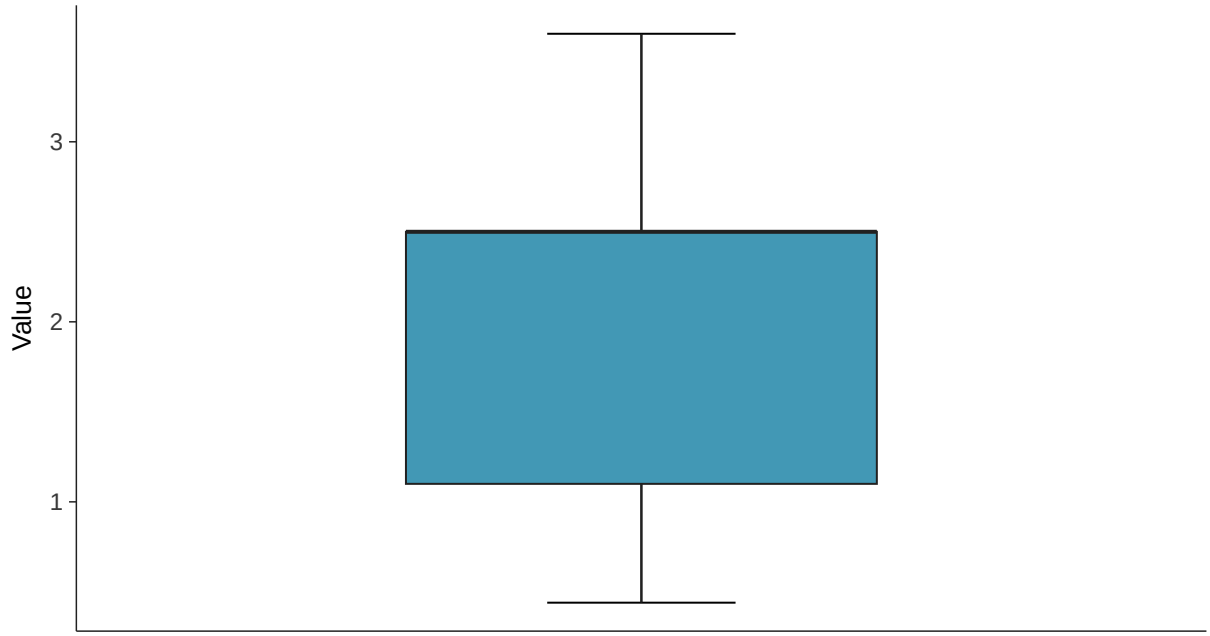
ID: 06_03_110





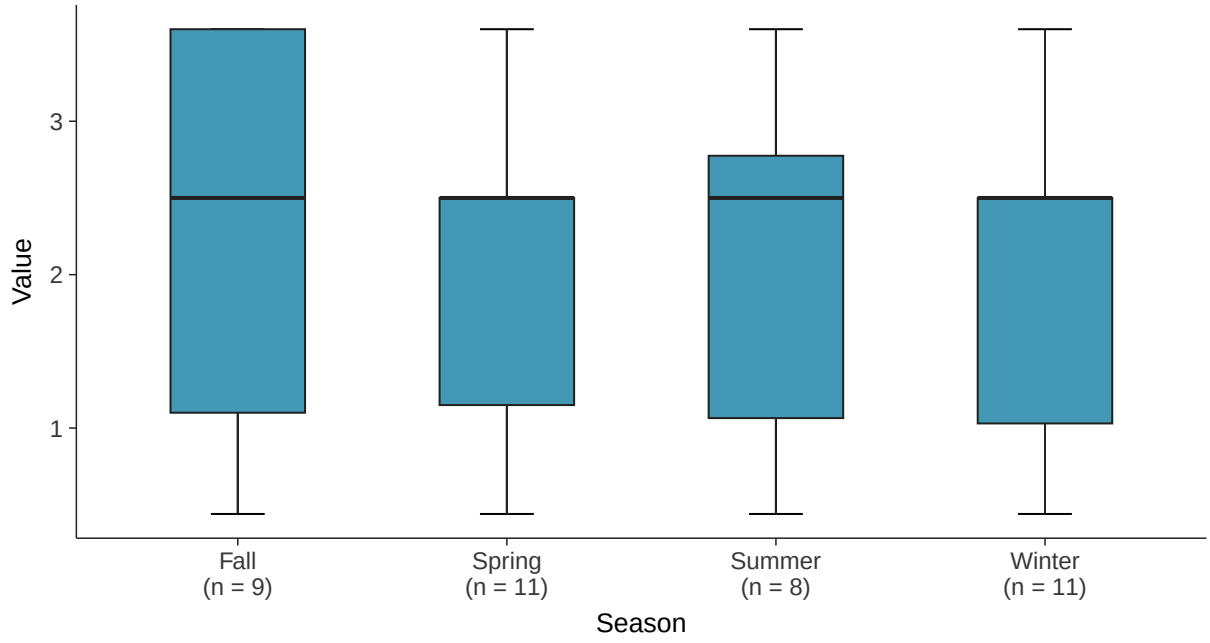
Boxplot

Cobalt, MW-6 (ug/L)



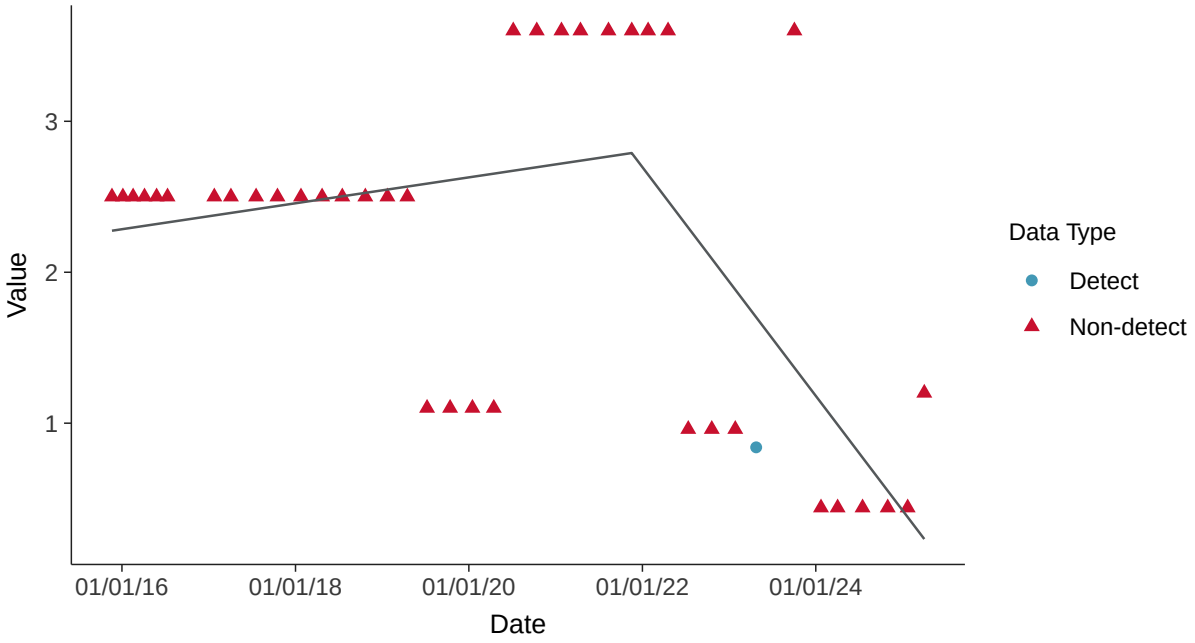
Boxplot by Season

Cobalt, MW-6 (ug/L)



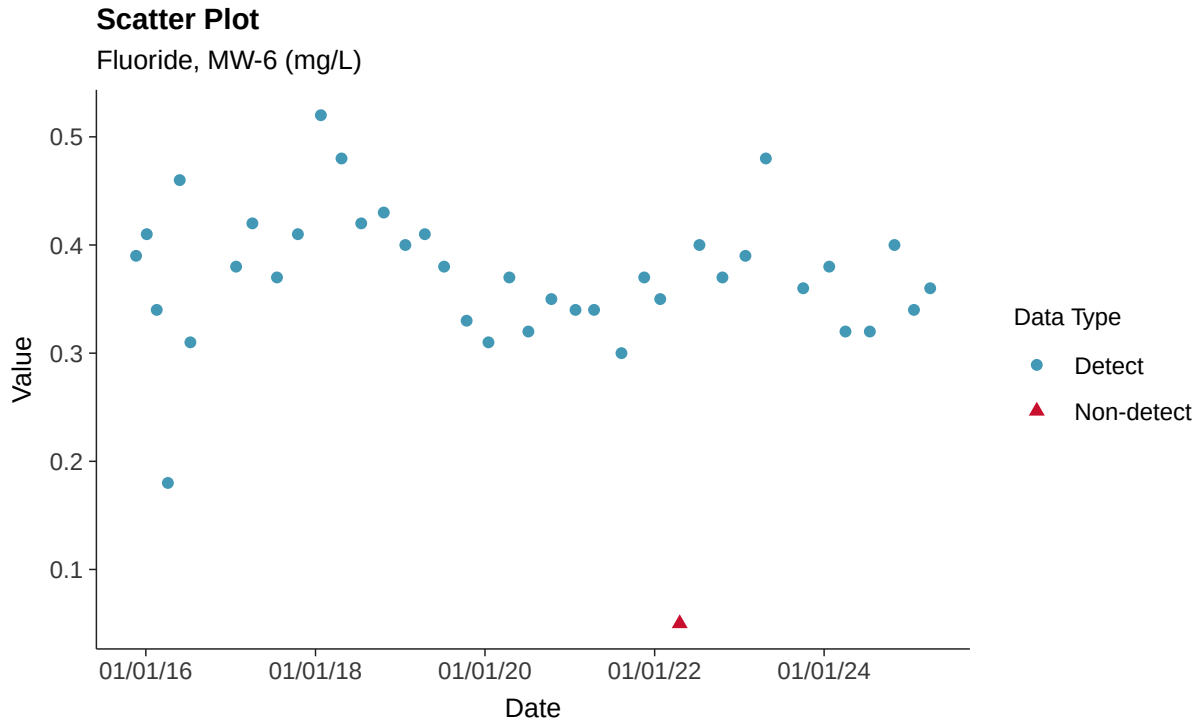
Trend Regression: Piecewise Linear-Linear

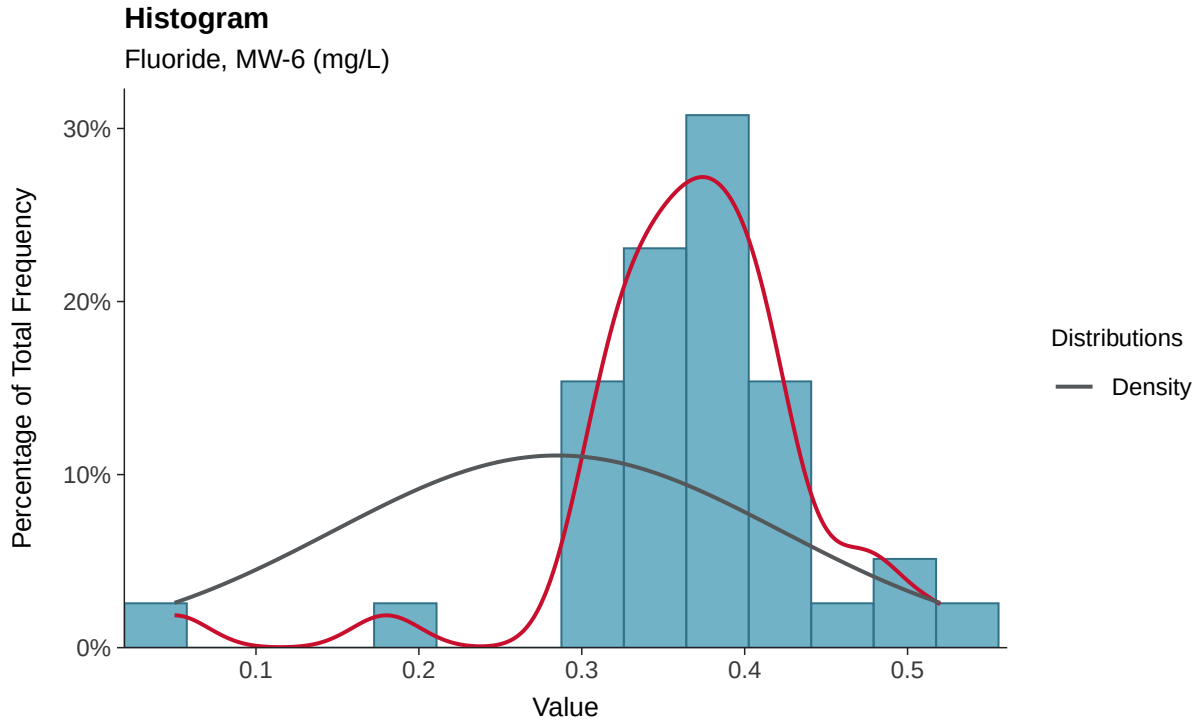
Cobalt, MW-6 (ug/L)



App. IV: Fluoride, MW-6

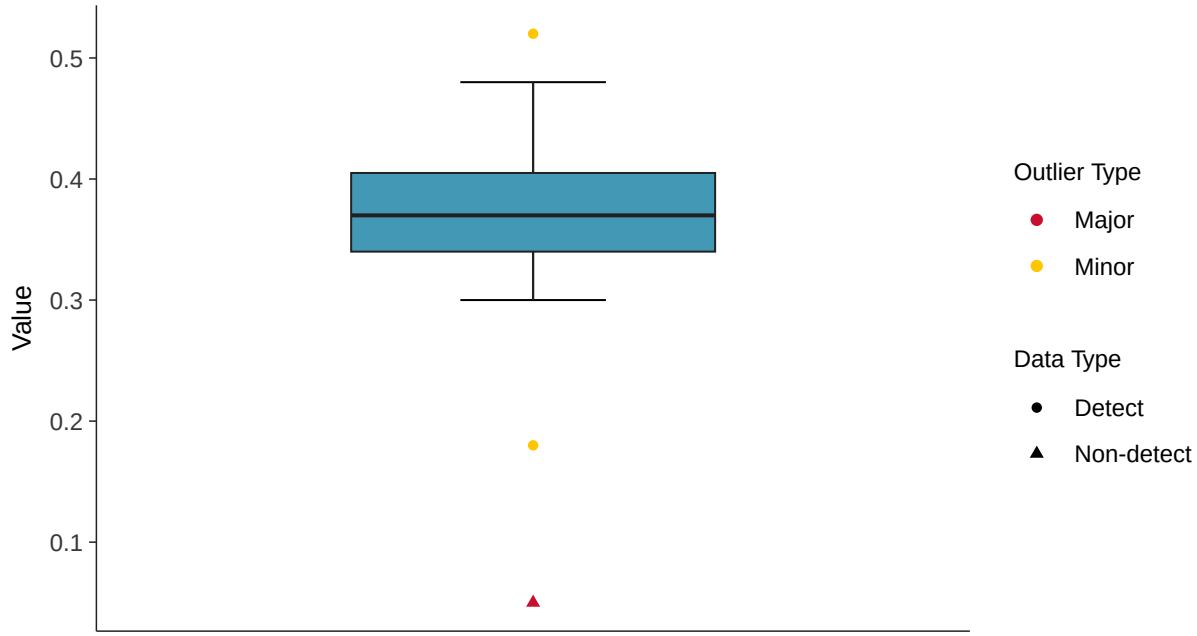
ID: 06_03_112





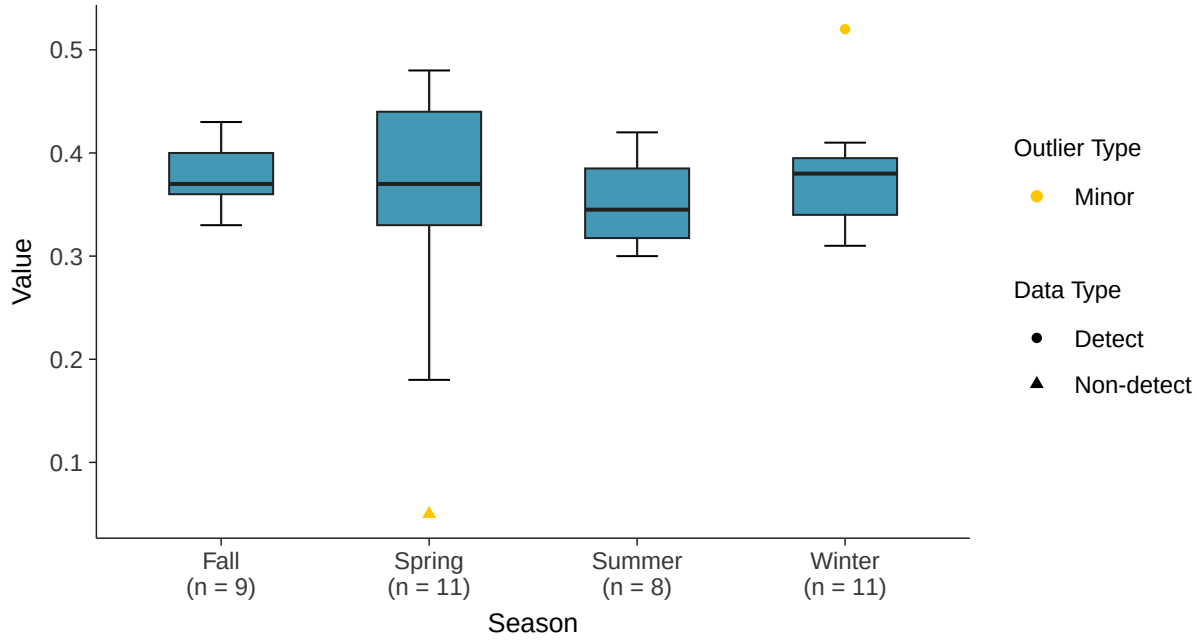
Boxplot

Fluoride, MW-6 (mg/L)



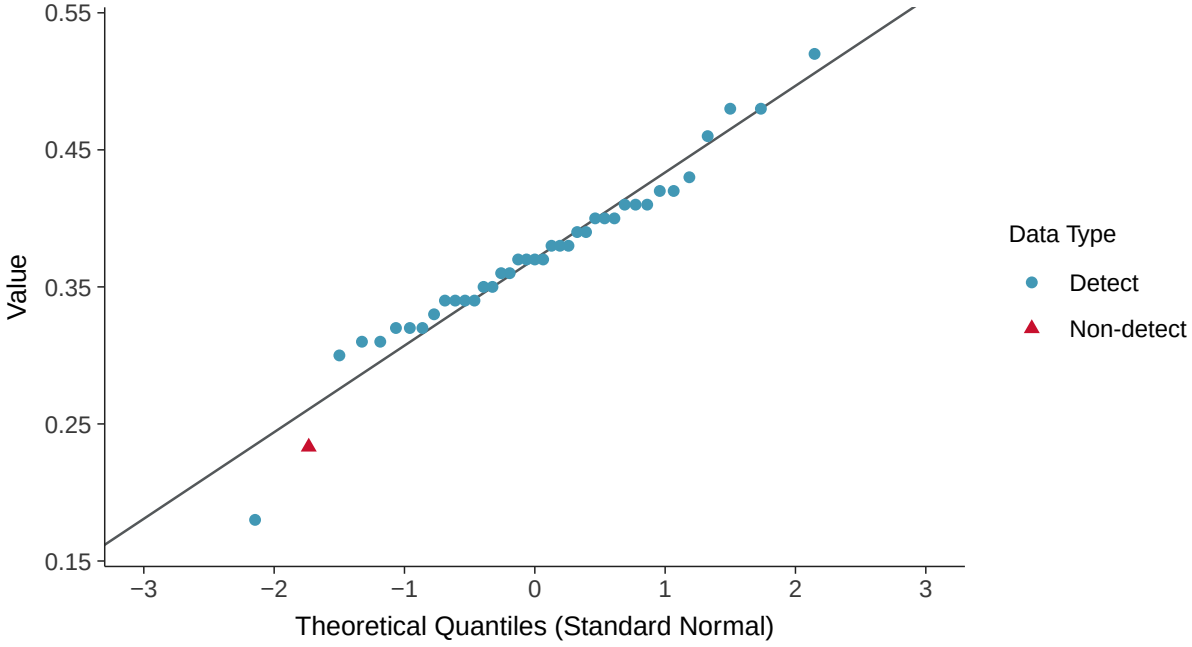
Boxplot by Season

Fluoride, MW-6 (mg/L)



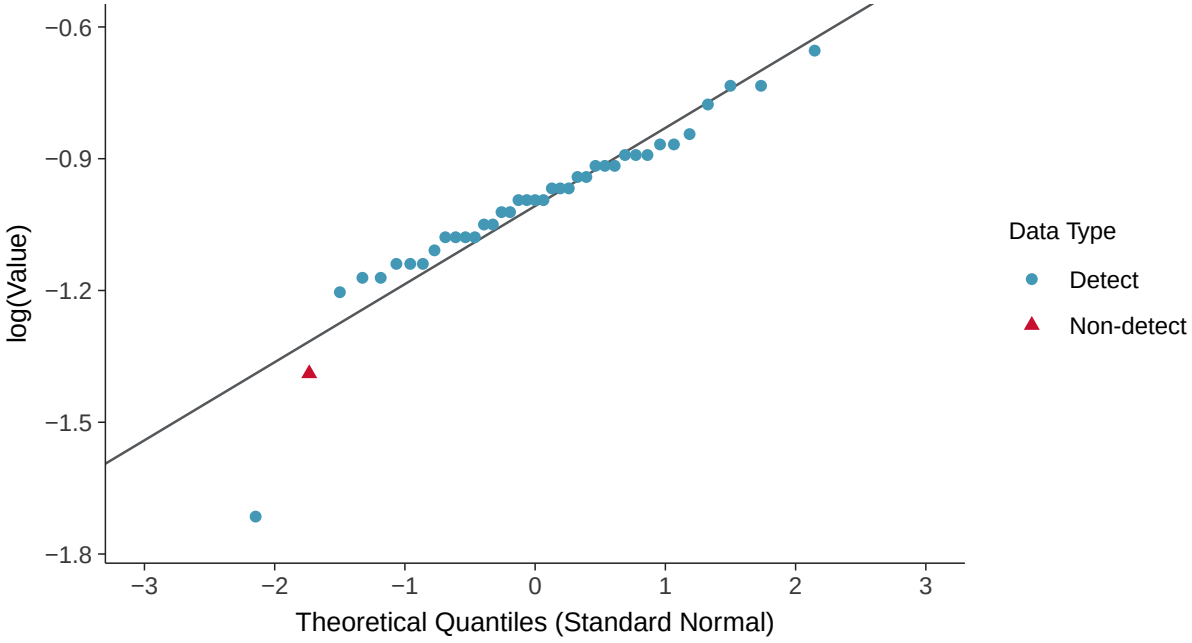
Normal Q-Q plot using ROS Imputed Estimates

Fluoride, MW-6 (mg/L)



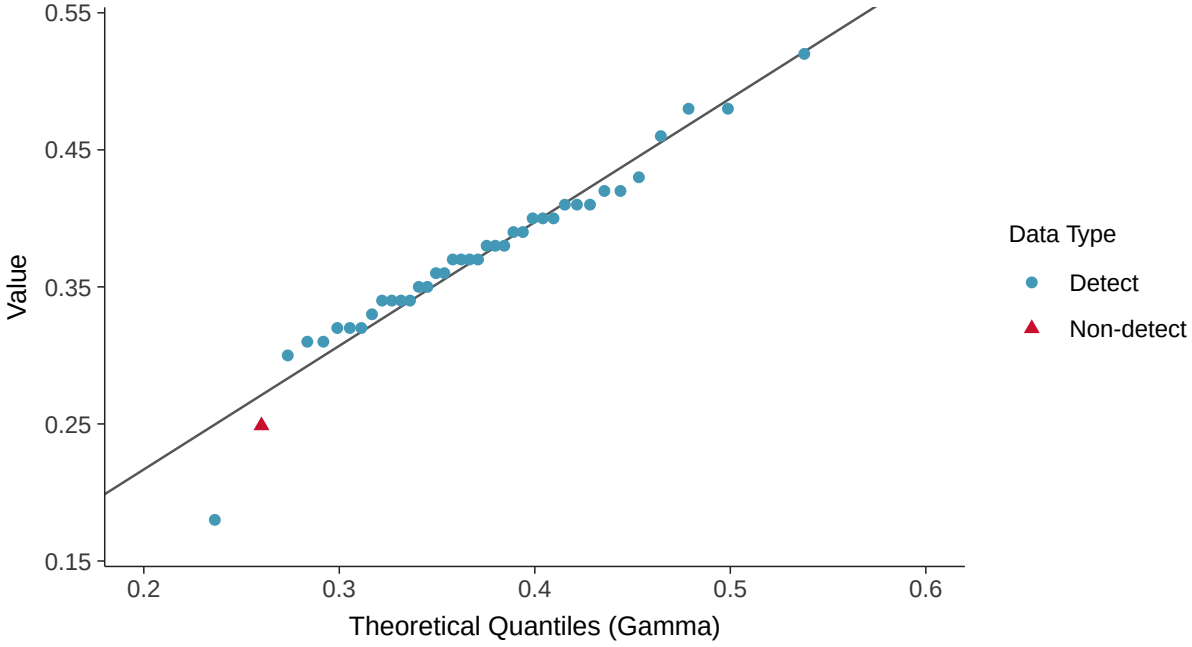
Lognormal Q-Q plot using ROS Imputed Estimates

Fluoride, MW-6 (mg/L)



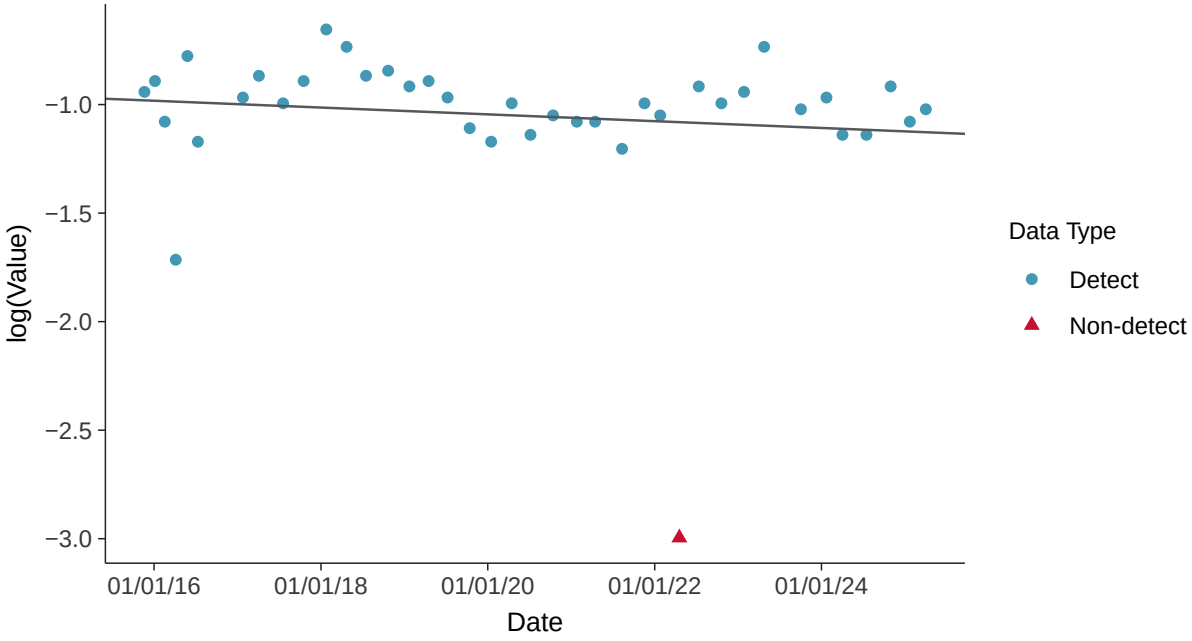
Gamma Q-Q plot using ROS Imputed Estimates

Fluoride, MW-6 (mg/L)



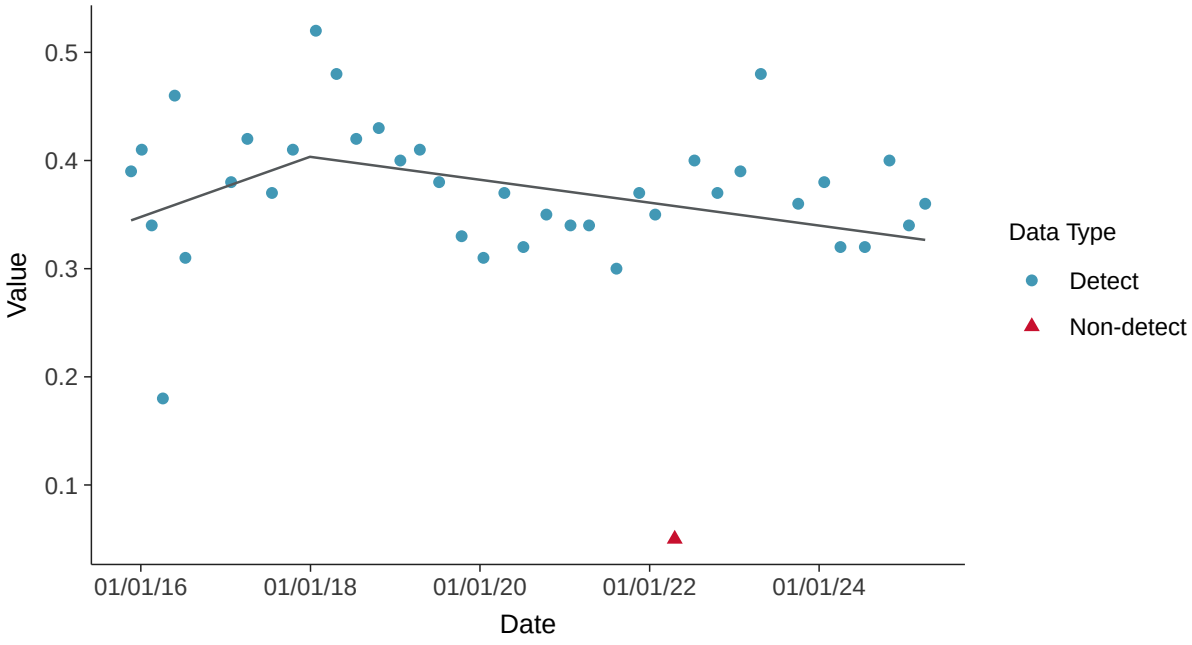
Trend Regression: Lognormal MLE

Fluoride, MW-6 (mg/L)



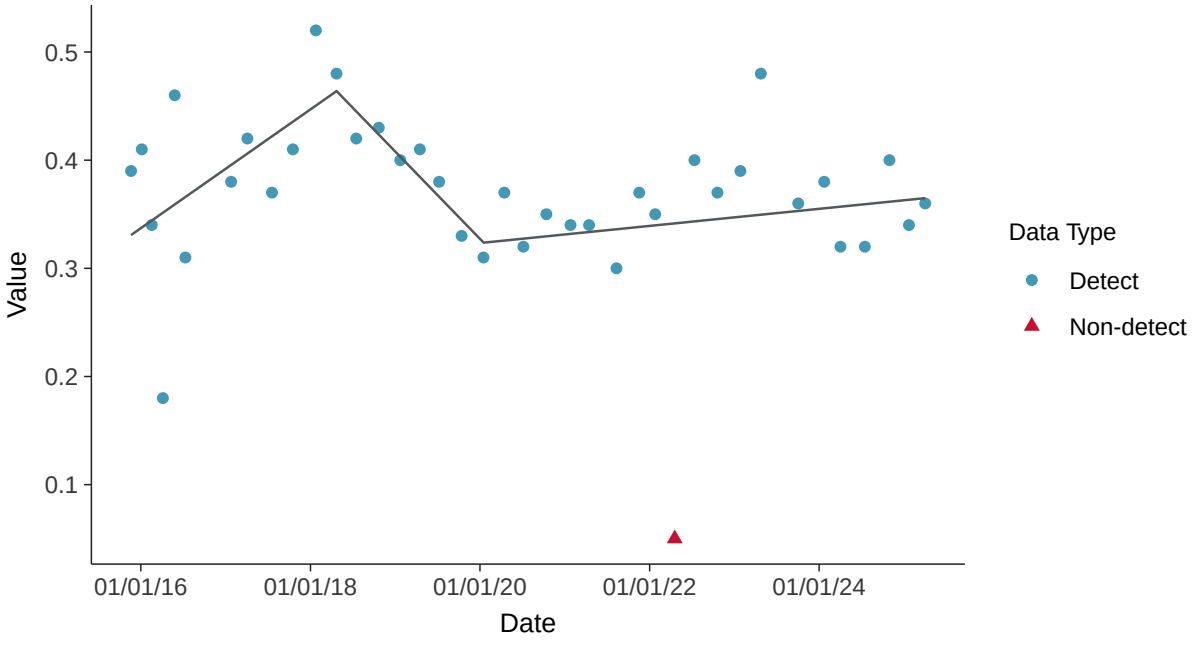
Trend Regression: Piecewise Linear-Linear

Fluoride, MW-6 (mg/L)



Trend Regression: Piecewise Linear-Linear-Linear

Fluoride, MW-6 (mg/L)

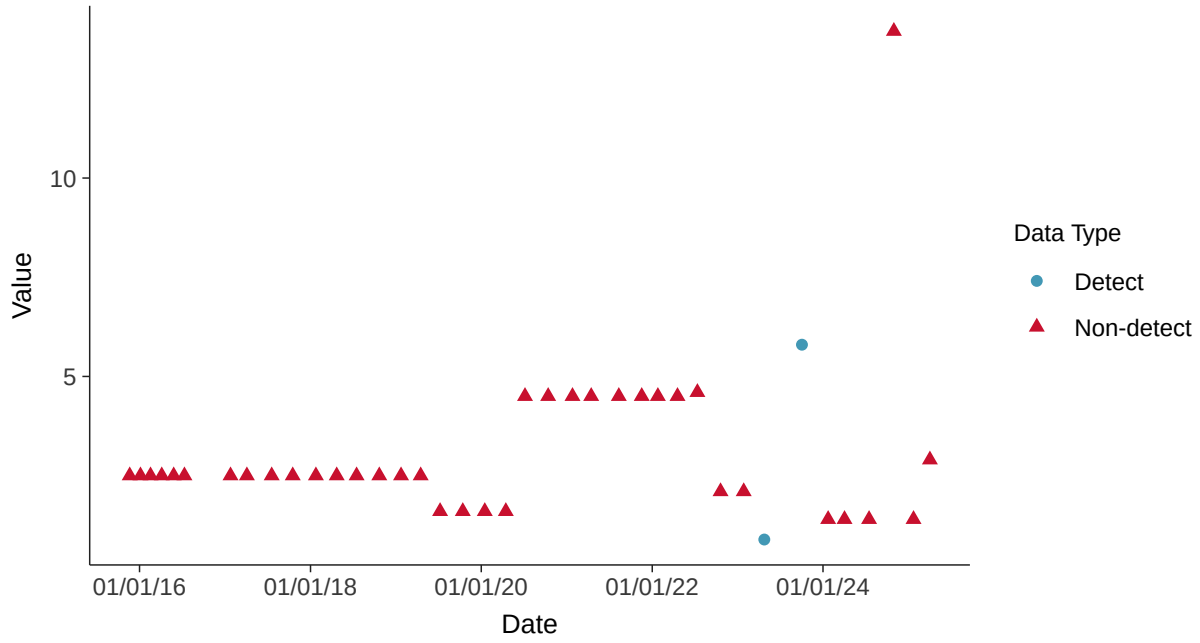


App. IV: Lead, MW-6

ID: 06_03_113

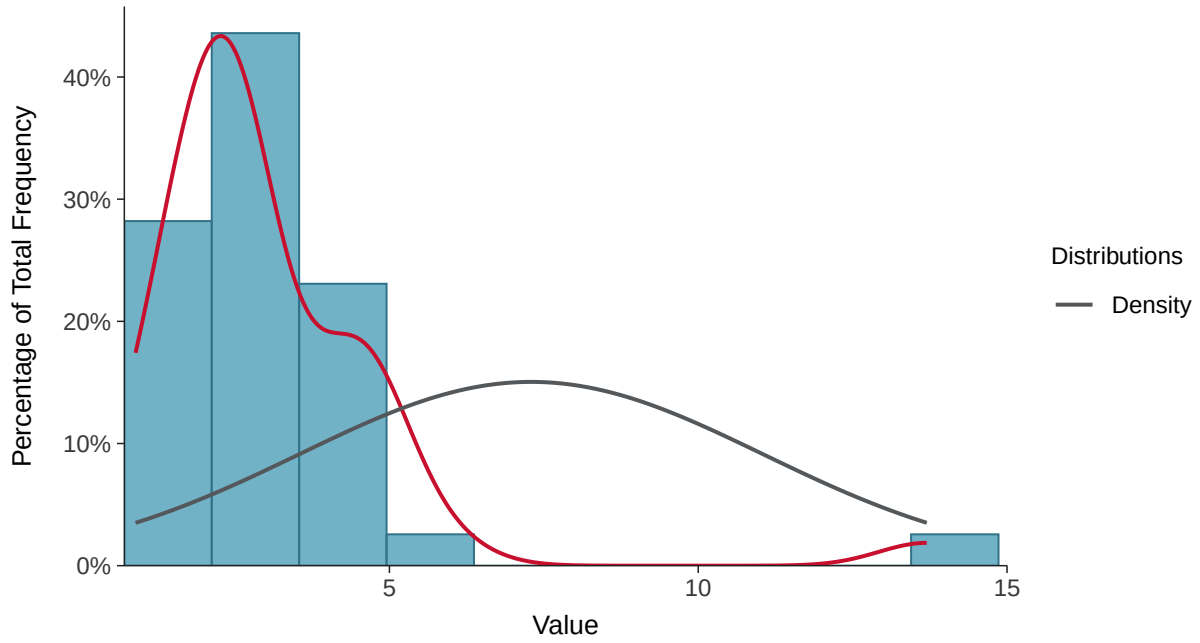
Scatter Plot

Lead, MW-6 (ug/L)



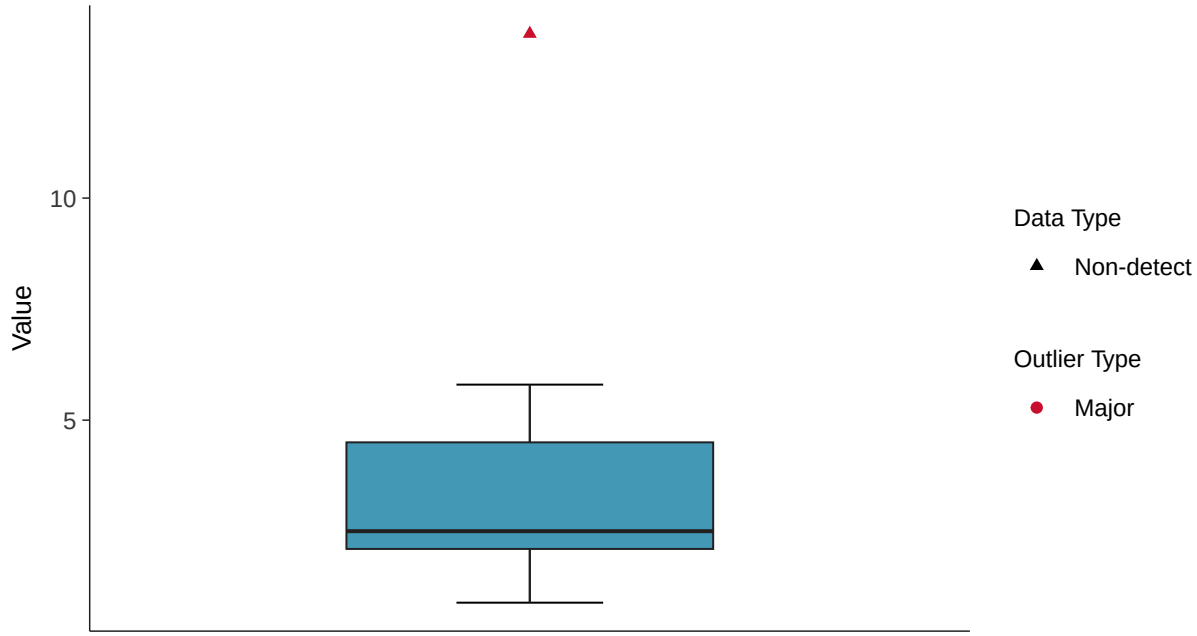
Histogram

Lead, MW-6 (ug/L)



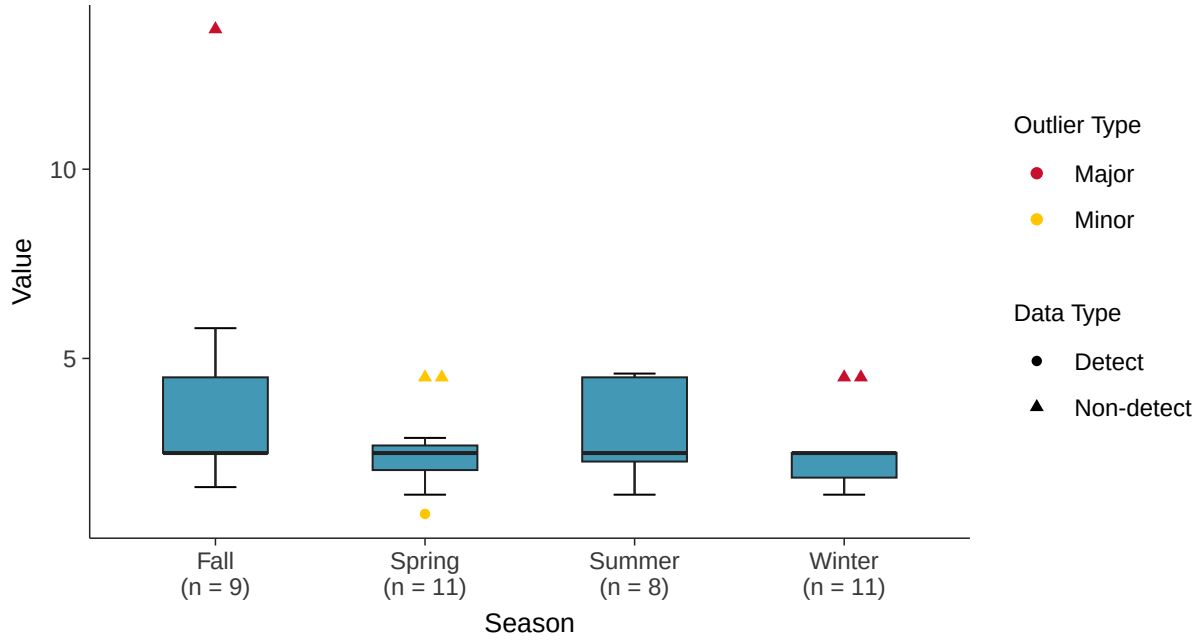
Boxplot

Lead, MW-6 (ug/L)



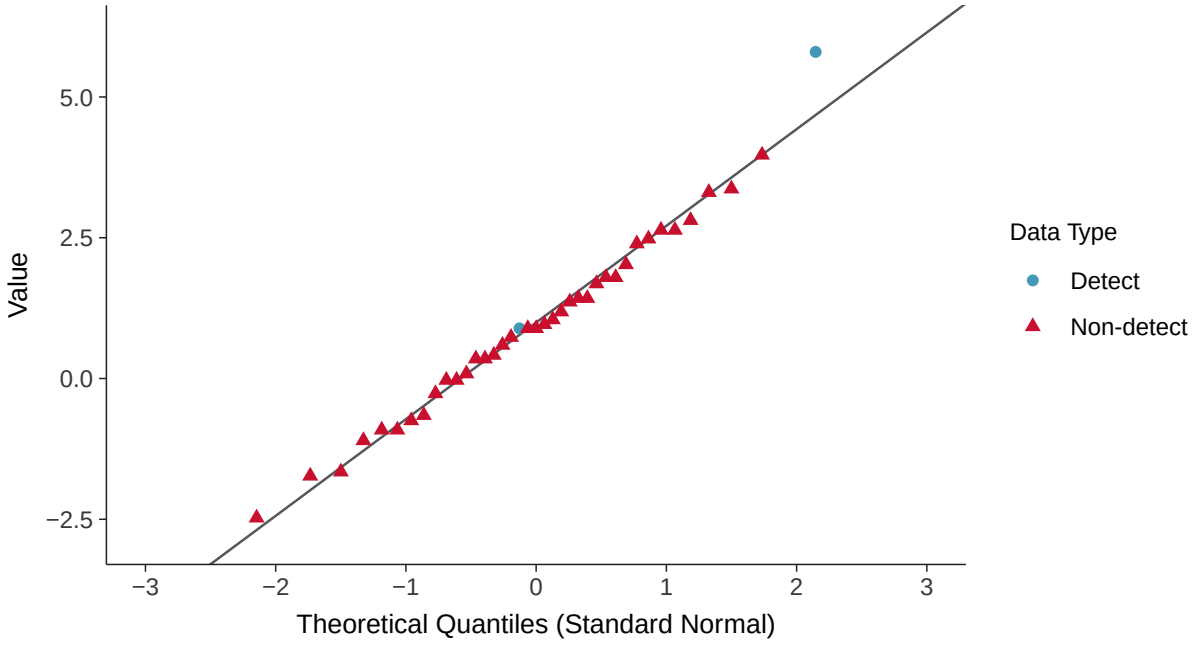
Boxplot by Season

Lead, MW-6 (ug/L)



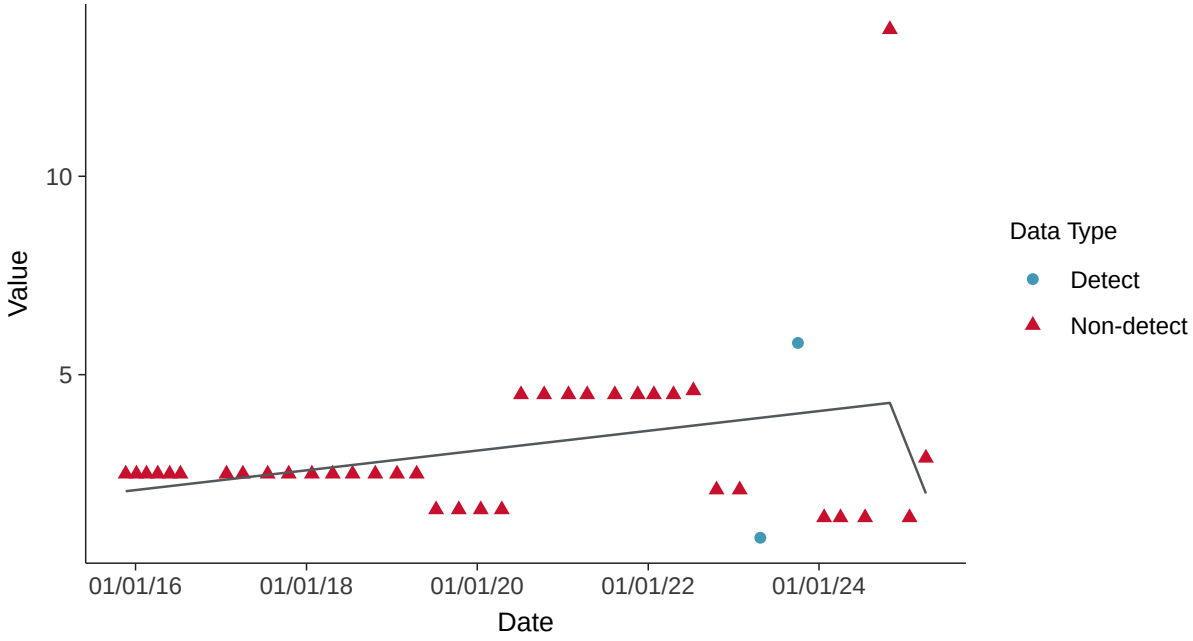
Normal Q-Q plot using ROS Imputed Estimates

Lead, MW-6 (ug/L)



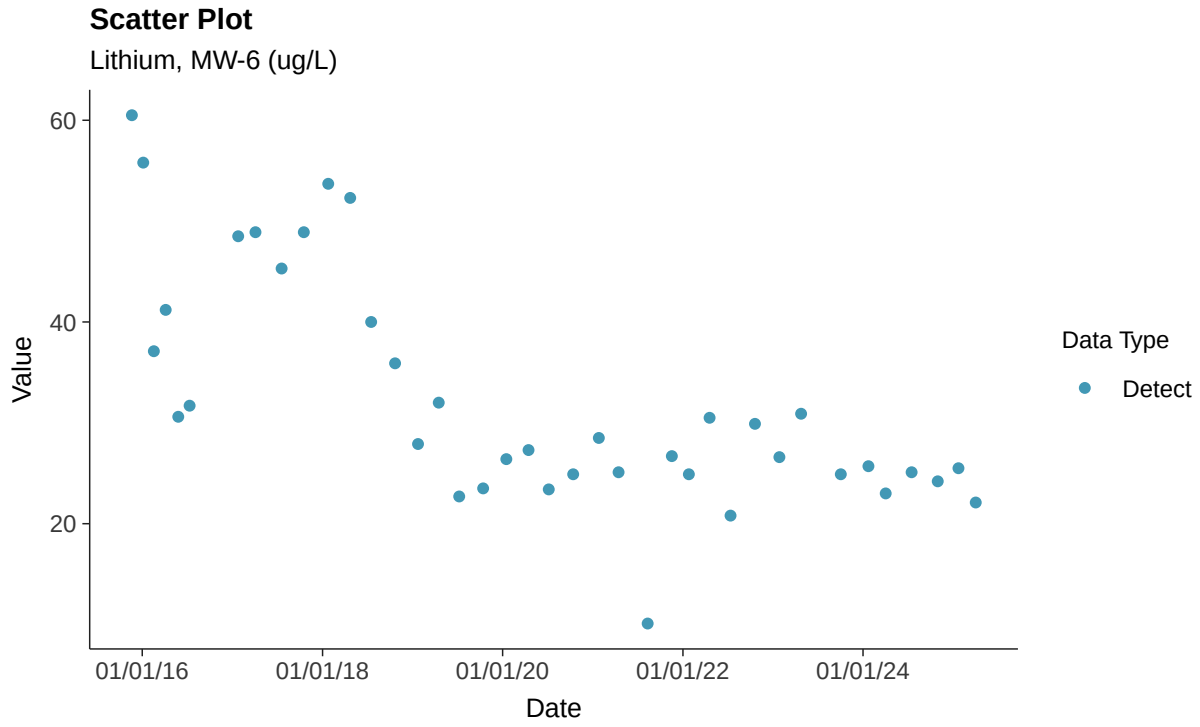
Trend Regression: Piecewise Linear-Linear

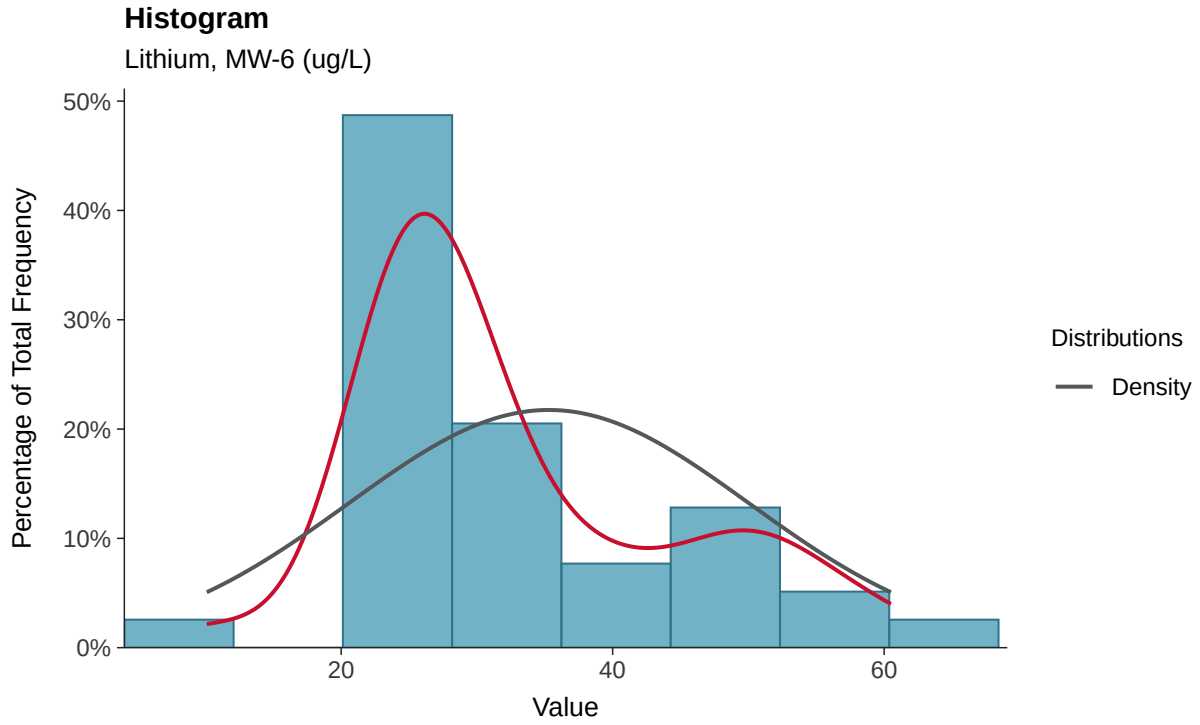
Lead, MW-6 (ug/L)



App. IV: Lithium, MW-6

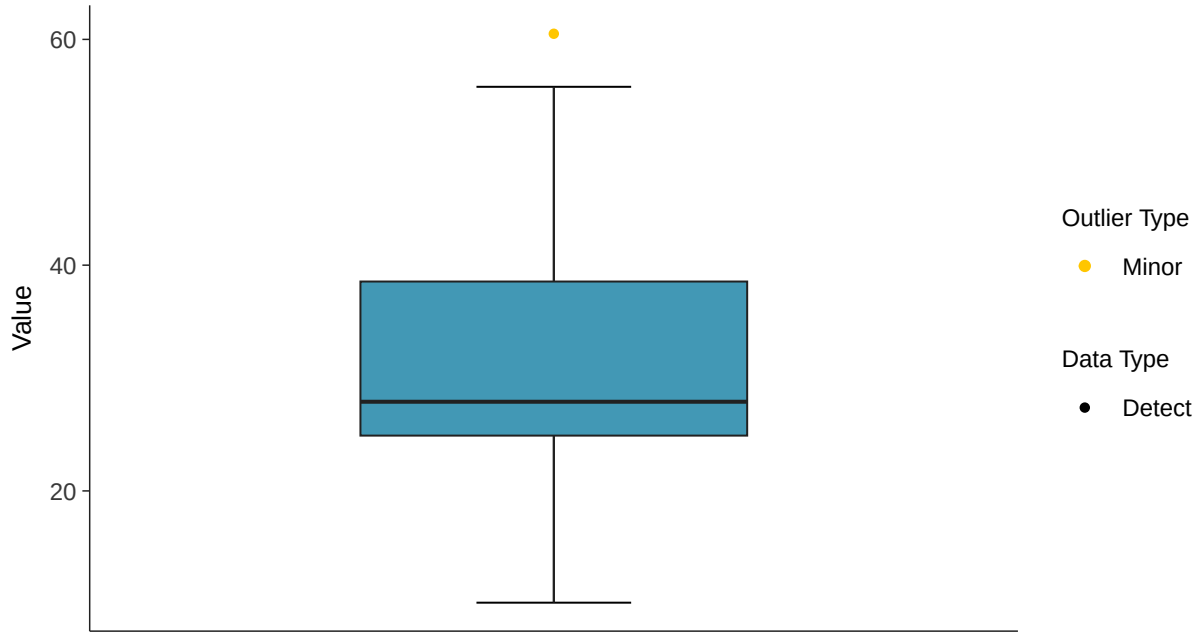
ID: 06_03_114





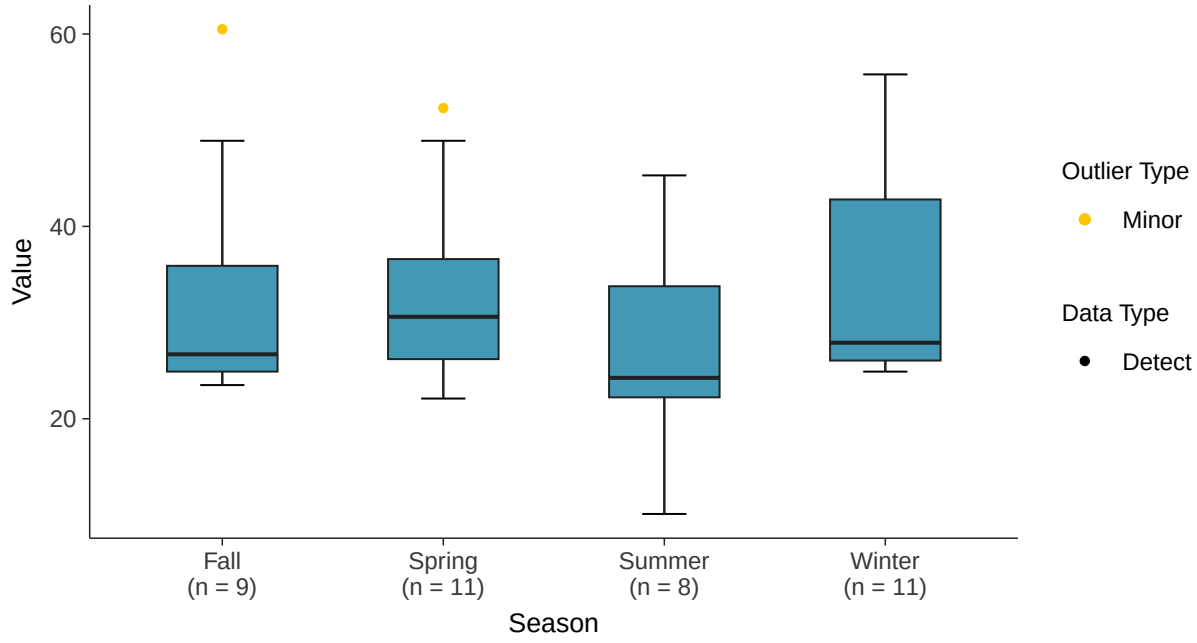
Boxplot

Lithium, MW-6 (ug/L)



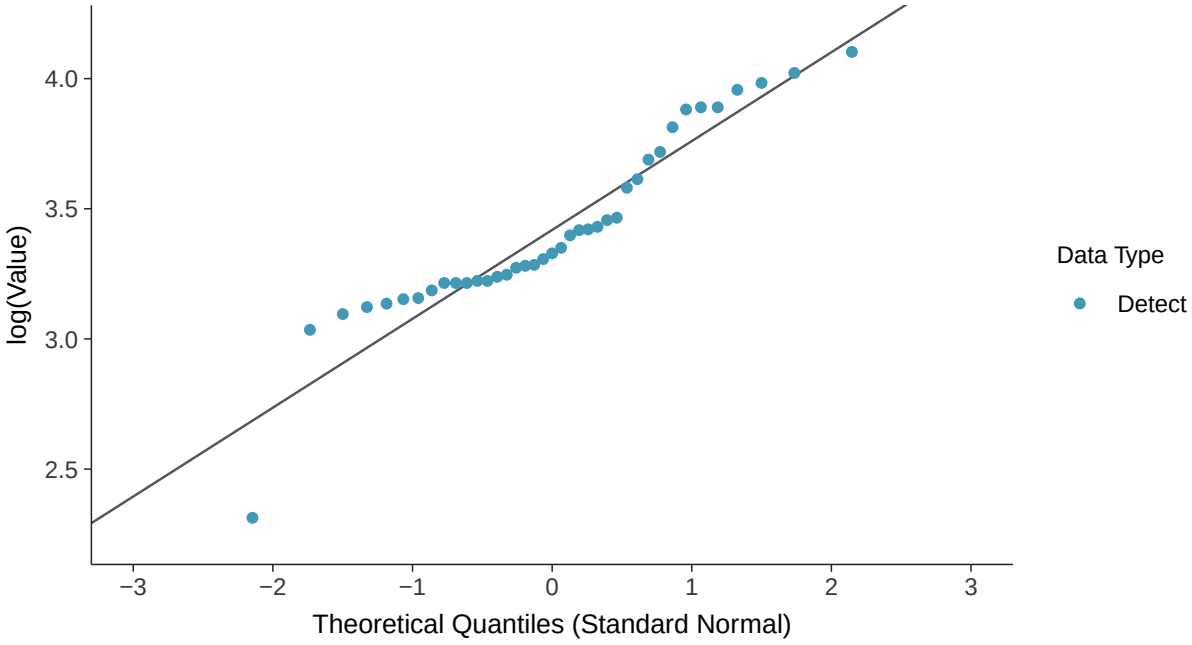
Boxplot by Season

Lithium, MW-6 (ug/L)



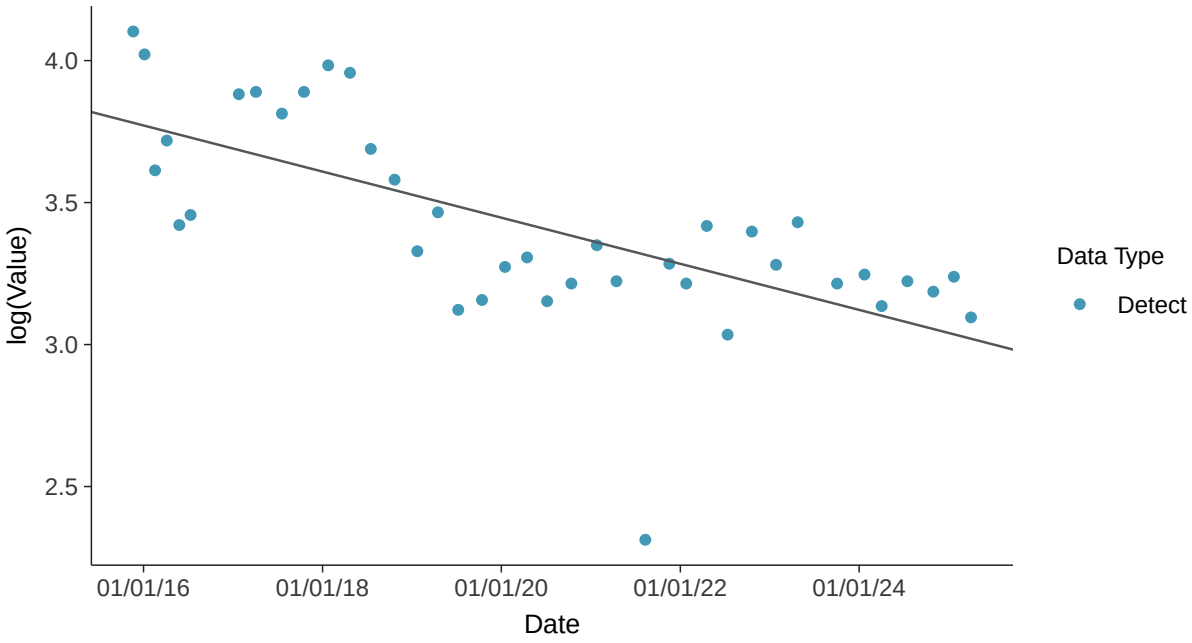
Lognormal Q-Q plot

Lithium, MW-6 (ug/L)



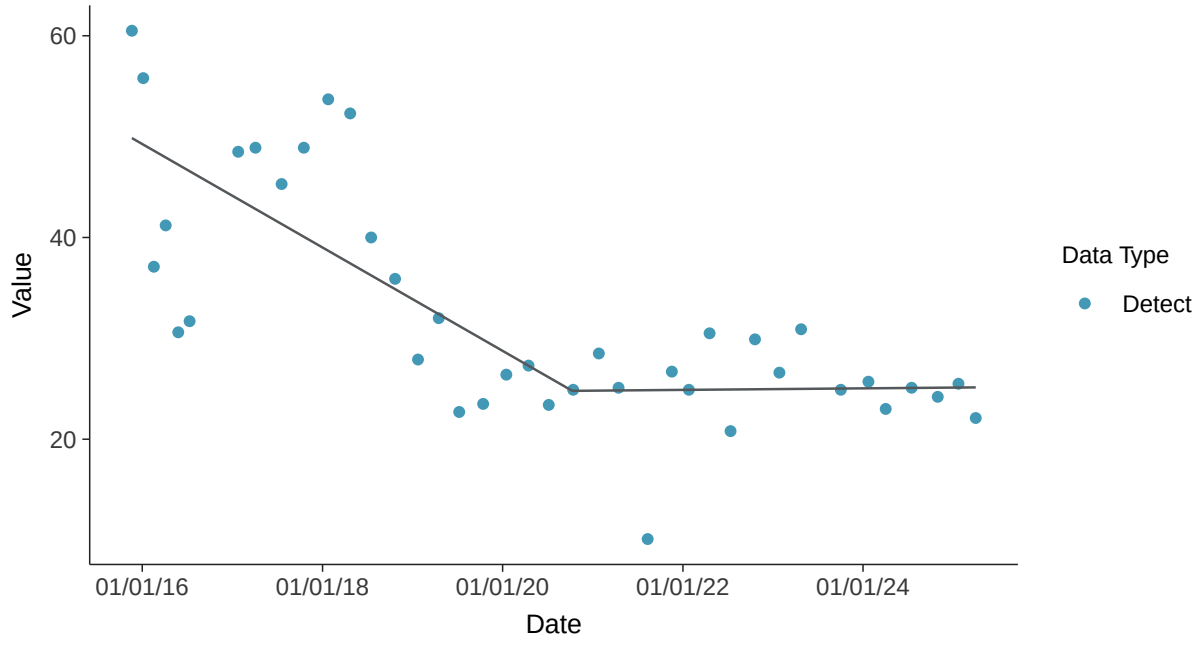
Trend Regression: Lognormal MLE

Lithium, MW-6 (ug/L)



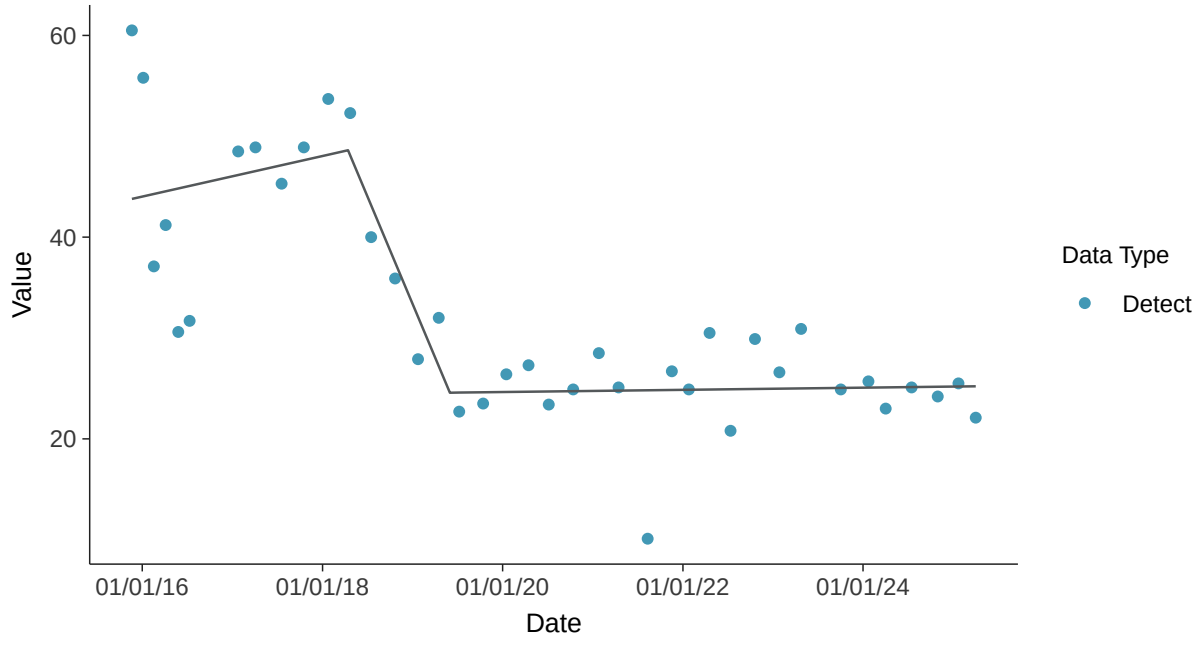
Trend Regression: Piecewise Linear-Linear

Lithium, MW-6 (ug/L)



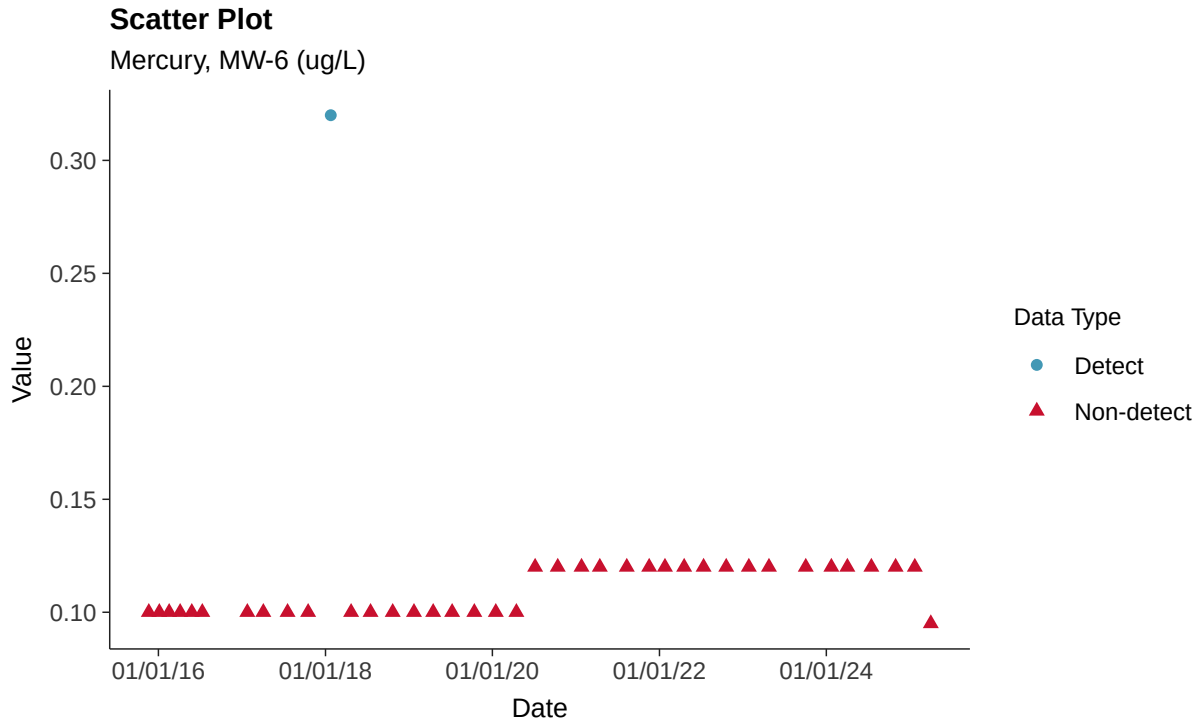
Trend Regression: Piecewise Linear-Linear-Linear

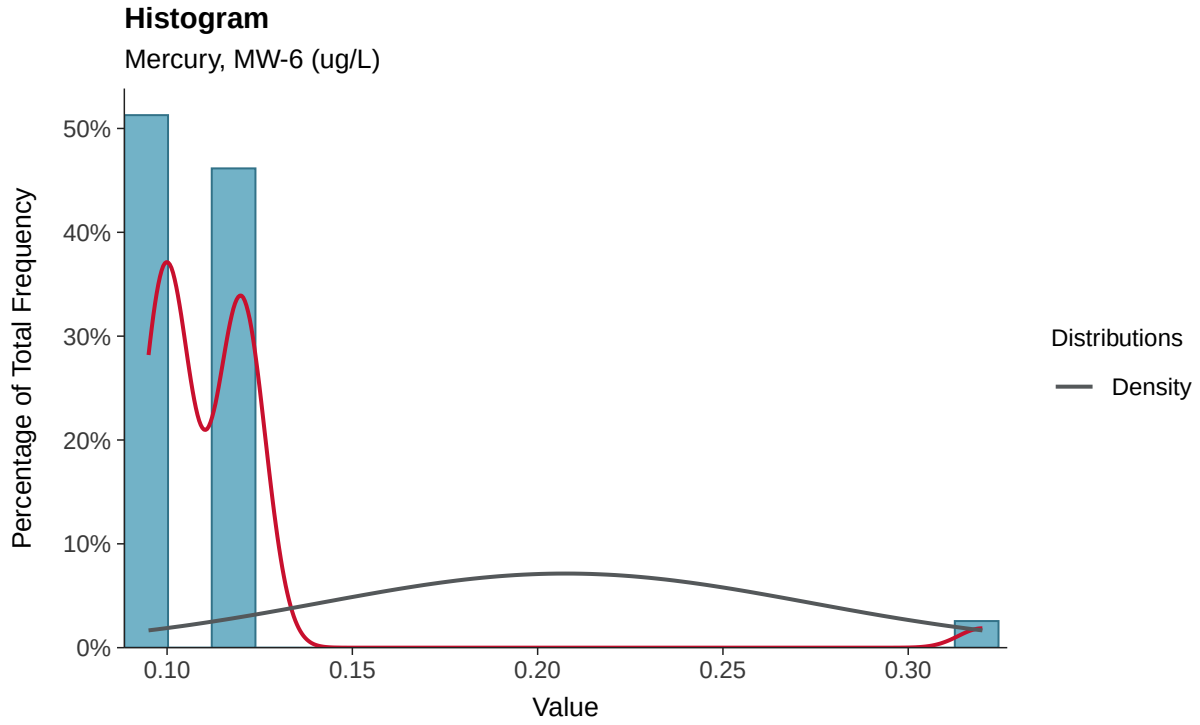
Lithium, MW-6 (ug/L)



App. IV: Mercury, MW-6

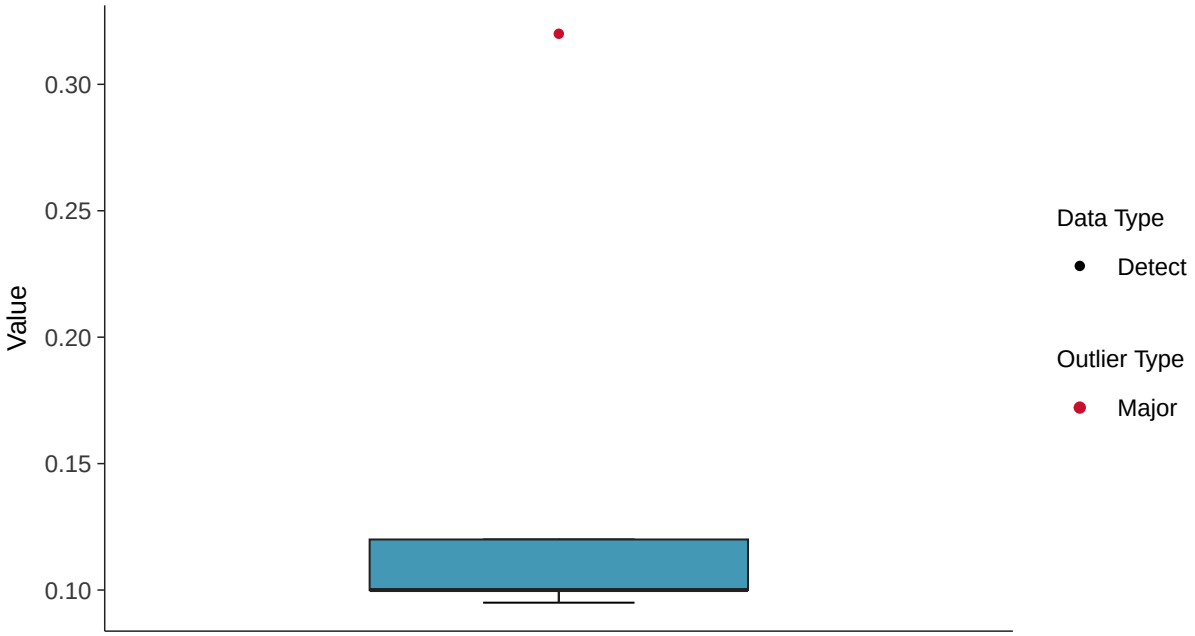
ID: 06_03_115





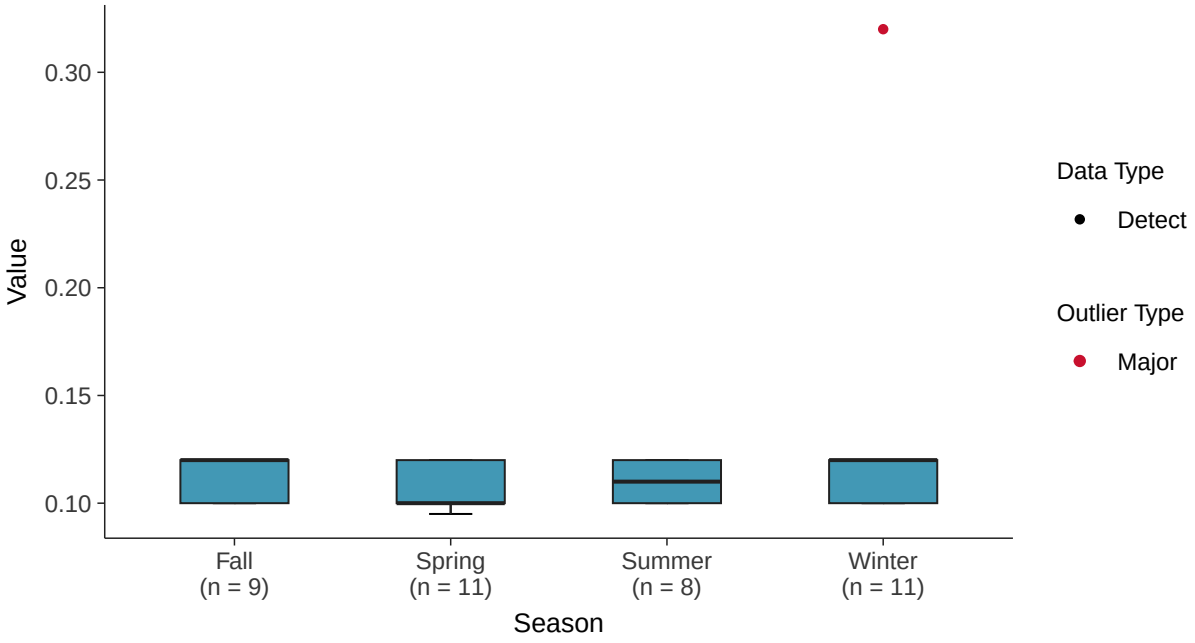
Boxplot

Mercury, MW-6 (ug/L)



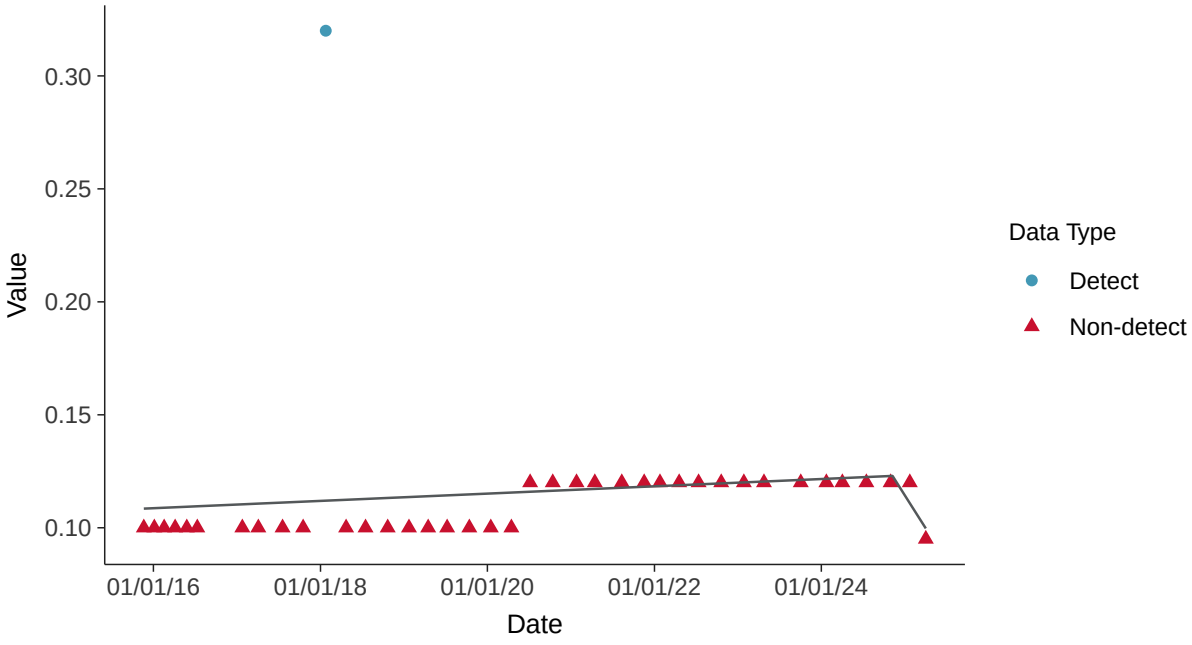
Boxplot by Season

Mercury, MW-6 (ug/L)



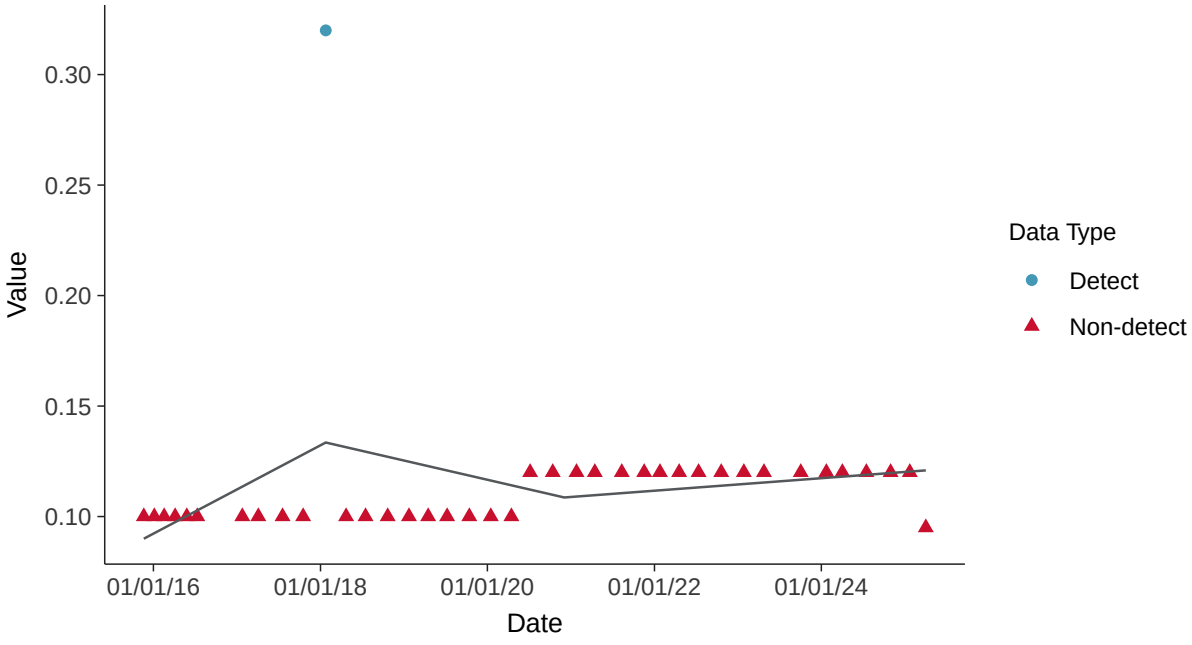
Trend Regression: Piecewise Linear-Linear

Mercury, MW-6 (ug/L)



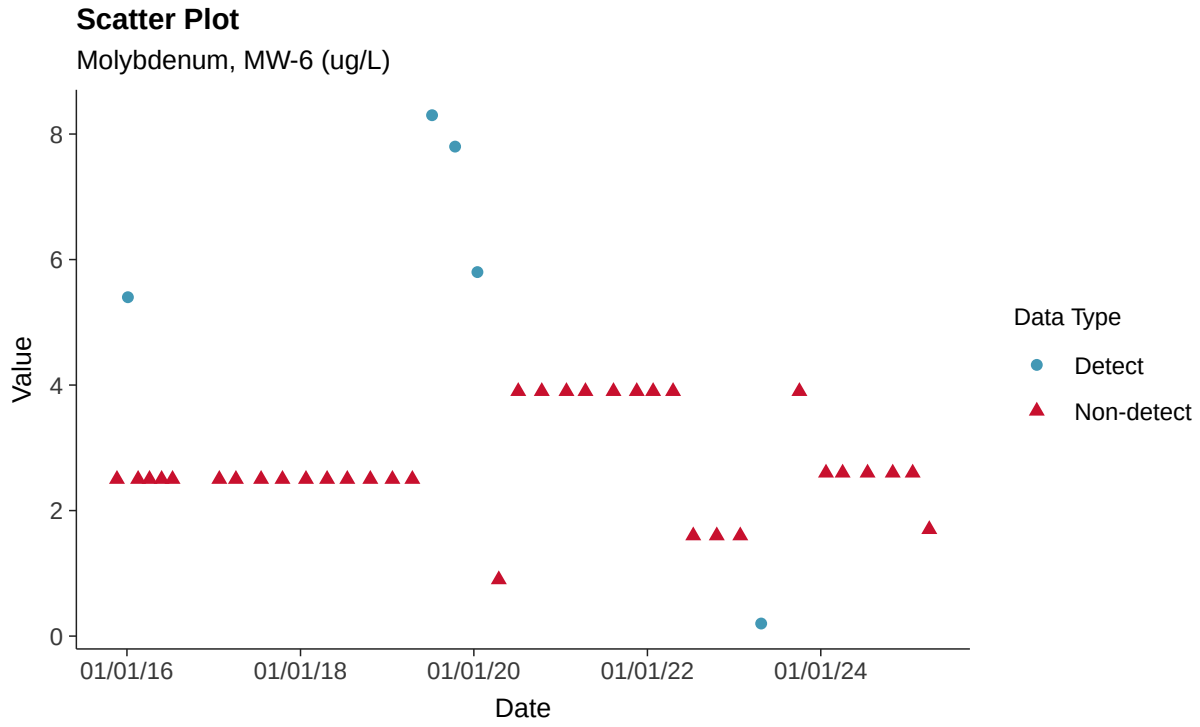
Trend Regression: Piecewise Linear-Linear-Linear

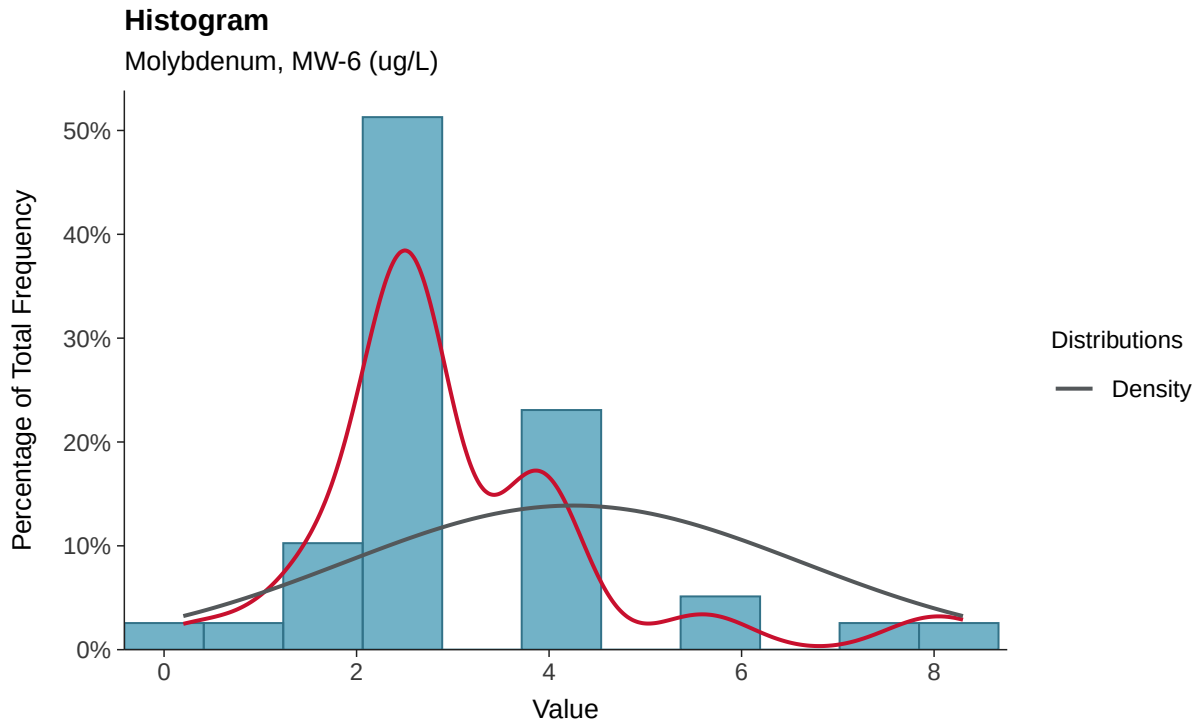
Mercury, MW-6 (ug/L)



App. IV: Molybdenum, MW-6

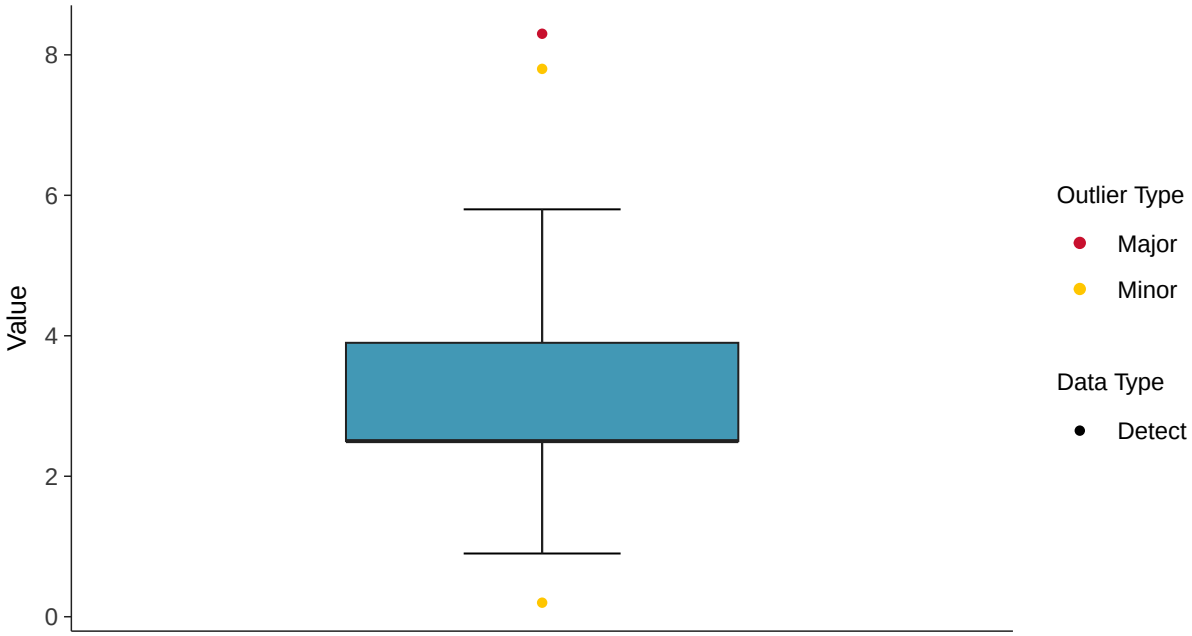
ID: 06_03_116





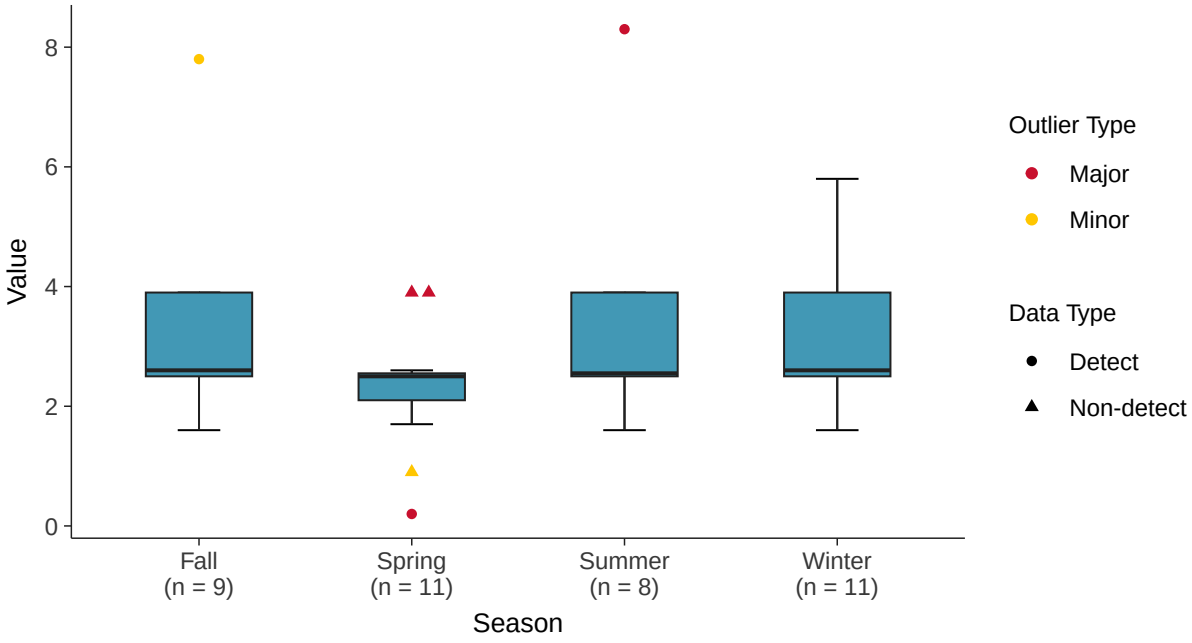
Boxplot

Molybdenum, MW-6 (ug/L)



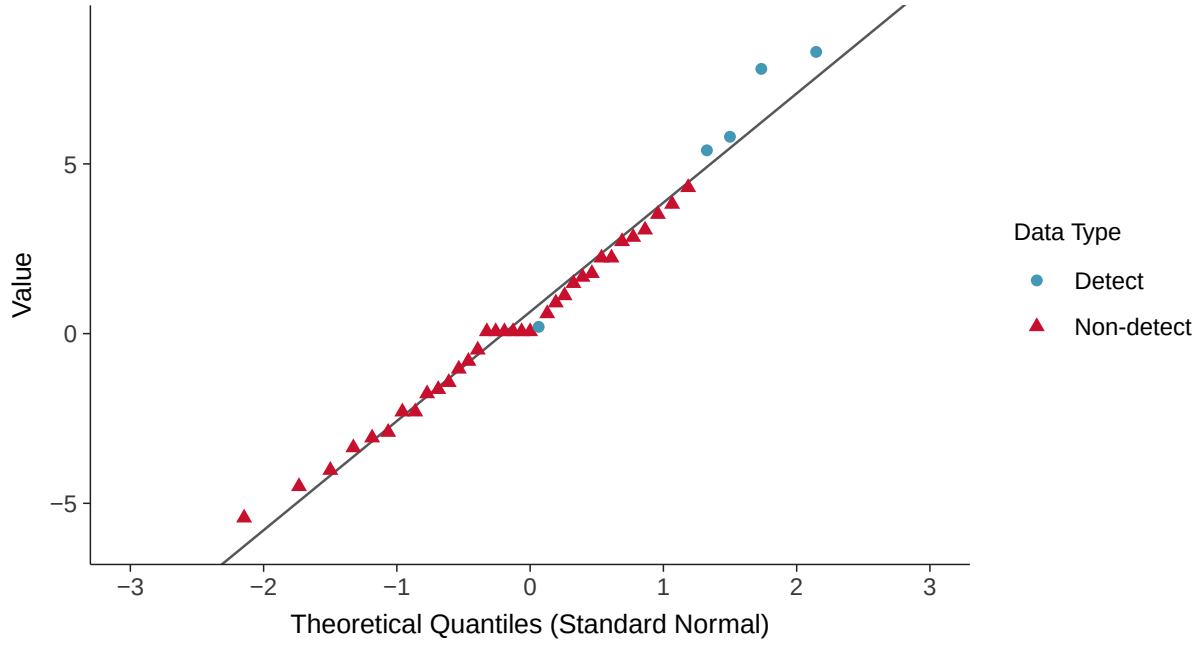
Boxplot by Season

Molybdenum, MW-6 (ug/L)



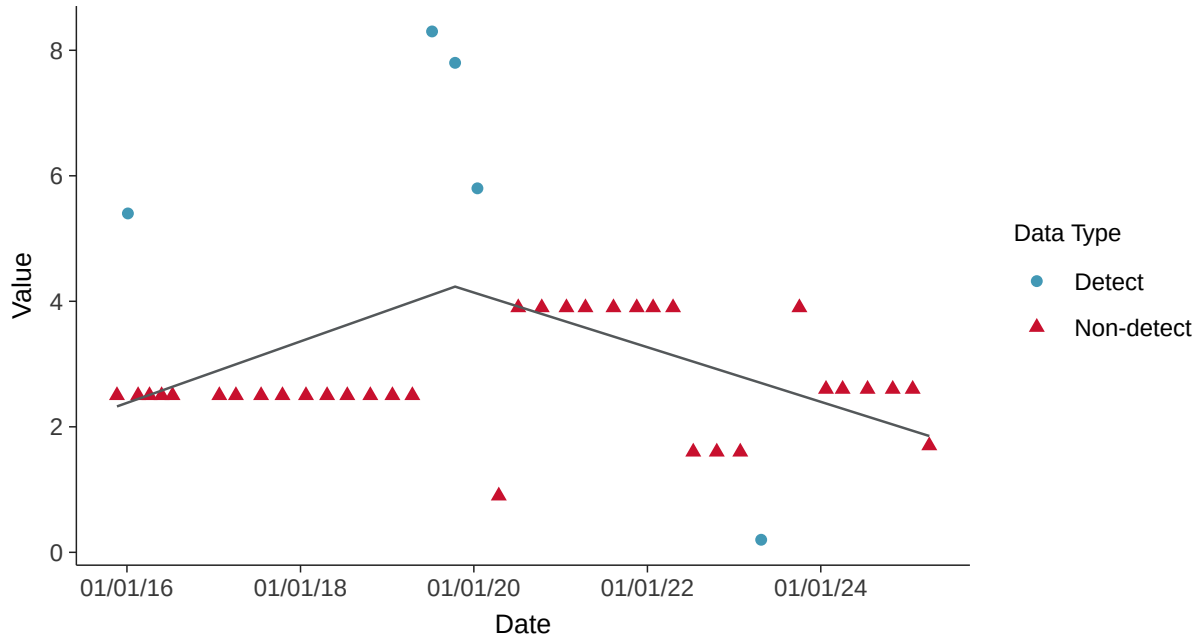
Normal Q-Q plot using ROS Imputed Estimates

Molybdenum, MW-6 (ug/L)



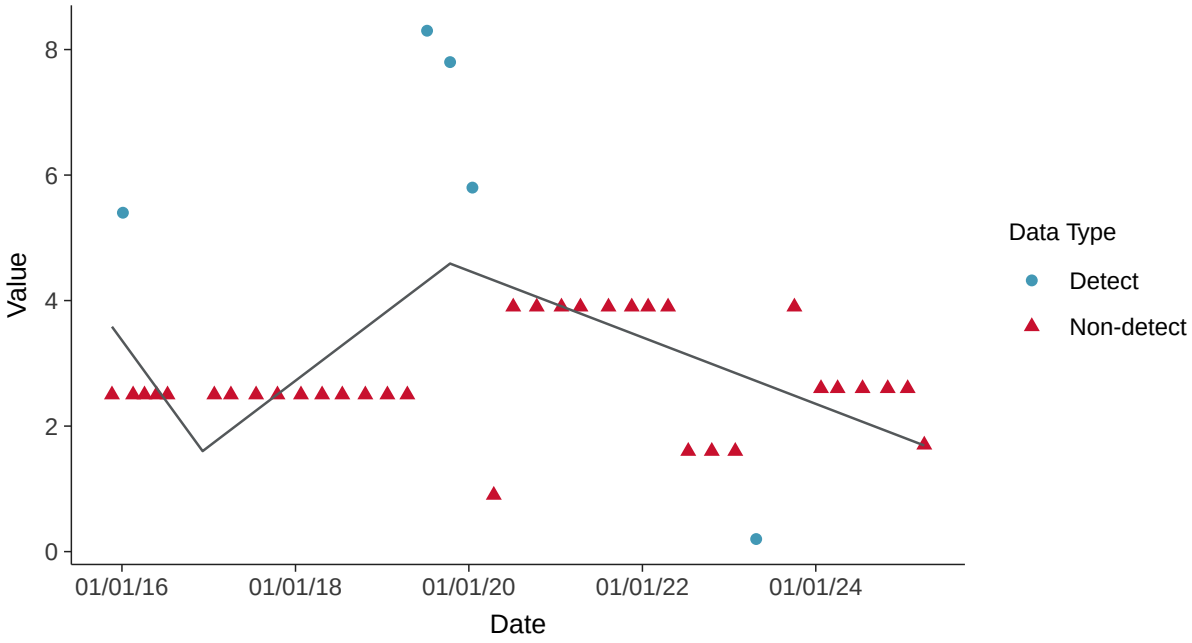
Trend Regression: Piecewise Linear-Linear

Molybdenum, MW-6 (ug/L)



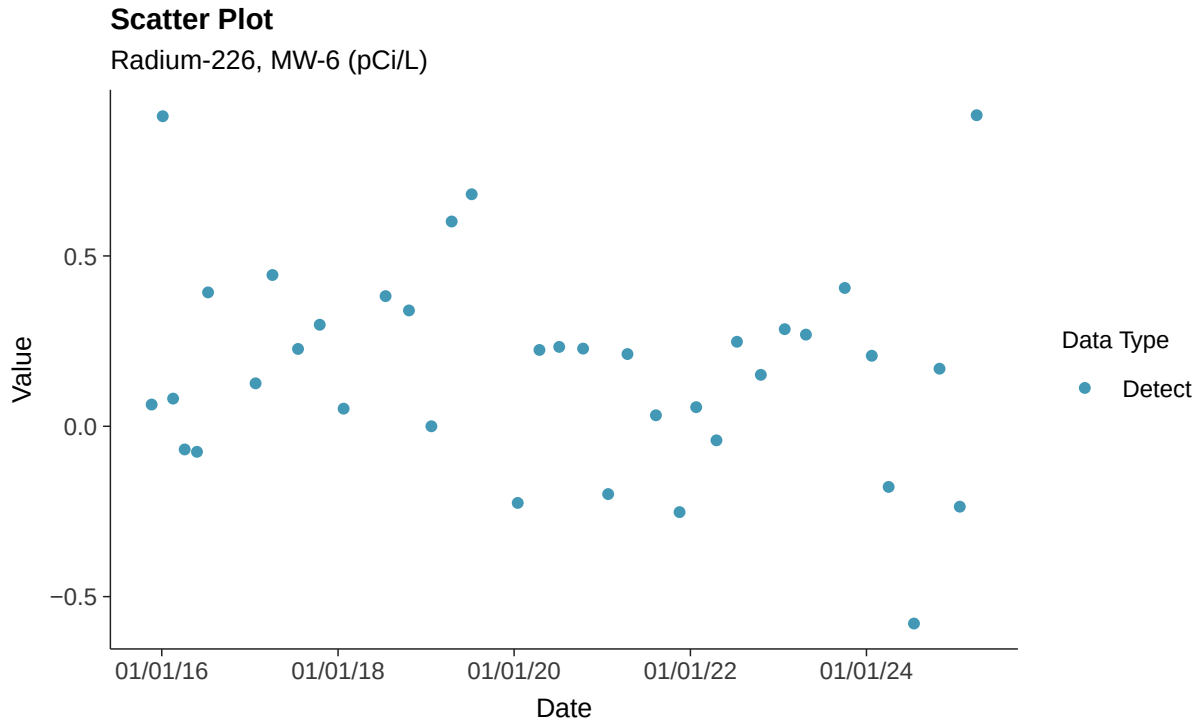
Trend Regression: Piecewise Linear-Linear-Linear

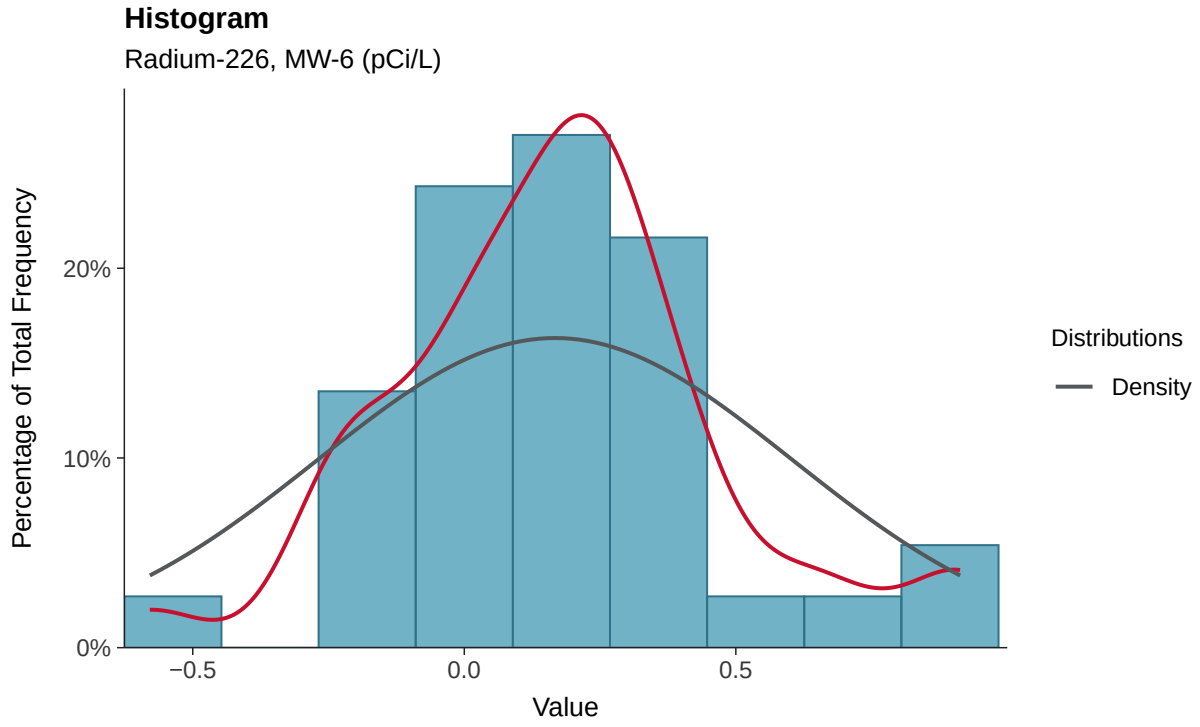
Molybdenum, MW-6 (ug/L)



App. IV: Radium-226, MW-6

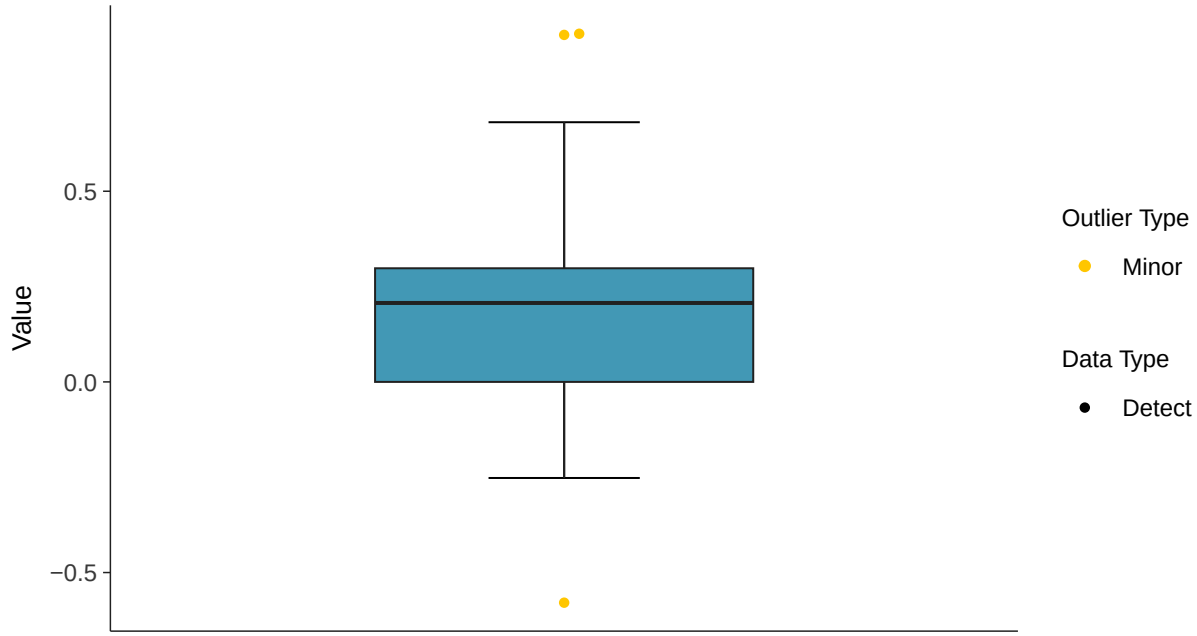
ID: 06_03_119





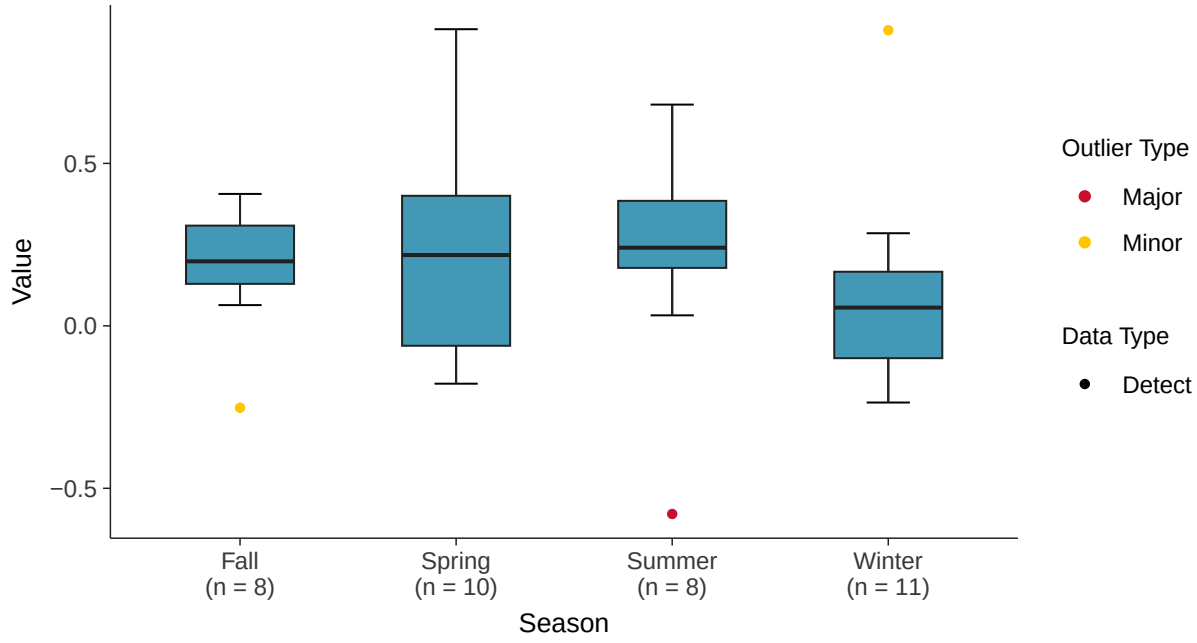
Boxplot

Radium-226, MW-6 (pCi/L)



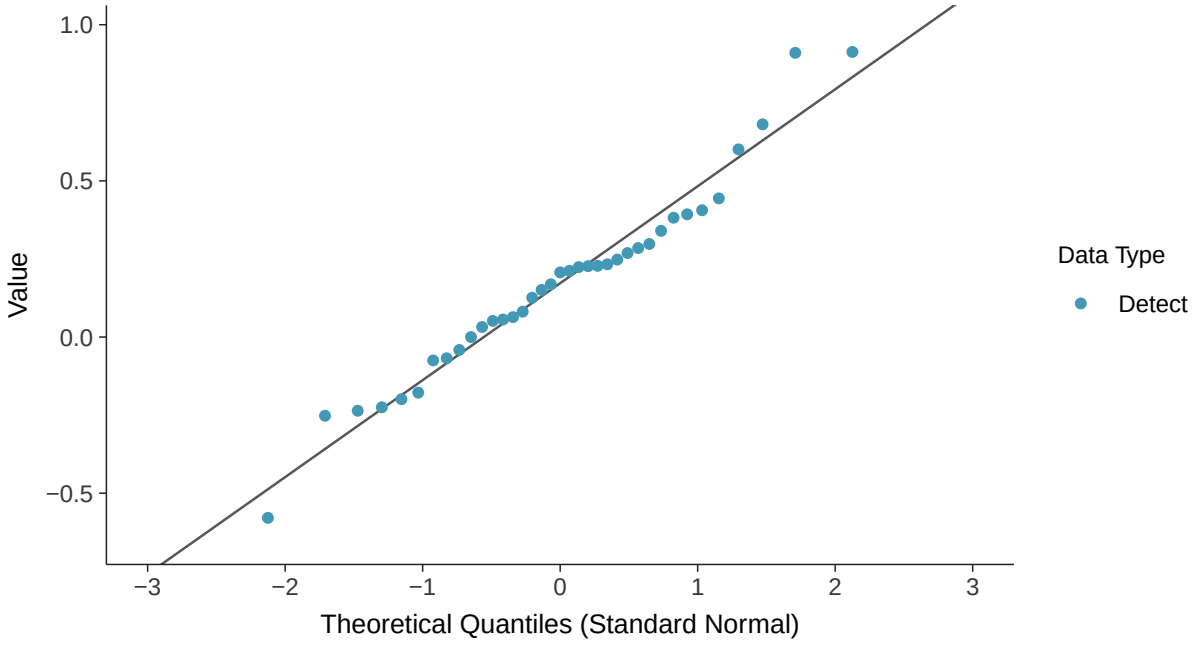
Boxplot by Season

Radium-226, MW-6 (pCi/L)



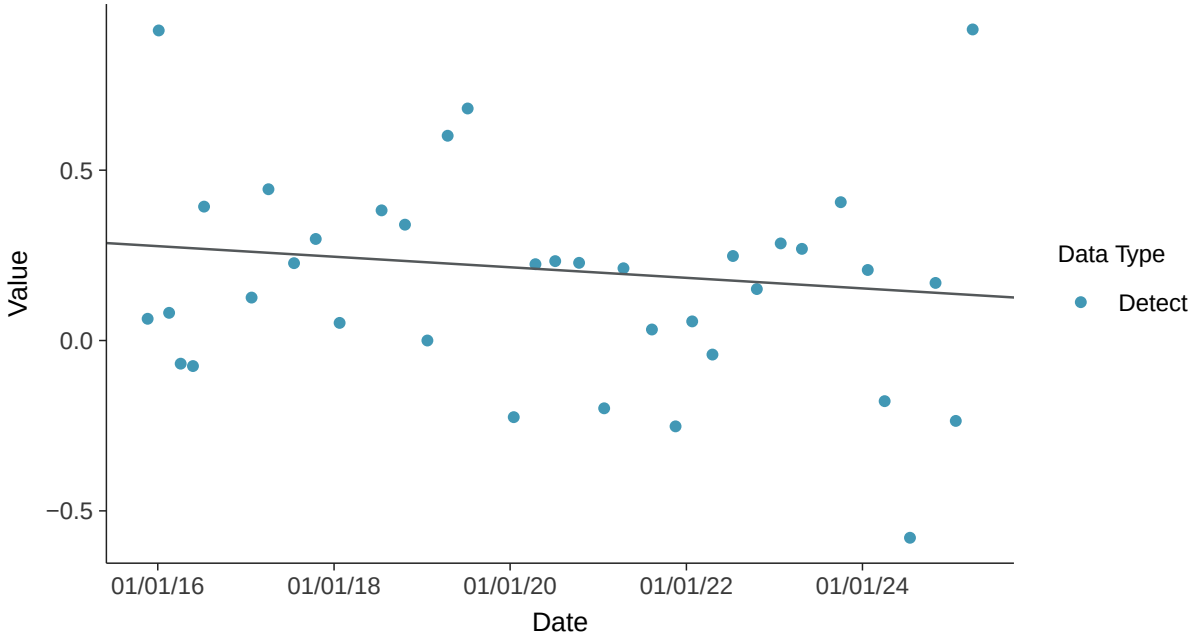
Normal Q-Q plot

Radium-226, MW-6 (pCi/L)



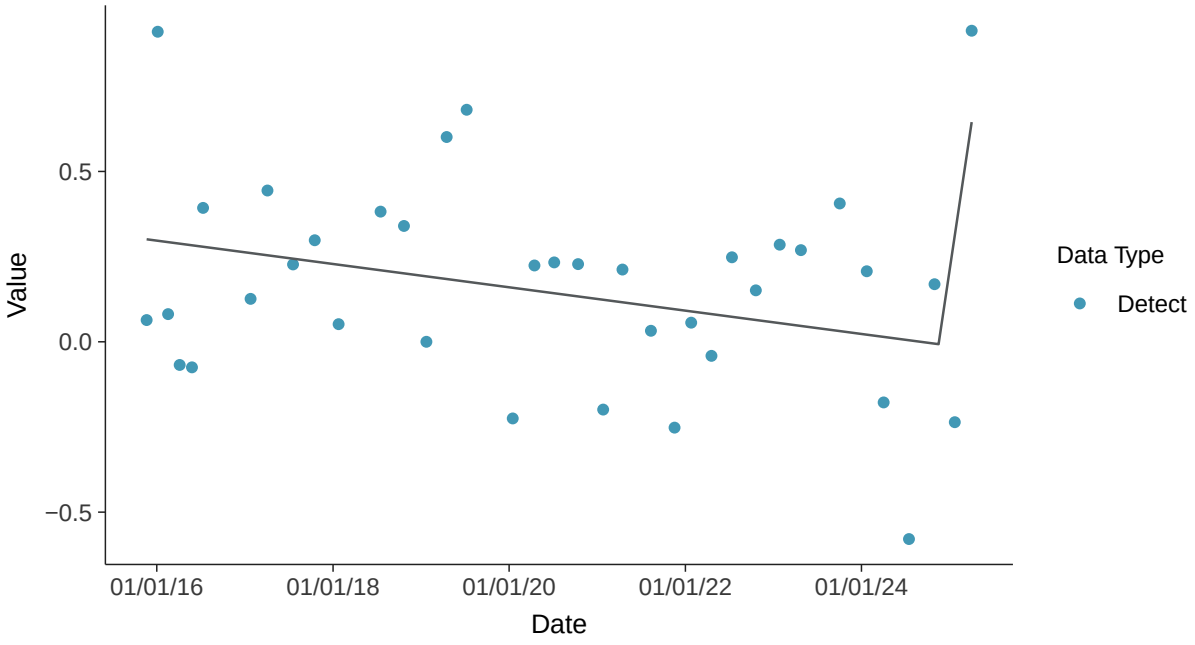
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Radium-226, MW-6 (pCi/L)



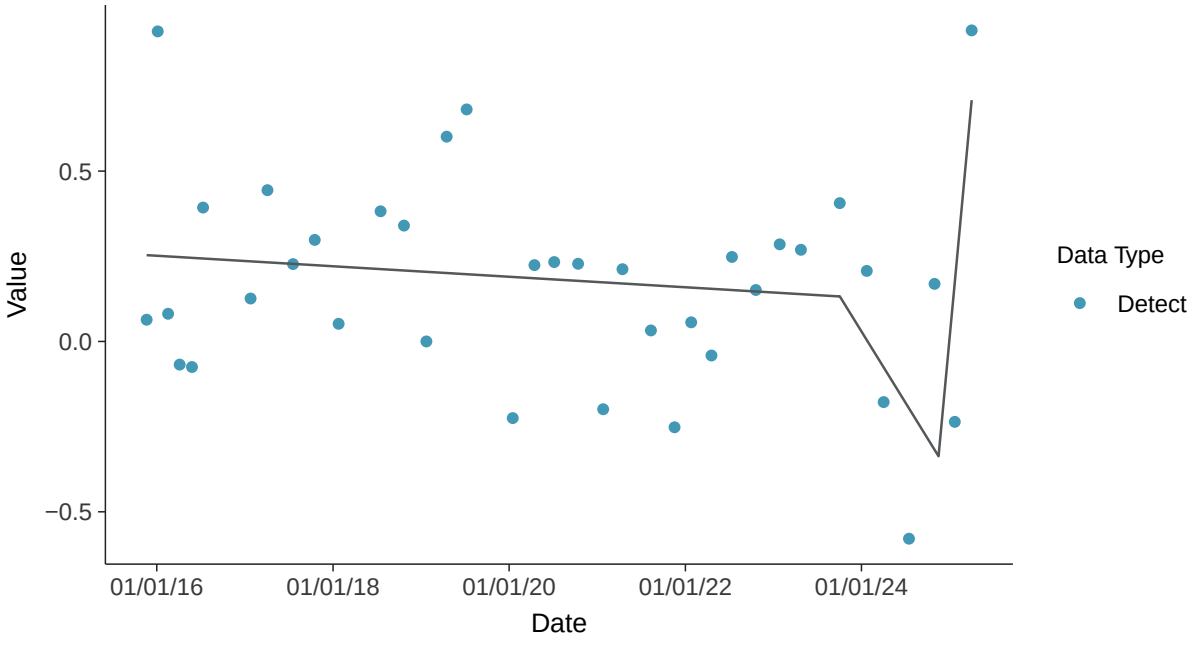
Trend Regression: Piecewise Linear-Linear

Radium-226, MW-6 (pCi/L)



Trend Regression: Piecewise Linear-Linear-Linear

Radium-226, MW-6 (pCi/L)

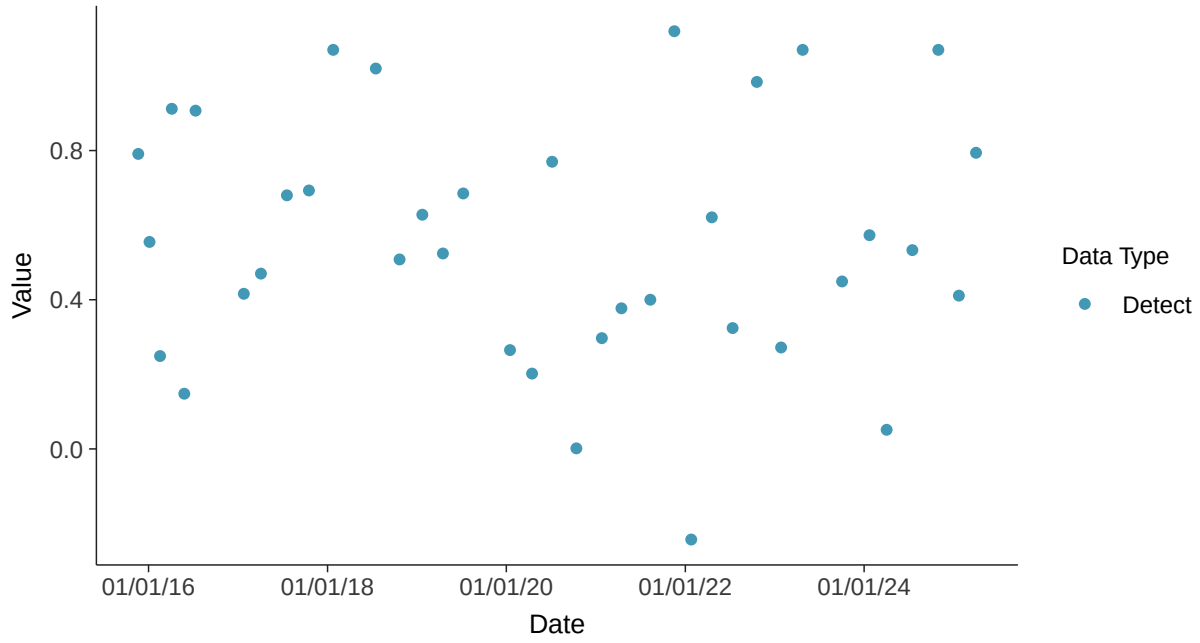


App. IV: Radium-228, MW-6

ID: 06_03_120

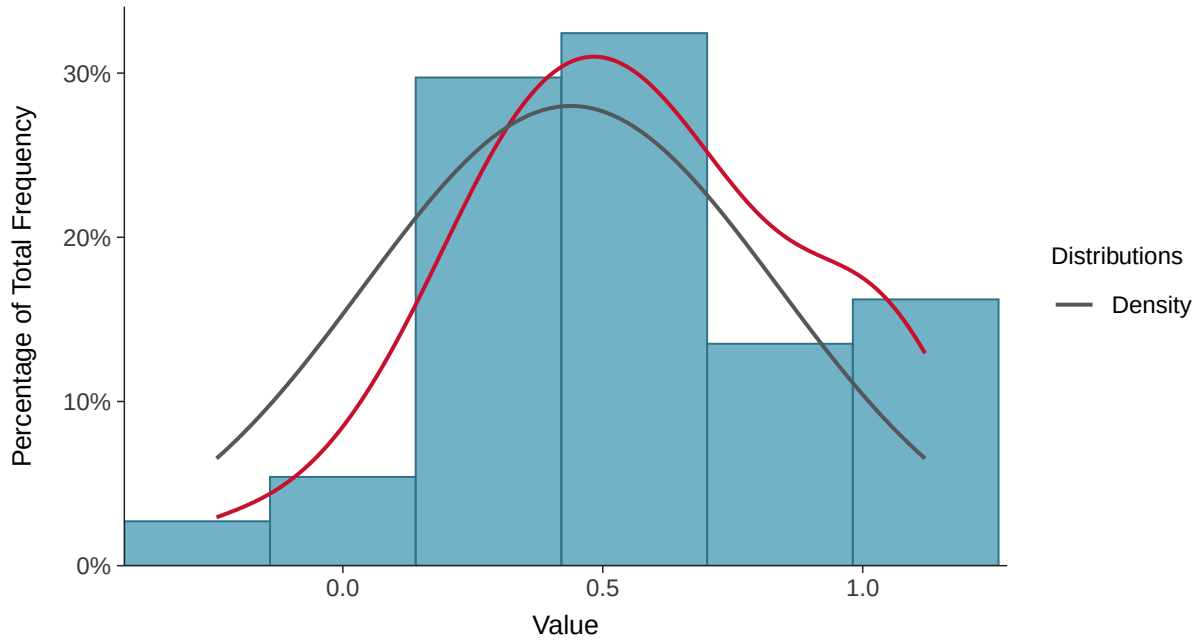
Scatter Plot

Radium-228, MW-6 (pCi/L)



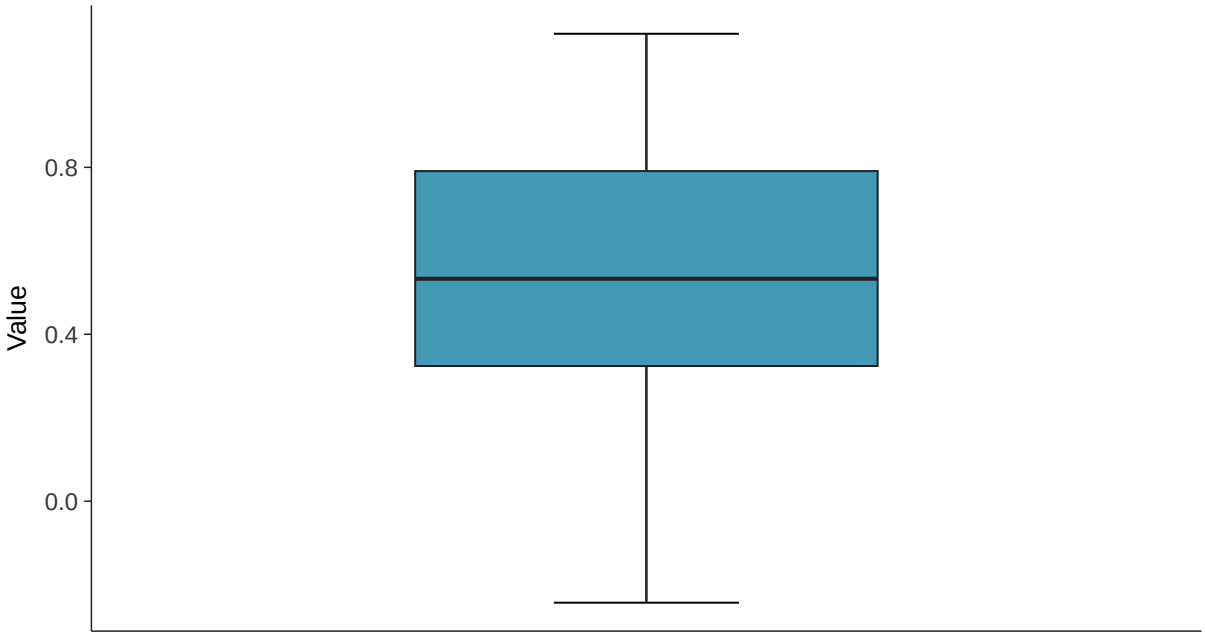
Histogram

Radium-228, MW-6 (pCi/L)



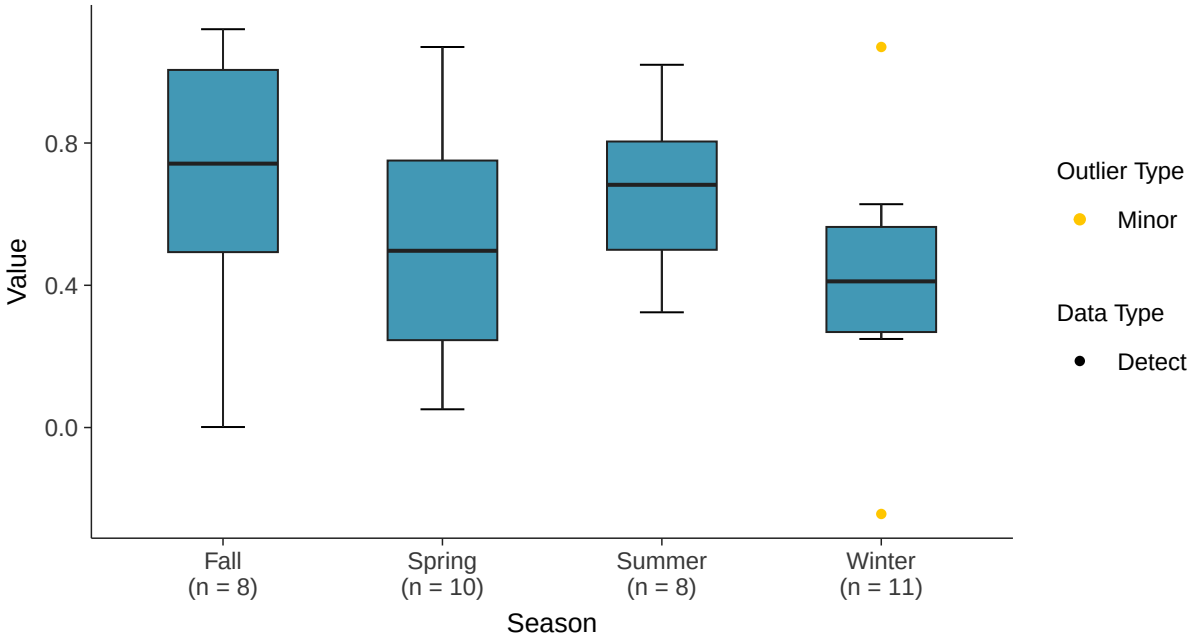
Boxplot

Radium-228, MW-6 (pCi/L)



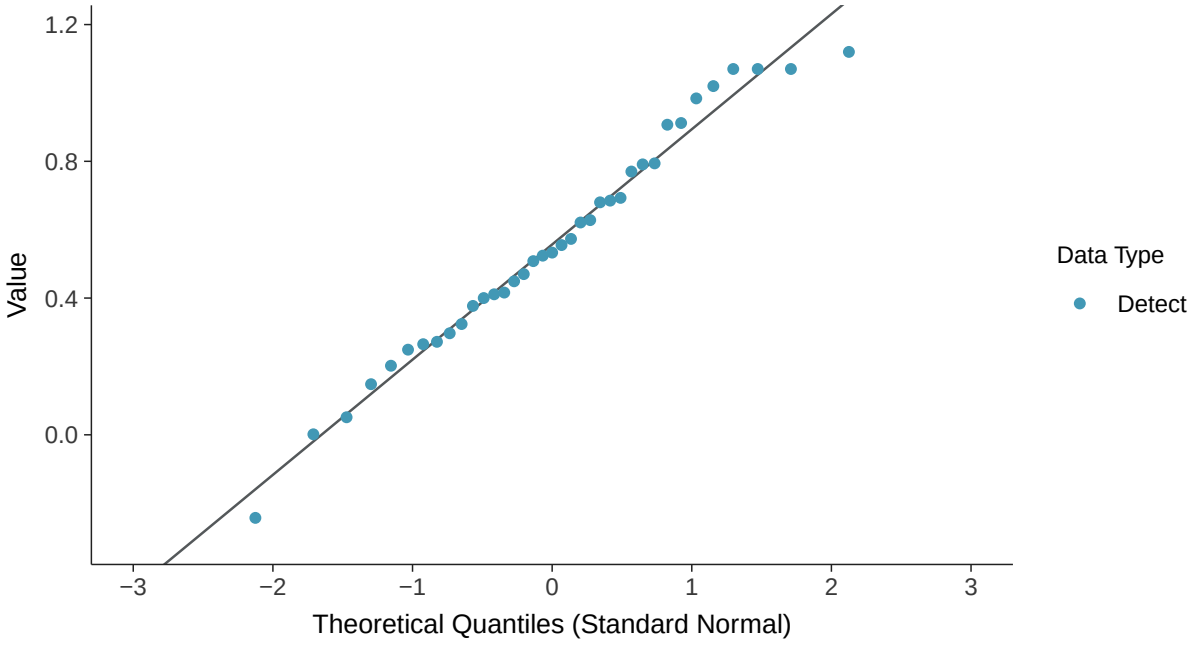
Boxplot by Season

Radium-228, MW-6 (pCi/L)



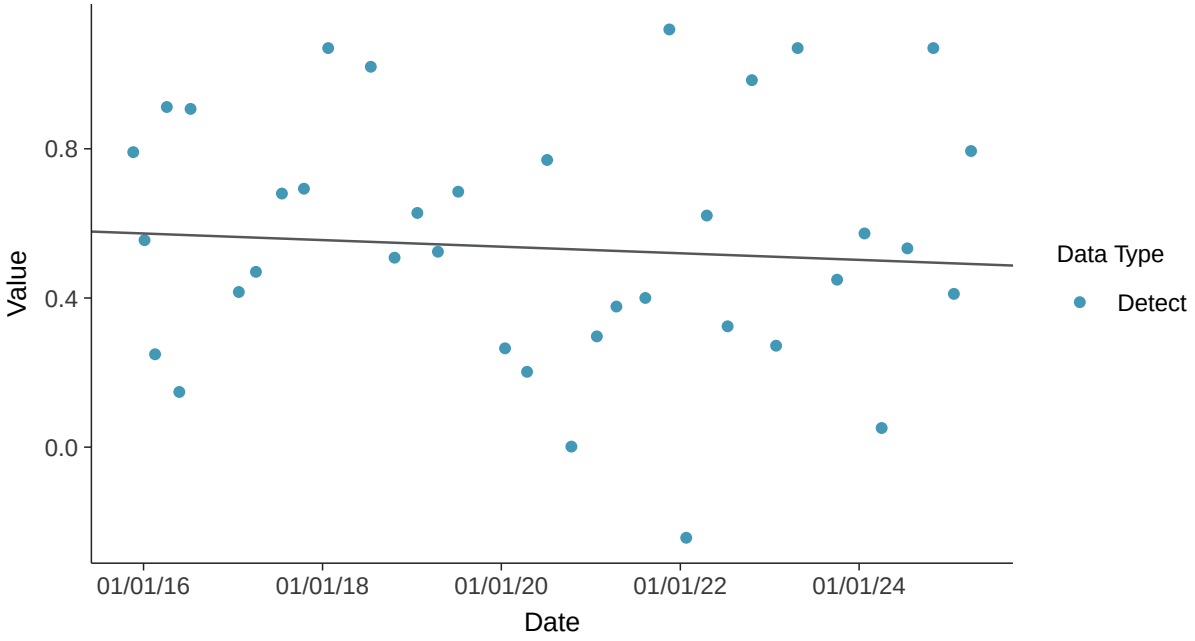
Normal Q-Q plot

Radium-228, MW-6 (pCi/L)



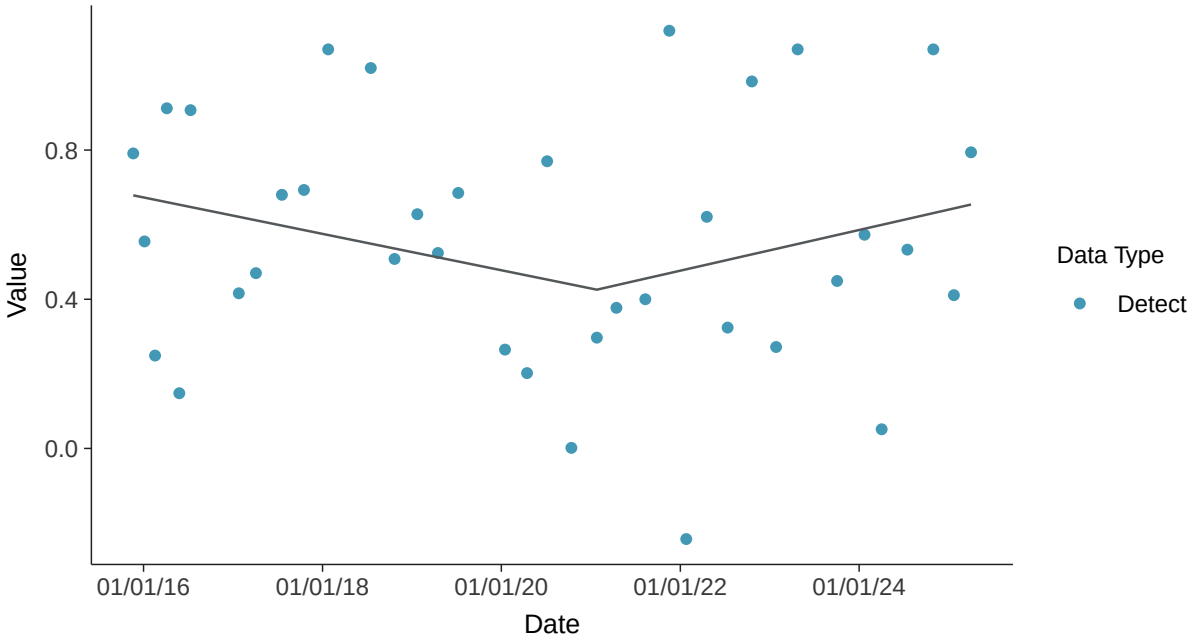
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Radium-228, MW-6 (pCi/L)



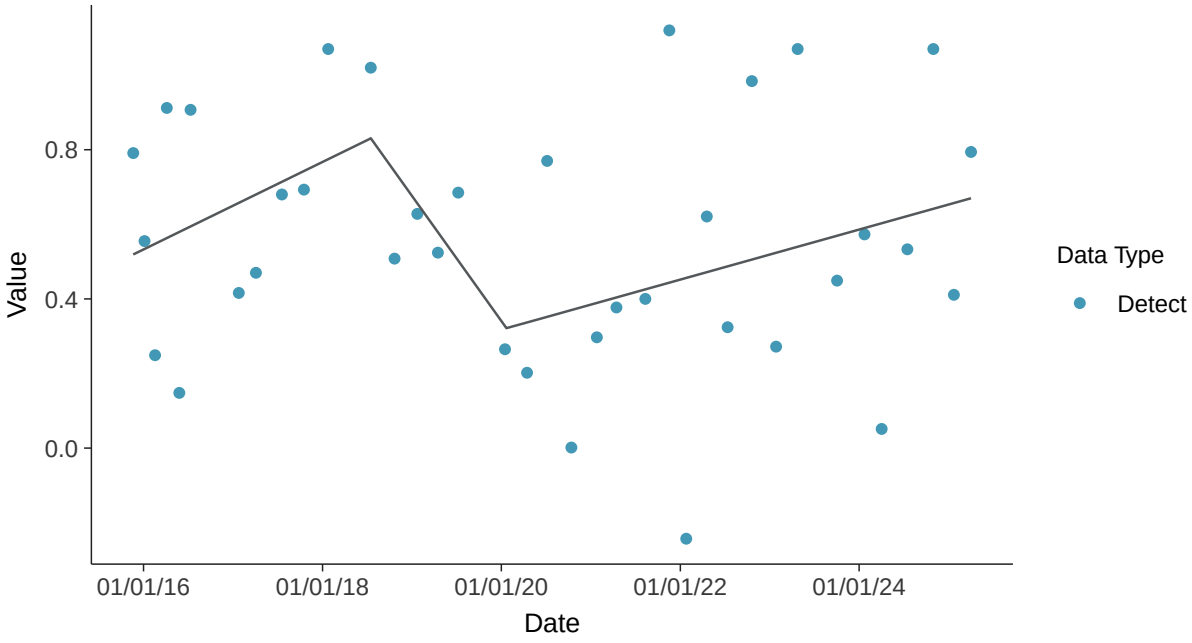
Trend Regression: Piecewise Linear-Linear

Radium-228, MW-6 (pCi/L)



Trend Regression: Piecewise Linear-Linear-Linear

Radium-228, MW-6 (pCi/L)

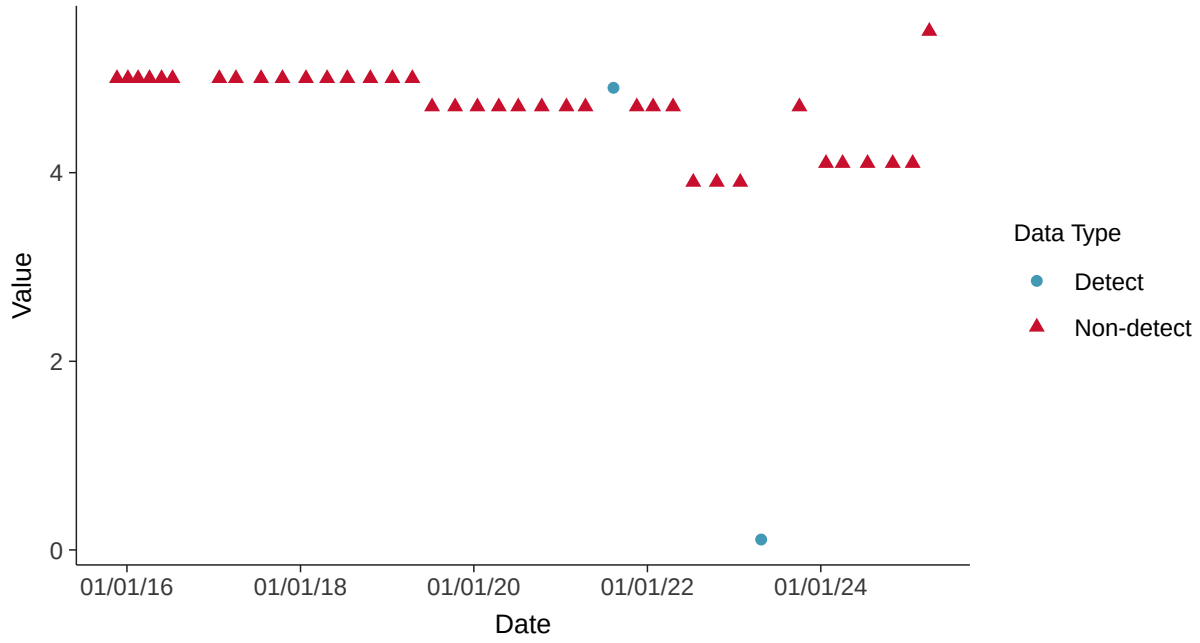


App. IV: Selenium, MW-6

ID: 06_03_121

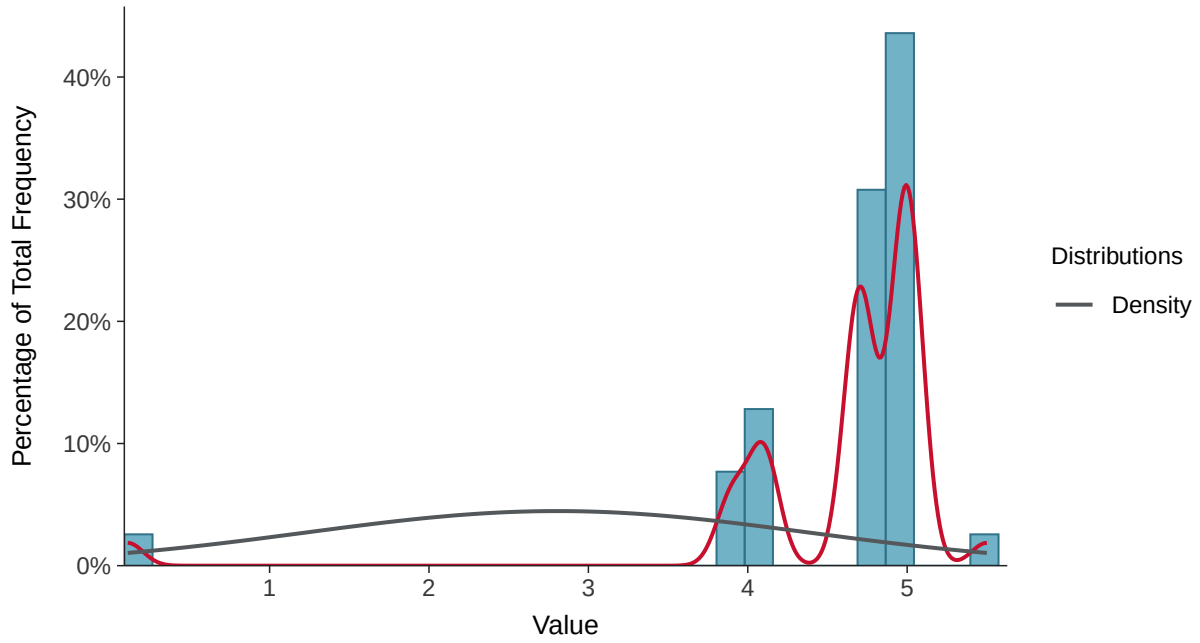
Scatter Plot

Selenium, MW-6 (ug/L)



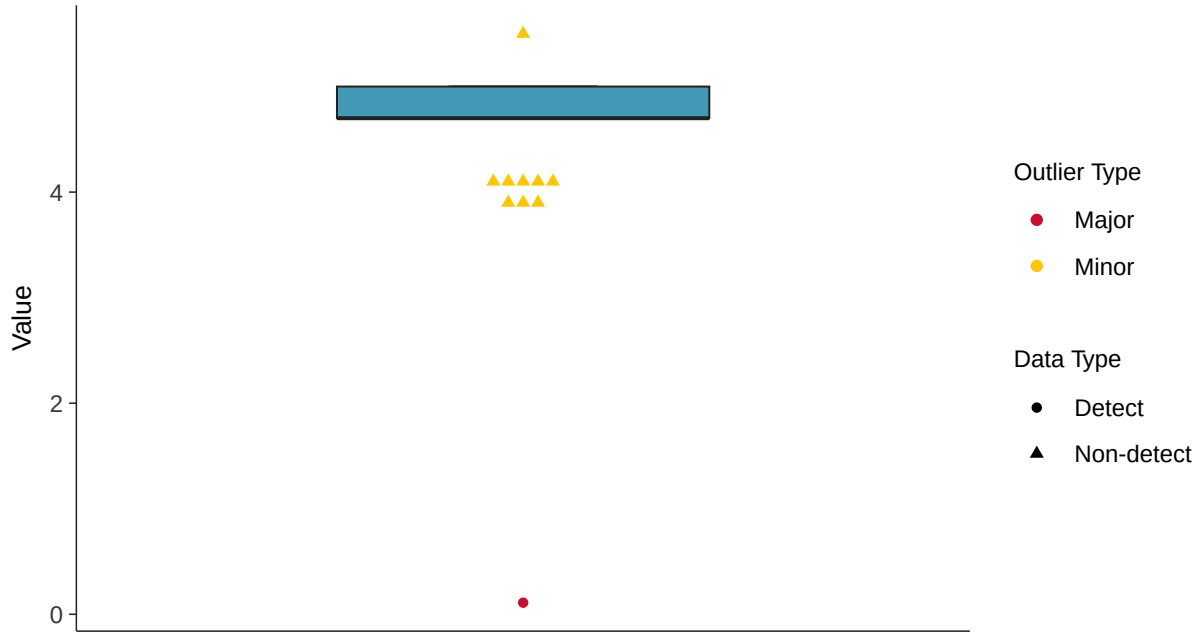
Histogram

Selenium, MW-6 (ug/L)



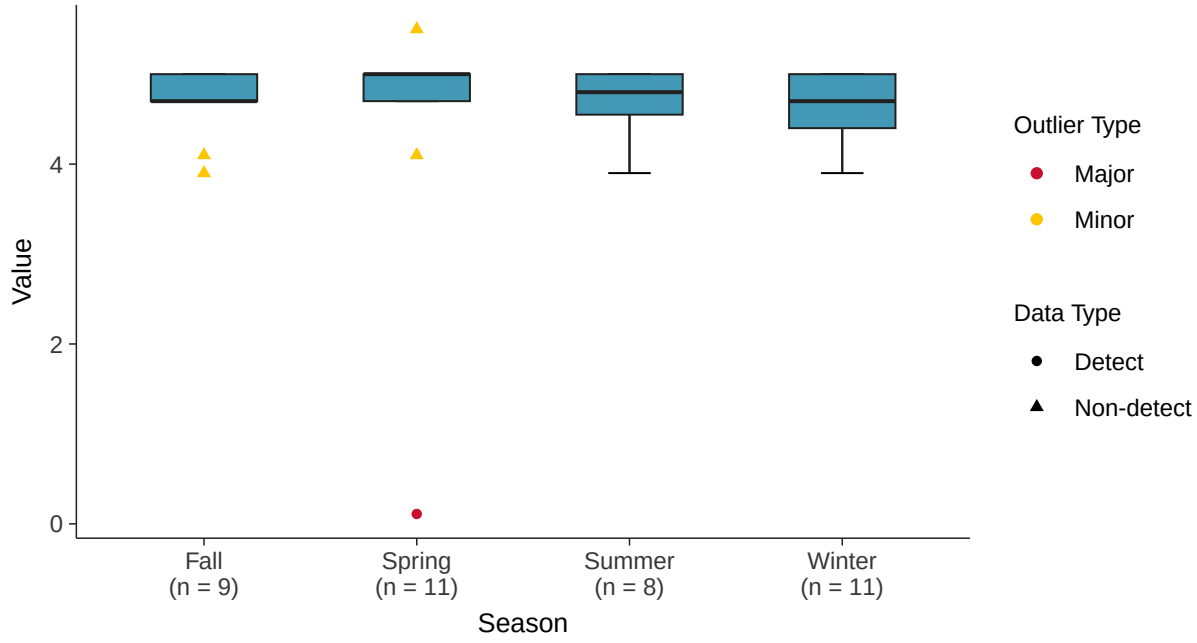
Boxplot

Selenium, MW-6 (ug/L)



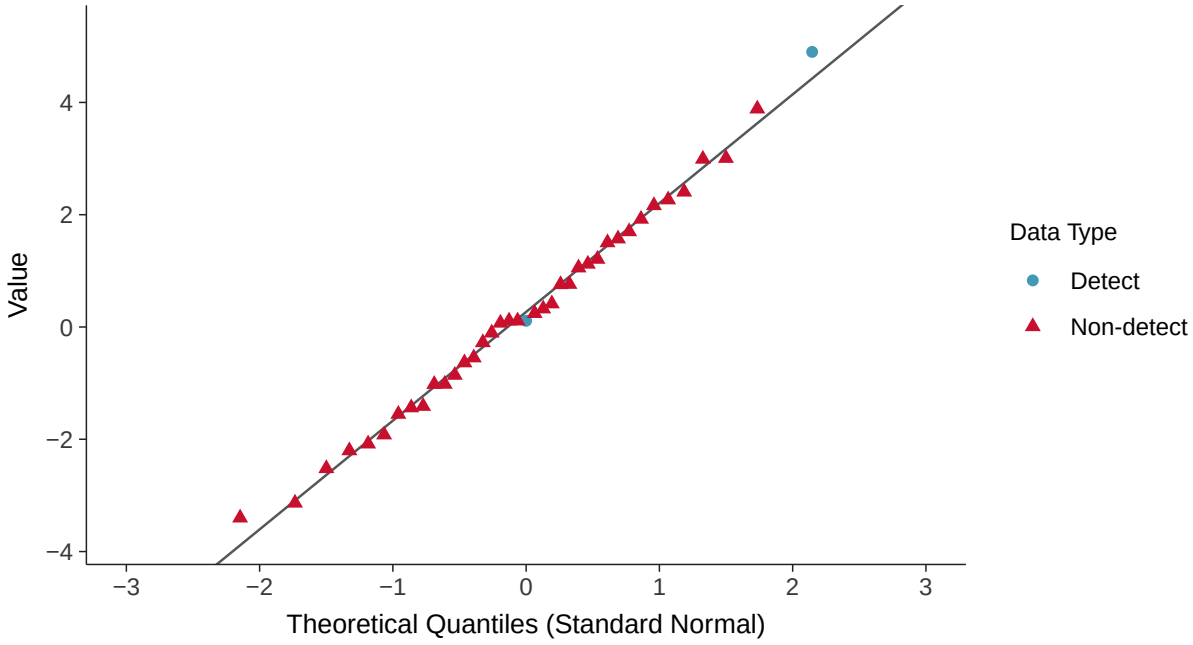
Boxplot by Season

Selenium, MW-6 (ug/L)



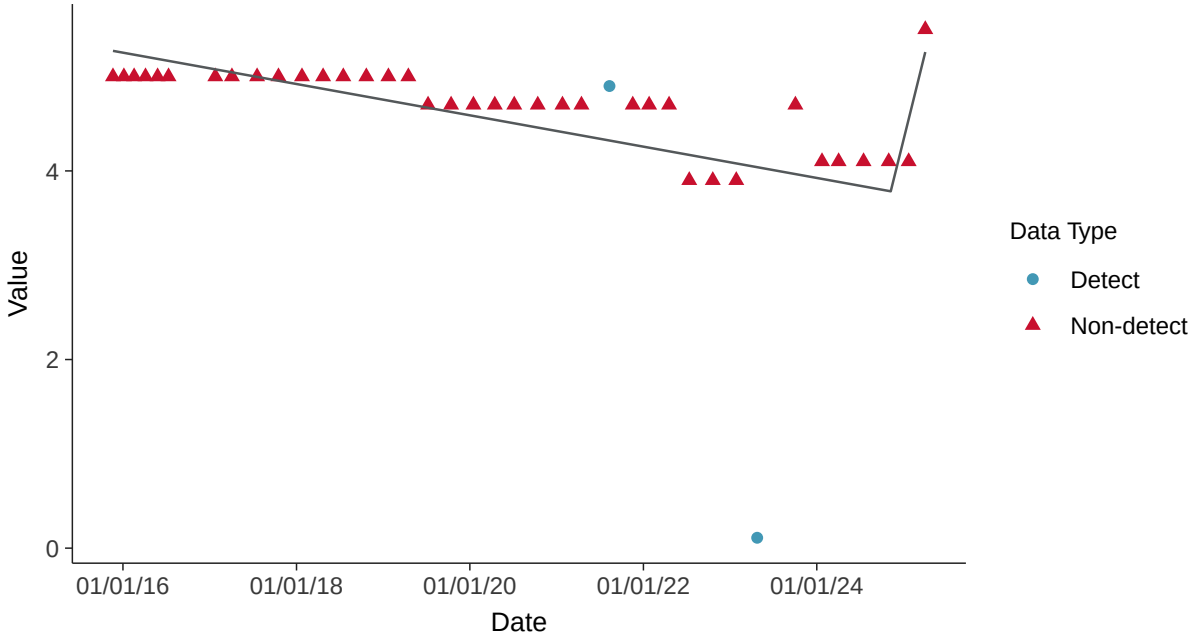
Normal Q-Q plot using ROS Imputed Estimates

Selenium, MW-6 (ug/L)



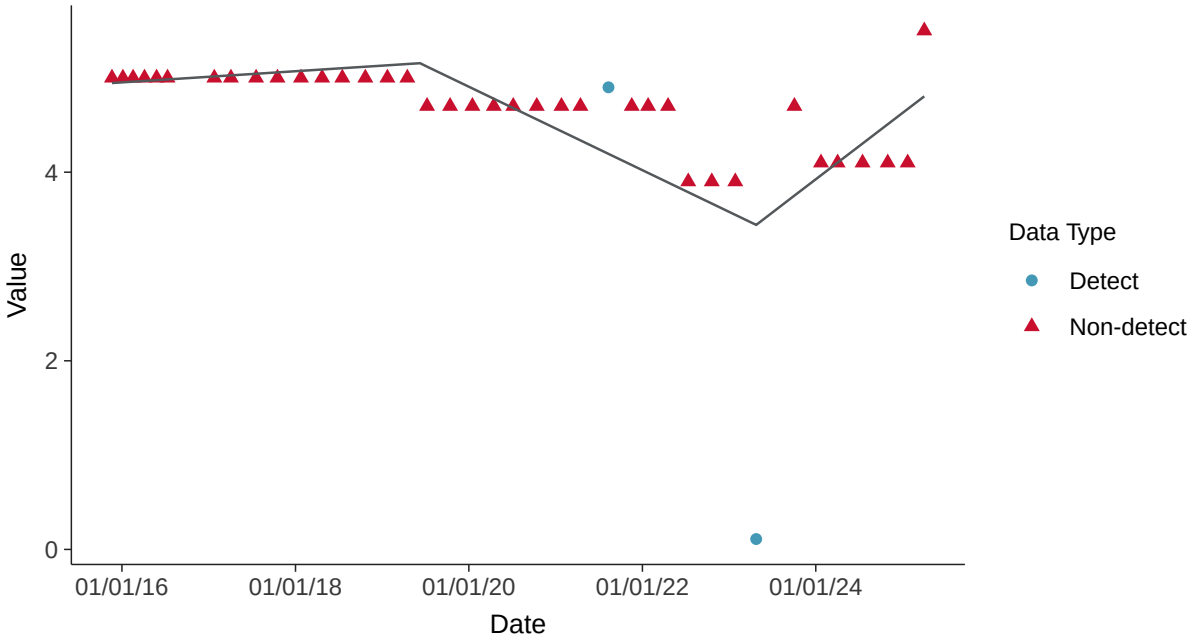
Trend Regression: Piecewise Linear-Linear

Selenium, MW-6 (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Selenium, MW-6 (ug/L)

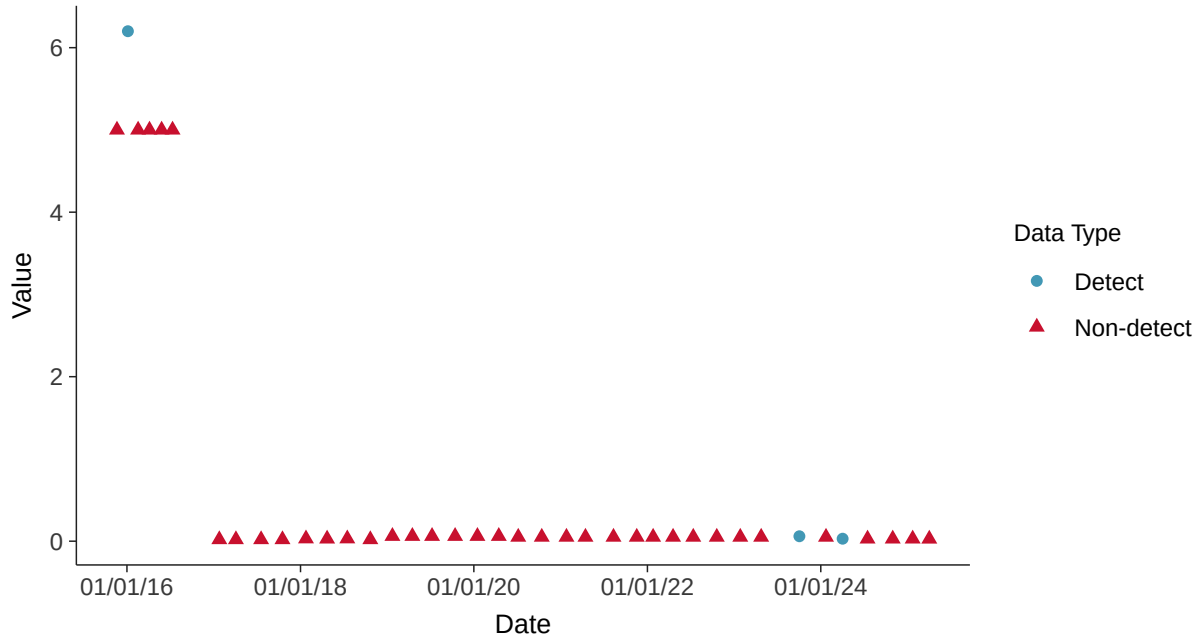


App. IV: Thallium, MW-6

ID: 06_03_124

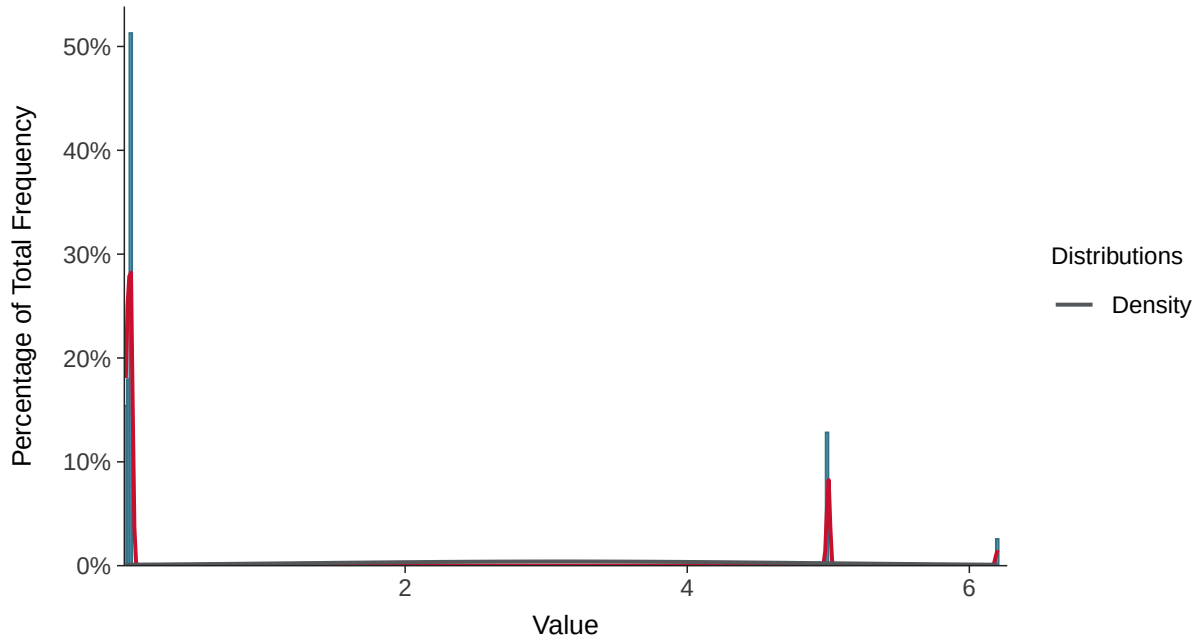
Scatter Plot

Thallium, MW-6 (ug/L)



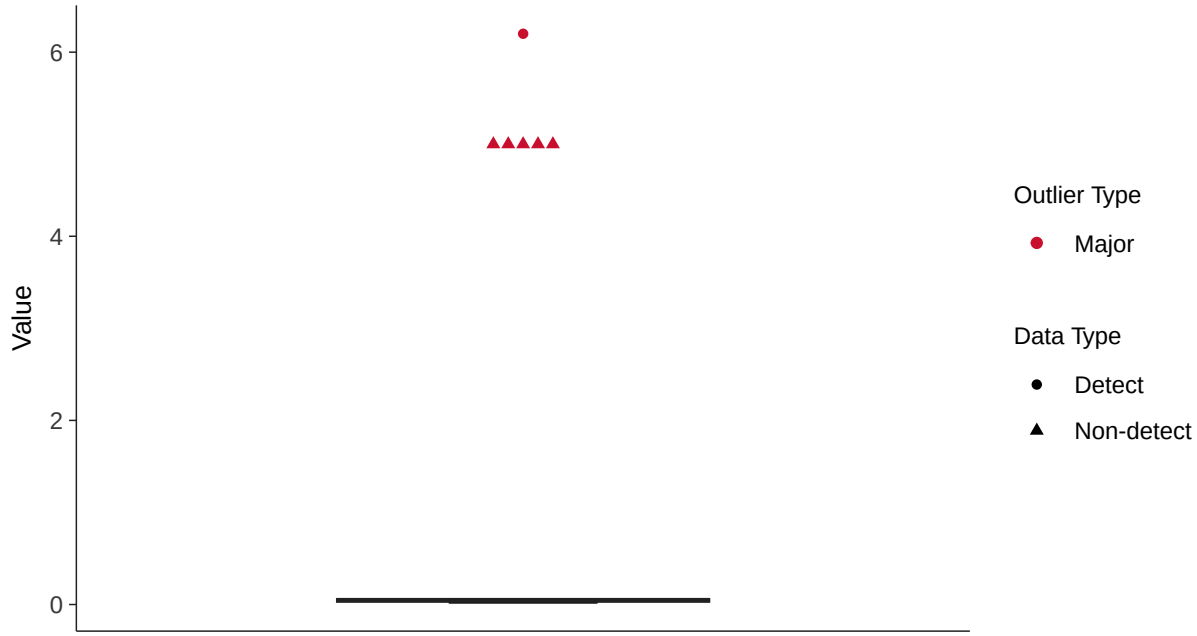
Histogram

Thallium, MW-6 (ug/L)



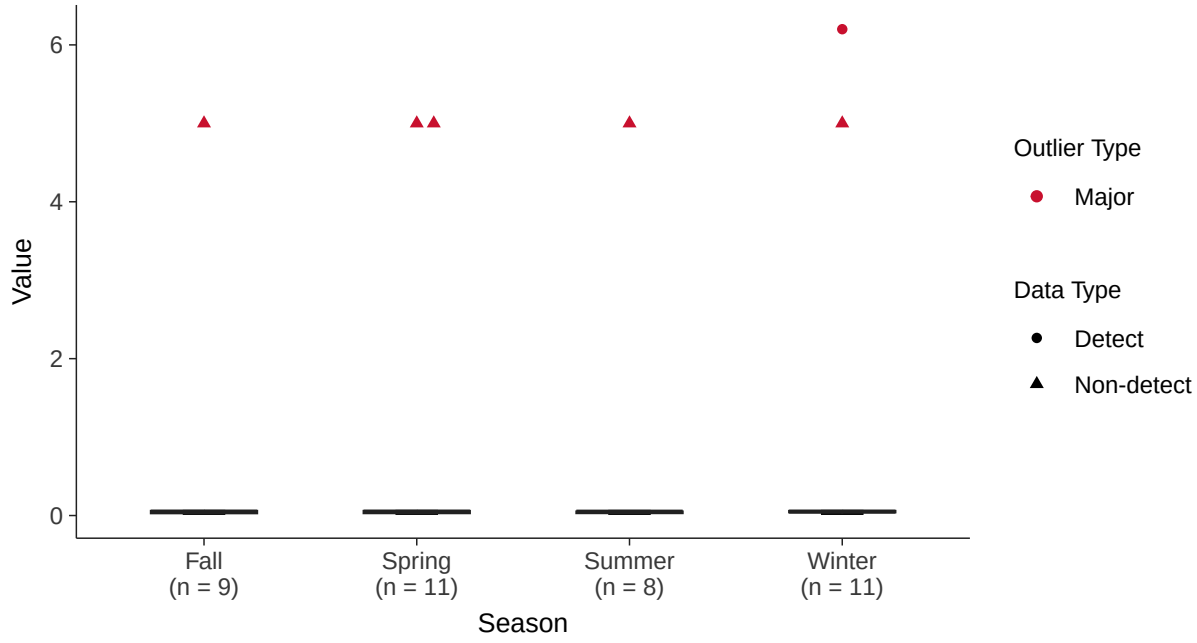
Boxplot

Thallium, MW-6 (ug/L)



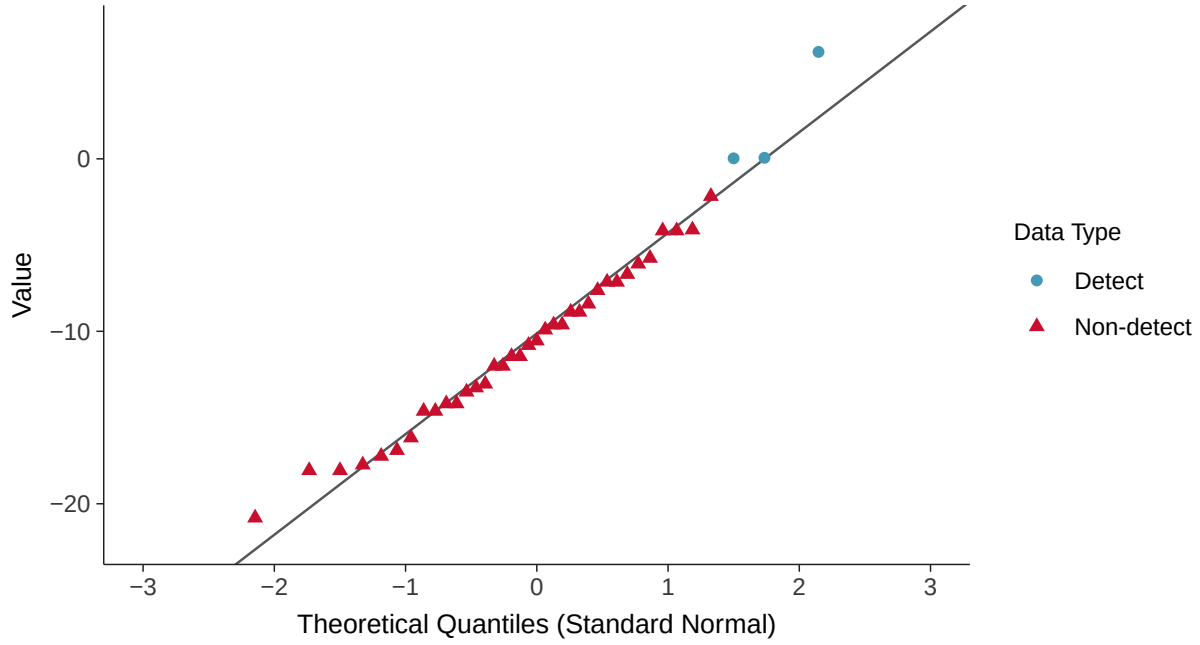
Boxplot by Season

Thallium, MW-6 (ug/L)



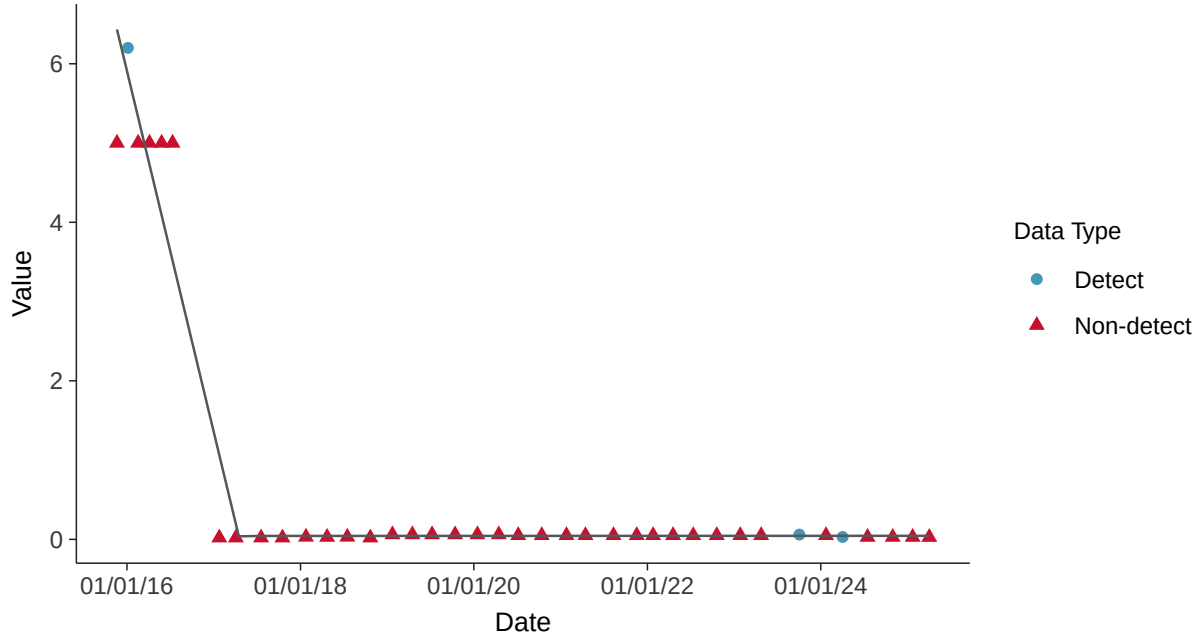
Normal Q-Q plot using ROS Imputed Estimates

Thallium, MW-6 (ug/L)



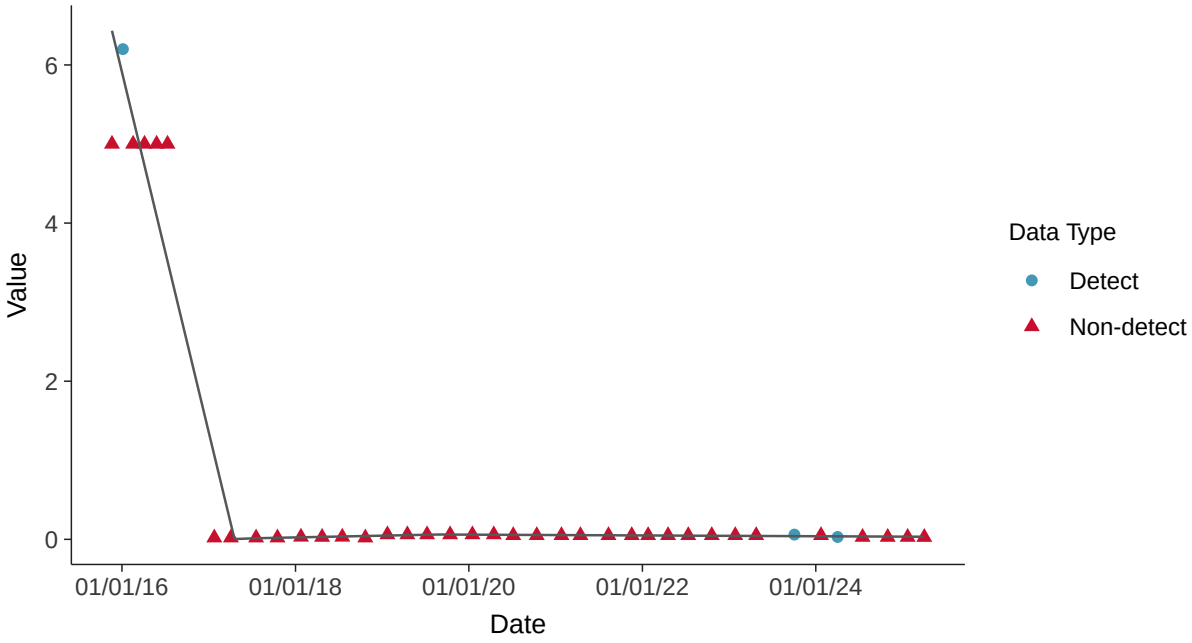
Trend Regression: Piecewise Linear-Linear

Thallium, MW-6 (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Thallium, MW-6 (ug/L)

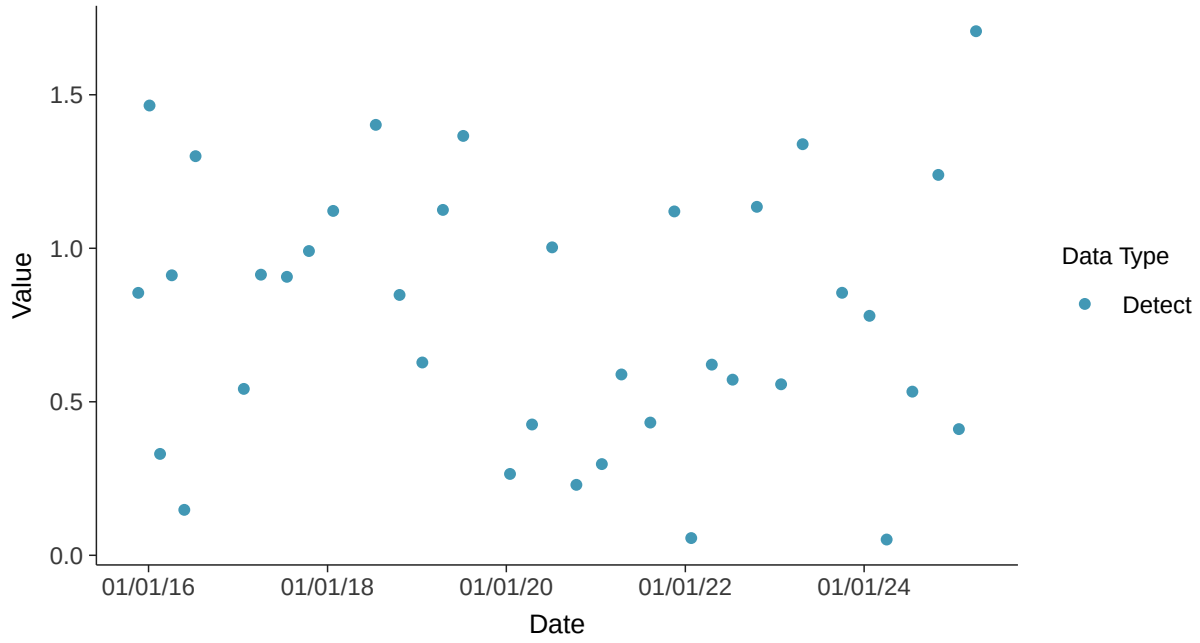


App. IV: Total Radium, MW-6

ID: 06_03_126

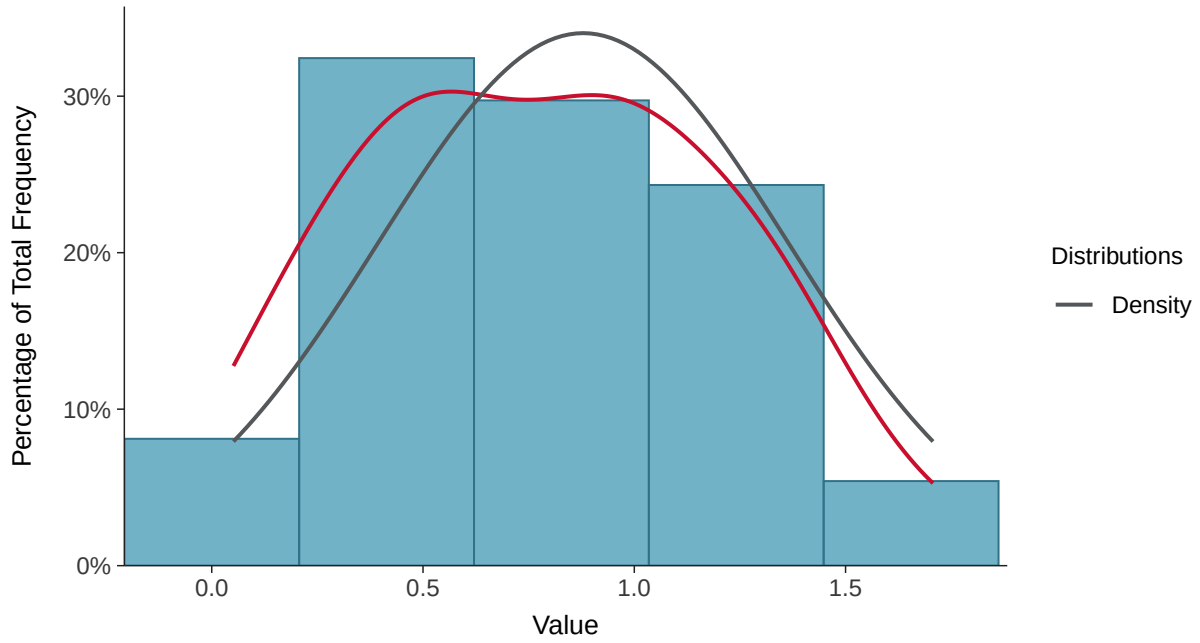
Scatter Plot

Total Radium, MW-6 (pCi/L)



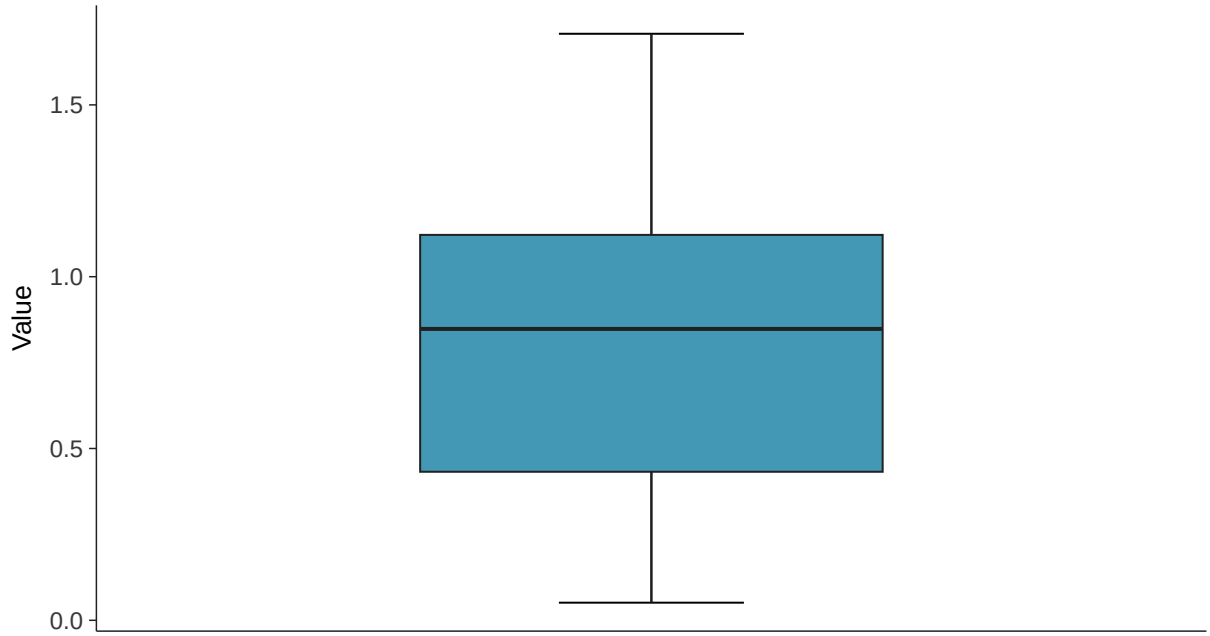
Histogram

Total Radium, MW-6 (pCi/L)



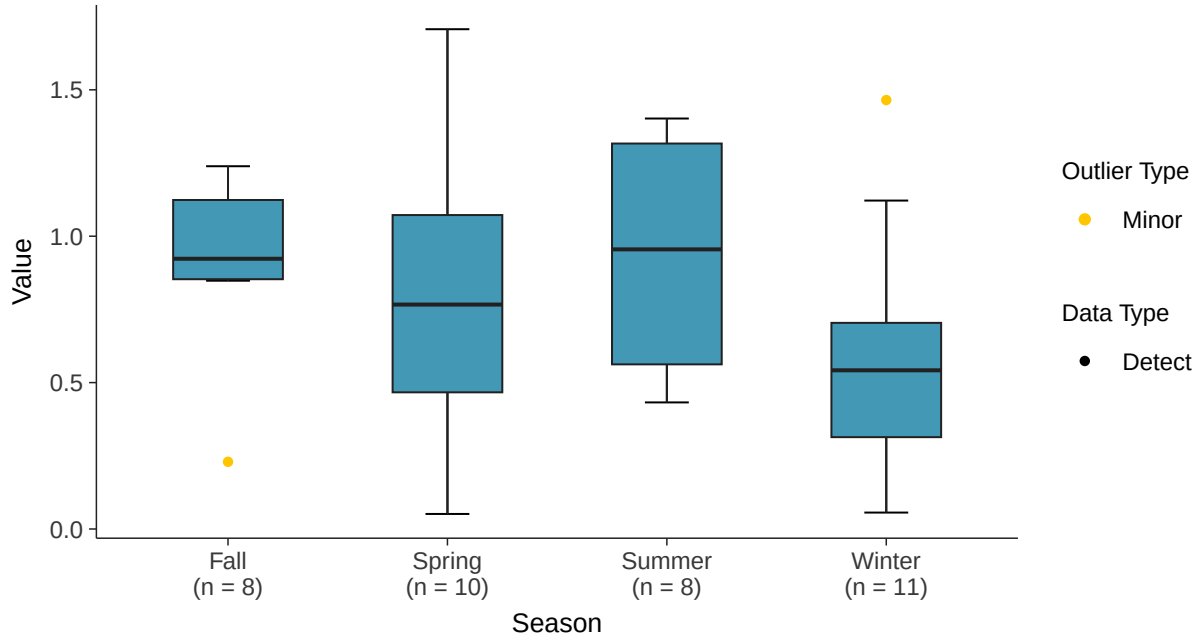
Boxplot

Total Radium, MW-6 (pCi/L)



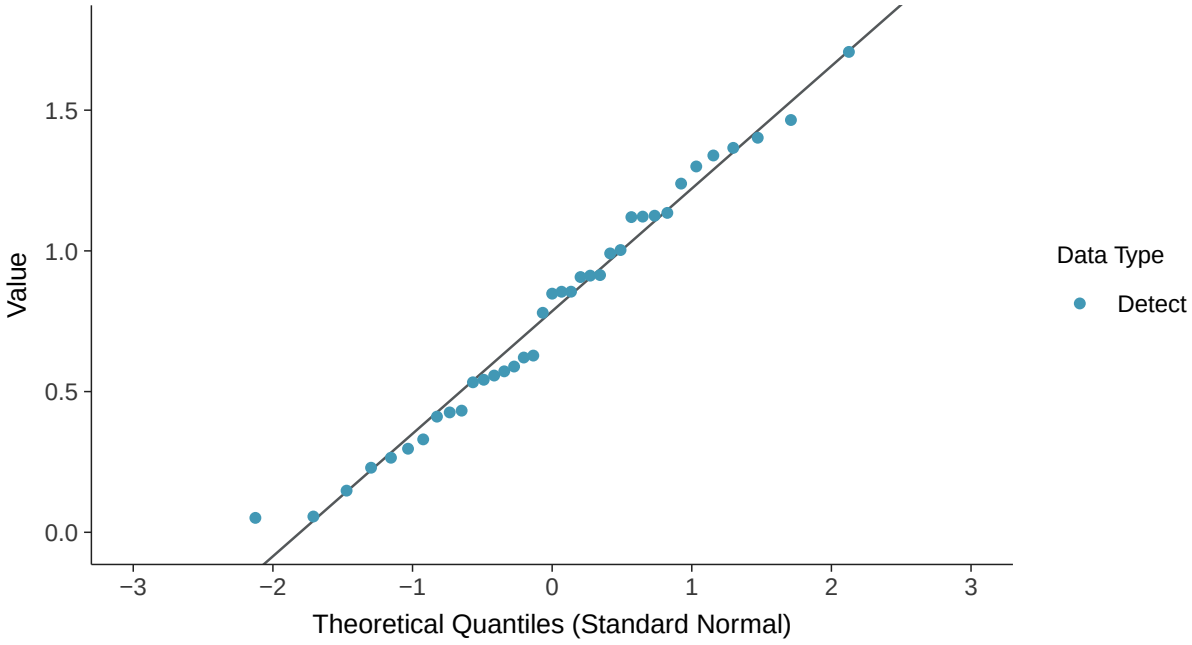
Boxplot by Season

Total Radium, MW-6 (pCi/L)



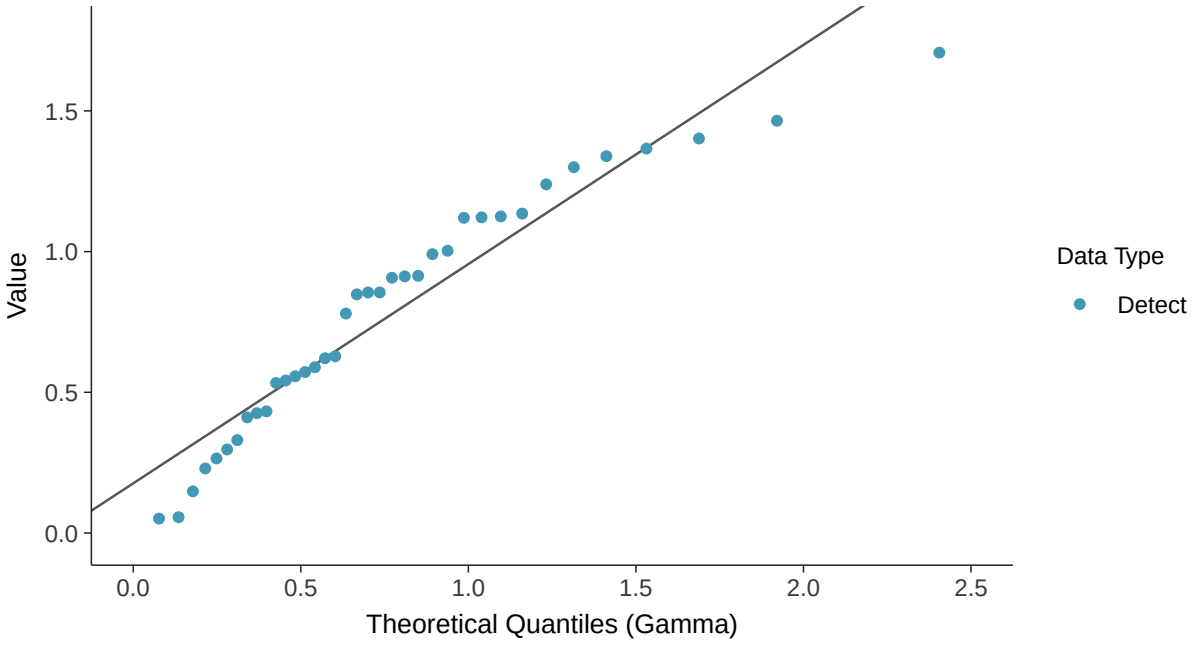
Normal Q-Q plot

Total Radium, MW-6 (pCi/L)



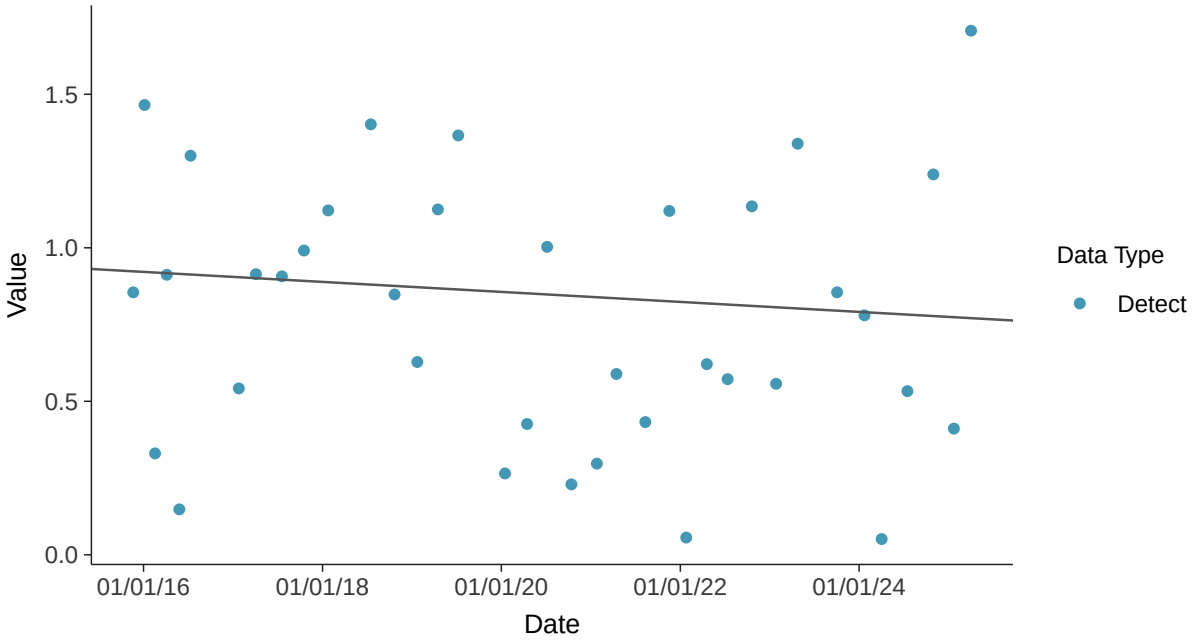
Gamma Q-Q plot

Total Radium, MW-6 (pCi/L)



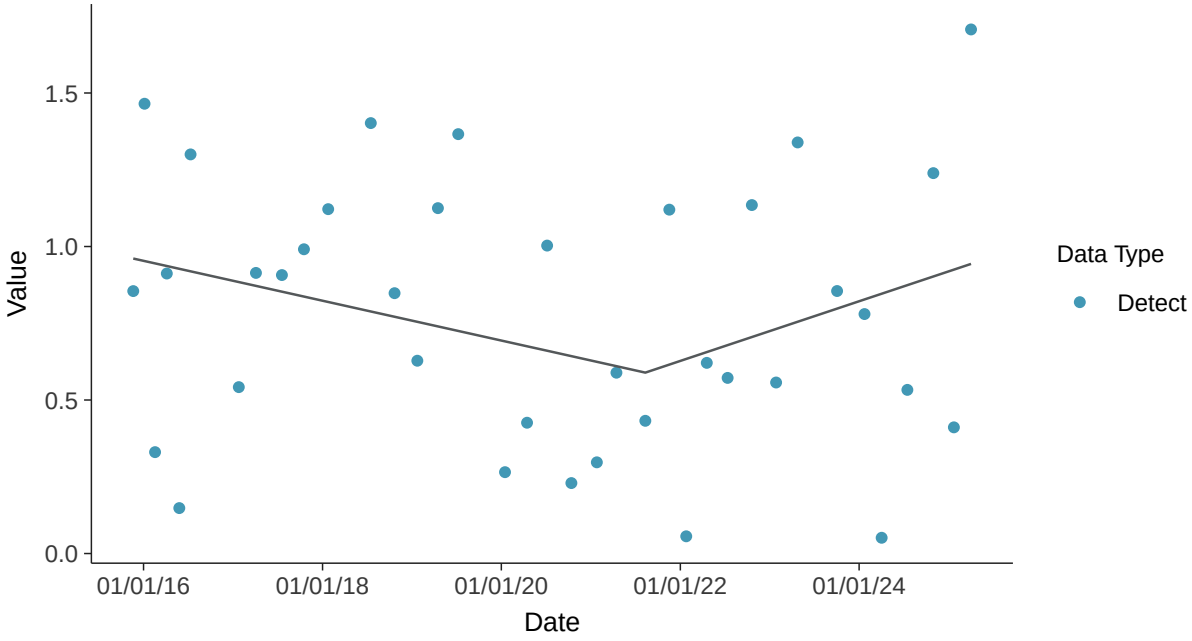
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Total Radium, MW-6 (pCi/L)



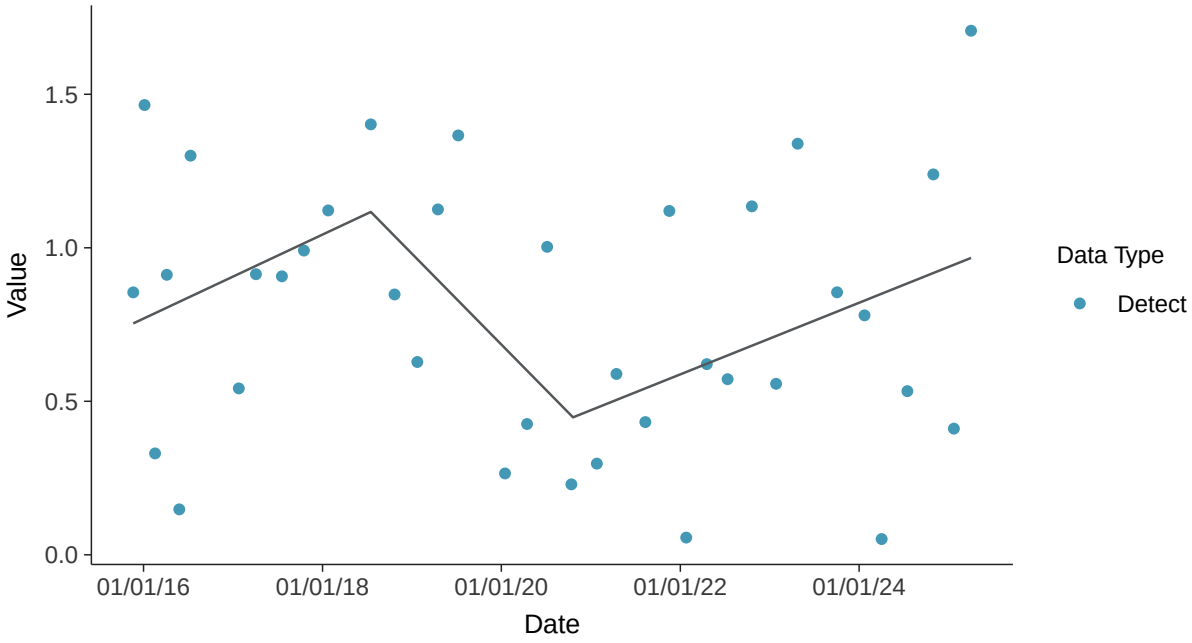
Trend Regression: Piecewise Linear-Linear

Total Radium, MW-6 (pCi/L)



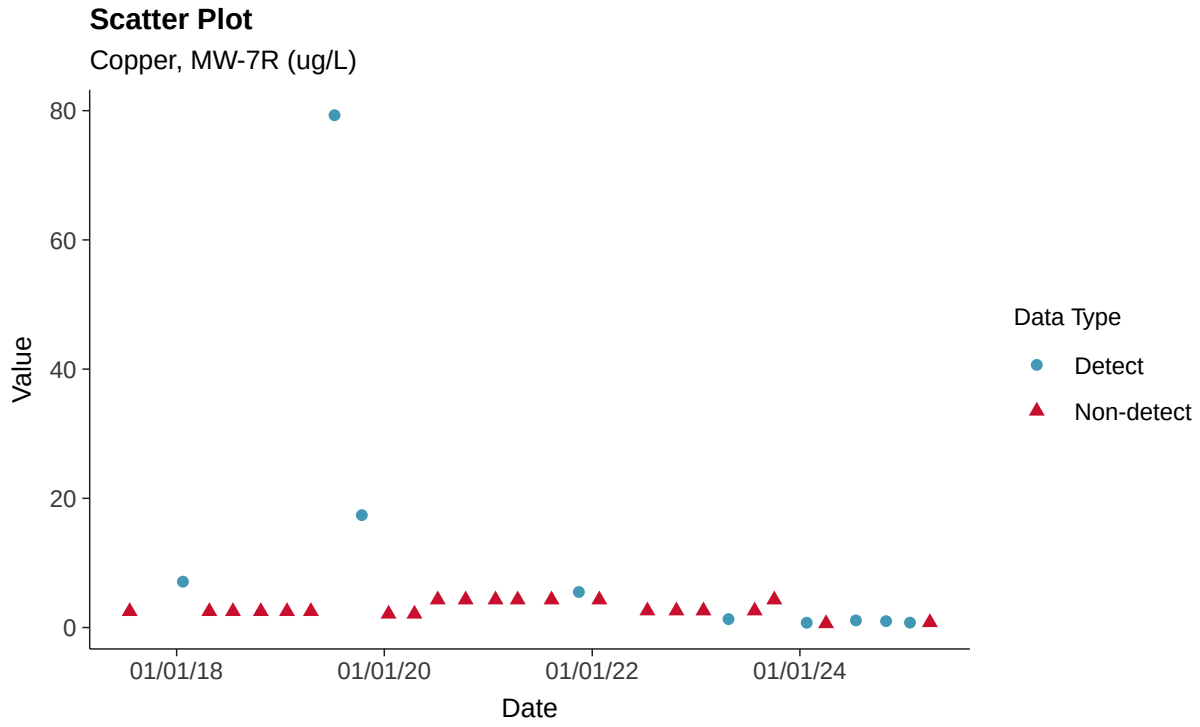
Trend Regression: Piecewise Linear-Linear-Linear

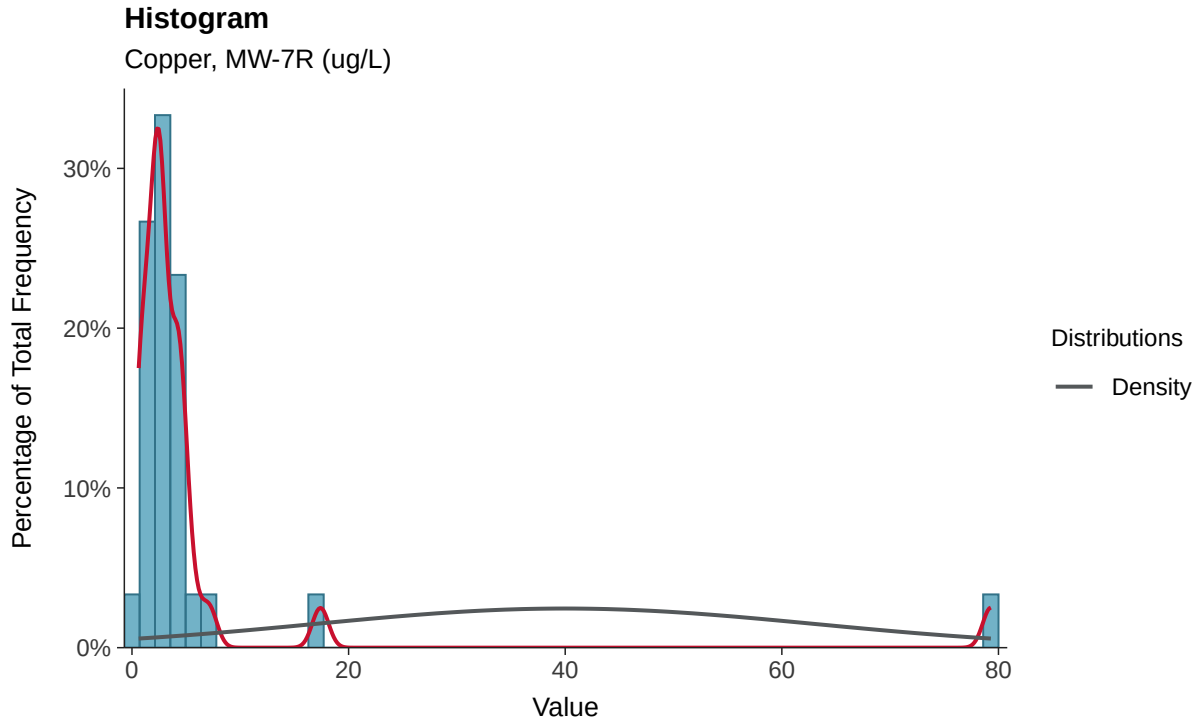
Total Radium, MW-6 (pCi/L)



App. I Metals: Copper, MW-7R

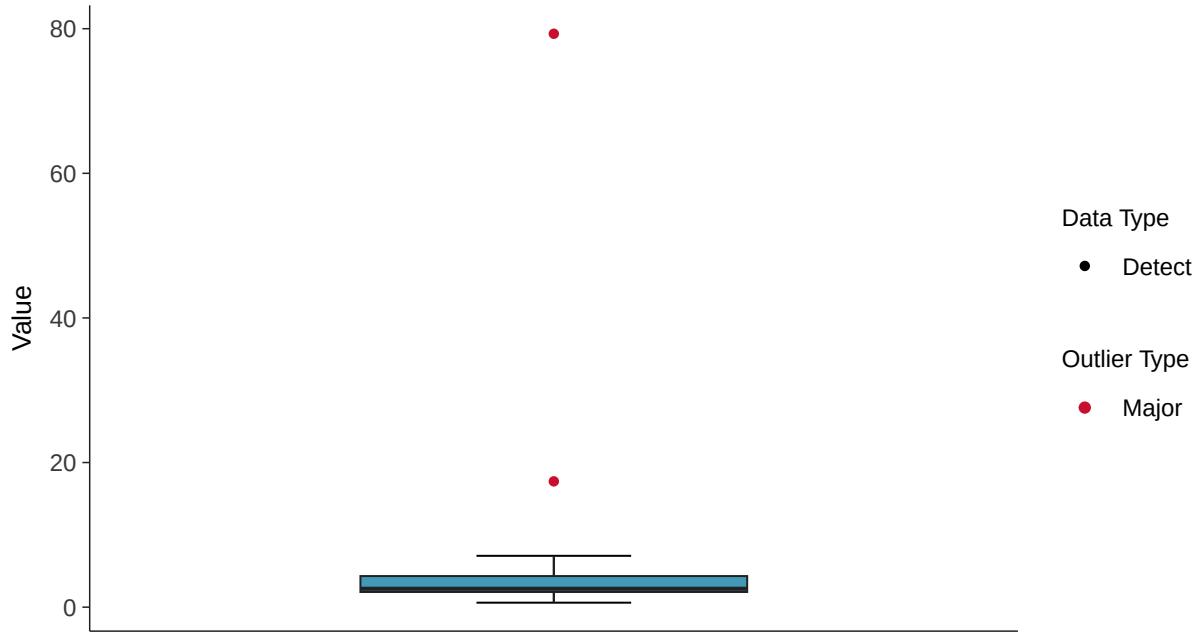
ID: 07_01_111





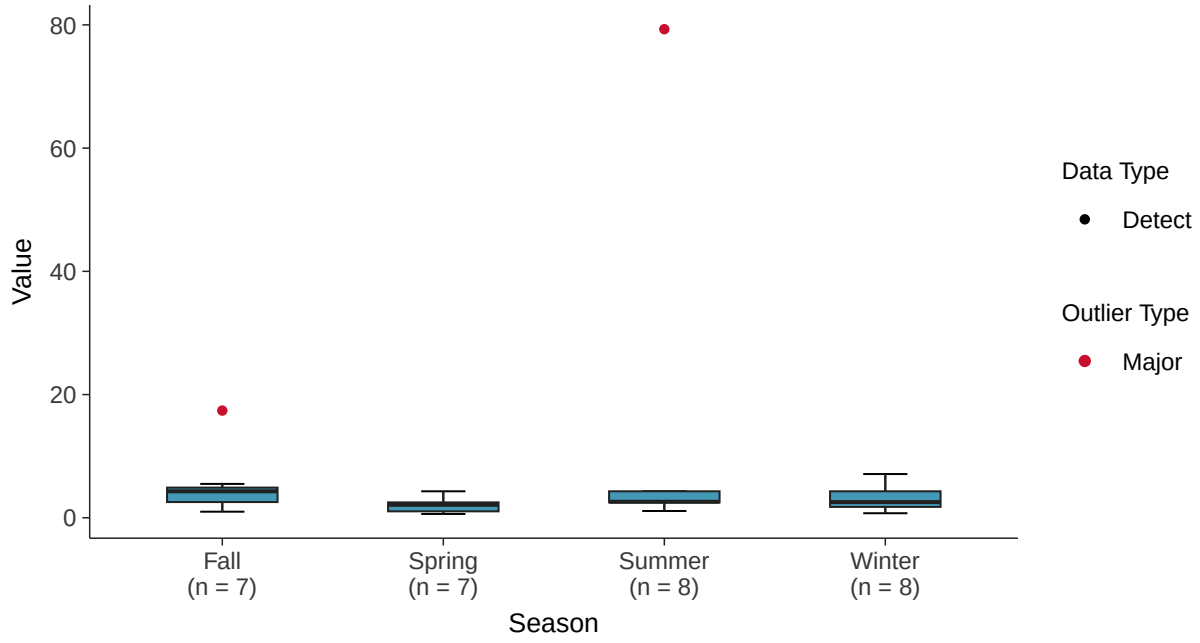
Boxplot

Copper, MW-7R (ug/L)



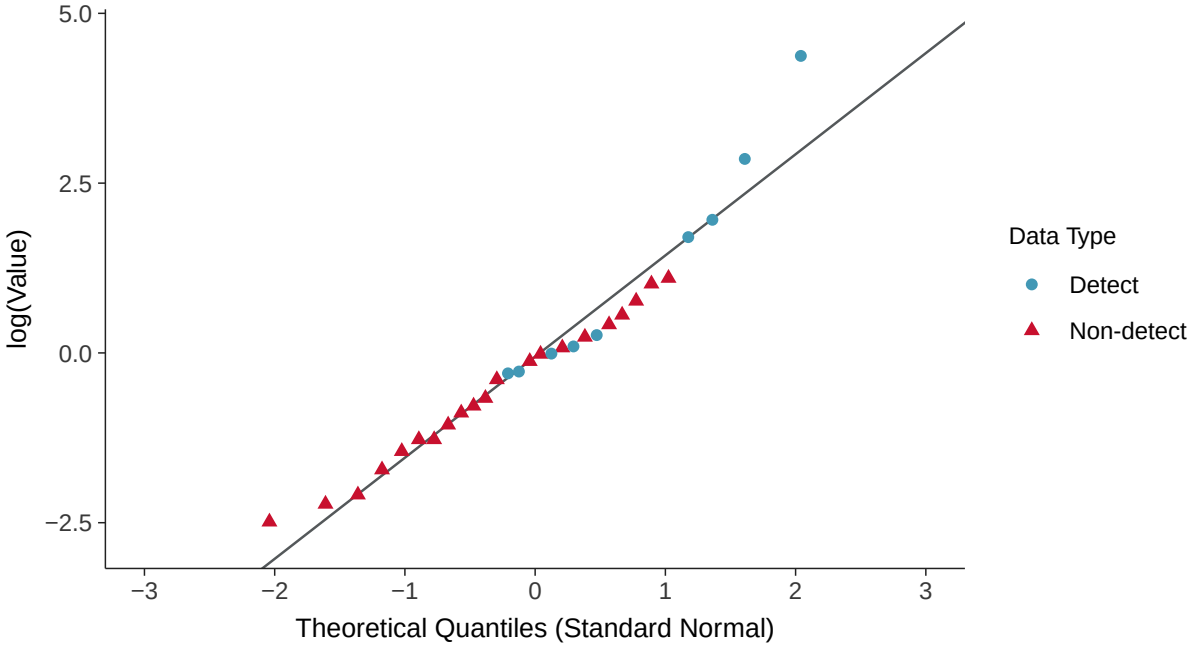
Boxplot by Season

Copper, MW-7R (ug/L)



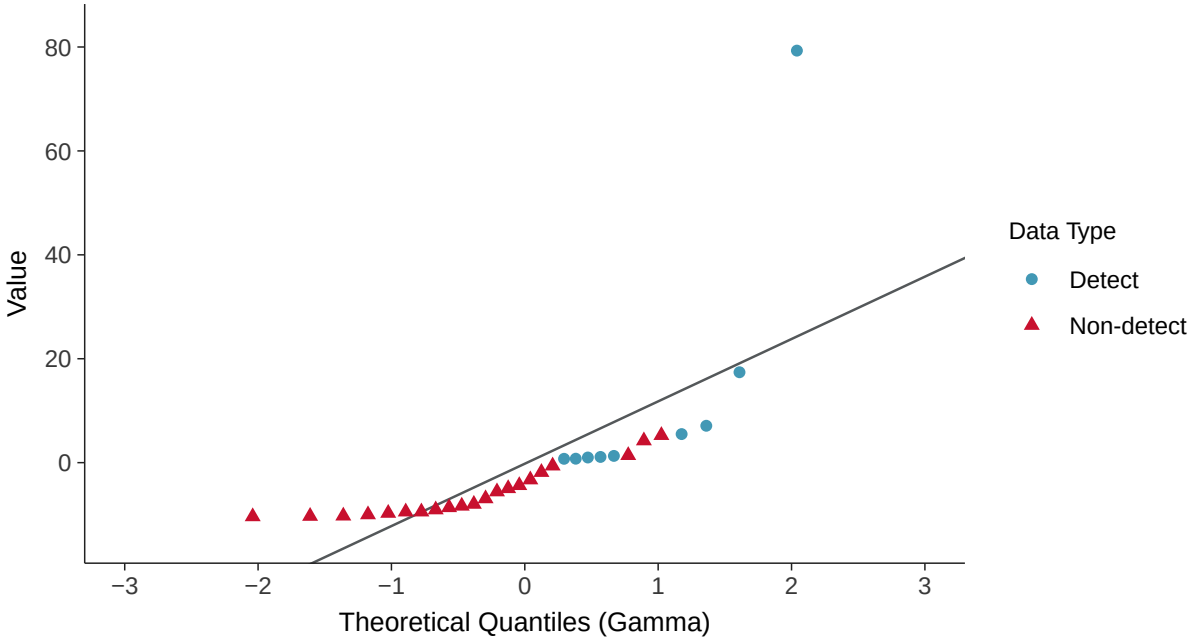
Lognormal Q-Q plot using ROS Imputed Estimates

Copper, MW-7R (ug/L)



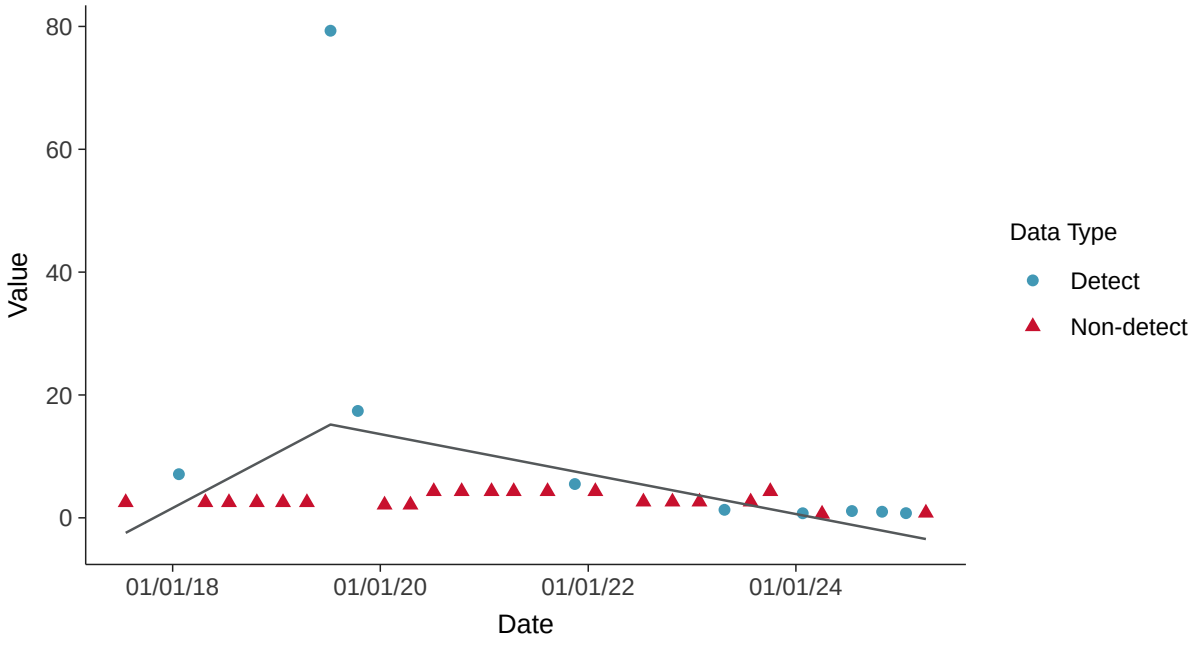
Gamma Q-Q plot using ROS Imputed Estimates

Copper, MW-7R (ug/L)



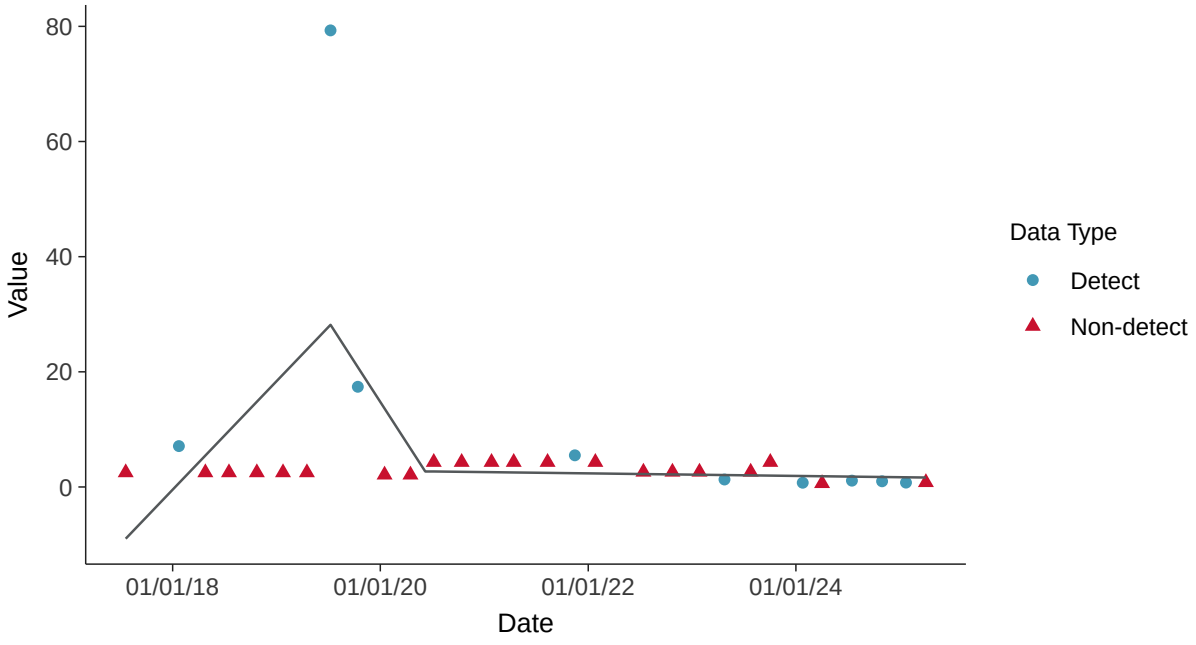
Trend Regression: Piecewise Linear-Linear

Copper, MW-7R (ug/L)



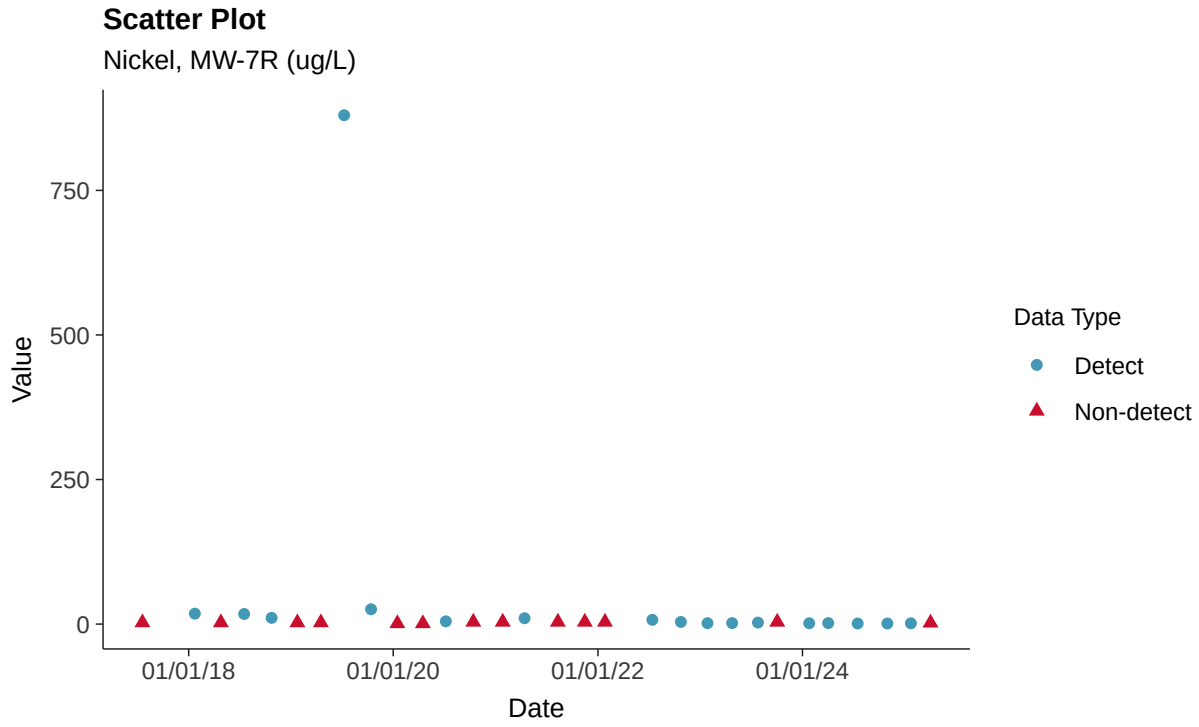
Trend Regression: Piecewise Linear-Linear-Linear

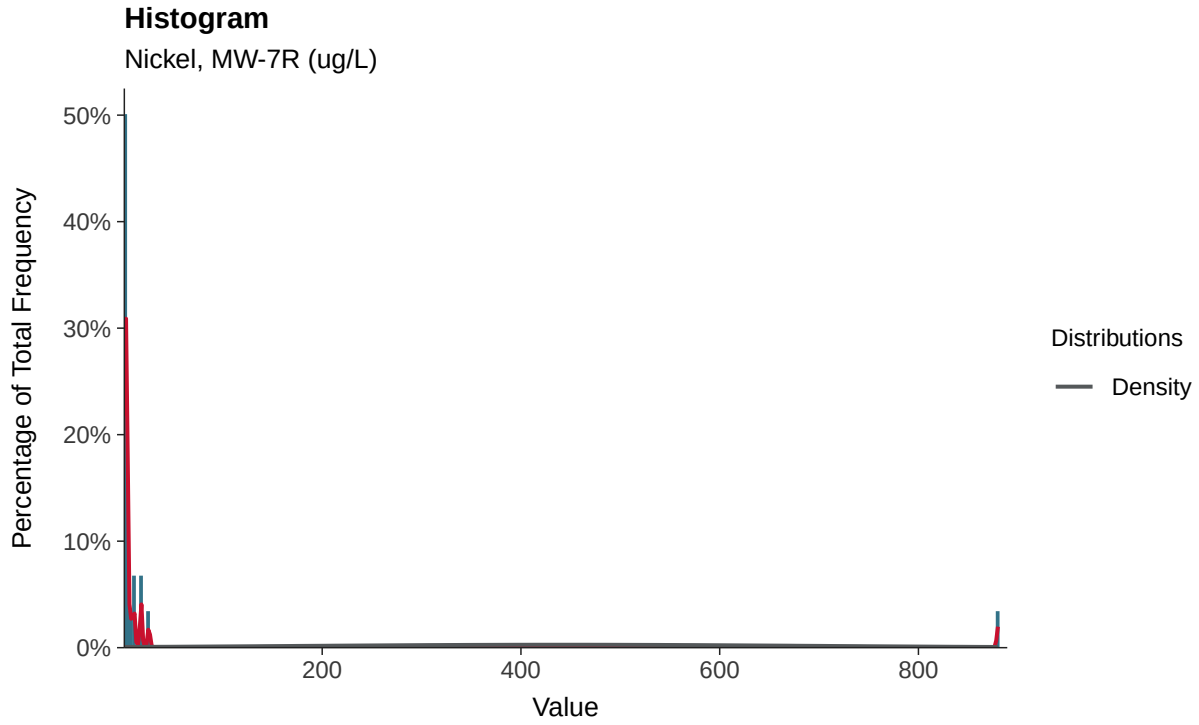
Copper, MW-7R (ug/L)



App. I Metals: Nickel, MW-7R

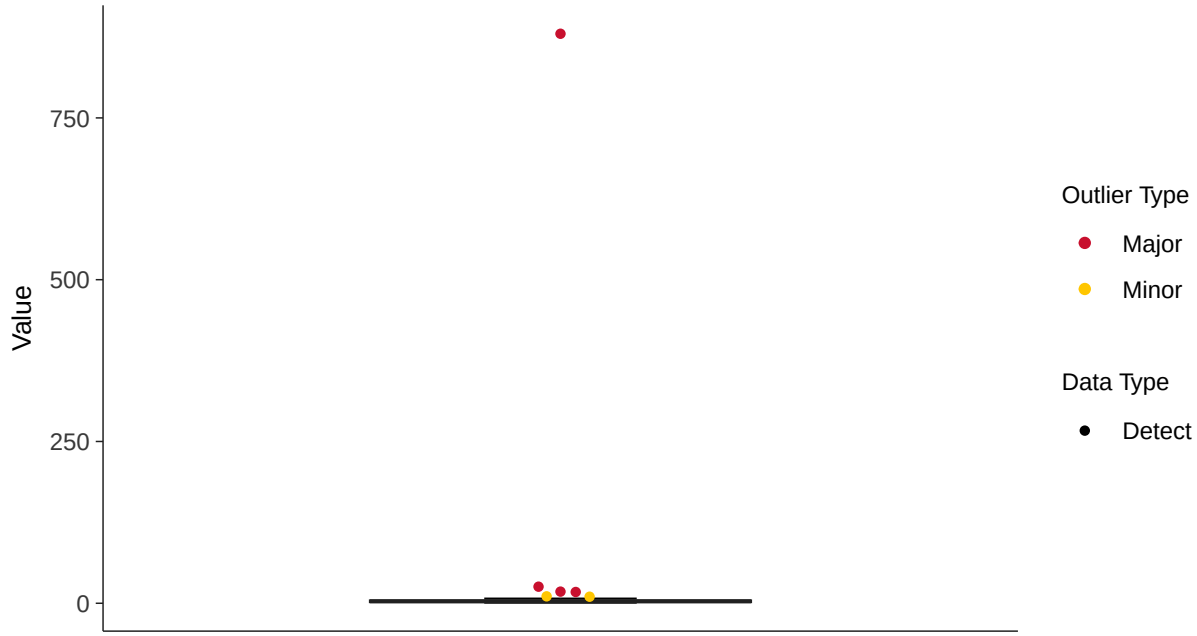
ID: 07_01_117





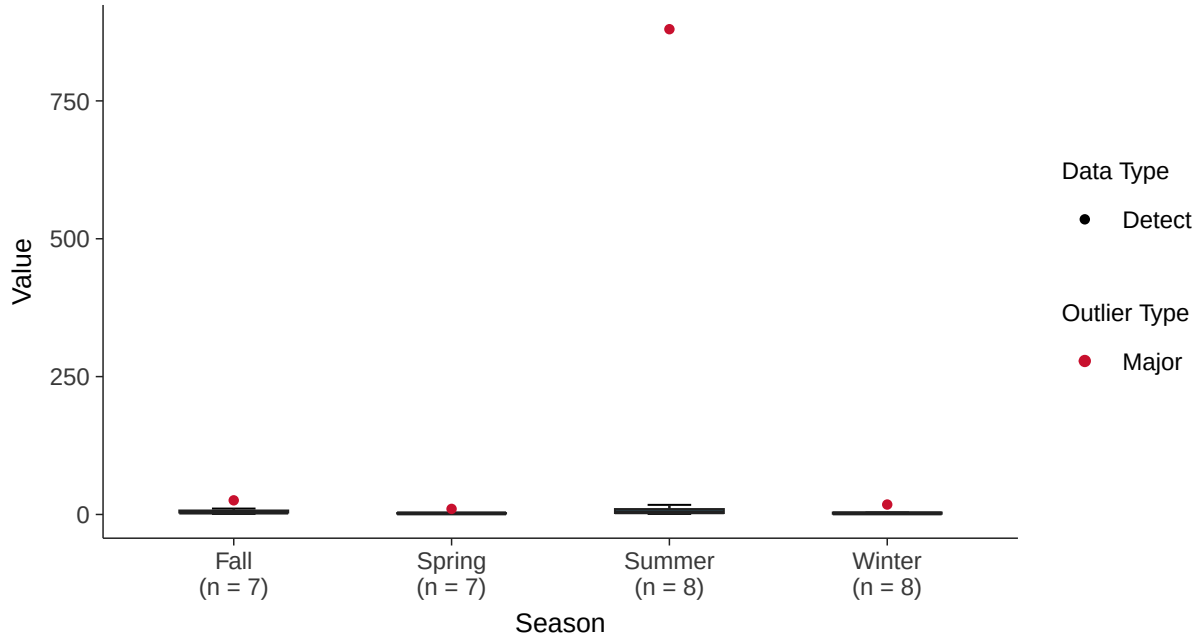
Boxplot

Nickel, MW-7R (ug/L)



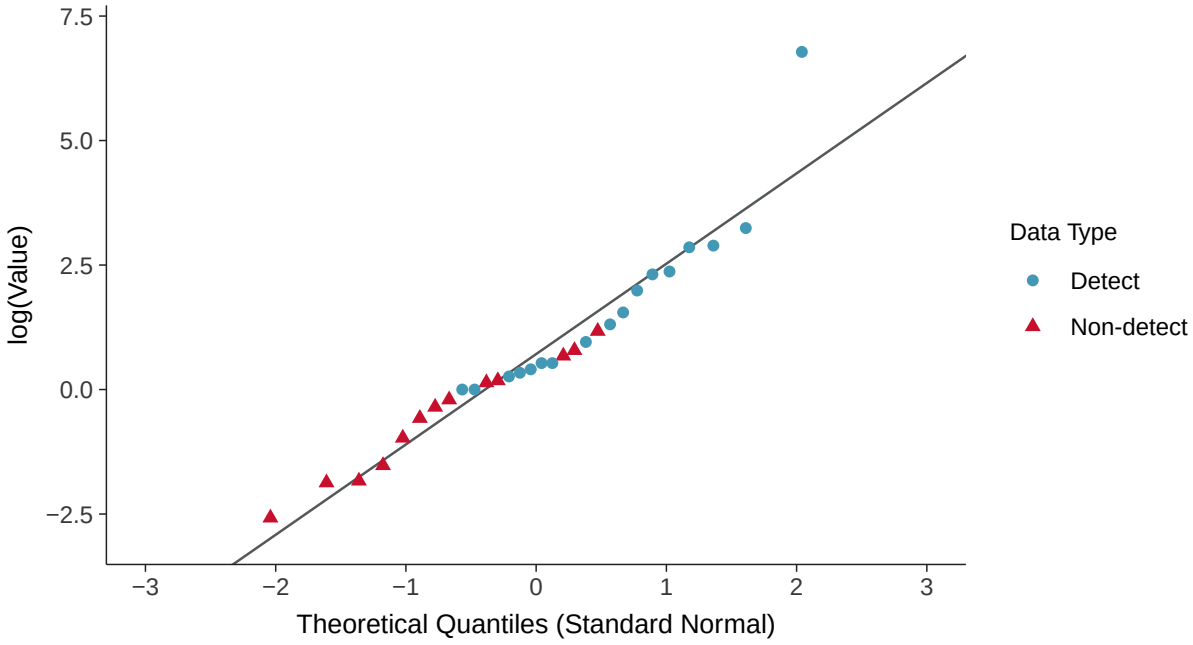
Boxplot by Season

Nickel, MW-7R (ug/L)



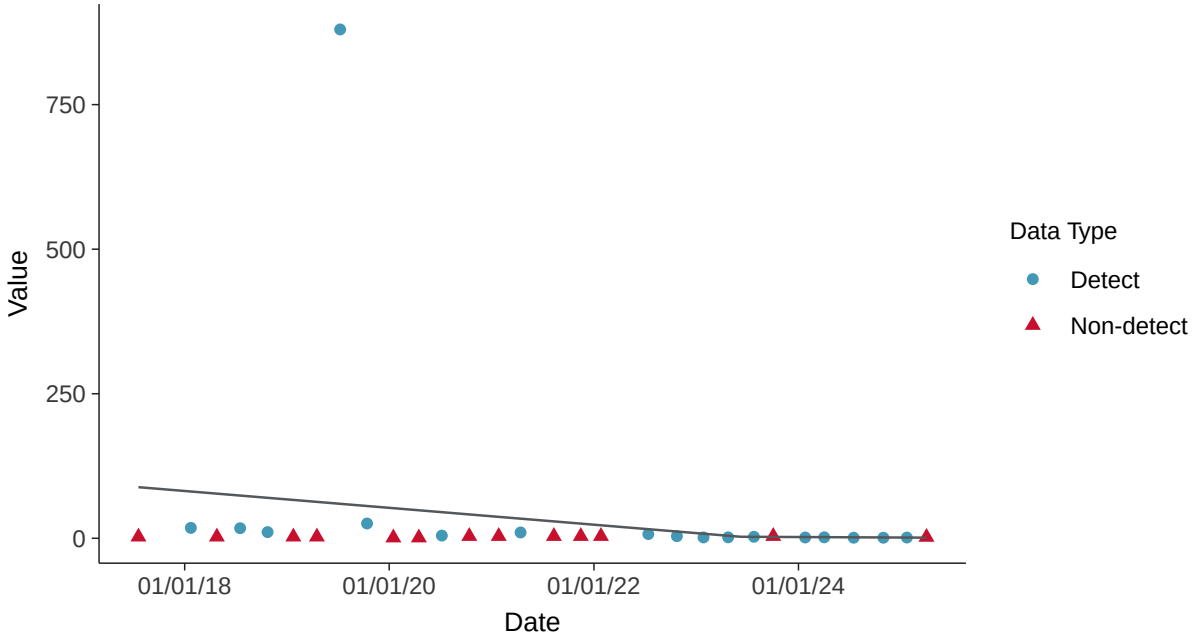
Lognormal Q-Q plot using ROS Imputed Estimates

Nickel, MW-7R (ug/L)



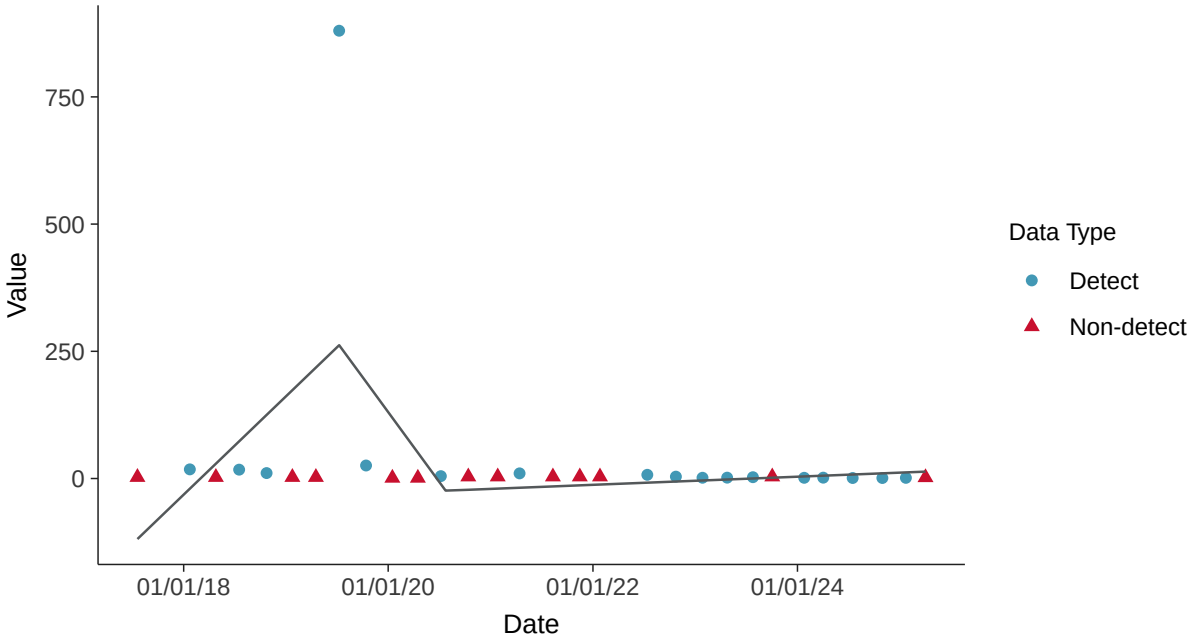
Trend Regression: Piecewise Linear-Linear

Nickel, MW-7R (ug/L)



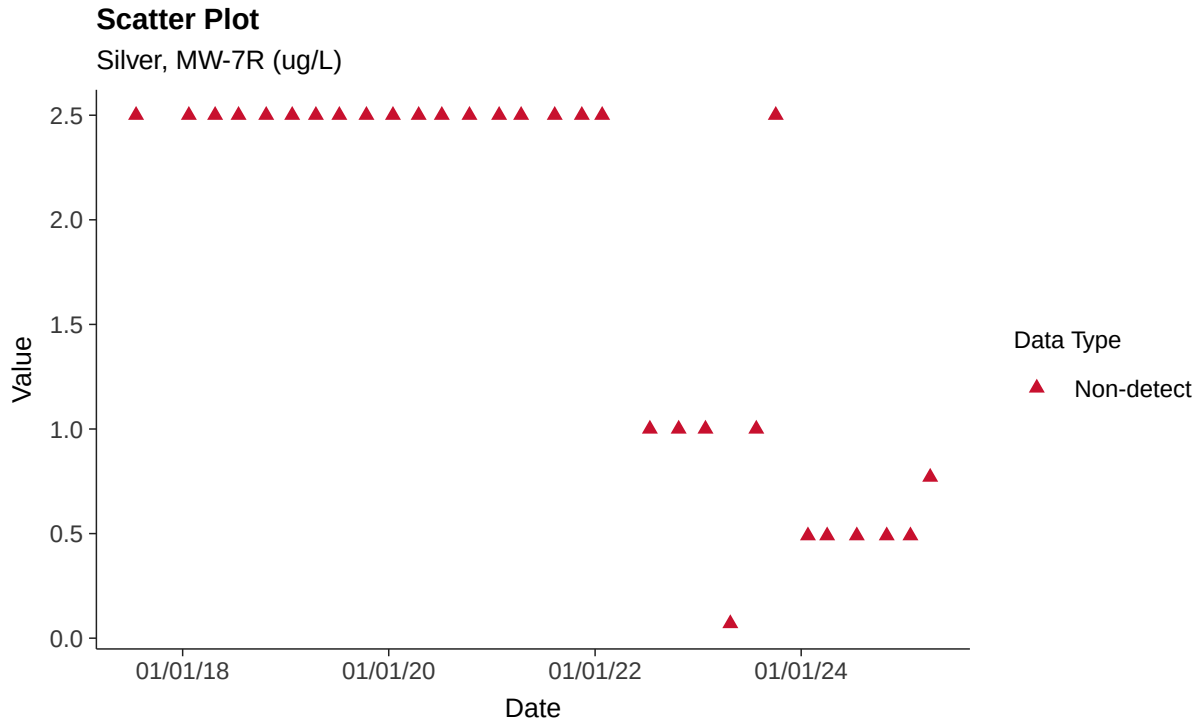
Trend Regression: Piecewise Linear-Linear-Linear

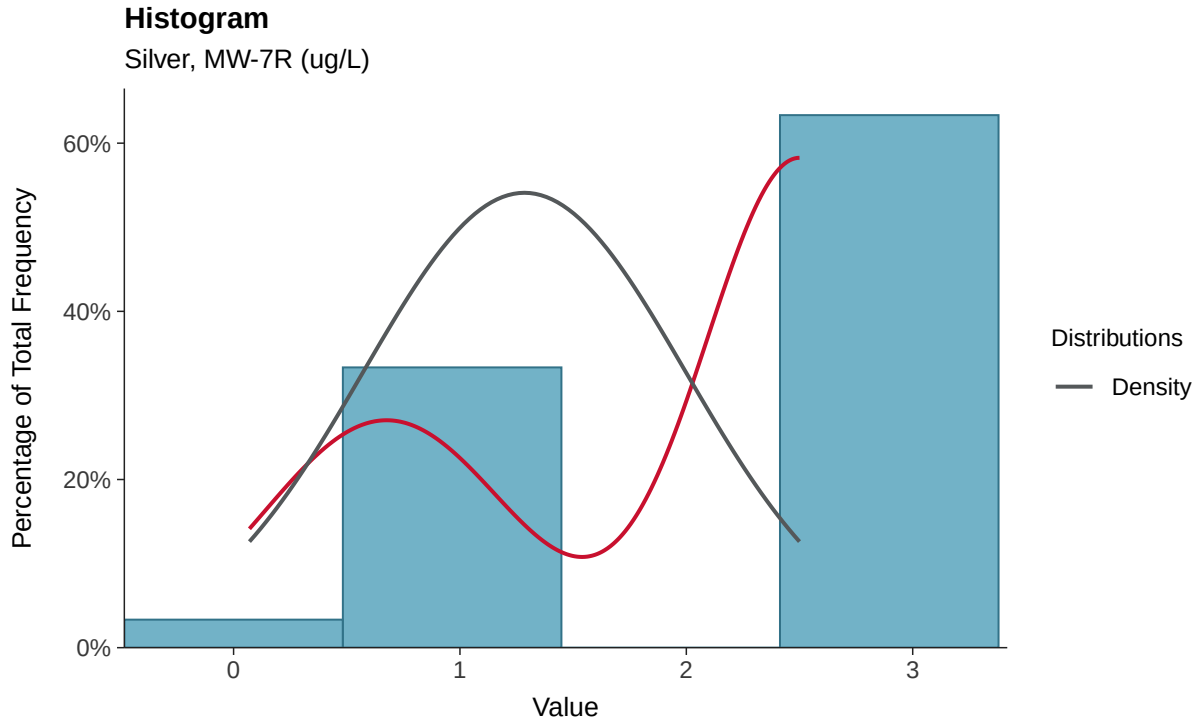
Nickel, MW-7R (ug/L)



App. I Metals: Silver, MW-7R

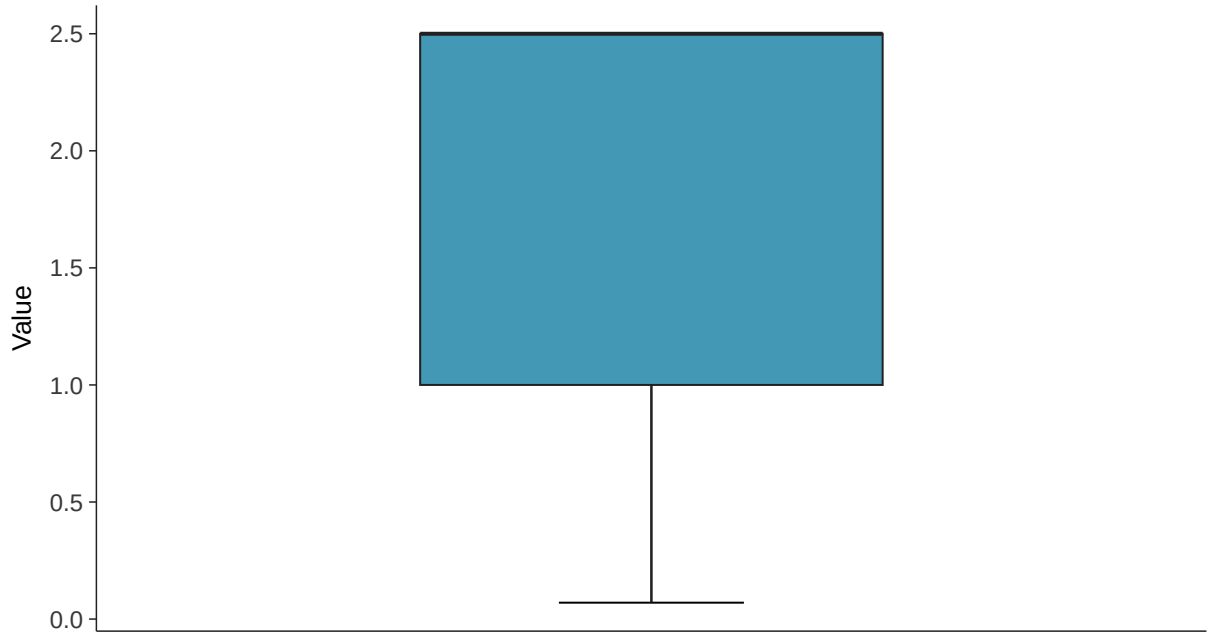
ID: 07_01_122





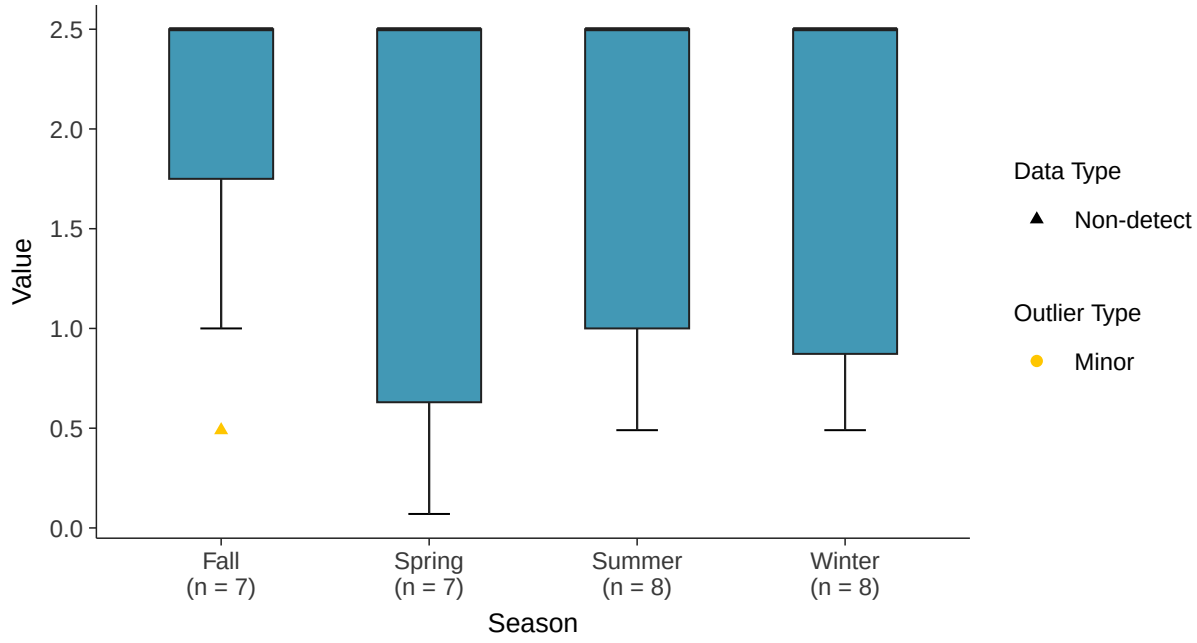
Boxplot

Silver, MW-7R (ug/L)



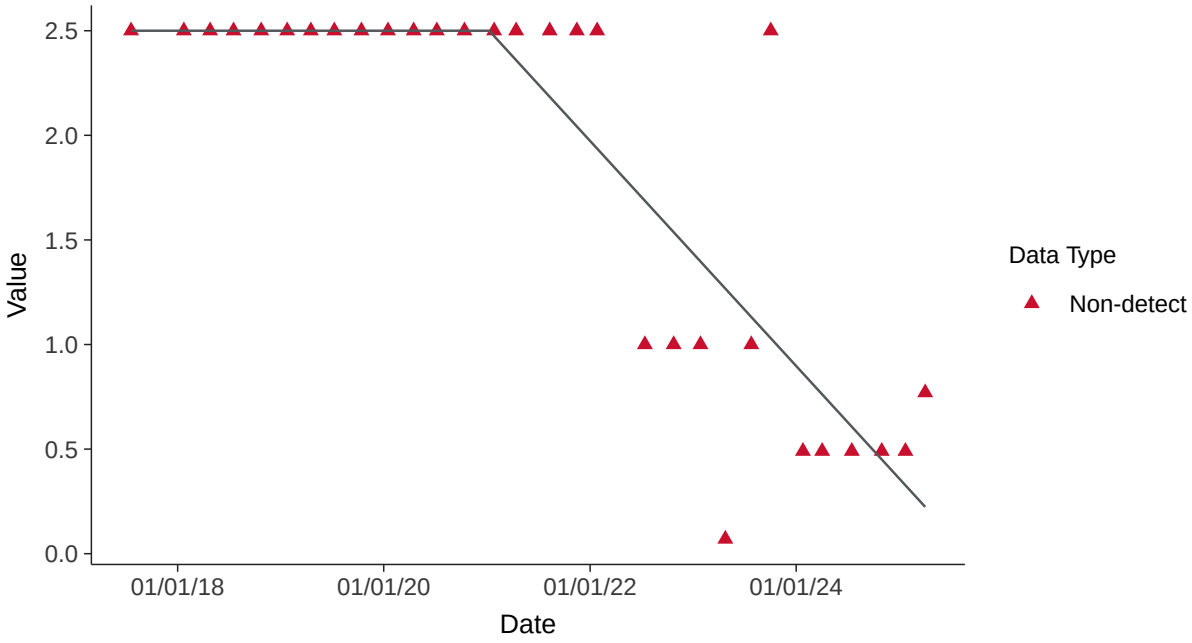
Boxplot by Season

Silver, MW-7R (ug/L)



Trend Regression: Piecewise Linear-Linear

Silver, MW-7R (ug/L)

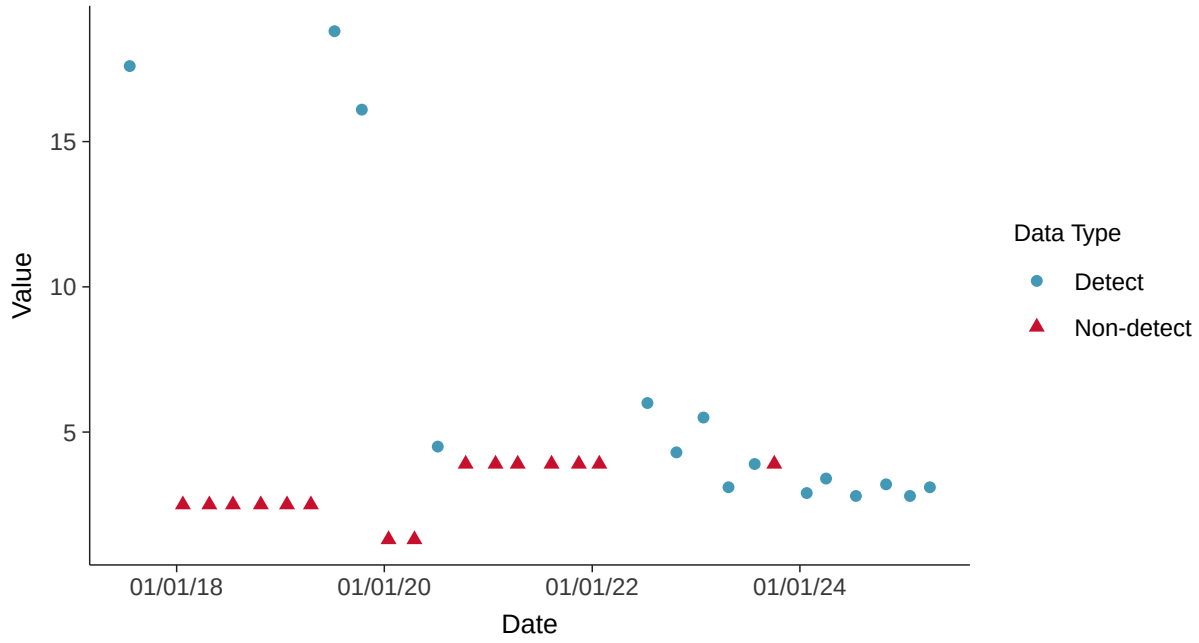


App. I Metals: Vanadium, MW-7R

ID: 07_01_127

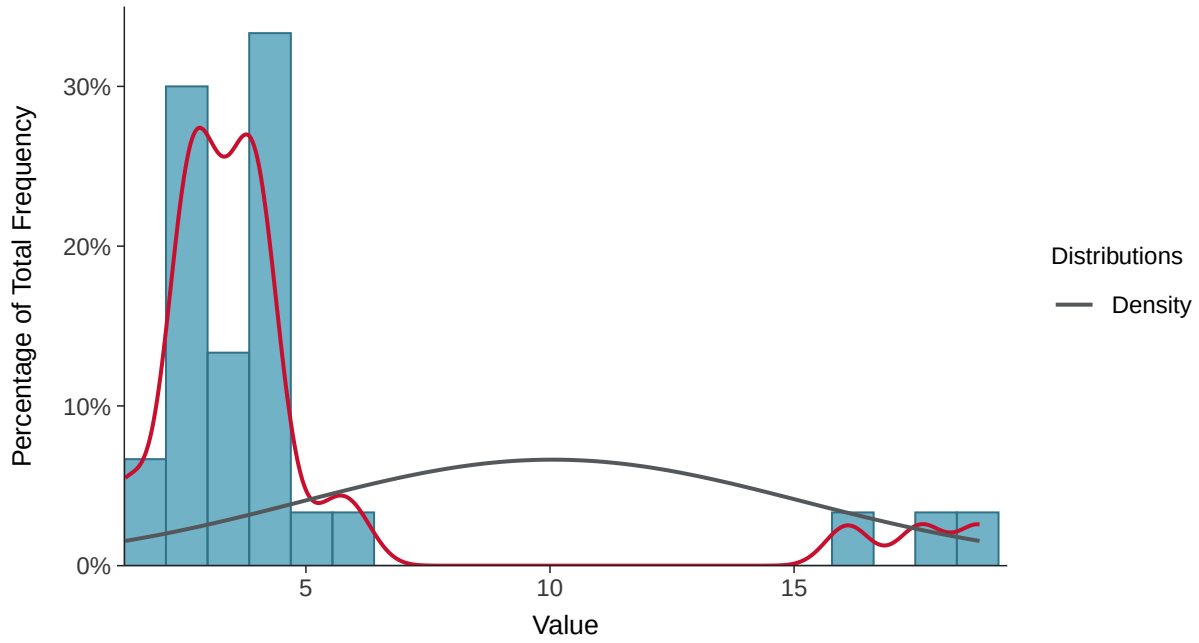
Scatter Plot

Vanadium, MW-7R (ug/L)



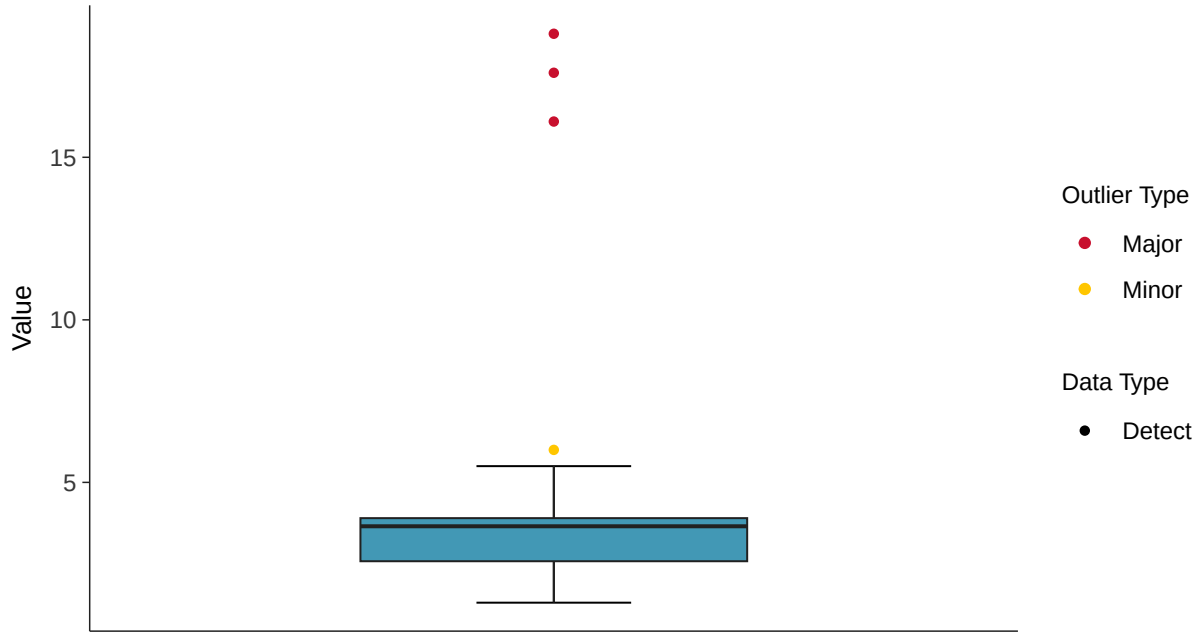
Histogram

Vanadium, MW-7R (ug/L)



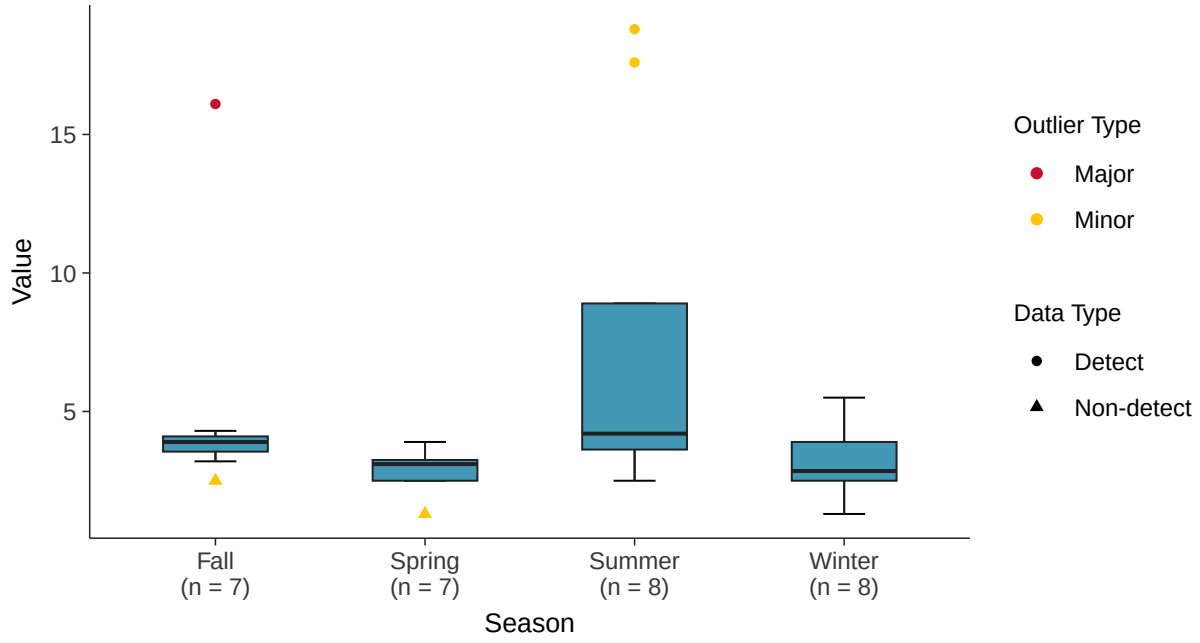
Boxplot

Vanadium, MW-7R (ug/L)



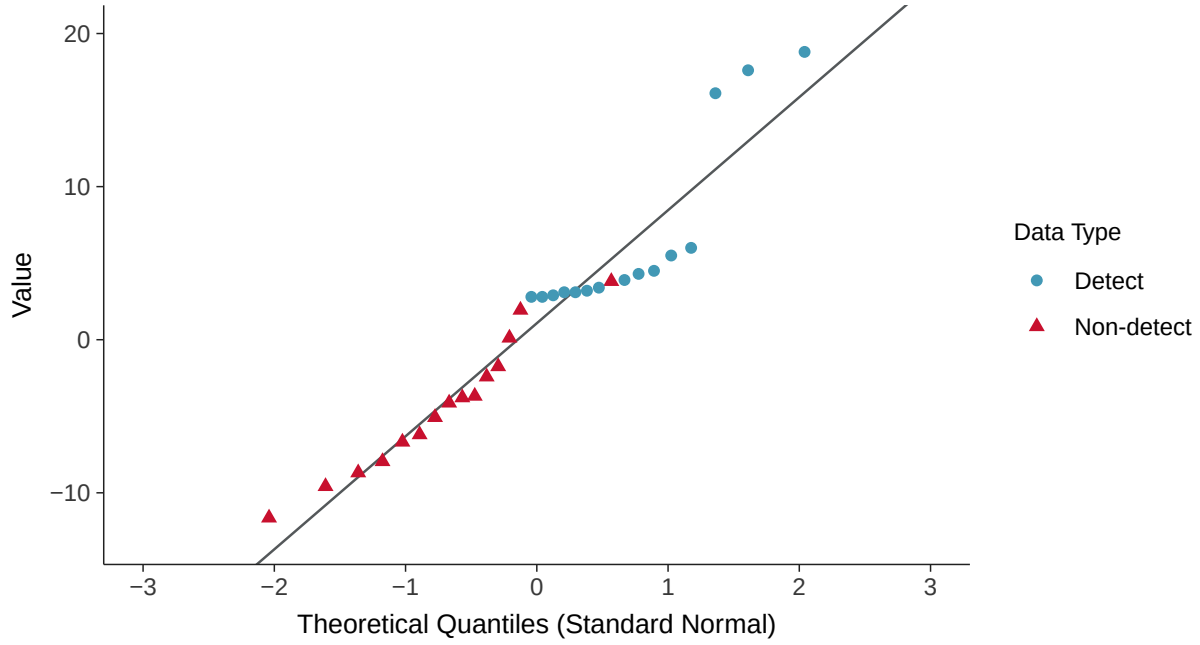
Boxplot by Season

Vanadium, MW-7R (ug/L)



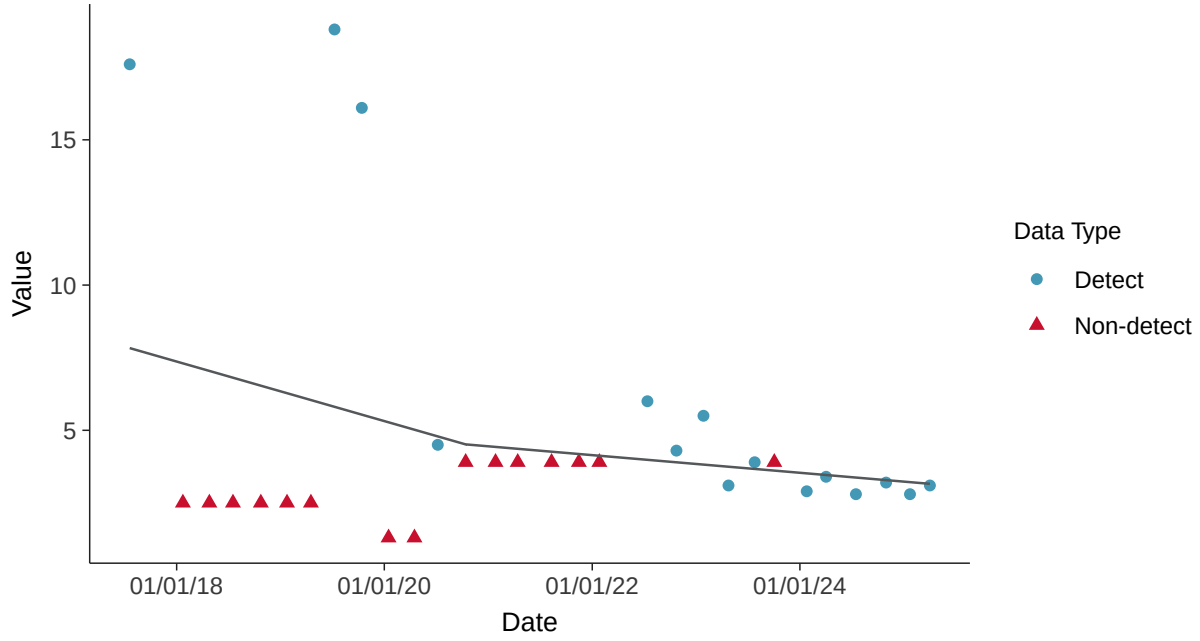
Normal Q-Q plot using ROS Imputed Estimates

Vanadium, MW-7R (ug/L)



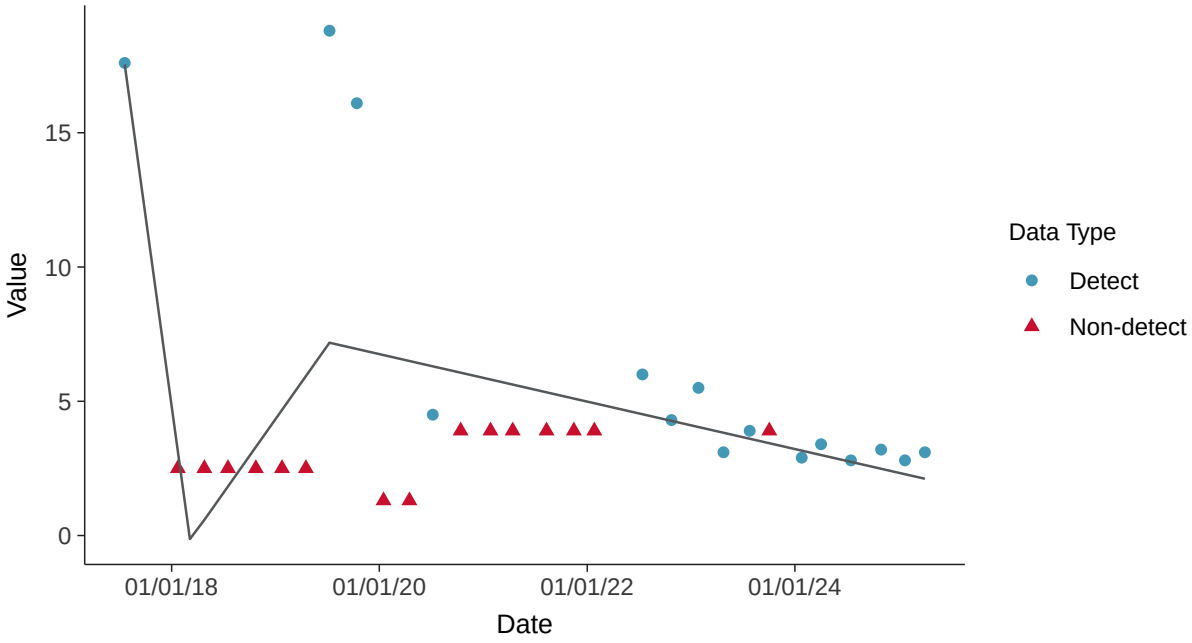
Trend Regression: Piecewise Linear-Linear

Vanadium, MW-7R (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Vanadium, MW-7R (ug/L)

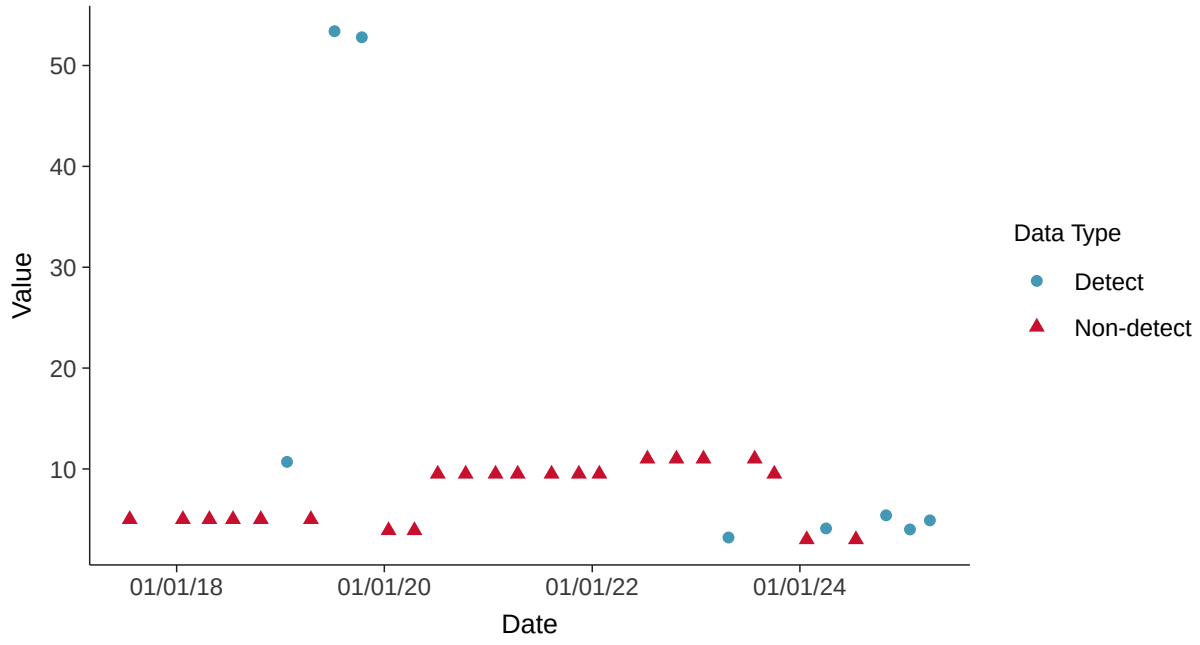


App. I Metals: Zinc, MW-7R

ID: 07_01_128

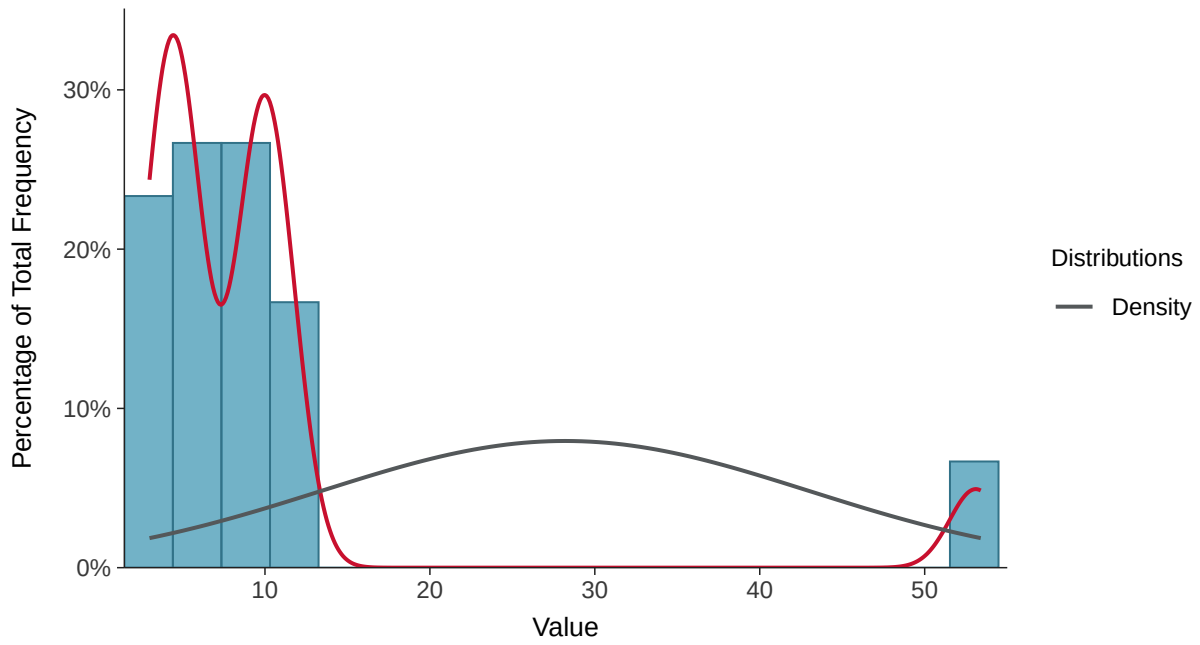
Scatter Plot

Zinc, MW-7R (ug/L)



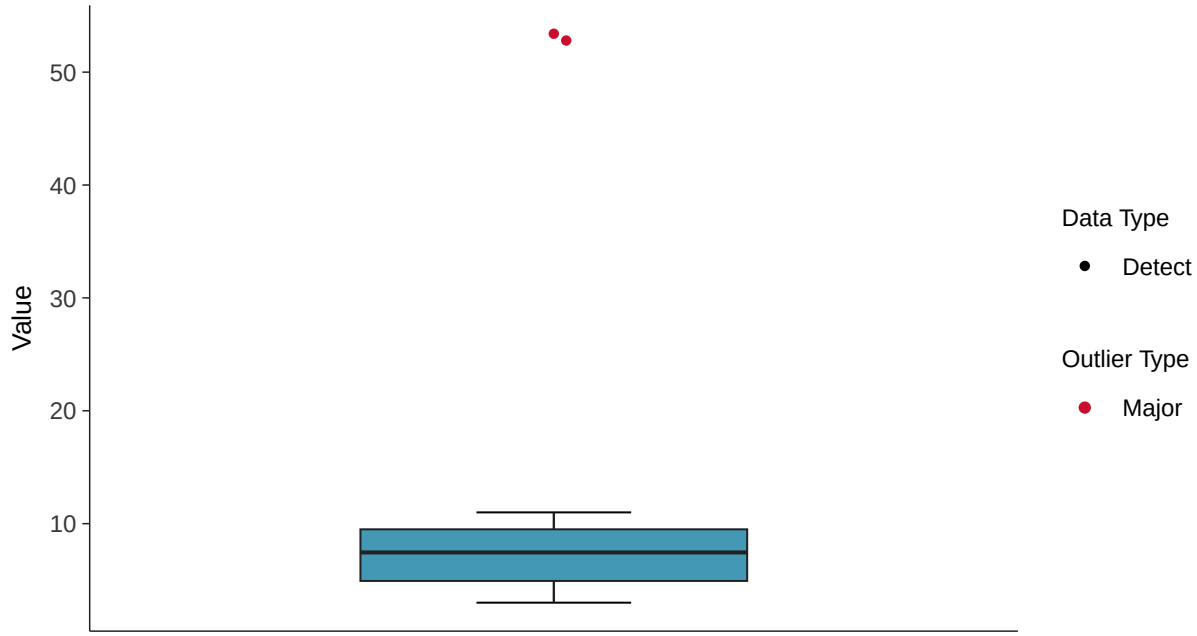
Histogram

Zinc, MW-7R (ug/L)



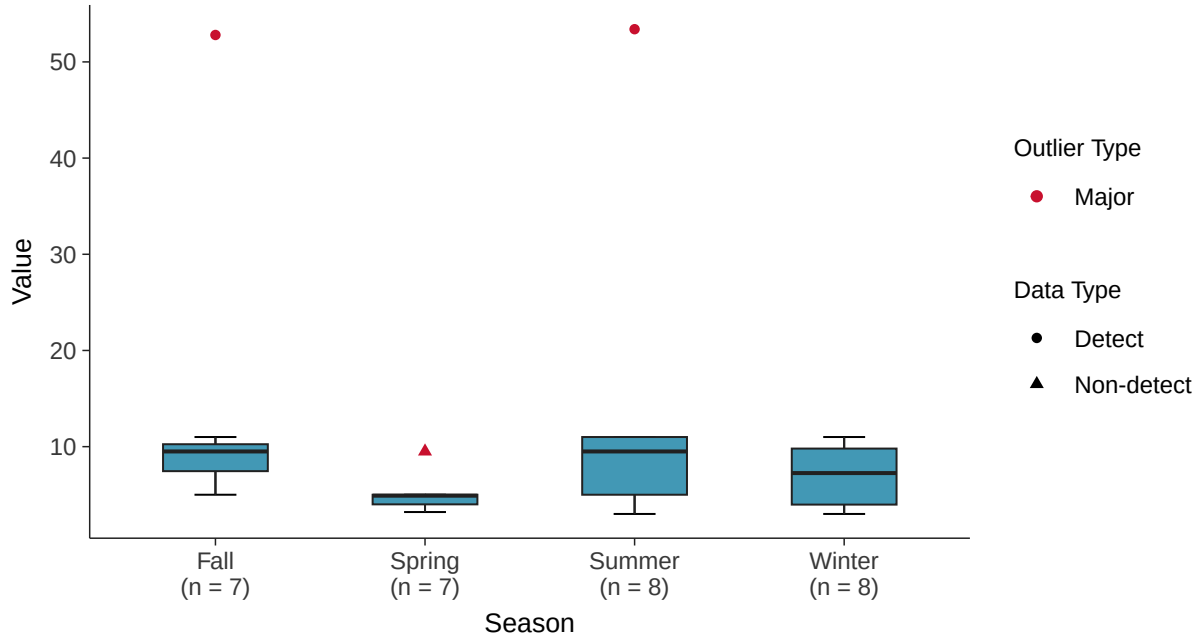
Boxplot

Zinc, MW-7R (ug/L)



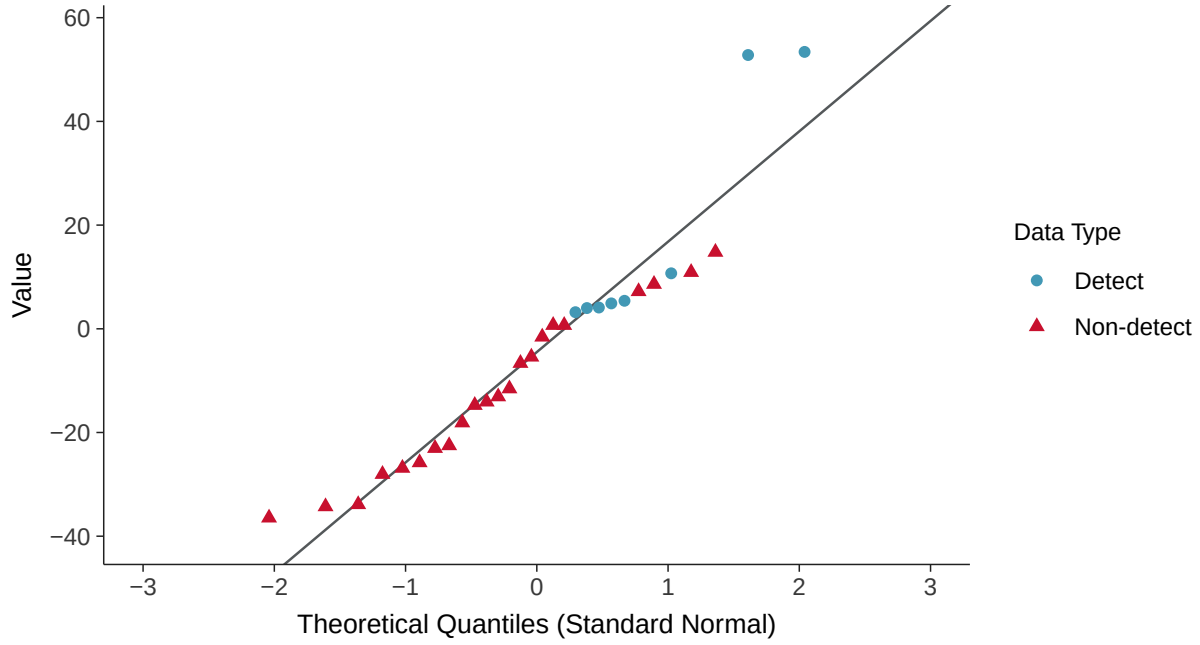
Boxplot by Season

Zinc, MW-7R (ug/L)



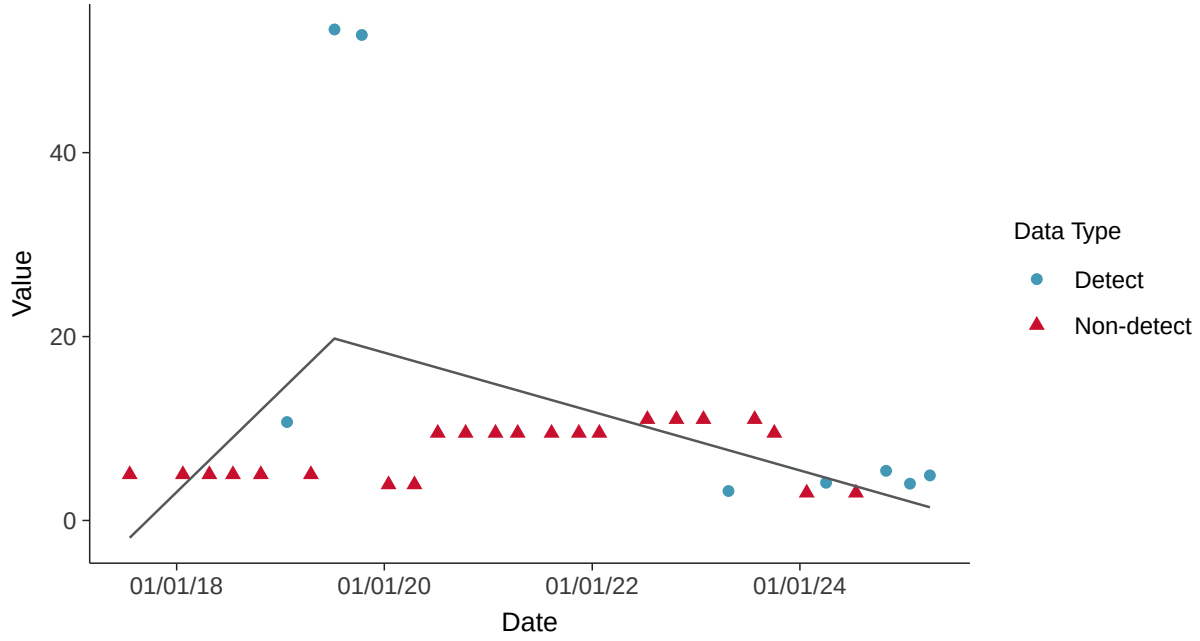
Normal Q-Q plot using ROS Imputed Estimates

Zinc, MW-7R (ug/L)



Trend Regression: Piecewise Linear-Linear

Zinc, MW-7R (ug/L)

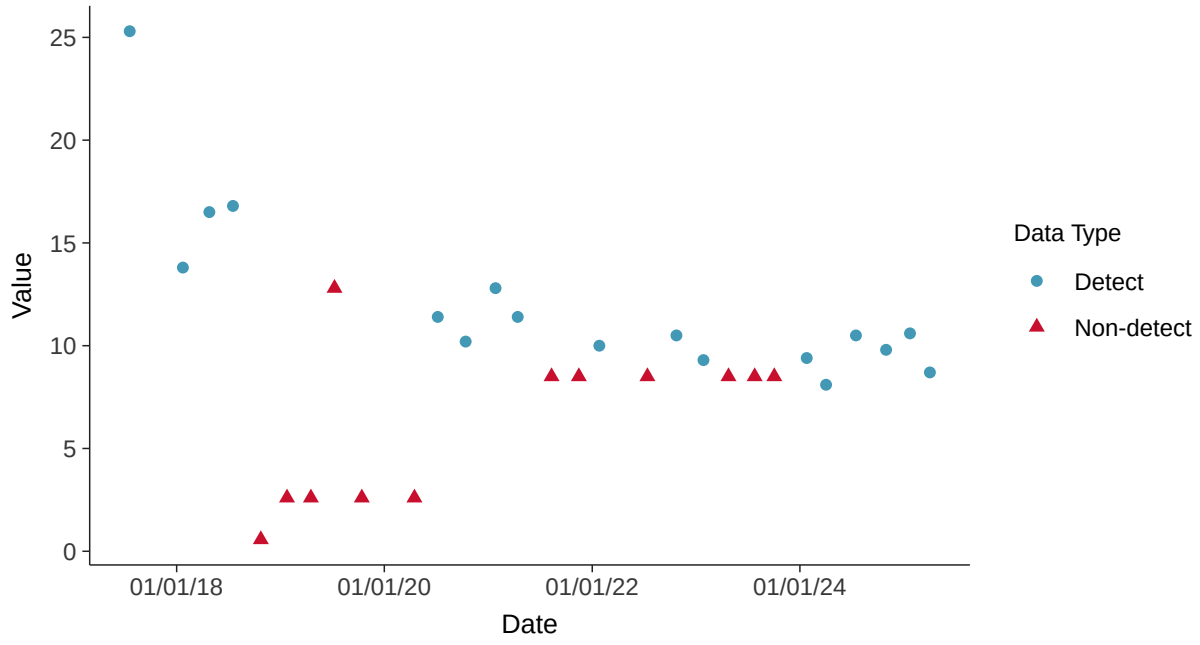


App. III: Boron, MW-7R

ID: 07_02_105

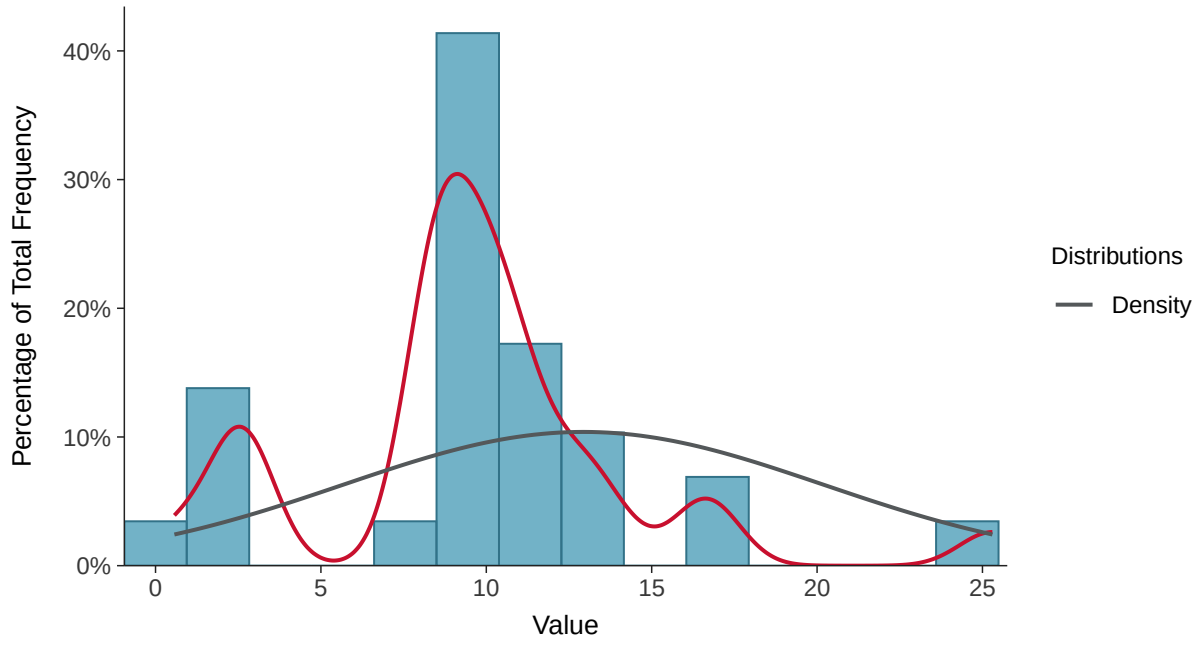
Scatter Plot

Boron, MW-7R (ug/L)



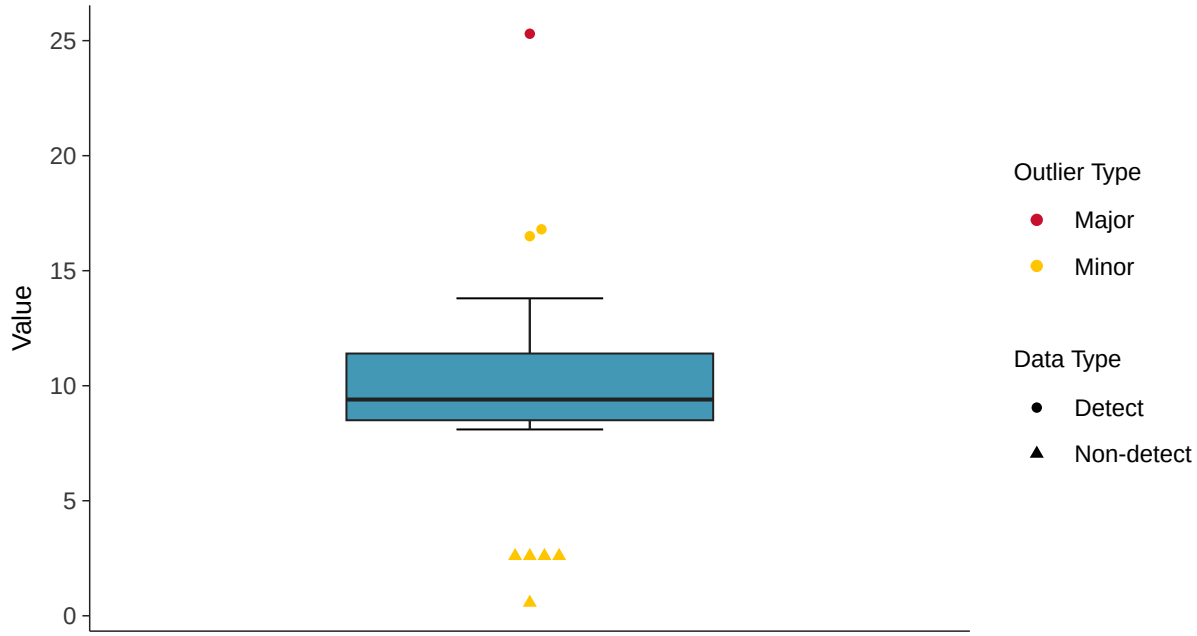
Histogram

Boron, MW-7R (ug/L)



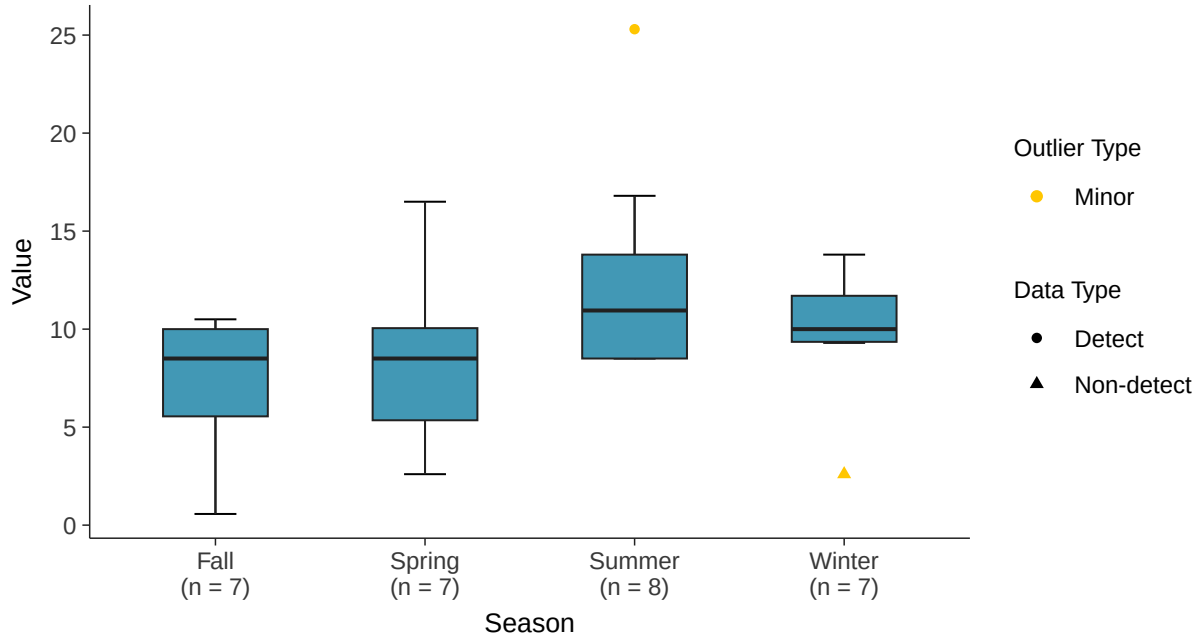
Boxplot

Boron, MW-7R (ug/L)



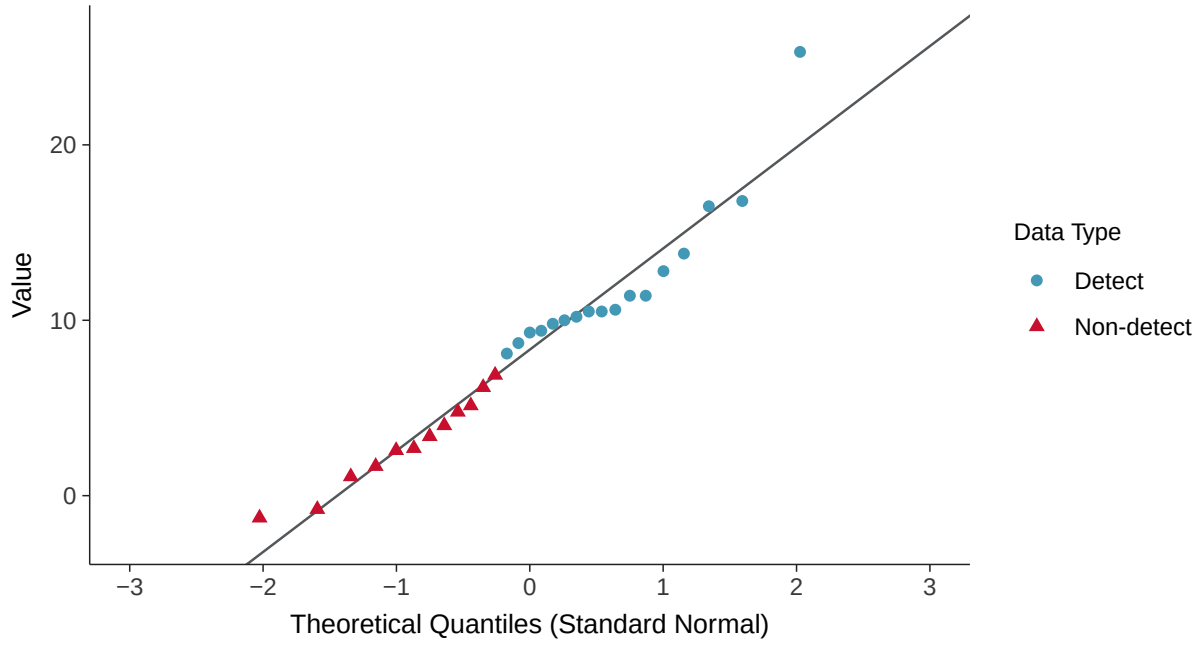
Boxplot by Season

Boron, MW-7R (ug/L)



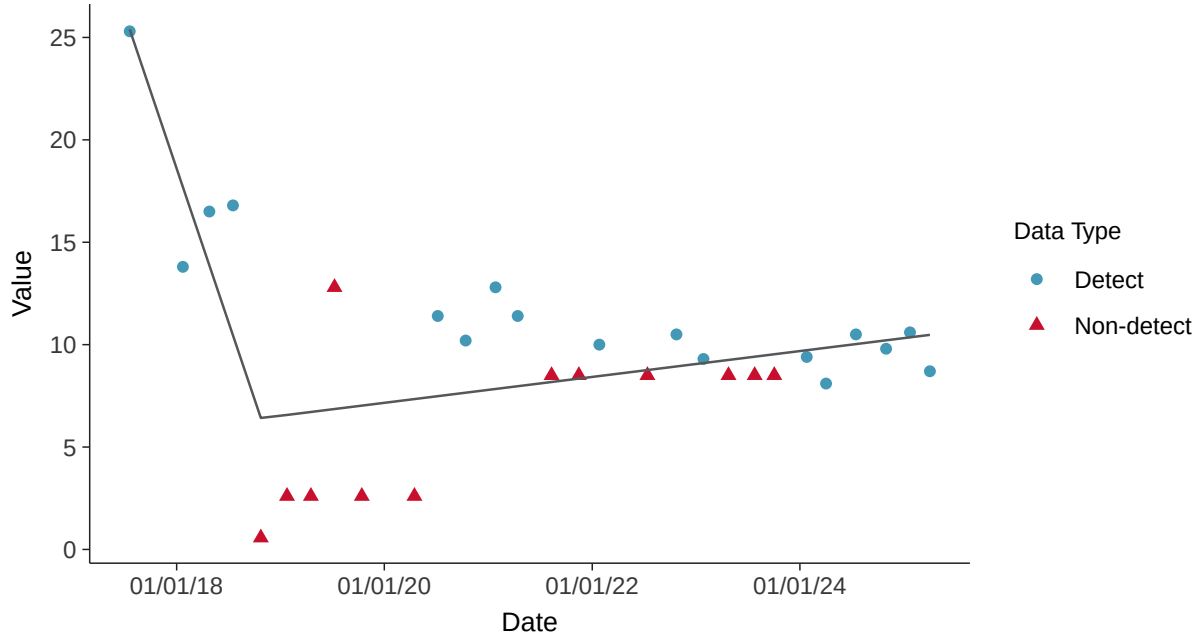
Normal Q-Q plot using ROS Imputed Estimates

Boron, MW-7R (ug/L)



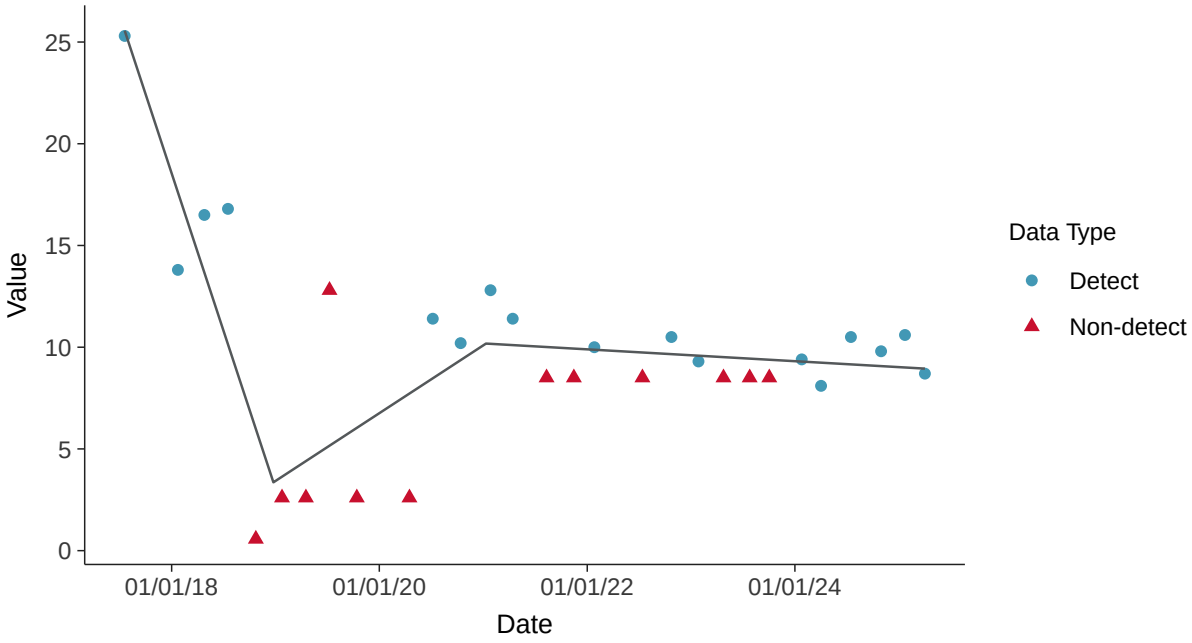
Trend Regression: Piecewise Linear-Linear

Boron, MW-7R (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Boron, MW-7R (ug/L)

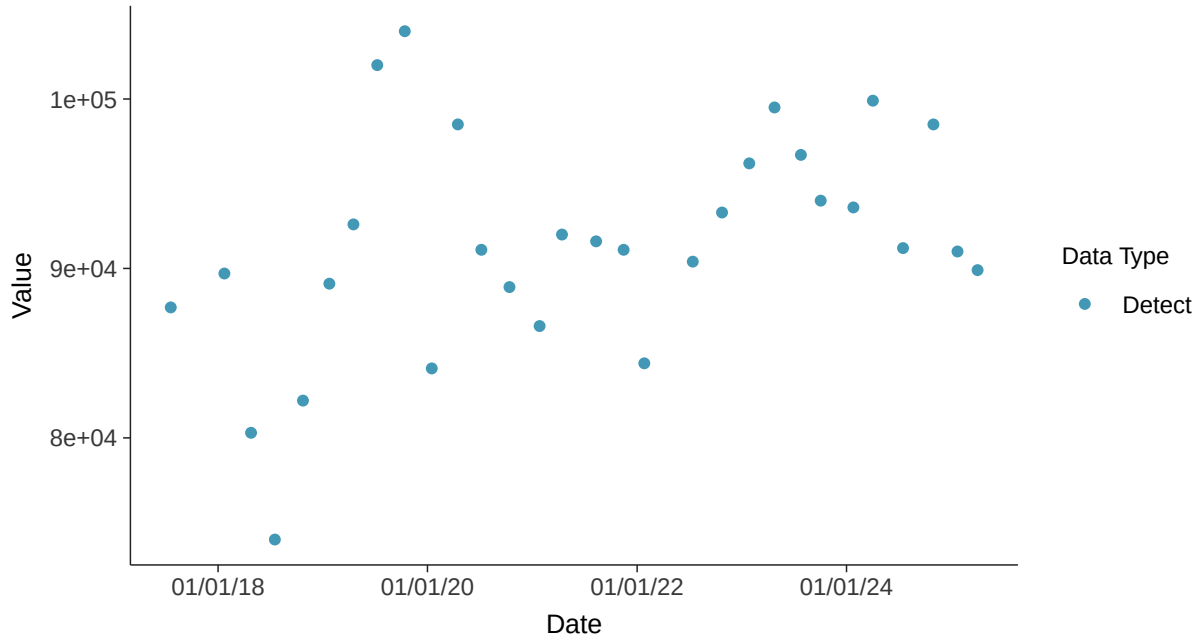


App. III: Calcium, MW-7R

ID: 07_02_107

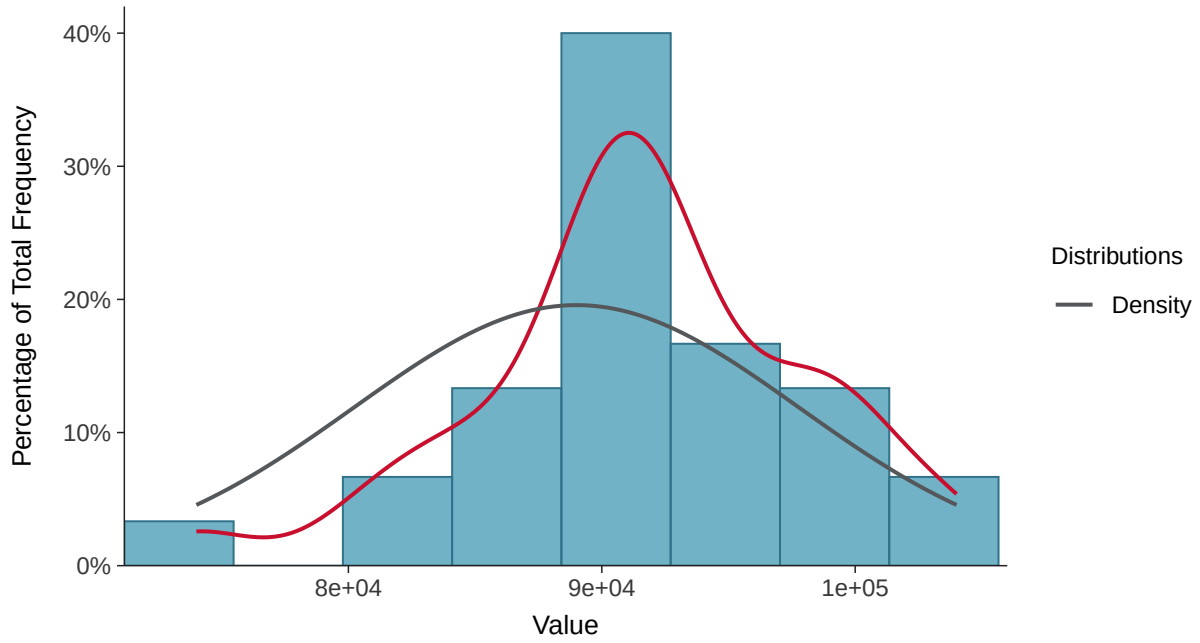
Scatter Plot

Calcium, MW-7R (ug/L)



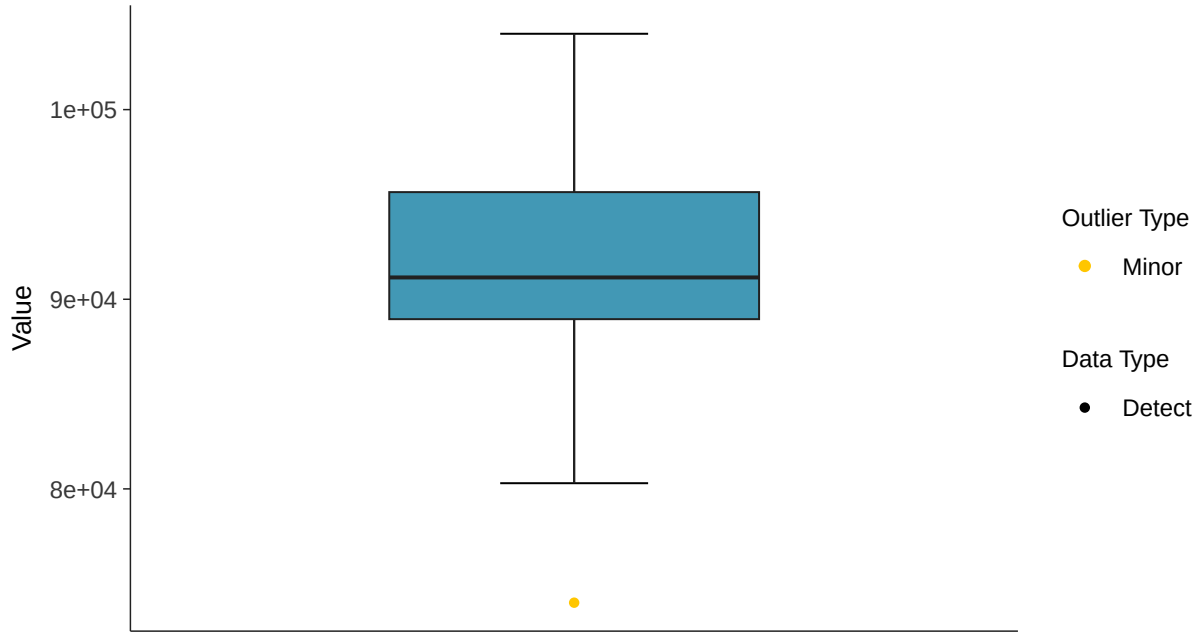
Histogram

Calcium, MW-7R (ug/L)



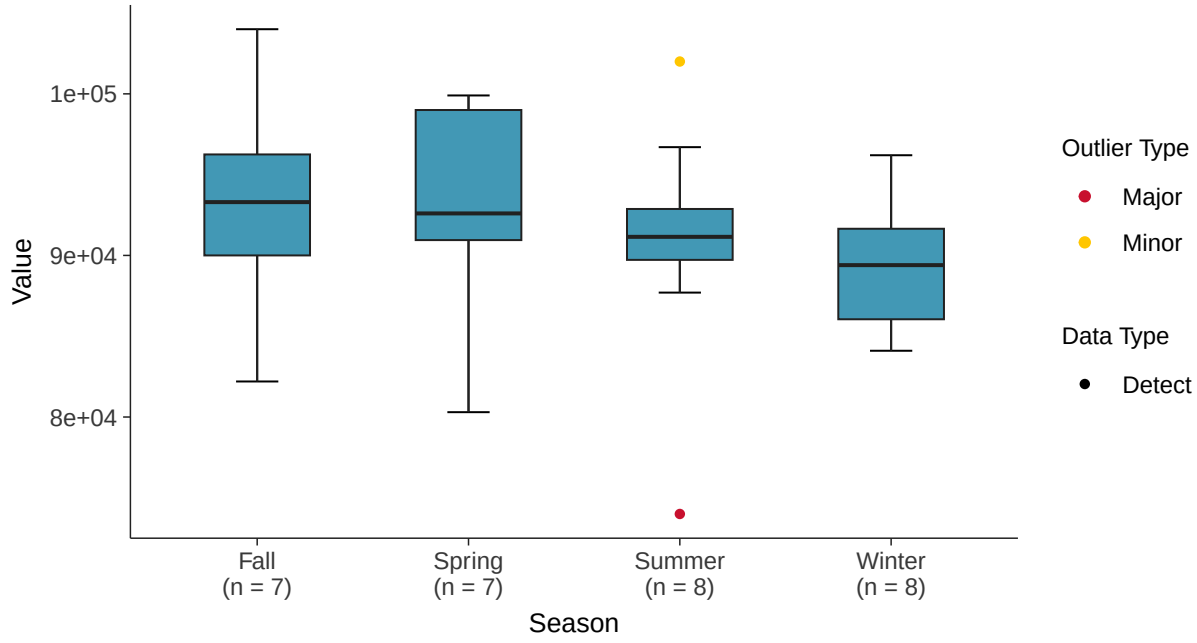
Boxplot

Calcium, MW-7R (ug/L)



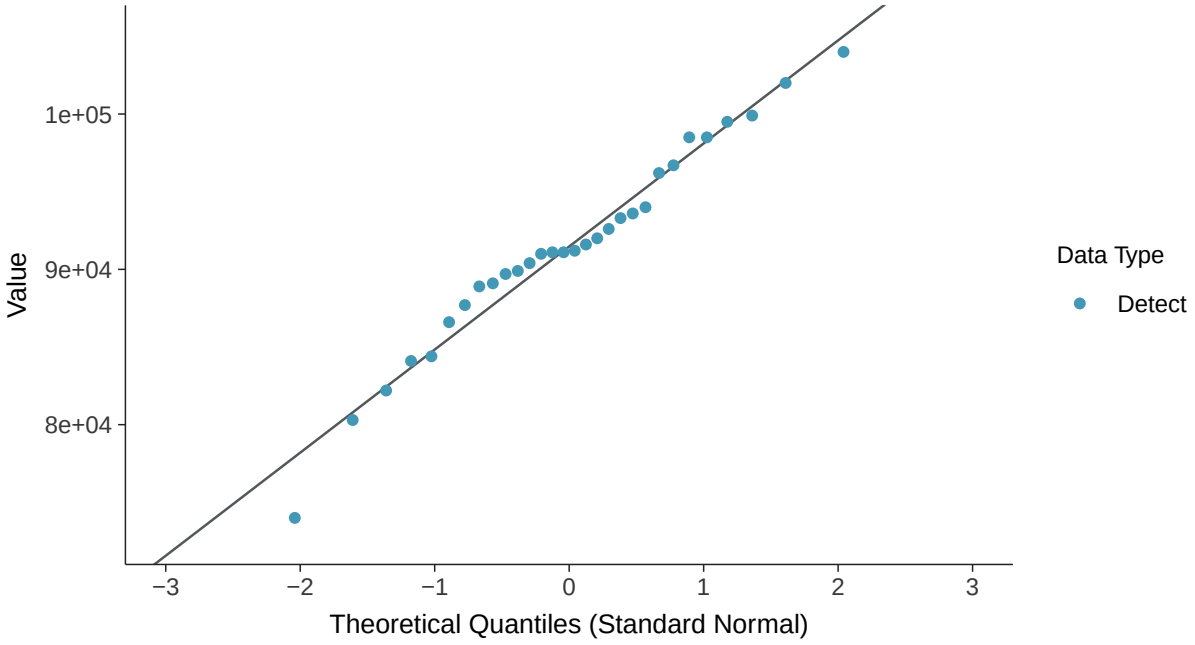
Boxplot by Season

Calcium, MW-7R (ug/L)



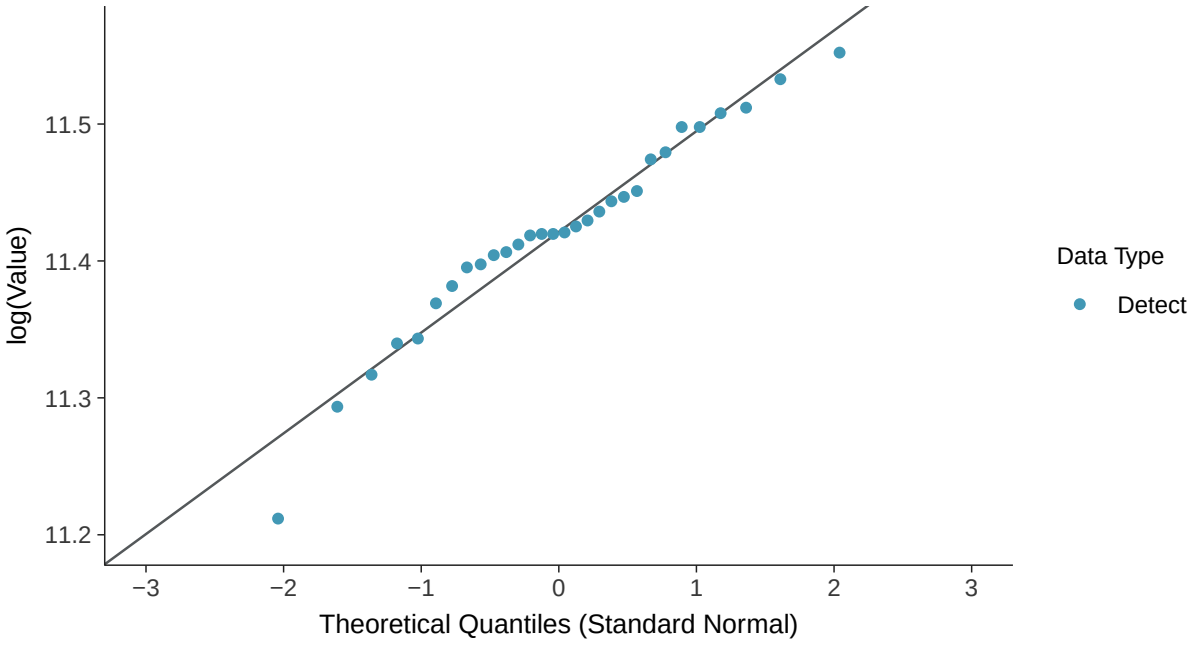
Normal Q-Q plot

Calcium, MW-7R (ug/L)



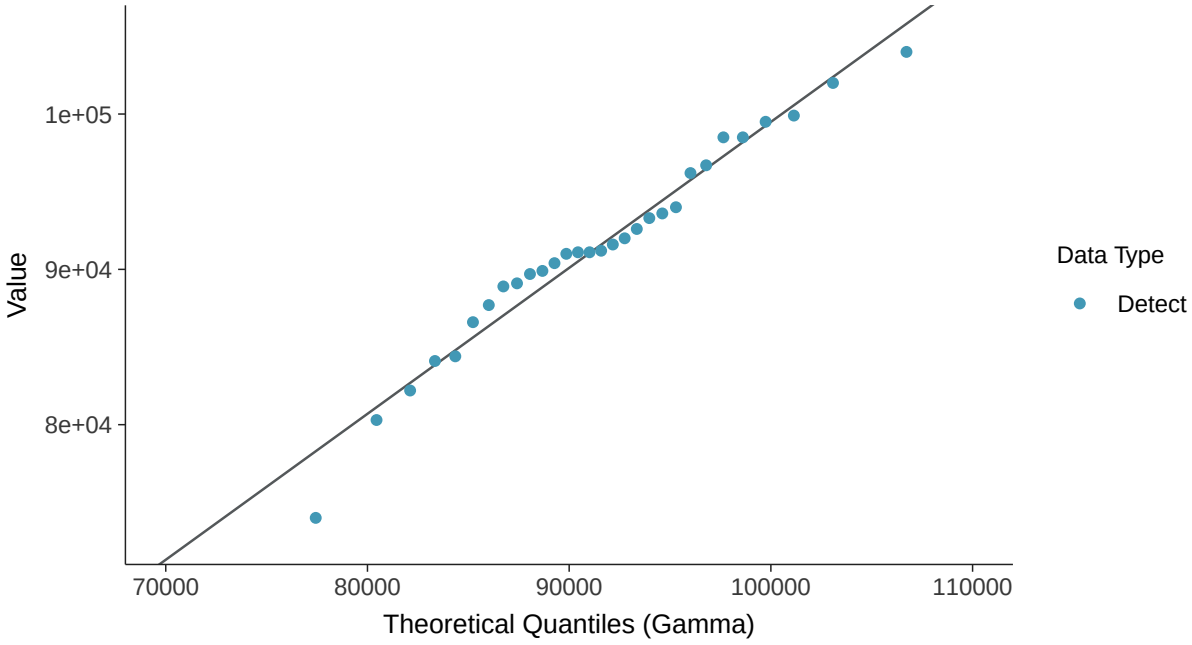
Lognormal Q-Q plot

Calcium, MW-7R (ug/L)



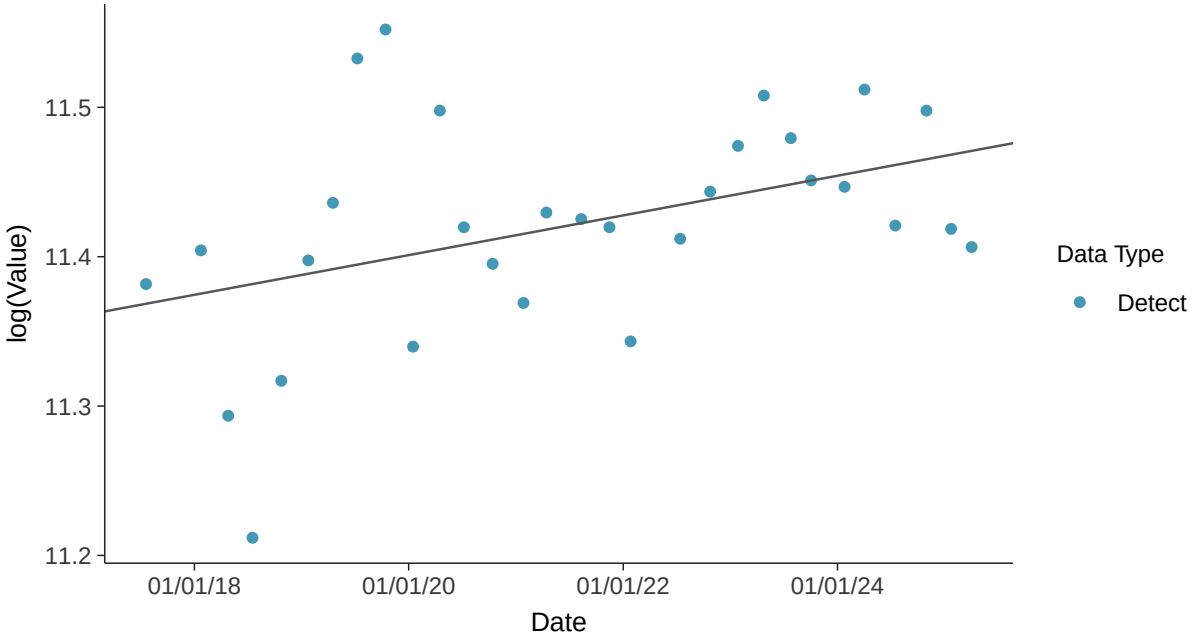
Gamma Q-Q plot

Calcium, MW-7R (ug/L)



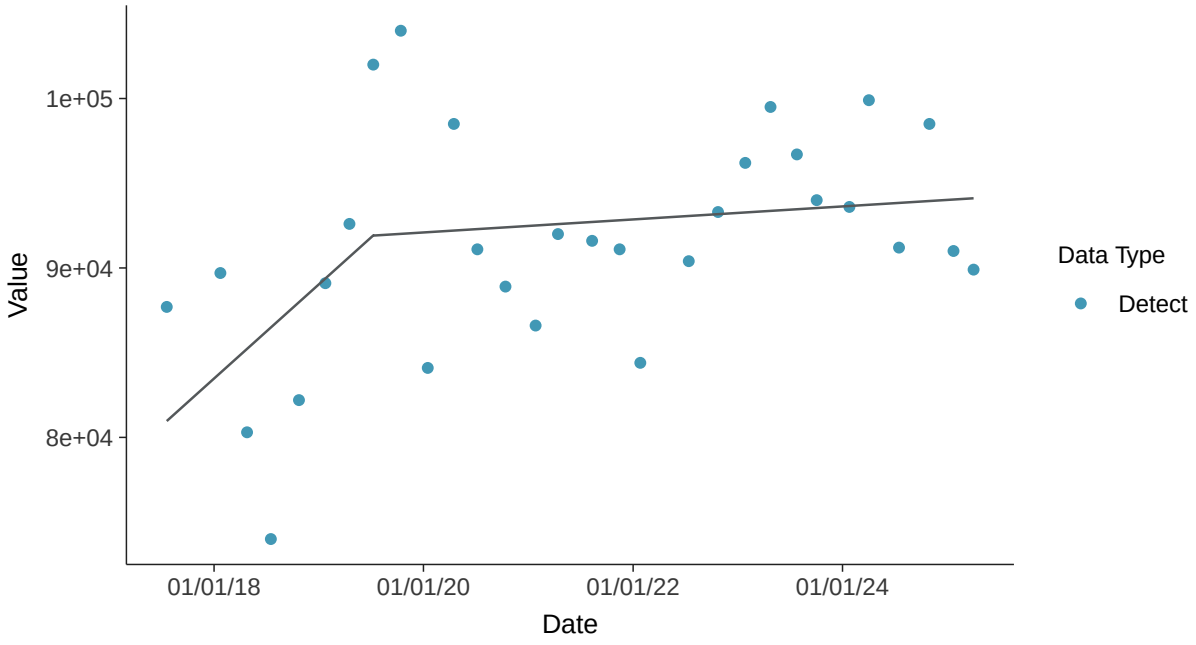
Trend Regression: Lognormal MLE

Calcium, MW-7R (ug/L)



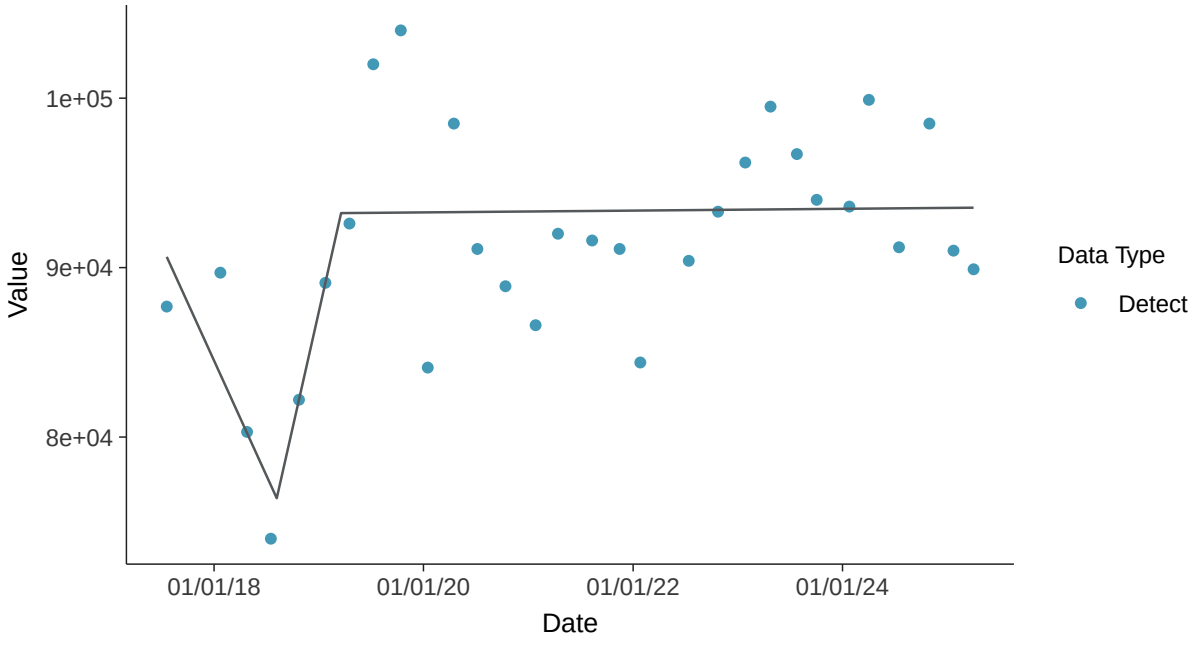
Trend Regression: Piecewise Linear-Linear

Calcium, MW-7R (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Calcium, MW-7R (ug/L)

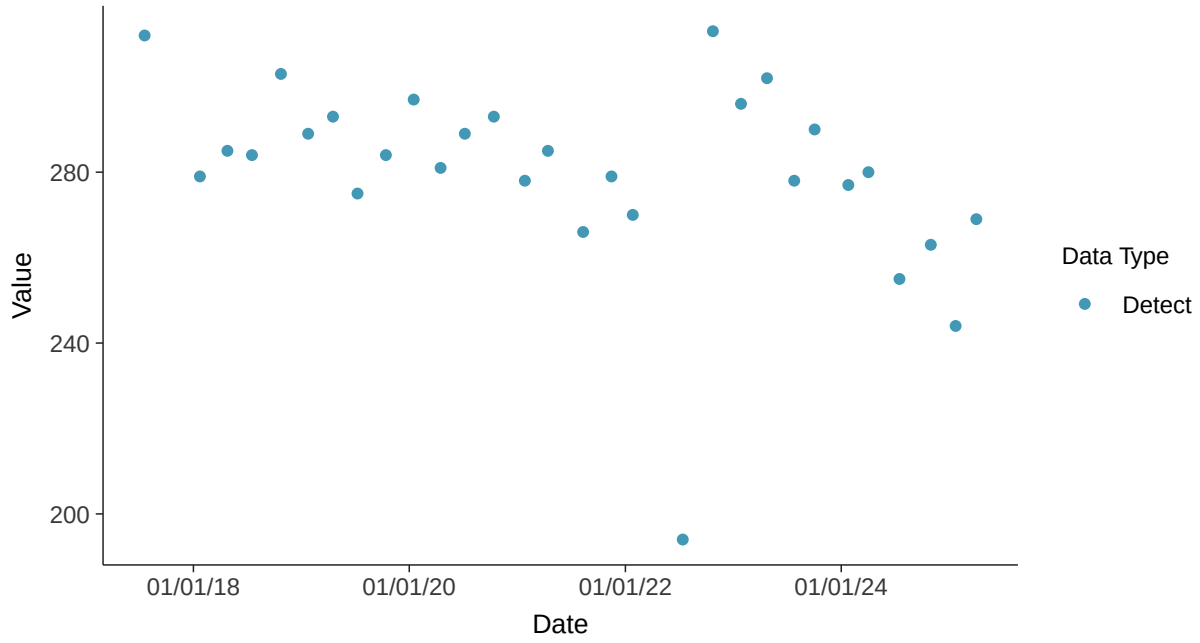


App. III: Chloride, MW-7R

ID: 07_02_108

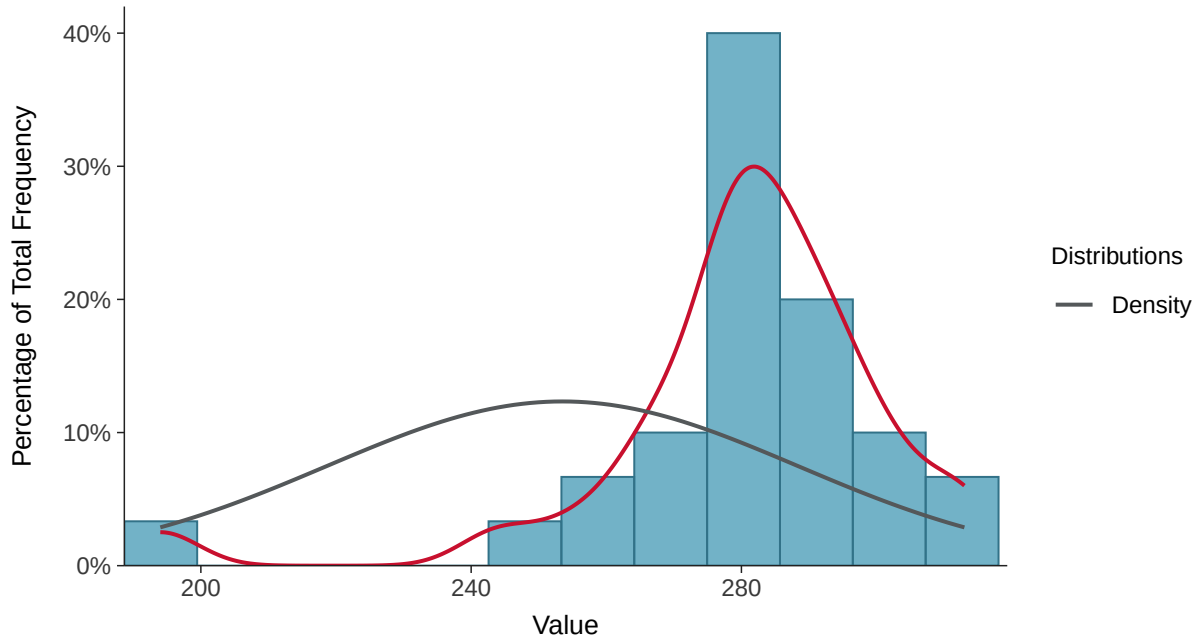
Scatter Plot

Chloride, MW-7R (mg/L)



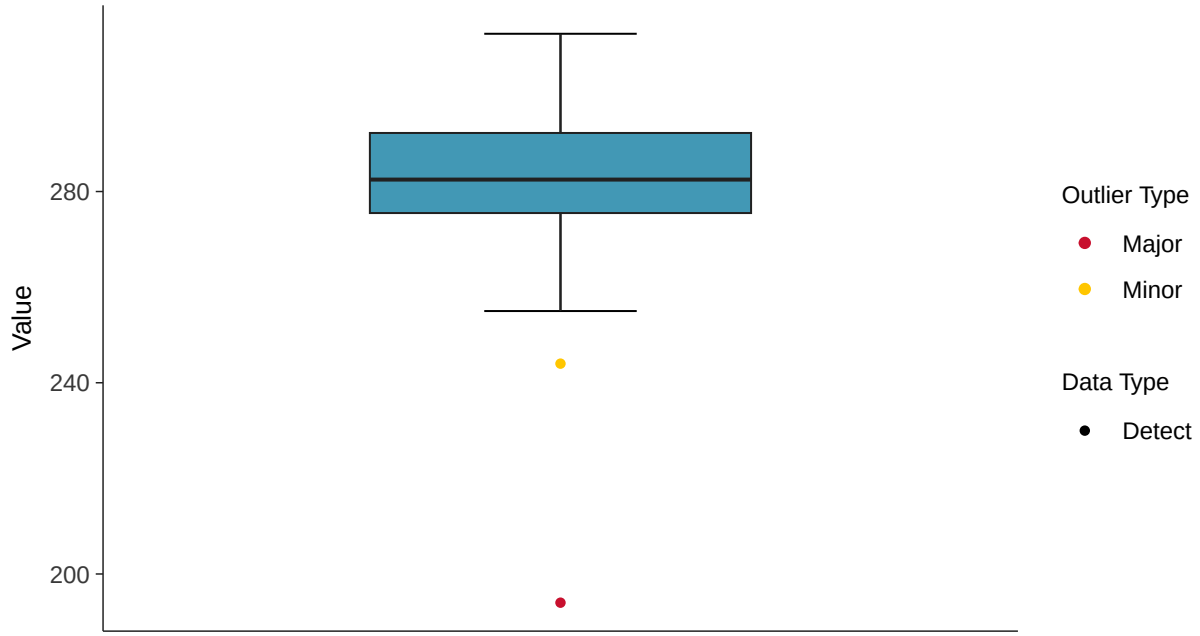
Histogram

Chloride, MW-7R (mg/L)



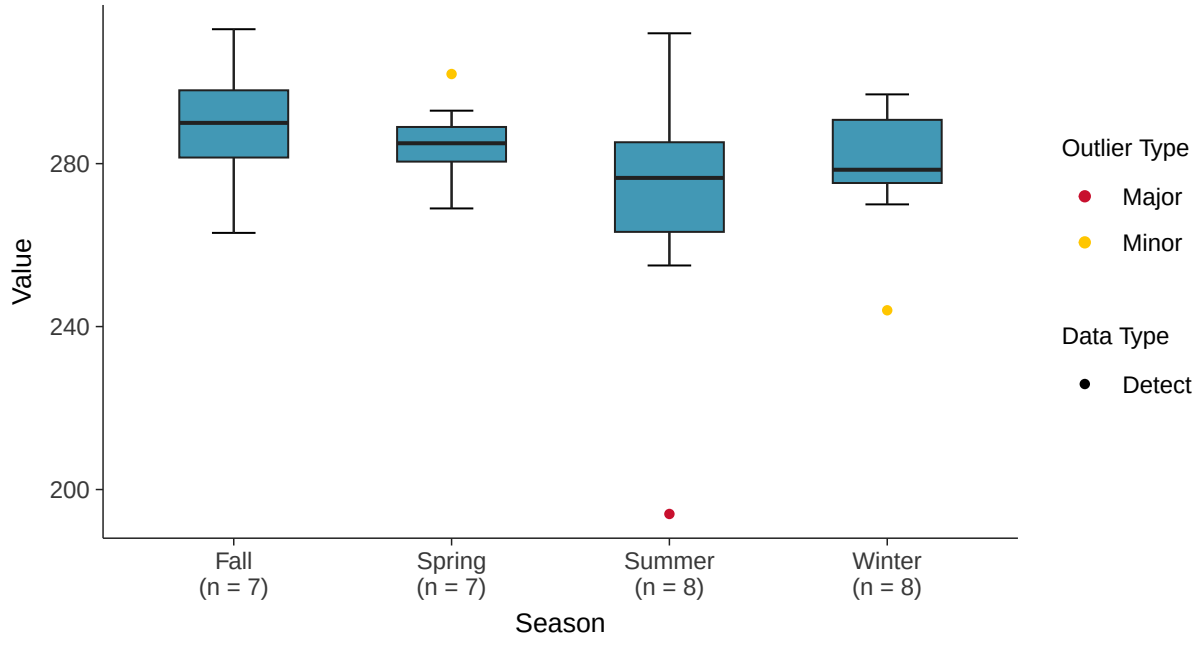
Boxplot

Chloride, MW-7R (mg/L)



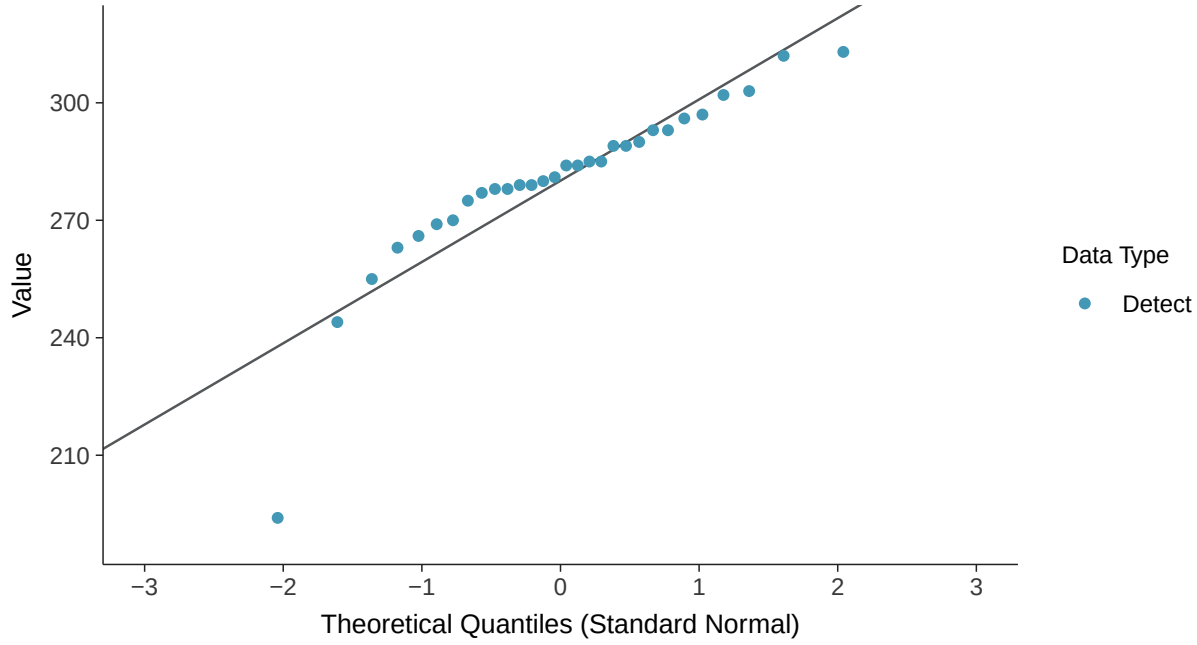
Boxplot by Season

Chloride, MW-7R (mg/L)



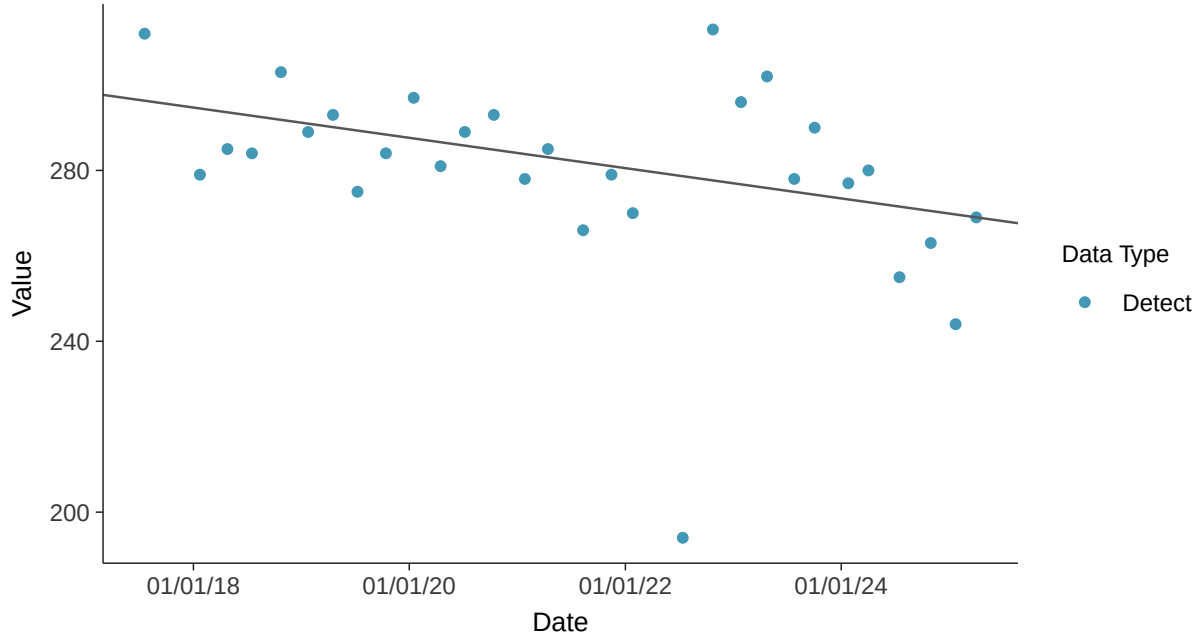
Normal Q-Q plot

Chloride, MW-7R (mg/L)



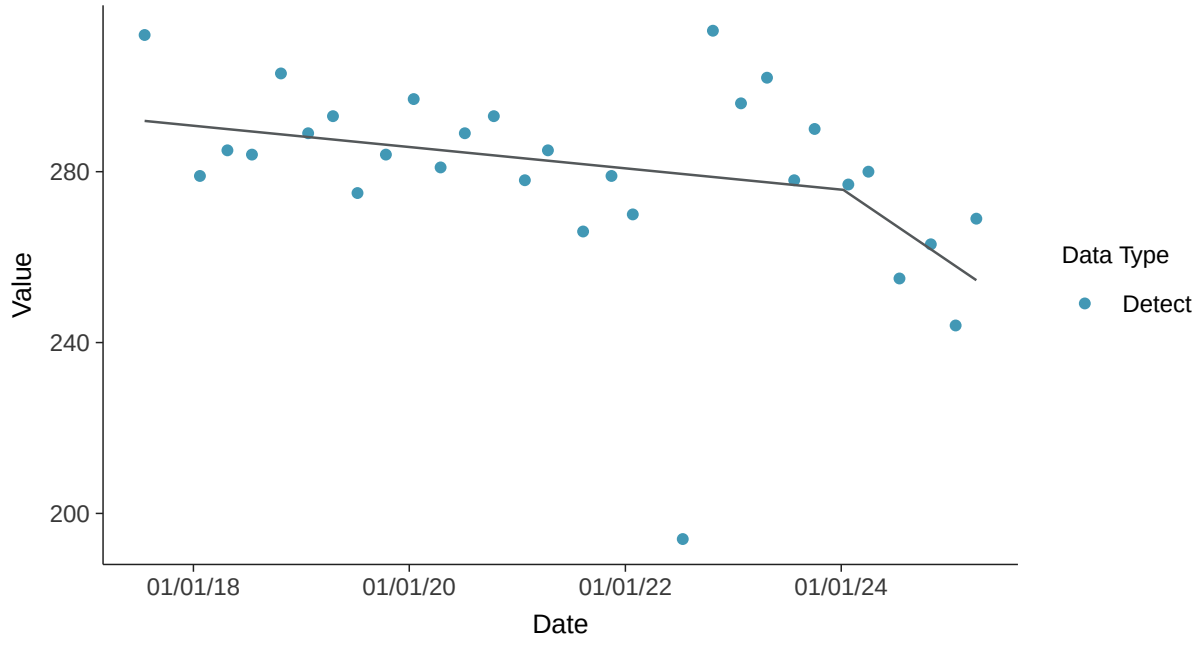
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Chloride, MW-7R (mg/L)



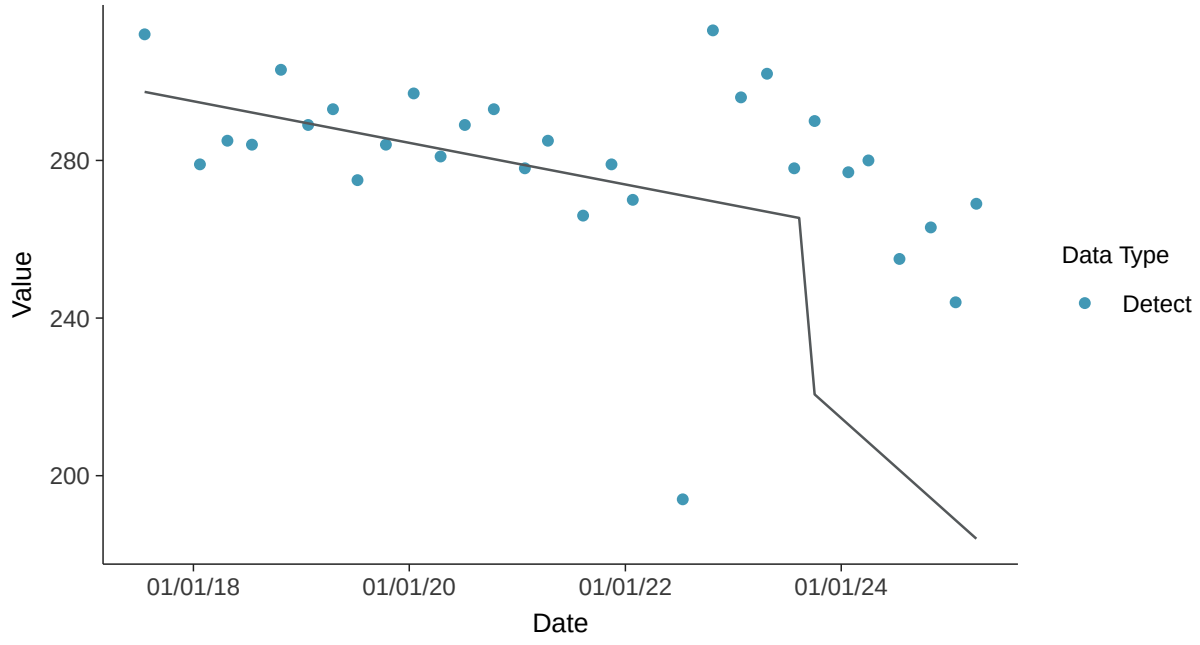
Trend Regression: Piecewise Linear-Linear

Chloride, MW-7R (mg/L)



Trend Regression: Piecewise Linear-Linear-Linear

Chloride, MW-7R (mg/L)

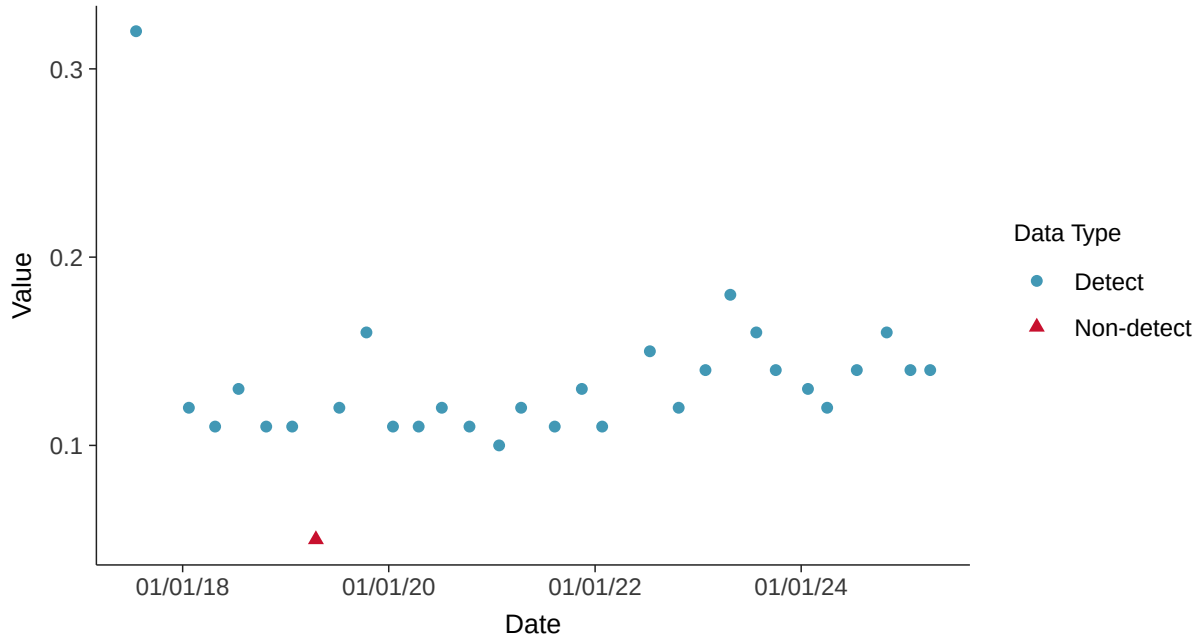


App. III: Fluoride, MW-7R

ID: 07_02_112

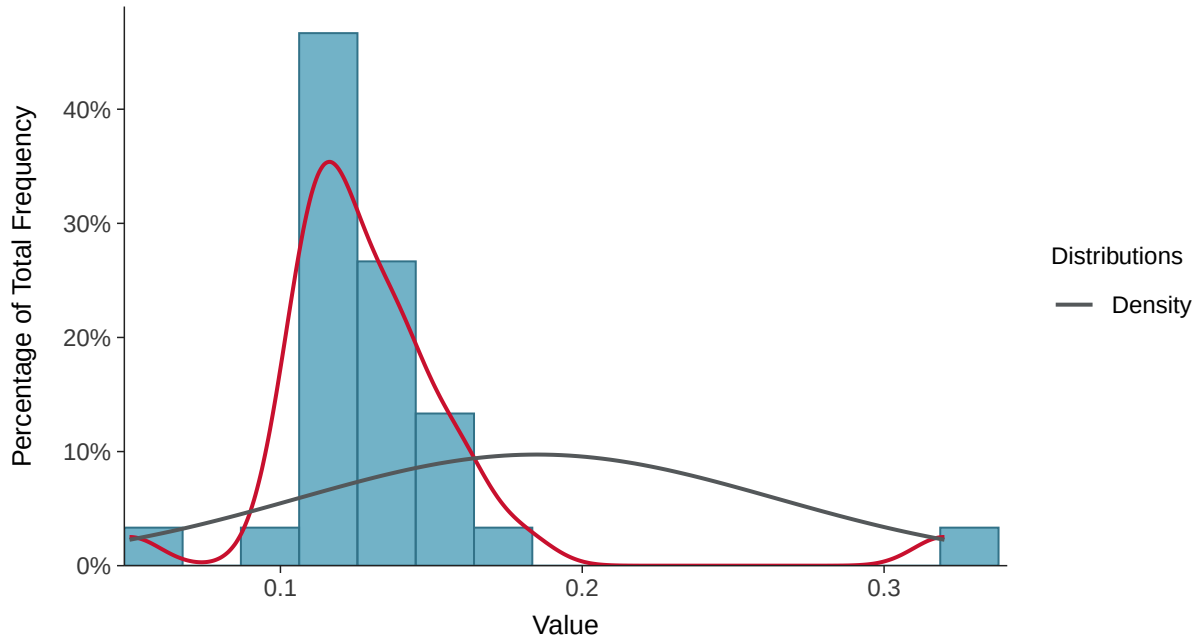
Scatter Plot

Fluoride, MW-7R (mg/L)



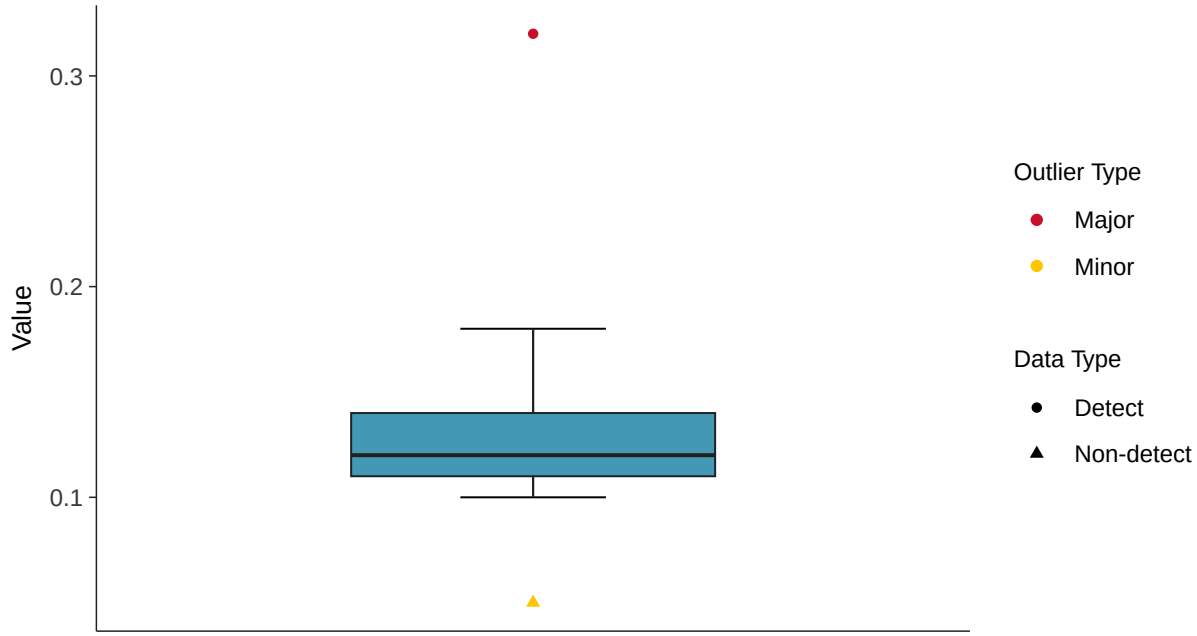
Histogram

Fluoride, MW-7R (mg/L)



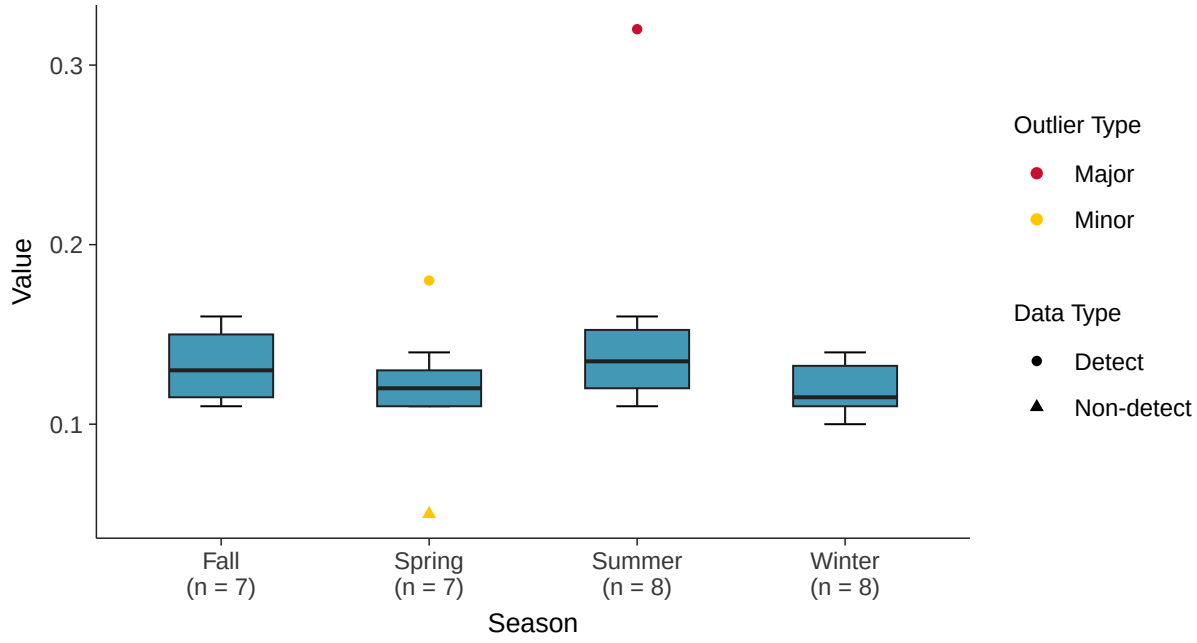
Boxplot

Fluoride, MW-7R (mg/L)



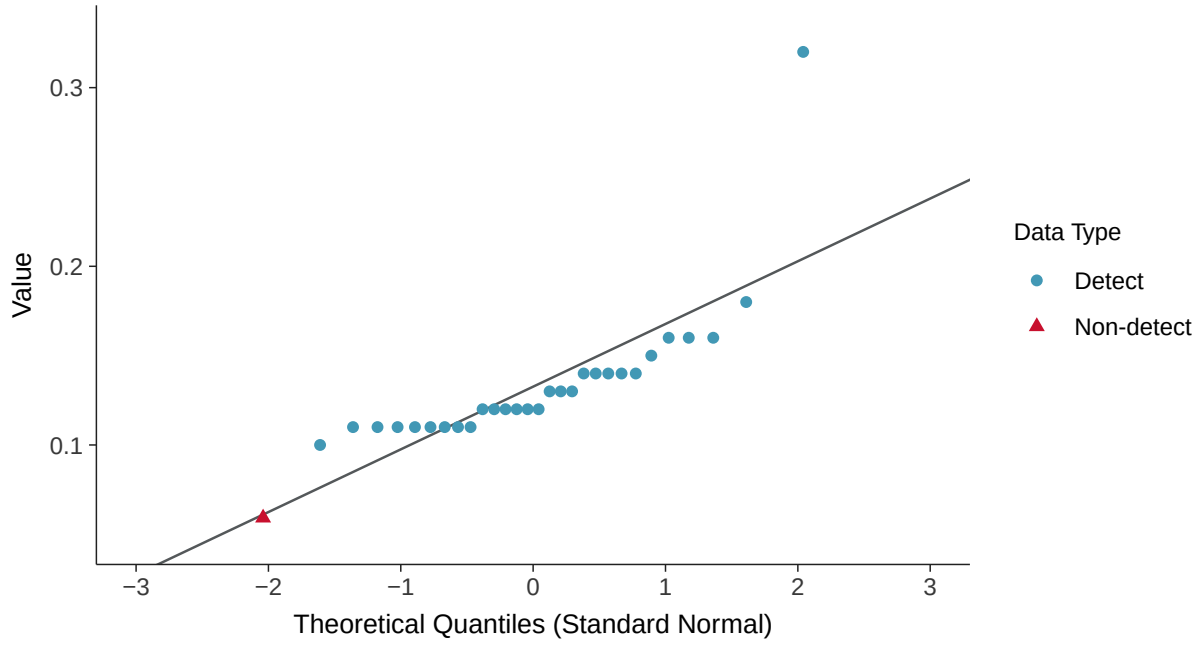
Boxplot by Season

Fluoride, MW-7R (mg/L)



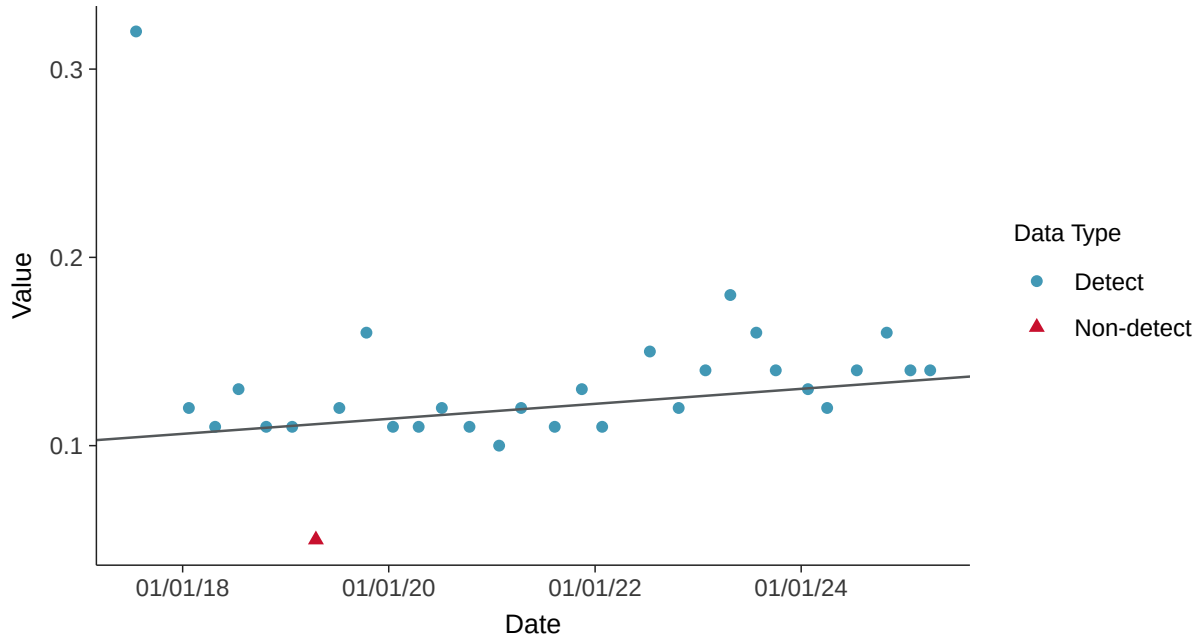
Normal Q-Q plot using ROS Imputed Estimates

Fluoride, MW-7R (mg/L)



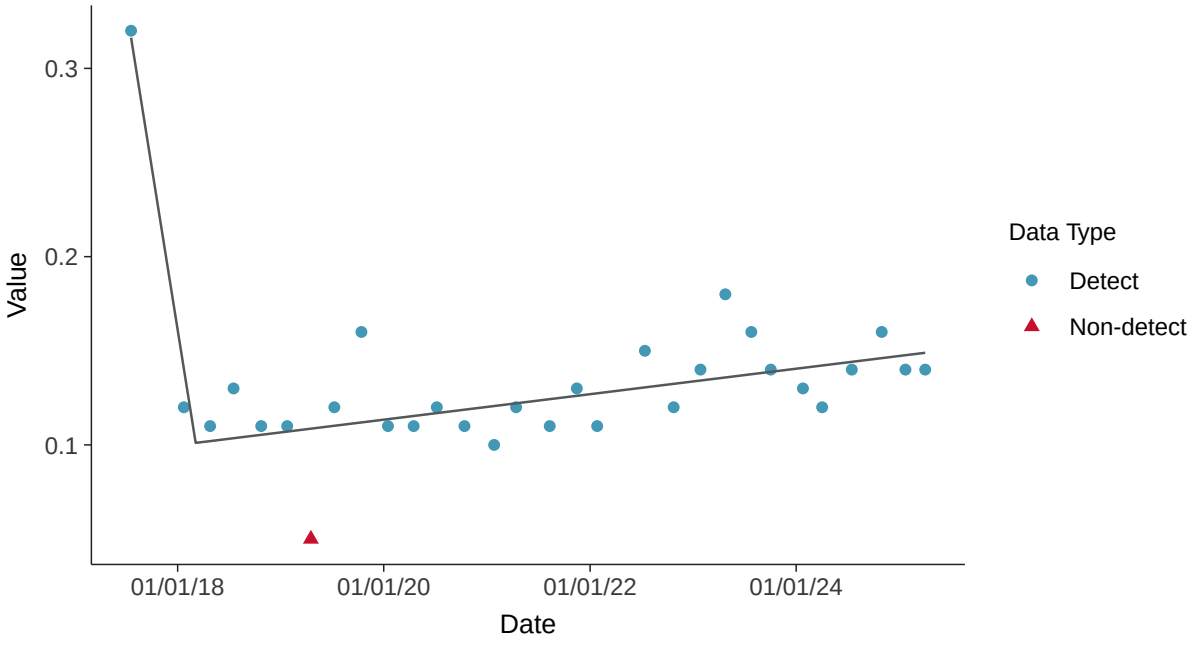
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Fluoride, MW-7R (mg/L)



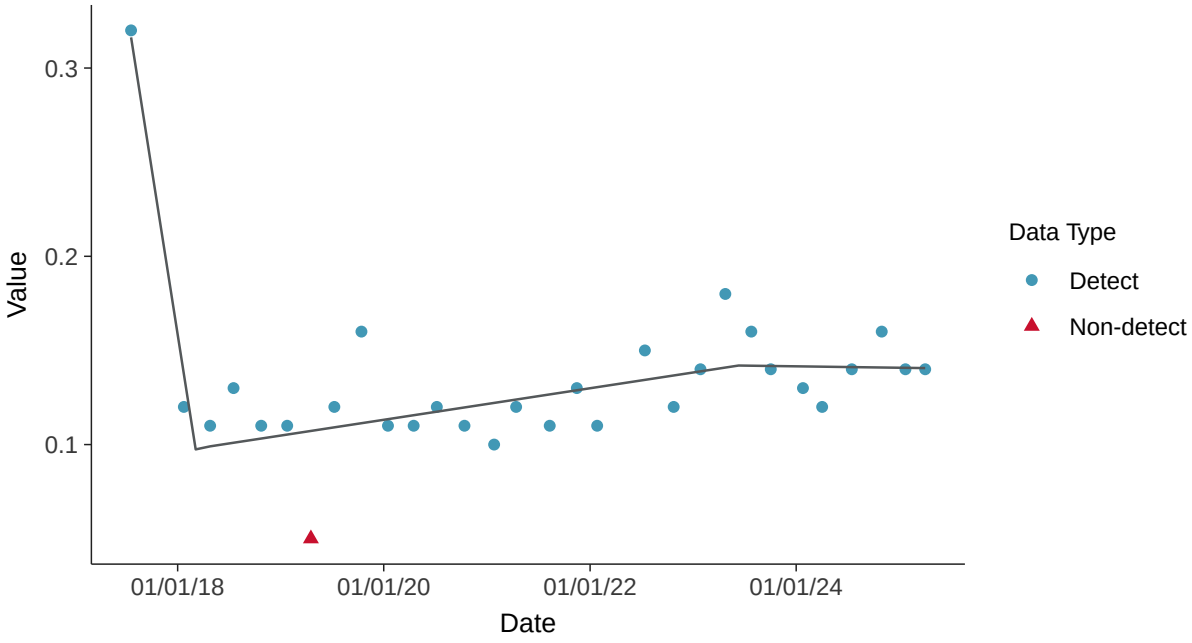
Trend Regression: Piecewise Linear-Linear

Fluoride, MW-7R (mg/L)



Trend Regression: Piecewise Linear-Linear-Linear

Fluoride, MW-7R (mg/L)

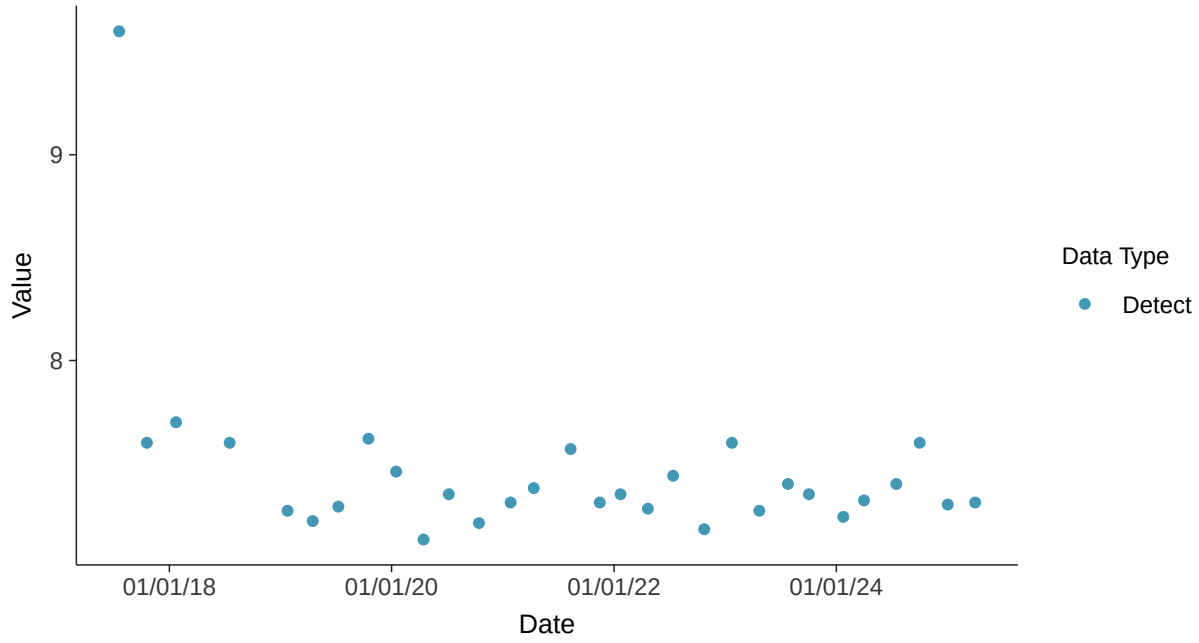


App. III: pH (Field), MW-7R

ID: 07_02_118

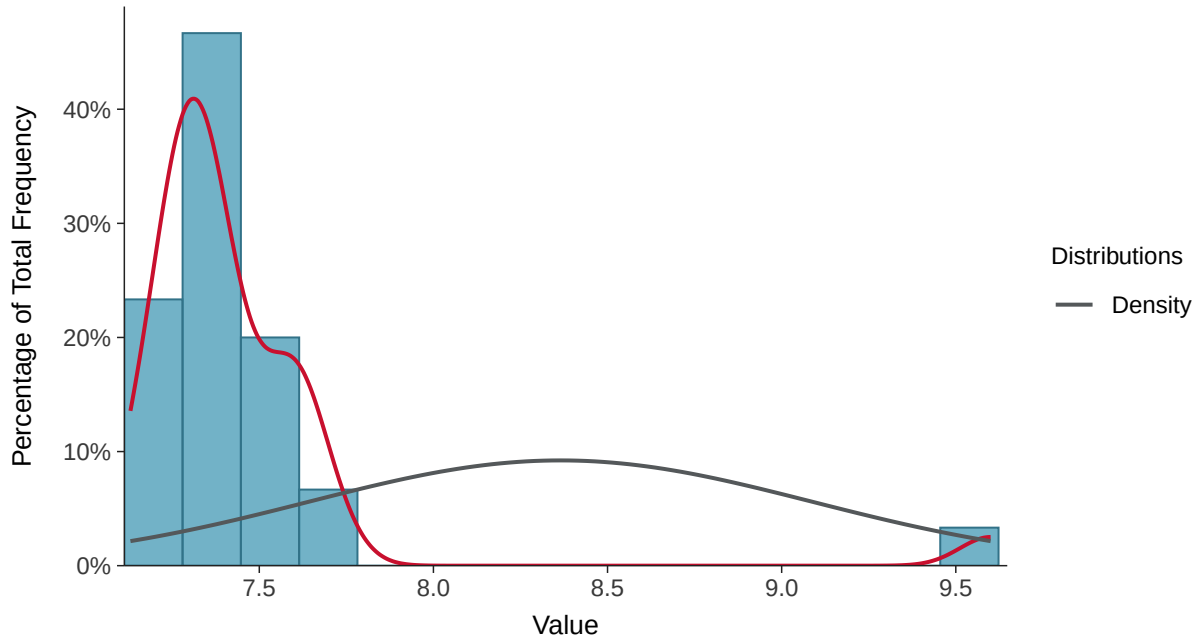
Scatter Plot

pH (Field), MW-7R (S.U.)



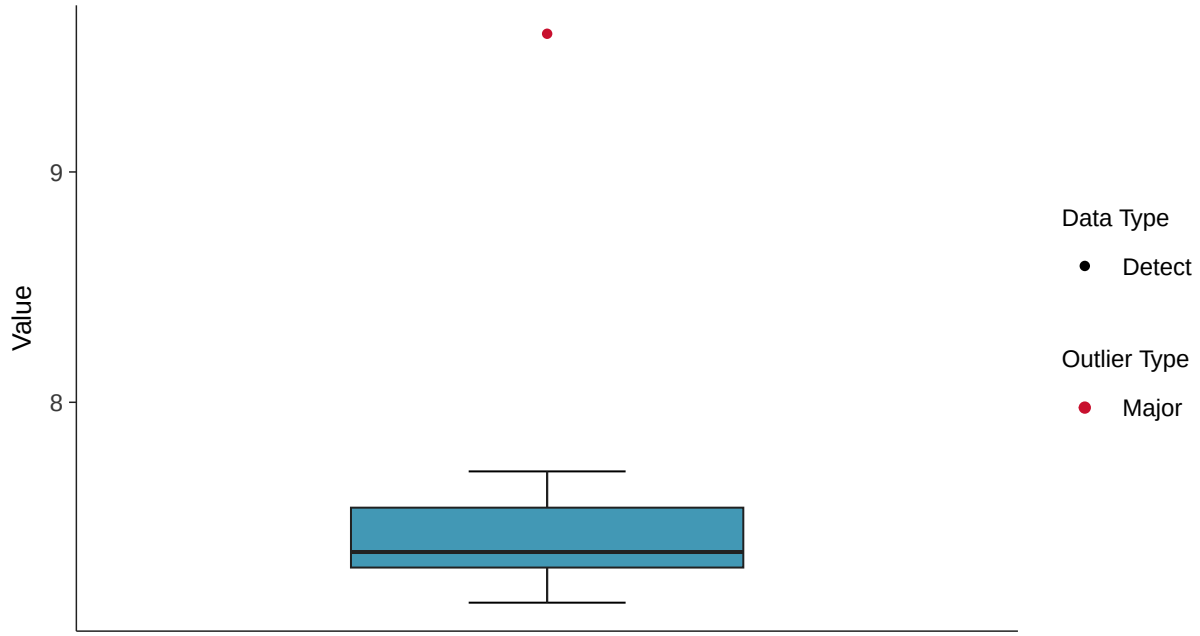
Histogram

pH (Field), MW-7R (S.U.)



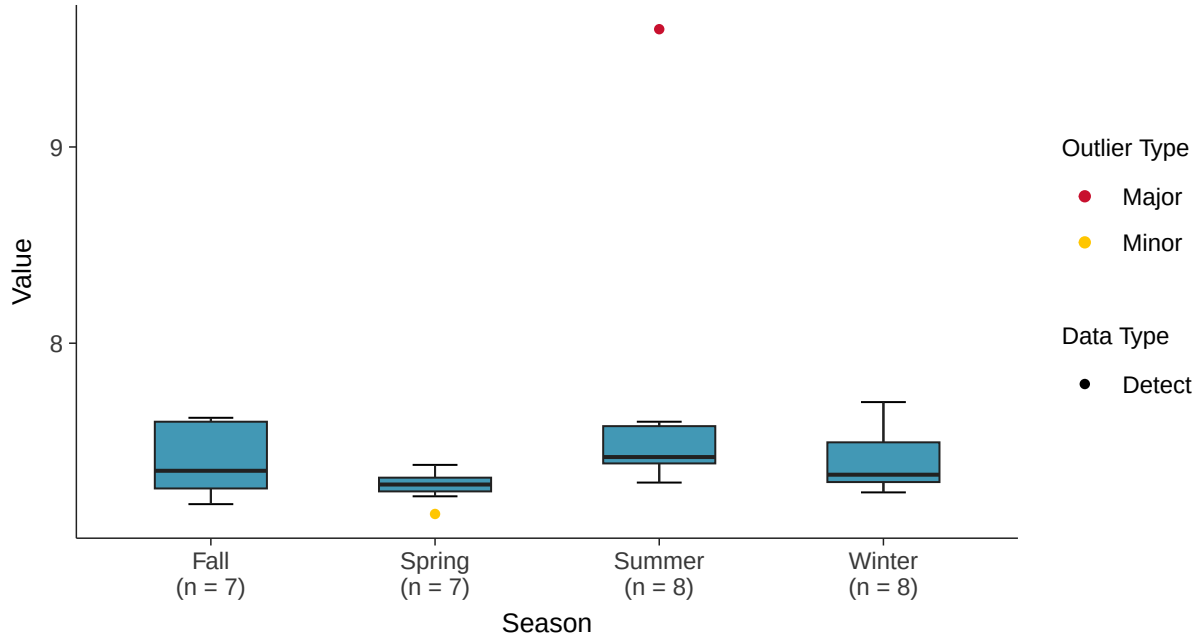
Boxplot

pH (Field), MW-7R (S.U.)



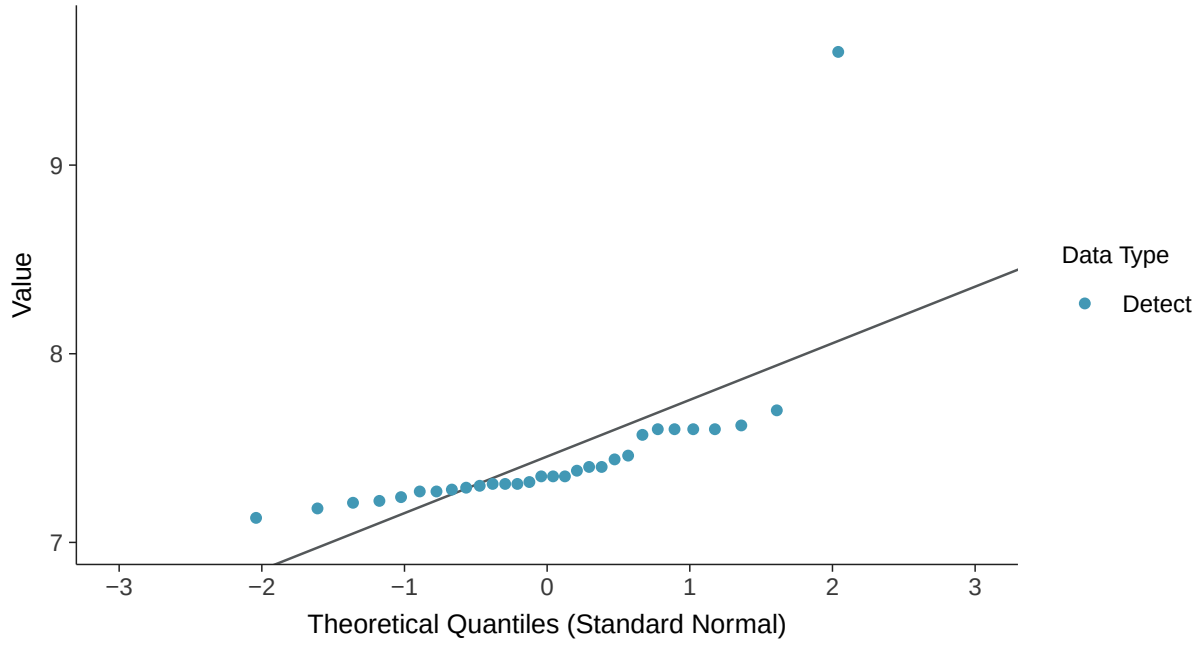
Boxplot by Season

pH (Field), MW-7R (S.U.)



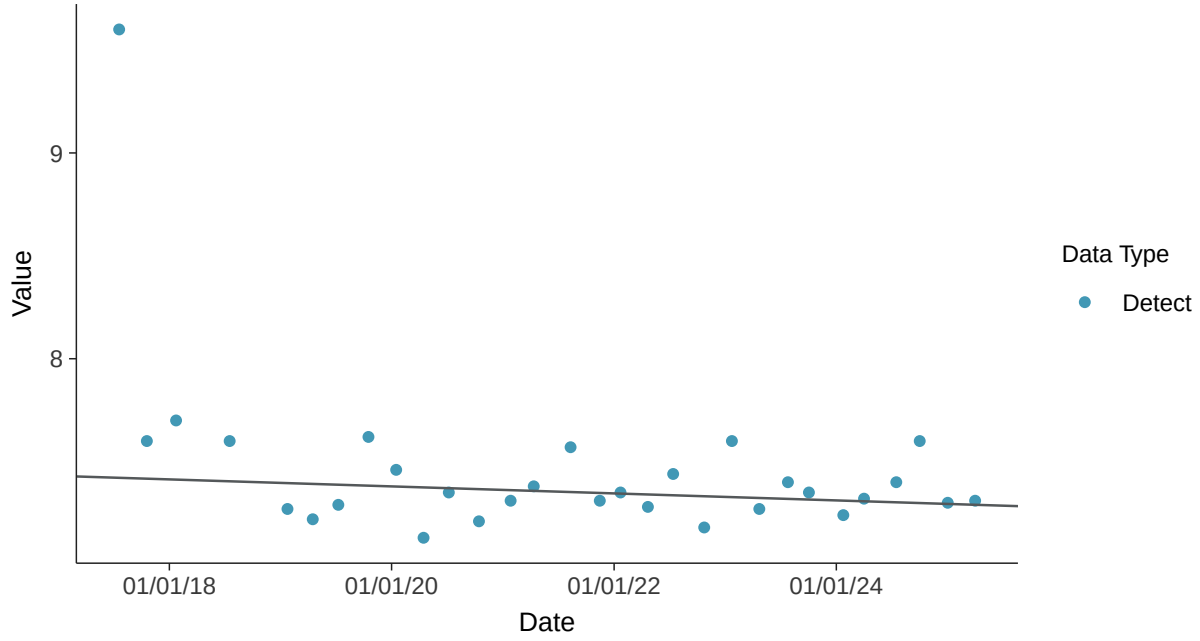
Normal Q-Q plot

pH (Field), MW-7R (S.U.)



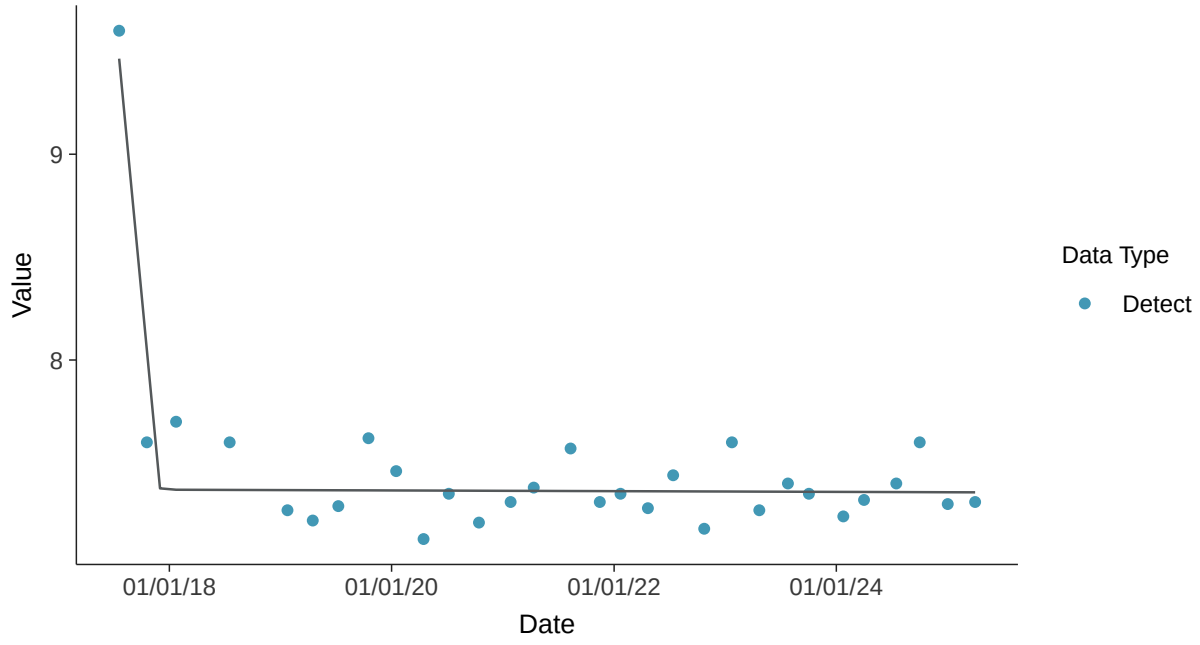
Trend Regression: Mann-Kendall/Theil-Sen Estimate

pH (Field), MW-7R (S.U.)



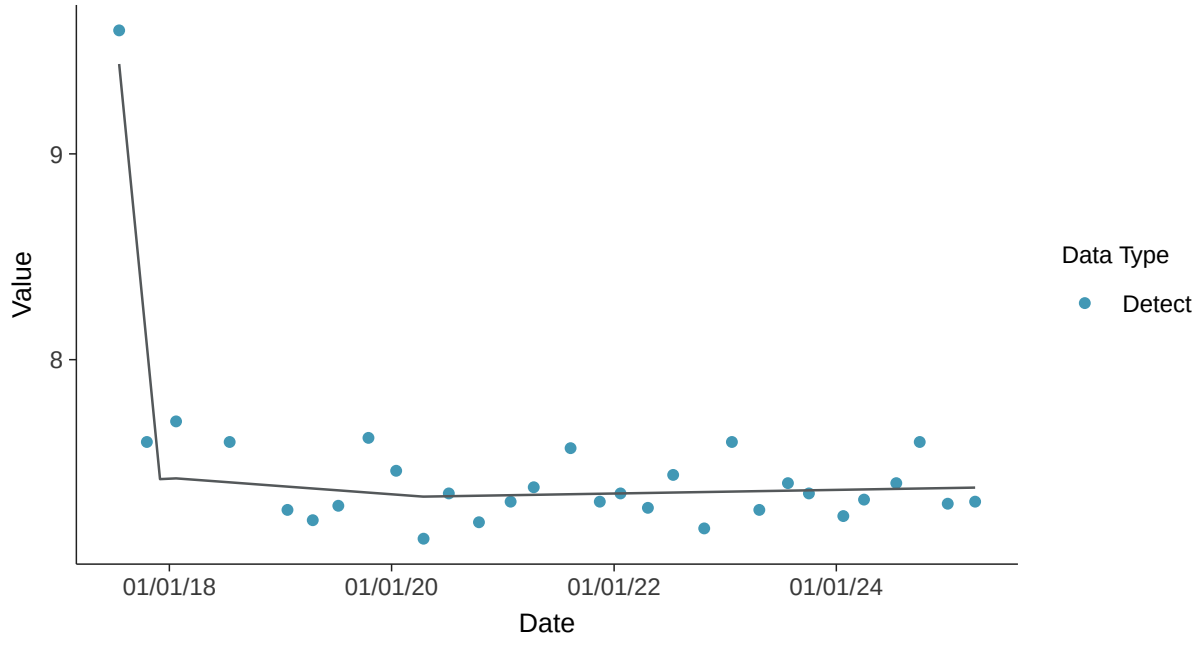
Trend Regression: Piecewise Linear-Linear

pH (Field), MW-7R (S.U.)



Trend Regression: Piecewise Linear-Linear-Linear

pH (Field), MW-7R (S.U.)

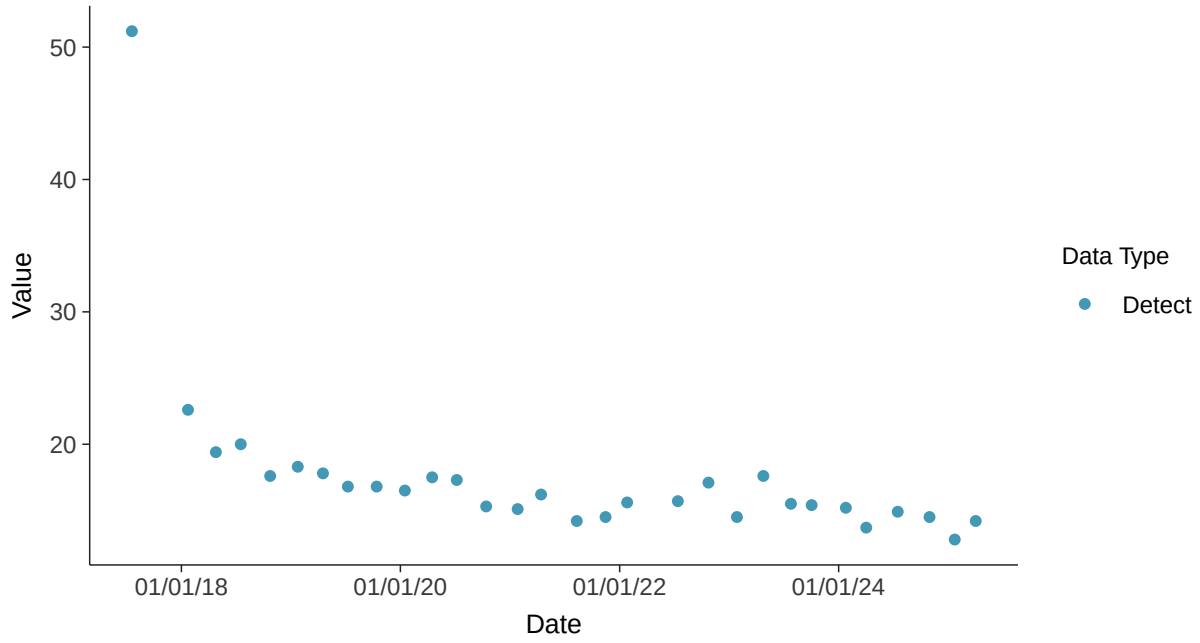


App. III: Sulfate, MW-7R

ID: 07_02_123

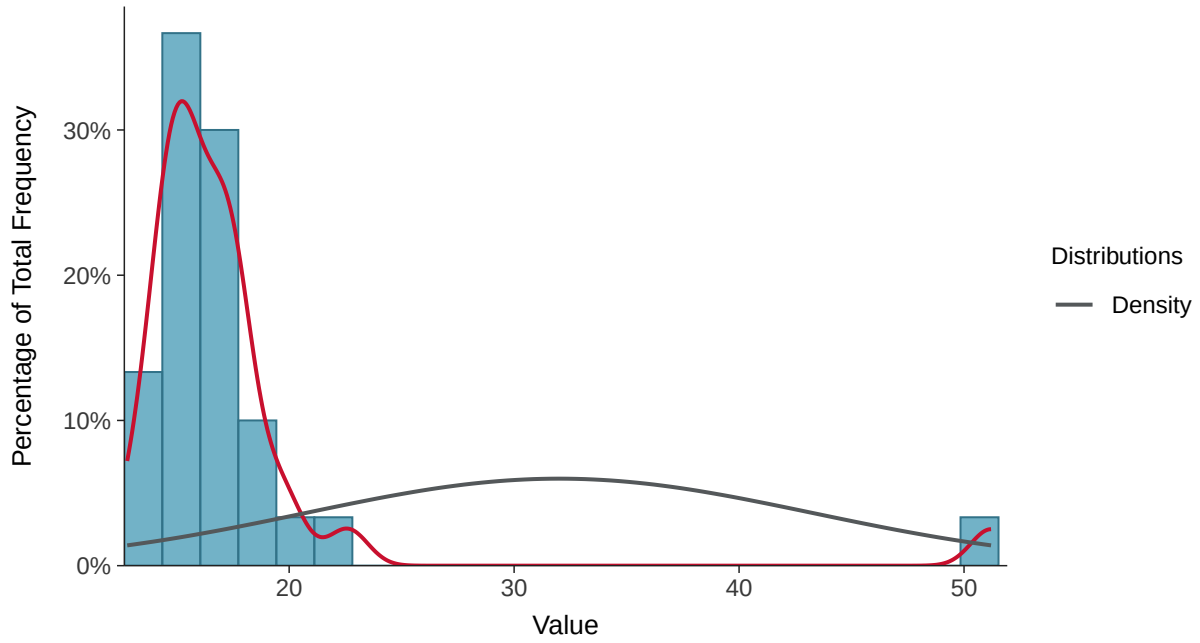
Scatter Plot

Sulfate, MW-7R (mg/L)



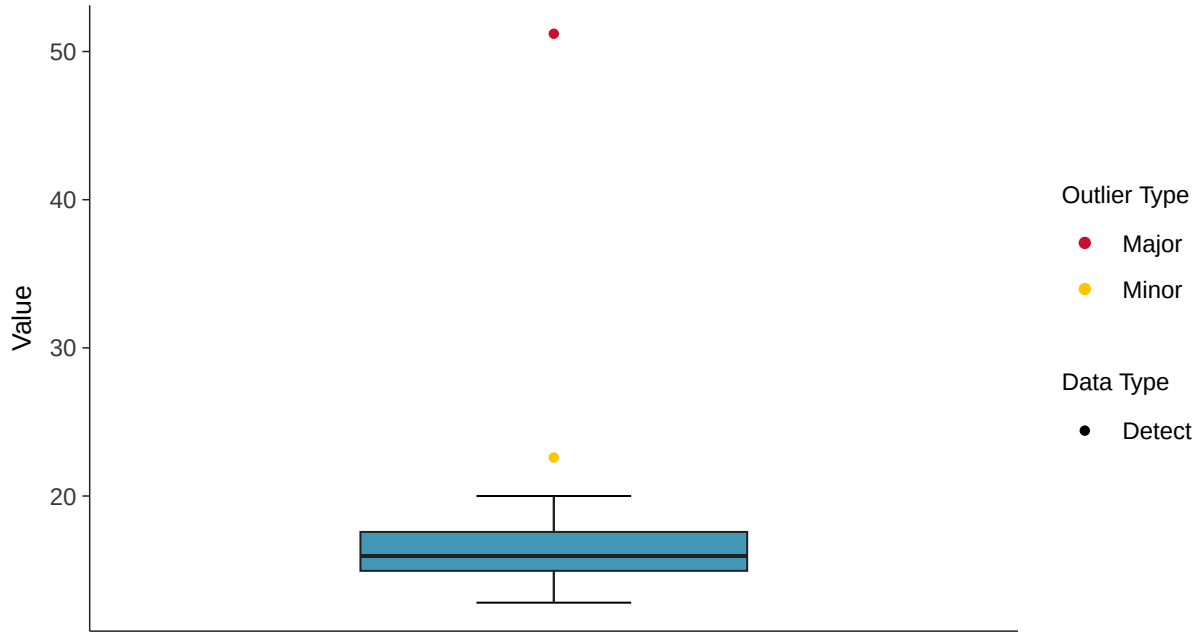
Histogram

Sulfate, MW-7R (mg/L)



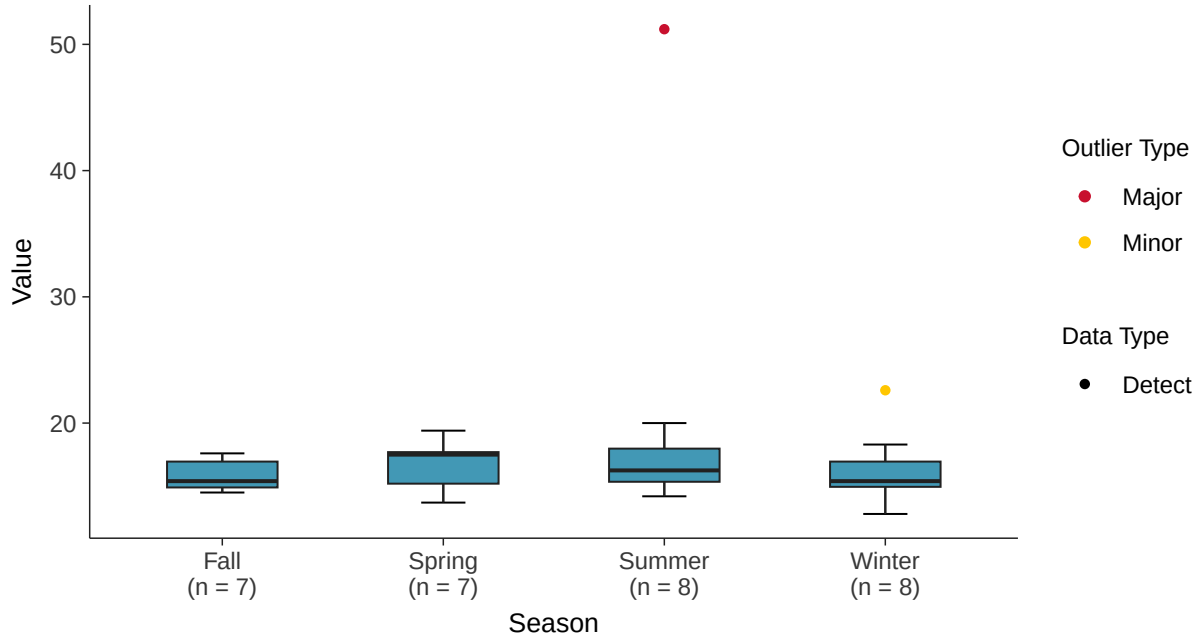
Boxplot

Sulfate, MW-7R (mg/L)



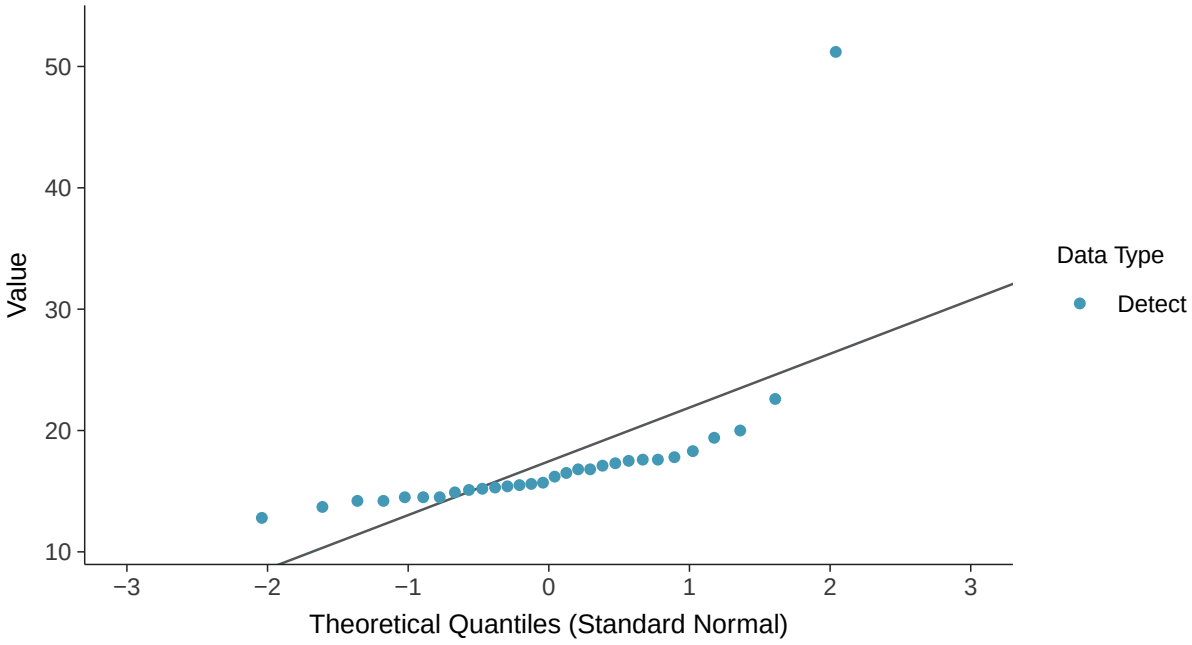
Boxplot by Season

Sulfate, MW-7R (mg/L)



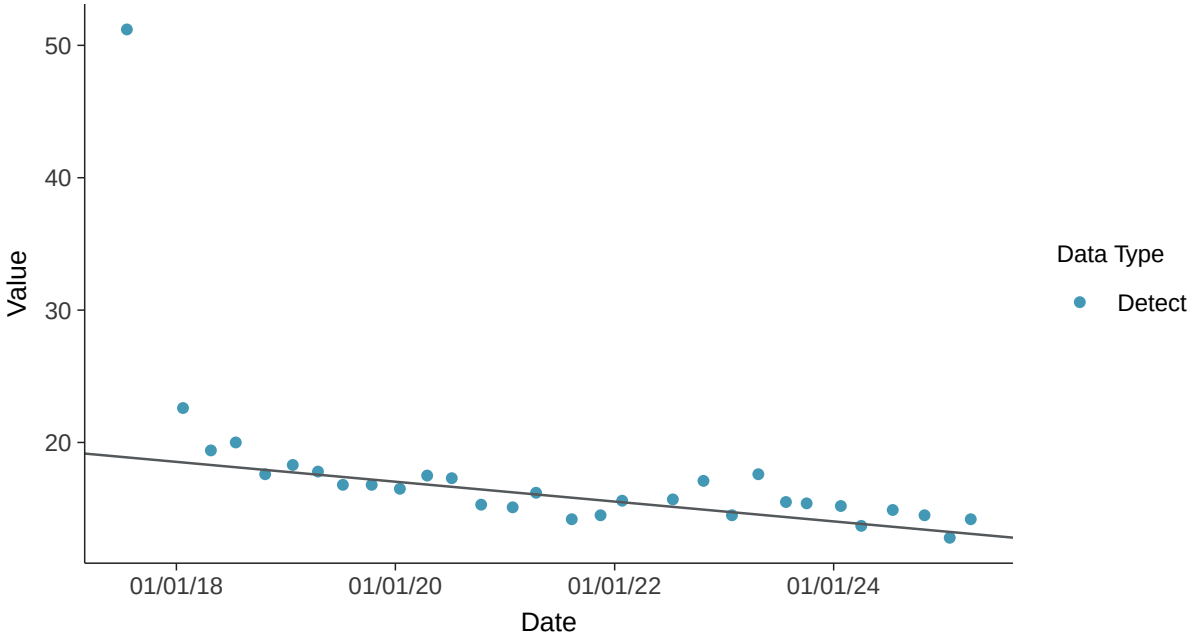
Normal Q-Q plot

Sulfate, MW-7R (mg/L)



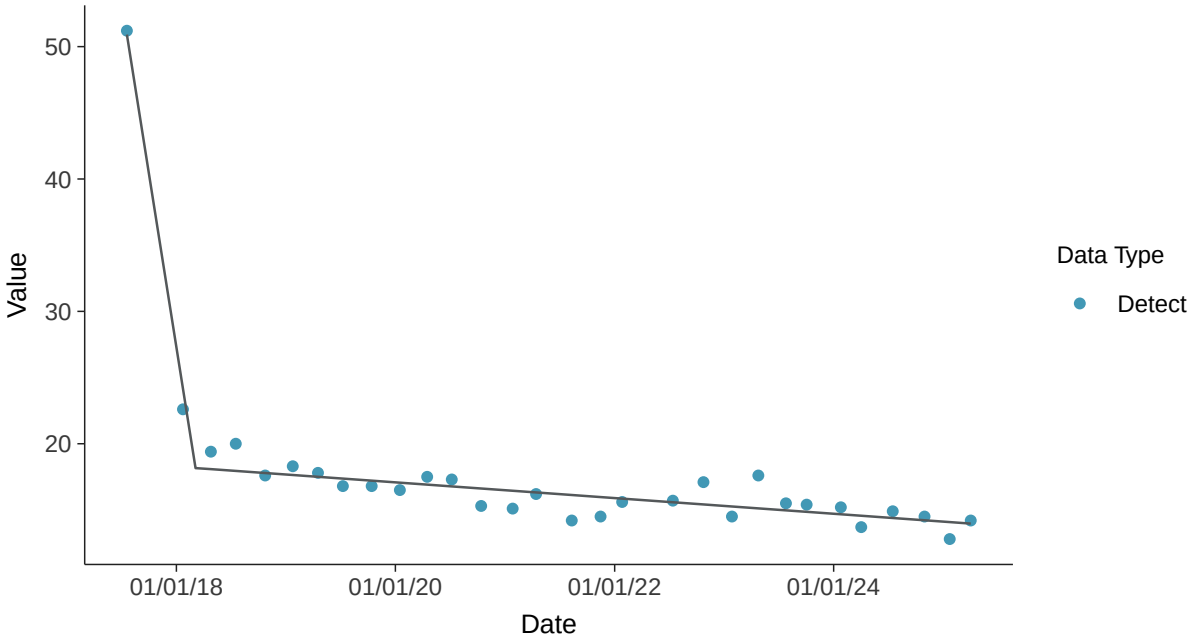
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Sulfate, MW-7R (mg/L)



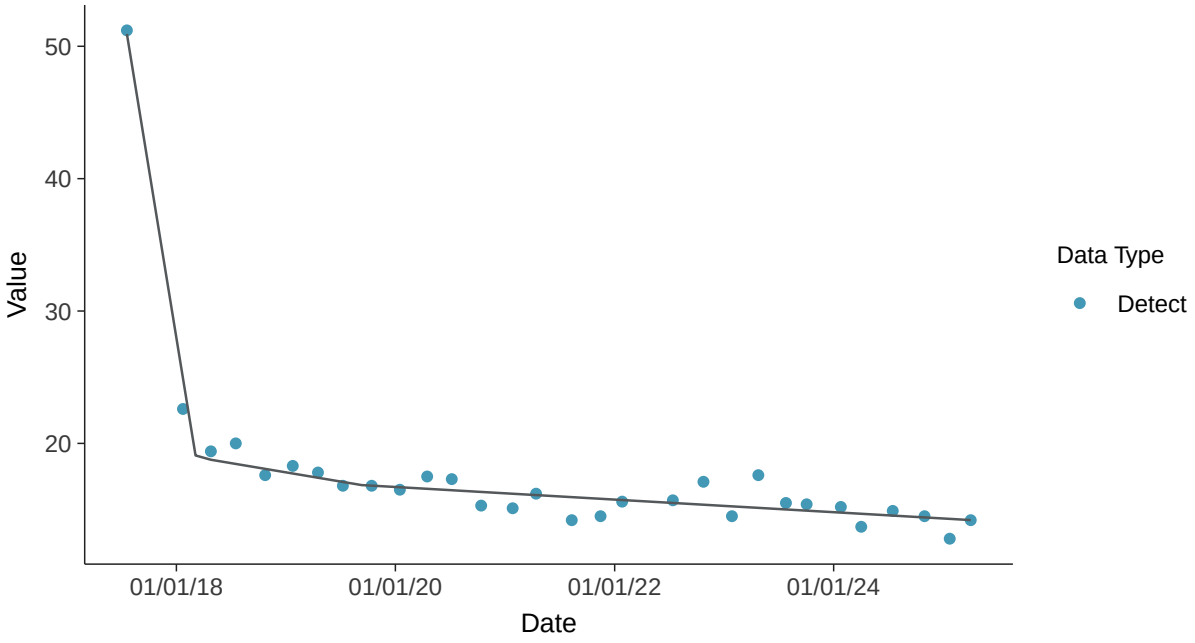
Trend Regression: Piecewise Linear-Linear

Sulfate, MW-7R (mg/L)



Trend Regression: Piecewise Linear-Linear-Linear

Sulfate, MW-7R (mg/L)

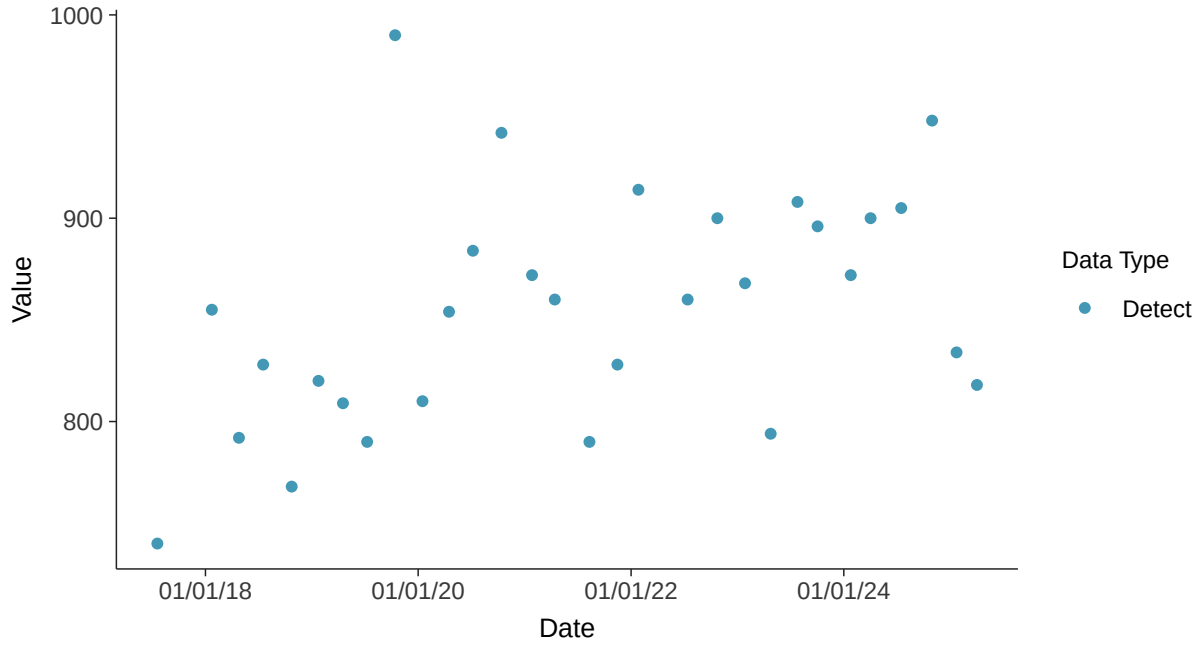


App. III: Total Dissolved Solids, MW-7R

ID: 07_02_125

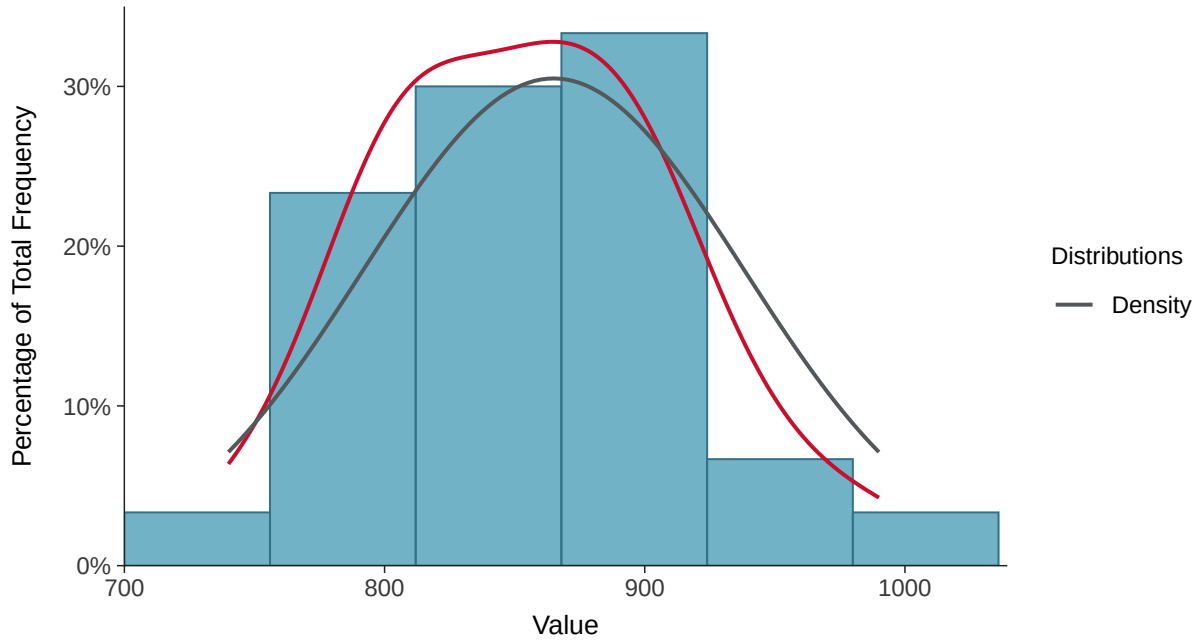
Scatter Plot

Total Dissolved Solids, MW-7R (mg/L)



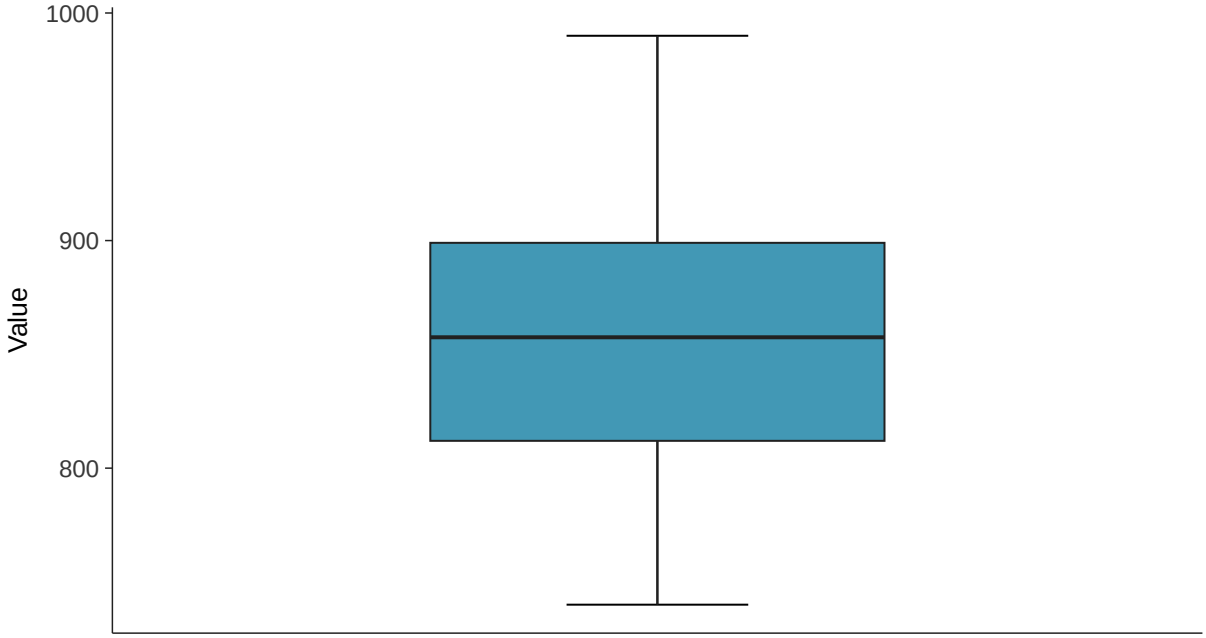
Histogram

Total Dissolved Solids, MW-7R (mg/L)



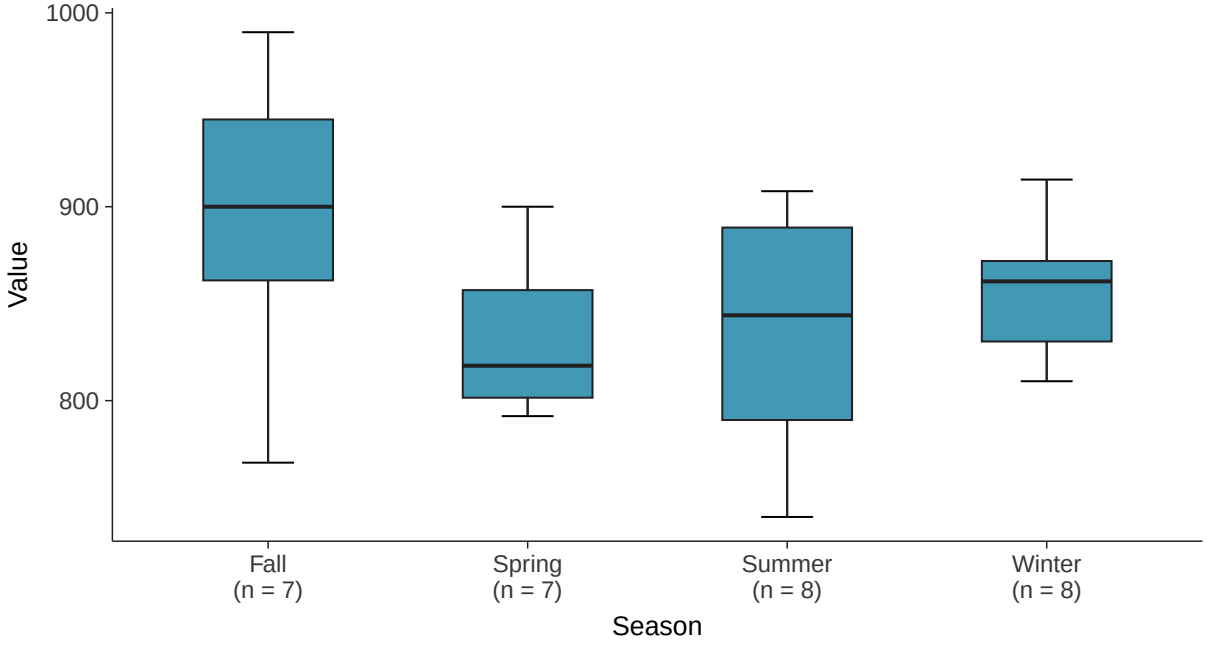
Boxplot

Total Dissolved Solids, MW-7R (mg/L)



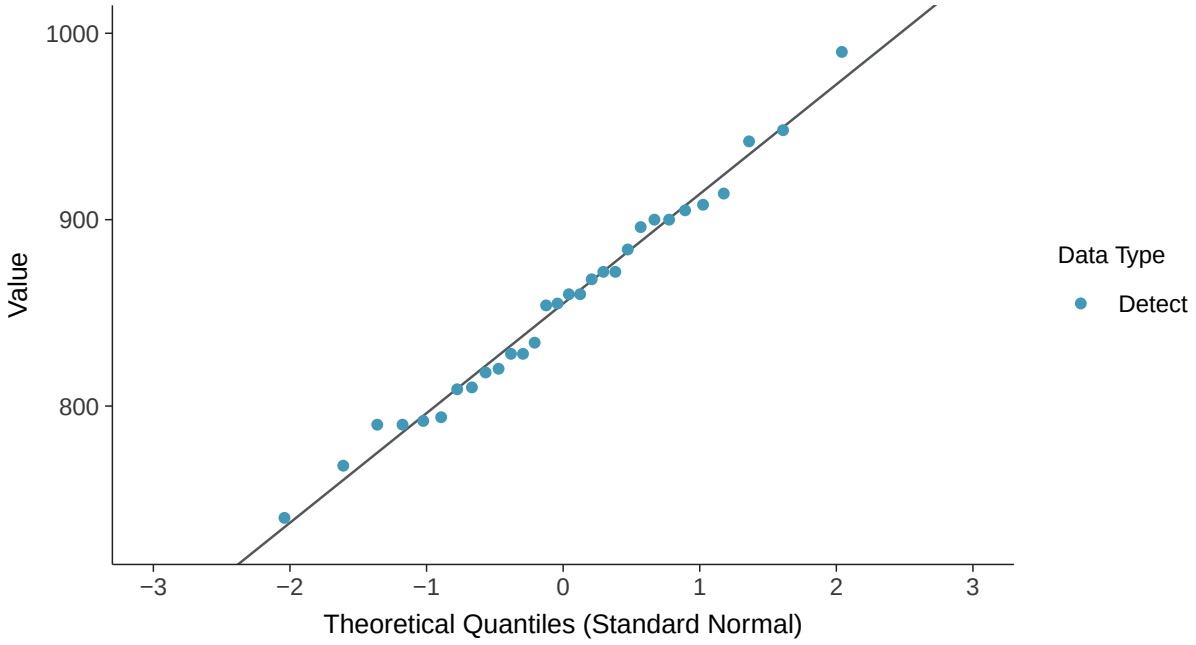
Boxplot by Season

Total Dissolved Solids, MW-7R (mg/L)



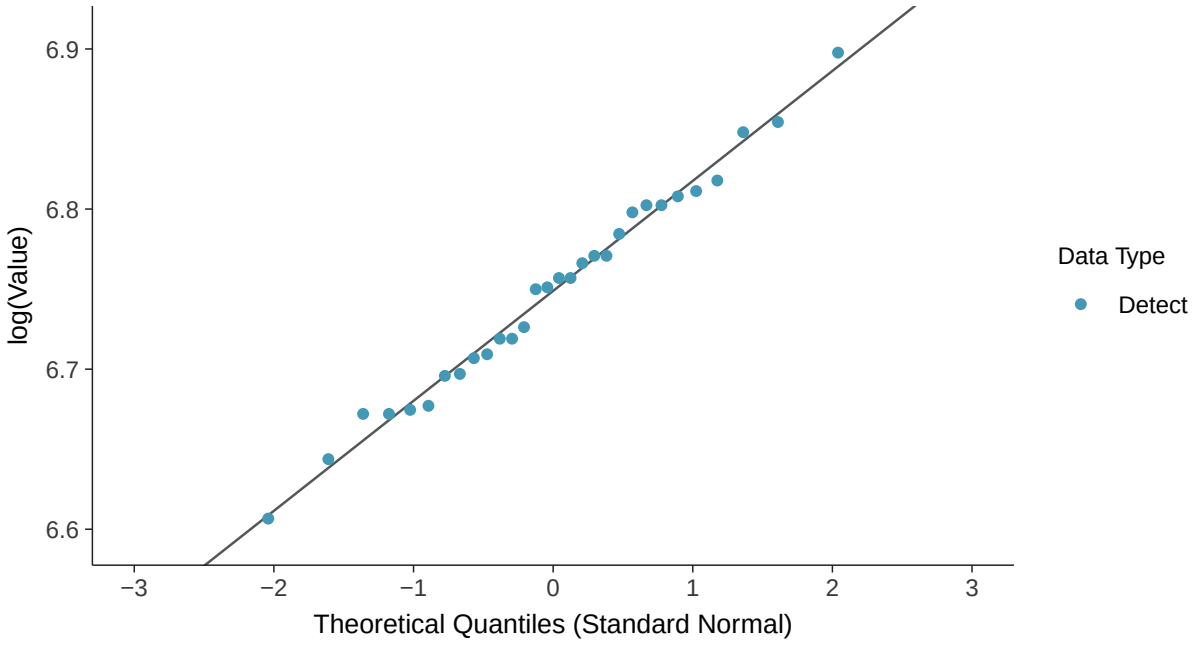
Normal Q-Q plot

Total Dissolved Solids, MW-7R (mg/L)



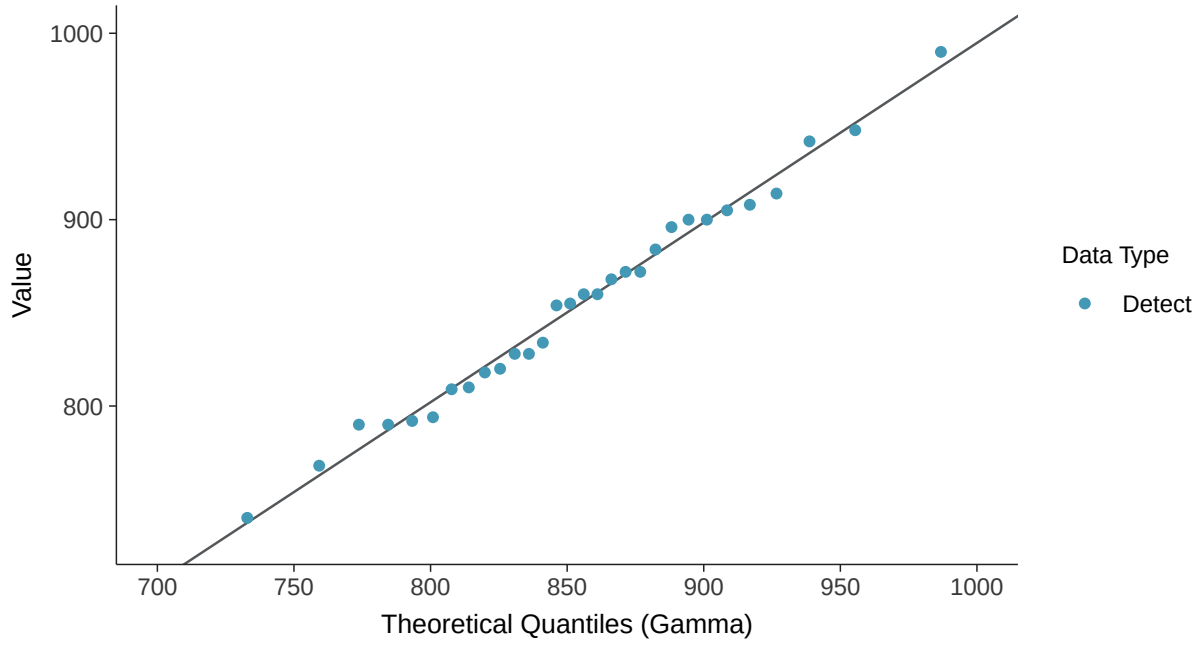
Lognormal Q-Q plot

Total Dissolved Solids, MW-7R (mg/L)



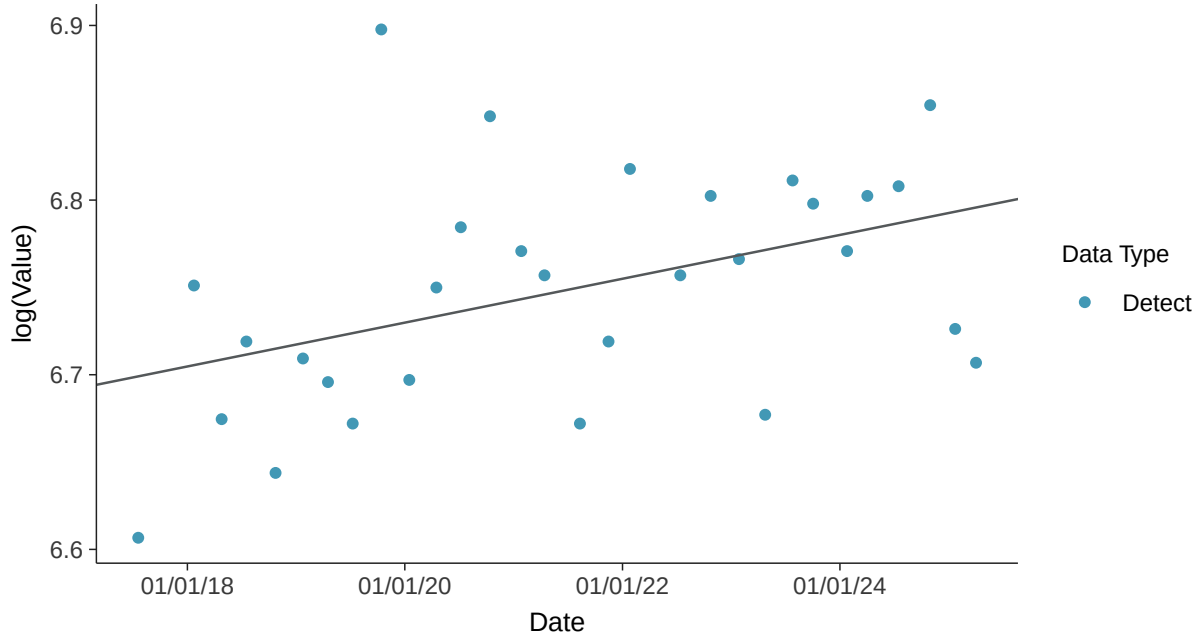
Gamma Q-Q plot

Total Dissolved Solids, MW-7R (mg/L)



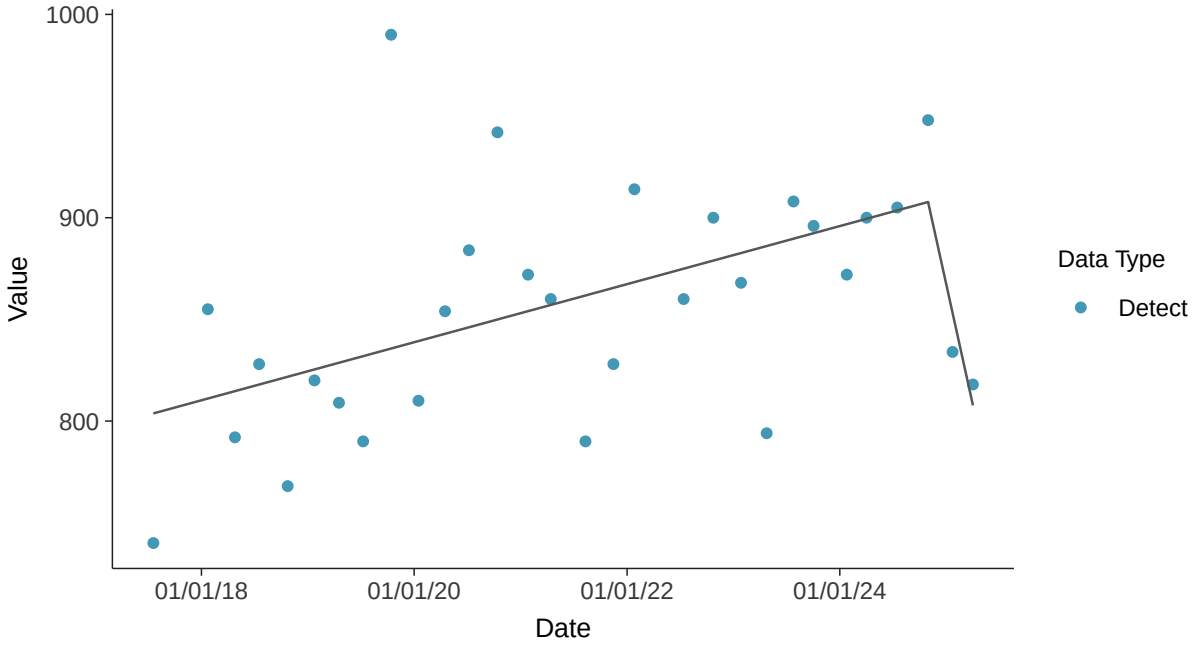
Trend Regression: Lognormal MLE

Total Dissolved Solids, MW-7R (mg/L)



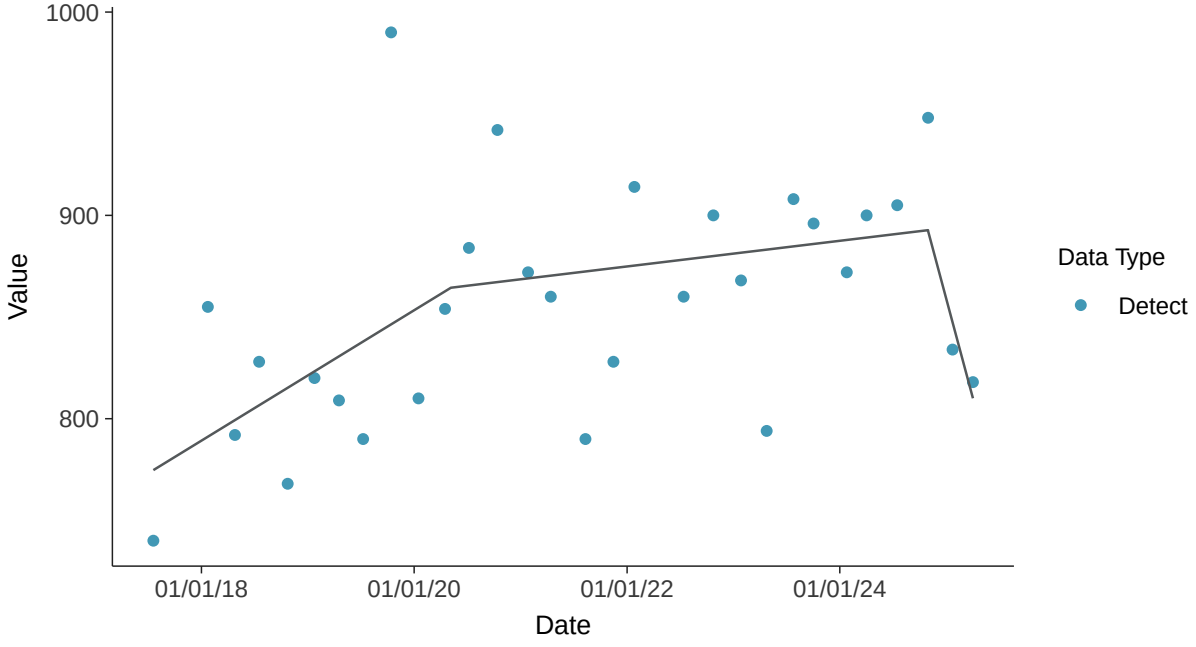
Trend Regression: Piecewise Linear-Linear

Total Dissolved Solids, MW-7R (mg/L)



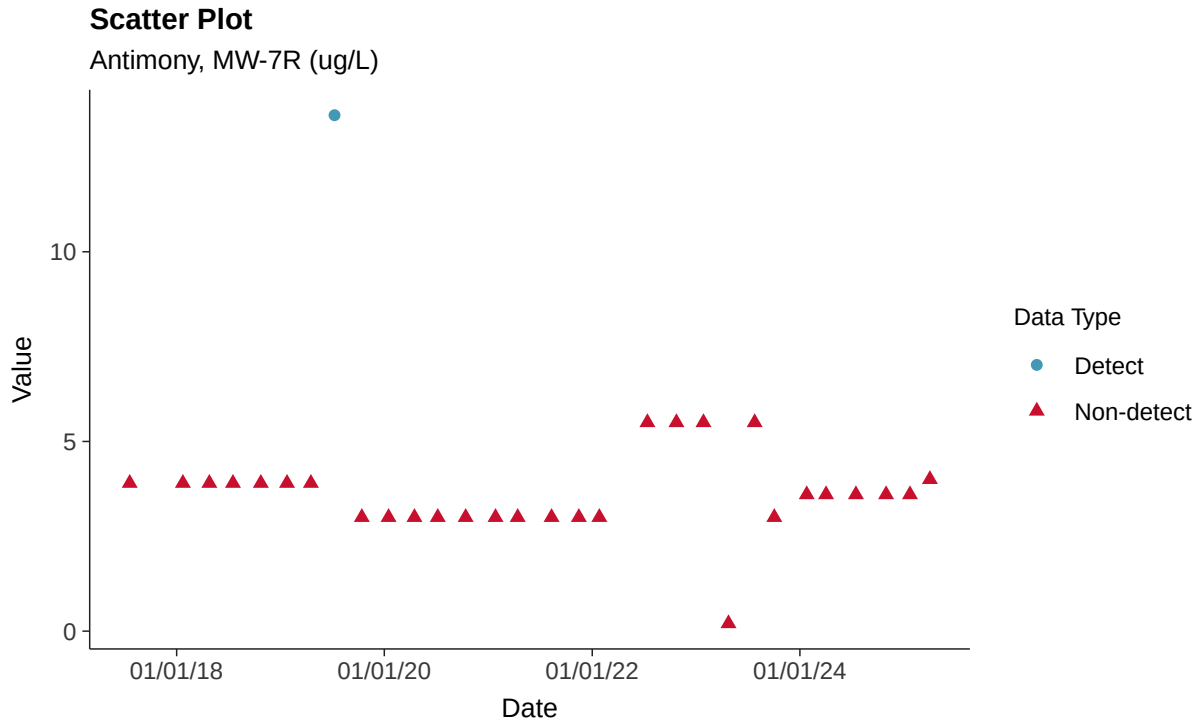
Trend Regression: Piecewise Linear-Linear-Linear

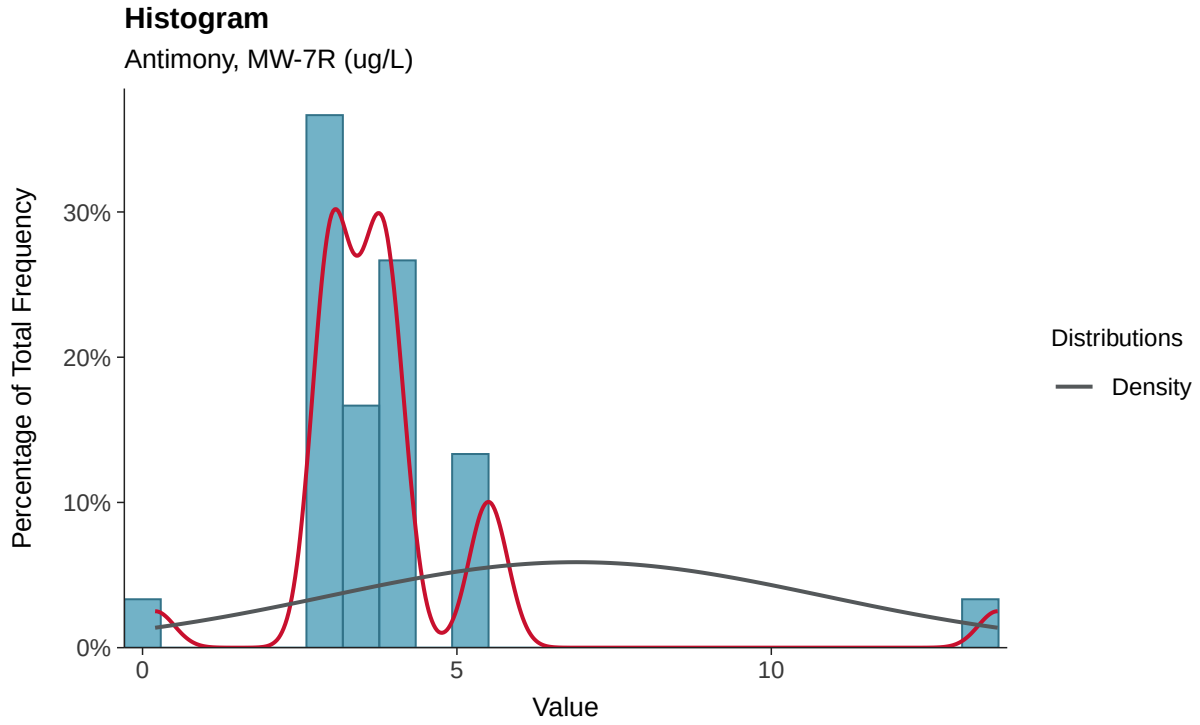
Total Dissolved Solids, MW-7R (mg/L)



App. IV: Antimony, MW-7R

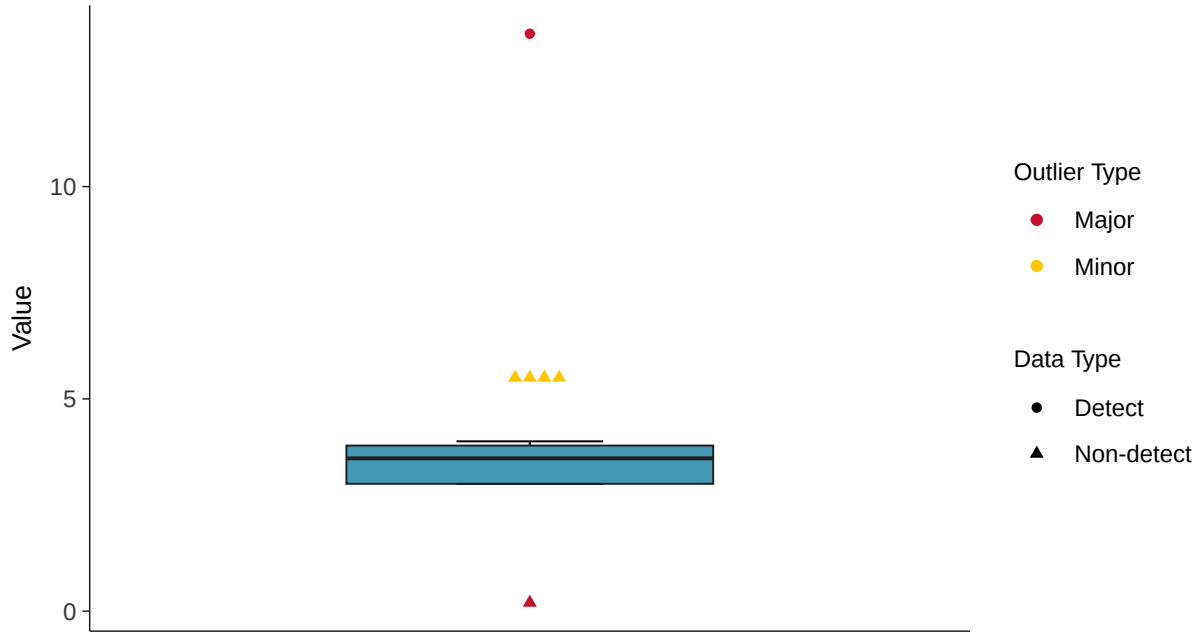
ID: 07_03_101





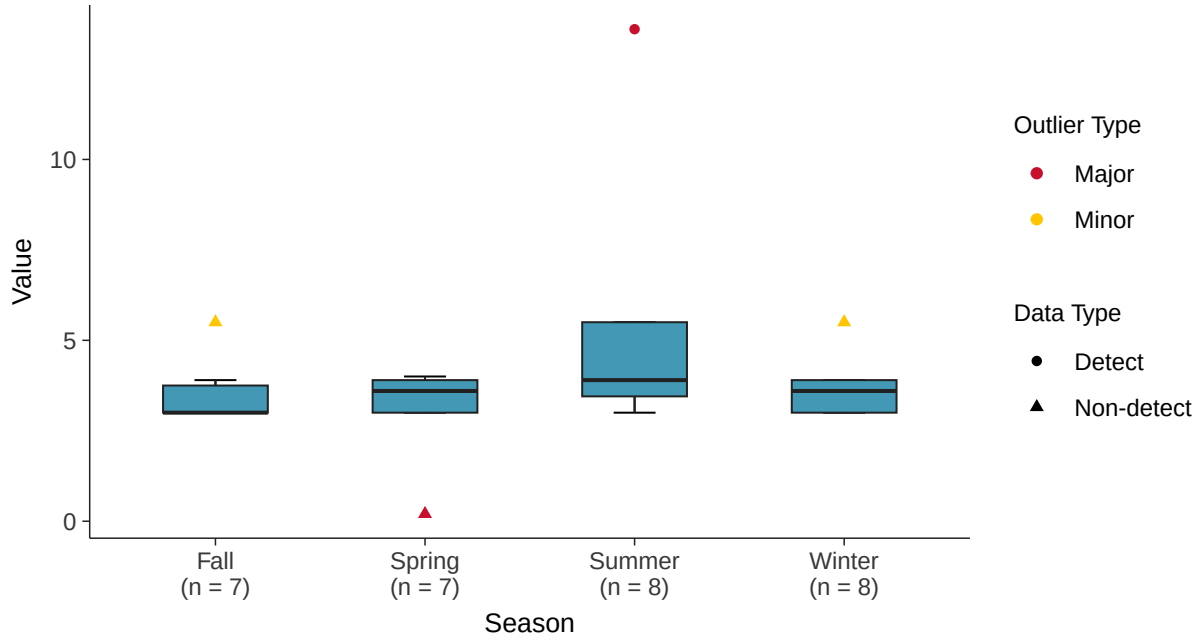
Boxplot

Antimony, MW-7R (ug/L)



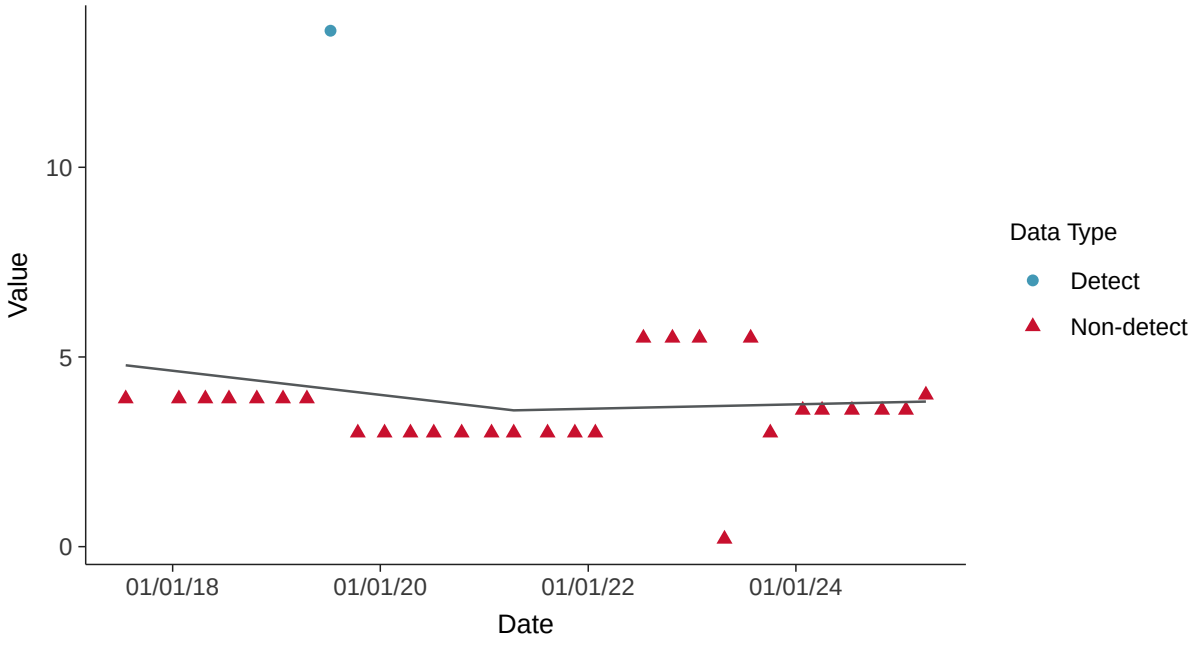
Boxplot by Season

Antimony, MW-7R (ug/L)



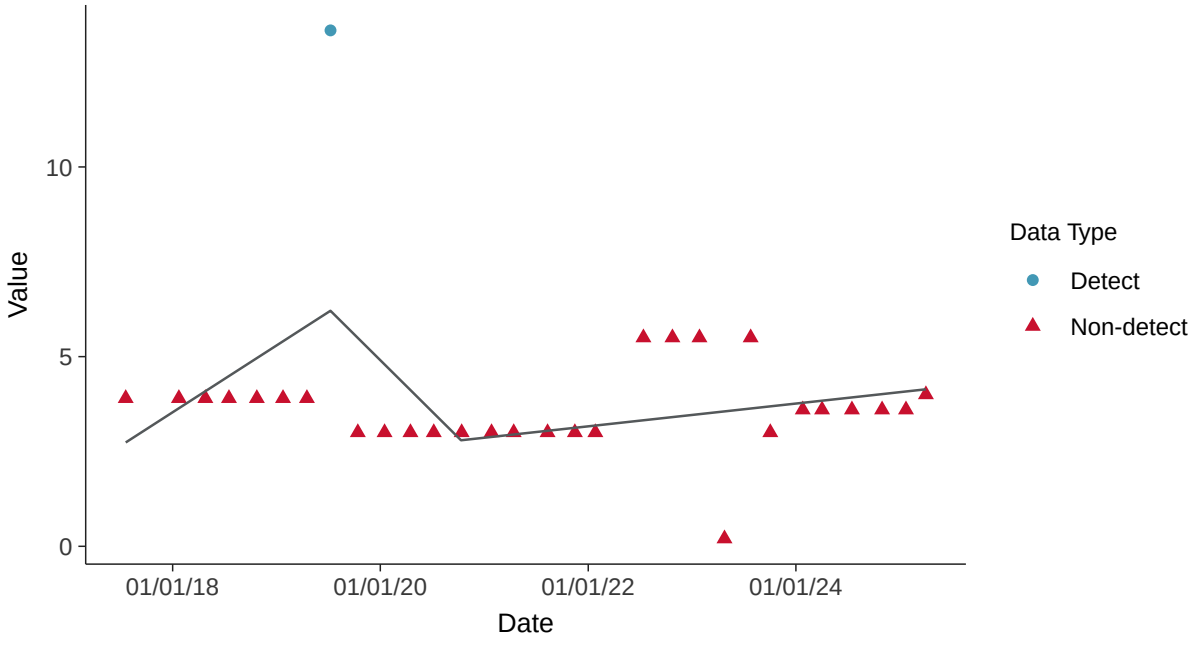
Trend Regression: Piecewise Linear-Linear

Antimony, MW-7R (ug/L)



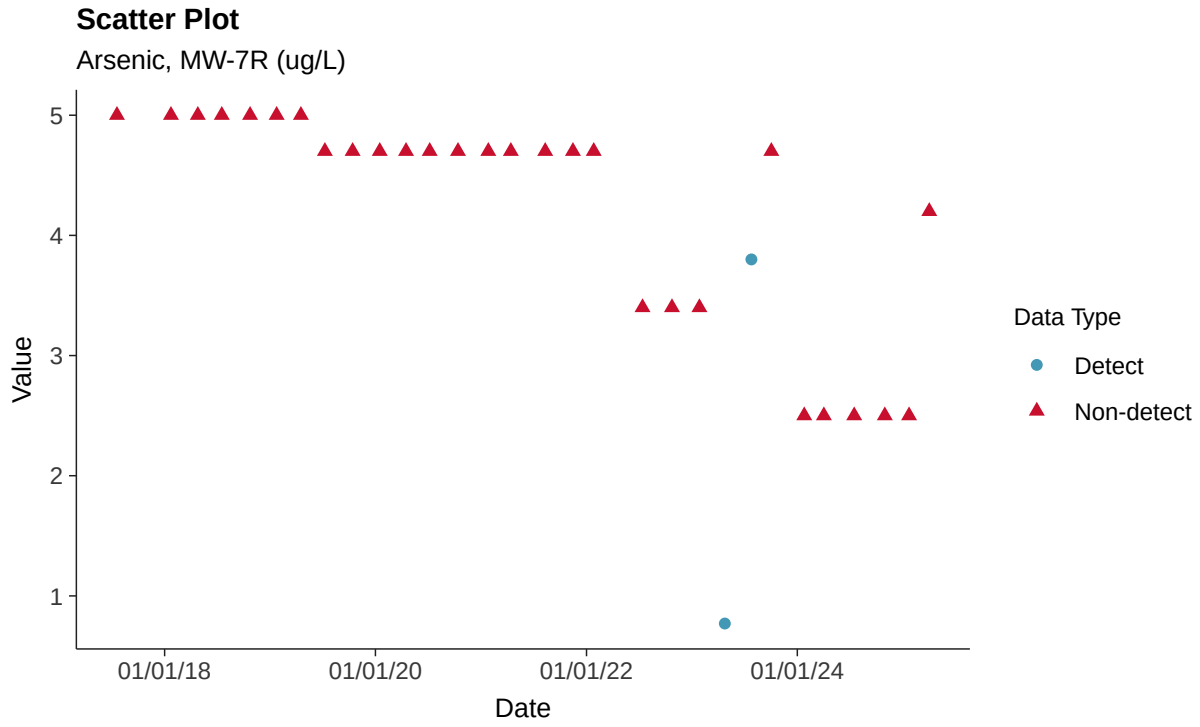
Trend Regression: Piecewise Linear-Linear-Linear

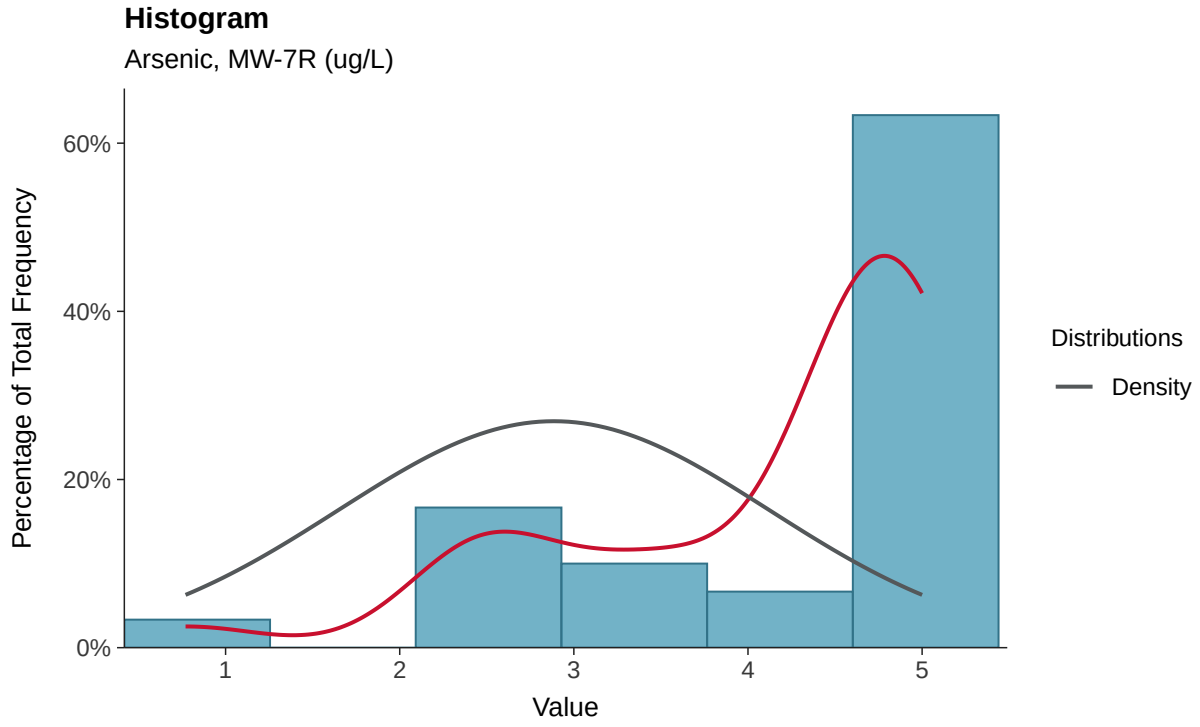
Antimony, MW-7R (ug/L)



App. IV: Arsenic, MW-7R

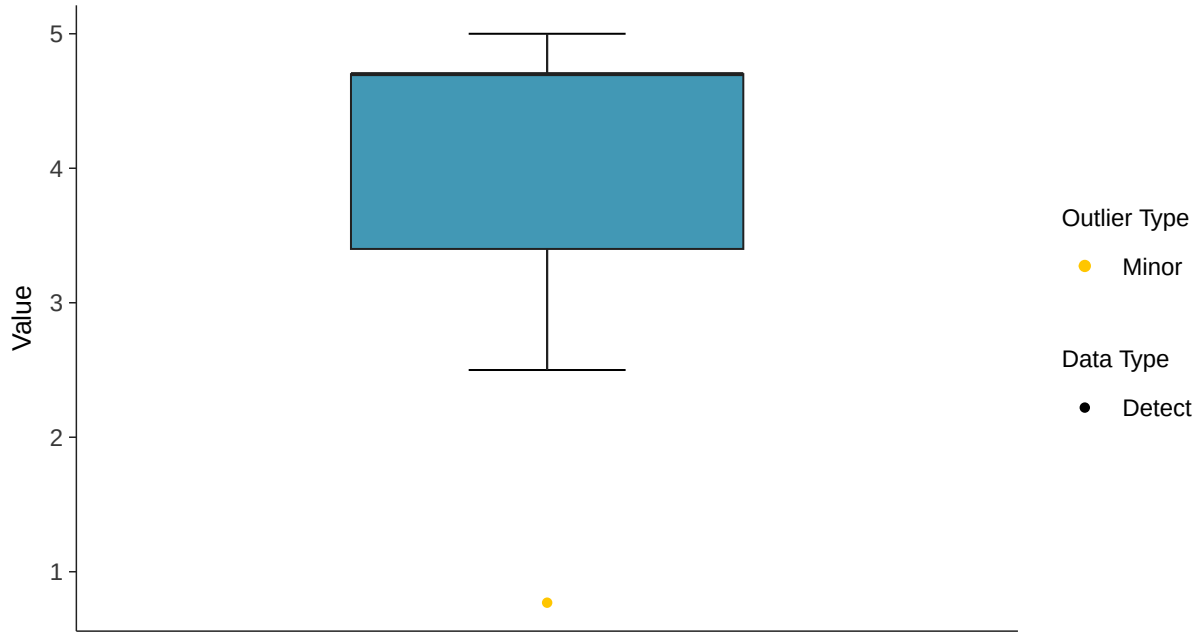
ID: 07_03_102





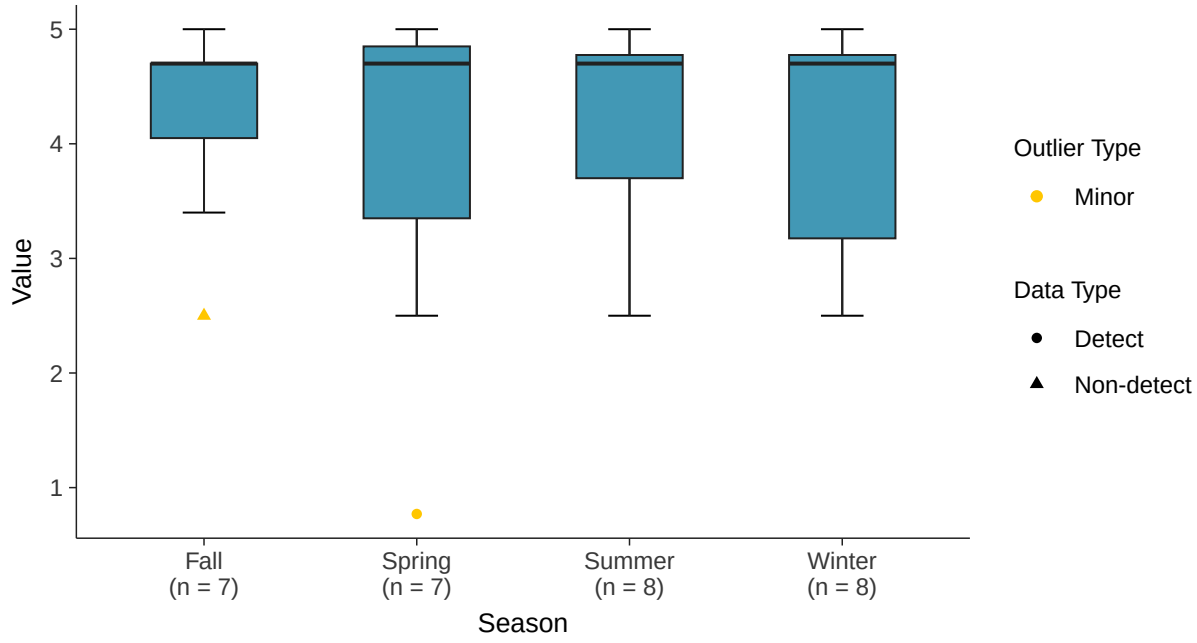
Boxplot

Arsenic, MW-7R (ug/L)



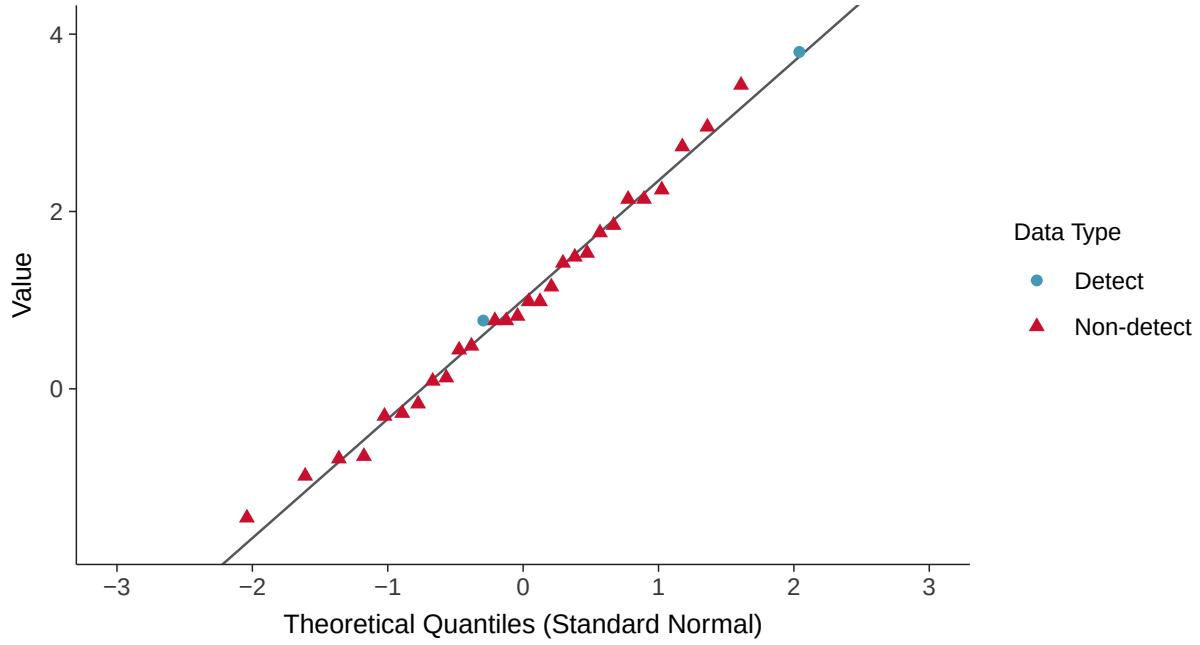
Boxplot by Season

Arsenic, MW-7R (ug/L)



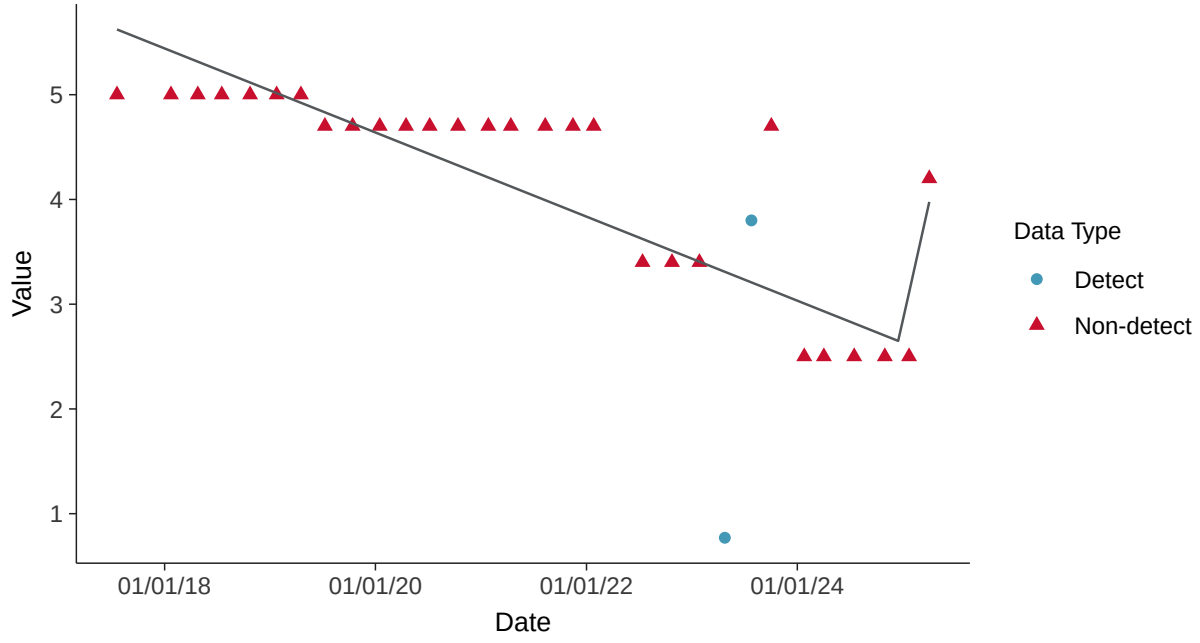
Normal Q-Q plot using ROS Imputed Estimates

Arsenic, MW-7R (ug/L)



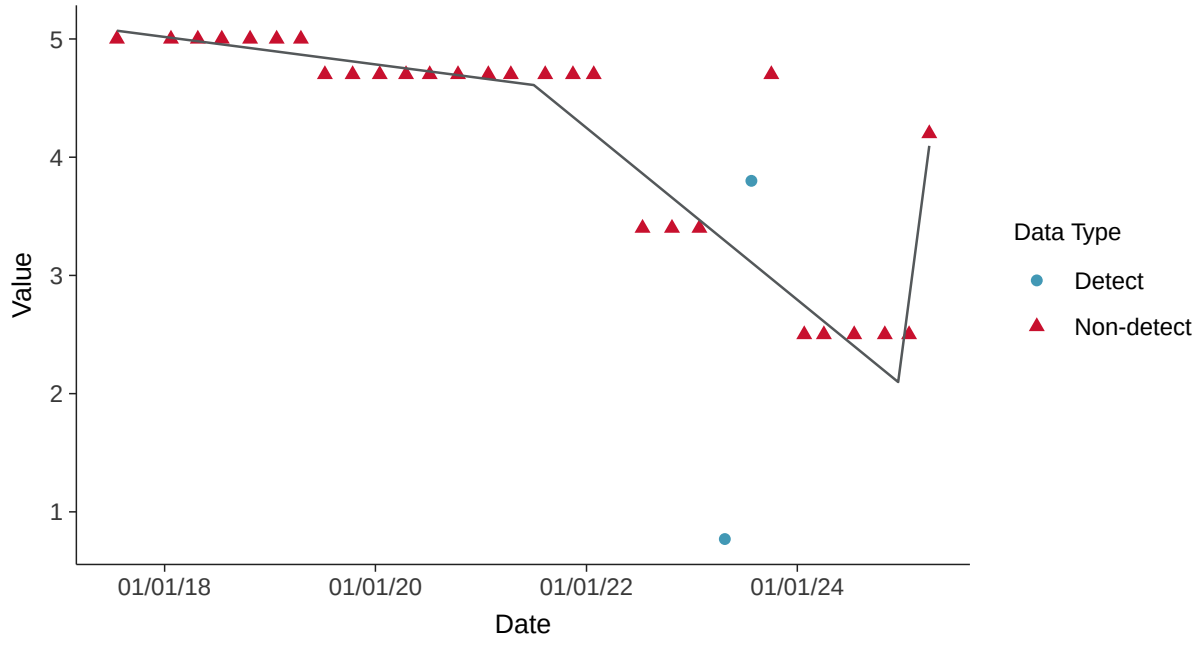
Trend Regression: Piecewise Linear-Linear

Arsenic, MW-7R (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Arsenic, MW-7R (ug/L)

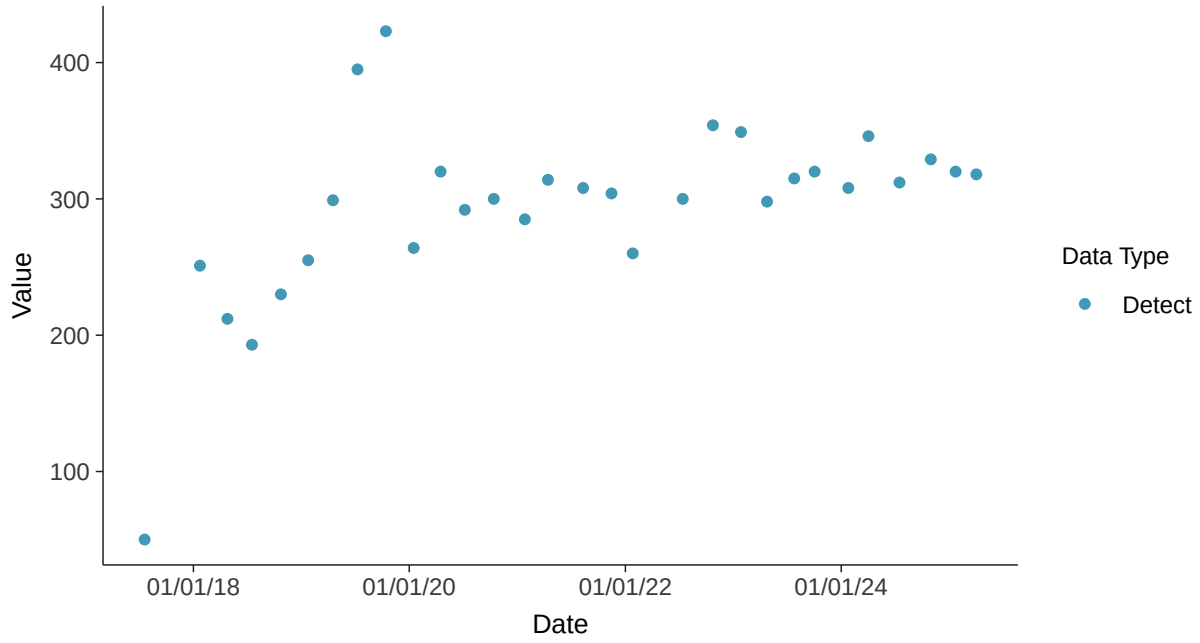


App. IV: Barium, MW-7R

ID: 07_03_103

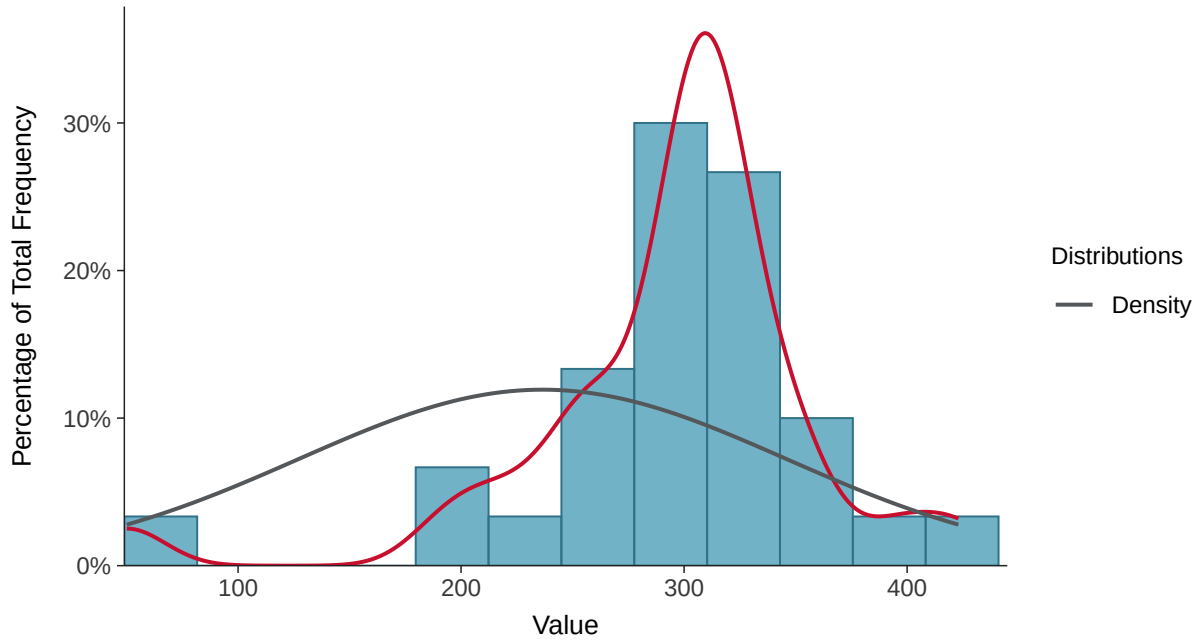
Scatter Plot

Barium, MW-7R (ug/L)



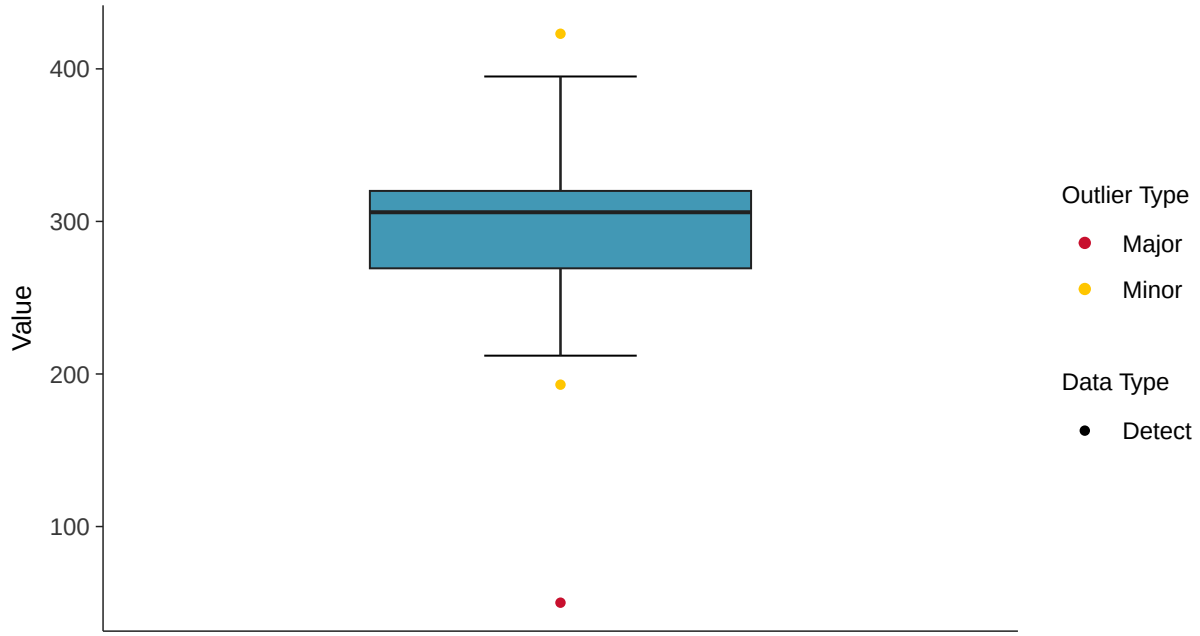
Histogram

Barium, MW-7R (ug/L)



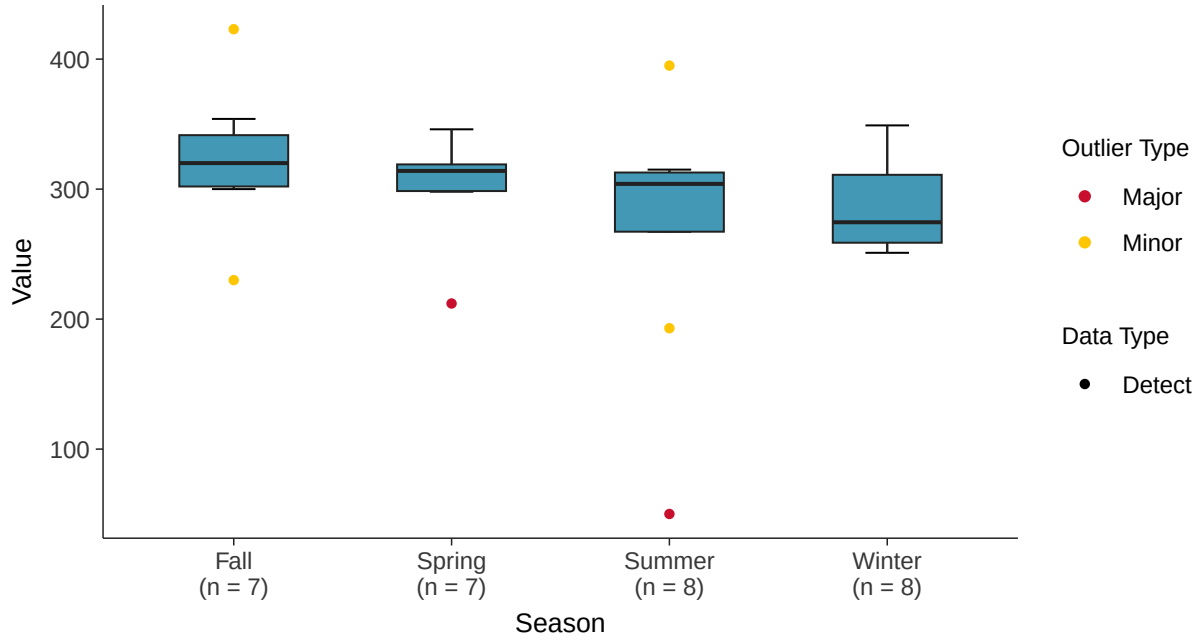
Boxplot

Barium, MW-7R (ug/L)



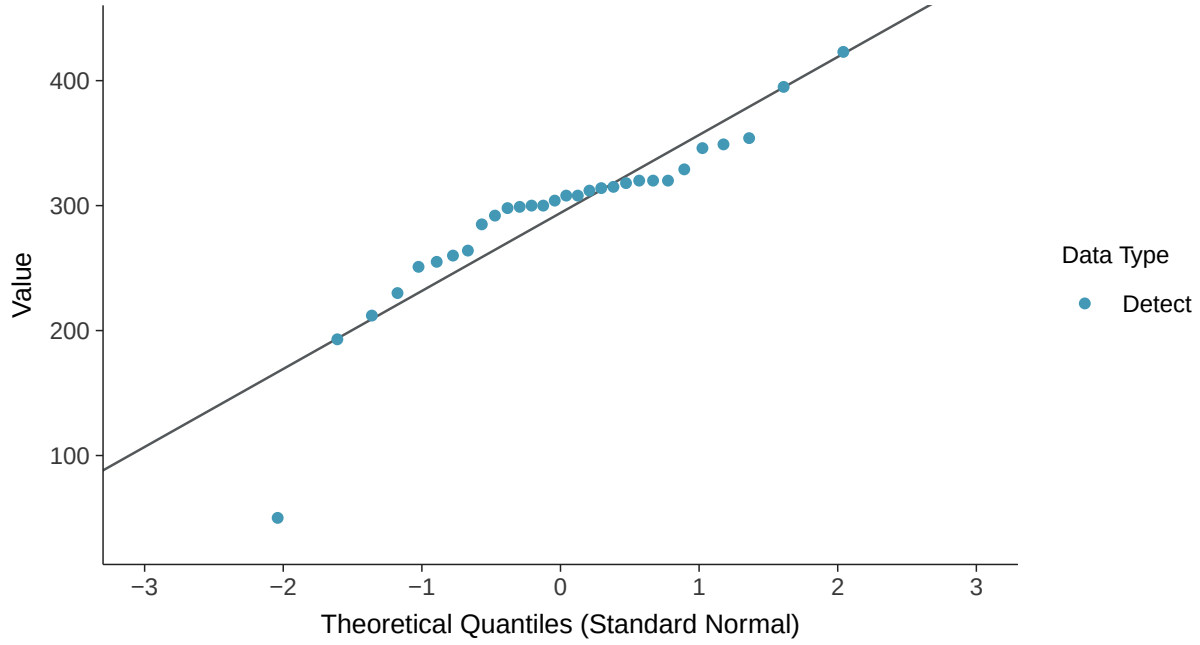
Boxplot by Season

Barium, MW-7R (ug/L)



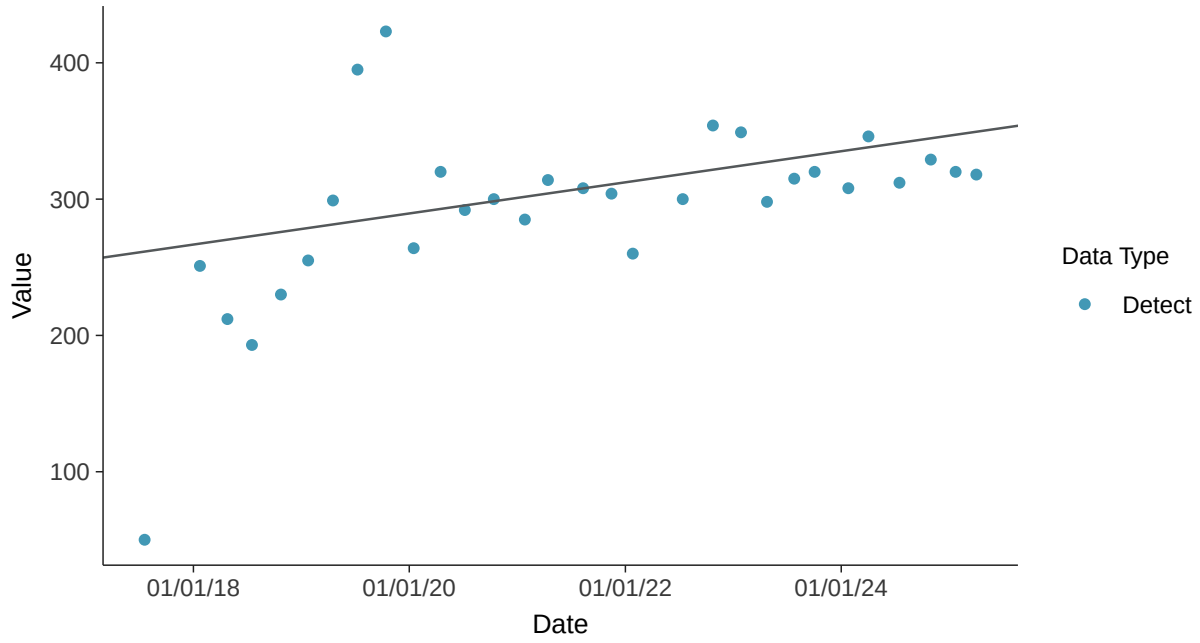
Normal Q-Q plot

Barium, MW-7R (ug/L)



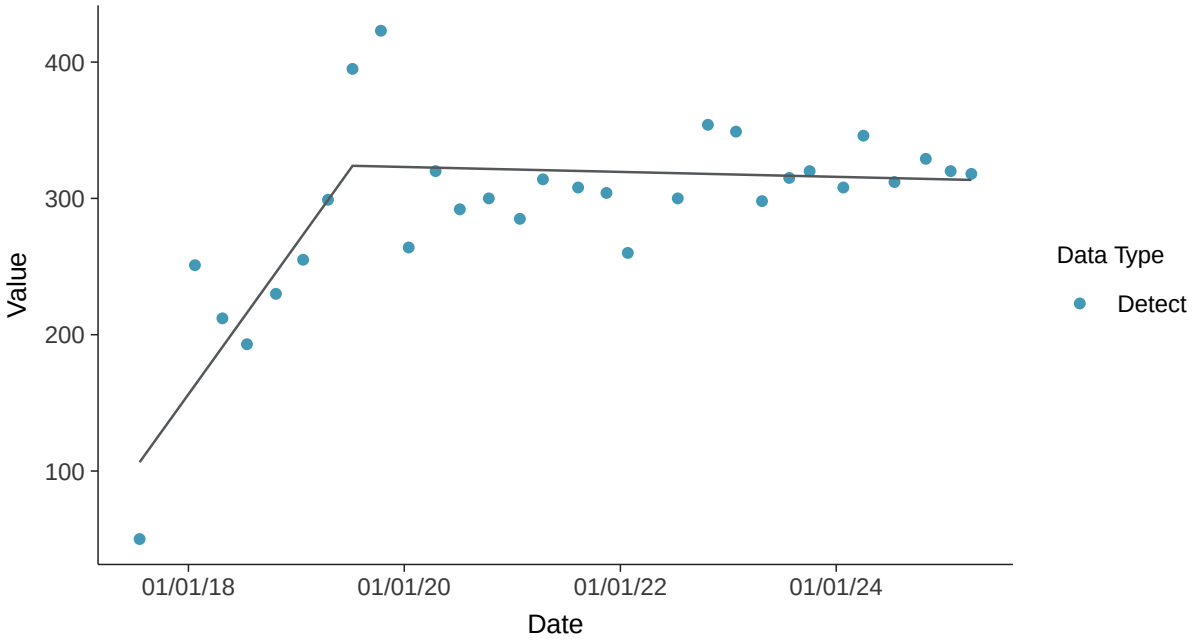
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Barium, MW-7R (ug/L)



Trend Regression: Piecewise Linear-Linear

Barium, MW-7R (ug/L)

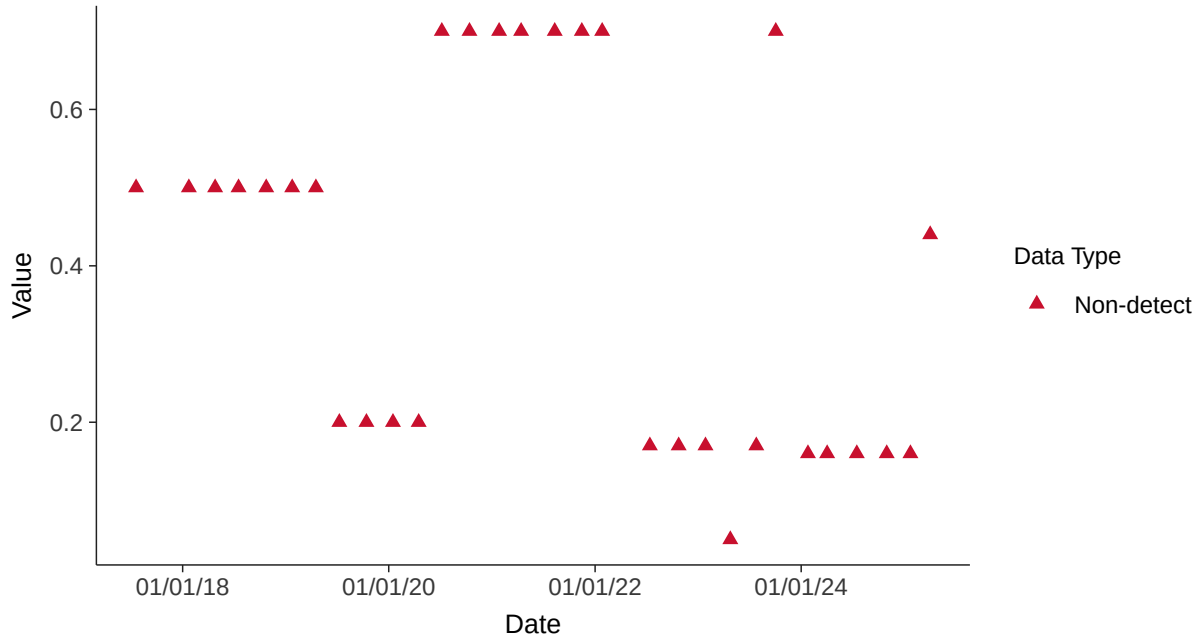


App. IV: Beryllium, MW-7R

ID: 07_03_104

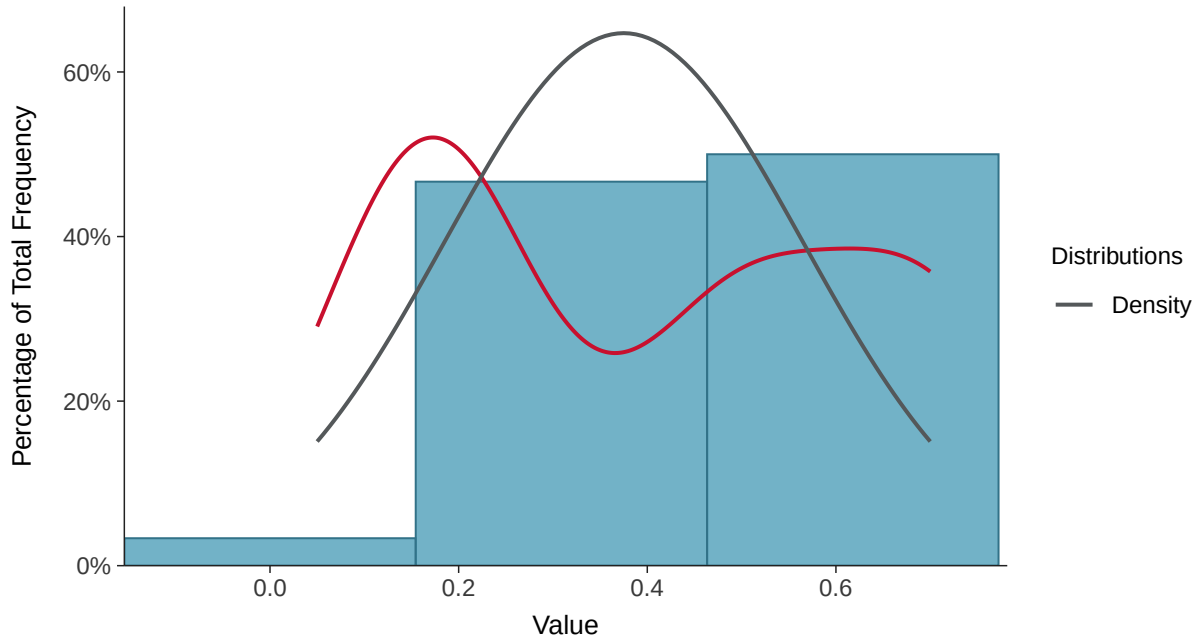
Scatter Plot

Beryllium, MW-7R (ug/L)



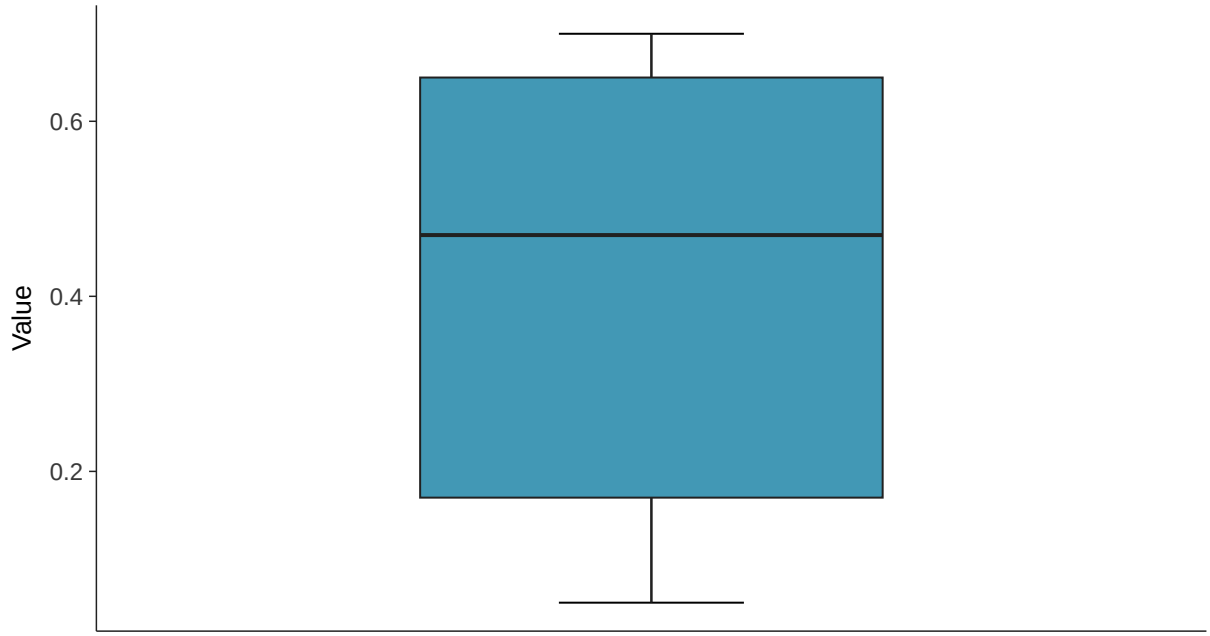
Histogram

Beryllium, MW-7R (ug/L)



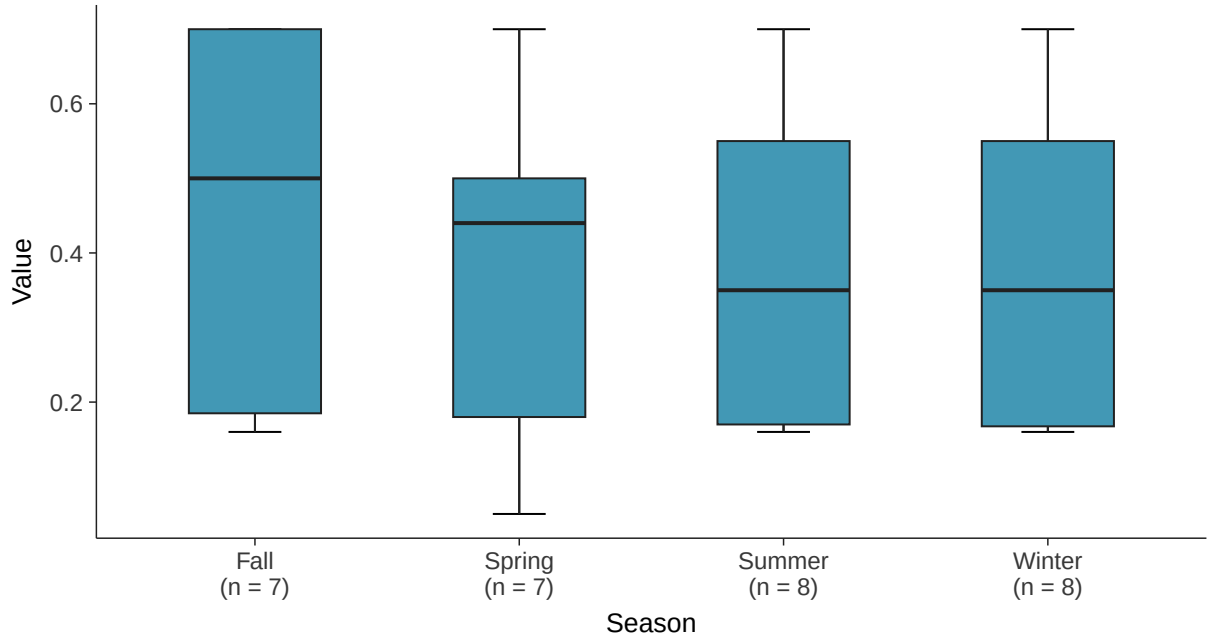
Boxplot

Beryllium, MW-7R (ug/L)



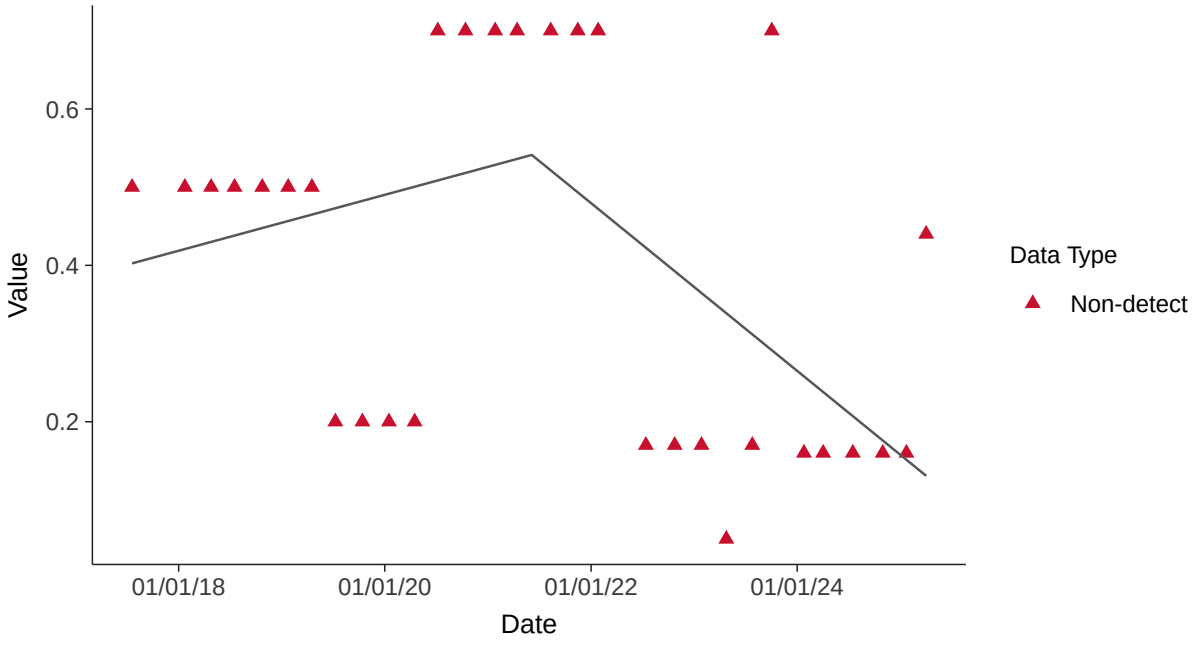
Boxplot by Season

Beryllium, MW-7R (ug/L)



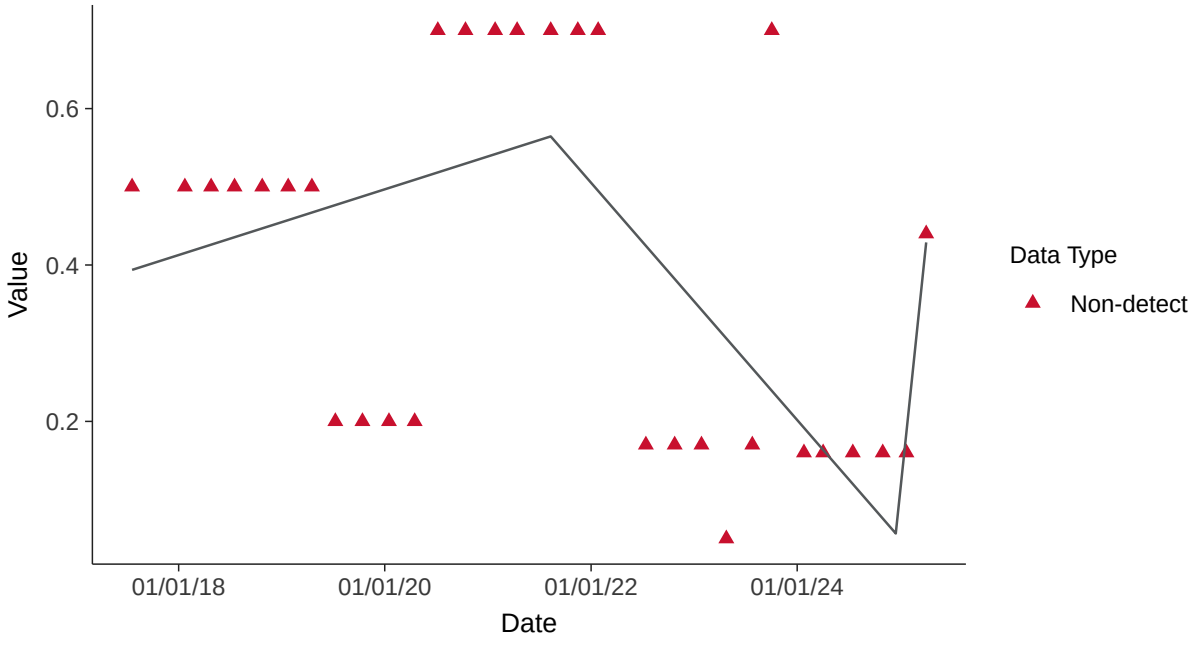
Trend Regression: Piecewise Linear-Linear

Beryllium, MW-7R (ug/L)



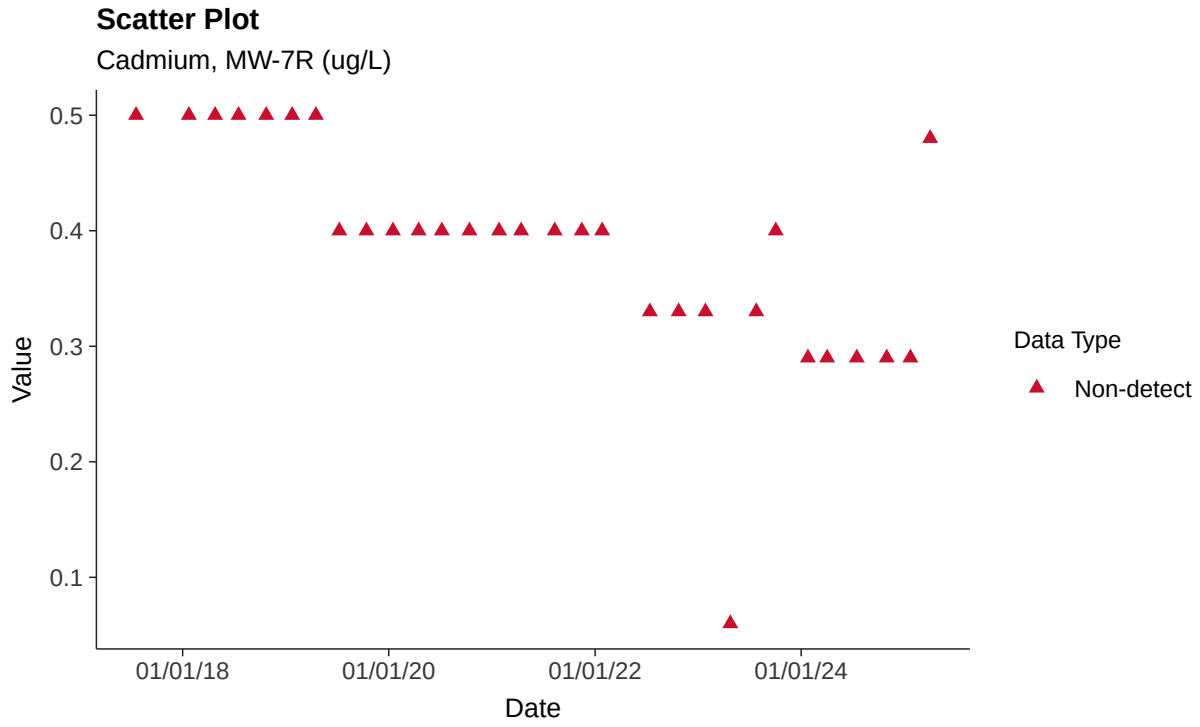
Trend Regression: Piecewise Linear-Linear-Linear

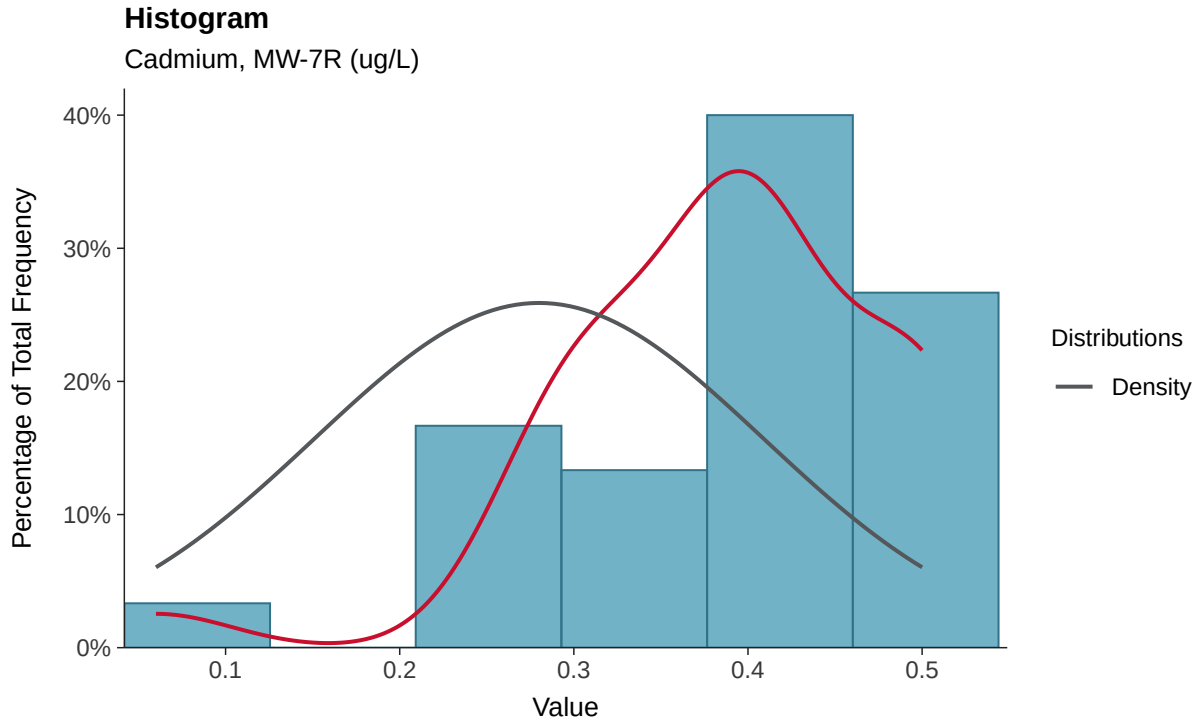
Beryllium, MW-7R (ug/L)



App. IV: Cadmium, MW-7R

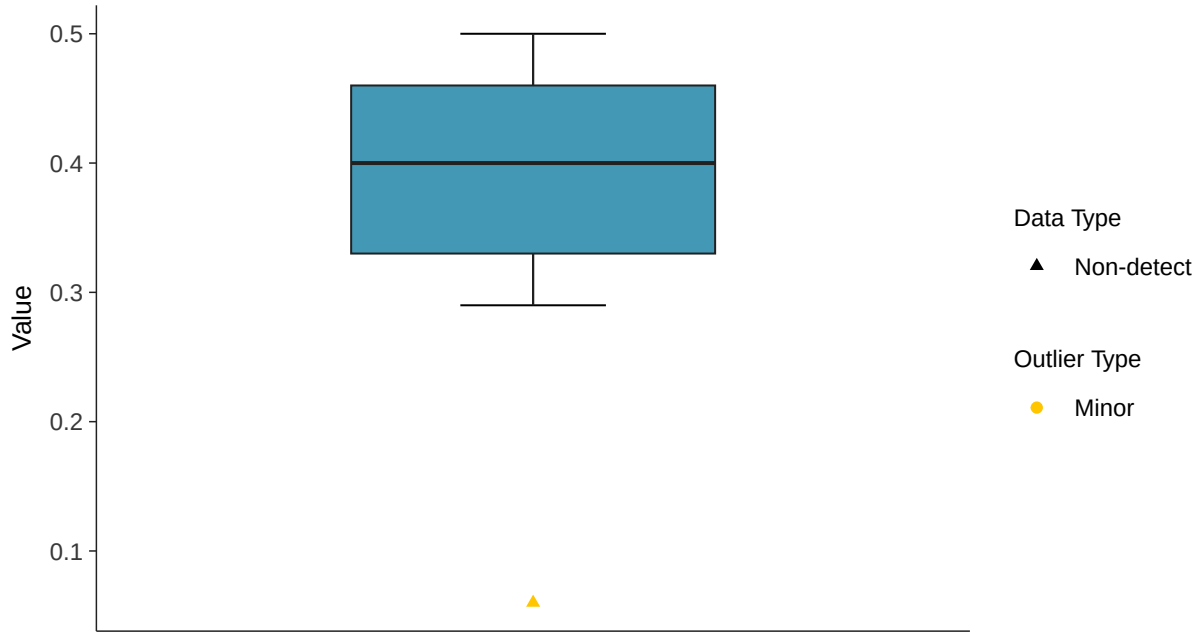
ID: 07_03_106





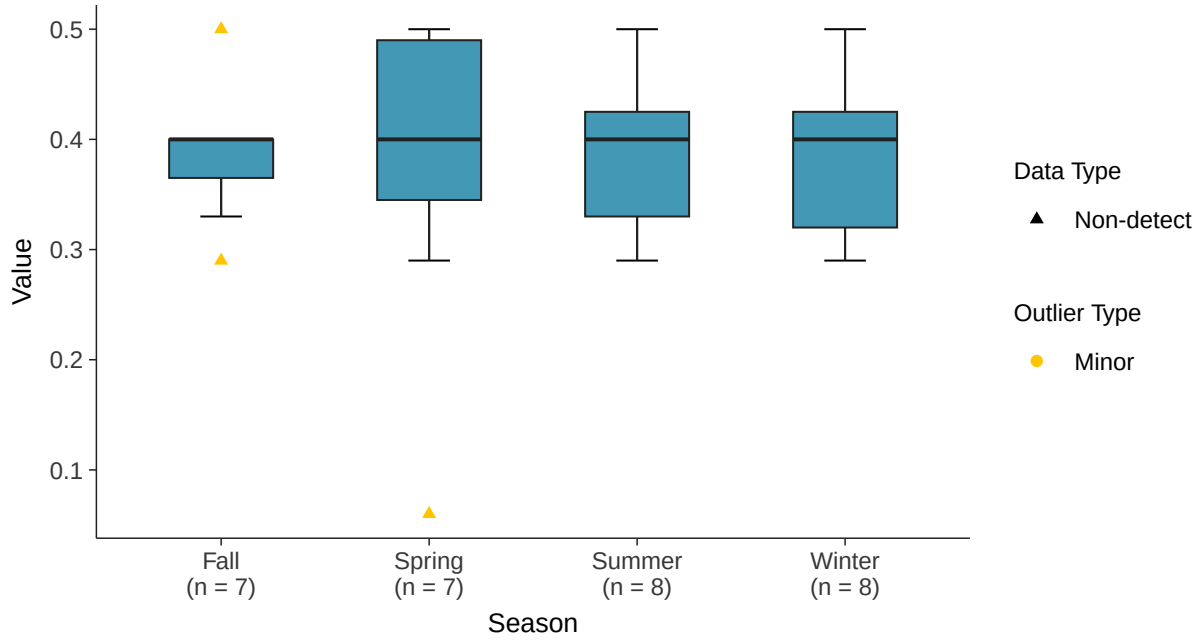
Boxplot

Cadmium, MW-7R (ug/L)



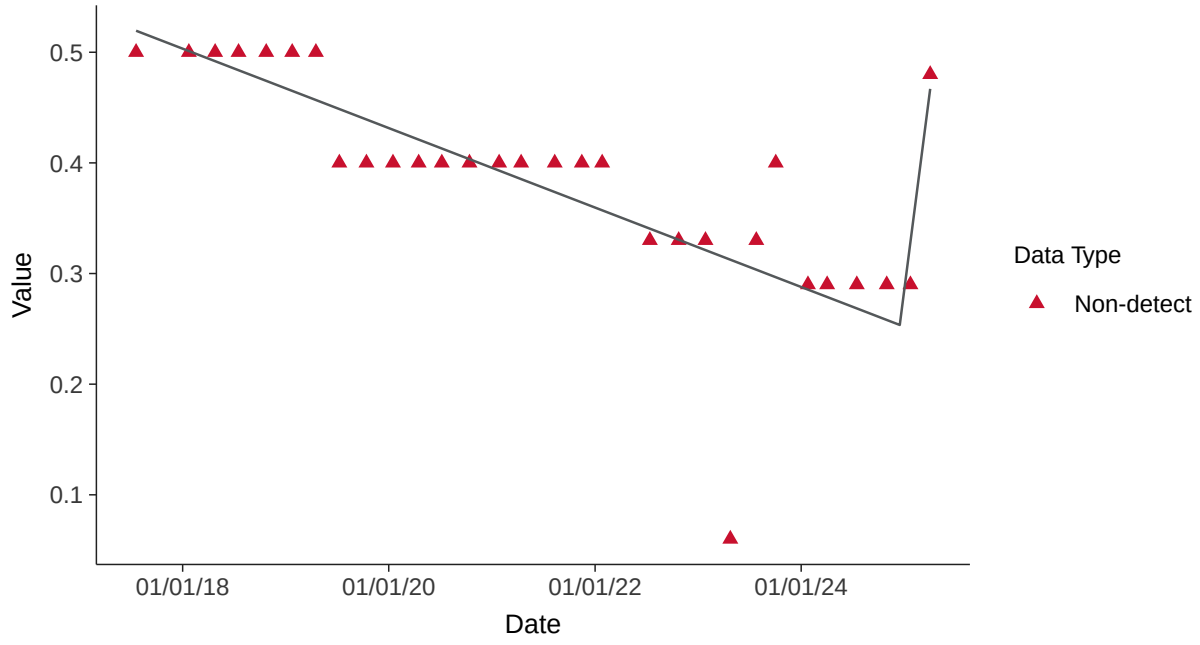
Boxplot by Season

Cadmium, MW-7R (ug/L)



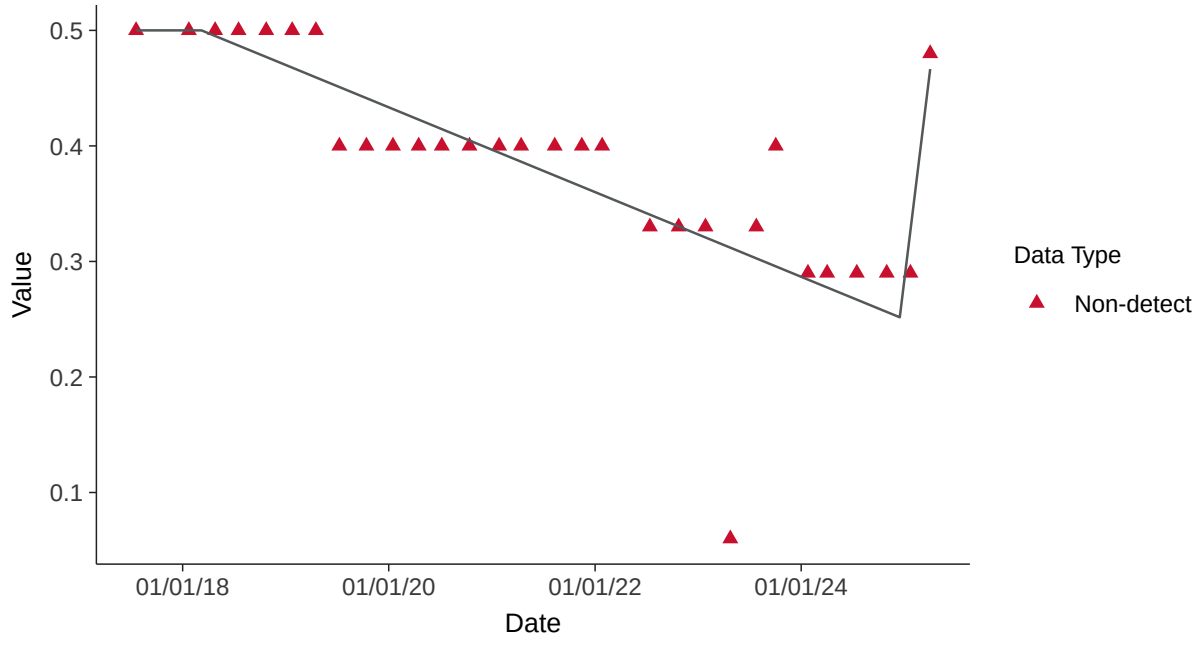
Trend Regression: Piecewise Linear-Linear

Cadmium, MW-7R (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Cadmium, MW-7R (ug/L)

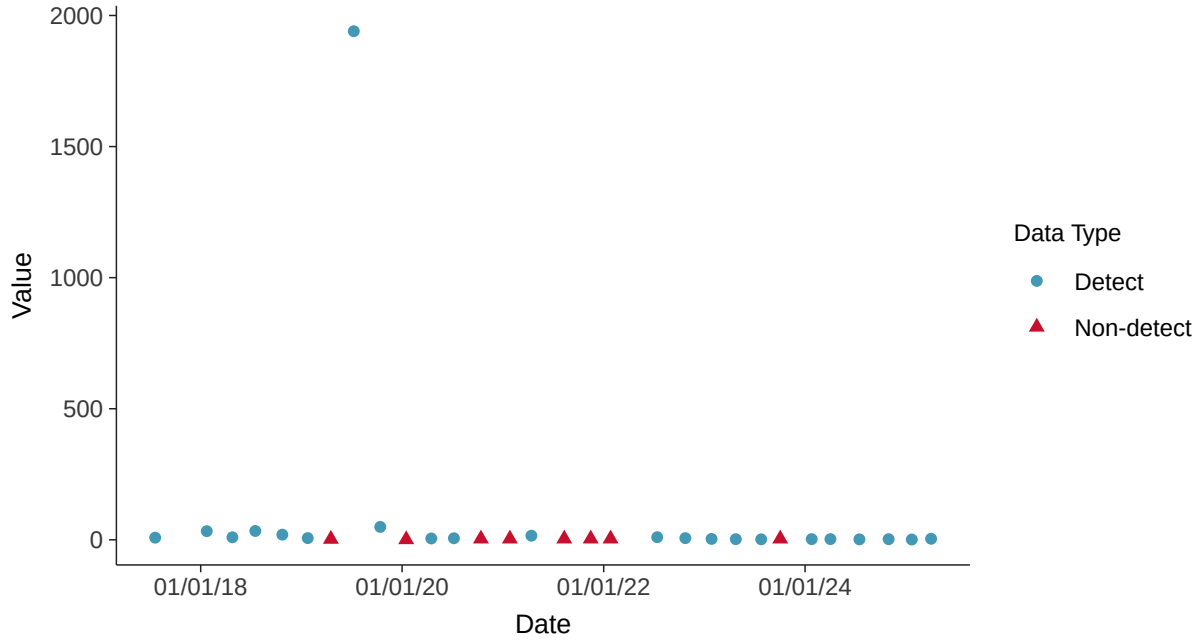


App. IV: Chromium, MW-7R

ID: 07_03_109

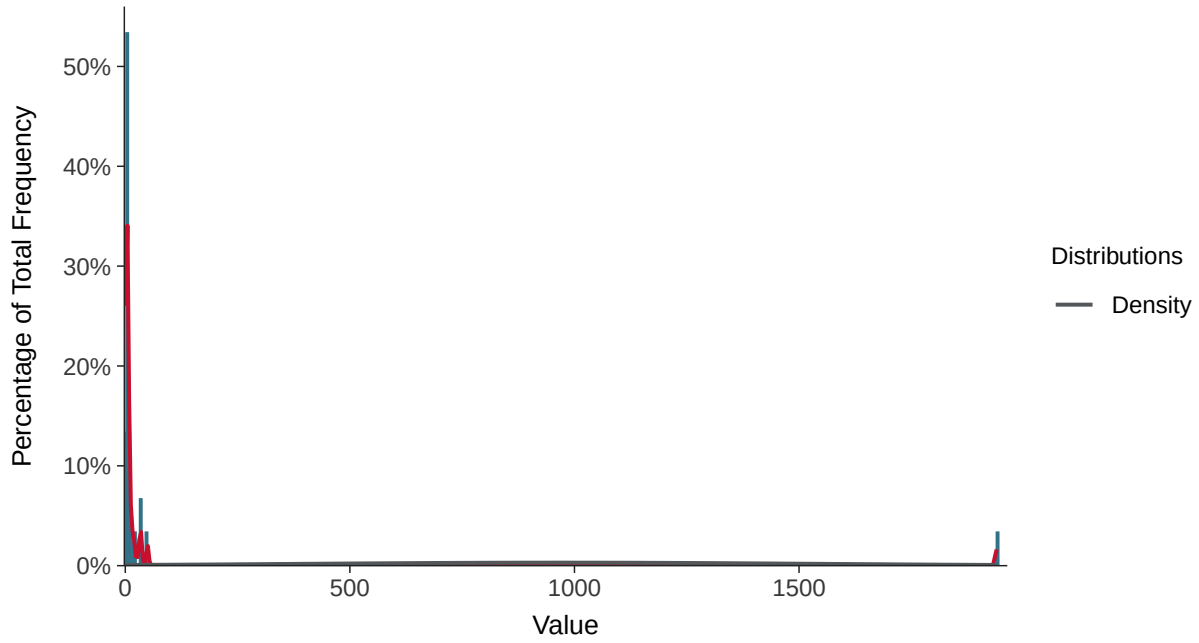
Scatter Plot

Chromium, MW-7R (ug/L)



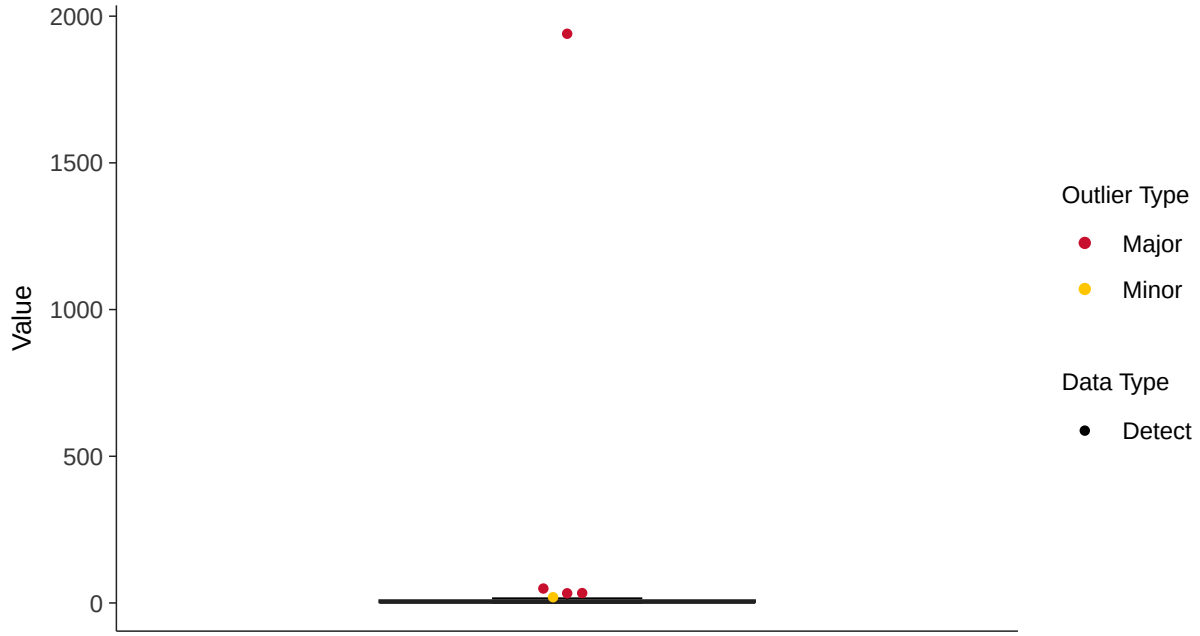
Histogram

Chromium, MW-7R (ug/L)



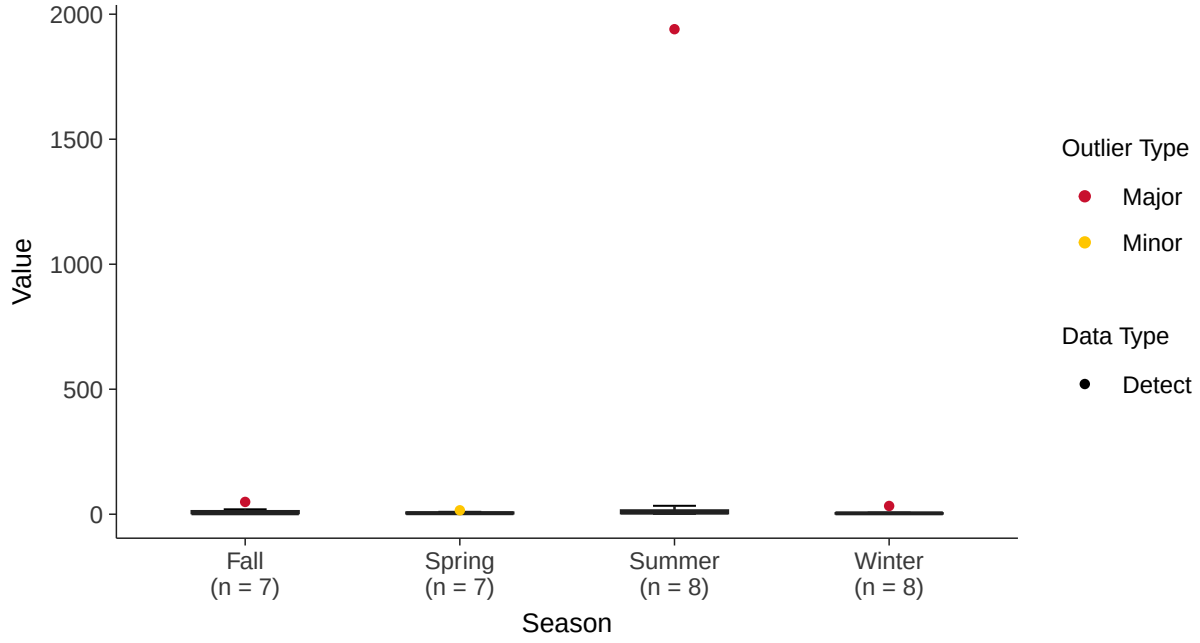
Boxplot

Chromium, MW-7R (ug/L)



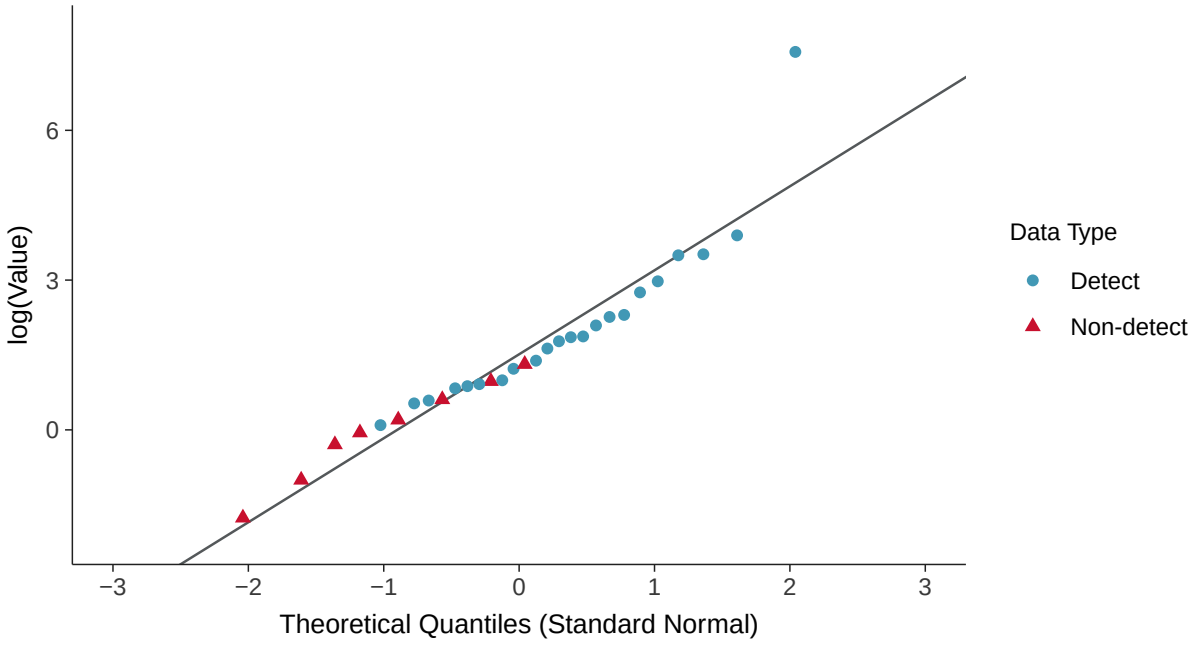
Boxplot by Season

Chromium, MW-7R (ug/L)



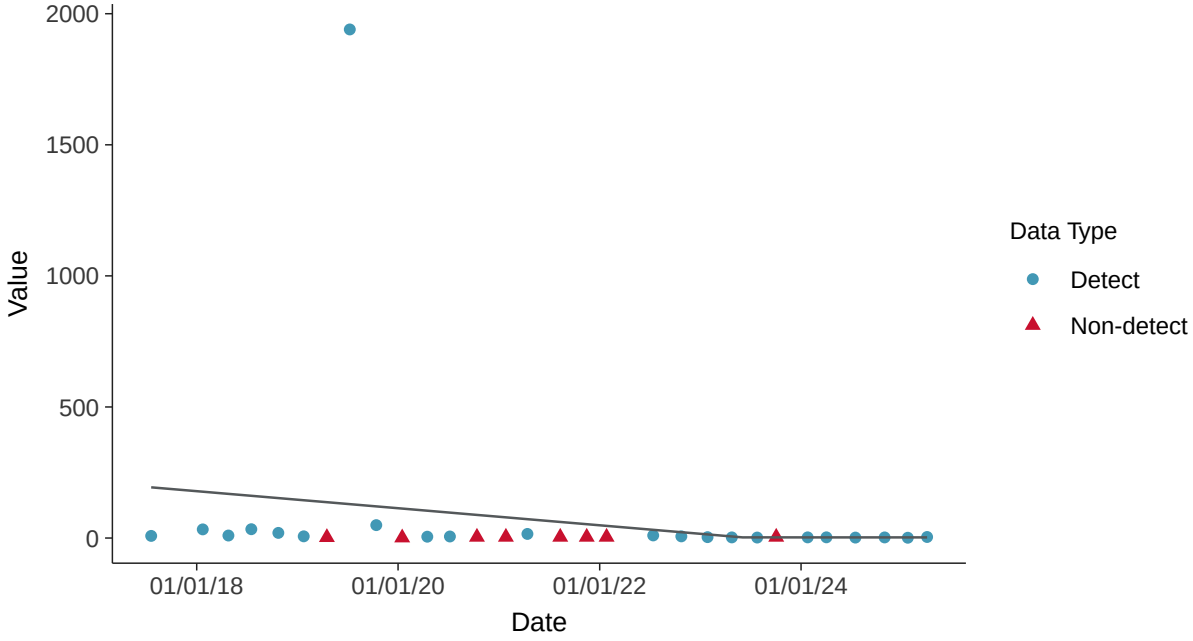
Lognormal Q-Q plot using ROS Imputed Estimates

Chromium, MW-7R (ug/L)



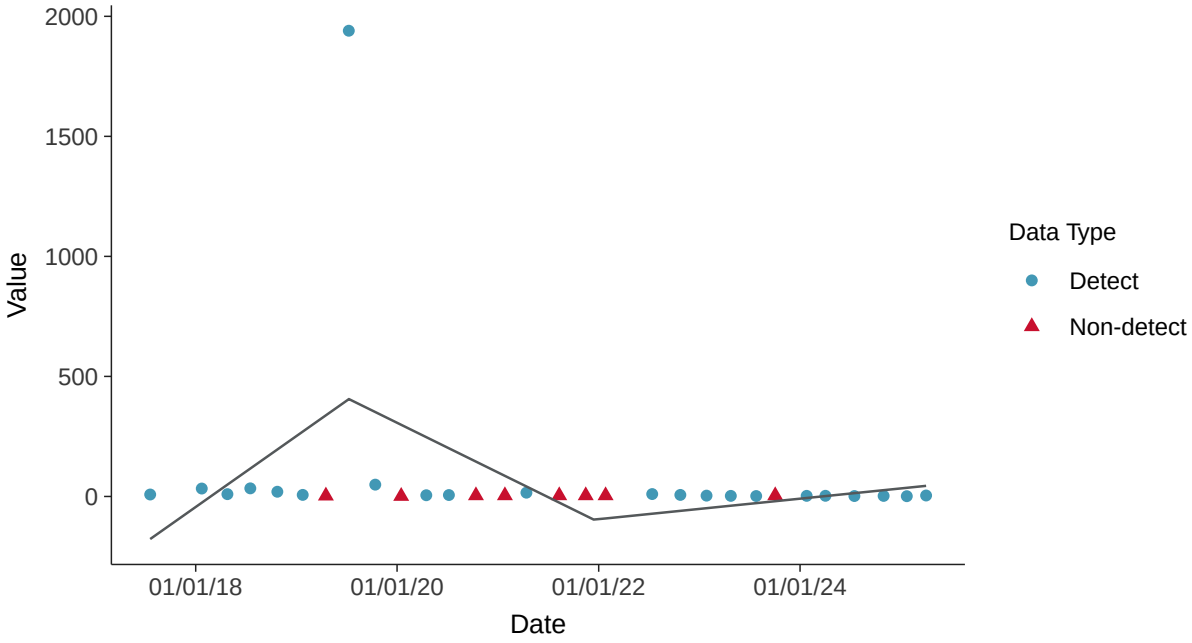
Trend Regression: Piecewise Linear-Linear

Chromium, MW-7R (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Chromium, MW-7R (ug/L)

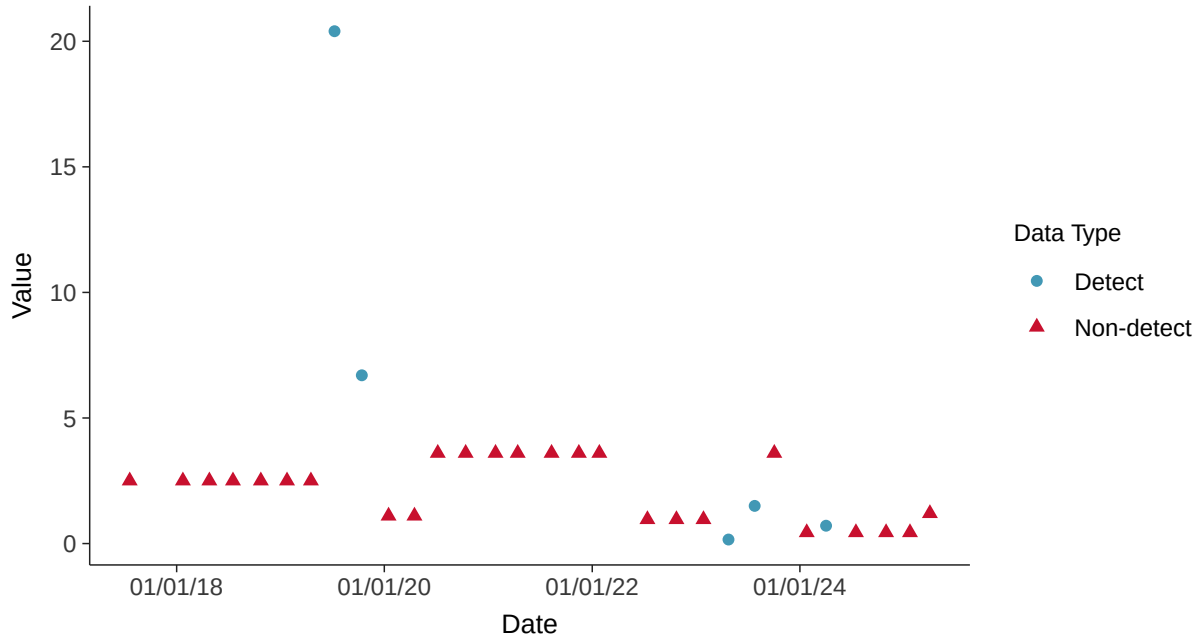


App. IV: Cobalt, MW-7R

ID: 07_03_110

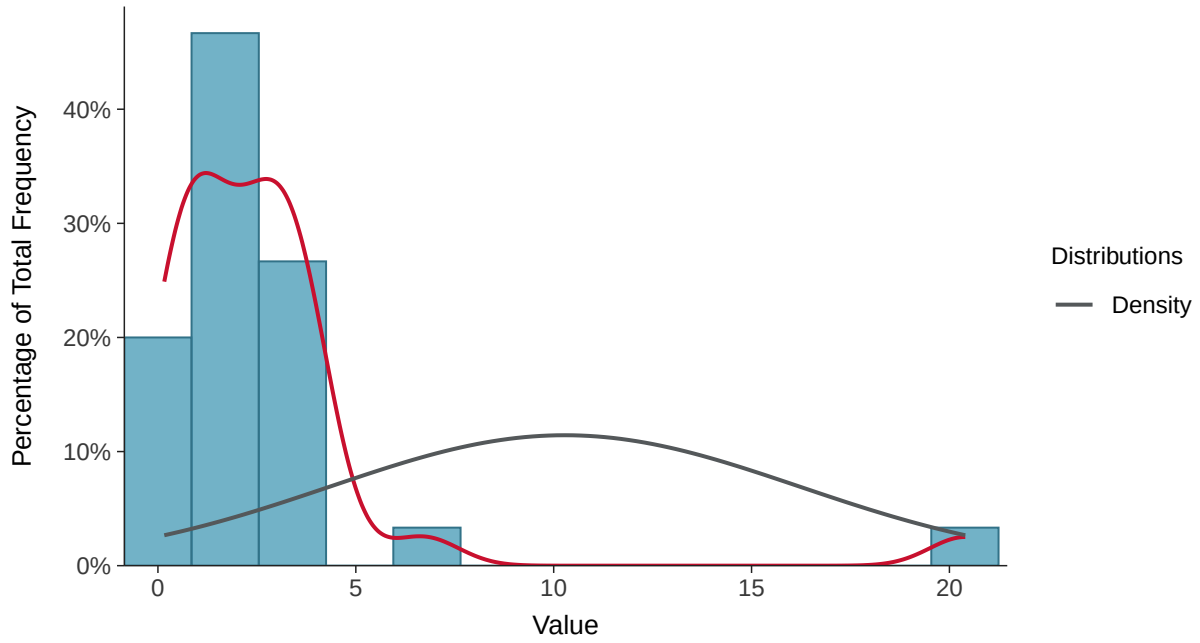
Scatter Plot

Cobalt, MW-7R (ug/L)



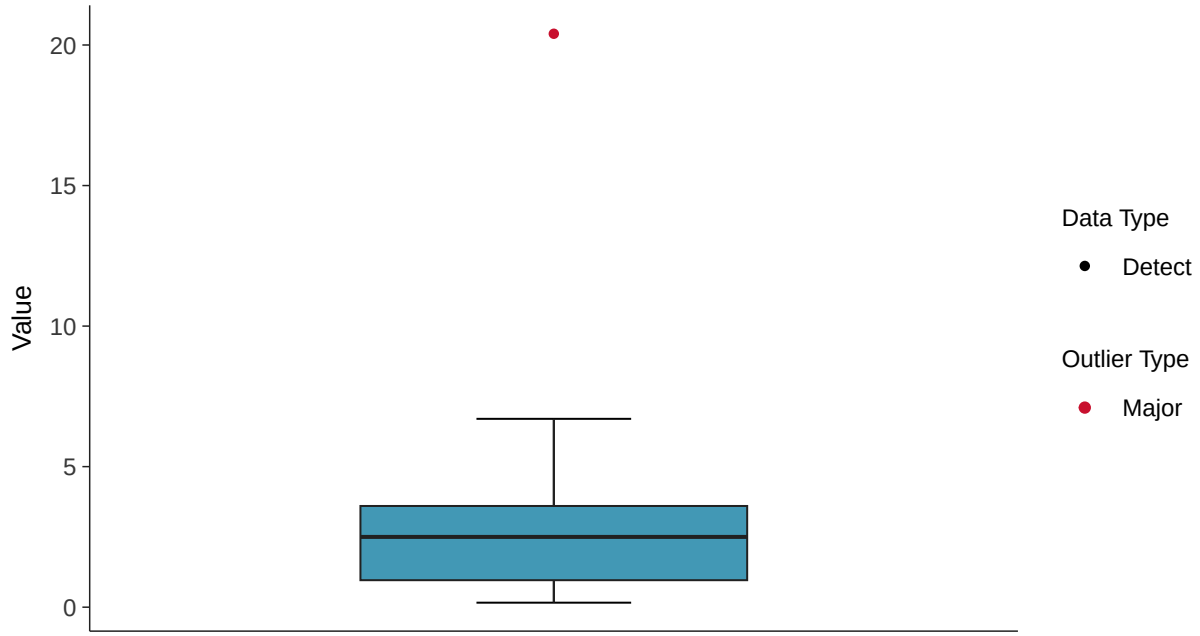
Histogram

Cobalt, MW-7R (ug/L)



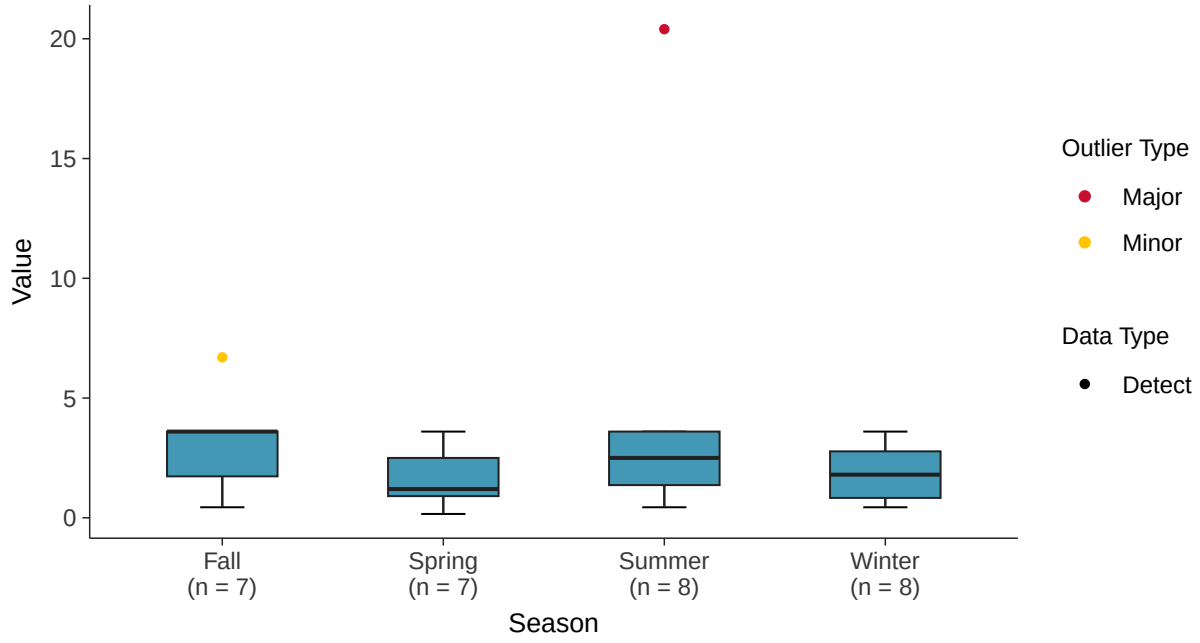
Boxplot

Cobalt, MW-7R (ug/L)



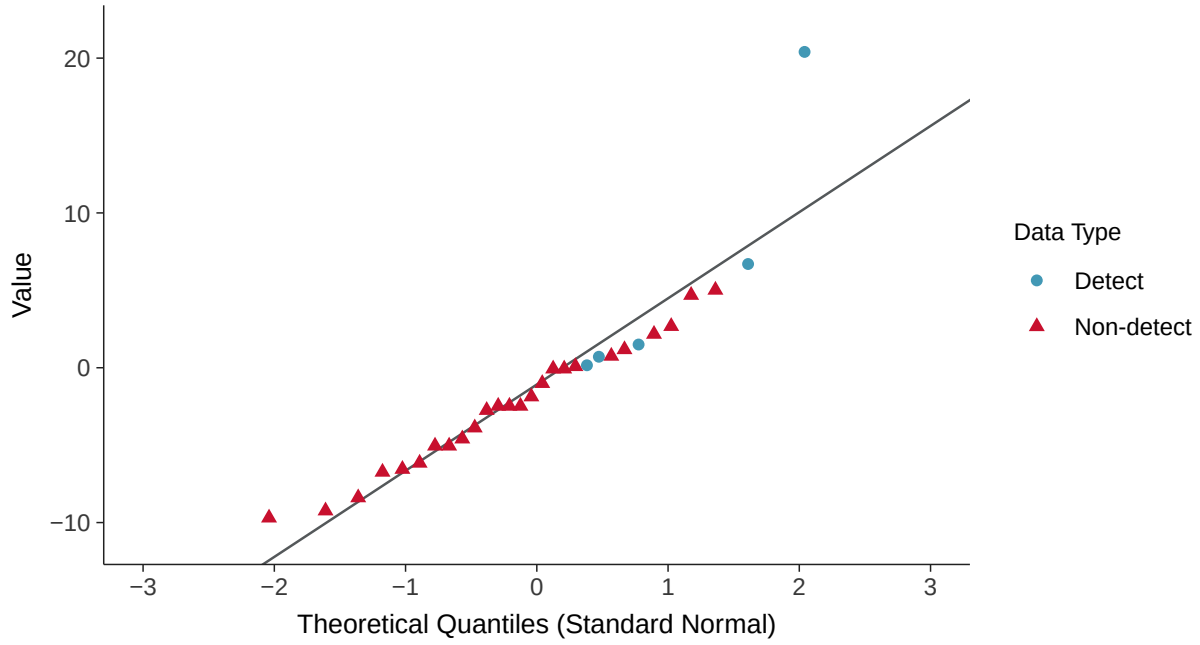
Boxplot by Season

Cobalt, MW-7R (ug/L)



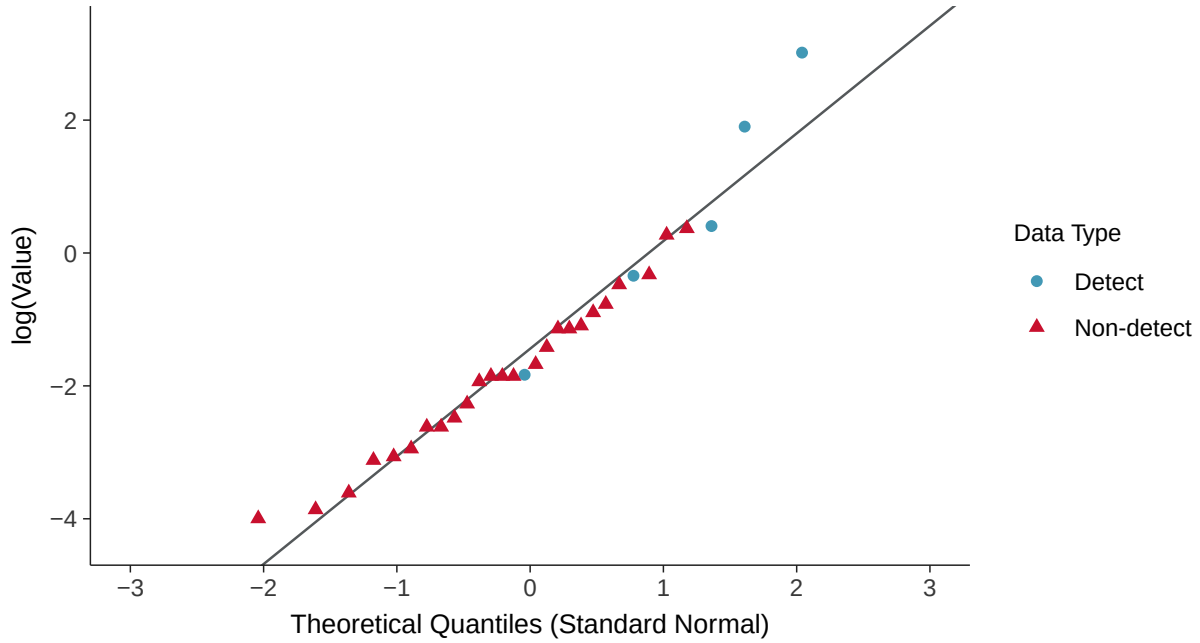
Normal Q-Q plot using ROS Imputed Estimates

Cobalt, MW-7R (ug/L)



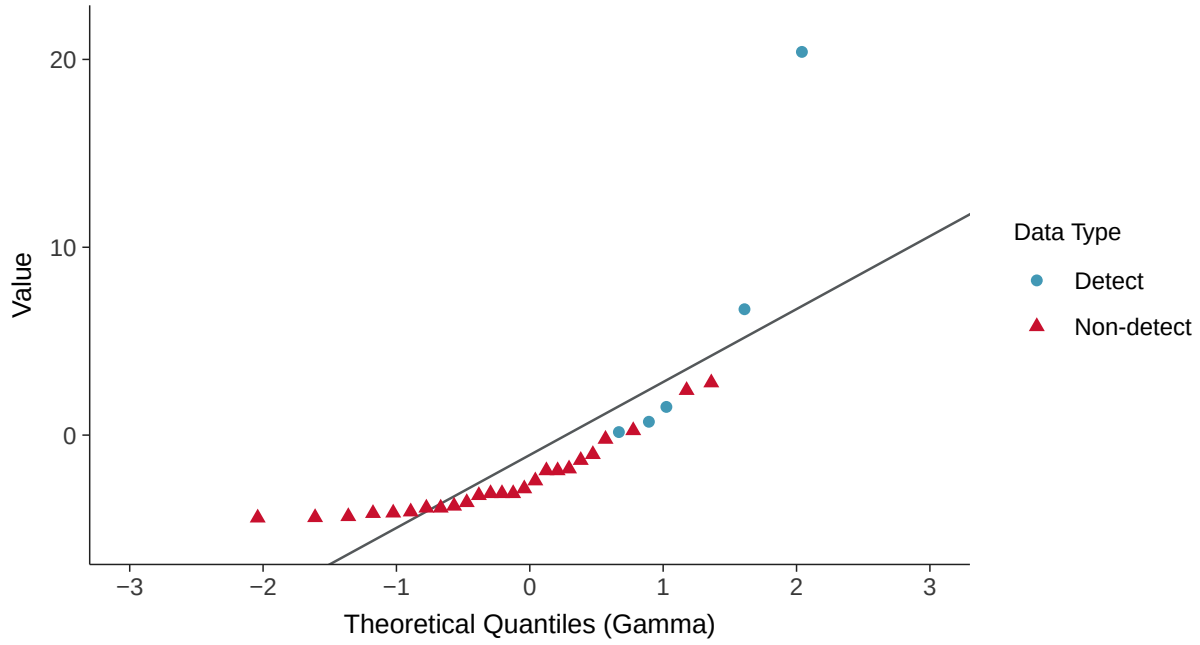
Lognormal Q-Q plot using ROS Imputed Estimates

Cobalt, MW-7R (ug/L)



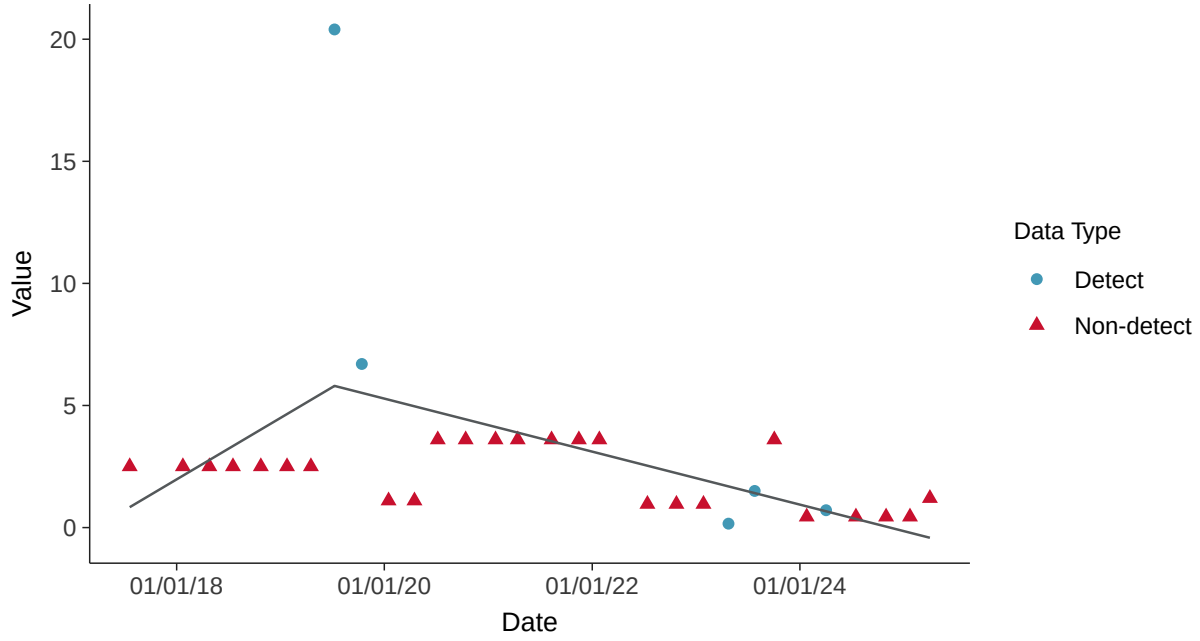
Gamma Q-Q plot using ROS Imputed Estimates

Cobalt, MW-7R (ug/L)



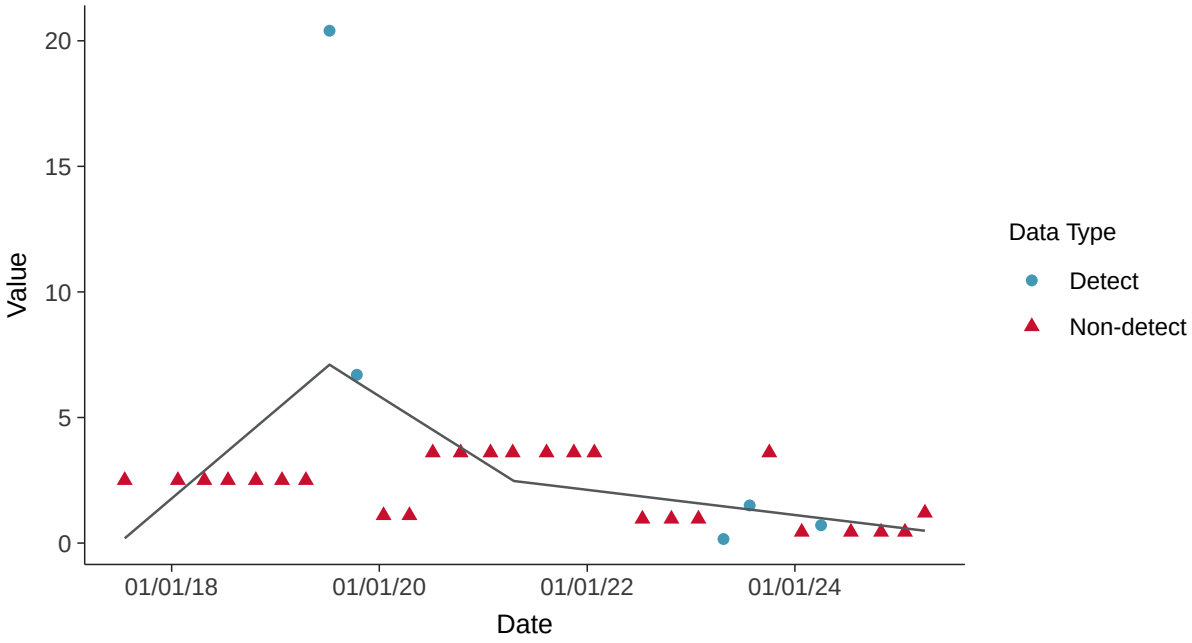
Trend Regression: Piecewise Linear-Linear

Cobalt, MW-7R (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Cobalt, MW-7R (ug/L)

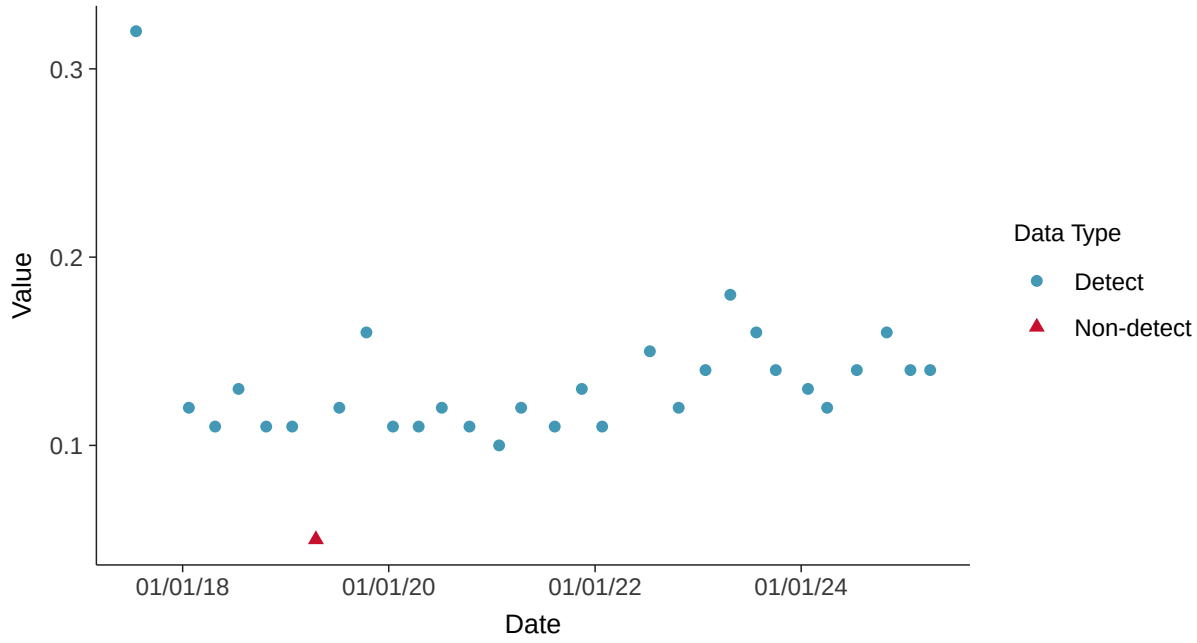


App. IV: Fluoride, MW-7R

ID: 07_03_112

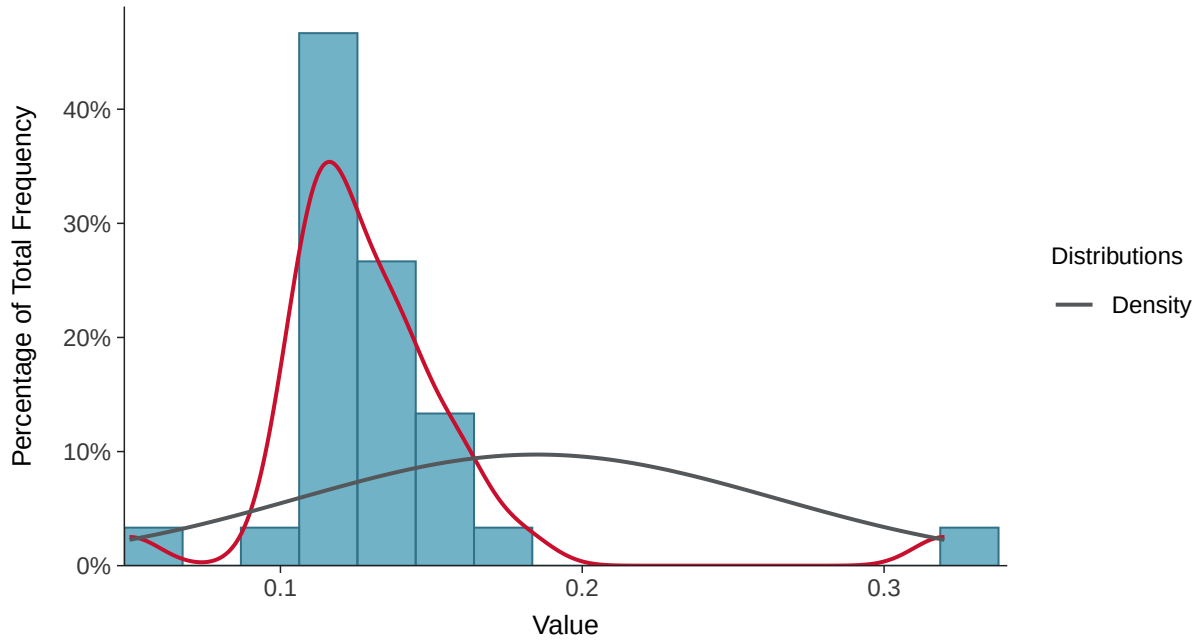
Scatter Plot

Fluoride, MW-7R (mg/L)



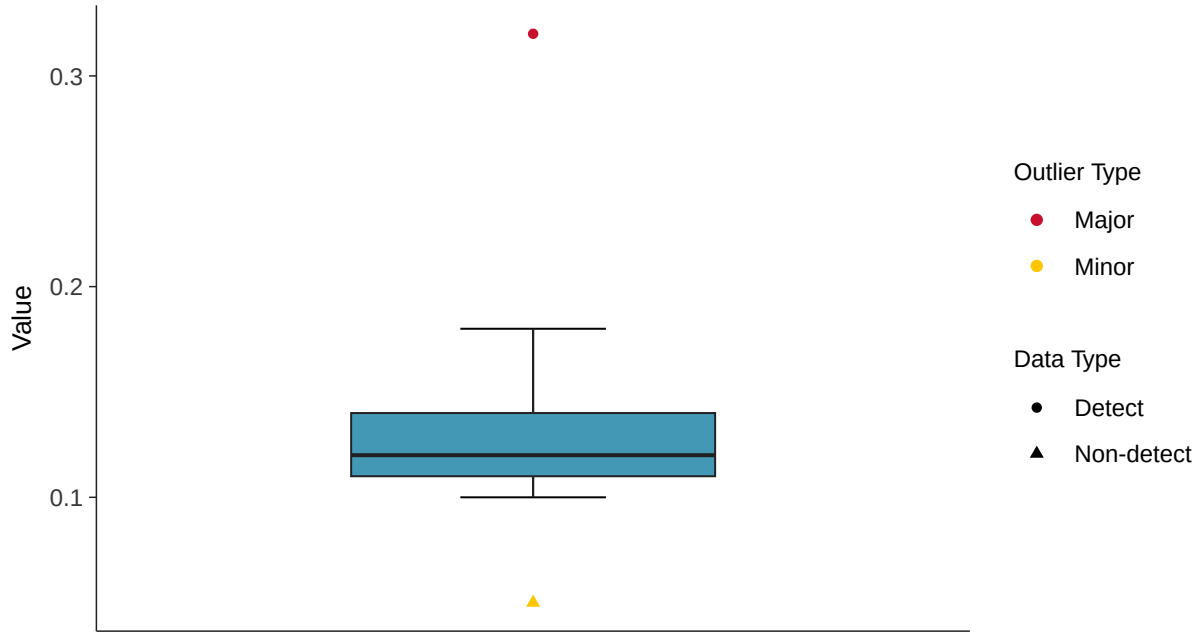
Histogram

Fluoride, MW-7R (mg/L)



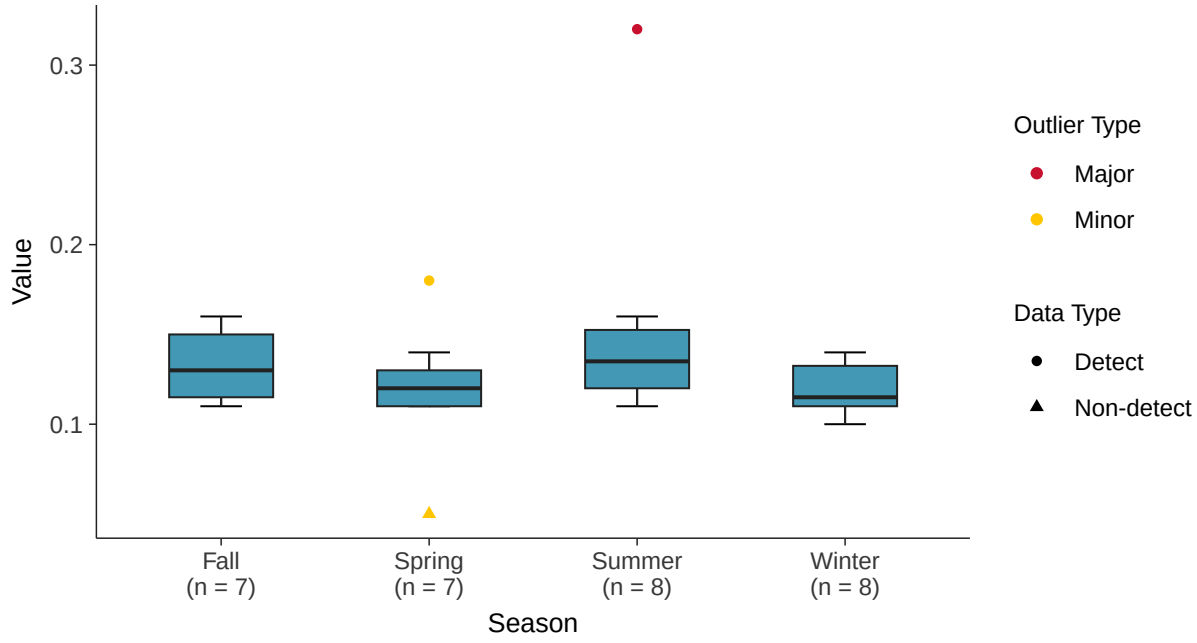
Boxplot

Fluoride, MW-7R (mg/L)



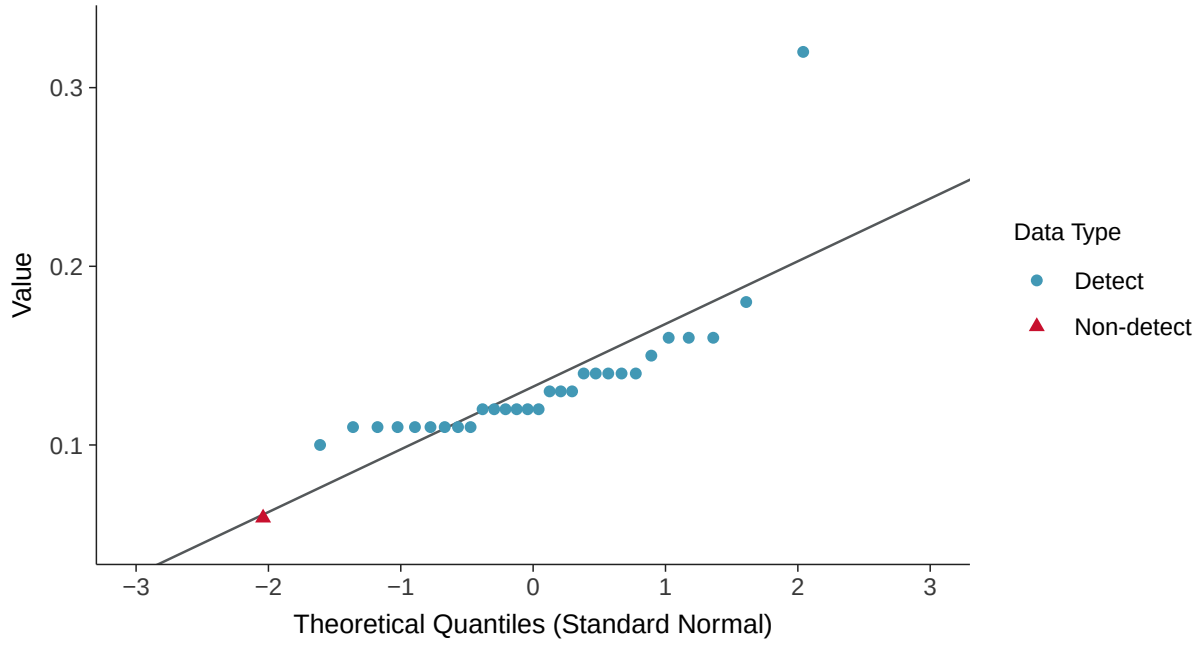
Boxplot by Season

Fluoride, MW-7R (mg/L)



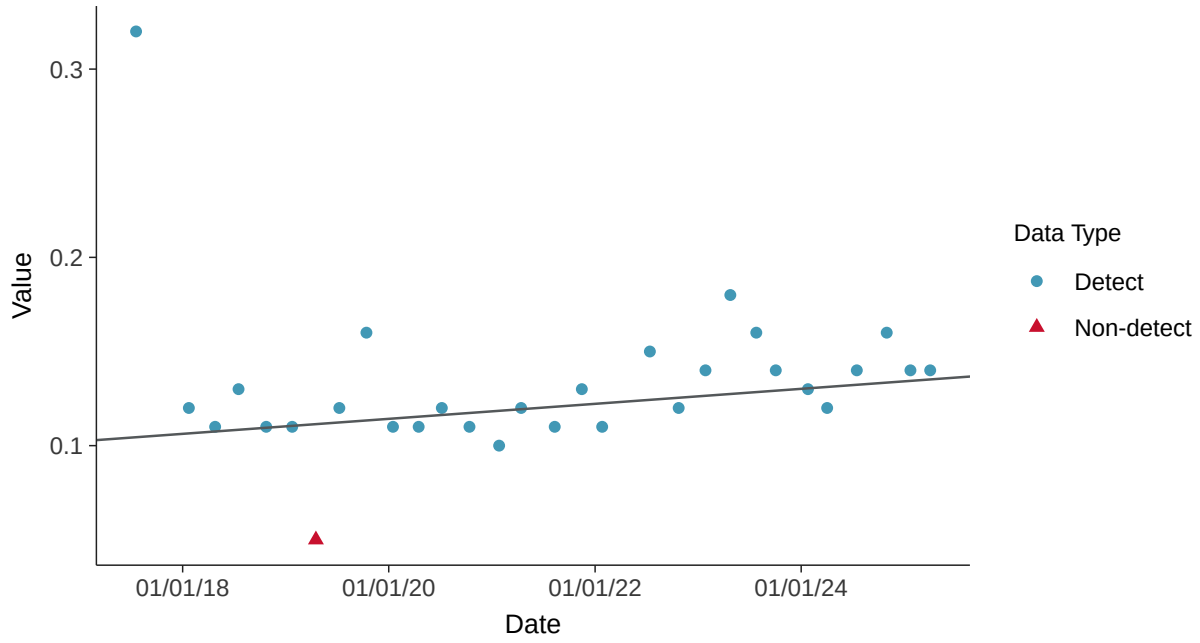
Normal Q-Q plot using ROS Imputed Estimates

Fluoride, MW-7R (mg/L)



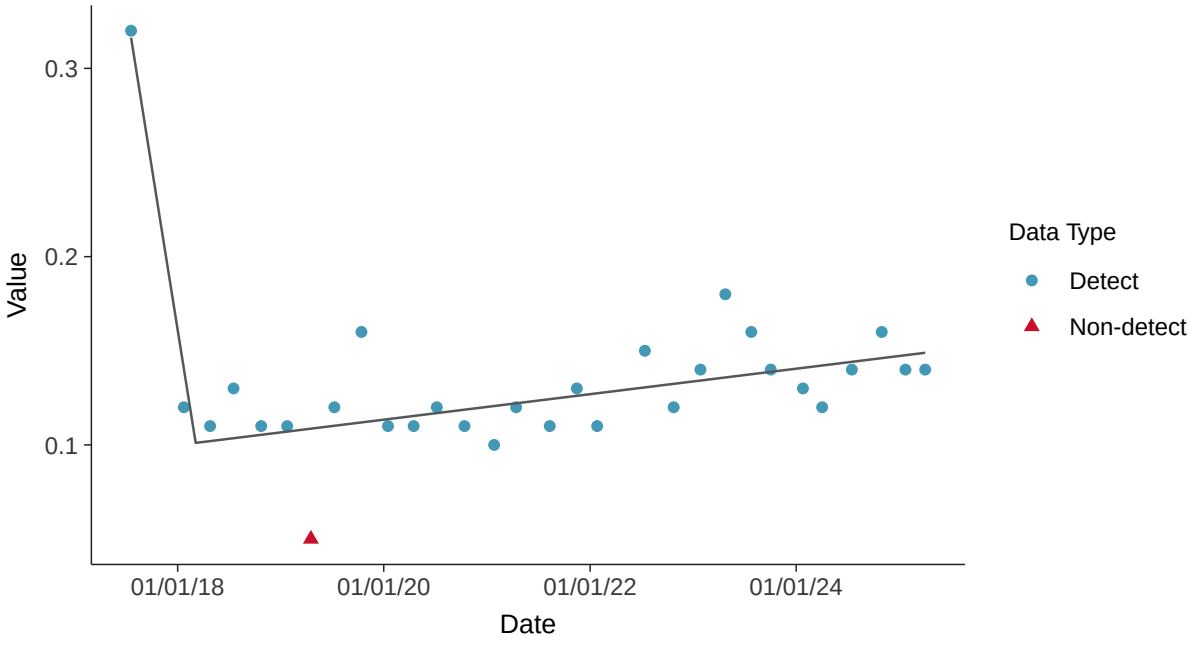
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Fluoride, MW-7R (mg/L)



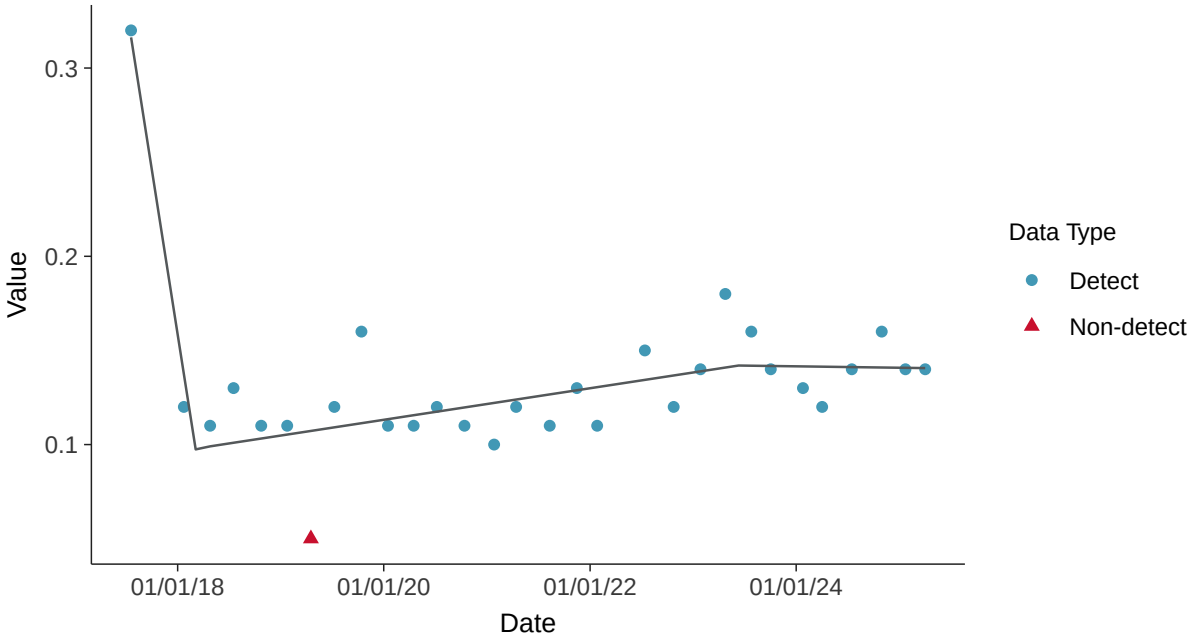
Trend Regression: Piecewise Linear-Linear

Fluoride, MW-7R (mg/L)



Trend Regression: Piecewise Linear-Linear-Linear

Fluoride, MW-7R (mg/L)

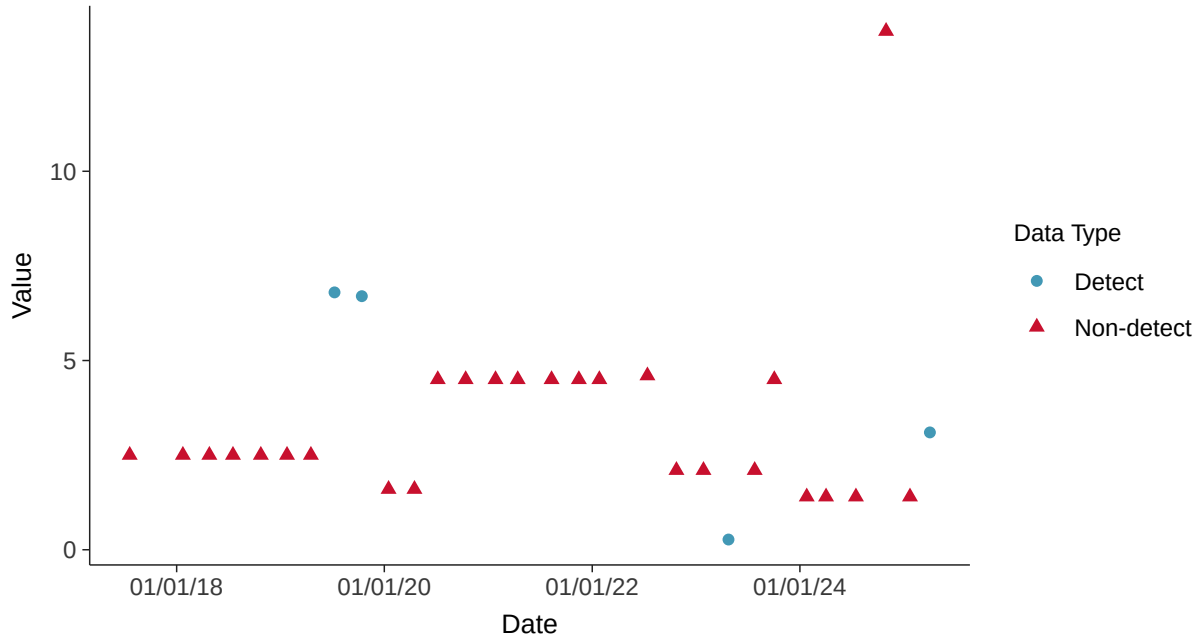


App. IV: Lead, MW-7R

ID: 07_03_113

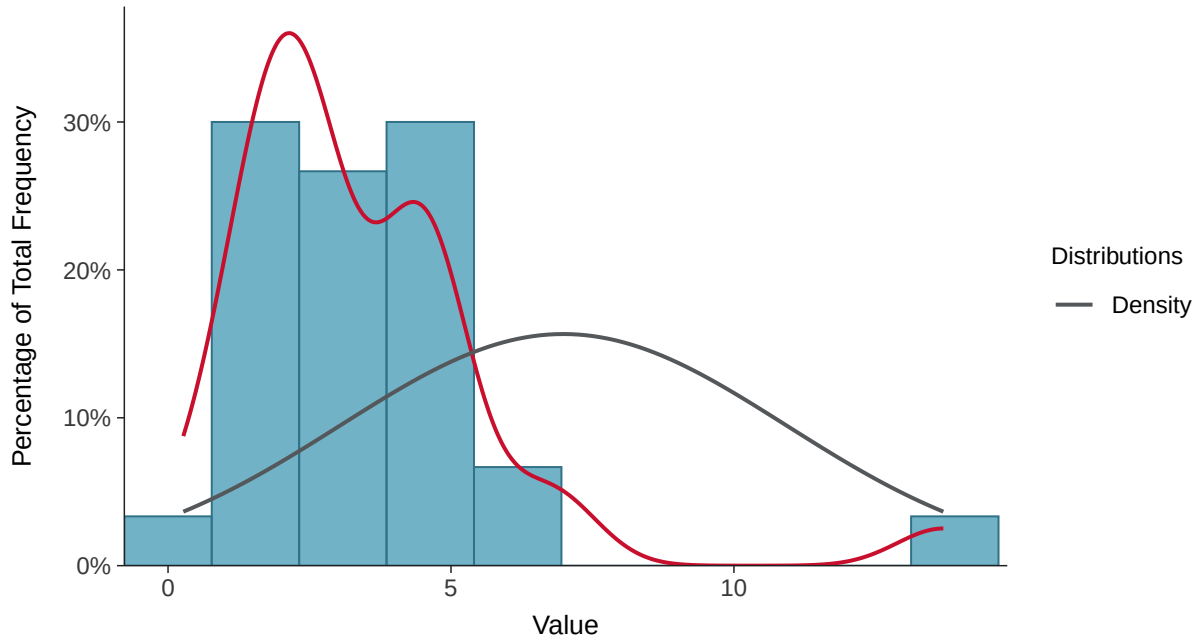
Scatter Plot

Lead, MW-7R (ug/L)



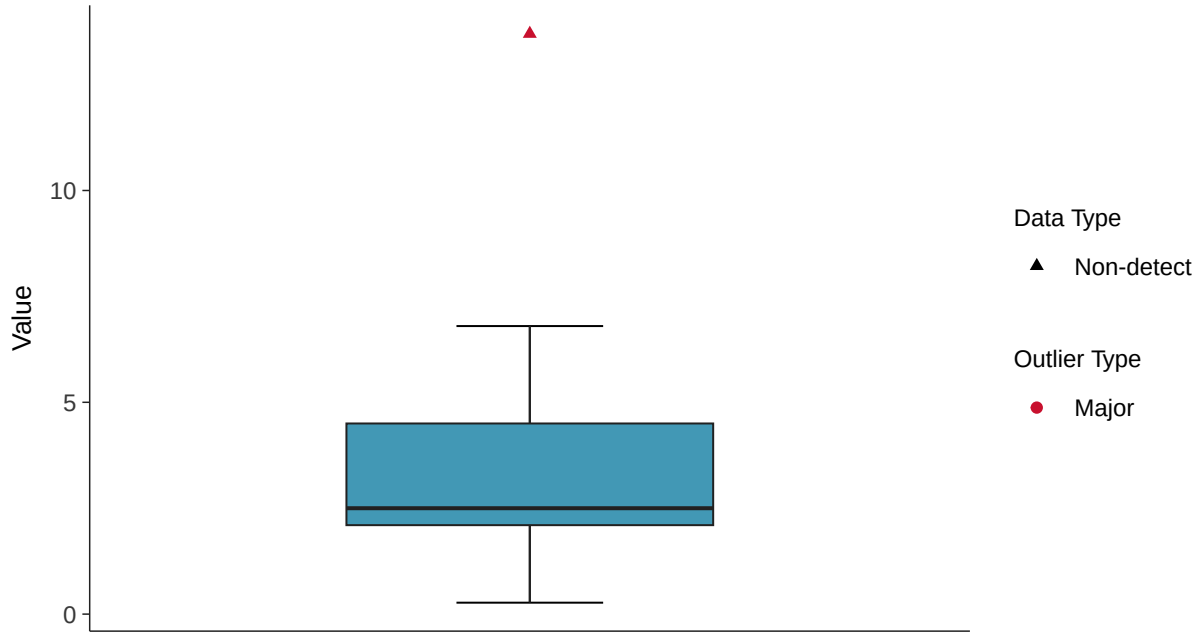
Histogram

Lead, MW-7R (ug/L)



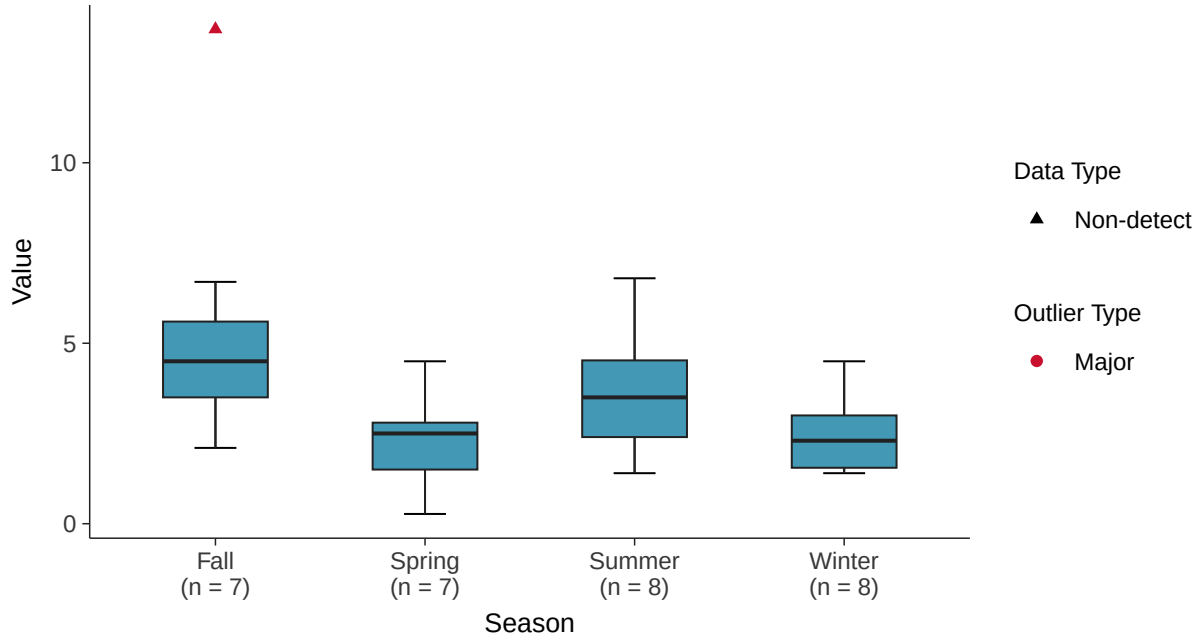
Boxplot

Lead, MW-7R (ug/L)



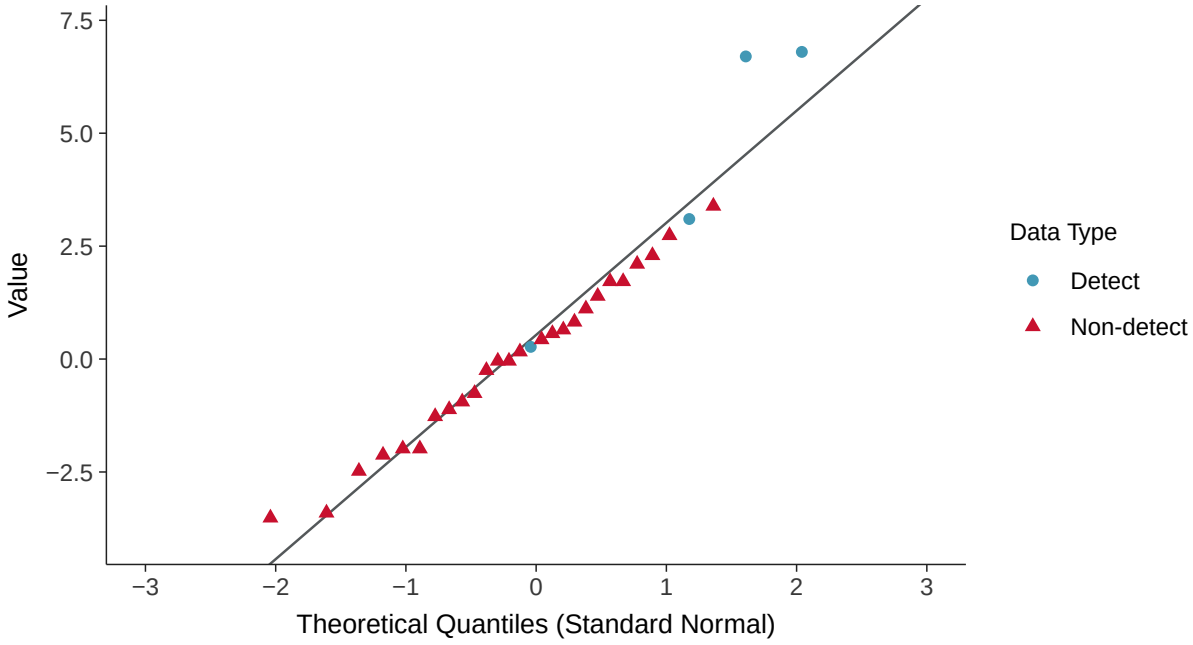
Boxplot by Season

Lead, MW-7R (ug/L)



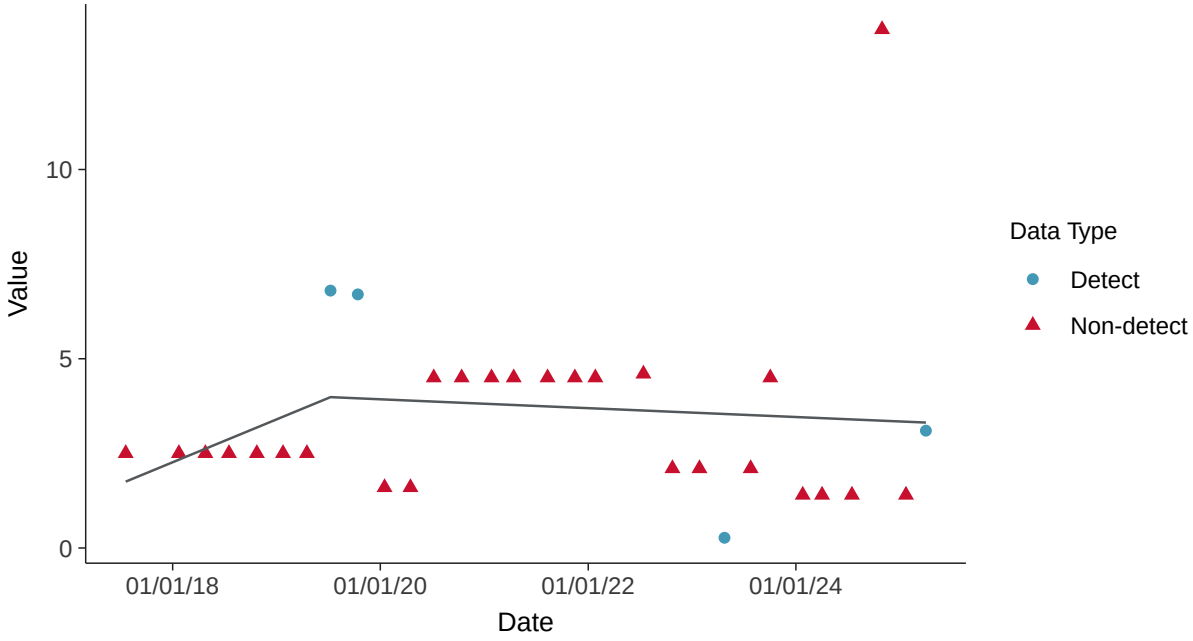
Normal Q-Q plot using ROS Imputed Estimates

Lead, MW-7R (ug/L)



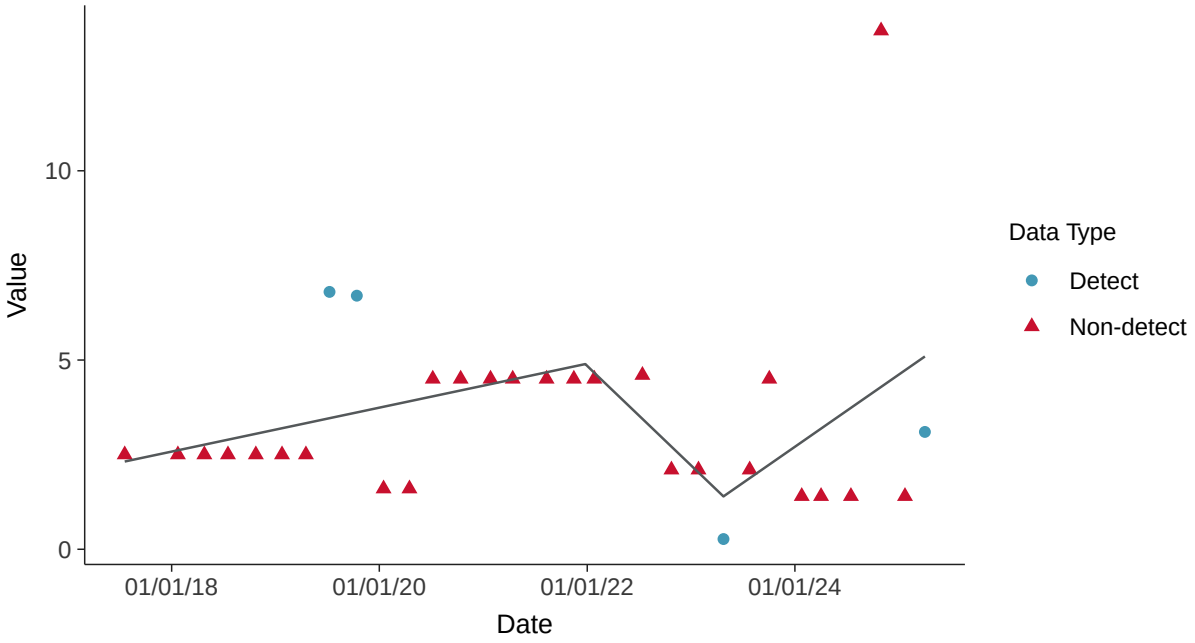
Trend Regression: Piecewise Linear-Linear

Lead, MW-7R (ug/L)



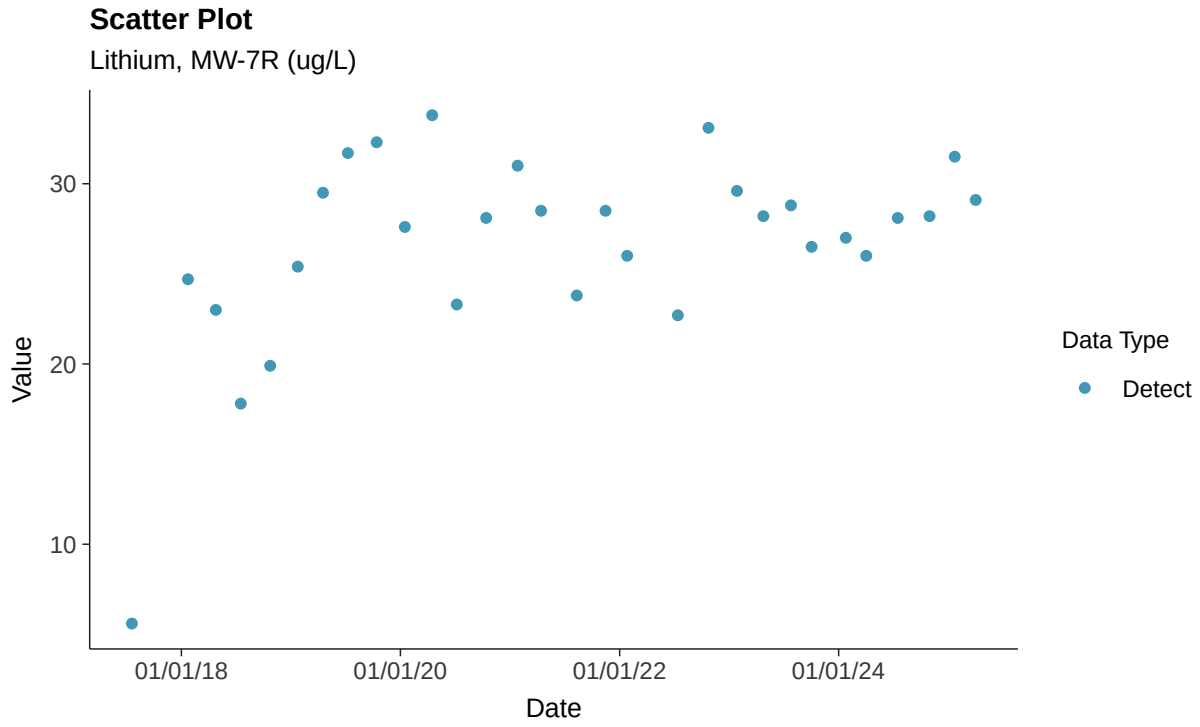
Trend Regression: Piecewise Linear-Linear-Linear

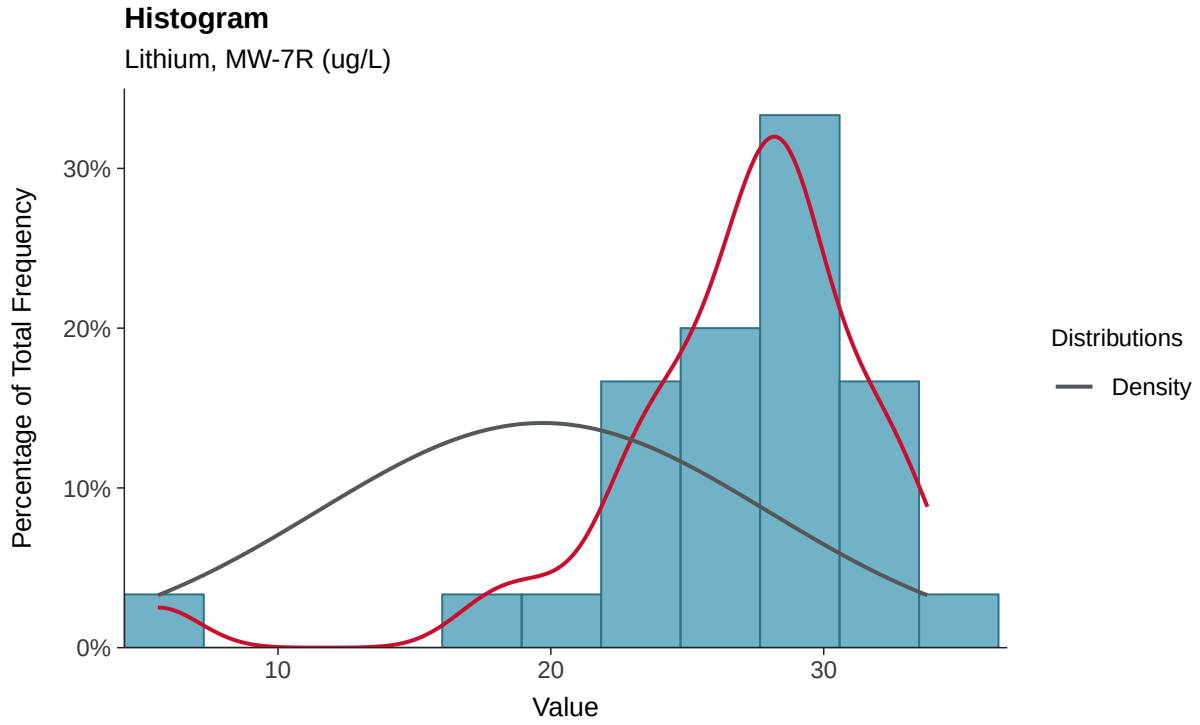
Lead, MW-7R (ug/L)



App. IV: Lithium, MW-7R

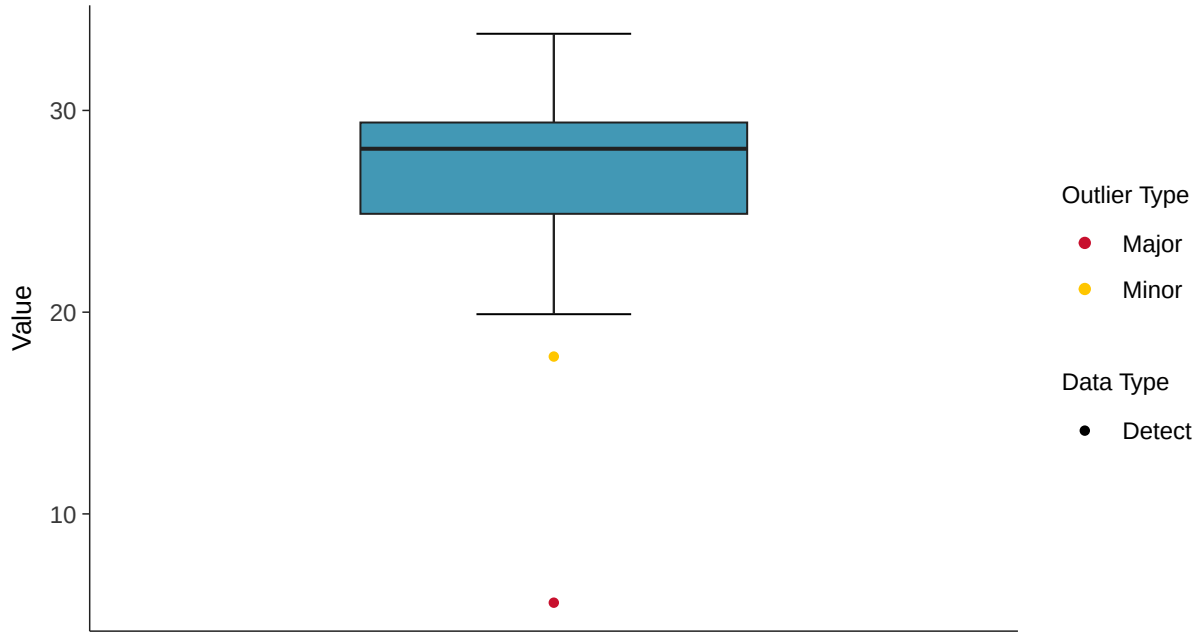
ID: 07_03_114





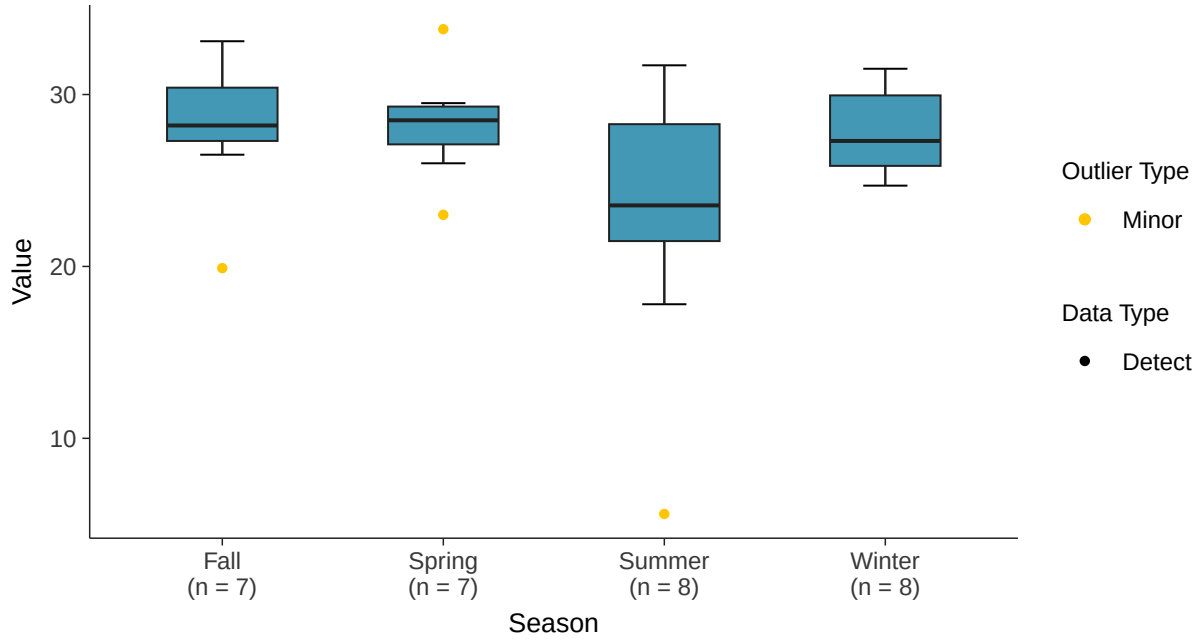
Boxplot

Lithium, MW-7R (ug/L)



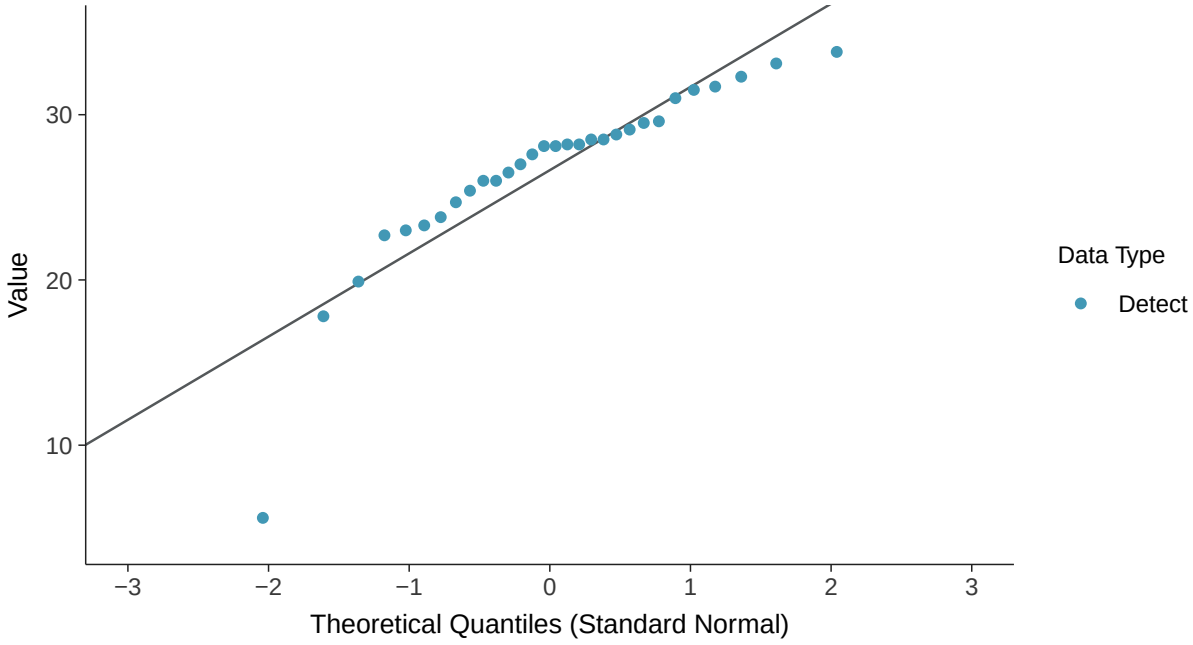
Boxplot by Season

Lithium, MW-7R (ug/L)



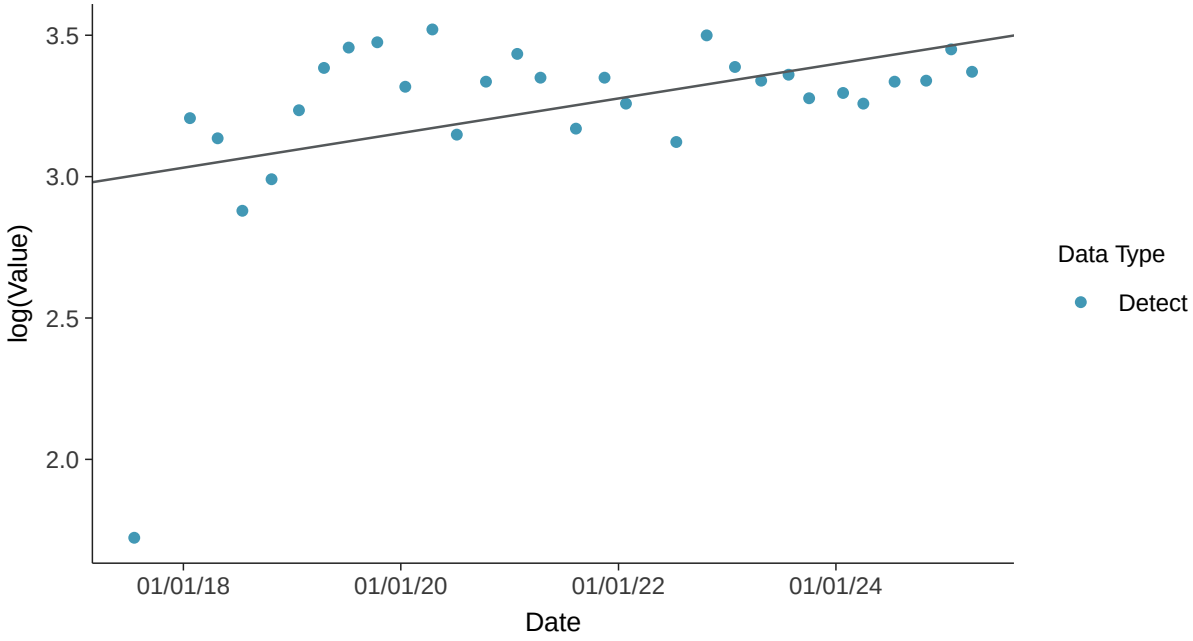
Normal Q-Q plot

Lithium, MW-7R (ug/L)



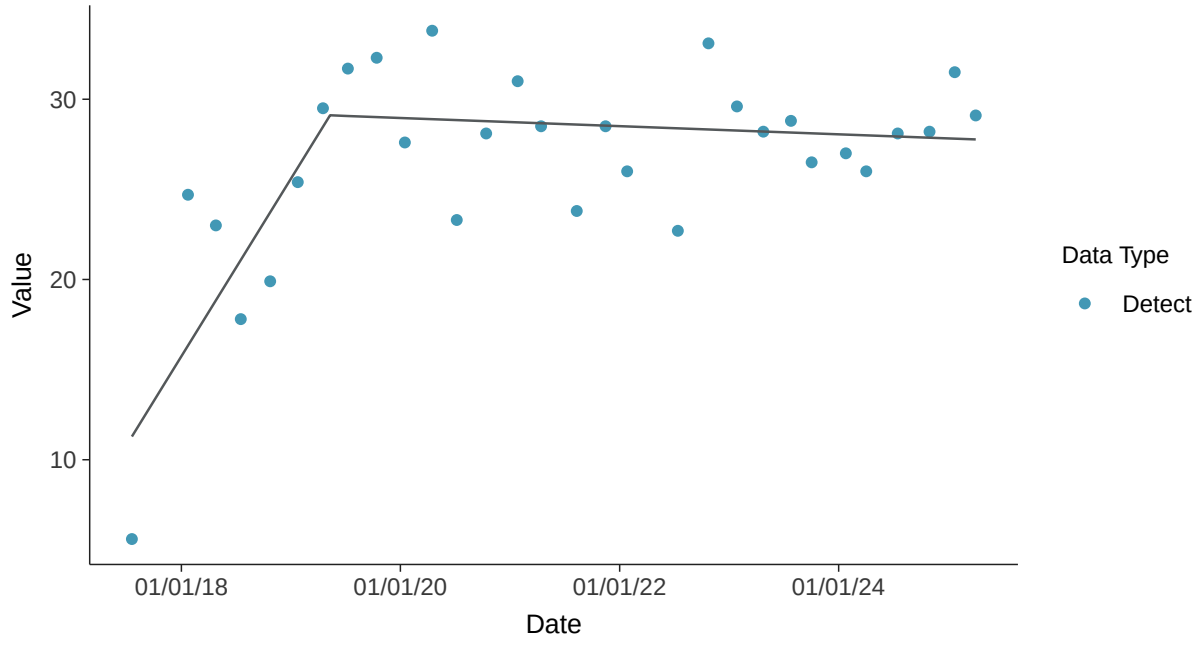
Trend Regression: Lognormal MLE

Lithium, MW-7R (ug/L)



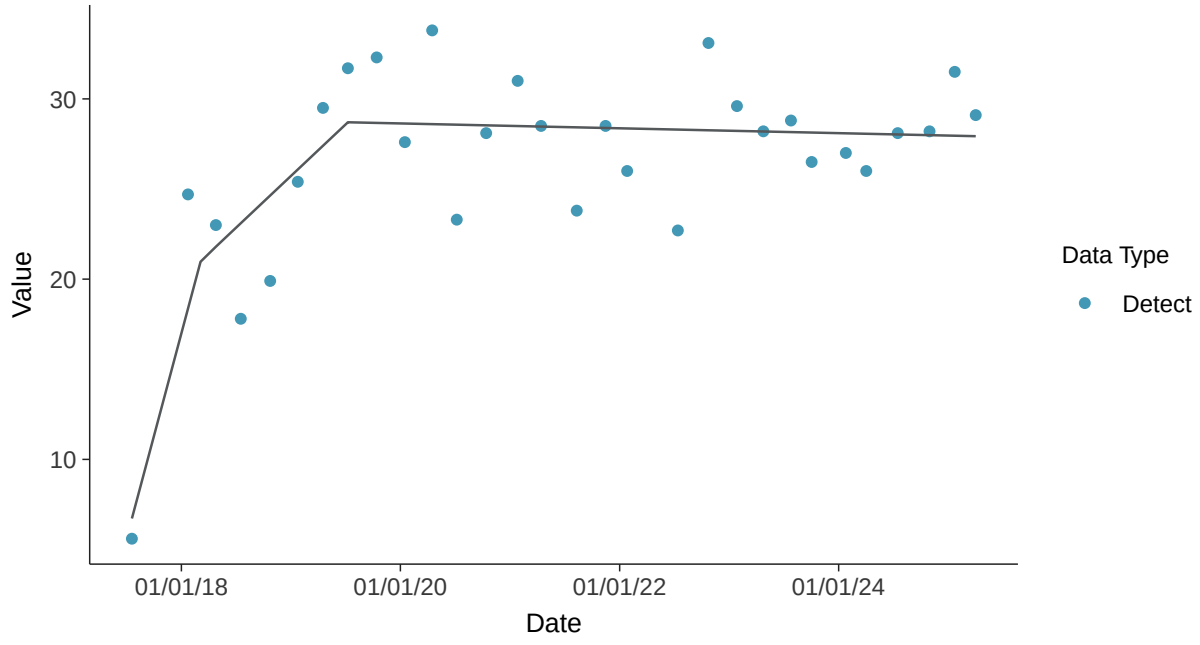
Trend Regression: Piecewise Linear-Linear

Lithium, MW-7R (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Lithium, MW-7R (ug/L)

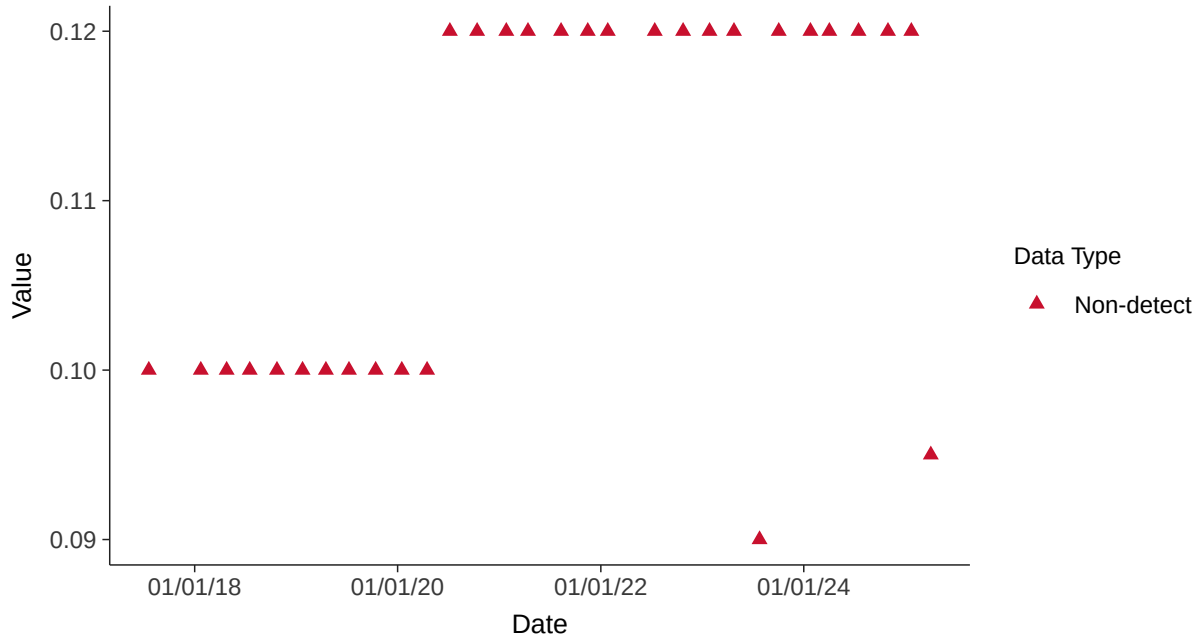


App. IV: Mercury, MW-7R

ID: 07_03_115

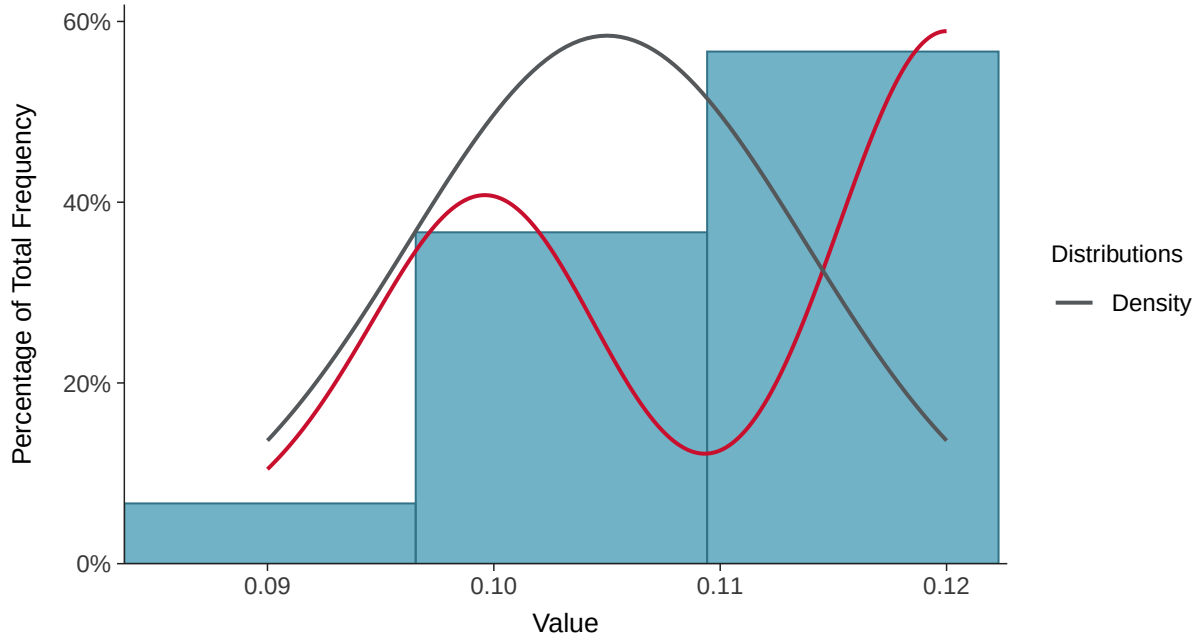
Scatter Plot

Mercury, MW-7R (ug/L)



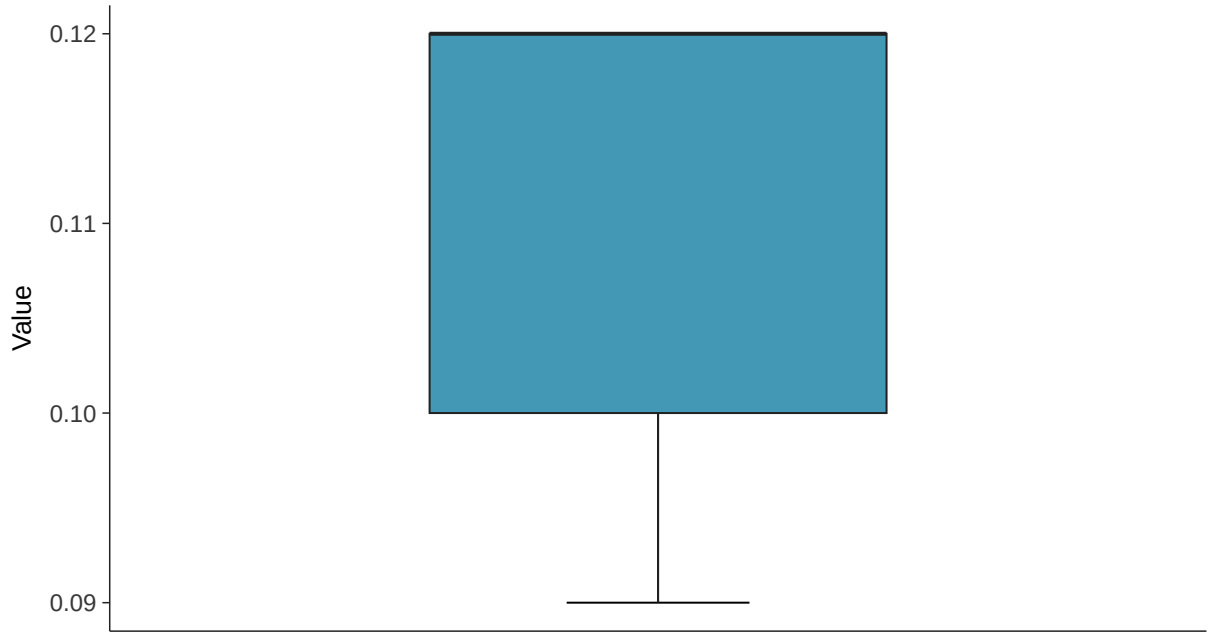
Histogram

Mercury, MW-7R (ug/L)



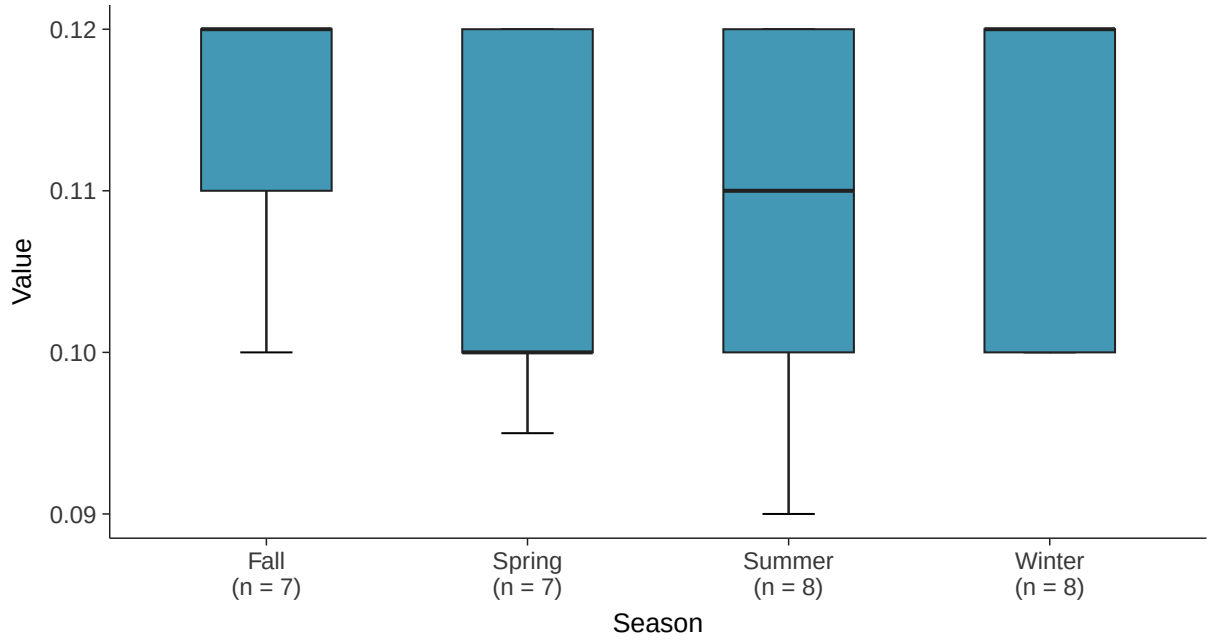
Boxplot

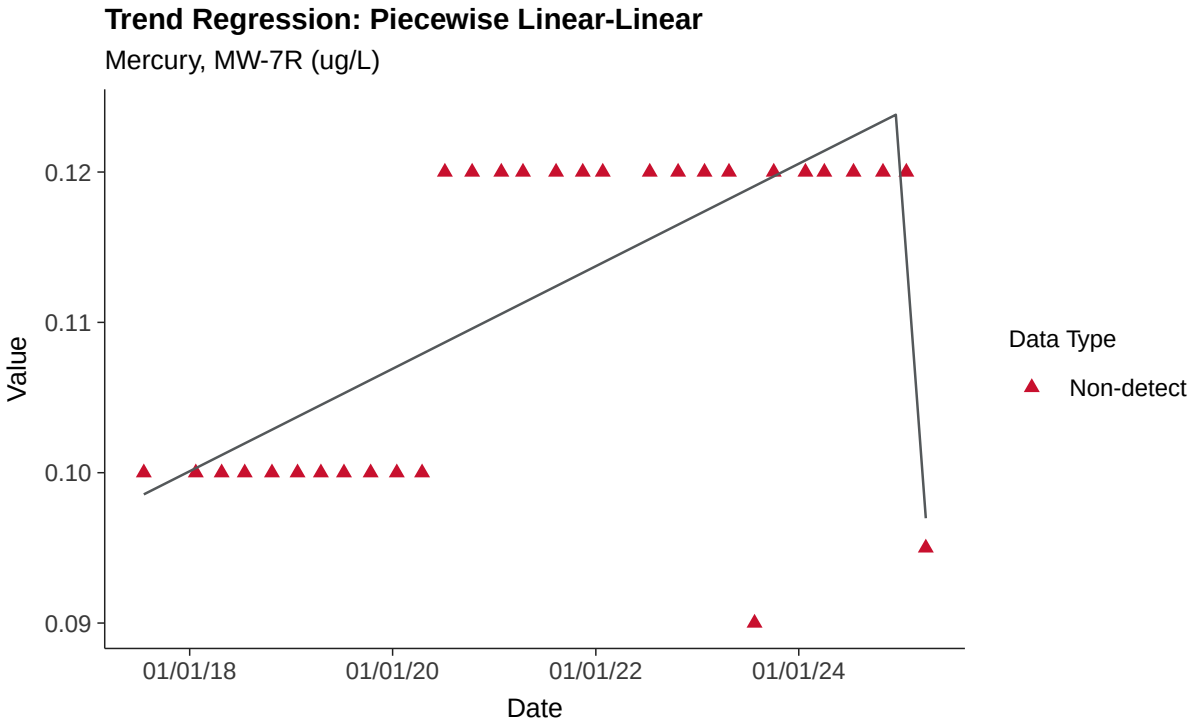
Mercury, MW-7R (ug/L)



Boxplot by Season

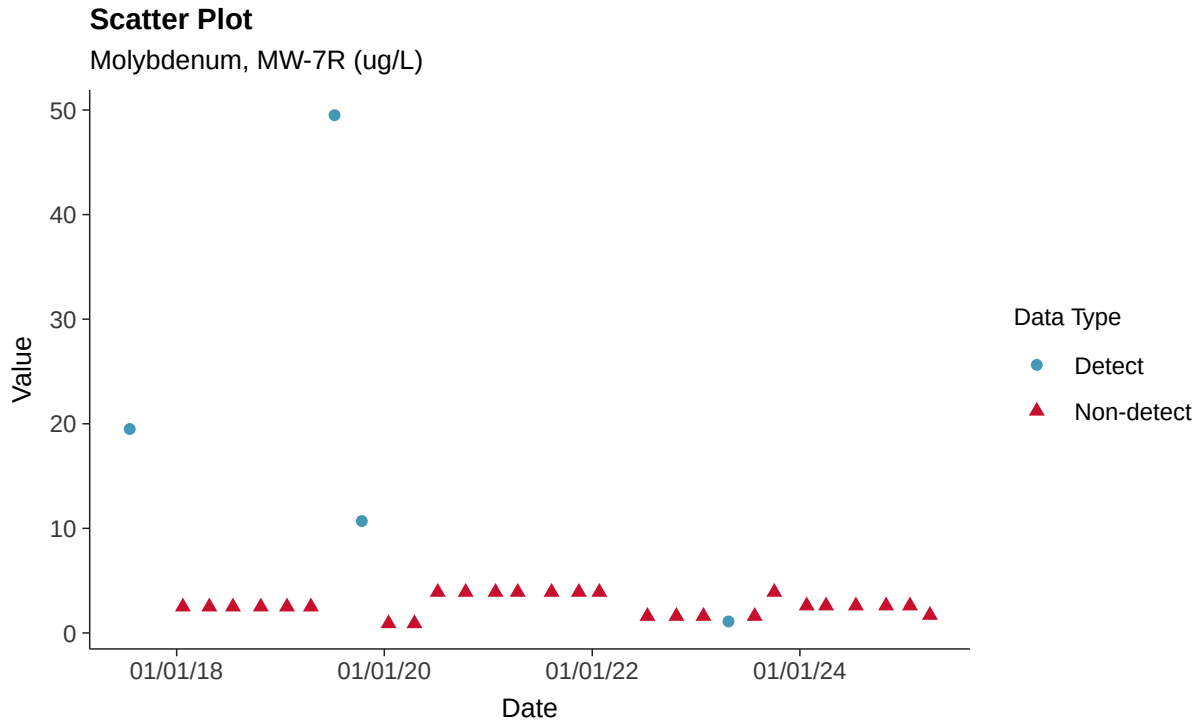
Mercury, MW-7R (ug/L)

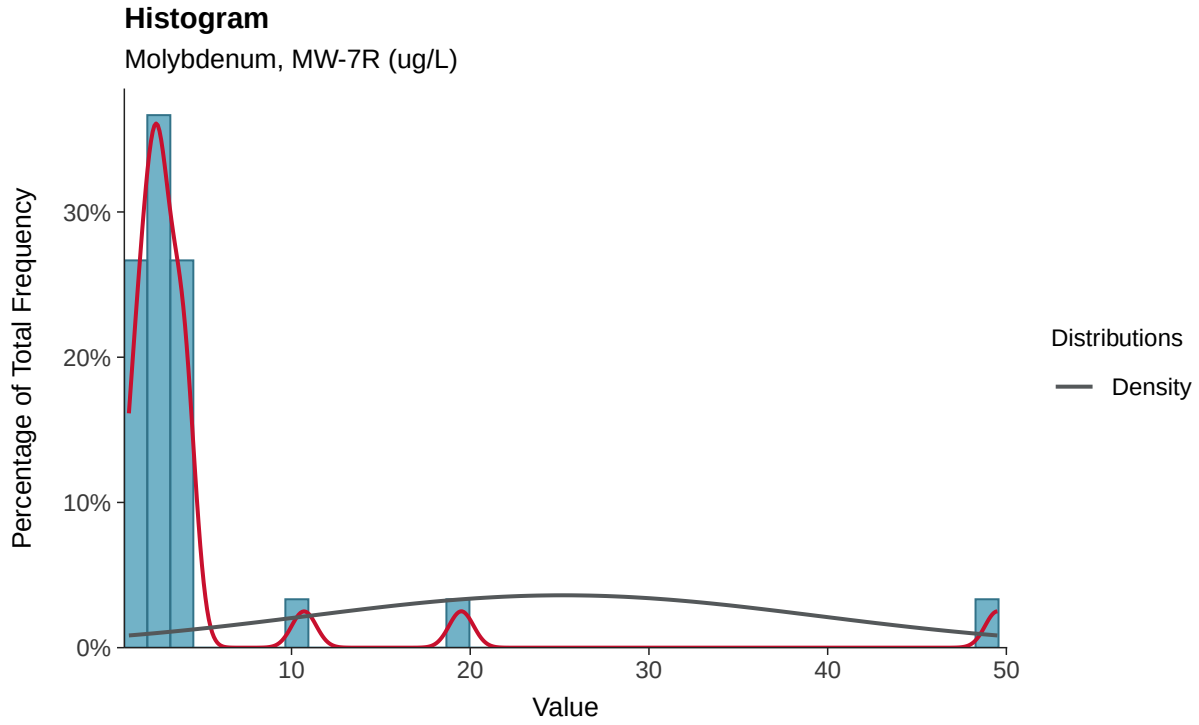



Trend Regression: Piecewise Linear-Linear
Mercury, MW-7R (ug/L)
Value
0.12
0.11
0.10
0.09
01/01/18
01/01/20
01/01/22
01/01/24
Date
Data Type
Non-detect

App. IV: Molybdenum, MW-7R

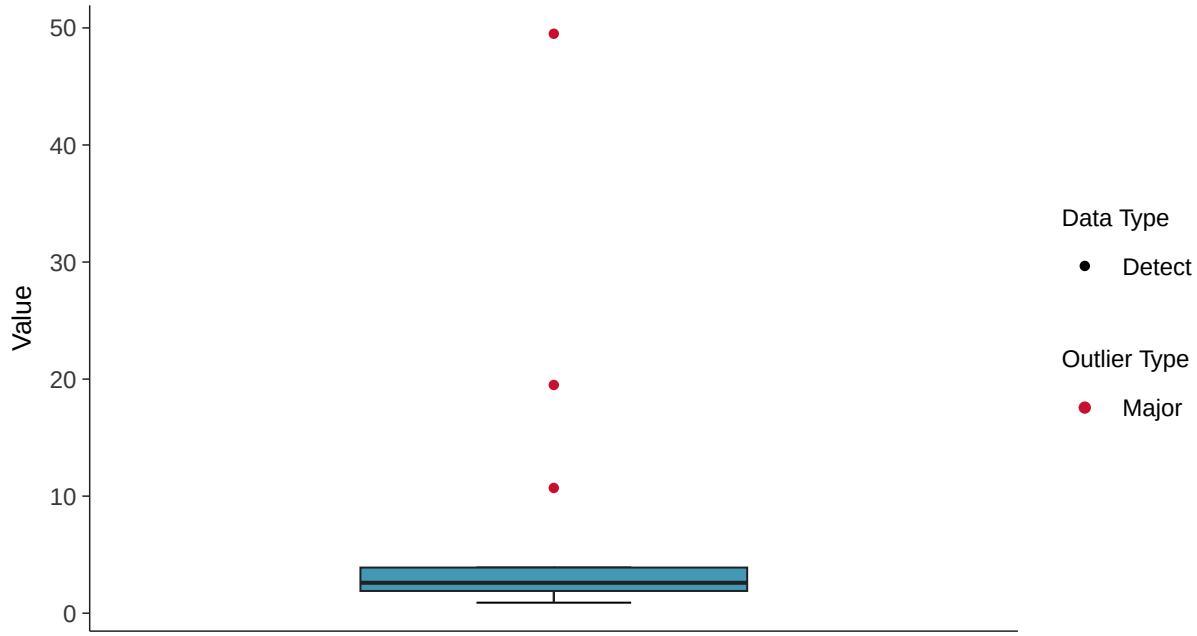
ID: 07_03_116





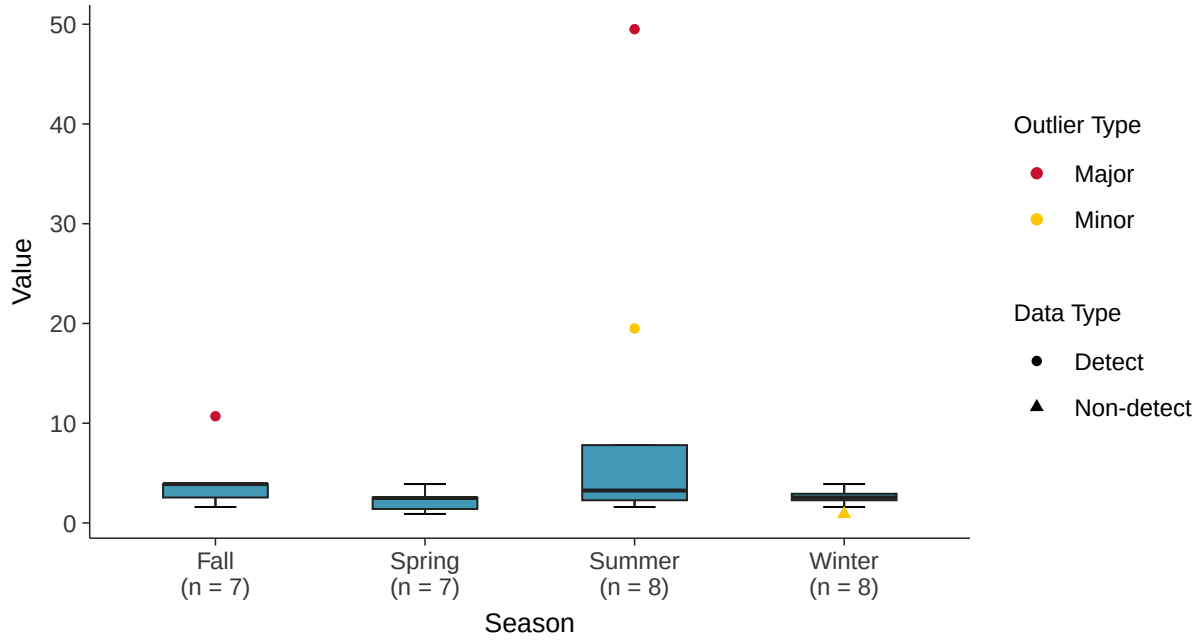
Boxplot

Molybdenum, MW-7R (ug/L)



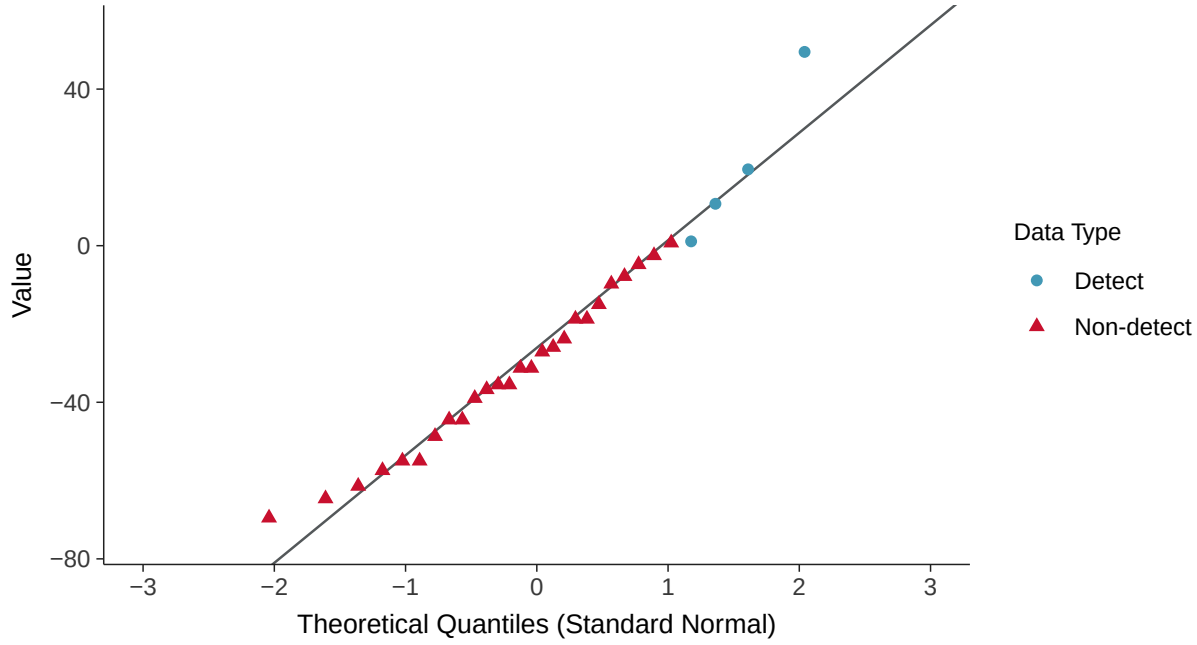
Boxplot by Season

Molybdenum, MW-7R (ug/L)



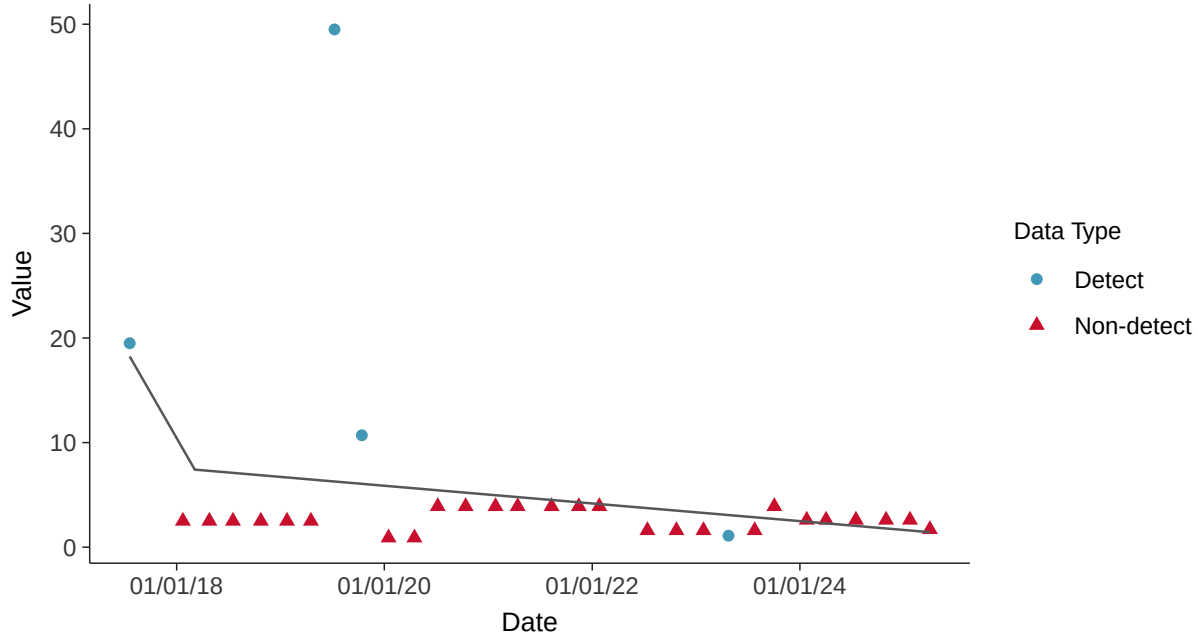
Normal Q-Q plot using ROS Imputed Estimates

Molybdenum, MW-7R (ug/L)



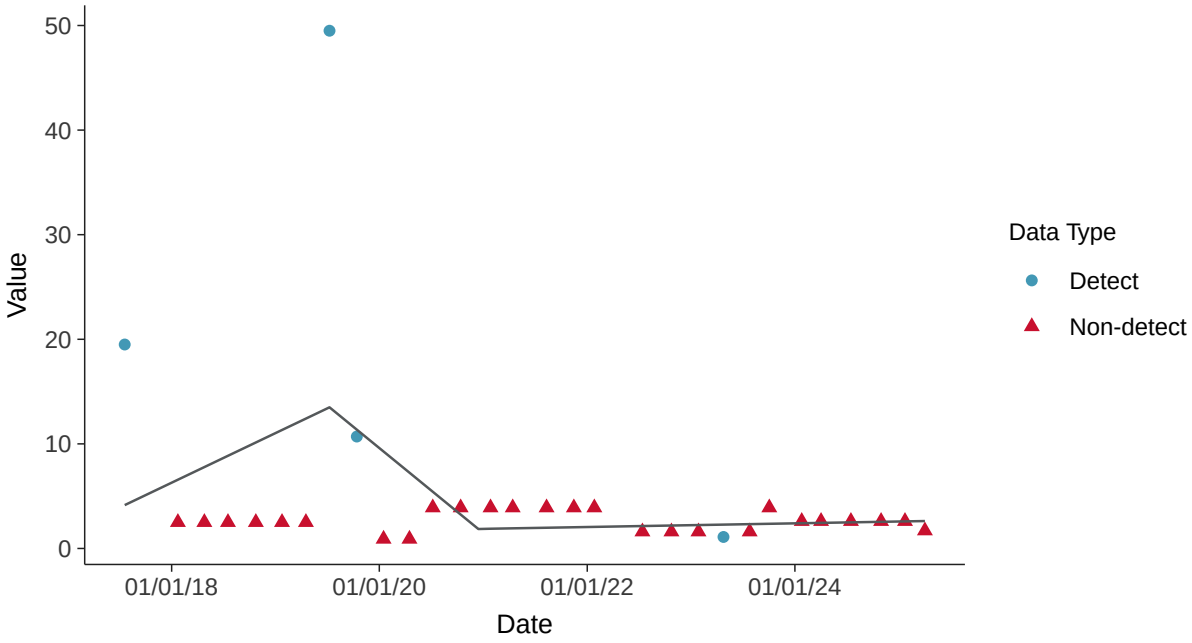
Trend Regression: Piecewise Linear-Linear

Molybdenum, MW-7R (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Molybdenum, MW-7R (ug/L)

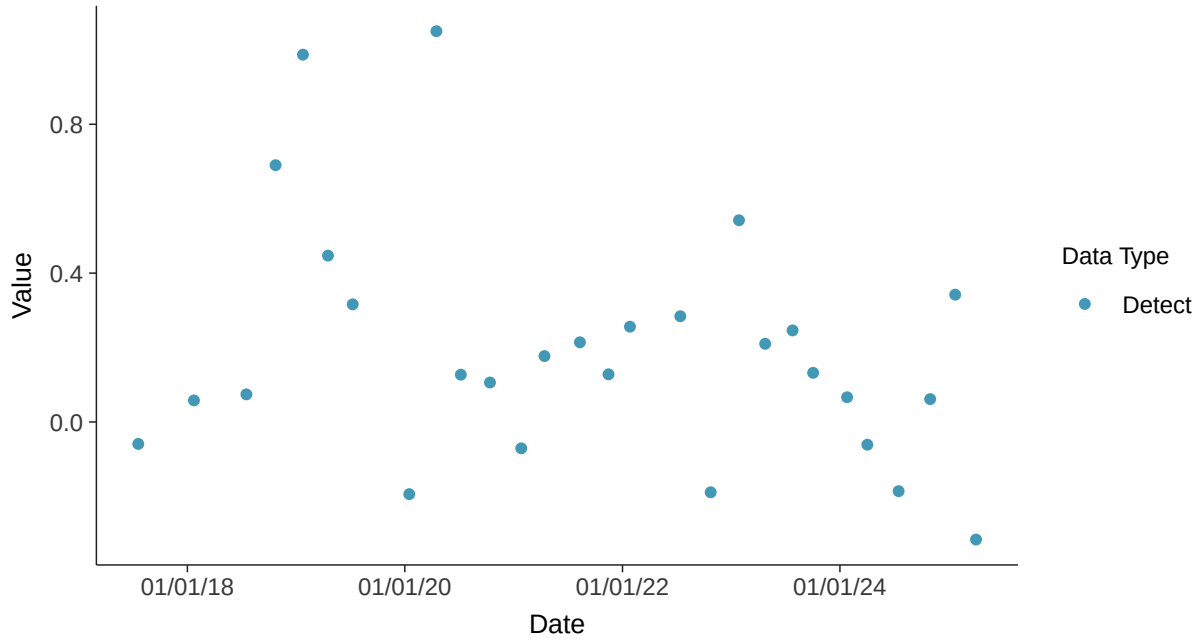


App. IV: Radium-226, MW-7R

ID: 07_03_119

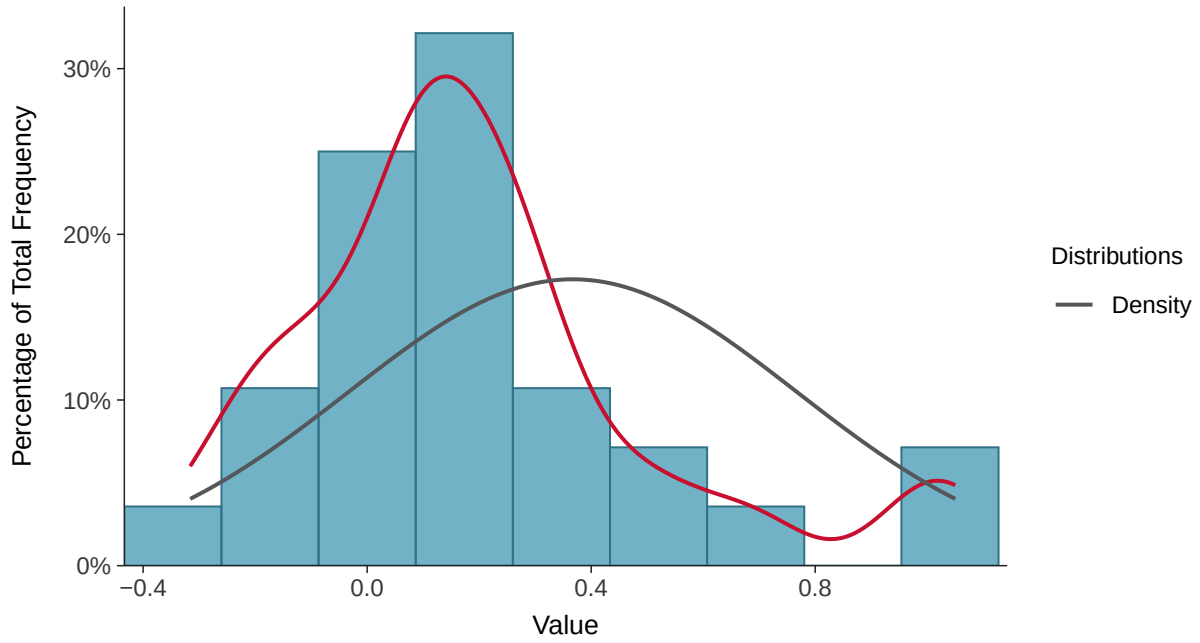
Scatter Plot

Radium-226, MW-7R (pCi/L)



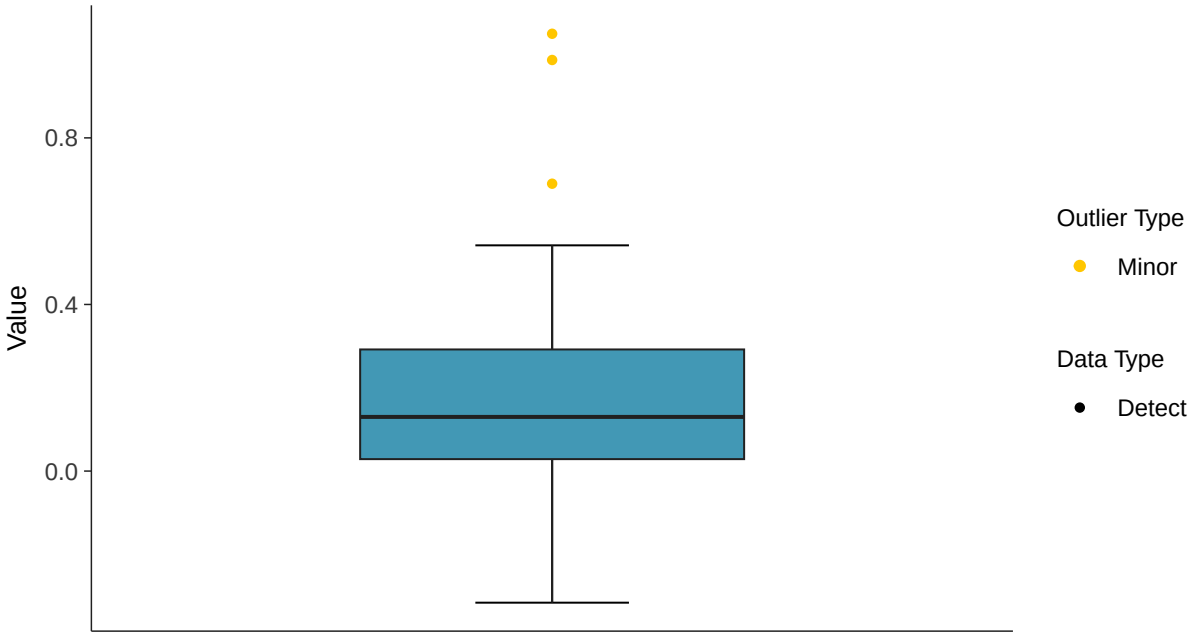
Histogram

Radium-226, MW-7R (pCi/L)



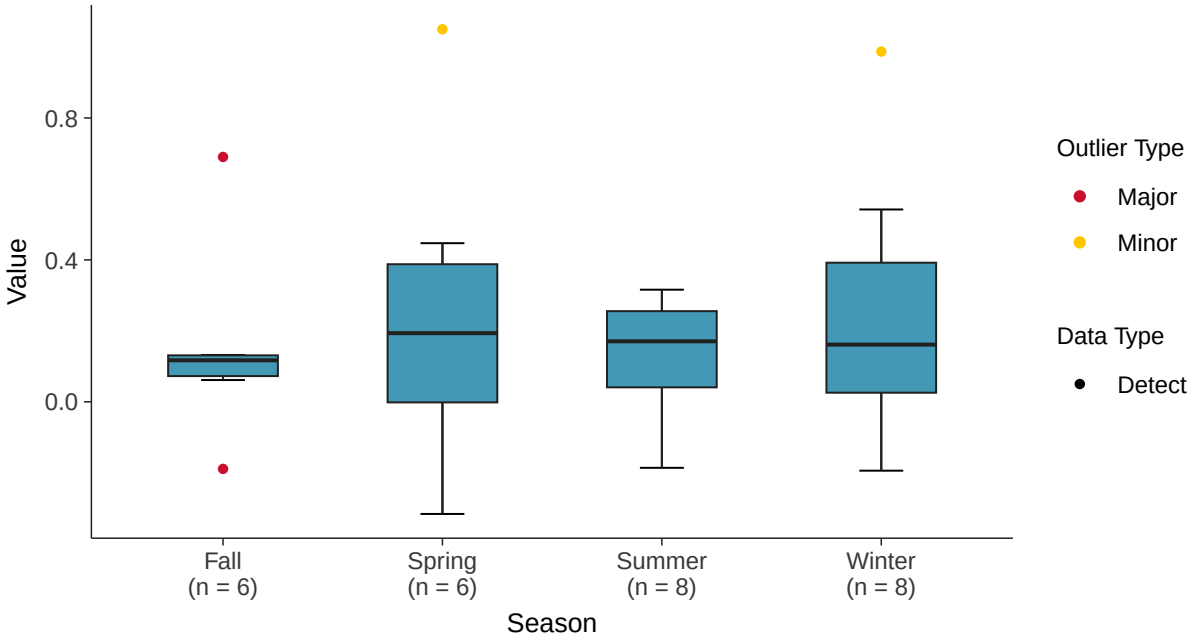
Boxplot

Radium-226, MW-7R (pCi/L)



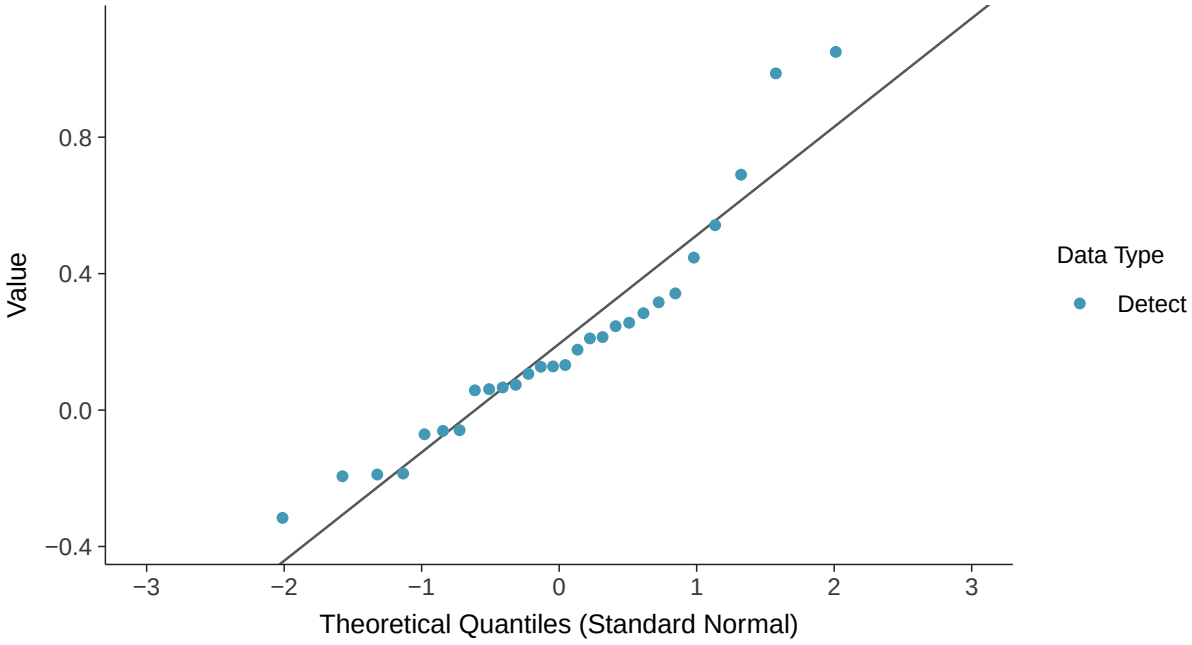
Boxplot by Season

Radium-226, MW-7R (pCi/L)



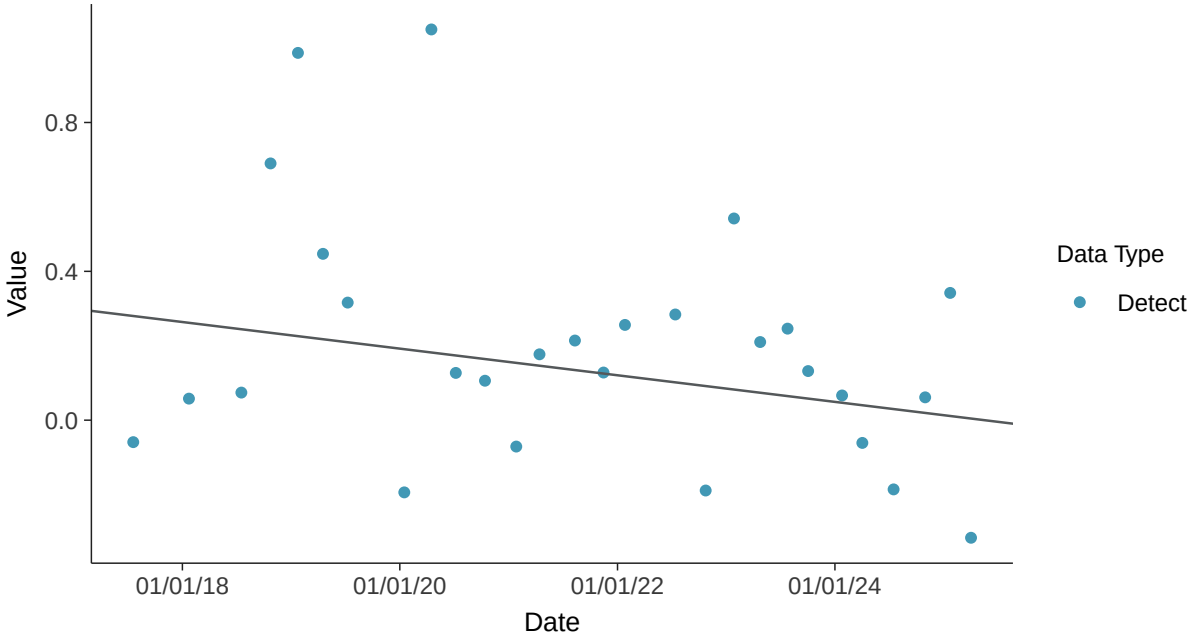
Normal Q-Q plot

Radium-226, MW-7R (pCi/L)



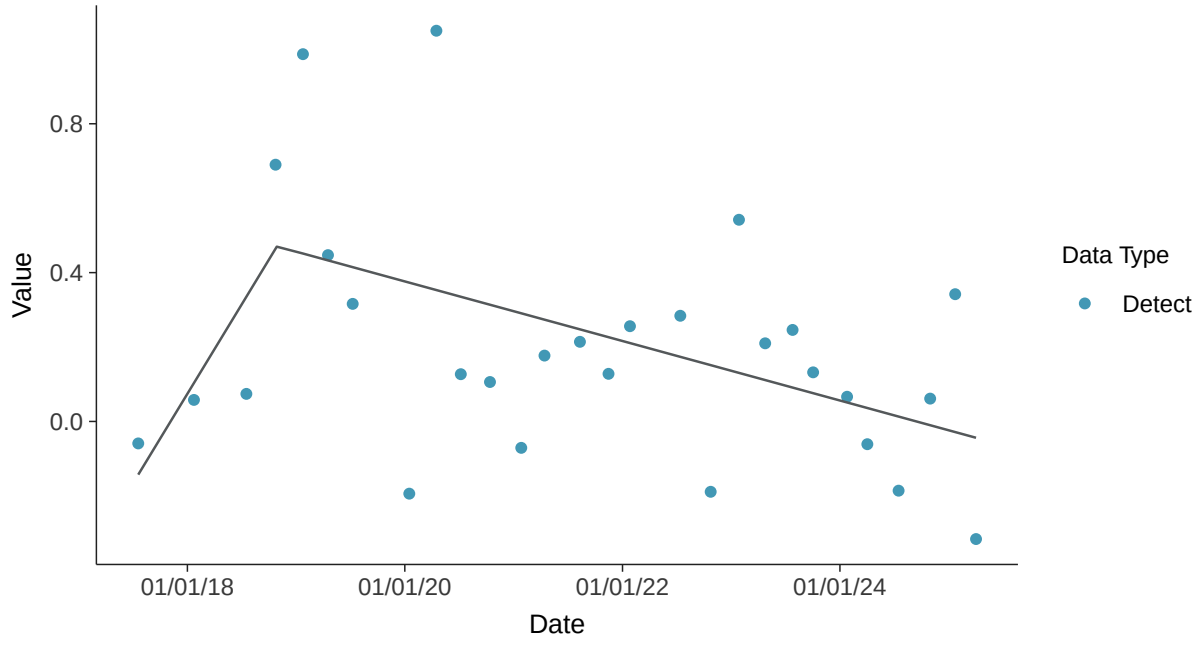
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Radium-226, MW-7R (pCi/L)



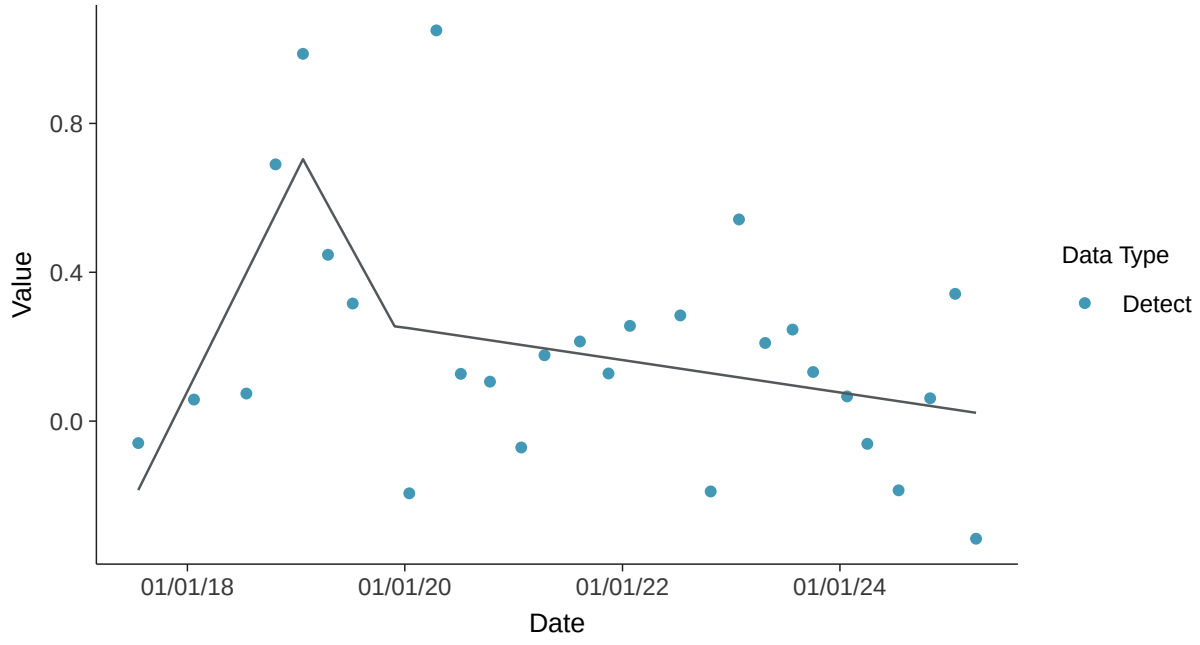
Trend Regression: Piecewise Linear-Linear

Radium-226, MW-7R (pCi/L)



Trend Regression: Piecewise Linear-Linear-Linear

Radium-226, MW-7R (pCi/L)

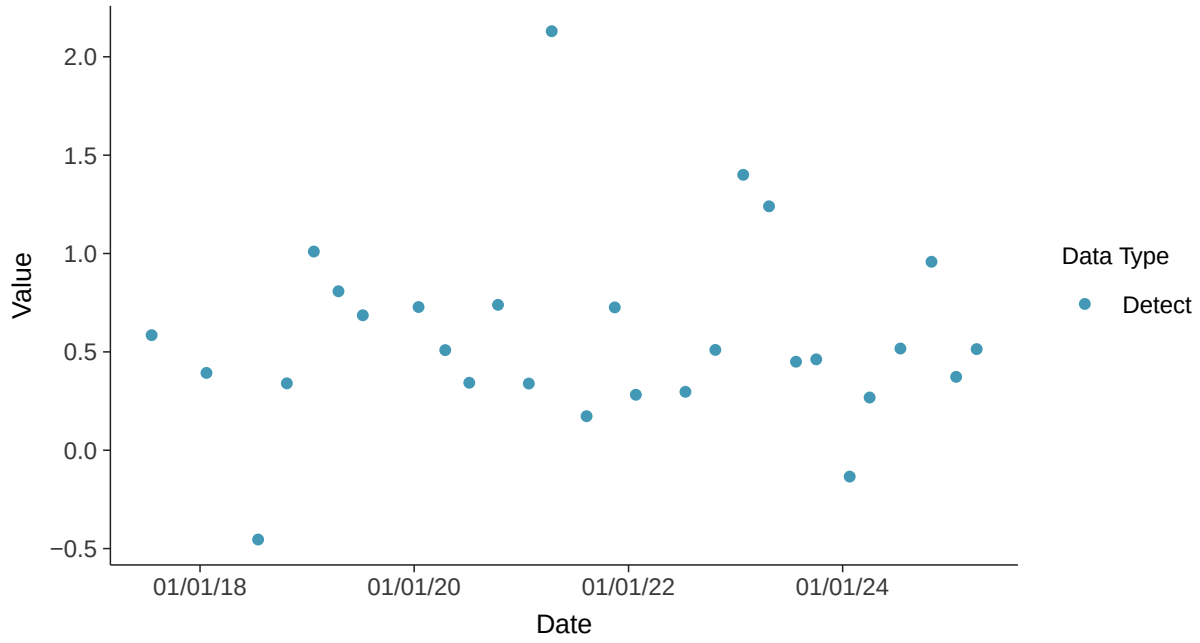


App. IV: Radium-228, MW-7R

ID: 07_03_120

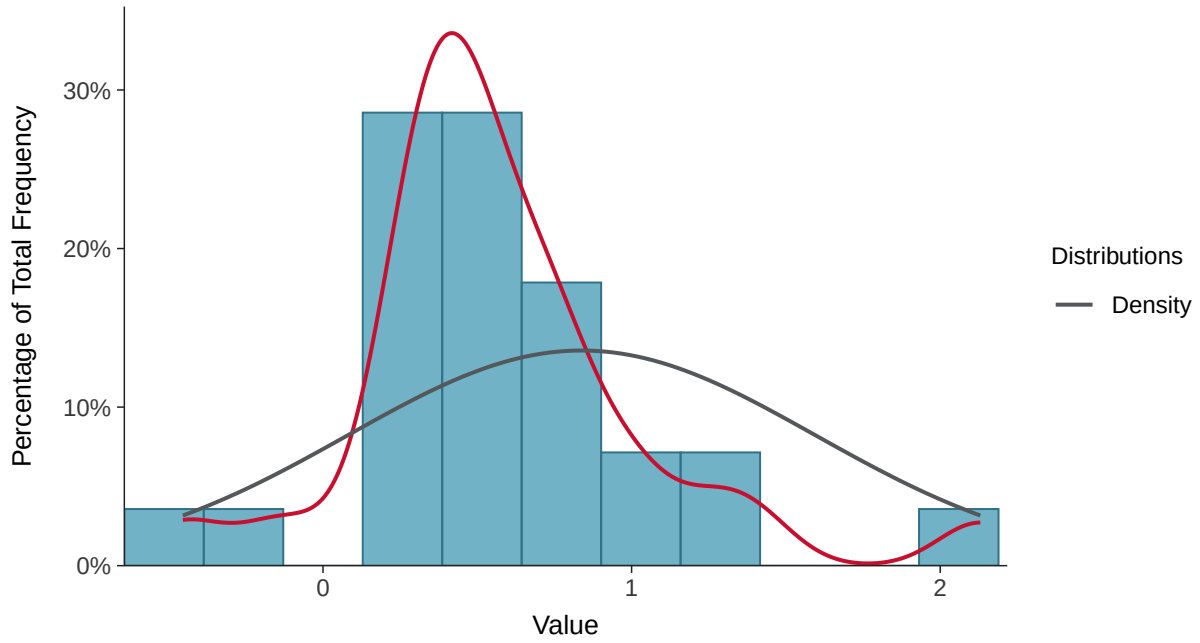
Scatter Plot

Radium-228, MW-7R (pCi/L)



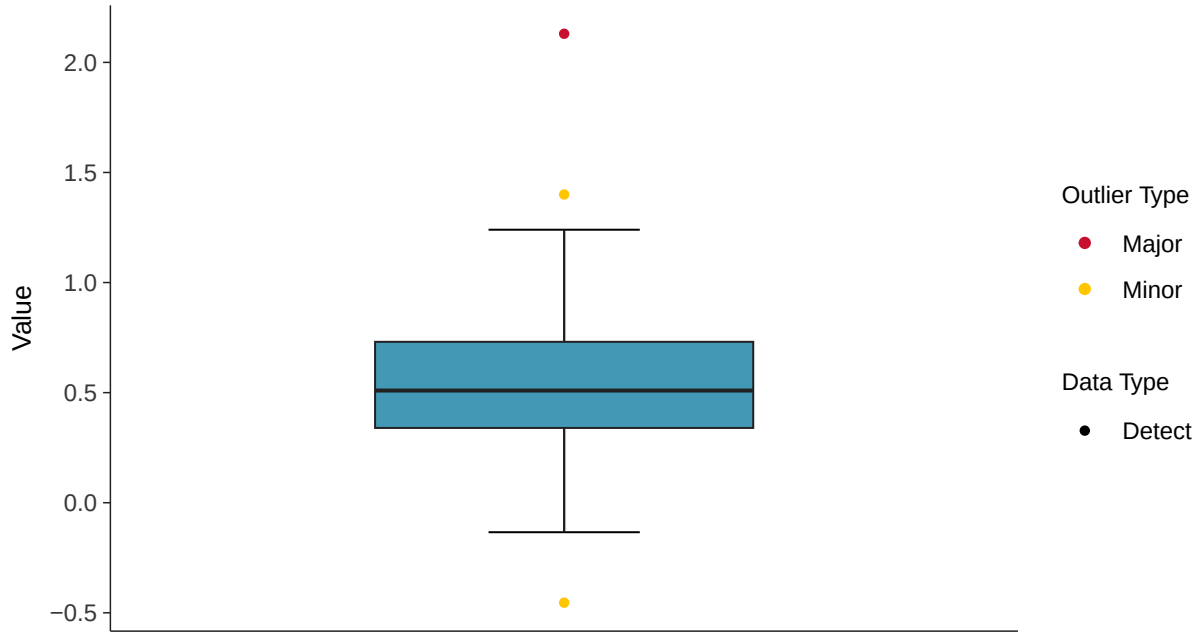
Histogram

Radium-228, MW-7R (pCi/L)



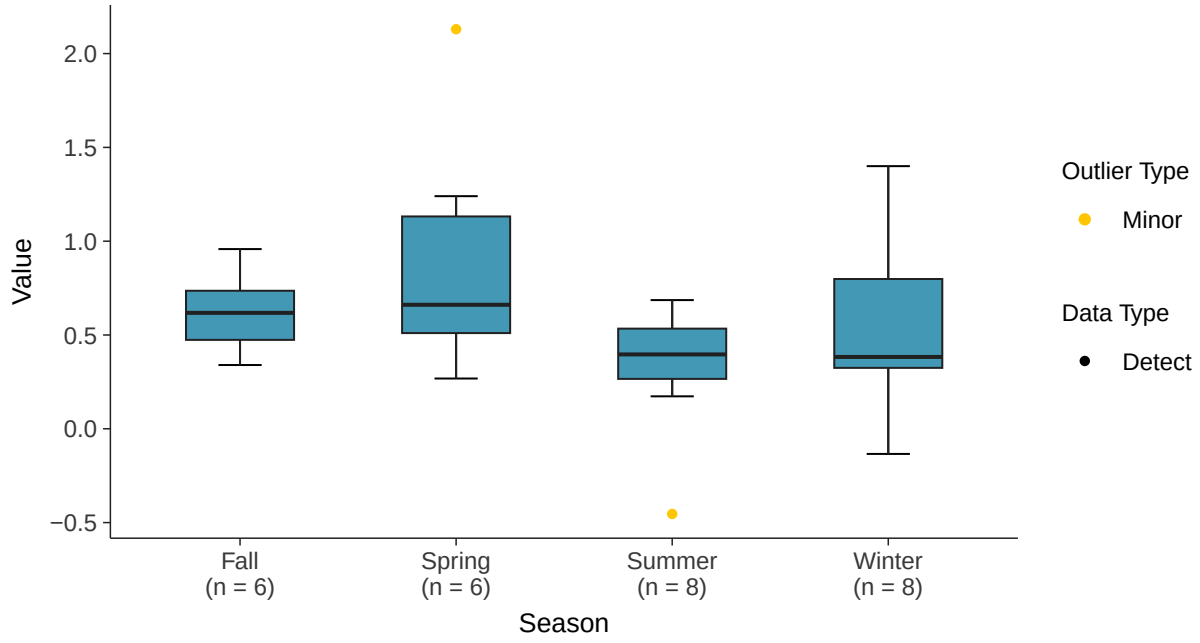
Boxplot

Radium-228, MW-7R (pCi/L)



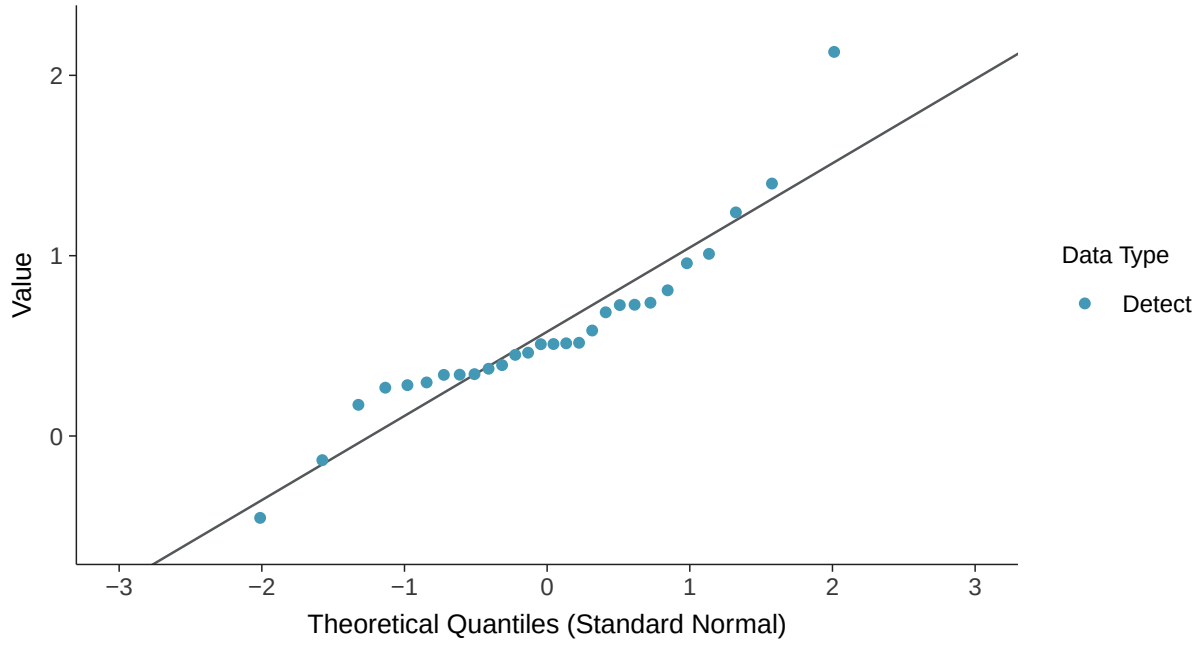
Boxplot by Season

Radium-228, MW-7R (pCi/L)



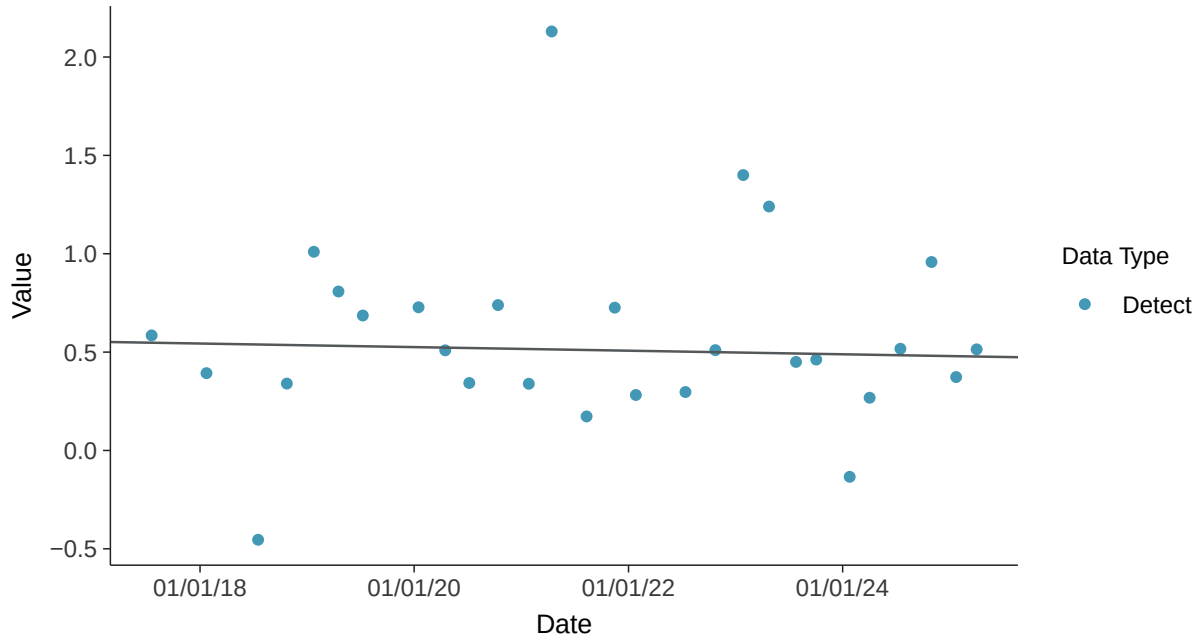
Normal Q-Q plot

Radium-228, MW-7R (pCi/L)



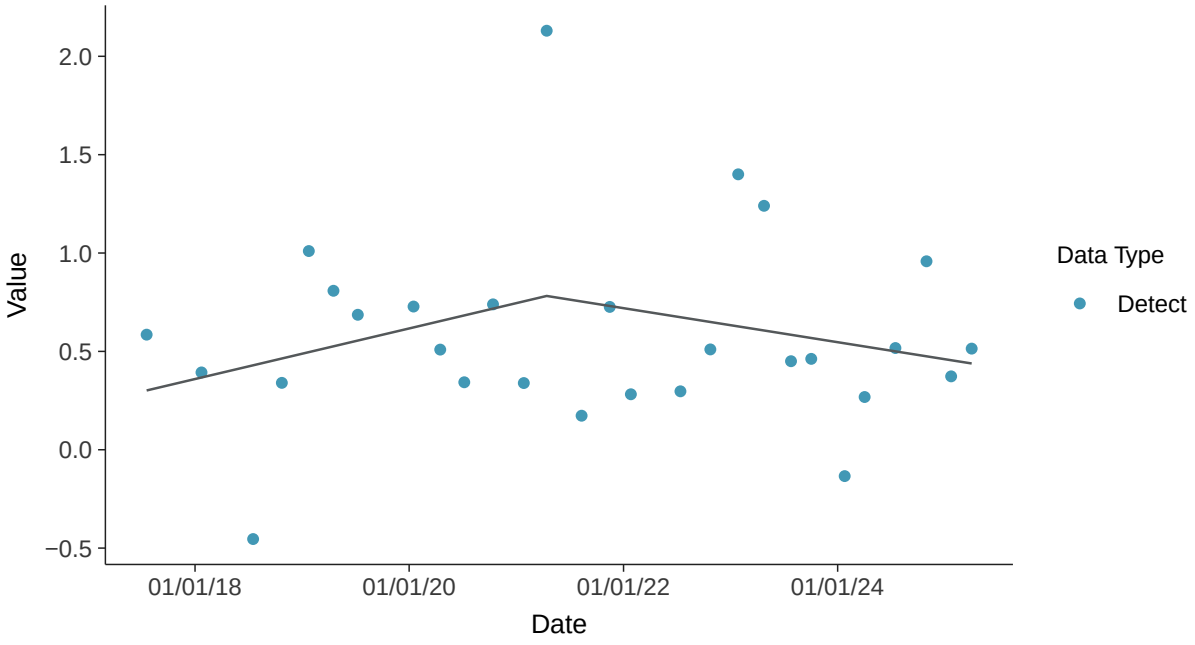
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Radium-228, MW-7R (pCi/L)



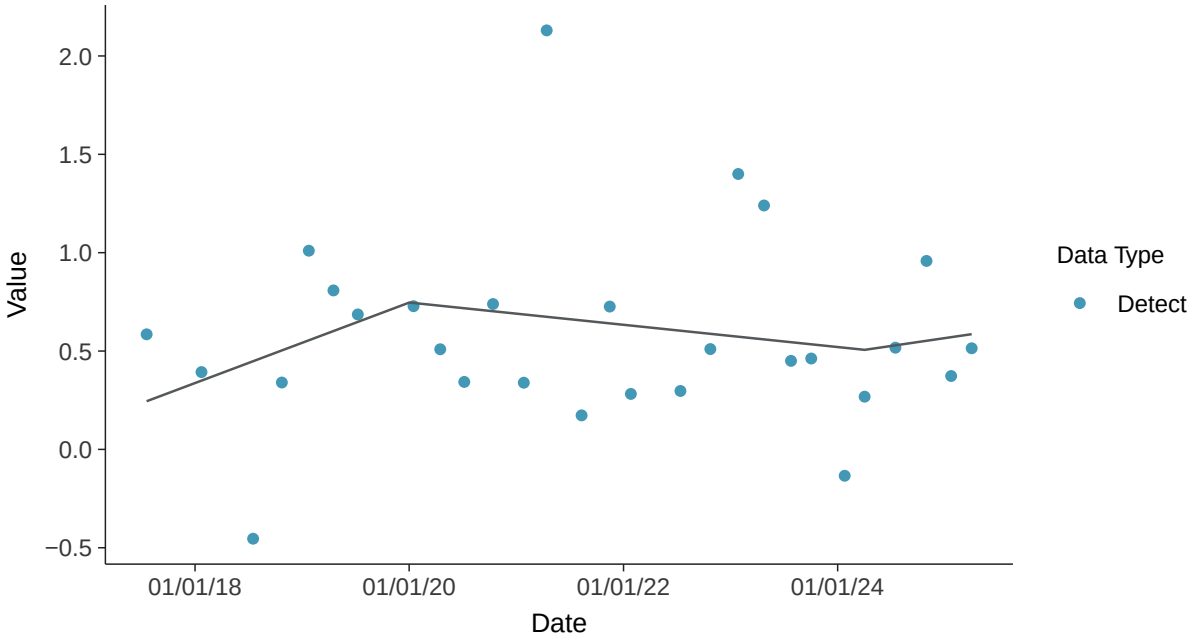
Trend Regression: Piecewise Linear-Linear

Radium-228, MW-7R (pCi/L)



Trend Regression: Piecewise Linear-Linear-Linear

Radium-228, MW-7R (pCi/L)

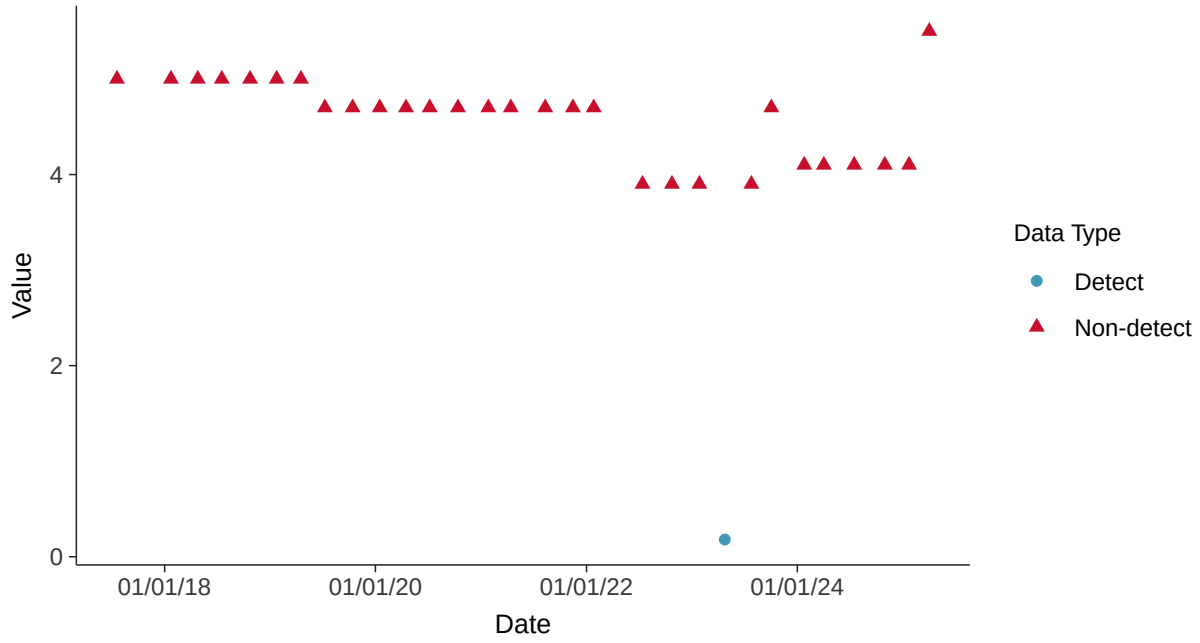


App. IV: Selenium, MW-7R

ID: 07_03_121

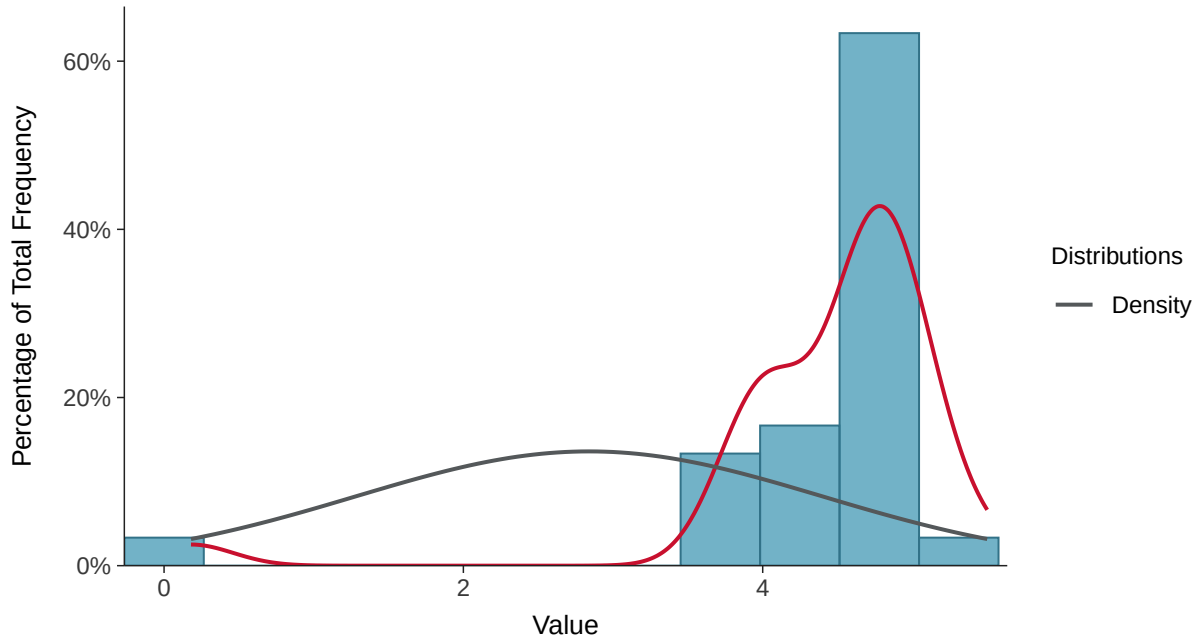
Scatter Plot

Selenium, MW-7R (ug/L)



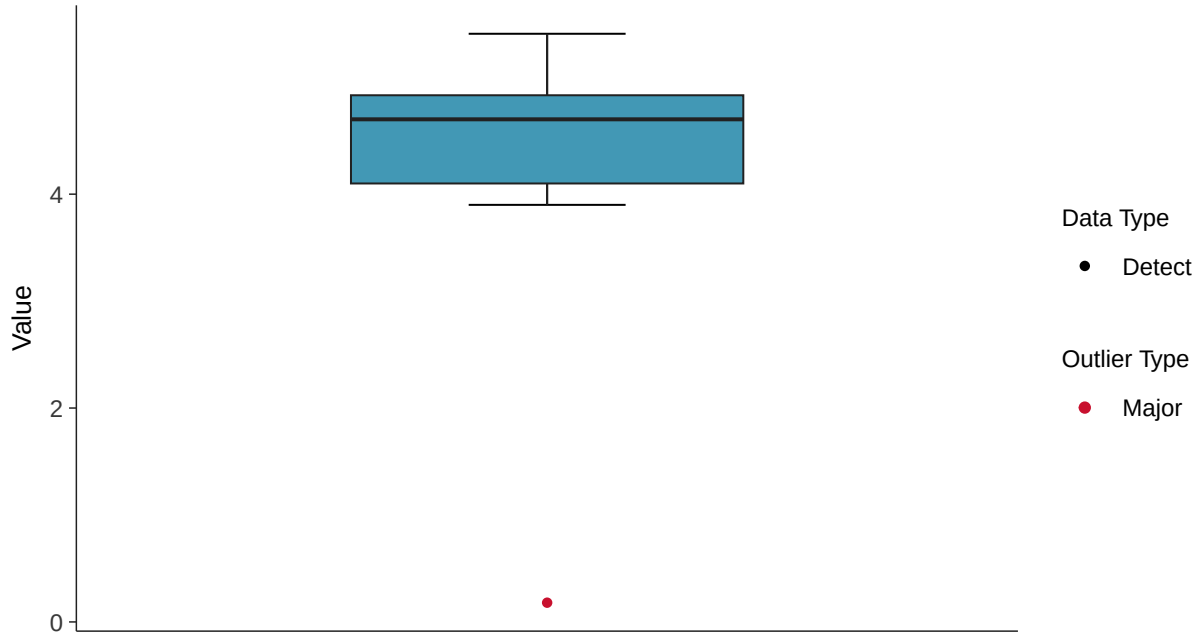
Histogram

Selenium, MW-7R (ug/L)



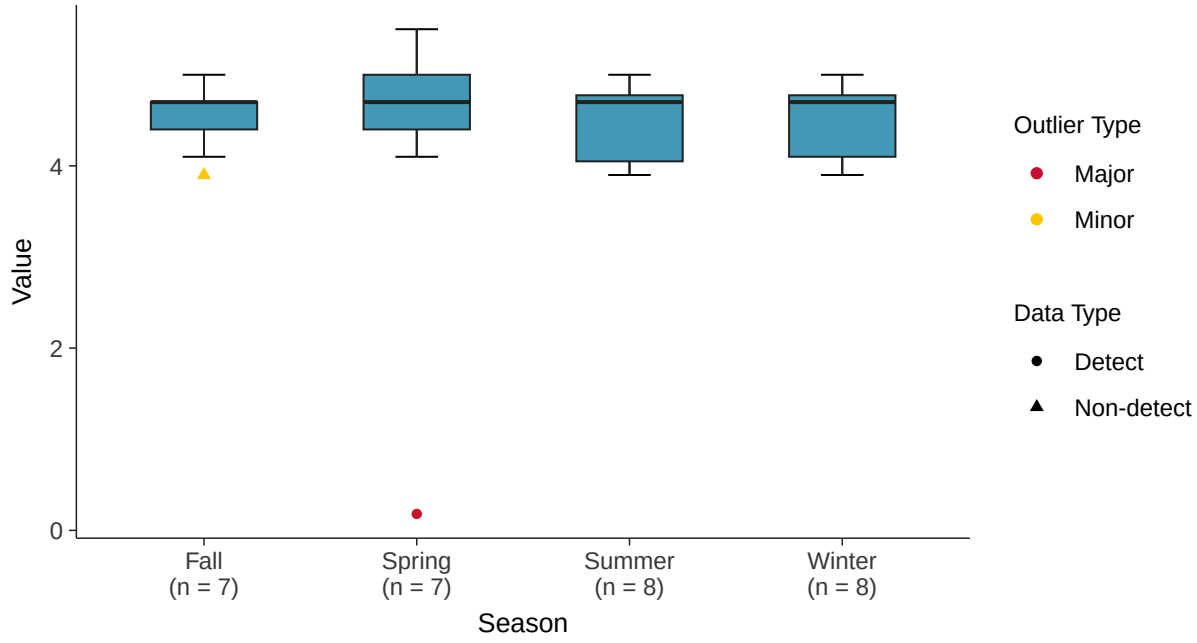
Boxplot

Selenium, MW-7R (ug/L)



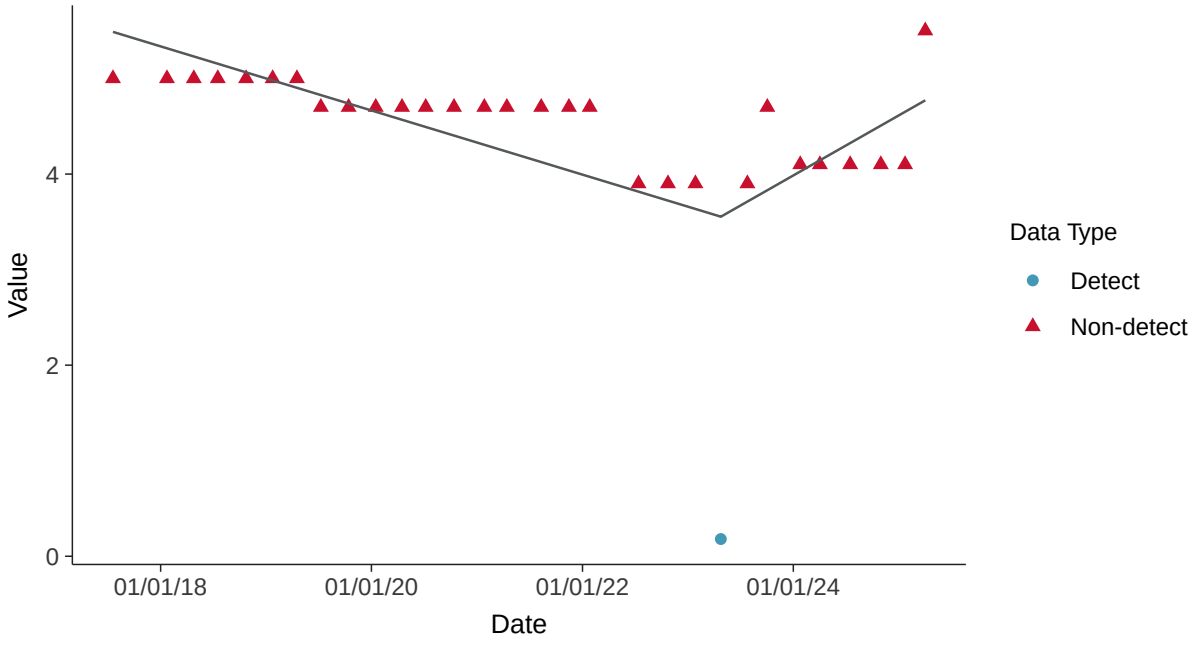
Boxplot by Season

Selenium, MW-7R (ug/L)



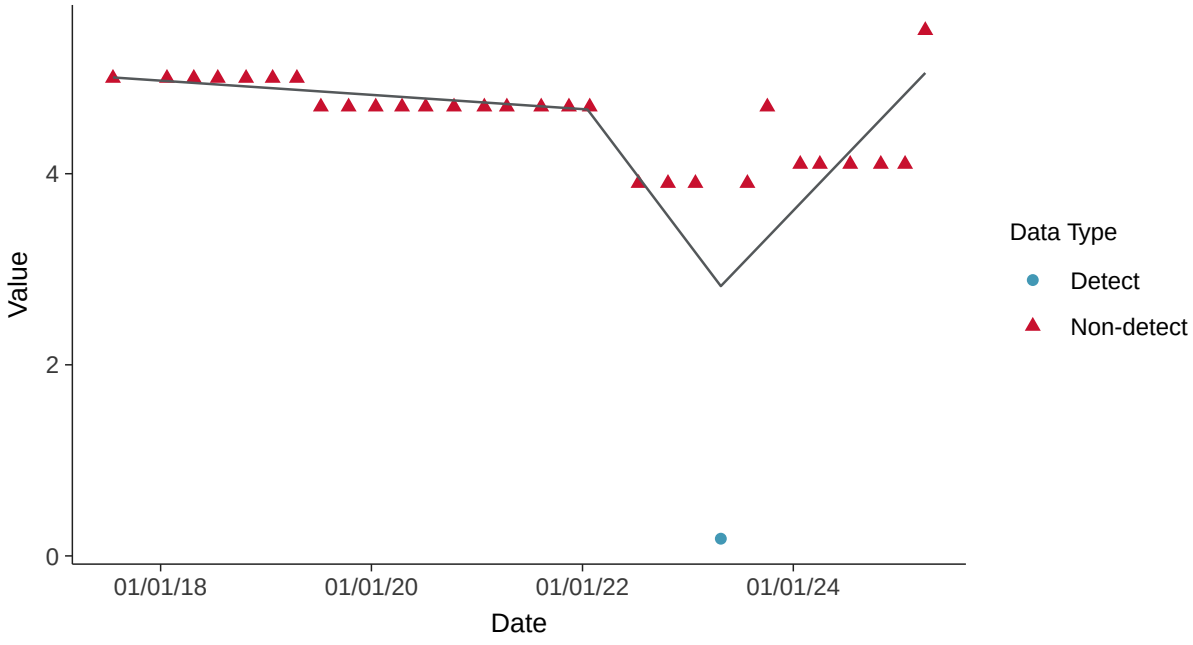
Trend Regression: Piecewise Linear-Linear

Selenium, MW-7R (ug/L)



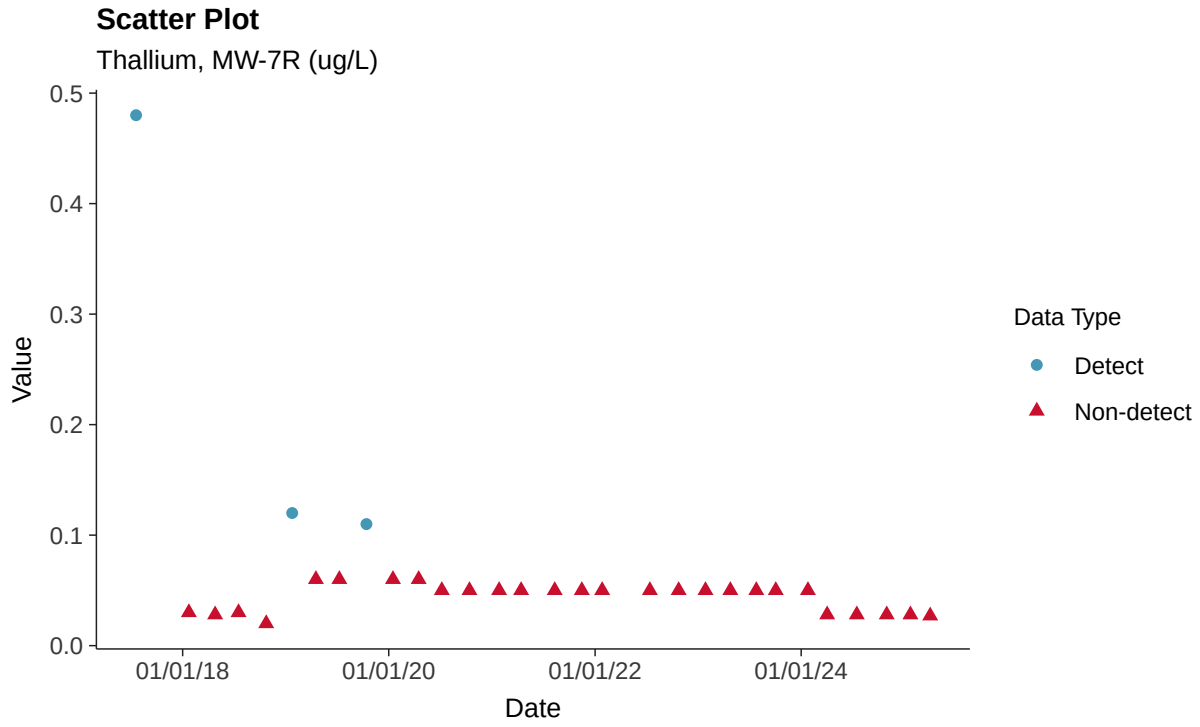
Trend Regression: Piecewise Linear-Linear-Linear

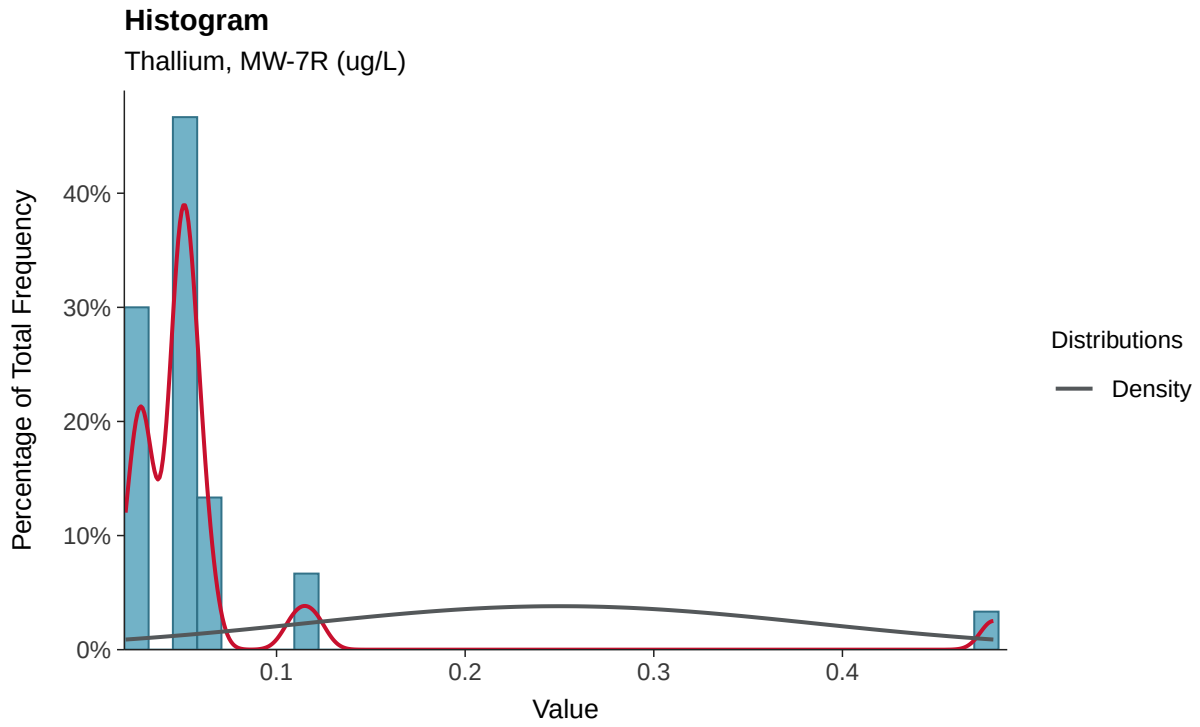
Selenium, MW-7R (ug/L)



App. IV: Thallium, MW-7R

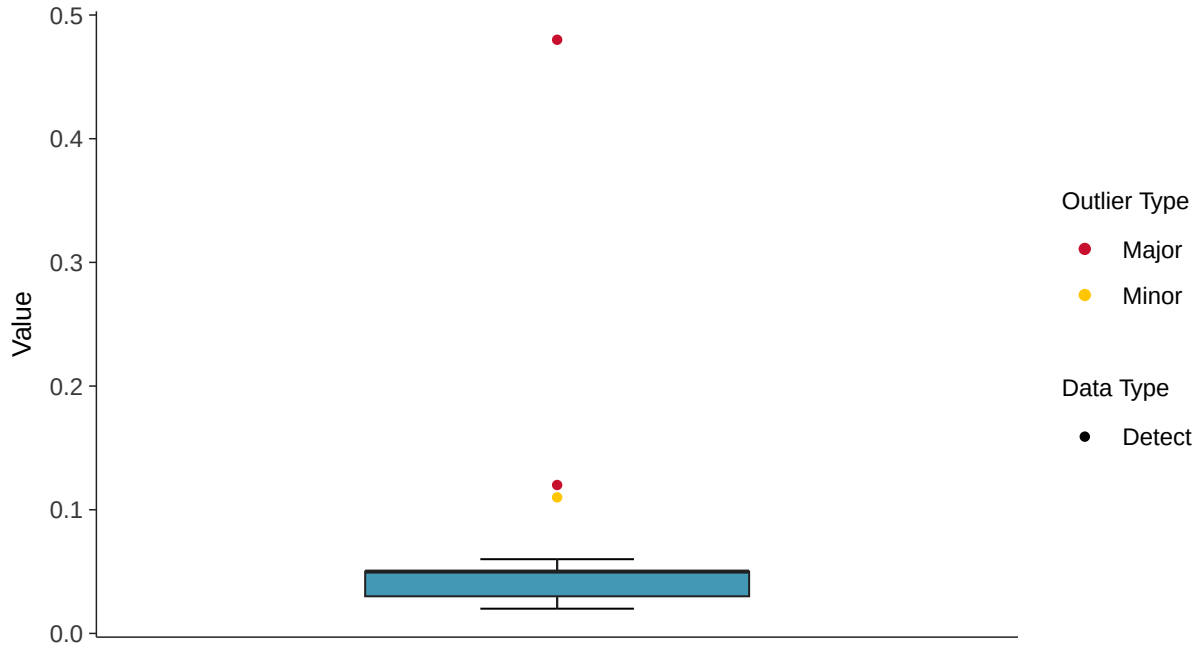
ID: 07_03_124





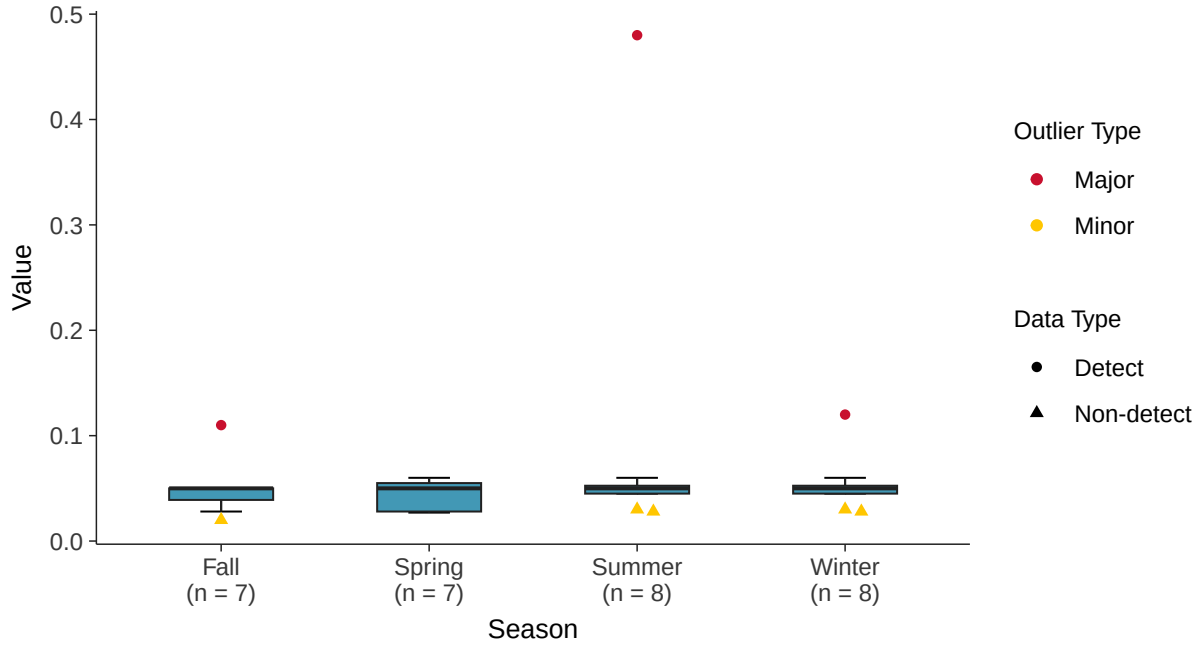
Boxplot

Thallium, MW-7R (ug/L)



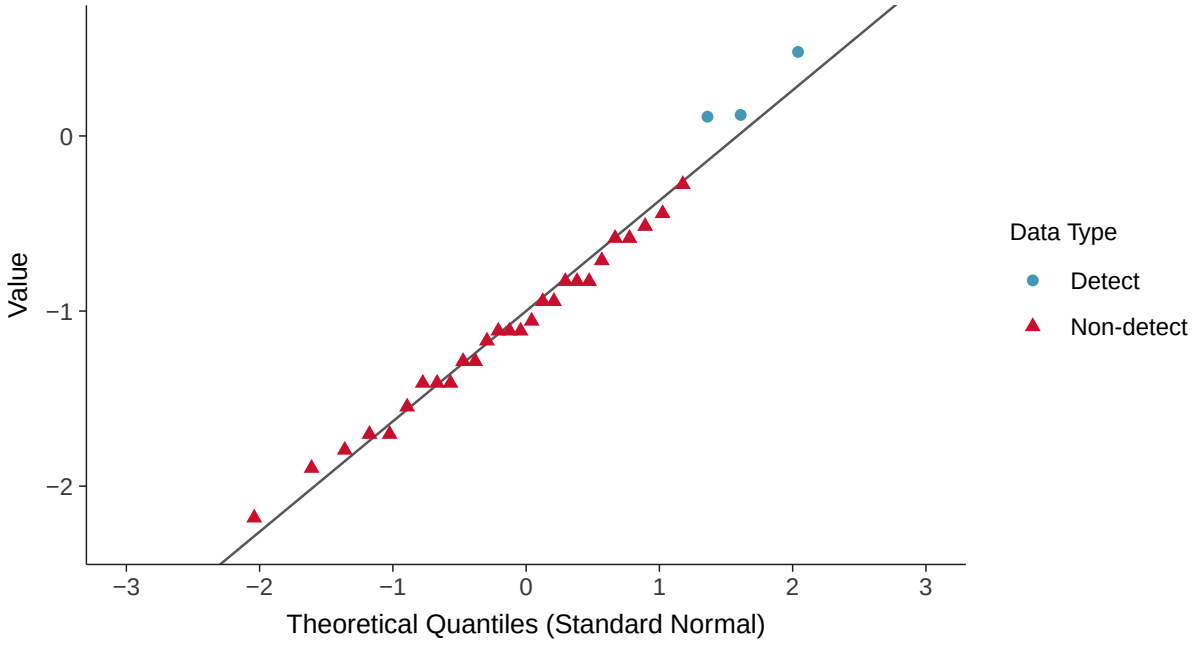
Boxplot by Season

Thallium, MW-7R (ug/L)



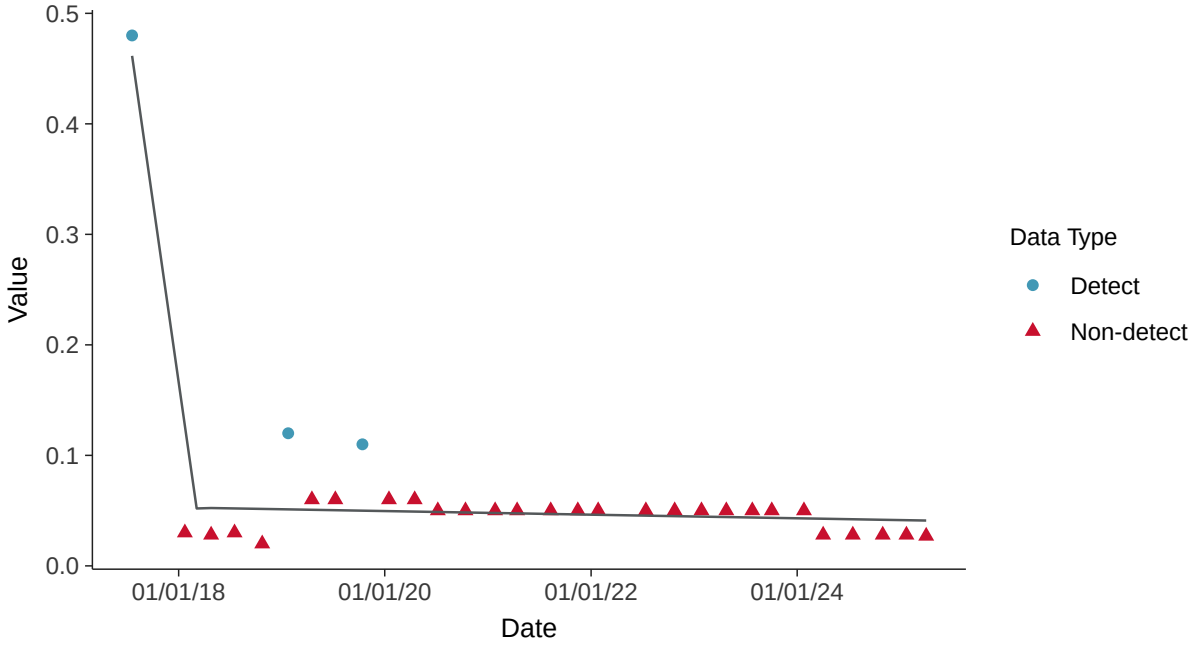
Normal Q-Q plot using ROS Imputed Estimates

Thallium, MW-7R (ug/L)



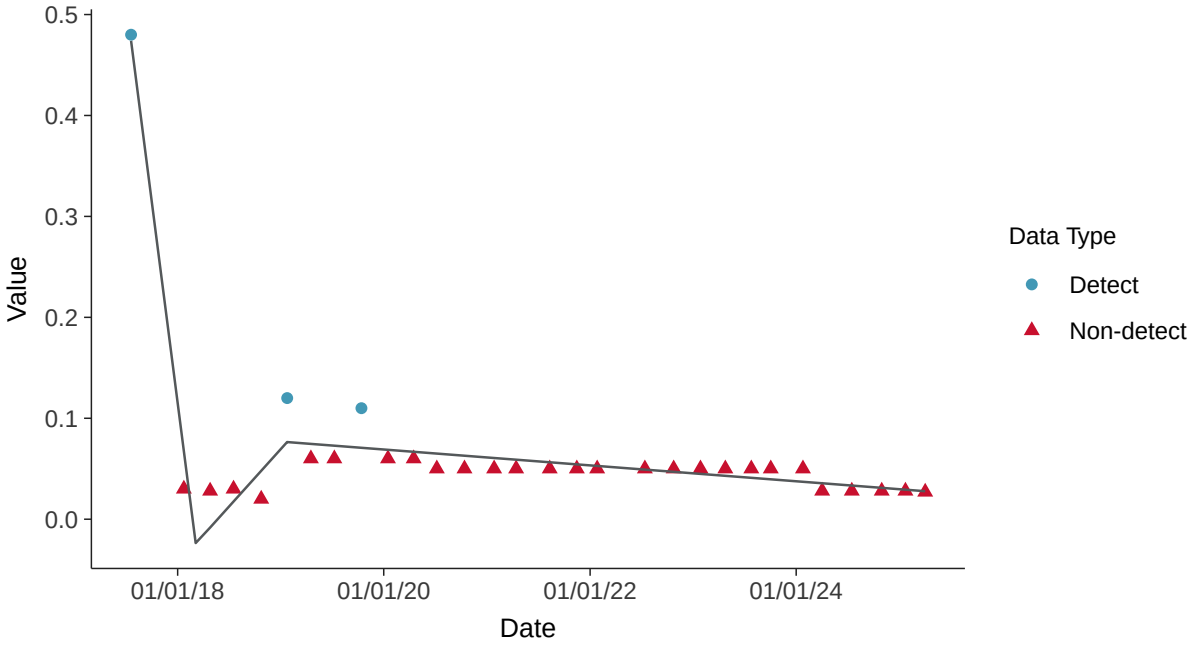
Trend Regression: Piecewise Linear-Linear

Thallium, MW-7R (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Thallium, MW-7R (ug/L)

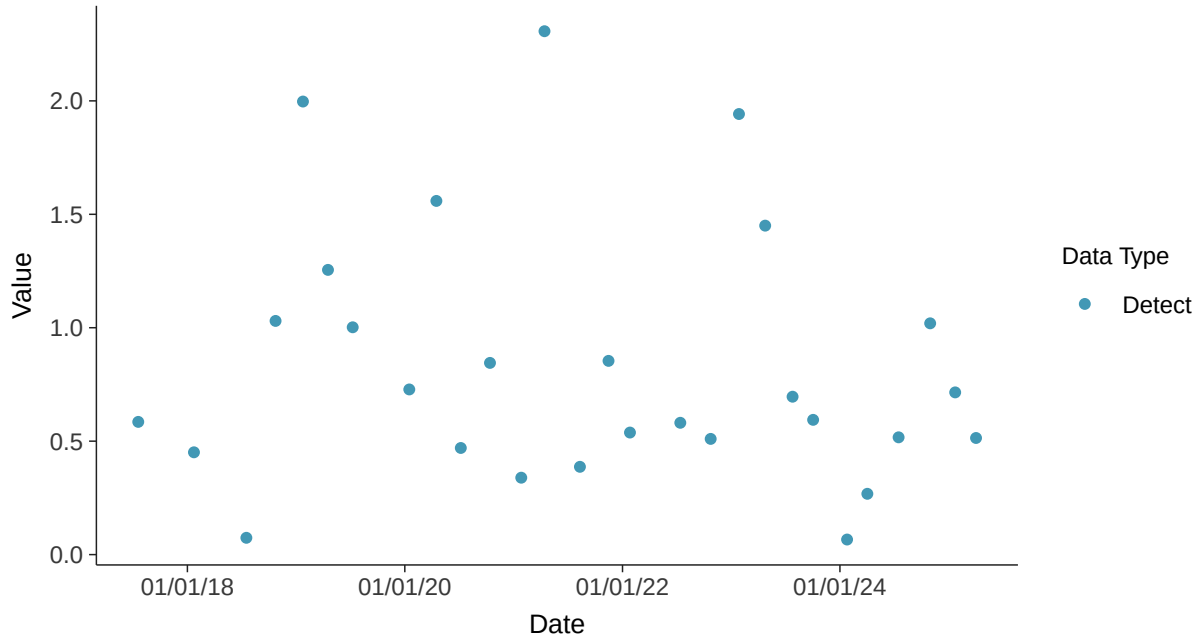


App. IV: Total Radium, MW-7R

ID: 07_03_126

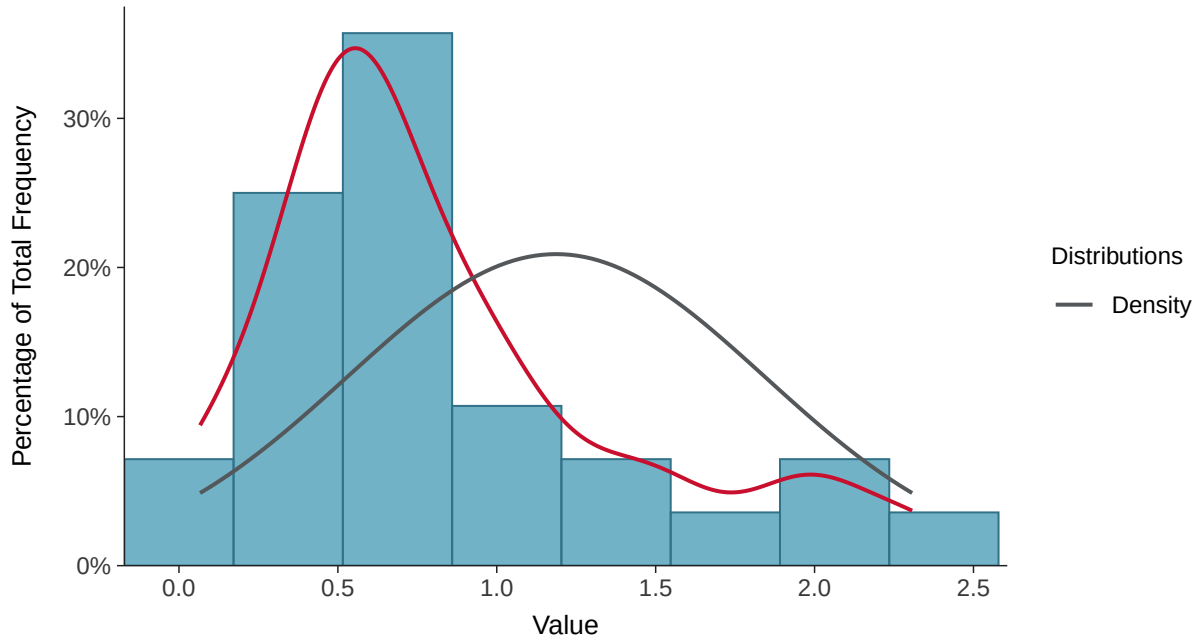
Scatter Plot

Total Radium, MW-7R (pCi/L)



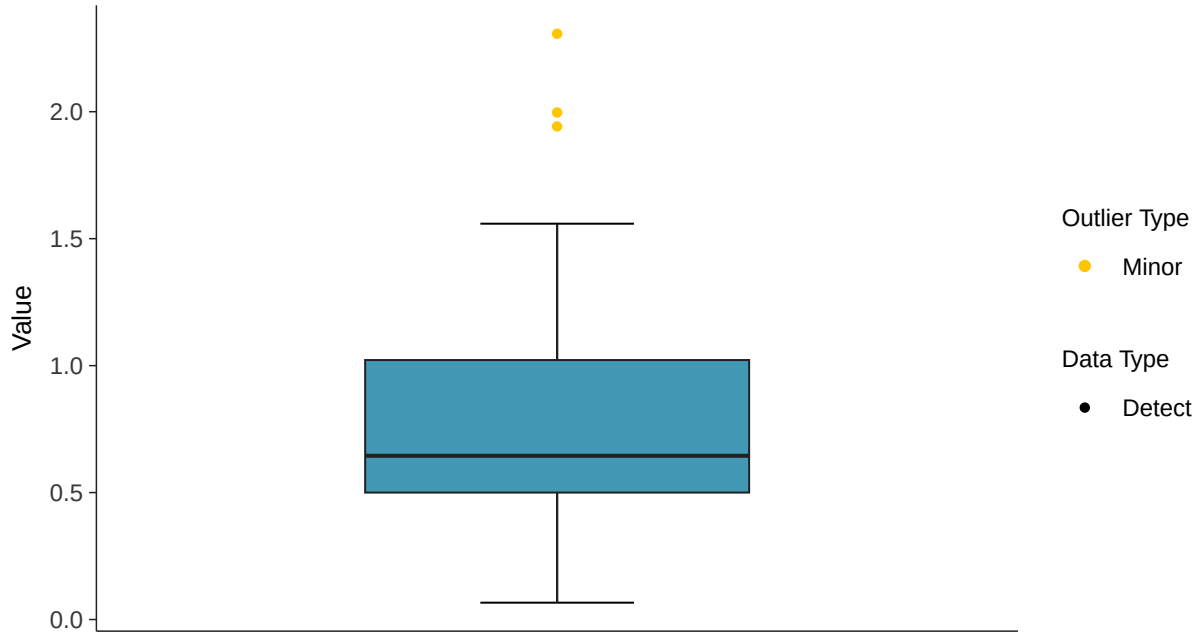
Histogram

Total Radium, MW-7R (pCi/L)



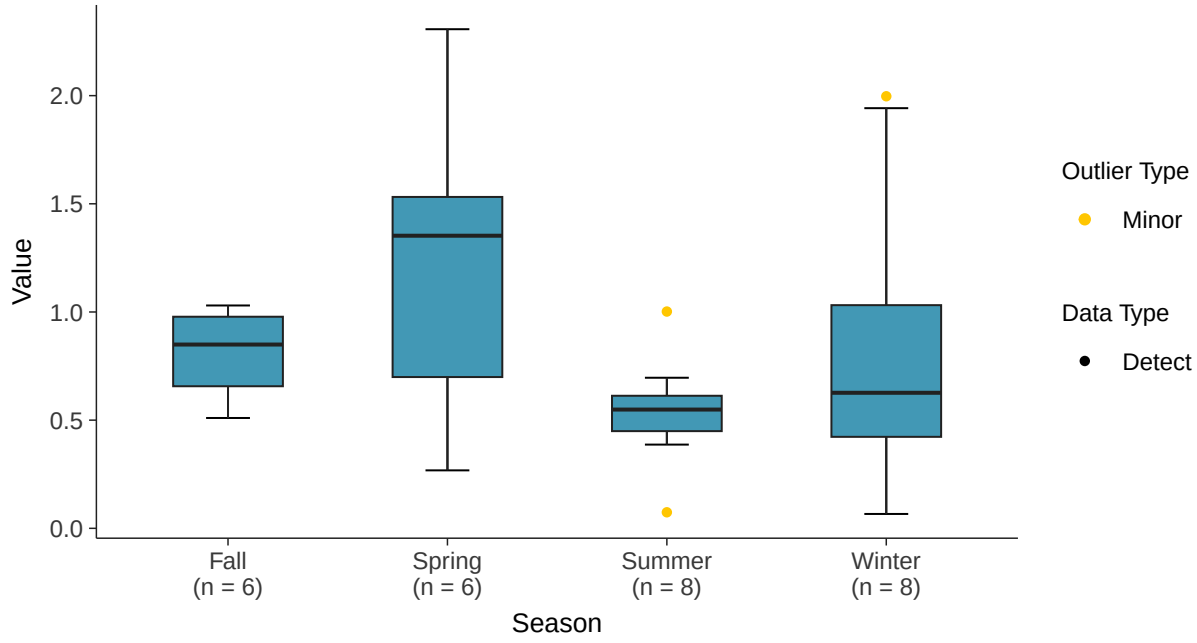
Boxplot

Total Radium, MW-7R (pCi/L)



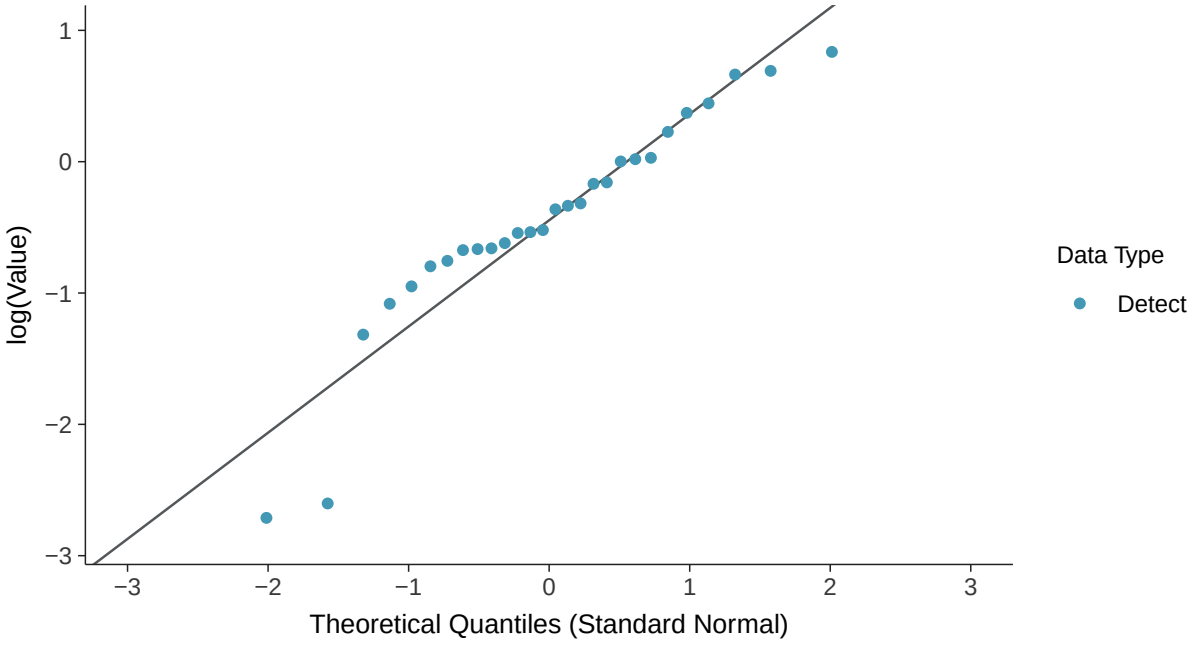
Boxplot by Season

Total Radium, MW-7R (pCi/L)



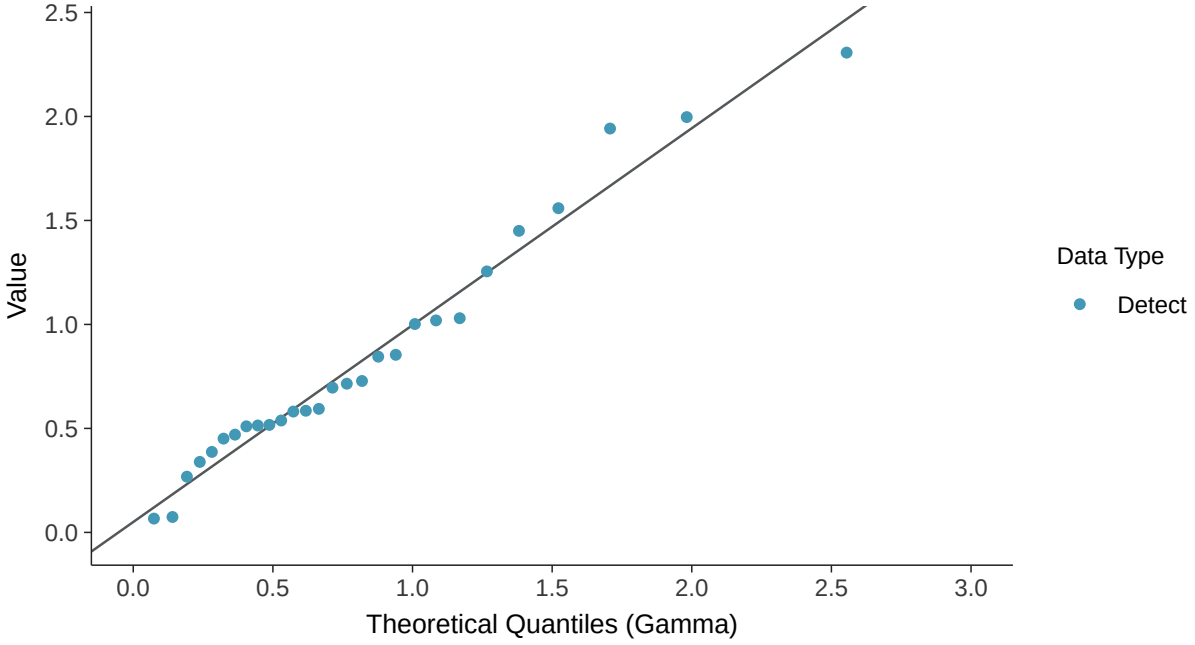
Lognormal Q-Q plot

Total Radium, MW-7R (pCi/L)



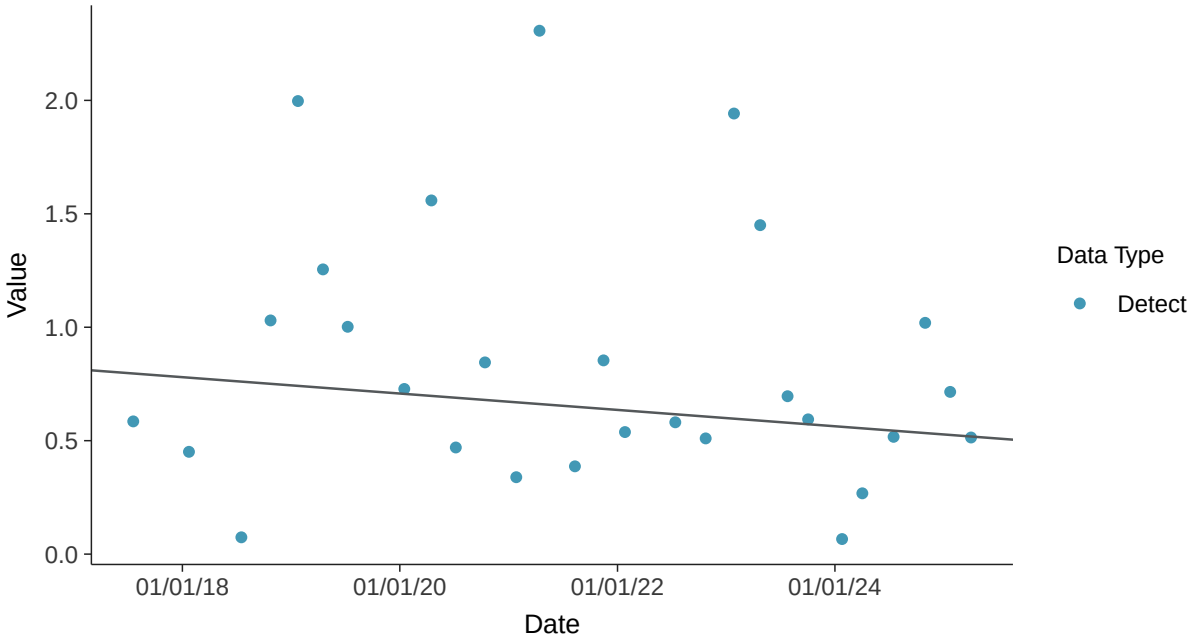
Gamma Q-Q plot

Total Radium, MW-7R (pCi/L)



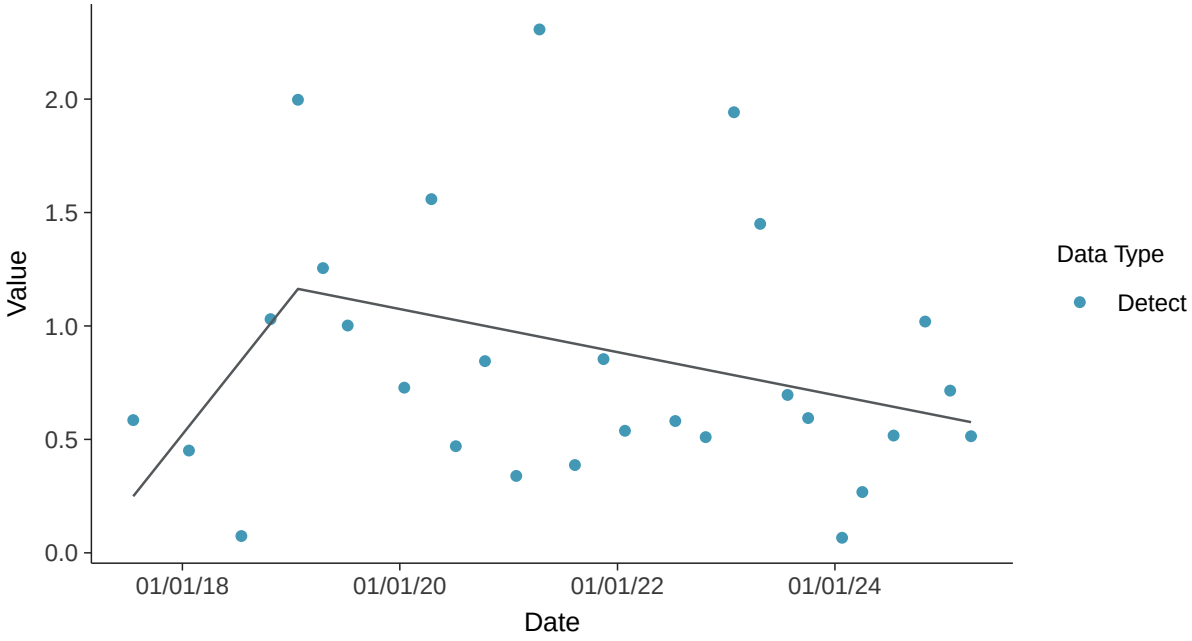
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Total Radium, MW-7R (pCi/L)



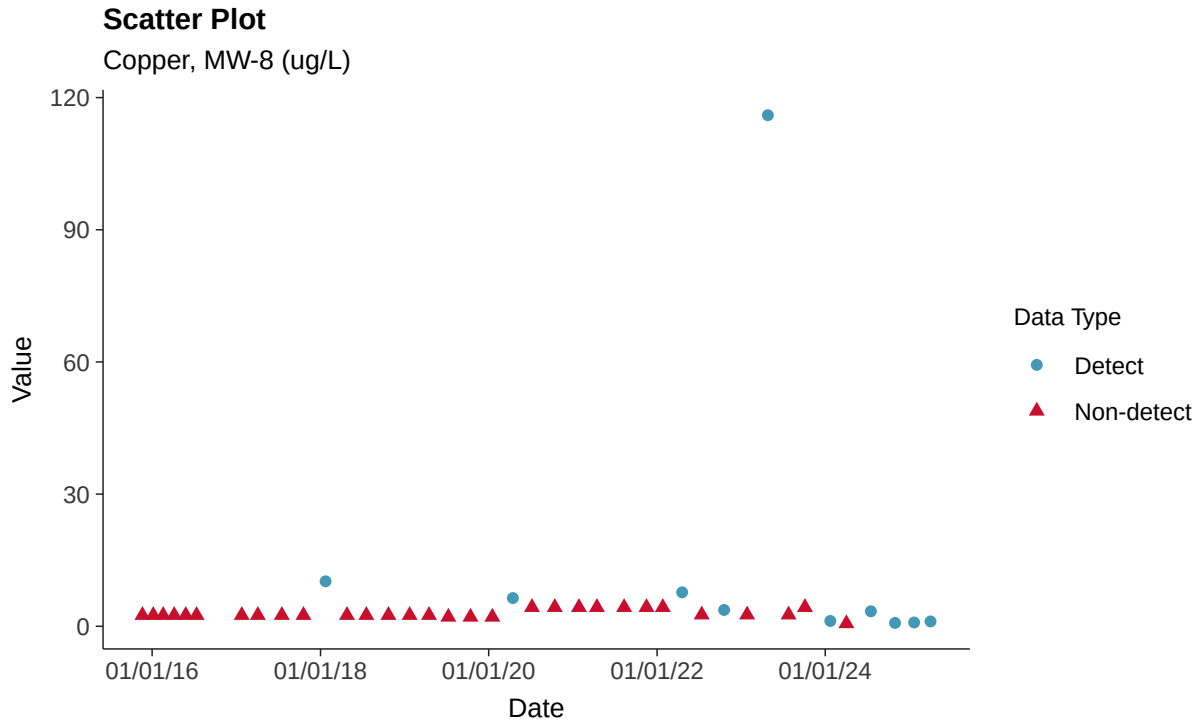
Trend Regression: Piecewise Linear-Linear

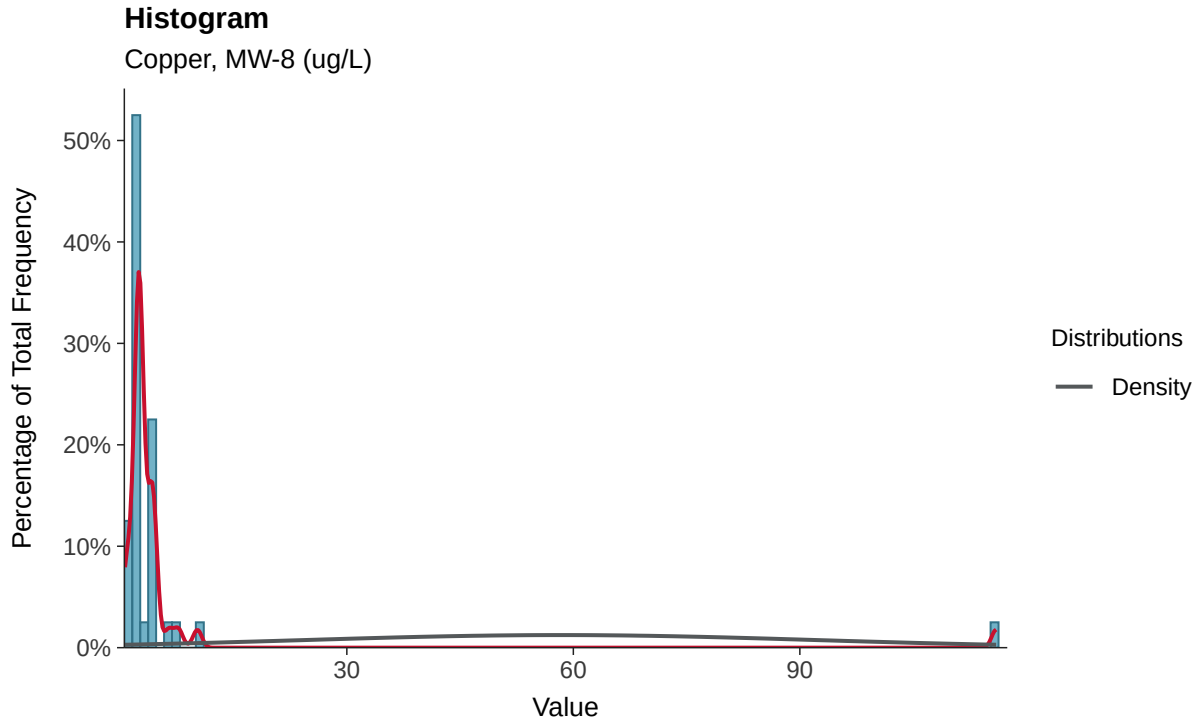
Total Radium, MW-7R (pCi/L)



App. I Metals: Copper, MW-8

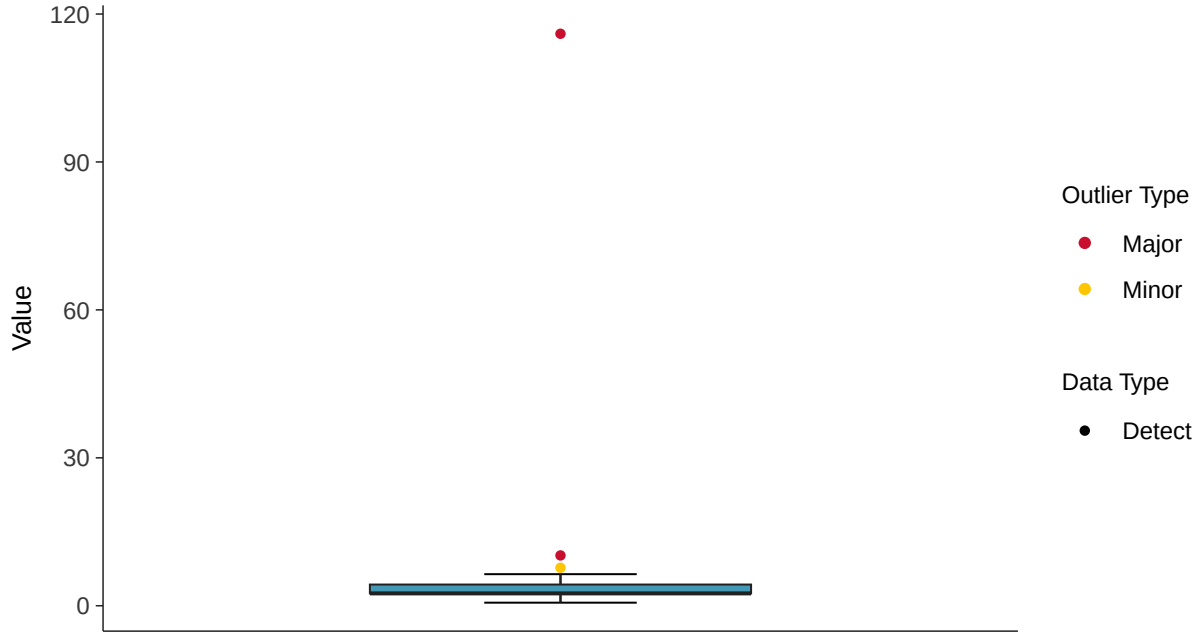
ID: 08_01_111





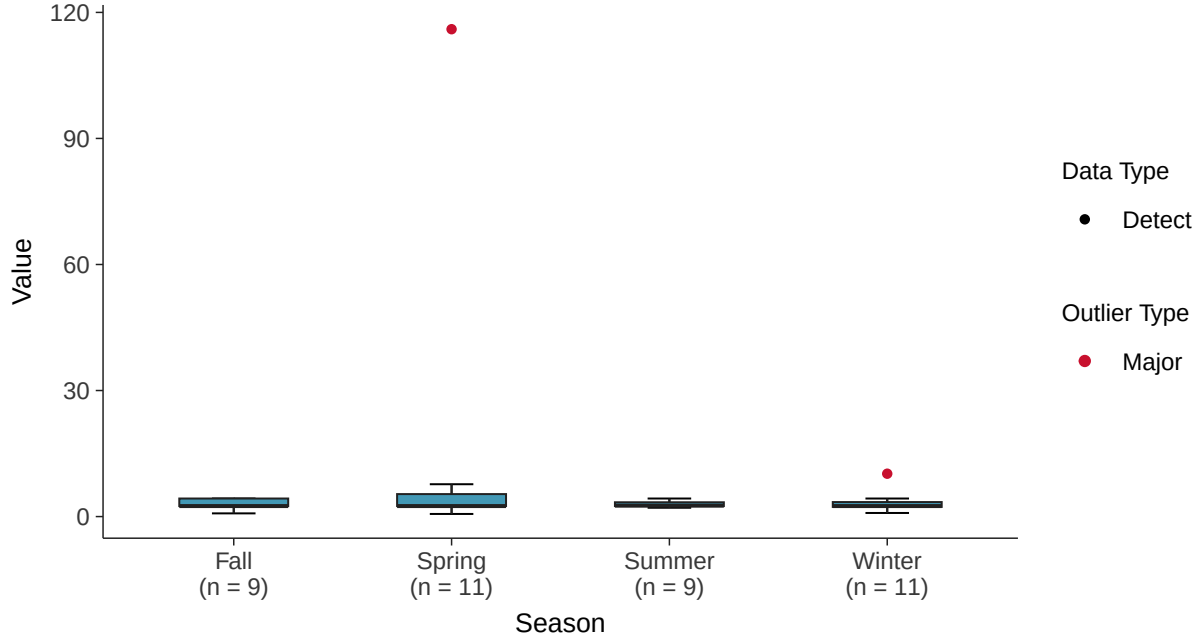
Boxplot

Copper, MW-8 (ug/L)



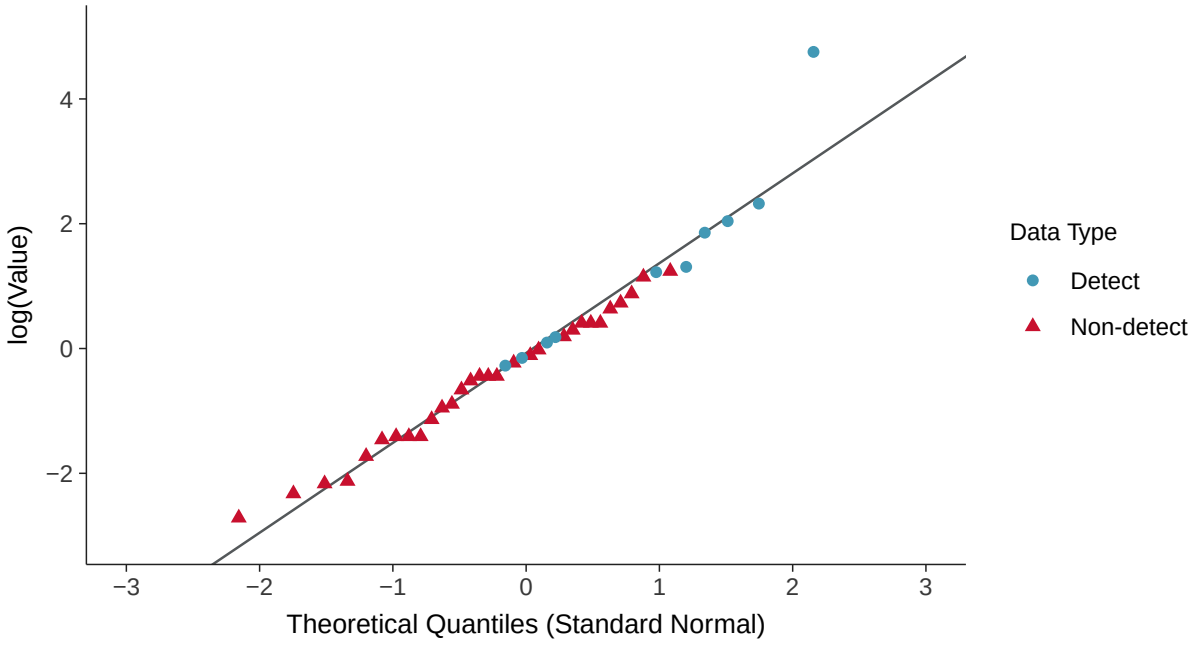
Boxplot by Season

Copper, MW-8 (ug/L)



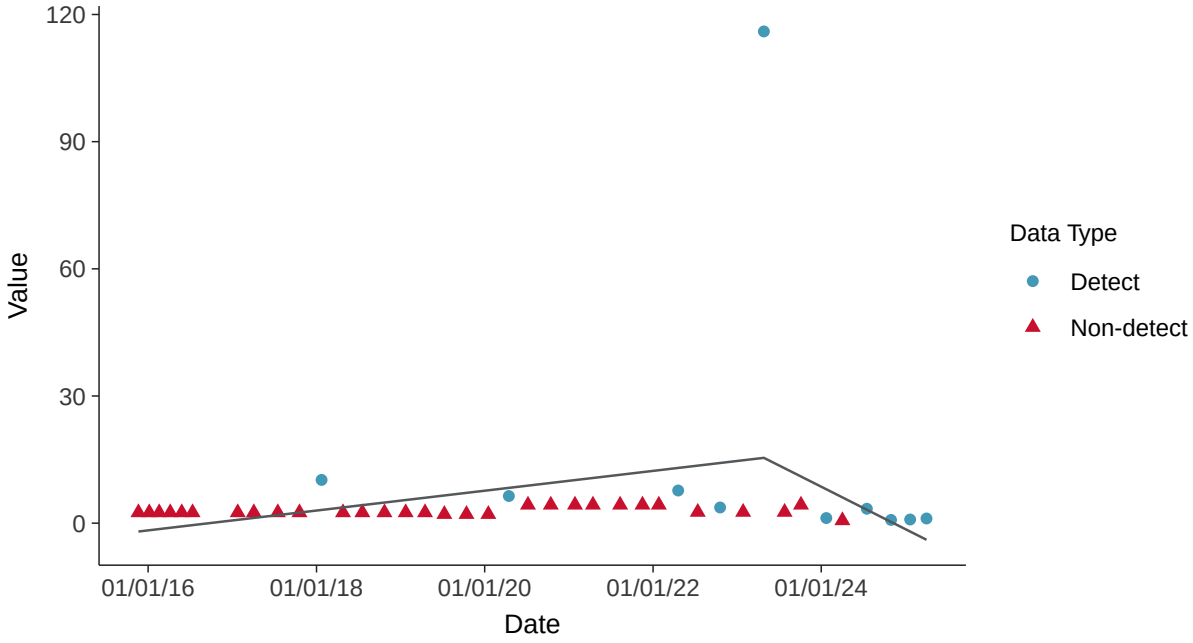
Lognormal Q-Q plot using ROS Imputed Estimates

Copper, MW-8 (ug/L)



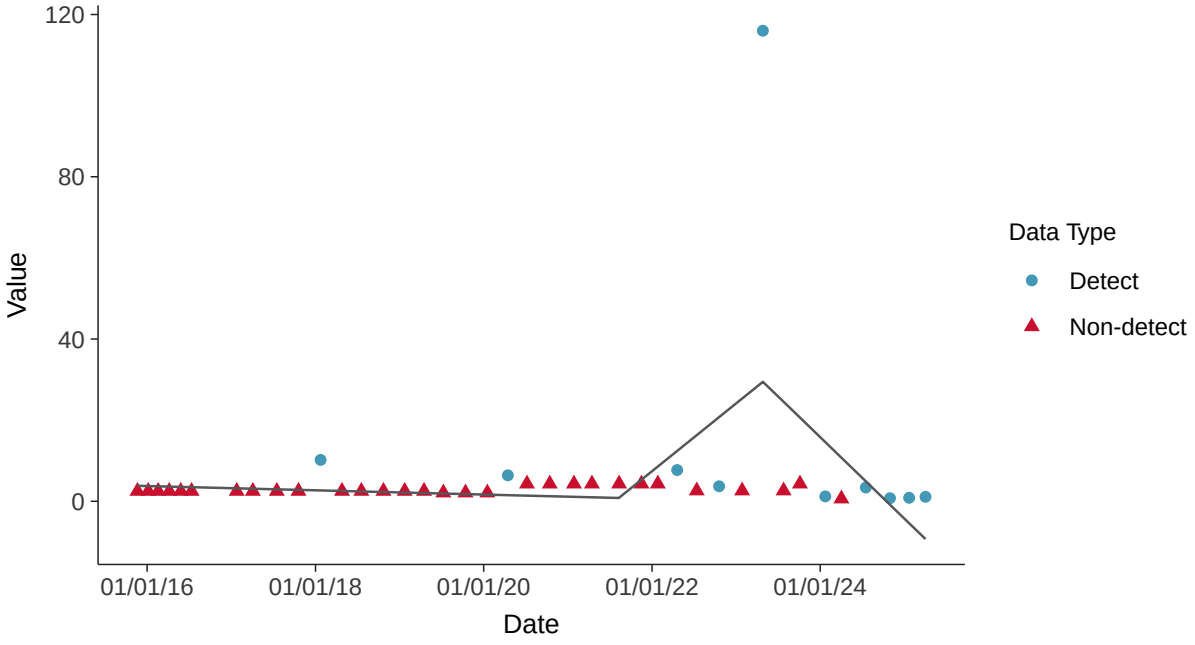
Trend Regression: Piecewise Linear-Linear

Copper, MW-8 (ug/L)



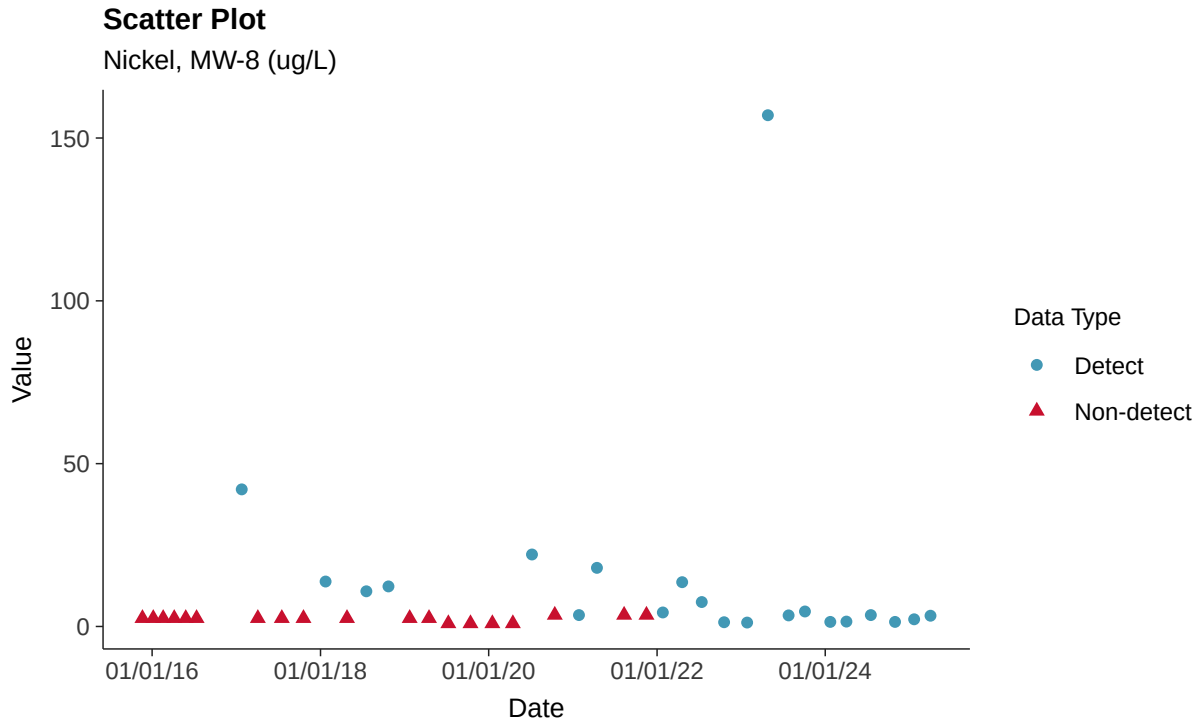
Trend Regression: Piecewise Linear-Linear-Linear

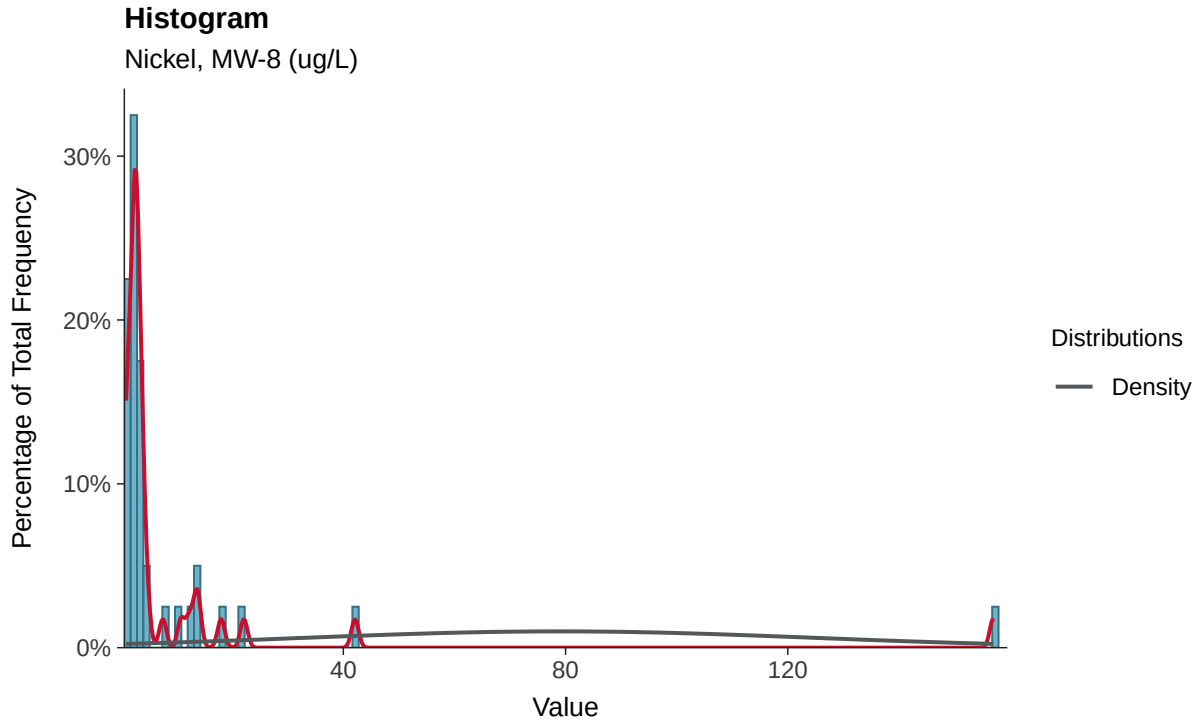
Copper, MW-8 (ug/L)



App. I Metals: Nickel, MW-8

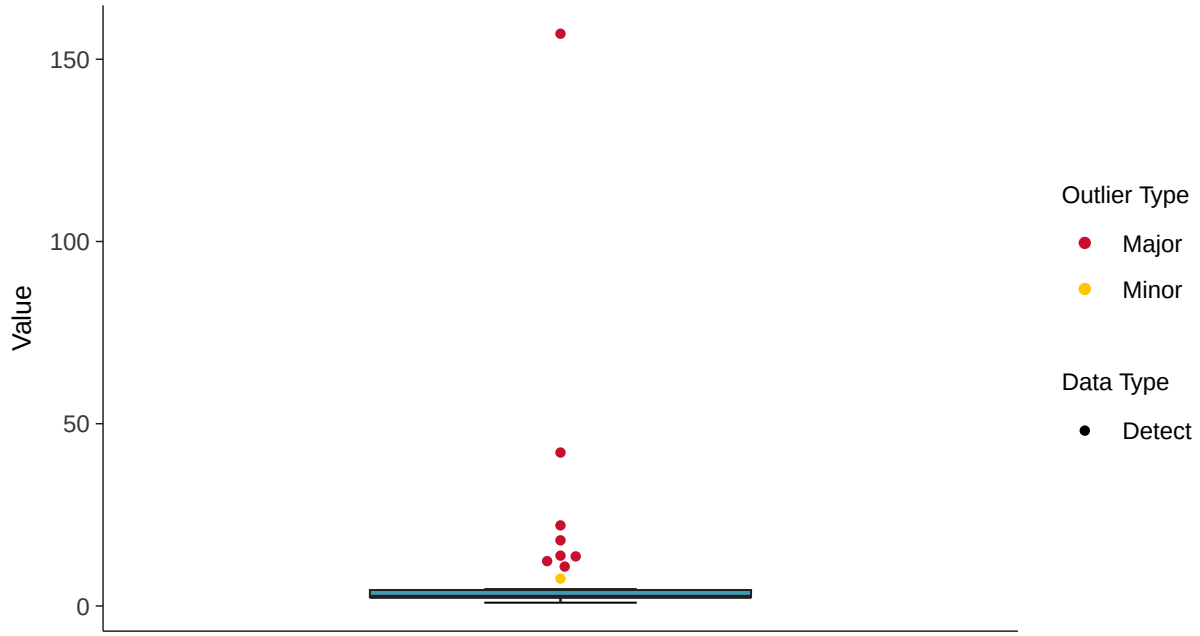
ID: 08_01_117





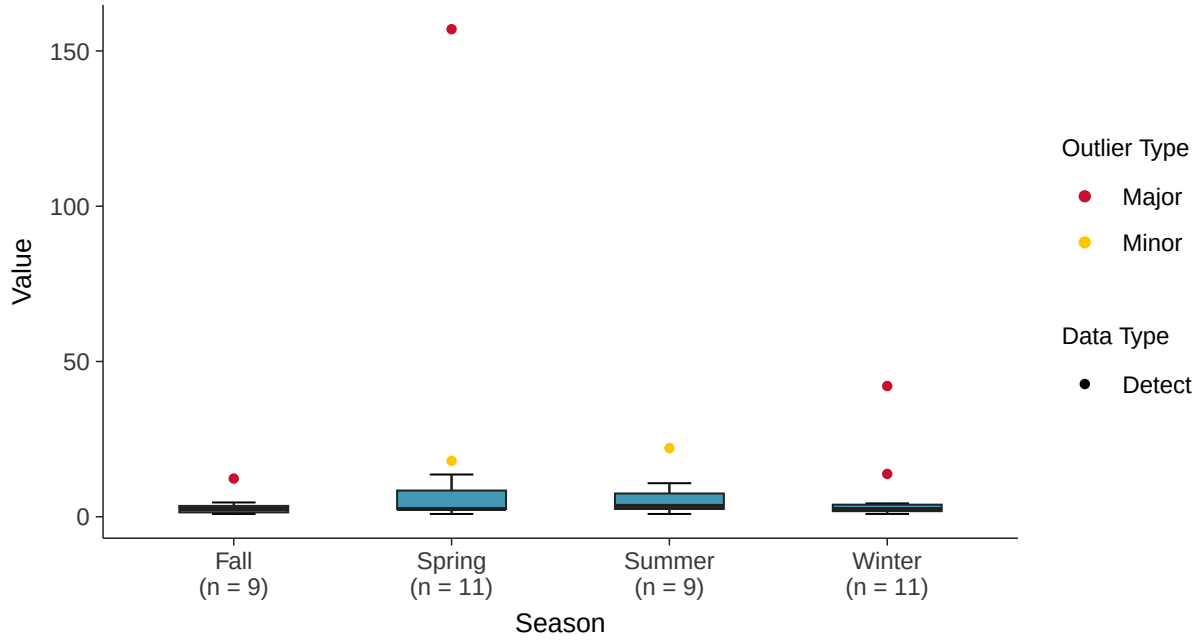
Boxplot

Nickel, MW-8 (ug/L)



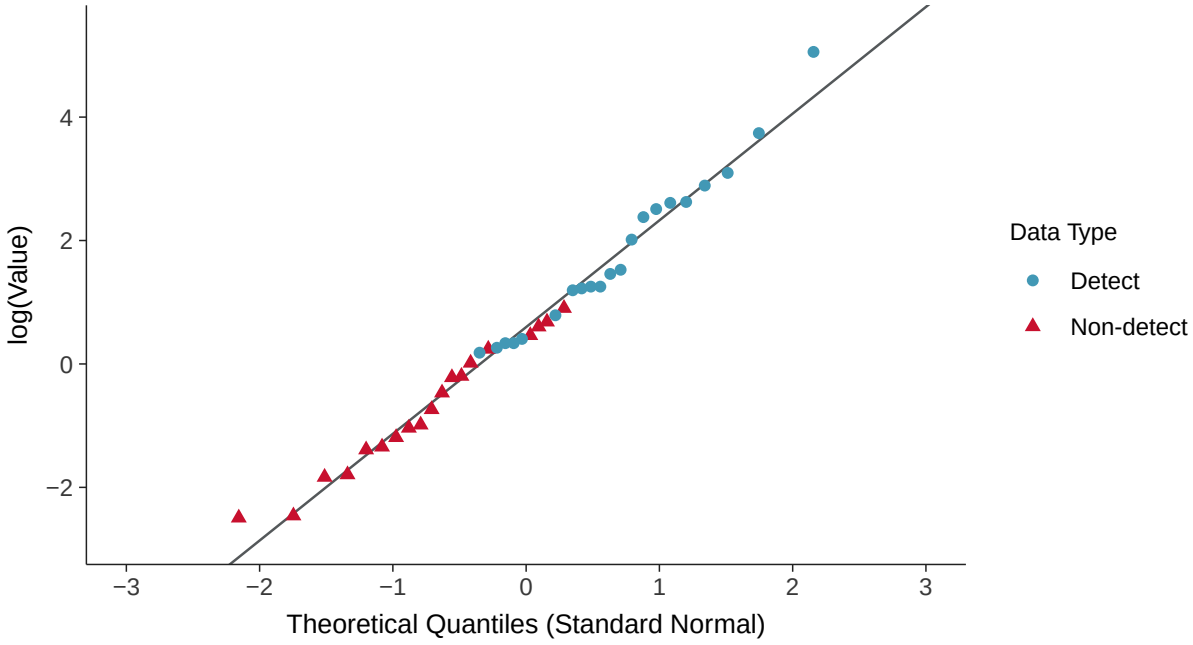
Boxplot by Season

Nickel, MW-8 (ug/L)



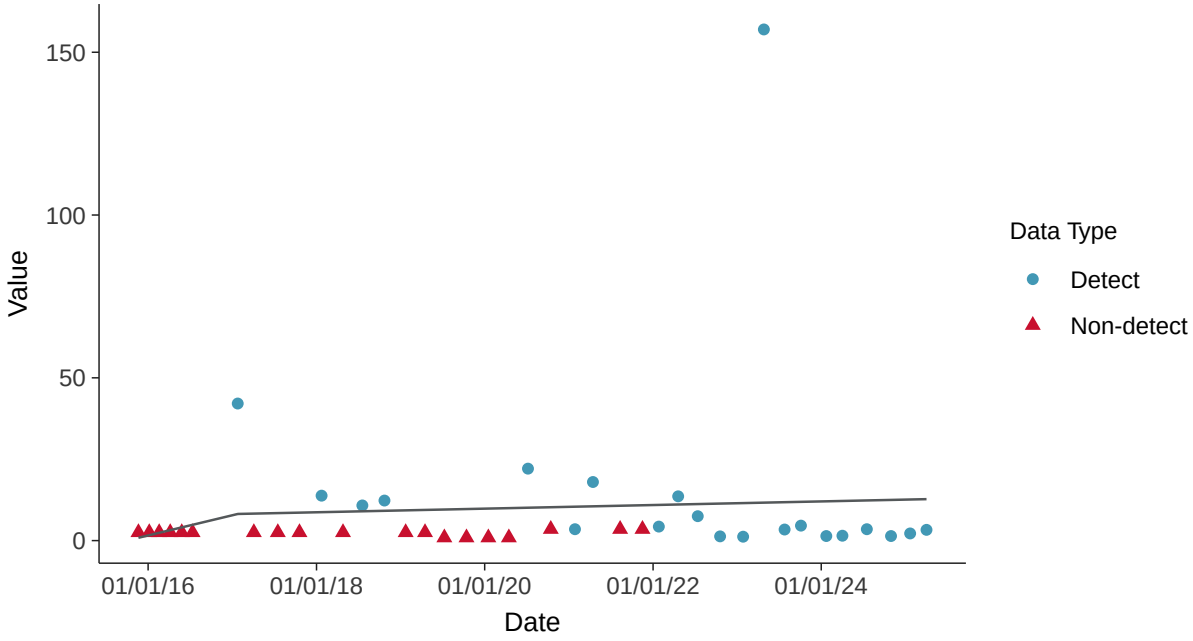
Lognormal Q-Q plot using ROS Imputed Estimates

Nickel, MW-8 (ug/L)



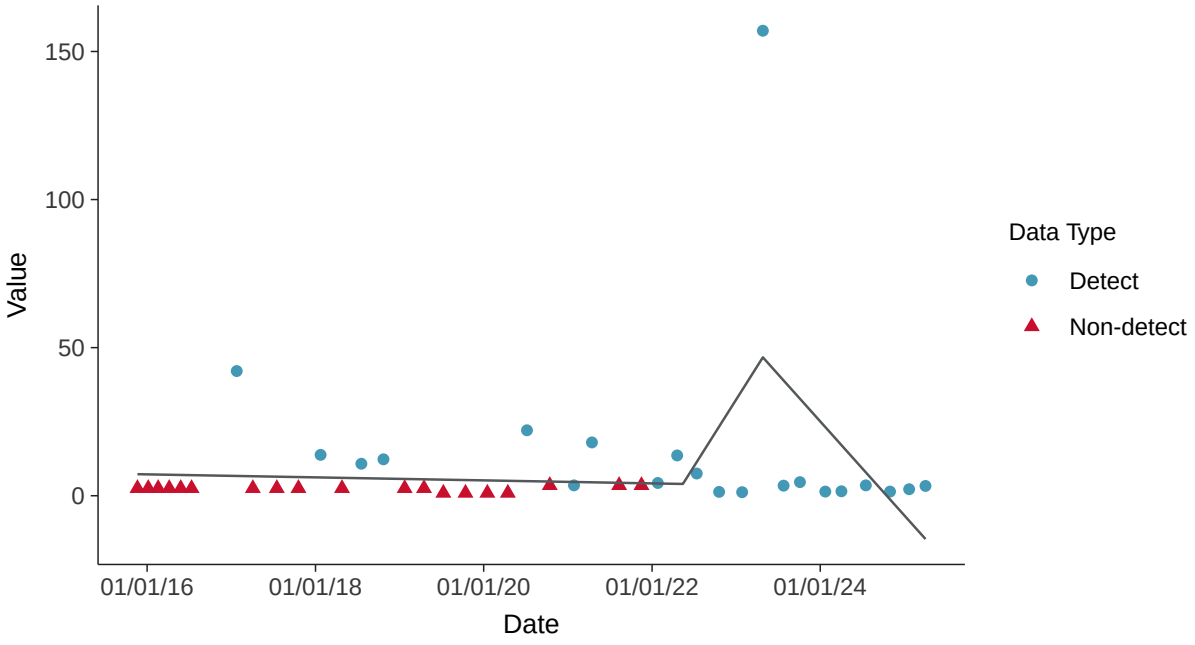
Trend Regression: Piecewise Linear-Linear

Nickel, MW-8 (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Nickel, MW-8 (ug/L)

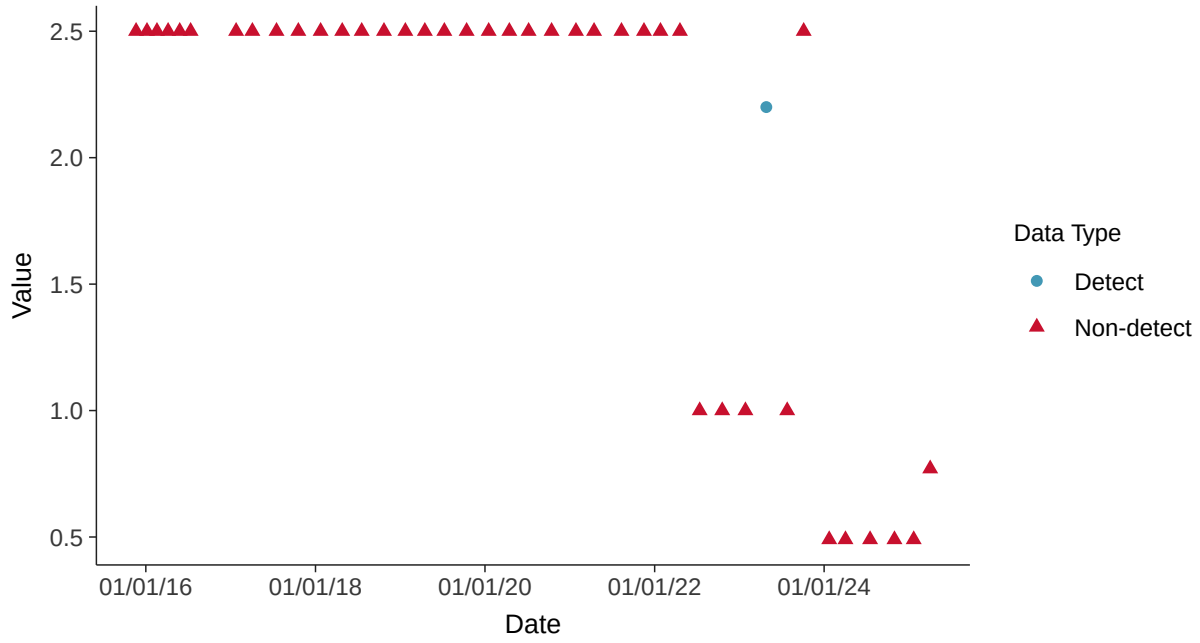


App. I Metals: Silver, MW-8

ID: 08_01_122

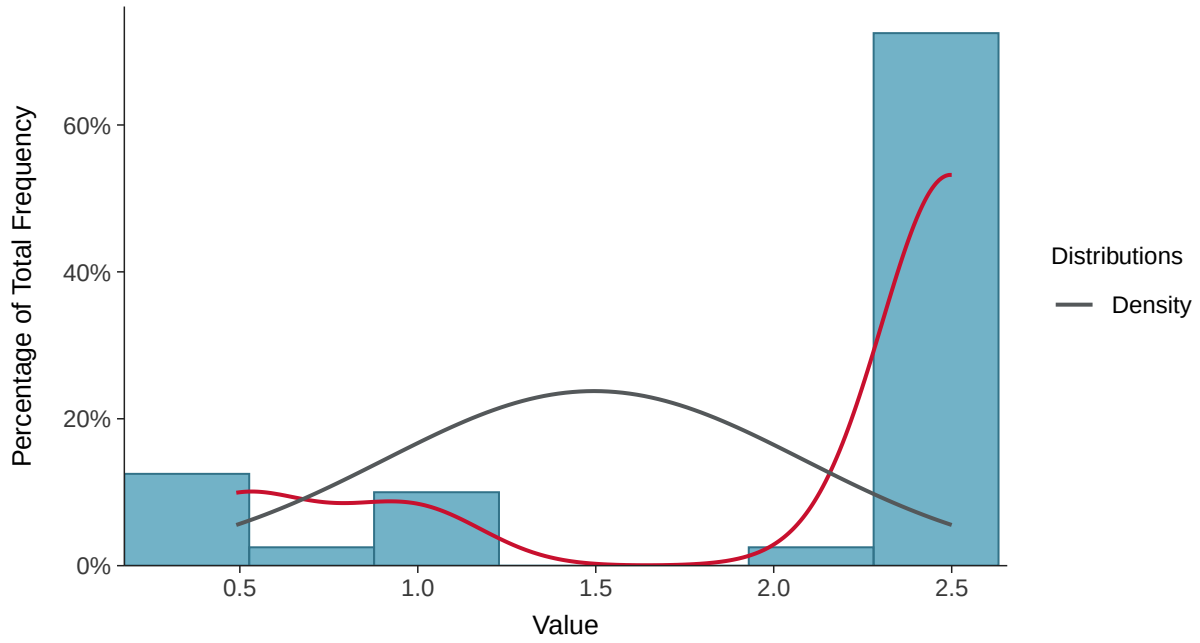
Scatter Plot

Silver, MW-8 (ug/L)



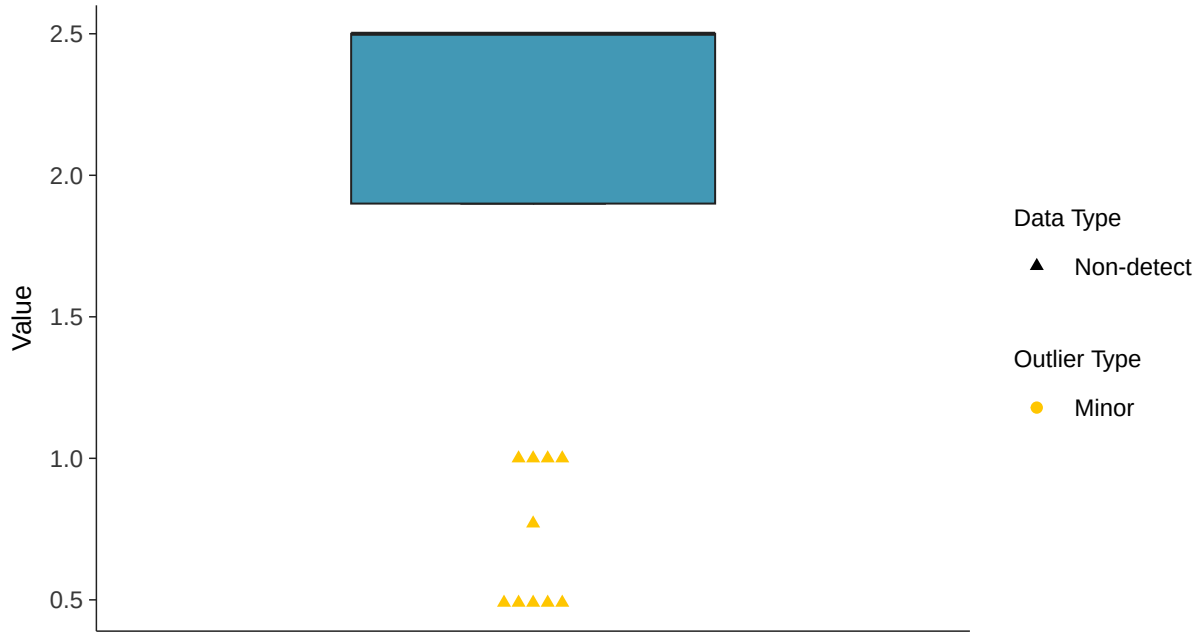
Histogram

Silver, MW-8 (ug/L)



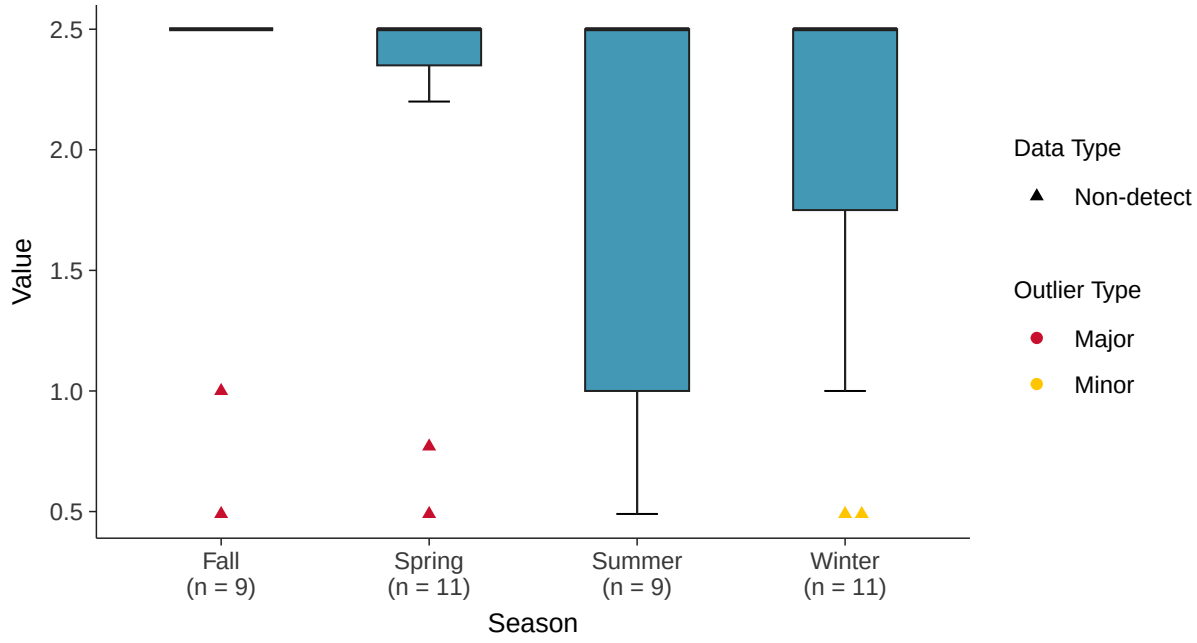
Boxplot

Silver, MW-8 (ug/L)



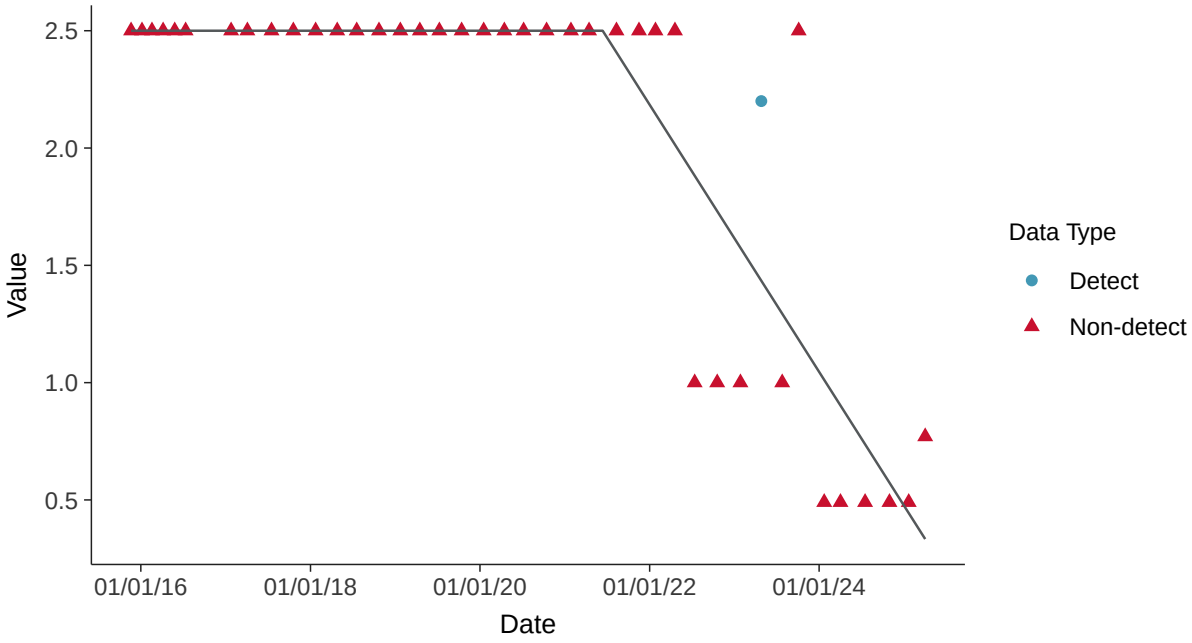
Boxplot by Season

Silver, MW-8 (ug/L)



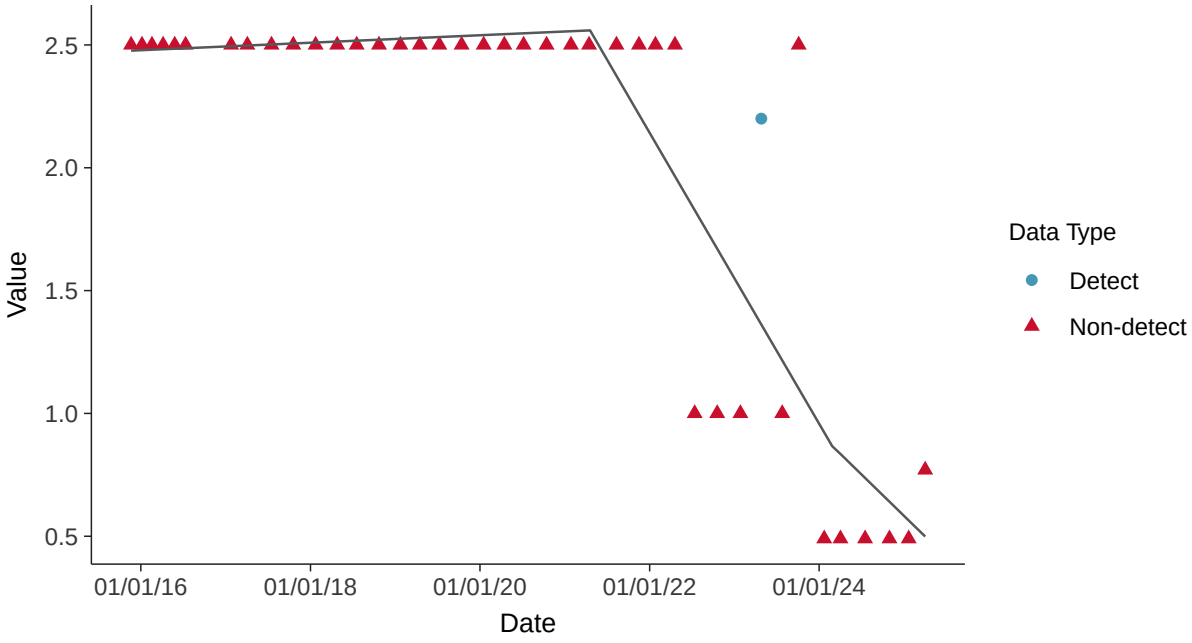
Trend Regression: Piecewise Linear-Linear

Silver, MW-8 (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Silver, MW-8 (ug/L)

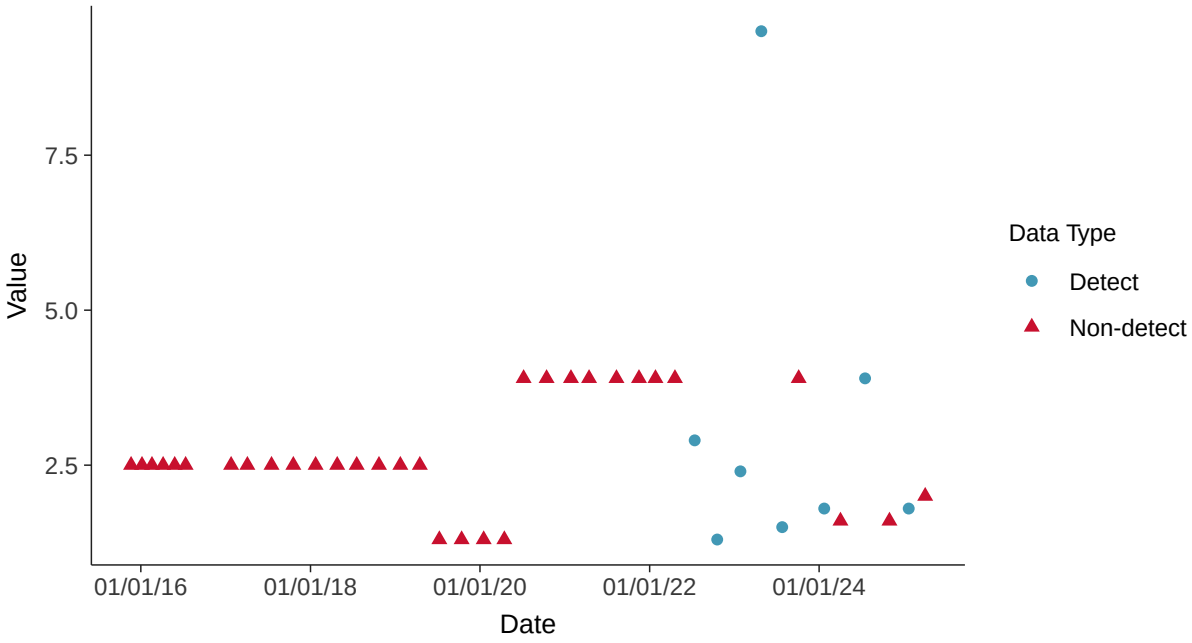


App. I Metals: Vanadium, MW-8

ID: 08_01_127

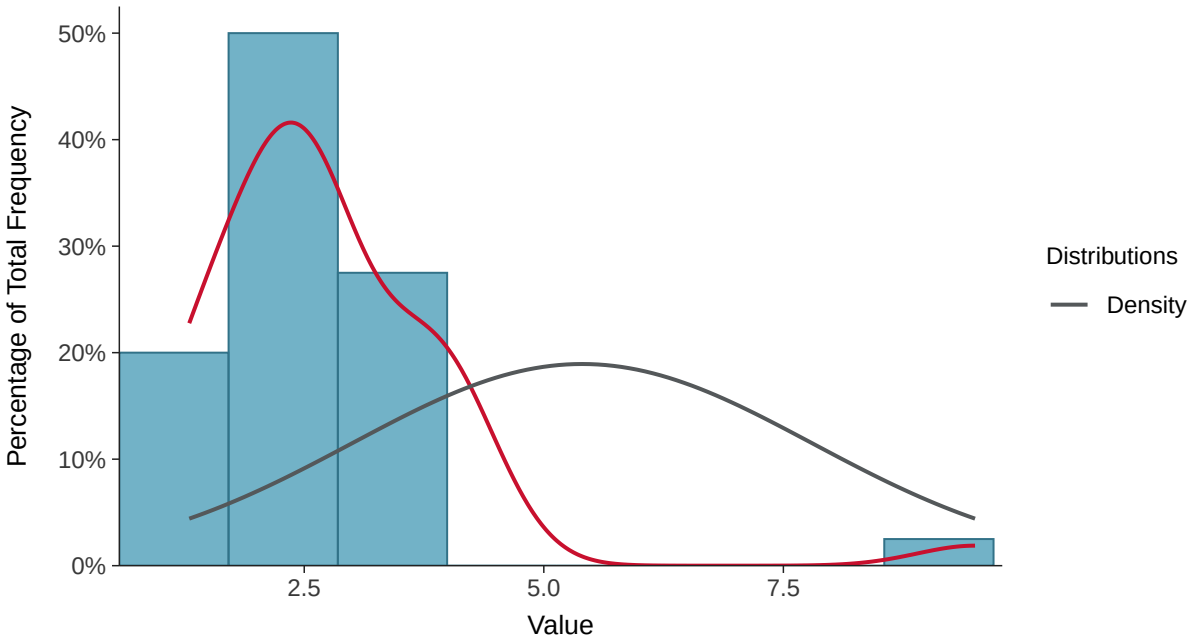
Scatter Plot

Vanadium, MW-8 (ug/L)



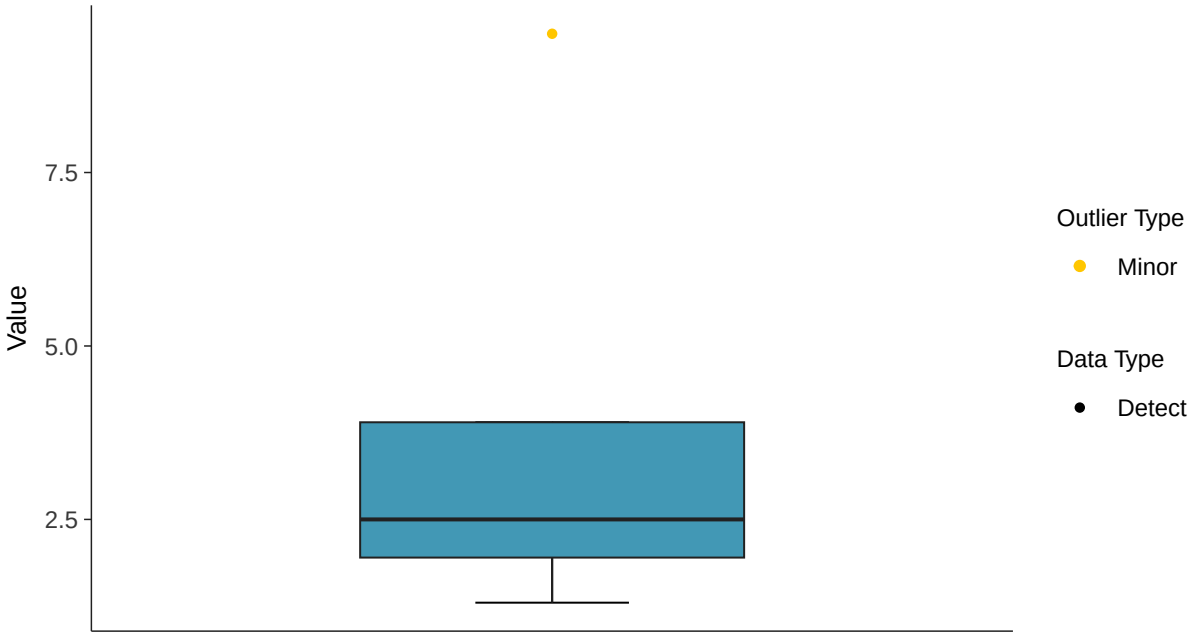
Histogram

Vanadium, MW-8 (ug/L)



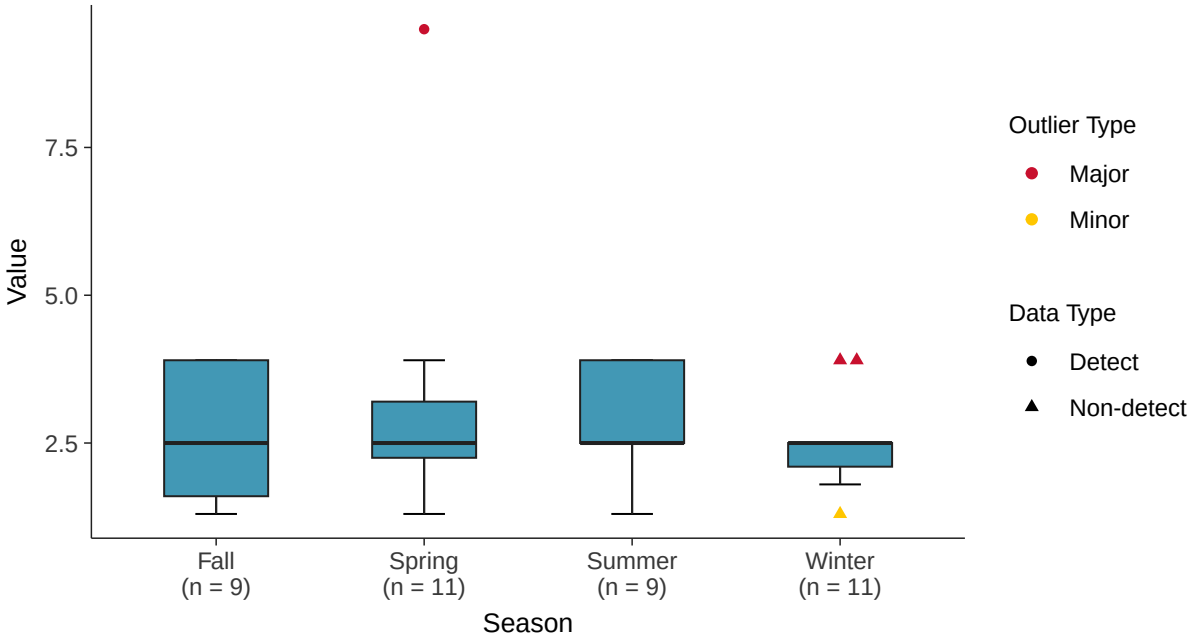
Boxplot

Vanadium, MW-8 (ug/L)



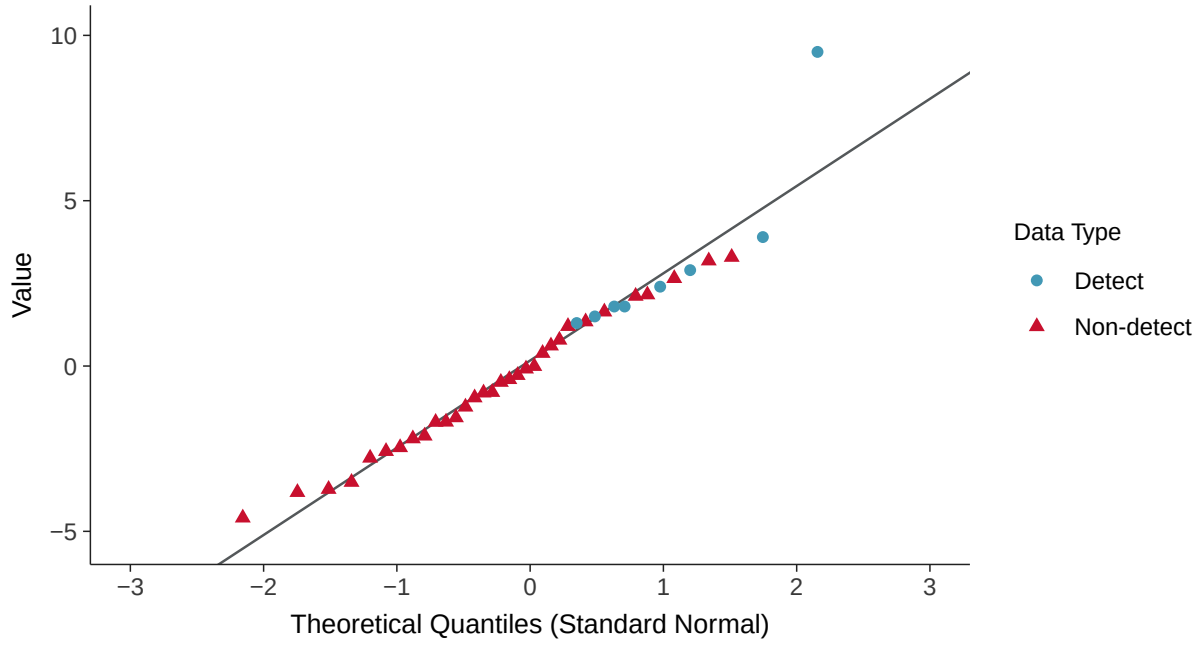
Boxplot by Season

Vanadium, MW-8 (ug/L)



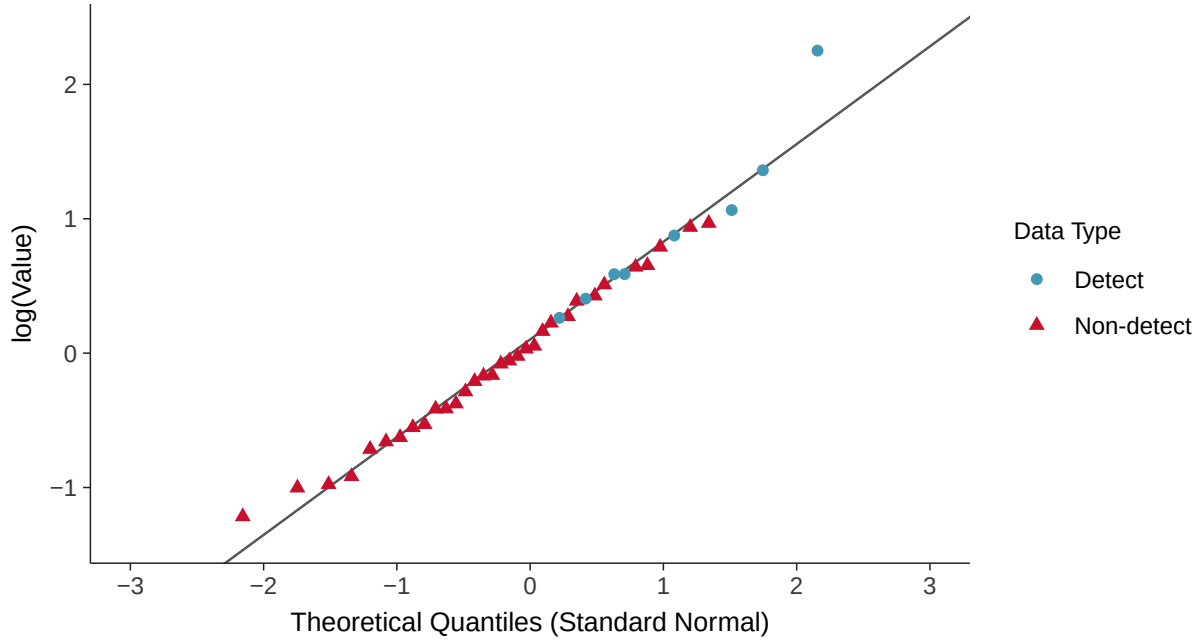
Normal Q-Q plot using ROS Imputed Estimates

Vanadium, MW-8 (ug/L)



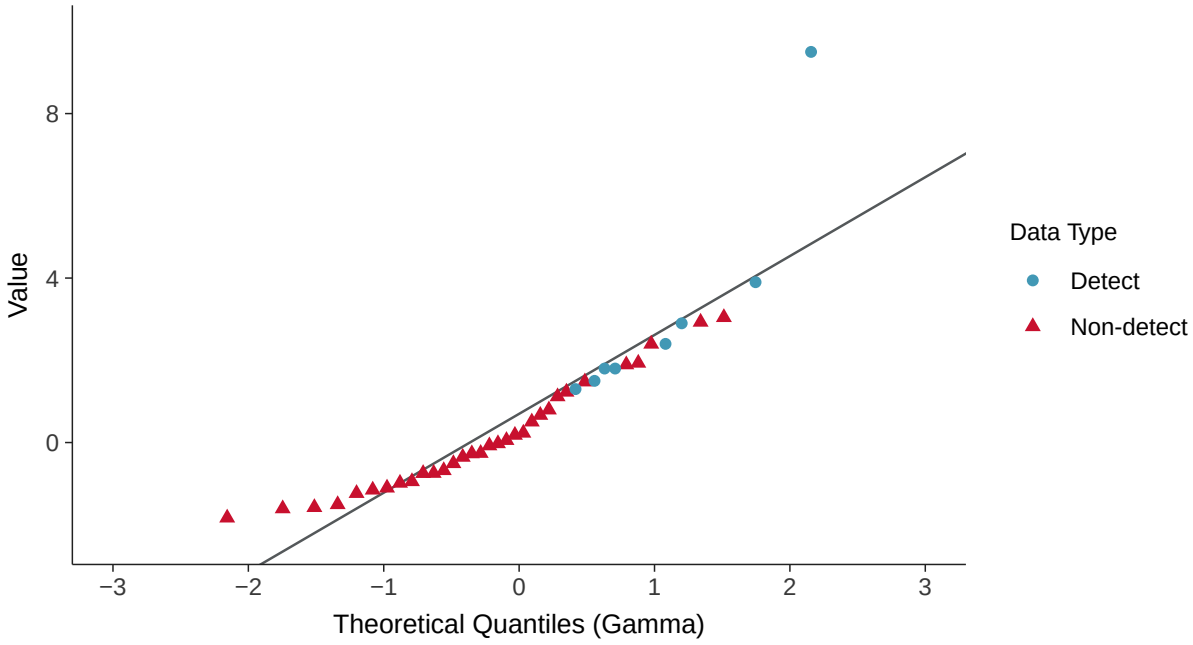
Lognormal Q-Q plot using ROS Imputed Estimates

Vanadium, MW-8 (ug/L)



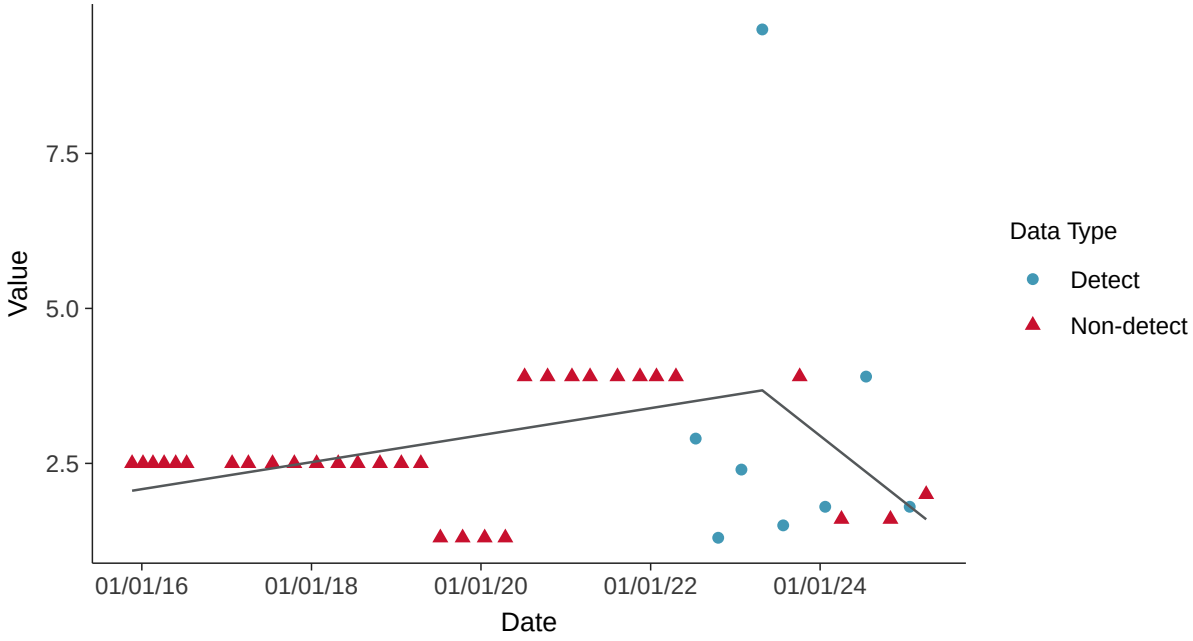
Gamma Q-Q plot using ROS Imputed Estimates

Vanadium, MW-8 (ug/L)



Trend Regression: Piecewise Linear-Linear

Vanadium, MW-8 (ug/L)

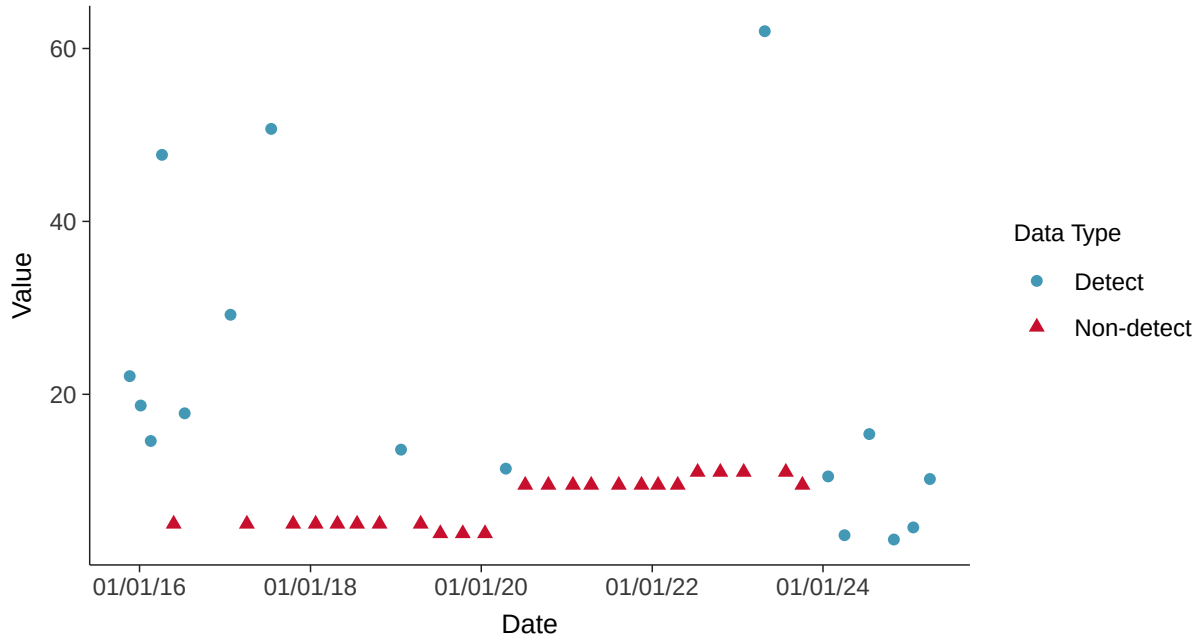


App. I Metals: Zinc, MW-8

ID: 08_01_128

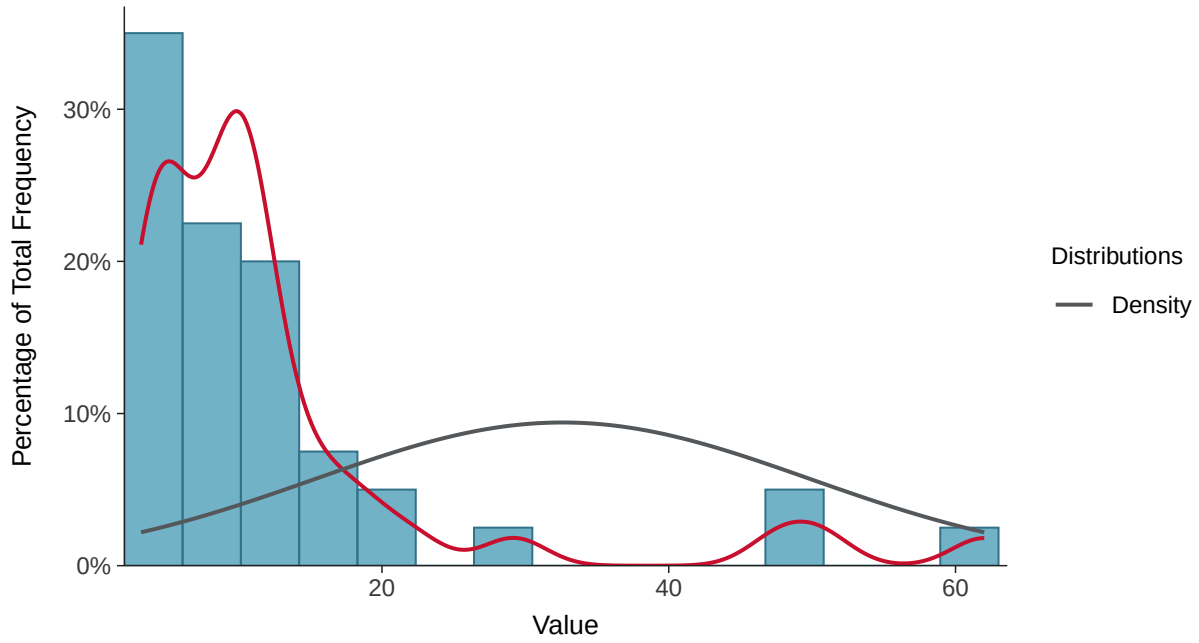
Scatter Plot

Zinc, MW-8 (ug/L)



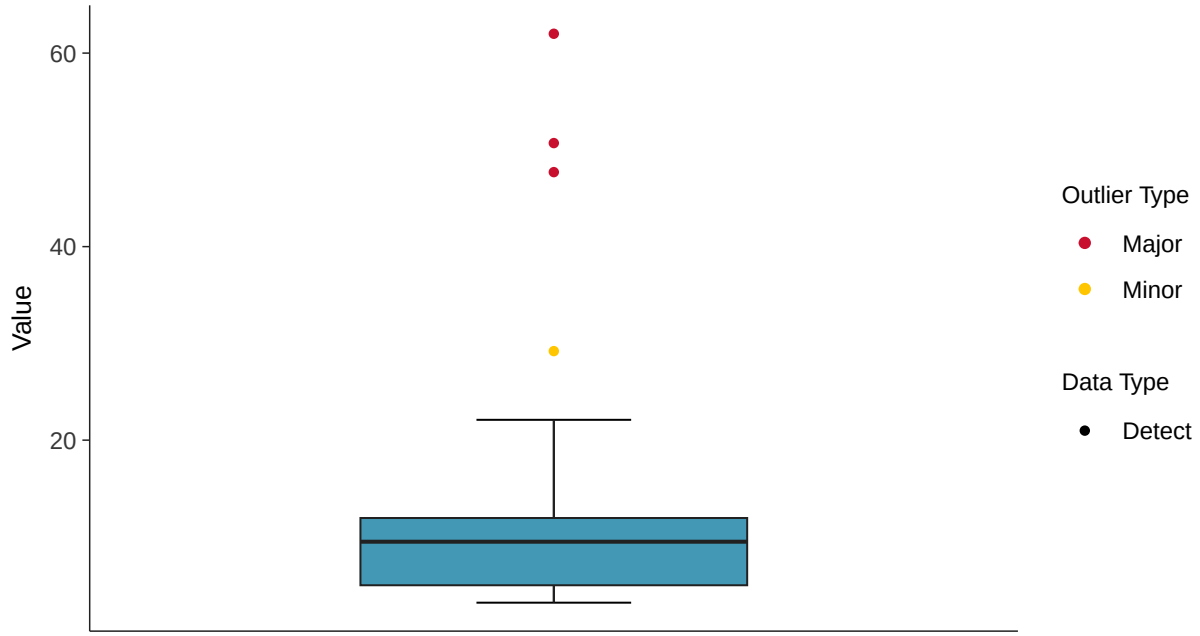
Histogram

Zinc, MW-8 (ug/L)



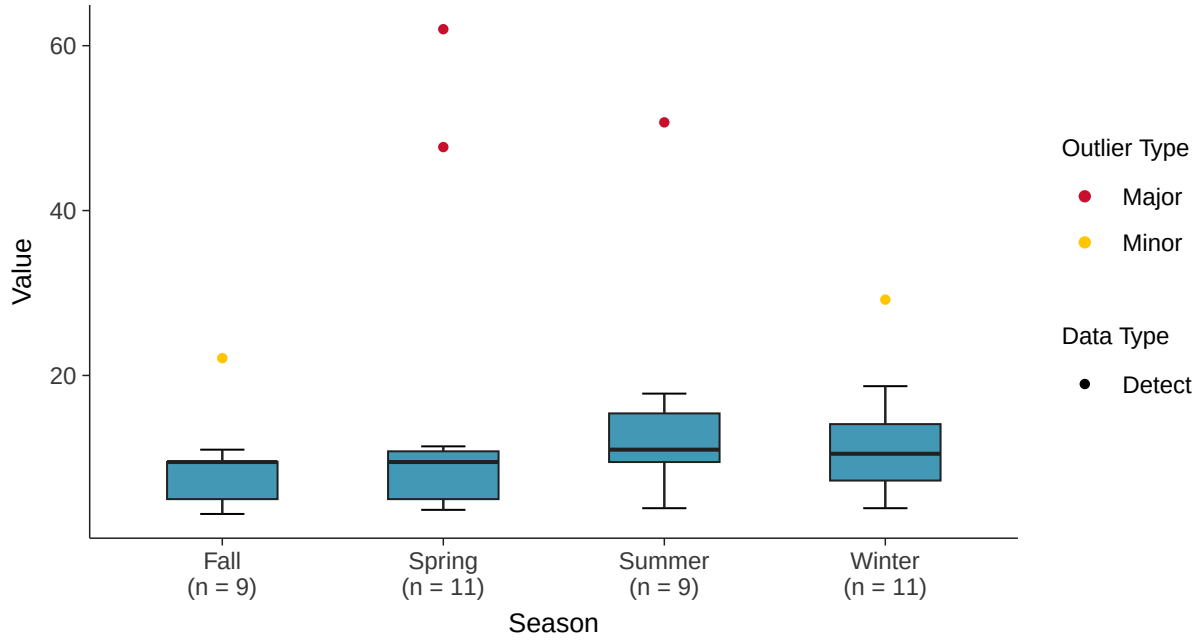
Boxplot

Zinc, MW-8 (ug/L)



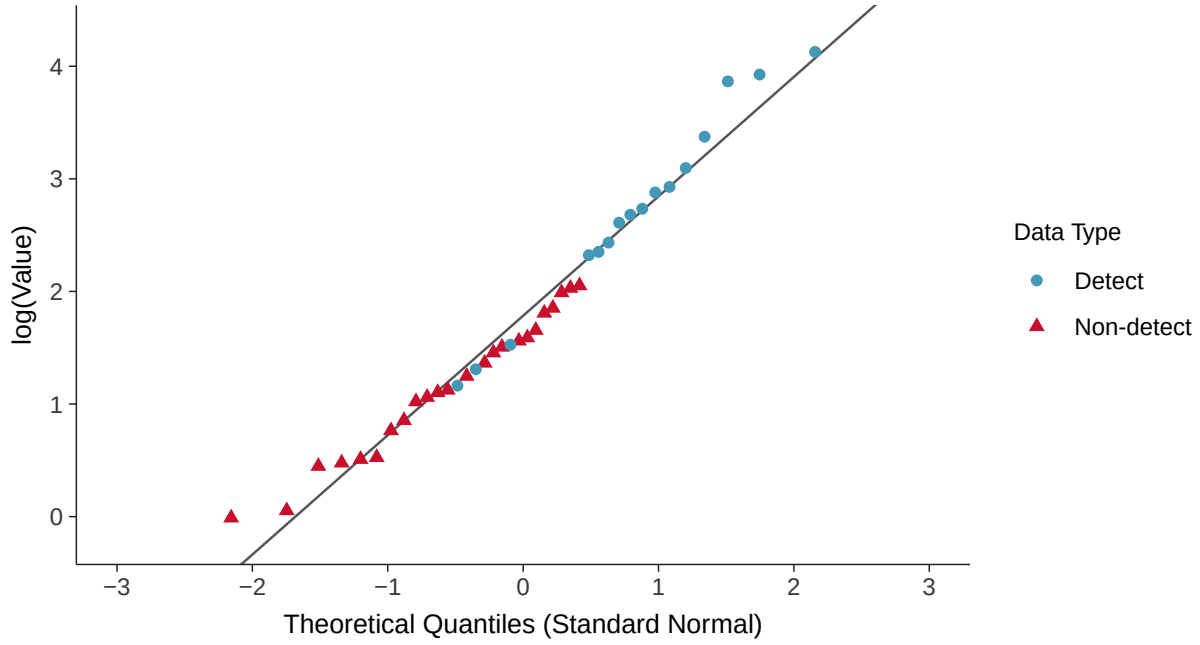
Boxplot by Season

Zinc, MW-8 (ug/L)



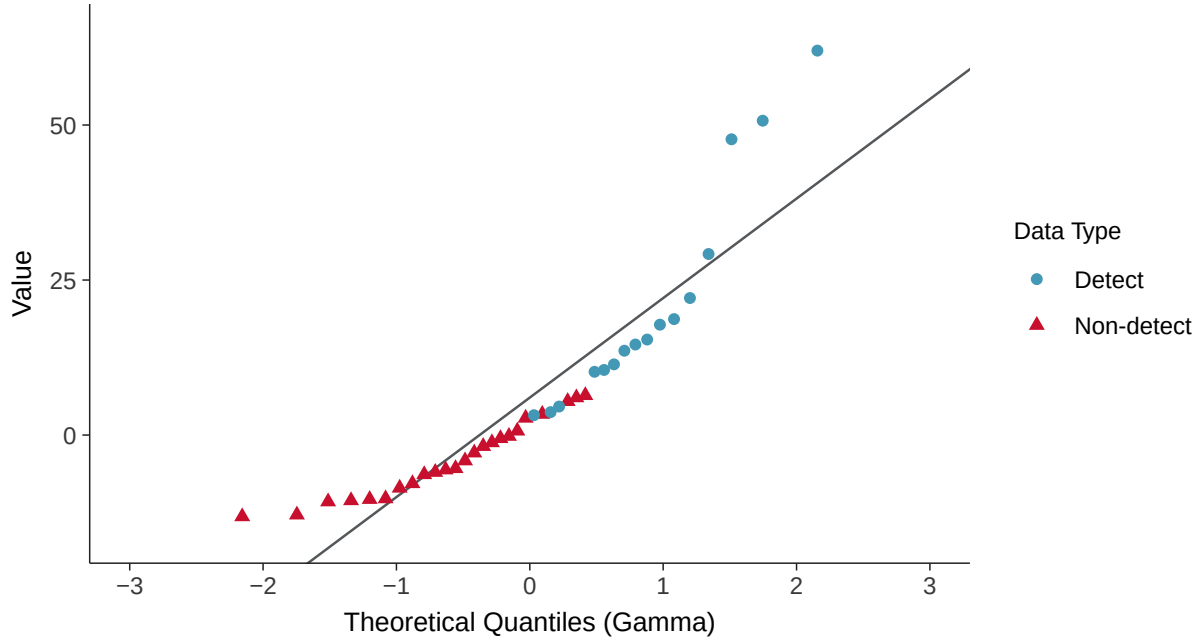
Lognormal Q-Q plot using ROS Imputed Estimates

Zinc, MW-8 (ug/L)



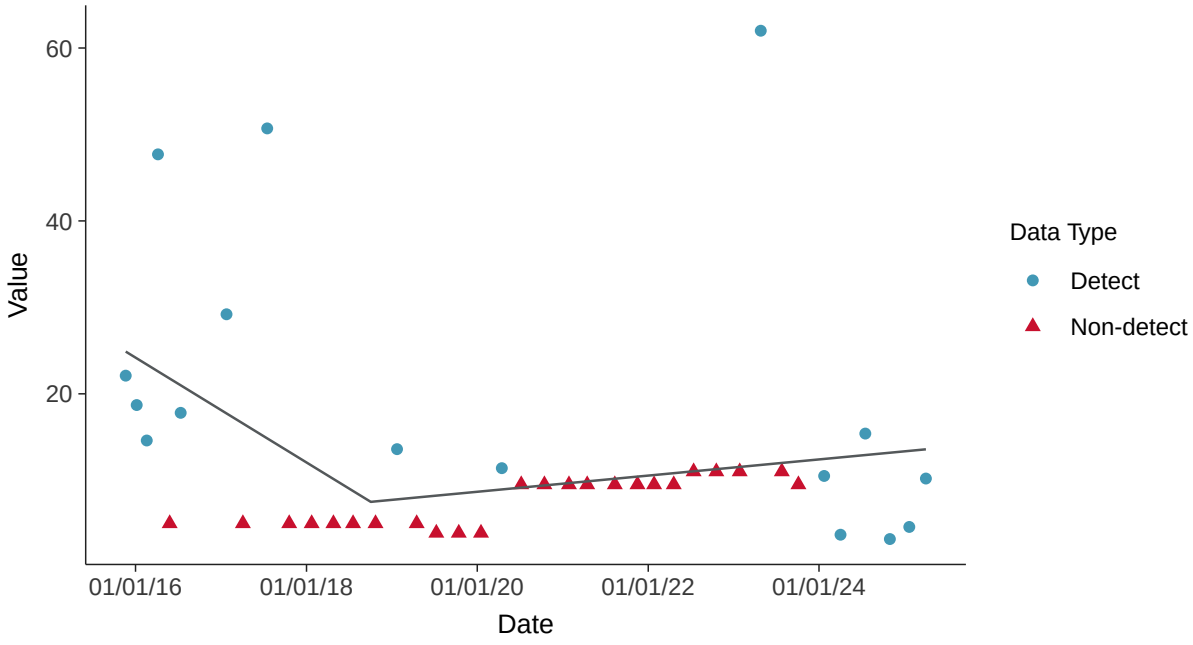
Gamma Q-Q plot using ROS Imputed Estimates

Zinc, MW-8 (ug/L)



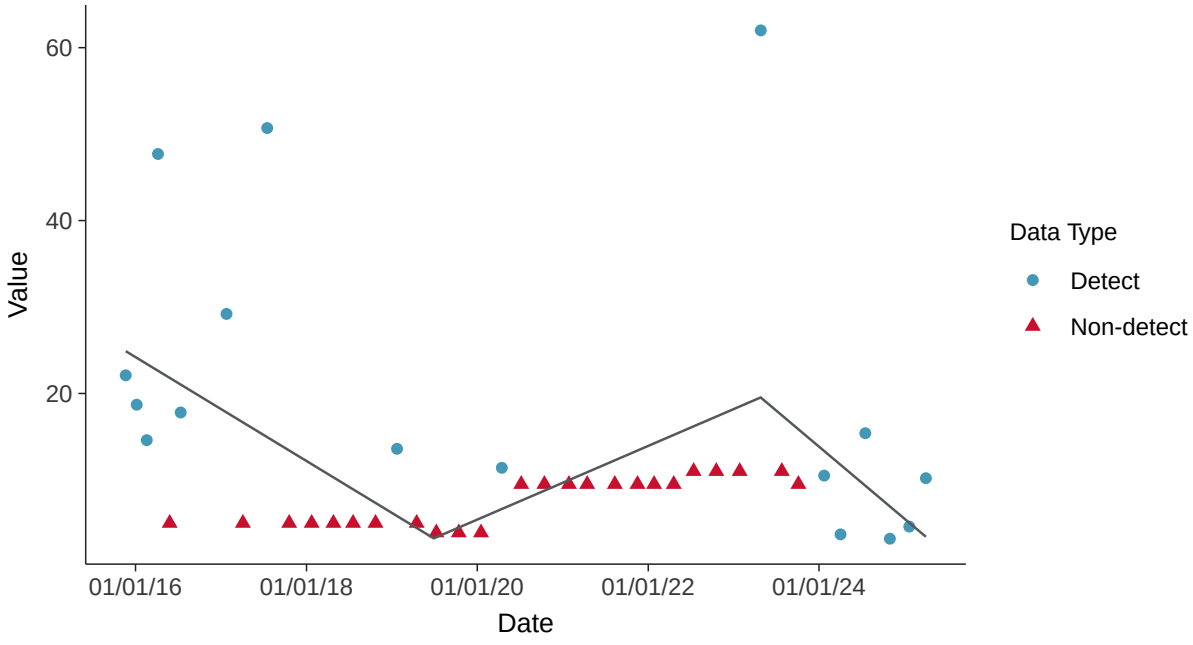
Trend Regression: Piecewise Linear-Linear

Zinc, MW-8 (ug/L)



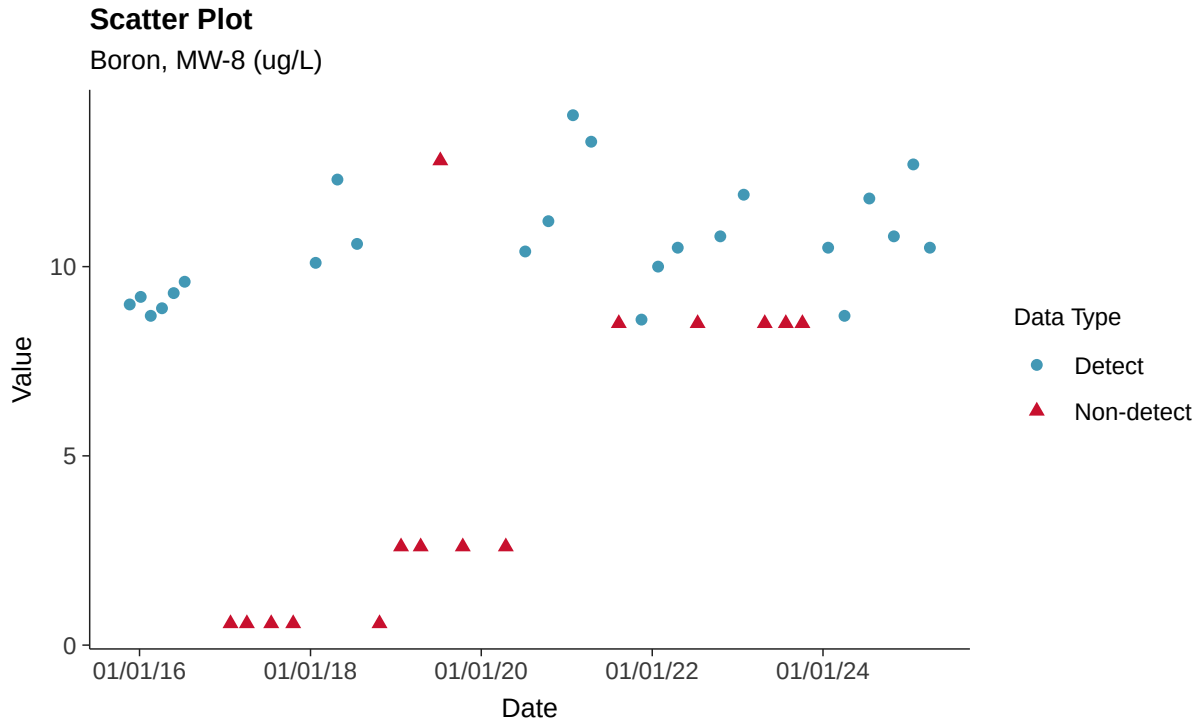
Trend Regression: Piecewise Linear-Linear-Linear

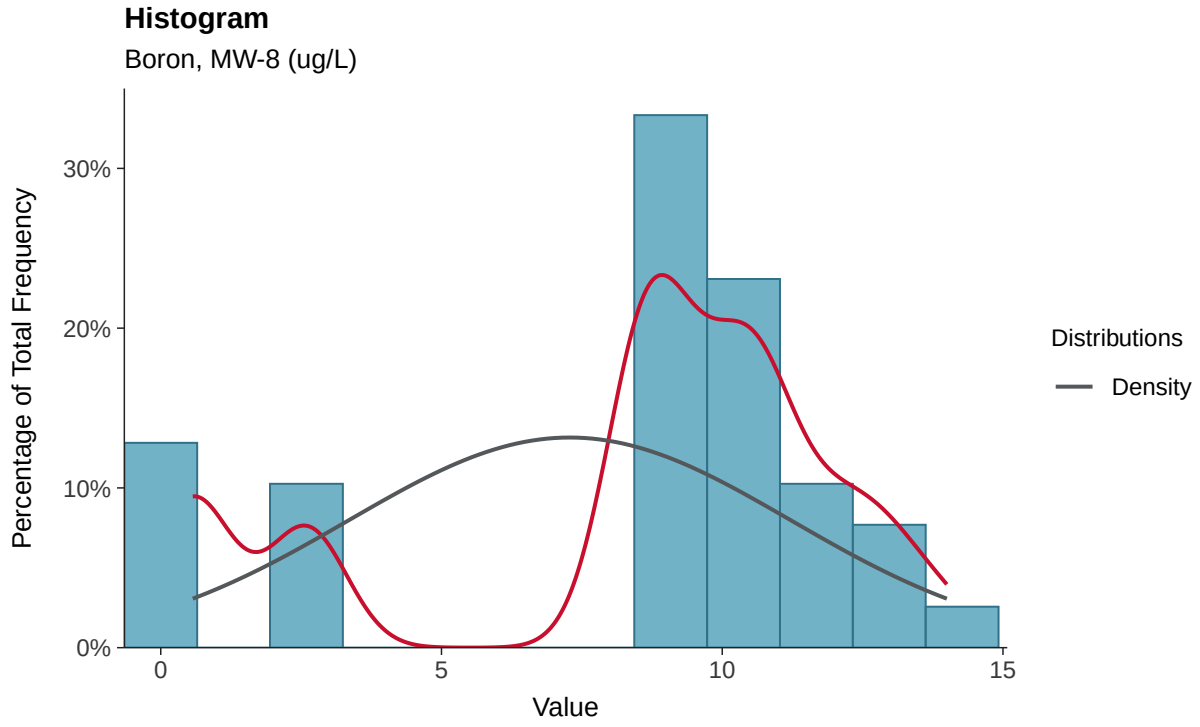
Zinc, MW-8 (ug/L)



App. III: Boron, MW-8

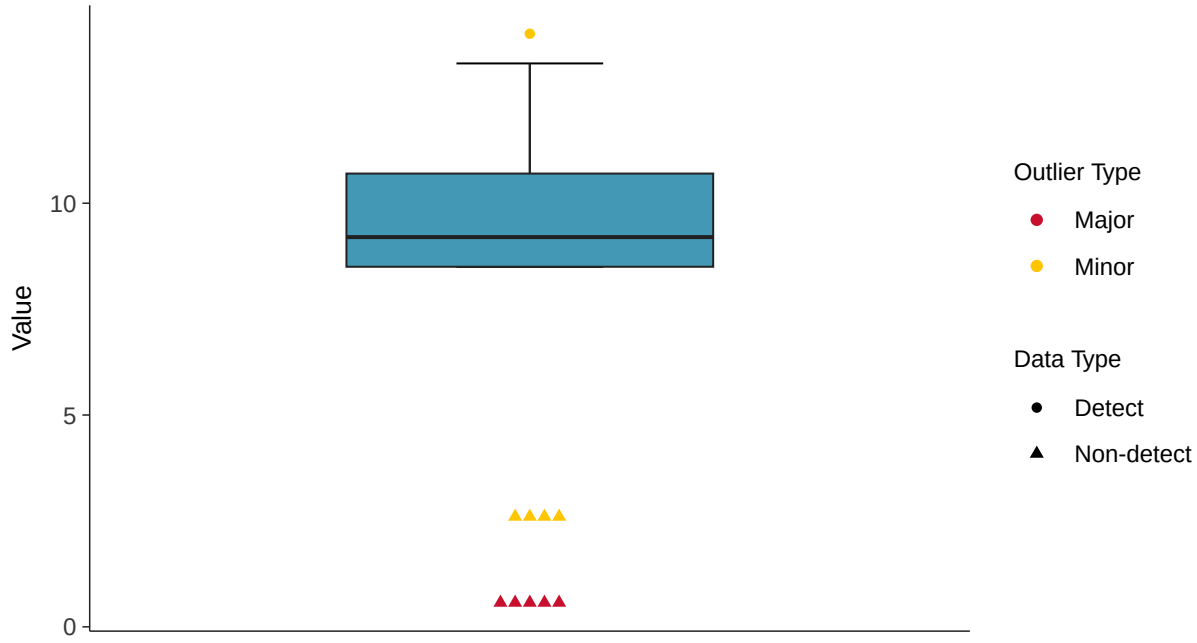
ID: 08_02_105





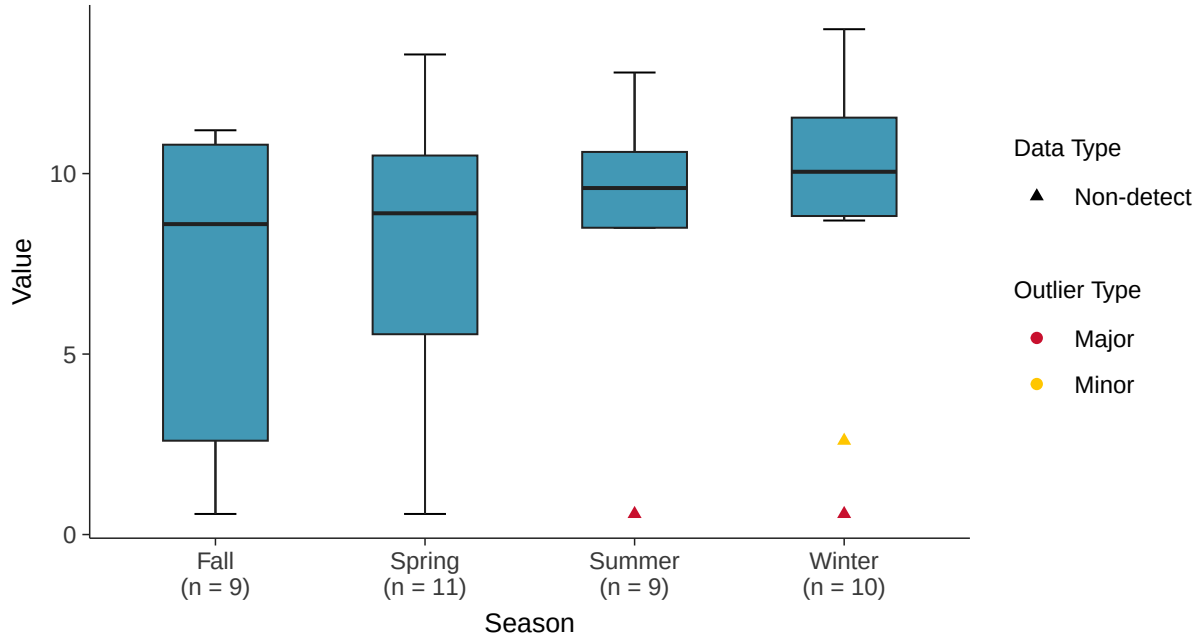
Boxplot

Boron, MW-8 (ug/L)



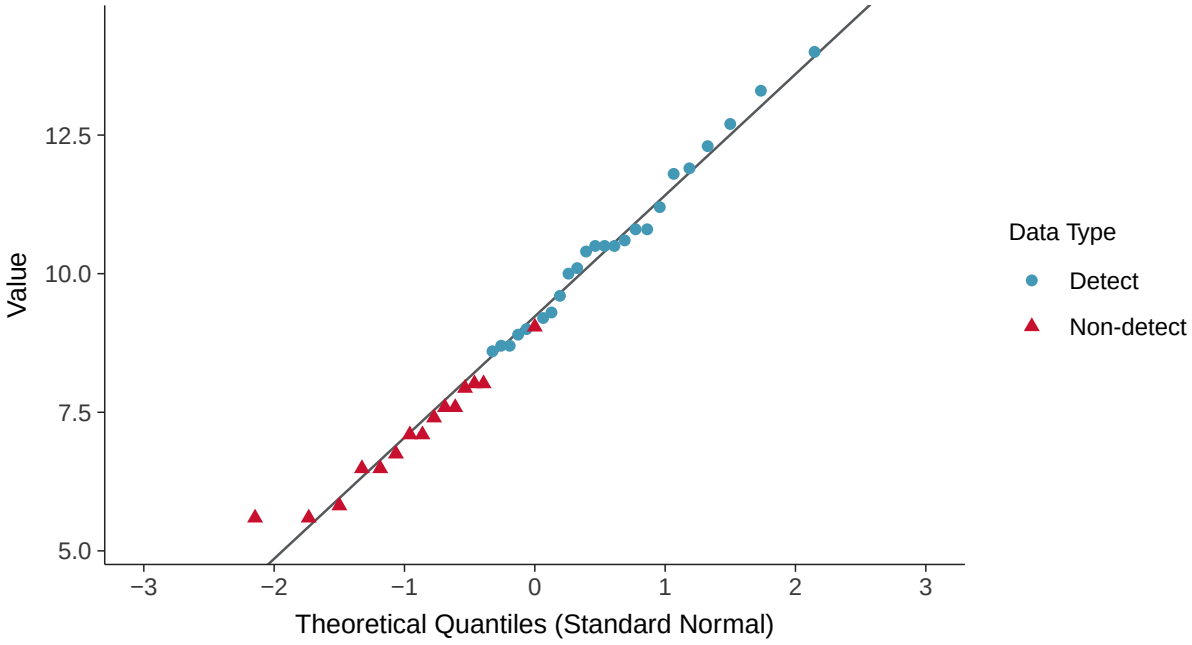
Boxplot by Season

Boron, MW-8 (ug/L)



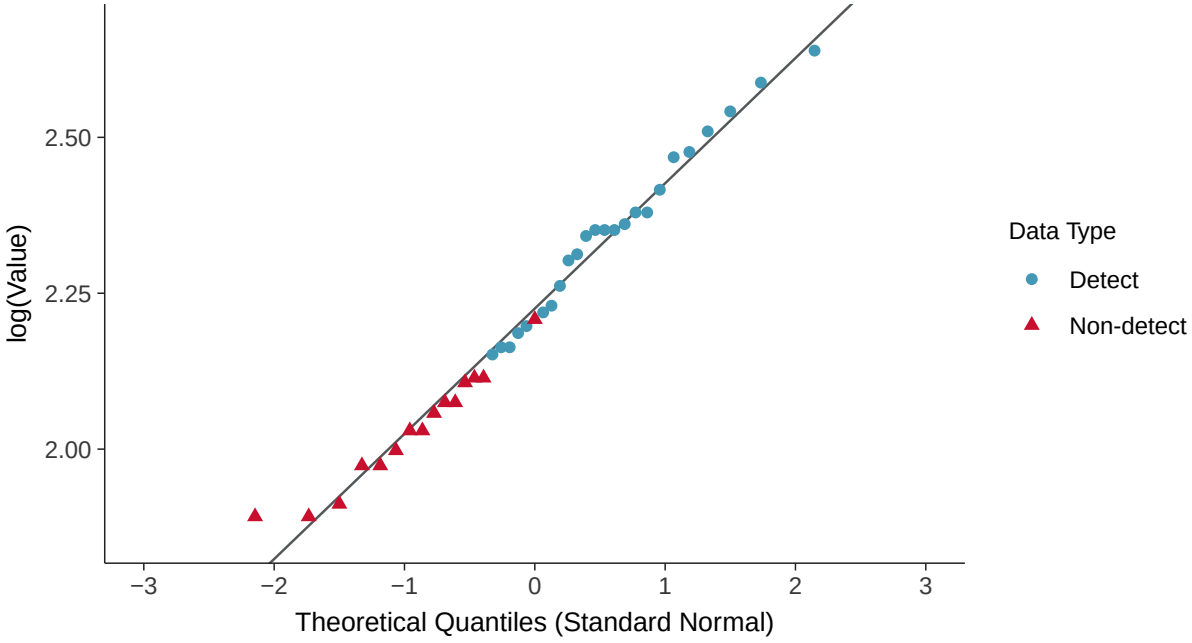
Normal Q-Q plot using ROS Imputed Estimates

Boron, MW-8 (ug/L)



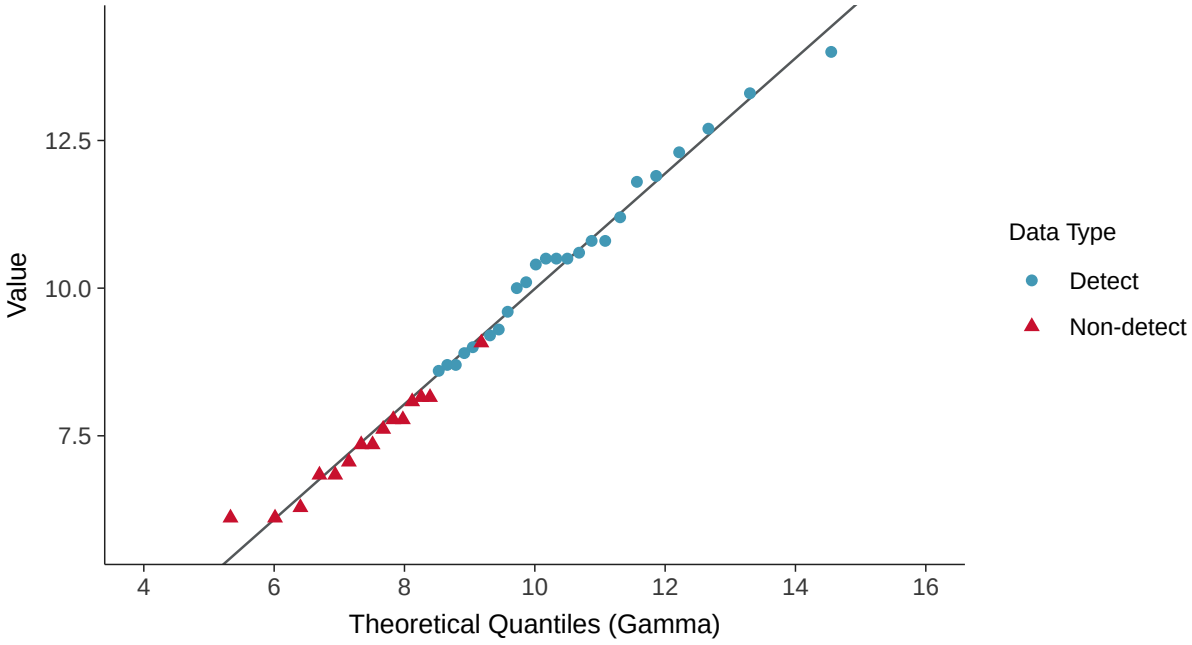
Lognormal Q-Q plot using ROS Imputed Estimates

Boron, MW-8 (ug/L)



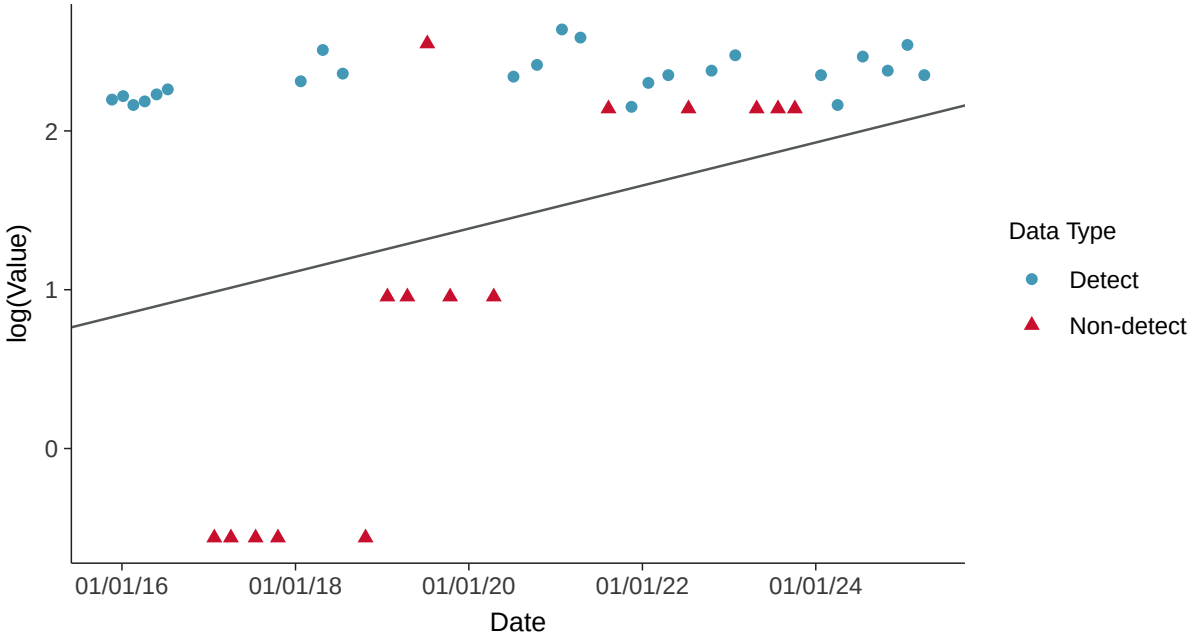
Gamma Q-Q plot using ROS Imputed Estimates

Boron, MW-8 (ug/L)



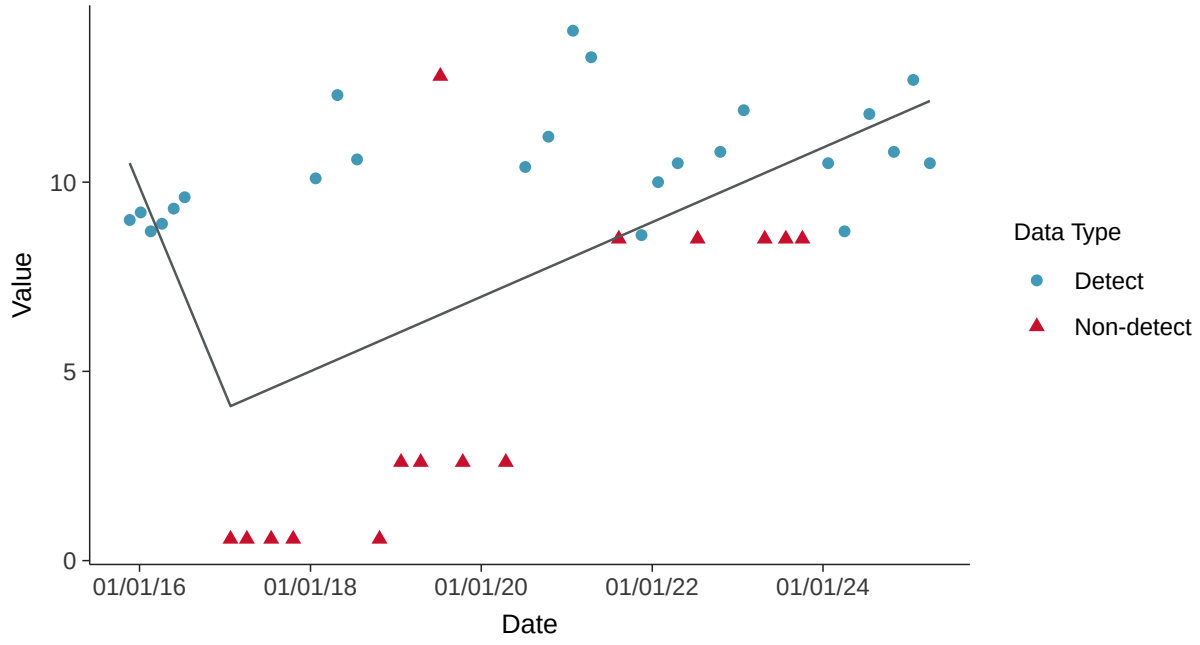
Trend Regression: Lognormal MLE

Boron, MW-8 (ug/L)



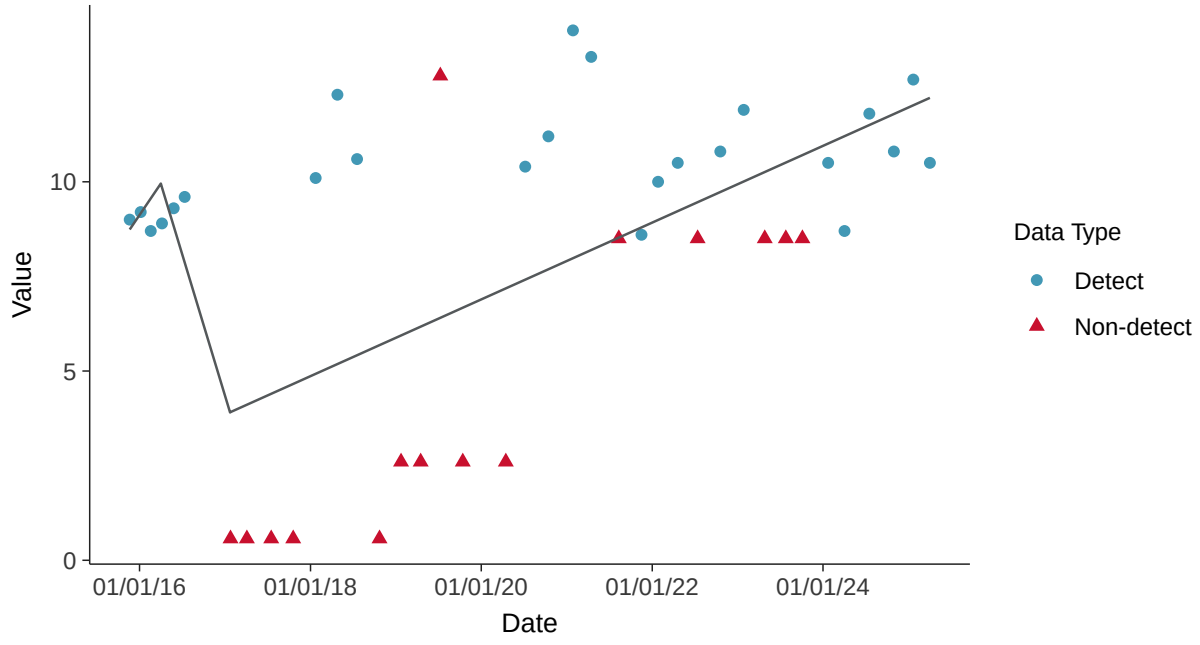
Trend Regression: Piecewise Linear-Linear

Boron, MW-8 (ug/L)



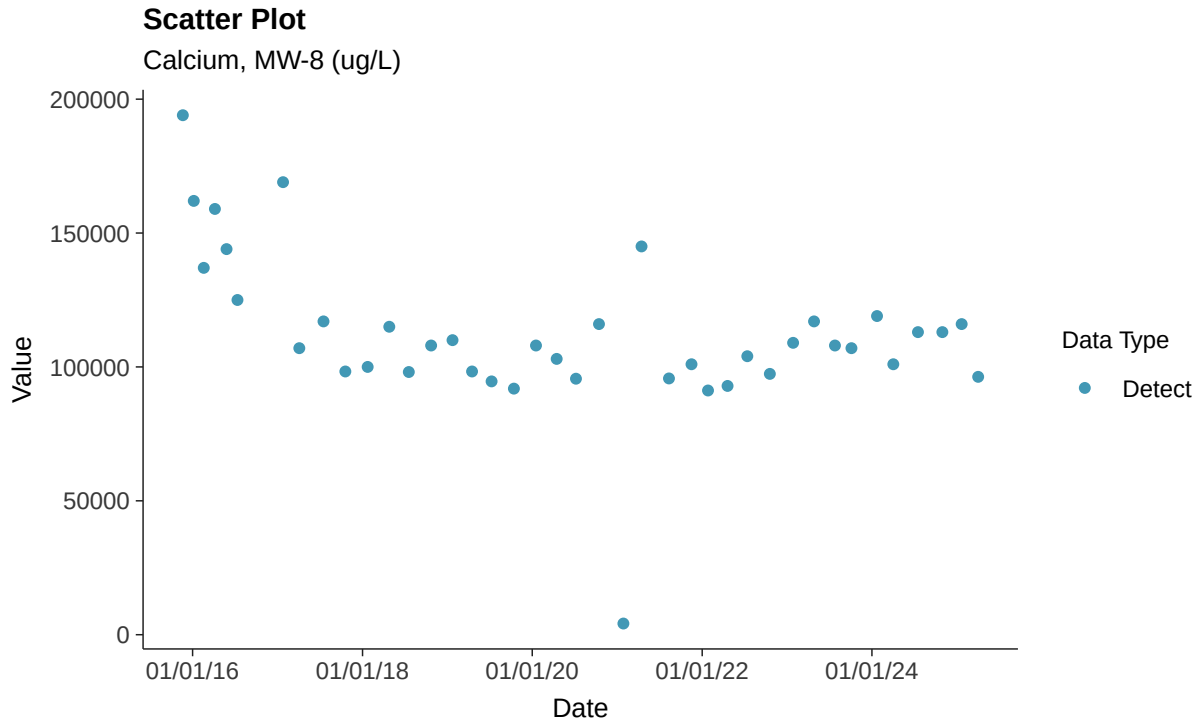
Trend Regression: Piecewise Linear-Linear-Linear

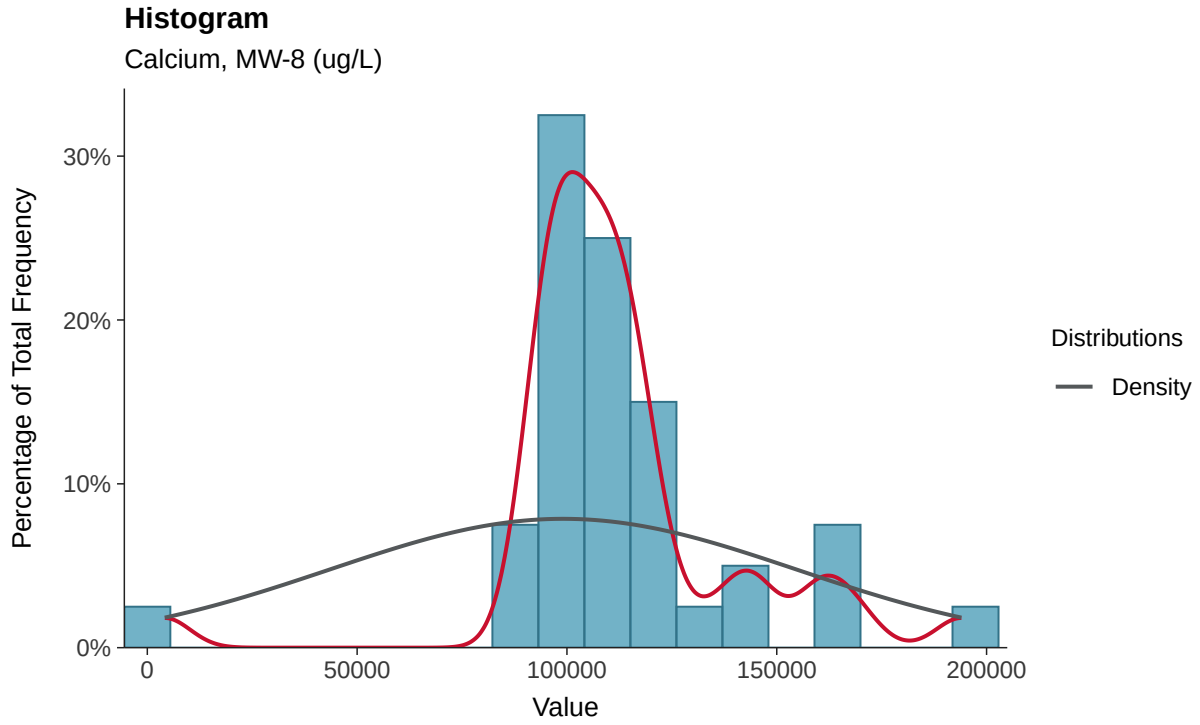
Boron, MW-8 (ug/L)



App. III: Calcium, MW-8

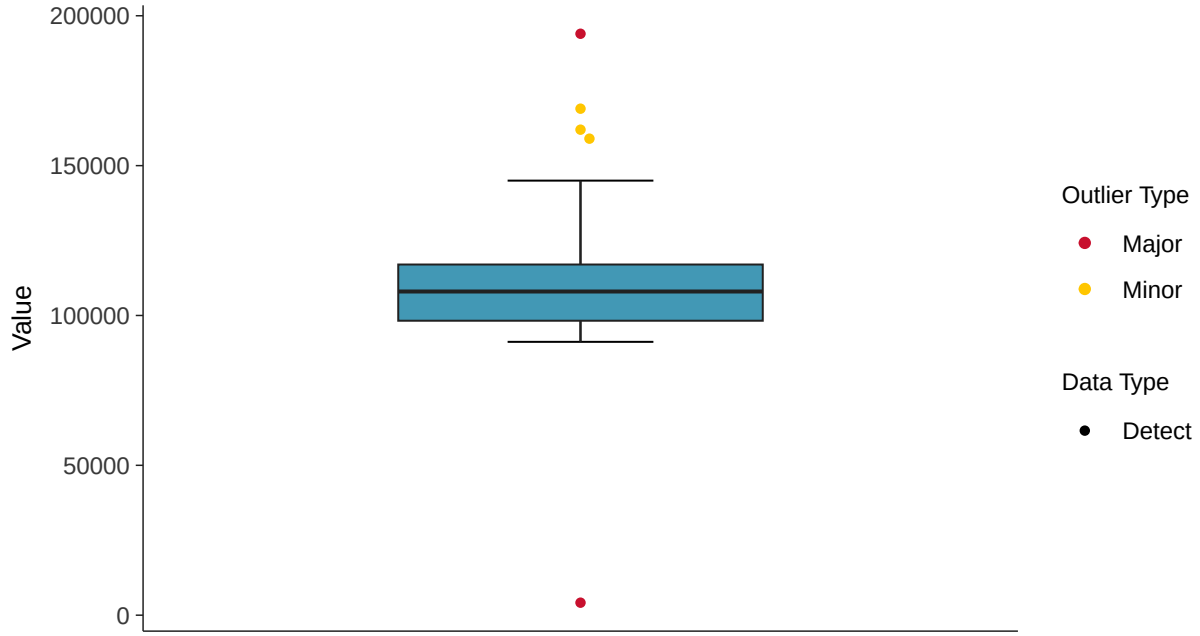
ID: 08_02_107





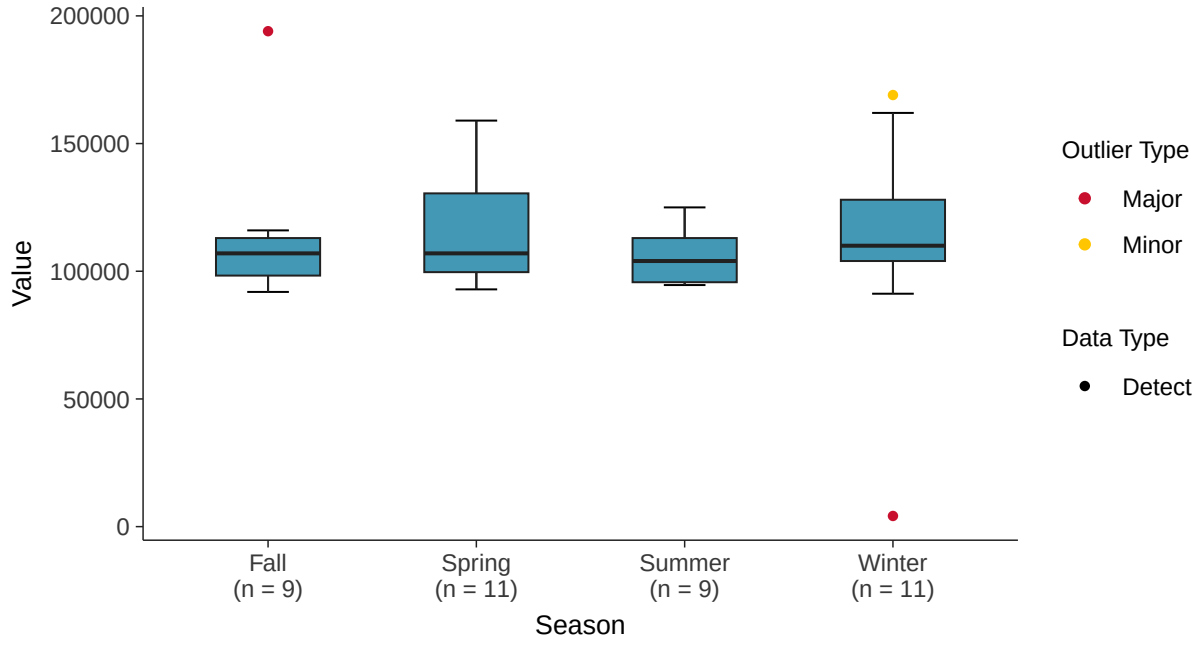
Boxplot

Calcium, MW-8 (ug/L)



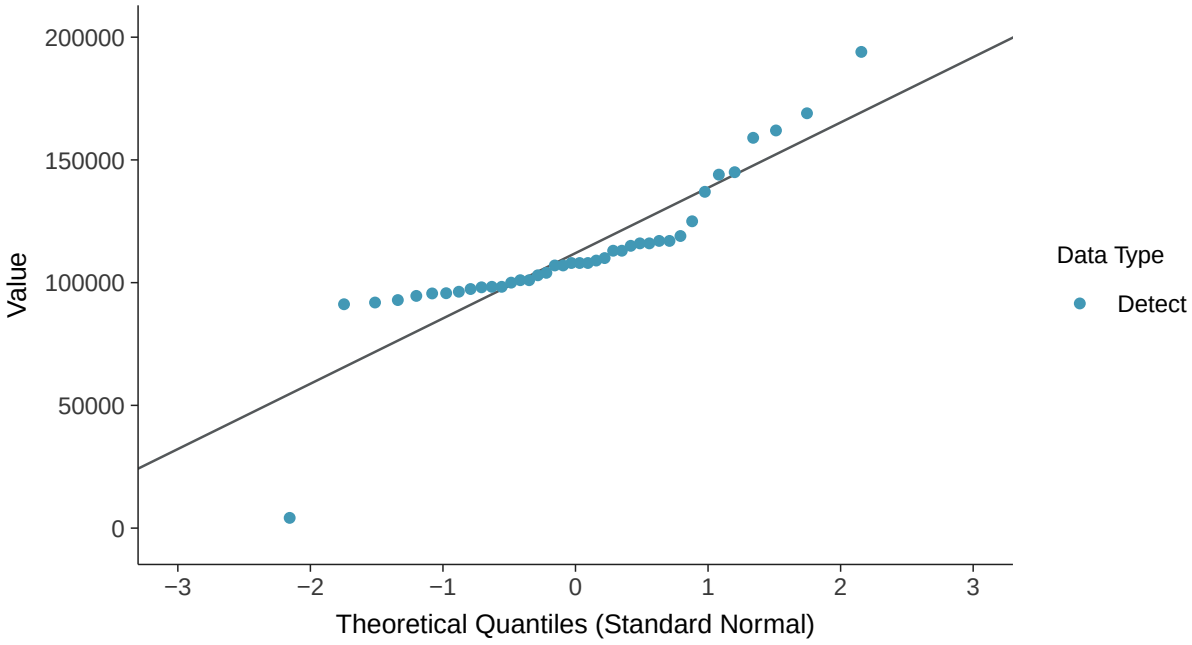
Boxplot by Season

Calcium, MW-8 (ug/L)



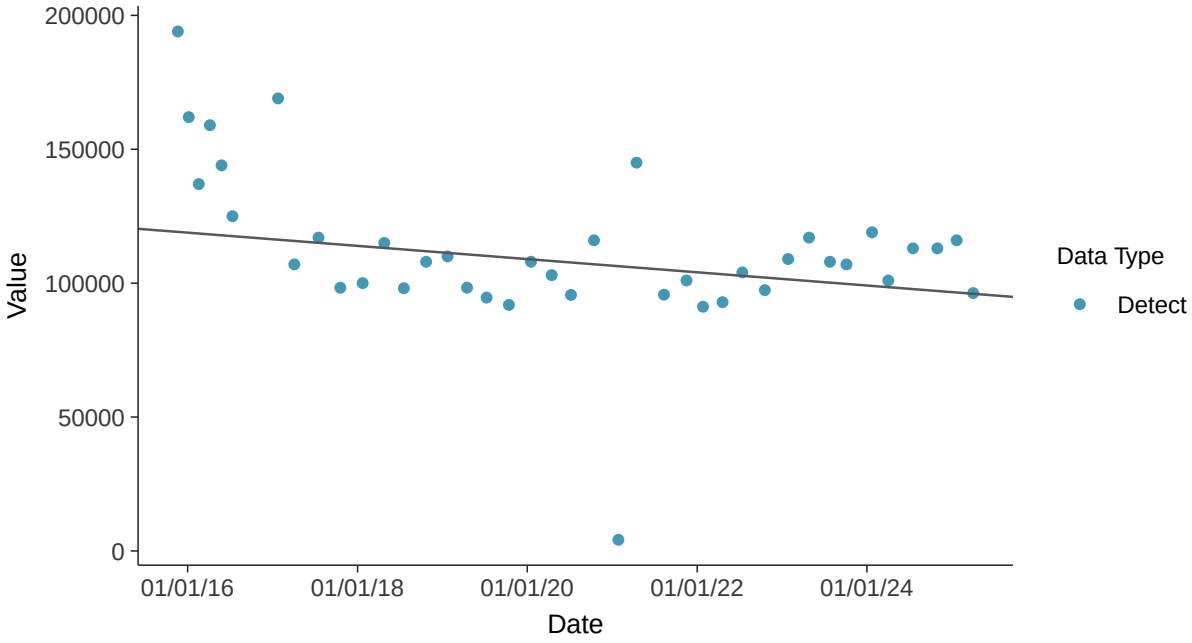
Normal Q-Q plot

Calcium, MW-8 (ug/L)



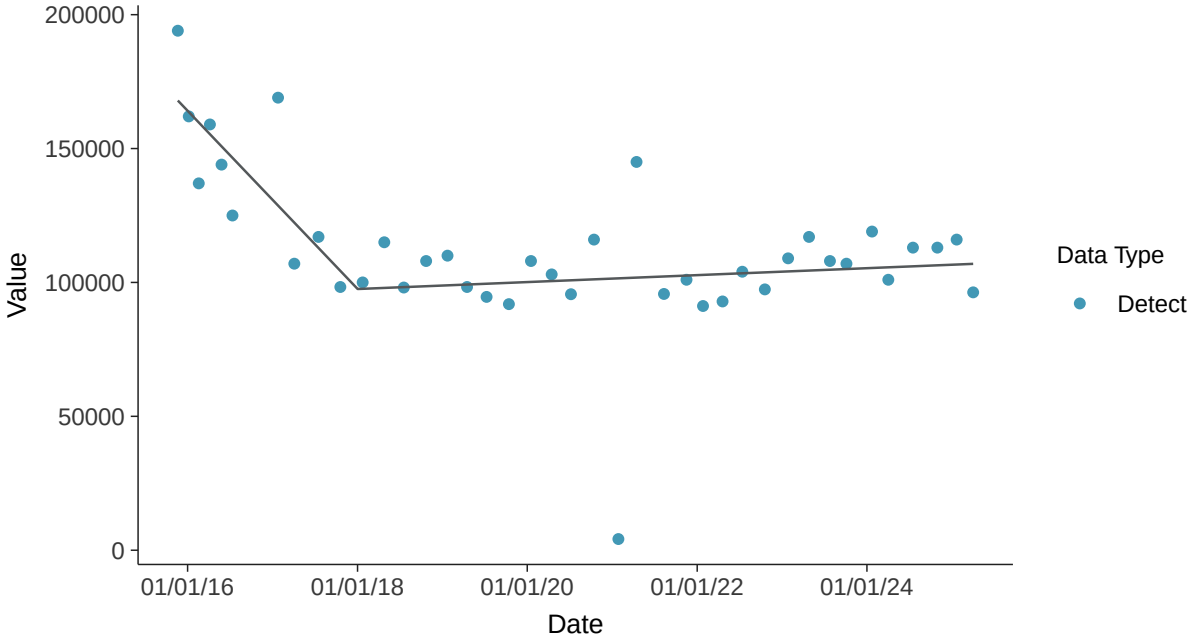
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Calcium, MW-8 (ug/L)



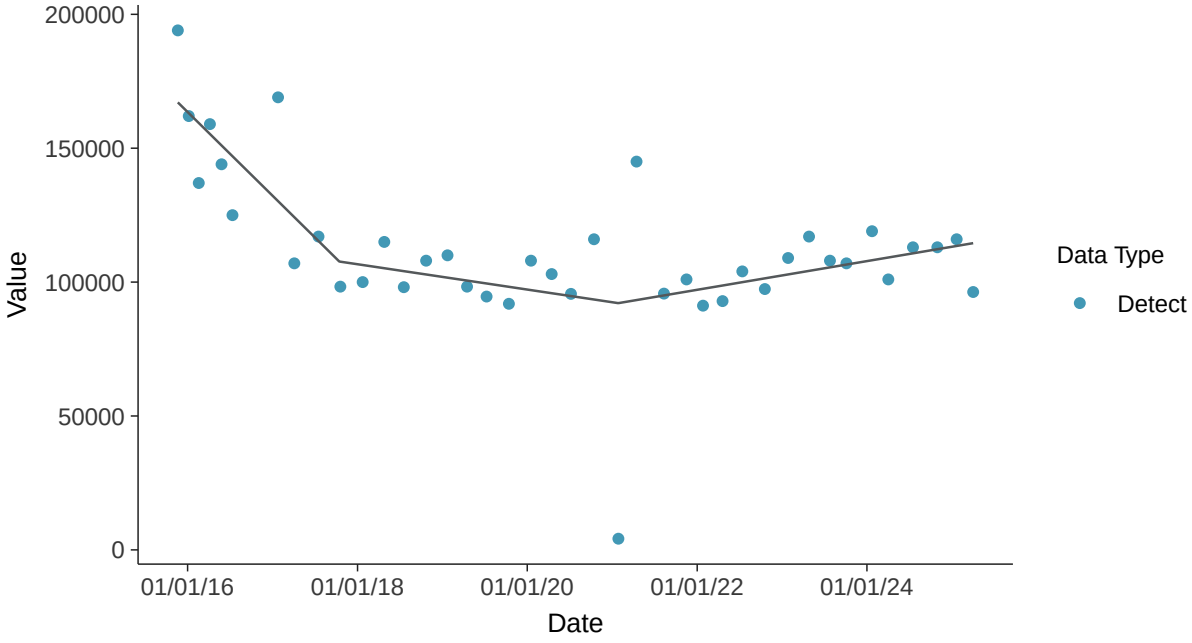
Trend Regression: Piecewise Linear-Linear

Calcium, MW-8 (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Calcium, MW-8 (ug/L)

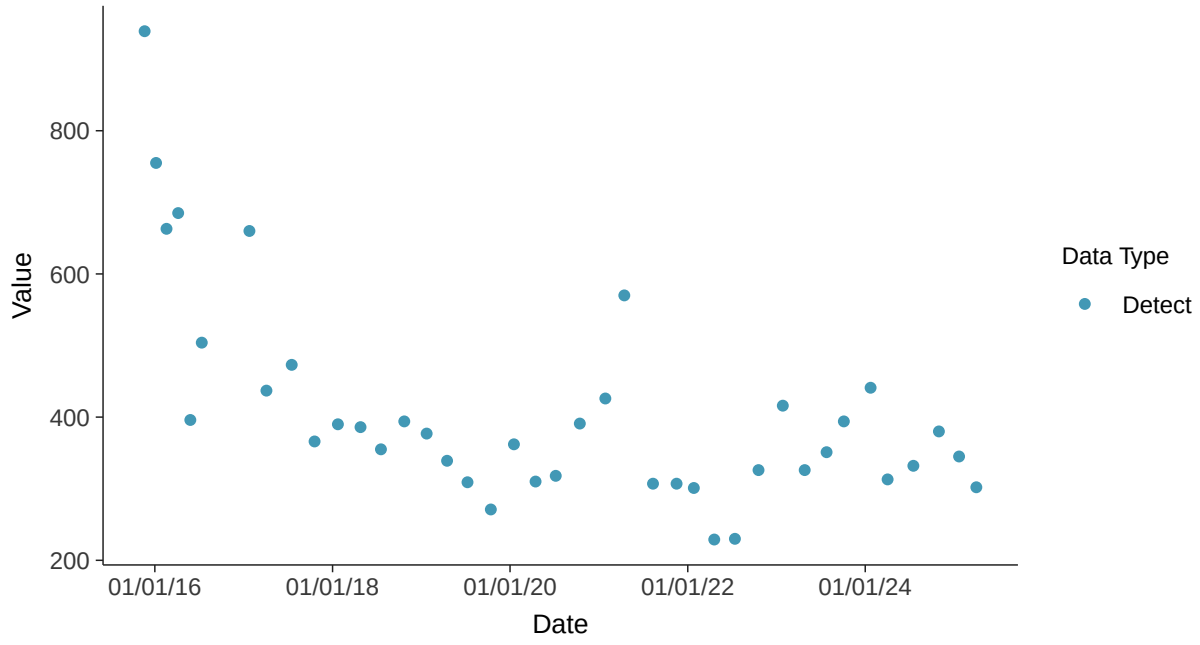


App. III: Chloride, MW-8

ID: 08_02_108

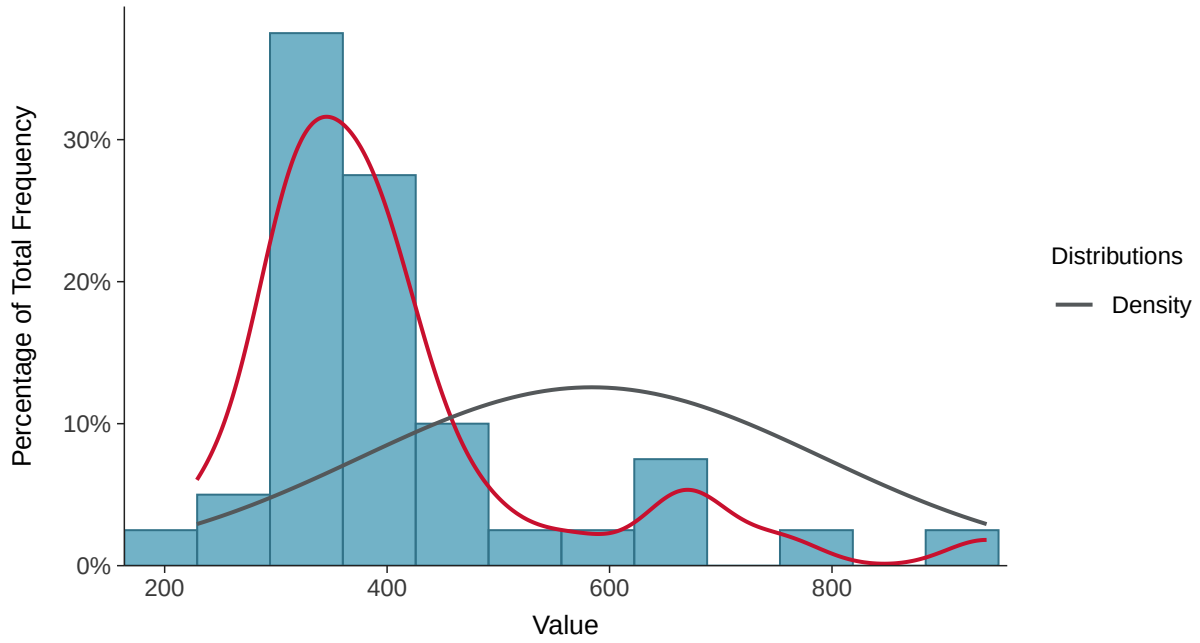
Scatter Plot

Chloride, MW-8 (mg/L)



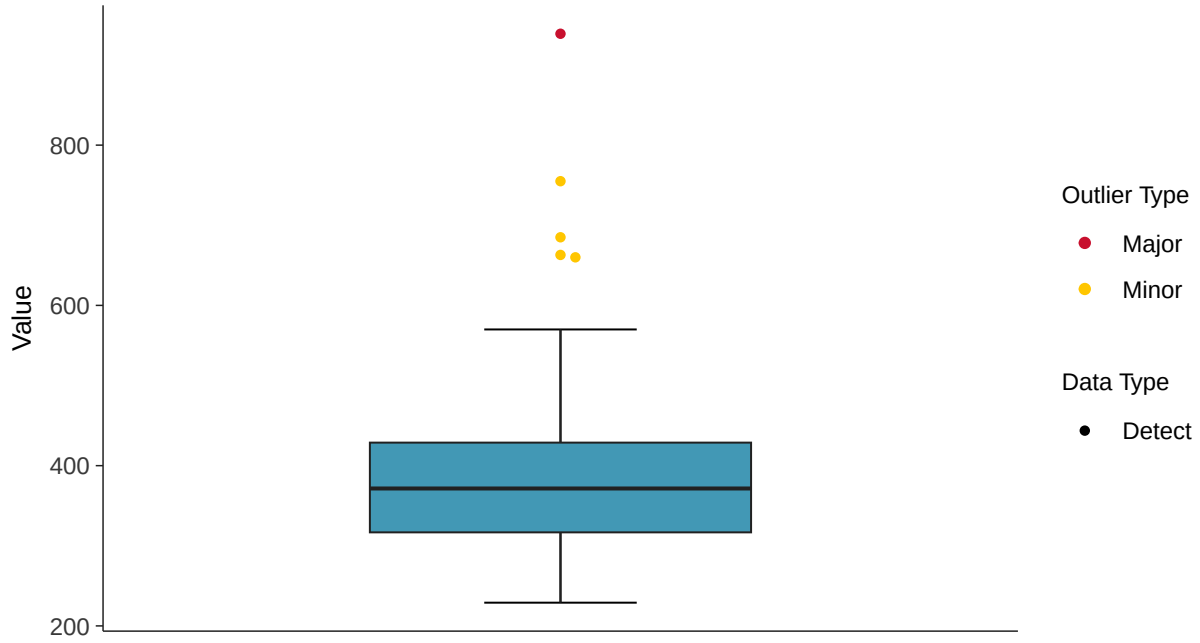
Histogram

Chloride, MW-8 (mg/L)



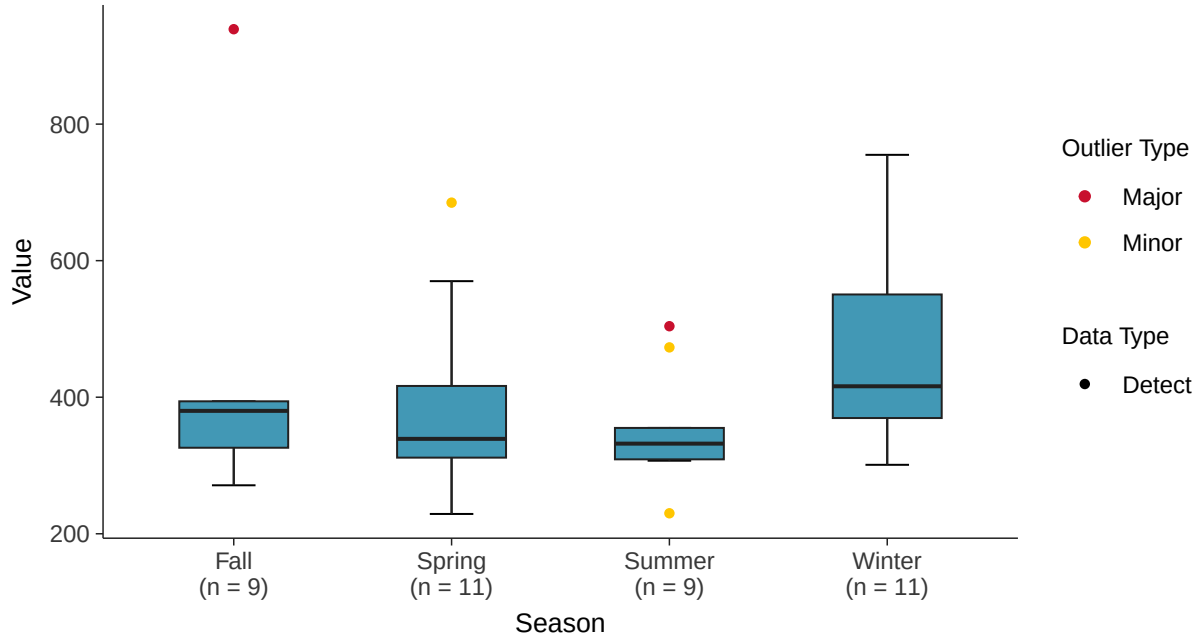
Boxplot

Chloride, MW-8 (mg/L)



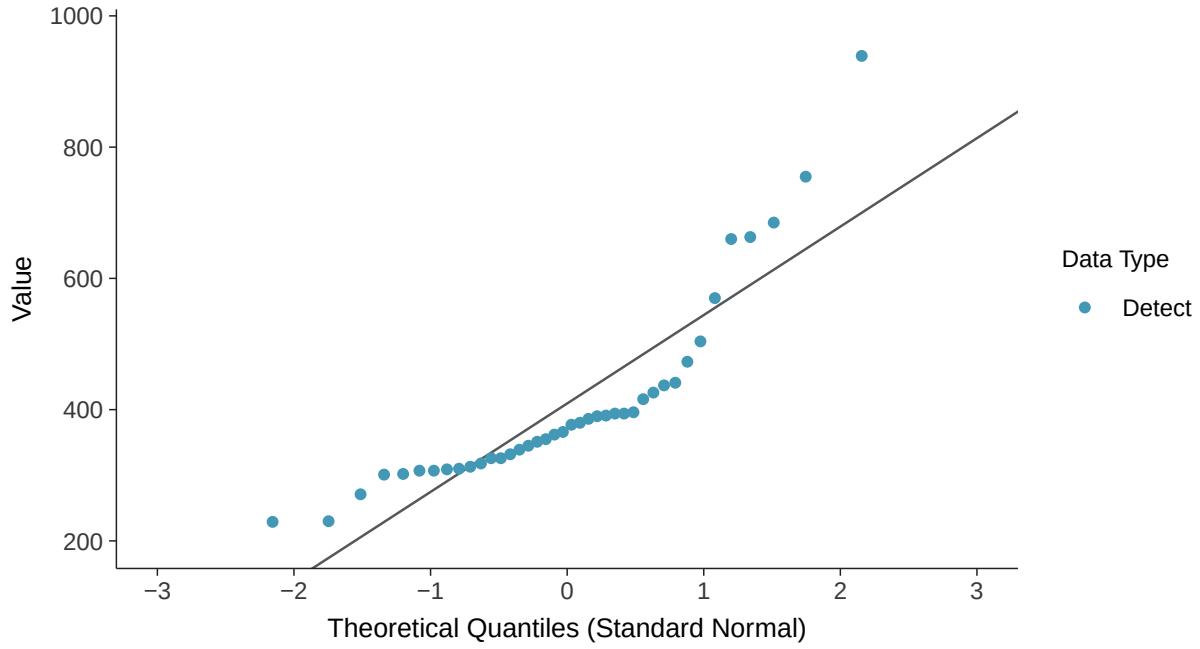
Boxplot by Season

Chloride, MW-8 (mg/L)



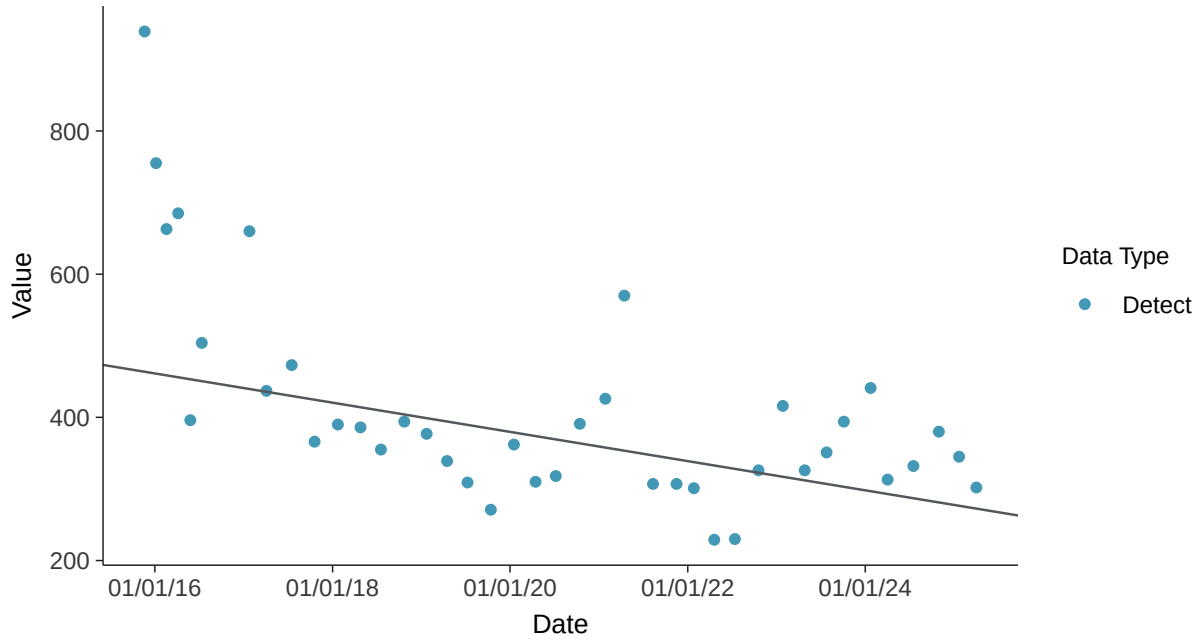
Normal Q-Q plot

Chloride, MW-8 (mg/L)



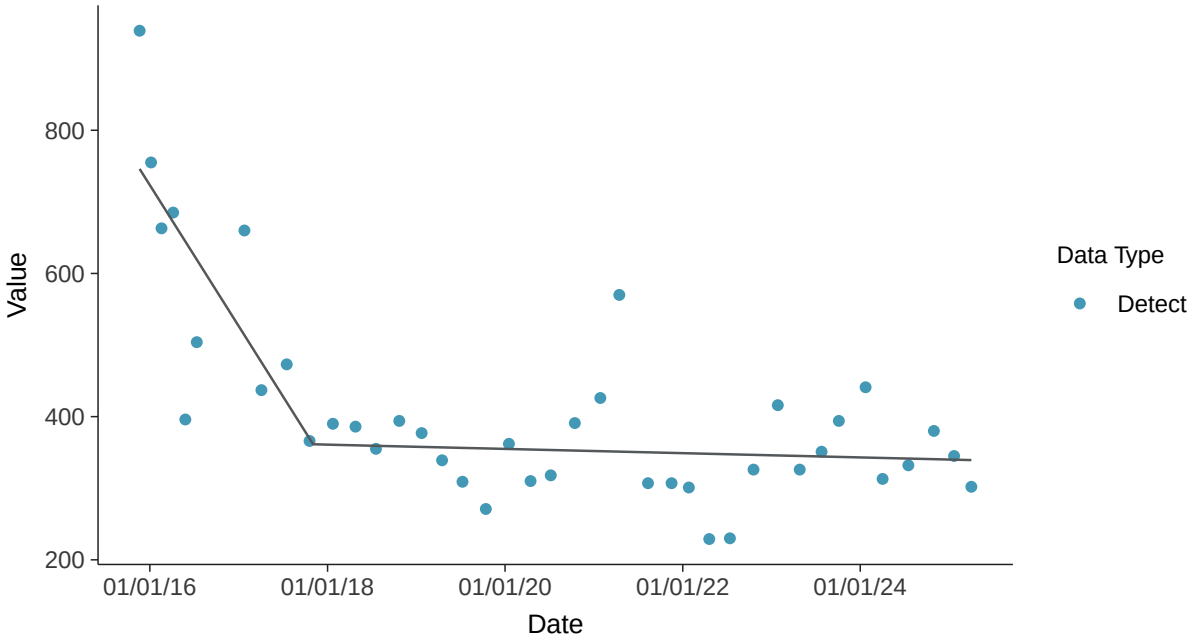
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Chloride, MW-8 (mg/L)



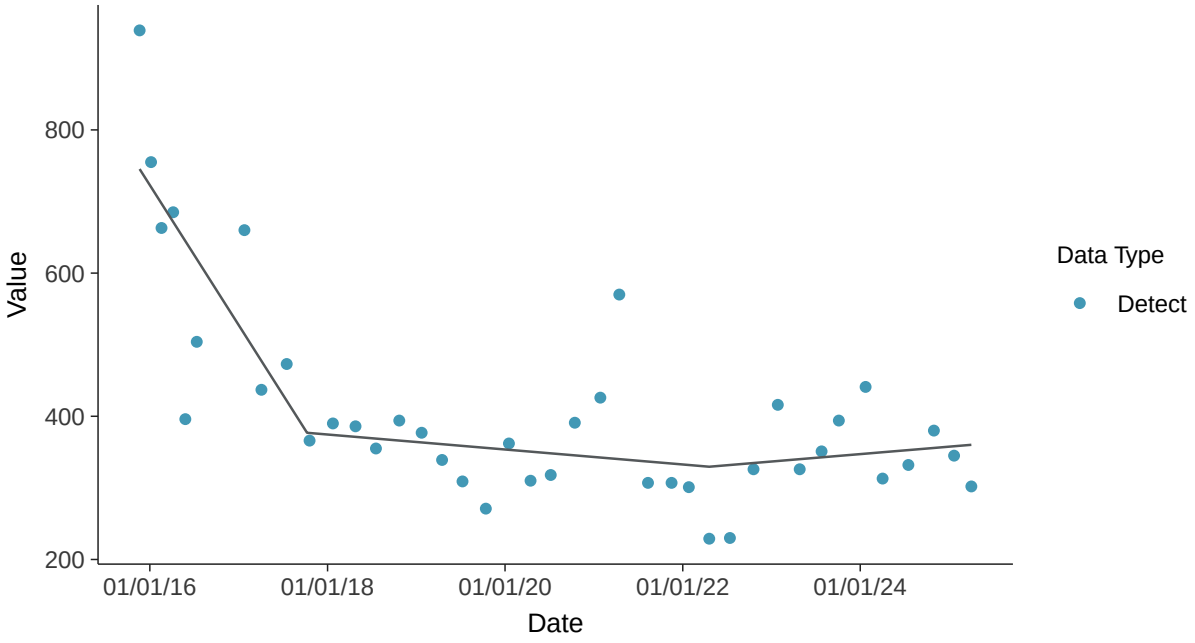
Trend Regression: Piecewise Linear-Linear

Chloride, MW-8 (mg/L)



Trend Regression: Piecewise Linear-Linear-Linear

Chloride, MW-8 (mg/L)

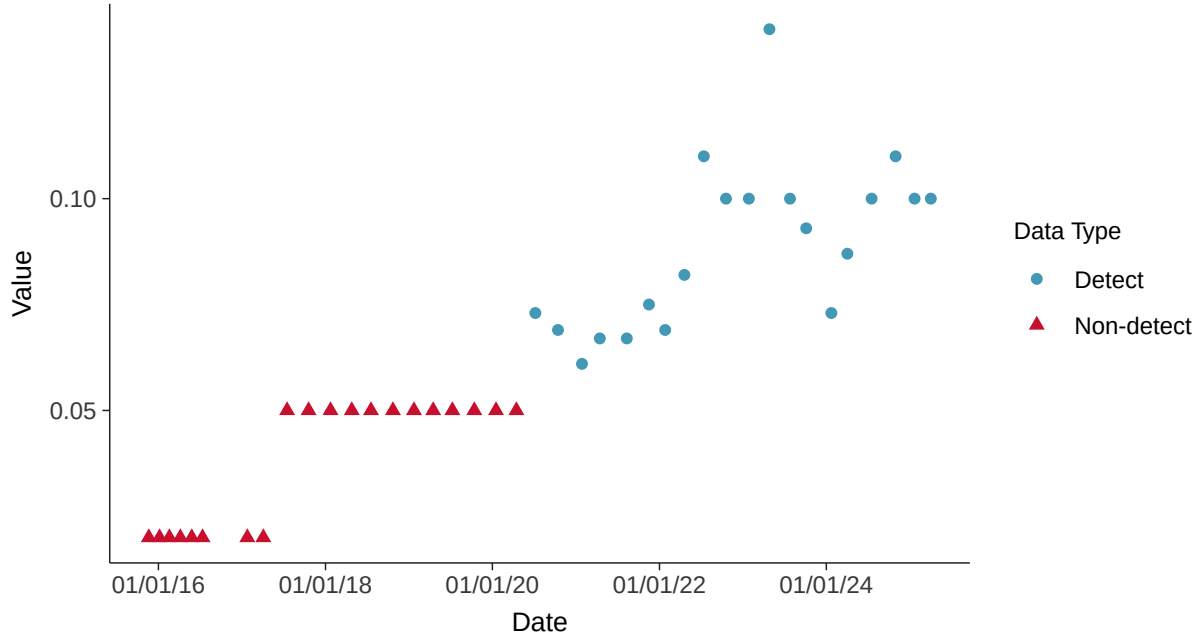


App. III: Fluoride, MW-8

ID: 08_02_112

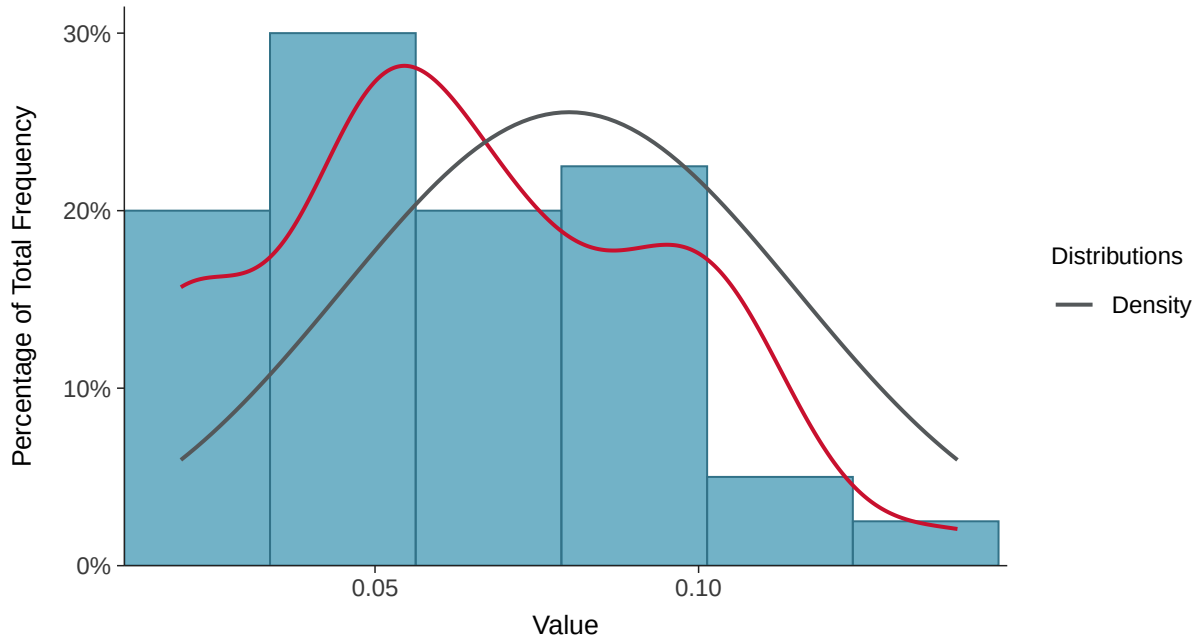
Scatter Plot

Fluoride, MW-8 (mg/L)



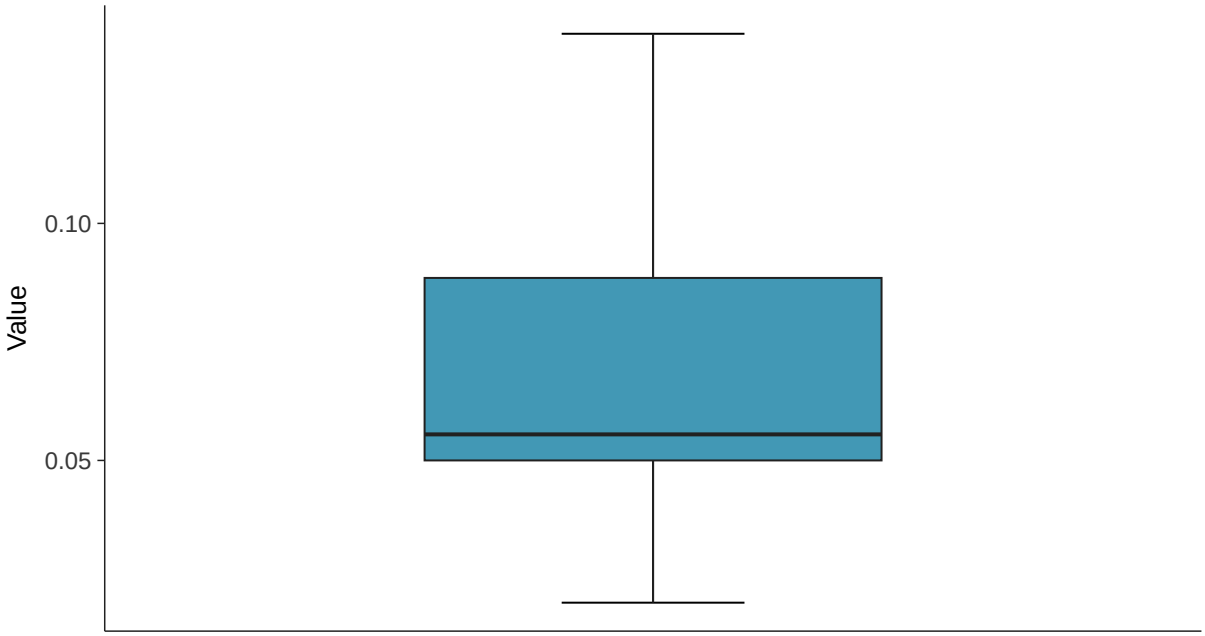
Histogram

Fluoride, MW-8 (mg/L)



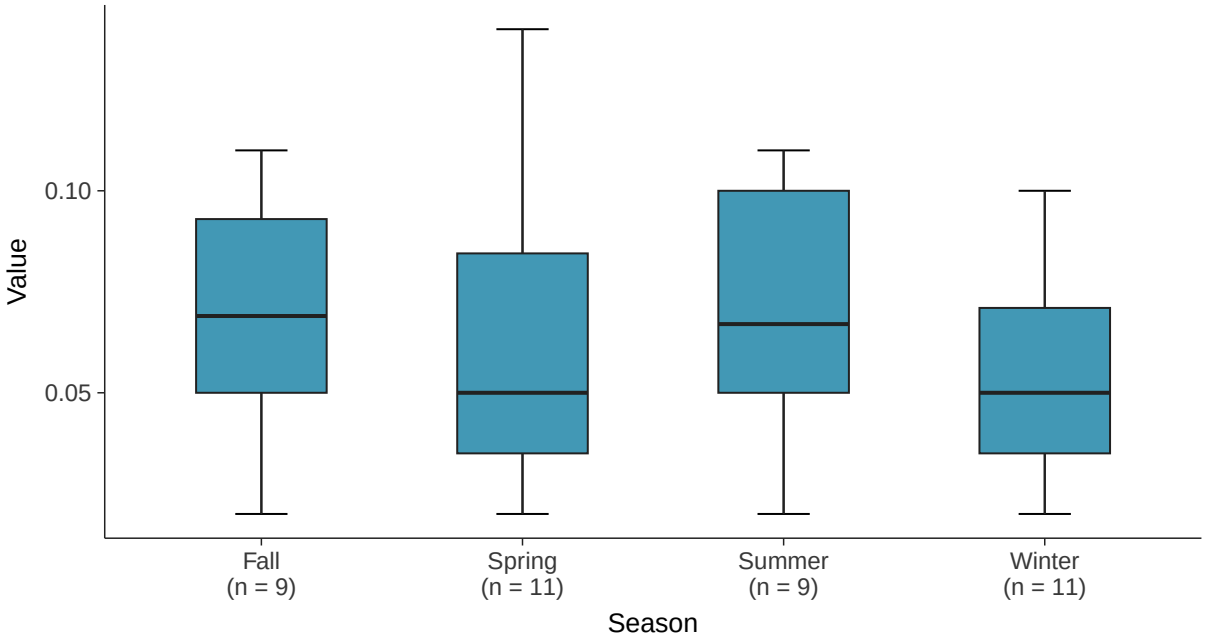
Boxplot

Fluoride, MW-8 (mg/L)



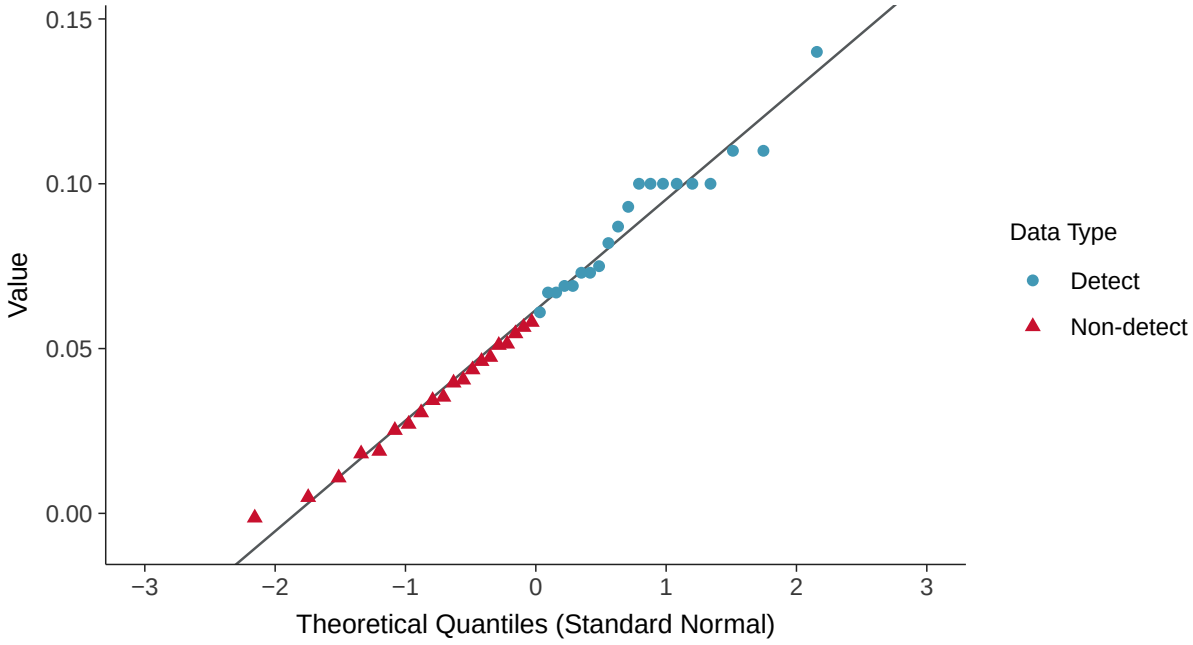
Boxplot by Season

Fluoride, MW-8 (mg/L)



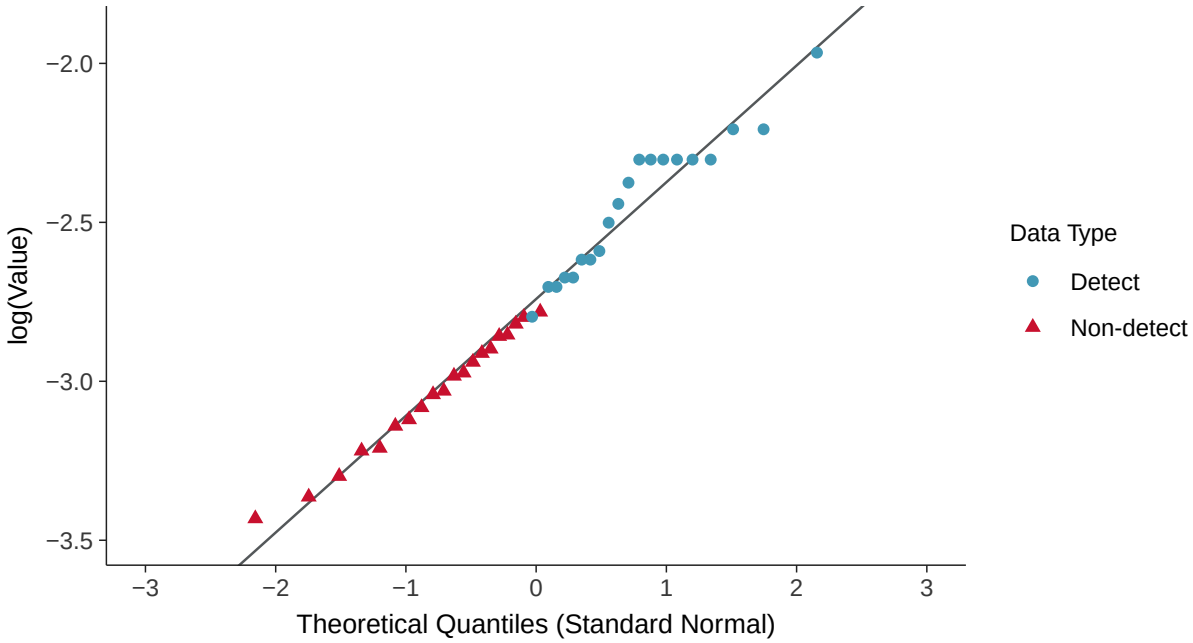
Normal Q-Q plot using ROS Imputed Estimates

Fluoride, MW-8 (mg/L)



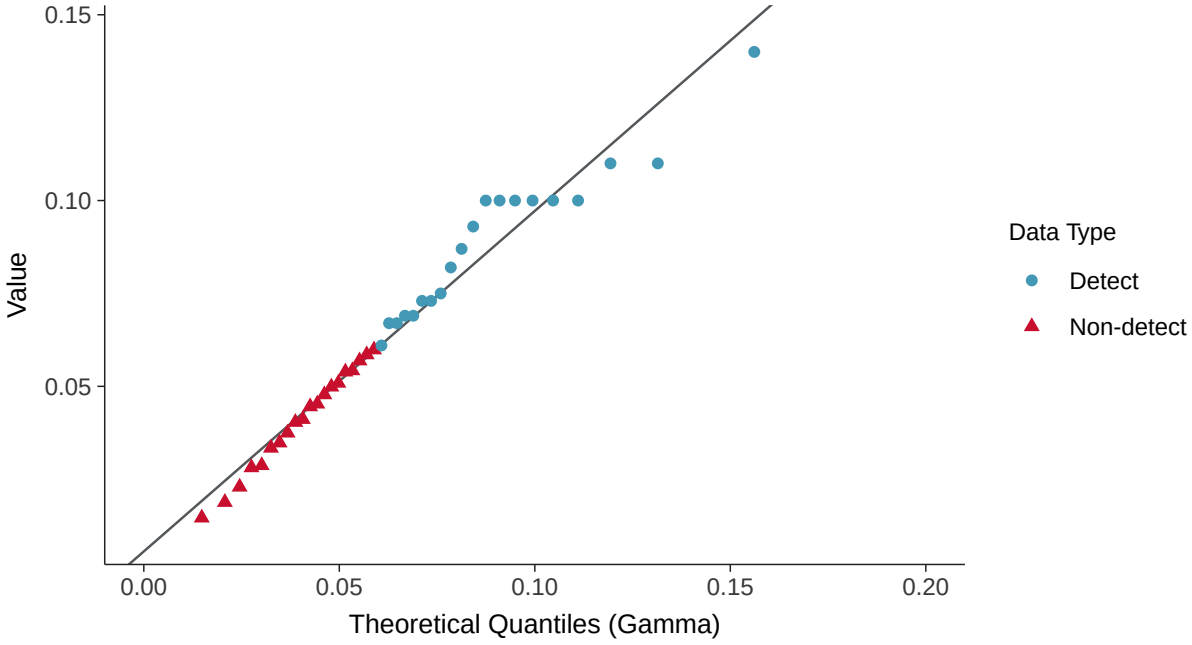
Lognormal Q-Q plot using ROS Imputed Estimates

Fluoride, MW-8 (mg/L)



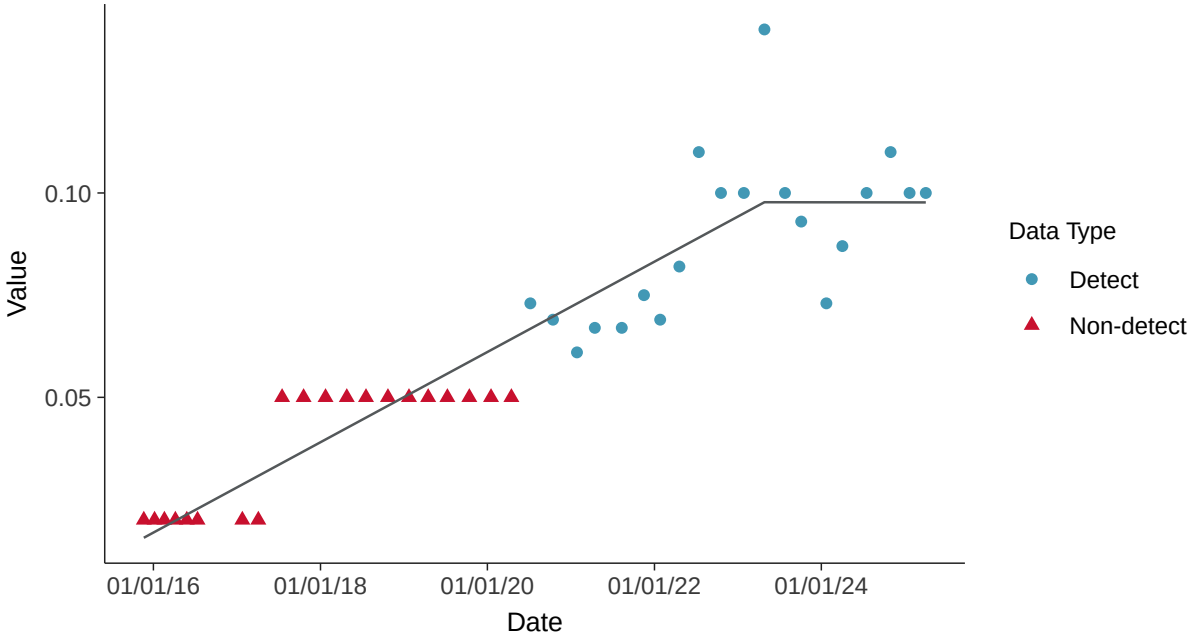
Gamma Q-Q plot using ROS Imputed Estimates

Fluoride, MW-8 (mg/L)



Trend Regression: Piecewise Linear-Linear

Fluoride, MW-8 (mg/L)

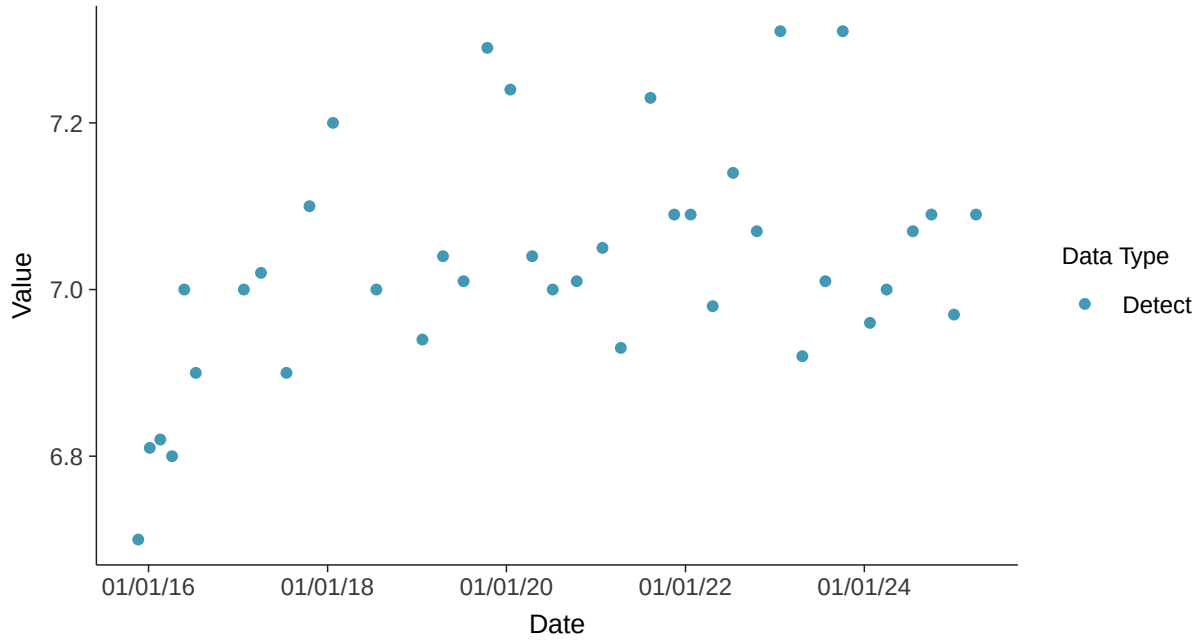


App. III: pH (Field), MW-8

ID: 08_02_118

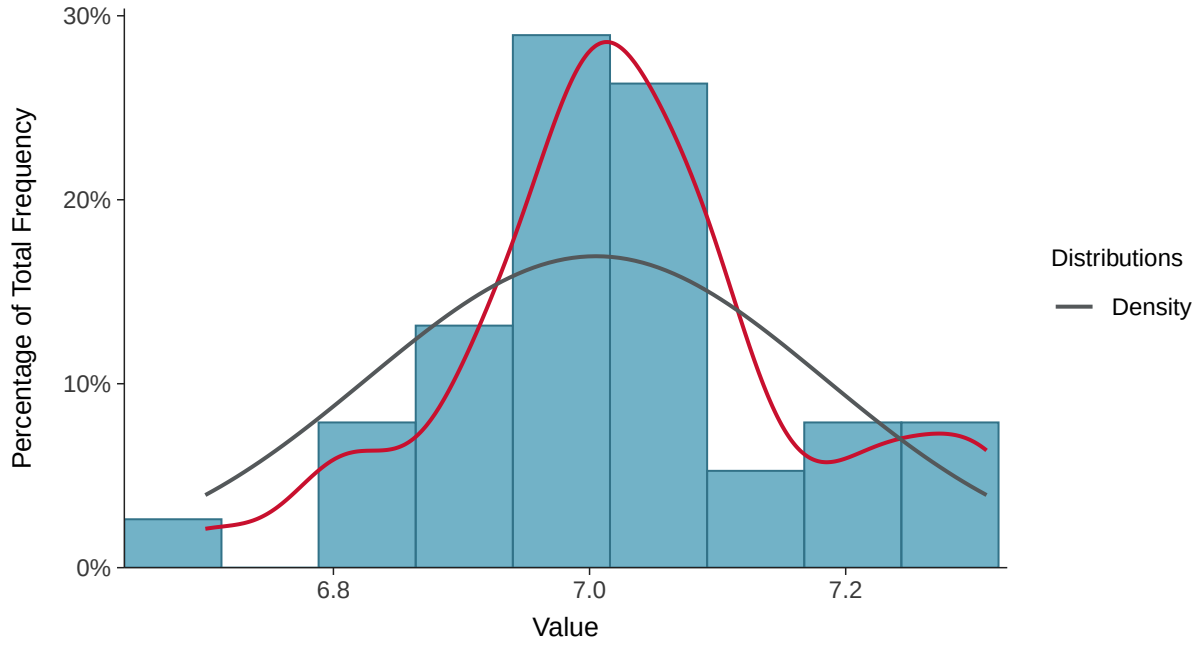
Scatter Plot

pH (Field), MW-8 (S.U.)



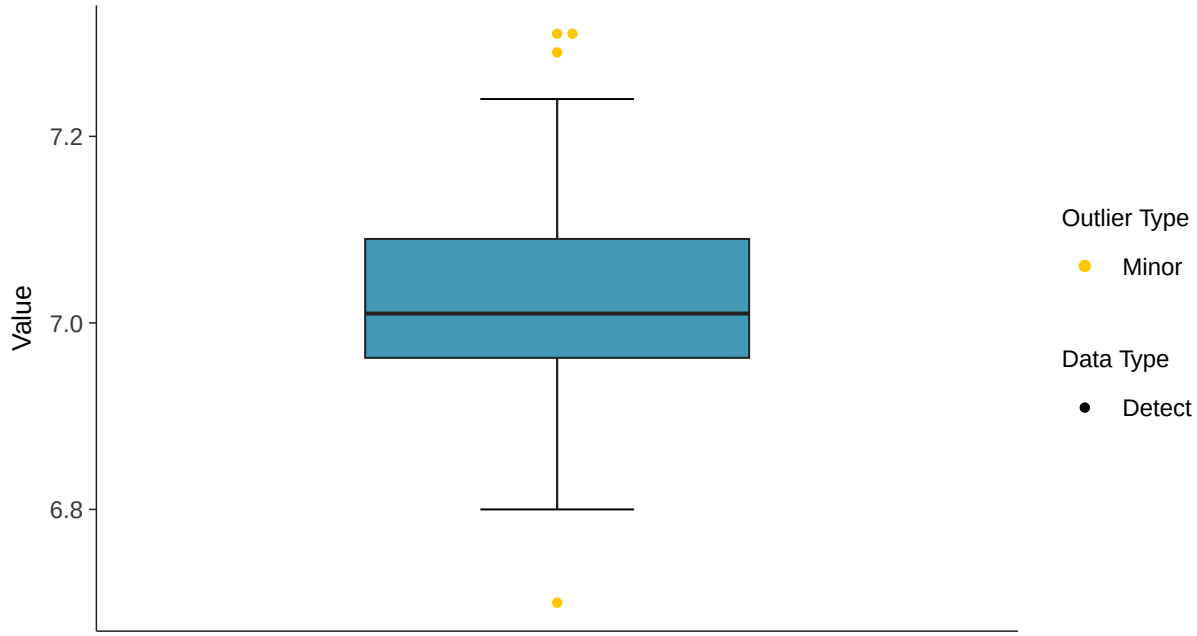
Histogram

pH (Field), MW-8 (S.U.)



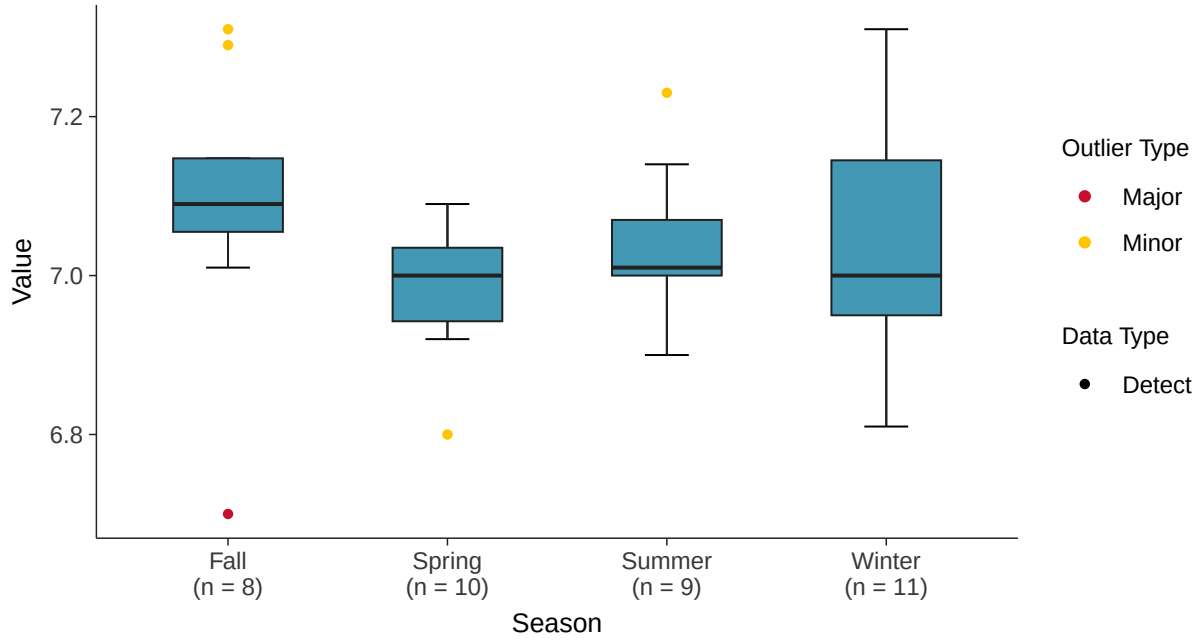
Boxplot

pH (Field), MW-8 (S.U.)



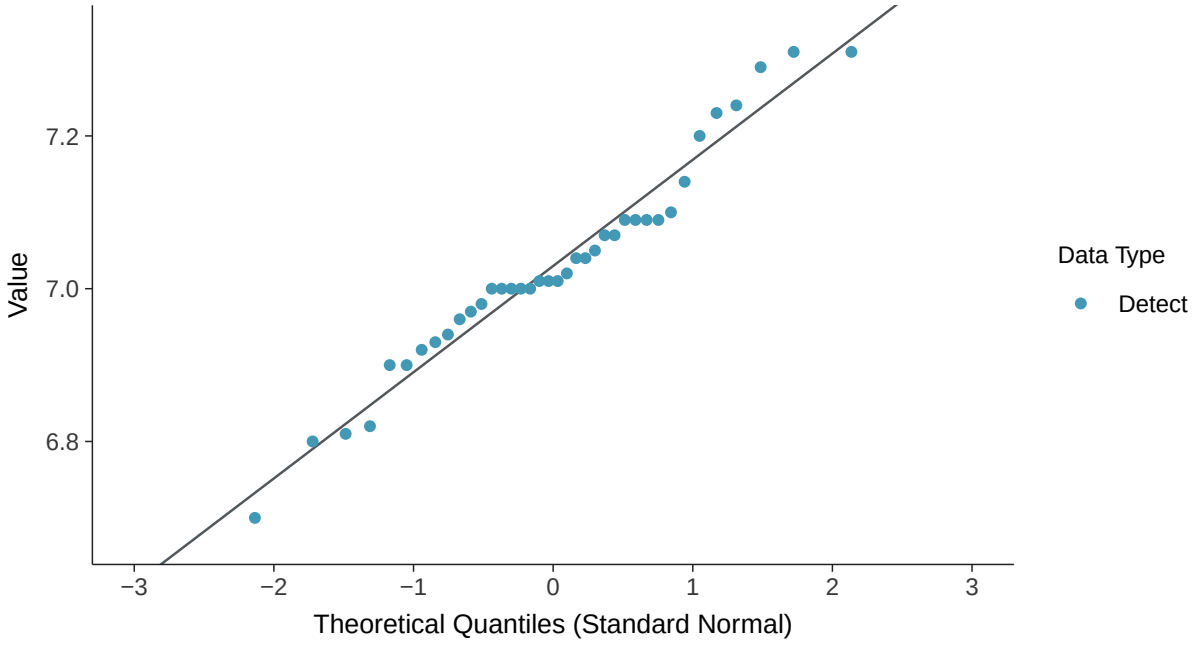
Boxplot by Season

pH (Field), MW-8 (S.U.)



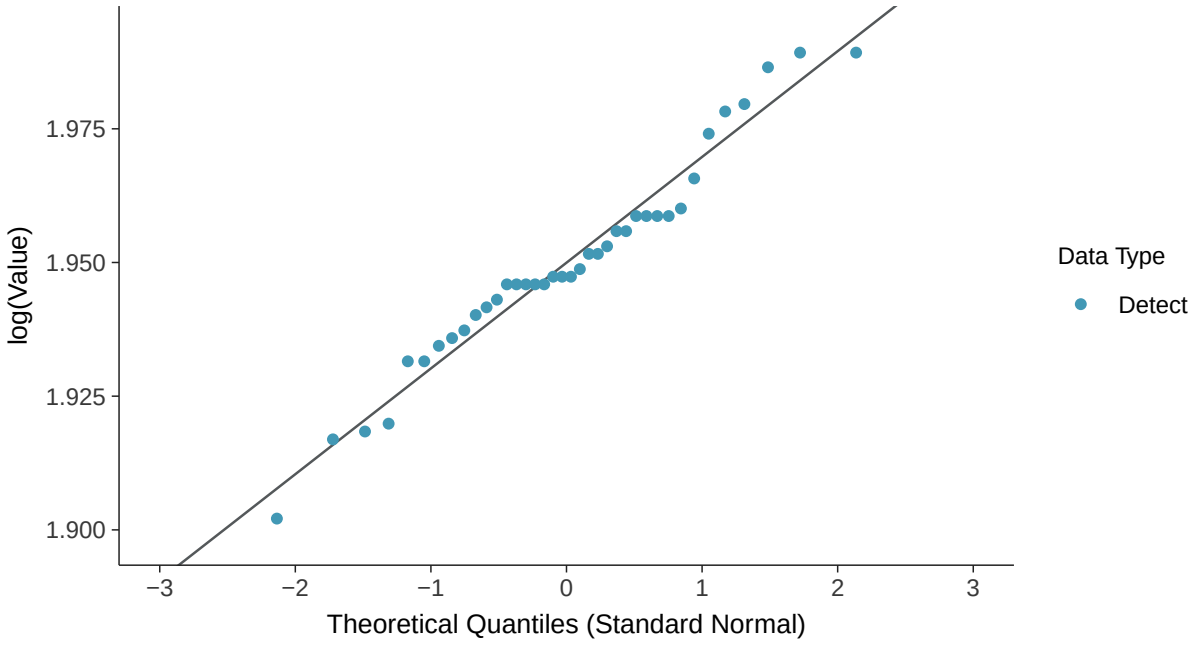
Normal Q-Q plot

pH (Field), MW-8 (S.U.)



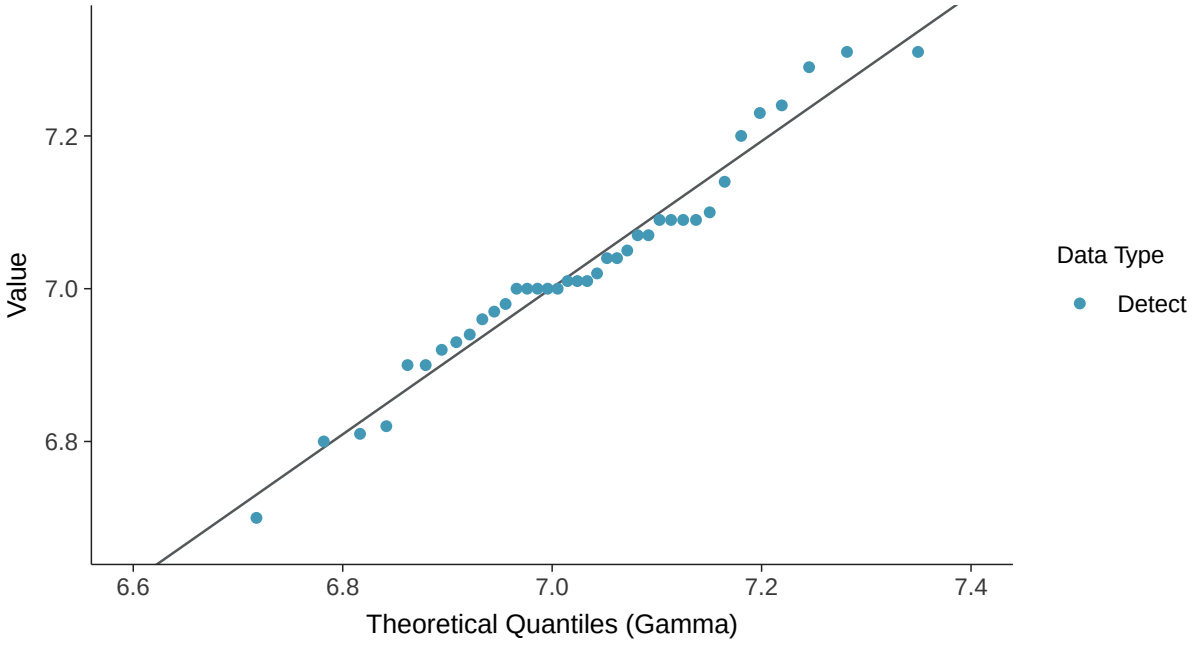
Lognormal Q-Q plot

pH (Field), MW-8 (S.U.)



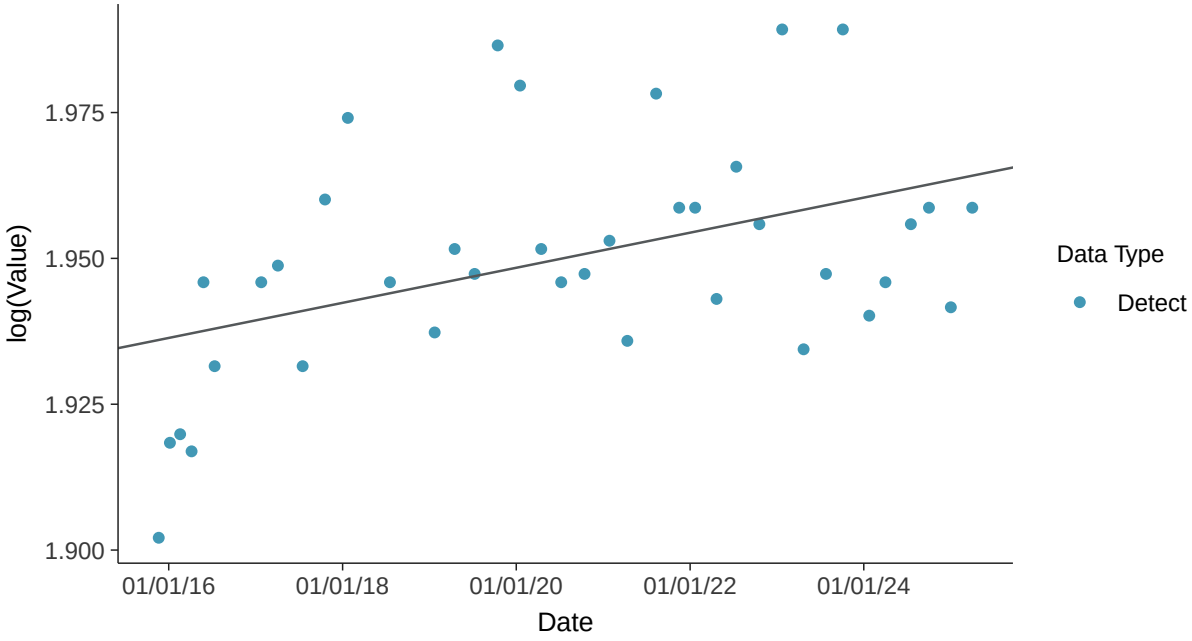
Gamma Q-Q plot

pH (Field), MW-8 (S.U.)



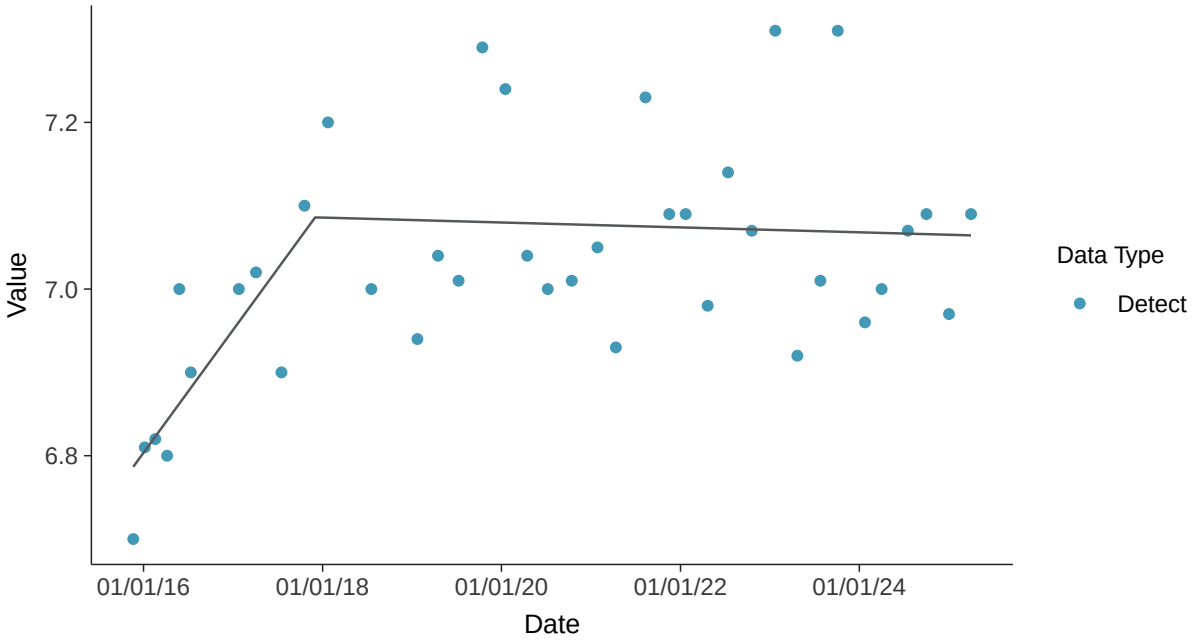
Trend Regression: Lognormal MLE

pH (Field), MW-8 (S.U.)



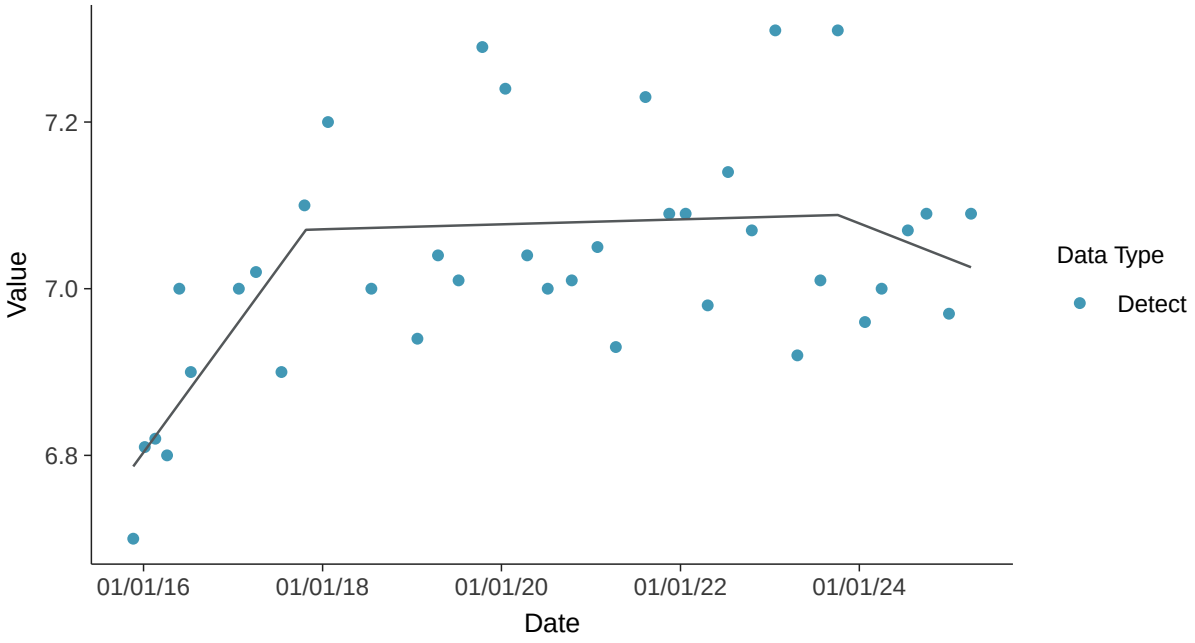
Trend Regression: Piecewise Linear-Linear

pH (Field), MW-8 (S.U.)



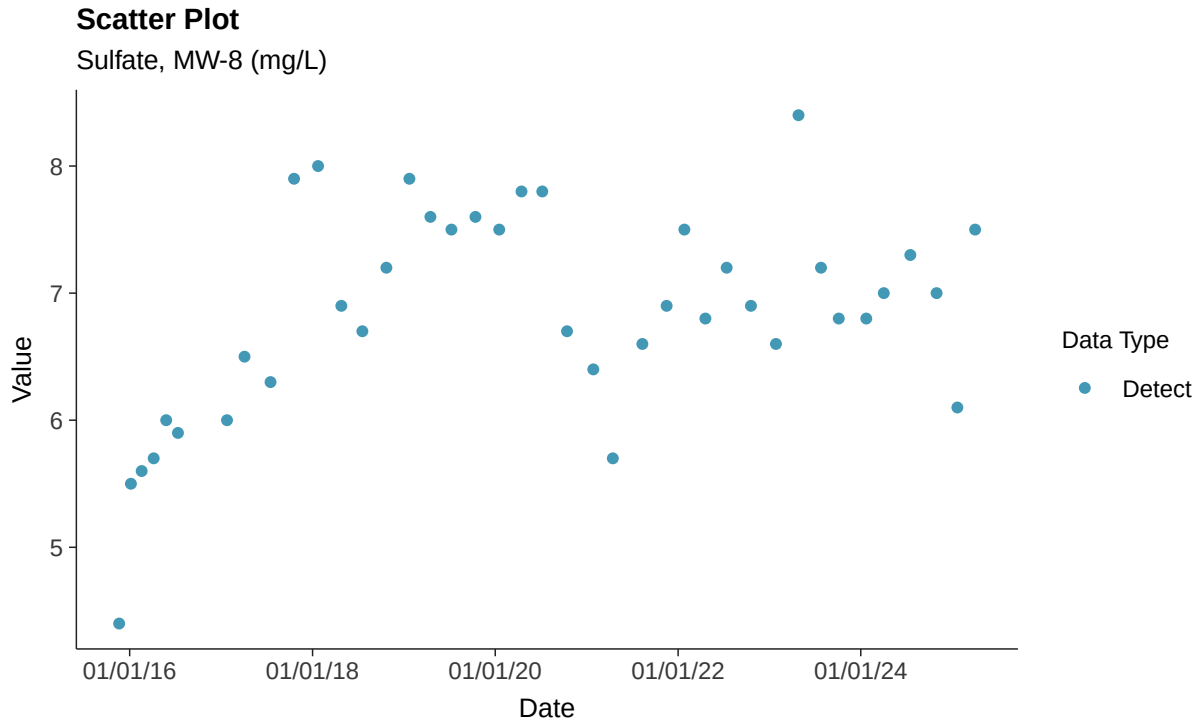
Trend Regression: Piecewise Linear-Linear-Linear

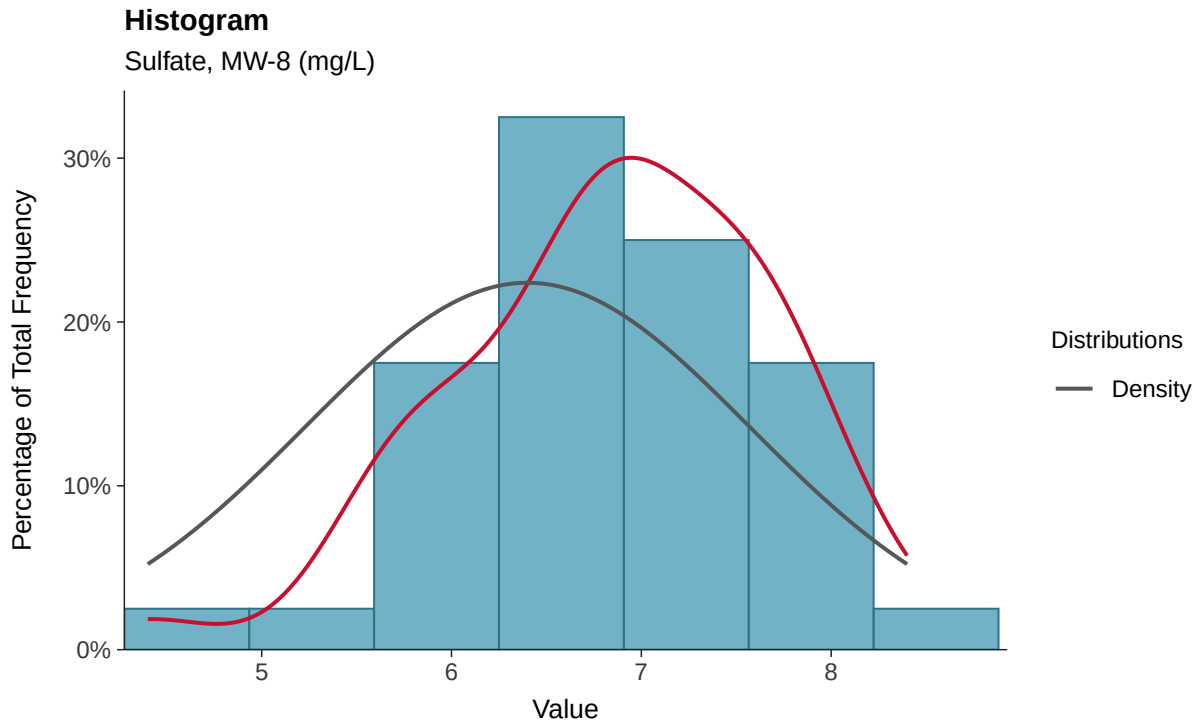
pH (Field), MW-8 (S.U.)



App. III: Sulfate, MW-8

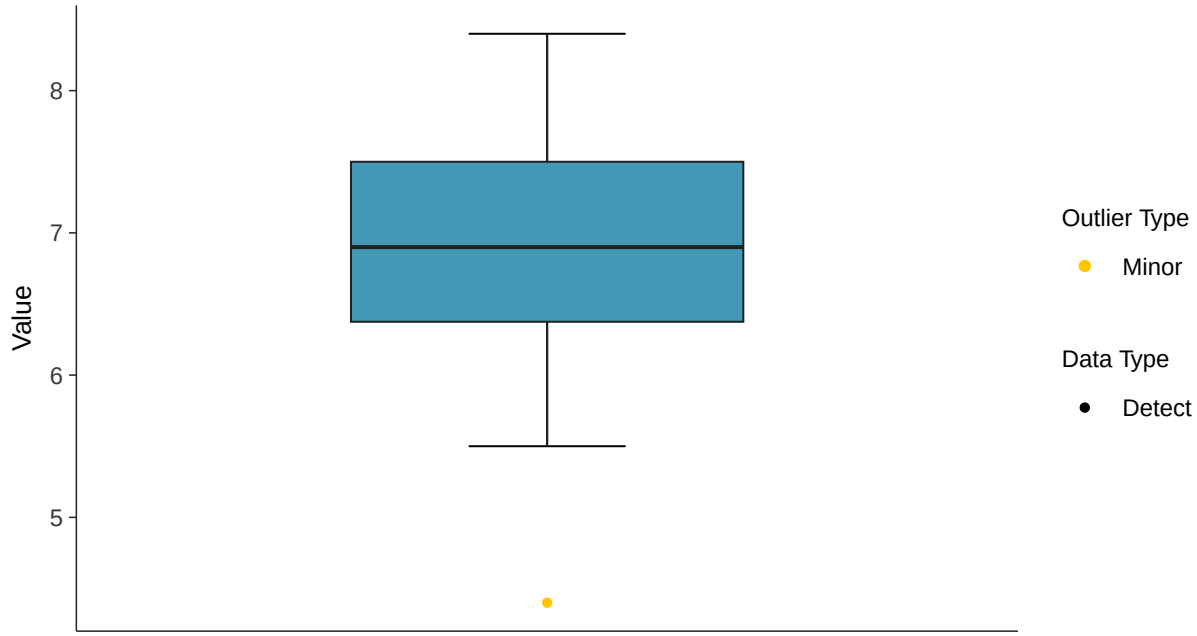
ID: 08_02_123





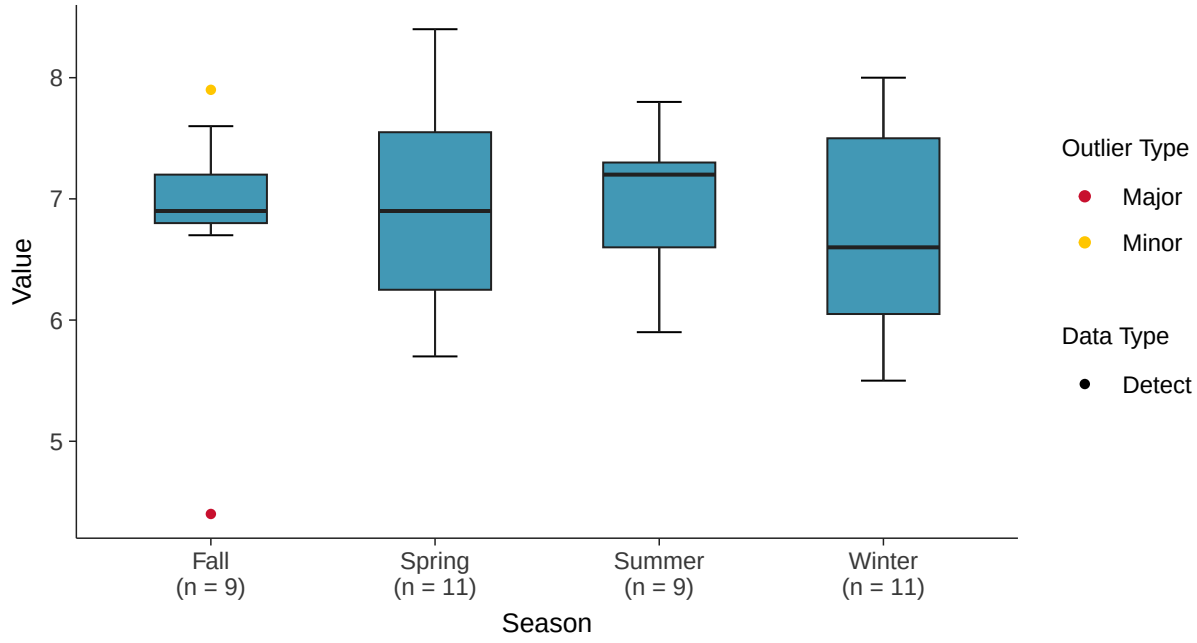
Boxplot

Sulfate, MW-8 (mg/L)



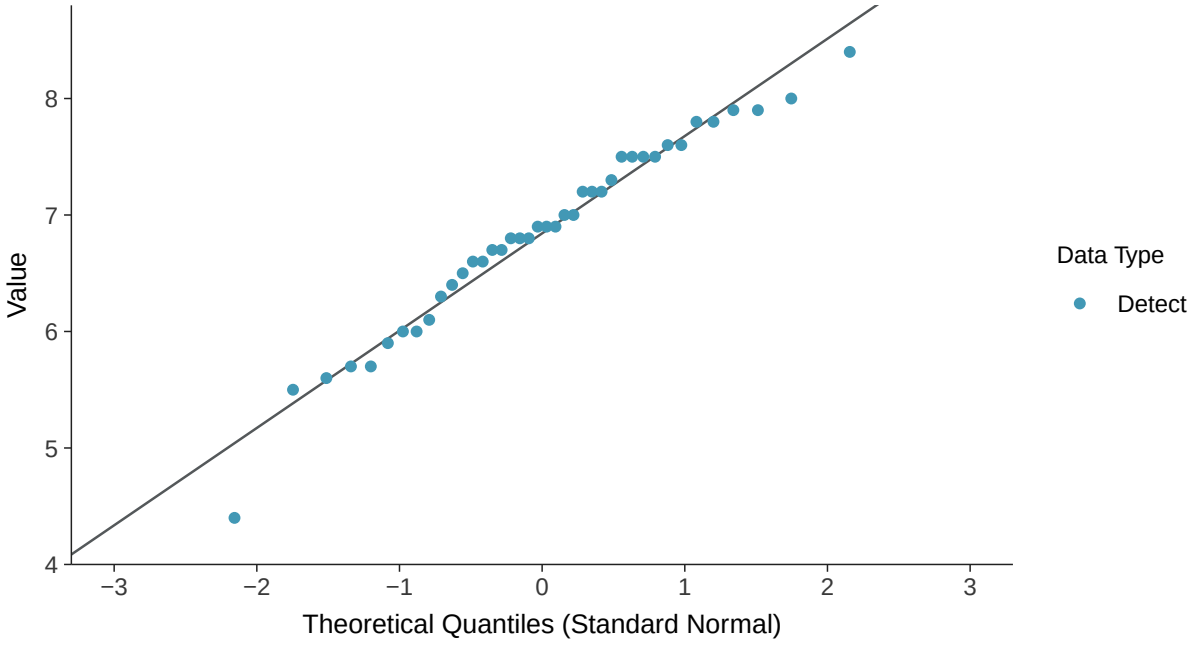
Boxplot by Season

Sulfate, MW-8 (mg/L)



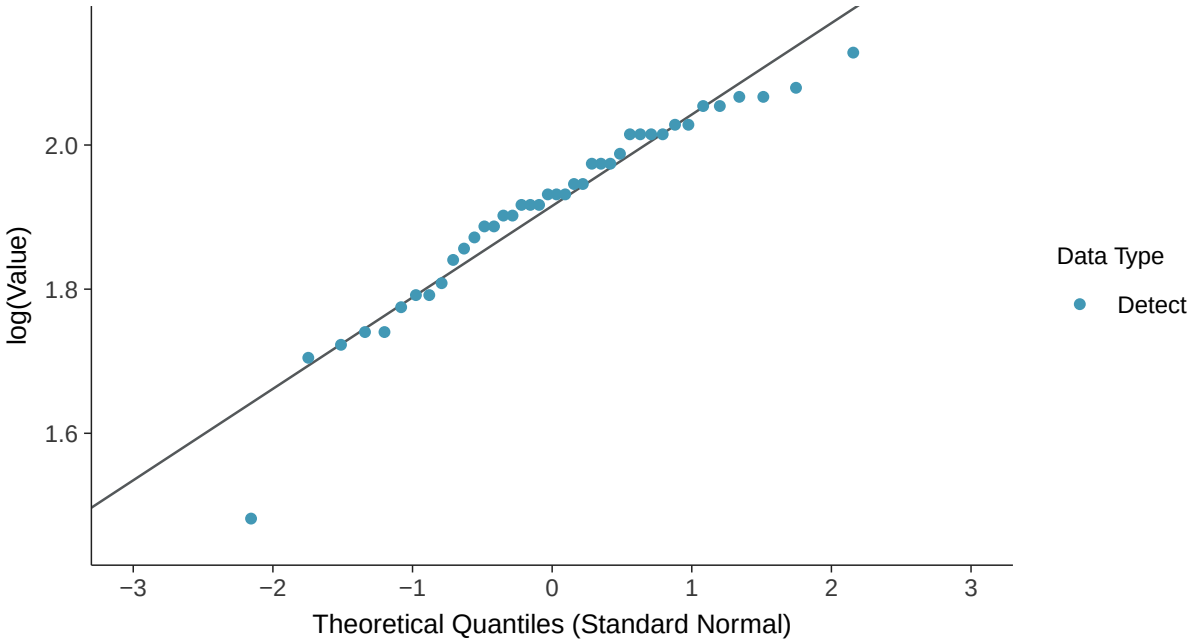
Normal Q-Q plot

Sulfate, MW-8 (mg/L)



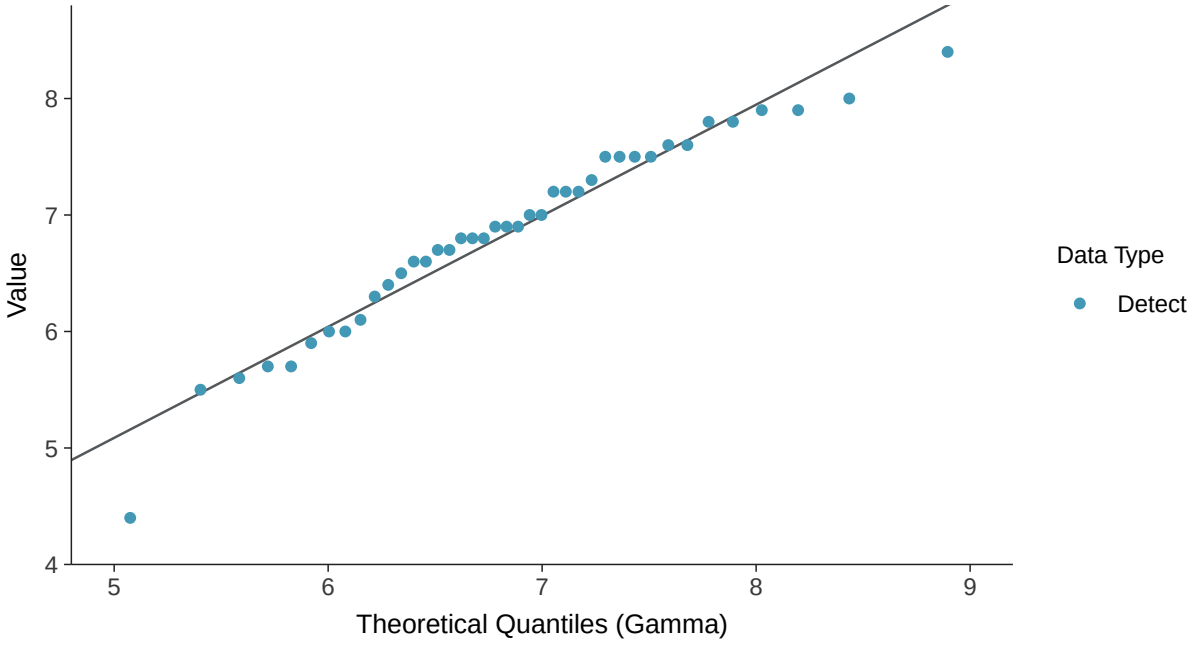
Lognormal Q-Q plot

Sulfate, MW-8 (mg/L)



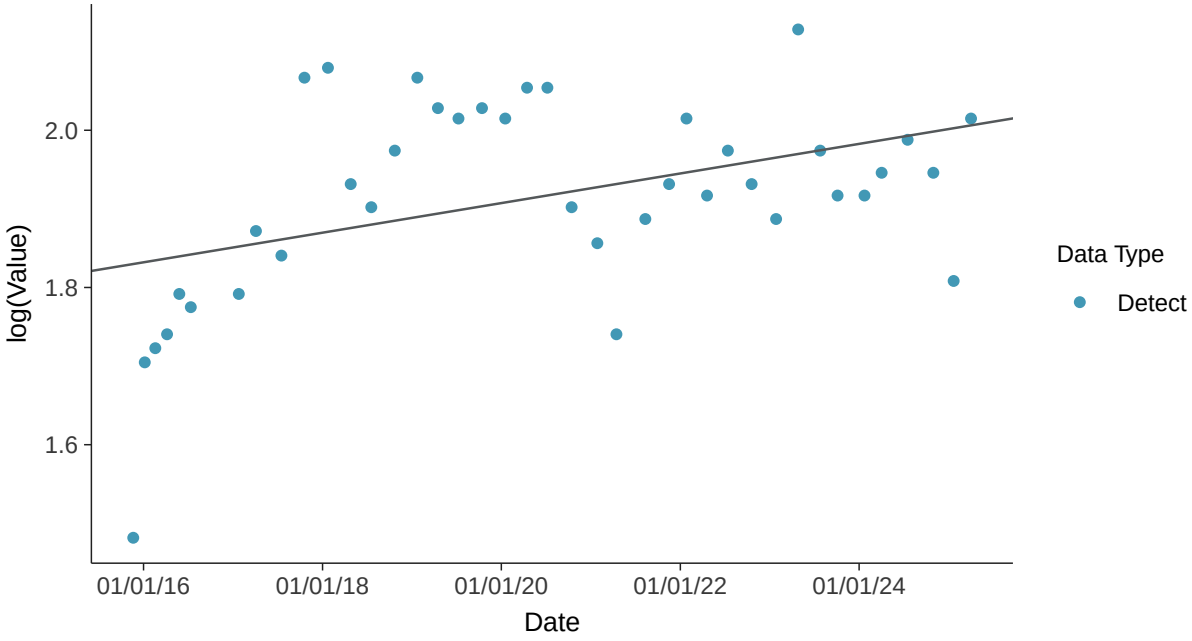
Gamma Q-Q plot

Sulfate, MW-8 (mg/L)



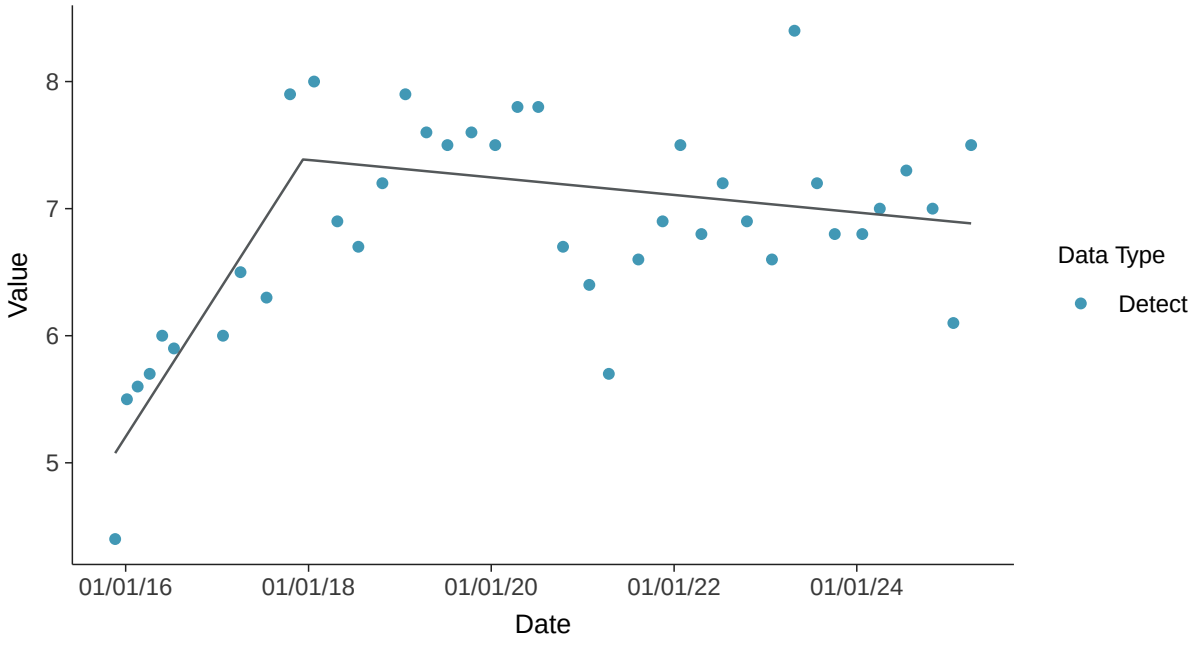
Trend Regression: Lognormal MLE

Sulfate, MW-8 (mg/L)



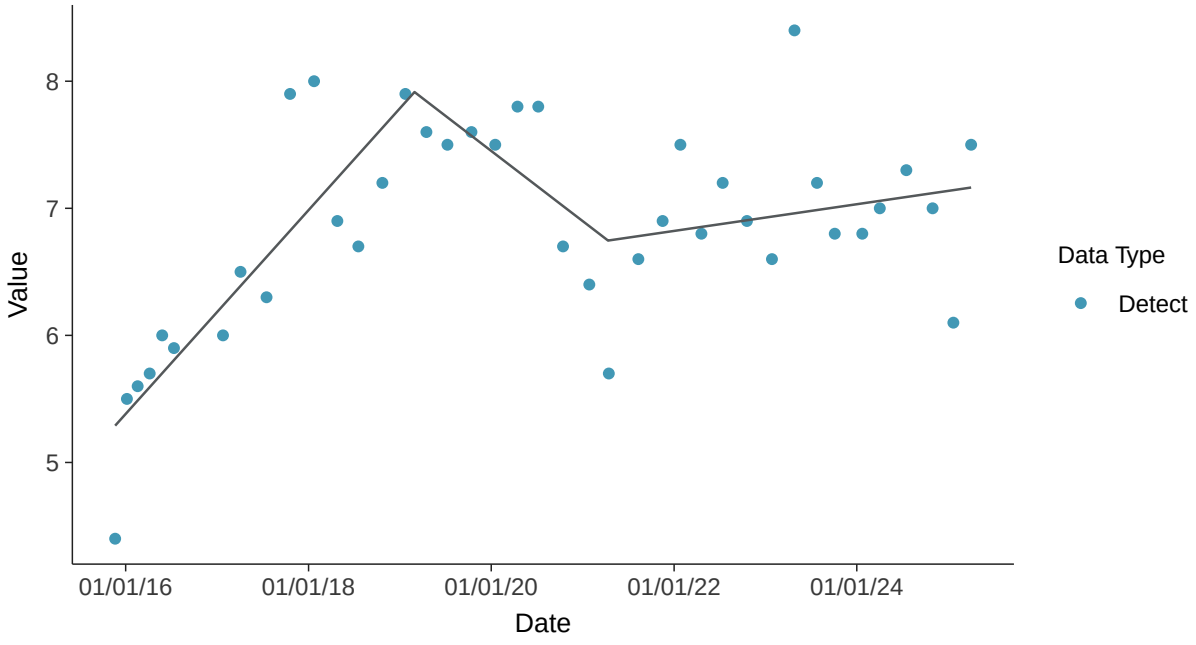
Trend Regression: Piecewise Linear-Linear

Sulfate, MW-8 (mg/L)



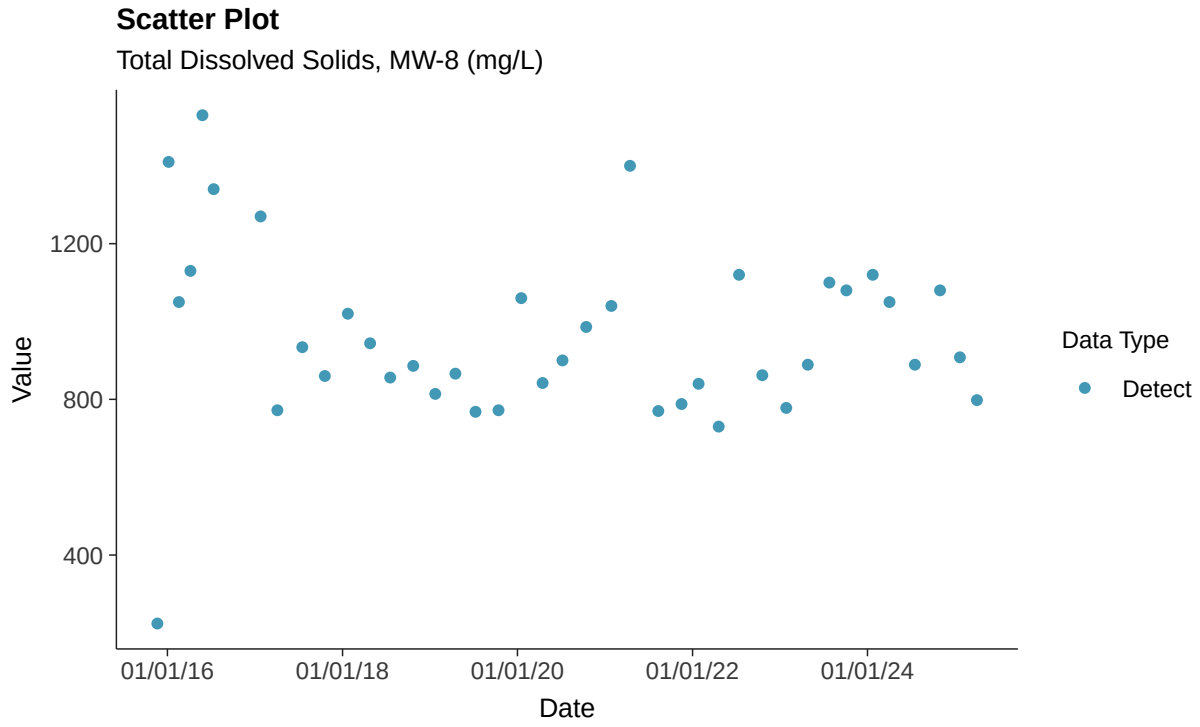
Trend Regression: Piecewise Linear-Linear-Linear

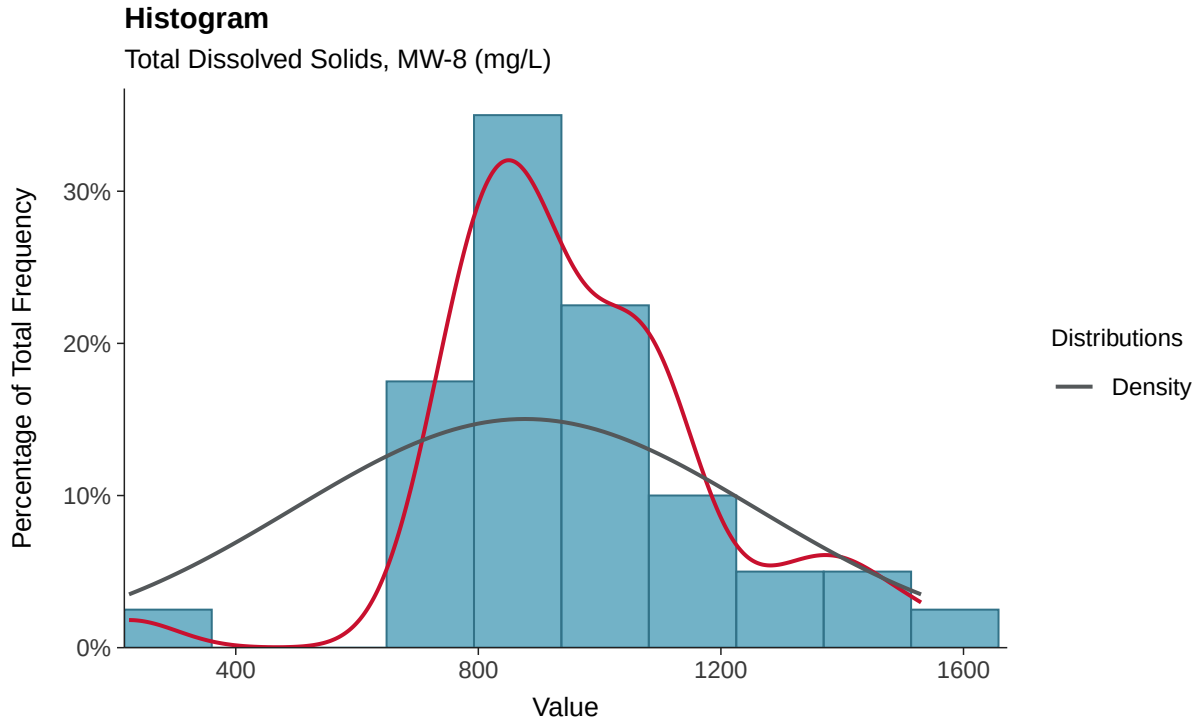
Sulfate, MW-8 (mg/L)



App. III: Total Dissolved Solids, MW-8

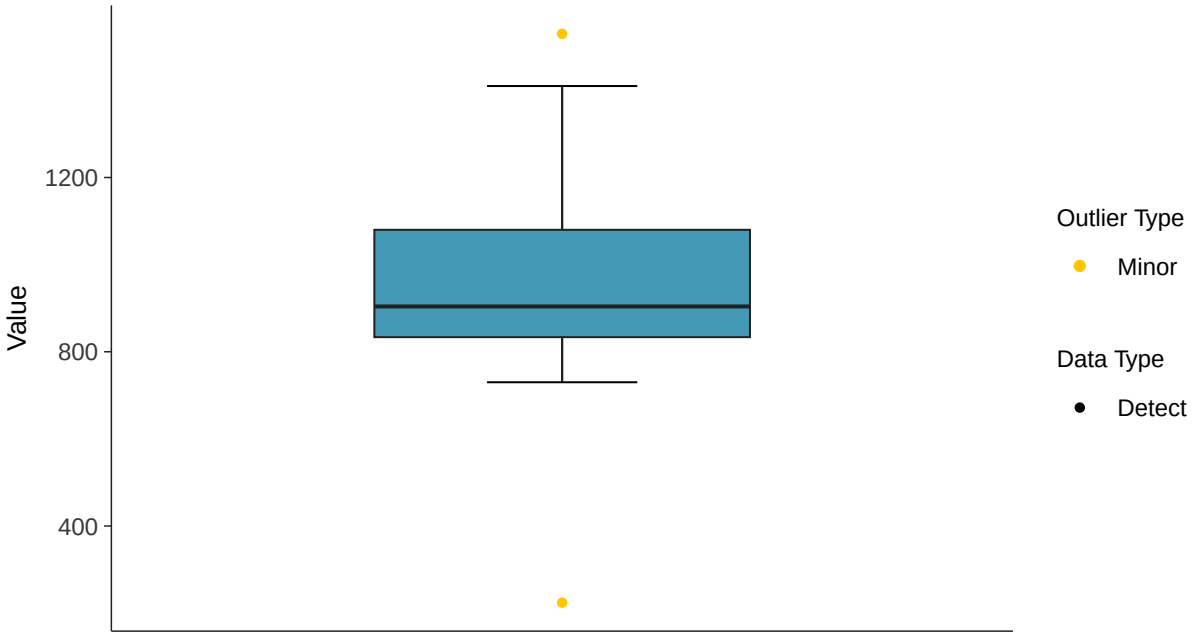
ID: 08_02_125





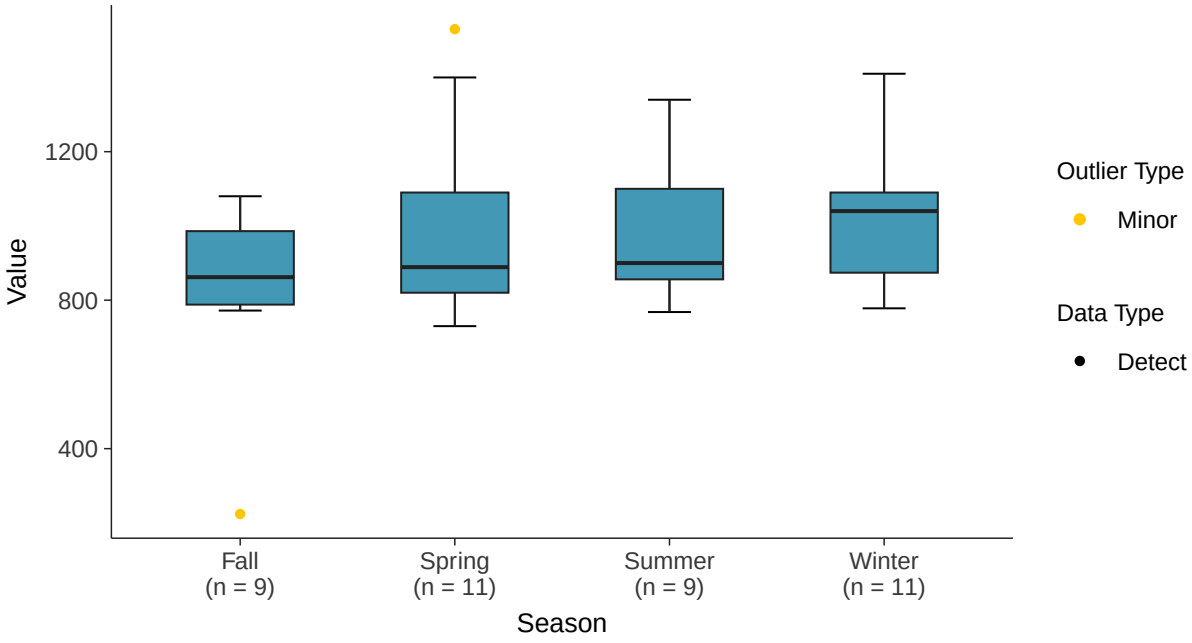
Boxplot

Total Dissolved Solids, MW-8 (mg/L)



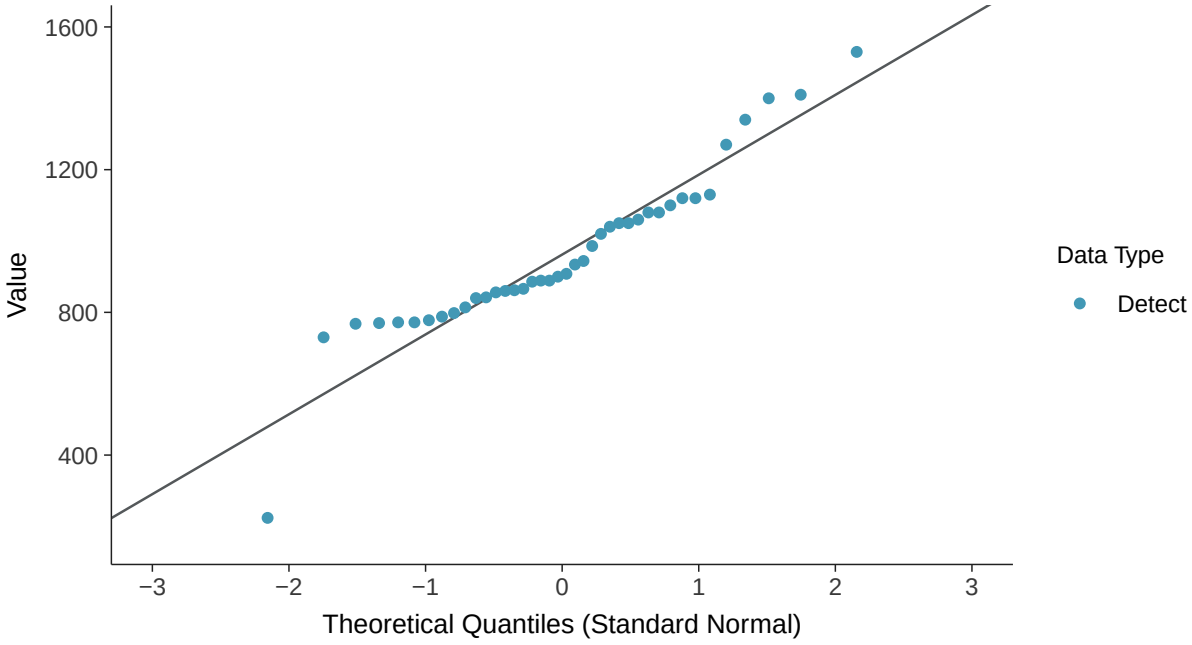
Boxplot by Season

Total Dissolved Solids, MW-8 (mg/L)



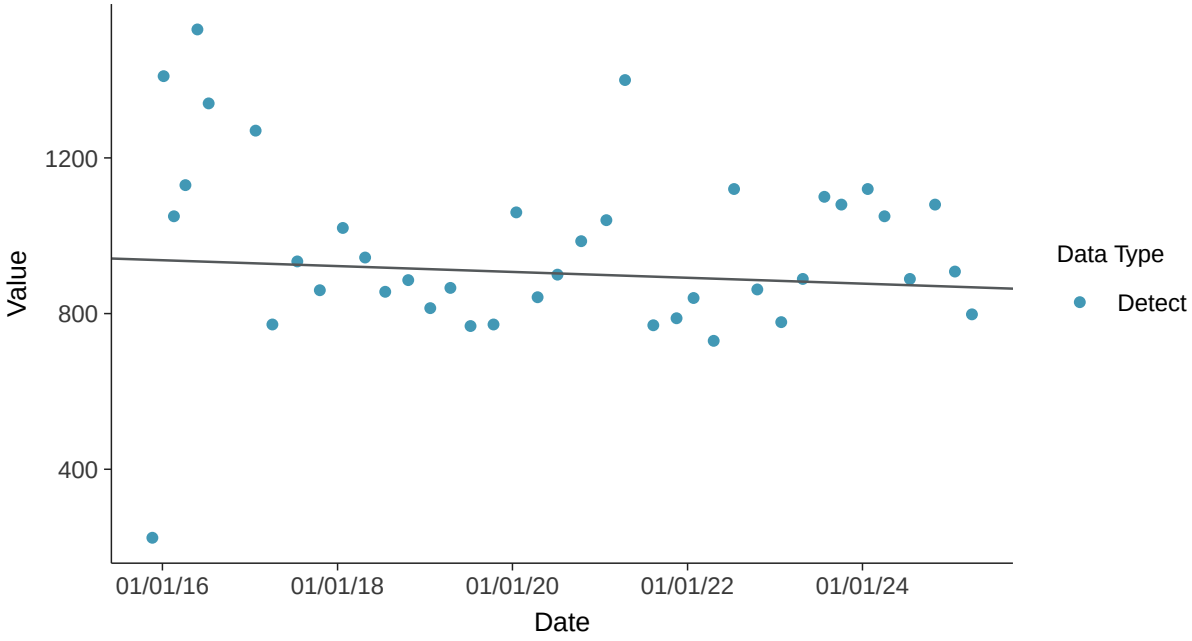
Normal Q-Q plot

Total Dissolved Solids, MW-8 (mg/L)



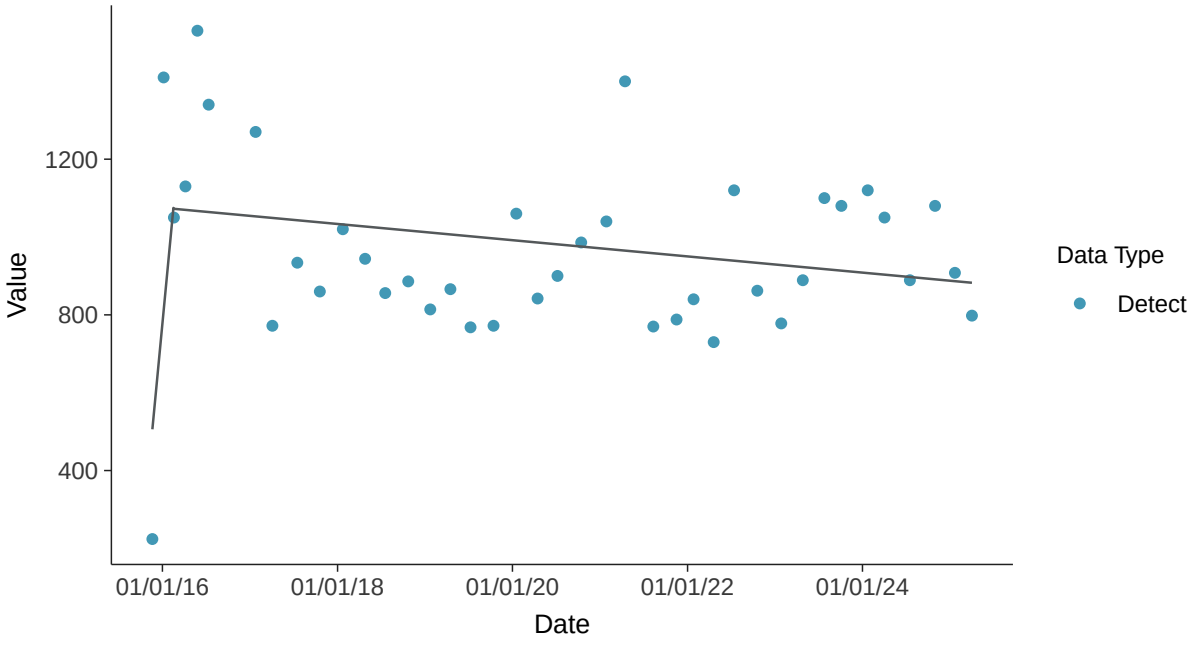
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Total Dissolved Solids, MW-8 (mg/L)



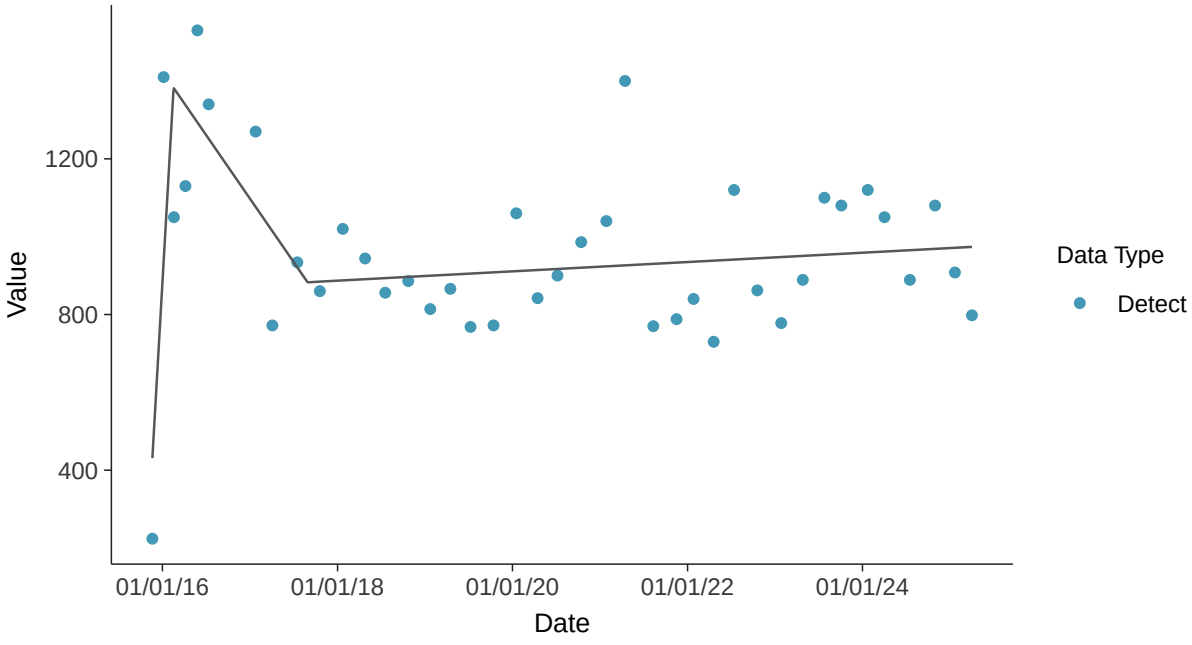
Trend Regression: Piecewise Linear-Linear

Total Dissolved Solids, MW-8 (mg/L)



Trend Regression: Piecewise Linear-Linear-Linear

Total Dissolved Solids, MW-8 (mg/L)

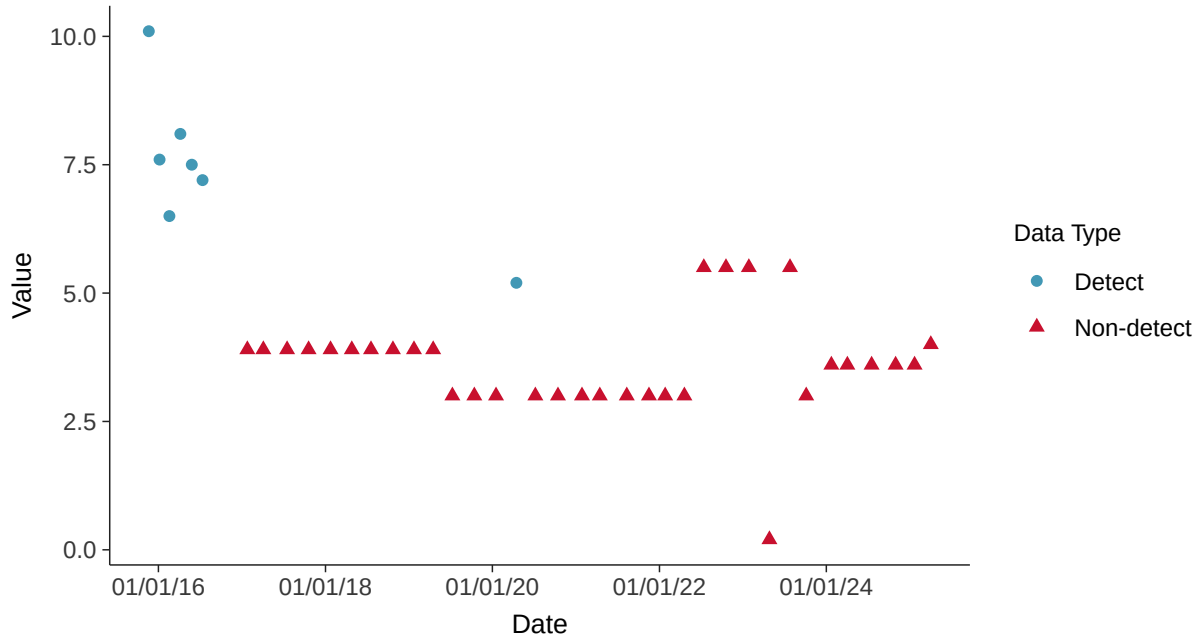


App. IV: Antimony, MW-8

ID: 08_03_101

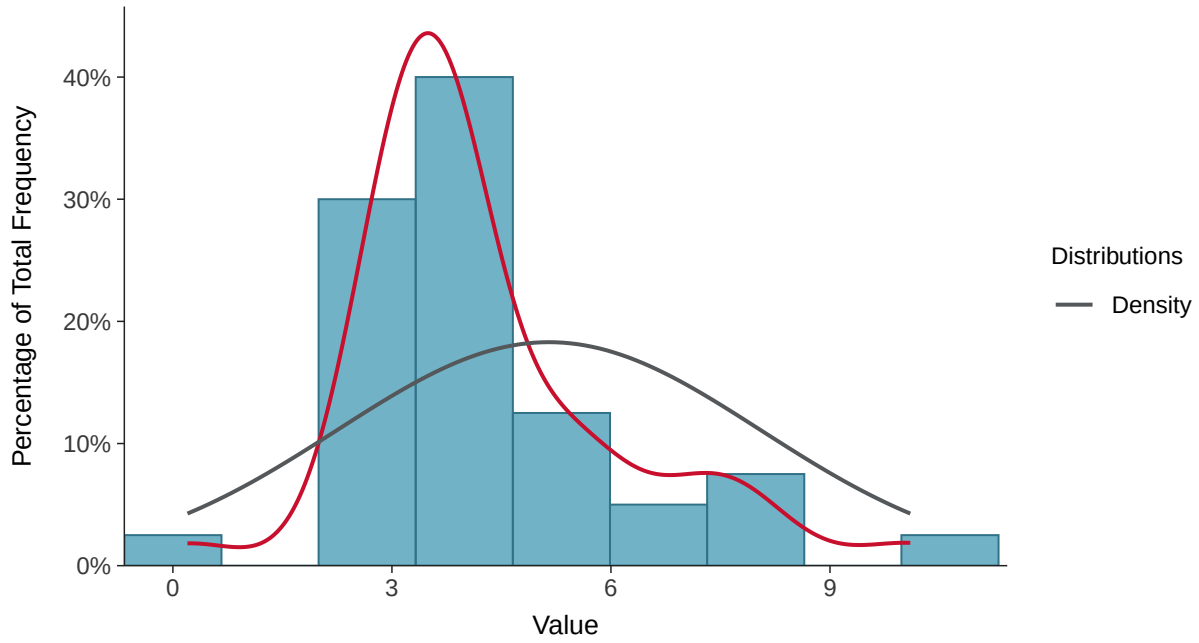
Scatter Plot

Antimony, MW-8 (ug/L)



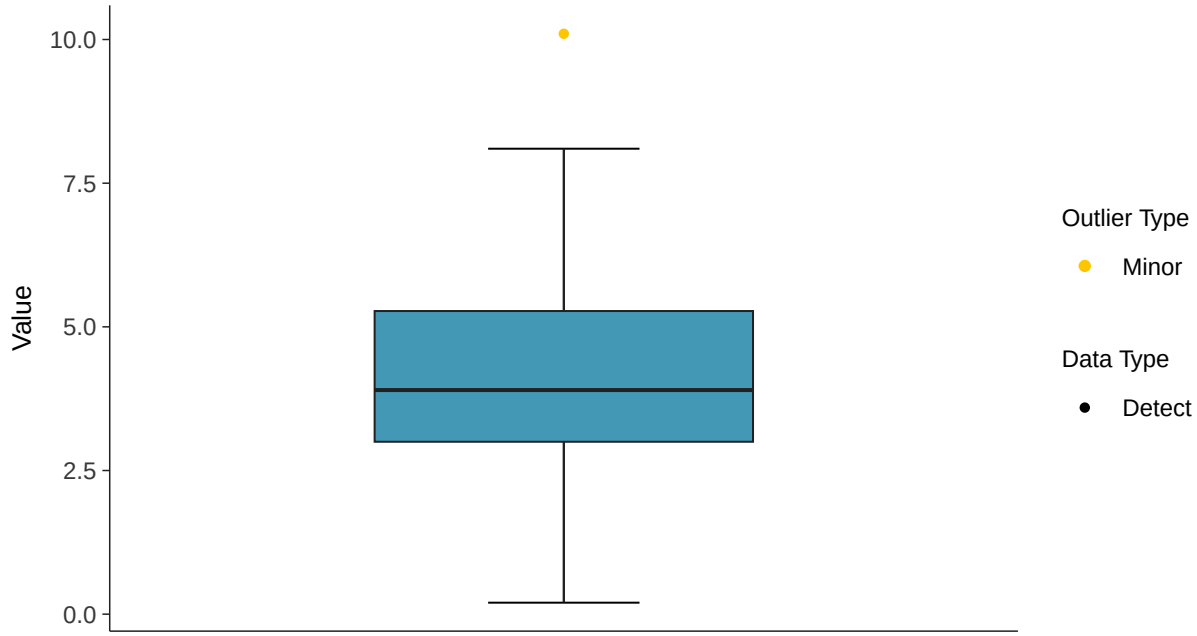
Histogram

Antimony, MW-8 (ug/L)



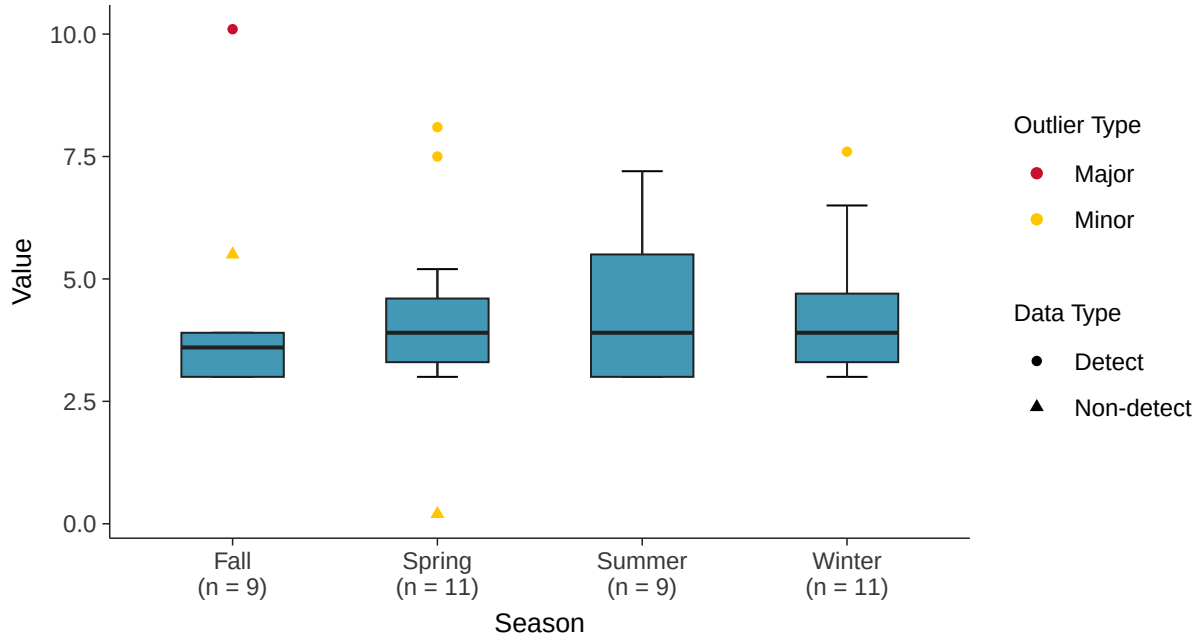
Boxplot

Antimony, MW-8 (ug/L)



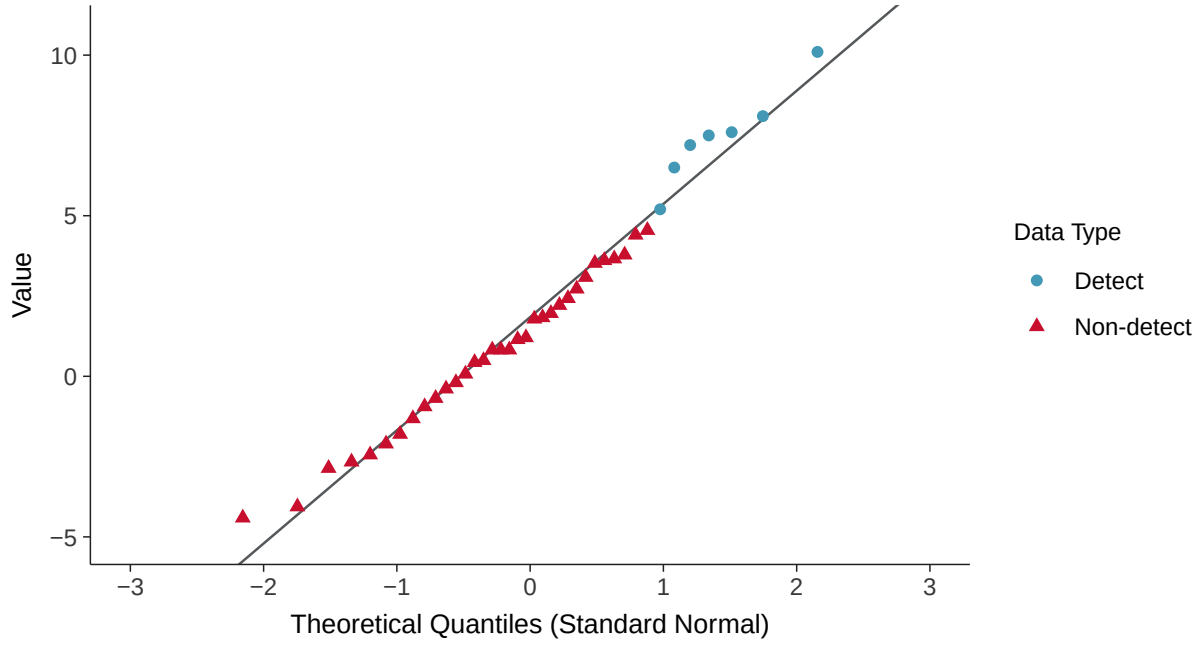
Boxplot by Season

Antimony, MW-8 (ug/L)



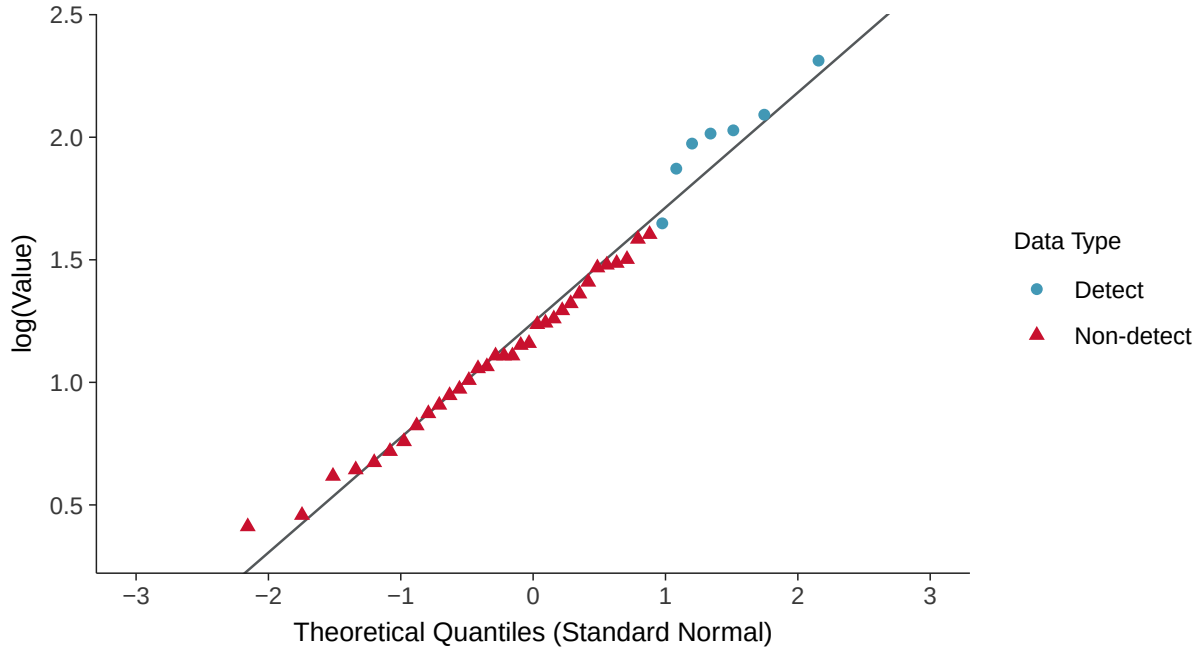
Normal Q-Q plot using ROS Imputed Estimates

Antimony, MW-8 (ug/L)



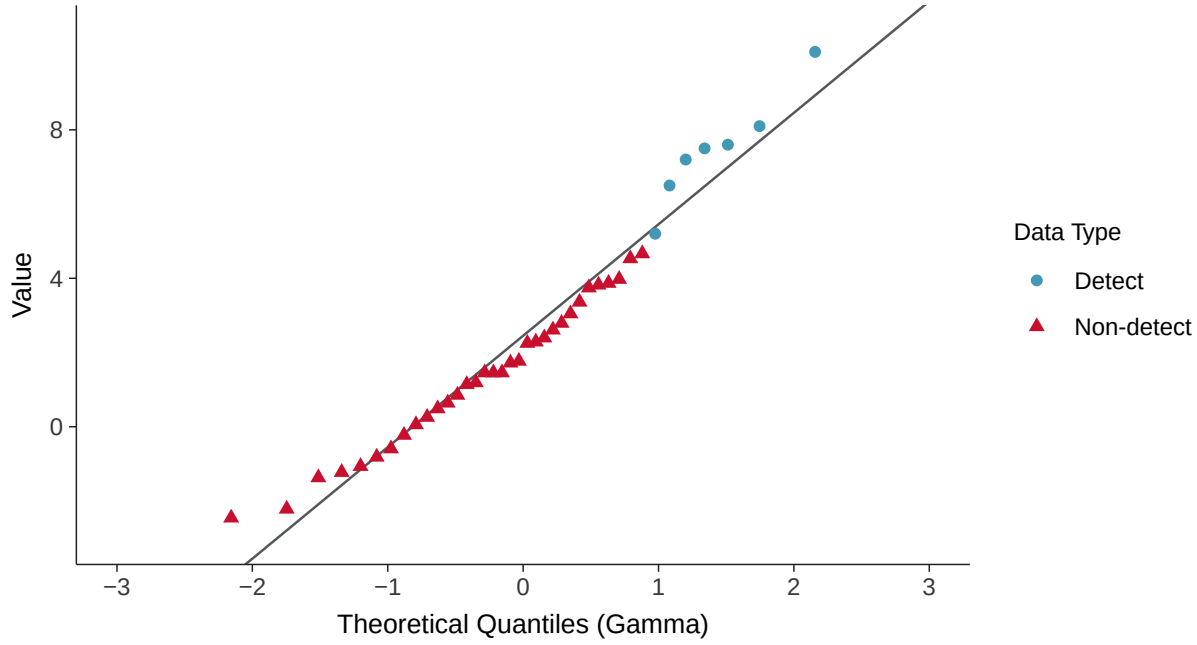
Lognormal Q-Q plot using ROS Imputed Estimates

Antimony, MW-8 (ug/L)



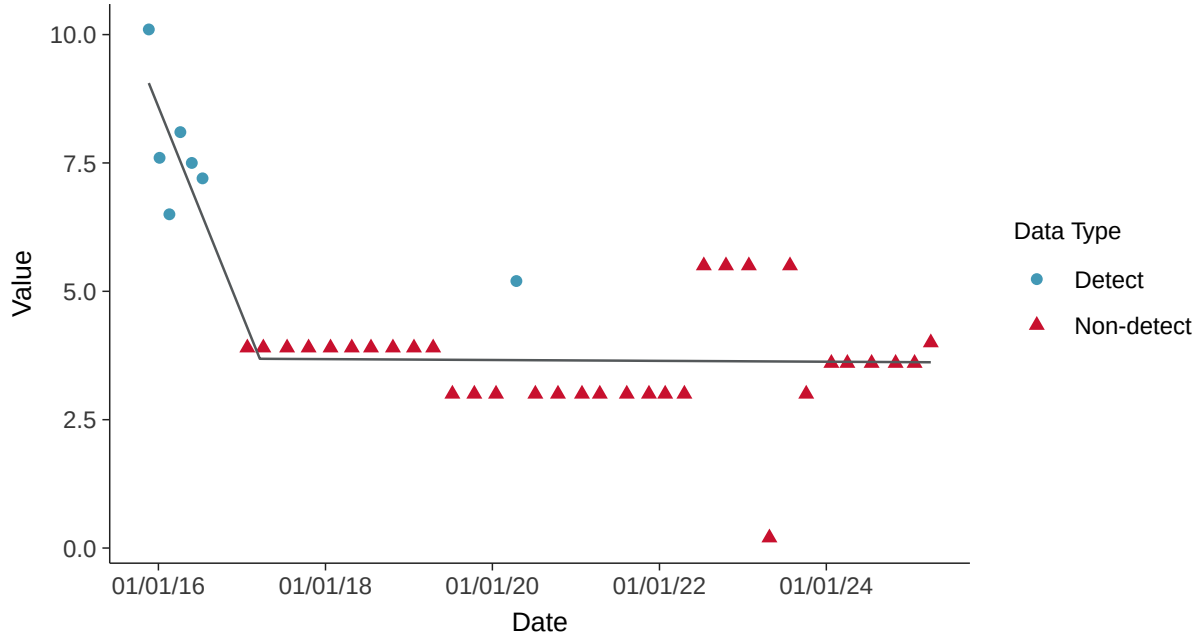
Gamma Q-Q plot using ROS Imputed Estimates

Antimony, MW-8 (ug/L)



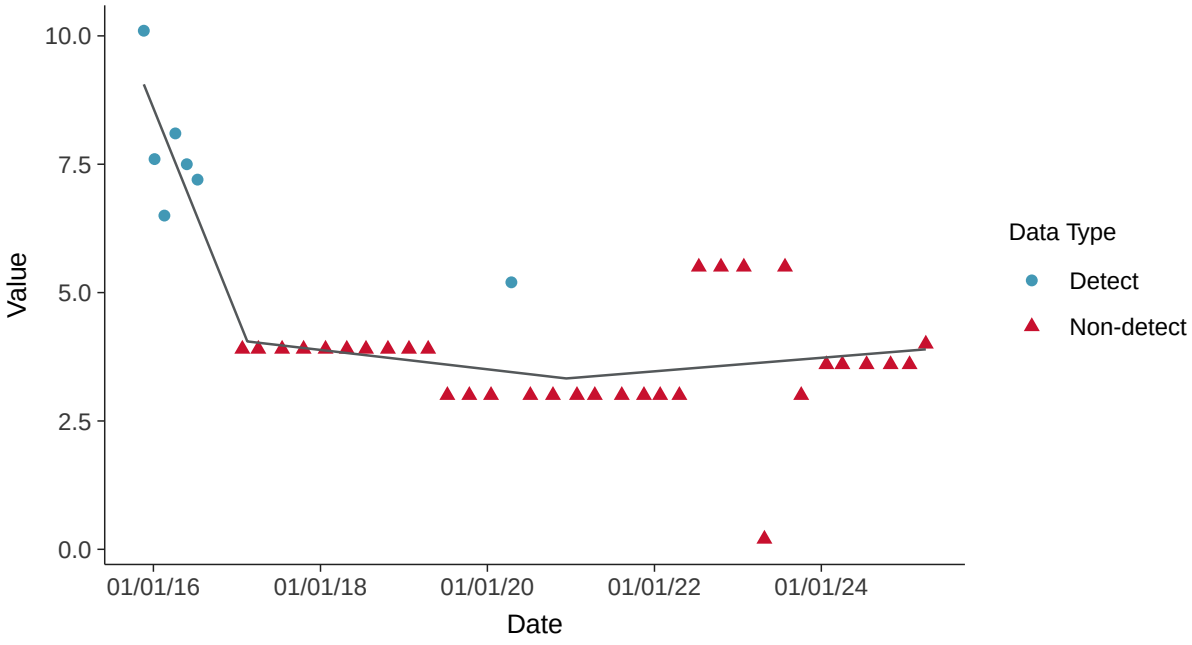
Trend Regression: Piecewise Linear-Linear

Antimony, MW-8 (ug/L)



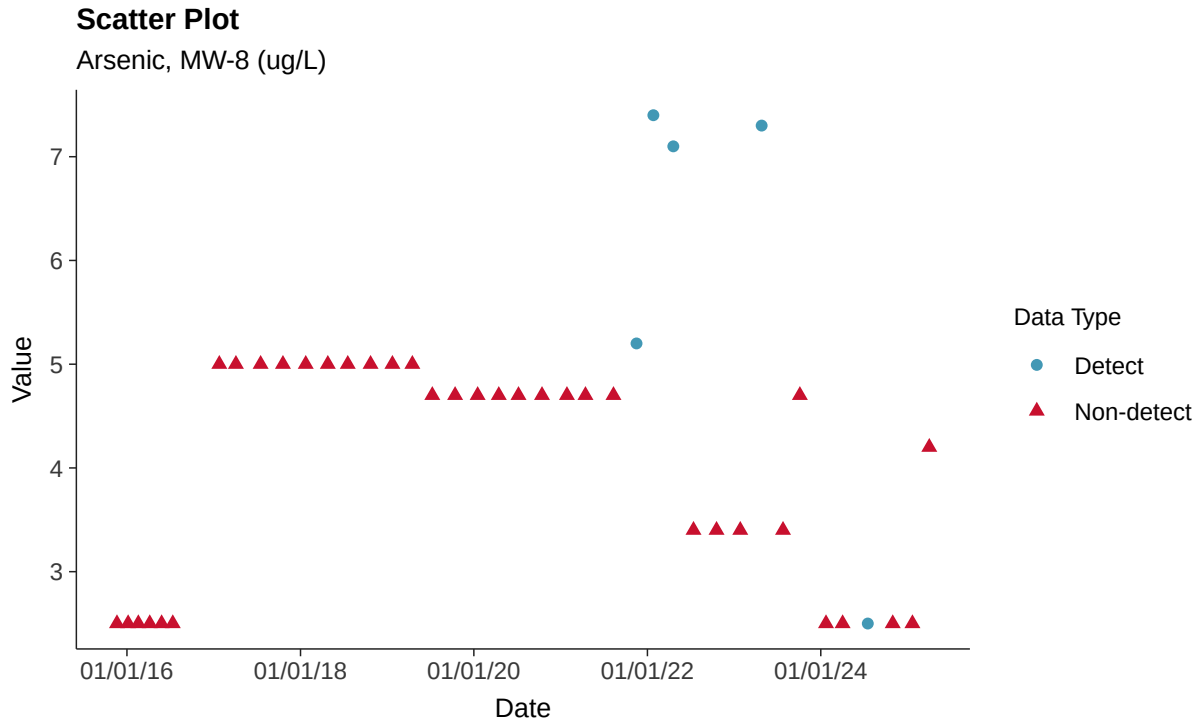
Trend Regression: Piecewise Linear-Linear-Linear

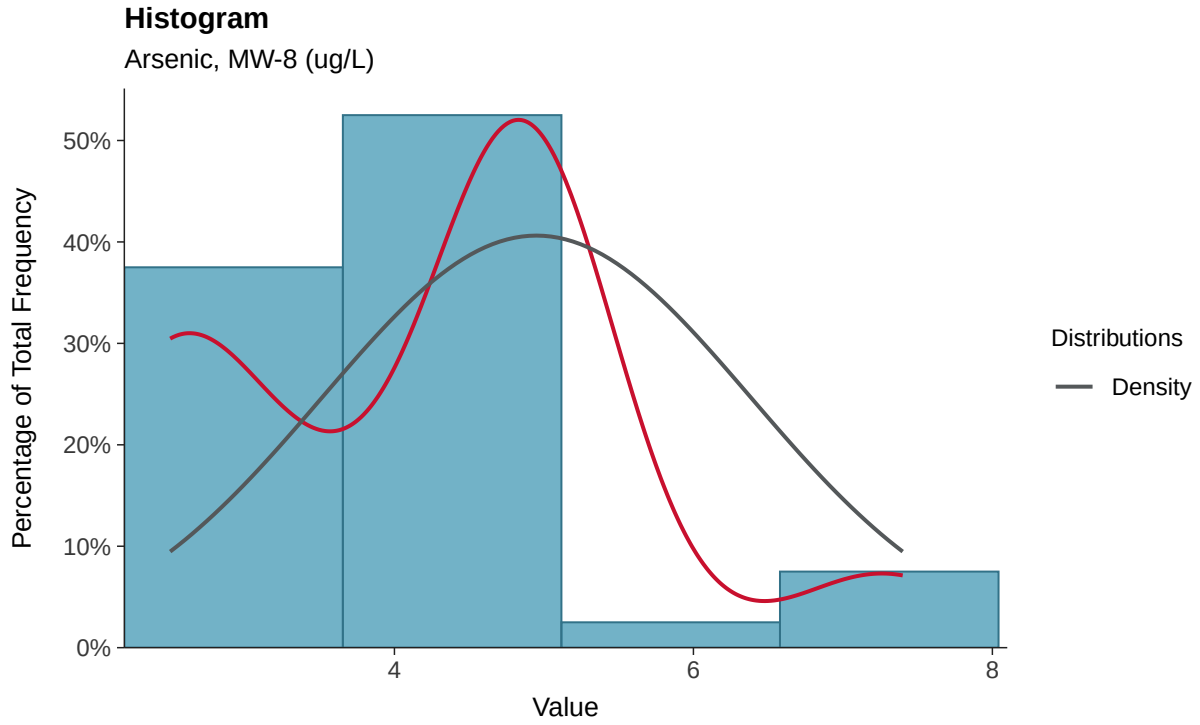
Antimony, MW-8 (ug/L)



App. IV: Arsenic, MW-8

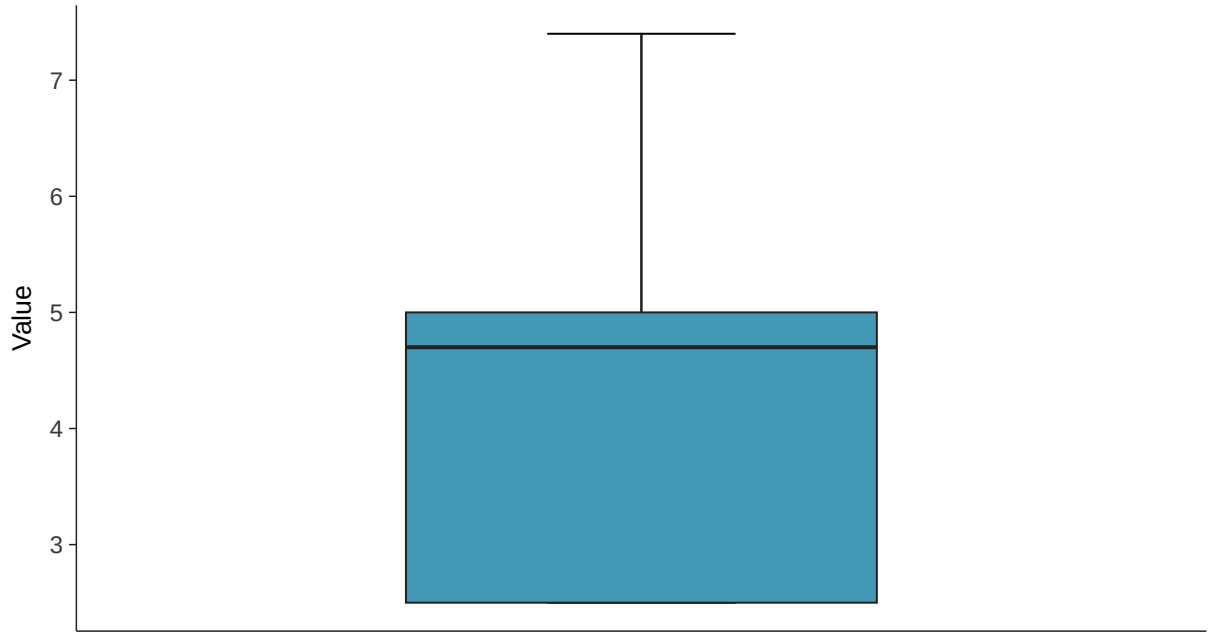
ID: 08_03_102





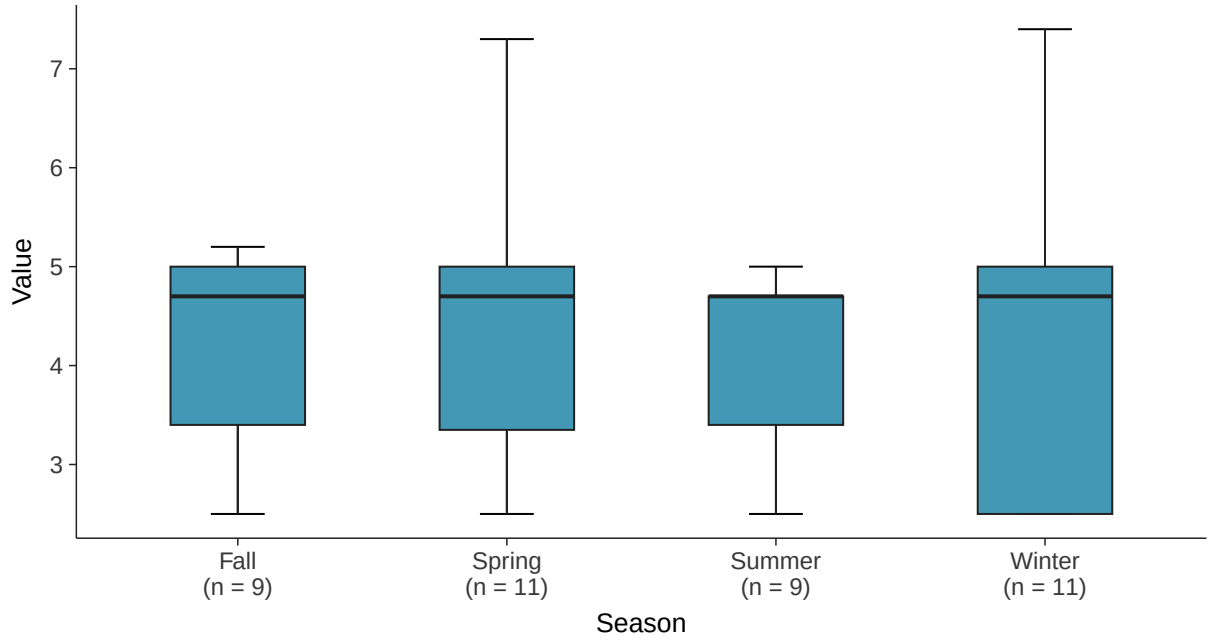
Boxplot

Arsenic, MW-8 (ug/L)



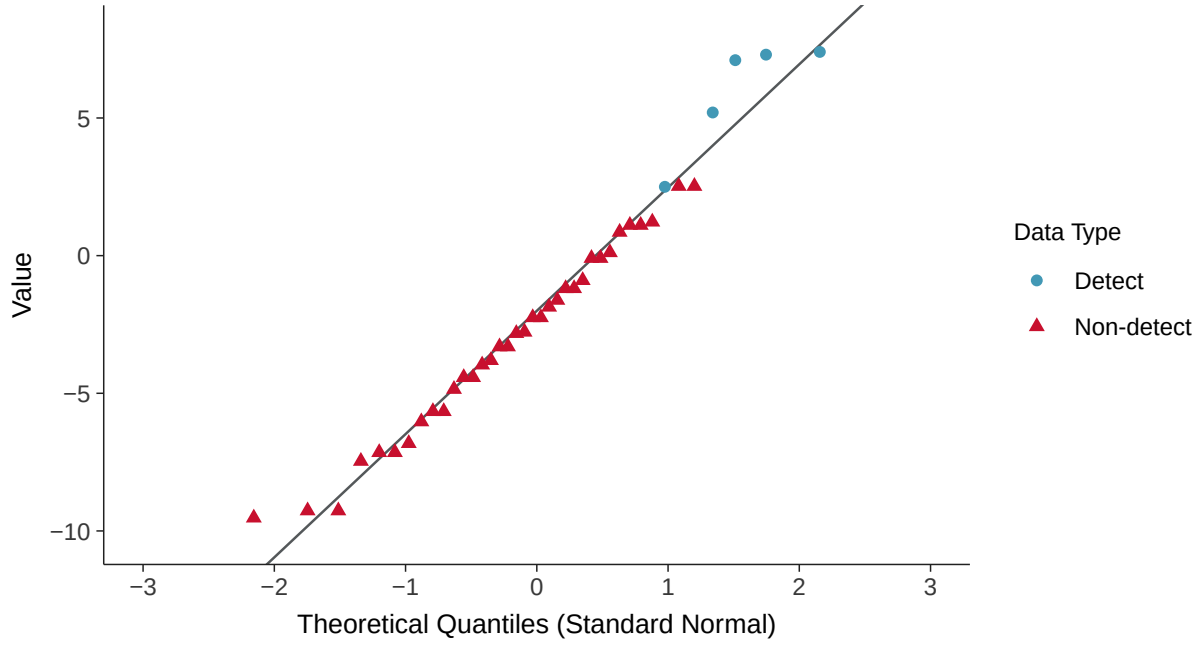
Boxplot by Season

Arsenic, MW-8 (ug/L)



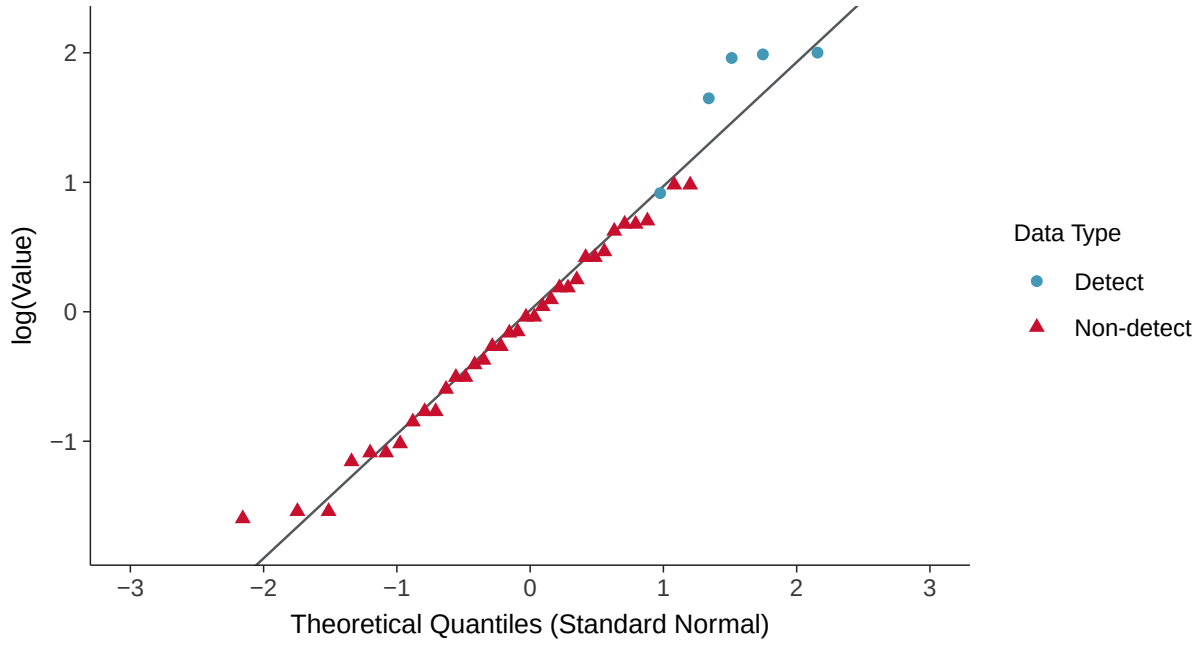
Normal Q-Q plot using ROS Imputed Estimates

Arsenic, MW-8 (ug/L)



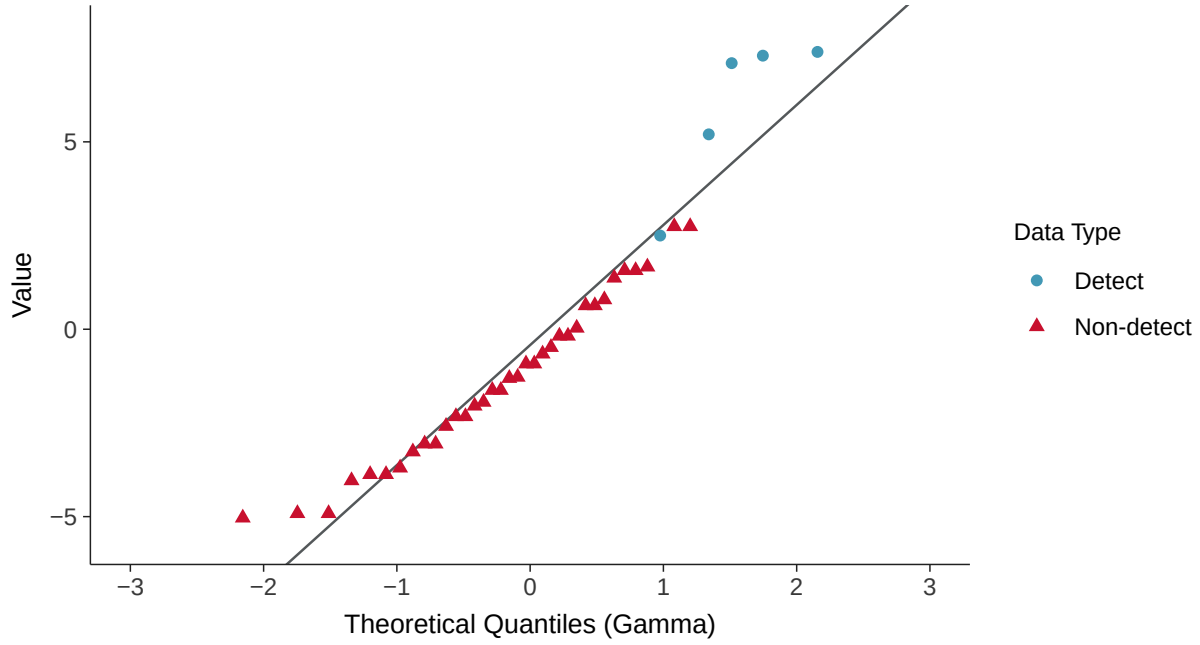
Lognormal Q-Q plot using ROS Imputed Estimates

Arsenic, MW-8 (ug/L)



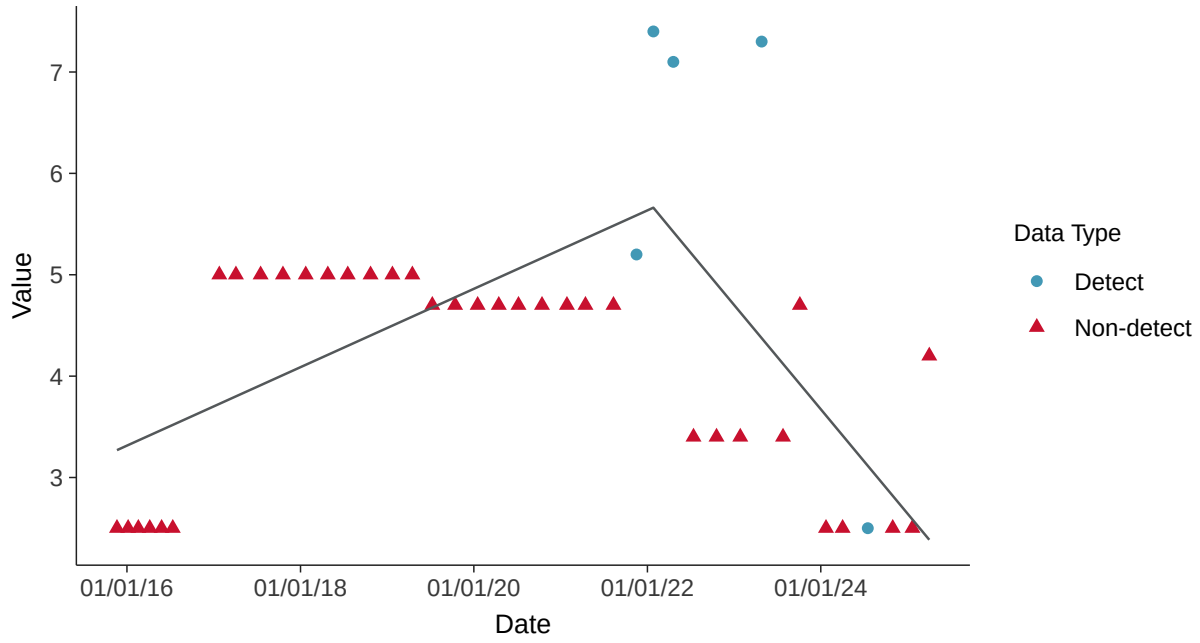
Gamma Q-Q plot using ROS Imputed Estimates

Arsenic, MW-8 (ug/L)



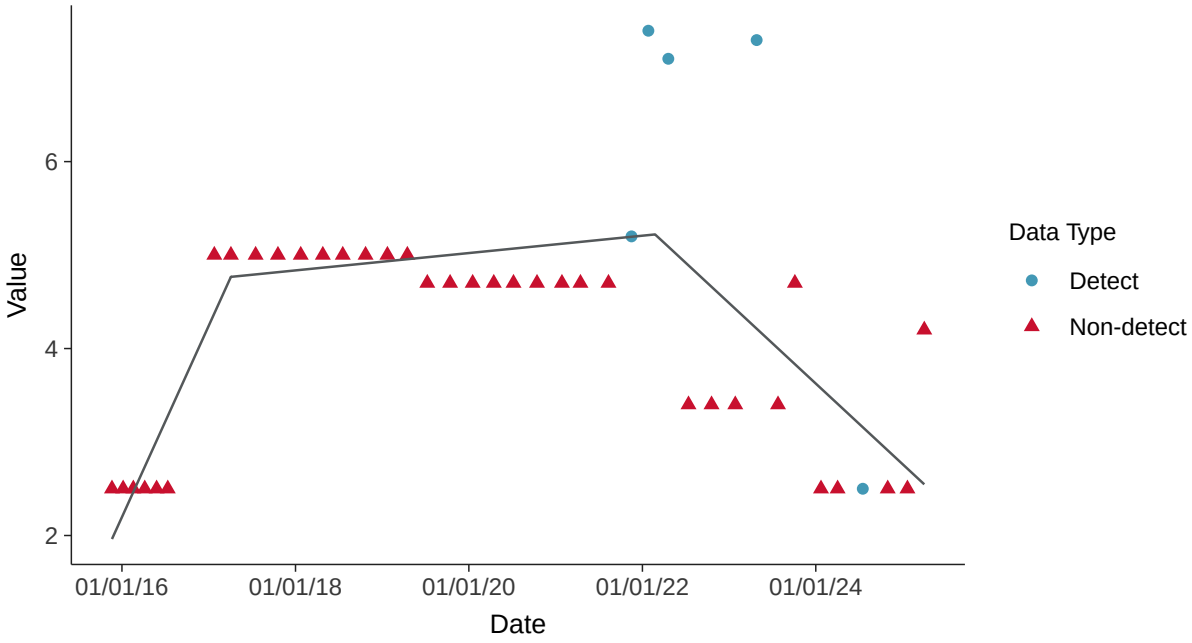
Trend Regression: Piecewise Linear-Linear

Arsenic, MW-8 (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Arsenic, MW-8 (ug/L)

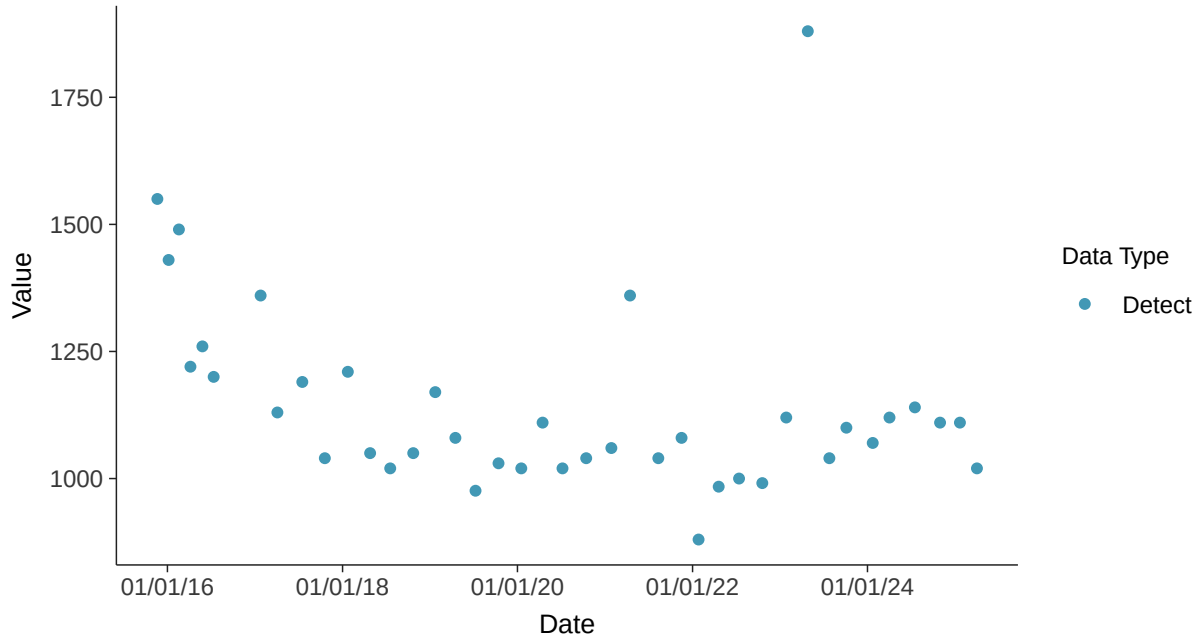


App. IV: Barium, MW-8

ID: 08_03_103

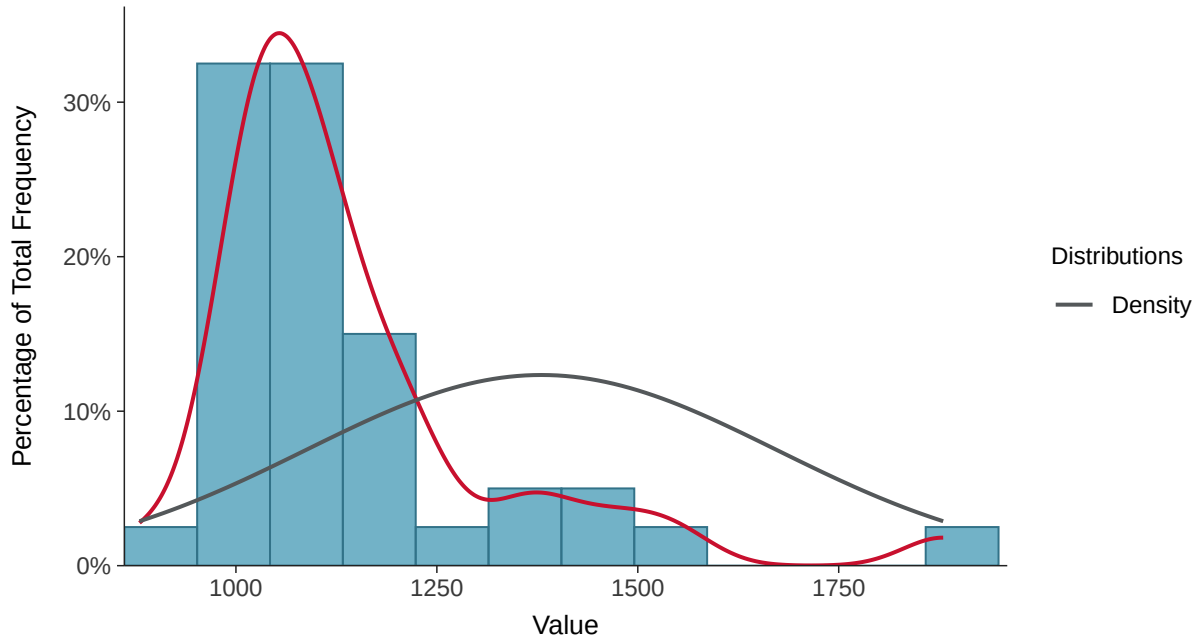
Scatter Plot

Barium, MW-8 (ug/L)



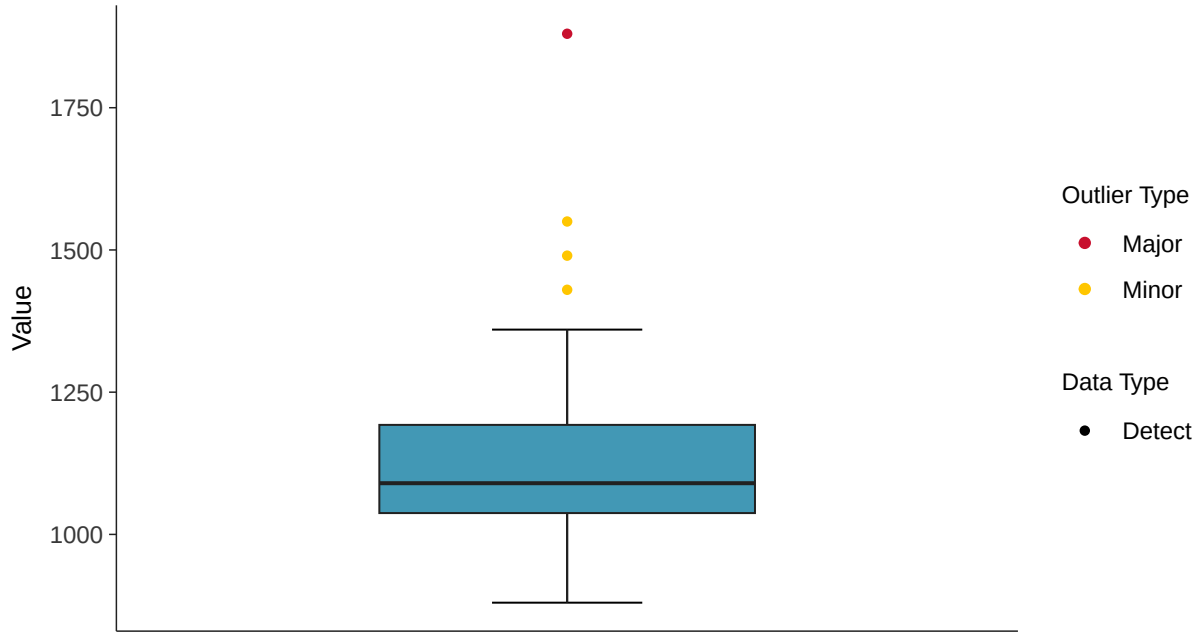
Histogram

Barium, MW-8 (ug/L)



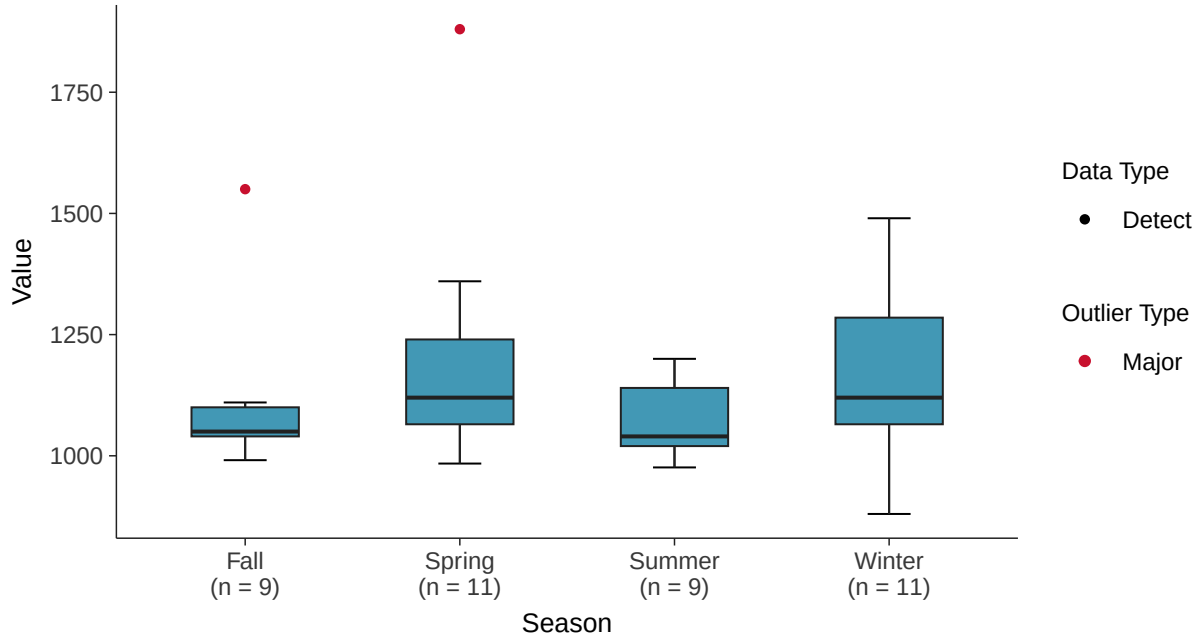
Boxplot

Barium, MW-8 (ug/L)



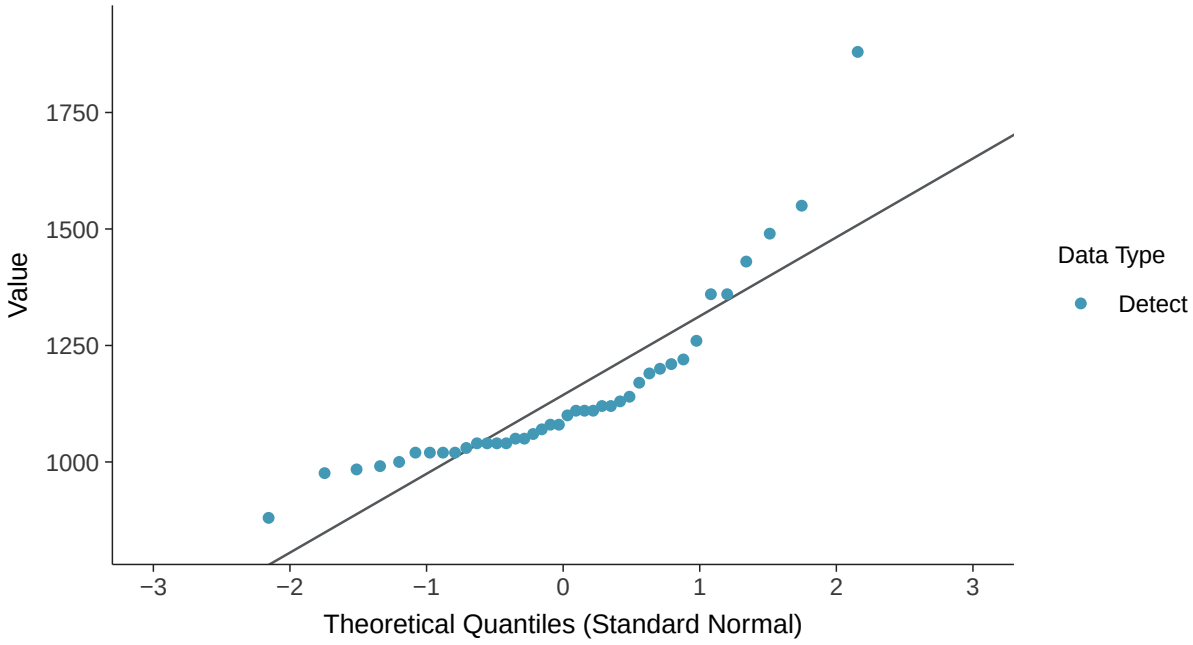
Boxplot by Season

Barium, MW-8 (ug/L)



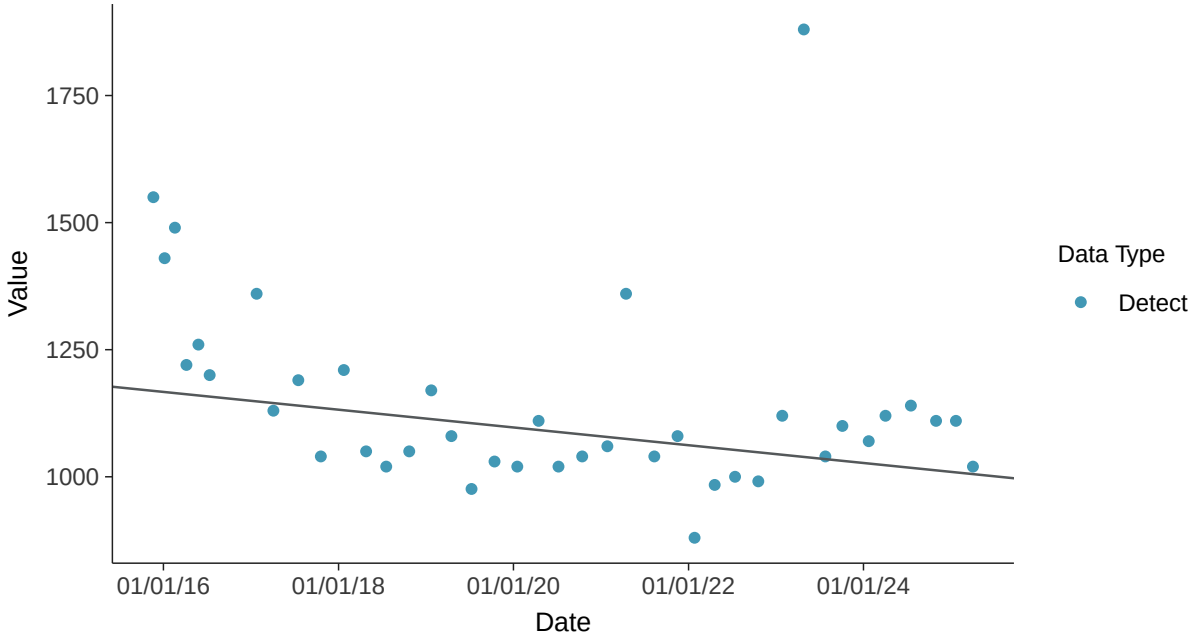
Normal Q-Q plot

Barium, MW-8 (ug/L)



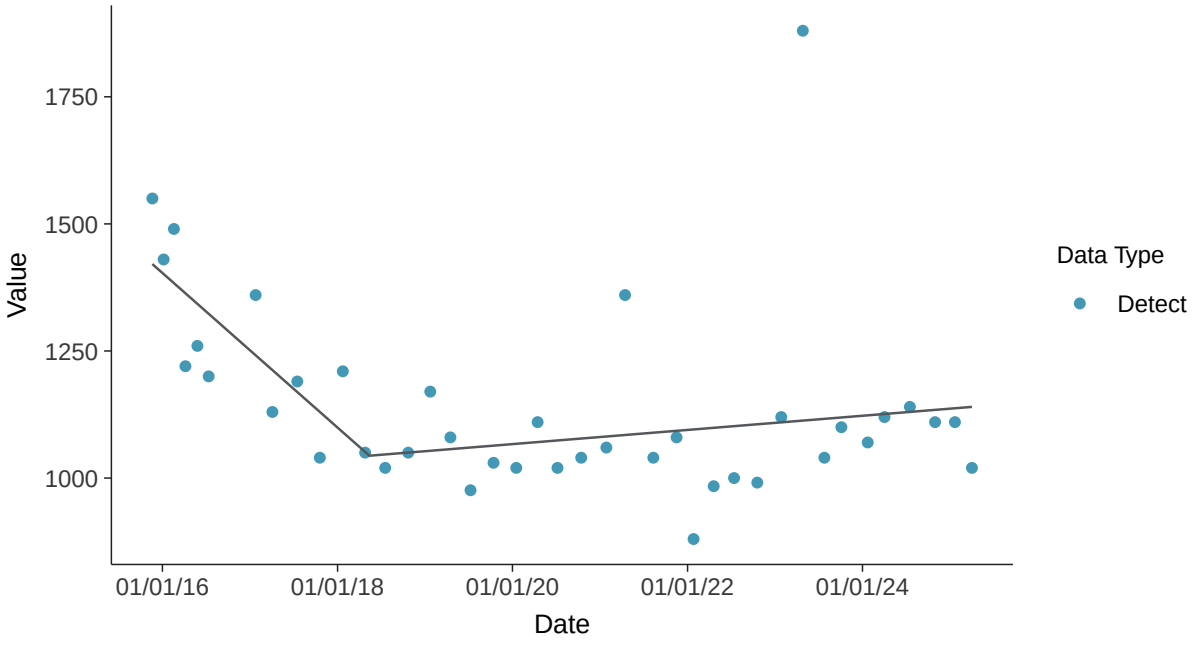
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Barium, MW-8 (ug/L)



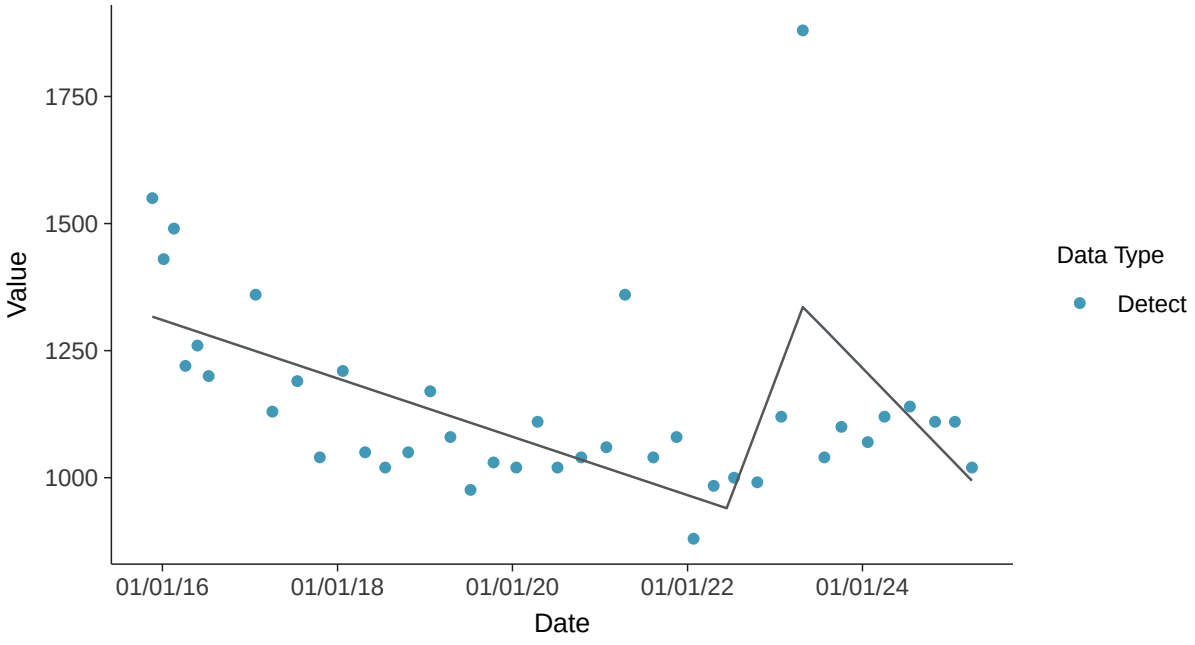
Trend Regression: Piecewise Linear-Linear

Barium, MW-8 (ug/L)



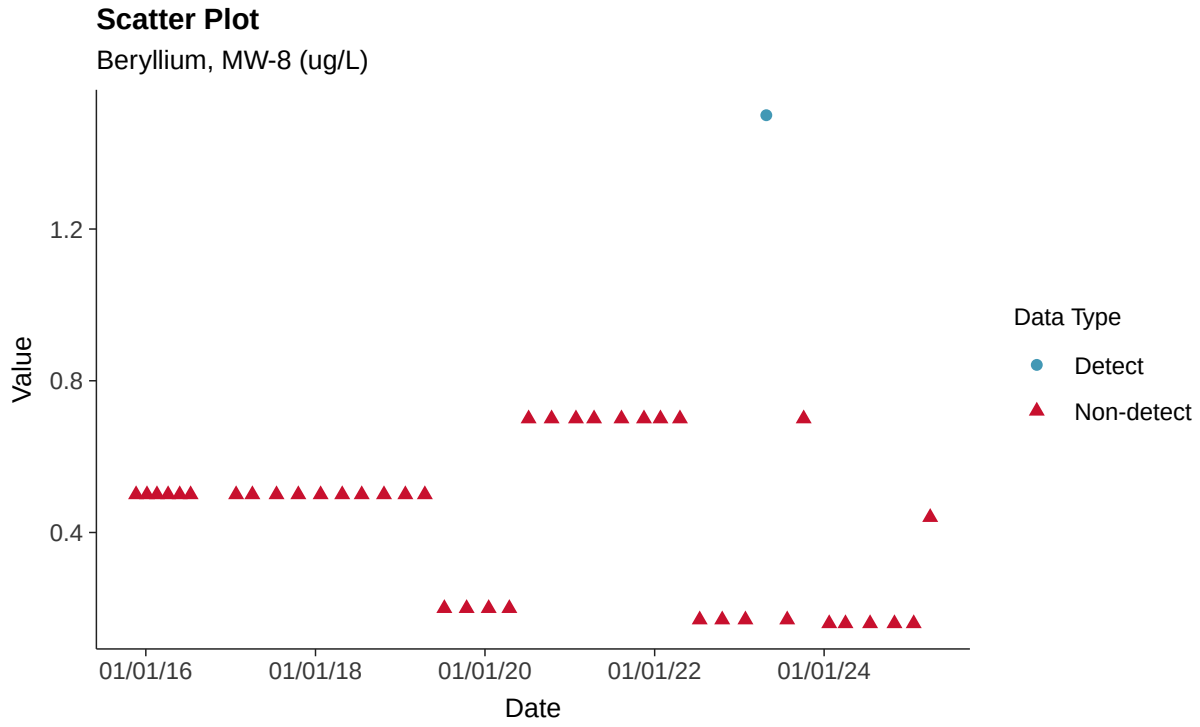
Trend Regression: Piecewise Linear-Linear-Linear

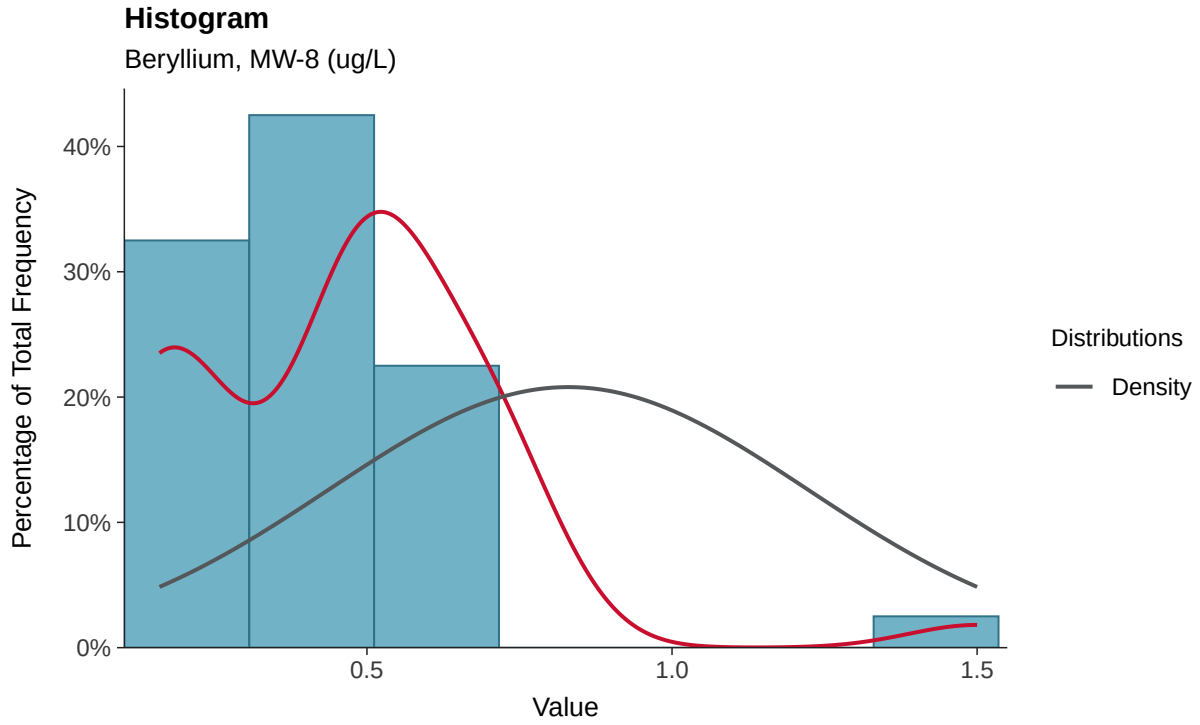
Barium, MW-8 (ug/L)



App. IV: Beryllium, MW-8

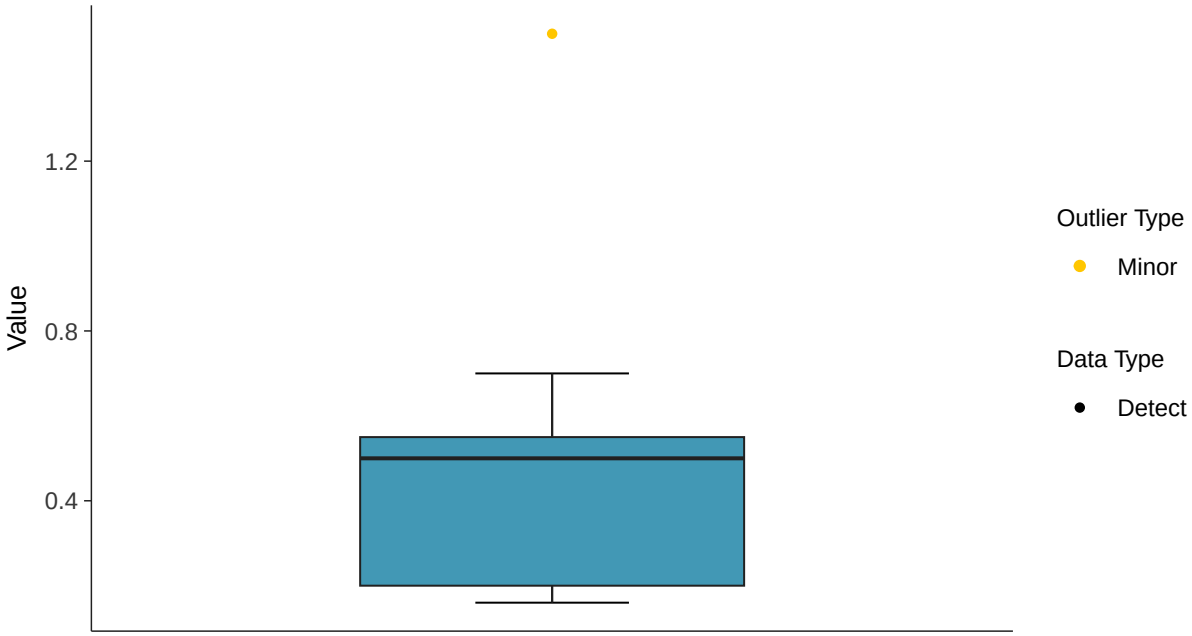
ID: 08_03_104





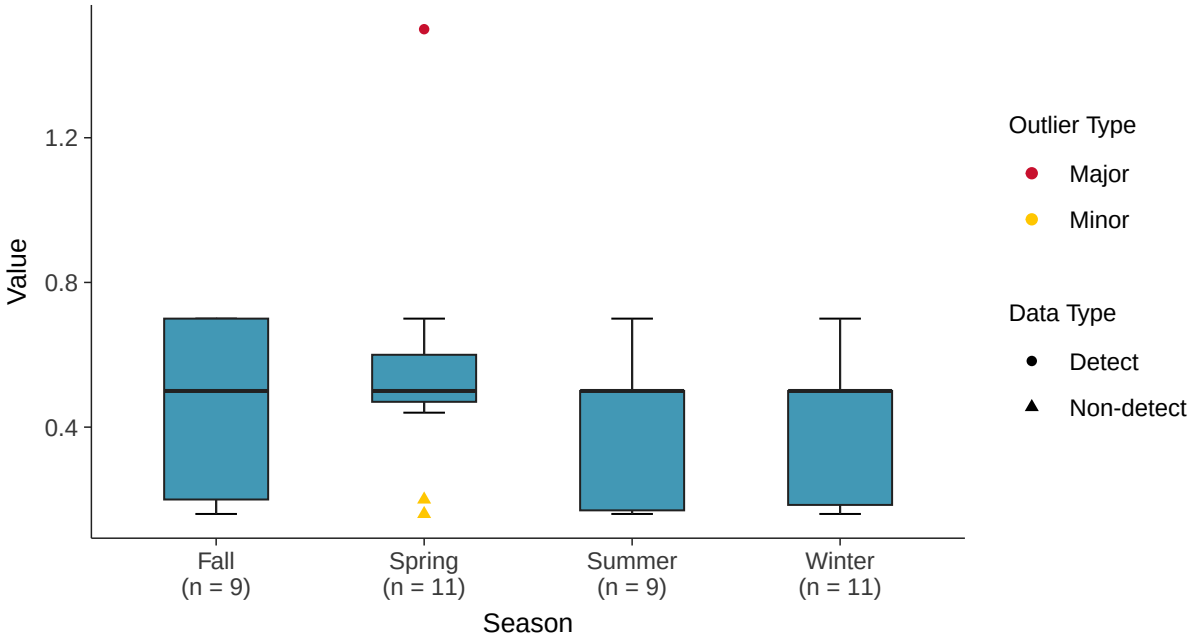
Boxplot

Beryllium, MW-8 (ug/L)



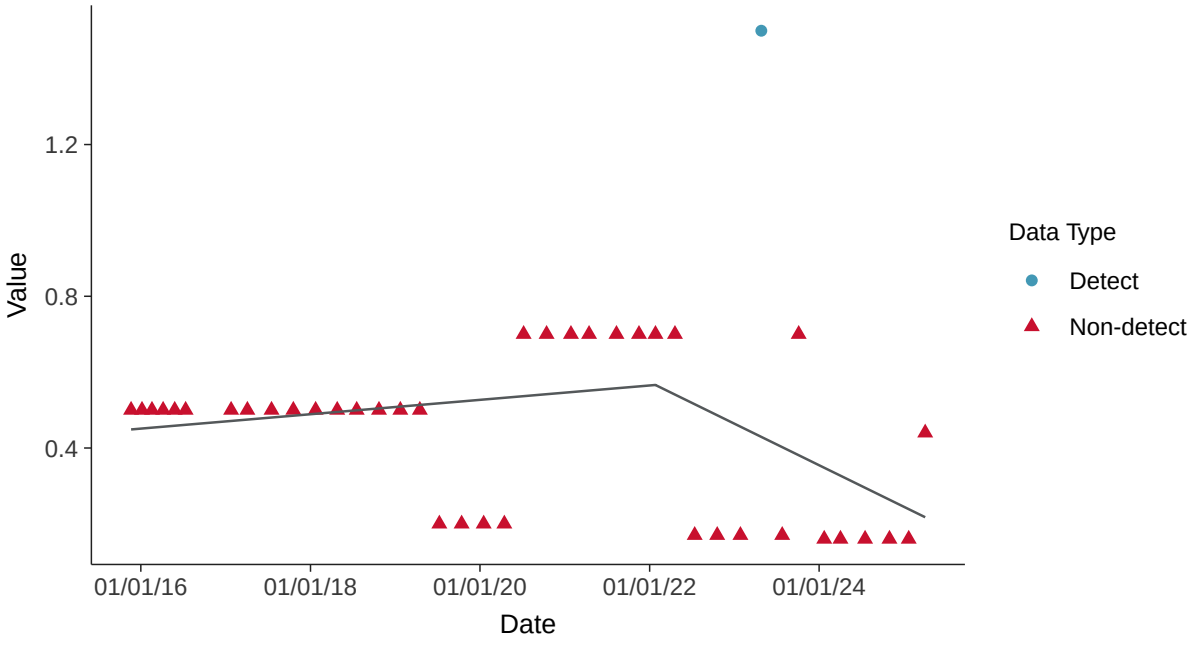
Boxplot by Season

Beryllium, MW-8 (ug/L)



Trend Regression: Piecewise Linear-Linear

Beryllium, MW-8 (ug/L)

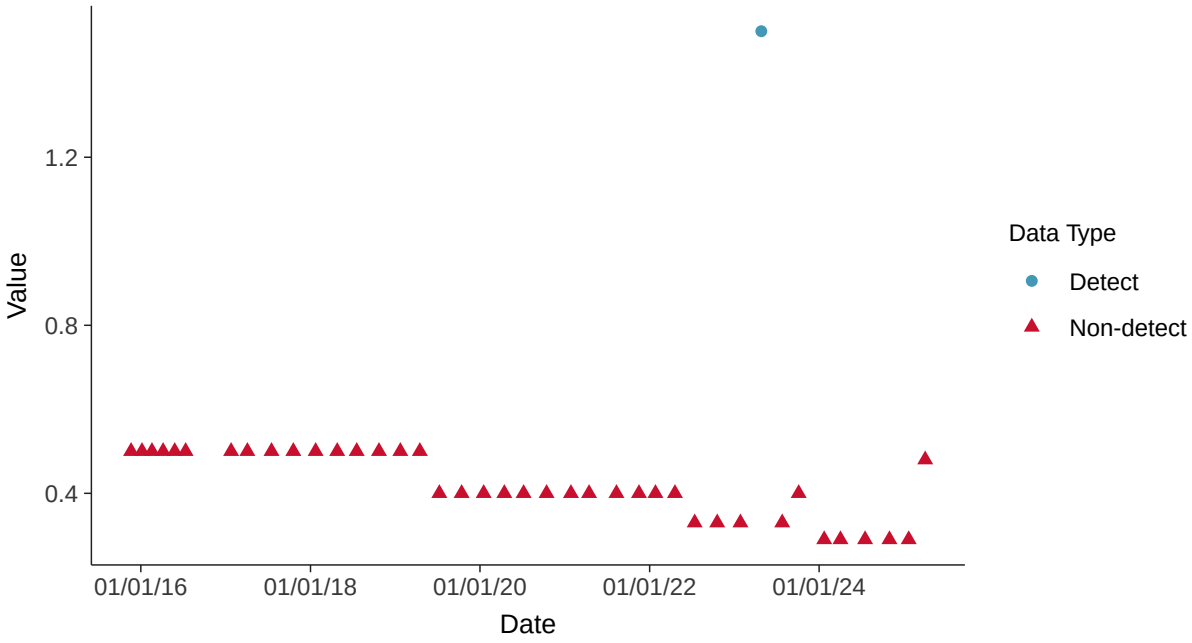


App. IV: Cadmium, MW-8

ID: 08_03_106

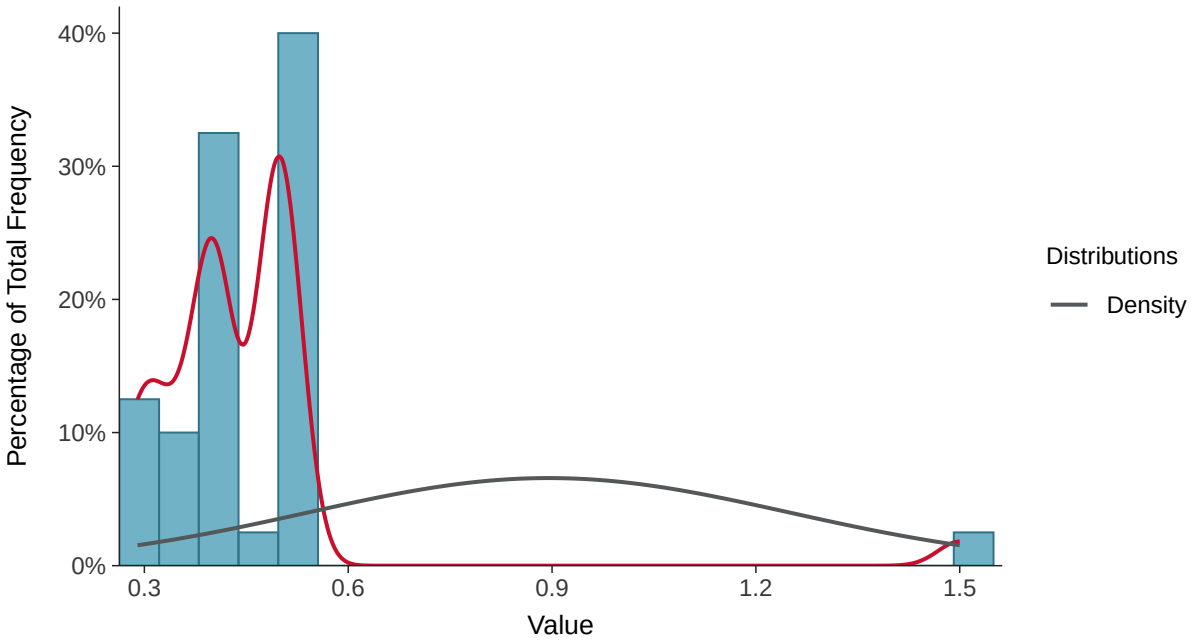
Scatter Plot

Cadmium, MW-8 (ug/L)



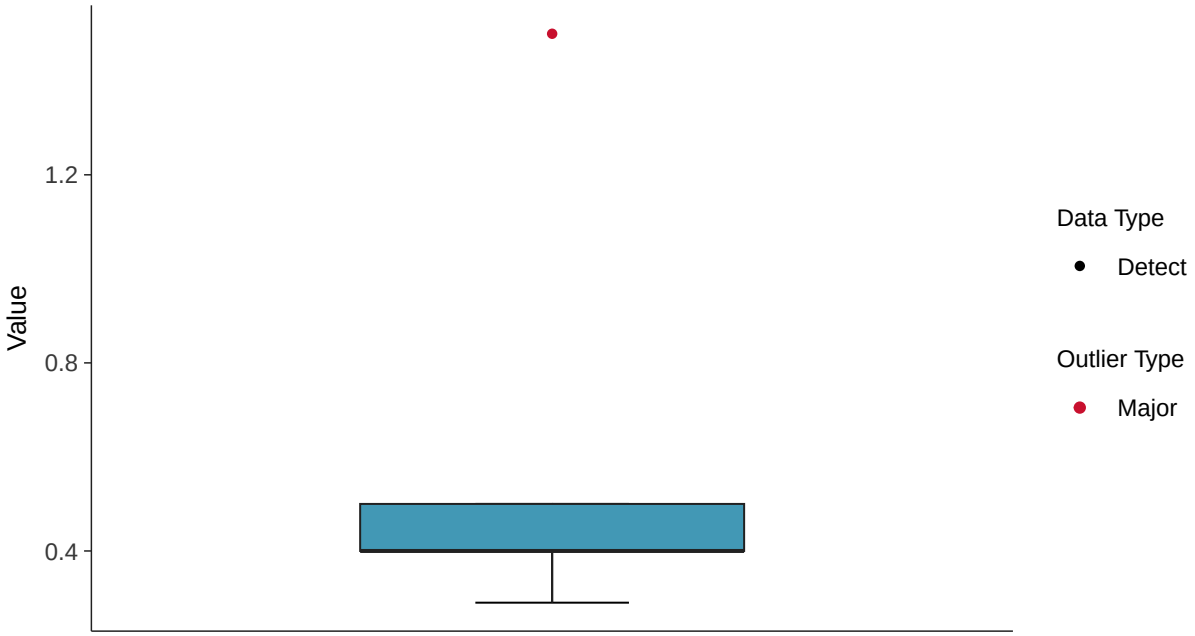
Histogram

Cadmium, MW-8 (ug/L)



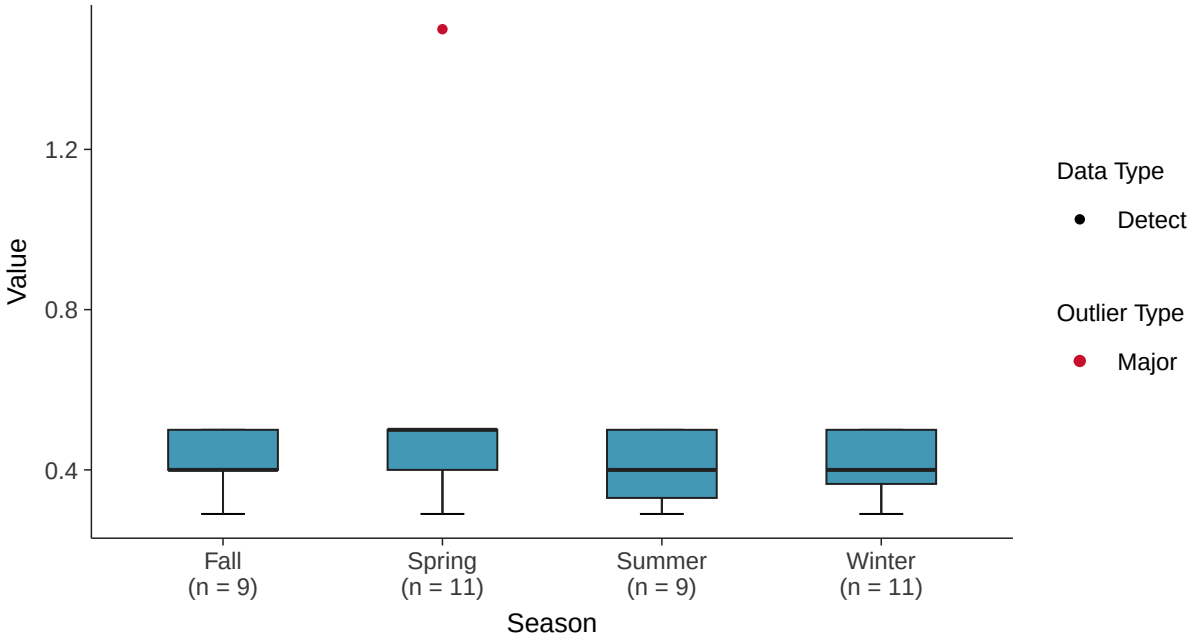
Boxplot

Cadmium, MW-8 (ug/L)



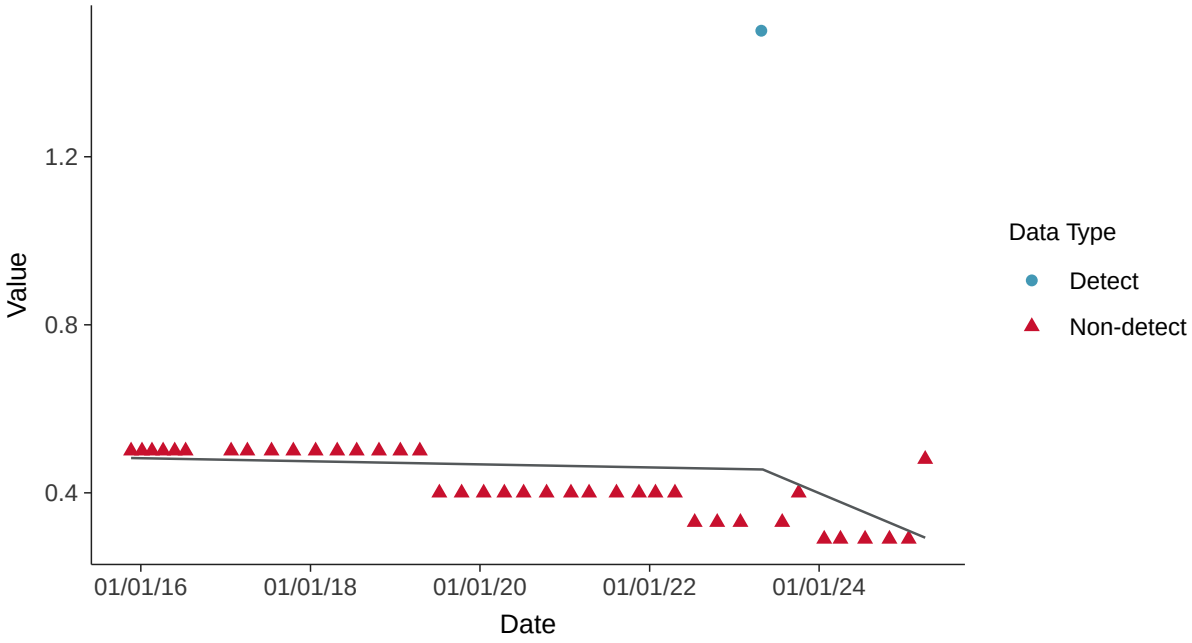
Boxplot by Season

Cadmium, MW-8 (ug/L)



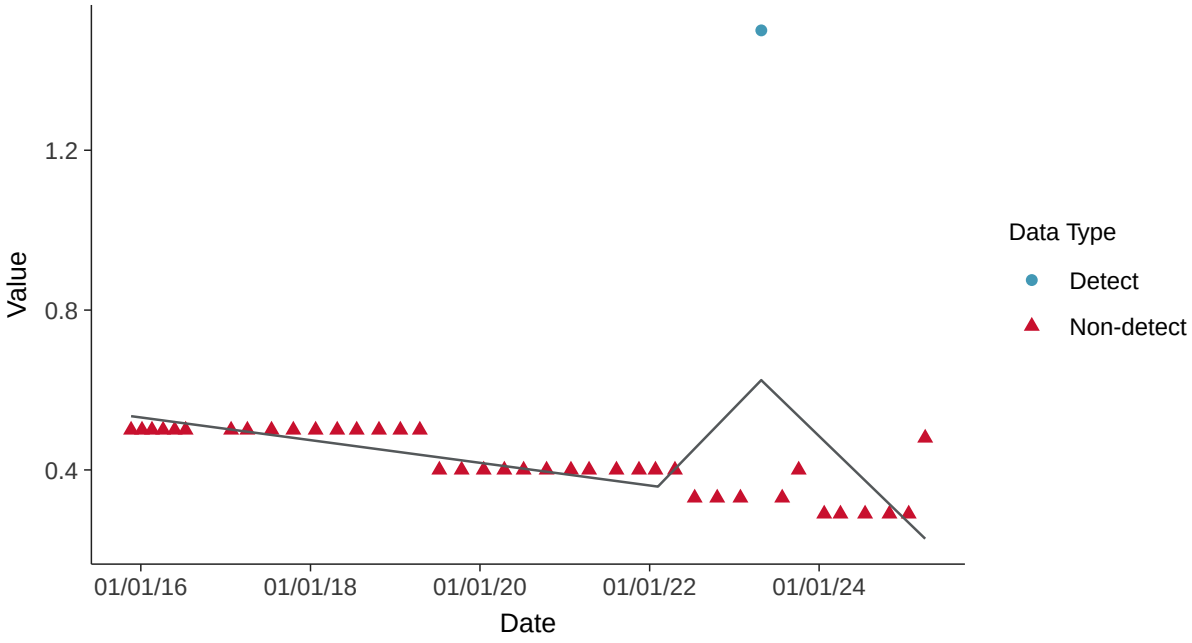
Trend Regression: Piecewise Linear-Linear

Cadmium, MW-8 (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Cadmium, MW-8 (ug/L)

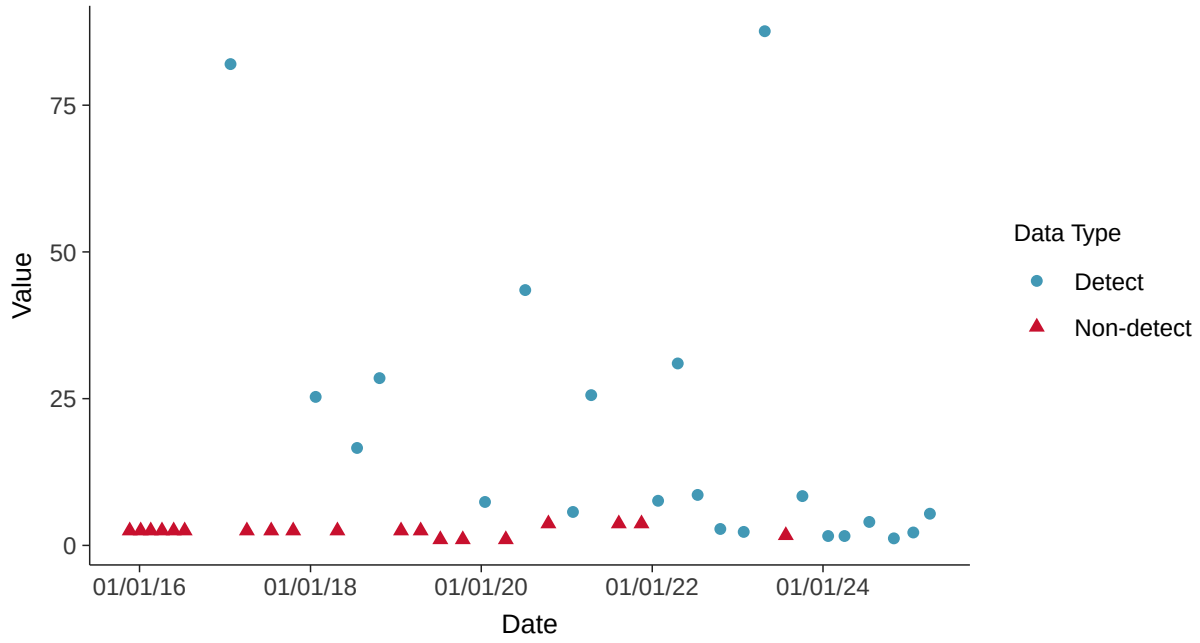


App. IV: Chromium, MW-8

ID: 08_03_109

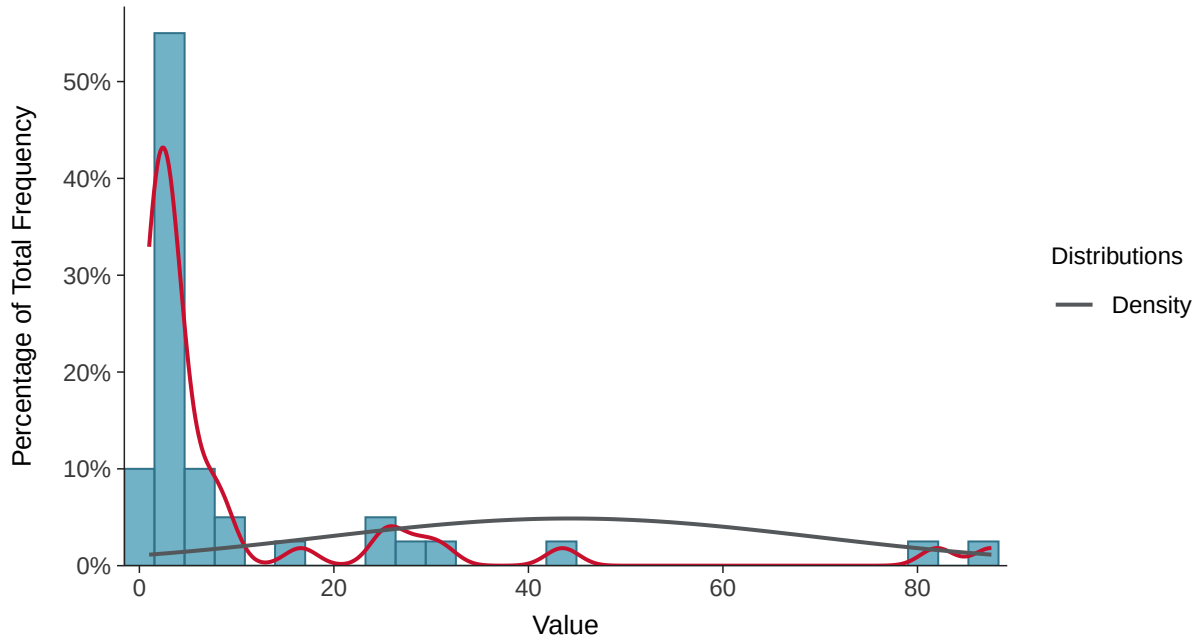
Scatter Plot

Chromium, MW-8 (ug/L)



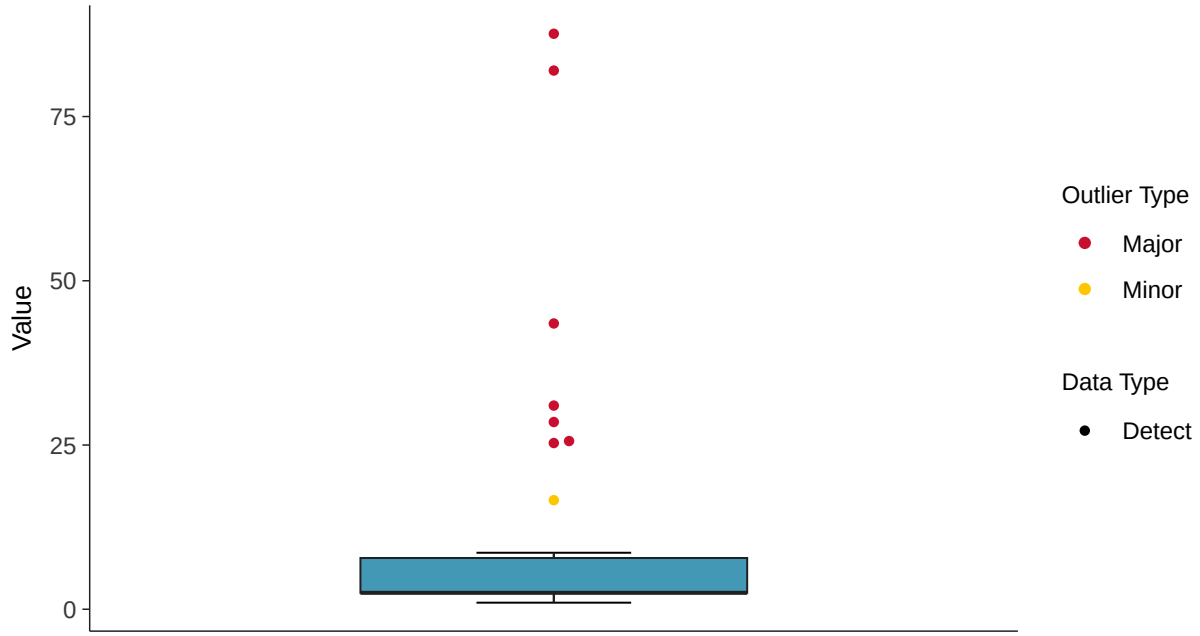
Histogram

Chromium, MW-8 (ug/L)



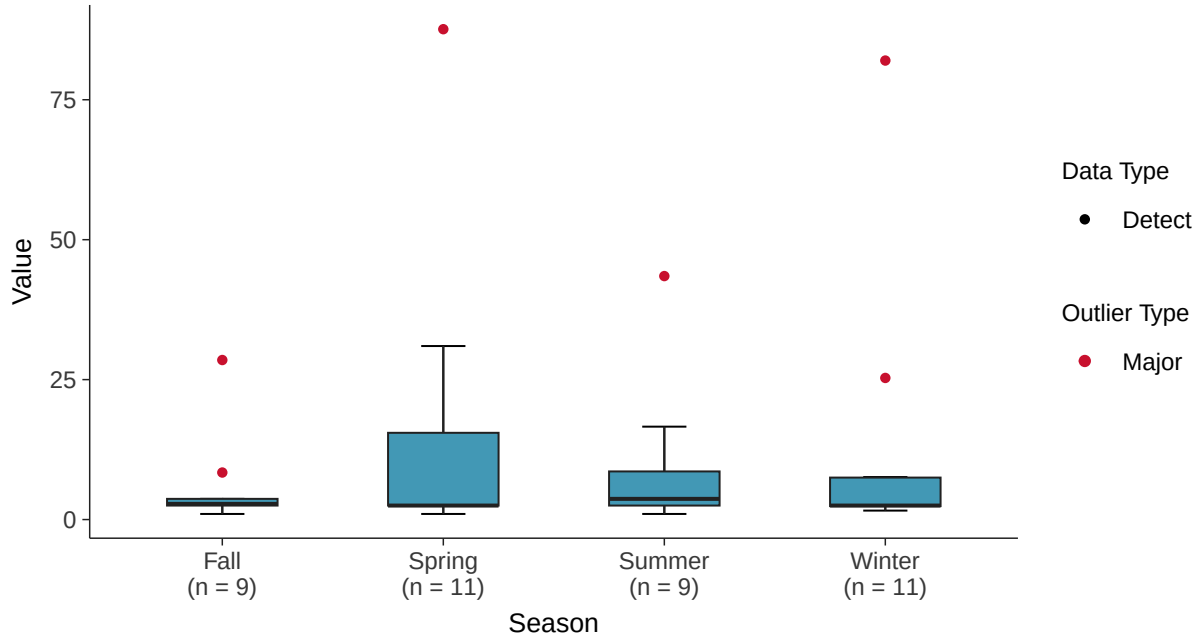
Boxplot

Chromium, MW-8 (ug/L)



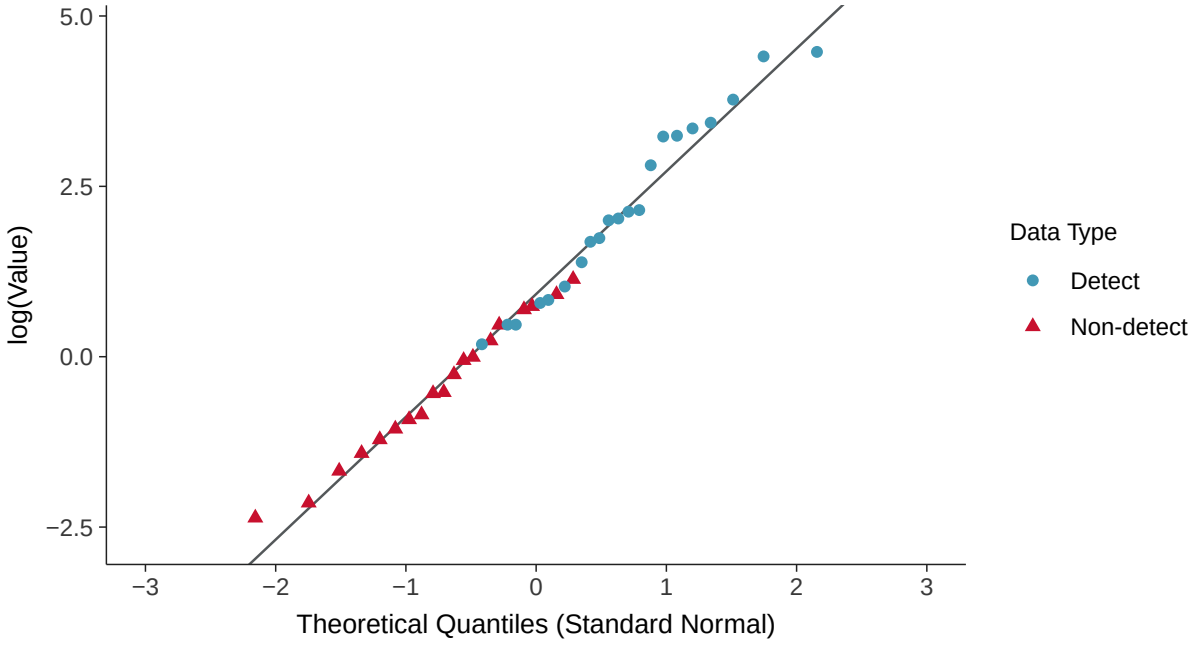
Boxplot by Season

Chromium, MW-8 (ug/L)



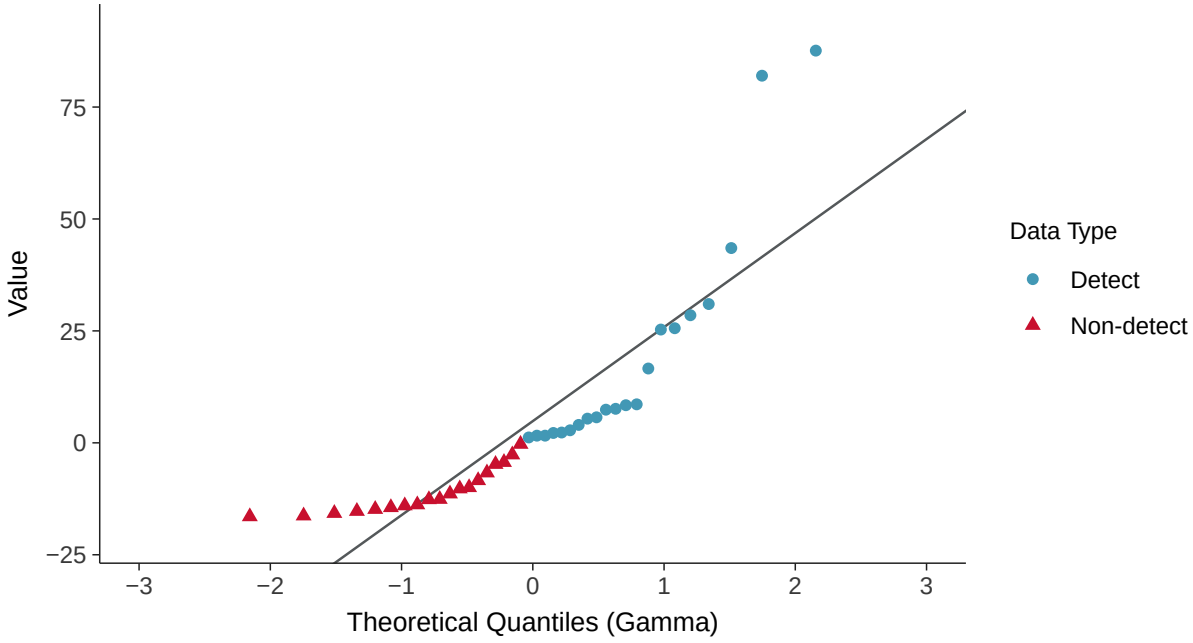
Lognormal Q-Q plot using ROS Imputed Estimates

Chromium, MW-8 (ug/L)



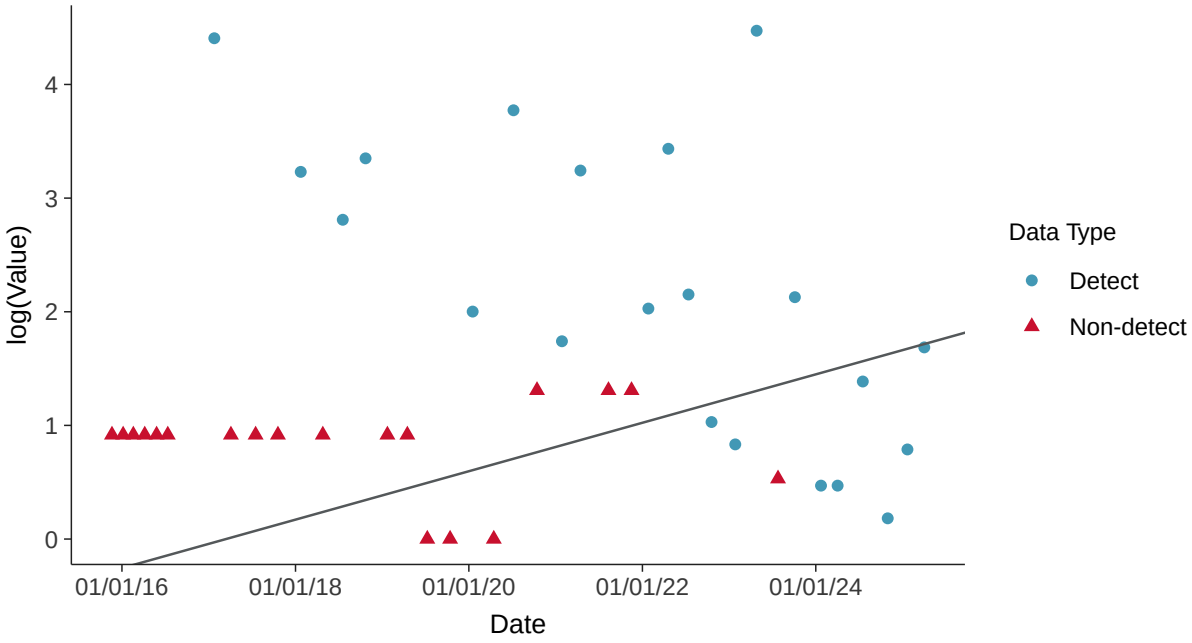
Gamma Q-Q plot using ROS Imputed Estimates

Chromium, MW-8 (ug/L)



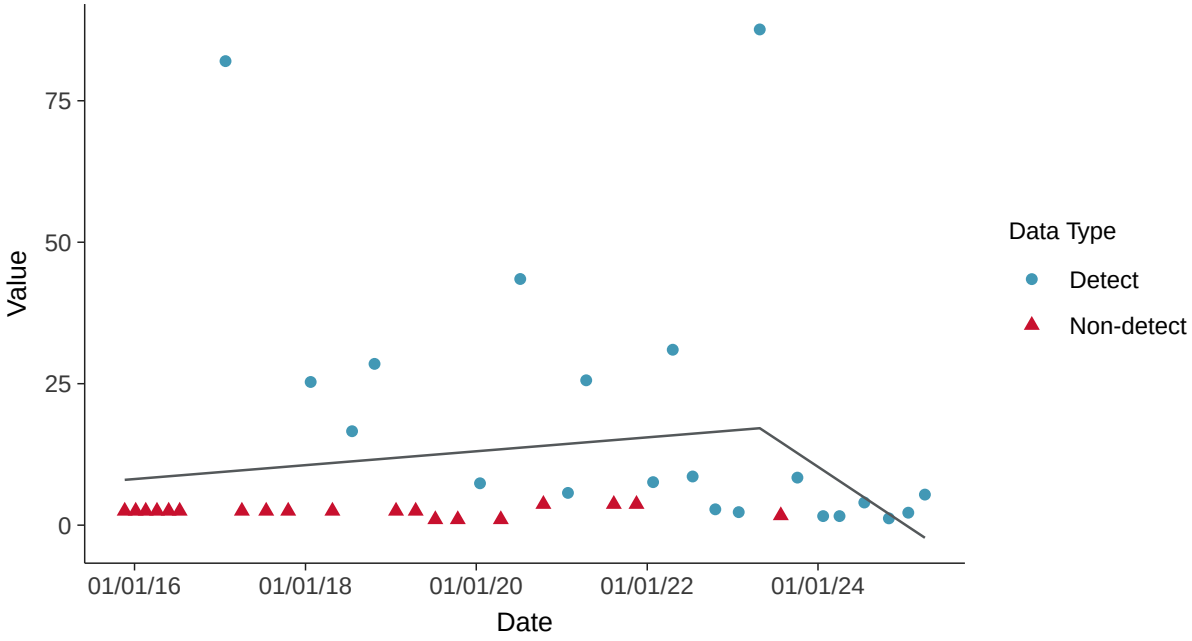
Trend Regression: Lognormal MLE

Chromium, MW-8 (ug/L)



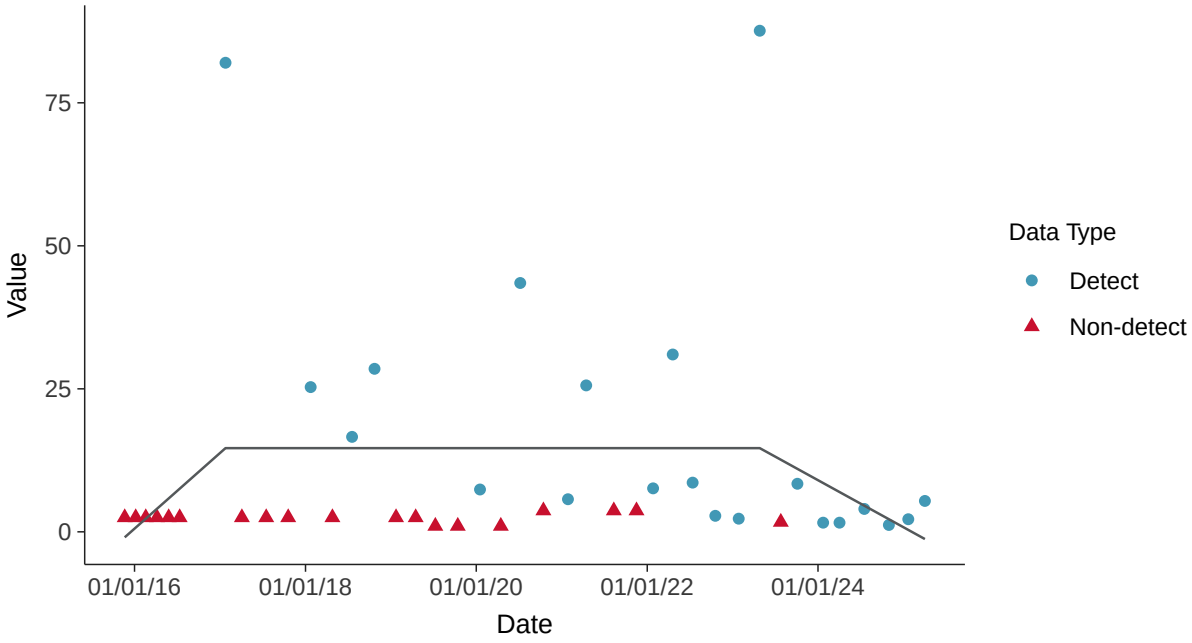
Trend Regression: Piecewise Linear-Linear

Chromium, MW-8 (ug/L)



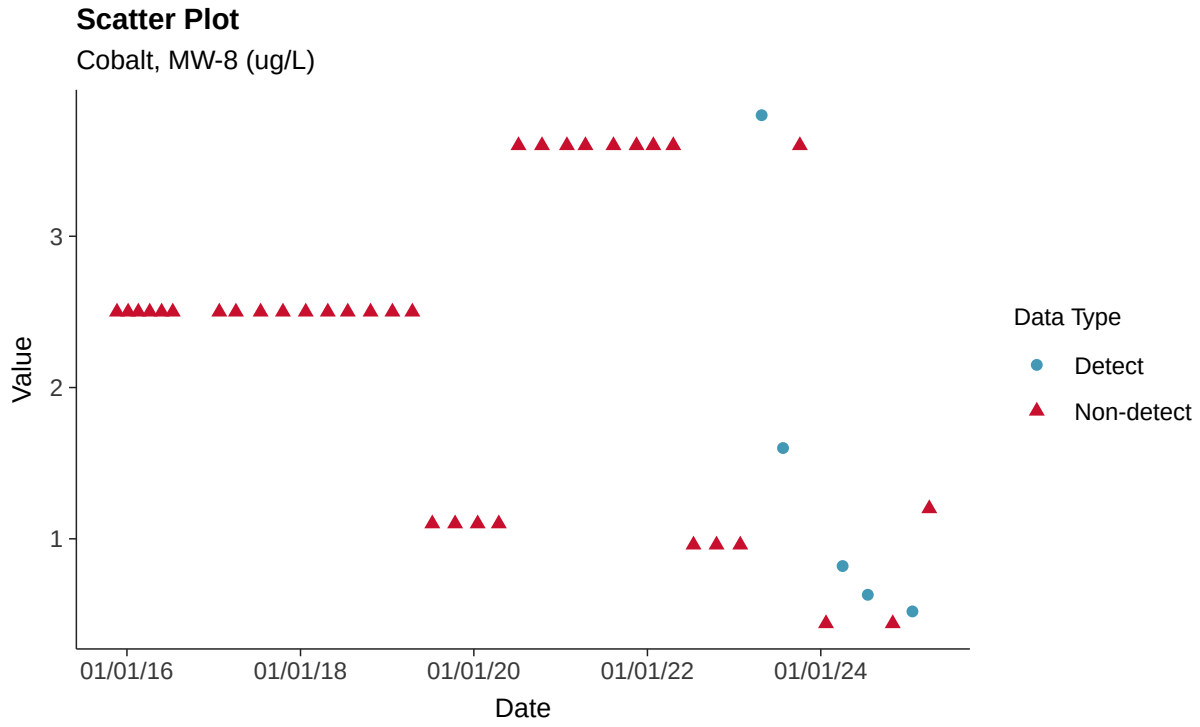
Trend Regression: Piecewise Linear-Linear-Linear

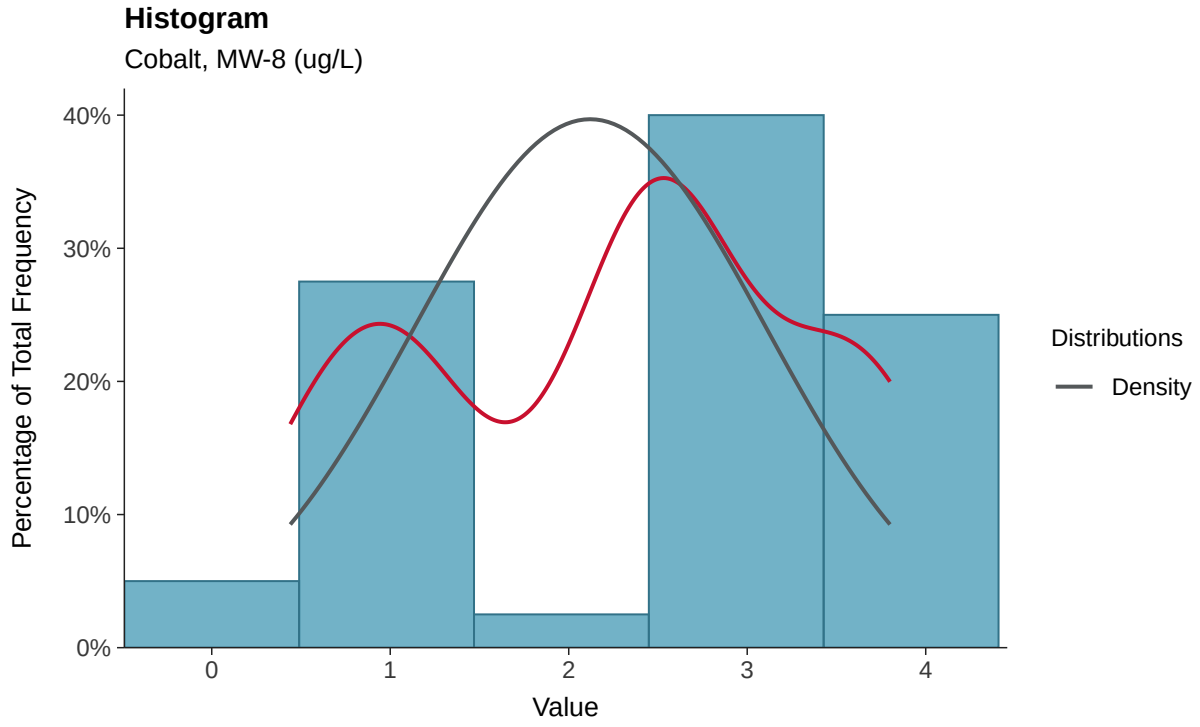
Chromium, MW-8 (ug/L)



App. IV: Cobalt, MW-8

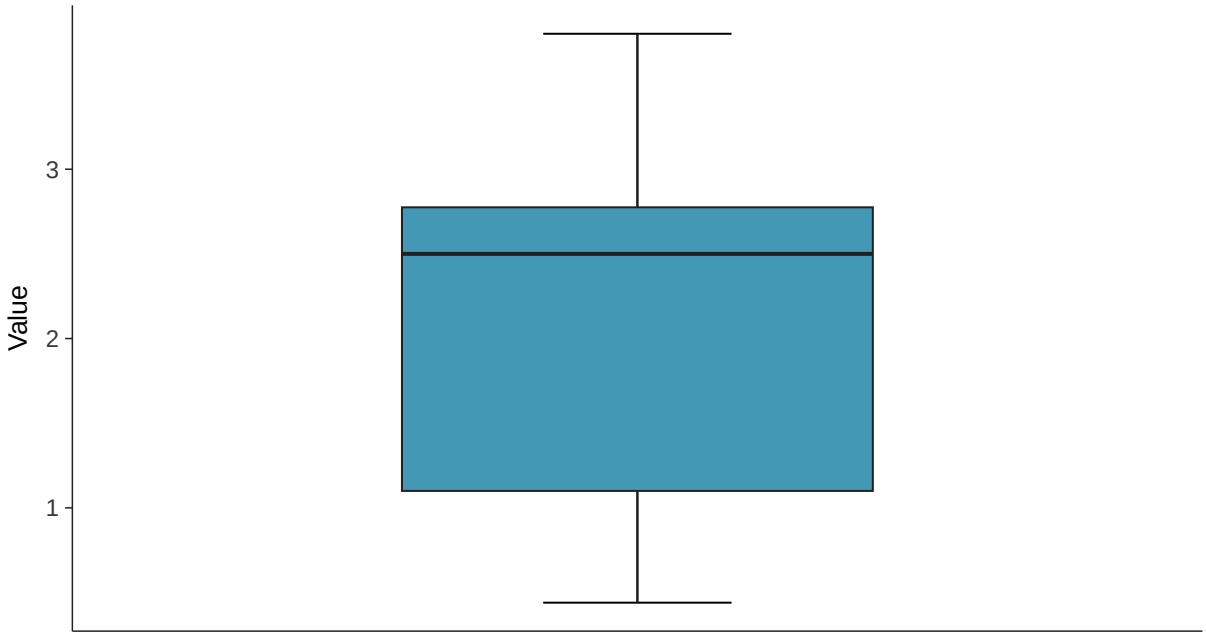
ID: 08_03_110





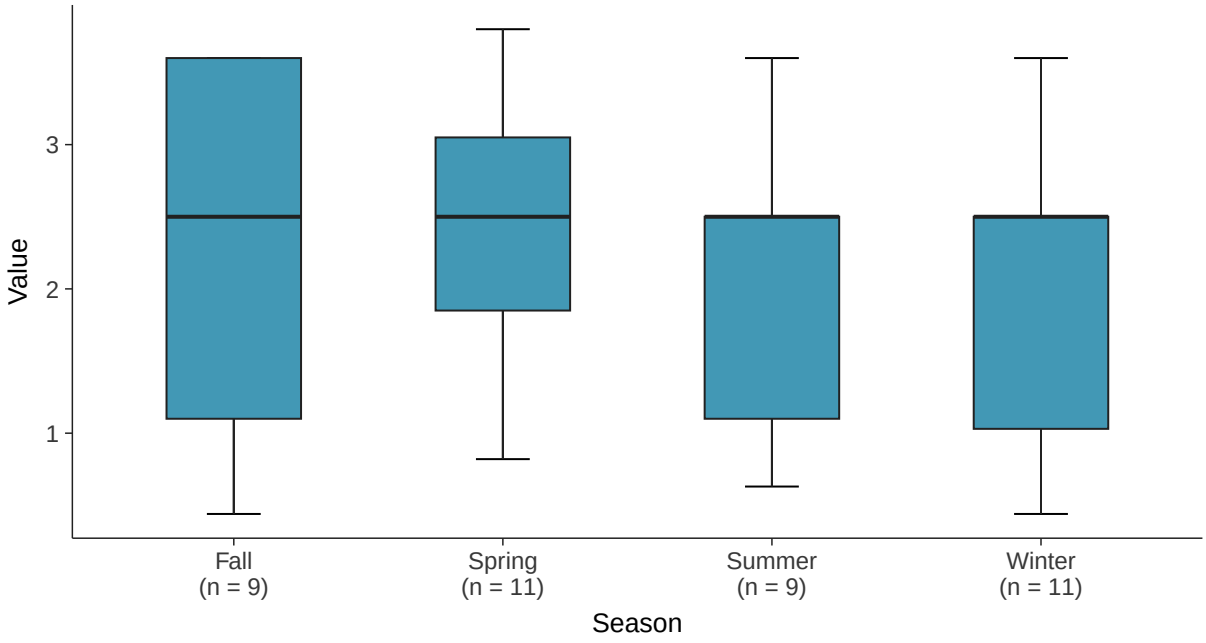
Boxplot

Cobalt, MW-8 (ug/L)



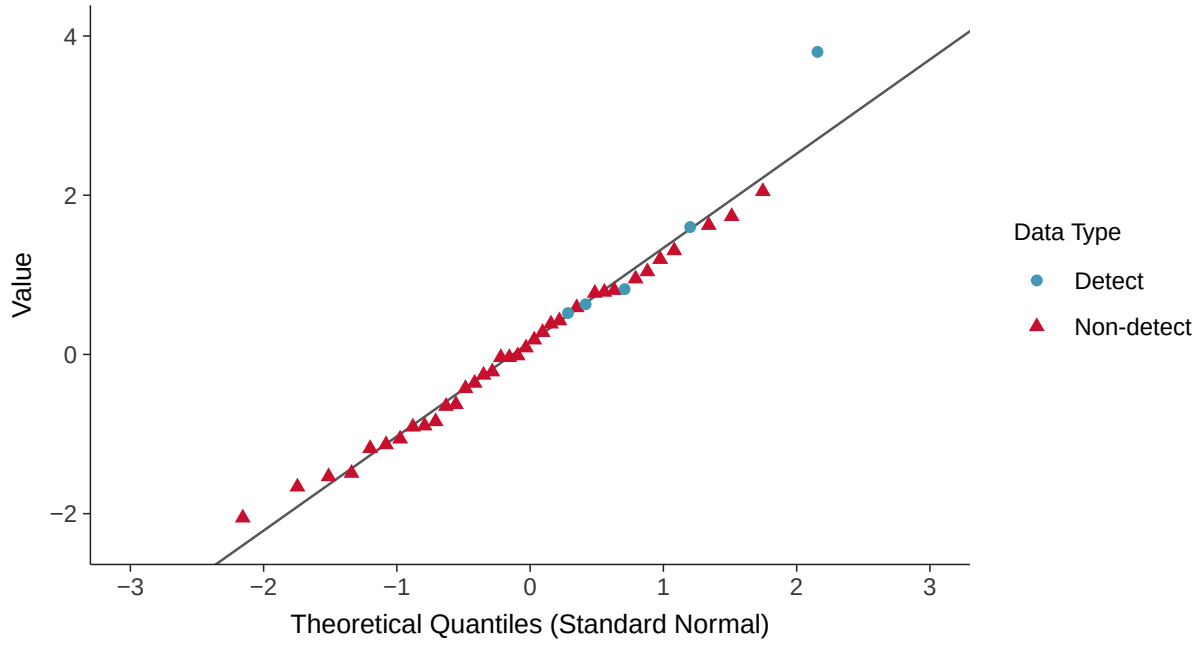
Boxplot by Season

Cobalt, MW-8 (ug/L)



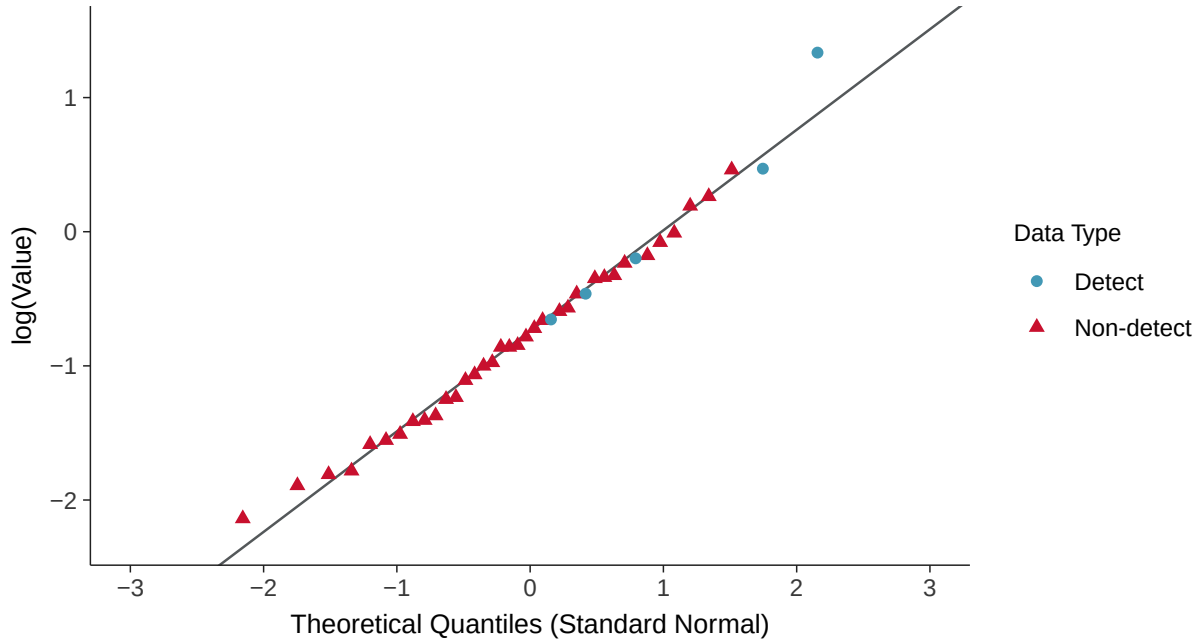
Normal Q-Q plot using ROS Imputed Estimates

Cobalt, MW-8 (ug/L)



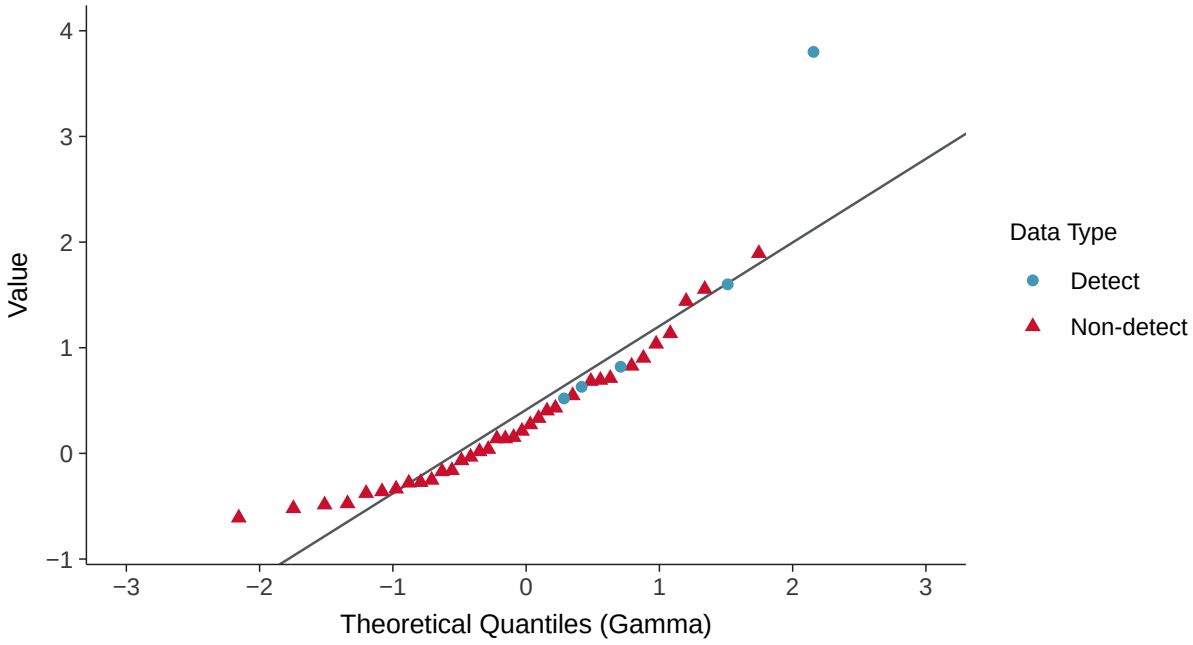
Lognormal Q-Q plot using ROS Imputed Estimates

Cobalt, MW-8 (ug/L)



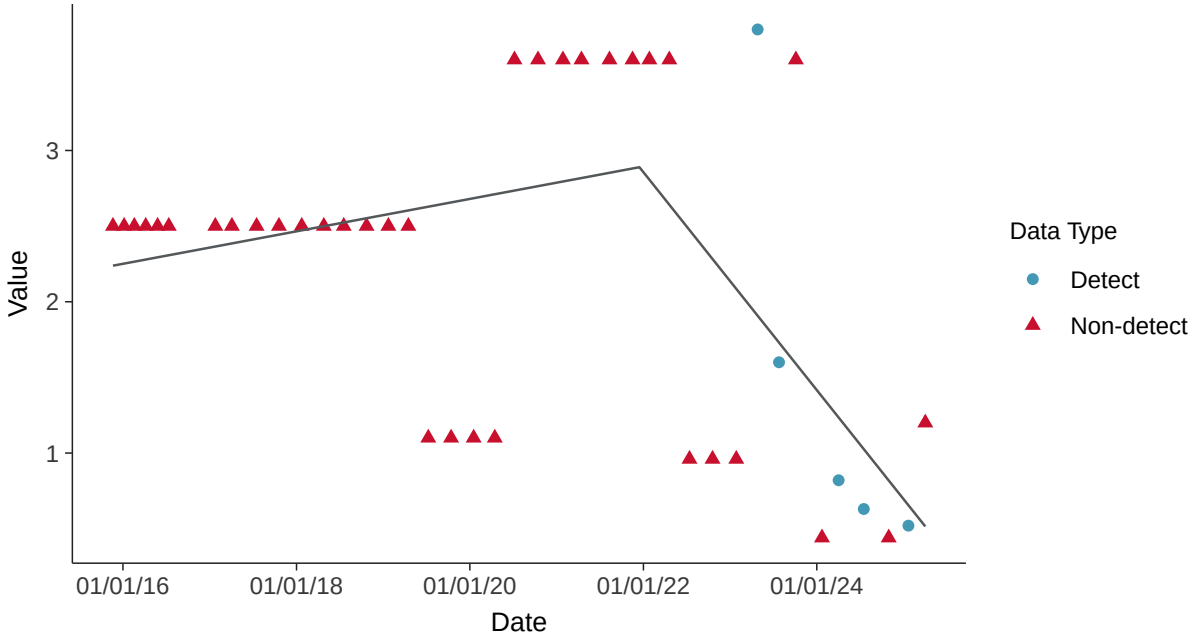
Gamma Q-Q plot using ROS Imputed Estimates

Cobalt, MW-8 (ug/L)



Trend Regression: Piecewise Linear-Linear

Cobalt, MW-8 (ug/L)

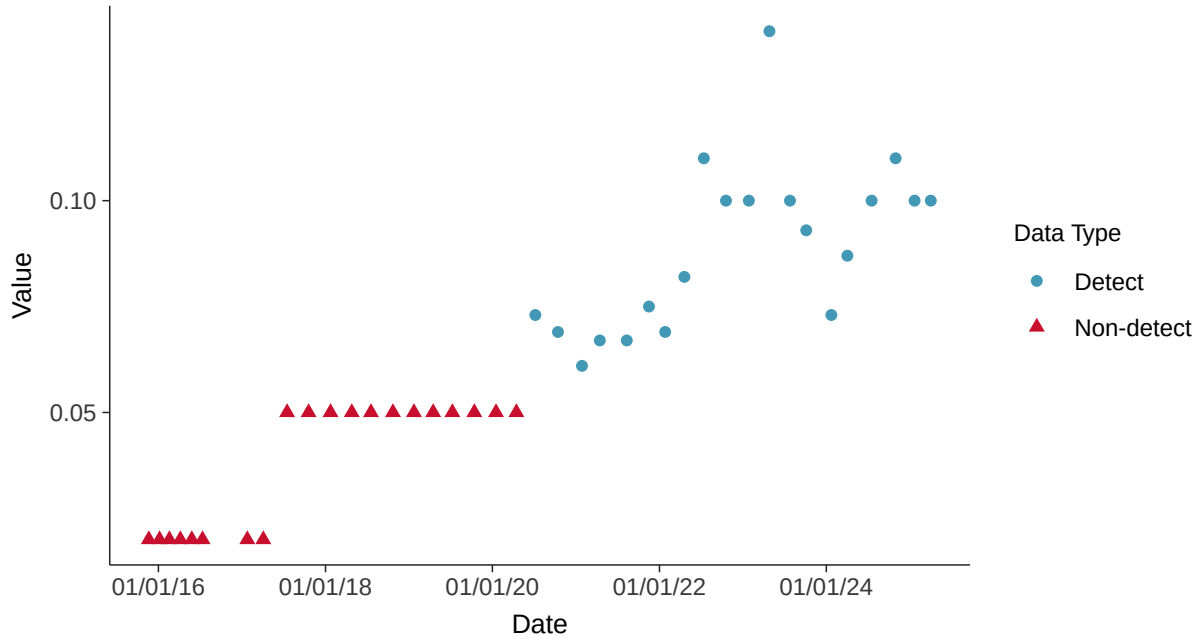


App. IV: Fluoride, MW-8

ID: 08_03_112

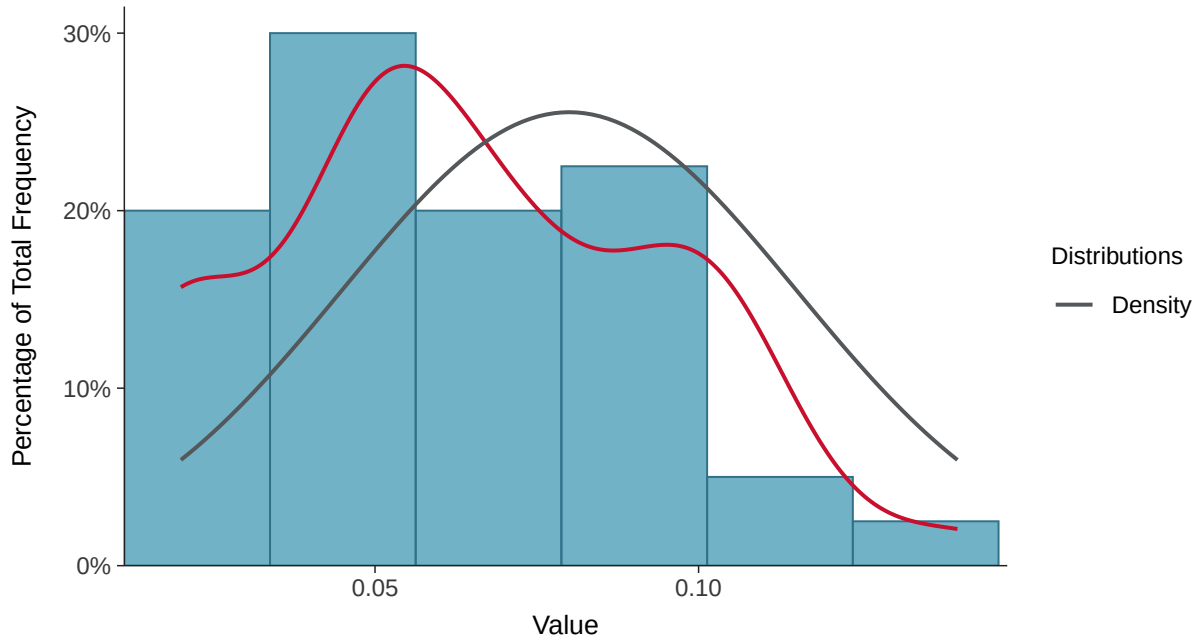
Scatter Plot

Fluoride, MW-8 (mg/L)



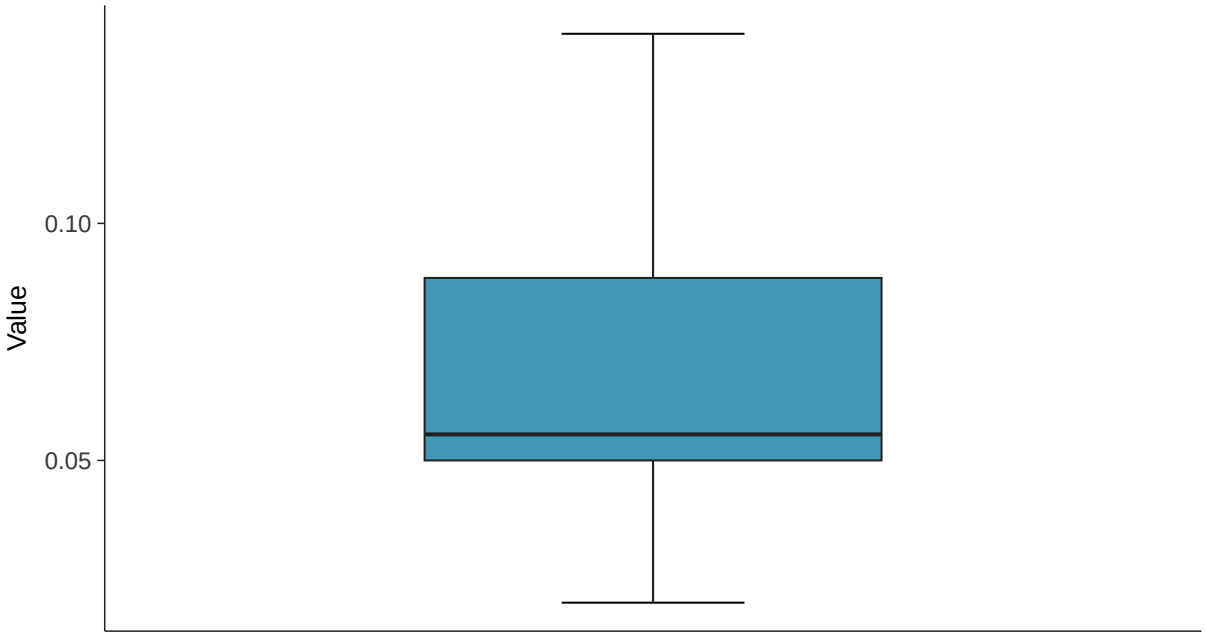
Histogram

Fluoride, MW-8 (mg/L)



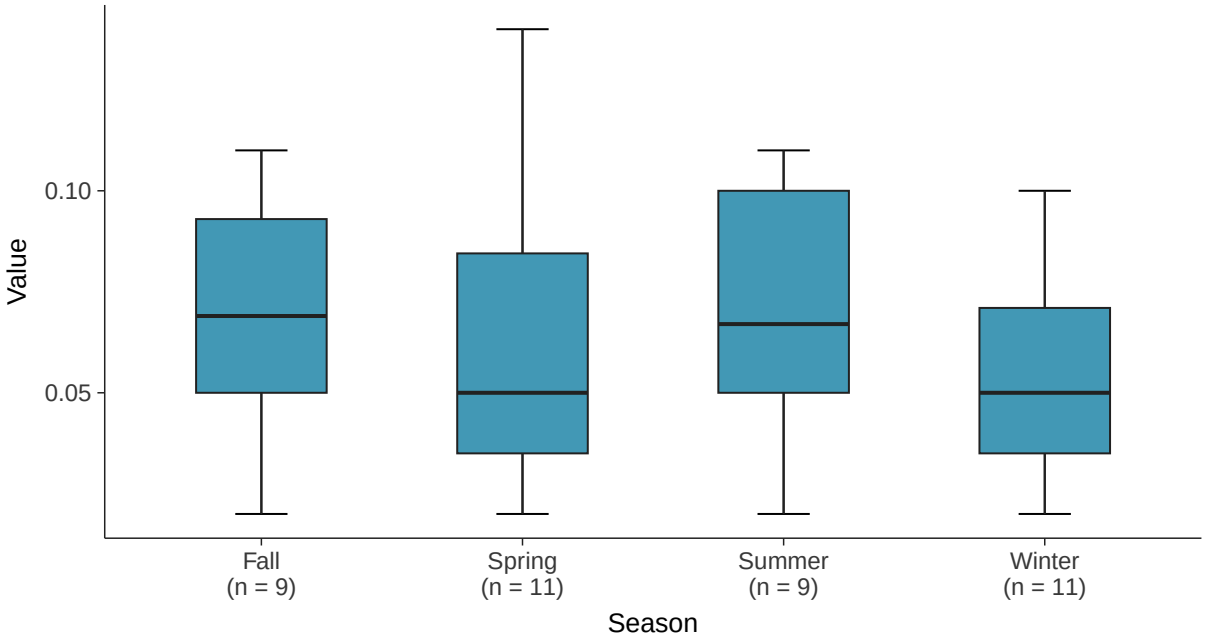
Boxplot

Fluoride, MW-8 (mg/L)



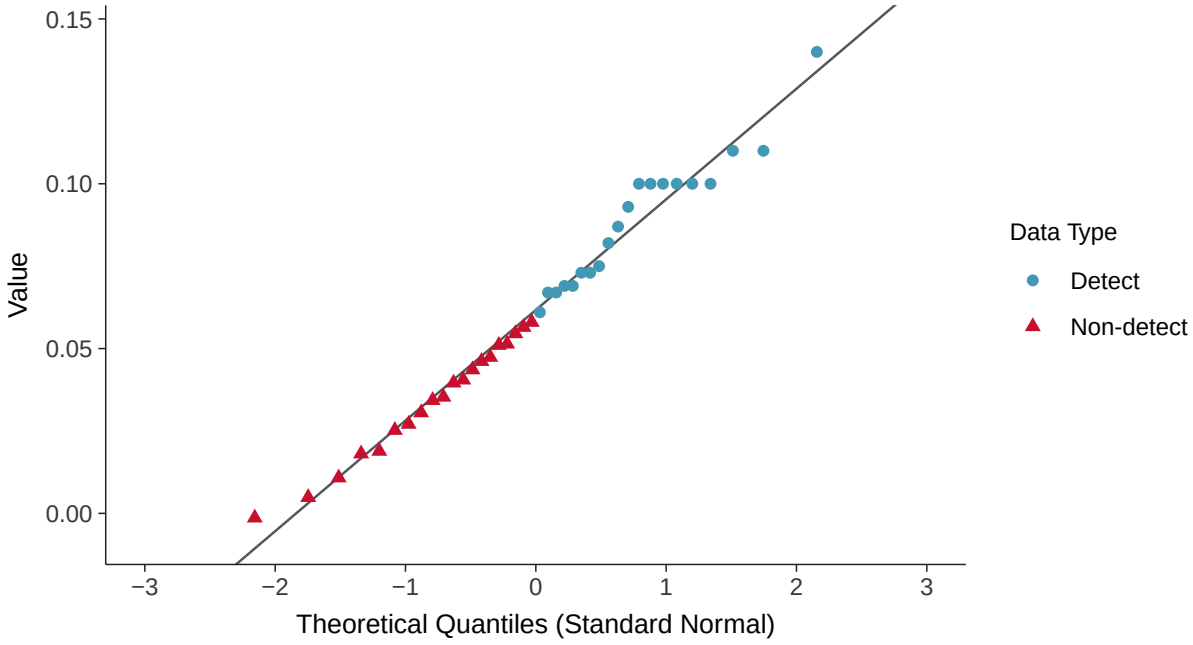
Boxplot by Season

Fluoride, MW-8 (mg/L)



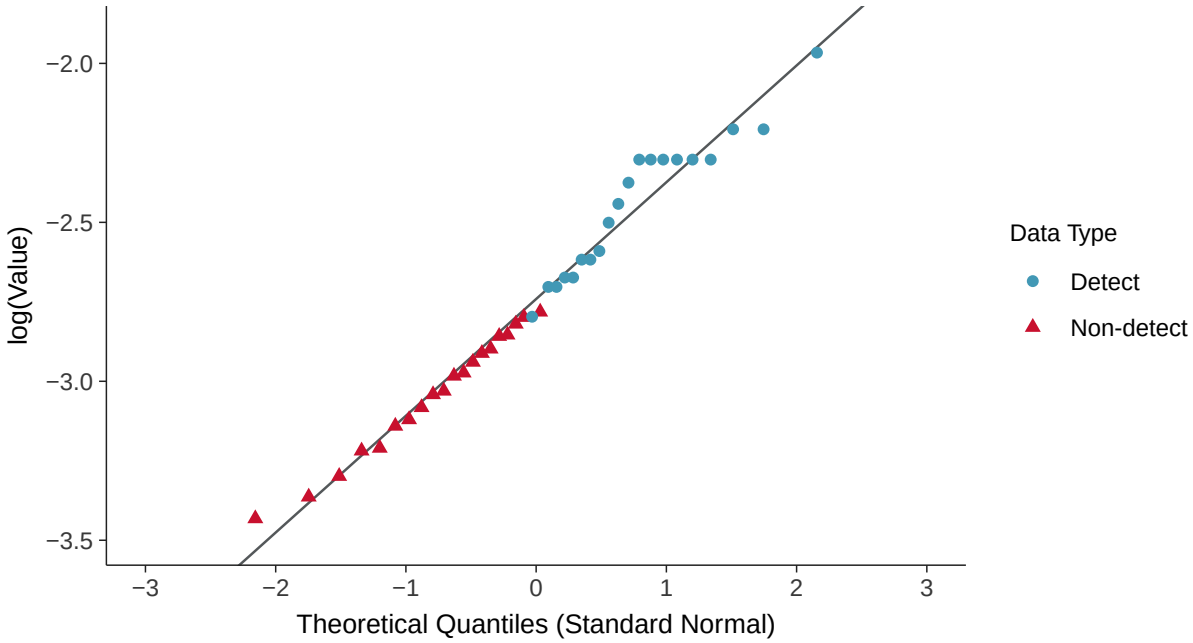
Normal Q-Q plot using ROS Imputed Estimates

Fluoride, MW-8 (mg/L)



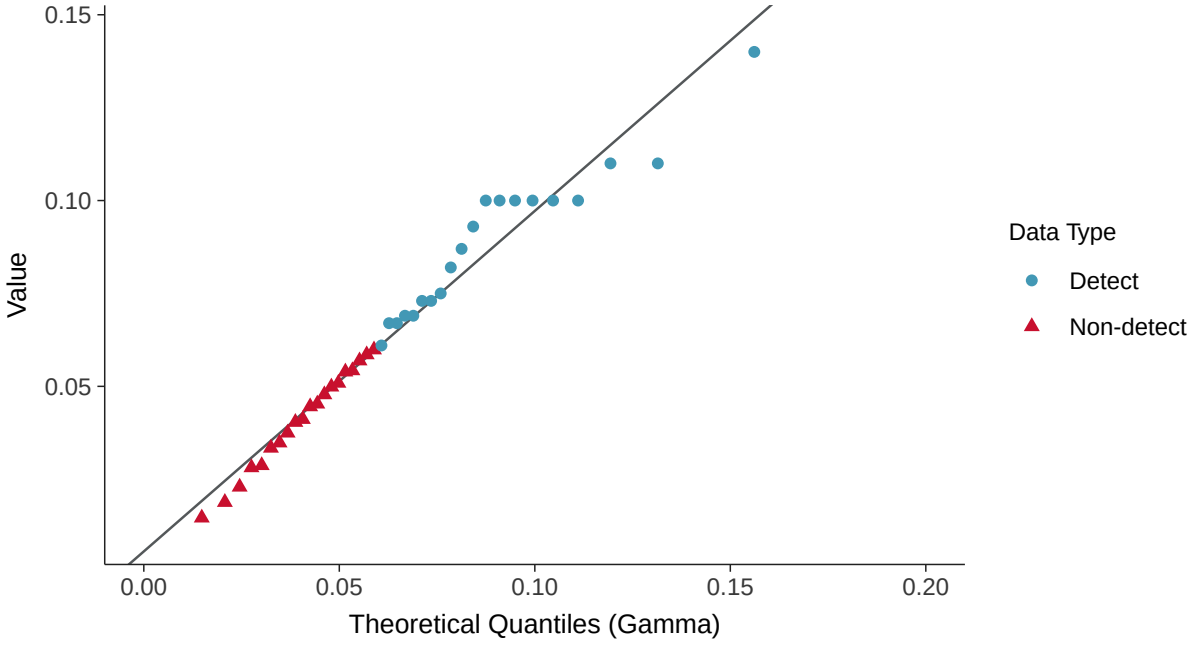
Lognormal Q-Q plot using ROS Imputed Estimates

Fluoride, MW-8 (mg/L)



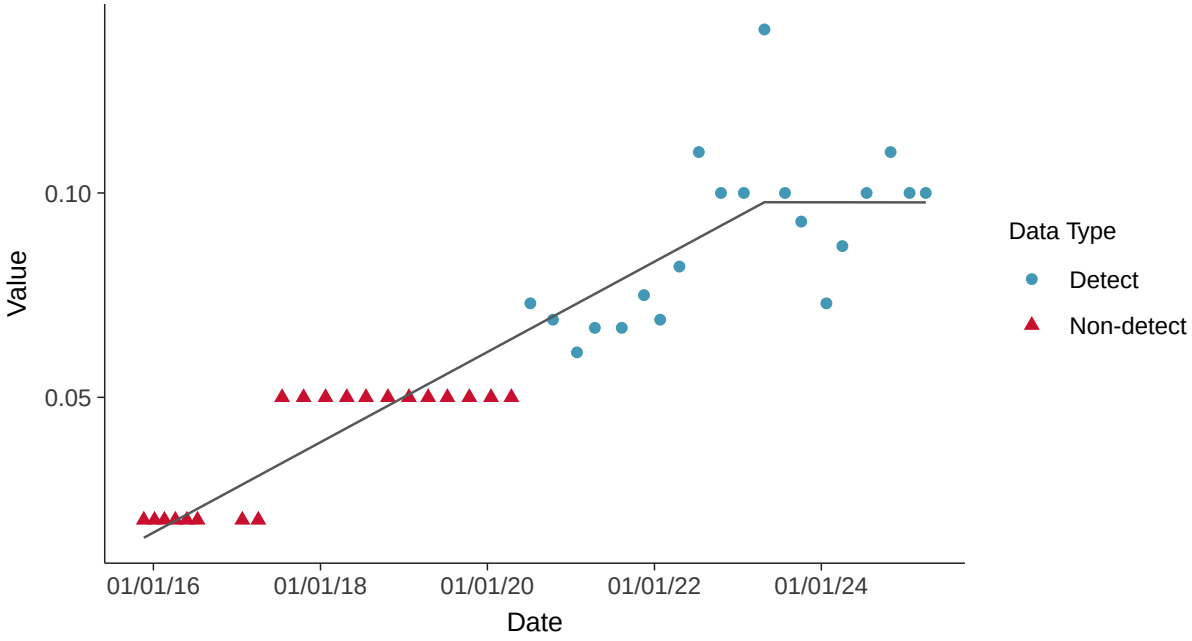
Gamma Q-Q plot using ROS Imputed Estimates

Fluoride, MW-8 (mg/L)



Trend Regression: Piecewise Linear-Linear

Fluoride, MW-8 (mg/L)

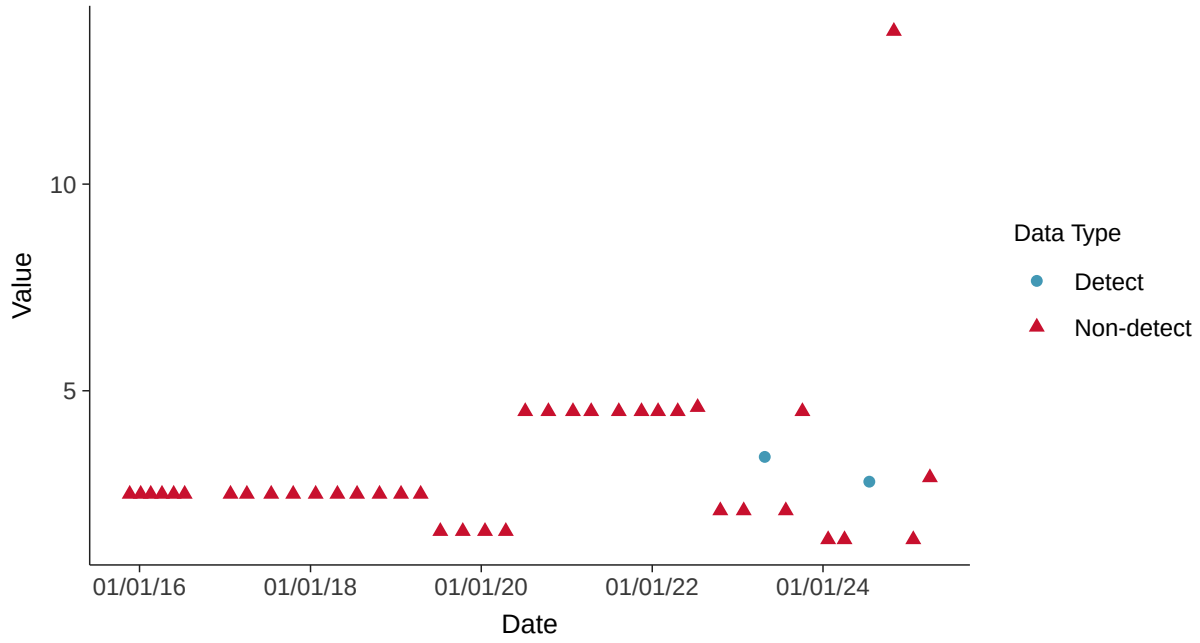


App. IV: Lead, MW-8

ID: 08_03_113

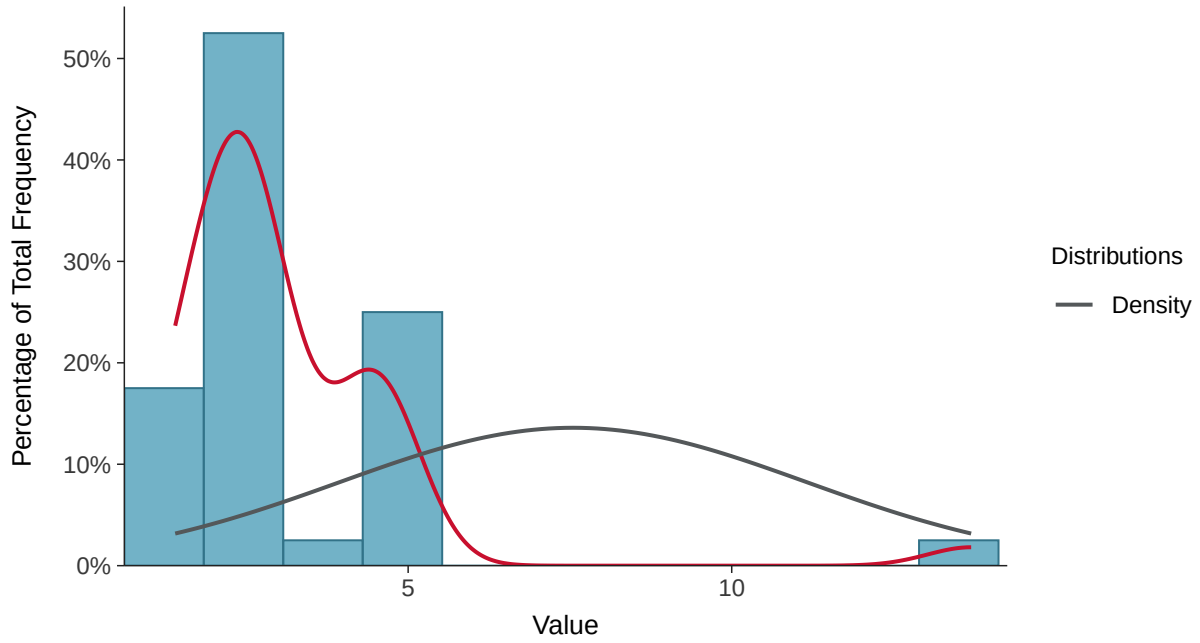
Scatter Plot

Lead, MW-8 (ug/L)



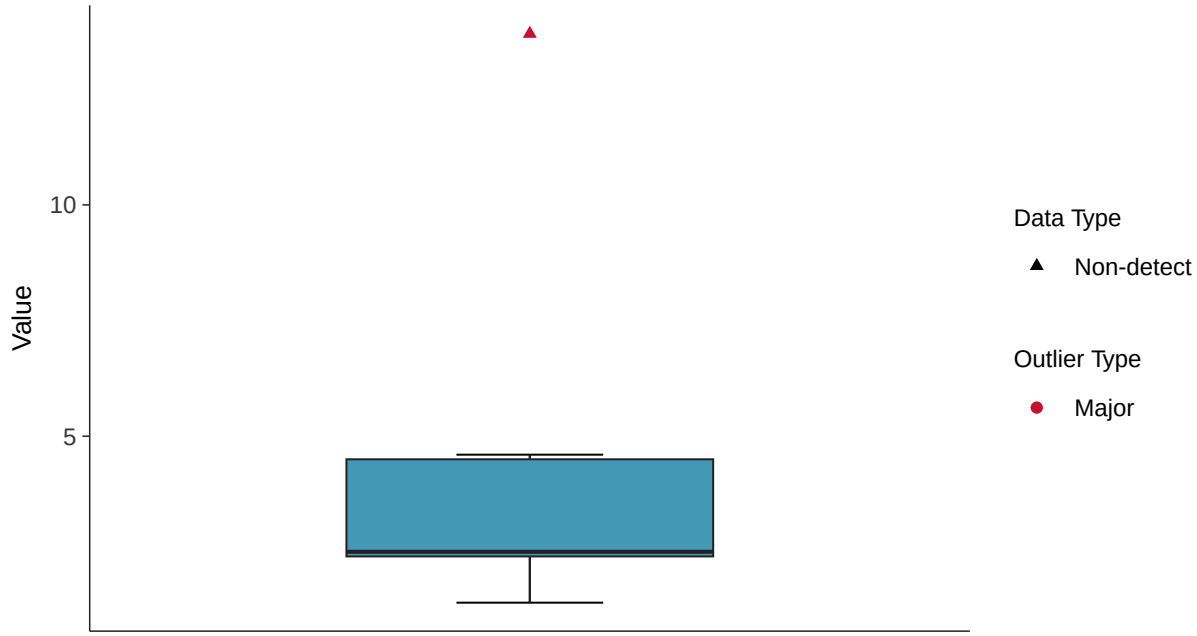
Histogram

Lead, MW-8 (ug/L)



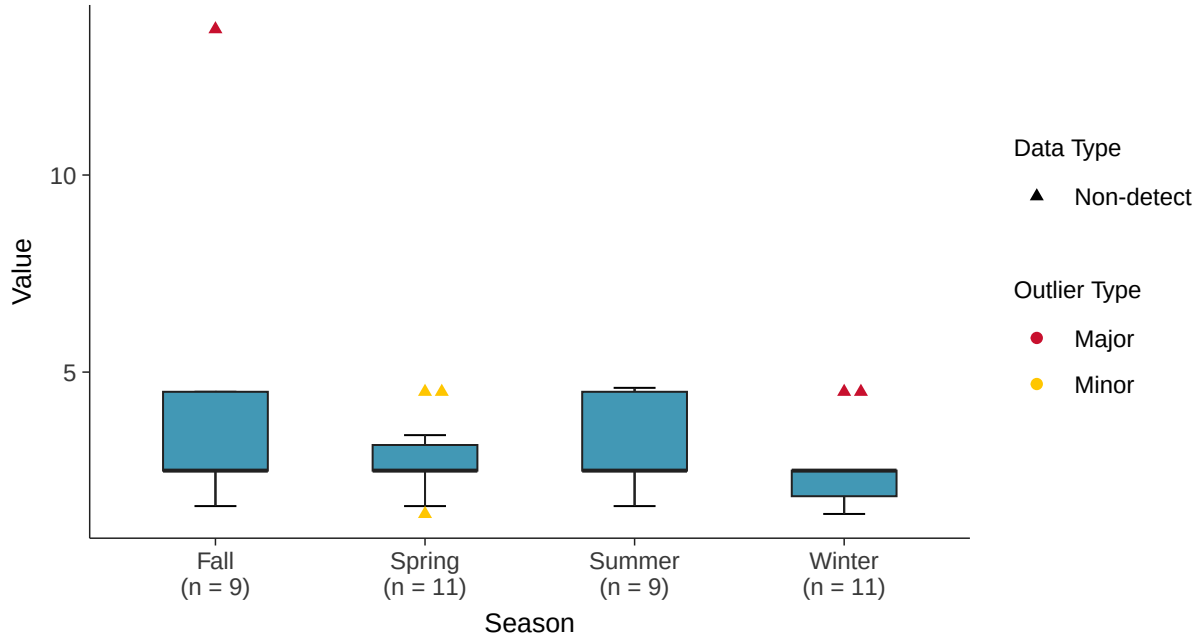
Boxplot

Lead, MW-8 (ug/L)



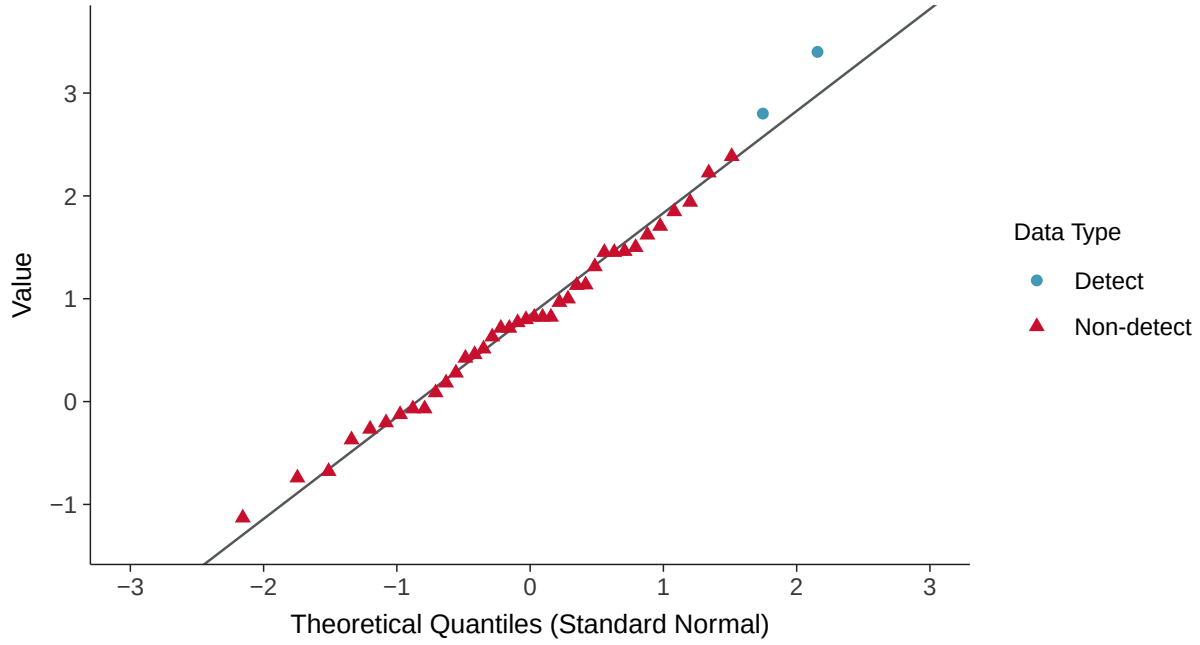
Boxplot by Season

Lead, MW-8 (ug/L)



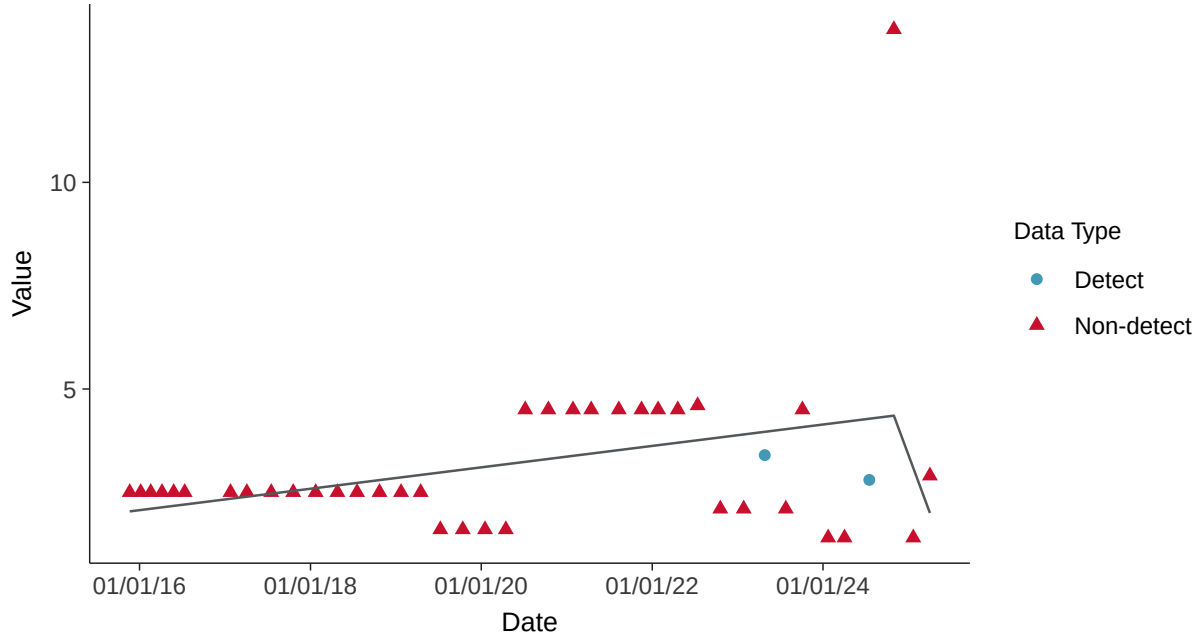
Normal Q-Q plot using ROS Imputed Estimates

Lead, MW-8 (ug/L)



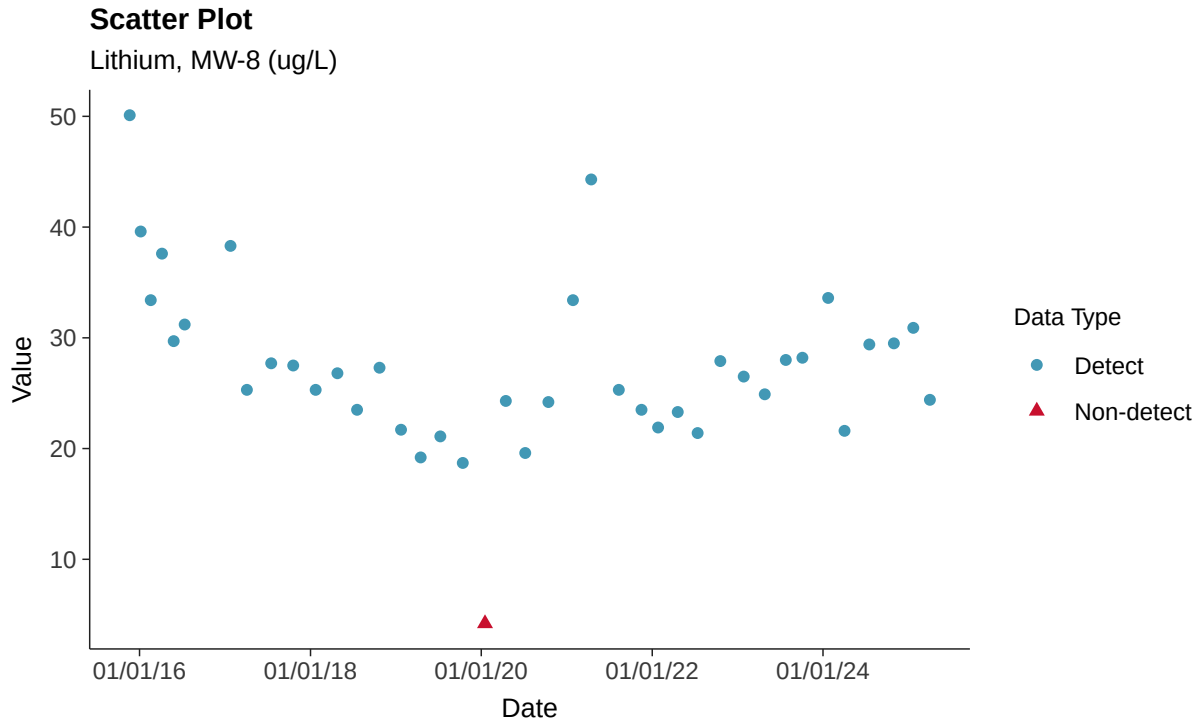
Trend Regression: Piecewise Linear-Linear

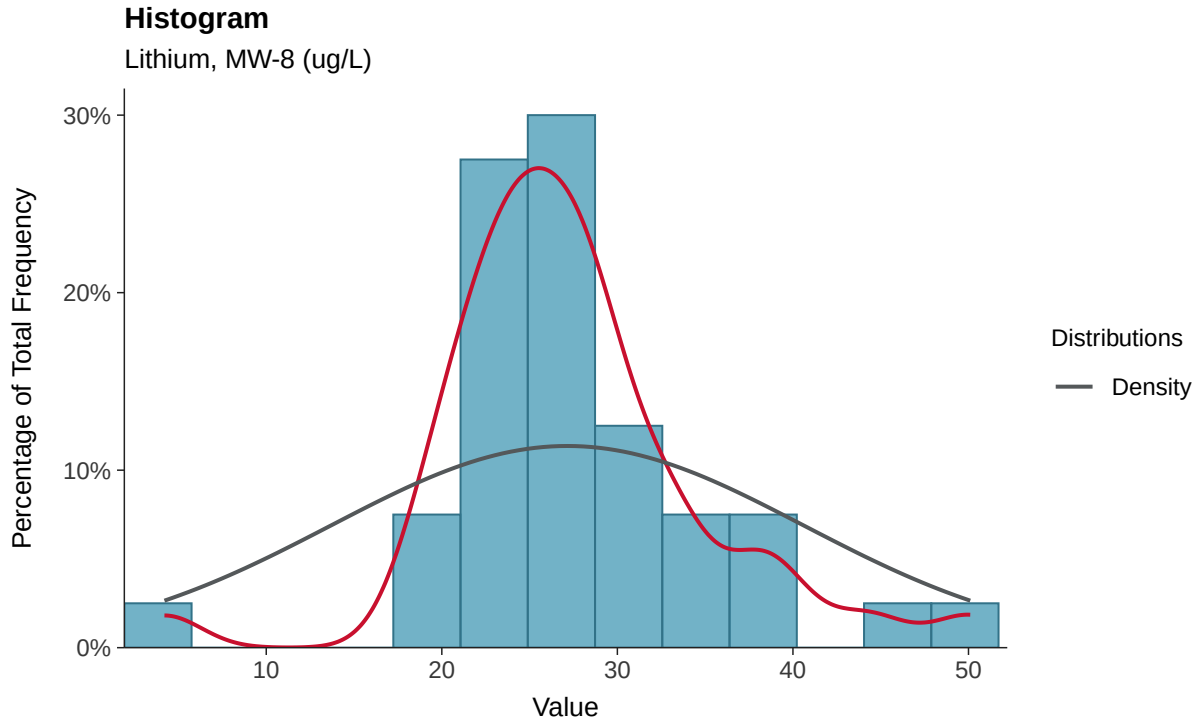
Lead, MW-8 (ug/L)



App. IV: Lithium, MW-8

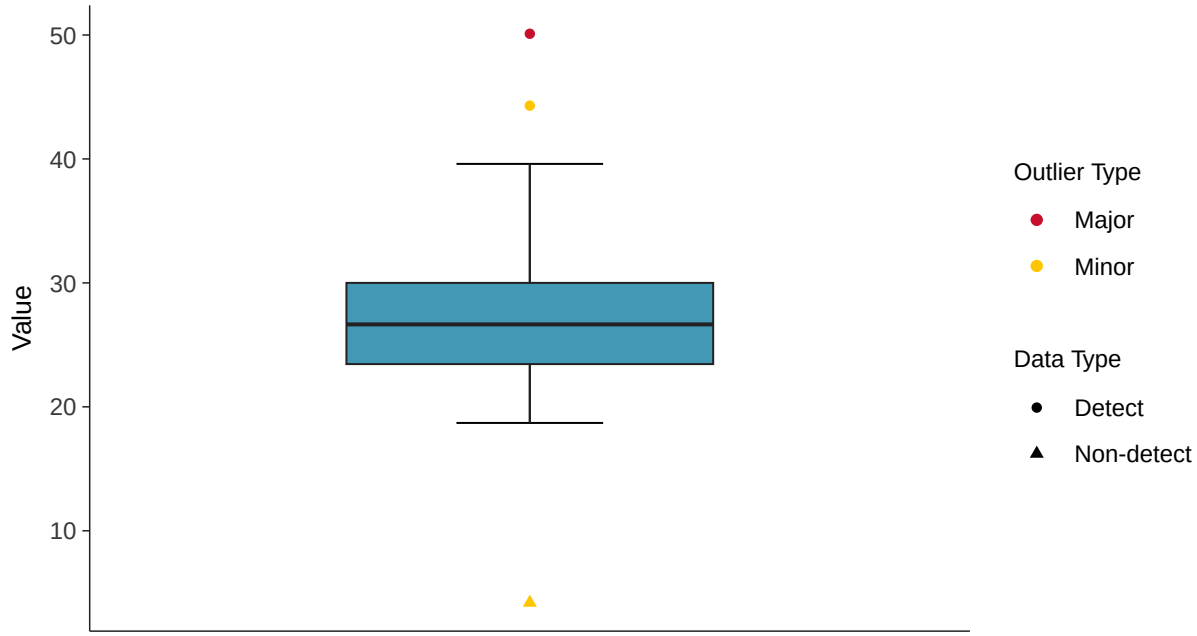
ID: 08_03_114





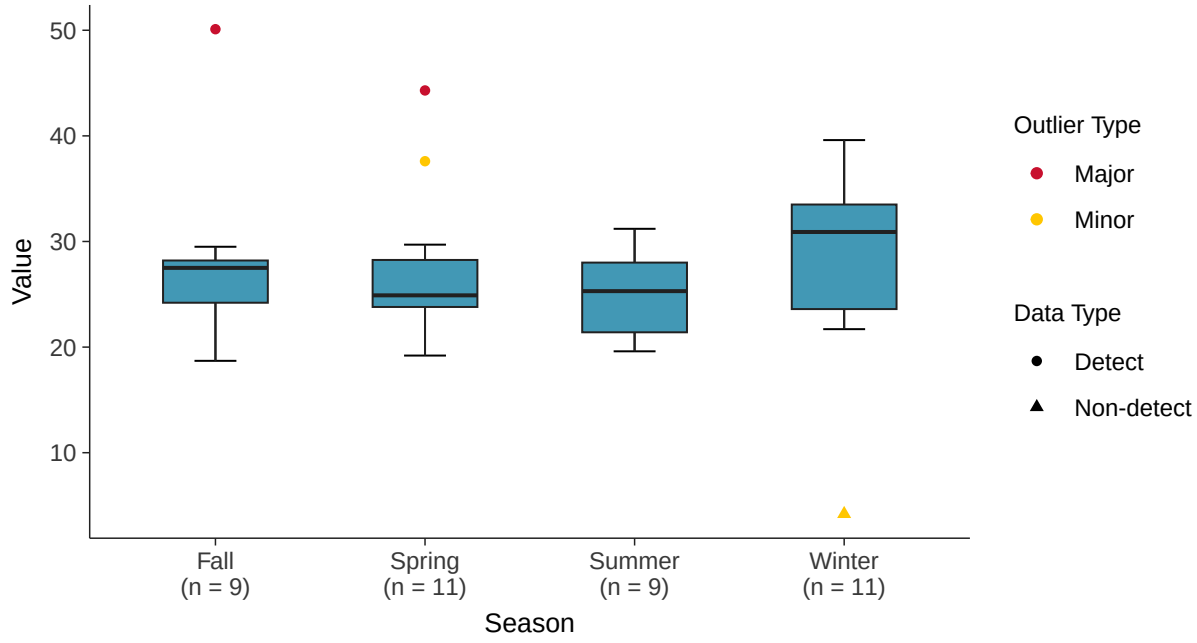
Boxplot

Lithium, MW-8 (ug/L)



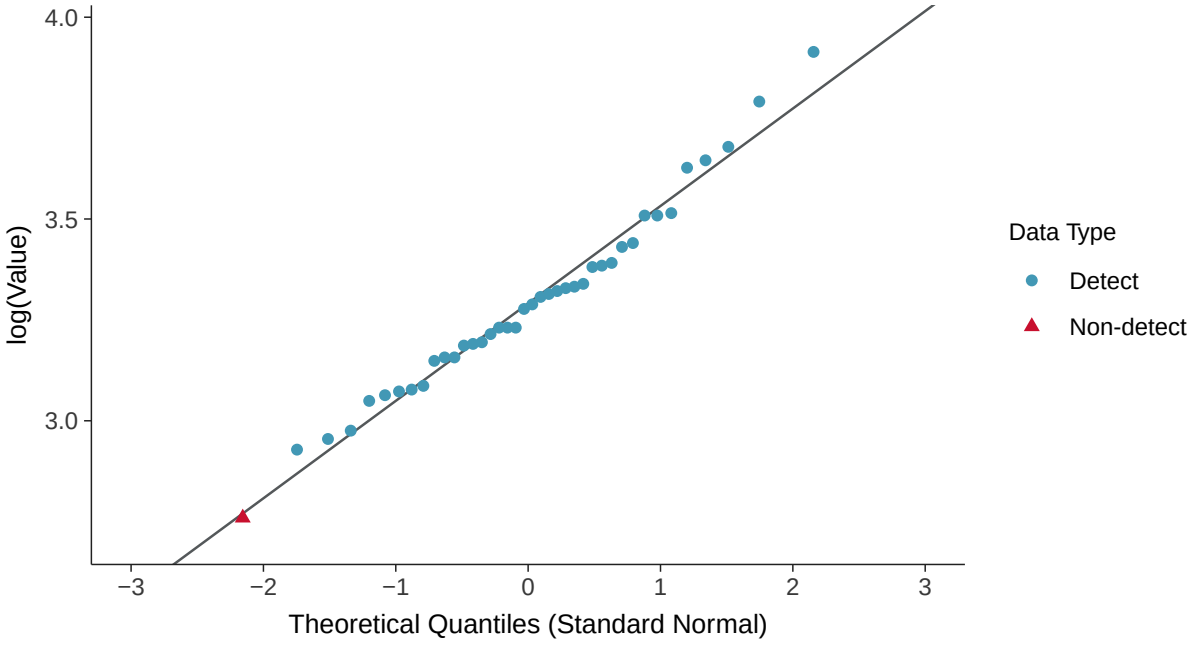
Boxplot by Season

Lithium, MW-8 (ug/L)



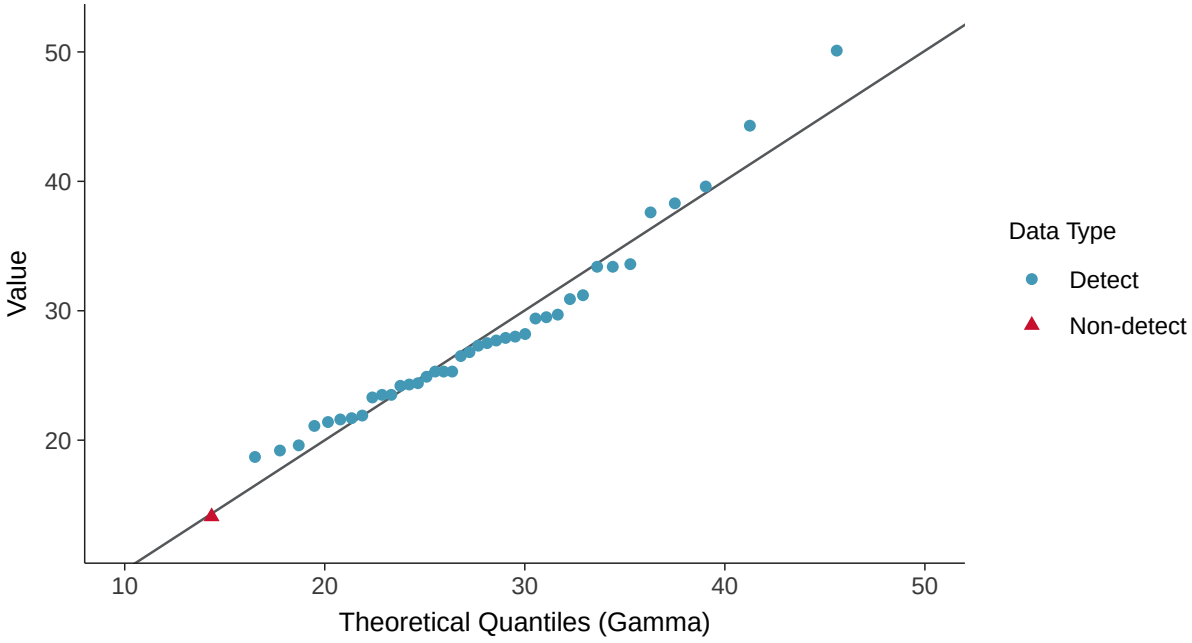
Lognormal Q-Q plot using ROS Imputed Estimates

Lithium, MW-8 (ug/L)



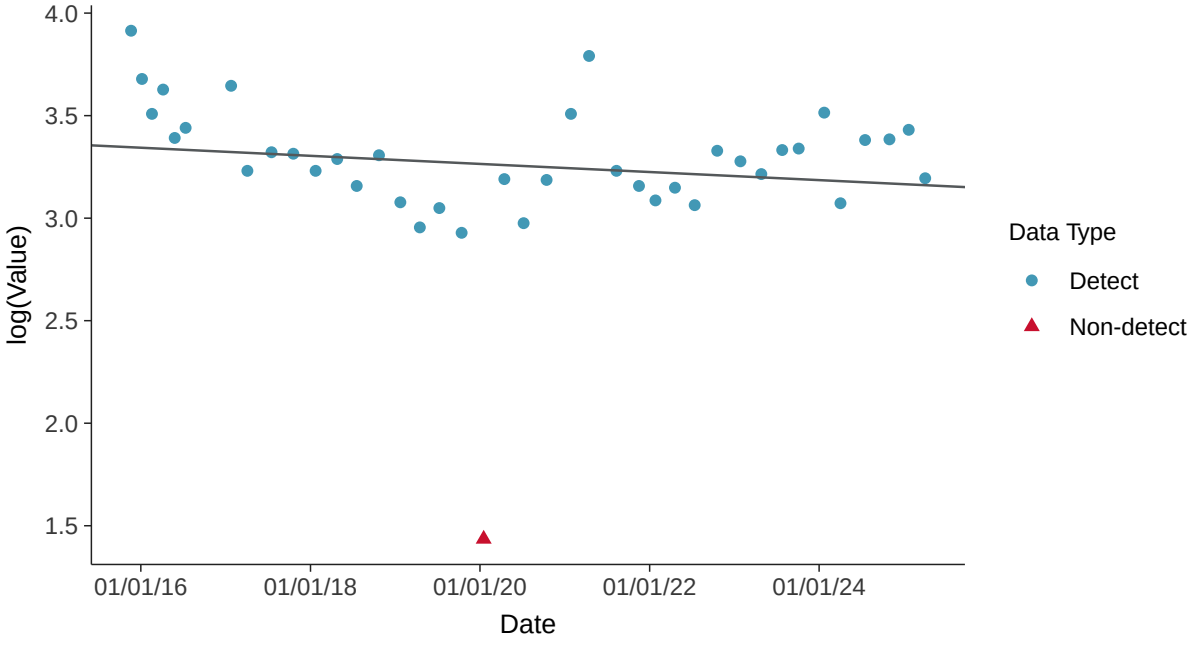
Gamma Q-Q plot using ROS Imputed Estimates

Lithium, MW-8 (ug/L)



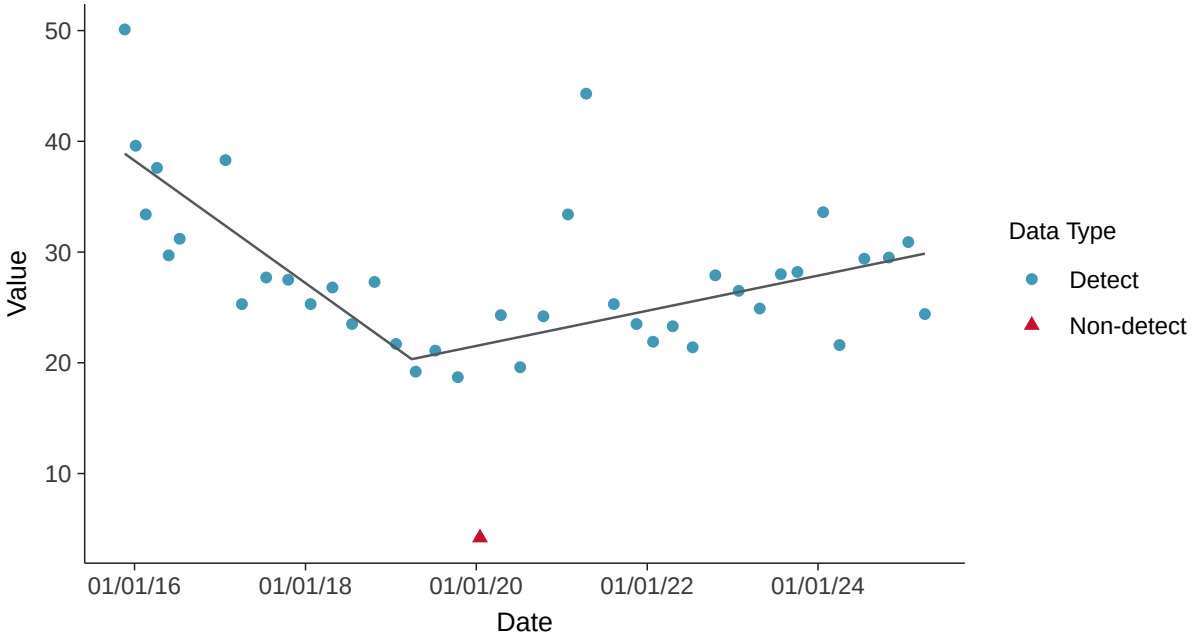
Trend Regression: Lognormal MLE

Lithium, MW-8 (ug/L)



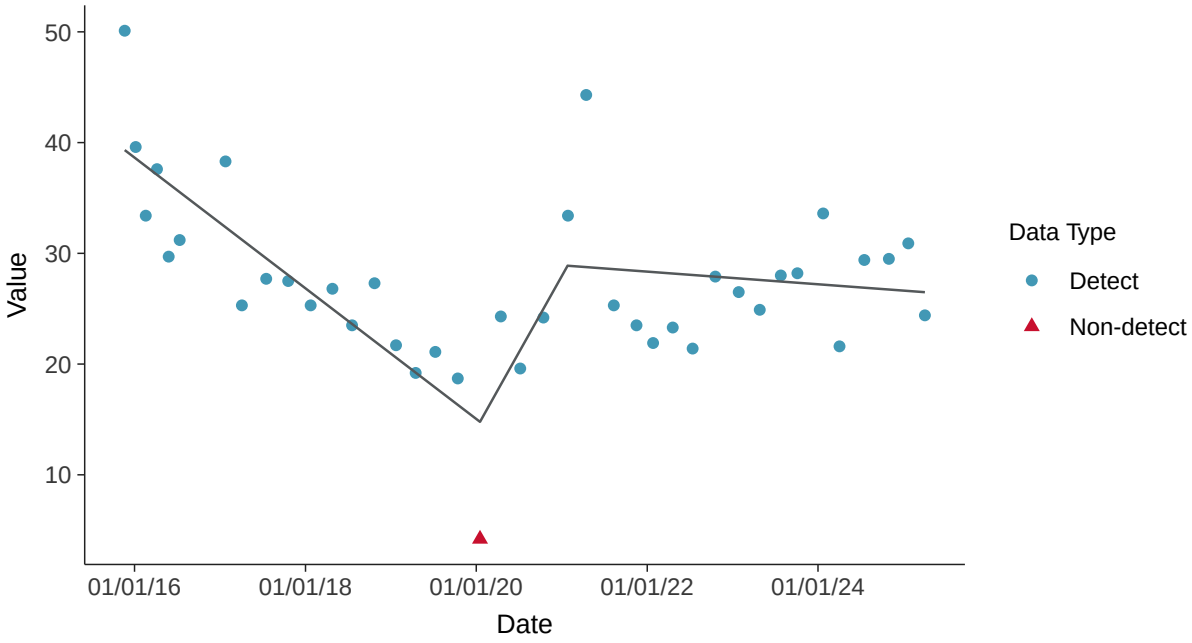
Trend Regression: Piecewise Linear-Linear

Lithium, MW-8 (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Lithium, MW-8 (ug/L)

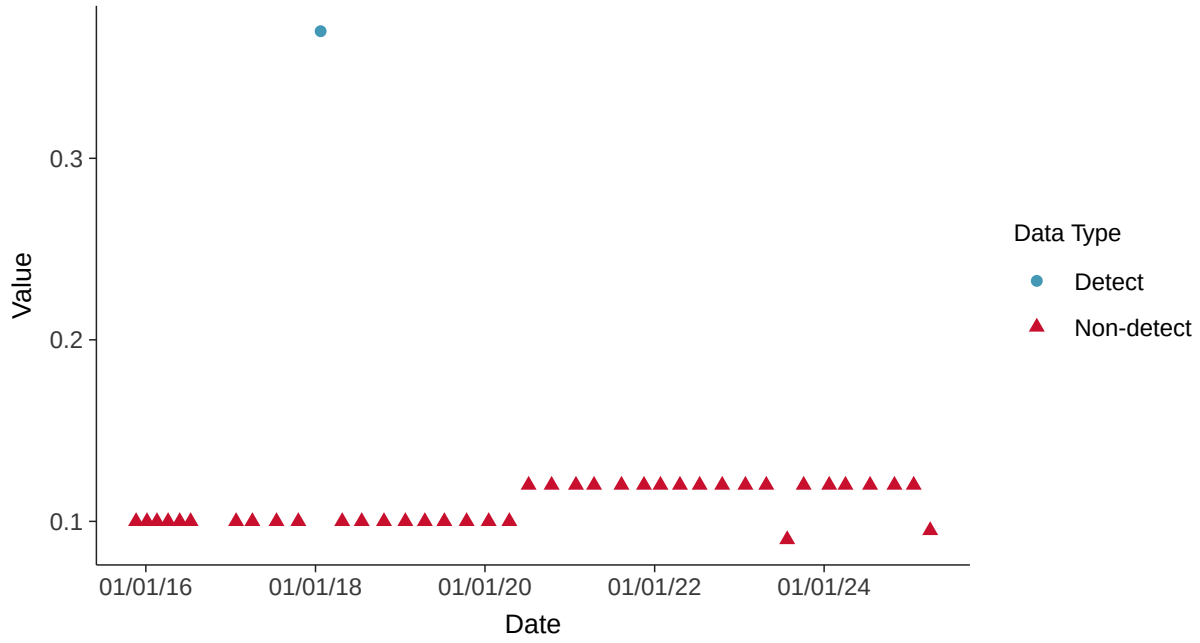


App. IV: Mercury, MW-8

ID: 08_03_115

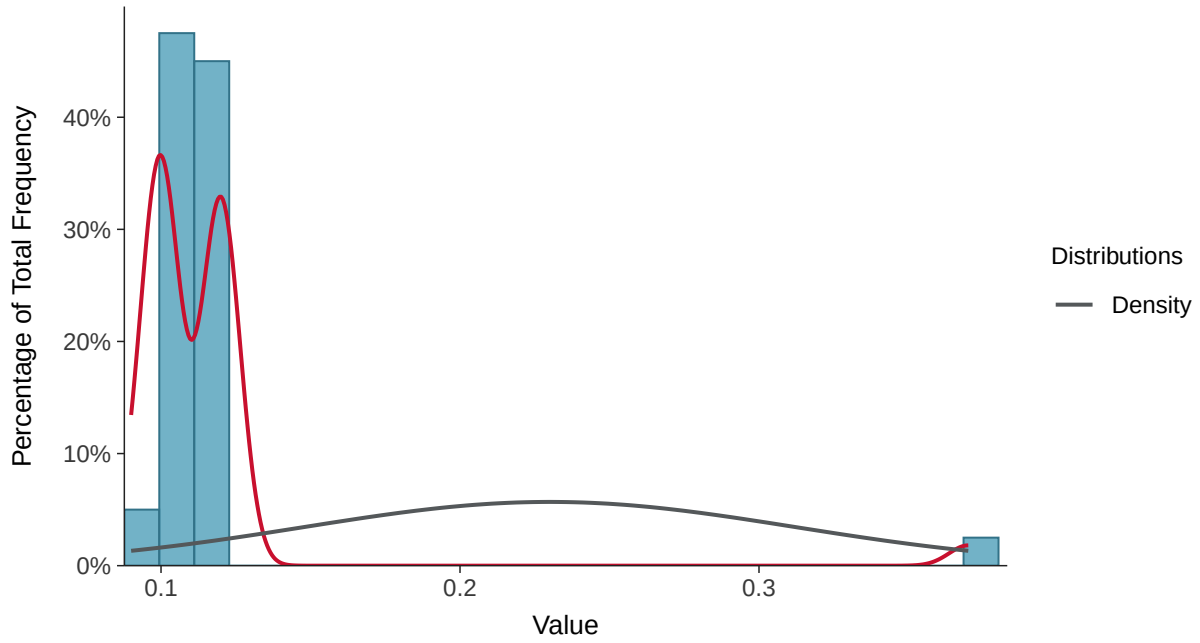
Scatter Plot

Mercury, MW-8 (ug/L)



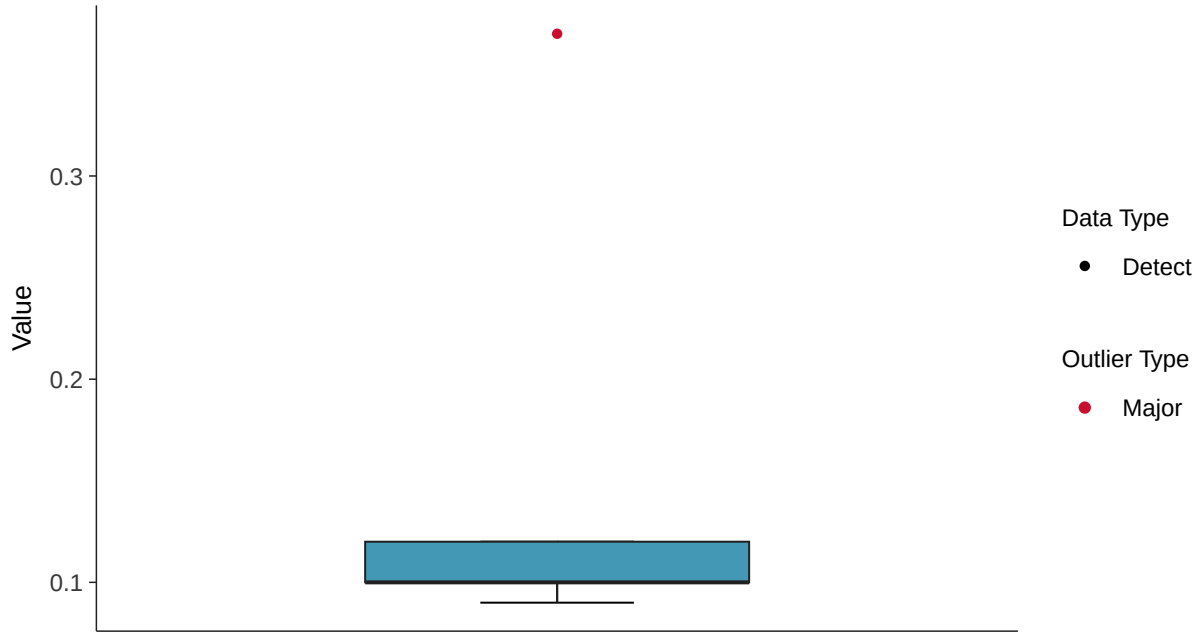
Histogram

Mercury, MW-8 (ug/L)



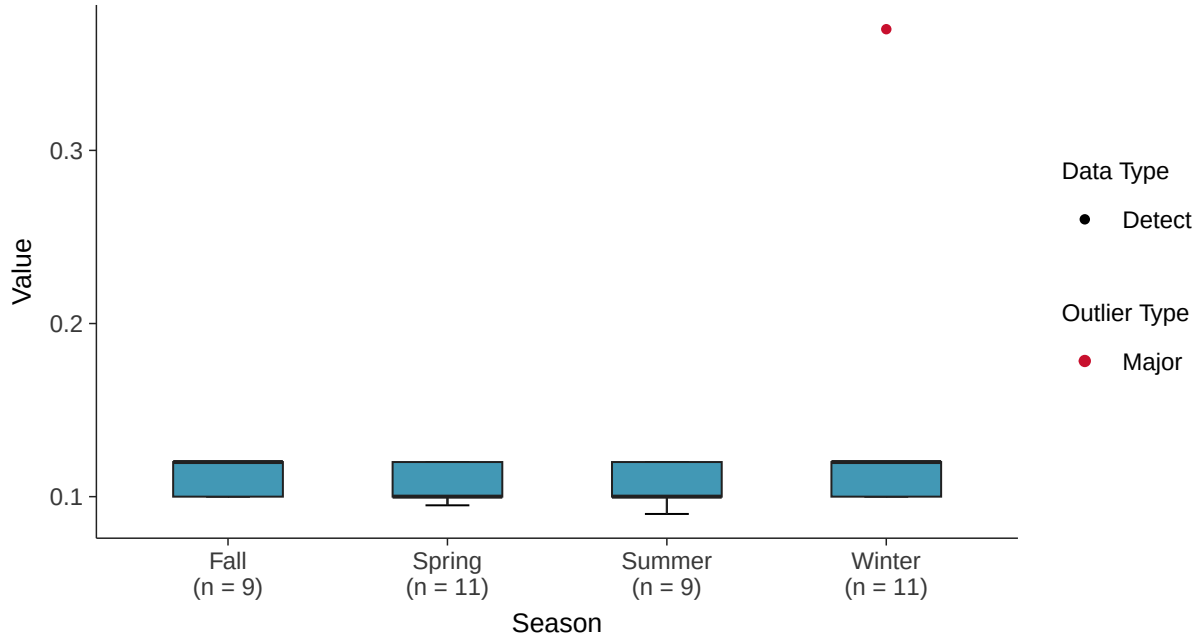
Boxplot

Mercury, MW-8 (ug/L)



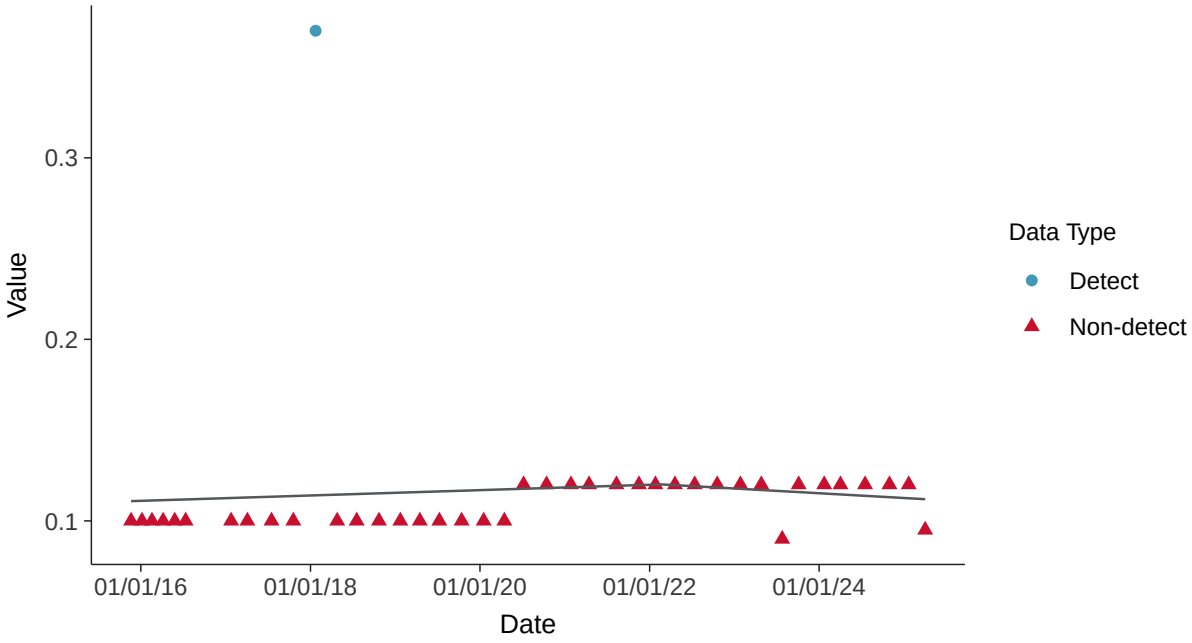
Boxplot by Season

Mercury, MW-8 (ug/L)



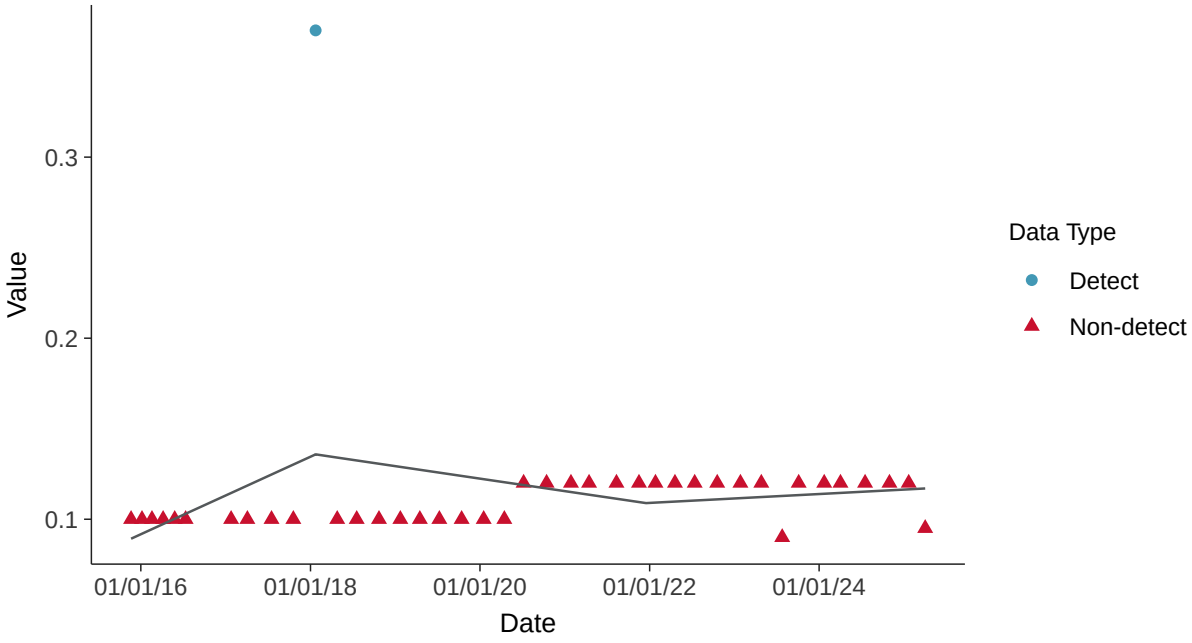
Trend Regression: Piecewise Linear-Linear

Mercury, MW-8 (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Mercury, MW-8 (ug/L)

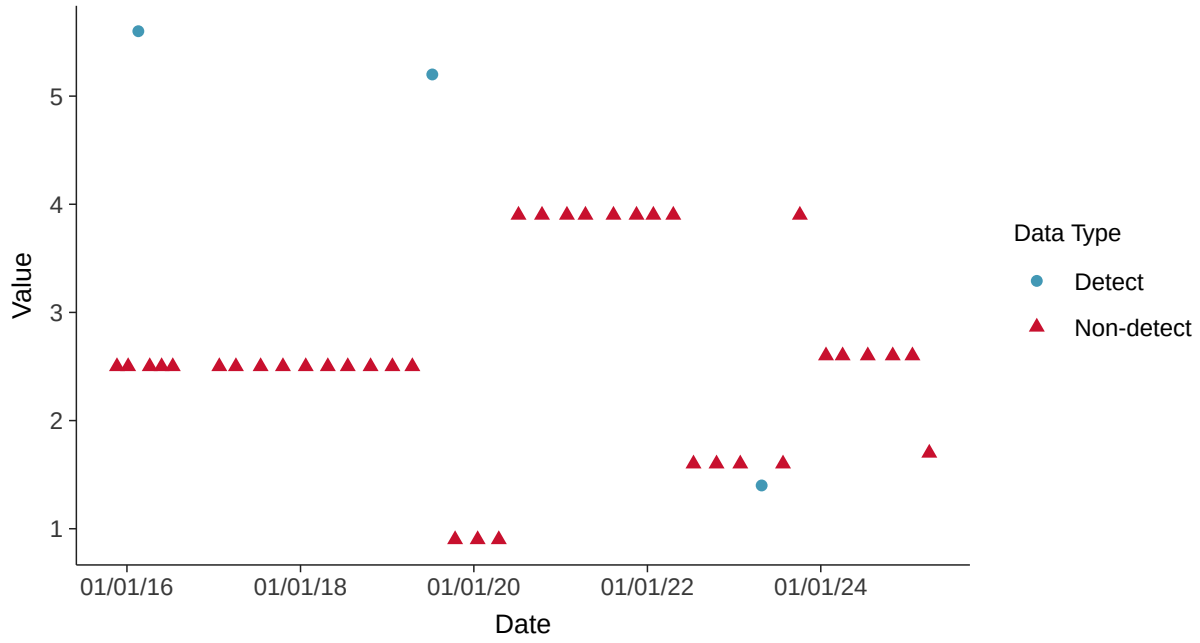


App. IV: Molybdenum, MW-8

ID: 08_03_116

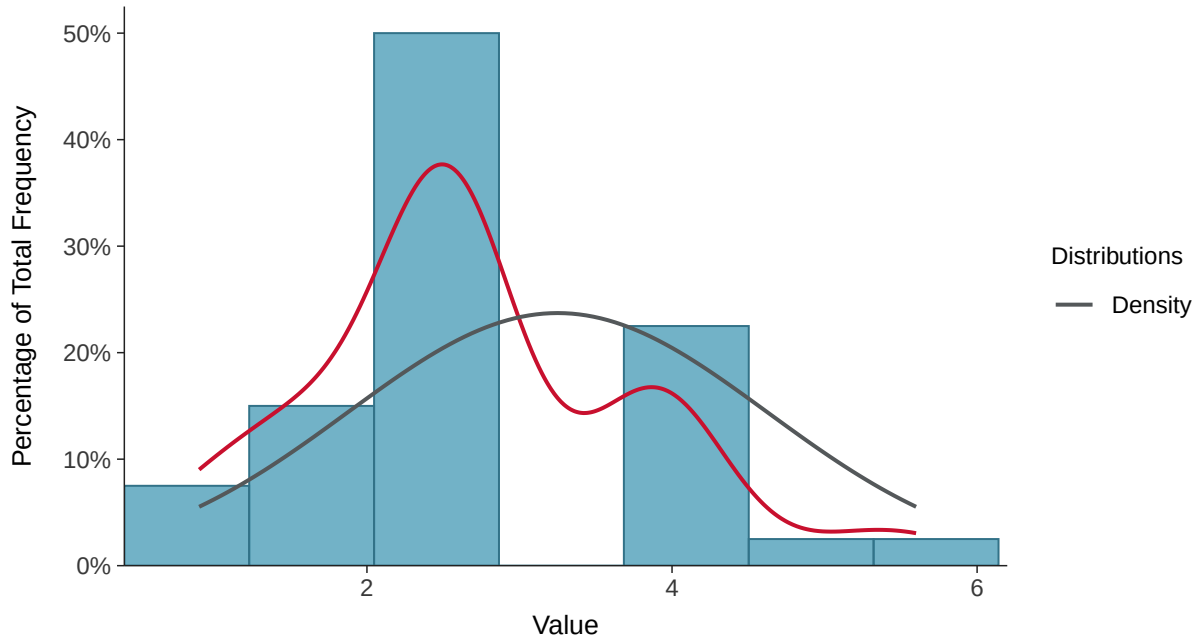
Scatter Plot

Molybdenum, MW-8 (ug/L)



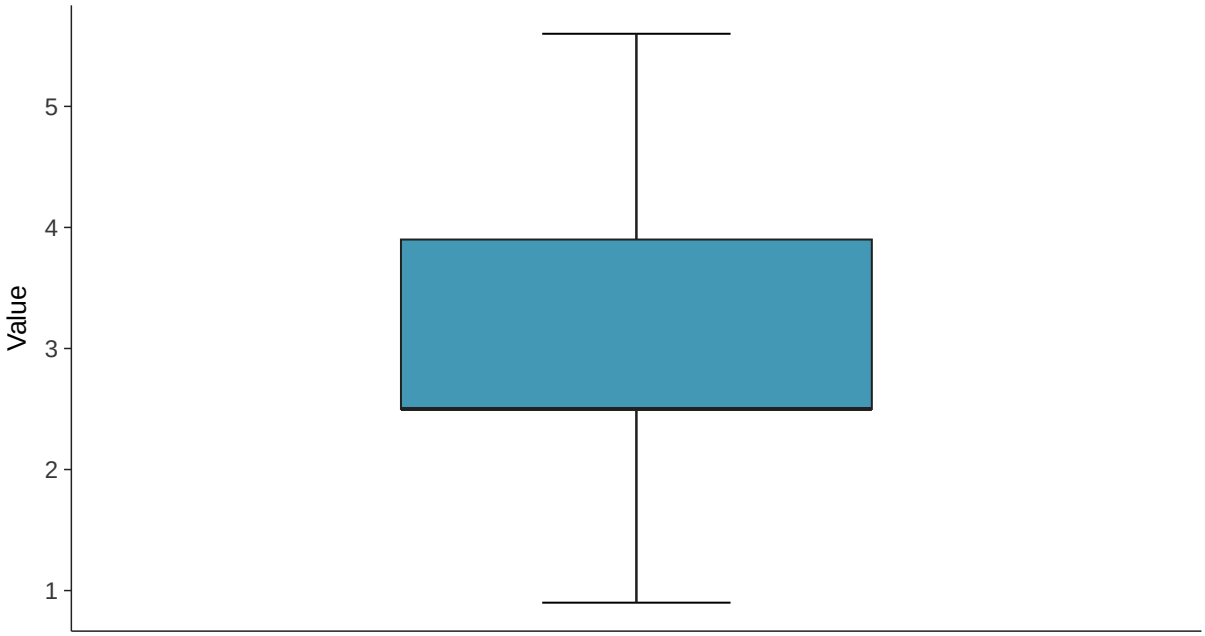
Histogram

Molybdenum, MW-8 (ug/L)



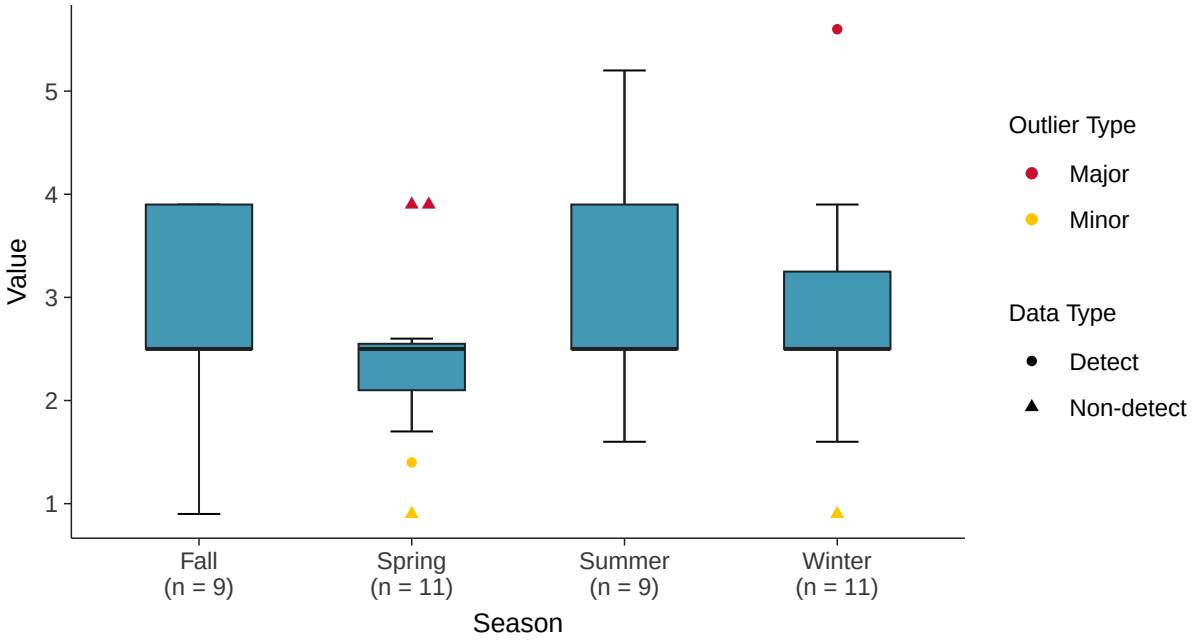
Boxplot

Molybdenum, MW-8 (ug/L)



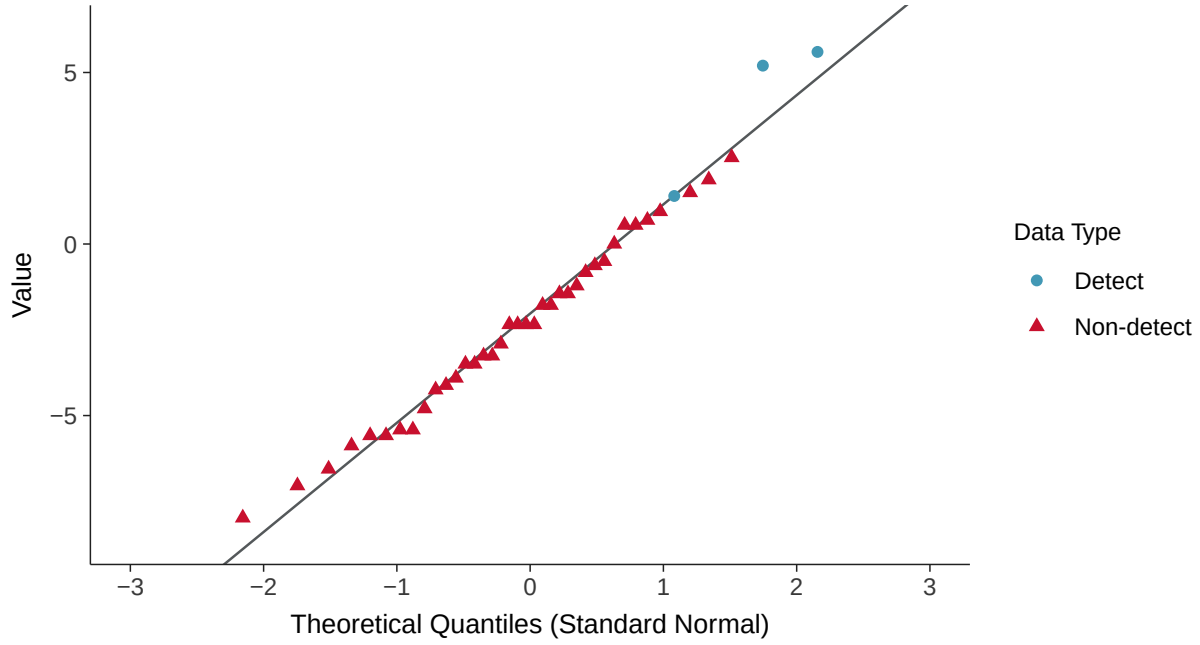
Boxplot by Season

Molybdenum, MW-8 (ug/L)



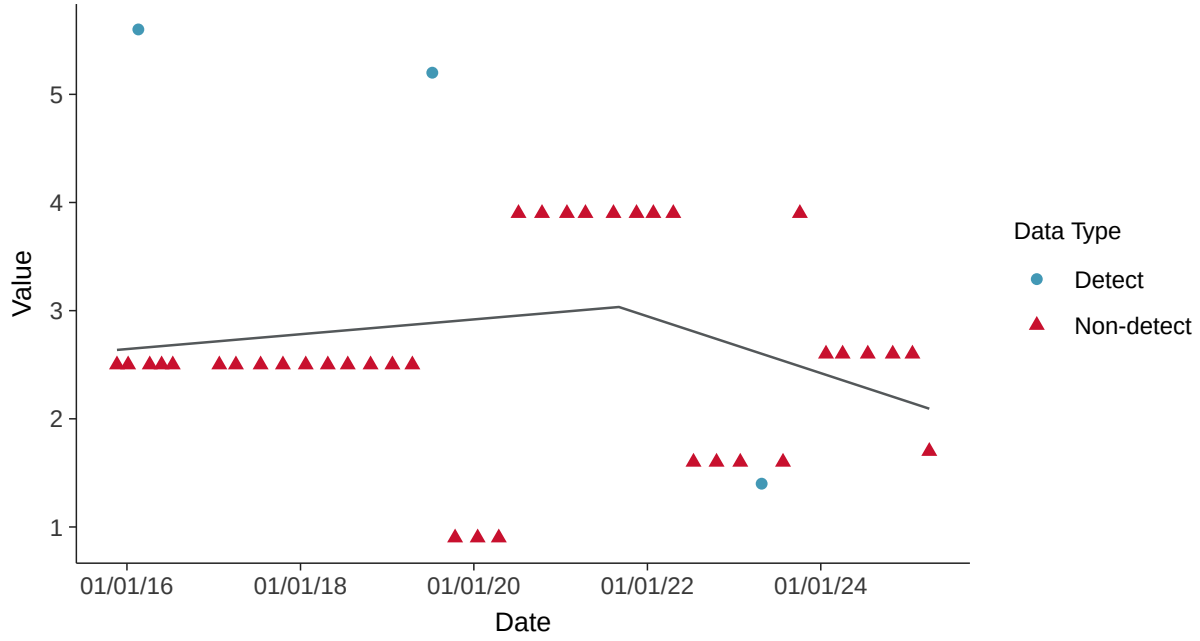
Normal Q-Q plot using ROS Imputed Estimates

Molybdenum, MW-8 (ug/L)



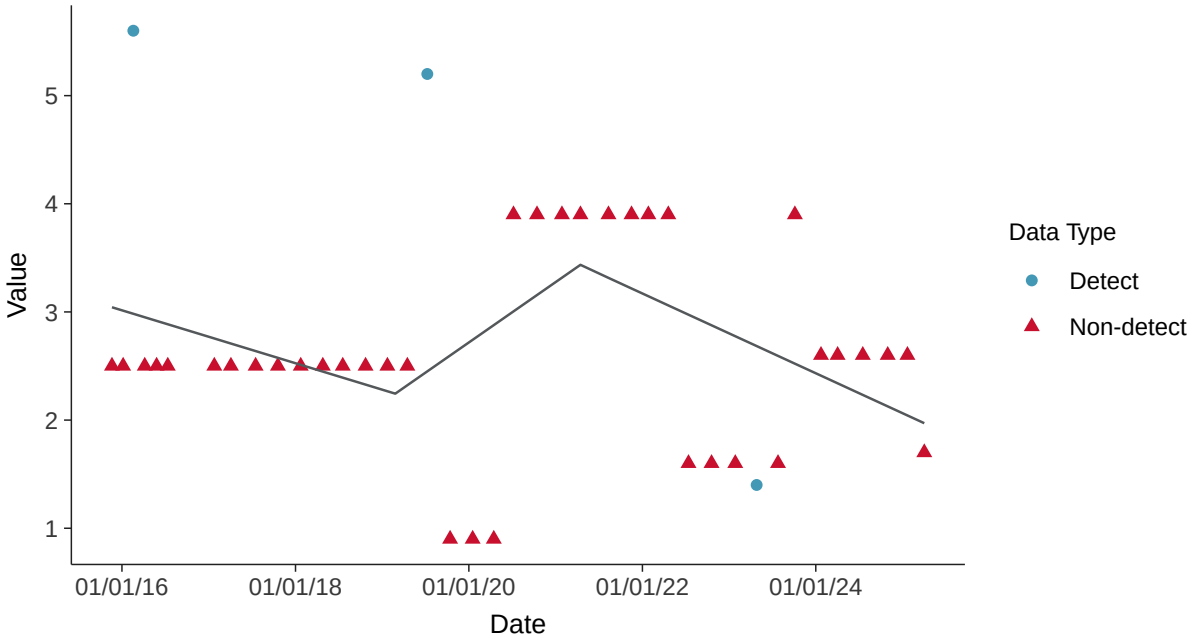
Trend Regression: Piecewise Linear-Linear

Molybdenum, MW-8 (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Molybdenum, MW-8 (ug/L)

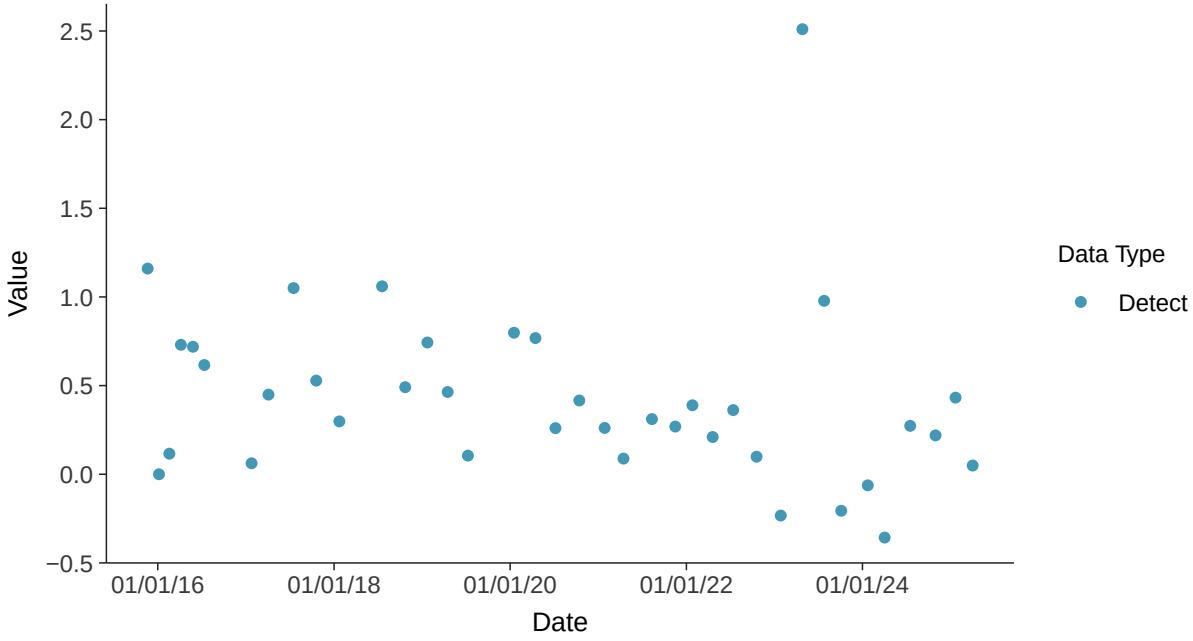


App. IV: Radium-226, MW-8

ID: 08_03_119

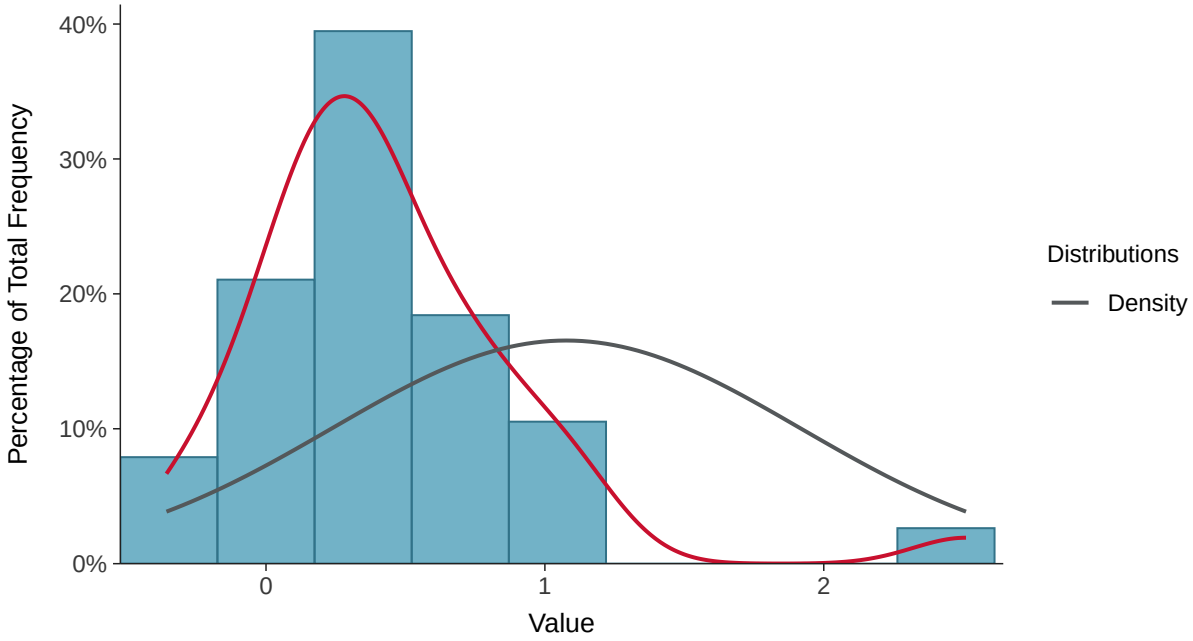
Scatter Plot

Radium-226, MW-8 (pCi/L)



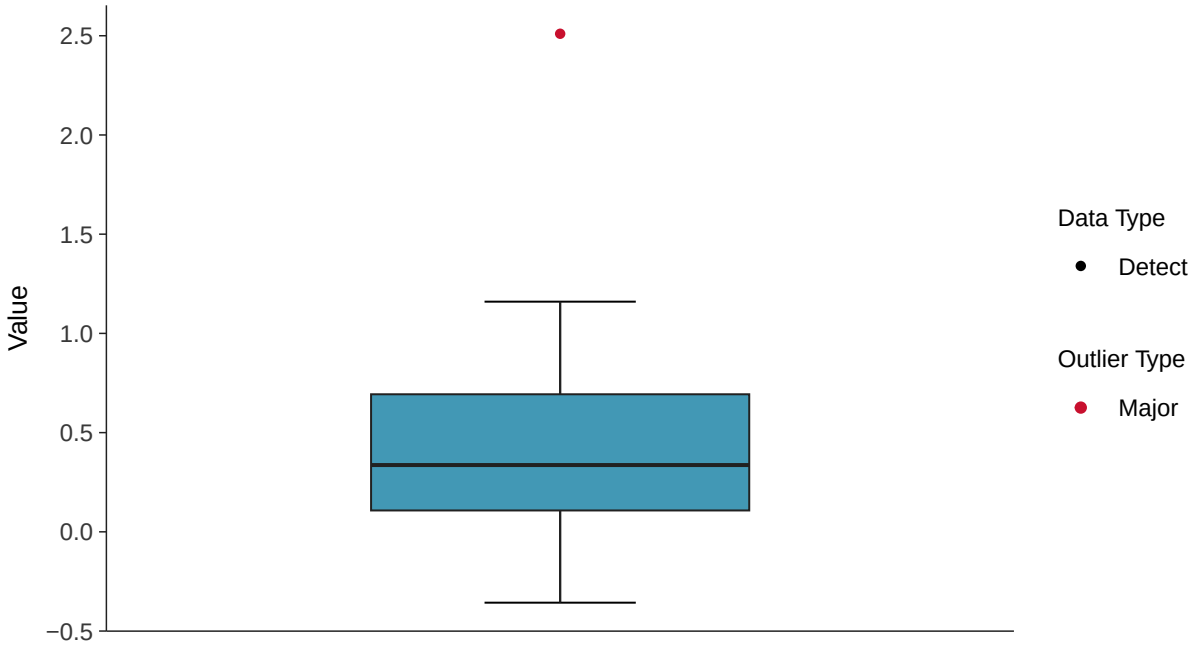
Histogram

Radium-226, MW-8 (pCi/L)



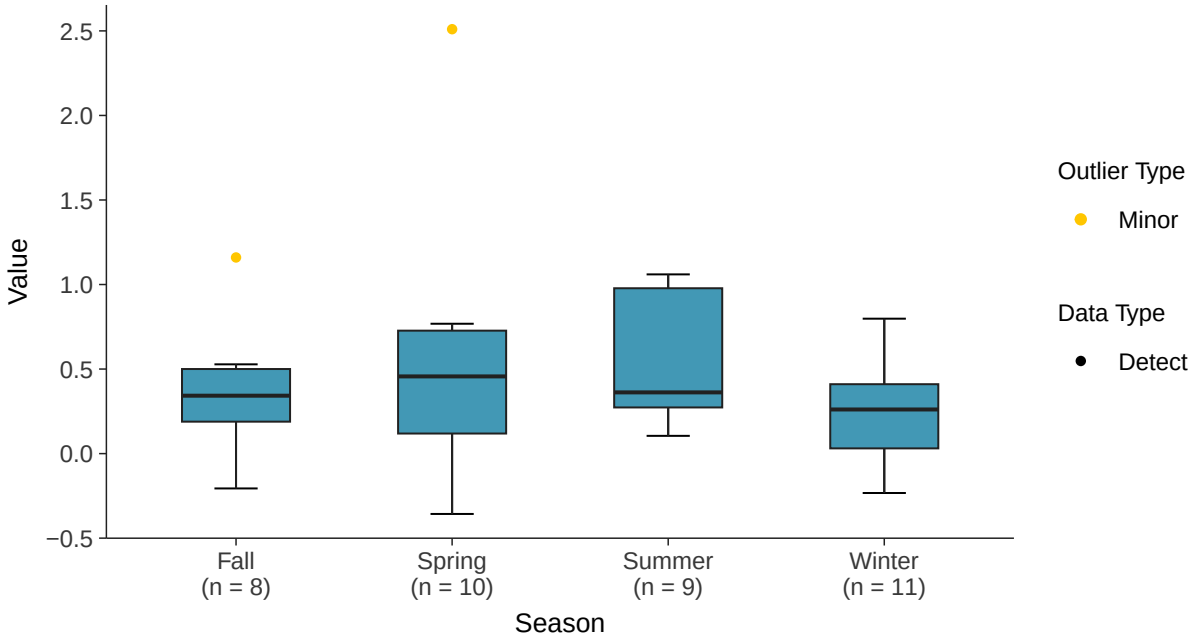
Boxplot

Radium-226, MW-8 (pCi/L)



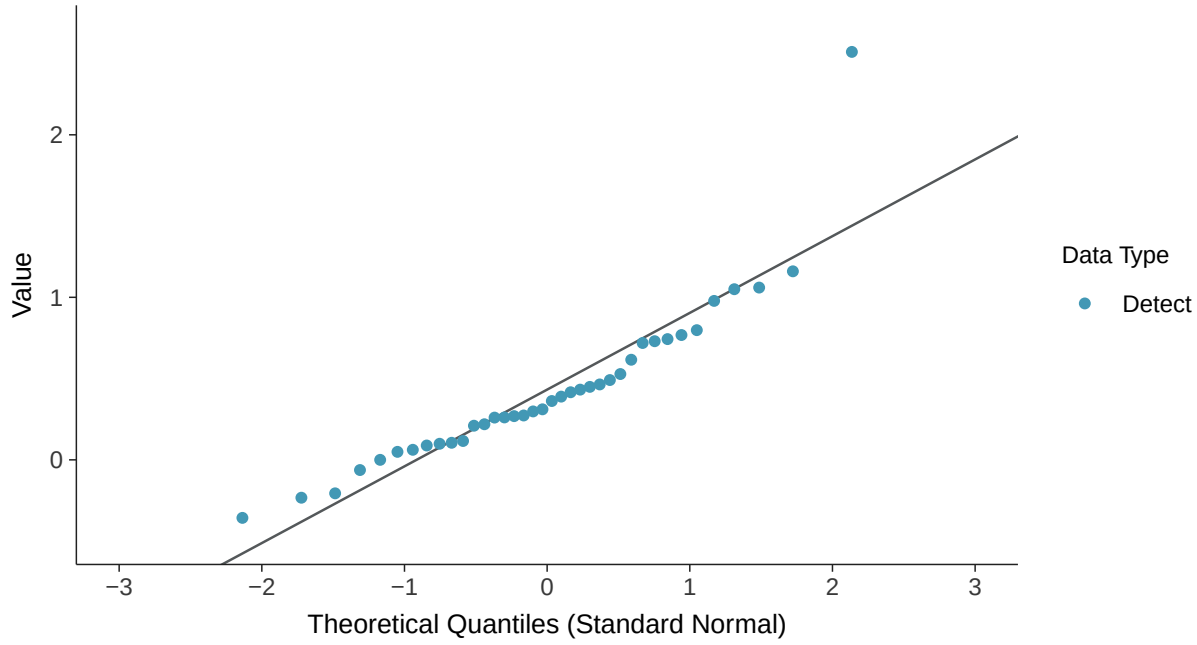
Boxplot by Season

Radium-226, MW-8 (pCi/L)



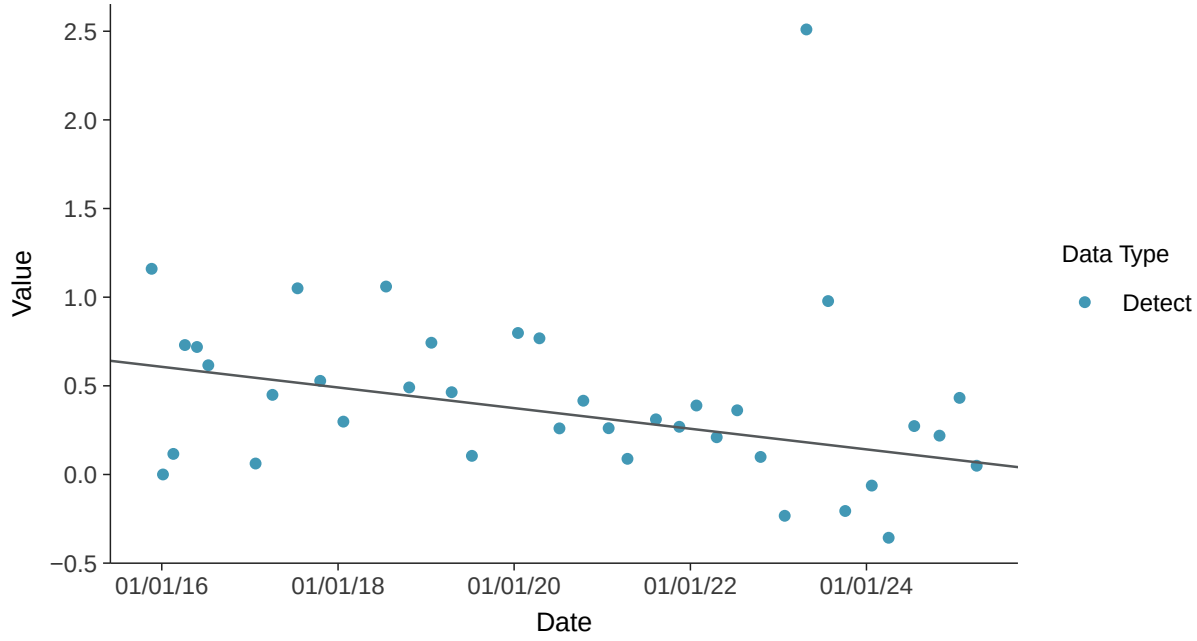
Normal Q-Q plot

Radium-226, MW-8 (pCi/L)



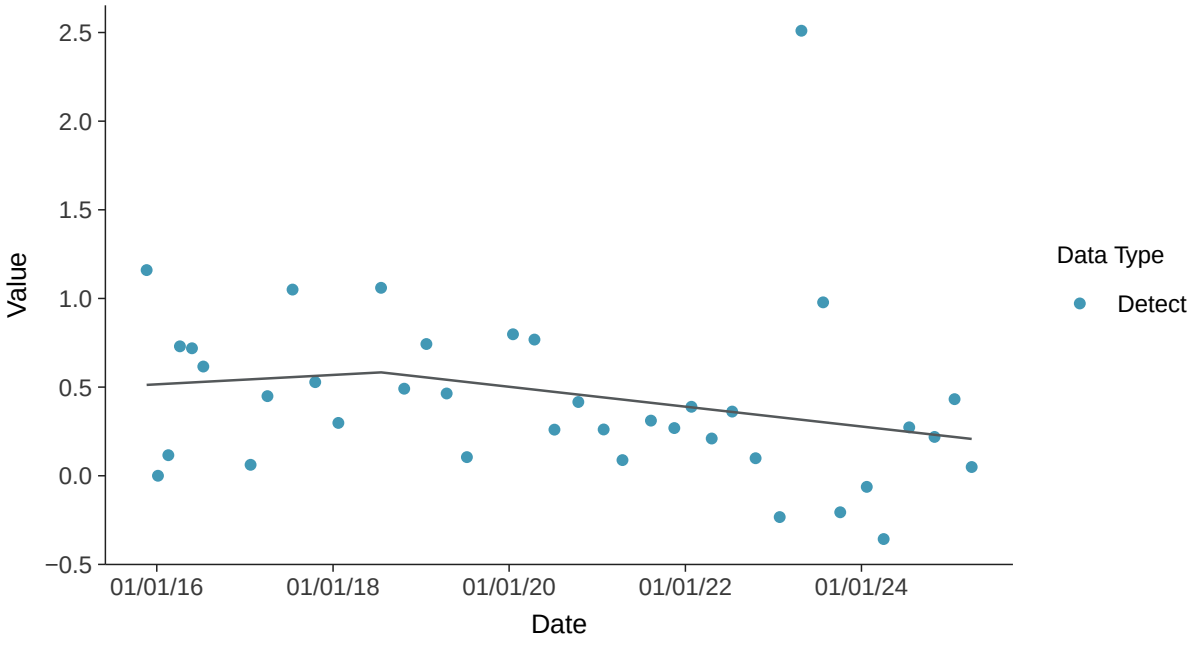
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Radium-226, MW-8 (pCi/L)



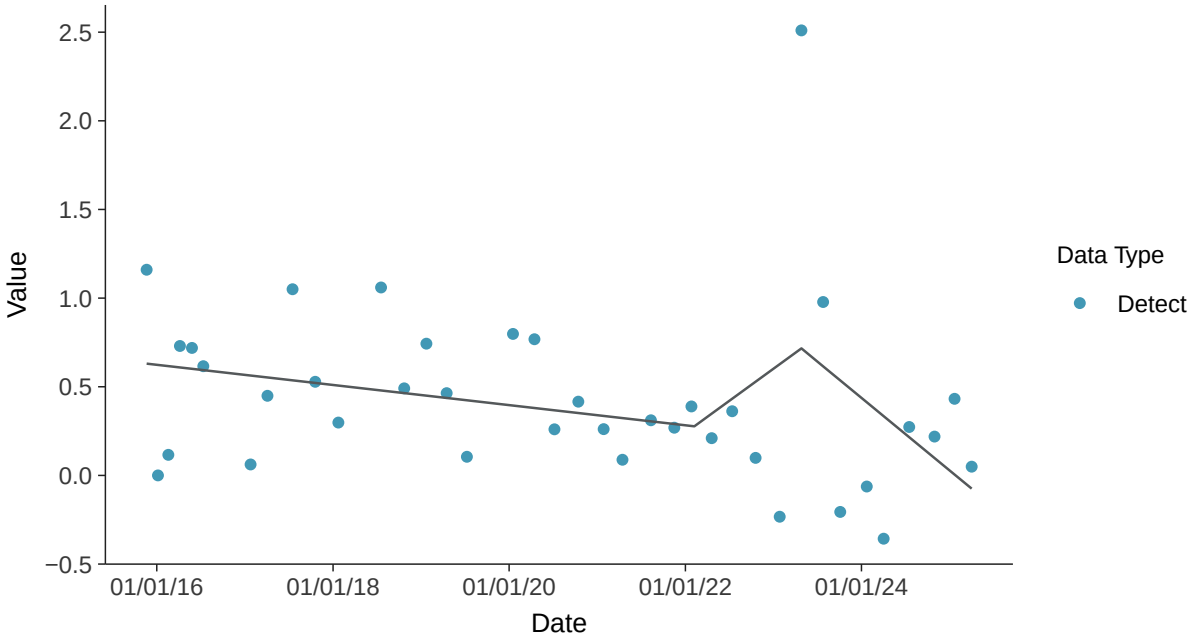
Trend Regression: Piecewise Linear-Linear

Radium-226, MW-8 (pCi/L)



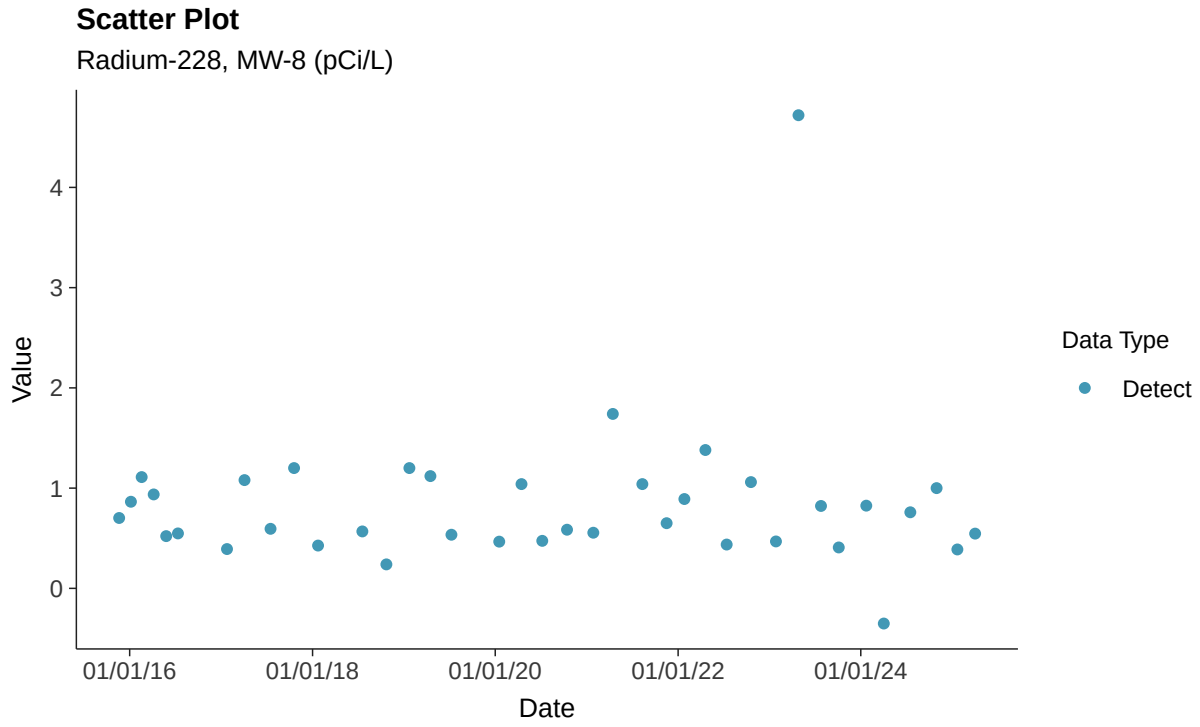
Trend Regression: Piecewise Linear-Linear-Linear

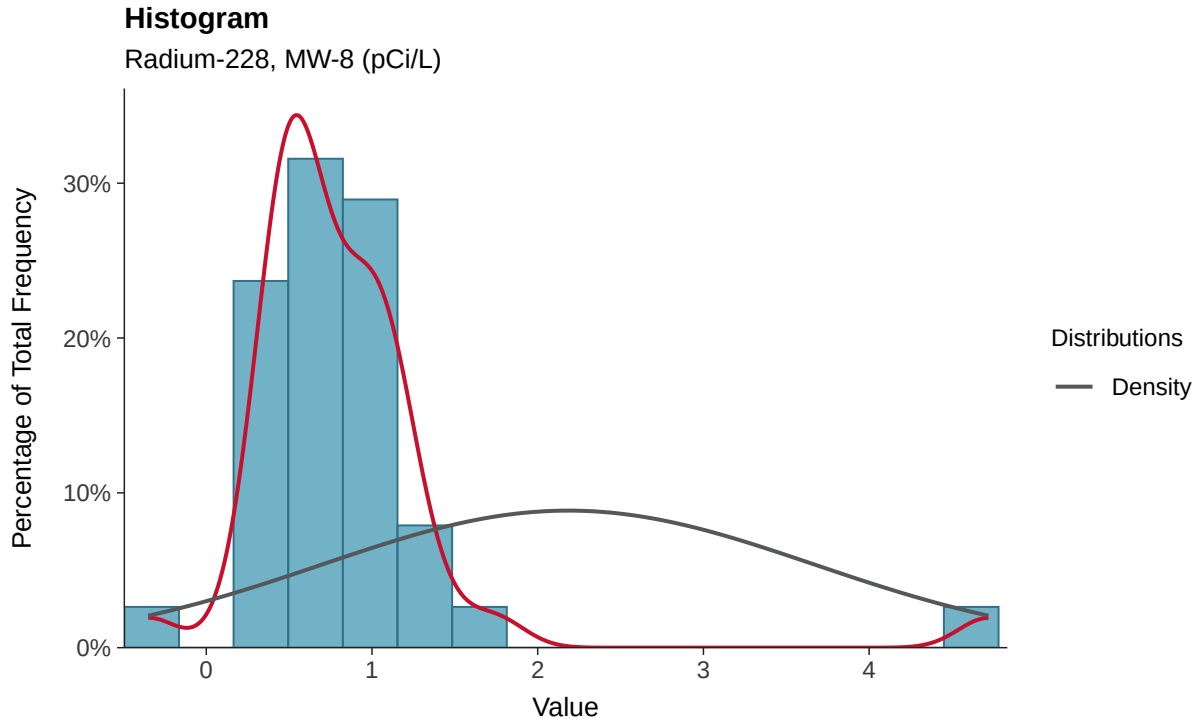
Radium-226, MW-8 (pCi/L)



App. IV: Radium-228, MW-8

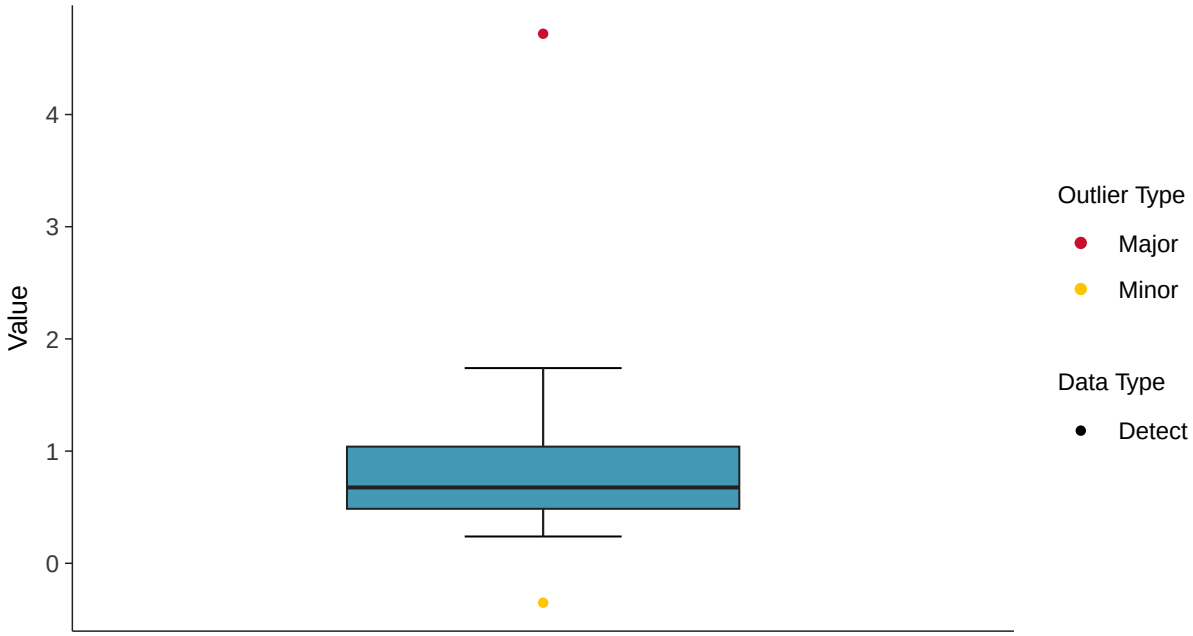
ID: 08_03_120





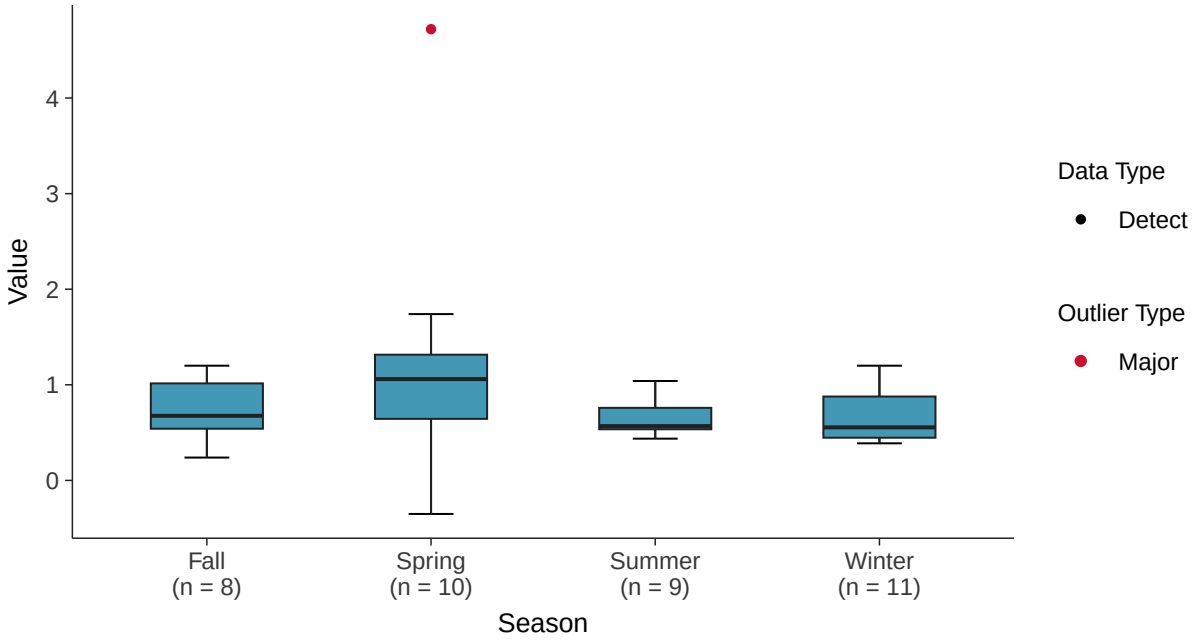
Boxplot

Radium-228, MW-8 (pCi/L)



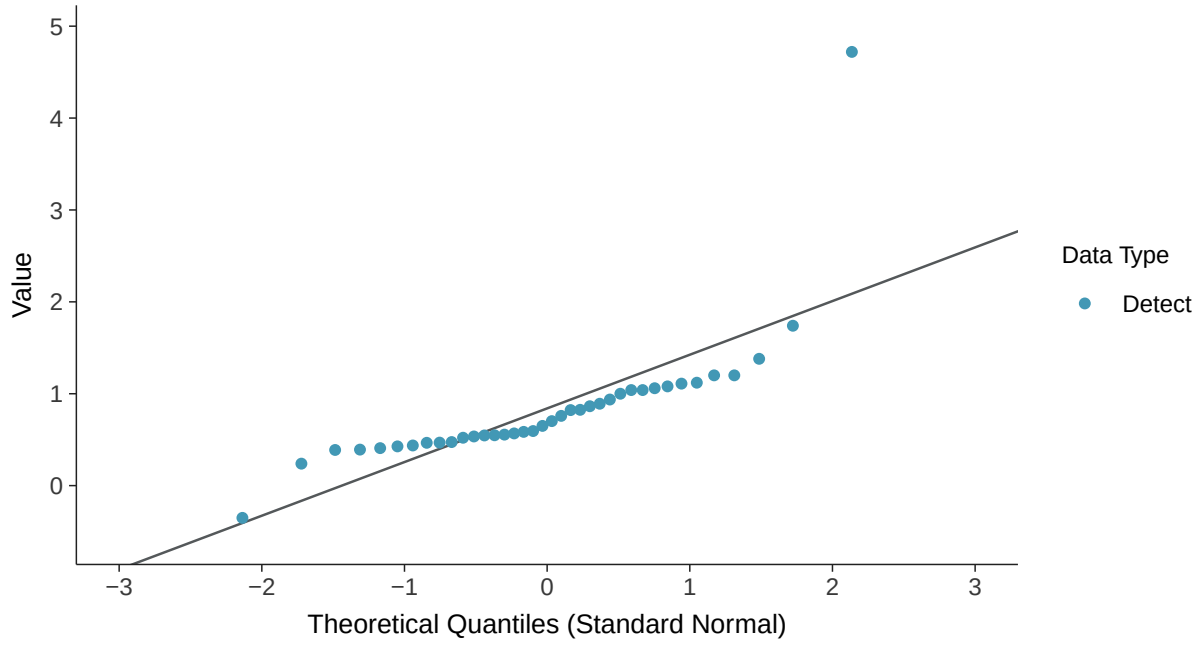
Boxplot by Season

Radium-228, MW-8 (pCi/L)



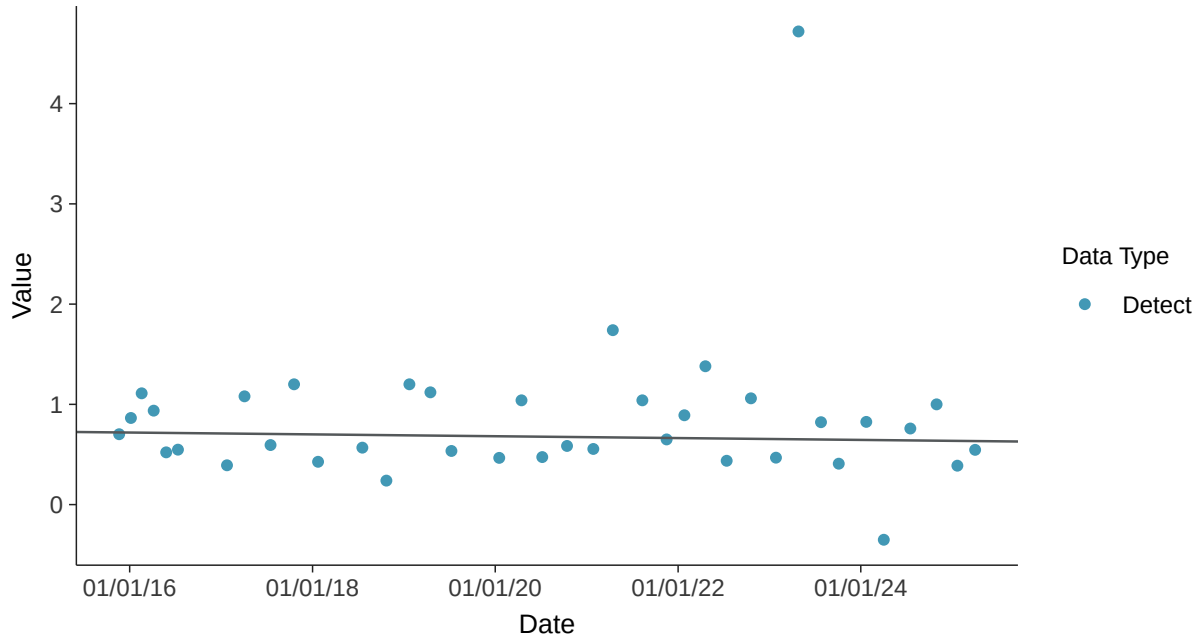
Normal Q-Q plot

Radium-228, MW-8 (pCi/L)



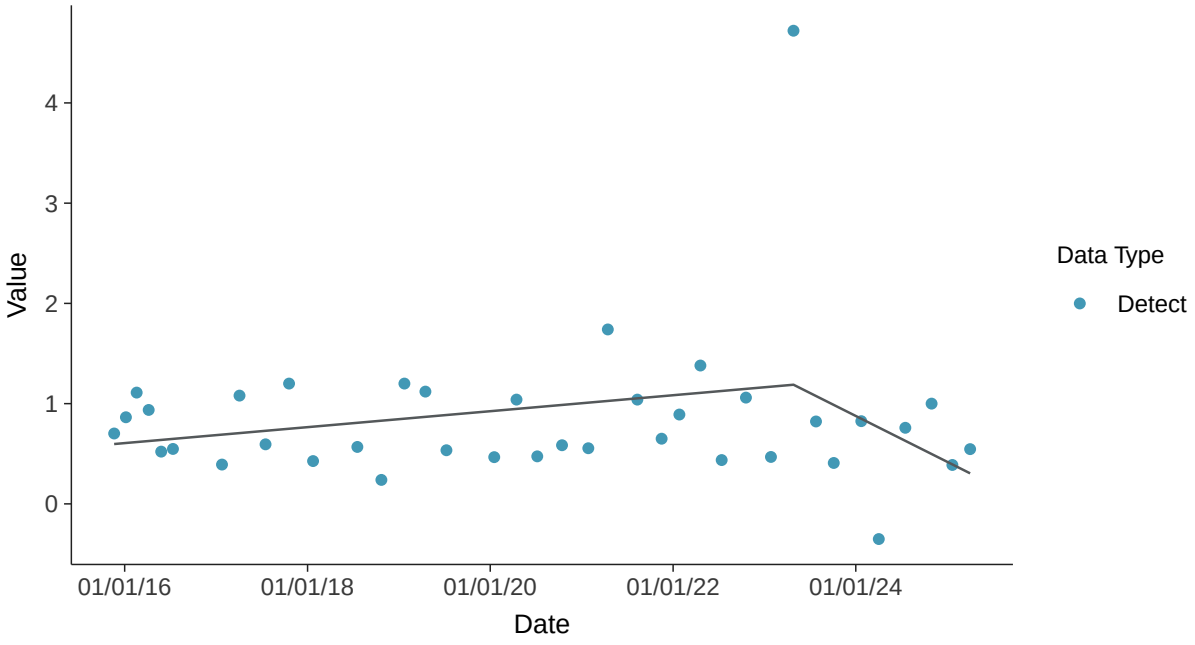
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Radium-228, MW-8 (pCi/L)



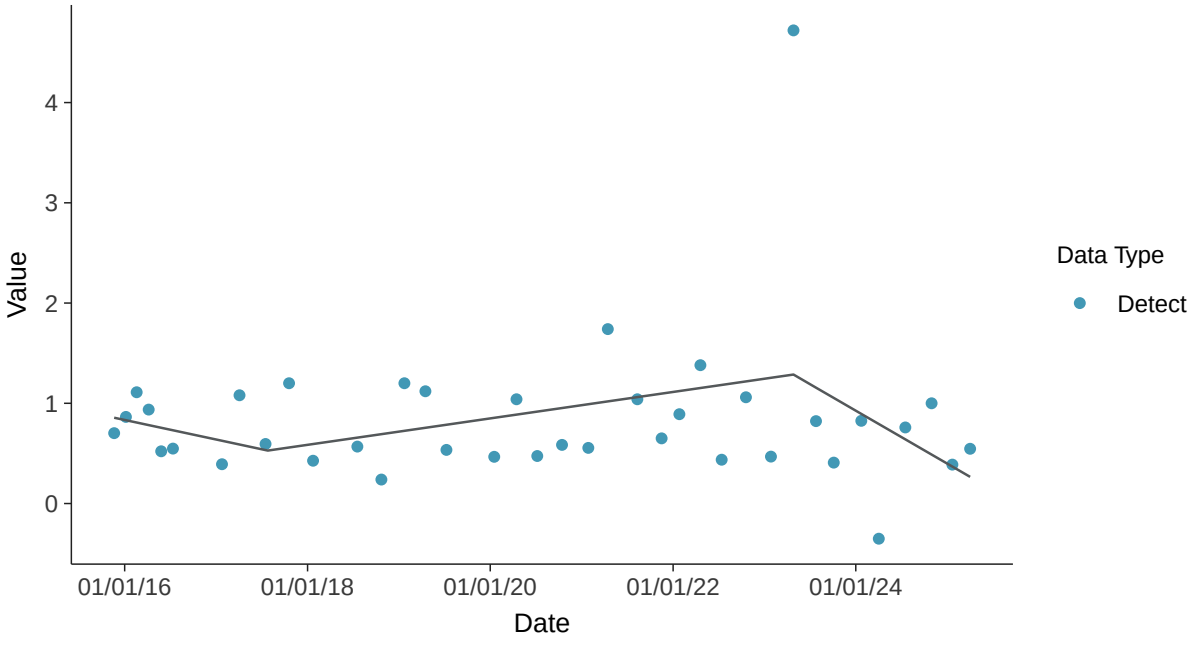
Trend Regression: Piecewise Linear-Linear

Radium-228, MW-8 (pCi/L)



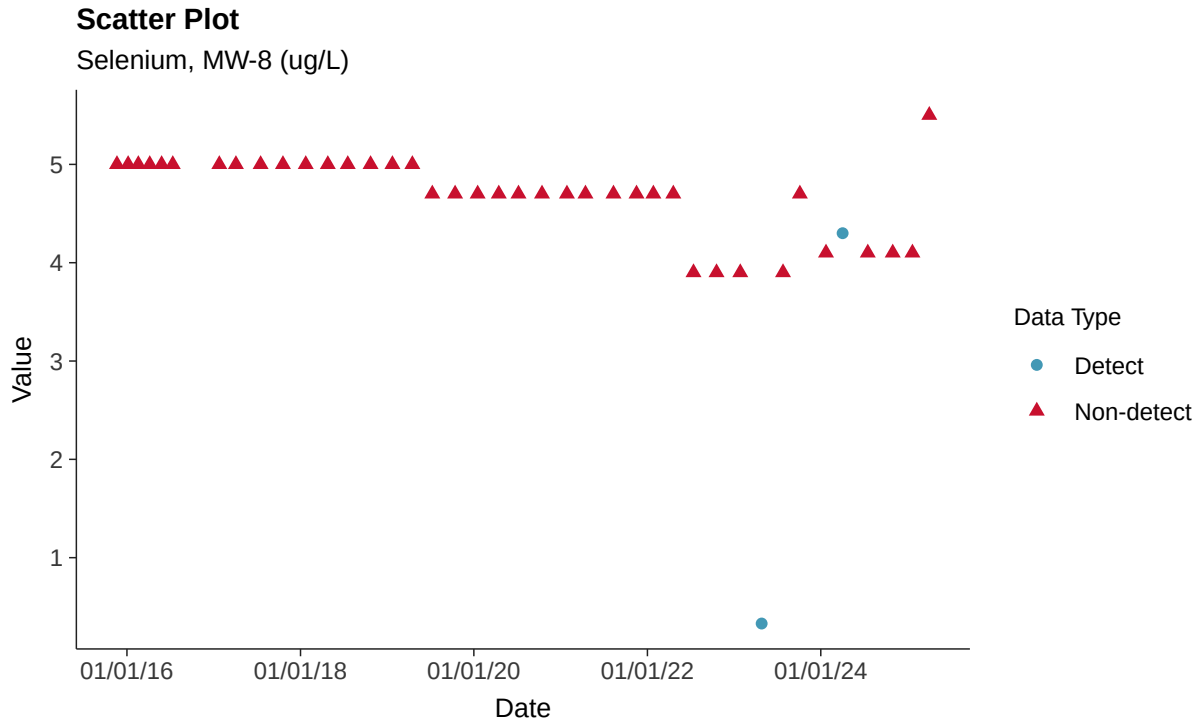
Trend Regression: Piecewise Linear-Linear-Linear

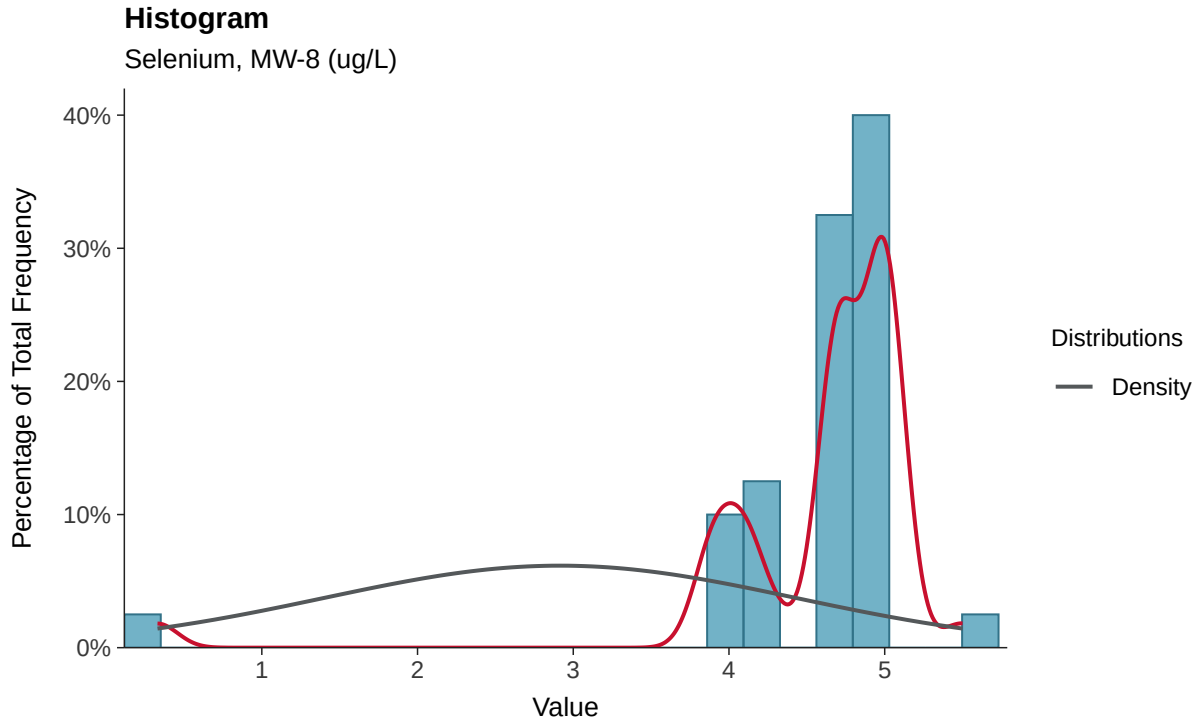
Radium-228, MW-8 (pCi/L)



App. IV: Selenium, MW-8

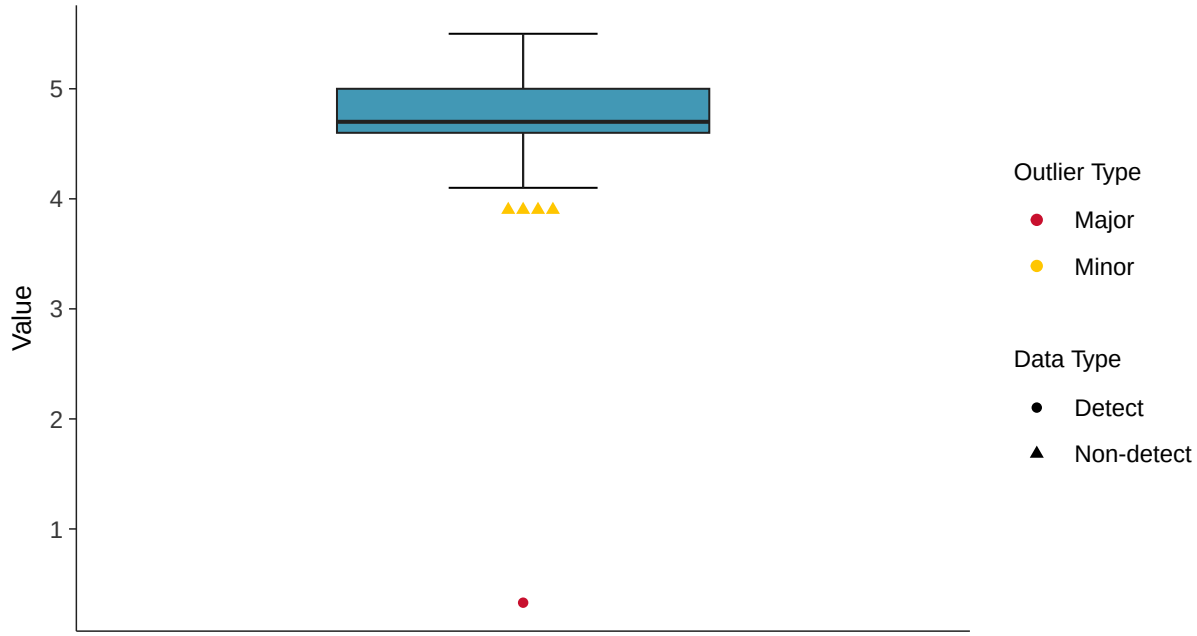
ID: 08_03_121





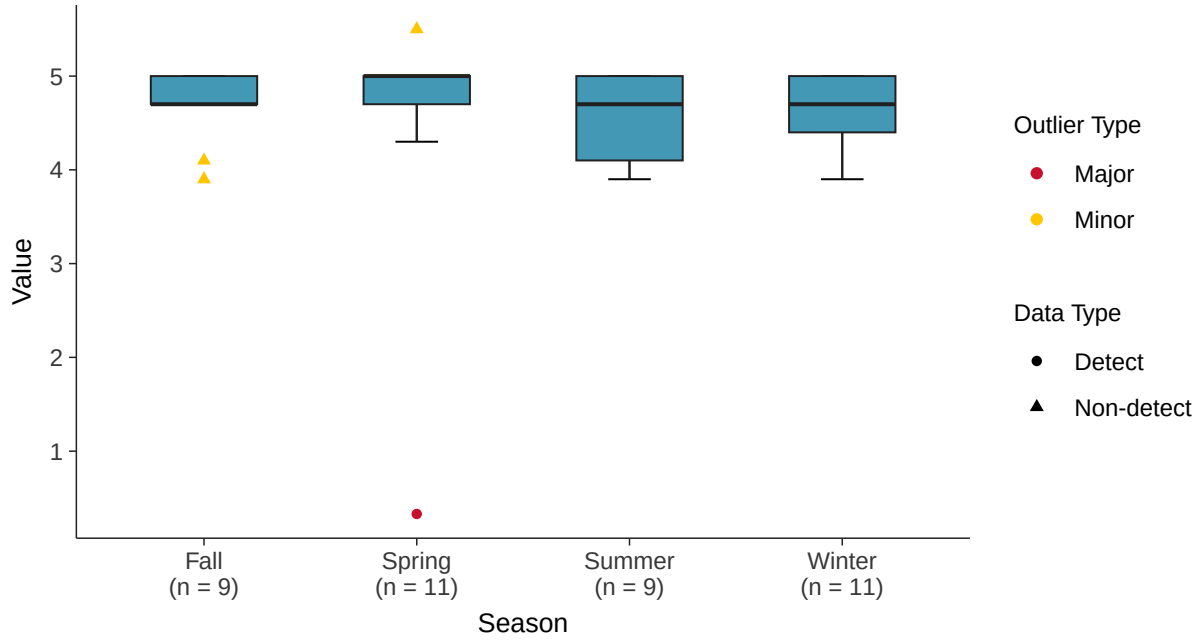
Boxplot

Selenium, MW-8 (ug/L)



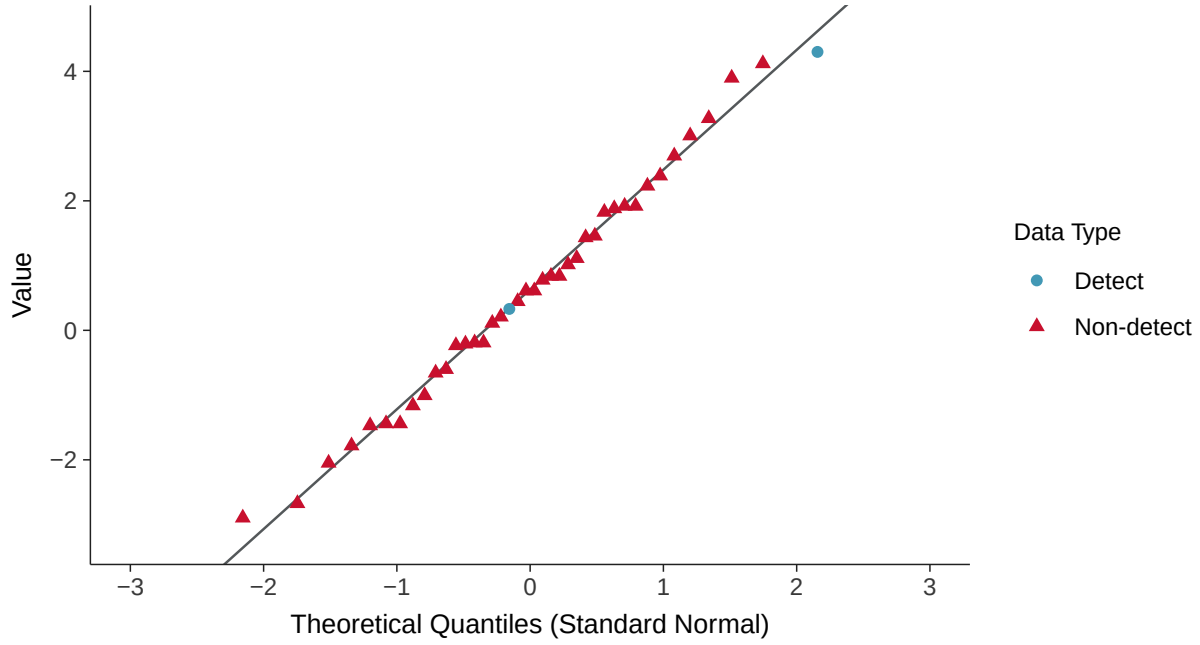
Boxplot by Season

Selenium, MW-8 (ug/L)



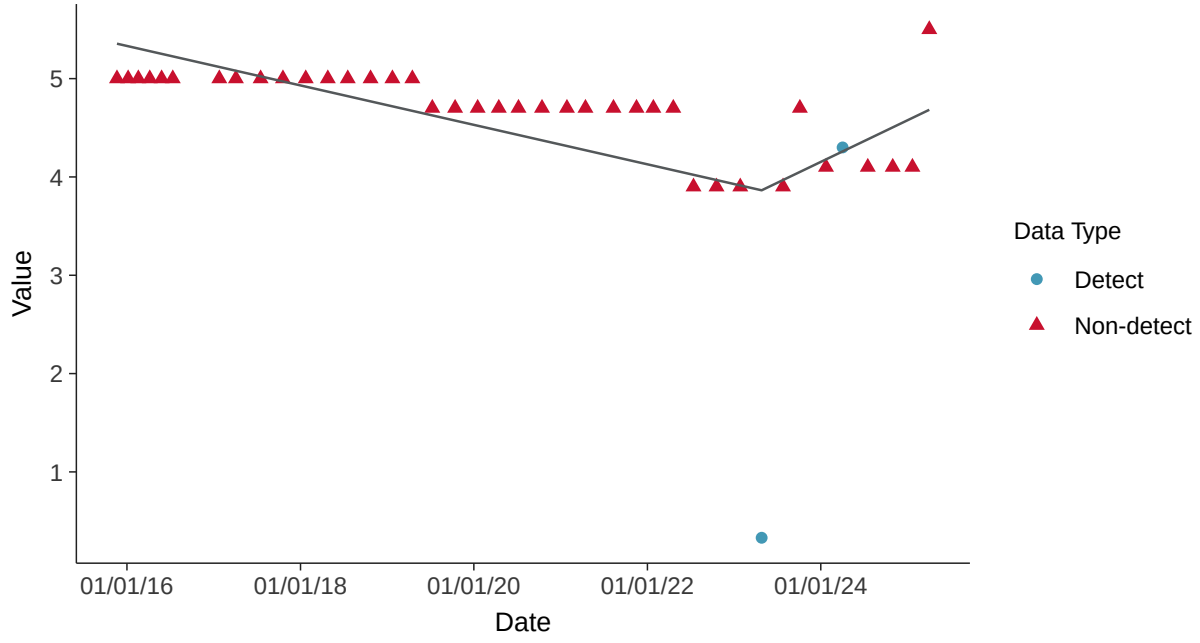
Normal Q-Q plot using ROS Imputed Estimates

Selenium, MW-8 (ug/L)



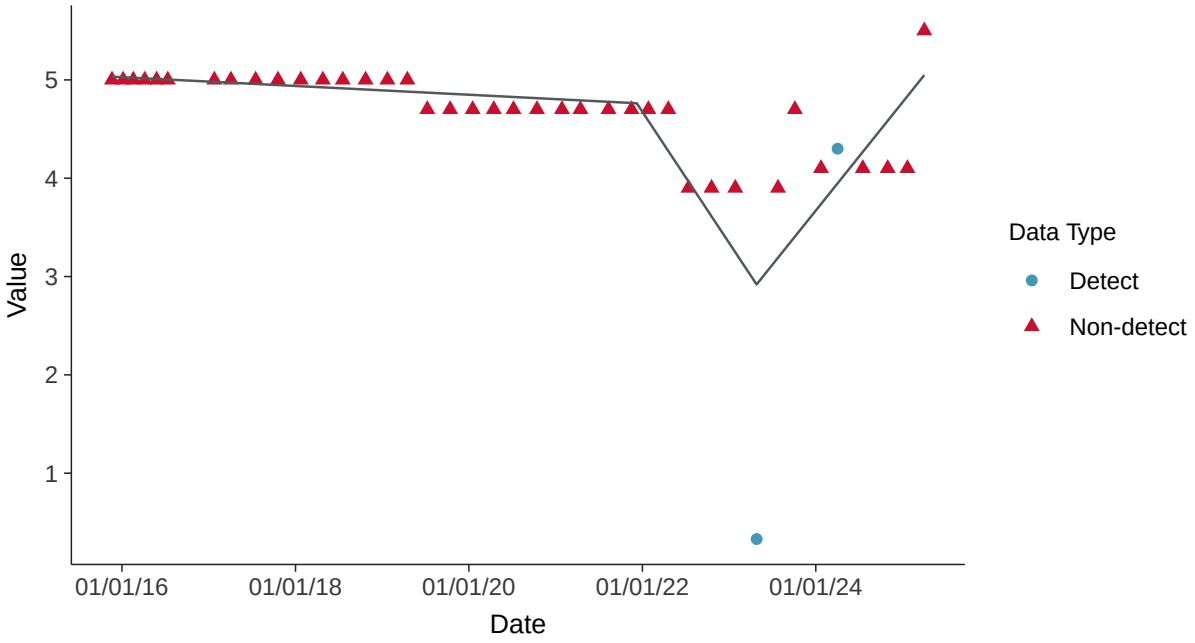
Trend Regression: Piecewise Linear-Linear

Selenium, MW-8 (ug/L)



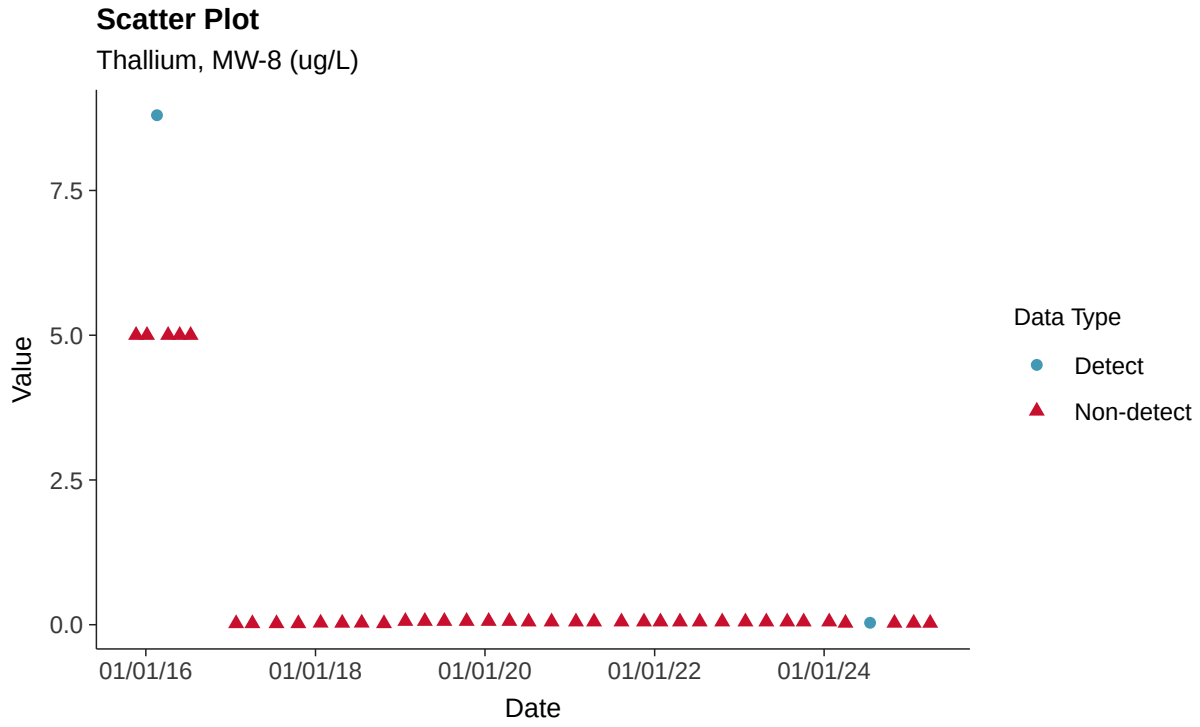
Trend Regression: Piecewise Linear-Linear-Linear

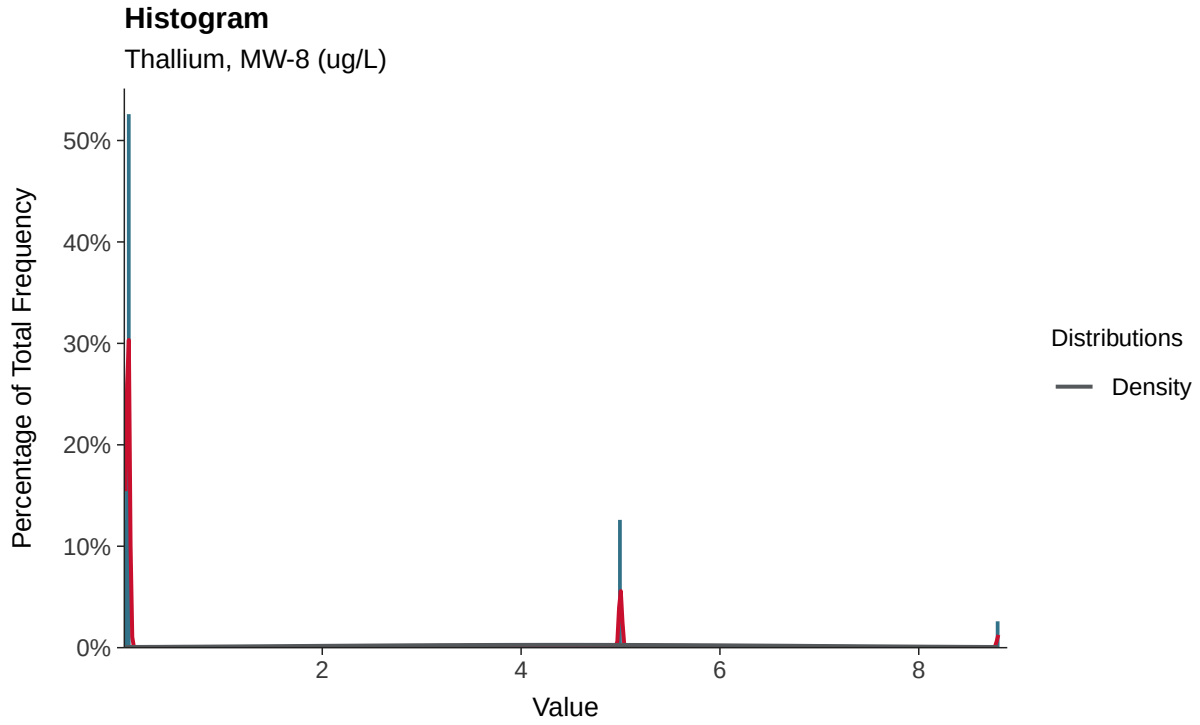
Selenium, MW-8 (ug/L)



App. IV: Thallium, MW-8

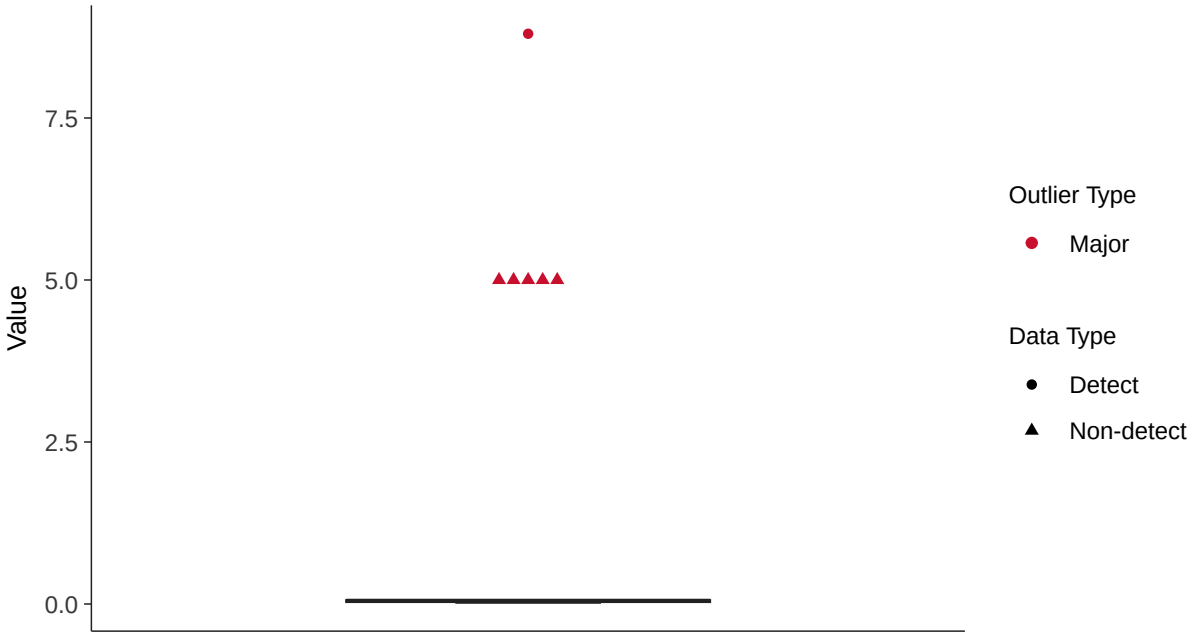
ID: 08_03_124





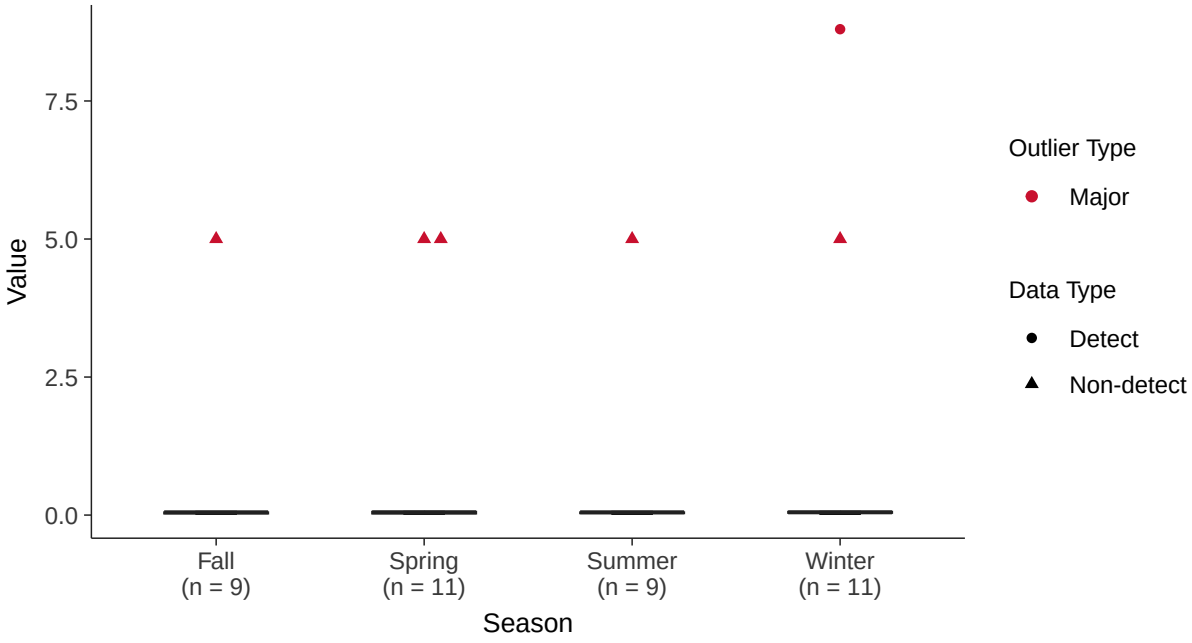
Boxplot

Thallium, MW-8 (ug/L)



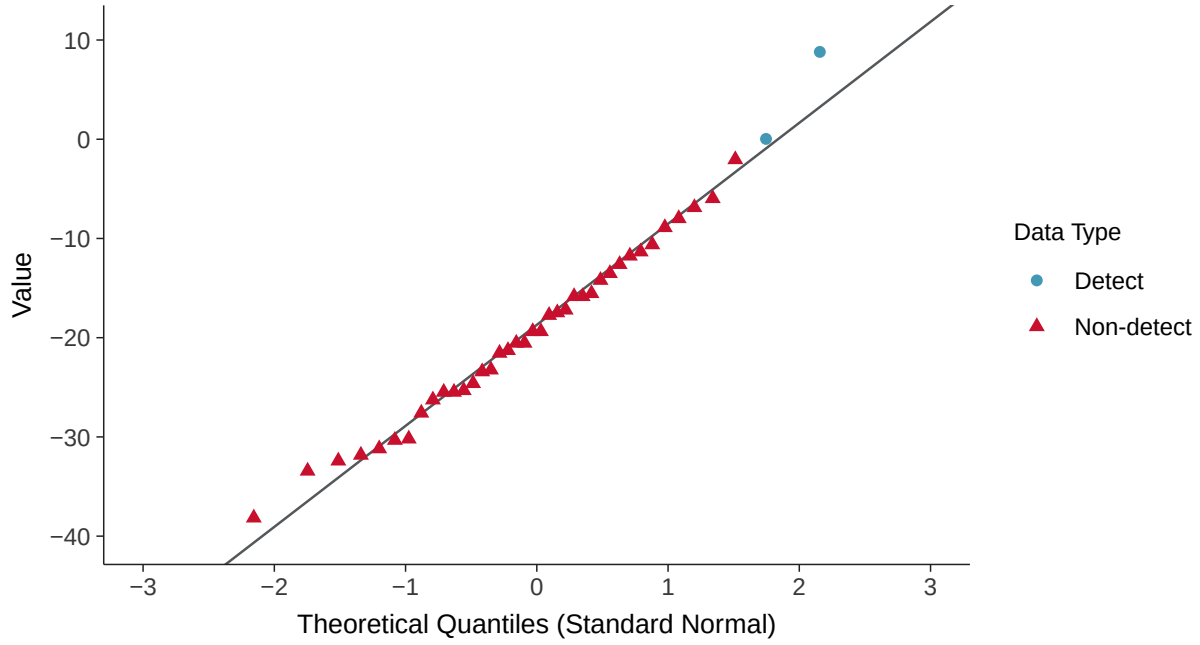
Boxplot by Season

Thallium, MW-8 (ug/L)



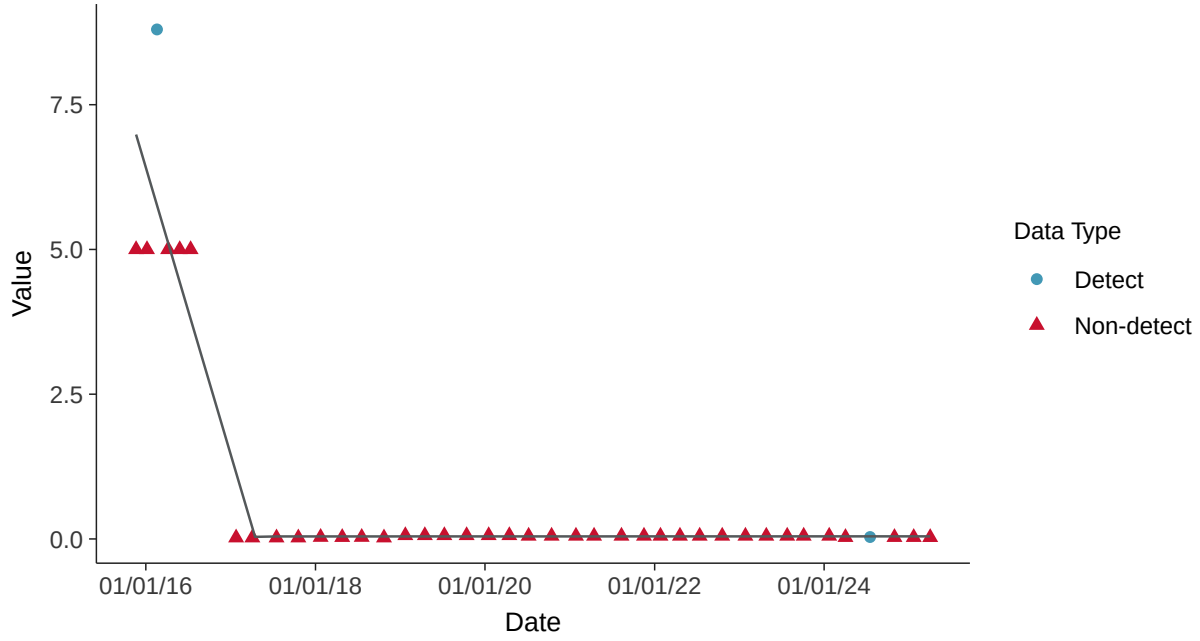
Normal Q-Q plot using ROS Imputed Estimates

Thallium, MW-8 (ug/L)



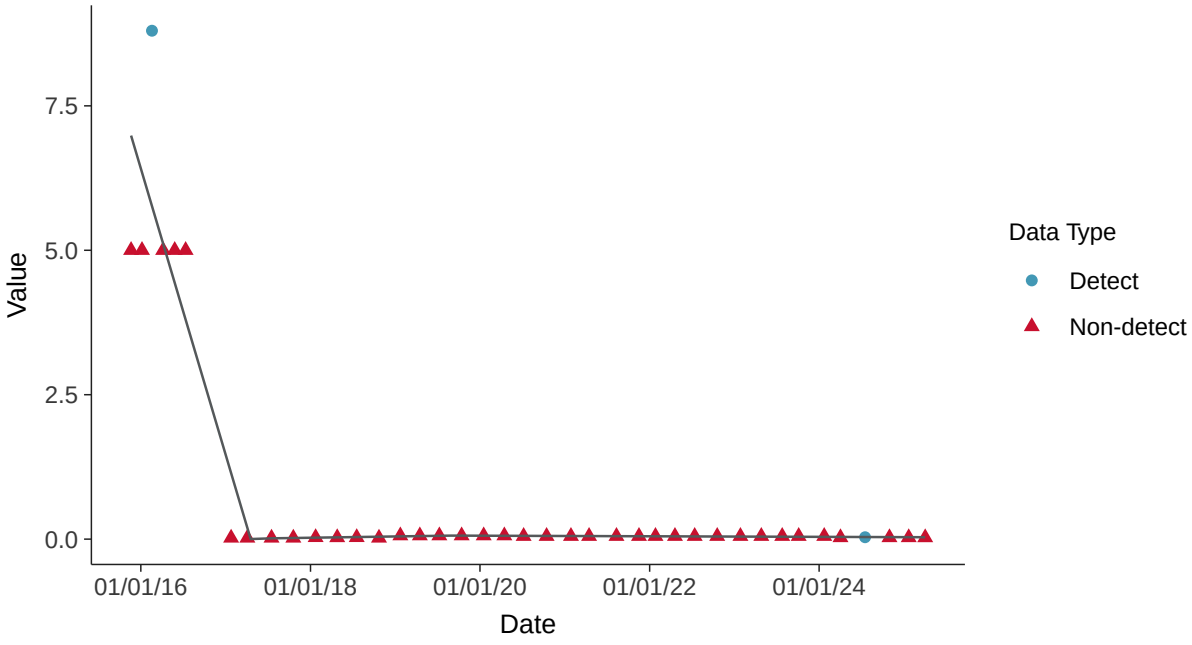
Trend Regression: Piecewise Linear-Linear

Thallium, MW-8 (ug/L)



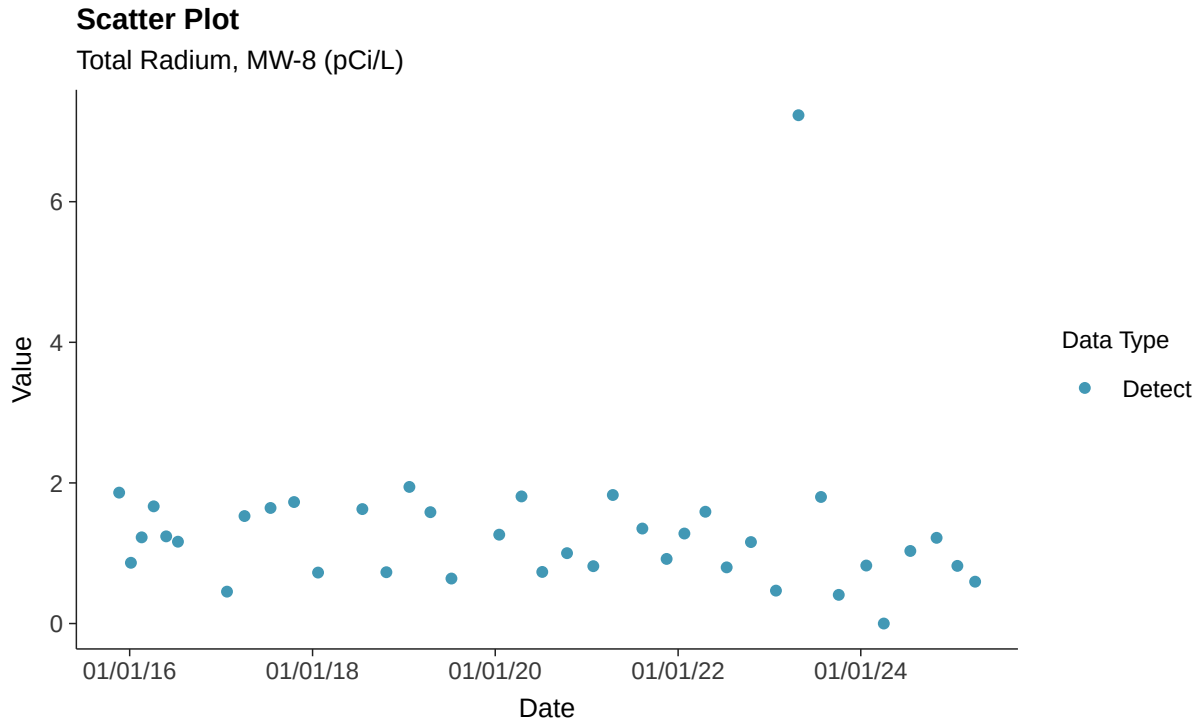
Trend Regression: Piecewise Linear-Linear-Linear

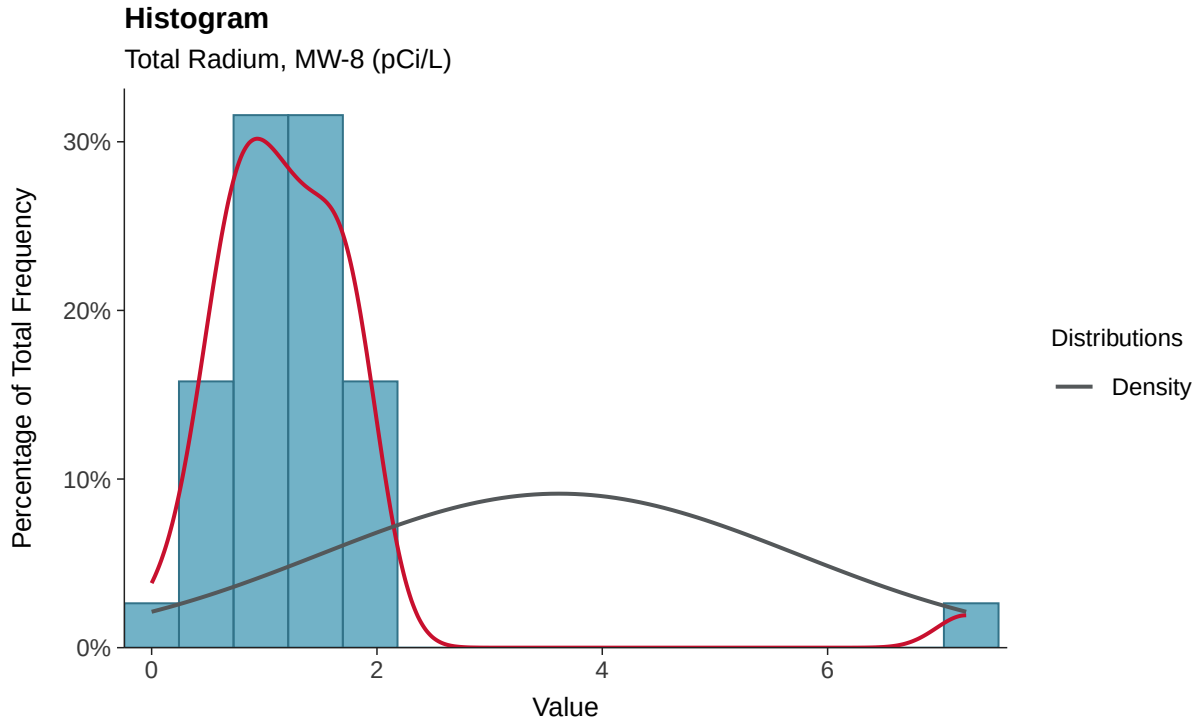
Thallium, MW-8 (ug/L)



App. IV: Total Radium, MW-8

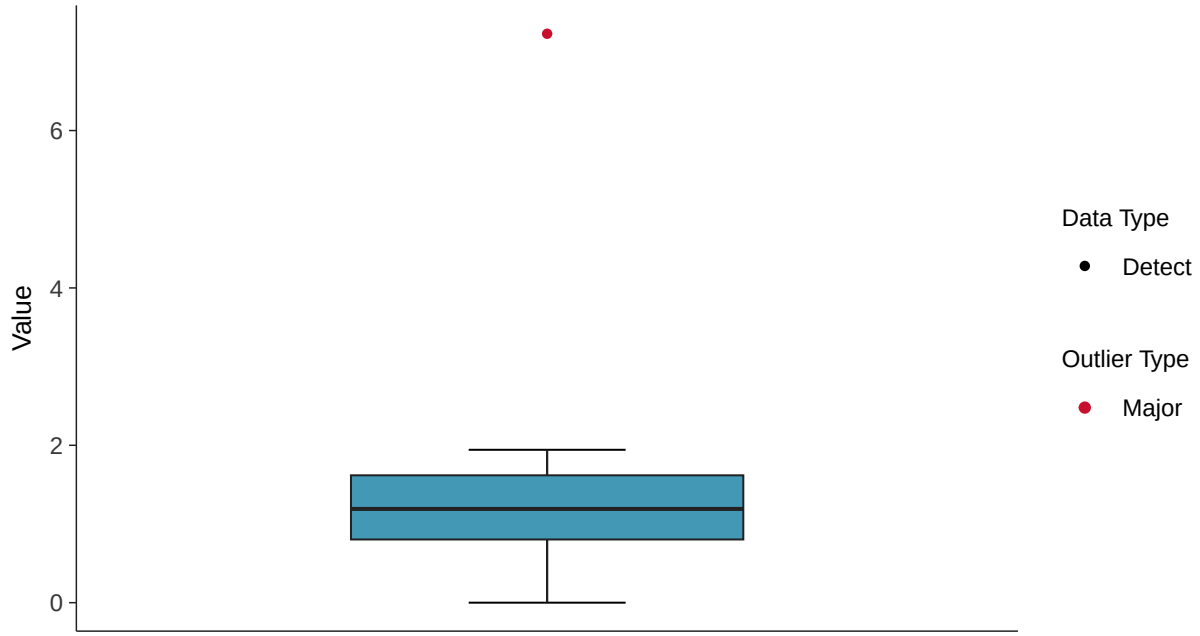
ID: 08_03_126





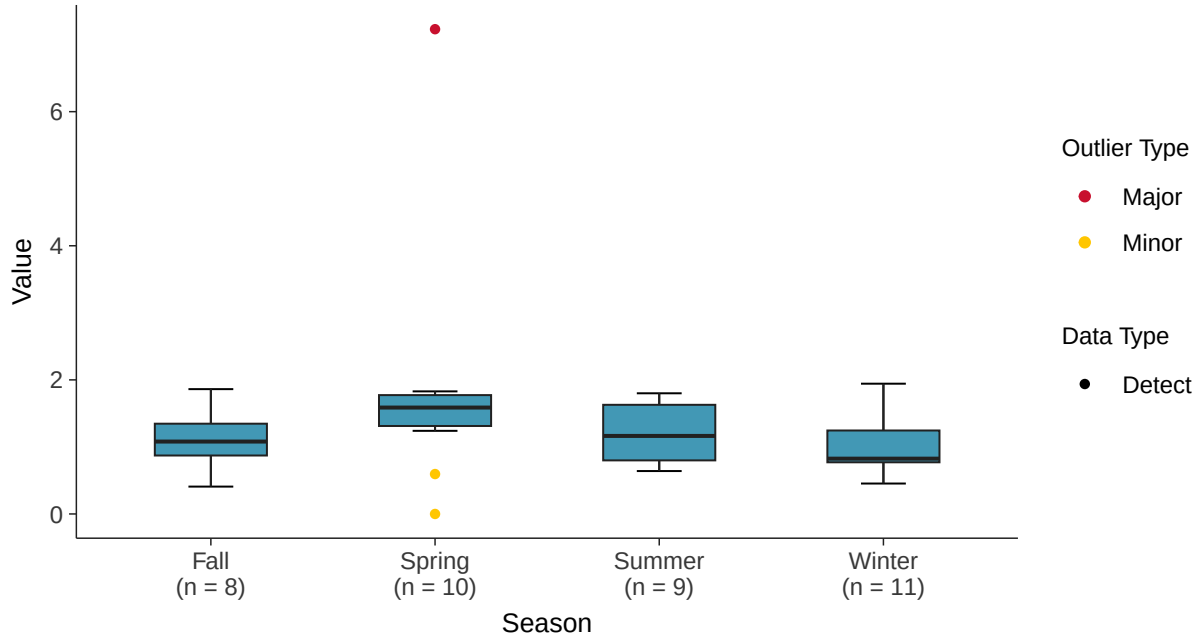
Boxplot

Total Radium, MW-8 (pCi/L)



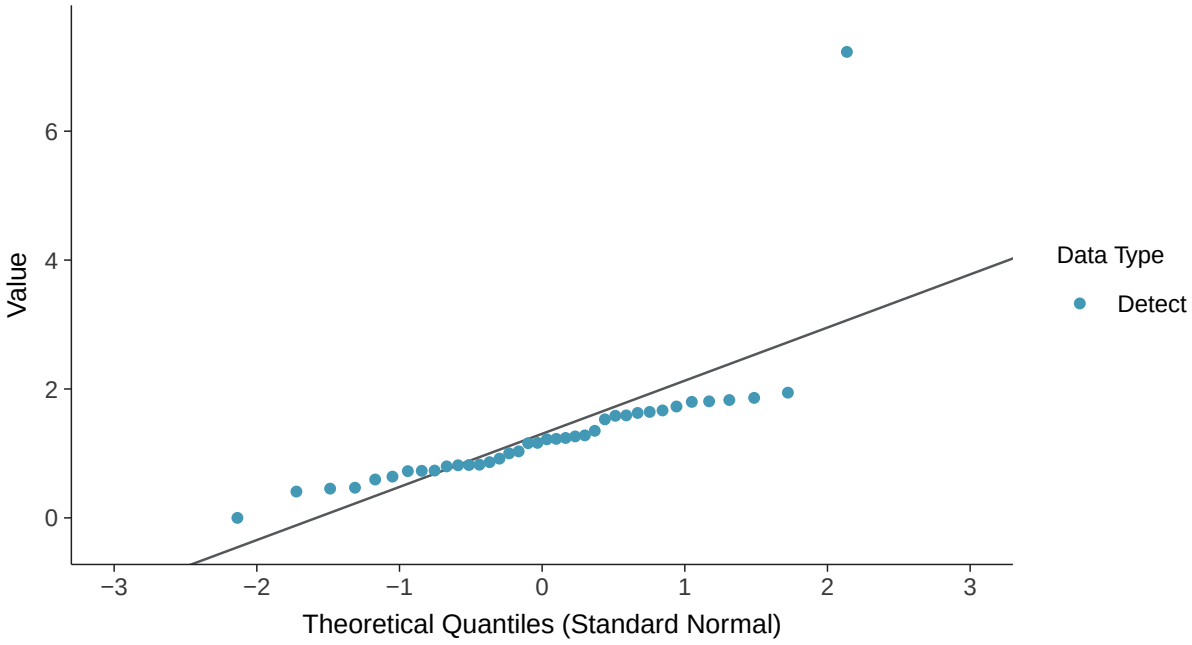
Boxplot by Season

Total Radium, MW-8 (pCi/L)



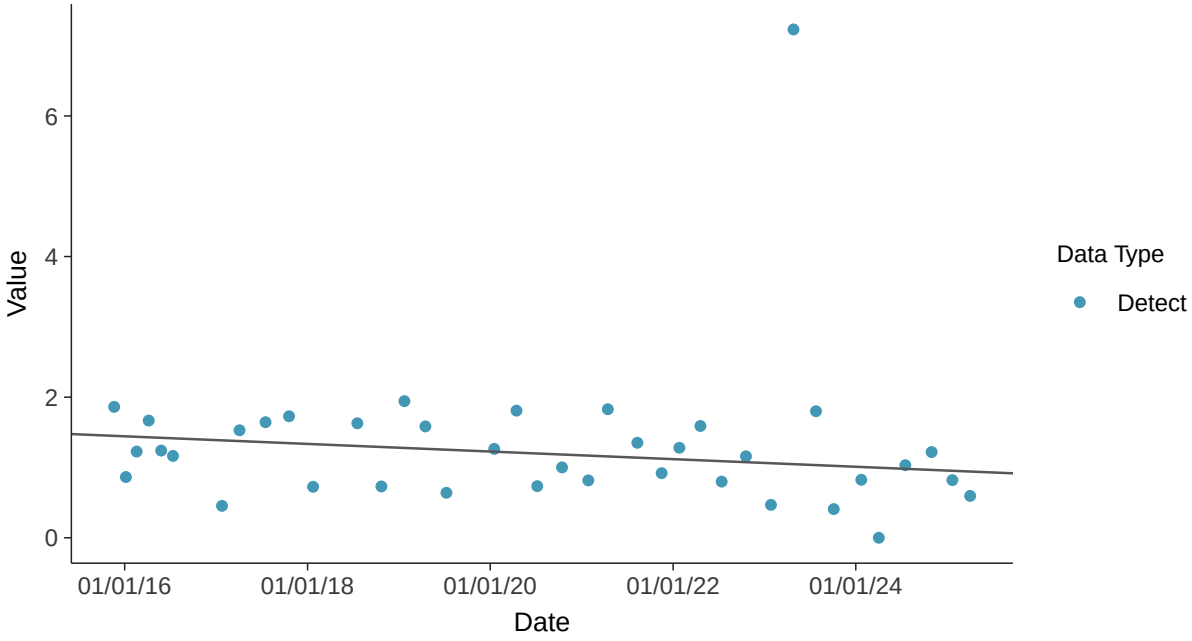
Normal Q-Q plot

Total Radium, MW-8 (pCi/L)



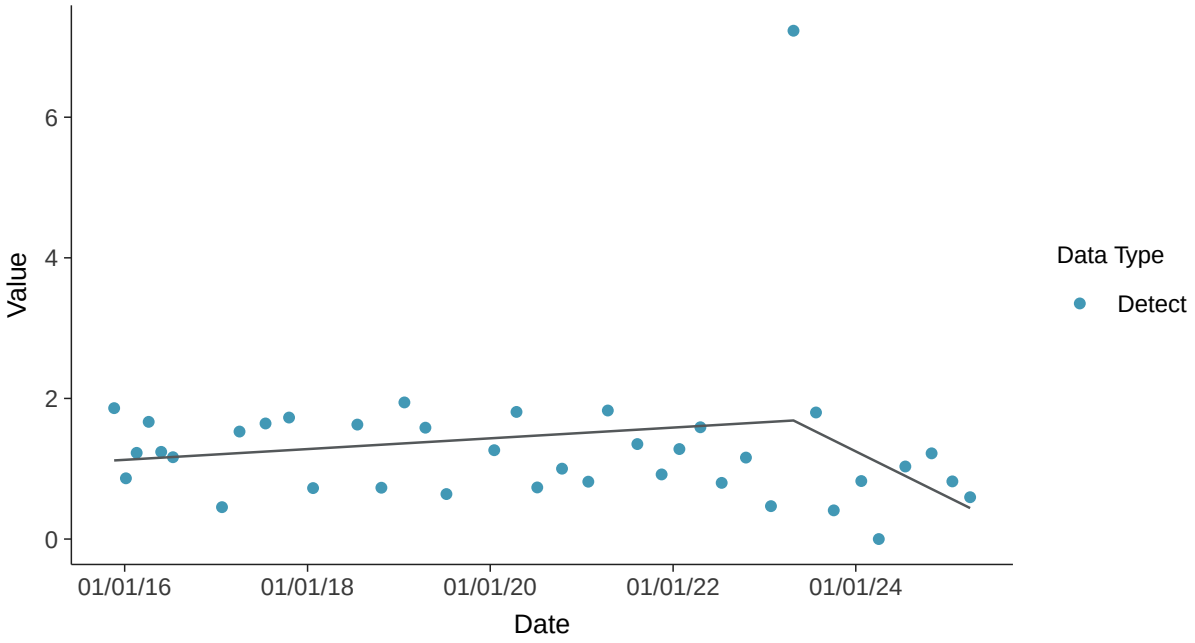
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Total Radium, MW-8 (pCi/L)



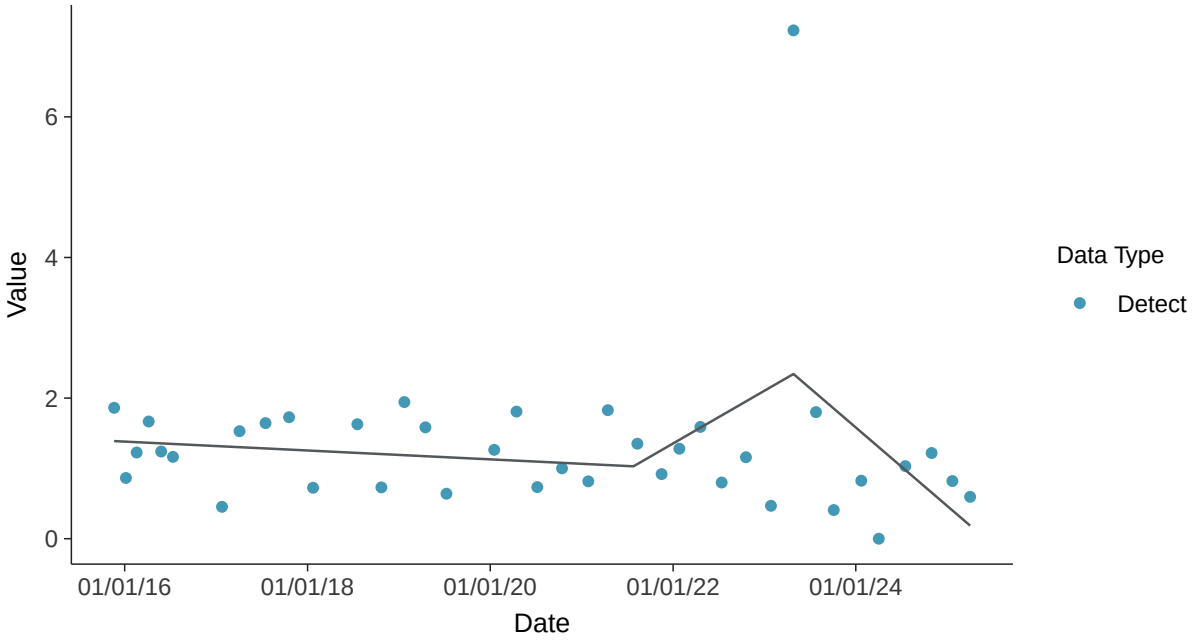
Trend Regression: Piecewise Linear-Linear

Total Radium, MW-8 (pCi/L)



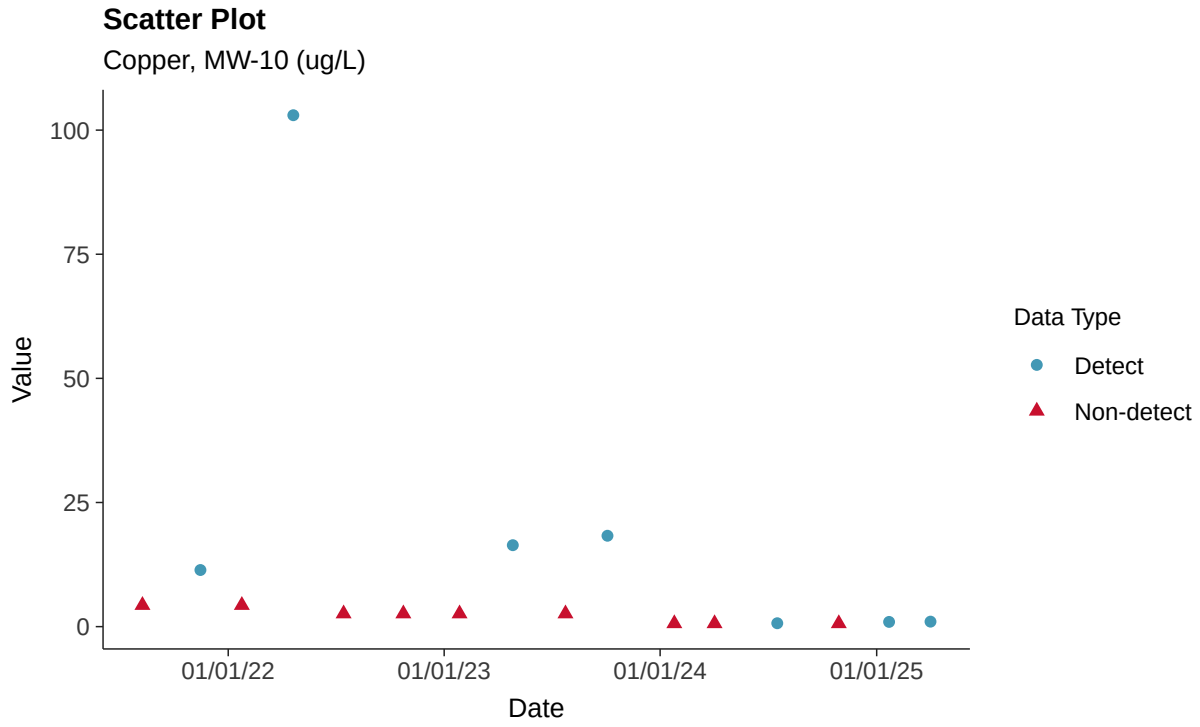
Trend Regression: Piecewise Linear-Linear-Linear

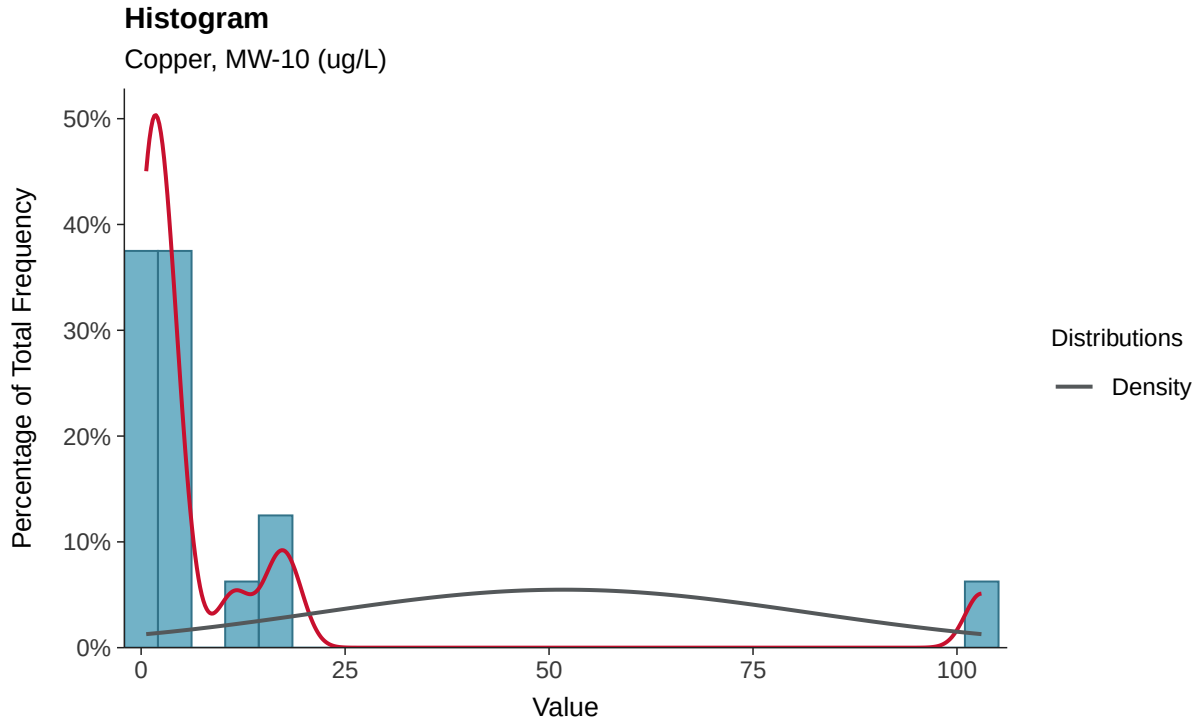
Total Radium, MW-8 (pCi/L)



App. I Metals: Copper, MW-10

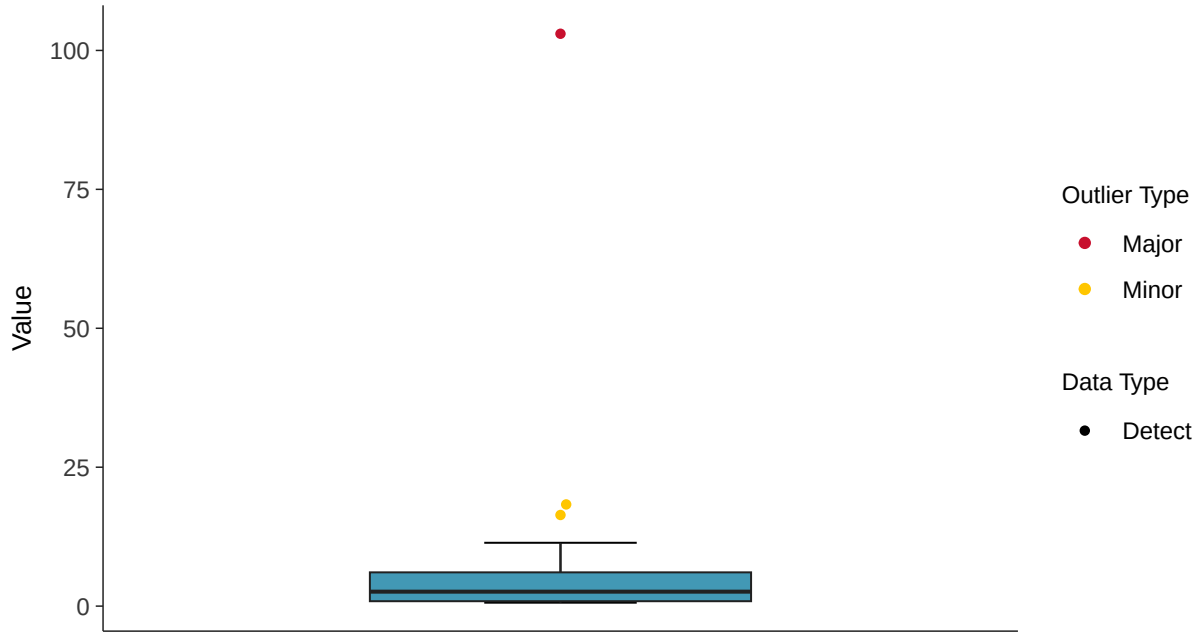
ID: 09_01_111





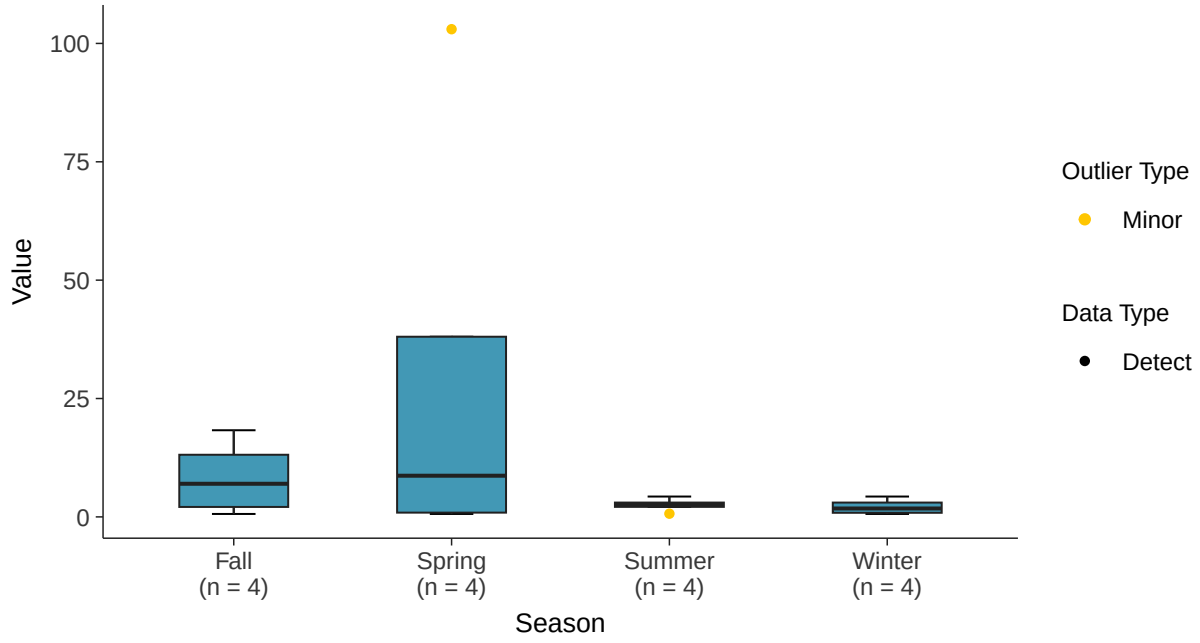
Boxplot

Copper, MW-10 (ug/L)



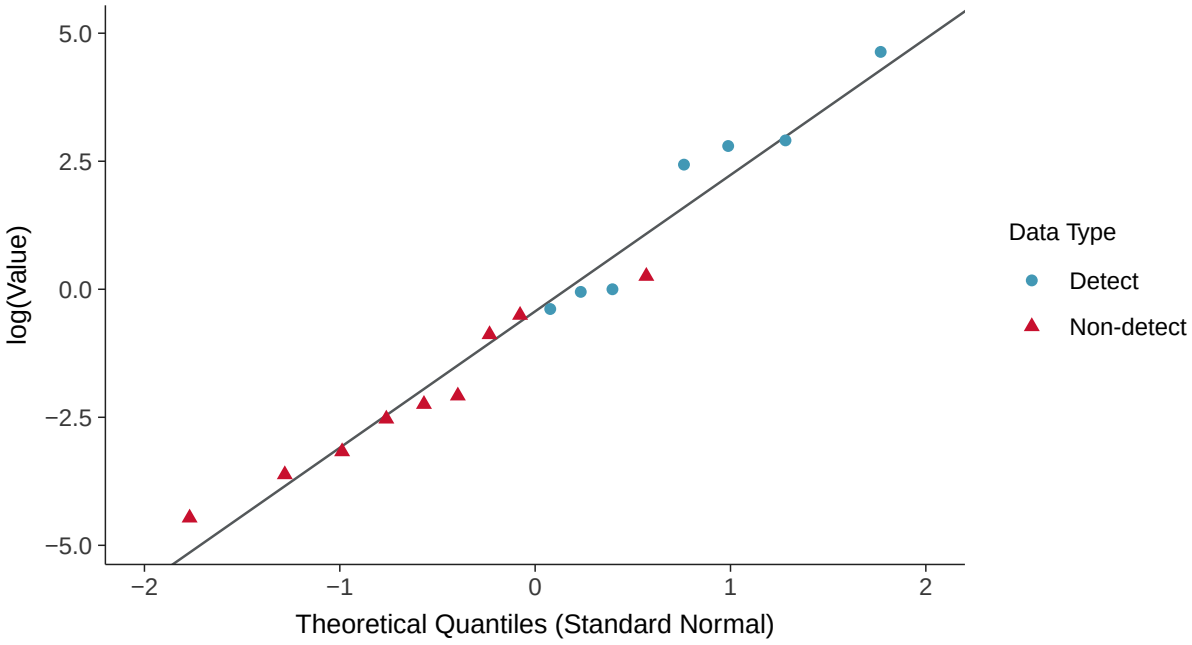
Boxplot by Season

Copper, MW-10 (ug/L)



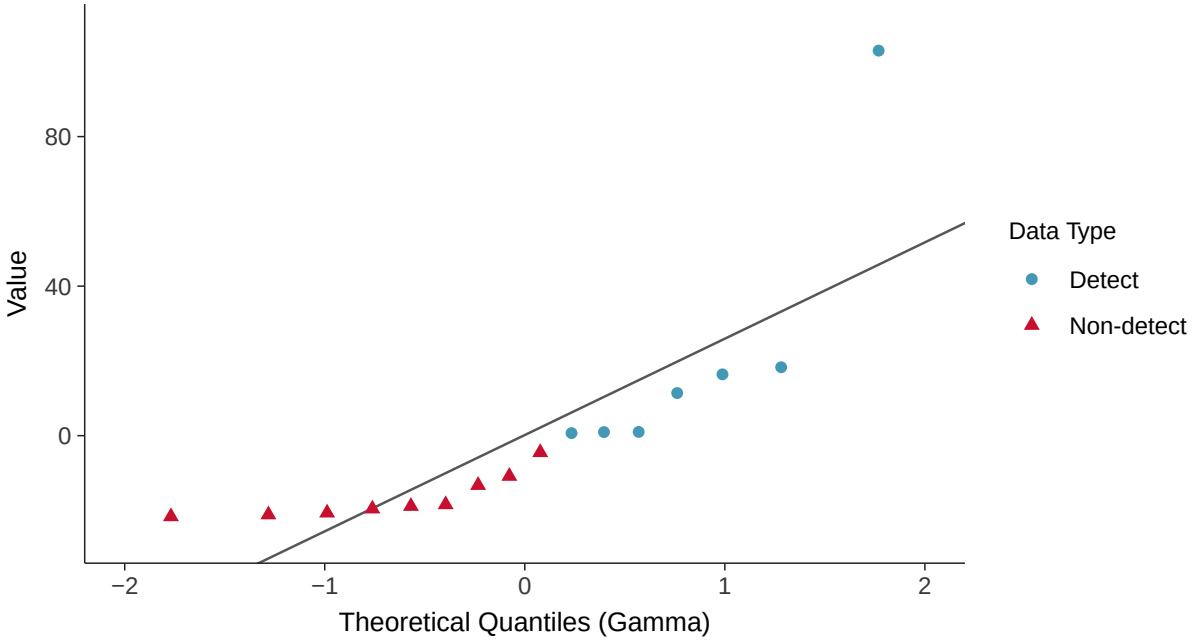
Lognormal Q-Q plot using ROS Imputed Estimates

Copper, MW-10 (ug/L)



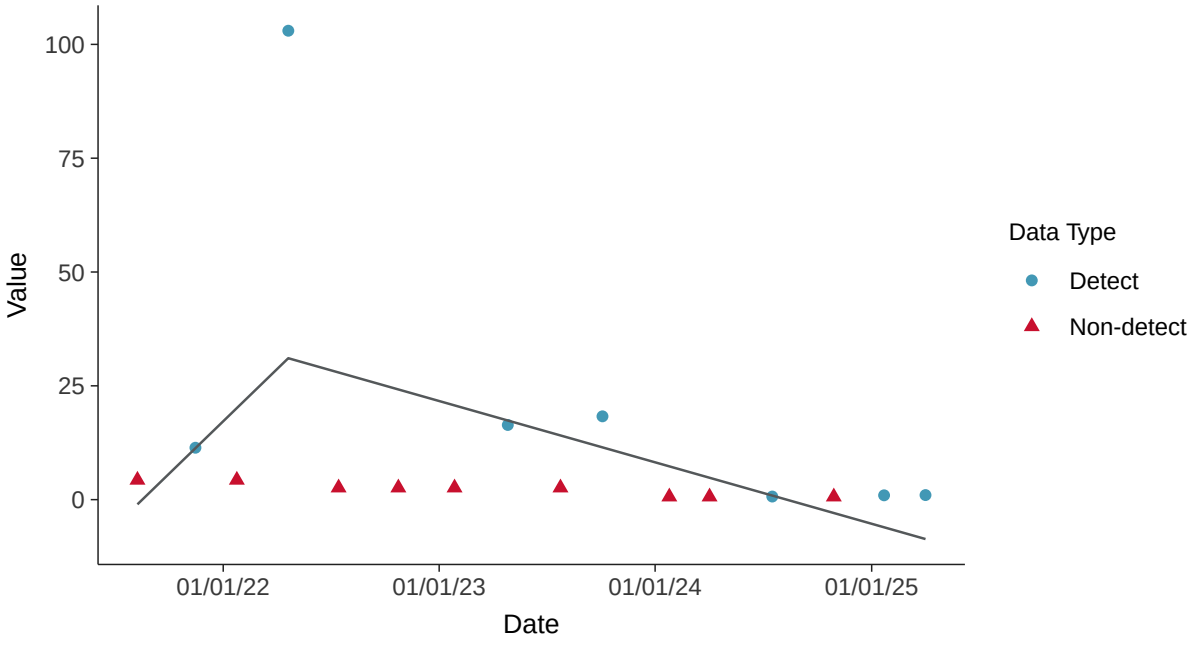
Gamma Q-Q plot using ROS Imputed Estimates

Copper, MW-10 (ug/L)



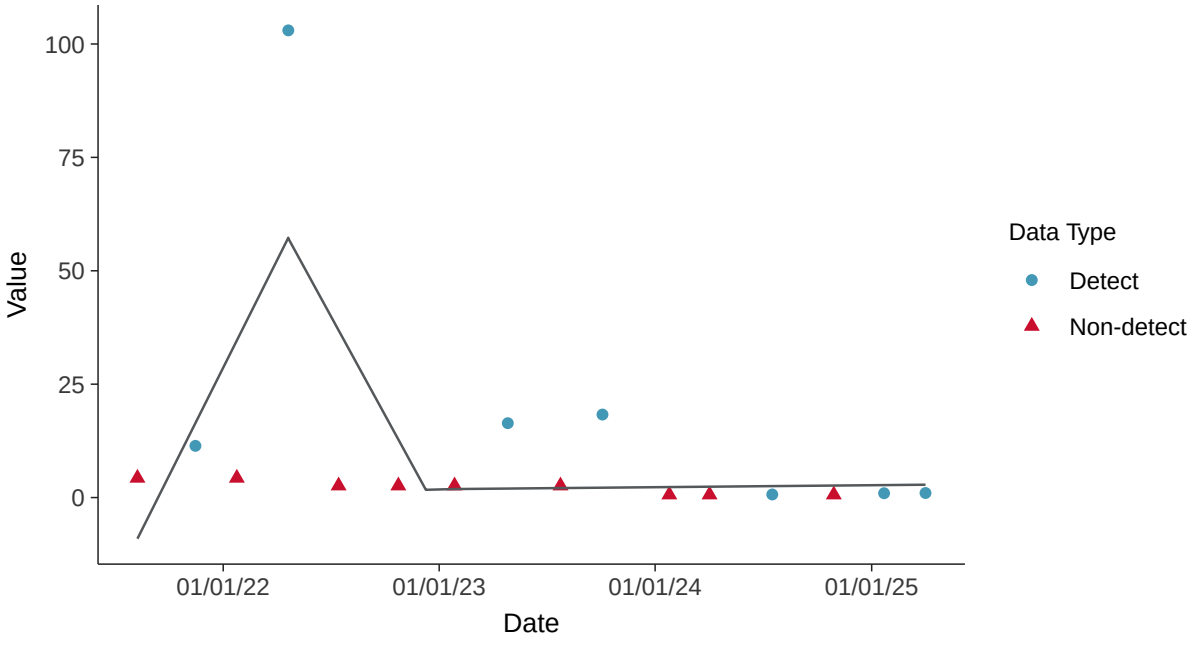
Trend Regression: Piecewise Linear-Linear

Copper, MW-10 (ug/L)



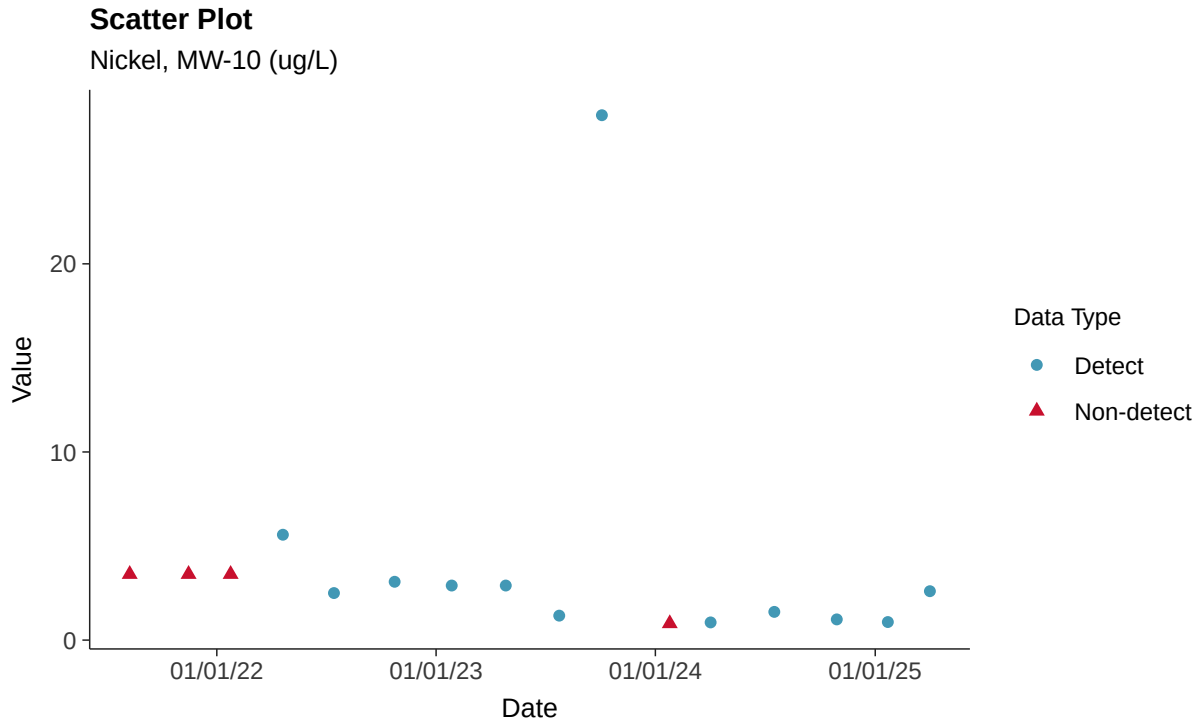
Trend Regression: Piecewise Linear-Linear-Linear

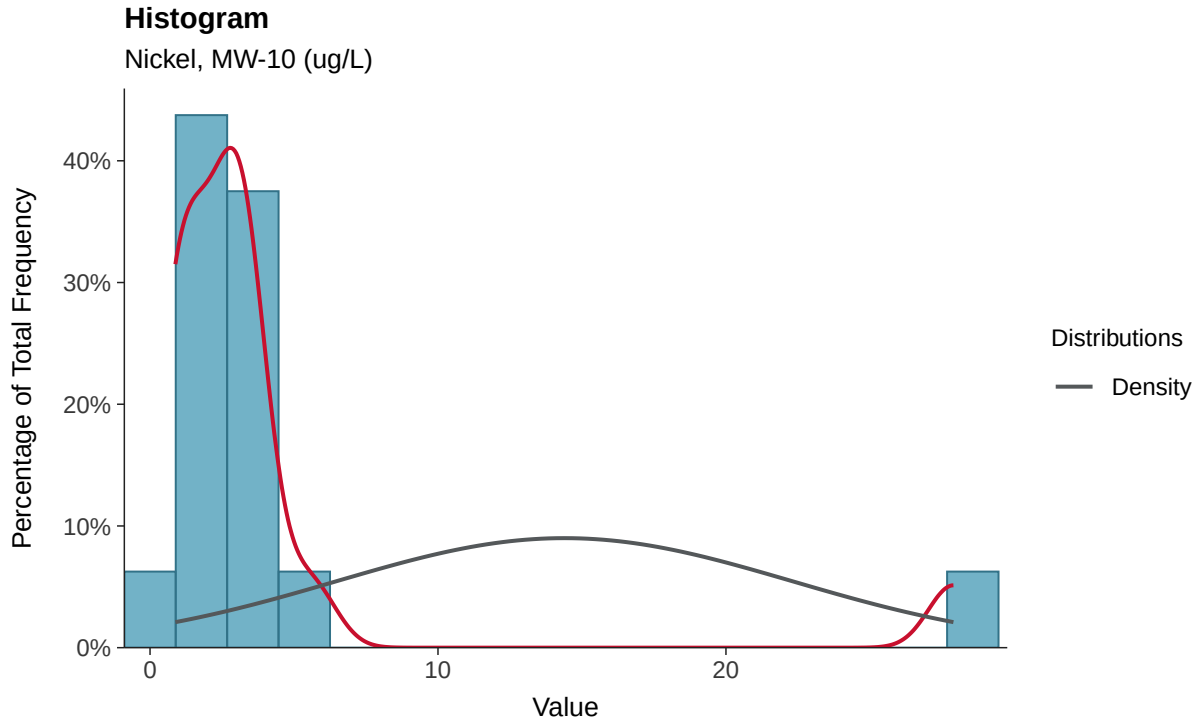
Copper, MW-10 (ug/L)



App. I Metals: Nickel, MW-10

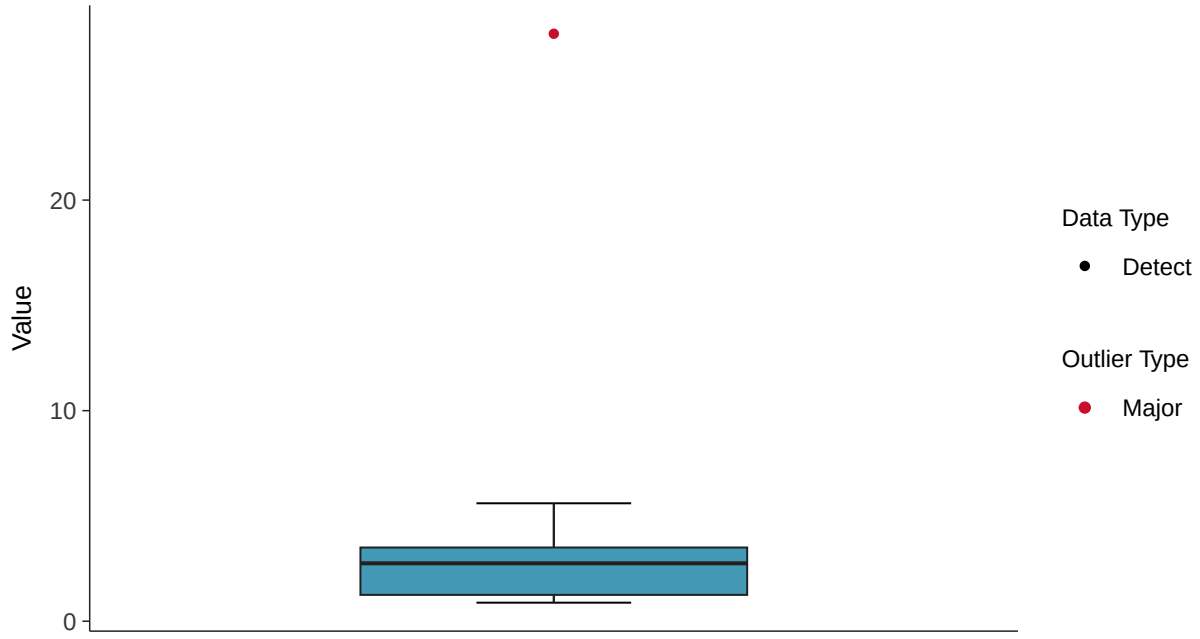
ID: 09_01_117





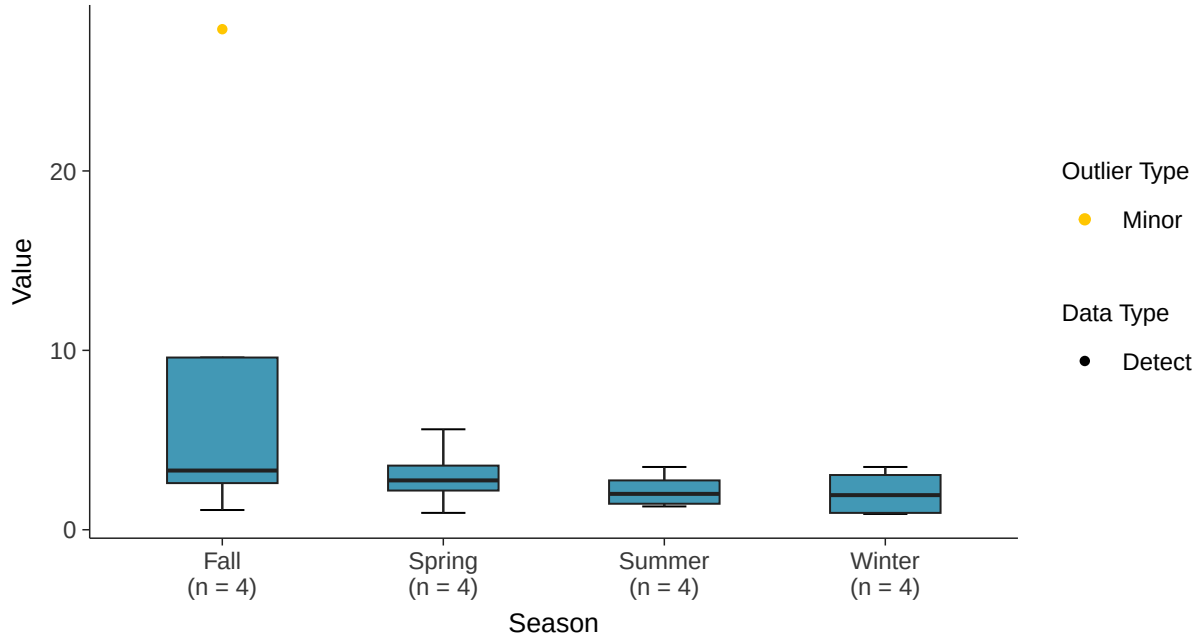
Boxplot

Nickel, MW-10 (ug/L)



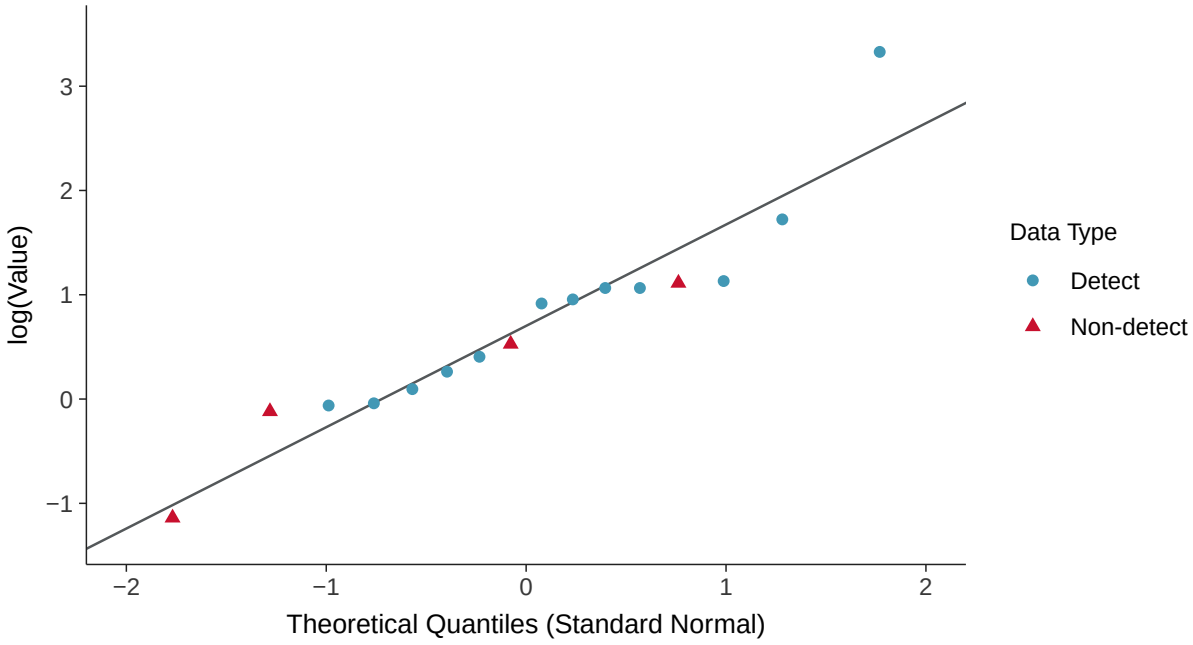
Boxplot by Season

Nickel, MW-10 (ug/L)



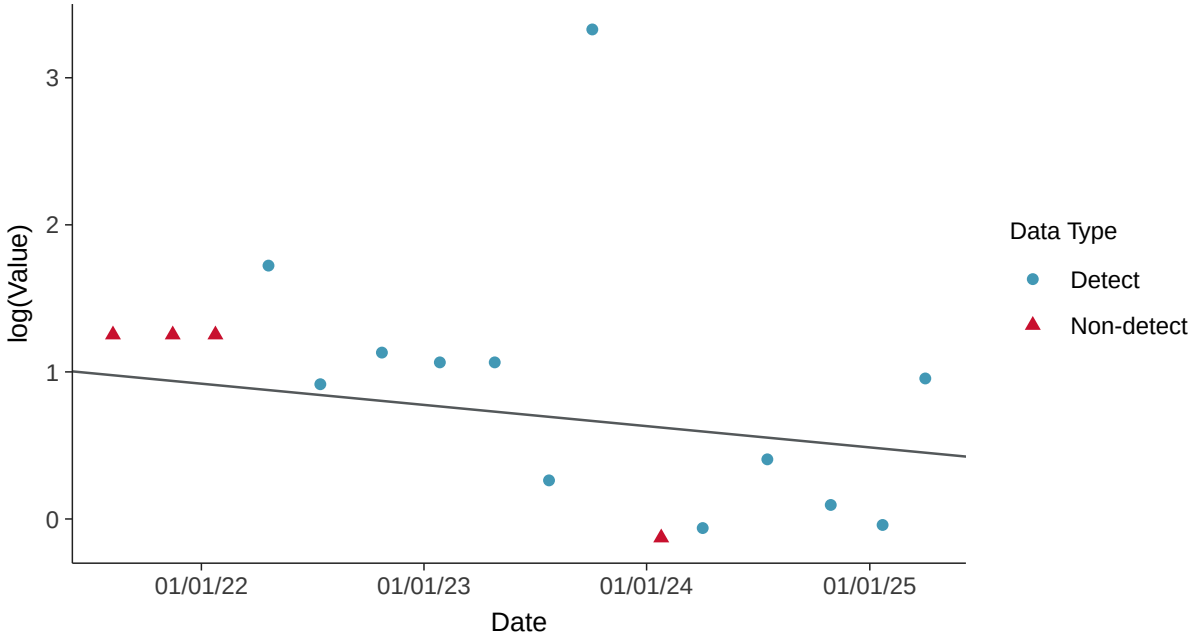
Lognormal Q-Q plot using ROS Imputed Estimates

Nickel, MW-10 (ug/L)



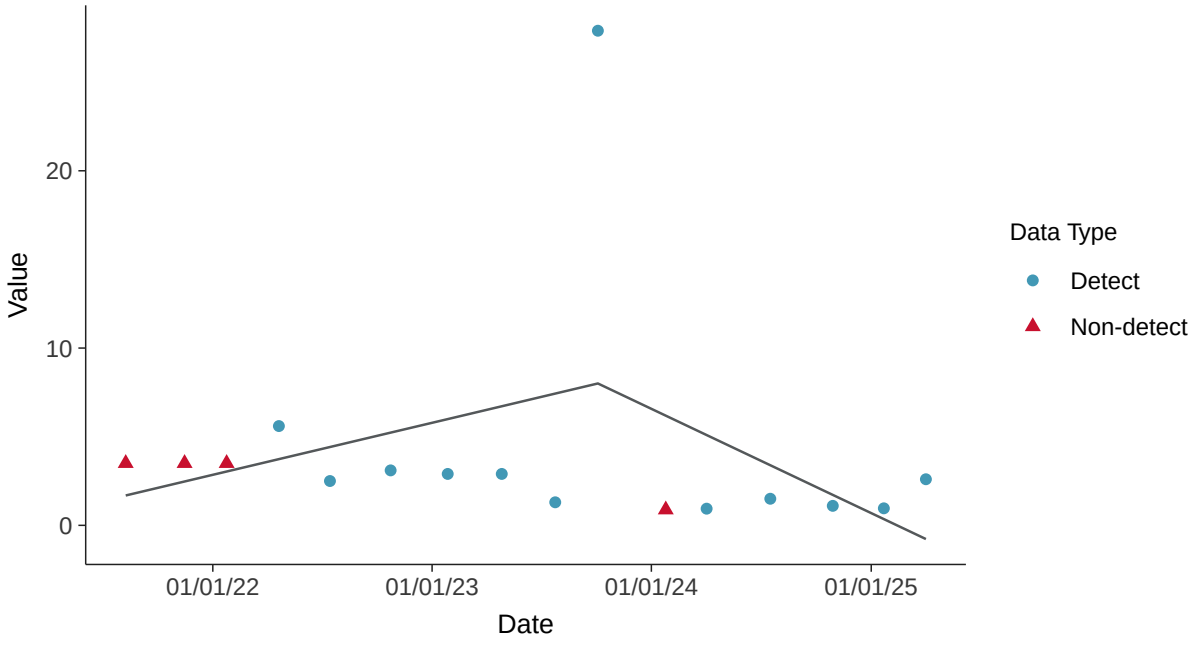
Trend Regression: Lognormal MLE

Nickel, MW-10 (ug/L)



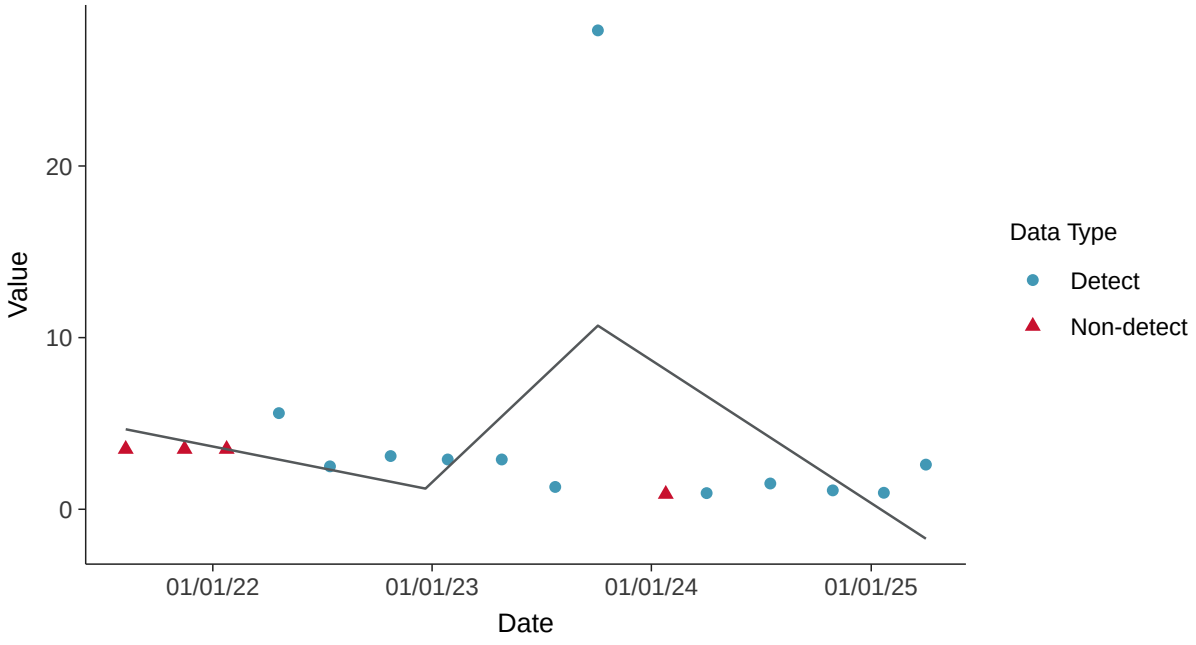
Trend Regression: Piecewise Linear-Linear

Nickel, MW-10 (ug/L)



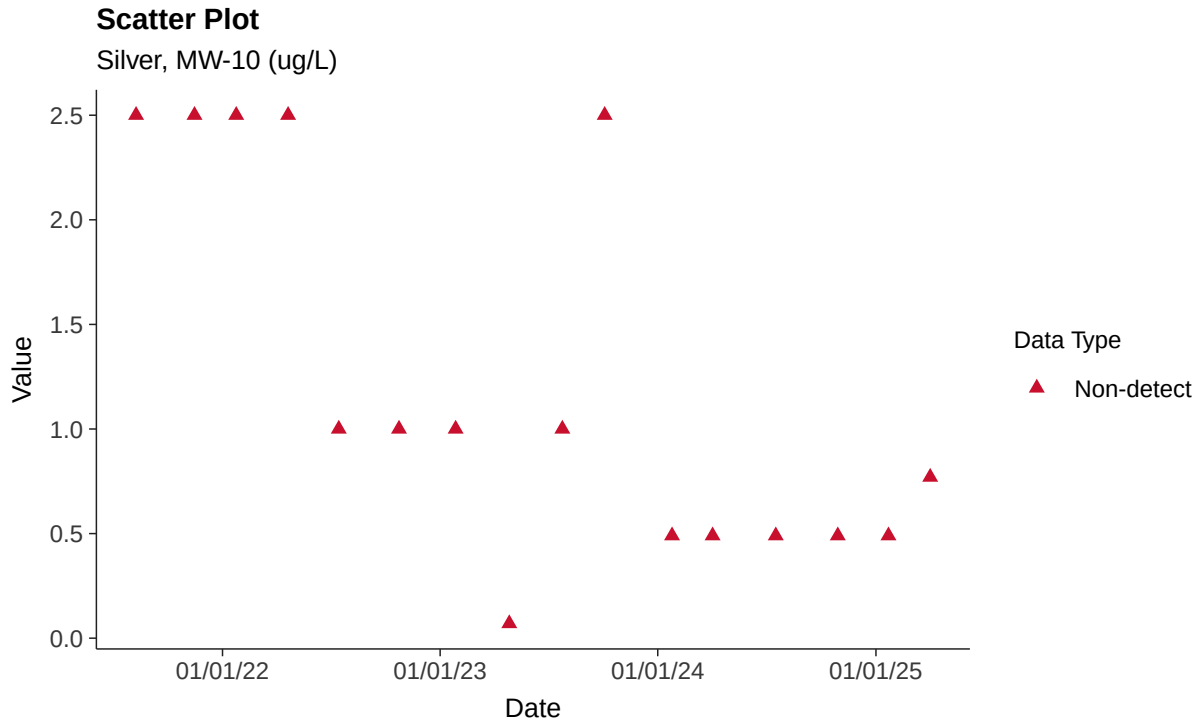
Trend Regression: Piecewise Linear-Linear-Linear

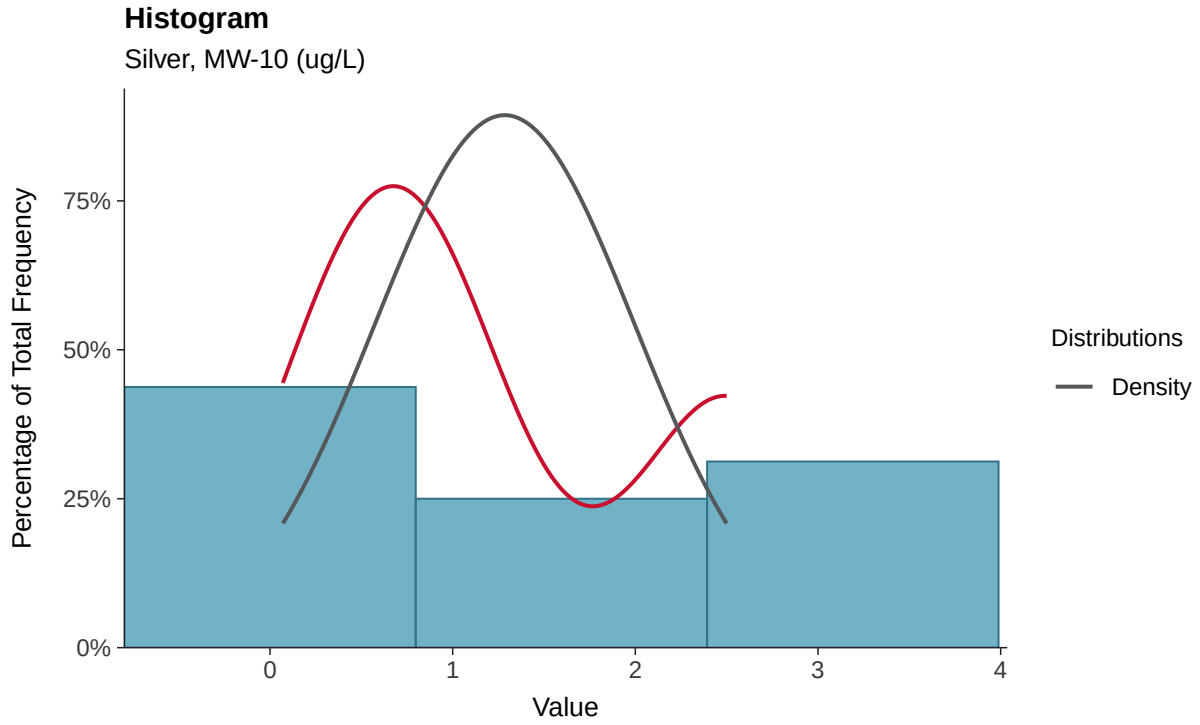
Nickel, MW-10 (ug/L)



App. I Metals: Silver, MW-10

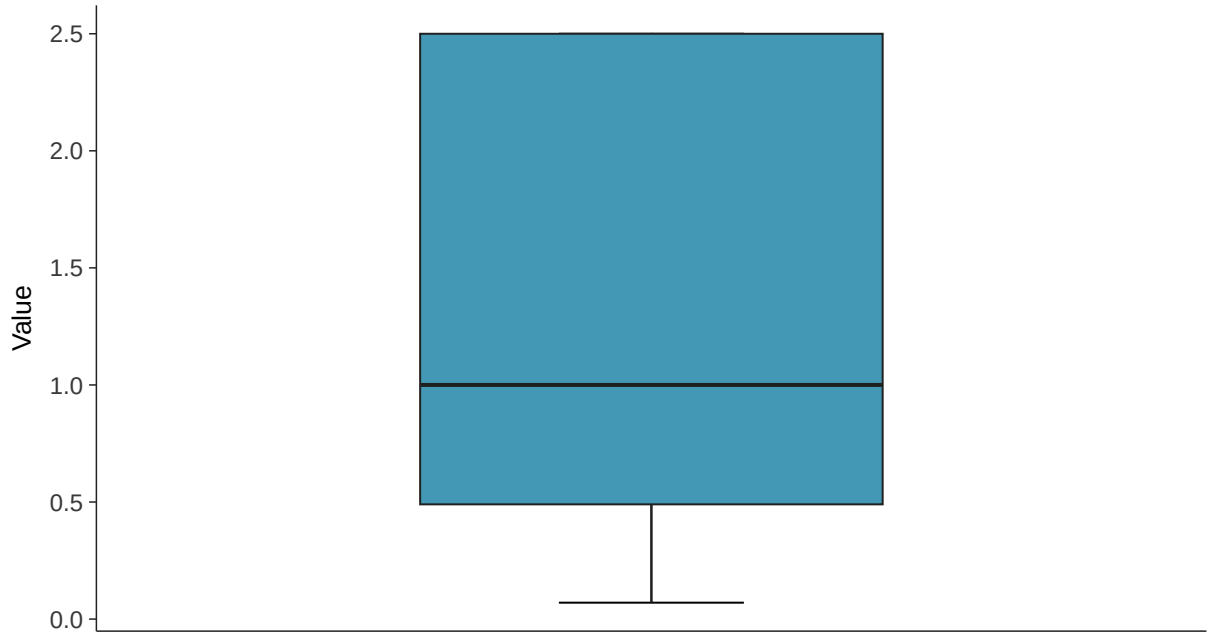
ID: 09_01_122





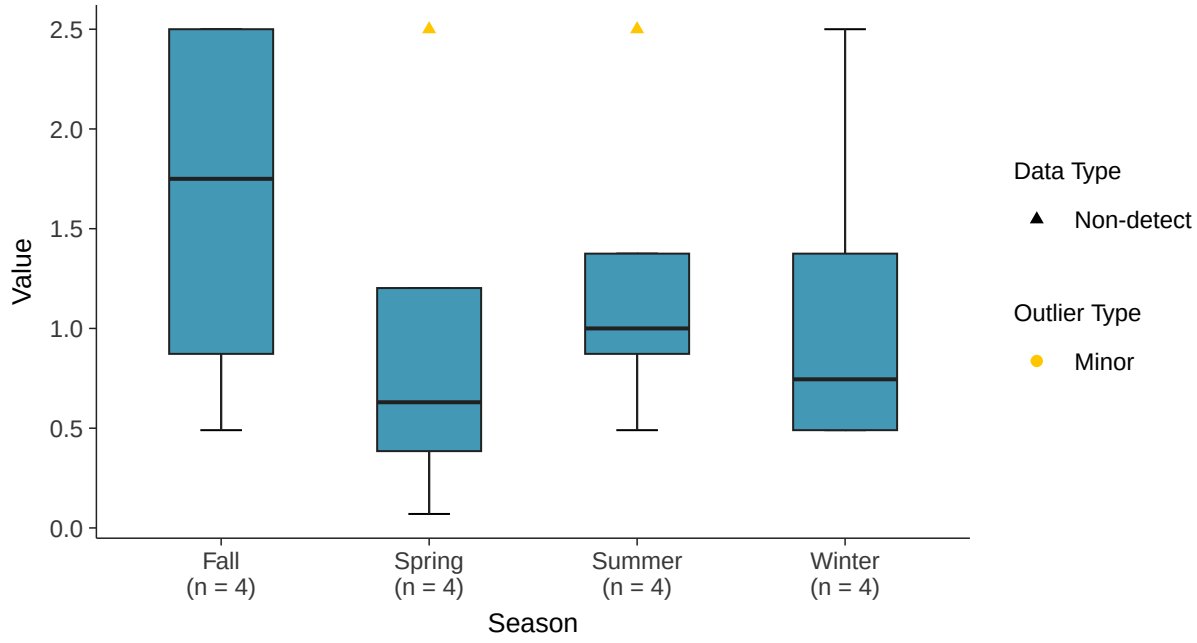
Boxplot

Silver, MW-10 (ug/L)



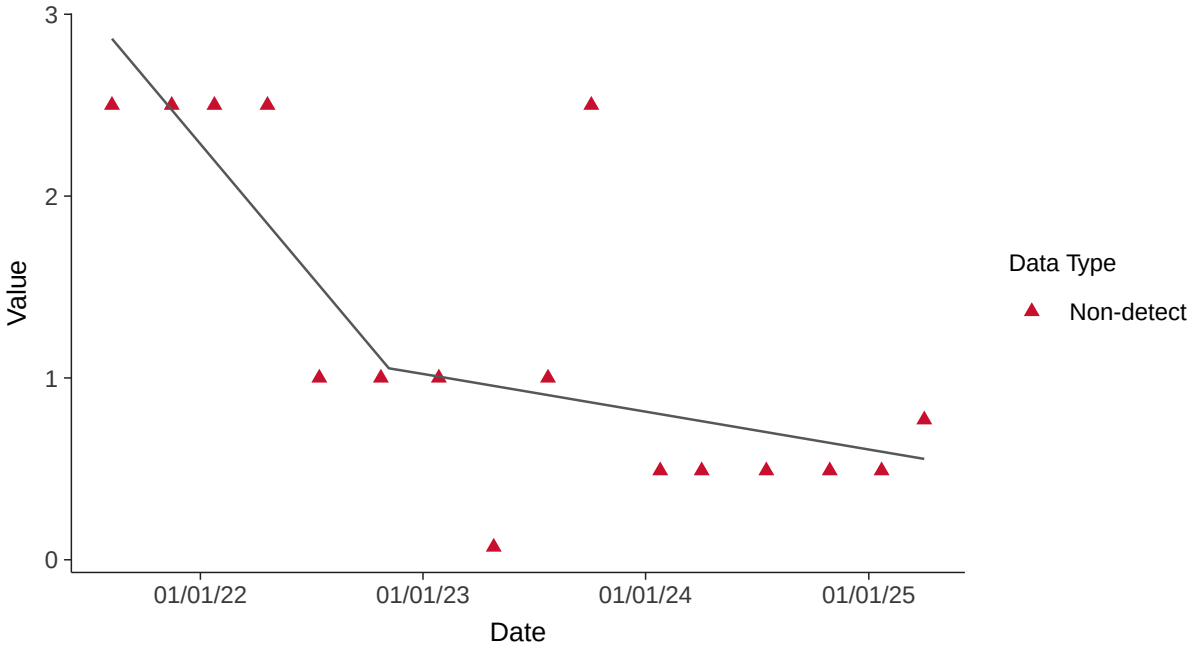
Boxplot by Season

Silver, MW-10 (ug/L)



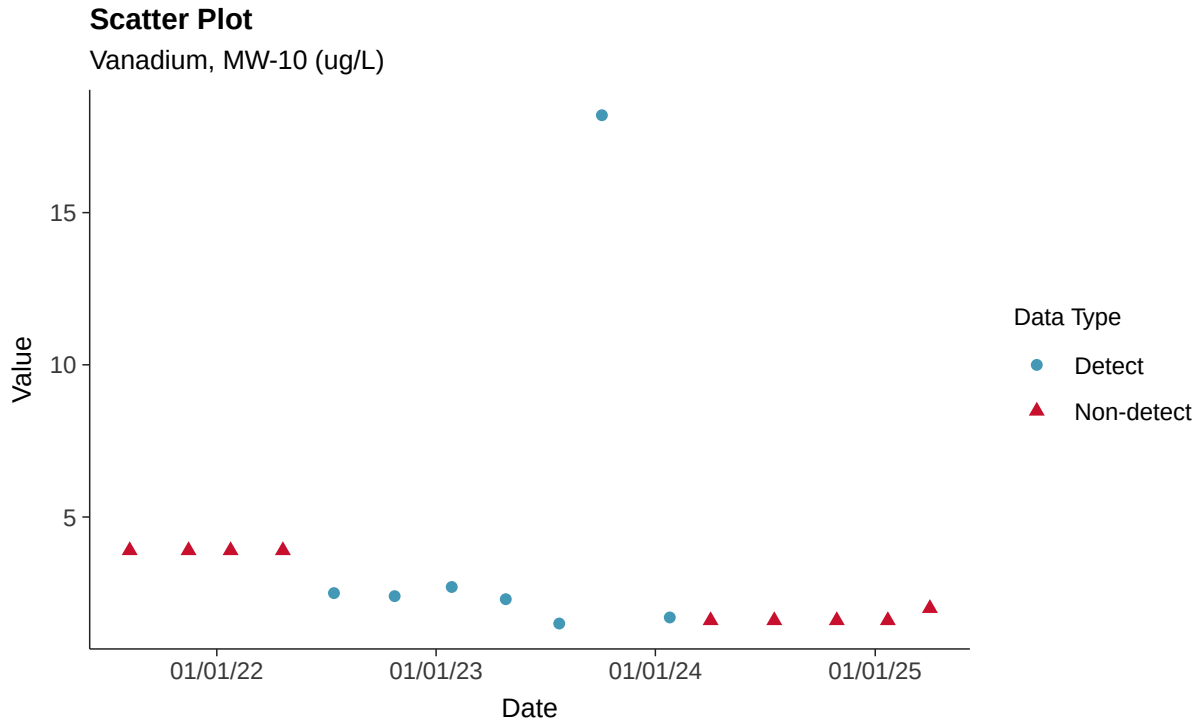
Trend Regression: Piecewise Linear-Linear

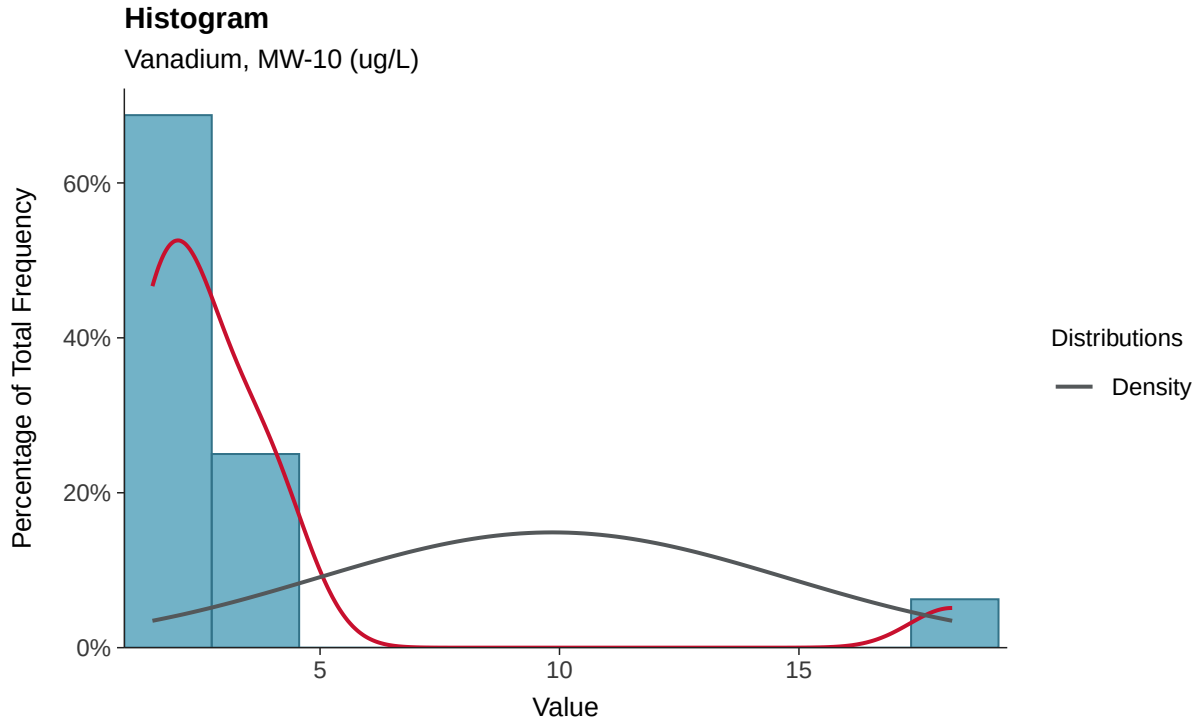
Silver, MW-10 (ug/L)



App. I Metals: Vanadium, MW-10

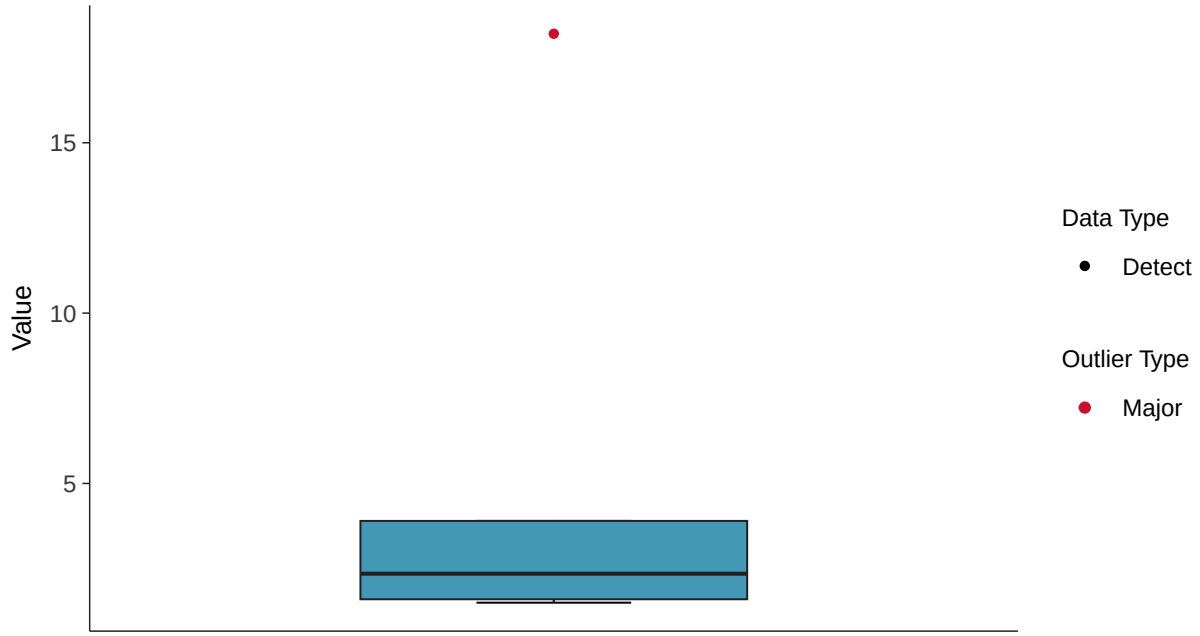
ID: 09_01_127





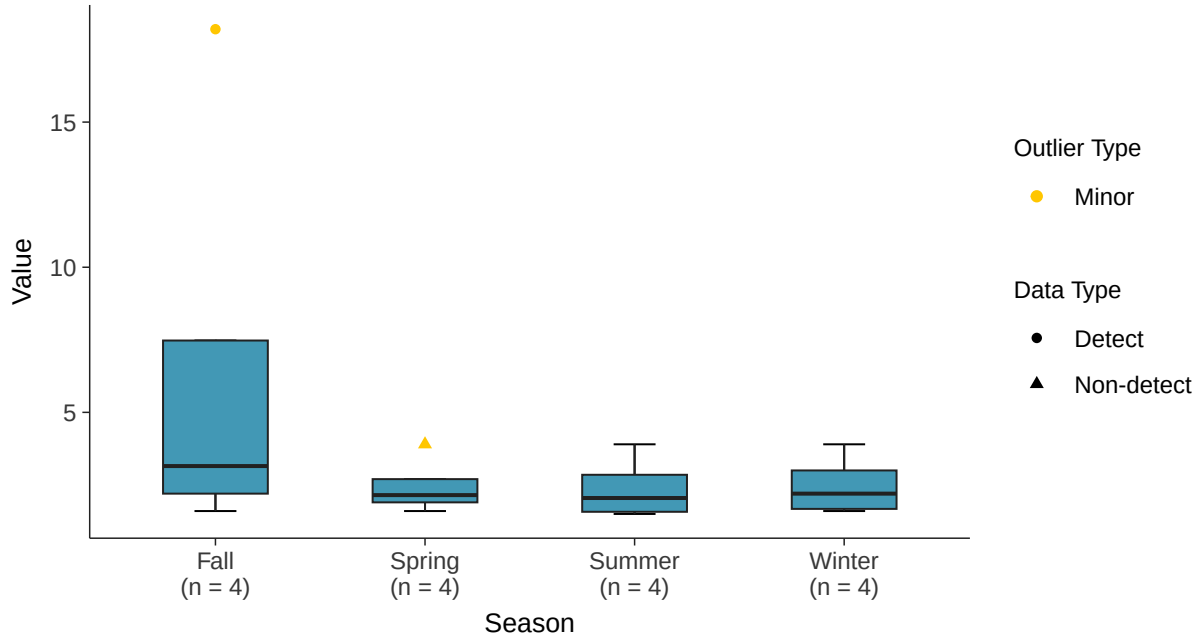
Boxplot

Vanadium, MW-10 (ug/L)



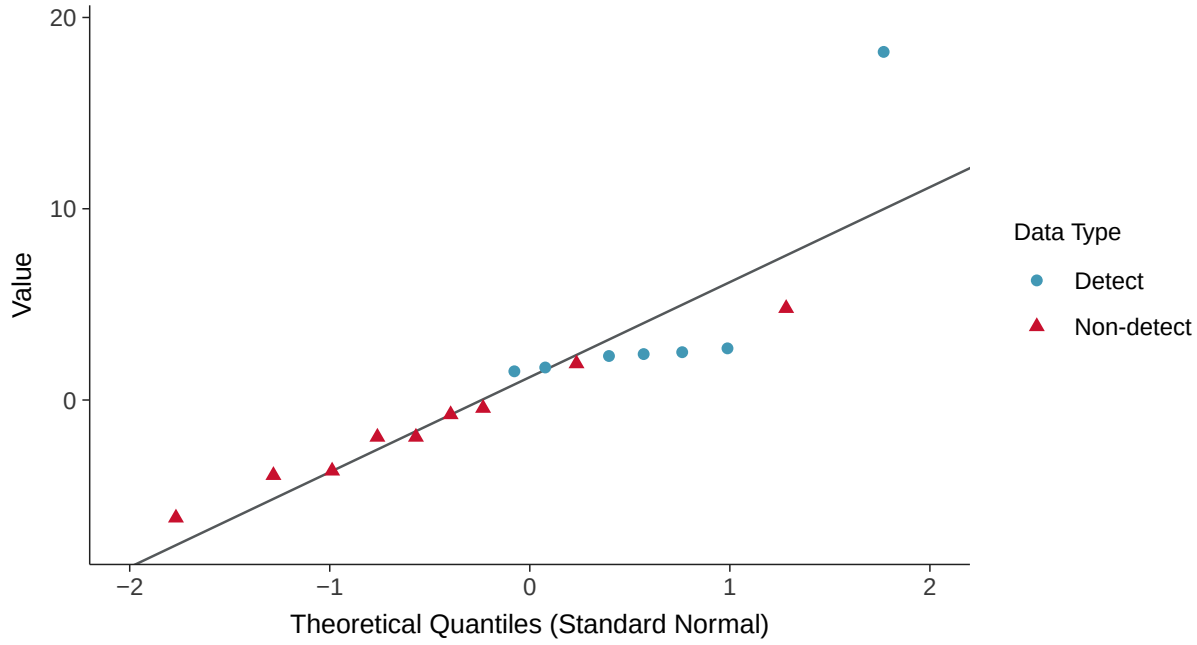
Boxplot by Season

Vanadium, MW-10 (ug/L)



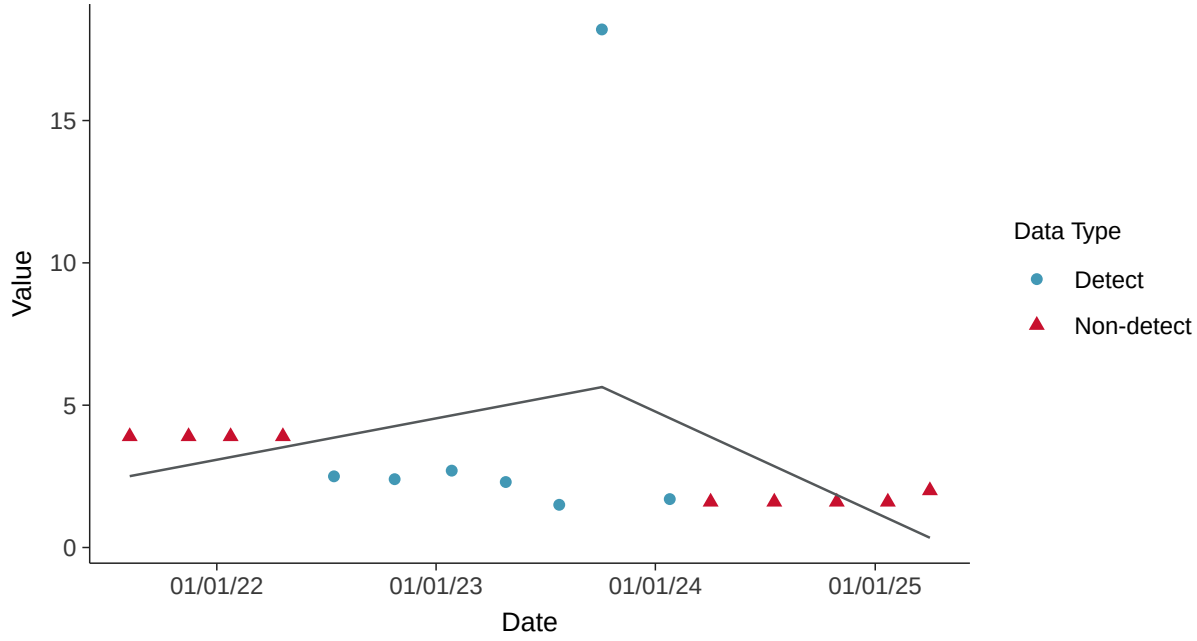
Normal Q-Q plot using ROS Imputed Estimates

Vanadium, MW-10 (ug/L)



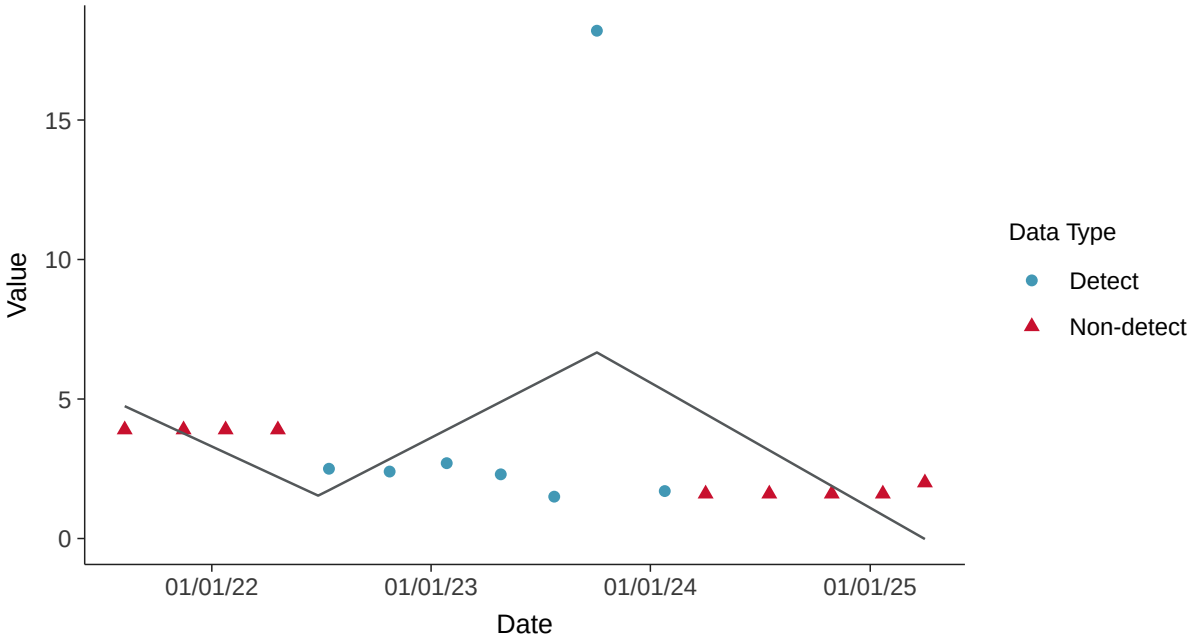
Trend Regression: Piecewise Linear-Linear

Vanadium, MW-10 (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Vanadium, MW-10 (ug/L)

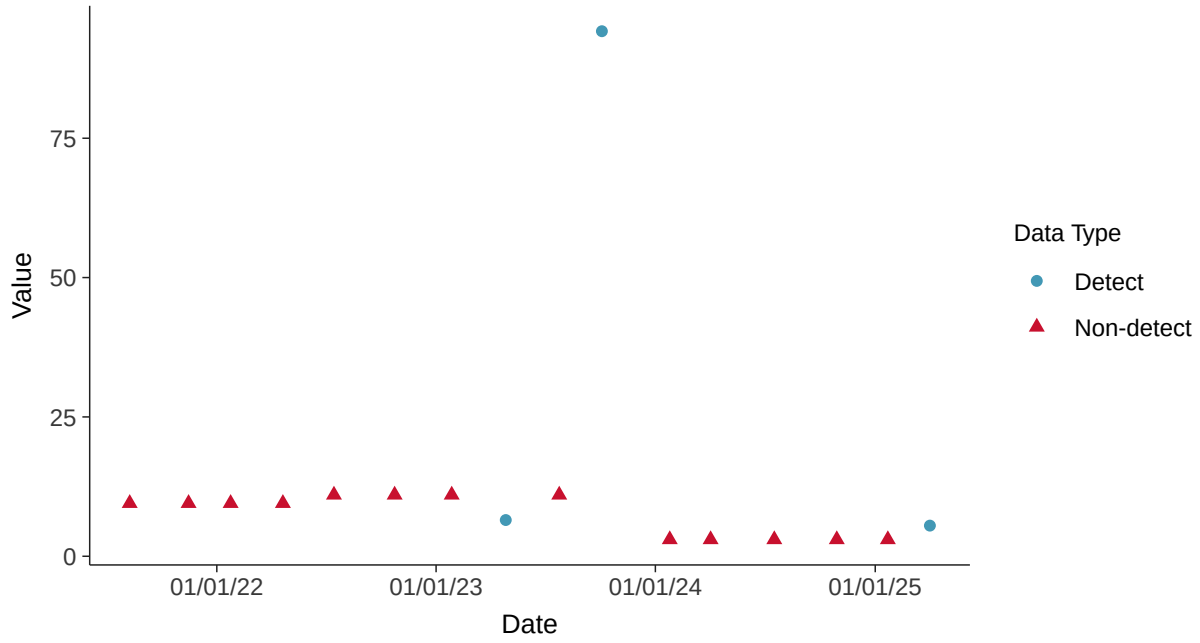


App. I Metals: Zinc, MW-10

ID: 09_01_128

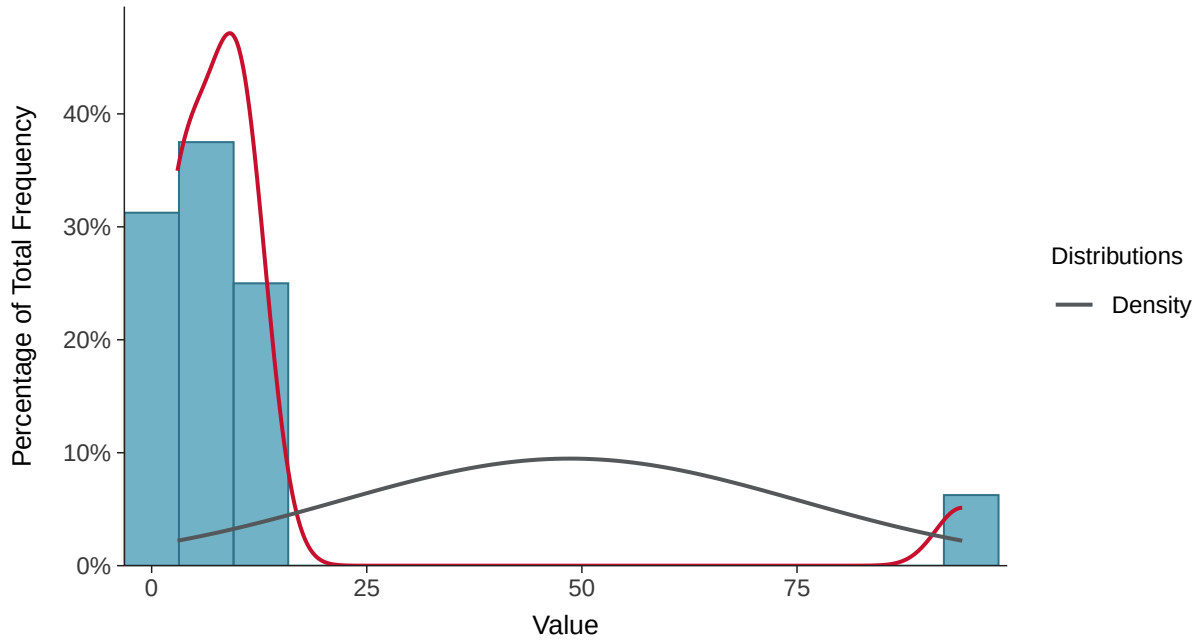
Scatter Plot

Zinc, MW-10 (ug/L)



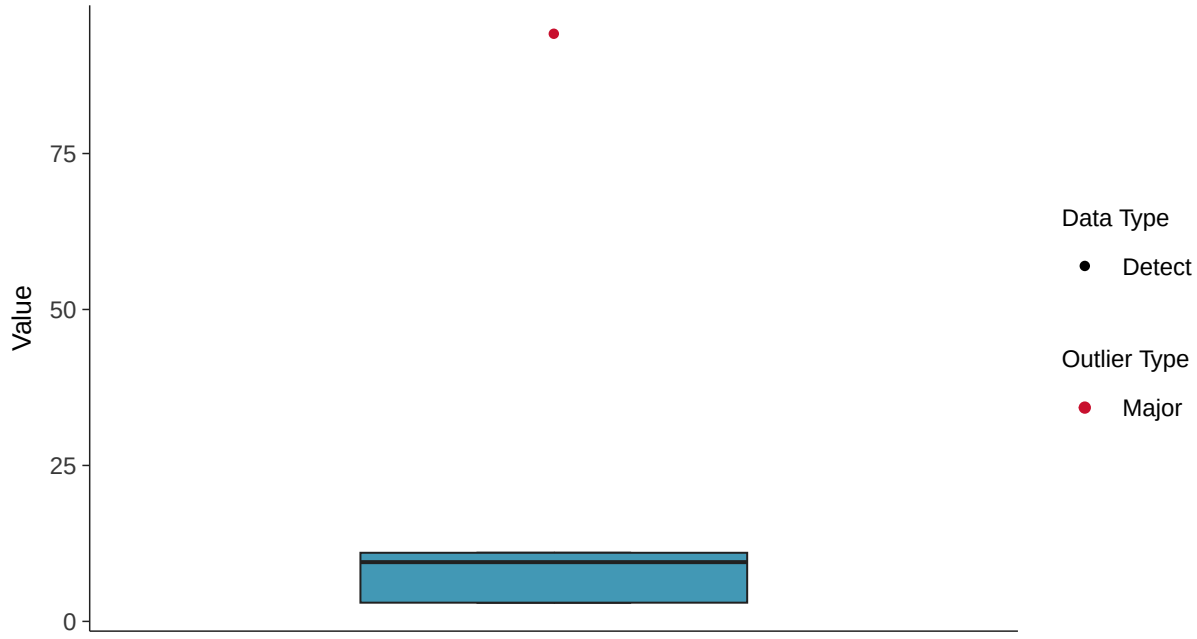
Histogram

Zinc, MW-10 (ug/L)



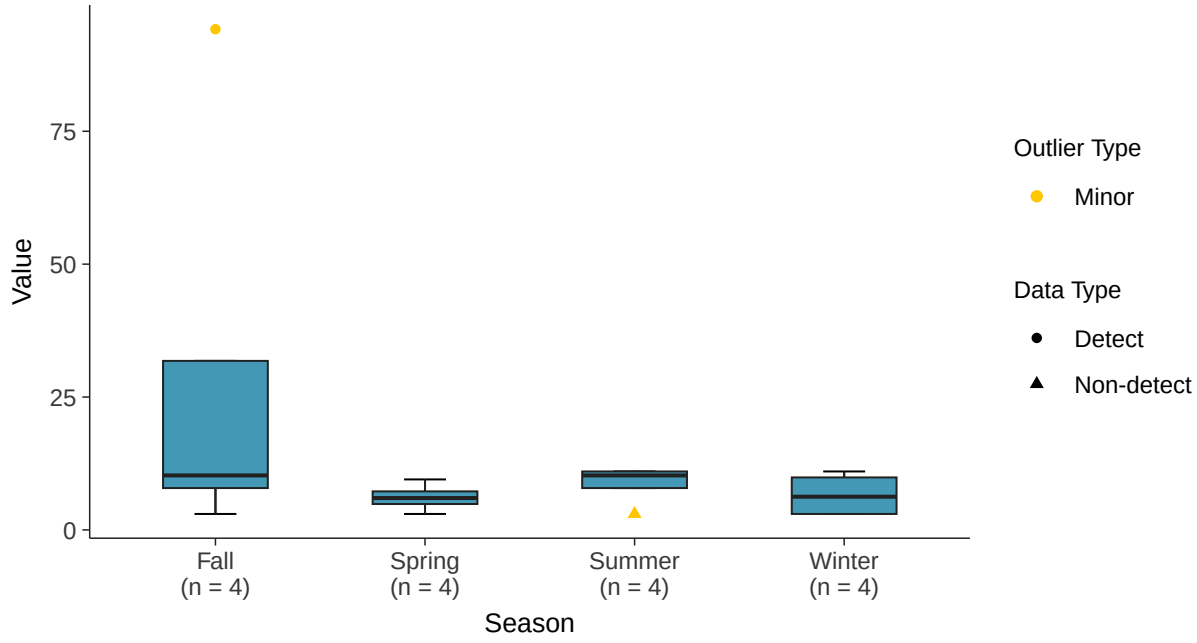
Boxplot

Zinc, MW-10 (ug/L)



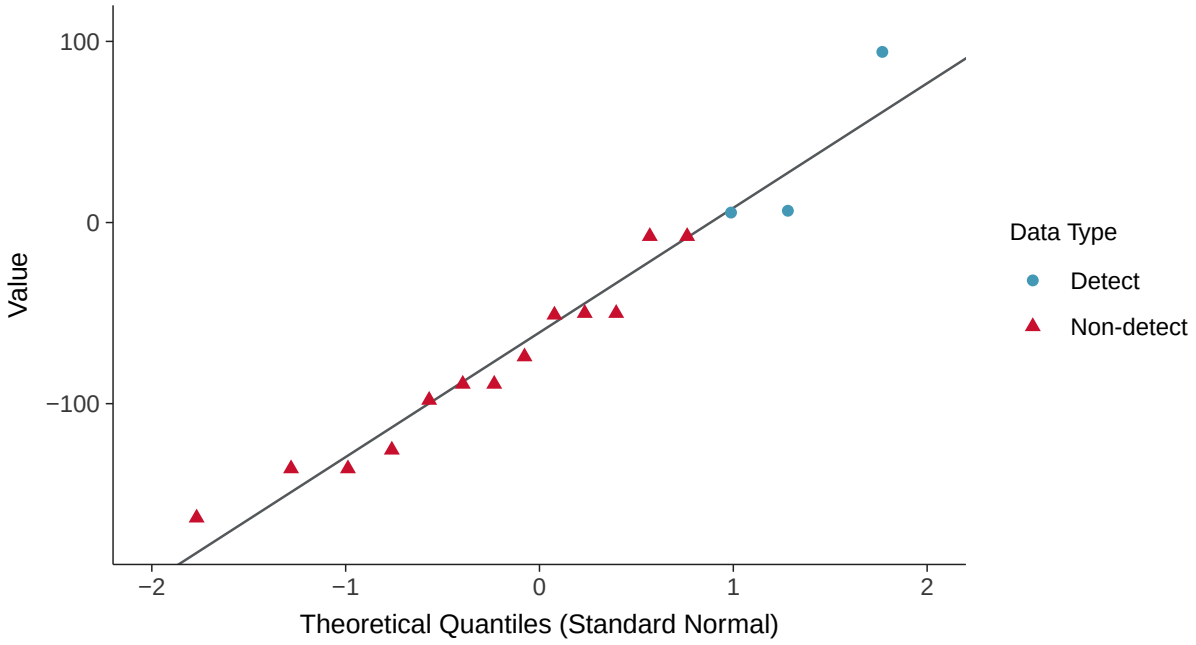
Boxplot by Season

Zinc, MW-10 (ug/L)



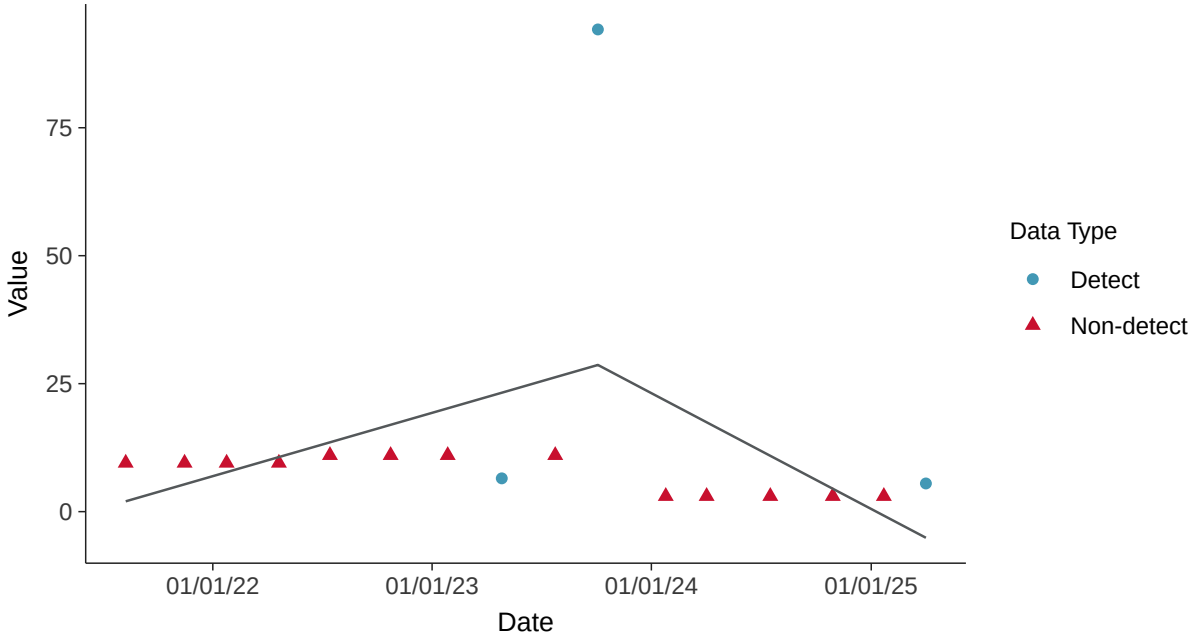
Normal Q-Q plot using ROS Imputed Estimates

Zinc, MW-10 (ug/L)



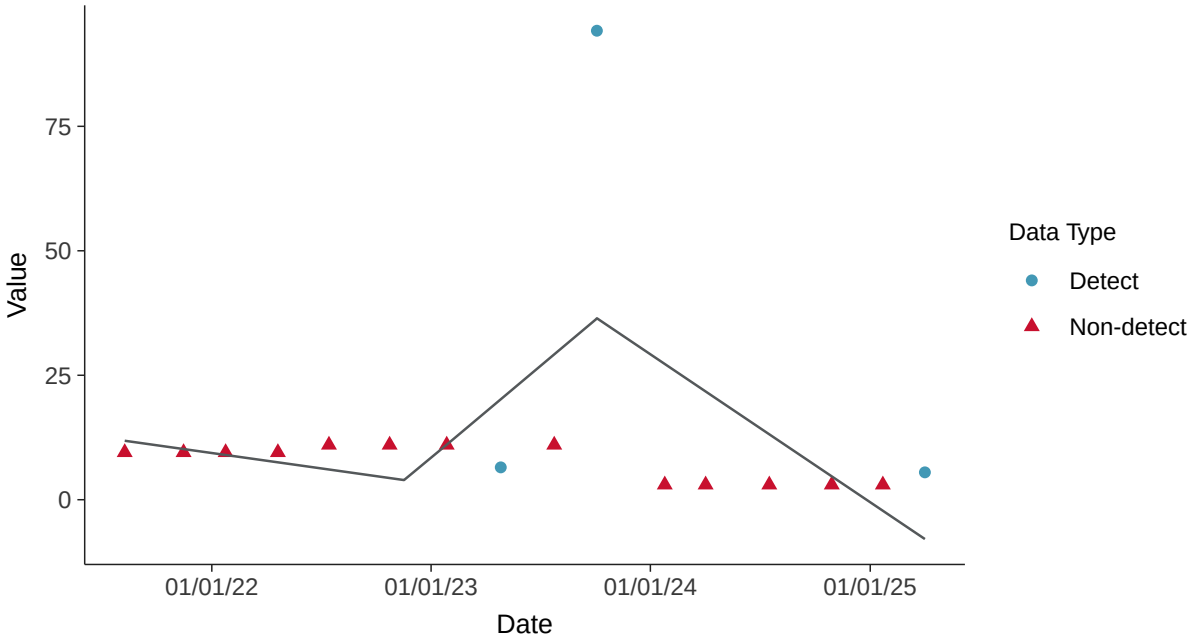
Trend Regression: Piecewise Linear-Linear

Zinc, MW-10 (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Zinc, MW-10 (ug/L)

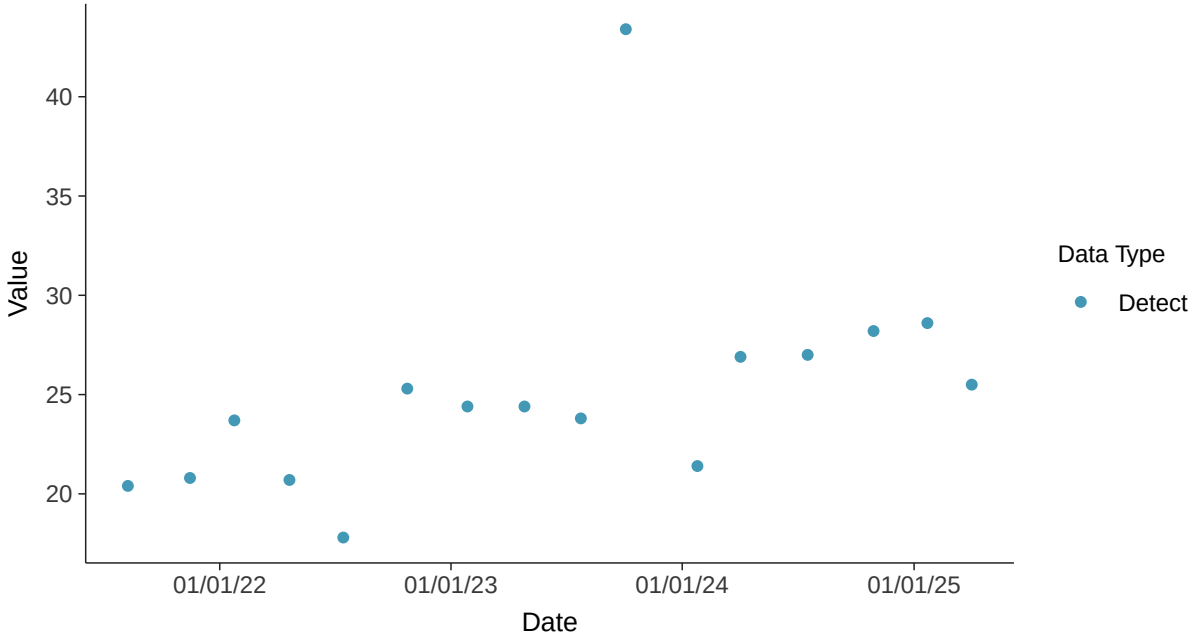


App. III: Boron, MW-10

ID: 09_02_105

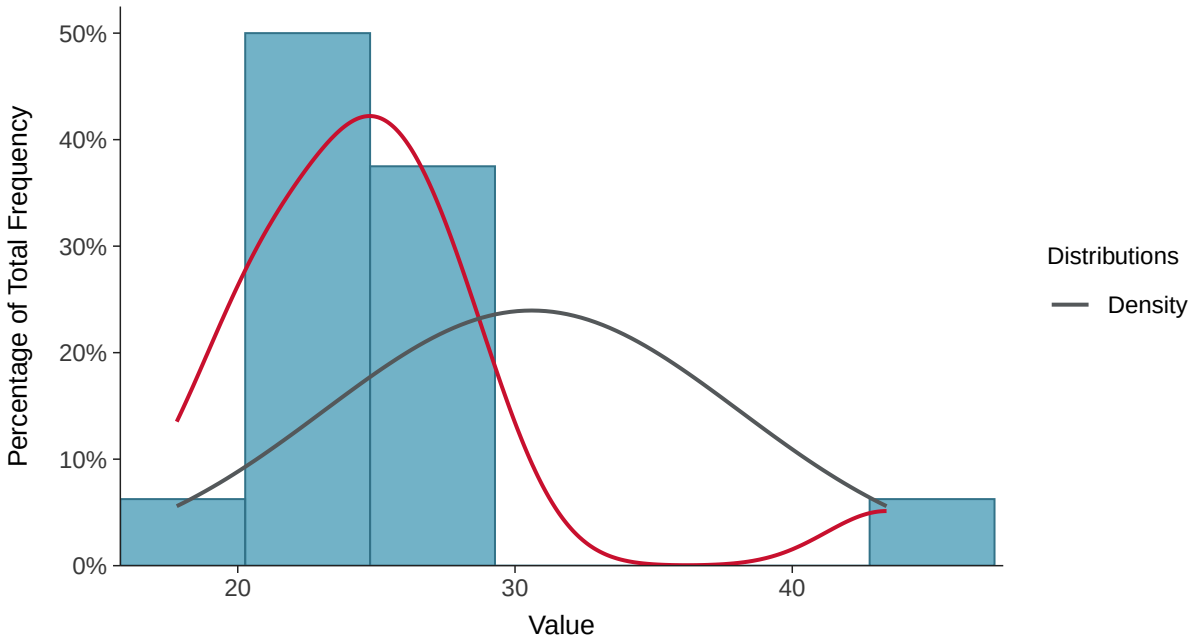
Scatter Plot

Boron, MW-10 (ug/L)



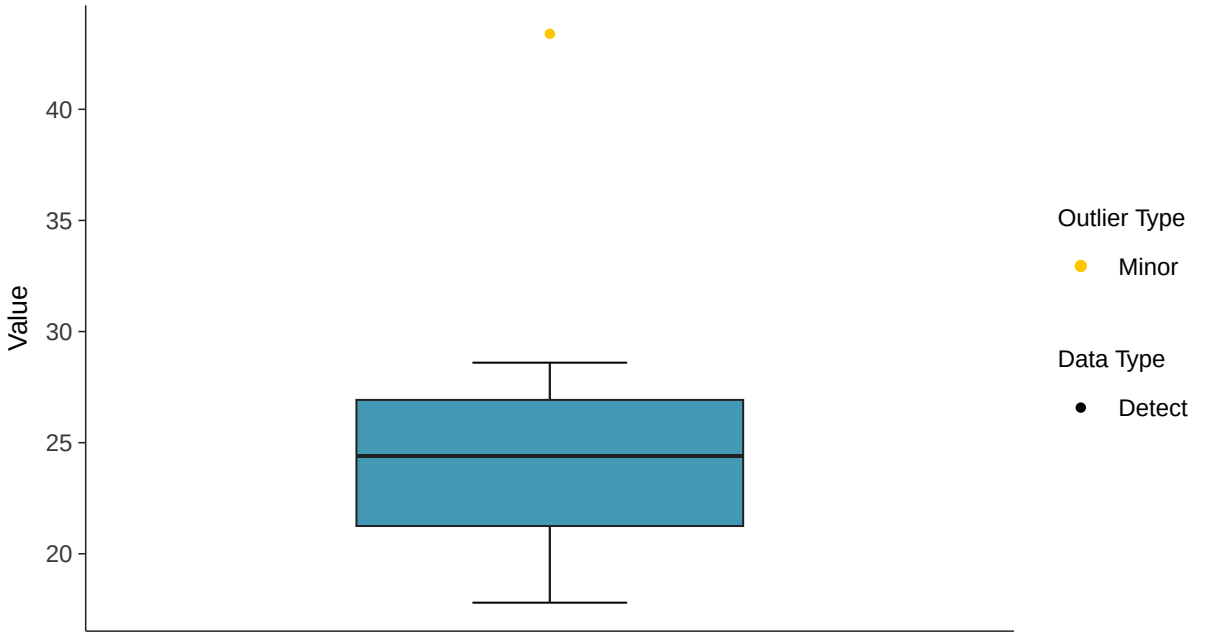
Histogram

Boron, MW-10 (ug/L)



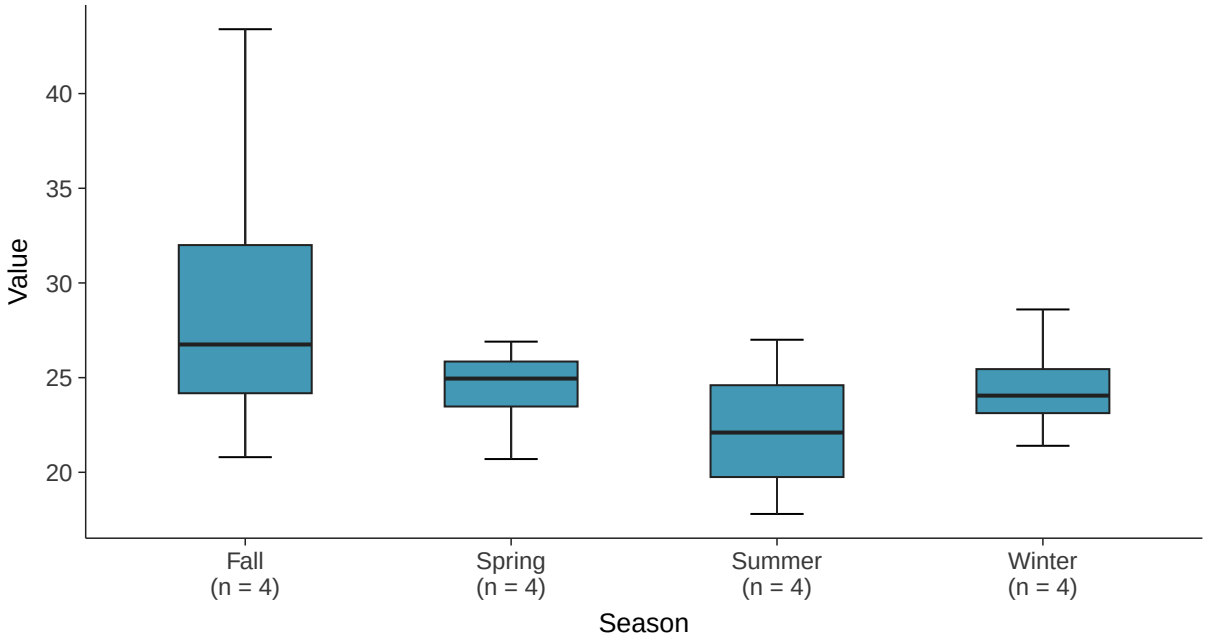
Boxplot

Boron, MW-10 (ug/L)



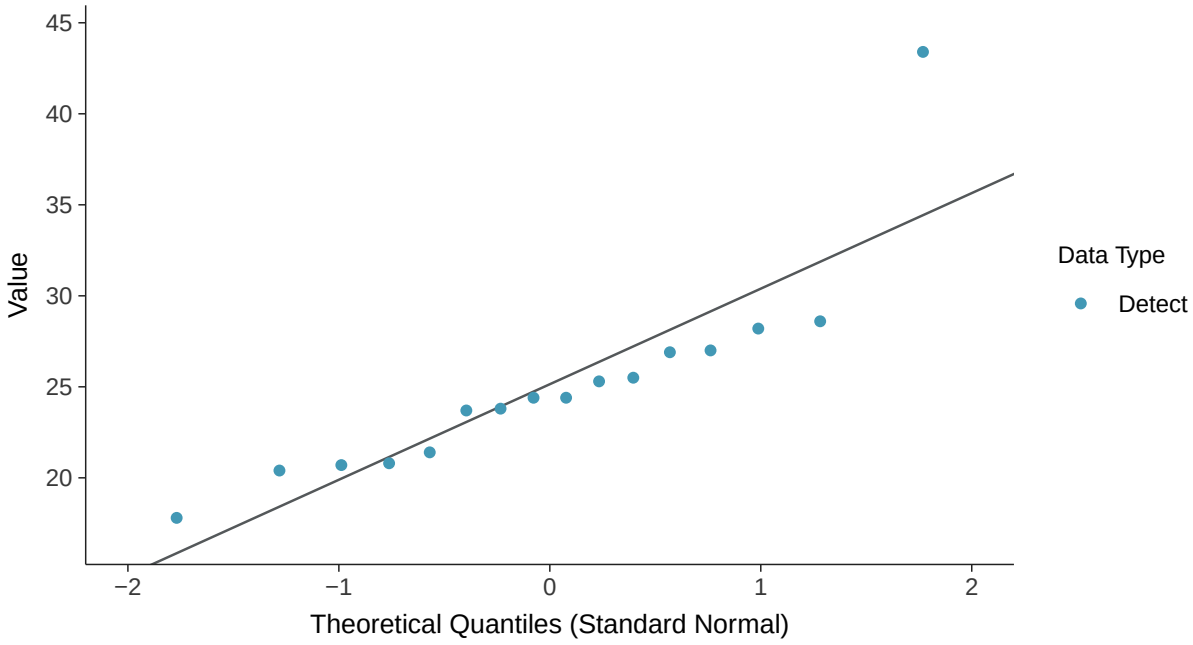
Boxplot by Season

Boron, MW-10 (ug/L)



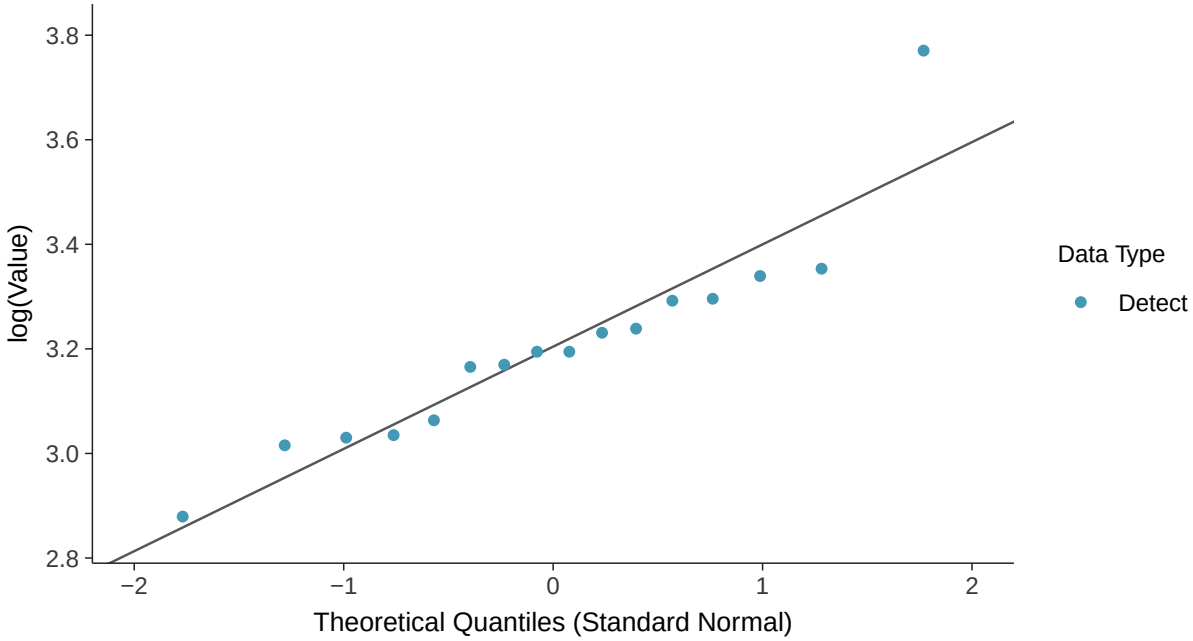
Normal Q-Q plot

Boron, MW-10 (ug/L)



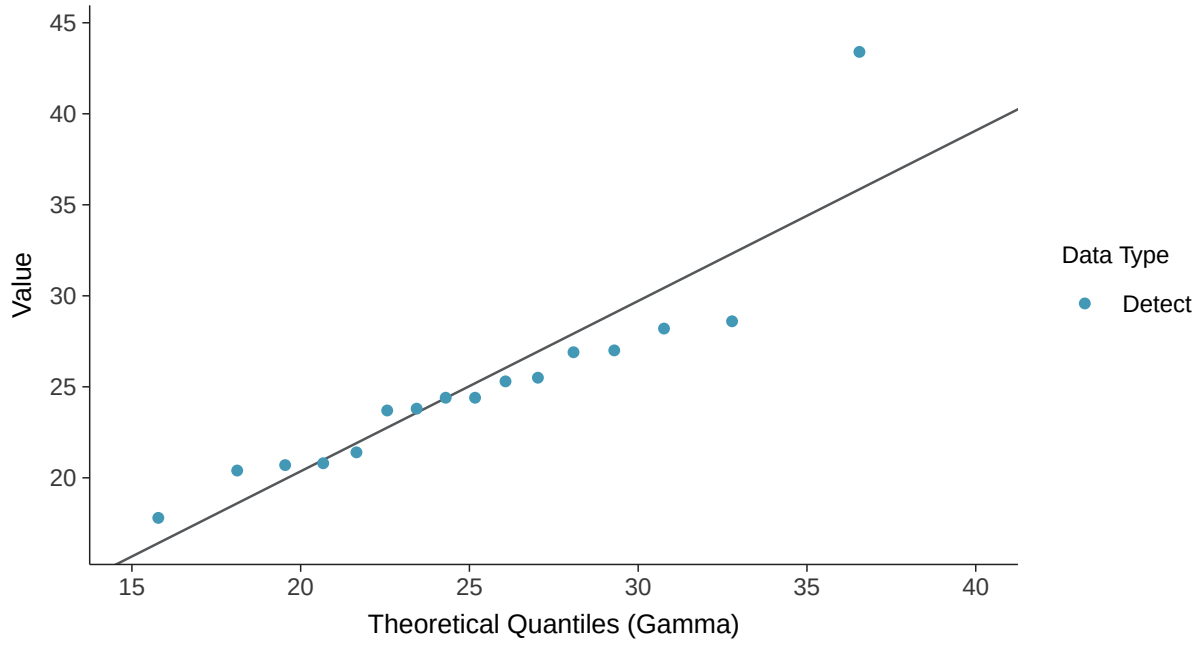
Lognormal Q-Q plot

Boron, MW-10 (ug/L)



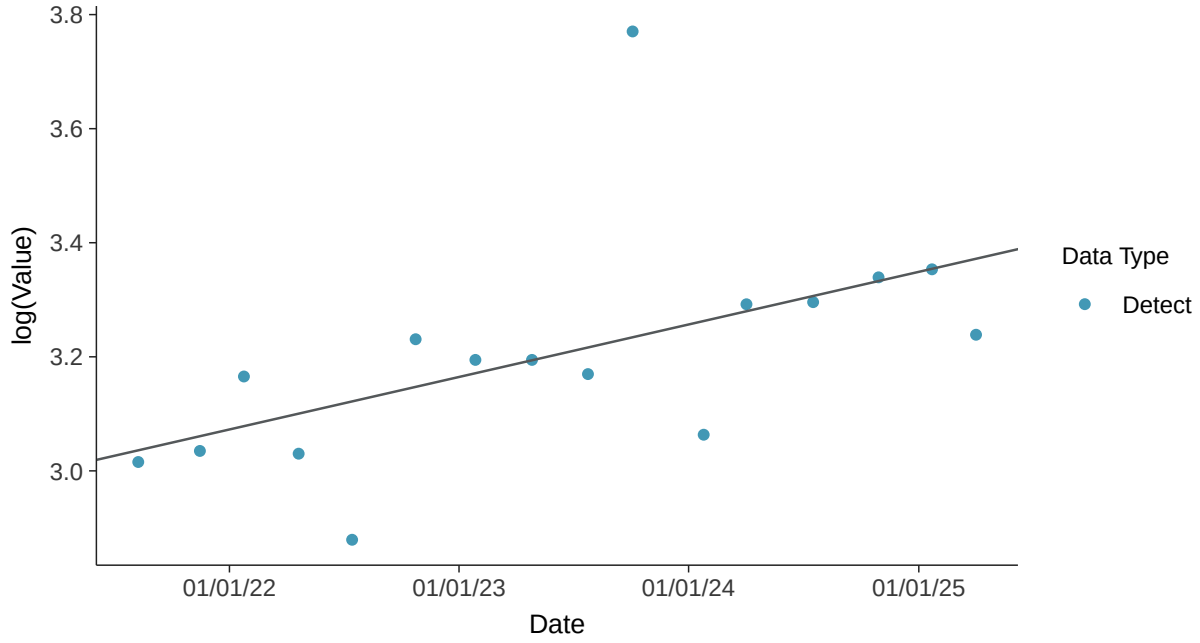
Gamma Q-Q plot

Boron, MW-10 (ug/L)



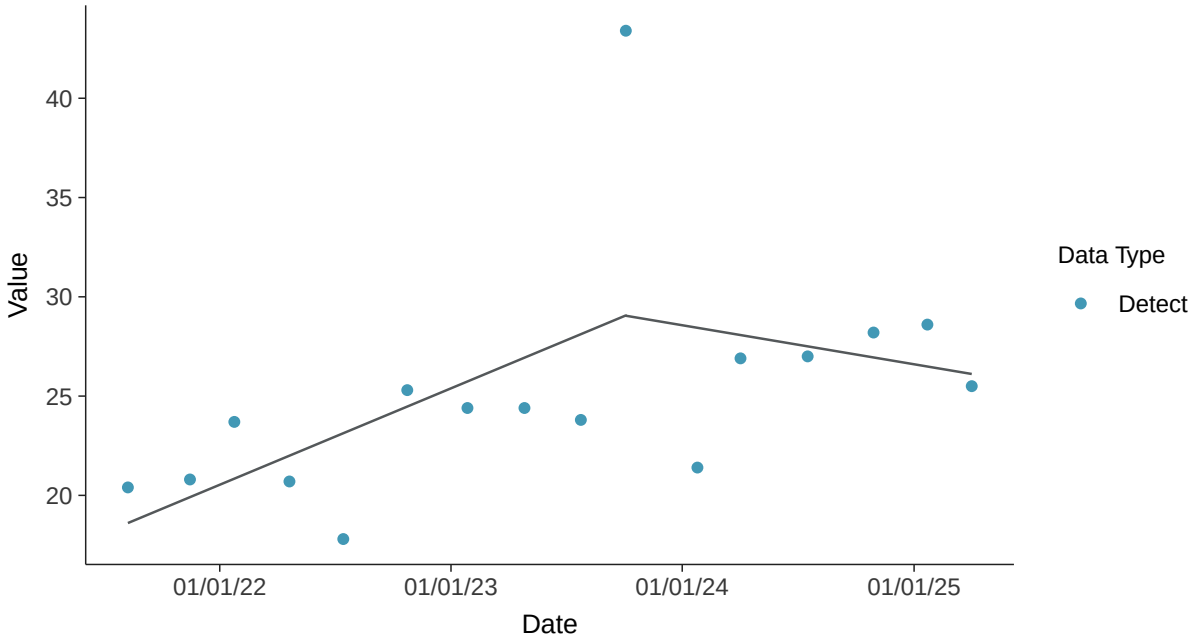
Trend Regression: Lognormal MLE

Boron, MW-10 (ug/L)



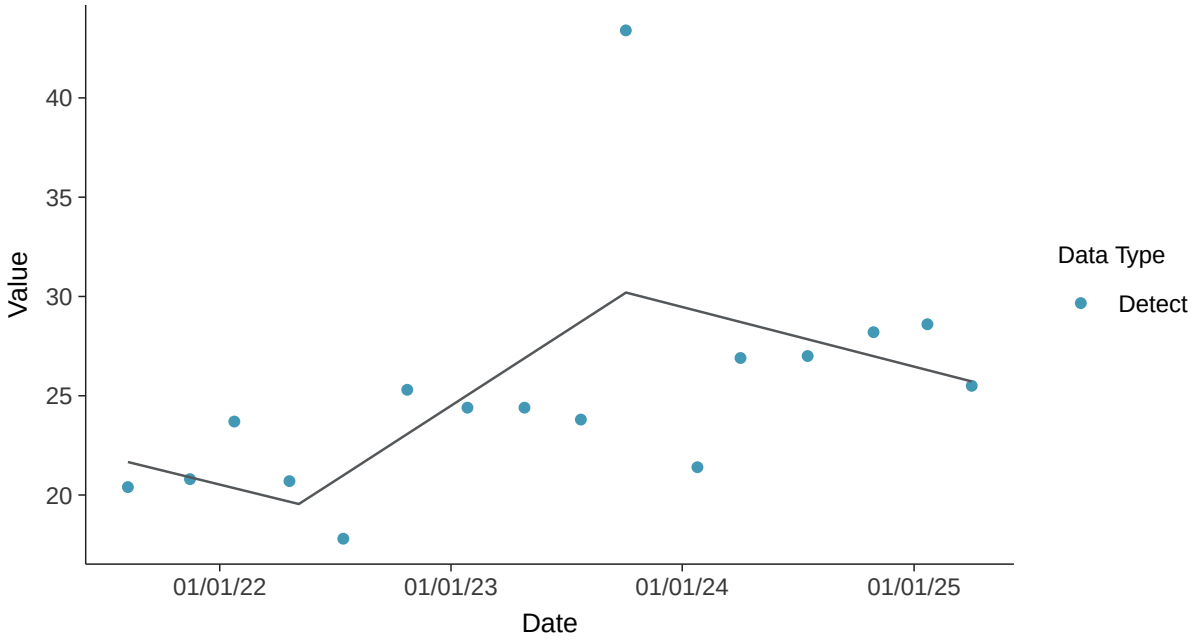
Trend Regression: Piecewise Linear-Linear

Boron, MW-10 (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Boron, MW-10 (ug/L)

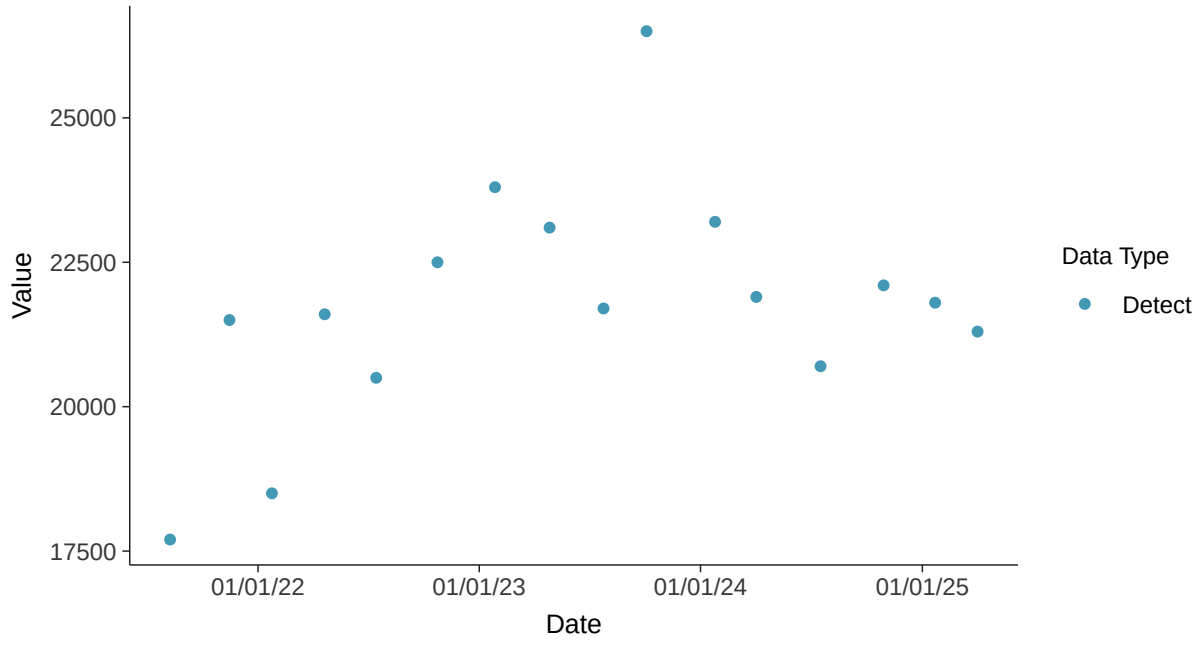


App. III: Calcium, MW-10

ID: 09_02_107

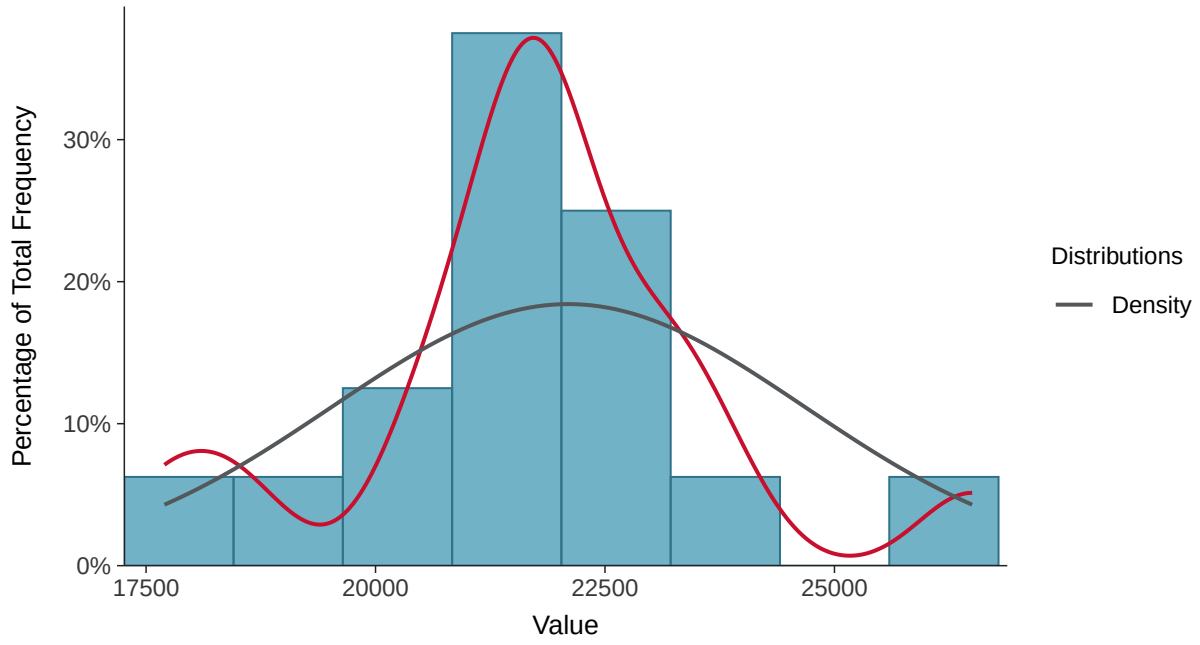
Scatter Plot

Calcium, MW-10 (ug/L)



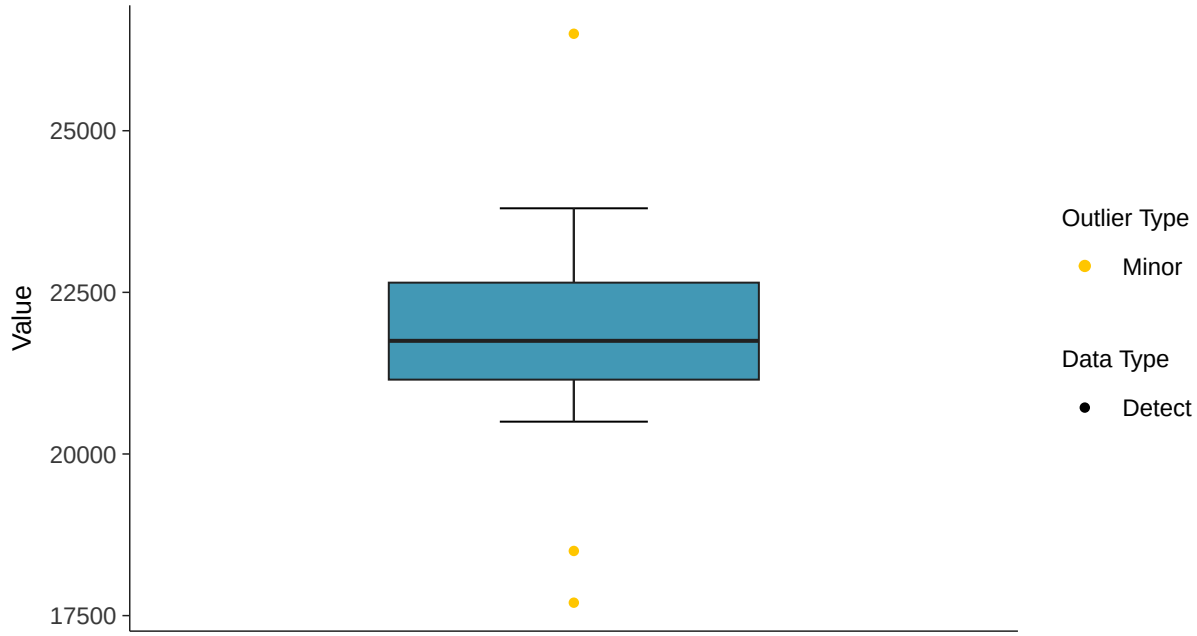
Histogram

Calcium, MW-10 (ug/L)



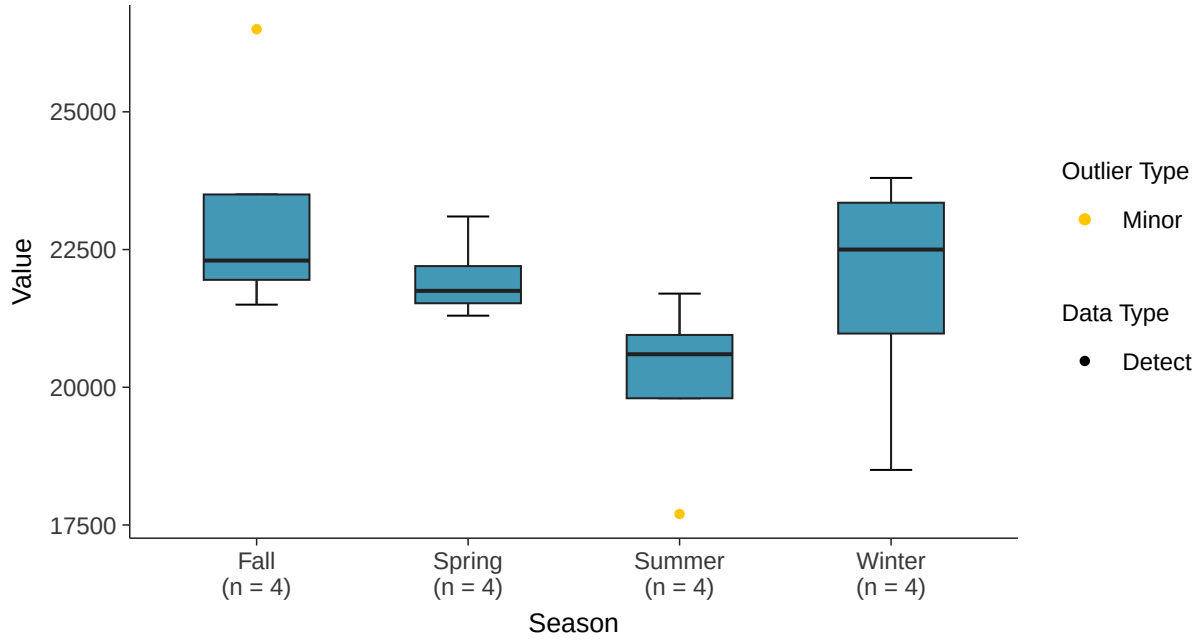
Boxplot

Calcium, MW-10 (ug/L)



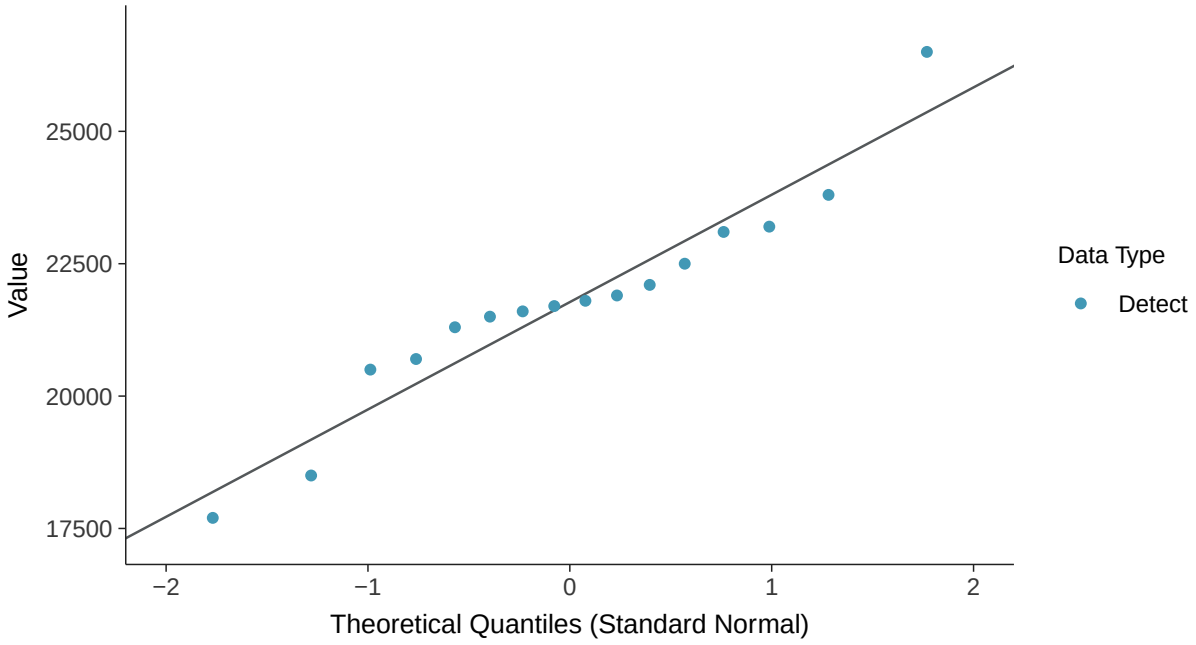
Boxplot by Season

Calcium, MW-10 (ug/L)



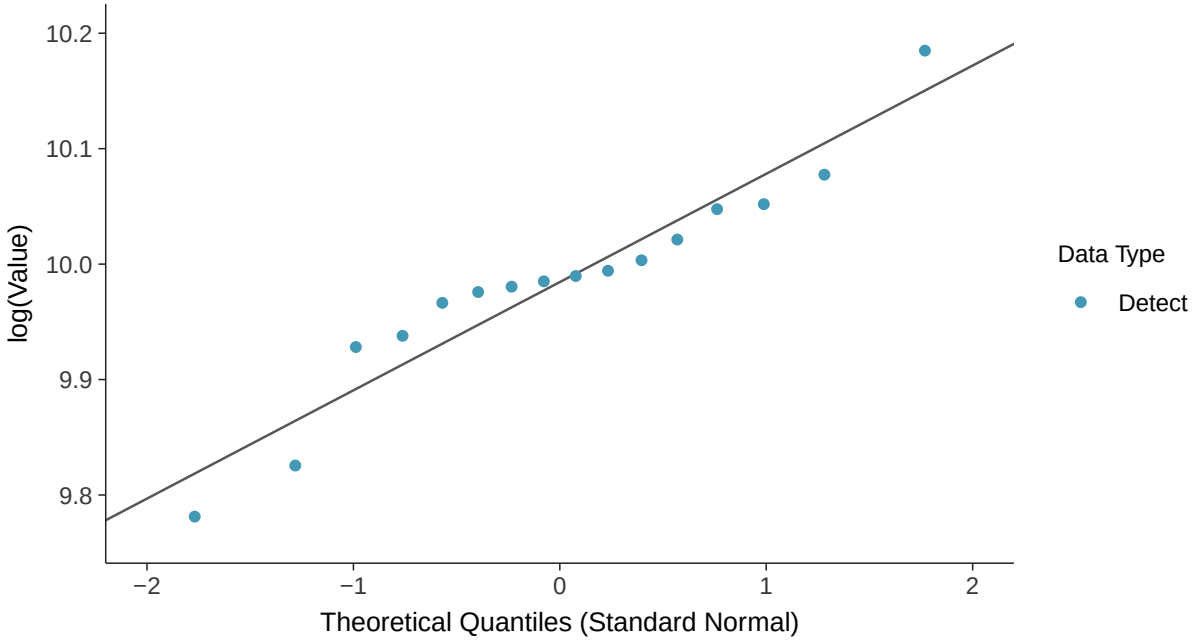
Normal Q-Q plot

Calcium, MW-10 (ug/L)



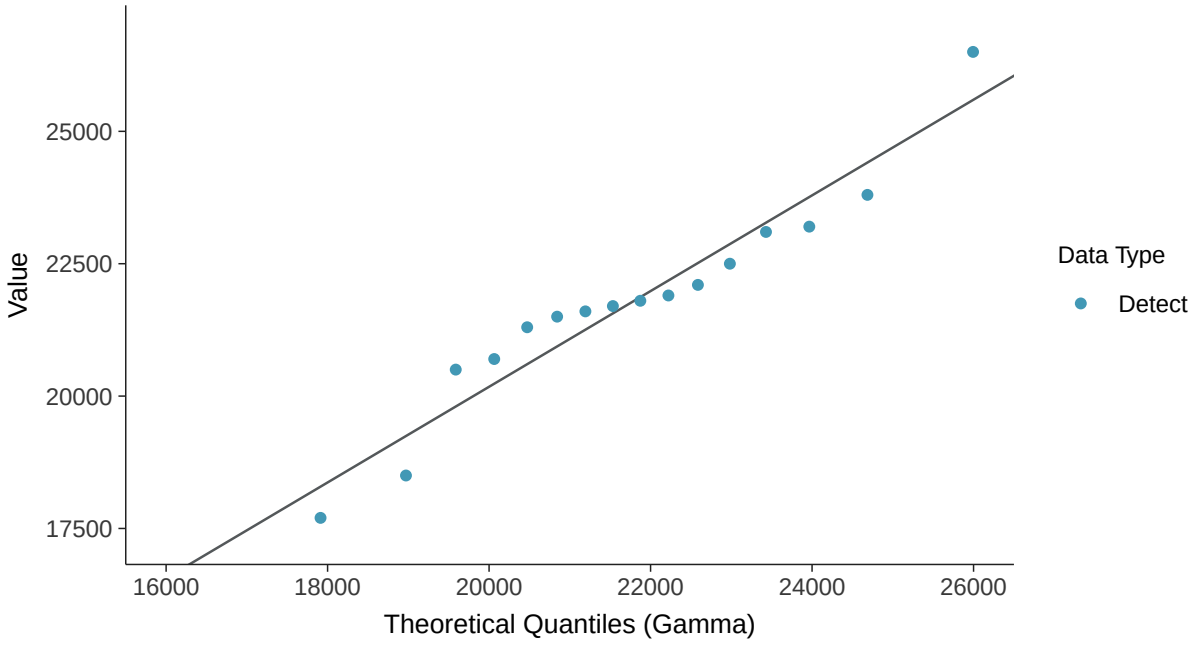
Lognormal Q-Q plot

Calcium, MW-10 (ug/L)



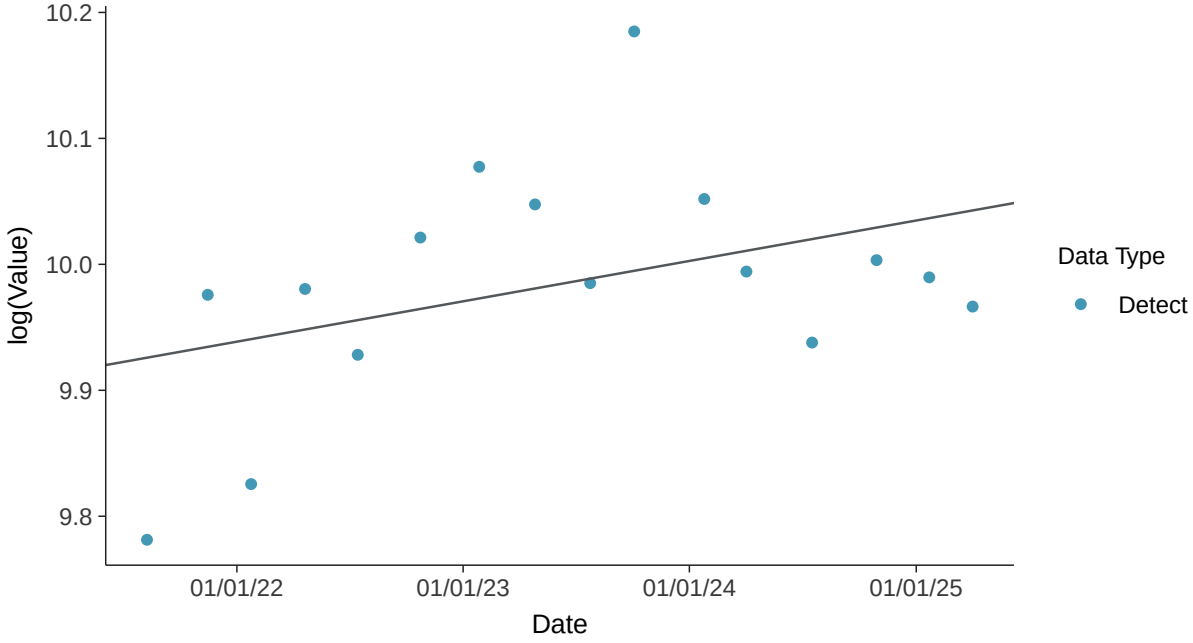
Gamma Q-Q plot

Calcium, MW-10 (ug/L)



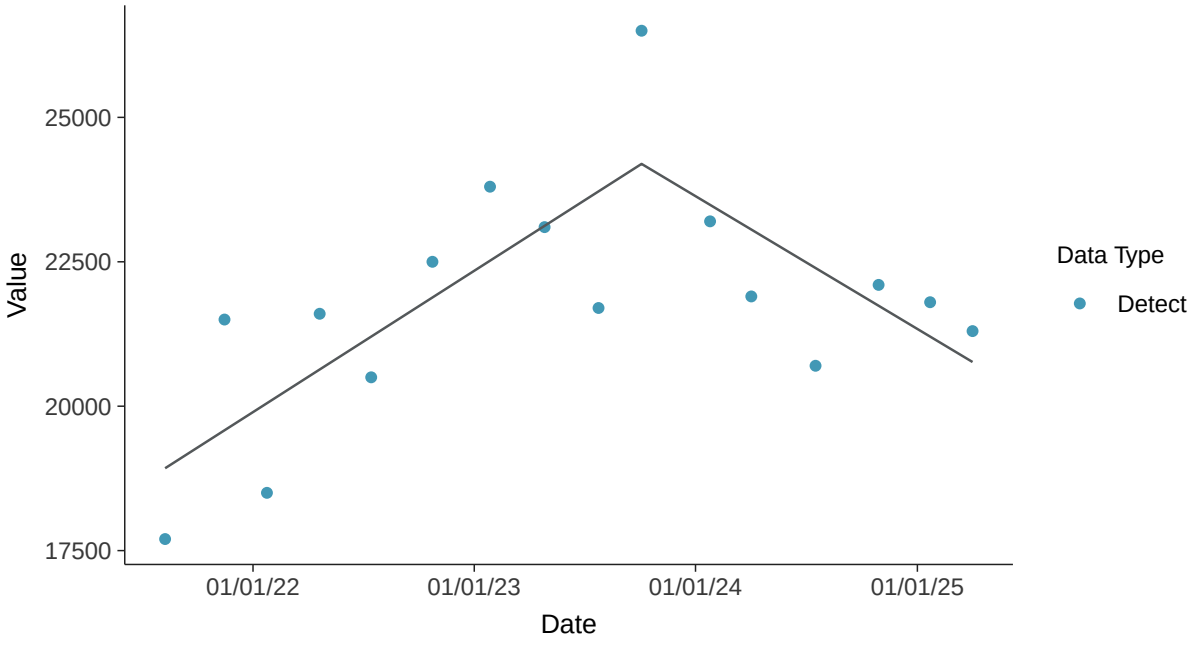
Trend Regression: Lognormal MLE

Calcium, MW-10 (ug/L)



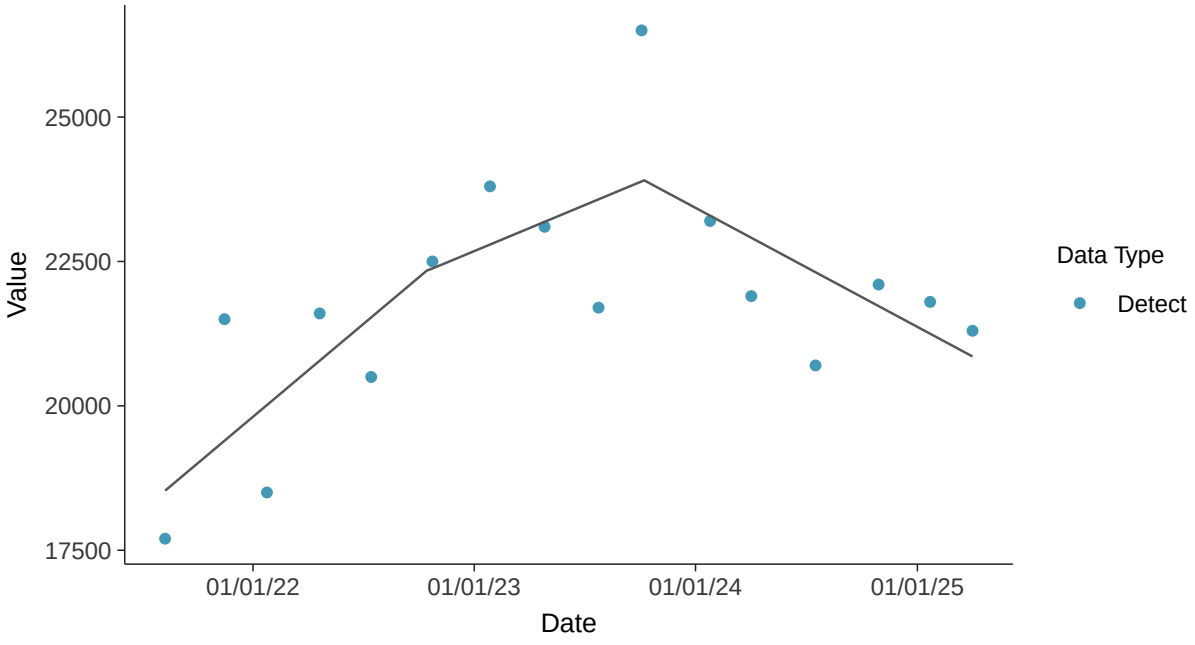
Trend Regression: Piecewise Linear-Linear

Calcium, MW-10 (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Calcium, MW-10 (ug/L)

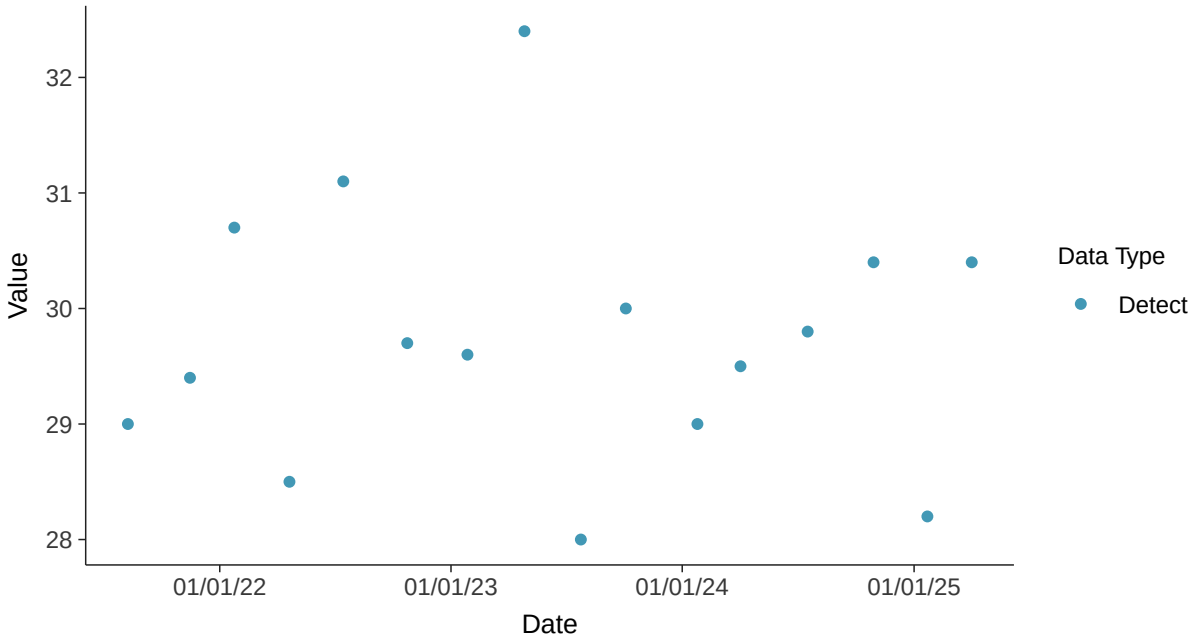


App. III: Chloride, MW-10

ID: 09_02_108

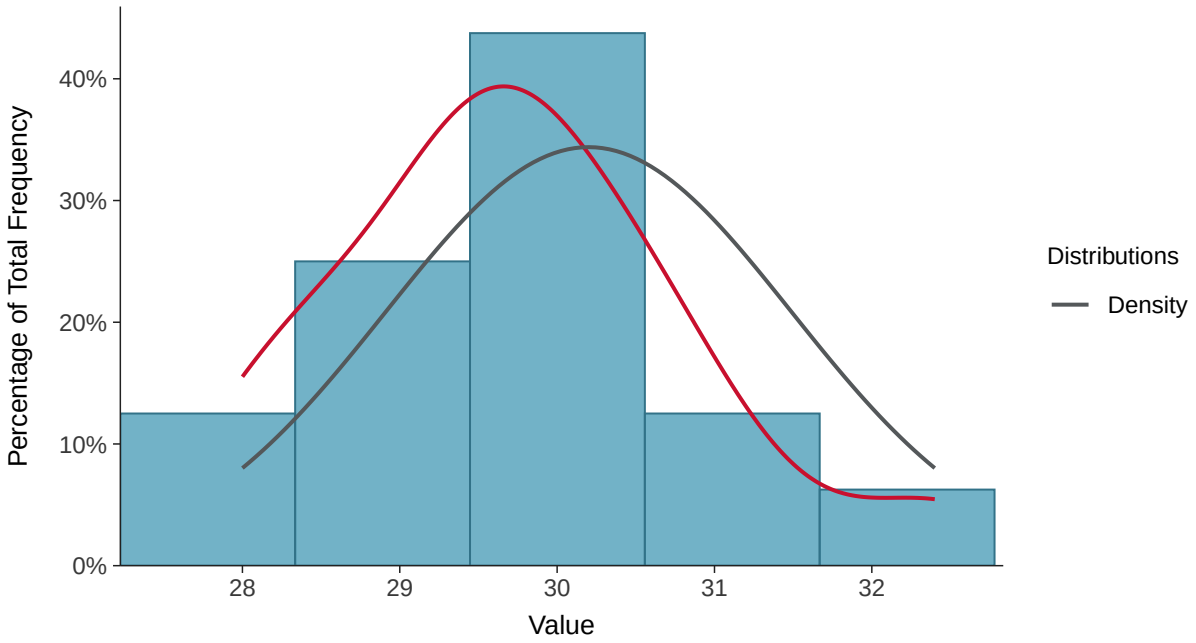
Scatter Plot

Chloride, MW-10 (mg/L)



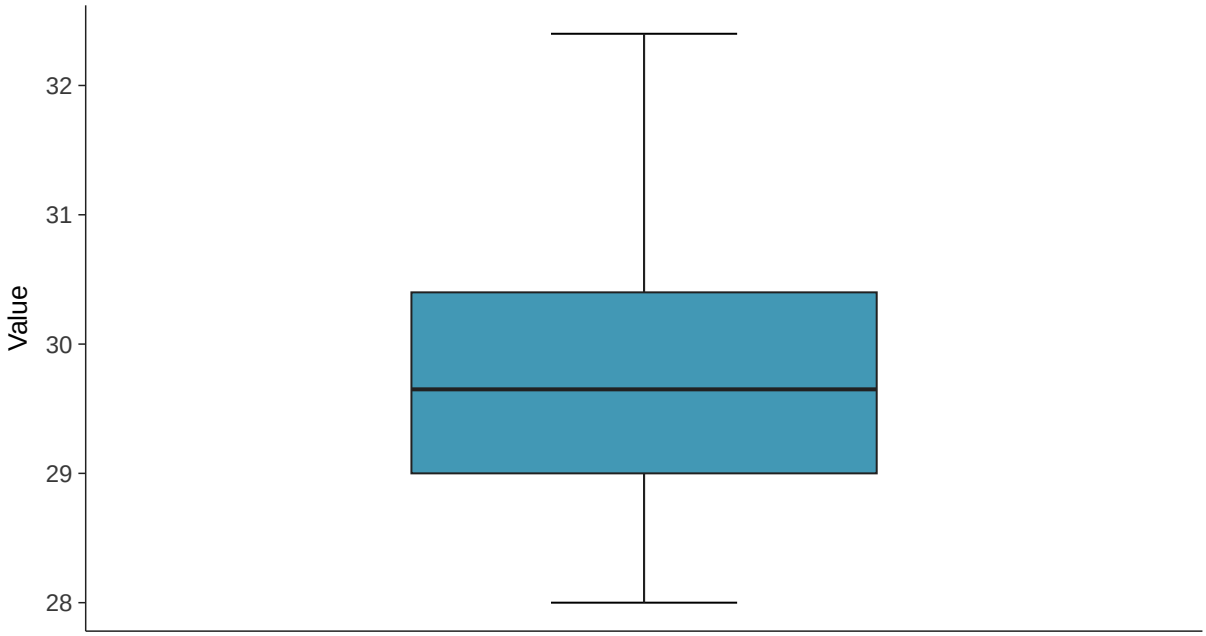
Histogram

Chloride, MW-10 (mg/L)



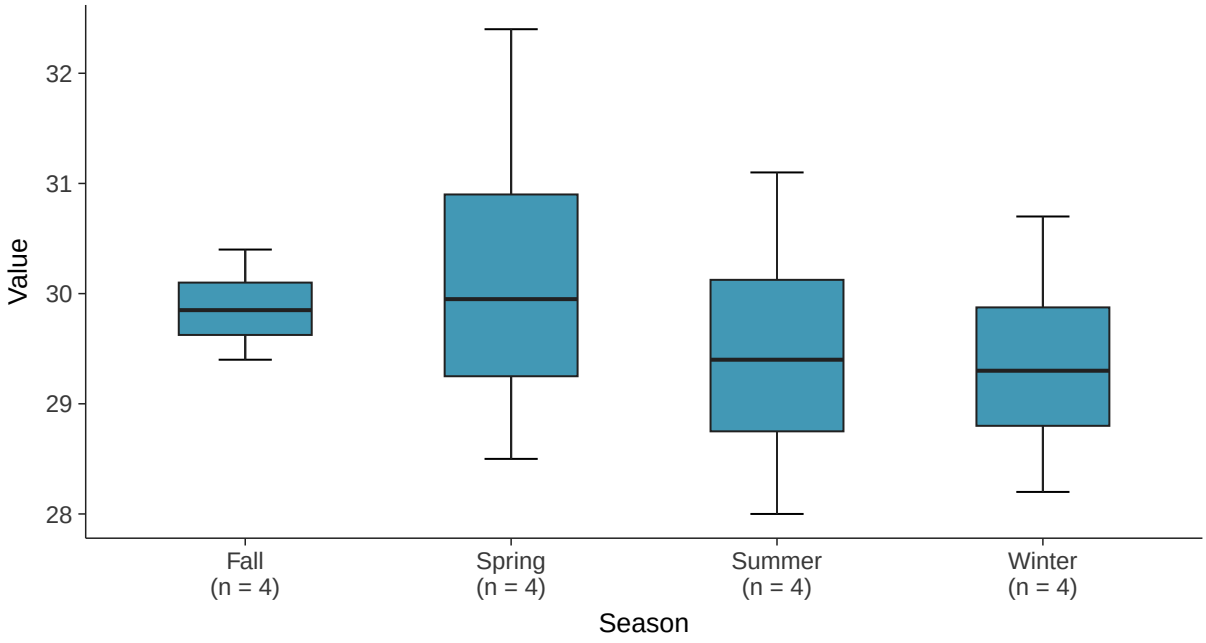
Boxplot

Chloride, MW-10 (mg/L)



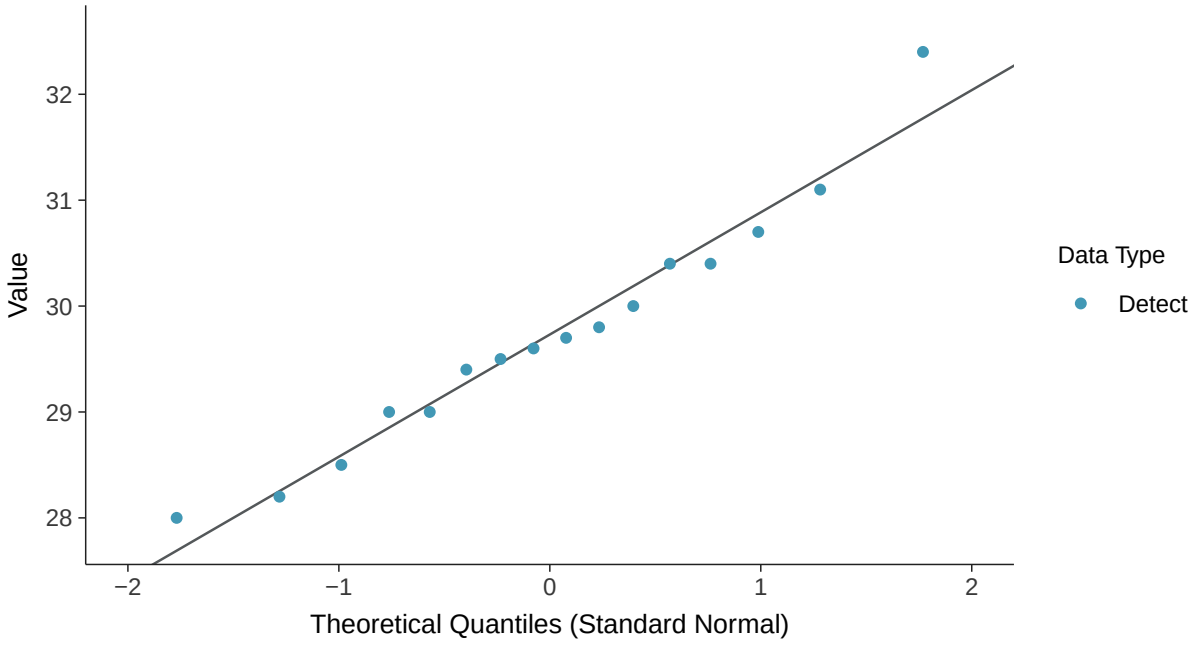
Boxplot by Season

Chloride, MW-10 (mg/L)



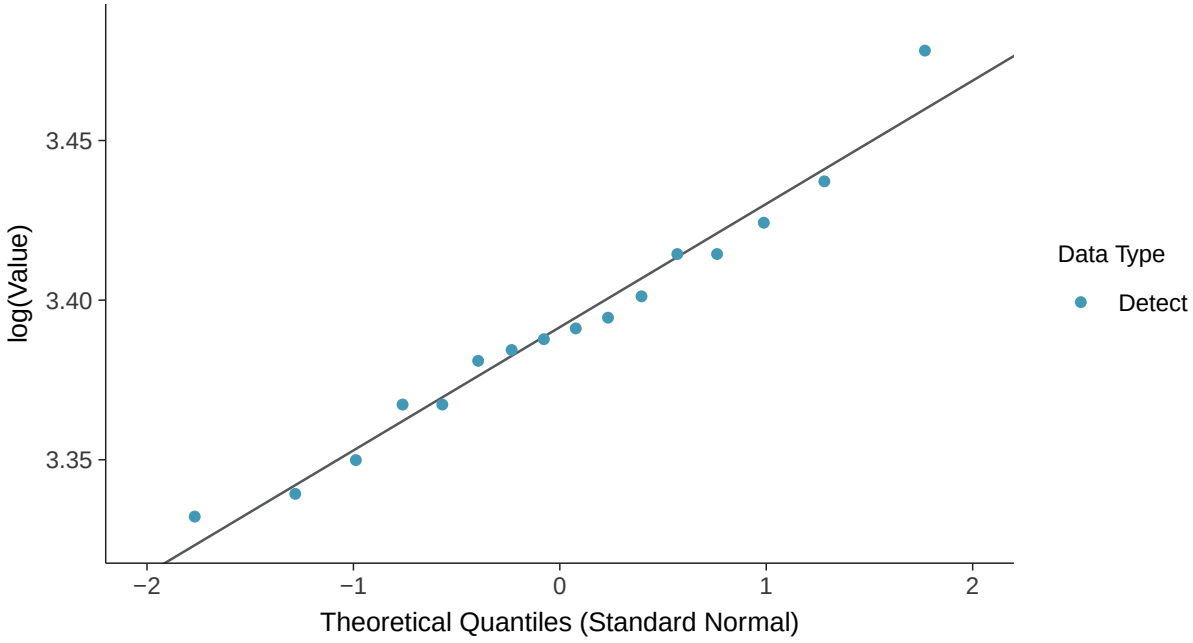
Normal Q-Q plot

Chloride, MW-10 (mg/L)



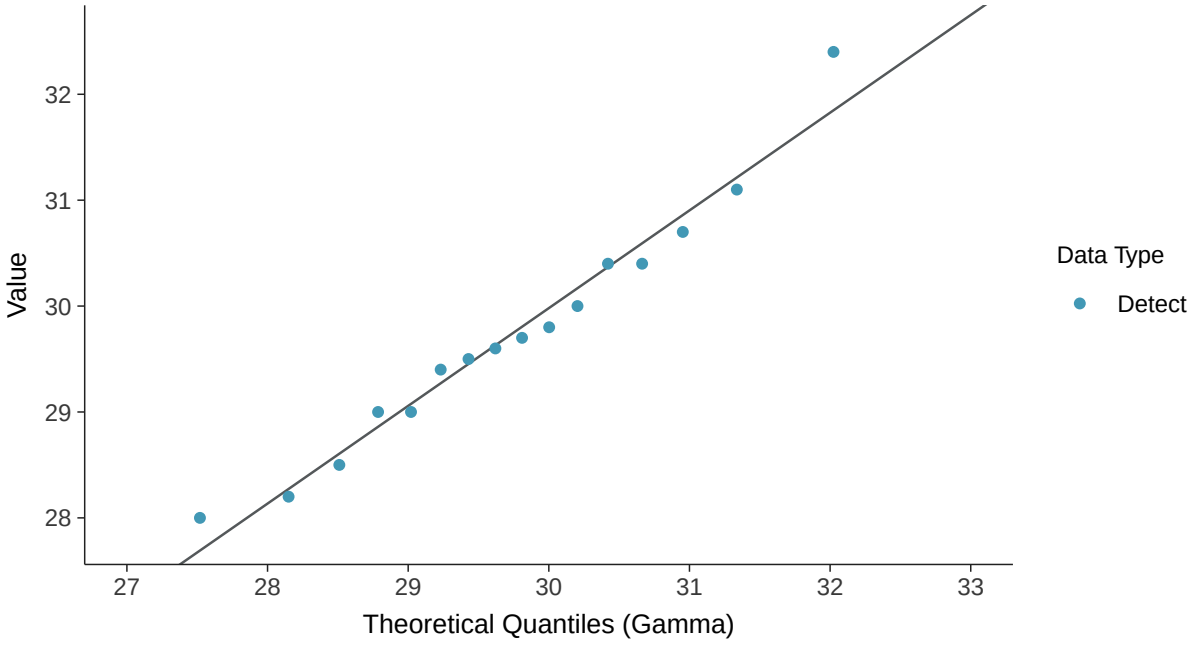
Lognormal Q-Q plot

Chloride, MW-10 (mg/L)



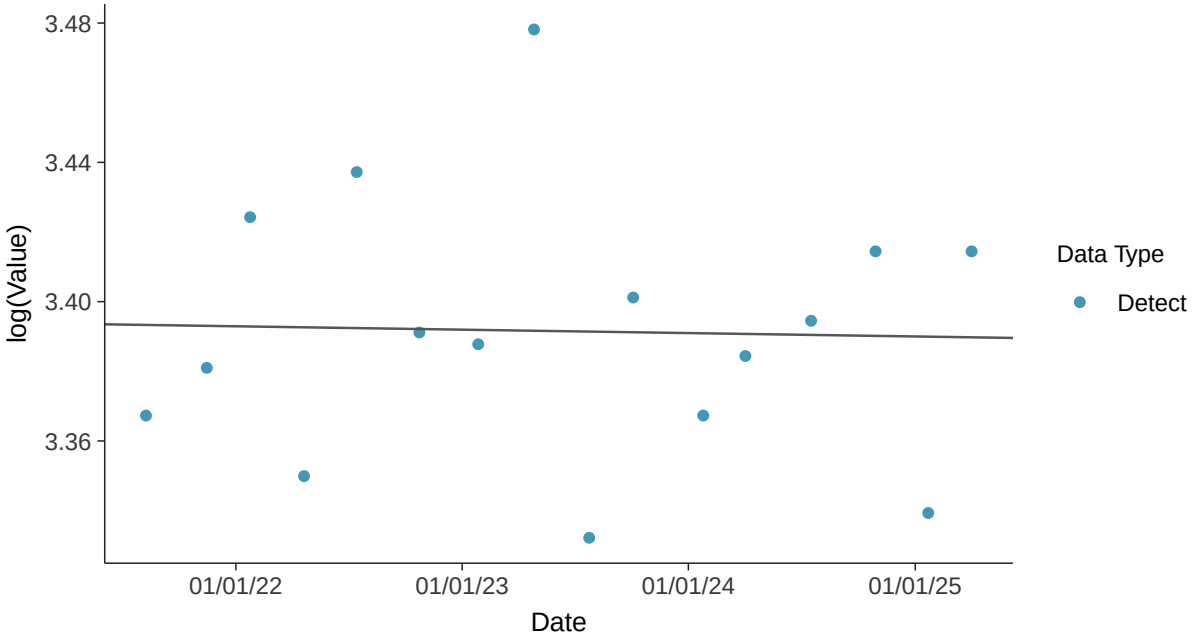
Gamma Q-Q plot

Chloride, MW-10 (mg/L)



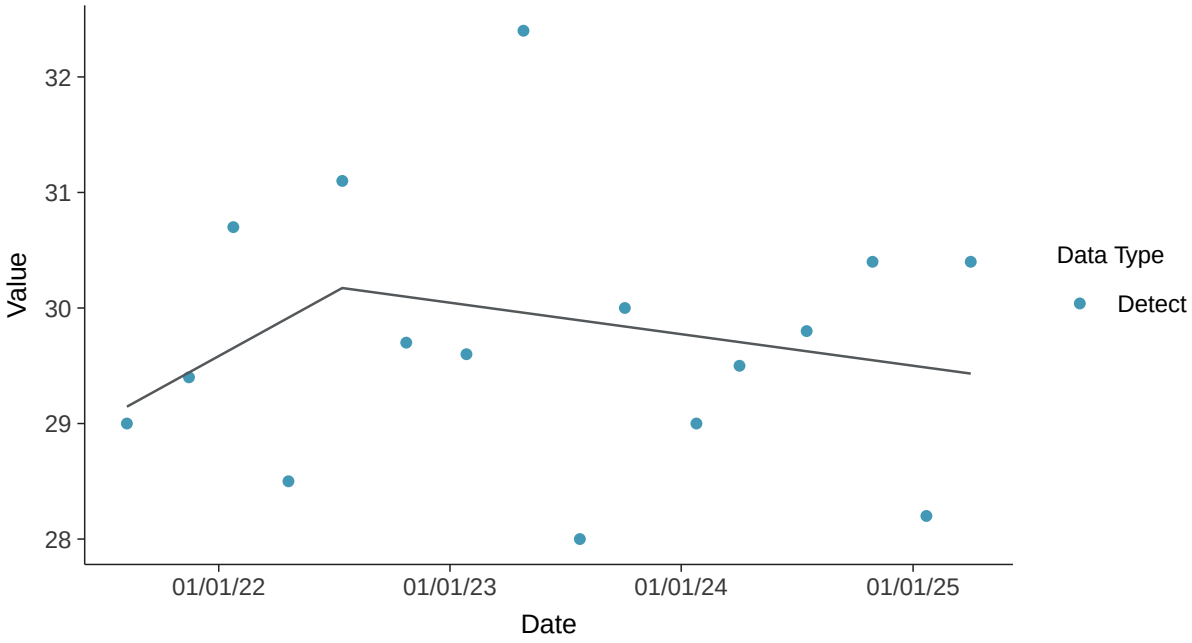
Trend Regression: Lognormal MLE

Chloride, MW-10 (mg/L)



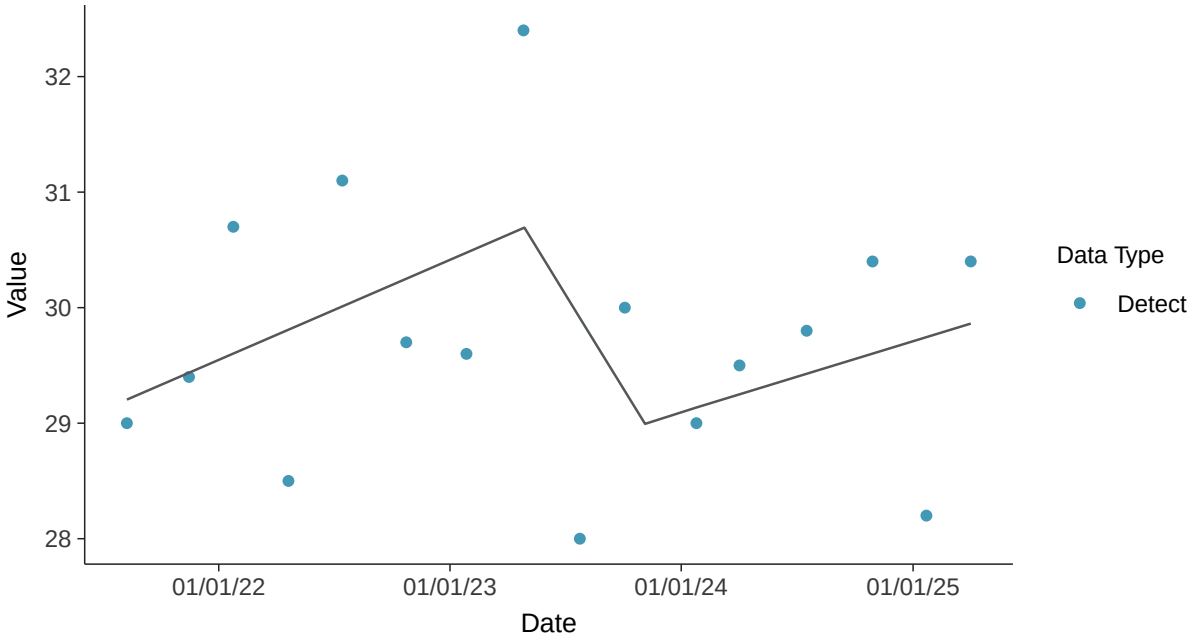
Trend Regression: Piecewise Linear-Linear

Chloride, MW-10 (mg/L)



Trend Regression: Piecewise Linear-Linear-Linear

Chloride, MW-10 (mg/L)

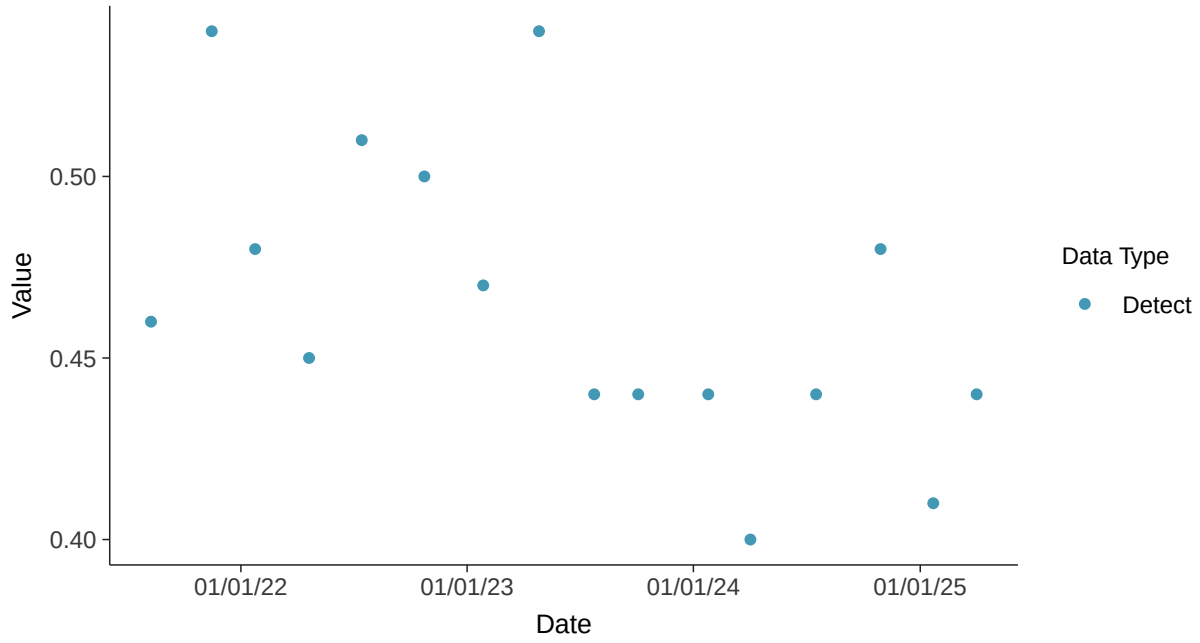


App. III: Fluoride, MW-10

ID: 09_02_112

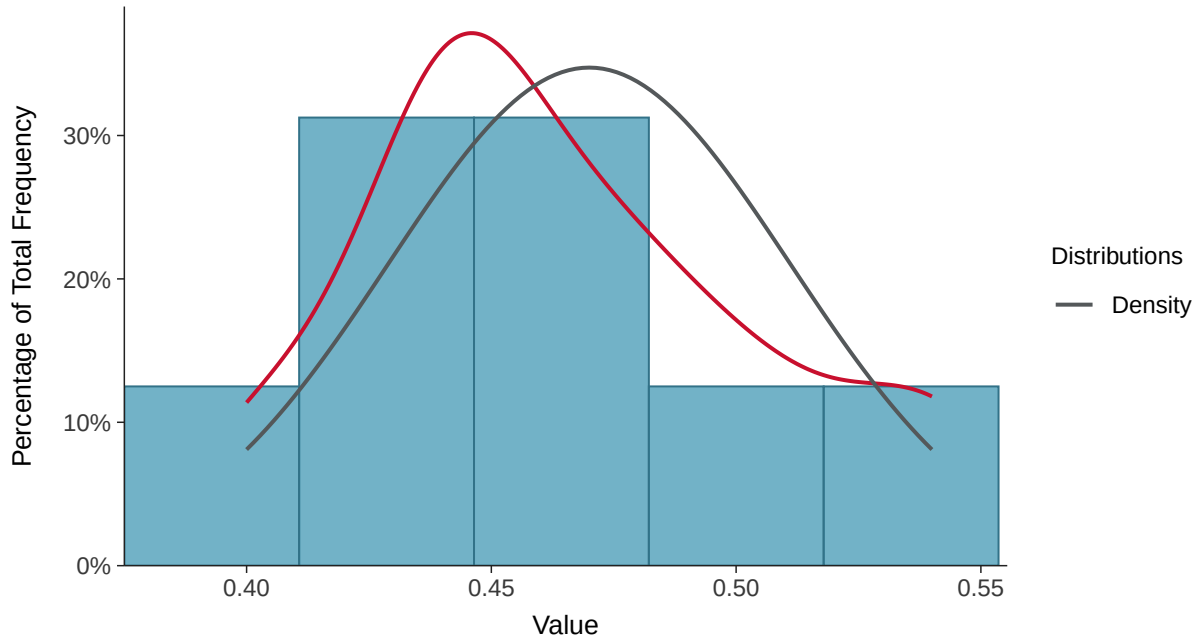
Scatter Plot

Fluoride, MW-10 (mg/L)



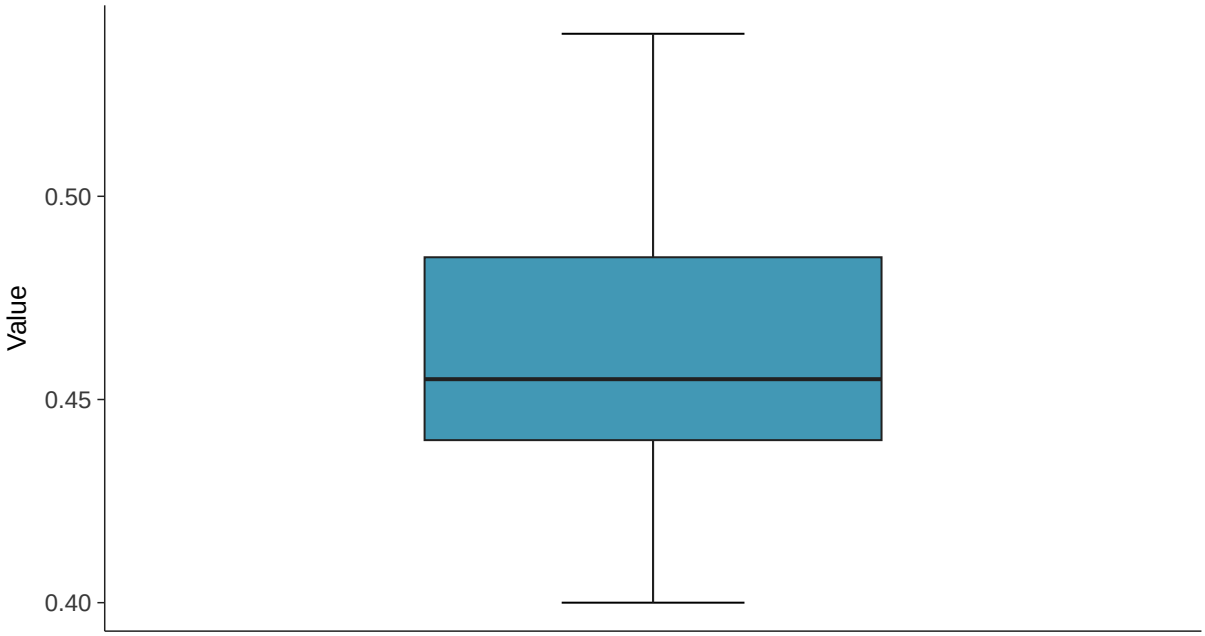
Histogram

Fluoride, MW-10 (mg/L)



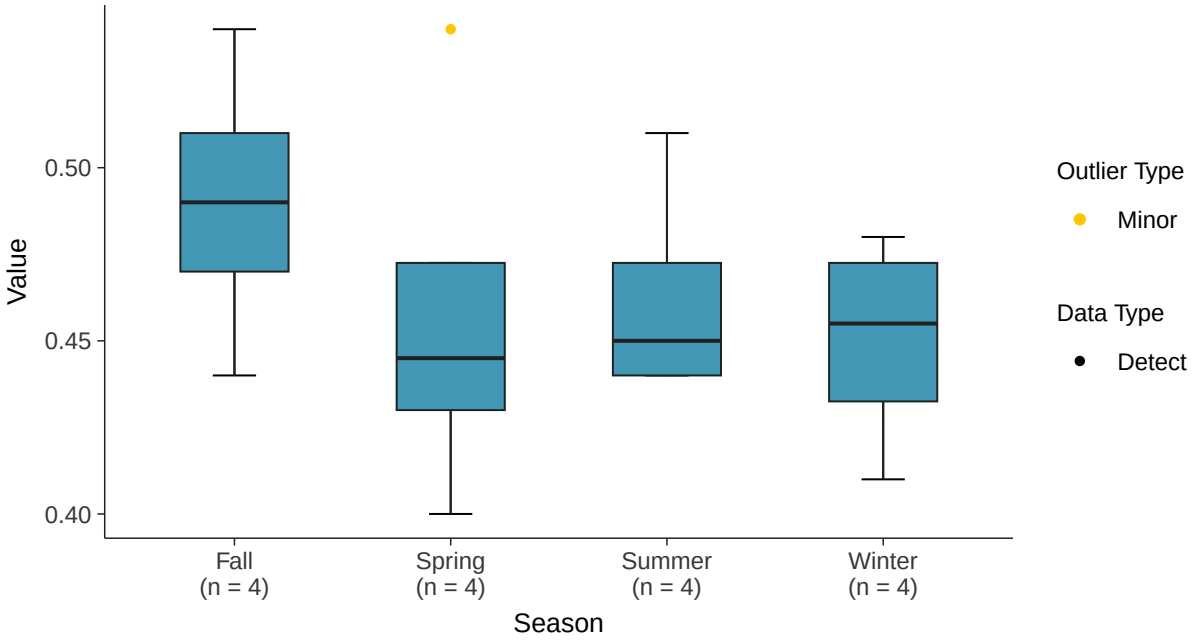
Boxplot

Fluoride, MW-10 (mg/L)



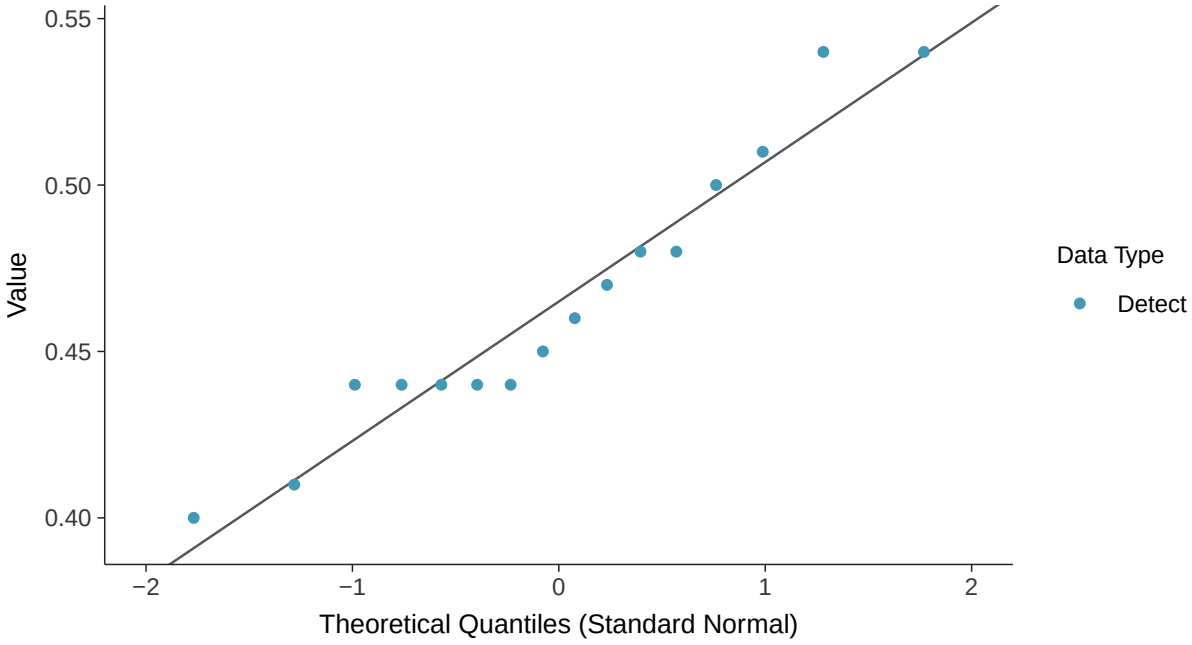
Boxplot by Season

Fluoride, MW-10 (mg/L)



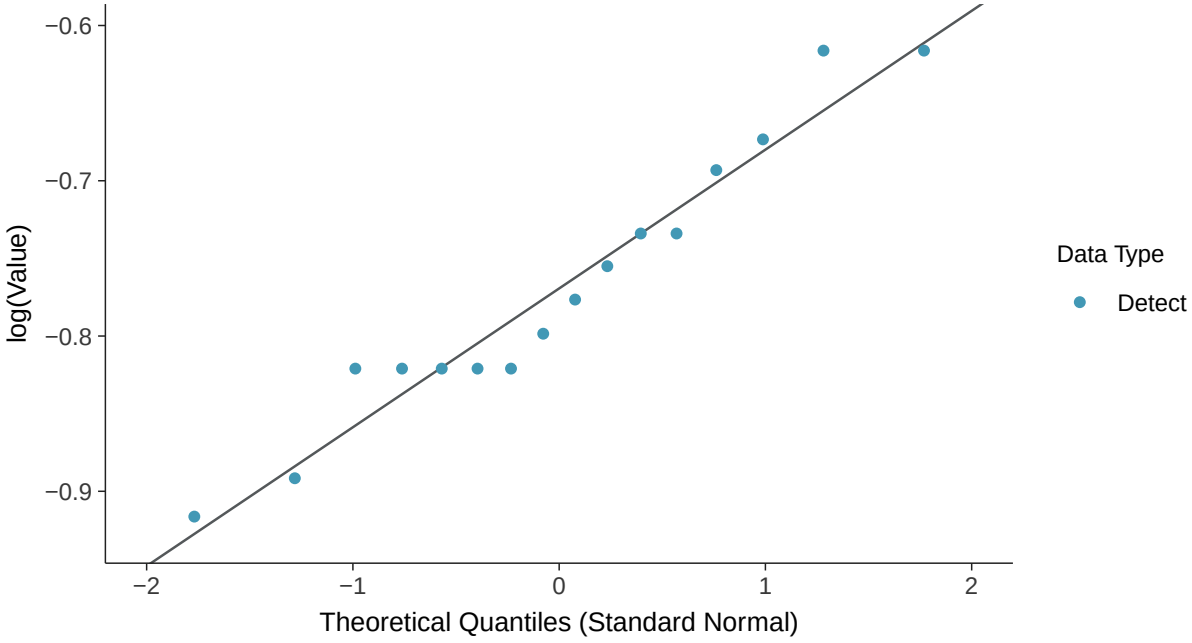
Normal Q-Q plot

Fluoride, MW-10 (mg/L)



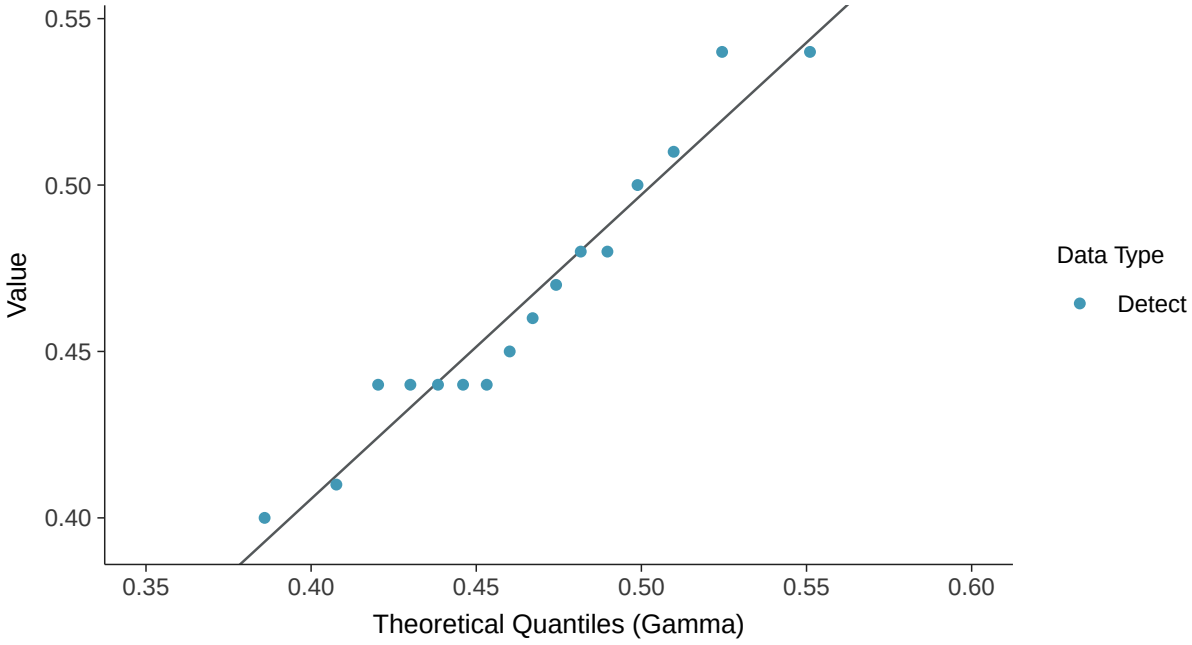
Lognormal Q-Q plot

Fluoride, MW-10 (mg/L)



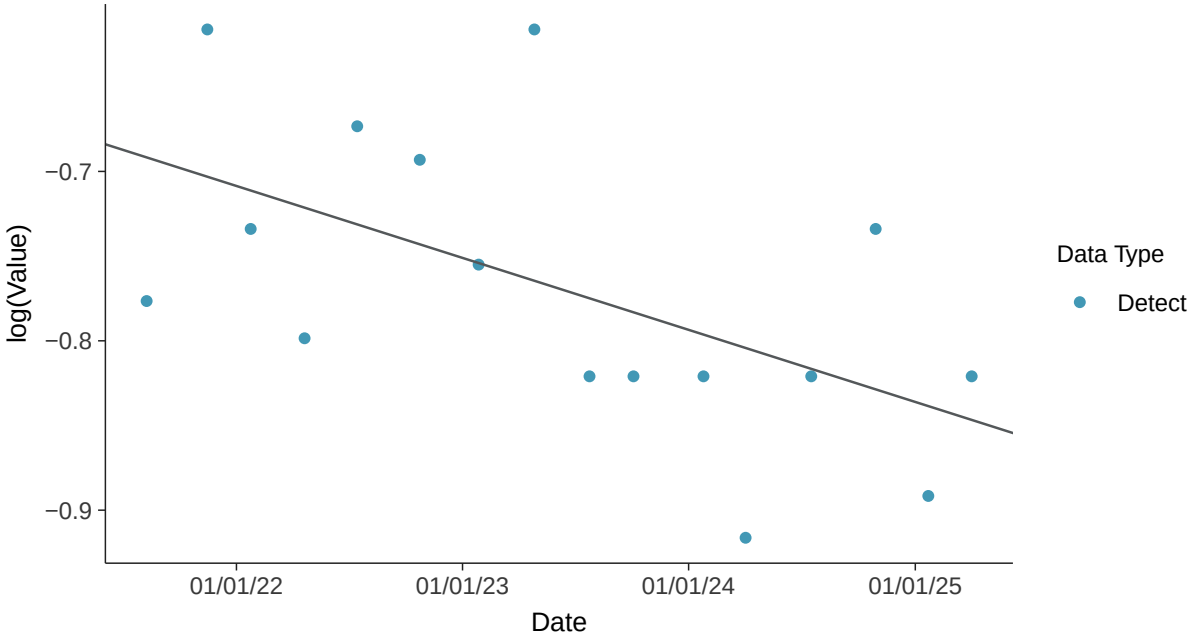
Gamma Q-Q plot

Fluoride, MW-10 (mg/L)



Trend Regression: Lognormal MLE

Fluoride, MW-10 (mg/L)

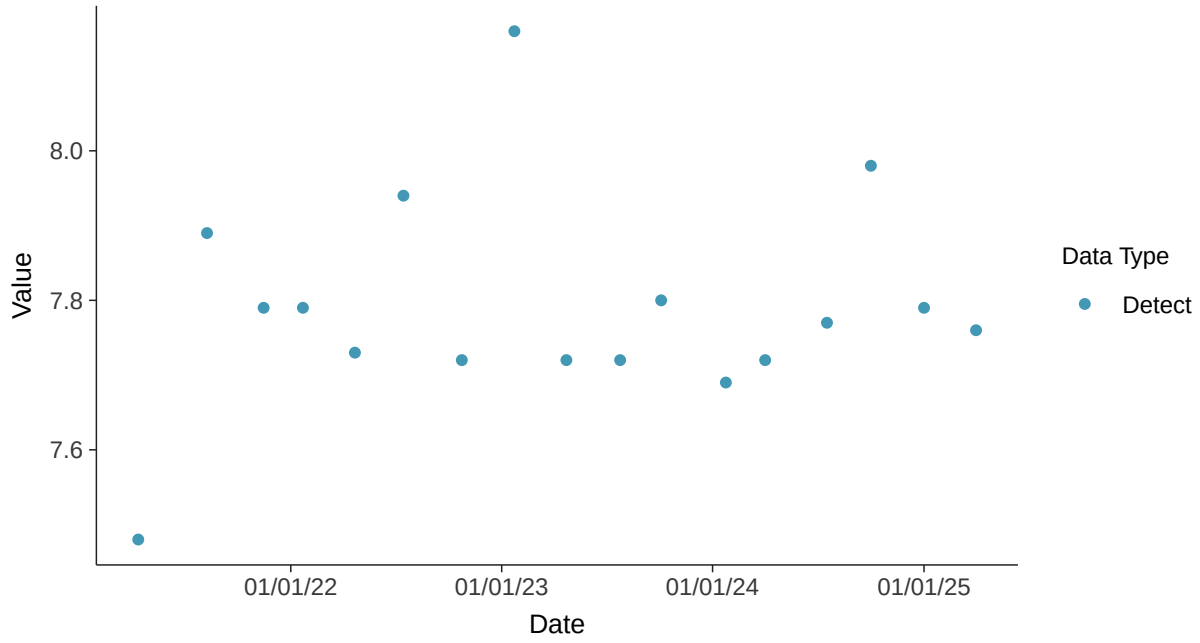


App. III: pH (Field), MW-10

ID: 09_02_118

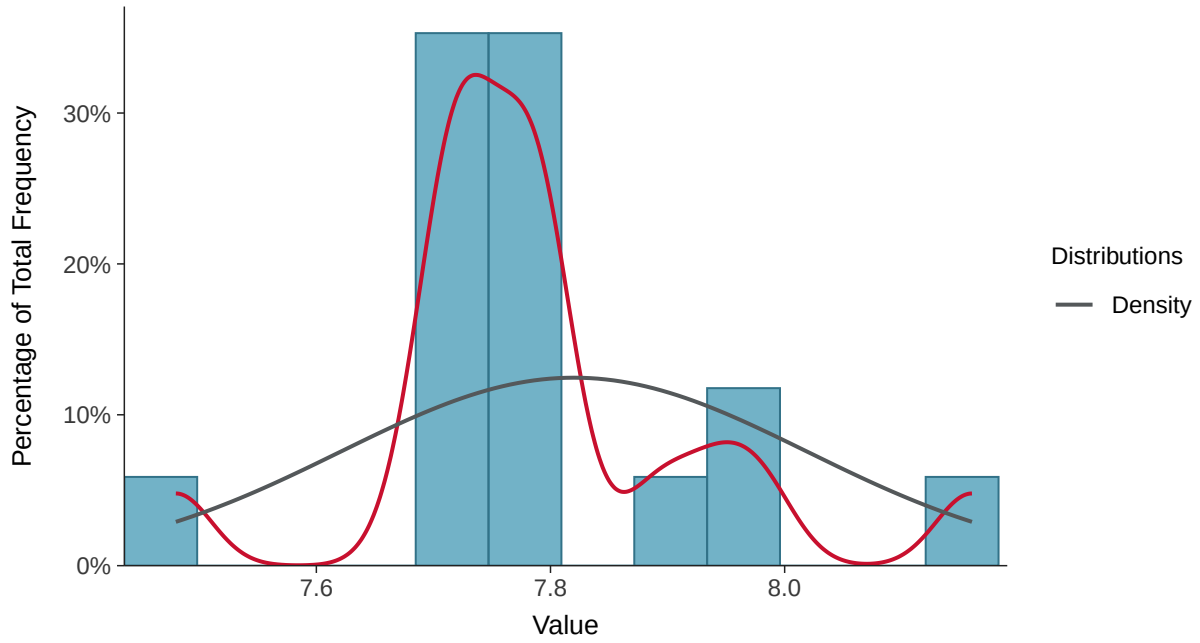
Scatter Plot

pH (Field), MW-10 (S.U.)



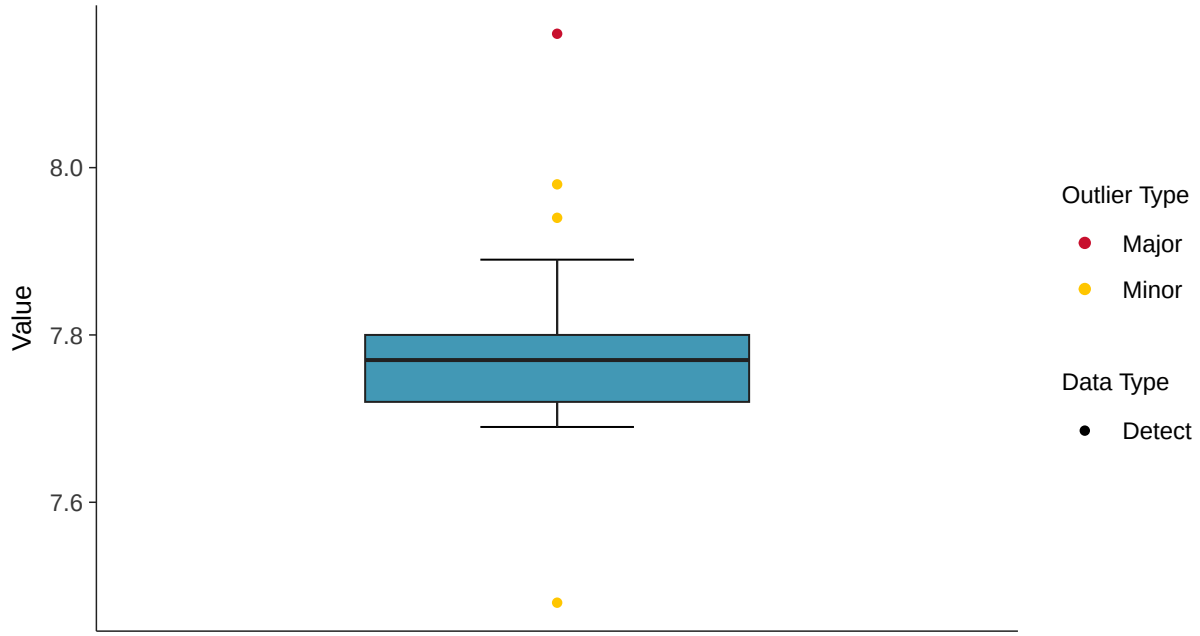
Histogram

pH (Field), MW-10 (S.U.)



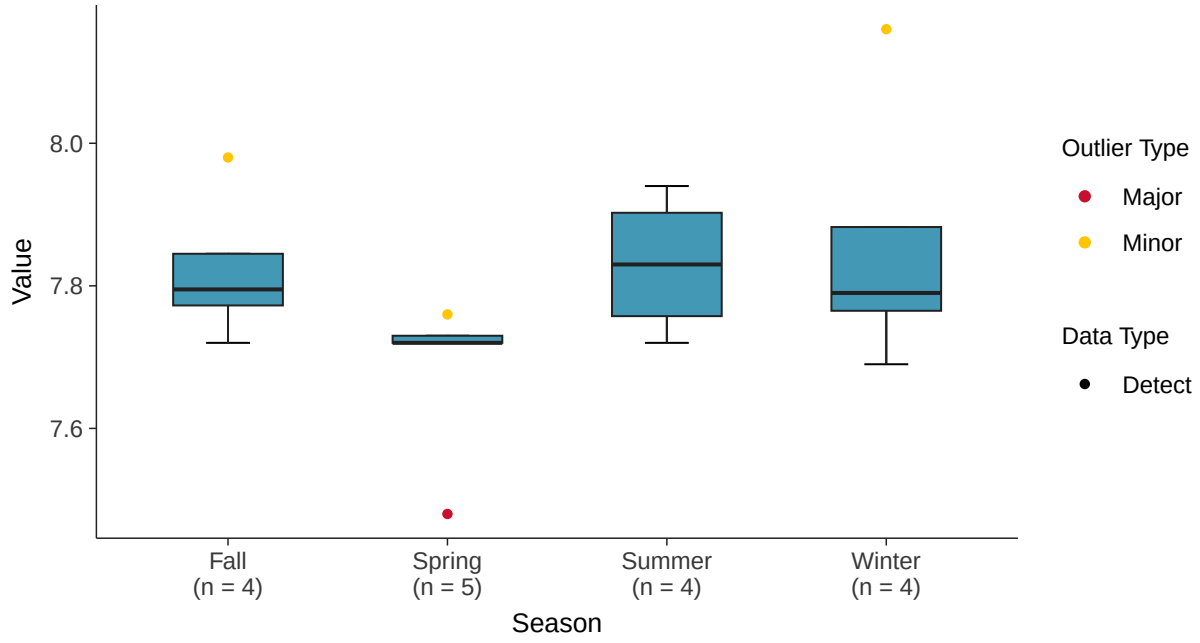
Boxplot

pH (Field), MW-10 (S.U.)



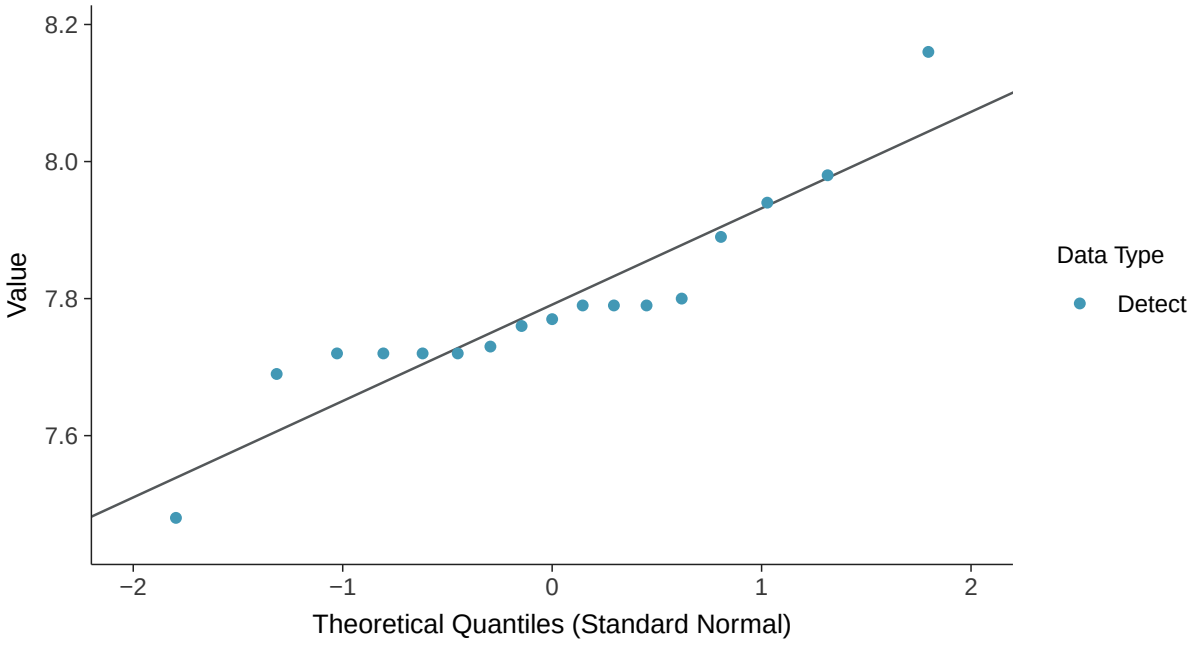
Boxplot by Season

pH (Field), MW-10 (S.U.)



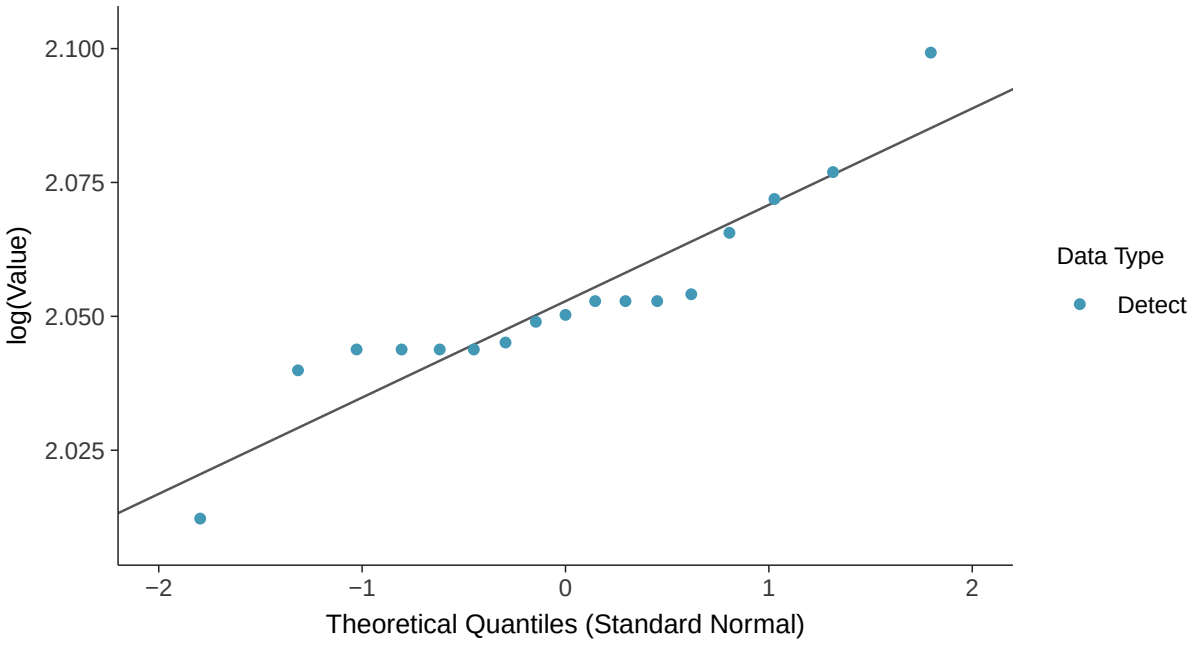
Normal Q-Q plot

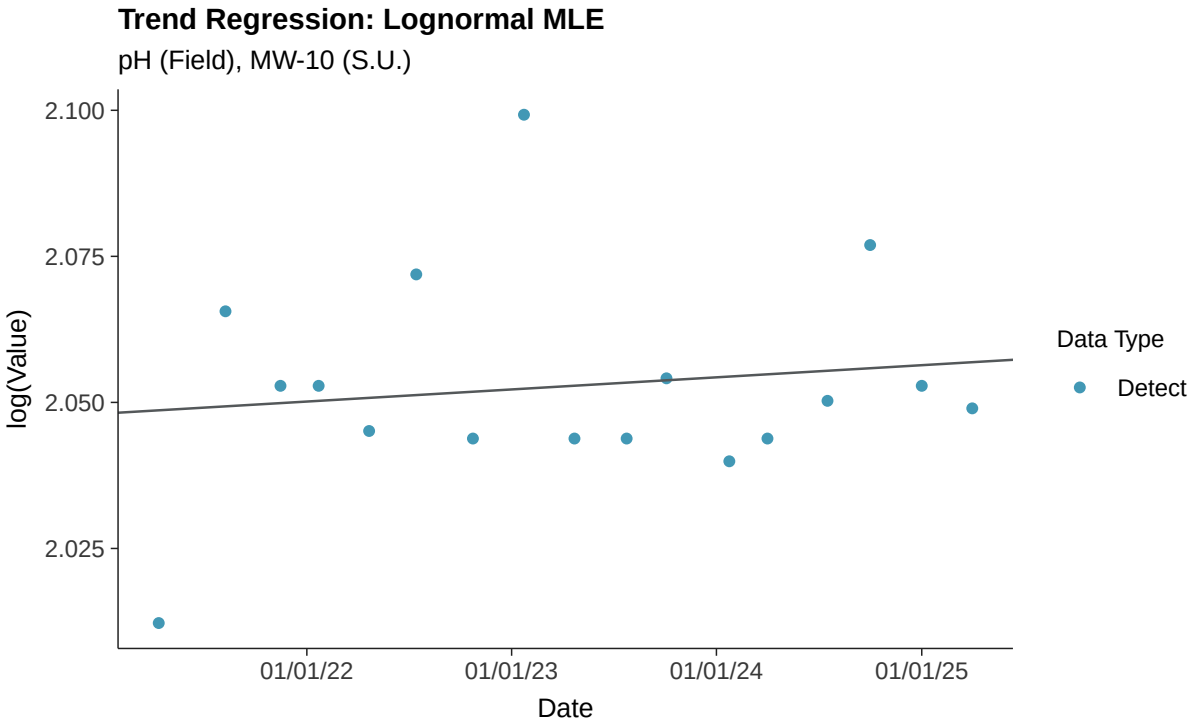
pH (Field), MW-10 (S.U.)



Lognormal Q-Q plot

pH (Field), MW-10 (S.U.)



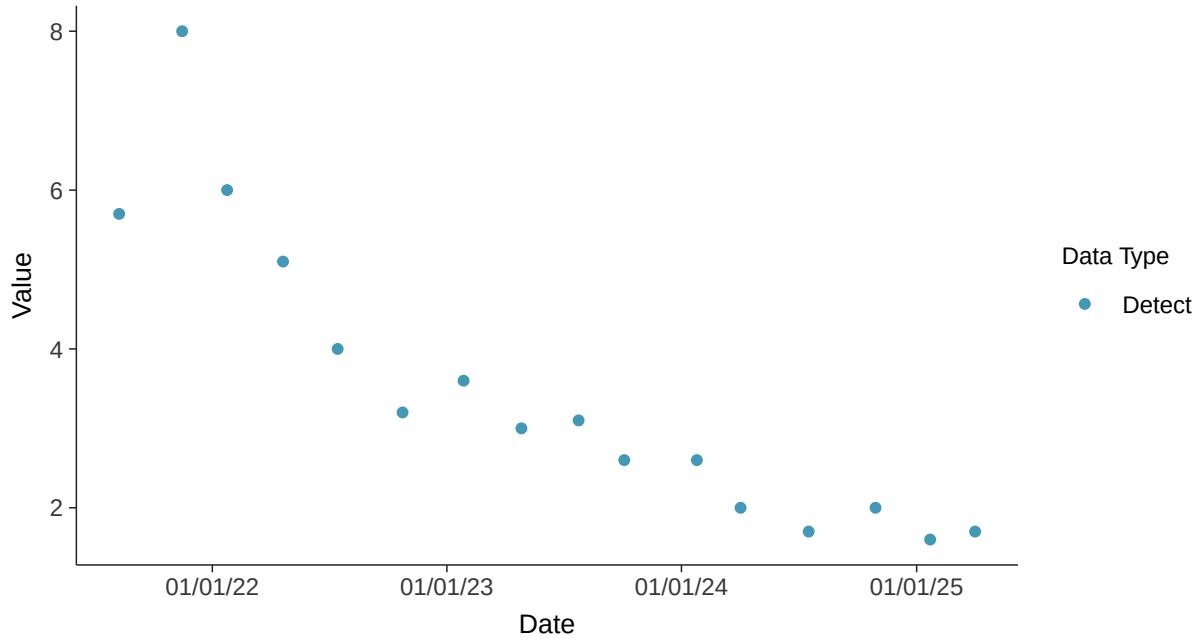

Trend Regression: Lognormal MLE
pH (Field), MW-10 (S.U.)
2.100
2.075
2.050
2.025
log(Value)
01/01/22
01/01/23
01/01/24
01/01/25
Date
Data Type
Detect

App. III: Sulfate, MW-10

ID: 09_02_123

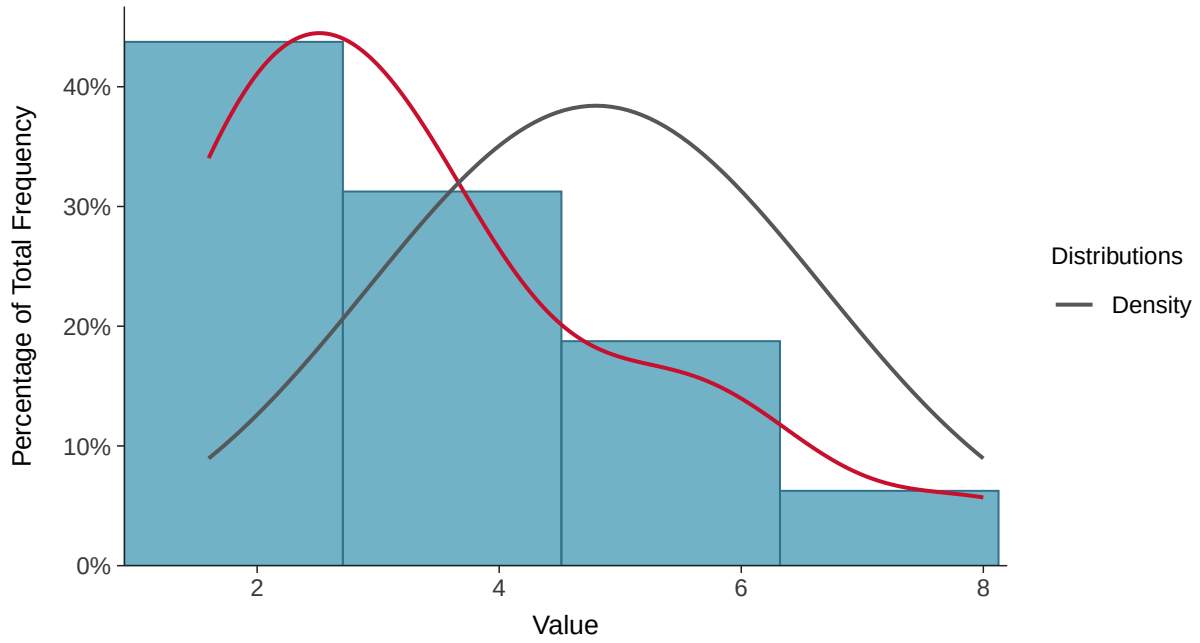
Scatter Plot

Sulfate, MW-10 (mg/L)



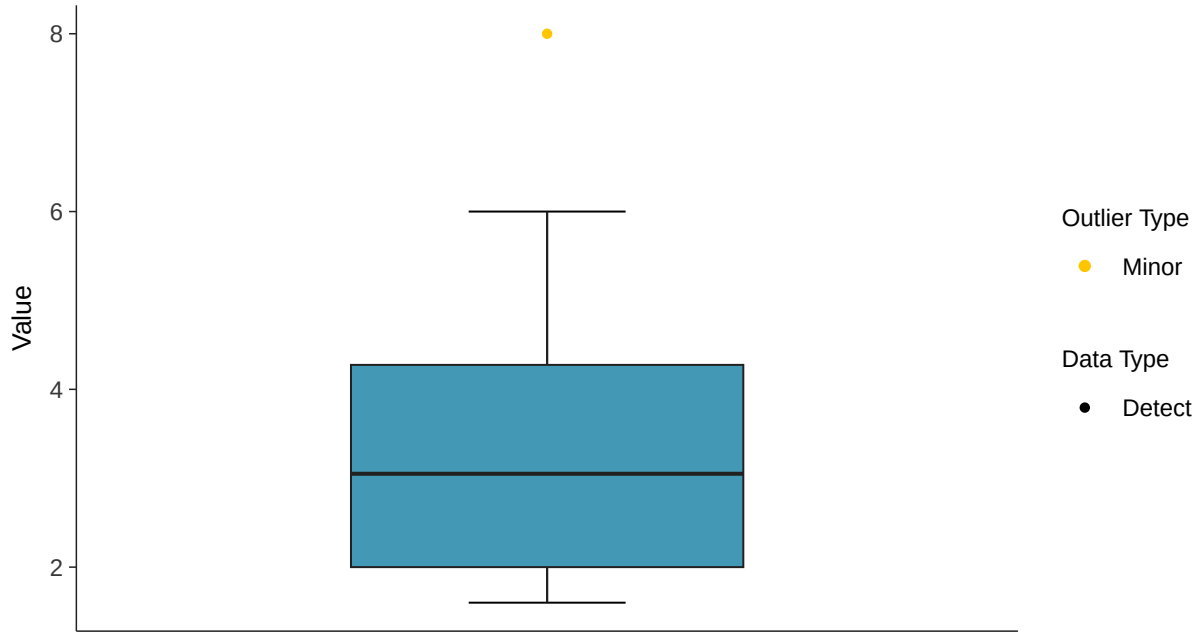
Histogram

Sulfate, MW-10 (mg/L)



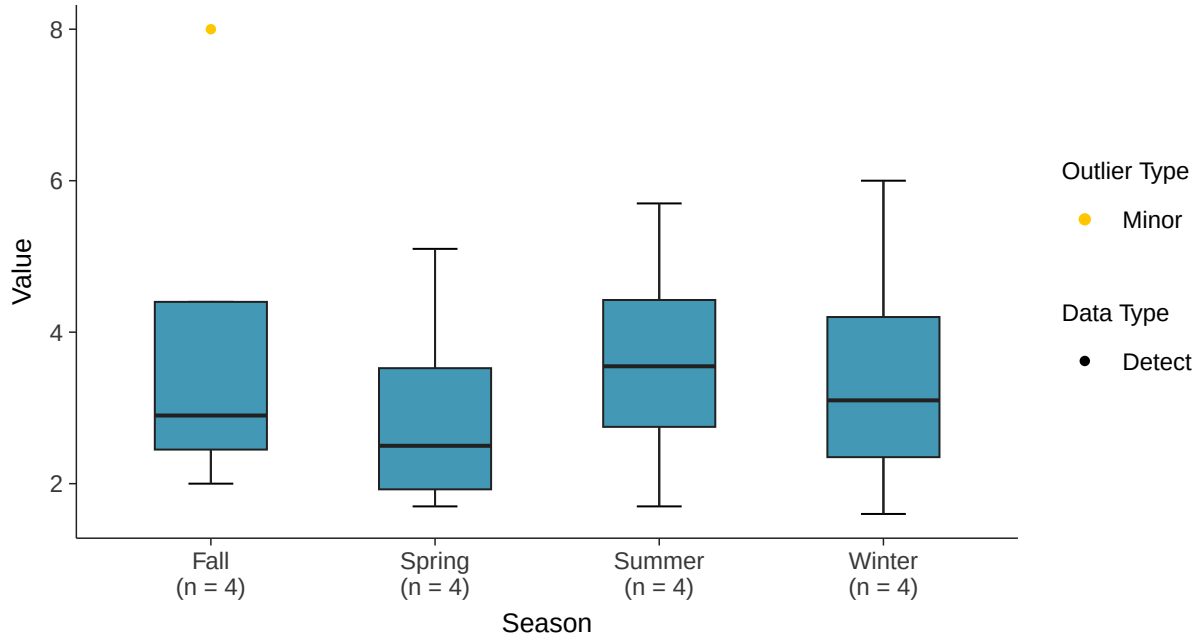
Boxplot

Sulfate, MW-10 (mg/L)



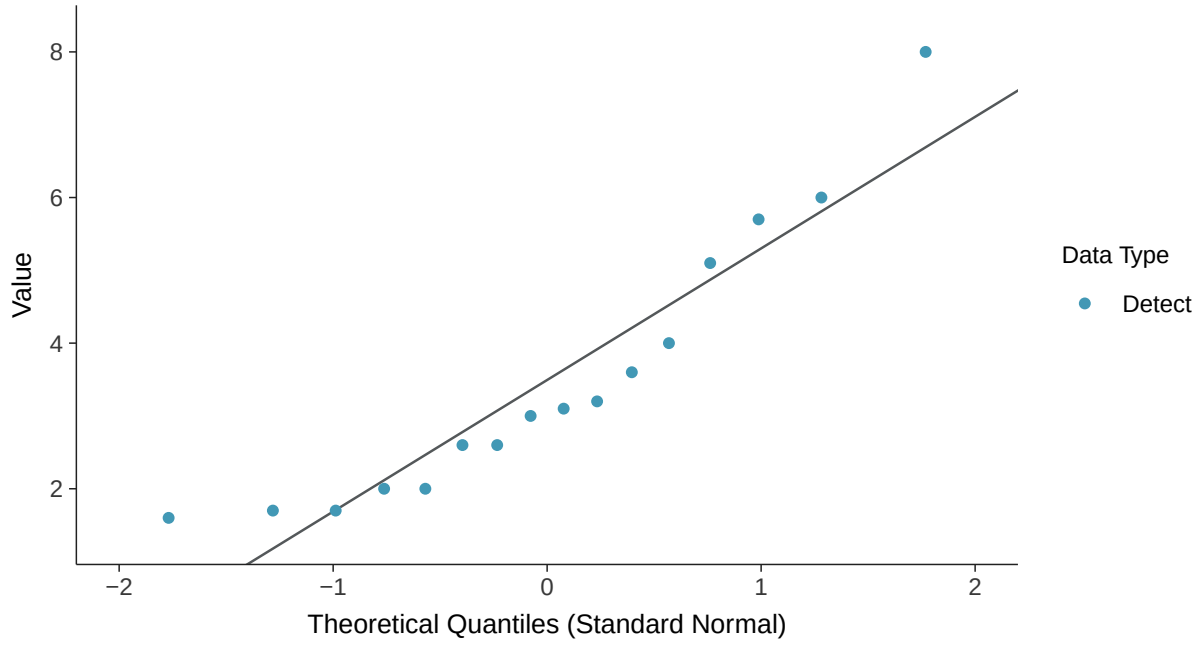
Boxplot by Season

Sulfate, MW-10 (mg/L)



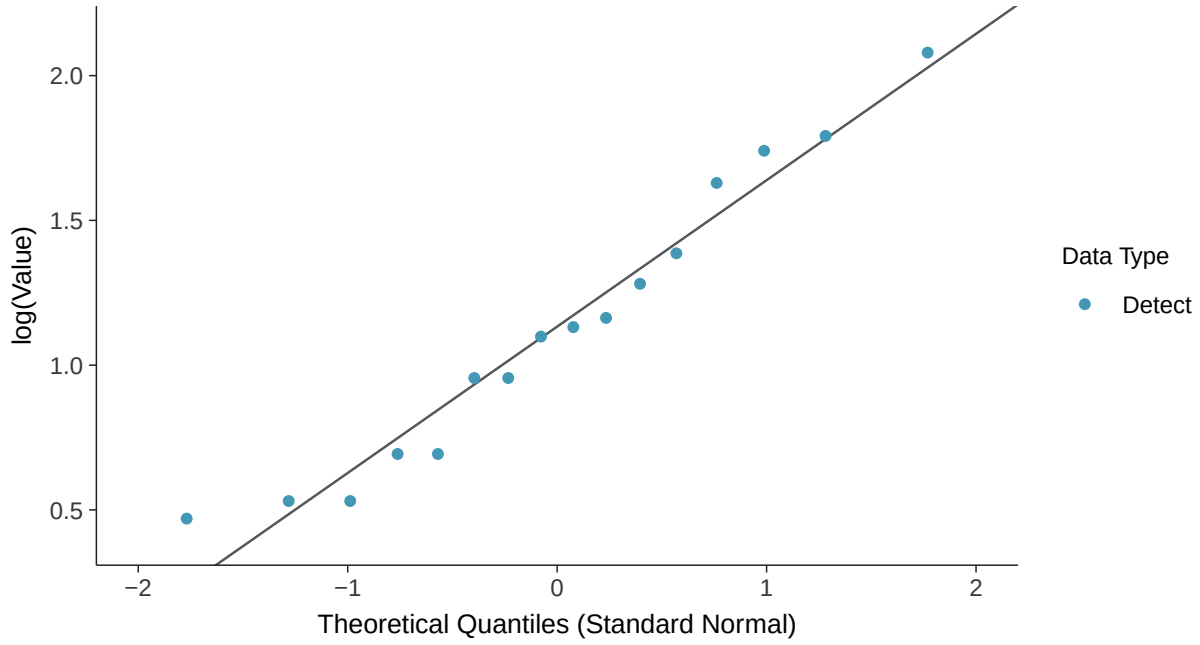
Normal Q-Q plot

Sulfate, MW-10 (mg/L)



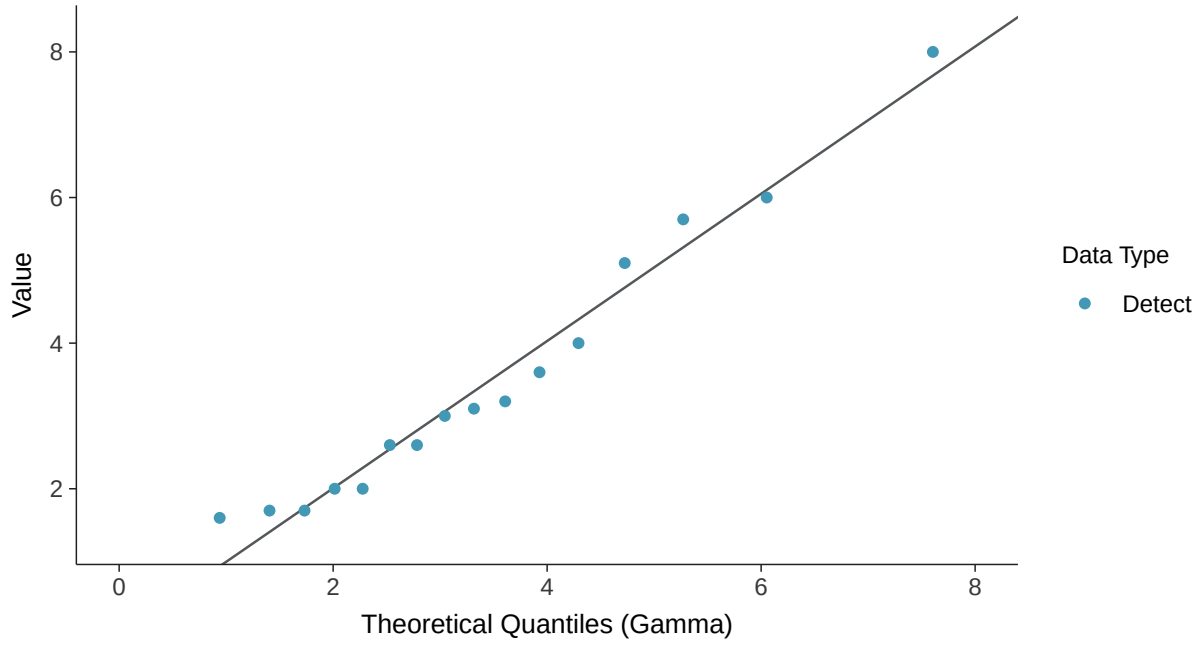
Lognormal Q-Q plot

Sulfate, MW-10 (mg/L)



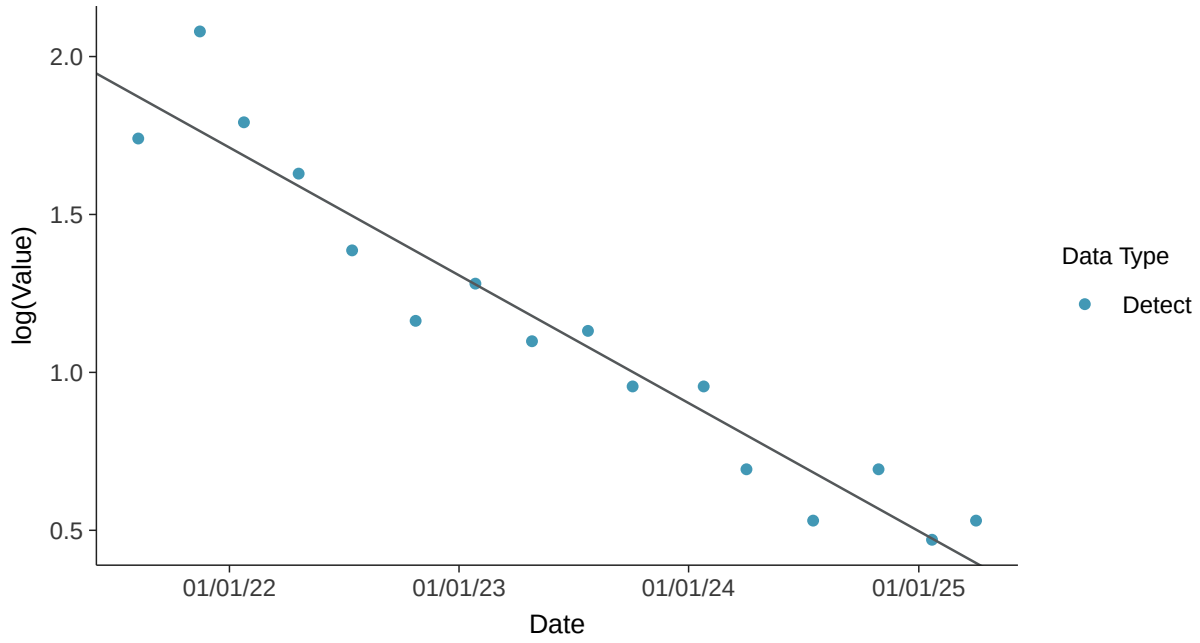
Gamma Q-Q plot

Sulfate, MW-10 (mg/L)



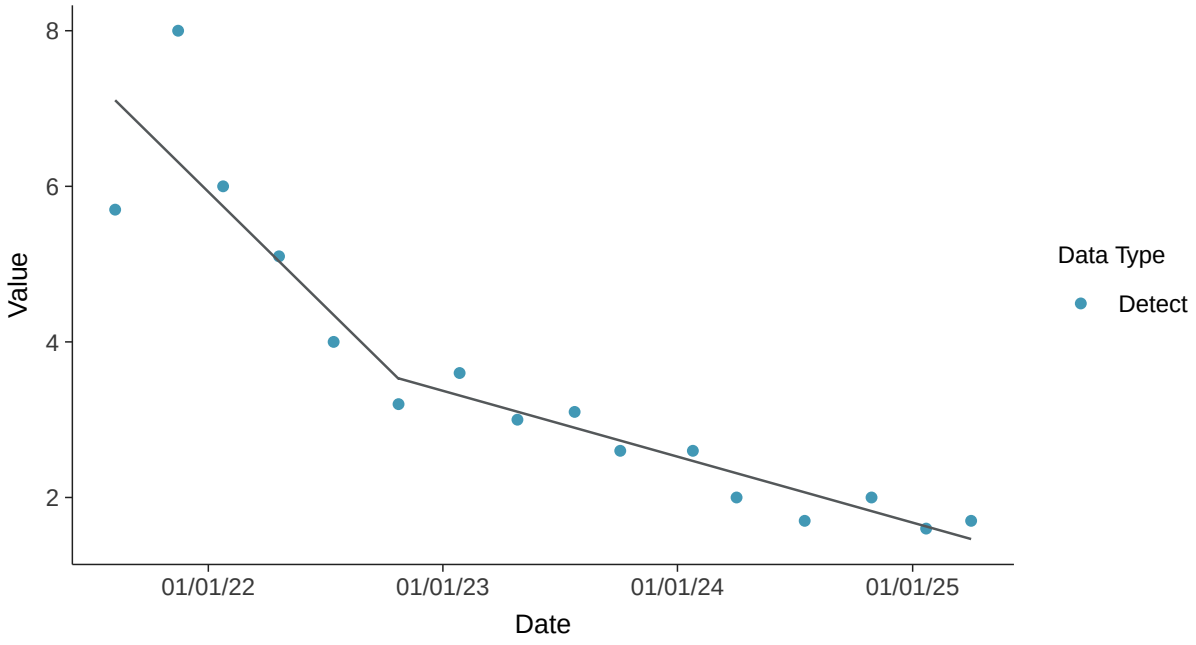
Trend Regression: Lognormal MLE

Sulfate, MW-10 (mg/L)



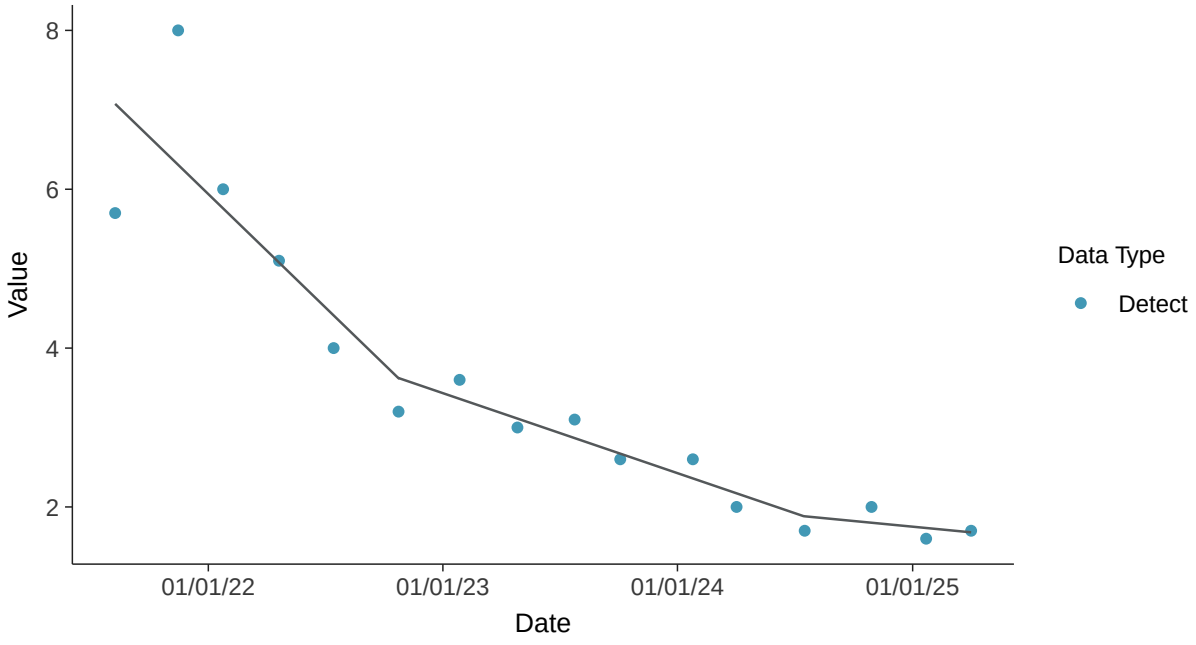
Trend Regression: Piecewise Linear-Linear

Sulfate, MW-10 (mg/L)



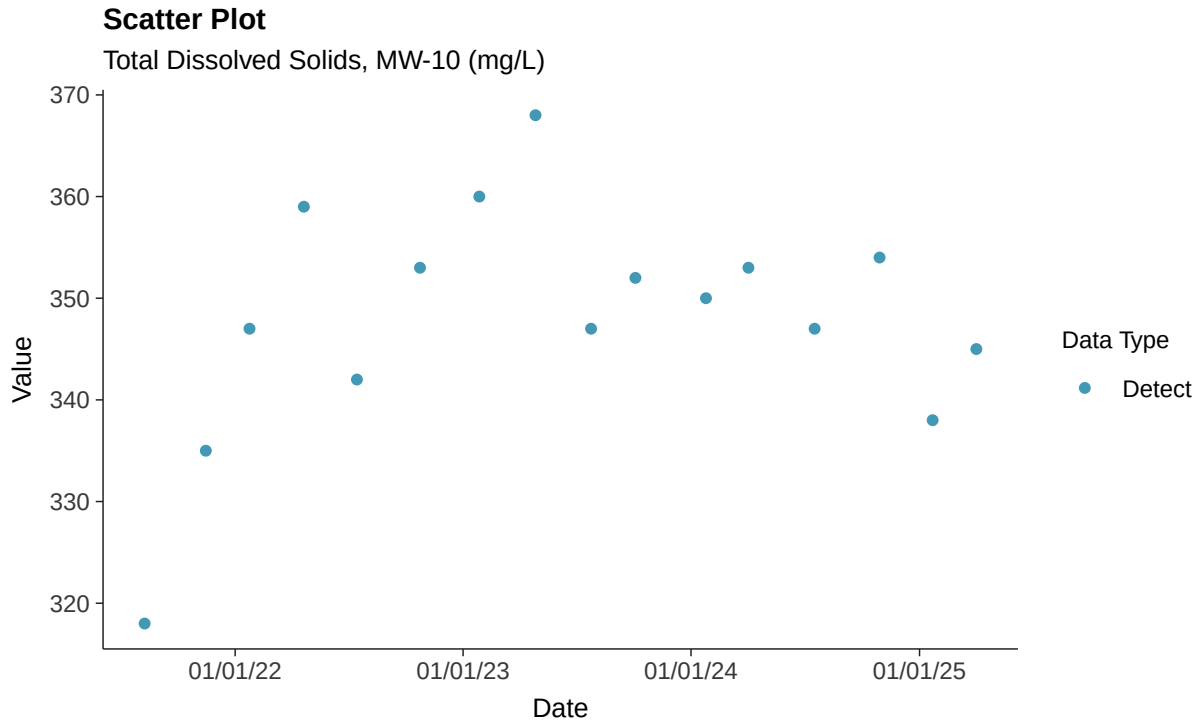
Trend Regression: Piecewise Linear-Linear-Linear

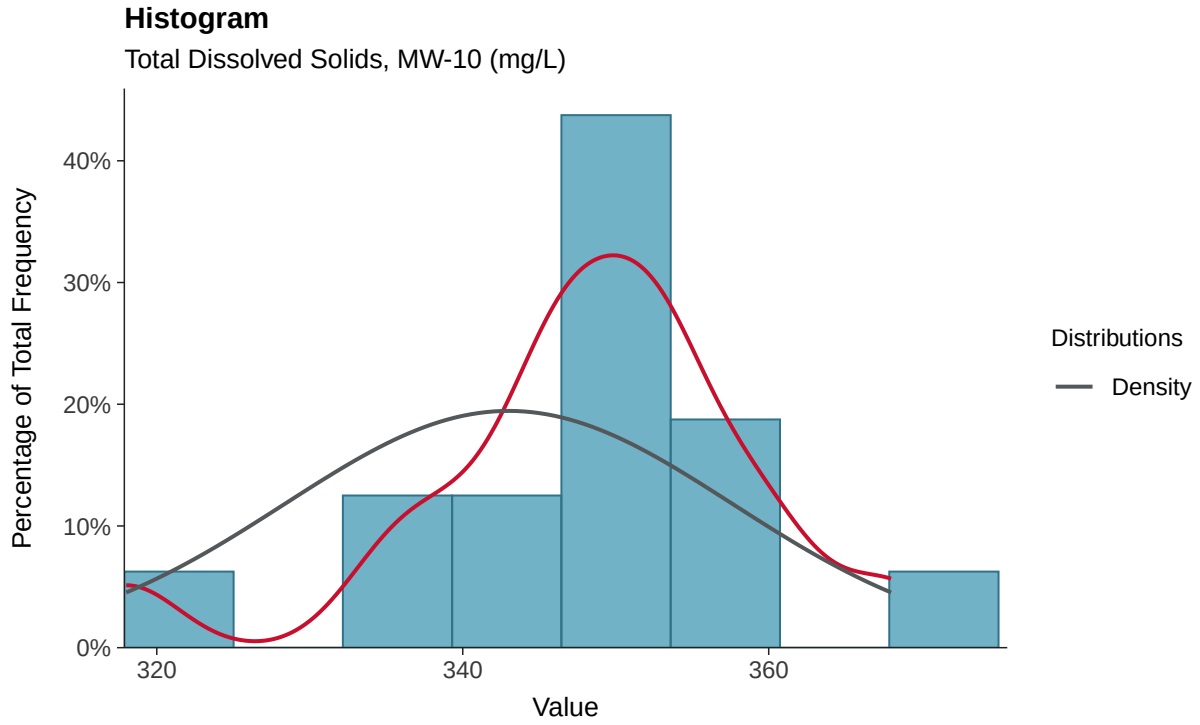
Sulfate, MW-10 (mg/L)



App. III: Total Dissolved Solids, MW-10

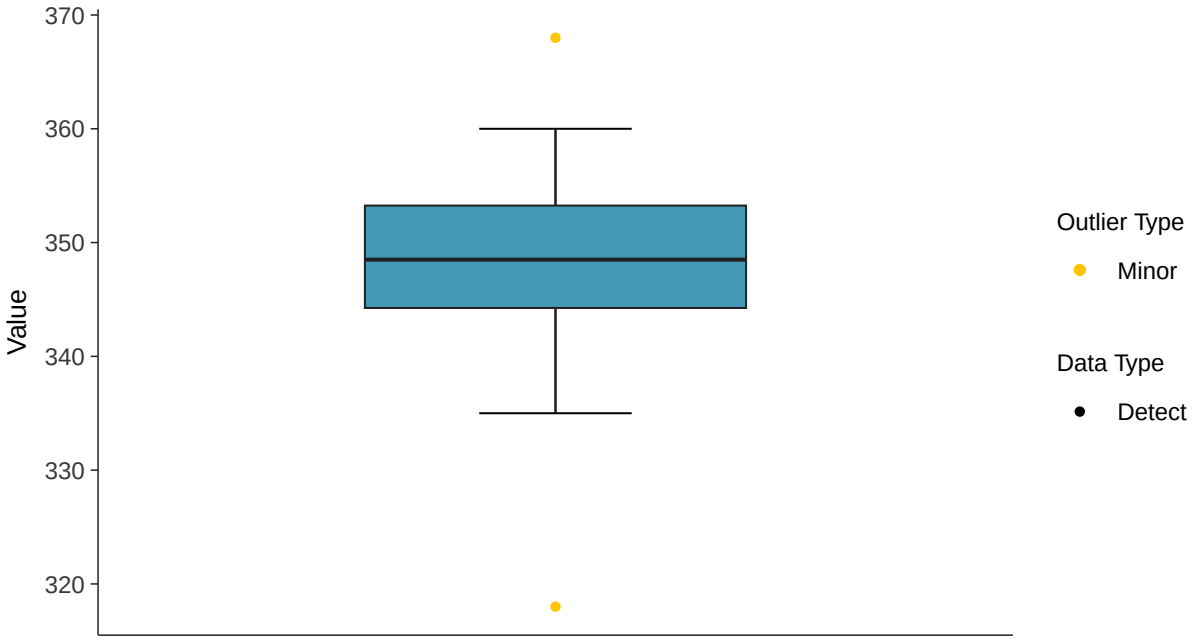
ID: 09_02_125





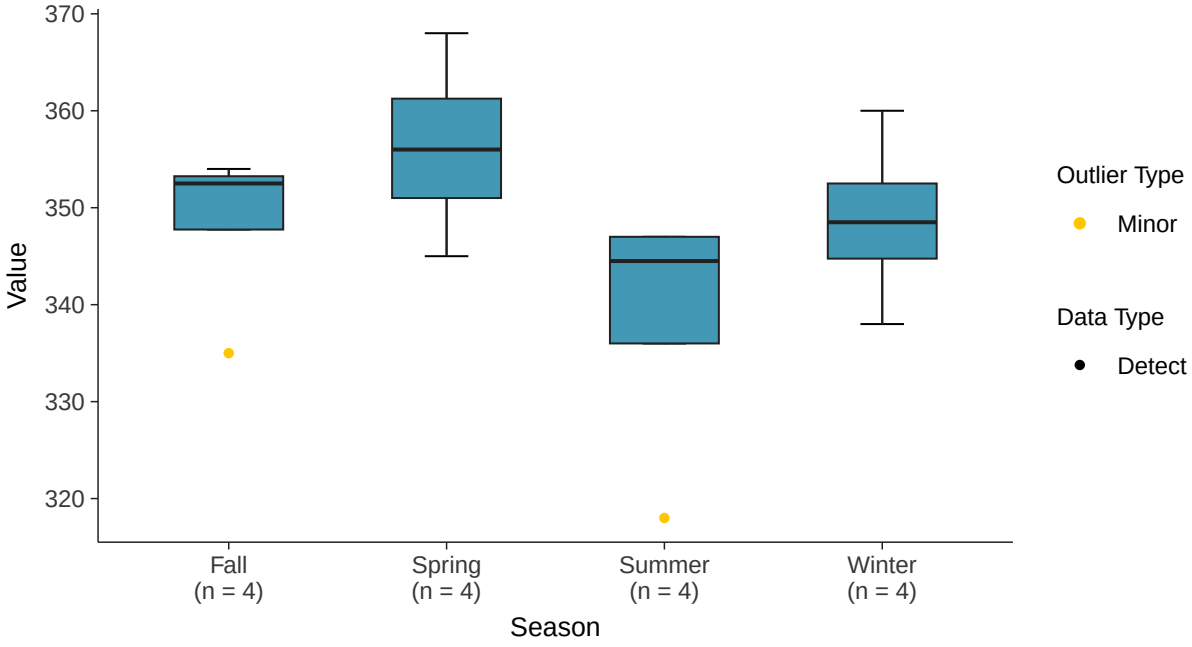
Boxplot

Total Dissolved Solids, MW-10 (mg/L)



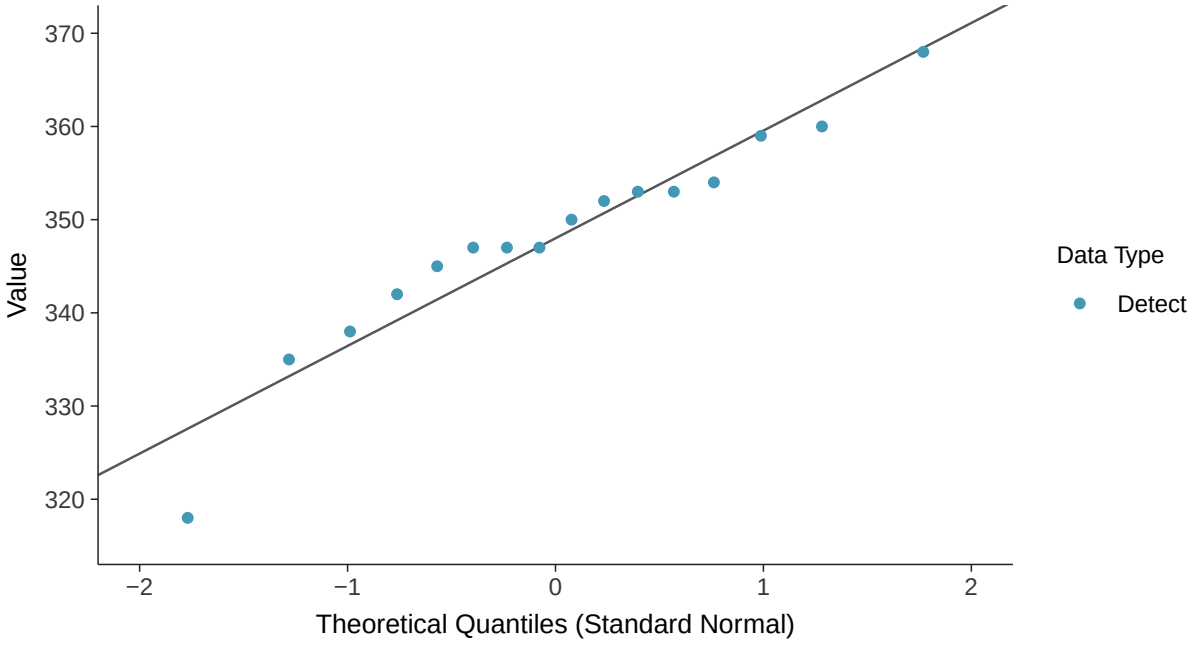
Boxplot by Season

Total Dissolved Solids, MW-10 (mg/L)



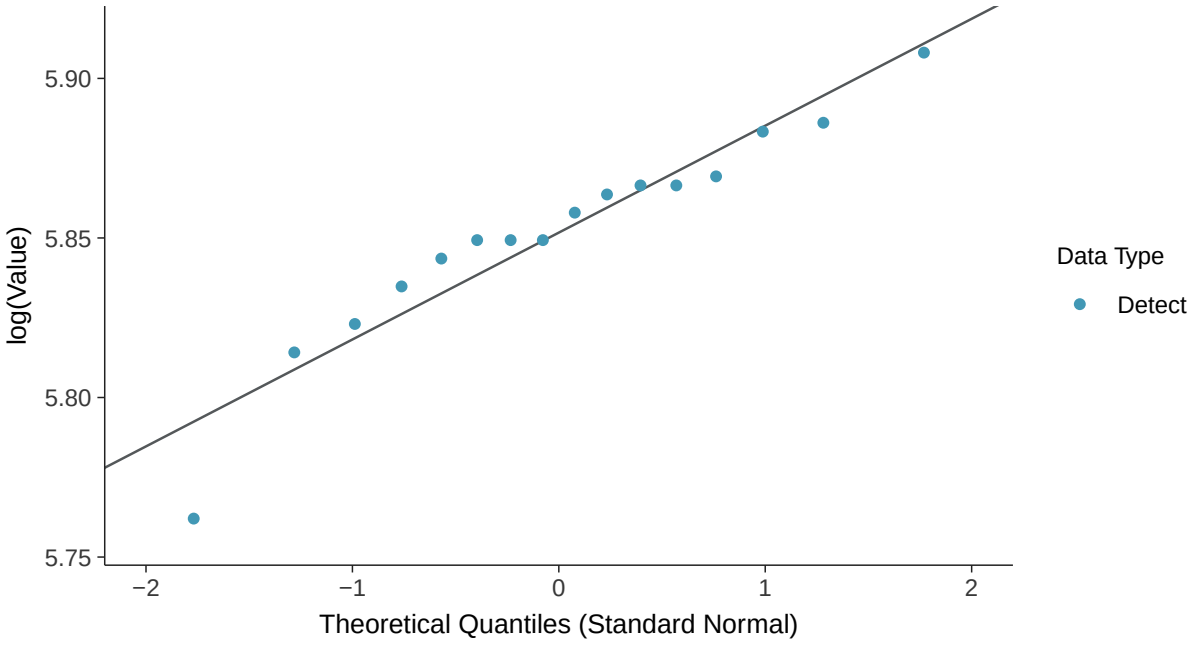
Normal Q-Q plot

Total Dissolved Solids, MW-10 (mg/L)



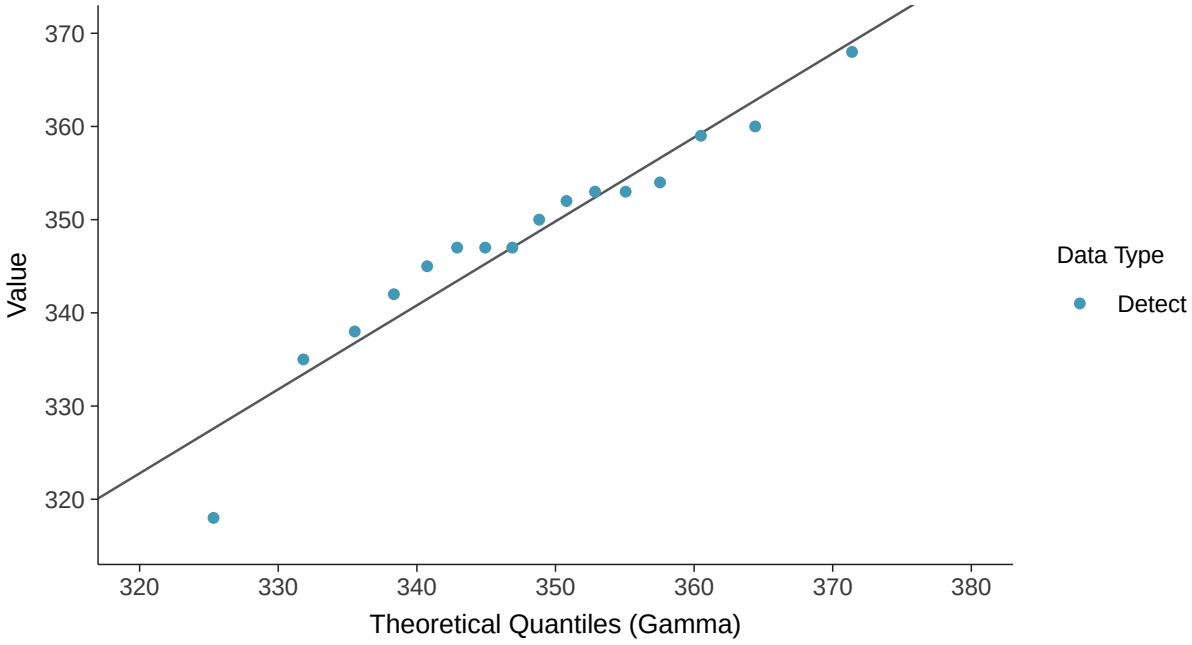
Lognormal Q-Q plot

Total Dissolved Solids, MW-10 (mg/L)



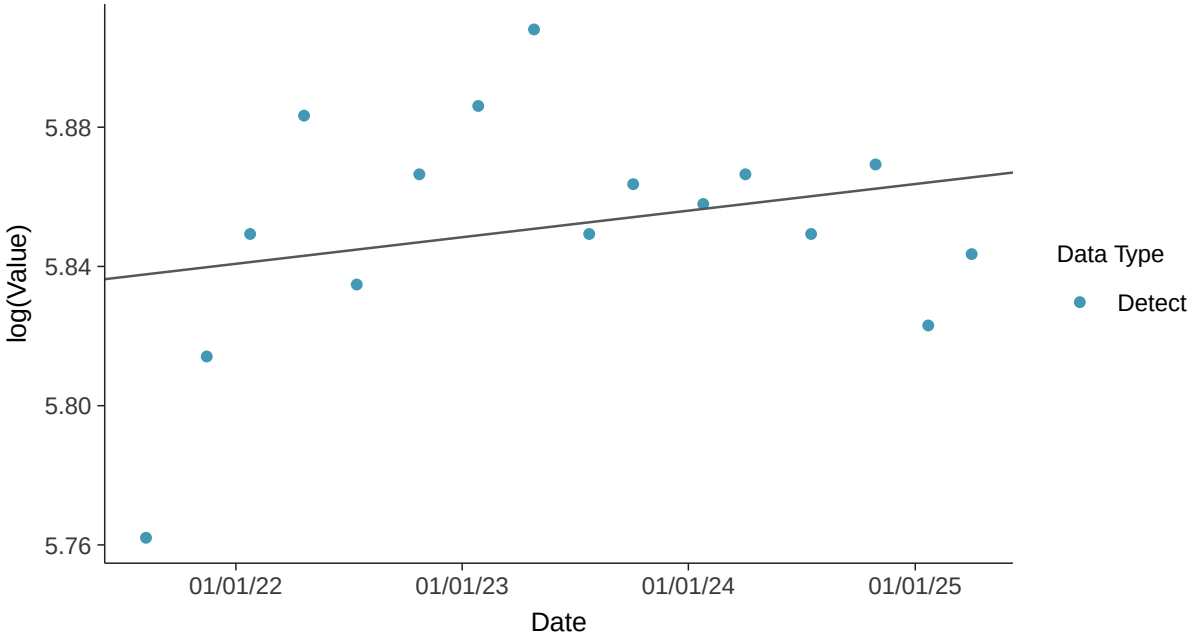
Gamma Q-Q plot

Total Dissolved Solids, MW-10 (mg/L)



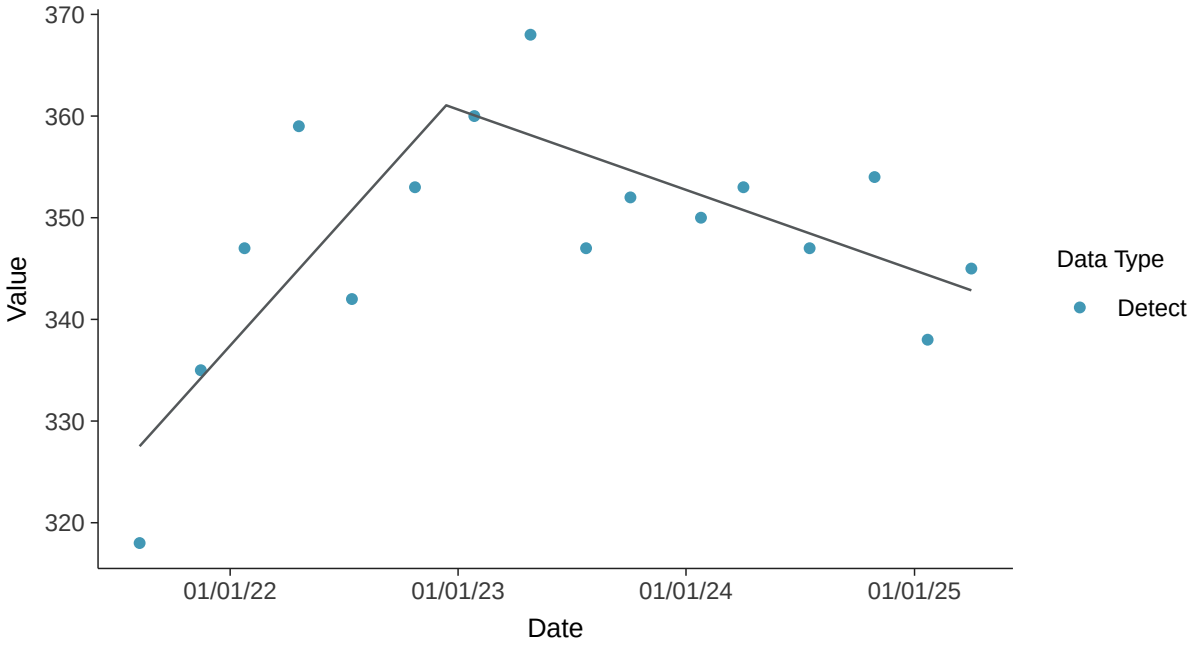
Trend Regression: Lognormal MLE

Total Dissolved Solids, MW-10 (mg/L)



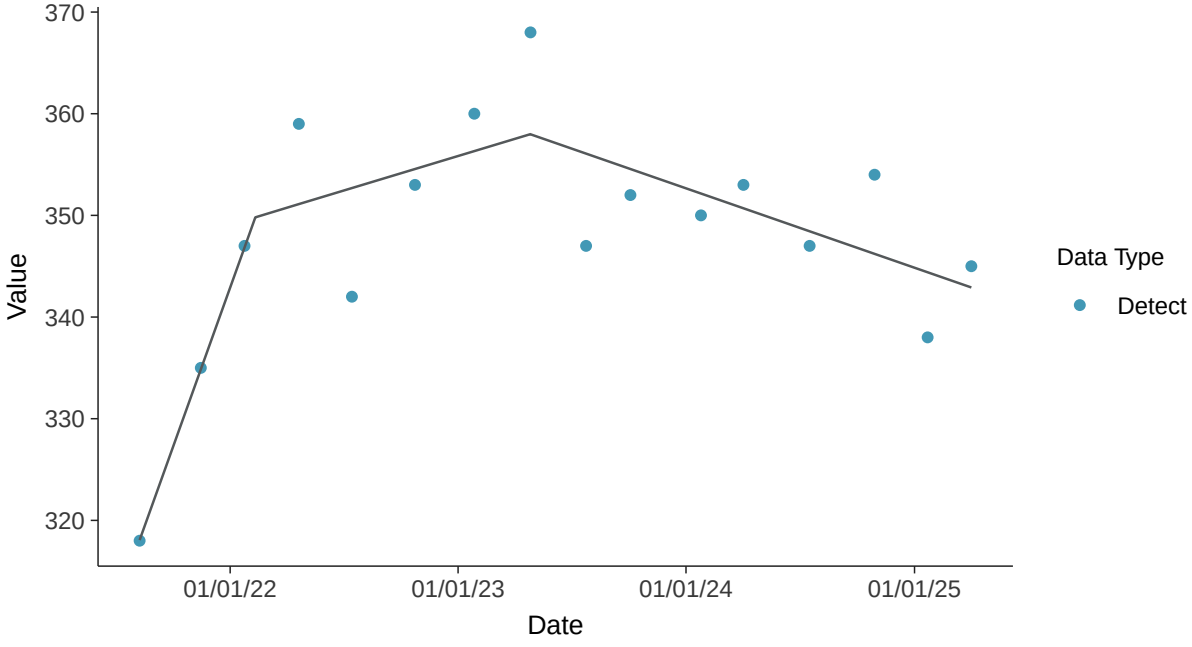
Trend Regression: Piecewise Linear-Linear

Total Dissolved Solids, MW-10 (mg/L)



Trend Regression: Piecewise Linear-Linear-Linear

Total Dissolved Solids, MW-10 (mg/L)

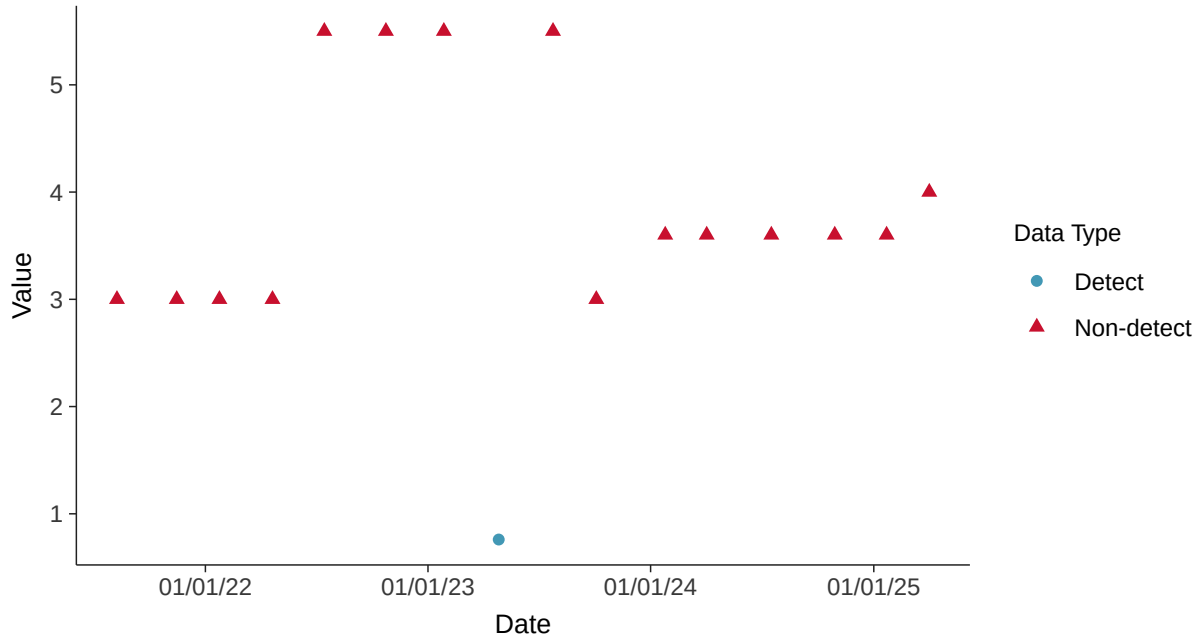


App. IV: Antimony, MW-10

ID: 09_03_101

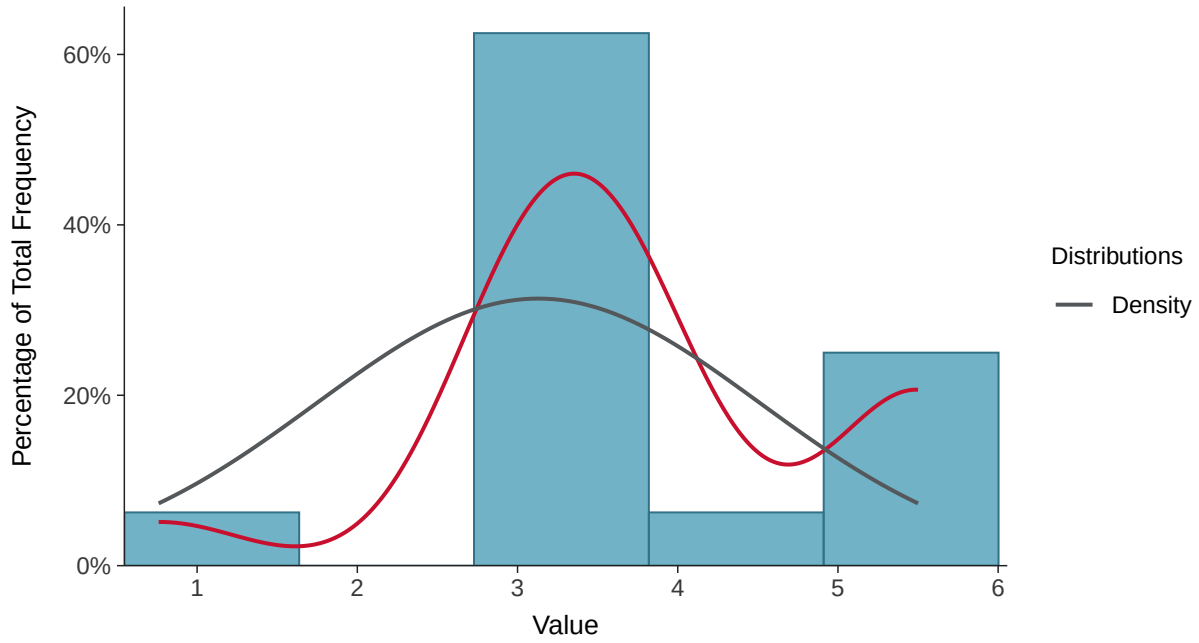
Scatter Plot

Antimony, MW-10 (ug/L)



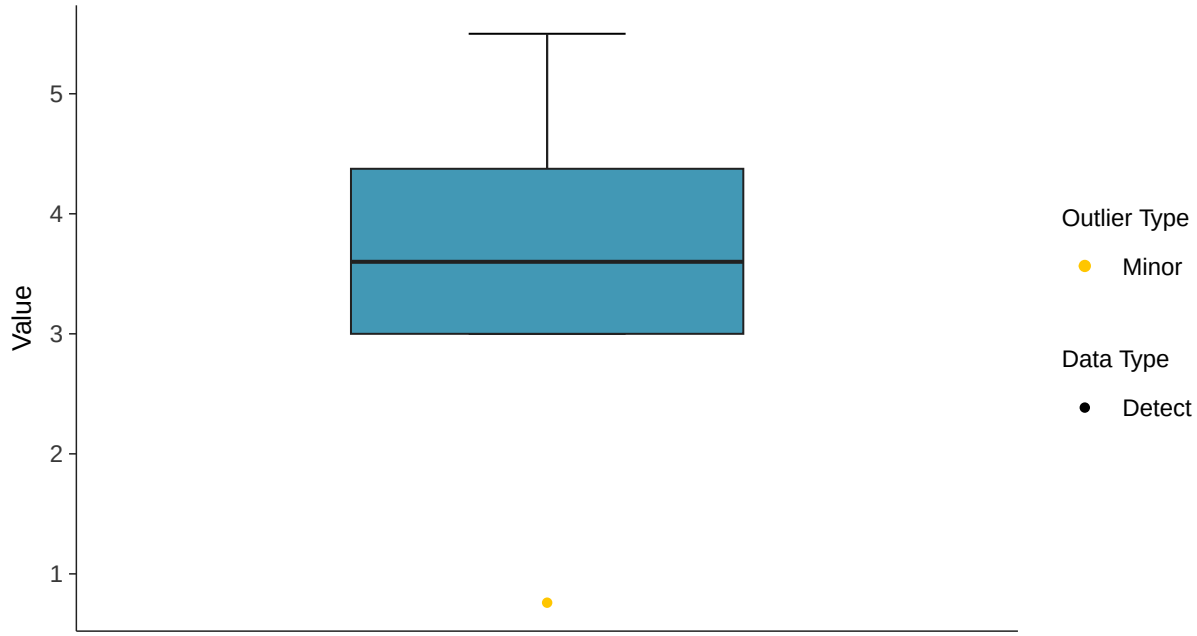
Histogram

Antimony, MW-10 (ug/L)



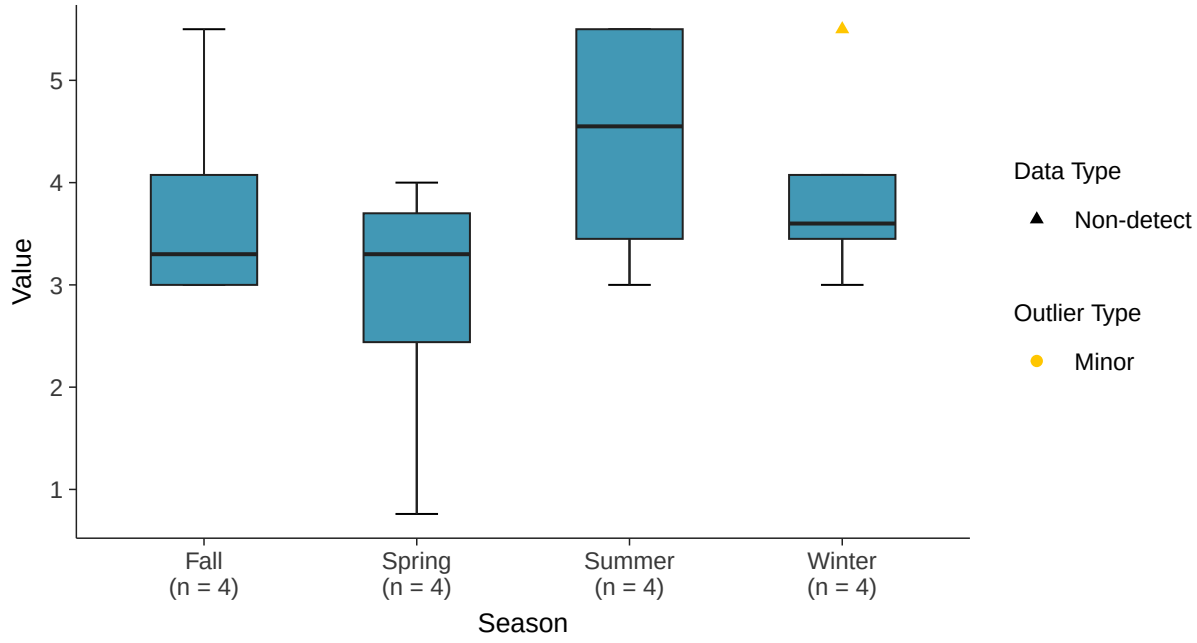
Boxplot

Antimony, MW-10 (ug/L)



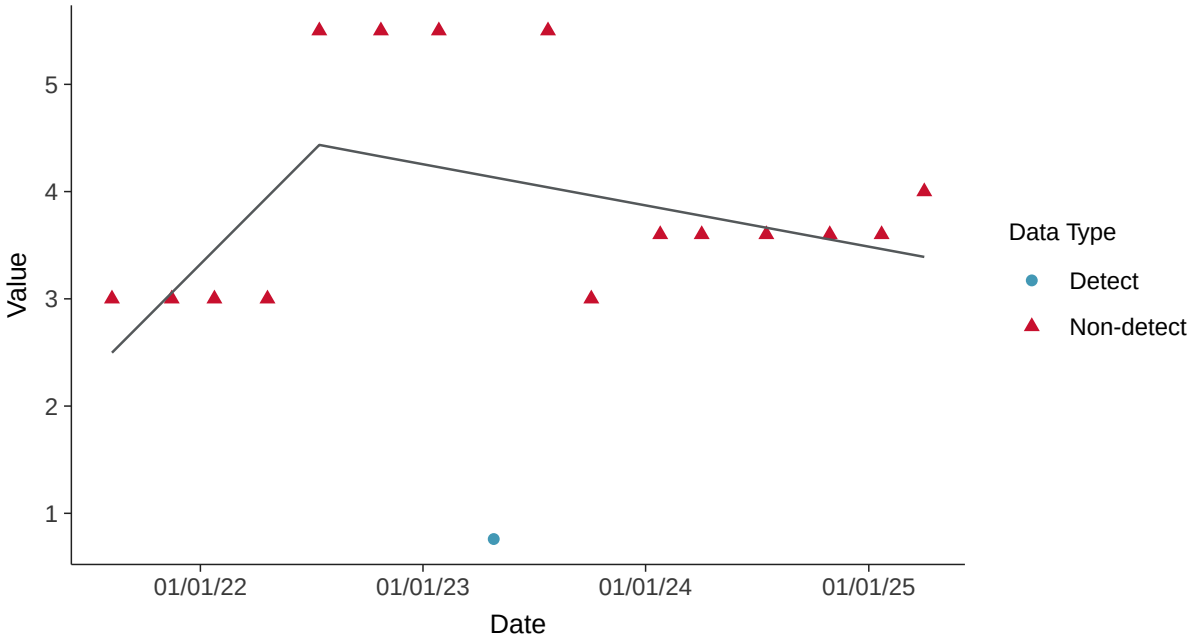
Boxplot by Season

Antimony, MW-10 (ug/L)



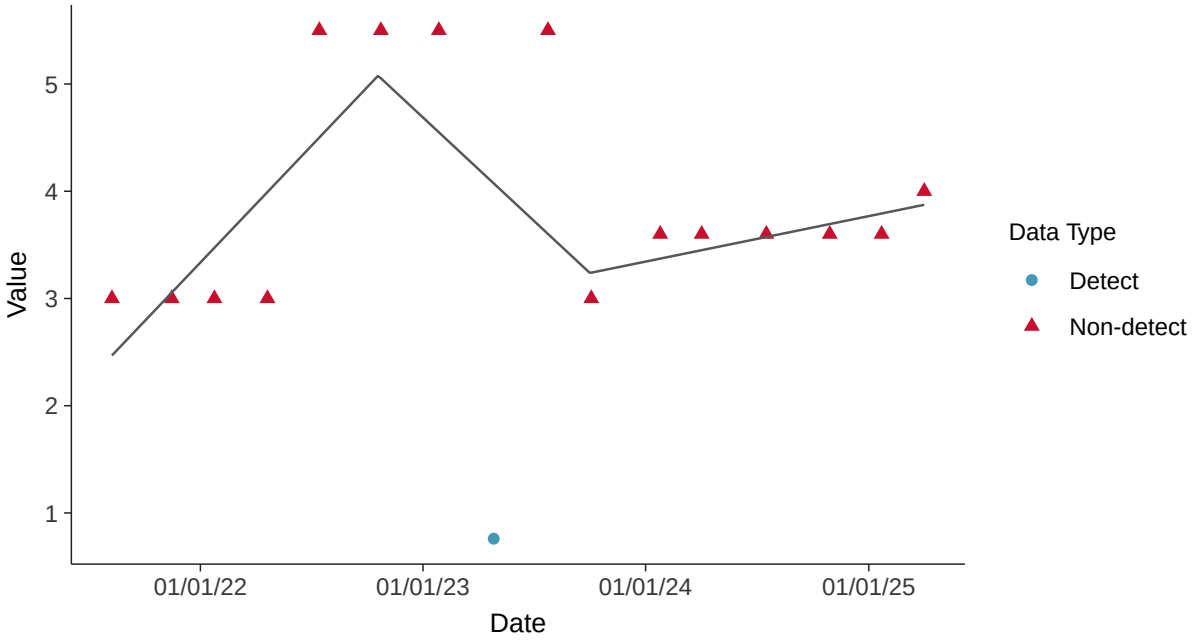
Trend Regression: Piecewise Linear-Linear

Antimony, MW-10 (ug/L)



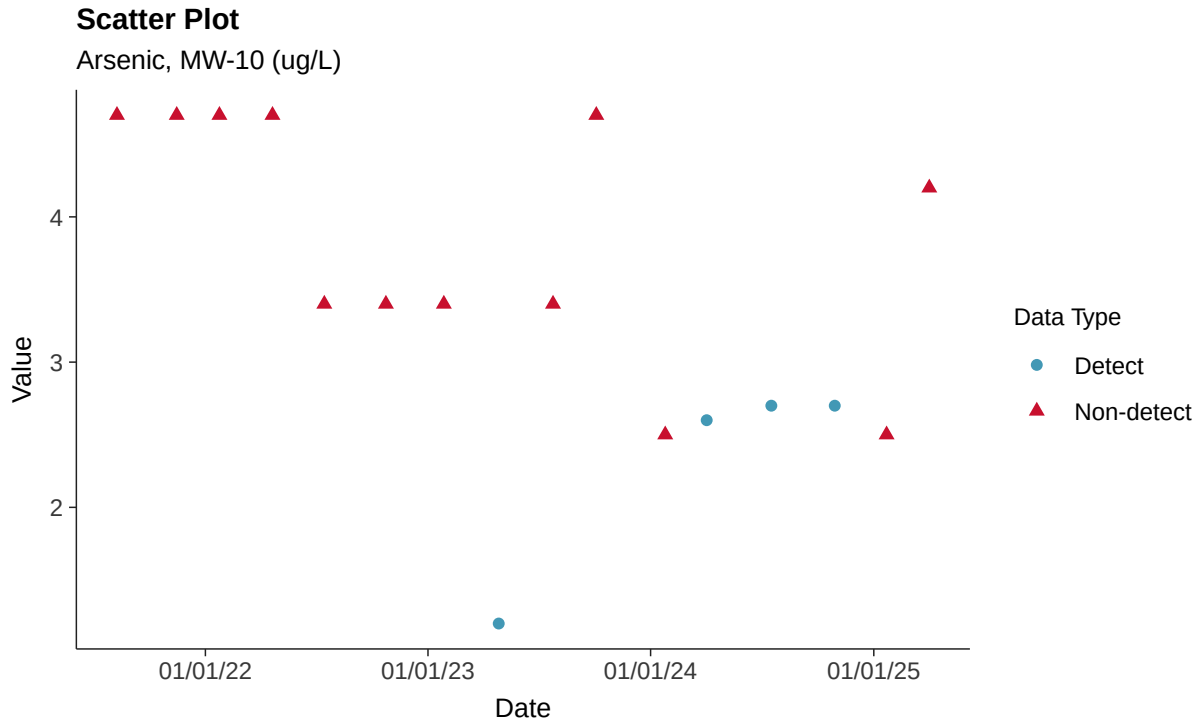
Trend Regression: Piecewise Linear-Linear-Linear

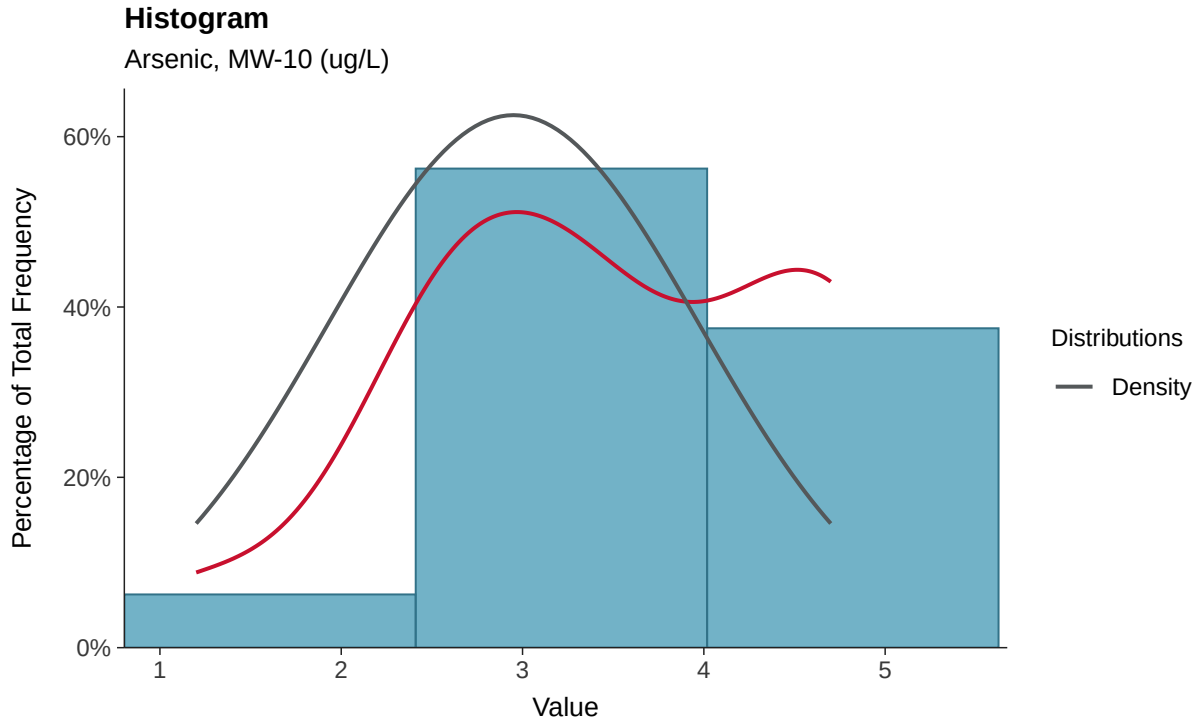
Antimony, MW-10 (ug/L)



App. IV: Arsenic, MW-10

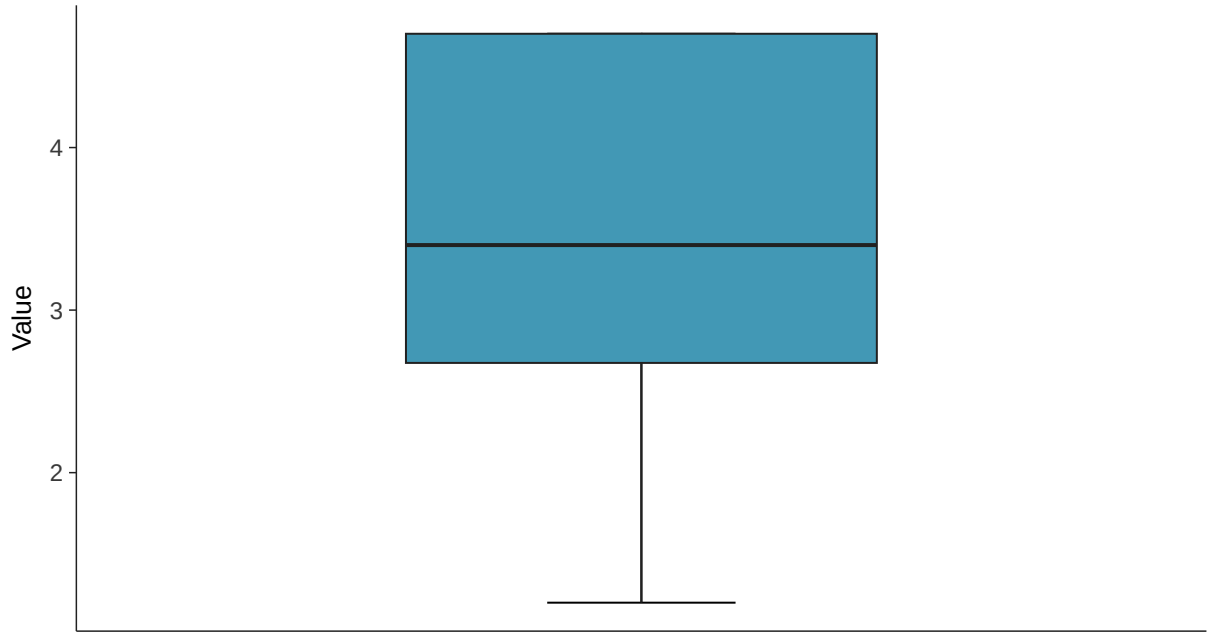
ID: 09_03_102





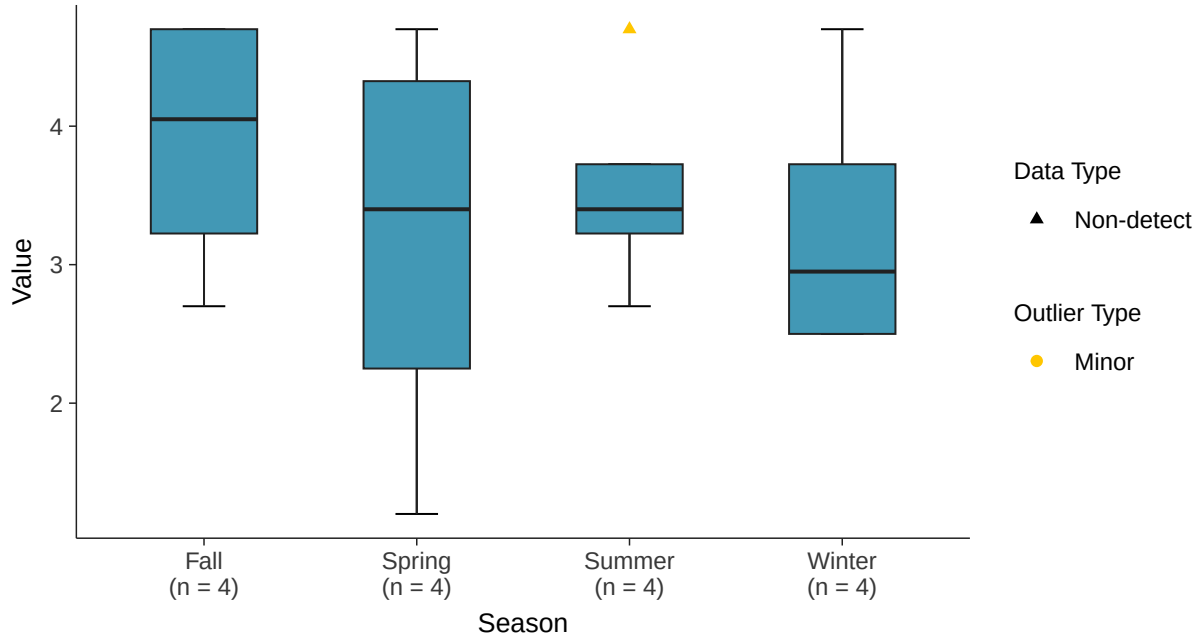
Boxplot

Arsenic, MW-10 (ug/L)



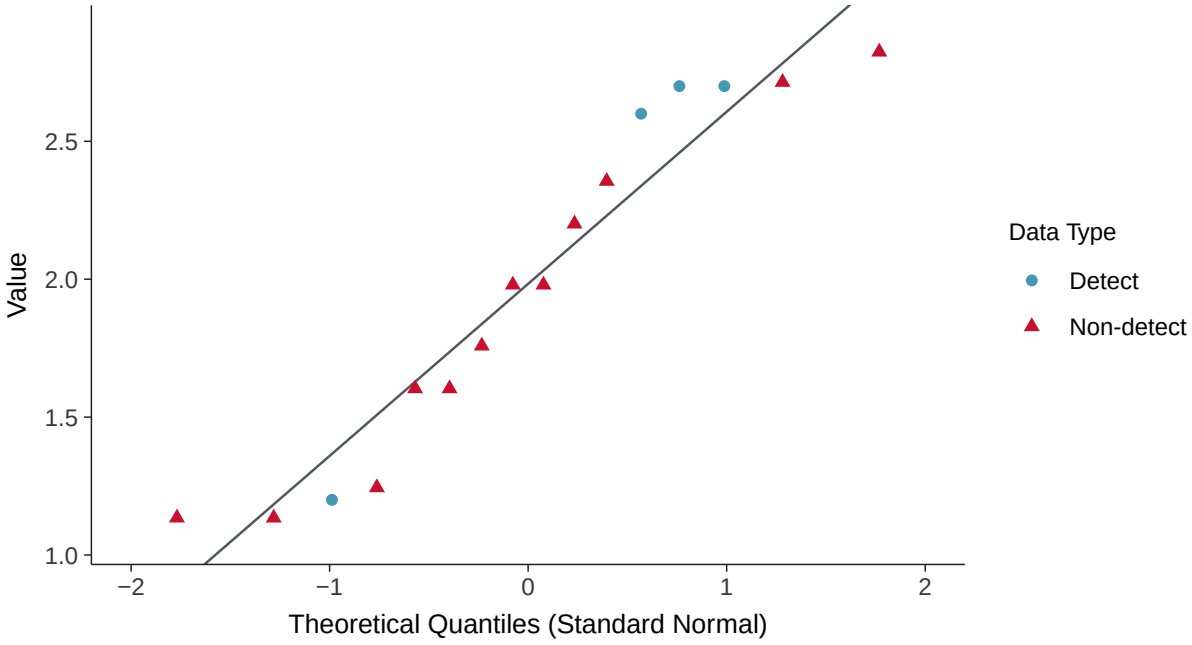
Boxplot by Season

Arsenic, MW-10 (ug/L)



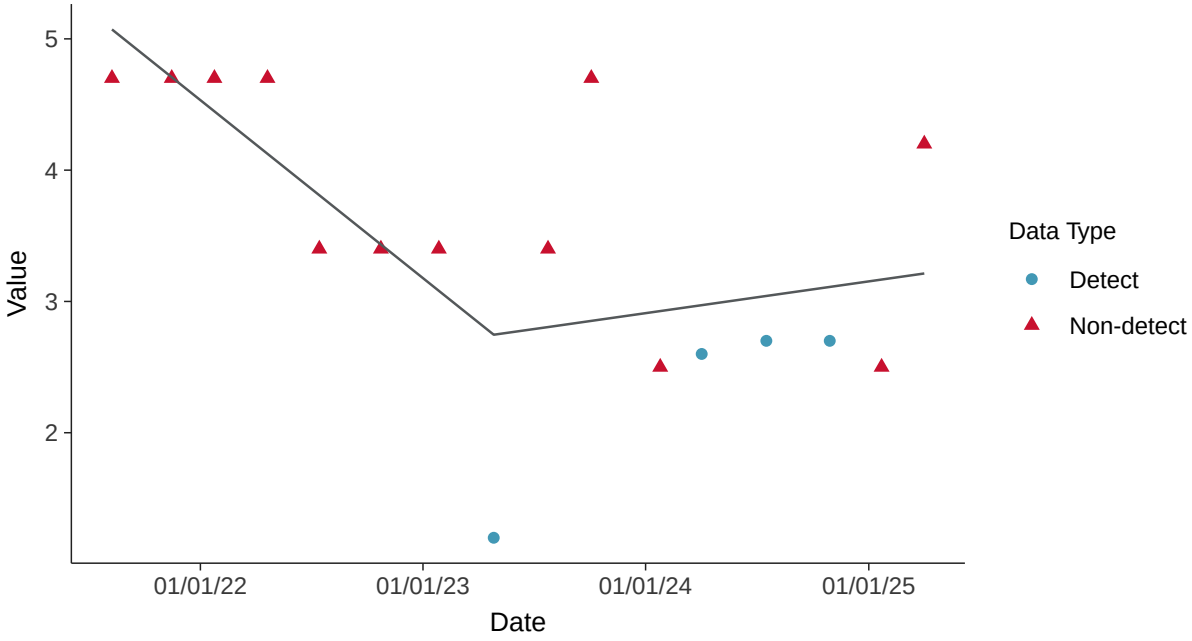
Normal Q-Q plot using ROS Imputed Estimates

Arsenic, MW-10 (ug/L)



Trend Regression: Piecewise Linear-Linear

Arsenic, MW-10 (ug/L)

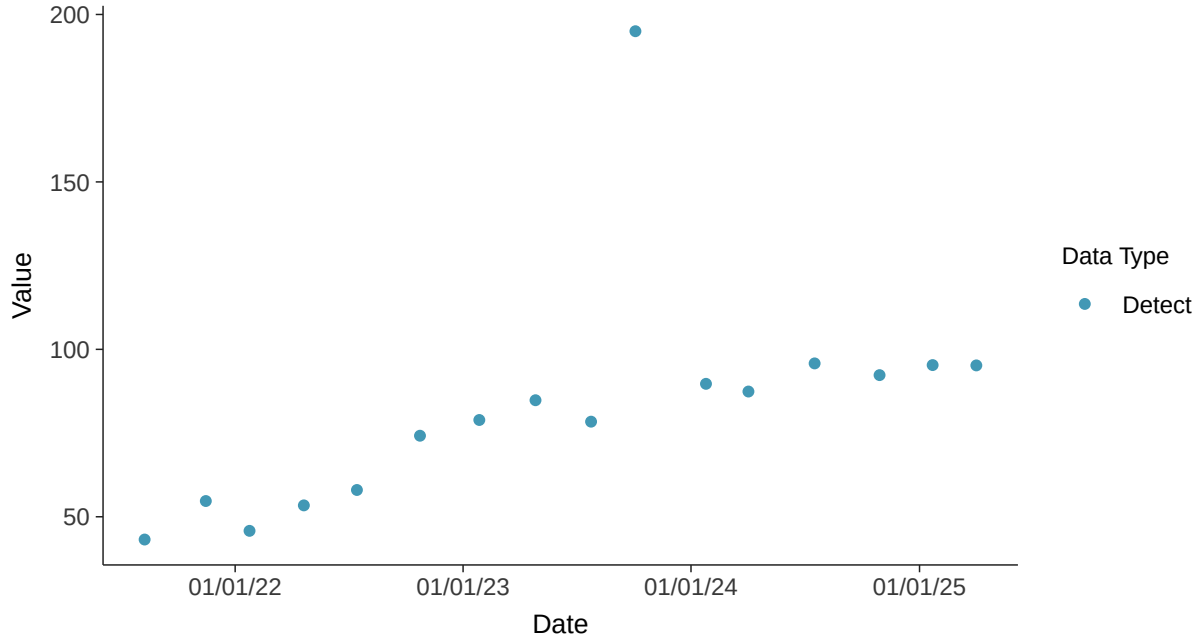


App. IV: Barium, MW-10

ID: 09_03_103

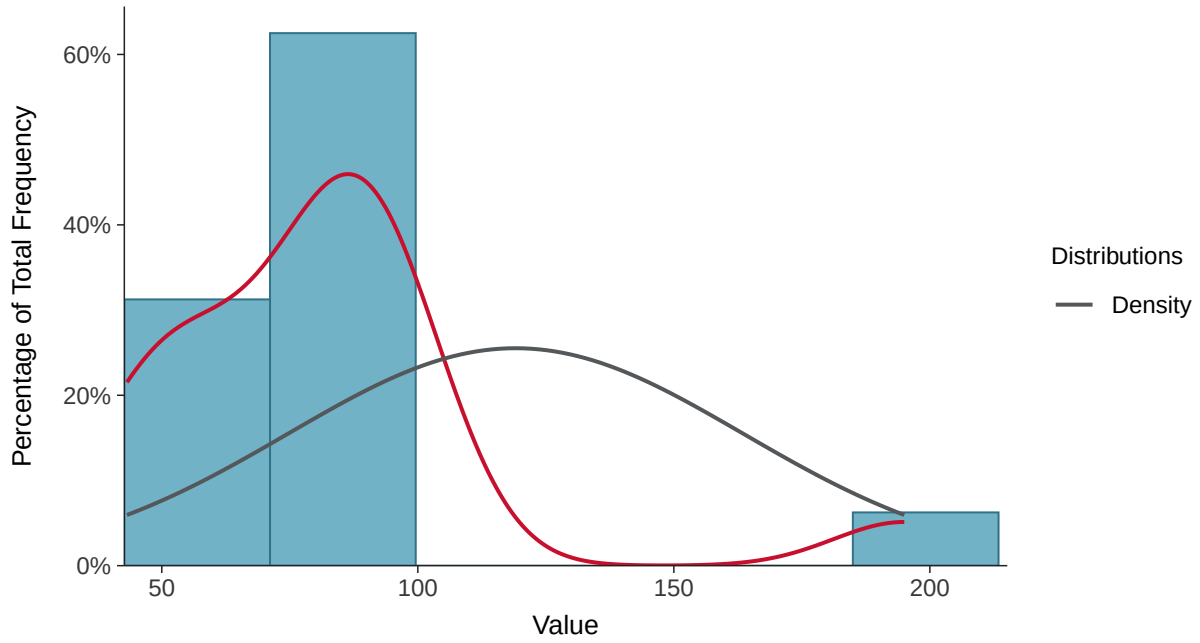
Scatter Plot

Barium, MW-10 (ug/L)



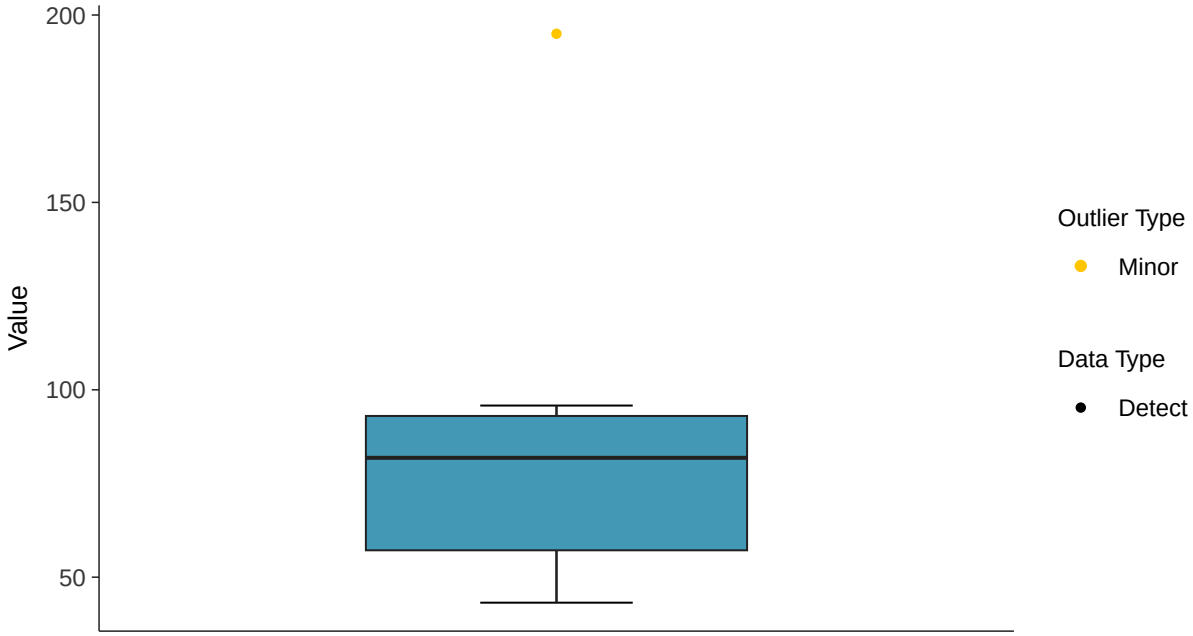
Histogram

Barium, MW-10 (ug/L)



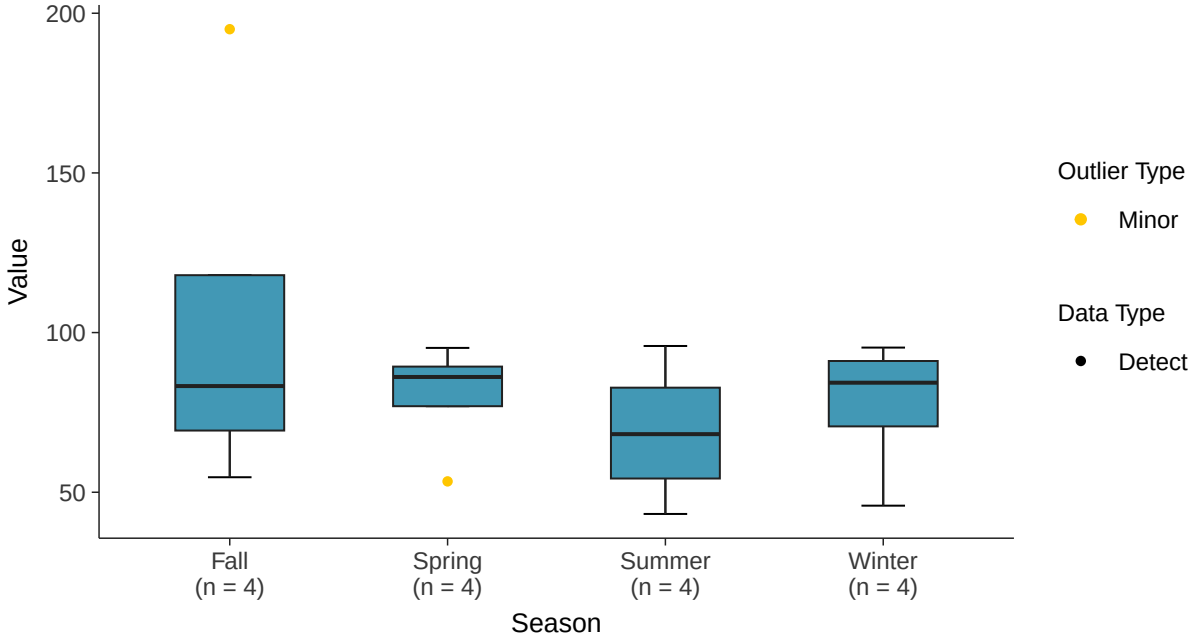
Boxplot

Barium, MW-10 (ug/L)



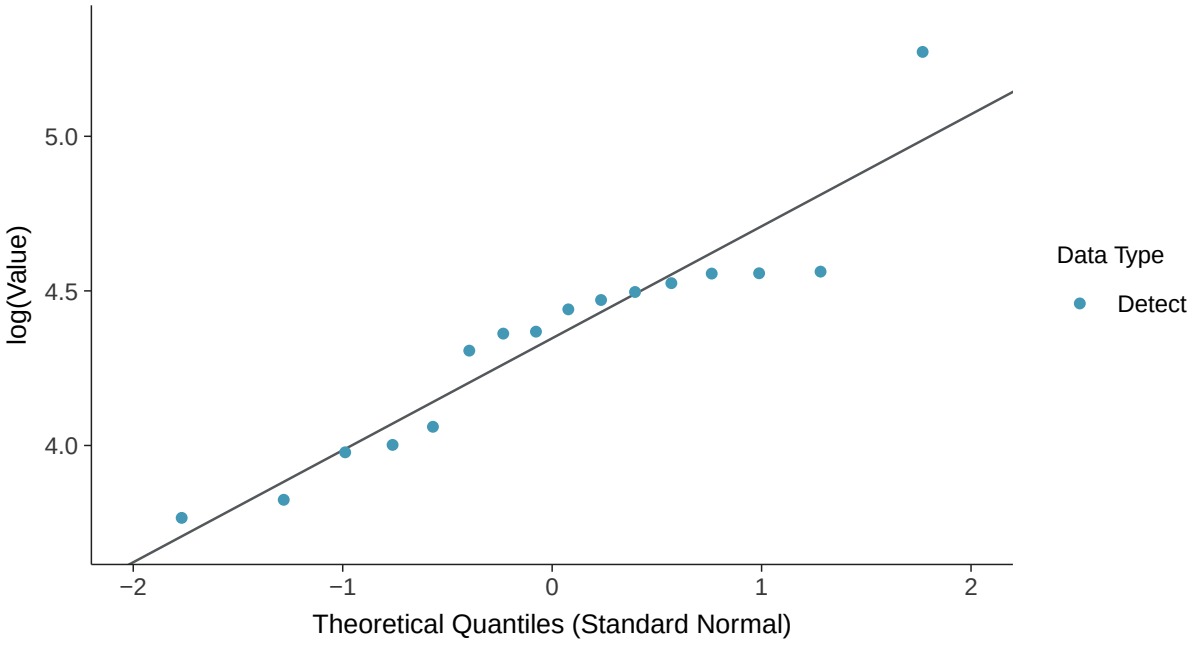
Boxplot by Season

Barium, MW-10 (ug/L)



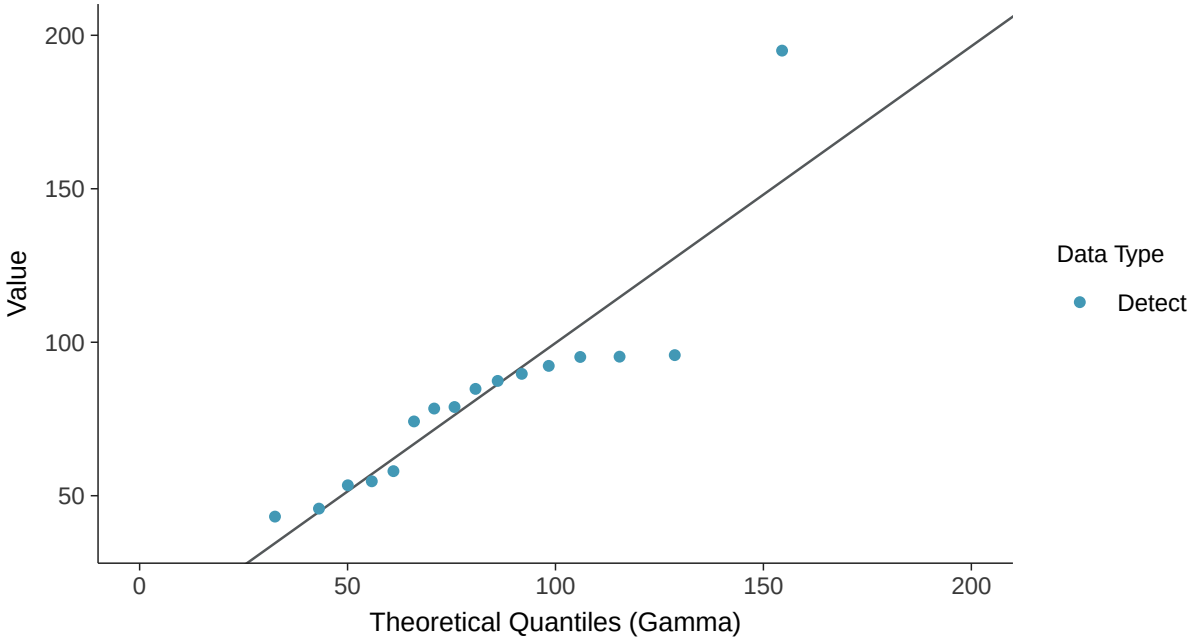
Lognormal Q-Q plot

Barium, MW-10 (ug/L)



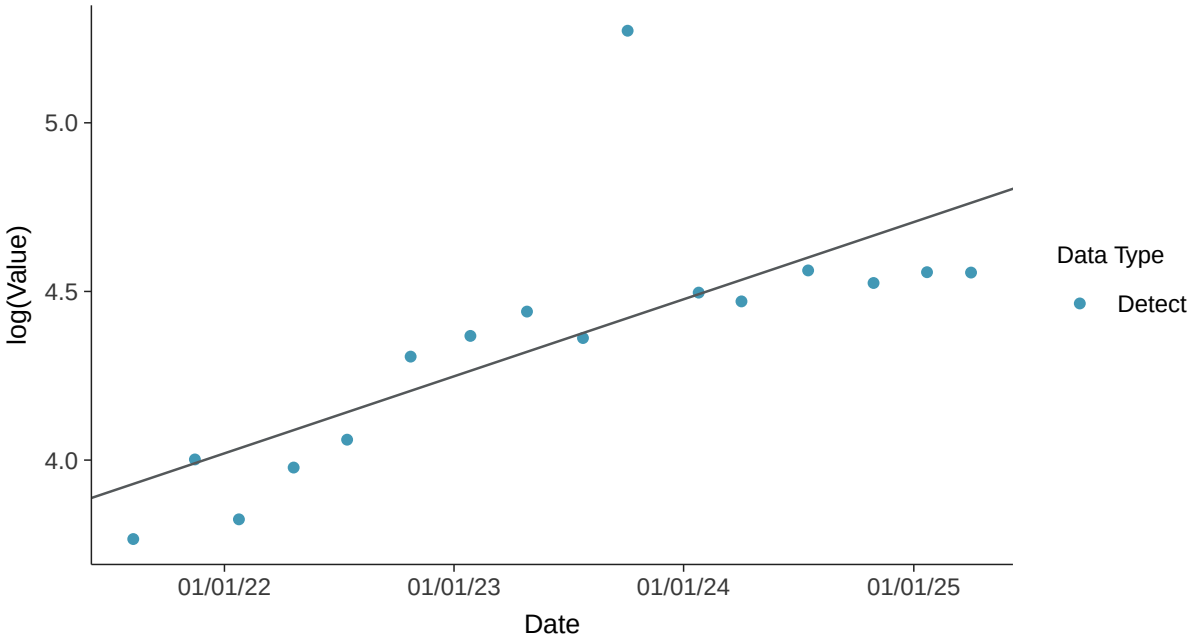
Gamma Q-Q plot

Barium, MW-10 (ug/L)



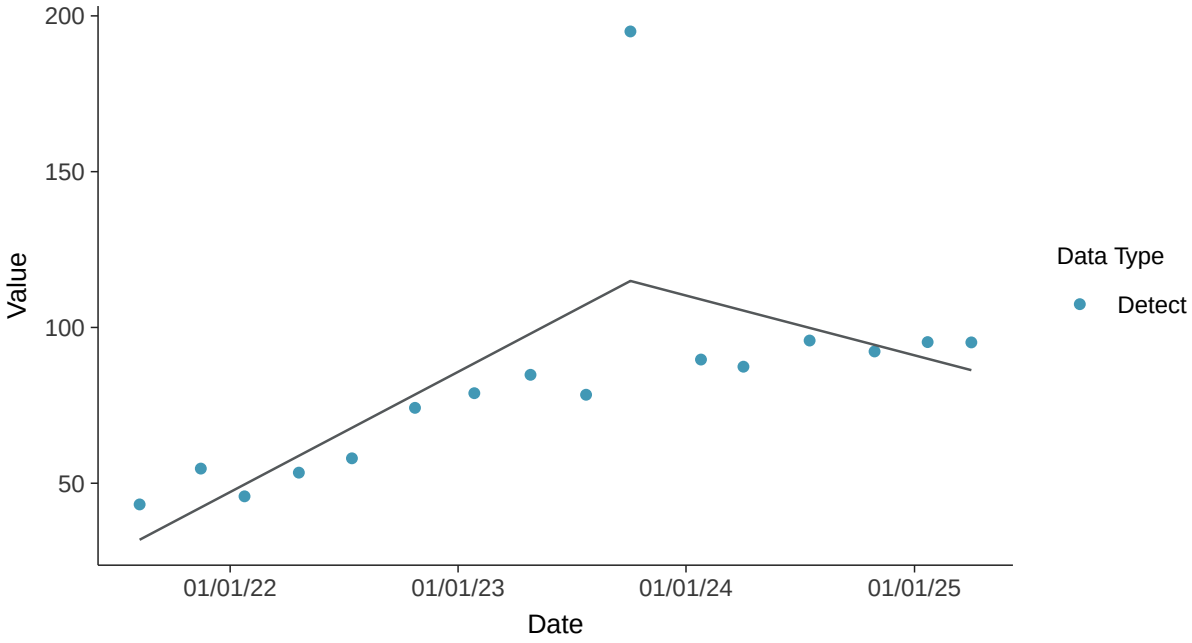
Trend Regression: Lognormal MLE

Barium, MW-10 (ug/L)



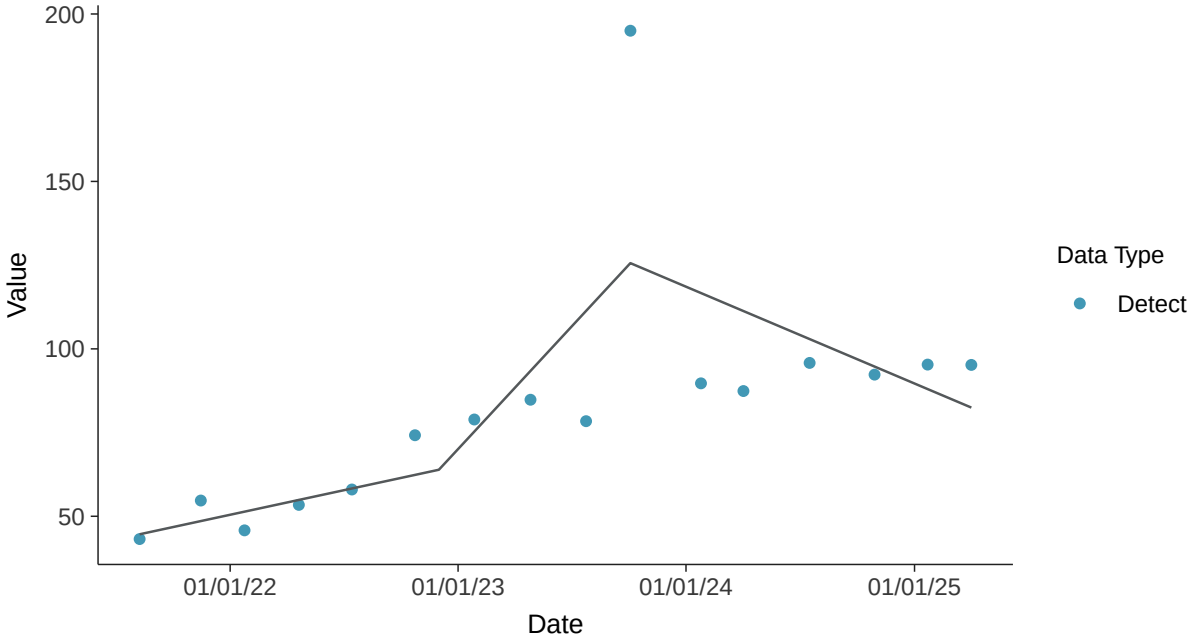
Trend Regression: Piecewise Linear-Linear

Barium, MW-10 (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Barium, MW-10 (ug/L)

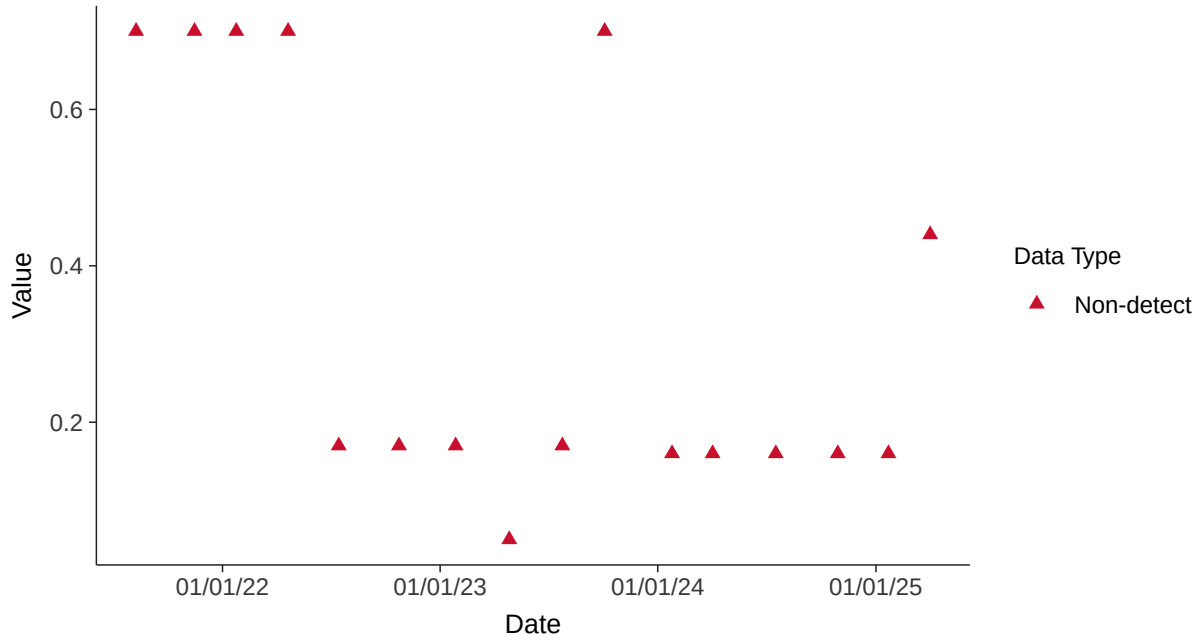


App. IV: Beryllium, MW-10

ID: 09_03_104

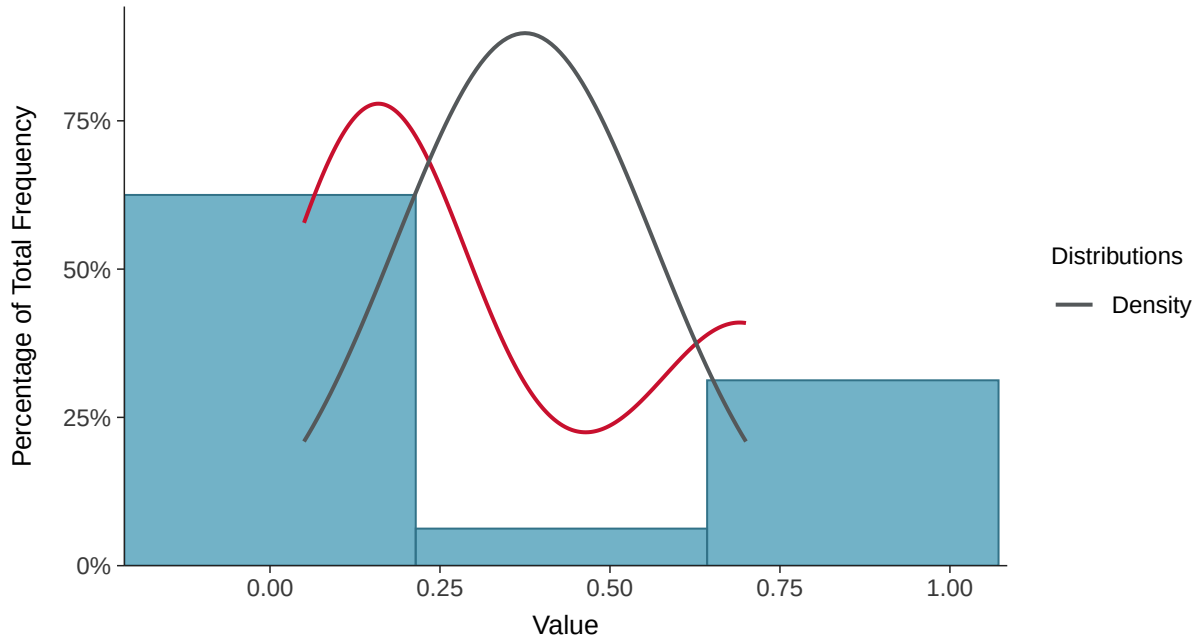
Scatter Plot

Beryllium, MW-10 (ug/L)



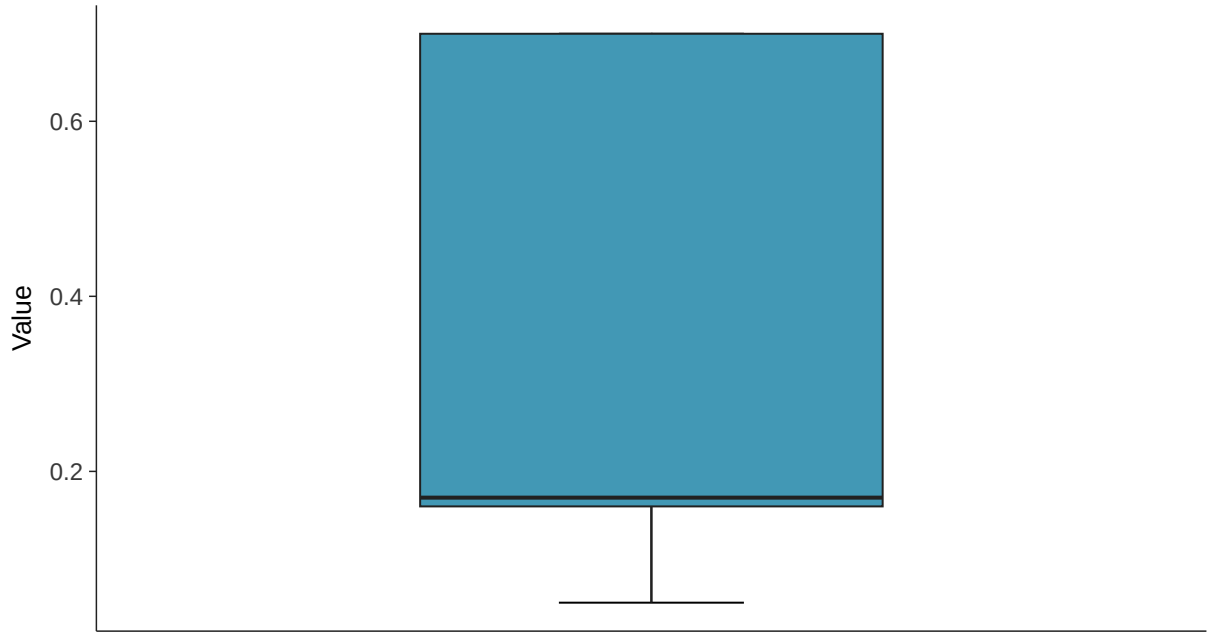
Histogram

Beryllium, MW-10 (ug/L)



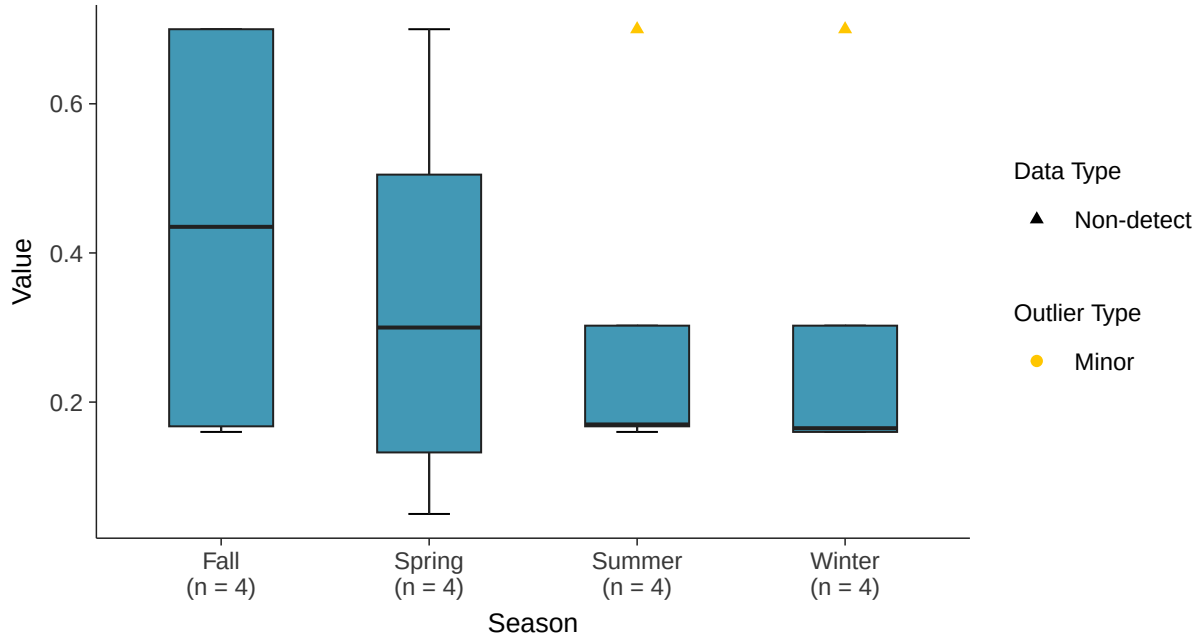
Boxplot

Beryllium, MW-10 (ug/L)



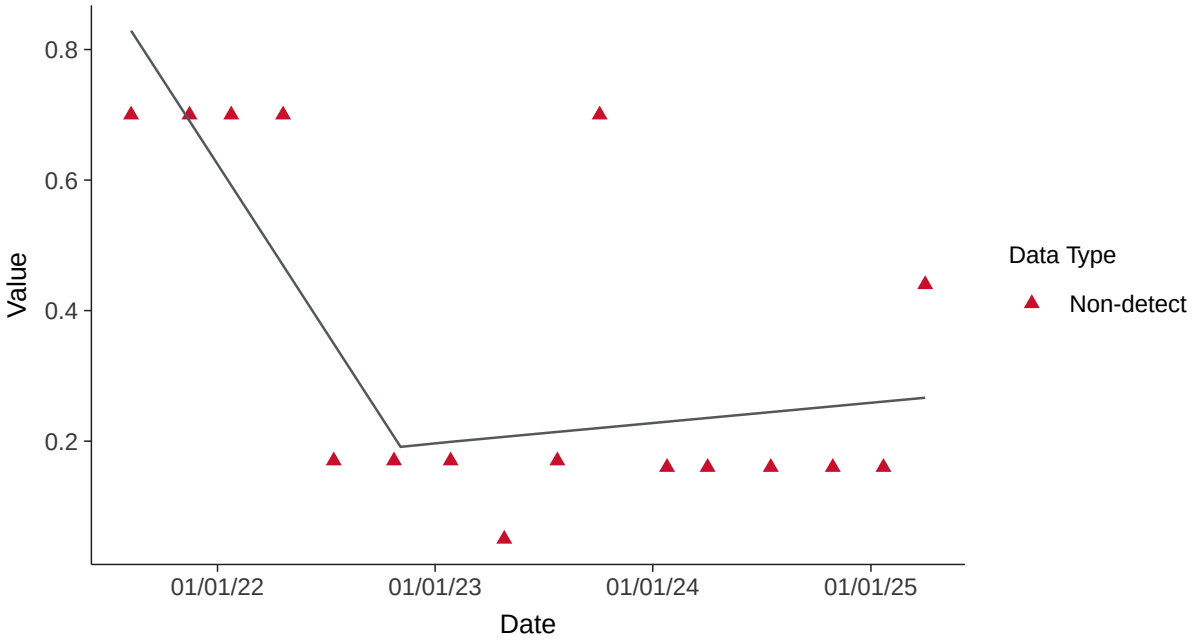
Boxplot by Season

Beryllium, MW-10 (ug/L)



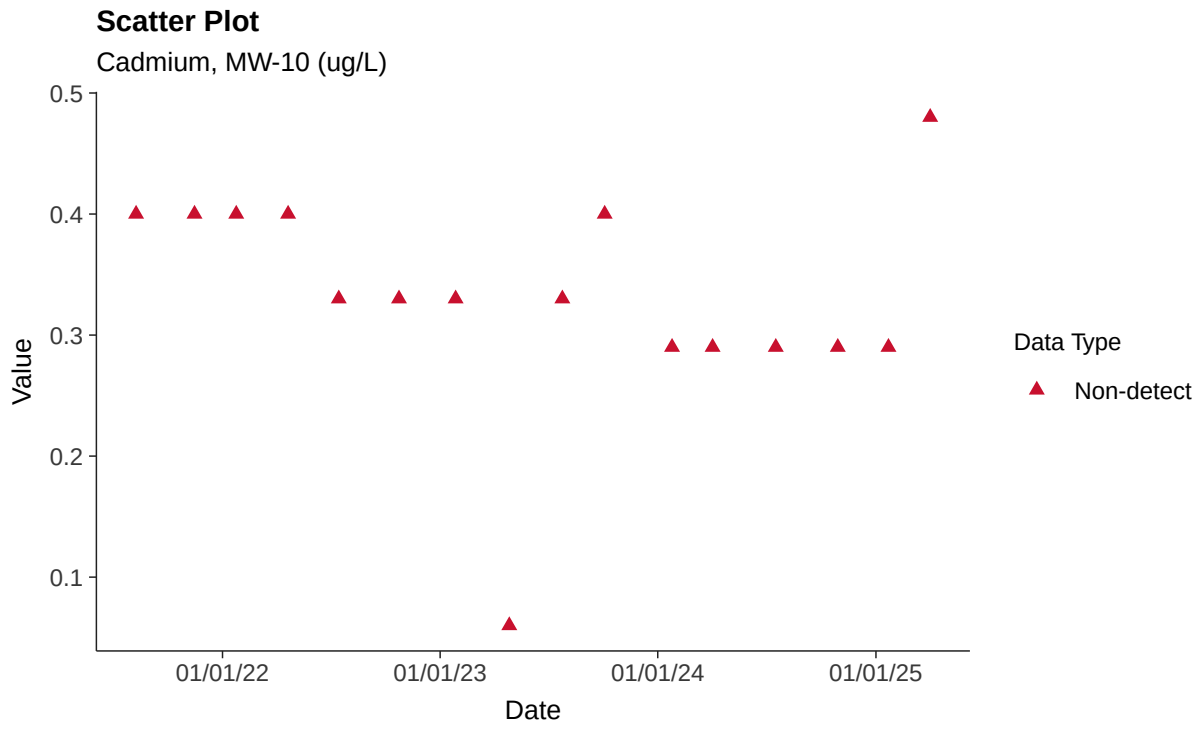
Trend Regression: Piecewise Linear-Linear

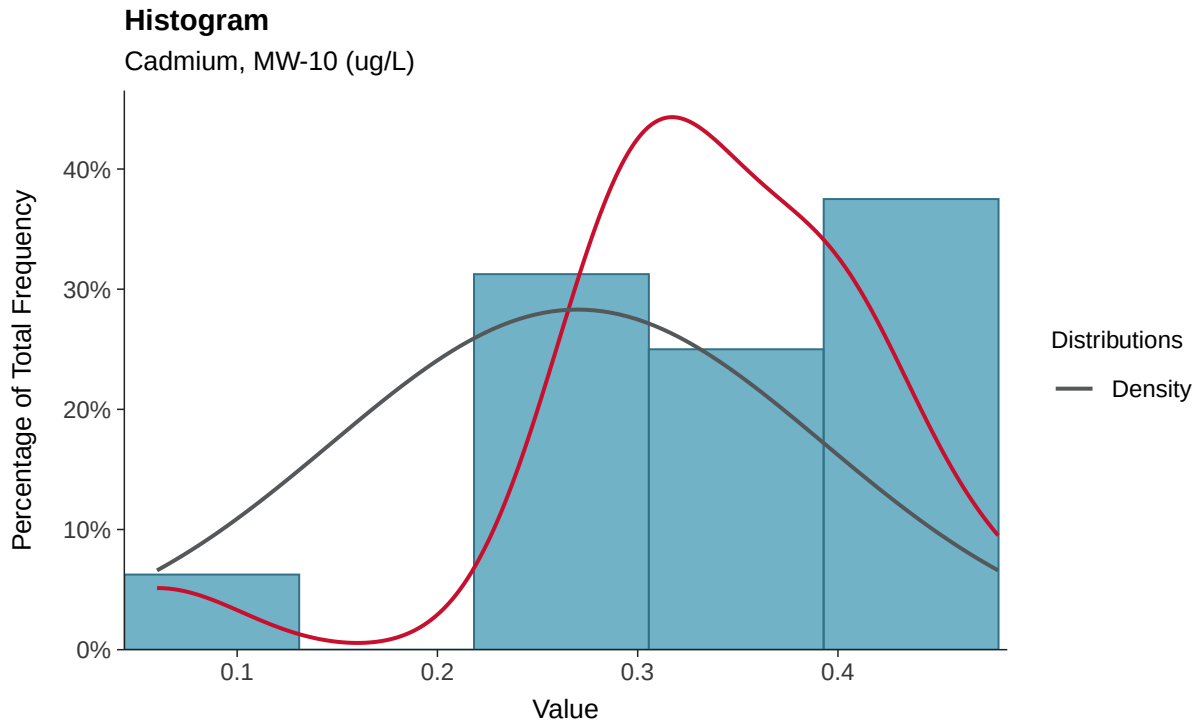
Beryllium, MW-10 (ug/L)



App. IV: Cadmium, MW-10

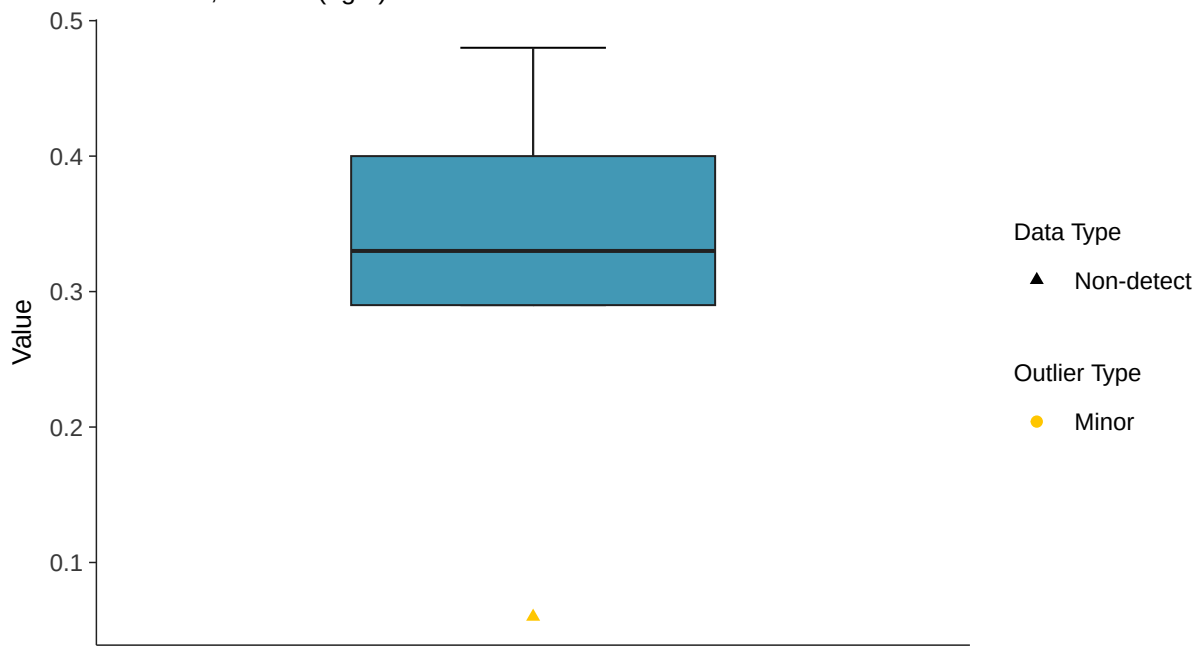
ID: 09_03_106





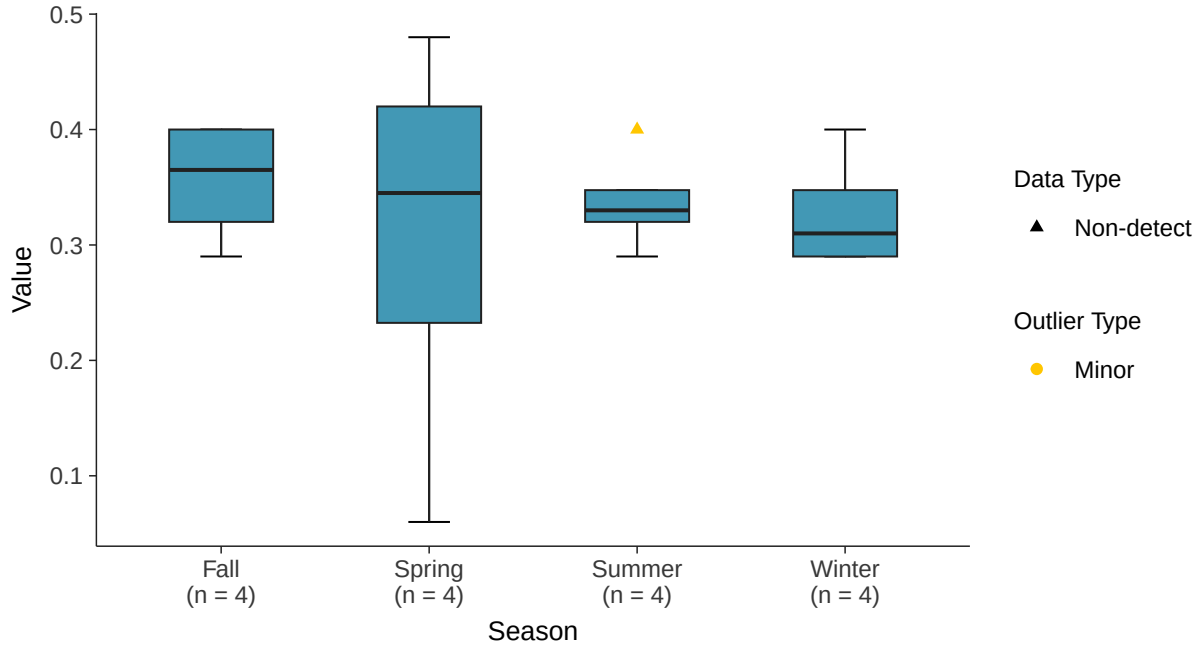
Boxplot

Cadmium, MW-10 (ug/L)



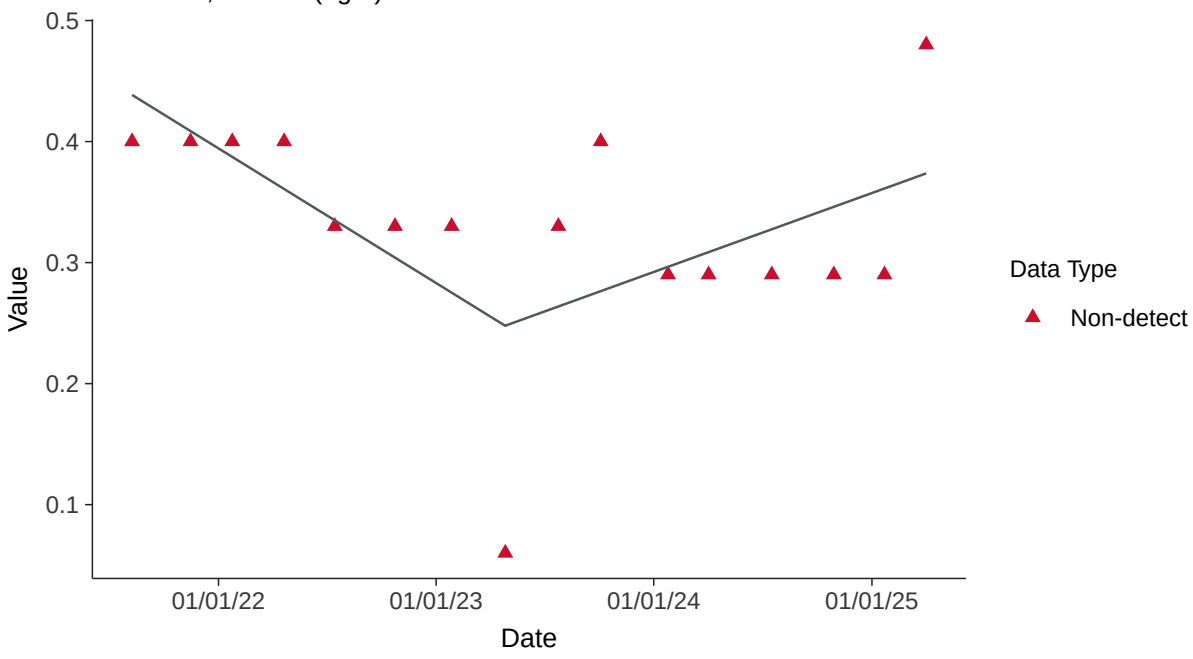
Boxplot by Season

Cadmium, MW-10 (ug/L)



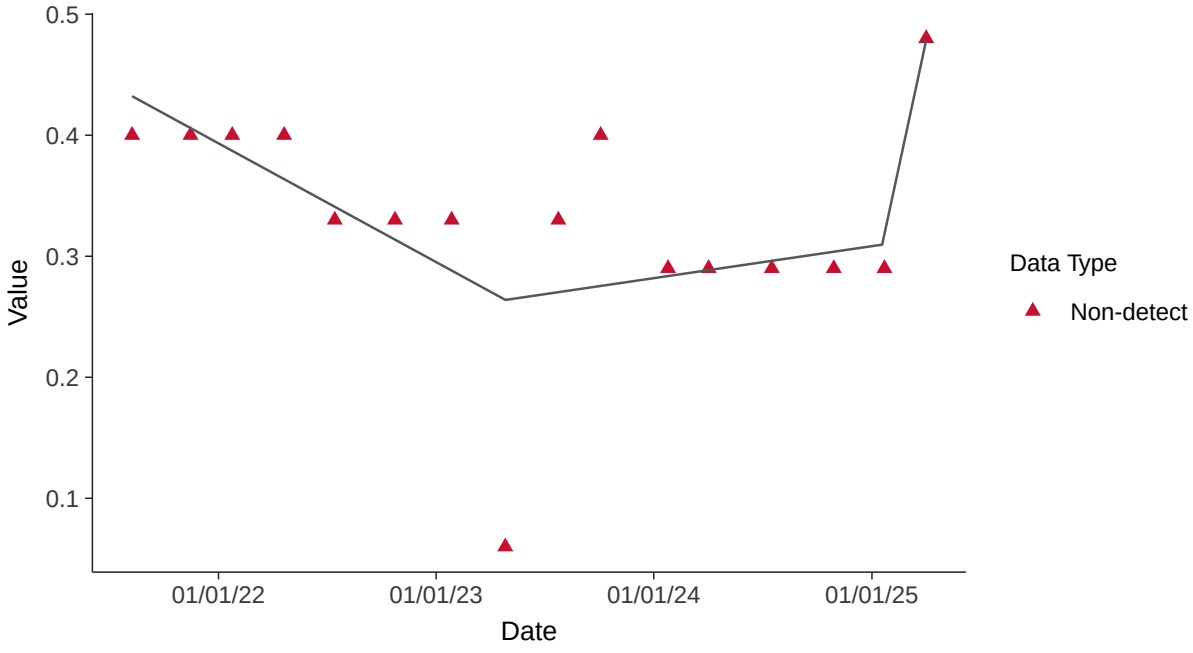
Trend Regression: Piecewise Linear-Linear

Cadmium, MW-10 (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Cadmium, MW-10 (ug/L)

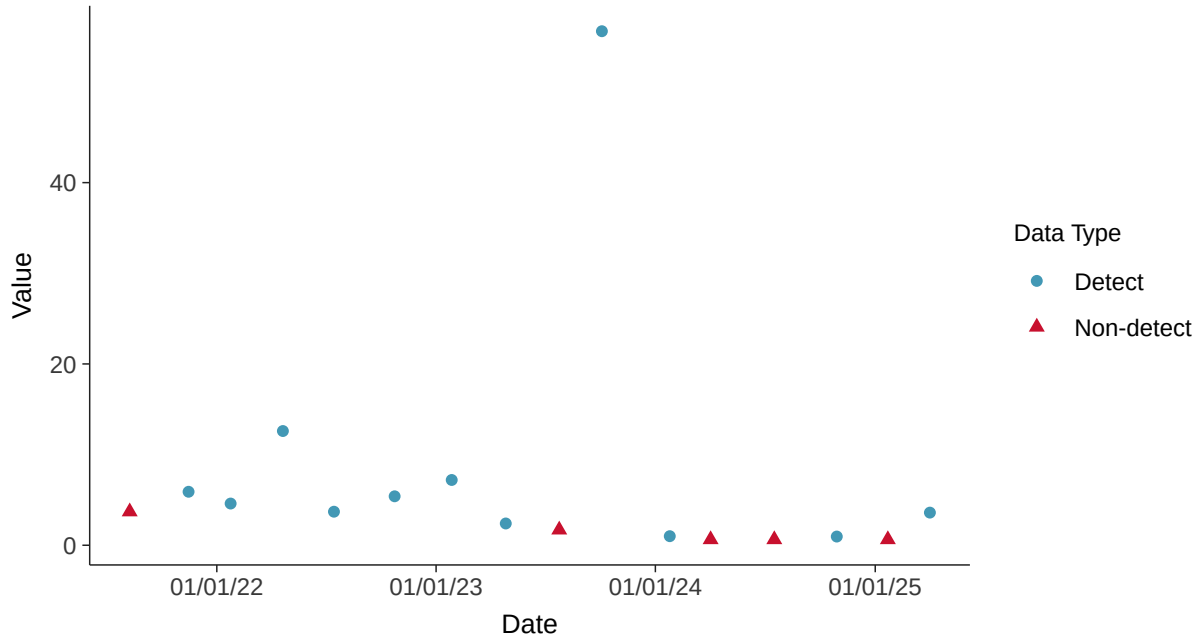


App. IV: Chromium, MW-10

ID: 09_03_109

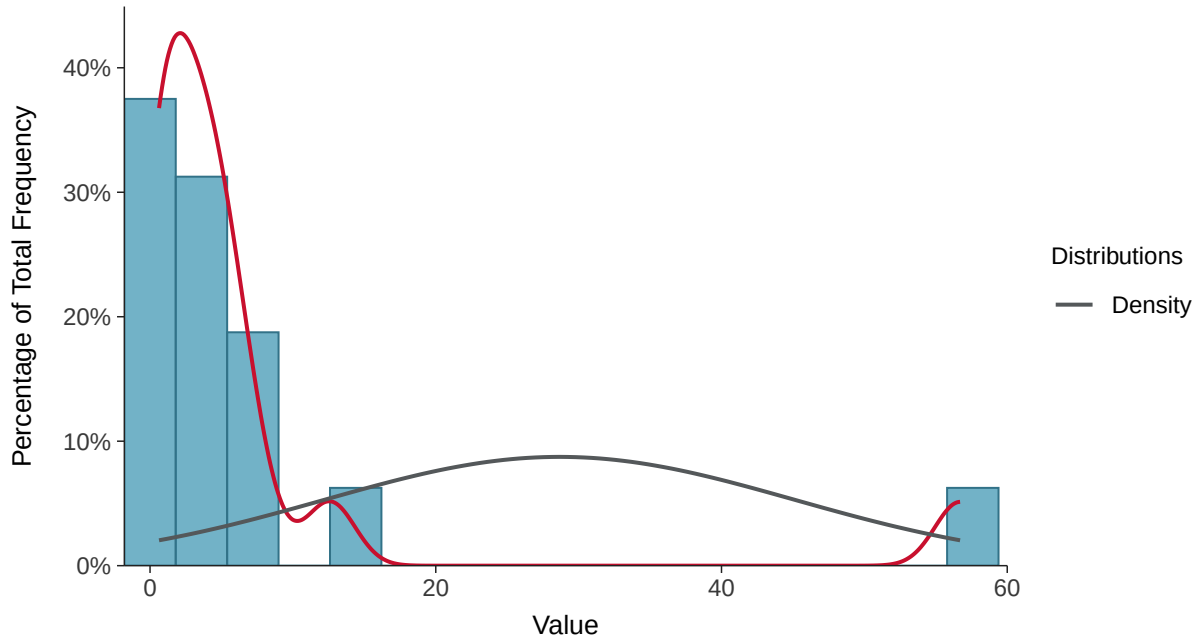
Scatter Plot

Chromium, MW-10 (ug/L)



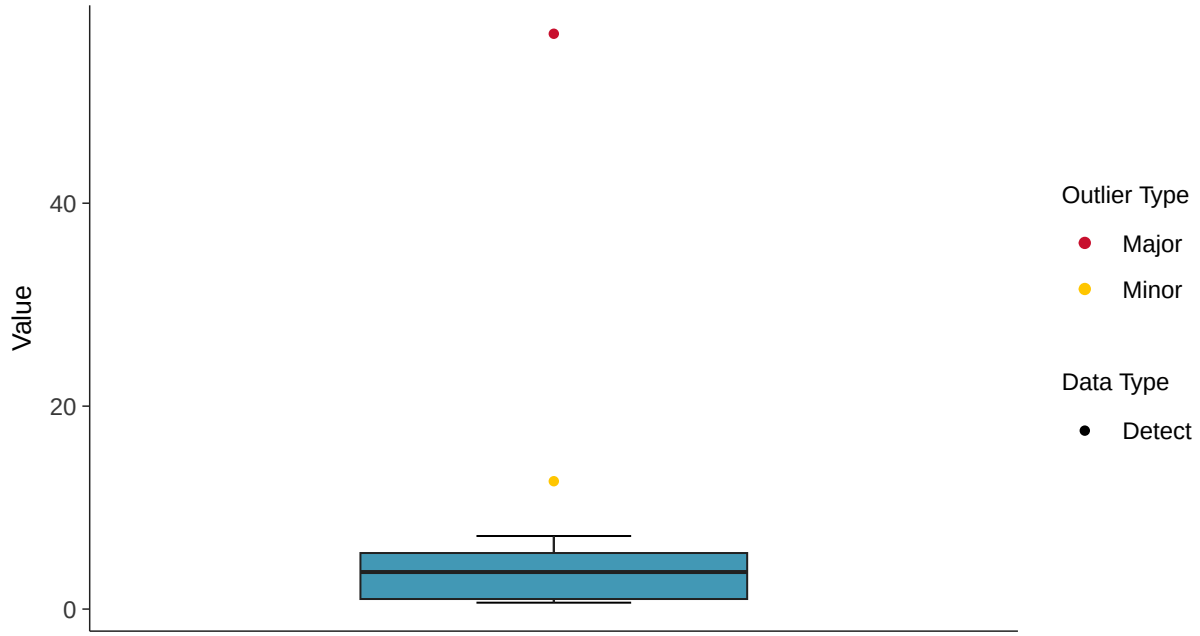
Histogram

Chromium, MW-10 (ug/L)



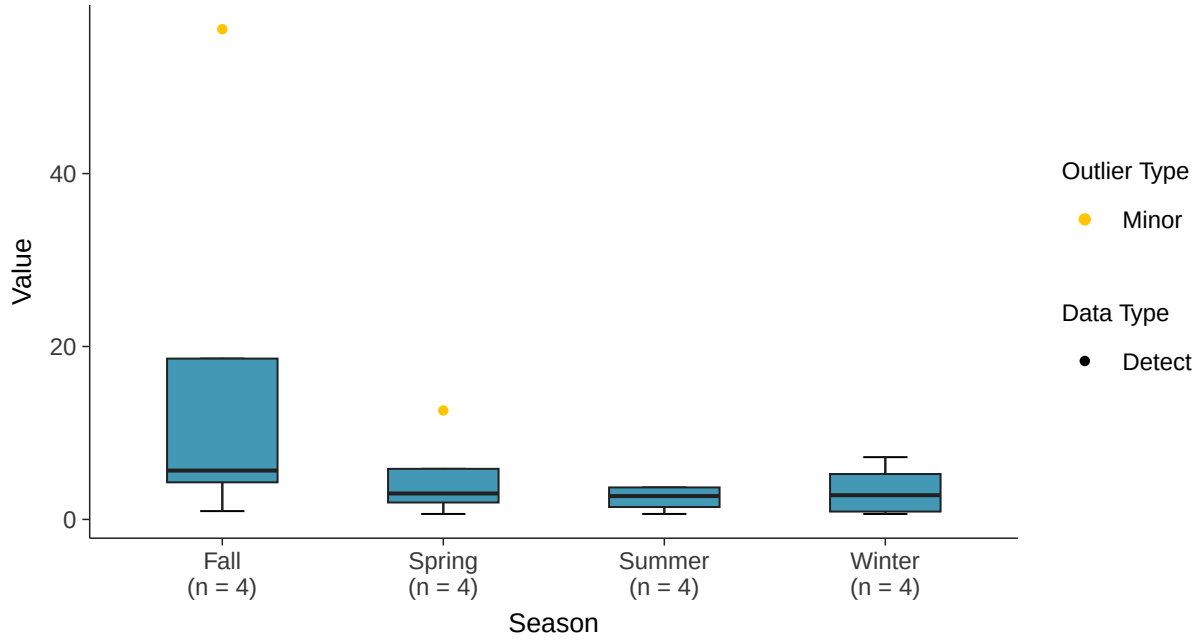
Boxplot

Chromium, MW-10 (ug/L)



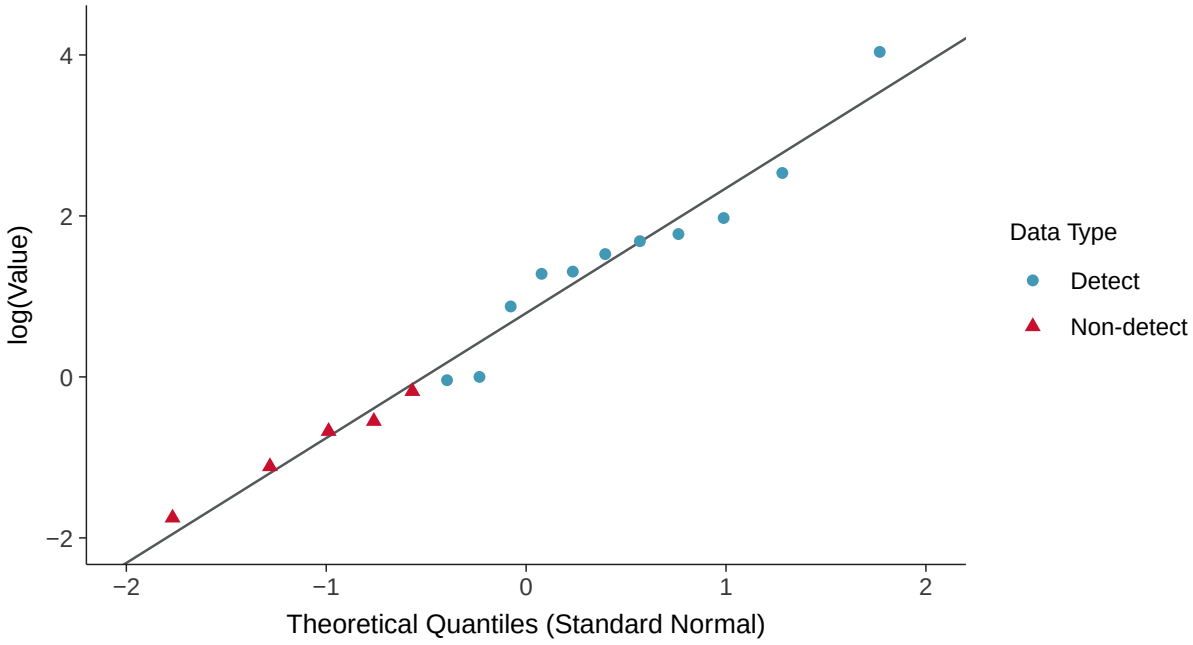
Boxplot by Season

Chromium, MW-10 (ug/L)



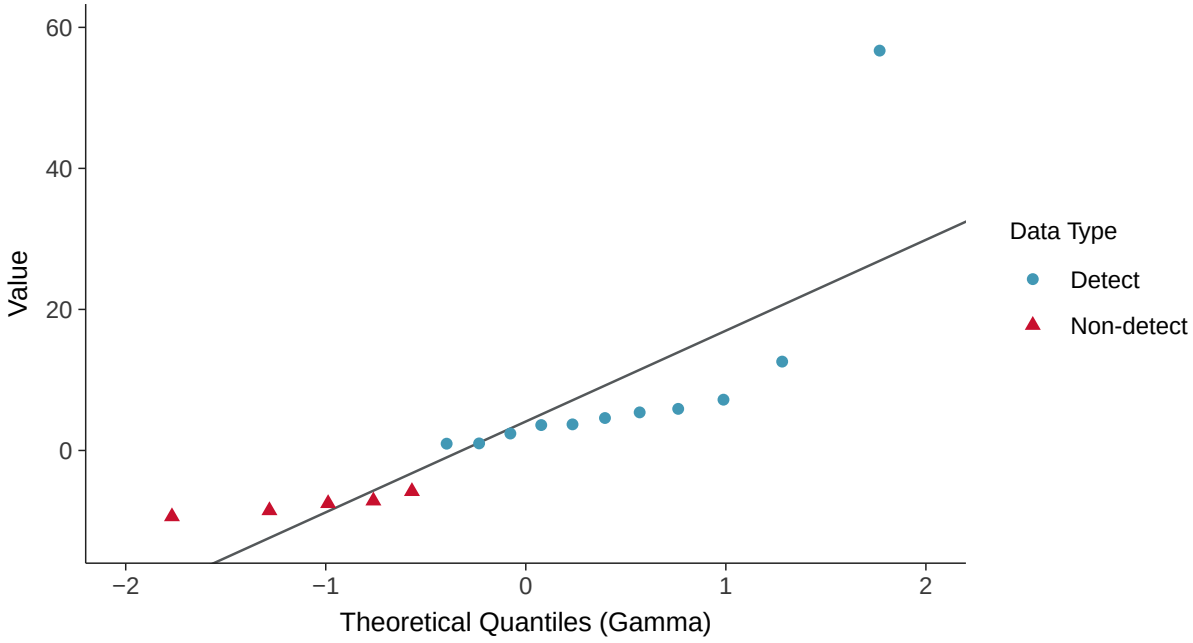
Lognormal Q-Q plot using ROS Imputed Estimates

Chromium, MW-10 (ug/L)



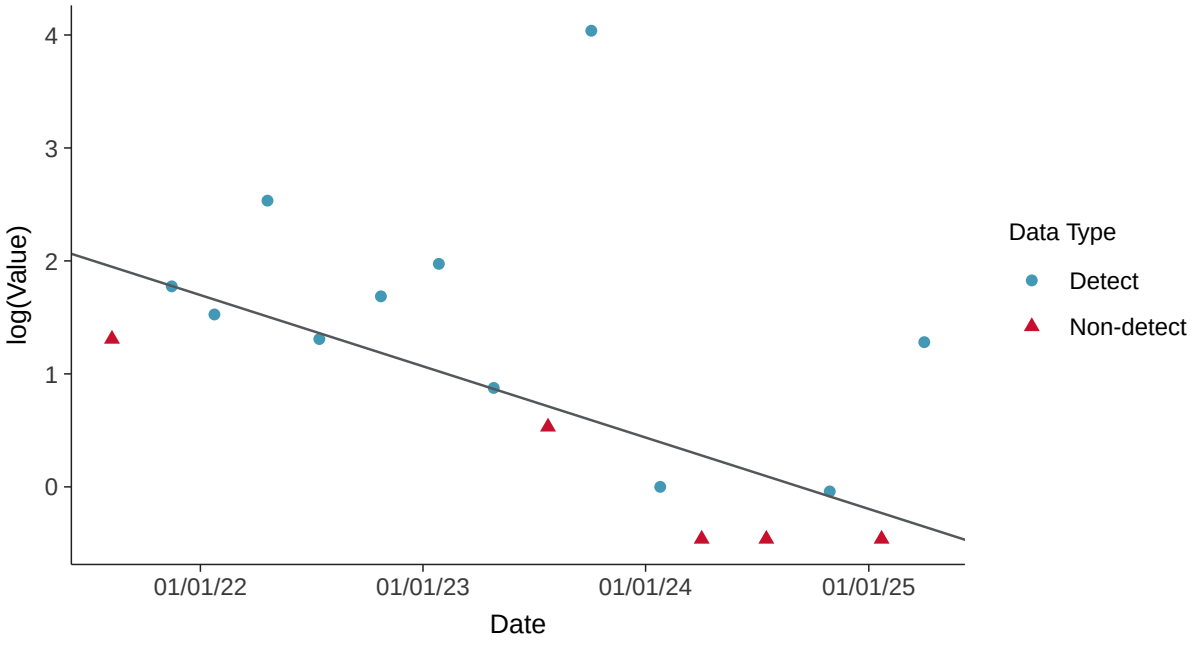
Gamma Q-Q plot using ROS Imputed Estimates

Chromium, MW-10 (ug/L)



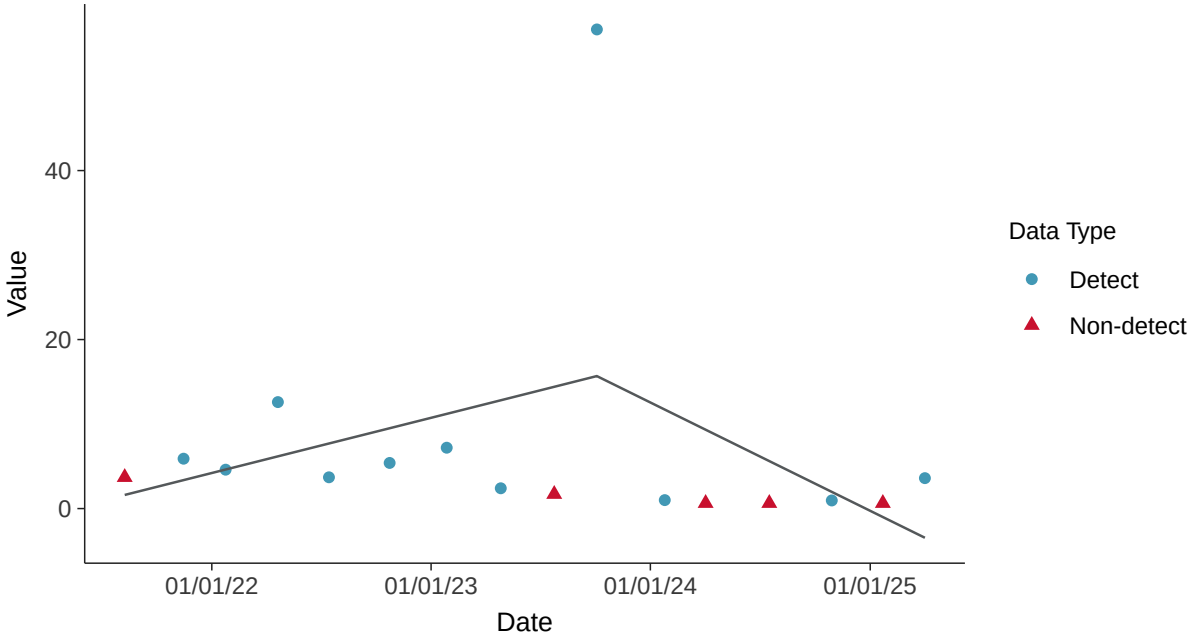
Trend Regression: Lognormal MLE

Chromium, MW-10 (ug/L)



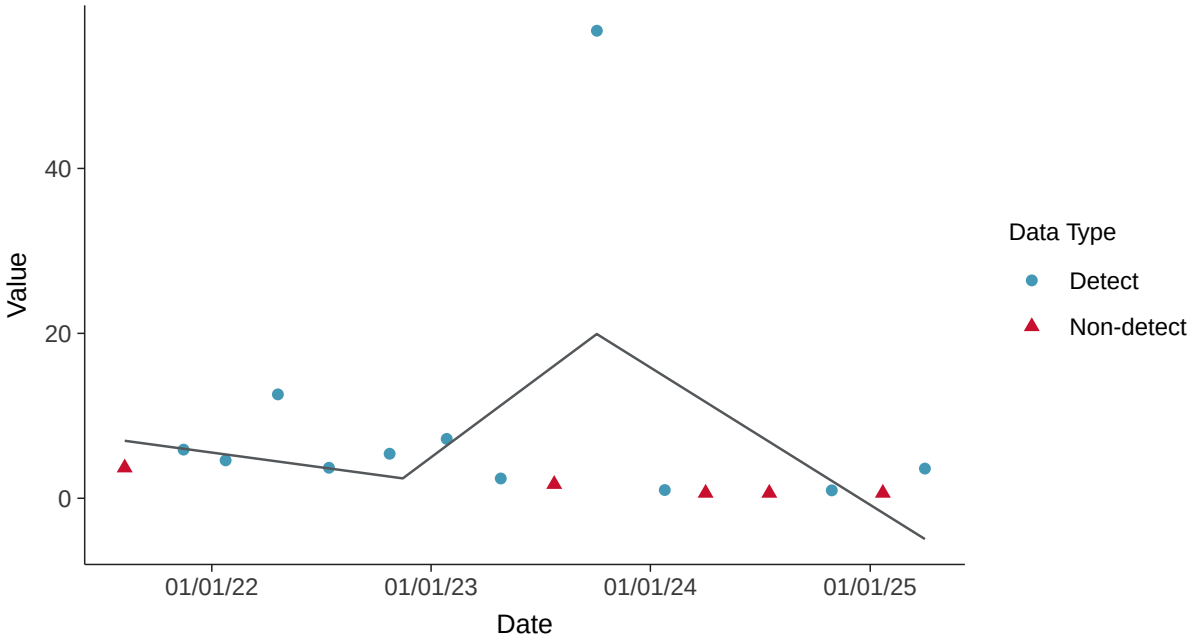
Trend Regression: Piecewise Linear-Linear

Chromium, MW-10 (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Chromium, MW-10 (ug/L)

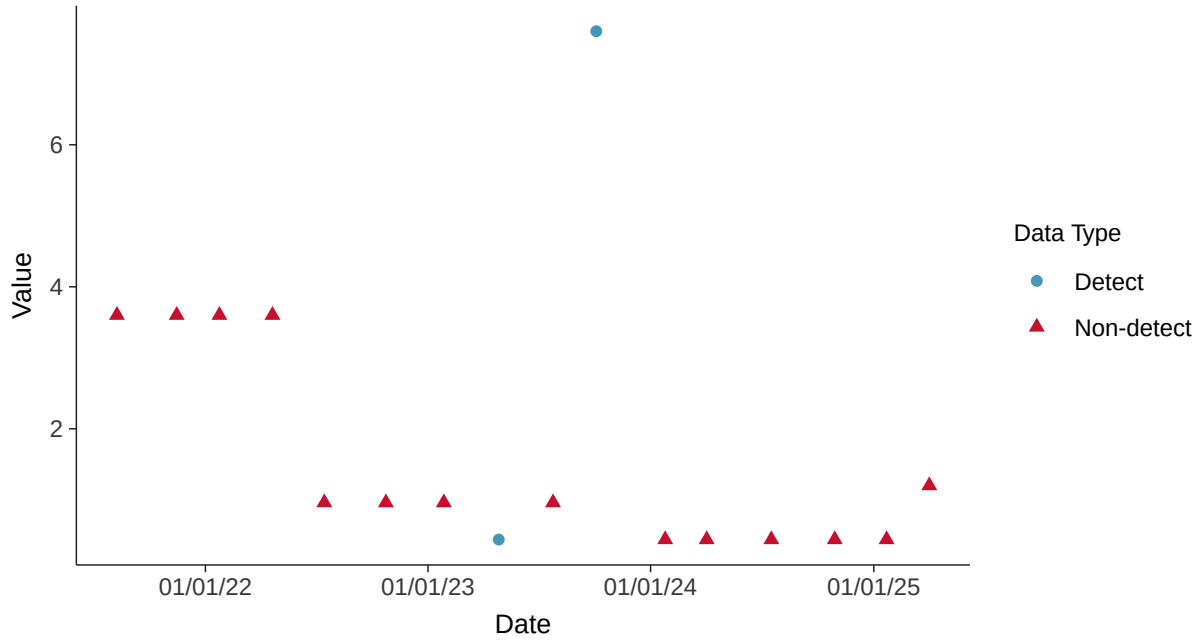


App. IV: Cobalt, MW-10

ID: 09_03_110

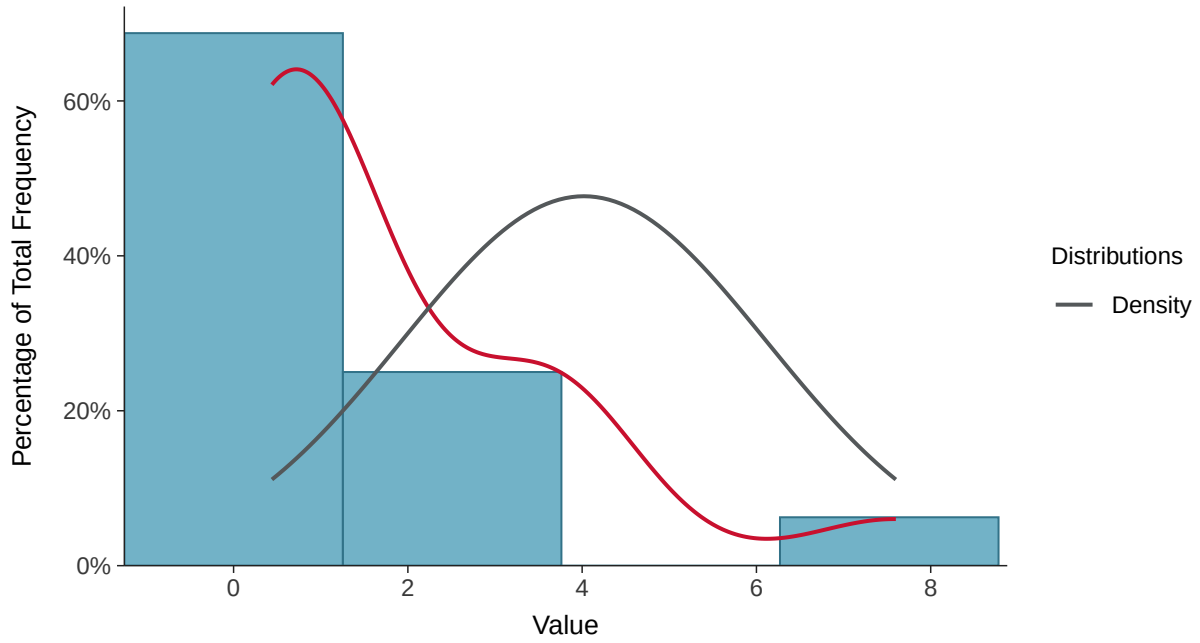
Scatter Plot

Cobalt, MW-10 (ug/L)



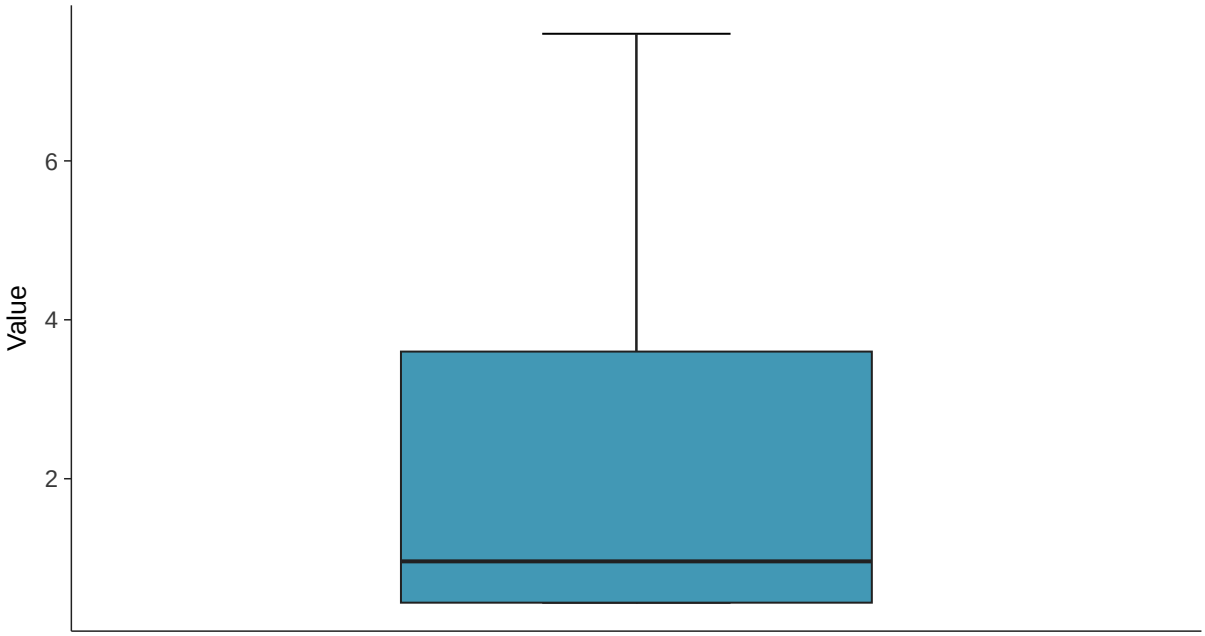
Histogram

Cobalt, MW-10 (ug/L)



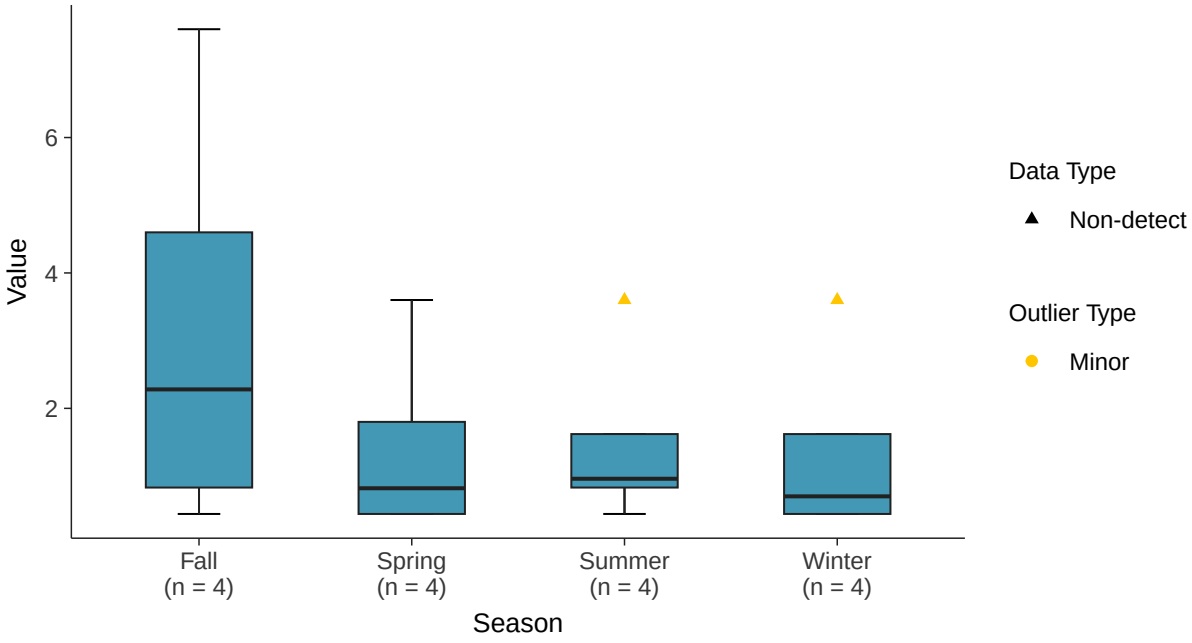
Boxplot

Cobalt, MW-10 (ug/L)



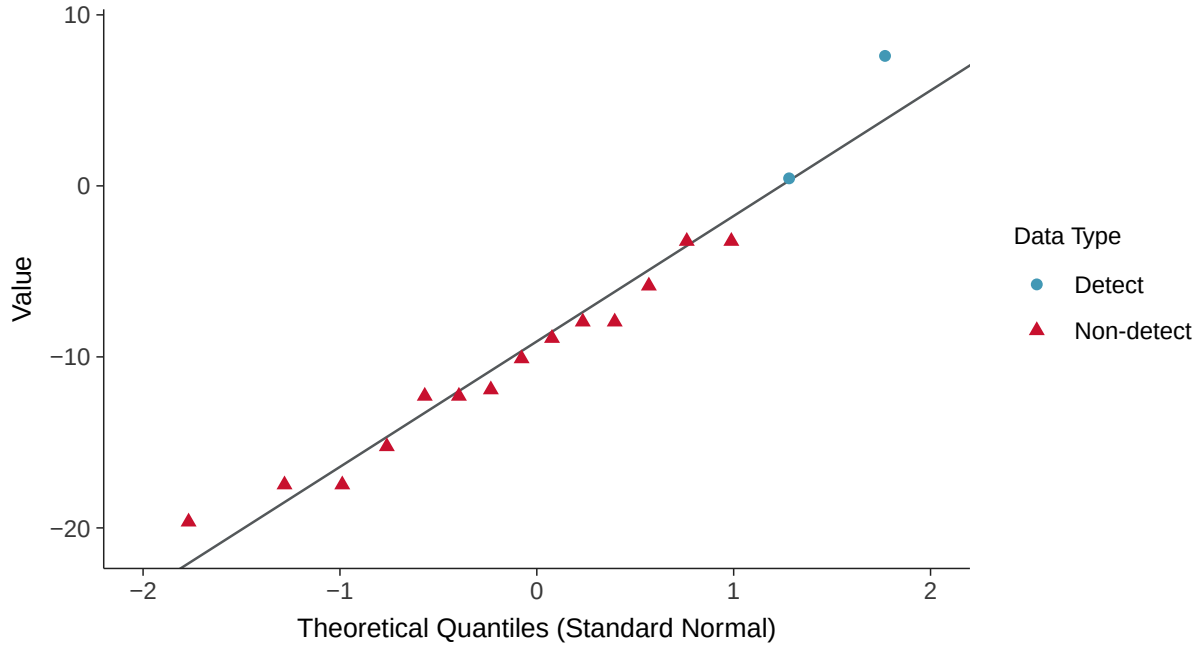
Boxplot by Season

Cobalt, MW-10 (ug/L)



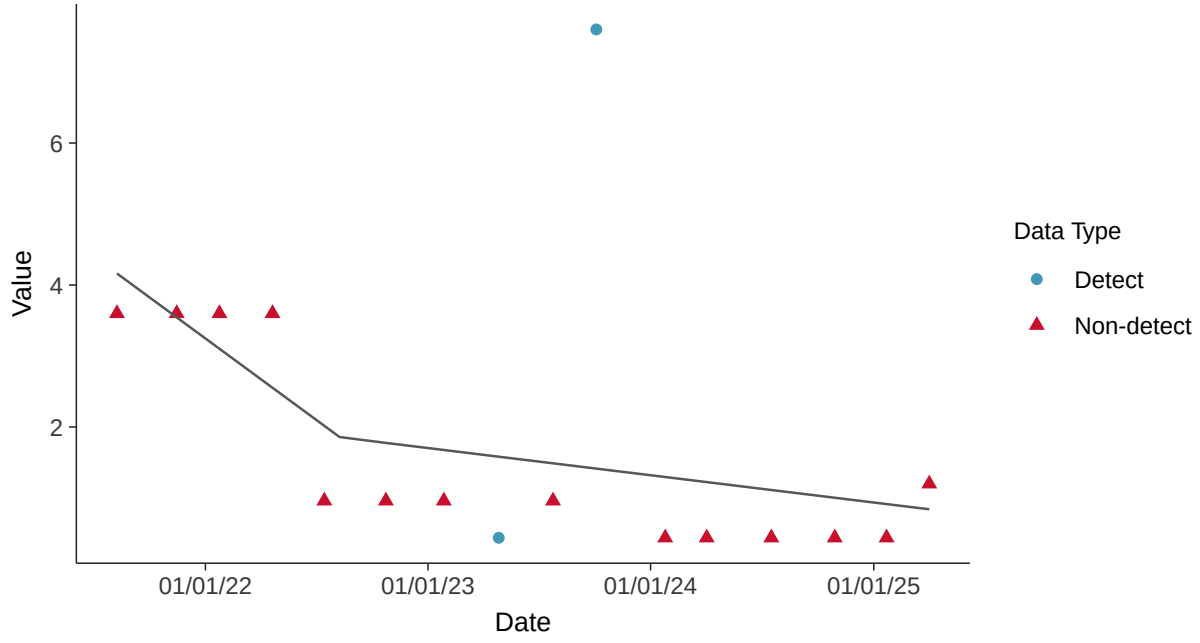
Normal Q-Q plot using ROS Imputed Estimates

Cobalt, MW-10 (ug/L)



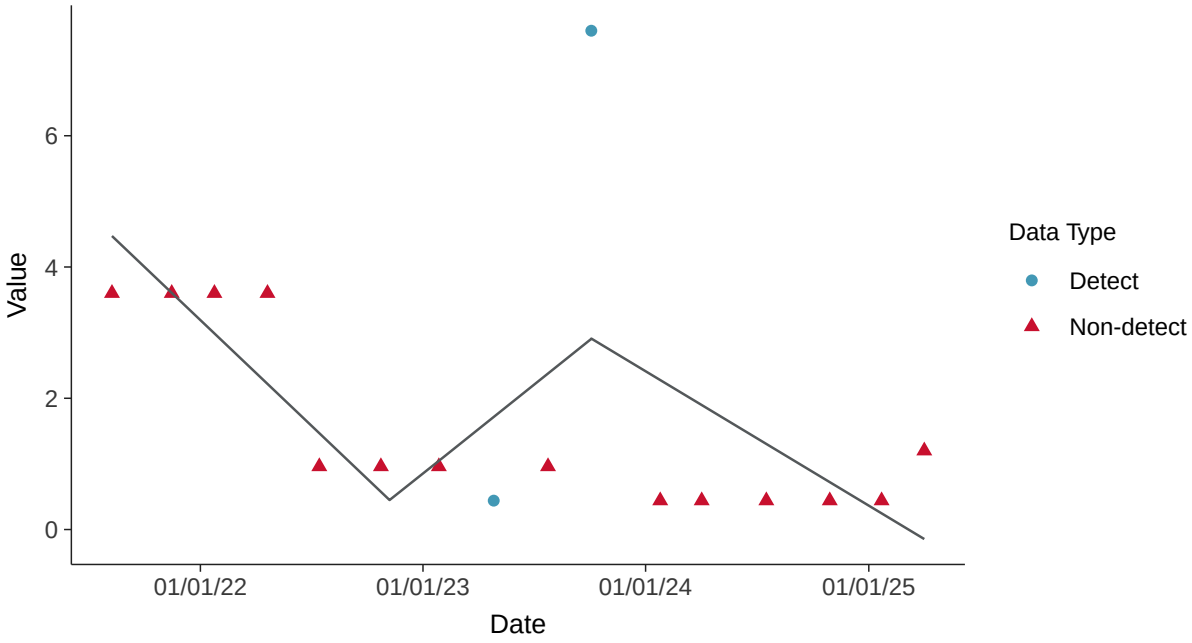
Trend Regression: Piecewise Linear-Linear

Cobalt, MW-10 (ug/L)



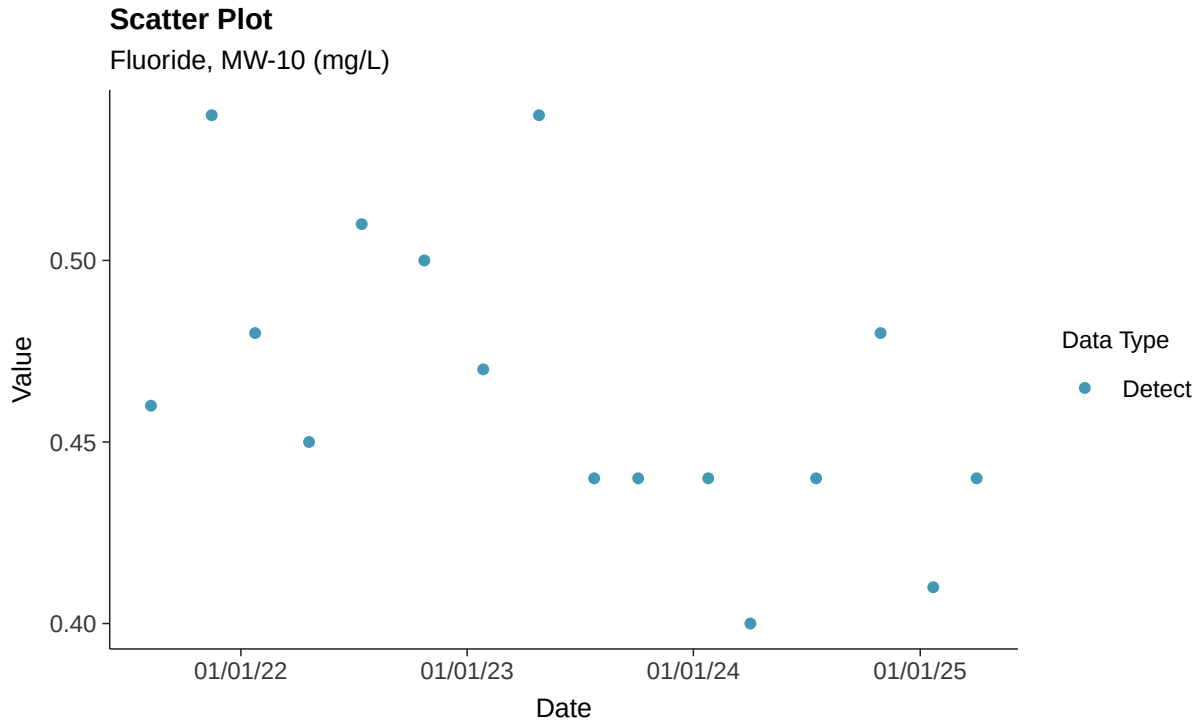
Trend Regression: Piecewise Linear-Linear-Linear

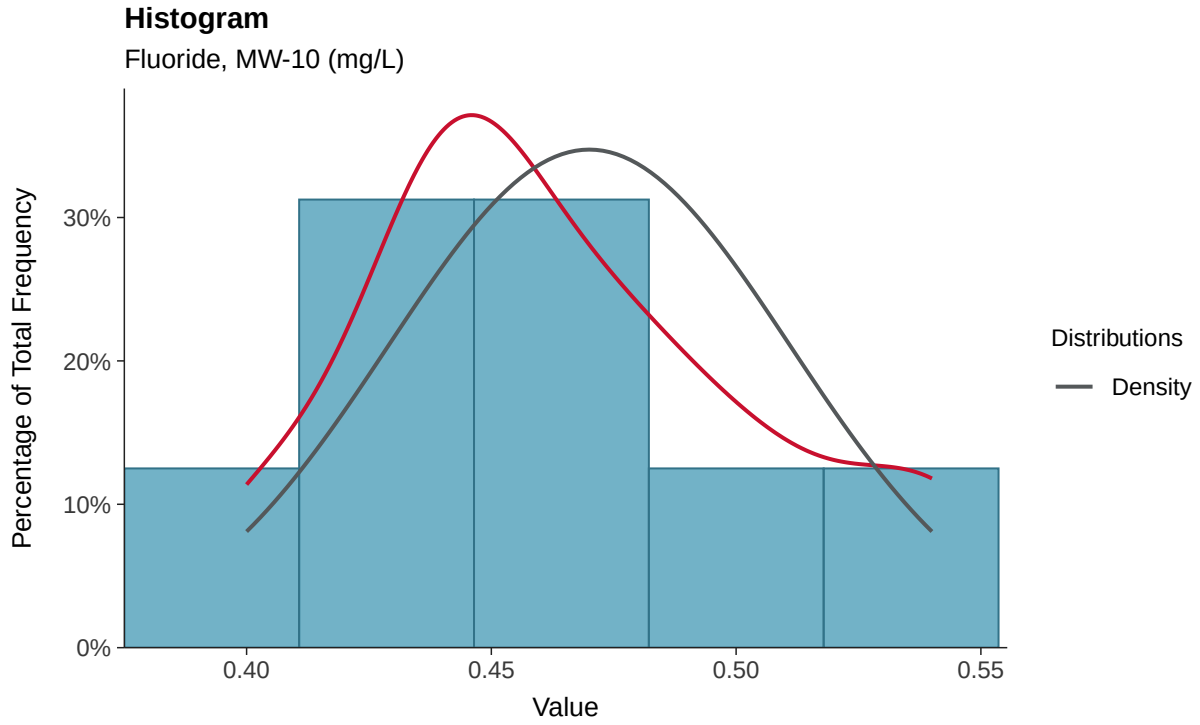
Cobalt, MW-10 (ug/L)



App. IV: Fluoride, MW-10

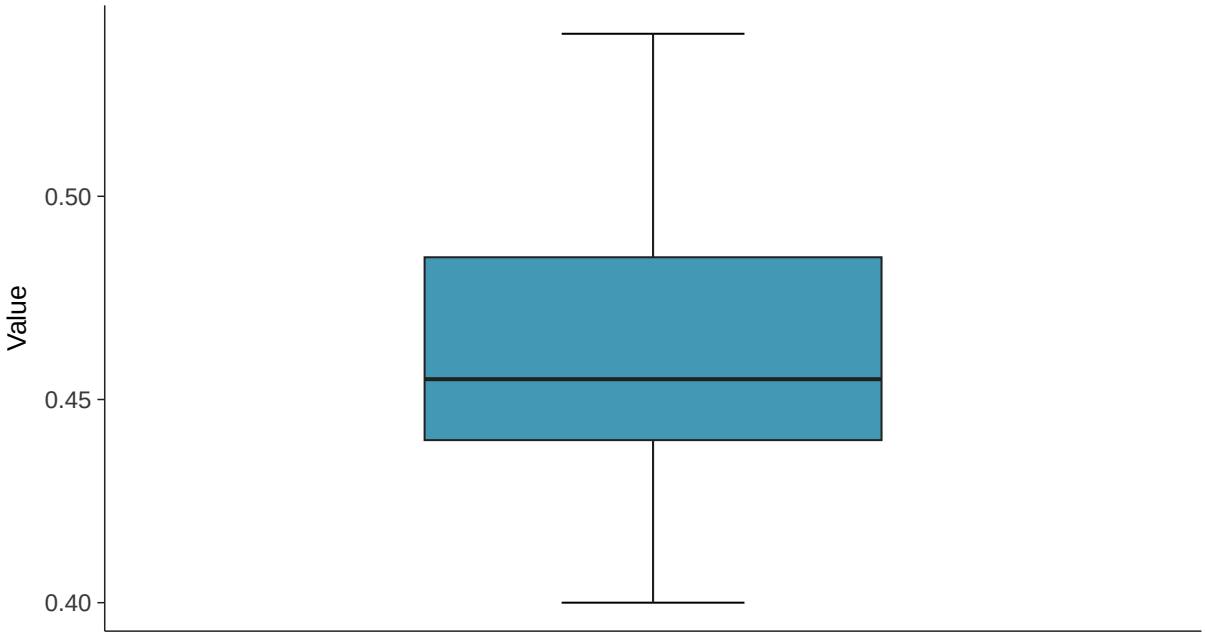
ID: 09_03_112





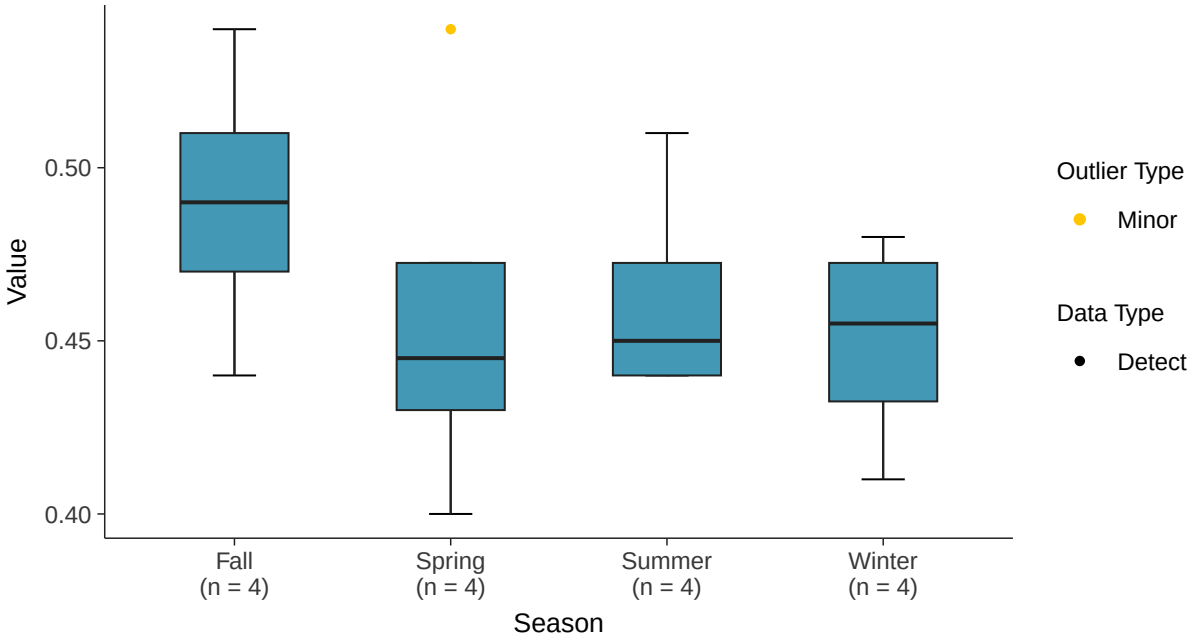
Boxplot

Fluoride, MW-10 (mg/L)



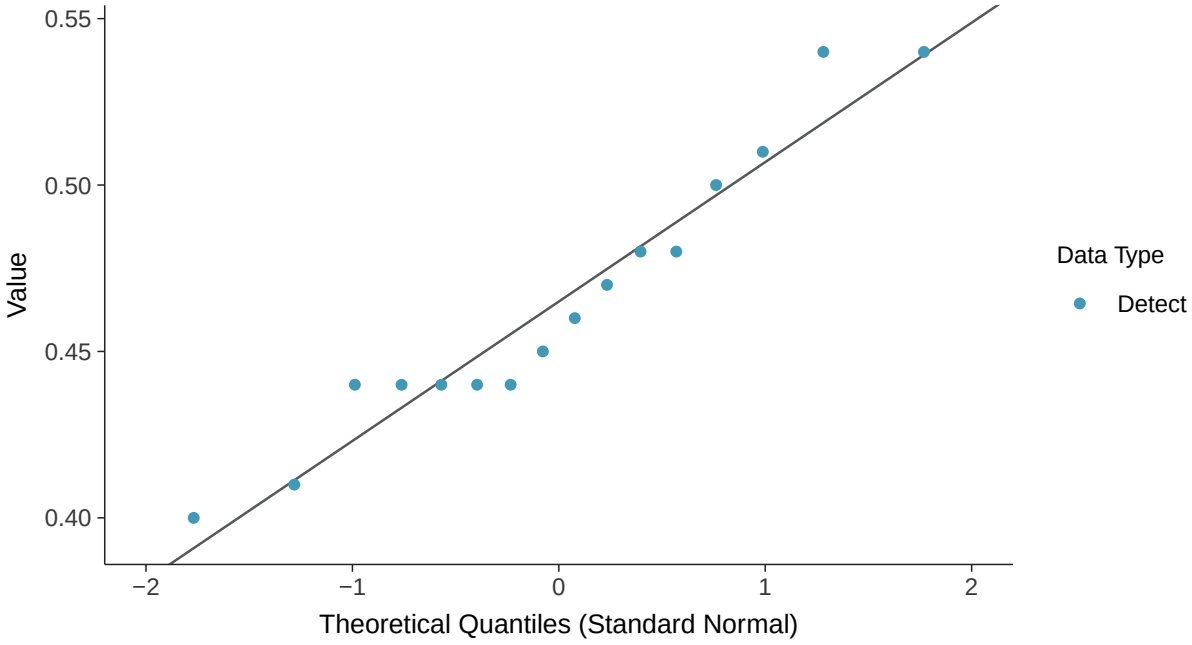
Boxplot by Season

Fluoride, MW-10 (mg/L)



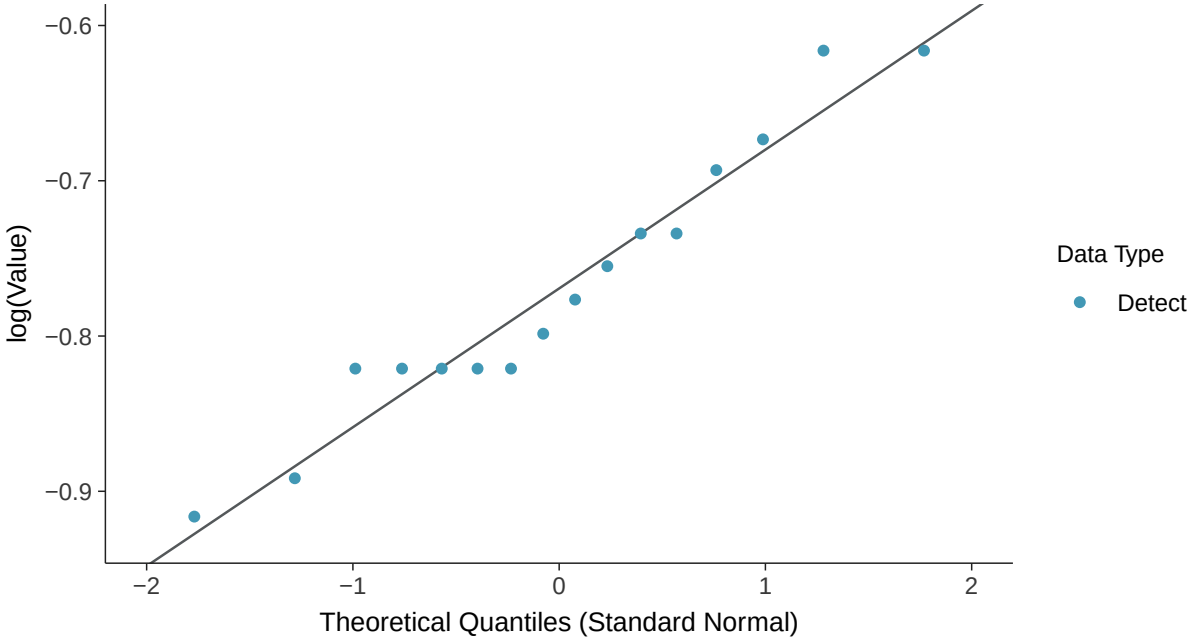
Normal Q-Q plot

Fluoride, MW-10 (mg/L)



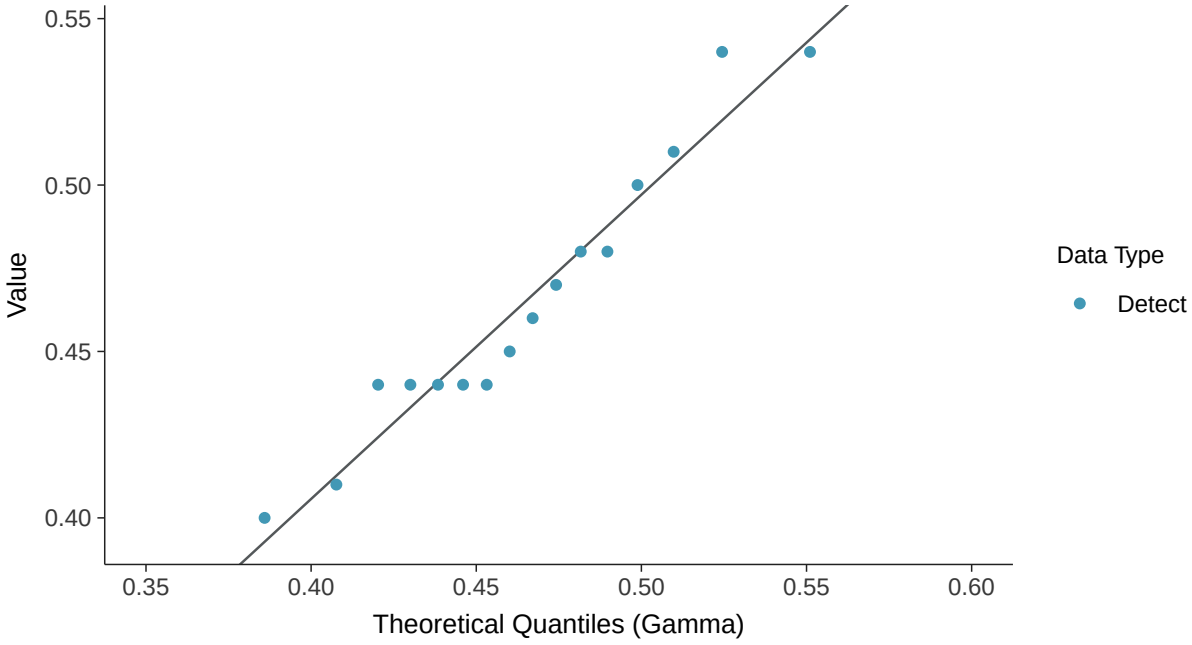
Lognormal Q-Q plot

Fluoride, MW-10 (mg/L)



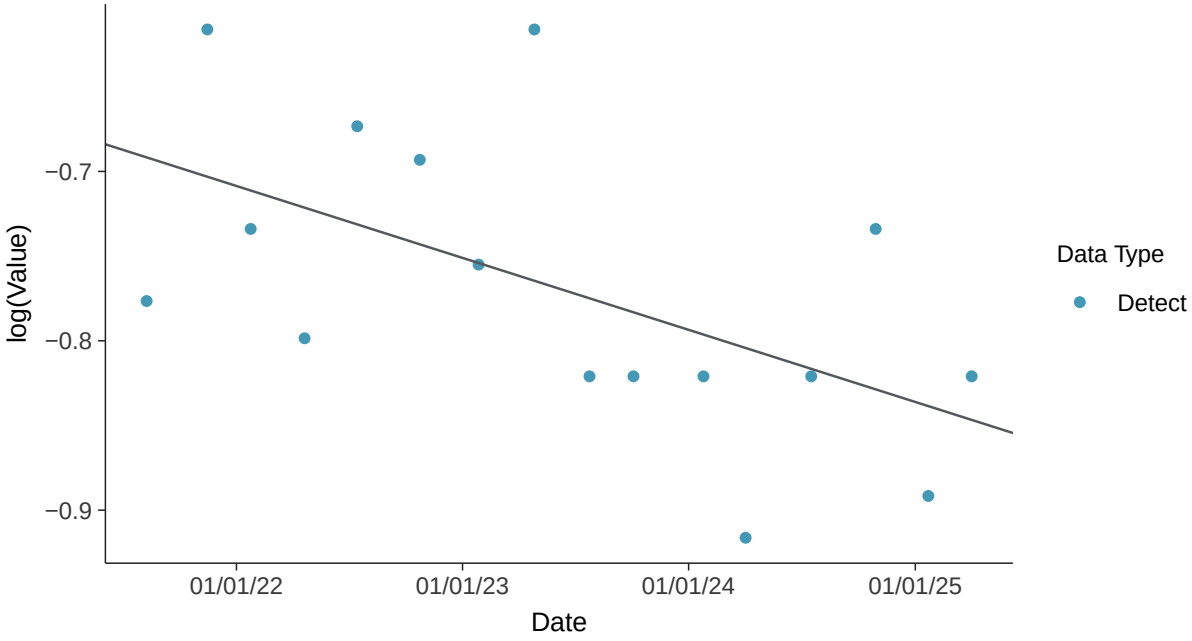
Gamma Q-Q plot

Fluoride, MW-10 (mg/L)



Trend Regression: Lognormal MLE

Fluoride, MW-10 (mg/L)

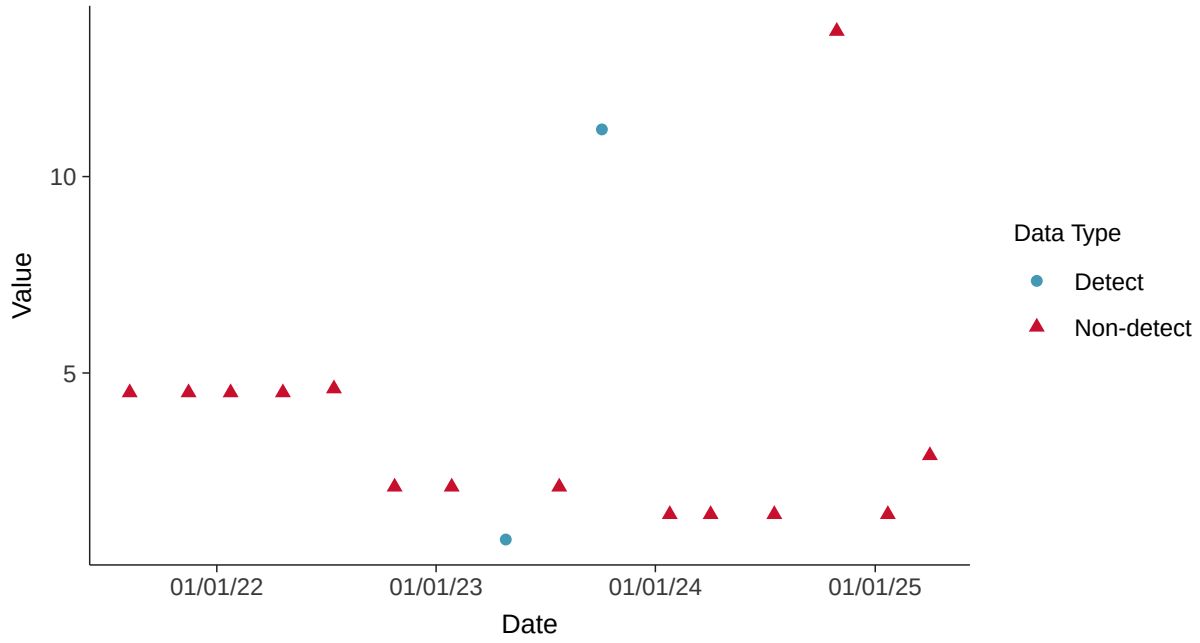


App. IV: Lead, MW-10

ID: 09_03_113

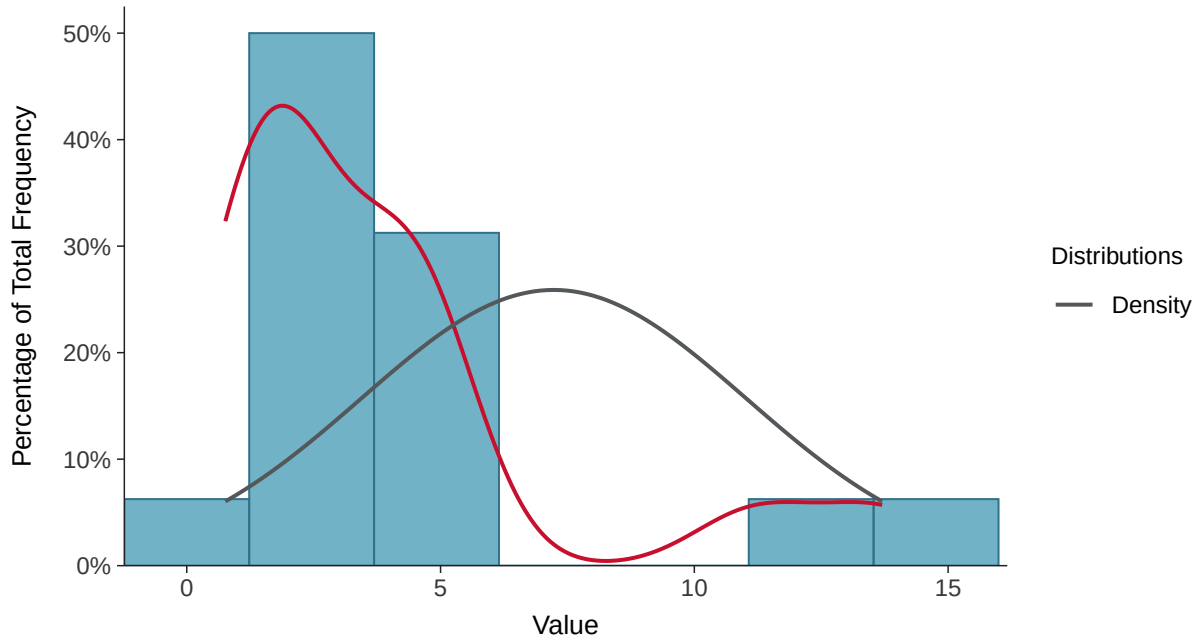
Scatter Plot

Lead, MW-10 (ug/L)



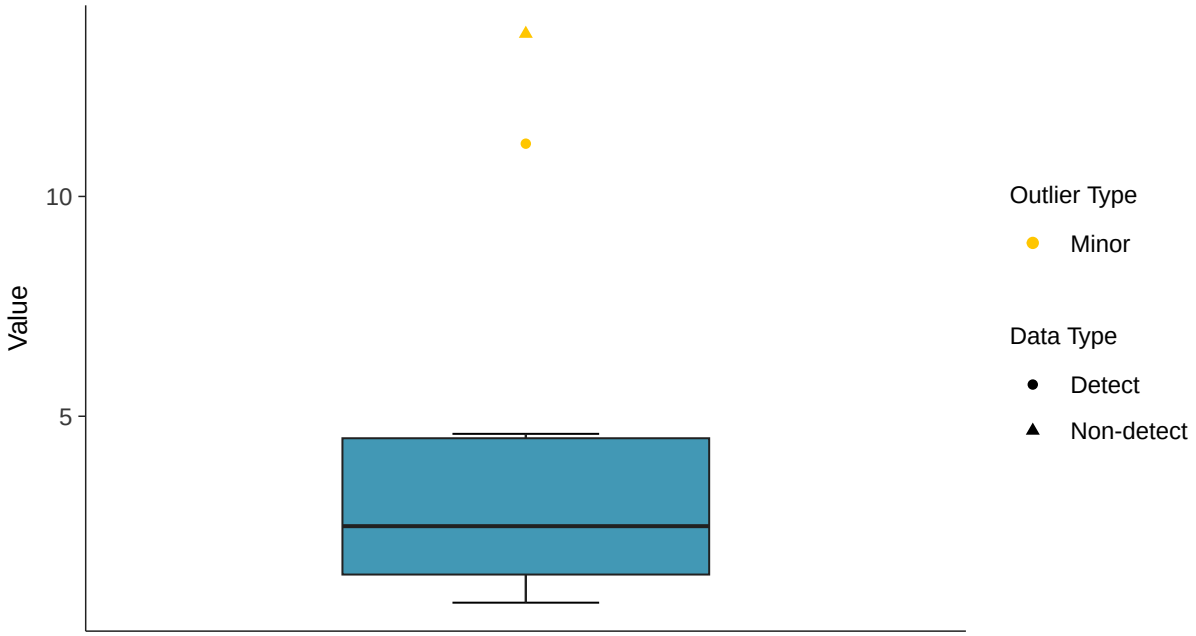
Histogram

Lead, MW-10 (ug/L)



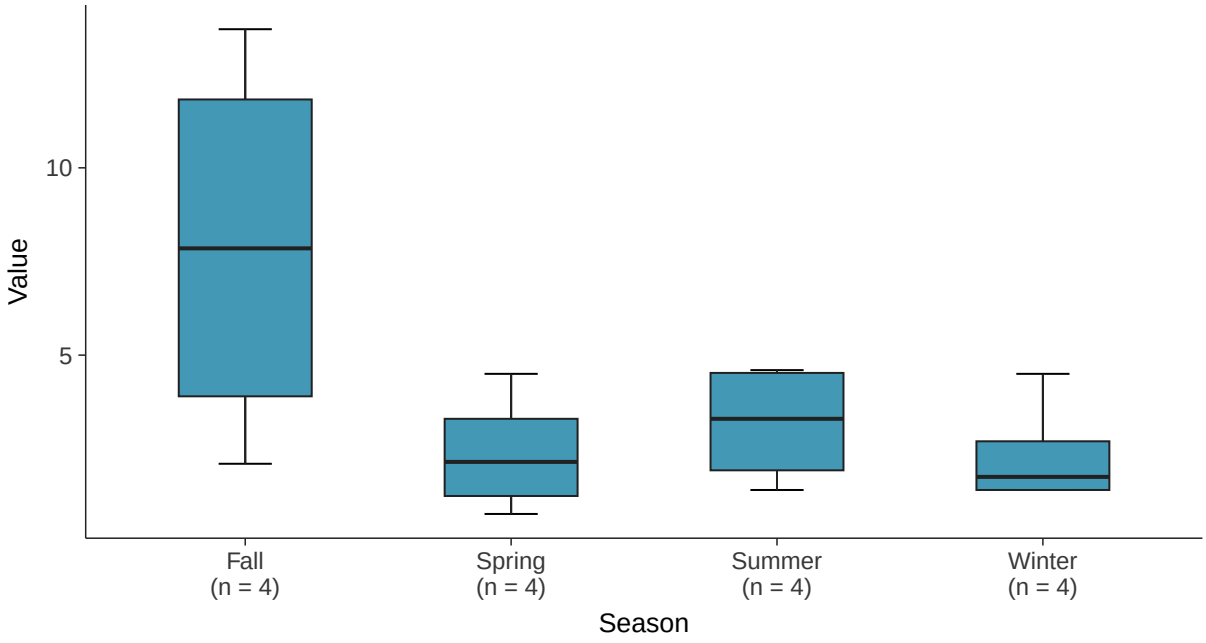
Boxplot

Lead, MW-10 (ug/L)



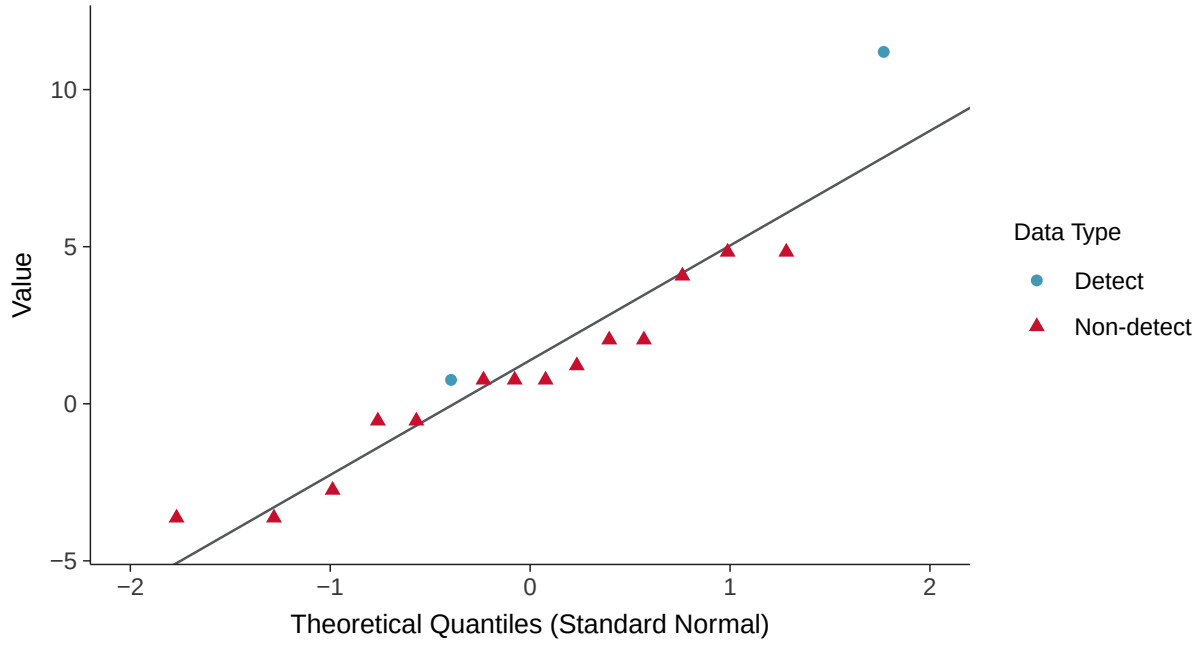
Boxplot by Season

Lead, MW-10 (ug/L)



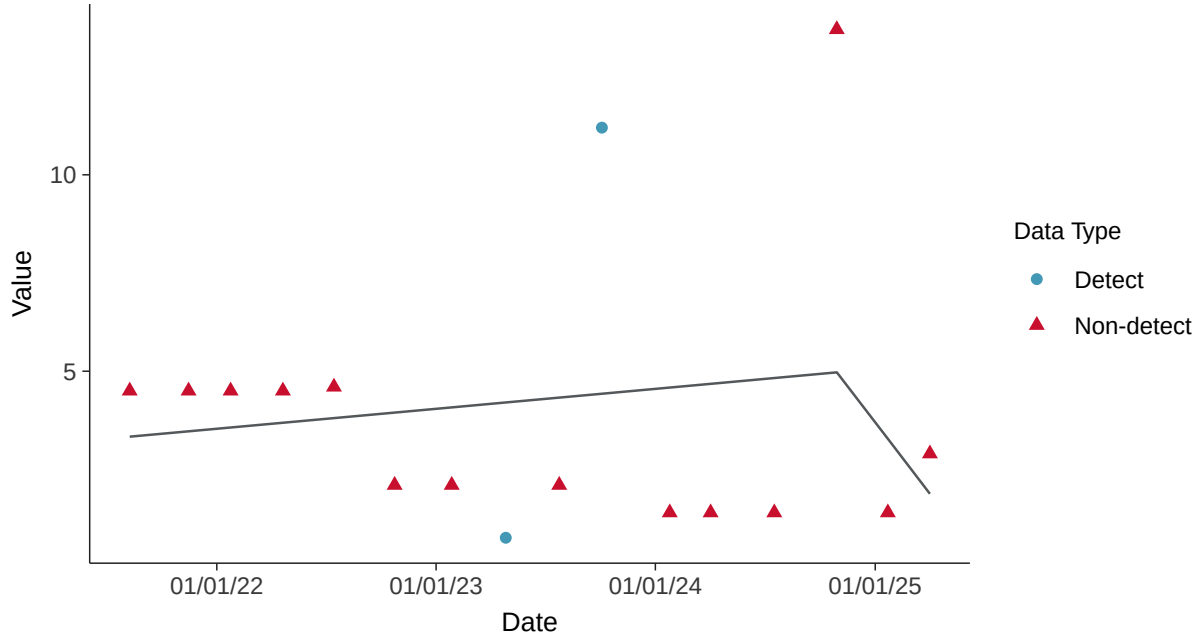
Normal Q-Q plot using ROS Imputed Estimates

Lead, MW-10 (ug/L)



Trend Regression: Piecewise Linear-Linear

Lead, MW-10 (ug/L)

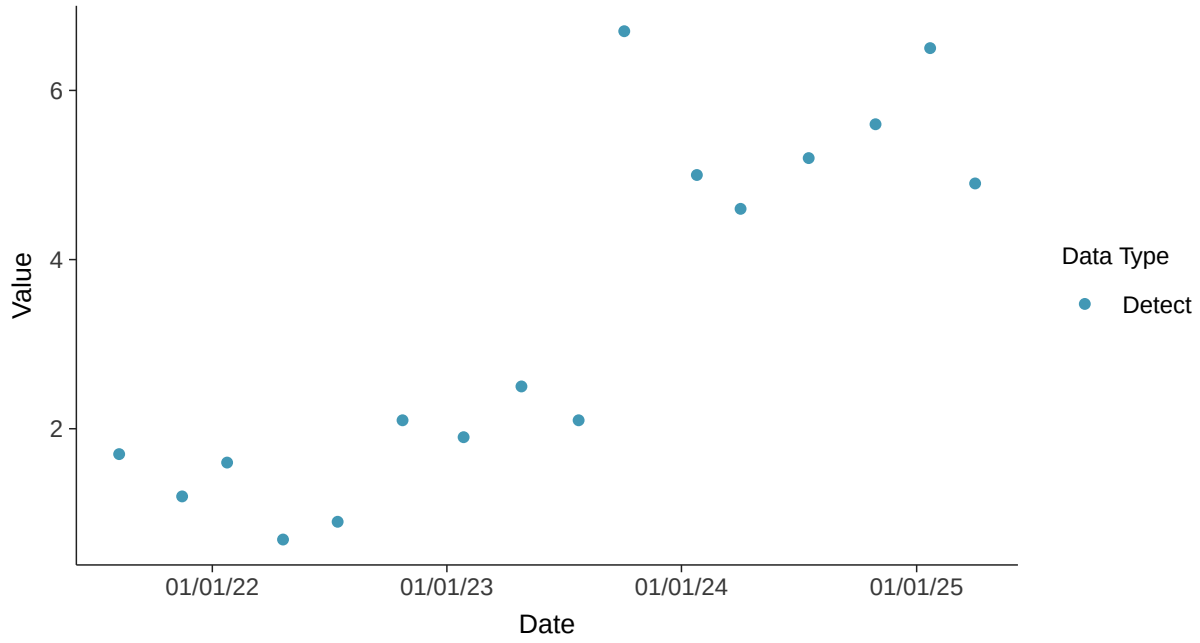


App. IV: Lithium, MW-10

ID: 09_03_114

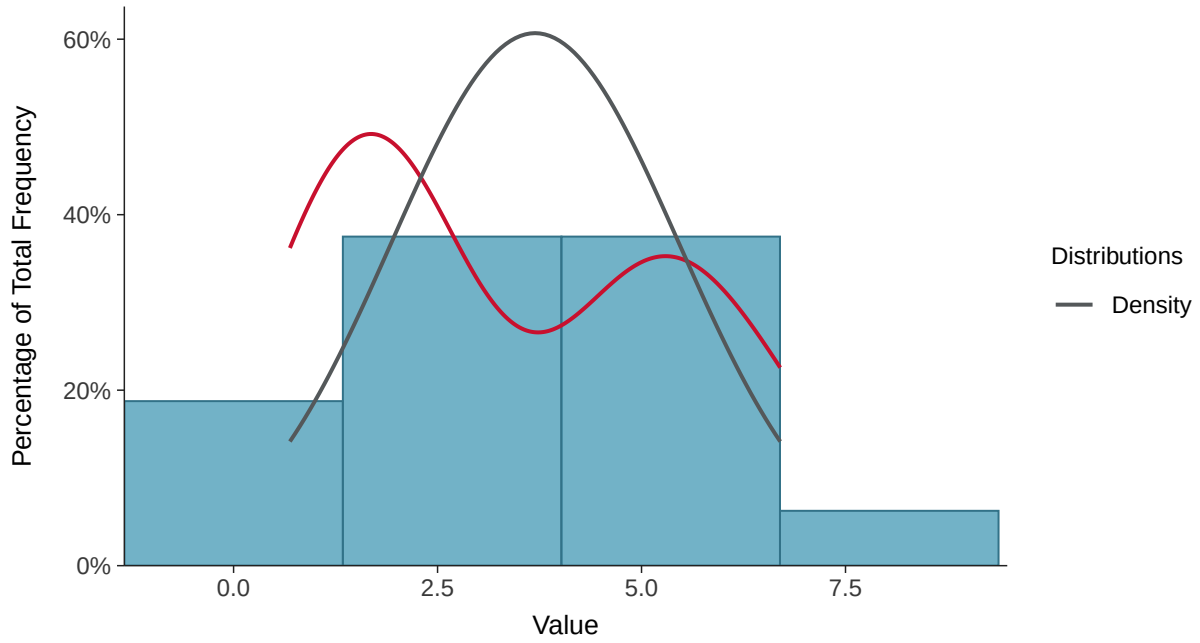
Scatter Plot

Lithium, MW-10 (ug/L)



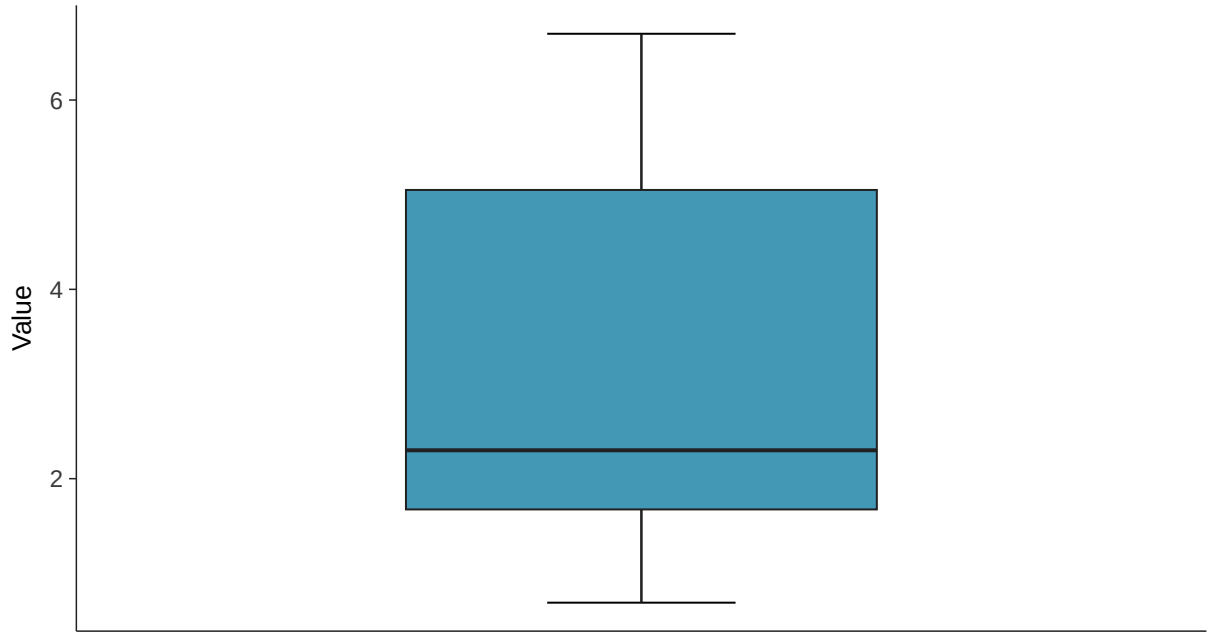
Histogram

Lithium, MW-10 (ug/L)



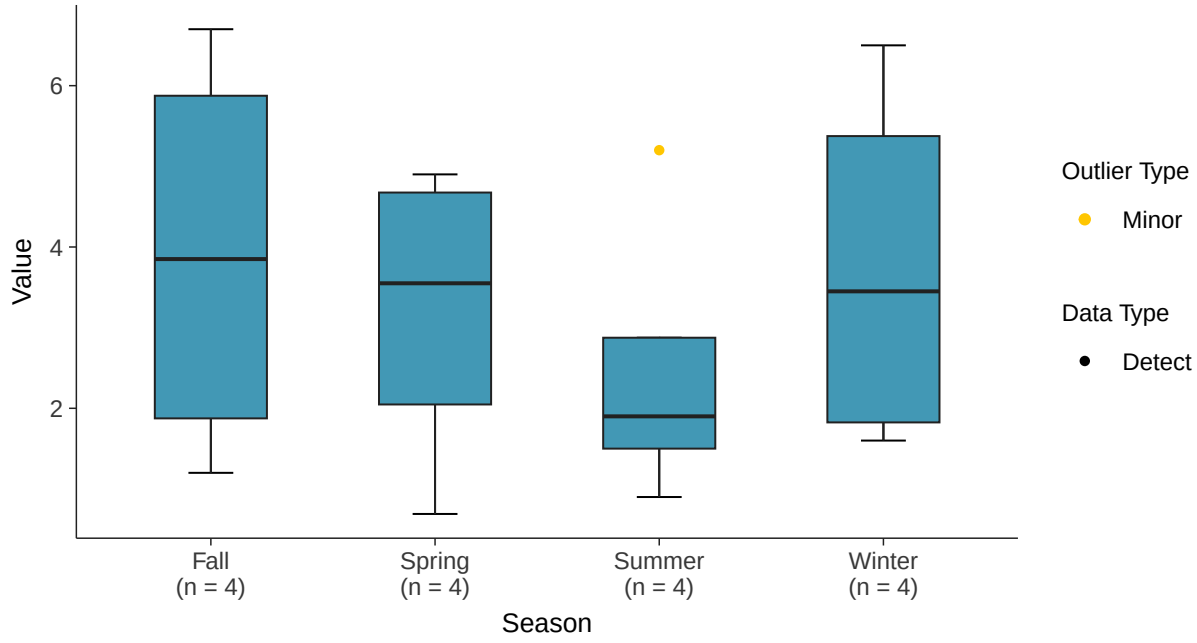
Boxplot

Lithium, MW-10 (ug/L)



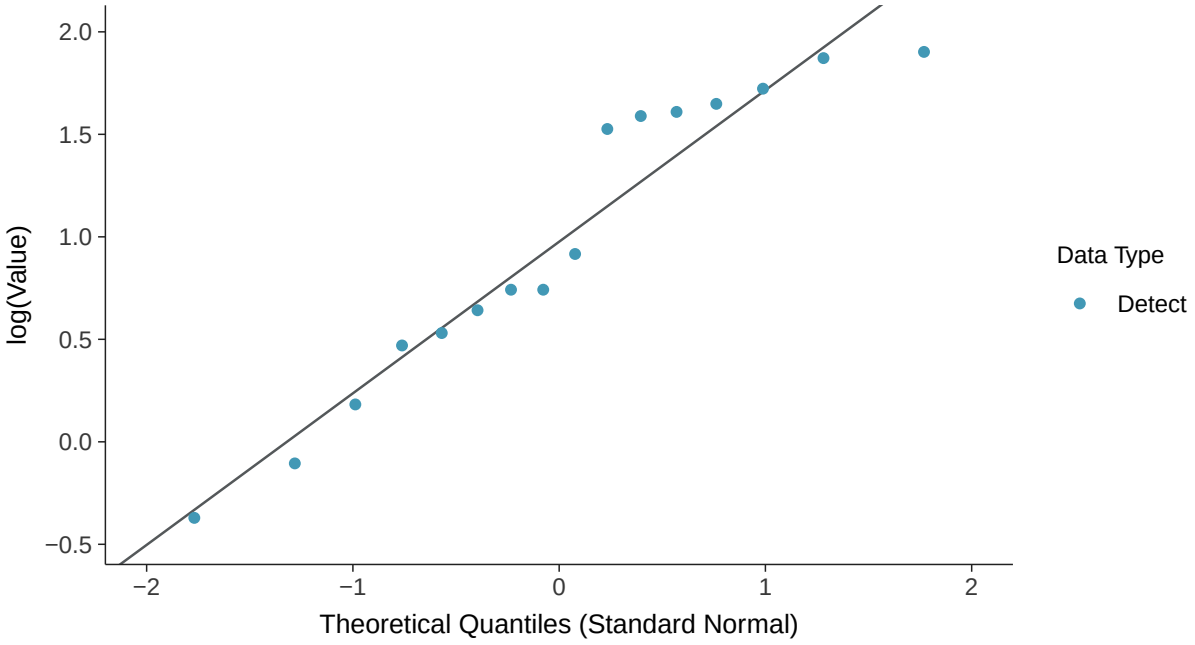
Boxplot by Season

Lithium, MW-10 (ug/L)



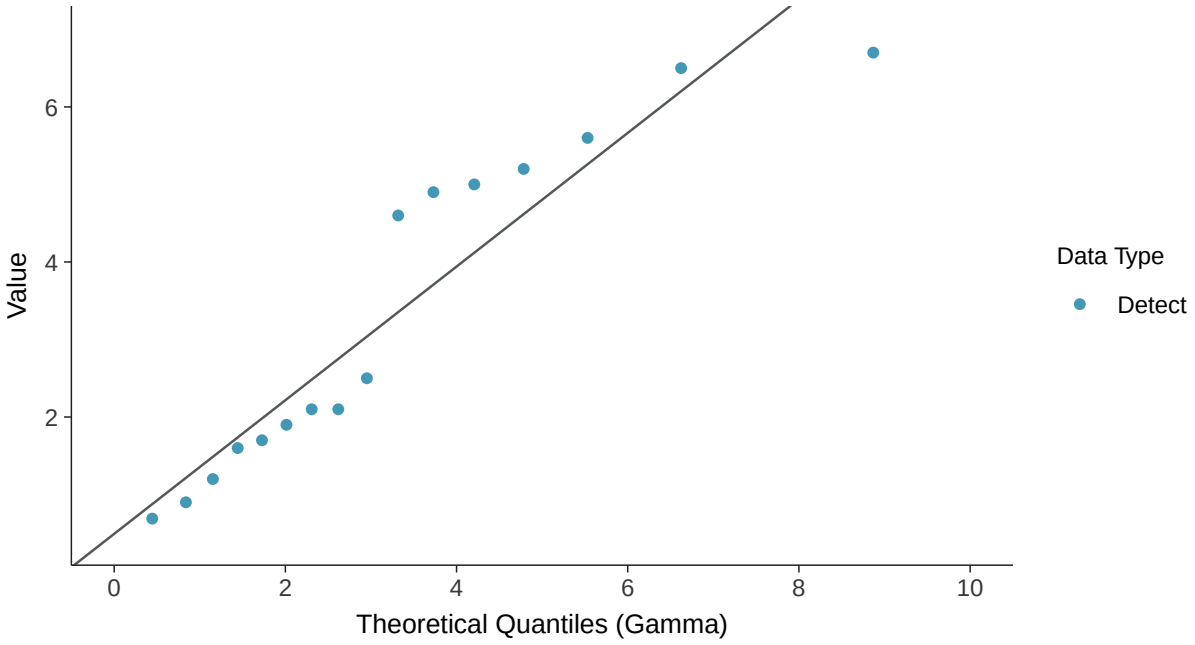
Lognormal Q-Q plot

Lithium, MW-10 (ug/L)



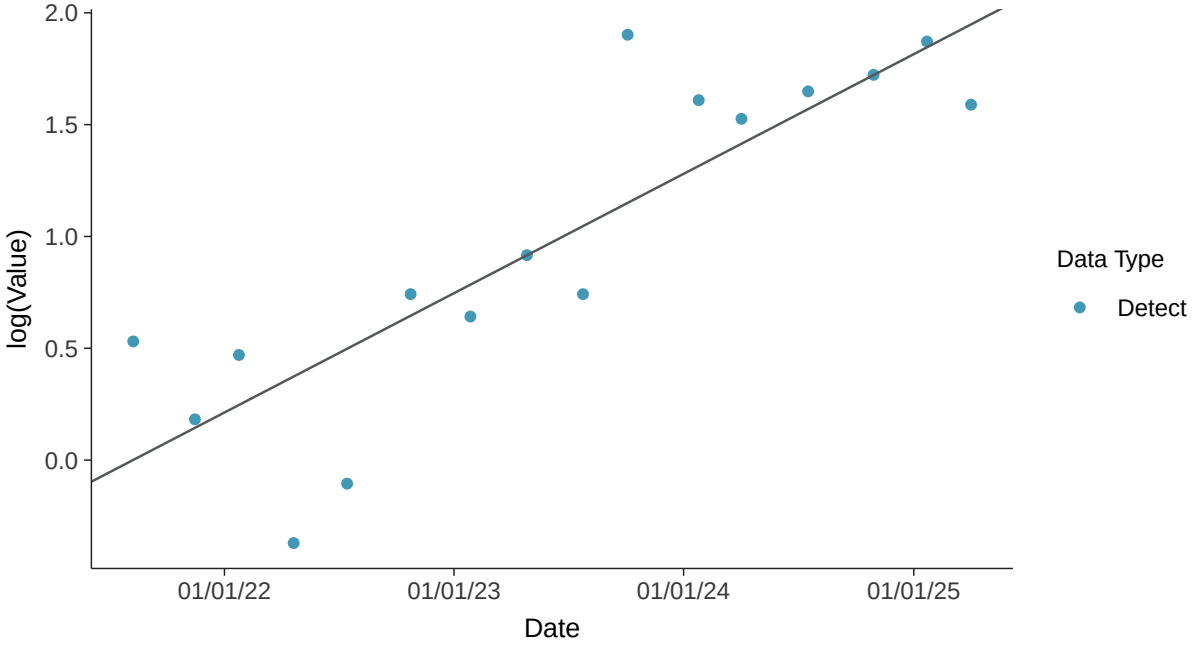
Gamma Q-Q plot

Lithium, MW-10 (ug/L)



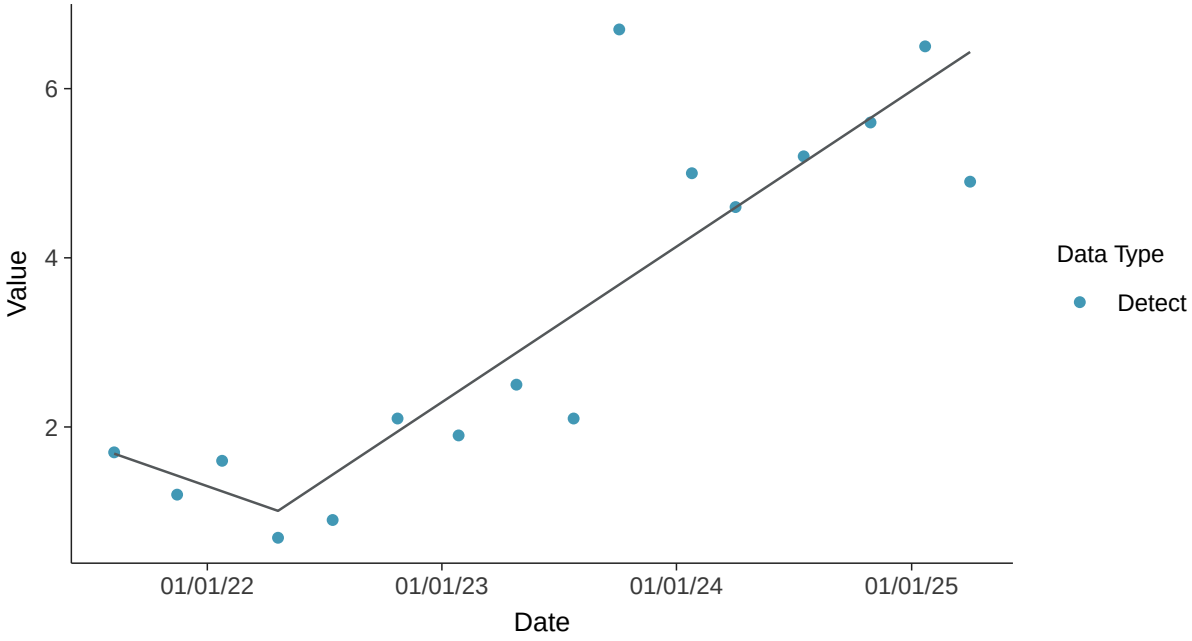
Trend Regression: Lognormal MLE

Lithium, MW-10 (ug/L)



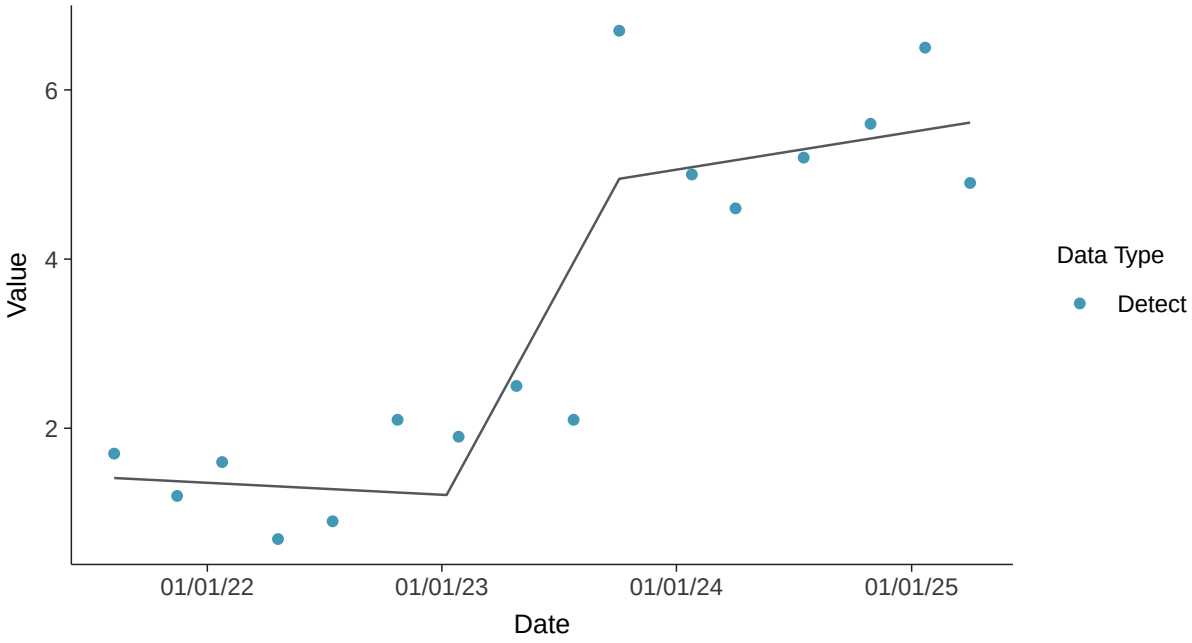
Trend Regression: Piecewise Linear-Linear

Lithium, MW-10 (ug/L)



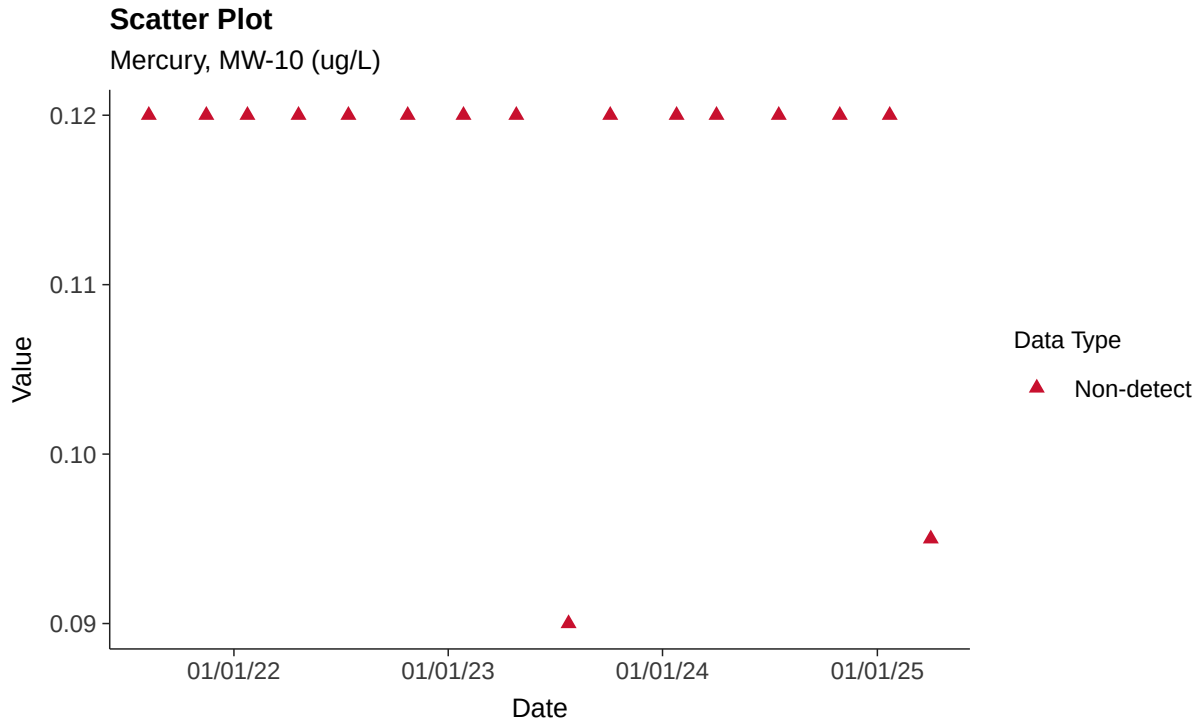
Trend Regression: Piecewise Linear-Linear-Linear

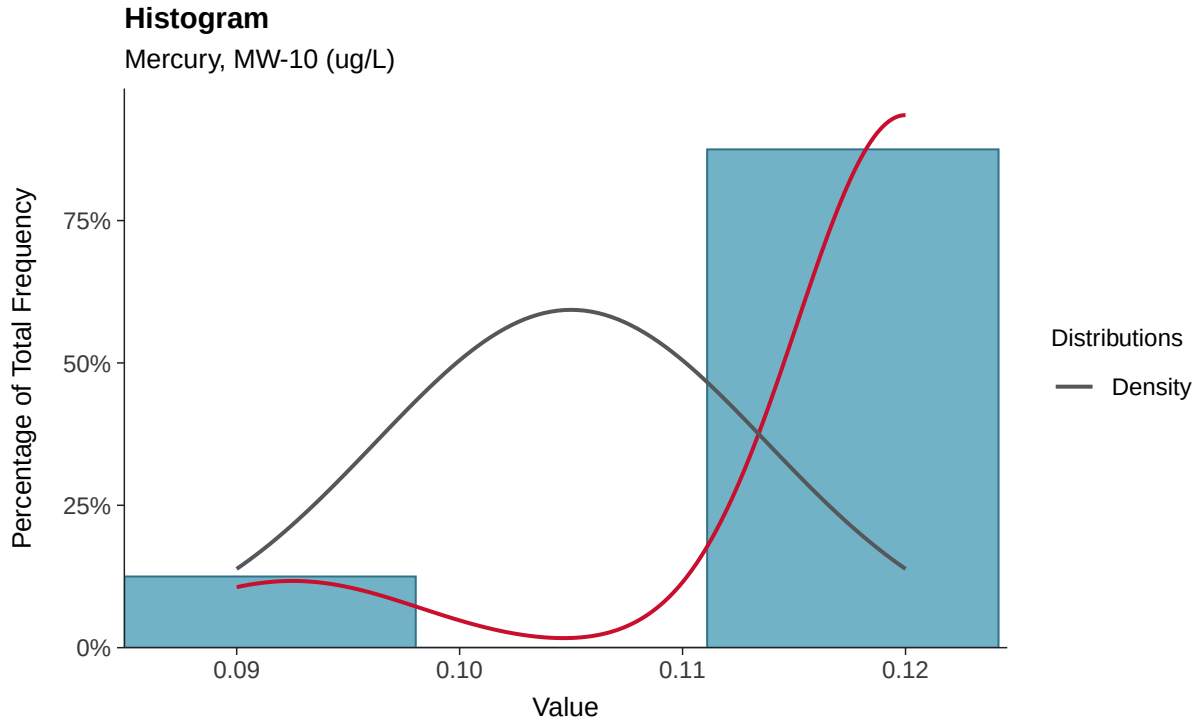
Lithium, MW-10 (ug/L)



App. IV: Mercury, MW-10

ID: 09_03_115



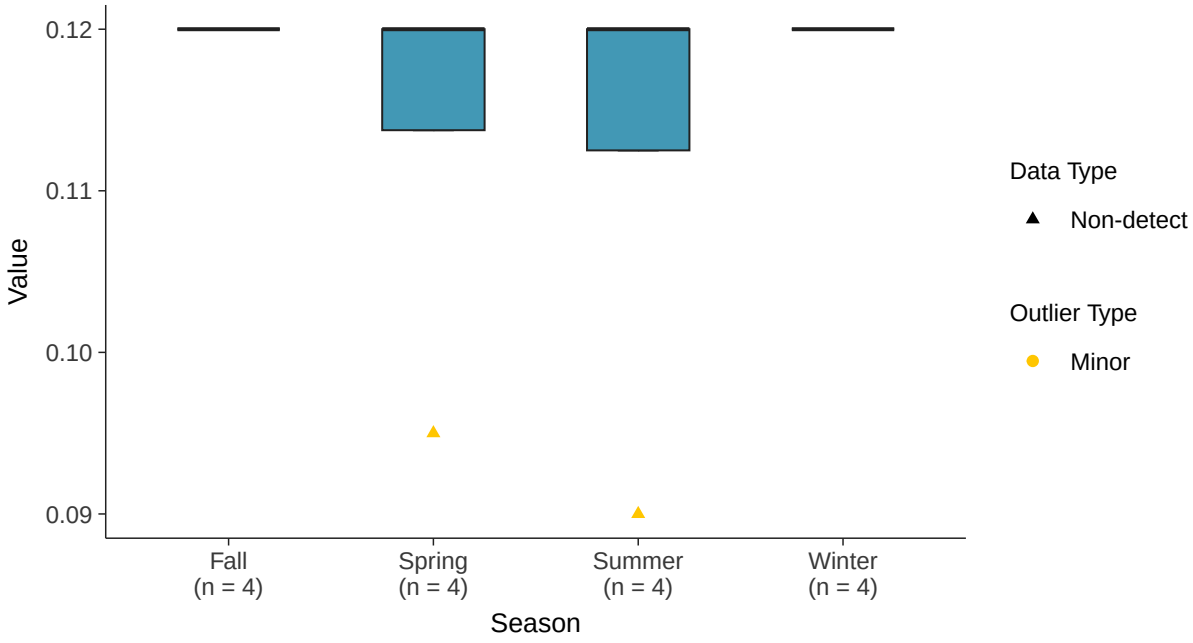


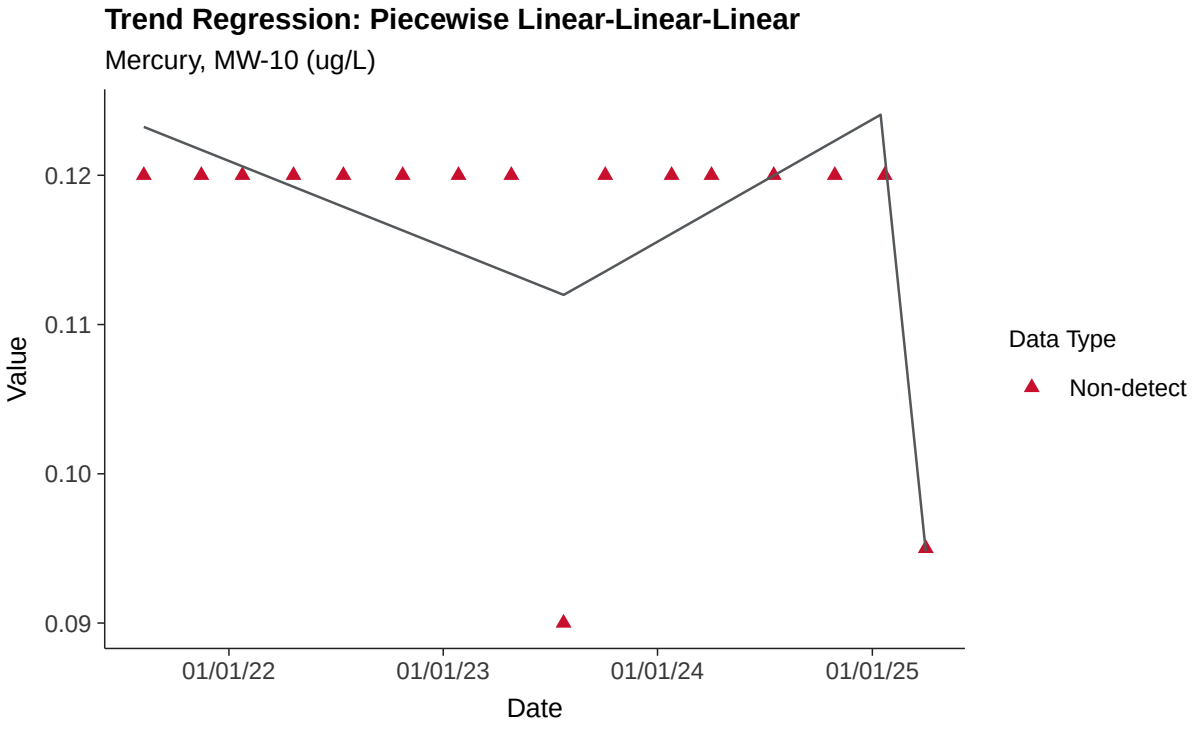
Boxplot

Mercury, MW-10 (ug/L)

Boxplot by Season

Mercury, MW-10 (ug/L)



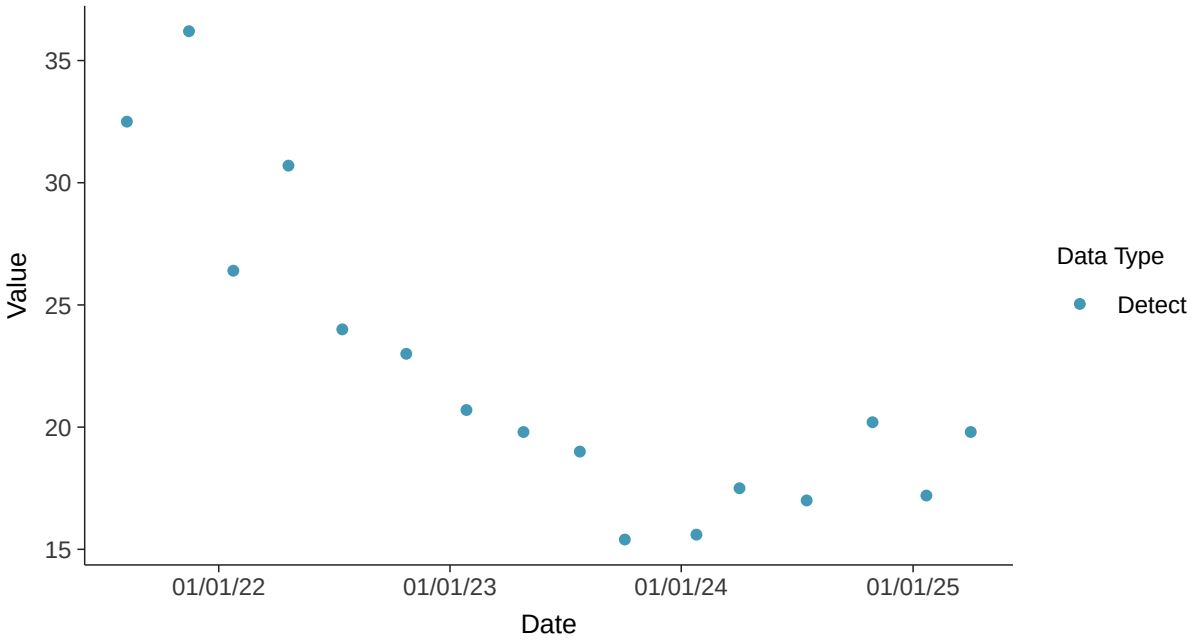

Trend Regression: Piecewise Linear-Linear-Linear
Mercury, MW-10 (ug/L)
Value
0.12
0.11
0.10
0.09
01/01/22
01/01/23
01/01/24
01/01/25
Date
Data Type
Non-detect

App. IV: Molybdenum, MW-10

ID: 09_03_116

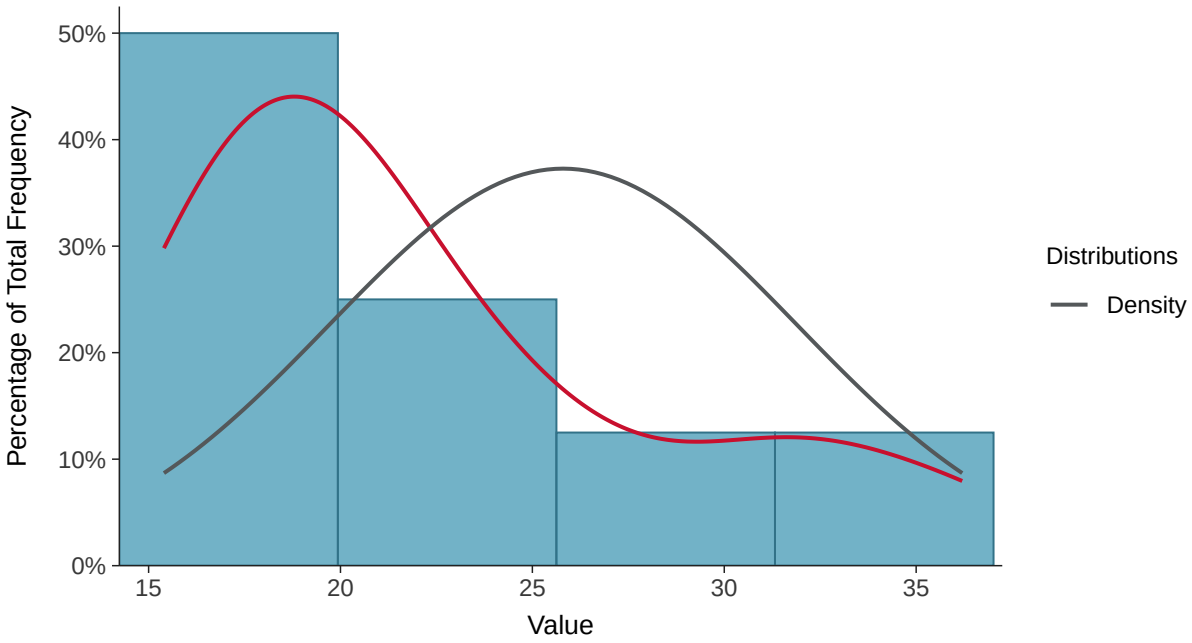
Scatter Plot

Molybdenum, MW-10 (ug/L)



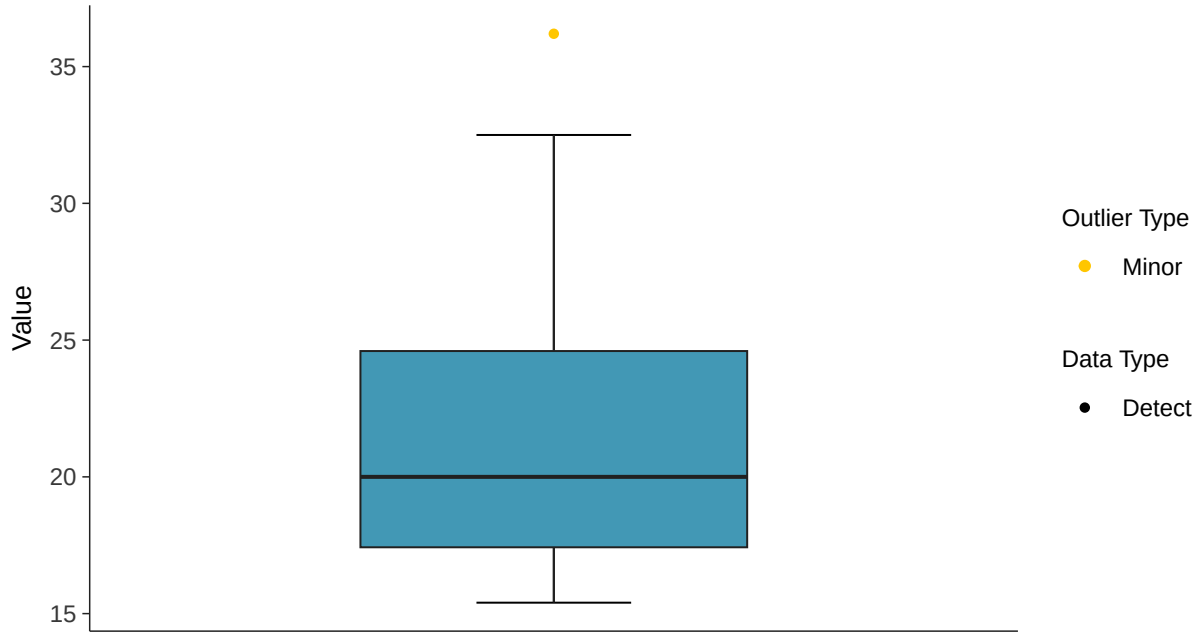
Histogram

Molybdenum, MW-10 (ug/L)



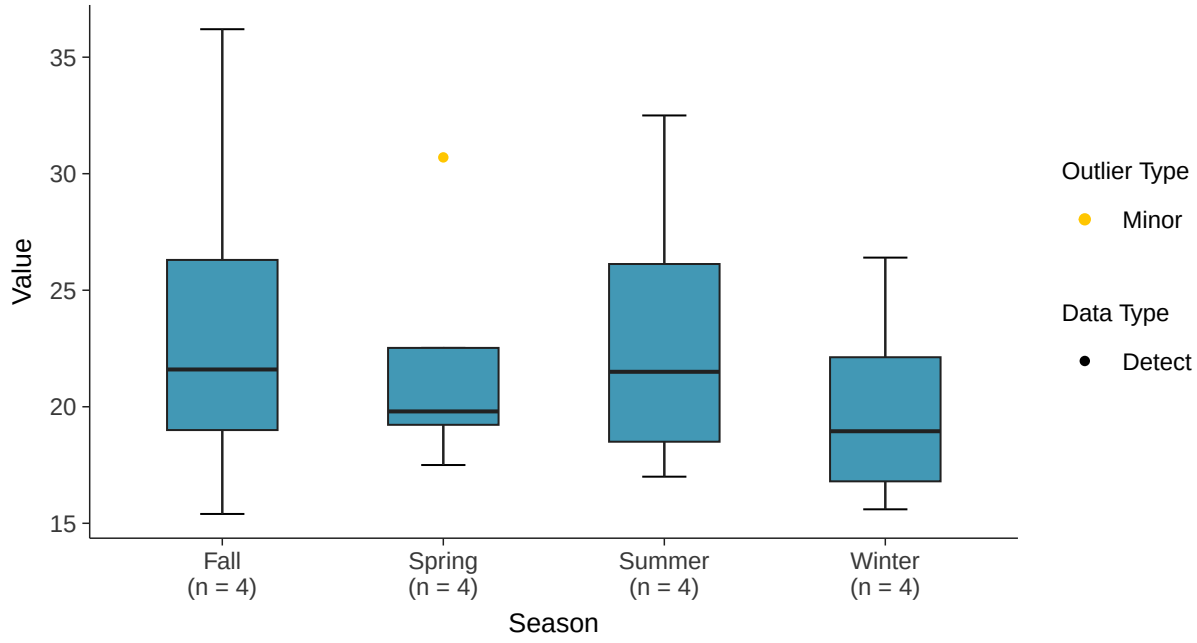
Boxplot

Molybdenum, MW-10 (ug/L)



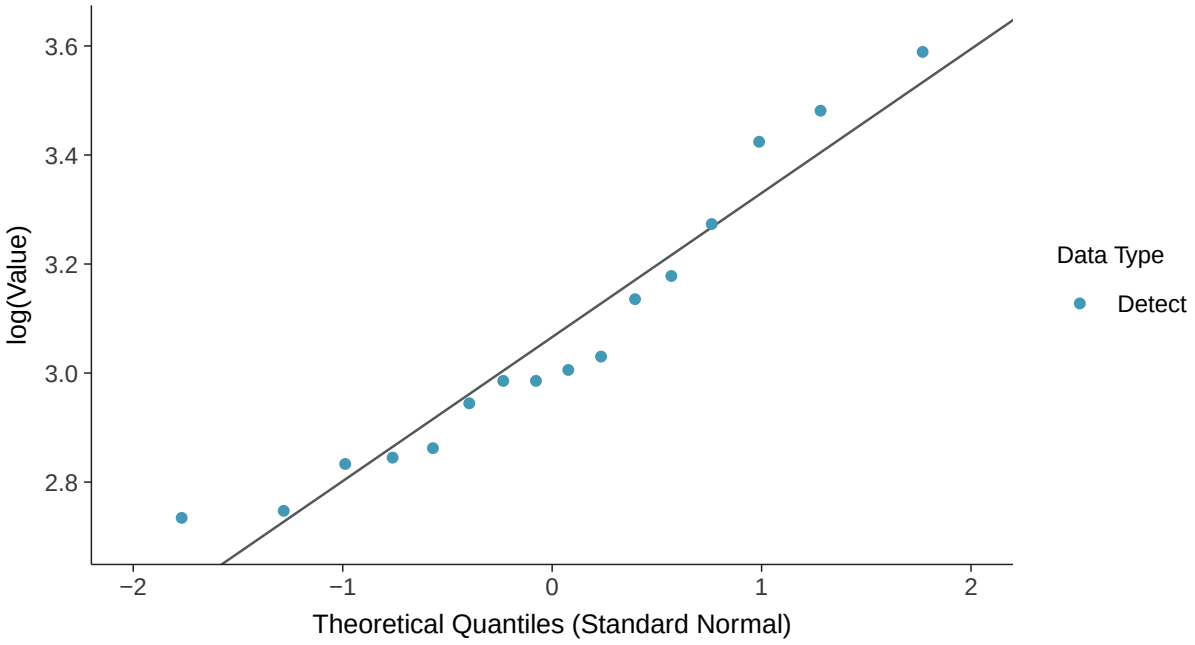
Boxplot by Season

Molybdenum, MW-10 (ug/L)



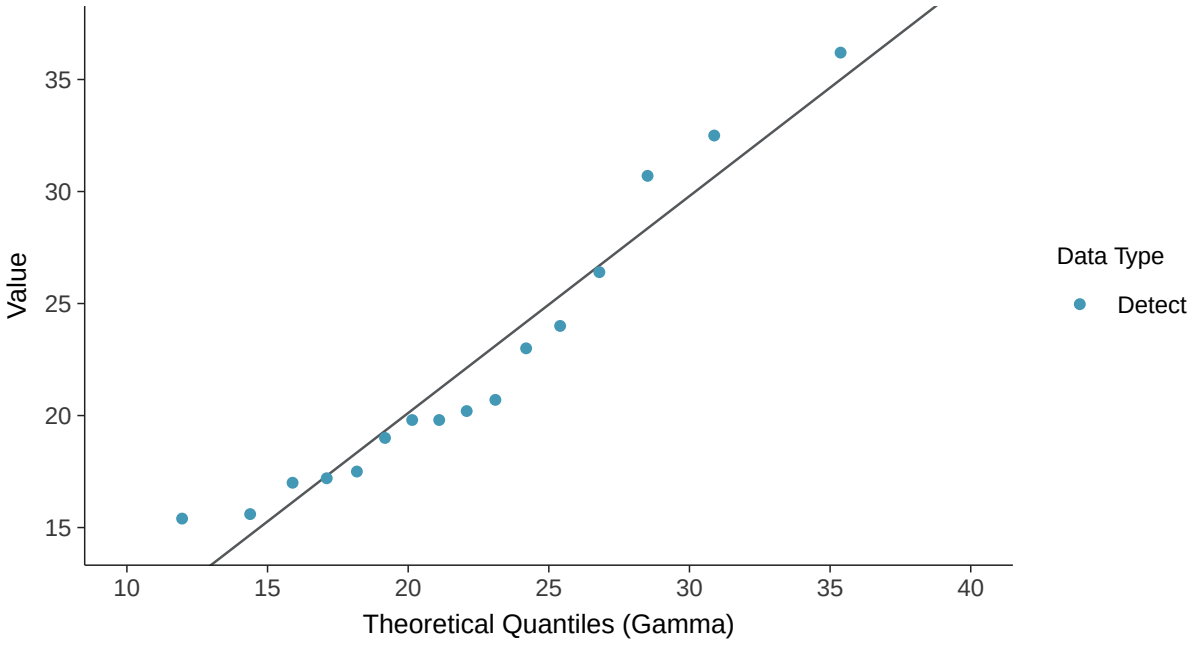
Lognormal Q-Q plot

Molybdenum, MW-10 (ug/L)



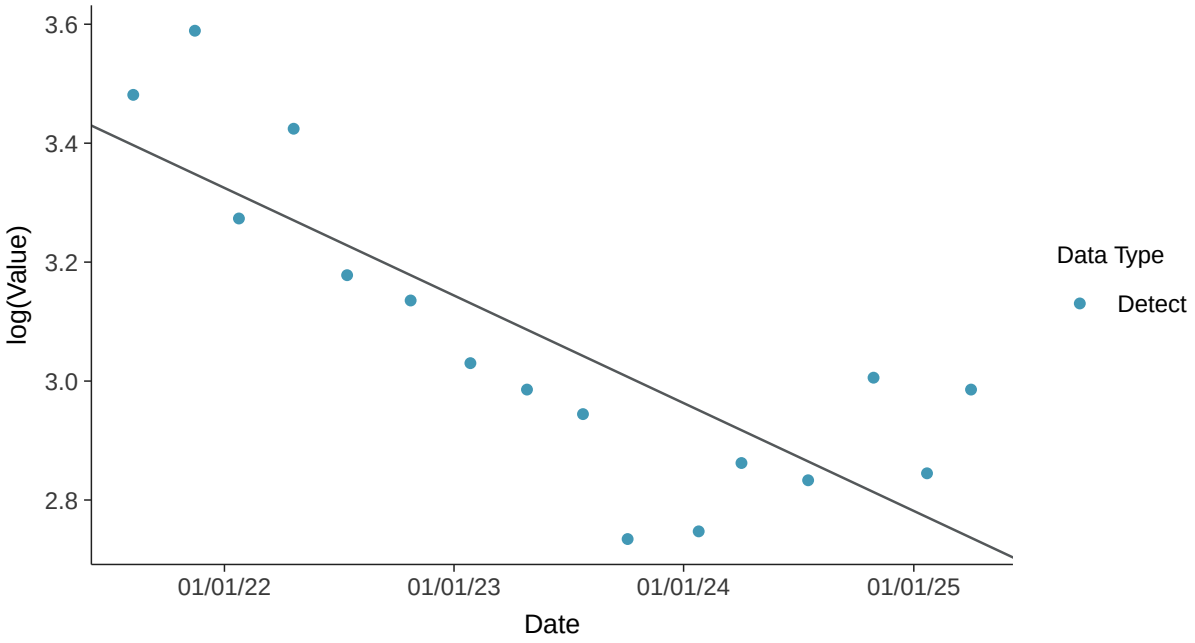
Gamma Q-Q plot

Molybdenum, MW-10 (ug/L)



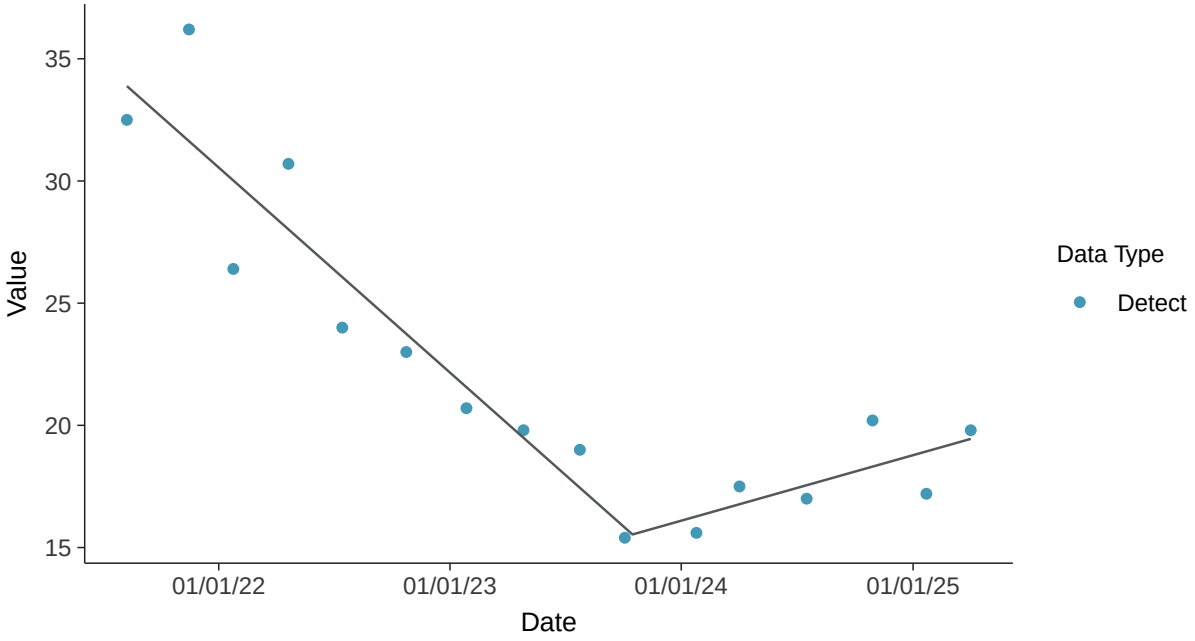
Trend Regression: Lognormal MLE

Molybdenum, MW-10 (ug/L)



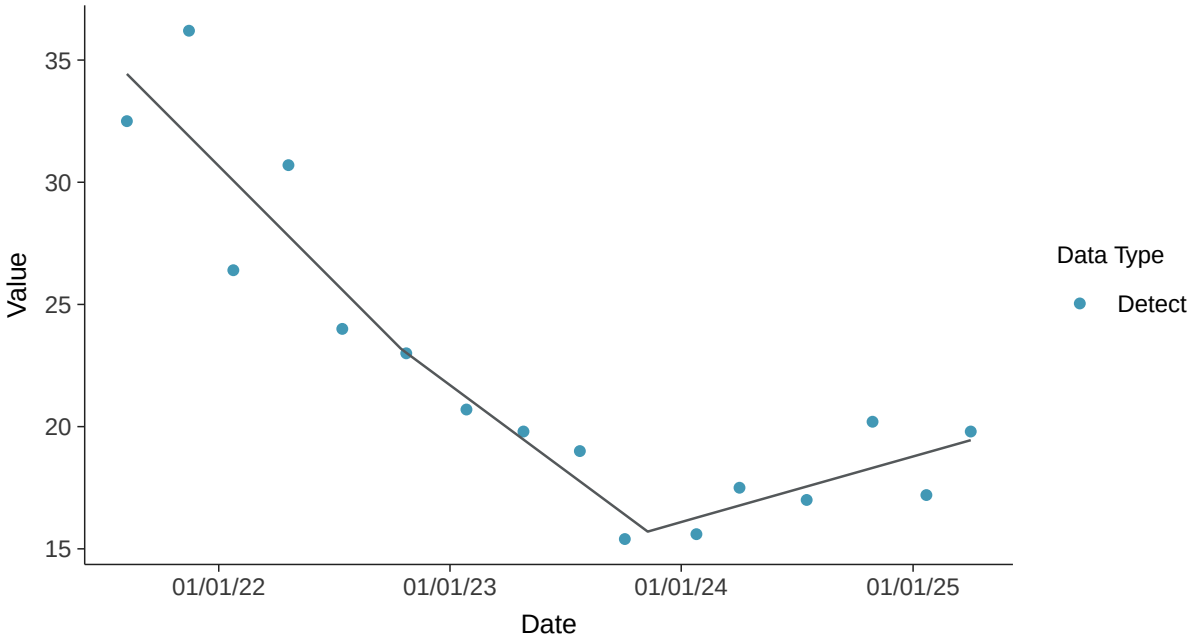
Trend Regression: Piecewise Linear-Linear

Molybdenum, MW-10 (ug/L)



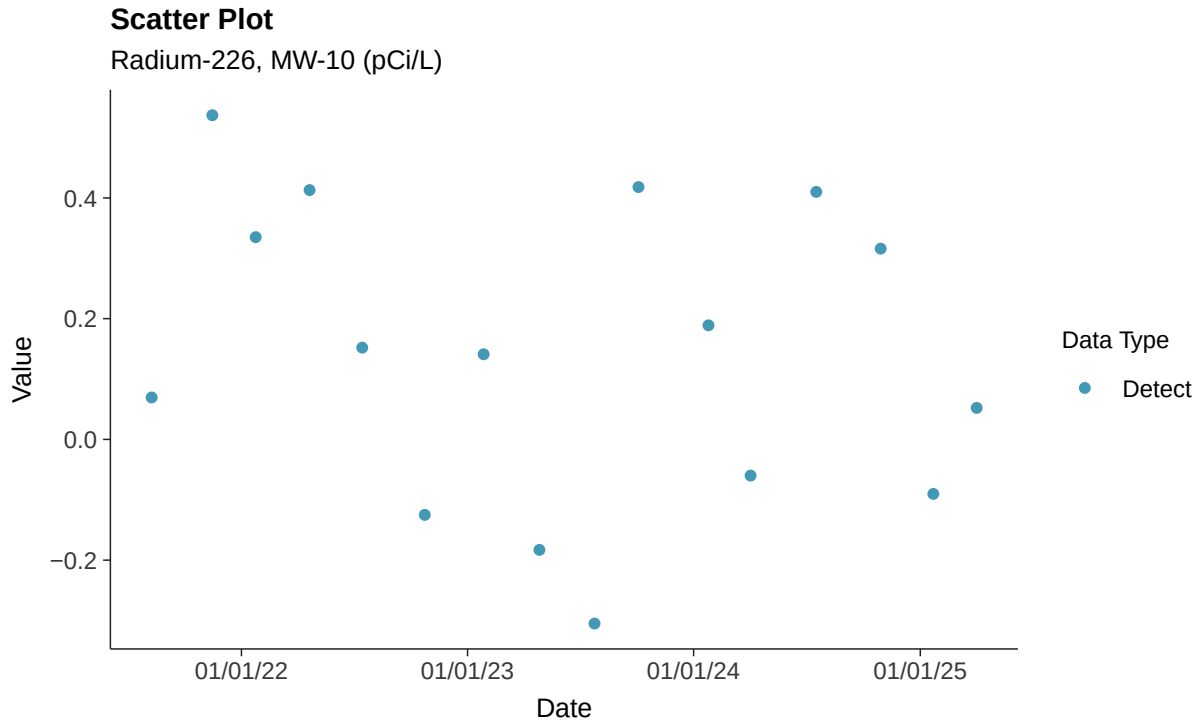
Trend Regression: Piecewise Linear-Linear-Linear

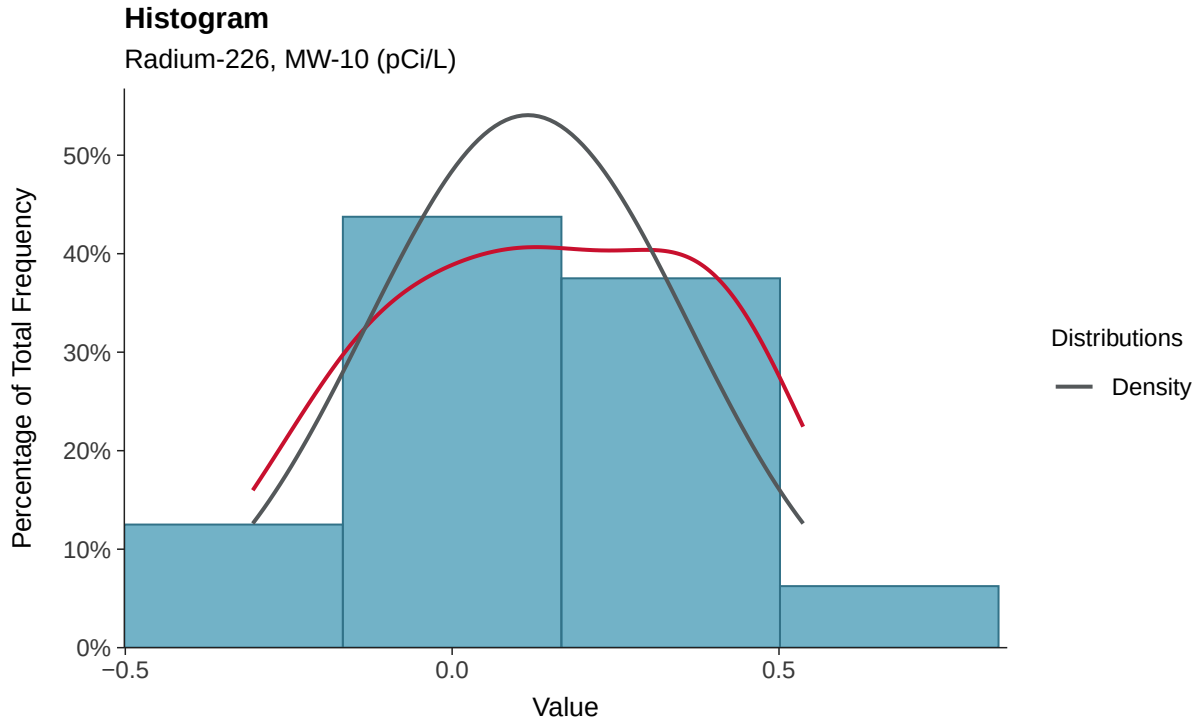
Molybdenum, MW-10 (ug/L)



App. IV: Radium-226, MW-10

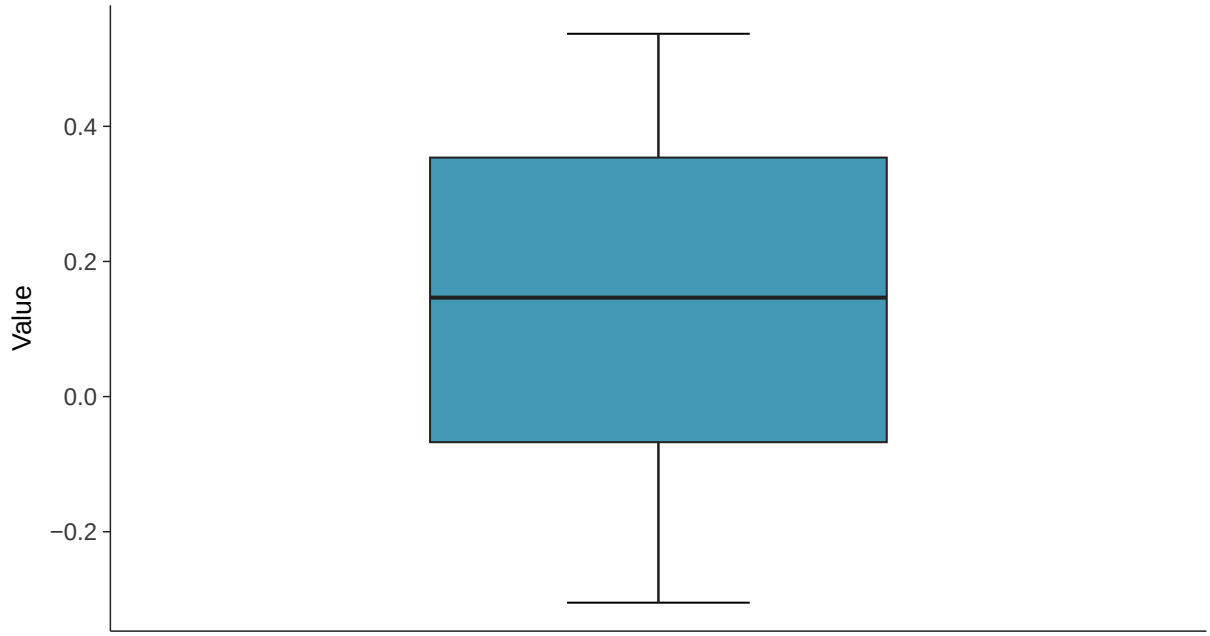
ID: 09_03_119





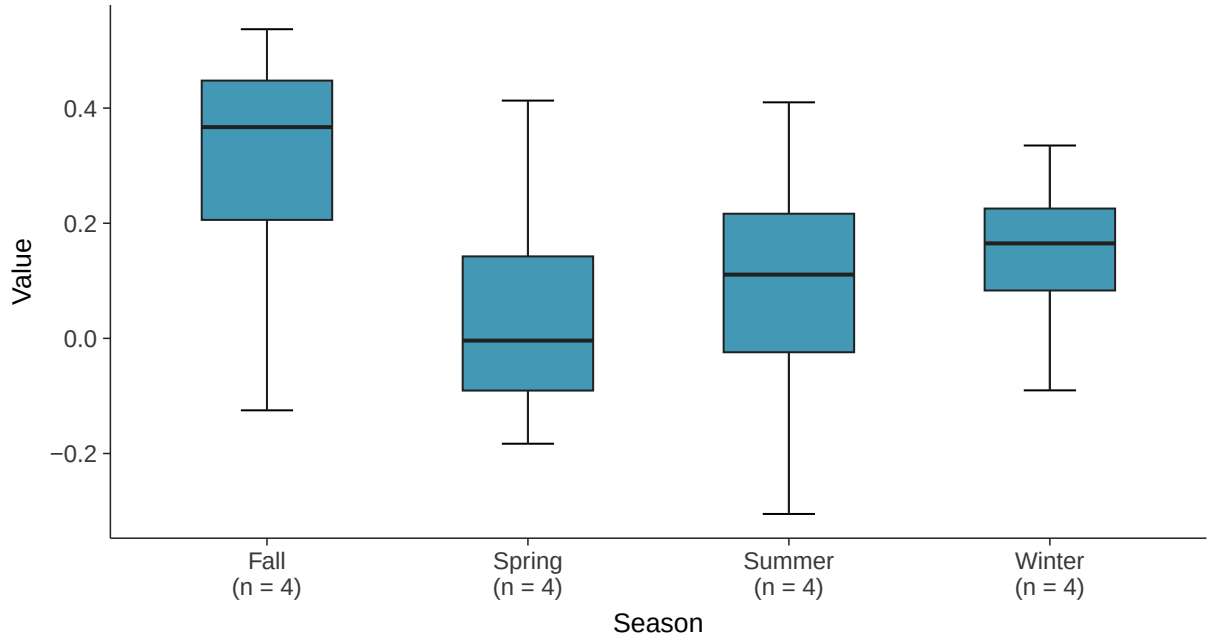
Boxplot

Radium-226, MW-10 (pCi/L)



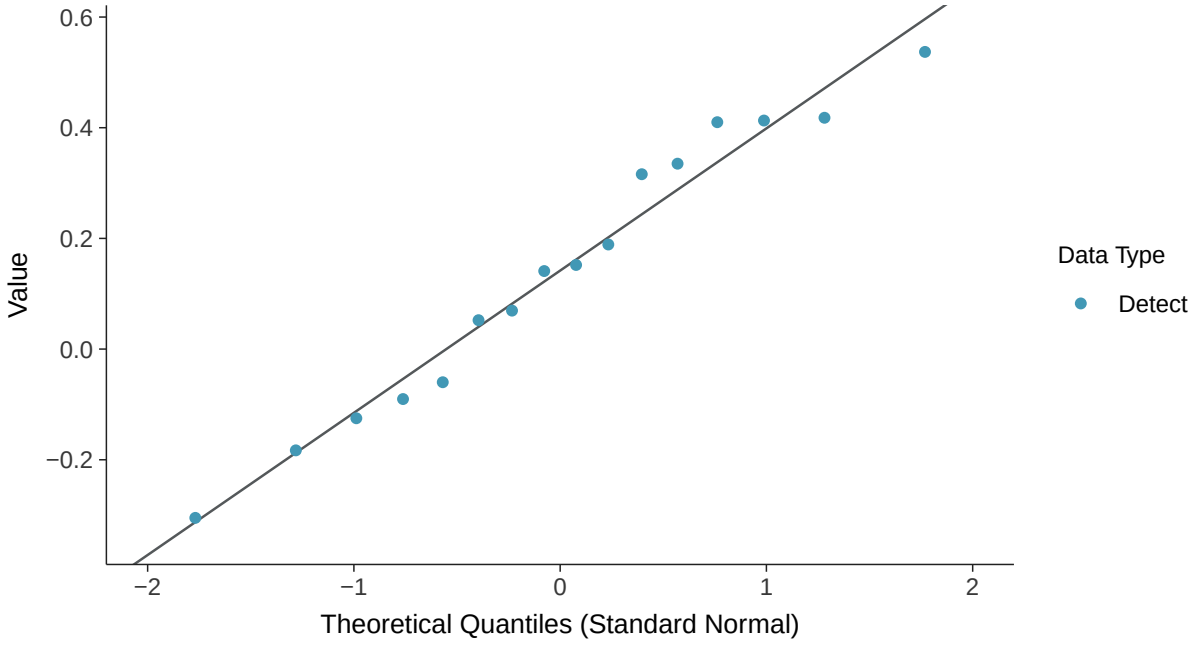
Boxplot by Season

Radium-226, MW-10 (pCi/L)



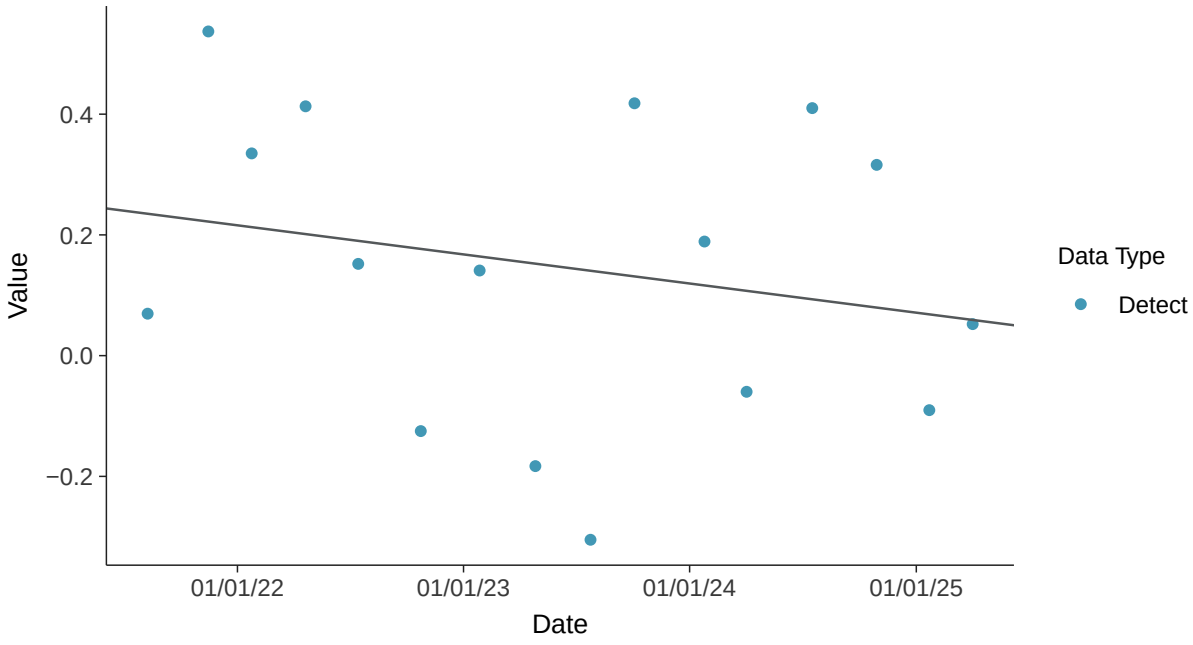
Normal Q-Q plot

Radium-226, MW-10 (pCi/L)



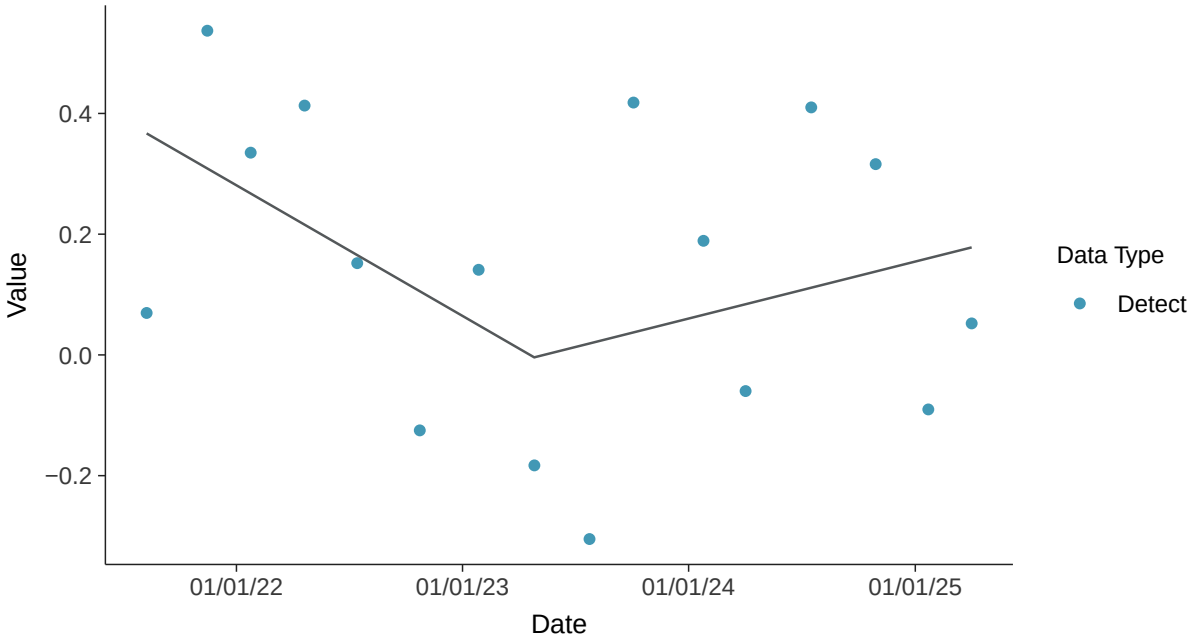
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Radium-226, MW-10 (pCi/L)



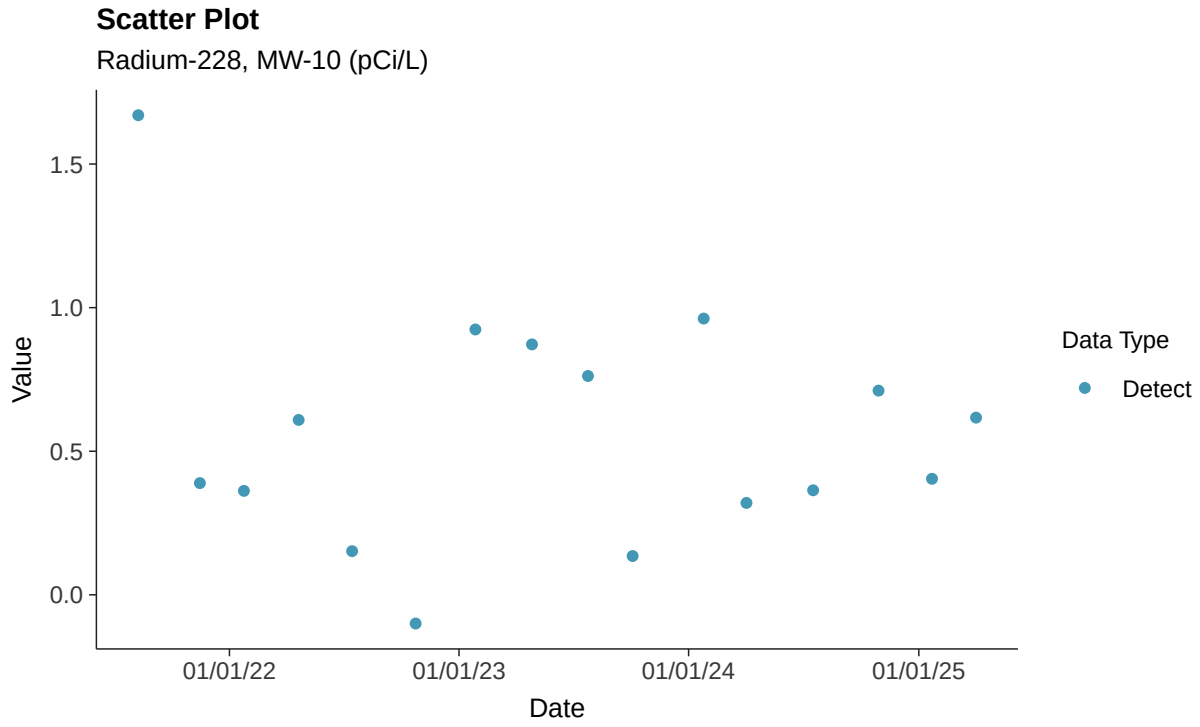
Trend Regression: Piecewise Linear-Linear

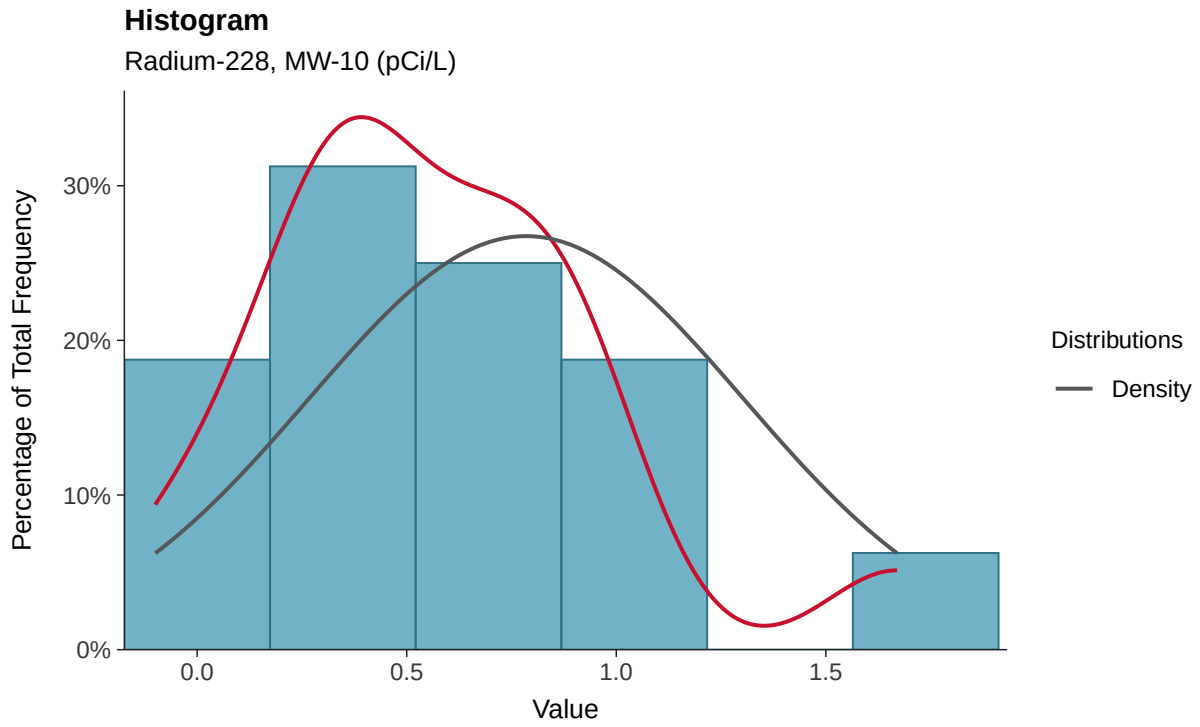
Radium-226, MW-10 (pCi/L)



App. IV: Radium-228, MW-10

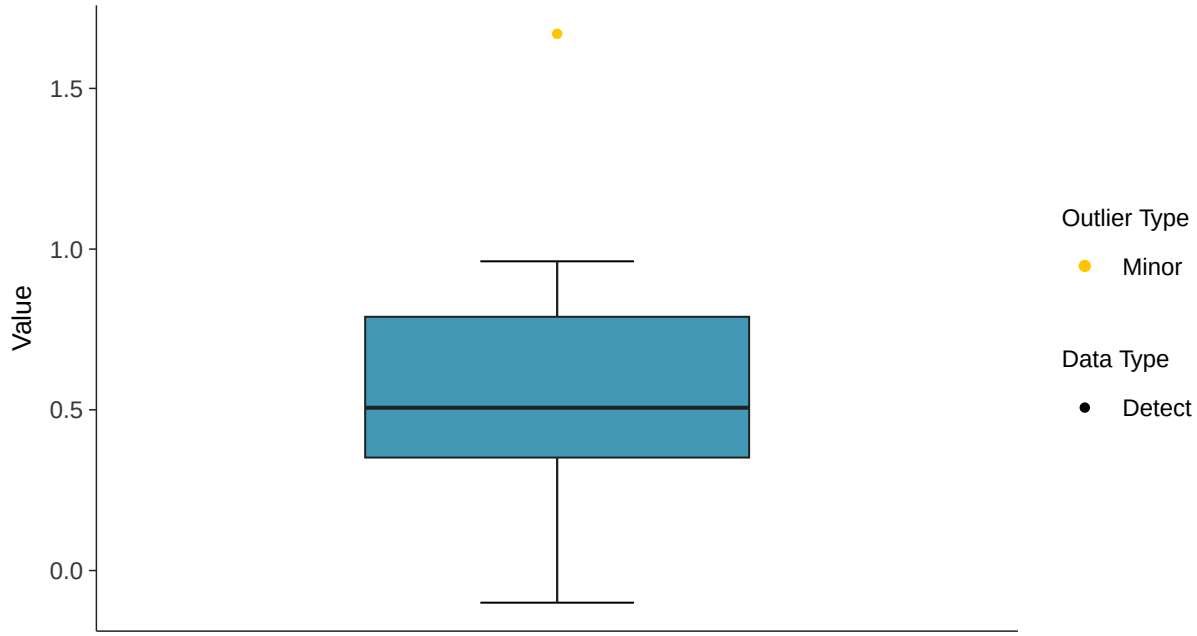
ID: 09_03_120





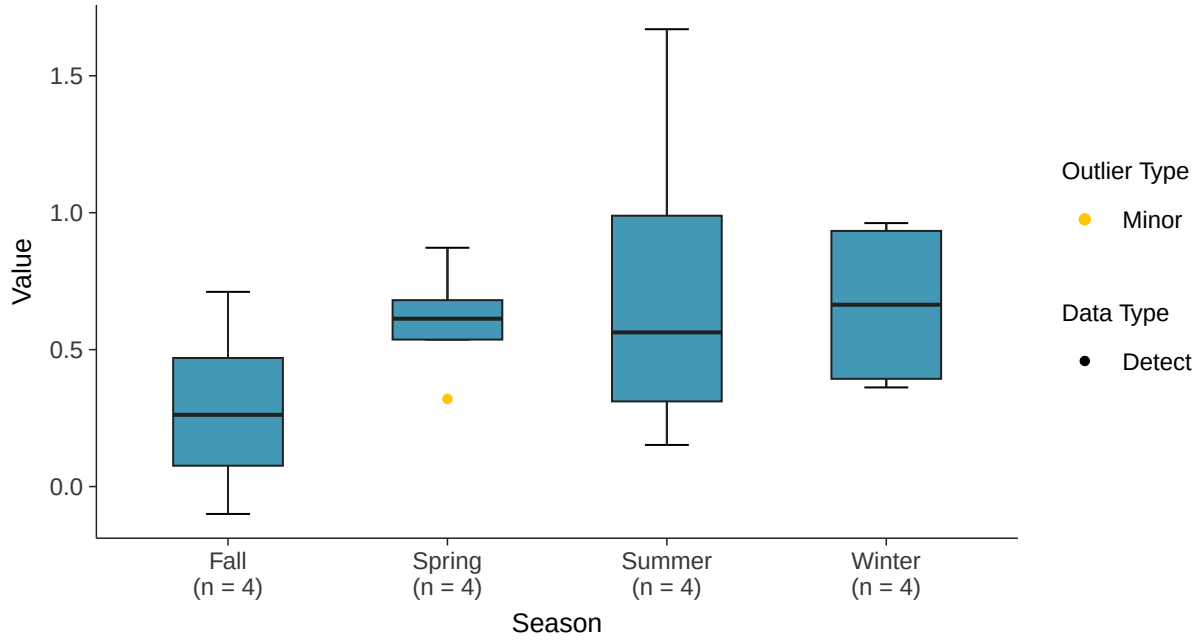
Boxplot

Radium-228, MW-10 (pCi/L)



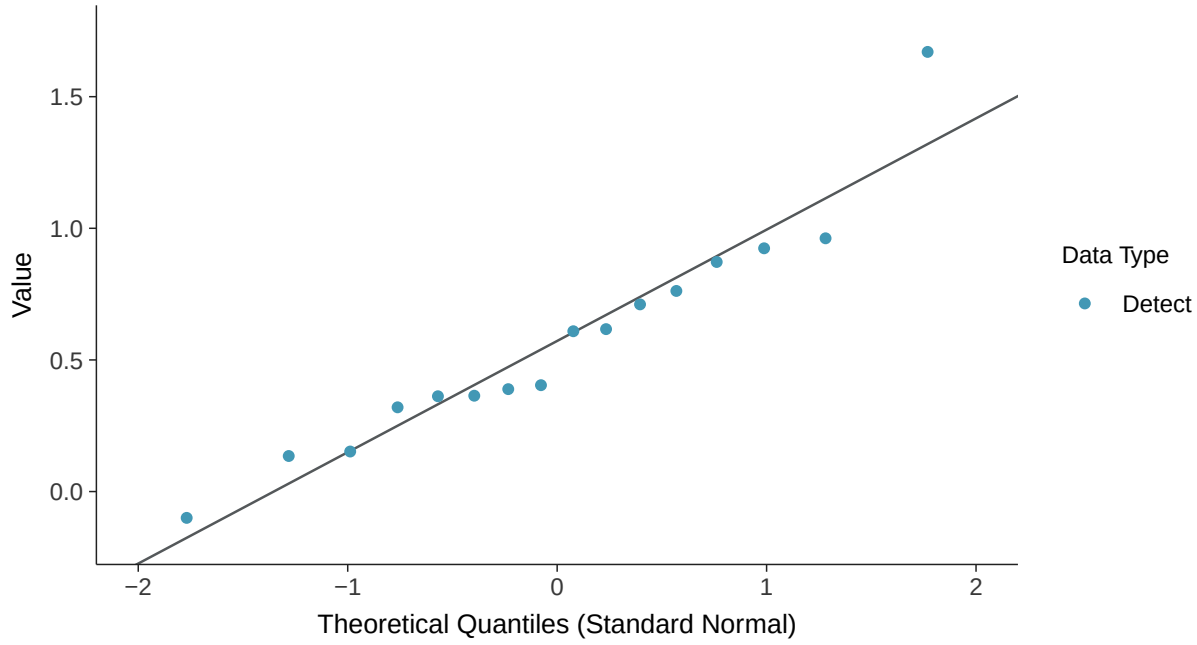
Boxplot by Season

Radium-228, MW-10 (pCi/L)



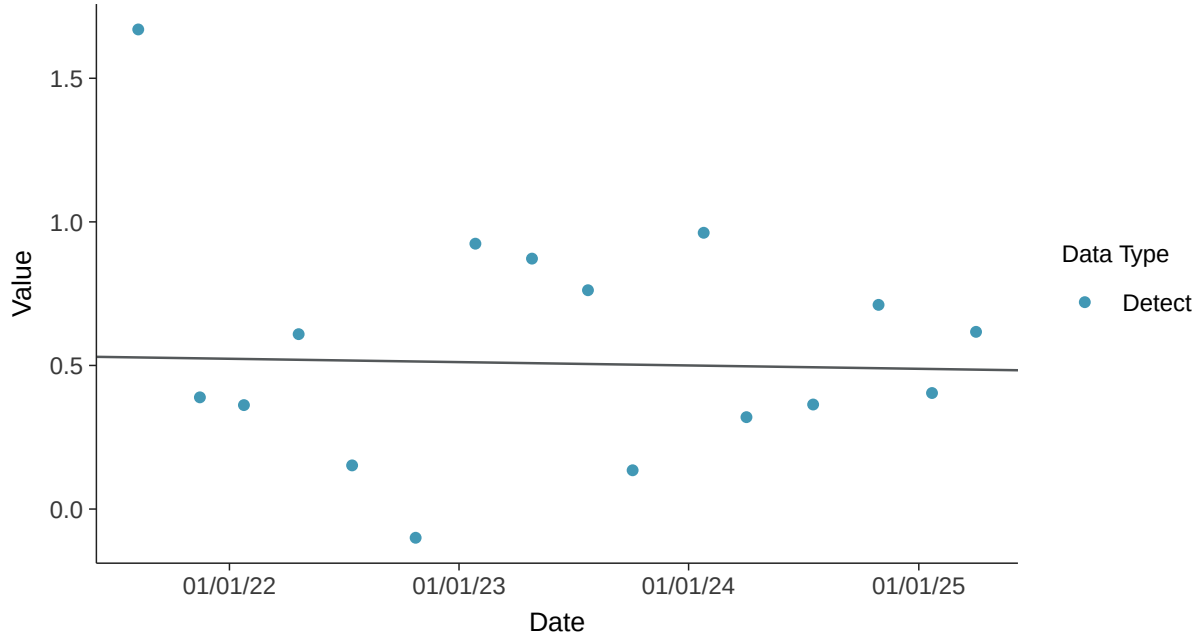
Normal Q-Q plot

Radium-228, MW-10 (pCi/L)



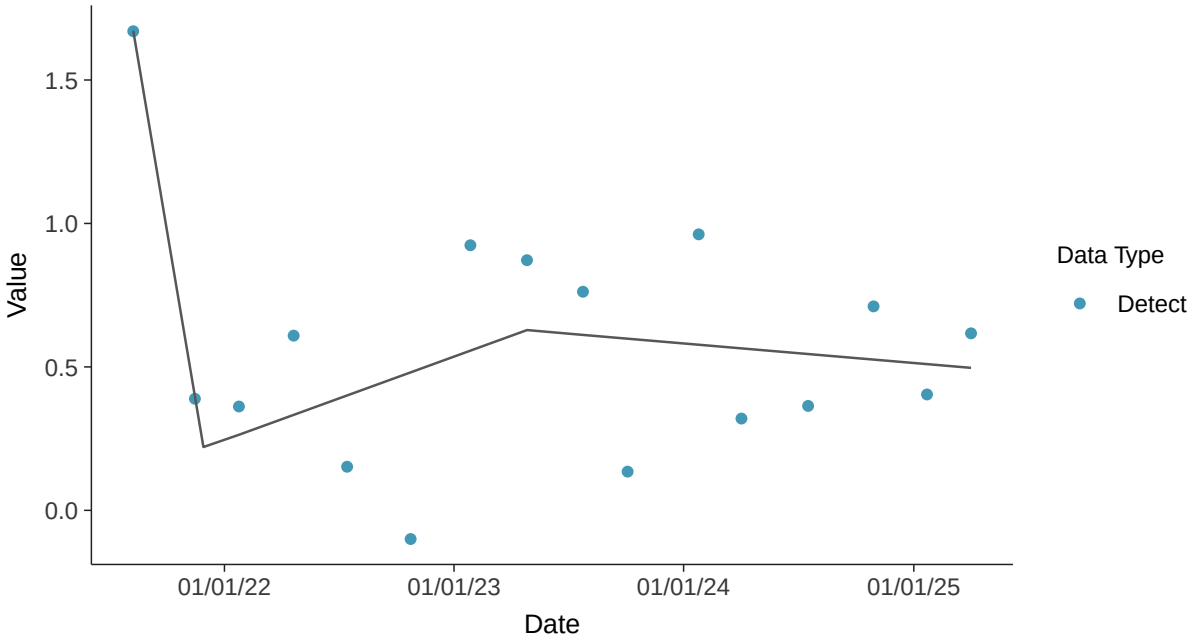
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Radium-228, MW-10 (pCi/L)



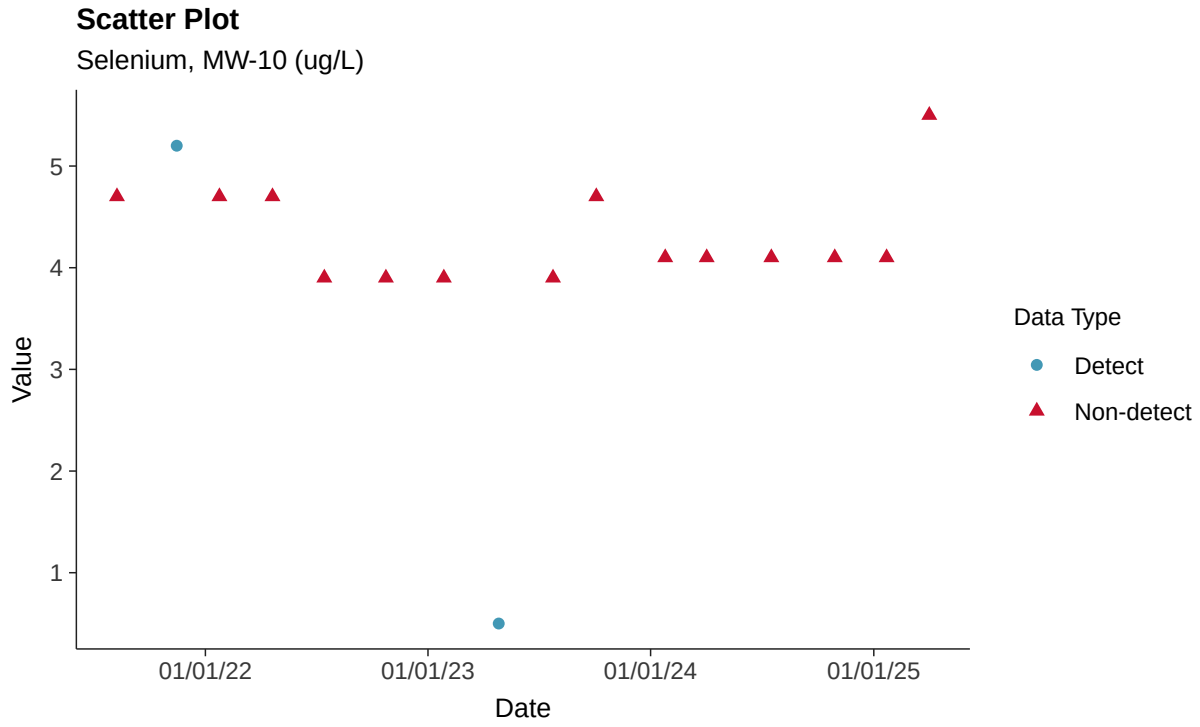
Trend Regression: Piecewise Linear-Linear-Linear

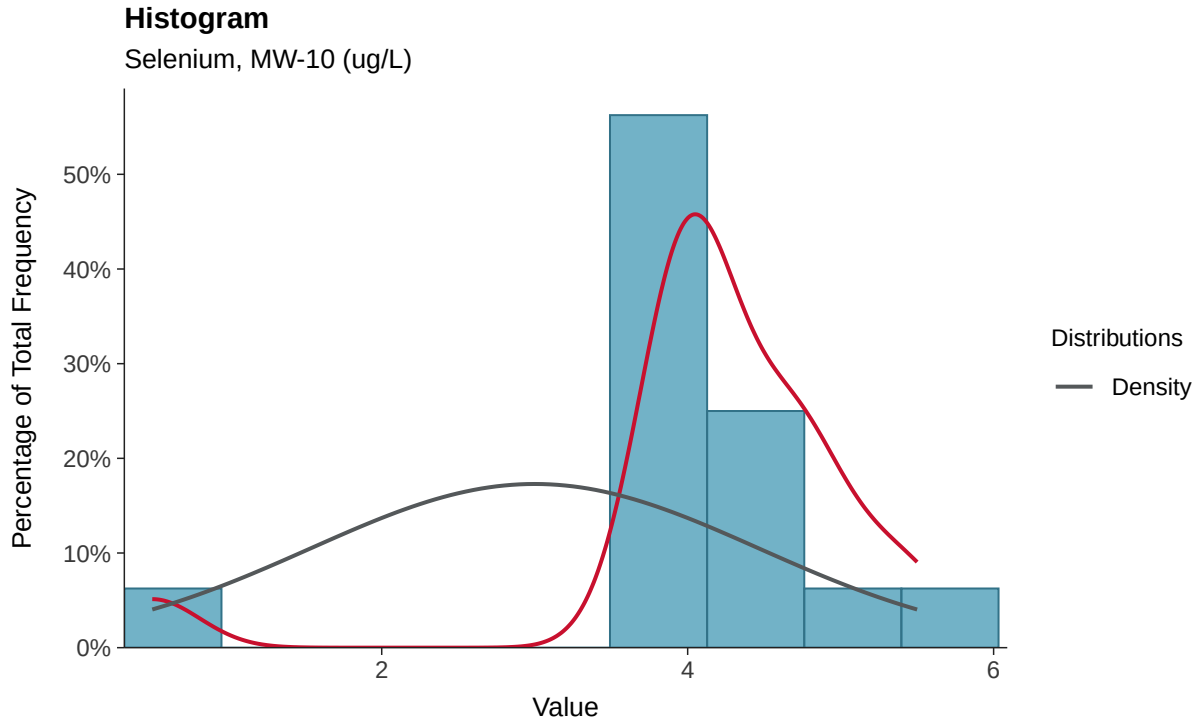
Radium-228, MW-10 (pCi/L)



App. IV: Selenium, MW-10

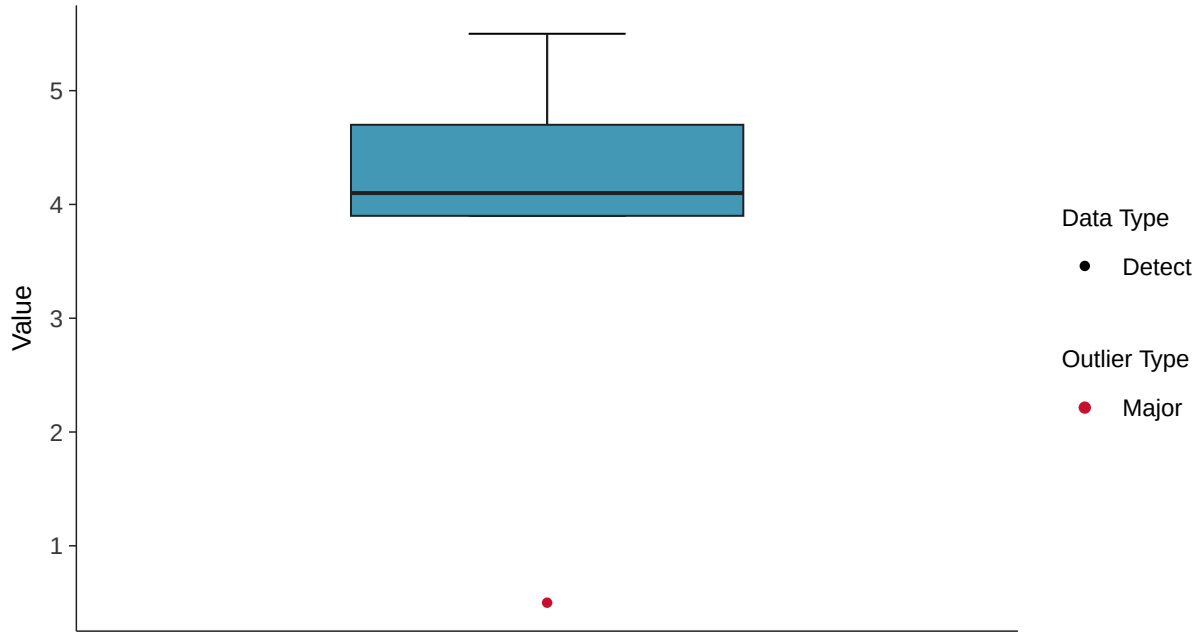
ID: 09_03_121





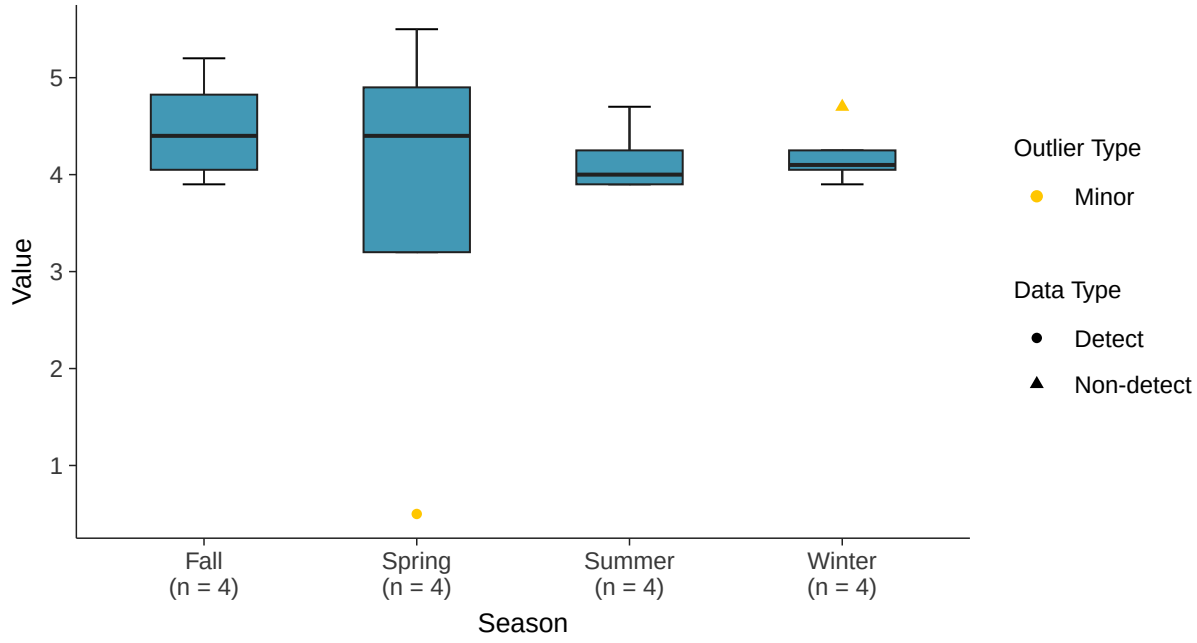
Boxplot

Selenium, MW-10 (ug/L)



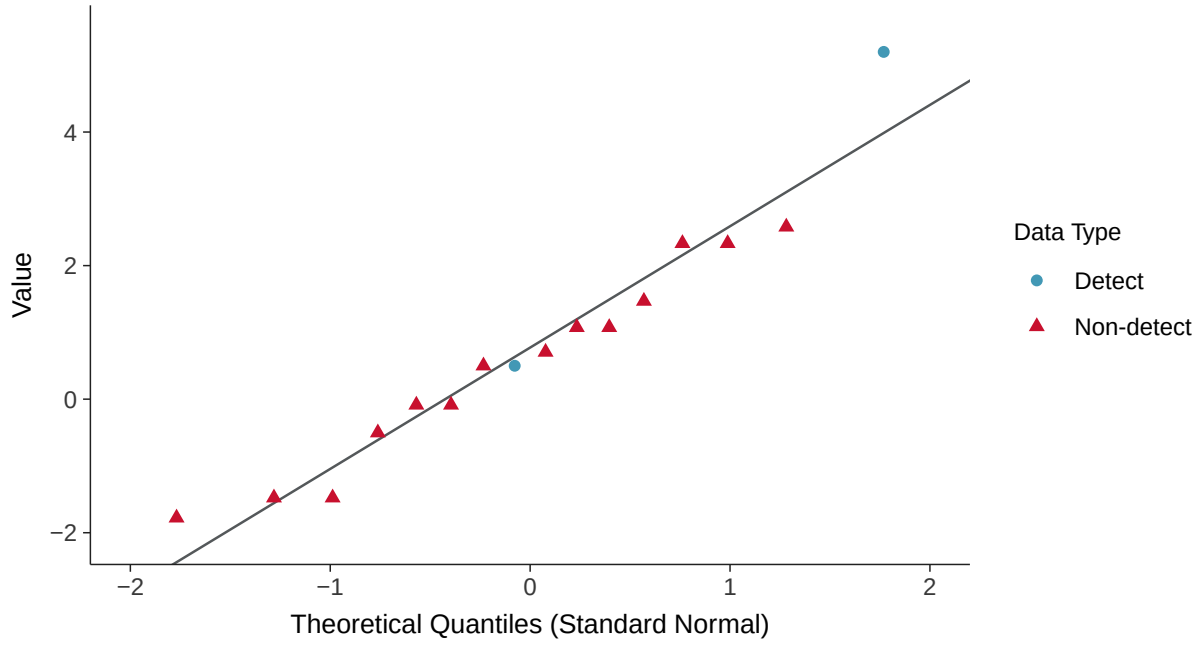
Boxplot by Season

Selenium, MW-10 (ug/L)



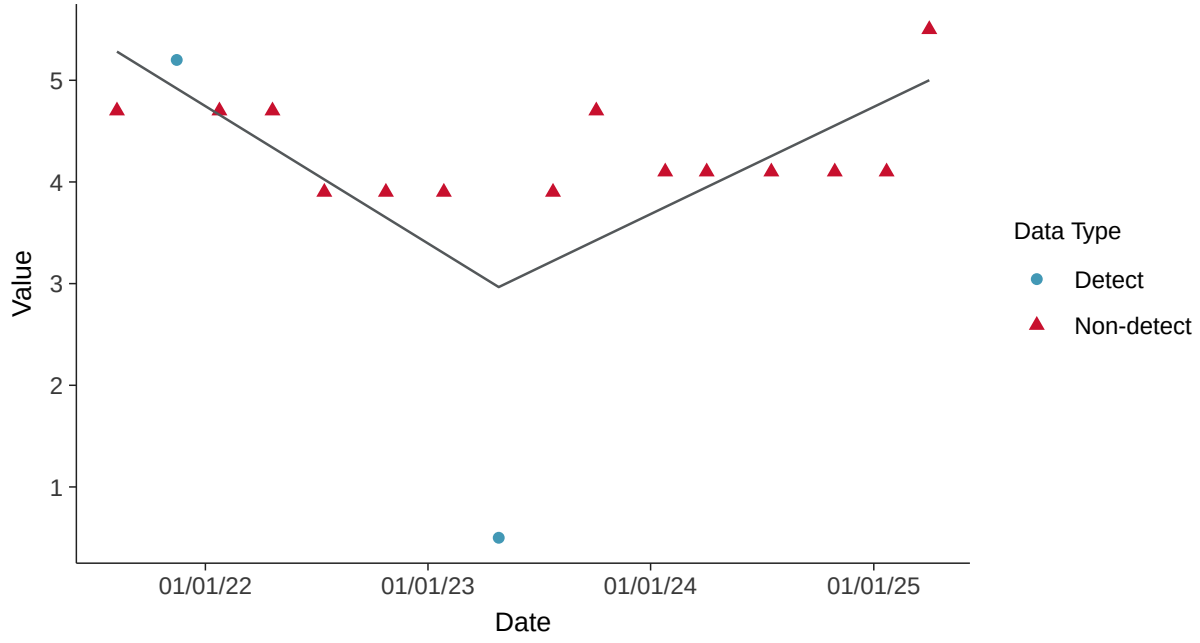
Normal Q-Q plot using ROS Imputed Estimates

Selenium, MW-10 (ug/L)



Trend Regression: Piecewise Linear-Linear

Selenium, MW-10 (ug/L)

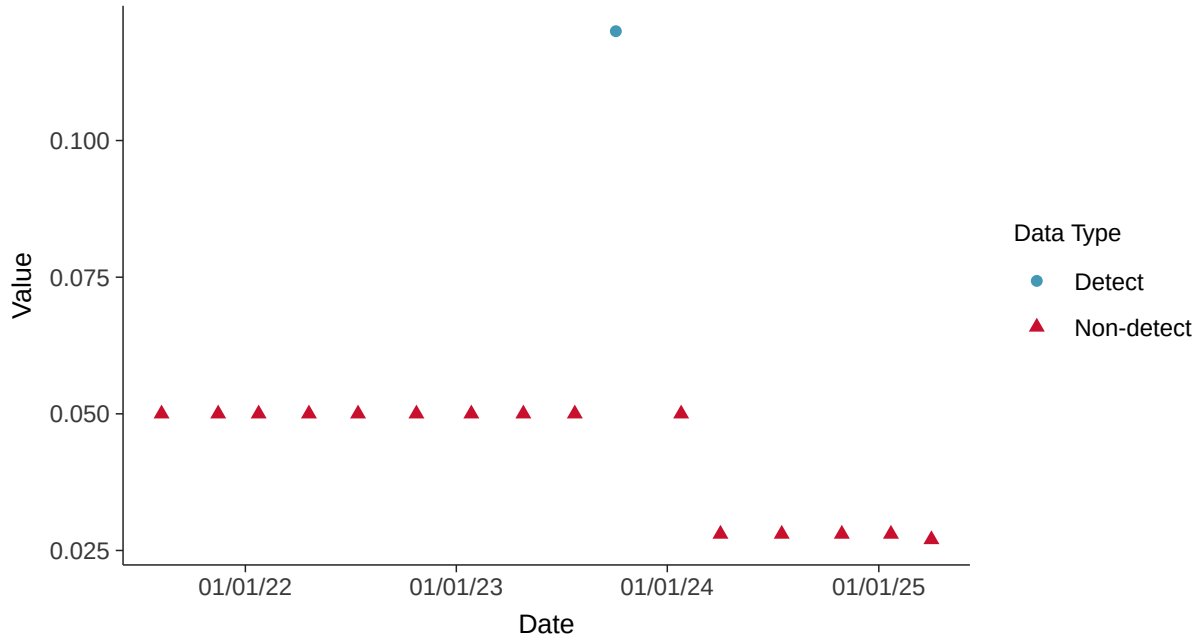


App. IV: Thallium, MW-10

ID: 09_03_124

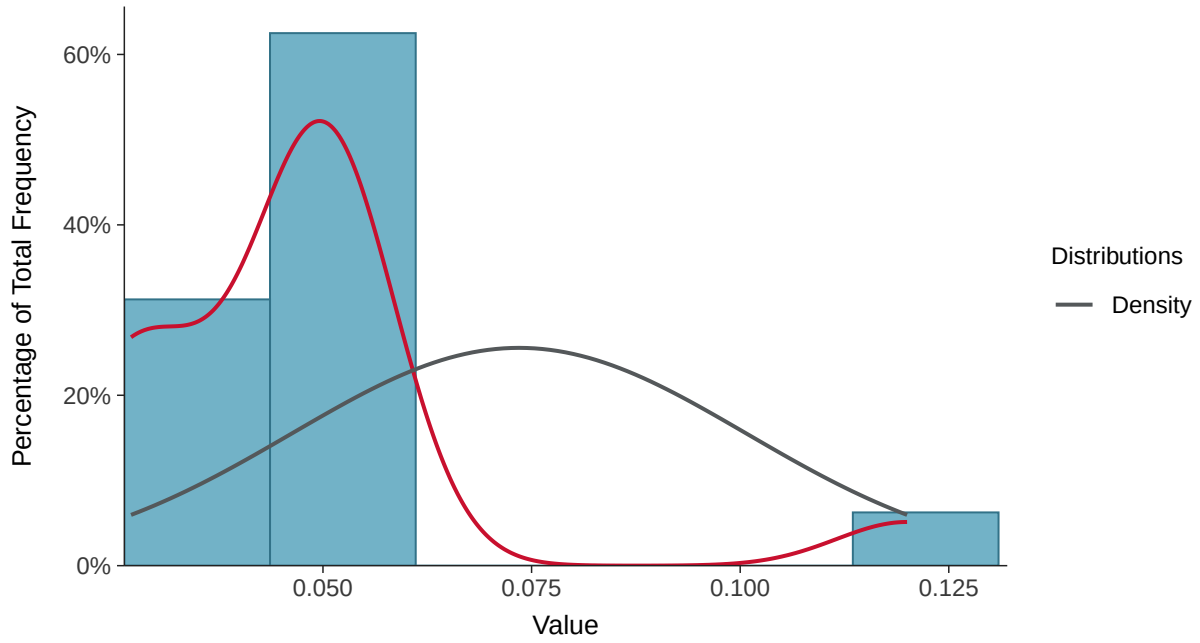
Scatter Plot

Thallium, MW-10 (ug/L)



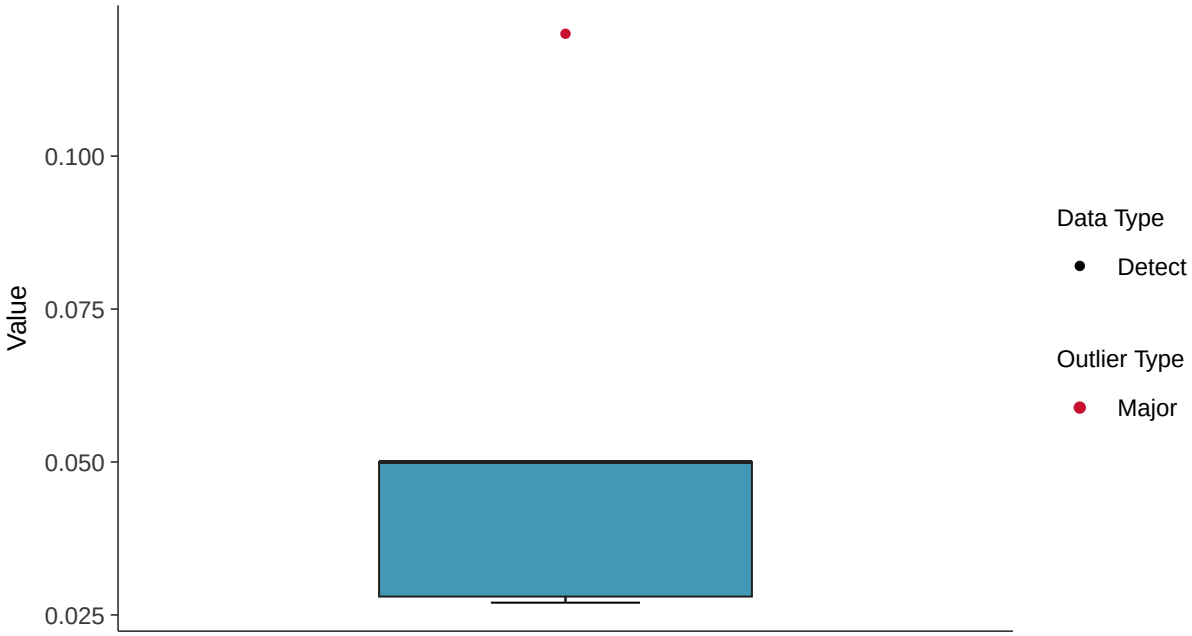
Histogram

Thallium, MW-10 (ug/L)



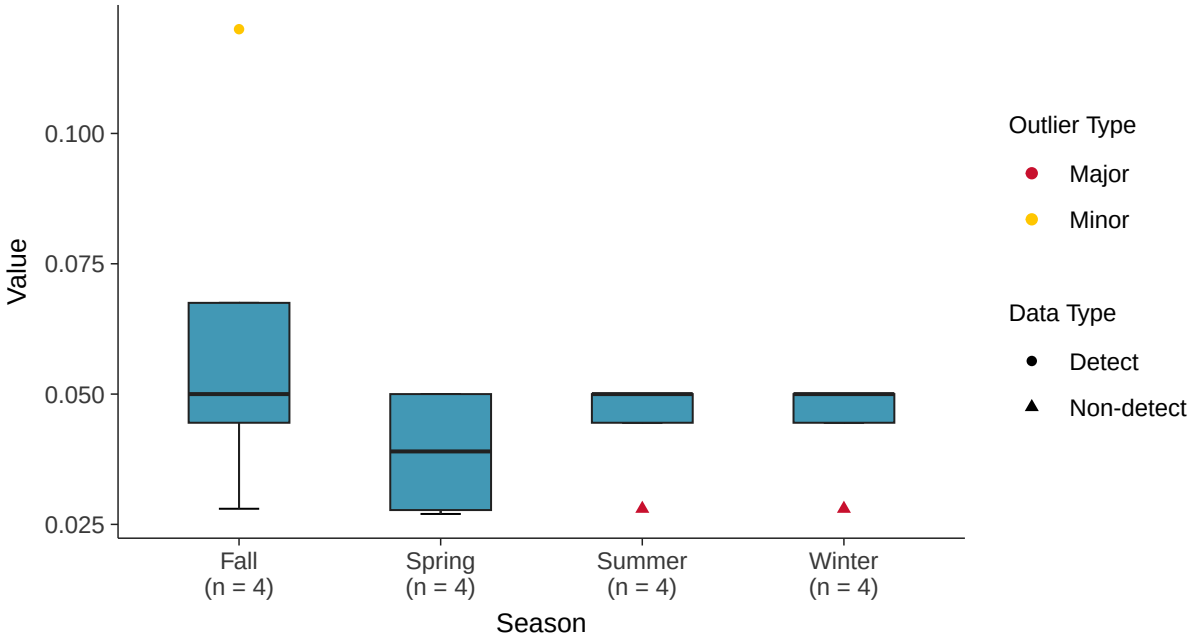
Boxplot

Thallium, MW-10 (ug/L)



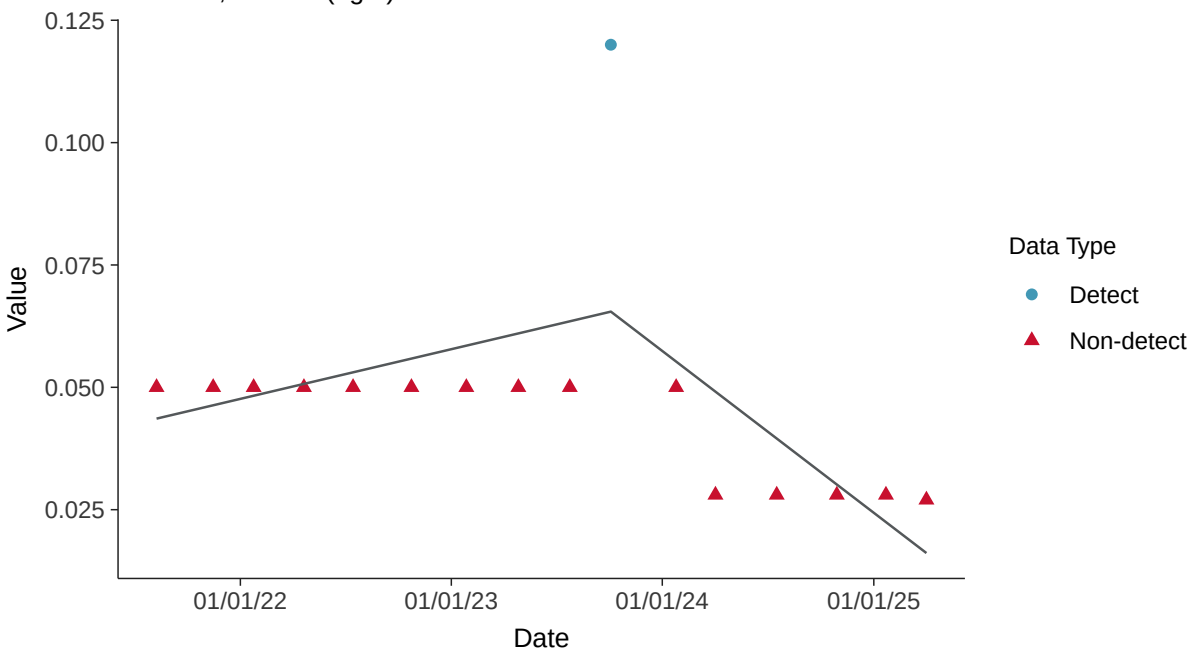
Boxplot by Season

Thallium, MW-10 (ug/L)



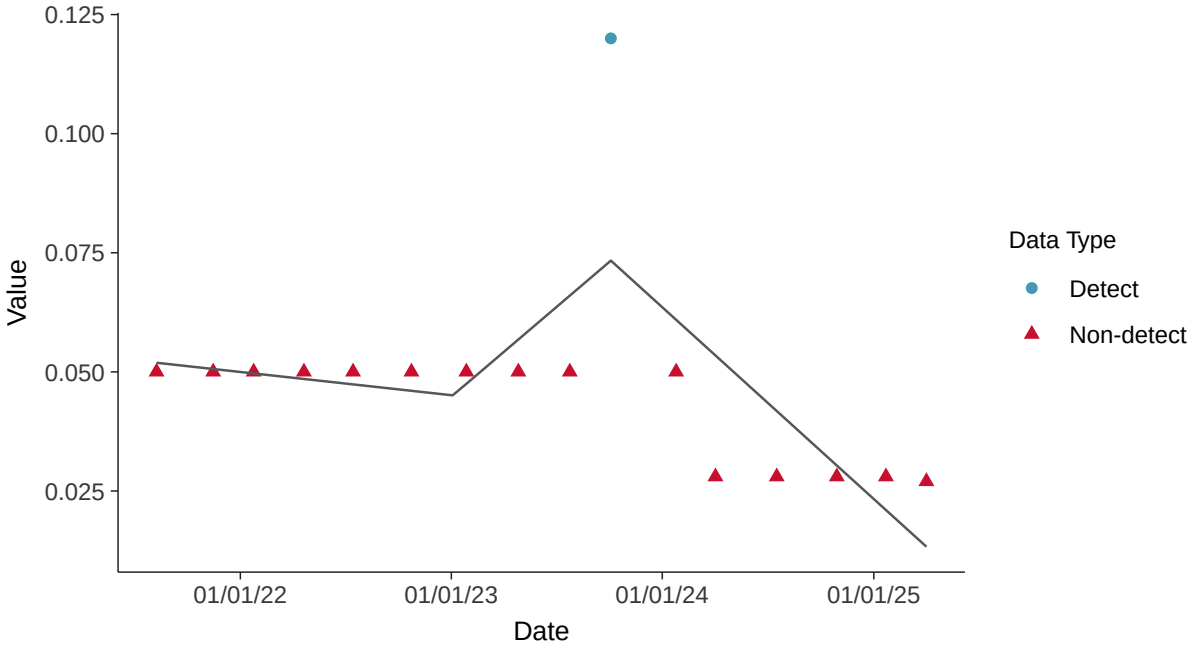
Trend Regression: Piecewise Linear-Linear

Thallium, MW-10 (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Thallium, MW-10 (ug/L)

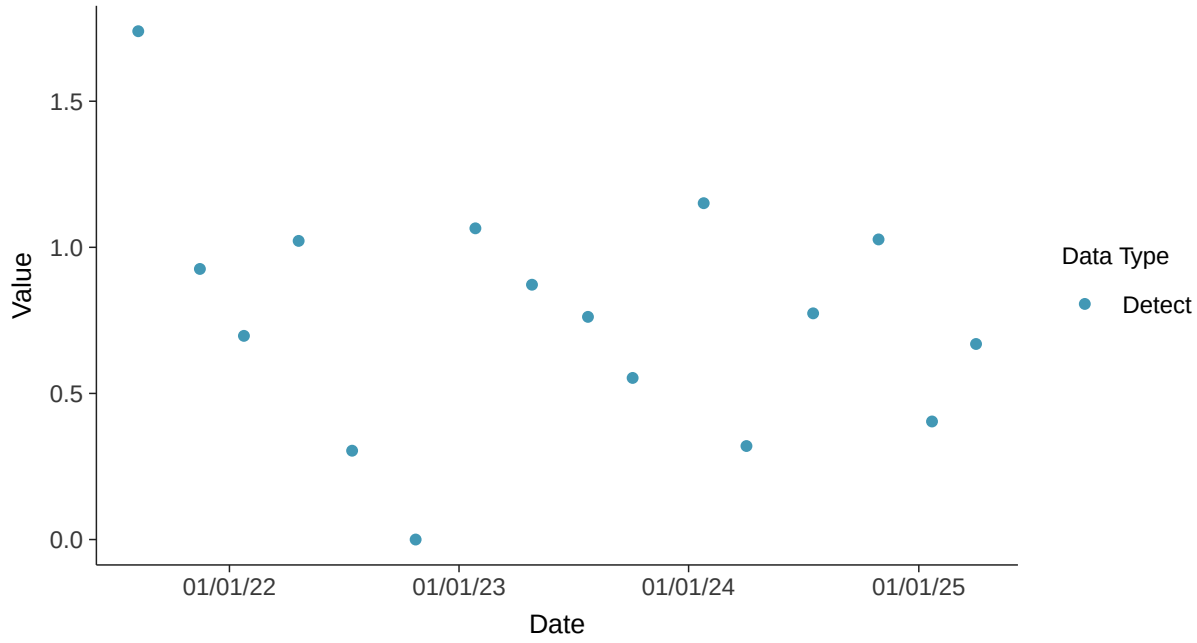


App. IV: Total Radium, MW-10

ID: 09_03_126

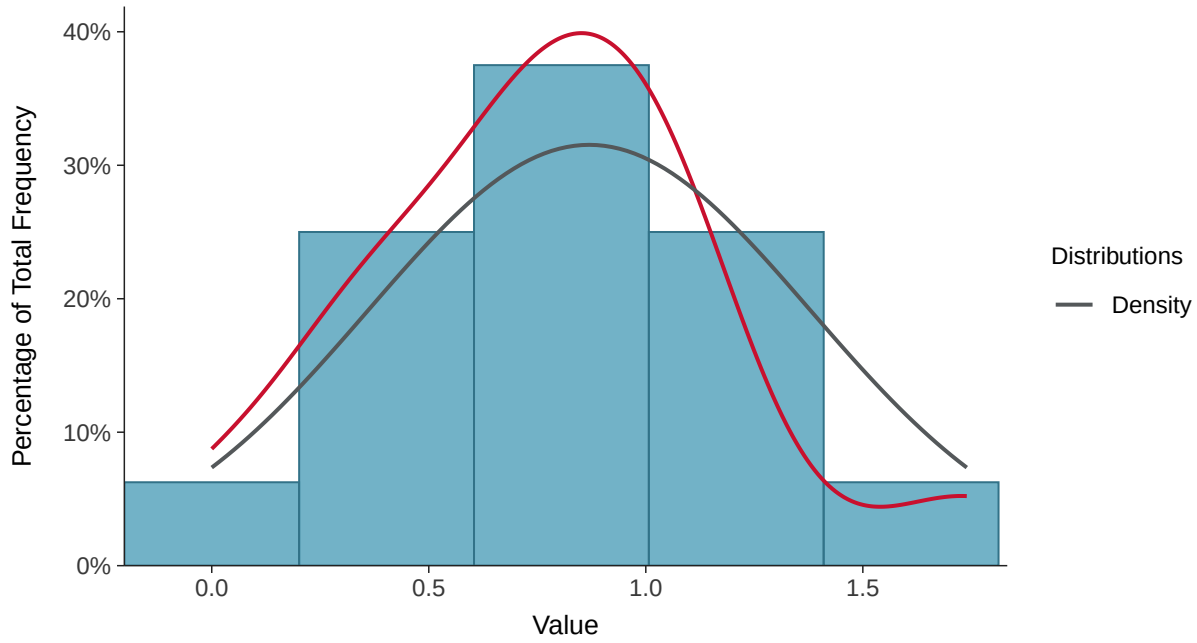
Scatter Plot

Total Radium, MW-10 (pCi/L)



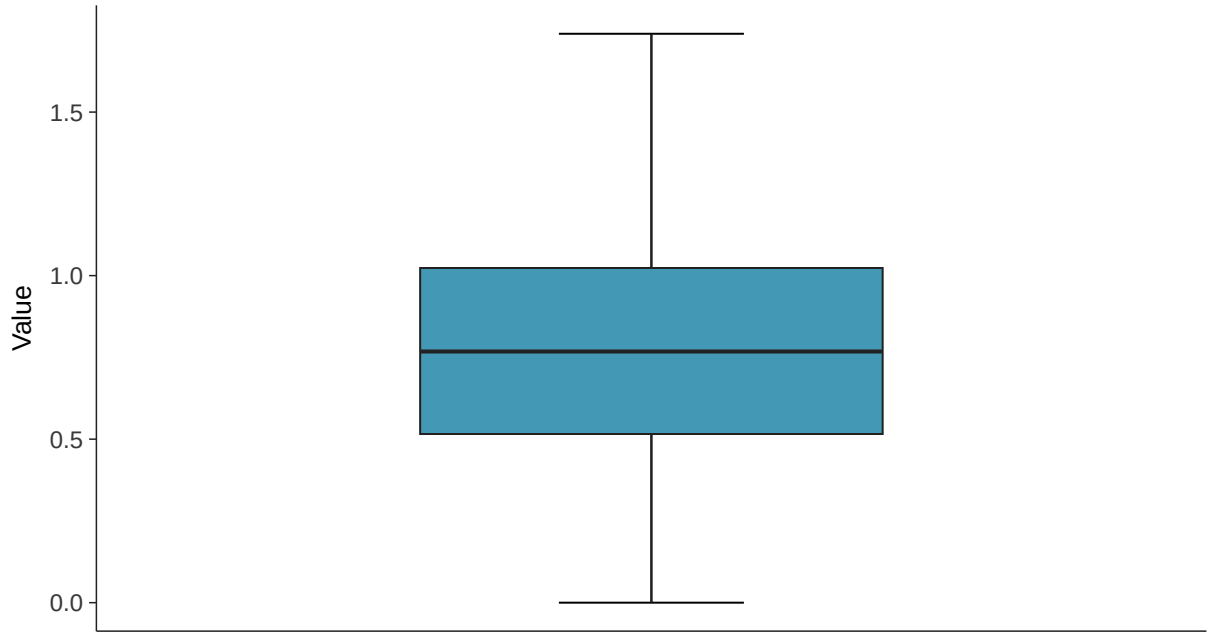
Histogram

Total Radium, MW-10 (pCi/L)



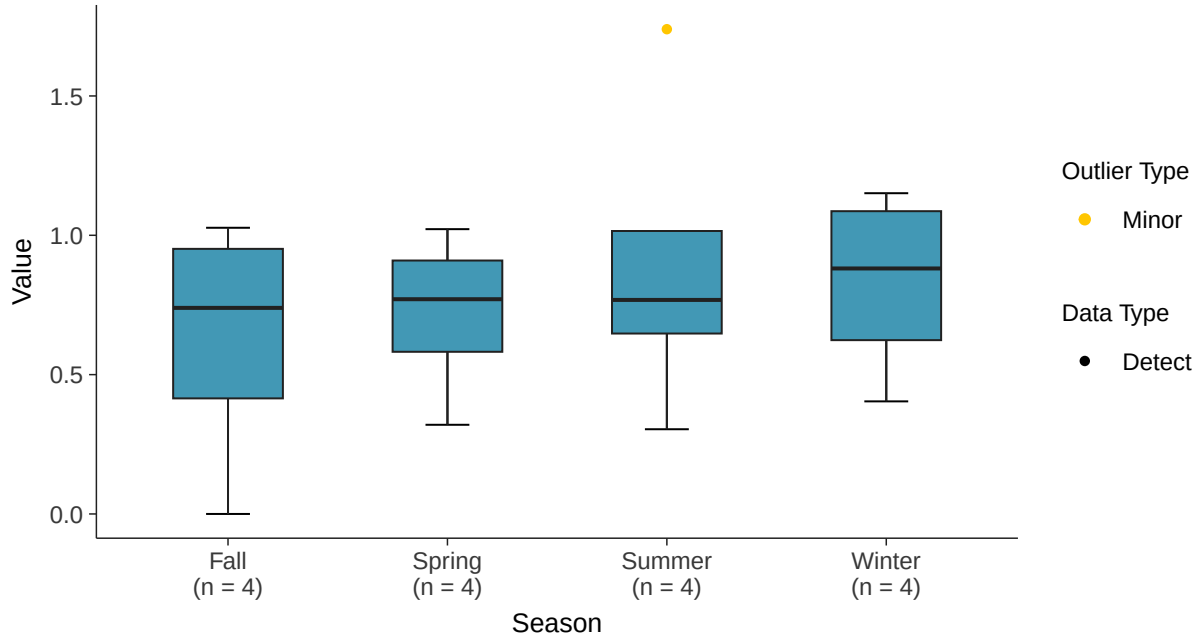
Boxplot

Total Radium, MW-10 (pCi/L)



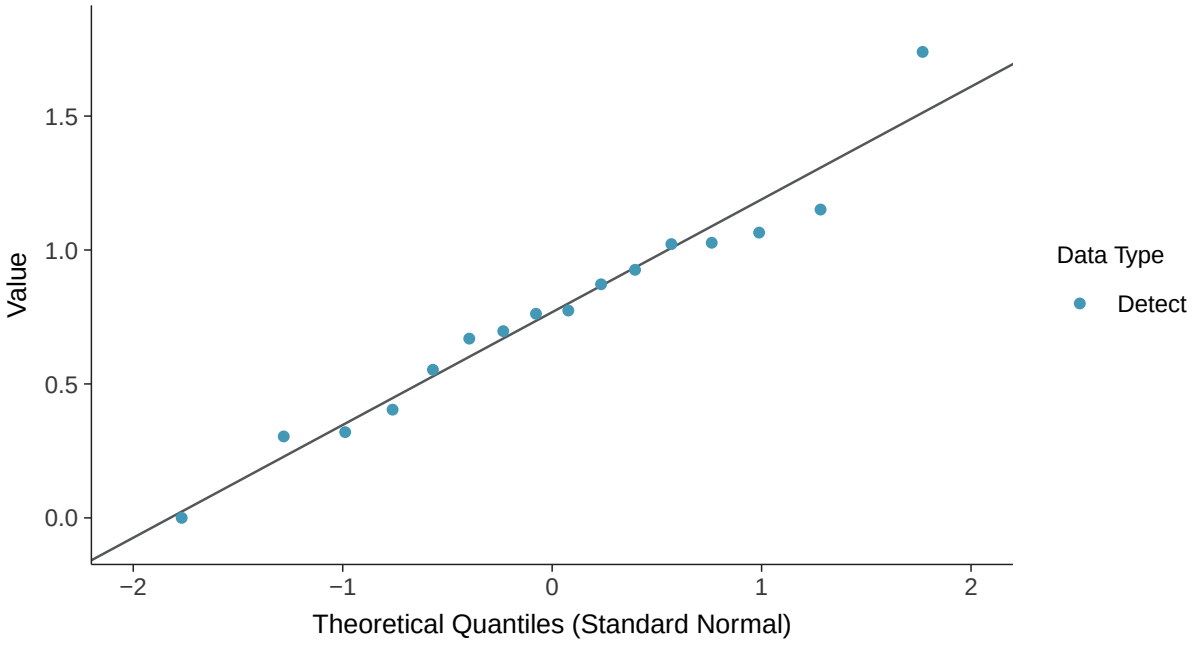
Boxplot by Season

Total Radium, MW-10 (pCi/L)



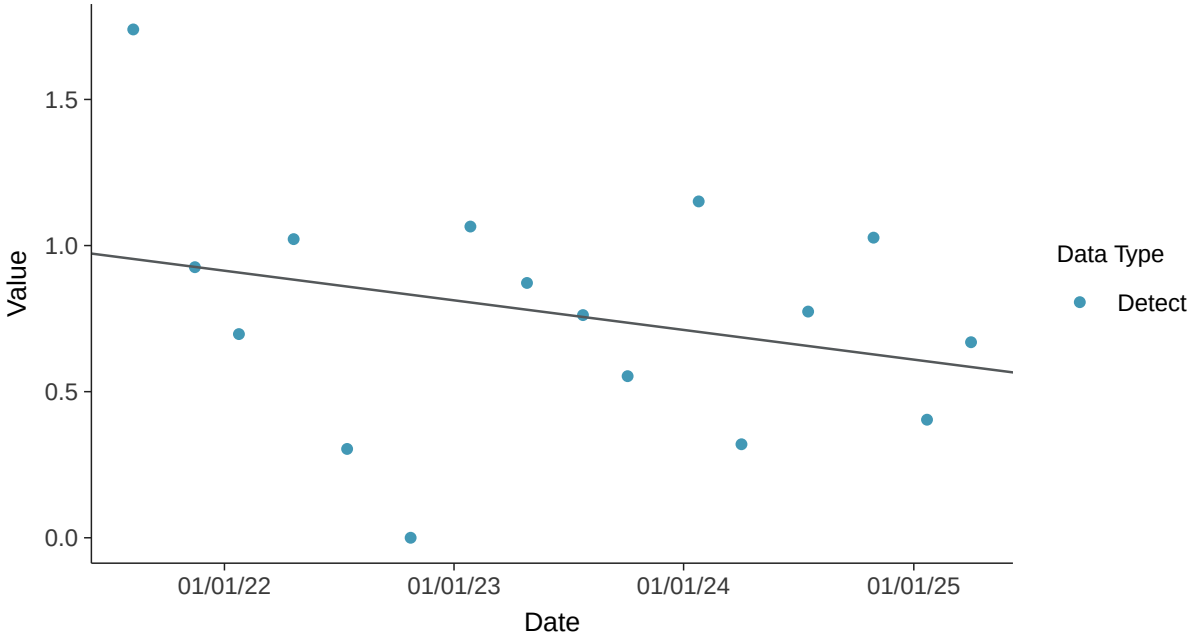
Normal Q-Q plot

Total Radium, MW-10 (pCi/L)



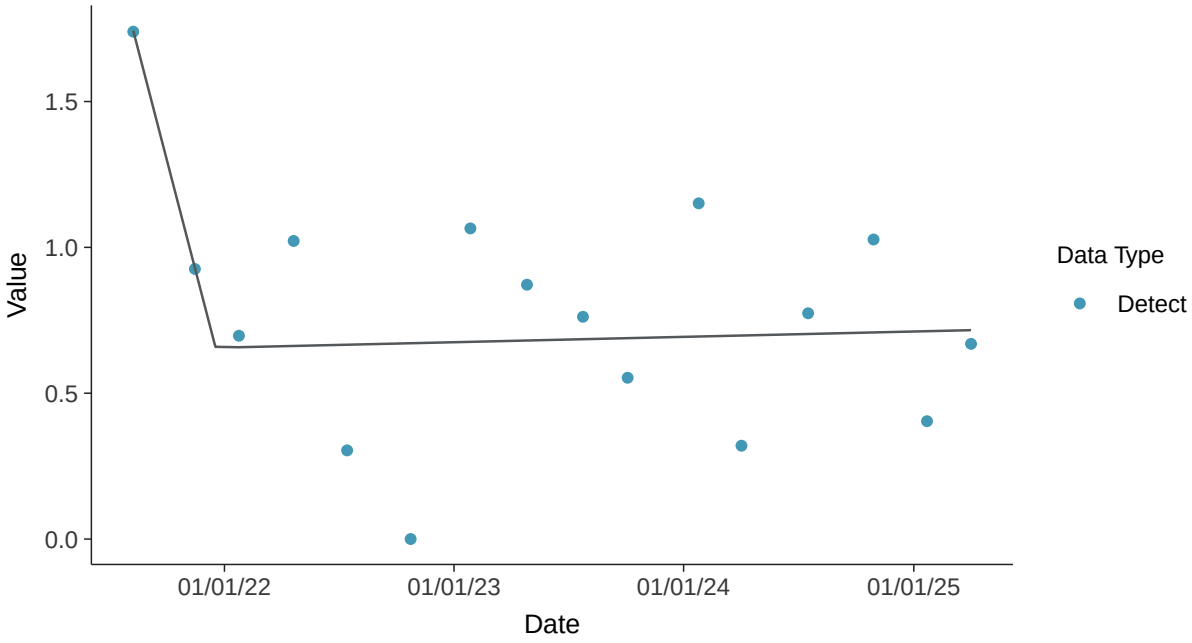
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Total Radium, MW-10 (pCi/L)



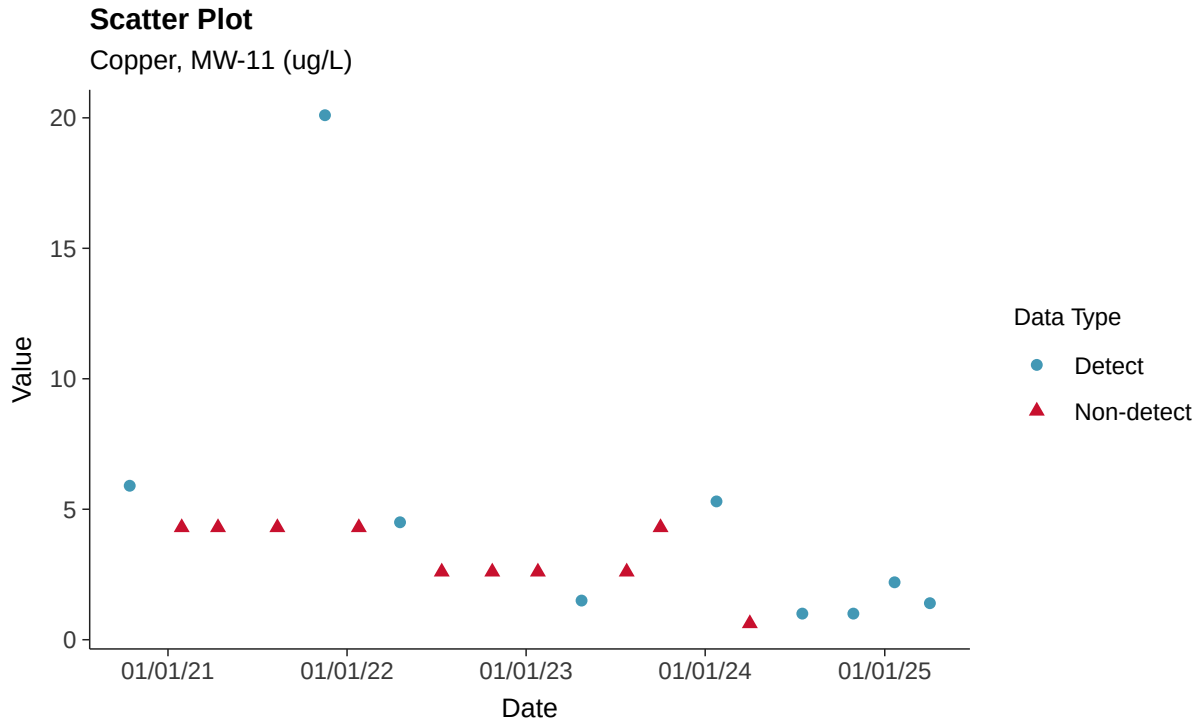
Trend Regression: Piecewise Linear-Linear

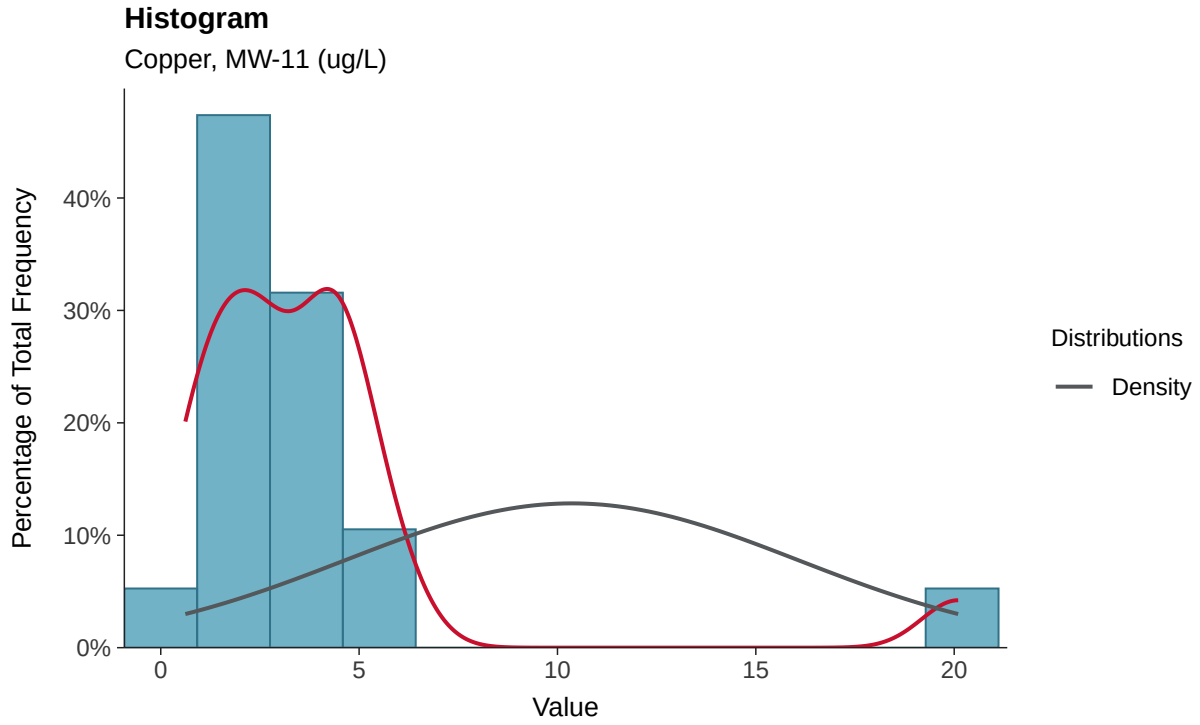
Total Radium, MW-10 (pCi/L)



App. I Metals: Copper, MW-11

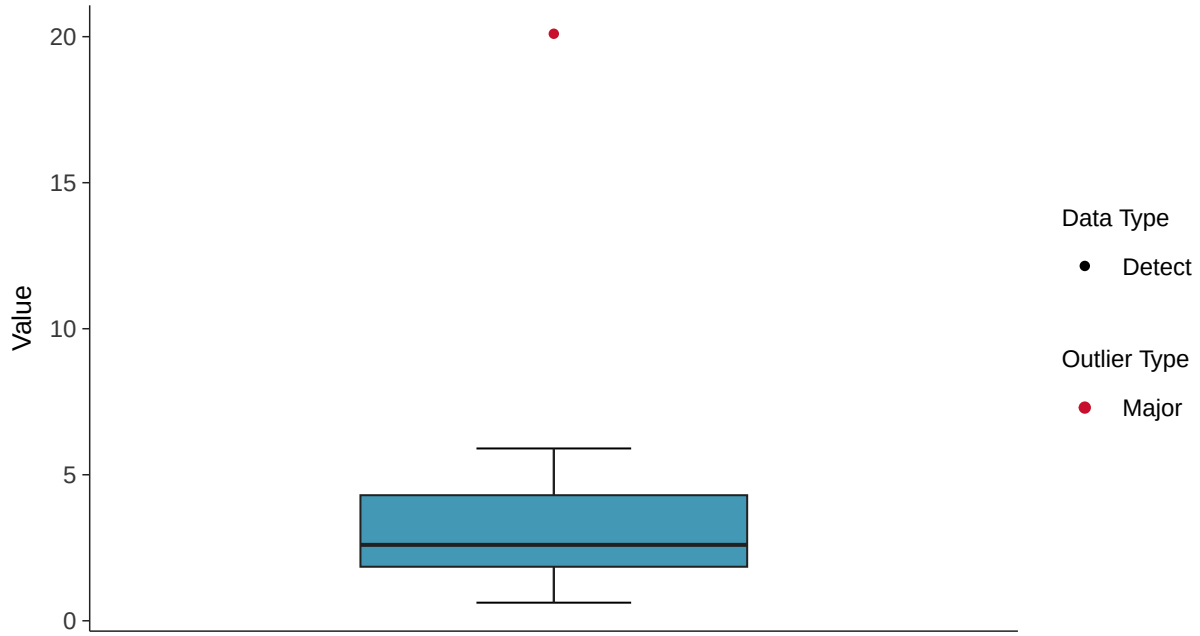
ID: 10_01_111





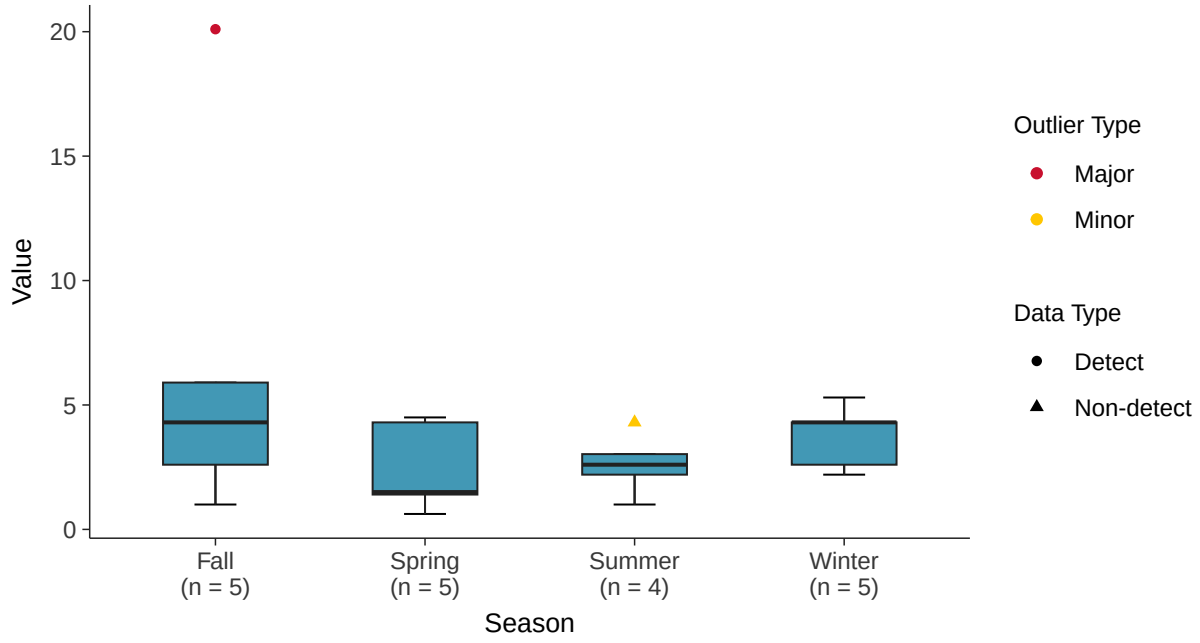
Boxplot

Copper, MW-11 (ug/L)



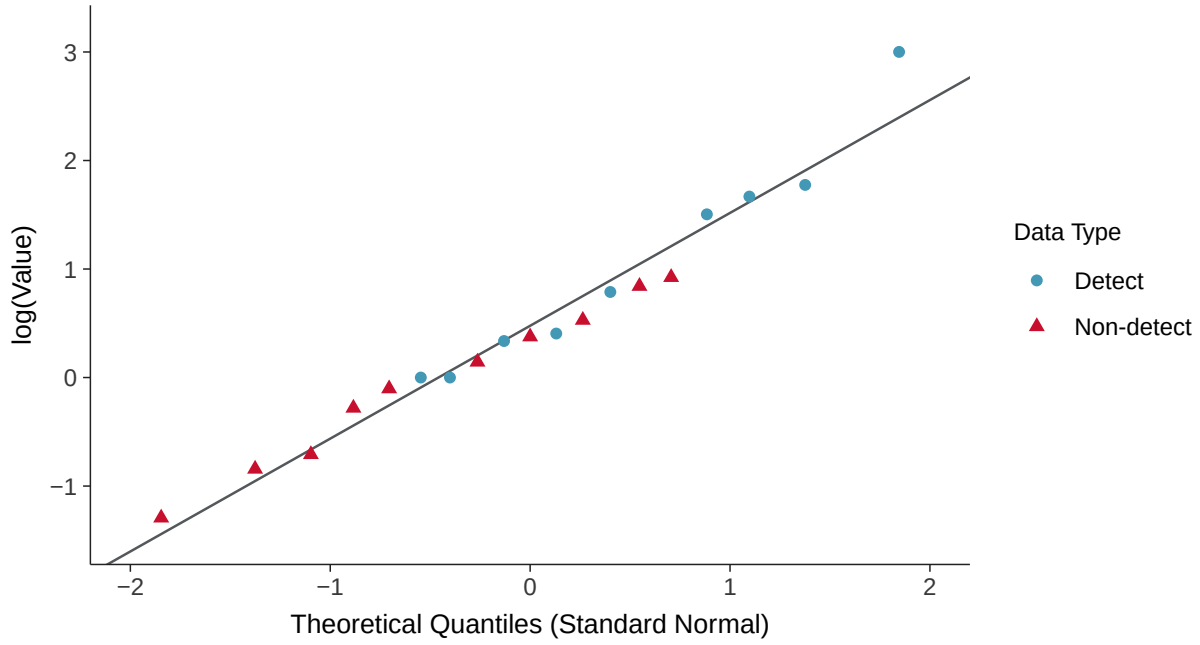
Boxplot by Season

Copper, MW-11 (ug/L)



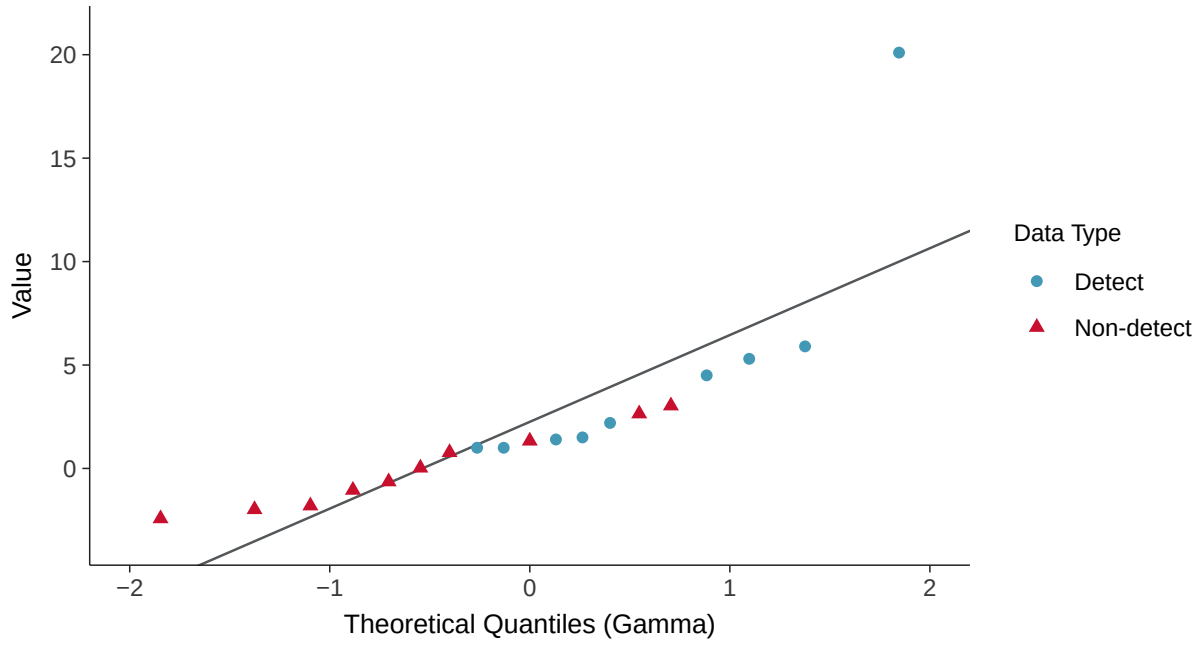
Lognormal Q-Q plot using ROS Imputed Estimates

Copper, MW-11 (ug/L)



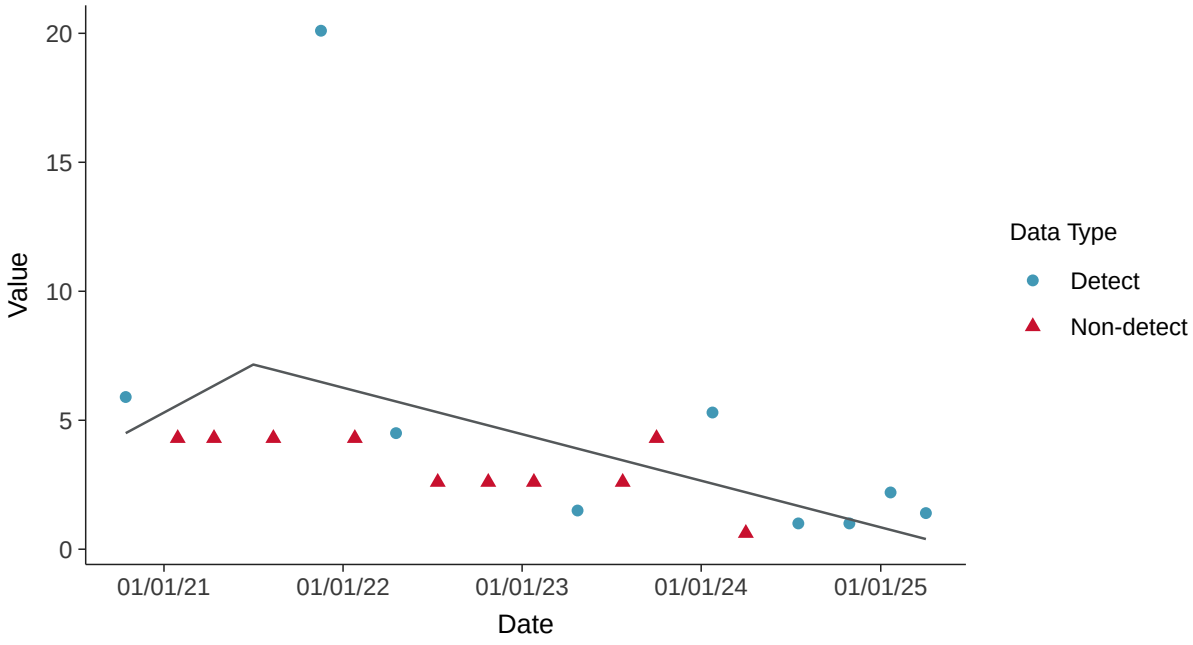
Gamma Q-Q plot using ROS Imputed Estimates

Copper, MW-11 (ug/L)



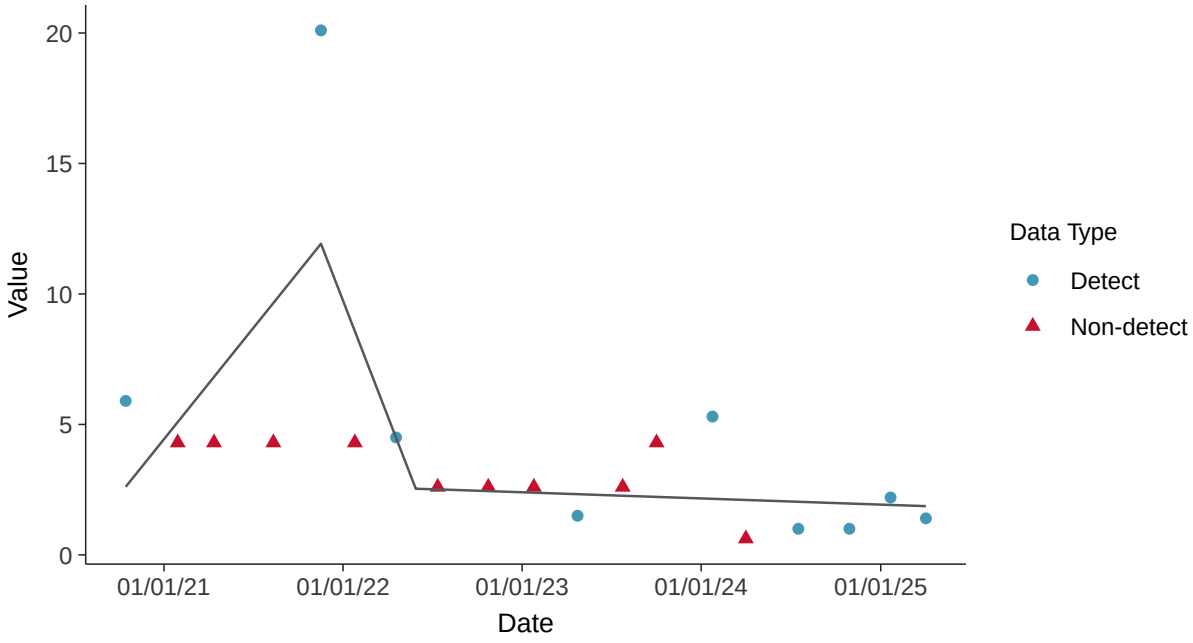
Trend Regression: Piecewise Linear-Linear

Copper, MW-11 (ug/L)



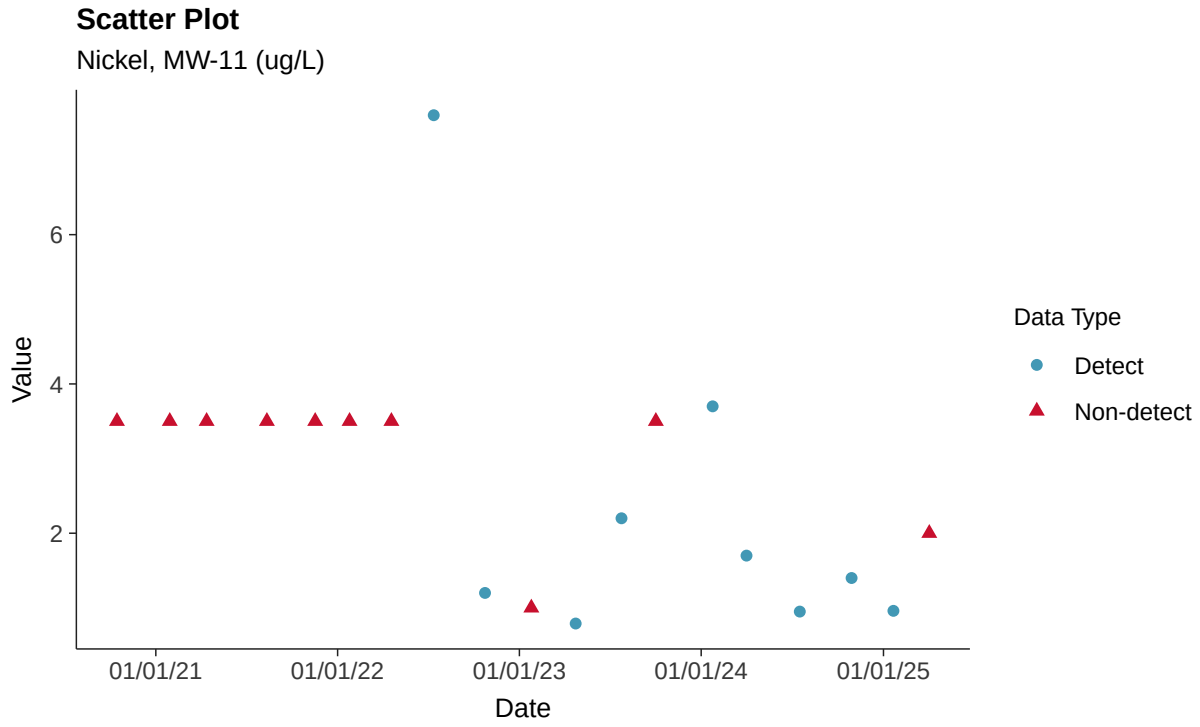
Trend Regression: Piecewise Linear-Linear-Linear

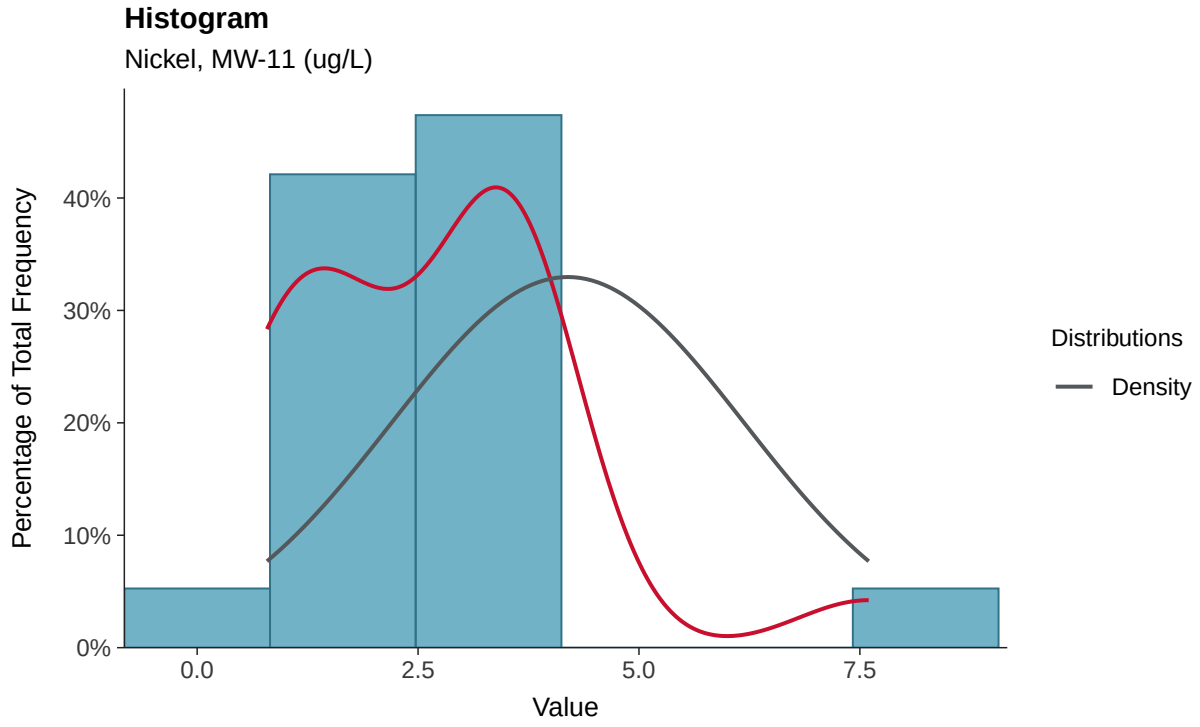
Copper, MW-11 (ug/L)



App. I Metals: Nickel, MW-11

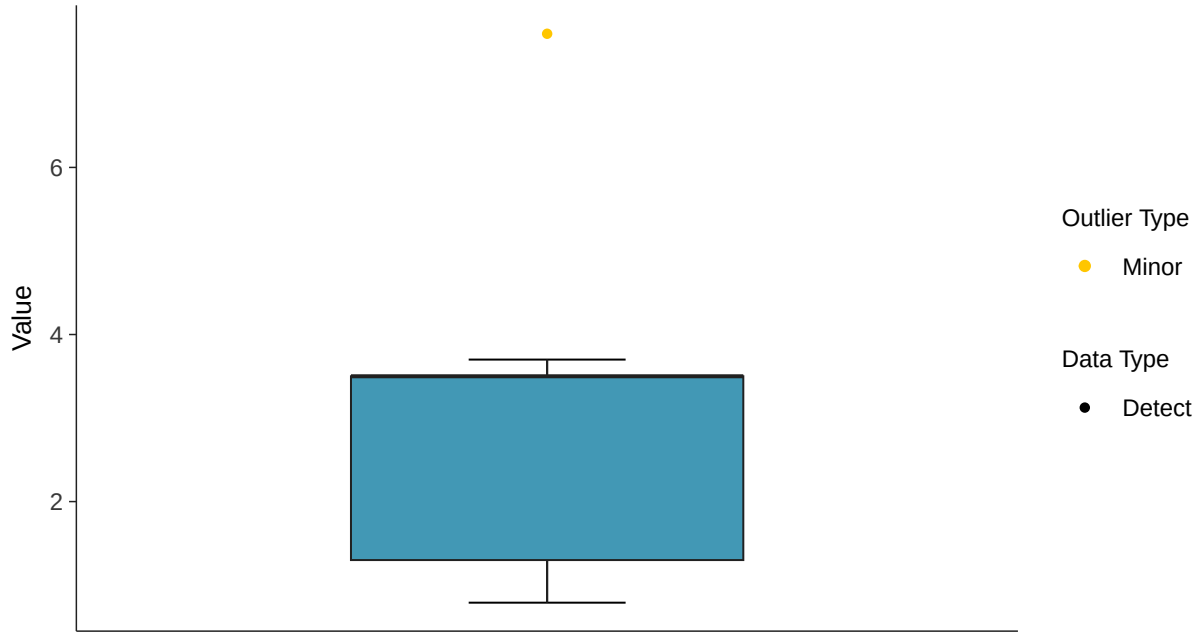
ID: 10_01_117





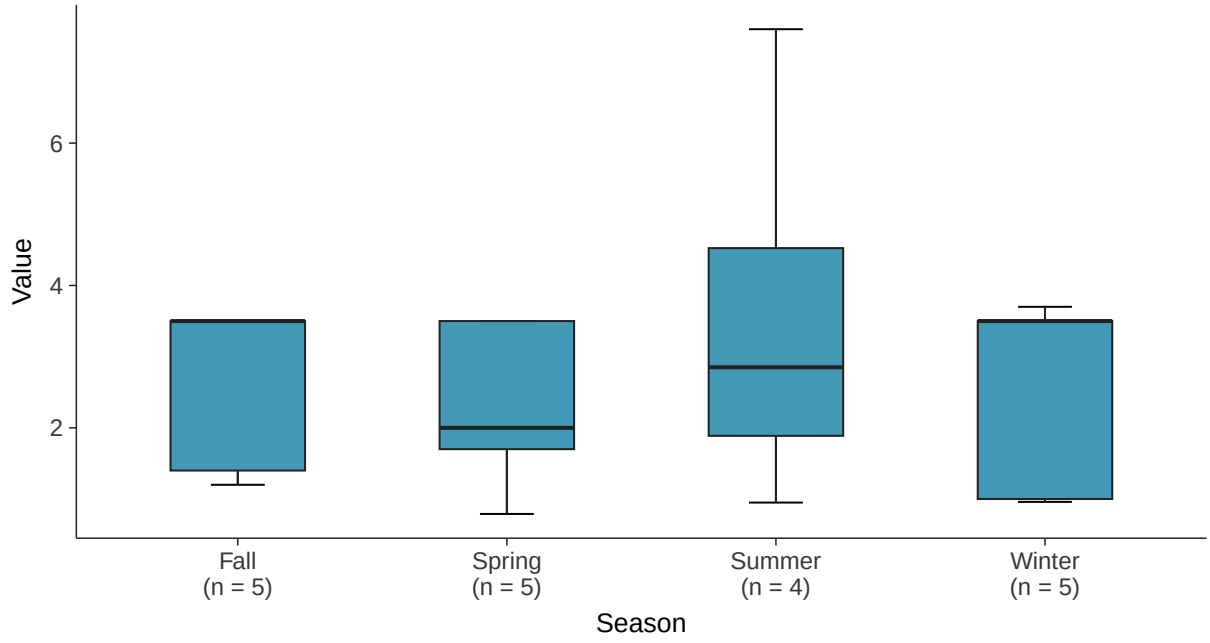
Boxplot

Nickel, MW-11 (ug/L)



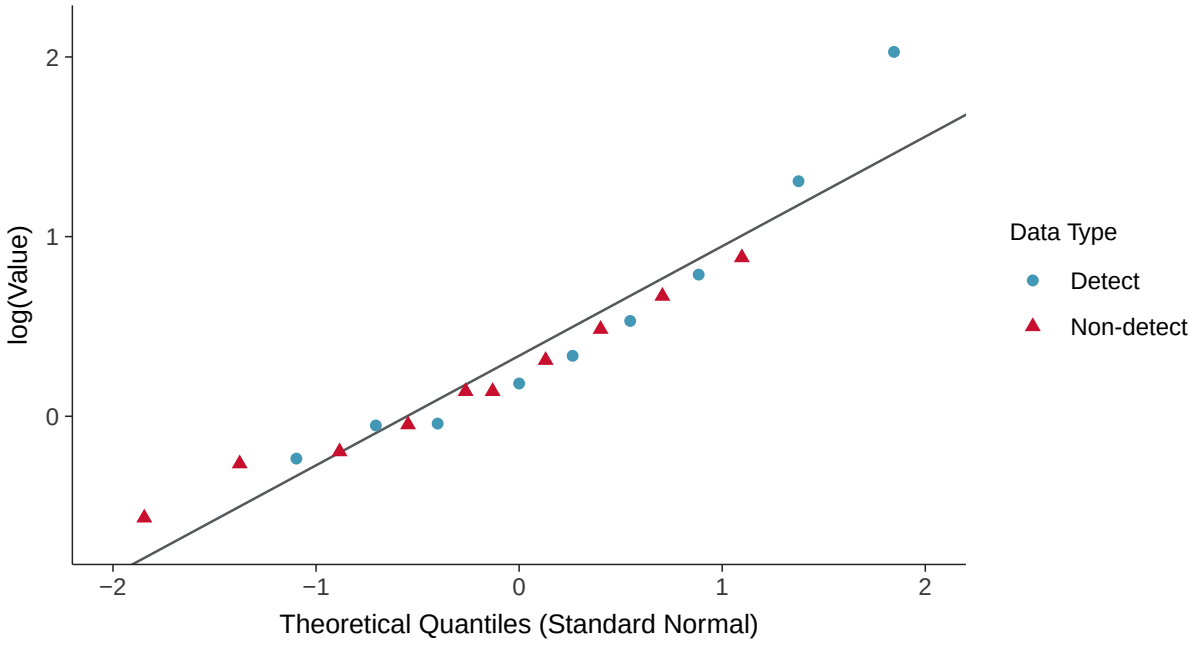
Boxplot by Season

Nickel, MW-11 (ug/L)



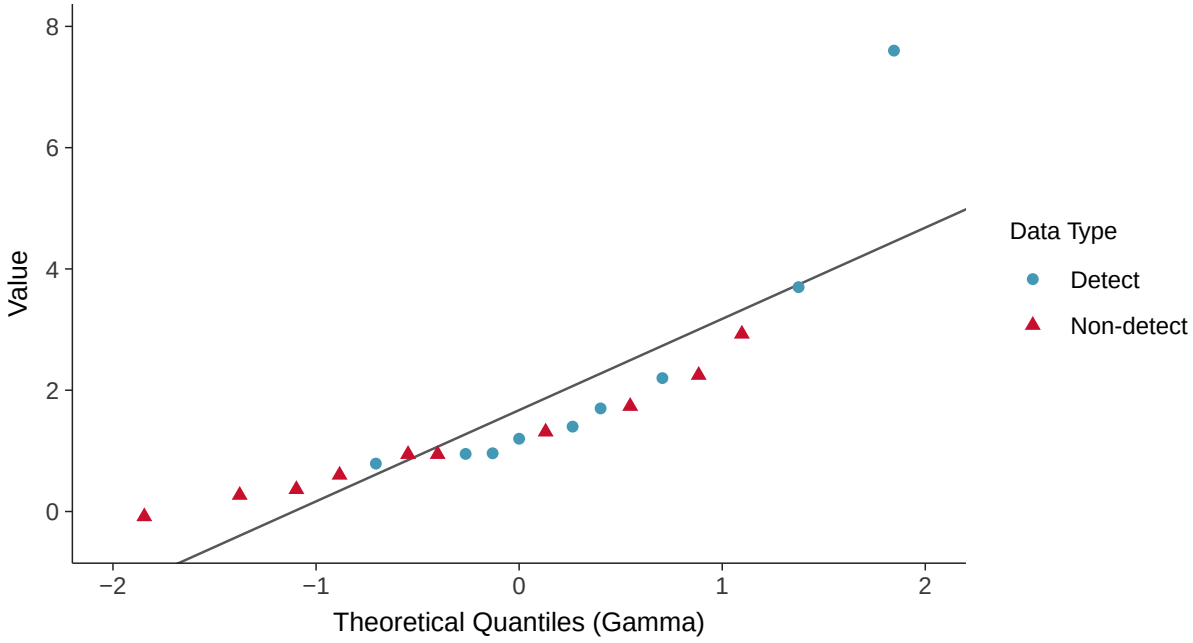
Lognormal Q-Q plot using ROS Imputed Estimates

Nickel, MW-11 (ug/L)



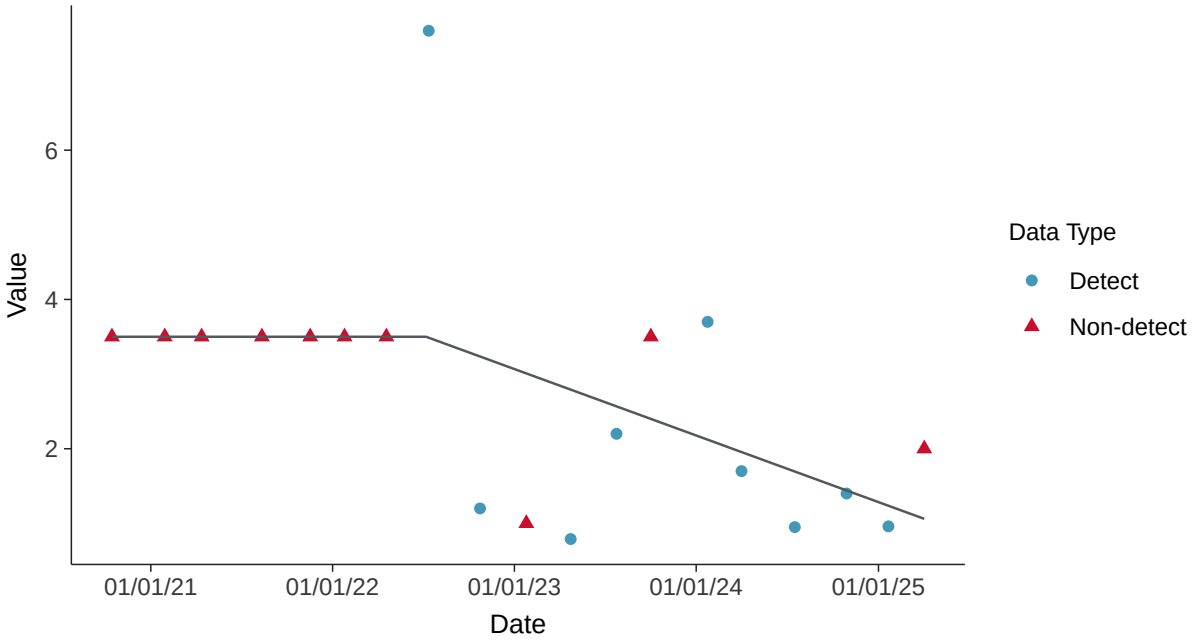
Gamma Q-Q plot using ROS Imputed Estimates

Nickel, MW-11 (ug/L)



Trend Regression: Piecewise Linear-Linear

Nickel, MW-11 (ug/L)

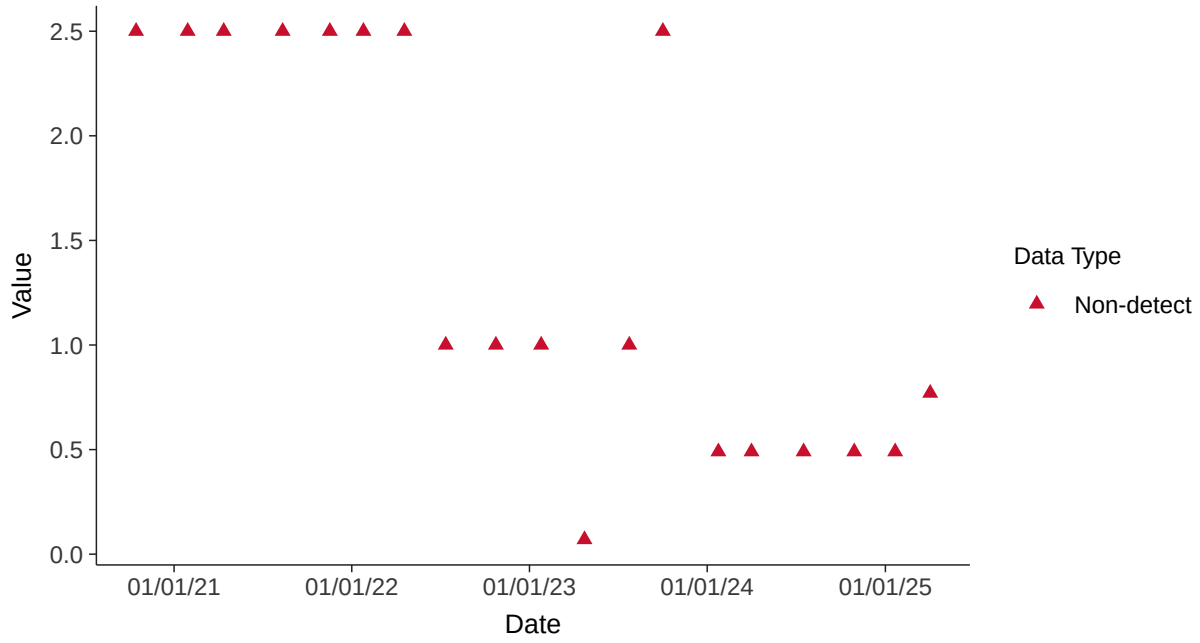


App. I Metals: Silver, MW-11

ID: 10_01_122

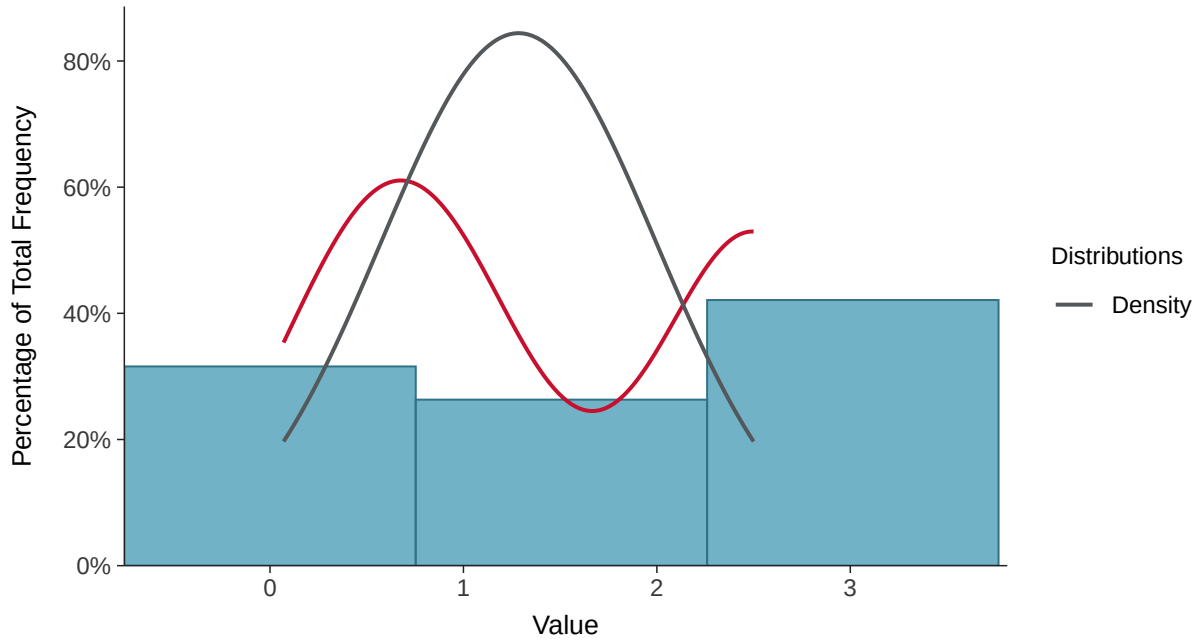
Scatter Plot

Silver, MW-11 (ug/L)



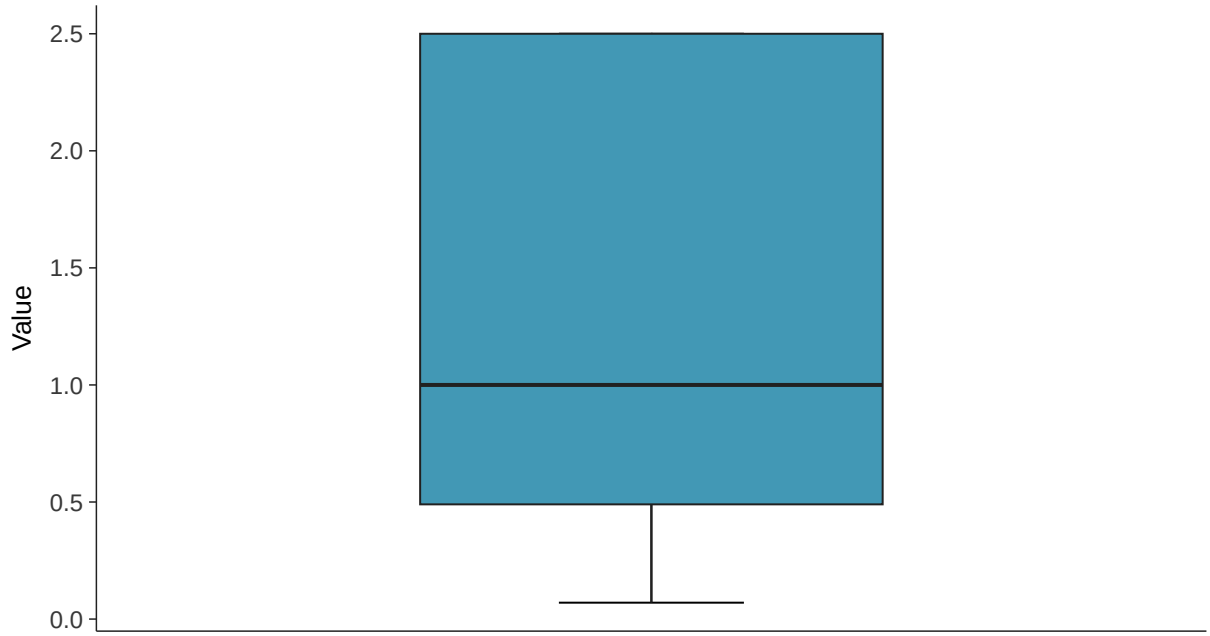
Histogram

Silver, MW-11 (ug/L)



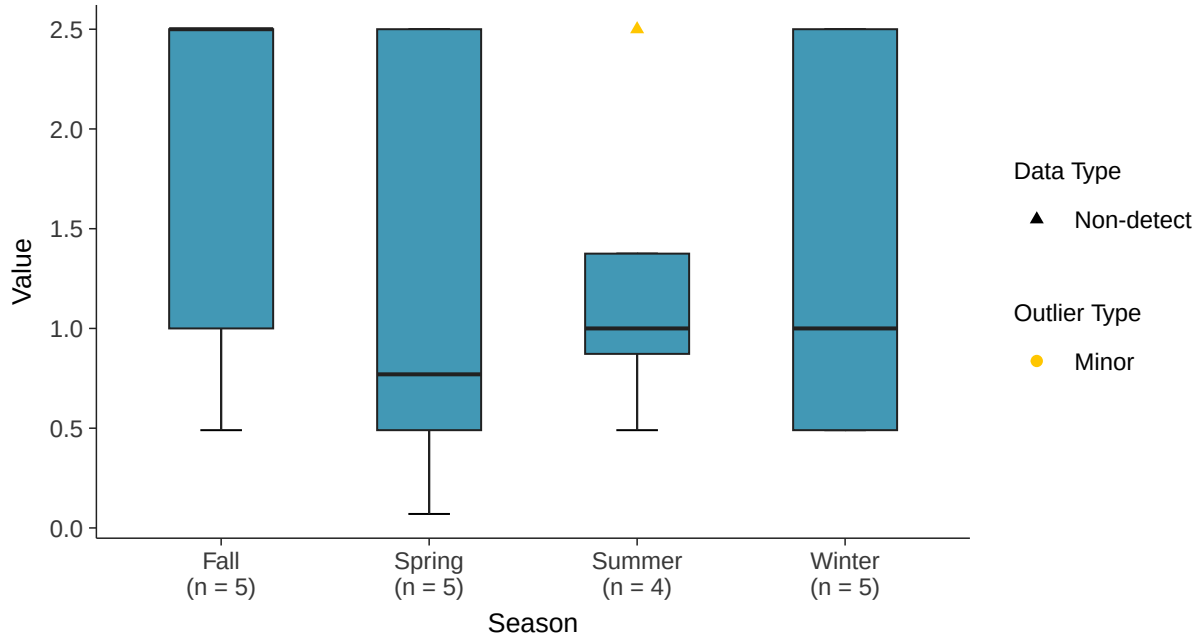
Boxplot

Silver, MW-11 (ug/L)



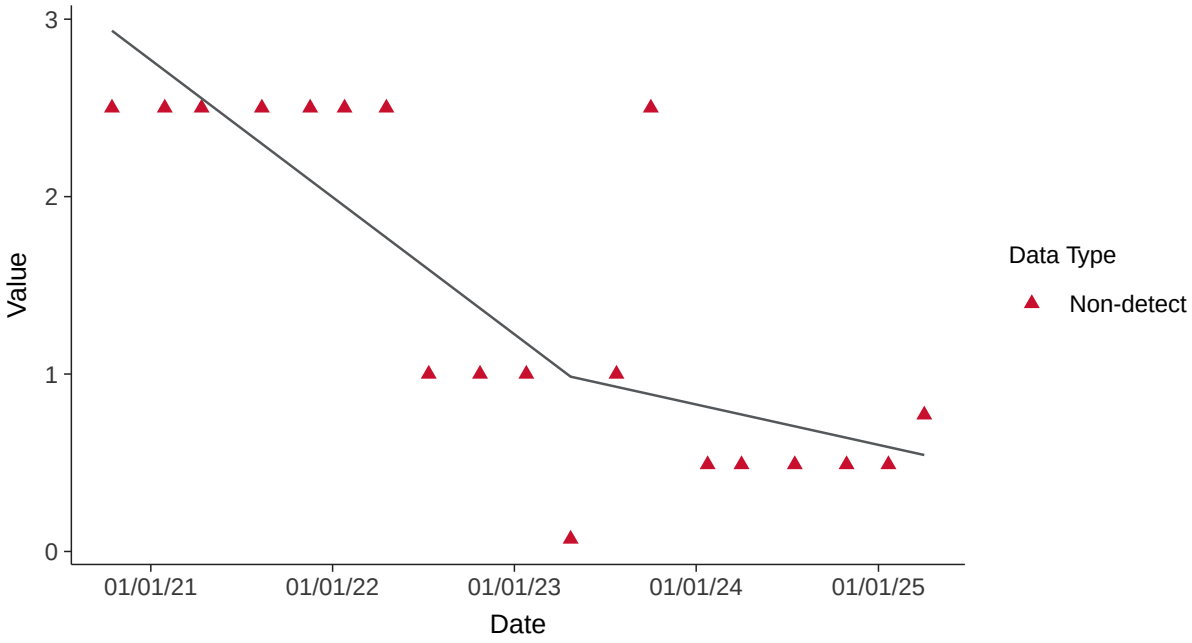
Boxplot by Season

Silver, MW-11 (ug/L)



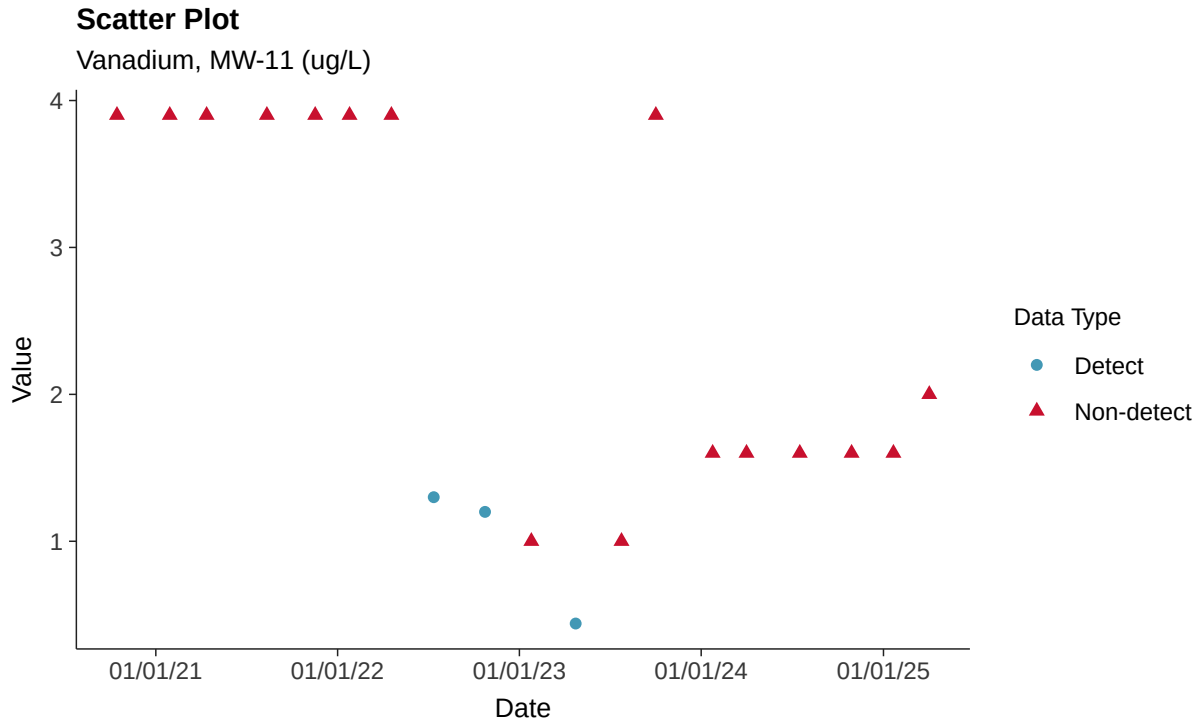
Trend Regression: Piecewise Linear-Linear

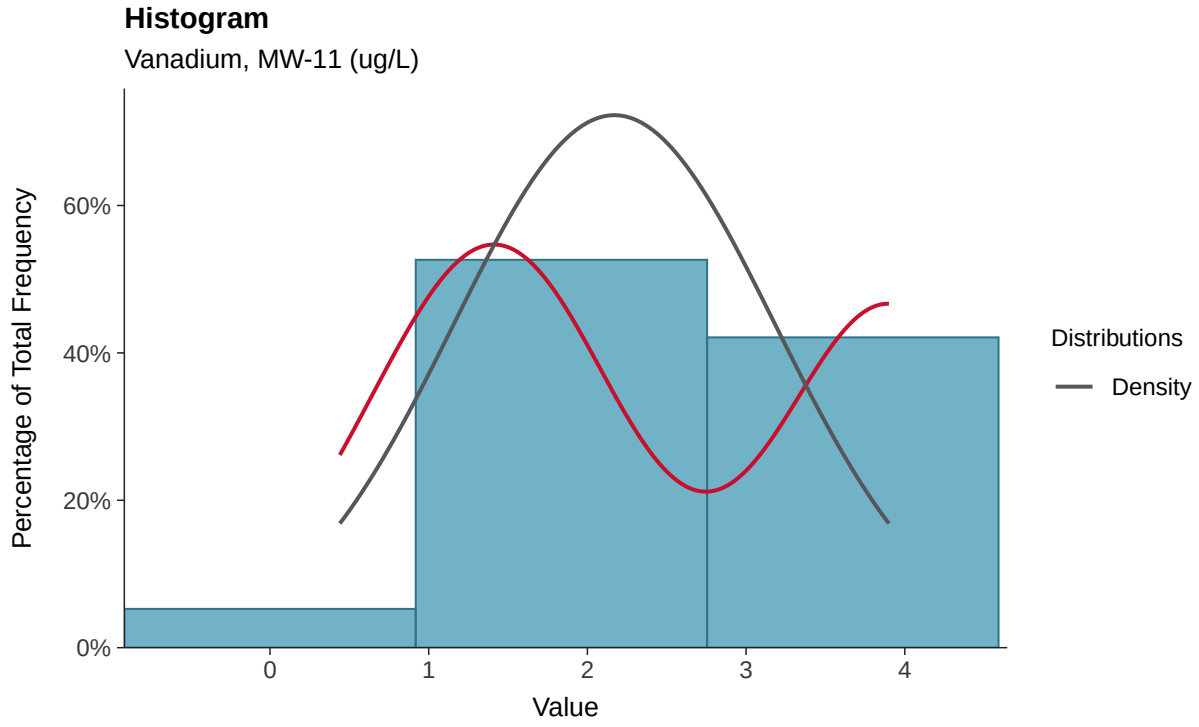
Silver, MW-11 (ug/L)



App. I Metals: Vanadium, MW-11

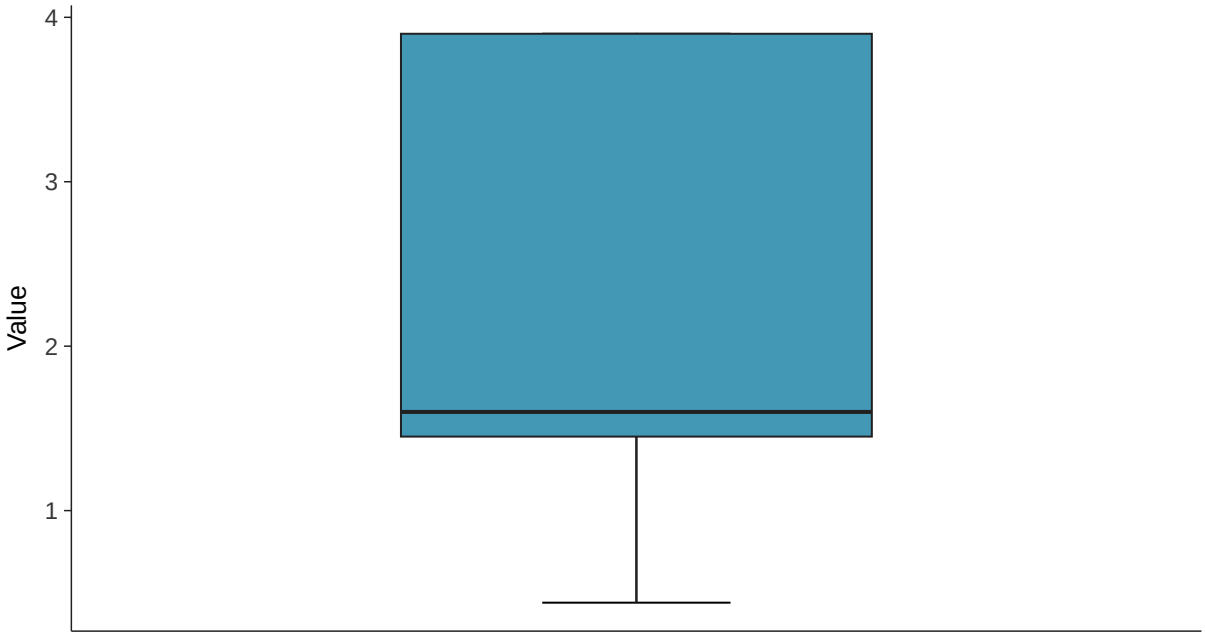
ID: 10_01_127





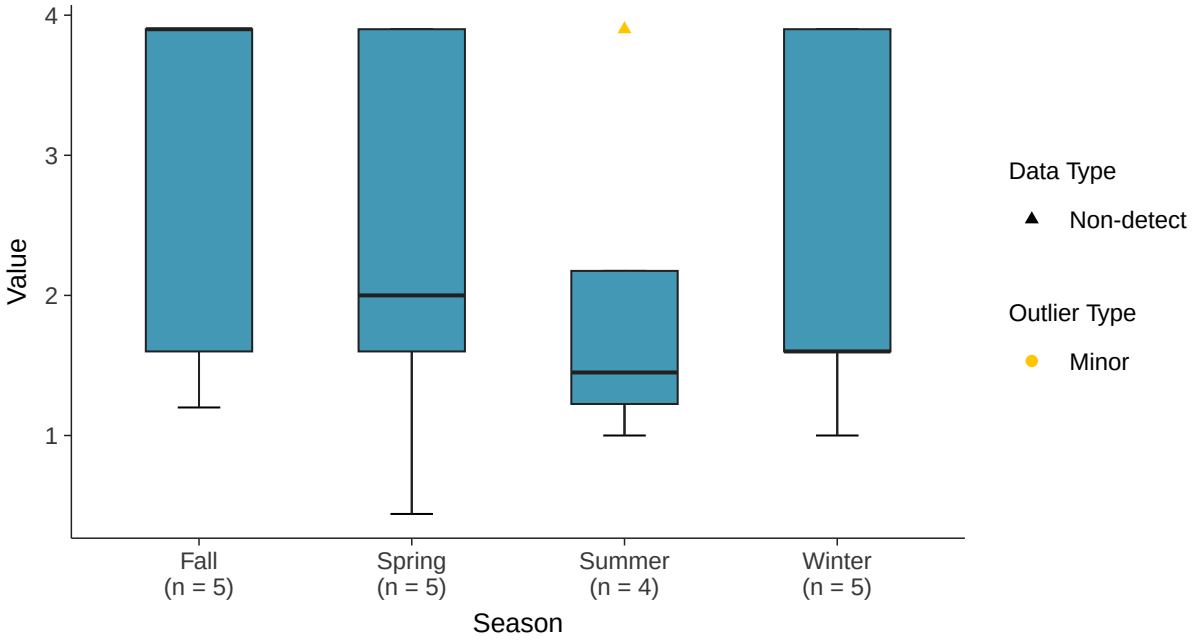
Boxplot

Vanadium, MW-11 (ug/L)



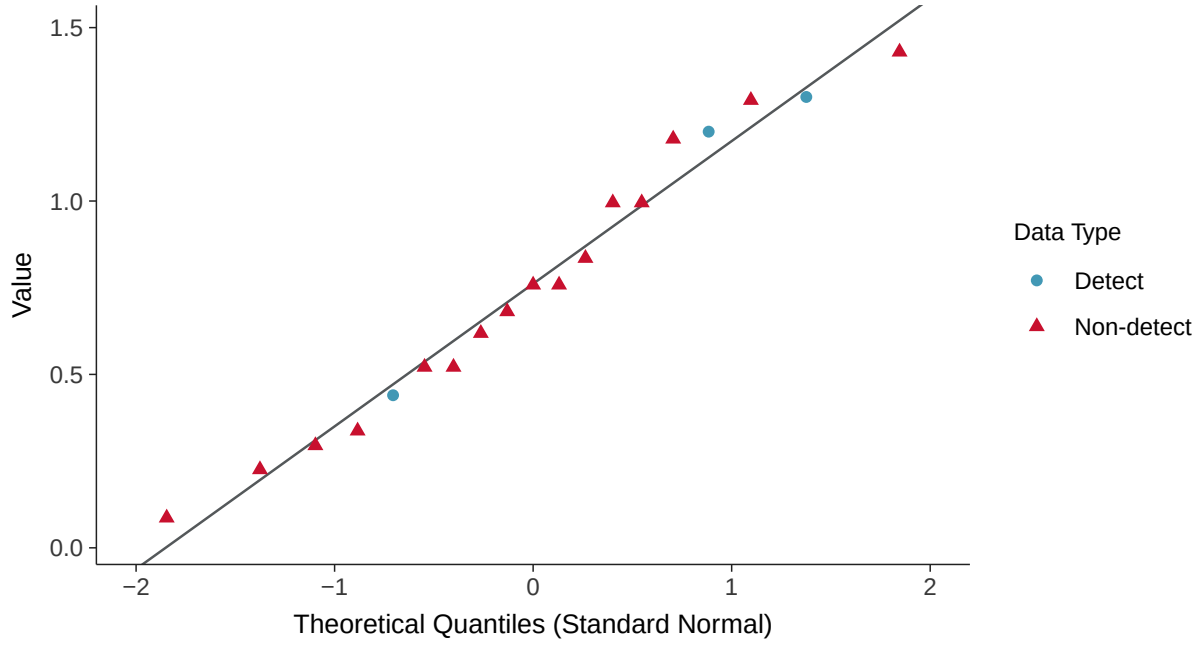
Boxplot by Season

Vanadium, MW-11 (ug/L)



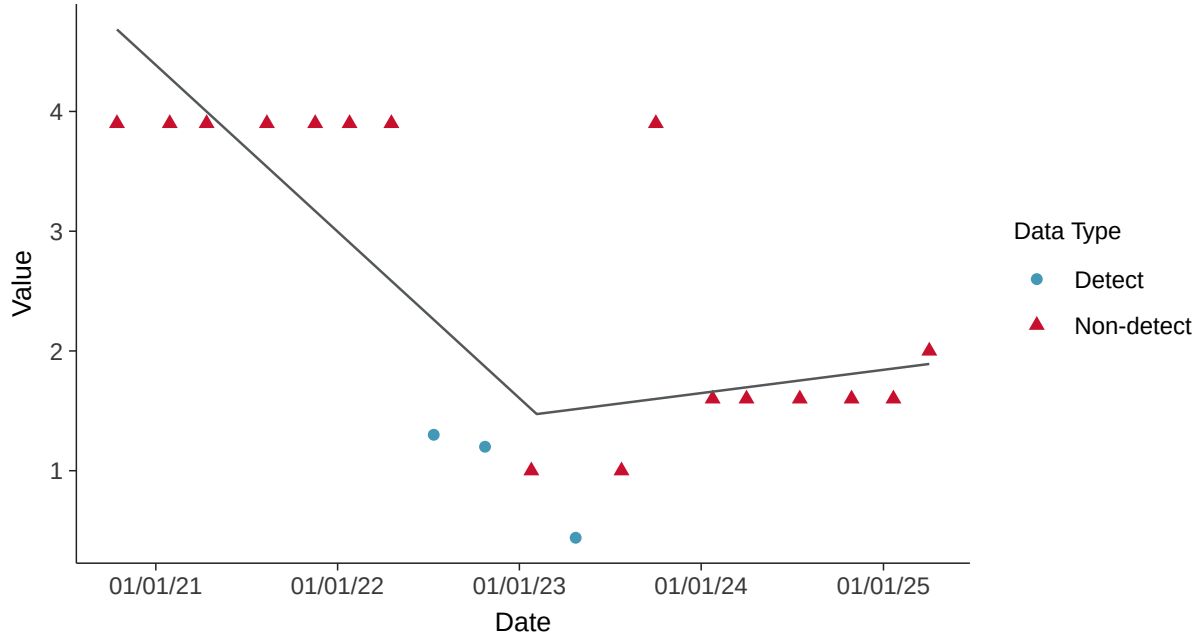
Normal Q-Q plot using ROS Imputed Estimates

Vanadium, MW-11 (ug/L)



Trend Regression: Piecewise Linear-Linear

Vanadium, MW-11 (ug/L)

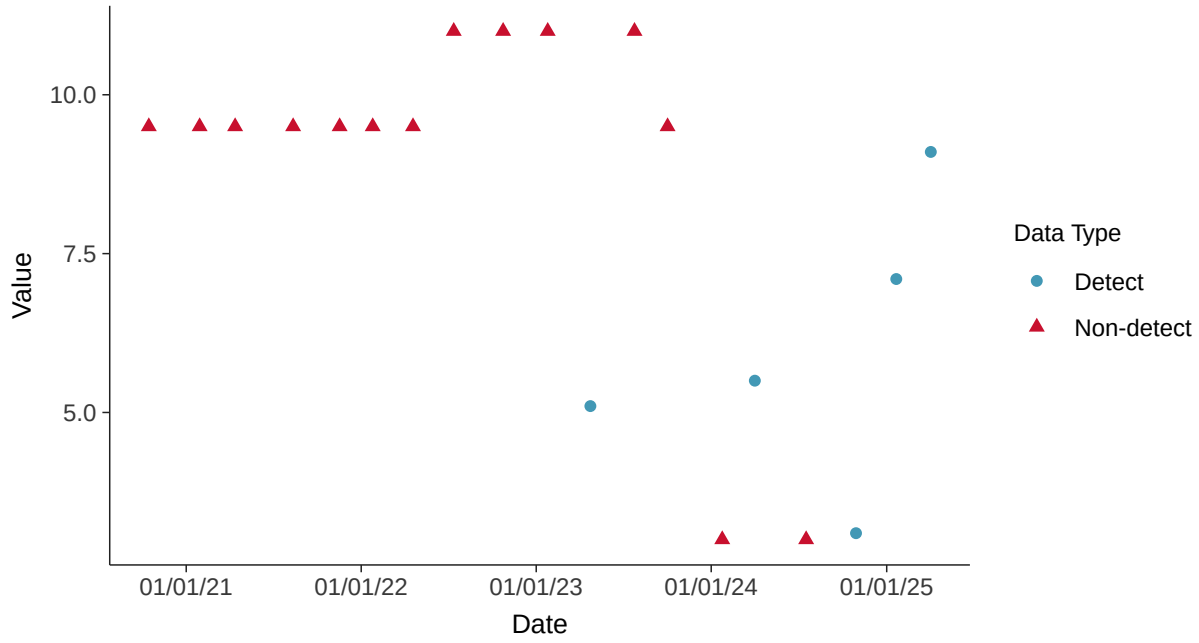


App. I Metals: Zinc, MW-11

ID: 10_01_128

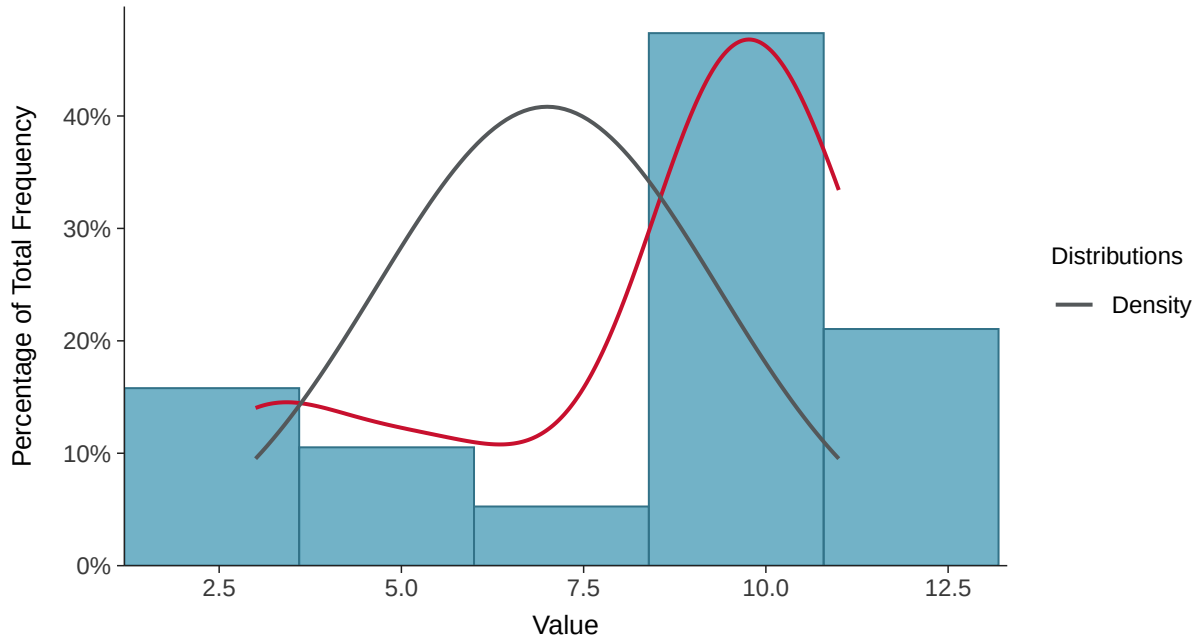
Scatter Plot

Zinc, MW-11 (ug/L)



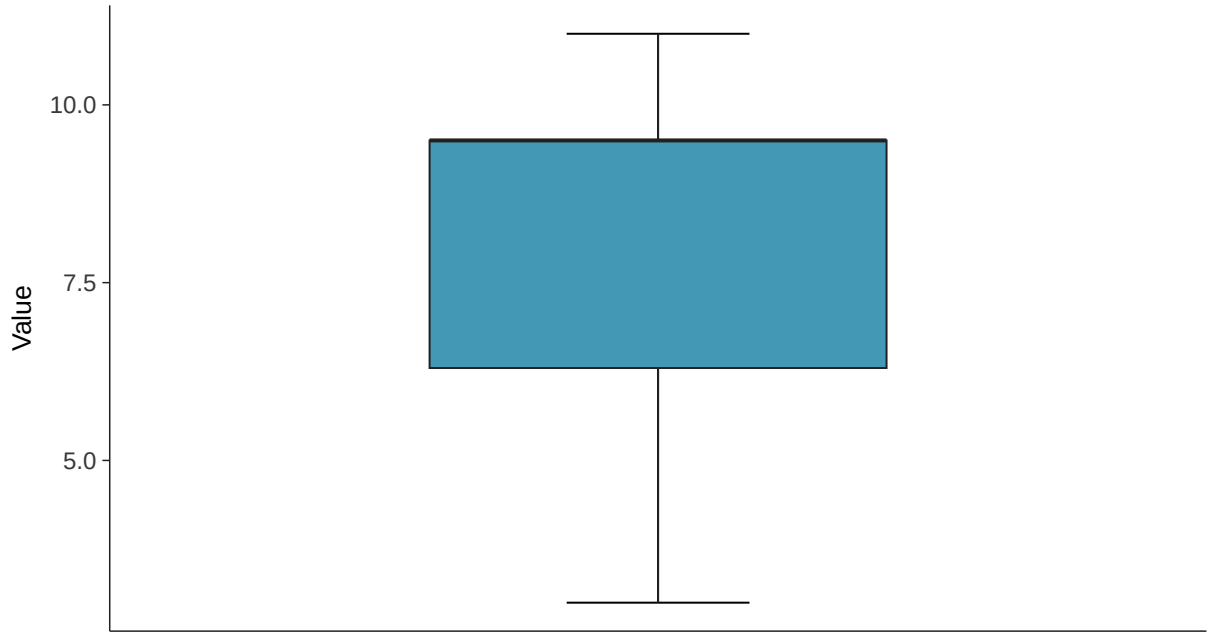
Histogram

Zinc, MW-11 (ug/L)



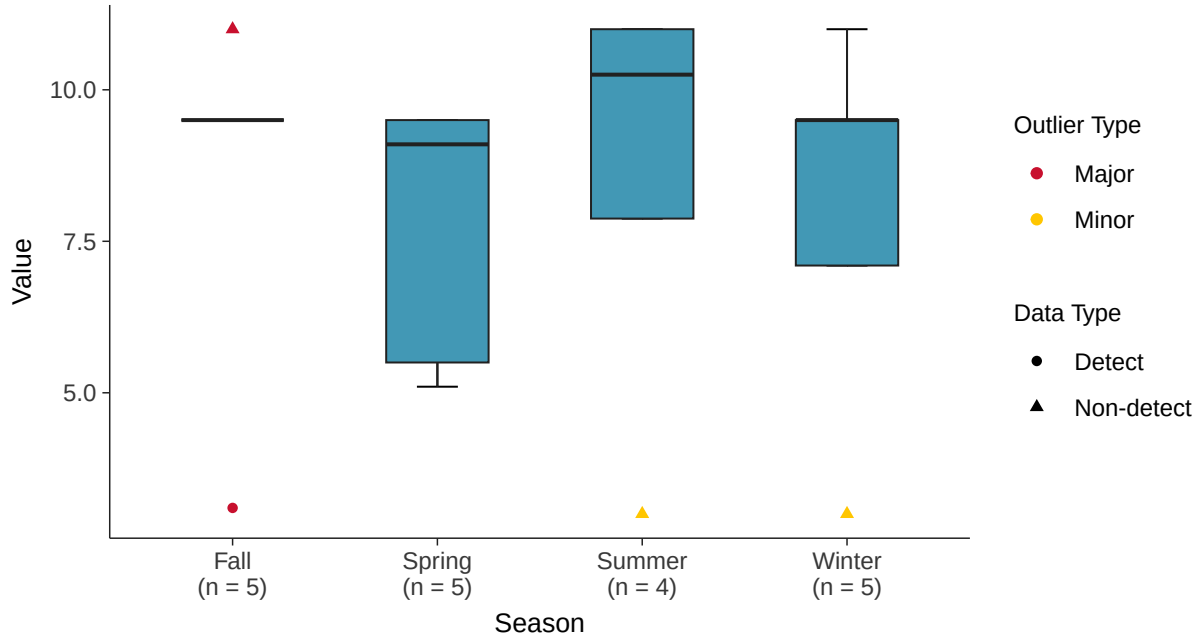
Boxplot

Zinc, MW-11 (ug/L)



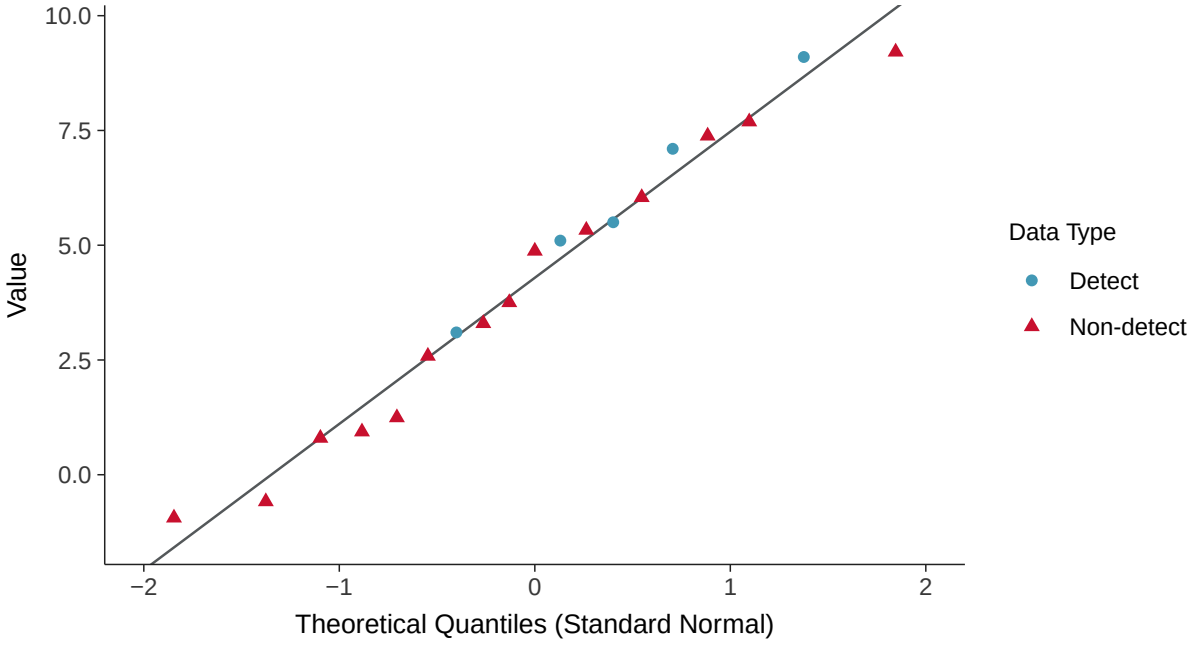
Boxplot by Season

Zinc, MW-11 (ug/L)



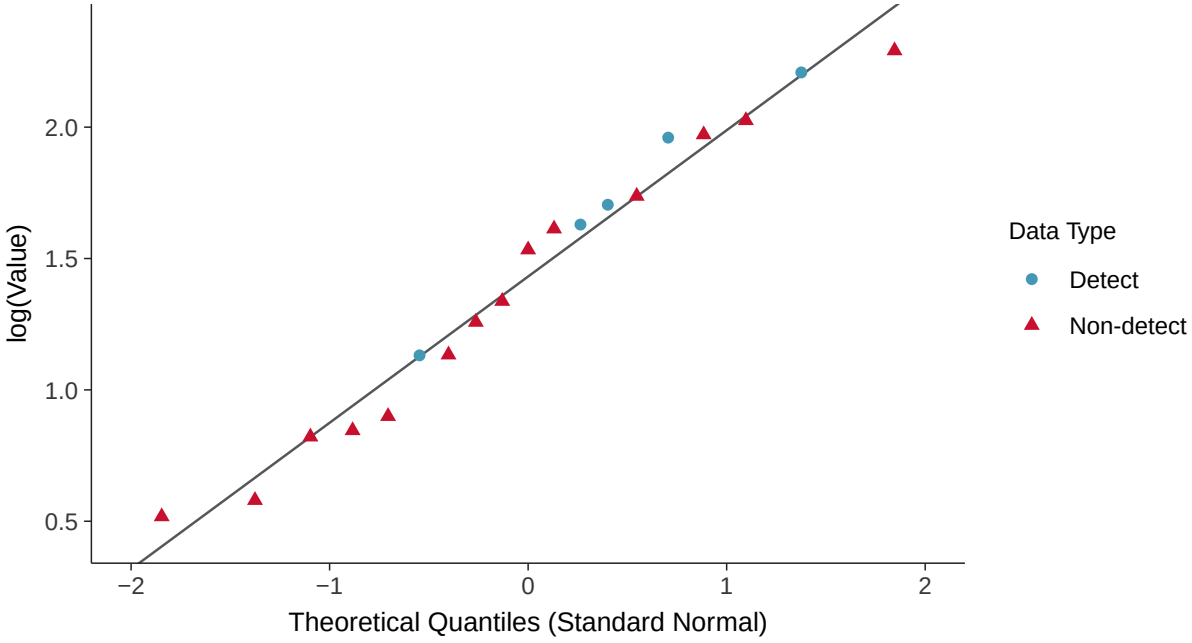
Normal Q-Q plot using ROS Imputed Estimates

Zinc, MW-11 (ug/L)



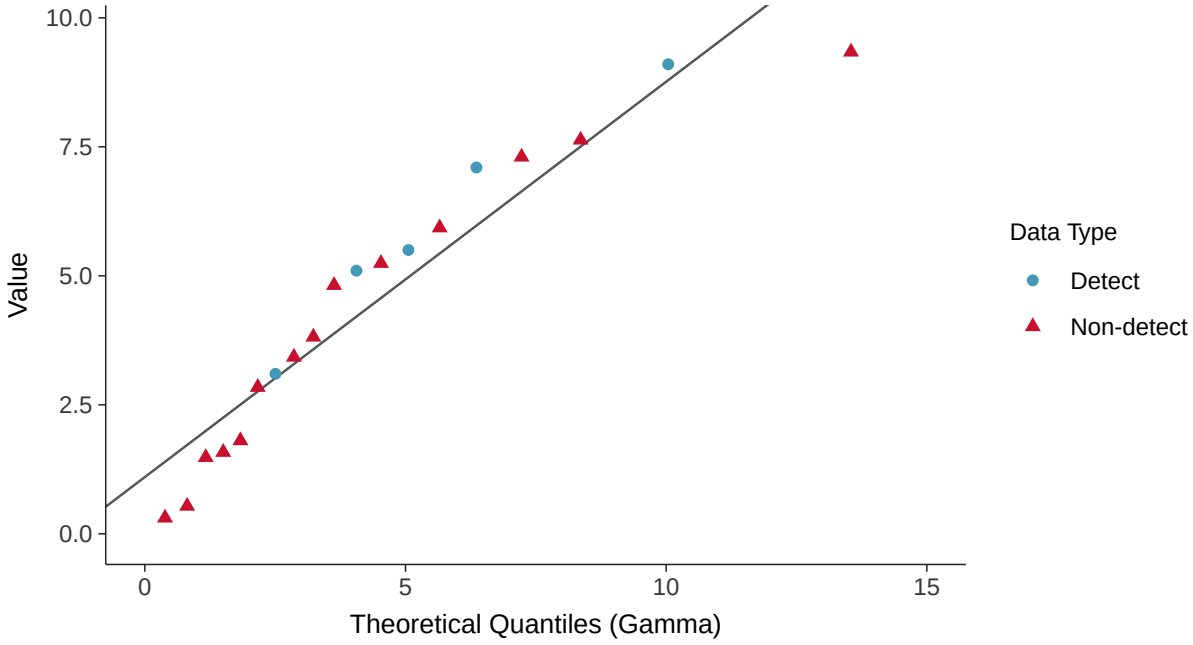
Lognormal Q-Q plot using ROS Imputed Estimates

Zinc, MW-11 (ug/L)



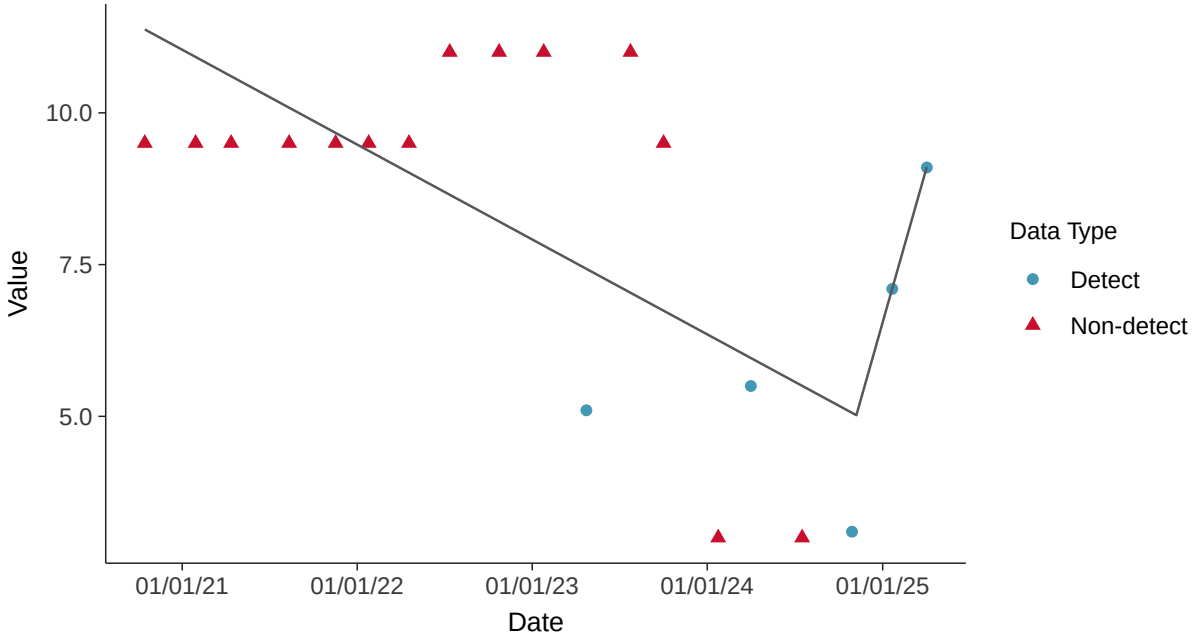
Gamma Q-Q plot using ROS Imputed Estimates

Zinc, MW-11 (ug/L)



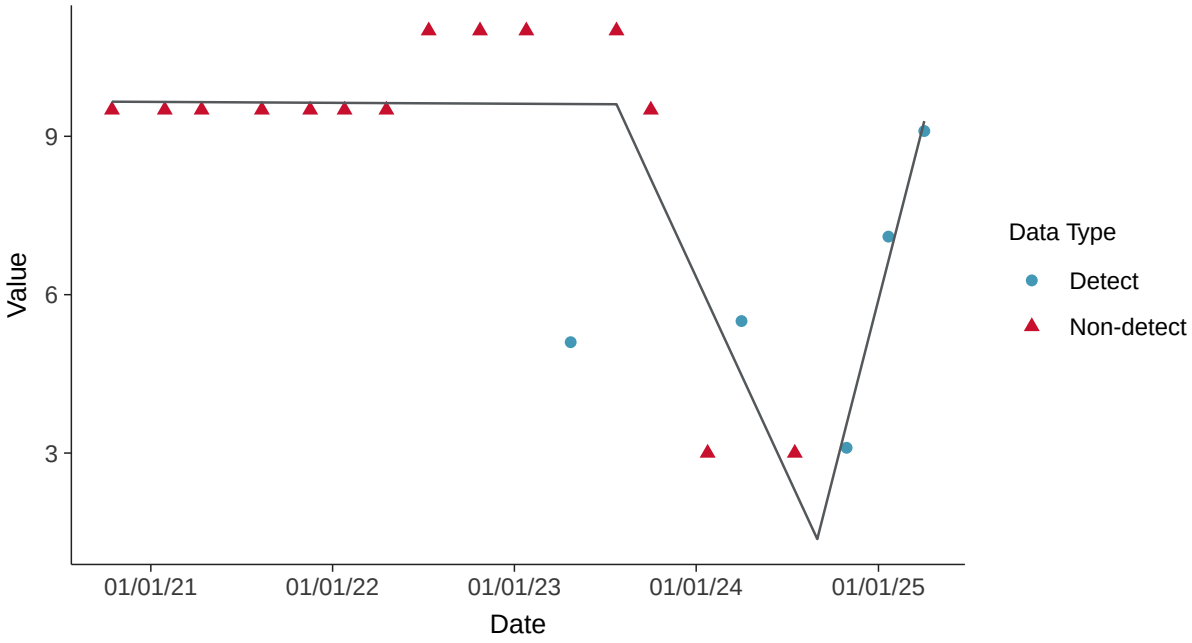
Trend Regression: Piecewise Linear-Linear

Zinc, MW-11 (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Zinc, MW-11 (ug/L)

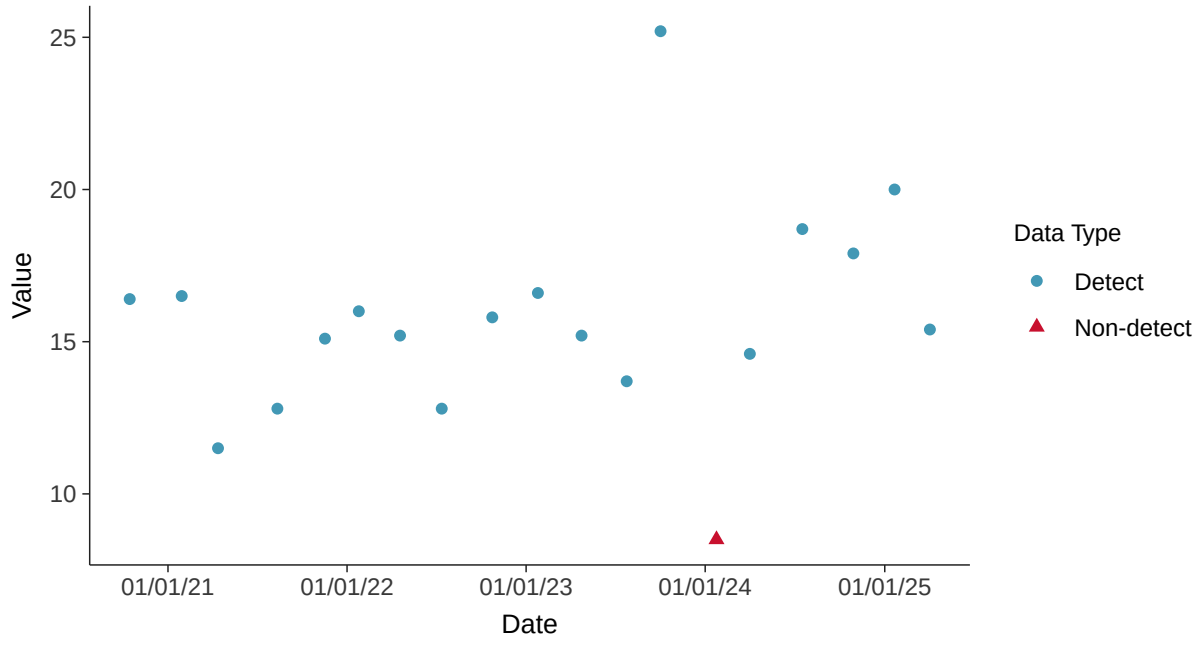


App. III: Boron, MW-11

ID: 10_02_105

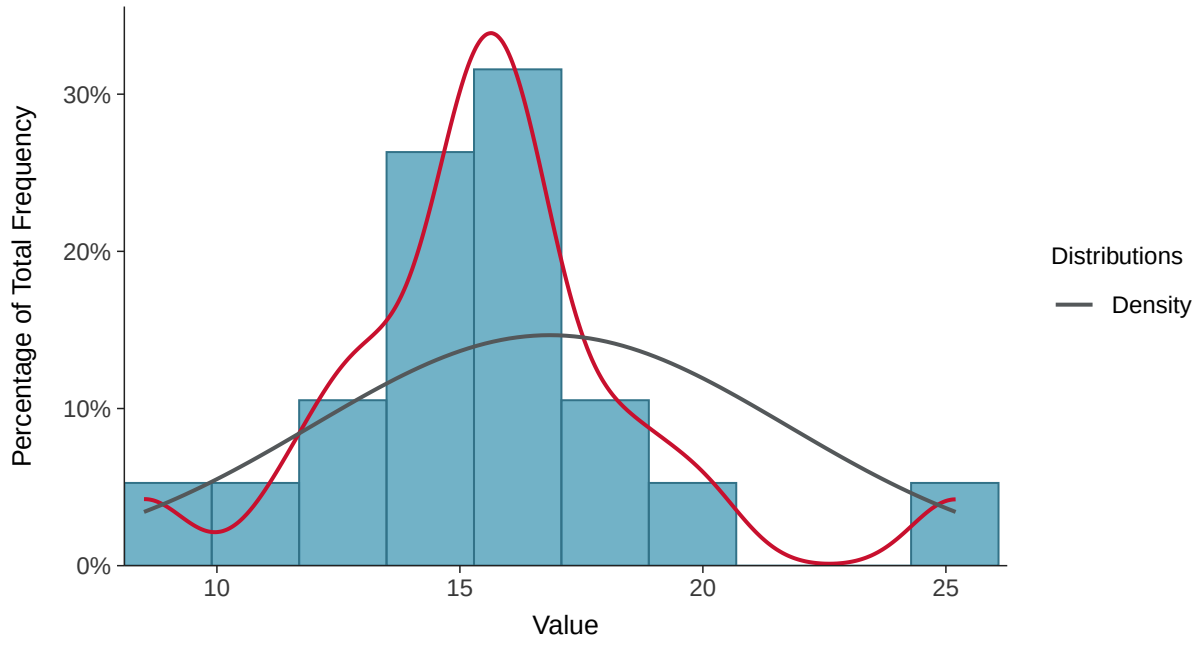
Scatter Plot

Boron, MW-11 (ug/L)



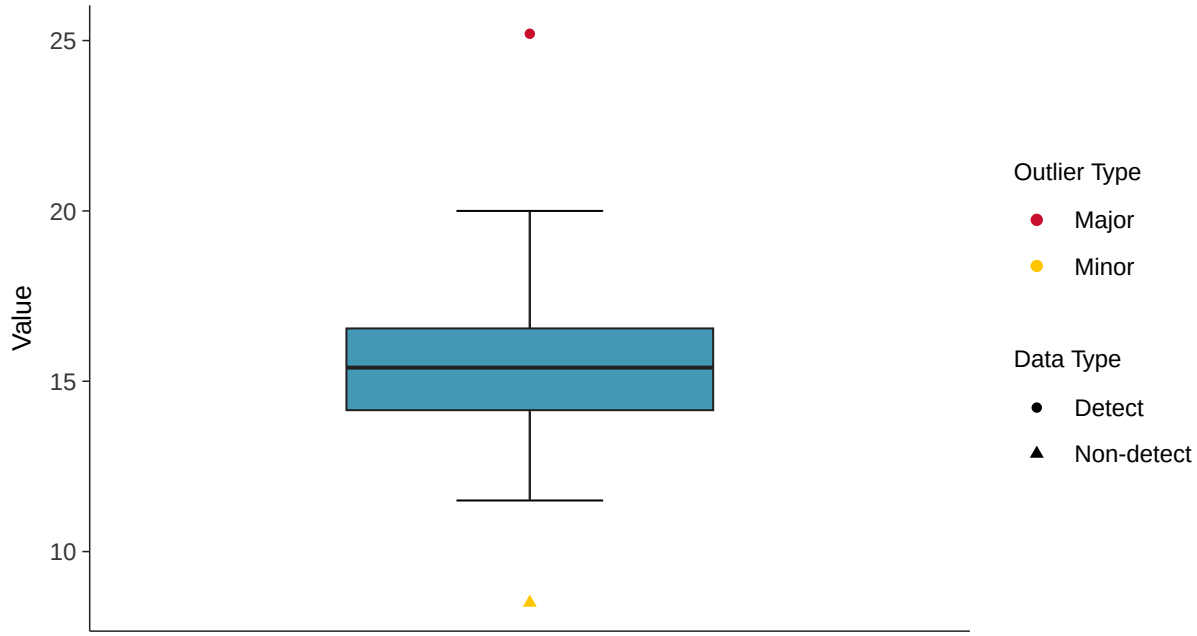
Histogram

Boron, MW-11 (ug/L)



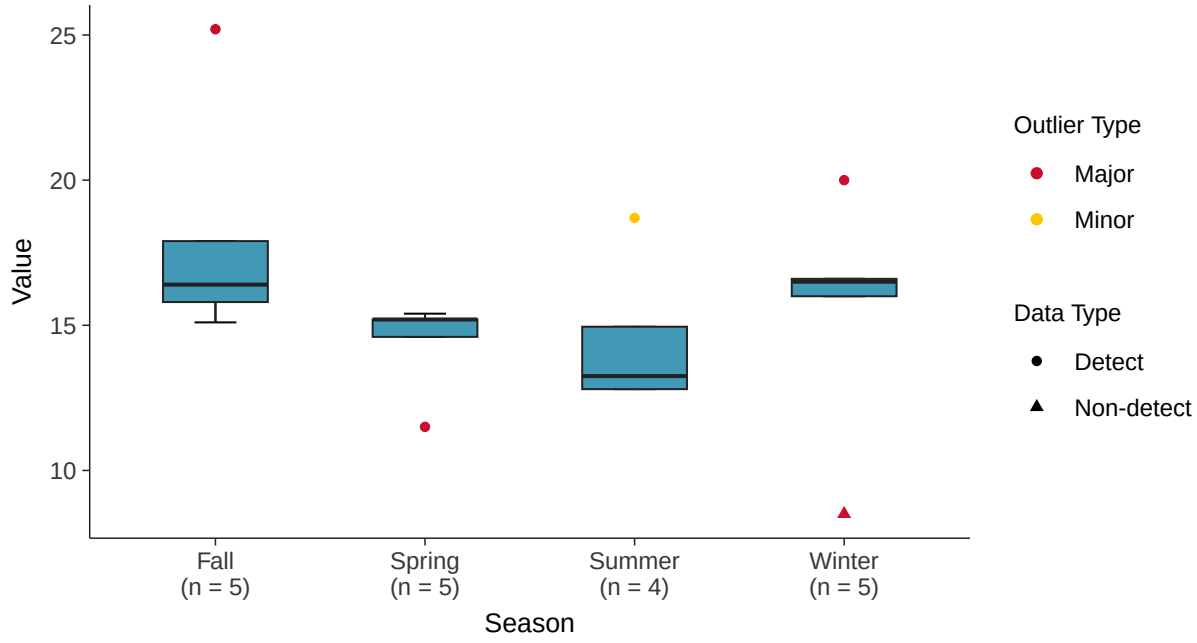
Boxplot

Boron, MW-11 (ug/L)



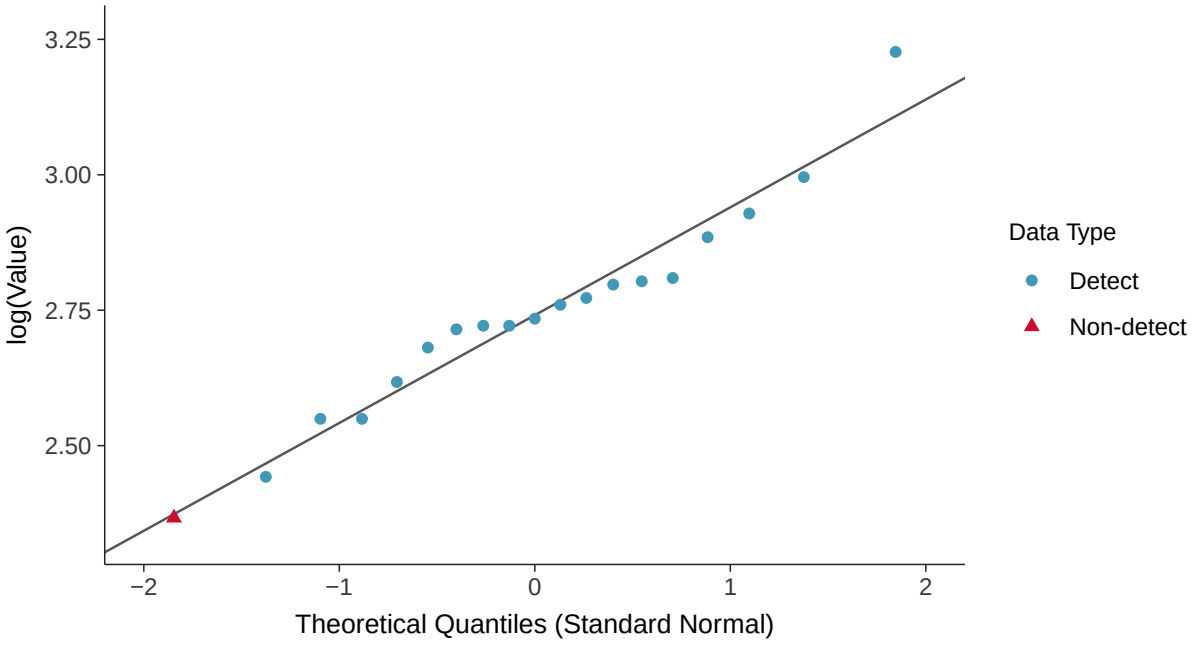
Boxplot by Season

Boron, MW-11 (ug/L)



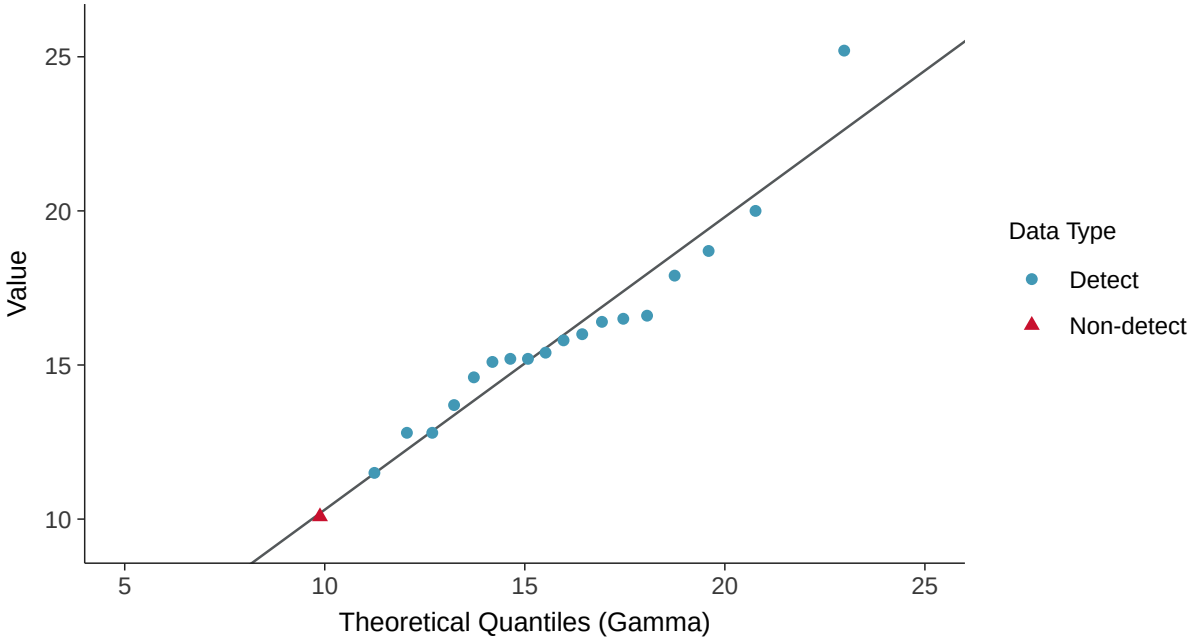
Lognormal Q-Q plot using ROS Imputed Estimates

Boron, MW-11 (ug/L)



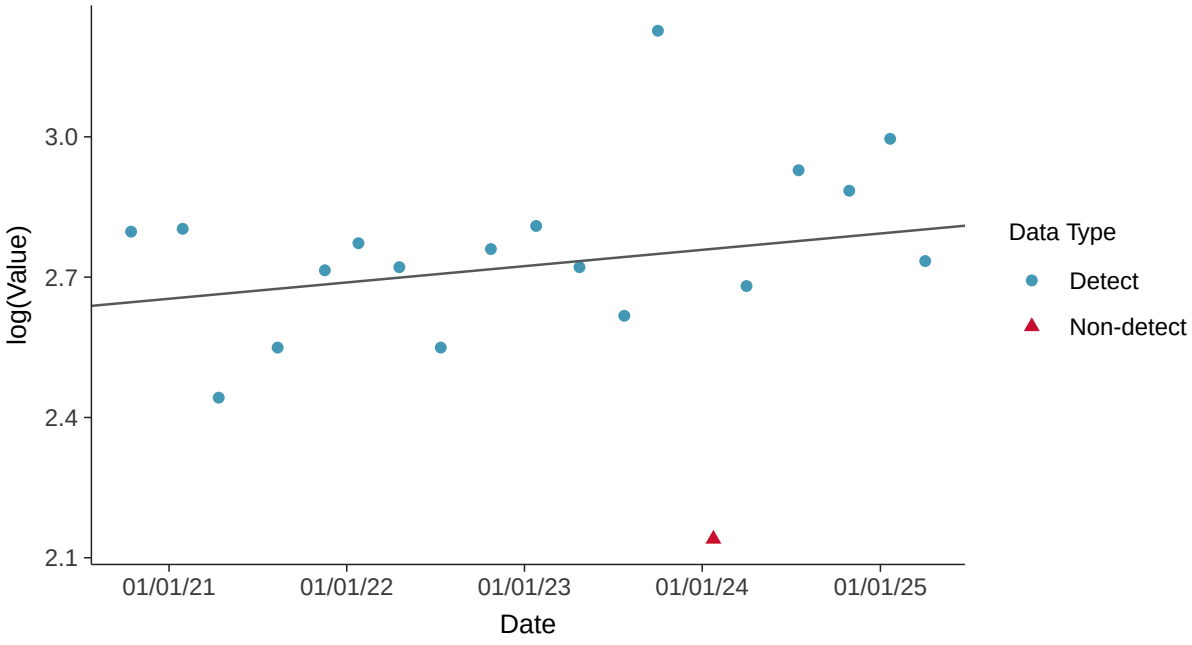
Gamma Q-Q plot using ROS Imputed Estimates

Boron, MW-11 (ug/L)



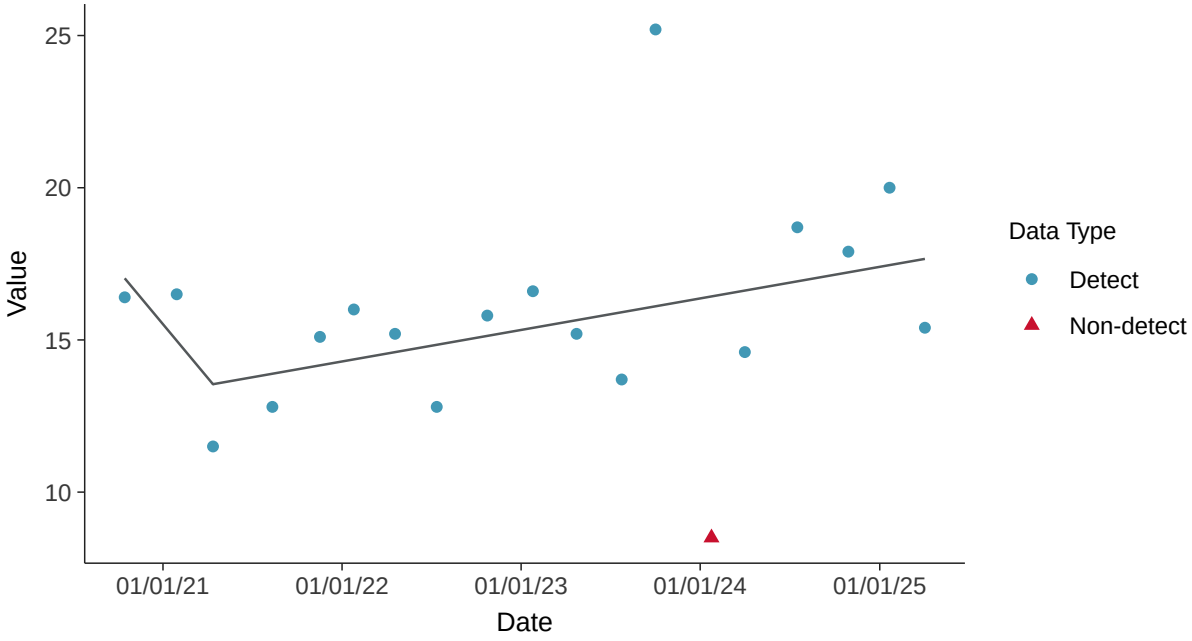
Trend Regression: Lognormal MLE

Boron, MW-11 (ug/L)



Trend Regression: Piecewise Linear-Linear

Boron, MW-11 (ug/L)

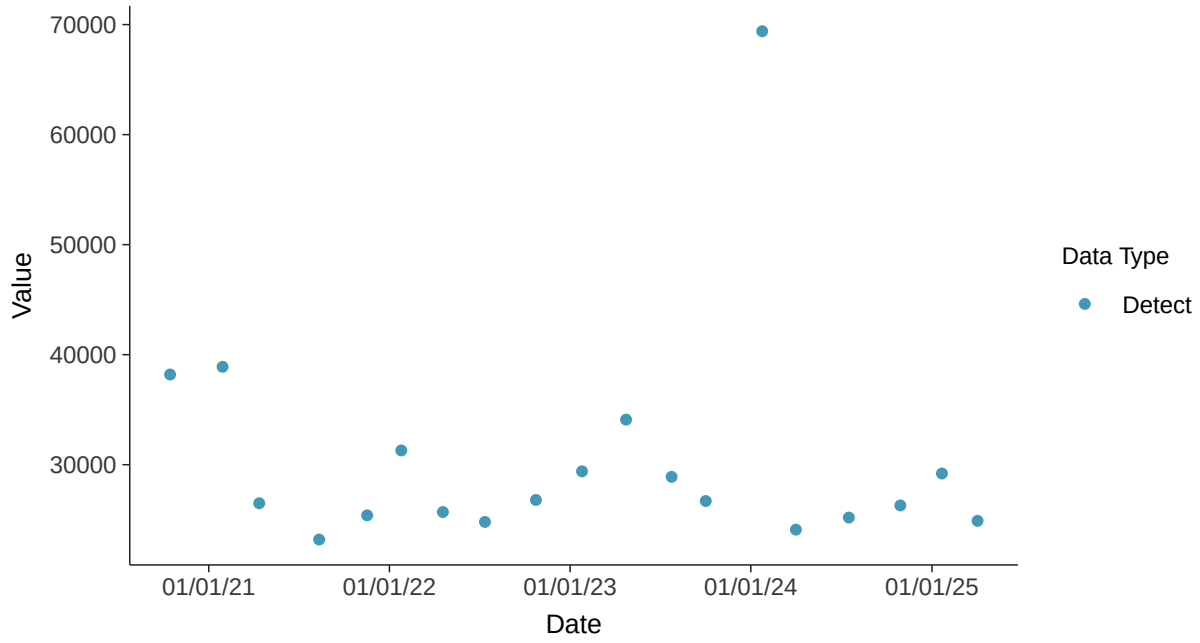


App. III: Calcium, MW-11

ID: 10_02_107

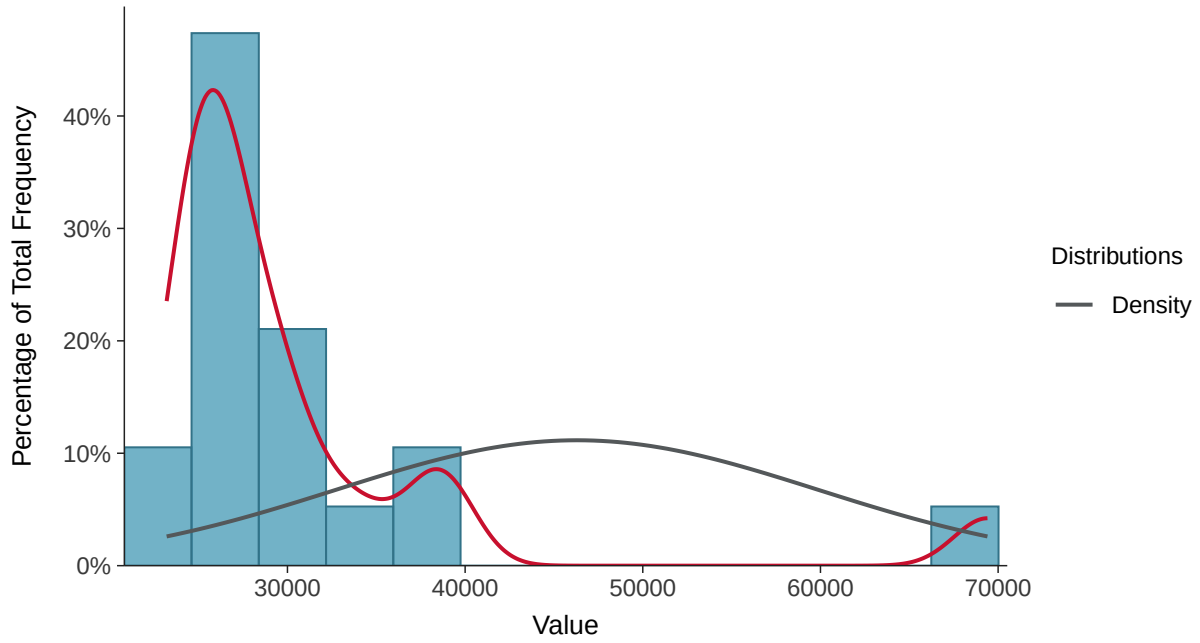
Scatter Plot

Calcium, MW-11 (ug/L)



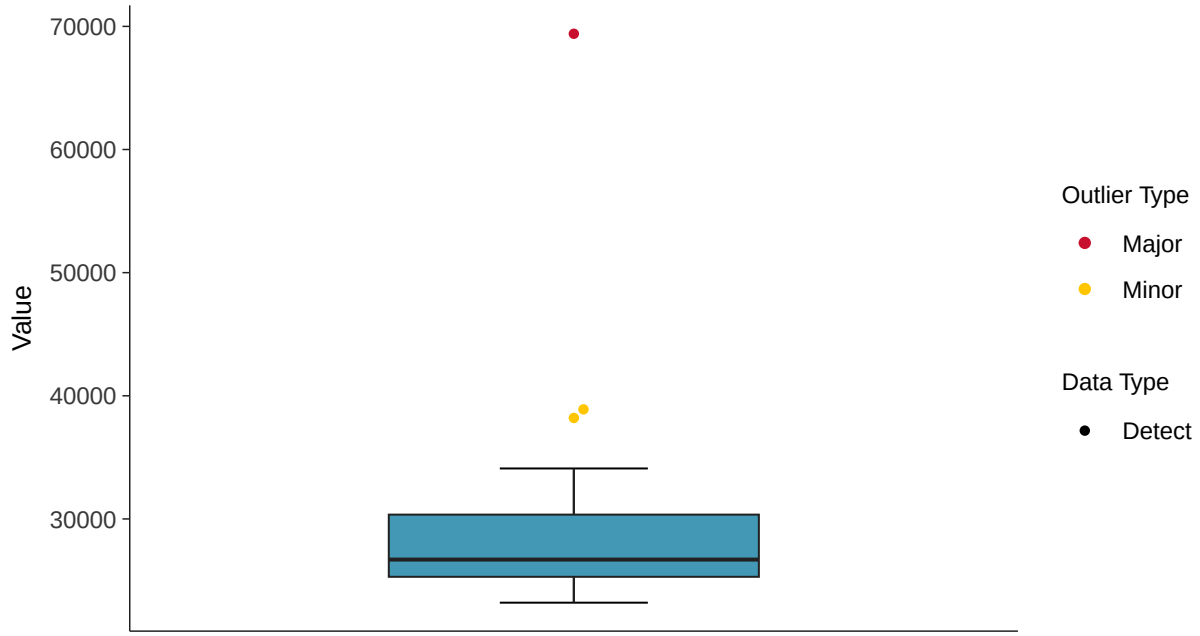
Histogram

Calcium, MW-11 (ug/L)



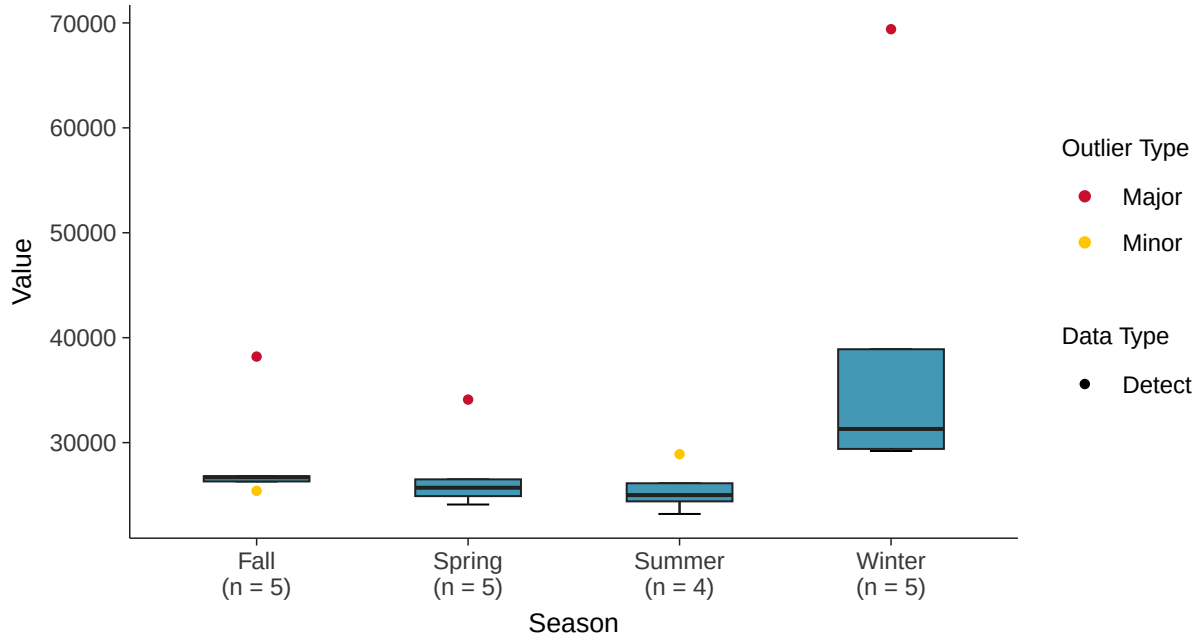
Boxplot

Calcium, MW-11 (ug/L)



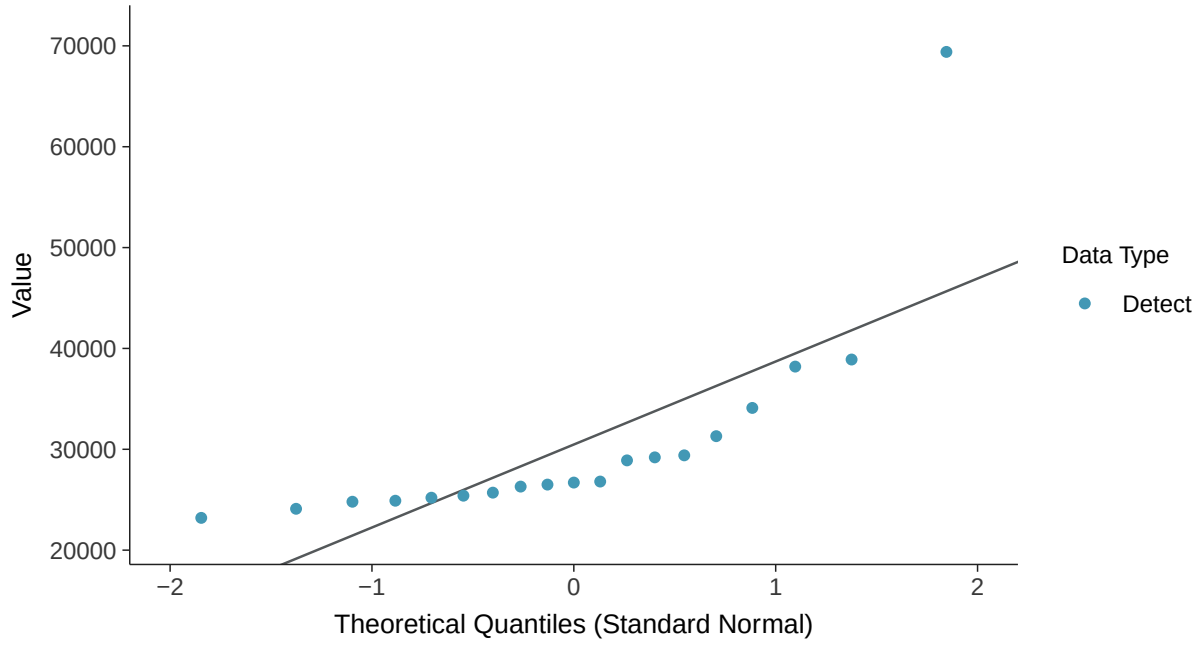
Boxplot by Season

Calcium, MW-11 (ug/L)



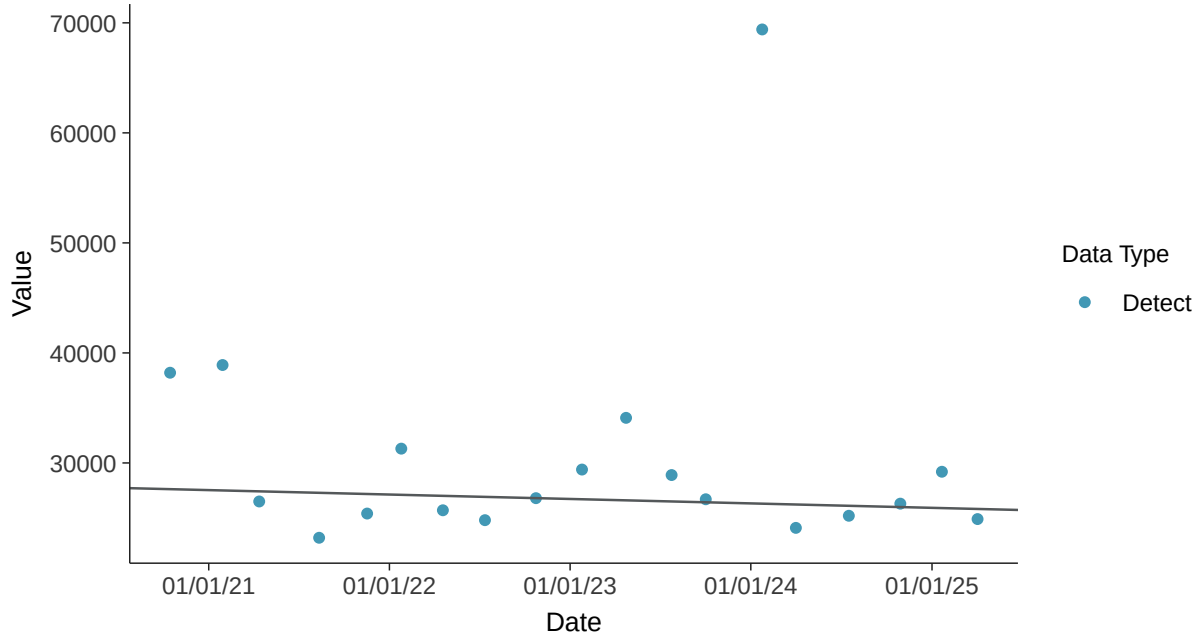
Normal Q-Q plot

Calcium, MW-11 (ug/L)



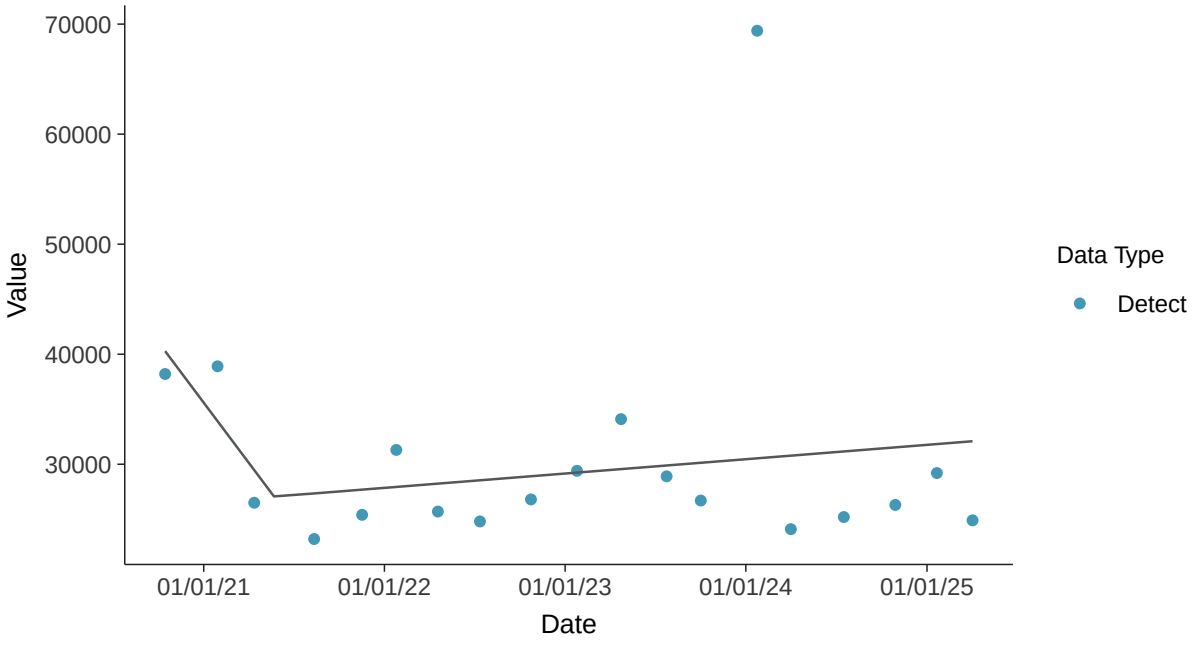
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Calcium, MW-11 (ug/L)



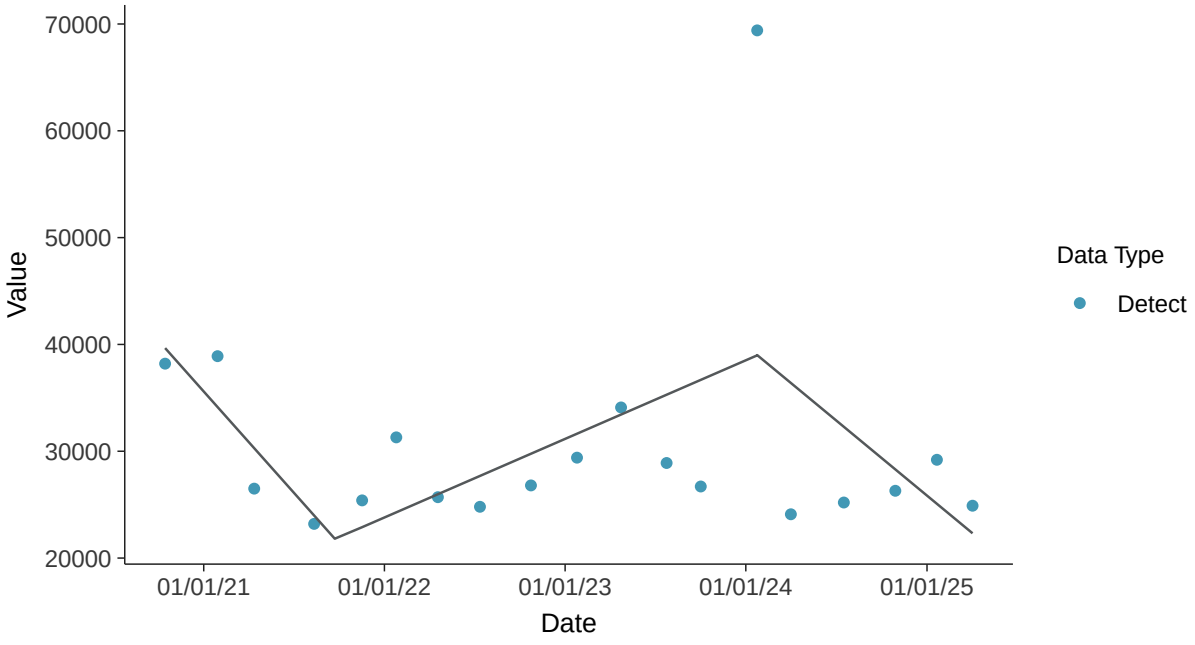
Trend Regression: Piecewise Linear-Linear

Calcium, MW-11 (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Calcium, MW-11 (ug/L)

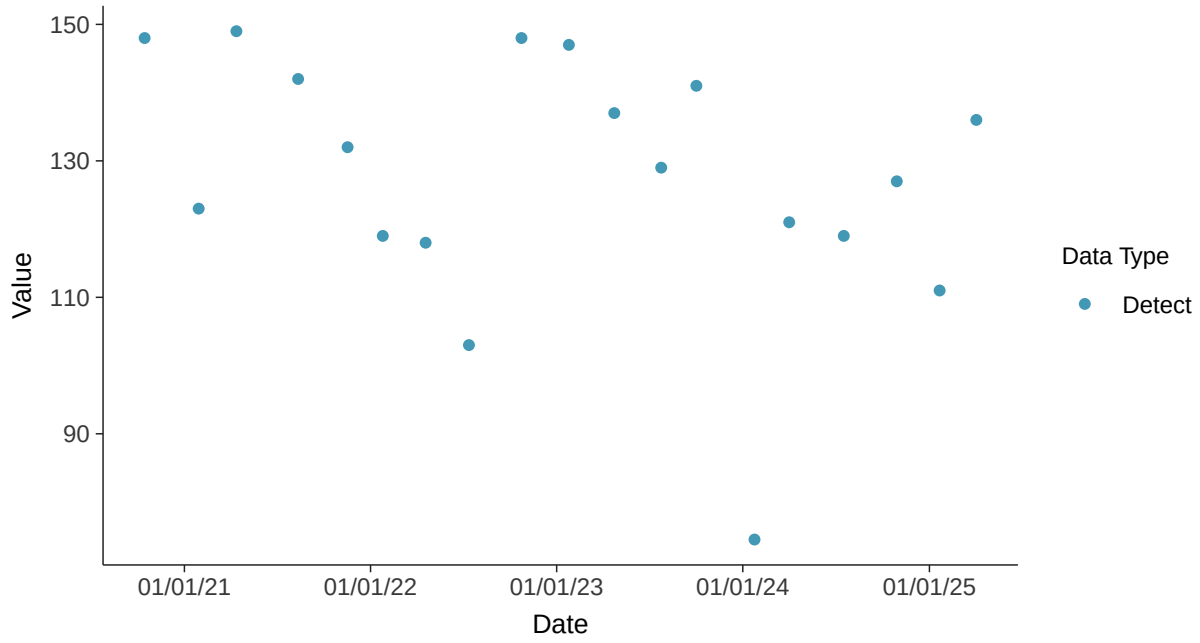


App. III: Chloride, MW-11

ID: 10_02_108

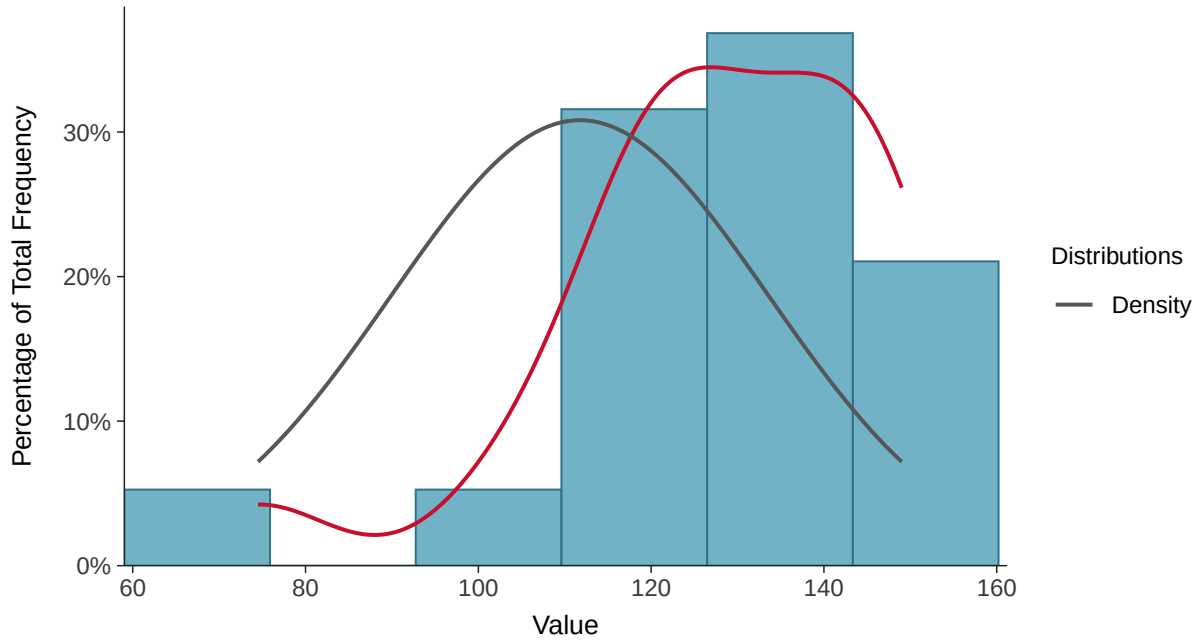
Scatter Plot

Chloride, MW-11 (mg/L)



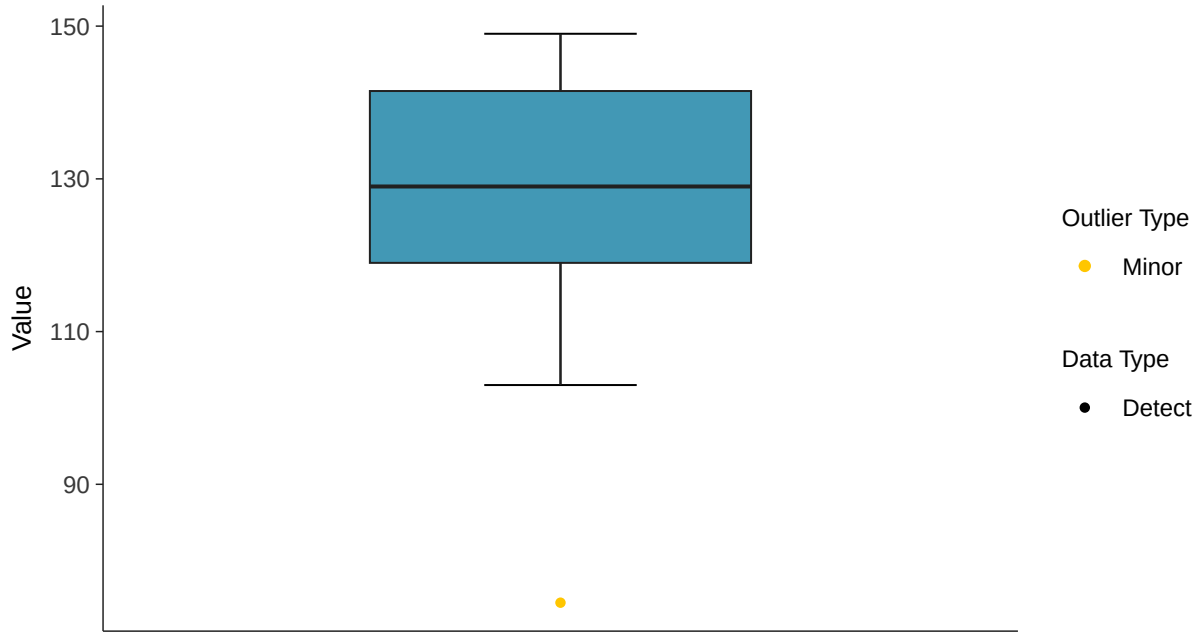
Histogram

Chloride, MW-11 (mg/L)



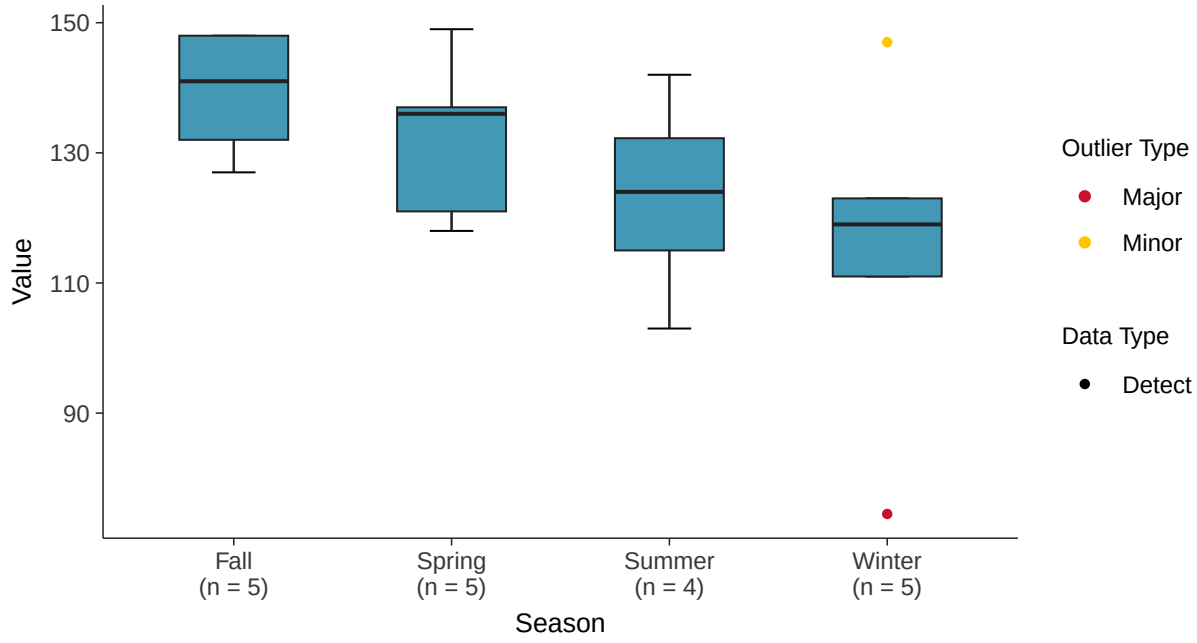
Boxplot

Chloride, MW-11 (mg/L)



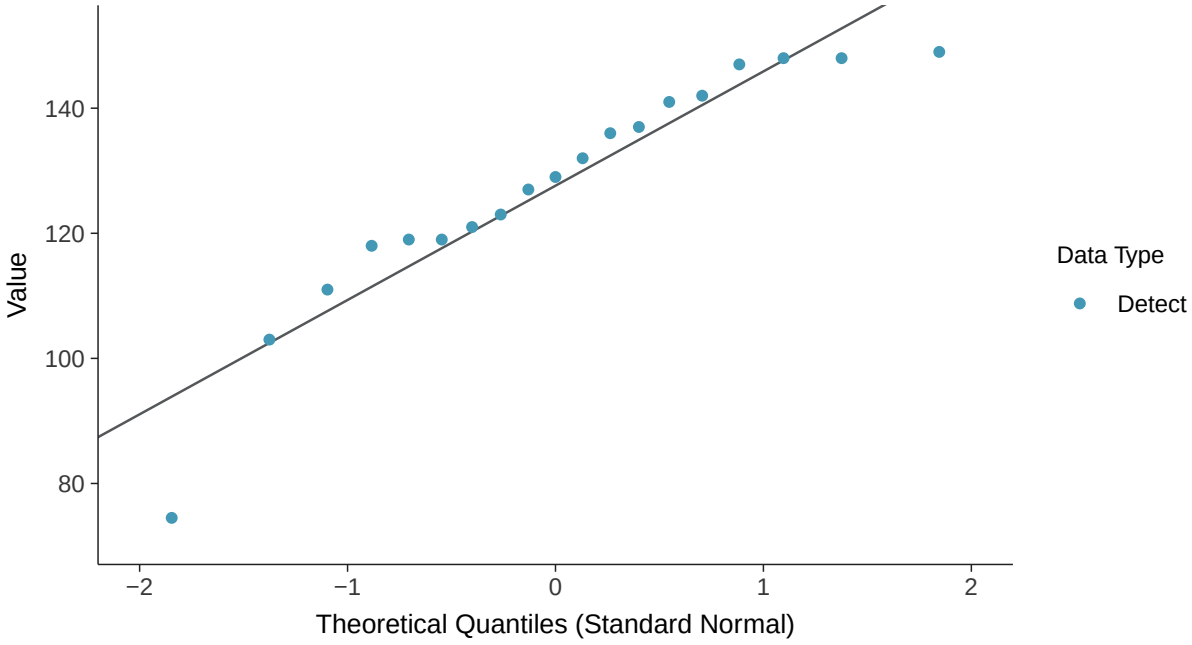
Boxplot by Season

Chloride, MW-11 (mg/L)



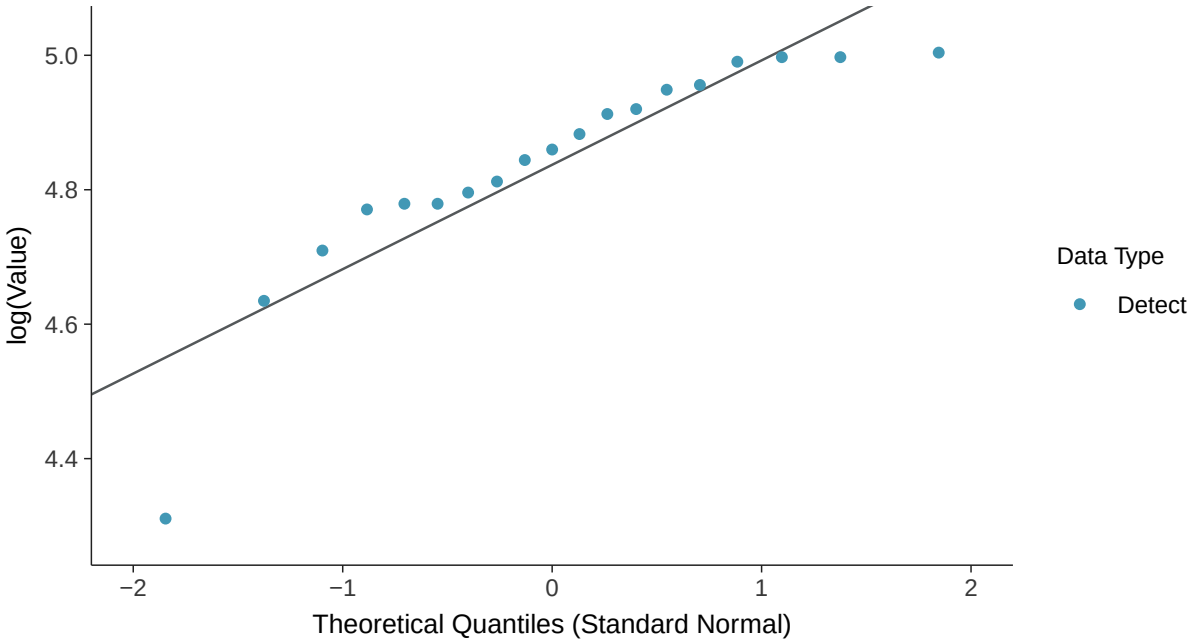
Normal Q-Q plot

Chloride, MW-11 (mg/L)



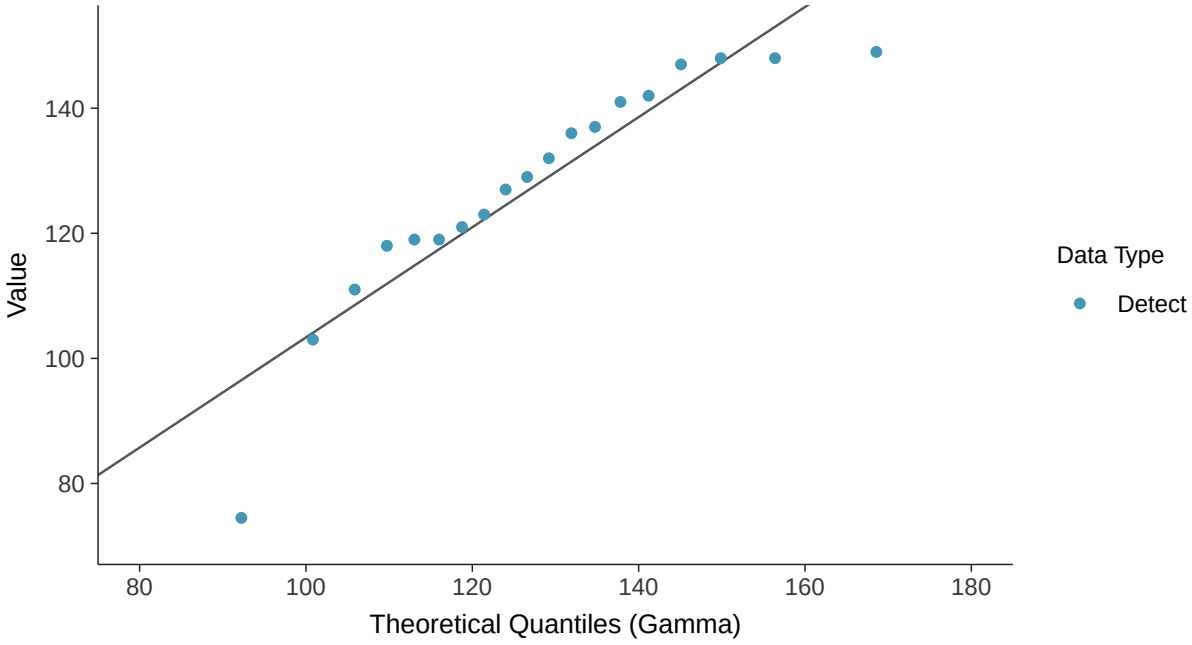
Lognormal Q-Q plot

Chloride, MW-11 (mg/L)



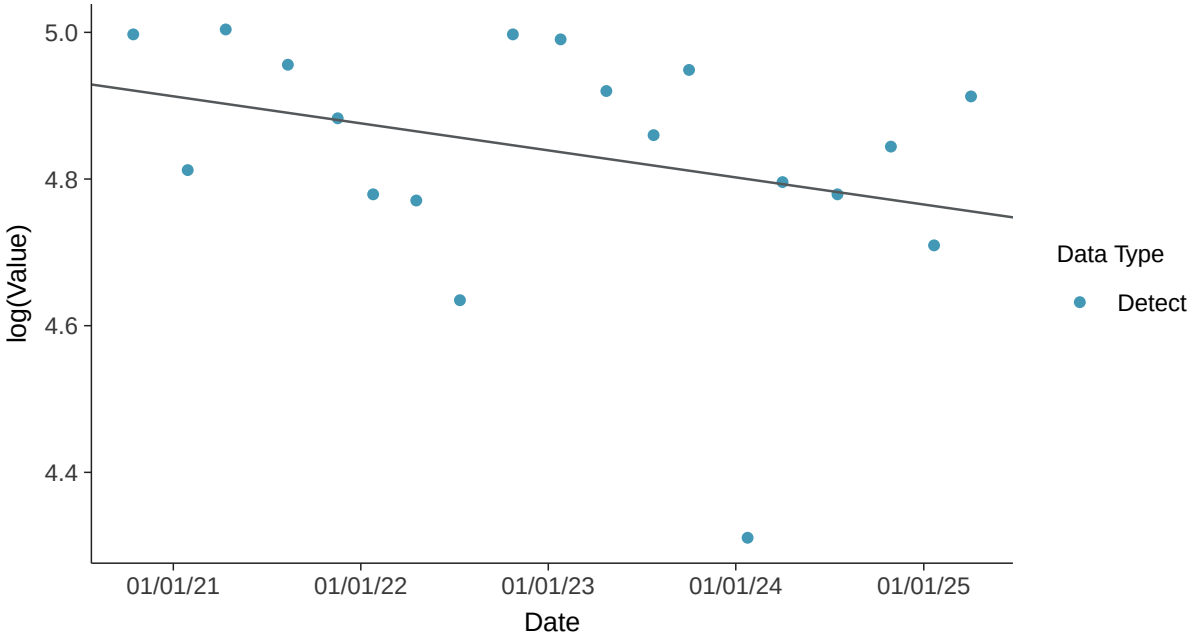
Gamma Q-Q plot

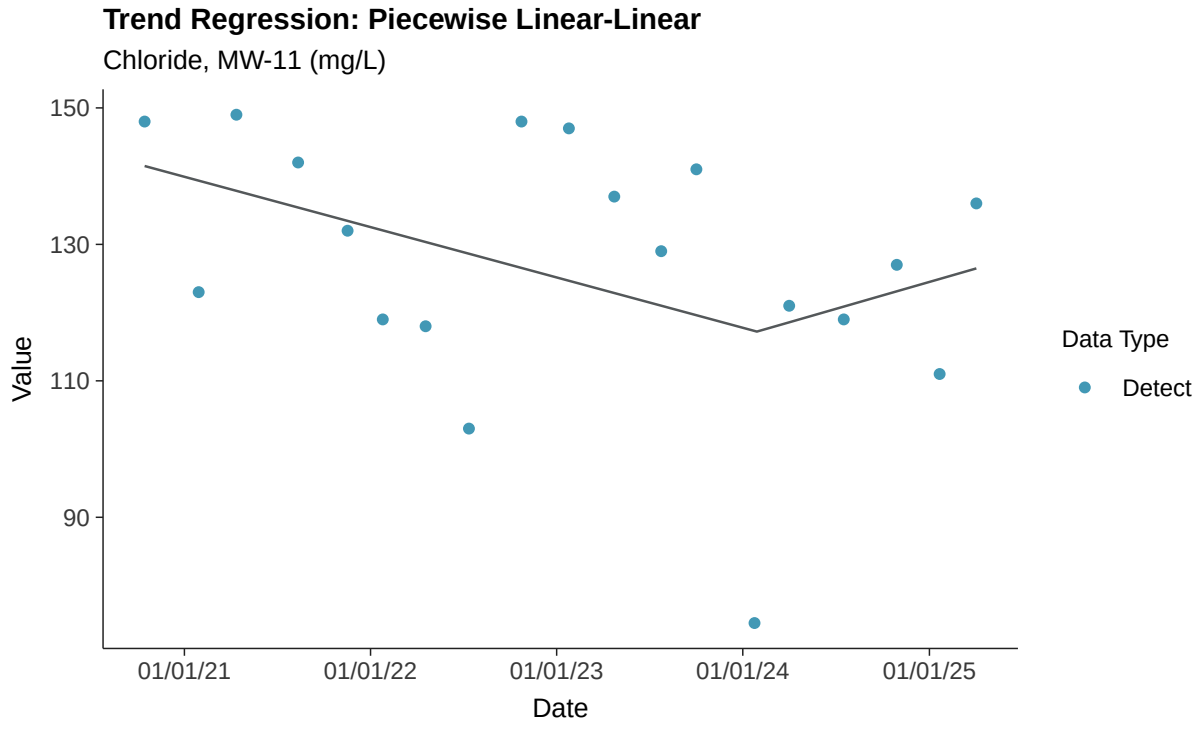
Chloride, MW-11 (mg/L)



Trend Regression: Lognormal MLE

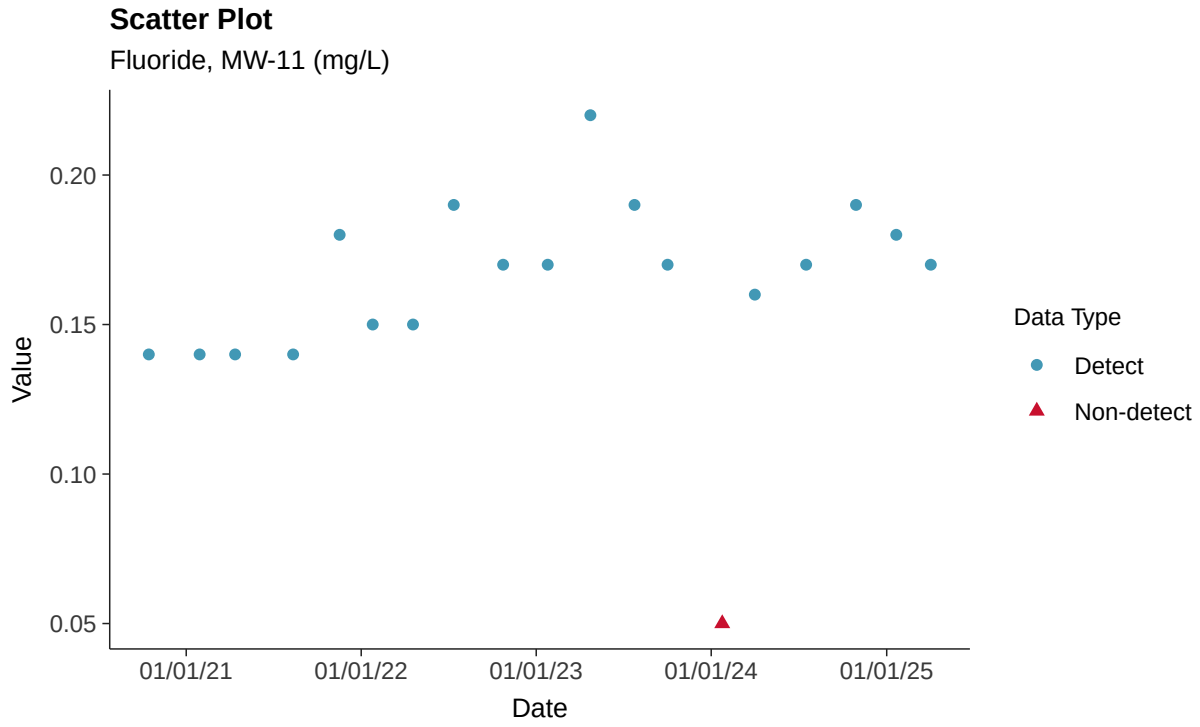
Chloride, MW-11 (mg/L)

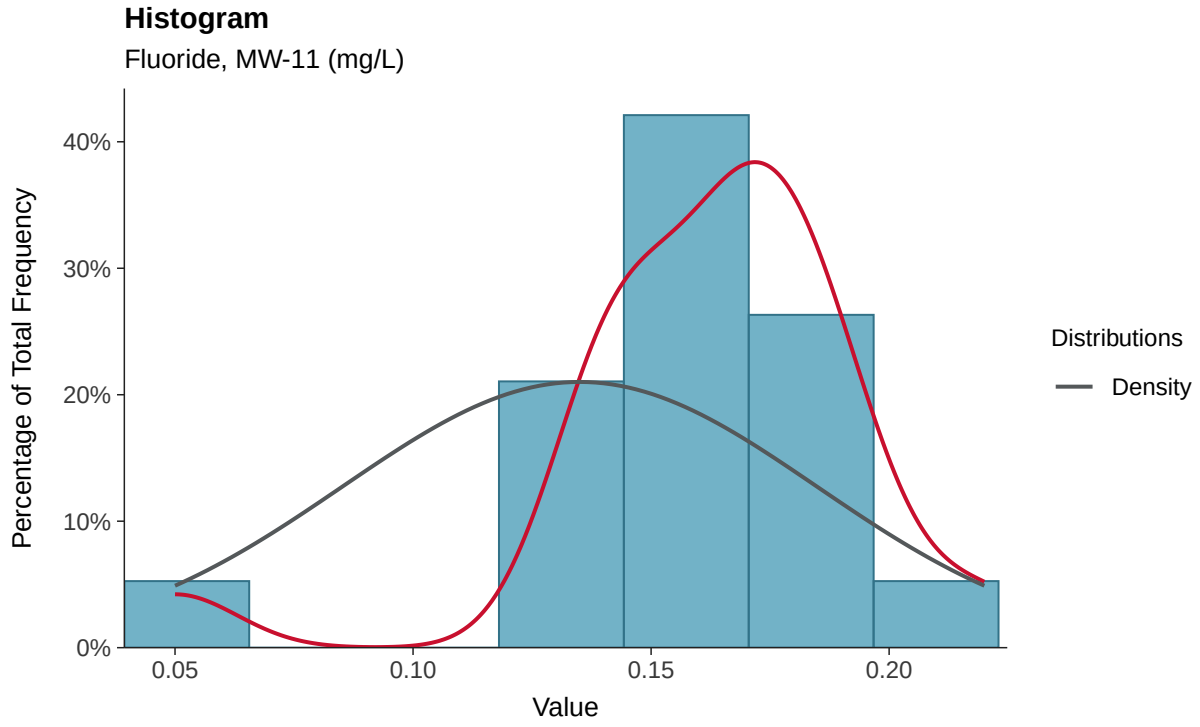



Trend Regression: Piecewise Linear-Linear
Chloride, MW-11 (mg/L)
150
130
110
90
Value
01/01/21
01/01/22
01/01/23
01/01/24
01/01/25
Date
Data Type
Detect

App. III: Fluoride, MW-11

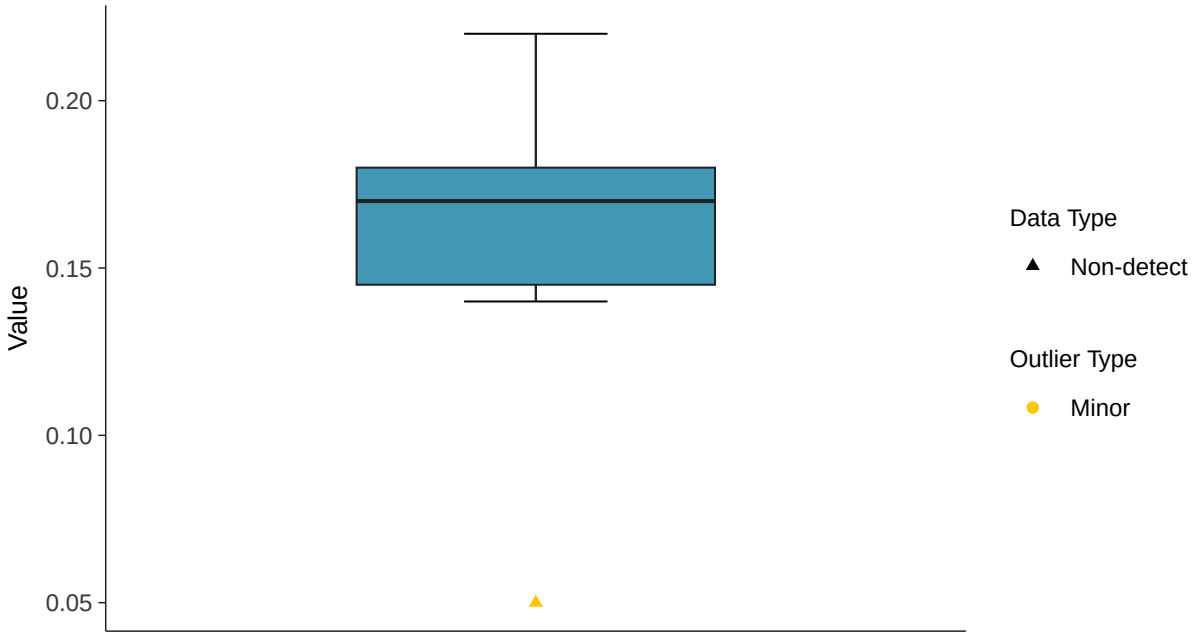
ID: 10_02_112





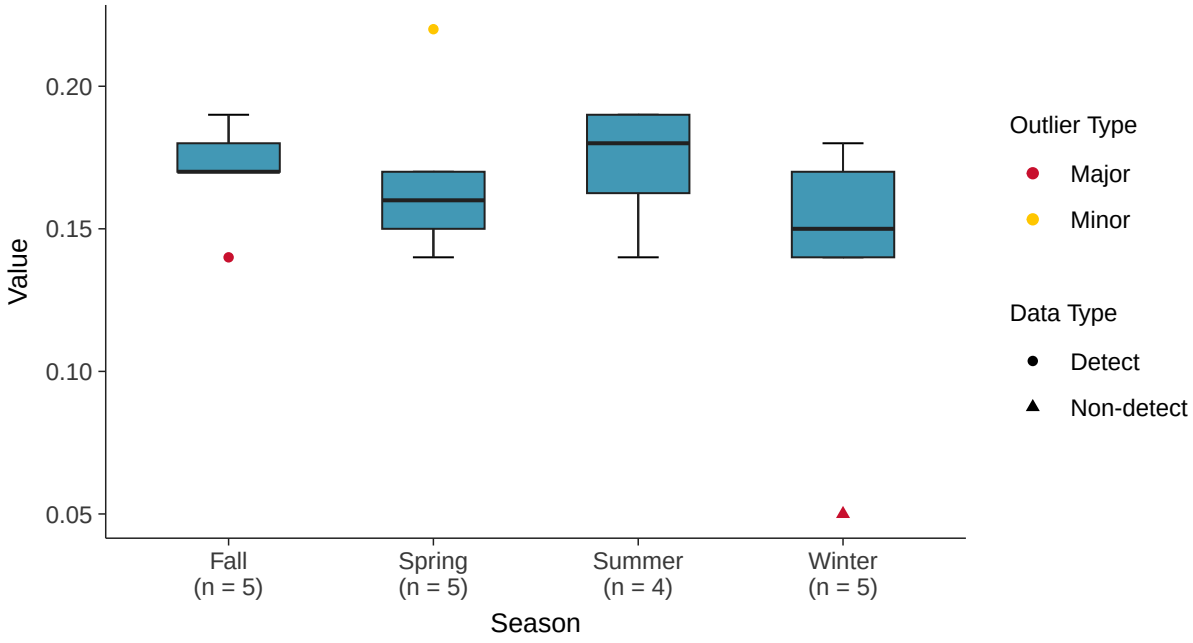
Boxplot

Fluoride, MW-11 (mg/L)



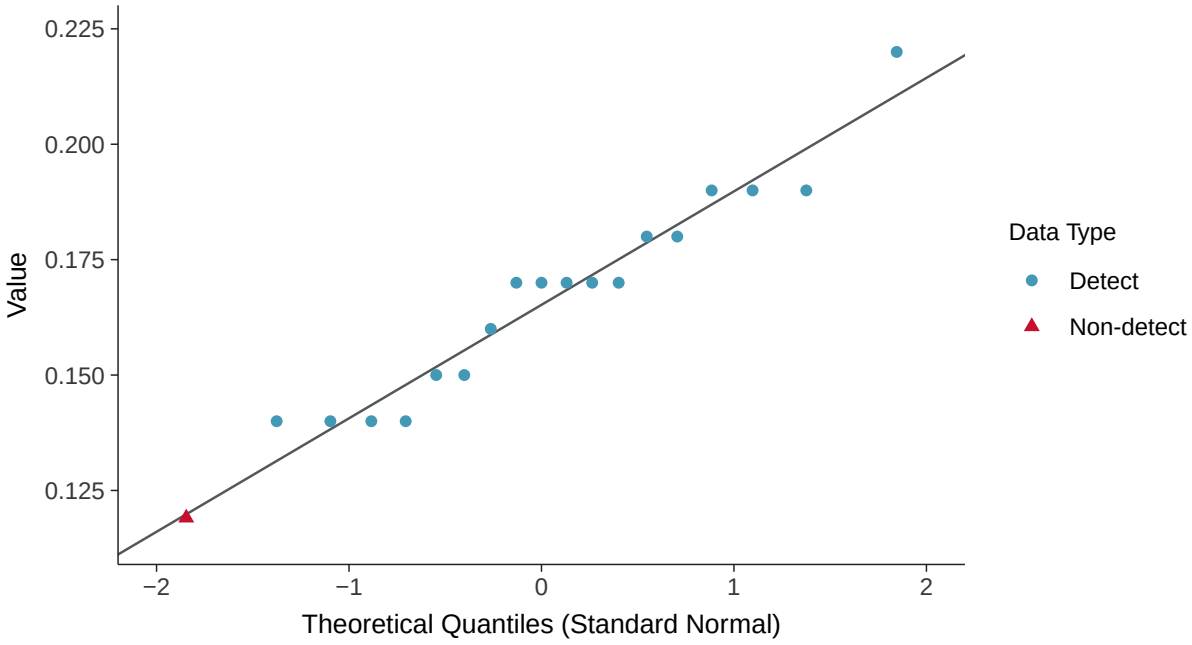
Boxplot by Season

Fluoride, MW-11 (mg/L)



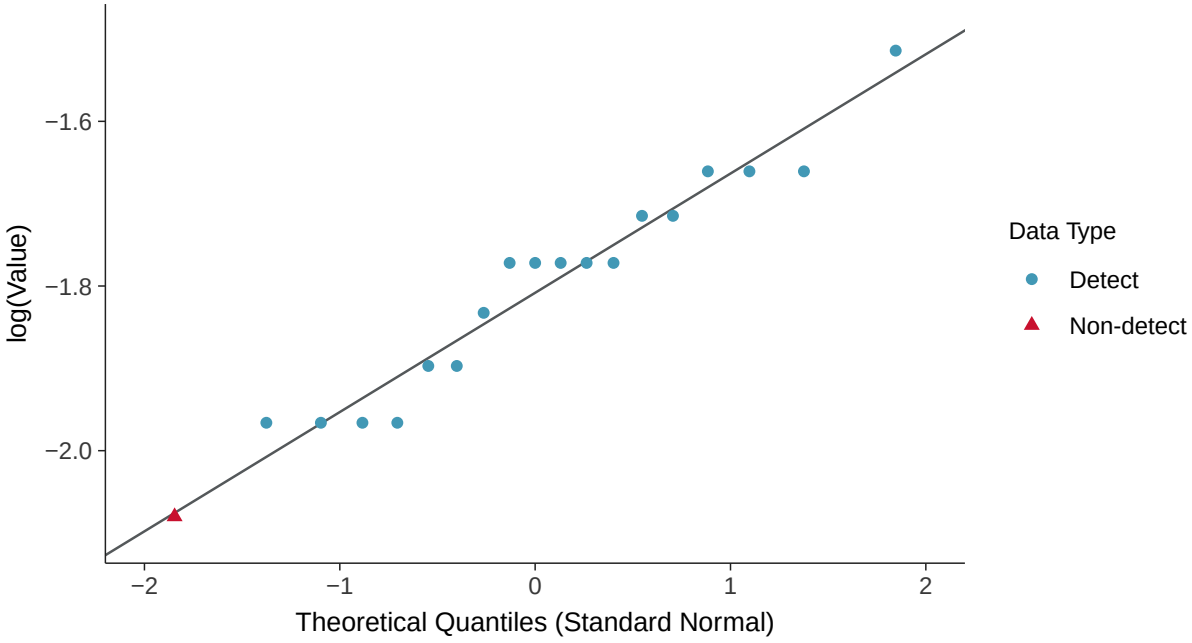
Normal Q-Q plot using ROS Imputed Estimates

Fluoride, MW-11 (mg/L)



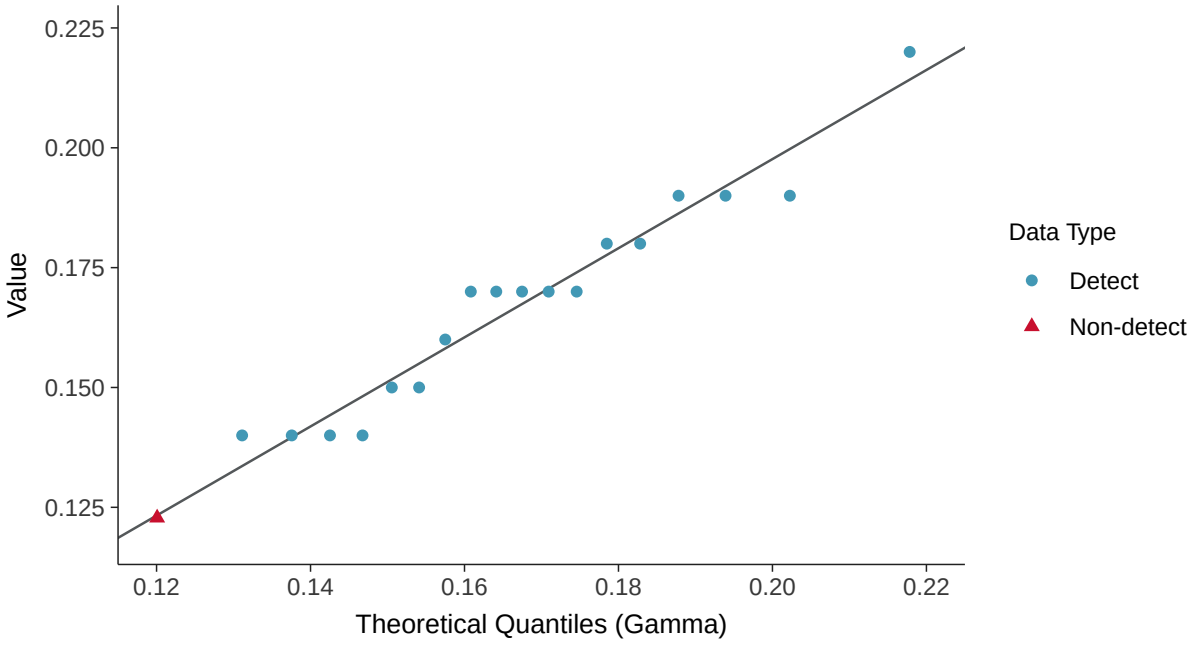
Lognormal Q-Q plot using ROS Imputed Estimates

Fluoride, MW-11 (mg/L)



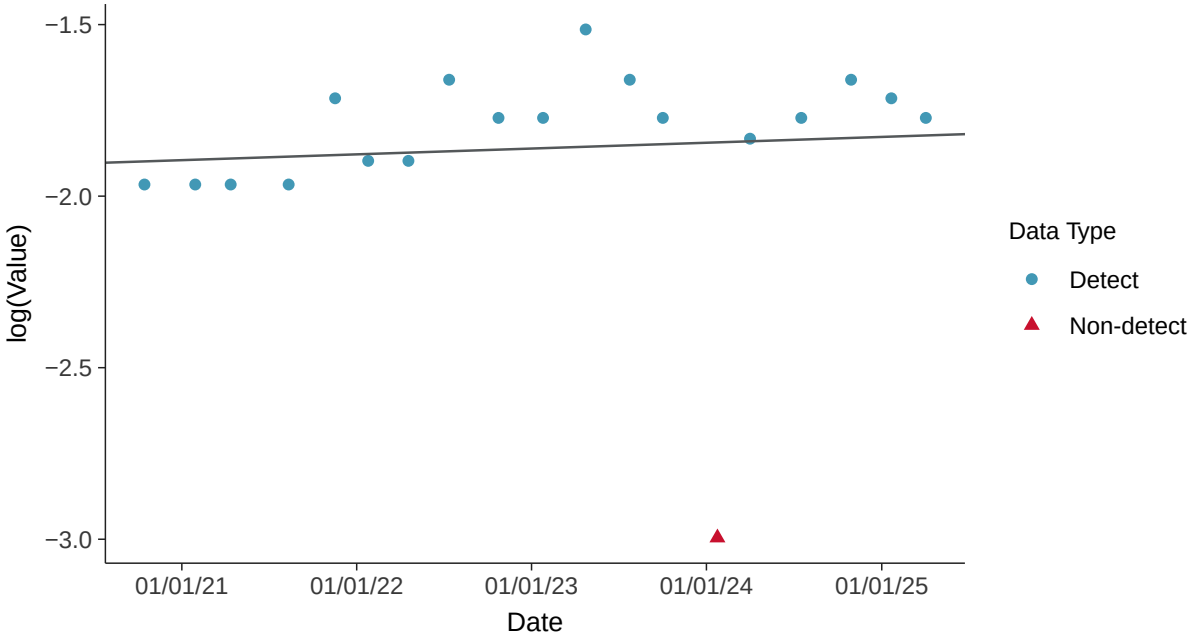
Gamma Q-Q plot using ROS Imputed Estimates

Fluoride, MW-11 (mg/L)



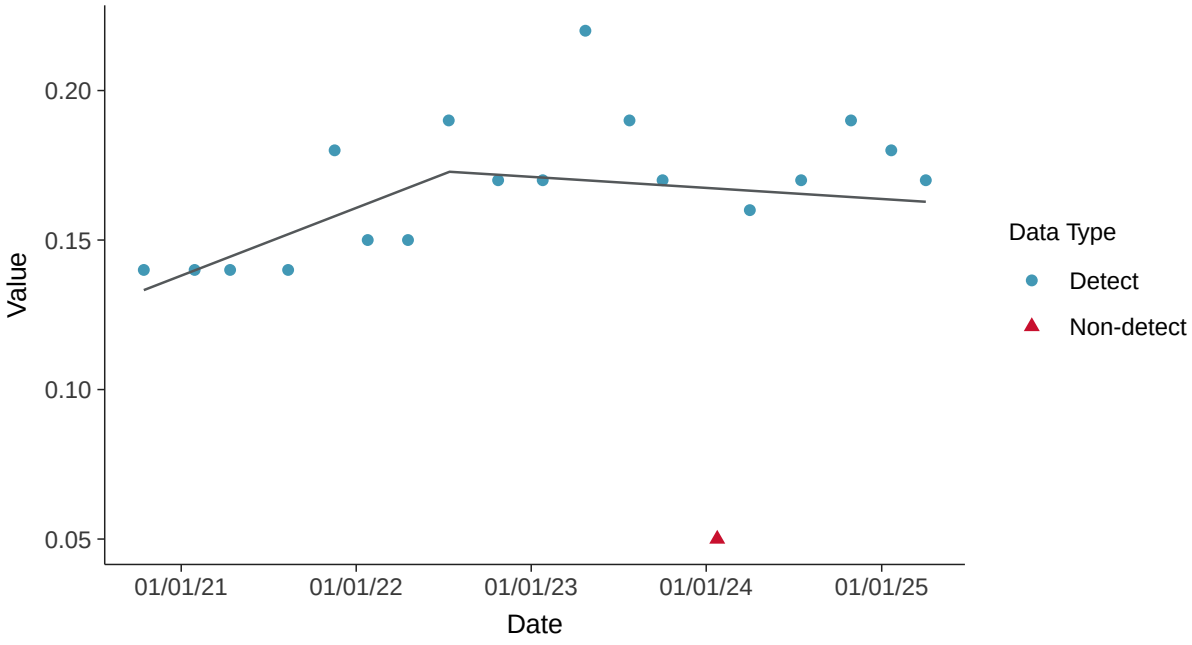
Trend Regression: Lognormal MLE

Fluoride, MW-11 (mg/L)



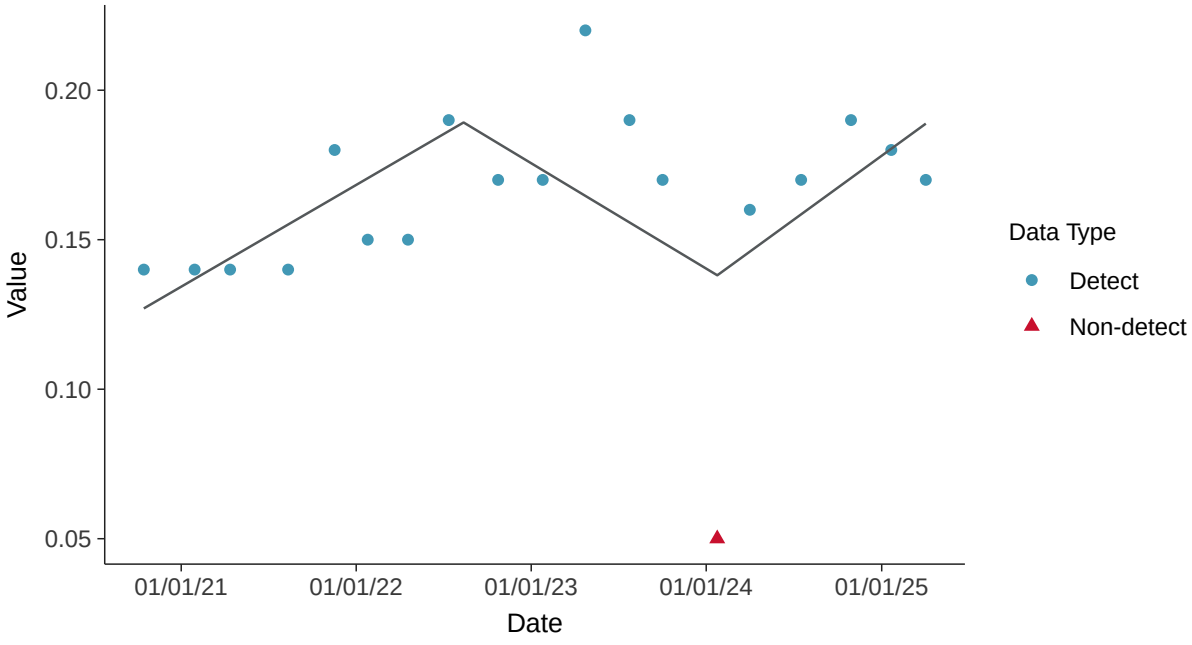
Trend Regression: Piecewise Linear-Linear

Fluoride, MW-11 (mg/L)



Trend Regression: Piecewise Linear-Linear-Linear

Fluoride, MW-11 (mg/L)

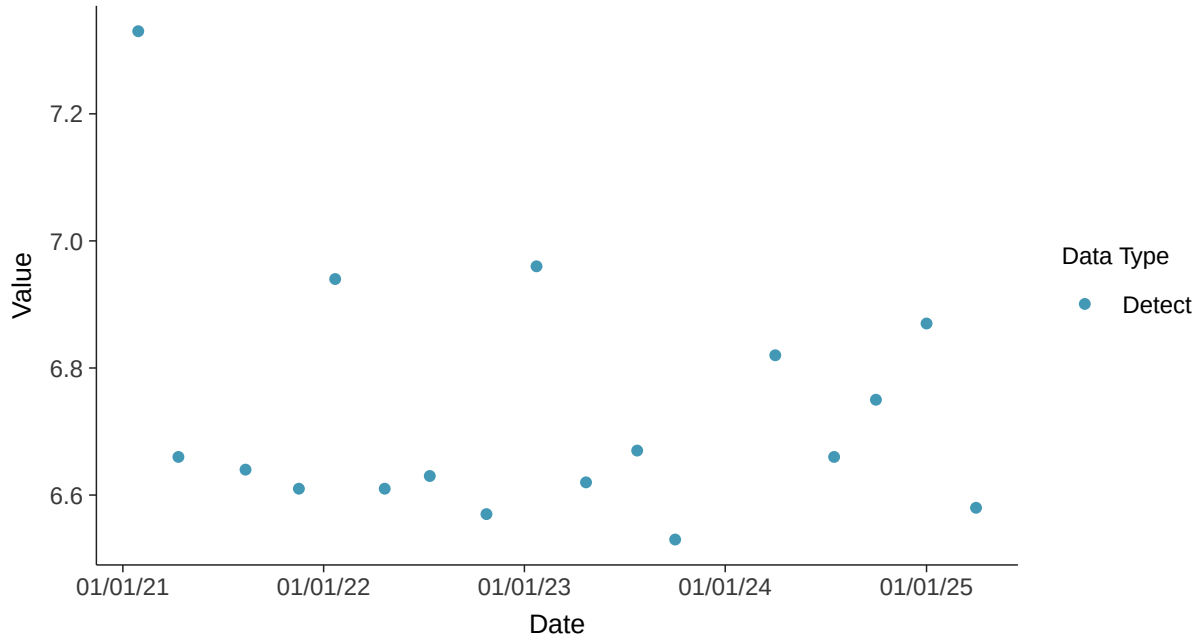


App. III: pH (Field), MW-11

ID: 10_02_118

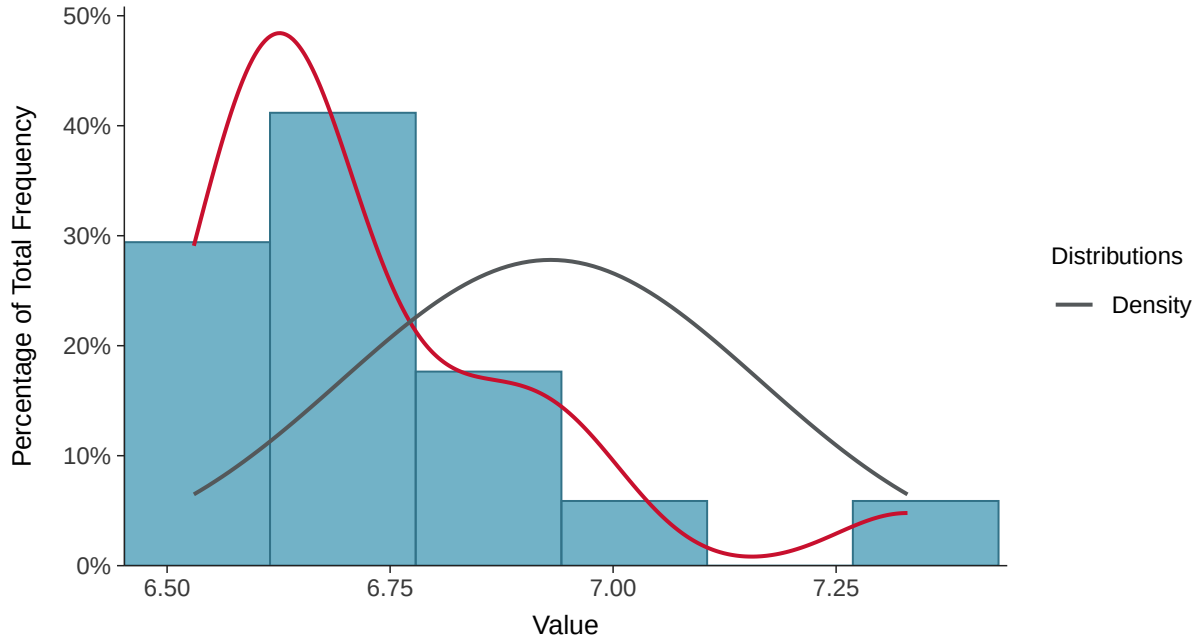
Scatter Plot

pH (Field), MW-11 (S.U.)



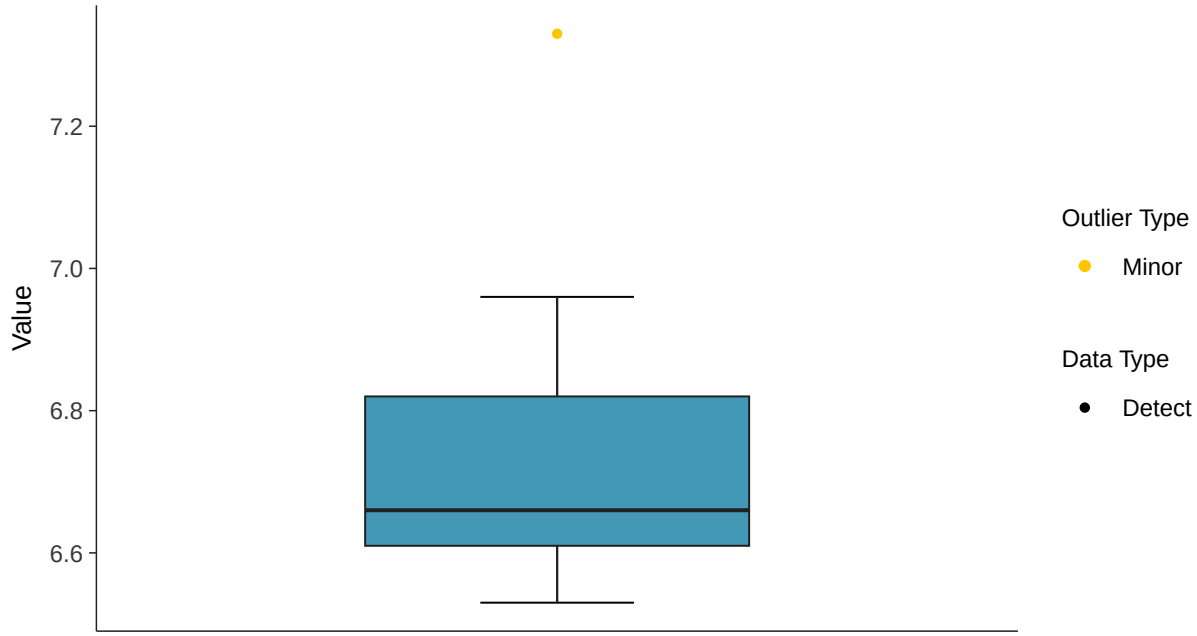
Histogram

pH (Field), MW-11 (S.U.)



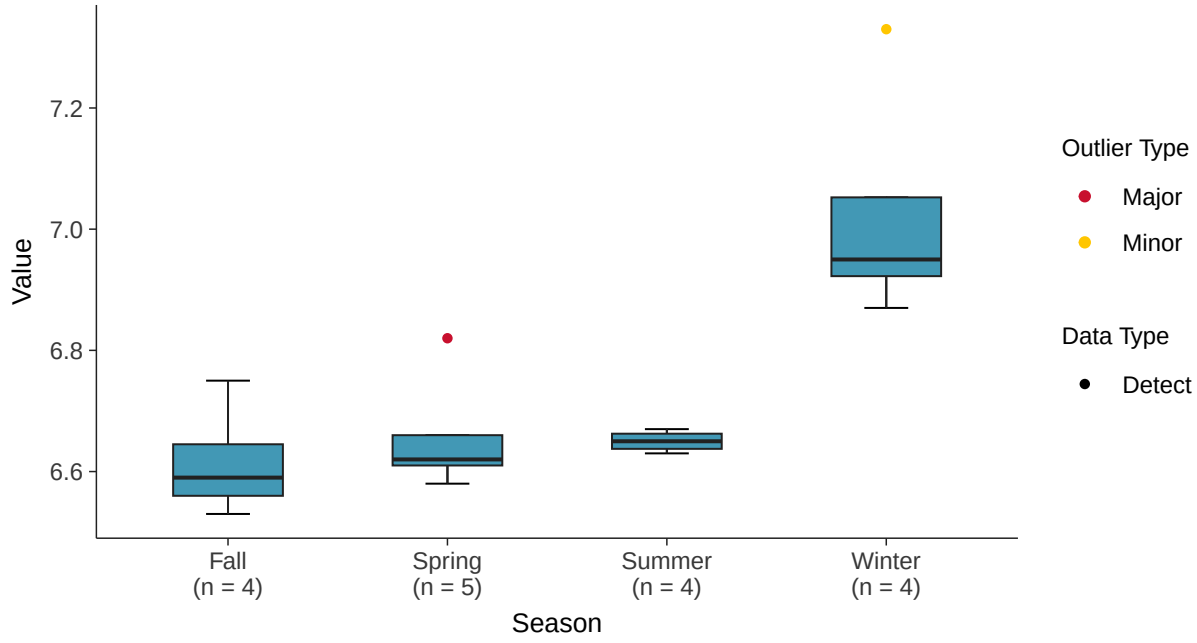
Boxplot

pH (Field), MW-11 (S.U.)



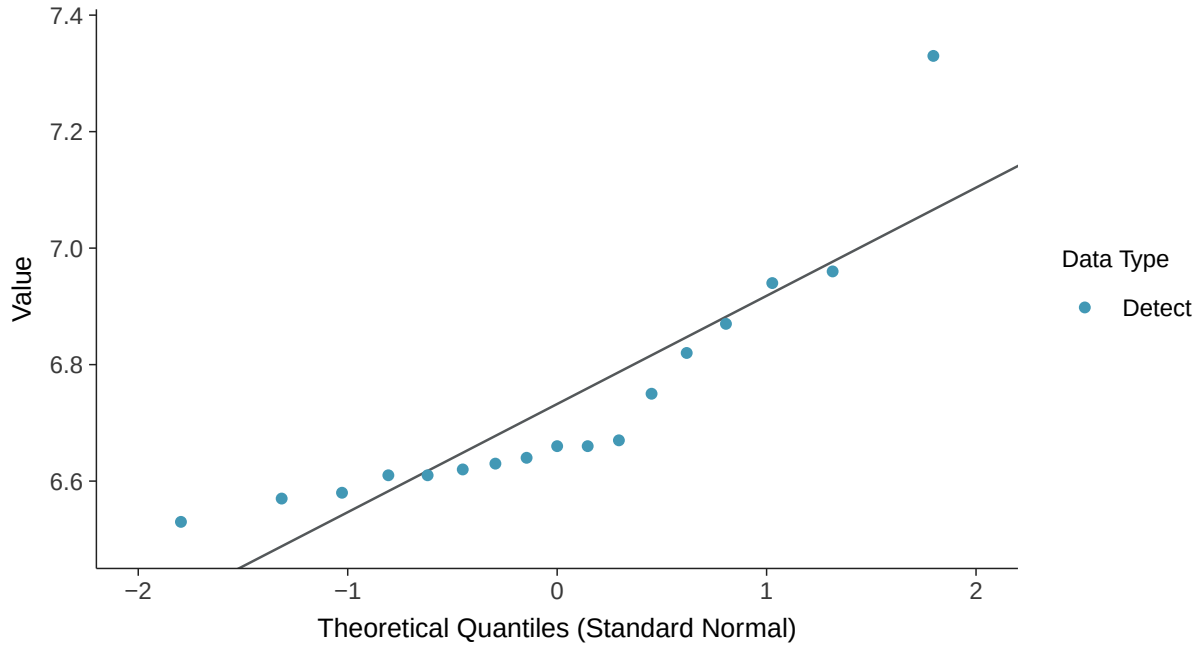
Boxplot by Season

pH (Field), MW-11 (S.U.)



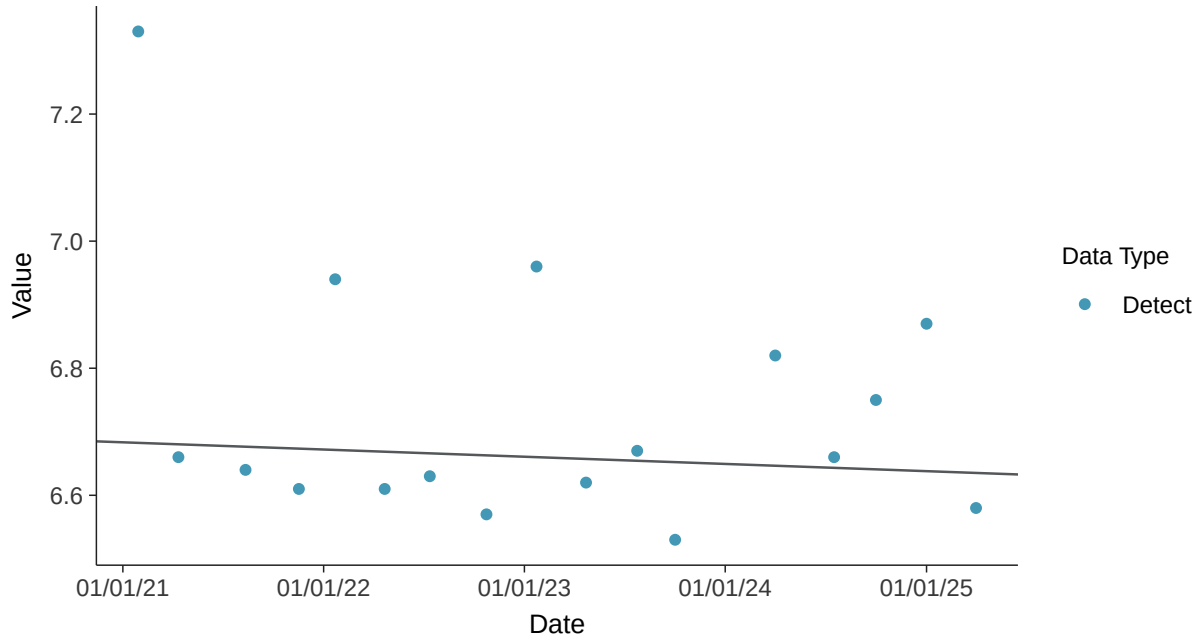
Normal Q-Q plot

pH (Field), MW-11 (S.U.)



Trend Regression: Mann-Kendall/Theil-Sen Estimate

pH (Field), MW-11 (S.U.)

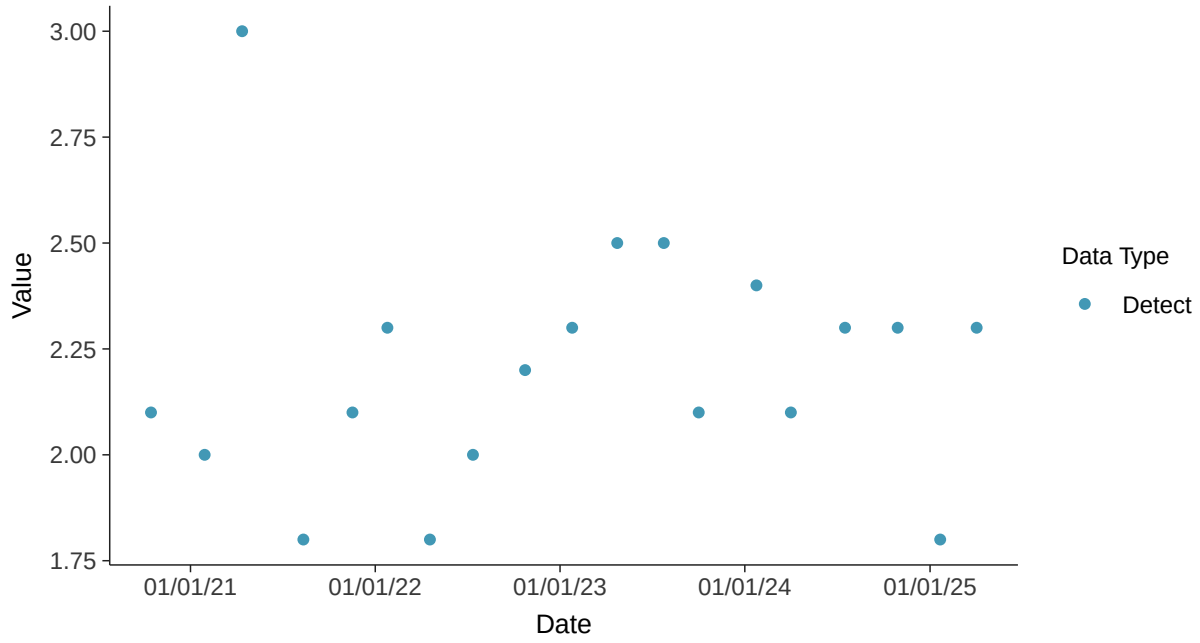


App. III: Sulfate, MW-11

ID: 10_02_123

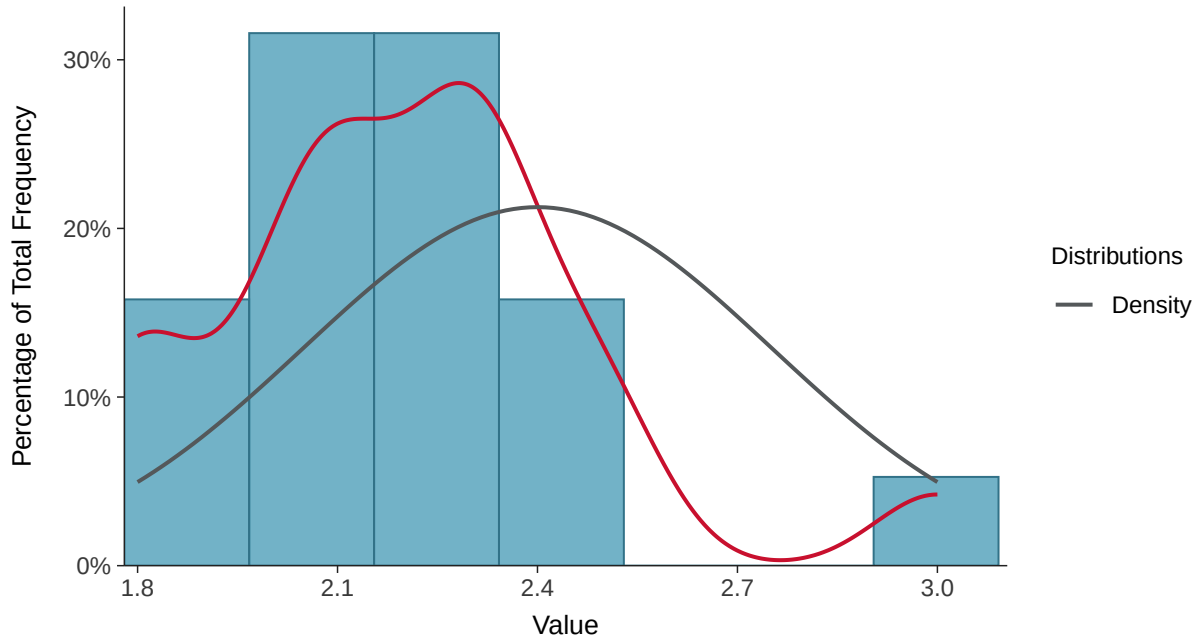
Scatter Plot

Sulfate, MW-11 (mg/L)



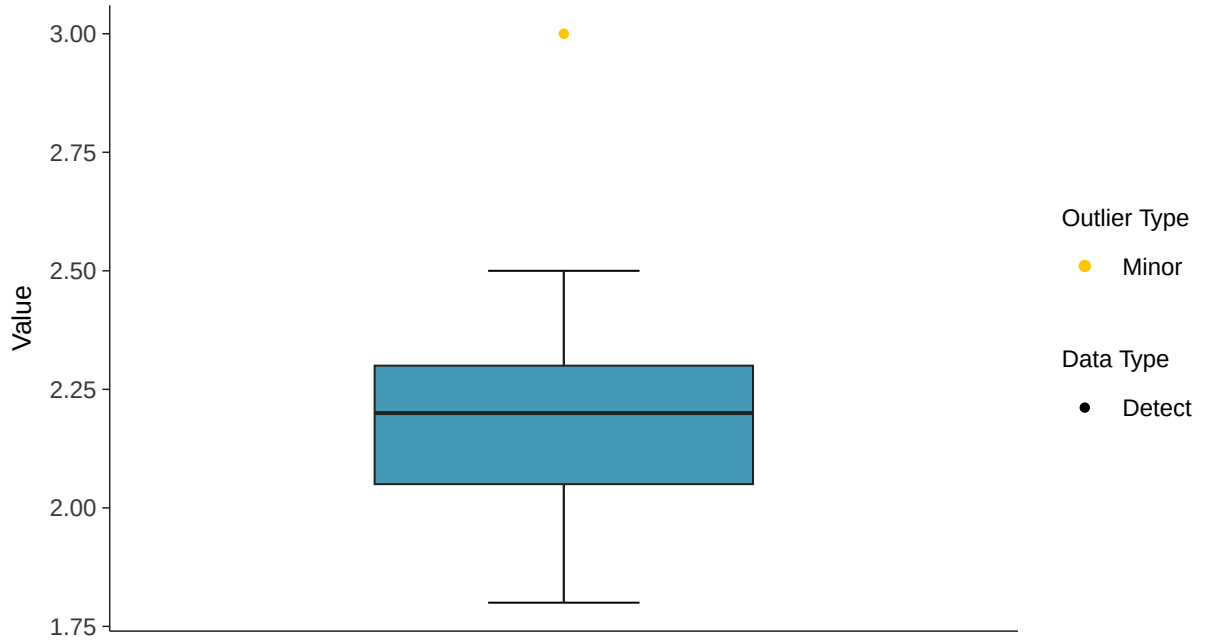
Histogram

Sulfate, MW-11 (mg/L)



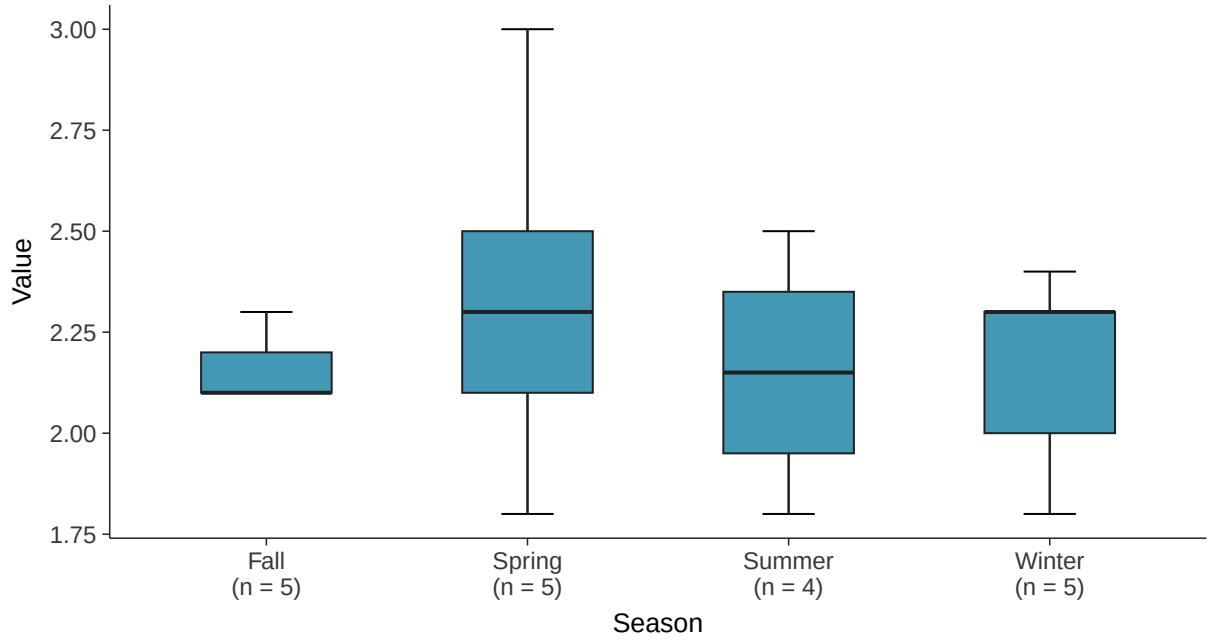
Boxplot

Sulfate, MW-11 (mg/L)



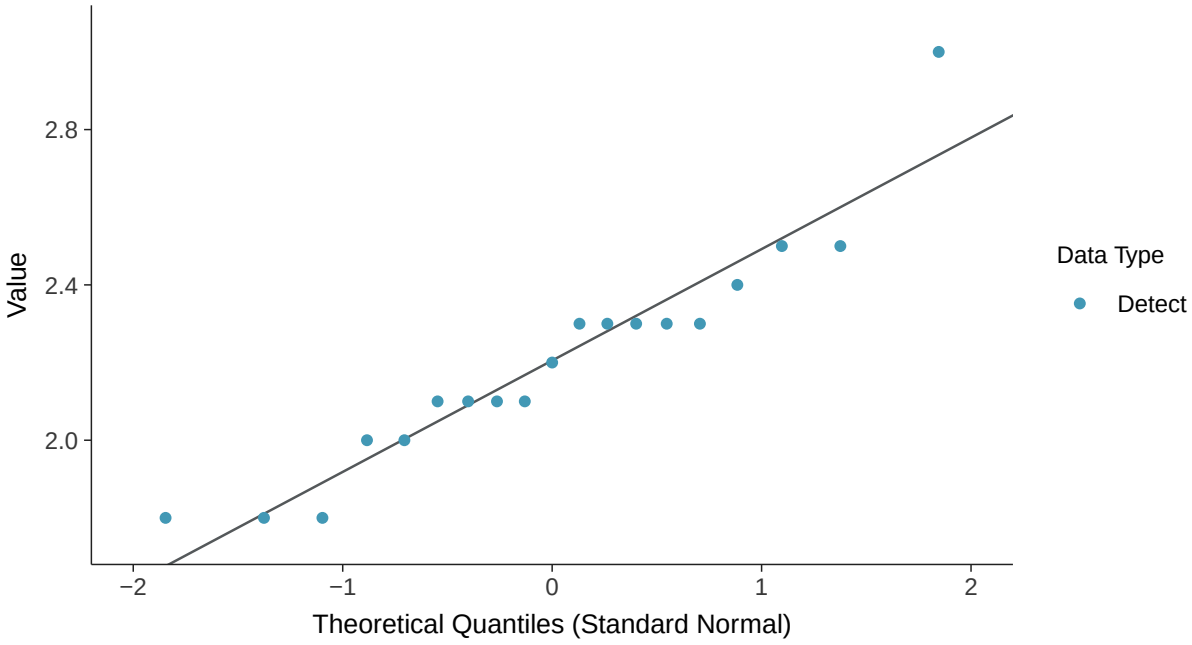
Boxplot by Season

Sulfate, MW-11 (mg/L)



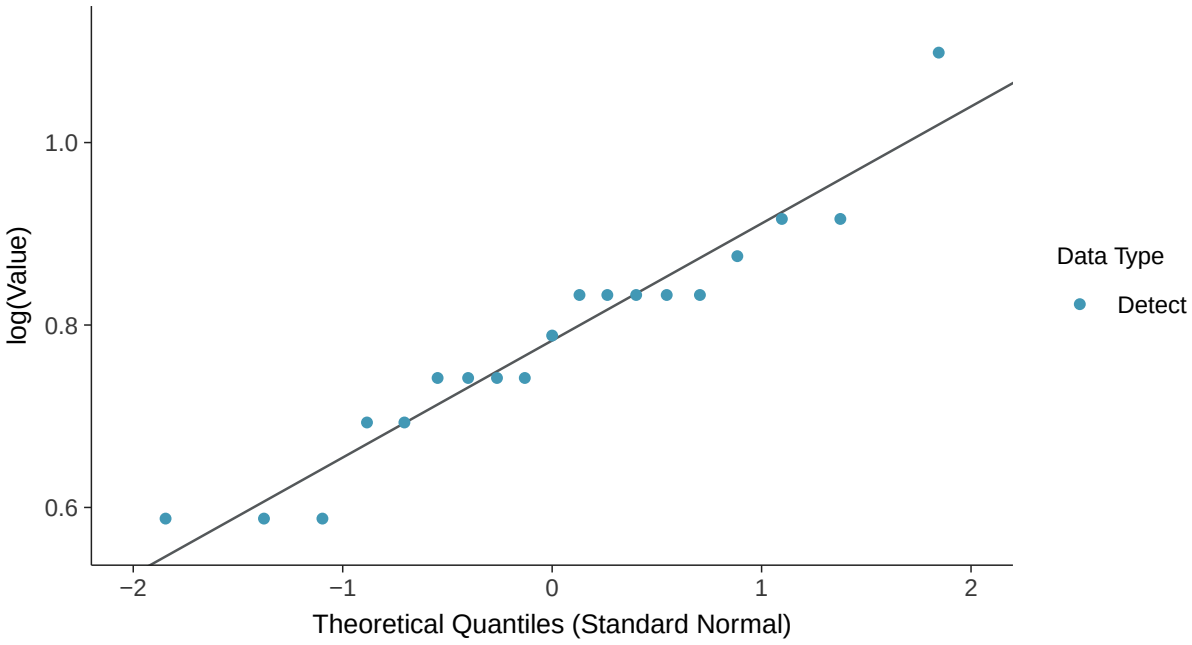
Normal Q-Q plot

Sulfate, MW-11 (mg/L)



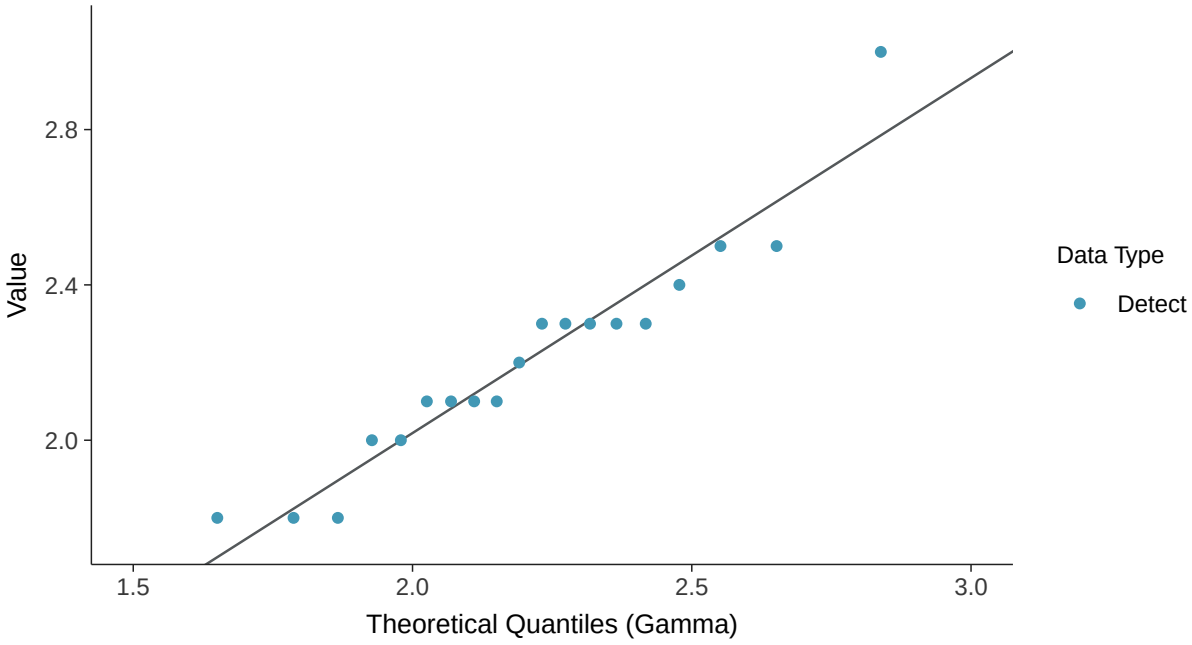
Lognormal Q-Q plot

Sulfate, MW-11 (mg/L)



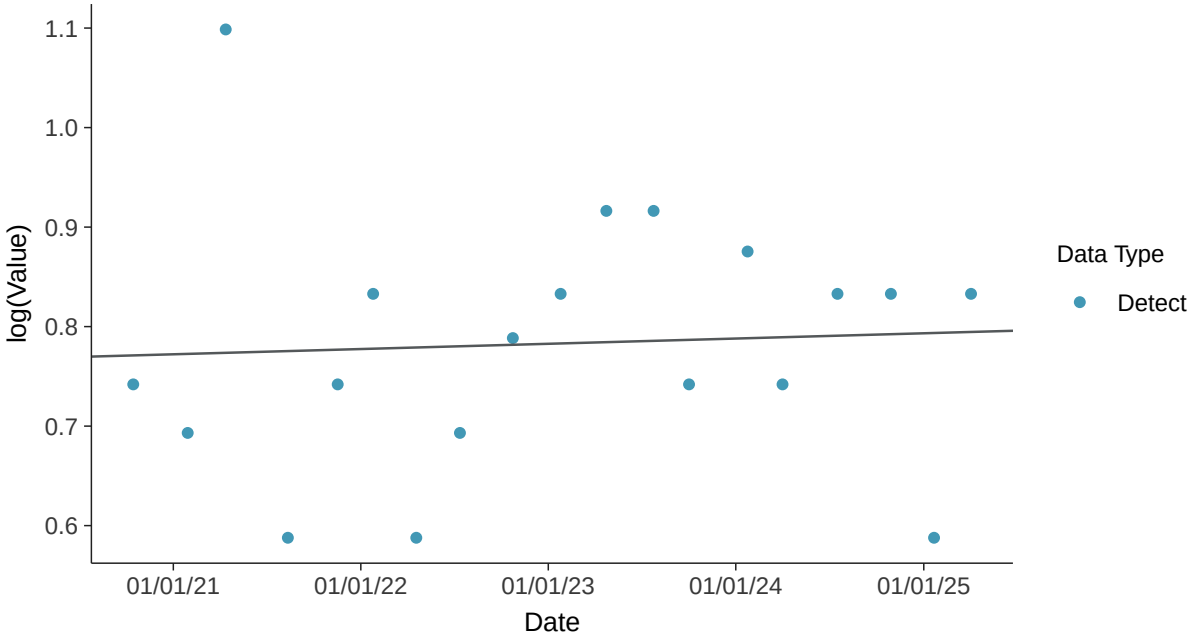
Gamma Q-Q plot

Sulfate, MW-11 (mg/L)



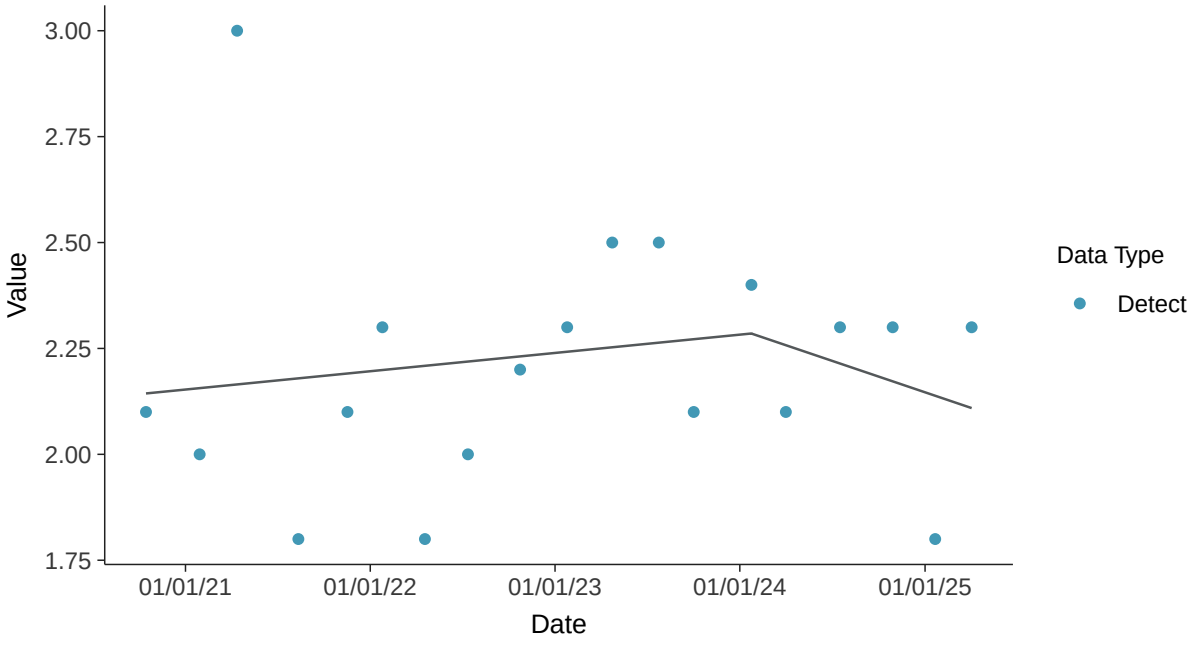
Trend Regression: Lognormal MLE

Sulfate, MW-11 (mg/L)



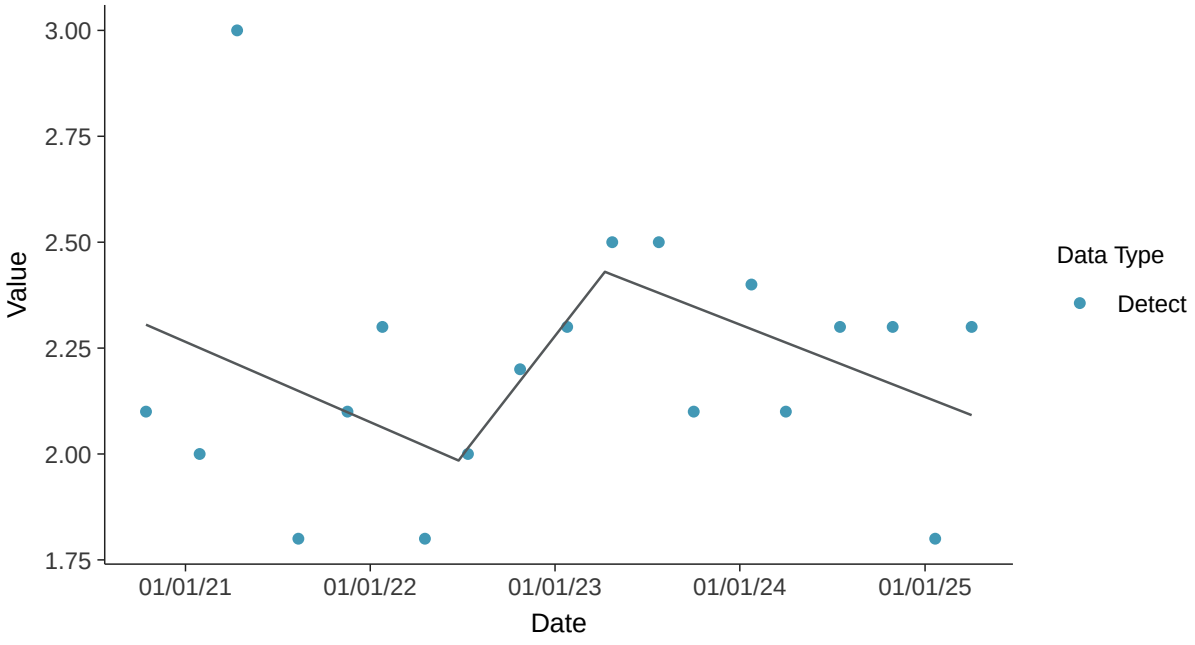
Trend Regression: Piecewise Linear-Linear

Sulfate, MW-11 (mg/L)



Trend Regression: Piecewise Linear-Linear-Linear

Sulfate, MW-11 (mg/L)

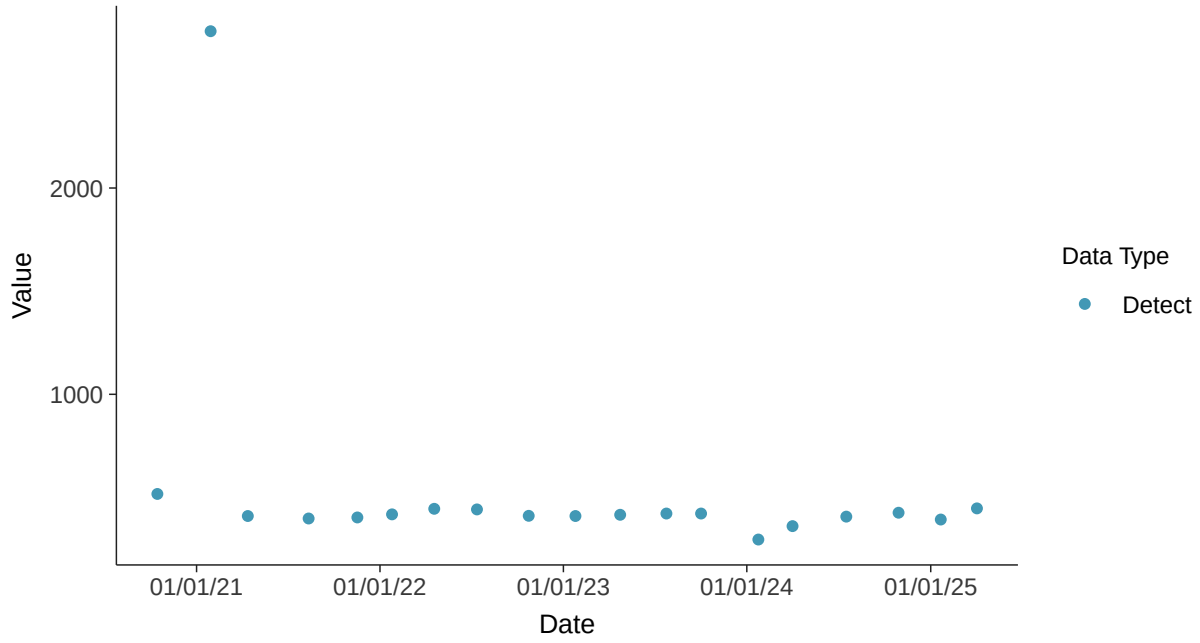


App. III: Total Dissolved Solids, MW-11

ID: 10_02_125

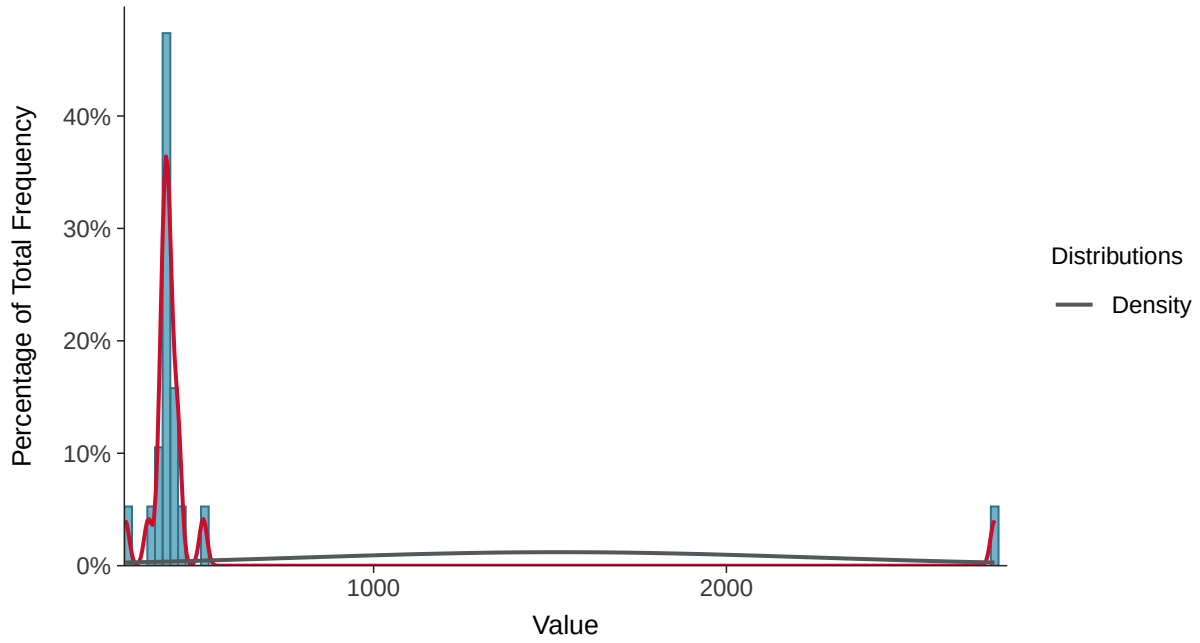
Scatter Plot

Total Dissolved Solids, MW-11 (mg/L)



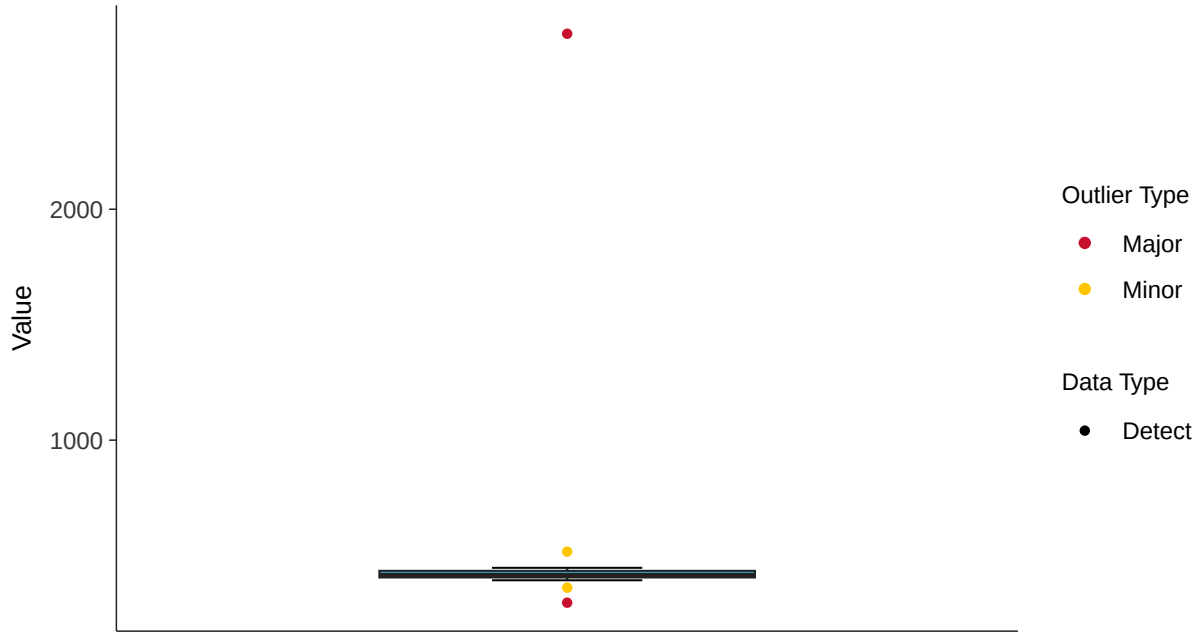
Histogram

Total Dissolved Solids, MW-11 (mg/L)



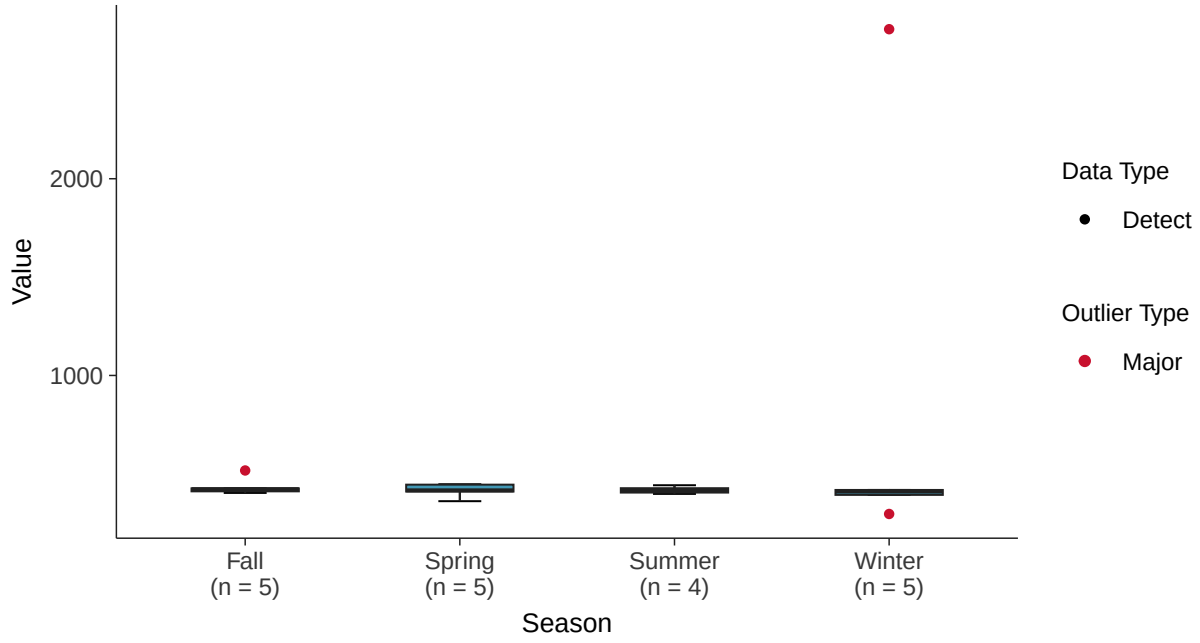
Boxplot

Total Dissolved Solids, MW-11 (mg/L)



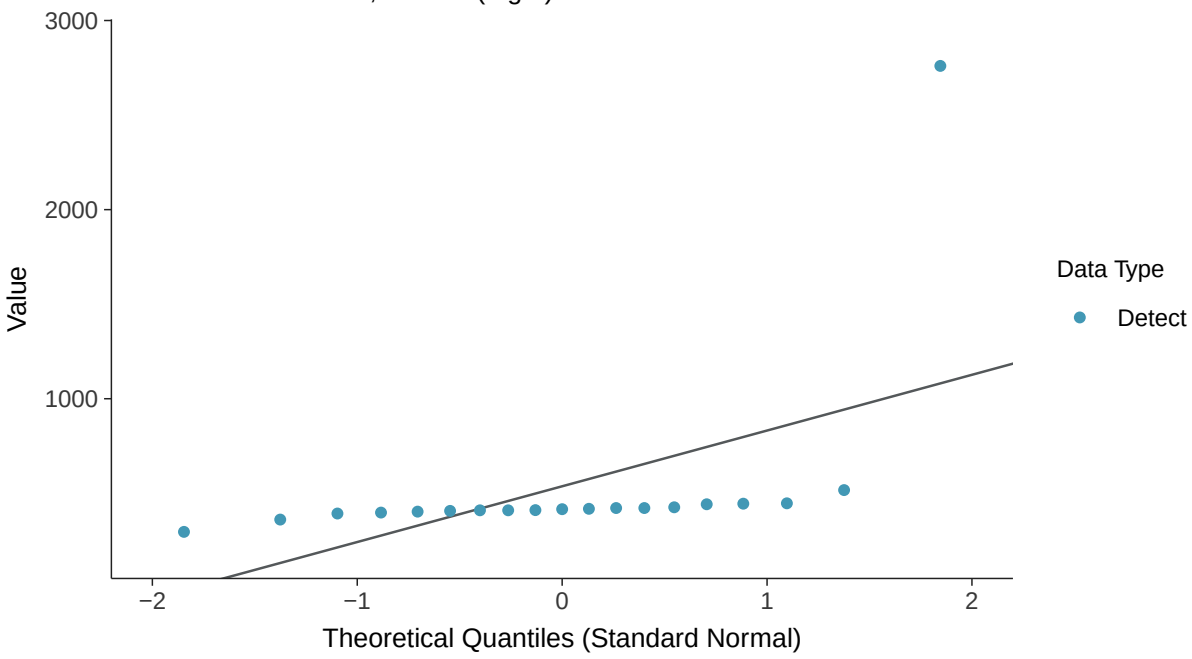
Boxplot by Season

Total Dissolved Solids, MW-11 (mg/L)



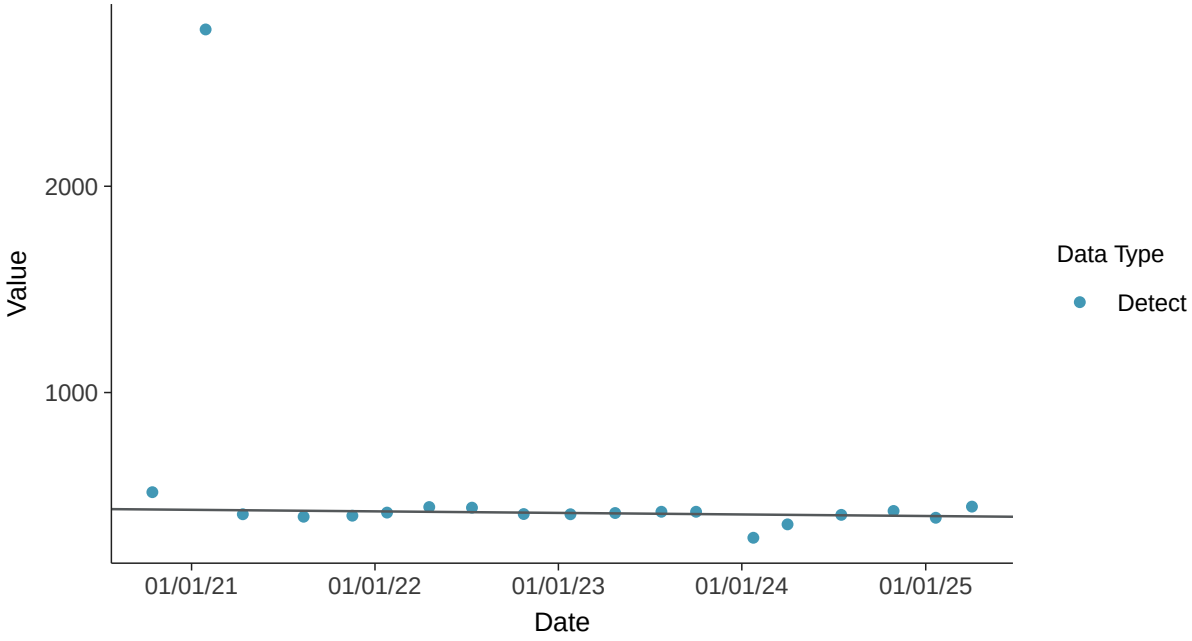
Normal Q-Q plot

Total Dissolved Solids, MW-11 (mg/L)



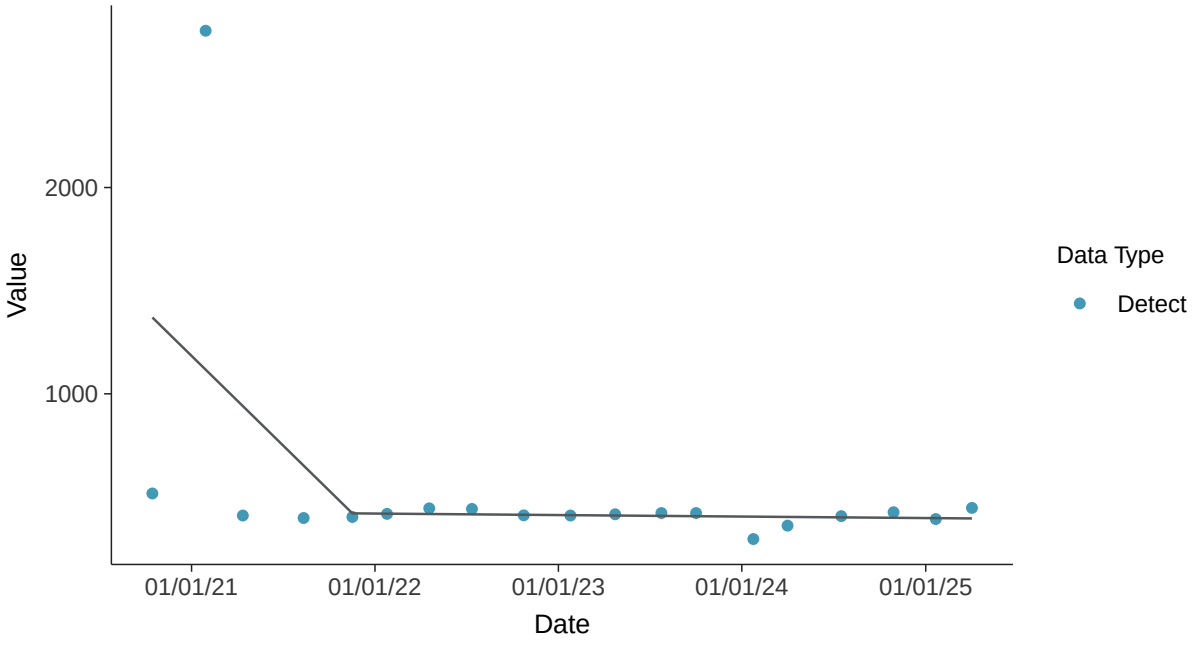
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Total Dissolved Solids, MW-11 (mg/L)



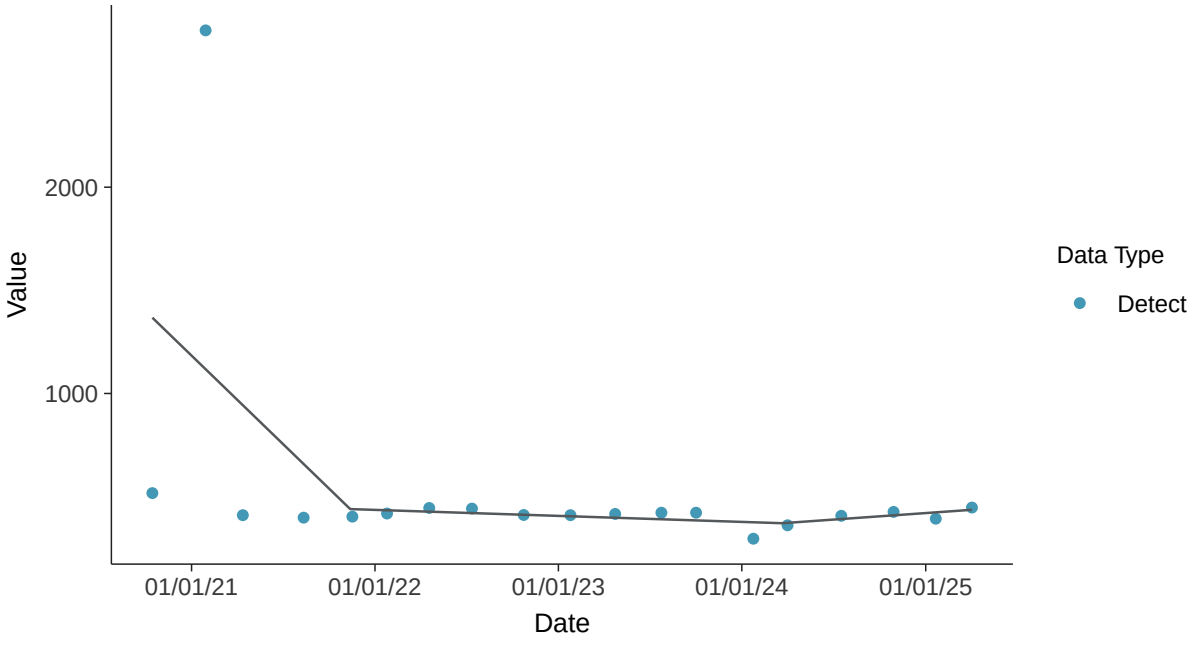
Trend Regression: Piecewise Linear-Linear

Total Dissolved Solids, MW-11 (mg/L)



Trend Regression: Piecewise Linear-Linear-Linear

Total Dissolved Solids, MW-11 (mg/L)

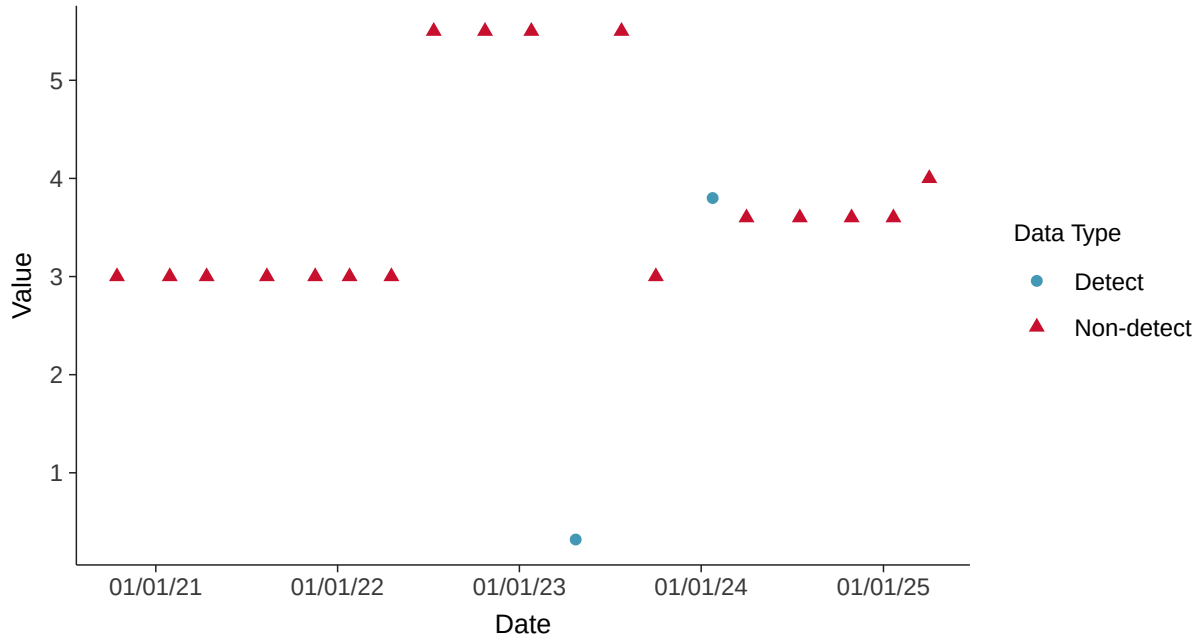


App. IV: Antimony, MW-11

ID: 10_03_101

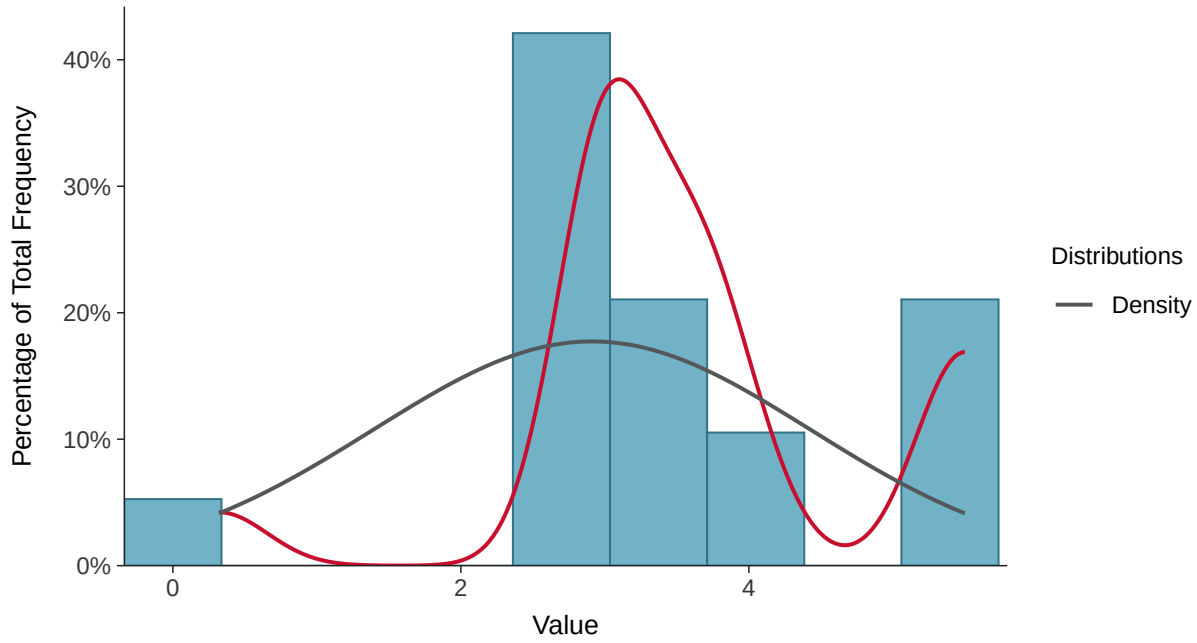
Scatter Plot

Antimony, MW-11 (ug/L)



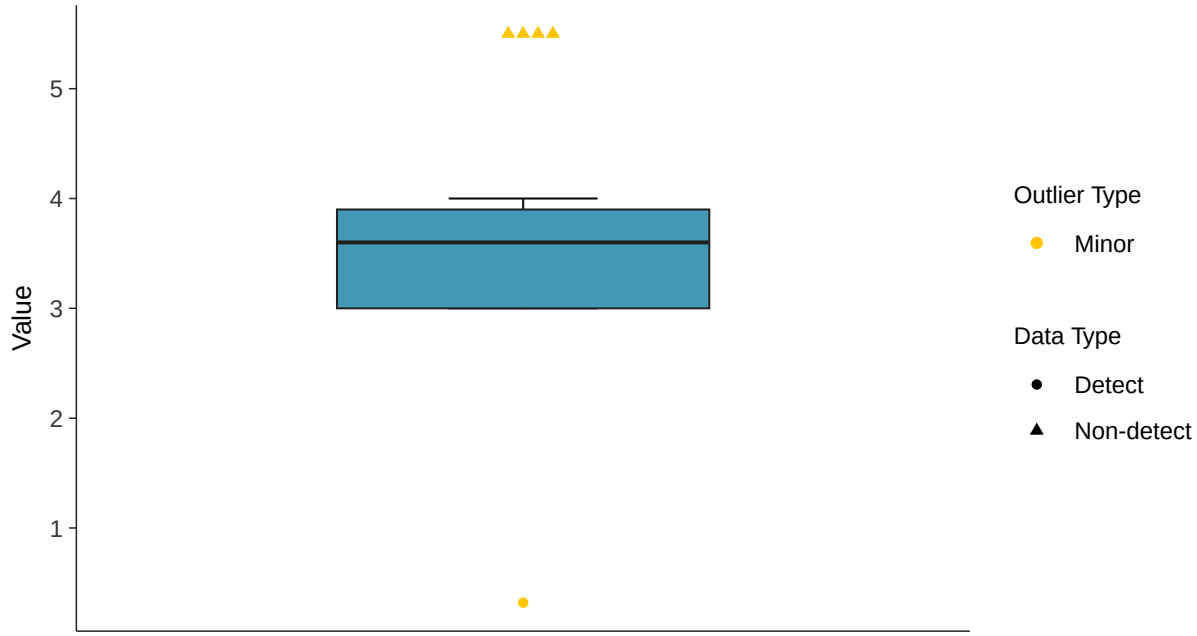
Histogram

Antimony, MW-11 (ug/L)



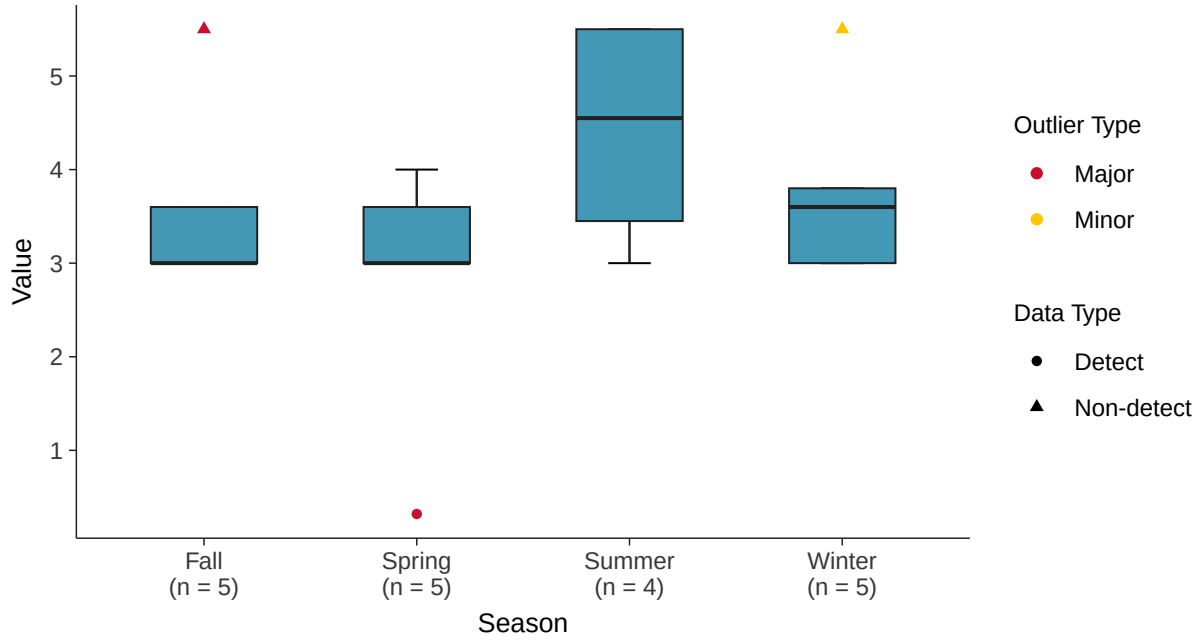
Boxplot

Antimony, MW-11 (ug/L)



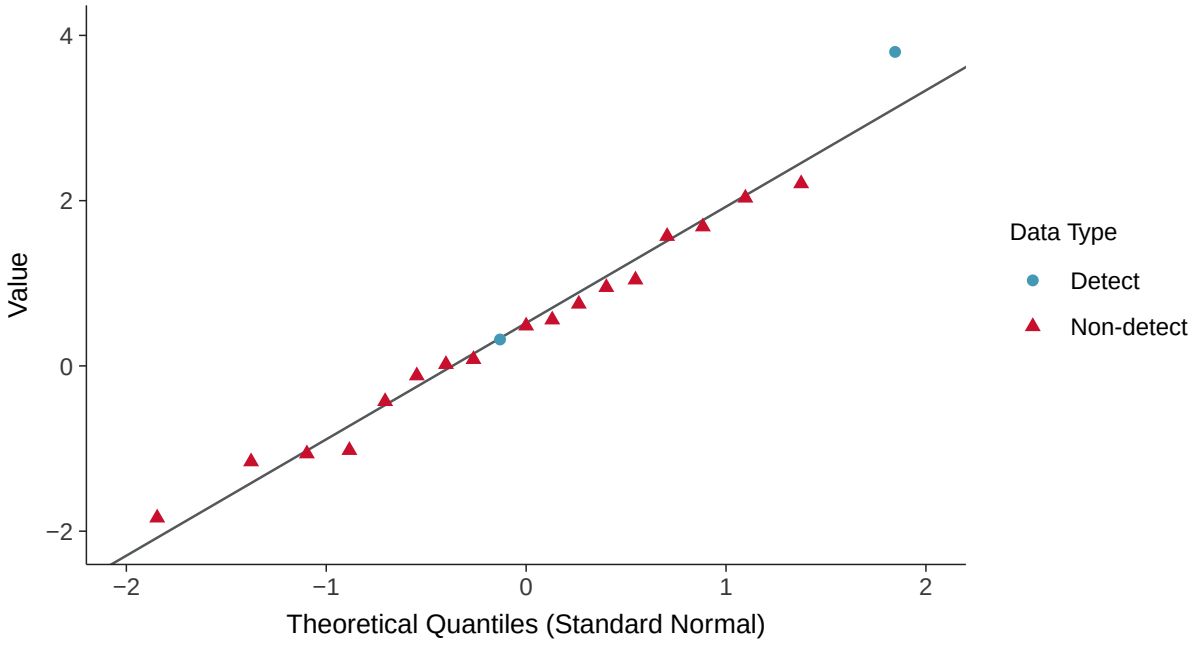
Boxplot by Season

Antimony, MW-11 (ug/L)



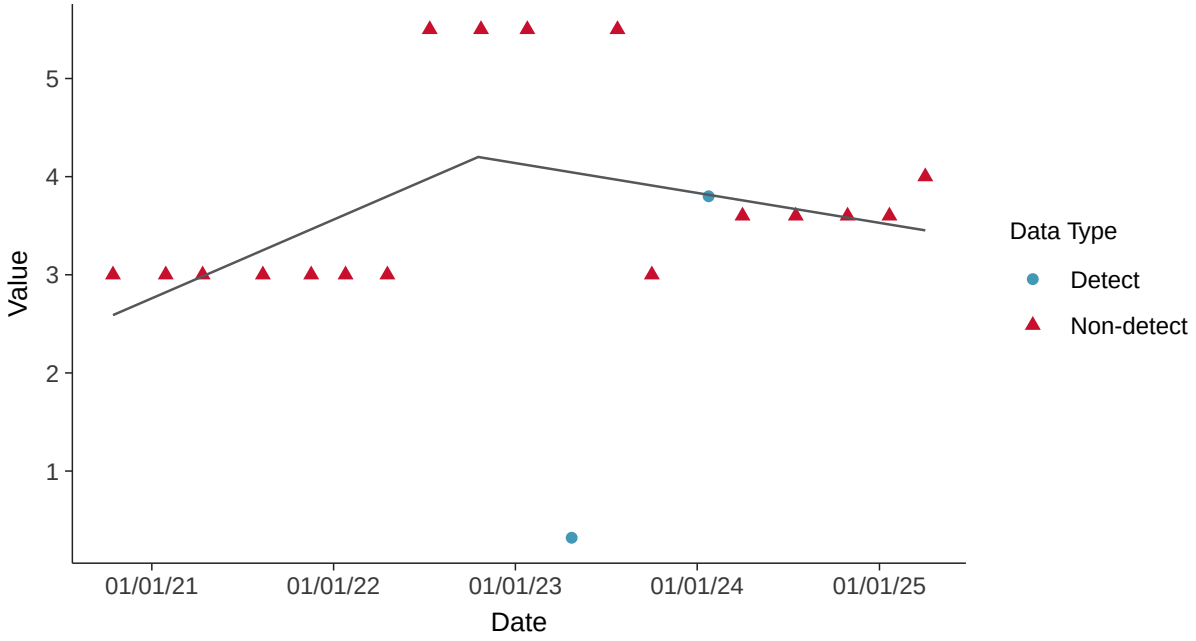
Normal Q-Q plot using ROS Imputed Estimates

Antimony, MW-11 (ug/L)



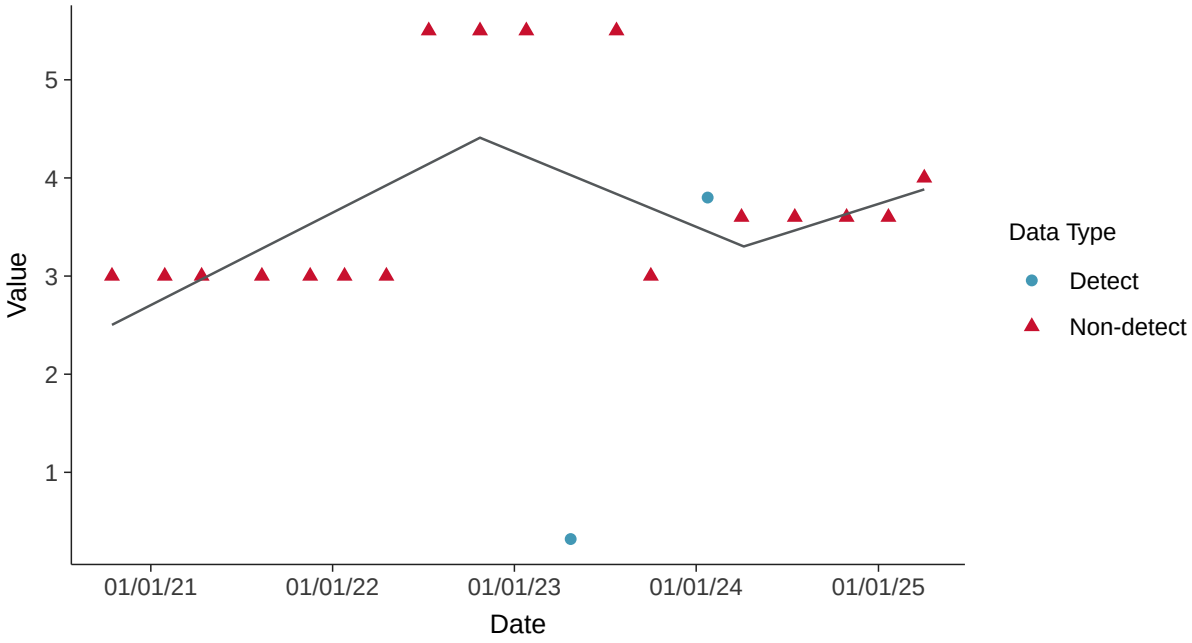
Trend Regression: Piecewise Linear-Linear

Antimony, MW-11 (ug/L)



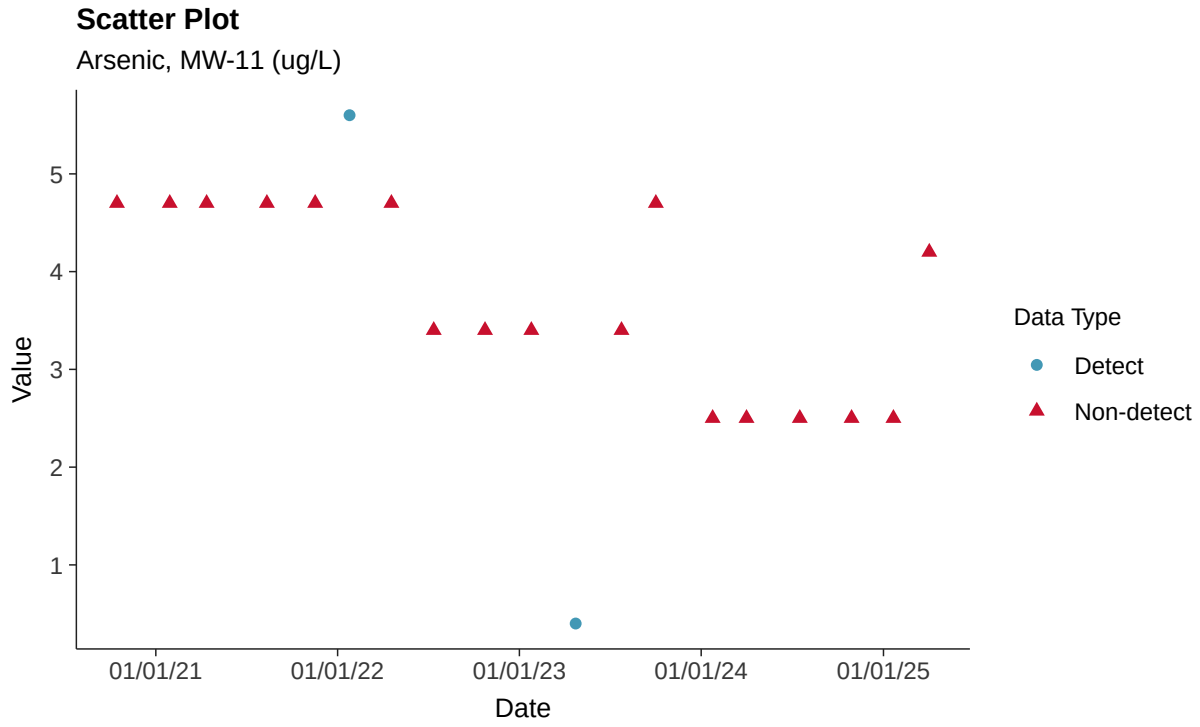
Trend Regression: Piecewise Linear-Linear-Linear

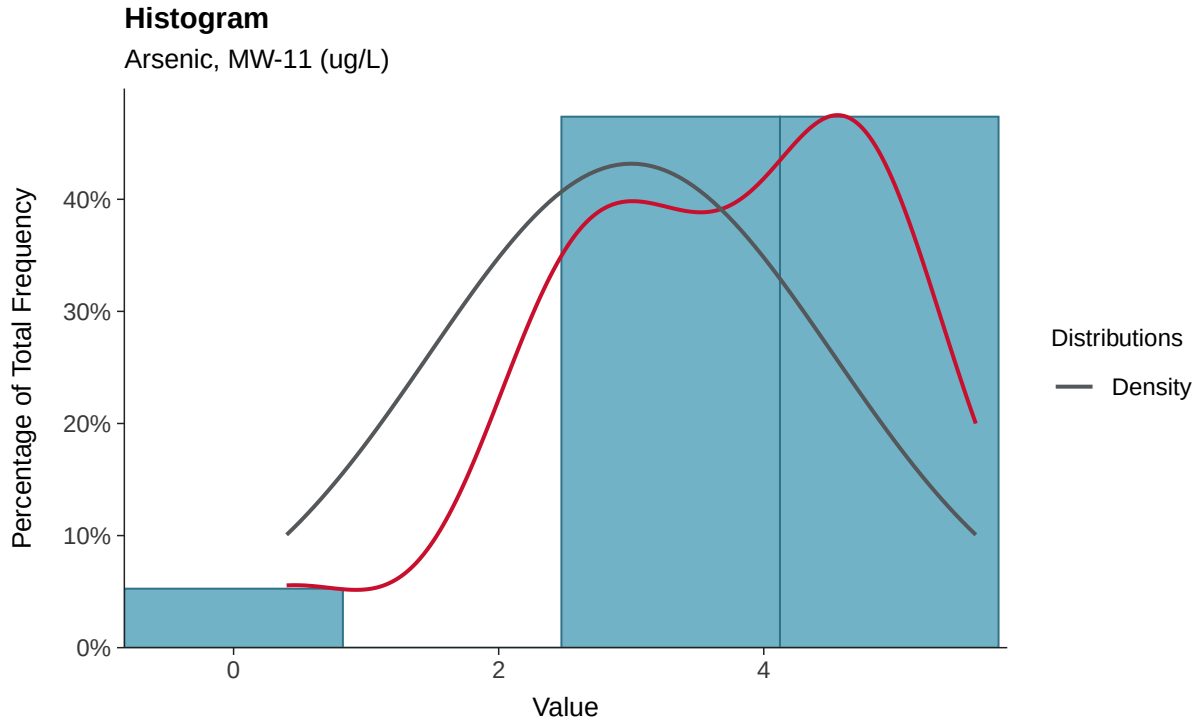
Antimony, MW-11 (ug/L)



App. IV: Arsenic, MW-11

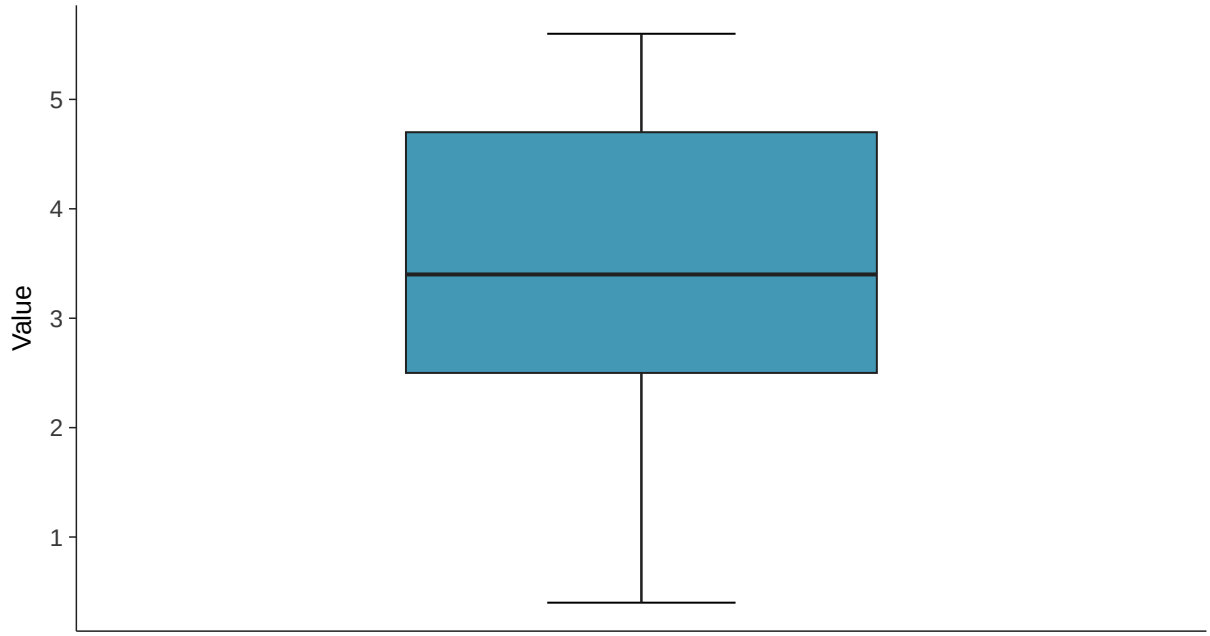
ID: 10_03_102





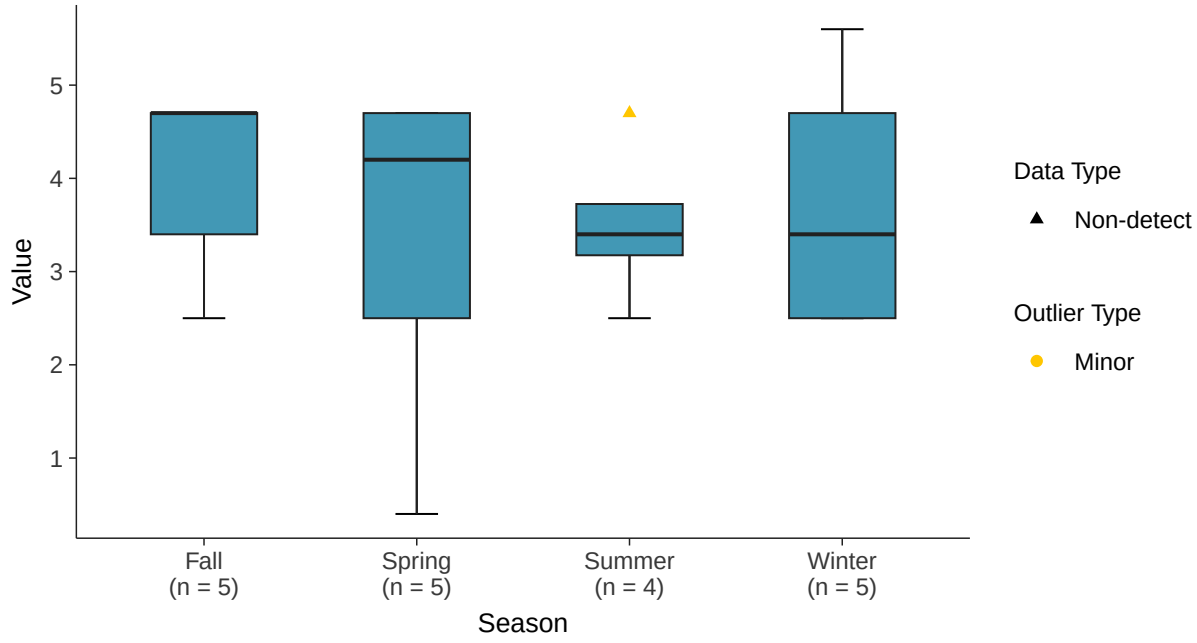
Boxplot

Arsenic, MW-11 (ug/L)



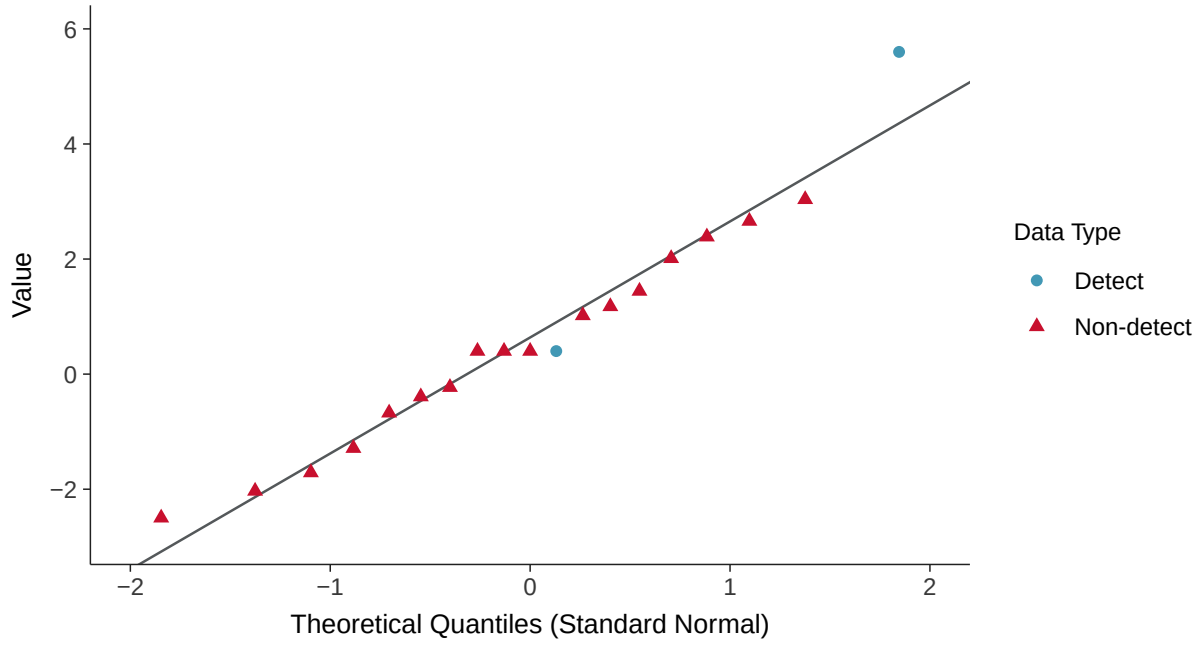
Boxplot by Season

Arsenic, MW-11 (ug/L)



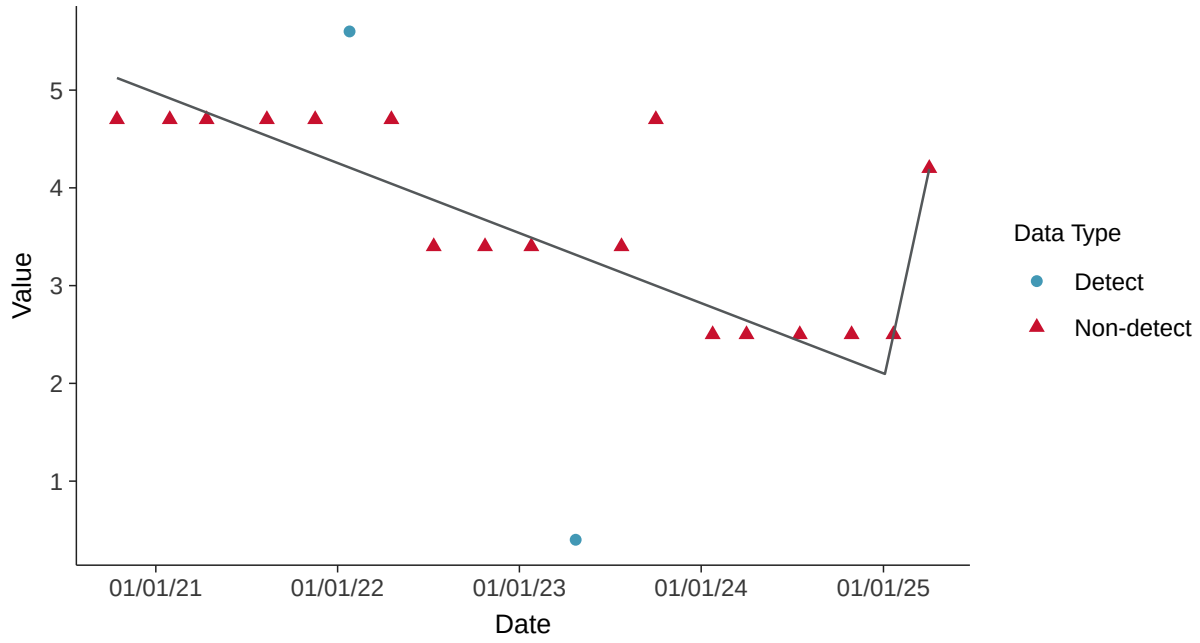
Normal Q-Q plot using ROS Imputed Estimates

Arsenic, MW-11 (ug/L)



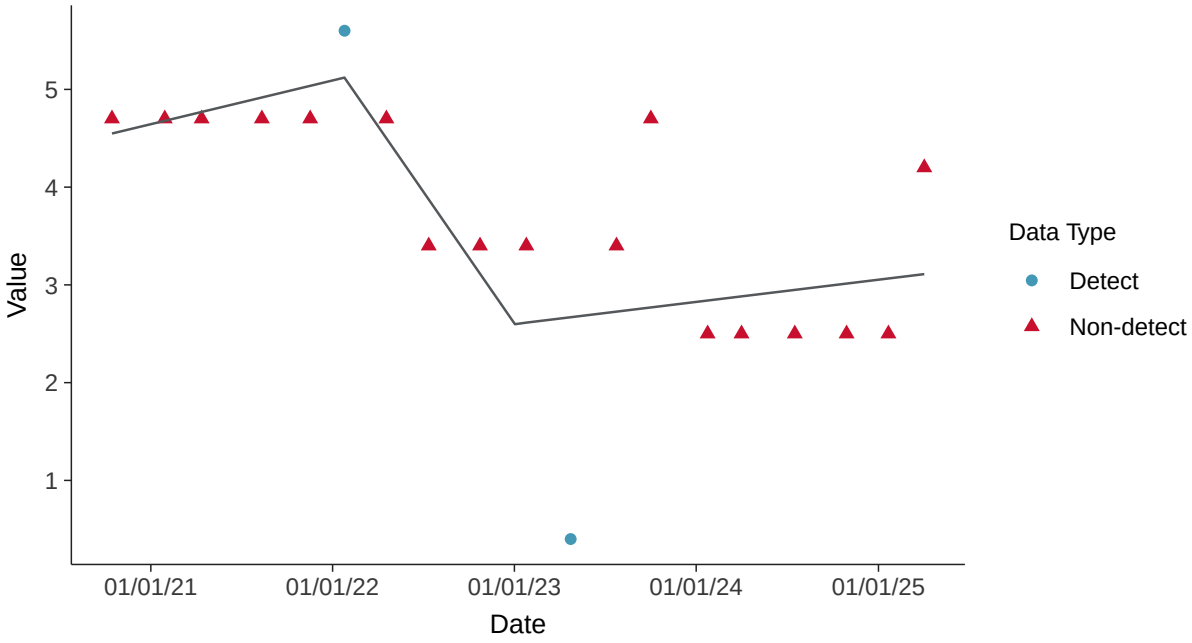
Trend Regression: Piecewise Linear-Linear

Arsenic, MW-11 (ug/L)



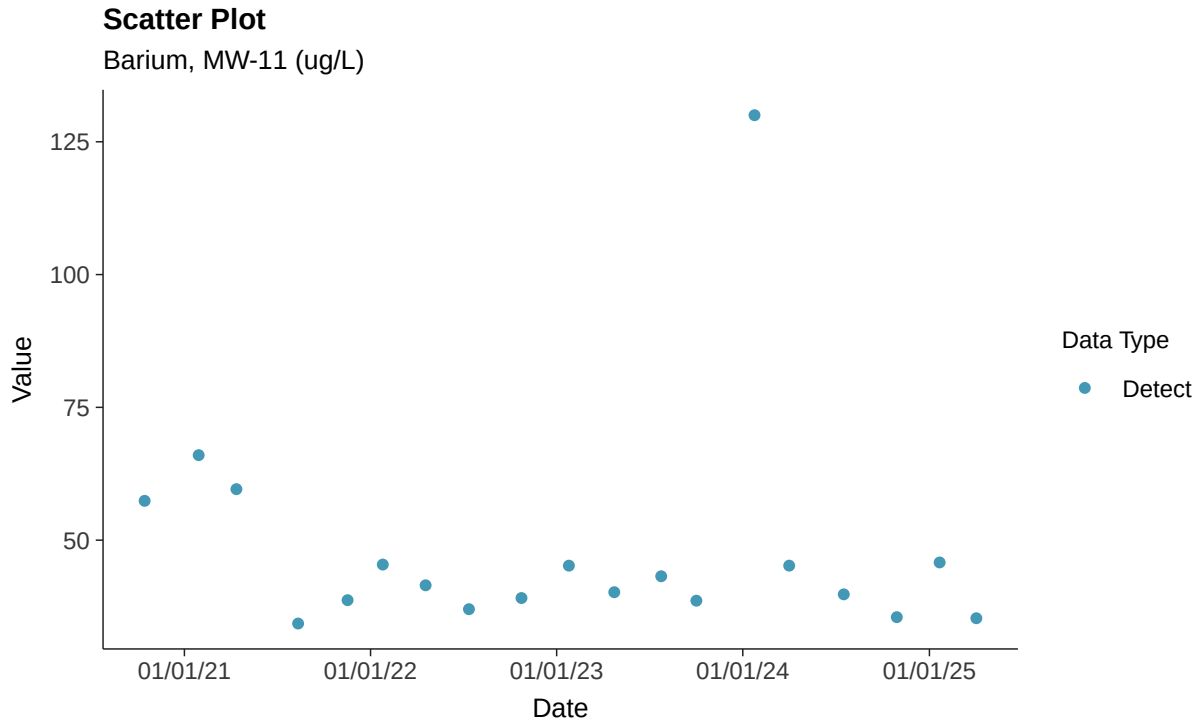
Trend Regression: Piecewise Linear-Linear-Linear

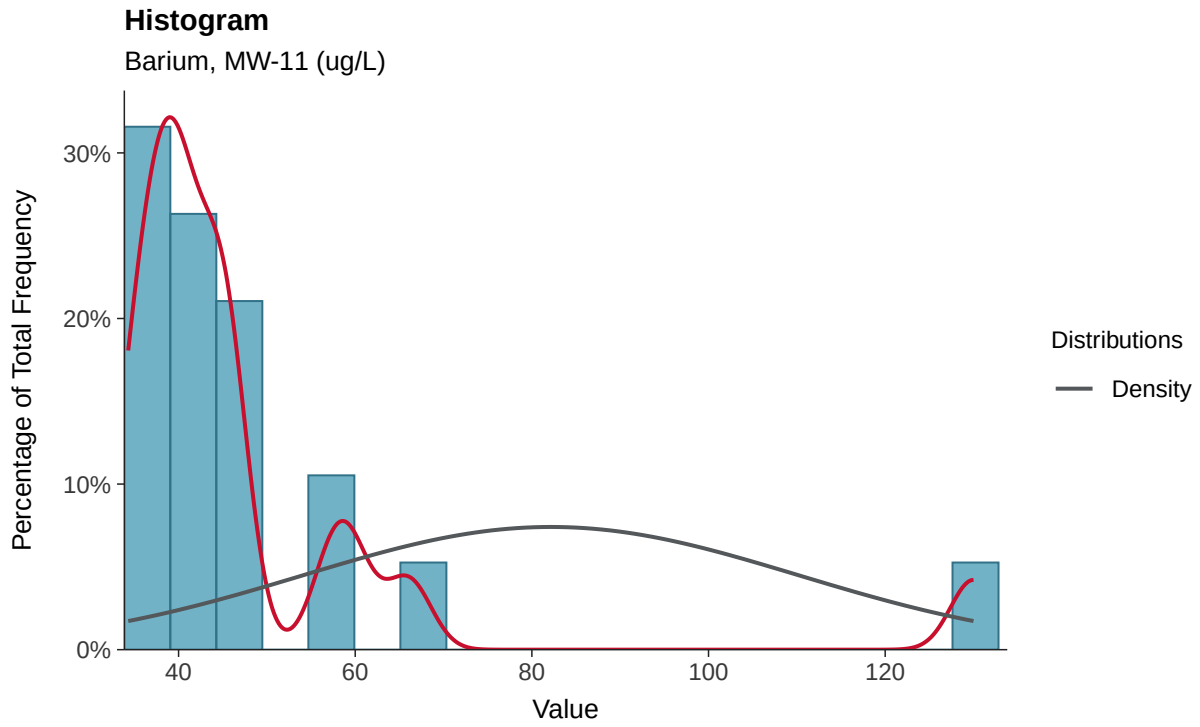
Arsenic, MW-11 (ug/L)



App. IV: Barium, MW-11

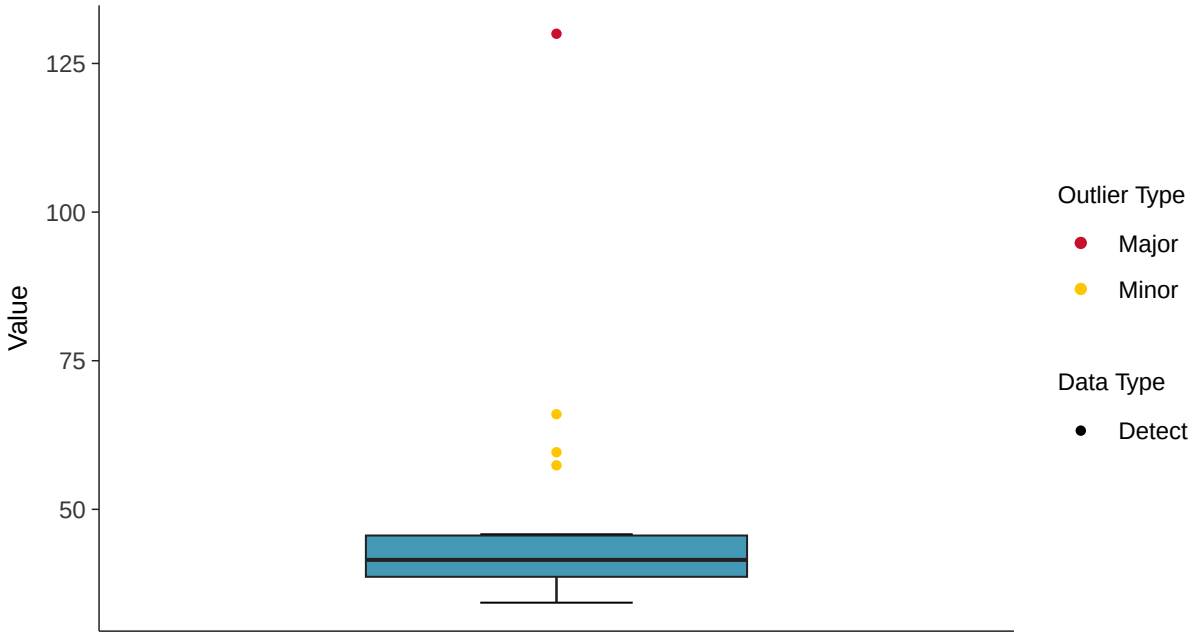
ID: 10_03_103





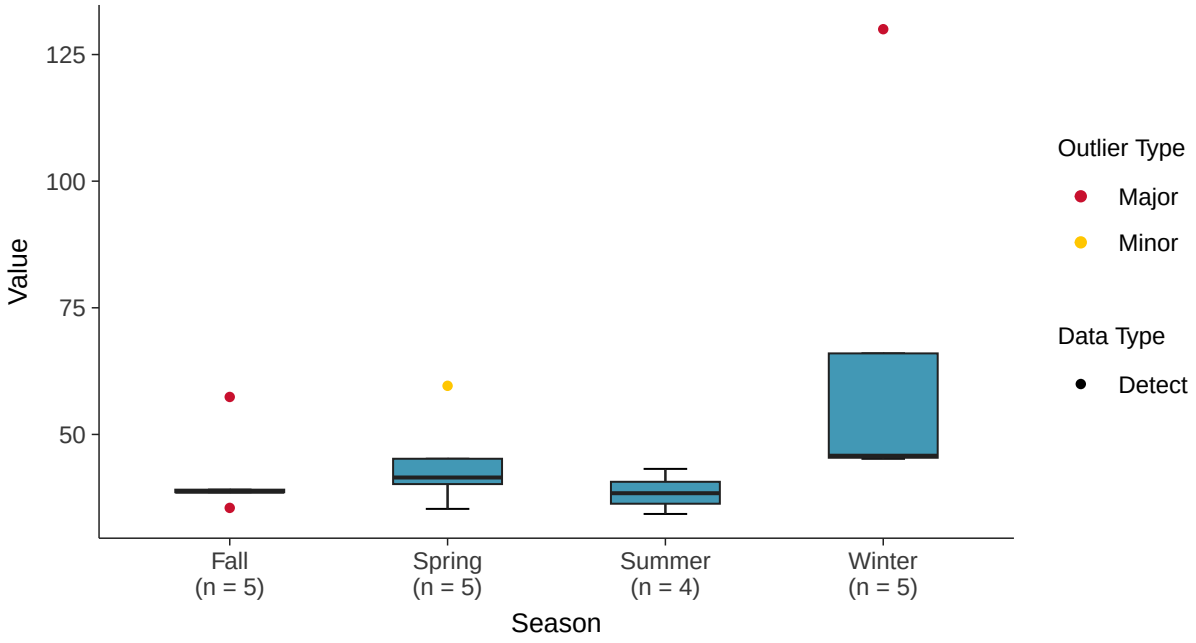
Boxplot

Barium, MW-11 (ug/L)



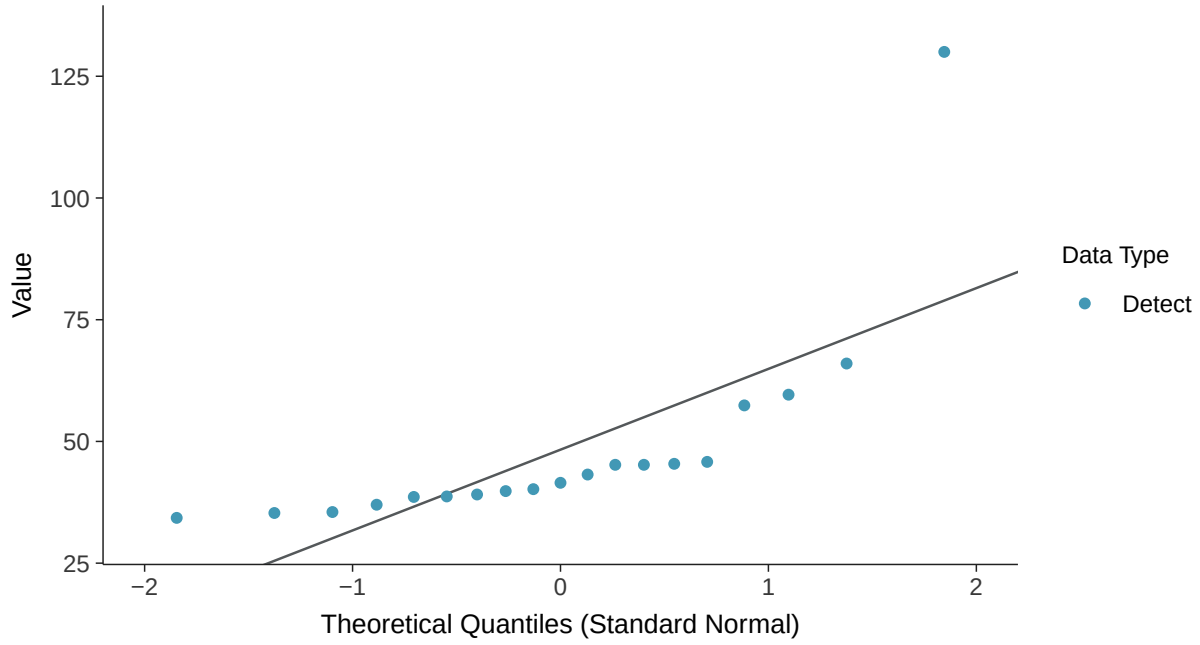
Boxplot by Season

Barium, MW-11 (ug/L)



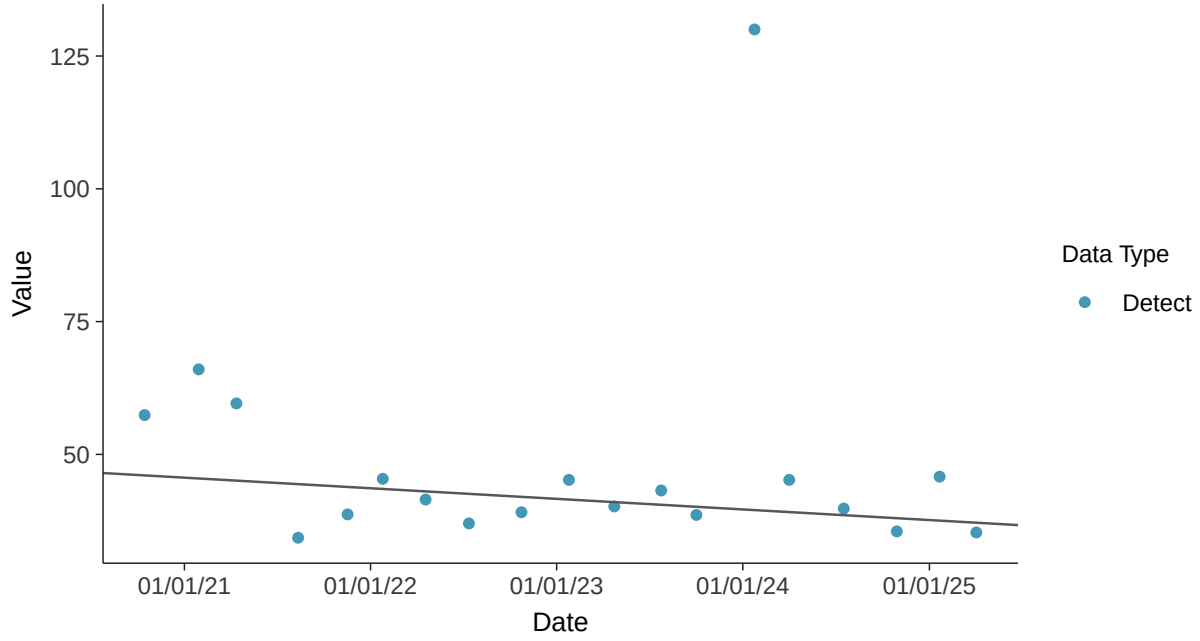
Normal Q-Q plot

Barium, MW-11 (ug/L)



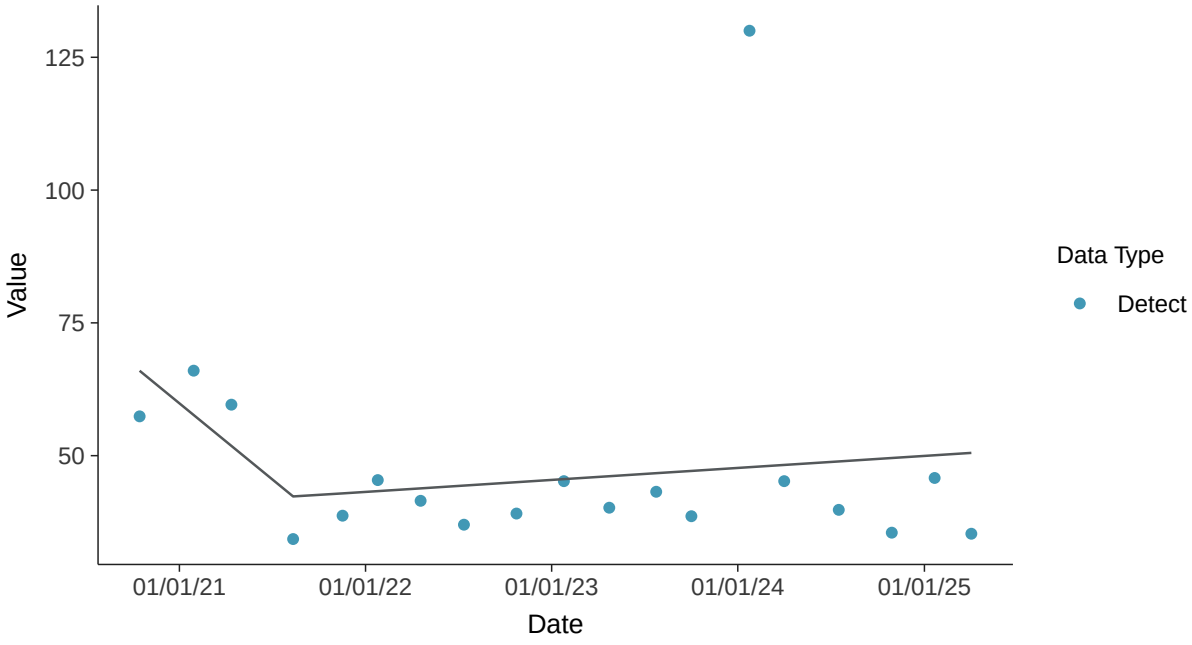
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Barium, MW-11 (ug/L)



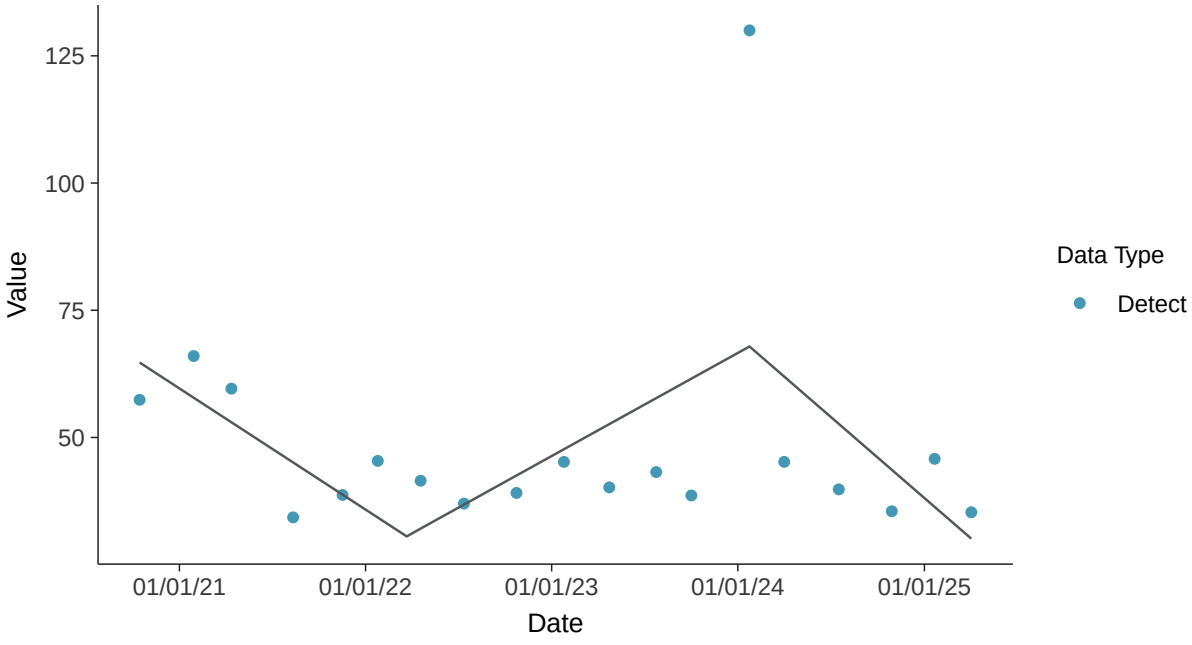
Trend Regression: Piecewise Linear-Linear

Barium, MW-11 (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Barium, MW-11 (ug/L)

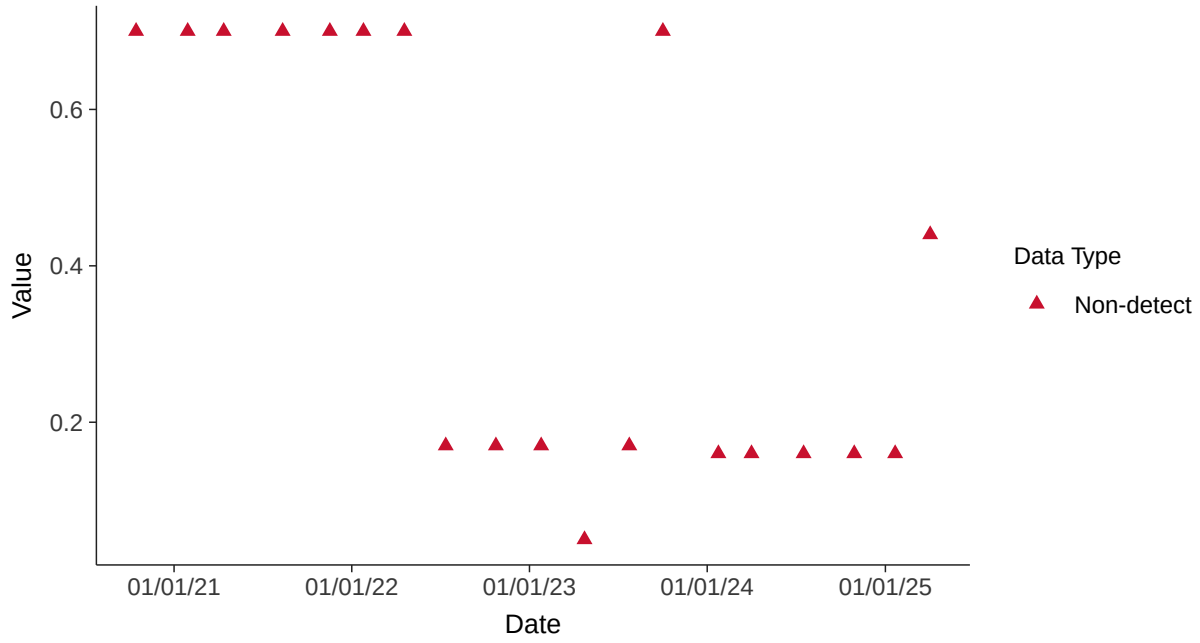


App. IV: Beryllium, MW-11

ID: 10_03_104

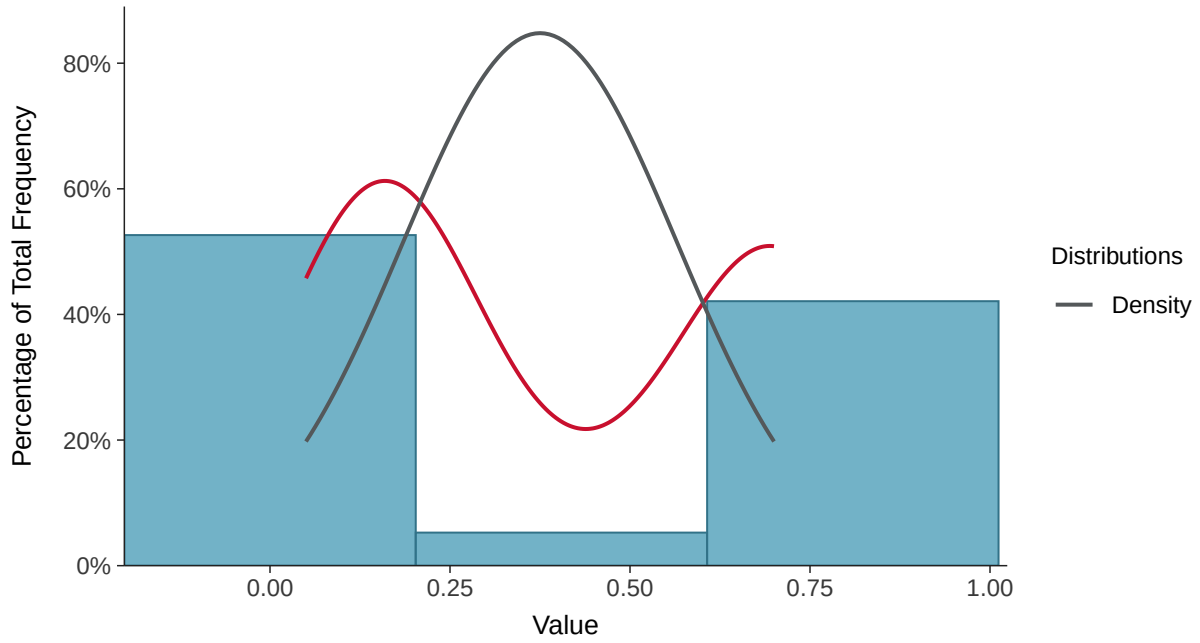
Scatter Plot

Beryllium, MW-11 (ug/L)



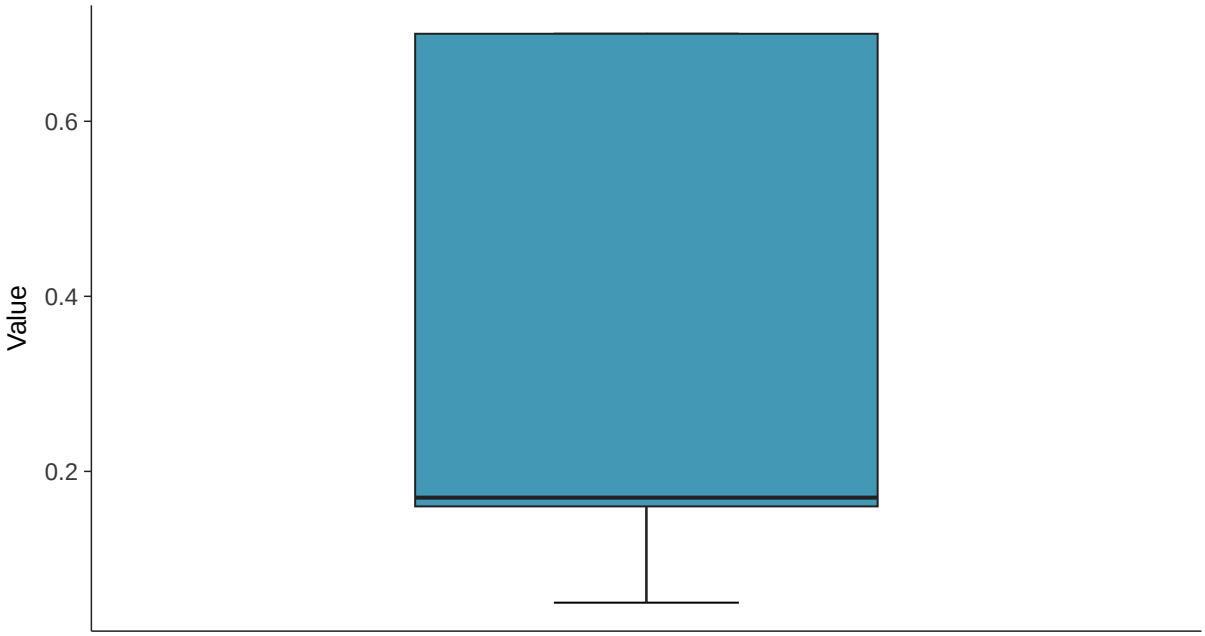
Histogram

Beryllium, MW-11 (ug/L)



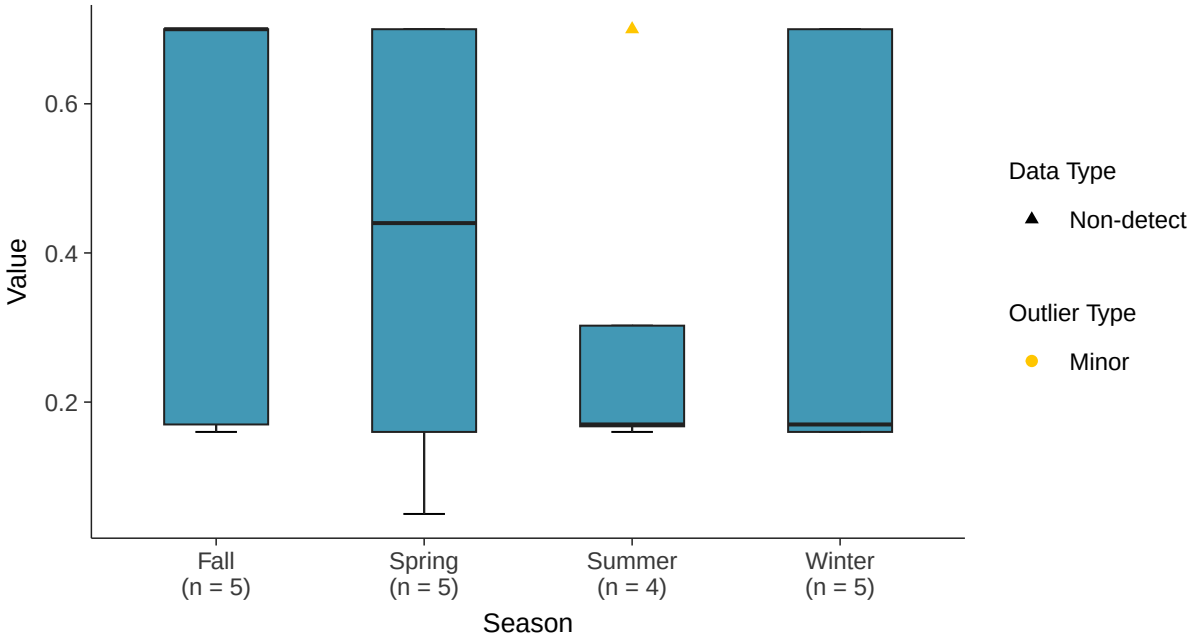
Boxplot

Beryllium, MW-11 (ug/L)



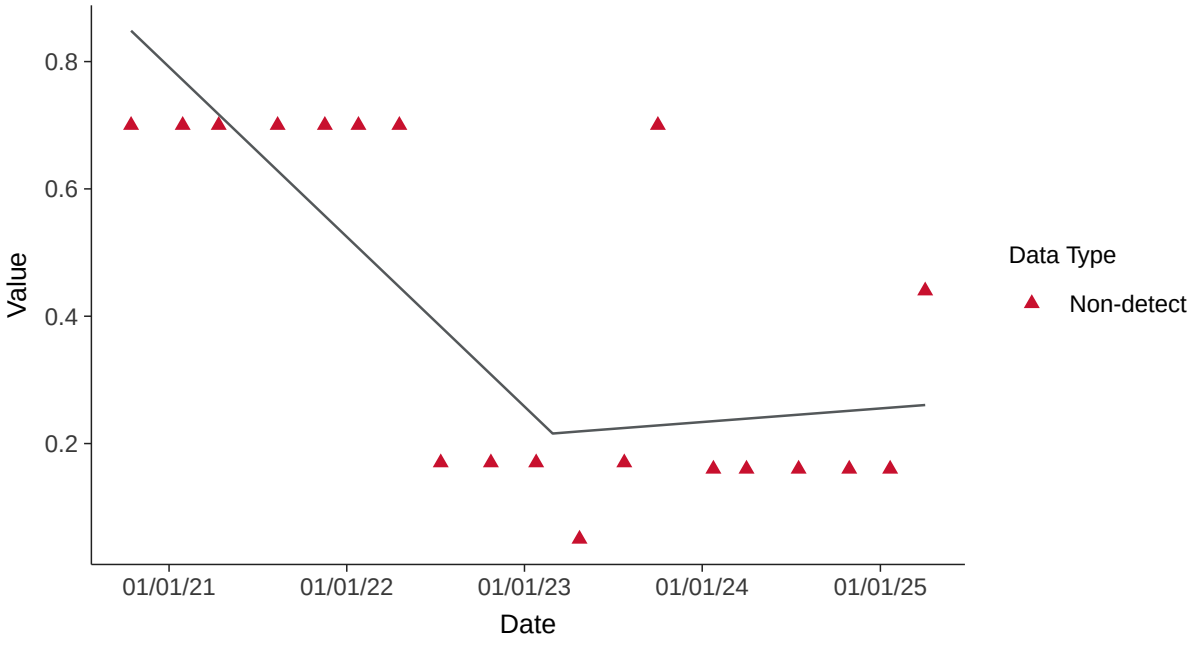
Boxplot by Season

Beryllium, MW-11 (ug/L)



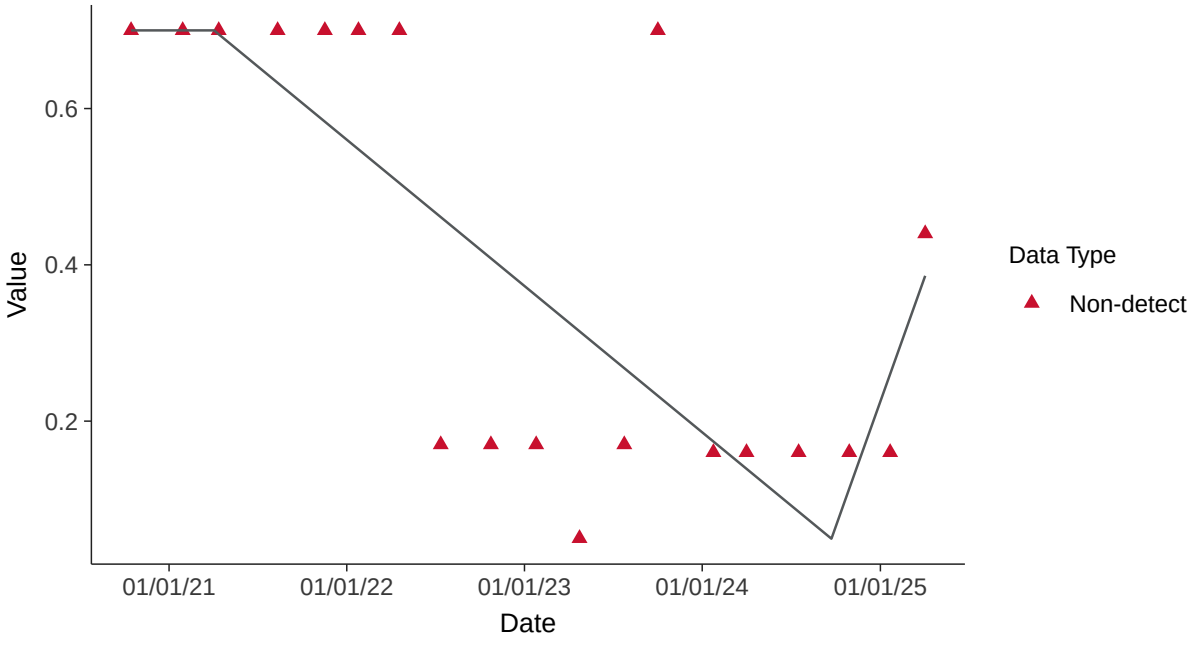
Trend Regression: Piecewise Linear-Linear

Beryllium, MW-11 (ug/L)



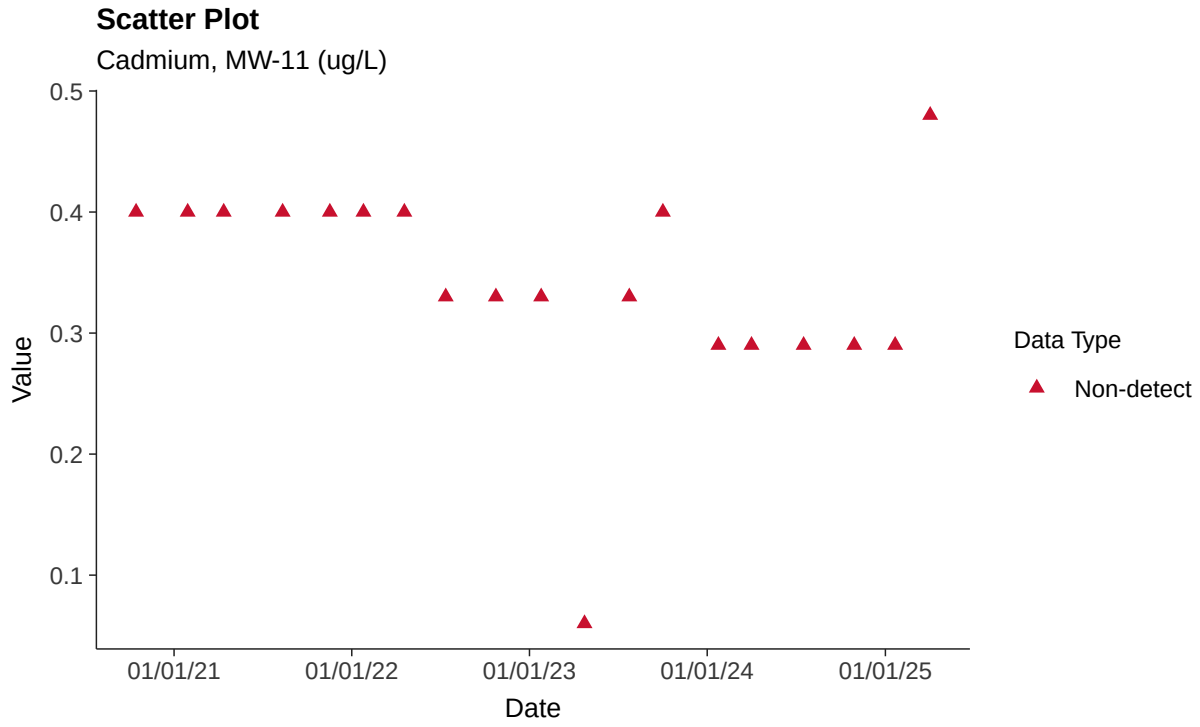
Trend Regression: Piecewise Linear-Linear-Linear

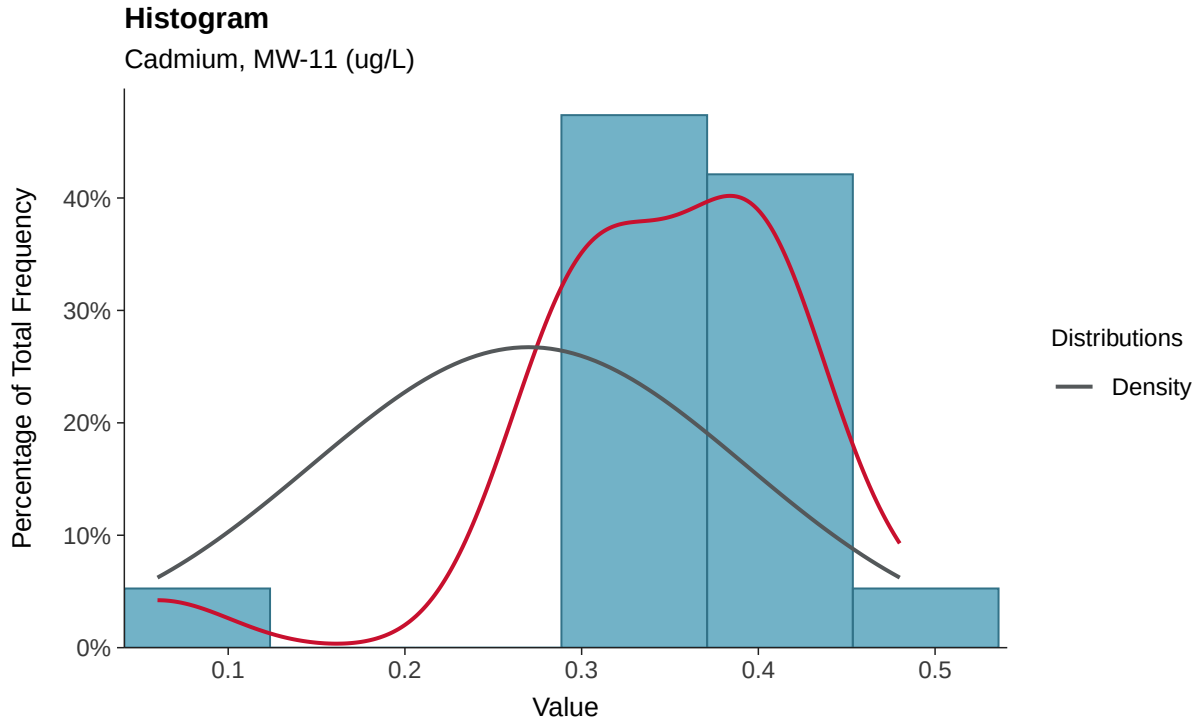
Beryllium, MW-11 (ug/L)



App. IV: Cadmium, MW-11

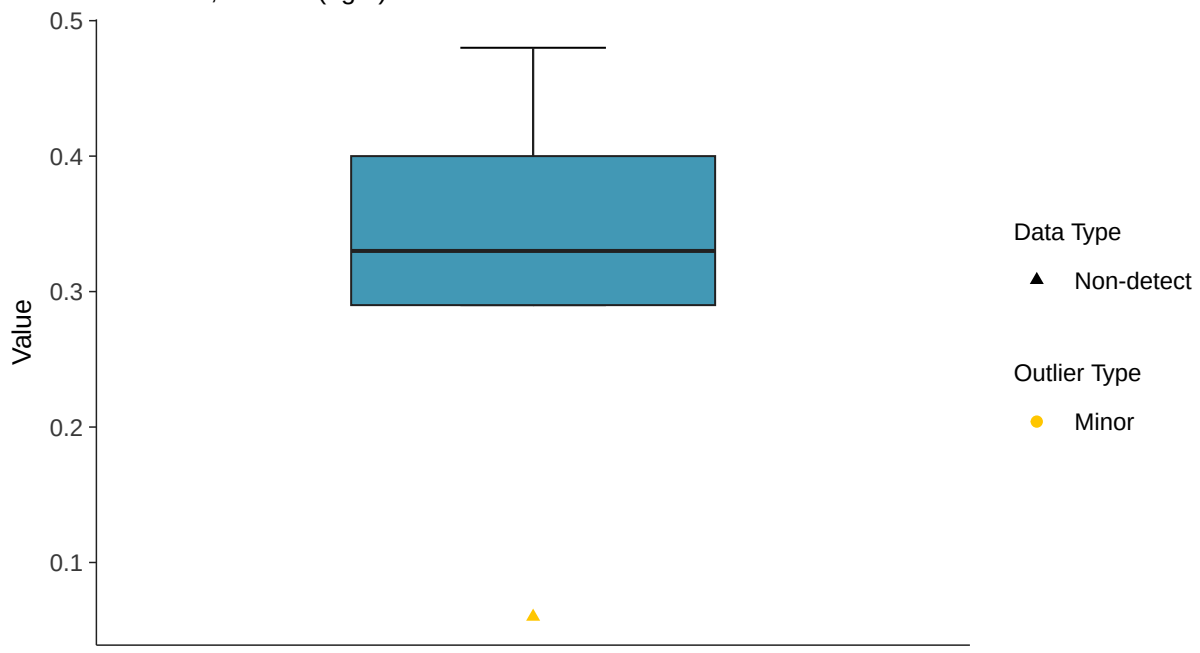
ID: 10_03_106





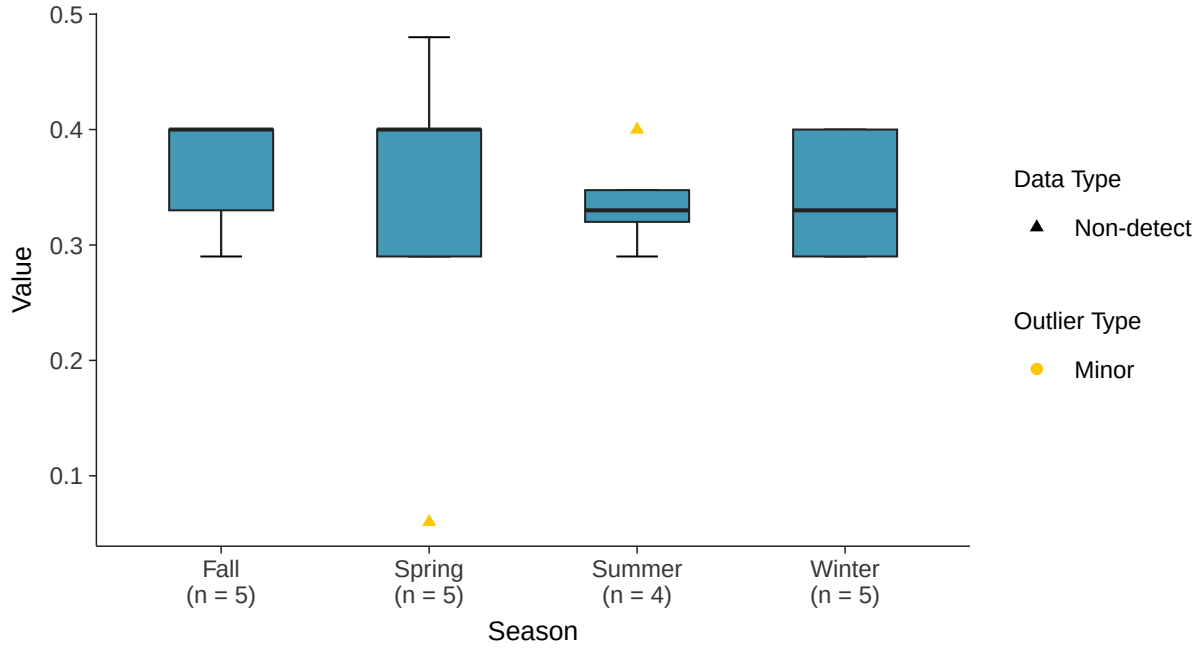
Boxplot

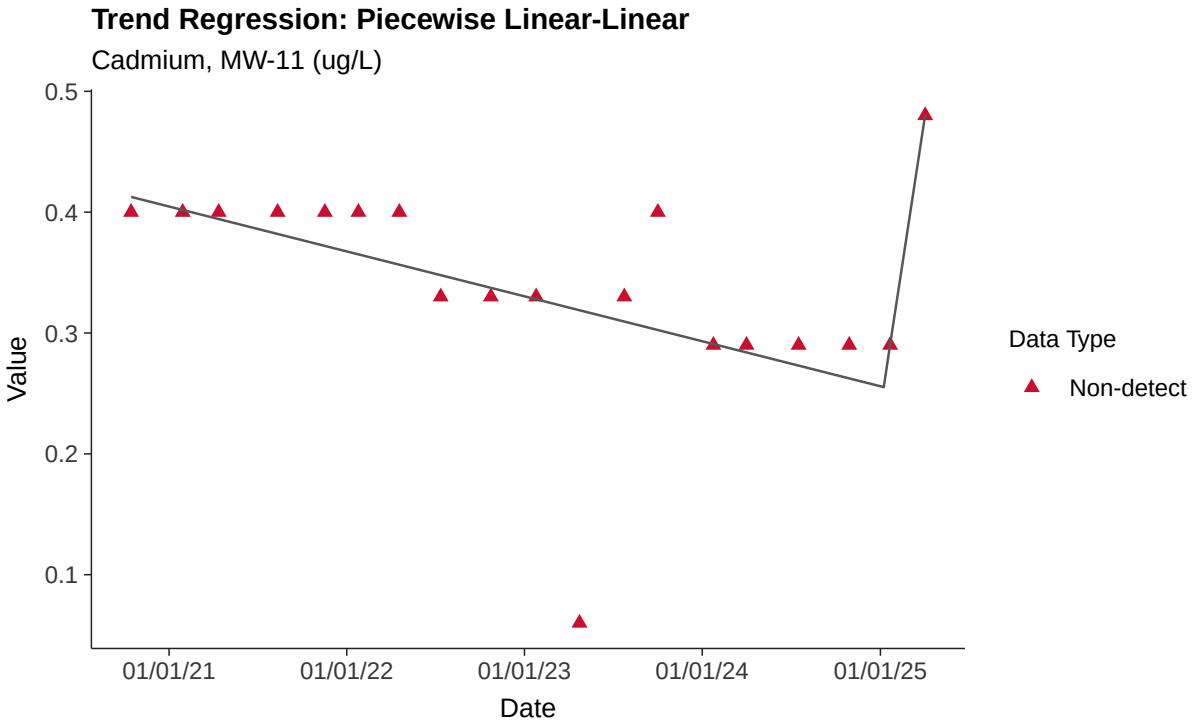
Cadmium, MW-11 (ug/L)



Boxplot by Season

Cadmium, MW-11 (ug/L)



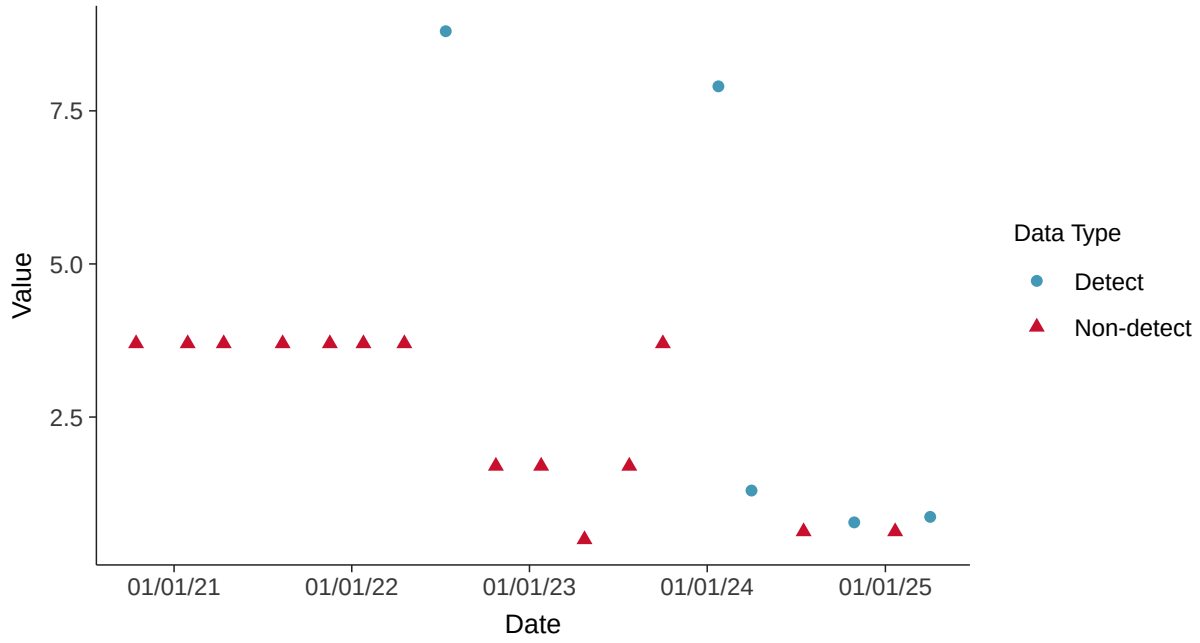

Trend Regression: Piecewise Linear-Linear
Cadmium, MW-11 (ug/L)
0.5
0.4
0.3
0.2
0.1
Value
01/01/21
01/01/22
01/01/23
01/01/24
01/01/25
Date
Data Type
Non-detect

App. IV: Chromium, MW-11

ID: 10_03_109

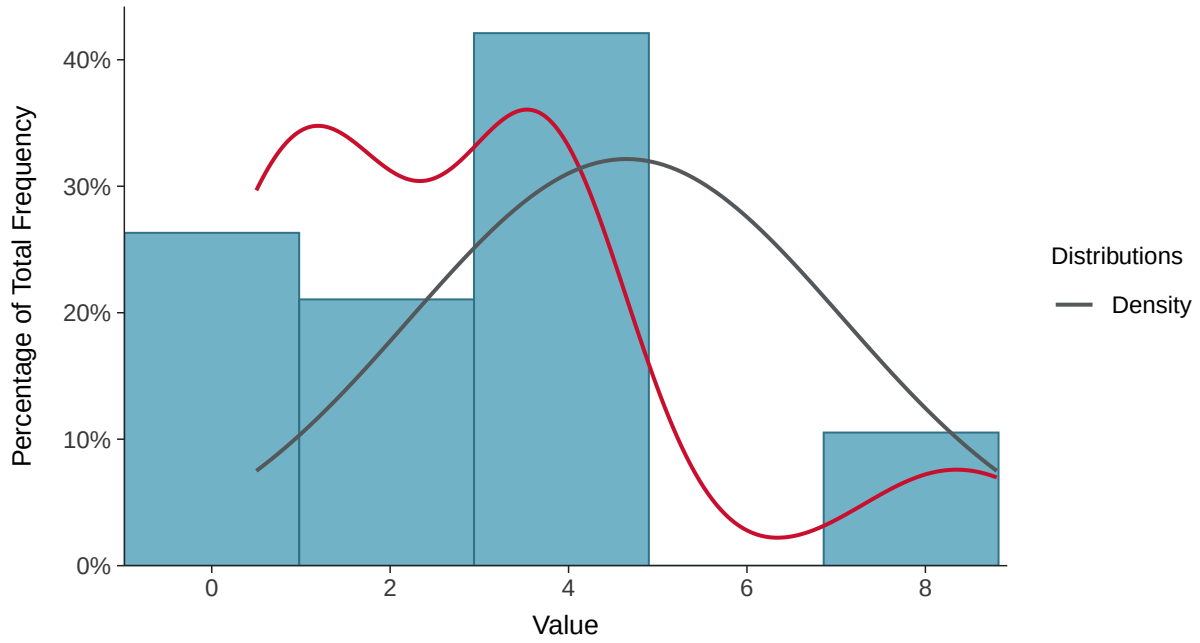
Scatter Plot

Chromium, MW-11 (ug/L)



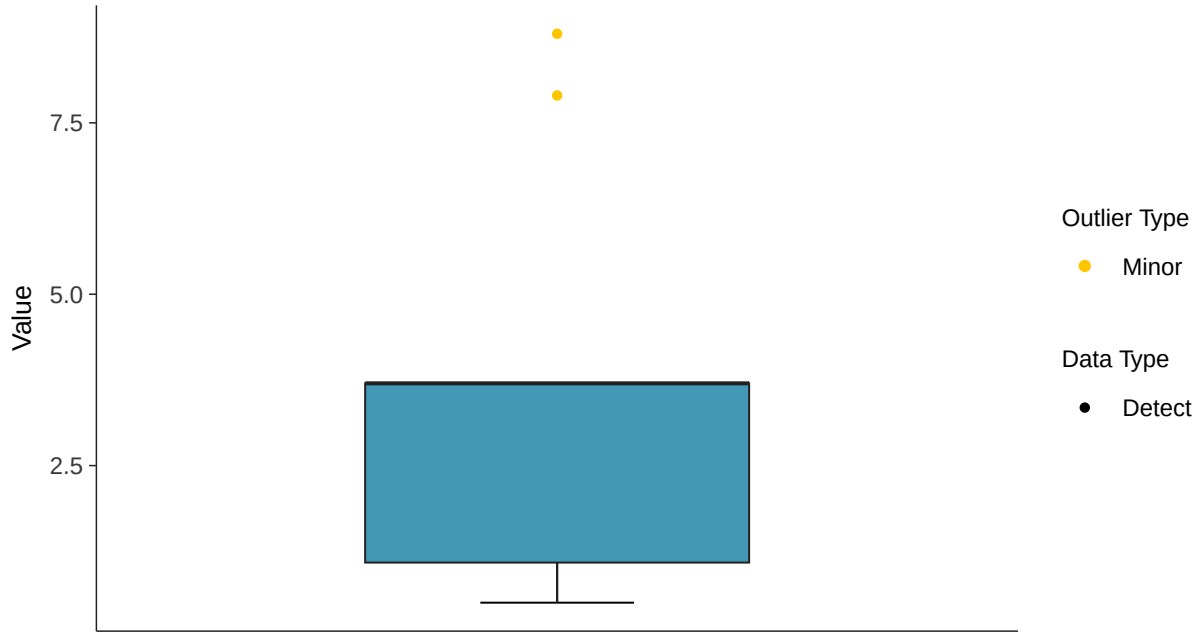
Histogram

Chromium, MW-11 (ug/L)



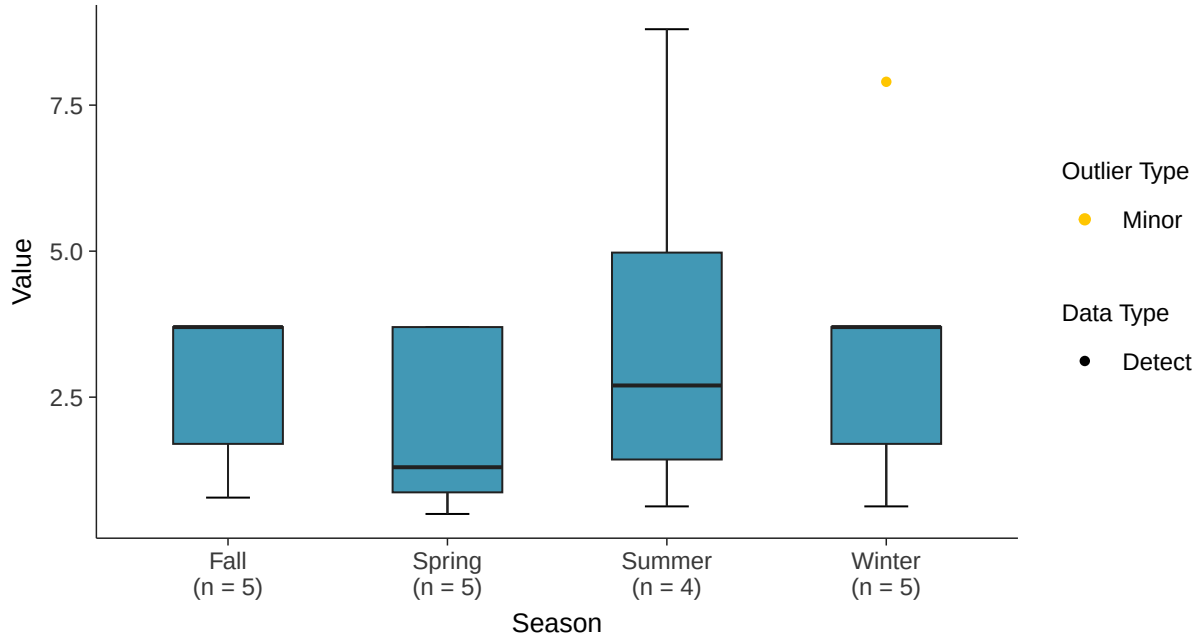
Boxplot

Chromium, MW-11 (ug/L)



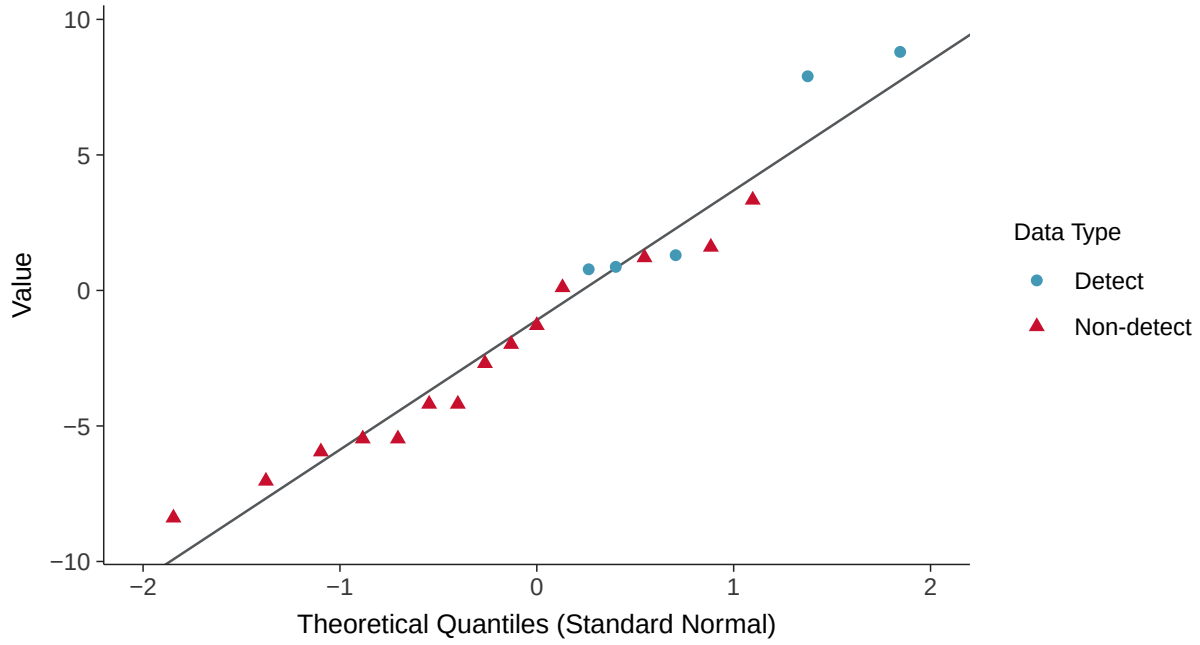
Boxplot by Season

Chromium, MW-11 (ug/L)



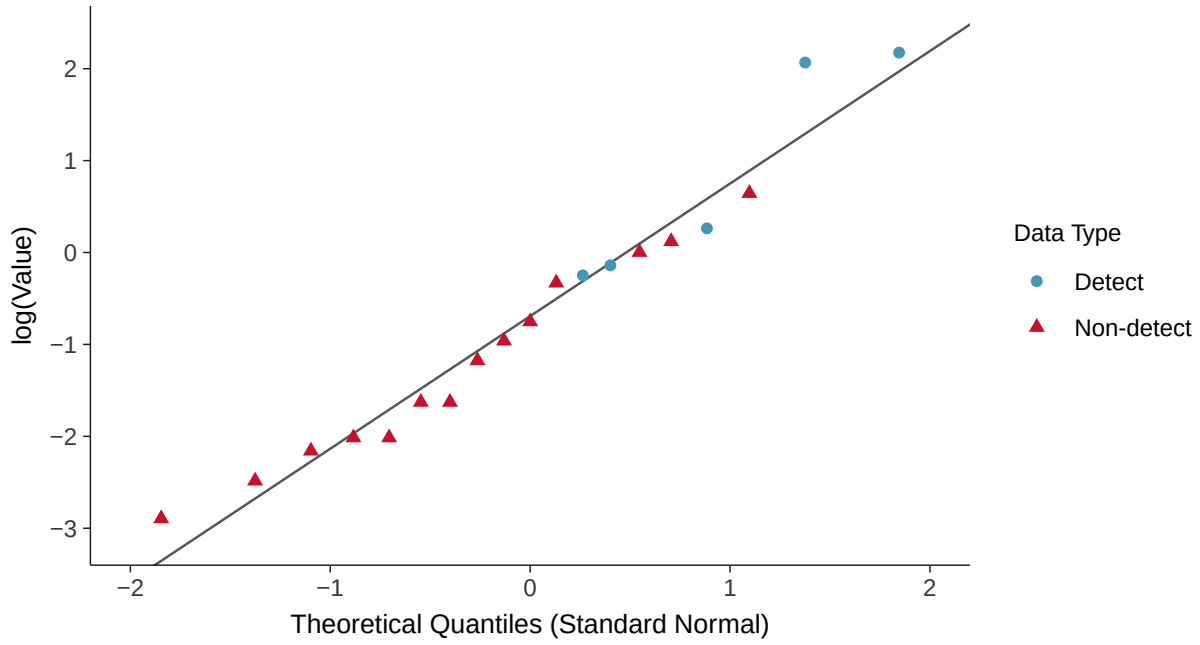
Normal Q-Q plot using ROS Imputed Estimates

Chromium, MW-11 (ug/L)



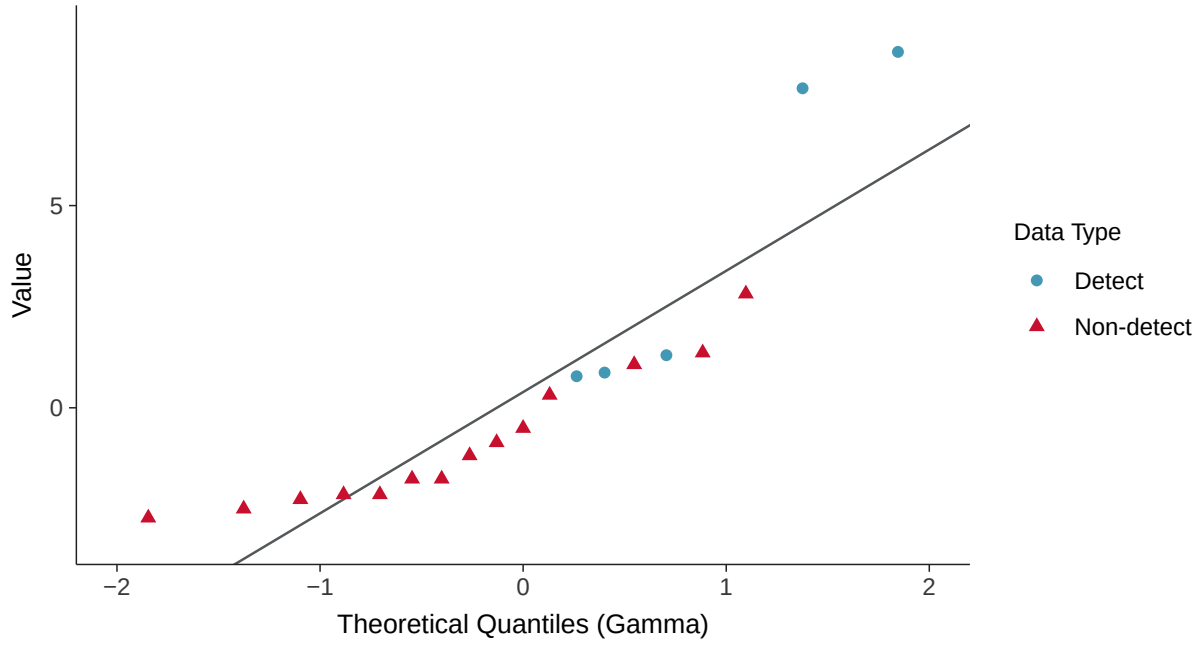
Lognormal Q-Q plot using ROS Imputed Estimates

Chromium, MW-11 (ug/L)



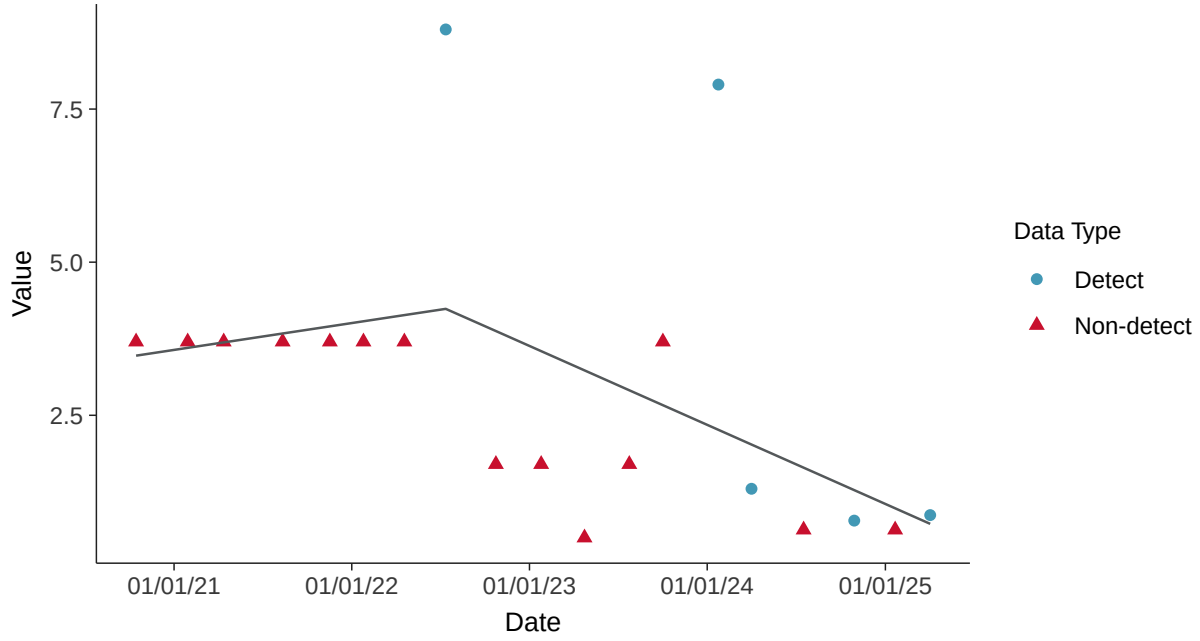
Gamma Q-Q plot using ROS Imputed Estimates

Chromium, MW-11 (ug/L)



Trend Regression: Piecewise Linear-Linear

Chromium, MW-11 (ug/L)

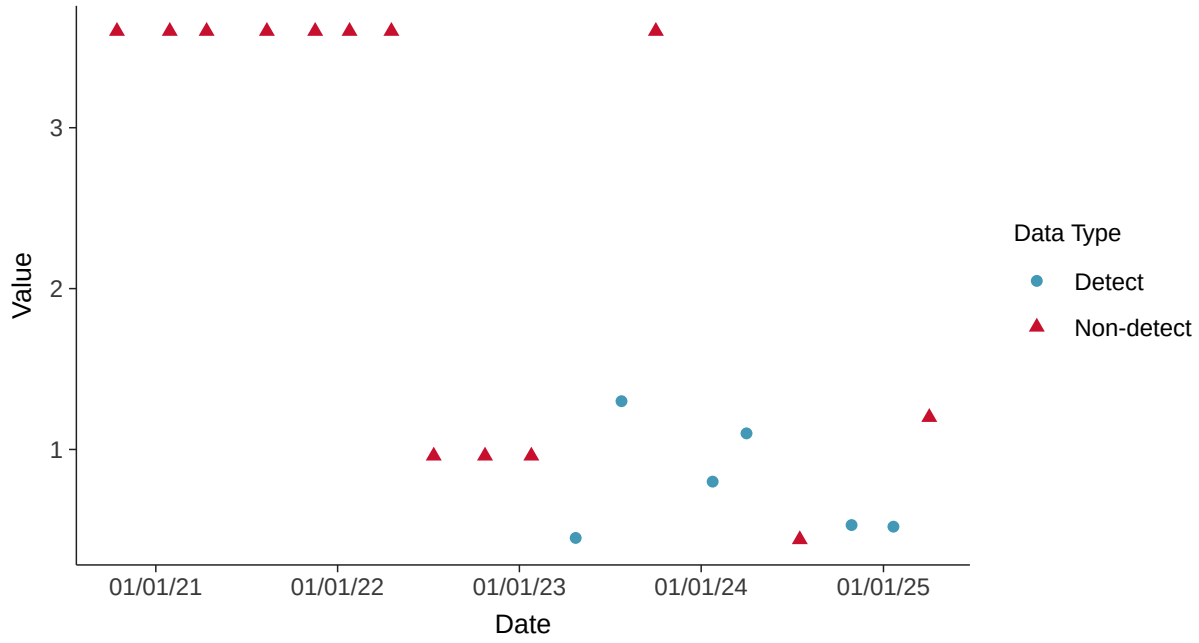


App. IV: Cobalt, MW-11

ID: 10_03_110

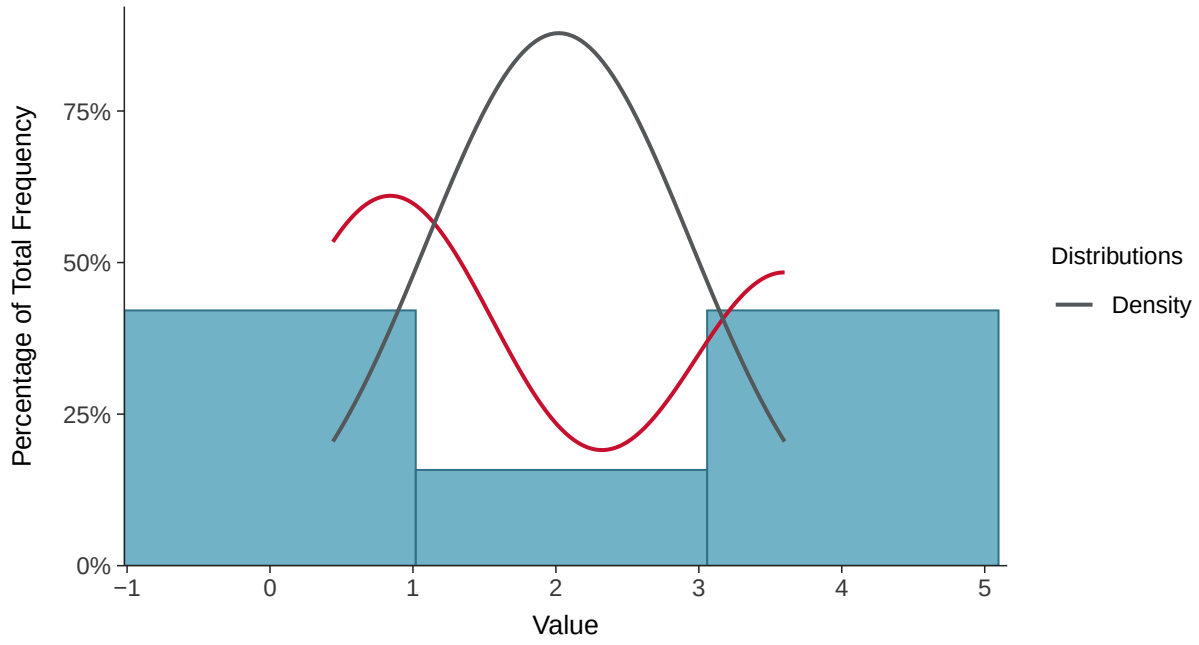
Scatter Plot

Cobalt, MW-11 (ug/L)



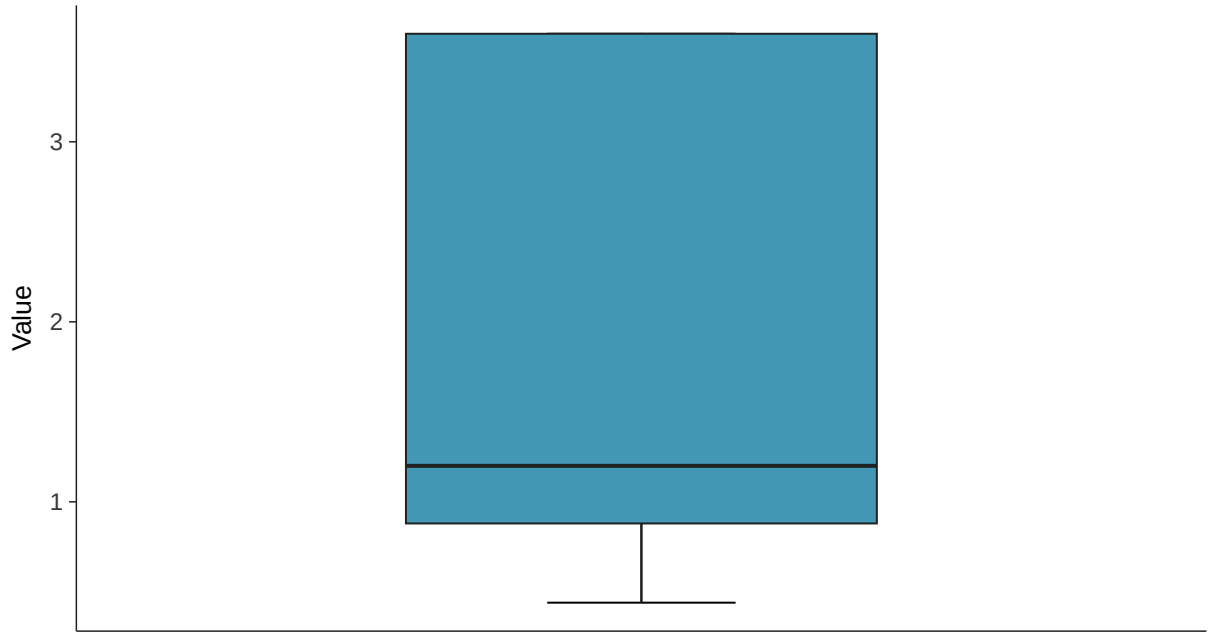
Histogram

Cobalt, MW-11 (ug/L)



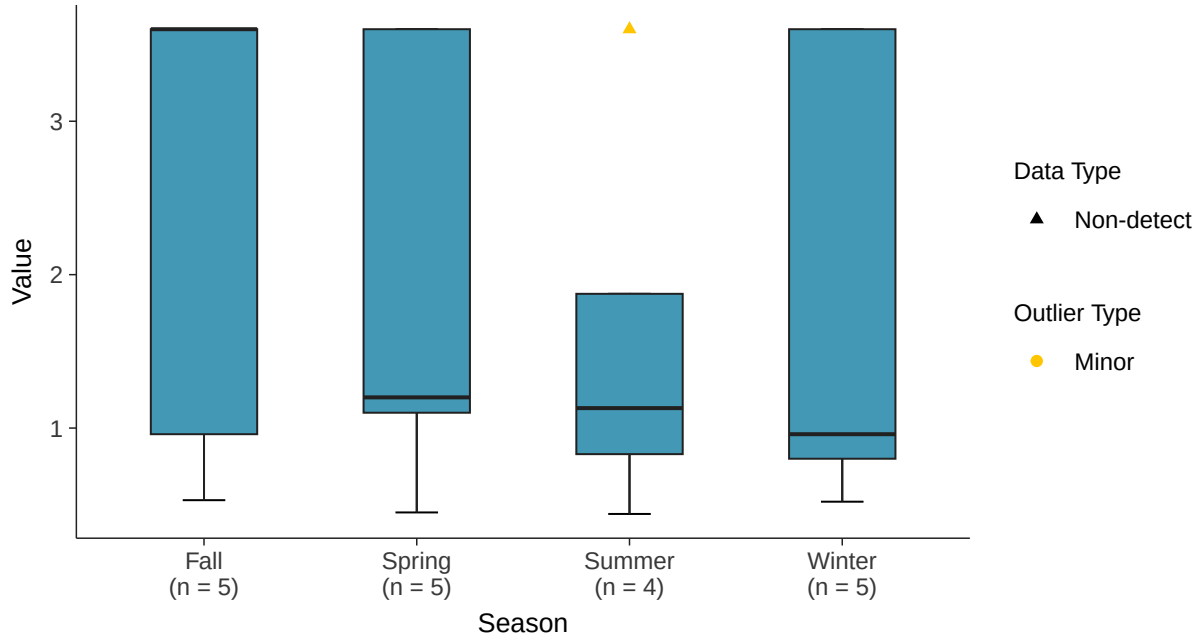
Boxplot

Cobalt, MW-11 (ug/L)



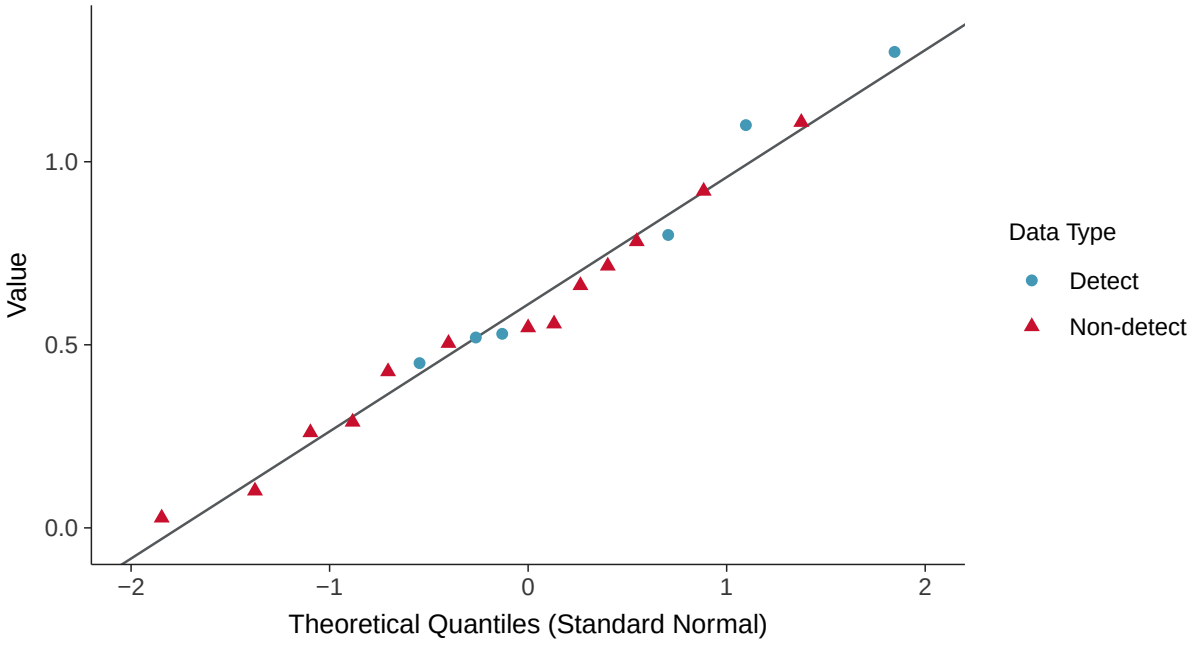
Boxplot by Season

Cobalt, MW-11 (ug/L)



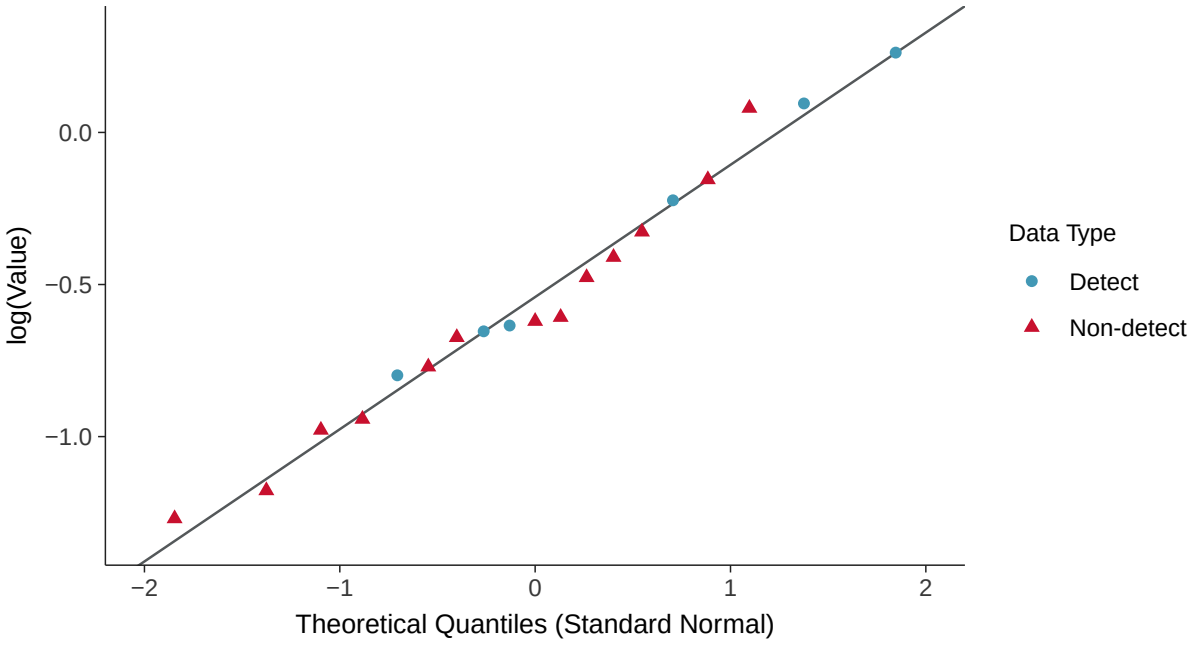
Normal Q-Q plot using ROS Imputed Estimates

Cobalt, MW-11 (ug/L)



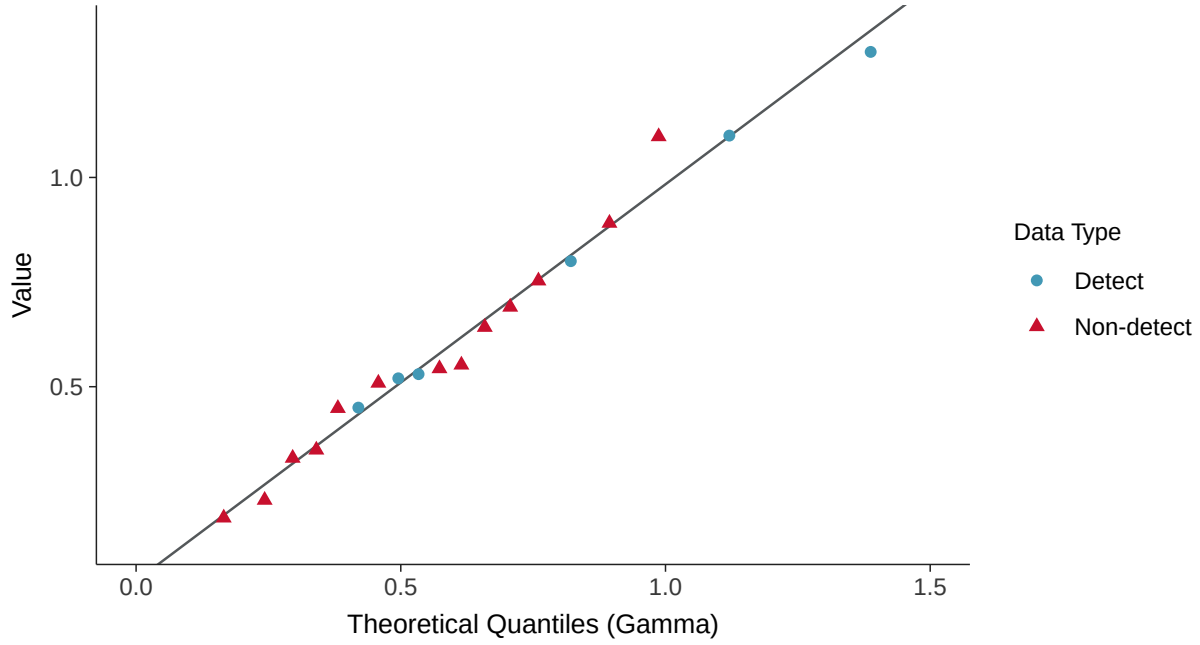
Lognormal Q-Q plot using ROS Imputed Estimates

Cobalt, MW-11 (ug/L)



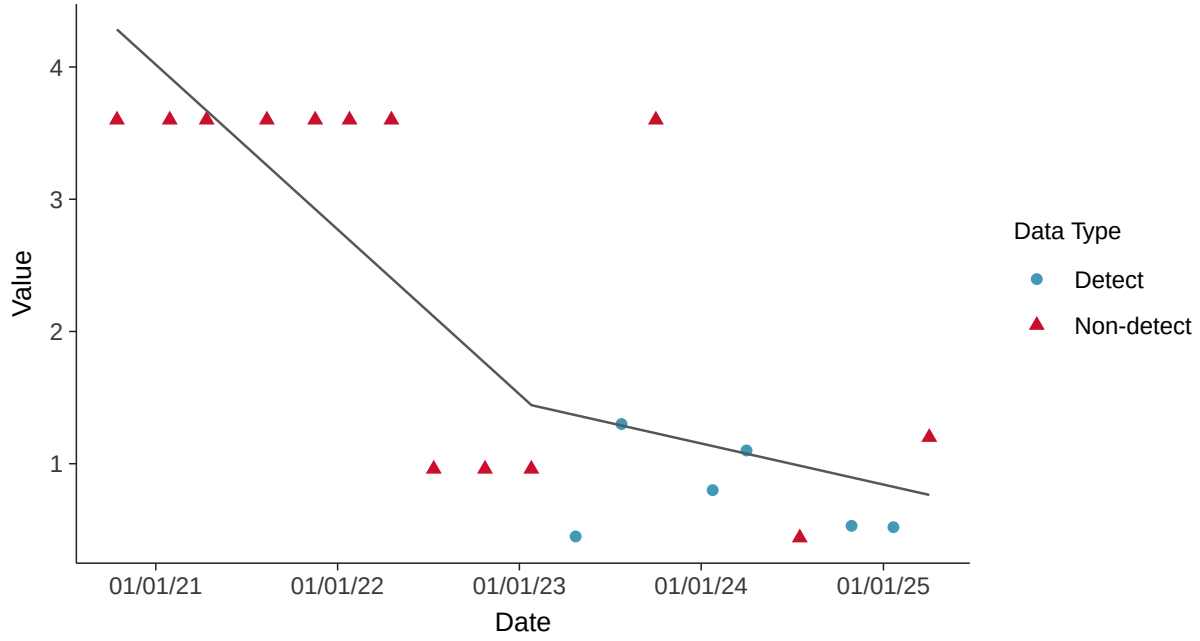
Gamma Q-Q plot using ROS Imputed Estimates

Cobalt, MW-11 (ug/L)



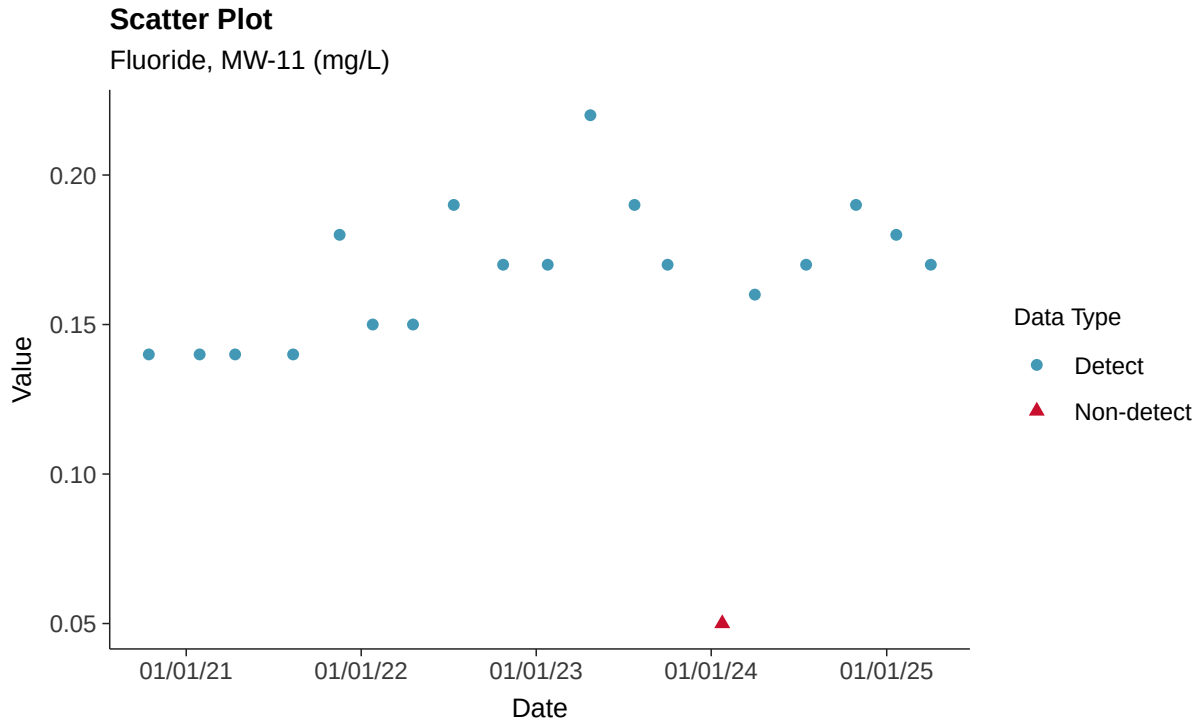
Trend Regression: Piecewise Linear-Linear

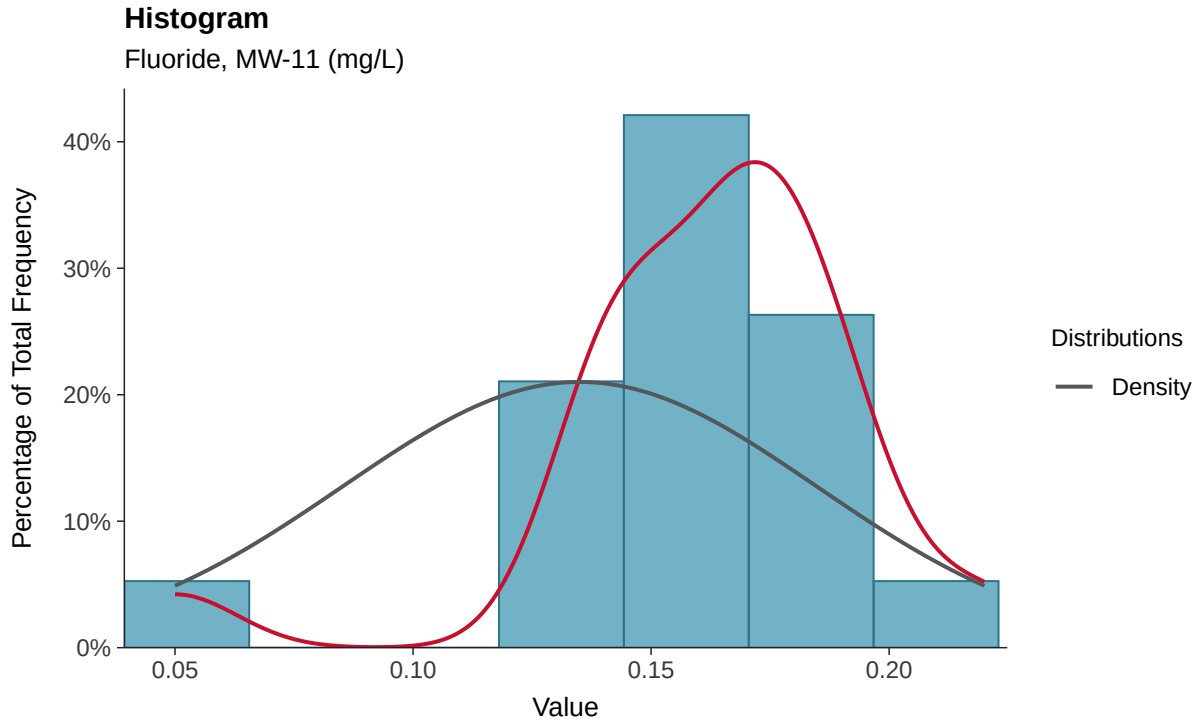
Cobalt, MW-11 (ug/L)



App. IV: Fluoride, MW-11

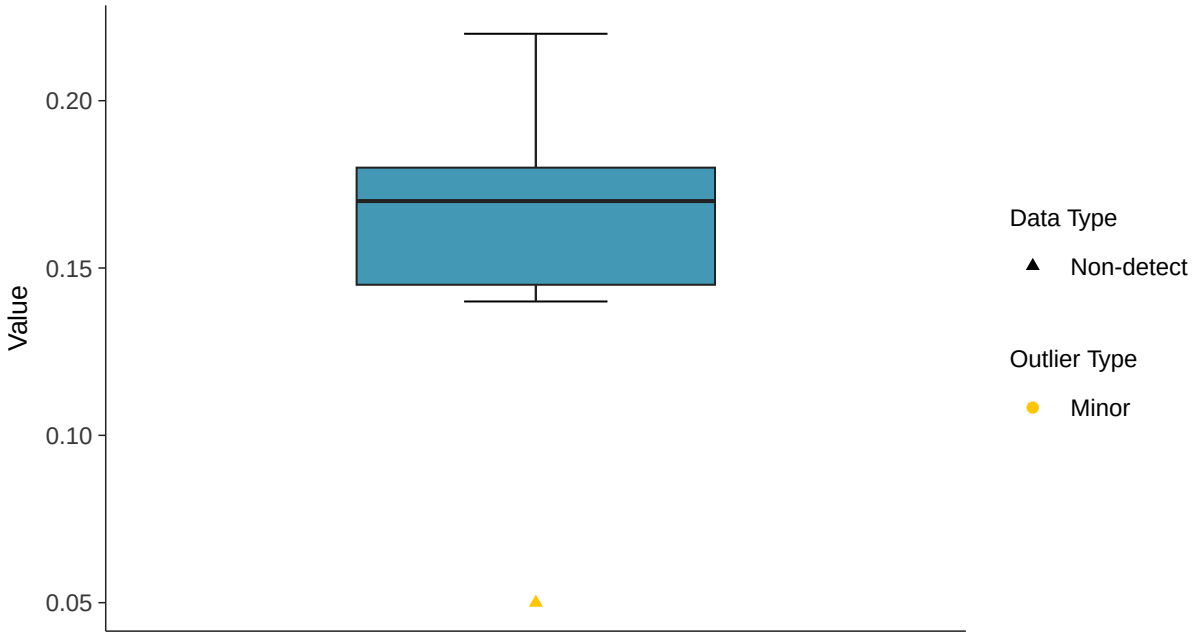
ID: 10_03_112





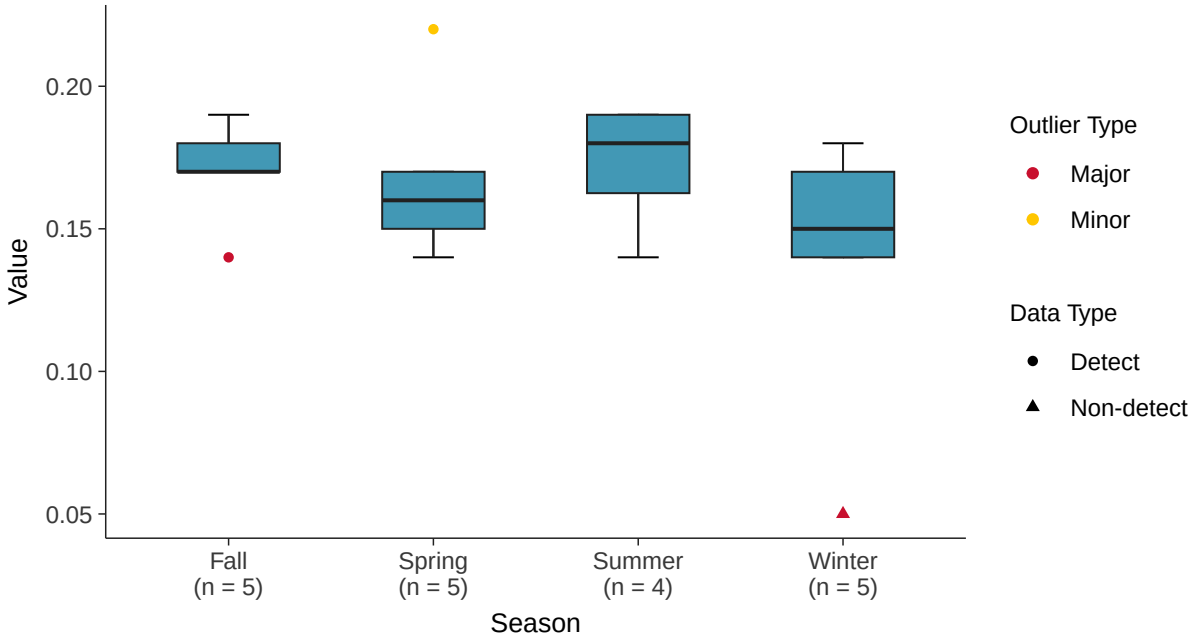
Boxplot

Fluoride, MW-11 (mg/L)



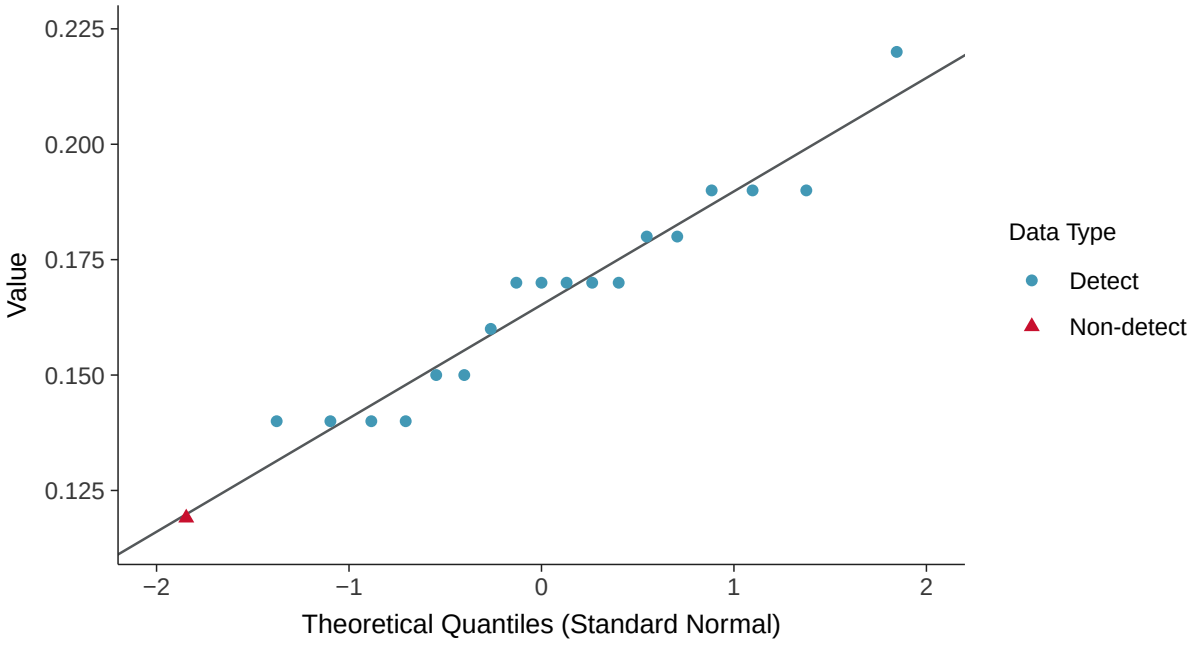
Boxplot by Season

Fluoride, MW-11 (mg/L)



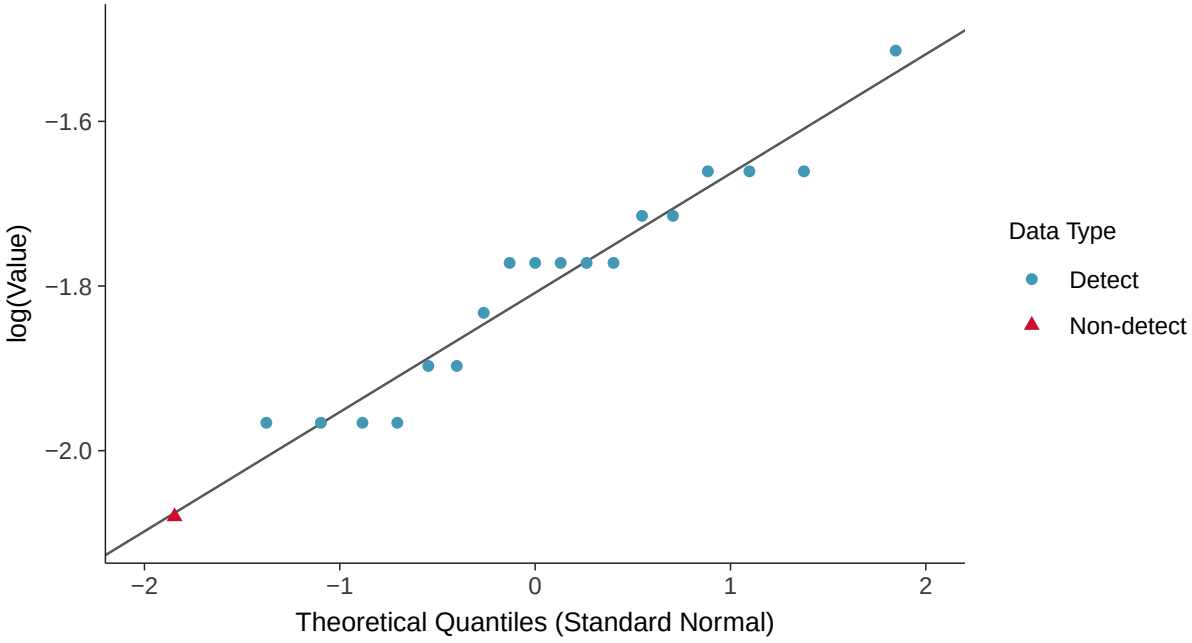
Normal Q-Q plot using ROS Imputed Estimates

Fluoride, MW-11 (mg/L)



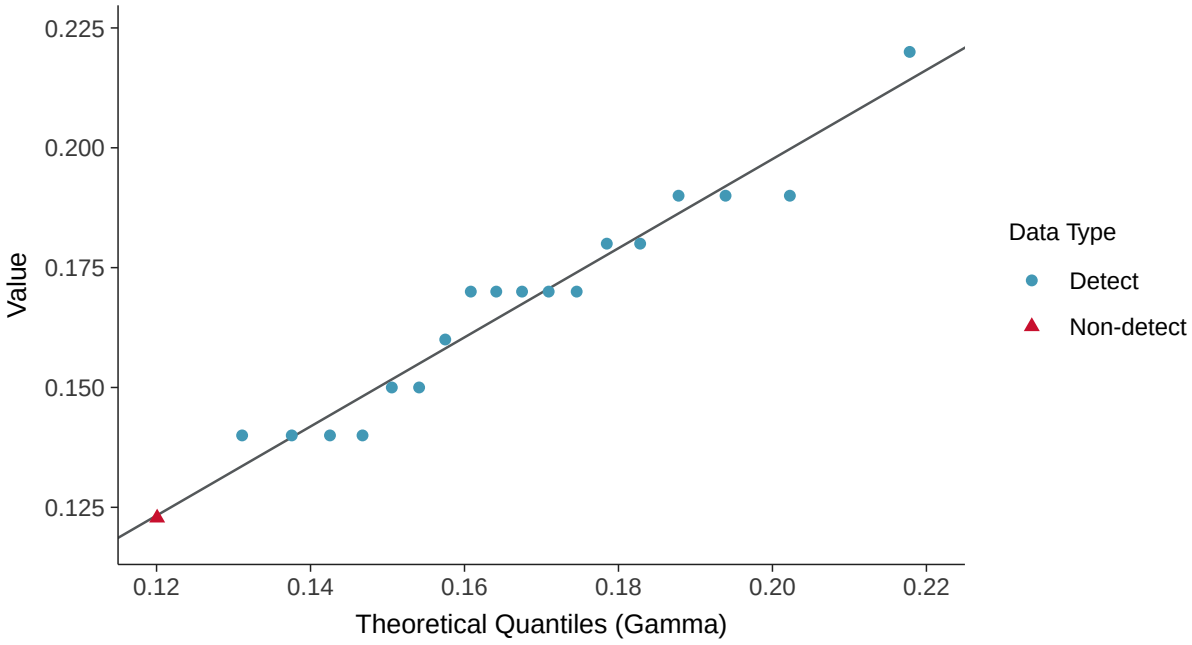
Lognormal Q-Q plot using ROS Imputed Estimates

Fluoride, MW-11 (mg/L)



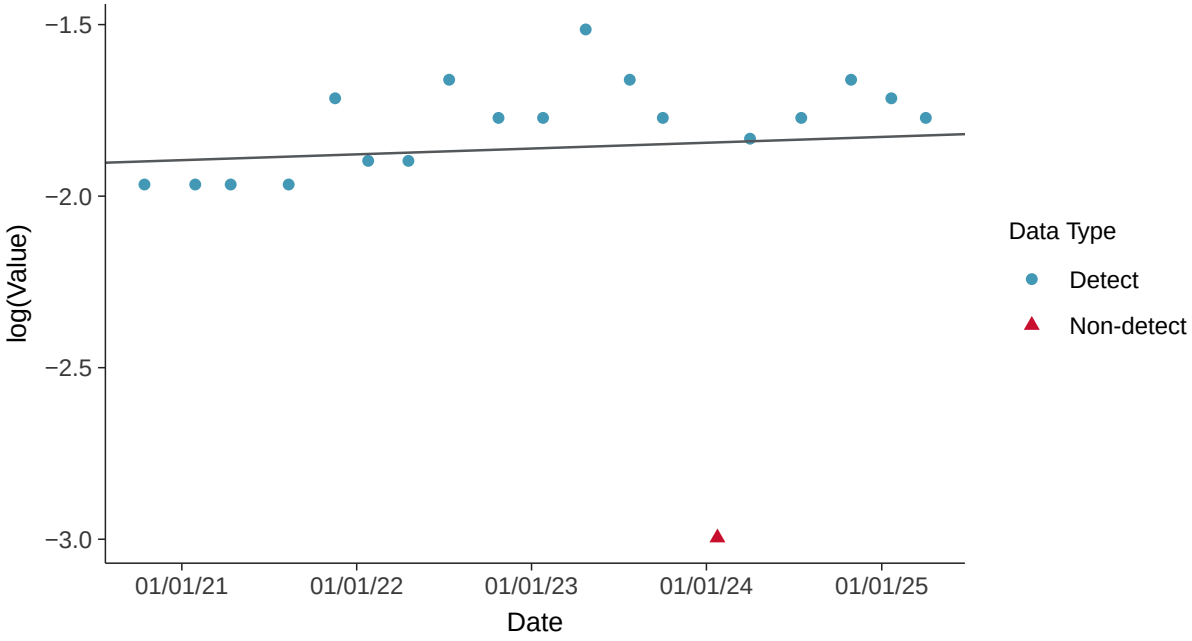
Gamma Q-Q plot using ROS Imputed Estimates

Fluoride, MW-11 (mg/L)



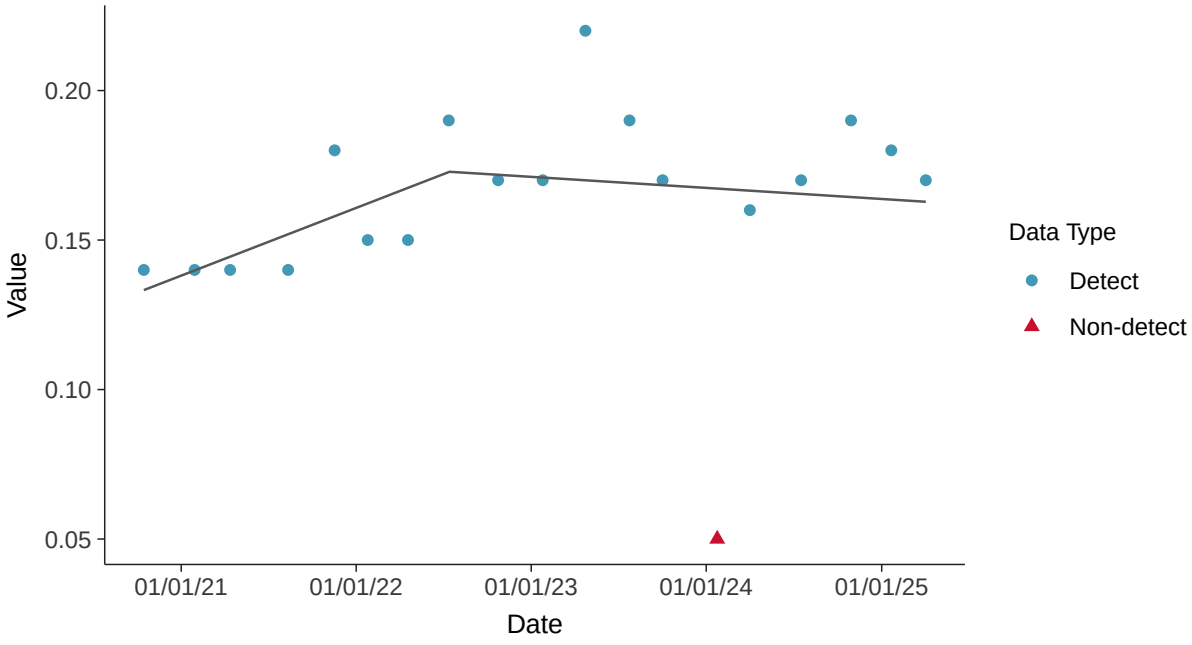
Trend Regression: Lognormal MLE

Fluoride, MW-11 (mg/L)



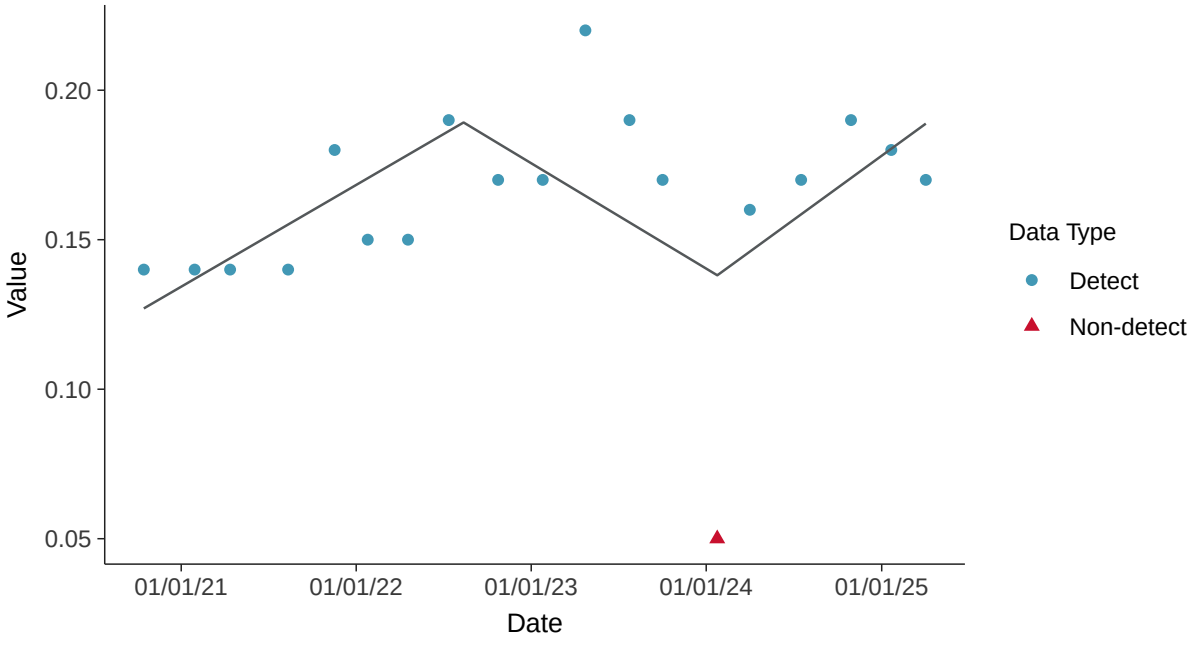
Trend Regression: Piecewise Linear-Linear

Fluoride, MW-11 (mg/L)



Trend Regression: Piecewise Linear-Linear-Linear

Fluoride, MW-11 (mg/L)

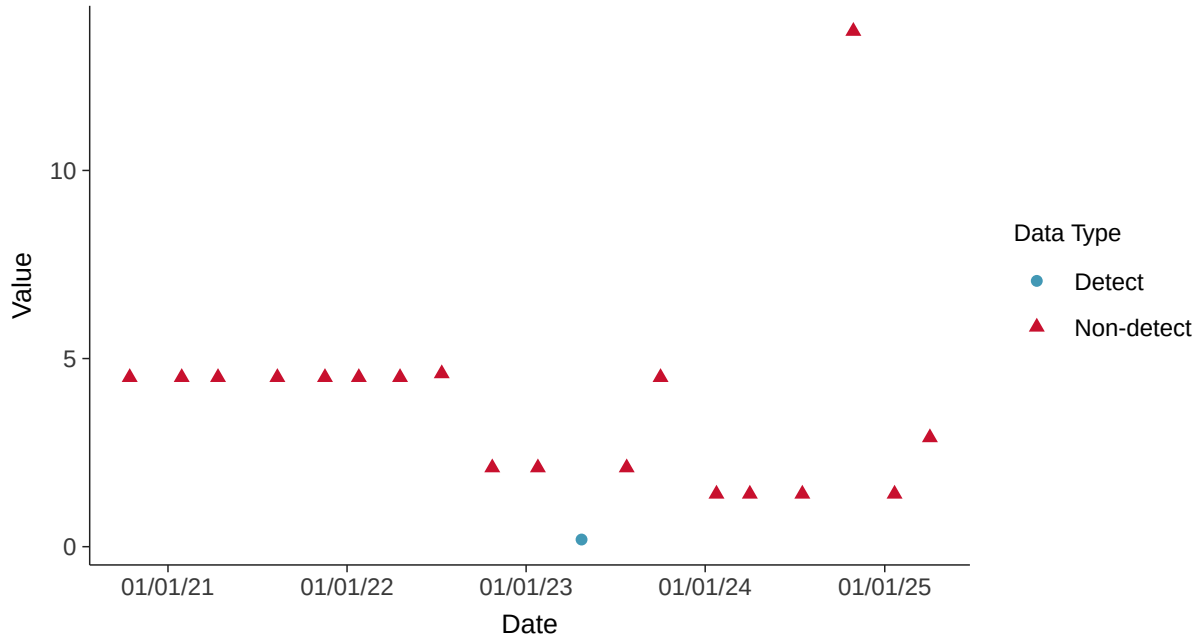


App. IV: Lead, MW-11

ID: 10_03_113

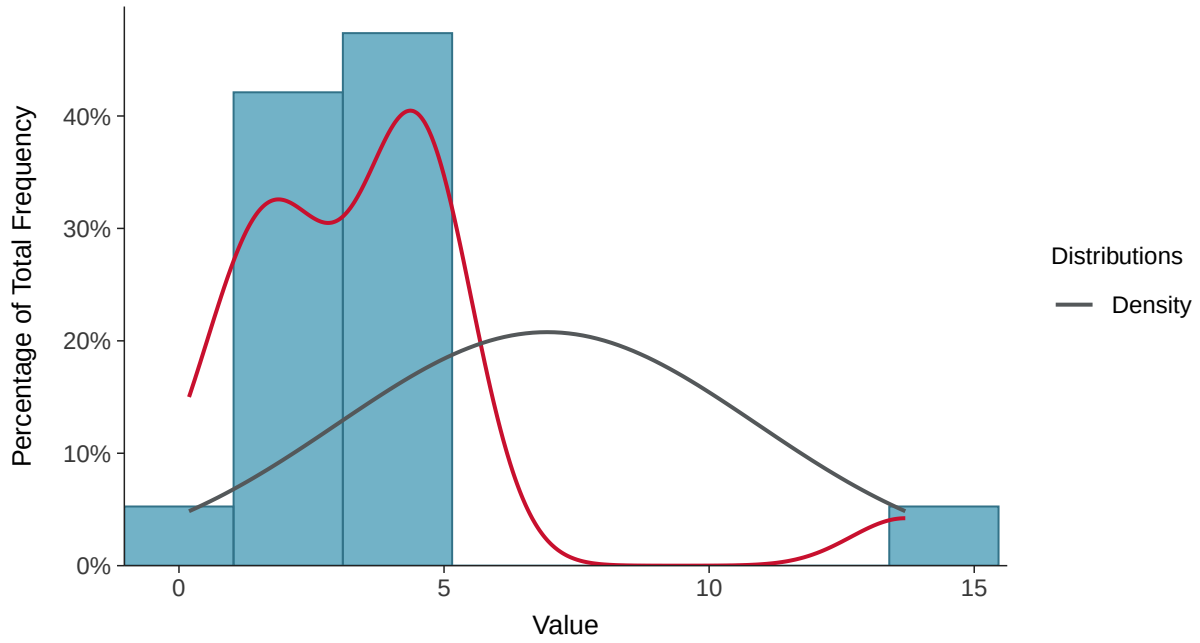
Scatter Plot

Lead, MW-11 (ug/L)



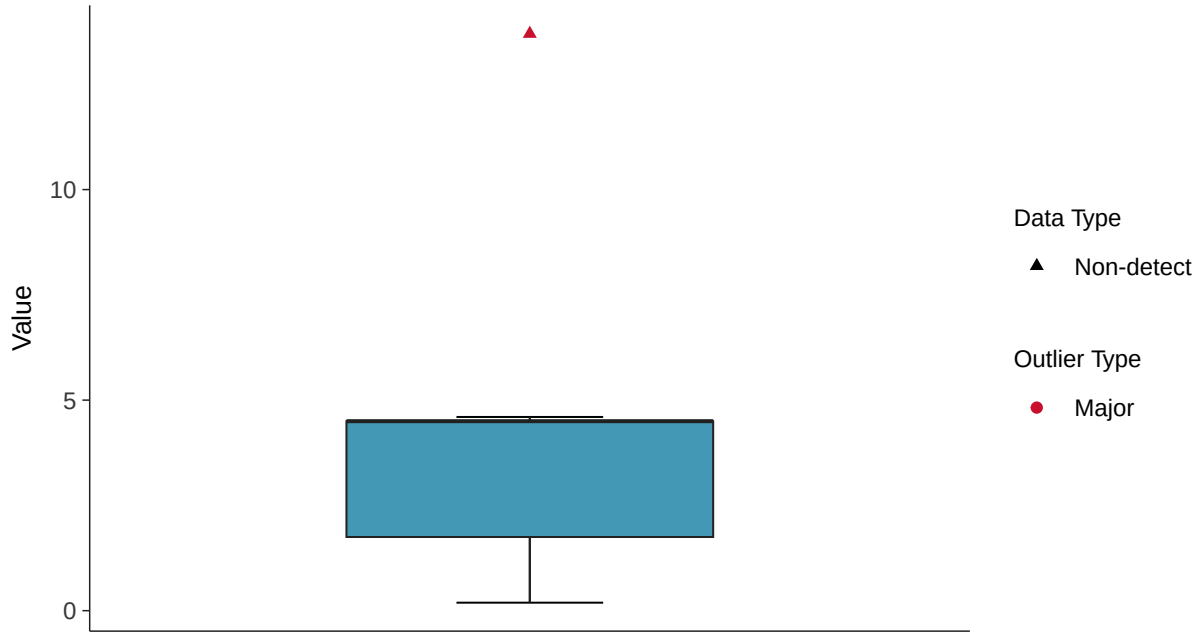
Histogram

Lead, MW-11 (ug/L)



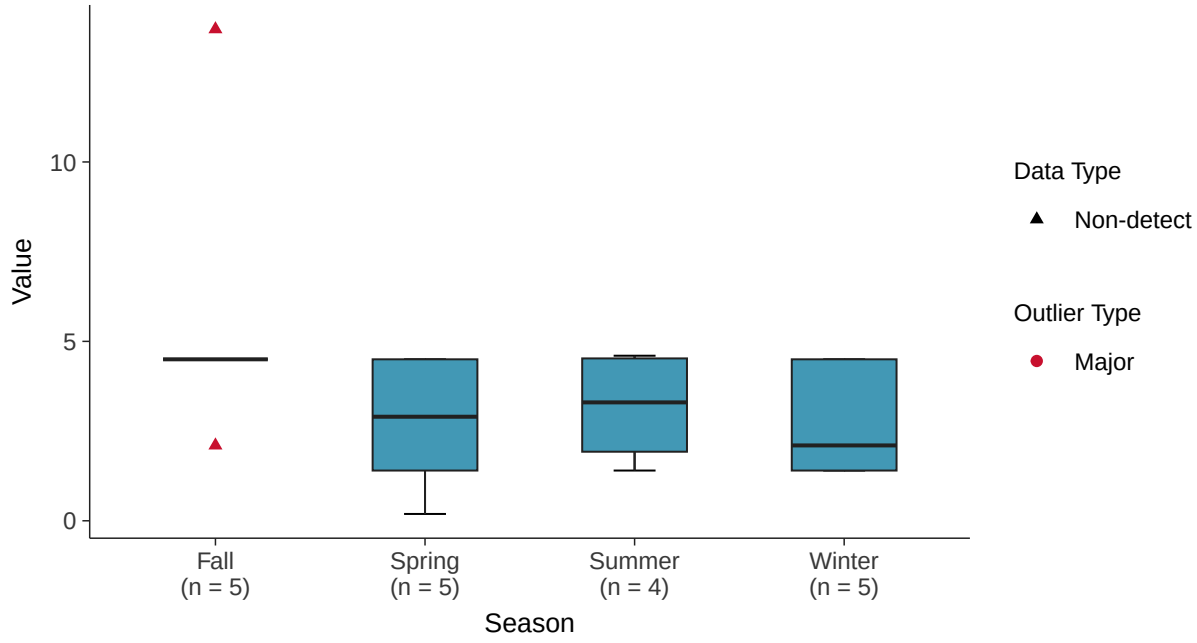
Boxplot

Lead, MW-11 (ug/L)



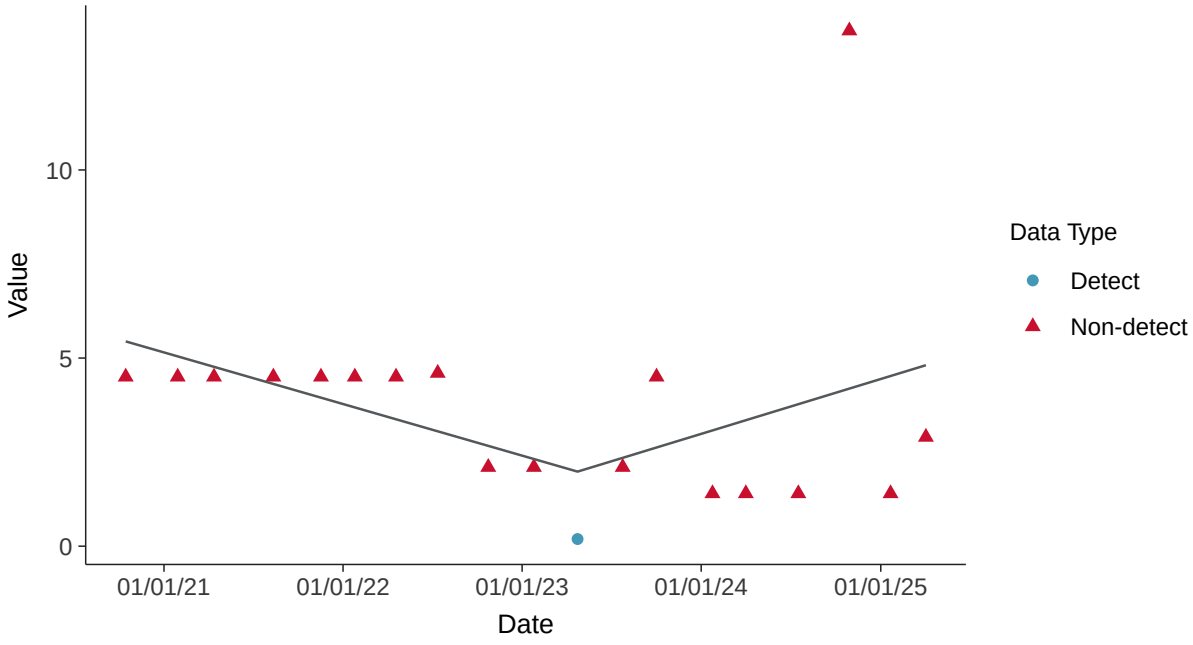
Boxplot by Season

Lead, MW-11 (ug/L)



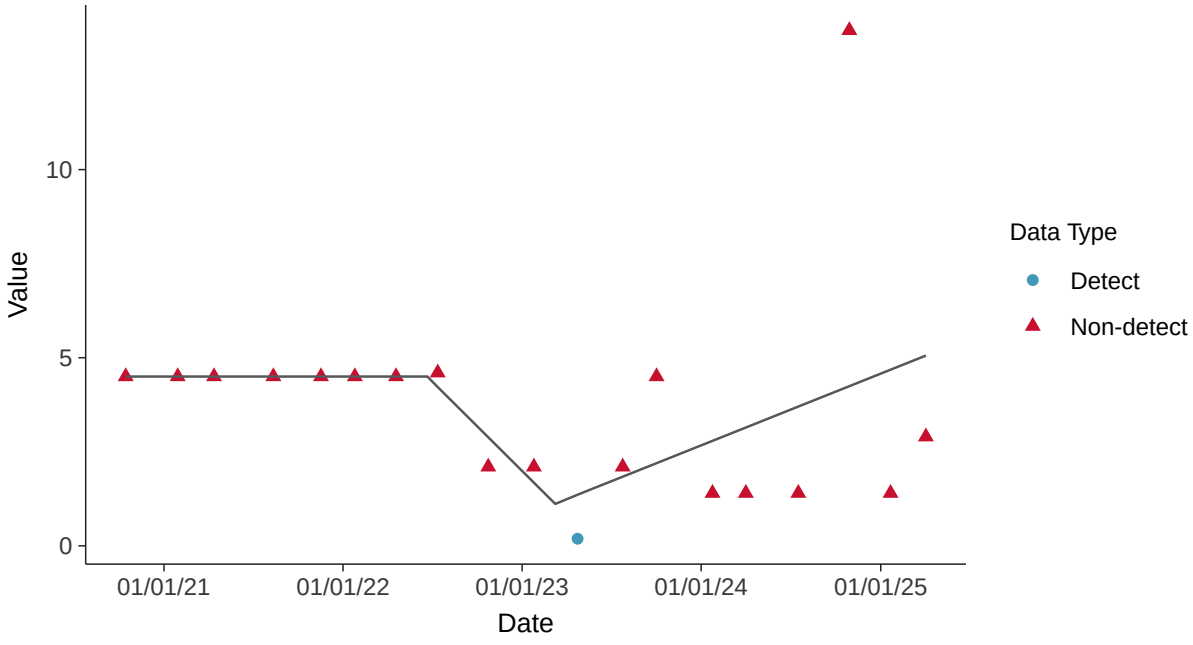
Trend Regression: Piecewise Linear-Linear

Lead, MW-11 (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Lead, MW-11 (ug/L)

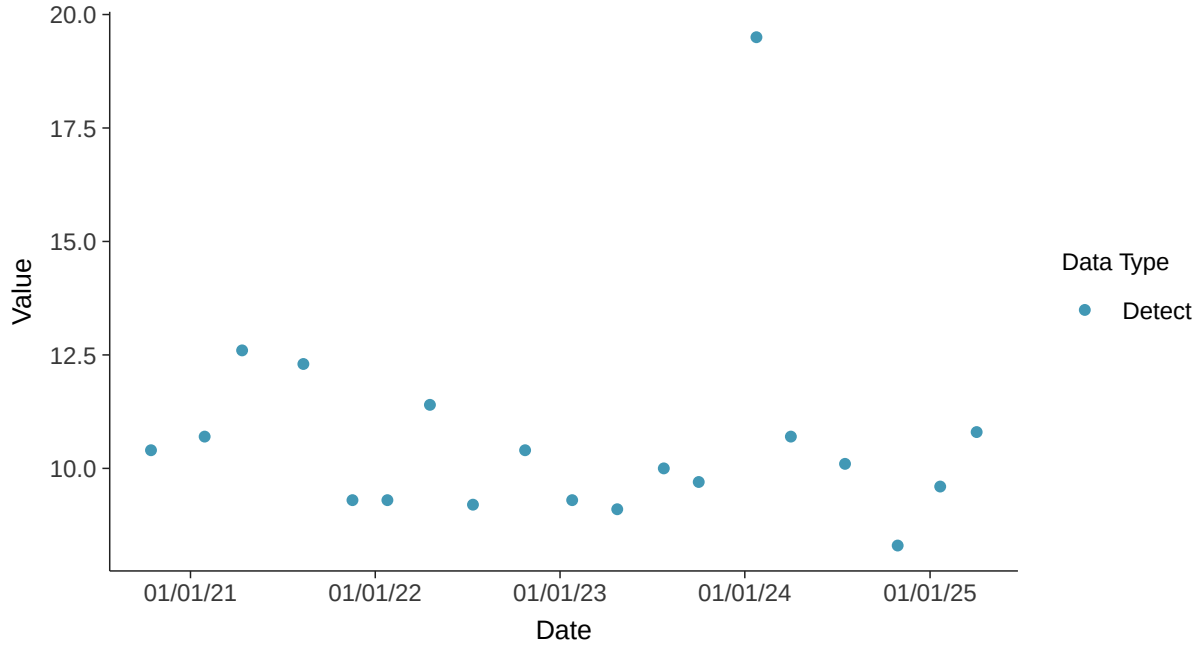


App. IV: Lithium, MW-11

ID: 10_03_114

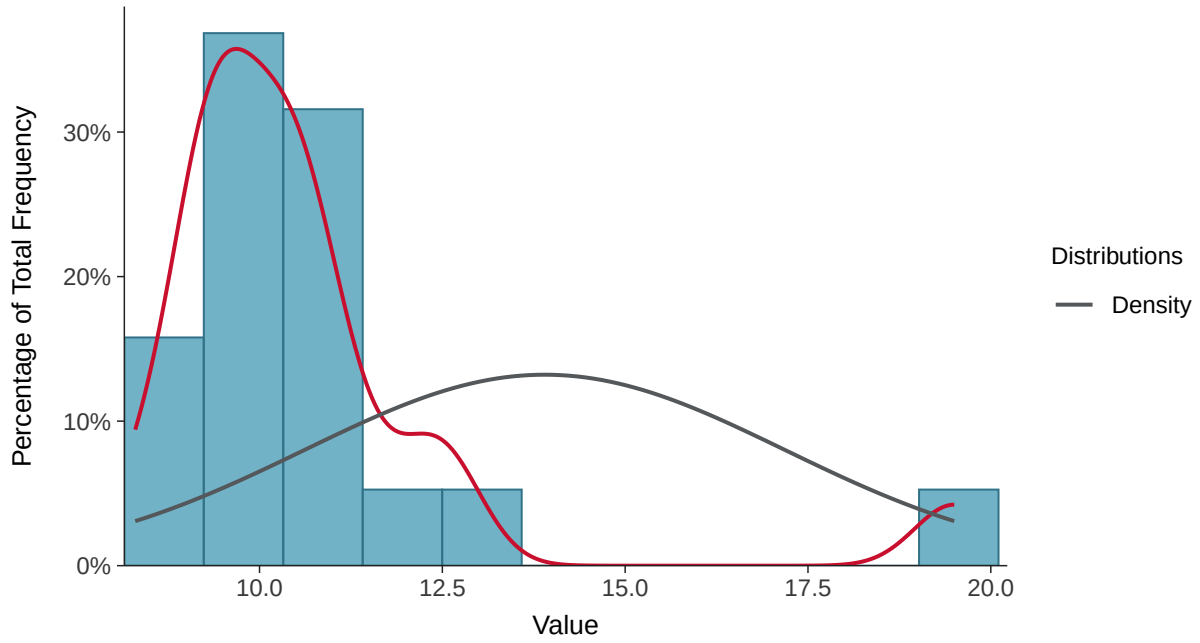
Scatter Plot

Lithium, MW-11 (ug/L)



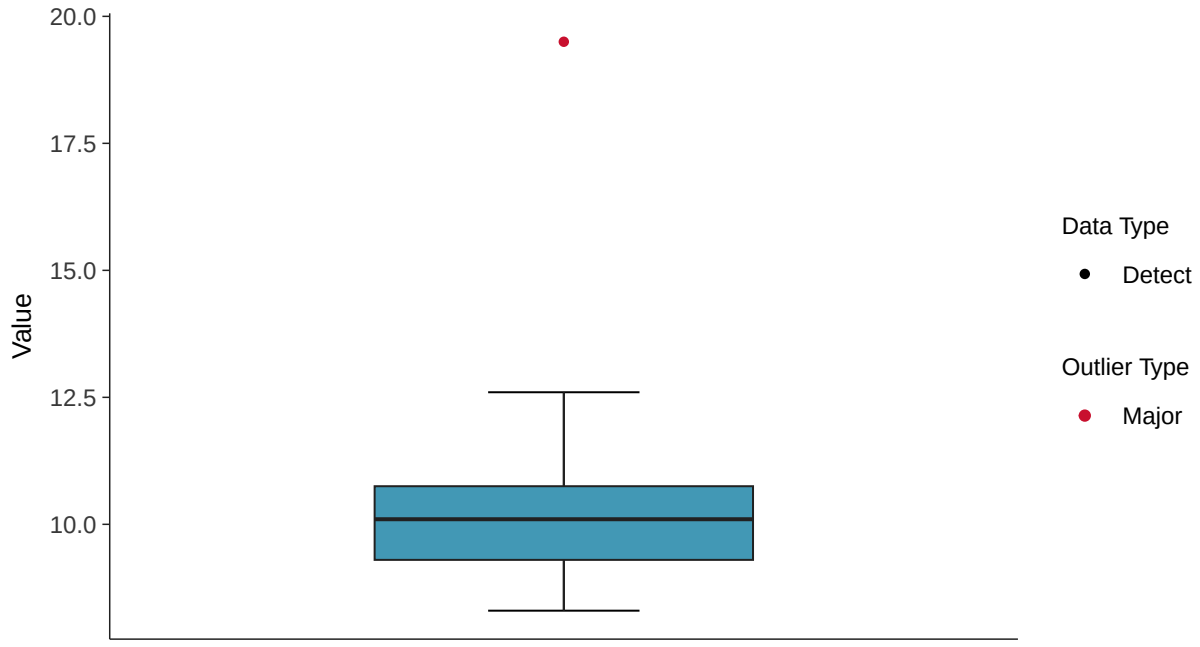
Histogram

Lithium, MW-11 (ug/L)



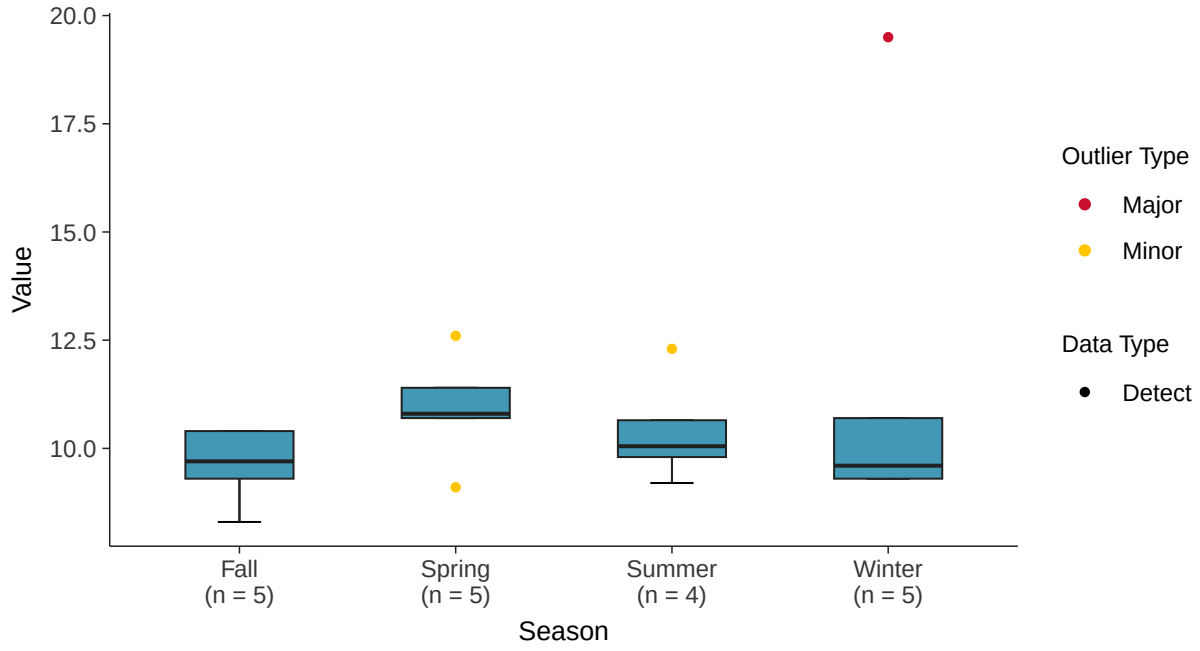
Boxplot

Lithium, MW-11 (ug/L)



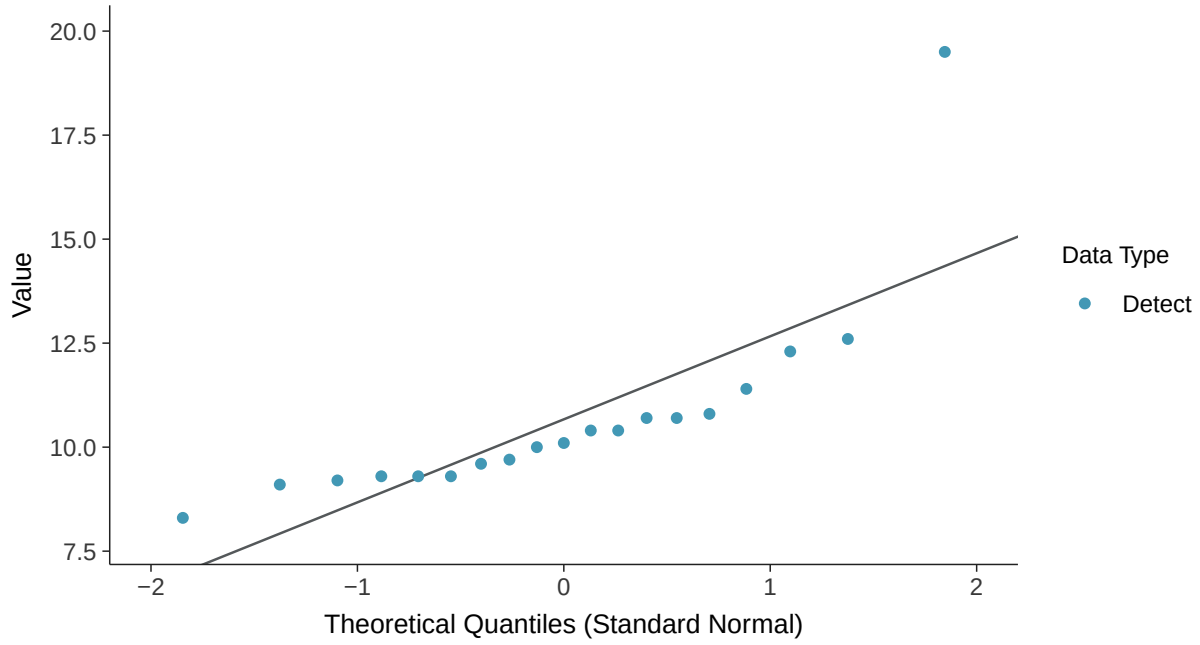
Boxplot by Season

Lithium, MW-11 (ug/L)



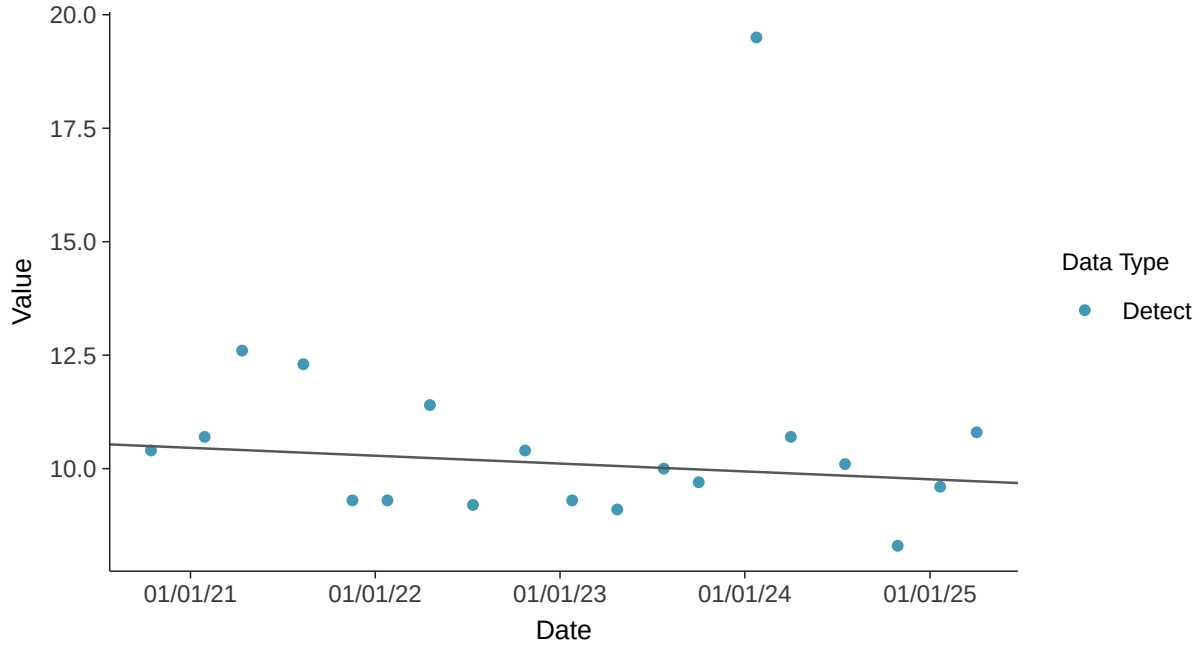
Normal Q-Q plot

Lithium, MW-11 (ug/L)



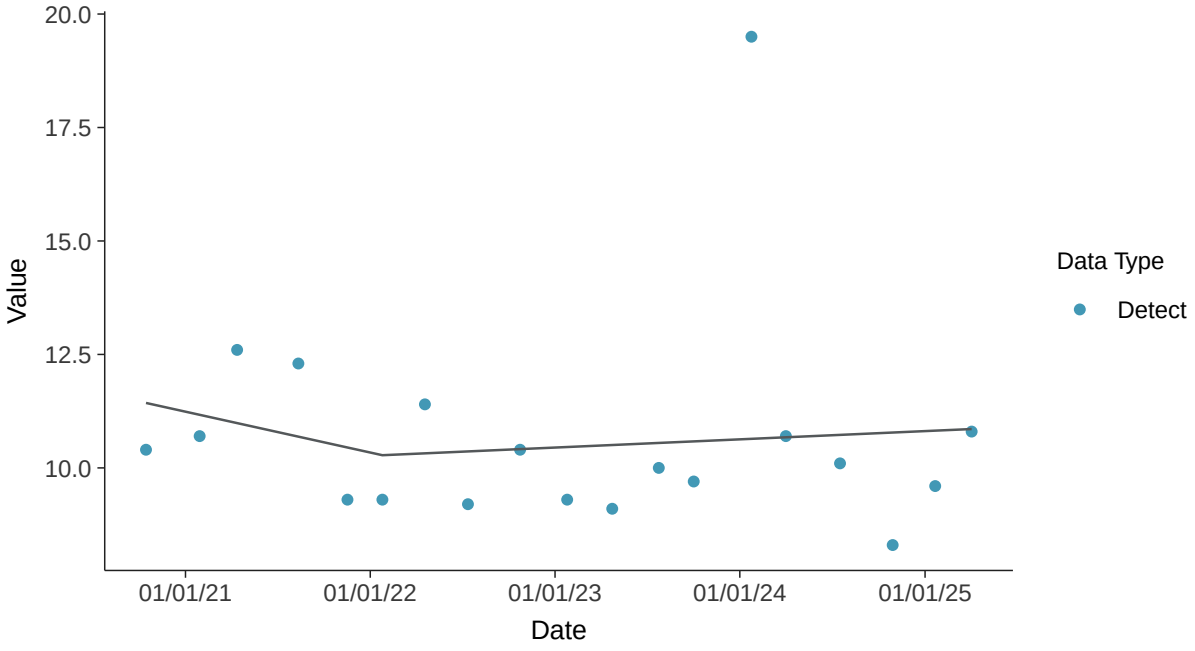
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Lithium, MW-11 (ug/L)



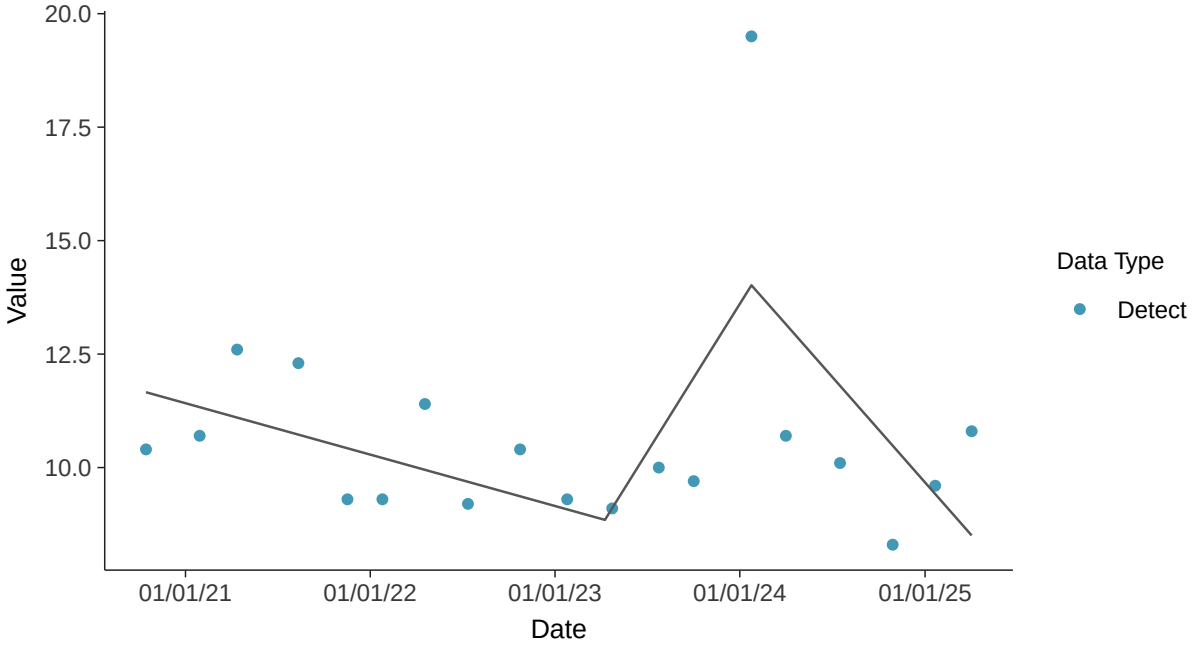
Trend Regression: Piecewise Linear-Linear

Lithium, MW-11 (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Lithium, MW-11 (ug/L)

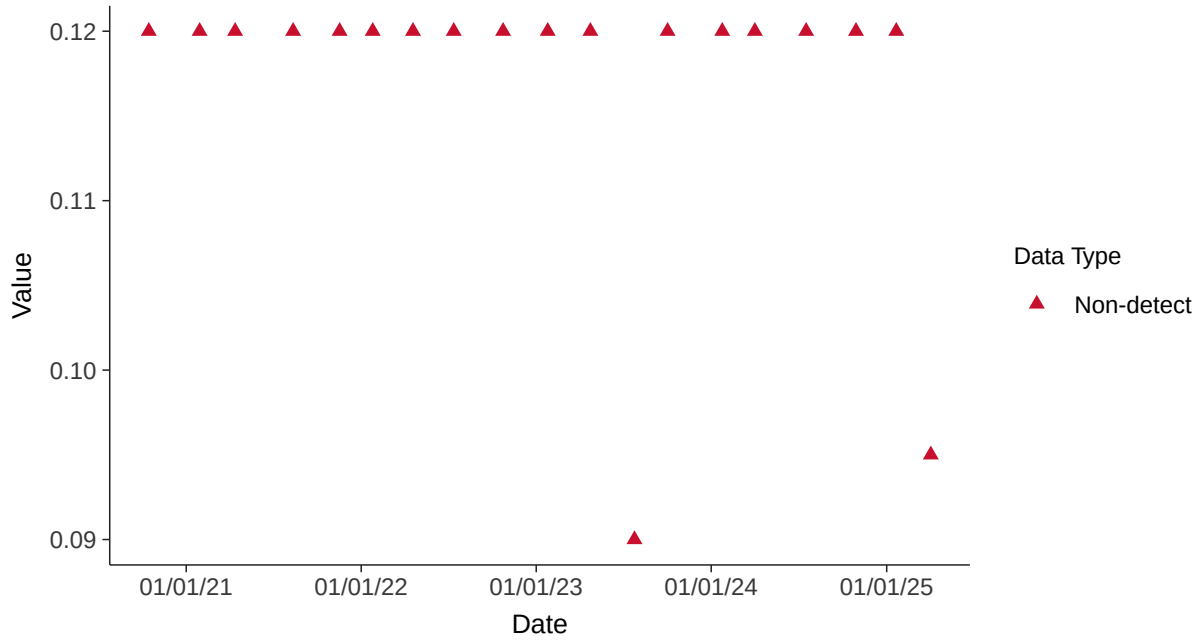


App. IV: Mercury, MW-11

ID: 10_03_115

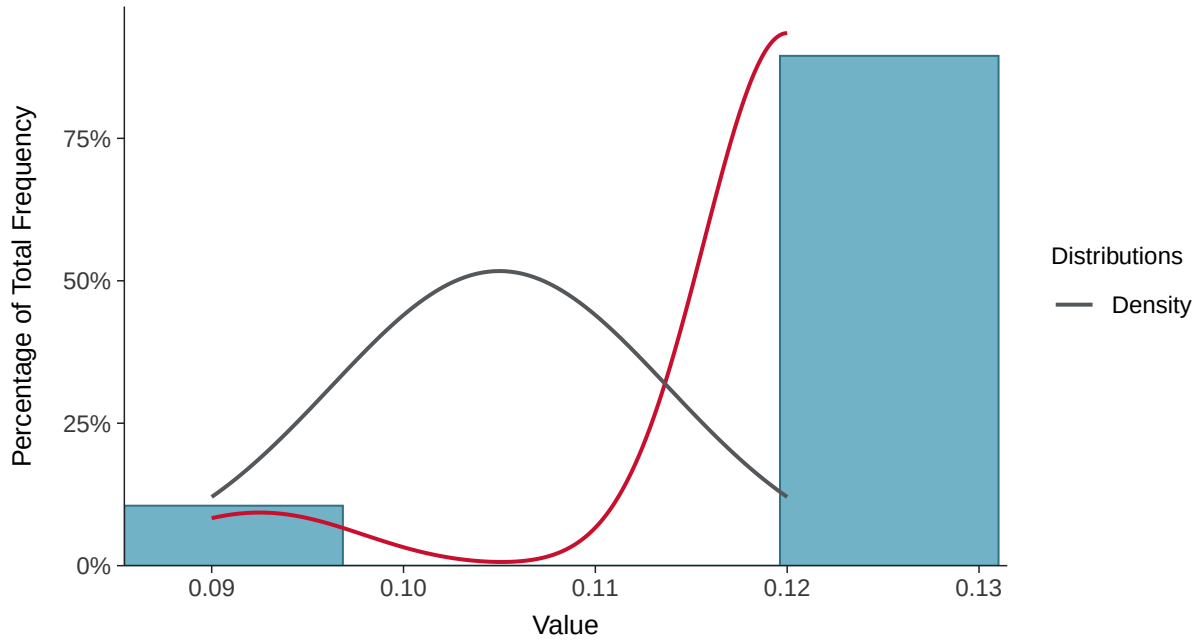
Scatter Plot

Mercury, MW-11 (ug/L)



Histogram

Mercury, MW-11 (ug/L)

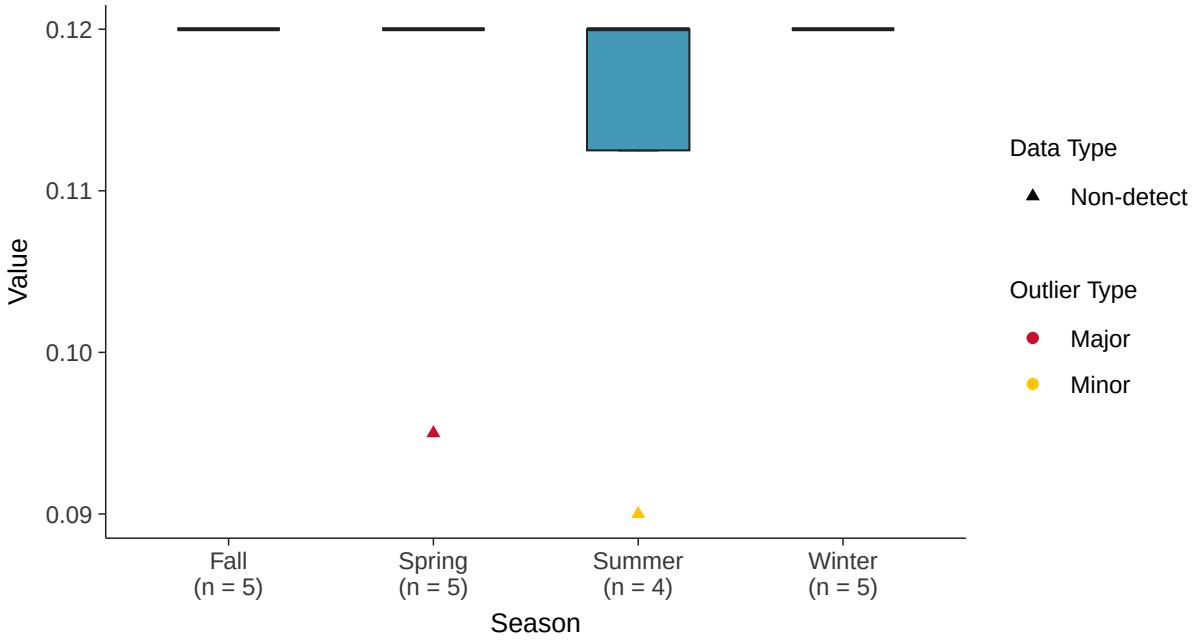


Boxplot

Mercury, MW-11 (ug/L)

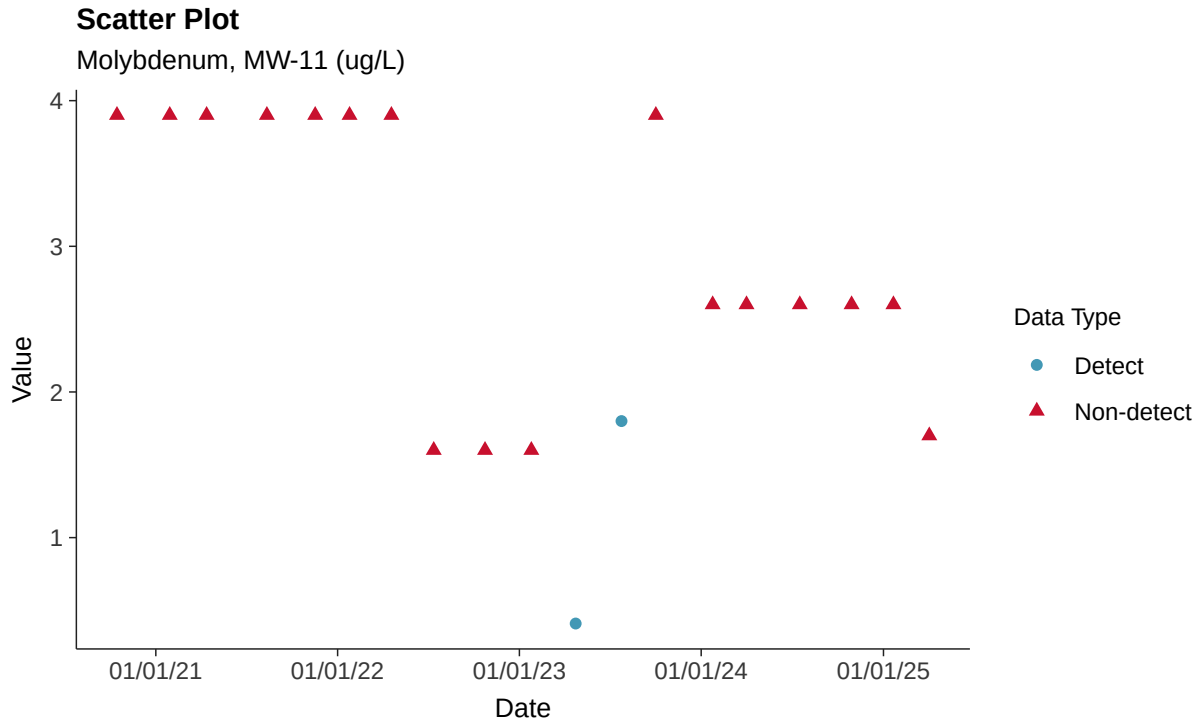
Boxplot by Season

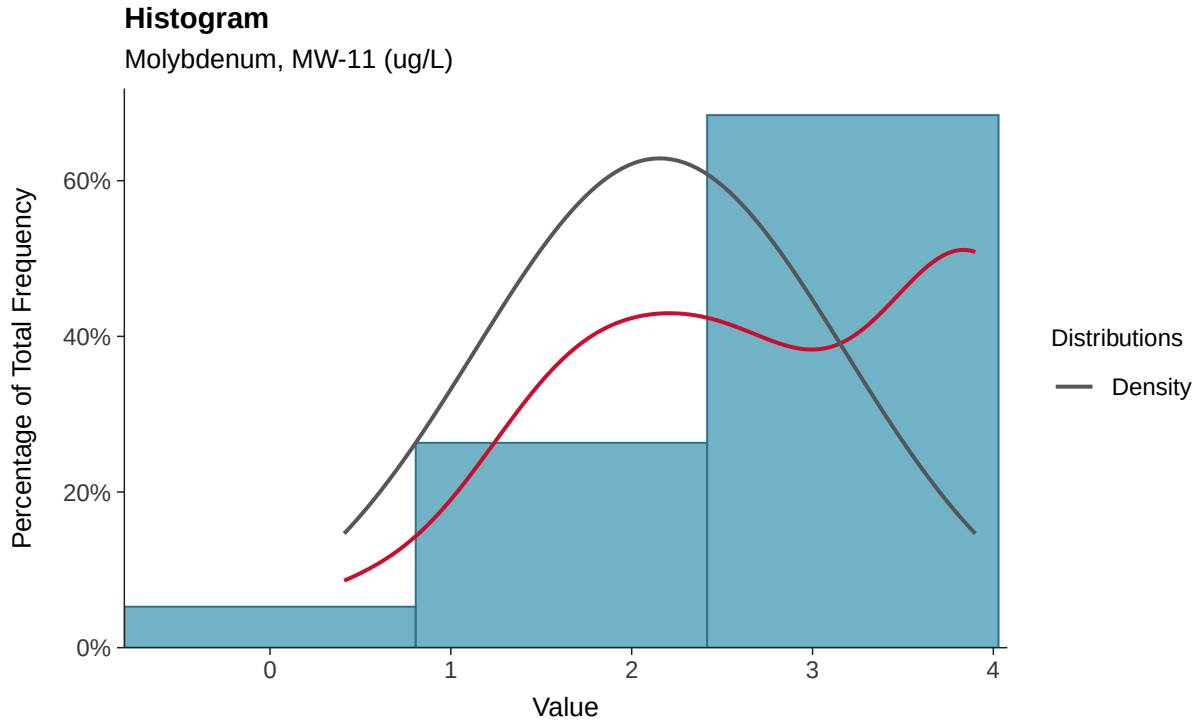
Mercury, MW-11 (ug/L)



App. IV: Molybdenum, MW-11

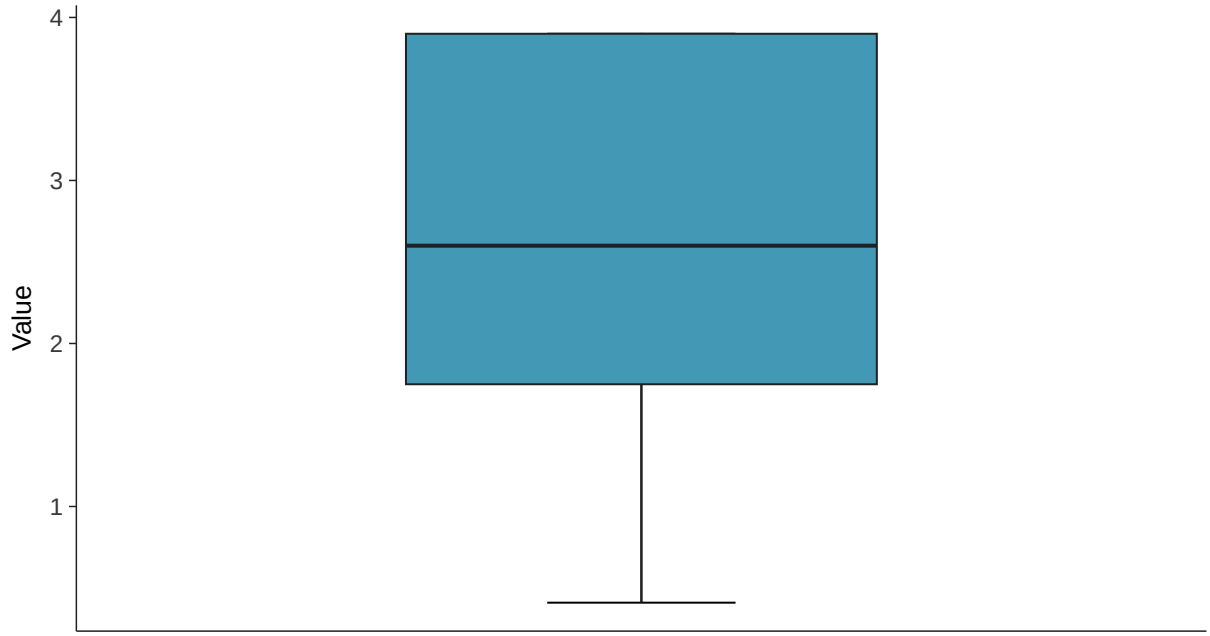
ID: 10_03_116





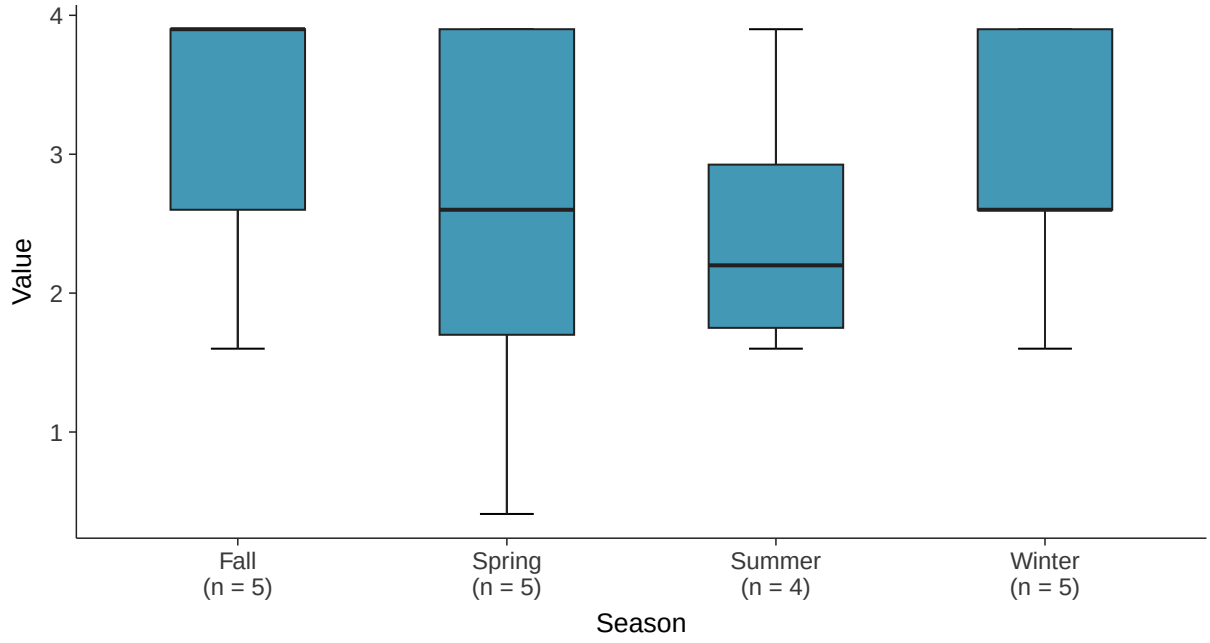
Boxplot

Molybdenum, MW-11 (ug/L)



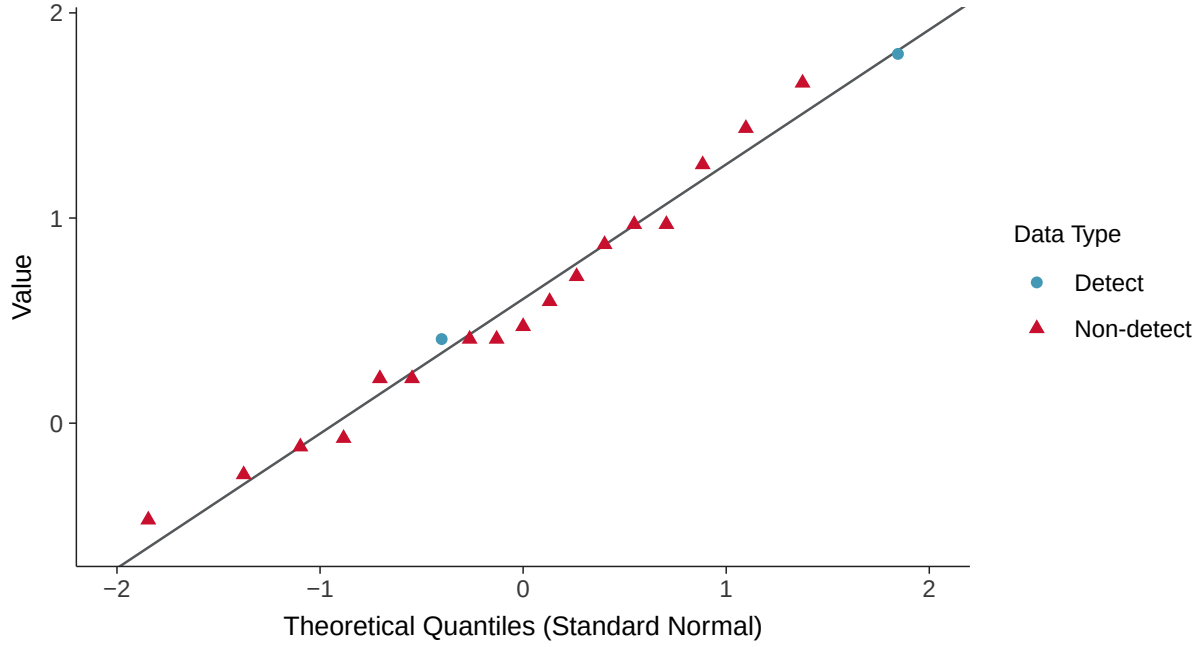
Boxplot by Season

Molybdenum, MW-11 (ug/L)



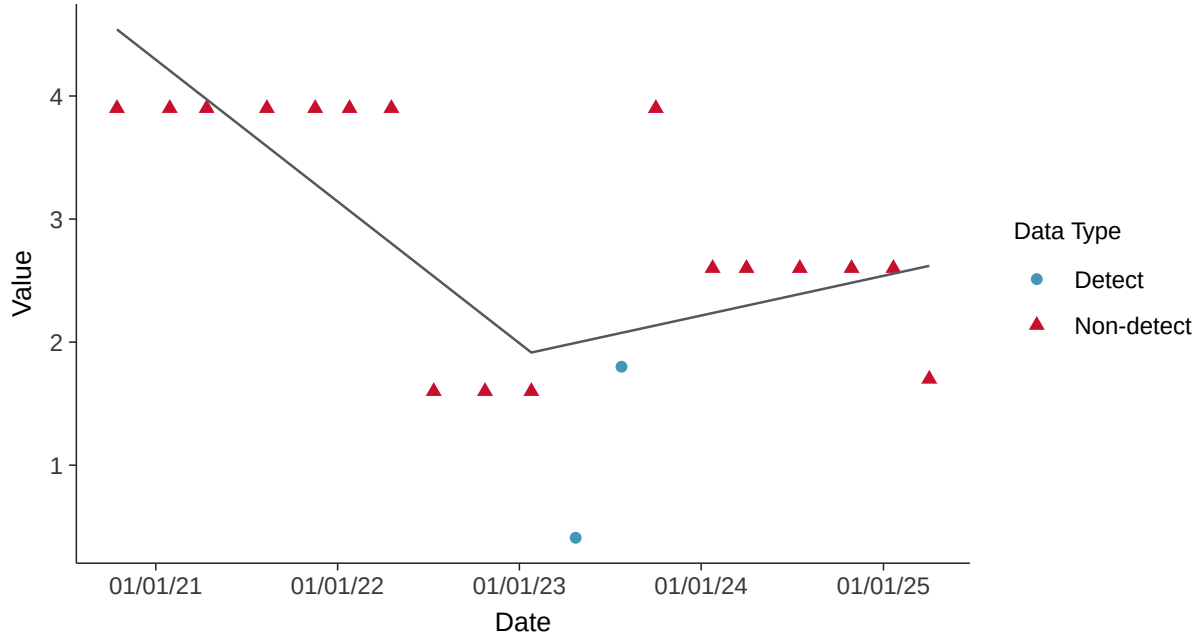
Normal Q-Q plot using ROS Imputed Estimates

Molybdenum, MW-11 (ug/L)



Trend Regression: Piecewise Linear-Linear

Molybdenum, MW-11 (ug/L)

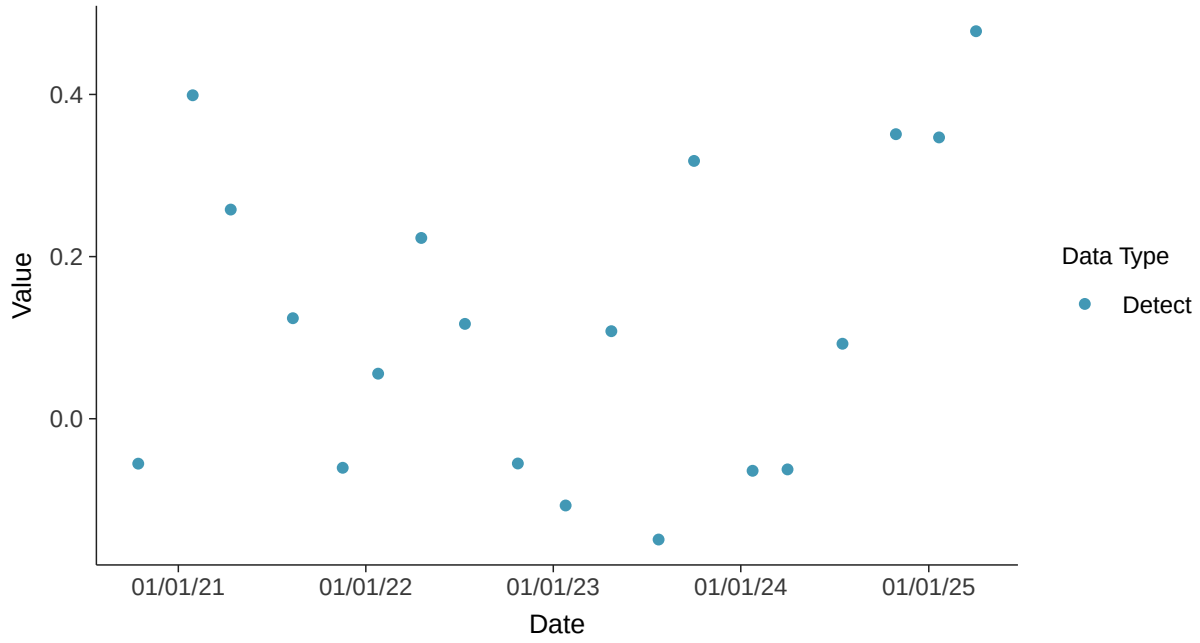


App. IV: Radium-226, MW-11

ID: 10_03_119

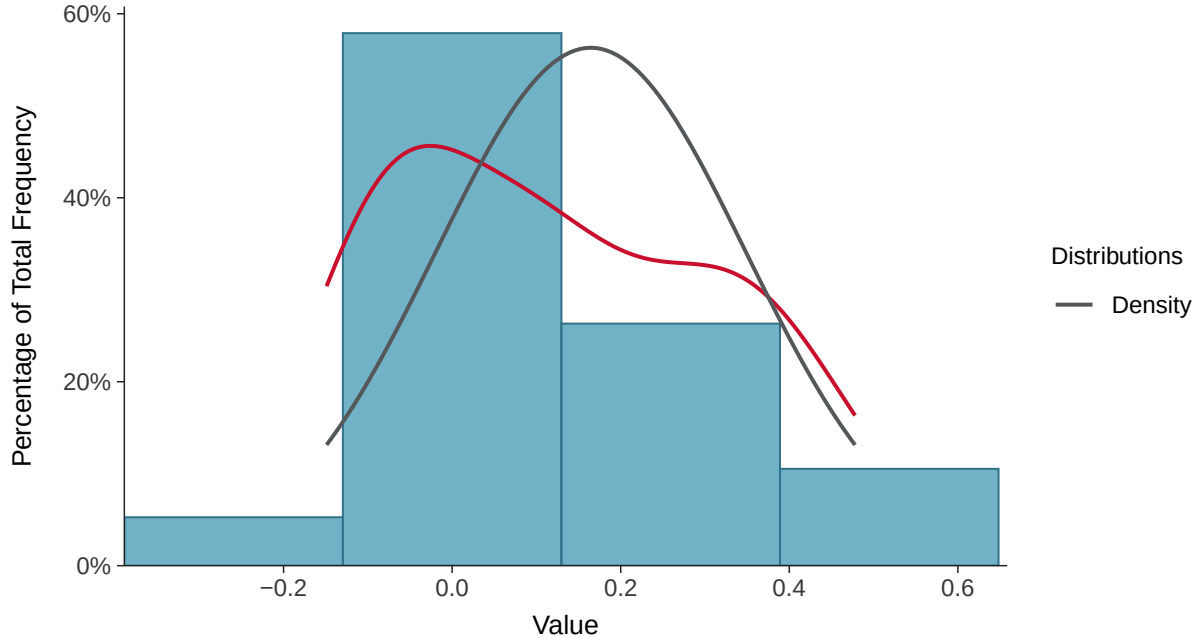
Scatter Plot

Radium-226, MW-11 (pCi/L)



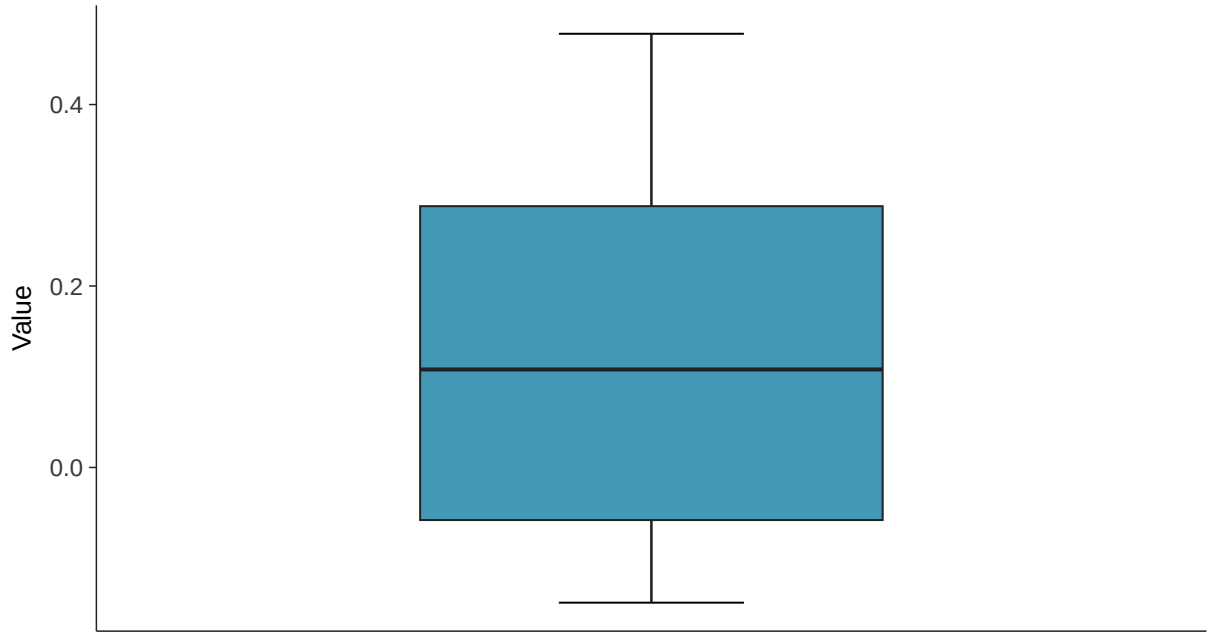
Histogram

Radium-226, MW-11 (pCi/L)



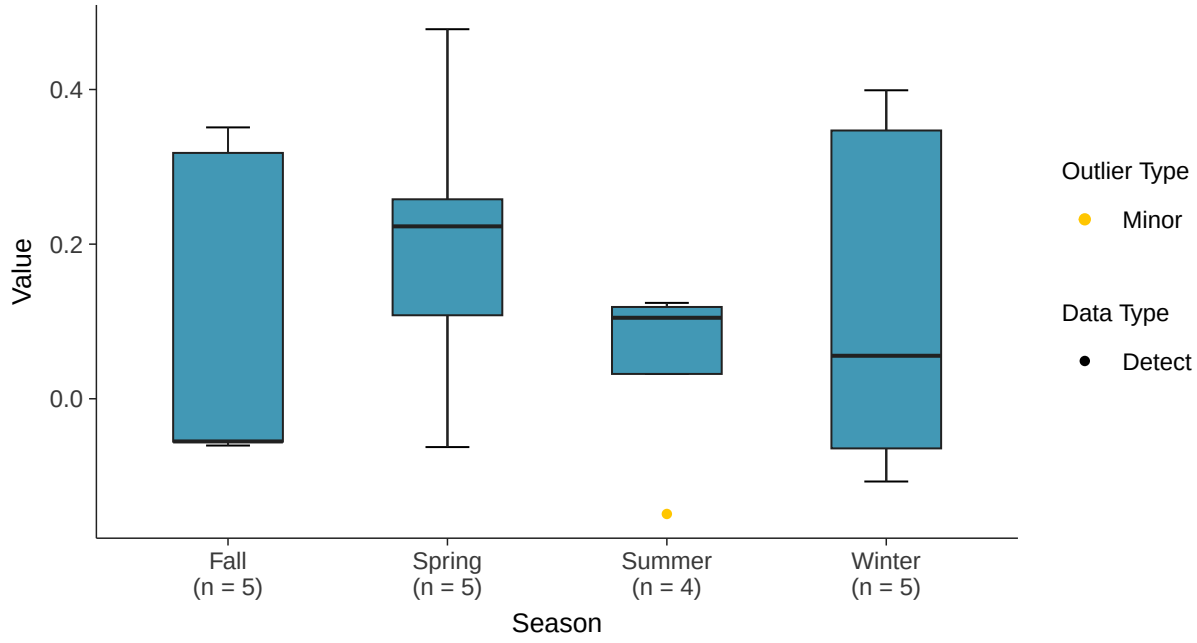
Boxplot

Radium-226, MW-11 (pCi/L)



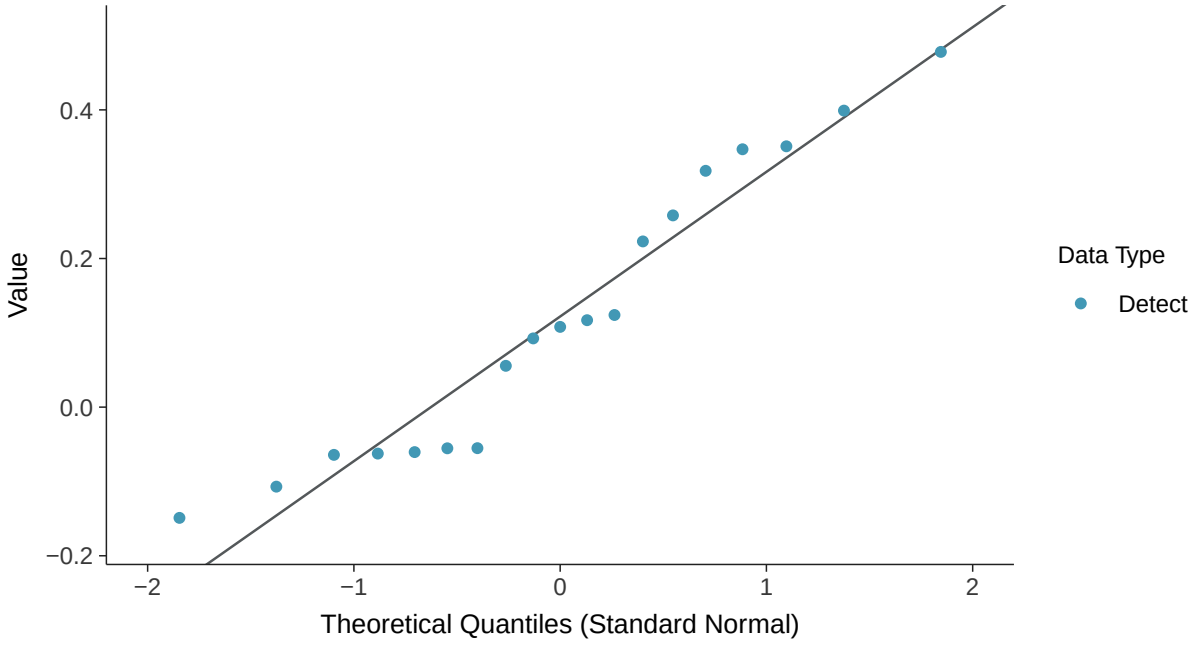
Boxplot by Season

Radium-226, MW-11 (pCi/L)



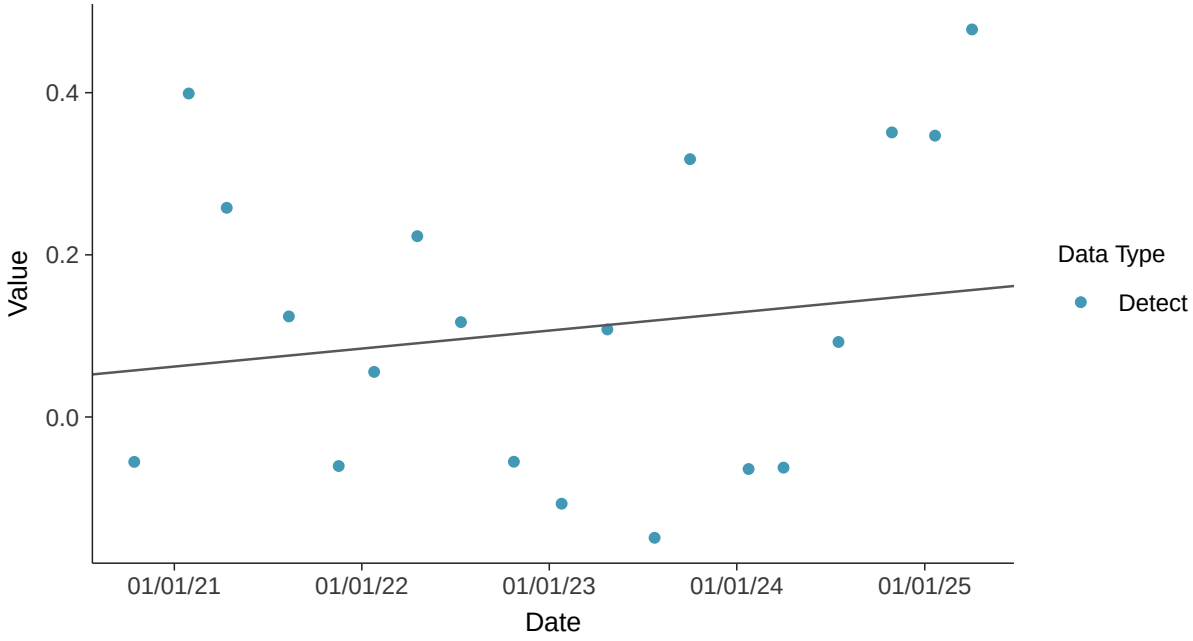
Normal Q-Q plot

Radium-226, MW-11 (pCi/L)



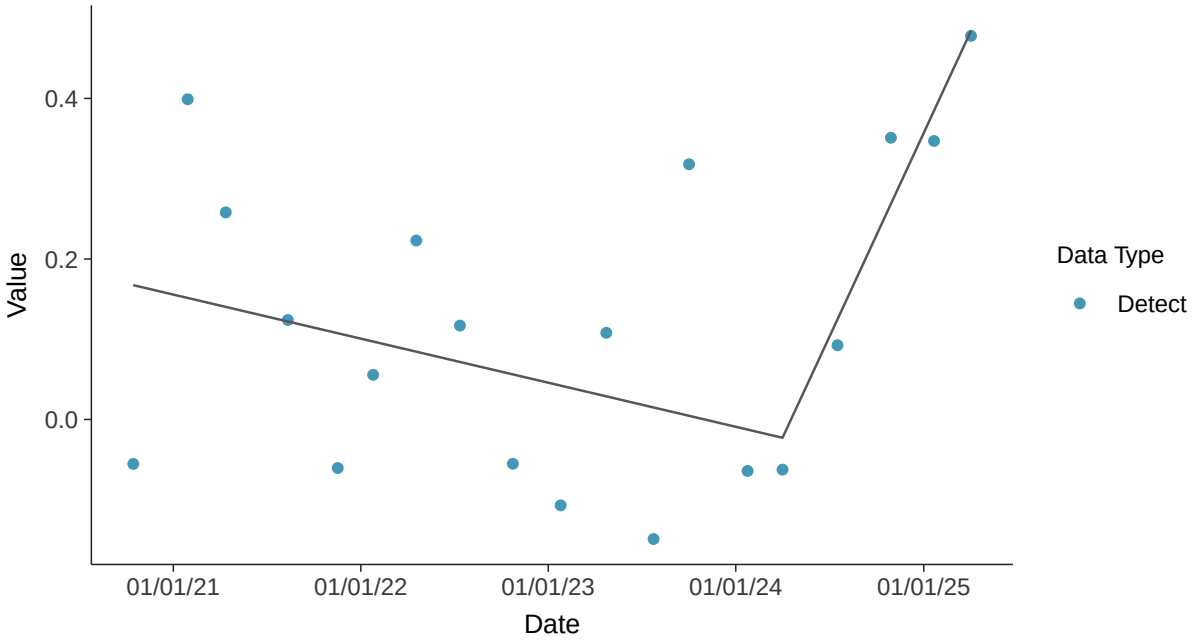
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Radium-226, MW-11 (pCi/L)



Trend Regression: Piecewise Linear-Linear

Radium-226, MW-11 (pCi/L)

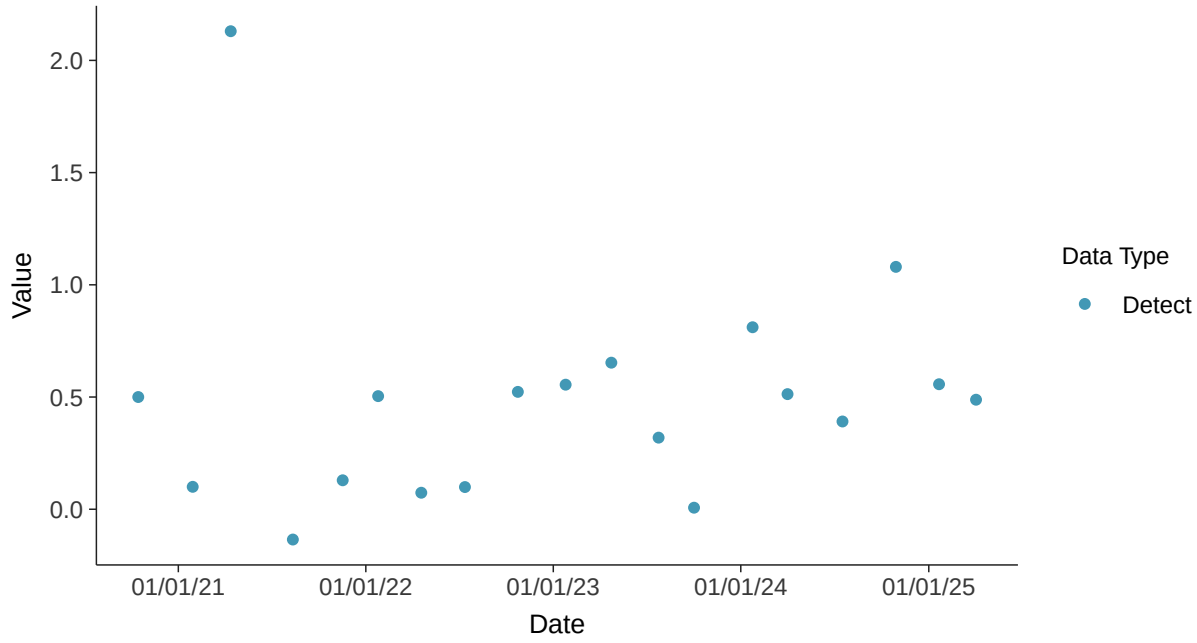


App. IV: Radium-228, MW-11

ID: 10_03_120

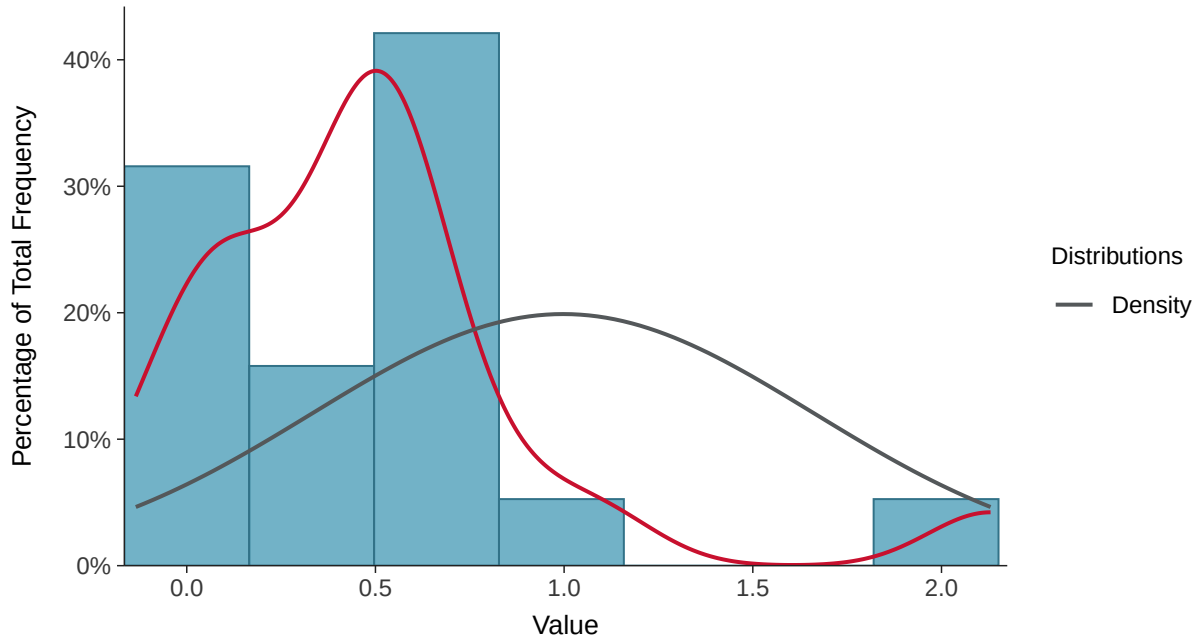
Scatter Plot

Radium-228, MW-11 (pCi/L)



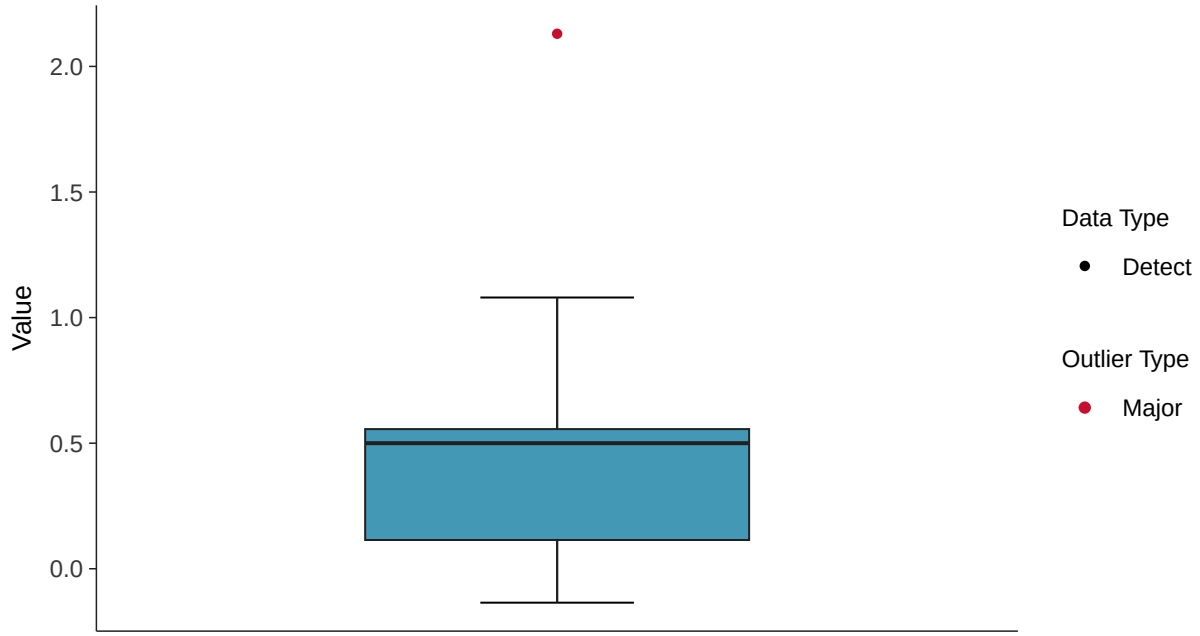
Histogram

Radium-228, MW-11 (pCi/L)



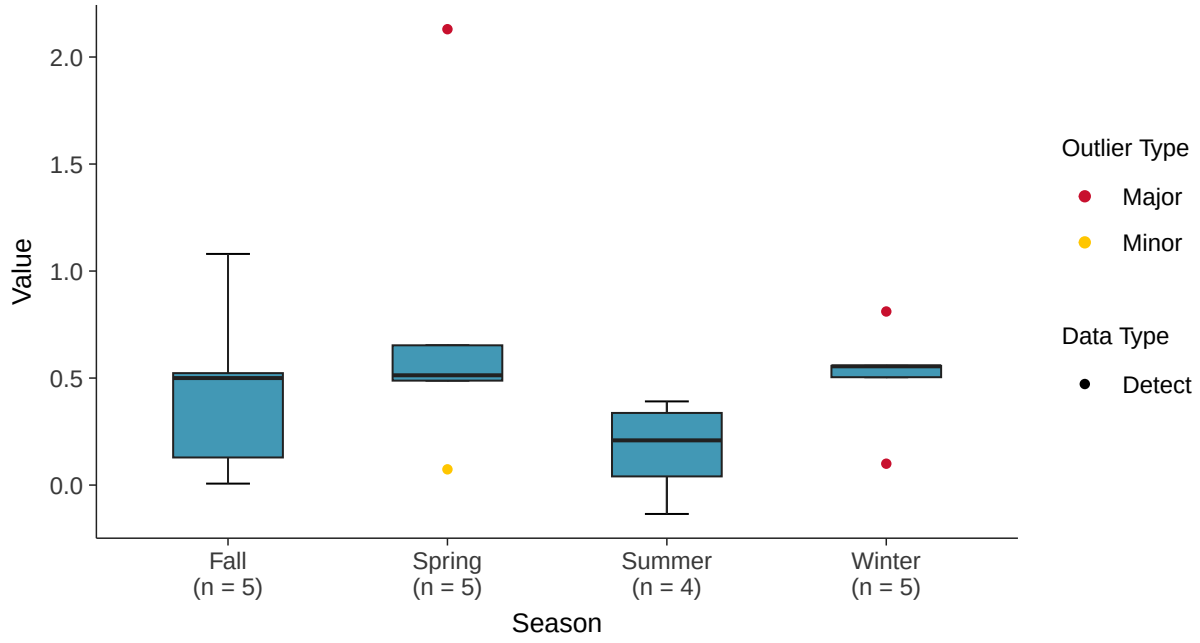
Boxplot

Radium-228, MW-11 (pCi/L)



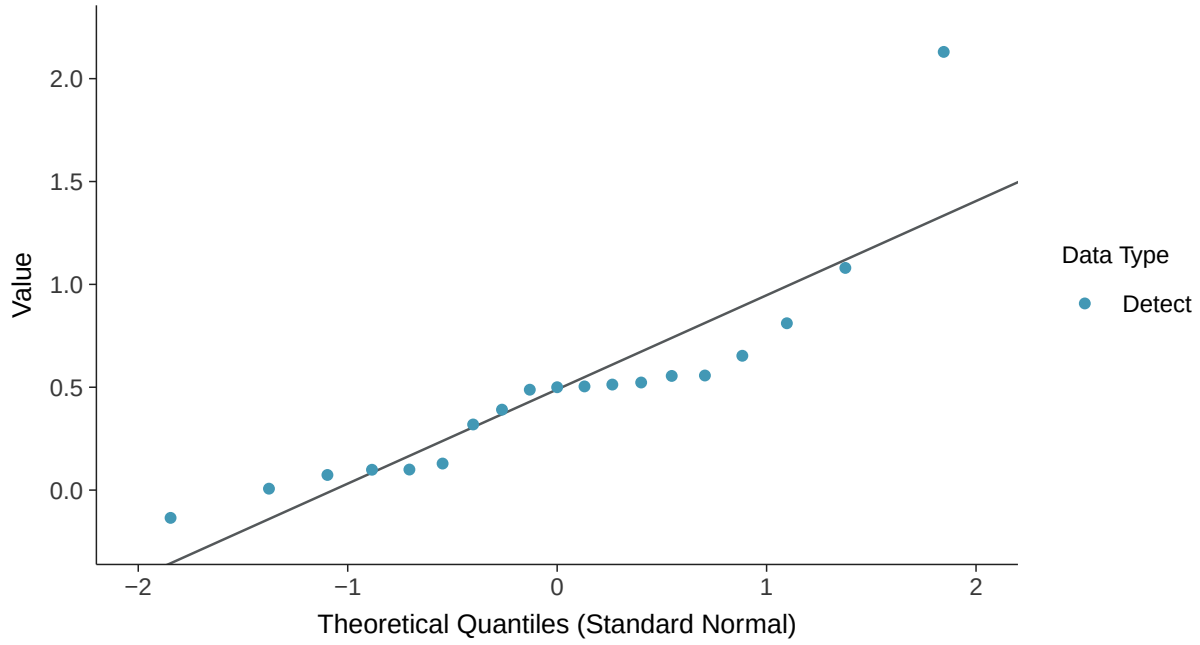
Boxplot by Season

Radium-228, MW-11 (pCi/L)



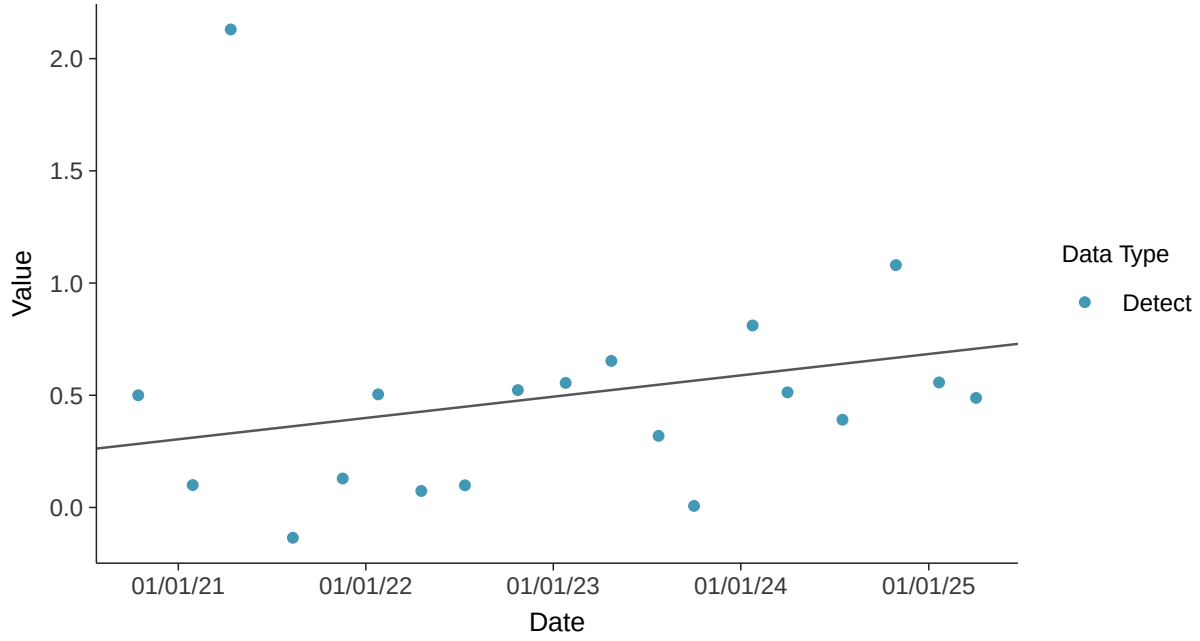
Normal Q-Q plot

Radium-228, MW-11 (pCi/L)



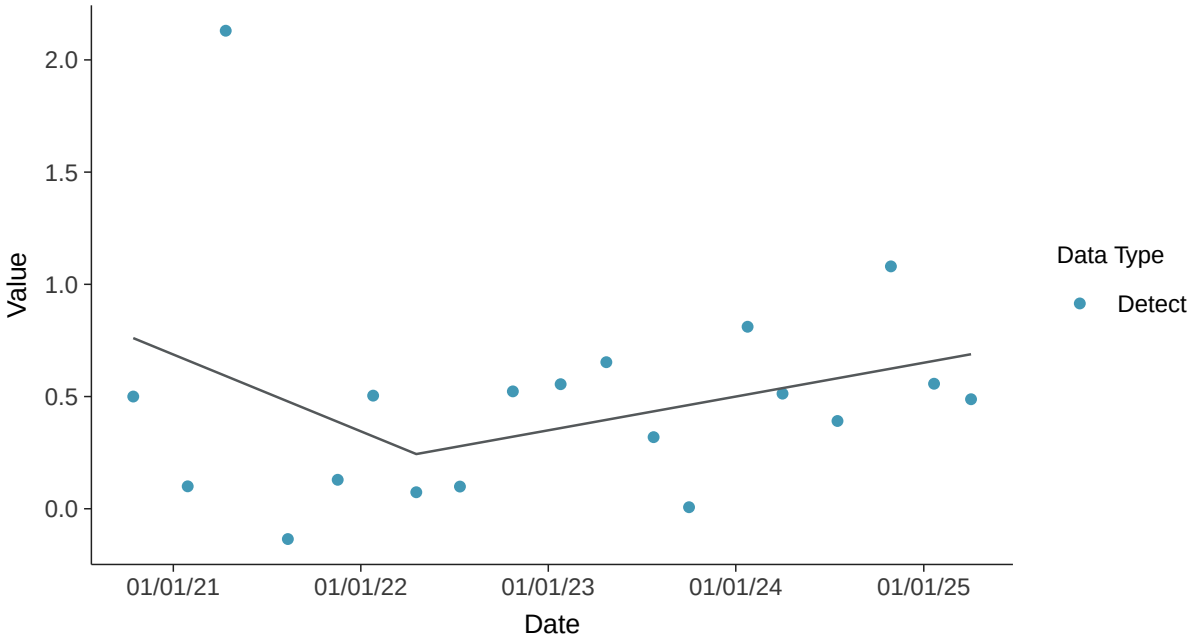
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Radium-228, MW-11 (pCi/L)



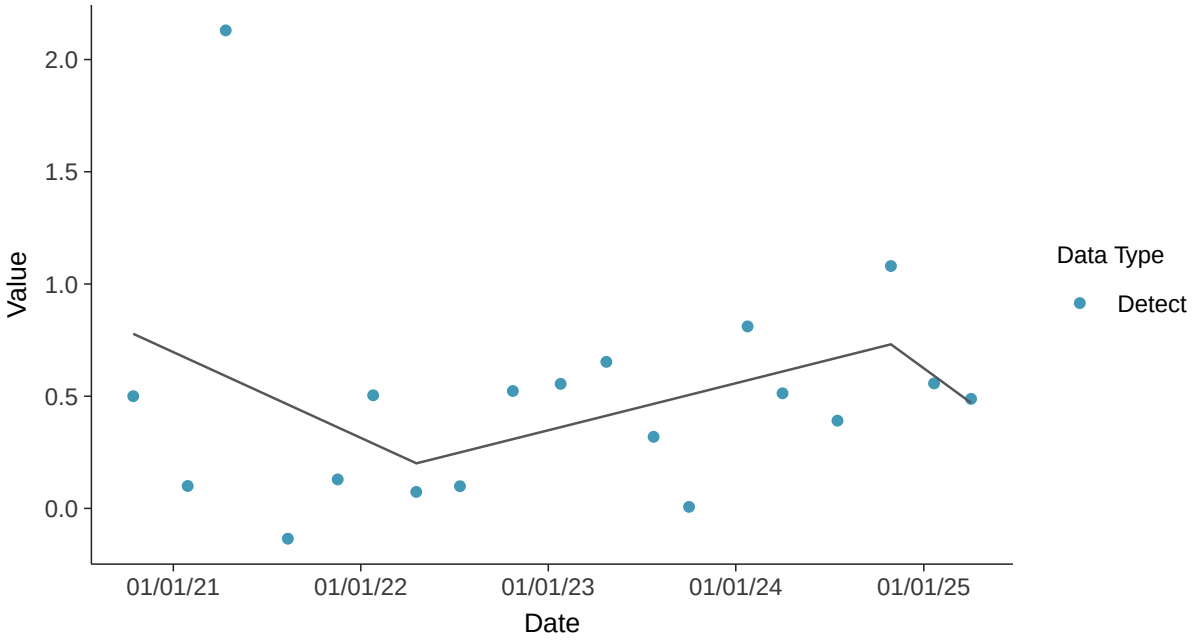
Trend Regression: Piecewise Linear-Linear

Radium-228, MW-11 (pCi/L)



Trend Regression: Piecewise Linear-Linear-Linear

Radium-228, MW-11 (pCi/L)

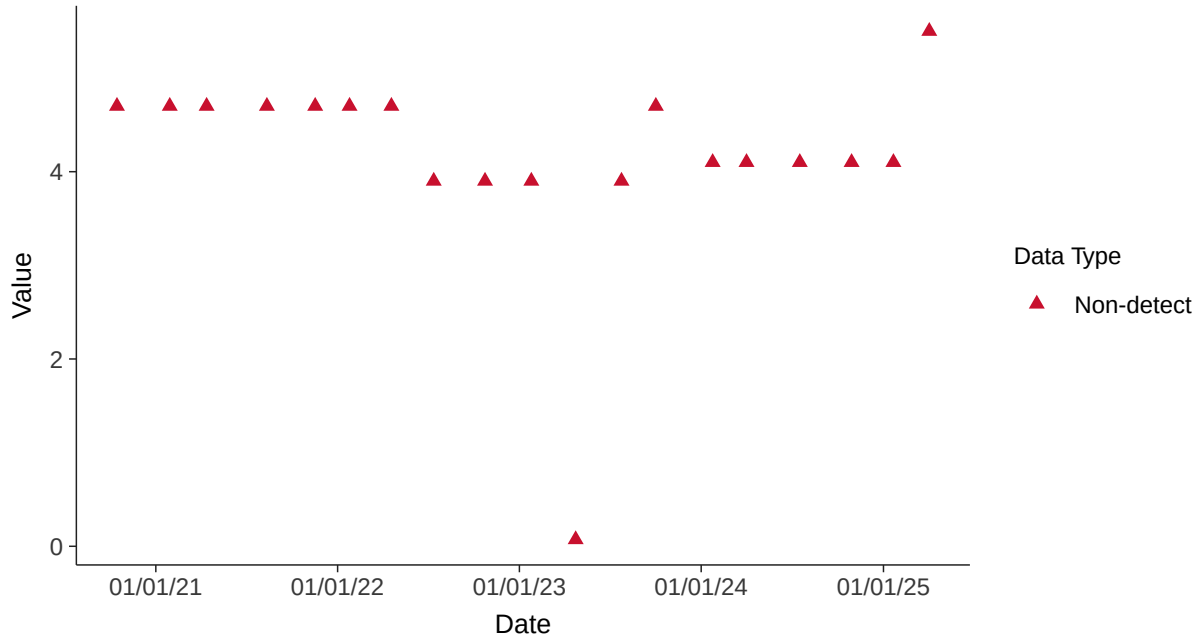


App. IV: Selenium, MW-11

ID: 10_03_121

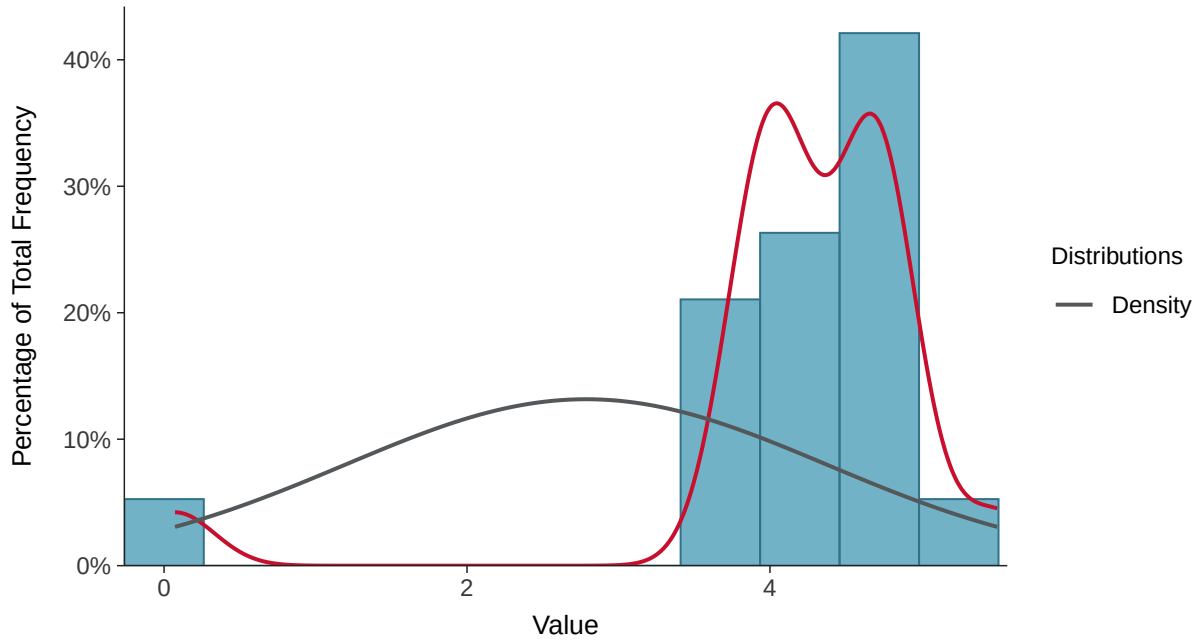
Scatter Plot

Selenium, MW-11 (ug/L)



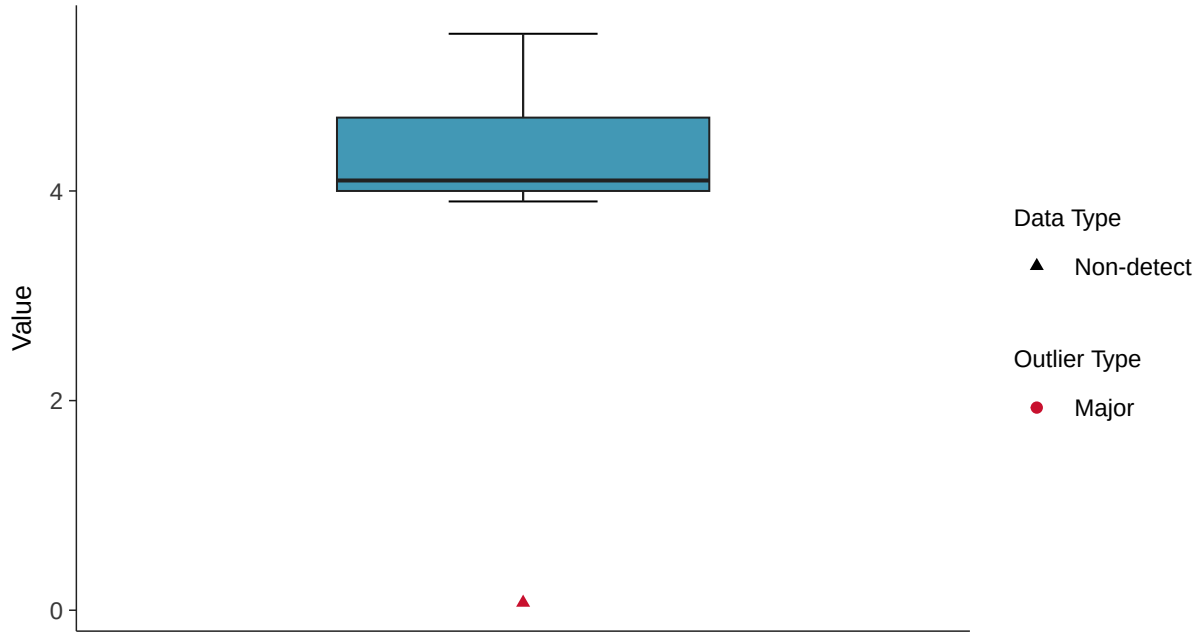
Histogram

Selenium, MW-11 (ug/L)



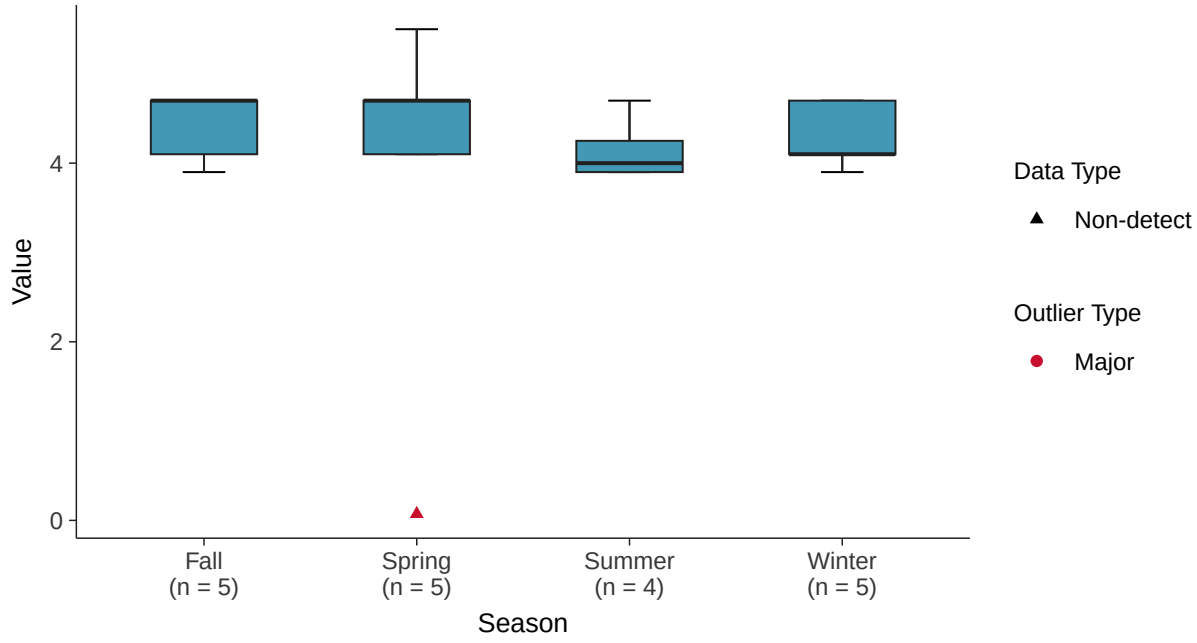
Boxplot

Selenium, MW-11 (ug/L)



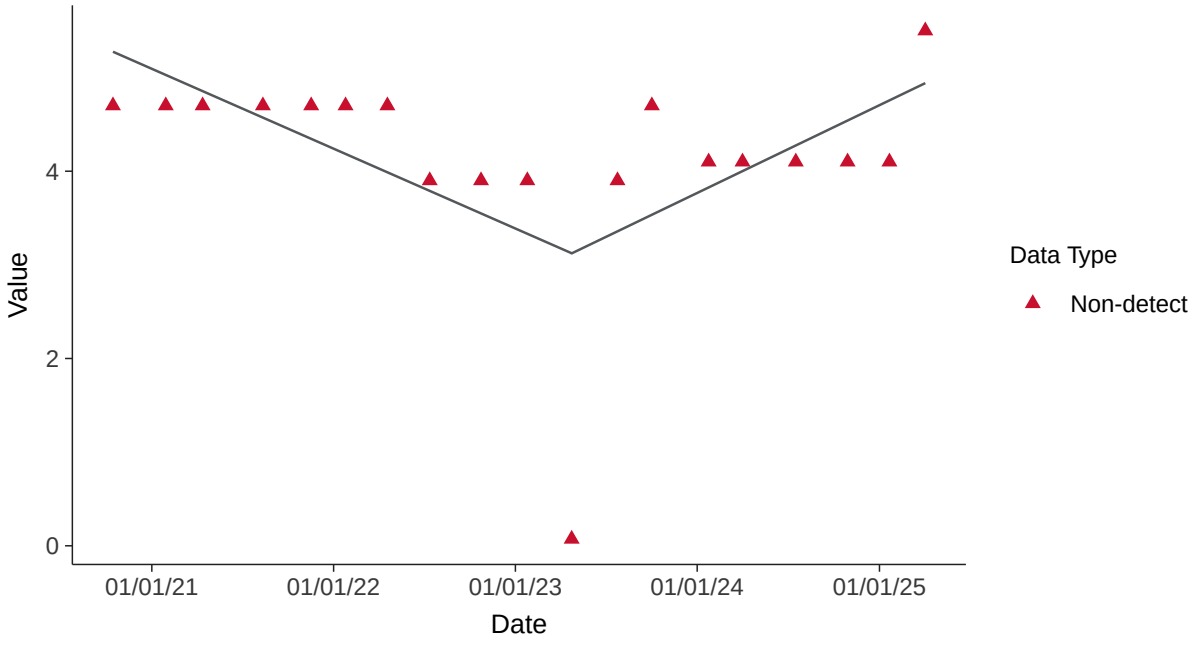
Boxplot by Season

Selenium, MW-11 (ug/L)



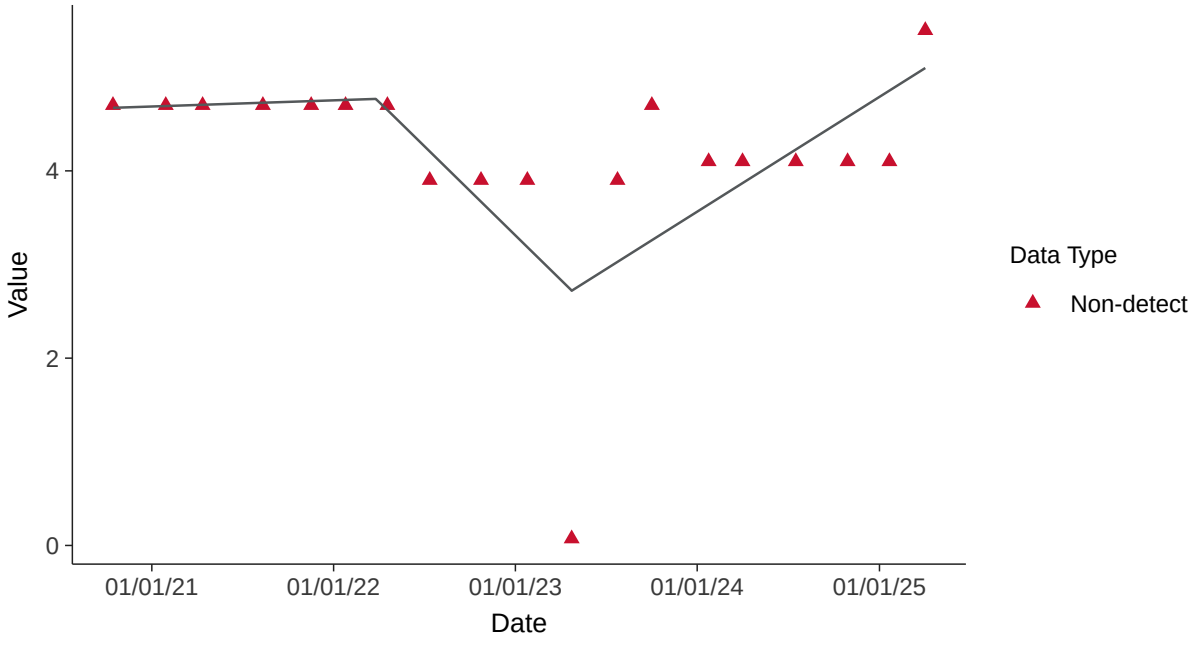
Trend Regression: Piecewise Linear-Linear

Selenium, MW-11 (ug/L)



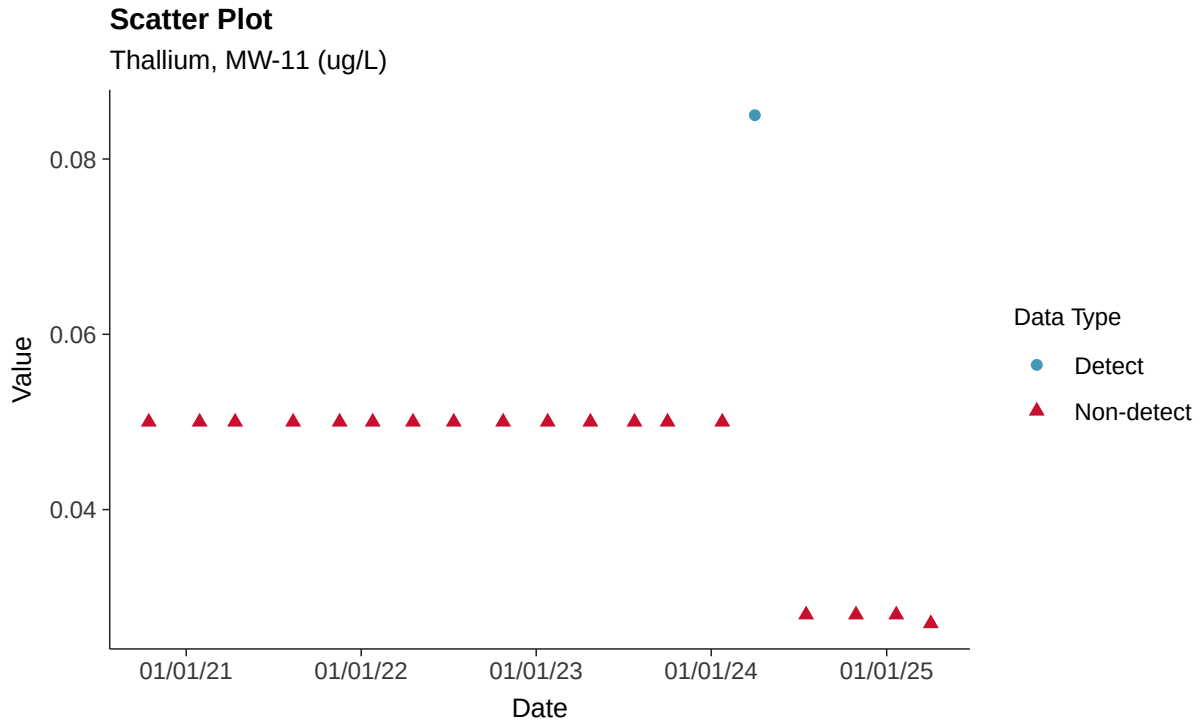
Trend Regression: Piecewise Linear-Linear-Linear

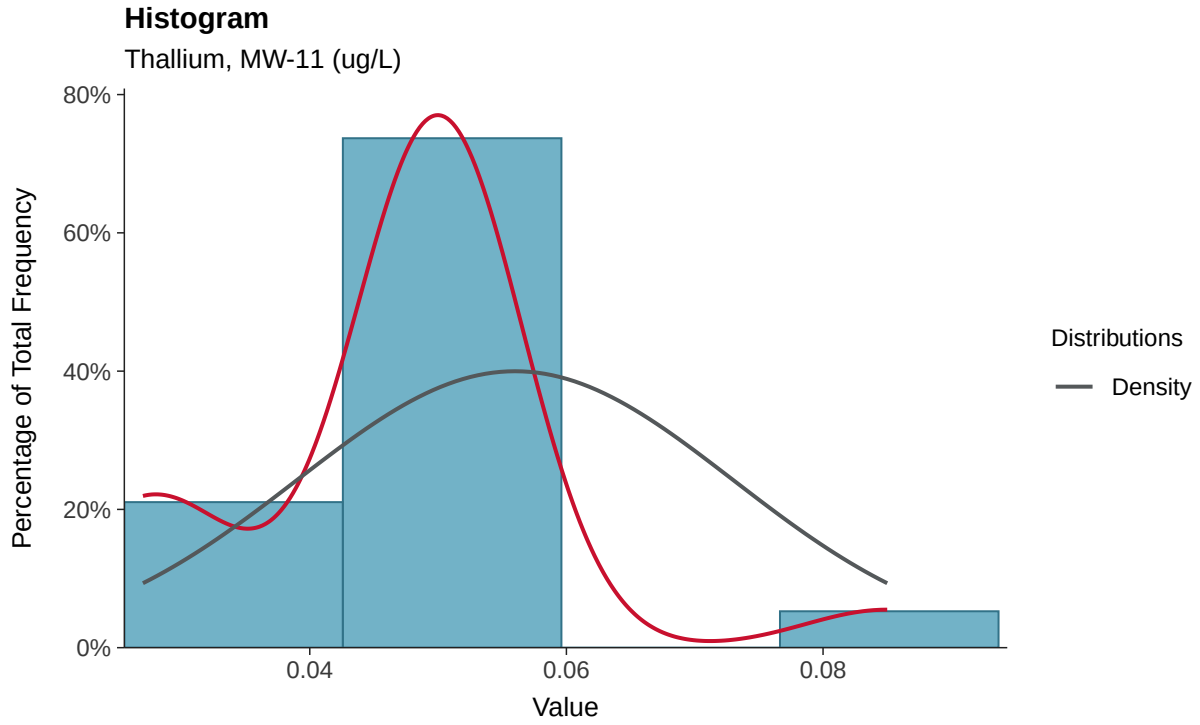
Selenium, MW-11 (ug/L)



App. IV: Thallium, MW-11

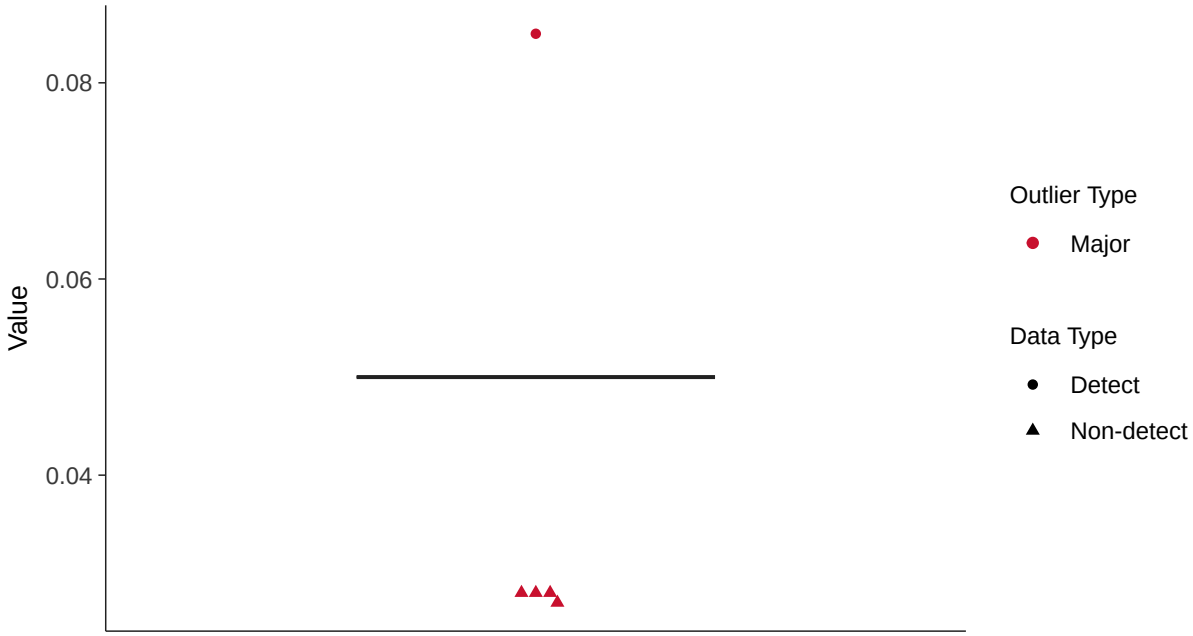
ID: 10_03_124





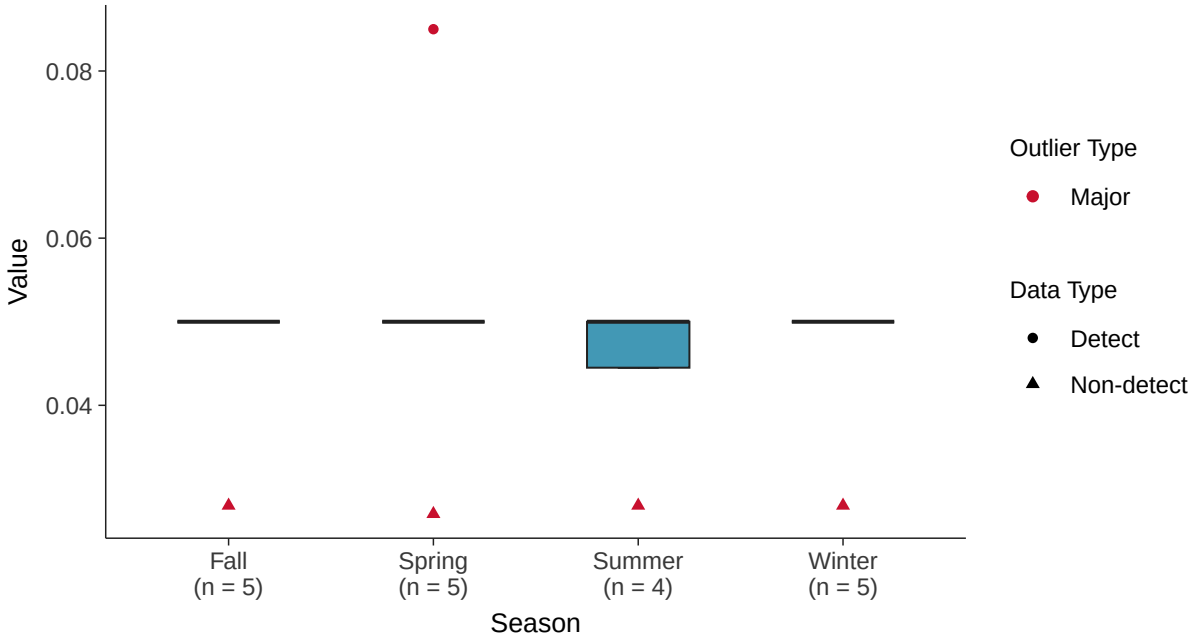
Boxplot

Thallium, MW-11 (ug/L)



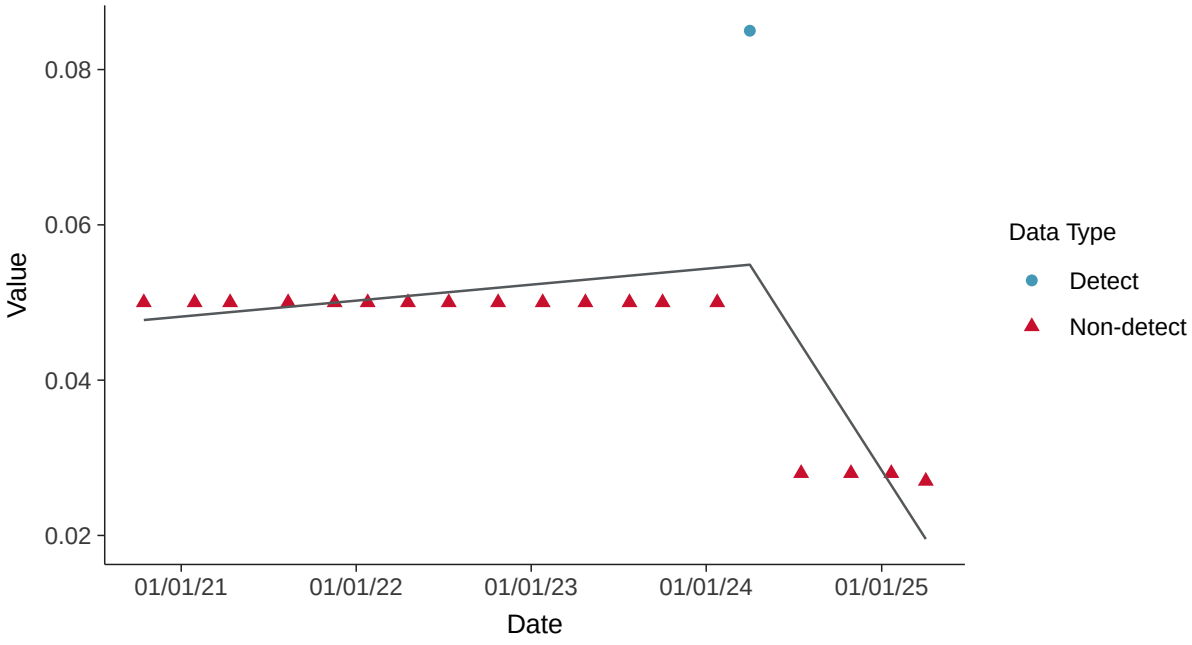
Boxplot by Season

Thallium, MW-11 (ug/L)



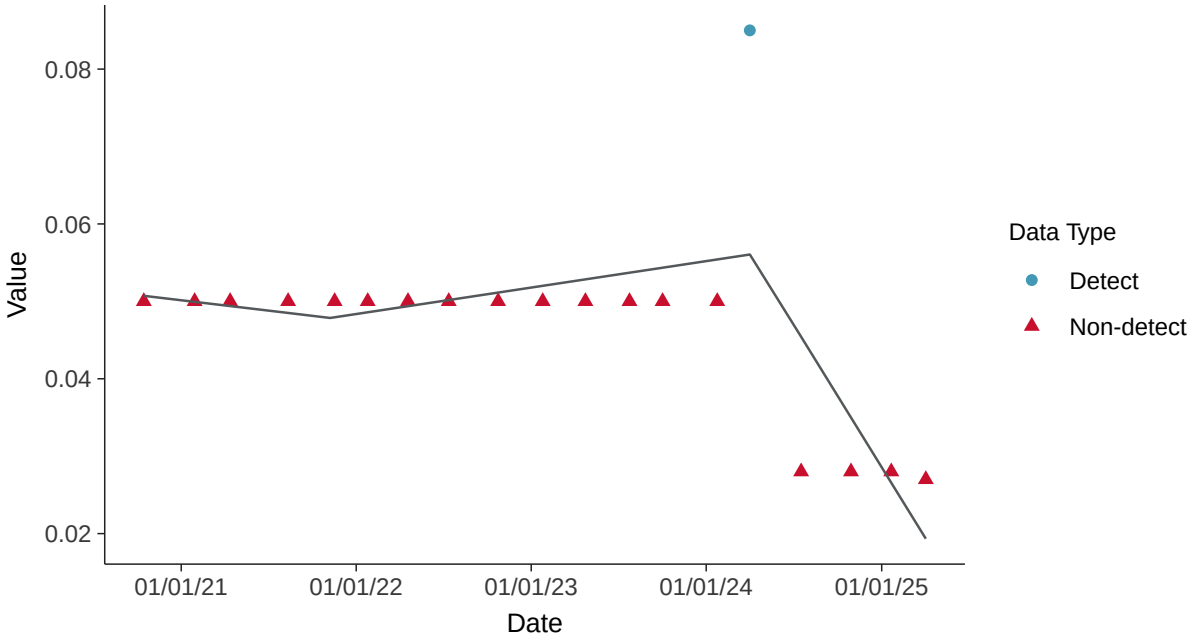
Trend Regression: Piecewise Linear-Linear

Thallium, MW-11 (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Thallium, MW-11 (ug/L)

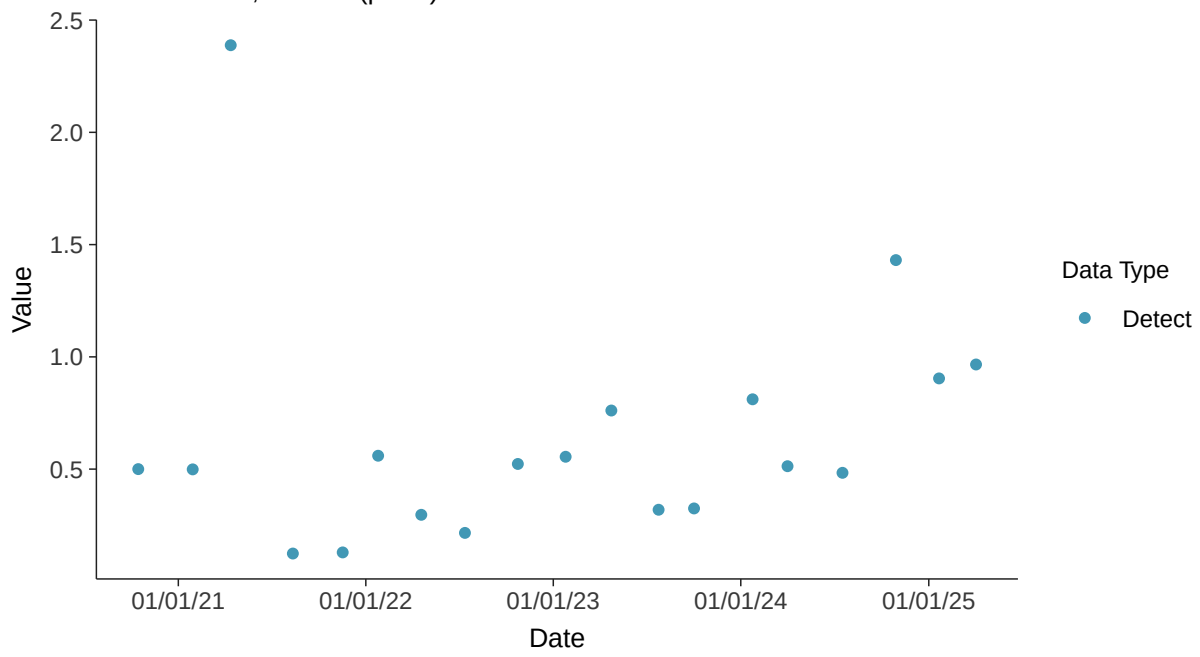


App. IV: Total Radium, MW-11

ID: 10_03_126

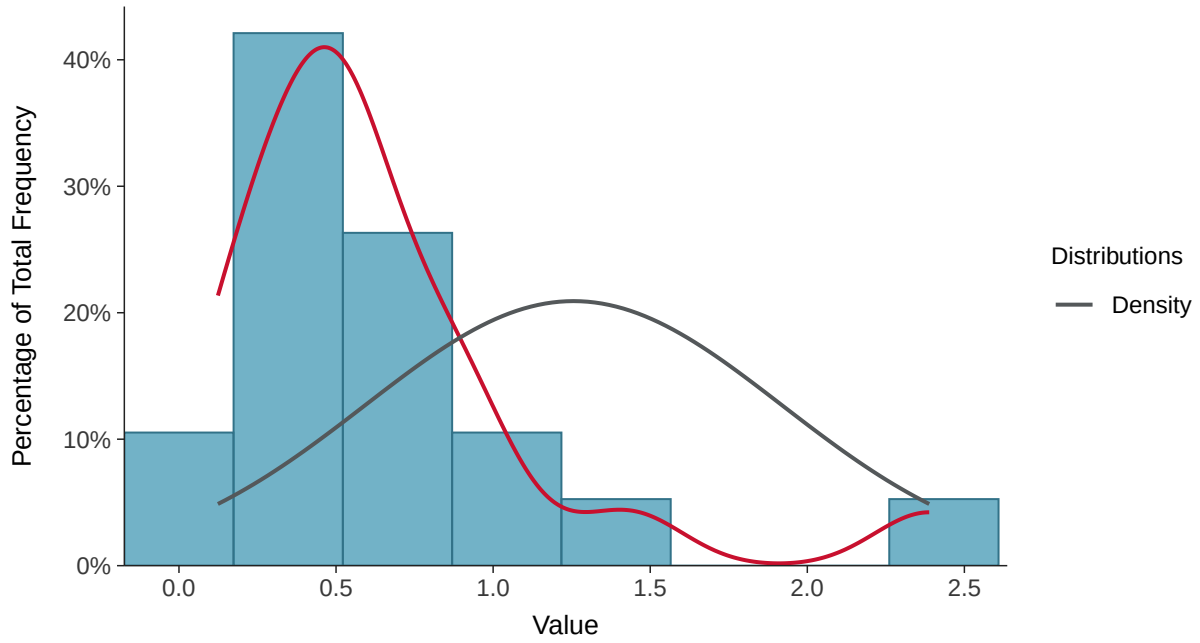
Scatter Plot

Total Radium, MW-11 (pCi/L)



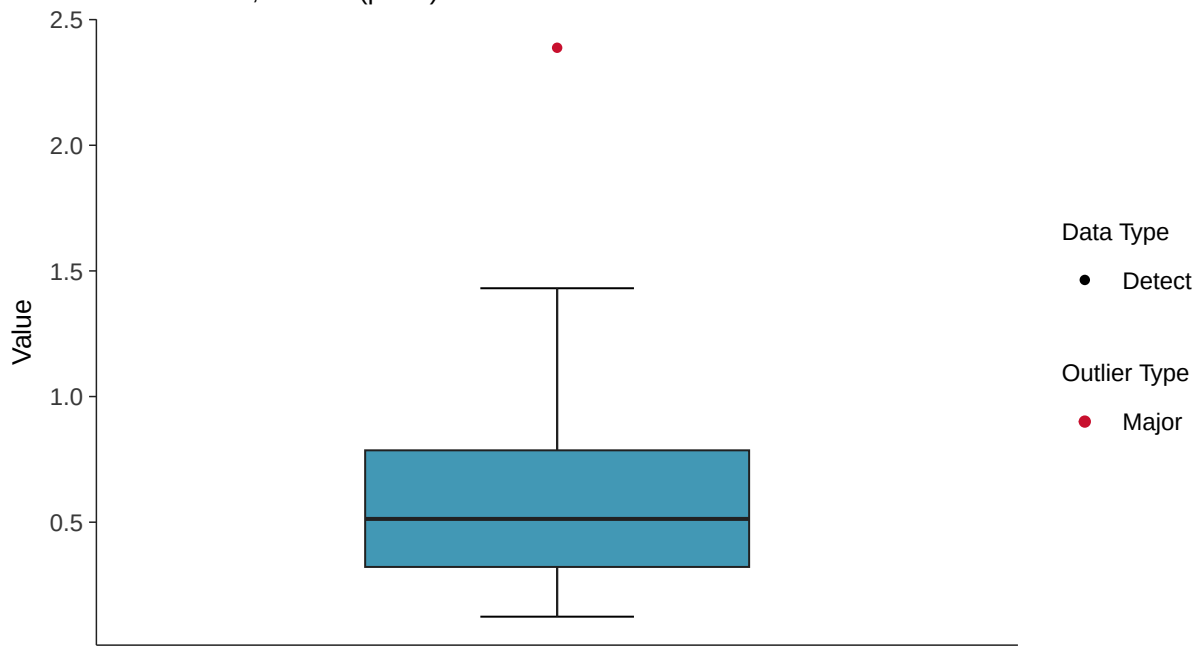
Histogram

Total Radium, MW-11 (pCi/L)



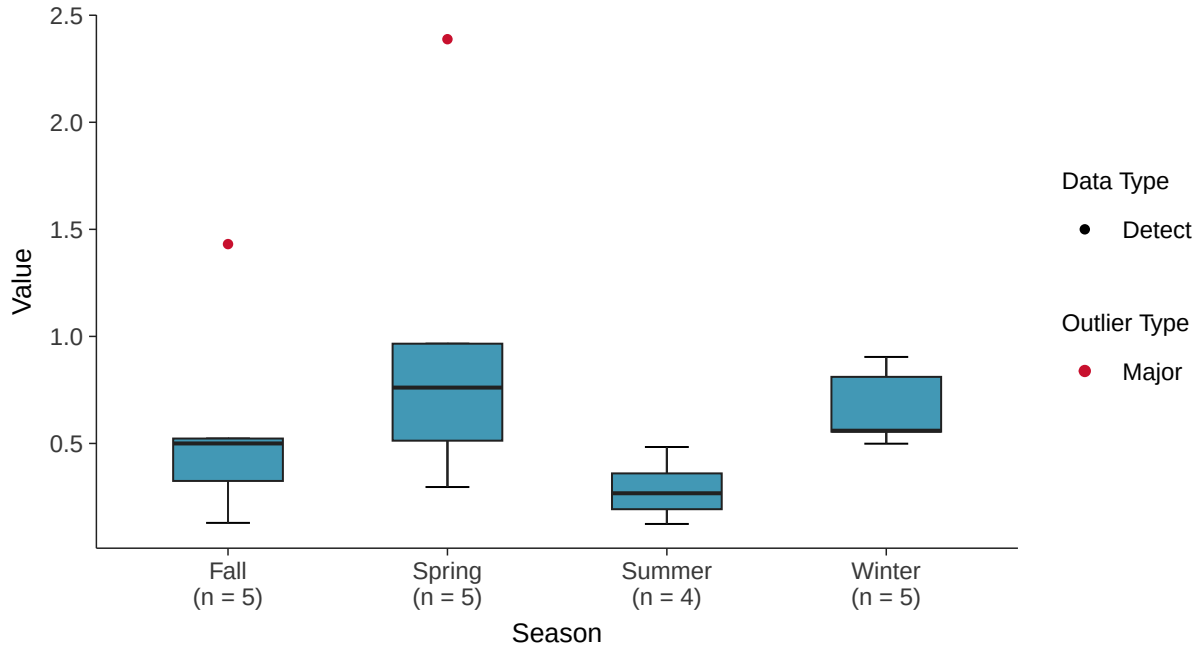
Boxplot

Total Radium, MW-11 (pCi/L)



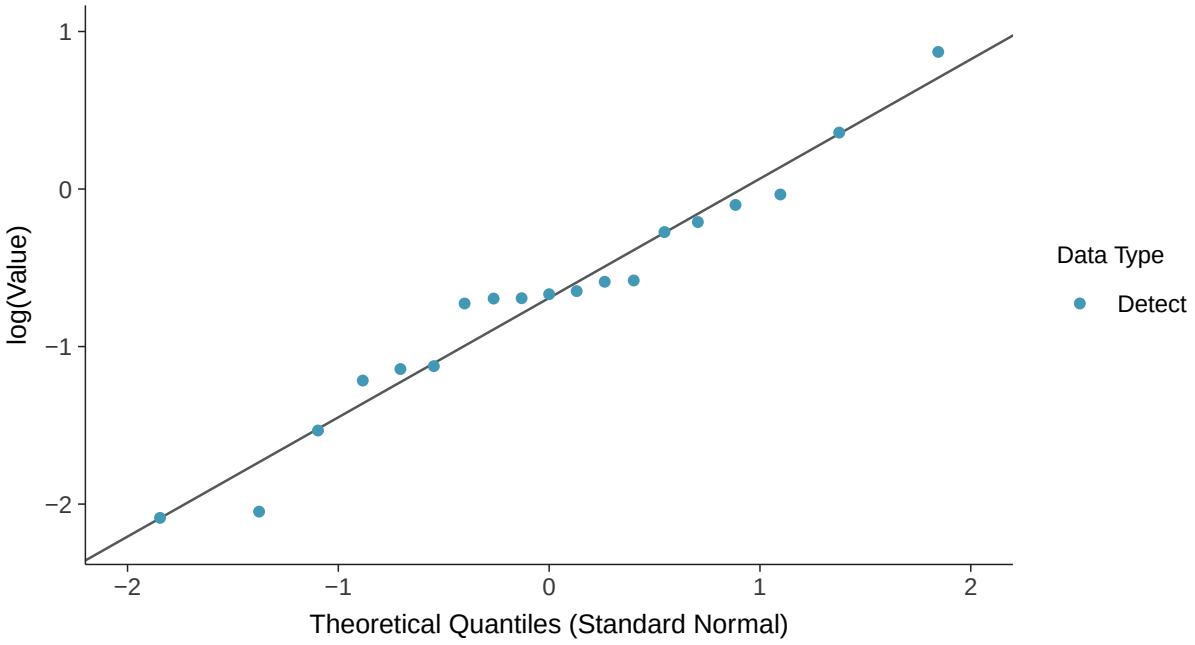
Boxplot by Season

Total Radium, MW-11 (pCi/L)



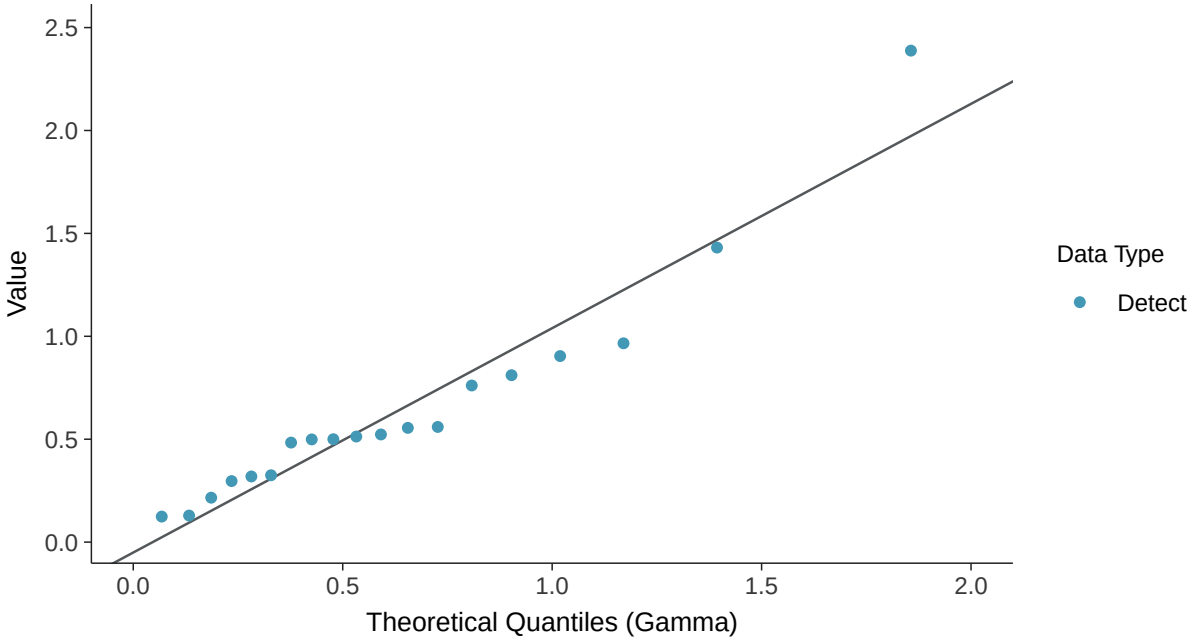
Lognormal Q-Q plot

Total Radium, MW-11 (pCi/L)



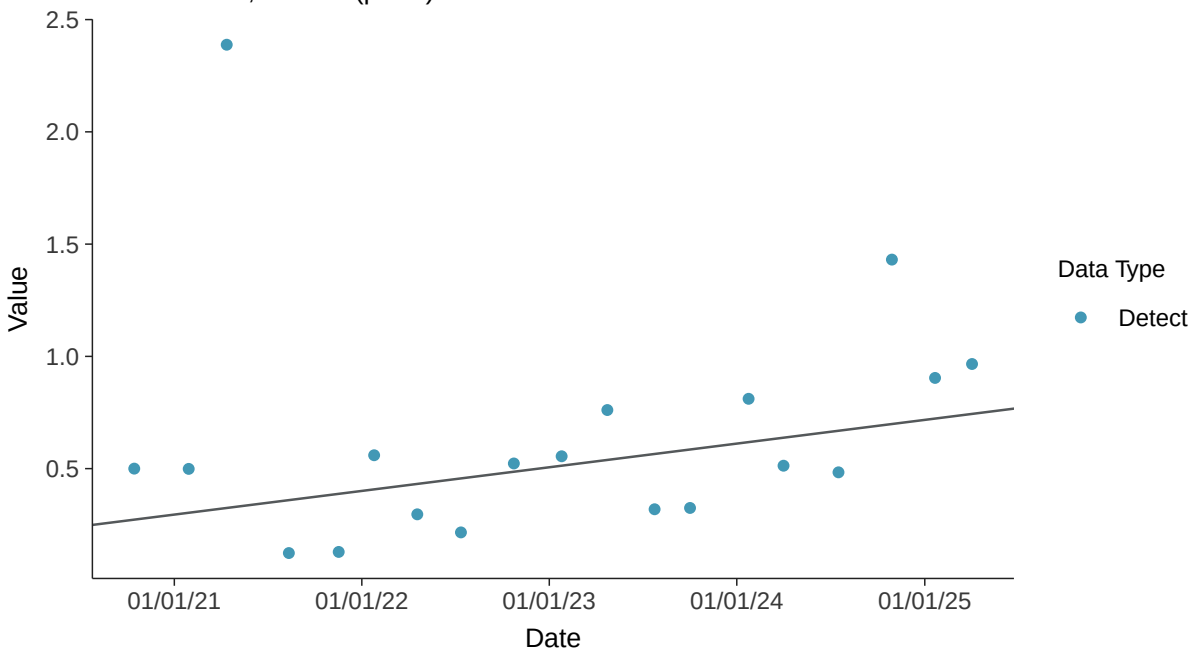
Gamma Q-Q plot

Total Radium, MW-11 (pCi/L)



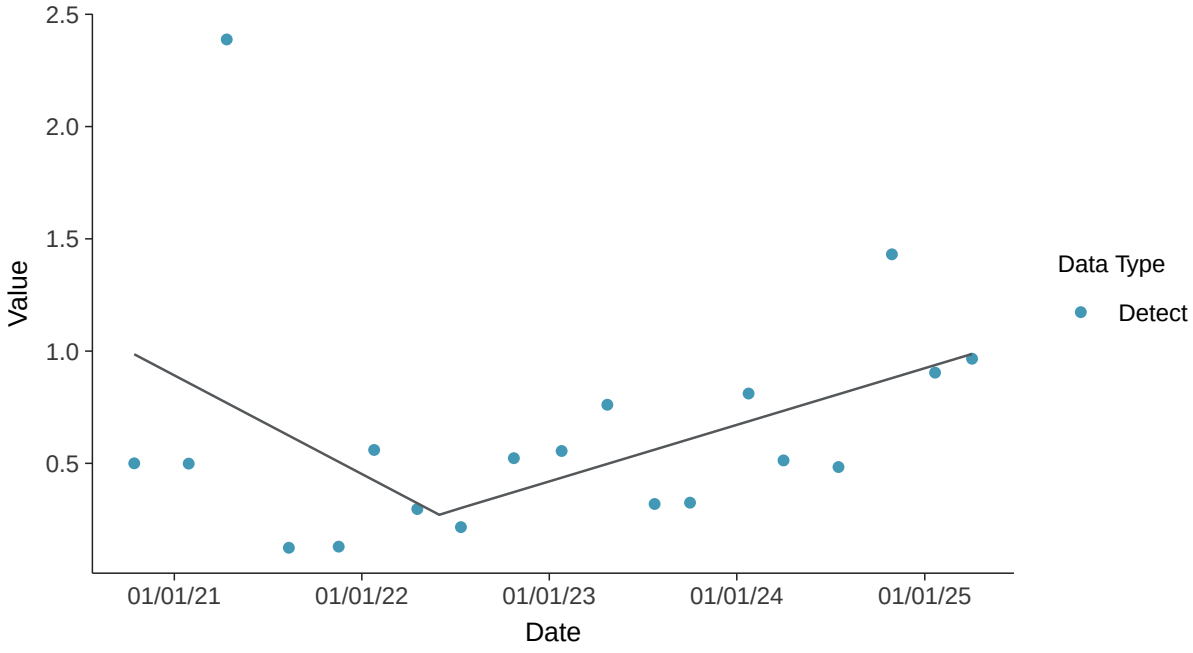
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Total Radium, MW-11 (pCi/L)



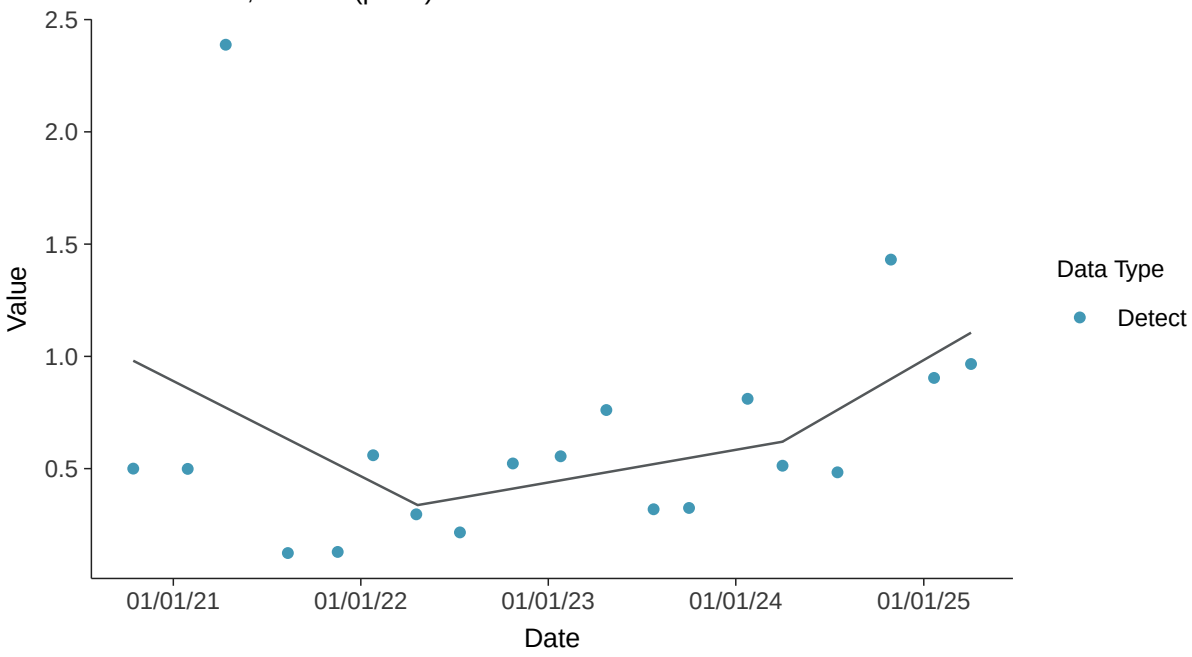
Trend Regression: Piecewise Linear-Linear

Total Radium, MW-11 (pCi/L)



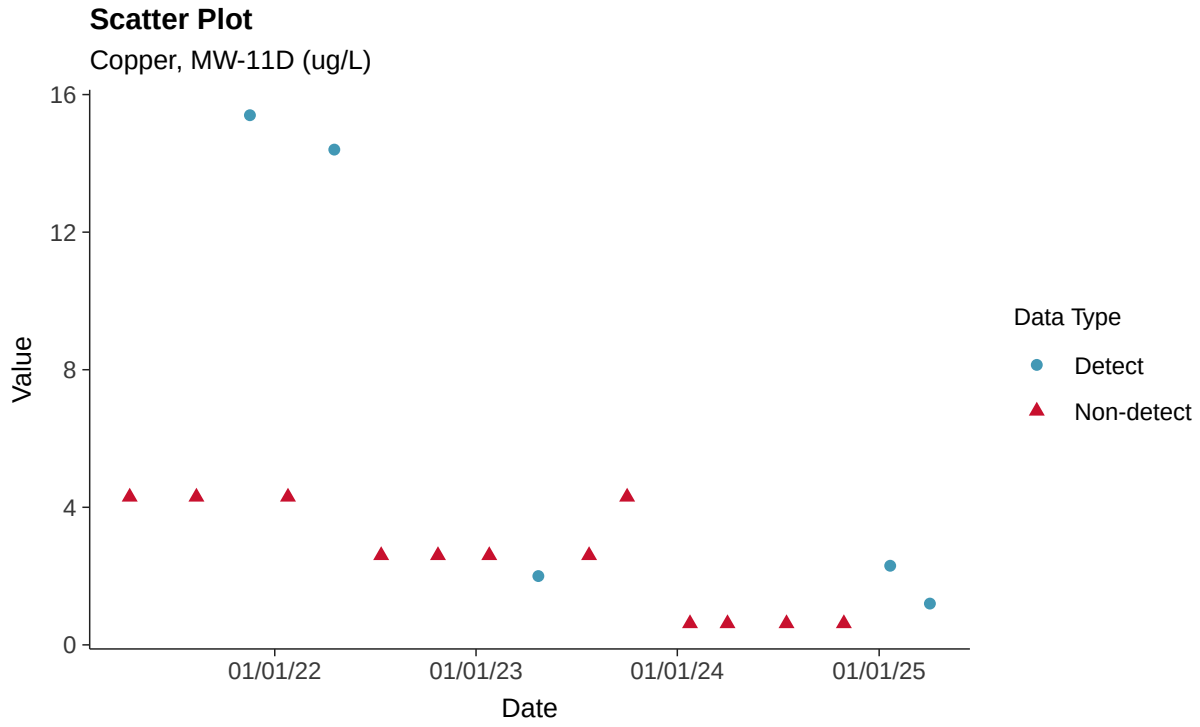
Trend Regression: Piecewise Linear-Linear-Linear

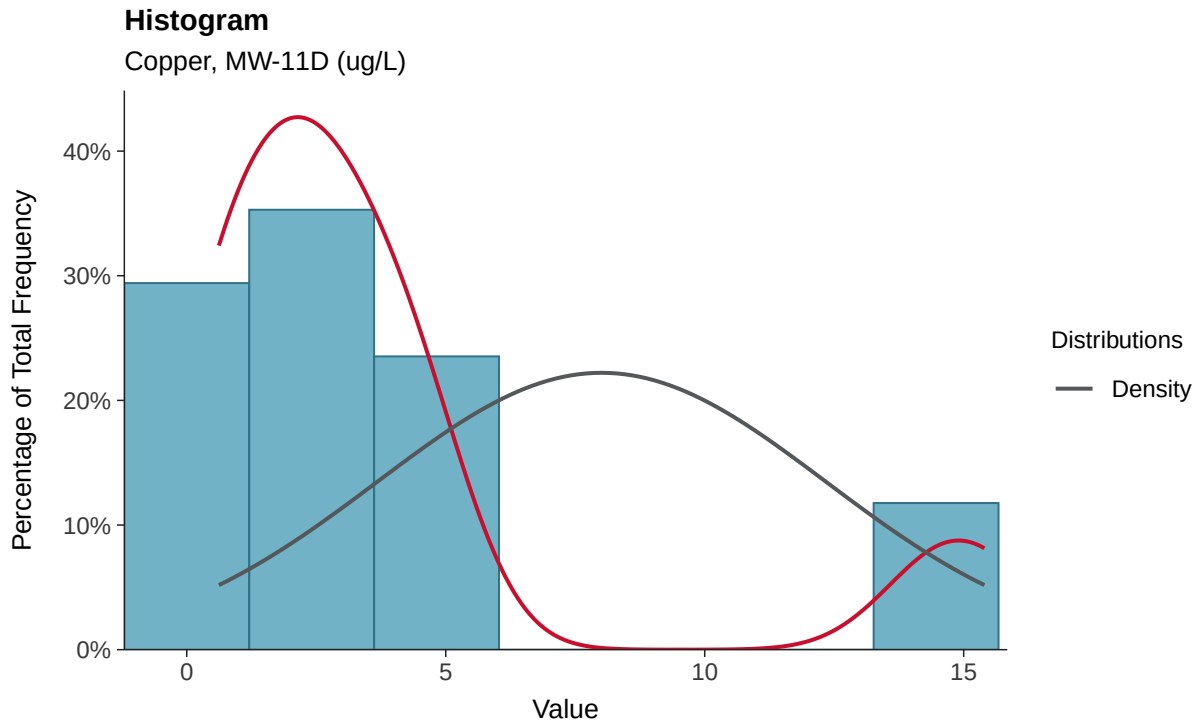
Total Radium, MW-11 (pCi/L)



App. I Metals: Copper, MW-11D

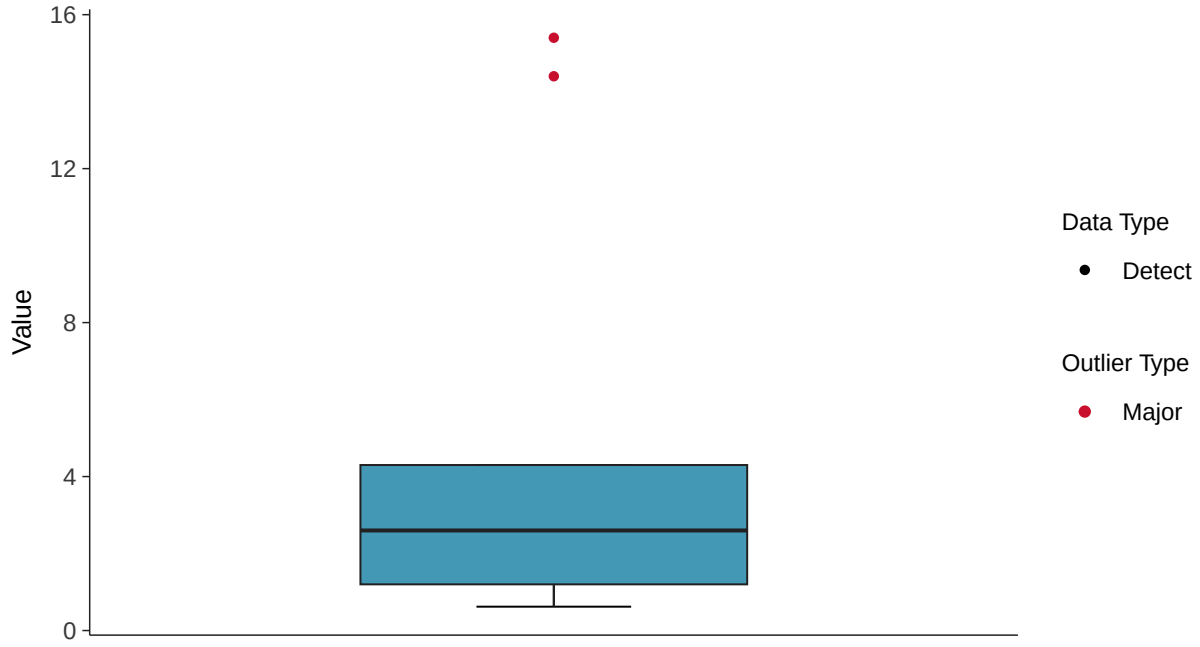
ID: 11_01_111





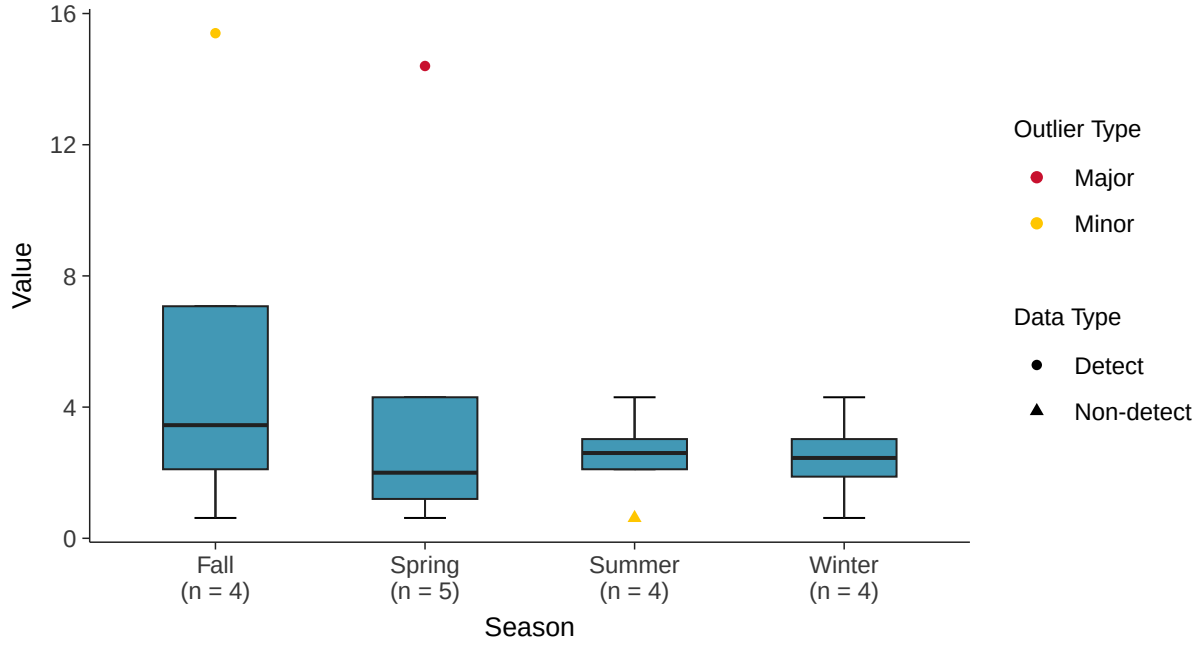
Boxplot

Copper, MW-11D (ug/L)



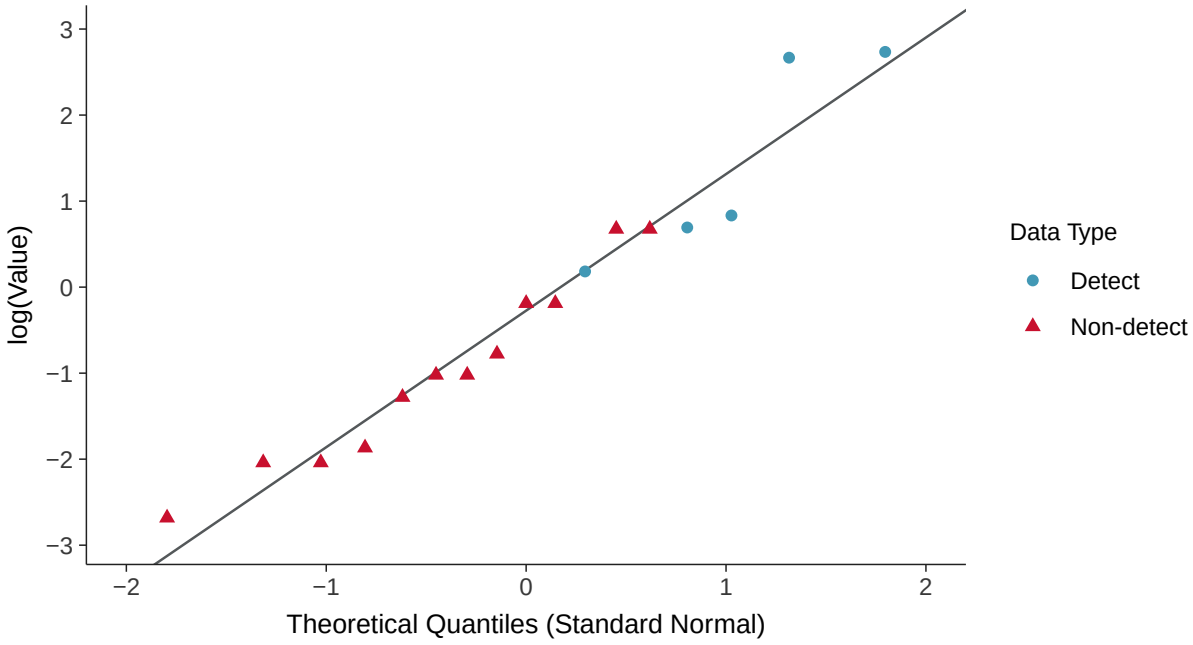
Boxplot by Season

Copper, MW-11D (ug/L)



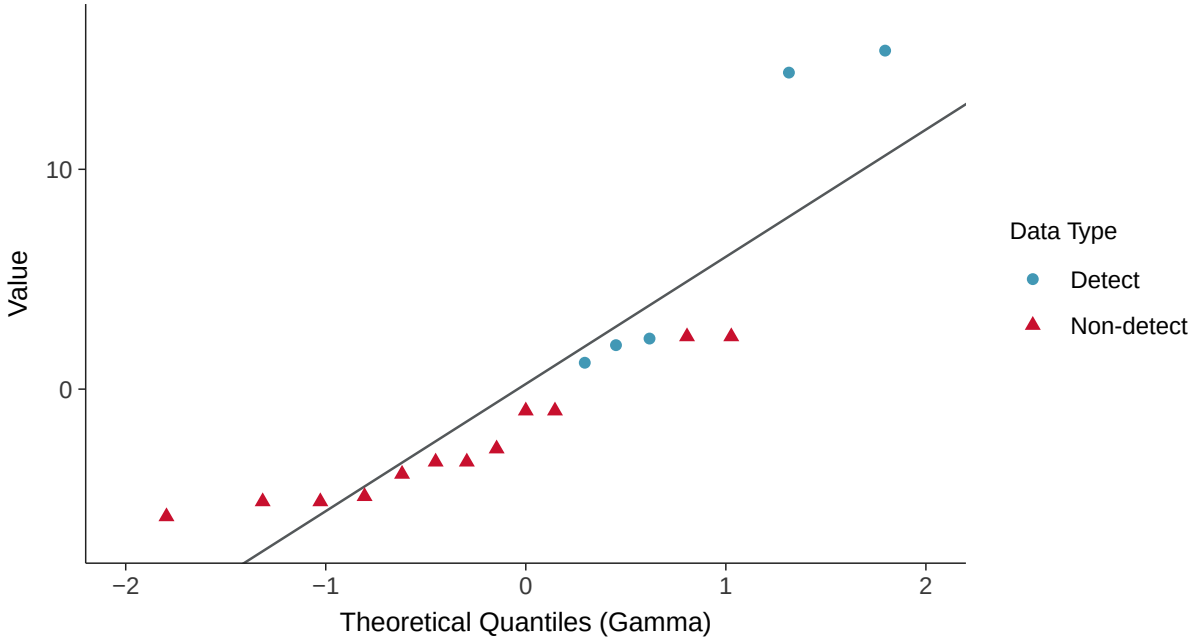
Lognormal Q-Q plot using ROS Imputed Estimates

Copper, MW-11D (ug/L)



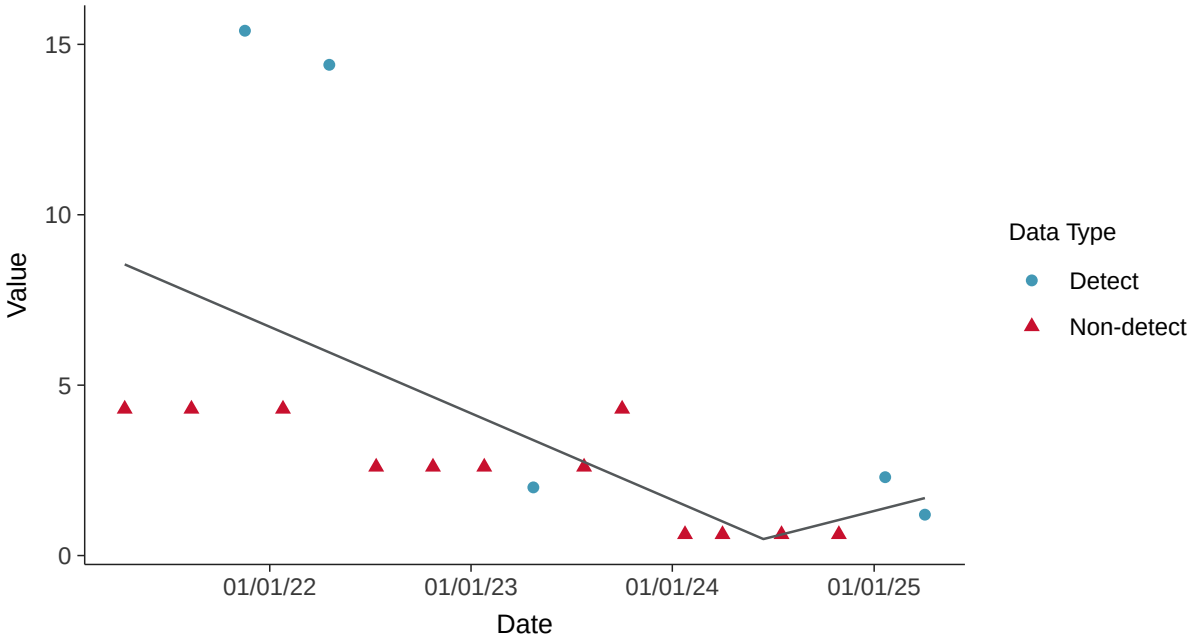
Gamma Q-Q plot using ROS Imputed Estimates

Copper, MW-11D (ug/L)



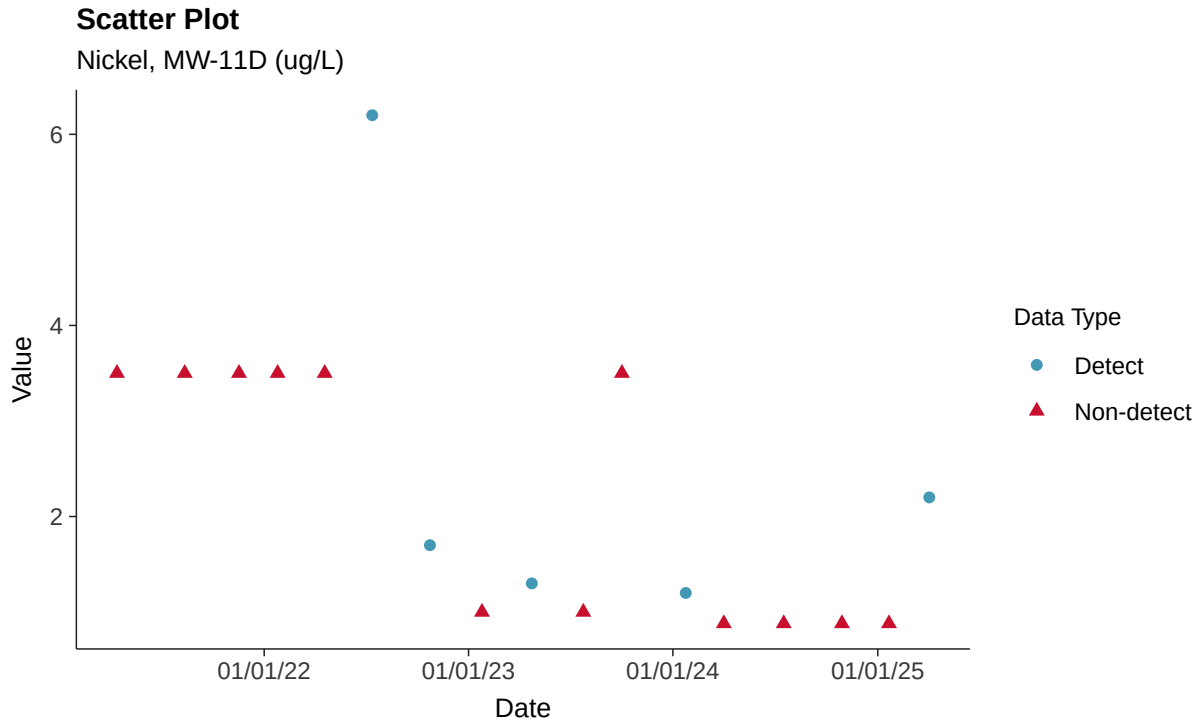
Trend Regression: Piecewise Linear-Linear

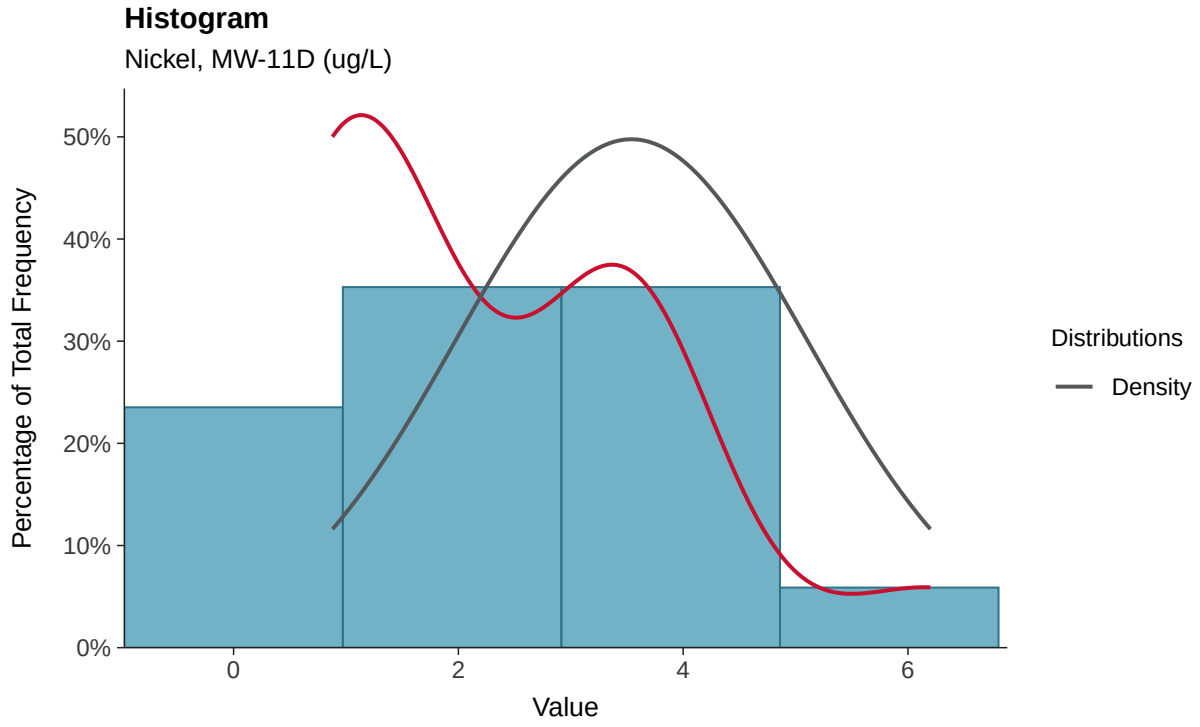
Copper, MW-11D (ug/L)



App. I Metals: Nickel, MW-11D

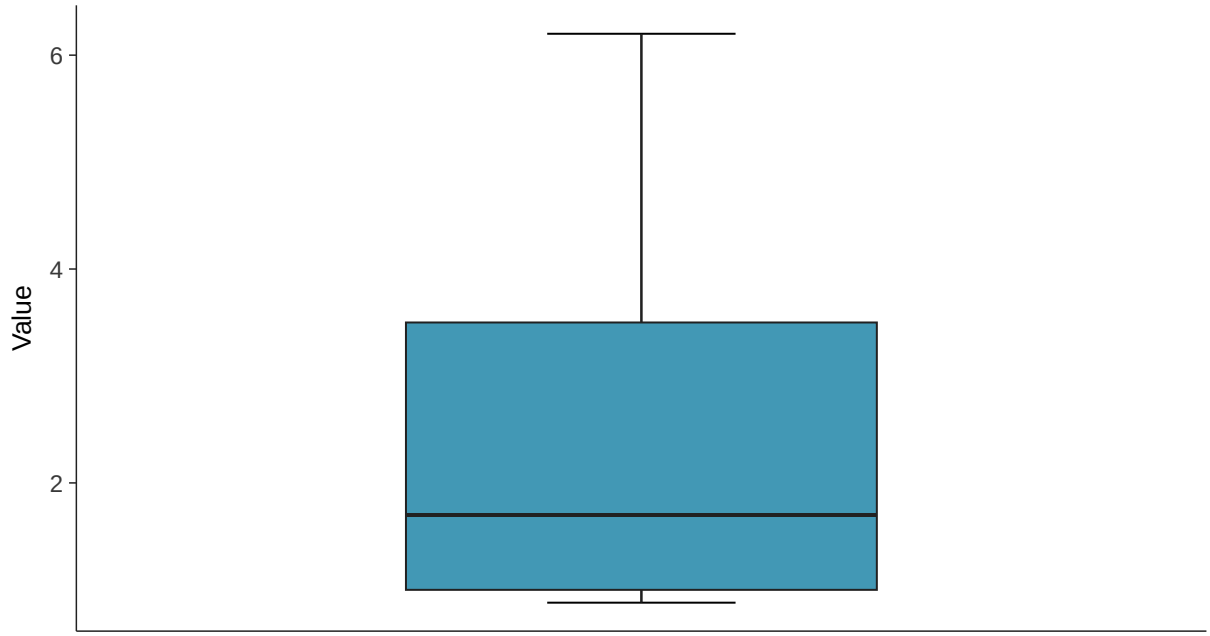
ID: 11_01_117





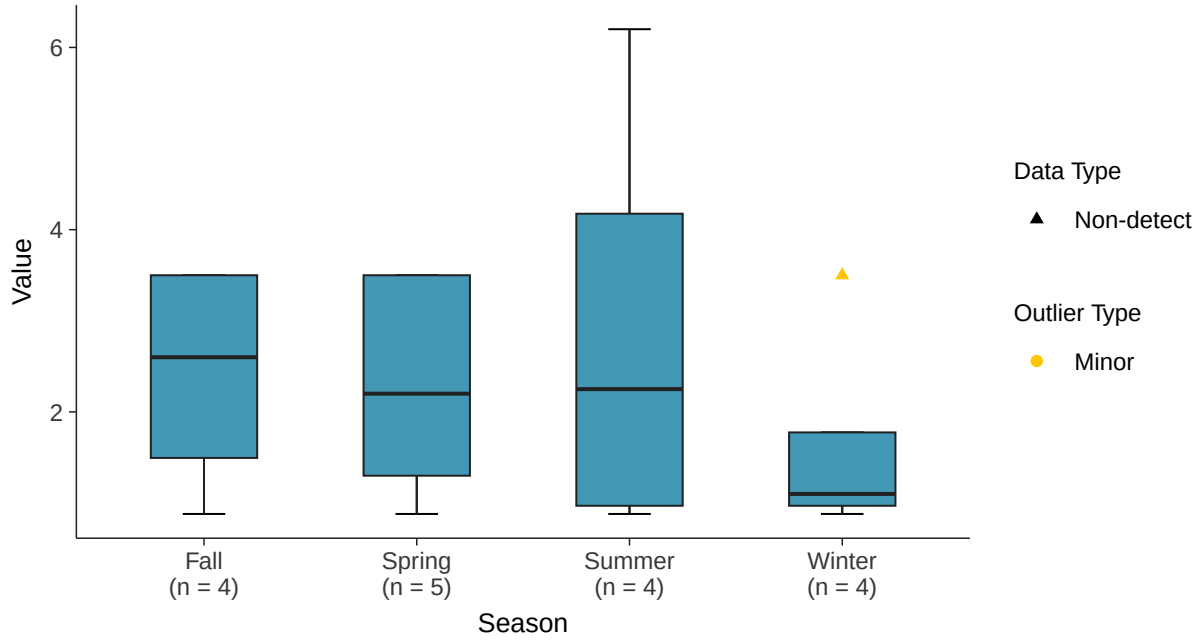
Boxplot

Nickel, MW-11D (ug/L)



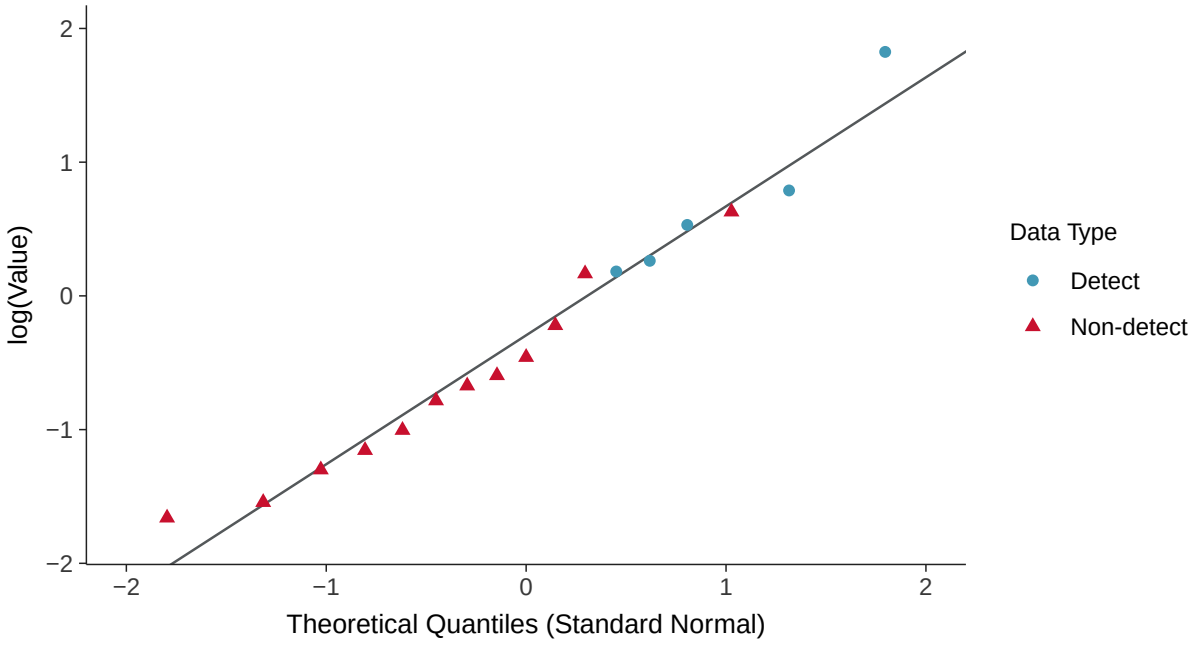
Boxplot by Season

Nickel, MW-11D (ug/L)



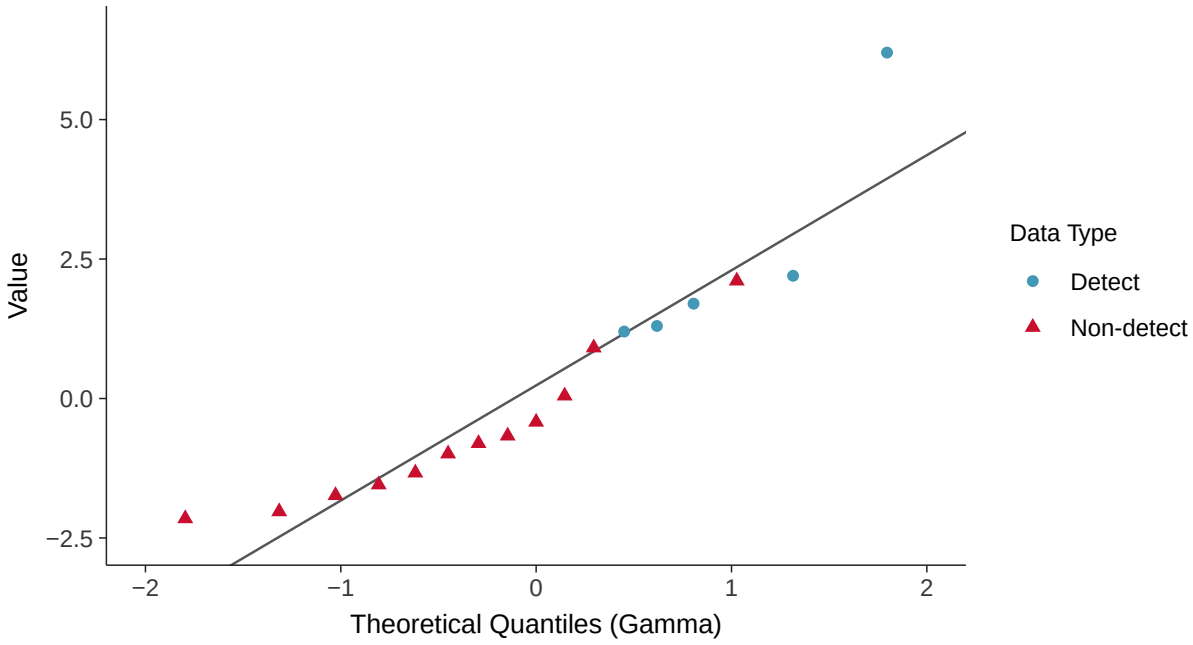
Lognormal Q-Q plot using ROS Imputed Estimates

Nickel, MW-11D (ug/L)



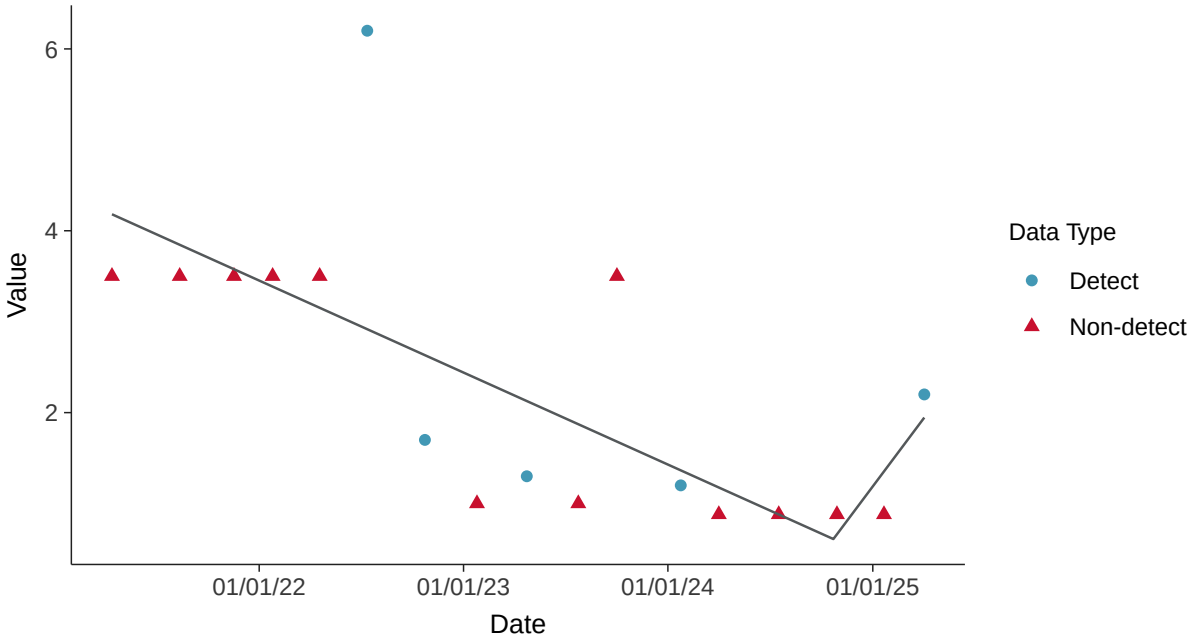
Gamma Q-Q plot using ROS Imputed Estimates

Nickel, MW-11D (ug/L)



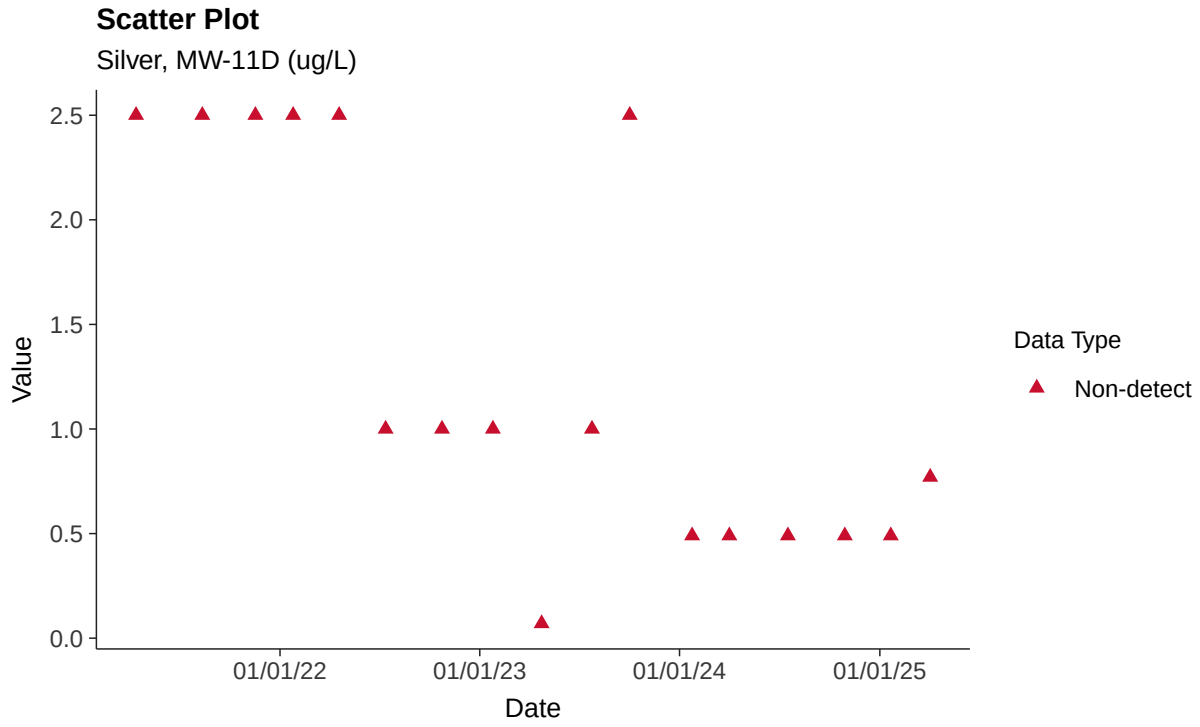
Trend Regression: Piecewise Linear-Linear

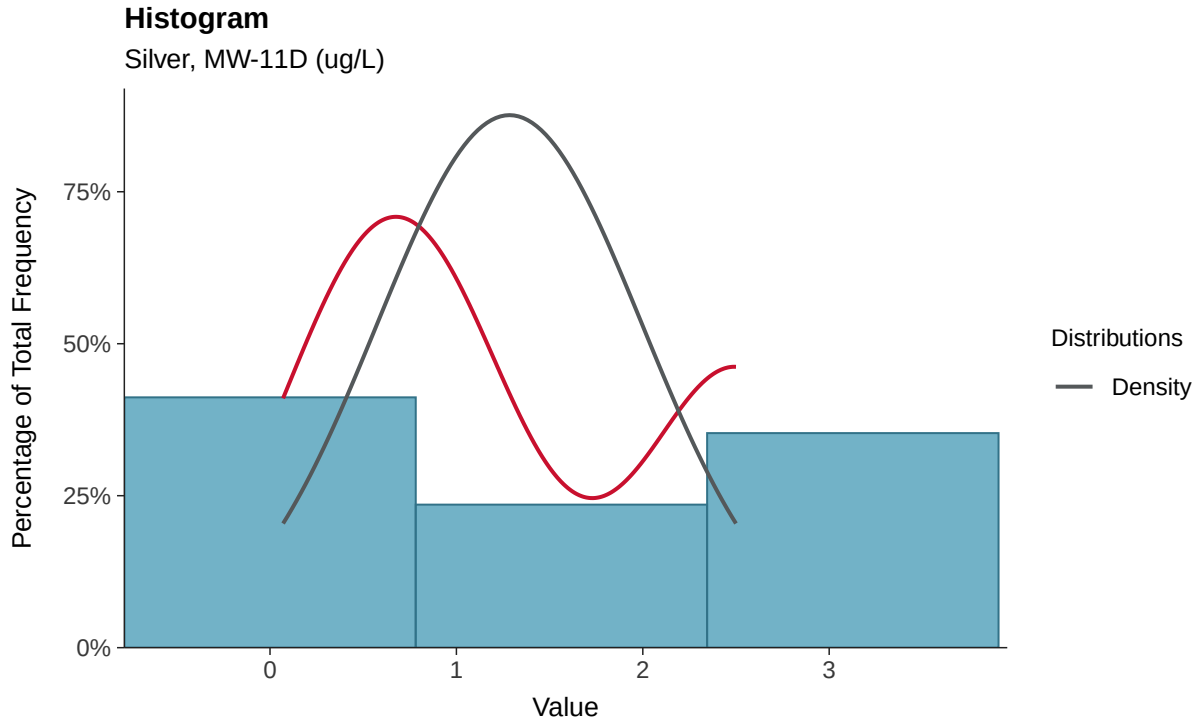
Nickel, MW-11D (ug/L)



App. I Metals: Silver, MW-11D

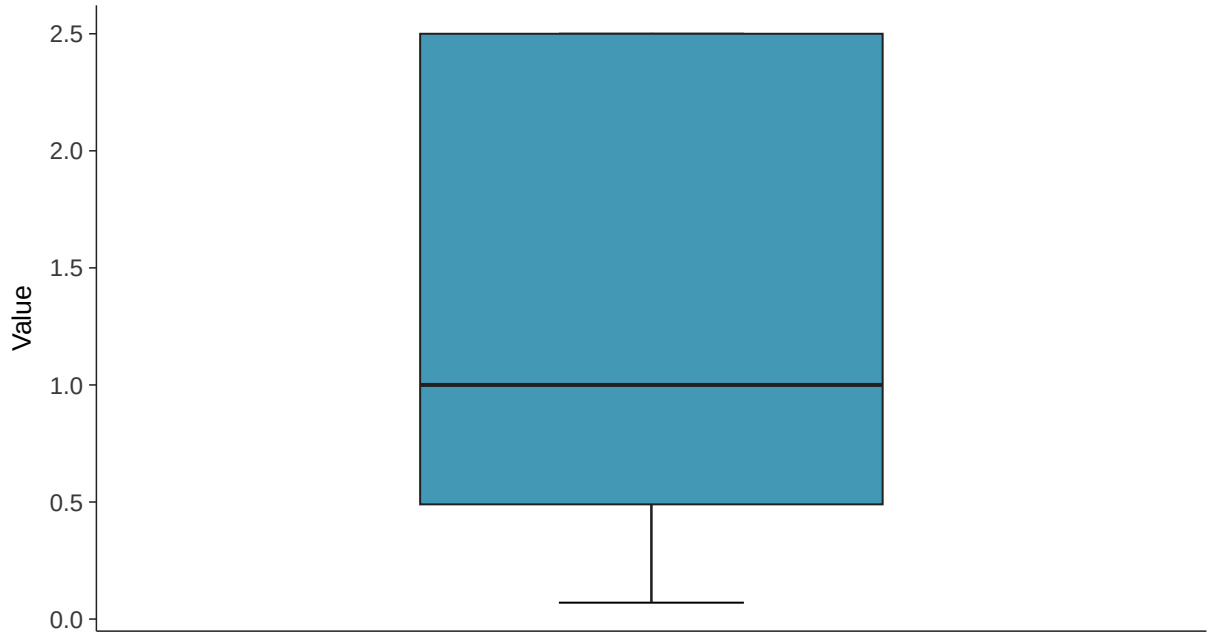
ID: 11_01_122





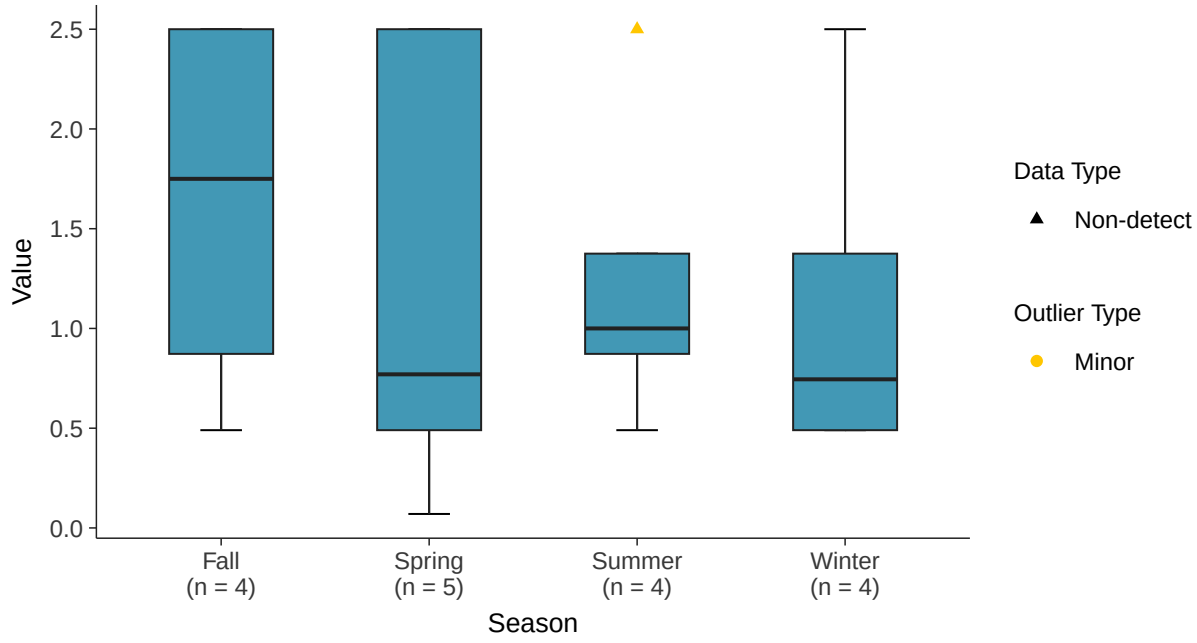
Boxplot

Silver, MW-11D (ug/L)



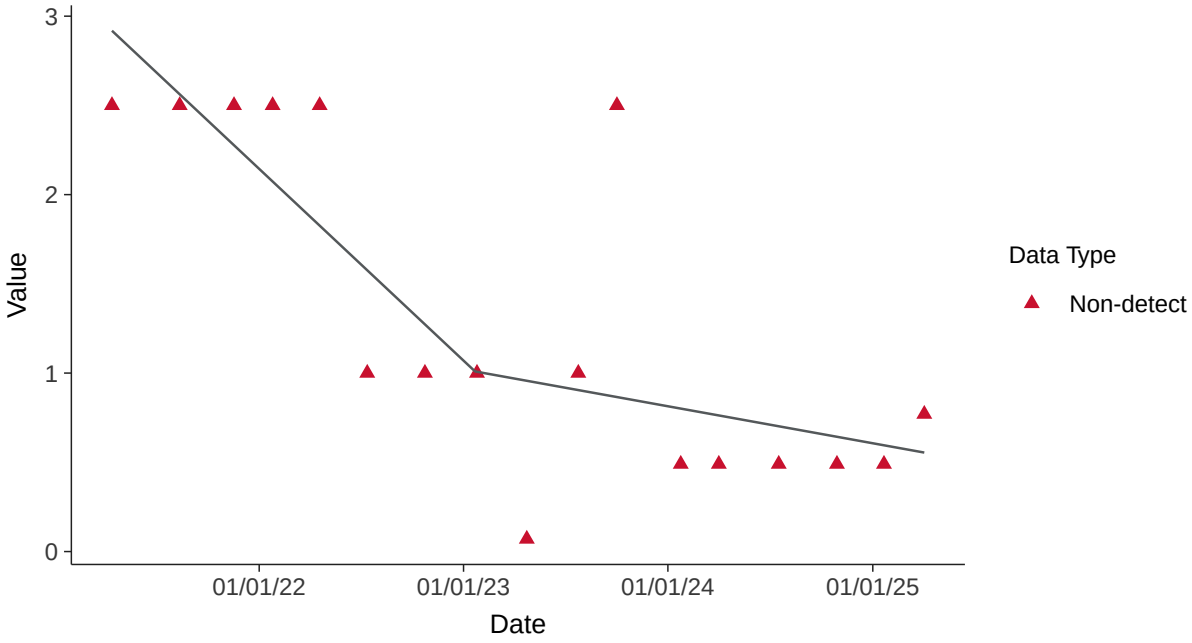
Boxplot by Season

Silver, MW-11D (ug/L)



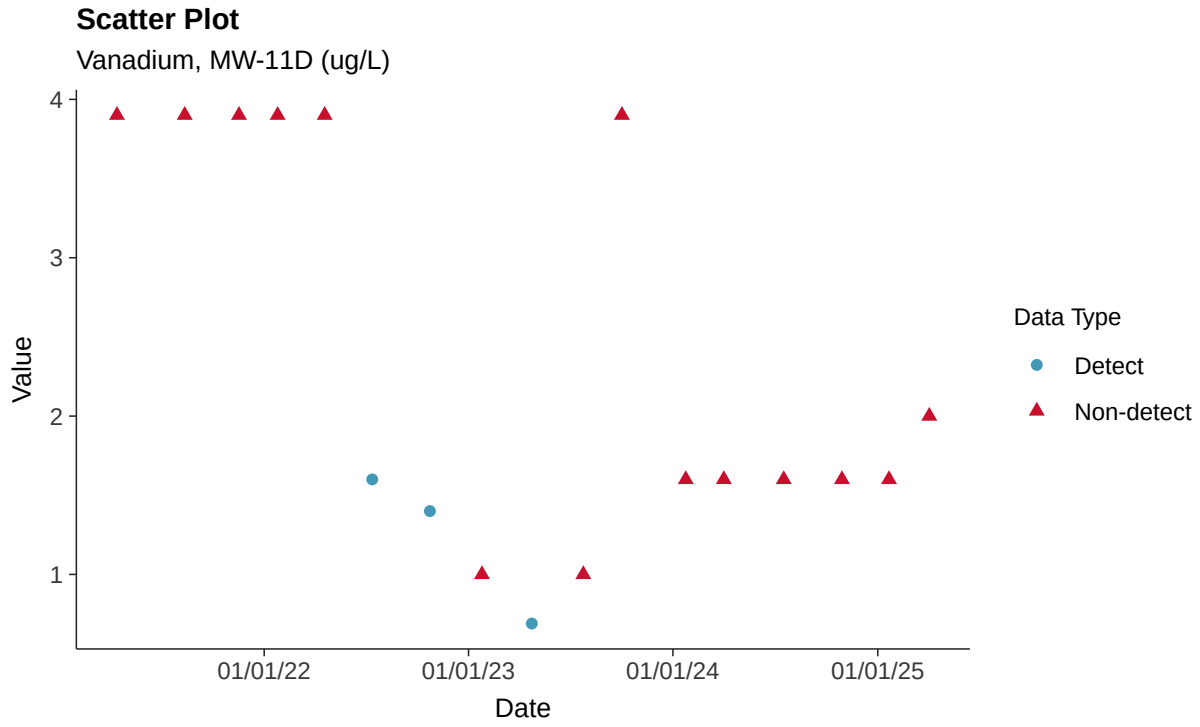
Trend Regression: Piecewise Linear-Linear

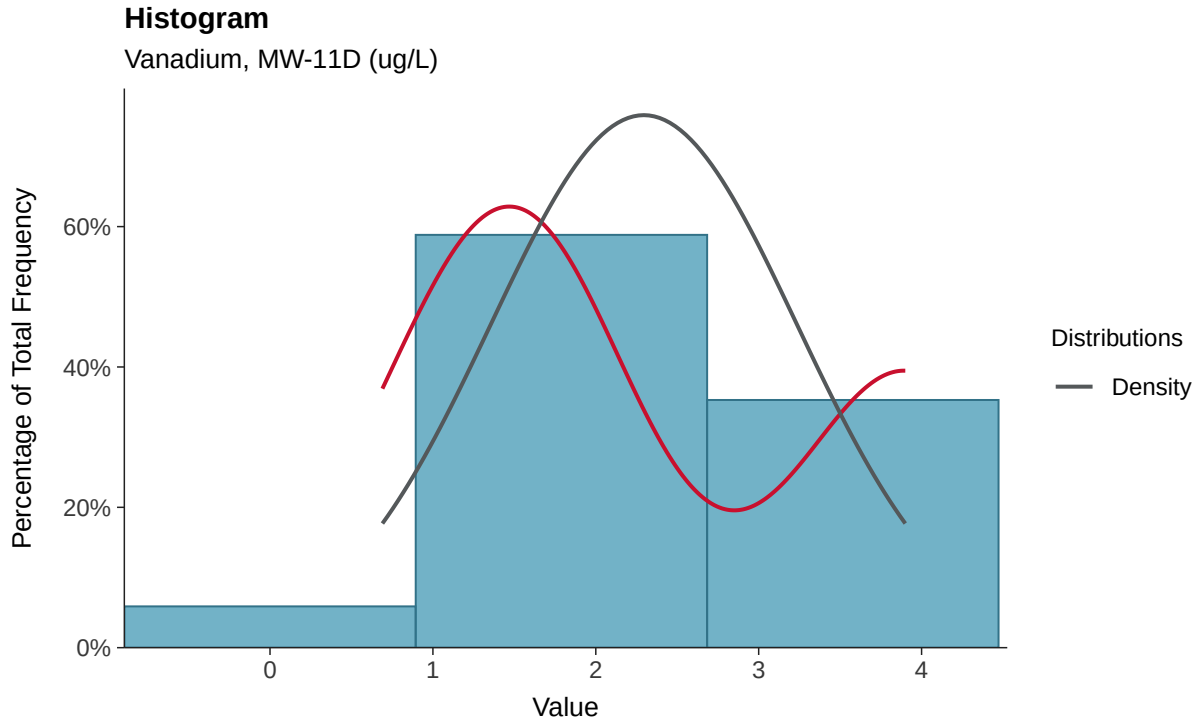
Silver, MW-11D (ug/L)



App. I Metals: Vanadium, MW-11D

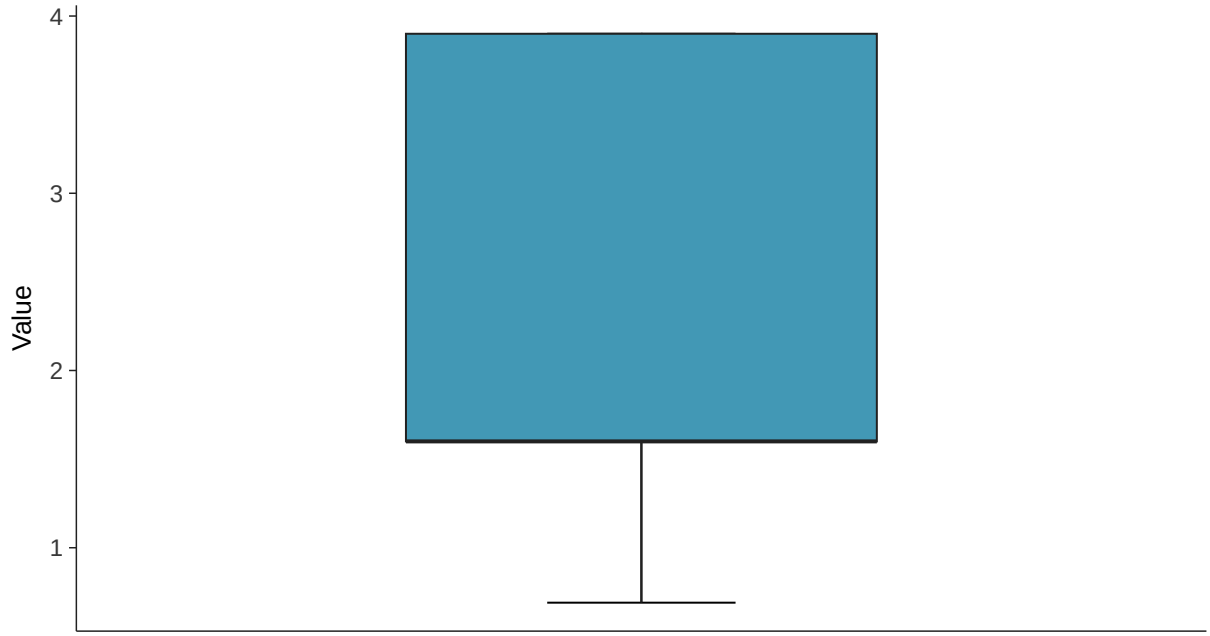
ID: 11_01_127





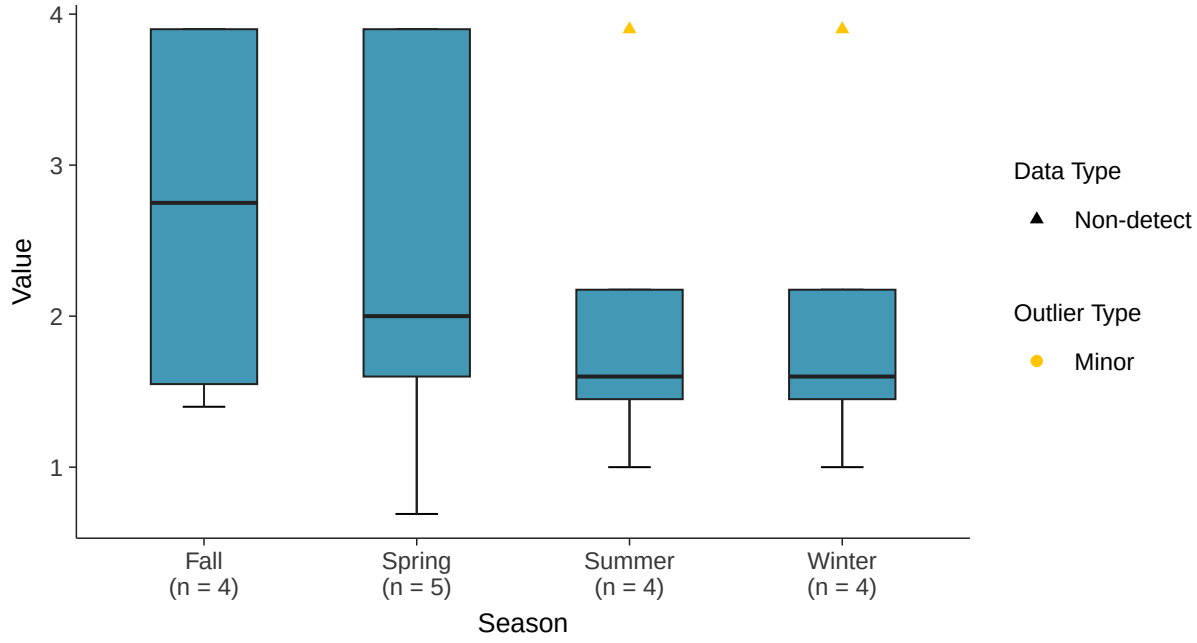
Boxplot

Vanadium, MW-11D (ug/L)



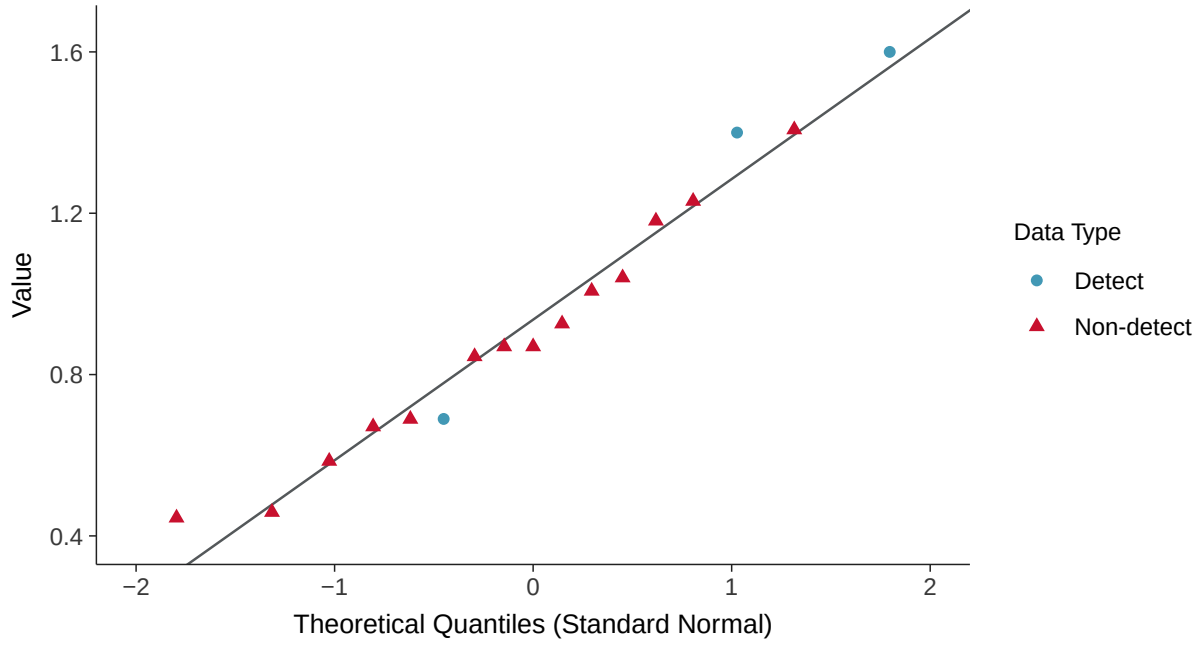
Boxplot by Season

Vanadium, MW-11D (ug/L)



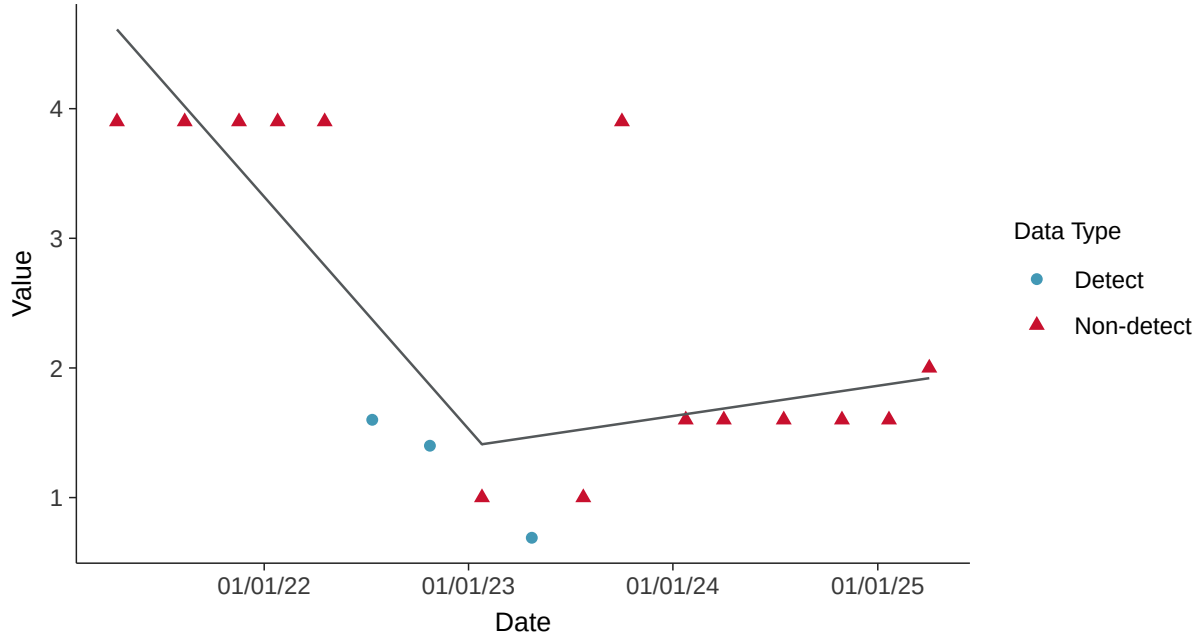
Normal Q-Q plot using ROS Imputed Estimates

Vanadium, MW-11D (ug/L)



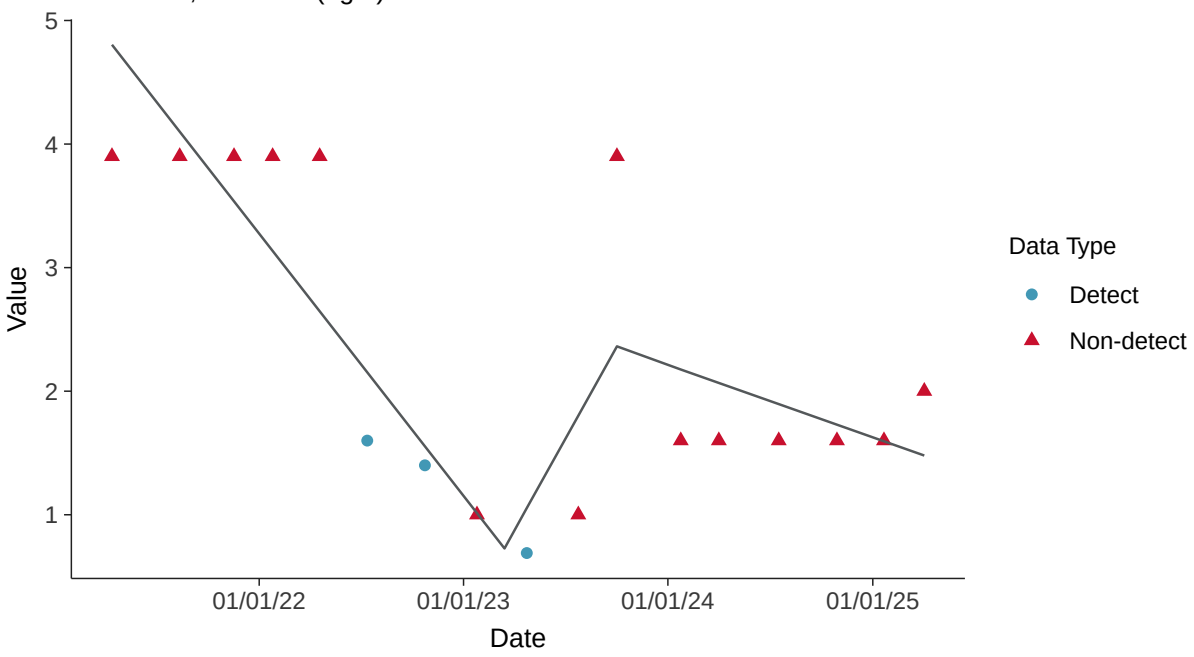
Trend Regression: Piecewise Linear-Linear

Vanadium, MW-11D (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Vanadium, MW-11D (ug/L)

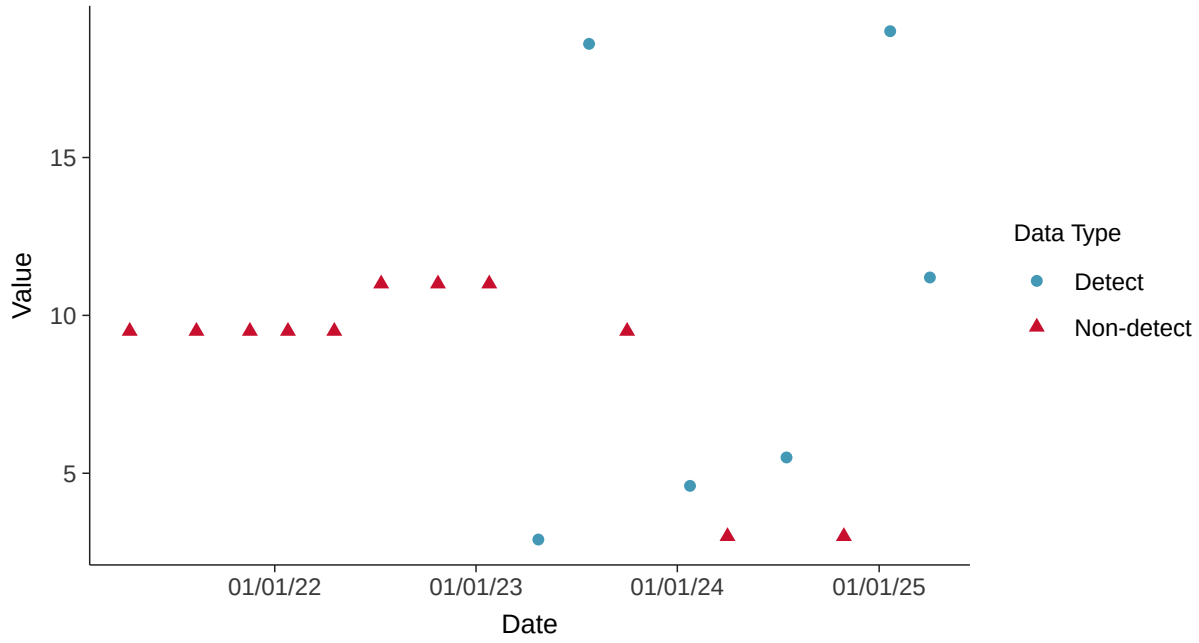


App. I Metals: Zinc, MW-11D

ID: 11_01_128

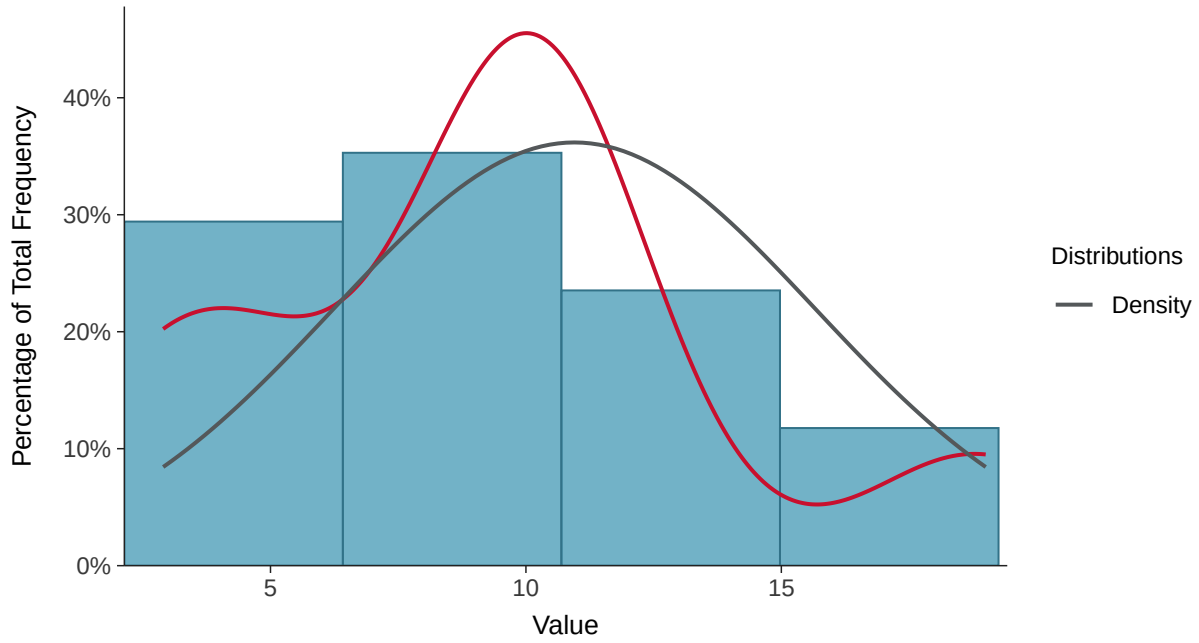
Scatter Plot

Zinc, MW-11D (ug/L)



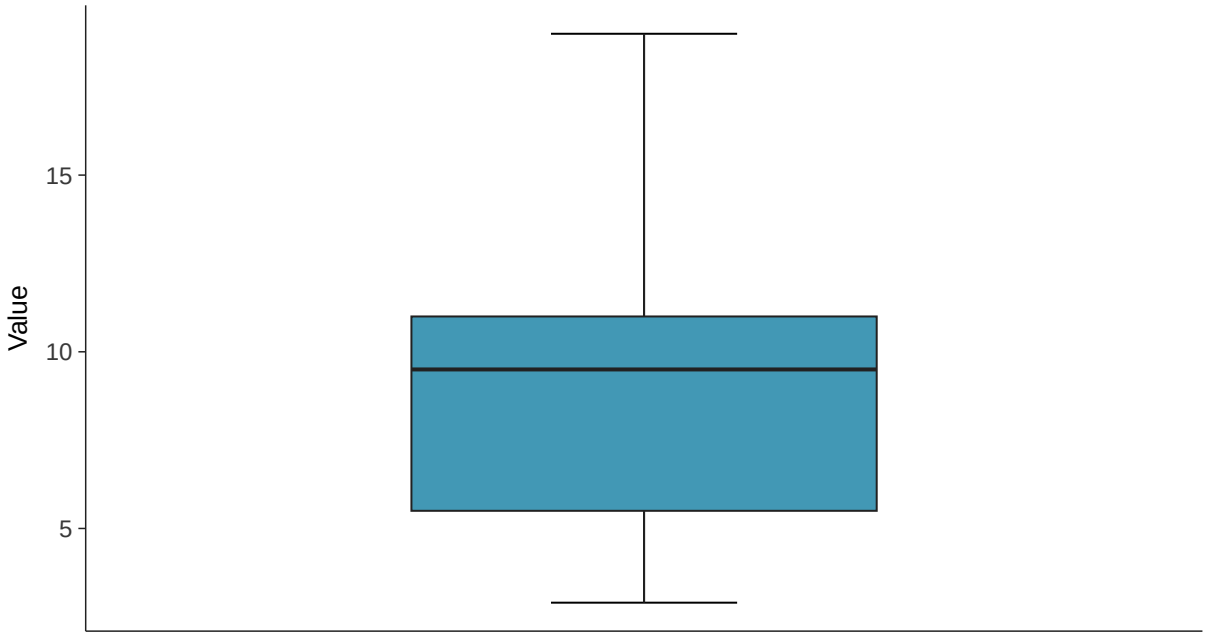
Histogram

Zinc, MW-11D (ug/L)



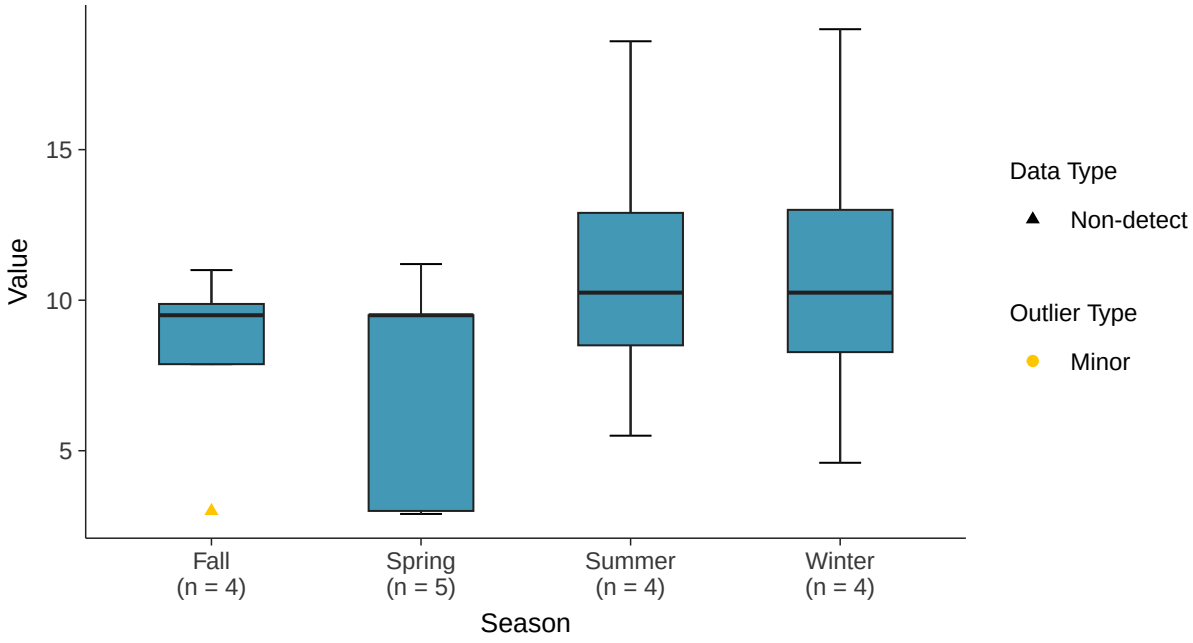
Boxplot

Zinc, MW-11D (ug/L)



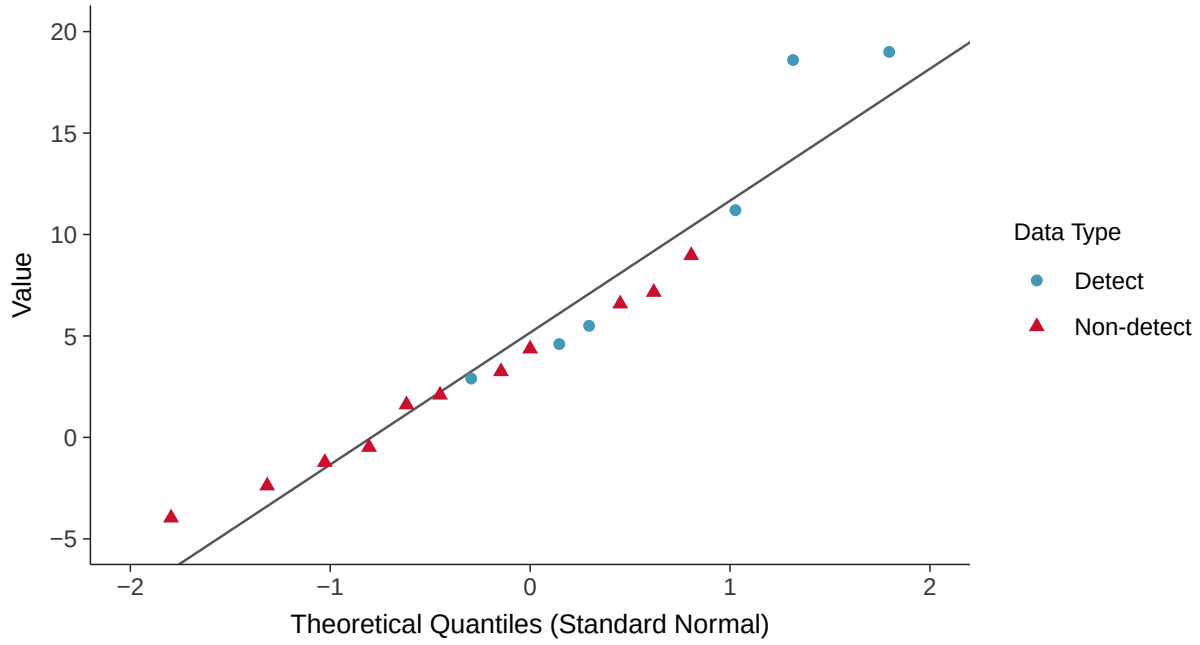
Boxplot by Season

Zinc, MW-11D (ug/L)



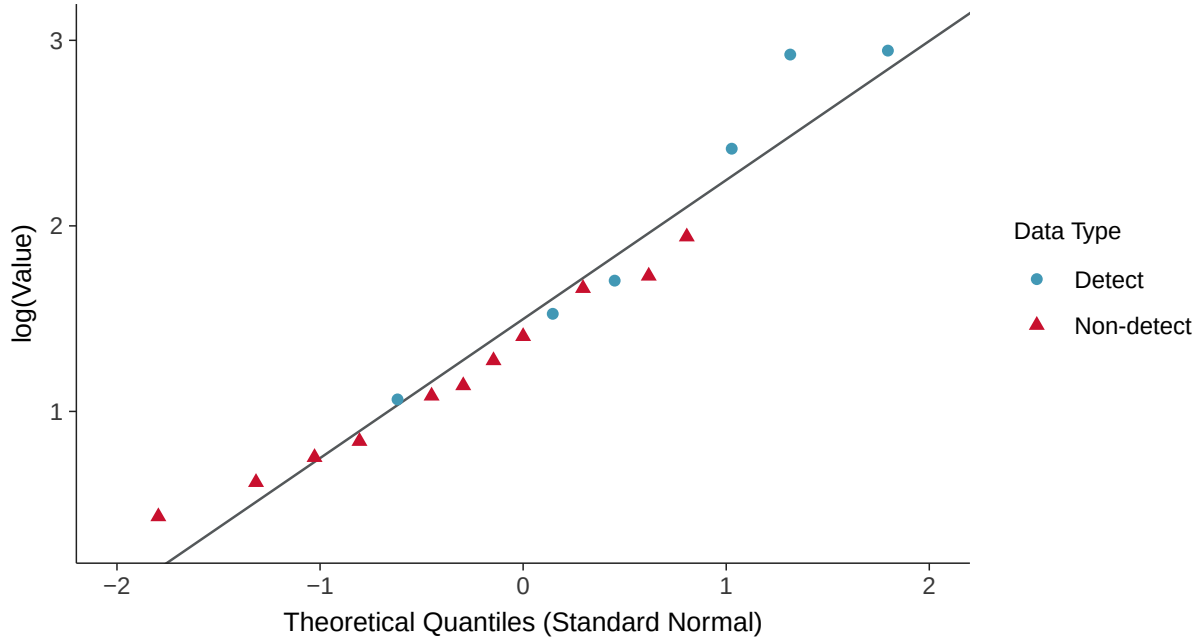
Normal Q-Q plot using ROS Imputed Estimates

Zinc, MW-11D (ug/L)



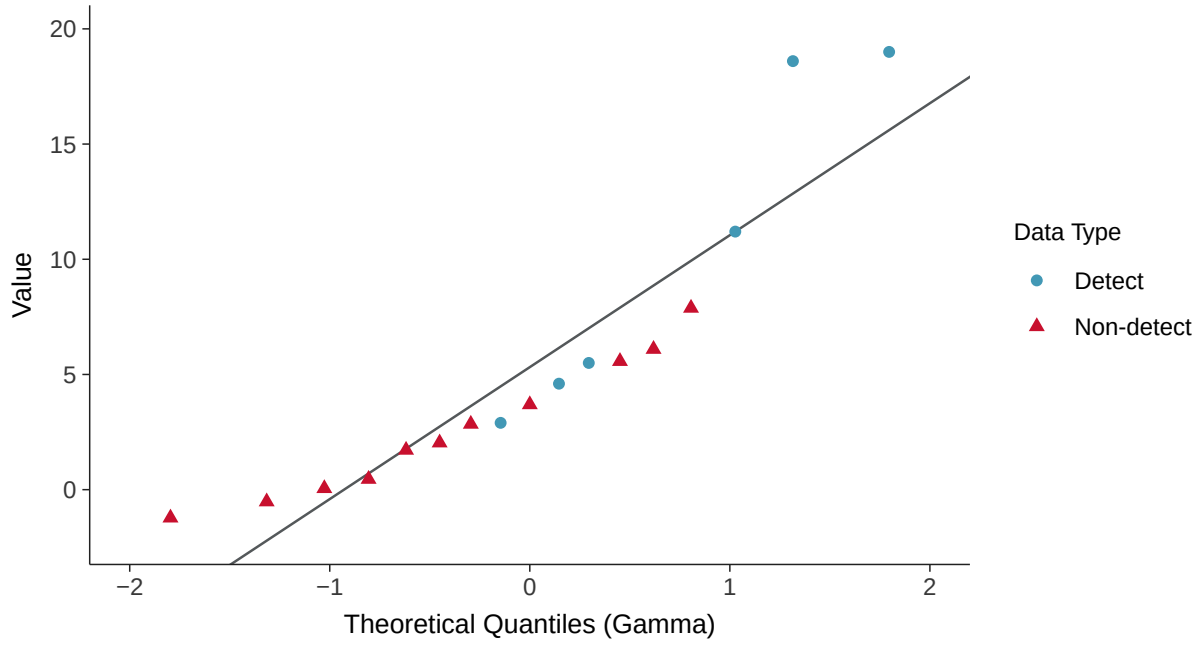
Lognormal Q-Q plot using ROS Imputed Estimates

Zinc, MW-11D (ug/L)



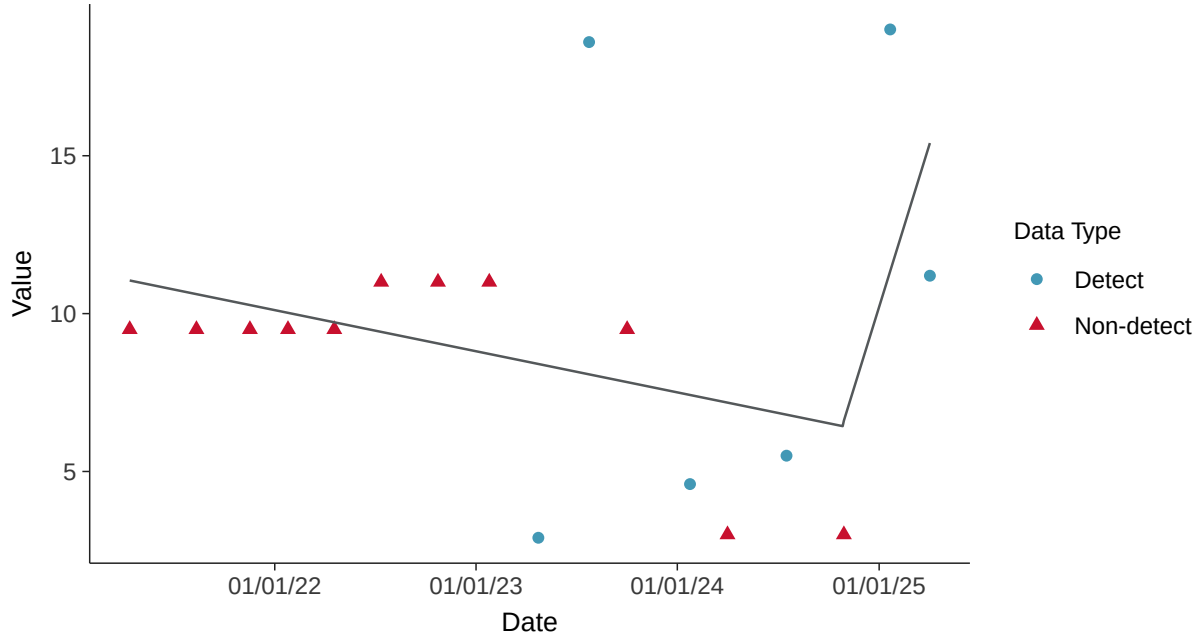
Gamma Q-Q plot using ROS Imputed Estimates

Zinc, MW-11D (ug/L)



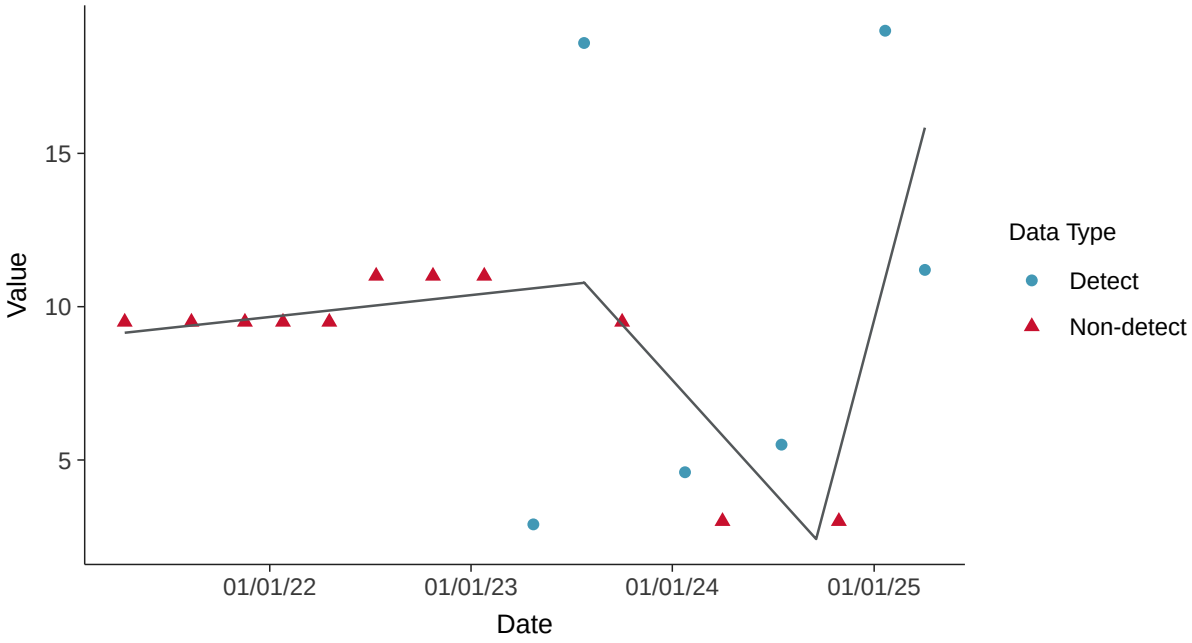
Trend Regression: Piecewise Linear-Linear

Zinc, MW-11D (ug/L)



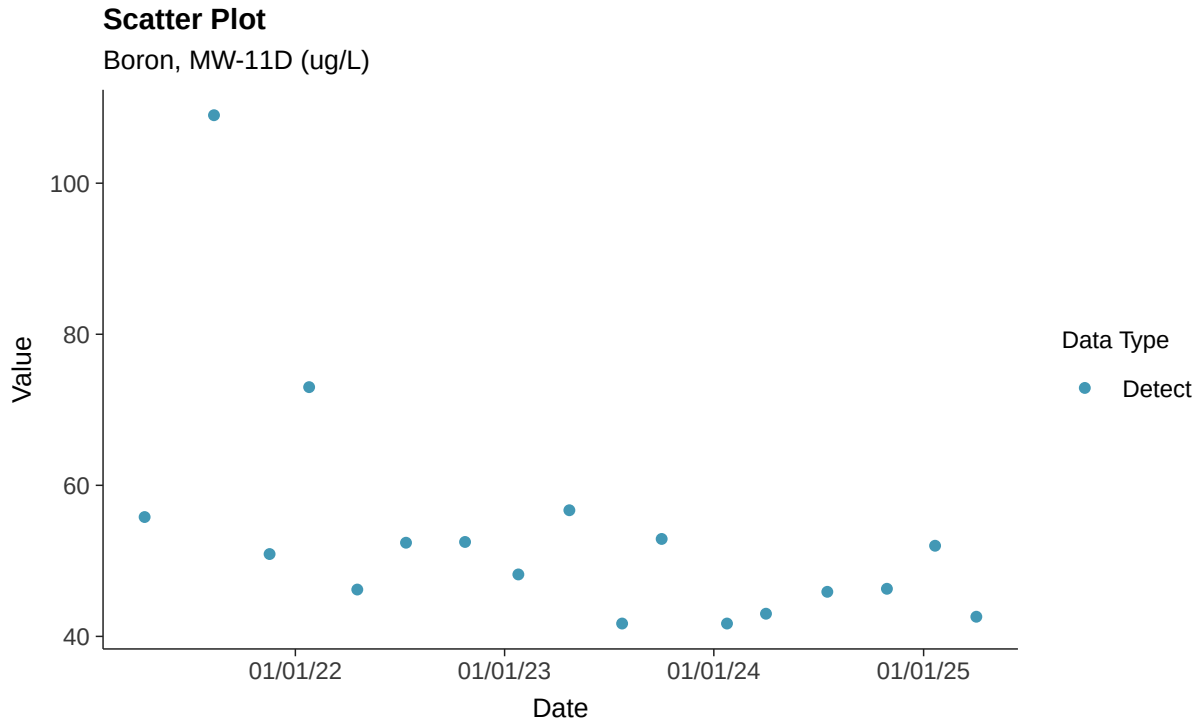
Trend Regression: Piecewise Linear-Linear-Linear

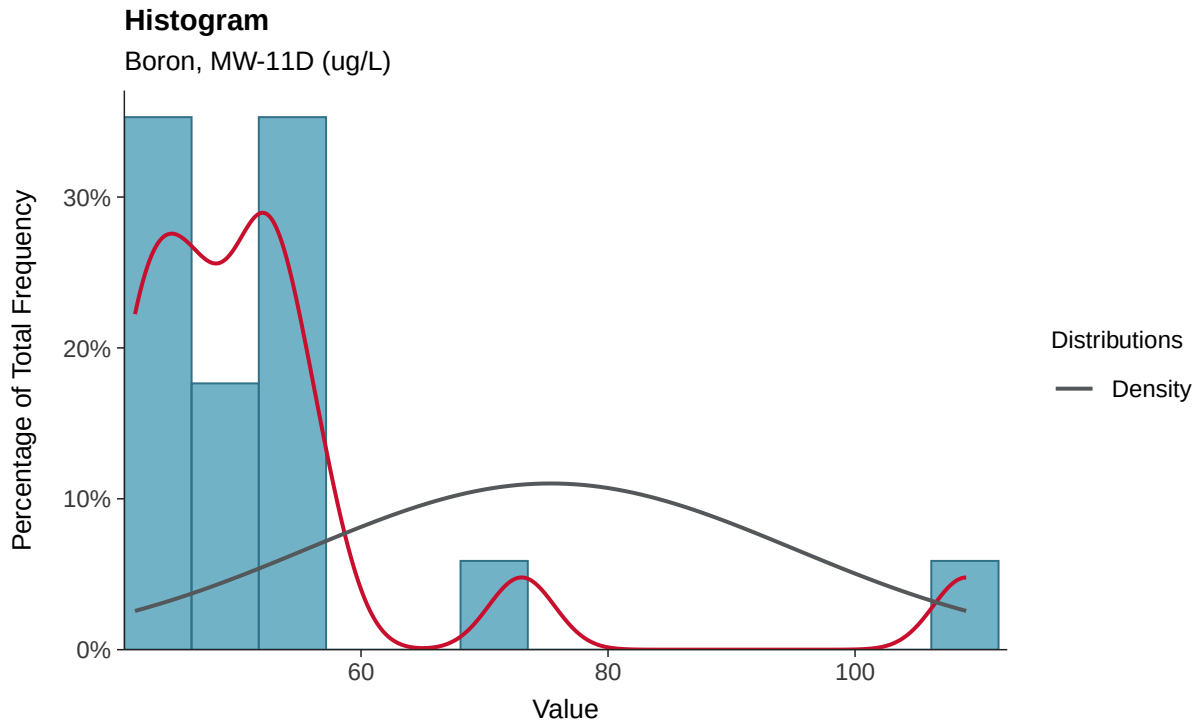
Zinc, MW-11D (ug/L)



App. III: Boron, MW-11D

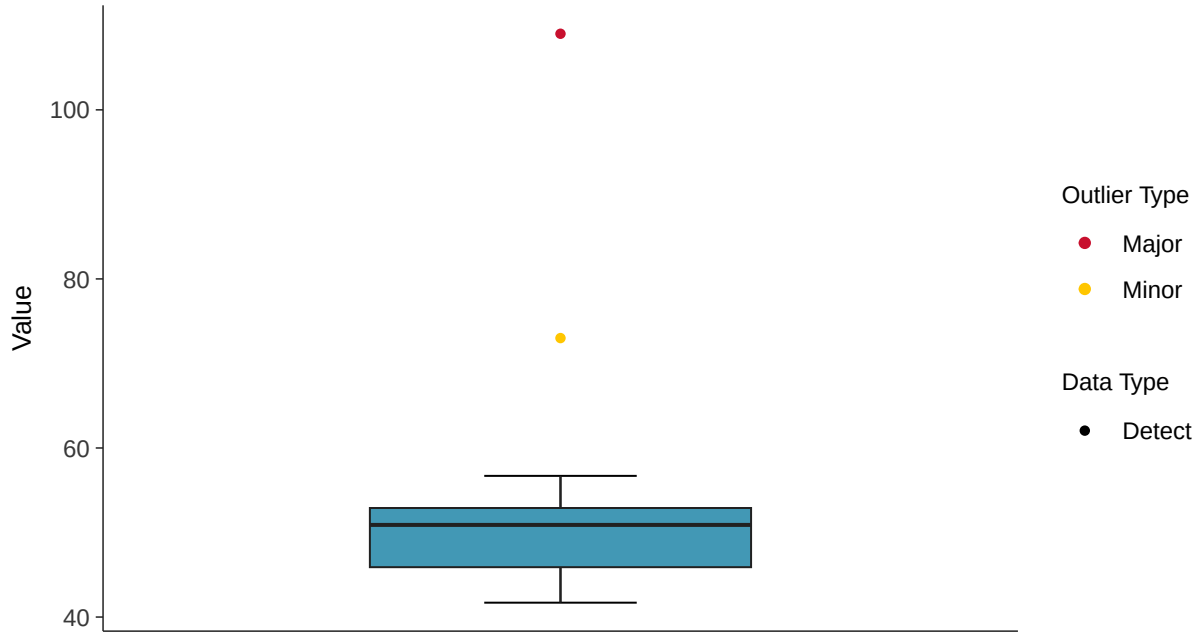
ID: 11_02_105





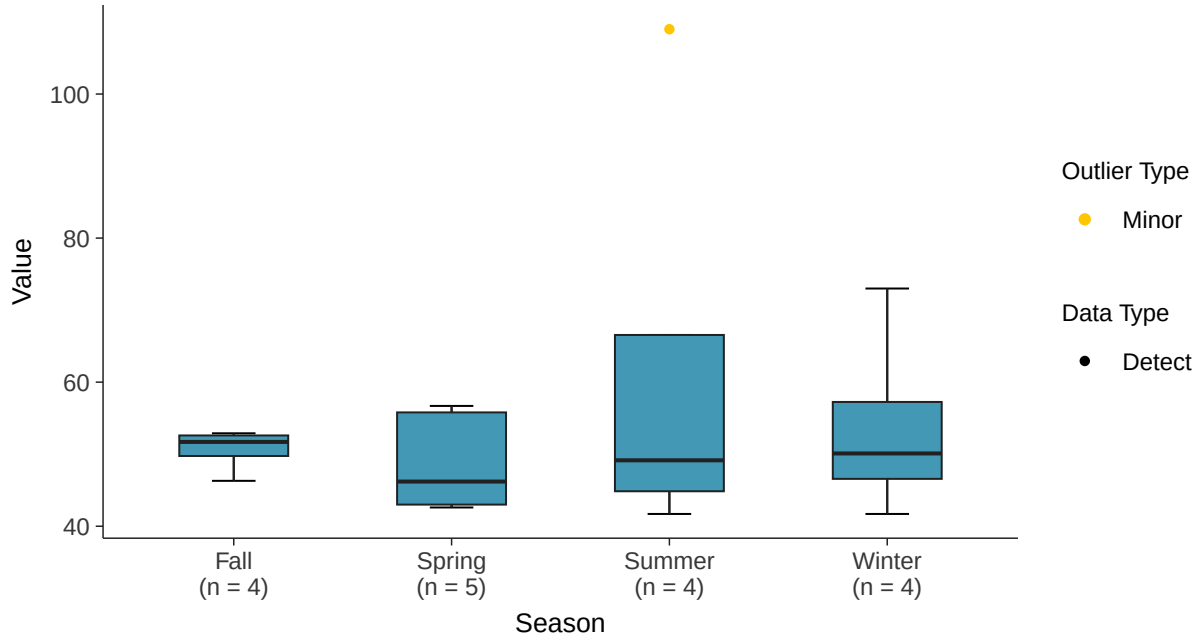
Boxplot

Boron, MW-11D (ug/L)



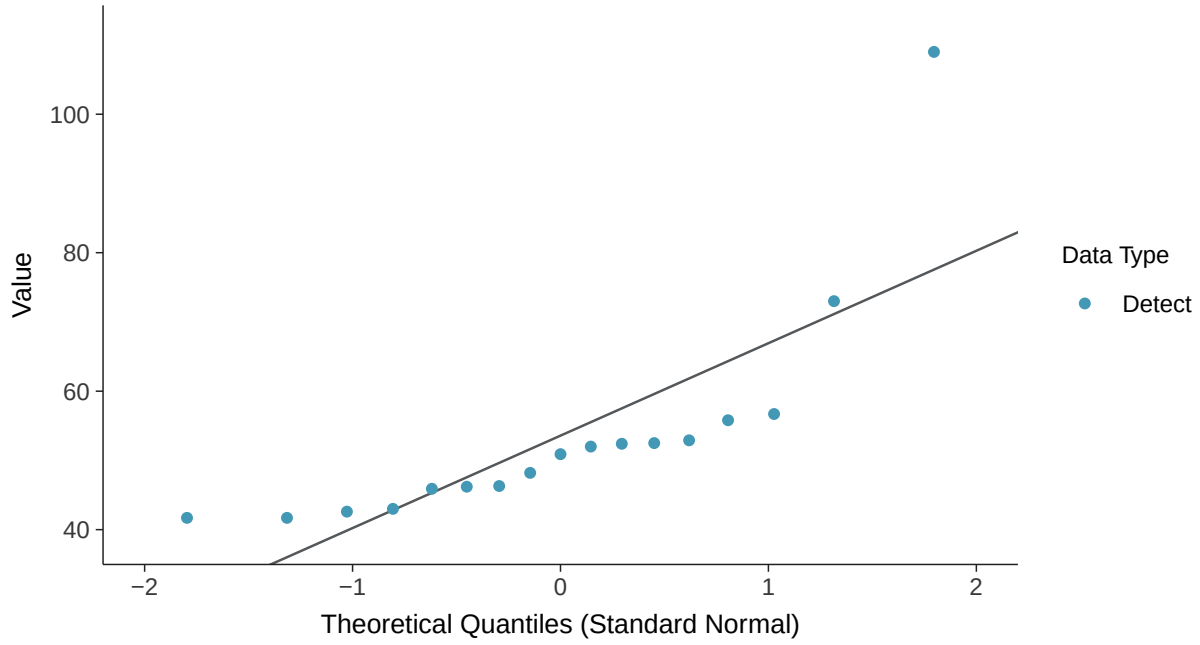
Boxplot by Season

Boron, MW-11D (ug/L)



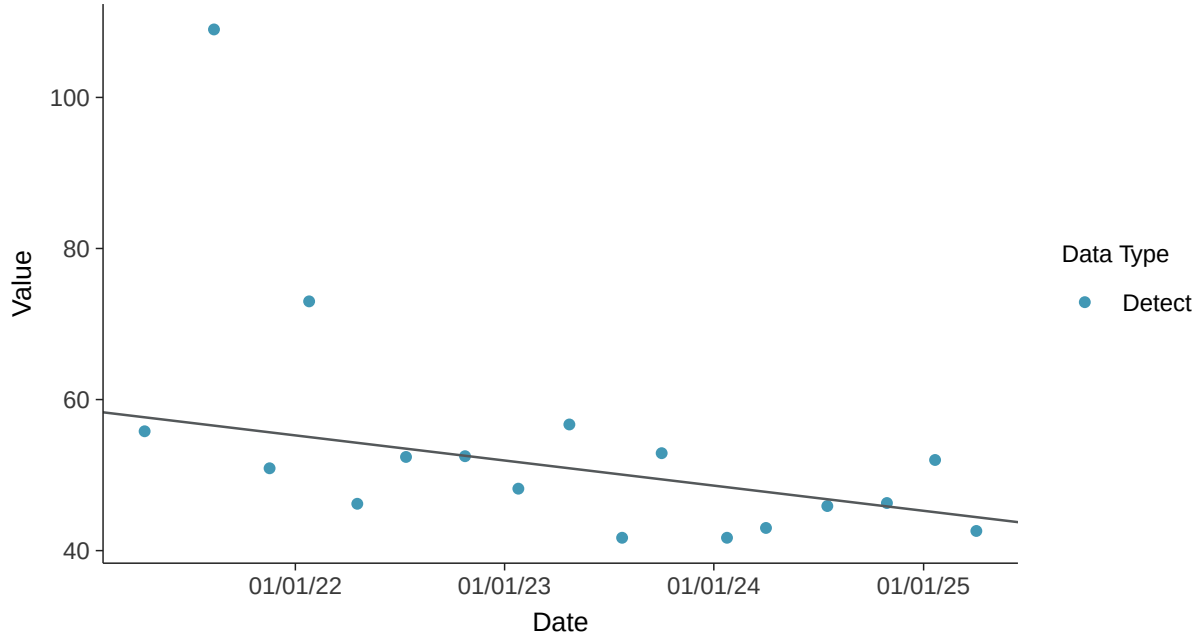
Normal Q-Q plot

Boron, MW-11D (ug/L)



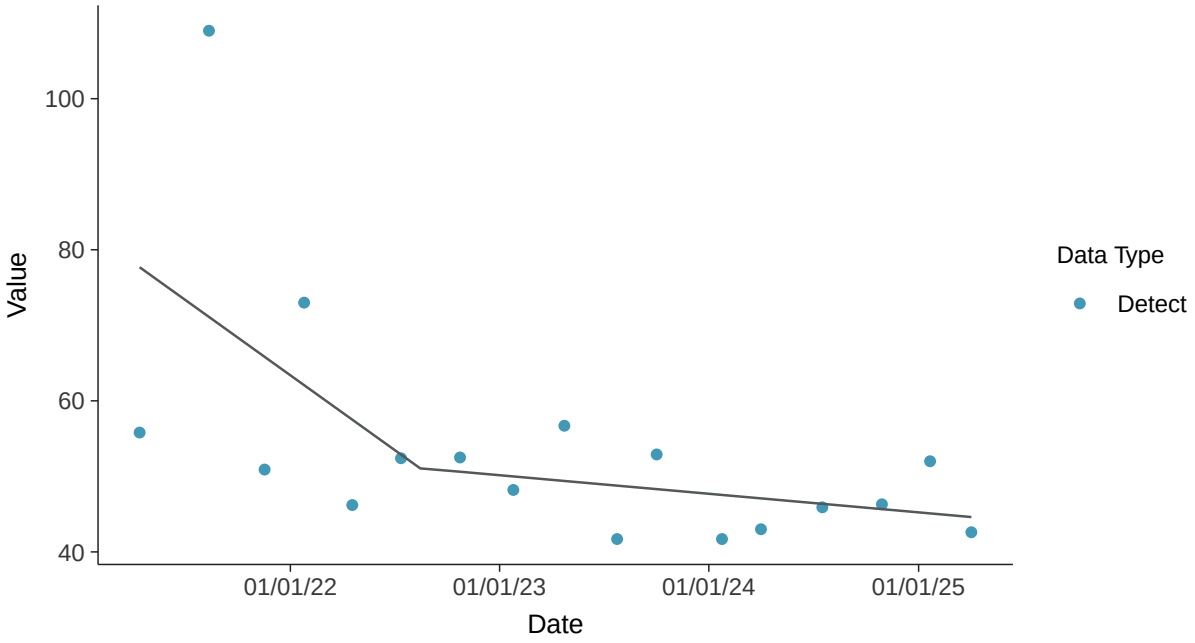
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Boron, MW-11D (ug/L)



Trend Regression: Piecewise Linear-Linear

Boron, MW-11D (ug/L)

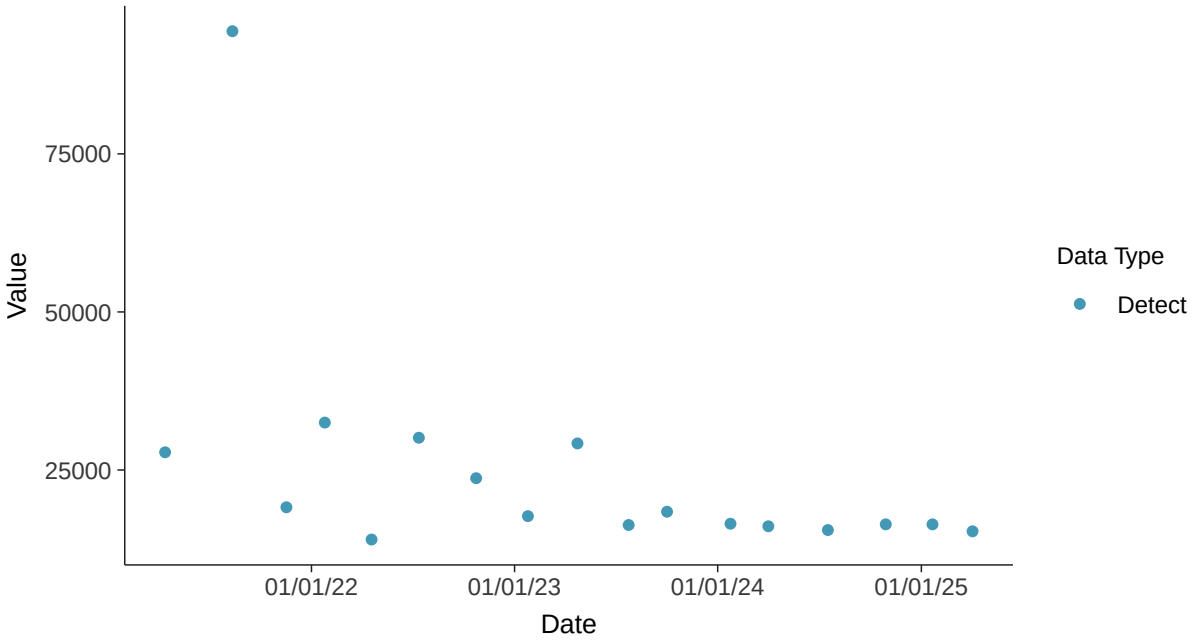


App. III: Calcium, MW-11D

ID: 11_02_107

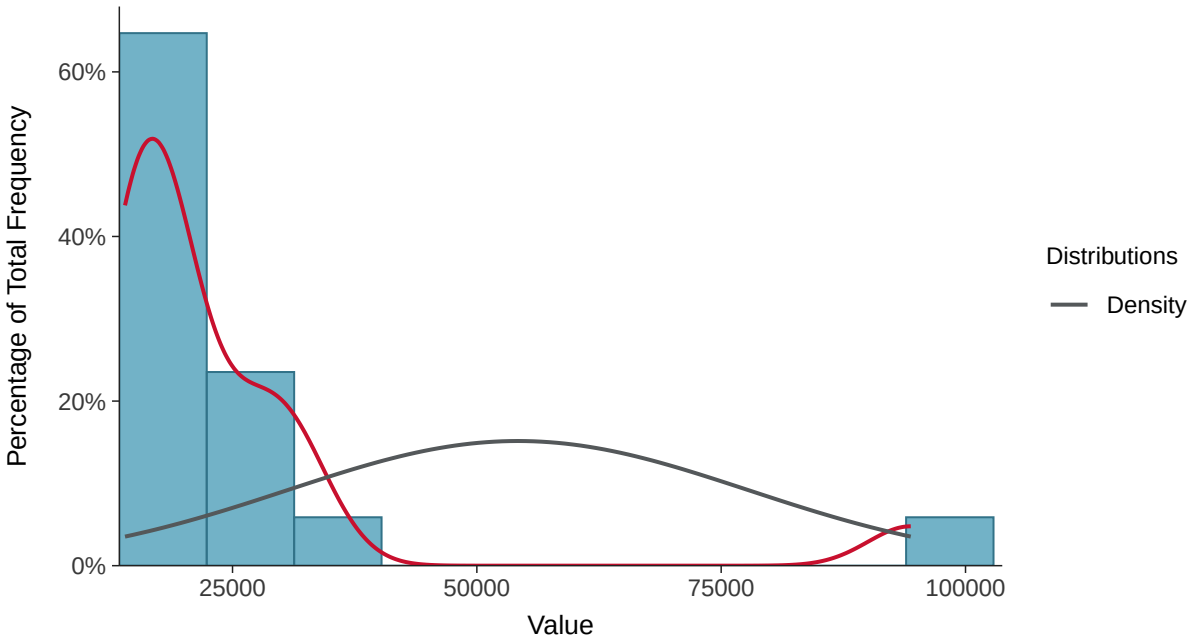
Scatter Plot

Calcium, MW-11D (ug/L)



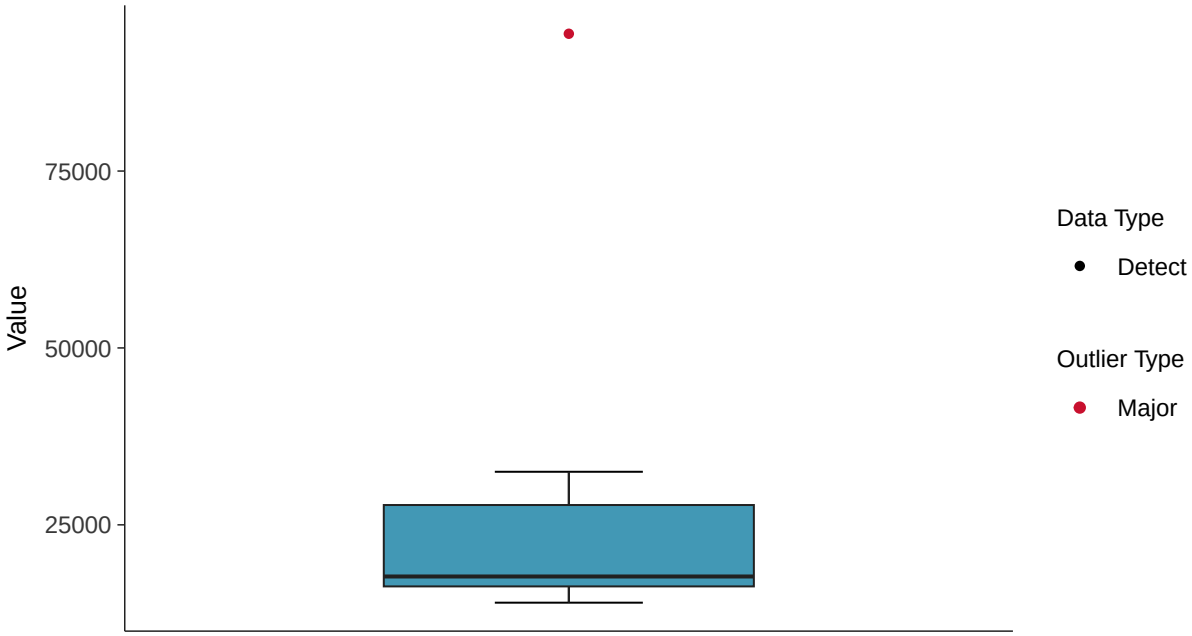
Histogram

Calcium, MW-11D (ug/L)



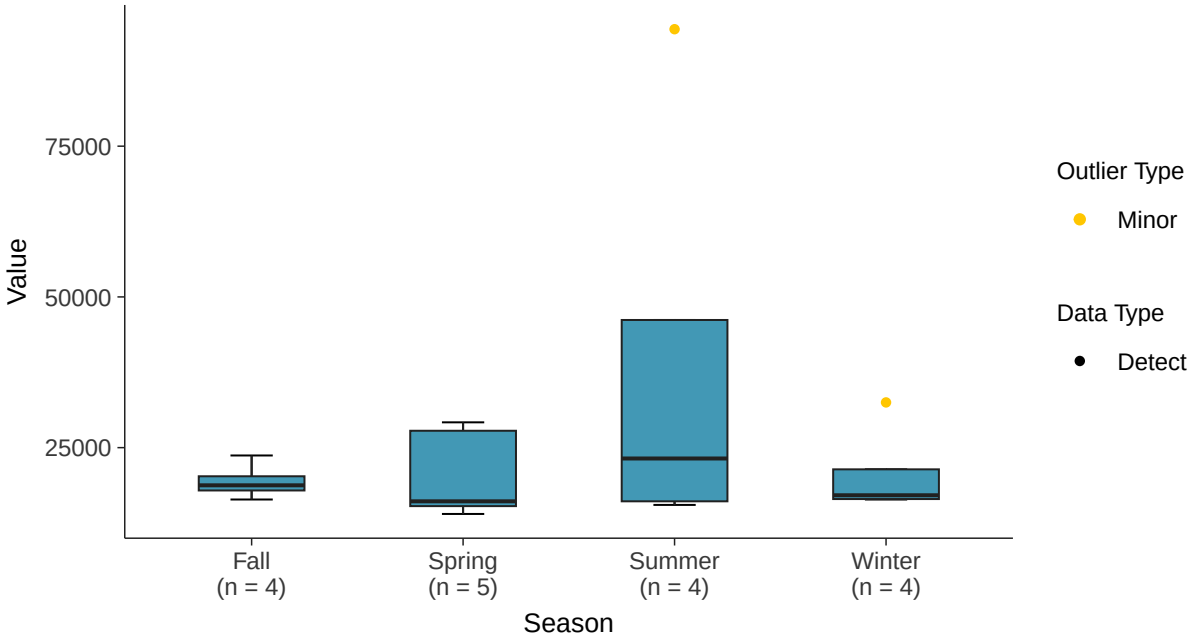
Boxplot

Calcium, MW-11D (ug/L)



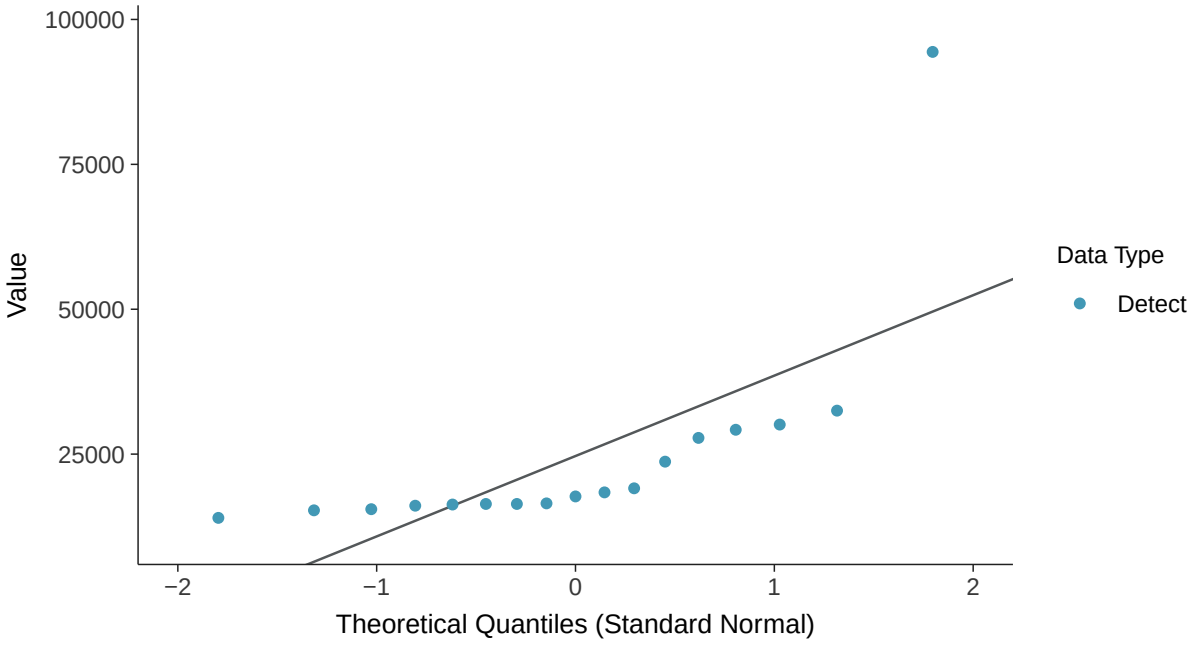
Boxplot by Season

Calcium, MW-11D (ug/L)



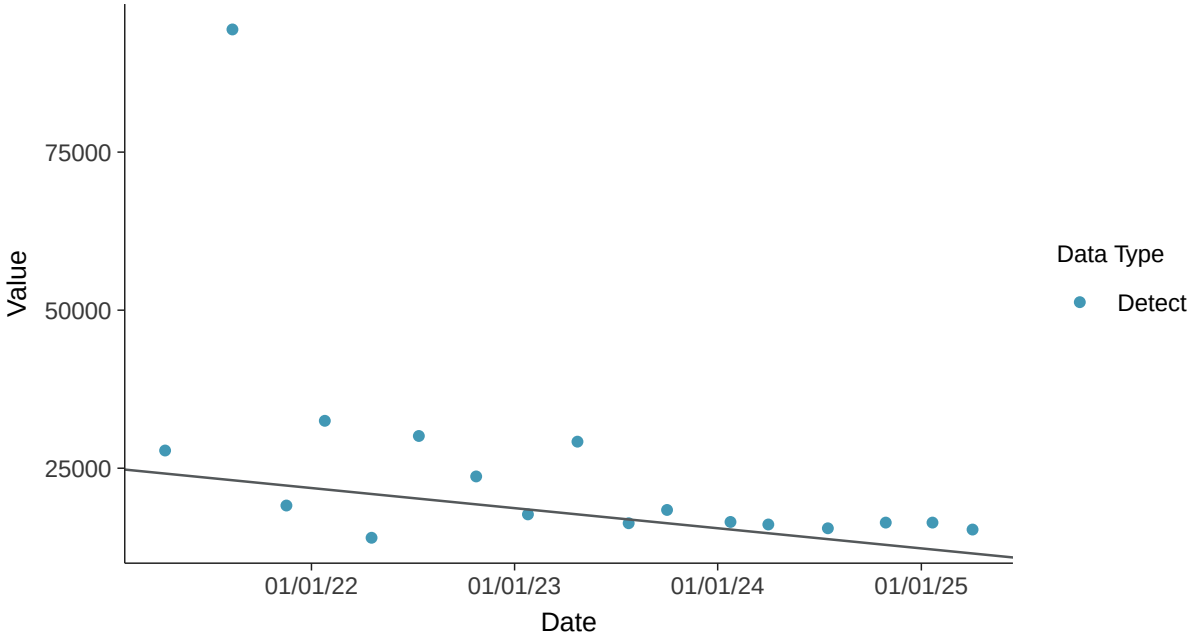
Normal Q-Q plot

Calcium, MW-11D (ug/L)



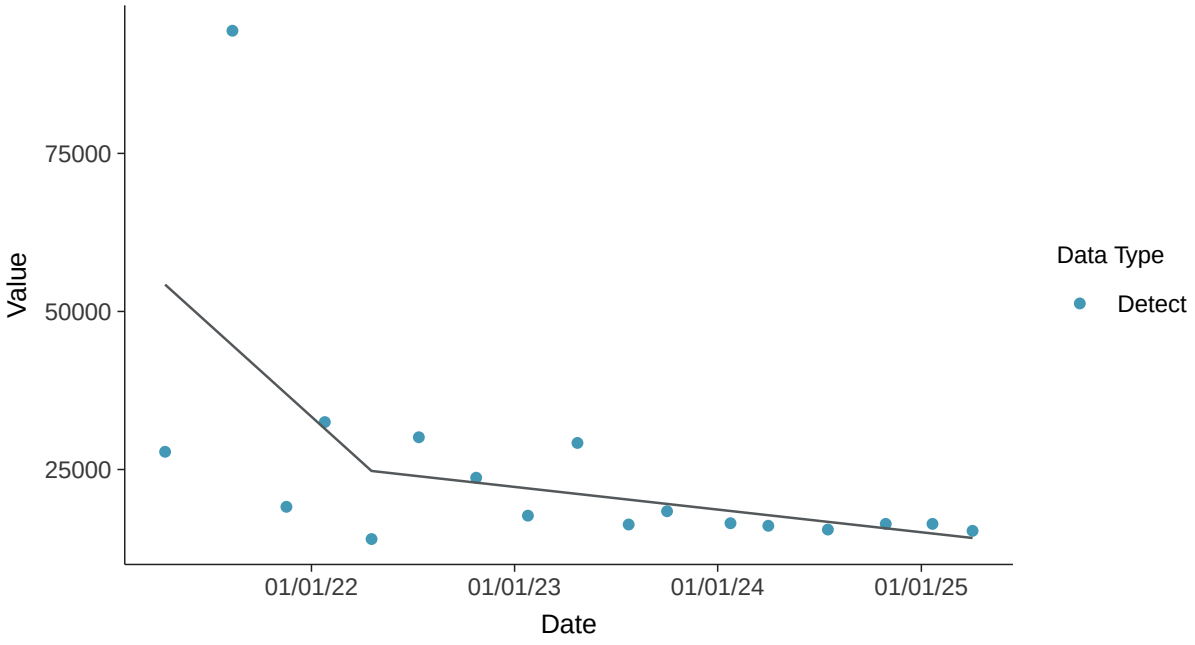
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Calcium, MW-11D (ug/L)



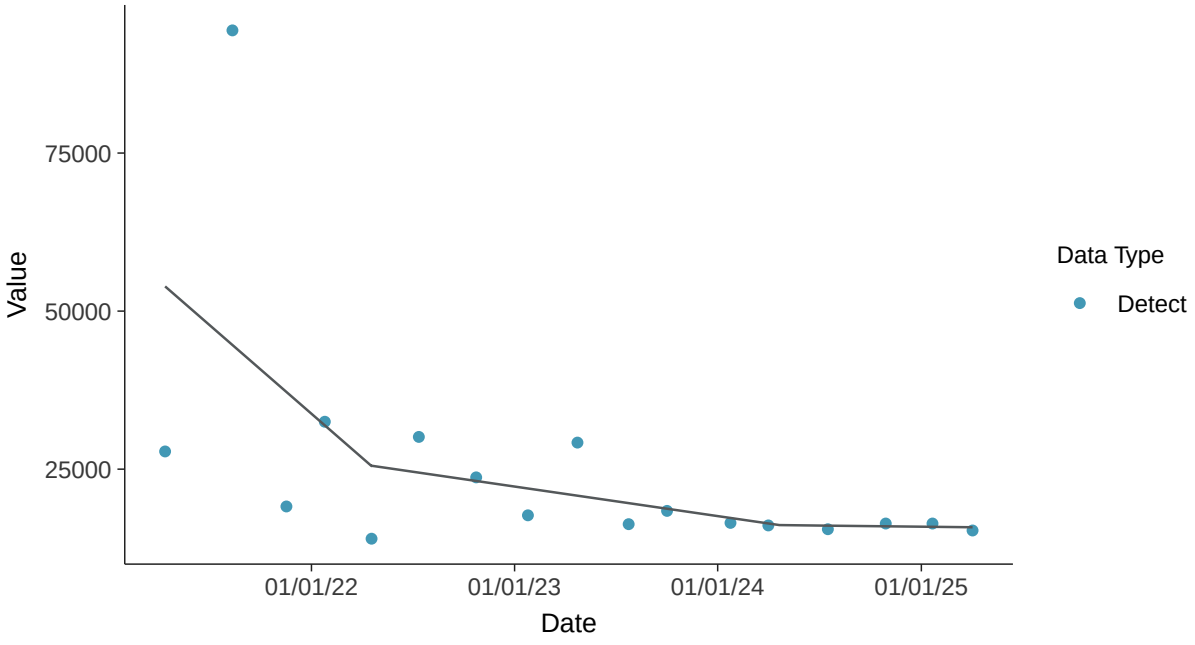
Trend Regression: Piecewise Linear-Linear

Calcium, MW-11D (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Calcium, MW-11D (ug/L)

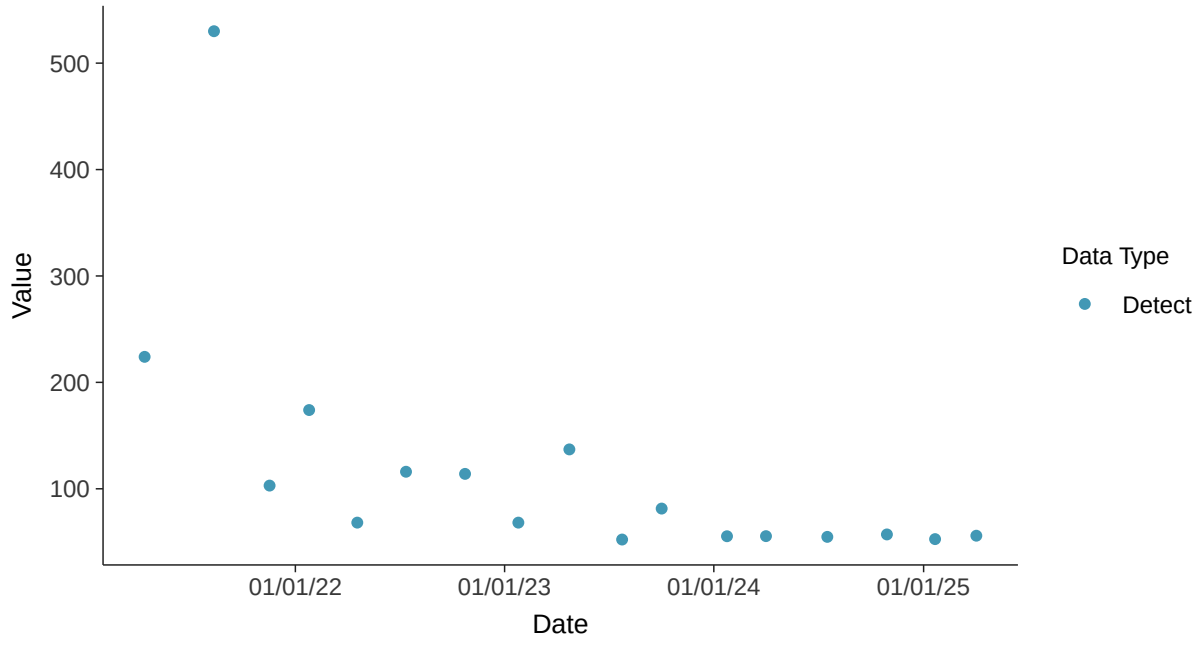


App. III: Chloride, MW-11D

ID: 11_02_108

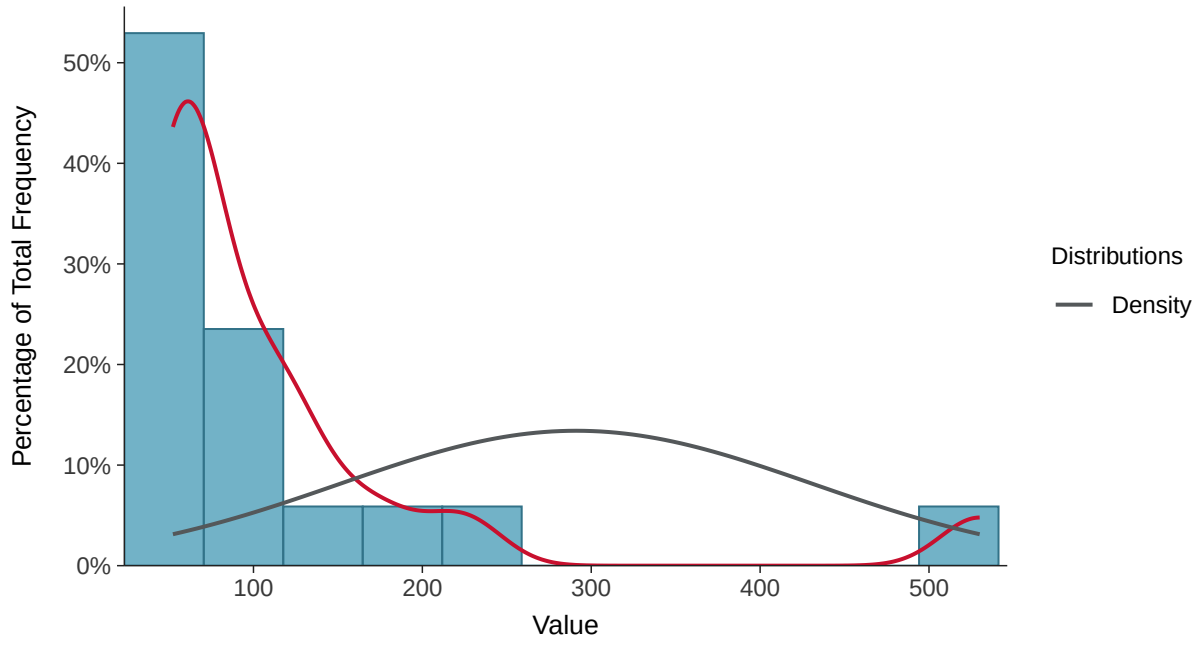
Scatter Plot

Chloride, MW-11D (mg/L)



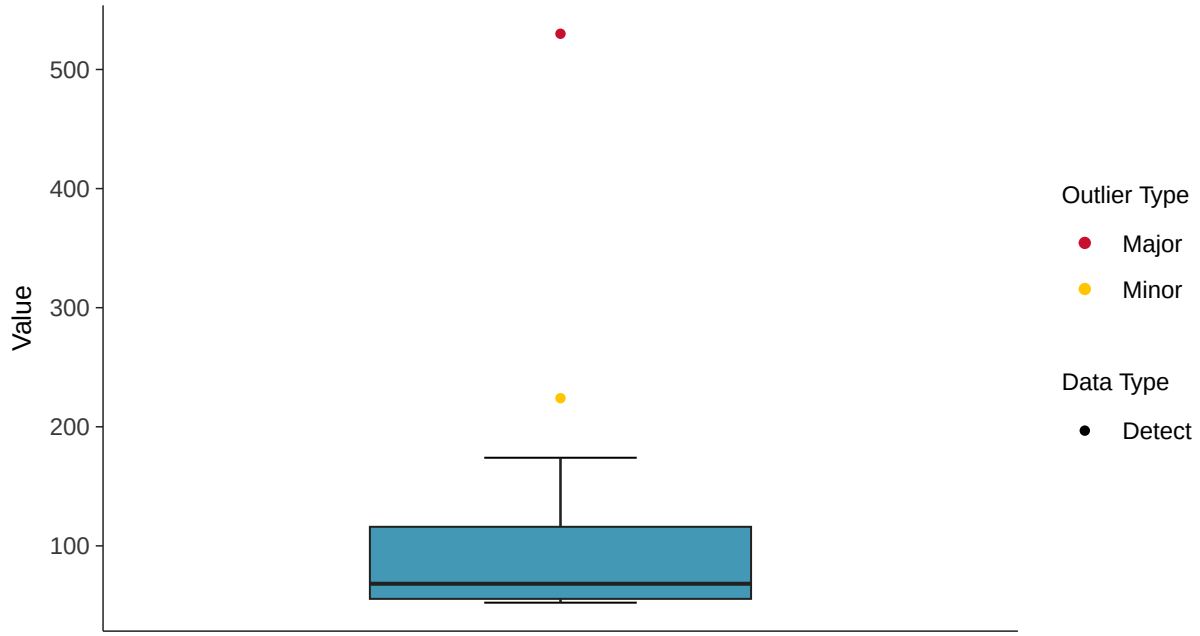
Histogram

Chloride, MW-11D (mg/L)



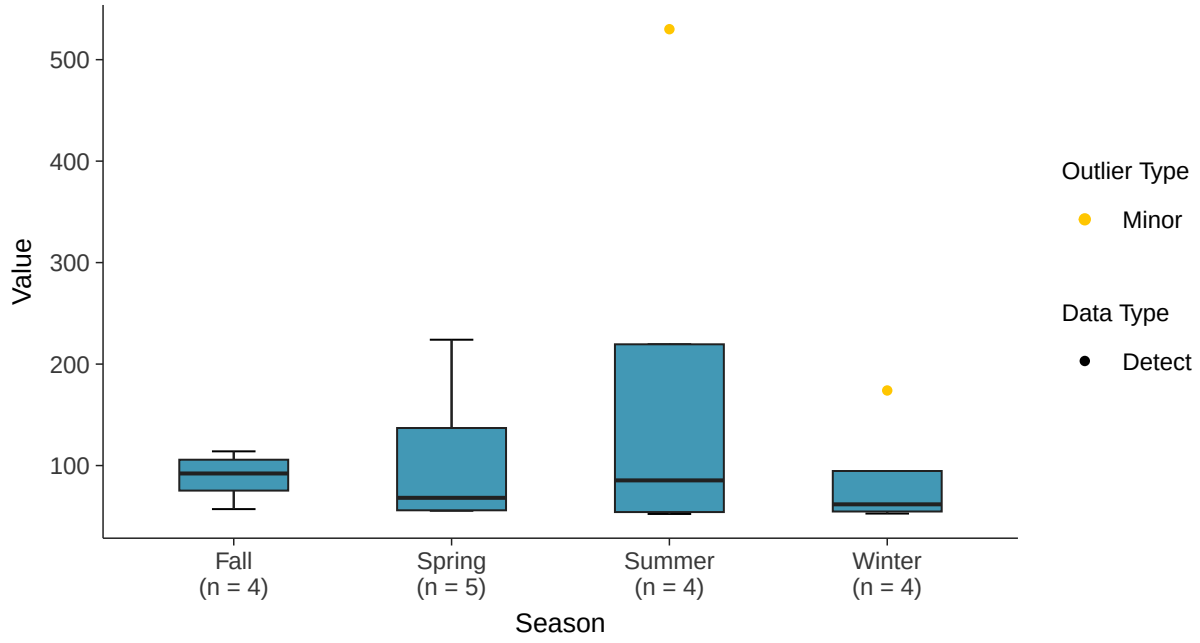
Boxplot

Chloride, MW-11D (mg/L)



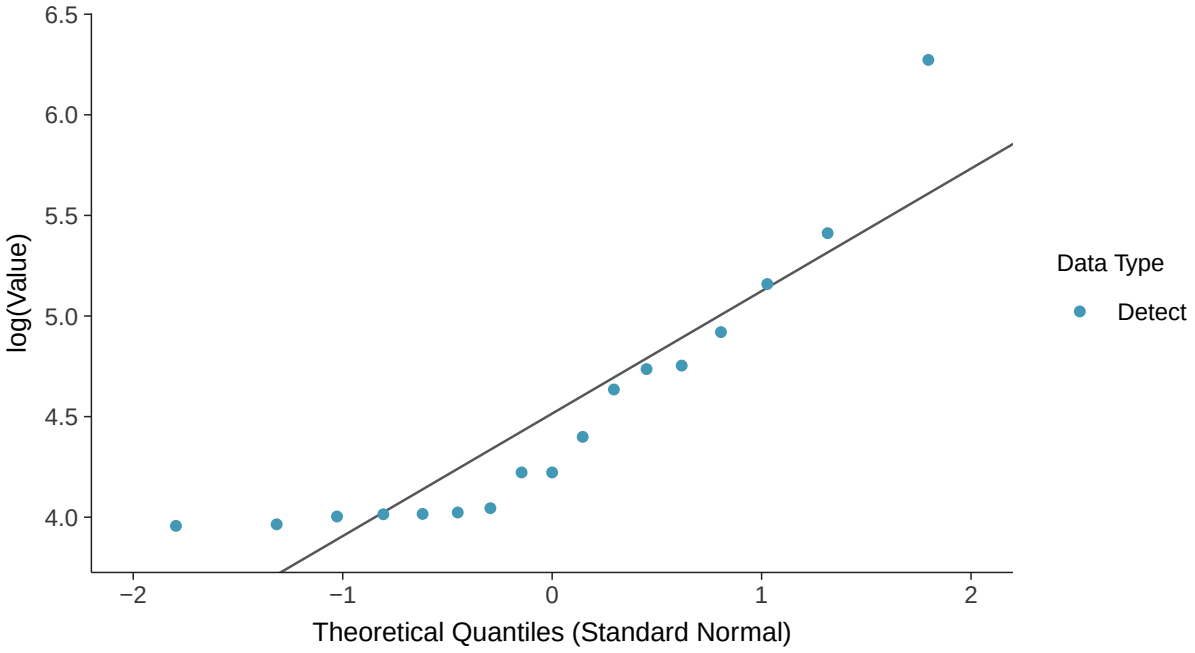
Boxplot by Season

Chloride, MW-11D (mg/L)



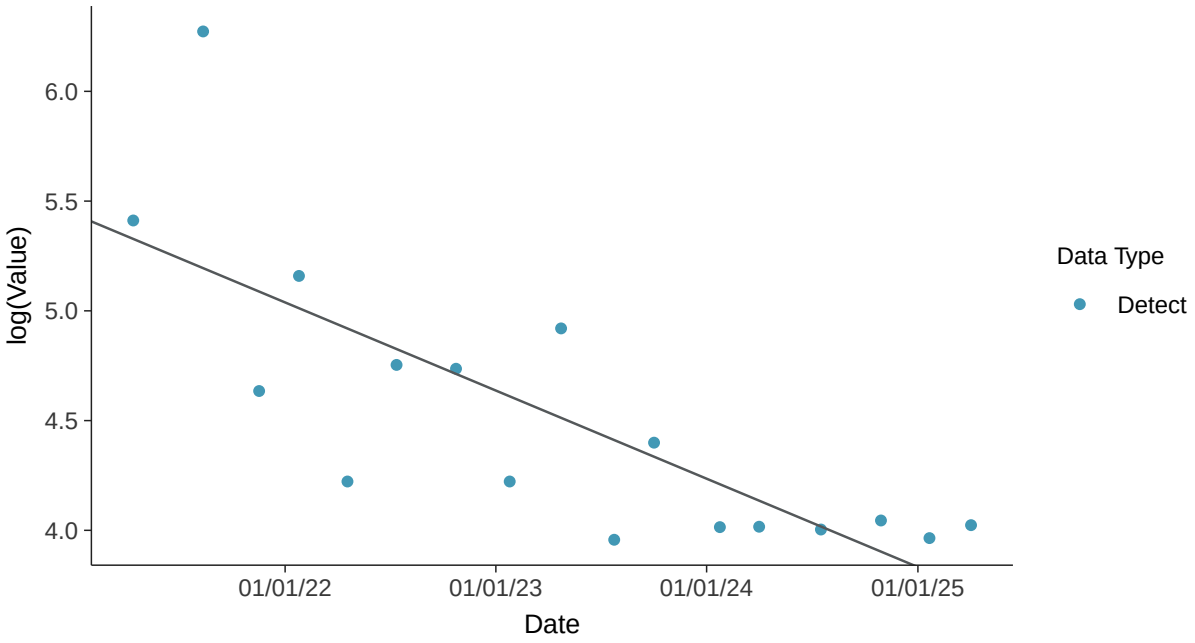
Lognormal Q-Q plot

Chloride, MW-11D (mg/L)



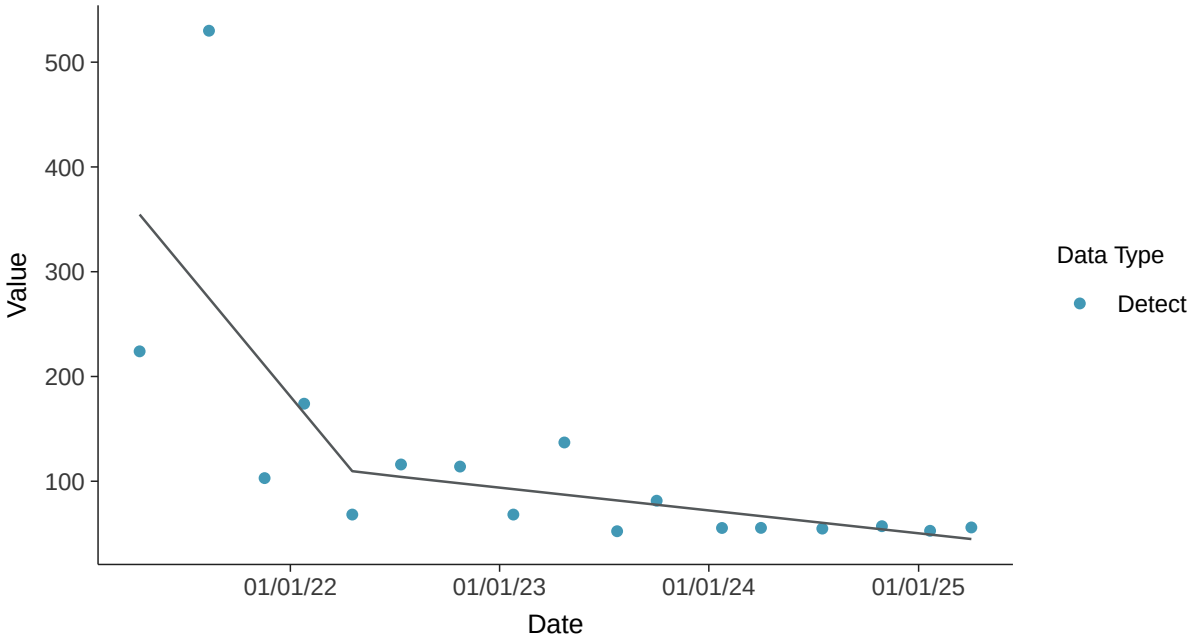
Trend Regression: Lognormal MLE

Chloride, MW-11D (mg/L)



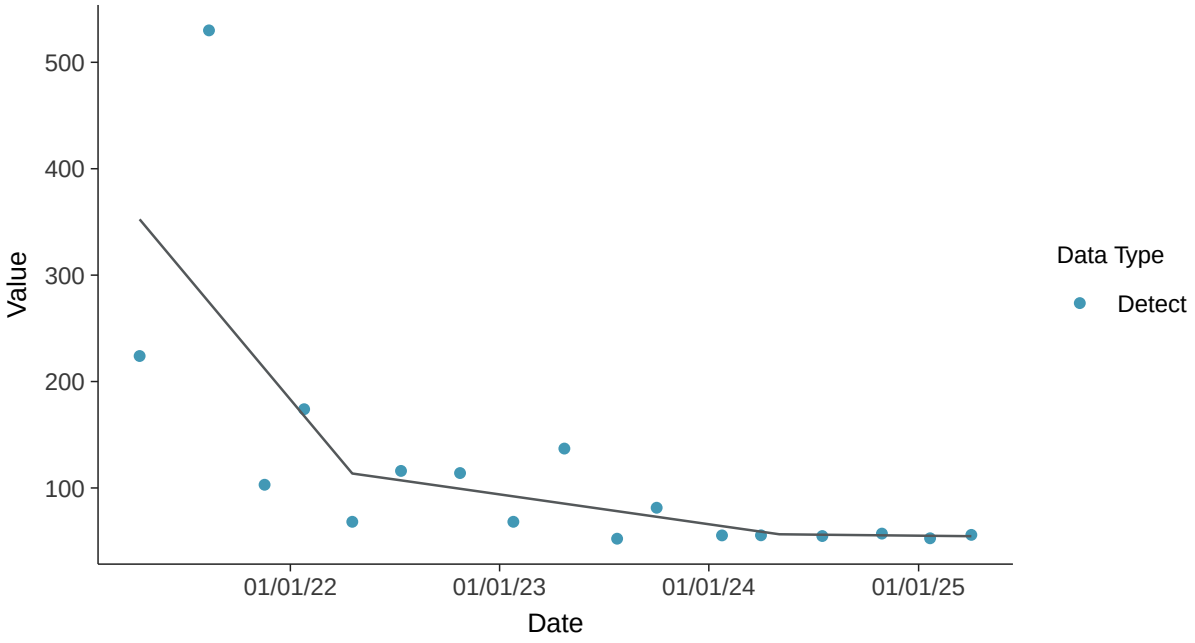
Trend Regression: Piecewise Linear-Linear

Chloride, MW-11D (mg/L)



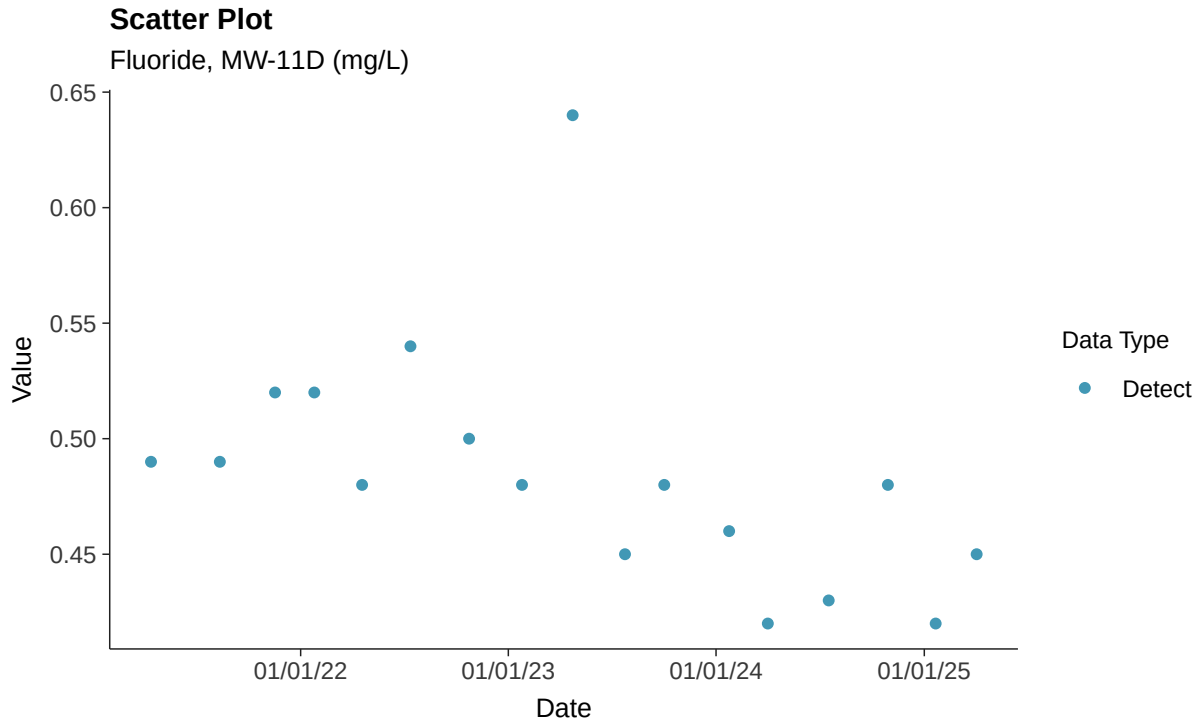
Trend Regression: Piecewise Linear-Linear-Linear

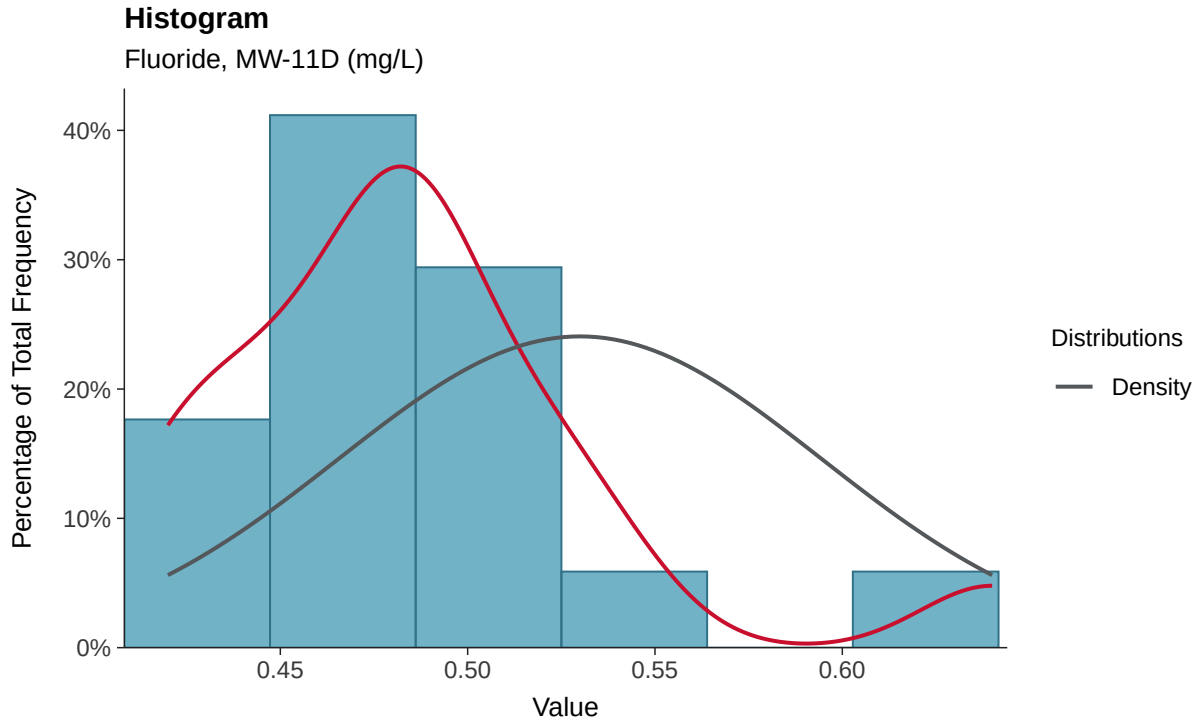
Chloride, MW-11D (mg/L)



App. III: Fluoride, MW-11D

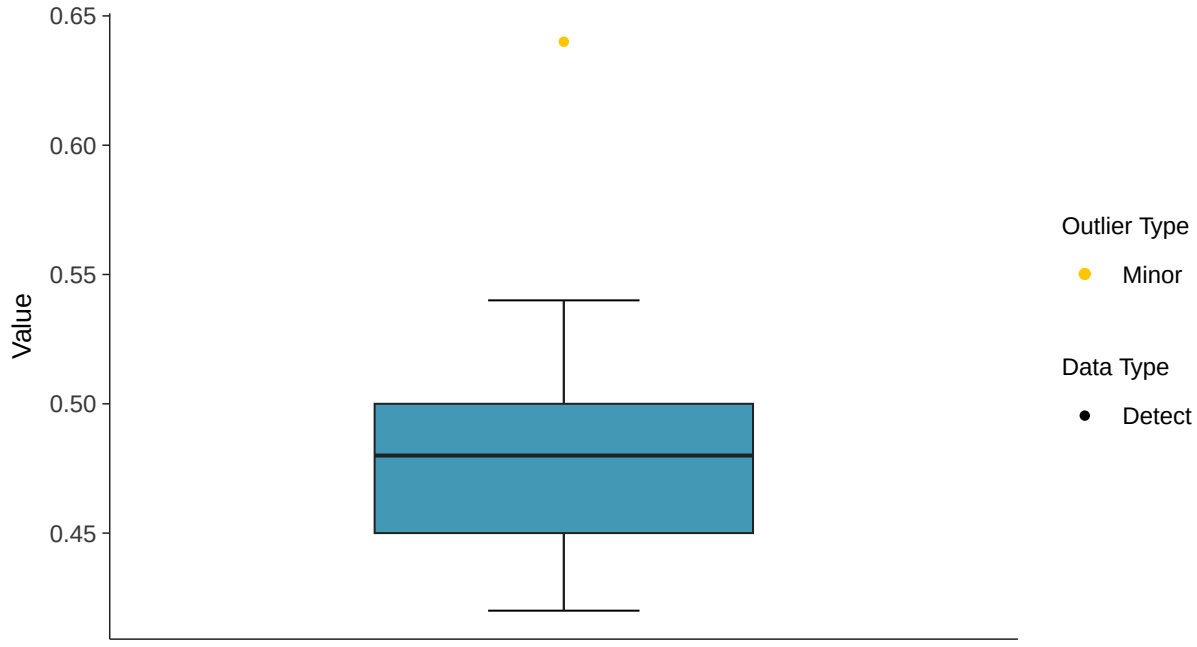
ID: 11_02_112





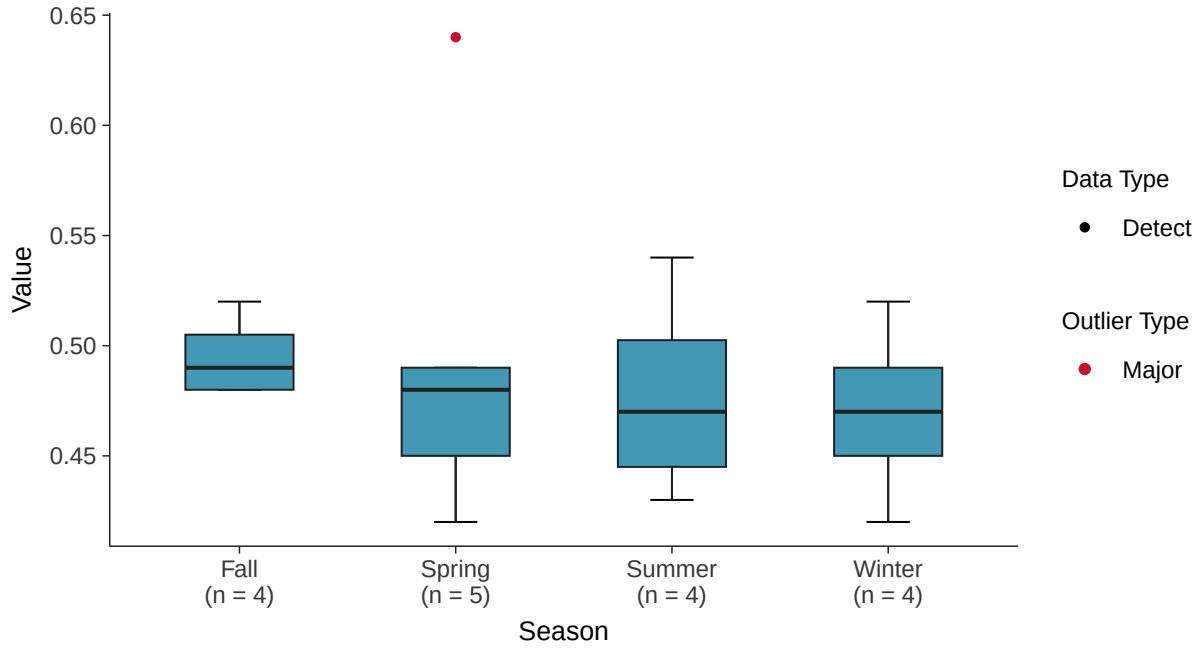
Boxplot

Fluoride, MW-11D (mg/L)



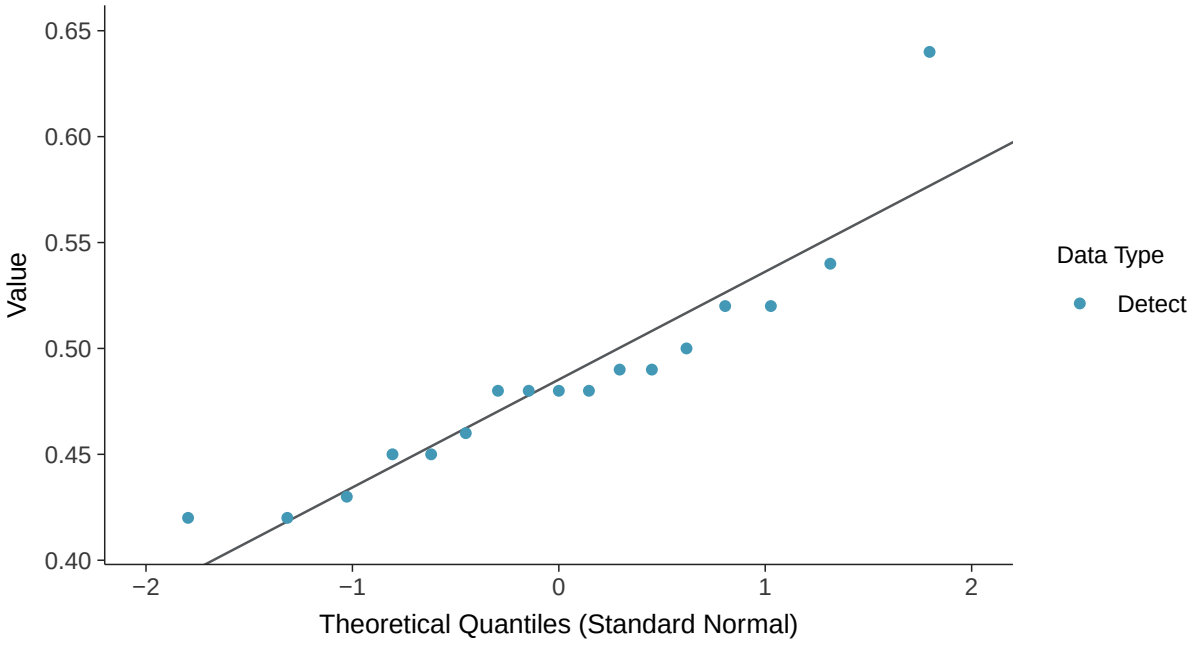
Boxplot by Season

Fluoride, MW-11D (mg/L)



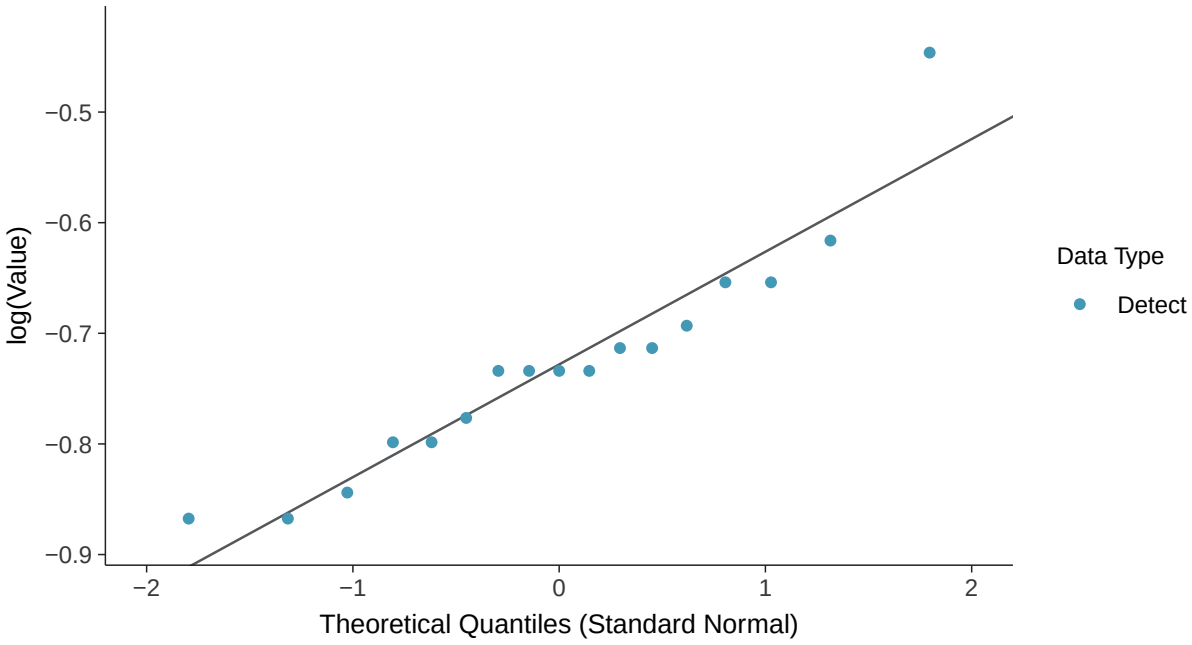
Normal Q-Q plot

Fluoride, MW-11D (mg/L)



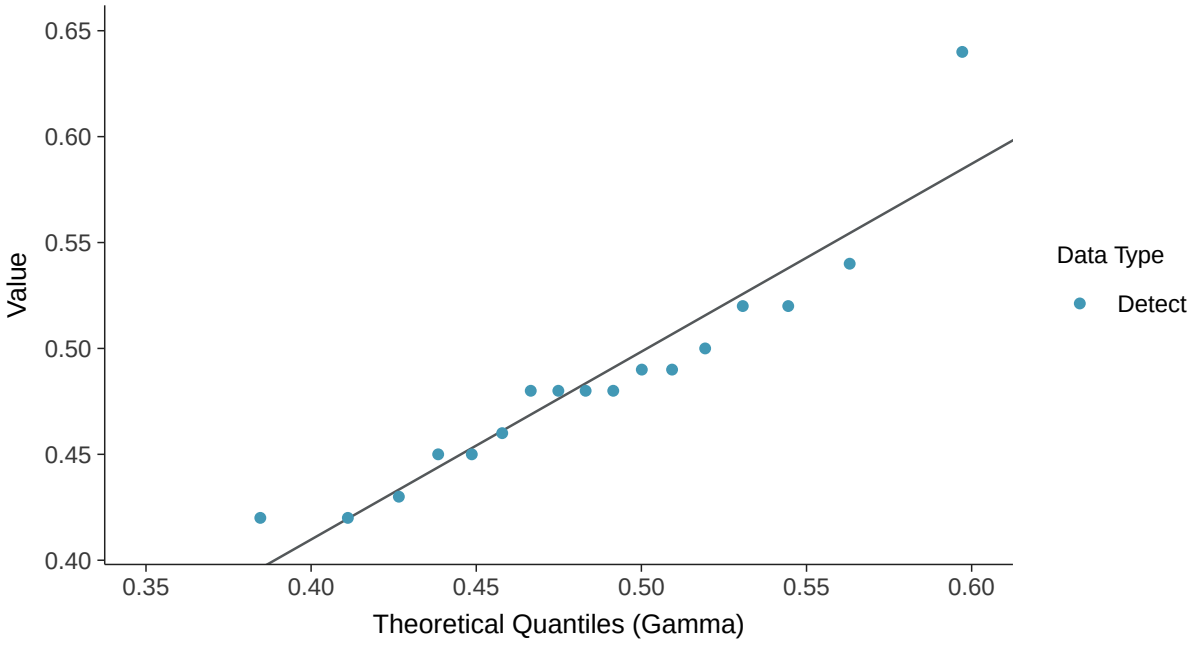
Lognormal Q-Q plot

Fluoride, MW-11D (mg/L)



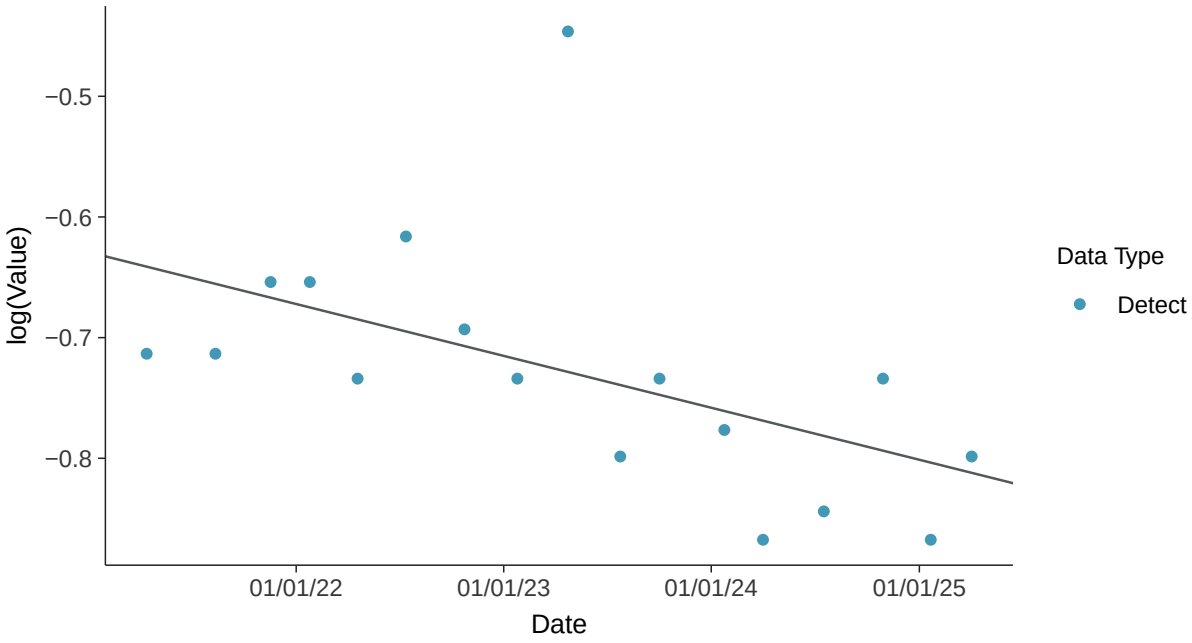
Gamma Q-Q plot

Fluoride, MW-11D (mg/L)



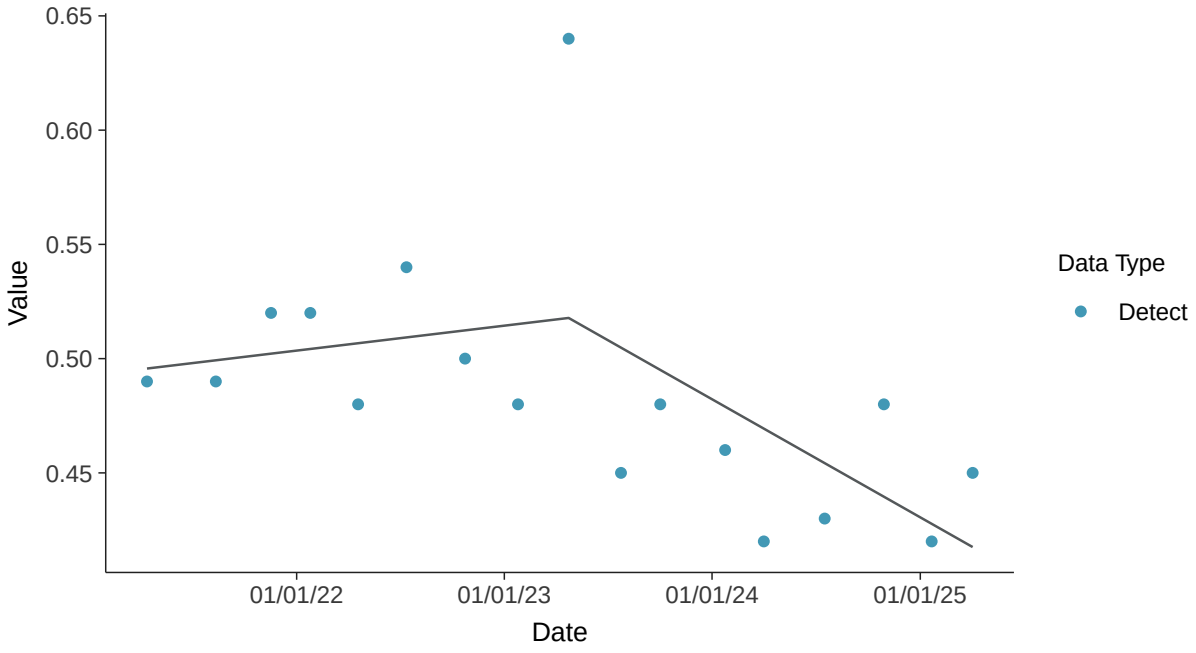
Trend Regression: Lognormal MLE

Fluoride, MW-11D (mg/L)



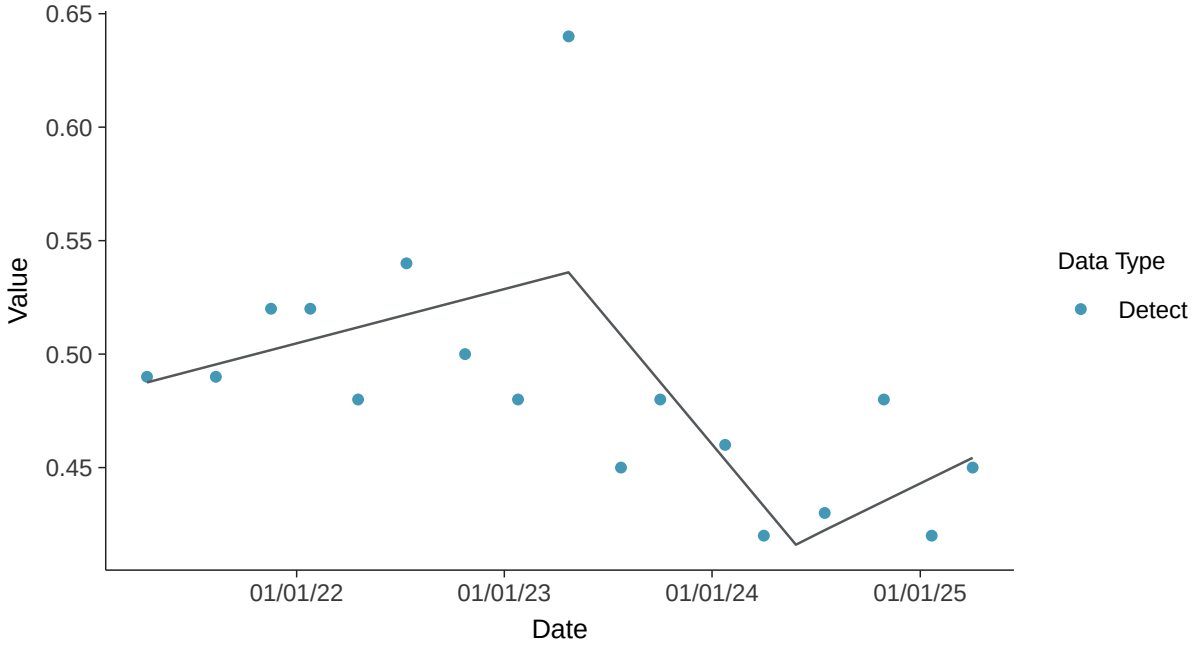
Trend Regression: Piecewise Linear-Linear

Fluoride, MW-11D (mg/L)



Trend Regression: Piecewise Linear-Linear-Linear

Fluoride, MW-11D (mg/L)

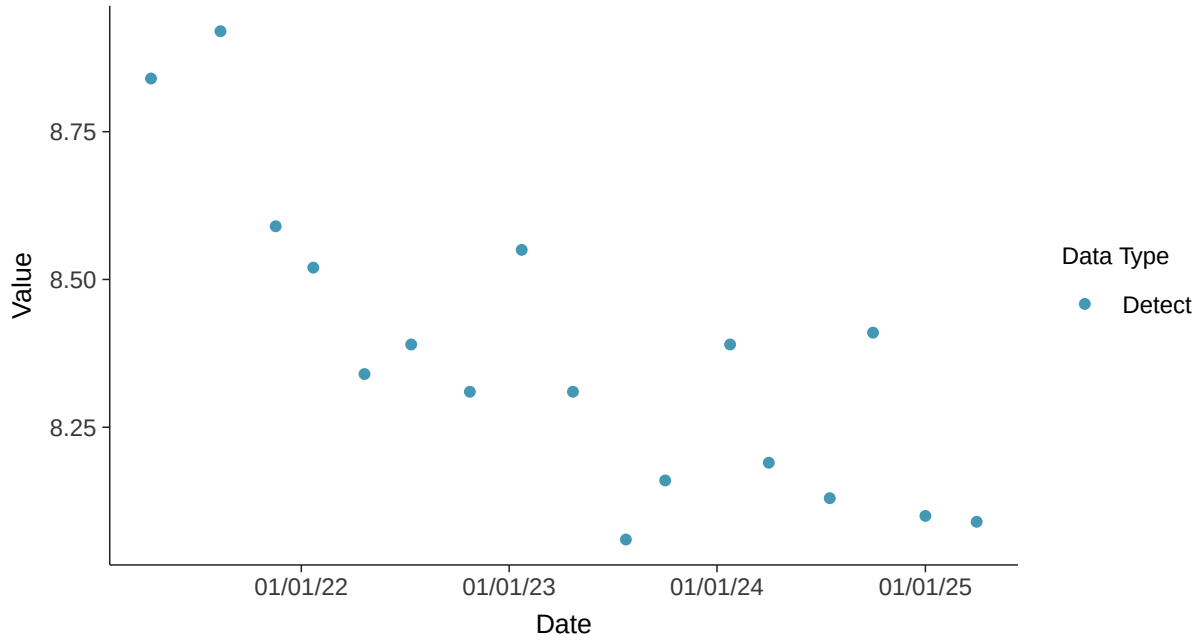


App. III: pH (Field), MW-11D

ID: 11_02_118

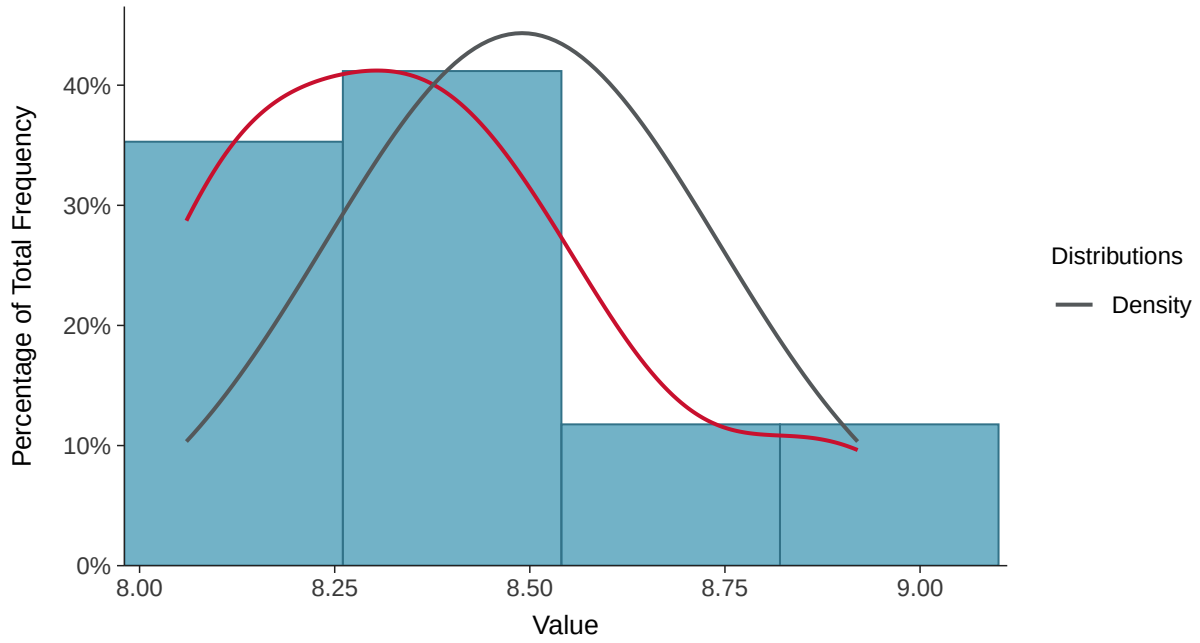
Scatter Plot

pH (Field), MW-11D (S.U.)



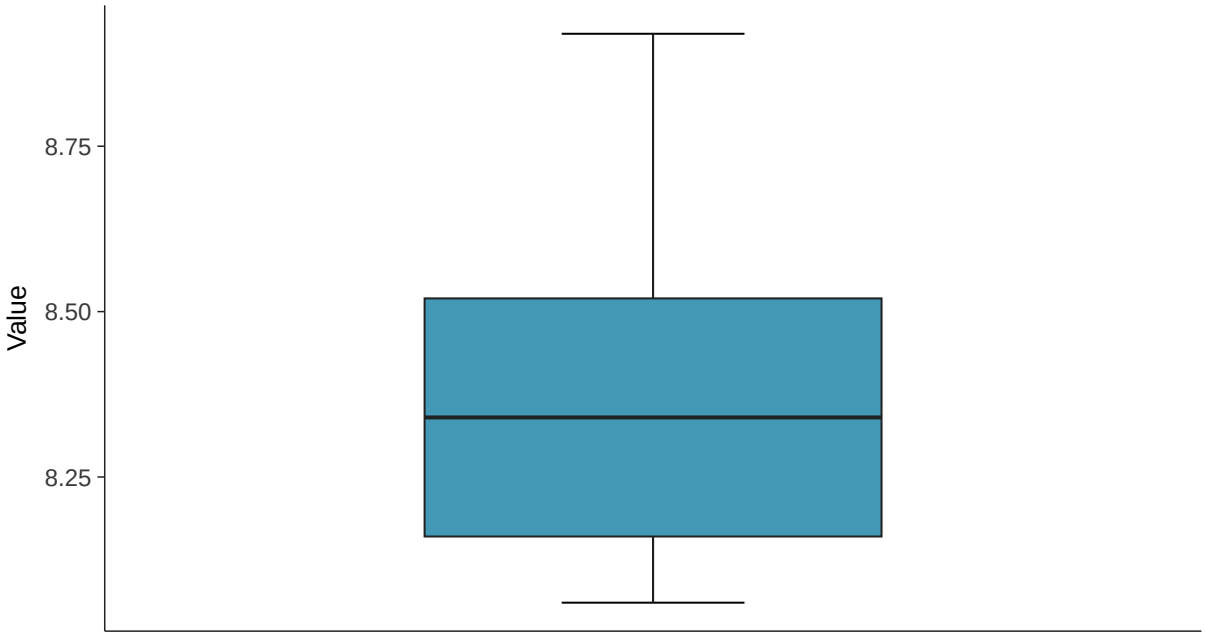
Histogram

pH (Field), MW-11D (S.U.)



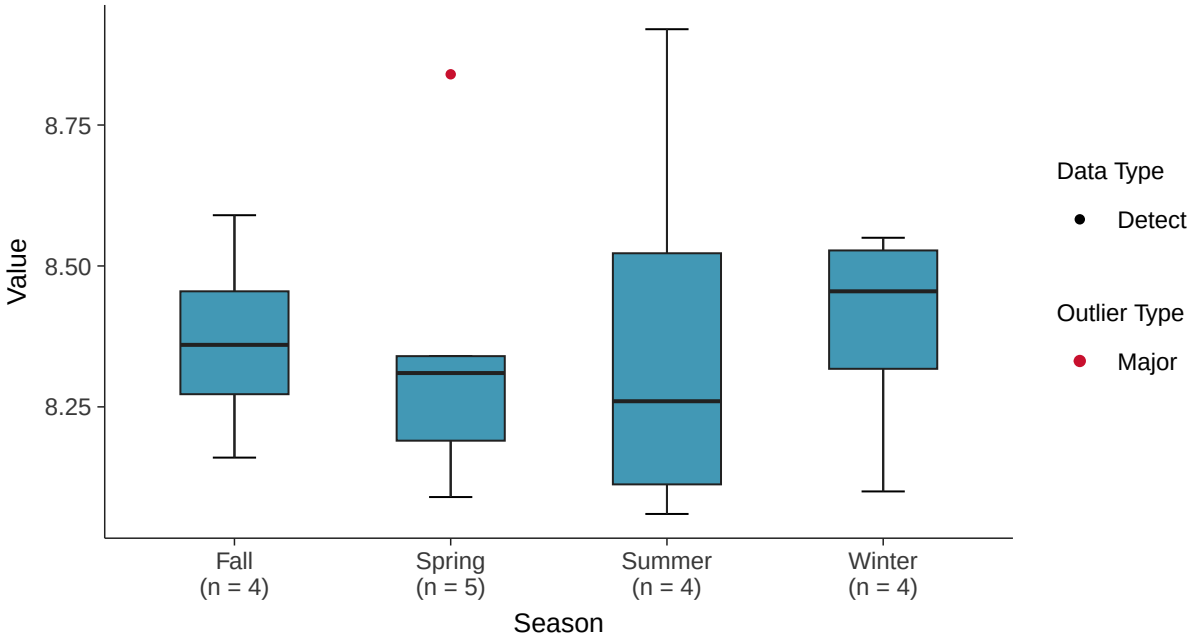
Boxplot

pH (Field), MW-11D (S.U.)



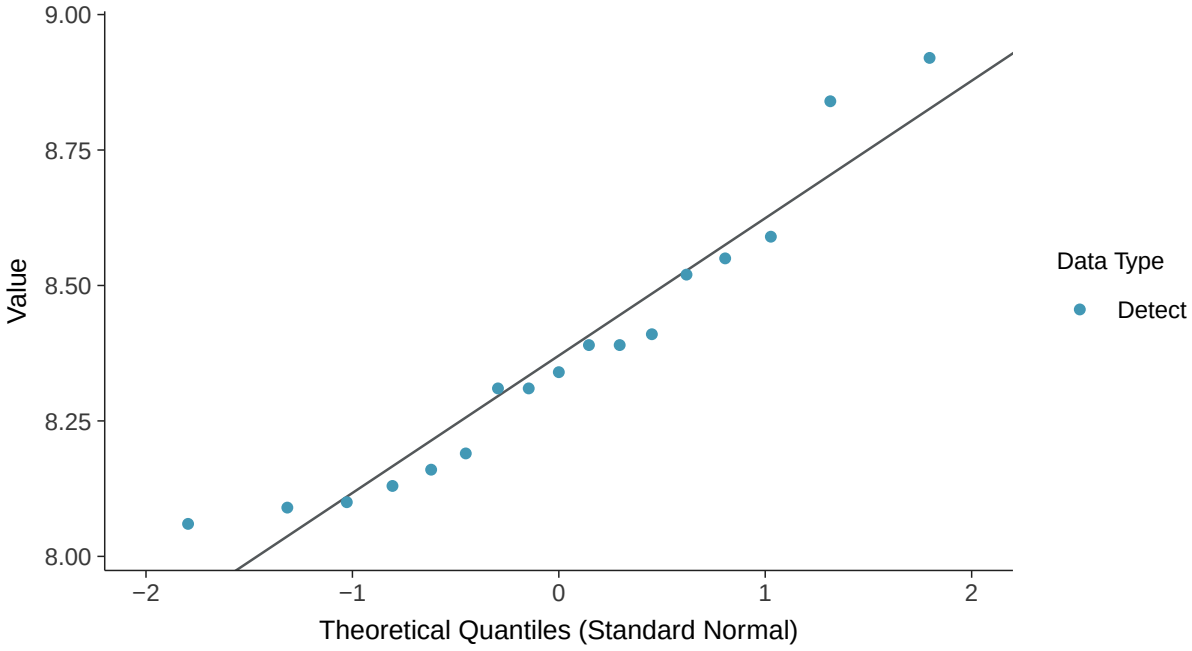
Boxplot by Season

pH (Field), MW-11D (S.U.)



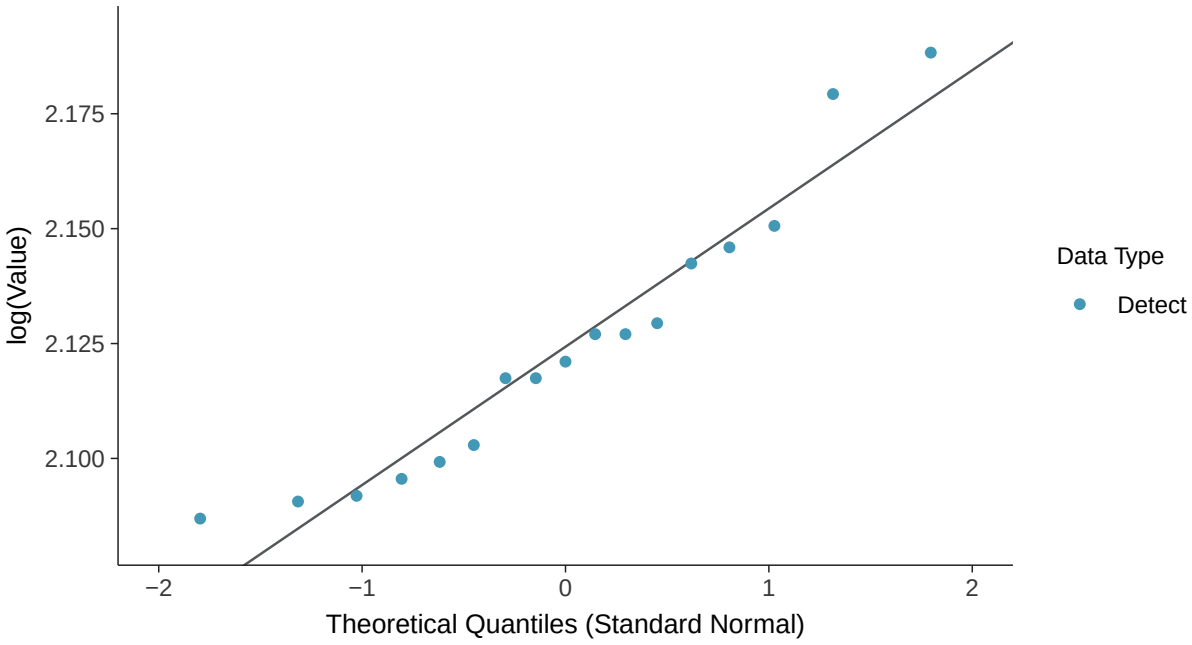
Normal Q-Q plot

pH (Field), MW-11D (S.U.)



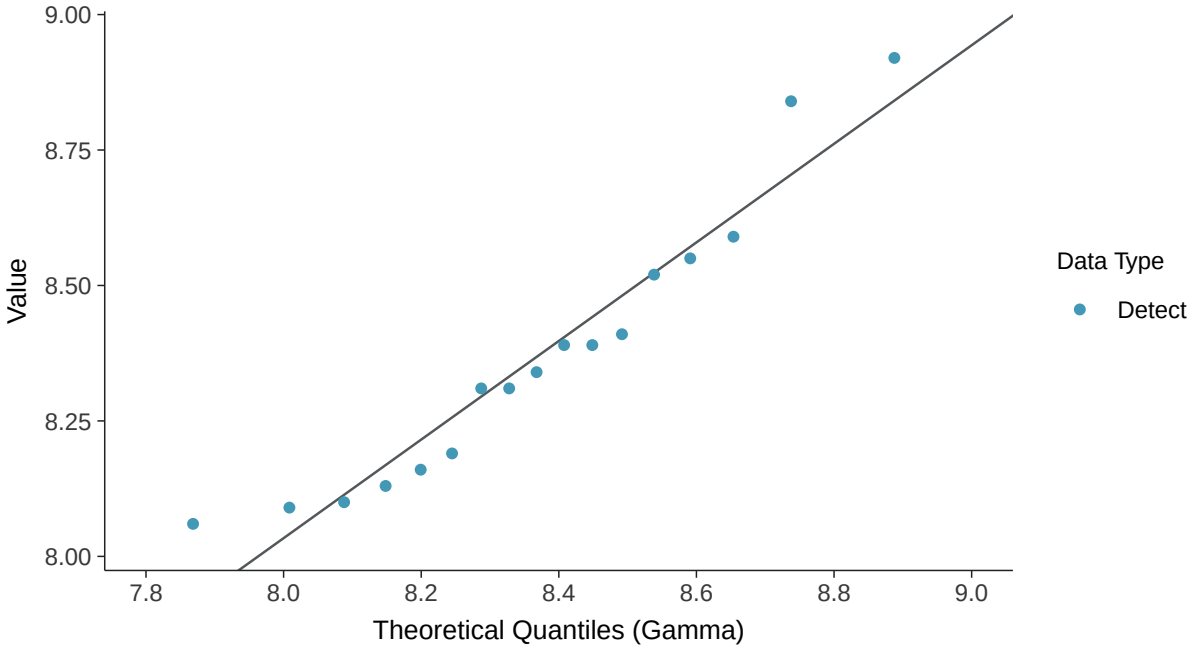
Lognormal Q-Q plot

pH (Field), MW-11D (S.U.)



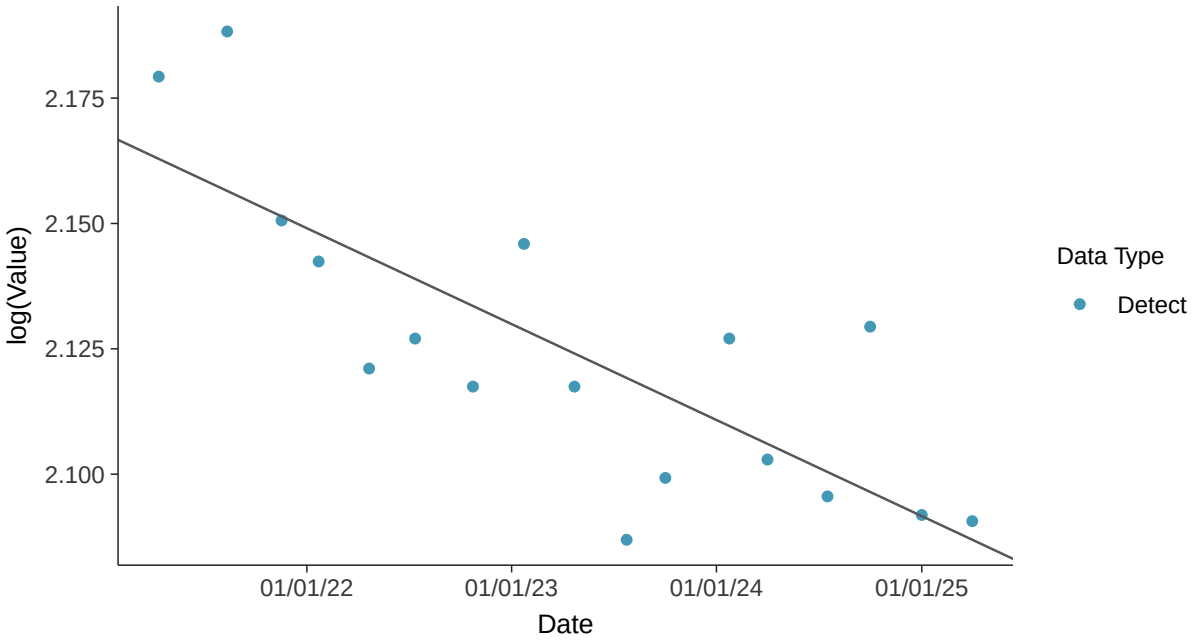
Gamma Q-Q plot

pH (Field), MW-11D (S.U.)



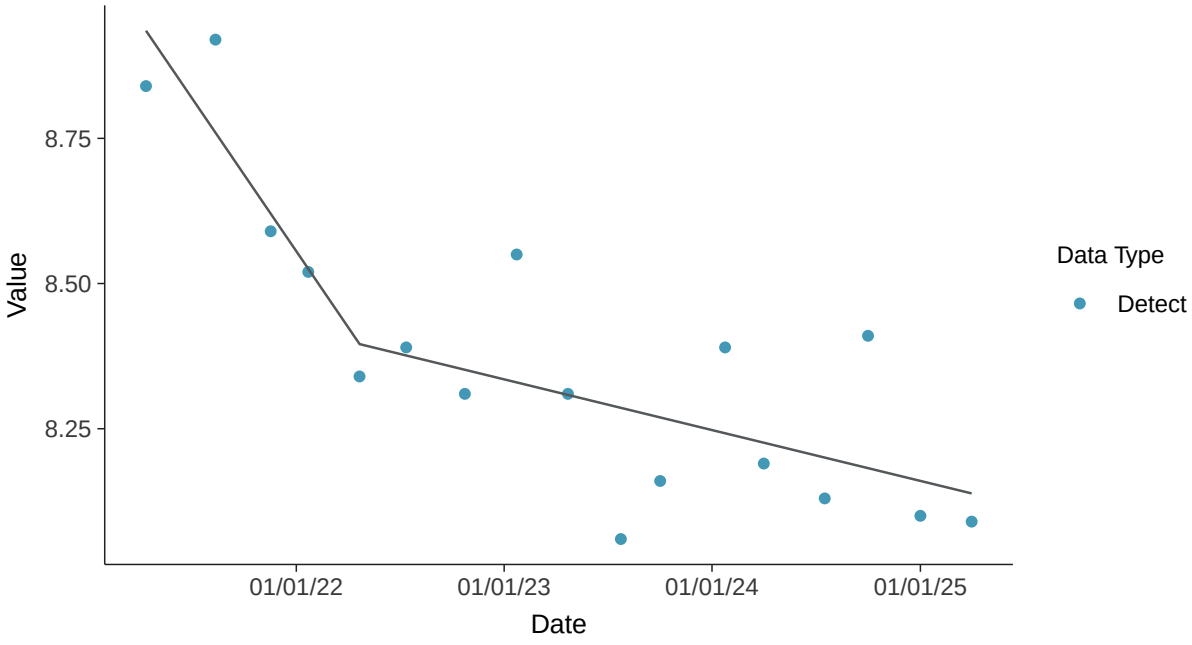
Trend Regression: Lognormal MLE

pH (Field), MW-11D (S.U.)



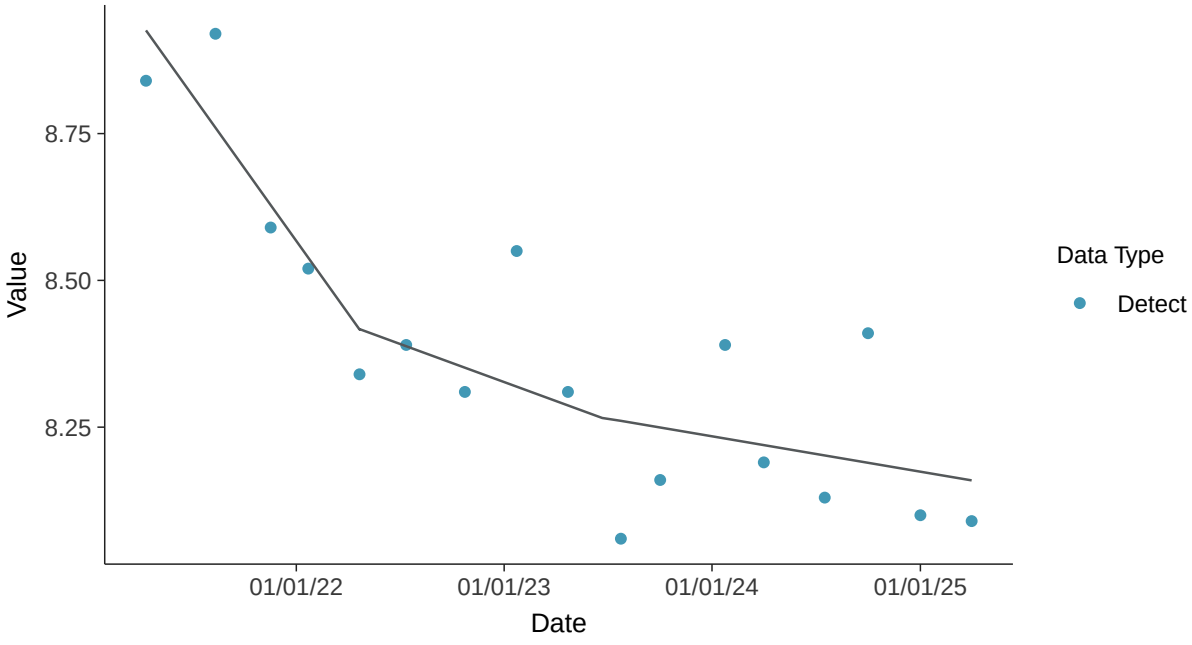
Trend Regression: Piecewise Linear-Linear

pH (Field), MW-11D (S.U.)



Trend Regression: Piecewise Linear-Linear-Linear

pH (Field), MW-11D (S.U.)

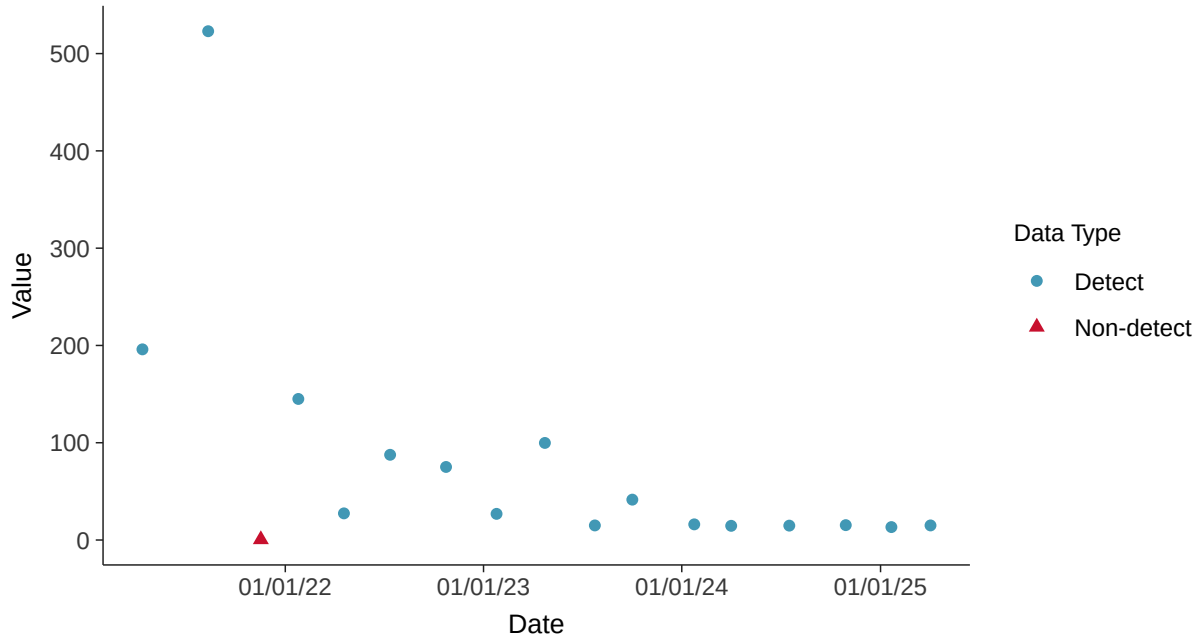


App. III: Sulfate, MW-11D

ID: 11_02_123

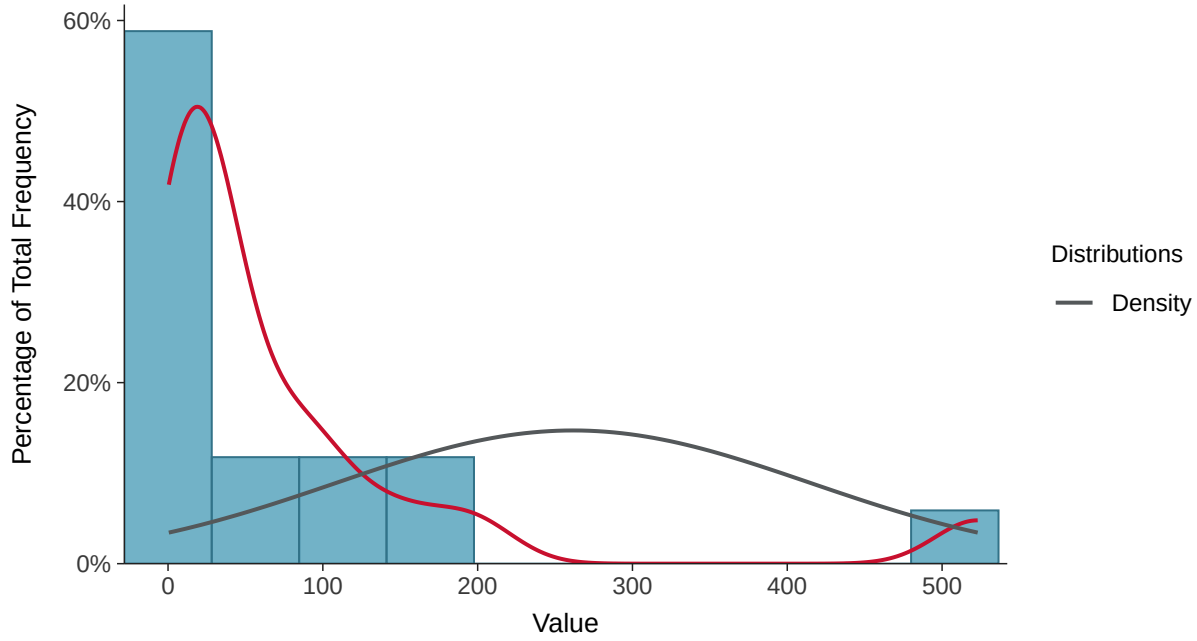
Scatter Plot

Sulfate, MW-11D (mg/L)



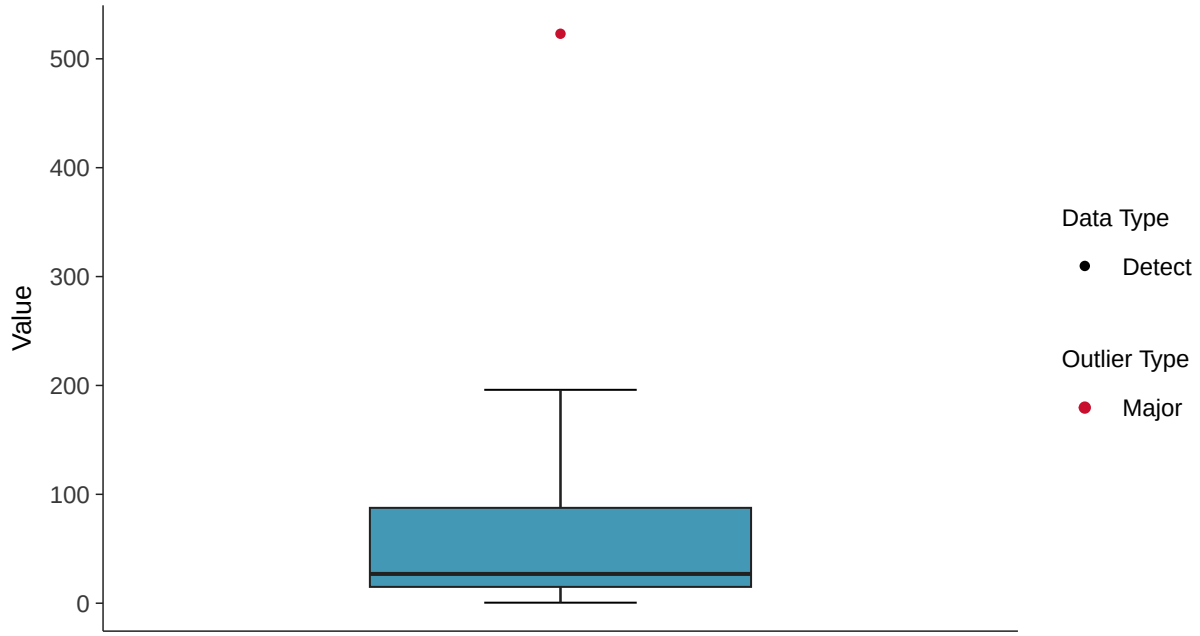
Histogram

Sulfate, MW-11D (mg/L)



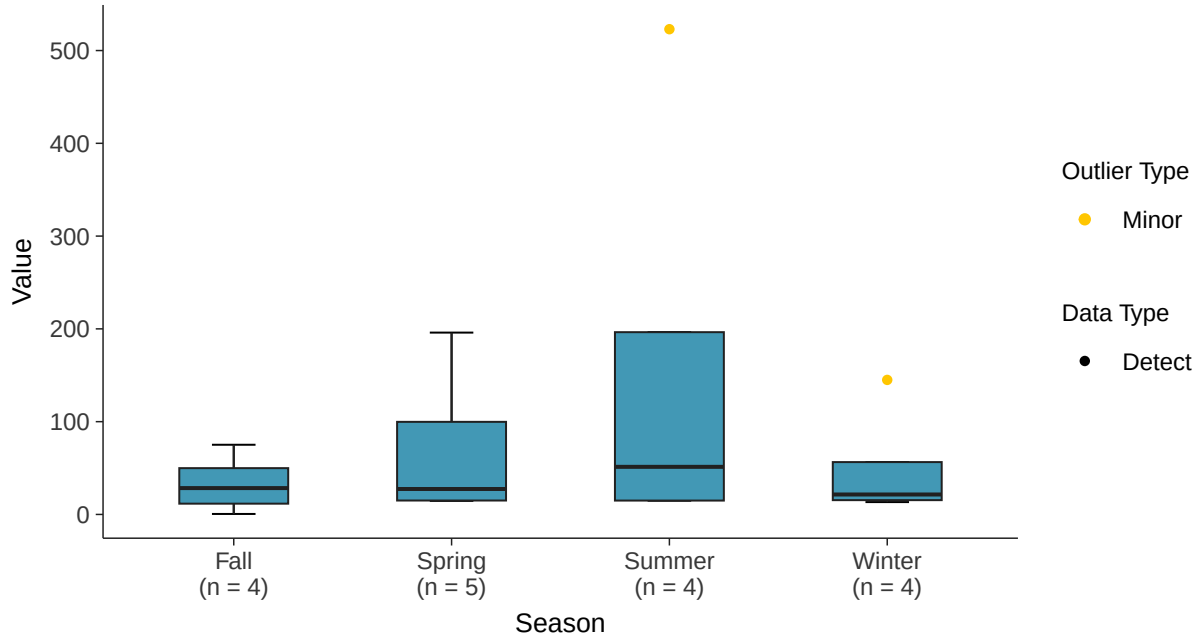
Boxplot

Sulfate, MW-11D (mg/L)



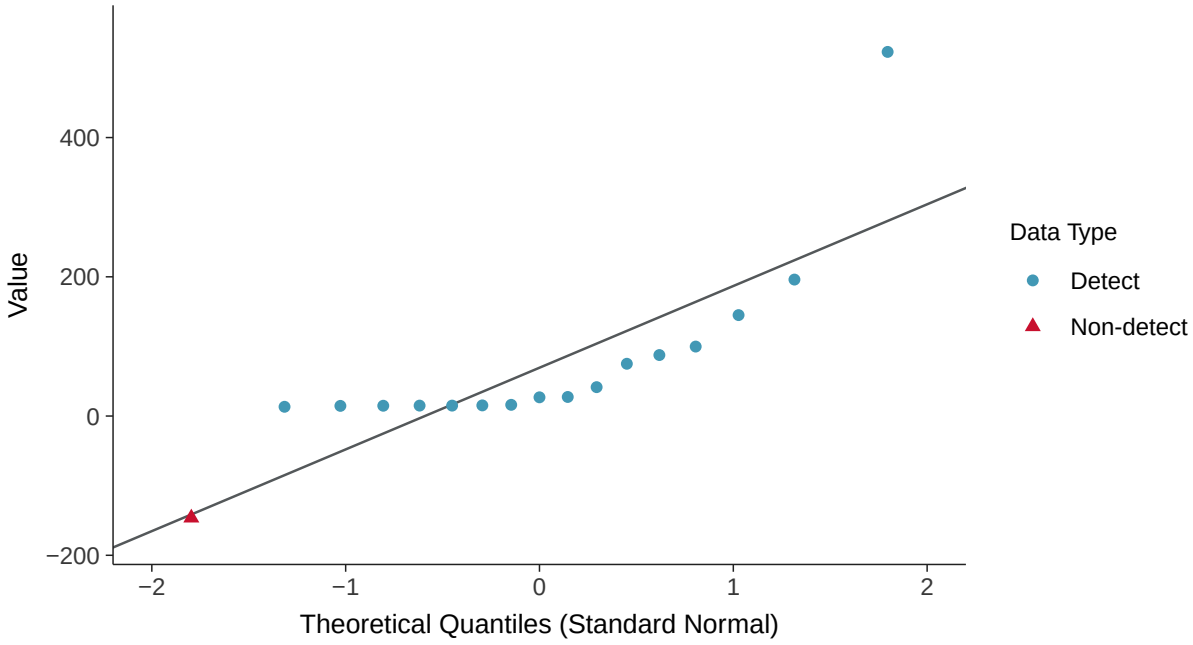
Boxplot by Season

Sulfate, MW-11D (mg/L)



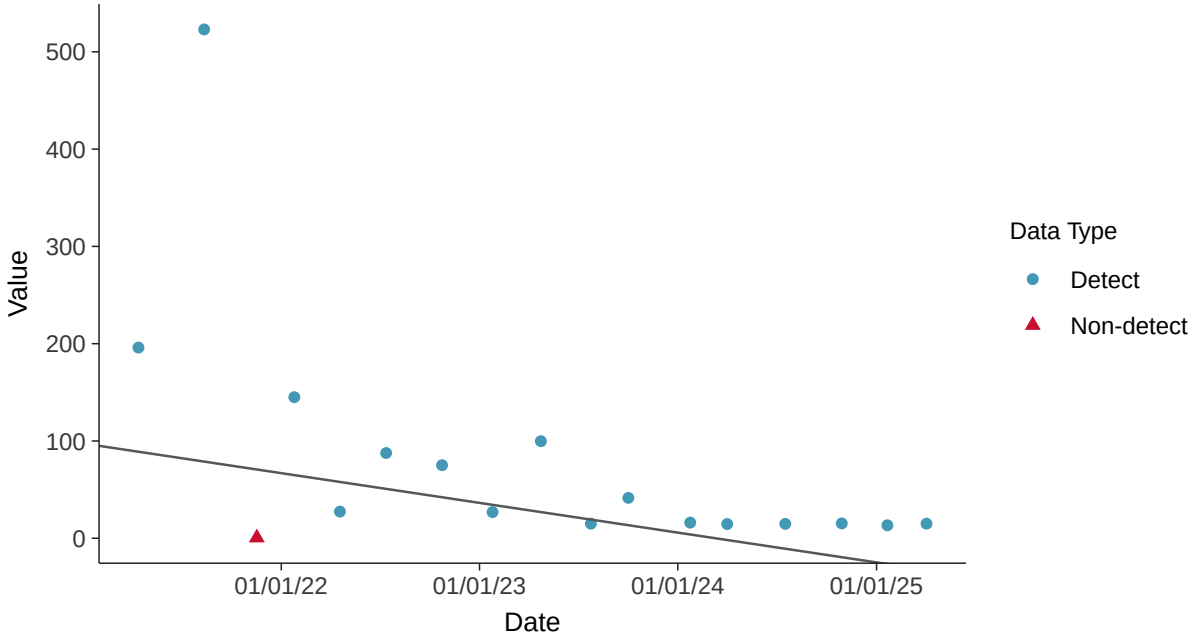
Normal Q-Q plot using ROS Imputed Estimates

Sulfate, MW-11D (mg/L)



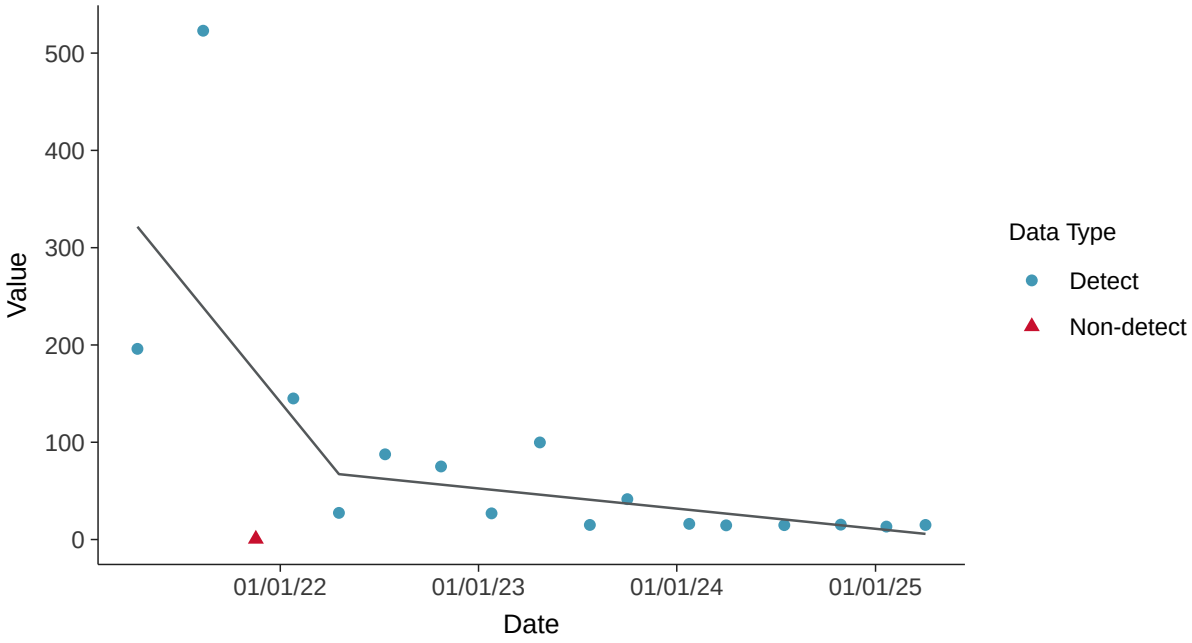
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Sulfate, MW-11D (mg/L)



Trend Regression: Piecewise Linear-Linear

Sulfate, MW-11D (mg/L)

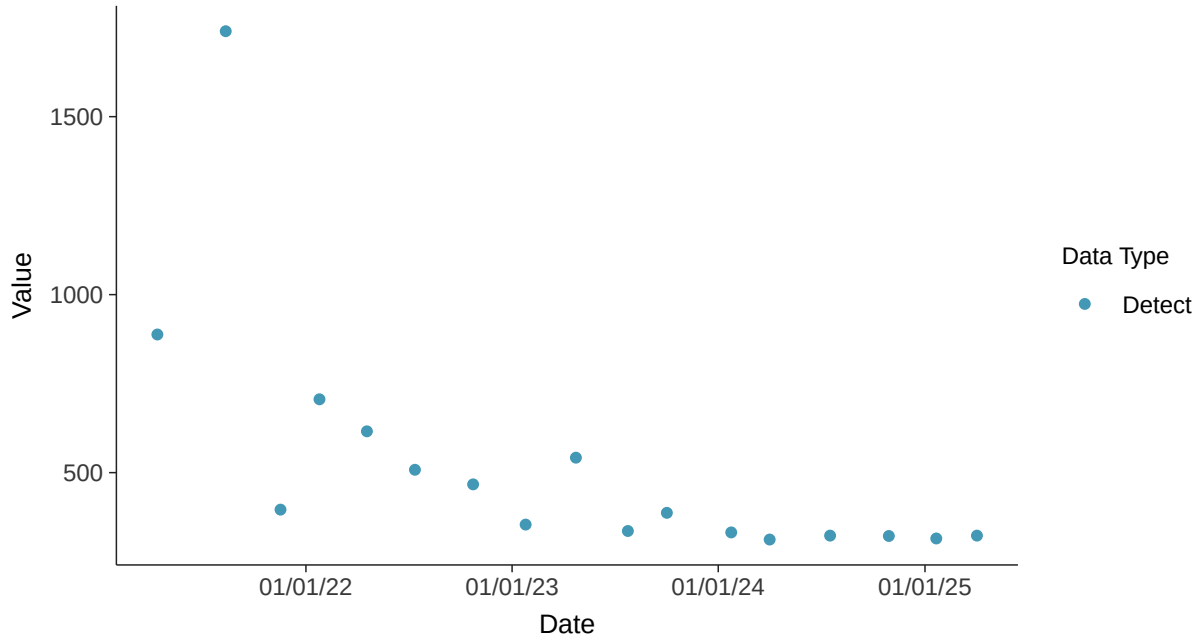


App. III: Total Dissolved Solids, MW-11D

ID: 11_02_125

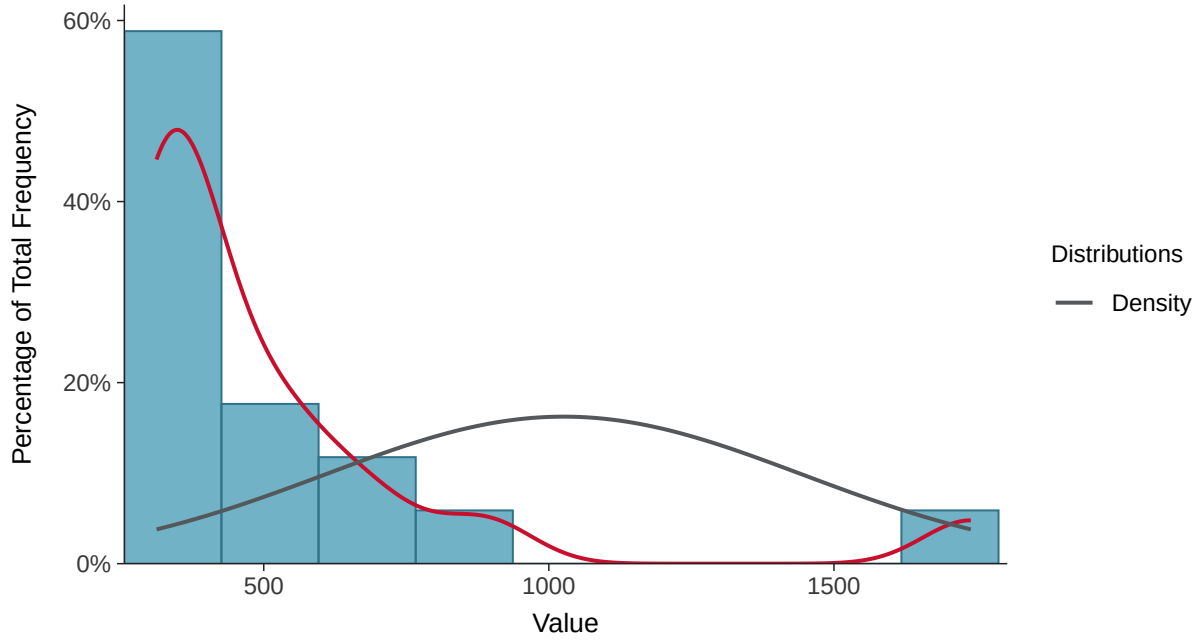
Scatter Plot

Total Dissolved Solids, MW-11D (mg/L)



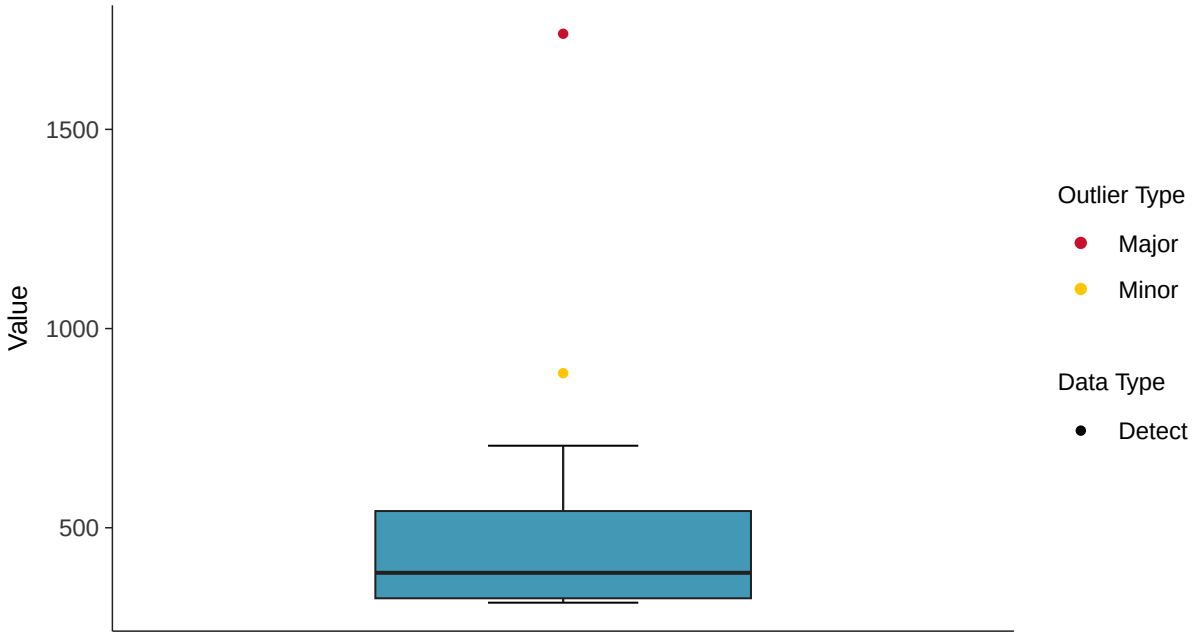
Histogram

Total Dissolved Solids, MW-11D (mg/L)



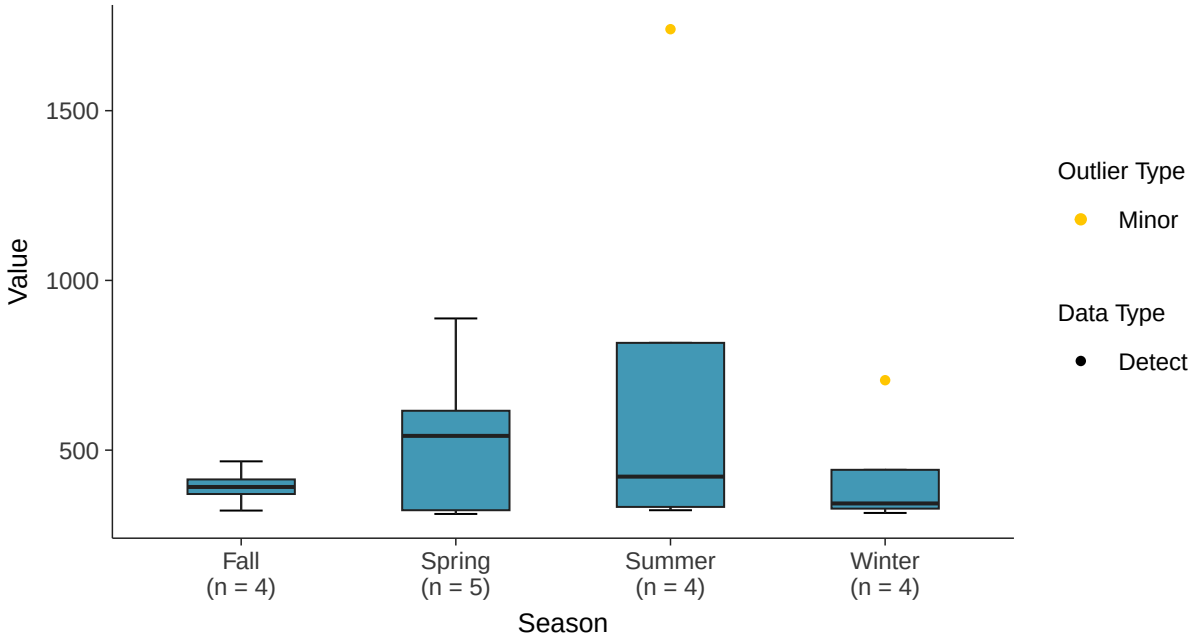
Boxplot

Total Dissolved Solids, MW-11D (mg/L)



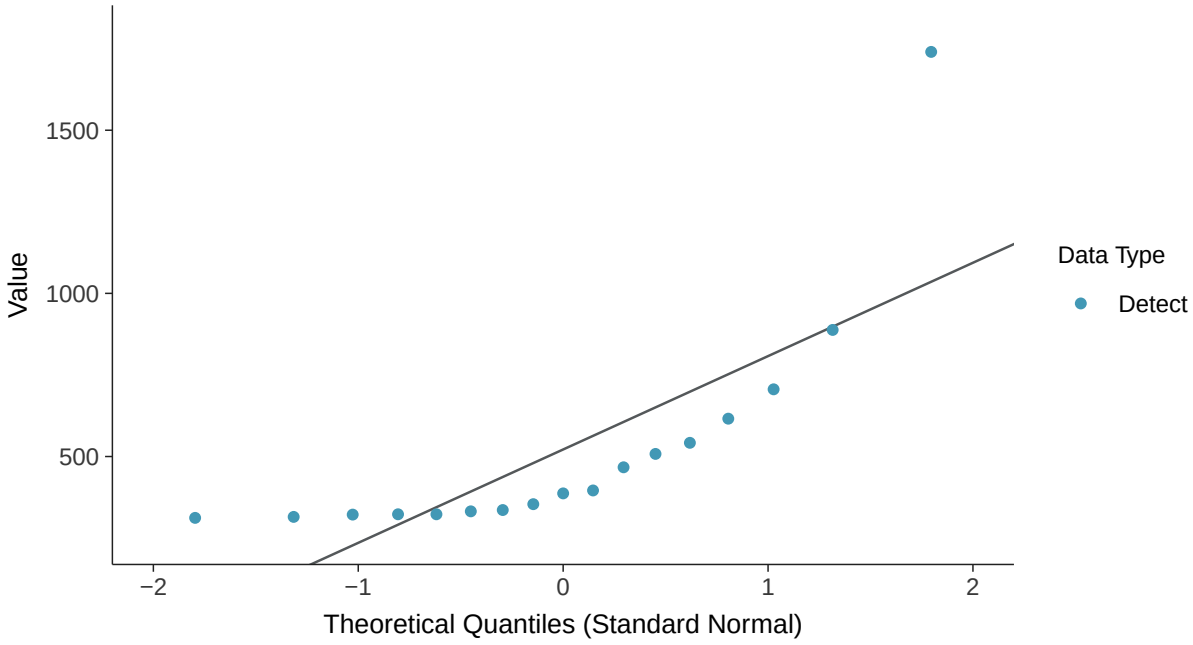
Boxplot by Season

Total Dissolved Solids, MW-11D (mg/L)



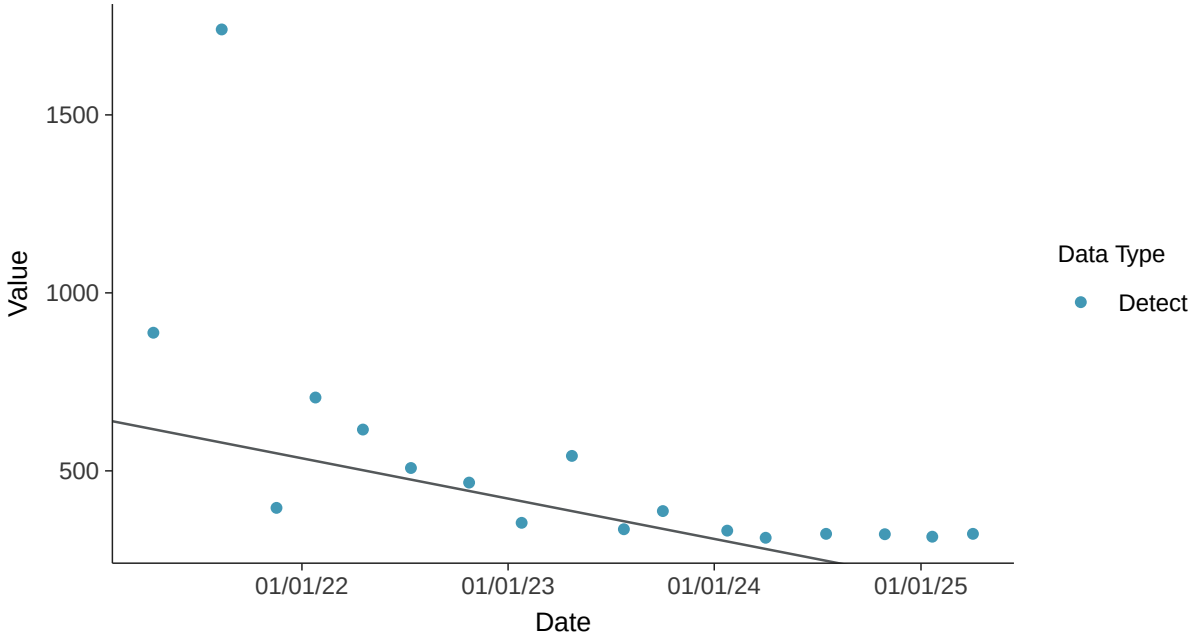
Normal Q-Q plot

Total Dissolved Solids, MW-11D (mg/L)



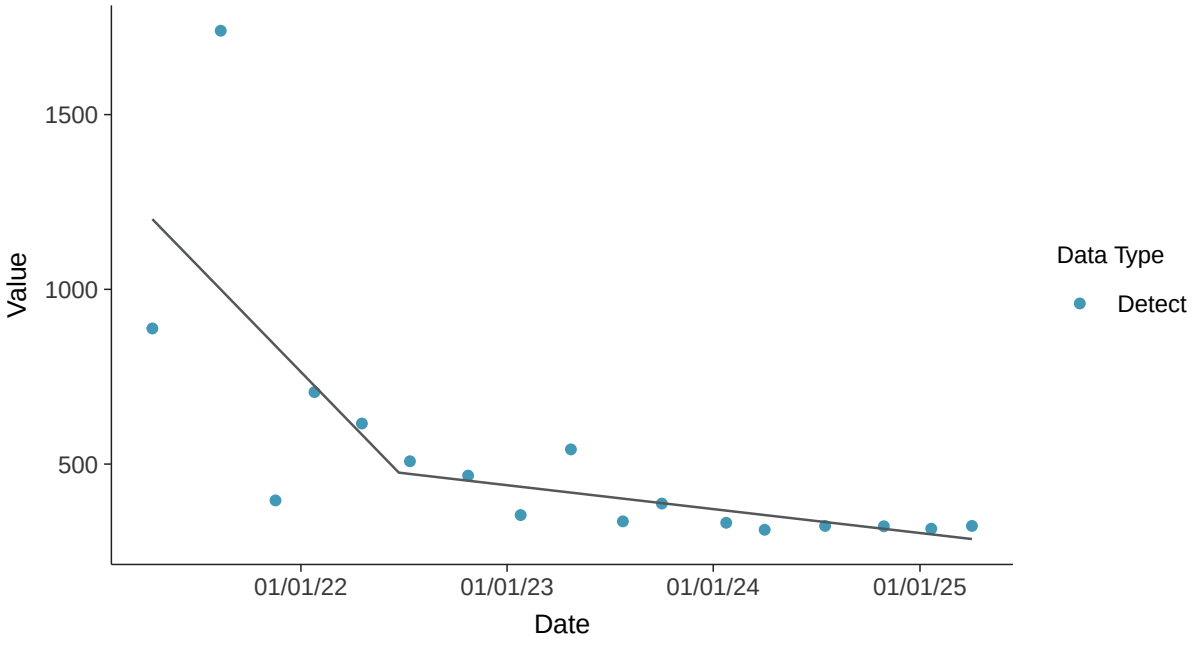
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Total Dissolved Solids, MW-11D (mg/L)



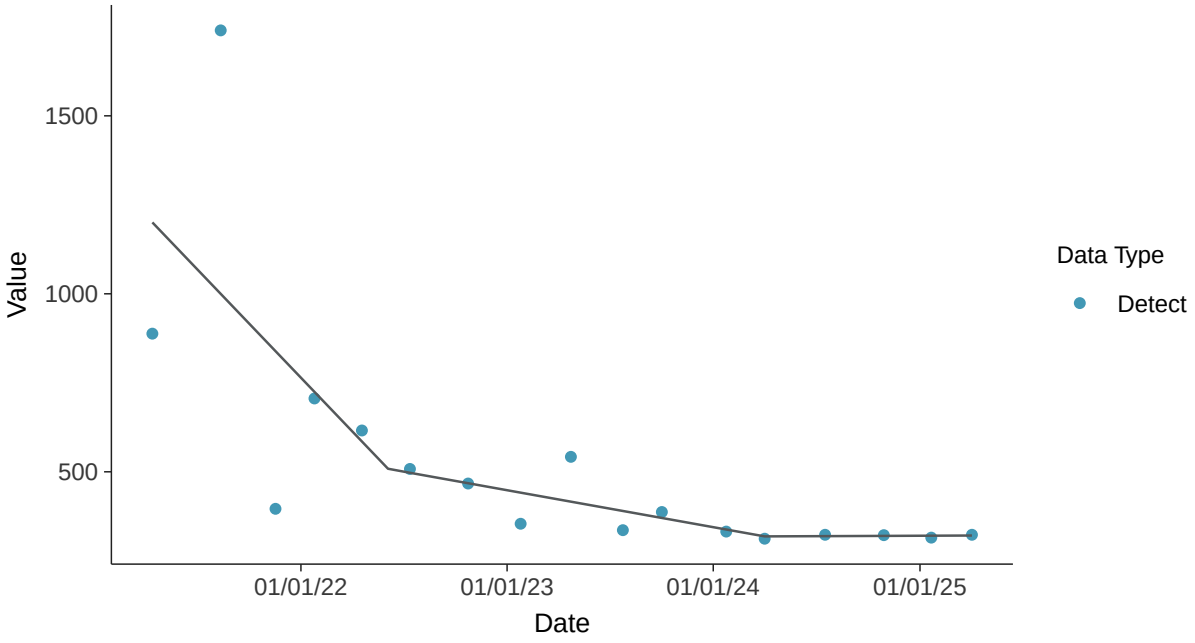
Trend Regression: Piecewise Linear-Linear

Total Dissolved Solids, MW-11D (mg/L)



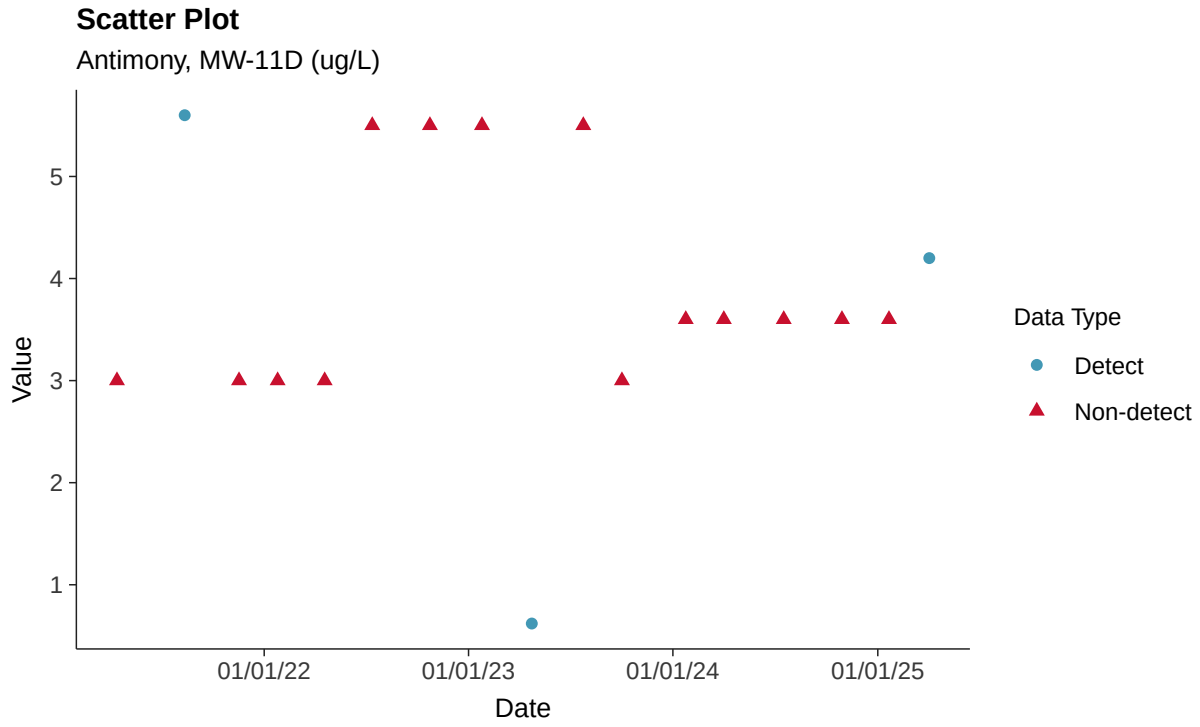
Trend Regression: Piecewise Linear-Linear-Linear

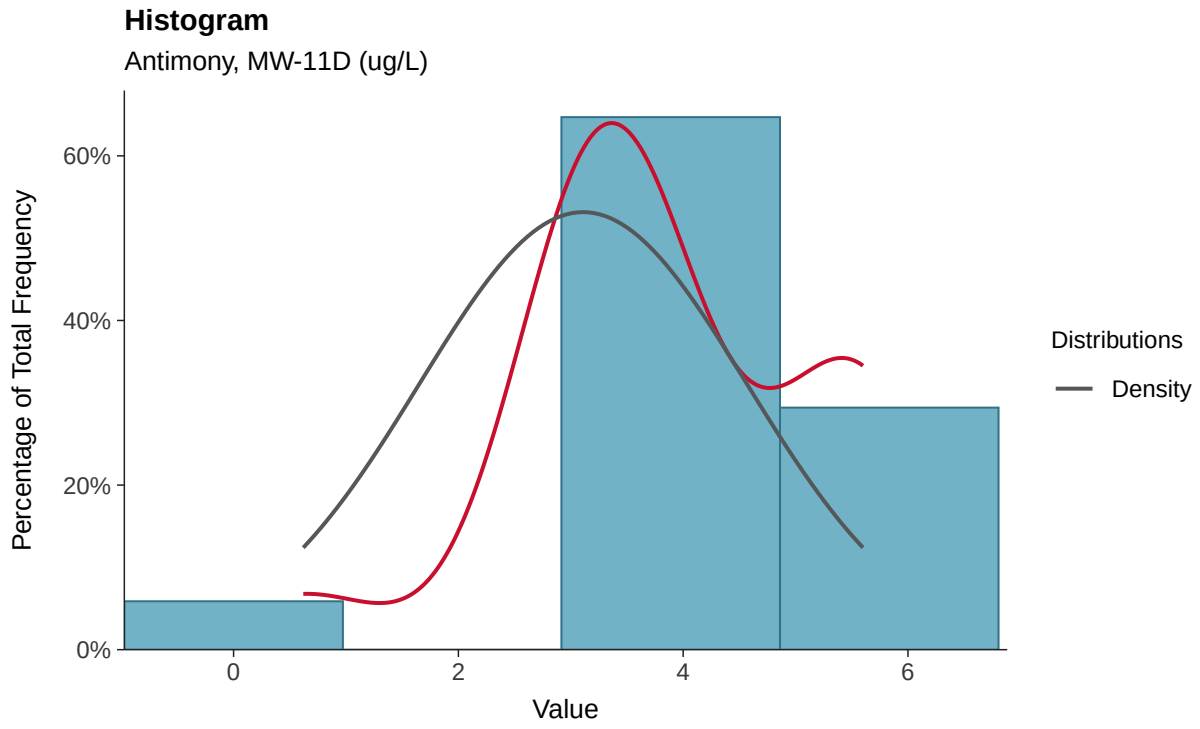
Total Dissolved Solids, MW-11D (mg/L)



App. IV: Antimony, MW-11D

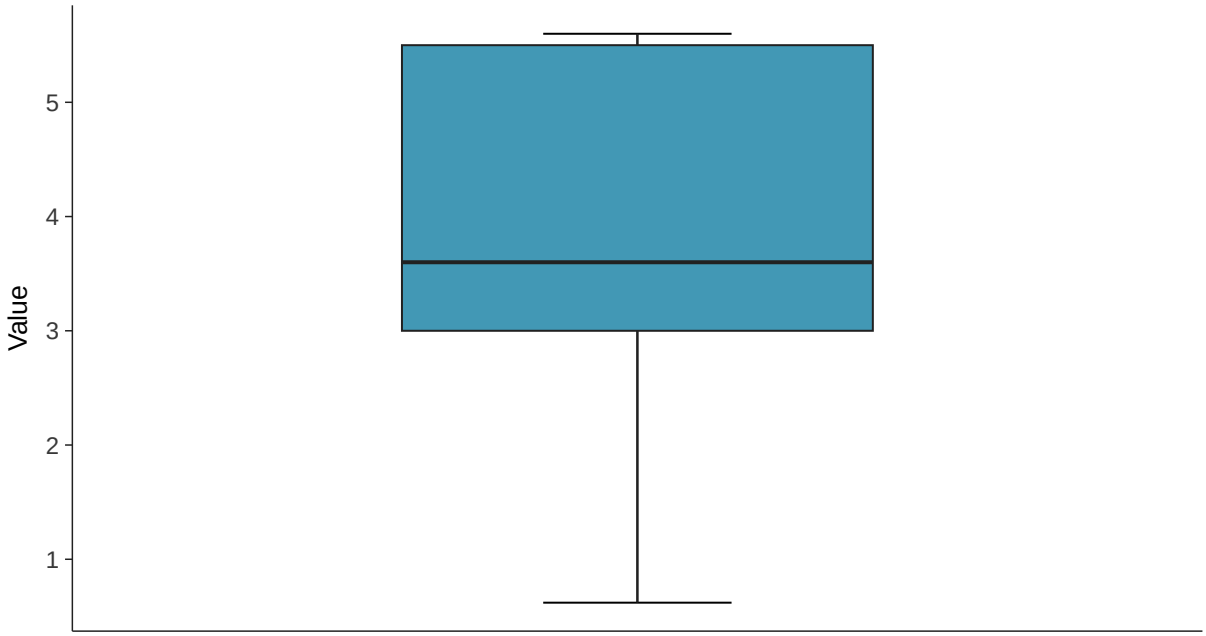
ID: 11_03_101





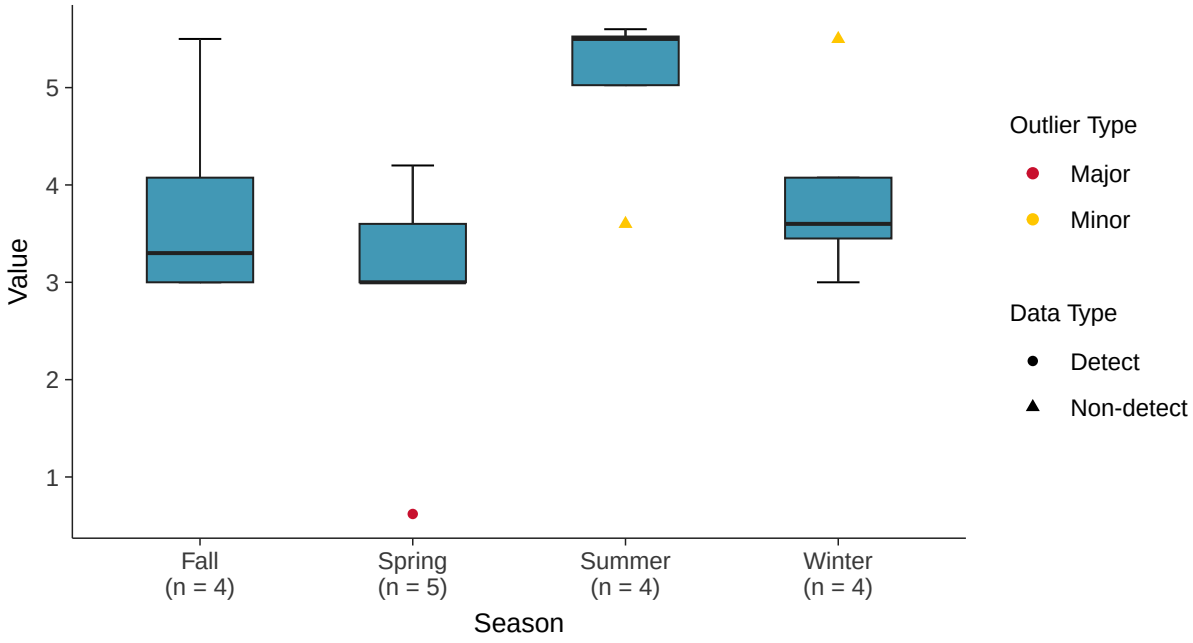
Boxplot

Antimony, MW-11D (ug/L)



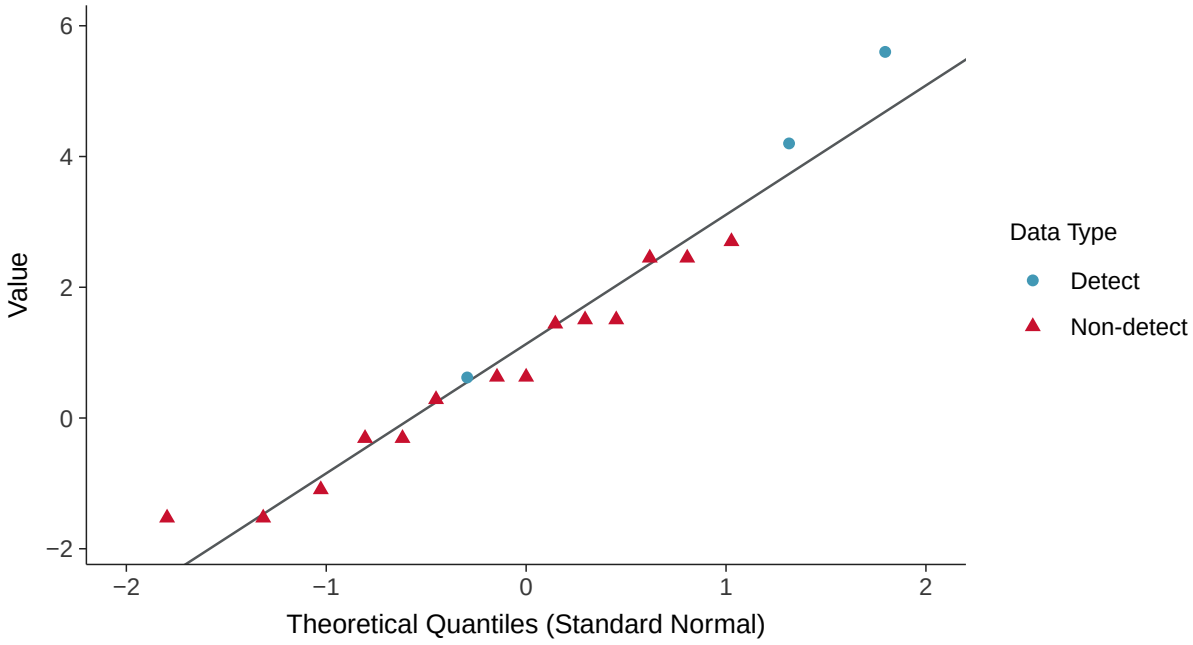
Boxplot by Season

Antimony, MW-11D (ug/L)



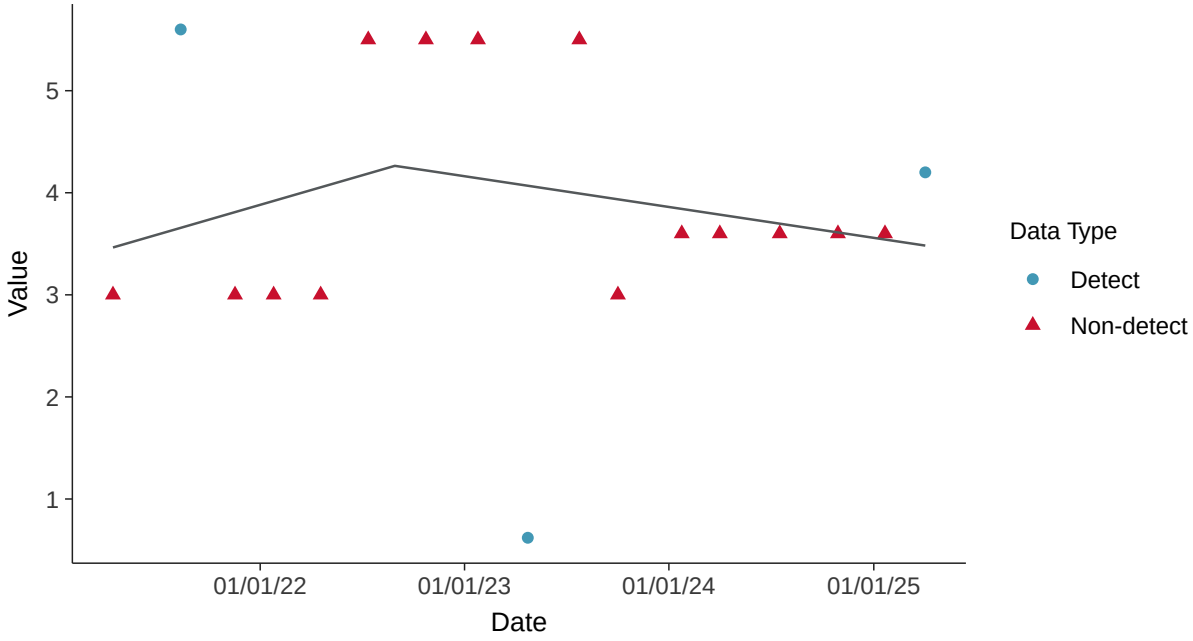
Normal Q-Q plot using ROS Imputed Estimates

Antimony, MW-11D (ug/L)



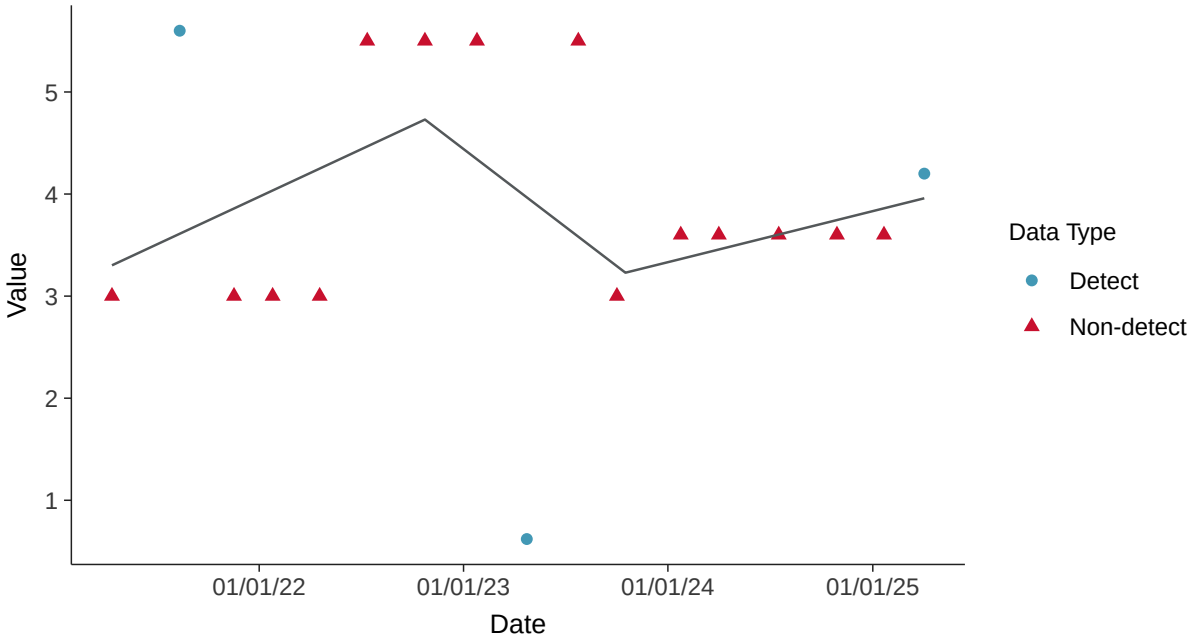
Trend Regression: Piecewise Linear-Linear

Antimony, MW-11D (ug/L)



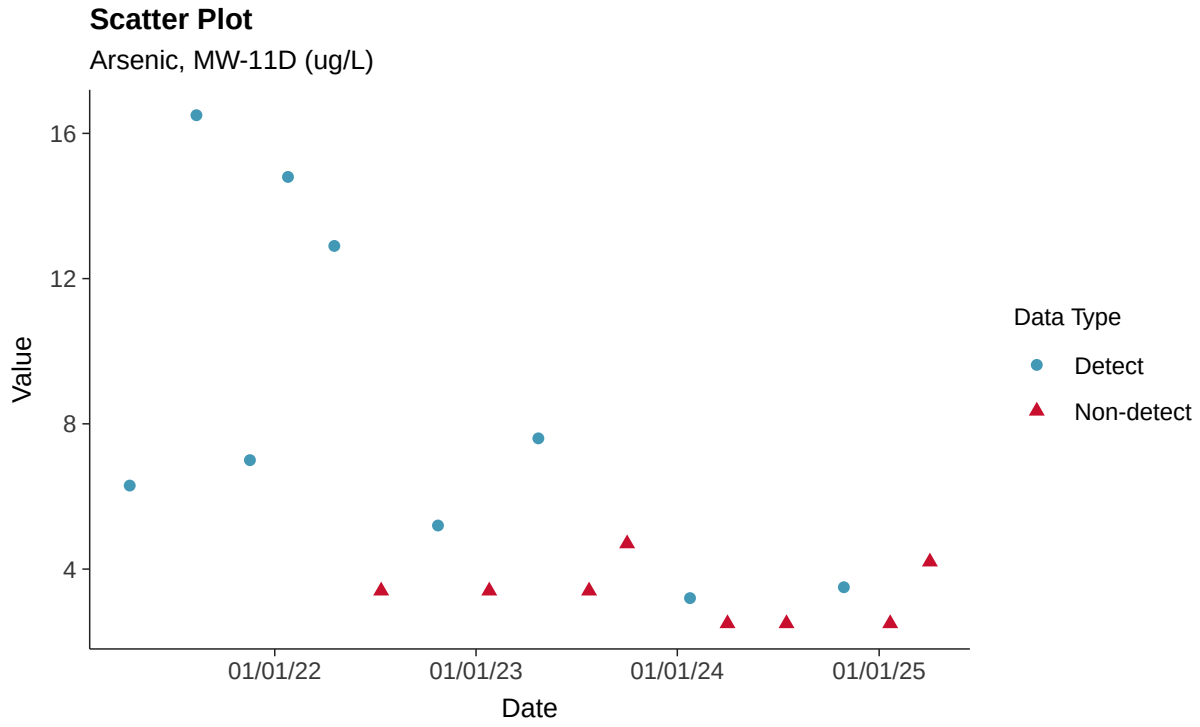
Trend Regression: Piecewise Linear-Linear-Linear

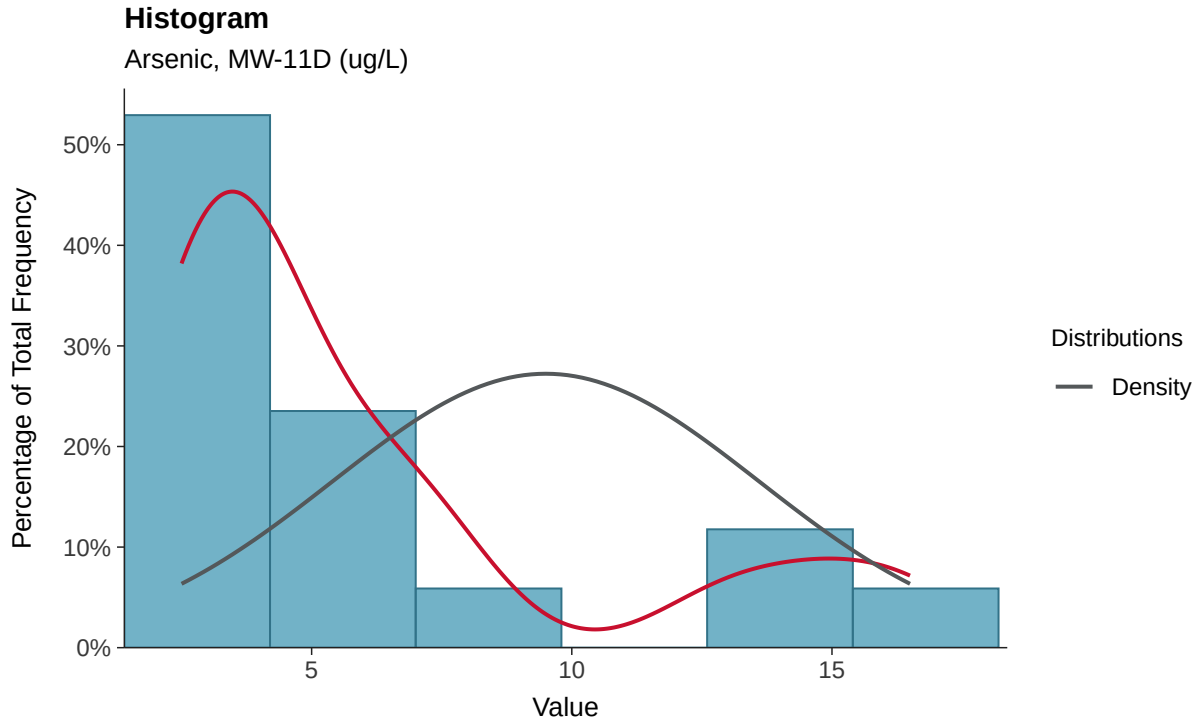
Antimony, MW-11D (ug/L)



App. IV: Arsenic, MW-11D

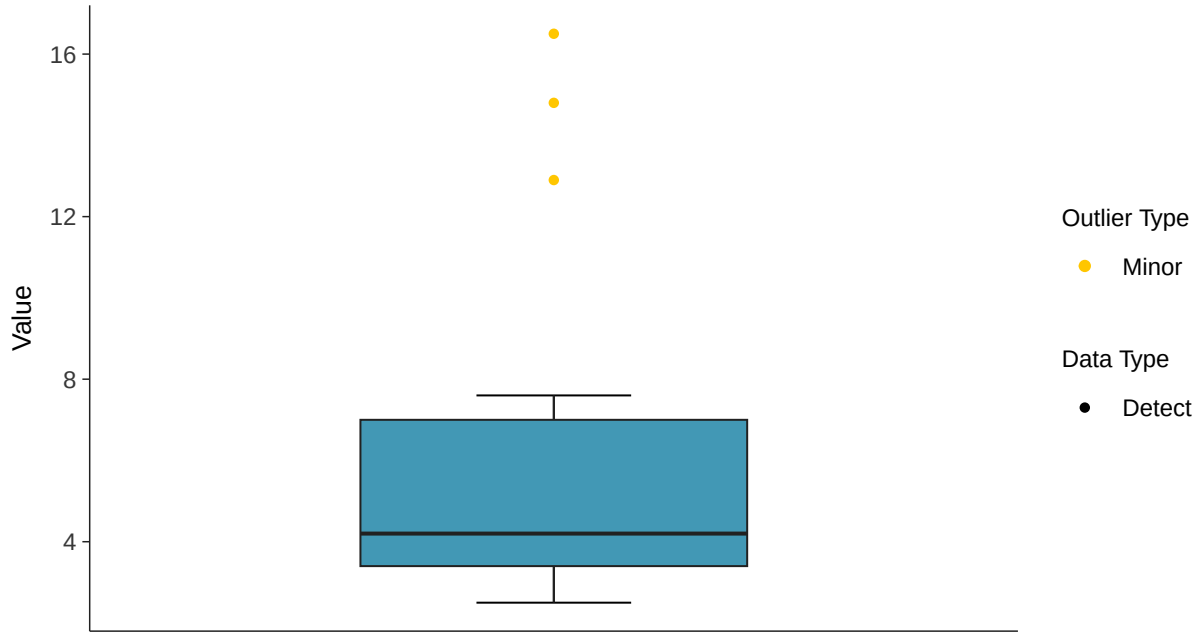
ID: 11_03_102





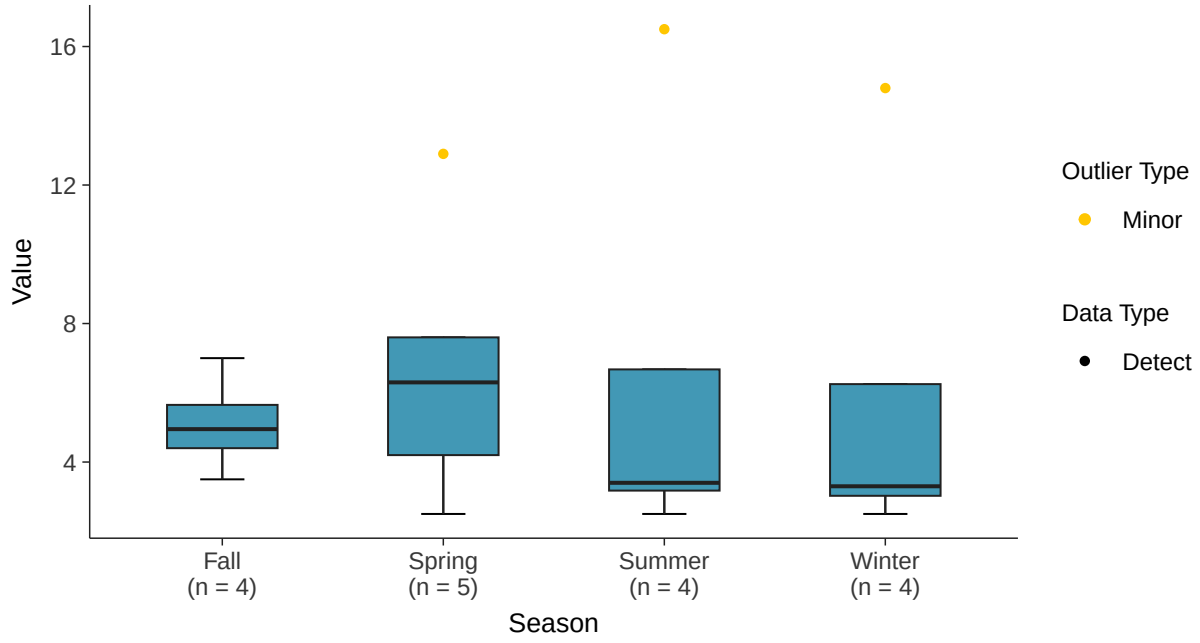
Boxplot

Arsenic, MW-11D (ug/L)



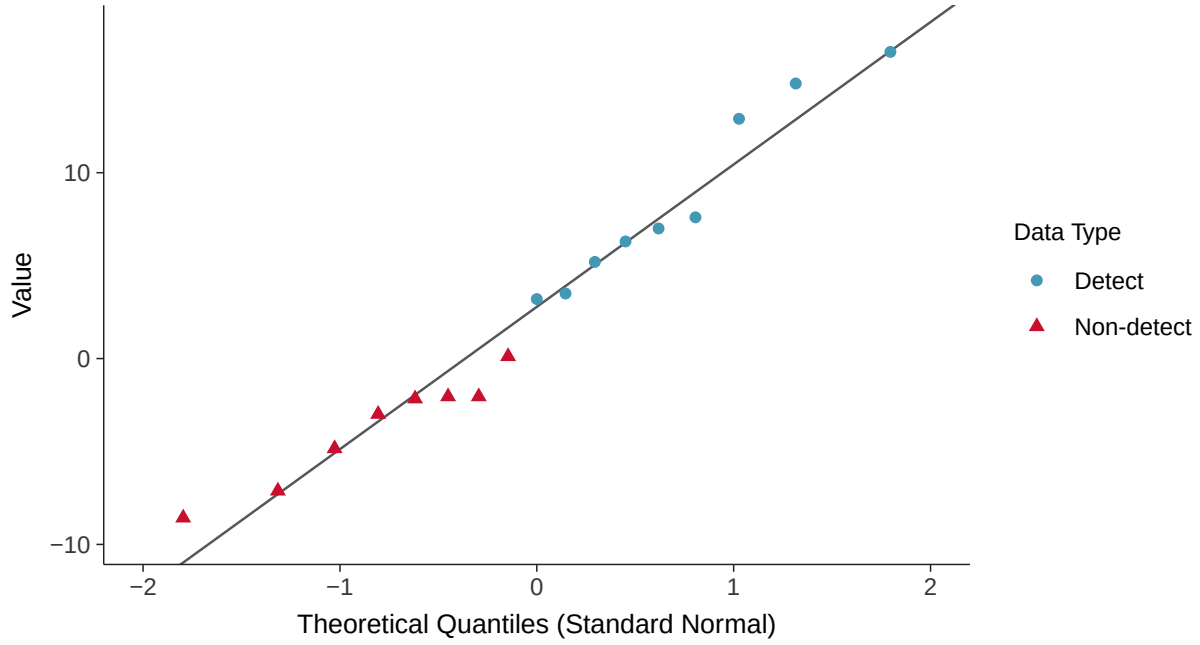
Boxplot by Season

Arsenic, MW-11D (ug/L)



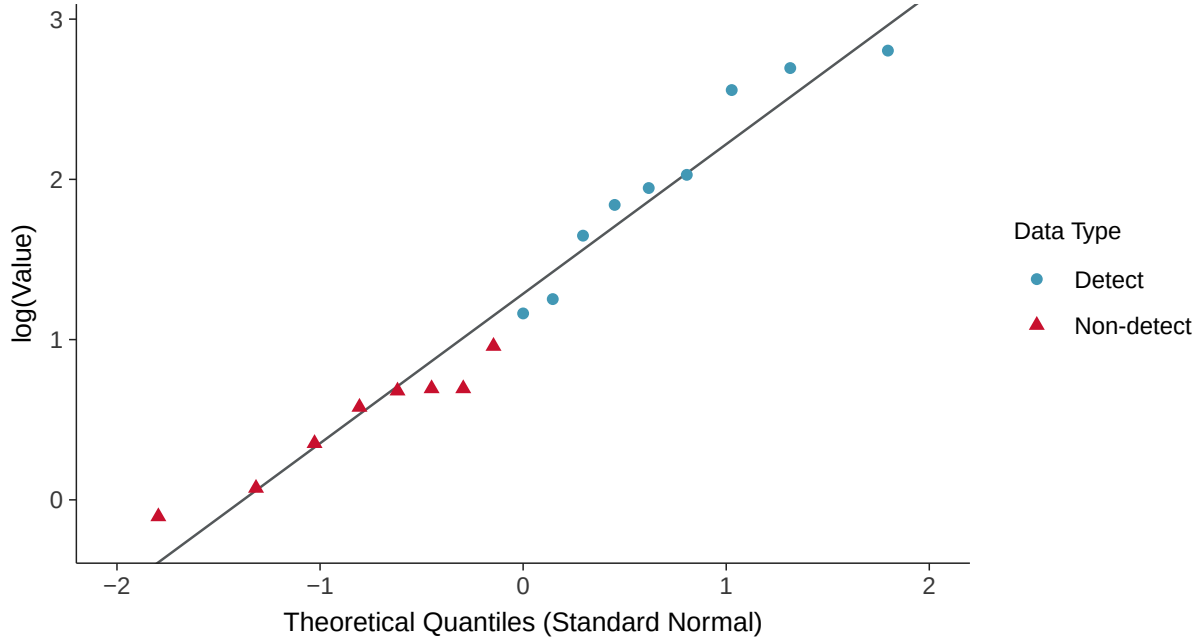
Normal Q-Q plot using ROS Imputed Estimates

Arsenic, MW-11D (ug/L)



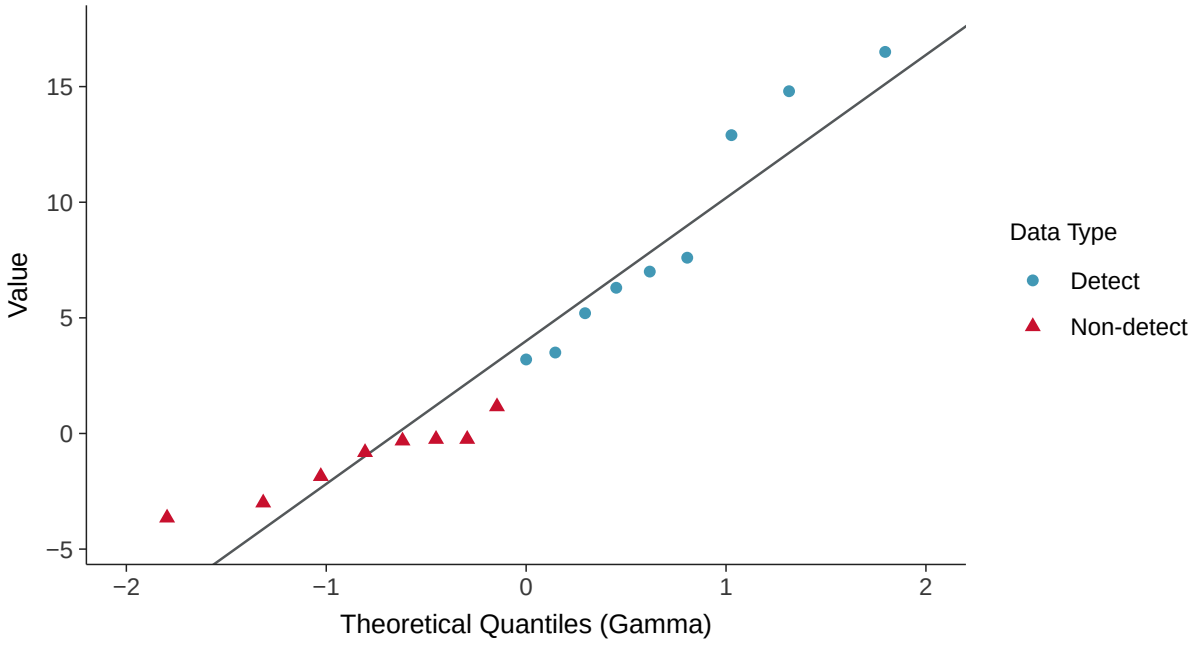
Lognormal Q-Q plot using ROS Imputed Estimates

Arsenic, MW-11D (ug/L)



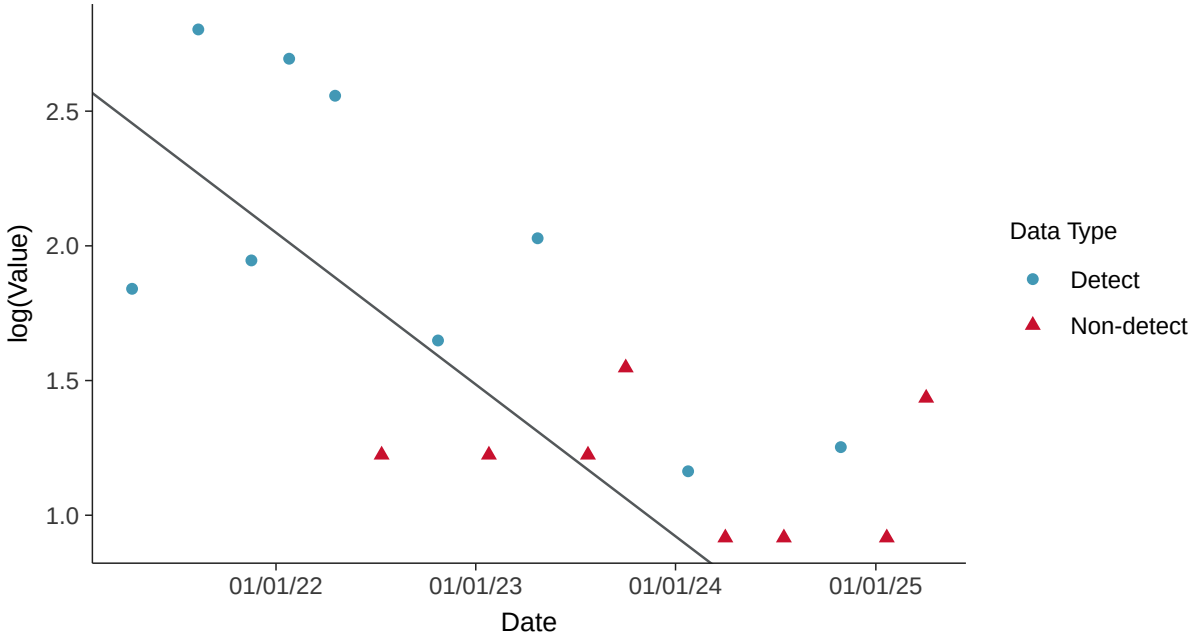
Gamma Q-Q plot using ROS Imputed Estimates

Arsenic, MW-11D (ug/L)



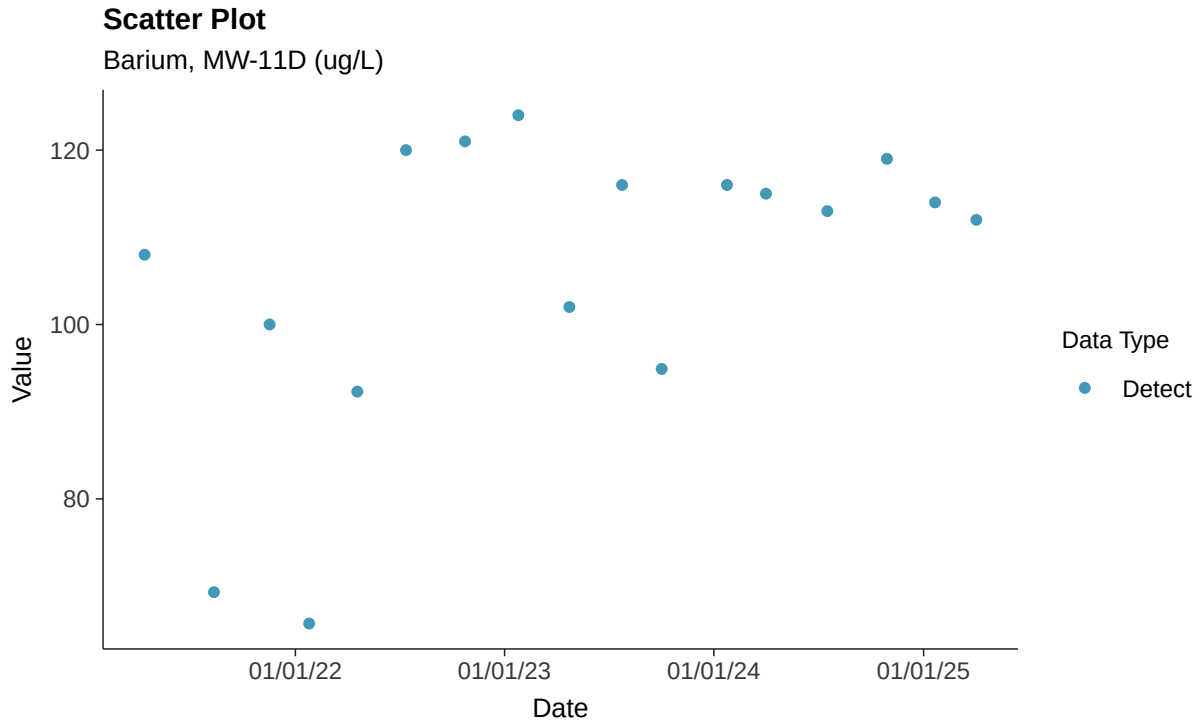
Trend Regression: Lognormal MLE

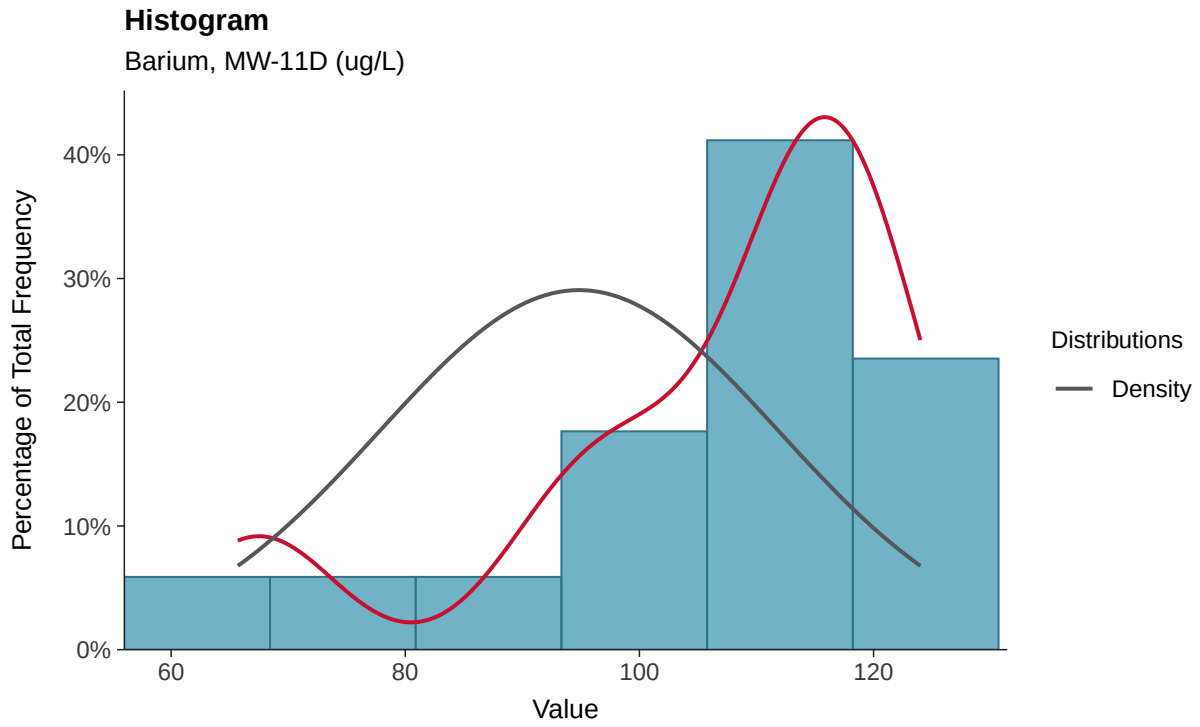
Arsenic, MW-11D (ug/L)



App. IV: Barium, MW-11D

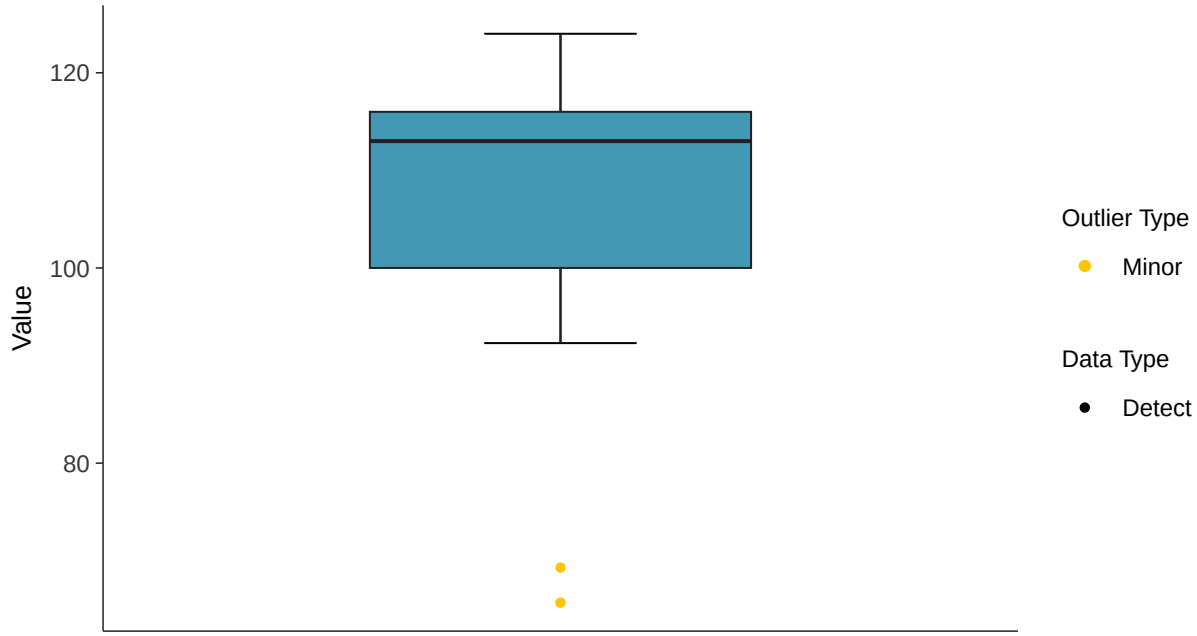
ID: 11_03_103





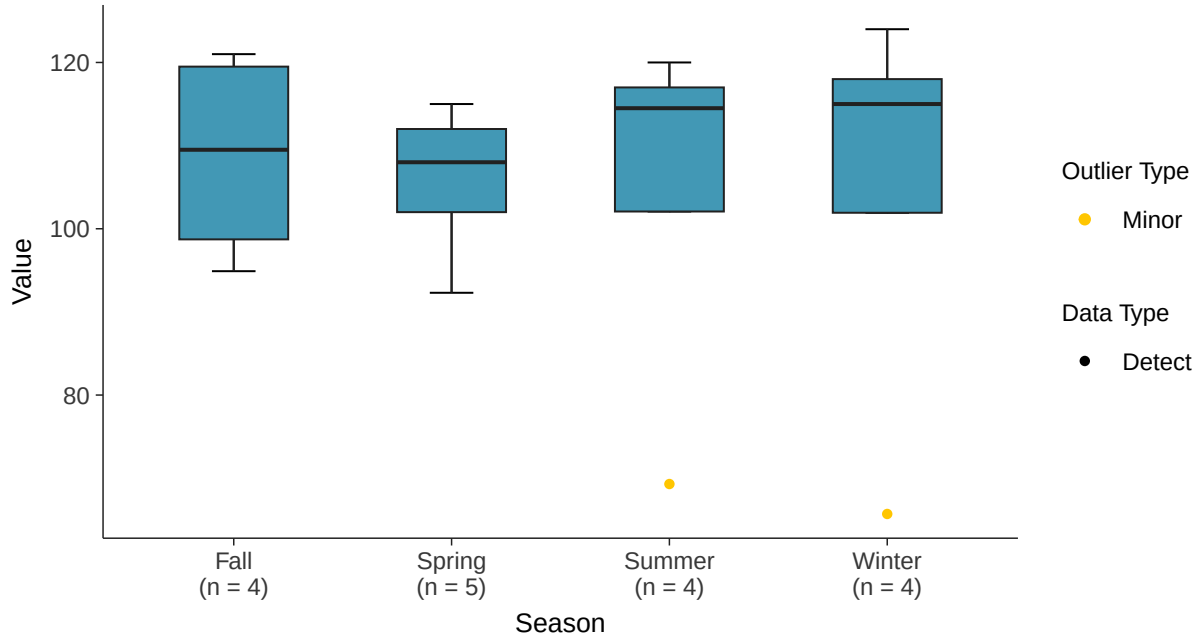
Boxplot

Barium, MW-11D (ug/L)



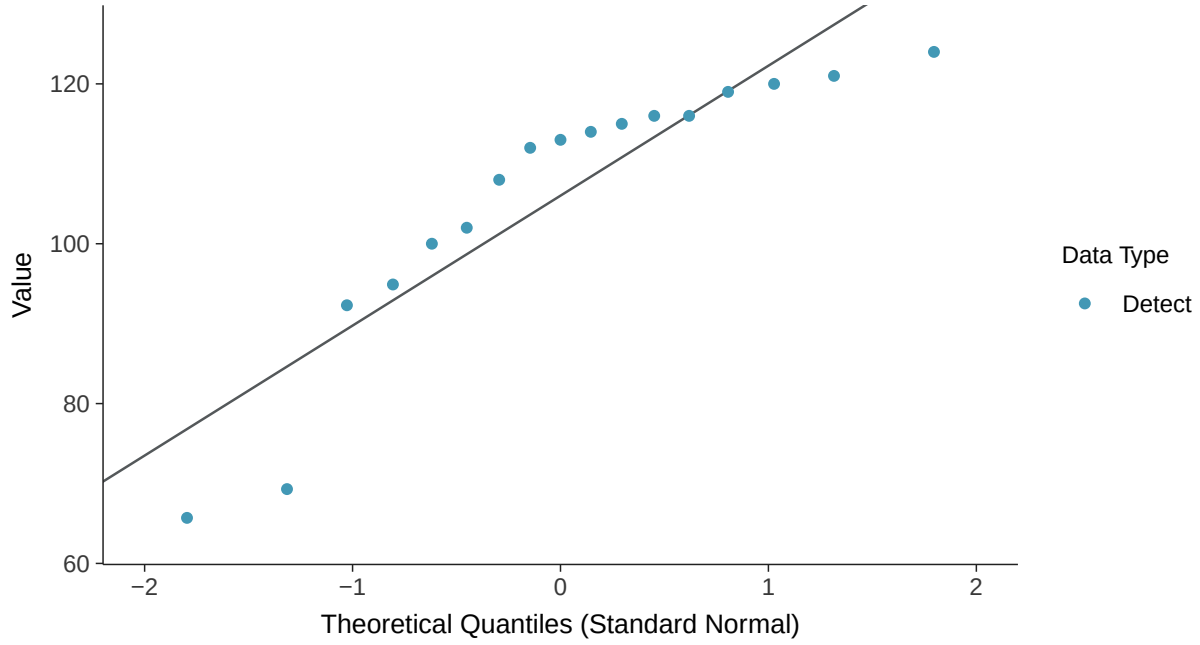
Boxplot by Season

Barium, MW-11D (ug/L)



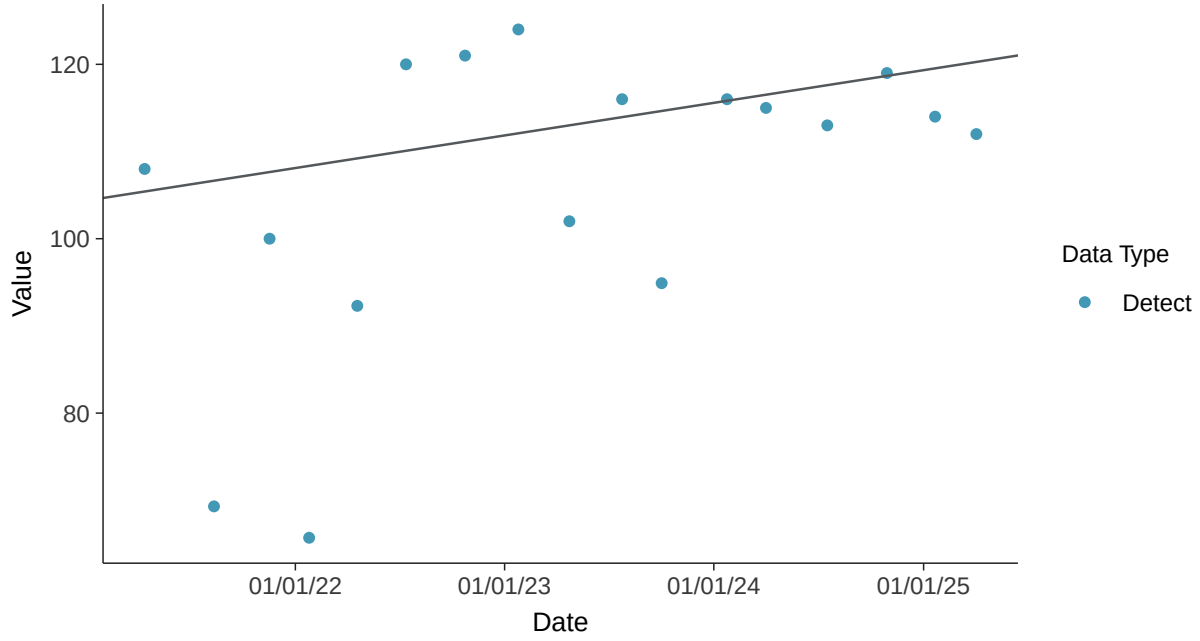
Normal Q-Q plot

Barium, MW-11D (ug/L)



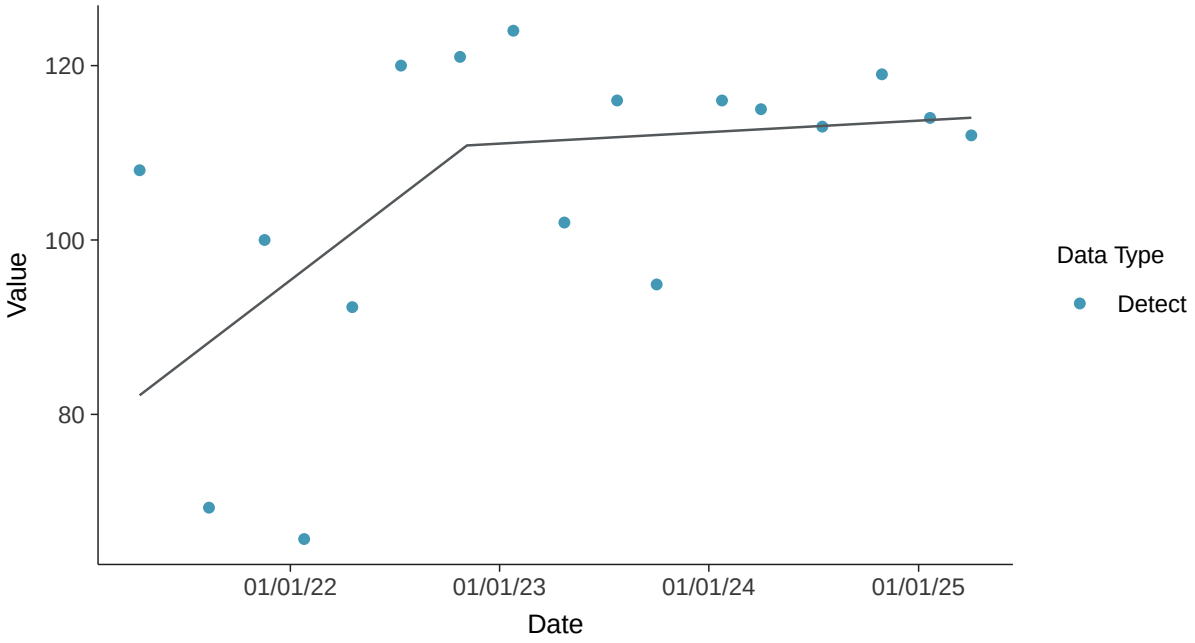
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Barium, MW-11D (ug/L)



Trend Regression: Piecewise Linear-Linear

Barium, MW-11D (ug/L)

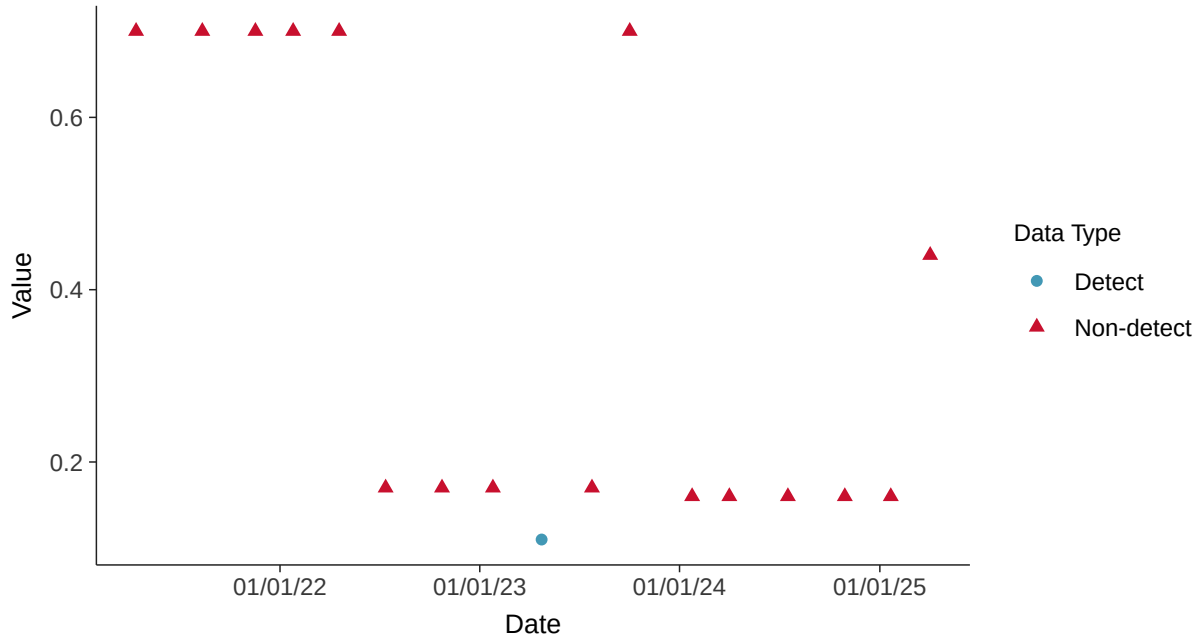


App. IV: Beryllium, MW-11D

ID: 11_03_104

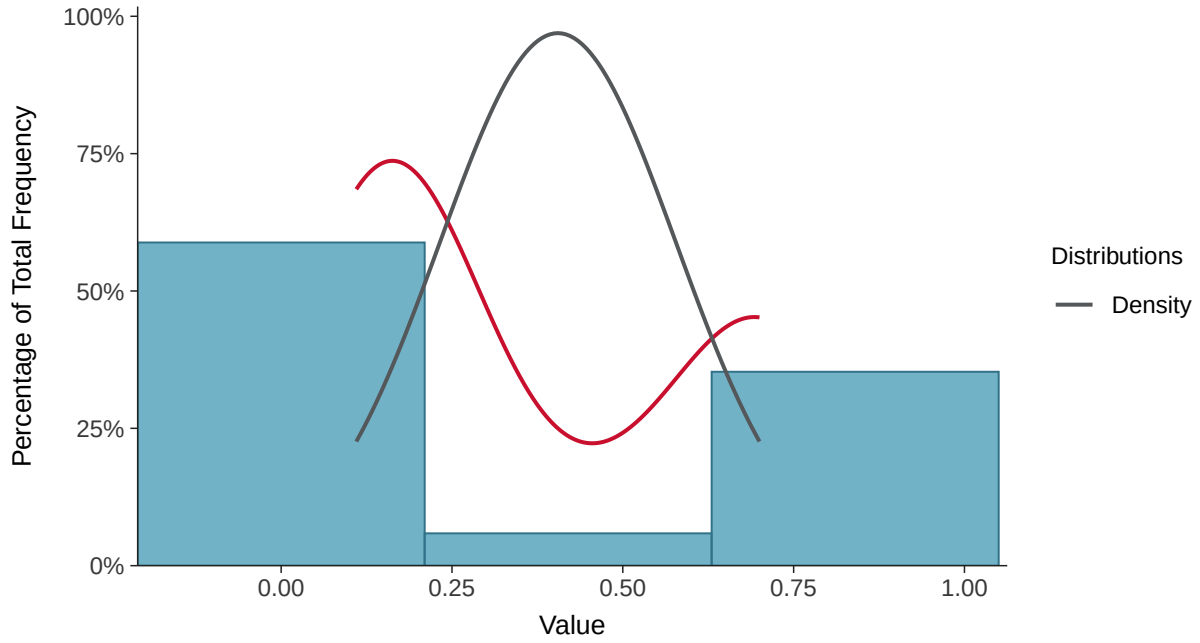
Scatter Plot

Beryllium, MW-11D (ug/L)



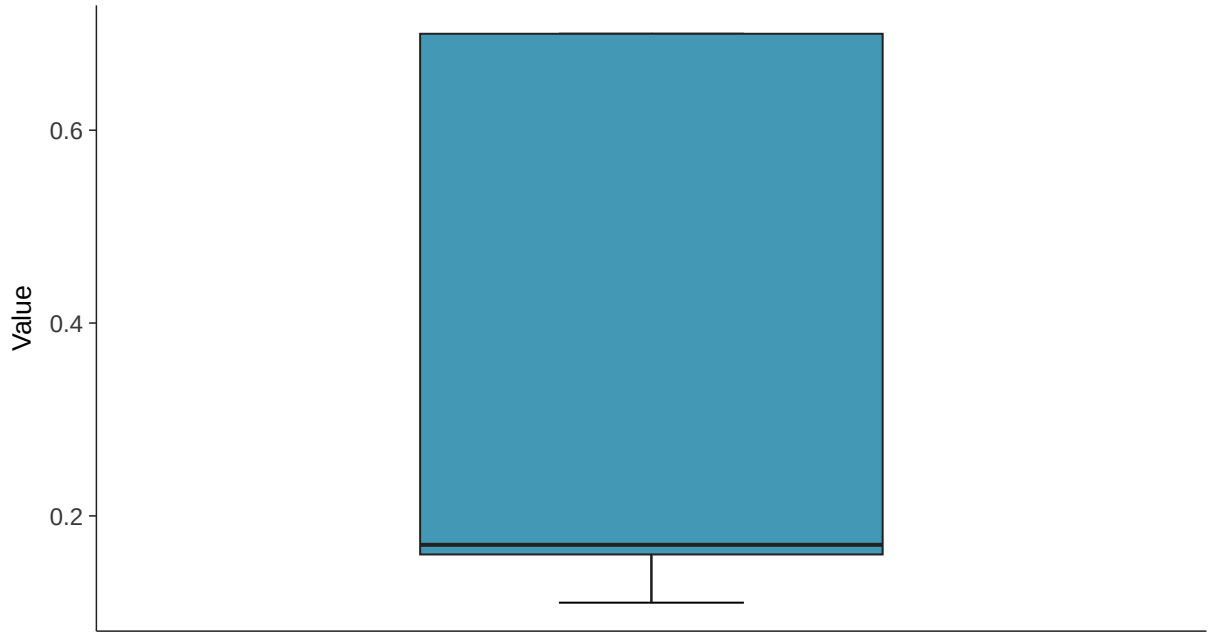
Histogram

Beryllium, MW-11D (ug/L)



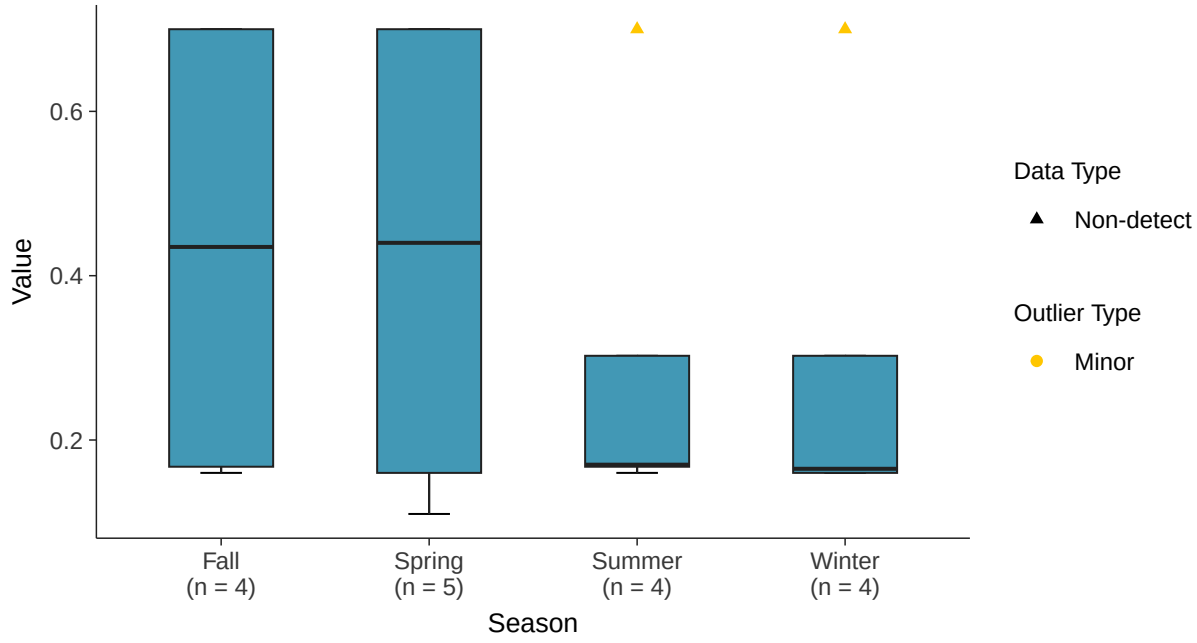
Boxplot

Beryllium, MW-11D (ug/L)



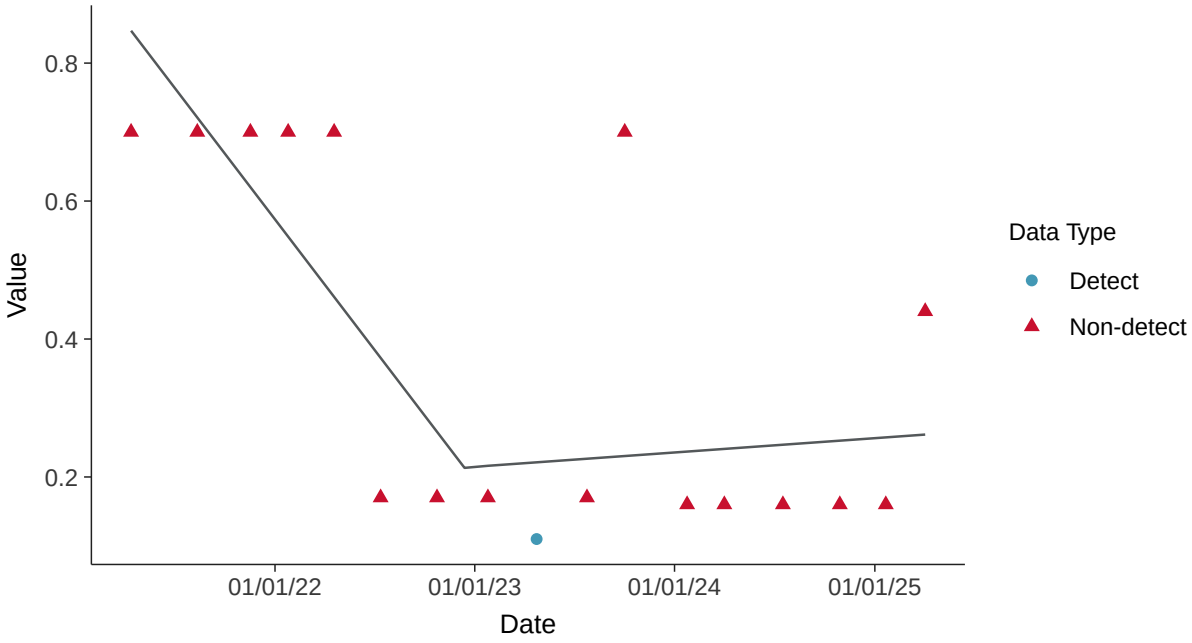
Boxplot by Season

Beryllium, MW-11D (ug/L)



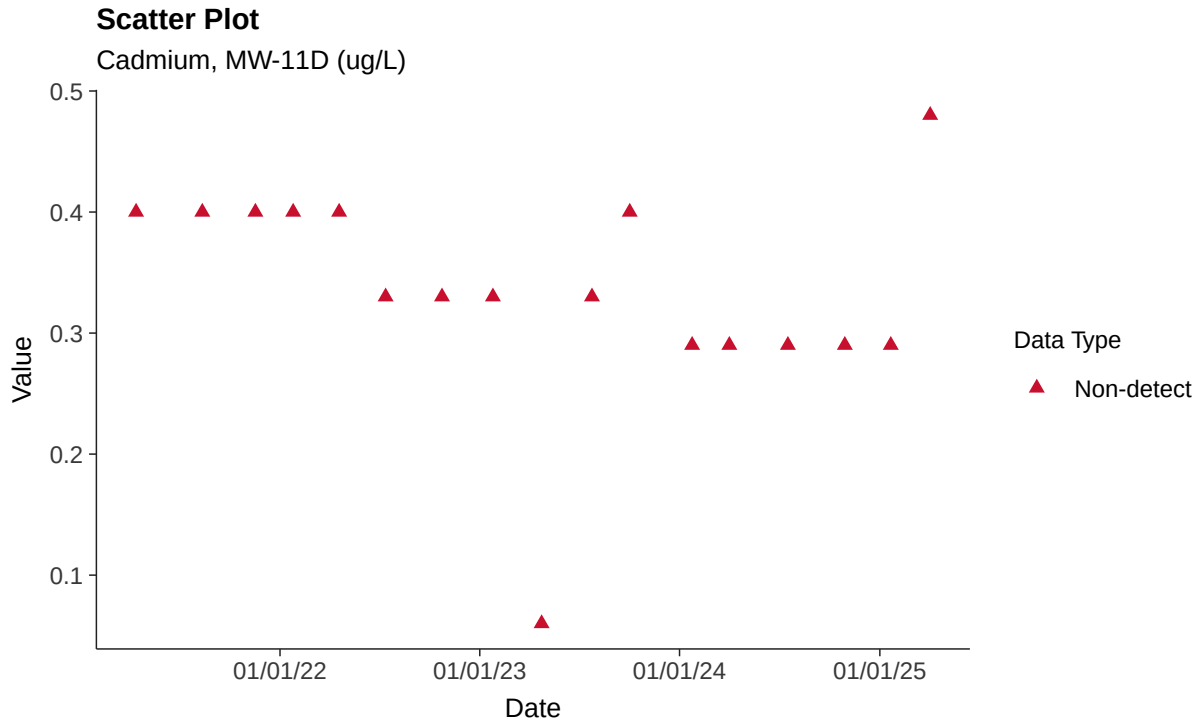
Trend Regression: Piecewise Linear-Linear

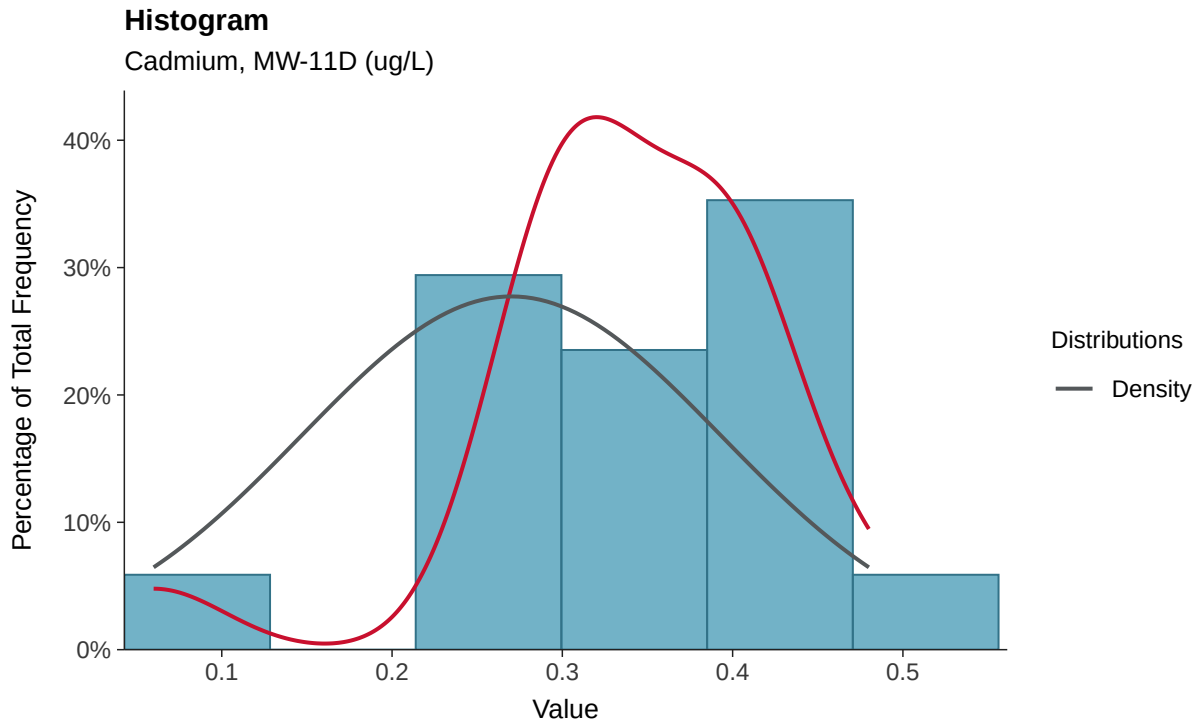
Beryllium, MW-11D (ug/L)



App. IV: Cadmium, MW-11D

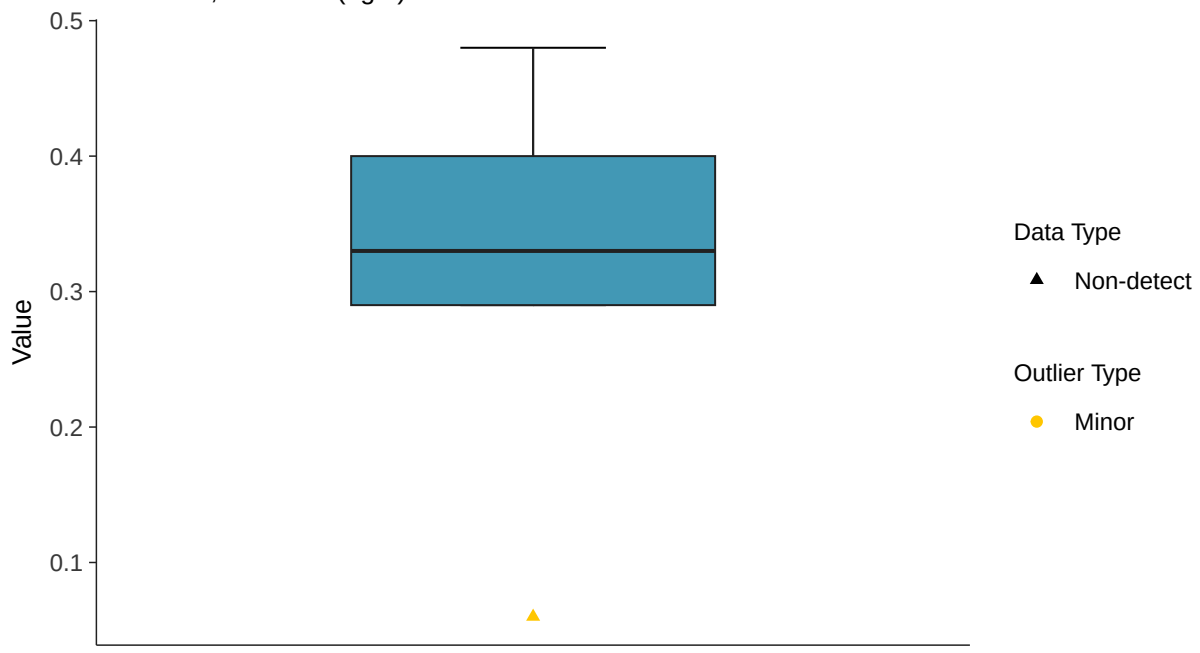
ID: 11_03_106





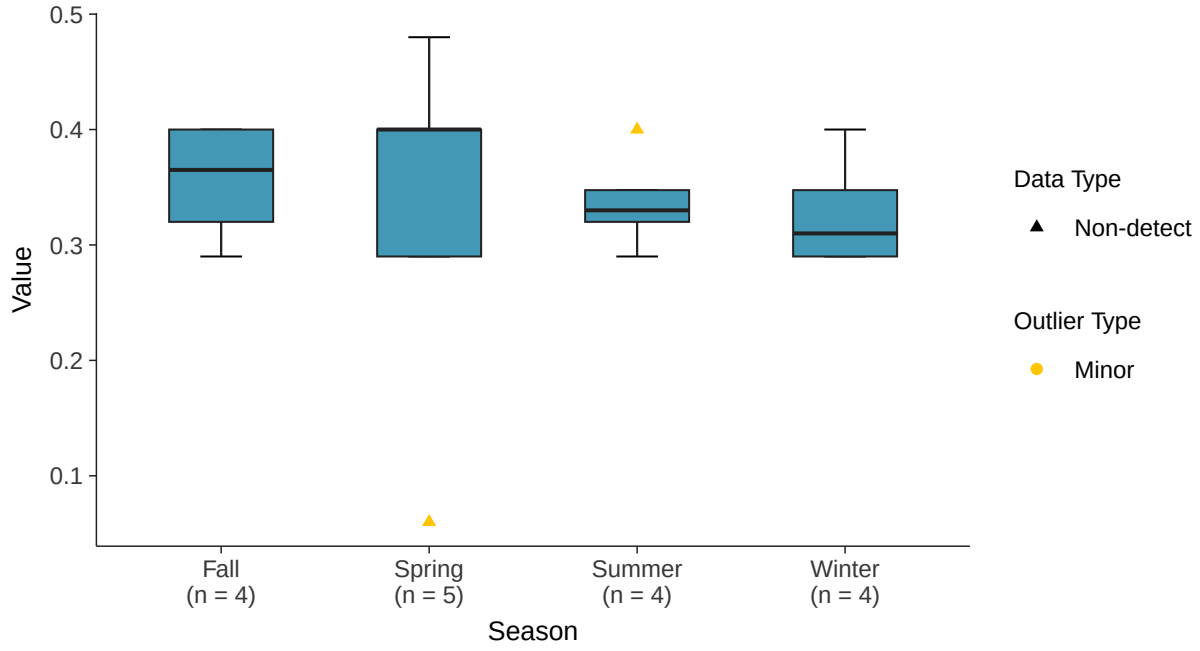
Boxplot

Cadmium, MW-11D (ug/L)



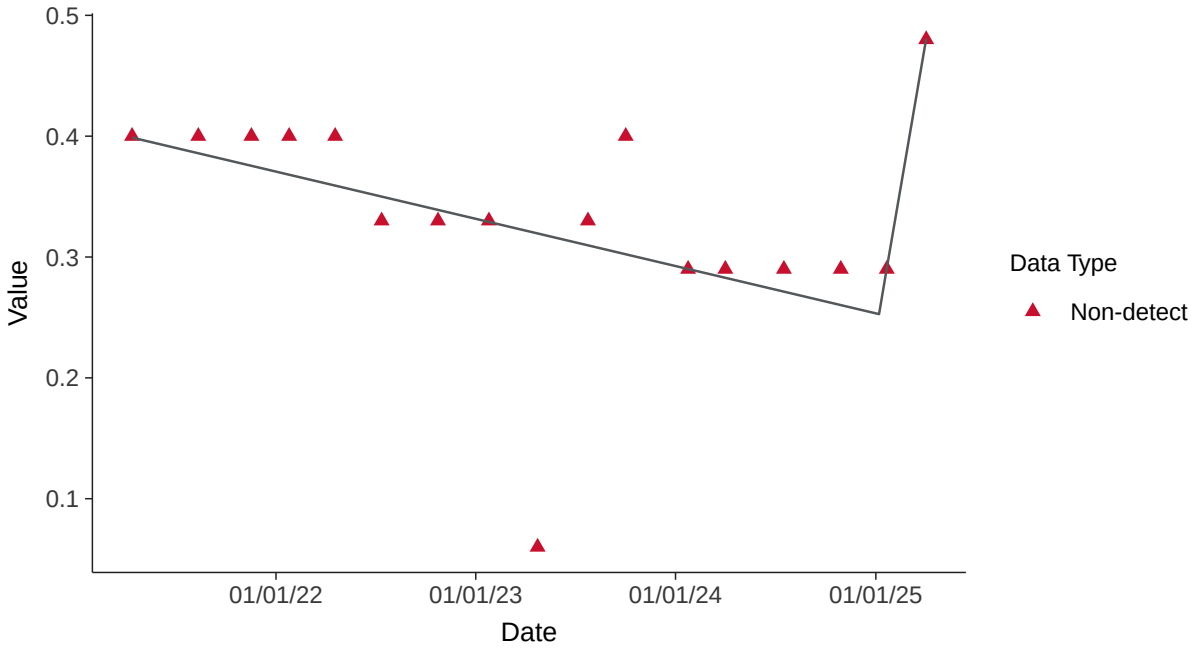
Boxplot by Season

Cadmium, MW-11D (ug/L)



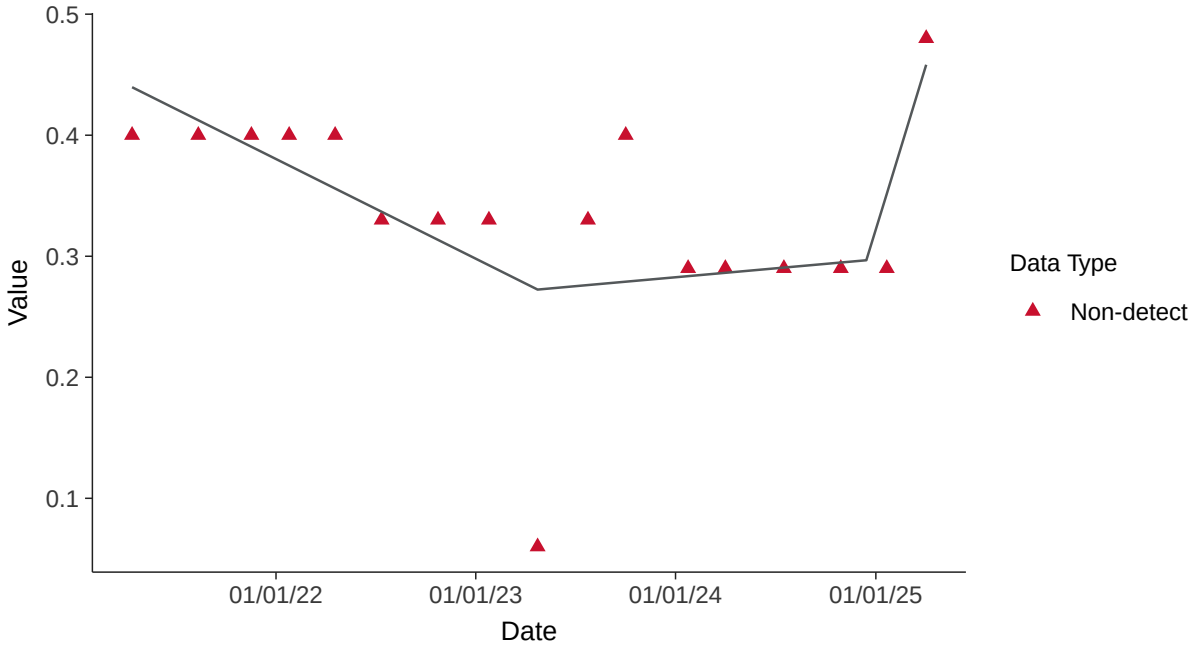
Trend Regression: Piecewise Linear-Linear

Cadmium, MW-11D (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Cadmium, MW-11D (ug/L)

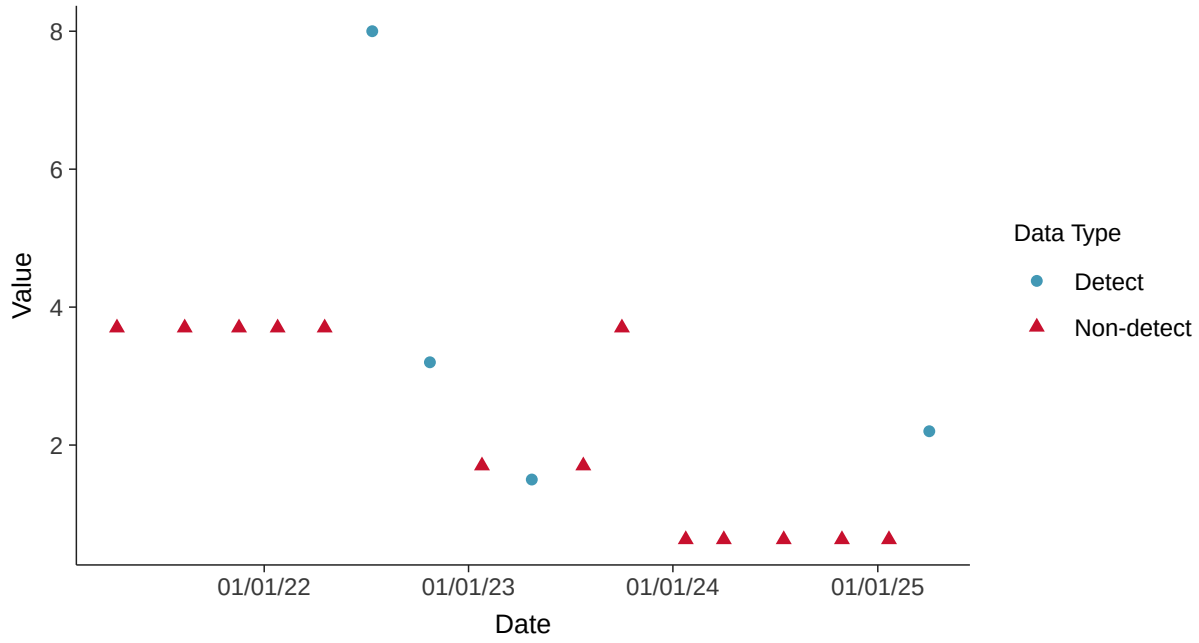


App. IV: Chromium, MW-11D

ID: 11_03_109

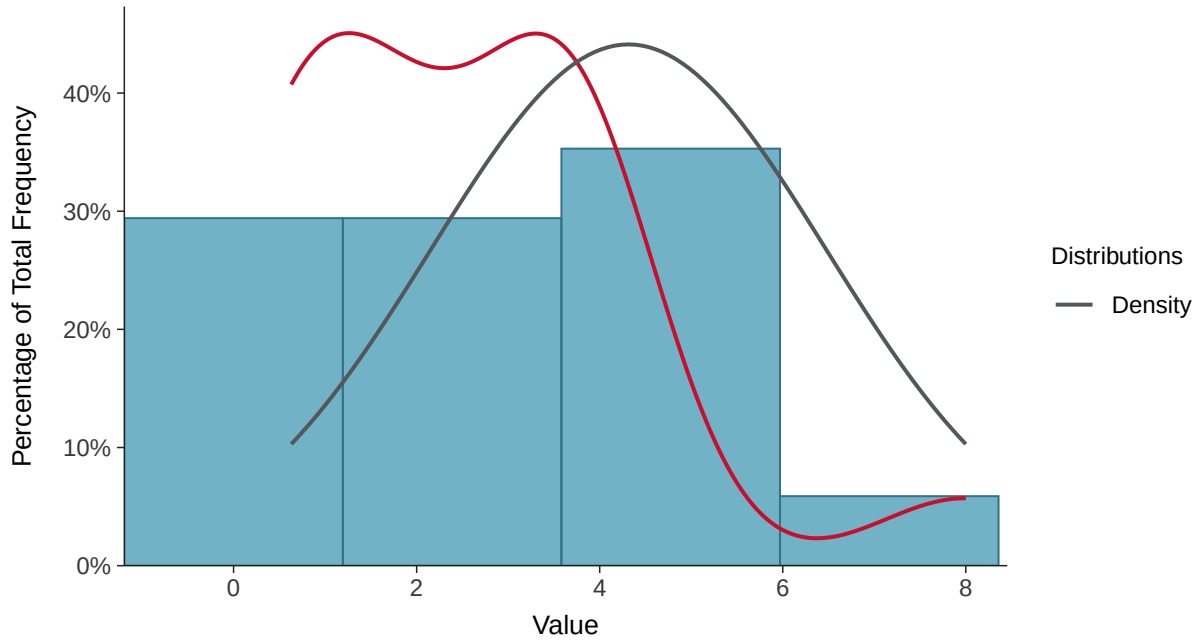
Scatter Plot

Chromium, MW-11D (ug/L)



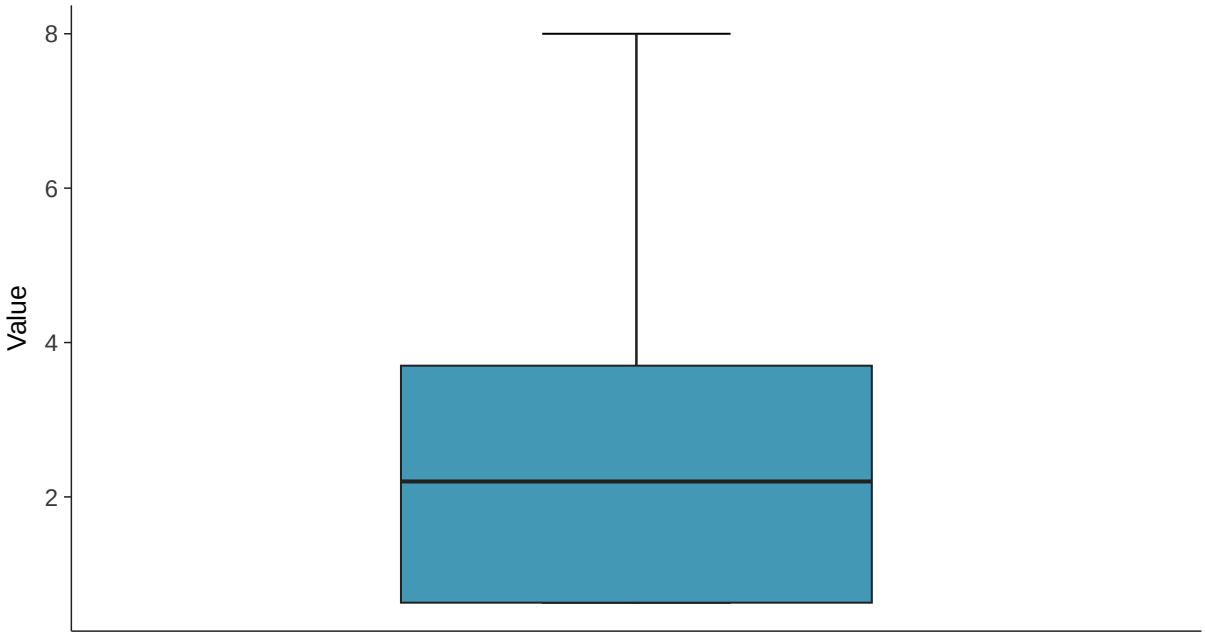
Histogram

Chromium, MW-11D (ug/L)



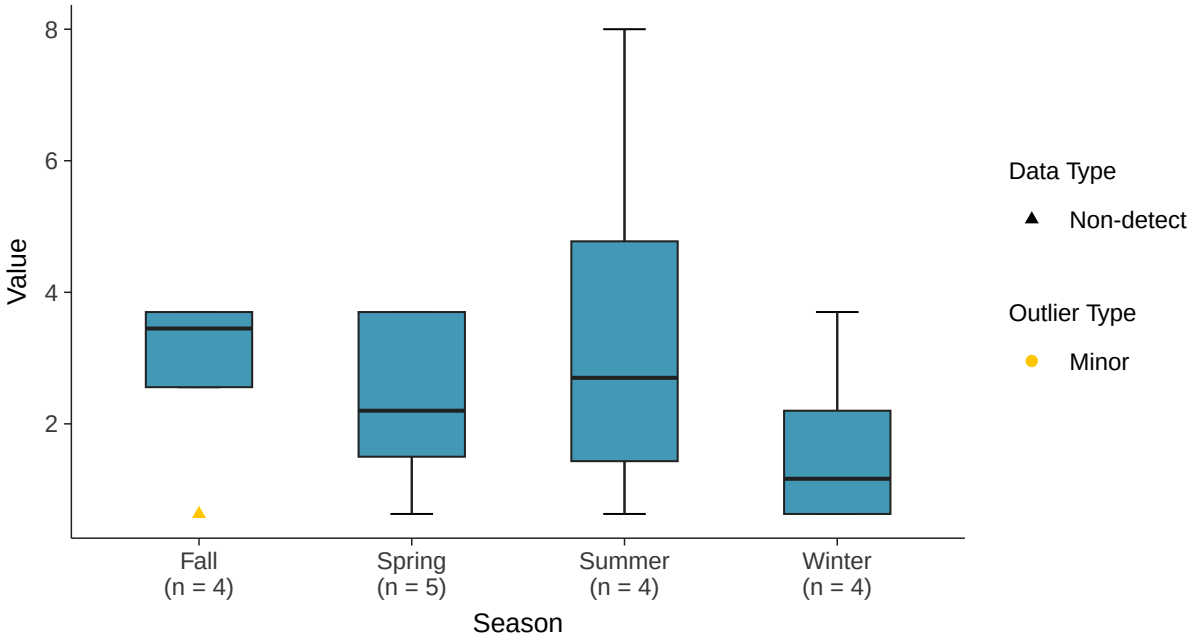
Boxplot

Chromium, MW-11D (ug/L)



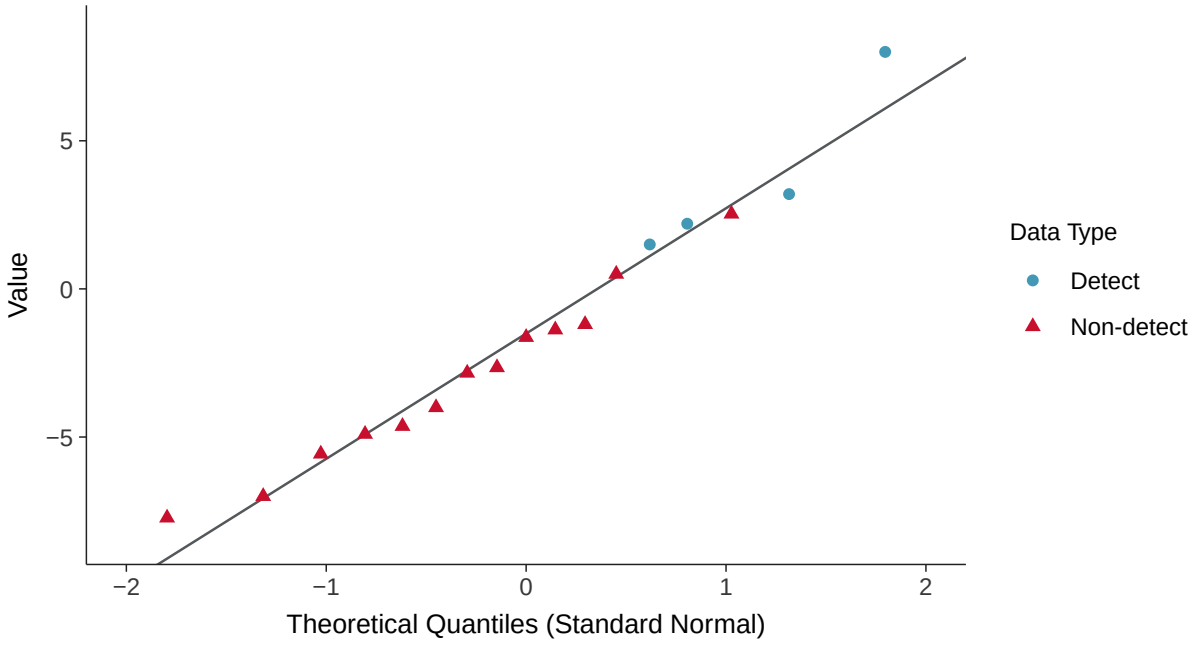
Boxplot by Season

Chromium, MW-11D (ug/L)



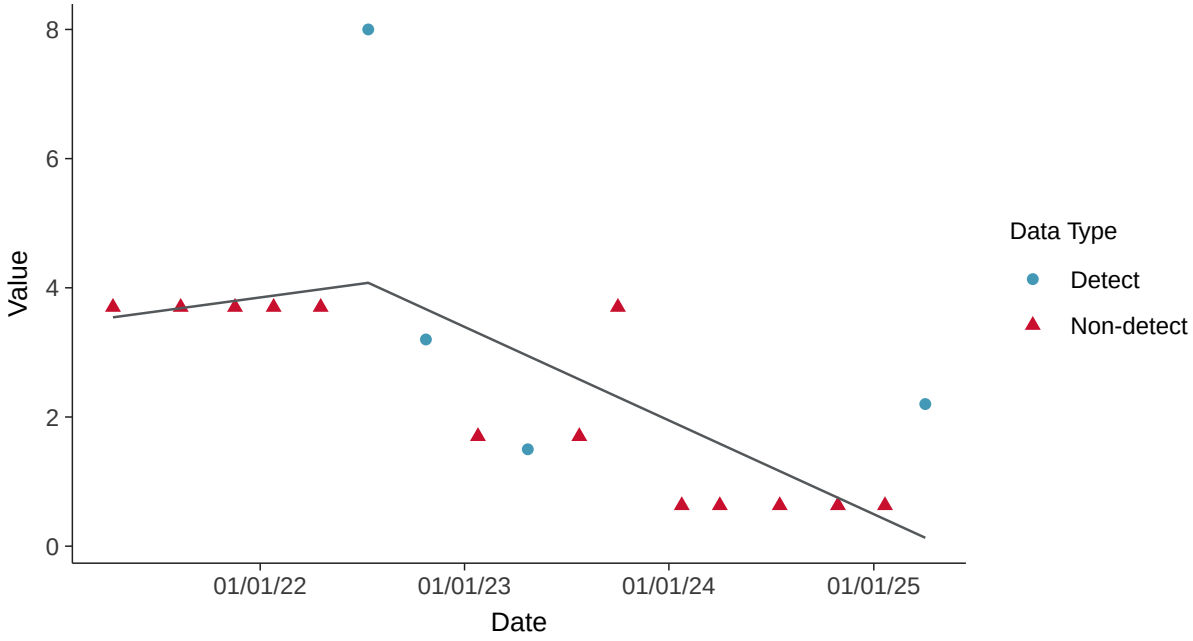
Normal Q-Q plot using ROS Imputed Estimates

Chromium, MW-11D (ug/L)



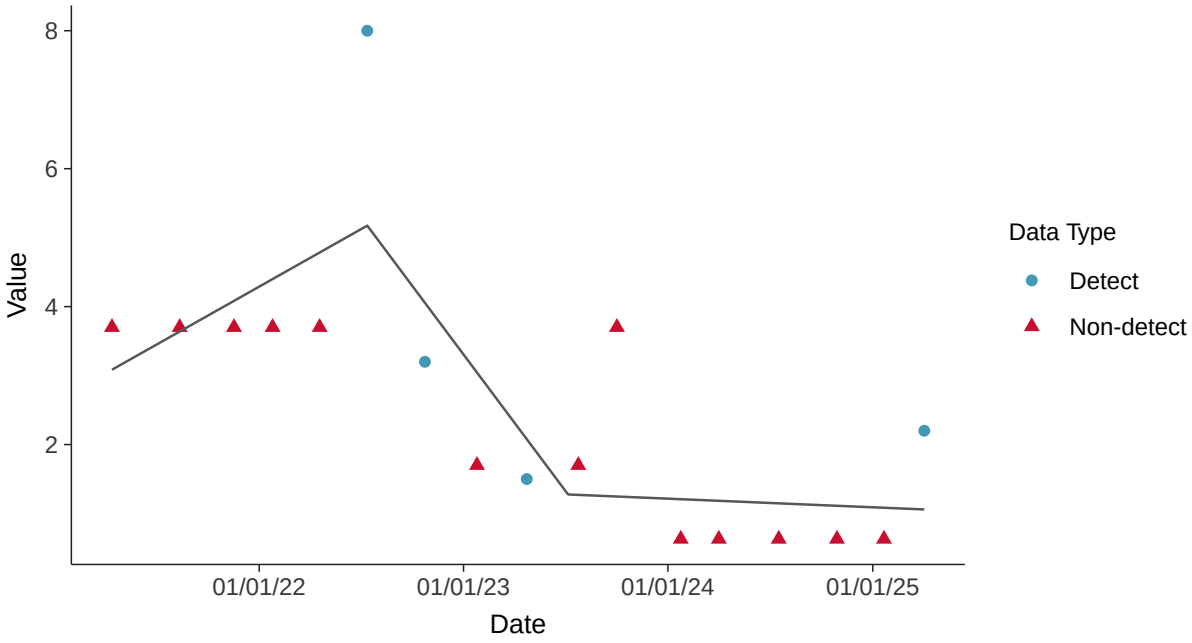
Trend Regression: Piecewise Linear-Linear

Chromium, MW-11D (ug/L)



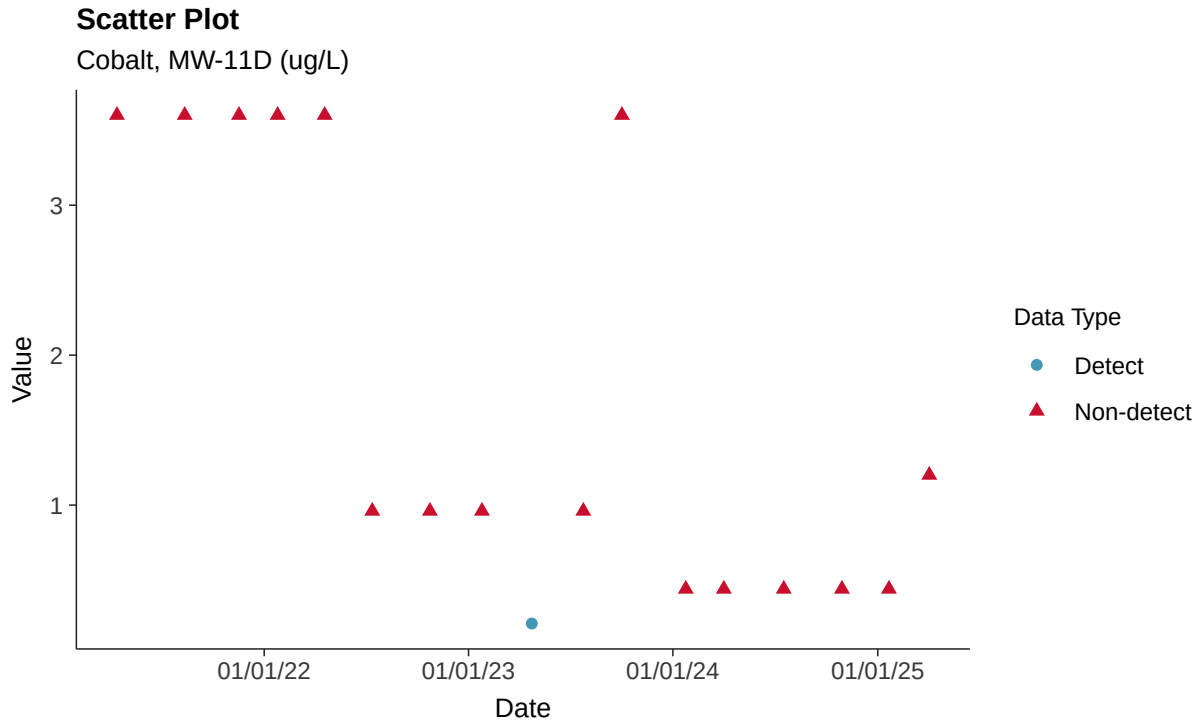
Trend Regression: Piecewise Linear-Linear-Linear

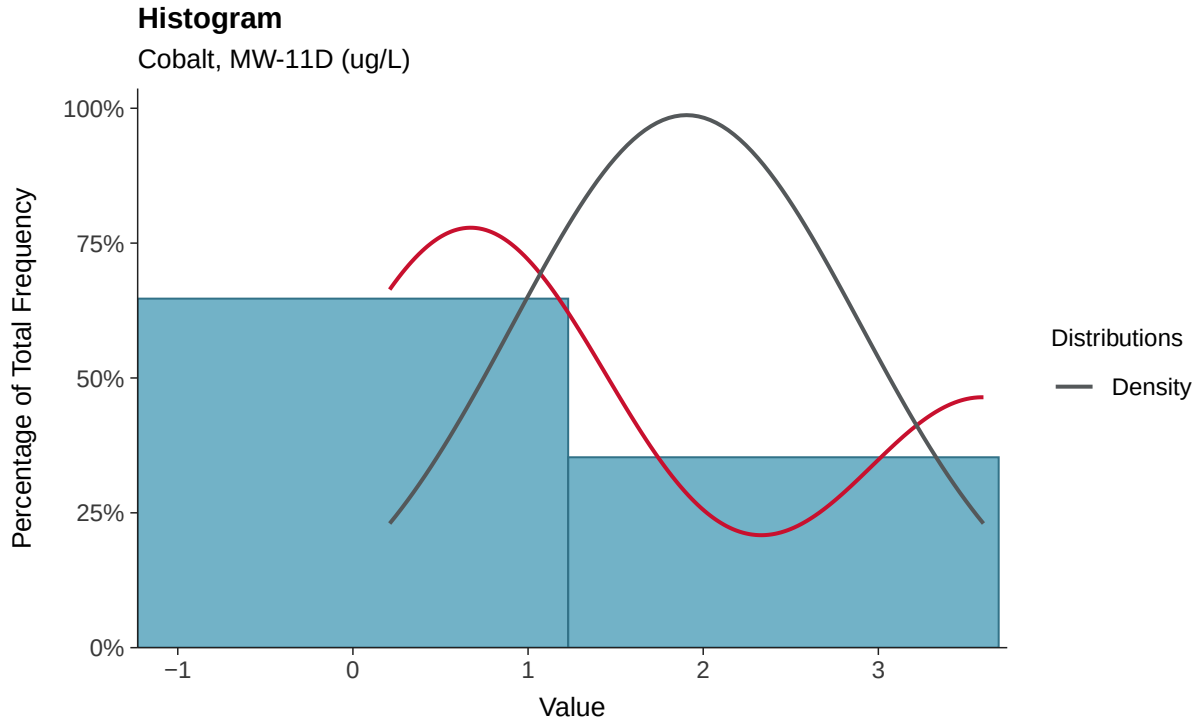
Chromium, MW-11D (ug/L)



App. IV: Cobalt, MW-11D

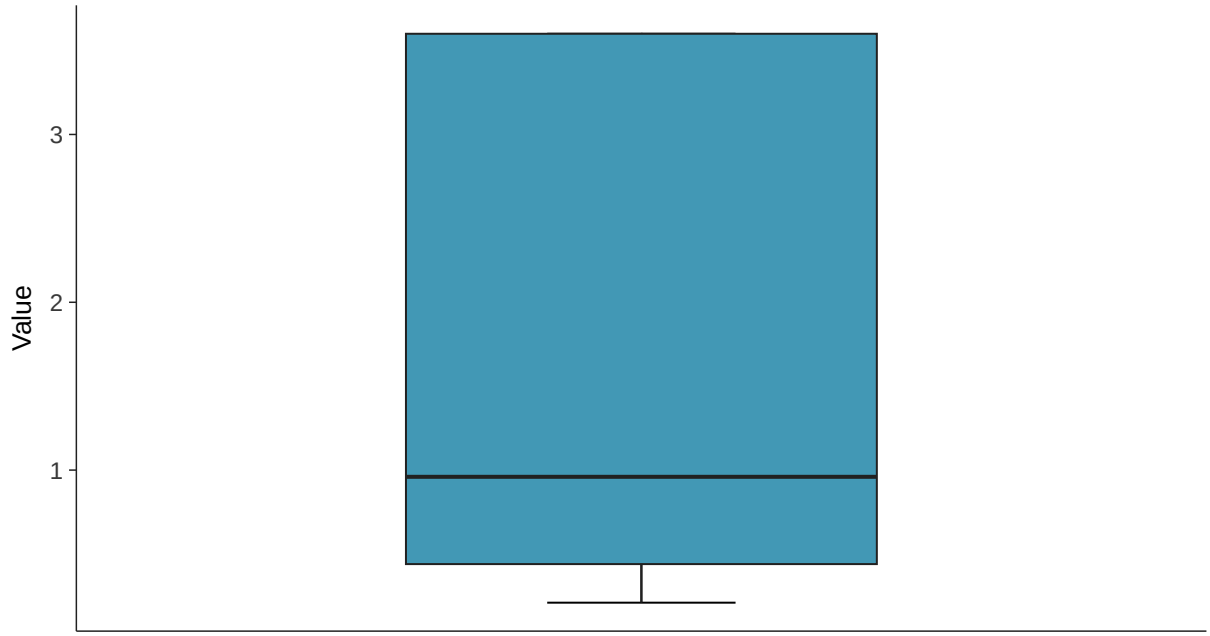
ID: 11_03_110





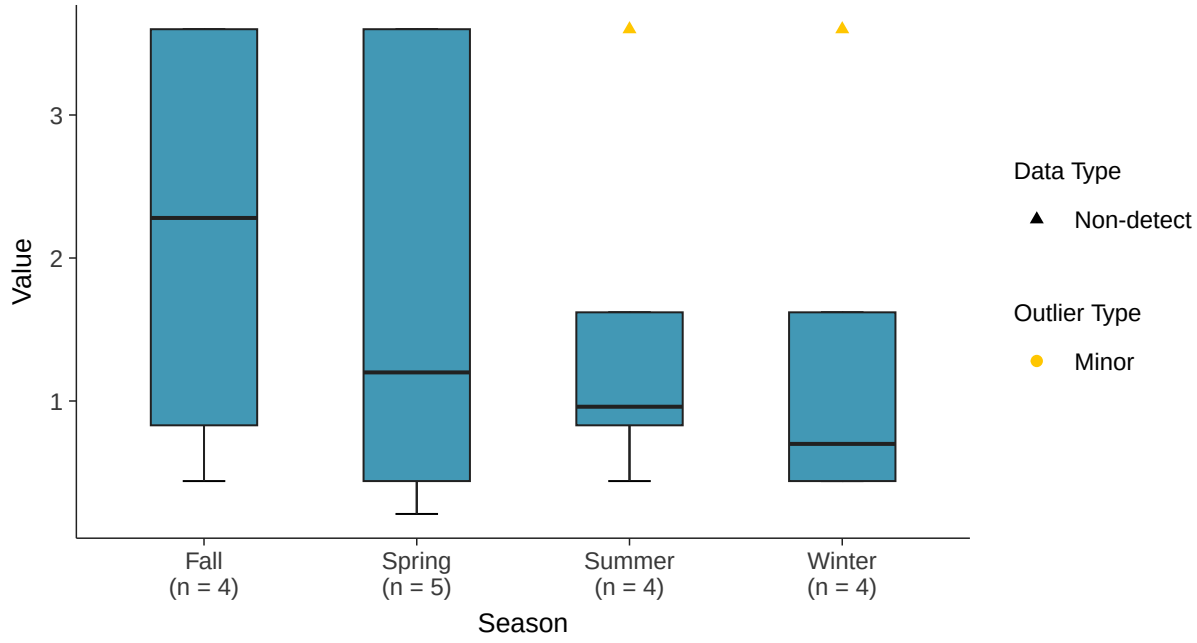
Boxplot

Cobalt, MW-11D (ug/L)



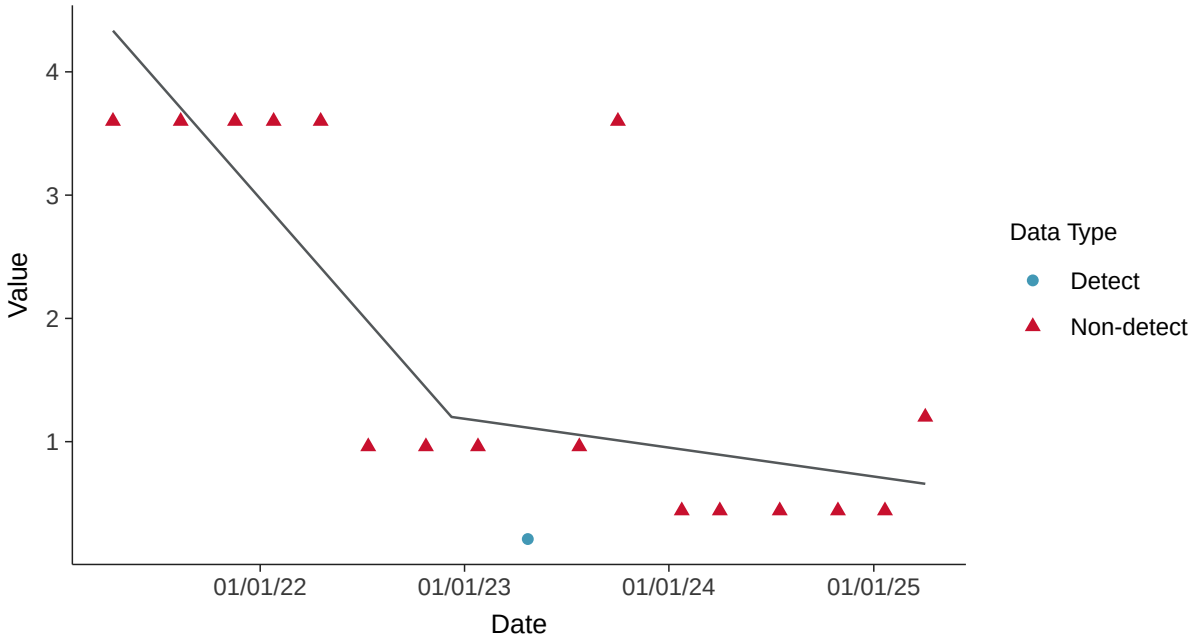
Boxplot by Season

Cobalt, MW-11D (ug/L)



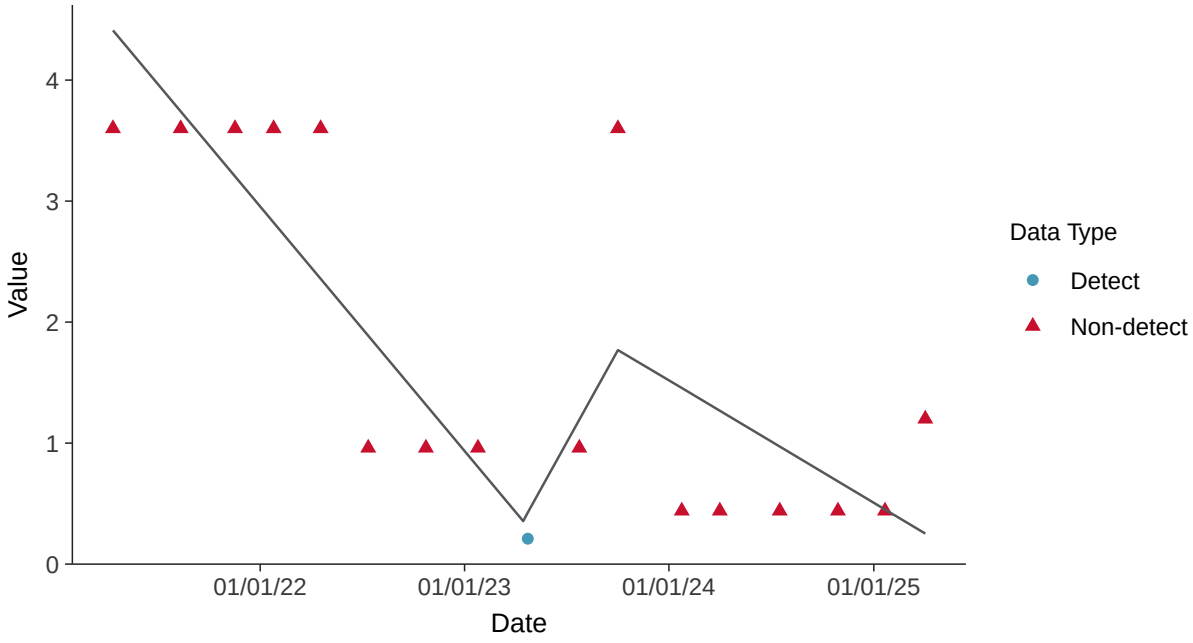
Trend Regression: Piecewise Linear-Linear

Cobalt, MW-11D (ug/L)



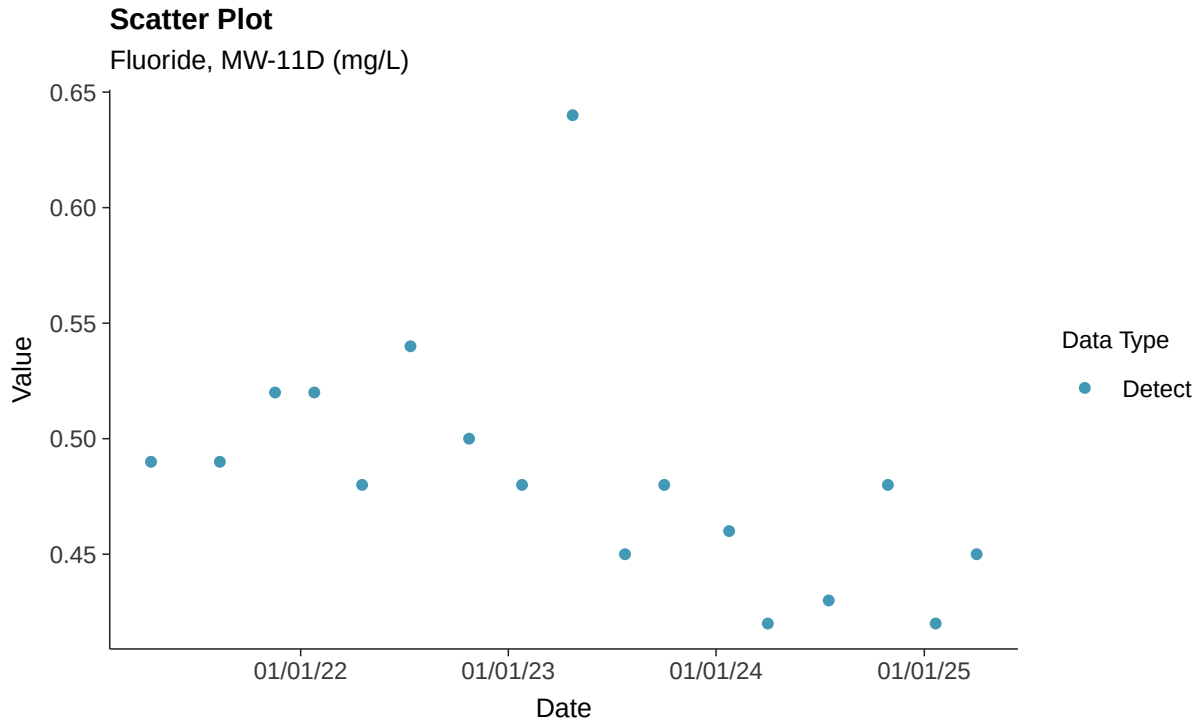
Trend Regression: Piecewise Linear-Linear-Linear

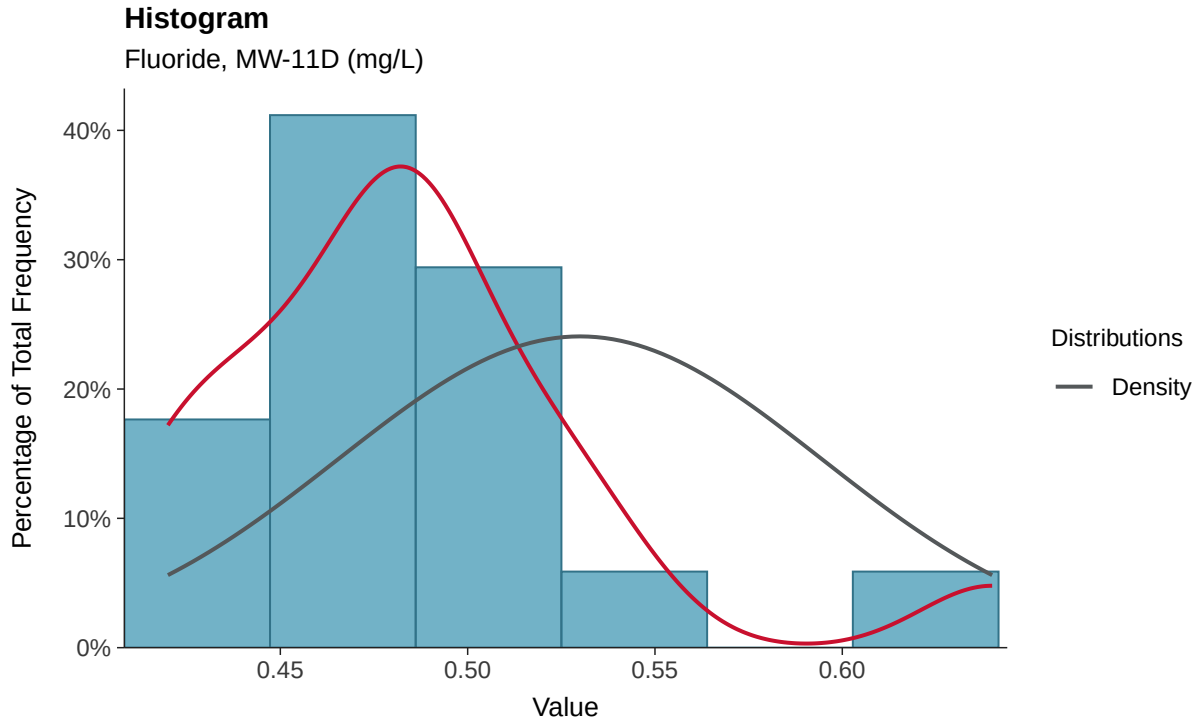
Cobalt, MW-11D (ug/L)



App. IV: Fluoride, MW-11D

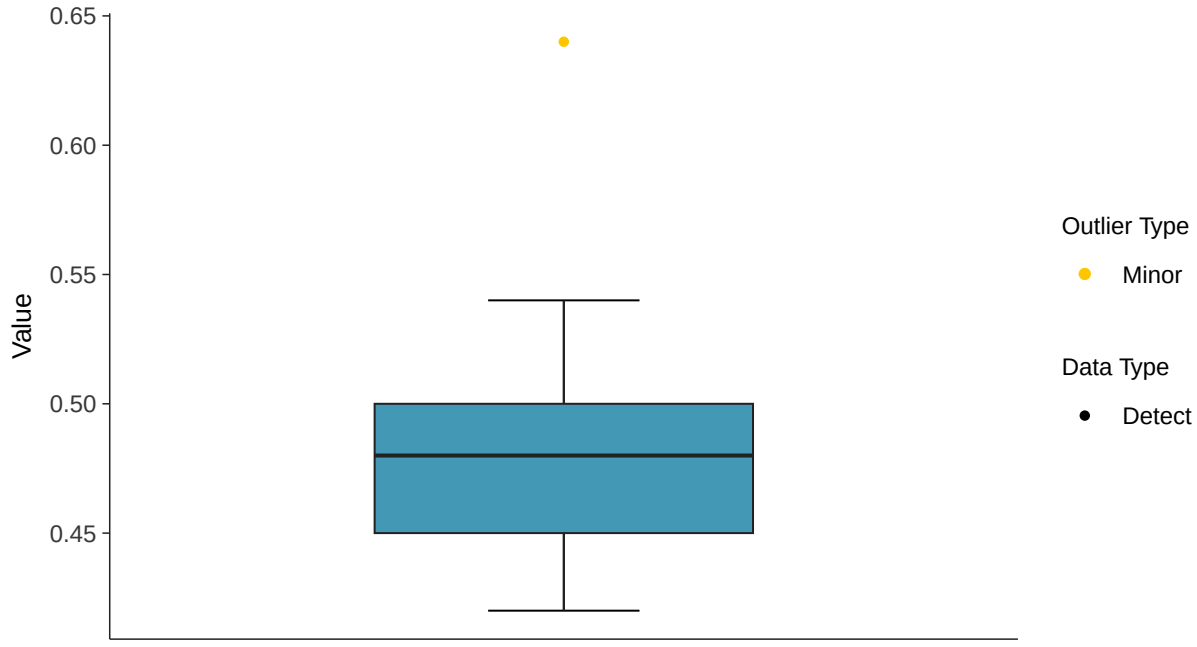
ID: 11_03_112





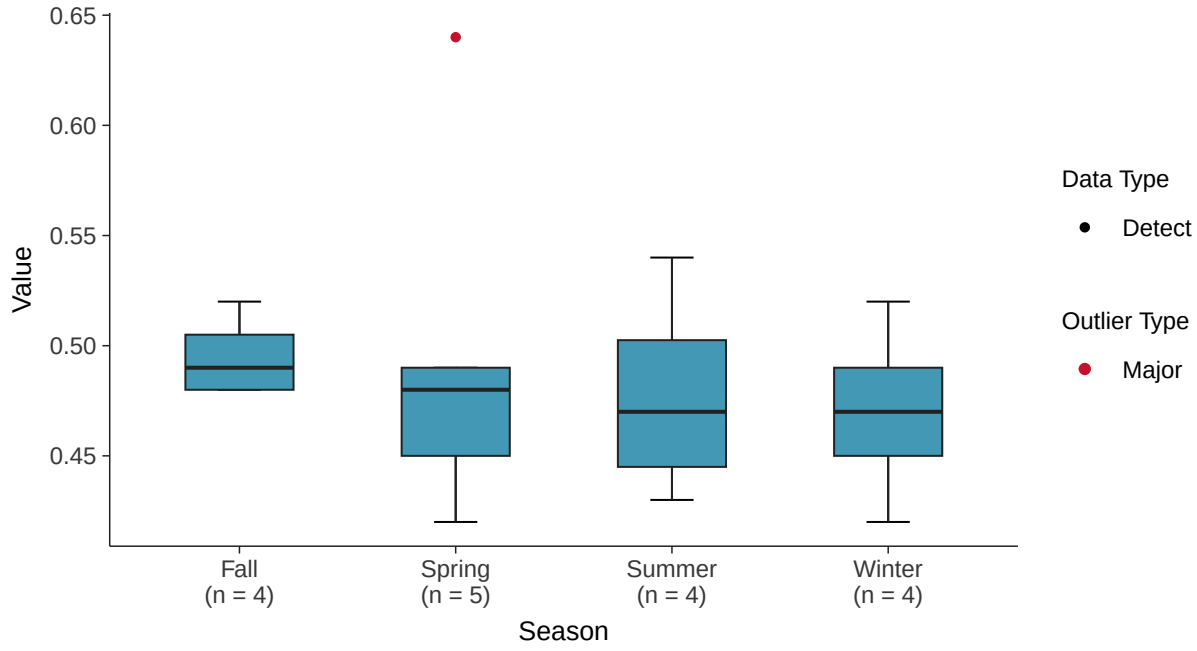
Boxplot

Fluoride, MW-11D (mg/L)



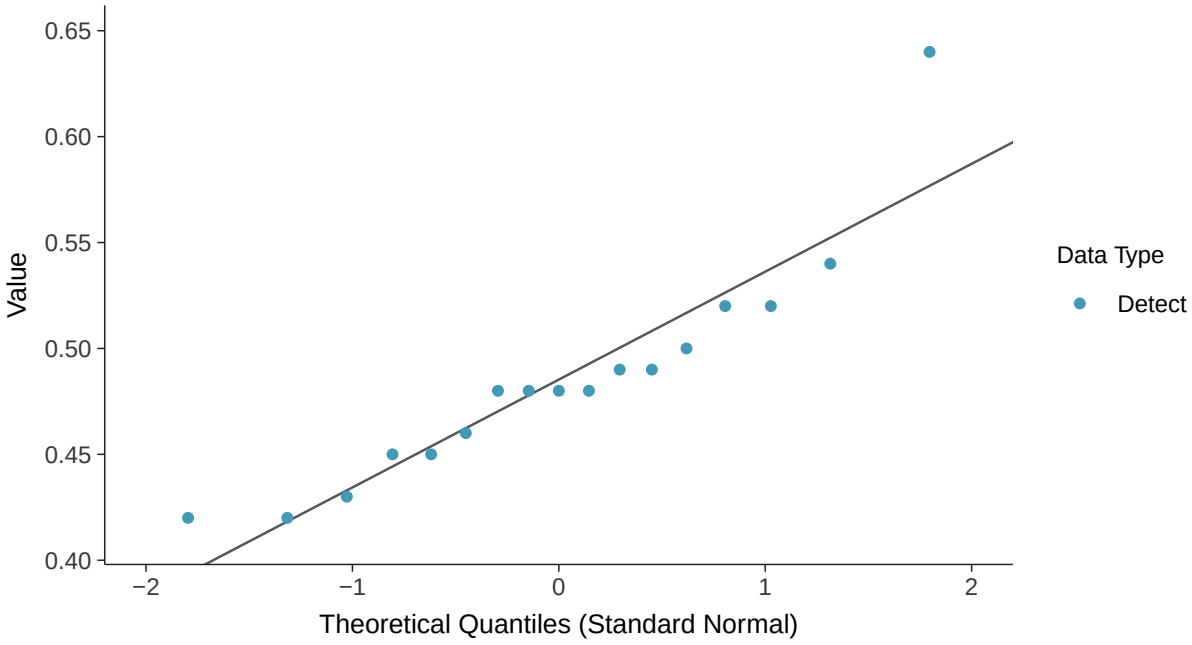
Boxplot by Season

Fluoride, MW-11D (mg/L)



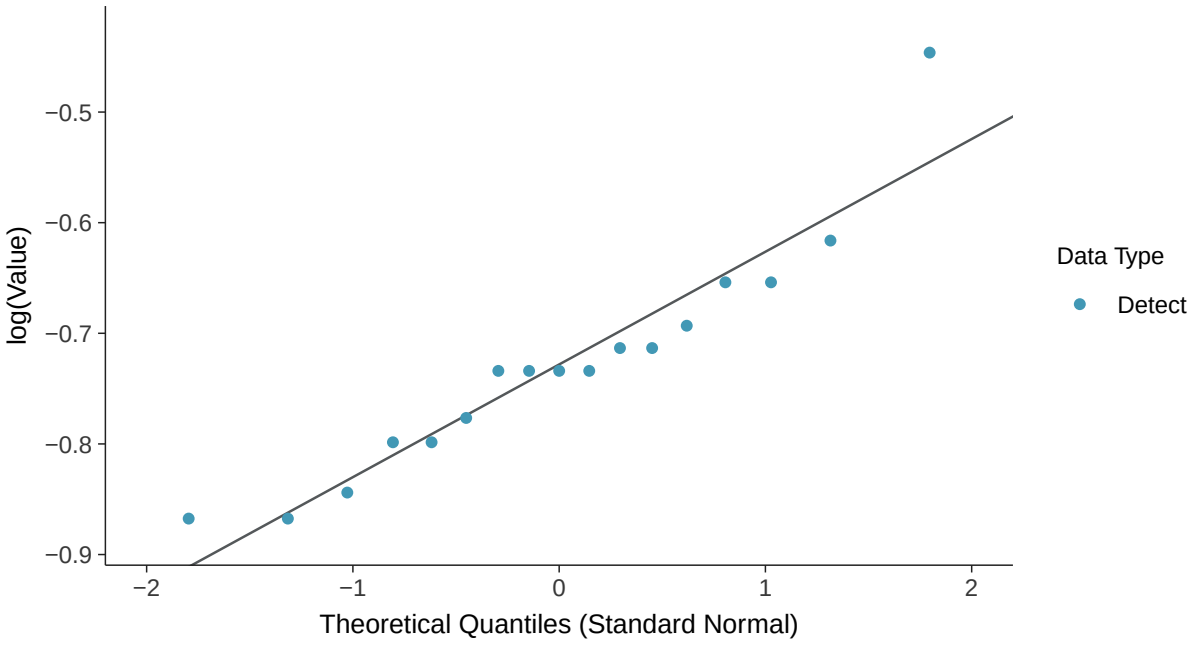
Normal Q-Q plot

Fluoride, MW-11D (mg/L)



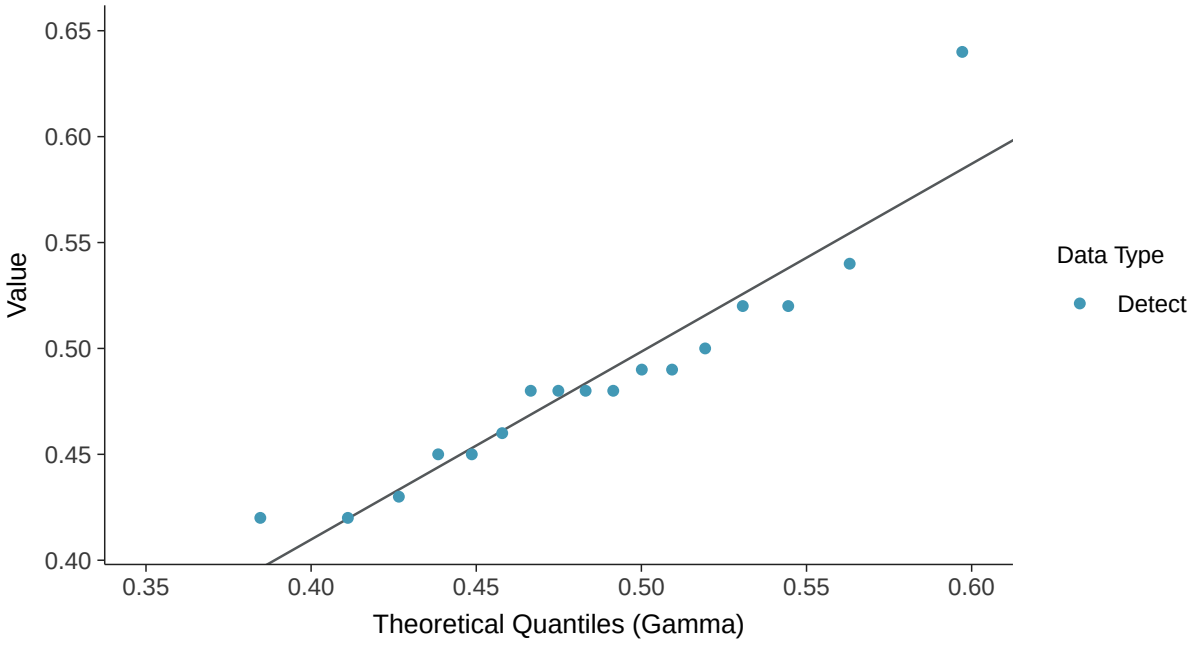
Lognormal Q-Q plot

Fluoride, MW-11D (mg/L)



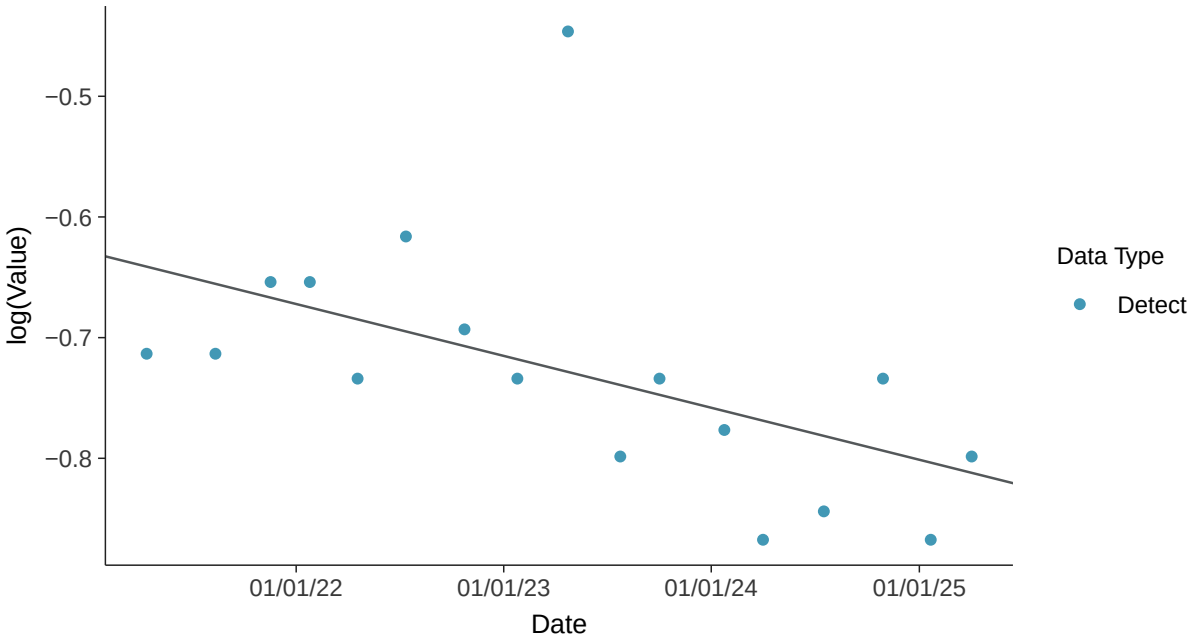
Gamma Q-Q plot

Fluoride, MW-11D (mg/L)



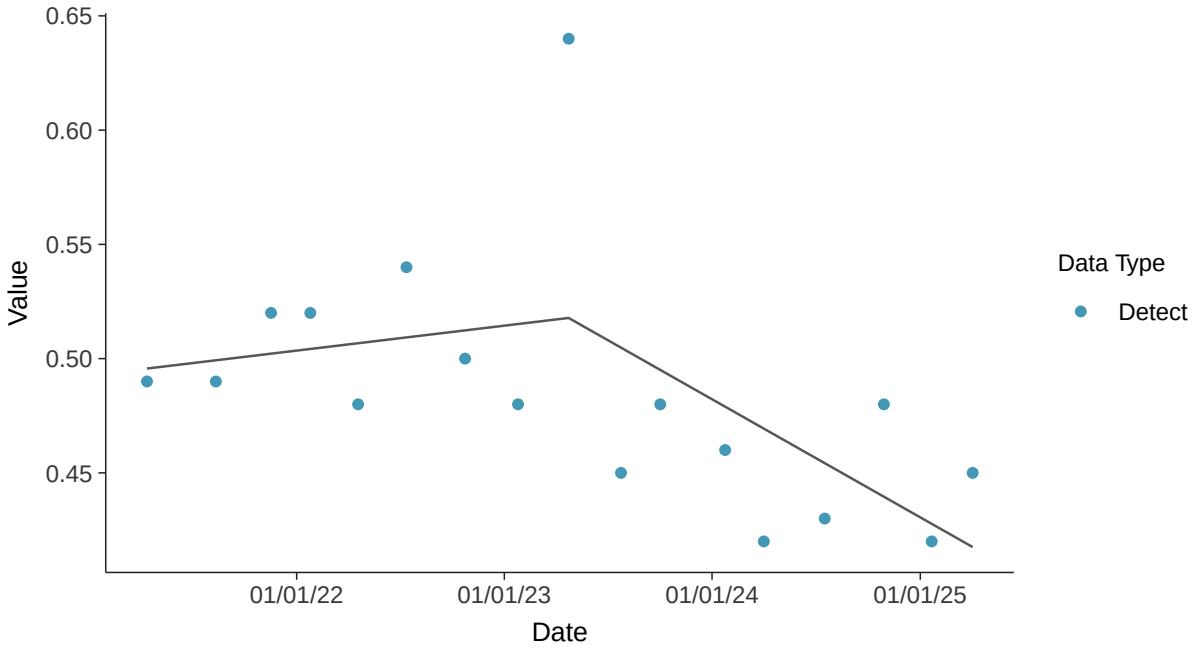
Trend Regression: Lognormal MLE

Fluoride, MW-11D (mg/L)



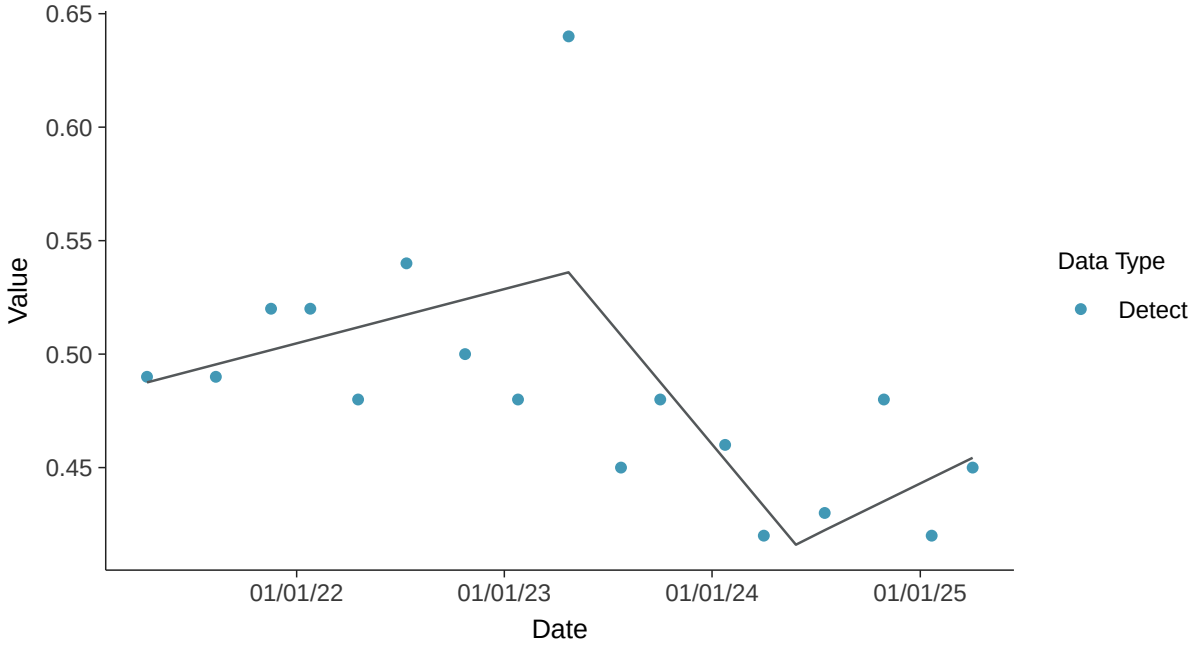
Trend Regression: Piecewise Linear-Linear

Fluoride, MW-11D (mg/L)



Trend Regression: Piecewise Linear-Linear-Linear

Fluoride, MW-11D (mg/L)

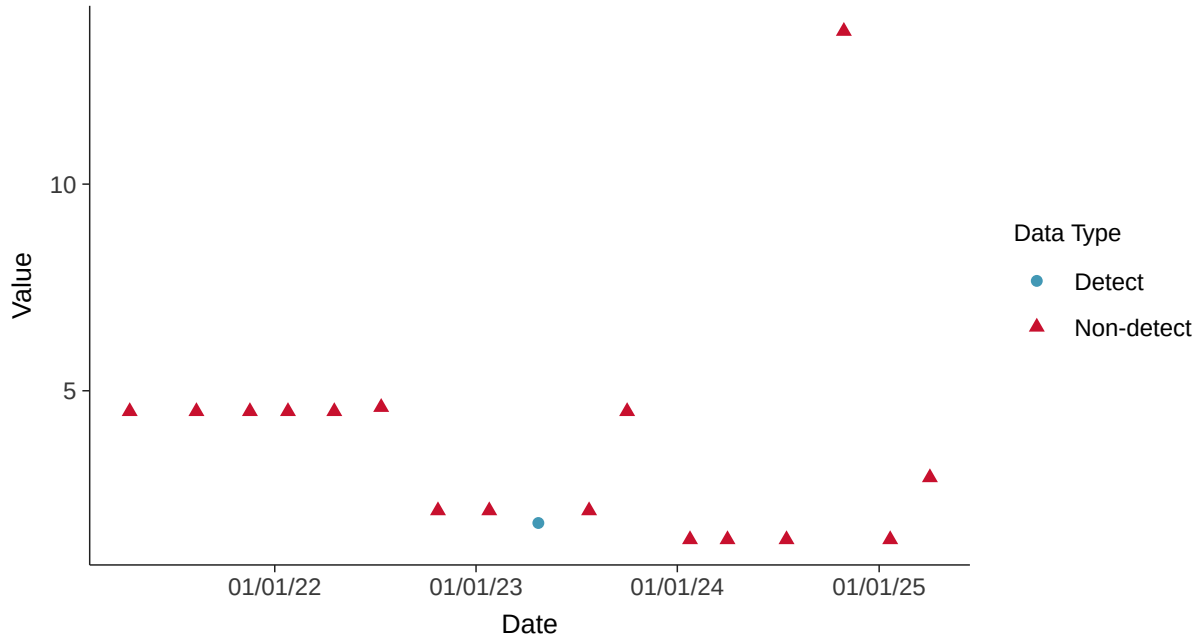


App. IV: Lead, MW-11D

ID: 11_03_113

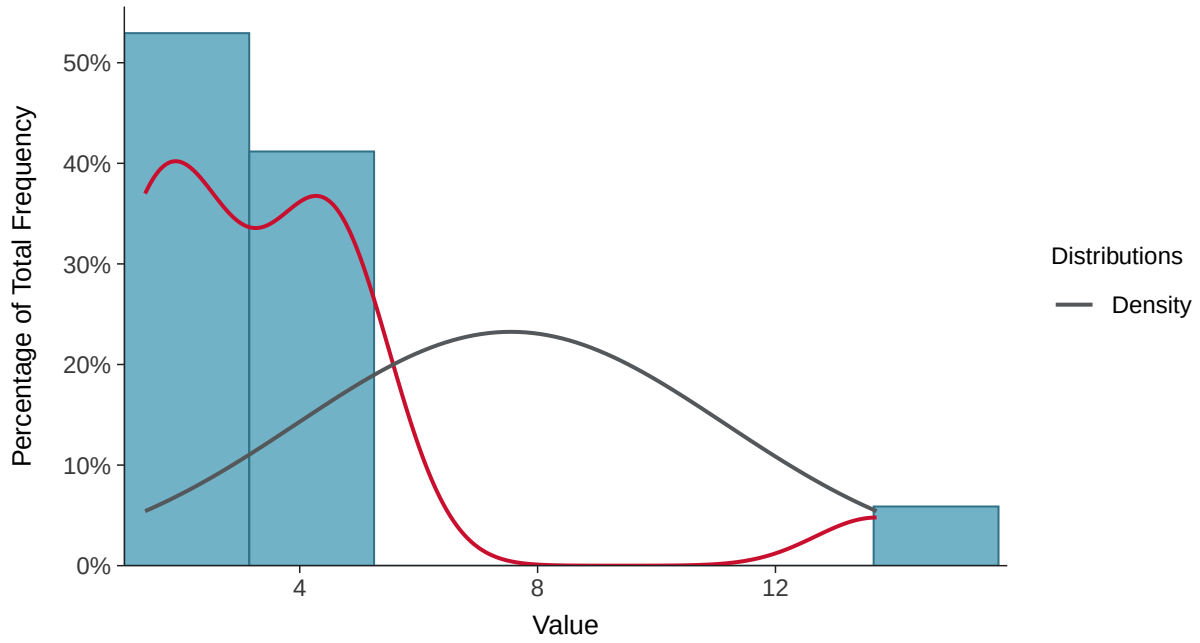
Scatter Plot

Lead, MW-11D (ug/L)



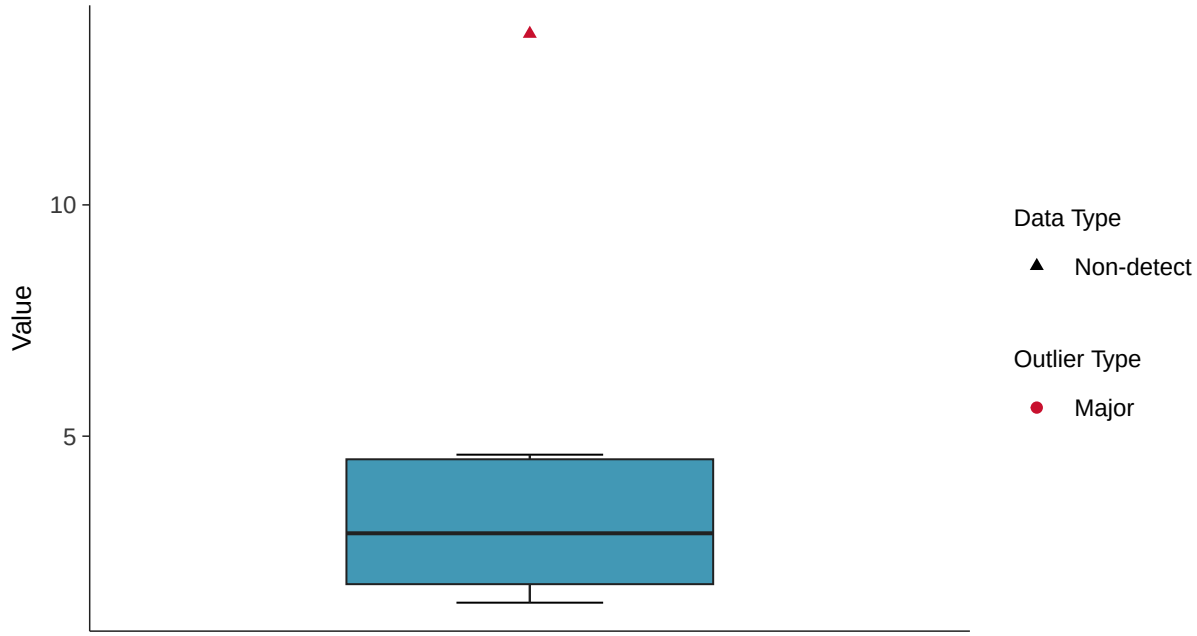
Histogram

Lead, MW-11D (ug/L)



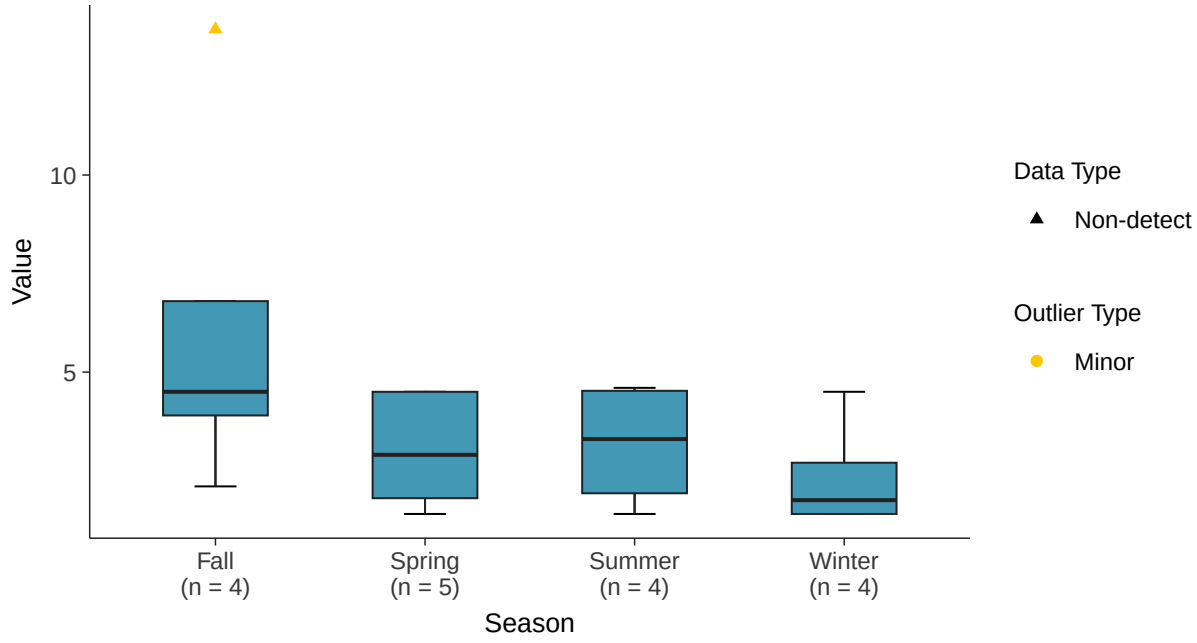
Boxplot

Lead, MW-11D (ug/L)



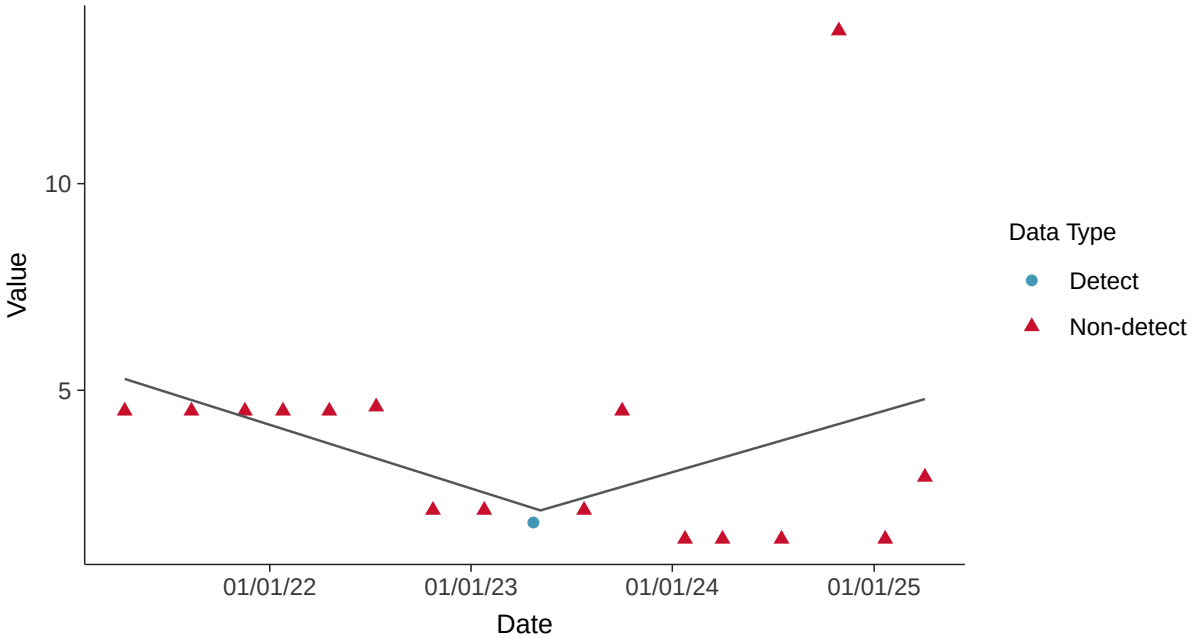
Boxplot by Season

Lead, MW-11D (ug/L)



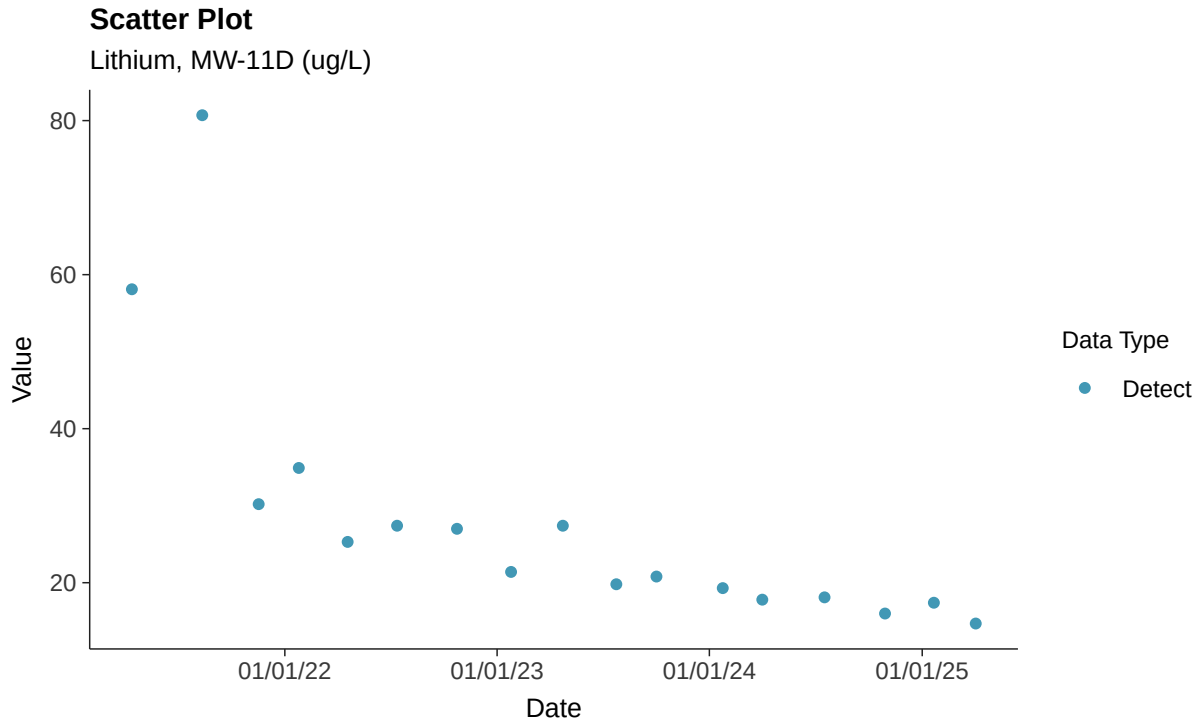
Trend Regression: Piecewise Linear-Linear

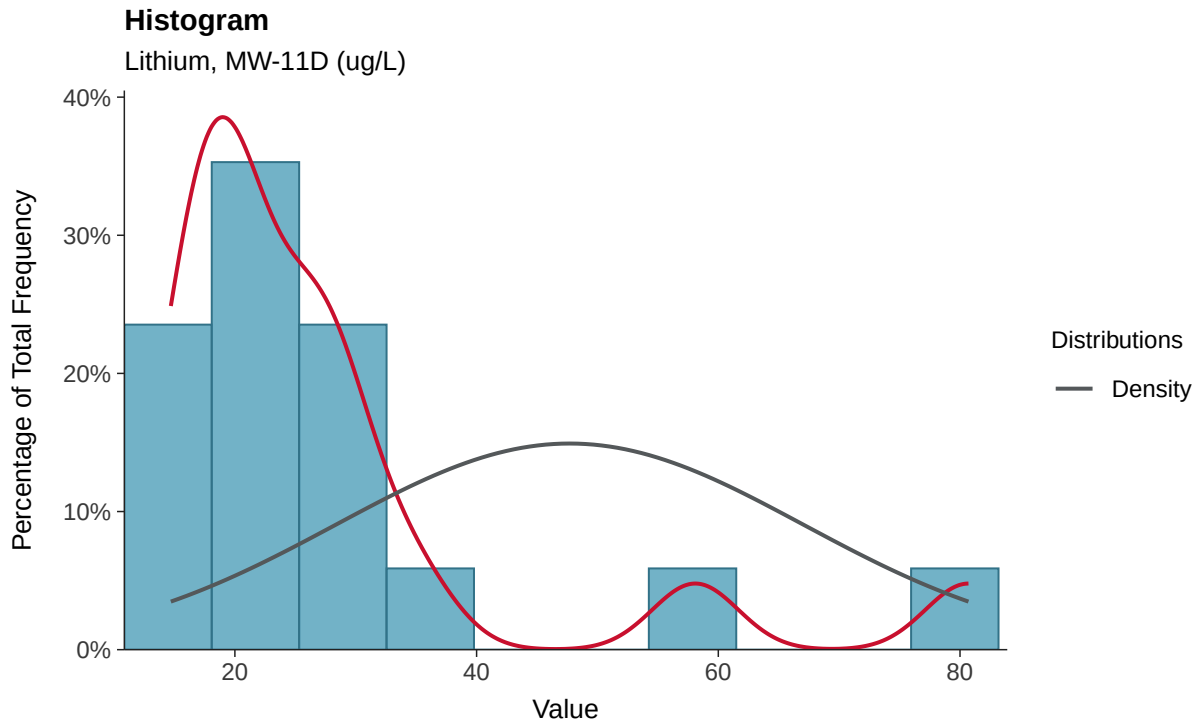
Lead, MW-11D (ug/L)



App. IV: Lithium, MW-11D

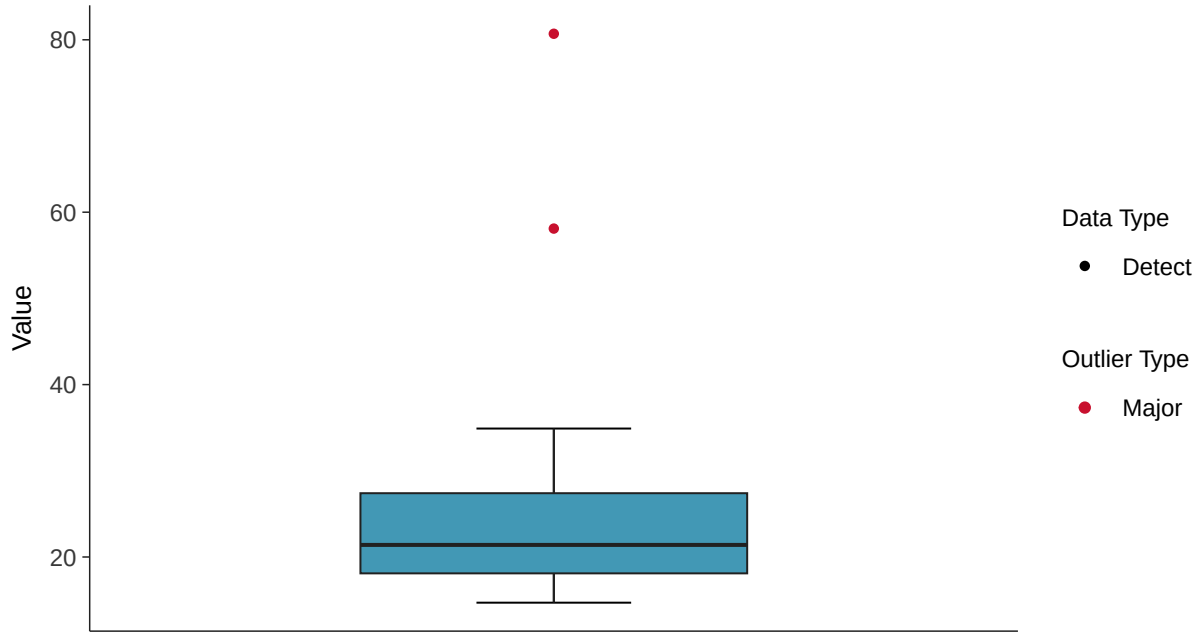
ID: 11_03_114





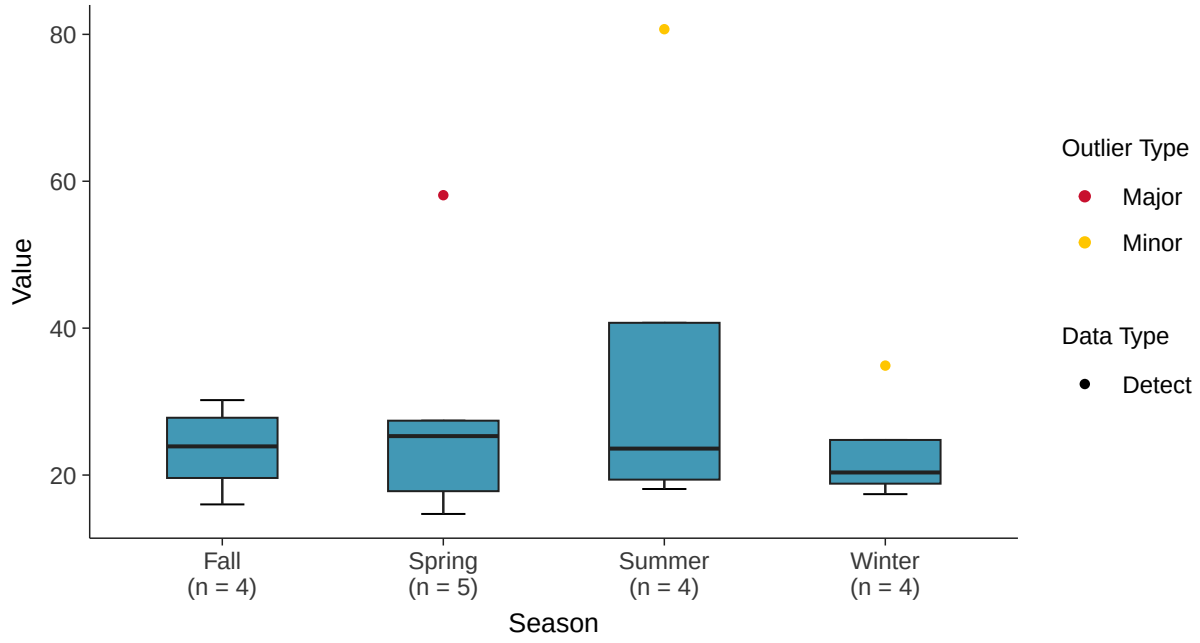
Boxplot

Lithium, MW-11D (ug/L)



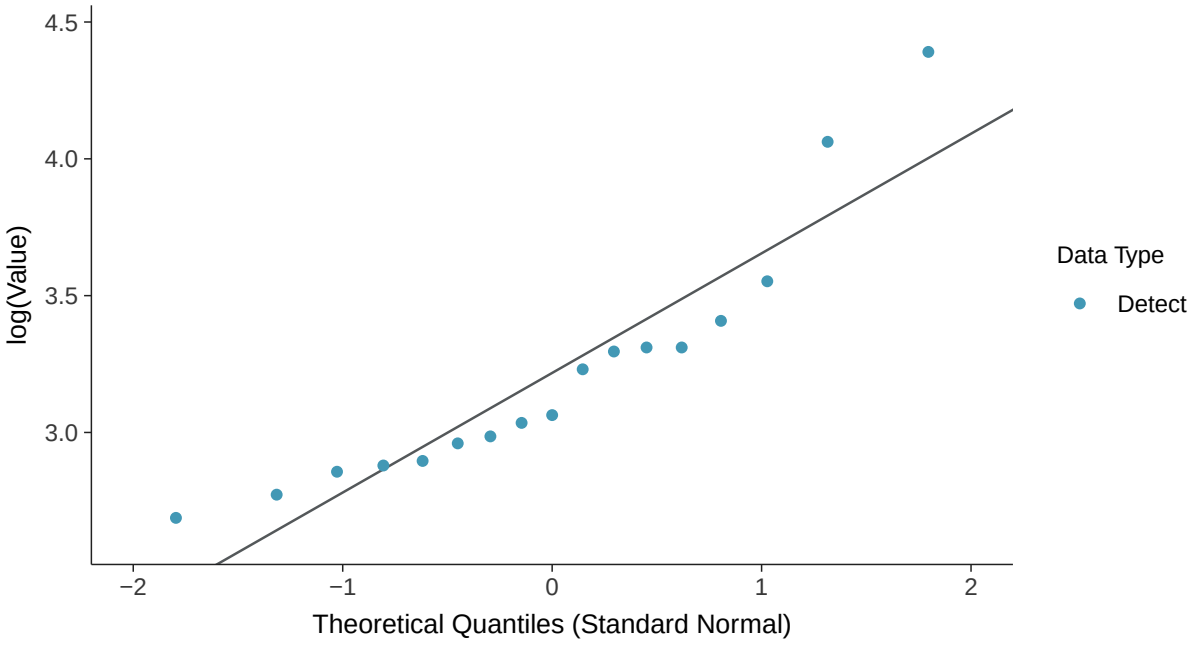
Boxplot by Season

Lithium, MW-11D (ug/L)



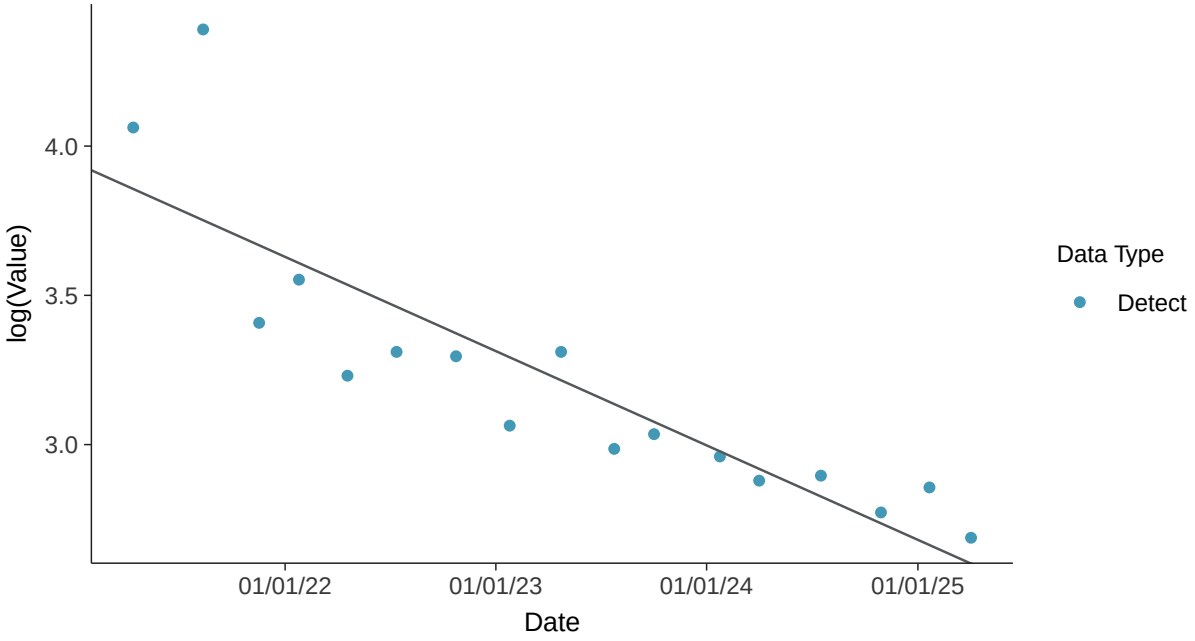
Lognormal Q-Q plot

Lithium, MW-11D (ug/L)



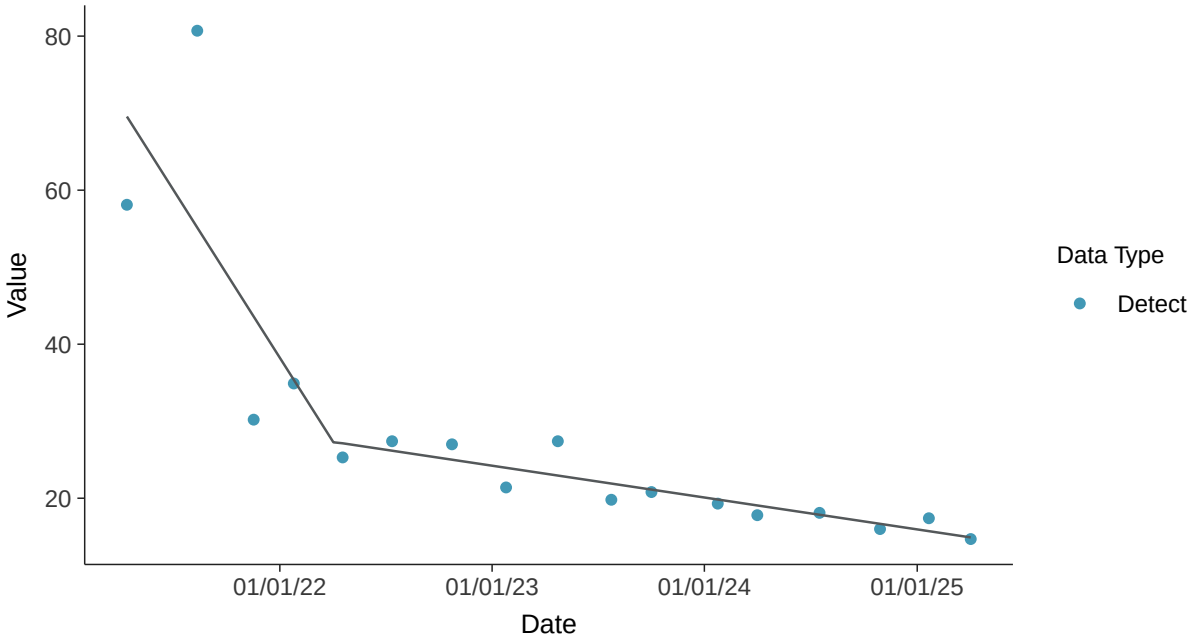
Trend Regression: Lognormal MLE

Lithium, MW-11D (ug/L)



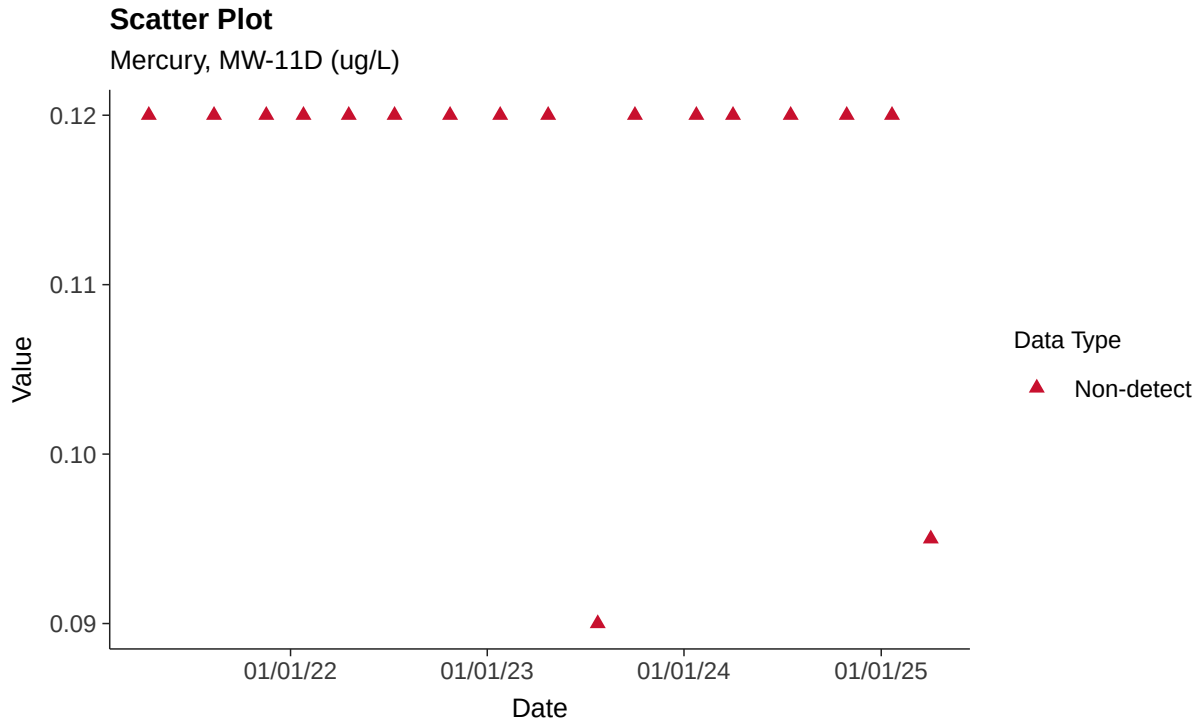
Trend Regression: Piecewise Linear-Linear

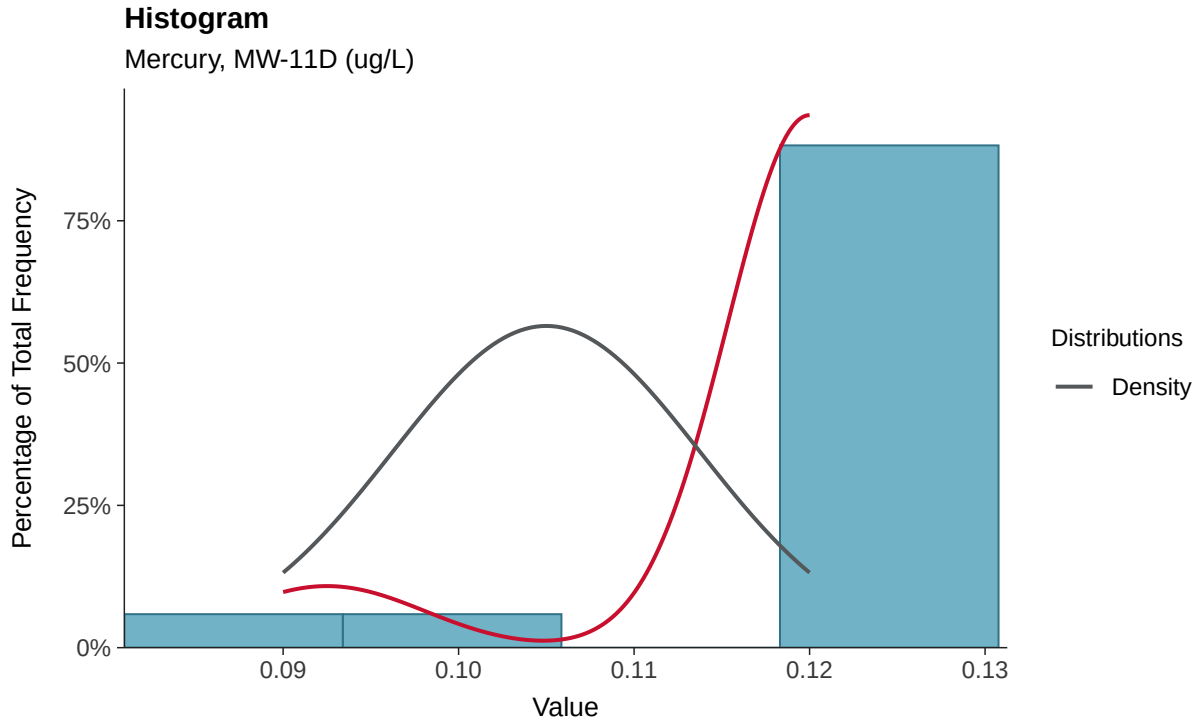
Lithium, MW-11D (ug/L)



App. IV: Mercury, MW-11D

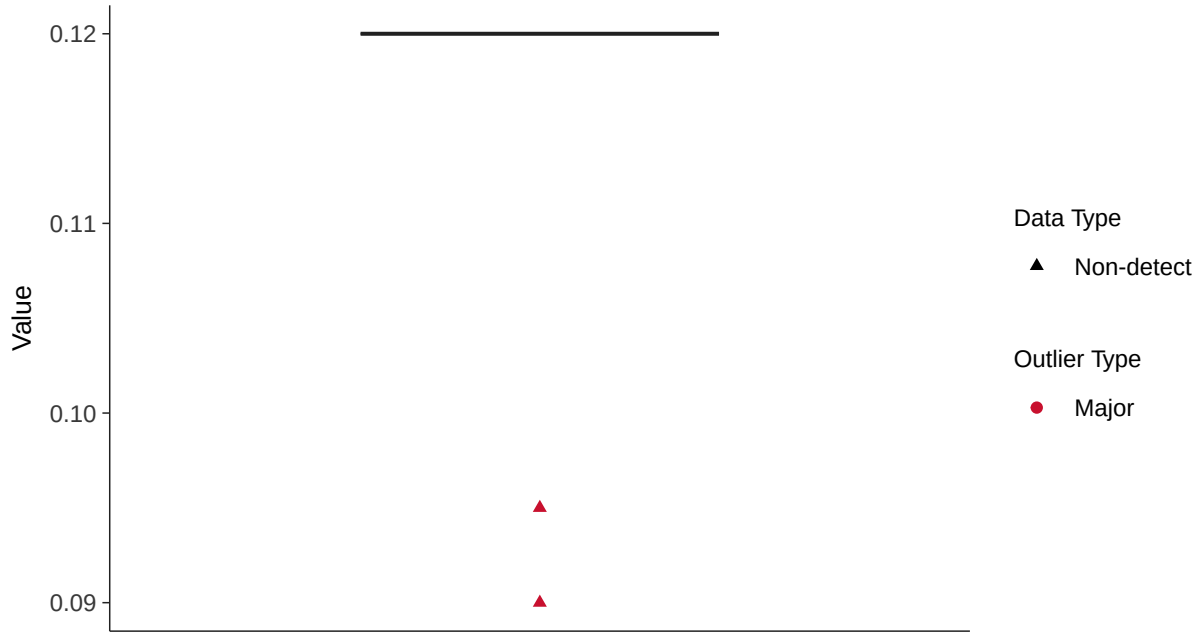
ID: 11_03_115





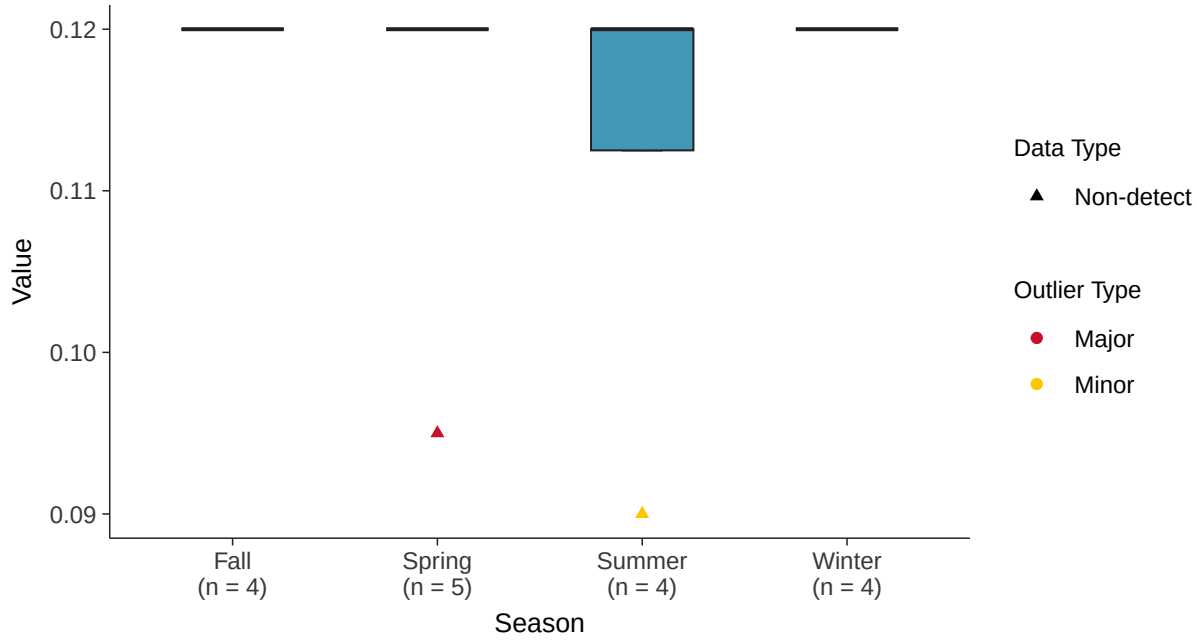
Boxplot

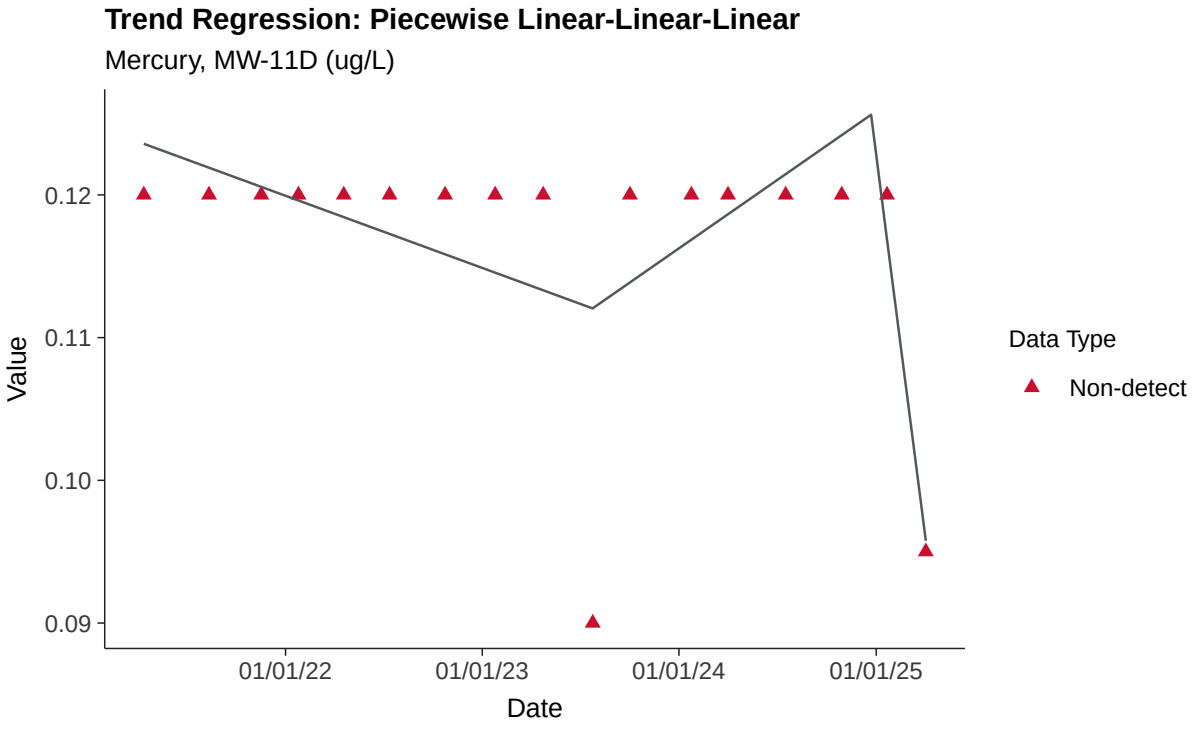
Mercury, MW-11D (ug/L)



Boxplot by Season

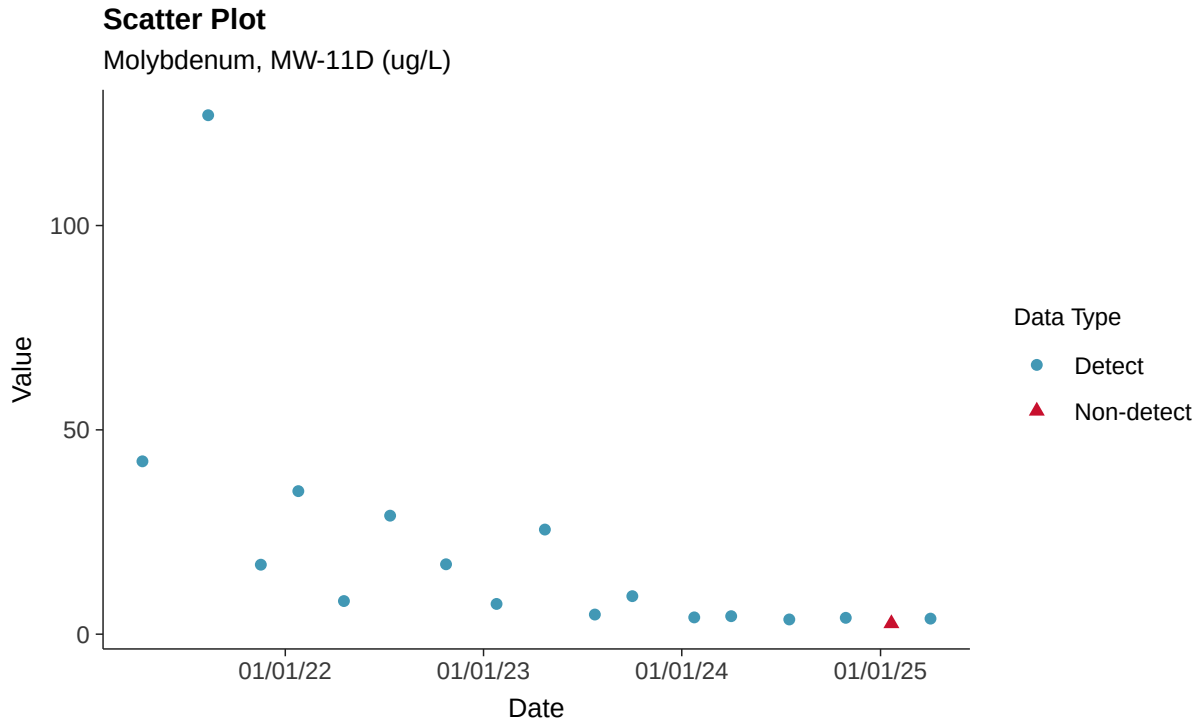
Mercury, MW-11D (ug/L)

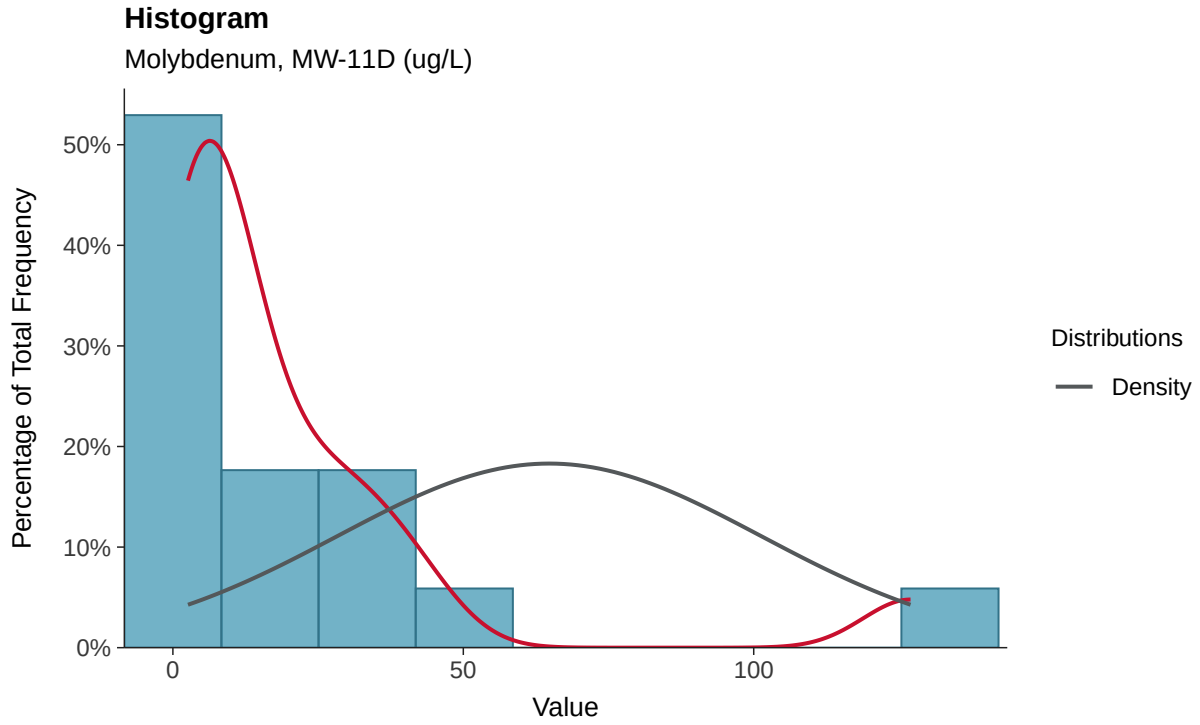



Trend Regression: Piecewise Linear-Linear-Linear
Mercury, MW-11D (ug/L)
Value
0.12
0.11
0.10
0.09
01/01/22
01/01/23
01/01/24
01/01/25
Date
Data Type
Non-detect

App. IV: Molybdenum, MW-11D

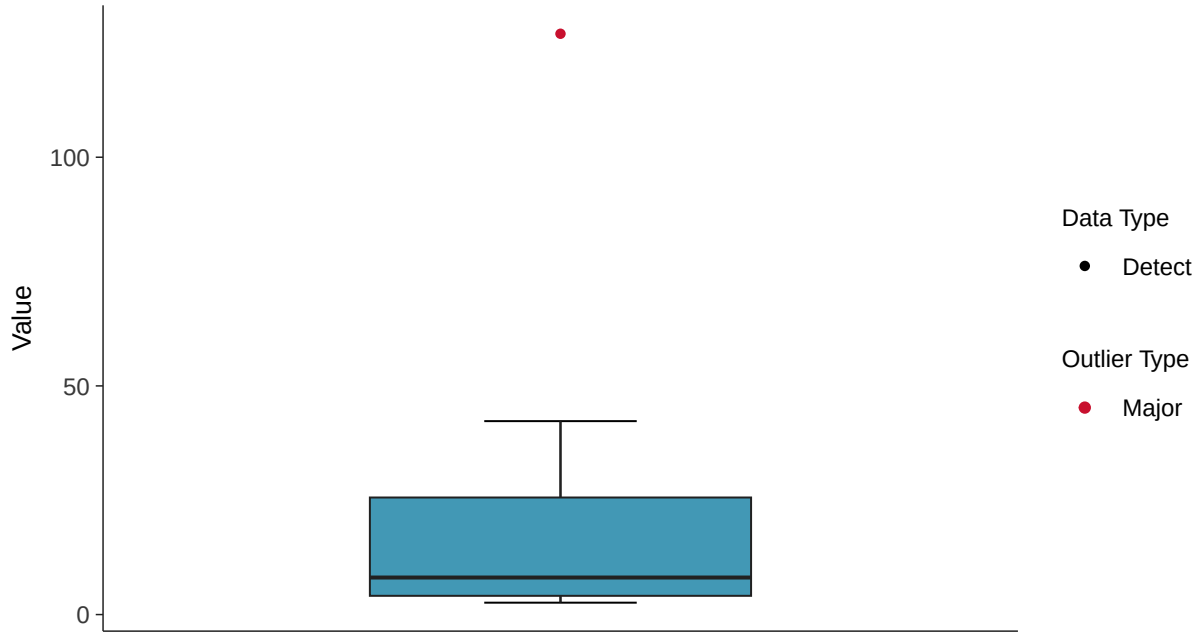
ID: 11_03_116





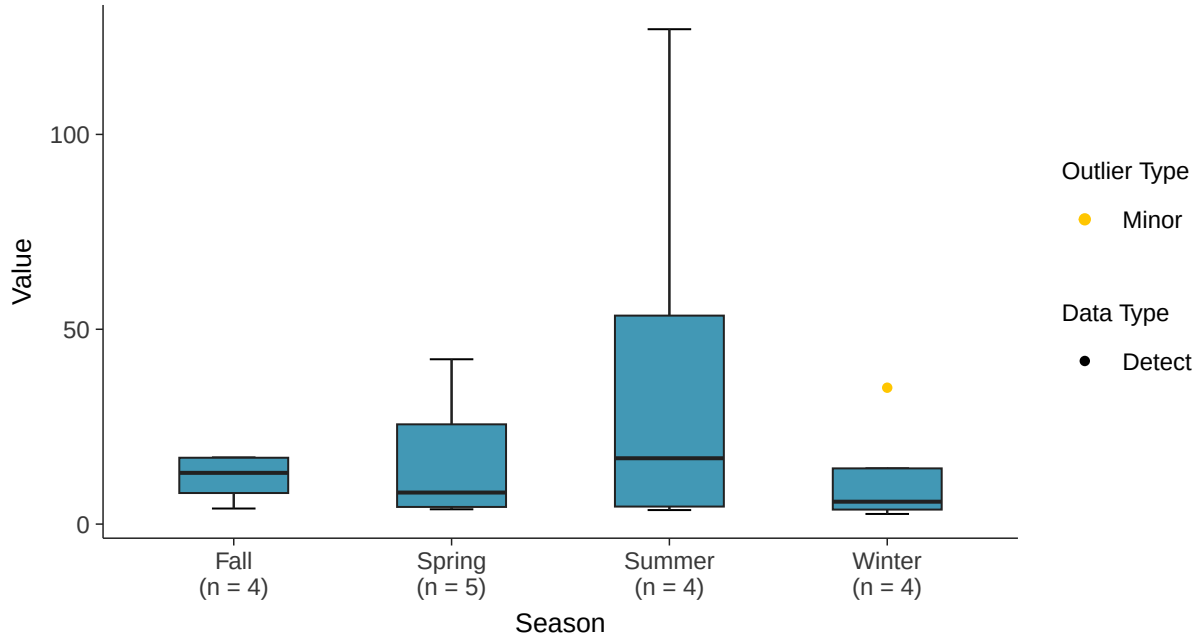
Boxplot

Molybdenum, MW-11D (ug/L)



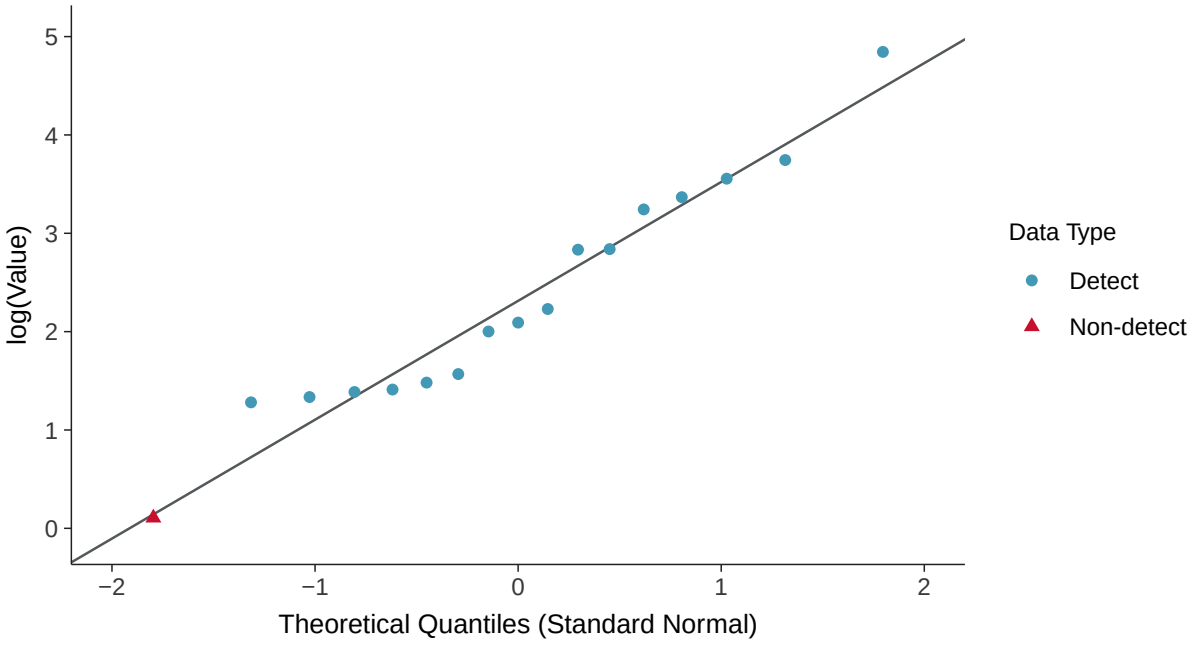
Boxplot by Season

Molybdenum, MW-11D (ug/L)



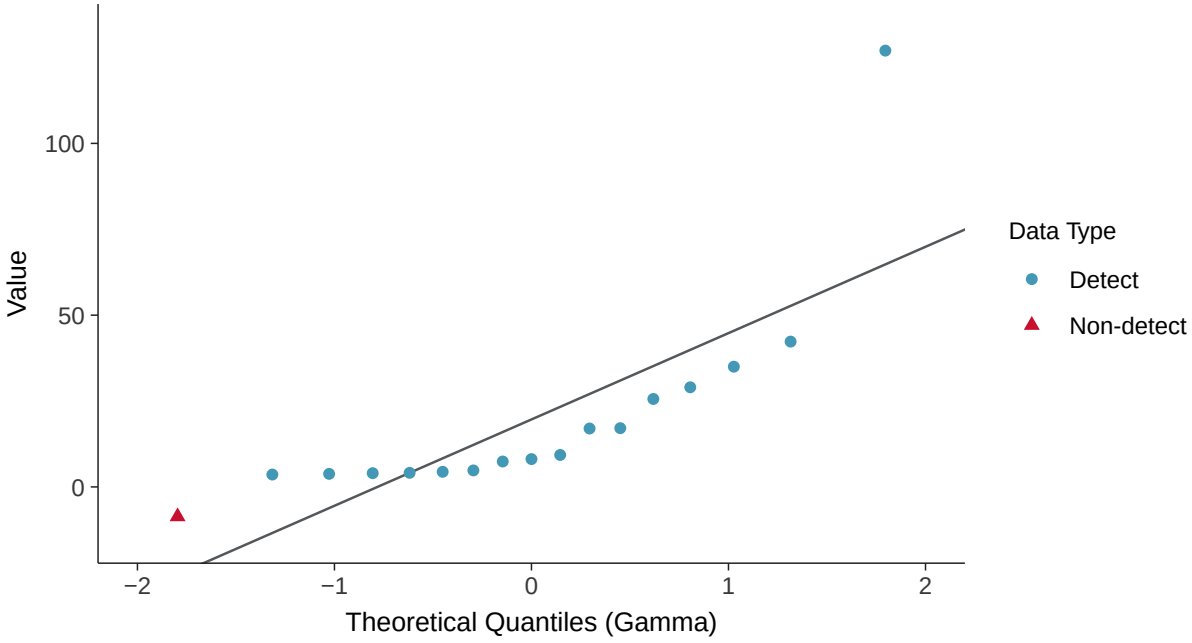
Lognormal Q-Q plot using ROS Imputed Estimates

Molybdenum, MW-11D (ug/L)



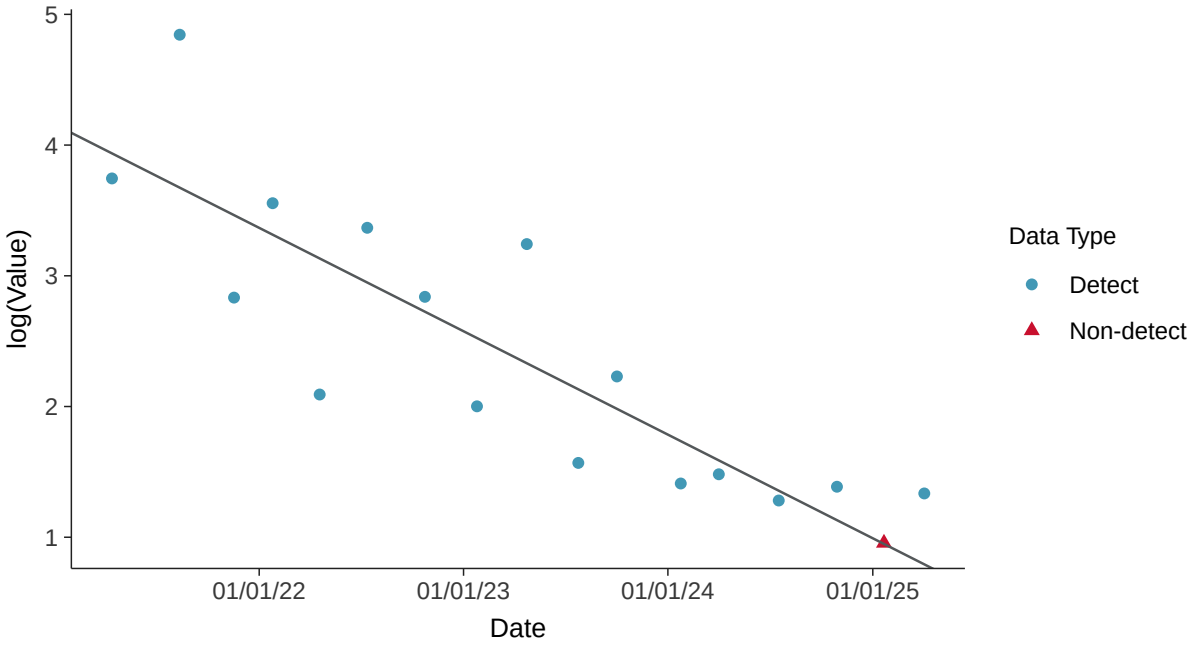
Gamma Q-Q plot using ROS Imputed Estimates

Molybdenum, MW-11D (ug/L)



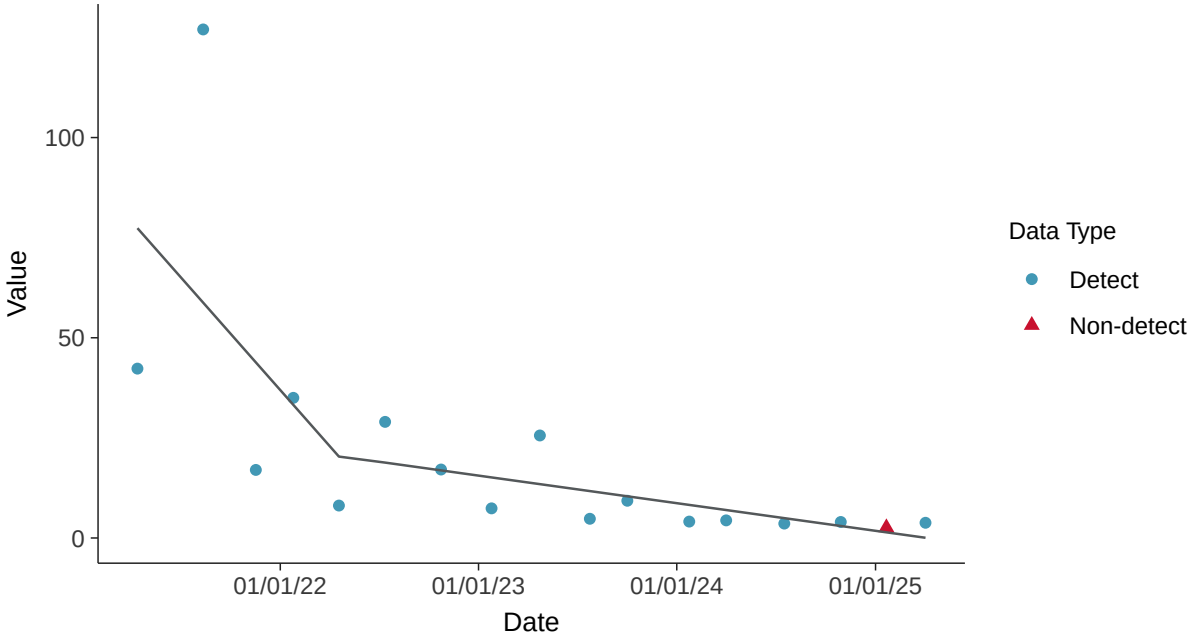
Trend Regression: Lognormal MLE

Molybdenum, MW-11D (ug/L)



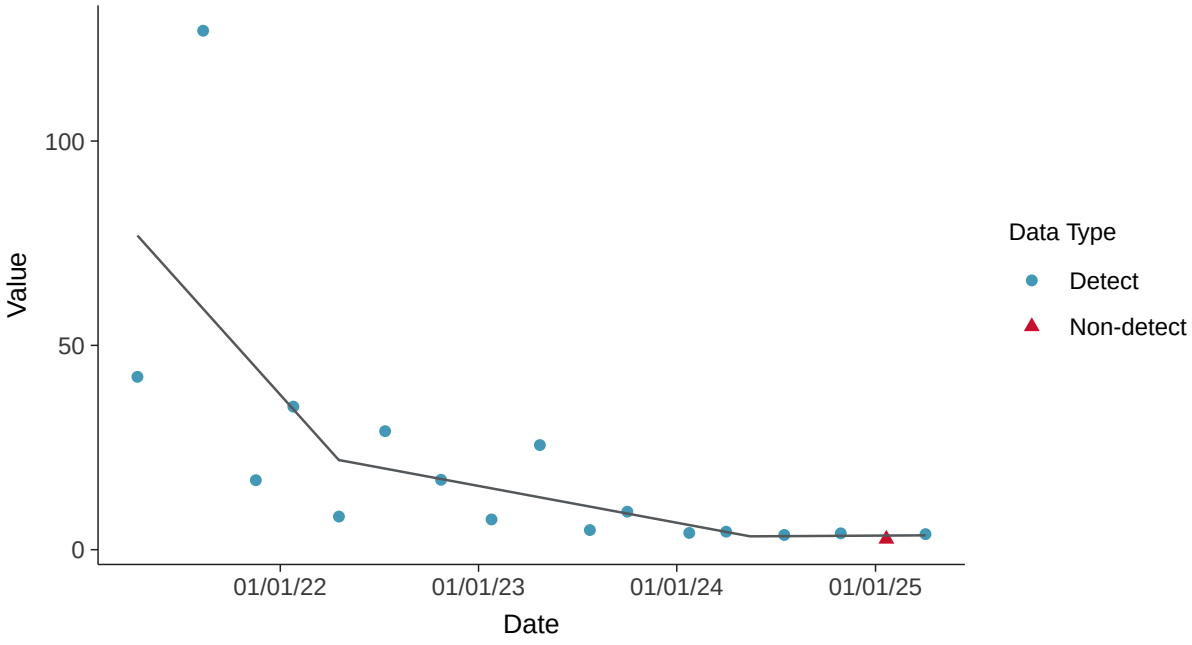
Trend Regression: Piecewise Linear-Linear

Molybdenum, MW-11D (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Molybdenum, MW-11D (ug/L)

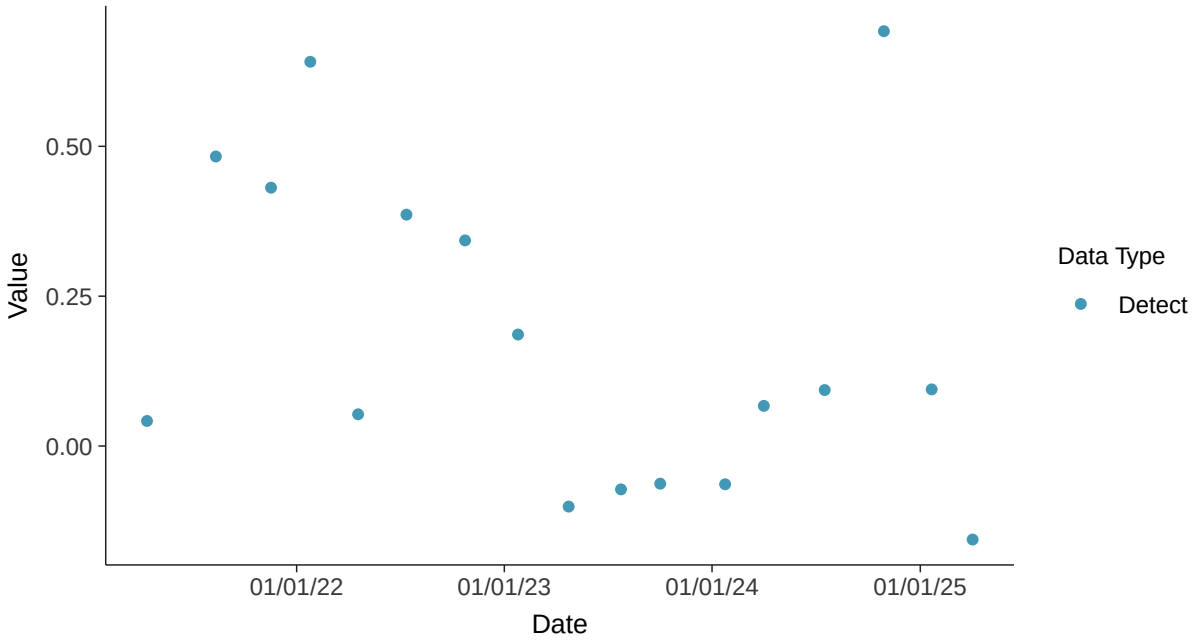


App. IV: Radium-226, MW-11D

ID: 11_03_119

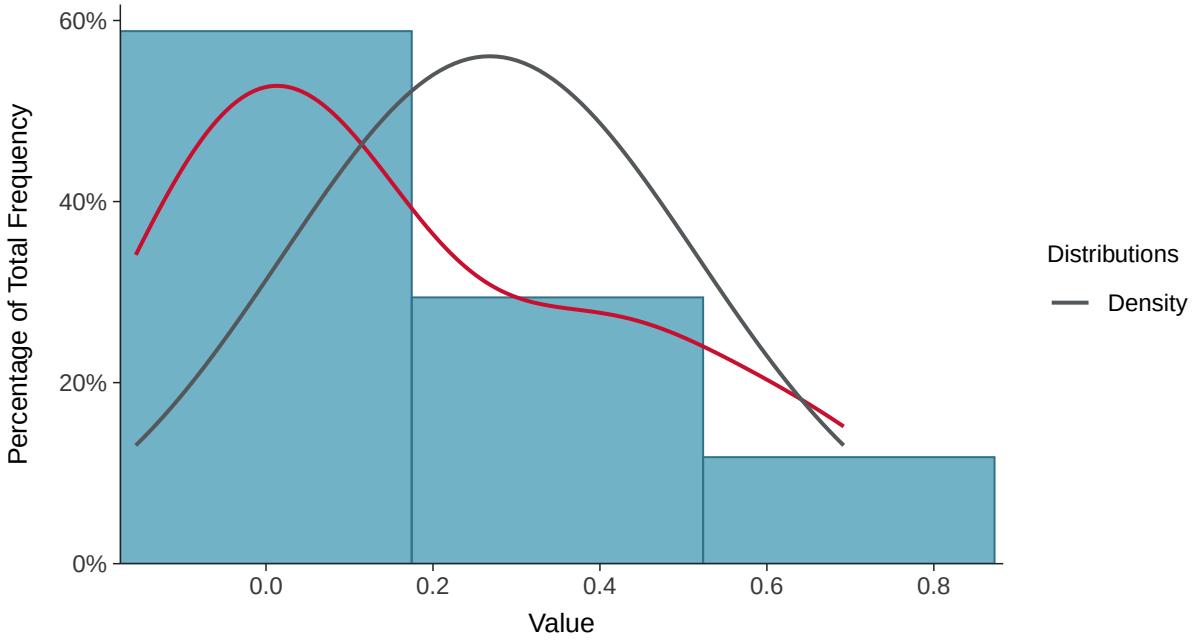
Scatter Plot

Radium-226, MW-11D (pCi/L)



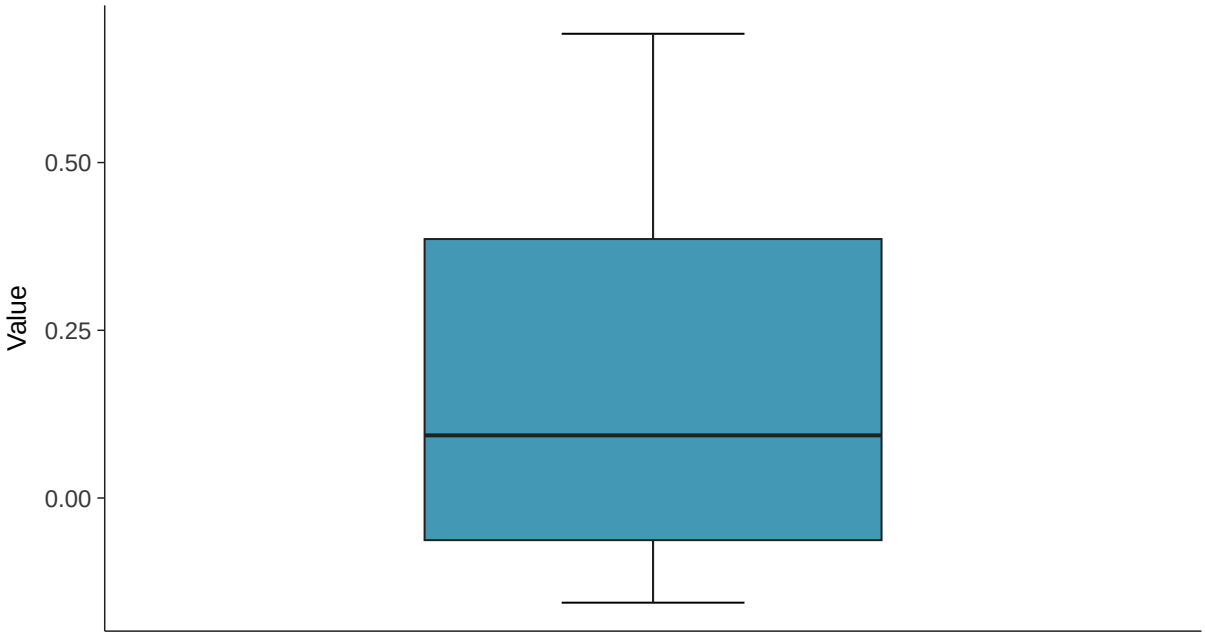
Histogram

Radium-226, MW-11D (pCi/L)



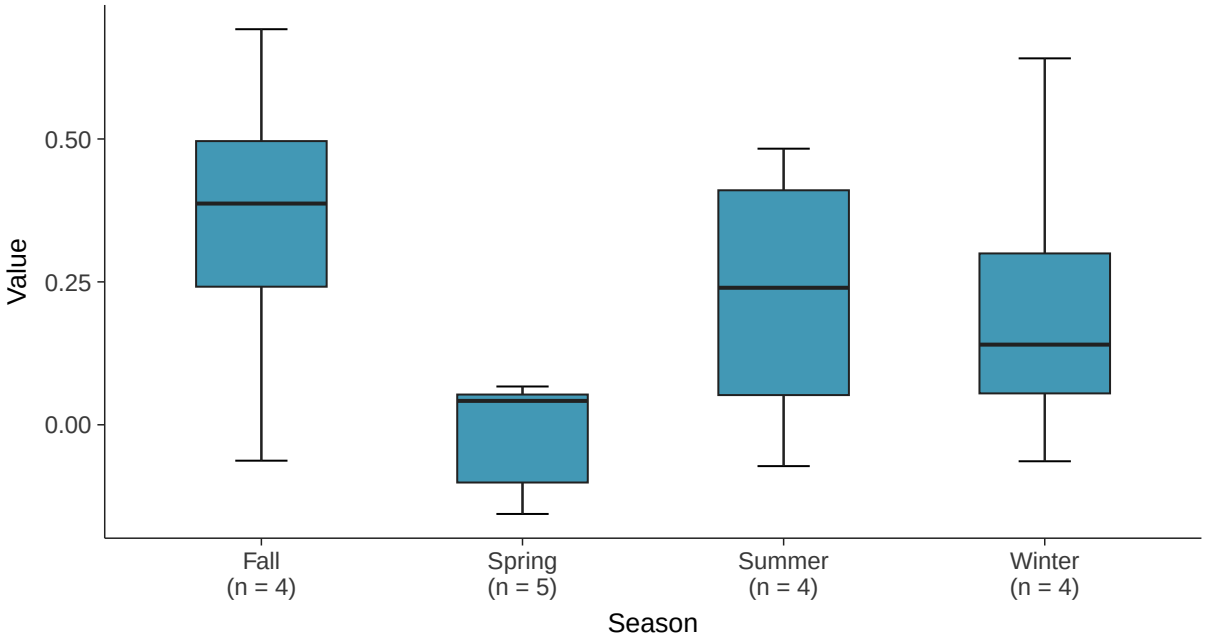
Boxplot

Radium-226, MW-11D (pCi/L)



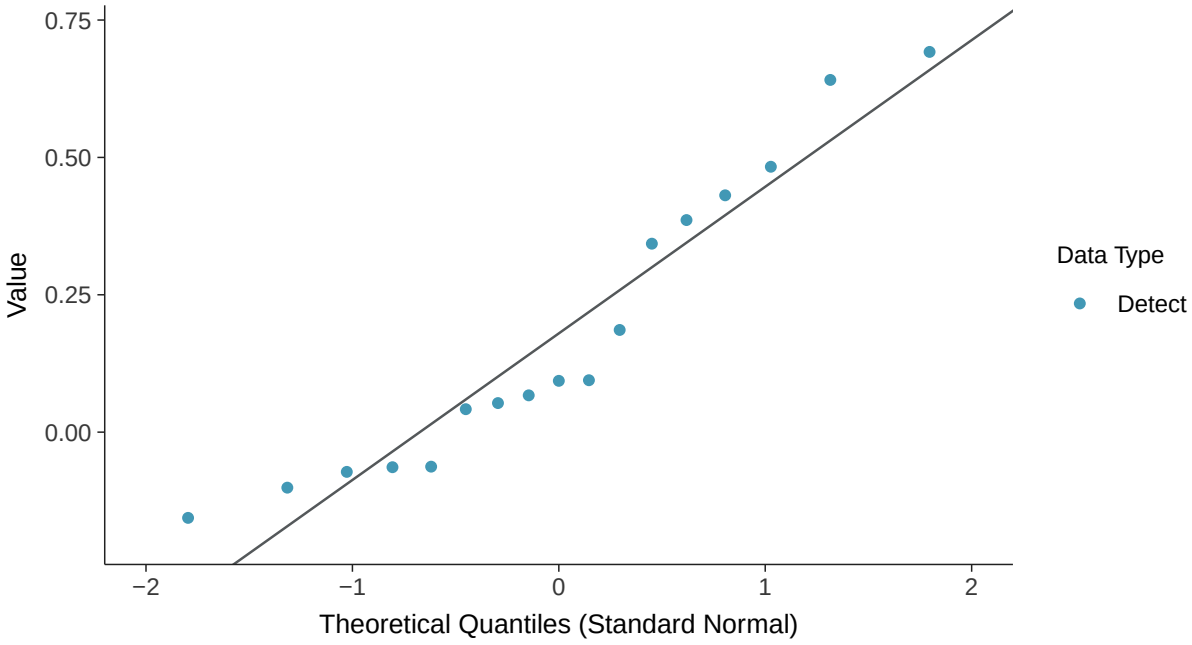
Boxplot by Season

Radium-226, MW-11D (pCi/L)



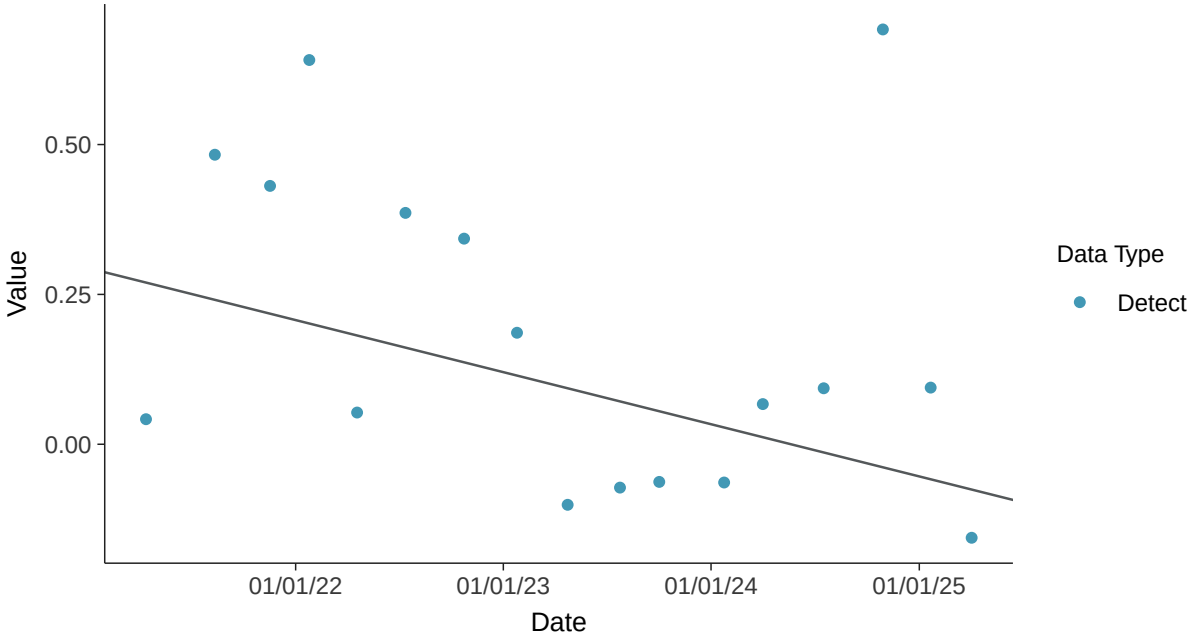
Normal Q-Q plot

Radium-226, MW-11D (pCi/L)



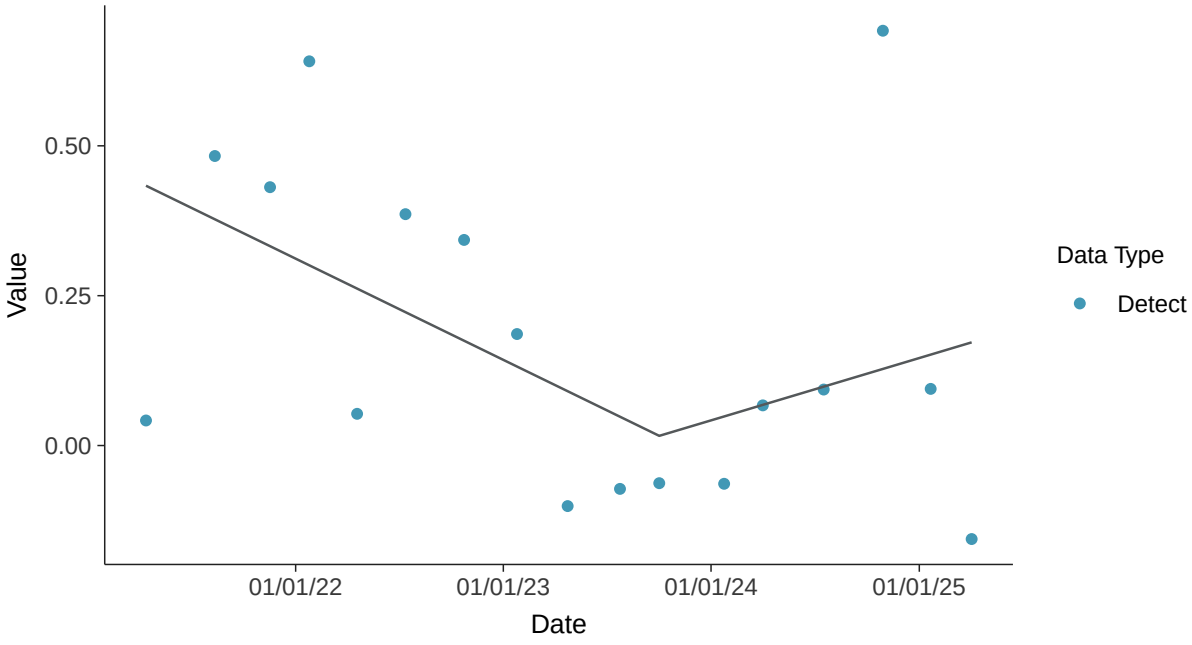
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Radium-226, MW-11D (pCi/L)



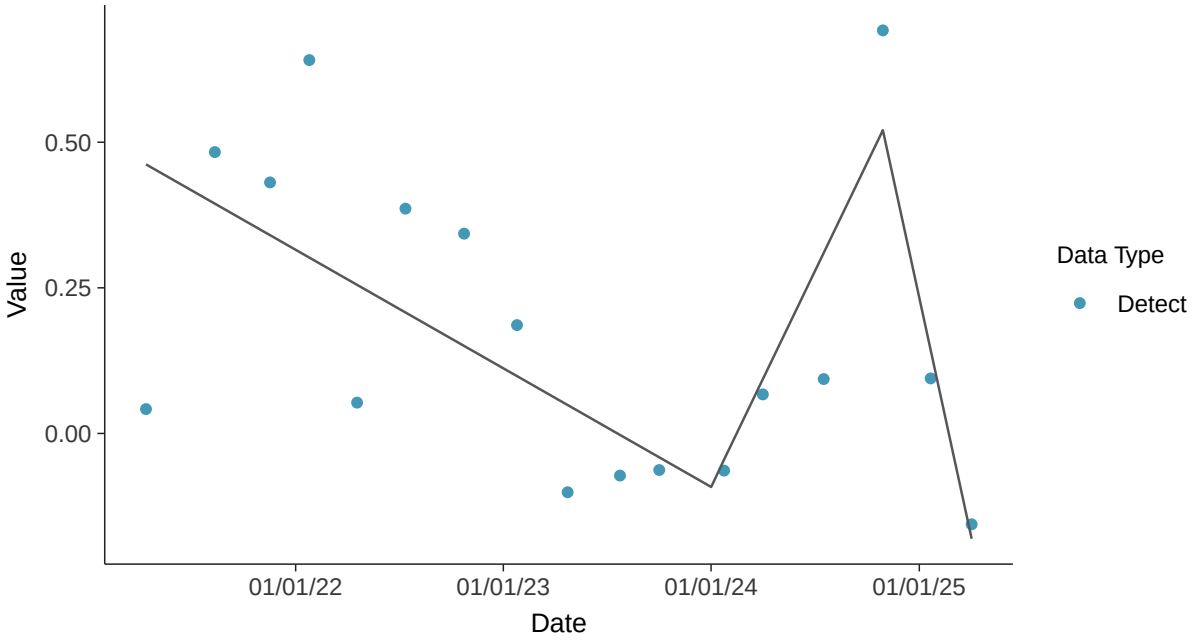
Trend Regression: Piecewise Linear-Linear

Radium-226, MW-11D (pCi/L)



Trend Regression: Piecewise Linear-Linear-Linear

Radium-226, MW-11D (pCi/L)

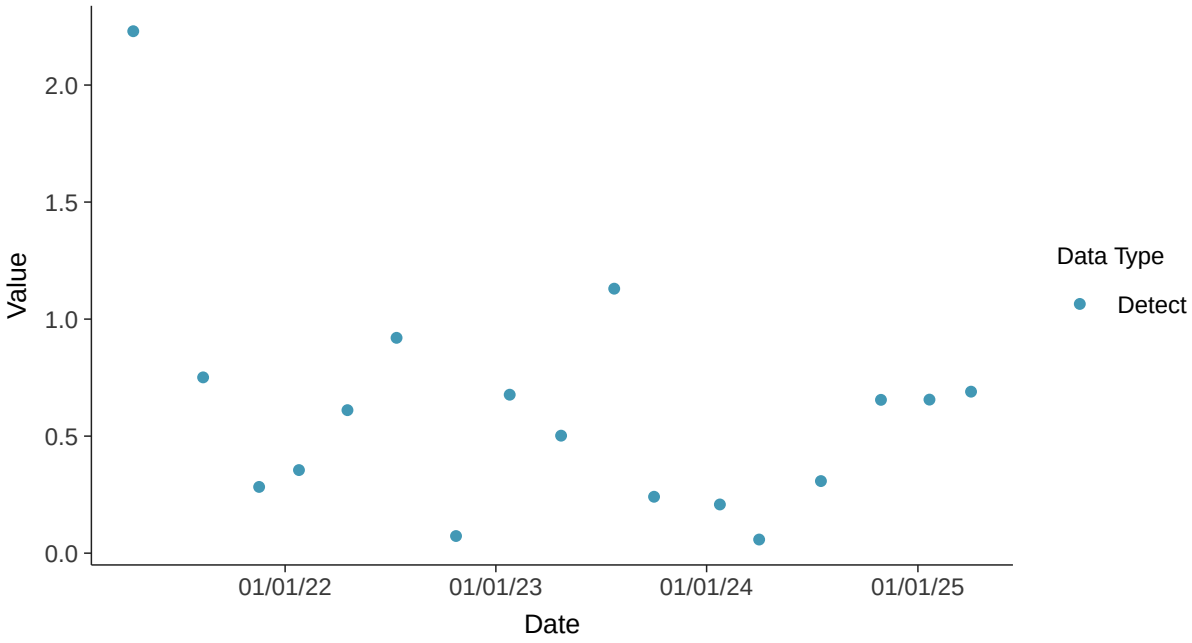


App. IV: Radium-228, MW-11D

ID: 11_03_120

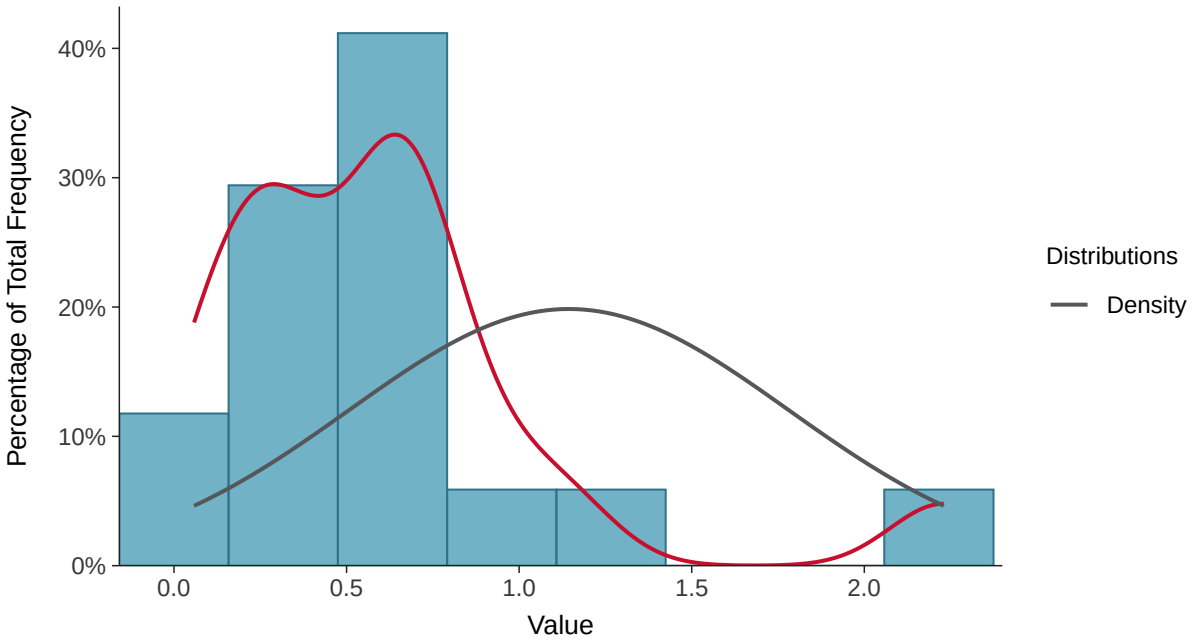
Scatter Plot

Radium-228, MW-11D (pCi/L)



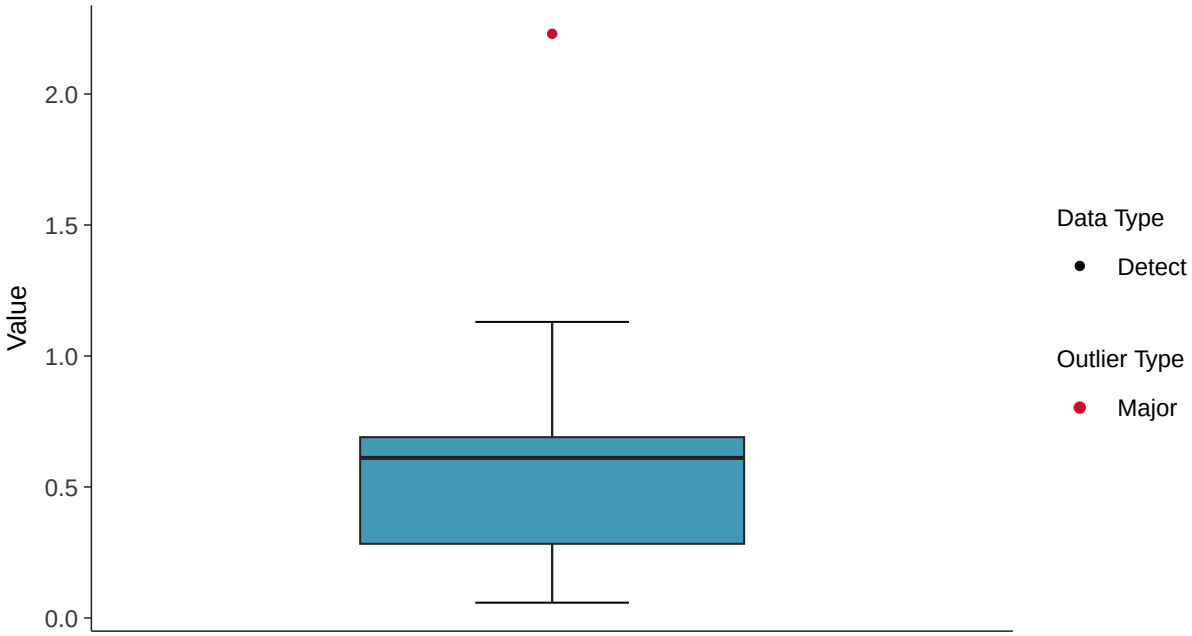
Histogram

Radium-228, MW-11D (pCi/L)



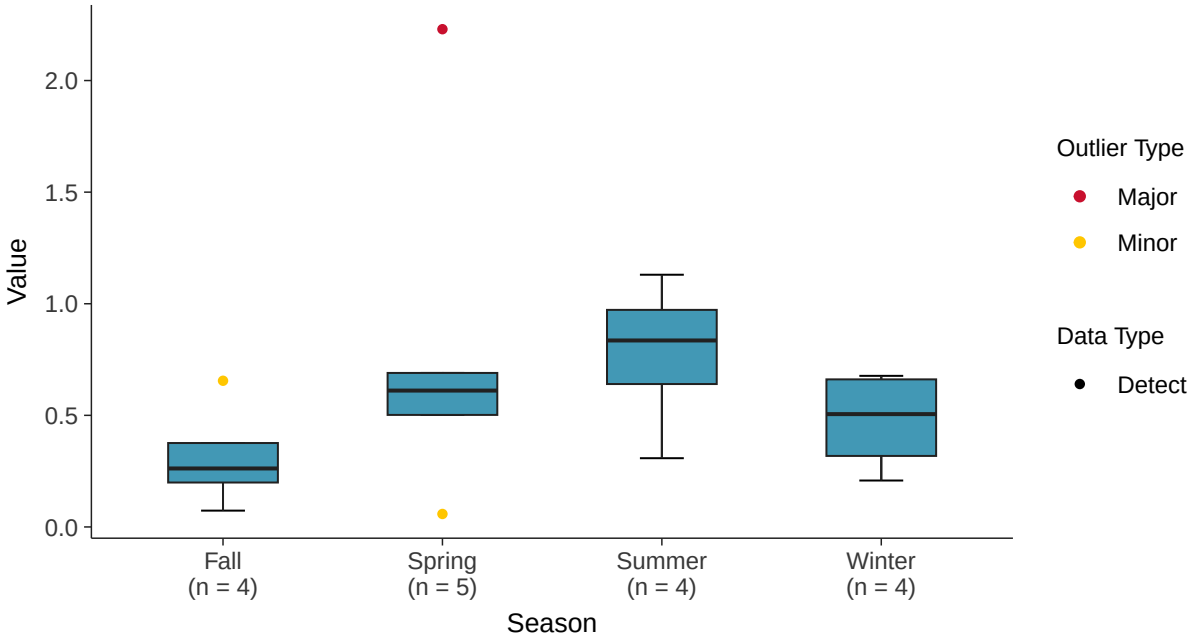
Boxplot

Radium-228, MW-11D (pCi/L)



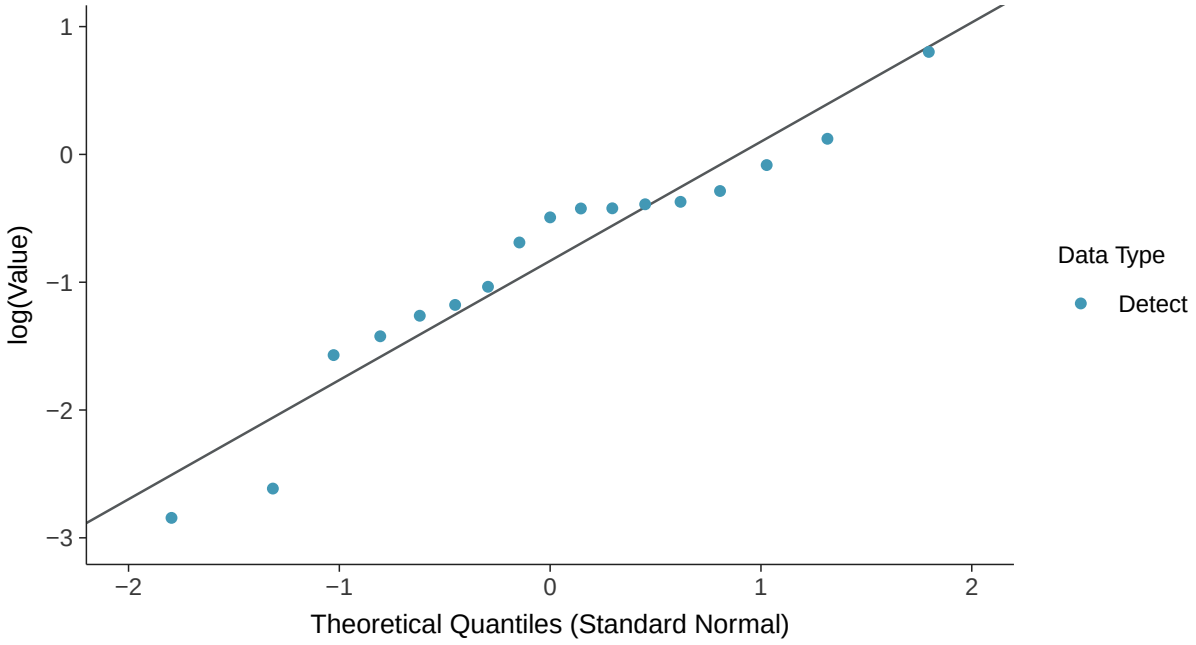
Boxplot by Season

Radium-228, MW-11D (pCi/L)



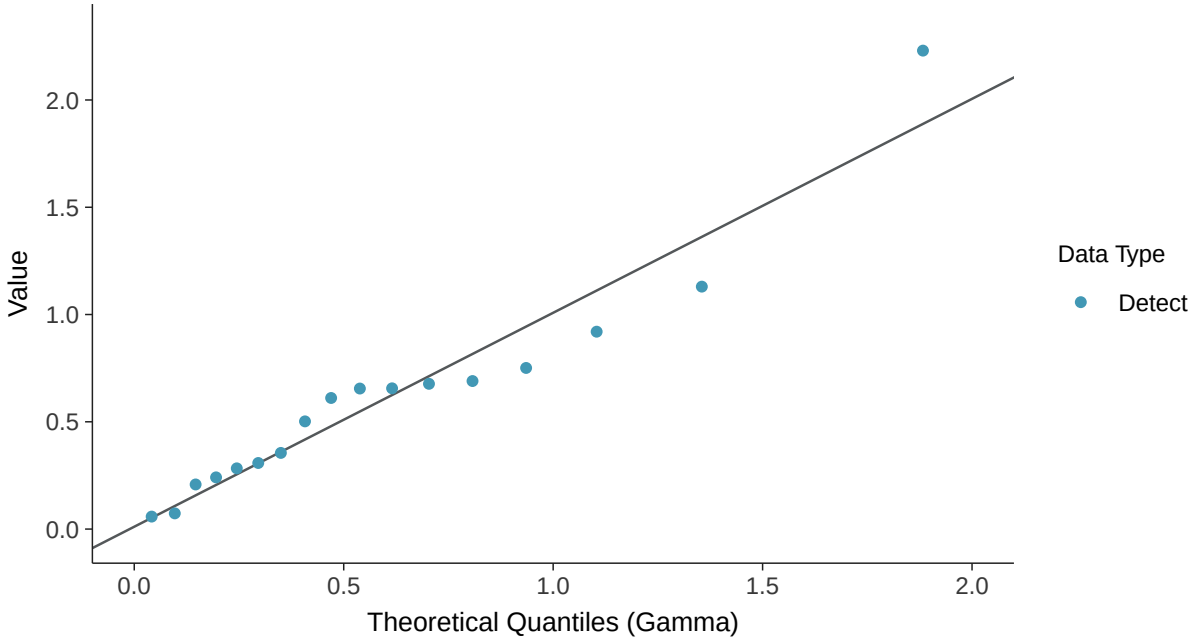
Lognormal Q-Q plot

Radium-228, MW-11D (pCi/L)



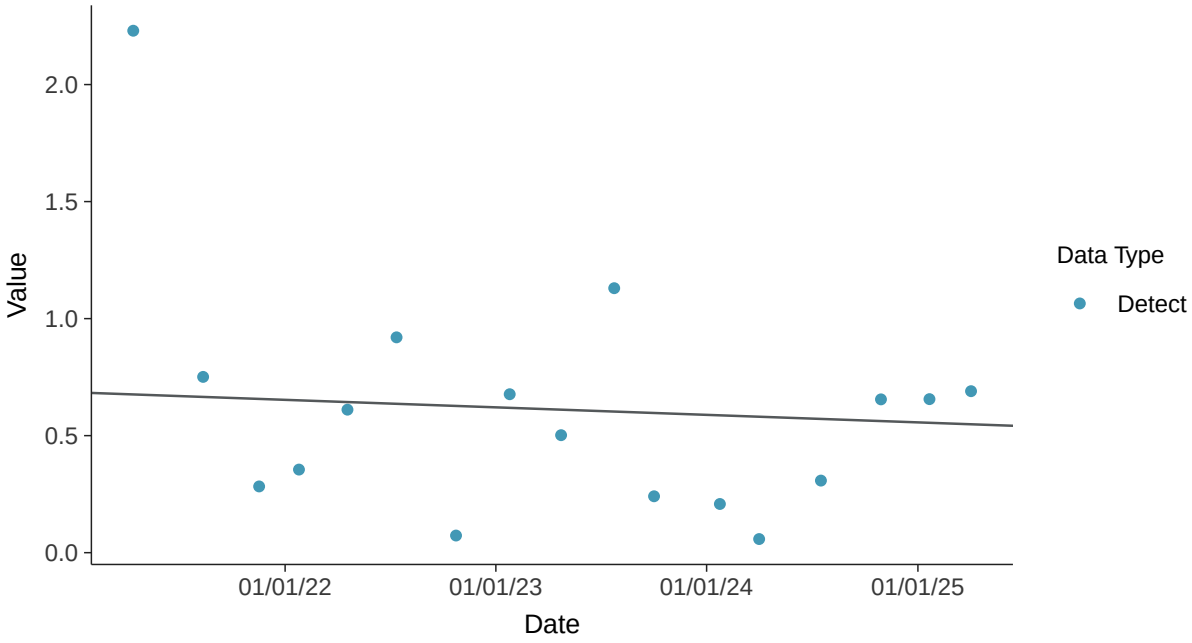
Gamma Q-Q plot

Radium-228, MW-11D (pCi/L)



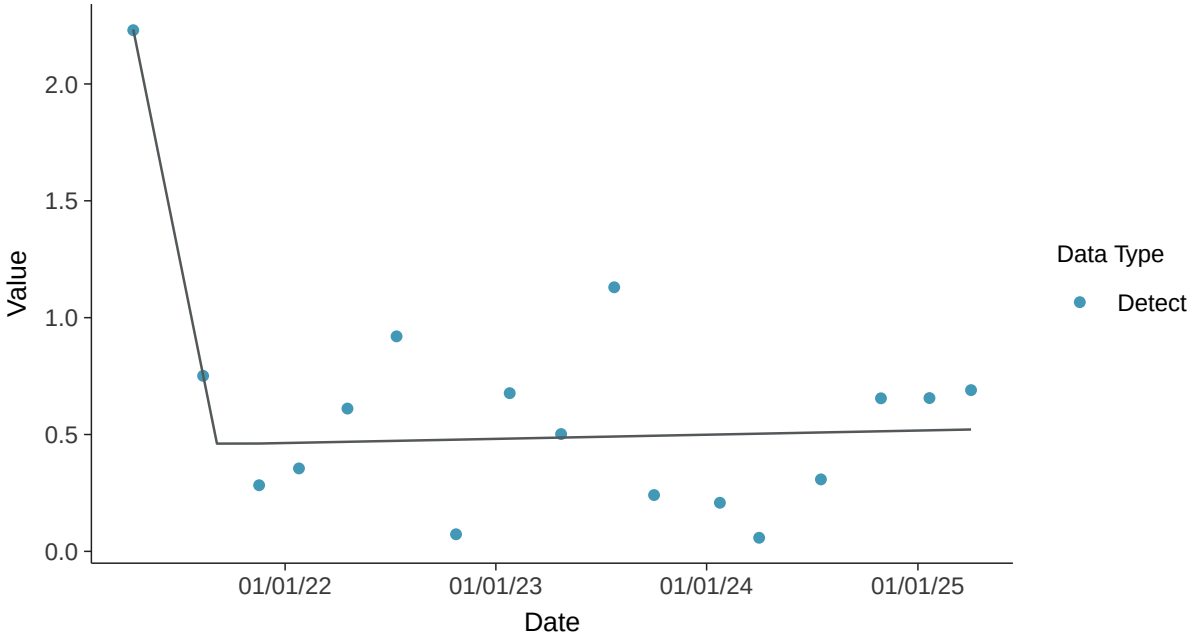
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Radium-228, MW-11D (pCi/L)



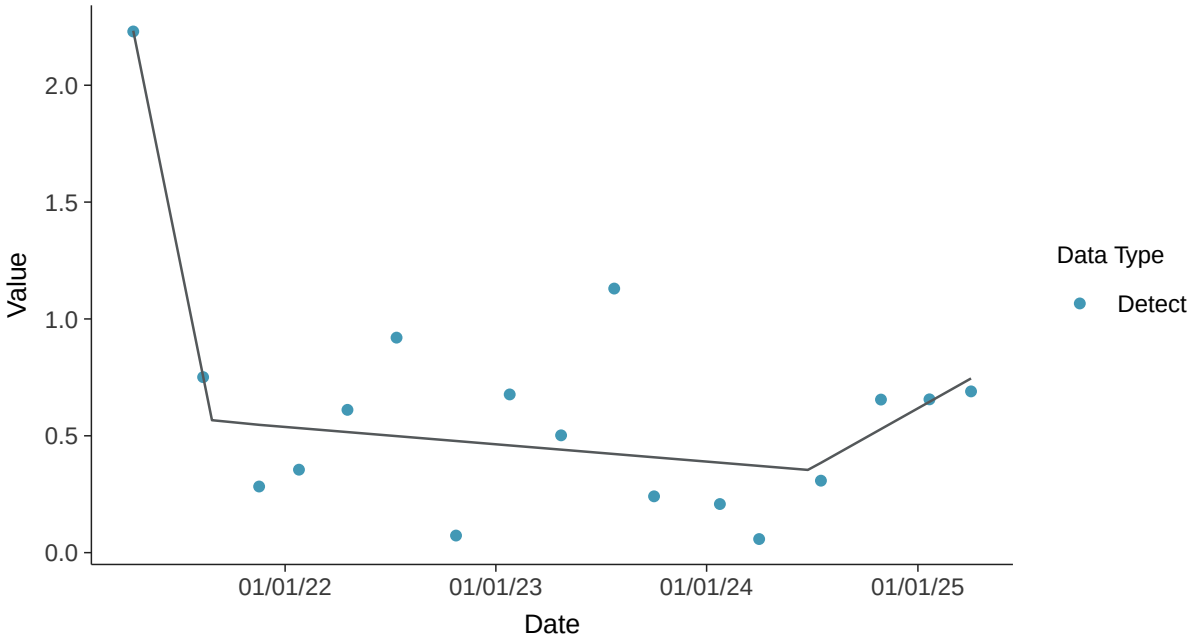
Trend Regression: Piecewise Linear-Linear

Radium-228, MW-11D (pCi/L)



Trend Regression: Piecewise Linear-Linear-Linear

Radium-228, MW-11D (pCi/L)

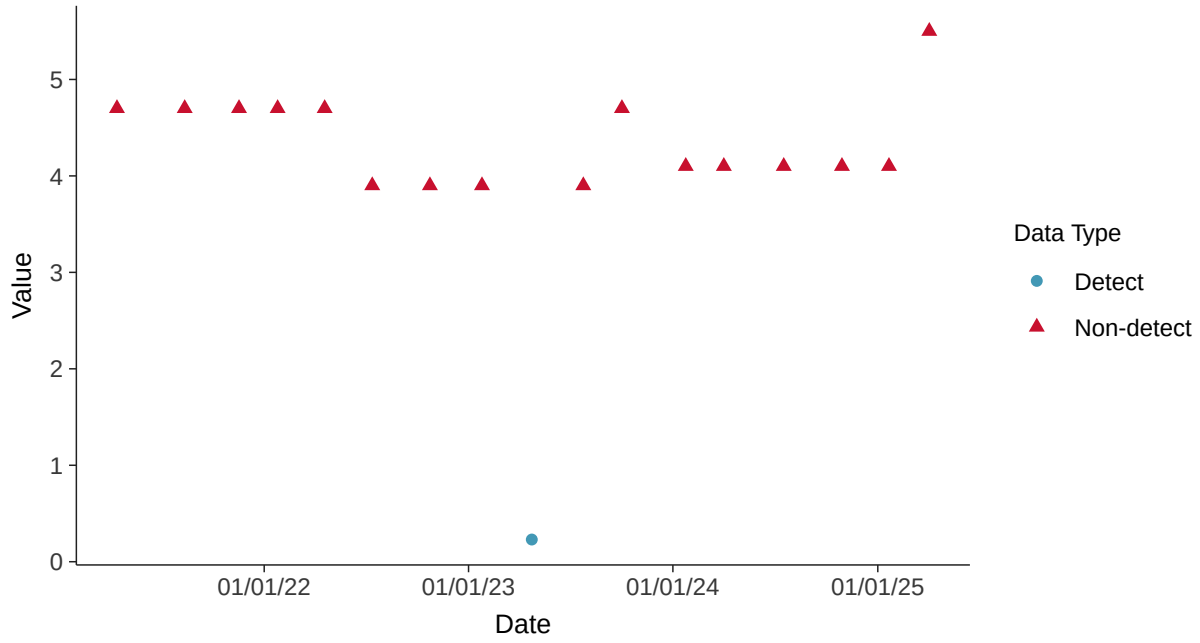


App. IV: Selenium, MW-11D

ID: 11_03_121

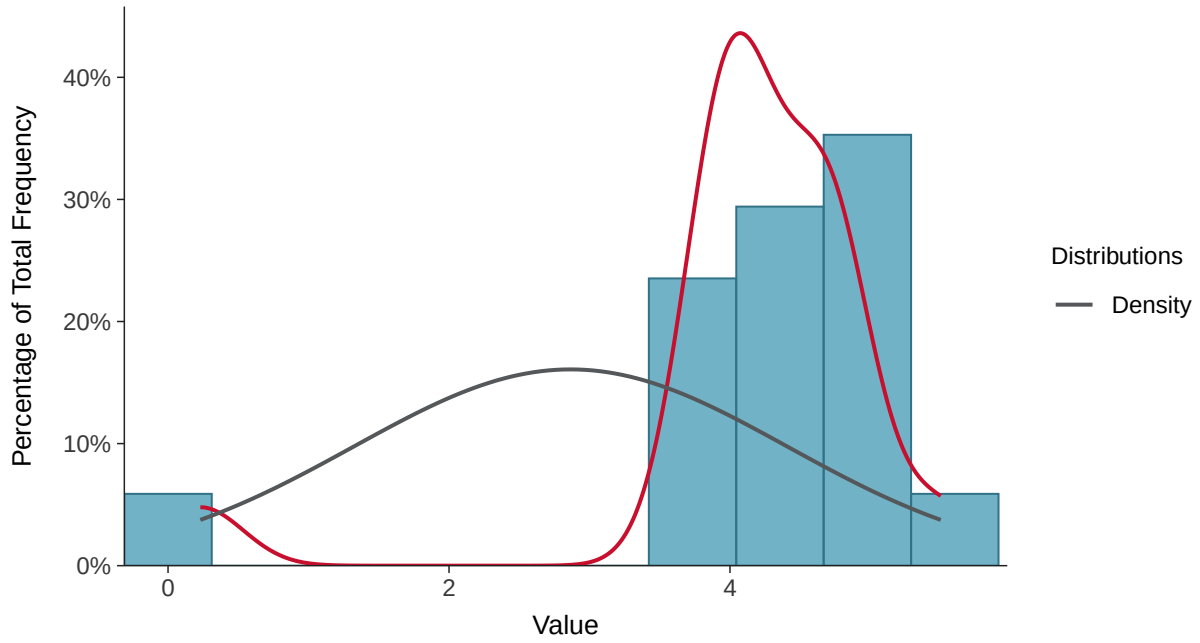
Scatter Plot

Selenium, MW-11D (ug/L)



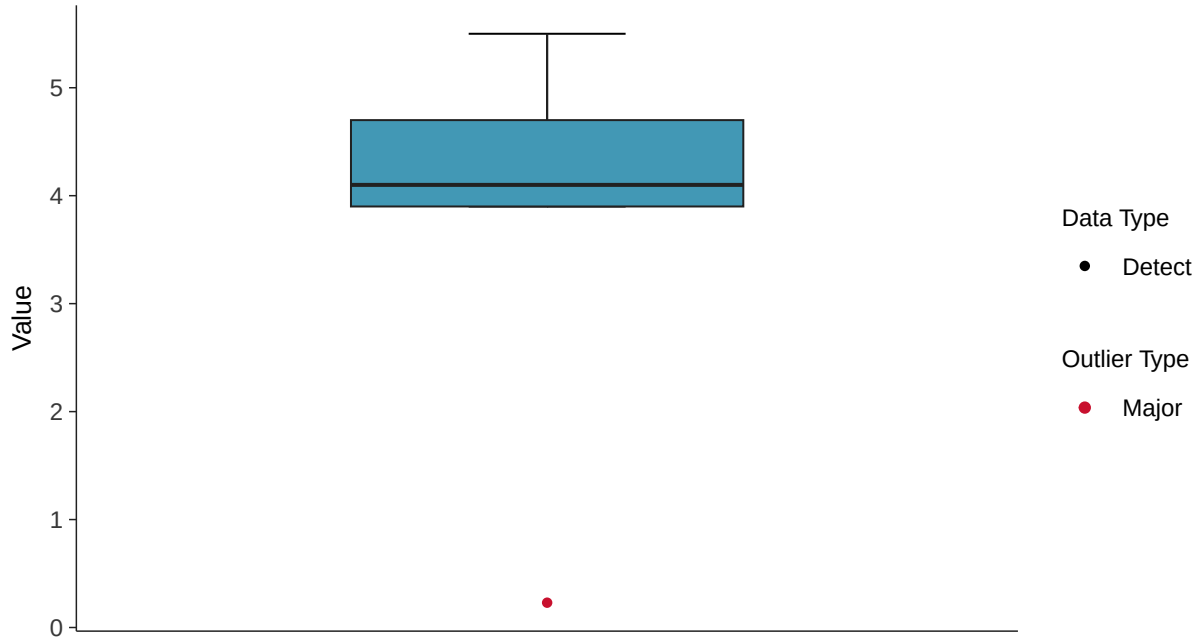
Histogram

Selenium, MW-11D (ug/L)



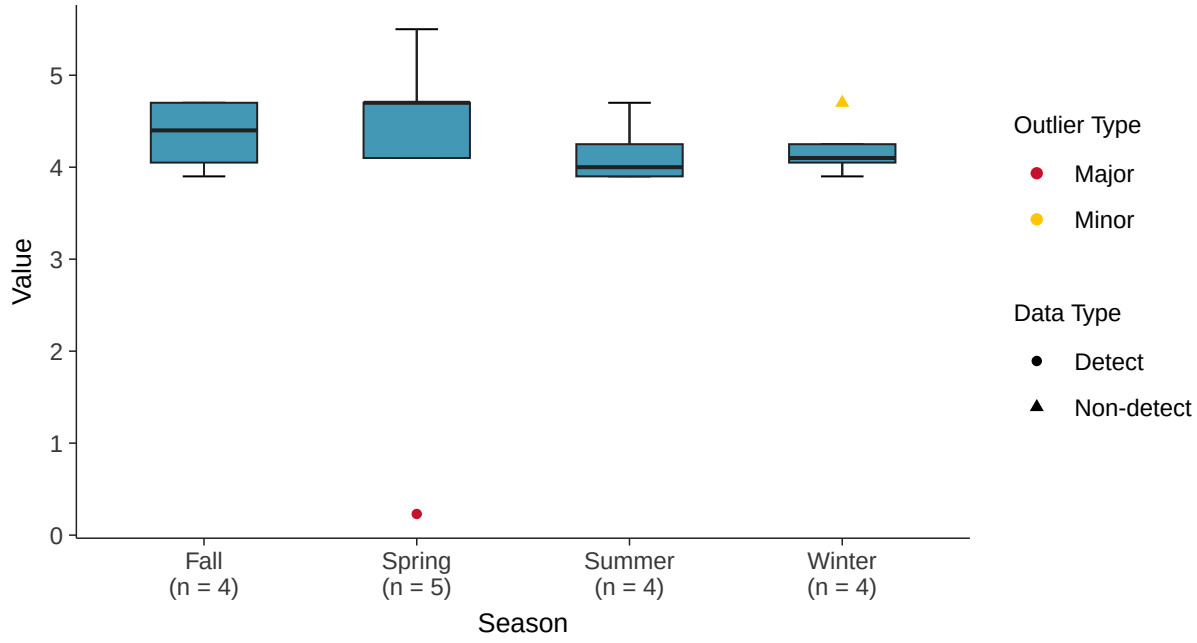
Boxplot

Selenium, MW-11D (ug/L)



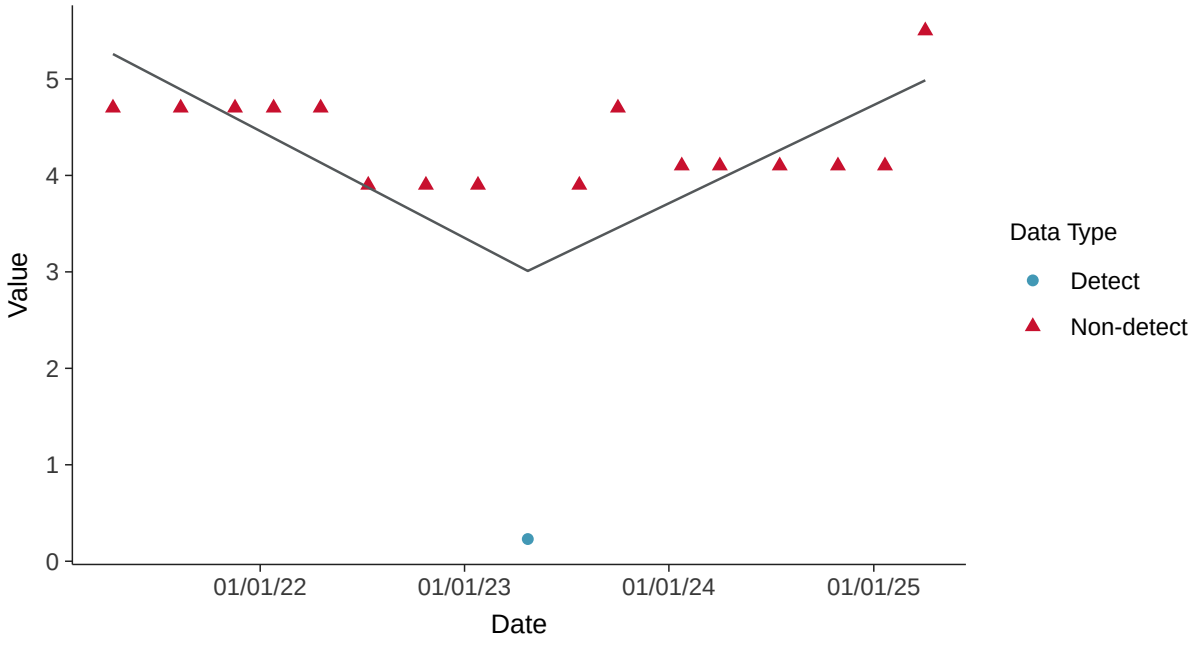
Boxplot by Season

Selenium, MW-11D (ug/L)



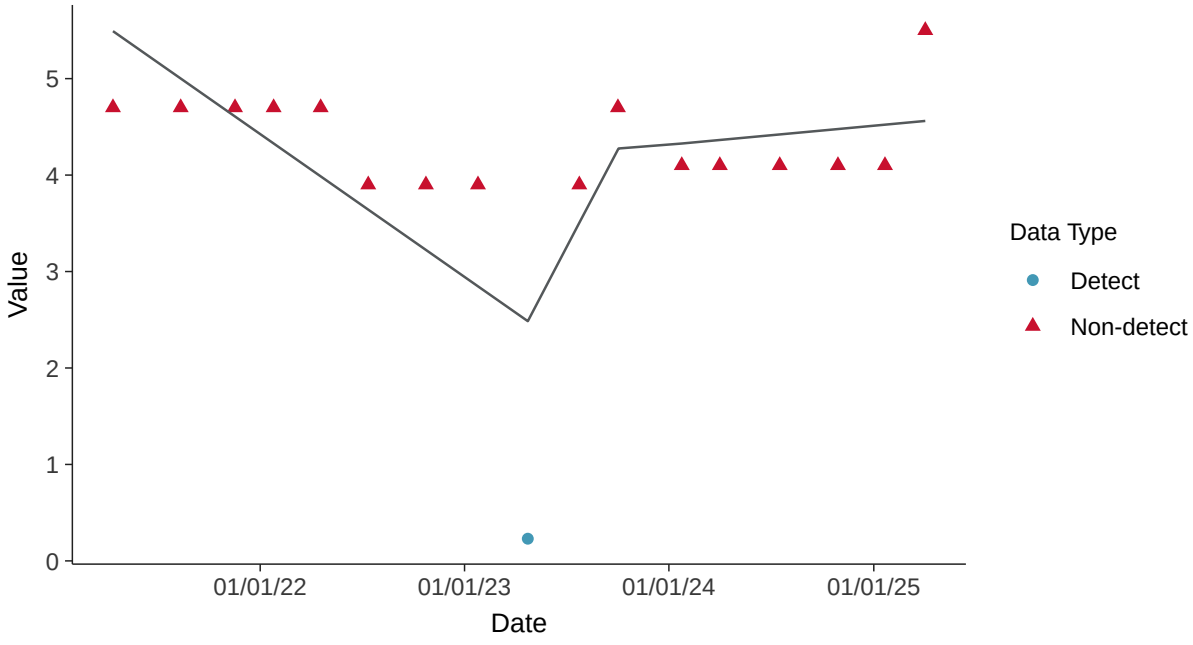
Trend Regression: Piecewise Linear-Linear

Selenium, MW-11D (ug/L)



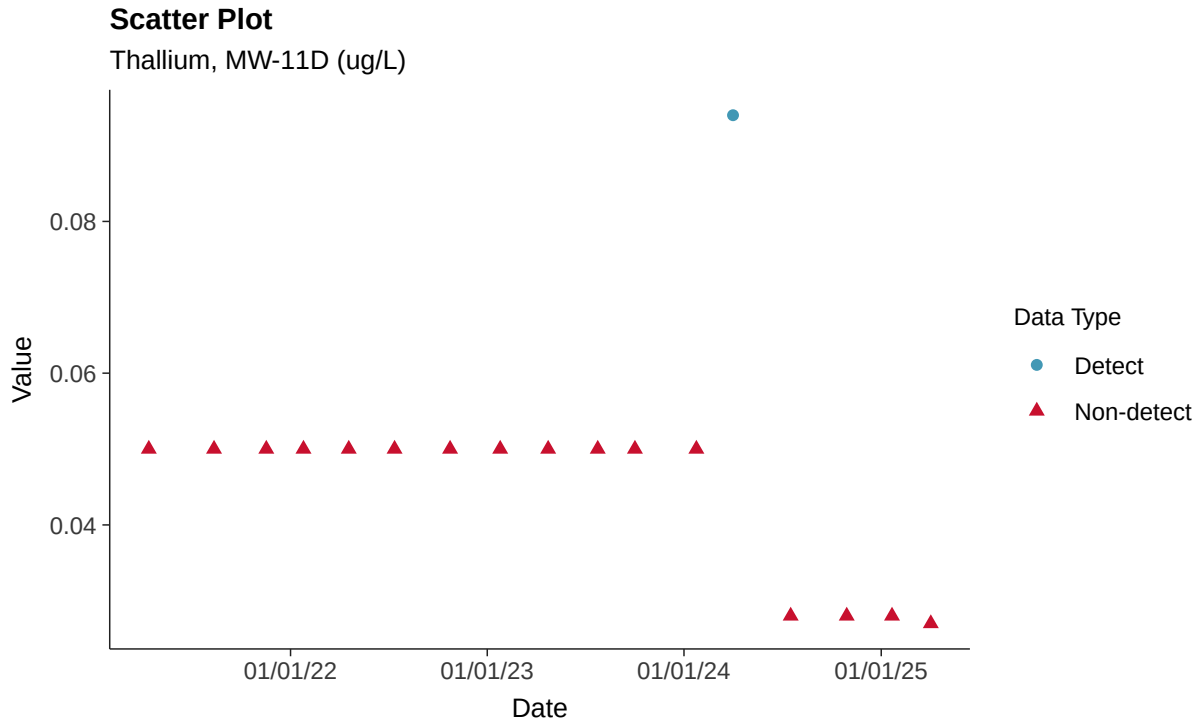
Trend Regression: Piecewise Linear-Linear-Linear

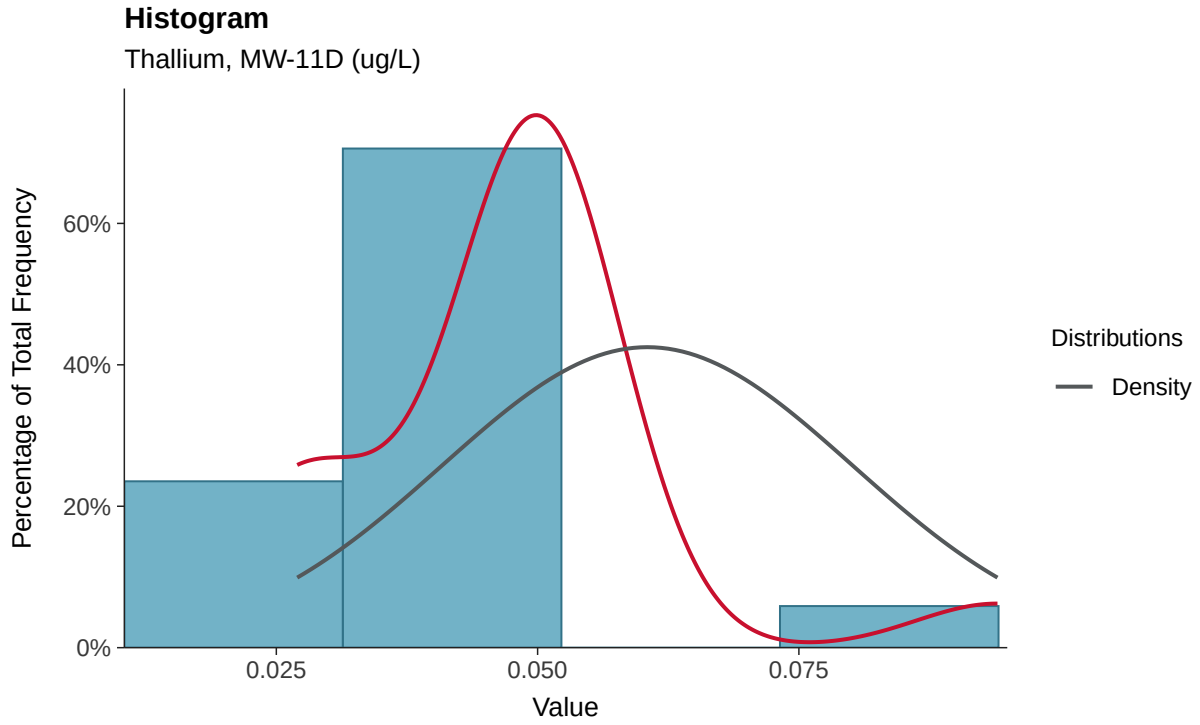
Selenium, MW-11D (ug/L)



App. IV: Thallium, MW-11D

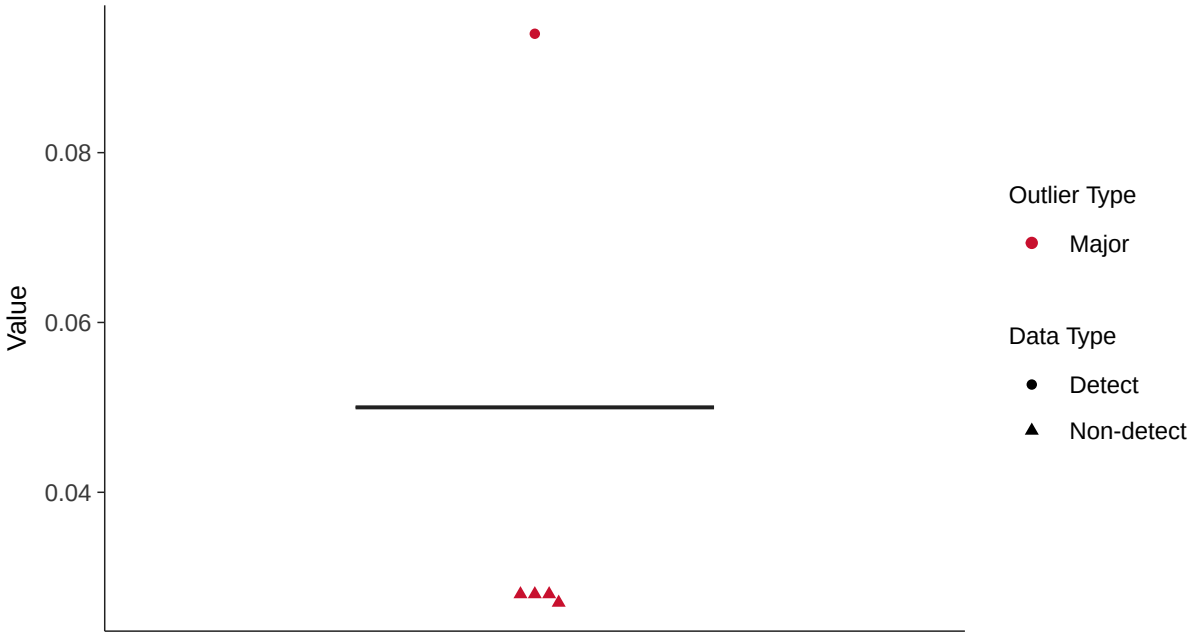
ID: 11_03_124





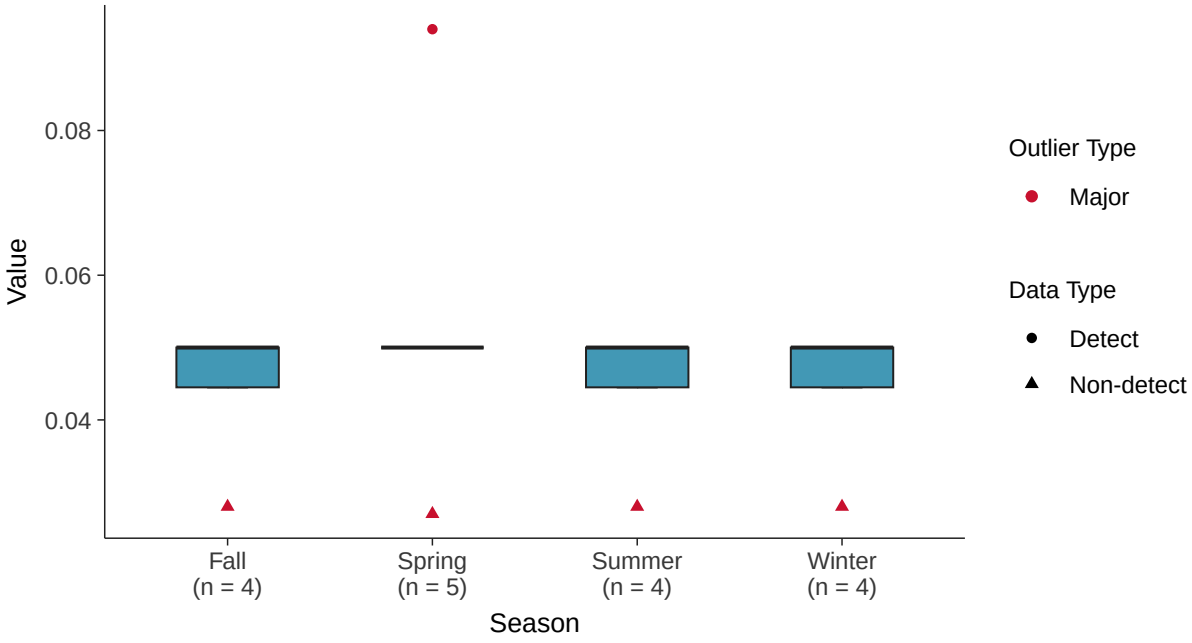
Boxplot

Thallium, MW-11D (ug/L)



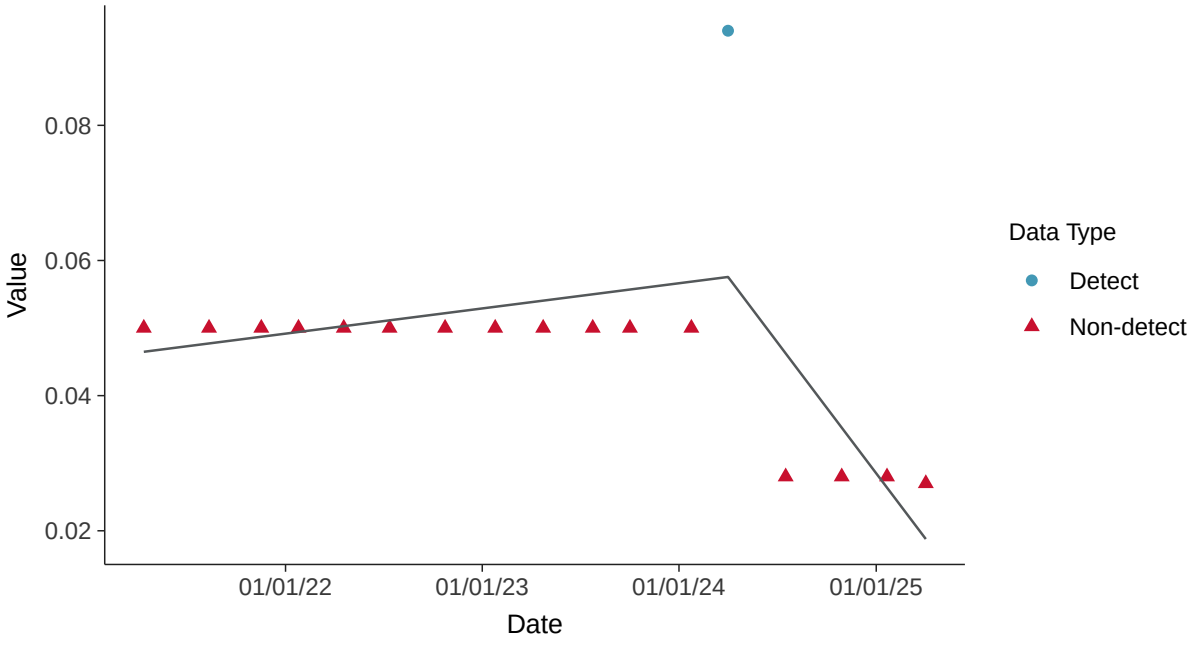
Boxplot by Season

Thallium, MW-11D (ug/L)



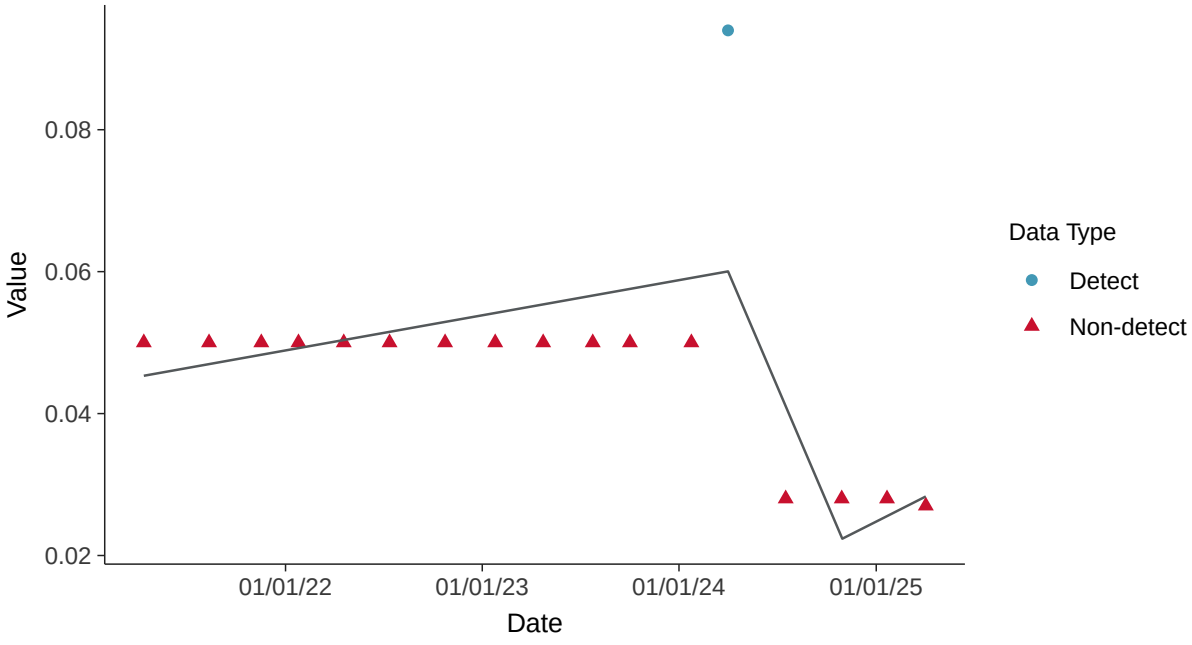
Trend Regression: Piecewise Linear-Linear

Thallium, MW-11D (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Thallium, MW-11D (ug/L)

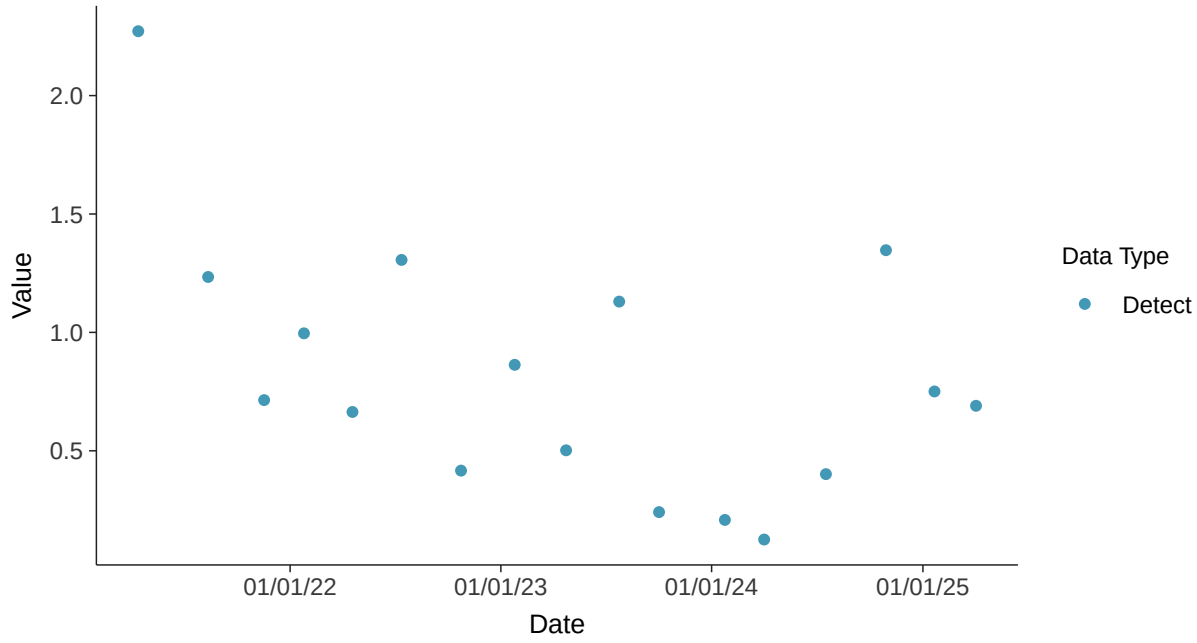


App. IV: Total Radium, MW-11D

ID: 11_03_126

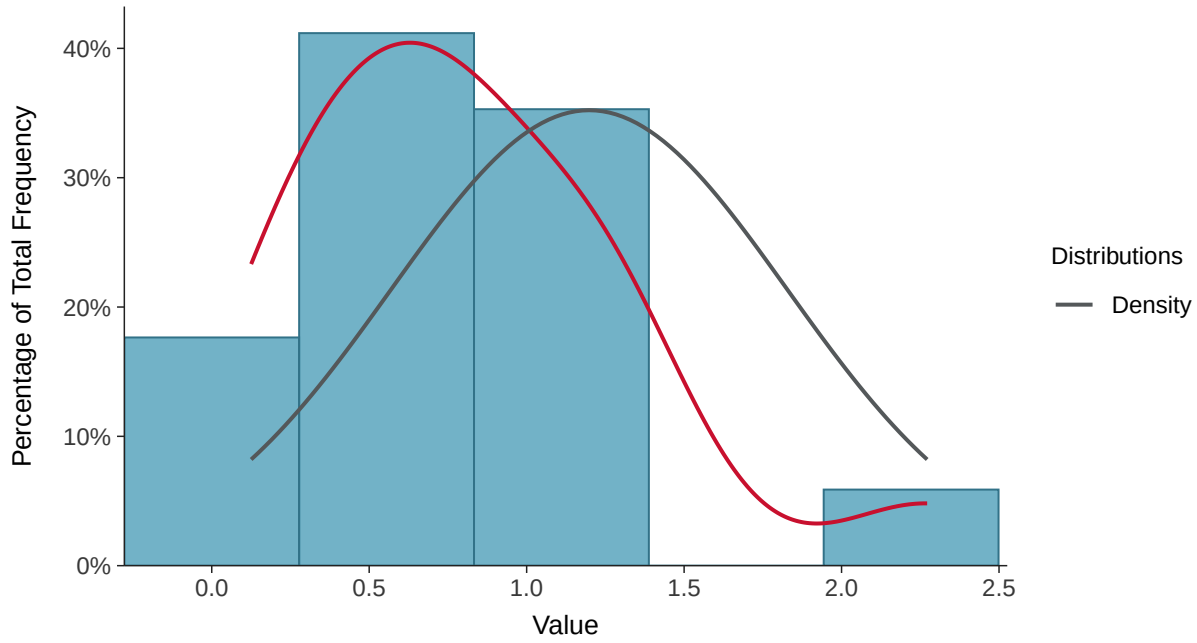
Scatter Plot

Total Radium, MW-11D (pCi/L)



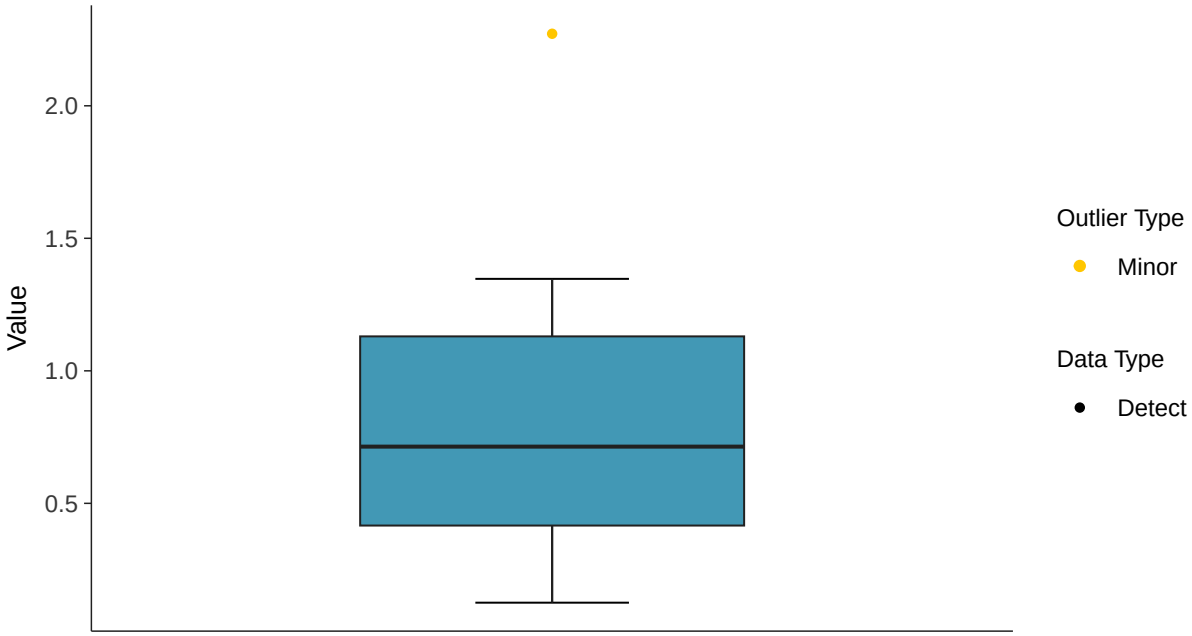
Histogram

Total Radium, MW-11D (pCi/L)



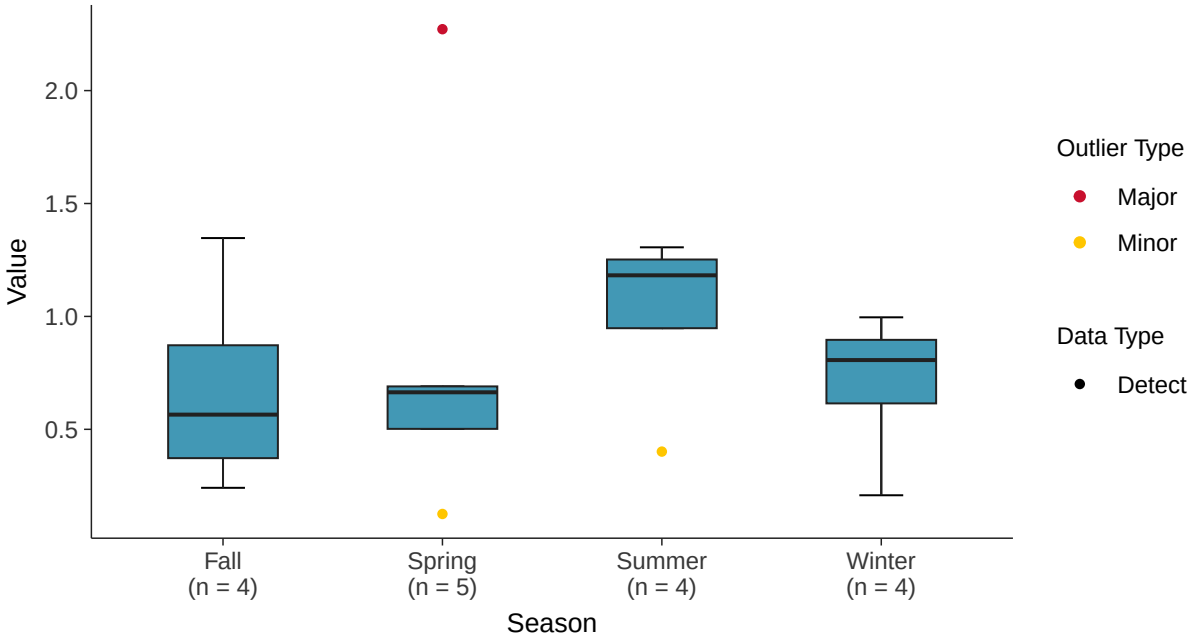
Boxplot

Total Radium, MW-11D (pCi/L)



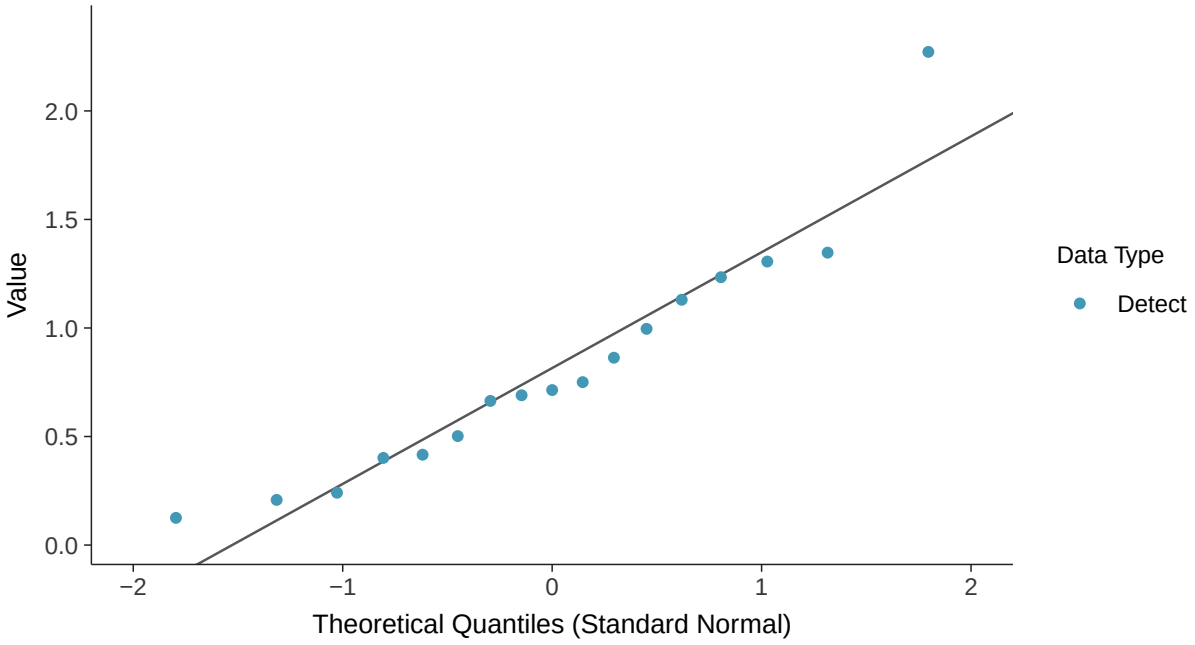
Boxplot by Season

Total Radium, MW-11D (pCi/L)



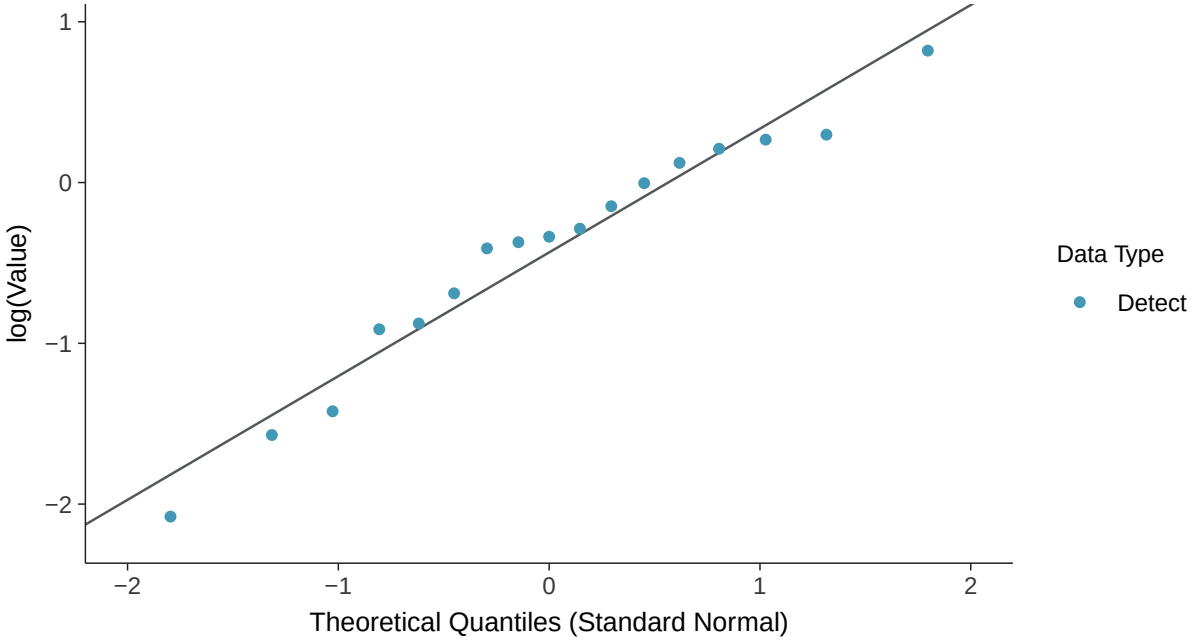
Normal Q-Q plot

Total Radium, MW-11D (pCi/L)



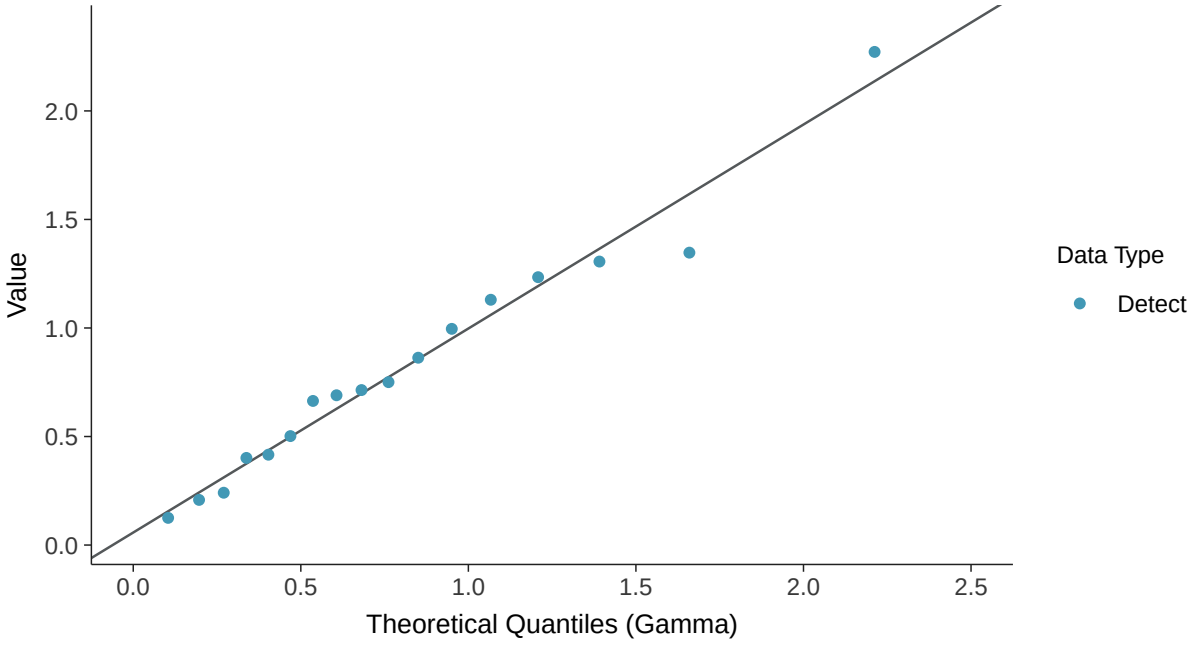
Lognormal Q-Q plot

Total Radium, MW-11D (pCi/L)



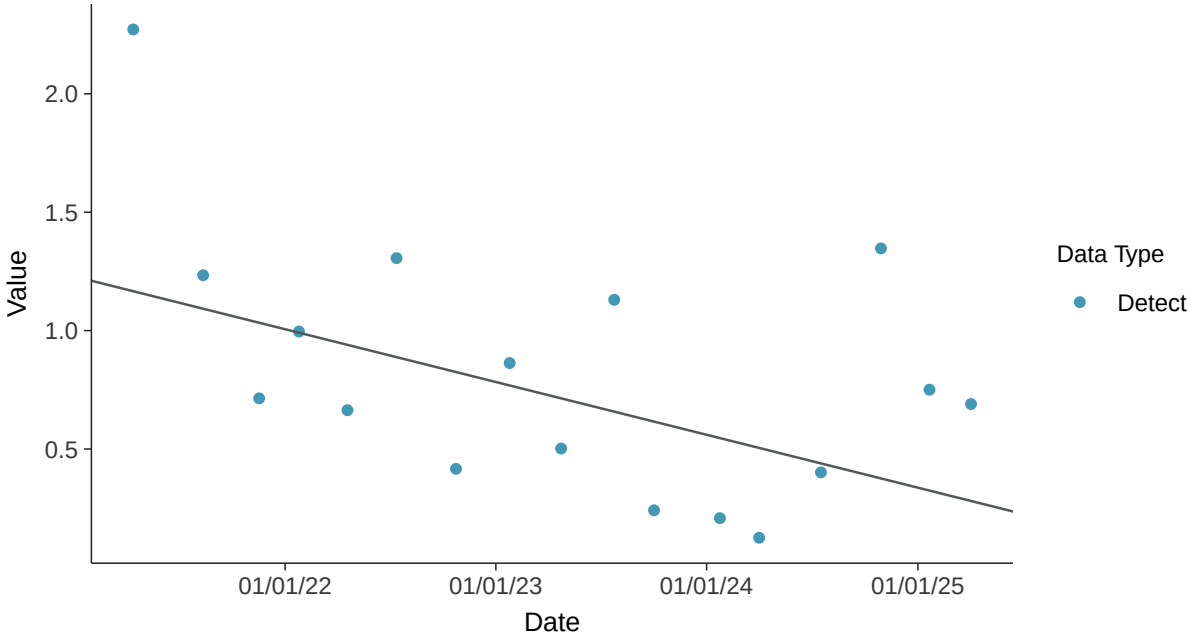
Gamma Q-Q plot

Total Radium, MW-11D (pCi/L)



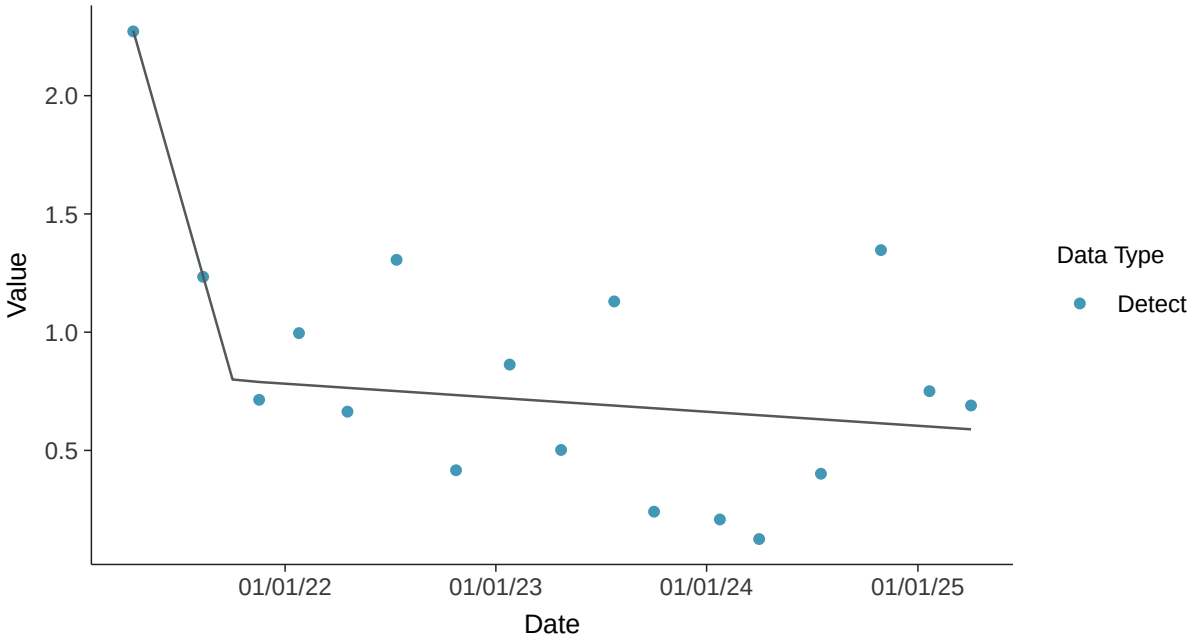
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Total Radium, MW-11D (pCi/L)



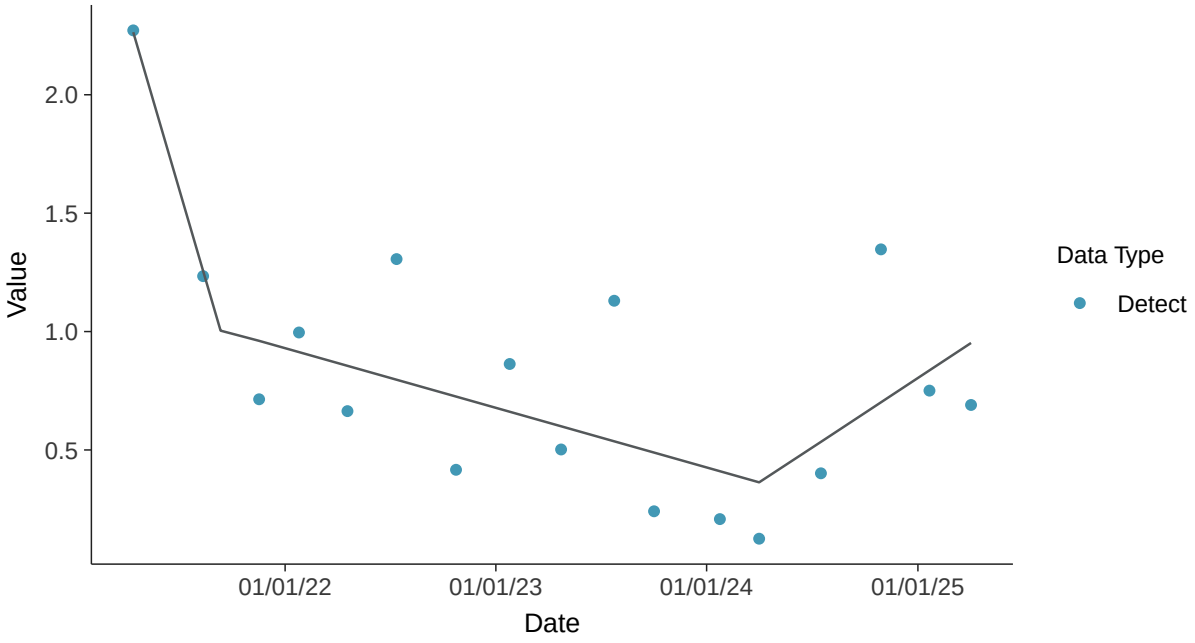
Trend Regression: Piecewise Linear-Linear

Total Radium, MW-11D (pCi/L)



Trend Regression: Piecewise Linear-Linear-Linear

Total Radium, MW-11D (pCi/L)



Charah Brickhaven, Pooled Background Wells BG-1 & BG-2 as of April, 2025
UPLs for Detection Monitoring

ID	Dates	Constituent Type	Constituent	Units	n	NDs	% NDs	Unique Obs.	Normal		Lognormal		Gamma		Nonparametric	Average UPL by Distribution				Maximum	Maximum Detect	Log SD of Detects	Distributions Fit (based on detected data)	Recommended Distribution[1]	Nonparametric UPL Specification[2]		Parametric UPL Specification[3]		No. of Verification Samples[4]	UPL	Notes
									UPL	KM UPL	UPL	KM UPL	UPL	KM UPL	Rank-based UPL	Normal	Lognormal	Gamma	Nonparametric						Retests	Rank	Retests	K			
1 111	2015-10-15 to 2025-03-31	App. I Metals	Cooper	ug/L	67	54	80.6%	17		5.33		4.08		4.21	7.10	5.33	4.08	4.21	7.10	11.4	11.4	0.975	Loonormal	Nonparametric	3	2	2	2.36	2	7.10	a
1 117	2015-10-15 to 2025-03-31	App. I Metals	Nickel	ug/L	67	51	76.1%	20		5.56		5.87		5.23	4.20	5.56	5.87	5.23	4.20	14.1	14.1	0.679	Loonormal	Nonparametric	3	2	2	2.36	2	4.20	a
1 122	2015-10-15 to 2025-03-31	App. I Metals	Silver	ug/L	67	66	98.5%	6							2.50				2.50	2.50	0.700			Nonparametric	3	2	2	2.36	2	0.700	a, c, d
1 127	2015-10-15 to 2025-03-31	App. I Metals	Vanadium	ug/L	67	37	55.2%	26		8.93		17.3		13.0	8.30	8.93	17.3	13.0	8.30	8.40	8.40	0.541	Nonparametric	Nonparametric	3	2	2	2.36	2	8.30	a
1 128	2015-10-15 to 2025-03-31	App. I Metals	Zinc	ug/L	67	50	74.6%	21		19.4		18.1		18.0	32.4	19.4	18.1	18.0	32.4	34.2	34.2	0.674	Gamma; Loonormal	Nonparametric	3	2	2	2.36	2	32.4	a
2 105	2015-10-15 to 2025-03-31	App. III	Boron	ug/L	66	29	43.9%	40		30.8		123		56.9	36.2	30.8	123	56.9	36.2	56.5	56.5	0.558	Gamma; Loonormal	Gamma	3	2	2	2.36	1	56.9	
2 107	2015-10-15 to 2025-03-31	App. III	Calcium	ug/L	67	0	0.0%	50	210000		607000		375000		124000	210000	607000	375000	124000	124000	124000	0.723	Nonparametric	Nonparametric	3	2	2	2.36	2	124,000	
2 108	2015-10-15 to 2025-03-31	App. III	Chloride	mg/L	67	0	0.0%	51	374		430		411		303	374	430	411	303	311	311	0.173	Gamma; Normal	Normal	3	2	2	2.36	1	374	
2 112	2015-10-15 to 2025-03-31	App. III	Fluoride	mg/L	67	0	0.0%	23	0.428		0.565		0.509		0.360	0.428	0.565	0.509	0.360	0.410	0.410	0.309	Gamma; Loonormal	Gamma	3	2	2	2.36	1	0.509	
2 118	2015-10-15 to 2025-04-01	App. III	pH (Field), LPL	S.U.	65	0	0.0%	46	5.63		5.69		5.68		6.14	5.63	5.69	5.68	6.14	6.10	6.10	0.0374	Gamma; Loonormal; Normal	Normal	3	2	2	2.36	1	5.63	e
2 118	2015-10-15 to 2025-04-01	App. III	pH (Field), UPL	S.U.	65	0	0.0%	46	7.55		7.62		7.60		7.01	7.55	7.62	7.60	7.01	7.11	7.11	0.0374	Gamma; Loonormal; Normal	Normal	3	2	2	2.36	1	7.55	e
2 123	2015-10-15 to 2025-03-31	App. III	Sulfate	mg/L	67	0	0.0%	57	306		1340		653		210	306	1340	653	210	211	211	0.964	Nonparametric	Nonparametric	3	2	2	2.36	2	210	
2 125	2015-10-15 to 2025-03-31	App. III	Total Dissolved Solids	mg/L	66	0	0.0%	59	1800		2430		2180		1400	1800	2430	2180	1400	1450	1450	0.325	Nonparametric	Nonparametric	3	2	2	2.36	2	1,400	
3 101	2015-10-15 to 2025-03-31	App. IV	Antimony	ug/L	67	66	98.5%	8							5.50				5.50	5.50	0.790			Nonparametric	3	2	2	2.36	2	0.790	a, c, d
3 102	2015-10-15 to 2025-03-31	App. IV	Arsenic	ug/L	67	62	92.5%	11		3.89		2.53		2.66	8.80	3.89	2.53	2.66	8.80	34.0	8.80	1.41	Gamma; Loonormal; Normal	Nonparametric	3	2	2	2.36	2	8.80	a, d
3 103	2015-10-15 to 2025-03-31	App. IV	Barium	ug/L	67	0	0.0%	62	640		2420		1280		377	640	2420	1280	377	443	443	0.734	Nonparametric	Nonparametric	3	2	2	2.36	2	377	
3 104	2015-10-15 to 2025-03-31	App. IV	Beryllium	ug/L	67	67	100.0%	7							0.700				0.700	0.700				Nonparametric	3	2	2	2.36	2	0.700	a, b
3 106	2015-10-15 to 2025-03-31	App. IV	Cadmium	ug/L	67	65	97.0%	6							0.500				0.500	0.500	0.500	0.158		Nonparametric	3	2	2	2.36	2	0.500	a, c
3 109	2015-10-15 to 2025-03-31	App. IV	Chromium	ug/L	67	57	85.1%	16		8.88		3.90		4.08	7.20	8.88	3.90	4.08	7.20	26.5	26.5	1.12	Nonparametric	Nonparametric	3	2	2	2.36	2	7.20	a
3 110	2015-10-15 to 2025-03-31	App. IV	Cobalt	ug/L	67	56	83.6%	12		2.03		6.15		3.68	3.60	2.03	6.15	3.68	3.60	3.60	2.30	0.941	Normal	Nonparametric	3	2	2	2.36	2	2.30	a, d
3 112	2015-10-15 to 2025-03-31	App. IV	Fluoride	mg/L	67	0	0.0%	23	0.428		0.565		0.509		0.360	0.428	0.565	0.509	0.360	0.410	0.410	0.309	Gamma; Loonormal	Gamma	3	2	2	2.36	1	0.509	
3 113	2015-10-15 to 2025-03-31	App. IV	Lead	ug/L	67	63	94.0%	13		5.18		8.95		6.33	13.7	5.18	8.95	6.33	13.7	14.1	14.1	1.12		Nonparametric	3	2	2	2.36	2	13.7	a
3 114	2015-10-15 to 2025-03-31	App. IV	Lithium	ug/L	67	3	4.5%	55		37.5		118		58.7	43.7	37.5	118	58.7	43.7	51.1	51.1	0.288	Nonparametric	Nonparametric	3	2	2	2.36	2	43.7	
3 115	2015-10-15 to 2025-03-31	App. IV	Mercury	ug/L	67	59	88.1%	8		0.144		0.139		0.141	0.170	0.144	0.139	0.141	0.170	0.200	0.200	0.236	Gamma; Loonormal; Normal	Nonparametric	3	2	2	2.36	2	0.170	a
3 116	2015-10-15 to 2025-03-31	App. IV	Molybdenum	ug/L	67	52	77.6%	22		9.06		16.2		12.7	13.6	9.06	16.2	12.7	13.6	16.0	13.6	1.06	Gamma; Normal	Nonparametric	3	2	2	2.36	2	13.6	a, d
3 119	2015-10-15 to 2025-03-31	App. IV	Radium-226	pCi/L	64	0	0.0%	56							0.800				0.800	1.22	1.22		Normal	Nonparametric	3	2	2	2.36	2	0.800	
3 120	2015-10-15 to 2025-03-31	App. IV	Radium-228	pCi/L	64	0	0.0%	63							1.35				1.35	1.96	1.96		Normal	Nonparametric	3	2	2	2.36	2	1.35	
3 121	2015-10-15 to 2025-03-31	App. IV	Selenium	ug/L	67	64	95.5%	8							5.50				5.50	6.00	6.00	2.49		Nonparametric	3	2	2	2.36	2	6.00	a, c
3 124	2015-10-15 to 2025-03-31	App. IV	Thallium	ug/L	67	64	95.5%	10							5.00				5.00	13.7	13.7	3.15		Nonparametric	3	2	2	2.36	2	13.7	a, c
3 126	2015-10-15 to 2025-03-31	App. IV	Total Radium	pCi/L	64	0	0.0%	61							2.09				2.09	2.59	2.59		Normal	Nonparametric	3	2	2	2.36	2	2.09	

Notes
a: Nonparametric methods were used since the percent below MDL is greater than 50%.
b: Constituent is 100% non-detects so the maximum detection limit is chosen as the BTV. Double Quantification Rule (DQR) is recommended for determining if an exceedance has occurred.
c: Maximum detected value was chosen as the UPL as the number of detects is less than 4.
d: Sample contains MDLs that are greater than the maximum detect value.
e: Limits are based on a two-sided prediction interval.

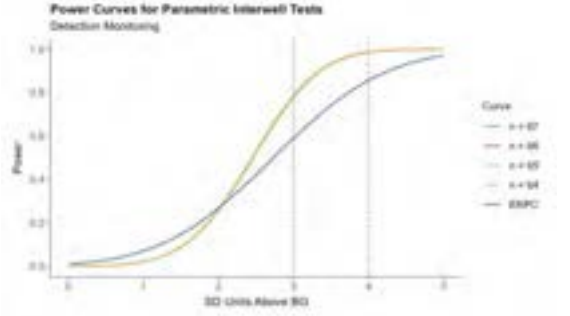
[1]To optimize the process for estimating a reference background concentration when there are multiple forms of the UPL formulae for data sets with assumed distributional properties, the averaging of the results over the multiple methods is done. The formulae are comparable and each one offers advantages and also has inherent errors in their methods. The action of averaging these estimates produces a pooled estimated closest to the unknown common truth based on how this error is perceived. For example, the UPL with assumed gamma distributional properties with non-detects has Kaplan-Meier (KM) and regression on order statistics (ROS) for estimating the UPL for samples with non-detects. The averaging of the two estimates is done to produce one recommended estimate for the UPL. In situations where a method's estimate is notably different from the other methods' results (assessed based on subject matter expertise), then that particular method is excluded from the averaging.

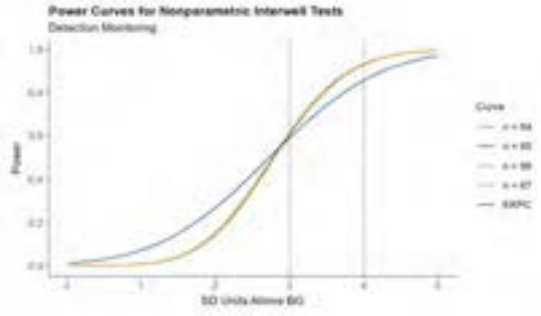
[2] The number of retests and the rank of the order statistic for nonparametric UPLs are chosen such that the confidence level does not exceed the per-constituent false positive rate of 0.003895, and such that the test power exceeds the EPA Reference Power Curve (ERPC) at either 3 standard deviations (SDs) above background, 4 SDs above background, or both. The maximum per-constituent false positive rate is computed based on a site-wide false positive rate of 10% subdivided across 27 constituents. Test power varies by sample size, and is plotted below for all samples sizes in the data alongside the ERPC.

[3] The number of retests and the value of the K factor are chosen such that the confidence level does not exceed the per-test false positive rate of 0.000355 and such that the test power exceeds the ERPC at either 3 SDs above background, 4 SDs above background, or both. The maximum per-test false positive rate is computed based on a site-wide false positive rate of 10% subdivided across 27 constituents and 11 downgradient wells. Test power varies by sample size, and is plotted below for all sample sizes in the data alongside the ERPC.

[4] The number of verification samples is equal to *(m - 1)* , where *m* represents the number of retests in a 1-of-*m* retesting plan. For each row, if the recommended distribution is parametric then the value in this column is based on the number of retests under a parametric UPL specification. Otherwise, it is based on the number of retests under a nonparametric specification.

[5] The normal distribution is assumed even though the SD of the logged detects is greater than one. The small sample size may not capture representative variation. The gamma UPL estimate is higher than reasonably expected given maximum detect.





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B

Attachment B – 2025 Second Semi-Annual Detection Monitoring Report

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DENR USE ONLY: ☐ Paper Report ☐ Electronic Data - Email CD (data loaded: Yes / No) Doc/Event #:

NC DENR
Division of Waste Management - Solid Waste

Environmental Monitoring Reporting Form

Notice: This form and any information attached to it are "Public Records" as defined in NC General Statute 132-1. As such, these documents are available for inspection and examination by any person upon request (NC General Statute 132-6).

Instructions:

- **Prepare one form for each individually monitored unit.**
- **Please type or print legibly.**
- Attach a notification table with values that attain or exceed NC 2L groundwater standards or NC 2B surface water standards. The notification must include a preliminary analysis of the cause and significance of each value. (e.g. naturally occurring, off-site source, pre-existing condition, etc.).
- Attach a notification table of any groundwater or surface water values that equal or exceed the reporting limits.
- Attach a notification table of any methane gas values that attain or exceed explosive gas levels. This includes any structures on or nearby the facility (NCAC 13B .1629 (4)(a)(i).
- Send the original signed and sealed form, any tables, and Electronic Data Deliverable to: Compliance Unit, NCDENR-DWM, Solid Waste Section, 1646 Mail Service Center, Raleigh, NC 27699-1646.

Solid Waste Monitoring Data Submittal Information

Name of entity submitting data (laboratory, consultant, facility owner):

Green Meadow - Charah Solutions, Inc.

Contact for questions about data formatting. Include data preparer's name, telephone number and E-mail address:

Name: Mark Filardi Phone: 704-338-6787

E-mail: mark.filardi@hdrinc.com

Facility name:	Facility Address:	Facility Permit #	NC Landfill Rule: (.0500 or .1600)	Actual sampling dates (e.g., October 20-24, 2006)
Charah, LLC Brickhaven No. 2 Mine Tract "A"	1271 Moncure-Flatwood Road Catham County Moncure, NC	1910- STRUT-2015	CAMA	July 14-17, 2025 & October 20-23, 2025

Environmental Status: (Check all that apply)

☐ Initial/Background Monitoring ☒ Detection Monitoring ☐ Assessment Monitoring ☐ Corrective Action

Type of data submitted: (Check all that apply)

☒ Groundwater monitoring data from monitoring wells
☐ Groundwater monitoring data from private water supply wells
☒ Leachate monitoring data
☒ Surface water monitoring data
☐ Methane gas monitoring data
☐ Corrective action data (specify) _____
☐ Other(specify) _____

Notification attached?

☐ No. No groundwater or surface water standards were exceeded.
☒ Yes, a notification of values exceeding a groundwater or surface water standard is attached. It includes a list of groundwater and surface water monitoring points, dates, analytical values, NC 2L groundwater standard, NC 2B surface water standard or NC Solid Waste GWPS and preliminary analysis of the cause and significance of any concentration.
☐ Yes, a notification of values exceeding an explosive methane gas limit is attached. It includes the methane monitoring points, dates, sample values and explosive methane gas limits.

Certification

To the best of my knowledge, the information reported and statements made on this data submittal and attachments are true and correct. Furthermore, I have attached complete notification of any sampling values meeting or exceeding groundwater standards or explosive gas levels, and a preliminary analysis of the cause and significance of concentrations exceeding groundwater standards. I am aware that there are significant penalties for making any false statement, representation, or certification including the possibility of a fine and imprisonment.

Mark Filardi | Sr. Geologist | 704-338-6787

Facility Representative Name (Print) | Title | (Area Code) Telephone Number

Filardi, Mark
Digitally signed by Filardi, Mark
Date: 2026.01.26 14:25:41 -05'00'

Signature | Date

Affix NC Licensed/ Professional Geologist Seal

HDR Engineering, Inc. of the Carolinas, 440 S. Church St., Ste. 1200, Charlotte, NC 28202

Facility Representative Address

F0116

NC PE Firm License Number (if applicable effective May 1, 2009)

Revised 6/2009

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2025 Second Semi-Annual Detection Monitoring Report

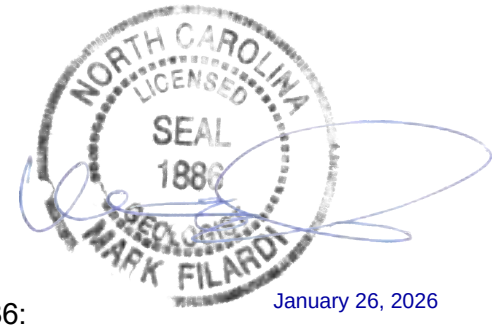
Brickhaven No.2 Mine Tract “A” Structural Fill

Charah Solutions, Inc.

Facility Permit #1910-STRUT-2015

Moncure, Chatham County, North Carolina

January 23, 2026



Mark Filardi, L.G. #1886: _____ January 26, 2026

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Appendices

Appendix A – Field Data Sheets
Appendix B – Laboratory Results, Chains of Custody, and Quality Control Data
Appendix C – Electronic Data Deliverables (electronic only)
Appendix D – Statistical Analysis Memo

Select Acronyms

µg/L	micrograms per liter
BGS	below ground surface
BTOC	below top of casing
BTV	background threshold value
CAMA	North Carolina Coal Ash Management Act of 2014
CCP	coal combustion products
CFR	Code of Federal Regulations
DO	dissolved oxygen
DQR	double quantification rule
DTW	depth-to-water
GOF	Goodness-of-fit-test
MDL	method detection limit
MLE	maximum likelihood estimate
MRL	method reporting limit
MSL	mean sea level
NCDENR	North Carolina Department of Environment and Natural Resources
NCDEQ	North Carolina Department of Environmental Quality
ND	Non-detects
NTU	Nephelometric turbidity unit
ORP	oxidation-reduction potential
SSI	statistically significant increase
SU	scientific unit
TD	total depth
TDS	total dissolved solids
TOC	top of casing
USCS	Unified Soil Classification System
USEPA	United States Environmental Protection Agency
VOC	volatile organic compound

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1 Introduction

The purpose of this *2025 Second Semi-Annual Detection Monitoring Report* is to summarize the third and fourth quarterly detection monitoring results conducted at the Brickhaven No. 2 Mine Tract "A" Structural Fill (Site) in Moncure, Chatham County, North Carolina. The sampling events were conducted from July 14-17, 2025 and October 20-23, 2025, respectively.

Operating under Facility Permit #1910-STRUT-2015, Charah is required to monitor groundwater and surface water quality at designated locations, in accordance with the following rules, regulations, and guidelines:

- North Carolina Coal Ash Management Act (CAMA) of 2014 (Senate Bill 729).
- Water Quality Monitoring Plan, Brickhaven No.2 Mine Tract "A" Structural Fill, approved March 2015 (Buxton 2015a).
- North Carolina Department of Environment and Natural Resources (NCDENR)[1] Permit No. 1910-STRUC-2015, issued June 5, 2015.
- NCDENR Solid Waste Section Guidelines for Groundwater, Soil, and Surface Water Sampling, April 2008 including Groundwater Rules .1600.
- NCDENR Division of Water Management memorandum concerning electronic document submittal for routine groundwater and surface water monitoring, November 5, 2014.
- U.S. Environmental Protection Agency (USEPA) Region 1, *Low Stress (low flow) Purging and Sampling Procedure for the Collection of Groundwater Samples from Monitoring Wells*, revised September 19, 2017.

Groundwater monitoring and sampling at the Site is also conducted in general accordance with the USEPA's "Disposal of Coal Combustion Residuals from Electric Utilities" rule (CCR Rule).

On June 21, 2019, Charah received correspondence from the North Carolina Department of Environmental Quality (NCDEQ) Solid Waste Section requesting that Charah submit an assessment work plan in accordance with 15A NCAC 02L .0106 and 15A NCAC 02B .0211 and .0216. NCDEQ cited exceedances of North Carolina 2L Groundwater Protection Standards (2L Standards) for barium, chloride, chromium, cobalt, total dissolved solids (TDS), and vanadium, and exceedances of North Carolina Surface Water & Wetland Standards established under T15A NCAC 02B (2B Standards) for arsenic, cobalt, copper, lead, TDS, and zinc as cause for the plan. On behalf of Charah, HDR submitted a *Groundwater and Surface Water Assessment Monitoring Plan* to NCDEQ on August 16, 2019 (HDR 2019). The plan was approved by NCDEQ in correspondence dated September 16, 2019, and amended on October 4, 2019. Between November 2019 and July 2020, Charah implemented the monitoring plan, which was documented in an Assessment Monitoring Report dated July 24, 2020 (HDR 2020).

[1] On September 18, 2015, the North Carolina Department of Environment and Natural Resources (NCDENR) became the North Carolina Department of Environmental Quality (NCDEQ). Both naming conventions are used in this report, as appropriate.

On April 9, 2021, Charah received a response letter to the Assessment Monitoring Report from NCDEQ requiring additional activities. During the first and second quarters of 2021, HDR addressed these requirements on behalf of Charah, as summarized below, and provided responses to NCDEQ comments in a Response Letter dated May 7, 2021.

NCDEQ Comment	Charah Response	Date of Action
Redevelop (or replace) monitoring wells MW-2 and MW-3 to improve recharge into the wells	Wells MW-2 and MW-3 were redeveloped for 6 to 7 hours via surging	March 18 and 19, 2021
Collect a surface water sample (SW-6) upstream of SW-1 to delineate off-site impacts to surface water	Collected surface water sample SW-6 upstream of SW-1 at the Charah property line	Initial sample collected 2Q2021 and each quarterly event thereafter
Reinstall previously dry monitoring wells MW-9 and MW-10 as close to the original locations as practicable	Reinstalled wells MW-9 and MW-10 at top of bedrock (36 feet and 47 feet bgs, respectively)	March 17, 2021
Install bedrock monitoring wells adjacent to MW-2 and at a second location approved by NCDEQ	Installed well MW-2D to 144 feet bgs and well MW-11D to 65 feet bgs	March 19, 2021 (MW-2D) March 22, 2021 (MW-11D)

Per the approved Water Quality Monitoring Plan, and additional requirements set forth by NCDEQ since 2015, Charah is required to monitor the following network and report the results semi-annually.

Sampling Locations	Date Initiated	Purpose
MW-1 through MW-6, MW-7R, MW-8, and BG-1; SW-1 and SW-2; leachate	2015	Detection Monitoring
BG-2	2018	Detection Monitoring
MW-11; SW-3, SW-4, and SW-5	2020	Detection Monitoring
MW-2D, MW-9, MW-10, MW-11D; SW-6	2021	Detection Monitoring

Samples are analyzed for constituents listed in NCDEQ Solid Waste Appendix I (except volatile organic compounds [VOCs]) and II, 40 CFR 257 Appendix III, and 40 CFR 257 Appendix IV. On January 8, 2020, NCDEQ approved discontinuation of Appendix I VOC analysis based on historical non-detection of VOC constituents. Per the Water Quality Monitoring Plan, if sampling results indicate impacts to groundwater or surface water, Charah must notify NCDEQ within 14 days. If no impacts are observed, Charah must submit a report of the sampling results to NCDEQ within 120 days of the semi-annual sampling event.

2 Background

2.1 Site Location and Operation

The Site is located approximately four miles southeast of Moncure, in Chatham County North Carolina (**Figure 1**). The owner of the Site is Green Meadow, LLC (Green Meadow) and Charah Solutions, Inc. (Charah) is responsible for the operation and maintenance of the Site. The mine property is approximately 301 acres in total; of which 145 acres are permitted for structural fill placement of coal combustion products (CCP).

The property located within the structural fill area was previously owned by General Shale Brick, Inc., which operated the Site and an adjacent property as a mine for their off-site brick manufacturing facility beginning in 1985. Mined material was stockpiled and then transported approximately 3.5 miles south to Brickhaven, North Carolina for brick manufacturing.

The area immediately surrounding the Site primarily consists of rural residential, commercial, industrial, wooded, and agricultural properties. According to information obtained from the Chatham County GIS website (October 2015), municipal water is available to the surrounding area.

Charah began CCP placement in the first composite liner containment system (Cell 1, Sub Cell 1A) on October 23, 2015. Placement of approximately 7.3 million tons of CCP material has occurred in Cell 1, Cell 2, Cell 6A and Cell 6B. CCP materials (including fly ash, bottom ash, boiler slag, and/or flue gas desulfurization materials) were initially brought to the Site by truck through October 2015 until rail transport commenced in January 2016. The Site ceased accepting CCP on July 11, 2019, and closure of the structural fill concluded in January 2020. The CCP originated at the Duke Energy Carolinas Riverbend Steam Station and Duke Energy Progress L.V. Sutton Energy Complex (Sutton Plant) sites.

Leachate (i.e., product generated from the liquids present in the fill at the time of placement and/or stormwater that infiltrates the fill) is managed on-site through the collection, storage, and disposal of the resultant liquid. Green Meadow has approved pump and haul permits to dispose of leachate at the City of Sanford's Big Buffalo Creek Wastewater Treatment Plant and the Town of Spring Lake's South Harnett Regional Wastewater Treatment Plant.

2.2 Groundwater Monitoring System

The groundwater monitoring system was designed to provide background groundwater quality data prior to the placement of CCP in the structural fill and early detection of potential CCP constituents subsequent to CCP placement to be protective of human health and the environment. The groundwater monitoring system was originally comprised of 10 wells: eight wells are located down-gradient/cross-gradient (MW-1, MW-2, MW-3, MW-4, MW-5, MW-6, MW-7R and MW-8) and two wells are considered to represent background groundwater quality (BG-1 and BG-2). Since 2015, the NCDEQ has required installation of five additional monitoring wells (MW-9, MW-10, MW-11, MW-2D, and MW-11D) to further evaluate groundwater quality conditions.

Background monitoring well BG-1 was installed in July of 2015 near the entrance of the Site along Moncure-Flatwood Road. This location was selected to provide groundwater quality data in an area of the Site presumed to not be affected by historical or current usage of the property. Upon statistical analysis of groundwater quality data collected pre- and post-CCP placement, concentrations of target constituents in well BG-1 appear to be anomalously low when compared to pre-CCP conditions elsewhere on-site. With approval from NCDEQ, Charah installed a second background well (BG-2) southwest of the structural fill in December 2018 to evaluate spatial variability of inorganic concentrations across the Site.

Well MW-7R was installed in April of 2017 as a replacement for monitoring well MW-7, as documented and approved in a memorandum submitted to the NCDEQ Solid Waste Section on May 25, 2017. Well MW-7 has remained onsite for water level gauging purposes only.

Well MW-11, located down-gradient/cross-gradient of the structural fill, was installed in March 2020 during assessment monitoring. Monitoring wells MW-2D, MW-9, MW-10, and MW-11D, located down-gradient/cross-gradient, were installed in March 2021. Monitoring well locations are shown on **Figure 2**.

2.3 Surface Water Monitoring System

Surface water locations SW-1 and SW-2 were sampled during the initial sampling event in August 2015. Surface water locations SW-3 (background location) and SW-4 (on-site location) were proposed by Charah in the Groundwater and Surface Water Assessment Work Plan (dated August 16, 2019) in response to NCDEQ's request to delineate exceedances of surface water standards at surface water location SW-1. Based on additional discussions with NCDEQ, surface water locations SW-5 and SW-6 were added to the monitoring program in 2020 to evaluate potential contribution of contaminants from off-site sources north and east of the structural fill. Surface water monitoring locations are shown on **Figure 2**.

2.4 Leachate Monitoring System

The leachate sample is collected from the on-site holding tank located just north of wells MW-11 and MW-11D.

2.5 Site Topography and Geographical Setting

Based on review of the 1993 USGS topographic quadrangle (**Figure 3**) and GIS mapping, the topography of the site and immediately surrounding area is characterized by moderately rolling hills, which are dissected by dendritic creeks. Prior to mining by General Shale, a topographic ridge was present within the Site, extending from the northwestern corner of the present-day structural fill toward the southeast. Thus, historical drainage was assumed to be to the north/northwest/west and to the northeast/east/southeast away from the ridge.

2.6 Geologic and Hydrogeologic Setting

2.6.1 Regional Geology

The Site is located within the Piedmont physiographical province of North Carolina, which is a northeast-southwest trending region extending from New York to Alabama. According to the

1985 North Carolina Geologic Map prepared by the North Carolina Geological Survey, the Site is located in the Triassic Basin Belt of the Piedmont physiographic province. The basement rocks of the Triassic Basin Belt include conglomerate, sandstone, mudstone, limestone, coal, and shale. The majority of the Site is underlain by the Sanford Formation which is comprised of conglomerate, fanglomerate, sandstone, and mudstone. The far western portion of the Site is underlain by the Cummock Formation, comprised of sandstone, mudstone, gray and black coal, and carbonaceous shale. The Triassic Basin is bounded by felsic metavolcanic rock within the Carolina Slate Belt approximately 6.5 miles to the northwest; and is contacted by metamorphosed granite and biotite gneiss and schist of the Raleigh Belt along a normal fault approximately 2.5 miles to the southeast. The Triassic Basin formations have been intruded by north/northwest-south/southeast trending igneous diabase dikes during the Jurassic Period (~144 to 208 Ma) and contain northeast-southwest trending normal faults. However, none of these faults were mapped beneath the Site on the 1985 geologic map (NCDENR 1985).

In the Piedmont, the bedrock is typically overlain by a mantle of weathered rock (residuum/saprolite), which has an average thickness of approximately 25 feet. The residuum/saprolite consists of varying amounts of unconsolidated clays, silts, and sands, with lesser amounts of rock fragments. Due to the range of the parent rock composition and the variable susceptibility to weathering of each rock type, the residuum/saprolite vary widely in color, texture, and thickness. Generally, the residuum/saprolite is thickest near inter-stream divides (ridges) and thins toward stream beds. In profile, the residuum/saprolite normally grades from clayey soils near the land surface to sandier, partially weathered rock above competent bedrock (Buxton 2015a).

2.6.2 Site Geology

The geology of the Site can be subdivided into six units which include fill, flood plain, soil horizon, residuum, partially weathered rock, and layered rock. These units generally grade downward from a soil horizon, to residuum, to partially weathered rock and finally layered rock. Fill materials were limited to the road bed and berm located around the east and west sides of MW-4. Flood plain sediments were only identified at MW-4 on the southeast corner of the Site. The following summary of site-specific units is based on boring logs originally included in the *Design Hydrogeologic Report* (Buxton 2016).

2.6.2.1 FILL

Fill materials were primarily identified in the road bed and berm located around the east and west sides near MW-4 and generally consisted of mottled reddish yellow, orange, brown, and light gray sandy silty clay with quartz gravel.

2.6.2.2 FLOOD PLAIN

Flood plain sediments were identified adjacent to MW-4 on the southeast corner of the Site. Sediments were associated with a former adjacent intermittent tributary creek and can generally be characterized as mottled light gray fine sandy silty clay. The flood plain sediments were approximately five feet thick in this area and had been deposited above residuum. Based on geotechnical laboratory data, the flood plain sediments were classified as lean clay under the Unified Soil Classification System (USCS).

2.6.2.3 RESIDUUM

Residuum was formed from the continued weathering and biologic reworking of saprolite, and ranges from 2 to 15 feet in thickness, when present on-site. Residuum was characterized as mottled yellowish, brown, orange, and red silty clay and clayey silt. Root structures were common. Based on geotechnical laboratory data, the residuum is comprised of clayey sand, elastic silt, and lean clay and had a calculated hydraulic conductivity of 2.86×10^{-7} cm/sec.

2.6.2.4 SAPROLITE

Saprolite generally retains the remnant texture, structure, and mineral content of the rock from which it was formed and is characteristically fissile, often breaking in horizontal sheets. Saprolite encountered on-site was characterized as mottled (black and gray) red and reddish brown sandy silty clay with infrequent quartz gravel and cobbles and ranged from five to 15 feet in thickness. Saprolite had a standard penetration resistance of less than 100 blows per foot during standard penetration testing (SPT). Based on geotechnical laboratory data, the saprolite consisted of lean clay with hydraulic conductivities ranging from 7.69×10^{-8} cm/sec to 3.69×10^{-9} cm/sec.

2.6.2.5 PARTIALLY WEATHERED ROCK

Partially weathered rock generally retains the remnant texture, structure, and mineral content of the rock from which it was formed. Partially weathered rock is defined as having SPT values of 100 blows per foot or greater and can generally be drilled with standard hollow-stem auger drilling technology. Where encountered on-site, partially weathered rock was characterized as mottled (light green and purple) brown, reddish gray, and weak red silty clay and weathered mudstone, which are often fissile, and ranged from five to 40 feet in thickness. Based on geotechnical laboratory data, partially weathered rock consisted of lean clay. Hydraulic conductivity ranged from 2.433×10^{-4} cm/sec to 7.154×10^{-8} cm/sec, according to slug or recovery test data (for wells screened solely in partially weathered rock).

2.6.2.6 BEDROCK

Bedrock generally occurs as horizontally oriented and relatively thin intermittent layers (especially within the upper 15 feet of contacting layered rock) across the Site. Bedrock contained horizontal to near vertical fracturing. Large fractures, oriented approximately N 40° to 60° E at 70 ° northwest, were observed in weathered mudstone immediately northeast of well MW-8. The occurrence of layered rock at the Site was generally defined by auger refusal.

Based on rock coring activities conducted near MW-7/MW-7R, visual inspection of the rock exposed on the north side of the MW-4 area, and rock fragments produced during installation of wells MW-2D and MW-11D, bedrock at the Site is primarily composed of reddish to light tan gray mudstone, cross-bedded muddy sandstone, muddy sandy conglomerate (rounded quartz gravel and cobbles), and gray to brown siltstone.

2.6.3 Regional Hydrogeology

The occurrence and movement of groundwater in the Piedmont physiographic province are within two separate but interconnected water-bearing zones that typically comprise one aquifer. A shallow water-bearing zone typically occurs within the residuum/saprolite and a deeper zone occurs within the underlying bedrock.

Groundwater in the residuum/saprolite zone occurs in the interstitial pore spaces between the individual sediment grains. Groundwater in this zone generally flows from topographic highs to topographic lows. The occurrence and movement of groundwater in the underlying bedrock zone are controlled by joints and fractures within the bedrock. Groundwater within this deeper zone may occur under confined or semi-confined conditions, depending on the extent of fracturing at the saprolite/bedrock interface. Deeper groundwater movement is typically controlled by the distribution of openings in the bedrock and can be variable.

3 Detection Monitoring

On behalf of Charah, HDR conducted two detection monitoring events in July and October 2025 that included monitoring well gauging and sampling, surface water sampling, and leachate sampling.

3.1 Well Gauging

3.1.1 July 2025 Event

On July 14, 2025, depth to groundwater in shallow wells ranged from 7.75 feet below ground surface (bgs) in well MW-6 to 62.15 feet bgs in well MW-1. Groundwater elevations calculated from these measurements ranged from 182.41 feet (BG-2) to 224.89 feet (MW-10) in shallow wells. Depth to water in deep well MW-11D was 7.27 feet bgs, and the corresponding groundwater elevation was 212.13 feet. Deep well MW-2D was not measured during the July 2025 comprehensive gauging event; however, it was measured prior to sample collection. Groundwater gauging data and elevations for the July 14, 2025 event are presented in **Table 1**. Historical and current groundwater elevations are shown on **Figure 4**.

During the assessment monitoring phase of work, HDR developed a groundwater model using the groundwater modeling pre- and post-processing software Groundwater Modeling System (GMS) 10.3.4 (Aquaveo; https://www.aquaveo.com/software/gms-groundwater-modeling-system-introduction) as well as ArcMap 10.4.1 (ESRI; https://www.esri.com/en-us/arcgis/products/index). For the groundwater flow model, MODFLOW-2005 (Harbaugh 2005; https://pubs.usgs.gov/tm/2005/tm6A16/) was used to solve the groundwater-flow equations that quantify the flow of groundwater in three dimensions.

A potentiometric surface map was created using the Kriging method of interpolating groundwater contours based on groundwater measurements collected on July 14, 2025 (**Figure 5**). Regional groundwater flow near the Site generally flows northeast to southwest. The Kriging results indicated groundwater highs at MW-5, MW-6, MW-7R, and MW-10, and groundwater lows at wells MW-4, MW-8, and BG-2. Groundwater elevations for wells MW-2D and MW-11D were not used to generate potentiometric contours for the surficial aquifer during the July 2025 event as MW-2D and MW-11D were installed to monitor groundwater in the bedrock aquifer, thus, potentially not representative of shallow groundwater conditions. Monitoring well MW-9 was not used to generate potentiometric contours for the surficial aquifer during the July 2025 event, as the groundwater elevation was anomalously low.

3.1.2 October 2025 Event

On October 20, 2025, depth to groundwater in shallow wells ranged from 8.40 feet bgs in well MW-3 to 62.10 feet in well MW-1. Groundwater elevations calculated from these measurements ranged from 181.03 feet (BG-2) to 225.19 feet (MW-10) in shallow wells. Depth to water in deep wells ranged from 8.50 feet bgs in well MW-11D to 142.72 feet in well MW-2D. Corresponding groundwater elevations ranged from 90.15 feet (MW-2D) to 210.90 feet (MW-11D). Well gauging data and groundwater elevations for the October 20, 2025, event are presented in **Table 2**. Historical and current groundwater elevations are shown on **Figure 4**.

The results of Kriging using the October 20, 2025 data indicated groundwater highs at MW-5, MW-6, MW-7R and MW-10, and groundwater lows at wells MW-4, MW-8, and BG-2 (**Figure 6**). Groundwater elevations from wells MW-2D and MW-11D were not used to generate potentiometric contours for the surficial aquifer as MW-2D and MW-11D were installed to monitor groundwater in the bedrock aquifer, thus, potentially not representative of shallow groundwater conditions. The groundwater elevation from well MW-9 was not used to generate potentiometric contours for the surficial aquifer during the October 2025 event, as the groundwater elevation was anomalously low.

3.1.3 Horizontal Hydraulic Gradients

Horizontal hydraulic gradient was calculated by taking the difference in hydraulic head over the length of the flow path between two wells of similar construction and (generally) perpendicular to flow. Since groundwater flow direction can vary slightly between gauging events, it is difficult to install permanent monitoring wells in locations consistently perpendicular to groundwater flow. Horizontal hydraulic gradient was calculated between well pairs MW-5/MW-4 and MW-6/BG-2, recognizing that these well pairs are not truly perpendicular to flow, as shown on **Figure 5** and **Figure 6**. Groundwater monitoring wells from the northern portion of the site were not used to calculate the hydraulic gradient on site because they are most likely to have significant alterations to natural groundwater recharge caused by the structural fill cap. Hydraulic gradients calculated from data obtained during the July 2025 and October 2025 sampling events are presented in **Table 3**.

3.1.4 Groundwater Flow Velocity

The average linear velocity, or seepage velocity, of groundwater between wells at the site was calculated using Darcy's Law, as follows:

$$V_S = \frac{Ki}{P_e}$$

Where:

V_s = seepage velocity
K = horizontal hydraulic conductivity
i = horizontal hydraulic gradient
P_e = effective porosity

Seepage velocities for groundwater were calculated using horizontal hydraulic gradients, as referenced above, average horizontal hydraulic conductivity and average effective porosity values. Average horizontal hydraulic conductivity (9.79×10^{-5} cm/sec) was calculated during

geotechnical testing from on-site wells, except BG-2, MW-7R, and MW-11. Average effective porosity (0.093) values were calculated from geotechnical testing and from the literature where geotechnical data was not available (Buxton 2014; Sinhal and Gupta 2010).

Seepage velocity varies on a well-by-well basis and was calculated between the MW-5/MW-4 and MW-6/BG-2 well pairs, representing the two well pairs that are approximately perpendicular to the direction of groundwater flow and located farthest from the effects of the structural fill cap. Seepage velocity was calculated at 17.9 feet per year between MW-5 and MW-4, and 14.5 feet per year between MW-6 and BG-2 for the July 2025 sampling event. For the October 2025 sampling event, seepage velocity was calculated at 17.4 feet per year between MW-5 and MW-4 and 14.5 feet per year between MW-6 and BG-2. Flow rates listed above are estimations; actual rates will vary across the Site with local hydrogeologic conditions. Seepage velocities are shown in **Table 3**.

4 Sampling Activities

4.1 Groundwater Sampling

4.1.1 July 2025 Event

HDR collected groundwater samples from monitoring wells MW-1, MW-2, MW-2D, MW-3, MW-4, MW-5, MW-6, MW-7R, MW-8, MW-10, MW-11, MW-11D, BG-1, and BG-2 between July 14 and 17, 2025.

Purging was conducted via low-flow methods, except for MW-2D where hand bailing was conducted. Purging was considered complete when the depth to water and field parameters had stabilized in accordance with the targets specified below. Monitoring well MW-9 was not sampled, as the well ran dry during purging and did not recover sufficiently during the three-day sampling event. Note that the water column in well MW-2D was measured to be 1.85 feet and recharge into the well has historically been slow; thus, the well was sampled without purging, resulting in a turbidity of 566 nephelometric turbidity units (NTUs).

- Turbidity (10 percent for values greater than 10 NTUs (if three turbidity values are less than 10 NTU, the values are considered stabilized)
- Dissolved oxygen (DO) (10 percent for values greater than 2.0 mg/L, if DO values are below 2.0 mg/L, values are considered stable if three readings are within +/- 0.2 mg/L. If three DO values are less than 0.5 mg/L, the values are considered stabilized)
- Specific conductance (5 percent)
- Temperature (3 percent)
- pH (± 0.1 unit)
- Oxygen reduction potential (ORP) (± 20 millivolts)

In cases where water level in the well would not stabilize, the well was pumped for as long as possible leaving enough water in the water column to fill groundwater sample bottles. Field data sheets are provided in **Appendix A**.

Non-disposable sampling equipment was decontaminated after each use by washing in a Liquinox® detergent solution followed by a tap-water rinse. Purge water was discharged to the ground surface adjacent to the well from which it originated.

One equipment blank sample and one duplicate sample were collected in the field to evaluate effectiveness of field decontamination and consistency of laboratory analytical methods, respectively.

Samples were transferred under chain-of-custody procedures to Pace Analytical Services, LLC (Pace) for analysis. Sample handling and custody were performed in accordance with the USEPA Guidance for Field Samplers.

4.1.2 October 2025 Event

HDR collected groundwater samples from monitoring wells MW-1, MW-2, MW-3, MW-4, MW-5, MW-6, MW-7R, MW-8, MW-10, MW-11, MW-11D, BG-1, and BG-2 between October 20 and 23, 2025.

Purging was conducted via low-flow methods, and was considered complete when the depth to water and field parameters had stabilized. Monitoring wells MW-2D and MW-9 were not sampled during the October 2025 sampling event, as the wells either did not recharge after purging, or the water column in the well was not sufficient for sample collection.

One equipment blank sample and one duplicate sample were collected in the field to evaluate effectiveness of field decontamination and consistency of laboratory analytical methods, respectively. Purging and sampling methods were consistent with the methods described in **Section 4.1.1**. Field data sheets are provided in **Appendix A**.

4.2 Surface Water Sampling

Surface water samples were collected from locations outside of the structural fill boundary to evaluate potential groundwater to surface water interaction. Surface water locations SW-1 and SW-6 were sampled during the July and 2025 sampling events, and SW-1 through SW-3, SW-5, and SW-6 were sampled during the October 2025 sampling event. Surface water location SW-4 was dry and not sampled during the October 2025 sampling event. Surface water sampling locations are described as follows:

- SW-1 is located approximately 500 feet south of MW-4, outside of the property boundary, from an unnamed tributary of Gulf Creek.
- SW-2 is located south and adjacent to the rail spur west of the structural fill from an unnamed tributary of Shaddox Creek.
- SW-3 is located approximately 1,100 feet southwest of SW-2, outside of the property boundary, from an unnamed tributary of Shaddox Creek.

- SW-4 is located approximately 850 feet south of MW-11 from an unnamed tributary of Gulf Creek.
- SW-5 is located approximately 1,600 feet southeast of SW-4, outside the property boundary, west of Moncure-Flatwood Road, from an unnamed tributary of Gulf Creek.
- SW-6 is located approximately 350 feet north of MW-4 from an unnamed tributary of Gulf Creek.

Prior to sample collection, field parameters (temperature, specific conductance, DO, pH, turbidity, and ORP) were measured with a water quality meter and recorded on field data sheets for the July 2025 sampling event (**Appendix A**). Surface water sampling locations are shown on **Figure 2**.

4.3 Leachate Sampling

One leachate grab sample (leachate) was collected directly from the on-site holding tanks via a built-in spigot (**Figure 2**) during the July and October 2025 sampling events.

5 Water Quality

5.1 Background Site Conditions

Two groundwater sampling events were conducted prior to CCP placement (August and October 2015). The background sampling events consisted of sample collection and analysis from nine monitoring wells (MW-1 through MW-8 and BG-1) and two surface water sample locations (SW-1 and SW-2).

During these initial background monitoring events, chloride, pH, TDS, and vanadium were detected at concentrations that exceeded their 2L Standard or interim maximum allowable concentration (IMAC) in groundwater samples collected from background monitoring well BG-1. Antimony, barium, chloride, chromium, cobalt, pH, TDS, and vanadium were detected at concentrations that exceeded their respective 2L Standards or IMACs in other monitoring wells prior to ash placement. Additional target constituents were detected in the samples from well BG-1 and other wells; however, these concentrations did not exceed applicable standards.

Copper and cobalt concentrations that exceeded their respective 2B Standards were reported in surface water samples collected during the initial background monitoring events, prior to CCP placement. Additionally, all USEPA Appendix III constituents were detected in the surface water samples collected prior to CCP material placement, but at concentrations below their respective 2B Standards (if applicable).

During the first monitoring event (August 2015), bromodichloromethane and dibromochloromethane were detected at concentrations above their respective 2L Standards in groundwater samples collected from MW-2, MW-3, and MW-7. VOCs, including trihalomethanes, are not present naturally at the Site. These detections are attributed to the use of municipal water during previous well development activities. VOCs were not detected above laboratory method detection limits (MDLs) in any subsequent (second through eighth) background sampling events.

A detailed discussion of background groundwater conditions can be found in the *2016 Background Sampling Report* (HDR 2016b). Additional discussion of the statistical results can be found in **Section 6** of this report for a better understanding of predictive limits for the background well locations (BG-1 and BG-2), as well as interwell interactions.

5.2 Groundwater Analytical Results

5.2.1 July 2025 Event

5.2.1.1 COMPARISON TO GROUNDWATER QUALITY STANDARDS

Concentrations of the following constituents exceeded 2L Standards, as established in 15A NCAC 02L .0202 (effective April 1, 2022), in samples collected from one or more monitoring wells during the July 2025 sampling event:

- Arsenic exceeded the 2L Standard (10 µg/L) in the sample collected from MW-2D.
- Barium exceeded the 2L Standard (700 µg/L) in the samples collected from MW-3 and MW-8.
- Chloride exceeded the 2L Standard (250 mg/L) in the samples collected from BG-2, MW-1, MW-2, MW-3, MW-4, MW-7R, and MW-8.
- Chromium exceeded the 2L Standard (10 µg/L) in the sample collected from MW-2D.
- Cobalt exceeded the 2L Standard (1 µg/L) in the samples collected from MW-2D and MW-4.
- Fluoride exceeded the 2L Standard (2 mg/L) in the sample collected from MW-2D.
- Field-measured pH values did not fall within the 2L Standard range (6.5 – 8.5 standard units [SU]) while collecting samples from BG-1, MW-2D, MW-4, and MW-6.
- Lead exceeded the 2L Standard (15 µg/L) in the sample collected from MW-2D.
- Nickel exceeded the 2L Standard (100 µg/L) in the sample collected from MW-2D.
- TDS exceeded the 2L Standard (500 mg/L) in the samples collected from BG-1, BG-2, MW-1, MW-2, MW-3, MW-4, MW-6, MW-7R, and MW-8.
- Vanadium exceeded the 2L Standard (7 µg/L) in the sample collected from MW-2D.

Note that antimony, arsenic, beryllium, cadmium, cobalt, and vanadium results were reported with method reporting limits (MRLs) that exceeded the 2L Standard. Radium samples were not collected from MW-9 due to low water volume in the well.

5.2.1.2 COMPARISON TO SITE-SPECIFIC BACKGROUD THRESHOLD VALUES

Concentration of the following constituents exceeded the background threshold values (BTVs) in samples collected from one or more of the monitoring wells during the July 2025 sampling event:

- Arsenic exceeded the BTV (8.80 µg/L) in the sample collected from MW-2D.
- Barium exceeded the BTV (377 µg/L) in the samples collected from MW-2D, MW-3, and MW-8.

- Calcium exceeded the BTV (124,000 µg/L) in the samples collected from MW-1, MW-2, and MW-3.
- Chloride exceeded the BTV (374 mg/L) in the samples collected from MW-1, MW-2, and MW-3.
- Chromium exceeded the BTV (7.20 µg/L) in the sample collected from MW-2D.
- Cobalt exceeded the BTV (2.30 µg/L) in the samples collected from MW-2D and MW-4.
- Copper exceeded the BTV (0.0071 mg/L) in the sample collected from MW-2D.
- Field-measured pH values did not fall within the BTV range of 5.63 – 7.55 SU while collecting samples from MW-2D, MW-10, and MW-11D.
- Fluoride exceeded the BTV (0.509 mg/L) in the samples collected from MW-2D and MW-5.
- Lead exceeded the BTV (13.7 µg/L) in the sample collected from MW-2D.
- Lithium exceeded the BTV (43.7 µg/L) in the samples collected from MW-2, MW-2D, and MW-3.
- Molybdenum exceeded the BTV (13.6 µg/L) in the samples collected from MW-2D and MW-10.
- Nickel exceeded the BTV (4.20 µg/L) in the sample collected from MW-2D.
- Radium-226 exceeded the BTV (0.800 pCi/L) in the samples collected from BG-1, MW-3, MW-7R, and MW-8.
- Radium-228 exceeded the BTV (1.35 pCi/L) in the samples collected from MW-3 and MW-6.
- Combined radium exceeded the BTV (2.09 pCi/L) in the samples collected from BG-1 and MW-3.
- Sulfate exceeded the BTV (210 mg/L) in the sample collected from BG-2.
- TDS exceeded the BTV (1,400 mg/L) in the samples collected from BG-2, MW-1, MW-2, and MW-3.
- Vanadium exceeded the BTV (8.30 µg/L) in the sample collected from MW-2D.
- Zinc exceeded the BTV (0.0324 mg/L) in the sample collected from MW-2D.

Note that 13 constituents were reported with RLs that exceeded the BTV (antimony, arsenic, beryllium, cadmium, chromium, cobalt, copper, mercury, molybdenum, nickel, selenium, silver, and vanadium). Analytical results are presented in **Table 4**. The laboratory report for the July 2025 sampling event is provided in **Appendix B**. Electronic data deliverables are provided in **Appendix C**.

5.2.2 October 2025 Event

5.2.2.1 COMPARISON TO GROUNDWATER QUALITY STANDARDS

Concentrations of the following constituents exceeded 2L Standards in samples collected from one or more of the monitoring wells during the October 2025 sampling event:

- Barium exceeded the 2L Standard (700 µg/L) in the samples collected from MW-3 and MW-8.
- Chloride exceeded the 2L Standard (250 mg/L) in the samples collected from BG-2, MW-1, MW-2, MW-3, MW-4, MW-7R, and MW-8.
- The MRL for cobalt was greater than the 2L Standard (1µg/L) in all samples collected. An estimated concentration (J-flag) above the 2L Standard was reported in the sample collected from MW-4.
- Field measured pH values did not fall within the 2L Standard range (6.5 – 8.5 SU) in groundwater while collecting samples from BG-1, MW-4 and MW-6.
- TDS exceeded the 2L Standard (500 mg/L) in the samples collected from each monitoring well except for MW-5, MW-10, MW-11, and MW-11D.

Note that antimony, cobalt, and vanadium results were reported with MRLs that exceeded the 2L Standard. Samples were not collected from MW-2D and MW-9 due to the wells being dry.

5.2.2.2 COMPARISON TO SITE-SPECIFIC BTVs

Concentrations of the following constituents exceeded the BTVs in samples collected from one or more of the monitoring wells during the October 2025 sampling event:

- Barium exceeded the BTV (377 µg/L) in the samples collected from MW-3 and MW-8.
- Boron exceeded the BTV (56.9 µg/L) in the sample collected from MW-2.
- Calcium exceeded the BTV (124,000 µg/L) in the samples collected from MW-1, MW-2, MW-3, and MW-8.
- Chloride exceeded the BTV (374 mg/L) in the samples collected from MW-1, MW-2, MW-3, and MW-8.
- The laboratory MRL for cobalt was greater than the BTV (2.30 µg/L) in all samples collected. An estimated concentration (J-flag) above the BTV was reported in the sample collected from MW-4.
- Copper exceeded the BTV (0.0071 mg/L) in the samples collected from MW-6, MW-7R, MW-10, and MW-11 .
- Field-measured pH values did not fall within the BTV range of 5.63 – 7.55 SU while collecting samples from MW-10 and MW-11D.
- Lithium exceeded the BTV (43.7 µg/L) in the samples collected from MW-2 and MW-3.
- Molybdenum exceeded the BTV (13.6 µg/L) in the sample collected from MW-10.
- The laboratory MRL for nickel was greater than the BTV (4.20 µg/L) in all samples collected. An estimated concentration (J-flag) above the BTV was reported in the samples collected from MW-4.
- Radium-226 exceeded the BTV (0.800 pCi/L) in the samples collected from MW-2 and MW-3.
- Radium-228 exceeded the BTV (1.35 pCi/L) in the sample collected from MW-3.

- Combined radium exceeded the BTV (2.09 pCi/L) in the samples collected from MW-2 and MW-3.
- The laboratory MRL for selenium was greater than the BTV (6.00 µg/L) in all samples collected. An estimated concentration (J-flag) above the BTV was reported in samples collected from MW-4 and MW-10.
- TDS exceeded the BTV (1,400 µg/L) in the samples collected from MW-2, MW-3, and MW-8.
- Zinc exceeded the BTV (0.0324 mg/L) in the sample collected from MW-11D.

Note that 14 constituents were reported with MRLs that exceeded the BTV (antimony, arsenic, beryllium, boron, cadmium, chromium, cobalt, copper, mercury, nickel, selenium, silver, vanadium, and zinc). Analytical results are presented in **Table 4**. The laboratory report for the October 2025 sampling event is provided in **Appendix B**. Electronic data deliverables are provided in **Appendix C**.

The presence of naturally occurring inorganic constituents above regulatory criteria is common in North Carolina due to various geologic conditions and is discussed in more detail in the *Initial Background Groundwater & Surface Water Monitoring Event* (Buxton 2015c).

5.3 Surface Water Analytical Results

Surface water sample results were compared to the 2B Standards or the USEPA National Criteria Standard (used by the North Carolina Division of Water Quality as default standards for parameters not listed in 15A NCAC 02B).

5.3.1 July 2025 Event

5.3.1.1 COMPARISON TO SURFACE WATER QUALITY STANDARDS

Concentrations of the following constituents exceeded 2B Standards in one or more surface water samples during the July 2025 event:

- Cobalt exceeded the 2B Standard (3 µg/L) in the surface water samples collected from SW-3, SW-4, and SW-6.
- Copper exceeded the 2B Standard (0.007 mg/L) in the surface water samples collected from SW-1, SW-3, SW-4, and SW-6.
- Lead exceeded the 2B Standard (25 µg/L) in the surface water samples collected from SW-1 and SW-6.
- TDS exceeded the 2B Standard (500 mg/L) in surface water samples collected from SW-1 and SW-6.
- Zinc exceeded the 2B Standard (0.05 mg/L) in the surface water samples collected from SW-1, SW-3, and SW-6.

Note that seven constituents (antimony, arsenic, cadmium, copper, mercury, selenium, and silver) were reported with MRLs that exceeded the 2B Standards. Standards have not been

established under T15A NCAC 02B for the following constituents detected: calcium, combined radium, lithium, radium-226, radium-228, and vanadium. No exceedances of 2B Standards were reported among the constituents analyzed in surface water samples from SW-2 and SW-5. Laboratory results are presented in **Table 4**.

5.3.2 October 2025 Event

5.3.2.1 COMPARISON TO SURFACE WATER QUALITY STANDARDS

Concentrations of the following constituents exceeded 2B Standards in one or more surface water samples during the October 2025 event:

- Cobalt exceeded the 2B Standard (3 µg/L) in the surface water sample collected from SW-1 and SW-6.
- TDS exceeded the 2B Standard (500 mg/L) in the surface water sample collected from SW-6.
- Zinc exceeded the 2B Standard (0.05 mg/L) in the surface water sample collected from SW-6.

Note that seven constituents (cobalt, copper, lead, mercury, selenium, silver, and zinc) were reported with MRLs that exceeded the 2B Standards. Standards have not been established under T15A NCAC 02B for the following constituents detected: calcium, lithium, radium-226, radium-228, combined radium, and vanadium. Laboratory results are presented in **Table 4**.

5.4 Leachate Analytical Results

Leachate generated on-site was collected and analyzed during the July 2025 and October 2025 monitoring events. Analytical results (**Table 4**) were generally consistent with historical concentrations.

6 Statistics

6.1 Methodology

Background groundwater quality was evaluated to establish statistically derived background concentrations for the site. Groundwater quality in downgradient wells was then compared to background concentrations to evaluate if a statistically significant increase (SSI) over background has occurred, as required by Section .1600 of the North Carolina Solid Waste Management Rules 15A NCAC 13B.

Sampling results used to establish BTVs were obtained during 42 monitoring events performed between November 2015 and April 2025. Downgradient sampling results from the detection monitoring event in October 2025 were used to evaluate the potential for SSIs. Software packages R and SPSS were used in the production of the statistics (R is a free software environment; SPSS is a licensed software package).

Groundwater samples collected as part of the 15A NCAC 13B .1600 monitoring program were analyzed for NCDEQ Solid Waste Appendix I (except VOCs) and 40 CFR 257 Appendix III and

IV constituents. Only non-filtered sample results were utilized for the statistical analysis of monitored constituents.

6.1.1 Statistical Analysis

The background sample size (i.e., quantity of qualifying samples) was evaluated per constituent. Descriptive statistics were calculated for the background data set including and excluding non-detect (ND) values. When NDs were included in the dataset, the MDL was substituted as the ND value for simple descriptive statistics. The analysis was performed with NDs removed to better understand the central tendency and range of the detected values. Note that for the trend analyses in **Section 6.1.4** and for the establishment of statistically derived background concentration levels in **Section 6.2**, imputation methods using the maximum likelihood method (MLE) for NDs, regression on order statistics or Kaplan-Meier methods were used, where appropriate.

Following the calculation of descriptive statistics, statistical analyses for the background data set were performed to evaluate for outliers, data distributions, trends, and spatial variability between the background wells for Appendix I metals, Appendix III and Appendix IV constituents, where data quantity and quality permit. A total of 71 samples were included for the descriptive analysis of the background monitoring well results for the monitored constituents. The first round sampled in August 2015 was not included in the analysis as it was deemed unrepresentative of the other monitoring events as the samples were tested at a different laboratory. The sample collected April 3, 2017, for TDS in well BG-1 is considered an outlier and was removed from the analysis. January 2020 samples for boron were removed from the analysis as they were diluted and could not be properly detected.

For downgradient monitoring results, the analysis included the calculation of descriptive statistics for Appendix I metals, as well as Appendix III and Appendix IV constituents, (for the data sets including and excluding ND values), followed by an evaluation of outliers and trends. A total of up to 42 monitoring events performed between November 2015 and April 2025 were included for the descriptive analysis of the downgradient monitoring well results for the monitored constituents.

6.1.2 Outliers

Outliers are values that are not representative of the population from which they are sampled. The background and downgradient datasets were screened for outliers using the Dixon’s and Rosner’s outlier tests. Dixon’s outlier test is suitable for datasets containing less than 25 samples, while Rosner’s test is suitable for datasets with 25 or more samples. Since all current background samples have greater than 25 observations based on the pooling of data from BG-1 and BG-2, Rosner’s test was used. For downgradient data, since sample sizes vary by well both Dixon’s and Rosner’s tests were used depending on the well-constituent pair sample size. The outlier test was conducted using a significance of one percent. For constituents that had NDs, the NDs were removed prior to testing for outliers.

Ten occurrences of nickel, vanadium, boron, total dissolved solids, chromium, lithium, selenium, and/or thallium, in background well BG-1 were identified as statistical outliers. Six occurrences of vanadium, zinc, and/or boron in background well BG-2 were identified as statistical outliers.

The statistical outliers were investigated as possible data entry or measurement errors. The remaining values were all within one order of magnitude of other observations and deemed correct. Although the elevated values appear as statistical outliers, it is within a reasonable range of the remaining concentrations throughout the monitoring period and should not be removed from the data set at this time for purposes of determining background concentrations. Given the variable nature of groundwater samples and that it is common for groundwater quality samples to have very low or very high concentrations over time, statistical outliers are expected but do not necessarily signify that the outliers are from different distributions. As additional background samples are collected over time, the variability in concentrations will be better understood. Outlier test results may change, and earlier observations thought to be outliers may no longer be outliers.

Statistical outliers were identified for Appendix I metals, as well as Appendix III, and Appendix IV constituents in the data sets evaluated for downgradient monitoring wells throughout the monitoring period. Results of the outlier test of the background data set is listed in Table 3 of **Appendix D** and results of the downgradient data set is listed in Table 4 of **Appendix D.**

6.1.3 Data Distribution

Groundwater data was fitted to known distribution models using Goodness-of-Fit (GOF) tests. The Shapiro-Wilk and Lilliefors tests is used to test for normal distribution. Note that these two tests can be used to test for lognormal distributions after the data are transformed using the natural log function. The empirical distribution function (EDF) based methods, the Kolmogorov-Smirnov (K-S) and Anderson-Darling (A-D) test, are used to test for a gamma distribution. Normal, lognormal and gamma distributions are parametric distributions. If a dataset cannot be fit with any of these three parametric distributions, it is considered to follow a nonparametric distribution. In addition, if more than 50 percent of the observations are non-detects, then the dataset is assumed to follow a nonparametric distribution. Finally, the data distributions for radium 226, radium 228, and total radium are set to nonparametric for evaluation purposes as non-detect values were not flagged by the laboratory. Data distributions are listed in Table 5 of **Appendix D**.

6.1.4 Trends

Background constituent concentrations in groundwater should demonstrate stationary conditions through time, free of trends. Constituents were analyzed for trends within the dataset using a maximum likelihood estimate (MLE) regression for constituents which followed parametric distributions and Mann-Kendall tests for those that were treated under nonparametric distributional assumptions. The MLE regression can be applied to datasets that can be fitted to a specific distribution model and that contain NDs with multiple MDLs. The Mann-Kendall test is suitable for data series with no discernable distributions and only one MDL value for NDs.

Constituents treated under nonparametric data assumptions (either tested as nonparametric or having greater than or equal to 50 percent NDs) and with multiple MDLs or with less than three detected values were not assessed for trends. A summary of the trend analysis results for constituents with sufficient detected values in the background data set is provided in Table 6 of **Appendix D**. A one-percent significance level was used to detect statistically significant trends.

The background well regression analysis showed a potential increasing trend for boron (Appendix III), fluoride (an Appendix III and Appendix IV constituent), and sulfate (Appendix III), and a potential decreasing trend for chloride (Appendix III) and barium (Appendix IV). There were no increasing or decreasing trends identified for other monitoring constituents with sufficient data quantity and quality for testing with the MLE analysis or Mann-Kendall test.

Trends were also evaluated for constituents in each downgradient well using the same methods as described above for the background data set. Trends identified for select constituents at select monitoring well locations should be monitored as additional downgradient groundwater data are collected at the site. A summary of the statistical trends identified within the downgradient dataset is provided in Table 7 of **Appendix D**. As with the background datasets, one-percent significance level was used to detect statistically significant trends. No trends were detected for constituents with sufficient data at MW-11. Trends observed in the downgradient dataset for the current monitoring period are as follows:

- Barium: Increasing trends observed in MW-2, MW-3, MW-7R, and MW-10. Decreasing trends observed in MW-5 and MW-6.
- Boron: Increasing trends observed in MW-3 and MW-10.
- Calcium: Increasing trend observed in MW-3. Decreasing trend observed in MW-5 and MW-11D.
- Chloride: Decreasing trends observed in MW-4, MW-6, MW-7R, MW-8, and MW-11D.
- Cobalt: Increasing trend observe in MW-4.
- Fluoride: Increasing trends observed in MW-1 and MW-8. Decreasing trends observed in MW-10 and MW-11D.
- Lithium: Increasing trends observed in MW-4, MW-5, and MW-10. Decreasing trends observed in MW-6 and MW-11D.
- Molybdenum: Decreasing trends observed in MW-2, MW-10, and MW-11D.
- Nickel: Increasing trend observed in MW-4.
- pH (field): Increasing trend observed in MW-8. Decreasing trends observed in MW-2, MW-4, and MW-11D.
- Sulfate: Increasing trend observed in MW-8. Decreasing trends observed in MW-1, MW-2, MW-3, MW-6, MW-7R, MW-10, and MW-11D.
- TDS: Increasing trend observed in MW-7R. Decreasing trend observed in MW-5 and MW-11D.

6.1.5 Spatial Variability

Spatial variability refers to identifying whether or not there are statistically identifiable differences in mean concentrations or variance levels across the well field (i.e., the pooled background data). Parametric and nonparametric analysis of variance (ANOVA) tests and visual aids (i.e., side-by-side box plots and scatter plots), as needed, were used to evaluate for spatial variability within the background dataset to check that results from background wells BG-1 and BG-2 were appropriate for pooling and calculating background concentrations for constituents.

Statistical tests at the one percent level of statistical significance indicated that six Appendix III constituents (boron, calcium, fluoride, pH [field], sulfate, and total dissolved solids) exhibited spatial variability. Statistical spatial variability was also identified for two Appendix IV constituents (barium and fluoride), and one Appendix I metal (vanadium). Review of side-by-side box plots for the constituents listed above indicated that the statistically-identified variability in concentrations are reasonable and the mean concentrations calculated for the monitoring wells are generally within the natural variability of concentrations of the well field conditions for Appendix III and IV constituents or within or close to one order of magnitude of the other (See Figure 10 through Figure 17 in **Appendix D**). Therefore, the concentration distribution across the background wells should be considered reflective of the hydrogeological regime at the site and the background results are appropriate for pooling and calculating background concentrations at this time. Spatial variability will continue to be monitored with each background update and downgradient assessment.

6.2 Evaluation for SSIs over Background

The BTVs developed during the First Semi-Annual Report for Appendix I metals, Appendix III and Appendix IV constituents at the site are used to determine if concentration for Appendix I metals, Appendix III and Appendix IV constituents as of the October 2025 sampling round are SSIs. For constituents that have all ND background values, the maximum MDL is chosen to represent background and the double quantification rule (DQR) is used to evaluate whether there is an SSI. The BTV provided for detection monitoring constituents is the statistically derived background concentration (i.e., upper prediction limit [UPL]), the maximum detected value or the maximum MDL depending on the level of censorship in each of the background samples.

Downgradient sampling results from the April 2025 detection monitoring event were used to test for SSIs. For constituents that have all ND background values, the DQR is applied; that is, an SSI is registered for the well-constituent pair if the downgradient concentrations exhibit detects in two consecutive sampling events. Downgradient sampling results from the January 2025 and April 2025 sampling events were used to test for SSIs for constituents that have all ND background values. Downgradient concentrations were compared to the BTVs and are summarized in Table 11 through Table 13 of **Appendix D**.

SSIs were found for three Appendix I metal (copper, nickel, and zinc), five Appendix III constituents (boron, calcium, chloride, pH [field], and TDS), and eight Appendix IV constituents (barium, cobalt, lithium, molybdenum, radium-226, radium-228, selenium, and total radium).

6.3 Statistical Summary

A summary of the statistical analysis results is provided in Table 8 and Table 9 of **Appendix D** and discussed below.

- Note that for the purposes of the SSI analysis, the BTVs used are from the First Semi-Annual Report evaluation (samples up to April 2025). The PDA results for background statistics have been updated using Q3 and Q4 sampling results for information purposes.
- The statistical outliers identified for nickel, vanadium, zinc, boron, chromium, lithium, selenium, thallium, and total radium are considered representative of background. During the next BTV update with the additional 2025 samples, the full datasets will be re-assessed for statistical outliers.
- For the background data set, there are currently sufficient data to fit the Appendix III constituents to known parametric distribution models (e.g., gamma, lognormal, or normal) using GOF tests, except for calcium, sulfate, and TDS, which are nonparametric.
- For the background data set, 11 of the 17 Appendix IV constituents exhibited high percentages of NDs at the time of BTV calculation and were be treated under nonparametric distribution assumptions. Additionally, beryllium had no detects so the double quantification rule (DQR) is used to assess SSIs.
- Downgradient samples as of October 2025 were used to establish SSIs. The statistically-derived background concentrations and the evaluation for SSIs over background for Appendix I metals, as well as Appendix III and Appendix IV constituents are included in Section 4 of **Appendix D**.
- While multiple statistical outliers have been flagged at the downgradient wells for various constituents, the outliers can indicate contamination from the solid waste landfill or alternative sources. Unless an alternative source can be confirmed, the values remain in the sample as representing groundwater quality at the time of measurement.
- SSIs were found for three Appendix I metal (copper, nickel, and zinc), five Appendix III constituents (boron, calcium, chloride, pH [field], and TDS), and eight Appendix IV constituents (barium, cobalt, lithium, molybdenum, radium-226, radium-228, selenium, and total radium).

When the October 2025 sampling event results are compared to the pre-ash sampling results from the eleven downgradient wells, current downgradient groundwater constituent concentrations are generally similar to concentrations reported prior to ash placement. In some cases, the BTV is not contained within the pre-ash placement range indicating that natural variability may lie beyond what was captured prior to the ash placement. Depending on the data distribution of the constituent, the BTVs have been computed to allow for one to two verification samples, should an opportunity for additional sampling take place. The validity of the initial exceedance can be confirmed by verification sampling; however, for practical purposes, should the initial sampling event of interest exceed the respective BTV, the event is considered an SSI. Additional details regarding statistical methodology and results are provided in **Appendix D**.

7 Summary and Conclusions

7.1 Summary

The third and fourth quarterly groundwater monitoring events in 2025 were conducted at the Brickhaven No. 2 Mine Tract "A" Structural Fill site from July 14 - 17, 2025, and October 20 - 23, 2025, respectively. In general, comparison of results from the July and October 2025 monitoring events to the pre-ash sampling results from the eight downgradient wells, indicate that current down-gradient groundwater constituent concentrations are generally similar to concentrations reported prior to ash placement. Note that concentrations of constituents reported in the sample collected from well MW-2D during the July 2025 sampling event were generally higher than historical concentrations. However, the well was sampled without purging due to historically slow recharge, resulting in a turbidity value of 566 NTU, which may have resulted in biased-high results for inorganic constituents. A summary of the findings from these events is provided below**.**

7.1.1 Groundwater

7.1.1.1 JULY 2025 EVENT

- Concentrations of the following constituents exceeded 2L Standards in samples collected from one or more of the monitoring wells: arsenic, barium, chloride, chromium, cobalt, fluoride, pH (field), lead, nickel, TDS, and vanadium.
- Concentrations of the following constituents exceeded BTVs in samples from one or more of the monitoring wells: arsenic, barium, calcium, chloride, chromium, cobalt, combined radium, copper, fluoride, lead, lithium, molybdenum, nickel, pH (field), radium-226, radium-228, sulfate, TDS, vanadium, and zinc.

7.1.1.2 OCTOBER 2025 EVENT

- Concentrations of the following constituents exceeded 2L Standards in samples collected from one or more of the monitoring wells: barium, chloride, pH (field), and TDS.
- Concentrations of the following constituents exceeded the BTVs in samples collected from one or more of the monitoring wells: barium, boron, calcium, chloride, combined radium, copper, lithium, molybdenum, pH (field), radium-226, radium-228, TDS, and zinc.

7.1.1.3 STATISTICAL EVALUATION

- Ten occurrences of nickel, vanadium, boron, chromium, lithium, selenium, thallium, total dissolved solids, and/or total radium in background well BG-1 were identified as statistical outliers. Six occurrences of vanadium, zinc, and/or boron in background well BG-2 were identified as statistical outliers.
- The statistical outliers identified for nickel, vanadium, boron, chromium, lithium, selenium, thallium, total dissolved solids, and total radium are considered representative of background. During the next BTV update with the addition of the July 2025 and October 2025 samples, the full datasets will be re-assessed for statistical outliers.

- Groundwater quality in wells was compared to background concentrations to determine if an SSI over background has occurred:
  - SSIs were found for three Appendix I metal (copper, nickel, and zinc), five Appendix III constituents (boron, calcium, chloride, pH [field], and TDS), and eight Appendix IV constituents (barium, cobalt, lithium, molybdenum, radium-226, radium-228, selenium, and total radium).

7.1.2 Surface Water

7.1.2.1 JULY 2025 EVENT

- Concentrations of the following constituents exceeded 2B Standards in one or more surface water samples: cobalt, copper, lead, TDS, and zinc.
- No exceedances of 2B Standards were reported in the samples collected from SW-2 and SW-5.

7.1.2.2 OCTOBER 2025 EVENT

- Concentrations of the following constituents exceeded 2B Standards in one or more surface water samples: cobalt, TDS, and zinc.
- Surface water sample location SW-4 was dry and not sampled.

7.1.3 Leachate

Concentrations of detected constituents (**Table 4**) were generally within range of historical results, with some minor fluctuations observed.

7.2 Conclusions

Based upon the data analyzed during this event and historical events, HDR has made the following conclusions:

- The presence of SSIs is largely the result of low background concentrations that may not represent data collected prior to CCP placement (August and October 2015 sampling events) and is influenced by natural and seasonal variations at the site. In general, the SSIs reported during this sampling event are either consistent with those evaluated in the Alternate Source Demonstration (March 2019) or are potential SSIs to be verified during the next sampling event.
- Groundwater modeling during assessment monitoring in 2020 calculated that, due to the low hydraulic conductivity of the clay-rich soil of the former clay mine, groundwater and constituents found in the groundwater will move slowly through the aquifer materials. Model-estimated groundwater velocities are too low for constituents to have been transported from the structural fill to the monitoring wells or surface waters where they have been detected at the time of first detection. It was calculated that a hypothetical plume would have migrated approximately 250 feet in six years between 2014 and 2020. Using the average seepage rate of approximately 16 feet in the year 2025, and adding it to the 250 feet the plume moved from 2014 to 2020, the total potential migration distance of a plume since the placement of structural fill would be approximately 346 feet

or less. Therefore, tracer constituents would have reached downgradient monitoring wells within 346 feet of the fill boundary if a plume were migrating from the unit.

- Tracer constituents, such as boron, are not present at significant concentrations in either the groundwater or the surface water. Boron is a conservative tracer, so its ratio to the less mobile constituents (e.g., arsenic) should increase down-gradient of the structural fill. However, boron is at low concentrations or not present in down-gradient groundwater. This shows that the ash and leachate, which are a source of boron, are not the source of the other constituents in groundwater and/or surface water.
- Historically, results of surface water sampling indicate exceedances of 2B Standards in the sample collected from SW-6. This location is immediately downstream of the General Shale property and away from ash handling activities performed on the Brickhaven site prior to closure of the structural fill. Thus, it appears that the presence of inorganics in surface water samples collected downstream (locations SW-1 and SW-5) are likely the result of off-site impacts, and not from activities on the Brickhaven site.
- The structural fill is engineered and lined with an active leachate collection system. By collecting and disposing of the leachate off-site, the likelihood that leachate escaped the liner is greatly reduced.

8 Recommendations

Based on the findings, HDR makes the following recommendations:

- Continue semi-annual detection monitoring and reporting, and laboratory electronic data deliverables during non-reporting quarters, in accordance with permit requirements.
- Evaluate the validity of SSIs by further assessing sampling protocols/performance, spatial variability, and seasonality of constituent concentrations as additional sampling rounds are conducted.

9 References

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Tables

Table 1. July 2025 Groundwater Elevations
Table 2. October 2025 Groundwater Elevations
Table 3. Horizontal Hydraulic Gradients and Seepage Velocity
Table 4. Analytical Results – July 2025 and October 2025

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Table 1
Well Construction Details & Groundwater Elevations
July 14, 2025
Charah Solutions, Inc. - Brickhaven No.2 Mine Tract "A" Structural Fill
Moncure, Chatham County, North Carolina

Well ID	*Northing*	*Easting*	*TOC elev. (ft)*	*TD BGS (ft)*	*TD BTOC (ft)*	*Screen length (ft)*	*Screen Interval (ft)*	*DTW (ft BTOC)*	*GW Elevation (ft MSL)*	*Lithologic Unit*
BG-1	670898.50	1996348.25	228.19	41.00	43.55	15	26 - 41	9.90	218.29	Layered Rock/PWR*
BG-2	669278.99	1990476.10	194.23	23.00	25.82	10	13 -23	11.82	182.41	Layered Rock/PWR*
MW-1	674737.98	1993417.69	280.08	72.00	74.80	15	57 - 72	62.15	217.93	Layered Rock/PWR*
MW-2	673677.07	1994537.54	231.76	48.00	50.49	15	33 - 48	20.52	211.24	Layered Rock/PWR*
MW-2D	673650.31	1994535.97	232.87	144.00	147.14	15	129 - 144	145.55	87.32	Layered Rock/PWR*
MW-3	672474.63	1994834.76	222.56	40.00	42.56	15	25 - 40	7.90	214.66	PWR
MW-4	671326.48	1994974.40	217.13	22.70	25.34	10	13 - 23	13.16	203.97	Residuum/PWR
MW-5	671081.19	1993779.03	244.86	44.00	46.14	10	34 - 44	20.80	224.06	PWR
MW-6	671267.71	1992793.49	230.95	27.00	29.33	15	12 - 27	7.75	223.20	Residuum/PWR
MW-7	672306.28	1992642.35	231.71	15.00	17.18	10	5 - 15	15.00	216.71	Residuum/PWR
MW-7R	672221.96	1992702.98	242.22	36.00	38.23	10	26 - 36	20.56	221.66	Residuum/PWR
MW-8	673304.83	1992200.37	236.47	46.00	49.06	15	31 - 46	31.30	205.17	PWR
MW-9	672747.21	1993936.20	240.36	36.00	39.03	10	26 - 36	37.30	203.06	PWR
MW-10	672421.01	1993269.14	257.74	47.00	50.00	10	37 - 47	32.85	224.89	PWR
MW-11	670446.25	1993476.57	219.23	40.00	42.70	15	25 - 40	10.89	208.34	PWR
MW-11D	670447.41	1993466.72	219.40	65.00	67.38	15	50 - 65	7.27	212.13	Layered Rock/PWR*

Created by: CG, QC'd by: ARL

Notes:

1. Wells MW-4 (PZM-1), MW-5 (MZM-22), and MW-7 (PZM-27) were surveyed by Lawrence Surveying of Monroe, NC. Wells BG-1, BG-2, MW-1, MW-2, MW-2D MW-3, MW-6, MW-7R, MW-8, MW-9, MW-10, MW-11, and MW-11D were surveyed by McAdams of Durham, NC. Well Locations and elevations based on NAD 83 horizontal datum and NGVD88 vertical datum.

2. TD = Total Depth; BGS = Below Ground Surface; TOC = Top of Casing; DTW = Depth to Water; BTOC = Below Top of Casing; GW = Groundwater; MSL = Mean Sea Level

3. DTW measurements obtained on July 14, 2025, to the nearest 0.01 foot with a water-level meter.

4. * = Interpreted lithologic unit based on relative drilling hardness and geologic judgment during well installation.

5. The DTW measurement at monitoring well MW-2D was gauged on July 17, 2025, and not during the July 14, 2025 gauging event.

Table 2
Well Construction Details & Groundwater Elevations
October 20, 2025
Charah Solutions, Inc. - Brickhaven No.2 Mine Tract "A" Structural Fill
Moncure, Chatham County, North Carolina

Well ID	*Northing*	*Easting*	*TOC elev. (ft)*	*TD BGS (ft)*	*TD BTOC (ft)*	*Screen length (ft)*	*Screen Interval (ft)*	*DTW (ft BTOC)*	*GW Elevation (ft MSL)*	*Lithologic Unit*
BG-1	670898.50	1996348.25	228.19	41.00	43.55	15	26 - 41	12.98	215.21	Layered Rock/PWR*
BG-2	669278.99	1990476.10	194.23	23.00	25.82	10	13 -23	13.20	181.03	Layered Rock/PWR*
MW-1	674737.98	1993417.69	280.08	72.00	74.80	15	57 - 72	62.10	217.98	Layered Rock/PWR*
MW-2	673677.07	1994537.54	231.76	48.00	50.49	15	33 - 48	20.02	211.74	Layered Rock/PWR*
MW-2D	673650.31	1994535.97	232.87	144.00	147.14	15	129 - 144	142.72	90.15	Layered Rock/PWR*
MW-3	672474.63	1994834.76	222.56	40.00	42.56	15	25 - 40	8.40	214.16	PWR
MW-4	671326.48	1994974.40	217.13	22.70	25.34	10	13 - 23	14.90	202.23	Residuum/PWR
MW-5	671081.19	1993779.03	244.86	44.00	46.14	10	34 - 44	23.08	221.78	PWR
MW-6	671267.71	1992793.49	230.95	27.00	29.33	15	12 - 27	9.15	221.80	Residuum/PWR
MW-7	672306.28	1992642.35	231.71	15.00	17.18	10	5 - 15	15.58	216.13	Residuum/PWR
MW-7R	672221.96	1992702.98	242.22	36.00	38.23	10	26 - 36	21.15	221.07	Residuum/PWR
MW-8	673304.83	1992200.37	236.47	46.00	49.06	15	31 - 46	33.40	203.07	PWR
MW-9	672747.21	1993936.20	240.36	36.00	39.03	10	26 - 36	37.60	202.76	PWR
MW-10	672421.01	1993269.14	257.74	47.00	50.00	10	37 - 47	32.55	225.19	PWR
MW-11	670446.25	1993476.57	219.23	40.00	42.70	15	25 - 40	12.41	206.82	PWR
MW-11D	670447.41	1993466.72	219.40	65.00	67.38	15	50 - 65	8.50	210.90	Layered Rock/PWR*

Created by: CG; QC'd by: ARL

Notes:

1. Wells MW-4 (PZM-1), MW-5 (MZM-22), and MW-7 (PZM-27) were surveyed by Lawrence Surveying of Monroe, NC. Wells BG-1, BG-2, MW-1, MW-2, MW-2D MW-3, MW-6, MW-7R, MW-8, MW-9, MW-10, MW-11, and MW-11D were surveyed by McAdams of Durham, NC. Well Locations and elevations based on NAD 83 horizontal datum and NGVD88 vertical datum.

2. TD = Total Depth; BGS = Below Ground Surface; TOC = Top of Casing; DTW = Depth to Water; BTOC = Below Top of Casing; GW = Groundwater; MSL = Mean Sea Level

3. DTW measurements obtained on October 20, 2025 to the nearest 0.01 foot with a water-level meter.

4. * = Interpreted lithologic unit based on relative drilling hardness and geologic judgment during well installation.

Table 3
Horizontal Hydraulic Gradient & Groundwater Flow Velocity
July 14, 2025 & October 20, 2025
Charah Solutions, Inc. - Brickhaven No.2 Mine Tract "A" Structural Fill
Moncure, Chatham County, North Carolina

Sampling Event	Upgradient Well	Downgradient Well	Upgradient Groundwater Elevation (ft)	Downgradient Groundwater Elevation (ft)	Linear Flow Distance (ft)	Hydraulic Gradient	Seepage Velocity (ft/yr)
Jul-25	MW-5	MW-4	224.06	203.97	1,220	0.016	17.9
	MW-6	BG-2	223.20	182.41	3,054	0.013	14.5
Oct-25	MW-5	MW-4	221.78	202.23	1,220	0.016	17.4
	MW-6	BG-2	221.80	181.03	3,054	0.013	14.5

Created by: CG; QC'd by: ARL

Notes:

1. Horizontal hydraulic gradients calculated by dividing the difference in hydraulic head between a well pair by the length of the flow path between the well pair. (i= dh/dl).

2. All well pairs assumed to be screened in same surficial aquifer unit.

3. Groundwater elevations calculated using measurements obtained on July 14, 2025 (Jul-25) and October 20, 2025 (Oct-25).

4. The average linear velocity, or seepage velocity, of groundwater between wells at the site was calculated using Darcy's Law, as follows: Vs = (Ki)/Pe

V = Seepage Velocity (ft/yr) i = Horizontal Hydraulic Gradient

K = Horizontal Hydraulic Conductivity Pe = Effective Porosity

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Table 4: Analytical Results July 2025 and October 2025

Analyte	CAS Number	2L Standard / IMAC	BTV (2Q2025)	Groundwater Results											
				BG-1		BG-2		MW-1		MW-2		MW-2D		MW-3	
				Jul-25	Oct-25	Jul-25	Oct-25	Jul-25	Oct-25	Jul-25	Oct-25	Jul-25	Oct-25	Jul-25	Oct-25
EPA APPENDIX III															
Boron (µg/L)	7440-42-8	*700*	*56.9*	8.5 J	<30.0	16.6	18.9 J	12.7	50.8	45.1	**60.9**	36.8	NS	45.1	46.1
Calcium (µg/L)	7440-70-2	*NE*	*124,000*	20,000	20,900	112,000	124,000	**150,000**	**150,000**	**159,000**	**174,000**	15,800	NS	**167,000**	**190,000**
Chloride (mg/L)	16887-00-6	*250*	*374*	166	165	275	255	**568**	**508**	**1,010**	**994**	112	NS	**1,020**	**1,050**
Fluoride (mg/L)	16984-48-8	*2*	*0.509*	0.19	0.17	0.26	0.21	0.14	0.12	0.19	0.17	**2.2**	NS	0.27	0.22
pH (standard units)	pH	*6.5-8.5*	*5.63-7.55*	6.49	6.48	6.87	6.91	6.74	6.85	7.37	7.53	**8.68**	NS	7.34	7.40
Sulfate (mg/L)	14808-79-8	*250*	*210*	23.2	22.7	**226**	154	5.8	5.8	54.1	61.8	19.3	NS	11.9	11.2
Total Dissolved Solids (mg	TDS	*500*	*1,400*	532	510	**1,420**	1,200	**1,670**	1,320	**2,200**	**2,290**	410	NS	**2,740**	**2,330**
EPA APPENDIX IV															
Antimony (µg/L)	7440-36-0	*1*	*0.790*	<20.0	<10.0	5.2 J	<10.0	<20.0	<10.0	<20.0	<10.0	<20.0	NS	<20.0	<10.0
Arsenic (µg/L)	7440-38-2	*10*	*8.80*	<20.0	<10.0	<20.0	<10.0	<20.0	<10.0	<20.0	<10.0	**20.9**	NS	<20.0	<10.0
Barium (µg/L)	7440-39-3	*700*	*377*	251	240	52.1	55.8	192	153	335	330	**421**	NS	**731**	**763**
Beryllium (µg/L)	7440-41-7	*4*	*0.700*	<5.0	<2.0	<5.0	<2.0	<5.0	<2.0	<5.0	<2.0	0.45 J	NS	<5.0	<2.0
Cadmium (µg/L)	7440-43-9	*2*	*0.500*	<3.0	<2.0	<3.0	<2.0	<3.0	<2.0	0.52 J	<2.0	<3.0	NS	0.72 J	<2.0
Chromium (µg/L)	7440-47-3	*10*	*7.20*	1.9 J	<10.0	0.96 J	<10.0	8.4 J	<10.0	7.3 J	4.20 J	**307**	NS	0.92 J	<10.0
Cobalt (µg/L)	7440-48-4	*1*	*2.30*	<10.0	<10.0	1.7 J	<10.0	2.3 J	<10.0	2.4 J	<10.0	**15.9**	NS	1.3 J	<10.0
Fluoride (mg/L)	16984-48-8	*2*	*0.509*	0.19	0.17	0.26	0.21	0.14	0.12	0.19	0.17	**2.2**	NS	0.27	0.22
Lead (µg/L)	7439-92-1	*15*	*13.7*	<10.0	<6.0	3.5 J	<6.0	5.3 J	<6.0	4.2 J	<6.0	**30.3**	NS	4.9 J	<6.0
Lithium (µg/L)	7439-93-2	*NE*	*43.7*	19.3	17.0	23.9	20.3	34.1	33.2	**115**	**154**	**102**	NS	**91.7**	**88.0**
Mercury (µg/L)	7439-97-6	*1*	*0.170*	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	NS	<0.20	<0.20
Molybdenum (µg/L)	7439-98-7	*NE*	*13.6*	<15.0	<5.0	4.5 J	3.07 J	<15.0	<5.0	2.8 J	5.18	**125**	NS	5.1 J	6.89
Selenium (µg/L)	7782-49-2	*20*	*6.00*	<20.0	<10.0	<20.0	<10.0	<20.0	<10.0	<20.0	<10.0	<20.0	NS	<20.0	<10.0
Thallium (µg/L)	7440-28-0	*2*	*13.7*	0.10	<2.0	<0.10	<2.0	<0.10	<2.0	0.078 J	<2.0	0.20	NS	0.028 J	<2.0
Radium 226 (pCi/L)	13982-63-3	*NE*	*0.800*	**1.180**	0.000	0.13	0.000	-0.574	0.179	-0.125	**0.955**	0.114	NS	**1.48**	**0.916**
Radium 228 (pCi/L)	15262-20-1	*NE*	*1.35*	1.31	0.689	1.05	0.0246	0.757	1.08	1.18	1.33	0.437	NS	**1.88**	**2.10**
Combined Radium (pCi/L)	7440-14-4	*NE**	*2.09*	**2.49**	0.689	1.180	0.0246	0.757	1.26	1.18	**2.29**	0.551	NS	**3.36**	**3.02**
EPA APPENDIX I METALS															
Copper (mg/L)	7440-50-8	*1*	*0.0071*	0.0011 J	<0.0100	<0.0100	<0.0100	0.0011 J	<0.0100	0.0042 J	0.00604 J	**0.0492**	NS	0.0050 J	0.00346 J
Nickel (µg/L)	7440-02-0	*100*	*4.20*	2.7 J	<10.0	<20.0	<10.0	5.6 J	<10.0	5.3 J	3.09 J	**142**	NS	2.9 J	<10.0
Silver (µg/L)	7440-22-4	*20*	*0.700*	<10.0	<5.0	<10.0	<5.0	<10.0	<5.0	<10.0	<5.0	<10.0	NS	<10.0	<5.0
Vanadium (µg/L)	7440-62-2	*7*	*8.30*	5.7 J	<20.0	<15.0	<20.0	5.1 J	<20.0	<15.0	<20.0	**95.6**	NS	<15.0	<20.0
Zinc (mg/L)	7440-66-6	*1*	*0.0324*	0.0062 J	0.00562 J	0.0071 J	<0.0500	0.0123 J	0.00523 J	0.0308	0.0403 J	**0.180**	NS	0.0188 J	0.00825 J

Notes:

* = no established 2L Standard. 5 pCi/l is the Federal Standard

BTV = background threshold value calculated for April 2025

NE = not established

NA = not analyzed

µg/L = micrograms per liter

pCi/L = picocuries per liter

mg/L = miligrams per liter

EQBL = Equipment Blank

J = Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit

NS =Not Sampled

Shaded = concentration reported above (or below for pH) established 2L Standard, IMAC, or 2B Standard

Bold = concentration exceeded BTV

2L Standard = North Carolina Groundwater Protection Standard (T15A NCAC 02L .0202)

IMAC = Interim Allowable Maximum Concentration

2B Standard = North Carolina Surface Water and Wetland Standards (15A NCAC 02B) for Gulf Creek (SW-1) and Shaddox Creek (SW-2) which are both Class WS-IV Waters or are National Criteria per EPA

pH was field tested

Groundwater, surface water, and leachate samples collected for **July 2025 from July 14-17** and for **October 2025 from October 20-23** and analyzed for above parameters by Pace Analytical Services, LLC

Constituents are only considered exceeding the BTV if the sampling event in question and the previous sampling event had detections for that constituent

Secondary USEPA Maximun Contaminant Levels (MCL) used where other regulatory criteria not established.

Analysis for chloride, flouride, and sulfate during the January 2025 sampling event were analyzed outside the EPA method holding time

Table 4: Analytical Results July 2025 and October 2025

Analyte	CAS Number	2L Standard / IMAC	BTV (2Q2025)	Groundwater Results											
				MW-4		MW-5		MW-6		MW-7R		MW-8		MW-9	
				Jul-25	Oct-25	Jul-25	Oct-25	Jul-25	Oct-25	Jul-25	Oct-25	Jul-25	Oct-25	Jul-25	Oct-25
EPA APPENDIX III															
Boron (µg/L)	7440-42-8	*700*	*56.9*	7.1 J	15.3 J	10.5	16.7 J	10.4	12.2 J	9.6 J	11.8 J	11.0	13.6	NS	NS
Calcium (µg/L)	7440-70-2	*NE*	*124,000*	50,700	68,100	7,070	9,610	33,800	34,000	82,700	96,500	99,700	**164,000**	NS	NS
Chloride (mg/L)	16887-00-6	*250*	*374*	304	290	18.1	20.8	180	176	259	265	347	**499**	NS	NS
Fluoride (mg/L)	16984-48-8	*2*	*0.509*	0.35	0.38	**0.52**	0.50	0.32	0.30	0.13	0.10	0.093 J	0.061 J	NS	NS
pH (standard units)	pH	*6.5-8.5*	*5.63-7.55*	6.20	6.31	6.72	6.84	6.28	6.39	7.38	7.41	7.08	7.02	7.28	NS
Sulfate (mg/L)	14808-79-8	*250*	*210*	11.3	9.1	3.1	3.5	26.8	27.2	14.3	14.2	6.8	6.6	NS	NS
Total Dissolved Solids (mg	TDS	*500*	*1,400*	1,050	1,190	193	205	586	590	866	908	1,080	**1,630**	NS	NS
EPA APPENDIX IV															
Antimony (µg/L)	7440-36-0	*1*	*0.790*	<20.0	<10.0	<20.0	<10.0	<20.0	<10.0	<20.0	<10.0	<20.0	<10.0	NS	NS
Arsenic (µg/L)	7440-38-2	*10*	*8.80*	<20.0	<10.0	<20.0	<10.0	<20.0	<10.0	<20.0	<10.0	<20.0	<10.0	NS	NS
Barium (µg/L)	7440-39-3	*700*	*377*	311	320	71.3	93.6	116	54.1	302	317	**1,020**	**1,370**	NS	NS
Beryllium (µg/L)	7440-41-7	*4*	*0.700*	<5.0	<2.0	<5.0	<2.0	<5.0	<2.0	<5.0	<2.0	<5.0	<2.0	NS	NS
Cadmium (µg/L)	7440-43-9	*2*	*0.500*	<3.0	<2.0	<3.0	<2.0	<3.0	<2.0	<3.0	<2.0	<3.0	<2.0	NS	NS
Chromium (µg/L)	7440-47-3	*10*	*7.20*	1.2 J	<10.0	2.1 J	<10.0	9.8 J	<10.0	2.2 J	3.39 J	1.4 J	<10.0	NS	NS
Cobalt (µg/L)	7440-48-4	*1*	*2.30*	**11.9**	4.90 J	<10.0	<10.0	4.2 J	<10.0	<10.0	<10.0	<10.0	<10.0	NS	NS
Fluoride (mg/L)	16984-48-8	*2*	*0.509*	0.35	0.38	**0.52**	0.50	0.32	0.30	0.13	0.10	0.093 J	0.061 J	NS	NS
Lead (µg/L)	7439-92-1	*15*	*13.7*	<10.0	<6.0	<10.0	<6.0	10.8	<6.0	3.7 J	2.79 J	3.0 J	<6.0	NS	NS
Lithium (µg/L)	7439-93-2	*NE*	*43.7*	40.1	43.6	9.4	10.5	25.7	25.6	31.2	30.9	25.7	42.0	NS	NS
Mercury (µg/L)	7439-97-6	*1*	*0.170*	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	NS	NS
Molybdenum (µg/L)	7439-98-7	*NE*	*13.6*	<15.0	1.54 J	<15.0	<5.0	<15.0	<5.0	<15.0	1.75 J	<15.0	<5.0	NS	NS
Selenium (µg/L)	7782-49-2	*20*	*6.00*	<20.0	6.24 J	<20.0	<10.0	<20.0	<10.0	<20.0	<10.0	<20.0	<10.0	NS	NS
Thallium (µg/L)	7440-28-0	*2*	*13.7*	<0.10	<2.0	<0.10	<2.0	0.098 J	<2.0	<0.10	<2.0	<0.10	<2.0	NS	NS
Radium 226 (pCi/L)	13982-63-3	*NE*	*0.800*	0.425	0.0573	0.0608	0.118	-0.885	0.000	**1.17**	0.0622	**1.11**	0.444	NS	NS
Radium 228 (pCi/L)	15262-20-1	*NE*	*1.35*	0.667	0.439	1.06	-0.0196	**1.42**	0.571	0.329	0.598	0.446	1.12	NS	NS
Combined Radium (pCi/L)	7440-14-4	*NE**	*2.09*	1.090	0.496	1.12	0.118	1.42	0.571	1.50	0.660	1.56	1.56	NS	NS
EPA APPENDIX I METALS															
Copper (mg/L)	7440-50-8	*1*	*0.0071*	<0.0100	<0.0100	0.00098 J	<0.0100	0.0042 J	**0.0440**	0.0011 J	**0.0616**	<0.0100	0.00241 J	NS	NS
Nickel (µg/L)	7440-02-0	*100*	*4.20*	8.5 J	4.78 J	<20.0	<10.0	7.0 J	<10.0	<20.0	<10.0	<20.0	<10.0	NS	NS
Silver (µg/L)	7440-22-4	*20*	*0.700*	<10.0	<5.0	<10.0	<5.0	<10.0	<5.0	<10.0	<5.0	<10.0	<5.0	NS	NS
Vanadium (µg/L)	7440-62-2	*7*	*8.30*	<15.0	<20.0	<15.0	<20.0	7.9 J	<20.0	3.3 J	<20.0	<15.0	<20.0	NS	NS
Zinc (mg/L)	7440-66-6	*1*	*0.0324*	0.0097 J	0.00895 J	0.0081 J	0.0145 J	0.0318	0.0107 J	0.0044 J	0.0113 J	0.0056 J	0.0158 J	NS	NS

Notes:

* = no established 2L Standard. 5 pCi/l is the Federal Standard

BTV = background threshold value calculated for April 2025

NE = not established

NA = not analyzed

µg/L = micrograms per liter

pCi/L = picocuries per liter

mg/L = miligrams per liter

EQBL = Equipment Blank

J = Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit

NS =Not Sampled

Shaded = concentration reported above (or below for pH) established 2L Standard, IMAC, or 2B Standard

Bold = concentration exceeded BTV

2L Standard = North Carolina Groundwater Protection Standard (T15A NCAC 02L .0202)

IMAC = Interim Allowable Maximum Concentration

2B Standard = North Carolina Surface Water and Wetland Standards (15A NCAC 02B) for Gulf Creek (SW-1) and Shaddox Creek (SW-2) which are both Class WS-IV Waters or are National Criteria per EPA

pH was field tested

Groundwater, surface water, and leachate samples collected for **July 2025 from July 14-17** and for October **2025 from October 20 - 23** and analyzed for above parameters by Pace Analytical Services, LLC

Constituents are only considered exceeding the BTV if the sampling event in question and the previous sampling event had detections for that constituent

Secondary USEPA Maximun Contaminant Levels (MCL) used where other regulatory criteria not established.

Analysis for chloride, flouride, and sulfate during the January 2025 sampling event were analyzed outside the EPA method holding time

Table 4: Analytical Results July 2025 and October 2025

Analyte	CAS Number	2L Standard / IMAC	BTV (2Q2025)	Groundwater Results						Quality Control			
				MW-10		MW-11		MW-11D		EQBL		DUP (MW-6)	DUP (MW-11D)
				Jul-25	Oct-25	Jul-25	Oct-25	Jul-25	Oct-25	Jul-25	Oct-25	Jul-25	Oct-25
EPA APPENDIX III													
Boron (µg/L)	7440-42-8	*700*	*56.9*	27.0	30.0	16.0	18.5 J	41.6	46.4	<10.0	<30.0	11.1	46.1
Calcium (µg/L)	7440-70-2	*NE*	*124,000*	19,200	21,300	25,500	25,200	14,800	16,000	<500	177 J	34,600	16,000
Chloride (mg/L)	16887-00-6	*250*	*374*	29.2	29.9	155	139	53.6	54.3	<1.0	<1.0	179	53.7
Fluoride (mg/L)	16984-48-8	*2*	*0.509*	0.41	0.40	0.15	0.14	0.42	0.40	<0.10	<0.10	0.32	0.40
pH (standard units)	pH	*6.5-8.5*	*5.63-7.55*	**7.83**	**7.91**	6.50	6.69	**8.05**	**8.26**	NA	NA	6.28	**8.26**
Sulfate (mg/L)	14808-79-8	*250*	*210*	1.9	1.7	2.0	2.0	14.1	13.8	<1.0	<1.0	26.7	13.7
Total Dissolved Solids (mg	TDS	*500*	*1,400*	335	332	478	404	319	321	<25.0	<25.0	590	313
EPA APPENDIX IV													
Antimony (µg/L)	7440-36-0	*1*	*0.790*	<20.0	<10.0	<20.0	<10.0	<20.0	<10.0	<20.0	<10.0	<20.0	<10.0
Arsenic (µg/L)	7440-38-2	*10*	*8.80*	<20.0	<10.0	<20.0	<10.0	<20.0	<10.0	<20.0	<10.0	<20.0	<10.0
Barium (µg/L)	7440-39-3	*700*	*377*	93.9	95.2	39.4	38.6	110	112	<10.0	<5.0	135	113
Beryllium (µg/L)	7440-41-7	*4*	*0.700*	<5.0	<2.0	<5.0	<2.0	<5.0	<2.0	<5.0	<2.0	<5.0	<2.0
Cadmium (µg/L)	7440-43-9	*2*	*0.500*	<3.0	<2.0	<3.0	<2.0	<3.0	<2.0	<3.0	<2.0	<3.0	<2.0
Chromium (µg/L)	7440-47-3	*10*	*7.20*	1.0 J	<10.0	2.7 J	<10.0	2.2 J	<10.0	<10.0	<10.0	**10.8**	<10.0
Cobalt (µg/L)	7440-48-4	*1*	*2.30*	<10.0	<10.0	1.3 J	<10.0	<10.0	<10.0	<10.0	<10.0	5.1 J	<10.0
Fluoride (mg/L)	16984-48-8	*2*	*0.509*	0.41	0.40	0.15	0.14	0.42	0.40	<0.10	<0.10	0.32	0.40
Lead (µg/L)	7439-92-1	*15*	*13.7*	<10.0	<6.0	3.3 J	<6.0	<10.0	<6.0	<10.0	<6.0	12.2	<6.0
Lithium (µg/L)	7439-93-2	*NE*	*43.7*	5.3	6.29	14.7	12.0	14.9	16.9	<0.50	<2.0	29.0	16.8
Mercury (µg/L)	7439-97-6	*1*	*0.170*	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Molybdenum (µg/L)	7439-98-7	*NE*	*13.6*	**20.2**	**21.5**	<15.0	1.40 J	2.2 J	4.28 J	<15.0	<5.0	<15.0	4.68 J
Selenium (µg/L)	7782-49-2	*20*	*6.00*	<20.0	7.63 J	<20.0	<10.0	5.8 J	<10.0	<20.0	<10.0	<20.0	<10.0
Thallium (µg/L)	7440-28-0	*2*	*13.7*	<0.10	<2.0	<0.10	<2.0	<0.10	<2.0	<0.10	<2.0	0.11	<2.0
Radium 226 (pCi/L)	13982-63-3	*NE*	*0.800*	0.297	0.339	0.194	0.113	-0.249	-0.187	0.123	0.223	0.164	-0.223
Radium 228 (pCi/L)	15262-20-1	*NE*	*1.35*	0.418	1.07	0.209	1.01	0.585	0.187	-0.0909	-0.131	**2.72**	0.339
Combined Radium (pCi/L)	7440-14-4	*NE**	*2.09*	0.715	1.41	0.403	1.12	0.585	0.187	0.123	0.223	**2.88**	0.339
EPA APPENDIX I METALS													
Copper (mg/L)	7440-50-8	*1*	*0.0071*	0.00099 J	**0.0588**	0.0033 J	**0.0344**	0.0011 J	0.00483 J	<0.0100	<0.0100	0.0050 J	**0.0112**
Nickel (µg/L)	7440-02-0	*100*	*4.20*	<20.0	<10.0	<20.0	<10.0	<20.0	<10.0	<20.0	<10.0	7.8 J	<10.0
Silver (µg/L)	7440-22-4	*20*	*0.700*	<10.0	<5.0	<10.0	<5.0	<10.0	<5.0	<10.0	<5.0	<10.0	<5.0
Vanadium (µg/L)	7440-62-2	*7*	*8.30*	<15.0	<20.0	<15.0	<20.0	<15.0	<20.0	<15.0	<20.0	10.1 J	<20.0
Zinc (mg/L)	7440-66-6	*1*	*0.0324*	0.0032 J	0.0107 J	0.0144 J	0.0135 J	0.0083 J	**0.0897**	<0.0200	<0.0500	**0.0396**	**0.0767**

Notes:

* = no established 2L Standard. 5 pCi/l is the Federal Standard

BTV = background threshold value calculated for April 2025

NE = not established

NA = not analyzed

µg/L = micrograms per liter

pCi/L = picocuries per liter

mg/L = miligrams per liter

EQBL = Equipment Blank

J = Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit

NS =Not Sampled

Shaded = concentration reported above (or below for pH) established 2L Standard, IMAC, or 2B Standard

Bold = concentration exceeded BTV

2L Standard = North Carolina Groundwater Protection Standard (T15A NCAC 02L .0202)

IMAC = Interim Allowable Maximum Concentration

2B Standard = North Carolina Surface Water and Wetland Standards (15A NCAC 02B) for Gulf Creek (SW-1) and Shaddox Creek (SW-2) which are both Class WS-IV Waters or are National Criteria per EPA

pH was field tested

Groundwater, surface water, and leachate samples collected for **July 2025 from July 14-17** and for **October 2025 from October 20-23** and analyzed for above parameters by Pace Analytical Services, LLC

Constituents are only considered exceeding the BTV if the sampling event in question and the previous sampling event had detections for that constituent

Secondary USEPA Maximun Contaminant Levels (MCL) used where other regulatory criteria not established.

Analysis for chloride, flouride, and sulfate during the January 2025 sampling event were analyzed outside the EPA method holding time

Table 4: Analytical Results July 2025 and October 2025

Analyte	CAS Number	2L Standard / IMAC	BTV (2Q2025)	Surface Water Results												
				SW-1		SW-2		SW-3		SW-4		SW-5		SW-6		2B Standard
				Jul-25	Oct-25	Jul-25	Oct-25	Jul-25	Oct-25	Jul-25	Oct-25	Jul-25	Oct-25	Jul-25	Oct-25	
EPA APPENDIX III																
Boron (µg/L)	7440-42-8	*700*	*56.9*	10.3	11.9 J	14.8	10.9 J	11.7	20.0 J	81.6	NS	38.1	15.1 J	10.8	11.0 J	*7,300*
Calcium (µg/L)	7440-70-2	*NE*	*124,000*	3,310	9,190	14,000	28,400	9,520	9,880	2,570	NS	4,260	5,050	5,390	6,550	*NE*
Chloride (mg/L)	16887-00-6	*250*	*374*	6.9	5.2	19.8	23.3	11.9	24.3	3.6	NS	6.4	8.0	6.7	4.5	*250*
Fluoride (mg/L)	16984-48-8	*2*	*0.509*	0.36	0.28	0.15	0.14	0.14	0.12	0.059 J	NS	0.29	0.24	0.29	0.32	*1.8*
pH (standard units)	pH	*6.5-8.5*	*5.63-7.55*	6.10	6.97	6.87	6.70	6.69	6.62	6.07	NS	6.71	6.6	6.47	6.79	*6.0-9.0*
Sulfate (mg/L)	14808-79-8	*250*	*210*	0.97 J	1.1	4.0	15.2	0.70 J	3.5	2.0	NS	0.59 J	<1.0	1.0	0.95 J	*250*
Total Dissolved Solids (mg	TDS	*500*	*1,400*	705	104	127	198	112	129	219	NS	481	320	646	908	*500*
EPA APPENDIX IV																
Antimony (µg/L)	7440-36-0	*1*	*0.790*	<20.0	<10.0	<20.0	<10.0	<20.0	<10.0	<20.0	NS	<20.0	<10.0	<20.0	<10.0	*5.6*
Arsenic (µg/L)	7440-38-2	*10*	*8.80*	10 J	9.81 J	<20.0	<10.0	8.7 J	<10.0	7.7 J	NS	8.3 J	<10.0	10.2 J	<10.0	*10*
Barium (µg/L)	7440-39-3	*700*	*377*	432	187	59.3	81.4	297	55.3	146	NS	291	112	741	338	*1,000*
Beryllium (µg/L)	7440-41-7	*4*	*0.700*	0.79 J	0.937 J	<5.0	<2.0	<5.0	<2.0	<5.0	NS	<5.0	<2.0	1.4 J	1.83 J	*6.5*
Cadmium (µg/L)	7440-43-9	*2*	*0.500*	<3.0	<2.0	<3.0	<2.0	<3.0	<2.0	<3.0	NS	<3.0	<2.0	<3.0	<2.0	*2*
Chromium (µg/L)	7440-47-3	*10*	*7.20*	16.7	<10.0	1.6 J	<10.0	18.4	<10.0	13.5	NS	11.2	<10.0	24.7	1.99 J	*50*
Cobalt (µg/L)	7440-48-4	*1*	*2.30*	8.8 J	28.4	1.3 J	<10.0	19.6	<10.0	16.1	NS	6.6 J	3.23 J	29.7	10.7	*3*
Fluoride (mg/L)	16984-48-8	*2*	*0.509*	0.36	0.28	0.15	0.14	0.14	0.12	0.059 J	NS	0.29	0.24	0.29	0.32	*1.8*
Lead (µg/L)	7439-92-1	*15*	*13.7*	26.8	14.2	3.2 J	<6.0	19.1	<6.0	19.7	NS	18.4	5.36 J	43.6	3.22 J	*25*
Lithium (µg/L)	7439-93-2	*NE*	*43.7*	7.6	0.842 J	0.71	<2.0	8.2	<2.0	10.3	NS	6.7	1.06 J	12.7	2.06	*NE*
Mercury (µg/L)	7439-97-6	*1*	*0.170*	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	NS	<0.20	<0.20	<0.20	<0.20	*0.012*
Molybdenum (µg/L)	7439-98-7	*NE*	*13.6*	<15.0	4.26 J	<15.0	1.72 J	<15.0	<5.0	<15.0	NS	2.1 J	<5.0	<15.0	<5.0	*160*
Selenium (µg/L)	7782-49-2	*20*	*6.00*	<20.0	6.33 J	<20.0	<10.0	<20.0	<10.0	<20.0	NS	<20.0	<10.0	<20.0	<10.0	*5*
Thallium (µg/L)	7440-28-0	*2*	*13.7*	0.25	<2.0	<0.10	<2.0	0.14	<2.0	0.19	NS	0.14	<2.0	0.34	0.408 J	*2*
Radium 226 (pCi/L)	13982-63-3	*NE*	*0.800*	0.000	0.179	0.321	0.114	0.167	0.671	1.15	NS	0.489	0.124	0.363	0.800	*NE*
Radium 228 (pCi/L)	15262-20-1	*NE*	*1.35*	1.13	1.49	0.273	0.182	0.484	0.562	1.02	NS	1.24	0.487	1.47	1.29	*NE*
Combined Radium (pCi/L)	7440-14-4	*NE**	*2.09*	1.13	1.67	0.594	0.296	0.651	1.23	2.17	NS	1.73	0.611	1.83	2.09	*NE*
EPA APPENDIX I METALS																
Copper (mg/L)	7440-50-8	*1*	*0.0071*	0.0108	0.0057 J	0.0028 J	<0.0100	0.0141	<0.0100	0.0143	NS	0.0071 J	0.00243 J	0.0210	0.00604 J	*0.007*
Nickel (µg/L)	7440-02-0	*100*	*4.20*	7.7 J	3.09 J	2.9 J	<10.0	15.9 J	<10.0	7.0 J	NS	5.9 J	<10.0	15.6 J	3.77 J	*25*
Silver (µg/L)	7440-22-4	*20*	*0.700*	<10.0	<5.0	<10.0	<5.0	<10.0	<5.0	<10.0	NS	<10.0	<5.0	<10.0	<5.0	*0.06*
Vanadium (µg/L)	7440-62-2	*7*	*8.30*	54.1	18.9 J	4.2 J	<20.0	43.5	<20.0	33.0	NS	34.6	<20.0	84.7	15.1 J	*NE*
Zinc (mg/L)	7440-66-6	*1*	*0.0324*	0.0675	0.0196 J	0.0063 J	<0.0500	0.0754	0.00481 J	0.0470	NS	0.0440	0.0142 J	0.130	0.0570	*0.05*

Notes:

* = no established 2L Standard. 5 pCi/l is the Federal Standard

BTV = background threshold value calculated for April 2025

NE = not established

NA = not analyzed

µg/L = micrograms per liter

pCi/L = picocuries per liter

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pH was field tested

Groundwater, surface water, and leachate samples collected for **July 2025 from July 14-17** and for **October 2025 from October 20-23** and analyzed for above parameters by Pace Analytical Services, LLC

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Secondary USEPA Maximun Contaminant Levels (MCL) used where other regulatory criteria not established.

Analysis for chloride, flouride, and sulfate during the January 2025 sampling event were analyzed outside the EPA method holding time

Table 4: Analytical Results July 2025 and October 2025

Analyte	CAS Number	2L Standard / IMAC	BTV (2Q2025)	Leachate Analysis	
				LEACHATE	
				Jul-25	Oct-25
EPA APPENDIX III					
Boron (µg/L)	7440-42-8	*700*	*56.9*	3,110	4,030
Calcium (µg/L)	7440-70-2	*NE*	*124,000*	187,000	230,000
Chloride (mg/L)	16887-00-6	*250*	*374*	18.0	19.3
Fluoride (mg/L)	16984-48-8	*2*	*0.509*	0.19	0.18
pH (standard units)	pH	*6.5-8.5*	*5.63-7.55*	7.43	7.31
Sulfate (mg/L)	14808-79-8	*250*	*210*	375	434
Total Dissolved Solids (mg	TDS	*500*	*1,400*	1,080	1,210
EPA APPENDIX IV					
Antimony (µg/L)	7440-36-0	*1*	*0.790*	<20.0	<10.0
Arsenic (µg/L)	7440-38-2	*10*	*8.80*	132	89.4
Barium (µg/L)	7440-39-3	*700*	*377*	41.7	45.1
Beryllium (µg/L)	7440-41-7	*4*	*0.700*	<5.0	<2.0
Cadmium (µg/L)	7440-43-9	*2*	*0.500*	<3.0	<2.0
Chromium (µg/L)	7440-47-3	*10*	*7.20*	<10.0	<10.0
Cobalt (µg/L)	7440-48-4	*1*	*2.30*	<10.0	<10.0
Fluoride (mg/L)	16984-48-8	*2*	*0.509*	0.19	0.18
Lead (µg/L)	7439-92-1	*15*	*13.7*	3.7 J	<6.0
Lithium (µg/L)	7439-93-2	*NE*	*43.7*	52.7	62.2
Mercury (µg/L)	7439-97-6	*1*	*0.170*	<0.20	<0.20
Molybdenum (µg/L)	7439-98-7	*NE*	*13.6*	176	194
Selenium (µg/L)	7782-49-2	*20*	*6.00*	<20.0	<10.0
Thallium (µg/L)	7440-28-0	*2*	*13.7*	0.10	<2.0
Radium 226 (pCi/L)	13982-63-3	*NE*	*0.800*	0.247	0.169
Radium 228 (pCi/L)	15262-20-1	*NE*	*1.35*	0.330	0.161
Combined Radium (pCi/L)	7440-14-4	*NE**	*2.09*	0.577	0.330
EPA APPENDIX I METALS					
Copper (mg/L)	7440-50-8	*1*	*0.0071*	0.0023 J	0.00349 J
Nickel (µg/L)	7440-02-0	*100*	*4.20*	2.2 J	<10.0
Silver (µg/L)	7440-22-4	*20*	*0.700*	<10.0	<5.0
Vanadium (µg/L)	7440-62-2	*7*	*8.30*	<15.0	<20.0
Zinc (mg/L)	7440-66-6	*1*	*0.0324*	0.0067 J	0.00646 J

Notes:

Prepared by: CG/ZH;
Checked by: CG

* = no established 2L Standard. 5 pCi/l is the Federal Standard

BTV = background threshold value calculated for April 2025

NE = not established

NA = not analyzed

µg/L = micrograms per liter

pCi/L = picocuries per liter

mg/L = miligrams per liter

EQBL = Equipment Blank

J = Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit

NS =Not Sampled

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Figures

Figure 1. Regional Site Location Map
Figure 2. Sample Location Map
Figure 3. Regional Topographic Map
Figure 4. Historical Groundwater Elevations
Figure 5. Potentiometric Surface Map – July 2025
Figure 6. Potentiometric Surface Map – October 2025

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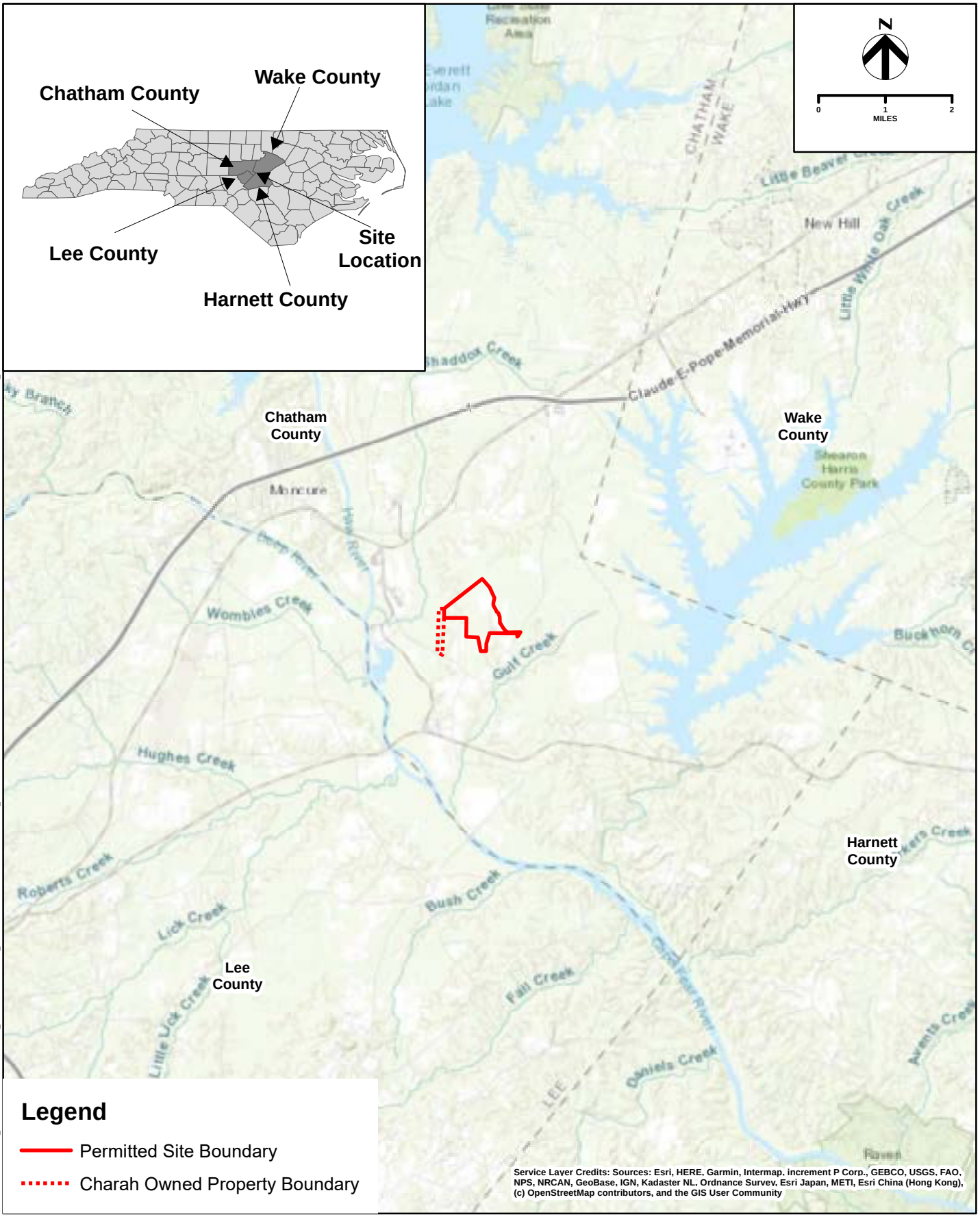

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REGIONAL SITE LOCATION MAP
CHARAH SOLUTIONS, INC
MONCURE, NORTH CAROLINA

BRICKHAVEN NO. 2 MINE TRACT "A"

DATE

December 2025

FIGURE

1

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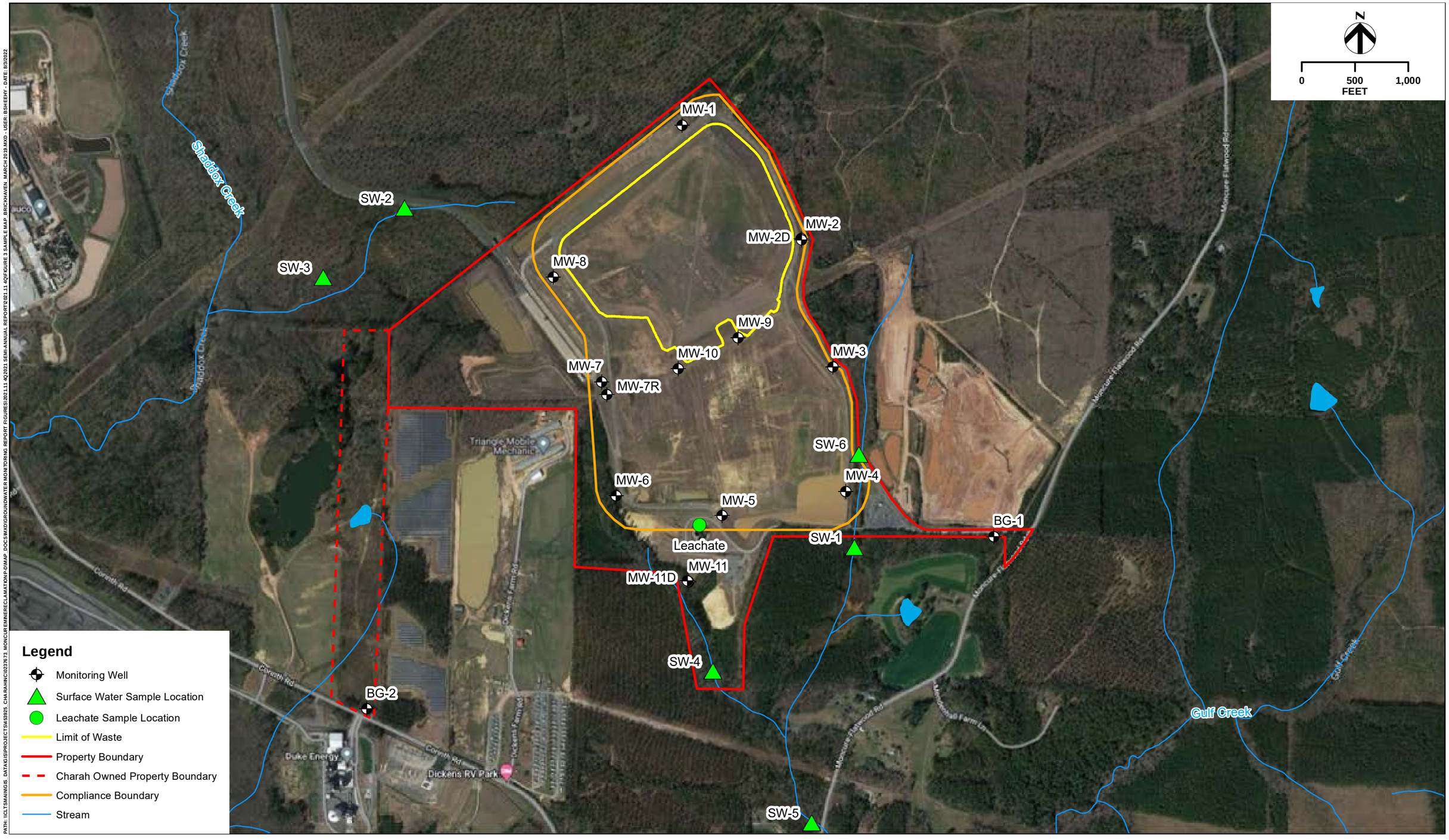

SAMPLE LOCATION MAP
CHARAH SOLUTIONS, INC.
MONCURE, NORTH CAROLINA

BRICKHAVEN NO. 2 MINE TRACT "A"

DATE
December 2025

FIGURE
2

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PATH: \\CLTSMAIN\GIS_DATA\GIS\PROJECTS\453925_CHARAH\NC\0237673_MONCURE\MINERECLAMATION\P-DIMAP_DOCS\MXD\GROUNDWATER MONITORING REPORT FIGURES\2021.04 SEMI-ANNUAL REPORT\FIGURE 2 USGS TOPO MAP_BRICKHAVEN.MXD - USER: CGRUENBERG - DATE: 7/9/2021

Legend

- Permitted Site Boundary
- Charah Owned Property Boundary

REGIONAL TOPOGRAPHIC MAP
CHARAH SOLUTIONS, INC
MONCURE, NORTH CAROLINA

BRICKHAVEN NO. 2 MINE TRACT "A"

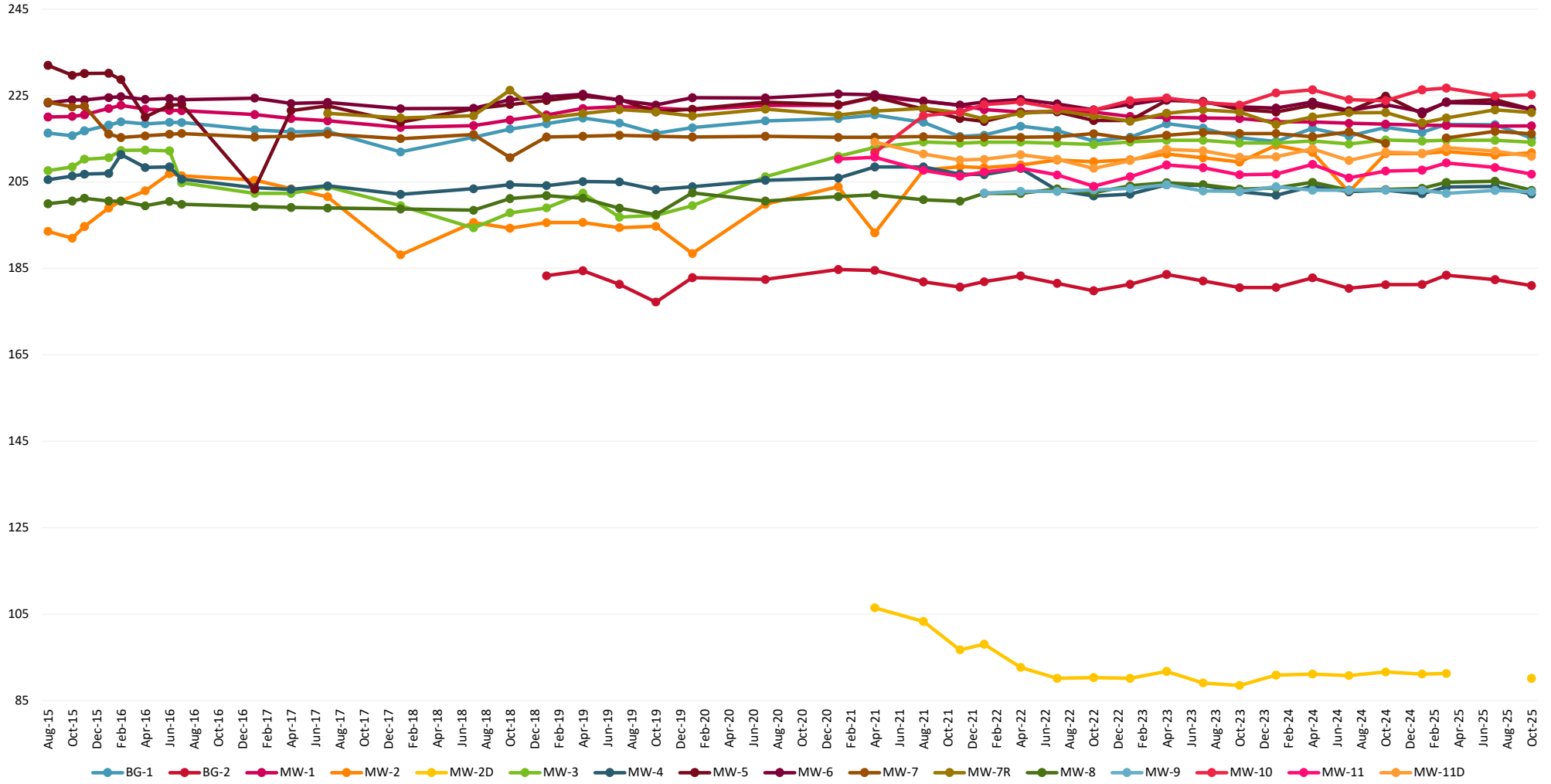
DATE

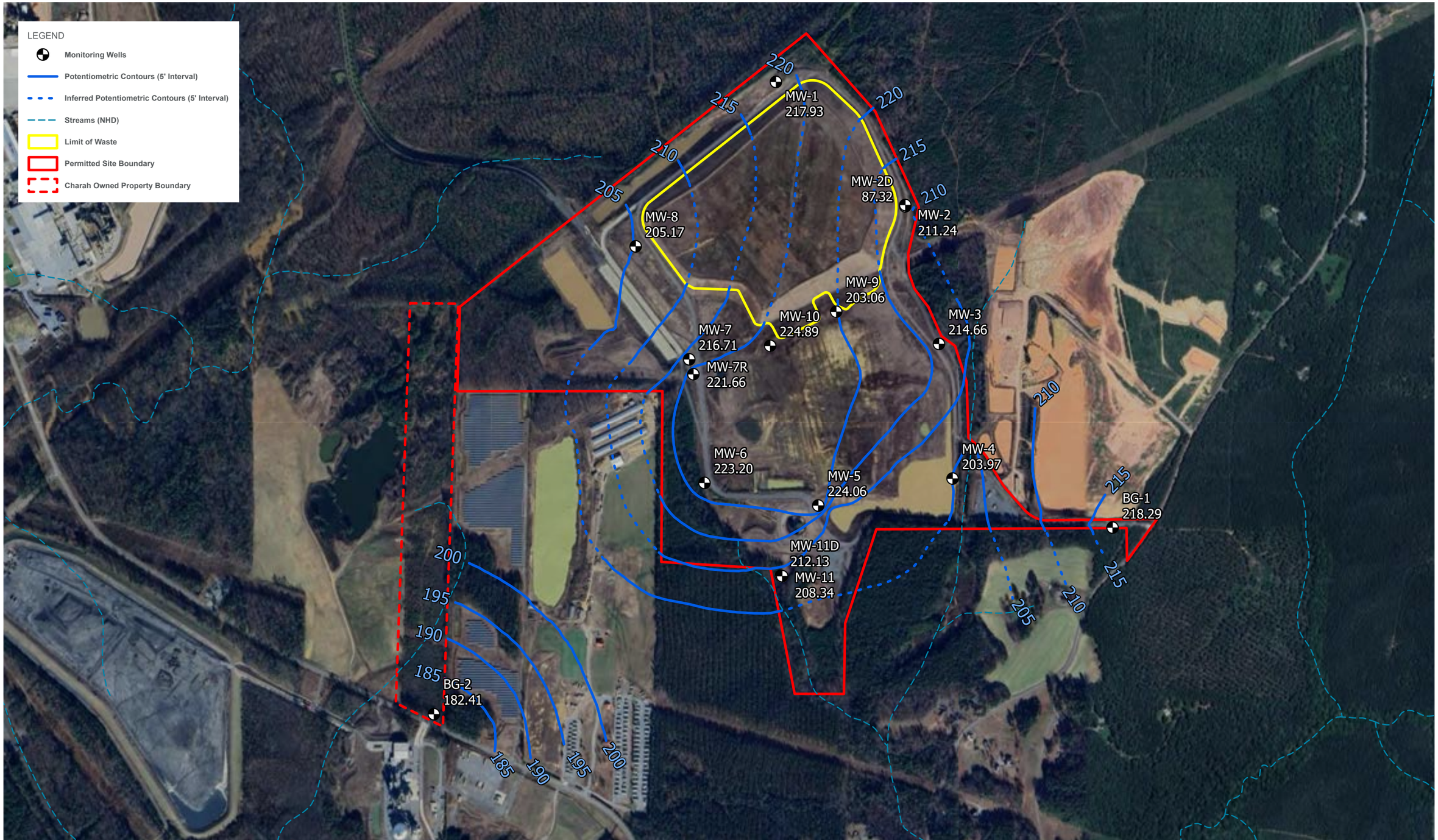
December 2025

FIGURE

3

Figure 4: Historical Groundwater Elevations





PATH: C:\USERS\CBUSH\DOCUMENTS\ARCGIS\PROJECTS\CHARAH_LOCAL\CHARAH_LOCAL.APRX - USER: CBUSH - DATE: 1/16/2026

0 800 1,600 2,400 3,200 Feet

1" = 800'

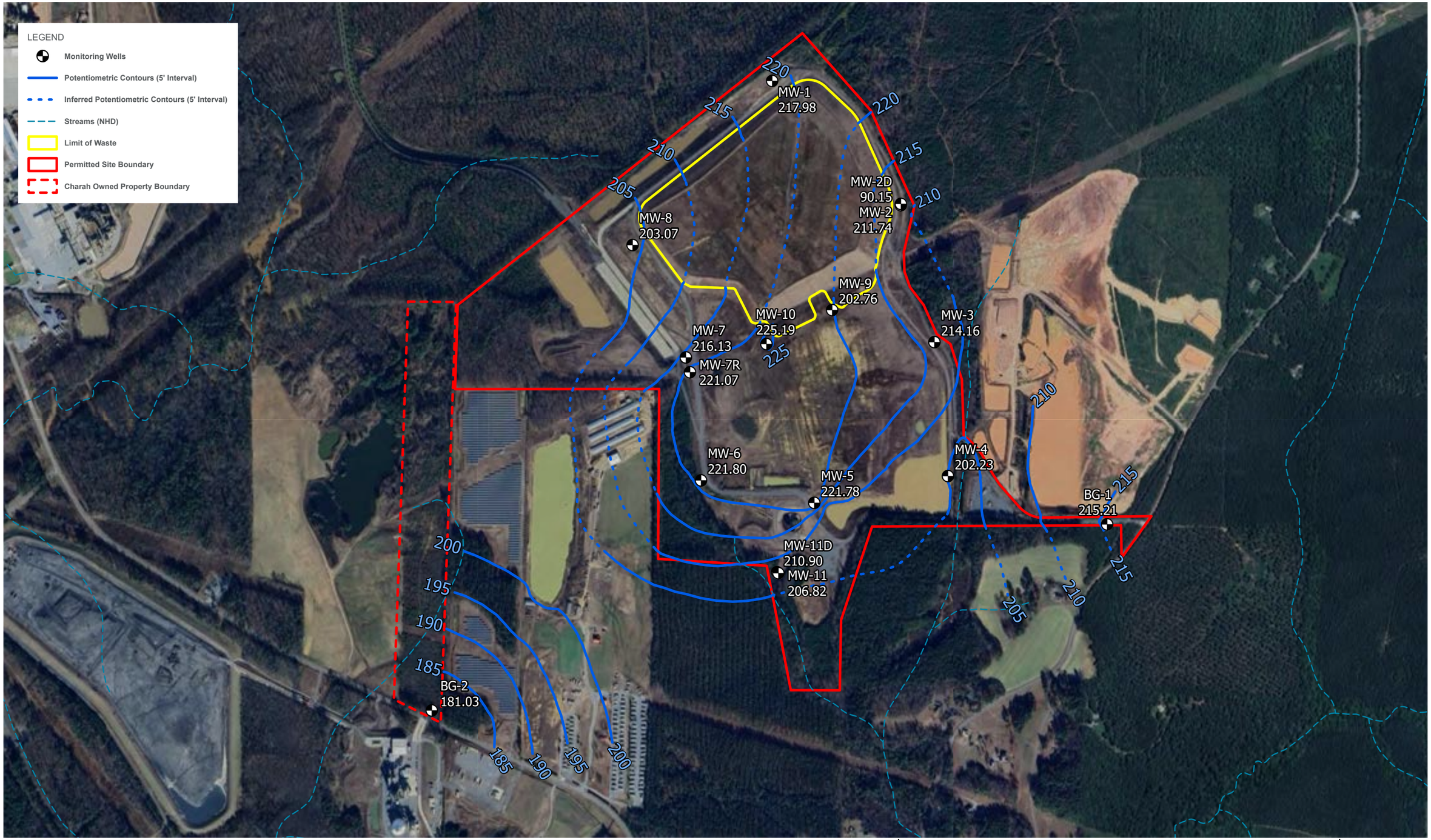
NOTES:
1. GROUNDWATER ELEVATIONS DERIVED FROM DEPTH TO WATER MEASUREMENTS COLLECTED ON JULY 14, 2025.
2. THE DTW MEASUREMENT AT MONITORING WELL MW-2D WAS GAUGED ON JULY 17, 2025, AND NOT DURING THE JULY 14, 2025 GAUGING EVENT.
3. MONITORING WELLS MW-2D, MW-9, AND MW-11D WERE NOT USED FOR CONTOURS AS THEY SCREENED IN BEDROCK.
4. TOPOGRAPHY DATA FOR THE SITE WAS OBTAINED FROM NC ONEMAP GEOGRAPHIC INFORMATION SYSTEM (GIS) WEBSITE (DATED 2020).
5. AERIAL IMAGERY OBTAINED FROM MICROSOFT BING WEB SERVICE VIA ESRI ARCGIS ONLINE.

HDR Engineering, Inc. of the Carolinas License Number: F-0116
440 S Church Street, Suite 1000 Charlotte, NC 28202-2075

GROUNDWATER CONTOUR MAP - JULY 14, 2025
BRICKHAVEN NO. 2 MINE TRACT "A"
CHARAH SOLUTIONS, INC.
MONCURE, NORTH CAROLINA

DATE
DECEMBER 2025

FIGURE
5



PATH: C:\USERS\CBUSH\DOCUMENTS\ARCGIS\PROJECTS\CHARAH_LOCAL\CHARAH_LOCAL.APRX - USER: CBUSH - DATE: 12/3/2025

0 800 1,600 2,400 3,200 Feet

1" = 800'

NOTES:
1. GROUNDWATER ELEVATIONS DERIVED FROM DEPTH TO WATER MEASUREMENTS COLLECTED ON OCTOBER 20 2025.
2. MONITORING WELLS MW-2D, MW-9, AND MW-11D WERE NOT USED FOR CONTOURS AS THEY SCREENED IN BEDROCK.
3. TOPOGRAPHY DATA FOR THE SITE WAS OBTAINED FROM NC ONEMAP GEOGRAPHIC INFORMATION SYSTEM (GIS) WEBSITE (DATED 2020).
4. AERIAL IMAGERY OBTAINED FROM MICROSOFT BING WEB SERVICE VIA ESRI ARCGIS ONLINE.

HDR Engineering, Inc. of the Carolinas License Number: F-0116
440 S Church Street, Suite 1000 Charlotte, NC 28202-2075

GROUNDWATER CONTOUR MAP - OCTOBER 20, 2025
BRICKHAVEN NO. 2 MINE TRACT "A"
CHARAH SOLUTIONS, INC.
MONCURE, NORTH CAROLINA

DATE
DECEMBER 2025

FIGURE
6

A

Appendix A – Field Data Sheets

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GROUNDWATER DEPTH

Project Name: Charah – Brickhaven

Project Address: Moncure

Time Started:

Personnel:

Date:

Project No:

Time Finished:

Well ID	Depth to Water	Total Depth
BG-1		43.~~05~~
BG-2	11.52	26.11
MW-1	62.15	75.~~30~~
MW-2	2052	~~50.15~~
MW-2D	~~30.52~~	145
MW-3		43~~.36~~
MW-4	3.16	~~25.34~~
MW-5	20.56	46.~~14~~
MW-6	7.35	~~29.47~~
MW-7	15.06	17.~~18~~
MW-7R	20.46	39.94
MW-8	31.30	49.~~06~~
MW-9	37.30	38.9
MW-10	32.85	~~47~~
MW-11	10.87	43.~~54~~
MW-11D	7.27	68.1

Well ID	Depth to Water	Total Depth

Groundwater Sampling Form

Sample ID: BG-1

Site Information	
Site Name: Charah Brickhaven	**Project Number:** 10337473
Site Location: Moncure, NC	**Sampling Personnel:** B Wheeler
Date: 7/16/25 Start 1135	**Weather:** 85°F Sunny Cool 130

Well Information	
Well Diameter (in): 2"	**Purge Equipment:** Mega Monsoon Pro
Screened Interval (ft): 26' - 41'	**Pump Type:** ESP
Well Depth (ft): 43.05' TOC	**Pump Depth (ft-bTOC):** 30'
Depth-to-Water (ft-bTOC): 9.50	**Tubing Diameter (in):** 3/8" X 1/2"
Water Column Thickness (ft): 33.5'	**Well Volume (ft^3):** 5.31 gal / 1 ft^3, 7.48 gal
1 Well Volume = (Total Depth - Static Water Level) * Well Capacity	
Well Capacity (gallons per feet): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3' = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47	

Purging Information

Parameter Instrument(s):

TIME	VOLUME PURGED (Liters)	CUMULATIVE VOLUME PURGED (Liters)	PURGE RATE (mL/min)	DEPTH TO WATER (ft-bTOC)	pH (SU) (±0.1)	TEMP. (C°)	COND. (µS/cm) (5%)	DISSOLVED OXYGEN (mg/L) (10%)*	ORP (mV) (±20mV)	TURBIDITY (NTUs) (≤10 or 10%)	COLOR/ ODOR (describe)
1200	1	1	200	10.9	[illegible]	18.3	916	8.35	169.2	70.2	[illegible]
1205	1	2	400	11.5	6.16	19.4	910	7.52	166.6	52.1	[illegible]
1210	1	3	200	11.98	6.00	19.2	906	6.76	163.4	63.6	[illegible]
1215	1	4	200	12.34	6.58	19.0	900	6.41	162.3	27.7	[illegible]
1220	1	5	200	12.60	6.95	19.2	903	5.78	161.5	15.1	[illegible]
1225	1	6	200	12.65	6.54	19.0	919	5.49	160.1	57.5	[illegible]
1230	1	7	200	12.85	6.53	19.0	[illegible]	5.01	155.5	55.2	[illegible]
1235	1	8	200	12.90	6.53	19.0	927	4.55	153.5	35.6	[illegible]
1240	1	9	200	12.85	6.52	19.1	862	4.06	152.1	33.0	[illegible]
1245	1	10	200	12.90	6.51	19.2	953	4.44	145.7	28.2	[illegible]

* DO below 2.0 mg/L is stable at ±0.2 mg/L; DO below 0.5 mg/L is stable

Sample Information

Sample Number	Collection Time	Parameter	Container	Preservative
BG-1	1245	Radium 226/228	2 - 1 L Poly	HNO3
		6010/6020/7470	1 - 250 mL Poly	HNO3
		Cl, F, SO4	1 - 250 mL Poly	N/A
		TDS	1 - 500 mL Poly	N/A

Sampled By: [illegible]	**Sample Time:** 1245
Date Sampled: 7/16/25	**Sampler Signature:** [illegible]

Notes: Pumprate= [illegible]

Groundwater Sampling Form

Sample ID: BG-1

Purging Information (Page 2)

TIME	VOLUME PURGED (Liters)	CUMULATIVE VOLUME PURGED (Liters)	PURGE RATE (mL/min)	DEPTH TO WATER (ft-bTOC)	pH (SU) (±0.1)	TEMP. (C°)	COND. (µS/cm) (5%)	DISSOLVED OXYGEN (mg/L) (10%)*	ORP (mV) (±20mV)	TURBIDITY (NTUs) (≤10 or 10%)	COLOR/ ODOR (describe)
1250	1	11	200	12.70	6.50	19.2	340	4.19	146.1	22.5	~~C~~ NA
1255	1	12	200	12.61	6.50	19.4	329	4.12	144.7	15.5	~~C~~ ~~O~~
1300	1	13	200	12.57	6.50	19.46	325	4.09	142.3	14.1	~~C~~ ~~O~~
1305	1	14	200	12.55	6.49	19.3	308	3.62	140.1	11.1	~~C~~ NA
1310	1	15	200	12.58	6.49	19.2	303	3.57	140.0	9.6	~~C~~ ~~O~~

* DO below 2.0 mg/L is stable at ±0.2 mg/L; DO below 0.5 mg/L is stable

Groundwater Sampling Form

Sample ID: BG-2

Site Information	
Site Name: Charah Brickhaven	**Project Number:** 10337473
Site Location: Moncure, NC	**Sampling Personnel:** B. Weiss, LS
Date: 7/14/25	**Weather:** 77°F Sunny
Start 0955	1110

Well Information	
Well Diameter (in): 2"	**Purge Equipment:** Mega Monsoon Pro
Screened Interval (ft): 13' - 23'	**Pump Type:** ESP
Well Depth (ft): 26.~~11~~ 11.82	**Pump Depth (ft-bTOC):** 24
Depth-to-Water (ft-bTOC): [illegible]	**Tubing Diameter (in):** 3/8" X 1/2"
Water Column Thickness (ft): [illegible] 14.18	**Well Volume (ft^3):** [illegible] 0.16 gal/ft or ~~0.65~~ 0.5165
1 Well Volume = (Total Depth - Static Water Level) * Well Capacity	
Well Capacity (gallons per feet): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47	

Purging Information

Parameter Instrument(s):

TIME	VOLUME PURGED (Liters)	CUMULATIVE VOLUME PURGED (Liters)	PURGE RATE (mL/min)	DEPTH TO WATER (ft-bTOC)	pH (SU) (±0.1)	TEMP. (C°)	COND. (µS/cm) (5%)	DISSOLVED OXYGEN (mg/L) (10%)*	ORP (mV) (±20mV)	TURBIDITY (NTUs) (≤10 or 10%)	COLOR/ ODOR (describe)
1000	1	1	200	[illegible]	6.8	19.2	2554	6.36	176.7	255	clear/NA
1005	1	2	200	13.05	6.79	18.2	2511	4.71	170.1	200	clear/NA
1010	1	3	200	13.20	6.87	19.2	2727	4.50	159.4	157	clear/NA
1015	1	4	200	13.35	6.87	18.2	2564	4.19	141.5	89.6	clear/NA
1020	1	5	200	13.5	6.87	18.3	2441	3.85	130.0	69.9	clear/NA
1025	1	6	200	13.64	6.87	18.3	2327	3.31	116.4	59.8	clear/NA
1030	1	7	200	13.74	6.87	18.3	2306	3.21	114.1	38.8	clear/NA
1035	1	8	200	13.83	6.89	19.7	2207	3.18	107.6	36.5	clear/NA
1040	1	9	200	13.91	6.87	18.3	2057	2.72	96.0	29.3	clear/NA
1045	1	10	200	13.99	6.87	18.4	1956	2.51	86.6	24.5	clear/NA

* DO below 2.0 mg/L is stable at ±0.2 mg/L; DO below 0.5 mg/L is stable

Sample Information

Sample Number	Collection Time	Parameter	Container	Preservative
BG-2	1115	Radium 226/228	2 - 1 L Poly	HNO3
		6010/6020/7470	1 - 250 mL Poly	HNO3
		Cl, F, SO4	1 - 250 mL Poly	N/A
		TDS	1 - 500 mL Poly	N/A

Sampled By: B. Weiss, LS	**Sample Time:** 1115
Date Sampled: 7/14/25	**Sampler Signature:** [signature]

Notes: Pumprate= 200ml/min

Groundwater Sampling Form

Sample ID: BG-2

Purging Information (Page 2)

TIME	VOLUME PURGED (Liters)	CUMULATIVE VOLUME PURGED (Liters)	PURGE RATE (mL/min)	DEPTH TO WATER (ft-bTOC)	pH (SU) (±0.1)	TEMP. (C°)	COND. (µS/cm) (5%)	DISSOLVED OXYGEN (mg/L) (10%)*	ORP (mV) (±20mV)	TURBIDITY (NTUs) (≤10 or 10%)	COLOR/ ODOR (describe)
1050	1	11	200	14.01	6.87	18.3	1942	2.45	84.3	20.2	clear no
1055	1	12	200	14.02	6.87	18.3	1904	2.37	81.0	20.4	clear no
1100	1	13	200	14.07	6.87	18.4	1913	2.30	78.4	18.2	clear no
1105	1	14	200	14.19	6.87	18.3	1882	2.17	77.0	13.1	clear no
1110	1	15	200	14.22	6.87	18.4	1850	2.02	76.1	9.92	clear no

* DO below 2.0 mg/L is stable at ±0.2 mg/L; DO below 0.5 mg/L is stable

Groundwater Sampling Form

Sample ID: MW-1

Site Information	
Site Name: Charah Brickhaven	Project Number: 10337473
Site Location: Moncure, NC	Sampling Personnel: B. Webb/BS
Date: 7/16/25	Weather: 70°F Sunny
Start 1455	End 1625

Well Information	
Well Diameter (in): 2"	Purge Equipment: Mega Monsoon Pro
Screened Interval (ft): 57' - 72'	Pump Type: ESP
Well Depth (ft): ~~75.30'~~ 75.55	Pump Depth (ft-bTOC): 70
Depth-to-Water (ft-bTOC): 62.15	Tubing Diameter (in): 3/8" X 1/2"
Water Column Thickness (ft): 13.4	Well Volume (ft^3): 2.18 gal/ft or 0.291 ft^3

1 Well Volume = (Total Depth - Static Water Level) * Well Capacity

Well Capacity (gallons per feet): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47

Purging Information

Parameter Instrument(s):

TIME	VOLUME PURGED (Liters)	CUMULATIVE VOLUME PURGED (Liters)	PURGE RATE (mL/min)	DEPTH TO WATER (ft-bTOC)	pH (SU) (±0.1)	TEMP. (C°)	COND. (µS/cm) (5%)	DISSOLVED OXYGEN (mg/L) (10%)*	ORP (mV) (±20mV)	TURBIDITY (NTUs) (≤10 or 10%)	COLOR/ ODOR (describe)
1500	1	1	200	62.18	6.94	21.9	1539	7.64	71.7	576	clear/N/A
1505	1	2	200	62.30	6.94	20.4	1558	2.85	72.0	411	clear/N/A
1510	1	3	200	62.22	6.98	20.3	1446	1.76	91.9	249	clear/N/A
1515	1	4	200	62.32	7.05	21.3	1192	1.50	106.3	196	clear/N/A
1520	1	5	200	62.23	7.07	21.2	1052	1.51	117.8	141	clear/N/A
1525	1	6	200	62.30	7.05	21.4	1061	1.50	125.7	99.1	clear/N/A
1530	1	7	200	62.30	7.00	21.4	1191	1.51	129.1	73.3	clear/N/A
1535	1	8	200	62.30	6.95	21.3	1381	1.49	132.1	57.6	clear/N/A
1540	1	9	200	62.30	6.87	21.4	1700	1.37	135.6	40.9	clear/N/A
1545	1	10	200	62.30	6.841	21.6	1923	1.71	144.4	43.5	clear/N/A

* DO below 2.0 mg/L is stable at ±0.2 mg/L; DO below 0.5 mg/L is stable

Sample Information

Sample Number	Collection Time	Parameter	Container	Preservative
MW-1	1630	Radium 226/228	2 - 1 L Poly	HNO3
		6010/6020/7470	1 - 250 mL Poly	HNO3
		Cl, F, SO4	1 - 250 mL Poly	N/A
		TDS	1 - 500 mL Poly	N/A

Sampled By: B. Webb/BS	Sample Time: 1630
Date Sampled: 7/16/25	Sampler Signature:

Notes: Pumprate=

Groundwater Sampling Form

Sample ID: MW-1

Purging Information (Page 2)

TIME	VOLUME PURGED (Liters)	CUMULATIVE VOLUME PURGED (Liters)	PURGE RATE (mL/min)	DEPTH TO WATER (ft-bTOC)	pH (SU) (±0.1)	TEMP. (C°)	COND. (µS/cm) (5%)	DISSOLVED OXYGEN (mg/L) (10%)*	ORP (mV) (±20mV)	TURBIDITY (NTUs) (≤10 or 10%)	COLOR/ ODOR (describe)
1550	1	11	200	62.20	6.80	21.5	2109	1.48	140.9	46.0	clear NA
1555	0.75	11.75	150	62.20	6.78	22.5	2237	1.11	141.7	42.3	clear NA
1600	0.75	12.50	150	62.20	6.77	22.1	2277	1.20	142.6	31.41	clear NA
1605	0.75	13.25	150	62.20	6.76	22.1	2376	1.19	144.3	24.1	clear NA
1610	0.75	14.00	150	62.20	6.75	22.1	2393	1.19	144.7	20.3	clear NA
1615	0.75	14.75	150	62.20	6.73	22.8	2445	0.96	145.1	16.4	clear NA
1620	0.75	15.50	150	62.20	6.74	22.6	2492	0.86	145.0	13.3	clear NA
1625	0.75	16.25	150	62.20	6.74	22.7	2456	0.79	145.3	9.6	clear NA

* DO below 2.0 mg/L is stable at ±0.2 mg/L; DO below 0.5 mg/L is stable

Groundwater Sampling Form

Sample ID: MW-2

Site Information	
Site Name: Charah Brickhaven	Project Number: 10337473
Site Location: Moncure, NC	Sampling Personnel: B. Weeks
Date:	Weather: ~~90~~ F Cloudy

Start 0830 End 0920

Well Information	
Well Diameter (in): 2"	Purge Equipment: Mega Monsoon Pro
Screened Interval (ft): 32' - 47'	Pump Type: ESP
Well Depth (ft): ~~50.15'~~ 49.9	Pump Depth (ft-bTOC): 35
Depth-to-Water (ft-bTOC): 20.53	Tubing Diameter (in): 3/8" X 1/2"
Water Column Thickness (ft): 29.37	Well Volume (ft^3): ~~4.79~~ gal/ft or 0.64 ft^3

1 Well Volume = (Total Depth - Static Water Level) * Well Capacity

Well Capacity (gallons per feet): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47

Purging Information

Parameter Instrument(s):

TIME	VOLUME PURGED (Liters)	CUMULATIVE VOLUME PURGED (Liters)	PURGE RATE (mL/min)	DEPTH TO WATER (ft-bTOC)	pH (SU) (±0.1)	TEMP. (C°)	COND. (µS/cm) (5%)	DISSOLVED OXYGEN (mg/L) (10%)*	ORP (mV) (±20mV)	TURBIDITY (NTUs) (≤10 or 10%)	COLOR/ ODOR (describe)
0835	1	1	200	22.3	7.34	20.6	4275	6.65	199.7	27.7	clear NA
0840	1	2	200	23.2	7.34	21.0	4264	6.01	194.8	32.6	clear NA
0845	1	3	200	23.85	7.34	21.3	4246	5.41	190.8	28.4	clear NA
0850	1	4	200	24.60	7.35	21.6	4227	5.19	188.1	19.1	clear NA
0855	1	5	200	26.1	7.35	21.6	4159	4.87	184.6	19.3	clear NA
0900	1	6	200	27.2	7.35	21.9	4089	4.06	181.6	17.3	clear NA
0905	1	7	200	28.3	7.35	23.41	4020	3.74	179.2	15.8	clear NA
0910	1	8	200	28.6	7.35	23.1	3990	3.79	177.3	13.1	clear NA
0915	1	9	200	28.85	7.36	21.3	3973	3.79	175.6	11.3	clear NA
0920	1	10	200	29.54	7.37	21.3	3898	3.95	174.9	9.5	clear NA

* DO below 2.0 mg/L is stable at ±0.2 mg/L; DO below 0.5 mg/L is stable

Sample Information

Sample Number	Collection Time	Parameter	Container	Preservative
MW-2	0920	Radium 226/228	2 - 1 L Poly	HNO3
		6010/6020/7470	1 - 250 mL Poly	HNO3
		Cl, F, SO4	1 - 250 mL Poly	N/A
		TDS	1 - 500 mL Poly	N/A

Sampled By: [redacted] Sample Time: 0920

Date Sampled: [redacted] Sampler Signature: [redacted]

Notes: Pumprate=

Groundwater Sampling Form

Sample ID: MW-2D

Site Information	
Site Name: Charah Brickhaven	Project Number: 10337473
Site Location: Moncure, NC	Sampling Personnel: [illegible]
Date: 7/18/25	Weather: 82°F Clouds

Well Information	
Well Diameter (in): 2"	Purge Equipment: Mega Monsoon Pro
Screened Interval (ft): 129' - 144'	Pump Type: ESP
Well Depth (ft): 147.4'	Pump Depth (ft-bTOC):
Depth-to-Water (ft-bTOC): 145.55	Tubing Diameter (in): 3/8" X 1/2"
Water Column Thickness (ft):	Well Volume (ft^3):

1 Well Volume = (Total Depth - Static Water Level) * Well Capacity

Well Capacity (gallons per feet): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3' = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47

Purging Information

Parameter Instrument(s):

TIME	VOLUME PURGED (Liters)	CUMULATIVE VOLUME PURGED (Liters)	PURGE RATE (mL/min)	DEPTH TO WATER (ft-bTOC)	pH (SU) (±0.1)	TEMP. (C°)	COND. (µS/cm) (5%)	DISSOLVED OXYGEN (mg/L) (10%)*	ORP (mV) (±20mV)	TURBIDITY (NTUs) (≤10 or 10%)	COLOR/ ODOR (describe)
0940	—	—	—		8.68	18.7	790	2.35	51.2	56	

* DO below 2.0 mg/L is stable at ±0.2 mg/L; DO below 0.5 mg/L is stable

Sample Information

Sample Number	Collection Time	Parameter	Container	Preservative
MW-2D	0940	Radium 226/228	2 - 1 L Poly	HNO3
		6010/6020/7470	1 - 250 mL Poly	HNO3
		Cl, F, SO4	1 - 250 mL Poly	N/A
		TDS	1 - 500 mL Poly	N/A

Sampled By: [illegible]	Sample Time: 0940
Date Sampled: 7/18/25	Sampler Signature: [signature]

Notes: Pumprate=

Groundwater Sampling Form

Sample ID: MW-3

Site Information	
Site Name: Charah Brickhaven	Project Number: 10337473
Site Location: Moncure, NC	Sampling Personnel:
Date: 7/14/25	Weather:

START 1530 END 1605

Well Information	
Well Diameter (in): 2"	Purge Equipment: Mega Monsoon Pro
Screened Interval (ft): 25' - 40'	Pump Type: ESP
Well Depth (ft): 43.36	Pump Depth (ft-bTOC): 30
Depth-to-Water (ft-bTOC): 7.90	Tubing Diameter (in): 3/8" X 1/2"
Water Column Thickness (ft): 35.75	Well Volume (ft^3): 5.93 gal / 1.0 = 7.5 ft^3

1 Well Volume = (Total Depth - Static Water Level) * Well Capacity

Well Capacity (gallons per feet): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3' = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47

Purging Information

Parameter Instrument(s):

TIME	VOLUME PURGED (Liters)	CUMULATIVE VOLUME PURGED (Liters)	PURGE RATE (mL/min)	DEPTH TO WATER (ft-bTOC)	pH (SU) (±0.1)	TEMP. (C°)	COND. (µS/cm) (5%)	DISSOLVED OXYGEN (mg/L) (10%)*	ORP (mV) (±20mV)	TURBIDITY (NTUs) (≤10 or 10%)	COLOR/ ODOR (describe)
1535	1	1	200	10.37	7.36	21.3	3010	5.75	178.3	90.6	Clear/ None
1540	1	2	220	12.2	7.34	20.0	3930	6.63	165.0	37.9	Clear/ None
1545	1	3	200	14.3	7.31	21.2	3750	4.98	161.0	26.7	Clear/ None
1550	1	4	220	16.3	7.31	21.8	3711	4.63	160.7	19.7	Clear/ None
1555	1	5	200	17.62	7.32	21.1	3609	4.58	160.0	15.3	Clear/ None
1600	1	6	200	19.05	7.32	21.7	3657	4.69	159.6	12.4	Clear/ None
1605	1	7	200	23.05	7.34	21.6	3627	3.83	161.2	7.09	Clear/ None

* DO below 2.0 mg/L is stable at ±0.2 mg/L; DO below 0.5 mg/L is stable

Sample Information

Sample Number	Collection Time	Parameter	Container	Preservative
MW-3	1610	Radium 226/228	2 - 1 L Poly	HNO3
		6010/6020/7470	1 - 250 mL Poly	HNO3
		Cl, F, SO4	1 - 250 mL Poly	N/A
		TDS	1 - 500 mL Poly	N/A

Sampled By:	Sample Time: 1610
Date Sampled: 7/14/25	Sampler Signature:

Notes: Pumprate= 220 ml/min

possible inaccurate NTU measurements, standard

Groundwater Sampling Form

Sample ID: MW-4

Site Information	
Site Name: Charah Brickhaven	Project Number: 10337473
Site Location: Moncure, NC	Sampling Personnel: B. Wojcik
Date: 7/14/25	Weather: 90°F Sunny
Start 1335	End 1500

Well Information	
Well Diameter (in): 2"	Purge Equipment: Mega Monsoon Pro
Screened Interval (ft): 13' - 23'	Pump Type: ESP
Well Depth (ft): ~~25.34'~~ 30.9	Pump Depth (ft-bTOC): 22
Depth-to-Water (ft-bTOC): 13.16	Tubing Diameter (in): 3/8" X 1/2"
Water Column Thickness (ft): 17.74	Well Volume (ft^3): 2.89 gal/ft ~ 0.38 ft^3
1 Well Volume = (Total Depth - Static Water Level) * Well Capacity	
Well Capacity (gallons per feet): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3' = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47	

Purging Information

Parameter Instrument(s):

TIME	VOLUME PURGED (Liters)	CUMULATIVE VOLUME PURGED (Liters)	PURGE RATE (mL/min)	DEPTH TO WATER (ft-bTOC)	pH (SU) (±0.1)	TEMP. (C°)	COND. (µS/cm) (5%)	DISSOLVED OXYGEN (mg/L) (10%)*	ORP (mV) (±20mV)	TURBIDITY (NTUs) (≤10 or 10%)	COLOR/ ODOR (describe)
1340	1	1	200	14.2	5.99	21.8	1949	1.15	55.4	283	clear/NA
1345	1	2	200	15.58	6.01	21.41	1922	0.44	53.4	205	clear/NA
1350	1	3	200	15.66	6.04	21.5	1893	0.13	49.0	168	clear/NA
1355	1	4	200	15.76	6.09	21.3	1876	0.12	40.6	152	clear/NA
1400	1	5	200	15.85	6.13	21.1	1865	0.11	32.9	144	clear/NA
1405	1	6	200	15.95	6.15	20.9	1846	0.05	30.3	128	clear/NA
1410	1	7	200	15.98	6.17	20.9	1826	0.01	29.4	101.3	clear/NA
1415	1	8	200	16.05	6.18	20.9	1818	---	28.4	66.7	clear/NA
1420	1	9	200	16.08	6.18	20.9	1818	---	30.1	31.3	clear/NA
1425	1	10	200	16.08	6.19	21.0	1797	---	32.4	26.4	clear/NA

* DO below 2.0 mg/L is stable at ±0.2 mg/L; DO below 0.5 mg/L is stable

Sample Information

Sample Number	Collection Time	Parameter	Container	Preservative
MW-4	1405	Radium 226/228	2 - 1 L Poly	HNO3
		6010/6020/7470	1 - 250 mL Poly	HNO3
		Cl, F, SO4	1 - 250 mL Poly	N/A
		TDS	1 - 500 mL Poly	N/A

Sampled By: B. Wojcik	Sample Time: 1420
Date Sampled: 7/14/25	Sampler Signature:

Notes: Pumprate= 200ml/min

Groundwater Sampling Form

Sample ID: MW-4

Purging Information (Page 2)

TIME	VOLUME PURGED (Liters)	CUMULATIVE VOLUME PURGED (Liters)	PURGE RATE (mL/min)	DEPTH TO WATER (ft-bTOC)	pH (SU) (±0.1)	TEMP. (C°)	COND. (µS/cm) (5%)	DISSOLVED OXYGEN (mg/L) (10%)*	ORP (mV) (±20mV)	TURBIDITY (NTUs) (≤10 or 10%)	COLOR/ ODOR (describe)
1430	1	11	200	16.08	6.19	21.0	1785	--	32.5	20.7	Clear/NA
1435	1	12	200	16.08	6.20	20.9	1780	--	31.7	18.39	Clear/NA
1440	1	13	200	16.08	6.20	20.9	1775	--	30.6	16.32	Clear/NA
1445	1	14	200	16.08	6.20	21.1	1759	--	49.9	14.30	Clear/NA
1450	1	15	200	16.08	6.20	21.1	1758	--	30.6	13.62	Clear/NA
1455	1	16	200	16.08	6.20	21.2	1755	--	31.3	12.37	Clear/NA
1500	1	17	200	16.08	6.20	21.3	1753	--	33.5	9.23	Clear/NA

* DO below 2.0 mg/L is stable at ±0.2 mg/L; DO below 0.5 mg/L is stable

Groundwater Sampling Form

Sample ID: MW-5

Site Information	
Site Name: Charah Brickhaven	Project Number: 10337473
Site Location: Moncure, NC	Sampling Personnel: B. Weigelt
Date: 7/14/25	Weather: 80°F Rain
Start 1040	End 1110

Well Information	
Well Diameter (in): 2"	Purge Equipment: Mega Monsoon Pro
Screened Interval (ft): 34' - 44'	Pump Type: ESP
Well Depth (ft): 46.14' 46.95	Pump Depth (ft-bTOC): 36
Depth-to-Water (ft-bTOC): 20.8	Tubing Diameter (in): 3/8" X 1/2"
Water Column Thickness (ft): 26.15	Well Volume (ft^3): 4.26 gal/ft or 0.57 ft^3
1 Well Volume = (Total Depth - Static Water Level) * Well Capacity	
Well Capacity (gallons per feet): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47	

Purging Information

Parameter Instrument(s):

TIME	VOLUME PURGED (Liters)	CUMULATIVE VOLUME PURGED (Liters)	PURGE RATE (mL/min)	DEPTH TO WATER (ft-bTOC)	pH (SU) (±0.1)	TEMP. (C°)	COND. (µS/cm) (5%)	DISSOLVED OXYGEN (mg/L) (10%)*	ORP (mV) (±20mV)	TURBIDITY (NTUs) (≤10 or 10%)	COLOR/ ODOR (describe)
1045	1	1	100	25.35	6.73	19.4	784.1	5.46	213.1	24.2	Clear None
1050	1	2	200	29.60	6.72	19.9	790.1	5.44	210.4	15.7	None
1055	1	3	200	32.35	6.72	20.6	788.6	5.25	209.3	14.3	Clear None
1100	1	4	200	34.5	6.72	21.0	795.5	5.00	207.6	12.2	Clear None
1105	0.75	4.75	150	34.94	6.72	21.3	796.8	5.04	207.2	10.9	Clear None
1110	0.75	5.50	200	35.4	6.73	21.6	797.9	4.89	206.2	9.1	Clear None

* DO below 2.0 mg/L is stable at ±0.2 mg/L; DO below 0.5 mg/L is stable

Sample Information

Sample Number	Collection Time	Parameter	Container	Preservative
MW-5	1115	Radium 226/228	2 - 1 L Poly	HNO3
		6010/6020/7470	1 - 250 mL Poly	HNO3
		Cl, F, SO4	1 - 250 mL Poly	N/A
		TDS	1 - 500 mL Poly	N/A

Sampled By: B. Weigelt	Sample Time: 1115
Date Sampled:	Sampler Signature:

Notes: Pumprate= 200 ml/min → 150 ml/min

Groundwater Sampling Form

Sample ID: MW-6

Site Information	
Site Name: Charah Brickhaven	**Project Number:** 10337473
Site Location: Moncure, NC	**Sampling Personnel:** B. Lockett
Date: 7/15/25	**Weather:** 80°F Rain

Start 1200 End 1400

Well Information	
Well Diameter (in): 2"	**Purge Equipment:** Mega Monsoon Pro
Screened Interval (ft): 12' - 27'	**Pump Type:** ESP
Well Depth (ft): ~~29.47'~~ ~~28.7~~ 27.6	**Pump Depth (ft-bTOC):** 20
Depth-to-Water (ft-bTOC): 7.75	**Tubing Diameter (in):** 3/8" X 1/2"
Water Column Thickness (ft): 19.85	**Well Volume (ft^3):** 3.24 gal/Ft or 0.43Ft^3

1 Well Volume = (Total Depth - Static Water Level) * Well Capacity

Well Capacity (gallons per feet): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47

Purging Information

Parameter Instrument(s):

TIME	VOLUME PURGED (Liters)	CUMULATIVE VOLUME PURGED (Liters)	PURGE RATE (mL/min)	DEPTH TO WATER (ft-bTOC)	pH (SU) (±0.1)	TEMP. (C°)	COND. (µS/cm) (5%)	DISSOLVED OXYGEN (mg/L) (10%)*	ORP (mV) (±20mV)	TURBIDITY (NTUs) (≤10 or 10%)	COLOR/ ODOR (describe)
1205	1	1	~~200~~	8.5	6.31	21.7	975	2.06	176.6	96.3	
1210	1	2	~~200~~	8.6	6.29	21.3	977	2.24	166.5	~~2.3~~	
1215	1	3	~~200~~	7.8	6.28	22.8	957	1.15	136	67.4	
1220	1	4	200	9.9	6.25	21.0	948	0.97	138.5	~~58~~	
1225	1	5	~~200~~	9.47	6.28	21.5	1007	0.48	137.4	63.3	
1230	1	6	200	9.62	6.29	21.5	1001	0.52	136.7	33.3	
1235	1	7	~~200~~	10.30	6.29	20.3	996	0.61	124.6	~~0.87~~	
1240	1	8	200	10.18	6.29	19.9	990	0.71	121.5	19.1	
1245	1	9	~~200~~	10.35	6.28	19.8	984	0.65	119.3	12.3	
1250	1	10	~~200~~	10.35	6.28	19.7	979	0.62	117.5	93.8	

* DO below 2.0 mg/L is stable at ±0.2 mg/L; DO below 0.5 mg/L is stable

Sample Information

Sample Number	Collection Time	Parameter	Container	Preservative
MW-6 (DUP)	1405	Radium 226/228	2 - 1 L Poly	HNO3
		6010/6020/7470	1 - 250 mL Poly	HNO3
		Cl, F, SO4	1 - 250 mL Poly	N/A
		TDS	1 - 500 mL Poly	N/A

Sampled By: B. Lockett **Sample Time:** 1405

Date Sampled: 7/15/25 **Sampler Signature:**

Notes: Pumprate=

@1220 clear chamber

Groundwater Sampling Form

Sample ID: MW-6

Purging Information (Page 2)

TIME	VOLUME PURGED (Liters)	CUMULATIVE VOLUME PURGED (Liters)	PURGE RATE (mL/min)	DEPTH TO WATER (ft-bTOC)	pH (SU) (±0.1)	TEMP. (C°)	COND. (uS/cm) (5%)	DISSOLVED OXYGEN (mg/L) (10%)*	ORP (mV) (±20mV)	TURBIDITY (NTUs) (≤10 or 10%)	COLOR/ ODOR (describe)
1255	1	11	200	10.1	6.28	19.7	975	0.53	115.6	63.5	Clear/NA
1300	1	12	200	10.09	6.28	19.5	974	0.50	111.6	35.7	Clear/NA
1305	1	13	200	10.90	6.27	18.9	965	0.45	116.0	36.2	Clear/NA
1310	1	14	200	10.90	6.29	18.7	962	0.39	118.2	31.3	Clear/NA
1315	1	15	200	10.95	6.29	18.7	959	0.36	119.1	34.5	Clear/NA
1320	1	16	200	10.90	6.28	18.6	954	0.32	120.3	40.7	Clear/NA
1325	1	17	200	10.95	6.28	18.6	956	0.34	120.5	33.6	Clear/NA
1330	1	18	200	10.93	6.28	18.6	957	0.35	120.5	29.3	Clear/NA
1335	1	19	200	10.90	6.28	18.4	955	2.21	143.3	30.3	Clear/NA
1340	1	20	200	10.89	6.28	18.3	953	2.35	142.1	32.3	Clear/NA
1345	1	21	200	10.90	6.28	18.6	965	—	135.4	33.4	Clear/NA
1350	1	22	200	10.90	6.28	19.0	976	—	132.5	32.3	Clear/NA
1355	1	23	200	10.90	6.28	19.4	989	—	130.1	36.7	Clear/NA
1400	1	24	200	10.9	6.28	19.6	995	—	126.6	33.1	Clear/NA

* DO below 2.0 mg/L is stable at ±0.2 mg/L; DO below 0.5 mg/L is stable

Sampled @ 1415 Turbidity changed light brown

Groundwater Sampling Form

Sample ID: MW-7R

Site Information	
Site Name: Charah Brickhaven	Project Number: 10337473
Site Location: Moncure, NC	Sampling Personnel:
Date:	Weather:

Well Information	
Well Diameter (in): 2"	Purge Equipment: Mega Monsoon Pro
Screened Interval (ft): 26' - 36'	Pump Type: ESP
Well Depth (ft): 39.94'	Pump Depth (ft-bTOC):
Depth-to-Water (ft-bTOC):	Tubing Diameter (in): 3/8" X 1/2"
Water Column Thickness (ft):	Well Volume (ft^3):

1 Well Volume = (Total Depth - Static Water Level) * Well Capacity

Well Capacity (gallons per feet): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3' = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47

Purging Information

Parameter Instrument(s):

TIME	VOLUME PURGED (Liters)	CUMULATIVE VOLUME PURGED (Liters)	PURGE RATE (mL/min)	DEPTH TO WATER (ft-bTOC)	pH (SU) (±0.1)	TEMP. (C°)	COND. (uS/cm) (5%)	DISSOLVED OXYGEN (mg/L) (10%)*	ORP (mV) (±20mV)	TURBIDITY (NTUs) (≤10 or 10%)	COLOR/ ODOR (describe)

* DO below 2.0 mg/L is stable at ±0.2 mg/L; DO below 0.5 mg/L is stable

Sample Information

Sample Number	Collection Time	Parameter	Container	Preservative
MW-7R		Radium 226/228	2 - 1 L Poly	HNO3
		6010/6020/7470	1 - 250 mL Poly	HNO3
		Cl, F, SO4	1 - 250 mL Poly	N/A
		TDS	1 - 500 mL Poly	N/A

Sampled By:	Sample Time:
Date Sampled:	Sampler Signature:

Notes: Pumprate=

Groundwater Sampling Form

Sample ID: MW-7R

Purging Information (Page 2)

TIME	VOLUME PURGED (Liters)	CUMULATIVE VOLUME PURGED (Liters)	PURGE RATE (mL/min)	DEPTH TO WATER (ft-bTOC)	pH (SU) (±0.1)	TEMP. (C°)	COND. (µS/cm) (5%)	DISSOLVED OXYGEN (mg/L) (10%)*	ORP (mV) (±20mV)	TURBIDITY (NTUs) (≤10 or 10%)	COLOR/ ODOR (describe)
1045	0.75	9.75	150	27.5	7.40	22.0	1524	1.33	[illegible]	48.1	[illegible]
1050	0.75	10.50	150	28.10	7.41	21.6	1573	2.24	49.4	45.1	[illegible]
1055	0.75	11.25	150	28.5	7.40	21.6	1571	2.12	48.3	46.3	[illegible]
1100	0.75	12	150	28.1	7.39	21.5	1567	2.27	47.8	47.4	[illegible]
1105	0.75	12.75	150	29.12	7.38	22.7	1570	3.15	107.3	45.1	[illegible]
1110	0.75	13.50	150	29.14	7.35	23.7	1570	3.00	106.4	44.8	[illegible]
1115	0.75	14.25	150	29.16	7.35	23.8	1570	2.83	105.0	44.1	[illegible]
1120	0.75	15.00	150	29.18	7.38	23.5	1521	2.76	104.6	45.3	[illegible]
1125	0.50	15.50	150	29.20	7.35	23.7	1572	2.51	104.1	47.0	[illegible]
1130	0.50	16.00	150	29.21	7.37	23.2	1521	2.92	104.1	45.7	[illegible]
1135	0.75	16.75	150	29.24	7.38	23.8	1570	2.75	104.2	46.2	[illegible]
1140	0.75	17.50	150	29.26	7.38	23.5	1566	2.48	104.0	50.1	[illegible]
1145	0.75	18.25	150	29.29	7.39	23.8	1562	2.06	104.1	50.5	[illegible]
1150	0.75	19.00	150	29.30	7.35	23.5	1561	2.44	105	50.6	[illegible]

* DO below 2.0 mg/L is stable at ±0.2 mg/L; DO below 0.5 mg/L is stable

[illegible] - cloudy, bubbles

Groundwater Sampling Form

Sample ID: MW-8

Site Information	
Site Name: Charah Brickhaven	Project Number: 10337473
Site Location: Moncure, NC	Sampling Personnel: M. Jessup
Date: 7/16/25	Weather: 90°F Sunny
Start 1225	End 1423

Well Information	
Well Diameter (in): 2"	Purge Equipment: Mega Monsoon Pro
Screened Interval (ft): 31' - 46'	Pump Type: ESP
Well Depth (ft): ~~49.06~~ 47.0	Pump Depth (ft-bTOC): 47
Depth-to-Water (ft-bTOC): 31.3	Tubing Diameter (in): 3/8" X 1/2"
Water Column Thickness (ft): 15.41	Well Volume (ft^3): 2.99 gal/ft = 0.3944

1 Well Volume = (Total Depth - Static Water Level) * Well Capacity

Well Capacity (gallons per feet): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3' = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47

Purging Information

Parameter Instrument(s):

TIME	VOLUME PURGED (Liters)	CUMULATIVE VOLUME PURGED (Liters)	PURGE RATE (mL/min)	DEPTH TO WATER (ft-bTOC)	pH (SU) (±0.1)	TEMP. (C°)	COND. (µS/cm) (3%)	DISSOLVED OXYGEN (mg/L) (10%)*	ORP (mV) (±20mV)	TURBIDITY (NTUs) (≤10 or 10%)	COLOR/ ODOR (describe)
1230	1	1	200	31.4	6.89	23.6	2054	2.19	140.6	>1000	Brown NA
1235	1	2	200	31.9	6.91	20.5	2639	1.35	125.1	>1000	Brown NA
1240	1	3	200	32.19	6.91	21.4	2646	0.79	103.9	>1000	Brown NA
1245	1	4	200	32.66	6.92	21.5	2601	0.39	107.6	>1000	Brown NA
1250	1	5	200	32.45	6.92	21.5	2564	0.33	102.2	>1000	Brown NA
1255	1	6	200	32.40	6.95	21.3	2342	0.25	88.0	960	Brown NA
1300	1	7	200	32.60	6.96	21.1	2248	0.15	81.9	730	Brown NA
1305	1	8	200	32.50	6.97	21.4	2152	0.03	82.4	619	Brown NA
1310	1	9	200	32.55	6.98	21.5	2051	0.02	80.3	475	Brown NA
1315	1	10	200	32.50	6.99	21.41	2005	0.01	79.2	371	Brown NA

* DO below 2.0 mg/L is stable at ±0.2 mg/L; DO below 0.5 mg/L is stable

Sample Information

Sample Number	Collection Time	Parameter	Container	Preservative
MW-8	1430	Radium 226/228	2 - 1 L Poly	HNO3
		6010/6020/7470	1 - 250 mL Poly	HNO3
		Cl, F, SO4	1 - 250 mL Poly	N/A
		TDS	1 - 500 mL Poly	N/A

Sampled By: M. Cunningham	Sample Time: 1430
Date Sampled: 7/16/25	Sampler Signature: M. Cunningham

Notes: Pumprate=

0.2 gpm cleaned chamber

Flushed system

Groundwater Sampling Form

Sample ID: MW-8

Purging Information (Page 2)

TIME	VOLUME PURGED (Liters)	CUMULATIVE VOLUME PURGED (Liters)	PURGE RATE (mL/min)	DEPTH TO WATER (ft-bTOC)	pH (SU) (±0.1)	TEMP. (C°)	COND. (µS/cm) (5%)	DISSOLVED OXYGEN (mg/L) (±10%)*	ORP (mV) (±20mV)	TURBIDITY (NTUs) (≤10 or 10%)	COLOR/ ODOR (describe)
1320	1	11	200	32.55	7.00	20.5	1937	- - -	77.5	34.6	clear/ NA
1325	1	12	200	33.03	7.02	20.9	1942	- - -	82.0	23.4	clear/ NA
1330	1	13	200	33.15	7.04	20.7	1946	- - -	81.5	13.7	clear/ NA
1335	1	14	200	33.3	7.05	20.6	1795	- - -	78.7	10.7	clear/ NA
1340	1	15	200	33.5	7.05	20.6	1760	- - -	77.6	7.0	clear/ NA
1345	1	16	200	33.4	7.06	20.5	1717	- - -	74.1	42.0	clear/ NA
1350	1	17	200	33.43	7.07	20.6	1702	- - -	73.3	33.6	clear/ NA
1355	1	18	200	33.4	7.07	20.6	1689	- - -	72.1	30.5	clear/ NA
1400	1	19	200	33.41	7.06	20.6	1673	- - -	71.4	26.4	clear/ NA
1405	1	20	200	33.41	7.06	20.6	1665	- - -	70.6	22.2	clear/ NA
1410	1	21	200	33.5	7.07	20.6	1667	- - -	71.4	17.3	clear/ NA
1415	1	22	200	33.6	7.05	20.6	1665	- - -	71.8	13.0	clear/ NA
1420	1	23	200	33.7	7.05	20.6	1662	- - -	70.0	11.0	clear/ NA
1425	1	24	200	33.5	7.05	20.6	1660	- - -	70.0	9.4	clear/ NA

* DO below 2.0 mg/L is stable at ±0.2 mg/L; DO below 0.5 mg/L is stable

@ 1320 flush system clean chamber

Groundwater Sampling Form

Sample ID: MW-9

Site Information	
Site Name: Charah Brickhaven	Project Number: 10337473
Site Location: Moncure, NC	Sampling Personnel: B Wescott
Date: 7/24/25	Weather: 96°F Sunny

Well Information	
Well Diameter (in): 2"	Purge Equipment: ~~Mega Monsoon Pro~~ bailer
Screened Interval (ft): 26' - 36'	Pump Type: ESP
Well Depth (ft): ~~36'~~ 37.3	Pump Depth (ft-bTOC):
Depth-to-Water (ft-bTOC):	Tubing Diameter (in): ~~3/8" X 1/2"~~
Water Column Thickness (ft): 1.55	Well Volume (ft^3): 0.25gal or 0.035ft^3
1 Well Volume = (Total Depth - Static Water Level) * Well Capacity	
Well Capacity (gallons per feet): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3' = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47	

Purging Information

Parameter Instrument(s):

TIME	VOLUME PURGED (Liters)	CUMULATIVE VOLUME PURGED (Liters)	PURGE RATE (ml/min)	DEPTH TO WATER (ft-bTOC)	pH (SU) (±0.1)	TEMP. (C°)	COND. (uS/cm) (5%)	DISSOLVED OXYGEN (mg/L) (10%)*	ORP (mV) (±20mV)	TURBIDITY (NTUs) (≤10 or 10%)	COLOR/ ODOR (describe)
0955 ~~7/24~~					7.28	18.5	1004	6.55	-26.2	55.3	Clear
	Not enough to sample dry										

* DO below 2.0 mg/L is stable at ±0.2 mg/L; DO below 0.5 mg/L is stable

Sample Information

Sample Number	Collection Time	Parameter	Container	Preservative
MW-9		Radium 226/228	2 - 1 L Poly	HNO3
		6010/6020/7470	1 - 250 mL Poly	HNO3
		Cl, F, SO4	1 - 250 mL Poly	N/A
		TDS	1 - 500 mL Poly	N/A

Sampled By:	Sample Time:
Date Sampled: NA	Sampler Signature:

Notes: Pumprate=

Groundwater Sampling Form

Sample ID: MW-10

Site Information	
Site Name: Charah Brickhaven	Project Number: 10337473
Site Location: Moncure, NC	Sampling Personnel:
Date:	Weather:

Well Information	
Well Diameter (in): 2"	Purge Equipment: Mega Monsoon Pro
Screened Interval (ft): 37' - 47'	Pump Type: ESP
Well Depth (ft): 49.91	Pump Depth (ft-bTOC): 45
Depth-to-Water (ft-bTOC):	Tubing Diameter (in): 3/8" X 1/2"
Water Column Thickness (ft):	Well Volume (ft^3):
1 Well Volume = (Total Depth - Static Water Level) * Well Capacity	
Well Capacity (gallons per feet): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47	

Purging Information

Parameter instrument(s):

TIME	VOLUME PURGED (Liters)	CUMULATIVE VOLUME PURGED (Liters)	PURGE RATE (mL/min)	DEPTH TO WATER (ft-bTOC)	pH (SU) (±0.1)	TEMP. (C°)	COND. (µS/cm) (5%)	DISSOLVED OXYGEN (mg/L) (10%)*	ORP (mV) (±20mV)	TURBIDITY (NTUs) (≤10 or 10%)	COLOR/ ODOR (describe)
		45									

* DO below 2.0 mg/L is stable at ±0.2 mg/L; DO below 0.5 mg/L is stable

Sample Information

Sample Number	Collection Time	Parameter	Container	Preservative
MW-10		Radium 226/228	2 - 1 L Poly	HNO3
		6010/6020/7470	1 - 250 mL Poly	HNO3
		Cl, F, SO4	1 - 250 mL Poly	N/A
		TDS	1 - 500 mL Poly	N/A

Sampled By:	Sample Time:
Date Sampled:	Sampler Signature:

Notes: Pumprate=

Groundwater Sampling Form

Sample ID: MW-10

Purging Information (Page 2)

TIME	VOLUME PURGED (Liters)	CUMULATIVE VOLUME PURGED (Liters)	PURGE RATE (mL/min)	DEPTH TO WATER (ft-bTOC)	pH (SU) (±0.1)	TEMP. (C°)	COND. (µS/cm) (5%)	DISSOLVED OXYGEN (mg/L) (10%)*	ORP (mV) (±20mV)	TURBIDITY (NTUs) (≤10 or 10%)	COLOR/ ODOR (describe)
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

* DO below 2.0 mg/L is stable at ±0.2 mg/L; DO below 0.5 mg/L is stable

Groundwater Sampling Form

Sample ID: MW-11

Site Information	
Site Name: Charah Brickhaven	Project Number: 10337473
Site Location: Moncure, NC	Sampling Personnel:
Date: 7/15/25	Weather:

Well Information	
Well Diameter (in): 2"	Purge Equipment: Mega Monsoon Pro
Screened Interval (ft): 28.50' - 43.50'	Pump Type: ESP
Well Depth (ft): 43.50'	Pump Depth (ft-bTOC):
Depth-to-Water (ft-bTOC):	Tubing Diameter (in): 3/8" X 1/2"
Water Column Thickness (ft):	Well Volume (ft^3):

1 Well Volume = (Total Depth - Static Water Level) * Well Capacity

Well Capacity (gallons per feet): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3' = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47

Purging Information

Parameter Instrument(s):

TIME	VOLUME PURGED (Liters)	CUMULATIVE VOLUME PURGED (Liters)	PURGE RATE (mL/min)	DEPTH TO WATER (ft-bTOC)	pH (SU) (±0.1)	TEMP. (C°)	COND. (µS/cm) (5%)	DISSOLVED OXYGEN (mg/L) (10%)*	ORP (mV) (±20mV)	TURBIDITY (NTUs) (≤10 or 10%)	COLOR/ ODOR (describe)

* DO below 2.0 mg/l is stable at +0.2 mg/L; DO below 0.5 mg/L is stable

Sample Information

Sample Number	Collection Time	Parameter	Container	Preservative
MW-11		Radium 226/228	2 - 1 L Poly	HNO3
		6010/6020/7470	1 - 250 mL Poly	HNO3
		Cl, F, SO4	1 - 250 mL Poly	N/A
		TDS	1 - 500 mL Poly	N/A

Sampled By:	Sample Time:
Date Sampled:	Sampler Signature:

Notes: Pumprate=

HDR

Groundwater Sampling Form

Sample ID: MW-11

Purging Information (Page 2)

TIME	VOLUME PURGED (Liters)	CUMULATIVE VOLUME PURGED (Liters)	PURGE RATE (mL/min)	DEPTH TO WATER (ft-bTOC)	pH (SU) (±0.1)	TEMP. (C°)	COND. (uS/cm) (5%)	DISSOLVED OXYGEN (mg/L) (10%)*	ORP (mV) (±20mV)	TURBIDITY (NTUs) (≤10 or 10%)	COLOR/ ODOR (describe)
0955	1	1	200	18.72	6.51	18.6	741	3.45	125.9	44.0	none
0400	1	2	200	19.09	6.50	18.0	712	3.25	124.6	9.7	none

Groundwater Sampling Form

Sample ID: MW-11D

Site Information	
Site Name: Charah Brickhaven	**Project Number:** 10337473
Site Location: Moncure, NC	**Sampling Personnel:**
Date:	**Weather:**

Well Information	
Well Diameter (in): 2"	**Purge Equipment:** Mega Monsoon Pro
Screened Interval (ft): 50' - 65'	**Pump Type:** ESP
Well Depth (ft): 68.18'	**Pump Depth (ft-bTOC):**
Depth-to-Water (ft-bTOC):	**Tubing Diameter (in):** 3/8" X 1/2"
Water Column Thickness (ft):	**Well Volume (ft^3):**

1 Well Volume = (Total Depth - Static Water Level) * Well Capacity

Well Capacity (gallons per feet): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47

Purging Information

Parameter Instrument(s):

TIME	VOLUME PURGED (Liters)	CUMULATIVE VOLUME PURGED (Liters)	PURGE RATE (mL/min)	DEPTH TO WATER (ft-bTOC)	pH (SU) (±0.1)	TEMP. (C°)	COND. (µS/cm) (5%)	DISSOLVED OXYGEN (mg/L) (10%)*	ORP (mV) (±20mV)	TURBIDITY (NTUs) (≤10 or 10%)	COLOR/ ODOR (describe)

* DO below 2.0 mg/L is stable at ±0.2 mg/L; DO below 0.5 mg/L is stable

Sample Information

Sample Number	Collection Time	Parameter	Container	Preservative
MW-11D		Radium 226/228	2 - 1 L Poly	HNO3
		6010/6020/7470	1 - 250 mL Poly	HNO3
		Cl, F, SO4	1 - 250 mL Poly	N/A
		TDS	1 - 500 mL Poly	N/A

Sampled By:	**Sample Time:**
Date Sampled:	**Sampler Signature:**

Notes: Pumprate=

Groundwater Sampling Form

Sample ID: SW-1

Site Information	
Site Name: Charah Brickhaven	Project Number: 10337473
Site Location: Moncure, NC	Sampling Personnel: B. Weisenfluh
Date: 7/16/25	Weather: 90°F Sunny

Well Information	
Well Diameter (in): N/A	Purge Equipment: N/A
Screened Interval (ft): N/A	Pump Type: N/A
Well Depth (ft): N/A	Pump Depth (ft-bTOC): N/A
Depth-to-Water (ft-bTOC): N/A	Tubing Diameter (in): N/A
Water Column Thickness (ft): N/A	Well Volume (ft^3): N/A
1 Well Volume = (Total Depth - Static Water Level) * Well Capacity	
Well Capacity (gallons per feet): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3' = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47	

Purging Information

Parameter Instrument(s):

TIME	VOLUME PURGED (Liters)	CUMULATIVE VOLUME PURGED (Liters)	PURGE RATE (mL/min)	DEPTH TO WATER (ft-bTOC)	pH (SU) (±0.1)	TEMP. (C°)	COND. (µS/cm) (5%)	DISSOLVED OXYGEN (mg/L) (10%)*	ORP (mV) (±20mV)	TURBIDITY (NTUs) (≤10 or 10%)	COLOR/ ODOR (describe)
1635					6.10	18.7	50.1	10.3	9.72	>1000	

* DO below 2.0 mg/L is stable at ±0.2 mg/L; DO below 0.5 mg/L is stable

Sample Information

Sample Number	Collection Time	Parameter	Container	Preservative
SW-1	1655	Radium 226/228	2 - 1 L Poly	HNO3
		6010/6020/7470	1 - 250 mL Poly	HNO3
		Cl, F, SO4	1 - 250 mL Poly	N/A
		TDS	1 - 500 mL Poly	N/A

Sampled By: B. Weisenfluh	Sample Time: 1655
Date Sampled: 7/16/25	Sampler Signature:

Notes: Pumprate=

Groundwater Sampling Form

Sample ID: SW-2

Site Information	
Site Name: Charah Brickhaven	**Project Number:** 10337473
Site Location: Moncure, NC	**Sampling Personnel:** [illegible]
Date: 7/24/25	**Weather:** 90°F Sunny

Well Information	
Well Diameter (in): N/A	**Purge Equipment:** N/A
Screened Interval (ft): N/A	**Pump Type:** N/A
Well Depth (ft): N/A	**Pump Depth (ft-bTOC):** N/A
Depth-to-Water (ft-bTOC): N/A	**Tubing Diameter (in):** N/A
Water Column Thickness (ft): N/A	**Well Volume (ft^3):** N/A

1 Well Volume = (Total Depth - Static Water Level) * Well Capacity

Well Capacity (gallons per feet): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3' = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47

Purging Information

Parameter Instrument(s):

TIME	VOLUME PURGED (Liters)	CUMULATIVE VOLUME PURGED (Liters)	PURGE RATE (ml/min)	DEPTH TO WATER (ft-bTOC)	pH (SU) (±0.1)	TEMP. (C°)	COND. (µS/cm) (5%)	DISSOLVED OXYGEN (mg/L) (10%)*	ORP (mV) (±20mV)	TURBIDITY (NTUs) (≤10 or 10%)	COLOR/ ODOR (describe)
					6.87	27.2	214.8	1.91	165.6		[illegible]

* DO below 2.0 mg/L is stable at ±0.2 mg/L; DO below 0.5 mg/L is stable

Sample Information

Sample Number	Collection Time	Parameter	Container	Preservative
SW-2	16:40	Radium 226/228	2 - 1 L Poly	HNO3
		6010/6020/7470	1 - 250 mL Poly	HNO3
		Cl, F, SO4	1 - 250 mL Poly	N/A
		TDS	1 - 500 mL Poly	N/A

Sampled By: [illegible]	**Sample Time:** 16:40
Date Sampled: 7/24/25	**Sampler Signature:** [illegible]

Notes: Pumprate=

Groundwater Sampling Form

Sample ID: SW-3

Site Information	
Site Name: Charah Brickhaven	Project Number: 10337473
Site Location: Moncure, NC	Sampling Personnel: B. Deiseles
Date: 7/14/25	Weather: 90°F Sunny

Well Information	
Well Diameter (in): N/A	Purge Equipment: N/A
Screened Interval (ft): N/A	Pump Type: N/A
Well Depth (ft): N/A	Pump Depth (ft-bTOC): N/A
Depth-to-Water (ft-bTOC): N/A	Tubing Diameter (in): N/A
Water Column Thickness (ft): N/A	Well Volume (ft^3): N/A

1 Well Volume = (Total Depth - Static Water Level) * Well Capacity

Well Capacity (gallons per feet): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3' = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47

Purging Information

Parameter Instrument(s):

TIME	VOLUME PURGED (Liters)	CUMULATIVE VOLUME PURGED (Liters)	PURGE RATE (mL/min)	DEPTH TO WATER (ft-bTOC)	pH (SU) (±0.1)	TEMP. (C°)	COND. (µS/cm) (5%)	DISSOLVED OXYGEN (mg/L) (10%)*	ORP (mV) (±20mV)	TURBIDITY (NTUs) (≤10 or 10%)	COLOR/ ODOR (describe)
1650	~	~	~	~	6.69	27.1	103.6	2.49	328	4.22	Dark brown NR

* DO below 2.0 mg/L is stable at ±0.2 mg/L; DO below 0.5 mg/L is stable

Sample Information

Sample Number	Collection Time	Parameter	Container	Preservative
SW-3	1650	Radium 226/228	2 - 1 L Poly	HNO3
		6010/6020/7470	1 - 250 mL Poly	HNO3
		Cl, F, SO4	1 - 250 mL Poly	N/A
		TDS	1 - 500 mL Poly	N/A

Sampled By:	B. Deiseles	Sample Time:	1650
Date Sampled:	7/14/25	Sampler Signature:	

Notes: Pumprate=

Groundwater Sampling Form

Sample ID: SW-4

Site Information	
Site Name: Charah Brickhaven	Project Number: 10337473
Site Location: Moncure, NC	Sampling Personnel: [illegible]
Date: 2/12/25	Weather: [illegible]

Well Information	
Well Diameter (in): N/A	Purge Equipment: N/A
Screened Interval (ft): N/A	Pump Type: N/A
Well Depth (ft): N/A	Pump Depth (ft-bTOC): N/A
Depth-to-Water (ft-bTOC): N/A	Tubing Diameter (in): N/A
Water Column Thickness (ft): N/A	Well Volume (ft^3): N/A

1 Well Volume = (Total Depth - Static Water Level) * Well Capacity

Well Capacity (gallons per feet): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3' = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47

Purging Information

Parameter Instrument(s):

TIME	VOLUME PURGED (Liters)	CUMULATIVE VOLUME PURGED (Liters)	PURGE RATE (mL/min)	DEPTH TO WATER (ft bTOC)	pH (SU) (±0.1)	TEMP. (C°)	COND. (µS/cm) (5%)	DISSOLVED OXYGEN (mg/L) (10%)*	ORP (mV) (±20mV)	TURBIDITY (NTUs) (≤10 or 10%)	COLOR/ ODOR (describe)
[illegible]					6.07	[illegible]	53 [illegible]	6.83	[illegible]	[illegible]	[illegible] N/A

* DO below 2.0 mg/L is stable at ±0.2 mg/L; DO below 0.5 mg/L is stable

Sample Information

Sample Number	Collection Time	Parameter	Container	Preservative
SW-4	1015	Radium 226/228	2 - 1 L Poly	HNO3
		6010/6020/7470	1 - 250 mL Poly	HNO3
		Cl, F, SO4	1 - 250 mL Poly	N/A
		TDS	1 - 500 mL Poly	N/A

Sampled By: [illegible]	Sample Time: 1015
Date Sampled: 2/12/25	Sampler Signature: [illegible]

Notes: Pumprate=

Groundwater Sampling Form

Sample ID: SW-5

Site Information	
Site Name: Charah Brickhaven	**Project Number:** 10337473
Site Location: Moncure, NC	**Sampling Personnel:** B. Watts/BS
Date: 7/16/25	**Weather:** 85°F Sunny

Well Information	
Well Diameter (in): N/A	**Purge Equipment:** N/A
Screened Interval (ft): N/A	**Pump Type:** N/A
Well Depth (ft): N/A	**Pump Depth (ft-bTOC):** N/A
Depth-to-Water (ft-bTOC): N/A	**Tubing Diameter (in):** N/A
Water Column Thickness (ft): N/A	**Well Volume (ft^3):** N/A
1 Well Volume = (Total Depth - Static Water Level) * Well Capacity	
Well Capacity (gallons per feet): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47	

Purging Information

Parameter Instrument(s):

TIME	VOLUME PURGED (Liters)	CUMULATIVE VOLUME PURGED (Liters)	PURGE RATE (mL/min)	DEPTH TO WATER (ft-bTOC)	pH (SU) (±0.1)	TEMP. (C°)	COND. (µS/cm) (5%)	DISSOLVED OXYGEN (mg/L) (10%)*	ORP (mV) (±20mV)	TURBIDITY (NTUs) (≤10 or 10%)	COLOR/ ODOR (describe)
1705					6.71	26.5	613	7.47	134.7	7100	

* DO below 2.0 mg/L is stable at ±0.2 mg/L; DO below 0.5 mg/L is stable

Sample Information

Sample Number	Collection Time	Parameter	Container	Preservative
SW-5	1705	Radium 226/228	2 - 1 L Poly	HNO3
		6010/6020/7470	1 - 250 mL Poly	HNO3
		Cl, F, SO4	1 - 250 mL Poly	N/A
		TDS	1 - 500 mL Poly	N/A

Sampled By: B. Watts	**Sample Time:** 1705
Date Sampled: 7/16/25	**Sampler Signature:**

Notes: Pumprate=

Groundwater Sampling Form

Sample ID: SW-6

Site Information	
Site Name: Charah Brickhaven	**Project Number:** 10337473
Site Location: Moncure, NC	**Sampling Personnel:** B. Weisberg
Date: 7/16/25	**Weather:** 85°F Sunny

Well Information	
Well Diameter (in): N/A	**Purge Equipment:** N/A
Screened Interval (ft): N/A	**Pump Type:** N/A
Well Depth (ft): N/A	**Pump Depth (ft-bTOC):** N/A
Depth-to-Water (ft-bTOC): N/A	**Tubing Diameter (in):** N/A
Water Column Thickness (ft): N/A	**Well Volume (ft^3):** N/A
1 Well Volume = (Total Depth - Static Water Level) * Well Capacity	
Well Capacity (gallons per feet): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47	

Purging Information

Parameter Instrument(s):

TIME	VOLUME PURGED (Liters)	CUMULATIVE VOLUME PURGED (Liters)	PURGE RATE (mL/min)	DEPTH TO WATER (ft-bTOC)	pH (SU) (±0.1)	TEMP. (C°)	COND. (µS/cm) (5%)	DISSOLVED OXYGEN (mg/L) (10%)*	ORP (mV) (±20mV)	TURBIDITY (NTUs) (≤10 or 10%)	COLOR/ ODOR (describe)
1645					6.47	31.9	49.2	6.44	121.6	21.6	Clear/None

* DO below 2.0 mg/L is stable at ±0.2 mg/L; DO below 0.5 mg/L is stable

Sample Information

Sample Number	Collection Time	Parameter	Container	Preservative
SW-6	1645	Radium 226/228	2 - 1 L Poly	HNO3
		6010/6020/7470	1 - 250 mL Poly	HNO3
		Cl, F, SO4	1 - 250 mL Poly	N/A
		TDS	1 - 500 mL Poly	N/A

Sampled By: B. Weisberg	**Sample Time:** 1645
Date Sampled: 7/16/25	**Sampler Signature:**

Notes: Pumprate=

Groundwater Sampling Form

Sample ID: LEACHATE

Site Information

Site Name: C[illegible]arah Brickhaven	Project Number: 10337473
Site Location: Moncure, NC	Sampling Personnel: B. Lakin-Hall / [illegible]165
Date: 7/15/25	Weather: 80°F Rain

Well Information

Well Diameter (in): N/A	Purge Equipment: N/A
Screened Interval (ft): N/A	Pump Type: N/A
Well Depth (ft): N/A	Pump Depth (ft-bTOC): N/A
Depth-to-Water (ft-bTOC): N/A	Tubing Diameter (in): N/A
Water Column Thickness (ft): N/A	Well Volume (ft^3): N/A

1 Well Volume = (Total Depth - Static Water Level) * Well Capacity

Well Capacity (gallons per feet): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47

Purging Information

Parameter Instrument(s)

TIME	VOLUME PURGED (Liters)	CUMULATIVE VOLUME PURGED (Liters)	PURGE RATE (mL/min)	DEPTH TO WATER (ft-bTOC)	pH (SU) (±0.1)	TEMP. (C°)	COND. (µS/cm) (5%)	DISSOLVED OXYGEN (mg/L) (10%)*	ORP (mV) (±20mV)	TURBIDITY (NTUs) (≤10 or 10%)	COLOR/ ODOR (describe)
1130					7.13	27.6	140.4	4.75	218.4	1.41	N/A

* DO below 2.0 mg/L is stable at ±0.2 mg/L; DO below 0.5 mg/L is stable

Sample Information

Sample Number	Collection Time	Parameter	Container	Preservative
LEACHATE	1130	Radium 226/228	2 - 1 L Poly	HNO3
		6010/6020/7470	1 - 250 mL Poly	HNO3
		Cl, F, SO4	1 - 250 mL Poly	N/A
		TDS	1 - 500 mL Poly	N/A

Sampled By: B. Lakin-Hall	Sample Time: 1130
Date Sampled: 7/15/25	Sampler Signature:

Notes: Pumprate= . .

GROUNDWATER DEPTH

Project Name: Charah – Brickhaven

Project Address: Moncure

Time Started: 0730

Personnel: B. Weiserbs

Date: 10/20/29

Project No: 10423253

Time Finished: 0845

Well ID	Depth to Water	Total Depth	
BG-1	12.98	43.~~05~~70	
BG-2	13.20	26.11	
MW-1	62.10	75.~~38~~.60	
MW-2	20.02	~~50.15~~	49.97
MW-2D	142.72	~~145~~	147.3a
MW-3	8.40	43.~~36~~68	
MW-4	14.90	~~25.34~~	30.7c
MW-5	23.08	46.~~14~~99	
MW-6	9.15	~~29.47~~	27.40
MW-7	15.58	17.~~18~~64	
MW-7R	21.15	39.~~94~~ 75	
~~MW-8~~	~~32.55~~	~~49.0890~~	
MW-9	37.60	38.9	
MW-10	32.55	~~47~~ 49.90	
MW-11	12.41	43.5	
MW-11D	8.50	68.1	
MW-8	33.40	49.55	

Well ID	Depth to Water	Total Depth

- Local
- Cable
- DUP
- SW-1
- SW-6

Normal
BG-1
-2
MW-1
SW-2
SW-3
S-01
SW-5

Location Charah BG-1

Project / Client Started 10:30 Date 10/20/25

Depth of pump 34 Ft

TIME	pH / temp	DO / ORP	cond / turb	color / odor	DTW
1035	6.54 / 17.5	2.1 / 97.4	9.10 / 242	Cloudy / none	14.04
1040	6.54 / 17.6	1.6 / 94.7	908 / 429	Cloudy pink / none	
1045	6.54 / 17.7	1.5 / 93.1	908 / 311	Cloudy pink / none	14.25
1050	6.54 / 17.8	1.6 / 91.9	908 / 240	Cloudy pink / none	14.25
1055	6.53 / 17.8	1.4 / 90.4	907 / 194	Cloudy pink / none	14.31
1100	6.53 / 17.9	1.2 / 89.1	907 / 140	Cloudy / none	14.31
1105	6.52 / 17.9	1.1 / 87.7	906 / 121	Slightly cloudy / none	14.31
1110	6.52 / 17.9	0.8 / 86.3	905 / 88.2	Slightly cloudy / none	14.27
1115	6.52 / 18.2	1.0 / 85.4	906 / 95.7	Slightly cloudy / none	15.15
1120	6.51 / 17.6	1.0 / 85.0	903 / 185	Cloudy / none	15.71
1125	6.50 / 18.0	0.8 / 84.4	900 / 119	slightly cloudy / none	14.74
1130	6.49 / 18.0	0.7 / 83.3	898 / 57.4	clearish / none	14.82
1135	6.49 / 18.0	0.7 / 82.9	896 / 36.5	Clear / none	14.83
1140	6.49 / 18.0	0.8 / 82.1	893 / 18.4	Clear / none	14.84
1145	6.49 / 17.9	0.6 / 81.5	888 / 18.2	Clear / none	14.79
1150	6.49 / 18.0	0.5 / 80.7	885 / 14.6	Clear / none	14.76
1155	6.48 / 18.0	0.5 / 80.0	875 / 11.4	Clear / none	14.77
1200	6.48 / 18.0	0.5 / 79.1	869 / 11.7	Clear / none	14.78
1205	6.48 / 18.1	0.4 / 78.4	864 / 10.0	Clear / none	14.83
1210	6.48 / 18.1	0.4 / 77.7	860 / 11.2	Clear / none	14.85
1215	6.48 / 18.1	0.3 / 76.8	853 / 11.5	Clear / none	14.87
1220	6.48 / 18.1	0.3 / 76.0	850 / 9.95	Clear / none	14.87
	sample @	1225			

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Location Charah BG-2

Project / Client 13.15

PUMP at 21.5 ft started at 0815

Date 10/21/25

sampled at 1020

TIME	pH/temp	DO/ORP	Cond/turb	Color/odor	DTW
0820	6.91 / 16.1	6.9 / 60.0	2839 / >1000	Cloudy lt. brown / none	14.02
0825	6.91 / 16.1	6.1 / 59.9	2853 / >1000	Cloudy lt. brown / none	14.07
0830	6.91 / 16.3	5.4 / 59.6	2850 / >1000	Cloudy lt. brown / none	14.08
0835	6.91 / 16.4	4.4 / 58.3	2783 / >1000	Cloudy lt. brown / none	14.18
0840	6.90 / 16.4	4.1 / 56.3	2655 / >1000	Cloudy lt. brown / none	14.16
0845	6.91 / 15.9	3.6 / 53.1	2489 / >1000	Cloudy lt. brown / none	14.14
0850	6.91 / 15.9	3.6 / 52.1	2443 / >1000	Cloudy lt. brown / none	14.14
0855	6.92 / 17.0	3.2 / 48.6	2333 / 868	Cloudy lt. brown / none	14.32
0900	6.92 / 16.2	3.0 / 47.7	2289 / 706	Cloudy lt. brown / none	14.60
0905	6.92 / 16.7	2.6 / 42.4	2108 / 371	Cloudy / none	15.10
0910	6.93 / 16.6	2.4 / 37.3	2001 / 216	Slightly Cloudy / none	15.23
0915	6.93 / 16.5	2.3 / 33.1	1925 / 95.0	Clearish / none	15.13
0920	6.94 / 16.3	2.3 / 28.5	1872 / 43.2	clear / none	14.87
0925	6.94 / 15.3	2.3 / 27.6	1886 / 34.6	clear / none	14.61
0930	6.94 / 15.1	2.3 / 26.6	1886 / 31.8	clear / none	14.51
0935	6.94 / 14.3	2.3 / 24.9	1901 / 23.2	clear / none	14.48
0940	6.93 / 17.1	1.9 / 23.4	1968 / 25.9	clear / none	14.48
0945	6.94 / 15.9	2.0 / 23.0	1950 / 18.4	clear / none	14.40
0950	emptied cell due to blockage				
0955	6.94 / 15.6	1.6 / 26.6	1958 / 50.8	clear / none	14.87
1000	6.92 / 18.1	0.5 / 28.5	2097 / 23.3	clear / none	15.16
1005	6.91 / 18.3	0.3 / 21.3	1876 / 24.8	clear / none	15.32
1010	6.92 / 18.4	0.2 / 19.3	1866 / 22.9	clear / none	15.44
1015	6.91 / 18.4	0.2 / 17.7	1856 / 18.5	clear / none	15.53

Location Charah MW-1

Project / Client PUMP @ 71.5 ft Date 10/21/25

62.03 started at 1515

TIME	pH/temp	DO/ORP	Cond/turb	color/odor	DTW
1520	7.29/21.6	2.7/142.4	656/117	Cloudy/none	
1525	7.23/20.7	2.4/134.1	654/142	Cloudy/none	62.17
1530	7.21/20.0	2.7/128.1	730/117	Cloudy/none	62.13
1535	7.23/20.5	2.4/123.3	746/104	Cloudy/none	62.17
1540	7.23/20.8	2.5/118.8	745/102	Cloudy/none	62.17
1545	7.23/20.6	2.4/116.0	735/115	Cloudy/none	62.16
1550	7.23/20.6	2.2/112.1	725/96.2	Slightly Cloudy/none	62.15
1555	7.21/20.9	2.0/108.3	719/75.1	Slightly Cloudy/none	62.15
1600	7.23/20.9	2.1/104.8	718/61.6	Clear/none	62.13
1605	7.22/21.0	1.9/100.8	718/62.1	clear/none	62.15
1610	7.23/21.0	1.8/99.2	724/43.7	clear/none	62.15
1615	7.21/20.9	2.0/97.1	739/44.5	clear/none	62.15
1620	7.23/21.0	2.0/96.6	756/39.9	clear/none	62.15
1625	7.18/21.1	1.8/96.6	822/31.9	clear/none	62.15
1630	7.12/20.6	1.7/98.1	924/29.0	clear/none	62.17
1635	7.07/20.6	1.8/100.2	1120/28.6	clear/none	62.15
1640	7.01/20.6	1.7/101.4	1270/28.7	clear/none	62.15
1645	7.00/20.7	1.6/102.1	1449/26.6	clear/none	62.17
1650	6.93/21.1	1.51 103.0	1583/26.5	clear/none	62.15
1655	6.91/21.1	1.4/103.3	1683/22.5	clear/none	62.15
1700	6.88/20.5	1.4/103.8	1795/20.5	clear/none	62.14
1705	6.88/20.4	1.4/104.1	1874/21.1	clear/none	62.14
1710	6.85/20.4	1.3/104.1	1951/22.2	clear/none	62.15

sampled at 1715

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Location Charah MW-2

Project / Client 20.21

Date 10/21/25

Pump @ 40 feet
started at 1240

TIME	pH/temp	DO/ORP	cond/turb	color/odor	DTW
1245	7.51/20.5	7.9/100.8	4077/343	cloudy/none	21.48
1250	7.52/20.5	7.7/97.5	4069/285	cloudy/none	21.92
1255	7.52/20.6	7.6/94.4	4061/269	cloudy/none	22.40
1300	7.51/20.3	7.4/91.0	4040/276	cloudy/none	23.23
1305	7.51/20.4	7.2/88.8	4035/237	cloudy/none	24.07
1310	7.51/20.9	7.0/87.3	4020/195	cloudy/none	24.40
1315	7.55/20.8	4.3/86.8	4122/143	slightly cloudy/none	25.16
1320	7.51/21.3	3.5/85.6	4109/120	slightly cloudy/none	25.50
1325	7.51/20.4	3.7/84.8	4092/97.3	slightly cloudy/none	26.28
1330	7.54/21.0	3.5/83.3	4083/75.6	clearish/none	26.78
1335	7.51/21.1	3.2/82.3	4087/48.0	clear/none	27.19
1340	7.51/20.8	5.0/81.5	4092/58.3	clearish/none	27.68
1345	7.50/20.7	4.8/80.9	4072/41.4	clear/none	28.18
1350	7.50/21.1	4.7/80.3	4061/23.6	clear/none	28.58
1355	7.51/20.6	5.2/80.0	4061/30.1	clear/none	
1400	7.51/20.7	5.2/79.5	4076/24.4	clear/none	29.57
1405	7.51/20.7	5.1/79.3	4052/18.5	clear/none	30.52
1410	7.52/21.2	5.0/79.0	4053/20.3	clear/none	30.94
1415	emptied flow chamber				
1420	7.51/20.0	4.2/79.3	4077/19.9	clear/nine	31.95
1425	7.52/20.9	3.5/79.2	4044/15.4	clear/none	32.58
1430	7.53/20.2	3.8/79.5	4023/25.2	clear/none	33.55
1435	7.53/20.7	3.6/79.4	3989/31.6	clear/none	34.08
	Sampled	@ 1440	(25.8)		

Location Charah MW-3 Date 10/21/25

Project / Client PUMP @ 34 ft

8.44 Started @ 1055

TIME	PH/temp	DO/ORP	Cond/Turb	Color/odor	DTW
1100	7.44/18.8	5.7/65.2	3940/32.8	Clear/none	9.65
1105	7.43/19.6	4.4/63.0	3954/30.6	Clear/none	10.38
1110	7.41/20.1	4.5/62.1	3961/26.6	Clear/none	10.73
1115	7.41/20.3	4.5/61.0	3960/27.7	Clear/none	11.21
1120	7.40/20.6	4.5/59.5	3958/23.5	Clear/none	11.66
1125	7.39/20.9	4.4/58.0	3955/17.6	Clear/none	12.07
1130	7.39/20.2	4.3/56.8	3959/15.3	Clear/none	12.89
1135	7.39/20.0	4.1/56.3	3937/13.5	Clear/none	13.56
1140	7.39/20.2	4.1/55.1	3956/8.94	Clear/none	14.45
1145	7.40/19.8	3.9/54.9	3912/7.47	Clear/none	15.57

Sampled at 1150

Location Charah MW-4 Date 10/20/25

Project / Client Started at 1310

14.56 pump at 26 Ft

TIME	pH/temp	DO/ORP	Cond/turb	Color/odor	DTW
1315	6.09/19.9	2.1/21.4	1845/167	Cloudy/none	16.06
1320	6.10/20.1	2.0/20.8	1846/183	Cloudy/none	16.19
1325	6.16/20.1	1.5/16.3	1850/114	Cloudy/none	16.38
1330	6.21/20.0	1.4/11.2	1870/107	Cloudy/none	16.59
1335	6.24/20.2	1.1/4.5	1884/76.6	Slightly Cloudy/none	16.61
1340	6.28/19.9	0.9/2.7	1903/47.5	Slightly Cloudy/none	16.68
1345	6.30/20.0	0.8/1.5	1913/44.5	Clearish/none	16.83
1350	6.28/19.9	0.6/0.6	1910/56.6	Clearish/none	
1355	6.30/19.9	0.5/0.3	1918/42.4	Clearish/none	16.91
1400	6.30/19.7	0.4/1.2	1918/37.1	Clearish/none	17.11
1405	6.30/19.8	0.4/0.9	1916/31.9	Clear/none	17.03
1410	6.31/19.9	0.3/1.1	1919/17.9	Clear/none	16.87
1415	6.31/19.8	0.3/1.4	1918/14.9	Clear/none	17.02
1420	6.30/19.8	0.3/1.7	1914/15.0	Clear/none	17.06
1425	6.31/19.9	0.2/1.9	1912/9.49	Clear/none	17.00
1430					
1435	Sampled 1430				

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Location Charah MW-5

Project / Client 22.83

Date 10/20/25

started at 1515

pump at 40.5 Ft

TIME	pH/temp	DO/ORP	cond/turb	Color/odor	DTW
1520	7.08/20.0	3.0/5.6	393.6/27.2	Clear/none	24.03
1525	6.99/20.0	1.8/16.1	384.8/26.1	Clear/none	24.75
1530	7.00/20.1	1.6/22.7	385.3/25.6	Clear/none	25.20
1535	7.01/19.7	1.7/27.2	380.3/24.1	Clear/none	25.95
1540	7.01/20.0	1.6/30.3	372.8/26.1	Clear/none	26.29
1545	6.99/19.9	1.5/32.6	369.7/18.9	Clear/none	27.02
1550	6.99/20.2	1.4/34.7	368.0/17.2	Clear/none	27.45
1555	6.98/20.3	1.4/36.0	365.4/12.8	Clear/none	27.75
1600	6.95/20.6	1.4/38.6	365.0/18.2	Clear/none	28.32
1605	6.95/20.4	1.3/38.8	357.3/12.8	Clear/none	28.44
1610	6.92/20.3	1.2/38.5	342.1/24.6	Clear/none	28.90
1615	6.89/20.1	1.1/39.3	334.0/20.1	Clear/none	29.48
1620	6.88/20.0	1.2/40.1	332.6/18.1	Clear/none	30.15
1625	6.85/20.7	1.0/40.2	316.1/12.0	Clear/none	31.13
1630	6.85/20.6	1.0/41.1	313.8/12.4	Clear/none	31.90
1635	6.84/20.7	1.0/41.8	311.7/9.93	Clear/none	33.05
1640					
1645	Sampled at 1640				

Leachate 1650

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Location Charak MW-6

Project / Client pump at 21 ft Date 10/27/25

8.65 Start at 1625

Time	pH / Temp	DO / ORP	Cond / turb	Color / odor	DTW
1630	6.47 / 18.8	3.5 / 164.1	968 / 130	Slightly Cloudy / none	9.38
1635	6.43 / 18.4	2.4 / 113.5	959 / 398	Cloudy / none	9.42
1640	6.43 / 18.5	2.0 / 116.3	958 / 359	Cloudy / none	9.43
1645	6.43 / 18.4	1.9 / 117.5	957 / 335	Cloudy / none	9.44
1650	6.42 / 18.4	1.7 / 118.7	957 / 311	Cloudy / none	9.45
1655	6.42 / 19.1	1.1 / 119.4	959 / 317	Cloudy / none	9.86
1700	6.42 / 18.9	1.0 / 120.1	959 / 287	Cloudy / none	9.67
1705	6.42 / 18.4	1.2 / 121.0	959 / 198	Cloudy / none	9.58
1710	6.42 / 18.3	1.0 / 121.5	955 / 140	Cloudy / none	9.54
1715	6.42 / 18.2	0.9 / 121.8	954 / 126	Slightly Cloudy / none	9.55
1720	6.41 / 18.1	0.9 / 122.3	954 / 135	Slightly Cloudy / none	9.52
1725	6.42 / 18.4	0.9 / 122.4	951 / 128	Slightly Cloudy / none	9.63
1730	6.42 / 18.2	0.8 / 122.4	953 / 135	Slightly Cloudy / none	9.65
1735	6.42 / 18.5	0.7 / 122.4	952 / 113	Slightly Cloudy / none	9.76
1740	6.41 / 18.8	0.6 / 122.2	952 / 120	Slightly Cloudy / none	
1745	6.41 / 18.8	0.5 / 122.1	952 / 76.9	Slightly Cloudy / none	9.89
1750	6.42 / 18.7	0.5 / 122.1	952 / 71.9	Slightly Cloudy / none	
1755	6.41 / 18.6	0.4 / 122.0	952 / 58.6	Slightly Cloudy / none	9.91
1800	6.41 / 18.6	0.4 / 121.9	951 / 58.5	Slightly Cloudy / none	9.92
1805	6.38 / 18.6	0.4 / 123.3	951 / 53.4	Slightly Cloudy / none	9.94
1810	6.39 / 18.5	0.3 / 122.8	950 / 44.6	Slightly Cloudy / none	

Sample at 1815

Location Charah MW-7R

Project / Client Pumpat 31 PT

Date 10/22/25

20,80

Started at 1420

TIME	pH/temp	DO/ORP	cond/turb	color/odor	DTW
1425	7.42/20.7	3.9/65.8	1489/204	cloudy/none	21.95
1430	7.44/20.5	3.1/67.5	1484/200	cloudy/none	22.40
1435	7.46/20.6	2.9/69.2	1480/205	cloudy/none	22.65
1440	7.44/20.9	2.8/72.4	1476/175	cloudy/none	22.98
1445	7.43/21.2	2.5/75.2	1473/133	slightly cloudy/none	23.23
1450	7.43/20.6	2.9/79.4	1486/123	slightly cloudy/none	23.65
1455	7.41/20.6	2.9/81.6	1470/62.5	clearish/none	23.87
1500	7.43/21.8	2.7/84.4	1472/62.8	clearish/none	24.02
1505	7.42/21.0	2.7/86.1	1475/52.8	clearish/none	24.22
1510	7.43/20.5	2.7/87.7	1467/45.1	clear/none	24.60
1515	7.42/21.0	2.7/88.8	1473/45.8	clear/none	24.76
1520	7.45/21.0	3.9/89.9	1518/48.2	clear/none	24.87
1525	7.45/20.3	4.1/92.7	1493/44.7	clear/none	25.41
1530	7.42/21.6	3.7/95.8	1484/34.5	clear/none	26.20
1535	7.41/21.9	3.1/98.1	1485/27.8	clear/none	26.25
1540	7.41/22.7	3.2/99.7	1490/30.1	clear/none	26.23
1545	7.41/22.5	2.9/100.6	1492/29.9	clear/none	26.22
1550	7.40/21.7	2.9/101.6	1491/28.5	clear/none	26.31
1555	7.41/22.2	2.7/101.3	1489/32.8	clear/none	26.29

Sample 1600

Location Charah MW-8

Project / Client pump at 45 Ft Date 10/22/25

33.39 Start at 0820

TIME	pH/Temp	DO/ORP	Cond/turb	Color/odor	DTW
0825	6.95/17.1	3.7/119.7	2898/>1000	cloudy pink/none	34.04
0830	6.95/17.5	2.6/119.3	2911/957	cloudy pink/none	34.27
0835	6.94/18.0	1.9/118.0	2918/862	Cloudy pink/none	34.25
0840	6.95/18.1	1.6/116.9	2904/735	Cloudy pink/none	34.15
0845	6.95/18.0	1.9/114.8	2869/492	Cloudy/none	34.08
0850	6.96/18.1	0.9/113.8	2854/467	Cloudy/none	34.01
0855	6.95/17.9	0.4/112.0	2833/453	Cloudy/none	33.97
0900	6.95/19.1	0.4/108.8	2823/>1000	Cloudy pink/none	34.28
0905	6.97/18.9	0.8/106.6	2753/918	Cloudy pink/none	34.24
0910	6.98/18.6	0.7/103.6	2654/546	Cloudy/none	34.12
0915	6.99/18.8	0.7/101.2	2600/470	Cloudy/none	34.10
0920	6.99/18.7	0.6/98.1	2544/475	Cloudy/none	34.08
0925	7.00/19.0	0.6/95.6	2505/515	Cloudy/none	34.07
0930	7.00/19.0	0.5/93.4	2480/504	Cloudy/none	34.04
0935	7.00/19.3	0.5/90.9	2455/489	Cloudy/none	34.03
0940	7.00/19.4	0.5/88.0	2416/464	Cloudy/none	34.02
0945	7.01/19.4	0.4/85.3	2387/384	Cloudy/none	34.03
0950	7.01/19.4	0.4/83.9	2372/348	Cloudy/none	34.03
0955	7.01/19.7	0.7/83.2	2338/346	Cloudy/none	34.00
1000	7.01/19.8	0.6/81.4	2328/264	Cloudy/none	33.98
1005	7.01/19.9	0.7/80.0	2310/220	Cloudy/none	33.96
1010	7.01/20.0	0.6/77.9	2280/179	Cloudy/none	
1015	7.01/19.8	0.5/76.9	2267/141	Cloudy/none	33.95
1020	7.02/20.0	0.5/75.3	2256/142	Cloudy/none	33.93

Location

Project / Client Date

Scale

Sample Time: 1100

TIME	pH	temp	DO	ORP	cond	turb	color/odor	DTW
1025	7.01	20.3	0.5	73.6	2253	133	Cloudy/none	33.9
1030	7.01	20.4	0.5	72.5	2244	120	Slightly cloudy/none	33.9
1035	7.02	20.6	0.4	70.9	2236	105	Slightly cloudy/none	
1040	7.02	20.7	0.5	70.4	2233	95.5	Slightly cloudy/none	33.
1045	7.01	20.5	0.7	71.6	2227	42.4	Slightly cloudy/none	33.
1050	7.02	20.6	0.5	70.8	2225	97.0	Slightly cloudy/none	33.
1055	7.02	20.6	0.5	70.0	2224	80.3	Slightly cloudy/none	33.

turb: 43.1 for TDS/metals

Rite in the Rain

Location Charah MW-10

Project / Client 32.03 pump at 48 Ft start @ 0835

Date 10/23/25 Sampled at 1040

TIME	pH/temp	DO/ORP	Cond/turb	color/odor	DTW
0840	8.00/13.2	4.4/87.1	565.2/41.8	Clear/none	32.93
0845	7.95/12.5	4.2/58.3	562.5/83.7	Slightly cloudy/none	33.10
0850	7.93/12.2	4.0/42.0	563.7/125	cloudy/none	33.25
0855	7.93/12.4	3.6/15.7	563.4/153	Cloudy/none	33.35
0900	7.94/12.8	3.8/-5.2	561.4/124	Cloudy/none	33.55
0905	7.93/12.9	3.3/-12.8	559.7/115	Cloudy/none	33.62
0910	7.93/13.5	3.5/-24.1	560.0/103	Cloudy/none	33.75
0915	7.94/14.1	2.9/-30.1	560.9/92.2	slightly Cloudy/none	33.88
0920	7.94/15.2	3.2/-32.4	556.7/74.6	slightly cloudy/none	34.06
0925	7.93/16.1	2.7/-35.0	561.0/60.7	Clearish/none	34.22
0930	7.93/16.2	2.5/-34.7	561.2/44.0	clearish/none	34.32
0935	7.92/16.4	2.3/-31.5	563.3/40.0	Clear/none	34.50
0940	7.93/16.5	2.6/-30.1	562.1/39.8	Clear/none	34.61
0945	7.91/18.4	1.7/-33.2	560.2/77.3	Slightly Cloudy/none	35.10
0950	7.91/18.1	1.5/-34.3	565.7/53.7	clearish/none	35.25
0955	7.91/17.4	1.6/-32.6	566.5/39.6	Clear/none	35.38
1000	7.92/17.4	1.4/-30.3	564.4/26.0	Clear/none	35.56
1005	7.92/17.3	1.3/-28.0	564.2/23.2	Clear/none	35.68
1010	7.91/17.8	1.3/-26.7	562.5/22.8	Clear/none	35.81
1015	7.92/18.1	1.3/-26.7	563.4/18.1	Clear/none	35.93
1020	7.92/18.5	1.3/-25.2	564.2/17.2	Clear/none	36.03
1025	7.91/18.8	1.2/-23.1	564.9/15.3	Clear/none	36.17
1030	7.91/19.2	1.2/-21.0	565/14.3	Clear/none	36.28
1035	7.91/19.5	1.2/-18.9	565/13.7	clear/none	

Location

Project / Client

Scale

134 Charah
Location MW-11

Project / Client 11.45 Pump at 35 Ft Date 10/23/25

Start at 1305

TIME	pH/temp	DO/ORP	Cond/turb	color/odor	DTW
					sampled @ 1510
1310	6.77/18.4	3.7/46.2	714/51.5	clear/none	DTW
1315	6.77/18.6	2.4/50.3	718/182	Clear/none	13.25
1320	6.77/18.6	2.0/51.9	719/213	Cloudy/none	13.58
1325	6.77/18.8	1.8/52.2	718/249	Cloudy/none	13.83
1330	6.77/19.2	1.6/52.5	719/245	Cloudy/none	
1335	6.78/19.6	1.5/52.8	718/251	Cloudy/none	13.93
1340	6.78/19.3	1.5/53.2	720/241	Cloudy/none	13.93
1345	6.79/19.3	1.4/53.3	718/230	Cloudy/none	14.06
1350	6.80/19.4	1.3/53.4	719/225	Cloudy/none	14.13
1355	6.78/19.3	1.2/53.8	722/218	Cloudy/none	14.18
1400	6.78/19.0	1.1/54.3	720/184	Cloudy/none	14.22
1405	6.77/18.9	1.1/55.1	720/148	Cloudy/none	14.28
1410	6.77/18.9	1.0/55.8	722/117	Cloudy/none	14.25
1415	6.76/18.6	0.9/56.5	723/92.1	Cloudy/none	14.28
1420	6.75/18.2	0.9/57.4	727/84.8	Cloudy/none	14.28
1425	6.73/18.1	0.6/59.0	729/79.9	Slightly Cloudy/none	14.68
1430	6.73/18.0	0.5/59.9	733/62.0	Slightly Cloudy/none	15.63
1435	6.73/17.9	0.5/61.2	733/54.6	clearish/none	15.99
1440	6.72/17.9	0.4/61.6	735/48.2	clearish/none	16.24
1445	6.72/17.9	0.4/62.9	738/26.9	clear/none	16.37
1450	6.71/17.9	0.3/63.6	741/29.6	clear/none	16.47
1455	6.71/17.8	0.3/64.2	746/25.9	clear/none	16.54
1500	6.70/17.8	0.3/64.4	749/17.9	clear/none	16.63
1505	6.69/17.8	0.3/64.6	753/20.1	clear/none	16.66
					16.70

Location

Project / Client

Scale

Location Charah MW-11D Date 10/23/25

Project / Client Start @ 1135

7.51 PVMP at 55 Ft

TIME	pH/temp	DO/ORP	Cond/turb	color/odor	DTW
1140	8.17/18.6	3.7/30.3	548.8/19.0	clear/none	8.78
1145	8.21/19.0	3.1/30.8	547.1/6.32	clear/none	8.88
1150	8.25/19.1	3.0/30.4	542.2/5.06	clear/none	9.02
1155	8.28/19.2	2.8/30.0	541.1/9.59	clear/none	9.17
1200	8.27/19.4	2.3/28.7	542.3/3.14	clear/none	9.08
1205	8.26/19.0	2.1/28.6	542.6/2.82	clear/none	9.03
1210	8.26/18.6	2.1/28.7	540.3/6.16	clear/none	

Groundwater Sampling Form

Sample ID: LEACHATE

Site Information

Site Name: Charah Brickhaven	Project Number: 10423253
Site Location: Moncure, NC	Sampling Personnel: B. Welsh, LG
Date: 10/20/25	Weather: 65°F Sunny

Well Information

Well Diameter (in): N/A	Purge Equipment: N/A
Screened Interval (ft): N/A	Pump Type: N/A
Well Depth (ft): N/A	Pump Depth (ft-bTOC): N/A
Depth-to-Water (ft-bTOC): N/A	Tubing Diameter (in): N/A
Water Column Thickness (ft): N/A	Well Volume (ft^3): N/A

1 Well Volume = (Total Depth - Static Water Level) * Well Capacity

Well Capacity (gallons per feet): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3' = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47

Purging Information

Parameter Instrument(s):

TIME	VOLUME PURGED (Liters)	CUMULATIVE VOLUME PURGED (Liters)	PURGE RATE (mL/min)	DEPTH TO WATER (ft-bTOC)	pH (SU) (±0.1)	TEMP. (C°)	COND. (µS/cm) (5%)	DISSOLVED OXYGEN (mg/L) (10%)*	ORP (mV) (±20mV)	TURBIDITY (NTUs) (≤10 or 10%)	COLOR/ ODOR (describe)
1650	—	—	—	—	7.31	23.2	705	5.14	-28	0	clear NA

* DO below 2.0 mg/L is stable at ±0.2 mg/L; DO below 0.5 mg/L is stable

Sample Information

Sample Number	Collection Time	Parameter	Container	Preservative
LEACHATE	1640	Radium 226/228	2 - 1 L Poly	HNO3
		6010/6020/7470	1 - 250 mL Poly	HNO3
		Cl, F, SO4	1 - 250 mL Poly	N/A
		TDS	1 - 500 mL Poly	N/A

Sampled By: K. Zukoski — Sample Time: 1650

Date Sampled: 10/20/25 — Sampler Signature: K. Zukoski

Notes: Pumprate= NA

HDR

Groundwater Sampling Form

Sample ID: BG-2

Site Information

Site Name: Charah Brickhaven	Project Number: 10423253
Site Location: Moncure, NC	Sampling Personnel: B. Wellborn
Date: 10/21/25	Weather: 40°F Sunny
Start 0815	End 1015

Well Information

Well Diameter (in): 2"	Purge Equipment: Mega Monsoon Pro
Screened Interval (ft): 13' - 23'	Pump Type: ESP
Well Depth (ft): 26.11'	Pump Depth (ft-bTOC): 21.5
Depth-to-Water (ft-bTOC): 13.15	Tubing Diameter (in): 3/8" X 1/2"
Water Column Thickness (ft): 12.96	Well Volume (ft^3): 2.07 Gal/Ft or 0.28Ft^3

1 Well Volume = (Total Depth - Static Water Level) * Well Capacity

Well Capacity (gallons per feet): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47

Purging Information

Parameter Instrument(s):

TIME	VOLUME PURGED (Liters)	CUMULATIVE VOLUME PURGED (Liters)	PURGE RATE (mL/min)	DEPTH TO WATER (ft-bTOC)	pH (SU) (±0.1)	TEMP. (C°)	COND. (µS/cm) (5%)	DISSOLVED OXYGEN (mg/L) (10%)*	ORP (mV) (±20mV)	TURBIDITY (NTUs) (≤10 or 10%)	COLOR/ ODOR (describe)
		Parameters collected by SGS									
1020					6.91						

* DO below 2.0 mg/L is stable at ±0.2 mg/L; DO below 0.5 mg/L is stable

Sample Information

Sample Number	Collection Time	Parameter	Container	Preservative
BG-2	1020	Radium 226/228	2 - 1 L Poly	HNO3
		6010/6020/7470	1 - 250 mL Poly	HNO3
		Cl, F, SO4	1 - 250 mL Poly	N/A
		TDS	1 - 500 mL Poly	N/A

Sampled By: B. Wellborn

Sample Time: 1020

Date Sampled: 10/21/25

Sampler Signature:

Notes: Pumprate= 200 mL/min

HDR

Groundwater Sampling Form

Sample ID: BG-1

Site Information	
Site Name: Charah Brickhaven	Project Number: 10423253
Site Location: Moncure, NC	Sampling Personnel: B. Weisels
Date: 10/20/25	Weather: 50 °F Sunny
Start 1035	End 1220

Well Information	
Well Diameter (in): 2"	Purge Equipment: Mega Monsoon Pro
Screened Interval (ft): 26' - 41'	Pump Type: ESP
Well Depth (ft): 43.05' 80	Pump Depth (ft-bTOC): 38
Depth-to-Water (ft-bTOC): 12.98	Tubing Diameter (in): 3/8" X 1/2"
Water Column Thickness (ft): 30.72	Well Volume (ft^3): 5.01 gal/Ft or 0.67Ft3

1 Well Volume = (Total Depth - Static Water Level) * Well Capacity

Well Capacity (gallons per feet): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3' = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47

Purging Information

Parameter Instrument(s):

TIME	VOLUME PURGED (Liters)	CUMULATIVE VOLUME PURGED (Liters)	PURGE RATE (mL/min)	DEPTH TO WATER (ft-bTOC)	pH (SU) (±0.1)	TEMP. (C°)	COND. (µS/cm) (5%)	DISSOLVED OXYGEN (mg/L) (10%)*	ORP (mV) (±20mV)	TURBIDITY (NTUs) (≤10 or 10%)	COLOR/ ODOR (describe)
Parameters collected by SRG											
1225					6.418						

* DO below 2.0 mg/L is stable at ±0.2 mg/L; DO below 0.5 mg/L is stable

Sample Information

Sample Number	Collection Time	Parameter	Container	Preservative
BG-1	1225	Radium 226/228	2 - 1 L Poly	HNO3
		6010/6020/7470	1 - 250 mL Poly	HNO3
		Cl, F, SO4	1 - 250 mL Poly	N/A
		TDS	1 - 500 mL Poly	N/A

Sampled By: B. Weisels

Sample Time: 1225

Date Sampled: 10/20/25

Sampler Signature:

Notes: Pumprate=200 mL/min

Groundwater Sampling Form

Sample ID: MW-1

Site Information	
Site Name: Charah Brickhaven	Project Number: 10423253
Site Location: Moncure, NC	Sampling Personnel: B. Welsh/BS
Date: 10/21/25	Weather: 45°F Sunny.

Start 1515

Well Information	
Well Diameter (in): 2"	Purge Equipment: Mega Monsoon Pro
Screened Interval (ft): 57' - 72'	Pump Type: ESP
Well Depth (ft): 75.80	Pump Depth (ft-bTOC): 72
Depth-to-Water (ft-bTOC): 62.03	Tubing Diameter (in): 3/8" X 1/2"
Water Column Thickness (ft): 13.57	Well Volume (ft^3): 2.17gal/ft or 0.29ft^3

1 Well Volume = (Total Depth - Static Water Level) * Well Capacity

Well Capacity (gallons per feet): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47

Purging Information

Parameter Instrument(s):

TIME	VOLUME PURGED (Liters)	CUMULATIVE VOLUME PURGED (Liters)	PURGE RATE (mL/min)	DEPTH TO WATER (ft-bTOC)	pH (SU) (±0.1)	TEMP. (C°)	COND. (µS/cm) (5%)	DISSOLVED OXYGEN (mg/L) (10%)*	ORP (mV) (±20mV)	TURBIDITY (NTUs) (≤10 or 10%)	COLOR/ ODOR (describe)
		Parameters collected by SBG									
1715					6.85						

* DO below 2.0 mg/L is stable at ±0.2 mg/L; DO below 0.5 mg/L is stable

Sample Information

Sample Number	Collection Time	Parameter	Container	Preservative
MW-1	1715	Radium 226/228	2 - 1 L Poly	HNO3
		6010/6020/7470	1 - 250 mL Poly	HNO3
		Cl, F, SO4	1 - 250 mL Poly	N/A
		TDS	1 - 500 mL Poly	N/A

Sampled By: B. Welsh/BS

Sample Time: 1715

Date Sampled: 10/21/25

Sampler Signature:

Notes: Pumprate=

Groundwater Sampling Form

Sample ID: MW-2

Site Information	
Site Name: Charah Brickhaven	**Project Number:** 10423253
Site Location: Moncure, NC	**Sampling Personnel:** D. Weberbs
Date: 10/21/25	**Weather:** 45°F Sunny
Start 1240	End 1435

Well Information	
Well Diameter (in): 2"	**Purge Equipment:** Mega Monsoon Pro
Screened Interval (ft): 32' - 47'	**Pump Type:** ESP
Well Depth (ft): ~~50.15'~~ 49.97	**Pump Depth (ft-bTOC):** 40
Depth-to-Water (ft-bTOC): 20.21	**Tubing Diameter (in):** 3/8" X 1/2"
Water Column Thickness (ft): 29.76	**Well Volume (ft^3):** 4.76gal/ft or 0.64ft^3

1 Well Volume = (Total Depth - Static Water Level) * Well Capacity

Well Capacity (gallons per feet): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3' = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47

Purging Information

Parameter Instrument(s):

TIME	VOLUME PURGED (Liters)	CUMULATIVE VOLUME PURGED (Liters)	PURGE RATE (mL/min)	DEPTH TO WATER (ft-bTOC)	pH (SU) (±0.1)	TEMP. (C°)	COND. (µS/cm) (5%)	DISSOLVED OXYGEN (mg/L) (10%)*	ORP (mV) (±20mV)	TURBIDITY (NTUs) (≤10 or 10%)	COLOR/ ODOR (describe)
			Parameters collected by SBrb								
1440					7.53						

* DO below 2.0 mg/L is stable at ±0.2 mg/L; DO below 0.5 mg/L is stable

Sample Information

Sample Number	Collection Time	Parameter	Container	Preservative
MW-2	1440	Radium 226/228	2 - 1 L Poly	HNO3
		6010/6020/7470	1 - 250 mL Poly	HNO3
		Cl, F, SO4	1 - 250 mL Poly	N/A
		TDS	1 - 500 mL Poly	N/A

Sampled By: D. Weberbs **Sample Time:** 1440

Date Sampled: 10/21/25 **Sampler Signature:**

Notes: Pumprate= 200 ml/min

HDR

Groundwater Sampling Form

Sample ID: MW-2D

Site Information	
Site Name: Charah Brickhaven	Project Number: 10423253
Site Location: Moncure, NC	Sampling Personnel: B. Watkins
Date: 10/20/23	Weather: 50°F Sunny

Well Information	
Well Diameter (in): 2"	Purge Equipment: ~~Mega Monsoon Pro~~
Screened Interval (ft): 129' - 144'	Pump Type: ~~ESP~~
Well Depth (ft): 147.30	Pump Depth (ft-bTOC): NA
Depth-to-Water (ft-bTOC): 142.72	Tubing Diameter (in): ~~3/8" X 1/2"~~
Water Column Thickness (ft): 4.58	Well Volume (ft^3): 0.73 gal/ft or 0.10 ft^3

1 Well Volume = (Total Depth - Static Water Level) * Well Capacity

Well Capacity (gallons per feet): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47

Purging Information

Parameter Instrument(s):

TIME	VOLUME PURGED (Liters)	CUMULATIVE VOLUME PURGED (Liters)	PURGE RATE (mL/min)	DEPTH TO WATER (ft-bTOC)	pH (SU) (±0.1)	TEMP. (C°)	COND. (µS/cm) (5%)	DISSOLVED OXYGEN (mg/L) (10%)*	ORP (mV) (±20mV)	TURBIDITY (NTUs) (≤10 or 10%)	COLOR/ ODOR (describe)
1340	Bailed ~0.35 gal										
10/22/23 1630	Dry										

* DO below 2.0 mg/L is stable at ±0.2 mg/L; DO below 0.5 mg/L is stable

Sample Information

Sample Number	Collection Time	Parameter	Container	Preservative
MW-2D		Radium 226/228	2 - 1 L Poly	HNO3
		6010/6020/7470	1 - 250 mL Poly	HNO3
		Cl, F, SO4	1 - 250 mL Poly	N/A
		TDS	1 - 500 mL Poly	N/A

Sampled By: NA	Sample Time:
Date Sampled:	Sampler Signature: NA

Notes: Pumprate=

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HDR

Groundwater Sampling Form

Sample ID: MW-3

Site Information	
Site Name: Charah Brickhaven	**Project Number:** 10423253
Site Location: Moncure, NC	**Sampling Personnel:** B. Weseloh
Date: 10/21/25	**Weather:** 45°F Sunny
Start 1055	End 1145

Well Information	
Well Diameter (in): 2"	**Purge Equipment:** Mega Monsoon Pro
Screened Interval (ft): 25' - 40'	**Pump Type:** ESP
Well Depth (ft): 43.36' GB	**Pump Depth (ft-bTOC):** 34'
Depth-to-Water (ft-bTOC): 8.42'	**Tubing Diameter (in):** 3/8" X 1/2"
Water Column Thickness (ft): 35.24'	**Well Volume (ft^3):** 5.64 gal/Ft or 0.75 Ft^3

1 Well Volume = (Total Depth - Static Water Level) * Well Capacity

Well Capacity (gallons per feet): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3' = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47

Purging Information

Parameter Instrument(s):

TIME	VOLUME PURGED (Liters)	CUMULATIVE VOLUME PURGED (Liters)	PURGE RATE (mL/min)	DEPTH TO WATER (ft-bTOC)	pH (SU) (±0.1)	TEMP. (C°)	COND. (µS/cm) (5%)	DISSOLVED OXYGEN (mg/L) (10%)*	ORP (mV) (±20mV)	TURBIDITY (NTUs) (≤10 or 10%)	COLOR/ ODOR (describe)
		Parameters collected by SS&G									
1150					7.40						

* DO below 2.0 mg/L is stable at ±0.2 mg/L; DO below 0.5 mg/L is stable

Sample Information

Sample Number	Collection Time	Parameter	Container	Preservative
MW-3	1150	Radium 226/228	2 - 1 L Poly	HNO3
		6010/6020/7470	1 - 250 mL Poly	HNO3
		Cl, F, SO4	1 - 250 mL Poly	N/A
		TDS	1 - 500 mL Poly	N/A

Sampled By: B. Weseloh **Sample Time:** 1150

Date Sampled: 10/21/25 **Sampler Signature:**

Notes: Pumprate= 200ml/min

Groundwater Sampling Form

Sample ID: MW-4

Site Information	
Site Name: Charah Brickhaven	**Project Number:** 10423253
Site Location: Moncure, NC	**Sampling Personnel:** B. Driscoll
Date: 10/20/23	**Weather:** 50°F Sunny
Start 1310	End 1423

Well Information	
Well Diameter (in): 2"	**Purge Equipment:** Mega Monsoon Pro
Screened Interval (ft): 13' - 23'	**Pump Type:** ESP
Well Depth (ft): ~~25-34'~~ 30.90	**Pump Depth (ft-bTOC):** 24
Depth-to-Water (ft-bTOC): 14.90	**Tubing Diameter (in):** 3/8" X 1/2"
Water Column Thickness (ft): 16.00	**Well Volume (ft^3):** 2.61 gal / Ft or 0.35 Ft^3

1 Well Volume = (Total Depth - Static Water Level) * Well Capacity

Well Capacity (gallons per feet): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47

Purging Information

Parameter Instrument(s):

TIME	VOLUME PURGED (Liters)	CUMULATIVE VOLUME PURGED (Liters)	PURGE RATE (mL/min)	DEPTH TO WATER (ft-bTOC)	pH (SU) (±0.1)	TEMP. (C°)	COND. (µS/cm) (5%)	DISSOLVED OXYGEN (mg/L) (10%)*	ORP (mV) (±20mV)	TURBIDITY (NTUs) (≤10 or 10%)	COLOR/ ODOR (describe)
1430	Parameters	collected			6.35	5&6					

* DO below 2.0 mg/L is stable at ±0.2 mg/L; DO below 0.5 mg/L is stable

Sample Information

Sample Number	Collection Time	Parameter	Container	Preservative
MW-4	1430	Radium 226/228	2 - 1 L Poly	HNO3
		6010/6020/7470	1 - 250 mL Poly	HNO3
		Cl, F, SO4	1 - 250 mL Poly	N/A
		TDS	1 - 500 mL Poly	N/A

Sampled By: B. Driscoll **Sample Time:** 1430

Date Sampled: **Sampler Signature:**

Notes: Pumprate= 200ml/min

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Groundwater Sampling Form

Sample ID: MW-5

Site Information	
Site Name: Charah Brickhaven	**Project Number:** 10423253
Site Location: Moncure, NC	**Sampling Personnel:** B. Weisels
Date: 10/20/25	**Weather:** 55°F Sunny
Start 1515	End 1635

Well Information	
Well Diameter (in): 2"	**Purge Equipment:** Mega Monsoon Pro
Screened Interval (ft): 34' - 44'	**Pump Type:** ESP
Well Depth (ft): 46.~~14~~93	**Pump Depth (ft-bTOC):** 40
Depth-to-Water (ft-bTOC): 23.08	**Tubing Diameter (in):** 3/8" X 1/2"
Water Column Thickness (ft): 23.85	**Well Volume (ft^3):** 3.82 gal/Ft or 0.51 ft3

1 Well Volume = (Total Depth - Static Water Level) * Well Capacity

Well Capacity (gallons per feet): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3' = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47

Purging Information

Parameter Instrument(s):

TIME	VOLUME PURGED (Liters)	CUMULATIVE VOLUME PURGED (Liters)	PURGE RATE (mL/min)	DEPTH TO WATER (ft-bTOC)	pH (SU) (±0.1)	TEMP. (C°)	COND. (µS/cm) (5%)	DISSOLVED OXYGEN (mg/L) • (10%)*	ORP (mV) (±20mV)	TURBIDITY (NTUs) (≤10 or 10%)	COLOR/ ODOR (describe)
		Parameters		Collected	by	S&G					
					6.84						

* DO below 2.0 mg/L is stable at ±0.2 mg/L; DO below 0.5 mg/L is stable

Sample Information

Sample Number	Collection Time	Parameter	Container	Preservative
MW-5	1640	Radium 226/228	2 - 1 L Poly	HNO3
	|	6010/6020/7470	1 - 250 mL Poly	HNO3
	|	Cl, F, SO4	1 - 250 mL Poly	N/A
	|	TDS	1 - 500 mL Poly	N/A

Sampled By: B. Weisels **Sample Time:** 1640

Date Sampled: 10/20/25 **Sampler Signature:**

Notes: Pumprate= 200 ml/min

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Sheet ___ of ___

Groundwater Sampling Form

Sample ID: MW-6

Site Information	
Site Name: Charah Brickhaven	**Project Number:** 10423253
Site Location: Moncure, NC	**Sampling Personnel:** B. Weiserbs
Date: 10/22/25	**Weather:** 70°F Sunny
Start 1430	End 1810

Well Information	
Well Diameter (in): 2"	**Purge Equipment:** Mega Monsoon Pro
Screened Interval (ft): 12' - 27'	**Pump Type:** ESP
Well Depth (ft): ~~29.47~~' 27.40	**Pump Depth (ft-bTOC):** 21
Depth-to-Water (ft-bTOC): 8.65	**Tubing Diameter (in):** 3/8" X 1/2"
Water Column Thickness (ft): 18.75	**Well Volume (ft^3):** 3 ~~gal~~/Ft or 0.40ft3

1 Well Volume = (Total Depth - Static Water Level) * Well Capacity

Well Capacity (gallons per feet): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3' = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47

Purging Information

Parameter Instrument(s):

TIME	VOLUME PURGED (Liters)	CUMULATIVE VOLUME PURGED (Liters)	PURGE RATE (mL/min)	DEPTH TO WATER (ft-bTOC)	pH (SU) (±0.1)	TEMP. (C°)	COND. (µS/cm) (5%)	DISSOLVED OXYGEN (mg/L) (10%)*	ORP (mV) (±20mV)	TURBIDITY (NTUs) (≤10 or 10%)	COLOR/ ODOR (describe)
			Parameters collected by SAG								
					6.39						
1	1815										

* DO below 2.0 mg/L is stable at ±0.2 mg/L; DO below 0.5 mg/L is stable

Sample Information

Sample Number	Collection Time	Parameter	Container	Preservative
MW-6 (DUP)	1815	Radium 226/228	2 - 1 L Poly	HNO3
		6010/6020/7470	1 - 250 mL Poly	HNO3
		Cl, F, SO4	1 - 250 mL Poly	N/A
		TDS	1 - 500 mL Poly	N/A

Sampled By: B. Weiserbs **Sample Time:** 1815

Date Sampled: 10/22/25 **Sampler Signature:**

Notes: Pumprate= 200mL/min

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HDR

Groundwater Sampling Form

Sample ID: MW-7R

Site Information

Site Name: Charah Brickhaven	**Project Number:** 10423253
Site Location: Moncure, NC	**Sampling Personnel:** B. Weisbecker
Date: 10/22/25	**Weather:** 70°F Sunny
Start 1420	End 1555

Well Information

Well Diameter (in): 2"	**Purge Equipment:** Mega Monsoon Pro
Screened Interval (ft): 26' - 36'	**Pump Type:** ESP
Well Depth (ft): 39.~~24~~75	**Pump Depth (ft-bTOC):** 31
Depth-to-Water (ft-bTOC): 20.80	**Tubing Diameter (in):** 3/8" X 1/2"
Water Column Thickness (ft): 18.95	**Well Volume (ft^3):** 3.09 gal/Ft or 0.41 Ft3

1 Well Volume = (Total Depth - Static Water Level) * Well Capacity

Well Capacity (gallons per feet): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47

Purging Information

Parameter Instrument(s):

TIME	VOLUME PURGED (Liters)	CUMULATIVE VOLUME PURGED (Liters)	PURGE RATE (mL/min)	DEPTH TO WATER (ft-bTOC)	pH (SU) (±0.1)	TEMP. (C°)	COND. (µS/cm) (5%)	DISSOLVED OXYGEN (mg/L) (10%)*	ORP (mV) (±20mV)	TURBIDITY (NTUs) (≤10 or 10%)	COLOR/ ODOR (describe)
		Parameters collected by SLS									
1600					7.41						

* DO below 2.0 mg/L is stable at ±0.2 mg/L; DO below 0.5 mg/L is stable

Sample Information

Sample Number	Collection Time	Parameter	Container	Preservative
MW-7R	1600	Radium 226/228	2 - 1 L Poly	HNO3
		6010/6020/7470	1 - 250 mL Poly	HNO3
		Cl, F, SO4	1 - 250 mL Poly	N/A
		TDS	1 - 500 mL Poly	N/A

Sampled By: B. Weisbecker **Sample Time:** 1600

Date Sampled: 10/22/25 **Sampler Signature:** [signature]

Notes: Pumprate= 200ml/min

Sampling only due to stable turbidity and W.C. thickness

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Sheet ___ of ___

HDR

Groundwater Sampling Form

Sample ID: MW-8

Site Information

Site Name: Charah Brickhaven	**Project Number:** 10423253
Site Location: Moncure, NC	**Sampling Personnel:** B. Weisels
Date: 10/22/25	**Weather:** 45°F Sunny
Start 0820	End 1115

Well Information

Well Diameter (in): 2"	**Purge Equipment:** Mega Monsoon Pro
Screened Interval (ft): 31' - 46'	**Pump Type:** ESP
Well Depth (ft): 49.0855	**Pump Depth (ft-bTOC):** 45
Depth-to-Water (ft-bTOC): 33.40	**Tubing Diameter (in):** 3/8" X 1/2"
Water Column Thickness (ft): 16.15	**Well Volume (ft^3):** 2.58 gal/ft ≈ 0.34 ft3

1 Well Volume = (Total Depth - Static Water Level) * Well Capacity

Well Capacity (gallons per feet): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3' = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47

Purging Information

Parameter Instrument(s):

TIME	VOLUME PURGED (Liters)	CUMULATIVE VOLUME PURGED (Liters)	PURGE RATE (mL/min)	DEPTH TO WATER (ft-bTOC)	pH (SU) (±0.1)	TEMP. (C°)	COND. (µS/cm) (5%)	DISSOLVED OXYGEN (mg/L) (10%)*	ORP (mV) (±20mV)	TURBIDITY (NTUs) (≤10 or 10%)	COLOR/ ODOR (describe)
1100		Parameters			collected @			5&6			
					7.02						

* DO below 2.0 mg/L is stable at ±0.2 mg/L; DO below 0.5 mg/L is stable

Sample Information

Sample Number	Collection Time	Parameter	Container	Preservative
MW-8	1100	Radium 226/228	2 - 1 L Poly	HNO3
		6010/6020/7470	1 - 250 mL Poly	HNO3
		Cl, F, SO4	1 - 250 mL Poly	N/A
		TDS	1 - 500 mL Poly	N/A

Sampled By: B. Weisels **Sample Time:** 1100

Date Sampled: 10/22/25 **Sampler Signature:**

Notes: Pumprate= 200 mL/MN

HDR

Groundwater Sampling Form

Sample ID: MW-9

Site Information	
Site Name: Charah Brickhaven	**Project Number:** 10423253
Site Location: Moncure, NC	**Sampling Personnel:** B. Wrisley S
Date: 10/20/25	**Weather:** 50°F Sunny

Well Information	
Well Diameter (in): 2"	**Purge Equipment:** ~~Mega Monsoon Pro~~
Screened Interval (ft): 26' - 36'	**Pump Type:** ~~ESP~~
Well Depth (ft): ~~36'~~ 38.90	**Pump Depth (ft-bTOC):** NA
Depth-to-Water (ft-bTOC): 37.60	**Tubing Diameter (in):** 3/8" X 1/2"
Water Column Thickness (ft): 1.30	**Well Volume (ft^3):** 0.21 gal/ft or 0.03 ft³

1 Well Volume = (Total Depth - Static Water Level) * Well Capacity

Well Capacity (gallons per feet): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3' = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47

Purging Information

Parameter Instrument(s):

TIME	VOLUME PURGED (Liters)	CUMULATIVE VOLUME PURGED (Liters)	PURGE RATE (mL/min)	DEPTH TO WATER (ft-bTOC)	pH (SU) (±0.1)	TEMP. (C°)	COND. (µS/cm) (5%)	DISSOLVED OXYGEN (mg/L) (10%)*	ORP (mV) (±20mV)	TURBIDITY (NTUs) (≤10 or 10%)	COLOR/ ODOR (describe)
1320	Bailed	~0.5 gal									
10/23/25											
1610											

* DO below 2.0 mg/L is stable at ±0.2 mg/L; DO below 0.5 mg/L is stable

Sample Information

Sample Number	Collection Time	Parameter	Container	Preservative
MW-9	1	Radium 226/228	2 - 1 L Poly	HNO3
		6010/6020/7470	1 - 250 mL Poly	HNO3
		Cl, F, SO4	1 - 250 mL Poly	N/A
		TDS	1 - 500 mL Poly	N/A

Sampled By: NA **Sample Time:** NA

Date Sampled: **Sampler Signature:**

Notes: Pumprate=

HDR

Groundwater Sampling Form

Sample ID: MW-10

Site Information	
Site Name: Charah Brickhaven	Project Number: 10423253
Site Location: Moncure, NC	Sampling Personnel: B. Weigelt
Date: 10/23/25	Weather: 40 °F Sunny
Start 0840	End 1040

Well Information	
Well Diameter (in): 2"	Purge Equipment: Mega Monsoon Pro
Screened Interval (ft): 37' - 47'	Pump Type: ESP
Well Depth (ft): 49.90	Pump Depth (ft-bTOC): 48
Depth-to-Water (ft-bTOC): 32.65	Tubing Diameter (in): 3/8" X 1/2"
Water Column Thickness (ft): 17.25	Well Volume (ft^3): 2.76 gal/ft or 0.37ft^3

1 Well Volume = (Total Depth - Static Water Level) * Well Capacity

Well Capacity (gallons per feet): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47

Purging Information

Parameter Instrument(s):

TIME	VOLUME PURGED (Liters)	CUMULATIVE VOLUME PURGED (Liters)	PURGE RATE (mL/min)	DEPTH TO WATER (ft-bTOC)	pH (SU) (±0.1)	TEMP. (C°)	COND. (µS/cm) (5%)	DISSOLVED OXYGEN (mg/L) (10%)*	ORP (mV) (±20mV)	TURBIDITY (NTUs) (≤10 or 10%)	COLOR/ ODOR (describe)
		Parameters collected by SDG									
					7.91						

* DO below 2.0 mg/L is stable at ±0.2 mg/L; DO below 0.5 mg/L is stable

Sample Information

Sample Number	Collection Time	Parameter	Container	Preservative
MW-10	1040	Radium 226/228	2 - 1 L Poly	HNO3
		6010/6020/7470	1 - 250 mL Poly	HNO3
		Cl, F, SO4	1 - 250 mL Poly	N/A
		TDS	1 - 500 mL Poly	N/A

Sampled By: B. Weigelt — Sample Time:

Date Sampled: 10/23/25 — Sampler Signature:

Notes: Pumprate= 100ml/min

Groundwater Sampling Form

Sample ID: MW-11

Site Information	
Site Name: Charah Brickhaven	Project Number: 10423253
Site Location: Moncure, NC	Sampling Personnel: B. Weiselberg
Date: 10/23/25	Weather: 40°F Sunny
Start 1305	End 1505

Well Information	
Well Diameter (in): 2"	Purge Equipment: Mega Monsoon Pro
Screened Interval (ft): 28.50' - 43.50'	Pump Type: ESP
Well Depth (ft): 43.50'	Pump Depth (ft-bTOC): 33
Depth-to-Water (ft-bTOC): 11.45	Tubing Diameter (in): 3/8" X 1/2"
Water Column Thickness (ft): 32.05	Well Volume (ft^3): 5.13 gal/ft or 0.69 ft^3

1 Well Volume = (Total Depth - Static Water Level) * Well Capacity

Well Capacity (gallons per feet): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3' = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47

Purging Information

Parameter Instrument(s):

TIME	VOLUME PURGED (Liters)	CUMULATIVE VOLUME PURGED (Liters)	PURGE RATE (mL/min)	DEPTH TO WATER (ft-bTOC)	pH (SU) (±0.1)	TEMP. (C°)	COND. (µS/cm) (5%)	DISSOLVED OXYGEN (mg/L) (10%)*	ORP (mV) (±20mV)	TURBIDITY (NTUs) (≤10 or 10%)	COLOR/ ODOR (describe)
			Parameters Collected by SBG								
1515											

* DO below 2.0 mg/L is stable at ±0.2 mg/L; DO below 0.5 mg/L is stable

Sample Information

Sample Number	Collection Time	Parameter	Container	Preservative
MW-11	1515	Radium 226/228	2 - 1 L Poly	HNO3
		6010/6020/7470	1 - 250 mL Poly	HNO3
		Cl, F, SO4	1 - 250 mL Poly	N/A
		TDS	1 - 500 mL Poly	N/A

Sampled By: B. Weiselberg

Sample Time: 1515

Date Sampled: 10/23/25

Sampler Signature:

Notes: Pumprate= 200 ml/min

HDR

Groundwater Sampling Form

Sample ID: MW-11D

Site Information

Site Name: Charah Brickhaven	**Project Number:** 10423253
Site Location: Moncure, NC	**Sampling Personnel:** A. Weiselbs
Date: 10/23/25	**Weather:** 40°F Sunny
Start 1135	End 1210

Well Information

Well Diameter (in): 2"	**Purge Equipment:** Mega Monsoon Pro
Screened Interval (ft): 50' - 65'	**Pump Type:** ESP
Well Depth (ft): 68.18	**Pump Depth (ft-bTOC):** 55
Depth-to-Water (ft-bTOC): 8.51	**Tubing Diameter (in):** 3/8" X 1/2"
Water Column Thickness (ft): 59.59	**Well Volume (ft^3):** 9.53 gal/ft or 1.276 ft3

1 Well Volume = (Total Depth - Static Water Level) * Well Capacity

Well Capacity (gallons per feet): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47

Purging Information

Parameter Instrument(s):

TIME	VOLUME PURGED (Liters)	CUMULATIVE VOLUME PURGED (Liters)	PURGE RATE (mL/min)	DEPTH TO WATER (ft-bTOC)	pH (SU) (±0.1)	TEMP. (C°)	COND. (µS/cm) (5%)	DISSOLVED OXYGEN (mg/L) (10%)*	ORP (mV) (±20mV)	TURBIDITY (NTUs) (≤10 or 10%)	COLOR/ ODOR (describe)
			Parameters collected by SBG								
1215					8.26						

* DO below 2.0 mg/L is stable at ±0.2 mg/L; DO below 0.5 mg/L is stable

Sample Information

Sample Number	Collection Time	Parameter	Container	Preservative
MW-11D	1215	Radium 226/228	2 - 1 L Poly	HNO3
		6010/6020/7470	1 - 250 mL Poly	HNO3
		Cl, F, SO4	1 - 250 mL Poly	N/A
		TDS	1 - 500 mL Poly	N/A

Sampled By: A. Weiselbs **Sample Time:** 1215

Date Sampled: 10/23/25 **Sampler Signature:**

Notes: Pumprate= 200 mL/min

DOP Collected

Groundwater Sampling Form

Sample ID: SW-1

Site Information	
Site Name: Charah Brickhaven	Project Number: 10423253
Site Location: Moncure, NC	Sampling Personnel: B. Weitzel
Date: 10/21/25	Weather: 45°F Sunny

Well Information	
Well Diameter (in): N/A	Purge Equipment: N/A
Screened Interval (ft): N/A	Pump Type: N/A
Well Depth (ft): N/A	Pump Depth (ft-bTOC): N/A
Depth-to-Water (ft-bTOC): N/A	Tubing Diameter (in): N/A
Water Column Thickness (ft): N/A	Well Volume (ft^3): N/A

1 Well Volume = (Total Depth - Static Water Level) * Well Capacity

Well Capacity (gallons per feet): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47

Purging Information

Parameter Instrument(s):

TIME	VOLUME PURGED (Liters)	CUMULATIVE VOLUME PURGED (Liters)	PURGE RATE (mL/min)	DEPTH TO WATER (ft-bTOC)	pH (SU) (±0.1)	TEMP. (C°)	COND. (µS/cm) (5%)	DISSOLVED OXYGEN (mg/L) (10%)*	ORP (mV) (±20mV)	TURBIDITY (NTUs) (≤10 or 10%)	COLOR/ ODOR (describe)
1535	—	—	—	—	6.97	15.3	9.2	41.28	-14.2	>1000	Brown NA

* DO below 2.0 mg/L is stable at ±0.2 mg/L; DO below 0.5 mg/L is stable

Sample Information

Sample Number	Collection Time	Parameter	Container	Preservative
SW-1	1535	Radium 226/228	2 - 1 L Poly	HNO3
		6010/6020/7470	1 - 250 mL Poly	HNO3
		Cl, F, SO4	1 - 250 mL Poly	N/A
		TDS	1 - 500 mL Poly	N/A

Sampled By: B. Weitzel — Sample Time: 1535

Date Sampled: 10/21/25 — Sampler Signature:

Notes: Pumprate=NA

HDR

Sheet __ of __

Groundwater Sampling Form

Sample ID: SW-2

Site Information	
Site Name: Charah Brickhaven	Project Number: 10423253
Site Location: Moncure, NC	Sampling Personnel: BL WB LS
Date: 10/22/25	Weather: 70°F Sunny

Well Information	
Well Diameter (in): N/A	Purge Equipment: N/A
Screened Interval (ft): N/A	Pump Type: N/A
Well Depth (ft): N/A	Pump Depth (ft-bTOC): N/A
Depth-to-Water (ft-bTOC): N/A	Tubing Diameter (in): N/A
Water Column Thickness (ft): N/A	Well Volume (ft^3): N/A

1 Well Volume = (Total Depth - Static Water Level) * Well Capacity

Well Capacity (gallons per feet): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3' = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47

Purging Information

Parameter Instrument(s):

TIME	VOLUME PURGED (Liters)	CUMULATIVE VOLUME PURGED (Liters)	PURGE RATE (mL/min)	DEPTH TO WATER (ft-bTOC)	pH (SU) (±0.1)	TEMP. (C°)	COND. (µS/cm) (5%)	DISSOLVED OXYGEN (mg/L) (10%)*	ORP (mV) (±20mV)	TURBIDITY (NTUs) (≤10 or 10%)	COLOR/ ODOR (describe)
1220					6.70	13.3	355.6	4.87	-6.5	21.1	~~N~~

* DO below 2.0 mg/L is stable at ±0.2 mg/L; DO below 0.5 mg/L is stable

Sample Information

Sample Number	Collection Time	Parameter	Container	Preservative
SW-2	1220	Radium 226/228	2 - 1 L Poly	HNO3
	"	6010/6020/7470	1 - 250 mL Poly	HNO3
	"	Cl, F, SO4	1 - 250 mL Poly	N/A
	"	TDS	1 - 500 mL Poly	N/A

Sampled By:

Sample Time:

Date Sampled: 10/22/25

Sampler Signature:

Notes: Pumprate= NA

Groundwater Sampling Form

Sample ID: SW-3

Site Information	
Site Name: Charah Brickhaven	**Project Number:** 10423253
Site Location: Moncure, NC	**Sampling Personnel:** B. Weisert
Date: 10/22/25	**Weather:** 70°F Sunny

Well Information	
Well Diameter (in): N/A	**Purge Equipment:** N/A
Screened Interval (ft): N/A	**Pump Type:** N/A
Well Depth (ft): N/A	**Pump Depth (ft-bTOC):** N/A
Depth-to-Water (ft-bTOC): N/A	**Tubing Diameter (in):** N/A
Water Column Thickness (ft): N/A	**Well Volume (ft^3):** N/A

1 Well Volume = (Total Depth - Static Water Level) * Well Capacity

Well Capacity (gallons per feet): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47

Purging Information

Parameter Instrument(s):

TIME	VOLUME PURGED (Liters)	CUMULATIVE VOLUME PURGED (Liters)	PURGE RATE (mL/min)	DEPTH TO WATER (ft-bTOC)	pH (SU) (±0.1)	TEMP. (C°)	COND. (µS/cm) (5%)	DISSOLVED OXYGEN (mg/L) (10%)*	ORP (mV) (±20mV)	TURBIDITY (NTUs) (≤10 or 10%)	COLOR/ ODOR (describe)
1240	—	—	—	—	6.62	14.0	218.0	3.98	128.6	42.9	Brown/tan

* DO below 2.0 mg/L is stable at ±0.2 mg/L; DO below 0.5 mg/L is stable

Sample Information

Sample Number	Collection Time	Parameter	Container	Preservative
SW-3	1240	Radium 226/228	2 - 1 L Poly	HNO3
		6010/6020/7470	1 - 250 mL Poly	HNO3
		Cl, F, SO4	1 - 250 mL Poly	N/A
		TDS	1 - 500 mL Poly	N/A

Sampled By: B. Weisert **Sample Time:**

Date Sampled: 10/22/25 **Sampler Signature:**

Notes: Pumprate=

HDR

Groundwater Sampling Form

Sample ID: SW-4

Site Information	
Site Name: Charah Brickhaven	Project Number: 10423253
Site Location: Moncure, NC	Sampling Personnel: B. Meisels
Date: 10/22/25	Weather: 70°F Sunny

Well Information	
Well Diameter (in): N/A	Purge Equipment: N/A
Screened Interval (ft): N/A	Pump Type: N/A
Well Depth (ft): N/A	Pump Depth (ft-bTOC): N/A
Depth-to-Water (ft-bTOC): N/A	Tubing Diameter (in): N/A
Water Column Thickness (ft): N/A	Well Volume (ft^3): N/A

1 Well Volume = (Total Depth - Static Water Level) * Well Capacity

Well Capacity (gallons per feet): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47

Purging Information

Parameter Instrument(s):

TIME	VOLUME PURGED (Liters)	CUMULATIVE VOLUME PURGED (Liters)	PURGE RATE (mL/min)	DEPTH TO WATER (ft-bTOC)	pH (SU) (±0.1)	TEMP. (C°)	COND. (µS/cm) (5%)	DISSOLVED OXYGEN (mg/L) (10%)*	ORP (mV) (±20mV)	TURBIDITY (NTUs) (≤10 or 10%)	COLOR/ ODOR (describe)
		SW-4 Dry									

* DO below 2.0 mg/L is stable at ±0.2 mg/L; DO below 0.5 mg/L is stable

Sample Information

Sample Number	Collection Time	Parameter	Container	Preservative
SW-4	NA	Radium 226/228	2 - 1 L Poly	HNO3
		6010/6020/7470	1 - 250 mL Poly	HNO3
		Cl, F, SO4	1 - 250 mL Poly	N/A
		TDS	1 - 500 mL Poly	N/A

Sampled By: NA	Sample Time: NA
Date Sampled:	Sampler Signature:

Notes: Pumprate=

HDR

Groundwater Sampling Form

Sample ID: SW-5

Site Information

Site Name: Charah Brickhaven	Project Number: 10423253
Site Location: Moncure, NC	Sampling Personnel: [illegible]
Date: 10/22/25	Weather: 70°F Sunny

Well Information

Well Diameter (in): N/A	Purge Equipment: N/A
Screened Interval (ft): N/A	Pump Type: N/A
Well Depth (ft): N/A	Pump Depth (ft-bTOC): N/A
Depth-to-Water (ft-bTOC): N/A	Tubing Diameter (in): N/A
Water Column Thickness (ft): N/A	Well Volume (ft^3): N/A

1 Well Volume = (Total Depth - Static Water Level) * Well Capacity

Well Capacity (gallons per feet): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3' = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47

Purging Information

Parameter Instrument(s):

TIME	VOLUME PURGED (Liters)	CUMULATIVE VOLUME PURGED (Liters)	PURGE RATE (mL/min)	DEPTH TO WATER (ft-bTOC)	pH (SU) (±0.1)	TEMP. (C°)	COND. (µS/cm) (5%)	DISSOLVED OXYGEN (mg/L) (10%)*	ORP (mV) (±20mV)	TURBIDITY (NTUs) (≤10 or 10%)	COLOR/ ODOR (describe)
1315	—	—	—	—	6.60	15.9	841	6.01	157.7	2.81	[illegible]

* DO below 2.0 mg/L is stable at ±0.2 mg/L; DO below 0.5 mg/L is stable

Sample Information

Sample Number	Collection Time	Parameter	Container	Preservative
SW-5	1315	Radium 226/228	2 - 1 L Poly	HNO3
		6010/6020/7470	1 - 250 mL Poly	HNO3
		Cl, F, SO4	1 - 250 mL Poly	N/A
		TDS	1 - 500 mL Poly	N/A

Sampled By: [illegible]

Sample Time: 1315

Date Sampled: 10/22/25

Sampler Signature: [illegible]

Notes: Pumprate= NA

Groundwater Sampling Form

Sample ID: SW-6

Site Information	
Site Name: Charah Brickhaven	Project Number: 10423253
Site Location: Moncure, NC	Sampling Personnel: B. Weisenbs
Date: 10/21/25	Weather: 45°F Sunny

Well Information	
Well Diameter (in): N/A	Purge Equipment: N/A
Screened Interval (ft): N/A	Pump Type: N/A
Well Depth (ft): N/A	Pump Depth (ft-bTOC): N/A
Depth-to-Water (ft-bTOC): N/A	Tubing Diameter (in): N/A
Water Column Thickness (ft): N/A	Well Volume (ft^3): N/A

1 Well Volume = (Total Depth - Static Water Level) * Well Capacity

Well Capacity (gallons per feet): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3' = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47

Purging Information

Parameter Instrument(s):

TIME	VOLUME PURGED (Liters)	CUMULATIVE VOLUME PURGED (Liters)	PURGE RATE (mL/min)	DEPTH TO WATER (ft-bTOC)	pH (SU) (±0.1)	TEMP. (C°)	COND. (µS/cm) (5%)	DISSOLVED OXYGEN (mg/L) (10%)*	ORP (mV) (±20mV)	TURBIDITY (NTUs) (≤10 or 10%)	COLOR/ ODOR (describe)
1555	—	—	—	—	6.79	18.5	47.5	4.75	-17.9	71000	Brown NA

* DO below 2.0 mg/L is stable at ±0.2 mg/L; DO below 0.5 mg/L is stable

Sample Information

Sample Number	Collection Time	Parameter	Container	Preservative
SW-6	1555	Radium 226/228	2 - 1 L Poly	HNO3
		6010/6020/7470	1 - 250 mL Poly	HNO3
		Cl, F, SO4	1 - 250 mL Poly	N/A
		TDS	1 - 500 mL Poly	N/A

Sampled By: B. Weisenbs — Sample Time: 1555

Date Sampled: 10/21/25 — Sampler Signature:

Notes: Pumprate= NA

B

Appendix B – Laboratory Results, Chains of Custody, and Quality Control Data

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Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

September 04, 2025

Mark Filardi
HDR
440 S. Church St
Suite 900
Charlotte, NC 28202

RE: Project: Charah 3rd Quarter GW Monitori
Pace Project No.: 92808108

Dear Mark Filardi:

Enclosed are the analytical results for sample(s) received by the laboratory on July 17, 2025. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Asheville
- Pace Analytical Services - Minneapolis
- Pace Analytical Services - Greensburg

#SUBLAB

Revised 9/4/25 due to a sub lab compound list error.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Angela M. Baioni

Angela Baioni
angela.baioni@pacelabs.com
612-473-6801
Project Manager

Enclosures

cc: Mark Filardi, HDR Engineering

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

CERTIFICATIONS

Project: Charah 3rd Quarter GW Monitori
Pace Project No.: 92808108

Pace Analytical Services, LLC - Minneapolis MN
1700 Elm Street SE, Minneapolis, MN 55414
Alabama Certification #: 40770
Alaska Contaminated Sites Certification #: 17-009
Alaska DW Certification #: MN00064
Arizona Certification #: AZ0014
Arkansas DW Certification #: MN00064
Arkansas WW Certification #: 88-0680
California Certification #: 2929
Colorado Certification #: MN00064
Connecticut Certification #: PH-0256
DoD Certification via A2LA #: 2926.01
EPA Region 8 Tribal Water Systems+Wyoming DW Certification #: via MN 027-053-137
Florida Certification #: E87605
Georgia Certification #: 959
Idaho Certification #: MN00064
Illinois Certification #: 200011
Indiana Certification #: C-MN-01
Iowa Certification #: 368
ISO/IEC 17025 Certification via A2LA #: 2926.01
Kansas Certification #: E-10167
Kentucky DW Certification #: 90062
Kentucky WW Certification #: 90062
Louisiana DEQ Certification #: AI-03086
Louisiana DW Certification #: MN00064
Maine Certification #: MN00064
Maryland Certification #: 322
Michigan Certification #: 9909
Minnesota Certification #: 027-053-137
Minnesota Dept of Ag Approval: via MN 027-053-137
Minnesota Petrofund Registration #: 1240
Mississippi Certification #: MN00064
Missouri Certification #: 10100
Montana Certification #: CERT0092
Nebraska Certification #: NE-OS-18-06
Nevada Certification #: MN00064
New Hampshire Certification #: 2081
New Jersey Certification #: MN002
New York Certification #: 11647
North Carolina DW Certification #: 27700
North Carolina WW Certification #: 530
North Dakota Certification via A2LA #: R-036
North Dakota Certification via MN #: R-036
Ohio DW Certification #: 41244
Ohio VAP Certification (1700) #: CL101
Oklahoma Certification #: 9507
Oregon Primary Certification #: MN300001
Oregon Secondary Certification #: MN200001
Pennsylvania Certification #: 68-00563
Puerto Rico Certification #: MN00064
South Carolina Certification #:74003001
Tennessee Certification #: TN02818
Texas Certification #: T104704192
Utah Certification #: MN00064
Vermont Certification #: VT-027053137
Virginia Certification #: 460163
Washington Certification #: C486
West Virginia DEP Certification #: 382
West Virginia DW Certification #: 9952 C
Wisconsin Certification #: 999407970
Wyoming UST Certification via A2LA #: 2926.01
USDA Permit #: P330-19-00208

Pace Analytical Services Pennsylvania
1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
ANABISO/IEC 17025:2017 Rad Cert#: L24170
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 2950
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA010
Louisiana DEQ/TNI Certification #: 04086
Maine Certification #: 2023021
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572023-03
New Hampshire/TNI Certification #: 297622
New Jersey/TNI Certification #: PA051

REPORT OF LABORATORY ANALYSIS

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(704)875-9092

CERTIFICATIONS

Project: Charah 3rd Quarter GW Monitori
Pace Project No.: 92808108

Pace Analytical Services Pennsylvania

New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-015
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN02867
Texas/TNI Certification #: T104704188-22-18
Utah/TNI Certification #: PA014572223-14
USDA Soil Permit #: 525-23-67-77263
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad

Pace Analytical Services Asheville

2225 Riverside Drive, Asheville, NC 28804
Florida/NELAP Certification #: E87648
North Carolina Drinking Water Certification #: 37712
North Carolina Wastewater Certification #: 40
South Carolina Laboratory ID: 99030
South Carolina Certification #: 99030001
Virginia/VELAP Certification #: 460222

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SAMPLE SUMMARY

Project: Charah 3rd Quarter GW Monitori
Pace Project No.: 92808108

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92808108001	**BG-1**	Water	07/14/25 13:15	07/17/25 13:35
92808108002	**BG-2**	Water	07/14/25 11:15	07/17/25 13:35
92808108003	**DUP**	Water	07/15/25 00:01	07/17/25 13:35
92808108004	**EQBL**	Water	07/14/25 19:00	07/17/25 13:35
92808108005	**LEACHATE**	Water	07/15/25 11:30	07/17/25 13:35
92808108006	**MW-1**	Water	07/16/25 16:30	07/17/25 13:35
92808108007	**MW-2**	Water	07/17/25 09:25	07/17/25 13:35
92808108008	**MW-2D**	Water	07/17/25 09:40	07/17/25 13:35
92808108009	**MW-3**	Water	07/14/25 16:10	07/17/25 13:35
92808108010	**MW-4**	Water	07/14/25 15:05	07/17/25 13:35
92808108011	**MW-5**	Water	07/15/25 11:15	07/17/25 13:35
92808108012	**MW-6**	Water	07/15/25 14:05	07/17/25 13:35
92808108013	**MW-7R**	Water	07/16/25 11:50	07/17/25 13:35
92808108014	**MW-8**	Water	07/16/25 14:30	07/17/25 13:35
92808108015	**MW-10**	Water	07/16/25 09:05	07/17/25 13:35
92808108016	**MW-11**	Water	07/15/25 09:05	07/17/25 13:35
92808108017	**MW-11D**	Water	07/15/25 10:00	07/17/25 13:35
92808108018	**SW-1**	Water	07/16/25 16:55	07/17/25 13:35
92808108019	**SW-2**	Water	07/14/25 16:40	07/17/25 13:35
92808108020	**SW-3**	Water	07/14/25 16:50	07/17/25 13:35
92808108021	**SW-4**	Water	07/14/25 10:15	07/17/25 13:35
92808108022	**SW-5**	Water	07/16/25 17:05	07/17/25 13:35
92808108023	**SW-6**	Water	07/16/25 16:45	07/17/25 13:35

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SAMPLE ANALYTE COUNT

Project: Charah 3rd Quarter GW Monitori
Pace Project No.: 92808108

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92808108001	**BG-1**	EPA 6010D	DM	16	PASI-M
		EPA 6020B	IMB	3	PASI-M
		EPA 7470A	LMW	1	PASI-M
		EPA 903.1	TMY	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2540C-2020	YEG	1	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92808108002	**BG-2**	EPA 6010D	DM	16	PASI-M
		EPA 6020B	IMB	3	PASI-M
		EPA 7470A	LMW	1	PASI-M
		EPA 903.1	TMY	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2540C-2020	YEG	1	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92808108003	**DUP**	EPA 6010D	DM	16	PASI-M
		EPA 6020B	IMB	3	PASI-M
		EPA 7470A	LMW	1	PASI-M
		EPA 903.1	TMY	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2540C-2020	HCH	1	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92808108004	**EQBL**	EPA 6010D	DM	16	PASI-M
		EPA 6020B	IMB	3	PASI-M
		EPA 7470A	LMW	1	PASI-M
		EPA 903.1	TMY	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2540C-2020	YEG	1	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92808108005	**LEACHATE**	EPA 6010D	DM	16	PASI-M
		EPA 6020B	IMB	3	PASI-M
		EPA 7470A	LMW	1	PASI-M
		EPA 903.1	TMY	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: Charah 3rd Quarter GW Monitori
Pace Project No.: 92808108

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2540C-2020	HCH	1	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92808108006	**MW-1**	EPA 6010D	DM	16	PASI-M
		EPA 6020B	IMB	3	PASI-M
		EPA 7470A	LMW	1	PASI-M
		EPA 903.1	TMY	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2540C-2020	CMW1	1	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92808108007	**MW-2**	EPA 6010D	DM	16	PASI-M
		EPA 6020B	IMB	3	PASI-M
		EPA 7470A	LMW	1	PASI-M
		EPA 903.1	TMY	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2540C-2020	CMW1	1	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92808108008	**MW-2D**	EPA 6010D	DM	16	PASI-M
		EPA 6020B	IMB	3	PASI-M
		EPA 7470A	LMW	1	PASI-M
		EPA 903.1	TMY	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2540C-2020	CMW1	1	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92808108009	**MW-3**	EPA 6010D	DM	16	PASI-M
		EPA 6020B	IMB	3	PASI-M
		EPA 7470A	LMW	1	PASI-M
		EPA 903.1	TMY	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2540C-2020	YEG	1	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92808108010	**MW-4**	EPA 6010D	DM	16	PASI-M
		EPA 6020B	IMB	3	PASI-M

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SAMPLE ANALYTE COUNT

Project: Charah 3rd Quarter GW Monitori
Pace Project No.: 92808108

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 7470A	LMW	1	PASI-M
		EPA 903.1	TMY	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2540C-2020	YEG	1	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92808108011	**MW-5**	EPA 6010D	DM	16	PASI-M
		EPA 6020B	IMB	3	PASI-M
		EPA 7470A	LMW	1	PASI-M
		EPA 903.1	TMY	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2540C-2020	HCH	1	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92808108012	**MW-6**	EPA 6010D	DM	16	PASI-M
		EPA 6020B	IMB	3	PASI-M
		EPA 7470A	LMW	1	PASI-M
		EPA 903.1	TMY	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2540C-2020	HCH	1	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92808108013	**MW-7R**	EPA 6010D	DM	16	PASI-M
		EPA 6020B	IMB	3	PASI-M
		EPA 7470A	LMW	1	PASI-M
		EPA 903.1	TMY	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2540C-2020	CMW1	1	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92808108014	**MW-8**	EPA 6010D	DM	16	PASI-M
		EPA 6020B	IMB	3	PASI-M
		EPA 7470A	LMW	1	PASI-M
		EPA 903.1	TMY	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2540C-2020	CMW1	1	PASI-A

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SAMPLE ANALYTE COUNT

Project: Charah 3rd Quarter GW Monitori
Pace Project No.: 92808108

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92808108015	**MW-10**	EPA 6010D	DM	16	PASI-M
		EPA 6020B	IMB	3	PASI-M
		EPA 7470A	LMW	1	PASI-M
		EPA 903.1	TMY	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2540C-2020	CMW1	1	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92808108016	**MW-11**	EPA 6010D	DM	16	PASI-M
		EPA 6020B	IMB	3	PASI-M
		EPA 7470A	LMW	1	PASI-M
		EPA 903.1	TMY	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2540C-2020	HCH	1	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92808108017	**MW-11D**	EPA 6010D	DM	16	PASI-M
		EPA 6020B	IMB	3	PASI-M
		EPA 7470A	LMW	1	PASI-M
		EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2540C-2020	HCH	1	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92808108018	**SW-1**	EPA 6010D	DM	16	PASI-M
		EPA 6020B	IMB	3	PASI-M
		EPA 7470A	LMW	1	PASI-M
		EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2540C-2020	CMW1	1	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92808108019	**SW-2**	EPA 6010D	DM	16	PASI-M
		EPA 6020B	IMB	3	PASI-M
		EPA 7470A	LMW	1	PASI-M
		EPA 903.1	LL1	1	PASI-PA

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SAMPLE ANALYTE COUNT

Project: Charah 3rd Quarter GW Monitori
Pace Project No.: 92808108

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2540C-2020	YEG	1	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92808108020	**SW-3**	EPA 6010D	DM	16	PASI-M
		EPA 6020B	IMB	3	PASI-M
		EPA 7470A	LMW	1	PASI-M
		EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2540C-2020	HCH	1	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92808108021	**SW-4**	EPA 6010D	DM	16	PASI-M
		EPA 6020B	GAS1	3	PASI-M
		EPA 7470A	LMW	1	PASI-M
		EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2540C-2020	HCH	1	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92808108022	**SW-5**	EPA 6010D	DM	16	PASI-M
		EPA 6020B	GAS1	3	PASI-M
		EPA 7470A	LMW	1	PASI-M
		EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2540C-2020	CMW1	1	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92808108023	**SW-6**	EPA 6010D	DM	16	PASI-M
		EPA 6020B	GAS1	3	PASI-M
		EPA 7470A	LMW	1	PASI-M
		EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2540C-2020	CMW1	1	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A

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SAMPLE ANALYTE COUNT

Project: Charah 3rd Quarter GW Monitori
Pace Project No.: 92808108

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory

PASI-A = Pace Analytical Services - Asheville
PASI-M = Pace Analytical Services - Minneapolis
PASI-PA = Pace Analytical Services - Greensburg

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: Charah 3rd Quarter GW Monitori
Pace Project No.: 92808108

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92808108001	**BG-1**					
EPA 6010D	Barium	251	ug/L	10.0	07/29/25 11:55	
EPA 6010D	Calcium	20000	ug/L	500	07/29/25 11:55	
EPA 6010D	Chromium	1.9J	ug/L	10.0	07/29/25 11:55	
EPA 6010D	Copper	1.1J	ug/L	10.0	07/29/25 11:55	
EPA 6010D	Nickel	2.7J	ug/L	20.0	07/29/25 11:55	
EPA 6010D	Vanadium	5.7J	ug/L	15.0	07/29/25 11:55	
EPA 6010D	Zinc	6.2J	ug/L	20.0	07/29/25 11:55	
EPA 6020B	Boron	8.5J	ug/L	10.0	07/30/25 15:28	
EPA 6020B	Lithium	19.3	ug/L	0.50	07/30/25 15:28	
EPA 6020B	Thallium	0.10	ug/L	0.10	07/30/25 15:28	
EPA 903.1	Radium-226	1.18 ± 0.952 (1.48) C:NA T:91%	pCi/L		08/05/25 15:36	
EPA 904.0	Radium-228	1.31 ± 0.569 (0.963) C:77% T:88%	pCi/L		08/01/25 11:37	
Total Radium Calculation	Total Radium	2.49 ± 1.52 (2.44)	pCi/L		08/06/25 09:34	
SM 2540C-2020	Total Dissolved Solids	532	mg/L	50.0	07/18/25 11:36	
EPA 300.0 Rev 2.1 1993	Chloride	166	mg/L	4.0	07/18/25 11:11	
EPA 300.0 Rev 2.1 1993	Fluoride	0.19	mg/L	0.10	07/18/25 02:45	
EPA 300.0 Rev 2.1 1993	Sulfate	23.2	mg/L	1.0	07/18/25 02:45	
92808108002	**BG-2**					
EPA 6010D	Antimony	5.2J	ug/L	20.0	07/29/25 12:04	
EPA 6010D	Barium	52.1	ug/L	10.0	07/29/25 12:04	
EPA 6010D	Calcium	112000	ug/L	500	07/29/25 12:04	
EPA 6010D	Chromium	0.96J	ug/L	10.0	07/29/25 12:04	
EPA 6010D	Cobalt	1.7J	ug/L	10.0	07/29/25 12:04	
EPA 6010D	Lead	3.5J	ug/L	10.0	07/29/25 12:04	
EPA 6010D	Molybdenum	4.5J	ug/L	15.0	07/29/25 12:04	
EPA 6010D	Zinc	7.1J	ug/L	20.0	07/29/25 12:04	
EPA 6020B	Boron	16.6	ug/L	10.0	07/30/25 15:34	
EPA 6020B	Lithium	23.9	ug/L	0.50	07/30/25 15:34	
EPA 903.1	Radium-226	0.130 ± 0.846 (1.56) C:NA T:89%	pCi/L		08/05/25 15:36	
EPA 904.0	Radium-228	1.05 ± 0.503 (0.886) C:81% T:85%	pCi/L		08/01/25 11:37	
Total Radium Calculation	Total Radium	1.18 ± 1.35 (2.45)	pCi/L		08/06/25 09:34	
SM 2540C-2020	Total Dissolved Solids	1420	mg/L	125	07/18/25 11:36	
EPA 300.0 Rev 2.1 1993	Chloride	275	mg/L	6.0	07/18/25 11:26	
EPA 300.0 Rev 2.1 1993	Fluoride	0.26	mg/L	0.10	07/18/25 03:00	

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SUMMARY OF DETECTION

Project: Charah 3rd Quarter GW Monitori
Pace Project No.: 92808108

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92808108002	**BG-2**					
EPA 300.0 Rev 2.1 1993	Sulfate	226	mg/L	6.0	07/18/25 11:26	
92808108003	**DUP**					
EPA 6010D	Barium	135	ug/L	10.0	07/29/25 12:05	
EPA 6010D	Calcium	34600	ug/L	500	07/29/25 12:05	
EPA 6010D	Chromium	10.8	ug/L	10.0	07/29/25 12:05	
EPA 6010D	Cobalt	5.1J	ug/L	10.0	07/29/25 12:05	
EPA 6010D	Copper	5.0J	ug/L	10.0	07/29/25 12:05	
EPA 6010D	Lead	12.2	ug/L	10.0	07/29/25 12:05	
EPA 6010D	Nickel	7.8J	ug/L	20.0	07/29/25 12:05	
EPA 6010D	Vanadium	10.1J	ug/L	15.0	07/29/25 12:05	
EPA 6010D	Zinc	39.6	ug/L	20.0	07/29/25 12:05	
EPA 6020B	Boron	11.1	ug/L	10.0	07/30/25 16:11	CH
EPA 6020B	Lithium	29.0	ug/L	0.50	07/30/25 16:11	
EPA 6020B	Thallium	0.11	ug/L	0.10	07/30/25 16:11	
EPA 903.1	Radium-226	0.164 ± 0.635 (1.17) C:NA T:99%	pCi/L		08/05/25 15:53	
EPA 904.0	Radium-228	2.72 ± 0.756 (0.908) C:82% T:89%	pCi/L		08/01/25 11:37	
Total Radium Calculation	Total Radium	2.88 ± 1.39 (2.08)	pCi/L		08/06/25 09:34	
SM 2540C-2020	Total Dissolved Solids	590	mg/L	50.0	07/21/25 11:01	
EPA 300.0 Rev 2.1 1993	Chloride	179	mg/L	4.0	07/18/25 11:41	
EPA 300.0 Rev 2.1 1993	Fluoride	0.32	mg/L	0.10	07/18/25 03:15	
EPA 300.0 Rev 2.1 1993	Sulfate	26.7	mg/L	1.0	07/18/25 03:15	
92808108004	**EQBL**					
EPA 903.1	Radium-226	0.123 ± 0.641 (1.20) C:NA T:85%	pCi/L		08/05/25 15:53	
EPA 904.0	Radium-228	-0.0909 ± 0.355 (0.837) C:82% T:92%	pCi/L		08/01/25 11:37	
Total Radium Calculation	Total Radium	0.123 ± 0.996 (2.04)	pCi/L		08/06/25 09:34	
92808108005	**LEACHATE**					
EPA 6010D	Arsenic	132	ug/L	20.0	07/29/25 12:12	
EPA 6010D	Barium	41.7	ug/L	10.0	07/29/25 12:12	
EPA 6010D	Calcium	187000	ug/L	500	07/29/25 12:12	
EPA 6010D	Copper	2.3J	ug/L	10.0	07/29/25 12:12	
EPA 6010D	Lead	3.7J	ug/L	10.0	07/29/25 12:12	
EPA 6010D	Molybdenum	176	ug/L	15.0	07/29/25 12:12	

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Pace Analytical Services, LLC
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Huntersville, NC 28078
(704)875-9092

SUMMARY OF DETECTION

Project: Charah 3rd Quarter GW Monitori
Pace Project No.: 92808108

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92808108005	**LEACHATE**					
EPA 6010D	Nickel	2.2J	ug/L	20.0	07/29/25 12:12	
EPA 6010D	Zinc	6.7J	ug/L	20.0	07/29/25 12:12	
EPA 6020B	Boron	3110	ug/L	200	07/30/25 16:27	CH
EPA 6020B	Lithium	52.7	ug/L	0.50	07/30/25 16:24	
EPA 6020B	Thallium	0.10	ug/L	0.10	07/30/25 16:24	
EPA 903.1	Radium-226	0.247 ± 0.768 (1.39) C:NA T:85%	pCi/L		08/05/25 16:03	
EPA 904.0	Radium-228	0.330 ± 0.470 (1.01) C:82% T:80%	pCi/L		08/01/25 11:37	
Total Radium Calculation	Total Radium	0.577 ± 1.24 (2.40)	pCi/L		08/06/25 09:34	
SM 2540C-2020	Total Dissolved Solids	1080	mg/L	50.0	07/21/25 11:01	
EPA 300.0 Rev 2.1 1993	Chloride	18.0	mg/L	1.0	07/18/25 11:55	
EPA 300.0 Rev 2.1 1993	Fluoride	0.19	mg/L	0.10	07/18/25 11:55	
EPA 300.0 Rev 2.1 1993	Sulfate	375	mg/L	11.0	07/18/25 03:59	
92808108006	**MW-1**					
EPA 6010D	Barium	192	ug/L	10.0	07/29/25 12:14	
EPA 6010D	Calcium	150000	ug/L	500	07/29/25 12:14	
EPA 6010D	Chromium	8.4J	ug/L	10.0	07/29/25 12:14	
EPA 6010D	Cobalt	2.3J	ug/L	10.0	07/29/25 12:14	
EPA 6010D	Copper	1.1J	ug/L	10.0	07/29/25 12:14	
EPA 6010D	Lead	5.3J	ug/L	10.0	07/29/25 12:14	
EPA 6010D	Nickel	5.6J	ug/L	20.0	07/29/25 12:14	
EPA 6010D	Vanadium	5.1J	ug/L	15.0	07/29/25 12:14	
EPA 6010D	Zinc	12.3J	ug/L	20.0	07/29/25 12:14	
EPA 6020B	Boron	12.7	ug/L	10.0	07/30/25 16:36	CH
EPA 6020B	Lithium	34.1	ug/L	0.50	07/30/25 16:36	
EPA 903.1	Radium-226	-0.574 ± 0.859 (1.74) C:NA T:88%	pCi/L		08/05/25 15:53	
EPA 904.0	Radium-228	0.757 ± 0.367 (0.614) C:81% T:90%	pCi/L		08/01/25 14:39	
Total Radium Calculation	Total Radium	0.757 ± 1.23 (2.35)	pCi/L		08/06/25 09:34	
SM 2540C-2020	Total Dissolved Solids	1670	mg/L	125	07/22/25 15:25	
EPA 300.0 Rev 2.1 1993	Chloride	568	mg/L	13.0	07/18/25 12:10	
EPA 300.0 Rev 2.1 1993	Fluoride	0.14	mg/L	0.10	07/18/25 04:14	
EPA 300.0 Rev 2.1 1993	Sulfate	5.8	mg/L	1.0	07/18/25 04:14	
92808108007	**MW-2**					
EPA 6010D	Barium	335	ug/L	10.0	07/29/25 12:15	

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SUMMARY OF DETECTION

Project: Charah 3rd Quarter GW Monitori
Pace Project No.: 92808108

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92808108007	**MW-2**					
EPA 6010D	Cadmium	0.52J	ug/L	3.0	07/29/25 12:15	
EPA 6010D	Calcium	159000	ug/L	500	07/29/25 12:15	
EPA 6010D	Chromium	7.3J	ug/L	10.0	07/29/25 12:15	
EPA 6010D	Cobalt	2.4J	ug/L	10.0	07/29/25 12:15	
EPA 6010D	Copper	4.2J	ug/L	10.0	07/29/25 12:15	
EPA 6010D	Lead	4.2J	ug/L	10.0	07/29/25 12:15	
EPA 6010D	Molybdenum	2.8J	ug/L	15.0	07/29/25 12:15	
EPA 6010D	Nickel	5.3J	ug/L	20.0	07/29/25 12:15	
EPA 6010D	Zinc	30.8	ug/L	20.0	07/29/25 12:15	
EPA 6020B	Boron	45.1	ug/L	10.0	07/30/25 16:43	CH,IS
EPA 6020B	Lithium	115	ug/L	10.0	07/30/25 16:46	
EPA 6020B	Thallium	0.078J	ug/L	0.10	07/30/25 16:43	
EPA 903.1	Radium-226	-0.125 ± 0.850 (1.62) C:NA T:96%	pCi/L		08/05/25 15:53	
EPA 904.0	Radium-228	1.18 ± 0.453 (0.663) C:74% T:90%	pCi/L		08/01/25 14:39	
Total Radium Calculation	Total Radium	1.18 ± 1.30 (2.28)	pCi/L		08/06/25 09:34	
SM 2540C-2020	Total Dissolved Solids	2200	mg/L	125	07/22/25 15:34	
EPA 300.0 Rev 2.1 1993	Chloride	1010	mg/L	20.0	07/18/25 04:29	
EPA 300.0 Rev 2.1 1993	Fluoride	0.19	mg/L	0.10	07/18/25 12:55	
EPA 300.0 Rev 2.1 1993	Sulfate	54.1	mg/L	1.0	07/18/25 12:55	
92808108008	**MW-2D**					
EPA 6010D	Arsenic	20.9	ug/L	20.0	07/29/25 12:17	
EPA 6010D	Barium	421	ug/L	10.0	07/29/25 12:17	
EPA 6010D	Beryllium	0.45J	ug/L	5.0	07/29/25 12:17	
EPA 6010D	Calcium	15800	ug/L	500	07/29/25 12:17	
EPA 6010D	Chromium	307	ug/L	10.0	07/29/25 12:17	
EPA 6010D	Cobalt	15.9	ug/L	10.0	07/29/25 12:17	
EPA 6010D	Copper	49.2	ug/L	10.0	07/29/25 12:17	
EPA 6010D	Lead	30.3	ug/L	10.0	07/29/25 12:17	
EPA 6010D	Molybdenum	125	ug/L	15.0	07/29/25 12:17	
EPA 6010D	Nickel	142	ug/L	20.0	07/29/25 12:17	
EPA 6010D	Vanadium	95.6	ug/L	15.0	07/29/25 12:17	
EPA 6010D	Zinc	180	ug/L	20.0	07/29/25 12:17	
EPA 6020B	Boron	36.8	ug/L	10.0	07/30/25 16:49	CH
EPA 6020B	Lithium	102	ug/L	0.50	07/30/25 16:49	
EPA 6020B	Thallium	0.20	ug/L	0.10	07/30/25 16:49	
EPA 903.1	Radium-226	0.114 ± 0.986 (1.79) C:NA T:90%	pCi/L		08/05/25 15:53	

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(704)875-9092

SUMMARY OF DETECTION

Project: Charah 3rd Quarter GW Monitori
Pace Project No.: 92808108

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92808108008	**MW-2D**					
EPA 904.0	Radium-228	0.437 ± 0.348 (0.681) C:75% T:84%	pCi/L		08/01/25 14:39	
Total Radium Calculation	Total Radium	0.551 ± 1.33 (2.47)	pCi/L		08/06/25 09:34	
SM 2540C-2020	Total Dissolved Solids	410	mg/L	50.0	07/22/25 15:34	
EPA 300.0 Rev 2.1 1993	Chloride	112	mg/L	3.0	07/18/25 13:10	
EPA 300.0 Rev 2.1 1993	Fluoride	2.2	mg/L	0.10	07/18/25 04:44	
EPA 300.0 Rev 2.1 1993	Sulfate	19.3	mg/L	1.0	07/18/25 04:44	
92808108009	**MW-3**					
EPA 6010D	Barium	731	ug/L	10.0	07/29/25 12:19	
EPA 6010D	Cadmium	0.72J	ug/L	3.0	07/29/25 12:19	
EPA 6010D	Calcium	167000	ug/L	500	07/29/25 12:19	
EPA 6010D	Chromium	0.92J	ug/L	10.0	07/29/25 12:19	
EPA 6010D	Cobalt	1.3J	ug/L	10.0	07/29/25 12:19	
EPA 6010D	Copper	5.0J	ug/L	10.0	07/29/25 12:19	
EPA 6010D	Lead	4.9J	ug/L	10.0	07/29/25 12:19	
EPA 6010D	Molybdenum	5.1J	ug/L	15.0	07/29/25 12:19	
EPA 6010D	Nickel	2.9J	ug/L	20.0	07/29/25 12:19	
EPA 6010D	Zinc	18.8J	ug/L	20.0	07/29/25 12:19	
EPA 6020B	Boron	45.1	ug/L	10.0	07/30/25 16:55	CH,IS
EPA 6020B	Lithium	91.7	ug/L	10.0	07/30/25 16:58	
EPA 6020B	Thallium	0.028J	ug/L	0.10	07/30/25 16:55	
EPA 903.1	Radium-226	1.48 ± 1.12 (1.73) C:NA T:89%	pCi/L		08/05/25 15:53	
EPA 904.0	Radium-228	1.88 ± 0.578 (0.725) C:81% T:88%	pCi/L		08/01/25 14:39	
Total Radium Calculation	Total Radium	3.36 ± 1.70 (2.46)	pCi/L		08/06/25 09:34	
SM 2540C-2020	Total Dissolved Solids	2740	mg/L	312	07/18/25 11:37	
EPA 300.0 Rev 2.1 1993	Chloride	1020	mg/L	20.0	07/18/25 04:59	
EPA 300.0 Rev 2.1 1993	Fluoride	0.27	mg/L	0.10	07/18/25 13:25	
EPA 300.0 Rev 2.1 1993	Sulfate	11.9	mg/L	1.0	07/18/25 13:25	
92808108010	**MW-4**					
EPA 6010D	Barium	311	ug/L	10.0	07/29/25 12:20	
EPA 6010D	Calcium	50700	ug/L	500	07/29/25 12:20	
EPA 6010D	Chromium	1.2J	ug/L	10.0	07/29/25 12:20	
EPA 6010D	Cobalt	11.9	ug/L	10.0	07/29/25 12:20	
EPA 6010D	Nickel	8.5J	ug/L	20.0	07/29/25 12:20	
EPA 6010D	Zinc	9.7J	ug/L	20.0	07/29/25 12:20	
EPA 6020B	Boron	7.1J	ug/L	10.0	07/30/25 17:01	CH
EPA 6020B	Lithium	40.1	ug/L	0.50	07/30/25 17:01	

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SUMMARY OF DETECTION

Project: Charah 3rd Quarter GW Monitori
Pace Project No.: 92808108

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92808108010	**MW-4**					
EPA 903.1	Radium-226	0.425 ± 0.706 (1.22) C:NA T:89%	pCi/L		08/05/25 16:14	
EPA 904.0	Radium-228	0.667 ± 0.485 (0.962) C:77% T:88%	pCi/L		08/01/25 14:39	
Total Radium Calculation	Total Radium	1.09 ± 1.19 (2.18)	pCi/L		08/06/25 09:34	
SM 2540C-2020	Total Dissolved Solids	1050	mg/L	125	07/18/25 11:37	
EPA 300.0 Rev 2.1 1993	Chloride	304	mg/L	7.0	07/18/25 13:40	
EPA 300.0 Rev 2.1 1993	Fluoride	0.35	mg/L	0.10	07/18/25 05:13	
EPA 300.0 Rev 2.1 1993	Sulfate	11.3	mg/L	1.0	07/18/25 05:13	
92808108011	**MW-5**					
EPA 6010D	Barium	71.3	ug/L	10.0	07/29/25 12:22	
EPA 6010D	Calcium	7070	ug/L	500	07/29/25 12:22	
EPA 6010D	Chromium	2.1J	ug/L	10.0	07/29/25 12:22	
EPA 6010D	Copper	0.98J	ug/L	10.0	07/29/25 12:22	
EPA 6010D	Zinc	8.1J	ug/L	20.0	07/29/25 12:22	
EPA 6020B	Boron	10.5	ug/L	10.0	07/30/25 17:14	
EPA 6020B	Lithium	9.4	ug/L	0.50	07/30/25 17:14	
EPA 903.1	Radium-226	0.0608 ± 0.491 (0.964) C:NA T:98%	pCi/L		08/05/25 16:14	
EPA 904.0	Radium-228	1.06 ± 0.494 (0.859) C:80% T:89%	pCi/L		08/01/25 14:39	
Total Radium Calculation	Total Radium	1.12 ± 0.985 (1.82)	pCi/L		08/06/25 09:34	
SM 2540C-2020	Total Dissolved Solids	193	mg/L	25.0	07/21/25 11:01	
EPA 300.0 Rev 2.1 1993	Chloride	18.1	mg/L	1.0	07/18/25 05:28	
EPA 300.0 Rev 2.1 1993	Fluoride	0.52	mg/L	0.10	07/18/25 05:28	
EPA 300.0 Rev 2.1 1993	Sulfate	3.1	mg/L	1.0	07/18/25 05:28	
92808108012	**MW-6**					
EPA 6010D	Barium	116	ug/L	10.0	07/29/25 12:24	
EPA 6010D	Calcium	33800	ug/L	500	07/29/25 12:24	
EPA 6010D	Chromium	9.8J	ug/L	10.0	07/29/25 12:24	
EPA 6010D	Cobalt	4.2J	ug/L	10.0	07/29/25 12:24	
EPA 6010D	Copper	4.2J	ug/L	10.0	07/29/25 12:24	
EPA 6010D	Lead	10.8	ug/L	10.0	07/29/25 12:24	
EPA 6010D	Nickel	7.0J	ug/L	20.0	07/29/25 12:24	
EPA 6010D	Vanadium	7.9J	ug/L	15.0	07/29/25 12:24	
EPA 6010D	Zinc	31.8	ug/L	20.0	07/29/25 12:24	
EPA 6020B	Boron	10.4	ug/L	10.0	07/30/25 17:20	

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SUMMARY OF DETECTION

Project: Charah 3rd Quarter GW Monitori
Pace Project No.: 92808108

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92808108012	**MW-6**					
EPA 6020B	Lithium	25.7	ug/L	0.50	07/30/25 17:20	
EPA 6020B	Thallium	0.098J	ug/L	0.10	07/30/25 17:20	
EPA 903.1	Radium-226	-0.885 ± 0.864 (1.81) C:NA T:85%	pCi/L		08/05/25 16:14	
EPA 904.0	Radium-228	1.42 ± 0.525 (0.741) C:73% T:81%	pCi/L		08/01/25 14:40	
Total Radium Calculation	Total Radium	1.42 ± 1.39 (2.55)	pCi/L		08/06/25 09:34	
SM 2540C-2020	Total Dissolved Solids	586	mg/L	50.0	07/21/25 11:01	
EPA 300.0 Rev 2.1 1993	Chloride	180	mg/L	4.0	07/18/25 13:54	
EPA 300.0 Rev 2.1 1993	Fluoride	0.32	mg/L	0.10	07/18/25 05:43	
EPA 300.0 Rev 2.1 1993	Sulfate	26.8	mg/L	1.0	07/18/25 05:43	
92808108013	**MW-7R**					
EPA 6010D	Barium	302	ug/L	10.0	07/29/25 12:25	
EPA 6010D	Calcium	82700	ug/L	500	07/29/25 12:25	
EPA 6010D	Chromium	2.2J	ug/L	10.0	07/29/25 12:25	
EPA 6010D	Copper	1.1J	ug/L	10.0	07/29/25 12:25	
EPA 6010D	Lead	3.7J	ug/L	10.0	07/29/25 12:25	
EPA 6010D	Vanadium	3.3J	ug/L	15.0	07/29/25 12:25	
EPA 6010D	Zinc	4.4J	ug/L	20.0	07/29/25 12:25	
EPA 6020B	Boron	9.6J	ug/L	10.0	07/30/25 17:26	
EPA 6020B	Lithium	31.2	ug/L	0.50	07/30/25 17:26	
EPA 903.1	Radium-226	1.17 ± 1.08 (1.74) C:NA T:90%	pCi/L		08/05/25 16:14	
EPA 904.0	Radium-228	0.329 ± 0.287 (0.566) C:76% T:91%	pCi/L		08/01/25 14:40	
Total Radium Calculation	Total Radium	1.50 ± 1.37 (2.31)	pCi/L		08/06/25 09:34	
SM 2540C-2020	Total Dissolved Solids	866	mg/L	50.0	07/22/25 15:25	
EPA 300.0 Rev 2.1 1993	Chloride	259	mg/L	6.0	07/18/25 14:09	M1
EPA 300.0 Rev 2.1 1993	Fluoride	0.13	mg/L	0.10	07/18/25 05:58	M1
EPA 300.0 Rev 2.1 1993	Sulfate	14.3	mg/L	1.0	07/18/25 05:58	
92808108014	**MW-8**					
EPA 6010D	Barium	1020	ug/L	10.0	07/29/25 12:27	
EPA 6010D	Calcium	99700	ug/L	500	07/29/25 12:27	
EPA 6010D	Chromium	1.4J	ug/L	10.0	07/29/25 12:27	
EPA 6010D	Lead	3.0J	ug/L	10.0	07/29/25 12:27	
EPA 6010D	Zinc	5.6J	ug/L	20.0	07/29/25 12:27	
EPA 6020B	Boron	11.0	ug/L	10.0	07/30/25 17:32	
EPA 6020B	Lithium	25.7	ug/L	0.50	07/30/25 17:32	

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SUMMARY OF DETECTION

Project: Charah 3rd Quarter GW Monitori
Pace Project No.: 92808108

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92808108014	**MW-8**					
EPA 903.1	Radium-226	1.11 ± 1.19 (1.96) C:NA T:92%	pCi/L		08/05/25 16:14	
EPA 904.0	Radium-228	0.446 ± 0.310 (0.575) C:73% T:90%	pCi/L		08/01/25 14:40	
Total Radium Calculation	Total Radium	1.56 ± 1.50 (2.54)	pCi/L		08/06/25 09:34	
SM 2540C-2020	Total Dissolved Solids	1080	mg/L	125	07/22/25 15:25	
EPA 300.0 Rev 2.1 1993	Chloride	347	mg/L	8.0	07/18/25 14:53	
EPA 300.0 Rev 2.1 1993	Fluoride	0.093J	mg/L	0.10	07/18/25 07:13	
EPA 300.0 Rev 2.1 1993	Sulfate	6.8	mg/L	1.0	07/18/25 07:13	
92808108015	**MW-10**					
EPA 6010D	Barium	93.9	ug/L	10.0	07/29/25 12:32	
EPA 6010D	Calcium	19200	ug/L	500	07/29/25 12:32	
EPA 6010D	Chromium	1.0J	ug/L	10.0	07/29/25 12:32	
EPA 6010D	Copper	0.99J	ug/L	10.0	07/29/25 12:32	
EPA 6010D	Molybdenum	20.2	ug/L	15.0	07/29/25 12:32	
EPA 6010D	Zinc	3.2J	ug/L	20.0	07/29/25 12:32	
EPA 6020B	Boron	27.0	ug/L	10.0	07/30/25 17:39	
EPA 6020B	Lithium	5.3	ug/L	0.50	07/30/25 17:39	
EPA 903.1	Radium-226	0.297 ± 0.670 (1.20) C:NA T:97%	pCi/L		08/05/25 16:14	
EPA 904.0	Radium-228	0.418 ± 0.282 (0.521) C:81% T:94%	pCi/L		08/01/25 14:40	
Total Radium Calculation	Total Radium	0.715 ± 0.952 (1.72)	pCi/L		08/06/25 09:34	
SM 2540C-2020	Total Dissolved Solids	335	mg/L	25.0	07/22/25 15:25	
EPA 300.0 Rev 2.1 1993	Chloride	29.2	mg/L	1.0	07/18/25 07:28	
EPA 300.0 Rev 2.1 1993	Fluoride	0.41	mg/L	0.10	07/18/25 07:28	
EPA 300.0 Rev 2.1 1993	Sulfate	1.9	mg/L	1.0	07/18/25 07:28	
92808108016	**MW-11**					
EPA 6010D	Barium	39.4	ug/L	10.0	07/29/25 12:33	
EPA 6010D	Calcium	25500	ug/L	500	07/29/25 12:33	
EPA 6010D	Chromium	2.7J	ug/L	10.0	07/29/25 12:33	
EPA 6010D	Cobalt	1.3J	ug/L	10.0	07/29/25 12:33	
EPA 6010D	Copper	3.3J	ug/L	10.0	07/29/25 12:33	
EPA 6010D	Lead	3.3J	ug/L	10.0	07/29/25 12:33	
EPA 6010D	Zinc	14.4J	ug/L	20.0	07/29/25 12:33	
EPA 6020B	Boron	16.0	ug/L	10.0	07/30/25 17:51	
EPA 6020B	Lithium	14.7	ug/L	10.0	07/30/25 17:54	

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(704)875-9092

SUMMARY OF DETECTION

Project: Charah 3rd Quarter GW Monitori
Pace Project No.: 92808108

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92808108016	**MW-11**					
EPA 903.1	Radium-226	0.194 ± 0.904 (1.64) C:NA T:89%	pCi/L		08/05/25 16:14	
EPA 904.0	Radium-228	0.209 ± 0.319 (0.688) C:80% T:88%	pCi/L		08/01/25 14:40	
Total Radium Calculation	Total Radium	0.403 ± 1.22 (2.33)	pCi/L		08/06/25 09:34	
SM 2540C-2020	Total Dissolved Solids	478	mg/L	50.0	07/21/25 11:01	
EPA 300.0 Rev 2.1 1993	Chloride	155	mg/L	4.0	07/18/25 15:08	
EPA 300.0 Rev 2.1 1993	Fluoride	0.15	mg/L	0.10	07/18/25 07:43	
EPA 300.0 Rev 2.1 1993	Sulfate	2.0	mg/L	1.0	07/18/25 07:43	
92808108017	**MW-11D**					
EPA 6010D	Barium	110	ug/L	10.0	07/29/25 12:35	
EPA 6010D	Calcium	14800	ug/L	500	07/29/25 12:35	
EPA 6010D	Chromium	2.2J	ug/L	10.0	07/29/25 12:35	
EPA 6010D	Copper	1.1J	ug/L	10.0	07/29/25 12:35	
EPA 6010D	Molybdenum	2.2J	ug/L	15.0	07/29/25 12:35	
EPA 6010D	Selenium	5.8J	ug/L	20.0	07/29/25 12:35	B
EPA 6010D	Zinc	8.3J	ug/L	20.0	07/29/25 12:35	
EPA 6020B	Boron	41.6	ug/L	10.0	07/30/25 17:57	
EPA 6020B	Lithium	14.9	ug/L	0.50	07/30/25 17:57	
EPA 903.1	Radium-226	-0.249 ± 0.579 (1.17) C:NA T:105%	pCi/L		08/05/25 14:48	
EPA 904.0	Radium-228	0.585 ± 0.399 (0.756) C:71% T:87%	pCi/L		08/04/25 16:07	
Total Radium Calculation	Total Radium	0.585 ± 0.978 (1.93)	pCi/L		08/06/25 09:18	
SM 2540C-2020	Total Dissolved Solids	319	mg/L	25.0	07/21/25 11:01	
EPA 300.0 Rev 2.1 1993	Chloride	53.6	mg/L	1.0	07/18/25 07:58	
EPA 300.0 Rev 2.1 1993	Fluoride	0.42	mg/L	0.10	07/18/25 07:58	
EPA 300.0 Rev 2.1 1993	Sulfate	14.1	mg/L	1.0	07/18/25 07:58	
92808108018	**SW-1**					
EPA 6010D	Arsenic	10J	ug/L	20.0	07/29/25 12:37	
EPA 6010D	Barium	432	ug/L	10.0	07/29/25 12:37	
EPA 6010D	Beryllium	0.79J	ug/L	5.0	07/29/25 12:37	
EPA 6010D	Calcium	3310	ug/L	500	07/29/25 12:37	
EPA 6010D	Chromium	16.7	ug/L	10.0	07/29/25 12:37	
EPA 6010D	Cobalt	8.8J	ug/L	10.0	07/29/25 12:37	
EPA 6010D	Copper	10.8	ug/L	10.0	07/29/25 12:37	
EPA 6010D	Lead	26.8	ug/L	10.0	07/29/25 12:37	

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SUMMARY OF DETECTION

Project: Charah 3rd Quarter GW Monitori
Pace Project No.: 92808108

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92808108018	**SW-1**					
EPA 6010D	Nickel	7.7J	ug/L	20.0	07/29/25 12:37	
EPA 6010D	Vanadium	54.1	ug/L	15.0	07/29/25 12:37	
EPA 6010D	Zinc	67.5	ug/L	20.0	07/29/25 12:37	
EPA 6020B	Boron	10.3	ug/L	10.0	07/30/25 18:04	
EPA 6020B	Lithium	7.6	ug/L	0.50	07/30/25 18:04	
EPA 6020B	Thallium	0.25	ug/L	0.10	07/30/25 18:04	
EPA 903.1	Radium-226	0.000 ± 0.804 (1.51) C:NA T:95%	pCi/L		08/05/25 14:48	
EPA 904.0	Radium-228	1.13 ± 0.477 (0.752) C:71% T:91%	pCi/L		08/04/25 16:07	
Total Radium Calculation	Total Radium	1.13 ± 1.28 (2.26)	pCi/L		08/06/25 09:18	
SM 2540C-2020	Total Dissolved Solids	705	mg/L	25.0	07/22/25 15:25	
EPA 300.0 Rev 2.1 1993	Chloride	6.9	mg/L	1.0	07/18/25 08:13	
EPA 300.0 Rev 2.1 1993	Fluoride	0.36	mg/L	0.10	07/18/25 08:13	
EPA 300.0 Rev 2.1 1993	Sulfate	0.97J	mg/L	1.0	07/18/25 08:13	
92808108019	**SW-2**					
EPA 6010D	Barium	59.3	ug/L	10.0	07/29/25 12:38	
EPA 6010D	Calcium	14000	ug/L	500	07/29/25 12:38	
EPA 6010D	Chromium	1.6J	ug/L	10.0	07/29/25 12:38	
EPA 6010D	Cobalt	1.3J	ug/L	10.0	07/29/25 12:38	
EPA 6010D	Copper	2.8J	ug/L	10.0	07/29/25 12:38	
EPA 6010D	Lead	3.2J	ug/L	10.0	07/29/25 12:38	
EPA 6010D	Nickel	2.9J	ug/L	20.0	07/29/25 12:38	
EPA 6010D	Vanadium	4.2J	ug/L	15.0	07/29/25 12:38	
EPA 6010D	Zinc	6.3J	ug/L	20.0	07/29/25 12:38	
EPA 6020B	Boron	14.8	ug/L	10.0	07/30/25 18:10	
EPA 6020B	Lithium	0.71	ug/L	0.50	07/30/25 18:10	
EPA 903.1	Radium-226	0.321 ± 1.05 (1.89) C:NA T:66%	pCi/L		08/05/25 14:48	
EPA 904.0	Radium-228	0.273 ± 0.779 (1.74) C:64% T:63%	pCi/L		08/04/25 16:07	
Total Radium Calculation	Total Radium	0.594 ± 1.83 (3.63)	pCi/L		08/06/25 09:18	
SM 2540C-2020	Total Dissolved Solids	127	mg/L	25.0	07/18/25 11:38	
EPA 300.0 Rev 2.1 1993	Chloride	19.8	mg/L	1.0	07/18/25 08:27	
EPA 300.0 Rev 2.1 1993	Fluoride	0.15	mg/L	0.10	07/18/25 08:27	
EPA 300.0 Rev 2.1 1993	Sulfate	4.0	mg/L	1.0	07/18/25 08:27	
92808108020	**SW-3**					
EPA 6010D	Arsenic	8.7J	ug/L	20.0	07/29/25 12:40	

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SUMMARY OF DETECTION

Project: Charah 3rd Quarter GW Monitori
Pace Project No.: 92808108

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92808108020	**SW-3**					
EPA 6010D	Barium	297	ug/L	10.0	07/29/25 12:40	
EPA 6010D	Calcium	9520	ug/L	500	07/29/25 12:40	
EPA 6010D	Chromium	18.4	ug/L	10.0	07/29/25 12:40	
EPA 6010D	Cobalt	19.6	ug/L	10.0	07/29/25 12:40	
EPA 6010D	Copper	14.1	ug/L	10.0	07/29/25 12:40	
EPA 6010D	Lead	19.1	ug/L	10.0	07/29/25 12:40	
EPA 6010D	Nickel	15.9J	ug/L	20.0	07/29/25 12:40	
EPA 6010D	Vanadium	43.5	ug/L	15.0	07/29/25 12:40	
EPA 6010D	Zinc	75.4	ug/L	20.0	07/29/25 12:40	
EPA 6020B	Boron	11.7	ug/L	10.0	07/30/25 18:16	
EPA 6020B	Lithium	8.2	ug/L	0.50	07/30/25 18:16	
EPA 6020B	Thallium	0.14	ug/L	0.10	07/30/25 18:16	
EPA 903.1	Radium-226	0.167 ± 0.716 (1.31) C:NA T:95%	pCi/L		08/05/25 14:48	
EPA 904.0	Radium-228	0.484 ± 0.588 (1.25) C:68% T:81%	pCi/L		08/04/25 16:07	
Total Radium Calculation	Total Radium	0.651 ± 1.30 (2.56)	pCi/L		08/06/25 09:18	
SM 2540C-2020	Total Dissolved Solids	112	mg/L	25.0	07/20/25 14:28	
EPA 300.0 Rev 2.1 1993	Chloride	11.9	mg/L	1.0	07/18/25 08:42	
EPA 300.0 Rev 2.1 1993	Fluoride	0.14	mg/L	0.10	07/18/25 08:42	
EPA 300.0 Rev 2.1 1993	Sulfate	0.70J	mg/L	1.0	07/18/25 08:42	
92808108021	**SW-4**					
EPA 6010D	Arsenic	7.7J	ug/L	20.0	07/25/25 10:53	
EPA 6010D	Barium	146	ug/L	10.0	07/25/25 10:53	
EPA 6010D	Calcium	2570	ug/L	500	07/25/25 10:53	
EPA 6010D	Chromium	13.5	ug/L	10.0	07/25/25 10:53	
EPA 6010D	Cobalt	16.1	ug/L	10.0	07/25/25 10:53	
EPA 6010D	Copper	14.3	ug/L	10.0	07/25/25 10:53	
EPA 6010D	Lead	19.7	ug/L	10.0	07/25/25 10:53	
EPA 6010D	Nickel	7.0J	ug/L	20.0	07/25/25 10:53	
EPA 6010D	Vanadium	33.0	ug/L	15.0	07/25/25 10:53	
EPA 6010D	Zinc	47.0	ug/L	20.0	07/25/25 10:53	
EPA 6020B	Boron	81.6	ug/L	10.0	07/28/25 18:05	CH
EPA 6020B	Lithium	10.3	ug/L	0.50	07/28/25 18:05	
EPA 6020B	Thallium	0.19	ug/L	0.10	07/28/25 18:05	
EPA 903.1	Radium-226	1.15 ± 0.949 (1.49) C:NA T:97%	pCi/L		08/05/25 14:48	
EPA 904.0	Radium-228	1.02 ± 0.621 (1.19) C:68% T:88%	pCi/L		08/04/25 16:07	

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SUMMARY OF DETECTION

Project: Charah 3rd Quarter GW Monitori
Pace Project No.: 92808108

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92808108021	**SW-4**					
Total Radium Calculation	Total Radium	2.17 ± 1.57 (2.68)	pCi/L		08/06/25 09:18	
SM 2540C-2020	Total Dissolved Solids	219	mg/L	25.0	07/20/25 14:28	
EPA 300.0 Rev 2.1 1993	Chloride	3.6	mg/L	1.0	07/18/25 08:57	
EPA 300.0 Rev 2.1 1993	Fluoride	0.059J	mg/L	0.10	07/18/25 08:57	
EPA 300.0 Rev 2.1 1993	Sulfate	2.0	mg/L	1.0	07/18/25 08:57	
92808108022	**SW-5**					
EPA 6010D	Arsenic	8.3J	ug/L	20.0	07/25/25 10:56	
EPA 6010D	Barium	291	ug/L	10.0	07/25/25 10:56	
EPA 6010D	Calcium	4260	ug/L	500	07/25/25 10:56	
EPA 6010D	Chromium	11.2	ug/L	10.0	07/25/25 10:56	
EPA 6010D	Cobalt	6.6J	ug/L	10.0	07/25/25 10:56	
EPA 6010D	Copper	7.1J	ug/L	10.0	07/25/25 10:56	
EPA 6010D	Lead	18.4	ug/L	10.0	07/25/25 10:56	
EPA 6010D	Molybdenum	2.1J	ug/L	15.0	07/25/25 10:56	
EPA 6010D	Nickel	5.9J	ug/L	20.0	07/25/25 10:56	
EPA 6010D	Vanadium	34.6	ug/L	15.0	07/25/25 10:56	
EPA 6010D	Zinc	44.0	ug/L	20.0	07/25/25 10:56	
EPA 6020B	Boron	38.1	ug/L	10.0	07/28/25 18:12	CH
EPA 6020B	Lithium	6.7	ug/L	0.50	07/28/25 18:12	
EPA 6020B	Thallium	0.14	ug/L	0.10	07/28/25 18:12	
EPA 903.1	Radium-226	0.489 ± 0.777 (1.33) C:NA T:93%	pCi/L		08/05/25 14:48	
EPA 904.0	Radium-228	1.24 ± 0.630 (1.13) C:66% T:87%	pCi/L		08/04/25 16:07	
Total Radium Calculation	Total Radium	1.73 ± 1.41 (2.46)	pCi/L		08/06/25 09:18	
SM 2540C-2020	Total Dissolved Solids	481	mg/L	25.0	07/22/25 15:25	
EPA 300.0 Rev 2.1 1993	Chloride	6.4	mg/L	1.0	07/18/25 09:12	
EPA 300.0 Rev 2.1 1993	Fluoride	0.29	mg/L	0.10	07/18/25 09:12	
EPA 300.0 Rev 2.1 1993	Sulfate	0.59J	mg/L	1.0	07/18/25 09:12	
92808108023	**SW-6**					
EPA 6010D	Arsenic	10.2J	ug/L	20.0	07/25/25 10:58	
EPA 6010D	Barium	741	ug/L	10.0	07/25/25 10:58	
EPA 6010D	Beryllium	1.4J	ug/L	5.0	07/25/25 10:58	
EPA 6010D	Calcium	5390	ug/L	500	07/25/25 10:58	
EPA 6010D	Chromium	24.7	ug/L	10.0	07/25/25 10:58	
EPA 6010D	Cobalt	29.7	ug/L	10.0	07/25/25 10:58	
EPA 6010D	Copper	21.0	ug/L	10.0	07/25/25 10:58	
EPA 6010D	Lead	43.6	ug/L	10.0	07/25/25 10:58	
EPA 6010D	Nickel	15.6J	ug/L	20.0	07/25/25 10:58	
EPA 6010D	Vanadium	84.7	ug/L	15.0	07/25/25 10:58	
EPA 6010D	Zinc	130	ug/L	20.0	07/25/25 10:58	

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SUMMARY OF DETECTION

Project: Charah 3rd Quarter GW Monitori
Pace Project No.: 92808108

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92808108023	**SW-6**					
EPA 6020B	Boron	10.8	ug/L	10.0	07/28/25 16:12	CH
EPA 6020B	Lithium	12.7	ug/L	0.50	07/28/25 16:12	
EPA 6020B	Thallium	0.34	ug/L	0.10	07/28/25 16:12	
EPA 903.1	Radium-226	0.363 ± 0.856 (1.51) C:NA T:94%	pCi/L		08/05/25 15:01	
EPA 904.0	Radium-228	1.47 ± 0.730 (1.25) C:62% T:81%	pCi/L		08/04/25 15:54	
Total Radium Calculation	Total Radium	1.83 ± 1.59 (2.76)	pCi/L		08/06/25 09:18	
SM 2540C-2020	Total Dissolved Solids	646	mg/L	25.0	07/22/25 15:25	
EPA 300.0 Rev 2.1 1993	Chloride	6.7	mg/L	1.0	07/18/25 09:57	
EPA 300.0 Rev 2.1 1993	Fluoride	0.29	mg/L	0.10	07/18/25 09:57	
EPA 300.0 Rev 2.1 1993	Sulfate	1.0	mg/L	1.0	07/18/25 09:57	

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ANALYTICAL RESULTS

Project: Charah 3rd Quarter GW Monitori
Pace Project No.: 92808108

Sample: BG-1 **Lab ID: 92808108001** Collected: 07/14/25 13:15 Received: 07/17/25 13:35 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis								
Antimony	ND	ug/L	20.0	4.0	1	07/29/25 05:42	07/29/25 11:55	7440-36-0	
Arsenic	ND	ug/L	20.0	4.2	1	07/29/25 05:42	07/29/25 11:55	7440-38-2	
Barium	**251**	ug/L	10.0	0.50	1	07/29/25 05:42	07/29/25 11:55	7440-39-3	
Beryllium	ND	ug/L	5.0	0.44	1	07/29/25 05:42	07/29/25 11:55	7440-41-7	
Cadmium	ND	ug/L	3.0	0.48	1	07/29/25 05:42	07/29/25 11:55	7440-43-9	
Calcium	**20000**	ug/L	500	31.8	1	07/29/25 05:42	07/29/25 11:55	7440-70-2	
Chromium	**1.9J**	ug/L	10.0	0.81	1	07/29/25 05:42	07/29/25 11:55	7440-47-3	
Cobalt	ND	ug/L	10.0	1.2	1	07/29/25 05:42	07/29/25 11:55	7440-48-4	
Copper	**1.1J**	ug/L	10.0	0.79	1	07/29/25 05:42	07/29/25 11:55	7440-50-8	
Lead	ND	ug/L	10.0	2.9	1	07/29/25 05:42	07/29/25 11:55	7439-92-1	
Molybdenum	ND	ug/L	15.0	1.7	1	07/29/25 05:42	07/29/25 11:55	7439-98-7	
Nickel	**2.7J**	ug/L	20.0	2.0	1	07/29/25 05:42	07/29/25 11:55	7440-02-0	
Selenium	ND	ug/L	20.0	5.5	1	07/29/25 05:42	07/29/25 11:55	7782-49-2	
Silver	ND	ug/L	10.0	0.77	1	07/29/25 05:42	07/29/25 11:55	7440-22-4	
Vanadium	**5.7J**	ug/L	15.0	2.0	1	07/29/25 05:42	07/29/25 11:55	7440-62-2	
Zinc	**6.2J**	ug/L	20.0	2.3	1	07/29/25 05:42	07/29/25 11:55	7440-66-6	
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3020A Pace Analytical Services - Minneapolis								
Boron	**8.5J**	ug/L	10.0	2.3	1	07/29/25 05:57	07/30/25 15:28	7440-42-8	
Lithium	**19.3**	ug/L	0.50	0.20	1	07/29/25 05:57	07/30/25 15:28	7439-93-2	
Thallium	**0.10**	ug/L	0.10	0.027	1	07/29/25 05:57	07/30/25 15:28	7440-28-0	
7470A Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Minneapolis								
Mercury	ND	ug/L	0.20	0.095	1	08/07/25 11:06	08/11/25 10:39	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2020 Pace Analytical Services - Asheville								
Total Dissolved Solids	**532**	mg/L	50.0	50.0	1		07/18/25 11:36		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**166**	mg/L	4.0	2.4	4		07/18/25 11:11	16887-00-6	
Fluoride	**0.19**	mg/L	0.10	0.050	1		07/18/25 02:45	16984-48-8	
Sulfate	**23.2**	mg/L	1.0	0.50	1		07/18/25 02:45	14808-79-8	

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ANALYTICAL RESULTS

Project: Charah 3rd Quarter GW Monitori
Pace Project No.: 92808108

Sample: BG-2 **Lab ID: 92808108002** Collected: 07/14/25 11:15 Received: 07/17/25 13:35 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis								
Antimony	**5.2J**	ug/L	20.0	4.0	1	07/29/25 05:42	07/29/25 12:04	7440-36-0	
Arsenic	ND	ug/L	20.0	4.2	1	07/29/25 05:42	07/29/25 12:04	7440-38-2	
Barium	**52.1**	ug/L	10.0	0.50	1	07/29/25 05:42	07/29/25 12:04	7440-39-3	
Beryllium	ND	ug/L	5.0	0.44	1	07/29/25 05:42	07/29/25 12:04	7440-41-7	
Cadmium	ND	ug/L	3.0	0.48	1	07/29/25 05:42	07/29/25 12:04	7440-43-9	
Calcium	**112000**	ug/L	500	31.8	1	07/29/25 05:42	07/29/25 12:04	7440-70-2	
Chromium	**0.96J**	ug/L	10.0	0.81	1	07/29/25 05:42	07/29/25 12:04	7440-47-3	
Cobalt	**1.7J**	ug/L	10.0	1.2	1	07/29/25 05:42	07/29/25 12:04	7440-48-4	
Copper	ND	ug/L	10.0	0.79	1	07/29/25 05:42	07/29/25 12:04	7440-50-8	
Lead	**3.5J**	ug/L	10.0	2.9	1	07/29/25 05:42	07/29/25 12:04	7439-92-1	
Molybdenum	**4.5J**	ug/L	15.0	1.7	1	07/29/25 05:42	07/29/25 12:04	7439-98-7	
Nickel	ND	ug/L	20.0	2.0	1	07/29/25 05:42	07/29/25 12:04	7440-02-0	
Selenium	ND	ug/L	20.0	5.5	1	07/29/25 05:42	07/29/25 12:04	7782-49-2	
Silver	ND	ug/L	10.0	0.77	1	07/29/25 05:42	07/29/25 12:04	7440-22-4	
Vanadium	ND	ug/L	15.0	2.0	1	07/29/25 05:42	07/29/25 12:04	7440-62-2	
Zinc	**7.1J**	ug/L	20.0	2.3	1	07/29/25 05:42	07/29/25 12:04	7440-66-6	
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3020A Pace Analytical Services - Minneapolis								
Boron	**16.6**	ug/L	10.0	2.3	1	07/29/25 05:57	07/30/25 15:34	7440-42-8	
Lithium	**23.9**	ug/L	0.50	0.20	1	07/29/25 05:57	07/30/25 15:34	7439-93-2	
Thallium	ND	ug/L	0.10	0.027	1	07/29/25 05:57	07/30/25 15:34	7440-28-0	
7470A Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Minneapolis								
Mercury	ND	ug/L	0.20	0.095	1	08/07/25 11:06	08/11/25 10:41	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2020 Pace Analytical Services - Asheville								
Total Dissolved Solids	**1420**	mg/L	125	125	1		07/18/25 11:36		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**275**	mg/L	6.0	3.6	6		07/18/25 11:26	16887-00-6	
Fluoride	**0.26**	mg/L	0.10	0.050	1		07/18/25 03:00	16984-48-8	
Sulfate	**226**	mg/L	6.0	3.0	6		07/18/25 11:26	14808-79-8	

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ANALYTICAL RESULTS

Project: Charah 3rd Quarter GW Monitori
Pace Project No.: 92808108

Sample: DUP **Lab ID: 92808108003** Collected: 07/15/25 00:01 Received: 07/17/25 13:35 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis								
Antimony	ND	ug/L	20.0	4.0	1	07/29/25 05:42	07/29/25 12:05	7440-36-0	
Arsenic	ND	ug/L	20.0	4.2	1	07/29/25 05:42	07/29/25 12:05	7440-38-2	
Barium	**135**	ug/L	10.0	0.50	1	07/29/25 05:42	07/29/25 12:05	7440-39-3	
Beryllium	ND	ug/L	5.0	0.44	1	07/29/25 05:42	07/29/25 12:05	7440-41-7	
Cadmium	ND	ug/L	3.0	0.48	1	07/29/25 05:42	07/29/25 12:05	7440-43-9	
Calcium	**34600**	ug/L	500	31.8	1	07/29/25 05:42	07/29/25 12:05	7440-70-2	
Chromium	**10.8**	ug/L	10.0	0.81	1	07/29/25 05:42	07/29/25 12:05	7440-47-3	
Cobalt	**5.1J**	ug/L	10.0	1.2	1	07/29/25 05:42	07/29/25 12:05	7440-48-4	
Copper	**5.0J**	ug/L	10.0	0.79	1	07/29/25 05:42	07/29/25 12:05	7440-50-8	
Lead	**12.2**	ug/L	10.0	2.9	1	07/29/25 05:42	07/29/25 12:05	7439-92-1	
Molybdenum	ND	ug/L	15.0	1.7	1	07/29/25 05:42	07/29/25 12:05	7439-98-7	
Nickel	**7.8J**	ug/L	20.0	2.0	1	07/29/25 05:42	07/29/25 12:05	7440-02-0	
Selenium	ND	ug/L	20.0	5.5	1	07/29/25 05:42	07/29/25 12:05	7782-49-2	
Silver	ND	ug/L	10.0	0.77	1	07/29/25 05:42	07/29/25 12:05	7440-22-4	
Vanadium	**10.1J**	ug/L	15.0	2.0	1	07/29/25 05:42	07/29/25 12:05	7440-62-2	
Zinc	**39.6**	ug/L	20.0	2.3	1	07/29/25 05:42	07/29/25 12:05	7440-66-6	
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3020A Pace Analytical Services - Minneapolis								
Boron	**11.1**	ug/L	10.0	2.3	1	07/29/25 05:57	07/30/25 16:11	7440-42-8	CH
Lithium	**29.0**	ug/L	0.50	0.20	1	07/29/25 05:57	07/30/25 16:11	7439-93-2	
Thallium	**0.11**	ug/L	0.10	0.027	1	07/29/25 05:57	07/30/25 16:11	7440-28-0	
7470A Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Minneapolis								
Mercury	ND	ug/L	0.20	0.095	1	08/07/25 11:06	08/11/25 10:44	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2020 Pace Analytical Services - Asheville								
Total Dissolved Solids	**590**	mg/L	50.0	50.0	1		07/21/25 11:01		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**179**	mg/L	4.0	2.4	4		07/18/25 11:41	16887-00-6	
Fluoride	**0.32**	mg/L	0.10	0.050	1		07/18/25 03:15	16984-48-8	
Sulfate	**26.7**	mg/L	1.0	0.50	1		07/18/25 03:15	14808-79-8	

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ANALYTICAL RESULTS

Project: Charah 3rd Quarter GW Monitori
Pace Project No.: 92808108

Sample: EQBL **Lab ID: 92808108004** Collected: 07/14/25 19:00 Received: 07/17/25 13:35 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis								
Antimony	ND	ug/L	20.0	4.0	1	07/29/25 05:42	07/29/25 12:07	7440-36-0	
Arsenic	ND	ug/L	20.0	4.2	1	07/29/25 05:42	07/29/25 12:07	7440-38-2	
Barium	ND	ug/L	10.0	0.50	1	07/29/25 05:42	07/29/25 12:07	7440-39-3	
Beryllium	ND	ug/L	5.0	0.44	1	07/29/25 05:42	07/29/25 12:07	7440-41-7	
Cadmium	ND	ug/L	3.0	0.48	1	07/29/25 05:42	07/29/25 12:07	7440-43-9	
Calcium	ND	ug/L	500	31.8	1	07/29/25 05:42	07/29/25 12:07	7440-70-2	
Chromium	ND	ug/L	10.0	0.81	1	07/29/25 05:42	07/29/25 12:07	7440-47-3	
Cobalt	ND	ug/L	10.0	1.2	1	07/29/25 05:42	07/29/25 12:07	7440-48-4	
Copper	ND	ug/L	10.0	0.79	1	07/29/25 05:42	07/29/25 12:07	7440-50-8	
Lead	ND	ug/L	10.0	2.9	1	07/29/25 05:42	07/29/25 12:07	7439-92-1	
Molybdenum	ND	ug/L	15.0	1.7	1	07/29/25 05:42	07/29/25 12:07	7439-98-7	
Nickel	ND	ug/L	20.0	2.0	1	07/29/25 05:42	07/29/25 12:07	7440-02-0	
Selenium	ND	ug/L	20.0	5.5	1	07/29/25 05:42	07/29/25 12:07	7782-49-2	
Silver	ND	ug/L	10.0	0.77	1	07/29/25 05:42	07/29/25 12:07	7440-22-4	
Vanadium	ND	ug/L	15.0	2.0	1	07/29/25 05:42	07/29/25 12:07	7440-62-2	
Zinc	ND	ug/L	20.0	2.3	1	07/29/25 05:42	07/29/25 12:07	7440-66-6	
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3020A Pace Analytical Services - Minneapolis								
Boron	ND	ug/L	10.0	2.3	1	07/29/25 05:57	07/30/25 16:18	7440-42-8	CH
Lithium	ND	ug/L	0.50	0.20	1	07/29/25 05:57	07/30/25 16:18	7439-93-2	
Thallium	ND	ug/L	0.10	0.027	1	07/29/25 05:57	07/30/25 16:18	7440-28-0	
7470A Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Minneapolis								
Mercury	ND	ug/L	0.20	0.095	1	08/07/25 11:06	08/11/25 10:46	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2020 Pace Analytical Services - Asheville								
Total Dissolved Solids	ND	mg/L	25.0	25.0	1		07/18/25 11:37		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	ND	mg/L	1.0	0.60	1		07/17/25 23:02	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		07/17/25 23:02	16984-48-8	
Sulfate	ND	mg/L	1.0	0.50	1		07/17/25 23:02	14808-79-8	

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ANALYTICAL RESULTS

Project: Charah 3rd Quarter GW Monitori
Pace Project No.: 92808108

Sample: LEACHATE **Lab ID: 92808108005** Collected: 07/15/25 11:30 Received: 07/17/25 13:35 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis								
Antimony	ND	ug/L	20.0	4.0	1	07/29/25 05:42	07/29/25 12:12	7440-36-0	
Arsenic	**132**	ug/L	20.0	4.2	1	07/29/25 05:42	07/29/25 12:12	7440-38-2	
Barium	**41.7**	ug/L	10.0	0.50	1	07/29/25 05:42	07/29/25 12:12	7440-39-3	
Beryllium	ND	ug/L	5.0	0.44	1	07/29/25 05:42	07/29/25 12:12	7440-41-7	
Cadmium	ND	ug/L	3.0	0.48	1	07/29/25 05:42	07/29/25 12:12	7440-43-9	
Calcium	**187000**	ug/L	500	31.8	1	07/29/25 05:42	07/29/25 12:12	7440-70-2	
Chromium	ND	ug/L	10.0	0.81	1	07/29/25 05:42	07/29/25 12:12	7440-47-3	
Cobalt	ND	ug/L	10.0	1.2	1	07/29/25 05:42	07/29/25 12:12	7440-48-4	
Copper	**2.3J**	ug/L	10.0	0.79	1	07/29/25 05:42	07/29/25 12:12	7440-50-8	
Lead	**3.7J**	ug/L	10.0	2.9	1	07/29/25 05:42	07/29/25 12:12	7439-92-1	
Molybdenum	**176**	ug/L	15.0	1.7	1	07/29/25 05:42	07/29/25 12:12	7439-98-7	
Nickel	**2.2J**	ug/L	20.0	2.0	1	07/29/25 05:42	07/29/25 12:12	7440-02-0	
Selenium	ND	ug/L	20.0	5.5	1	07/29/25 05:42	07/29/25 12:12	7782-49-2	
Silver	ND	ug/L	10.0	0.77	1	07/29/25 05:42	07/29/25 12:12	7440-22-4	
Vanadium	ND	ug/L	15.0	2.0	1	07/29/25 05:42	07/29/25 12:12	7440-62-2	
Zinc	**6.7J**	ug/L	20.0	2.3	1	07/29/25 05:42	07/29/25 12:12	7440-66-6	
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3020A Pace Analytical Services - Minneapolis								
Boron	**3110**	ug/L	200	45.4	20	07/29/25 05:57	07/30/25 16:27	7440-42-8	CH
Lithium	**52.7**	ug/L	0.50	0.20	1	07/29/25 05:57	07/30/25 16:24	7439-93-2	
Thallium	**0.10**	ug/L	0.10	0.027	1	07/29/25 05:57	07/30/25 16:24	7440-28-0	
7470A Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Minneapolis								
Mercury	ND	ug/L	0.20	0.095	1	08/07/25 11:06	08/11/25 10:48	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2020 Pace Analytical Services - Asheville								
Total Dissolved Solids	**1080**	mg/L	50.0	50.0	1		07/21/25 11:01		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**18.0**	mg/L	1.0	0.60	1		07/18/25 11:55	16887-00-6	
Fluoride	**0.19**	mg/L	0.10	0.050	1		07/18/25 11:55	16984-48-8	
Sulfate	**375**	mg/L	11.0	5.5	11		07/18/25 03:59	14808-79-8	

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ANALYTICAL RESULTS

Project: Charah 3rd Quarter GW Monitori
Pace Project No.: 92808108

Sample: MW-1 **Lab ID: 92808108006** Collected: 07/16/25 16:30 Received: 07/17/25 13:35 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis								
Antimony	ND	ug/L	20.0	4.0	1	07/29/25 05:42	07/29/25 12:14	7440-36-0	
Arsenic	ND	ug/L	20.0	4.2	1	07/29/25 05:42	07/29/25 12:14	7440-38-2	
Barium	**192**	ug/L	10.0	0.50	1	07/29/25 05:42	07/29/25 12:14	7440-39-3	
Beryllium	ND	ug/L	5.0	0.44	1	07/29/25 05:42	07/29/25 12:14	7440-41-7	
Cadmium	ND	ug/L	3.0	0.48	1	07/29/25 05:42	07/29/25 12:14	7440-43-9	
Calcium	**150000**	ug/L	500	31.8	1	07/29/25 05:42	07/29/25 12:14	7440-70-2	
Chromium	**8.4J**	ug/L	10.0	0.81	1	07/29/25 05:42	07/29/25 12:14	7440-47-3	
Cobalt	**2.3J**	ug/L	10.0	1.2	1	07/29/25 05:42	07/29/25 12:14	7440-48-4	
Copper	**1.1J**	ug/L	10.0	0.79	1	07/29/25 05:42	07/29/25 12:14	7440-50-8	
Lead	**5.3J**	ug/L	10.0	2.9	1	07/29/25 05:42	07/29/25 12:14	7439-92-1	
Molybdenum	ND	ug/L	15.0	1.7	1	07/29/25 05:42	07/29/25 12:14	7439-98-7	
Nickel	**5.6J**	ug/L	20.0	2.0	1	07/29/25 05:42	07/29/25 12:14	7440-02-0	
Selenium	ND	ug/L	20.0	5.5	1	07/29/25 05:42	07/29/25 12:14	7782-49-2	
Silver	ND	ug/L	10.0	0.77	1	07/29/25 05:42	07/29/25 12:14	7440-22-4	
Vanadium	**5.1J**	ug/L	15.0	2.0	1	07/29/25 05:42	07/29/25 12:14	7440-62-2	
Zinc	**12.3J**	ug/L	20.0	2.3	1	07/29/25 05:42	07/29/25 12:14	7440-66-6	
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3020A Pace Analytical Services - Minneapolis								
Boron	**12.7**	ug/L	10.0	2.3	1	07/29/25 05:57	07/30/25 16:36	7440-42-8	CH
Lithium	**34.1**	ug/L	0.50	0.20	1	07/29/25 05:57	07/30/25 16:36	7439-93-2	
Thallium	ND	ug/L	0.10	0.027	1	07/29/25 05:57	07/30/25 16:36	7440-28-0	
7470A Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Minneapolis								
Mercury	ND	ug/L	0.20	0.095	1	08/07/25 11:06	08/11/25 10:51	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2020 Pace Analytical Services - Asheville								
Total Dissolved Solids	**1670**	mg/L	125	125	1		07/22/25 15:25		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**568**	mg/L	13.0	7.8	13		07/18/25 12:10	16887-00-6	
Fluoride	**0.14**	mg/L	0.10	0.050	1		07/18/25 04:14	16984-48-8	
Sulfate	**5.8**	mg/L	1.0	0.50	1		07/18/25 04:14	14808-79-8	

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ANALYTICAL RESULTS

Project: Charah 3rd Quarter GW Monitori
Pace Project No.: 92808108

Sample: MW-2 **Lab ID: 92808108007** Collected: 07/17/25 09:25 Received: 07/17/25 13:35 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis								
Antimony	ND	ug/L	20.0	4.0	1	07/29/25 05:42	07/29/25 12:15	7440-36-0	
Arsenic	ND	ug/L	20.0	4.2	1	07/29/25 05:42	07/29/25 12:15	7440-38-2	
Barium	**335**	ug/L	10.0	0.50	1	07/29/25 05:42	07/29/25 12:15	7440-39-3	
Beryllium	ND	ug/L	5.0	0.44	1	07/29/25 05:42	07/29/25 12:15	7440-41-7	
Cadmium	**0.52J**	ug/L	3.0	0.48	1	07/29/25 05:42	07/29/25 12:15	7440-43-9	
Calcium	**159000**	ug/L	500	31.8	1	07/29/25 05:42	07/29/25 12:15	7440-70-2	
Chromium	**7.3J**	ug/L	10.0	0.81	1	07/29/25 05:42	07/29/25 12:15	7440-47-3	
Cobalt	**2.4J**	ug/L	10.0	1.2	1	07/29/25 05:42	07/29/25 12:15	7440-48-4	
Copper	**4.2J**	ug/L	10.0	0.79	1	07/29/25 05:42	07/29/25 12:15	7440-50-8	
Lead	**4.2J**	ug/L	10.0	2.9	1	07/29/25 05:42	07/29/25 12:15	7439-92-1	
Molybdenum	**2.8J**	ug/L	15.0	1.7	1	07/29/25 05:42	07/29/25 12:15	7439-98-7	
Nickel	**5.3J**	ug/L	20.0	2.0	1	07/29/25 05:42	07/29/25 12:15	7440-02-0	
Selenium	ND	ug/L	20.0	5.5	1	07/29/25 05:42	07/29/25 12:15	7782-49-2	
Silver	ND	ug/L	10.0	0.77	1	07/29/25 05:42	07/29/25 12:15	7440-22-4	
Vanadium	ND	ug/L	15.0	2.0	1	07/29/25 05:42	07/29/25 12:15	7440-62-2	
Zinc	**30.8**	ug/L	20.0	2.3	1	07/29/25 05:42	07/29/25 12:15	7440-66-6	
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3020A Pace Analytical Services - Minneapolis								
Boron	**45.1**	ug/L	10.0	2.3	1	07/29/25 05:57	07/30/25 16:43	7440-42-8	CH,IS
Lithium	**115**	ug/L	10.0	4.1	20	07/29/25 05:57	07/30/25 16:46	7439-93-2	
Thallium	**0.078J**	ug/L	0.10	0.027	1	07/29/25 05:57	07/30/25 16:43	7440-28-0	
7470A Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Minneapolis								
Mercury	ND	ug/L	0.20	0.095	1	08/07/25 11:06	08/11/25 11:02	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2020 Pace Analytical Services - Asheville								
Total Dissolved Solids	**2200**	mg/L	125	125	1		07/22/25 15:34		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**1010**	mg/L	20.0	12.0	20		07/18/25 04:29	16887-00-6	
Fluoride	**0.19**	mg/L	0.10	0.050	1		07/18/25 12:55	16984-48-8	
Sulfate	**54.1**	mg/L	1.0	0.50	1		07/18/25 12:55	14808-79-8	

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ANALYTICAL RESULTS

Project: Charah 3rd Quarter GW Monitori
Pace Project No.: 92808108

Sample: MW-2D **Lab ID: 92808108008** Collected: 07/17/25 09:40 Received: 07/17/25 13:35 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis								
Antimony	ND	ug/L	20.0	4.0	1	07/29/25 05:42	07/29/25 12:17	7440-36-0	
Arsenic	**20.9**	ug/L	20.0	4.2	1	07/29/25 05:42	07/29/25 12:17	7440-38-2	
Barium	**421**	ug/L	10.0	0.50	1	07/29/25 05:42	07/29/25 12:17	7440-39-3	
Beryllium	**0.45J**	ug/L	5.0	0.44	1	07/29/25 05:42	07/29/25 12:17	7440-41-7	
Cadmium	ND	ug/L	3.0	0.48	1	07/29/25 05:42	07/29/25 12:17	7440-43-9	
Calcium	**15800**	ug/L	500	31.8	1	07/29/25 05:42	07/29/25 12:17	7440-70-2	
Chromium	**307**	ug/L	10.0	0.81	1	07/29/25 05:42	07/29/25 12:17	7440-47-3	
Cobalt	**15.9**	ug/L	10.0	1.2	1	07/29/25 05:42	07/29/25 12:17	7440-48-4	
Copper	**49.2**	ug/L	10.0	0.79	1	07/29/25 05:42	07/29/25 12:17	7440-50-8	
Lead	**30.3**	ug/L	10.0	2.9	1	07/29/25 05:42	07/29/25 12:17	7439-92-1	
Molybdenum	**125**	ug/L	15.0	1.7	1	07/29/25 05:42	07/29/25 12:17	7439-98-7	
Nickel	**142**	ug/L	20.0	2.0	1	07/29/25 05:42	07/29/25 12:17	7440-02-0	
Selenium	ND	ug/L	20.0	5.5	1	07/29/25 05:42	07/29/25 12:17	7782-49-2	
Silver	ND	ug/L	10.0	0.77	1	07/29/25 05:42	07/29/25 12:17	7440-22-4	
Vanadium	**95.6**	ug/L	15.0	2.0	1	07/29/25 05:42	07/29/25 12:17	7440-62-2	
Zinc	**180**	ug/L	20.0	2.3	1	07/29/25 05:42	07/29/25 12:17	7440-66-6	
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3020A Pace Analytical Services - Minneapolis								
Boron	**36.8**	ug/L	10.0	2.3	1	07/29/25 05:57	07/30/25 16:49	7440-42-8	CH
Lithium	**102**	ug/L	0.50	0.20	1	07/29/25 05:57	07/30/25 16:49	7439-93-2	
Thallium	**0.20**	ug/L	0.10	0.027	1	07/29/25 05:57	07/30/25 16:49	7440-28-0	
7470A Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Minneapolis								
Mercury	ND	ug/L	0.20	0.095	1	08/07/25 11:06	08/11/25 11:04	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2020 Pace Analytical Services - Asheville								
Total Dissolved Solids	**410**	mg/L	50.0	50.0	1		07/22/25 15:34		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**112**	mg/L	3.0	1.8	3		07/18/25 13:10	16887-00-6	
Fluoride	**2.2**	mg/L	0.10	0.050	1		07/18/25 04:44	16984-48-8	
Sulfate	**19.3**	mg/L	1.0	0.50	1		07/18/25 04:44	14808-79-8	

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ANALYTICAL RESULTS

Project: Charah 3rd Quarter GW Monitori
Pace Project No.: 92808108

Sample: MW-3 **Lab ID: 92808108009** Collected: 07/14/25 16:10 Received: 07/17/25 13:35 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis								
Antimony	ND	ug/L	20.0	4.0	1	07/29/25 05:42	07/29/25 12:19	7440-36-0	
Arsenic	ND	ug/L	20.0	4.2	1	07/29/25 05:42	07/29/25 12:19	7440-38-2	
Barium	**731**	ug/L	10.0	0.50	1	07/29/25 05:42	07/29/25 12:19	7440-39-3	
Beryllium	ND	ug/L	5.0	0.44	1	07/29/25 05:42	07/29/25 12:19	7440-41-7	
Cadmium	**0.72J**	ug/L	3.0	0.48	1	07/29/25 05:42	07/29/25 12:19	7440-43-9	
Calcium	**167000**	ug/L	500	31.8	1	07/29/25 05:42	07/29/25 12:19	7440-70-2	
Chromium	**0.92J**	ug/L	10.0	0.81	1	07/29/25 05:42	07/29/25 12:19	7440-47-3	
Cobalt	**1.3J**	ug/L	10.0	1.2	1	07/29/25 05:42	07/29/25 12:19	7440-48-4	
Copper	**5.0J**	ug/L	10.0	0.79	1	07/29/25 05:42	07/29/25 12:19	7440-50-8	
Lead	**4.9J**	ug/L	10.0	2.9	1	07/29/25 05:42	07/29/25 12:19	7439-92-1	
Molybdenum	**5.1J**	ug/L	15.0	1.7	1	07/29/25 05:42	07/29/25 12:19	7439-98-7	
Nickel	**2.9J**	ug/L	20.0	2.0	1	07/29/25 05:42	07/29/25 12:19	7440-02-0	
Selenium	ND	ug/L	20.0	5.5	1	07/29/25 05:42	07/29/25 12:19	7782-49-2	
Silver	ND	ug/L	10.0	0.77	1	07/29/25 05:42	07/29/25 12:19	7440-22-4	
Vanadium	ND	ug/L	15.0	2.0	1	07/29/25 05:42	07/29/25 12:19	7440-62-2	
Zinc	**18.8J**	ug/L	20.0	2.3	1	07/29/25 05:42	07/29/25 12:19	7440-66-6	
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3020A Pace Analytical Services - Minneapolis								
Boron	**45.1**	ug/L	10.0	2.3	1	07/29/25 05:57	07/30/25 16:55	7440-42-8	CH,IS
Lithium	**91.7**	ug/L	10.0	4.1	20	07/29/25 05:57	07/30/25 16:58	7439-93-2	
Thallium	**0.028J**	ug/L	0.10	0.027	1	07/29/25 05:57	07/30/25 16:55	7440-28-0	
7470A Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Minneapolis								
Mercury	ND	ug/L	0.20	0.095	1	08/07/25 11:06	08/11/25 11:07	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2020 Pace Analytical Services - Asheville								
Total Dissolved Solids	**2740**	mg/L	312	312	1		07/18/25 11:37		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**1020**	mg/L	20.0	12.0	20		07/18/25 04:59	16887-00-6	
Fluoride	**0.27**	mg/L	0.10	0.050	1		07/18/25 13:25	16984-48-8	
Sulfate	**11.9**	mg/L	1.0	0.50	1		07/18/25 13:25	14808-79-8	

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ANALYTICAL RESULTS

Project: Charah 3rd Quarter GW Monitori
Pace Project No.: 92808108

Sample: MW-4 **Lab ID: 92808108010** Collected: 07/14/25 15:05 Received: 07/17/25 13:35 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis								
Antimony	ND	ug/L	20.0	4.0	1	07/29/25 05:42	07/29/25 12:20	7440-36-0	
Arsenic	ND	ug/L	20.0	4.2	1	07/29/25 05:42	07/29/25 12:20	7440-38-2	
Barium	**311**	ug/L	10.0	0.50	1	07/29/25 05:42	07/29/25 12:20	7440-39-3	
Beryllium	ND	ug/L	5.0	0.44	1	07/29/25 05:42	07/29/25 12:20	7440-41-7	
Cadmium	ND	ug/L	3.0	0.48	1	07/29/25 05:42	07/29/25 12:20	7440-43-9	
Calcium	**50700**	ug/L	500	31.8	1	07/29/25 05:42	07/29/25 12:20	7440-70-2	
Chromium	**1.2J**	ug/L	10.0	0.81	1	07/29/25 05:42	07/29/25 12:20	7440-47-3	
Cobalt	**11.9**	ug/L	10.0	1.2	1	07/29/25 05:42	07/29/25 12:20	7440-48-4	
Copper	ND	ug/L	10.0	0.79	1	07/29/25 05:42	07/29/25 12:20	7440-50-8	
Lead	ND	ug/L	10.0	2.9	1	07/29/25 05:42	07/29/25 12:20	7439-92-1	
Molybdenum	ND	ug/L	15.0	1.7	1	07/29/25 05:42	07/29/25 12:20	7439-98-7	
Nickel	**8.5J**	ug/L	20.0	2.0	1	07/29/25 05:42	07/29/25 12:20	7440-02-0	
Selenium	ND	ug/L	20.0	5.5	1	07/29/25 05:42	07/29/25 12:20	7782-49-2	
Silver	ND	ug/L	10.0	0.77	1	07/29/25 05:42	07/29/25 12:20	7440-22-4	
Vanadium	ND	ug/L	15.0	2.0	1	07/29/25 05:42	07/29/25 12:20	7440-62-2	
Zinc	**9.7J**	ug/L	20.0	2.3	1	07/29/25 05:42	07/29/25 12:20	7440-66-6	
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3020A Pace Analytical Services - Minneapolis								
Boron	**7.1J**	ug/L	10.0	2.3	1	07/29/25 05:57	07/30/25 17:01	7440-42-8	CH
Lithium	**40.1**	ug/L	0.50	0.20	1	07/29/25 05:57	07/30/25 17:01	7439-93-2	
Thallium	ND	ug/L	0.10	0.027	1	07/29/25 05:57	07/30/25 17:01	7440-28-0	
7470A Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Minneapolis								
Mercury	ND	ug/L	0.20	0.095	1	08/07/25 11:06	08/11/25 11:09	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2020 Pace Analytical Services - Asheville								
Total Dissolved Solids	**1050**	mg/L	125	125	1		07/18/25 11:37		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**304**	mg/L	7.0	4.2	7		07/18/25 13:40	16887-00-6	
Fluoride	**0.35**	mg/L	0.10	0.050	1		07/18/25 05:13	16984-48-8	
Sulfate	**11.3**	mg/L	1.0	0.50	1		07/18/25 05:13	14808-79-8	

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ANALYTICAL RESULTS

Project: Charah 3rd Quarter GW Monitori
Pace Project No.: 92808108

Sample: MW-5 **Lab ID: 92808108011** Collected: 07/15/25 11:15 Received: 07/17/25 13:35 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis								
Antimony	ND	ug/L	20.0	4.0	1	07/29/25 05:42	07/29/25 12:22	7440-36-0	
Arsenic	ND	ug/L	20.0	4.2	1	07/29/25 05:42	07/29/25 12:22	7440-38-2	
Barium	**71.3**	ug/L	10.0	0.50	1	07/29/25 05:42	07/29/25 12:22	7440-39-3	
Beryllium	ND	ug/L	5.0	0.44	1	07/29/25 05:42	07/29/25 12:22	7440-41-7	
Cadmium	ND	ug/L	3.0	0.48	1	07/29/25 05:42	07/29/25 12:22	7440-43-9	
Calcium	**7070**	ug/L	500	31.8	1	07/29/25 05:42	07/29/25 12:22	7440-70-2	
Chromium	**2.1J**	ug/L	10.0	0.81	1	07/29/25 05:42	07/29/25 12:22	7440-47-3	
Cobalt	ND	ug/L	10.0	1.2	1	07/29/25 05:42	07/29/25 12:22	7440-48-4	
Copper	**0.98J**	ug/L	10.0	0.79	1	07/29/25 05:42	07/29/25 12:22	7440-50-8	
Lead	ND	ug/L	10.0	2.9	1	07/29/25 05:42	07/29/25 12:22	7439-92-1	
Molybdenum	ND	ug/L	15.0	1.7	1	07/29/25 05:42	07/29/25 12:22	7439-98-7	
Nickel	ND	ug/L	20.0	2.0	1	07/29/25 05:42	07/29/25 12:22	7440-02-0	
Selenium	ND	ug/L	20.0	5.5	1	07/29/25 05:42	07/29/25 12:22	7782-49-2	
Silver	ND	ug/L	10.0	0.77	1	07/29/25 05:42	07/29/25 12:22	7440-22-4	
Vanadium	ND	ug/L	15.0	2.0	1	07/29/25 05:42	07/29/25 12:22	7440-62-2	
Zinc	**8.1J**	ug/L	20.0	2.3	1	07/29/25 05:42	07/29/25 12:22	7440-66-6	
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3020A Pace Analytical Services - Minneapolis								
Boron	**10.5**	ug/L	10.0	2.3	1	07/29/25 05:57	07/30/25 17:14	7440-42-8	
Lithium	**9.4**	ug/L	0.50	0.20	1	07/29/25 05:57	07/30/25 17:14	7439-93-2	
Thallium	ND	ug/L	0.10	0.027	1	07/29/25 05:57	07/30/25 17:14	7440-28-0	
7470A Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Minneapolis								
Mercury	ND	ug/L	0.20	0.095	1	08/07/25 11:06	08/11/25 11:11	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2020 Pace Analytical Services - Asheville								
Total Dissolved Solids	**193**	mg/L	25.0	25.0	1		07/21/25 11:01		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**18.1**	mg/L	1.0	0.60	1		07/18/25 05:28	16887-00-6	
Fluoride	**0.52**	mg/L	0.10	0.050	1		07/18/25 05:28	16984-48-8	
Sulfate	**3.1**	mg/L	1.0	0.50	1		07/18/25 05:28	14808-79-8	

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ANALYTICAL RESULTS

Project: Charah 3rd Quarter GW Monitori
Pace Project No.: 92808108

Sample: MW-6 **Lab ID: 92808108012** Collected: 07/15/25 14:05 Received: 07/17/25 13:35 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis								
Antimony	ND	ug/L	20.0	4.0	1	07/29/25 05:42	07/29/25 12:24	7440-36-0	
Arsenic	ND	ug/L	20.0	4.2	1	07/29/25 05:42	07/29/25 12:24	7440-38-2	
Barium	**116**	ug/L	10.0	0.50	1	07/29/25 05:42	07/29/25 12:24	7440-39-3	
Beryllium	ND	ug/L	5.0	0.44	1	07/29/25 05:42	07/29/25 12:24	7440-41-7	
Cadmium	ND	ug/L	3.0	0.48	1	07/29/25 05:42	07/29/25 12:24	7440-43-9	
Calcium	**33800**	ug/L	500	31.8	1	07/29/25 05:42	07/29/25 12:24	7440-70-2	
Chromium	**9.8J**	ug/L	10.0	0.81	1	07/29/25 05:42	07/29/25 12:24	7440-47-3	
Cobalt	**4.2J**	ug/L	10.0	1.2	1	07/29/25 05:42	07/29/25 12:24	7440-48-4	
Copper	**4.2J**	ug/L	10.0	0.79	1	07/29/25 05:42	07/29/25 12:24	7440-50-8	
Lead	**10.8**	ug/L	10.0	2.9	1	07/29/25 05:42	07/29/25 12:24	7439-92-1	
Molybdenum	ND	ug/L	15.0	1.7	1	07/29/25 05:42	07/29/25 12:24	7439-98-7	
Nickel	**7.0J**	ug/L	20.0	2.0	1	07/29/25 05:42	07/29/25 12:24	7440-02-0	
Selenium	ND	ug/L	20.0	5.5	1	07/29/25 05:42	07/29/25 12:24	7782-49-2	
Silver	ND	ug/L	10.0	0.77	1	07/29/25 05:42	07/29/25 12:24	7440-22-4	
Vanadium	**7.9J**	ug/L	15.0	2.0	1	07/29/25 05:42	07/29/25 12:24	7440-62-2	
Zinc	**31.8**	ug/L	20.0	2.3	1	07/29/25 05:42	07/29/25 12:24	7440-66-6	
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3020A Pace Analytical Services - Minneapolis								
Boron	**10.4**	ug/L	10.0	2.3	1	07/29/25 05:57	07/30/25 17:20	7440-42-8	
Lithium	**25.7**	ug/L	0.50	0.20	1	07/29/25 05:57	07/30/25 17:20	7439-93-2	
Thallium	**0.098J**	ug/L	0.10	0.027	1	07/29/25 05:57	07/30/25 17:20	7440-28-0	
7470A Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Minneapolis								
Mercury	ND	ug/L	0.20	0.095	1	08/07/25 11:06	08/11/25 11:13	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2020 Pace Analytical Services - Asheville								
Total Dissolved Solids	**586**	mg/L	50.0	50.0	1		07/21/25 11:01		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**180**	mg/L	4.0	2.4	4		07/18/25 13:54	16887-00-6	
Fluoride	**0.32**	mg/L	0.10	0.050	1		07/18/25 05:43	16984-48-8	
Sulfate	**26.8**	mg/L	1.0	0.50	1		07/18/25 05:43	14808-79-8	

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ANALYTICAL RESULTS

Project: Charah 3rd Quarter GW Monitori
Pace Project No.: 92808108

Sample: MW-7R **Lab ID: 92808108013** Collected: 07/16/25 11:50 Received: 07/17/25 13:35 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis								
Antimony	ND	ug/L	20.0	4.0	1	07/29/25 05:42	07/29/25 12:25	7440-36-0	
Arsenic	ND	ug/L	20.0	4.2	1	07/29/25 05:42	07/29/25 12:25	7440-38-2	
Barium	**302**	ug/L	10.0	0.50	1	07/29/25 05:42	07/29/25 12:25	7440-39-3	
Beryllium	ND	ug/L	5.0	0.44	1	07/29/25 05:42	07/29/25 12:25	7440-41-7	
Cadmium	ND	ug/L	3.0	0.48	1	07/29/25 05:42	07/29/25 12:25	7440-43-9	
Calcium	**82700**	ug/L	500	31.8	1	07/29/25 05:42	07/29/25 12:25	7440-70-2	
Chromium	**2.2J**	ug/L	10.0	0.81	1	07/29/25 05:42	07/29/25 12:25	7440-47-3	
Cobalt	ND	ug/L	10.0	1.2	1	07/29/25 05:42	07/29/25 12:25	7440-48-4	
Copper	**1.1J**	ug/L	10.0	0.79	1	07/29/25 05:42	07/29/25 12:25	7440-50-8	
Lead	**3.7J**	ug/L	10.0	2.9	1	07/29/25 05:42	07/29/25 12:25	7439-92-1	
Molybdenum	ND	ug/L	15.0	1.7	1	07/29/25 05:42	07/29/25 12:25	7439-98-7	
Nickel	ND	ug/L	20.0	2.0	1	07/29/25 05:42	07/29/25 12:25	7440-02-0	
Selenium	ND	ug/L	20.0	5.5	1	07/29/25 05:42	07/29/25 12:25	7782-49-2	
Silver	ND	ug/L	10.0	0.77	1	07/29/25 05:42	07/29/25 12:25	7440-22-4	
Vanadium	**3.3J**	ug/L	15.0	2.0	1	07/29/25 05:42	07/29/25 12:25	7440-62-2	
Zinc	**4.4J**	ug/L	20.0	2.3	1	07/29/25 05:42	07/29/25 12:25	7440-66-6	
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3020A Pace Analytical Services - Minneapolis								
Boron	**9.6J**	ug/L	10.0	2.3	1	07/29/25 05:57	07/30/25 17:26	7440-42-8	
Lithium	**31.2**	ug/L	0.50	0.20	1	07/29/25 05:57	07/30/25 17:26	7439-93-2	
Thallium	ND	ug/L	0.10	0.027	1	07/29/25 05:57	07/30/25 17:26	7440-28-0	
7470A Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Minneapolis								
Mercury	ND	ug/L	0.20	0.095	1	08/07/25 11:06	08/11/25 11:20	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2020 Pace Analytical Services - Asheville								
Total Dissolved Solids	**866**	mg/L	50.0	50.0	1		07/22/25 15:25		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**259**	mg/L	6.0	3.6	6		07/18/25 14:09	16887-00-6	M1
Fluoride	**0.13**	mg/L	0.10	0.050	1		07/18/25 05:58	16984-48-8	M1
Sulfate	**14.3**	mg/L	1.0	0.50	1		07/18/25 05:58	14808-79-8	

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ANALYTICAL RESULTS

Project: Charah 3rd Quarter GW Monitori
Pace Project No.: 92808108

Sample: MW-8 **Lab ID: 92808108014** Collected: 07/16/25 14:30 Received: 07/17/25 13:35 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis								
Antimony	ND	ug/L	20.0	4.0	1	07/29/25 05:42	07/29/25 12:27	7440-36-0	
Arsenic	ND	ug/L	20.0	4.2	1	07/29/25 05:42	07/29/25 12:27	7440-38-2	
Barium	**1020**	ug/L	10.0	0.50	1	07/29/25 05:42	07/29/25 12:27	7440-39-3	
Beryllium	ND	ug/L	5.0	0.44	1	07/29/25 05:42	07/29/25 12:27	7440-41-7	
Cadmium	ND	ug/L	3.0	0.48	1	07/29/25 05:42	07/29/25 12:27	7440-43-9	
Calcium	**99700**	ug/L	500	31.8	1	07/29/25 05:42	07/29/25 12:27	7440-70-2	
Chromium	**1.4J**	ug/L	10.0	0.81	1	07/29/25 05:42	07/29/25 12:27	7440-47-3	
Cobalt	ND	ug/L	10.0	1.2	1	07/29/25 05:42	07/29/25 12:27	7440-48-4	
Copper	ND	ug/L	10.0	0.79	1	07/29/25 05:42	07/29/25 12:27	7440-50-8	
Lead	**3.0J**	ug/L	10.0	2.9	1	07/29/25 05:42	07/29/25 12:27	7439-92-1	
Molybdenum	ND	ug/L	15.0	1.7	1	07/29/25 05:42	07/29/25 12:27	7439-98-7	
Nickel	ND	ug/L	20.0	2.0	1	07/29/25 05:42	07/29/25 12:27	7440-02-0	
Selenium	ND	ug/L	20.0	5.5	1	07/29/25 05:42	07/29/25 12:27	7782-49-2	
Silver	ND	ug/L	10.0	0.77	1	07/29/25 05:42	07/29/25 12:27	7440-22-4	
Vanadium	ND	ug/L	15.0	2.0	1	07/29/25 05:42	07/29/25 12:27	7440-62-2	
Zinc	**5.6J**	ug/L	20.0	2.3	1	07/29/25 05:42	07/29/25 12:27	7440-66-6	
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3020A Pace Analytical Services - Minneapolis								
Boron	**11.0**	ug/L	10.0	2.3	1	07/29/25 05:57	07/30/25 17:32	7440-42-8	
Lithium	**25.7**	ug/L	0.50	0.20	1	07/29/25 05:57	07/30/25 17:32	7439-93-2	
Thallium	ND	ug/L	0.10	0.027	1	07/29/25 05:57	07/30/25 17:32	7440-28-0	
7470A Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Minneapolis								
Mercury	ND	ug/L	0.20	0.095	1	08/07/25 11:06	08/11/25 11:23	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2020 Pace Analytical Services - Asheville								
Total Dissolved Solids	**1080**	mg/L	125	125	1		07/22/25 15:25		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**347**	mg/L	8.0	4.8	8		07/18/25 14:53	16887-00-6	
Fluoride	**0.093J**	mg/L	0.10	0.050	1		07/18/25 07:13	16984-48-8	
Sulfate	**6.8**	mg/L	1.0	0.50	1		07/18/25 07:13	14808-79-8	

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ANALYTICAL RESULTS

Project: Charah 3rd Quarter GW Monitori
Pace Project No.: 92808108

Sample: MW-10 **Lab ID: 92808108015** Collected: 07/16/25 09:05 Received: 07/17/25 13:35 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis								
Antimony	ND	ug/L	20.0	4.0	1	07/29/25 05:42	07/29/25 12:32	7440-36-0	
Arsenic	ND	ug/L	20.0	4.2	1	07/29/25 05:42	07/29/25 12:32	7440-38-2	
Barium	**93.9**	ug/L	10.0	0.50	1	07/29/25 05:42	07/29/25 12:32	7440-39-3	
Beryllium	ND	ug/L	5.0	0.44	1	07/29/25 05:42	07/29/25 12:32	7440-41-7	
Cadmium	ND	ug/L	3.0	0.48	1	07/29/25 05:42	07/29/25 12:32	7440-43-9	
Calcium	**19200**	ug/L	500	31.8	1	07/29/25 05:42	07/29/25 12:32	7440-70-2	
Chromium	**1.0J**	ug/L	10.0	0.81	1	07/29/25 05:42	07/29/25 12:32	7440-47-3	
Cobalt	ND	ug/L	10.0	1.2	1	07/29/25 05:42	07/29/25 12:32	7440-48-4	
Copper	**0.99J**	ug/L	10.0	0.79	1	07/29/25 05:42	07/29/25 12:32	7440-50-8	
Lead	ND	ug/L	10.0	2.9	1	07/29/25 05:42	07/29/25 12:32	7439-92-1	
Molybdenum	**20.2**	ug/L	15.0	1.7	1	07/29/25 05:42	07/29/25 12:32	7439-98-7	
Nickel	ND	ug/L	20.0	2.0	1	07/29/25 05:42	07/29/25 12:32	7440-02-0	
Selenium	ND	ug/L	20.0	5.5	1	07/29/25 05:42	07/29/25 12:32	7782-49-2	
Silver	ND	ug/L	10.0	0.77	1	07/29/25 05:42	07/29/25 12:32	7440-22-4	
Vanadium	ND	ug/L	15.0	2.0	1	07/29/25 05:42	07/29/25 12:32	7440-62-2	
Zinc	**3.2J**	ug/L	20.0	2.3	1	07/29/25 05:42	07/29/25 12:32	7440-66-6	
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3020A Pace Analytical Services - Minneapolis								
Boron	**27.0**	ug/L	10.0	2.3	1	07/29/25 05:57	07/30/25 17:39	7440-42-8	
Lithium	**5.3**	ug/L	0.50	0.20	1	07/29/25 05:57	07/30/25 17:39	7439-93-2	
Thallium	ND	ug/L	0.10	0.027	1	07/29/25 05:57	07/30/25 17:39	7440-28-0	
7470A Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Minneapolis								
Mercury	ND	ug/L	0.20	0.095	1	08/07/25 11:06	08/11/25 11:25	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2020 Pace Analytical Services - Asheville								
Total Dissolved Solids	**335**	mg/L	25.0	25.0	1		07/22/25 15:25		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**29.2**	mg/L	1.0	0.60	1		07/18/25 07:28	16887-00-6	
Fluoride	**0.41**	mg/L	0.10	0.050	1		07/18/25 07:28	16984-48-8	
Sulfate	**1.9**	mg/L	1.0	0.50	1		07/18/25 07:28	14808-79-8	

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ANALYTICAL RESULTS

Project: Charah 3rd Quarter GW Monitori
Pace Project No.: 92808108

Sample: MW-11 **Lab ID: 92808108016** Collected: 07/15/25 09:05 Received: 07/17/25 13:35 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis								
Antimony	ND	ug/L	20.0	4.0	1	07/29/25 05:42	07/29/25 12:33	7440-36-0	
Arsenic	ND	ug/L	20.0	4.2	1	07/29/25 05:42	07/29/25 12:33	7440-38-2	
Barium	**39.4**	ug/L	10.0	0.50	1	07/29/25 05:42	07/29/25 12:33	7440-39-3	
Beryllium	ND	ug/L	5.0	0.44	1	07/29/25 05:42	07/29/25 12:33	7440-41-7	
Cadmium	ND	ug/L	3.0	0.48	1	07/29/25 05:42	07/29/25 12:33	7440-43-9	
Calcium	**25500**	ug/L	500	31.8	1	07/29/25 05:42	07/29/25 12:33	7440-70-2	
Chromium	**2.7J**	ug/L	10.0	0.81	1	07/29/25 05:42	07/29/25 12:33	7440-47-3	
Cobalt	**1.3J**	ug/L	10.0	1.2	1	07/29/25 05:42	07/29/25 12:33	7440-48-4	
Copper	**3.3J**	ug/L	10.0	0.79	1	07/29/25 05:42	07/29/25 12:33	7440-50-8	
Lead	**3.3J**	ug/L	10.0	2.9	1	07/29/25 05:42	07/29/25 12:33	7439-92-1	
Molybdenum	ND	ug/L	15.0	1.7	1	07/29/25 05:42	07/29/25 12:33	7439-98-7	
Nickel	ND	ug/L	20.0	2.0	1	07/29/25 05:42	07/29/25 12:33	7440-02-0	
Selenium	ND	ug/L	20.0	5.5	1	07/29/25 05:42	07/29/25 12:33	7782-49-2	
Silver	ND	ug/L	10.0	0.77	1	07/29/25 05:42	07/29/25 12:33	7440-22-4	
Vanadium	ND	ug/L	15.0	2.0	1	07/29/25 05:42	07/29/25 12:33	7440-62-2	
Zinc	**14.4J**	ug/L	20.0	2.3	1	07/29/25 05:42	07/29/25 12:33	7440-66-6	
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3020A Pace Analytical Services - Minneapolis								
Boron	**16.0**	ug/L	10.0	2.3	1	07/29/25 05:57	07/30/25 17:51	7440-42-8	
Lithium	**14.7**	ug/L	10.0	4.1	20	07/29/25 05:57	07/30/25 17:54	7439-93-2	
Thallium	ND	ug/L	0.10	0.027	1	07/29/25 05:57	07/30/25 17:51	7440-28-0	
7470A Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Minneapolis								
Mercury	ND	ug/L	0.20	0.095	1	08/07/25 11:06	08/11/25 11:27	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2020 Pace Analytical Services - Asheville								
Total Dissolved Solids	**478**	mg/L	50.0	50.0	1		07/21/25 11:01		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**155**	mg/L	4.0	2.4	4		07/18/25 15:08	16887-00-6	
Fluoride	**0.15**	mg/L	0.10	0.050	1		07/18/25 07:43	16984-48-8	
Sulfate	**2.0**	mg/L	1.0	0.50	1		07/18/25 07:43	14808-79-8	

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ANALYTICAL RESULTS

Project: Charah 3rd Quarter GW Monitori
Pace Project No.: 92808108

Sample: MW-11D **Lab ID: 92808108017** Collected: 07/15/25 10:00 Received: 07/17/25 13:35 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis								
Antimony	ND	ug/L	20.0	4.0	1	07/29/25 05:42	07/29/25 12:35	7440-36-0	
Arsenic	ND	ug/L	20.0	4.2	1	07/29/25 05:42	07/29/25 12:35	7440-38-2	
Barium	**110**	ug/L	10.0	0.50	1	07/29/25 05:42	07/29/25 12:35	7440-39-3	
Beryllium	ND	ug/L	5.0	0.44	1	07/29/25 05:42	07/29/25 12:35	7440-41-7	
Cadmium	ND	ug/L	3.0	0.48	1	07/29/25 05:42	07/29/25 12:35	7440-43-9	
Calcium	**14800**	ug/L	500	31.8	1	07/29/25 05:42	07/29/25 12:35	7440-70-2	
Chromium	**2.2J**	ug/L	10.0	0.81	1	07/29/25 05:42	07/29/25 12:35	7440-47-3	
Cobalt	ND	ug/L	10.0	1.2	1	07/29/25 05:42	07/29/25 12:35	7440-48-4	
Copper	**1.1J**	ug/L	10.0	0.79	1	07/29/25 05:42	07/29/25 12:35	7440-50-8	
Lead	ND	ug/L	10.0	2.9	1	07/29/25 05:42	07/29/25 12:35	7439-92-1	
Molybdenum	**2.2J**	ug/L	15.0	1.7	1	07/29/25 05:42	07/29/25 12:35	7439-98-7	
Nickel	ND	ug/L	20.0	2.0	1	07/29/25 05:42	07/29/25 12:35	7440-02-0	
Selenium	**5.8J**	ug/L	20.0	5.5	1	07/29/25 05:42	07/29/25 12:35	7782-49-2	B
Silver	ND	ug/L	10.0	0.77	1	07/29/25 05:42	07/29/25 12:35	7440-22-4	
Vanadium	ND	ug/L	15.0	2.0	1	07/29/25 05:42	07/29/25 12:35	7440-62-2	
Zinc	**8.3J**	ug/L	20.0	2.3	1	07/29/25 05:42	07/29/25 12:35	7440-66-6	
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3020A Pace Analytical Services - Minneapolis								
Boron	**41.6**	ug/L	10.0	2.3	1	07/29/25 05:57	07/30/25 17:57	7440-42-8	
Lithium	**14.9**	ug/L	0.50	0.20	1	07/29/25 05:57	07/30/25 17:57	7439-93-2	
Thallium	ND	ug/L	0.10	0.027	1	07/29/25 05:57	07/30/25 17:57	7440-28-0	
7470A Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Minneapolis								
Mercury	ND	ug/L	0.20	0.095	1	08/07/25 11:06	08/11/25 11:29	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2020 Pace Analytical Services - Asheville								
Total Dissolved Solids	**319**	mg/L	25.0	25.0	1		07/21/25 11:01		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**53.6**	mg/L	1.0	0.60	1		07/18/25 07:58	16887-00-6	
Fluoride	**0.42**	mg/L	0.10	0.050	1		07/18/25 07:58	16984-48-8	
Sulfate	**14.1**	mg/L	1.0	0.50	1		07/18/25 07:58	14808-79-8	

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ANALYTICAL RESULTS

Project: Charah 3rd Quarter GW Monitori
Pace Project No.: 92808108

Sample: SW-1 **Lab ID: 92808108018** Collected: 07/16/25 16:55 Received: 07/17/25 13:35 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis								
Antimony	ND	ug/L	20.0	4.0	1	07/29/25 05:42	07/29/25 12:37	7440-36-0	
Arsenic	**10J**	ug/L	20.0	4.2	1	07/29/25 05:42	07/29/25 12:37	7440-38-2	
Barium	**432**	ug/L	10.0	0.50	1	07/29/25 05:42	07/29/25 12:37	7440-39-3	
Beryllium	**0.79J**	ug/L	5.0	0.44	1	07/29/25 05:42	07/29/25 12:37	7440-41-7	
Cadmium	ND	ug/L	3.0	0.48	1	07/29/25 05:42	07/29/25 12:37	7440-43-9	
Calcium	**3310**	ug/L	500	31.8	1	07/29/25 05:42	07/29/25 12:37	7440-70-2	
Chromium	**16.7**	ug/L	10.0	0.81	1	07/29/25 05:42	07/29/25 12:37	7440-47-3	
Cobalt	**8.8J**	ug/L	10.0	1.2	1	07/29/25 05:42	07/29/25 12:37	7440-48-4	
Copper	**10.8**	ug/L	10.0	0.79	1	07/29/25 05:42	07/29/25 12:37	7440-50-8	
Lead	**26.8**	ug/L	10.0	2.9	1	07/29/25 05:42	07/29/25 12:37	7439-92-1	
Molybdenum	ND	ug/L	15.0	1.7	1	07/29/25 05:42	07/29/25 12:37	7439-98-7	
Nickel	**7.7J**	ug/L	20.0	2.0	1	07/29/25 05:42	07/29/25 12:37	7440-02-0	
Selenium	ND	ug/L	20.0	5.5	1	07/29/25 05:42	07/29/25 12:37	7782-49-2	
Silver	ND	ug/L	10.0	0.77	1	07/29/25 05:42	07/29/25 12:37	7440-22-4	
Vanadium	**54.1**	ug/L	15.0	2.0	1	07/29/25 05:42	07/29/25 12:37	7440-62-2	
Zinc	**67.5**	ug/L	20.0	2.3	1	07/29/25 05:42	07/29/25 12:37	7440-66-6	
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3020A Pace Analytical Services - Minneapolis								
Boron	**10.3**	ug/L	10.0	2.3	1	07/29/25 05:57	07/30/25 18:04	7440-42-8	
Lithium	**7.6**	ug/L	0.50	0.20	1	07/29/25 05:57	07/30/25 18:04	7439-93-2	
Thallium	**0.25**	ug/L	0.10	0.027	1	07/29/25 05:57	07/30/25 18:04	7440-28-0	
7470A Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Minneapolis								
Mercury	ND	ug/L	0.20	0.095	1	08/07/25 11:06	08/11/25 11:32	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2020 Pace Analytical Services - Asheville								
Total Dissolved Solids	**705**	mg/L	25.0	25.0	1		07/22/25 15:25		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**6.9**	mg/L	1.0	0.60	1		07/18/25 08:13	16887-00-6	
Fluoride	**0.36**	mg/L	0.10	0.050	1		07/18/25 08:13	16984-48-8	
Sulfate	**0.97J**	mg/L	1.0	0.50	1		07/18/25 08:13	14808-79-8	

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ANALYTICAL RESULTS

Project: Charah 3rd Quarter GW Monitori
Pace Project No.: 92808108

Sample: SW-2 **Lab ID: 92808108019** Collected: 07/14/25 16:40 Received: 07/17/25 13:35 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis								
Antimony	ND	ug/L	20.0	4.0	1	07/29/25 05:42	07/29/25 12:38	7440-36-0	
Arsenic	ND	ug/L	20.0	4.2	1	07/29/25 05:42	07/29/25 12:38	7440-38-2	
Barium	**59.3**	ug/L	10.0	0.50	1	07/29/25 05:42	07/29/25 12:38	7440-39-3	
Beryllium	ND	ug/L	5.0	0.44	1	07/29/25 05:42	07/29/25 12:38	7440-41-7	
Cadmium	ND	ug/L	3.0	0.48	1	07/29/25 05:42	07/29/25 12:38	7440-43-9	
Calcium	**14000**	ug/L	500	31.8	1	07/29/25 05:42	07/29/25 12:38	7440-70-2	
Chromium	**1.6J**	ug/L	10.0	0.81	1	07/29/25 05:42	07/29/25 12:38	7440-47-3	
Cobalt	**1.3J**	ug/L	10.0	1.2	1	07/29/25 05:42	07/29/25 12:38	7440-48-4	
Copper	**2.8J**	ug/L	10.0	0.79	1	07/29/25 05:42	07/29/25 12:38	7440-50-8	
Lead	**3.2J**	ug/L	10.0	2.9	1	07/29/25 05:42	07/29/25 12:38	7439-92-1	
Molybdenum	ND	ug/L	15.0	1.7	1	07/29/25 05:42	07/29/25 12:38	7439-98-7	
Nickel	**2.9J**	ug/L	20.0	2.0	1	07/29/25 05:42	07/29/25 12:38	7440-02-0	
Selenium	ND	ug/L	20.0	5.5	1	07/29/25 05:42	07/29/25 12:38	7782-49-2	
Silver	ND	ug/L	10.0	0.77	1	07/29/25 05:42	07/29/25 12:38	7440-22-4	
Vanadium	**4.2J**	ug/L	15.0	2.0	1	07/29/25 05:42	07/29/25 12:38	7440-62-2	
Zinc	**6.3J**	ug/L	20.0	2.3	1	07/29/25 05:42	07/29/25 12:38	7440-66-6	
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3020A Pace Analytical Services - Minneapolis								
Boron	**14.8**	ug/L	10.0	2.3	1	07/29/25 05:57	07/30/25 18:10	7440-42-8	
Lithium	**0.71**	ug/L	0.50	0.20	1	07/29/25 05:57	07/30/25 18:10	7439-93-2	
Thallium	ND	ug/L	0.10	0.027	1	07/29/25 05:57	07/30/25 18:10	7440-28-0	
7470A Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Minneapolis								
Mercury	ND	ug/L	0.20	0.095	1	08/07/25 11:06	08/11/25 11:34	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2020 Pace Analytical Services - Asheville								
Total Dissolved Solids	**127**	mg/L	25.0	25.0	1		07/18/25 11:38		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**19.8**	mg/L	1.0	0.60	1		07/18/25 08:27	16887-00-6	
Fluoride	**0.15**	mg/L	0.10	0.050	1		07/18/25 08:27	16984-48-8	
Sulfate	**4.0**	mg/L	1.0	0.50	1		07/18/25 08:27	14808-79-8	

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ANALYTICAL RESULTS

Project: Charah 3rd Quarter GW Monitori
Pace Project No.: 92808108

Sample: SW-3 **Lab ID: 92808108020** Collected: 07/14/25 16:50 Received: 07/17/25 13:35 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis								
Antimony	ND	ug/L	20.0	4.0	1	07/29/25 05:42	07/29/25 12:40	7440-36-0	
Arsenic	**8.7J**	ug/L	20.0	4.2	1	07/29/25 05:42	07/29/25 12:40	7440-38-2	
Barium	**297**	ug/L	10.0	0.50	1	07/29/25 05:42	07/29/25 12:40	7440-39-3	
Beryllium	ND	ug/L	5.0	0.44	1	07/29/25 05:42	07/29/25 12:40	7440-41-7	
Cadmium	ND	ug/L	3.0	0.48	1	07/29/25 05:42	07/29/25 12:40	7440-43-9	
Calcium	**9520**	ug/L	500	31.8	1	07/29/25 05:42	07/29/25 12:40	7440-70-2	
Chromium	**18.4**	ug/L	10.0	0.81	1	07/29/25 05:42	07/29/25 12:40	7440-47-3	
Cobalt	**19.6**	ug/L	10.0	1.2	1	07/29/25 05:42	07/29/25 12:40	7440-48-4	
Copper	**14.1**	ug/L	10.0	0.79	1	07/29/25 05:42	07/29/25 12:40	7440-50-8	
Lead	**19.1**	ug/L	10.0	2.9	1	07/29/25 05:42	07/29/25 12:40	7439-92-1	
Molybdenum	ND	ug/L	15.0	1.7	1	07/29/25 05:42	07/29/25 12:40	7439-98-7	
Nickel	**15.9J**	ug/L	20.0	2.0	1	07/29/25 05:42	07/29/25 12:40	7440-02-0	
Selenium	ND	ug/L	20.0	5.5	1	07/29/25 05:42	07/29/25 12:40	7782-49-2	
Silver	ND	ug/L	10.0	0.77	1	07/29/25 05:42	07/29/25 12:40	7440-22-4	
Vanadium	**43.5**	ug/L	15.0	2.0	1	07/29/25 05:42	07/29/25 12:40	7440-62-2	
Zinc	**75.4**	ug/L	20.0	2.3	1	07/29/25 05:42	07/29/25 12:40	7440-66-6	
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3020A Pace Analytical Services - Minneapolis								
Boron	**11.7**	ug/L	10.0	2.3	1	07/29/25 05:57	07/30/25 18:16	7440-42-8	
Lithium	**8.2**	ug/L	0.50	0.20	1	07/29/25 05:57	07/30/25 18:16	7439-93-2	
Thallium	**0.14**	ug/L	0.10	0.027	1	07/29/25 05:57	07/30/25 18:16	7440-28-0	
7470A Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Minneapolis								
Mercury	ND	ug/L	0.20	0.095	1	08/07/25 11:06	08/11/25 11:36	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2020 Pace Analytical Services - Asheville								
Total Dissolved Solids	**112**	mg/L	25.0	25.0	1		07/20/25 14:28		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**11.9**	mg/L	1.0	0.60	1		07/18/25 08:42	16887-00-6	
Fluoride	**0.14**	mg/L	0.10	0.050	1		07/18/25 08:42	16984-48-8	
Sulfate	**0.70J**	mg/L	1.0	0.50	1		07/18/25 08:42	14808-79-8	

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ANALYTICAL RESULTS

Project: Charah 3rd Quarter GW Monitori
Pace Project No.: 92808108

Sample: SW-4 **Lab ID: 92808108021** Collected: 07/14/25 10:15 Received: 07/17/25 13:35 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis								
Antimony	ND	ug/L	20.0	4.0	1	07/24/25 10:55	07/25/25 10:53	7440-36-0	
Arsenic	**7.7J**	ug/L	20.0	4.2	1	07/24/25 10:55	07/25/25 10:53	7440-38-2	
Barium	**146**	ug/L	10.0	0.50	1	07/24/25 10:55	07/25/25 10:53	7440-39-3	
Beryllium	ND	ug/L	5.0	0.44	1	07/24/25 10:55	07/25/25 10:53	7440-41-7	
Cadmium	ND	ug/L	3.0	0.48	1	07/24/25 10:55	07/25/25 10:53	7440-43-9	
Calcium	**2570**	ug/L	500	31.8	1	07/24/25 10:55	07/25/25 10:53	7440-70-2	
Chromium	**13.5**	ug/L	10.0	0.81	1	07/24/25 10:55	07/25/25 10:53	7440-47-3	
Cobalt	**16.1**	ug/L	10.0	1.2	1	07/24/25 10:55	07/25/25 10:53	7440-48-4	
Copper	**14.3**	ug/L	10.0	0.79	1	07/24/25 10:55	07/25/25 10:53	7440-50-8	
Lead	**19.7**	ug/L	10.0	2.9	1	07/24/25 10:55	07/25/25 10:53	7439-92-1	
Molybdenum	ND	ug/L	15.0	1.7	1	07/24/25 10:55	07/25/25 10:53	7439-98-7	
Nickel	**7.0J**	ug/L	20.0	2.0	1	07/24/25 10:55	07/25/25 10:53	7440-02-0	
Selenium	ND	ug/L	20.0	5.5	1	07/24/25 10:55	07/25/25 10:53	7782-49-2	
Silver	ND	ug/L	10.0	0.77	1	07/24/25 10:55	07/25/25 10:53	7440-22-4	
Vanadium	**33.0**	ug/L	15.0	2.0	1	07/24/25 10:55	07/25/25 10:53	7440-62-2	
Zinc	**47.0**	ug/L	20.0	2.3	1	07/24/25 10:55	07/25/25 10:53	7440-66-6	
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3020A Pace Analytical Services - Minneapolis								
Boron	**81.6**	ug/L	10.0	2.3	1	07/24/25 10:36	07/28/25 18:05	7440-42-8	CH
Lithium	**10.3**	ug/L	0.50	0.20	1	07/24/25 10:36	07/28/25 18:05	7439-93-2	
Thallium	**0.19**	ug/L	0.10	0.027	1	07/24/25 10:36	07/28/25 18:05	7440-28-0	
7470A Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Minneapolis								
Mercury	ND	ug/L	0.20	0.095	1	08/07/25 11:06	08/11/25 10:10	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2020 Pace Analytical Services - Asheville								
Total Dissolved Solids	**219**	mg/L	25.0	25.0	1		07/20/25 14:28		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**3.6**	mg/L	1.0	0.60	1		07/18/25 08:57	16887-00-6	
Fluoride	**0.059J**	mg/L	0.10	0.050	1		07/18/25 08:57	16984-48-8	
Sulfate	**2.0**	mg/L	1.0	0.50	1		07/18/25 08:57	14808-79-8	

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ANALYTICAL RESULTS

Project: Charah 3rd Quarter GW Monitori
Pace Project No.: 92808108

Sample: SW-5 **Lab ID: 92808108022** Collected: 07/16/25 17:05 Received: 07/17/25 13:35 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis								
Antimony	ND	ug/L	20.0	4.0	1	07/24/25 10:55	07/25/25 10:56	7440-36-0	
Arsenic	**8.3J**	ug/L	20.0	4.2	1	07/24/25 10:55	07/25/25 10:56	7440-38-2	
Barium	**291**	ug/L	10.0	0.50	1	07/24/25 10:55	07/25/25 10:56	7440-39-3	
Beryllium	ND	ug/L	5.0	0.44	1	07/24/25 10:55	07/25/25 10:56	7440-41-7	
Cadmium	ND	ug/L	3.0	0.48	1	07/24/25 10:55	07/25/25 10:56	7440-43-9	
Calcium	**4260**	ug/L	500	31.8	1	07/24/25 10:55	07/25/25 10:56	7440-70-2	
Chromium	**11.2**	ug/L	10.0	0.81	1	07/24/25 10:55	07/25/25 10:56	7440-47-3	
Cobalt	**6.6J**	ug/L	10.0	1.2	1	07/24/25 10:55	07/25/25 10:56	7440-48-4	
Copper	**7.1J**	ug/L	10.0	0.79	1	07/24/25 10:55	07/25/25 10:56	7440-50-8	
Lead	**18.4**	ug/L	10.0	2.9	1	07/24/25 10:55	07/25/25 10:56	7439-92-1	
Molybdenum	**2.1J**	ug/L	15.0	1.7	1	07/24/25 10:55	07/25/25 10:56	7439-98-7	
Nickel	**5.9J**	ug/L	20.0	2.0	1	07/24/25 10:55	07/25/25 10:56	7440-02-0	
Selenium	ND	ug/L	20.0	5.5	1	07/24/25 10:55	07/25/25 10:56	7782-49-2	
Silver	ND	ug/L	10.0	0.77	1	07/24/25 10:55	07/25/25 10:56	7440-22-4	
Vanadium	**34.6**	ug/L	15.0	2.0	1	07/24/25 10:55	07/25/25 10:56	7440-62-2	
Zinc	**44.0**	ug/L	20.0	2.3	1	07/24/25 10:55	07/25/25 10:56	7440-66-6	
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3020A Pace Analytical Services - Minneapolis								
Boron	**38.1**	ug/L	10.0	2.3	1	07/24/25 10:36	07/28/25 18:12	7440-42-8	CH
Lithium	**6.7**	ug/L	0.50	0.20	1	07/24/25 10:36	07/28/25 18:12	7439-93-2	
Thallium	**0.14**	ug/L	0.10	0.027	1	07/24/25 10:36	07/28/25 18:12	7440-28-0	
7470A Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Minneapolis								
Mercury	ND	ug/L	0.20	0.095	1	08/07/25 11:06	08/11/25 10:15	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2020 Pace Analytical Services - Asheville								
Total Dissolved Solids	**481**	mg/L	25.0	25.0	1		07/22/25 15:25		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**6.4**	mg/L	1.0	0.60	1		07/18/25 09:12	16887-00-6	
Fluoride	**0.29**	mg/L	0.10	0.050	1		07/18/25 09:12	16984-48-8	
Sulfate	**0.59J**	mg/L	1.0	0.50	1		07/18/25 09:12	14808-79-8	

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ANALYTICAL RESULTS

Project: Charah 3rd Quarter GW Monitori
Pace Project No.: 92808108

Sample: SW-6 **Lab ID: 92808108023** Collected: 07/16/25 16:45 Received: 07/17/25 13:35 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis								
Antimony	ND	ug/L	20.0	4.0	1	07/24/25 10:55	07/25/25 10:58	7440-36-0	
Arsenic	**10.2J**	ug/L	20.0	4.2	1	07/24/25 10:55	07/25/25 10:58	7440-38-2	
Barium	**741**	ug/L	10.0	0.50	1	07/24/25 10:55	07/25/25 10:58	7440-39-3	
Beryllium	**1.4J**	ug/L	5.0	0.44	1	07/24/25 10:55	07/25/25 10:58	7440-41-7	
Cadmium	ND	ug/L	3.0	0.48	1	07/24/25 10:55	07/25/25 10:58	7440-43-9	
Calcium	**5390**	ug/L	500	31.8	1	07/24/25 10:55	07/25/25 10:58	7440-70-2	
Chromium	**24.7**	ug/L	10.0	0.81	1	07/24/25 10:55	07/25/25 10:58	7440-47-3	
Cobalt	**29.7**	ug/L	10.0	1.2	1	07/24/25 10:55	07/25/25 10:58	7440-48-4	
Copper	**21.0**	ug/L	10.0	0.79	1	07/24/25 10:55	07/25/25 10:58	7440-50-8	
Lead	**43.6**	ug/L	10.0	2.9	1	07/24/25 10:55	07/25/25 10:58	7439-92-1	
Molybdenum	ND	ug/L	15.0	1.7	1	07/24/25 10:55	07/25/25 10:58	7439-98-7	
Nickel	**15.6J**	ug/L	20.0	2.0	1	07/24/25 10:55	07/25/25 10:58	7440-02-0	
Selenium	ND	ug/L	20.0	5.5	1	07/24/25 10:55	07/25/25 10:58	7782-49-2	
Silver	ND	ug/L	10.0	0.77	1	07/24/25 10:55	07/25/25 10:58	7440-22-4	
Vanadium	**84.7**	ug/L	15.0	2.0	1	07/24/25 10:55	07/25/25 10:58	7440-62-2	
Zinc	**130**	ug/L	20.0	2.3	1	07/24/25 10:55	07/25/25 10:58	7440-66-6	
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3020A Pace Analytical Services - Minneapolis								
Boron	**10.8**	ug/L	10.0	2.3	1	07/24/25 10:36	07/28/25 16:12	7440-42-8	CH
Lithium	**12.7**	ug/L	0.50	0.20	1	07/24/25 10:36	07/28/25 16:12	7439-93-2	
Thallium	**0.34**	ug/L	0.10	0.027	1	07/24/25 10:36	07/28/25 16:12	7440-28-0	
7470A Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Minneapolis								
Mercury	ND	ug/L	0.20	0.095	1	08/07/25 11:06	08/11/25 10:13	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2020 Pace Analytical Services - Asheville								
Total Dissolved Solids	**646**	mg/L	25.0	25.0	1		07/22/25 15:25		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**6.7**	mg/L	1.0	0.60	1		07/18/25 09:57	16887-00-6	
Fluoride	**0.29**	mg/L	0.10	0.050	1		07/18/25 09:57	16984-48-8	
Sulfate	**1.0**	mg/L	1.0	0.50	1		07/18/25 09:57	14808-79-8	

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QUALITY CONTROL DATA

Project: Charah 3rd Quarter GW Monitori
Pace Project No.: 92808108

QC Batch: 1022730
QC Batch Method: EPA 7470A
Analysis Method: EPA 7470A
Analysis Description: 7470A Mercury Water
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 92808108001, 92808108002, 92808108003, 92808108004, 92808108005, 92808108006, 92808108007, 92808108008, 92808108009, 92808108010, 92808108011, 92808108012, 92808108013, 92808108014, 92808108015, 92808108016, 92808108017, 92808108018, 92808108019, 92808108020

METHOD BLANK: 5330461 Matrix: Water
Associated Lab Samples: 92808108001, 92808108002, 92808108003, 92808108004, 92808108005, 92808108006, 92808108007, 92808108008, 92808108009, 92808108010, 92808108011, 92808108012, 92808108013, 92808108014, 92808108015, 92808108016, 92808108017, 92808108018, 92808108019, 92808108020

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	0.095	08/11/25 10:35	

LABORATORY CONTROL SAMPLE: 5330462

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	5.0	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5330463 5330464

Parameter	Units	92808108006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	5	5	5.1	4.9	103	98	80-120	4	20	

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QUALITY CONTROL DATA

Project: Charah 3rd Quarter GW Monitori
Pace Project No.: 92808108

QC Batch: 1022733
QC Batch Method: EPA 7470A
Analysis Method: EPA 7470A
Analysis Description: 7470A Mercury Water
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 92808108021, 92808108022, 92808108023

METHOD BLANK: 5330473 Matrix: Water
Associated Lab Samples: 92808108021, 92808108022, 92808108023

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	0.095	08/11/25 10:06	

LABORATORY CONTROL SAMPLE: 5330475

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	5.0	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5330476 5330477

Parameter	Units	92808108022 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	5	5	5.1	5.0	102	100	80-120	2	20	

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QUALITY CONTROL DATA

Project: Charah 3rd Quarter GW Monitori
Pace Project No.: 92808108

QC Batch: 1019835
QC Batch Method: EPA 3010A
Analysis Method: EPA 6010D
Analysis Description: 6010D Water
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 92808108021, 92808108022, 92808108023

METHOD BLANK: 5315703 Matrix: Water
Associated Lab Samples: 92808108021, 92808108022, 92808108023

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	ND	20.0	4.0	07/25/25 10:26	
Arsenic	ug/L	ND	20.0	4.2	07/25/25 10:26	
Barium	ug/L	ND	10.0	0.50	07/25/25 10:26	
Beryllium	ug/L	ND	5.0	0.44	07/25/25 10:26	
Cadmium	ug/L	ND	3.0	0.48	07/25/25 10:26	
Calcium	ug/L	ND	500	31.8	07/25/25 10:26	
Chromium	ug/L	0.86J	10.0	0.81	07/25/25 10:26	
Cobalt	ug/L	ND	10.0	1.2	07/25/25 10:26	
Copper	ug/L	ND	10.0	0.79	07/25/25 10:26	
Lead	ug/L	ND	10.0	2.9	07/25/25 10:26	
Molybdenum	ug/L	ND	15.0	1.7	07/25/25 10:26	
Nickel	ug/L	ND	20.0	2.0	07/25/25 10:26	
Selenium	ug/L	ND	20.0	5.5	07/25/25 10:26	
Silver	ug/L	ND	10.0	0.77	07/25/25 10:26	
Vanadium	ug/L	ND	15.0	2.0	07/25/25 10:26	
Zinc	ug/L	2.8J	20.0	2.3	07/25/25 10:26	

LABORATORY CONTROL SAMPLE: 5315704

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	1000	1040	104	80-120	
Arsenic	ug/L	1000	1030	103	80-120	
Barium	ug/L	1000	1000	100	80-120	
Beryllium	ug/L	1000	1020	102	80-120	
Cadmium	ug/L	1000	1010	101	80-120	
Calcium	ug/L	20000	19200	96	80-120	
Chromium	ug/L	1000	990	99	80-120	
Cobalt	ug/L	1000	992	99	80-120	
Copper	ug/L	1000	983	98	80-120	
Lead	ug/L	1000	1000	100	80-120	
Molybdenum	ug/L	1000	977	98	80-120	
Nickel	ug/L	1000	993	99	80-120	
Selenium	ug/L	1000	1070	107	80-120	
Silver	ug/L	500	439	88	80-120	
Vanadium	ug/L	1000	984	98	80-120	
Zinc	ug/L	1000	998	100	80-120	

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QUALITY CONTROL DATA

Project: Charah 3rd Quarter GW Monitori
Pace Project No.: 92808108

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5315705 5315706

Parameter	Units	92807095001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	ug/L	ND	1000	1000	1090	1090	109	109	75-125	0	20	
Arsenic	ug/L	ND	1000	1000	1080	1080	108	108	75-125	0	20	
Barium	ug/L	31.6	1000	1000	1050	1060	102	102	75-125	1	20	
Beryllium	ug/L	ND	1000	1000	1060	1070	106	107	75-125	1	20	
Cadmium	ug/L	ND	1000	1000	1010	1010	101	101	75-125	0	20	
Calcium	ug/L	140000	20000	20000	164000	164000	122	123	75-125	0	20	
Chromium	ug/L	ND	1000	1000	1010	1020	101	102	75-125	0	20	
Cobalt	ug/L	1.4J	1000	1000	996	1000	99	100	75-125	0	20	
Copper	ug/L	ND	1000	1000	1060	1050	106	105	75-125	0	20	
Lead	ug/L	ND	1000	1000	1010	1010	101	101	75-125	0	20	
Molybdenum	ug/L	ND	1000	1000	1030	1020	103	102	75-125	1	20	
Nickel	ug/L	ND	1000	1000	993	996	99	99	75-125	0	20	
Selenium	ug/L	13.8J	1000	1000	1110	1120	109	110	75-125	1	20	
Silver	ug/L	ND	500	500	460	463	92	93	75-125	1	20	
Vanadium	ug/L	ND	1000	1000	1030	1030	103	103	75-125	1	20	
Zinc	ug/L	10.4J	1000	1000	1010	999	100	99	75-125	1	20	

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QUALITY CONTROL DATA

Project: Charah 3rd Quarter GW Monitori
Pace Project No.: 92808108

QC Batch: 1020137
QC Batch Method: EPA 3010A
Analysis Method: EPA 6010D
Analysis Description: 6010D Water
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 92808108001, 92808108002, 92808108003, 92808108004, 92808108005, 92808108006, 92808108007, 92808108008, 92808108009, 92808108010, 92808108011, 92808108012, 92808108013, 92808108014, 92808108015, 92808108016, 92808108017, 92808108018, 92808108019, 92808108020

METHOD BLANK: 5317243
Matrix: Water
Associated Lab Samples: 92808108001, 92808108002, 92808108003, 92808108004, 92808108005, 92808108006, 92808108007, 92808108008, 92808108009, 92808108010, 92808108011, 92808108012, 92808108013, 92808108014, 92808108015, 92808108016, 92808108017, 92808108018, 92808108019, 92808108020

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	ND	20.0	4.0	07/29/25 11:52	
Arsenic	ug/L	ND	20.0	4.2	07/29/25 11:52	
Barium	ug/L	ND	10.0	0.50	07/29/25 11:52	
Beryllium	ug/L	ND	5.0	0.44	07/29/25 11:52	
Cadmium	ug/L	ND	3.0	0.48	07/29/25 11:52	
Calcium	ug/L	ND	500	31.8	07/29/25 11:52	
Chromium	ug/L	ND	10.0	0.81	07/29/25 11:52	
Cobalt	ug/L	ND	10.0	1.2	07/29/25 11:52	
Copper	ug/L	ND	10.0	0.79	07/29/25 11:52	
Lead	ug/L	ND	10.0	2.9	07/29/25 11:52	
Molybdenum	ug/L	ND	15.0	1.7	07/29/25 11:52	
Nickel	ug/L	ND	20.0	2.0	07/29/25 11:52	
Selenium	ug/L	6.8J	20.0	5.5	07/29/25 11:52	
Silver	ug/L	ND	10.0	0.77	07/29/25 11:52	
Vanadium	ug/L	ND	15.0	2.0	07/29/25 11:52	
Zinc	ug/L	ND	20.0	2.3	07/29/25 11:52	

LABORATORY CONTROL SAMPLE: 5317244

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	1000	1010	101	80-120	
Arsenic	ug/L	1000	1010	101	80-120	
Barium	ug/L	1000	993	99	80-120	
Beryllium	ug/L	1000	1000	100	80-120	
Cadmium	ug/L	1000	999	100	80-120	
Calcium	ug/L	20000	19000	95	80-120	
Chromium	ug/L	1000	986	99	80-120	
Cobalt	ug/L	1000	987	99	80-120	
Copper	ug/L	1000	989	99	80-120	
Lead	ug/L	1000	992	99	80-120	
Molybdenum	ug/L	1000	964	96	80-120	
Nickel	ug/L	1000	990	99	80-120	
Selenium	ug/L	1000	1040	104	80-120	
Silver	ug/L	500	478	96	80-120	
Vanadium	ug/L	1000	984	98	80-120	

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QUALITY CONTROL DATA

Project: Charah 3rd Quarter GW Monitori
Pace Project No.: 92808108

LABORATORY CONTROL SAMPLE: 5317244

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Zinc	ug/L	1000	985	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5317245 5317246

Parameter	Units	92808108001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	ug/L	ND	1000	1000	1030	1040	102	104	75-125	1	20	
Arsenic	ug/L	ND	1000	1000	1010	1030	101	103	75-125	2	20	
Barium	ug/L	251	1000	1000	1220	1250	97	100	75-125	2	20	
Beryllium	ug/L	ND	1000	1000	1010	1030	101	103	75-125	2	20	
Cadmium	ug/L	ND	1000	1000	980	1010	98	101	75-125	3	20	
Calcium	ug/L	20000	20000	20000	37800	38800	89	94	75-125	3	20	
Chromium	ug/L	1.9J	1000	1000	978	1000	98	100	75-125	3	20	
Cobalt	ug/L	ND	1000	1000	980	1000	98	100	75-125	3	20	
Copper	ug/L	1.1J	1000	1000	1020	1050	102	105	75-125	2	20	
Lead	ug/L	ND	1000	1000	976	1000	97	100	75-125	3	20	
Molybdenum	ug/L	ND	1000	1000	969	992	97	99	75-125	2	20	
Nickel	ug/L	2.7J	1000	1000	976	1000	97	100	75-125	3	20	
Selenium	ug/L	ND	1000	1000	1040	1060	104	106	75-125	2	20	
Silver	ug/L	ND	500	500	482	494	96	99	75-125	2	20	
Vanadium	ug/L	5.7J	1000	1000	989	1010	98	101	75-125	2	20	
Zinc	ug/L	6.2J	1000	1000	970	999	96	99	75-125	3	20	

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QUALITY CONTROL DATA

Project: Charah 3rd Quarter GW Monitori
Pace Project No.: 92808108

QC Batch: 1019836
QC Batch Method: EPA 3020A
Analysis Method: EPA 6020B
Analysis Description: 6020B Water UPD5
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 92808108021, 92808108022, 92808108023

METHOD BLANK: 5315707 Matrix: Water
Associated Lab Samples: 92808108021, 92808108022, 92808108023

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron	ug/L	ND	10.0	2.3	07/28/25 16:26	
Lithium	ug/L	ND	0.50	0.20	07/28/25 16:26	
Thallium	ug/L	ND	0.10	0.027	07/28/25 16:26	

LABORATORY CONTROL SAMPLE: 5315708

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	ug/L	100	103	103	80-120	
Lithium	ug/L	100	94.8	95	80-120	
Thallium	ug/L	100	109	109	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5315709 5315710

Parameter	Units	92807095002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	ug/L	8200	100	100	7940	7990	-257	-208	75-125	1	20	P6
Lithium	ug/L	285	100	100	395	401	110	116	75-125	2	20	
Thallium	ug/L	0.032J	100	100	109	108	109	108	75-125	1	20	

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QUALITY CONTROL DATA

Project: Charah 3rd Quarter GW Monitori
Pace Project No.: 92808108

QC Batch: 1020138
QC Batch Method: EPA 3020A
Analysis Method: EPA 6020B
Analysis Description: 6020B Water UPD5
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 92808108001, 92808108002, 92808108003, 92808108004, 92808108005, 92808108006, 92808108007, 92808108008, 92808108009, 92808108010, 92808108011, 92808108012, 92808108013, 92808108014, 92808108015, 92808108016, 92808108017, 92808108018, 92808108019, 92808108020

METHOD BLANK: 5317247
Matrix: Water
Associated Lab Samples: 92808108001, 92808108002, 92808108003, 92808108004, 92808108005, 92808108006, 92808108007, 92808108008, 92808108009, 92808108010, 92808108011, 92808108012, 92808108013, 92808108014, 92808108015, 92808108016, 92808108017, 92808108018, 92808108019, 92808108020

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron	ug/L	ND	10.0	2.3	07/30/25 15:22	
Lithium	ug/L	ND	0.50	0.20	07/30/25 15:22	
Thallium	ug/L	ND	0.10	0.027	07/30/25 15:22	

LABORATORY CONTROL SAMPLE: 5317248

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	ug/L	100	101	101	80-120	
Lithium	ug/L	100	106	106	80-120	
Thallium	ug/L	100	105	105	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5317249 5317250

Parameter	Units	92808108002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	ug/L	16.6	100	100	115	113	98	97	75-125	1	20	CH
Lithium	ug/L	23.9	100	100	127	124	103	101	75-125	2	20	
Thallium	ug/L	ND	100	100	104	105	104	105	75-125	1	20	

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QUALITY CONTROL DATA

Project: Charah 3rd Quarter GW Monitori
Pace Project No.: 92808108

QC Batch: 948653
QC Batch Method: SM 2540C-2020
Analysis Method: SM 2540C-2020
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92808108001, 92808108002, 92808108004, 92808108009, 92808108010, 92808108019

METHOD BLANK: 4875059 Matrix: Water
Associated Lab Samples: 92808108001, 92808108002, 92808108004, 92808108009, 92808108010, 92808108019

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	25.0	25.0	07/18/25 11:36	

LABORATORY CONTROL SAMPLE: 4875060

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	250	250	100	90-110	

SAMPLE DUPLICATE: 4875061

Parameter	Units	92808108004 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	ND	ND		25	

SAMPLE DUPLICATE: 4875062

Parameter	Units	92808108009 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	2740	2590	6	25	

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QUALITY CONTROL DATA

Project: Charah 3rd Quarter GW Monitori
Pace Project No.: 92808108

QC Batch: 948886
QC Batch Method: SM 2540C-2020
Analysis Method: SM 2540C-2020
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92808108020, 92808108021

METHOD BLANK: 4876651 Matrix: Water
Associated Lab Samples: 92808108020, 92808108021

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	25.0	25.0	07/20/25 14:28	

LABORATORY CONTROL SAMPLE: 4876652

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	250	252	101	90-110	

SAMPLE DUPLICATE: 4876653

Parameter	Units	92808108021 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	219	222	1	25	

SAMPLE DUPLICATE: 4876654

Parameter	Units	92807526001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	53.0	52.0	2	25	

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QUALITY CONTROL DATA

Project: Charah 3rd Quarter GW Monitori
Pace Project No.: 92808108

QC Batch: 948948 | Analysis Method: SM 2540C-2020
QC Batch Method: SM 2540C-2020 | Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92808108003, 92808108005, 92808108011, 92808108012, 92808108016, 92808108017

METHOD BLANK: 4876805 Matrix: Water
Associated Lab Samples: 92808108003, 92808108005, 92808108011, 92808108012, 92808108016, 92808108017

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	25.0	25.0	07/21/25 10:59	

LABORATORY CONTROL SAMPLE: 4876806

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	250	256	102	90-110	

SAMPLE DUPLICATE: 4876807

Parameter	Units	92807546002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	312	315	1	25	

SAMPLE DUPLICATE: 4876808

Parameter	Units	92807628004 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	478	476	0	25	

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QUALITY CONTROL DATA

Project: Charah 3rd Quarter GW Monitori
Pace Project No.: 92808108

QC Batch: 949132 | Analysis Method: SM 2540C-2020
QC Batch Method: SM 2540C-2020 | Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92808108006, 92808108013, 92808108014, 92808108015, 92808108018, 92808108022, 92808108023

METHOD BLANK: 4877752 Matrix: Water
Associated Lab Samples: 92808108006, 92808108013, 92808108014, 92808108015, 92808108018, 92808108022, 92808108023

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	25.0	25.0	07/22/25 15:25	

LABORATORY CONTROL SAMPLE: 4877753

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	250	248	99	90-110	

SAMPLE DUPLICATE: 4877756

Parameter	Units	92807890002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	57.0	58.0	2	25	

SAMPLE DUPLICATE: 4878112

Parameter	Units	92807953001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	930	936	1	25	

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QUALITY CONTROL DATA

Project: Charah 3rd Quarter GW Monitori
Pace Project No.: 92808108

QC Batch: 949237
QC Batch Method: SM 2540C-2020
Analysis Method: SM 2540C-2020
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92808108007, 92808108008

METHOD BLANK: 4878125 Matrix: Water
Associated Lab Samples: 92808108007, 92808108008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	25.0	25.0	07/22/25 15:33	

LABORATORY CONTROL SAMPLE: 4878126

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	250	252	101	90-110	

SAMPLE DUPLICATE: 4878127

Parameter	Units	92808242001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	216	214	1	25	

SAMPLE DUPLICATE: 4878128

Parameter	Units	92808242006 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	840	860	2	25	

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QUALITY CONTROL DATA

Project: Charah 3rd Quarter GW Monitori
Pace Project No.: 92808108

QC Batch: 948557
QC Batch Method: EPA 300.0 Rev 2.1 1993
Analysis Method: EPA 300.0 Rev 2.1 1993
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92808108001, 92808108002, 92808108003, 92808108004, 92808108005, 92808108006, 92808108007, 92808108008, 92808108009, 92808108010, 92808108011, 92808108012

METHOD BLANK: 4874799 Matrix: Water
Associated Lab Samples: 92808108001, 92808108002, 92808108003, 92808108004, 92808108005, 92808108006, 92808108007, 92808108008, 92808108009, 92808108010, 92808108011, 92808108012

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	07/17/25 22:02	
Fluoride	mg/L	ND	0.10	0.050	07/17/25 22:02	
Sulfate	mg/L	ND	1.0	0.50	07/17/25 22:02	

LABORATORY CONTROL SAMPLE: 4874800

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	49.9	100	90-110	
Fluoride	mg/L	2.5	2.6	103	90-110	
Sulfate	mg/L	50	50.9	102	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4874801 4874802

Parameter	Units	92808113001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	51.5	50	50	99.5	89.3	96	76	90-110	11	10	M1,R1
Fluoride	mg/L	0.60	2.5	2.5	3.1	3.1	99	101	90-110	2	10	
Sulfate	mg/L	6.7	50	50	56.2	57.5	99	102	90-110	2	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4874803 4874804

Parameter	Units	92808108004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	ND	50	50	48.6	49.7	97	99	90-110	2	10	
Fluoride	mg/L	ND	2.5	2.5	2.4	2.4	95	98	90-110	3	10	
Sulfate	mg/L	ND	50	50	49.2	50.3	98	101	90-110	2	10	

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QUALITY CONTROL DATA

Project: Charah 3rd Quarter GW Monitori
Pace Project No.: 92808108

QC Batch: 948558
QC Batch Method: EPA 300.0 Rev 2.1 1993
Analysis Method: EPA 300.0 Rev 2.1 1993
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92808108013, 92808108014, 92808108015, 92808108016, 92808108017, 92808108018, 92808108019, 92808108020, 92808108021, 92808108022, 92808108023

METHOD BLANK: 4874805 Matrix: Water
Associated Lab Samples: 92808108013, 92808108014, 92808108015, 92808108016, 92808108017, 92808108018, 92808108019, 92808108020, 92808108021, 92808108022, 92808108023

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	07/17/25 22:32	
Fluoride	mg/L	ND	0.10	0.050	07/17/25 22:32	
Sulfate	mg/L	ND	1.0	0.50	07/17/25 22:32	

LABORATORY CONTROL SAMPLE: 4874806

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	49.9	100	90-110	
Fluoride	mg/L	2.5	2.5	101	90-110	
Sulfate	mg/L	50	50.9	102	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4874807 4874808

Parameter	Units	92808108013 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	259	50	50	297	300	75	82	90-110	1	10	M1
Fluoride	mg/L	0.13	2.5	2.5	2.3	2.5	88	96	90-110	8	10	M1
Sulfate	mg/L	14.3	50	50	62.5	66.1	96	104	90-110	6	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4874809 4874810

Parameter	Units	92808108023 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	6.7	50	50	55.4	55.9	97	98	90-110	1	10	
Fluoride	mg/L	0.29	2.5	2.5	2.9	2.9	106	103	90-110	2	10	
Sulfate	mg/L	1.0	50	50	49.7	50.2	97	98	90-110	1	10	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Charah 3rd Quarter GW Monitori
Pace Project No.: 92808108

Sample: BG-1 **Lab ID: 92808108001** Collected: 07/14/25 13:15 Received: 07/17/25 13:35 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**1.18 ± 0.952 (1.48) C:NA T:91%**	pCi/L	08/05/25 15:36	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**1.31 ± 0.569 (0.963) C:77% T:88%**	pCi/L	08/01/25 11:37	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**2.49 ± 1.52 (2.44)**	pCi/L	08/06/25 09:34	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Charah 3rd Quarter GW Monitori
Pace Project No.: 92808108

Sample: BG-2 **Lab ID: 92808108002** Collected: 07/14/25 11:15 Received: 07/17/25 13:35 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.130 ± 0.846 (1.56) C:NA T:89%**	pCi/L	08/05/25 15:36	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**1.05 ± 0.503 (0.886) C:81% T:85%**	pCi/L	08/01/25 11:37	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.18 ± 1.35 (2.45)**	pCi/L	08/06/25 09:34	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Charah 3rd Quarter GW Monitori
Pace Project No.: 92808108

Sample: DUP **Lab ID: 92808108003** Collected: 07/15/25 00:01 Received: 07/17/25 13:35 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.164 ± 0.635 (1.17) C:NA T:99%**	pCi/L	08/05/25 15:53	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**2.72 ± 0.756 (0.908) C:82% T:89%**	pCi/L	08/01/25 11:37	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**2.88 ± 1.39 (2.08)**	pCi/L	08/06/25 09:34	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Charah 3rd Quarter GW Monitori
Pace Project No.: 92808108

Sample: EQBL **Lab ID: 92808108004** Collected: 07/14/25 19:00 Received: 07/17/25 13:35 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.123 ± 0.641 (1.20) C:NA T:85%**	pCi/L	08/05/25 15:53	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**-0.0909 ± 0.355 (0.837) C:82% T:92%**	pCi/L	08/01/25 11:37	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.123 ± 0.996 (2.04)**	pCi/L	08/06/25 09:34	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Charah 3rd Quarter GW Monitori
Pace Project No.: 92808108

Sample: LEACHATE **Lab ID: 92808108005** Collected: 07/15/25 11:30 Received: 07/17/25 13:35 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.247 ± 0.768 (1.39) C:NA T:85%**	pCi/L	08/05/25 16:03	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.330 ± 0.470 (1.01) C:82% T:80%**	pCi/L	08/01/25 11:37	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.577 ± 1.24 (2.40)**	pCi/L	08/06/25 09:34	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Charah 3rd Quarter GW Monitori
Pace Project No.: 92808108

Sample: MW-1 **Lab ID: 92808108006** Collected: 07/16/25 16:30 Received: 07/17/25 13:35 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**-0.574 ± 0.859 (1.74) C:NA T:88%**	pCi/L	08/05/25 15:53	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.757 ± 0.367 (0.614) C:81% T:90%**	pCi/L	08/01/25 14:39	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.757 ± 1.23 (2.35)**	pCi/L	08/06/25 09:34	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Charah 3rd Quarter GW Monitori
Pace Project No.: 92808108

Sample: MW-2 **Lab ID: 92808108007** Collected: 07/17/25 09:25 Received: 07/17/25 13:35 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**-0.125 ± 0.850 (1.62) C:NA T:96%**	pCi/L	08/05/25 15:53	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**1.18 ± 0.453 (0.663) C:74% T:90%**	pCi/L	08/01/25 14:39	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.18 ± 1.30 (2.28)**	pCi/L	08/06/25 09:34	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Charah 3rd Quarter GW Monitori
Pace Project No.: 92808108

Sample: MW-2D **Lab ID: 92808108008** Collected: 07/17/25 09:40 Received: 07/17/25 13:35 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.114 ± 0.986 (1.79) C:NA T:90%**	pCi/L	08/05/25 15:53	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.437 ± 0.348 (0.681) C:75% T:84%**	pCi/L	08/01/25 14:39	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.551 ± 1.33 (2.47)**	pCi/L	08/06/25 09:34	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Charah 3rd Quarter GW Monitori
Pace Project No.: 92808108

Sample: MW-3 **Lab ID: 92808108009** Collected: 07/14/25 16:10 Received: 07/17/25 13:35 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**1.48 ± 1.12 (1.73) C:NA T:89%**	pCi/L	08/05/25 15:53	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**1.88 ± 0.578 (0.725) C:81% T:88%**	pCi/L	08/01/25 14:39	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**3.36 ± 1.70 (2.46)**	pCi/L	08/06/25 09:34	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Charah 3rd Quarter GW Monitori
Pace Project No.: 92808108

Sample: MW-4 **Lab ID: 92808108010** Collected: 07/14/25 15:05 Received: 07/17/25 13:35 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.425 ± 0.706 (1.22) C:NA T:89%**	pCi/L	08/05/25 16:14	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.667 ± 0.485 (0.962) C:77% T:88%**	pCi/L	08/01/25 14:39	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.09 ± 1.19 (2.18)**	pCi/L	08/06/25 09:34	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Charah 3rd Quarter GW Monitori
Pace Project No.: 92808108

Sample: MW-5 **Lab ID: 92808108011** Collected: 07/15/25 11:15 Received: 07/17/25 13:35 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.0608 ± 0.491 (0.964) C:NA T:98%**	pCi/L	08/05/25 16:14	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**1.06 ± 0.494 (0.859) C:80% T:89%**	pCi/L	08/01/25 14:39	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.12 ± 0.985 (1.82)**	pCi/L	08/06/25 09:34	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Charah 3rd Quarter GW Monitori
Pace Project No.: 92808108

Sample: MW-6 **Lab ID: 92808108012** Collected: 07/15/25 14:05 Received: 07/17/25 13:35 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**-0.885 ± 0.864 (1.81) C:NA T:85%**	pCi/L	08/05/25 16:14	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**1.42 ± 0.525 (0.741) C:73% T:81%**	pCi/L	08/01/25 14:40	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.42 ± 1.39 (2.55)**	pCi/L	08/06/25 09:34	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Charah 3rd Quarter GW Monitori
Pace Project No.: 92808108

Sample: MW-7R **Lab ID: 92808108013** Collected: 07/16/25 11:50 Received: 07/17/25 13:35 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**1.17 ± 1.08 (1.74) C:NA T:90%**	pCi/L	08/05/25 16:14	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.329 ± 0.287 (0.566) C:76% T:91%**	pCi/L	08/01/25 14:40	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.50 ± 1.37 (2.31)**	pCi/L	08/06/25 09:34	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Charah 3rd Quarter GW Monitori
Pace Project No.: 92808108

Sample: MW-8 **Lab ID: 92808108014** Collected: 07/16/25 14:30 Received: 07/17/25 13:35 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**1.11 ± 1.19 (1.96) C:NA T:92%**	pCi/L	08/05/25 16:14	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.446 ± 0.310 (0.575) C:73% T:90%**	pCi/L	08/01/25 14:40	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.56 ± 1.50 (2.54)**	pCi/L	08/06/25 09:34	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Charah 3rd Quarter GW Monitori
Pace Project No.: 92808108

Sample: MW-10 **Lab ID: 92808108015** Collected: 07/16/25 09:05 Received: 07/17/25 13:35 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.297 ± 0.670 (1.20) C:NA T:97%**	pCi/L	08/05/25 16:14	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.418 ± 0.282 (0.521) C:81% T:94%**	pCi/L	08/01/25 14:40	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.715 ± 0.952 (1.72)**	pCi/L	08/06/25 09:34	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Charah 3rd Quarter GW Monitori
Pace Project No.: 92808108

Sample: MW-11 **Lab ID: 92808108016** Collected: 07/15/25 09:05 Received: 07/17/25 13:35 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.194 ± 0.904 (1.64) C:NA T:89%**	pCi/L	08/05/25 16:14	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.209 ± 0.319 (0.688) C:80% T:88%**	pCi/L	08/01/25 14:40	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.403 ± 1.22 (2.33)**	pCi/L	08/06/25 09:34	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Charah 3rd Quarter GW Monitori
Pace Project No.: 92808108

Sample: MW-11D **Lab ID: 92808108017** Collected: 07/15/25 10:00 Received: 07/17/25 13:35 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**-0.249 ± 0.579 (1.17) C:NA T:105%**	pCi/L	08/05/25 14:48	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.585 ± 0.399 (0.756) C:71% T:87%**	pCi/L	08/04/25 16:07	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.585 ± 0.978 (1.93)**	pCi/L	08/06/25 09:18	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Charah 3rd Quarter GW Monitori
Pace Project No.: 92808108

Sample: SW-1 **Lab ID: 92808108018** Collected: 07/16/25 16:55 Received: 07/17/25 13:35 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.000 ± 0.804 (1.51) C:NA T:95%**	pCi/L	08/05/25 14:48	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**1.13 ± 0.477 (0.752) C:71% T:91%**	pCi/L	08/04/25 16:07	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.13 ± 1.28 (2.26)**	pCi/L	08/06/25 09:18	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Charah 3rd Quarter GW Monitori
Pace Project No.: 92808108

Sample: SW-2 **Lab ID: 92808108019** Collected: 07/14/25 16:40 Received: 07/17/25 13:35 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.321 ± 1.05 (1.89) C:NA T:66%**	pCi/L	08/05/25 14:48	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.273 ± 0.779 (1.74) C:64% T:63%**	pCi/L	08/04/25 16:07	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.594 ± 1.83 (3.63)**	pCi/L	08/06/25 09:18	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Charah 3rd Quarter GW Monitori
Pace Project No.: 92808108

Sample: SW-3 **Lab ID: 92808108020** Collected: 07/14/25 16:50 Received: 07/17/25 13:35 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.167 ± 0.716 (1.31) C:NA T:95%**	pCi/L	08/05/25 14:48	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.484 ± 0.588 (1.25) C:68% T:81%**	pCi/L	08/04/25 16:07	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.651 ± 1.30 (2.56)**	pCi/L	08/06/25 09:18	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Charah 3rd Quarter GW Monitori
Pace Project No.: 92808108

Sample: SW-4 **Lab ID: 92808108021** Collected: 07/14/25 10:15 Received: 07/17/25 13:35 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**1.15 ± 0.949 (1.49) C:NA T:97%**	pCi/L	08/05/25 14:48	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**1.02 ± 0.621 (1.19) C:68% T:88%**	pCi/L	08/04/25 16:07	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**2.17 ± 1.57 (2.68)**	pCi/L	08/06/25 09:18	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Charah 3rd Quarter GW Monitori
Pace Project No.: 92808108

Sample: SW-5 **Lab ID: 92808108022** Collected: 07/16/25 17:05 Received: 07/17/25 13:35 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.489 ± 0.777 (1.33) C:NA T:93%**	pCi/L	08/05/25 14:48	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**1.24 ± 0.630 (1.13) C:66% T:87%**	pCi/L	08/04/25 16:07	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.73 ± 1.41 (2.46)**	pCi/L	08/06/25 09:18	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Charah 3rd Quarter GW Monitori
Pace Project No.: 92808108

Sample: SW-6 **Lab ID: 92808108023** Collected: 07/16/25 16:45 Received: 07/17/25 13:35 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.363 ± 0.856 (1.51) C:NA T:94%**	pCi/L	08/05/25 15:01	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**1.47 ± 0.730 (1.25) C:62% T:81%**	pCi/L	08/04/25 15:54	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.83 ± 1.59 (2.76)**	pCi/L	08/06/25 09:18	7440-14-4	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Charah 3rd Quarter GW Monitori
Pace Project No.: 92808108

QC Batch: 759797
QC Batch Method: EPA 903.1
Analysis Method: EPA 903.1
Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 92808108001, 92808108002, 92808108003, 92808108004, 92808108005, 92808108006, 92808108007, 92808108008, 92808108009, 92808108010, 92808108011, 92808108012, 92808108013, 92808108014, 92808108015, 92808108016

METHOD BLANK: 3702946
Matrix: Water
Associated Lab Samples: 92808108001, 92808108002, 92808108003, 92808108004, 92808108005, 92808108006, 92808108007, 92808108008, 92808108009, 92808108010, 92808108011, 92808108012, 92808108013, 92808108014, 92808108015, 92808108016

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.333 ± 0.386 (0.624) C:NA T:86%	pCi/L	08/05/25 15:36	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Charah 3rd Quarter GW Monitori
Pace Project No.: 92808108

QC Batch: 759798
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 92808108001, 92808108002, 92808108003, 92808108004, 92808108005, 92808108006, 92808108007, 92808108008, 92808108009, 92808108010, 92808108011, 92808108012, 92808108013, 92808108014, 92808108015, 92808108016

METHOD BLANK: 3702947
Matrix: Water
Associated Lab Samples: 92808108001, 92808108002, 92808108003, 92808108004, 92808108005, 92808108006, 92808108007, 92808108008, 92808108009, 92808108010, 92808108011, 92808108012, 92808108013, 92808108014, 92808108015, 92808108016

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.314 ± 0.369 (0.778) C:82% T:86%	pCi/L	08/01/25 11:36	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Charah 3rd Quarter GW Monitori
Pace Project No.: 92808108

QC Batch: 759800 | Analysis Method: EPA 903.1
QC Batch Method: EPA 903.1 | Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 92808108017, 92808108018, 92808108019, 92808108020, 92808108021, 92808108022, 92808108023

METHOD BLANK: 3702949 Matrix: Water
Associated Lab Samples: 92808108017, 92808108018, 92808108019, 92808108020, 92808108021, 92808108022, 92808108023

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	-0.0922 ± 0.461 (0.927) C:NA T:96%	pCi/L	08/05/25 14:48	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Charah 3rd Quarter GW Monitori
Pace Project No.: 92808108

QC Batch: 761542
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 92808108023

METHOD BLANK: 3711056 Matrix: Water
Associated Lab Samples: 92808108023

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.248 ± 0.424 (0.924) C:69% T:81%	pCi/L	08/04/25 15:52	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Charah 3rd Quarter GW Monitori
Pace Project No.: 92808108

QC Batch: 759801 | Analysis Method: EPA 904.0
QC Batch Method: EPA 904.0 | Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 92808108017, 92808108018, 92808108019, 92808108020, 92808108021, 92808108022

METHOD BLANK: 3702950 Matrix: Water
Associated Lab Samples: 92808108017, 92808108018, 92808108019, 92808108020, 92808108021, 92808108022

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.183 ± 0.312 (0.680) C:75% T:88%	pCi/L	08/04/25 16:07	

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QUALIFIERS

Project: Charah 3rd Quarter GW Monitori
Pace Project No.: 92808108

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

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TNI - The NELAC Institute.

ANALYTE QUALIFIERS

B	Analyte was detected in the associated method blank.
CH	The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased high.
IS	The internal standard response is below criteria. Results may be biased high.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
P6	Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.
R1	RPD value was outside control limits.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Charah 3rd Quarter GW Monitori
Pace Project No.: 92808108

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92808108001	**BG-1**	EPA 3010A	1020137	EPA 6010D	1020946
92808108002	**BG-2**	EPA 3010A	1020137	EPA 6010D	1020946
92808108003	**DUP**	EPA 3010A	1020137	EPA 6010D	1020946
92808108004	**EQBL**	EPA 3010A	1020137	EPA 6010D	1020946
92808108005	**LEACHATE**	EPA 3010A	1020137	EPA 6010D	1020946
92808108006	**MW-1**	EPA 3010A	1020137	EPA 6010D	1020946
92808108007	**MW-2**	EPA 3010A	1020137	EPA 6010D	1020946
92808108008	**MW-2D**	EPA 3010A	1020137	EPA 6010D	1020946
92808108009	**MW-3**	EPA 3010A	1020137	EPA 6010D	1020946
92808108010	**MW-4**	EPA 3010A	1020137	EPA 6010D	1020946
92808108011	**MW-5**	EPA 3010A	1020137	EPA 6010D	1020946
92808108012	**MW-6**	EPA 3010A	1020137	EPA 6010D	1020946
92808108013	**MW-7R**	EPA 3010A	1020137	EPA 6010D	1020946
92808108014	**MW-8**	EPA 3010A	1020137	EPA 6010D	1020946
92808108015	**MW-10**	EPA 3010A	1020137	EPA 6010D	1020946
92808108016	**MW-11**	EPA 3010A	1020137	EPA 6010D	1020946
92808108017	**MW-11D**	EPA 3010A	1020137	EPA 6010D	1020946
92808108018	**SW-1**	EPA 3010A	1020137	EPA 6010D	1020946
92808108019	**SW-2**	EPA 3010A	1020137	EPA 6010D	1020946
92808108020	**SW-3**	EPA 3010A	1020137	EPA 6010D	1020946
92808108021	**SW-4**	EPA 3010A	1019835	EPA 6010D	1020363
92808108022	**SW-5**	EPA 3010A	1019835	EPA 6010D	1020363
92808108023	**SW-6**	EPA 3010A	1019835	EPA 6010D	1020363
92808108001	**BG-1**	EPA 3020A	1020138	EPA 6020B	1020966
92808108002	**BG-2**	EPA 3020A	1020138	EPA 6020B	1020966
92808108003	**DUP**	EPA 3020A	1020138	EPA 6020B	1020966
92808108004	**EQBL**	EPA 3020A	1020138	EPA 6020B	1020966
92808108005	**LEACHATE**	EPA 3020A	1020138	EPA 6020B	1020966
92808108006	**MW-1**	EPA 3020A	1020138	EPA 6020B	1020966
92808108007	**MW-2**	EPA 3020A	1020138	EPA 6020B	1020966
92808108008	**MW-2D**	EPA 3020A	1020138	EPA 6020B	1020966
92808108009	**MW-3**	EPA 3020A	1020138	EPA 6020B	1020966
92808108010	**MW-4**	EPA 3020A	1020138	EPA 6020B	1020966
92808108011	**MW-5**	EPA 3020A	1020138	EPA 6020B	1020966
92808108012	**MW-6**	EPA 3020A	1020138	EPA 6020B	1020966
92808108013	**MW-7R**	EPA 3020A	1020138	EPA 6020B	1020966
92808108014	**MW-8**	EPA 3020A	1020138	EPA 6020B	1020966
92808108015	**MW-10**	EPA 3020A	1020138	EPA 6020B	1020966
92808108016	**MW-11**	EPA 3020A	1020138	EPA 6020B	1020966
92808108017	**MW-11D**	EPA 3020A	1020138	EPA 6020B	1020966
92808108018	**SW-1**	EPA 3020A	1020138	EPA 6020B	1020966
92808108019	**SW-2**	EPA 3020A	1020138	EPA 6020B	1020966
92808108020	**SW-3**	EPA 3020A	1020138	EPA 6020B	1020966
92808108021	**SW-4**	EPA 3020A	1019836	EPA 6020B	1020382
92808108022	**SW-5**	EPA 3020A	1019836	EPA 6020B	1020382
92808108023	**SW-6**	EPA 3020A	1019836	EPA 6020B	1020382
92808108001	**BG-1**	EPA 7470A	1022730	EPA 7470A	1022872

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Charah 3rd Quarter GW Monitori
Pace Project No.: 92808108

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92808108002	**BG-2**	EPA 7470A	1022730	EPA 7470A	1022872
92808108003	**DUP**	EPA 7470A	1022730	EPA 7470A	1022872
92808108004	**EQBL**	EPA 7470A	1022730	EPA 7470A	1022872
92808108005	**LEACHATE**	EPA 7470A	1022730	EPA 7470A	1022872
92808108006	**MW-1**	EPA 7470A	1022730	EPA 7470A	1022872
92808108007	**MW-2**	EPA 7470A	1022730	EPA 7470A	1022872
92808108008	**MW-2D**	EPA 7470A	1022730	EPA 7470A	1022872
92808108009	**MW-3**	EPA 7470A	1022730	EPA 7470A	1022872
92808108010	**MW-4**	EPA 7470A	1022730	EPA 7470A	1022872
92808108011	**MW-5**	EPA 7470A	1022730	EPA 7470A	1022872
92808108012	**MW-6**	EPA 7470A	1022730	EPA 7470A	1022872
92808108013	**MW-7R**	EPA 7470A	1022730	EPA 7470A	1022872
92808108014	**MW-8**	EPA 7470A	1022730	EPA 7470A	1022872
92808108015	**MW-10**	EPA 7470A	1022730	EPA 7470A	1022872
92808108016	**MW-11**	EPA 7470A	1022730	EPA 7470A	1022872
92808108017	**MW-11D**	EPA 7470A	1022730	EPA 7470A	1022872
92808108018	**SW-1**	EPA 7470A	1022730	EPA 7470A	1022872
92808108019	**SW-2**	EPA 7470A	1022730	EPA 7470A	1022872
92808108020	**SW-3**	EPA 7470A	1022730	EPA 7470A	1022872
92808108021	**SW-4**	EPA 7470A	1022733	EPA 7470A	1022870
92808108022	**SW-5**	EPA 7470A	1022733	EPA 7470A	1022870
92808108023	**SW-6**	EPA 7470A	1022733	EPA 7470A	1022870
92808108001	**BG-1**	EPA 903.1	759797		
92808108002	**BG-2**	EPA 903.1	759797		
92808108003	**DUP**	EPA 903.1	759797		
92808108004	**EQBL**	EPA 903.1	759797		
92808108005	**LEACHATE**	EPA 903.1	759797		
92808108006	**MW-1**	EPA 903.1	759797		
92808108007	**MW-2**	EPA 903.1	759797		
92808108008	**MW-2D**	EPA 903.1	759797		
92808108009	**MW-3**	EPA 903.1	759797		
92808108010	**MW-4**	EPA 903.1	759797		
92808108011	**MW-5**	EPA 903.1	759797		
92808108012	**MW-6**	EPA 903.1	759797		
92808108013	**MW-7R**	EPA 903.1	759797		
92808108014	**MW-8**	EPA 903.1	759797		
92808108015	**MW-10**	EPA 903.1	759797		
92808108016	**MW-11**	EPA 903.1	759797		
92808108017	**MW-11D**	EPA 903.1	759800		
92808108018	**SW-1**	EPA 903.1	759800		
92808108019	**SW-2**	EPA 903.1	759800		
92808108020	**SW-3**	EPA 903.1	759800		
92808108021	**SW-4**	EPA 903.1	759800		
92808108022	**SW-5**	EPA 903.1	759800		
92808108023	**SW-6**	EPA 903.1	759800		
92808108001	**BG-1**	EPA 904.0	759798		
92808108002	**BG-2**	EPA 904.0	759798		

REPORT OF LABORATORY ANALYSIS

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9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Charah 3rd Quarter GW Monitori
Pace Project No.: 92808108

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92808108003	**DUP**	EPA 904.0	759798		
92808108004	**EQBL**	EPA 904.0	759798		
92808108005	**LEACHATE**	EPA 904.0	759798		
92808108006	**MW-1**	EPA 904.0	759798		
92808108007	**MW-2**	EPA 904.0	759798		
92808108008	**MW-2D**	EPA 904.0	759798		
92808108009	**MW-3**	EPA 904.0	759798		
92808108010	**MW-4**	EPA 904.0	759798		
92808108011	**MW-5**	EPA 904.0	759798		
92808108012	**MW-6**	EPA 904.0	759798		
92808108013	**MW-7R**	EPA 904.0	759798		
92808108014	**MW-8**	EPA 904.0	759798		
92808108015	**MW-10**	EPA 904.0	759798		
92808108016	**MW-11**	EPA 904.0	759798		
92808108017	**MW-11D**	EPA 904.0	759801		
92808108018	**SW-1**	EPA 904.0	759801		
92808108019	**SW-2**	EPA 904.0	759801		
92808108020	**SW-3**	EPA 904.0	759801		
92808108021	**SW-4**	EPA 904.0	759801		
92808108022	**SW-5**	EPA 904.0	759801		
92808108023	**SW-6**	EPA 904.0	761542		
92808108001	**BG-1**	Total Radium Calculation	762712		
92808108002	**BG-2**	Total Radium Calculation	762712		
92808108003	**DUP**	Total Radium Calculation	762712		
92808108004	**EQBL**	Total Radium Calculation	762712		
92808108005	**LEACHATE**	Total Radium Calculation	762712		
92808108006	**MW-1**	Total Radium Calculation	762712		
92808108007	**MW-2**	Total Radium Calculation	762712		
92808108008	**MW-2D**	Total Radium Calculation	762712		
92808108009	**MW-3**	Total Radium Calculation	762712		
92808108010	**MW-4**	Total Radium Calculation	762712		
92808108011	**MW-5**	Total Radium Calculation	762712		
92808108012	**MW-6**	Total Radium Calculation	762712		
92808108013	**MW-7R**	Total Radium Calculation	762712		
92808108014	**MW-8**	Total Radium Calculation	762712		
92808108015	**MW-10**	Total Radium Calculation	762712		
92808108016	**MW-11**	Total Radium Calculation	762712		
92808108017	**MW-11D**	Total Radium Calculation	762693		
92808108018	**SW-1**	Total Radium Calculation	762693		
92808108019	**SW-2**	Total Radium Calculation	762693		
92808108020	**SW-3**	Total Radium Calculation	762693		
92808108021	**SW-4**	Total Radium Calculation	762693		
92808108022	**SW-5**	Total Radium Calculation	762693		
92808108023	**SW-6**	Total Radium Calculation	762693		
92808108001	**BG-1**	SM 2540C-2020	948653		
92808108002	**BG-2**	SM 2540C-2020	948653		

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Charah 3rd Quarter GW Monitori
Pace Project No.: 92808108

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92808108003	**DUP**	SM 2540C-2020	948948		
92808108004	**EQBL**	SM 2540C-2020	948653		
92808108005	**LEACHATE**	SM 2540C-2020	948948		
92808108006	**MW-1**	SM 2540C-2020	949132		
92808108007	**MW-2**	SM 2540C-2020	949237		
92808108008	**MW-2D**	SM 2540C-2020	949237		
92808108009	**MW-3**	SM 2540C-2020	948653		
92808108010	**MW-4**	SM 2540C-2020	948653		
92808108011	**MW-5**	SM 2540C-2020	948948		
92808108012	**MW-6**	SM 2540C-2020	948948		
92808108013	**MW-7R**	SM 2540C-2020	949132		
92808108014	**MW-8**	SM 2540C-2020	949132		
92808108015	**MW-10**	SM 2540C-2020	949132		
92808108016	**MW-11**	SM 2540C-2020	948948		
92808108017	**MW-11D**	SM 2540C-2020	948948		
92808108018	**SW-1**	SM 2540C-2020	949132		
92808108019	**SW-2**	SM 2540C-2020	948653		
92808108020	**SW-3**	SM 2540C-2020	948886		
92808108021	**SW-4**	SM 2540C-2020	948886		
92808108022	**SW-5**	SM 2540C-2020	949132		
92808108023	**SW-6**	SM 2540C-2020	949132		
92808108001	**BG-1**	EPA 300.0 Rev 2.1 1993	948557		
92808108002	**BG-2**	EPA 300.0 Rev 2.1 1993	948557		
92808108003	**DUP**	EPA 300.0 Rev 2.1 1993	948557		
92808108004	**EQBL**	EPA 300.0 Rev 2.1 1993	948557		
92808108005	**LEACHATE**	EPA 300.0 Rev 2.1 1993	948557		
92808108006	**MW-1**	EPA 300.0 Rev 2.1 1993	948557		
92808108007	**MW-2**	EPA 300.0 Rev 2.1 1993	948557		
92808108008	**MW-2D**	EPA 300.0 Rev 2.1 1993	948557		
92808108009	**MW-3**	EPA 300.0 Rev 2.1 1993	948557		
92808108010	**MW-4**	EPA 300.0 Rev 2.1 1993	948557		
92808108011	**MW-5**	EPA 300.0 Rev 2.1 1993	948557		
92808108012	**MW-6**	EPA 300.0 Rev 2.1 1993	948557		
92808108013	**MW-7R**	EPA 300.0 Rev 2.1 1993	948558		
92808108014	**MW-8**	EPA 300.0 Rev 2.1 1993	948558		
92808108015	**MW-10**	EPA 300.0 Rev 2.1 1993	948558		
92808108016	**MW-11**	EPA 300.0 Rev 2.1 1993	948558		
92808108017	**MW-11D**	EPA 300.0 Rev 2.1 1993	948558		
92808108018	**SW-1**	EPA 300.0 Rev 2.1 1993	948558		
92808108019	**SW-2**	EPA 300.0 Rev 2.1 1993	948558		
92808108020	**SW-3**	EPA 300.0 Rev 2.1 1993	948558		
92808108021	**SW-4**	EPA 300.0 Rev 2.1 1993	948558		

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Charah 3rd Quarter GW Monitori
Pace Project No.: 92808108

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92808108022	**SW-5**	EPA 300.0 Rev 2.1 1993	948558		
92808108023	**SW-6**	EPA 300.0 Rev 2.1 1993	948558		

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Effective Date: 05/24/2024

Laboratory receiving samples:

Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☑ Raleigh ☐ Mechanicsville ☐ Atlanta ☐ Kernersville ☐

Sample Condition Upon Receipt

Client Name: HPR

Project #:

WO# : 92808108

92808108

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☑ Client ☐ Commercial ☑ Pace ☐ Other:

Custody Seal Present? ☐ Yes ☐ No Seals Intact? ☐ Yes ☐ No ☑ N/A

Date/Initials Person Examining Contents: AHL 7-17

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other

Biological Tissue Frozen? ☐ Yes ☐ No ☑ N/A

Thermometer: ☑ IR Gun ID: 12 T083

Type of Ice: ☑ Wet ☐ Blue ☐ None

Cooler Temp: 4.1, 1.7, 1.7, 1.8, 1.7 Correction Factor: Add/Subtract (°C) 0.0

Temp should be above freezing to 6°C

☐ Samples out of temp criteria. Samples on ice, cooling process has begun

Cooler Temp Corrected (°C): 4.1, 1.7, 1.7, 1.5, 1.7

USDA Regulated Soil (☐ N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? ☐ Yes ☐ No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes ☐ No

				Comments/Discrepancy:
Chain of Custody Present?	☑ Yes	☐ No	☐ N/A	1.
Samples Arrived within Hold Time?	☑ Yes	☐ No	☐ N/A	2.
Short Hold Time Analysis (<72 hr.)?	☐ Yes	☑ No	☐ N/A	3.
Rush Turn Around Time Requested?	☐ Yes	☑ No	☐ N/A	4.
Sufficient Volume?	☑ Yes	☐ No	☐ N/A	5.
Correct Containers Used?	☑ Yes	☐ No	☐ N/A	6.
-Pace Containers Used?	☑ Yes	☐ No	☐ N/A	
Containers Intact?	☑ Yes	☐ No	☐ N/A	7.
Dissolved analysis: Samples Field Filtered?	☐ Yes	☑ No	☐ N/A	8.
Sample Labels Match COC?	☑ Yes	☐ No	☐ N/A	9.
-Includes Date/Time/ID/Analysis Matrix: WT				
Headspace in VOA Vials (>5-6mm)?	☐ Yes	☐ No	☑ N/A	10.
Trip Blank Present?	☐ Yes	☐ No	☑ N/A	11.
Trip Blank Custody Seals Present?	☐ Yes	☐ No	☑ N/A	

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? ☐ Yes ☐ No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: Date/Time:

Project Manager SCURF Review: Date:

Project Manager SRF Review: Date:

Pace

Effective Date: 05/24/2024

*Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.
Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC, LLHg
**Bottom half of box is to list number of bottles
***Check all unpreserved Nitrates for chlorine

Project #

WO#: 92808108

PM: AMB Due Date: 08/11/25
CLIENT: 92-HDR

Laboratory Receiving Location: Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☐ Raleigh ☐ Mechanicsville ☐ Atlanta ☐ Kernersville ☐

Client_____ Profile/EZ (Circle one)_____ Notes_____

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (CL)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BPIN	BP4S-125 mL Plastic H2SO4 (pH < 2) (CL)	BP4N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic Zn Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (CL)	WGFU-Wide mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (CL)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (CL)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	DG8A-40 mL Amber NH4Cl (N/A) (CL)	DG8H-40 mL VOA HCl (N/A)	VG4T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unpreserved (N/A)	DG8W-40 mL VOA H3PO4 (N/A)	KP7U-50 mL Plastic Unpreserved (N/A)	V/GK (3 vials per kit)-VPH/Gasoline (N/A)	SP5T-125 mL Sterile Plastic (N/A - lab)	SP2T-250 mL Sterile Plastic (N/A - lab)		BP3B-250 mL Plastic (NH4)2SO4 (9.3 < 3)	AG0U-100 mL Amber Unpreserved (N/A) (CL)	VG9U-20 mL 5-ml vial (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)
CC					BPIN																									
1		1	1		1		1																							
2																														
3																														
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11																														
12																														

pH Adjustment Log for Preserved Samples

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot #

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DENR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers.

*Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.
Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC, LLHg
**Bottom half of box is to list number of bottles
***Check all unpreserved Nitrates for chlorine

Project # (2) 92808108

Laboratory Receiving location: Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☐ Raleigh ☐ Mechanicsville ☐ Atlanta ☐ Kernersville ☐

Client_____ Profile/EZ (Circle one)_____ Notes_____

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (CL)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP1N	BP4N-125 mL Plastic H2SO4 (pH < 2) (CL)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (CL)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (CL)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (CL)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	DG84-40 mL Amber NH4Cl (N/A)(CL)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unpreserved (N/A)	DG9V-40 mL VOA H3PO4 (N/A)	KP7U-50 mL Plastic Unpreserved (N/A)	V/GK (3 vials per kit) VPH/Gasoline (N/A)	SP5T-125 mL Sterile Plastic (N/A - lab)	SP2T-250 mL Sterile Plastic (N/A - lab)		BP3R-250 mL Plastic (NH4)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved (N/A) (CL)	VSGU-20 mL 3x volatile vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)
CC																														
1		1	1		2		1																							
2																														
3																														
4																														
5																														
6		1	1		2		1																							
7																														
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pH Adjustment Log for Preserved Samples

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot #

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DENR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers.

*Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.
Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC, LLHg
**Bottom half of box is to list number of bottles
***Check all unpreserved Nitrates for chlorine

Project # (3) 92808108

Laboratory Receiving location: Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☐ Raleigh ☐ Mechanicsville ☐ Atlanta ☐ Kernersville ☐

Client_____ Profile/EZ (Circle one)_____ Notes_____

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (C)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	N/A	BP4S-125 mL Plastic H2SO4 (pH < 2) (C)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic Zn Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (C)	WGFU-Wide mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (C)	AG1H-1 liter Amber HCl (pH < 2)	AG1U-250 mL Amber Unpreserved (N/A) (C)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	DG84-40 mL Amber NaHSO (N/A)(C)	DG8H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unpreserved (N/A)	DG9V-40 mL VOA H3PO4 (N/A)	KP7U-50 mL Plastic Unpreserved (N/A)	VJGK (3 vials per kit) VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A - kit)	SP2T-250 mL Sterile Plastic (N/A - kit)		BP3B-250 mL Plastic (NH4)2SO4 (9.3 9.7)	AG0U-100 mL Amber Unpreserved (N/A) (C)	VSGU-20 mL Scintillation vials (N/A)	DUGU-40 mL Amber Unpreserved vials (N/A)
CC																														
1		1	1		2		1																							
2		↓	↓		↓		↓																							
3																														
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12																														

pH Adjustment Log for Preserved Samples

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot #

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DENR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers.

Pace® Location Requested (City/State):
Pace Analytical Charlotte
9800 Kincey Ave. Suite 100, Huntersville, NC 28078

CHAIN-OF-CUSTODY Analytical Request Document

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LAB USE ONLY- Affix Workorder/Login Label Here

92808108

Scan QR Code for instructions

Company Name:	HDR Engineering	Contact/Report To:	Mark Filardi
Street Address:	440 S. Church St Suite 900 Charlotte, NC 28202	Phone #:	(704)338-6787
		E-Mail:	mark.filardi@hdrinc.com
		Cc E-Mail:	
Customer Project #:			
Project Name:	Charah 3rd Quarter GW Monitoring	Invoice To:	Accounts Payable
		Invoice E-Mail:	saaaccounting@hdrinc.onmicrosoft.com
Site Collection Info/Facility ID (as applicable):		Purchase Order # (if applicable):	1000100102528
		Quote #:	

Time Zone Collected: [ ] AK [ ] PT [ ] MT [ ] CT [X] ET

County / State origin of sample(s): North Carolina

Data Deliverables: [ ] Level II [ ] Level III [ ] Level IV [ ] EQUIS [ ] Other

Regulatory Program (DW, RCRA, etc.) as applicable: Reportable [ ] Yes [ ] No

Rush (Pre-approval required): [ ] Same Day [ ] 1 Day [ ] 2 Day [ ] 3 Day [ ] Other _____

DW PWSID # or WW Permit # as applicable:

Date Results Requested: 10 Day TAT

Field Filtered (if applicable): [ ] Yes [ ] No

Analysis:

Specify Container Size **: 2 3 3 1

Identify Container Preservative Type***: 1 1 2 2

**Container Size: (1) 1L, (2) 500mL, (3) 250mL, (4) 125mL, (5) 100mL, (6) 40mL vial, (7) EnCore, (8) TerraCore, (9) 90mL, (10) Other

*** Preservative Types: (1) None, (2) HNO3, (3) H2SO4, (4) HCl, (5) NaOH, (6) Zn Acetate, (7) NaHSO4, (8) Sod. Thiosulfate, (9) Ascorbic Acid, (10) MeOH, (11) Other

Analysis Requested

Lab Use Only

Proj. Mgr: Angela Baloni

AcctNum / Client ID:

Table #:

Profile / Template: 7672

Preload / Bottle Ord. ID: EZ 3278022

Preservation non-conformance identified for sample

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Waste Water (WW), Product (P), Soil/Solid (SS), Oil (OL), Wipe (WP), Tissue (TS), Bioassay (B), Vapor (V), Surface Water (SW), Sediment (SED), Sludge (SL), Caulk (CK), Leachate (LL), Biosolid (BS), Other (OT)

Customer Sample ID	Matrix *	Comp / Grab	Composite Start Date	Composite Start Time	Collected or Composite End Date	Collected or Composite End Time	# Cont.	Res. Chlorine Results	Res. Chlorine Units	2540C Total Dissolved Solids	300.0 IC Anions 28 Days	6010: 6020: 7470 Metals	RAD 226/228, Total RAD	Sample Comment
BG-1	WT	G	7/14/25	1315			5			X	X	X	X	
BG-2	WT		7/14/25	1115						X	X	X	X	
DUP	WT		7/15/25	—						X	X	X	X	
EQBL	WT		7/14/25	1900						X	X	X	X	
LEACHATE	WT		7/15/25	1130						X	X	X	X	
MW-1	WT		7/16/25	1080						X	X	X	X	
MW-2	WT		7/17/25	0925						X	X	X	X	
MW-2D	WT		7/17/25	0940						X	X	X	X	
MW-3	WT		7/14/25	1610						X	X	X	X	
MW-4	WT		7/14/25	1505						X	X	X	X	

Additional Instructions from Pace*:
Project # 10423253
6020- B, Li, Tl
6010- Sb, As, Ba, Be, Cd, Ca, Cr, Co, Pb, Mo, Se, Cu, Ni, Ag, V, Zn
300.0- Chloride, Fluoride, Sulfate

Collected By: (Printed Name)

Signature:

Customer Remarks / Special Conditions / Possible Hazards:

# Coolers:	Thermometer ID:	Correction Factor (°C):	Obs. Temp. (°C):	Corrected Temp. (°C):	On Ice:

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Tracking Number:
	7/17/25 1335	APQ Pace	7-17-25 1335	
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Delivered by: [ ] In- Person [ ] Courier
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	[ ] FedEX [ ] UPS [ ] Other
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Page: 1 of 3

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Pace® Location Requested (City/State):
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Scan QR Code for instructions

Company Name:	HDR Engineering	Contact/Report To:	Mark Filardi
Street Address:	440 S. Church St Suite 900 Charlotte, NC 28202	Phone #:	(704)338-6787
		E-Mail:	mark.filardi@hdrinc.com
		Cc E-Mail:	
Customer Project #:			
Project Name:	Charah 3rd Quarter GW Monitoring	Invoice To:	Accounts Payable
		Invoice E-Mail:	saaaccounting@hdrinc.onmicrosoft.com
Site Collection Info/Facility ID (as applicable):		Purchase Order # (if applicable):	1000100102528
		Quote #:	

Time Zone Collected: [ ] AK [ ] PT [ ] MT [ ] CT [X] ET

County / State origin of sample(s): North Carolina

Data Deliverables: [ ] Level II [ ] Level III [ ] Level IV [ ] EQUIS [ ] Other

Regulatory Program (DW, RCRA, etc.) as applicable: Reportable [ ] Yes [ ] No

Rush (Pre-approval required): [ ] Same Day [ ] 1 Day [ ] 2 Day [ ] 3 Day [ ] Other _____

DW PWSID # or WW Permit # as applicable:

Date Results Requested: 10 Day TAT

Field Filtered (if applicable): [ ] Yes [ ] No

Analysis:

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Waste Water (WW), Product (P), Soil/Solid (SS), Oil (OL), Wipe (WP), Tissue (TS), Bioassay (B), Vapor (V), Surface Water (SW) Sediment (SED), Sludge (SL), Caulk (OK), Leachate (LL), Biosolid (BS), Other (OT)

Specify Container Size **: 2 3 3 1

Identify Container Preservative Type***: 1 1 2 2

Analysis Requested

Customer Sample ID	Matrix *	Comp / Grab	Composite Start Date	Composite Start Time	Collected or Composite End Date	Collected or Composite End Time	# Cont.	Res. Chlorine Results	Res. Chlorine Units	2540C Total Dissolved Solids	300.0 IC Anions 28 Days	6010; 6020; 7470 Metals	RAD 226/228, Total RAD
MW-5	WT	G	7/15/25	2115						X	X	X	X
MW-6	WT		7/15/25	1405						X	X	X	X
MW-7R	WT		7/16/25	1150						X	X	X	X
MW-8	WT		7/16/25	1430						X	X	X	X
~~MW-9~~	WT		~~7/15/25~~	~~1445~~						X	X	X	X
MW-10	WT		7/16/25	0905						X	X	X	X
MW-11	WT		7/15/25	0905						X	X	X	X
MW-11D	WT		7/15/25	1000						X	X	X	X
SW-1	WT		7/16/25	1655						X	X	X	X
SW-2	WT		7/14/25	1640						X	X	X	X

**Container Size: (1) 1L, (2) 500mL, (3) 250mL, (4) 125mL, (5) 100mL, (6) 40mL vial, (7) EnCore, (8) TerraCore, (9) 90mL, (10) Other

*** Preservative Types: (1) None, (2) HNO3, (3) H2SO4, (4) HCl, (5) NaOH, (6) Zn Acetate, (7) NaHSO4, (8) Sod. Thiosulfate, (9) Ascorbic Acid, (10) MeOH, (11) Other

Lab Use Only

Proj. Mgr: Angela Baioni

AcctNum / Client ID:

Table #:

Profile / Template: 7672

Prelog / Bottle Ord. ID: EZ 3278022

Sample Comment

Preservation non-conformance identified for sample

Additional Instructions from Pace®:
Project # 10423253
6020- B, Li, Tl
6010- Sb, As, Ba, Be, Cd, Ca, Cr, Co, Pb, Mo, Se, Cu, Ni, Ag, V, Zn
300.0, Chloride, Fluoride, Sulfate

Collected By: (Printed Name) Ben Weisacks

Signature:

Customer Remarks / Special Conditions / Possible Hazards:

# Coolers:	Thermometer ID:	Correction Factor (°C):	Obs. Temp. (°C)	Corrected Temp. (°C)	On Ice:

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
HDR	7/17/25 1335	APC Packell	7-17-25 1551
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:

Tracking Number:

Delivered by: [ ] In- Person [ ] Courier [ ] FedEX [ ] UPS [ ] Other

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Scan QR Code for instructions 92808108

Company Name:	HDR Engineering	Contact/Report To:	Mark Filardi
Street Address:	440 S. Church St Suite 900 Charlotte, NC 28202	Phone #:	(704)338-6787
		E-Mail:	mark.filardi@hdrinc.com
		Cc E-Mail:	
Customer Project #:			
Project Name:	Charah 3rd Quarter GW Monitoring	Invoice To:	Accounts Payable
		Invoice E-Mail:	saaaccounting@hdrinc.onmicrosoft.com
Site Collection Info/Facility ID (as applicable):		Purchase Order # (if applicable):	1000100102528
		Quote #:	

Time Zone Collected: [ ] AK [ ] PT [ ] MT [ ] CT [X] ET

County / State origin of sample(s): North Carolina

Data Deliverables:
[ ] Level II [ ] Level III [ ] Level IV
[ ] EQUIS
[ ] Other

Regulatory Program (DW, RCRA, etc.) as applicable: Reportable [ ] Yes [ ] No

Rush (Pre-approval required):
[ ] Same Day [ ] 1 Day [ ] 2 Day [ ] 3 Day [ ] Other _____

DW PWSID # or WW Permit # as applicable:

Date Results Requested: 10 Day TAT

Field Filtered (if applicable): [ ] Yes [ ] No

Analysis:

* Matrix Codes (insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Waste Water (WW), Product (P), Soil/Solid (SS), Oil (OL), Wipe (WP), Tissue (TS), Bioassay (B), Vapor (V), Surface Water (SW),Sediment (SED), Sludge (SL), Caulk (CK), Leachate (LL), Biosolid (BS), Other (OT)

Specify Container Size **: 2 3 3 1

Identify Container Preservative Type***: 1 1 2 2

**Container Size: (1) 1L, (2) 500mL, (3) 250mL, (4) 125mL, (5) 100mL, (6) 40mL vial, (7) EnCore, (8) TerraCore, (9) 50mL, (10) Other

*** Preservative Types: (1) None, (2) HNO3, (3) H2SO4, (4) HCl, (5) NaOH, (6) Zn Acetate, (7) NaHSO4, (8) Sod. Thiosulfate, (9) Ascorbic Acid, (10) MeOH, (11) Other

Customer Sample ID	Matrix *	Comp / Grab	Composite Start Date	Composite Start Time	Collected or Composite End Date	Collected or Composite End Time	# Cont.	Res. Chlorine Results	Res. Chlorine Units	2540C Total Dissolved Solids	300.0 IC Anions 28 Days	6010; 6020; 7470 Metals	RAD 226/228, Total RAD	Sample Comment
SW-3	WT	G	7/14/25	1650			5			X	X	X	X	
SW-4	WT	|	7/14/25	1015			|			X	X	X	X	
SW-5	WT	|	7/16/25	1705			|			X	X	X	X	
SW-6	WT	|	7/16/25	1615						X	X	X	X	

Lab Use Only:
Proj. Mgr: Angela Baioni
AcctNum / Client ID:
Table #:
Profile / Template: 7672
Prelog / Bottle Ord. ID: EZ 3278022

Preservation non-conformance identified for sample:

Additional Instructions from Pace*:
Project # 10423253
6020- B, Li, Tl
6010- Sb, As, Ba, Be, Cd, Ca, Cr, Co, Pb, Mo, Se, Cu, Ni, Ag, V, Zn
300.0- Chloride, Fluoride, Sulfate

Collected By:
(Printed Name) Ben Weisberg
Signature:

Customer Remarks / Special Conditions / Possible Hazards:

# Coolers:	Thermometer ID:	Correction Factor (°C):	Obs. Temp. (°C)	Corrected Temp. (°C)	On Ice:

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Tracking Number:
HSA	7/17/25 1335	ABC Courier	7-17-25 1334	
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Delivered by: [ ] In- Person [ ] Courier
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	[ ] FedEX [ ] UPS [ ] Other
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Page: 3 of 3

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Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

November 25, 2025

Mark Filardi
HDR
440 S. Church St
Suite 900
Charlotte, NC 28202

RE: Project: Charah 4th Quarter GW Monitori
Pace Project No.: 92825546

Dear Mark Filardi:

Enclosed are the analytical results for sample(s) received by the laboratory on October 24, 2025. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace National - Mt. Juliet
- Pace Analytical Services - Asheville
- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Kathy Smith

Kathy Smith for
Angela Baioni
angela.baioni@pacelabs.com
612-473-6801
Project Manager

Enclosures

cc: Mark Filardi, HDR Engineering

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Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

CERTIFICATIONS

Project: Charah 4th Quarter GW Monitori
Pace Project No.: 92825546

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
ANABISO/IEC 17025:2017 Rad Cert#: L24170
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 2950
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA010
Louisiana DEQ/TNI Certification #: 04086
Maine Certification #: 2023021
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572023-03
New Hampshire/TNI Certification #: 297622
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-015
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN02867
Texas/TNI Certification #: T104704188-22-18
Utah/TNI Certification #: PA014572223-14
USDA Soil Permit #: 525-23-67-77263
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad

Pace Analytical Services National

12065 Lebanon Road, Mt. Juliet, TN 37122
Alabama Certification #: 40660
Alaska Certification 17-026
Arizona Certification #: AZ0612
Arkansas Certification #: 88-0469
California Certification #: 2932
Canada Certification #: 1461.01
Colorado Certification #: TN00003
Connecticut Certification #: PH-0197
DOD Certification: #1461.01
EPA# TN00003
Florida Certification #: E87487
Georgia DW Certification #: 923
Georgia Certification: NELAP
Idaho Certification #: TN00003
Illinois Certification #: 200008
Indiana Certification #: C-TN-01
Iowa Certification #: 364
Kansas Certification #: E-10277
Kentucky UST Certification #: 16
Kentucky Certification #: 90010
Louisiana Certification #: AI30792
Louisiana DW Certification #: LA180010
Maine Certification #: TN0002
Maryland Certification #: 324
Massachusetts Certification #: M-TN003
Michigan Certification #: 9958
Minnesota Certification #: 047-999-395
Mississippi Certification #: TN00003
Missouri Certification #: 340
Montana Certification #: CERT0086
Nebraska Certification #: NE-OS-15-05
Nevada Certification #: TN-03-2002-34
New Hampshire Certification #: 2975
New Jersey Certification #: TN002
New Mexico DW Certification
New York Certification #: 11742
North Carolina Aquatic Toxicity Certification #: 41
North Carolina Drinking Water Certification #: 21704
North Carolina Environmental Certificate #: 375
North Dakota Certification #: R-140
Ohio VAP Certification #: CL0069

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

CERTIFICATIONS

Project: Charah 4th Quarter GW Monitori
Pace Project No.: 92825546

Pace Analytical Services National

Oklahoma Certification #: 9915
Oregon Certification #: TN200002
Pennsylvania Certification #: 68-02979
Rhode Island Certification #: LAO00356
South Carolina Certification #: 84004
South Dakota Certification
Tennessee DW/Chem/Micro Certification #: 2006
Texas Mold Certification #: LAB0152
Texas Certification #: T 104704245-17-14
USDA Soil Permit #: P330-15-00234
Utah Certification #: TN00003
Vermont Dept. of Health: ID# VT-2006
Virginia Certification #: VT2006
Virginia Certification #: 460132
Washington Certification #: C847
West Virginia Certification #: 233
Wisconsin Certification #: 998093910
Wyoming UST Certification #: via A2LA 2926.01
A2LA-ISO 17025 Certification #: 1461.01
A2LA-ISO 17025 Certification #: 1461.02
AIHA-LAP/LLC EMLAP Certification #:100789

Pace Analytical Services Asheville

2225 Riverside Drive, Asheville, NC 28804
Florida/NELAP Certification #: E87648
North Carolina Drinking Water Certification #: 37712
North Carolina Wastewater Certification #: 40
South Carolina Laboratory ID: 99030
South Carolina Certification #: 99030001
Virginia/VELAP Certification #: 460222

REPORT OF LABORATORY ANALYSIS

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9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

SAMPLE SUMMARY

Project: Charah 4th Quarter GW Monitori
Pace Project No.: 92825546

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92825546001	**BG-1**	Water	10/20/25 12:25	10/24/25 09:42
92825546002	**BG-2**	Water	10/21/25 10:20	10/24/25 09:42
92825546003	**DUP**	Water	10/23/25 00:00	10/24/25 09:42
92825546004	**EQBL**	Water	10/21/25 12:30	10/24/25 09:42
92825546005	**LEACHATE**	Water	10/20/25 16:50	10/24/25 09:42
92825546006	**MW-1**	Water	10/21/25 17:15	10/24/25 09:42
92825546007	**MW-2**	Water	10/21/25 14:40	10/24/25 09:42
92825546008	**MW-3**	Water	10/21/25 11:50	10/24/25 09:42
92825546009	**MW-4**	Water	10/20/25 14:30	10/24/25 09:42
92825546010	**MW-5**	Water	10/20/25 16:40	10/24/25 09:42
92825546011	**MW-6**	Water	10/22/25 18:15	10/24/25 09:42
92825546012	**MW-7R**	Water	10/22/25 16:00	10/24/25 09:42
92825546013	**MW-8**	Water	10/22/25 11:00	10/24/25 09:42
92825546014	**MW-10**	Water	10/23/25 16:40	10/24/25 09:42
92825546015	**MW-11**	Water	10/23/25 15:15	10/24/25 09:42
92825546016	**MW-11D**	Water	10/23/25 12:15	10/24/25 09:42
92825546017	**SW-1**	Water	10/21/25 15:35	10/24/25 09:42
92825546018	**SW-2**	Water	10/22/25 12:20	10/24/25 09:42
92825546019	**SW-3**	Water	10/22/25 12:40	10/24/25 09:42
92825546020	**SW-5**	Water	10/22/25 13:15	10/24/25 09:42
92825546021	**SW-6**	Water	10/21/25 15:55	10/24/25 09:42

REPORT OF LABORATORY ANALYSIS

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Huntersville, NC 28078
(704)875-9092

SAMPLE ANALYTE COUNT

Project: Charah 4th Quarter GW Monitori
Pace Project No.: 92825546

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92825546001	**BG-1**	EPA 6010D	JTM	16	PAN
		EPA 6020B	JPD	3	PAN
		EPA 7470A	SDG	1	PAN
		EPA 903.1	DSO	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2540C-2020	ACE	1	PASI-A
		EPA 300.0 Rev 2.1 1993	JCM	3	PASI-A
92825546002	**BG-2**	EPA 6010D	JTM	16	PAN
		EPA 6020B	JPD	3	PAN
		EPA 7470A	SDG	1	PAN
		EPA 903.1	DSO	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2540C-2020	ACE	1	PASI-A
		EPA 300.0 Rev 2.1 1993	JCM	3	PASI-A
92825546003	**DUP**	EPA 6010D	JTM	16	PAN
		EPA 6020B	JPD	3	PAN
		EPA 7470A	SDG	1	PAN
		EPA 903.1	DSO	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2540C-2020	ACE	1	PASI-A
		EPA 300.0 Rev 2.1 1993	JCM	3	PASI-A
92825546004	**EQBL**	EPA 6010D	JTM	16	PAN
		EPA 6020B	JPD	3	PAN
		EPA 7470A	SDG	1	PAN
		EPA 903.1	DSO	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2540C-2020	ACE	1	PASI-A
		EPA 300.0 Rev 2.1 1993	JCM	3	PASI-A
92825546005	**LEACHATE**	EPA 6010D	JTM	16	PAN
		EPA 6020B	JPD	3	PAN
		EPA 7470A	SDG	1	PAN
		EPA 903.1	DSO	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA

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SAMPLE ANALYTE COUNT

Project: Charah 4th Quarter GW Monitori
Pace Project No.: 92825546

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2540C-2020	ACE	1	PASI-A
		EPA 300.0 Rev 2.1 1993	JCM	3	PASI-A
92825546006	**MW-1**	EPA 6010D	JTM	16	PAN
		EPA 6020B	JPD	3	PAN
		EPA 7470A	SDG	1	PAN
		EPA 903.1	DSO	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2540C-2020	ACE	1	PASI-A
		EPA 300.0 Rev 2.1 1993	JCM	3	PASI-A
92825546007	**MW-2**	EPA 6010D	JTM	16	PAN
		EPA 6020B	JPD	3	PAN
		EPA 7470A	SDG	1	PAN
		EPA 903.1	DSO	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2540C-2020	ACE	1	PASI-A
		EPA 300.0 Rev 2.1 1993	JCM	3	PASI-A
92825546008	**MW-3**	EPA 6010D	JTM	16	PAN
		EPA 6020B	JPD	3	PAN
		EPA 7470A	SDG	1	PAN
		EPA 903.1	DSO	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2540C-2020	ACE	1	PASI-A
		EPA 300.0 Rev 2.1 1993	JCM	3	PASI-A
92825546009	**MW-4**	EPA 6010D	JTM	16	PAN
		EPA 6020B	JPD	3	PAN
		EPA 7470A	SDG	1	PAN
		EPA 903.1	DSO	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2540C-2020	ACE	1	PASI-A
		EPA 300.0 Rev 2.1 1993	JCM	3	PASI-A
92825546010	**MW-5**	EPA 6010D	JTM	16	PAN
		EPA 6020B	JPD	3	PAN

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SAMPLE ANALYTE COUNT

Project: Charah 4th Quarter GW Monitori
Pace Project No.: 92825546

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 7470A	SDG	1	PAN
		EPA 903.1	DSO	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2540C-2020	ACE	1	PASI-A
		EPA 300.0 Rev 2.1 1993	JCM	3	PASI-A
92825546011	**MW-6**	EPA 6010D	JTM	16	PAN
		EPA 6020B	JPD	3	PAN
		EPA 7470A	SDG	1	PAN
		EPA 903.1	DSO	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2540C-2020	ACE	1	PASI-A
		EPA 300.0 Rev 2.1 1993	JCM	3	PASI-A
92825546012	**MW-7R**	EPA 6010D	JTM	16	PAN
		EPA 6020B	JPD	3	PAN
		EPA 7470A	SDG	1	PAN
		EPA 903.1	DSO	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2540C-2020	ACE	1	PASI-A
		EPA 300.0 Rev 2.1 1993	JCM	3	PASI-A
92825546013	**MW-8**	EPA 6010D	JTM	16	PAN
		EPA 6020B	JPD	3	PAN
		EPA 7470A	SDG	1	PAN
		EPA 903.1	DSO	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2540C-2020	ACE	1	PASI-A
		EPA 300.0 Rev 2.1 1993	JCM	3	PASI-A
92825546014	**MW-10**	EPA 6010D	JTM	16	PAN
		EPA 6020B	JPD	3	PAN
		EPA 7470A	SDG	1	PAN
		EPA 903.1	DSO	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2540C-2020	ACE	1	PASI-A

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SAMPLE ANALYTE COUNT

Project: Charah 4th Quarter GW Monitori
Pace Project No.: 92825546

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 300.0 Rev 2.1 1993	JCM	3	PASI-A
92825546015	**MW-11**	EPA 6010D	JTM	16	PAN
		EPA 6020B	JPD	3	PAN
		EPA 7470A	SDG	1	PAN
		EPA 903.1	DSO	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2540C-2020	ACE	1	PASI-A
		EPA 300.0 Rev 2.1 1993	JCM	3	PASI-A
92825546016	**MW-11D**	EPA 6010D	JTM	16	PAN
		EPA 6020B	JPD	3	PAN
		EPA 7470A	SDG	1	PAN
		EPA 903.1	DSO	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2540C-2020	ACE	1	PASI-A
		EPA 300.0 Rev 2.1 1993	JCM	3	PASI-A
92825546017	**SW-1**	EPA 6010D	JTM	16	PAN
		EPA 6020B	JPD	3	PAN
		EPA 7470A	SDG	1	PAN
		EPA 903.1	DSO	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2540C-2020	ACE	1	PASI-A
		EPA 300.0 Rev 2.1 1993	JCM	3	PASI-A
92825546018	**SW-2**	EPA 6010D	JTM	16	PAN
		EPA 6020B	JPD	3	PAN
		EPA 7470A	SDG	1	PAN
		EPA 903.1	DSO	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2540C-2020	CMW1	1	PASI-A
		EPA 300.0 Rev 2.1 1993	JCM	3	PASI-A
92825546019	**SW-3**	EPA 6010D	JTM	16	PAN
		EPA 6020B	JPD	3	PAN
		EPA 7470A	SDG	1	PAN
		EPA 903.1	DSO	1	PASI-PA

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SAMPLE ANALYTE COUNT

Project: Charah 4th Quarter GW Monitori
Pace Project No.: 92825546

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2540C-2020	CMW1	1	PASI-A
		EPA 300.0 Rev 2.1 1993	JCM	3	PASI-A
92825546020	**SW-5**	EPA 6010D	JTM	16	PAN
		EPA 6020B	JPD	3	PAN
		EPA 7470A	SDG	1	PAN
		EPA 903.1	DSO	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2540C-2020	CMW1	1	PASI-A
		EPA 300.0 Rev 2.1 1993	JCM	3	PASI-A
92825546021	**SW-6**	EPA 6010D	BAG	16	PAN
		EPA 6020B	LD, UNP	3	PAN
		EPA 7470A	SDG	1	PAN
		EPA 903.1	TMY	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2540C-2020	ACE	1	PASI-A
		EPA 300.0 Rev 2.1 1993	JCM	3	PASI-A

PAN = Pace National - Mt. Juliet
PASI-A = Pace Analytical Services - Asheville
PASI-PA = Pace Analytical Services - Greensburg

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: Charah 4th Quarter GW Monitori
Pace Project No.: 92825546

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92825546001	**BG-1**					
EPA 6010D	Barium	240	ug/L	5.00	10/30/25 17:20	
EPA 6010D	Calcium	20900	ug/L	1000	10/30/25 17:20	
EPA 6010D	Zinc	5.62J	ug/L	50.0	10/30/25 17:20	J
EPA 6020B	Lithium	17.0	ug/L	2.00	11/22/25 15:46	
EPA 903.1	Radium-226	0.000 ± 0.547 (1.07) C:NA T:94%	pCi/L		11/18/25 13:44	
EPA 904.0	Radium-228	0.689 ± 0.391 (0.700) C:79% T:85%	pCi/L		11/14/25 14:42	
Total Radium Calculation	Total Radium	0.689 ± 0.938 (1.77)	pCi/L		11/18/25 14:53	
SM 2540C-2020	Total Dissolved Solids	510	mg/L	50.0	10/26/25 11:03	
EPA 300.0 Rev 2.1 1993	Chloride	165	mg/L	4.0	10/26/25 05:25	
EPA 300.0 Rev 2.1 1993	Fluoride	0.17	mg/L	0.10	10/25/25 17:20	
EPA 300.0 Rev 2.1 1993	Sulfate	22.7	mg/L	1.0	10/25/25 17:20	
92825546002	**BG-2**					
EPA 6010D	Barium	55.8	ug/L	5.00	10/30/25 17:23	
EPA 6010D	Calcium	124000	ug/L	1000	10/30/25 17:23	
EPA 6010D	Molybdenum	3.07J	ug/L	5.00	10/30/25 17:23	J
EPA 6020B	Boron	18.9J	ug/L	30.0	11/22/25 15:49	J
EPA 6020B	Lithium	20.3	ug/L	2.00	11/22/25 15:49	
EPA 903.1	Radium-226	0.000 ± 0.522 (1.03) C:NA T:91%	pCi/L		11/18/25 13:44	
EPA 904.0	Radium-228	0.0246 ± 0.241 (0.565) C:85% T:82%	pCi/L		11/14/25 14:38	
Total Radium Calculation	Total Radium	0.0246 ± 0.763 (1.60)	pCi/L		11/18/25 14:53	
SM 2540C-2020	Total Dissolved Solids	1200	mg/L	125	10/27/25 10:55	
EPA 300.0 Rev 2.1 1993	Chloride	255	mg/L	6.0	10/26/25 05:39	M1
EPA 300.0 Rev 2.1 1993	Fluoride	0.21	mg/L	0.10	10/25/25 17:34	
EPA 300.0 Rev 2.1 1993	Sulfate	154	mg/L	6.0	10/26/25 05:39	M1
92825546003	**DUP**					
EPA 6010D	Barium	113	ug/L	5.00	10/30/25 17:25	
EPA 6010D	Calcium	16000	ug/L	1000	10/30/25 17:25	
EPA 6010D	Copper	11.2	ug/L	10.0	10/30/25 17:25	
EPA 6010D	Molybdenum	4.68J	ug/L	5.00	10/30/25 17:25	J
EPA 6010D	Zinc	76.7	ug/L	50.0	10/30/25 17:25	
EPA 6020B	Boron	46.1	ug/L	30.0	11/22/25 15:53	
EPA 6020B	Lithium	16.8	ug/L	2.00	11/22/25 15:53	

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: Charah 4th Quarter GW Monitori
Pace Project No.: 92825546

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92825546003	**DUP**					
EPA 903.1	Radium-226	-0.223 ± 0.558 (1.15) C:NA T:93%	pCi/L		11/18/25 13:44	
EPA 904.0	Radium-228	0.339 ± 0.299 (0.601) C:86% T:90%	pCi/L		11/14/25 14:38	
Total Radium Calculation	Total Radium	0.339 ± 0.857 (1.75)	pCi/L		11/18/25 14:53	
SM 2540C-2020	Total Dissolved Solids	313	mg/L	25.0	10/30/25 10:37	
EPA 300.0 Rev 2.1 1993	Chloride	53.7	mg/L	1.0	10/25/25 19:21	
EPA 300.0 Rev 2.1 1993	Fluoride	0.40	mg/L	0.10	10/25/25 19:21	
EPA 300.0 Rev 2.1 1993	Sulfate	13.7	mg/L	1.0	10/25/25 19:21	
92825546004	**EQBL**					
EPA 6010D	Calcium	177J	ug/L	1000	10/30/25 17:27	J
EPA 903.1	Radium-226	0.223 ± 0.256 (0.151) C:NA T:88%	pCi/L		11/18/25 13:44	
EPA 904.0	Radium-228	-0.131 ± 0.285 (0.699) C:84% T:84%	pCi/L		11/14/25 14:42	
Total Radium Calculation	Total Radium	0.223 ± 0.541 (0.850)	pCi/L		11/18/25 14:53	
92825546005	**LEACHATE**					
EPA 6010D	Arsenic	89.4	ug/L	10.0	10/30/25 17:34	
EPA 6010D	Barium	45.1	ug/L	5.00	10/30/25 17:34	
EPA 6010D	Calcium	230000	ug/L	1000	10/30/25 17:34	
EPA 6010D	Copper	3.49J	ug/L	10.0	10/30/25 17:34	J
EPA 6010D	Molybdenum	194	ug/L	5.00	10/30/25 17:34	
EPA 6010D	Zinc	6.46J	ug/L	50.0	10/30/25 17:34	J
EPA 6020B	Boron	4030	ug/L	300	11/22/25 16:13	
EPA 6020B	Lithium	62.2	ug/L	2.00	11/22/25 16:10	
EPA 903.1	Radium-226	0.169 ± 0.258 (0.416) C:NA T:96%	pCi/L		11/18/25 13:44	
EPA 904.0	Radium-228	0.161 ± 0.411 (0.913) C:85% T:86%	pCi/L		11/14/25 14:38	
Total Radium Calculation	Total Radium	0.330 ± 0.669 (1.33)	pCi/L		11/18/25 14:53	
SM 2540C-2020	Total Dissolved Solids	1210	mg/L	50.0	10/26/25 11:03	

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: Charah 4th Quarter GW Monitori
Pace Project No.: 92825546

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92825546005	**LEACHATE**					
EPA 300.0 Rev 2.1 1993	Chloride	19.3	mg/L	1.0	10/25/25 19:35	
EPA 300.0 Rev 2.1 1993	Fluoride	0.18	mg/L	0.10	10/25/25 19:35	
EPA 300.0 Rev 2.1 1993	Sulfate	434	mg/L	10.0	10/26/25 06:48	
92825546006	**MW-1**					
EPA 6010D	Barium	153	ug/L	5.00	10/30/25 17:36	
EPA 6010D	Calcium	150000	ug/L	1000	10/30/25 17:36	
EPA 6010D	Zinc	5.23J	ug/L	50.0	10/30/25 17:36	J
EPA 6020B	Boron	50.8	ug/L	30.0	11/22/25 16:16	
EPA 6020B	Lithium	33.2	ug/L	2.00	11/22/25 16:16	
EPA 903.1	Radium-226	0.179 ± 0.273 (0.162) C:NA T:85%	pCi/L		11/18/25 13:44	
EPA 904.0	Radium-228	1.08 ± 0.522 (0.919) C:76% T:87%	pCi/L		11/14/25 14:39	
Total Radium Calculation	Total Radium	1.26 ± 0.795 (1.08)	pCi/L		11/18/25 14:53	
SM 2540C-2020	Total Dissolved Solids	1320	mg/L	250	10/27/25 10:55	
EPA 300.0 Rev 2.1 1993	Chloride	508	mg/L	11.0	10/26/25 07:01	
EPA 300.0 Rev 2.1 1993	Fluoride	0.12	mg/L	0.10	10/25/25 19:49	
EPA 300.0 Rev 2.1 1993	Sulfate	5.8	mg/L	1.0	10/25/25 19:49	
92825546007	**MW-2**					
EPA 6010D	Barium	330	ug/L	5.00	10/30/25 17:39	
EPA 6010D	Calcium	174000	ug/L	1000	10/30/25 17:39	
EPA 6010D	Chromium	4.20J	ug/L	10.0	10/30/25 17:39	J
EPA 6010D	Copper	6.04J	ug/L	10.0	10/30/25 17:39	J
EPA 6010D	Molybdenum	5.18	ug/L	5.00	10/30/25 17:39	
EPA 6010D	Nickel	3.09J	ug/L	10.0	10/30/25 17:39	J
EPA 6010D	Zinc	40.3J	ug/L	50.0	10/30/25 17:39	J
EPA 6020B	Boron	60.9	ug/L	30.0	11/22/25 16:19	
EPA 6020B	Lithium	154	ug/L	2.00	11/22/25 16:19	
EPA 903.1	Radium-226	0.955 ± 0.607 (0.782) C:NA T:90%	pCi/L		11/18/25 13:44	
EPA 904.0	Radium-228	1.33 ± 0.513 (0.786) C:84% T:82%	pCi/L		11/14/25 14:39	
Total Radium Calculation	Total Radium	2.29 ± 1.12 (1.57)	pCi/L		11/18/25 14:53	
SM 2540C-2020	Total Dissolved Solids	2290	mg/L	250	10/27/25 10:55	
EPA 300.0 Rev 2.1 1993	Chloride	994	mg/L	22.0	10/26/25 07:15	
EPA 300.0 Rev 2.1 1993	Fluoride	0.17	mg/L	0.10	10/25/25 20:03	
EPA 300.0 Rev 2.1 1993	Sulfate	61.8	mg/L	1.0	10/25/25 20:03	

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SUMMARY OF DETECTION

Project: Charah 4th Quarter GW Monitori
Pace Project No.: 92825546

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92825546008	**MW-3**					
EPA 6010D	Barium	763	ug/L	5.00	10/30/25 17:41	
EPA 6010D	Calcium	190000	ug/L	1000	10/30/25 17:41	
EPA 6010D	Copper	3.46J	ug/L	10.0	10/30/25 17:41	J
EPA 6010D	Molybdenum	6.89	ug/L	5.00	10/30/25 17:41	
EPA 6010D	Zinc	8.25J	ug/L	50.0	10/30/25 17:41	J
EPA 6020B	Boron	46.1	ug/L	30.0	11/22/25 15:33	
EPA 6020B	Lithium	88.0	ug/L	2.00	11/22/25 15:33	
EPA 903.1	Radium-226	0.916 ± 0.700 (1.04) C:NA T:87%	pCi/L		11/18/25 13:55	
EPA 904.0	Radium-228	2.10 ± 0.690 (1.000) C:85% T:79%	pCi/L		11/14/25 14:39	
Total Radium Calculation	Total Radium	3.02 ± 1.39 (2.04)	pCi/L		11/18/25 14:53	
SM 2540C-2020	Total Dissolved Solids	2330	mg/L	250	10/27/25 10:55	
EPA 300.0 Rev 2.1 1993	Chloride	1050	mg/L	24.0	10/26/25 07:29	
EPA 300.0 Rev 2.1 1993	Fluoride	0.22	mg/L	0.10	10/25/25 20:16	
EPA 300.0 Rev 2.1 1993	Sulfate	11.2	mg/L	1.0	10/25/25 20:16	
92825546009	**MW-4**					
EPA 6010D	Barium	320	ug/L	5.00	10/30/25 17:43	
EPA 6010D	Calcium	68100	ug/L	1000	10/30/25 17:43	
EPA 6010D	Cobalt	4.90J	ug/L	10.0	10/30/25 17:43	J
EPA 6010D	Molybdenum	1.54J	ug/L	5.00	10/30/25 17:43	J
EPA 6010D	Nickel	4.78J	ug/L	10.0	10/30/25 17:43	J
EPA 6010D	Selenium	6.24J	ug/L	10.0	10/30/25 17:43	J
EPA 6010D	Zinc	8.95J	ug/L	50.0	10/30/25 17:43	J
EPA 6020B	Boron	15.3J	ug/L	30.0	11/22/25 16:23	J
EPA 6020B	Lithium	43.6	ug/L	2.00	11/22/25 16:23	
EPA 903.1	Radium-226	0.0573 ± 0.514 (0.997) C:NA T:89%	pCi/L		11/18/25 13:55	
EPA 904.0	Radium-228	0.439 ± 0.350 (0.695) C:84% T:89%	pCi/L		11/14/25 14:39	
Total Radium Calculation	Total Radium	0.496 ± 0.864 (1.69)	pCi/L		11/18/25 14:53	
SM 2540C-2020	Total Dissolved Solids	1190	mg/L	250	10/26/25 11:03	
EPA 300.0 Rev 2.1 1993	Chloride	290	mg/L	6.0	10/26/25 07:43	
EPA 300.0 Rev 2.1 1993	Fluoride	0.38	mg/L	0.10	10/25/25 20:30	
EPA 300.0 Rev 2.1 1993	Sulfate	9.1	mg/L	1.0	10/25/25 20:30	
92825546010	**MW-5**					
EPA 6010D	Barium	93.6	ug/L	5.00	10/30/25 17:46	

REPORT OF LABORATORY ANALYSIS

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Huntersville, NC 28078
(704)875-9092

SUMMARY OF DETECTION

Project: Charah 4th Quarter GW Monitori
Pace Project No.: 92825546

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92825546010	**MW-5**					
EPA 6010D	Calcium	9610	ug/L	1000	10/30/25 17:46	
EPA 6010D	Zinc	14.5J	ug/L	50.0	10/30/25 17:46	J
EPA 6020B	Boron	16.7J	ug/L	30.0	11/22/25 16:26	J
EPA 6020B	Lithium	10.5	ug/L	2.00	11/22/25 16:26	
EPA 903.1	Radium-226	0.118 ± 0.568 (1.07) C:NA T:88%	pCi/L		11/18/25 13:55	
EPA 904.0	Radium-228	-0.0196 ± 0.297 (0.703) C:83% T:84%	pCi/L		11/14/25 14:39	
Total Radium Calculation	Total Radium	0.118 ± 0.865 (1.77)	pCi/L		11/18/25 14:53	
SM 2540C-2020	Total Dissolved Solids	205	mg/L	25.0	10/26/25 11:05	
EPA 300.0 Rev 2.1 1993	Chloride	20.8	mg/L	1.0	10/25/25 20:44	
EPA 300.0 Rev 2.1 1993	Fluoride	0.50	mg/L	0.10	10/25/25 20:44	
EPA 300.0 Rev 2.1 1993	Sulfate	3.5	mg/L	1.0	10/25/25 20:44	
92825546011	**MW-6**					
EPA 6010D	Barium	54.1	ug/L	5.00	10/30/25 17:48	
EPA 6010D	Calcium	34000	ug/L	1000	10/30/25 17:48	
EPA 6010D	Copper	44.0	ug/L	10.0	10/30/25 17:48	
EPA 6010D	Zinc	10.7J	ug/L	50.0	10/30/25 17:48	J
EPA 6020B	Boron	12.2J	ug/L	30.0	11/22/25 16:29	J
EPA 6020B	Lithium	25.6	ug/L	2.00	11/22/25 16:29	
EPA 903.1	Radium-226	0.000 ± 0.266 (0.158) C:NA T:88%	pCi/L		11/18/25 13:55	
EPA 904.0	Radium-228	0.571 ± 0.371 (0.688) C:81% T:79%	pCi/L		11/14/25 14:39	
Total Radium Calculation	Total Radium	0.571 ± 0.637 (0.846)	pCi/L		11/18/25 14:53	
SM 2540C-2020	Total Dissolved Solids	590	mg/L	50.0	10/28/25 10:57	
EPA 300.0 Rev 2.1 1993	Chloride	176	mg/L	4.0	10/26/25 07:57	
EPA 300.0 Rev 2.1 1993	Fluoride	0.30	mg/L	0.10	10/25/25 22:03	
EPA 300.0 Rev 2.1 1993	Sulfate	27.2	mg/L	1.0	10/25/25 22:03	
92825546012	**MW-7R**					
EPA 6010D	Barium	317	ug/L	5.00	10/30/25 17:50	
EPA 6010D	Calcium	96500	ug/L	1000	10/30/25 17:50	
EPA 6010D	Chromium	3.39J	ug/L	10.0	10/30/25 17:50	J
EPA 6010D	Copper	61.6	ug/L	10.0	10/30/25 17:50	
EPA 6010D	Lead	2.79J	ug/L	6.00	10/30/25 17:50	J
EPA 6010D	Molybdenum	1.75J	ug/L	5.00	10/30/25 17:50	J

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SUMMARY OF DETECTION

Project: Charah 4th Quarter GW Monitori
Pace Project No.: 92825546

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92825546012	**MW-7R**					
EPA 6010D	Zinc	11.3J	ug/L	50.0	10/30/25 17:50	J
EPA 6020B	Boron	11.8J	ug/L	30.0	11/22/25 16:32	J
EPA 6020B	Lithium	30.9	ug/L	2.00	11/22/25 16:32	
EPA 903.1	Radium-226	0.0622 ± 0.284 (0.168) C:NA T:87%	pCi/L		11/18/25 13:55	
EPA 904.0	Radium-228	0.598 ± 0.448 (0.873) C:74% T:81%	pCi/L		11/14/25 14:39	
Total Radium Calculation	Total Radium	0.660 ± 0.732 (1.04)	pCi/L		11/18/25 14:53	
SM 2540C-2020	Total Dissolved Solids	908	mg/L	50.0	10/28/25 10:57	
EPA 300.0 Rev 2.1 1993	Chloride	265	mg/L	6.0	10/26/25 08:11	M1
EPA 300.0 Rev 2.1 1993	Fluoride	0.10	mg/L	0.10	10/25/25 22:17	
EPA 300.0 Rev 2.1 1993	Sulfate	14.2	mg/L	1.0	10/25/25 22:17	
92825546013	**MW-8**					
EPA 6010D	Barium	1370	ug/L	5.00	10/30/25 17:53	
EPA 6010D	Calcium	164000	ug/L	1000	10/30/25 17:53	
EPA 6010D	Copper	2.41J	ug/L	10.0	10/30/25 17:53	J
EPA 6010D	Zinc	15.8J	ug/L	50.0	10/30/25 17:53	J
EPA 6020B	Boron	13.6J	ug/L	30.0	11/22/25 16:35	J
EPA 6020B	Lithium	42.0	ug/L	2.00	11/22/25 16:35	
EPA 903.1	Radium-226	0.444 ± 0.348 (0.408) C:NA T:89%	pCi/L		11/18/25 13:55	
EPA 904.0	Radium-228	1.12 ± 0.467 (0.749) C:82% T:86%	pCi/L		11/14/25 14:39	
Total Radium Calculation	Total Radium	1.56 ± 0.815 (1.16)	pCi/L		11/18/25 14:53	
SM 2540C-2020	Total Dissolved Solids	1630	mg/L	250	10/28/25 10:57	
EPA 300.0 Rev 2.1 1993	Chloride	499	mg/L	11.0	10/26/25 09:19	
EPA 300.0 Rev 2.1 1993	Fluoride	0.061J	mg/L	0.10	10/25/25 22:59	
EPA 300.0 Rev 2.1 1993	Sulfate	6.6	mg/L	1.0	10/25/25 22:59	
92825546014	**MW-10**					
EPA 6010D	Barium	95.2	ug/L	5.00	10/30/25 17:55	
EPA 6010D	Calcium	21300	ug/L	1000	10/30/25 17:55	
EPA 6010D	Copper	58.8	ug/L	10.0	10/30/25 17:55	
EPA 6010D	Molybdenum	21.5	ug/L	5.00	10/30/25 17:55	
EPA 6010D	Selenium	7.63J	ug/L	10.0	10/30/25 17:55	J
EPA 6010D	Zinc	10.7J	ug/L	50.0	10/30/25 17:55	J
EPA 6020B	Boron	30.0	ug/L	30.0	11/22/25 16:38	

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(704)875-9092

SUMMARY OF DETECTION

Project: Charah 4th Quarter GW Monitori
Pace Project No.: 92825546

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92825546014	**MW-10**					
EPA 6020B	Lithium	6.29	ug/L	2.00	11/22/25 16:38	
EPA 903.1	Radium-226	0.339 ± 0.352 (0.524) C:NA T:89%	pCi/L		11/18/25 13:55	
EPA 904.0	Radium-228	1.07 ± 0.440 (0.687) C:81% T:86%	pCi/L		11/14/25 14:39	
Total Radium Calculation	Total Radium	1.41 ± 0.792 (1.21)	pCi/L		11/18/25 14:53	
SM 2540C-2020	Total Dissolved Solids	332	mg/L	25.0	10/30/25 10:39	
EPA 300.0 Rev 2.1 1993	Chloride	29.9	mg/L	1.0	10/25/25 23:13	
EPA 300.0 Rev 2.1 1993	Fluoride	0.40	mg/L	0.10	10/25/25 23:13	
EPA 300.0 Rev 2.1 1993	Sulfate	1.7	mg/L	1.0	10/25/25 23:13	
92825546015	**MW-11**					
EPA 6010D	Barium	38.6	ug/L	5.00	10/30/25 17:11	
EPA 6010D	Calcium	25200	ug/L	1000	10/30/25 17:11	
EPA 6010D	Copper	34.4	ug/L	10.0	10/30/25 17:11	
EPA 6010D	Molybdenum	1.40J	ug/L	5.00	10/30/25 17:11	J
EPA 6010D	Zinc	13.5J	ug/L	50.0	10/30/25 17:11	J
EPA 6020B	Boron	18.5J	ug/L	30.0	11/22/25 16:53	J
EPA 6020B	Lithium	12.0	ug/L	2.00	11/22/25 16:53	
EPA 903.1	Radium-226	0.113 ± 0.313 (0.607) C:NA T:94%	pCi/L		11/18/25 13:55	
EPA 904.0	Radium-228	1.01 ± 0.465 (0.776) C:80% T:79%	pCi/L		11/14/25 14:39	
Total Radium Calculation	Total Radium	1.12 ± 0.778 (1.38)	pCi/L		11/18/25 14:53	
SM 2540C-2020	Total Dissolved Solids	404	mg/L	25.0	10/30/25 10:39	
EPA 300.0 Rev 2.1 1993	Chloride	139	mg/L	3.0	10/26/25 09:34	
EPA 300.0 Rev 2.1 1993	Fluoride	0.14	mg/L	0.10	10/25/25 23:27	
EPA 300.0 Rev 2.1 1993	Sulfate	2.0	mg/L	1.0	10/25/25 23:27	
92825546016	**MW-11D**					
EPA 6010D	Barium	112	ug/L	5.00	10/30/25 18:02	
EPA 6010D	Calcium	16000	ug/L	1000	10/30/25 18:02	
EPA 6010D	Copper	4.83J	ug/L	10.0	10/30/25 18:02	J
EPA 6010D	Molybdenum	4.28J	ug/L	5.00	10/30/25 18:02	J
EPA 6010D	Zinc	89.7	ug/L	50.0	10/30/25 18:02	
EPA 6020B	Boron	46.4	ug/L	30.0	11/22/25 16:56	
EPA 6020B	Lithium	16.9	ug/L	2.00	11/22/25 16:56	

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SUMMARY OF DETECTION

Project: Charah 4th Quarter GW Monitori
Pace Project No.: 92825546

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92825546016	**MW-11D**					
EPA 903.1	Radium-226	-0.187 ± 0.473 (1.04) C:NA T:84%	pCi/L		11/18/25 14:07	
EPA 904.0	Radium-228	0.187 ± 0.391 (0.865) C:74% T:76%	pCi/L		11/14/25 14:39	
Total Radium Calculation	Total Radium	0.187 ± 0.864 (1.91)	pCi/L		11/18/25 14:53	
SM 2540C-2020	Total Dissolved Solids	321	mg/L	25.0	10/30/25 10:39	
EPA 300.0 Rev 2.1 1993	Chloride	54.3	mg/L	1.0	10/25/25 23:41	
EPA 300.0 Rev 2.1 1993	Fluoride	0.40	mg/L	0.10	10/25/25 23:41	
EPA 300.0 Rev 2.1 1993	Sulfate	13.8	mg/L	1.0	10/25/25 23:41	
92825546017	**SW-1**					
EPA 6010D	Arsenic	9.81J	ug/L	10.0	10/30/25 18:04	J
EPA 6010D	Barium	187	ug/L	5.00	10/30/25 18:04	
EPA 6010D	Beryllium	0.937J	ug/L	2.00	10/30/25 18:04	J
EPA 6010D	Calcium	9190	ug/L	1000	10/30/25 18:04	
EPA 6010D	Cobalt	28.4	ug/L	10.0	10/30/25 18:04	
EPA 6010D	Copper	5.57J	ug/L	10.0	10/30/25 18:04	J
EPA 6010D	Lead	14.2	ug/L	6.00	10/30/25 18:04	
EPA 6010D	Molybdenum	4.26J	ug/L	5.00	10/30/25 18:04	J
EPA 6010D	Nickel	3.09J	ug/L	10.0	10/30/25 18:04	J
EPA 6010D	Selenium	6.33J	ug/L	10.0	10/30/25 18:04	J
EPA 6010D	Vanadium	18.9J	ug/L	20.0	10/30/25 18:04	J
EPA 6010D	Zinc	19.6J	ug/L	50.0	10/30/25 18:04	J
EPA 6020B	Boron	11.9J	ug/L	30.0	11/22/25 17:00	J
EPA 6020B	Lithium	0.842J	ug/L	2.00	11/22/25 17:00	J
EPA 903.1	Radium-226	0.179 ± 0.273 (0.439) C:NA T:88%	pCi/L		11/18/25 14:07	
EPA 904.0	Radium-228	1.49 ± 0.593 (0.976) C:80% T:88%	pCi/L		11/14/25 14:39	
Total Radium Calculation	Total Radium	1.67 ± 0.866 (1.42)	pCi/L		11/18/25 14:53	
SM 2540C-2020	Total Dissolved Solids	104	mg/L	50.0	10/27/25 10:56	
EPA 300.0 Rev 2.1 1993	Chloride	5.2	mg/L	1.0	10/26/25 01:00	
EPA 300.0 Rev 2.1 1993	Fluoride	0.28	mg/L	0.10	10/26/25 01:00	
EPA 300.0 Rev 2.1 1993	Sulfate	1.1	mg/L	1.0	10/26/25 01:00	
92825546018	**SW-2**					
EPA 6010D	Barium	81.4	ug/L	5.00	10/30/25 18:06	
EPA 6010D	Calcium	28400	ug/L	1000	10/30/25 18:06	

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SUMMARY OF DETECTION

Project: Charah 4th Quarter GW Monitori
Pace Project No.: 92825546

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92825546018	**SW-2**					
EPA 6010D	Molybdenum	1.72J	ug/L	5.00	10/30/25 18:06	J
EPA 6020B	Boron	10.9J	ug/L	30.0	11/22/25 17:03	J
EPA 903.1	Radium-226	0.114 ± 0.502 (0.953) C:NA T:87%	pCi/L		11/18/25 14:07	
EPA 904.0	Radium-228	0.182 ± 0.428 (0.948) C:81% T:83%	pCi/L		11/14/25 14:39	
Total Radium Calculation	Total Radium	0.296 ± 0.930 (1.90)	pCi/L		11/18/25 14:53	
SM 2540C-2020	Total Dissolved Solids	198	mg/L	25.0	10/28/25 19:05	
EPA 300.0 Rev 2.1 1993	Chloride	23.3	mg/L	1.0	10/26/25 01:14	
EPA 300.0 Rev 2.1 1993	Fluoride	0.14	mg/L	0.10	10/26/25 01:14	
EPA 300.0 Rev 2.1 1993	Sulfate	15.2	mg/L	1.0	10/26/25 01:14	
92825546019	**SW-3**					
EPA 6010D	Barium	55.3	ug/L	5.00	10/30/25 18:09	
EPA 6010D	Calcium	9880	ug/L	1000	10/30/25 18:09	
EPA 6010D	Zinc	4.81J	ug/L	50.0	10/30/25 18:09	J
EPA 6020B	Boron	20.0J	ug/L	30.0	11/22/25 17:06	J
EPA 903.1	Radium-226	0.671 ± 0.670 (1.06) C:NA T:86%	pCi/L		11/18/25 14:07	
EPA 904.0	Radium-228	0.562 ± 0.475 (0.964) C:81% T:84%	pCi/L		11/14/25 14:39	
Total Radium Calculation	Total Radium	1.23 ± 1.15 (2.02)	pCi/L		11/18/25 14:53	
SM 2540C-2020	Total Dissolved Solids	129	mg/L	25.0	10/28/25 19:05	
EPA 300.0 Rev 2.1 1993	Chloride	24.3	mg/L	1.0	10/26/25 01:28	
EPA 300.0 Rev 2.1 1993	Fluoride	0.12	mg/L	0.10	10/26/25 01:28	
EPA 300.0 Rev 2.1 1993	Sulfate	3.5	mg/L	1.0	10/26/25 01:28	
92825546020	**SW-5**					
EPA 6010D	Barium	112	ug/L	5.00	10/30/25 18:11	
EPA 6010D	Calcium	5050	ug/L	1000	10/30/25 18:11	
EPA 6010D	Cobalt	3.23J	ug/L	10.0	10/30/25 18:11	J
EPA 6010D	Copper	2.43J	ug/L	10.0	10/30/25 18:11	J
EPA 6010D	Lead	5.36J	ug/L	6.00	10/30/25 18:11	J
EPA 6010D	Zinc	14.2J	ug/L	50.0	10/30/25 18:11	J
EPA 6020B	Boron	15.1J	ug/L	30.0	11/22/25 17:09	J
EPA 6020B	Lithium	1.06J	ug/L	2.00	11/22/25 17:09	J

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SUMMARY OF DETECTION

Project: Charah 4th Quarter GW Monitori
Pace Project No.: 92825546

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92825546020	**SW-5**					
EPA 903.1	Radium-226	0.124 ± 0.749 (1.39) C:NA T:85%	pCi/L		11/18/25 14:07	
EPA 904.0	Radium-228	0.487 ± 0.450 (0.925) C:84% T:86%	pCi/L		11/14/25 14:39	
Total Radium Calculation	Total Radium	0.611 ± 1.20 (2.32)	pCi/L		11/18/25 14:53	
SM 2540C-2020	Total Dissolved Solids	320	mg/L	25.0	10/28/25 19:05	
EPA 300.0 Rev 2.1 1993	Chloride	8.0	mg/L	1.0	10/26/25 01:42	
EPA 300.0 Rev 2.1 1993	Fluoride	0.24	mg/L	0.10	10/26/25 01:42	
92825546021	**SW-6**					
EPA 6010D	Barium	338	ug/L	5.00	10/31/25 16:02	
EPA 6010D	Beryllium	1.83J	ug/L	2.00	10/31/25 16:02	J
EPA 6010D	Calcium	6550	ug/L	1000	10/31/25 16:02	
EPA 6010D	Chromium	1.99J	ug/L	10.0	10/31/25 16:02	J
EPA 6010D	Cobalt	10.7	ug/L	10.0	10/31/25 16:02	
EPA 6010D	Copper	6.04J	ug/L	10.0	10/31/25 16:02	J
EPA 6010D	Lead	3.22J	ug/L	6.00	10/31/25 16:02	J
EPA 6010D	Nickel	3.77J	ug/L	10.0	10/31/25 16:02	J
EPA 6010D	Vanadium	15.1J	ug/L	20.0	10/31/25 16:02	J
EPA 6010D	Zinc	57.0	ug/L	50.0	10/31/25 16:02	
EPA 6020B	Boron	11.0J	ug/L	30.0	11/24/25 12:23	J
EPA 6020B	Lithium	2.06	ug/L	2.00	11/24/25 12:23	
EPA 6020B	Thallium	0.408J	ug/L	2.00	11/23/25 23:25	J
EPA 903.1	Radium-226	0.800 ± 0.643 (0.968) C:NA T:93%	pCi/L		11/18/25 14:42	
EPA 904.0	Radium-228	1.29 ± 0.603 (1.05) C:72% T:82%	pCi/L		11/14/25 11:37	
Total Radium Calculation	Total Radium	2.09 ± 1.25 (2.02)	pCi/L		11/18/25 15:17	
SM 2540C-2020	Total Dissolved Solids	908	mg/L	50.0	10/27/25 10:56	
EPA 300.0 Rev 2.1 1993	Chloride	4.5	mg/L	1.0	10/26/25 01:56	
EPA 300.0 Rev 2.1 1993	Fluoride	0.32	mg/L	0.10	10/26/25 01:56	
EPA 300.0 Rev 2.1 1993	Sulfate	0.95J	mg/L	1.0	10/26/25 01:56	

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ANALYTICAL RESULTS

Project: Charah 4th Quarter GW Monitori
Pace Project No.: 92825546

Sample: BG-1 **Lab ID: 92825546001** Collected: 10/20/25 12:25 Received: 10/24/25 09:42 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Metals (ICP) 6010D	Analytical Method: EPA 6010D Preparation Method: 3015 Pace National - Mt. Juliet								
Antimony	ND	ug/L	10.0	5.06	1	10/29/25 22:04	10/30/25 17:20	7440-36-0	
Arsenic	ND	ug/L	10.0	7.83	1	10/29/25 22:04	10/30/25 17:20	7440-38-2	
Barium	**240**	ug/L	5.00	0.773	1	10/29/25 22:04	10/30/25 17:20	7440-39-3	
Beryllium	ND	ug/L	2.00	0.501	1	10/29/25 22:04	10/30/25 17:20	7440-41-7	
Cadmium	ND	ug/L	2.00	0.538	1	10/29/25 22:04	10/30/25 17:20	7440-43-9	
Calcium	**20900**	ug/L	1000	153	1	10/29/25 22:04	10/30/25 17:20	7440-70-2	
Chromium	ND	ug/L	10.0	1.51	1	10/29/25 22:04	10/30/25 17:20	7440-47-3	
Cobalt	ND	ug/L	10.0	1.41	1	10/29/25 22:04	10/30/25 17:20	7440-48-4	
Copper	ND	ug/L	10.0	2.26	1	10/29/25 22:04	10/30/25 17:20	7440-50-8	
Lead	ND	ug/L	6.00	2.43	1	10/29/25 22:04	10/30/25 17:20	7439-92-1	
Molybdenum	ND	ug/L	5.00	1.37	1	10/29/25 22:04	10/30/25 17:20	7439-98-7	
Nickel	ND	ug/L	10.0	1.96	1	10/29/25 22:04	10/30/25 17:20	7440-02-0	
Selenium	ND	ug/L	10.0	6.16	1	10/29/25 22:04	10/30/25 17:20	7782-49-2	
Silver	ND	ug/L	5.00	2.89	1	10/29/25 22:04	10/30/25 17:20	7440-22-4	
Vanadium	ND	ug/L	20.0	5.64	1	10/29/25 22:04	10/30/25 17:20	7440-62-2	
Zinc	**5.62J**	ug/L	50.0	4.67	1	10/29/25 22:04	10/30/25 17:20	7440-66-6	J
Metals (ICPMS) 6020B	Analytical Method: EPA 6020B Preparation Method: 3015 Pace National - Mt. Juliet								
Boron	ND	ug/L	30.0	9.03	1	10/31/25 21:40	11/22/25 15:46	7440-42-8	
Lithium	**17.0**	ug/L	2.00	0.600	1	10/31/25 21:40	11/22/25 15:46	7439-93-2	
Thallium	ND	ug/L	2.00	0.130	1	10/31/25 21:40	11/22/25 15:46	7440-28-0	
Mercury 7470A	Analytical Method: EPA 7470A Preparation Method: 7470A Pace National - Mt. Juliet								
Mercury	ND	ug/L	0.200	0.0700	1	10/29/25 18:37	10/31/25 17:51	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2020 Pace Analytical Services - Asheville								
Total Dissolved Solids	**510**	mg/L	50.0	50.0	1		10/26/25 11:03		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**165**	mg/L	4.0	2.4	4		10/26/25 05:25	16887-00-6	
Fluoride	**0.17**	mg/L	0.10	0.050	1		10/25/25 17:20	16984-48-8	
Sulfate	**22.7**	mg/L	1.0	0.50	1		10/25/25 17:20	14808-79-8	

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ANALYTICAL RESULTS

Project: Charah 4th Quarter GW Monitori
Pace Project No.: 92825546

Sample: BG-2 **Lab ID: 92825546002** Collected: 10/21/25 10:20 Received: 10/24/25 09:42 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Metals (ICP) 6010D	Analytical Method: EPA 6010D Preparation Method: 3015 Pace National - Mt. Juliet								
Antimony	ND	ug/L	10.0	5.06	1	10/29/25 22:04	10/30/25 17:23	7440-36-0	
Arsenic	ND	ug/L	10.0	7.83	1	10/29/25 22:04	10/30/25 17:23	7440-38-2	
Barium	**55.8**	ug/L	5.00	0.773	1	10/29/25 22:04	10/30/25 17:23	7440-39-3	
Beryllium	ND	ug/L	2.00	0.501	1	10/29/25 22:04	10/30/25 17:23	7440-41-7	
Cadmium	ND	ug/L	2.00	0.538	1	10/29/25 22:04	10/30/25 17:23	7440-43-9	
Calcium	**124000**	ug/L	1000	153	1	10/29/25 22:04	10/30/25 17:23	7440-70-2	
Chromium	ND	ug/L	10.0	1.51	1	10/29/25 22:04	10/30/25 17:23	7440-47-3	
Cobalt	ND	ug/L	10.0	1.41	1	10/29/25 22:04	10/30/25 17:23	7440-48-4	
Copper	ND	ug/L	10.0	2.26	1	10/29/25 22:04	10/30/25 17:23	7440-50-8	
Lead	ND	ug/L	6.00	2.43	1	10/29/25 22:04	10/30/25 17:23	7439-92-1	
Molybdenum	**3.07J**	ug/L	5.00	1.37	1	10/29/25 22:04	10/30/25 17:23	7439-98-7	J
Nickel	ND	ug/L	10.0	1.96	1	10/29/25 22:04	10/30/25 17:23	7440-02-0	
Selenium	ND	ug/L	10.0	6.16	1	10/29/25 22:04	10/30/25 17:23	7782-49-2	
Silver	ND	ug/L	5.00	2.89	1	10/29/25 22:04	10/30/25 17:23	7440-22-4	
Vanadium	ND	ug/L	20.0	5.64	1	10/29/25 22:04	10/30/25 17:23	7440-62-2	
Zinc	ND	ug/L	50.0	4.67	1	10/29/25 22:04	10/30/25 17:23	7440-66-6	
Metals (ICPMS) 6020B	Analytical Method: EPA 6020B Preparation Method: 3015 Pace National - Mt. Juliet								
Boron	**18.9J**	ug/L	30.0	9.03	1	10/31/25 21:40	11/22/25 15:49	7440-42-8	J
Lithium	**20.3**	ug/L	2.00	0.600	1	10/31/25 21:40	11/22/25 15:49	7439-93-2	
Thallium	ND	ug/L	2.00	0.130	1	10/31/25 21:40	11/22/25 15:49	7440-28-0	
Mercury 7470A	Analytical Method: EPA 7470A Preparation Method: 7470A Pace National - Mt. Juliet								
Mercury	ND	ug/L	0.200	0.0700	1	10/29/25 18:37	10/31/25 17:53	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2020 Pace Analytical Services - Asheville								
Total Dissolved Solids	**1200**	mg/L	125	125	1		10/27/25 10:55		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**255**	mg/L	6.0	3.6	6		10/26/25 05:39	16887-00-6	M1
Fluoride	**0.21**	mg/L	0.10	0.050	1		10/25/25 17:34	16984-48-8	
Sulfate	**154**	mg/L	6.0	3.0	6		10/26/25 05:39	14808-79-8	M1

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ANALYTICAL RESULTS

Project: Charah 4th Quarter GW Monitori
Pace Project No.: 92825546

Sample: DUP **Lab ID: 92825546003** Collected: 10/23/25 00:00 Received: 10/24/25 09:42 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Metals (ICP) 6010D	Analytical Method: EPA 6010D Preparation Method: 3015 Pace National - Mt. Juliet								
Antimony	ND	ug/L	10.0	5.06	1	10/29/25 22:04	10/30/25 17:25	7440-36-0	
Arsenic	ND	ug/L	10.0	7.83	1	10/29/25 22:04	10/30/25 17:25	7440-38-2	
Barium	**113**	ug/L	5.00	0.773	1	10/29/25 22:04	10/30/25 17:25	7440-39-3	
Beryllium	ND	ug/L	2.00	0.501	1	10/29/25 22:04	10/30/25 17:25	7440-41-7	
Cadmium	ND	ug/L	2.00	0.538	1	10/29/25 22:04	10/30/25 17:25	7440-43-9	
Calcium	**16000**	ug/L	1000	153	1	10/29/25 22:04	10/30/25 17:25	7440-70-2	
Chromium	ND	ug/L	10.0	1.51	1	10/29/25 22:04	10/30/25 17:25	7440-47-3	
Cobalt	ND	ug/L	10.0	1.41	1	10/29/25 22:04	10/30/25 17:25	7440-48-4	
Copper	**11.2**	ug/L	10.0	2.26	1	10/29/25 22:04	10/30/25 17:25	7440-50-8	
Lead	ND	ug/L	6.00	2.43	1	10/29/25 22:04	10/30/25 17:25	7439-92-1	
Molybdenum	**4.68J**	ug/L	5.00	1.37	1	10/29/25 22:04	10/30/25 17:25	7439-98-7	J
Nickel	ND	ug/L	10.0	1.96	1	10/29/25 22:04	10/30/25 17:25	7440-02-0	
Selenium	ND	ug/L	10.0	6.16	1	10/29/25 22:04	10/30/25 17:25	7782-49-2	
Silver	ND	ug/L	5.00	2.89	1	10/29/25 22:04	10/30/25 17:25	7440-22-4	
Vanadium	ND	ug/L	20.0	5.64	1	10/29/25 22:04	10/30/25 17:25	7440-62-2	
Zinc	**76.7**	ug/L	50.0	4.67	1	10/29/25 22:04	10/30/25 17:25	7440-66-6	
Metals (ICPMS) 6020B	Analytical Method: EPA 6020B Preparation Method: 3015 Pace National - Mt. Juliet								
Boron	**46.1**	ug/L	30.0	9.03	1	10/31/25 21:40	11/22/25 15:53	7440-42-8	
Lithium	**16.8**	ug/L	2.00	0.600	1	10/31/25 21:40	11/22/25 15:53	7439-93-2	
Thallium	ND	ug/L	2.00	0.130	1	10/31/25 21:40	11/22/25 15:53	7440-28-0	
Mercury 7470A	Analytical Method: EPA 7470A Preparation Method: 7470A Pace National - Mt. Juliet								
Mercury	ND	ug/L	0.200	0.0700	1	10/29/25 18:37	10/31/25 17:59	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2020 Pace Analytical Services - Asheville								
Total Dissolved Solids	**313**	mg/L	25.0	25.0	1		10/30/25 10:37		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**53.7**	mg/L	1.0	0.60	1		10/25/25 19:21	16887-00-6	
Fluoride	**0.40**	mg/L	0.10	0.050	1		10/25/25 19:21	16984-48-8	
Sulfate	**13.7**	mg/L	1.0	0.50	1		10/25/25 19:21	14808-79-8	

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ANALYTICAL RESULTS

Project: Charah 4th Quarter GW Monitori
Pace Project No.: 92825546

Sample: EQBL **Lab ID: 92825546004** Collected: 10/21/25 12:30 Received: 10/24/25 09:42 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Metals (ICP) 6010D	Analytical Method: EPA 6010D Preparation Method: 3015 Pace National - Mt. Juliet								
Antimony	ND	ug/L	10.0	5.06	1	10/29/25 22:04	10/30/25 17:27	7440-36-0	
Arsenic	ND	ug/L	10.0	7.83	1	10/29/25 22:04	10/30/25 17:27	7440-38-2	
Barium	ND	ug/L	5.00	0.773	1	10/29/25 22:04	10/30/25 17:27	7440-39-3	
Beryllium	ND	ug/L	2.00	0.501	1	10/29/25 22:04	10/30/25 17:27	7440-41-7	
Cadmium	ND	ug/L	2.00	0.538	1	10/29/25 22:04	10/30/25 17:27	7440-43-9	
Calcium	**177J**	ug/L	1000	153	1	10/29/25 22:04	10/30/25 17:27	7440-70-2	J
Chromium	ND	ug/L	10.0	1.51	1	10/29/25 22:04	10/30/25 17:27	7440-47-3	
Cobalt	ND	ug/L	10.0	1.41	1	10/29/25 22:04	10/30/25 17:27	7440-48-4	
Copper	ND	ug/L	10.0	2.26	1	10/29/25 22:04	10/30/25 17:27	7440-50-8	
Lead	ND	ug/L	6.00	2.43	1	10/29/25 22:04	10/30/25 17:27	7439-92-1	
Molybdenum	ND	ug/L	5.00	1.37	1	10/29/25 22:04	10/30/25 17:27	7439-98-7	
Nickel	ND	ug/L	10.0	1.96	1	10/29/25 22:04	10/30/25 17:27	7440-02-0	
Selenium	ND	ug/L	10.0	6.16	1	10/29/25 22:04	10/30/25 17:27	7782-49-2	
Silver	ND	ug/L	5.00	2.89	1	10/29/25 22:04	10/30/25 17:27	7440-22-4	
Vanadium	ND	ug/L	20.0	5.64	1	10/29/25 22:04	10/30/25 17:27	7440-62-2	
Zinc	ND	ug/L	50.0	4.67	1	10/29/25 22:04	10/30/25 17:27	7440-66-6	
Metals (ICPMS) 6020B	Analytical Method: EPA 6020B Preparation Method: 3015 Pace National - Mt. Juliet								
Boron	ND	ug/L	30.0	9.03	1	10/31/25 21:40	11/22/25 15:56	7440-42-8	
Lithium	ND	ug/L	2.00	0.600	1	10/31/25 21:40	11/22/25 15:56	7439-93-2	
Thallium	ND	ug/L	2.00	0.130	1	10/31/25 21:40	11/22/25 15:56	7440-28-0	
Mercury 7470A	Analytical Method: EPA 7470A Preparation Method: 7470A Pace National - Mt. Juliet								
Mercury	ND	ug/L	0.200	0.0700	1	10/29/25 18:37	10/31/25 18:08	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2020 Pace Analytical Services - Asheville								
Total Dissolved Solids	ND	mg/L	25.0	25.0	1		10/27/25 10:55		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	ND	mg/L	1.0	0.60	1		10/25/25 14:05	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		10/25/25 14:05	16984-48-8	
Sulfate	ND	mg/L	1.0	0.50	1		10/25/25 14:05	14808-79-8	

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ANALYTICAL RESULTS

Project: Charah 4th Quarter GW Monitori
Pace Project No.: 92825546

Sample: LEACHATE **Lab ID: 92825546005** Collected: 10/20/25 16:50 Received: 10/24/25 09:42 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Metals (ICP) 6010D	Analytical Method: EPA 6010D Preparation Method: 3015 Pace National - Mt. Juliet								
Antimony	ND	ug/L	10.0	5.06	1	10/29/25 22:04	10/30/25 17:34	7440-36-0	
Arsenic	**89.4**	ug/L	10.0	7.83	1	10/29/25 22:04	10/30/25 17:34	7440-38-2	
Barium	**45.1**	ug/L	5.00	0.773	1	10/29/25 22:04	10/30/25 17:34	7440-39-3	
Beryllium	ND	ug/L	2.00	0.501	1	10/29/25 22:04	10/30/25 17:34	7440-41-7	
Cadmium	ND	ug/L	2.00	0.538	1	10/29/25 22:04	10/30/25 17:34	7440-43-9	
Calcium	**230000**	ug/L	1000	153	1	10/29/25 22:04	10/30/25 17:34	7440-70-2	
Chromium	ND	ug/L	10.0	1.51	1	10/29/25 22:04	10/30/25 17:34	7440-47-3	
Cobalt	ND	ug/L	10.0	1.41	1	10/29/25 22:04	10/30/25 17:34	7440-48-4	
Copper	**3.49J**	ug/L	10.0	2.26	1	10/29/25 22:04	10/30/25 17:34	7440-50-8	J
Lead	ND	ug/L	6.00	2.43	1	10/29/25 22:04	10/30/25 17:34	7439-92-1	
Molybdenum	**194**	ug/L	5.00	1.37	1	10/29/25 22:04	10/30/25 17:34	7439-98-7	
Nickel	ND	ug/L	10.0	1.96	1	10/29/25 22:04	10/30/25 17:34	7440-02-0	
Selenium	ND	ug/L	10.0	6.16	1	10/29/25 22:04	10/30/25 17:34	7782-49-2	
Silver	ND	ug/L	5.00	2.89	1	10/29/25 22:04	10/30/25 17:34	7440-22-4	
Vanadium	ND	ug/L	20.0	5.64	1	10/29/25 22:04	10/30/25 17:34	7440-62-2	
Zinc	**6.46J**	ug/L	50.0	4.67	1	10/29/25 22:04	10/30/25 17:34	7440-66-6	J
Metals (ICPMS) 6020B	Analytical Method: EPA 6020B Preparation Method: 3015 Pace National - Mt. Juliet								
Boron	**4030**	ug/L	300	90.3	10	10/31/25 21:40	11/22/25 16:13	7440-42-8	
Lithium	**62.2**	ug/L	2.00	0.600	1	10/31/25 21:40	11/22/25 16:10	7439-93-2	
Thallium	ND	ug/L	2.00	0.130	1	10/31/25 21:40	11/22/25 16:10	7440-28-0	
Mercury 7470A	Analytical Method: EPA 7470A Preparation Method: 7470A Pace National - Mt. Juliet								
Mercury	ND	ug/L	0.200	0.0700	1	11/02/25 13:29	11/04/25 14:21	7439-97-6	ML,PH
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2020 Pace Analytical Services - Asheville								
Total Dissolved Solids	**1210**	mg/L	50.0	50.0	1		10/26/25 11:03		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**19.3**	mg/L	1.0	0.60	1		10/25/25 19:35	16887-00-6	
Fluoride	**0.18**	mg/L	0.10	0.050	1		10/25/25 19:35	16984-48-8	
Sulfate	**434**	mg/L	10.0	5.0	10		10/26/25 06:48	14808-79-8	

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ANALYTICAL RESULTS

Project: Charah 4th Quarter GW Monitori
Pace Project No.: 92825546

Sample: MW-1 **Lab ID: 92825546006** Collected: 10/21/25 17:15 Received: 10/24/25 09:42 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Metals (ICP) 6010D	Analytical Method: EPA 6010D Preparation Method: 3015 Pace National - Mt. Juliet								
Antimony	ND	ug/L	10.0	5.06	1	10/29/25 22:04	10/30/25 17:36	7440-36-0	
Arsenic	ND	ug/L	10.0	7.83	1	10/29/25 22:04	10/30/25 17:36	7440-38-2	
Barium	**153**	ug/L	5.00	0.773	1	10/29/25 22:04	10/30/25 17:36	7440-39-3	
Beryllium	ND	ug/L	2.00	0.501	1	10/29/25 22:04	10/30/25 17:36	7440-41-7	
Cadmium	ND	ug/L	2.00	0.538	1	10/29/25 22:04	10/30/25 17:36	7440-43-9	
Calcium	**150000**	ug/L	1000	153	1	10/29/25 22:04	10/30/25 17:36	7440-70-2	
Chromium	ND	ug/L	10.0	1.51	1	10/29/25 22:04	10/30/25 17:36	7440-47-3	
Cobalt	ND	ug/L	10.0	1.41	1	10/29/25 22:04	10/30/25 17:36	7440-48-4	
Copper	ND	ug/L	10.0	2.26	1	10/29/25 22:04	10/30/25 17:36	7440-50-8	
Lead	ND	ug/L	6.00	2.43	1	10/29/25 22:04	10/30/25 17:36	7439-92-1	
Molybdenum	ND	ug/L	5.00	1.37	1	10/29/25 22:04	10/30/25 17:36	7439-98-7	
Nickel	ND	ug/L	10.0	1.96	1	10/29/25 22:04	10/30/25 17:36	7440-02-0	
Selenium	ND	ug/L	10.0	6.16	1	10/29/25 22:04	10/30/25 17:36	7782-49-2	
Silver	ND	ug/L	5.00	2.89	1	10/29/25 22:04	10/30/25 17:36	7440-22-4	
Vanadium	ND	ug/L	20.0	5.64	1	10/29/25 22:04	10/30/25 17:36	7440-62-2	
Zinc	**5.23J**	ug/L	50.0	4.67	1	10/29/25 22:04	10/30/25 17:36	7440-66-6	J
Metals (ICPMS) 6020B	Analytical Method: EPA 6020B Preparation Method: 3015 Pace National - Mt. Juliet								
Boron	**50.8**	ug/L	30.0	9.03	1	10/31/25 21:40	11/22/25 16:16	7440-42-8	
Lithium	**33.2**	ug/L	2.00	0.600	1	10/31/25 21:40	11/22/25 16:16	7439-93-2	
Thallium	ND	ug/L	2.00	0.130	1	10/31/25 21:40	11/22/25 16:16	7440-28-0	
Mercury 7470A	Analytical Method: EPA 7470A Preparation Method: 7470A Pace National - Mt. Juliet								
Mercury	ND	ug/L	0.200	0.0700	1	11/02/25 13:29	11/04/25 15:50	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2020 Pace Analytical Services - Asheville								
Total Dissolved Solids	**1320**	mg/L	250	250	1		10/27/25 10:55		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**508**	mg/L	11.0	6.6	11		10/26/25 07:01	16887-00-6	
Fluoride	**0.12**	mg/L	0.10	0.050	1		10/25/25 19:49	16984-48-8	
Sulfate	**5.8**	mg/L	1.0	0.50	1		10/25/25 19:49	14808-79-8	

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ANALYTICAL RESULTS

Project: Charah 4th Quarter GW Monitori
Pace Project No.: 92825546

Sample: MW-2 **Lab ID: 92825546007** Collected: 10/21/25 14:40 Received: 10/24/25 09:42 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Metals (ICP) 6010D	Analytical Method: EPA 6010D Preparation Method: 3015 Pace National - Mt. Juliet								
Antimony	ND	ug/L	10.0	5.06	1	10/29/25 22:04	10/30/25 17:39	7440-36-0	
Arsenic	ND	ug/L	10.0	7.83	1	10/29/25 22:04	10/30/25 17:39	7440-38-2	
Barium	**330**	ug/L	5.00	0.773	1	10/29/25 22:04	10/30/25 17:39	7440-39-3	
Beryllium	ND	ug/L	2.00	0.501	1	10/29/25 22:04	10/30/25 17:39	7440-41-7	
Cadmium	ND	ug/L	2.00	0.538	1	10/29/25 22:04	10/30/25 17:39	7440-43-9	
Calcium	**174000**	ug/L	1000	153	1	10/29/25 22:04	10/30/25 17:39	7440-70-2	
Chromium	**4.20J**	ug/L	10.0	1.51	1	10/29/25 22:04	10/30/25 17:39	7440-47-3	J
Cobalt	ND	ug/L	10.0	1.41	1	10/29/25 22:04	10/30/25 17:39	7440-48-4	
Copper	**6.04J**	ug/L	10.0	2.26	1	10/29/25 22:04	10/30/25 17:39	7440-50-8	J
Lead	ND	ug/L	6.00	2.43	1	10/29/25 22:04	10/30/25 17:39	7439-92-1	
Molybdenum	**5.18**	ug/L	5.00	1.37	1	10/29/25 22:04	10/30/25 17:39	7439-98-7	
Nickel	**3.09J**	ug/L	10.0	1.96	1	10/29/25 22:04	10/30/25 17:39	7440-02-0	J
Selenium	ND	ug/L	10.0	6.16	1	10/29/25 22:04	10/30/25 17:39	7782-49-2	
Silver	ND	ug/L	5.00	2.89	1	10/29/25 22:04	10/30/25 17:39	7440-22-4	
Vanadium	ND	ug/L	20.0	5.64	1	10/29/25 22:04	10/30/25 17:39	7440-62-2	
Zinc	**40.3J**	ug/L	50.0	4.67	1	10/29/25 22:04	10/30/25 17:39	7440-66-6	J
Metals (ICPMS) 6020B	Analytical Method: EPA 6020B Preparation Method: 3015 Pace National - Mt. Juliet								
Boron	**60.9**	ug/L	30.0	9.03	1	10/31/25 21:40	11/22/25 16:19	7440-42-8	
Lithium	**154**	ug/L	2.00	0.600	1	10/31/25 21:40	11/22/25 16:19	7439-93-2	
Thallium	ND	ug/L	2.00	0.130	1	10/31/25 21:40	11/22/25 16:19	7440-28-0	
Mercury 7470A	Analytical Method: EPA 7470A Preparation Method: 7470A Pace National - Mt. Juliet								
Mercury	ND	ug/L	0.200	0.0700	1	11/02/25 13:29	11/04/25 15:53	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2020 Pace Analytical Services - Asheville								
Total Dissolved Solids	**2290**	mg/L	250	250	1		10/27/25 10:55		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**994**	mg/L	22.0	13.2	22		10/26/25 07:15	16887-00-6	
Fluoride	**0.17**	mg/L	0.10	0.050	1		10/25/25 20:03	16984-48-8	
Sulfate	**61.8**	mg/L	1.0	0.50	1		10/25/25 20:03	14808-79-8	

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ANALYTICAL RESULTS

Project: Charah 4th Quarter GW Monitori
Pace Project No.: 92825546

Sample: MW-3 **Lab ID: 92825546008** Collected: 10/21/25 11:50 Received: 10/24/25 09:42 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Metals (ICP) 6010D	Analytical Method: EPA 6010D Preparation Method: 3015 Pace National - Mt. Juliet								
Antimony	ND	ug/L	10.0	5.06	1	10/29/25 22:04	10/30/25 17:41	7440-36-0	
Arsenic	ND	ug/L	10.0	7.83	1	10/29/25 22:04	10/30/25 17:41	7440-38-2	
Barium	**763**	ug/L	5.00	0.773	1	10/29/25 22:04	10/30/25 17:41	7440-39-3	
Beryllium	ND	ug/L	2.00	0.501	1	10/29/25 22:04	10/30/25 17:41	7440-41-7	
Cadmium	ND	ug/L	2.00	0.538	1	10/29/25 22:04	10/30/25 17:41	7440-43-9	
Calcium	**190000**	ug/L	1000	153	1	10/29/25 22:04	10/30/25 17:41	7440-70-2	
Chromium	ND	ug/L	10.0	1.51	1	10/29/25 22:04	10/30/25 17:41	7440-47-3	
Cobalt	ND	ug/L	10.0	1.41	1	10/29/25 22:04	10/30/25 17:41	7440-48-4	
Copper	**3.46J**	ug/L	10.0	2.26	1	10/29/25 22:04	10/30/25 17:41	7440-50-8	J
Lead	ND	ug/L	6.00	2.43	1	10/29/25 22:04	10/30/25 17:41	7439-92-1	
Molybdenum	**6.89**	ug/L	5.00	1.37	1	10/29/25 22:04	10/30/25 17:41	7439-98-7	
Nickel	ND	ug/L	10.0	1.96	1	10/29/25 22:04	10/30/25 17:41	7440-02-0	
Selenium	ND	ug/L	10.0	6.16	1	10/29/25 22:04	10/30/25 17:41	7782-49-2	
Silver	ND	ug/L	5.00	2.89	1	10/29/25 22:04	10/30/25 17:41	7440-22-4	
Vanadium	ND	ug/L	20.0	5.64	1	10/29/25 22:04	10/30/25 17:41	7440-62-2	
Zinc	**8.25J**	ug/L	50.0	4.67	1	10/29/25 22:04	10/30/25 17:41	7440-66-6	J
Metals (ICPMS) 6020B	Analytical Method: EPA 6020B Preparation Method: 3015 Pace National - Mt. Juliet								
Boron	**46.1**	ug/L	30.0	9.03	1	10/31/25 21:40	11/22/25 15:33	7440-42-8	
Lithium	**88.0**	ug/L	2.00	0.600	1	10/31/25 21:40	11/22/25 15:33	7439-93-2	
Thallium	ND	ug/L	2.00	0.130	1	10/31/25 21:40	11/22/25 15:33	7440-28-0	
Mercury 7470A	Analytical Method: EPA 7470A Preparation Method: 7470A Pace National - Mt. Juliet								
Mercury	ND	ug/L	0.200	0.0700	1	11/02/25 13:29	11/04/25 15:55	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2020 Pace Analytical Services - Asheville								
Total Dissolved Solids	**2330**	mg/L	250	250	1		10/27/25 10:55		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**1050**	mg/L	24.0	14.4	24		10/26/25 07:29	16887-00-6	
Fluoride	**0.22**	mg/L	0.10	0.050	1		10/25/25 20:16	16984-48-8	
Sulfate	**11.2**	mg/L	1.0	0.50	1		10/25/25 20:16	14808-79-8	

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ANALYTICAL RESULTS

Project: Charah 4th Quarter GW Monitori
Pace Project No.: 92825546

Sample: MW-4 **Lab ID: 92825546009** Collected: 10/20/25 14:30 Received: 10/24/25 09:42 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Metals (ICP) 6010D	Analytical Method: EPA 6010D Preparation Method: 3015 Pace National - Mt. Juliet								
Antimony	ND	ug/L	10.0	5.06	1	10/29/25 22:04	10/30/25 17:43	7440-36-0	
Arsenic	ND	ug/L	10.0	7.83	1	10/29/25 22:04	10/30/25 17:43	7440-38-2	
Barium	**320**	ug/L	5.00	0.773	1	10/29/25 22:04	10/30/25 17:43	7440-39-3	
Beryllium	ND	ug/L	2.00	0.501	1	10/29/25 22:04	10/30/25 17:43	7440-41-7	
Cadmium	ND	ug/L	2.00	0.538	1	10/29/25 22:04	10/30/25 17:43	7440-43-9	
Calcium	**68100**	ug/L	1000	153	1	10/29/25 22:04	10/30/25 17:43	7440-70-2	
Chromium	ND	ug/L	10.0	1.51	1	10/29/25 22:04	10/30/25 17:43	7440-47-3	
Cobalt	**4.90J**	ug/L	10.0	1.41	1	10/29/25 22:04	10/30/25 17:43	7440-48-4	J
Copper	ND	ug/L	10.0	2.26	1	10/29/25 22:04	10/30/25 17:43	7440-50-8	
Lead	ND	ug/L	6.00	2.43	1	10/29/25 22:04	10/30/25 17:43	7439-92-1	
Molybdenum	**1.54J**	ug/L	5.00	1.37	1	10/29/25 22:04	10/30/25 17:43	7439-98-7	J
Nickel	**4.78J**	ug/L	10.0	1.96	1	10/29/25 22:04	10/30/25 17:43	7440-02-0	J
Selenium	**6.24J**	ug/L	10.0	6.16	1	10/29/25 22:04	10/30/25 17:43	7782-49-2	J
Silver	ND	ug/L	5.00	2.89	1	10/29/25 22:04	10/30/25 17:43	7440-22-4	
Vanadium	ND	ug/L	20.0	5.64	1	10/29/25 22:04	10/30/25 17:43	7440-62-2	
Zinc	**8.95J**	ug/L	50.0	4.67	1	10/29/25 22:04	10/30/25 17:43	7440-66-6	J
Metals (ICPMS) 6020B	Analytical Method: EPA 6020B Preparation Method: 3015 Pace National - Mt. Juliet								
Boron	**15.3J**	ug/L	30.0	9.03	1	10/31/25 21:40	11/22/25 16:23	7440-42-8	J
Lithium	**43.6**	ug/L	2.00	0.600	1	10/31/25 21:40	11/22/25 16:23	7439-93-2	
Thallium	ND	ug/L	2.00	0.130	1	10/31/25 21:40	11/22/25 16:23	7440-28-0	
Mercury 7470A	Analytical Method: EPA 7470A Preparation Method: 7470A Pace National - Mt. Juliet								
Mercury	ND	ug/L	0.200	0.0700	1	11/02/25 13:29	11/04/25 15:58	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2020 Pace Analytical Services - Asheville								
Total Dissolved Solids	**1190**	mg/L	250	250	1		10/26/25 11:03		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**290**	mg/L	6.0	3.6	6		10/26/25 07:43	16887-00-6	
Fluoride	**0.38**	mg/L	0.10	0.050	1		10/25/25 20:30	16984-48-8	
Sulfate	**9.1**	mg/L	1.0	0.50	1		10/25/25 20:30	14808-79-8	

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ANALYTICAL RESULTS

Project: Charah 4th Quarter GW Monitori
Pace Project No.: 92825546

Sample: MW-5 **Lab ID: 92825546010** Collected: 10/20/25 16:40 Received: 10/24/25 09:42 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Metals (ICP) 6010D	Analytical Method: EPA 6010D Preparation Method: 3015 Pace National - Mt. Juliet								
Antimony	ND	ug/L	10.0	5.06	1	10/29/25 22:04	10/30/25 17:46	7440-36-0	
Arsenic	ND	ug/L	10.0	7.83	1	10/29/25 22:04	10/30/25 17:46	7440-38-2	
Barium	**93.6**	ug/L	5.00	0.773	1	10/29/25 22:04	10/30/25 17:46	7440-39-3	
Beryllium	ND	ug/L	2.00	0.501	1	10/29/25 22:04	10/30/25 17:46	7440-41-7	
Cadmium	ND	ug/L	2.00	0.538	1	10/29/25 22:04	10/30/25 17:46	7440-43-9	
Calcium	**9610**	ug/L	1000	153	1	10/29/25 22:04	10/30/25 17:46	7440-70-2	
Chromium	ND	ug/L	10.0	1.51	1	10/29/25 22:04	10/30/25 17:46	7440-47-3	
Cobalt	ND	ug/L	10.0	1.41	1	10/29/25 22:04	10/30/25 17:46	7440-48-4	
Copper	ND	ug/L	10.0	2.26	1	10/29/25 22:04	10/30/25 17:46	7440-50-8	
Lead	ND	ug/L	6.00	2.43	1	10/29/25 22:04	10/30/25 17:46	7439-92-1	
Molybdenum	ND	ug/L	5.00	1.37	1	10/29/25 22:04	10/30/25 17:46	7439-98-7	
Nickel	ND	ug/L	10.0	1.96	1	10/29/25 22:04	10/30/25 17:46	7440-02-0	
Selenium	ND	ug/L	10.0	6.16	1	10/29/25 22:04	10/30/25 17:46	7782-49-2	
Silver	ND	ug/L	5.00	2.89	1	10/29/25 22:04	10/30/25 17:46	7440-22-4	
Vanadium	ND	ug/L	20.0	5.64	1	10/29/25 22:04	10/30/25 17:46	7440-62-2	
Zinc	**14.5J**	ug/L	50.0	4.67	1	10/29/25 22:04	10/30/25 17:46	7440-66-6	J
Metals (ICPMS) 6020B	Analytical Method: EPA 6020B Preparation Method: 3015 Pace National - Mt. Juliet								
Boron	**16.7J**	ug/L	30.0	9.03	1	10/31/25 21:40	11/22/25 16:26	7440-42-8	J
Lithium	**10.5**	ug/L	2.00	0.600	1	10/31/25 21:40	11/22/25 16:26	7439-93-2	
Thallium	ND	ug/L	2.00	0.130	1	10/31/25 21:40	11/22/25 16:26	7440-28-0	
Mercury 7470A	Analytical Method: EPA 7470A Preparation Method: 7470A Pace National - Mt. Juliet								
Mercury	ND	ug/L	0.200	0.0700	1	11/02/25 13:29	11/04/25 16:01	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2020 Pace Analytical Services - Asheville								
Total Dissolved Solids	**205**	mg/L	25.0	25.0	1		10/26/25 11:05		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**20.8**	mg/L	1.0	0.60	1		10/25/25 20:44	16887-00-6	
Fluoride	**0.50**	mg/L	0.10	0.050	1		10/25/25 20:44	16984-48-8	
Sulfate	**3.5**	mg/L	1.0	0.50	1		10/25/25 20:44	14808-79-8	

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ANALYTICAL RESULTS

Project: Charah 4th Quarter GW Monitori
Pace Project No.: 92825546

Sample: MW-6 **Lab ID: 92825546011** Collected: 10/22/25 18:15 Received: 10/24/25 09:42 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Metals (ICP) 6010D	Analytical Method: EPA 6010D Preparation Method: 3015 Pace National - Mt. Juliet								
Antimony	ND	ug/L	10.0	5.06	1	10/29/25 22:04	10/30/25 17:48	7440-36-0	
Arsenic	ND	ug/L	10.0	7.83	1	10/29/25 22:04	10/30/25 17:48	7440-38-2	
Barium	**54.1**	ug/L	5.00	0.773	1	10/29/25 22:04	10/30/25 17:48	7440-39-3	
Beryllium	ND	ug/L	2.00	0.501	1	10/29/25 22:04	10/30/25 17:48	7440-41-7	
Cadmium	ND	ug/L	2.00	0.538	1	10/29/25 22:04	10/30/25 17:48	7440-43-9	
Calcium	**34000**	ug/L	1000	153	1	10/29/25 22:04	10/30/25 17:48	7440-70-2	
Chromium	ND	ug/L	10.0	1.51	1	10/29/25 22:04	10/30/25 17:48	7440-47-3	
Cobalt	ND	ug/L	10.0	1.41	1	10/29/25 22:04	10/30/25 17:48	7440-48-4	
Copper	**44.0**	ug/L	10.0	2.26	1	10/29/25 22:04	10/30/25 17:48	7440-50-8	
Lead	ND	ug/L	6.00	2.43	1	10/29/25 22:04	10/30/25 17:48	7439-92-1	
Molybdenum	ND	ug/L	5.00	1.37	1	10/29/25 22:04	10/30/25 17:48	7439-98-7	
Nickel	ND	ug/L	10.0	1.96	1	10/29/25 22:04	10/30/25 17:48	7440-02-0	
Selenium	ND	ug/L	10.0	6.16	1	10/29/25 22:04	10/30/25 17:48	7782-49-2	
Silver	ND	ug/L	5.00	2.89	1	10/29/25 22:04	10/30/25 17:48	7440-22-4	
Vanadium	ND	ug/L	20.0	5.64	1	10/29/25 22:04	10/30/25 17:48	7440-62-2	
Zinc	**10.7J**	ug/L	50.0	4.67	1	10/29/25 22:04	10/30/25 17:48	7440-66-6	J
Metals (ICPMS) 6020B	Analytical Method: EPA 6020B Preparation Method: 3015 Pace National - Mt. Juliet								
Boron	**12.2J**	ug/L	30.0	9.03	1	10/31/25 21:40	11/22/25 16:29	7440-42-8	J
Lithium	**25.6**	ug/L	2.00	0.600	1	10/31/25 21:40	11/22/25 16:29	7439-93-2	
Thallium	ND	ug/L	2.00	0.130	1	10/31/25 21:40	11/22/25 16:29	7440-28-0	
Mercury 7470A	Analytical Method: EPA 7470A Preparation Method: 7470A Pace National - Mt. Juliet								
Mercury	ND	ug/L	0.200	0.0700	1	11/02/25 13:29	11/04/25 16:04	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2020 Pace Analytical Services - Asheville								
Total Dissolved Solids	**590**	mg/L	50.0	50.0	1		10/28/25 10:57		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**176**	mg/L	4.0	2.4	4		10/26/25 07:57	16887-00-6	
Fluoride	**0.30**	mg/L	0.10	0.050	1		10/25/25 22:03	16984-48-8	
Sulfate	**27.2**	mg/L	1.0	0.50	1		10/25/25 22:03	14808-79-8	

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ANALYTICAL RESULTS

Project: Charah 4th Quarter GW Monitori
Pace Project No.: 92825546

Sample: MW-7R **Lab ID: 92825546012** Collected: 10/22/25 16:00 Received: 10/24/25 09:42 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Metals (ICP) 6010D	Analytical Method: EPA 6010D Preparation Method: 3015 Pace National - Mt. Juliet								
Antimony	ND	ug/L	10.0	5.06	1	10/29/25 22:04	10/30/25 17:50	7440-36-0	
Arsenic	ND	ug/L	10.0	7.83	1	10/29/25 22:04	10/30/25 17:50	7440-38-2	
Barium	**317**	ug/L	5.00	0.773	1	10/29/25 22:04	10/30/25 17:50	7440-39-3	
Beryllium	ND	ug/L	2.00	0.501	1	10/29/25 22:04	10/30/25 17:50	7440-41-7	
Cadmium	ND	ug/L	2.00	0.538	1	10/29/25 22:04	10/30/25 17:50	7440-43-9	
Calcium	**96500**	ug/L	1000	153	1	10/29/25 22:04	10/30/25 17:50	7440-70-2	
Chromium	**3.39J**	ug/L	10.0	1.51	1	10/29/25 22:04	10/30/25 17:50	7440-47-3	J
Cobalt	ND	ug/L	10.0	1.41	1	10/29/25 22:04	10/30/25 17:50	7440-48-4	
Copper	**61.6**	ug/L	10.0	2.26	1	10/29/25 22:04	10/30/25 17:50	7440-50-8	
Lead	**2.79J**	ug/L	6.00	2.43	1	10/29/25 22:04	10/30/25 17:50	7439-92-1	J
Molybdenum	**1.75J**	ug/L	5.00	1.37	1	10/29/25 22:04	10/30/25 17:50	7439-98-7	J
Nickel	ND	ug/L	10.0	1.96	1	10/29/25 22:04	10/30/25 17:50	7440-02-0	
Selenium	ND	ug/L	10.0	6.16	1	10/29/25 22:04	10/30/25 17:50	7782-49-2	
Silver	ND	ug/L	5.00	2.89	1	10/29/25 22:04	10/30/25 17:50	7440-22-4	
Vanadium	ND	ug/L	20.0	5.64	1	10/29/25 22:04	10/30/25 17:50	7440-62-2	
Zinc	**11.3J**	ug/L	50.0	4.67	1	10/29/25 22:04	10/30/25 17:50	7440-66-6	J
Metals (ICPMS) 6020B	Analytical Method: EPA 6020B Preparation Method: 3015 Pace National - Mt. Juliet								
Boron	**11.8J**	ug/L	30.0	9.03	1	10/31/25 21:40	11/22/25 16:32	7440-42-8	J
Lithium	**30.9**	ug/L	2.00	0.600	1	10/31/25 21:40	11/22/25 16:32	7439-93-2	
Thallium	ND	ug/L	2.00	0.130	1	10/31/25 21:40	11/22/25 16:32	7440-28-0	
Mercury 7470A	Analytical Method: EPA 7470A Preparation Method: 7470A Pace National - Mt. Juliet								
Mercury	ND	ug/L	0.200	0.0700	1	11/02/25 13:29	11/04/25 16:06	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2020 Pace Analytical Services - Asheville								
Total Dissolved Solids	**908**	mg/L	50.0	50.0	1		10/28/25 10:57		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**265**	mg/L	6.0	3.6	6		10/26/25 08:11	16887-00-6	M1
Fluoride	**0.10**	mg/L	0.10	0.050	1		10/25/25 22:17	16984-48-8	
Sulfate	**14.2**	mg/L	1.0	0.50	1		10/25/25 22:17	14808-79-8	

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ANALYTICAL RESULTS

Project: Charah 4th Quarter GW Monitori
Pace Project No.: 92825546

Sample: MW-8 **Lab ID: 92825546013** Collected: 10/22/25 11:00 Received: 10/24/25 09:42 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Metals (ICP) 6010D	Analytical Method: EPA 6010D Preparation Method: 3015 Pace National - Mt. Juliet								
Antimony	ND	ug/L	10.0	5.06	1	10/29/25 22:04	10/30/25 17:53	7440-36-0	
Arsenic	ND	ug/L	10.0	7.83	1	10/29/25 22:04	10/30/25 17:53	7440-38-2	
Barium	**1370**	ug/L	5.00	0.773	1	10/29/25 22:04	10/30/25 17:53	7440-39-3	
Beryllium	ND	ug/L	2.00	0.501	1	10/29/25 22:04	10/30/25 17:53	7440-41-7	
Cadmium	ND	ug/L	2.00	0.538	1	10/29/25 22:04	10/30/25 17:53	7440-43-9	
Calcium	**164000**	ug/L	1000	153	1	10/29/25 22:04	10/30/25 17:53	7440-70-2	
Chromium	ND	ug/L	10.0	1.51	1	10/29/25 22:04	10/30/25 17:53	7440-47-3	
Cobalt	ND	ug/L	10.0	1.41	1	10/29/25 22:04	10/30/25 17:53	7440-48-4	
Copper	**2.41J**	ug/L	10.0	2.26	1	10/29/25 22:04	10/30/25 17:53	7440-50-8	J
Lead	ND	ug/L	6.00	2.43	1	10/29/25 22:04	10/30/25 17:53	7439-92-1	
Molybdenum	ND	ug/L	5.00	1.37	1	10/29/25 22:04	10/30/25 17:53	7439-98-7	
Nickel	ND	ug/L	10.0	1.96	1	10/29/25 22:04	10/30/25 17:53	7440-02-0	
Selenium	ND	ug/L	10.0	6.16	1	10/29/25 22:04	10/30/25 17:53	7782-49-2	
Silver	ND	ug/L	5.00	2.89	1	10/29/25 22:04	10/30/25 17:53	7440-22-4	
Vanadium	ND	ug/L	20.0	5.64	1	10/29/25 22:04	10/30/25 17:53	7440-62-2	
Zinc	**15.8J**	ug/L	50.0	4.67	1	10/29/25 22:04	10/30/25 17:53	7440-66-6	J
Metals (ICPMS) 6020B	Analytical Method: EPA 6020B Preparation Method: 3015 Pace National - Mt. Juliet								
Boron	**13.6J**	ug/L	30.0	9.03	1	10/31/25 21:40	11/22/25 16:35	7440-42-8	J
Lithium	**42.0**	ug/L	2.00	0.600	1	10/31/25 21:40	11/22/25 16:35	7439-93-2	
Thallium	ND	ug/L	2.00	0.130	1	10/31/25 21:40	11/22/25 16:35	7440-28-0	
Mercury 7470A	Analytical Method: EPA 7470A Preparation Method: 7470A Pace National - Mt. Juliet								
Mercury	ND	ug/L	0.200	0.0700	1	11/02/25 13:29	11/04/25 16:09	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2020 Pace Analytical Services - Asheville								
Total Dissolved Solids	**1630**	mg/L	250	250	1		10/28/25 10:57		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**499**	mg/L	11.0	6.6	11		10/26/25 09:19	16887-00-6	
Fluoride	**0.061J**	mg/L	0.10	0.050	1		10/25/25 22:59	16984-48-8	
Sulfate	**6.6**	mg/L	1.0	0.50	1		10/25/25 22:59	14808-79-8	

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ANALYTICAL RESULTS

Project: Charah 4th Quarter GW Monitori
Pace Project No.: 92825546

Sample: MW-10 **Lab ID: 92825546014** Collected: 10/23/25 16:40 Received: 10/24/25 09:42 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Metals (ICP) 6010D	Analytical Method: EPA 6010D Preparation Method: 3015 Pace National - Mt. Juliet								
Antimony	ND	ug/L	10.0	5.06	1	10/29/25 22:04	10/30/25 17:55	7440-36-0	
Arsenic	ND	ug/L	10.0	7.83	1	10/29/25 22:04	10/30/25 17:55	7440-38-2	
Barium	**95.2**	ug/L	5.00	0.773	1	10/29/25 22:04	10/30/25 17:55	7440-39-3	
Beryllium	ND	ug/L	2.00	0.501	1	10/29/25 22:04	10/30/25 17:55	7440-41-7	
Cadmium	ND	ug/L	2.00	0.538	1	10/29/25 22:04	10/30/25 17:55	7440-43-9	
Calcium	**21300**	ug/L	1000	153	1	10/29/25 22:04	10/30/25 17:55	7440-70-2	
Chromium	ND	ug/L	10.0	1.51	1	10/29/25 22:04	10/30/25 17:55	7440-47-3	
Cobalt	ND	ug/L	10.0	1.41	1	10/29/25 22:04	10/30/25 17:55	7440-48-4	
Copper	**58.8**	ug/L	10.0	2.26	1	10/29/25 22:04	10/30/25 17:55	7440-50-8	
Lead	ND	ug/L	6.00	2.43	1	10/29/25 22:04	10/30/25 17:55	7439-92-1	
Molybdenum	**21.5**	ug/L	5.00	1.37	1	10/29/25 22:04	10/30/25 17:55	7439-98-7	
Nickel	ND	ug/L	10.0	1.96	1	10/29/25 22:04	10/30/25 17:55	7440-02-0	
Selenium	**7.63J**	ug/L	10.0	6.16	1	10/29/25 22:04	10/30/25 17:55	7782-49-2	J
Silver	ND	ug/L	5.00	2.89	1	10/29/25 22:04	10/30/25 17:55	7440-22-4	
Vanadium	ND	ug/L	20.0	5.64	1	10/29/25 22:04	10/30/25 17:55	7440-62-2	
Zinc	**10.7J**	ug/L	50.0	4.67	1	10/29/25 22:04	10/30/25 17:55	7440-66-6	J
Metals (ICPMS) 6020B	Analytical Method: EPA 6020B Preparation Method: 3015 Pace National - Mt. Juliet								
Boron	**30.0**	ug/L	30.0	9.03	1	10/31/25 21:40	11/22/25 16:38	7440-42-8	
Lithium	**6.29**	ug/L	2.00	0.600	1	10/31/25 21:40	11/22/25 16:38	7439-93-2	
Thallium	ND	ug/L	2.00	0.130	1	10/31/25 21:40	11/22/25 16:38	7440-28-0	
Mercury 7470A	Analytical Method: EPA 7470A Preparation Method: 7470A Pace National - Mt. Juliet								
Mercury	ND	ug/L	0.200	0.0700	1	11/02/25 13:29	11/04/25 16:17	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2020 Pace Analytical Services - Asheville								
Total Dissolved Solids	**332**	mg/L	25.0	25.0	1		10/30/25 10:39		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**29.9**	mg/L	1.0	0.60	1		10/25/25 23:13	16887-00-6	
Fluoride	**0.40**	mg/L	0.10	0.050	1		10/25/25 23:13	16984-48-8	
Sulfate	**1.7**	mg/L	1.0	0.50	1		10/25/25 23:13	14808-79-8	

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ANALYTICAL RESULTS

Project: Charah 4th Quarter GW Monitori
Pace Project No.: 92825546

Sample: MW-11 **Lab ID: 92825546015** Collected: 10/23/25 15:15 Received: 10/24/25 09:42 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Metals (ICP) 6010D	Analytical Method: EPA 6010D Preparation Method: 3015 Pace National - Mt. Juliet								
Antimony	ND	ug/L	10.0	5.06	1	10/29/25 22:04	10/30/25 17:11	7440-36-0	
Arsenic	ND	ug/L	10.0	7.83	1	10/29/25 22:04	10/30/25 17:11	7440-38-2	
Barium	**38.6**	ug/L	5.00	0.773	1	10/29/25 22:04	10/30/25 17:11	7440-39-3	
Beryllium	ND	ug/L	2.00	0.501	1	10/29/25 22:04	10/30/25 17:11	7440-41-7	
Cadmium	ND	ug/L	2.00	0.538	1	10/29/25 22:04	10/30/25 17:11	7440-43-9	
Calcium	**25200**	ug/L	1000	153	1	10/29/25 22:04	10/30/25 17:11	7440-70-2	
Chromium	ND	ug/L	10.0	1.51	1	10/29/25 22:04	10/30/25 17:11	7440-47-3	
Cobalt	ND	ug/L	10.0	1.41	1	10/29/25 22:04	10/30/25 17:11	7440-48-4	
Copper	**34.4**	ug/L	10.0	2.26	1	10/29/25 22:04	10/30/25 17:11	7440-50-8	
Lead	ND	ug/L	6.00	2.43	1	10/29/25 22:04	10/30/25 17:11	7439-92-1	
Molybdenum	**1.40J**	ug/L	5.00	1.37	1	10/29/25 22:04	10/30/25 17:11	7439-98-7	J
Nickel	ND	ug/L	10.0	1.96	1	10/29/25 22:04	10/30/25 17:11	7440-02-0	
Selenium	ND	ug/L	10.0	6.16	1	10/29/25 22:04	10/30/25 17:11	7782-49-2	
Silver	ND	ug/L	5.00	2.89	1	10/29/25 22:04	10/30/25 17:11	7440-22-4	
Vanadium	ND	ug/L	20.0	5.64	1	10/29/25 22:04	10/30/25 17:11	7440-62-2	
Zinc	**13.5J**	ug/L	50.0	4.67	1	10/29/25 22:04	10/30/25 17:11	7440-66-6	J
Metals (ICPMS) 6020B	Analytical Method: EPA 6020B Preparation Method: 3015 Pace National - Mt. Juliet								
Boron	**18.5J**	ug/L	30.0	9.03	1	10/31/25 21:40	11/22/25 16:53	7440-42-8	J
Lithium	**12.0**	ug/L	2.00	0.600	1	10/31/25 21:40	11/22/25 16:53	7439-93-2	
Thallium	ND	ug/L	2.00	0.130	1	10/31/25 21:40	11/22/25 16:53	7440-28-0	
Mercury 7470A	Analytical Method: EPA 7470A Preparation Method: 7470A Pace National - Mt. Juliet								
Mercury	ND	ug/L	0.200	0.0700	1	11/02/25 13:29	11/04/25 16:20	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2020 Pace Analytical Services - Asheville								
Total Dissolved Solids	**404**	mg/L	25.0	25.0	1		10/30/25 10:39		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**139**	mg/L	3.0	1.8	3		10/26/25 09:34	16887-00-6	
Fluoride	**0.14**	mg/L	0.10	0.050	1		10/25/25 23:27	16984-48-8	
Sulfate	**2.0**	mg/L	1.0	0.50	1		10/25/25 23:27	14808-79-8	

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ANALYTICAL RESULTS

Project: Charah 4th Quarter GW Monitori
Pace Project No.: 92825546

Sample: MW-11D **Lab ID: 92825546016** Collected: 10/23/25 12:15 Received: 10/24/25 09:42 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Metals (ICP) 6010D	Analytical Method: EPA 6010D Preparation Method: 3015 Pace National - Mt. Juliet								
Antimony	ND	ug/L	10.0	5.06	1	10/29/25 22:04	10/30/25 18:02	7440-36-0	
Arsenic	ND	ug/L	10.0	7.83	1	10/29/25 22:04	10/30/25 18:02	7440-38-2	
Barium	**112**	ug/L	5.00	0.773	1	10/29/25 22:04	10/30/25 18:02	7440-39-3	
Beryllium	ND	ug/L	2.00	0.501	1	10/29/25 22:04	10/30/25 18:02	7440-41-7	
Cadmium	ND	ug/L	2.00	0.538	1	10/29/25 22:04	10/30/25 18:02	7440-43-9	
Calcium	**16000**	ug/L	1000	153	1	10/29/25 22:04	10/30/25 18:02	7440-70-2	
Chromium	ND	ug/L	10.0	1.51	1	10/29/25 22:04	10/30/25 18:02	7440-47-3	
Cobalt	ND	ug/L	10.0	1.41	1	10/29/25 22:04	10/30/25 18:02	7440-48-4	
Copper	**4.83J**	ug/L	10.0	2.26	1	10/29/25 22:04	10/30/25 18:02	7440-50-8	J
Lead	ND	ug/L	6.00	2.43	1	10/29/25 22:04	10/30/25 18:02	7439-92-1	
Molybdenum	**4.28J**	ug/L	5.00	1.37	1	10/29/25 22:04	10/30/25 18:02	7439-98-7	J
Nickel	ND	ug/L	10.0	1.96	1	10/29/25 22:04	10/30/25 18:02	7440-02-0	
Selenium	ND	ug/L	10.0	6.16	1	10/29/25 22:04	10/30/25 18:02	7782-49-2	
Silver	ND	ug/L	5.00	2.89	1	10/29/25 22:04	10/30/25 18:02	7440-22-4	
Vanadium	ND	ug/L	20.0	5.64	1	10/29/25 22:04	10/30/25 18:02	7440-62-2	
Zinc	**89.7**	ug/L	50.0	4.67	1	10/29/25 22:04	10/30/25 18:02	7440-66-6	
Metals (ICPMS) 6020B	Analytical Method: EPA 6020B Preparation Method: 3015 Pace National - Mt. Juliet								
Boron	**46.4**	ug/L	30.0	9.03	1	10/31/25 21:40	11/22/25 16:56	7440-42-8	
Lithium	**16.9**	ug/L	2.00	0.600	1	10/31/25 21:40	11/22/25 16:56	7439-93-2	
Thallium	ND	ug/L	2.00	0.130	1	10/31/25 21:40	11/22/25 16:56	7440-28-0	
Mercury 7470A	Analytical Method: EPA 7470A Preparation Method: 7470A Pace National - Mt. Juliet								
Mercury	ND	ug/L	0.200	0.0700	1	11/02/25 13:29	11/04/25 16:22	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2020 Pace Analytical Services - Asheville								
Total Dissolved Solids	**321**	mg/L	25.0	25.0	1		10/30/25 10:39		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**54.3**	mg/L	1.0	0.60	1		10/25/25 23:41	16887-00-6	
Fluoride	**0.40**	mg/L	0.10	0.050	1		10/25/25 23:41	16984-48-8	
Sulfate	**13.8**	mg/L	1.0	0.50	1		10/25/25 23:41	14808-79-8	

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ANALYTICAL RESULTS

Project: Charah 4th Quarter GW Monitori
Pace Project No.: 92825546

Sample: SW-1 **Lab ID: 92825546017** Collected: 10/21/25 15:35 Received: 10/24/25 09:42 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Metals (ICP) 6010D	Analytical Method: EPA 6010D Preparation Method: 3015 Pace National - Mt. Juliet								
Antimony	ND	ug/L	10.0	5.06	1	10/29/25 22:04	10/30/25 18:04	7440-36-0	
Arsenic	**9.81J**	ug/L	10.0	7.83	1	10/29/25 22:04	10/30/25 18:04	7440-38-2	J
Barium	**187**	ug/L	5.00	0.773	1	10/29/25 22:04	10/30/25 18:04	7440-39-3	
Beryllium	**0.937J**	ug/L	2.00	0.501	1	10/29/25 22:04	10/30/25 18:04	7440-41-7	J
Cadmium	ND	ug/L	2.00	0.538	1	10/29/25 22:04	10/30/25 18:04	7440-43-9	
Calcium	**9190**	ug/L	1000	153	1	10/29/25 22:04	10/30/25 18:04	7440-70-2	
Chromium	ND	ug/L	10.0	1.51	1	10/29/25 22:04	10/30/25 18:04	7440-47-3	
Cobalt	**28.4**	ug/L	10.0	1.41	1	10/29/25 22:04	10/30/25 18:04	7440-48-4	
Copper	**5.57J**	ug/L	10.0	2.26	1	10/29/25 22:04	10/30/25 18:04	7440-50-8	J
Lead	**14.2**	ug/L	6.00	2.43	1	10/29/25 22:04	10/30/25 18:04	7439-92-1	
Molybdenum	**4.26J**	ug/L	5.00	1.37	1	10/29/25 22:04	10/30/25 18:04	7439-98-7	J
Nickel	**3.09J**	ug/L	10.0	1.96	1	10/29/25 22:04	10/30/25 18:04	7440-02-0	J
Selenium	**6.33J**	ug/L	10.0	6.16	1	10/29/25 22:04	10/30/25 18:04	7782-49-2	J
Silver	ND	ug/L	5.00	2.89	1	10/29/25 22:04	10/30/25 18:04	7440-22-4	
Vanadium	**18.9J**	ug/L	20.0	5.64	1	10/29/25 22:04	10/30/25 18:04	7440-62-2	J
Zinc	**19.6J**	ug/L	50.0	4.67	1	10/29/25 22:04	10/30/25 18:04	7440-66-6	J
Metals (ICPMS) 6020B	Analytical Method: EPA 6020B Preparation Method: 3015 Pace National - Mt. Juliet								
Boron	**11.9J**	ug/L	30.0	9.03	1	10/31/25 21:40	11/22/25 17:00	7440-42-8	J
Lithium	**0.842J**	ug/L	2.00	0.600	1	10/31/25 21:40	11/22/25 17:00	7439-93-2	J
Thallium	ND	ug/L	2.00	0.130	1	10/31/25 21:40	11/22/25 17:00	7440-28-0	
Mercury 7470A	Analytical Method: EPA 7470A Preparation Method: 7470A Pace National - Mt. Juliet								
Mercury	ND	ug/L	0.200	0.0700	1	11/02/25 13:29	11/04/25 16:25	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2020 Pace Analytical Services - Asheville								
Total Dissolved Solids	**104**	mg/L	50.0	50.0	1		10/27/25 10:56		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**5.2**	mg/L	1.0	0.60	1		10/26/25 01:00	16887-00-6	
Fluoride	**0.28**	mg/L	0.10	0.050	1		10/26/25 01:00	16984-48-8	
Sulfate	**1.1**	mg/L	1.0	0.50	1		10/26/25 01:00	14808-79-8	

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ANALYTICAL RESULTS

Project: Charah 4th Quarter GW Monitori
Pace Project No.: 92825546

Sample: SW-2 **Lab ID: 92825546018** Collected: 10/22/25 12:20 Received: 10/24/25 09:42 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Metals (ICP) 6010D	Analytical Method: EPA 6010D Preparation Method: 3015 Pace National - Mt. Juliet								
Antimony	ND	ug/L	10.0	5.06	1	10/29/25 22:04	10/30/25 18:06	7440-36-0	
Arsenic	ND	ug/L	10.0	7.83	1	10/29/25 22:04	10/30/25 18:06	7440-38-2	
Barium	**81.4**	ug/L	5.00	0.773	1	10/29/25 22:04	10/30/25 18:06	7440-39-3	
Beryllium	ND	ug/L	2.00	0.501	1	10/29/25 22:04	10/30/25 18:06	7440-41-7	
Cadmium	ND	ug/L	2.00	0.538	1	10/29/25 22:04	10/30/25 18:06	7440-43-9	
Calcium	**28400**	ug/L	1000	153	1	10/29/25 22:04	10/30/25 18:06	7440-70-2	
Chromium	ND	ug/L	10.0	1.51	1	10/29/25 22:04	10/30/25 18:06	7440-47-3	
Cobalt	ND	ug/L	10.0	1.41	1	10/29/25 22:04	10/30/25 18:06	7440-48-4	
Copper	ND	ug/L	10.0	2.26	1	10/29/25 22:04	10/30/25 18:06	7440-50-8	
Lead	ND	ug/L	6.00	2.43	1	10/29/25 22:04	10/30/25 18:06	7439-92-1	
Molybdenum	**1.72J**	ug/L	5.00	1.37	1	10/29/25 22:04	10/30/25 18:06	7439-98-7	J
Nickel	ND	ug/L	10.0	1.96	1	10/29/25 22:04	10/30/25 18:06	7440-02-0	
Selenium	ND	ug/L	10.0	6.16	1	10/29/25 22:04	10/30/25 18:06	7782-49-2	
Silver	ND	ug/L	5.00	2.89	1	10/29/25 22:04	10/30/25 18:06	7440-22-4	
Vanadium	ND	ug/L	20.0	5.64	1	10/29/25 22:04	10/30/25 18:06	7440-62-2	
Zinc	ND	ug/L	50.0	4.67	1	10/29/25 22:04	10/30/25 18:06	7440-66-6	
Metals (ICPMS) 6020B	Analytical Method: EPA 6020B Preparation Method: 3015 Pace National - Mt. Juliet								
Boron	**10.9J**	ug/L	30.0	9.03	1	10/31/25 21:40	11/22/25 17:03	7440-42-8	J
Lithium	ND	ug/L	2.00	0.600	1	10/31/25 21:40	11/22/25 17:03	7439-93-2	
Thallium	ND	ug/L	2.00	0.130	1	10/31/25 21:40	11/22/25 17:03	7440-28-0	
Mercury 7470A	Analytical Method: EPA 7470A Preparation Method: 7470A Pace National - Mt. Juliet								
Mercury	ND	ug/L	0.200	0.0700	1	11/02/25 13:29	11/04/25 16:28	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2020 Pace Analytical Services - Asheville								
Total Dissolved Solids	**198**	mg/L	25.0	25.0	1		10/28/25 19:05		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**23.3**	mg/L	1.0	0.60	1		10/26/25 01:14	16887-00-6	
Fluoride	**0.14**	mg/L	0.10	0.050	1		10/26/25 01:14	16984-48-8	
Sulfate	**15.2**	mg/L	1.0	0.50	1		10/26/25 01:14	14808-79-8	

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ANALYTICAL RESULTS

Project: Charah 4th Quarter GW Monitori
Pace Project No.: 92825546

Sample: SW-3 **Lab ID: 92825546019** Collected: 10/22/25 12:40 Received: 10/24/25 09:42 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Metals (ICP) 6010D	Analytical Method: EPA 6010D Preparation Method: 3015 Pace National - Mt. Juliet								
Antimony	ND	ug/L	10.0	5.06	1	10/29/25 22:04	10/30/25 18:09	7440-36-0	
Arsenic	ND	ug/L	10.0	7.83	1	10/29/25 22:04	10/30/25 18:09	7440-38-2	
Barium	**55.3**	ug/L	5.00	0.773	1	10/29/25 22:04	10/30/25 18:09	7440-39-3	
Beryllium	ND	ug/L	2.00	0.501	1	10/29/25 22:04	10/30/25 18:09	7440-41-7	
Cadmium	ND	ug/L	2.00	0.538	1	10/29/25 22:04	10/30/25 18:09	7440-43-9	
Calcium	**9880**	ug/L	1000	153	1	10/29/25 22:04	10/30/25 18:09	7440-70-2	
Chromium	ND	ug/L	10.0	1.51	1	10/29/25 22:04	10/30/25 18:09	7440-47-3	
Cobalt	ND	ug/L	10.0	1.41	1	10/29/25 22:04	10/30/25 18:09	7440-48-4	
Copper	ND	ug/L	10.0	2.26	1	10/29/25 22:04	10/30/25 18:09	7440-50-8	
Lead	ND	ug/L	6.00	2.43	1	10/29/25 22:04	10/30/25 18:09	7439-92-1	
Molybdenum	ND	ug/L	5.00	1.37	1	10/29/25 22:04	10/30/25 18:09	7439-98-7	
Nickel	ND	ug/L	10.0	1.96	1	10/29/25 22:04	10/30/25 18:09	7440-02-0	
Selenium	ND	ug/L	10.0	6.16	1	10/29/25 22:04	10/30/25 18:09	7782-49-2	
Silver	ND	ug/L	5.00	2.89	1	10/29/25 22:04	10/30/25 18:09	7440-22-4	
Vanadium	ND	ug/L	20.0	5.64	1	10/29/25 22:04	10/30/25 18:09	7440-62-2	
Zinc	**4.81J**	ug/L	50.0	4.67	1	10/29/25 22:04	10/30/25 18:09	7440-66-6	J
Metals (ICPMS) 6020B	Analytical Method: EPA 6020B Preparation Method: 3015 Pace National - Mt. Juliet								
Boron	**20.0J**	ug/L	30.0	9.03	1	10/31/25 21:40	11/22/25 17:06	7440-42-8	J
Lithium	ND	ug/L	2.00	0.600	1	10/31/25 21:40	11/22/25 17:06	7439-93-2	
Thallium	ND	ug/L	2.00	0.130	1	10/31/25 21:40	11/22/25 17:06	7440-28-0	
Mercury 7470A	Analytical Method: EPA 7470A Preparation Method: 7470A Pace National - Mt. Juliet								
Mercury	ND	ug/L	0.200	0.0700	1	11/02/25 13:29	11/04/25 16:30	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2020 Pace Analytical Services - Asheville								
Total Dissolved Solids	**129**	mg/L	25.0	25.0	1		10/28/25 19:05		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**24.3**	mg/L	1.0	0.60	1		10/26/25 01:28	16887-00-6	
Fluoride	**0.12**	mg/L	0.10	0.050	1		10/26/25 01:28	16984-48-8	
Sulfate	**3.5**	mg/L	1.0	0.50	1		10/26/25 01:28	14808-79-8	

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ANALYTICAL RESULTS

Project: Charah 4th Quarter GW Monitori
Pace Project No.: 92825546

Sample: SW-5 **Lab ID: 92825546020** Collected: 10/22/25 13:15 Received: 10/24/25 09:42 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Metals (ICP) 6010D	Analytical Method: EPA 6010D Preparation Method: 3015 Pace National - Mt. Juliet								
Antimony	ND	ug/L	10.0	5.06	1	10/29/25 22:04	10/30/25 18:11	7440-36-0	
Arsenic	ND	ug/L	10.0	7.83	1	10/29/25 22:04	10/30/25 18:11	7440-38-2	
Barium	**112**	ug/L	5.00	0.773	1	10/29/25 22:04	10/30/25 18:11	7440-39-3	
Beryllium	ND	ug/L	2.00	0.501	1	10/29/25 22:04	10/30/25 18:11	7440-41-7	
Cadmium	ND	ug/L	2.00	0.538	1	10/29/25 22:04	10/30/25 18:11	7440-43-9	
Calcium	**5050**	ug/L	1000	153	1	10/29/25 22:04	10/30/25 18:11	7440-70-2	
Chromium	ND	ug/L	10.0	1.51	1	10/29/25 22:04	10/30/25 18:11	7440-47-3	
Cobalt	**3.23J**	ug/L	10.0	1.41	1	10/29/25 22:04	10/30/25 18:11	7440-48-4	J
Copper	**2.43J**	ug/L	10.0	2.26	1	10/29/25 22:04	10/30/25 18:11	7440-50-8	J
Lead	**5.36J**	ug/L	6.00	2.43	1	10/29/25 22:04	10/30/25 18:11	7439-92-1	J
Molybdenum	ND	ug/L	5.00	1.37	1	10/29/25 22:04	10/30/25 18:11	7439-98-7	
Nickel	ND	ug/L	10.0	1.96	1	10/29/25 22:04	10/30/25 18:11	7440-02-0	
Selenium	ND	ug/L	10.0	6.16	1	10/29/25 22:04	10/30/25 18:11	7782-49-2	
Silver	ND	ug/L	5.00	2.89	1	10/29/25 22:04	10/30/25 18:11	7440-22-4	
Vanadium	ND	ug/L	20.0	5.64	1	10/29/25 22:04	10/30/25 18:11	7440-62-2	
Zinc	**14.2J**	ug/L	50.0	4.67	1	10/29/25 22:04	10/30/25 18:11	7440-66-6	J
Metals (ICPMS) 6020B	Analytical Method: EPA 6020B Preparation Method: 3015 Pace National - Mt. Juliet								
Boron	**15.1J**	ug/L	30.0	9.03	1	10/31/25 21:40	11/22/25 17:09	7440-42-8	J
Lithium	**1.06J**	ug/L	2.00	0.600	1	10/31/25 21:40	11/22/25 17:09	7439-93-2	J
Thallium	ND	ug/L	2.00	0.130	1	10/31/25 21:40	11/22/25 17:09	7440-28-0	
Mercury 7470A	Analytical Method: EPA 7470A Preparation Method: 7470A Pace National - Mt. Juliet								
Mercury	ND	ug/L	0.200	0.0700	1	11/02/25 13:29	11/04/25 16:33	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2020 Pace Analytical Services - Asheville								
Total Dissolved Solids	**320**	mg/L	25.0	25.0	1		10/28/25 19:05		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**8.0**	mg/L	1.0	0.60	1		10/26/25 01:42	16887-00-6	
Fluoride	**0.24**	mg/L	0.10	0.050	1		10/26/25 01:42	16984-48-8	
Sulfate	ND	mg/L	1.0	0.50	1		10/26/25 01:42	14808-79-8	

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ANALYTICAL RESULTS

Project: Charah 4th Quarter GW Monitori
Pace Project No.: 92825546

Sample: SW-6 **Lab ID: 92825546021** Collected: 10/21/25 15:55 Received: 10/24/25 09:42 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Metals (ICP) 6010D	Analytical Method: EPA 6010D Preparation Method: 3015 Pace National - Mt. Juliet								
Antimony	ND	ug/L	10.0	5.06	1	10/31/25 12:14	10/31/25 16:02	7440-36-0	
Arsenic	ND	ug/L	10.0	7.83	1	10/31/25 12:14	10/31/25 16:02	7440-38-2	
Barium	**338**	ug/L	5.00	0.773	1	10/31/25 12:14	10/31/25 16:02	7440-39-3	
Beryllium	**1.83J**	ug/L	2.00	0.501	1	10/31/25 12:14	10/31/25 16:02	7440-41-7	J
Cadmium	ND	ug/L	2.00	0.538	1	10/31/25 12:14	10/31/25 16:02	7440-43-9	
Calcium	**6550**	ug/L	1000	153	1	10/31/25 12:14	10/31/25 16:02	7440-70-2	
Chromium	**1.99J**	ug/L	10.0	1.51	1	10/31/25 12:14	10/31/25 16:02	7440-47-3	J
Cobalt	**10.7**	ug/L	10.0	1.41	1	10/31/25 12:14	10/31/25 16:02	7440-48-4	
Copper	**6.04J**	ug/L	10.0	2.26	1	10/31/25 12:14	10/31/25 16:02	7440-50-8	J
Lead	**3.22J**	ug/L	6.00	2.43	1	10/31/25 12:14	10/31/25 16:02	7439-92-1	J
Molybdenum	ND	ug/L	5.00	1.37	1	10/31/25 12:14	10/31/25 16:02	7439-98-7	
Nickel	**3.77J**	ug/L	10.0	1.96	1	10/31/25 12:14	10/31/25 16:02	7440-02-0	J
Selenium	ND	ug/L	10.0	6.16	1	10/31/25 12:14	10/31/25 16:02	7782-49-2	
Silver	ND	ug/L	5.00	2.89	1	10/31/25 12:14	10/31/25 16:02	7440-22-4	
Vanadium	**15.1J**	ug/L	20.0	5.64	1	10/31/25 12:14	10/31/25 16:02	7440-62-2	J
Zinc	**57.0**	ug/L	50.0	4.67	1	10/31/25 12:14	10/31/25 16:02	7440-66-6	
Metals (ICPMS) 6020B	Analytical Method: EPA 6020B Preparation Method: 3015 Pace National - Mt. Juliet								
Boron	**11.0J**	ug/L	30.0	9.03	1	10/31/25 14:37	11/24/25 12:23	7440-42-8	J
Lithium	**2.06**	ug/L	2.00	0.600	1	10/31/25 14:37	11/24/25 12:23	7439-93-2	
Thallium	**0.408J**	ug/L	2.00	0.130	1	10/31/25 14:37	11/23/25 23:25	7440-28-0	J
Mercury 7470A	Analytical Method: EPA 7470A Preparation Method: 7470A Pace National - Mt. Juliet								
Mercury	ND	ug/L	0.200	0.0700	1	11/02/25 13:29	11/04/25 16:36	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2020 Pace Analytical Services - Asheville								
Total Dissolved Solids	**908**	mg/L	50.0	50.0	1		10/27/25 10:56		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**4.5**	mg/L	1.0	0.60	1		10/26/25 01:56	16887-00-6	
Fluoride	**0.32**	mg/L	0.10	0.050	1		10/26/25 01:56	16984-48-8	
Sulfate	**0.95J**	mg/L	1.0	0.50	1		10/26/25 01:56	14808-79-8	

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QUALITY CONTROL DATA

Project: Charah 4th Quarter GW Monitori
Pace Project No.: 92825546

QC Batch: 2629129
QC Batch Method: 3015
Analysis Method: EPA 6010D
Analysis Description: Metals (ICP) 6010D
Laboratory: Pace National - Mt. Juliet

Associated Lab Samples: 92825546021

METHOD BLANK: R4294934-1 Matrix: Water
Associated Lab Samples: 92825546021

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	ND	10.0	5.06	10/31/25 15:25	
Arsenic	ug/L	ND	10.0	7.83	10/31/25 15:25	
Barium	ug/L	ND	5.00	0.773	10/31/25 15:25	
Beryllium	ug/L	ND	2.00	0.501	10/31/25 15:25	
Cadmium	ug/L	ND	2.00	0.538	10/31/25 15:25	
Calcium	ug/L	ND	1000	153	10/31/25 15:25	
Chromium	ug/L	ND	10.0	1.51	10/31/25 15:25	
Cobalt	ug/L	ND	10.0	1.41	10/31/25 15:25	
Copper	ug/L	ND	10.0	2.26	10/31/25 15:25	
Lead	ug/L	ND	6.00	2.43	10/31/25 15:25	
Molybdenum	ug/L	ND	5.00	1.37	10/31/25 15:25	
Nickel	ug/L	ND	10.0	1.96	10/31/25 15:25	
Selenium	ug/L	ND	10.0	6.16	10/31/25 15:25	
Silver	ug/L	ND	5.00	2.89	10/31/25 15:25	
Vanadium	ug/L	ND	20.0	5.64	10/31/25 15:25	
Zinc	ug/L	ND	50.0	4.67	10/31/25 15:25	

LABORATORY CONTROL SAMPLE: R4294934-2

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	1000	948	94.8	80.0-120	
Arsenic	ug/L	1000	966	96.6	80.0-120	
Barium	ug/L	1000	1000	100	80.0-120	
Beryllium	ug/L	1000	979	97.9	80.0-120	
Cadmium	ug/L	1000	973	97.3	80.0-120	
Calcium	ug/L	10000	9640	96.4	80.0-120	
Chromium	ug/L	1000	1010	101	80.0-120	
Cobalt	ug/L	1000	940	94.0	80.0-120	
Copper	ug/L	1000	996	99.6	80.0-120	
Lead	ug/L	1000	946	94.6	80.0-120	
Molybdenum	ug/L	1000	999	99.9	80.0-120	
Nickel	ug/L	1000	931	93.1	80.0-120	
Selenium	ug/L	1000	947	94.7	80.0-120	
Silver	ug/L	200	192	96.2	80.0-120	
Vanadium	ug/L	1000	952	95.2	80.0-120	
Zinc	ug/L	1000	991	99.1	80.0-120	

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QUALITY CONTROL DATA

Project: Charah 4th Quarter GW Monitori
Pace Project No.: 92825546

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: R4294934-4 R4294934-5

Parameter	Units	L1911871-01 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	ug/L	ND	1000	1000	958	948	95.8	94.8	75.0-125	1.08	20	
Arsenic	ug/L	ND	1000	1000	988	974	98.8	97.4	75.0-125	1.50	20	
Barium	ug/L	93.4	1000	1000	1090	1080	99.3	98.2	75.0-125	0.988	20	
Beryllium	ug/L	ND	1000	1000	985	984	98.5	98.4	75.0-125	0.126	20	
Cadmium	ug/L	0.783	1000	1000	984	971	98.4	97.0	75.0-125	1.35	20	
Calcium	ug/L	67200	10000	10000	76300	76300	91.1	91.1	75.0-125	0.002	20	
Chromium	ug/L	ND	1000	1000	1010	1000	101	100	75.0-125	0.918	20	
Cobalt	ug/L	ND	1000	1000	960	952	96.0	95.2	75.0-125	0.812	20	
Copper	ug/L	ND	1000	1000	990	986	99.0	98.6	75.0-125	0.443	20	
Lead	ug/L	ND	1000	1000	961	953	96.1	95.3	75.0-125	0.868	20	
Molybdenum	ug/L	ND	1000	1000	1000	985	100	98.5	75.0-125	1.46	20	
Nickel	ug/L	ND	1000	1000	951	944	95.1	94.4	75.0-125	0.842	20	
Selenium	ug/L	ND	1000	1000	967	953	96.7	95.3	75.0-125	1.50	20	
Silver	ug/L	ND	200	200	195	196	97.4	97.8	75.0-125	0.386	20	
Vanadium	ug/L	ND	1000	1000	955	961	95.5	96.1	75.0-125	0.544	20	
Zinc	ug/L	ND	1000	1000	996	980	99.6	98.0	75.0-125	1.62	20	

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QUALITY CONTROL DATA

Project: Charah 4th Quarter GW Monitori
Pace Project No.: 92825546

QC Batch: 2629144
QC Batch Method: 3015
Analysis Method: EPA 6010D
Analysis Description: Metals (ICP) 6010D
Laboratory: Pace National - Mt. Juliet
Associated Lab Samples: 92825546001, 92825546002, 92825546003, 92825546004, 92825546005, 92825546006, 92825546007, 92825546008, 92825546009, 92825546010, 92825546011, 92825546012, 92825546013, 92825546014, 92825546015, 92825546016, 92825546017, 92825546018, 92825546019, 92825546020

METHOD BLANK: R4294595-1
Matrix: Water
Associated Lab Samples: 92825546001, 92825546002, 92825546003, 92825546004, 92825546005, 92825546006, 92825546007, 92825546008, 92825546009, 92825546010, 92825546011, 92825546012, 92825546013, 92825546014, 92825546015, 92825546016, 92825546017, 92825546018, 92825546019, 92825546020

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	ND	10.0	5.06	10/30/25 17:07	
Arsenic	ug/L	ND	10.0	7.83	10/30/25 17:07	
Barium	ug/L	ND	5.00	0.773	10/30/25 17:07	
Beryllium	ug/L	ND	2.00	0.501	10/30/25 17:07	
Cadmium	ug/L	ND	2.00	0.538	10/30/25 17:07	
Calcium	ug/L	ND	1000	153	10/30/25 17:07	
Chromium	ug/L	ND	10.0	1.51	10/30/25 17:07	
Cobalt	ug/L	ND	10.0	1.41	10/30/25 17:07	
Copper	ug/L	ND	10.0	2.26	10/30/25 17:07	
Lead	ug/L	ND	6.00	2.43	10/30/25 17:07	
Molybdenum	ug/L	ND	5.00	1.37	10/30/25 17:07	
Nickel	ug/L	ND	10.0	1.96	10/30/25 17:07	
Selenium	ug/L	ND	10.0	6.16	10/30/25 17:07	
Silver	ug/L	ND	5.00	2.89	10/30/25 17:07	
Vanadium	ug/L	ND	20.0	5.64	10/30/25 17:07	
Zinc	ug/L	ND	50.0	4.67	10/30/25 17:07	

LABORATORY CONTROL SAMPLE: R4294595-2

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	1000	936	93.6	80.0-120	
Arsenic	ug/L	1000	949	94.9	80.0-120	
Barium	ug/L	1000	995	99.5	80.0-120	
Beryllium	ug/L	1000	980	98.0	80.0-120	
Cadmium	ug/L	1000	949	94.9	80.0-120	
Calcium	ug/L	10000	9900	99.0	80.0-120	
Chromium	ug/L	1000	999	99.9	80.0-120	
Cobalt	ug/L	1000	931	93.1	80.0-120	
Copper	ug/L	1000	988	98.8	80.0-120	
Lead	ug/L	1000	943	94.3	80.0-120	
Molybdenum	ug/L	1000	984	98.4	80.0-120	
Nickel	ug/L	1000	926	92.6	80.0-120	
Selenium	ug/L	1000	921	92.1	80.0-120	
Silver	ug/L	200	188	94.1	80.0-120	
Vanadium	ug/L	1000	966	96.6	80.0-120	

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(704)875-9092

QUALITY CONTROL DATA

Project: Charah 4th Quarter GW Monitori
Pace Project No.: 92825546

LABORATORY CONTROL SAMPLE: R4294595-2

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Zinc	ug/L	1000	976	97.6	80.0-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: R4294595-4 R4294595-5

Parameter	Units	92825546015 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	ug/L	ND	1000	1000	940	947	94.0	94.7	75.0-125	0.663	20	
Arsenic	ug/L	ND	1000	1000	967	974	96.7	97.4	75.0-125	0.720	20	
Barium	ug/L	38.6	1000	1000	1020	1030	98.0	98.9	75.0-125	0.870	20	
Beryllium	ug/L	ND	1000	1000	980	995	98.0	99.5	75.0-125	1.53	20	
Cadmium	ug/L	ND	1000	1000	956	962	95.6	96.2	75.0-125	0.690	20	
Calcium	ug/L	25200	10000	10000	34000	34300	87.8	91.0	75.0-125	0.932	20	
Chromium	ug/L	ND	1000	1000	995	1000	99.5	100	75.0-125	0.808	20	
Cobalt	ug/L	ND	1000	1000	949	960	94.9	96.0	75.0-125	1.18	20	
Copper	ug/L	34.4	1000	1000	1020	1020	98.5	98.8	75.0-125	0.351	20	
Lead	ug/L	ND	1000	1000	954	966	95.4	96.6	75.0-125	1.28	20	
Molybdenum	ug/L	1.40	1000	1000	984	991	98.2	99.0	75.0-125	0.719	20	
Nickel	ug/L	ND	1000	1000	949	956	94.9	95.6	75.0-125	0.778	20	
Selenium	ug/L	ND	1000	1000	944	952	94.4	95.2	75.0-125	0.883	20	
Silver	ug/L	ND	200	200	190	192	94.8	96.2	75.0-125	1.49	20	
Vanadium	ug/L	ND	1000	1000	960	975	96.0	97.5	75.0-125	1.57	20	
Zinc	ug/L	13.5	1000	1000	994	997	98.0	98.4	75.0-125	0.364	20	

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QUALITY CONTROL DATA

Project: Charah 4th Quarter GW Monitori
Pace Project No.: 92825546

QC Batch: 2629162
QC Batch Method: 3015
Analysis Method: EPA 6020B
Analysis Description: Metals (ICPMS) 6020B
Laboratory: Pace National - Mt. Juliet

Associated Lab Samples: 92825546021

METHOD BLANK: R4305279-1 Matrix: Water
Associated Lab Samples: 92825546021

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron	ug/L	ND	30.0	9.03	11/23/25 18:07	
Lithium	ug/L	ND	2.00	0.600	11/23/25 18:07	

METHOD BLANK: R4305317-1 Matrix: Water
Associated Lab Samples: 92825546021

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Thallium	ug/L	ND	2.00	0.130	11/23/25 22:31	

LABORATORY CONTROL SAMPLE: R4305279-2

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	ug/L	50.0	45.0	90.0	80.0-120	
Lithium	ug/L	50.0	47.2	94.3	80.0-120	

LABORATORY CONTROL SAMPLE: R4305317-2

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Thallium	ug/L	50.0	53.5	107	80.0-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: R4305279-4 R4305279-5

Parameter	Units	L1911871-01 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	ug/L	28.4	50.0	50.0	78.2	78.5	99.5	100	75.0-125	0.472	20	
Lithium	ug/L	2.19	50.0	50.0	50.0	50.4	95.6	96.4	75.0-125	0.739	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: R4305317-4 R4305317-5

Parameter	Units	L1911871-01 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Thallium	ug/L	ND	50.0	50.0	52.6	52.0	105	104	75.0-125	1.27	20	

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QUALITY CONTROL DATA

Project: Charah 4th Quarter GW Monitori
Pace Project No.: 92825546

QC Batch: 2629172
QC Batch Method: 3015
Analysis Method: EPA 6020B
Analysis Description: Metals (ICPMS) 6020B
Laboratory: Pace National - Mt. Juliet
Associated Lab Samples: 92825546001, 92825546002, 92825546003, 92825546004, 92825546005, 92825546006, 92825546007, 92825546008, 92825546009, 92825546010, 92825546011, 92825546012, 92825546013, 92825546014, 92825546015, 92825546016, 92825546017, 92825546018, 92825546019, 92825546020

METHOD BLANK: R4305008-1 Matrix: Water
Associated Lab Samples: 92825546001, 92825546002, 92825546003, 92825546004, 92825546005, 92825546006, 92825546007, 92825546008, 92825546009, 92825546010, 92825546011, 92825546012, 92825546013, 92825546014, 92825546015, 92825546016, 92825546017, 92825546018, 92825546019, 92825546020

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron	ug/L	ND	30.0	9.03	11/22/25 15:27	
Lithium	ug/L	ND	2.00	0.600	11/22/25 15:27	
Thallium	ug/L	ND	2.00	0.130	11/22/25 15:27	

LABORATORY CONTROL SAMPLE: R4305008-2

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	ug/L	50.0	50.9	102	80.0-120	
Lithium	ug/L	50.0	50.8	102	80.0-120	
Thallium	ug/L	50.0	51.9	104	80.0-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: R4305008-4 R4305008-5

Parameter	Units	92825546008 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	ug/L	46.1	50.0	50.0	97.2	99.9	102	107	75.0-125	2.68	20	
Lithium	ug/L	88.0	50.0	50.0	141	145	105	113	75.0-125	2.93	20	
Thallium	ug/L	ND	50.0	50.0	52.1	52.1	104	104	75.0-125	0.111	20	

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QUALITY CONTROL DATA

Project: Charah 4th Quarter GW Monitori
Pace Project No.: 92825546

QC Batch: 2629128
QC Batch Method: 7470A
Analysis Method: EPA 7470A
Analysis Description: Mercury 7470A
Laboratory: Pace National - Mt. Juliet
Associated Lab Samples: 92825546001, 92825546002, 92825546003, 92825546004

METHOD BLANK: R4294902-1 Matrix: Water
Associated Lab Samples: 92825546001, 92825546002, 92825546003, 92825546004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.200	0.0700	10/31/25 16:31	

LABORATORY CONTROL SAMPLE: R4294902-2

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	3.00	2.83	94.3	80.0-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: R4294902-4 R4294902-5

Parameter	Units	L1911934-01 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	3.00	3.00	2.87	2.64	95.8	88.1	75.0-125	8.35	20	

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QUALITY CONTROL DATA

Project: Charah 4th Quarter GW Monitori
Pace Project No.: 92825546

QC Batch: 2629198
QC Batch Method: 7470A
Analysis Method: EPA 7470A
Analysis Description: Mercury 7470A
Laboratory: Pace National - Mt. Juliet
Associated Lab Samples: 92825546005, 92825546006, 92825546007, 92825546008, 92825546009, 92825546010, 92825546011, 92825546012, 92825546013, 92825546014, 92825546015, 92825546016, 92825546017, 92825546018, 92825546019, 92825546020, 92825546021

METHOD BLANK: R4296273-1 Matrix: Water
Associated Lab Samples: 92825546005, 92825546006, 92825546007, 92825546008, 92825546009, 92825546010, 92825546011, 92825546012, 92825546013, 92825546014, 92825546015, 92825546016, 92825546017, 92825546018, 92825546019, 92825546020, 92825546021

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.200	0.0700	11/04/25 14:16	

LABORATORY CONTROL SAMPLE: R4296273-2

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	3.00	3.26	109	80.0-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: R4296273-4 R4296273-5

Parameter	Units	92825546005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	3.00	3.00	2.03	2.11	67.7	70.3	75.0-125	3.82	20	ML

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QUALITY CONTROL DATA

Project: Charah 4th Quarter GW Monitori
Pace Project No.: 92825546

QC Batch: 969326 | Analysis Method: SM 2540C-2020
QC Batch Method: SM 2540C-2020 | Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92825546001, 92825546005, 92825546009, 92825546010

METHOD BLANK: 4982085 Matrix: Water
Associated Lab Samples: 92825546001, 92825546005, 92825546009, 92825546010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	25.0	25.0	10/26/25 11:03	

LABORATORY CONTROL SAMPLE: 4982086

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	250	246	98	90-110	

SAMPLE DUPLICATE: 4982087

Parameter	Units	92825546001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	510	514	1	25	

SAMPLE DUPLICATE: 4982088

Parameter	Units	92825149001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	138	126	9	25	

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QUALITY CONTROL DATA

Project: Charah 4th Quarter GW Monitori
Pace Project No.: 92825546

QC Batch: 969390 | Analysis Method: SM 2540C-2020
QC Batch Method: SM 2540C-2020 | Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92825546002, 92825546004, 92825546006, 92825546007, 92825546008, 92825546017, 92825546021

METHOD BLANK: 4982312 Matrix: Water
Associated Lab Samples: 92825546002, 92825546004, 92825546006, 92825546007, 92825546008, 92825546017, 92825546021

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	25.0	25.0	10/27/25 10:54	

LABORATORY CONTROL SAMPLE: 4982313

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	250	254	102	90-110	

SAMPLE DUPLICATE: 4982314

Parameter	Units	92825416003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	227	235	3	25	

SAMPLE DUPLICATE: 4982315

Parameter	Units	92825546021 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	908	904	0	25	

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QUALITY CONTROL DATA

Project: Charah 4th Quarter GW Monitori
Pace Project No.: 92825546

QC Batch: 969639
QC Batch Method: SM 2540C-2020
Analysis Method: SM 2540C-2020
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92825546011, 92825546012, 92825546013

METHOD BLANK: 4983520 Matrix: Water
Associated Lab Samples: 92825546011, 92825546012, 92825546013

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	25.0	25.0	10/28/25 10:53	

LABORATORY CONTROL SAMPLE: 4983521

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	250	258	103	90-110	

SAMPLE DUPLICATE: 4983522

Parameter	Units	92825380001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	70.0	65.0	7	25	

SAMPLE DUPLICATE: 4983523

Parameter	Units	92825434003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	455	452	1	25	

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QUALITY CONTROL DATA

Project: Charah 4th Quarter GW Monitori
Pace Project No.: 92825546

QC Batch: 969829
QC Batch Method: SM 2540C-2020
Analysis Method: SM 2540C-2020
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92825546018, 92825546019, 92825546020

METHOD BLANK: 4984627 Matrix: Water
Associated Lab Samples: 92825546018, 92825546019, 92825546020

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	25.0	25.0	10/28/25 19:05	

LABORATORY CONTROL SAMPLE: 4984628

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	250	240	96	90-110	

SAMPLE DUPLICATE: 4984629

Parameter	Units	92825546018 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	198	204	3	25	

SAMPLE DUPLICATE: 4984630

Parameter	Units	92825487001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	3510	3520	0	25	

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QUALITY CONTROL DATA

Project: Charah 4th Quarter GW Monitori
Pace Project No.: 92825546

QC Batch: 970269
QC Batch Method: SM 2540C-2020
Analysis Method: SM 2540C-2020
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92825546003, 92825546014, 92825546015, 92825546016

METHOD BLANK: 4986628 Matrix: Water
Associated Lab Samples: 92825546003, 92825546014, 92825546015, 92825546016

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	25.0	25.0	10/30/25 10:37	

LABORATORY CONTROL SAMPLE: 4986629

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	250	262	105	90-110	

SAMPLE DUPLICATE: 4986630

Parameter	Units	92825539010 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	27.0	32.0	17	25	

SAMPLE DUPLICATE: 4986631

Parameter	Units	92825542001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	18300	16600	10	25	

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QUALITY CONTROL DATA

Project: Charah 4th Quarter GW Monitori
Pace Project No.: 92825546

QC Batch: 969244
QC Batch Method: EPA 300.0 Rev 2.1 1993
Analysis Method: EPA 300.0 Rev 2.1 1993
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92825546001, 92825546002, 92825546003, 92825546004, 92825546005, 92825546006, 92825546007, 92825546008, 92825546009, 92825546010, 92825546011

METHOD BLANK: 4981888 Matrix: Water
Associated Lab Samples: 92825546001, 92825546002, 92825546003, 92825546004, 92825546005, 92825546006, 92825546007, 92825546008, 92825546009, 92825546010, 92825546011

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	10/25/25 13:09	
Fluoride	mg/L	ND	0.10	0.050	10/25/25 13:09	
Sulfate	mg/L	ND	1.0	0.50	10/25/25 13:09	

LABORATORY CONTROL SAMPLE: 4981889

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	49.4	99	90-110	
Fluoride	mg/L	2.5	2.6	103	90-110	
Sulfate	mg/L	50	48.9	98	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4981890 4981891

Parameter	Units	92825279001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	ND	50	50	49.9	50.5	99	100	90-110	1	10	
Fluoride	mg/L	ND	2.5	2.5	2.6	2.6	105	104	90-110	1	10	
Sulfate	mg/L	ND	50	50	49.3	49.8	98	99	90-110	1	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4981892 4981893

Parameter	Units	92825546002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	255	50	50	299	297	87	83	90-110	1	10	M1
Fluoride	mg/L	0.21	2.5	2.5	2.7	2.7	99	101	90-110	2	10	
Sulfate	mg/L	154	50	50	198	197	88	86	90-110	0	10	M1

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QUALITY CONTROL DATA

Project: Charah 4th Quarter GW Monitori
Pace Project No.: 92825546

QC Batch: 969245
QC Batch Method: EPA 300.0 Rev 2.1 1993
Analysis Method: EPA 300.0 Rev 2.1 1993
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92825546012, 92825546013, 92825546014, 92825546015, 92825546016, 92825546017, 92825546018, 92825546019, 92825546020, 92825546021

METHOD BLANK: 4981894 Matrix: Water
Associated Lab Samples: 92825546012, 92825546013, 92825546014, 92825546015, 92825546016, 92825546017, 92825546018, 92825546019, 92825546020, 92825546021

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	10/25/25 13:37	
Fluoride	mg/L	ND	0.10	0.050	10/25/25 13:37	
Sulfate	mg/L	ND	1.0	0.50	10/25/25 13:37	

LABORATORY CONTROL SAMPLE: 4981895

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	50.3	101	90-110	
Fluoride	mg/L	2.5	2.6	103	90-110	
Sulfate	mg/L	50	49.8	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4981896 4981897

Parameter	Units	92825546012 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	265	50	50	304	308	78	86	90-110	1	10	M1
Fluoride	mg/L	0.10	2.5	2.5	2.6	2.6	100	101	90-110	1	10	
Sulfate	mg/L	14.2	50	50	63.5	63.9	98	99	90-110	1	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4981898 4981899

Parameter	Units	92825561001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	2.5	50	50	53.7	53.6	102	102	90-110	0	10	
Fluoride	mg/L	ND	2.5	2.5	2.6	2.6	104	104	90-110	0	10	
Sulfate	mg/L	1.3	50	50	51.5	51.7	100	101	90-110	0	10	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Charah 4th Quarter GW Monitori
Pace Project No.: 92825546

Sample: BG-1 **Lab ID: 92825546001** Collected: 10/20/25 12:25 Received: 10/24/25 09:42 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.000 ± 0.547 (1.07) C:NA T:94%**	pCi/L	11/18/25 13:44	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.689 ± 0.391 (0.700) C:79% T:85%**	pCi/L	11/14/25 14:42	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.689 ± 0.938 (1.77)**	pCi/L	11/18/25 14:53	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Charah 4th Quarter GW Monitori
Pace Project No.: 92825546

Sample: BG-2 **Lab ID: 92825546002** Collected: 10/21/25 10:20 Received: 10/24/25 09:42 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.000 ± 0.522 (1.03) C:NA T:91%**	pCi/L	11/18/25 13:44	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.0246 ± 0.241 (0.565) C:85% T:82%**	pCi/L	11/14/25 14:38	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.0246 ± 0.763 (1.60)**	pCi/L	11/18/25 14:53	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Charah 4th Quarter GW Monitori
Pace Project No.: 92825546

Sample: DUP **Lab ID: 92825546003** Collected: 10/23/25 00:00 Received: 10/24/25 09:42 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**-0.223 ± 0.558 (1.15) C:NA T:93%**	pCi/L	11/18/25 13:44	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.339 ± 0.299 (0.601) C:86% T:90%**	pCi/L	11/14/25 14:38	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.339 ± 0.857 (1.75)**	pCi/L	11/18/25 14:53	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Charah 4th Quarter GW Monitori
Pace Project No.: 92825546

Sample: EQBL **Lab ID: 92825546004** Collected: 10/21/25 12:30 Received: 10/24/25 09:42 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.223 ± 0.256 (0.151) C:NA T:88%**	pCi/L	11/18/25 13:44	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**-0.131 ± 0.285 (0.699) C:84% T:84%**	pCi/L	11/14/25 14:42	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.223 ± 0.541 (0.850)**	pCi/L	11/18/25 14:53	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Charah 4th Quarter GW Monitori
Pace Project No.: 92825546

Sample: LEACHATE **Lab ID: 92825546005** Collected: 10/20/25 16:50 Received: 10/24/25 09:42 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.169 ± 0.258 (0.416) C:NA T:96%**	pCi/L	11/18/25 13:44	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.161 ± 0.411 (0.913) C:85% T:86%**	pCi/L	11/14/25 14:38	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.330 ± 0.669 (1.33)**	pCi/L	11/18/25 14:53	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Charah 4th Quarter GW Monitori
Pace Project No.: 92825546

Sample: MW-1 **Lab ID: 92825546006** Collected: 10/21/25 17:15 Received: 10/24/25 09:42 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.179 ± 0.273 (0.162) C:NA T:85%**	pCi/L	11/18/25 13:44	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**1.08 ± 0.522 (0.919) C:76% T:87%**	pCi/L	11/14/25 14:39	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.26 ± 0.795 (1.08)**	pCi/L	11/18/25 14:53	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Charah 4th Quarter GW Monitori
Pace Project No.: 92825546

Sample: MW-2 **Lab ID: 92825546007** Collected: 10/21/25 14:40 Received: 10/24/25 09:42 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.955 ± 0.607 (0.782) C:NA T:90%**	pCi/L	11/18/25 13:44	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**1.33 ± 0.513 (0.786) C:84% T:82%**	pCi/L	11/14/25 14:39	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**2.29 ± 1.12 (1.57)**	pCi/L	11/18/25 14:53	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Charah 4th Quarter GW Monitori
Pace Project No.: 92825546

Sample: MW-3 **Lab ID: 92825546008** Collected: 10/21/25 11:50 Received: 10/24/25 09:42 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.916 ± 0.700 (1.04) C:NA T:87%**	pCi/L	11/18/25 13:55	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**2.10 ± 0.690 (1.000) C:85% T:79%**	pCi/L	11/14/25 14:39	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**3.02 ± 1.39 (2.04)**	pCi/L	11/18/25 14:53	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Charah 4th Quarter GW Monitori
Pace Project No.: 92825546

Sample: MW-4 **Lab ID: 92825546009** Collected: 10/20/25 14:30 Received: 10/24/25 09:42 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.0573 ± 0.514 (0.997) C:NA T:89%**	pCi/L	11/18/25 13:55	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.439 ± 0.350 (0.695) C:84% T:89%**	pCi/L	11/14/25 14:39	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.496 ± 0.864 (1.69)**	pCi/L	11/18/25 14:53	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Charah 4th Quarter GW Monitori
Pace Project No.: 92825546

Sample: MW-5 **Lab ID: 92825546010** Collected: 10/20/25 16:40 Received: 10/24/25 09:42 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.118 ± 0.568 (1.07) C:NA T:88%**	pCi/L	11/18/25 13:55	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**-0.0196 ± 0.297 (0.703) C:83% T:84%**	pCi/L	11/14/25 14:39	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.118 ± 0.865 (1.77)**	pCi/L	11/18/25 14:53	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Charah 4th Quarter GW Monitori
Pace Project No.: 92825546

Sample: MW-6 **Lab ID: 92825546011** Collected: 10/22/25 18:15 Received: 10/24/25 09:42 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.000 ± 0.266 (0.158) C:NA T:88%**	pCi/L	11/18/25 13:55	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.571 ± 0.371 (0.688) C:81% T:79%**	pCi/L	11/14/25 14:39	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.571 ± 0.637 (0.846)**	pCi/L	11/18/25 14:53	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Charah 4th Quarter GW Monitori
Pace Project No.: 92825546

Sample: MW-7R **Lab ID: 92825546012** Collected: 10/22/25 16:00 Received: 10/24/25 09:42 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.0622 ± 0.284 (0.168) C:NA T:87%**	pCi/L	11/18/25 13:55	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.598 ± 0.448 (0.873) C:74% T:81%**	pCi/L	11/14/25 14:39	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.660 ± 0.732 (1.04)**	pCi/L	11/18/25 14:53	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Charah 4th Quarter GW Monitori
Pace Project No.: 92825546

Sample: MW-8 **Lab ID: 92825546013** Collected: 10/22/25 11:00 Received: 10/24/25 09:42 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.444 ± 0.348 (0.408) C:NA T:89%**	pCi/L	11/18/25 13:55	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**1.12 ± 0.467 (0.749) C:82% T:86%**	pCi/L	11/14/25 14:39	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.56 ± 0.815 (1.16)**	pCi/L	11/18/25 14:53	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Charah 4th Quarter GW Monitori
Pace Project No.: 92825546

Sample: MW-10 **Lab ID: 92825546014** Collected: 10/23/25 16:40 Received: 10/24/25 09:42 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.339 ± 0.352 (0.524) C:NA T:89%**	pCi/L	11/18/25 13:55	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**1.07 ± 0.440 (0.687) C:81% T:86%**	pCi/L	11/14/25 14:39	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.41 ± 0.792 (1.21)**	pCi/L	11/18/25 14:53	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Charah 4th Quarter GW Monitori
Pace Project No.: 92825546

Sample: MW-11 **Lab ID: 92825546015** Collected: 10/23/25 15:15 Received: 10/24/25 09:42 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.113 ± 0.313 (0.607) C:NA T:94%**	pCi/L	11/18/25 13:55	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**1.01 ± 0.465 (0.776) C:80% T:79%**	pCi/L	11/14/25 14:39	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.12 ± 0.778 (1.38)**	pCi/L	11/18/25 14:53	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Charah 4th Quarter GW Monitori
Pace Project No.: 92825546

Sample: MW-11D **Lab ID: 92825546016** Collected: 10/23/25 12:15 Received: 10/24/25 09:42 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**-0.187 ± 0.473 (1.04) C:NA T:84%**	pCi/L	11/18/25 14:07	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.187 ± 0.391 (0.865) C:74% T:76%**	pCi/L	11/14/25 14:39	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.187 ± 0.864 (1.91)**	pCi/L	11/18/25 14:53	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Charah 4th Quarter GW Monitori
Pace Project No.: 92825546

Sample: SW-1 **Lab ID: 92825546017** Collected: 10/21/25 15:35 Received: 10/24/25 09:42 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.179 ± 0.273 (0.439) C:NA T:88%**	pCi/L	11/18/25 14:07	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**1.49 ± 0.593 (0.976) C:80% T:88%**	pCi/L	11/14/25 14:39	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.67 ± 0.866 (1.42)**	pCi/L	11/18/25 14:53	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Charah 4th Quarter GW Monitori
Pace Project No.: 92825546

Sample: SW-2 **Lab ID: 92825546018** Collected: 10/22/25 12:20 Received: 10/24/25 09:42 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.114 ± 0.502 (0.953) C:NA T:87%**	pCi/L	11/18/25 14:07	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.182 ± 0.428 (0.948) C:81% T:83%**	pCi/L	11/14/25 14:39	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.296 ± 0.930 (1.90)**	pCi/L	11/18/25 14:53	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Charah 4th Quarter GW Monitori
Pace Project No.: 92825546

Sample: SW-3 **Lab ID: 92825546019** Collected: 10/22/25 12:40 Received: 10/24/25 09:42 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.671 ± 0.670 (1.06) C:NA T:86%**	pCi/L	11/18/25 14:07	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.562 ± 0.475 (0.964) C:81% T:84%**	pCi/L	11/14/25 14:39	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.23 ± 1.15 (2.02)**	pCi/L	11/18/25 14:53	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Charah 4th Quarter GW Monitori
Pace Project No.: 92825546

Sample: SW-5 **Lab ID: 92825546020** Collected: 10/22/25 13:15 Received: 10/24/25 09:42 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.124 ± 0.749 (1.39) C:NA T:85%**	pCi/L	11/18/25 14:07	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.487 ± 0.450 (0.925) C:84% T:86%**	pCi/L	11/14/25 14:39	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.611 ± 1.20 (2.32)**	pCi/L	11/18/25 14:53	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Charah 4th Quarter GW Monitori
Pace Project No.: 92825546

Sample: SW-6 **Lab ID: 92825546021** Collected: 10/21/25 15:55 Received: 10/24/25 09:42 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.800 ± 0.643 (0.968) C:NA T:93%**	pCi/L	11/18/25 14:42	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**1.29 ± 0.603 (1.05) C:72% T:82%**	pCi/L	11/14/25 11:37	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**2.09 ± 1.25 (2.02)**	pCi/L	11/18/25 15:17	7440-14-4	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Charah 4th Quarter GW Monitori
Pace Project No.: 92825546

QC Batch: 780529
QC Batch Method: EPA 903.1
Analysis Method: EPA 903.1
Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 92825546021

METHOD BLANK: 3806689 Matrix: Water
Associated Lab Samples: 92825546021

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0859 ± 0.196 (0.316) C:NA T:87%	pCi/L	11/18/25 14:18	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Charah 4th Quarter GW Monitori
Pace Project No.: 92825546

QC Batch: 780531
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 92825546021

METHOD BLANK: 3806694 Matrix: Water
Associated Lab Samples: 92825546021

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.971 ± 0.445 (0.752) C:81% T:85%	pCi/L	11/14/25 11:32	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Charah 4th Quarter GW Monitori
Pace Project No.: 92825546

QC Batch: 780535 Analysis Method: EPA 904.0
QC Batch Method: EPA 904.0 Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 92825546001, 92825546002, 92825546003, 92825546004, 92825546005, 92825546006, 92825546007, 92825546008, 92825546009, 92825546010, 92825546011, 92825546012, 92825546013, 92825546014, 92825546015, 92825546016, 92825546017, 92825546018, 92825546019, 92825546020

METHOD BLANK: 3806697 Matrix: Water

Associated Lab Samples: 92825546001, 92825546002, 92825546003, 92825546004, 92825546005, 92825546006, 92825546007, 92825546008, 92825546009, 92825546010, 92825546011, 92825546012, 92825546013, 92825546014, 92825546015, 92825546016, 92825546017, 92825546018, 92825546019, 92825546020

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.849 ± 0.463 (0.838) C:81% T:80%	pCi/L	11/14/25 14:36	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Charah 4th Quarter GW Monitori
Pace Project No.: 92825546

QC Batch: 780534 | Analysis Method: EPA 903.1
QC Batch Method: EPA 903.1 | Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 92825546001, 92825546002, 92825546003, 92825546004, 92825546005, 92825546006, 92825546007, 92825546008, 92825546009, 92825546010, 92825546011, 92825546012, 92825546013, 92825546014, 92825546015, 92825546016, 92825546017, 92825546018, 92825546019, 92825546020

METHOD BLANK: 3806696 Matrix: Water

Associated Lab Samples: 92825546001, 92825546002, 92825546003, 92825546004, 92825546005, 92825546006, 92825546007, 92825546008, 92825546009, 92825546010, 92825546011, 92825546012, 92825546013, 92825546014, 92825546015, 92825546016, 92825546017, 92825546018, 92825546019, 92825546020

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.000 ± 0.211 (0.472) C:NA T:90%	pCi/L	11/18/25 13:44	

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QUALIFIERS

Project: Charah 4th Quarter GW Monitori
Pace Project No.: 92825546

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

J	Analyte detected below the reporting limit, therefore result is an estimate. This qualifier is also used for all TICs.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
ML	Matrix spike recovery and/or matrix spike duplicate recovery was below laboratory control limits. Result may be biased low.
PH	The analyte failed the method required serial dilution test and/or subsequent post-spike criteria. These failures indicate matrix interference.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Charah 4th Quarter GW Monitori
Pace Project No.: 92825546

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92825546001	**BG-1**	3015	2629144	EPA 6010D	2629144
92825546002	**BG-2**	3015	2629144	EPA 6010D	2629144
92825546003	**DUP**	3015	2629144	EPA 6010D	2629144
92825546004	**EQBL**	3015	2629144	EPA 6010D	2629144
92825546005	**LEACHATE**	3015	2629144	EPA 6010D	2629144
92825546006	**MW-1**	3015	2629144	EPA 6010D	2629144
92825546007	**MW-2**	3015	2629144	EPA 6010D	2629144
92825546008	**MW-3**	3015	2629144	EPA 6010D	2629144
92825546009	**MW-4**	3015	2629144	EPA 6010D	2629144
92825546010	**MW-5**	3015	2629144	EPA 6010D	2629144
92825546011	**MW-6**	3015	2629144	EPA 6010D	2629144
92825546012	**MW-7R**	3015	2629144	EPA 6010D	2629144
92825546013	**MW-8**	3015	2629144	EPA 6010D	2629144
92825546014	**MW-10**	3015	2629144	EPA 6010D	2629144
92825546015	**MW-11**	3015	2629144	EPA 6010D	2629144
92825546016	**MW-11D**	3015	2629144	EPA 6010D	2629144
92825546017	**SW-1**	3015	2629144	EPA 6010D	2629144
92825546018	**SW-2**	3015	2629144	EPA 6010D	2629144
92825546019	**SW-3**	3015	2629144	EPA 6010D	2629144
92825546020	**SW-5**	3015	2629144	EPA 6010D	2629144
92825546021	**SW-6**	3015	2629129	EPA 6010D	2629129
92825546001	**BG-1**	3015	2629172	EPA 6020B	2629172
92825546002	**BG-2**	3015	2629172	EPA 6020B	2629172
92825546003	**DUP**	3015	2629172	EPA 6020B	2629172
92825546004	**EQBL**	3015	2629172	EPA 6020B	2629172
92825546005	**LEACHATE**	3015	2629172	EPA 6020B	2629172
92825546006	**MW-1**	3015	2629172	EPA 6020B	2629172
92825546007	**MW-2**	3015	2629172	EPA 6020B	2629172
92825546008	**MW-3**	3015	2629172	EPA 6020B	2629172
92825546009	**MW-4**	3015	2629172	EPA 6020B	2629172
92825546010	**MW-5**	3015	2629172	EPA 6020B	2629172
92825546011	**MW-6**	3015	2629172	EPA 6020B	2629172
92825546012	**MW-7R**	3015	2629172	EPA 6020B	2629172
92825546013	**MW-8**	3015	2629172	EPA 6020B	2629172
92825546014	**MW-10**	3015	2629172	EPA 6020B	2629172
92825546015	**MW-11**	3015	2629172	EPA 6020B	2629172
92825546016	**MW-11D**	3015	2629172	EPA 6020B	2629172
92825546017	**SW-1**	3015	2629172	EPA 6020B	2629172
92825546018	**SW-2**	3015	2629172	EPA 6020B	2629172
92825546019	**SW-3**	3015	2629172	EPA 6020B	2629172
92825546020	**SW-5**	3015	2629172	EPA 6020B	2629172
92825546021	**SW-6**	3015	2629162	EPA 6020B	2629162
92825546001	**BG-1**	7470A	2629128	EPA 7470A	2629128
92825546002	**BG-2**	7470A	2629128	EPA 7470A	2629128
92825546003	**DUP**	7470A	2629128	EPA 7470A	2629128
92825546004	**EQBL**	7470A	2629128	EPA 7470A	2629128

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Charah 4th Quarter GW Monitori
Pace Project No.: 92825546

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92825546005	**LEACHATE**	7470A	2629198	EPA 7470A	2629198
92825546006	**MW-1**	7470A	2629198	EPA 7470A	2629198
92825546007	**MW-2**	7470A	2629198	EPA 7470A	2629198
92825546008	**MW-3**	7470A	2629198	EPA 7470A	2629198
92825546009	**MW-4**	7470A	2629198	EPA 7470A	2629198
92825546010	**MW-5**	7470A	2629198	EPA 7470A	2629198
92825546011	**MW-6**	7470A	2629198	EPA 7470A	2629198
92825546012	**MW-7R**	7470A	2629198	EPA 7470A	2629198
92825546013	**MW-8**	7470A	2629198	EPA 7470A	2629198
92825546014	**MW-10**	7470A	2629198	EPA 7470A	2629198
92825546015	**MW-11**	7470A	2629198	EPA 7470A	2629198
92825546016	**MW-11D**	7470A	2629198	EPA 7470A	2629198
92825546017	**SW-1**	7470A	2629198	EPA 7470A	2629198
92825546018	**SW-2**	7470A	2629198	EPA 7470A	2629198
92825546019	**SW-3**	7470A	2629198	EPA 7470A	2629198
92825546020	**SW-5**	7470A	2629198	EPA 7470A	2629198
92825546021	**SW-6**	7470A	2629198	EPA 7470A	2629198
92825546001	**BG-1**	EPA 903.1	780534		
92825546002	**BG-2**	EPA 903.1	780534		
92825546003	**DUP**	EPA 903.1	780534		
92825546004	**EQBL**	EPA 903.1	780534		
92825546005	**LEACHATE**	EPA 903.1	780534		
92825546006	**MW-1**	EPA 903.1	780534		
92825546007	**MW-2**	EPA 903.1	780534		
92825546008	**MW-3**	EPA 903.1	780534		
92825546009	**MW-4**	EPA 903.1	780534		
92825546010	**MW-5**	EPA 903.1	780534		
92825546011	**MW-6**	EPA 903.1	780534		
92825546012	**MW-7R**	EPA 903.1	780534		
92825546013	**MW-8**	EPA 903.1	780534		
92825546014	**MW-10**	EPA 903.1	780534		
92825546015	**MW-11**	EPA 903.1	780534		
92825546016	**MW-11D**	EPA 903.1	780534		
92825546017	**SW-1**	EPA 903.1	780534		
92825546018	**SW-2**	EPA 903.1	780534		
92825546019	**SW-3**	EPA 903.1	780534		
92825546020	**SW-5**	EPA 903.1	780534		
92825546021	**SW-6**	EPA 903.1	780529		
92825546001	**BG-1**	EPA 904.0	780535		
92825546002	**BG-2**	EPA 904.0	780535		
92825546003	**DUP**	EPA 904.0	780535		
92825546004	**EQBL**	EPA 904.0	780535		
92825546005	**LEACHATE**	EPA 904.0	780535		
92825546006	**MW-1**	EPA 904.0	780535		
92825546007	**MW-2**	EPA 904.0	780535		
92825546008	**MW-3**	EPA 904.0	780535		
92825546009	**MW-4**	EPA 904.0	780535		

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Charah 4th Quarter GW Monitori
Pace Project No.: 92825546

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92825546010	**MW-5**	EPA 904.0	780535		
92825546011	**MW-6**	EPA 904.0	780535		
92825546012	**MW-7R**	EPA 904.0	780535		
92825546013	**MW-8**	EPA 904.0	780535		
92825546014	**MW-10**	EPA 904.0	780535		
92825546015	**MW-11**	EPA 904.0	780535		
92825546016	**MW-11D**	EPA 904.0	780535		
92825546017	**SW-1**	EPA 904.0	780535		
92825546018	**SW-2**	EPA 904.0	780535		
92825546019	**SW-3**	EPA 904.0	780535		
92825546020	**SW-5**	EPA 904.0	780535		
92825546021	**SW-6**	EPA 904.0	780531		
92825546001	**BG-1**	Total Radium Calculation	784699		
92825546002	**BG-2**	Total Radium Calculation	784699		
92825546003	**DUP**	Total Radium Calculation	784699		
92825546004	**EQBL**	Total Radium Calculation	784699		
92825546005	**LEACHATE**	Total Radium Calculation	784699		
92825546006	**MW-1**	Total Radium Calculation	784699		
92825546007	**MW-2**	Total Radium Calculation	784699		
92825546008	**MW-3**	Total Radium Calculation	784699		
92825546009	**MW-4**	Total Radium Calculation	784699		
92825546010	**MW-5**	Total Radium Calculation	784699		
92825546011	**MW-6**	Total Radium Calculation	784699		
92825546012	**MW-7R**	Total Radium Calculation	784699		
92825546013	**MW-8**	Total Radium Calculation	784699		
92825546014	**MW-10**	Total Radium Calculation	784699		
92825546015	**MW-11**	Total Radium Calculation	784699		
92825546016	**MW-11D**	Total Radium Calculation	784699		
92825546017	**SW-1**	Total Radium Calculation	784699		
92825546018	**SW-2**	Total Radium Calculation	784699		
92825546019	**SW-3**	Total Radium Calculation	784699		
92825546020	**SW-5**	Total Radium Calculation	784699		
92825546021	**SW-6**	Total Radium Calculation	784709		
92825546001	**BG-1**	SM 2540C-2020	969326		
92825546002	**BG-2**	SM 2540C-2020	969390		
92825546003	**DUP**	SM 2540C-2020	970269		
92825546004	**EQBL**	SM 2540C-2020	969390		
92825546005	**LEACHATE**	SM 2540C-2020	969326		
92825546006	**MW-1**	SM 2540C-2020	969390		
92825546007	**MW-2**	SM 2540C-2020	969390		
92825546008	**MW-3**	SM 2540C-2020	969390		
92825546009	**MW-4**	SM 2540C-2020	969326		
92825546010	**MW-5**	SM 2540C-2020	969326		

REPORT OF LABORATORY ANALYSIS

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without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Charah 4th Quarter GW Monitori
Pace Project No.: 92825546

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92825546011	**MW-6**	SM 2540C-2020	969639		
92825546012	**MW-7R**	SM 2540C-2020	969639		
92825546013	**MW-8**	SM 2540C-2020	969639		
92825546014	**MW-10**	SM 2540C-2020	970269		
92825546015	**MW-11**	SM 2540C-2020	970269		
92825546016	**MW-11D**	SM 2540C-2020	970269		
92825546017	**SW-1**	SM 2540C-2020	969390		
92825546018	**SW-2**	SM 2540C-2020	969829		
92825546019	**SW-3**	SM 2540C-2020	969829		
92825546020	**SW-5**	SM 2540C-2020	969829		
92825546021	**SW-6**	SM 2540C-2020	969390		
92825546001	**BG-1**	EPA 300.0 Rev 2.1 1993	969244		
92825546002	**BG-2**	EPA 300.0 Rev 2.1 1993	969244		
92825546003	**DUP**	EPA 300.0 Rev 2.1 1993	969244		
92825546004	**EQBL**	EPA 300.0 Rev 2.1 1993	969244		
92825546005	**LEACHATE**	EPA 300.0 Rev 2.1 1993	969244		
92825546006	**MW-1**	EPA 300.0 Rev 2.1 1993	969244		
92825546007	**MW-2**	EPA 300.0 Rev 2.1 1993	969244		
92825546008	**MW-3**	EPA 300.0 Rev 2.1 1993	969244		
92825546009	**MW-4**	EPA 300.0 Rev 2.1 1993	969244		
92825546010	**MW-5**	EPA 300.0 Rev 2.1 1993	969244		
92825546011	**MW-6**	EPA 300.0 Rev 2.1 1993	969244		
92825546012	**MW-7R**	EPA 300.0 Rev 2.1 1993	969245		
92825546013	**MW-8**	EPA 300.0 Rev 2.1 1993	969245		
92825546014	**MW-10**	EPA 300.0 Rev 2.1 1993	969245		
92825546015	**MW-11**	EPA 300.0 Rev 2.1 1993	969245		
92825546016	**MW-11D**	EPA 300.0 Rev 2.1 1993	969245		
92825546017	**SW-1**	EPA 300.0 Rev 2.1 1993	969245		
92825546018	**SW-2**	EPA 300.0 Rev 2.1 1993	969245		
92825546019	**SW-3**	EPA 300.0 Rev 2.1 1993	969245		
92825546020	**SW-5**	EPA 300.0 Rev 2.1 1993	969245		
92825546021	**SW-6**	EPA 300.0 Rev 2.1 1993	969245		

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Pace

DC#_Title: ENV-FRM-HUN1-0083 v05_Sample Condition Upon Receipt

Effective Date: 05/24/2024

Laboratory receiving samples:
Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☑ Raleigh ☐ Mechanicsville ☐ Atlanta ☐ Kernersville ☐

Sample Condition Upon Receipt

Client Name: HDR Engineering Inc of the

Project #: **WO# : 92825546**

92825546

Courier: ☐ Commercial ☐ Fed Ex ☐ Pace ☐ UPS ☐ USPS ☐ Other: ☑ Client

Custody Seal Present? ☐ Yes ☑ No Seals Intact? ☐ Yes ☐ No ☐ N/A

Date/Initials Person Examining Contents: 5-5/14/24/JS

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☐ None ☑ Other

Biological Tissue Frozen? ☐ Yes ☐ No ☑ N/A

Thermometer: ☐ IR Gun ID: 92708J

Type of Ice: ☑ Wet ☐ Blue ☐ None

Cooler Temp: 2.1 Correction Factor: Add/Subtract (°C): 0

Temp should be above freezing to 6°C
☐ Samples out of temp criteria. Samples on ice, cooling process has begun

Cooler Temp Corrected (°C): 2.1

USDA Regulated Soil (☑ N/A, water sample)
Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? ☐ Yes ☑ No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes ☑ No

				Comments/Discrepancy:
Chain of Custody Present?	☑ Yes	☐ No	☐ N/A	1.
Samples Arrived within Hold Time?	☑ Yes	☐ No	☐ N/A	2.
Short Hold Time Analysis (<72 hr.)?	☐ Yes	☑ No	☐ N/A	3.
Rush Turn Around Time Requested?	☐ Yes	☑ No	☐ N/A	4.
Sufficient Volume?	☑ Yes	☐ No	☐ N/A	5.
Correct Containers Used?	☑ Yes	☐ No	☐ N/A	6.
-Pace Containers Used?	☑ Yes	☐ No	☐ N/A	
Containers Intact?	☑ Yes	☐ No	☐ N/A	7.
Dissolved analysis: Samples Field Filtered?	☐ Yes	☑ No	☐ N/A	8.
Sample Labels Match COC?	☑ Yes	☐ No	☐ N/A	9.
-Includes Date/Time/ID/Analysis Matrix: WT				
Headspace in VOA Vials (>5-6mm)?	☐ Yes	☐ No	☑ N/A	10.
Trip Blank Present?	☐ Yes	☐ No	☑ N/A	11.
Trip Blank Custody Seals Present?	☐ Yes	☐ No	☑ N/A	

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? ☐ Yes ☐ No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: Date/Time:

Project Manager SCURF Review: Date:

Project Manager SRF Review: Date:

*Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.
Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC, LLHg
**Bottom half of box is to list number of bottles
***Check all unpreserved Nitrates for chlorine

Project #

WO#: 92825546

PM: AMB Due Date: 11/07/25
CLIENT: 92-HDR

Laboratory Receiving location: Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☑ Raleigh ☐ Mechanicsville ☐ Atlanta ☐ Kernersville ☐

Client HDR Engineer Profile/EZ (Circle one) 3207863 Notes

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (CL)	BP3U-250 mL Plastic Unpreserved (N/A)	AG2U-500 mL Amber Unpreserved (N/A)	AG1U-1 liter Amber Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (CL)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic Zn Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (CL)	WGFU-Wide-mouthed Glass Jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (CL)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (CL)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG1S-250 mL Amber H2SO4 (pH < 2)	DG9H-10 mL Amber NaHSO4 (N/A) (CL)	DG9H-10 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unpreserved (N/A)	DG9W-40 mL VOA H2SO4 (N/A)	KPFU-50 mL Plastic Unpreserved (N/A)	VJGK-[3 vials per kit]-VOA/Coliform Kit (N/A)	SP5T-125 mL Sterile Plastic (N/A - lot)	SP2T-250 mL Sterile Plastic (N/A - lot)		BP8R-250 mL Plastic (NH4)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved (N/A) (CL)	VSGU-20 mL headspace vials (N/A)	DG8U-40 mL Amber Unpreserved vials (N/A)
CC		AS	AS		SF		SF																							
1		1	1		2		1	✓																						
2		1	1		2		1	✓																						
3		1	1		2		1	✓																						
4		1	1		2		1	✓																						
5		1	1		2		1	✓																						
6		1	1		2		1	✓																						
7		1	1		2		1	✓																						
8		1	1		2		1	✓																						
9		1	1		2		1	✓																						
10		1	1		2		1	✓																						
11																														
12																														

pH Adjustment Log for Preserved Samples

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot #

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DENR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers.

*Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.
Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC, LLHg
**Bottom half of box is to list number of bottles
***Check all unpreserved Nitrates for chlorine

Project #

Laboratory Receiving location: Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☐ Raleigh ☐ Mechanicsville ☐ Atlanta ☐ Kernersville ☐

Client_____ Profile/EZ (Circle one)_____ Notes_____

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (C)	BP3U-250 ml Plastic Unpreserved (N/A)	BP2U-500 ml Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP1N-1 liter Plastic HNO3 (pH < 2)	BP4S-125 mL Plastic H2SO4 (pH < 2) (C)	BP4N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic Zn Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (C)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (C)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (C)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	DG9A-40 mL Amber NH4Cl (N/A) (C)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA NaHSO3 (N/A)	VG9U-40 mL VOA Unpreserved (N/A)	DG9W-40 mL VOA H2SO4 (N/A)	WPDU-50 mL Plastic Unpreserved (N/A)	VJGK-(3 vials per kit) VOA/Glass kit (N/A)	SP5T-125 mL Sterile Plastic (N/A - kit)	SP2T-250 mL Sterile Plastic (N/A - kit)		BP3B-250 mL Plastic (NH4)2SO4 (9.3 $ 7)	AG0U-100 mL Amber Unpreserved (N/A) (C)	VSGU-20 mL Screw Vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)
CC		AS	AS		SU		SU																							
1		1	1		2		1																							
2		1	1		2		1																							
3		1	1		2		1																							
4		1	1		2		1																							
5		1	1		2		1																							
6		1	1		2		1																							
7		1	1		2		1																							
8		1	1		2		1																							
9		1	1		2		1																							
10		1	1		2		1																							
11																														
12																														

pH Adjustment Log for Preserved Samples

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot #

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DENR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers.

*Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.
Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC, LLHg
**Bottom half of box is to list number of bottles
***Check all unpreserved Nitrates for chlorine

Project #

Laboratory Receiving location: Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☐ Raleigh ☐ Mechanicsville ☐ Atlanta ☐ Kernersville ☐

Client_____ Profile/EZ (Circle one)_____ Notes_____

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (CT)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 Liter Plastic Unpreserved (N/A)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4S-125 mL Plastic H2SO4 (pH < 2) (CT)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic Zn Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (CT)	WGFU-Wide-mouthed Glass Jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (CT)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (CT)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	DG9B-40 mL Amber NaTiO (N/A) (CT)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA NaTiO3 (N/A)	VG9U-40 mL VOA Unpreserved (N/A)	DG9V-40 mL VOA H3PO4 (N/A)	KP7U-50 mL Plastic Unpreserved (N/A)	V/GK (3 vials per kit) VPH/GRO Kit (N/A)	SP5T-125 mL Sterile Plastic (N/A - 5d)	SP2T-250 mL Sterile Plastic (N/A - 14d)		BP3B-250 mL Plastic (NH4)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved (N/A) (CT)	VSGU-10 mL Scintillation vials (N/A)	DU8U-40 mL Amber Unpreserved vials (N/A)
CC		AF	AF		SZ		SZ																							
1		1	1		2		1																							
2																														
3																														
4																														
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10																														
11																														
12																														

pH Adjustment Log for Preserved Samples

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot #

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DENR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers.

Pace® Pace* Location Requested (City/State): Pace Analytical Charlotte 9800 Kincey Ave. Suite 100, Huntersville, NC 28078

CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

LAB USE ONLY- Affix Workorder/Login Label Here

Scan QR Code for instructions

Company Name:	HDR Engineering Inc of the Carolinas	Contact/Report To:	Mark Filardi
Street Address:	440 S. Church St Suite 900 Charlotte, NC 28202	Phone #:	(704)338-6787
		E-Mail:	mark.filardi@hdrinc.com
		Cc E-Mail:	
Customer Project #:			
Project Name:	Charah 4th Quarter GW Monitoring	Invoice To:	Accounts Payable
		Invoice E-Mail:	saaaccounting@hdrinc.onmicrosoft.com
Site Collection Info/Facility ID (as applicable):		Purchase Order # (if applicable):	10423253
		Quote #:	

Time Zone Collected: [ ] AK [ ] PT [ ] MT [ ] CT [X] ET

County / State origin of sample(s): North Carolina

Data Deliverables: [ ] Level II [ ] Level III [ ] Level IV [ ] EQUIS [ ] Other

Regulatory Program (DW, RCRA, etc.) as applicable: Reportable [ ] Yes [ ] No

Rush (Pre-approval required): [ ] Same Day [ ] 1 Day [ ] 2 Day [ ] 3 Day [ ] Other

DW PWSID # or WW Permit # as applicable:

Date Results Requested: 10 Bus TAT

Field Filtered (if applicable): [ ] Yes [ ] No

Analysis:

Specify Container Size **

Identify Container Preservative Type***

Analysis Requested

**Container Size: (1) 1L, (2) 500mL, (3) 250mL, (4) 125mL, (5) 100mL, (6) 40mL vial, (7) EnCore, (8) TerraCore, (9) 90mL, (10) Other

*** Preservative Types: (1) None, (2) HNO3, (3) H2SO4, (4) HCl, (5) NaOH, (6) Zn Acetate, (7) NaHSO4, (8) Sod. Thiosulfate, (9) Ascorbic Acid, (10) MeOH, (11) Other

Lab Use Only

Proj. Mgr: Angela Baioni

AcctNum / Client ID:

Table #:

Profile / Template: 7672

Prelog / Bottle Ord. ID: EZ 3307863

Preservation non-conformance identified for sample

* Matrix Codes (insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Waste Water (WW), Product (P), Soil/Solid (SS), Oil (OL), Wipe (WP), Tissue (TS), Biossay (B), Vapor (V), Surface Water (SW), Sediment (SED), Sludge (SL), Caulk (CK), Leachate (LI), Biosolid (BS), Other (OT)

Customer Sample ID	Matrix *	Comp / Grab	Composite Start Date	Composite Start Time	Collected or Composite End Date	Collected or Composite End Time	# Cont.	Res. Chlorine Results	Res. Chlorine Units	2540C Total Dissolved Solids	300.0 IC Anions 28 Days	6010; 6020; 7470 Metals	RAD 226/228, Total RAD	Sample Comment
BG-1	WT	G	10/20/25	1225			5			X	X	X	X	
BG-2	WT	G	10/21/25	1020						X	X	X	X	
DUP	WT	G	10/23/25	—						X	X	X	X	
EQBL	WT	G	10/21/25	1230						X	X	X	X	
LEACHATE	WT	G	10/20/25	1650						X	X	X	X	
MW-1	WT	G	10/21/25	1715						X	X	X	X	
MW-2	WT	G	10/21/25	1440						X	X	X	X	
~~MW-2R~~	WT									X	X	X	X	
MW-3	WT	G	10/21/25	1150						X	X	X	X	
MW-4	WT	G	10/20/25	1430						X	X	X	X	

Additional Instructions from Pace*:
Project # 10423253
6020- B, Li, Tl
6010- Sb, As, Ba, Be, Cd, Ca, Cr, Co, Pb, Mo, Se, Cu, Ni, Ag, V, Zn
300.0- Chloride, Fluoride, Sulfate

Collected By: (Printed Name) Ben Weisberg

Signature:

Customer Remarks / Special Conditions / Possible Hazards:

# Coolers:	Thermometer ID:	Correction Factor (°C):	Obs. Temp. (°C)	Corrected Temp. (°C)	On Ice:
5	412683	0	2.1	2.1	

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Tracking Number:
HDR	10/24/25 0942	Pace/DACE HVL	10/24/25 942	
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Delivered by: [ ] In-Person [ ] Courier
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	[ ] FedEX [ ] UPS [ ] Other
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Page: 1 of 3

Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace* Terms and Conditions found at https://www.pacelabs.com/resource-library/resource/pace-terms-and-conditions/

ENV-FRM-CORO-0019_v02_110123 ©

Pace* Location Requested (City/State):
Pace Analytical Charlotte
9800 Kincey Ave. Suite 100, Huntersville, NC 28078

CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

LAB USE ONLY- Affix Workorder/Login Label Here

Scan QR Code for instructions

Company Name:	HDR Engineering Inc of the Carolinas	Contact/Report To:	Mark Filardi
Street Address:	440 S. Church St Suite 900 Charlotte, NC 28202	Phone #:	(704)338-6787
		E-Mail:	mark.filardi@hdrinc.com
		Cc E-Mail:	
Customer Project #:			
Project Name:	Charah 4th Quarter GW Monitoring	Invoice To:	Accounts Payable
		Invoice E-Mail:	saaaccounting@hdrinc.onmicrosoft.com
Site Collection Info/Facility ID (as applicable):		Purchase Order # (if applicable):	10423253
		Quote #:	

Time Zone Collected: [ ] AK [ ] PT [ ] MT [ ] CT [X] ET

County / State origin of sample(s): North Carolina

Data Deliverables: [ ] Level II [ ] Level III [ ] Level IV [ ] EQUIS [ ] Other

Regulatory Program (DW, RCRA, etc.) as applicable: Reportable [ ] Yes [ ] No

Rush (Pre-approval required): [ ] Same Day [ ] 1 Day [ ] 2 Day [ ] 3 Day [ ] Other _____

DW PWSID # or WW Permit # as applicable:

Date Results Requested: 10 Day TAT

Field Filtered (if applicable): [ ] Yes [ ] No

Analysis:

Specify Container Size **

Identify Container Preservative Type***

Analysis Requested

**Container Size: (1) 1L, (2) 500mL, (3) 250mL, (4) 125mL, (5) 100mL, (6) 40mL vial, (7) EnCore, (8) TerraCore, (9) 90mL, (10) Other

*** Preservative Types: (1) None, (2) HNO3, (3) H2SO4, (4) HCl, (5) NaOH, (6) Zn Acetate, (7) NaHSO4, (8) Sod. Thiosulfate, (9) Ascorbic Acid, (10) MeOH, (11) Other

Lab Use Only

Proj. Mgr: Angela Baioni

AcctNum / Client ID:

Table #:

Profile / Template: 7672

Prelog / Bottle Ord. ID: EZ 3307863

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Waste Water (WW), Product (P), Soil/Solid (SS), Oil (OL), Wipe (WP), Tissue (TS), Bioassay (B), Vapor (V), Surface Water (SW), Sediment (SED), Sludge (SL), Caulk (CK), Leachate (LL), Biosolid (BS), Other (OT)

Customer Sample ID	Matrix *	Comp / Grab	Composite Start Date	Composite Start Time	Collected or Composite End Date	Collected or Composite End Time	# Cont.	Res. Chlorine Results	Res. Chlorine Units	2540C Total Dissolved Solids	300.0 IC Anions 28 Days	6010: 6020: 7470 Metals	RAD 226/228, Total RAD	Sample Comment	Preservation non-conformance identified for sample:
MW-5	WT	G	10/20/25	1640			5			X	X	X	X		
MW-6	WT	G	10/22/25	1815			5			X	X	X	X		
MW-7R	WT	G	10/22/25	1600			5			X	X	X	X		
MW-8	WT	G	10/22/25	1100			5			X	X	X	X		
[redacted]	WT									X	X	X	X		
MW-10	WT		10/23/25	1640			5			X	X	X	X		
MW-11	WT		10/23/25	1515			5			X	X	X	X		
MW-11D	WT		10/23/25	1215			5			X	X	X	X		
SW-1	WT	G	10/21/25	1535			5			X	X	X	X		
SW-2	WT	G	10/~~24~~22/25	1220			5			X	X	X	X		

Additional instructions from Pace*:
Project # 10423253
6020- B, Li, Tl
6010- Sb, As, Ba, Be, Cd, Ca, Cr, Co, Pb, Mo, Se, Cu, Ni, Ag, V, Zn
300.0- Chloride, Fluoride, Sulfate

Collected By:
(Printed Name) Ben Weisel65
Signature:

Customer Remarks / Special Conditions / Possible Hazards:

# Coolers:	Thermometer ID:	Correction Factor (°C):	Obs. Temp. (°C)	Corrected Temp. (°C)	On Ice:
5	94087	0	2.1	2.1	

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Tracking Number:
[redacted] HDR	10/24/25 0942	[redacted] PACE HVL	10/24/25 942	
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Delivered by: [ ] In-Person [ ] Courier [ ] FedEx [ ] UPS [ ] Other
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Company Name:	HDR Engineering Inc of the Carolinas	Contact/Report To:	Mark Filardi
Street Address:	440 S. Church St Suite 900 Charlotte, NC 28202	Phone #:	(704)338-6787
		E-Mail:	mark.filardi@hdrinc.com
		Cc E-Mail:	
Customer Project #:			
Project Name:	Charah 4th Quarter GW Monitoring	Invoice To:	Accounts Payable
		Invoice E-Mail:	saaaccounting@hdrinc.onmicrosoft.com
Site Collection Info/Facility ID (as applicable):		Purchase Order # (if applicable):	10423253
		Quote #:	

Time Zone Collected: [ ] AK [ ] PT [ ] MT [ ] CT [X] ET

County / State origin of sample(s): North Carolina

Data Deliverables:
[ ] Level II [ ] Level III [ ] Level IV
[ ] EQUIS
[ ] Other

Regulatory Program (DW, RCRA, etc.) as applicable: Reportable [ ] Yes [ ] No

Rush (Pre-approval required):
[ ] Same Day [ ] 1 Day [ ] 2 Day [ ] 3 Day [ ] Other _____

DW PWSID # or WW Permit # as applicable:

Date Results Requested: 10 Day TAT

Field Filtered (if applicable): [ ] Yes [ ] No
Analysis:

Specify Container Size **

Identify Container Preservative Type***

Analysis Requested

**Container Size: (1) 1L, (2) 500mL, (3) 250mL, (4) 125mL, (5) 100mL, (6) 40mL vial, (7) EnCore, (8) TerraCore, (9) 90mL, (10) Other

*** Preservative Types: (1) None, (2) HNO3, (3) H2SO4, (4) HCl, (5) NaOH, (6) Zn Acetate, (7) NaHSO4, (8) Sod. Thiosulfate, (9) Ascorbic Acid, (10) MeOH, (11) Other

Lab Use Only

Proj. Mgr: Angela Baioni
AcctNum / Client ID:
Table #:
Profile / Template: 7672
Prelog / Bottle Ord. ID: EZ 3307863

Preservation non-conformance identified for sample

* Matrix Codes (insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Waste Water (WW), Product (P), Soil/Solid (SS), Oil (OL), Wipe (WP), Tissue (TS), Bioassay (B), Vapor (V), Surface Water (SW), Sediment (SED), Sludge (SL), Caulk (CK), Leachate (LL), Biosolid (BS), Other (OT)

Customer Sample ID	Matrix *	Comp / Grab	Composite Start Date	Composite Start Time	Collected or Composite End Date	Collected or Composite End Time	# Cont.	Res. Chlorine Results	Res. Chlorine Units	2540C Total Dissolved Solids	300.0 IC Anions 28 Days	6010; 6020; 7470 Metals	RAD 226/228, Total RAD	Sample Comment
SW-3	WT	G	10/22/25	1240			5			X	X	X	X	
[redacted]	WT									X	X	X	X	
SW-5	WT	G	10/22/25	1315			5			X	X	X	X	
SW-6	WT	G	10/21/25	1555			5			X	X	X	X	

Additional Instructions from Pace®:
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6020- B, Li, Tl
6010- Sb, As, Ba, Be, Cd, Ca, Cr, Co, Pb, Mo, Se, Cu, Ni, Ag, V, Zn
300.0, Chloride, Fluoride, Sulfate

Collected By:
(Printed Name): Ben Weisberg
Signature:

Customer Remarks / Special Conditions / Possible Hazards:

# Coolers:	Thermometer ID:	Correction Factor (°C):	Obs. Temp. (°C)	Corrected Temp. (°C)	On Ice:
5	927085	0	2	2.1	

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Tracking Number:
HDR	10/24/25 0942	PACE HVL	10/24/25 942	
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				Page: 3 of 3

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C

Appendix C – Electronic Data Deliverables (electronic only)

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D

Appendix D – Statistical Analysis Memo

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Summary of Statistical Analysis and Evaluation for SSIs for 2025

Second Semi-Annual Report

Background and Downgradient Wells

Charah Solutions, Inc.

Moncure, Chatham County, North Carolina
January 22, 2026

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1 Introduction

This report summarizes the statistical analysis of background and downgradient groundwater quality for the Charah, LLC Brickhaven No. Mine Tract 'A' Site (Brickhaven Mine) and operating under the Facility Permit #1910-STRUC-2015 as a municipal solid waste landfill (MSWLF). Background groundwater quality was evaluated to assess developments in background water quality since the development of the current background thresholds. Groundwater quality in downgradient wells was then compared to the established background concentrations to determine if a statistically significant increase (SSI) over background has occurred, as required by Section .1600 rules of the North Carolina Solid Waste Management Rules 15A NCAC 13B .1600. Sampling results used to establish background threshold values (BTVs) were obtained during 41 monitoring events performed between October 2015 and April 2025. The BTVs for the Appendix I, Appendix III, and Appendix IV constituents were developed based on the pooling of data from the site's two background wells, BG-1 and BG-2. The assumption for pooling groundwater data is that the constituent concentrations sampled at multiple background wells, when pooled, serve as an estimate of overall well field conditions for the Appendix I, III, and IV constituents. Samples from background and downgradient wells collected since the development of the current BTVs were analysed for trends, seasonality, and spatial variability.

Downgradient sampling results from the detection monitoring round in October 2025 were used to evaluate for SSIs. The current Brickhaven Mine groundwater monitoring network is presented in **Table 1**.

Software packages R [1] and SPSS [2] were used in the production of the statistics. R is a free software environment and SPSS is a licensed software package.

Table 1: Brickhaven Mine Monitoring Well Network

Background	Downgradient
BG-1	MW-1
BG-2	MW-2
	MW-3
	MW-4
	MW-5
	MW-6
	MW-7R
	MW-8
	MW-10
	MW-11
	MW-11D

Groundwater samples collected as part of the 15A NCAC 13B .1600 monitoring program were analyzed for EPA Appendix III and Appendix IV constituents, and Appendix I metals. Only non-filtered sample results were utilized for the statistical analysis of monitored constituents. A summary of constituents included in the data analysis is provided in Table 2.

Table 2: Brickhaven Mine Monitored Constituents

Appendix I Metals	Appendix III Constituents	Appendix IV Constituents
Copper	Boron	Antimony
Nickel	Calcium	Arsenic
Silver	Chloride	Barium
Vanadium	Fluoride	Beryllium
Zinc	pH (Field)	Cadmium
	Sulfate	Chromium
	Total Dissolved Solids	Cobalt
		Fluoride
		Lead
		Lithium
		Mercury
		Molybdenum
		Radium-226
		Radium-228
		Selenium
		Thallium
		Total Radium

2 Statistical Analysis

The background sample size (i.e., quantity of qualifying samples) was evaluated per constituent. Descriptive statistics were calculated for the background data set including non-detect (ND) values and excluding ND values. When NDs were included in the data set, the method detection limit (MDL) was substituted as the ND value for simple descriptive statistics. The analysis was performed with NDs removed to better understand the central tendency and range of the detected values. A summary of the descriptive statistics for the background data set is provided in **Appendix A**. Note that for the trend analyses in **Section 2.3** and for the establishment of statistically-derived background concentration levels in **Section 4**, imputation methods using the maximum likelihood method (MLE) for NDs, regression on order statistics (ROS) or Kaplan-Meier (KM) methods, where appropriate, were used.

Following the calculation of descriptive statistics, the statistical analysis for the background data set was performed to evaluate for outliers, data distributions, trends, and spatial variability between the background wells for Appendix I metals, Appendix III and IV constituents, where data quantity and quality permit. The establishment of background is based on the pooled observations from BG-1 and BG-2. Spatial variability between the background wells was evaluated for each constituent having at least fifty percent detected data to assess whether the data can be pooled for establishing background concentrations. Analysis of variance tests for spatial variability can be found in **Appendix A**. A total of up to 71 samples (43 monitoring events from well BG-1 and 28 monitoring events from well BG-2) were included for the descriptive analysis of the background monitoring well results for the monitored constituents. The first monitoring round sampled in August 2015 was not included in the analysis as it was deemed not representative of the other monitoring events as the samples were tested at a different lab.

For downgradient monitoring results, the data analysis included the calculation of descriptive statistics for Appendix I metals, as well as Appendix III and IV constituents (for the data sets including and excluding ND values), followed by an evaluation of outliers and trends. A total of up to 42 monitoring events performed between November 2015 and April 2025 were included for the descriptive analysis of the downgradient monitoring well results for the monitored constituents. A summary of the descriptive statistics for each downgradient constituent-well pair is provided in **Appendix B**.

2.1 Outliers

Outliers are values that are not representative of the population from which they are sampled. The background and downgradient data sets were screened for outliers using Dixon’s and Rosner’s outlier tests. Dixon’s outlier test is suitable for datasets containing less than 25 samples, while Rosner’s test is suitable for datasets with 25 or more samples. Since all current background samples based on the pooling of data from BG-1 and BG-2 have greater than 25 observations, Rosner’s test was used. For downgradient data, since sample sizes vary by well both Dixon’s and Rosner’s tests were used depending on the well-constituent pair sample size. With respect to Rosner’s test, the test can detect up to 10 potential outliers. Note that these outlier tests assume the underlying distributions are normally distributed. Applying these tests

on data that are not normally distributed may results in false positives; however; the flagged values are worth questioning as part of data quality. All outlier tests were conducted using a significance of one percent. For constituents that had NDs, the NDs were removed prior to testing for outliers.

2.1.1 Background

The statistical outliers identified in the pooled background data set are listed in **Table 3**. Ten concentrations from background well BG-1 (Appendix I metals constituents nickel and vanadium, Appendix III constituents boron and total dissolved solids, and Appendix IV constituents chromium, lithium, selenium, and thallium) were identified as statistical outliers. Six concentrations from background well BG-2 (Appendix I metals vanadium and zinc, as well as Appendix III constituent boron) were identified as statistical outliers.

Table 3: Outlier Test Results – Background

Well	Constituent Type	Constituent	Unit	n	% NDs	Date	Dilution	Value
BG-1	App. I Metals	Nickel	ug/L	57	70%	10/17/2022	1	14.1
BG-2	App. I Metals	Vanadium	ug/L	62	50%	4/24/2023	1	0.810
BG-2	App. I Metals	Vanadium	ug/L	62	50%	1/24/2023	1	1.10
BG-2	App. I Metals	Vanadium	ug/L	62	50%	7/11/2022	1	1.40
BG-1	App. I Metals	Vanadium	ug/L	62	50%	1/24/2023	1	8.40
BG-2	App. I Metals	Vanadium	ug/L	62	50%	10/14/2019	1	8.30
BG-2	App. I Metals	Zinc	ug/L	58	66%	10/14/2019	1	34.2
BG-1	App. III	Boron	ug/L	64	38%	4/12/2021	1	56.5
BG-2	App. III	Boron	ug/L	64	38%	4/12/2021	1	36.2
BG-1	App. III	Total Dissolved Solids	mg/L	71	0%	4/3/2017		2630
BG-1	App. IV	Chromium	ug/L	57	79%	10/17/2022	1	26.5
BG-1	App. IV	Lithium	ug/L	71	4%	1/23/2024	1	51.1
BG-1	App. IV	Lithium	ug/L	71	4%	4/27/2023	1	43.7
BG-1	App. IV	Lithium	ug/L	71	4%	4/5/2016		36.8
BG-1	App. IV	Selenium	ug/L	57	95%	4/1/2024	1	6.00
BG-1	App. IV	Thallium	ug/L	58	93%	2/16/2016		13.7

A visual inspection of concentration vs. time scatter plots for nickel (Figure 1), vanadium (Figure 2), zinc (**Figure 3**), boron (Figure 4), chromium (**Figure 5**), lithium (**Figure 6**), selenium (**Figure 7**), thallium (**Figure 8**), and total dissolved solids (**Figure 9**) reveal the presence of the potential outliers. The statistical outliers were investigated as possible data entry or measurement errors. The remaining values were all within one order of magnitude of other observations and deemed correct. Although the elevated values appear as statistical outliers, it is within a reasonable range of the remaining concentrations throughout the monitoring period and should not be removed from the data set at this time for purposes of determining background concentrations. Given the variable nature of groundwater samples and that it is common for groundwater quality samples to have very low or very high concentrations over time, statistical outliers are expected but do not necessarily signify that the outliers are from different distributions. As additional background samples are collected over time, the variability in concentrations will be better understood. Outlier test results may change, and earlier

observations thought to be outliers may no longer be outliers. **Appendix C** contains additional visualizations of the background data.

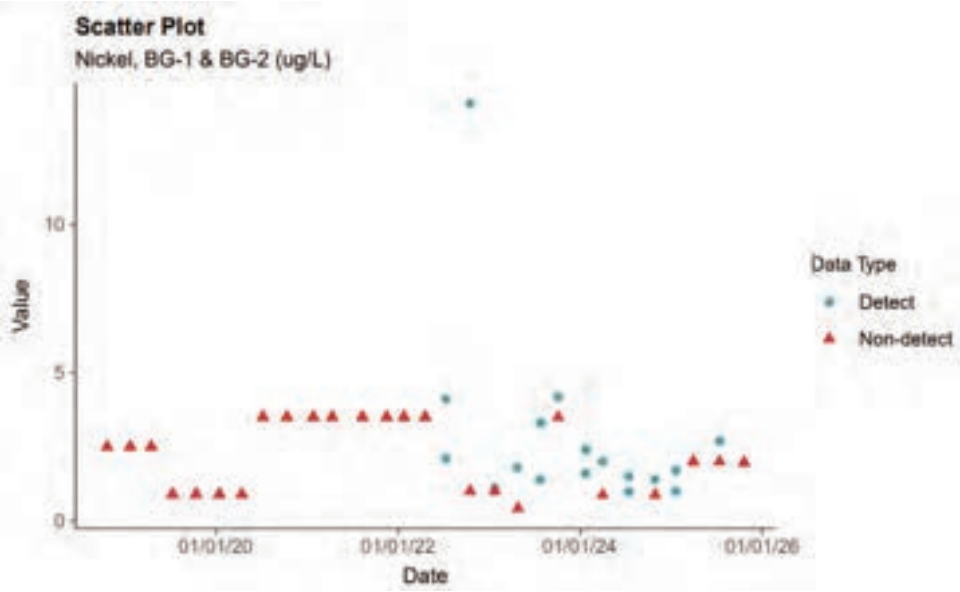

Figure 1: Nickel Concentrations (ug/L) vs Time

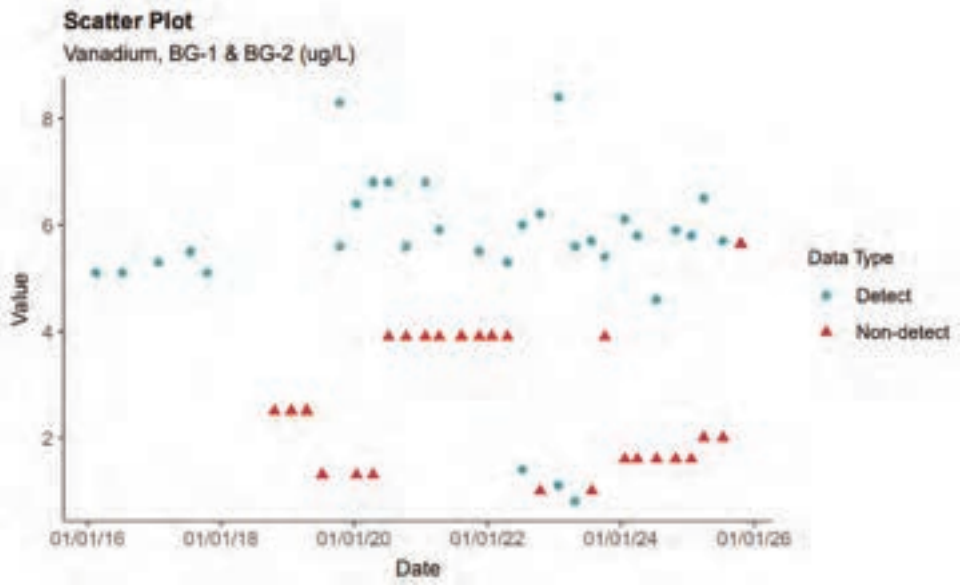

Figure 2: Vanadium Concentrations (ug/L) vs. Time

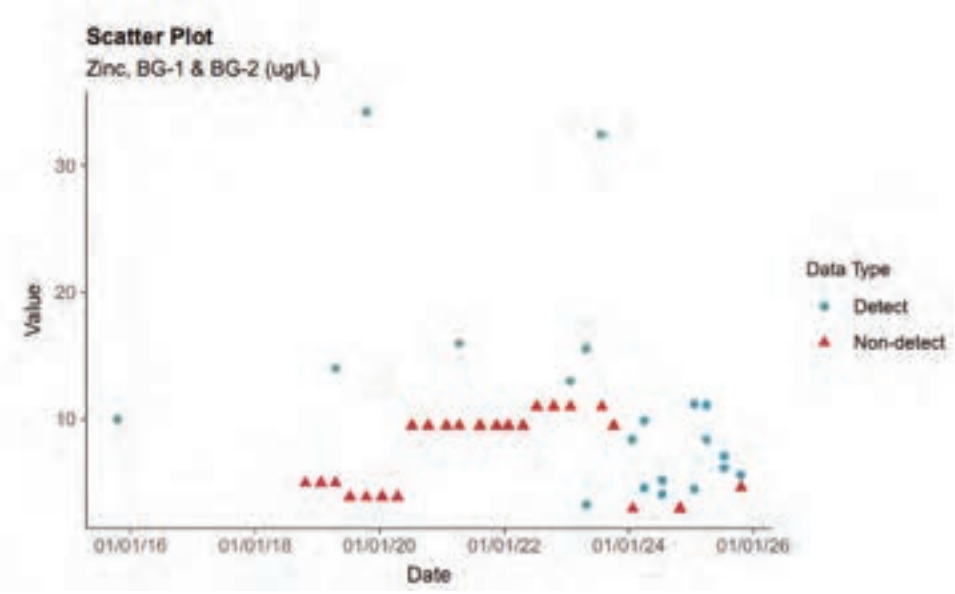

Figure 3: Zinc Concentrations (ug/L) vs. Time

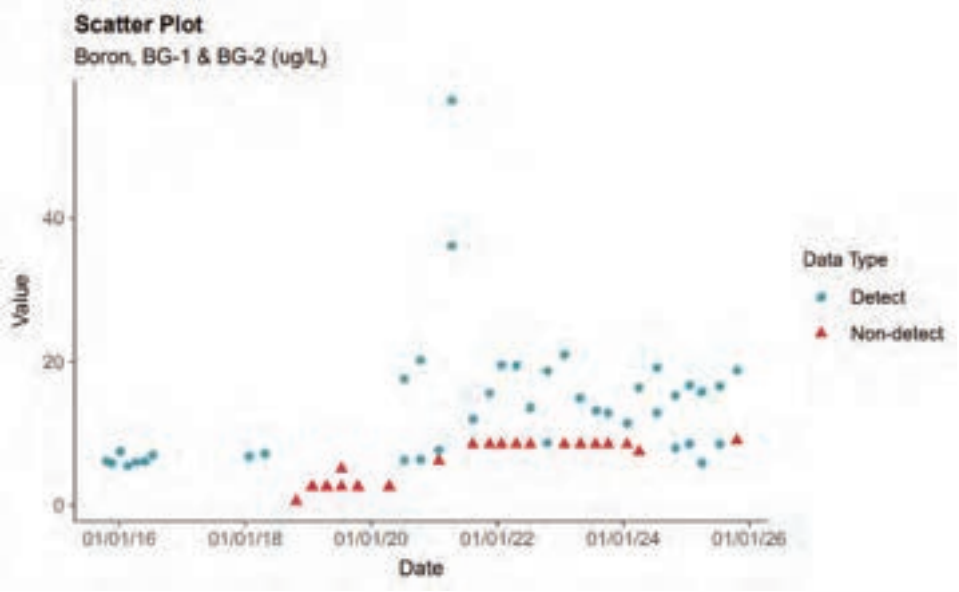

Figure 4: Boron Concentrations (ug/L) vs. Time

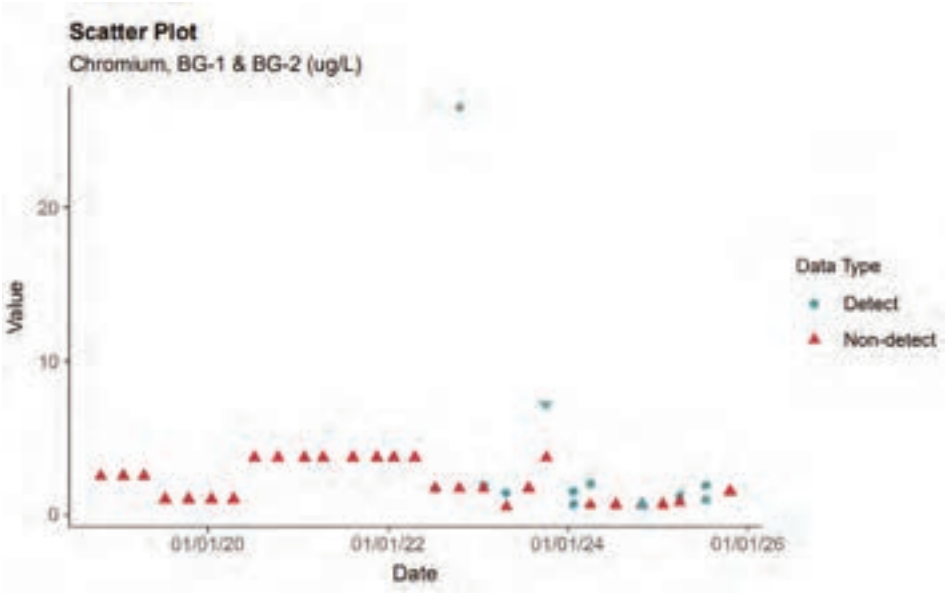

Figure 5: Chromium Concentrations (ug/L) vs. Time

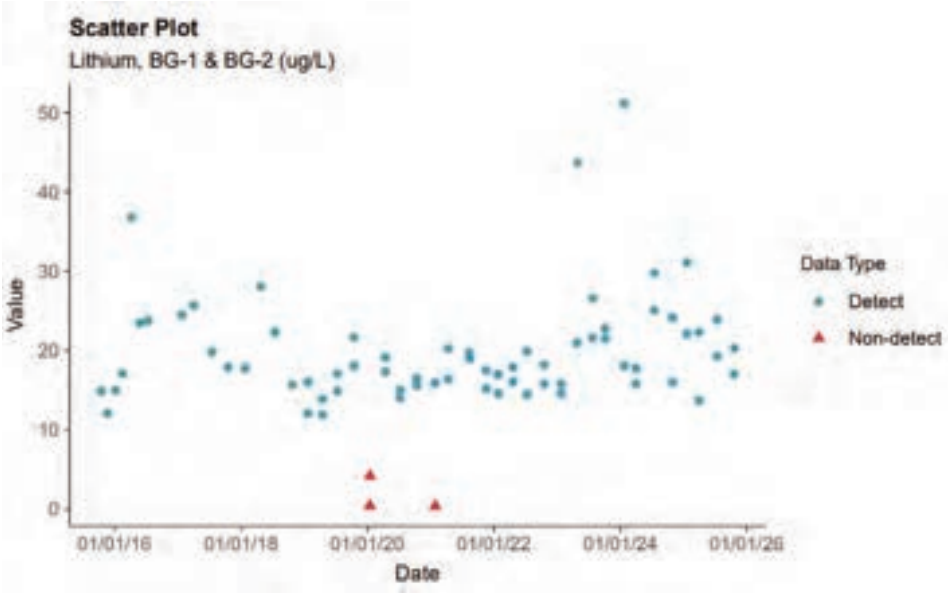

Figure 6: Lithium Concentrations (ug/L) vs. Time

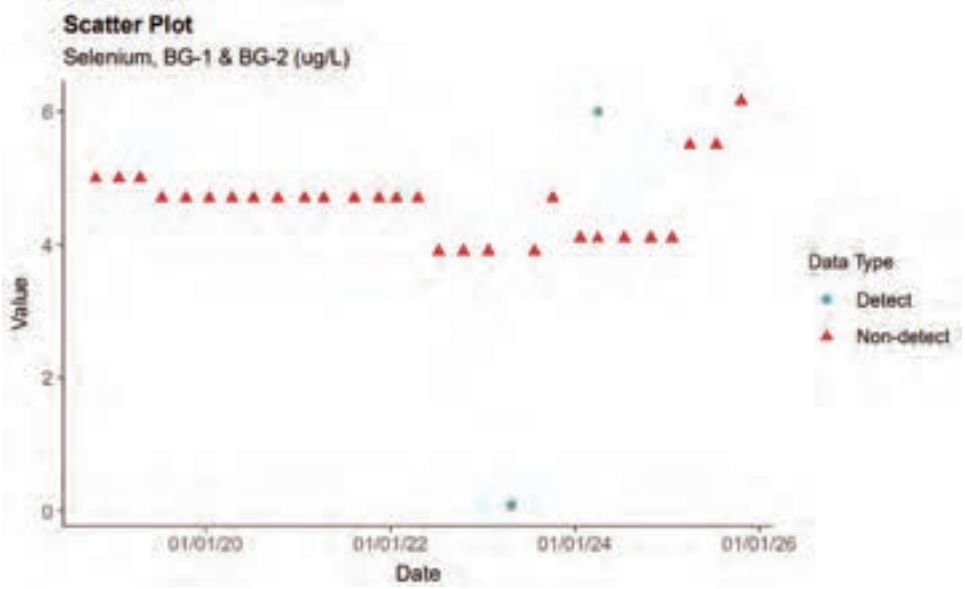

Figure 7: Selenium Concentrations (ug/L) vs. Time

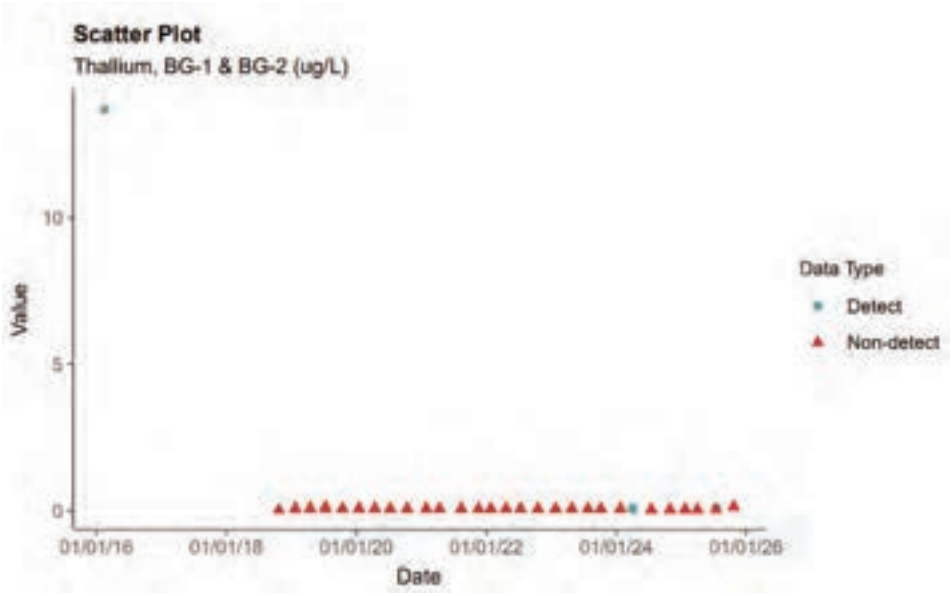

Figure 8: Thallium Concentrations (ug/L) vs. Time

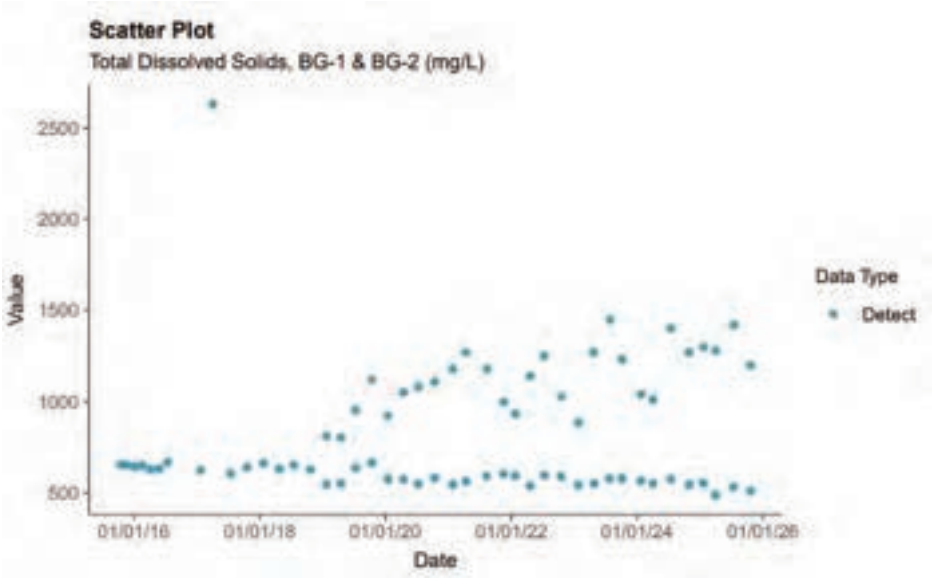

Figure 9: Total Dissolved Solids Concentrations (mg/L) vs. Time

2.1.2 Downgradient

Statistical outliers were identified for Appendix I metals, Appendix III and Appendix IV constituents in the data sets evaluated for downgradient monitoring wells throughout the monitoring period and are listed in **Table 4**.

Table 4: Outlier Test Results – Downgradient

Well	Constituent Type	Constituent	Unit	n	% NDs	Date	Dilution	Value
MW-1	App. III	Boron	ug/L	41	54%	10/21/2025	1	50.8
MW-1	App. IV	Cadmium	ug/L	42	93%	10/14/2020	1	0.670
MW-1	App. IV	Total Radium	pCi/L	40	0%	7/10/2019	1	2.48
MW-2	App. I Metals	Copper	ug/L	37	41%	11/18/2021	1	294
MW-2	App. I Metals	Nickel	ug/L	37	32%	10/19/2022	1	115
MW-2	App. I Metals	Nickel	ug/L	37	32%	10/4/2023	1	63.5
MW-2	App. I Metals	Nickel	ug/L	37	32%	10/25/2018	1	54.4
MW-2	App. I Metals	Vanadium	ug/L	37	68%	10/4/2023	1	37.2
MW-2	App. I Metals	Zinc	ug/L	37	43%	10/31/2024	1	1590
MW-2	App. III	Calcium	ug/L	37	0%	1/26/2024	1	34300
MW-2	App. III	Chloride	mg/L	37	0%	1/26/2024	11	489
MW-2	App. III	Chloride	mg/L	37	0%	7/12/2022	26	552
MW-2	App. III	Fluoride	mg/L	37	5%	7/18/2017		0.400
MW-2	App. III	pH (Field)	S.U.	33	0%	1/24/2024		9.29
MW-2	App. III	pH (Field)	S.U.	33	0%	7/12/2016		8.50
MW-2	App. III	Sulfate	mg/L	37	0%	1/26/2017		338
MW-2	App. III	Sulfate	mg/L	37	0%	4/5/2017		295
MW-2	App. III	Sulfate	mg/L	37	0%	2/17/2016		247
MW-2	App. III	Sulfate	mg/L	37	0%	11/19/2015		238
MW-2	App. III	Sulfate	mg/L	37	0%	4/6/2016		230
MW-2	App. III	Sulfate	mg/L	37	0%	1/6/2016		228
MW-2	App. III	Sulfate	mg/L	37	0%	7/18/2017		226
MW-2	App. III	Sulfate	mg/L	37	0%	7/12/2016		205
MW-2	App. III	Sulfate	mg/L	37	0%	10/18/2017		167
MW-2	App. III	Sulfate	mg/L	37	0%	5/27/2016		163
MW-2	App. III	Total Dissolved Solids	mg/L	37	0%	1/17/2020	1	11700
MW-2	App. III	Total Dissolved Solids	mg/L	37	0%	11/19/2015		257
MW-2	App. III	Total Dissolved Solids	mg/L	37	0%	1/28/2021	1	428
MW-2	App. IV	Chromium	ug/L	37	16%	10/19/2022	1	130
MW-2	App. IV	Chromium	ug/L	37	16%	10/25/2018	1	84.0
MW-2	App. IV	Chromium	ug/L	37	16%	1/25/2018		56.8
MW-2	App. IV	Chromium	ug/L	37	16%	4/5/2017		48.8
MW-2	App. IV	Chromium	ug/L	37	16%	10/4/2023	1	46.2
MW-2	App. IV	Cobalt	ug/L	37	76%	10/4/2023	1	34.8
MW-2	App. IV	Fluoride	mg/L	37	5%	7/18/2017		0.400
MW-2	App. IV	Lithium	ug/L	37	0%	8/10/2021	5	512
MW-2	App. IV	Lithium	ug/L	37	0%	7/12/2016		356
MW-2	App. IV	Lithium	ug/L	37	0%	5/27/2016		350
MW-2	App. IV	Molybdenum	ug/L	37	16%	1/17/2020	1	41.0
MW-2	App. IV	Thallium	ug/L	37	65%	2/17/2016		10.3
MW-3	App. I Metals	Copper	ug/L	40	52%	4/20/2022	1	137
MW-3	App. I Metals	Nickel	ug/L	40	50%	1/25/2019	1	86.0
MW-3	App. III	Calcium	ug/L	40	0%	1/23/2025	10	326000
MW-3	App. III	Chloride	mg/L	40	0%	7/12/2022	25	565
MW-3	App. III	pH (Field)	S.U.	36	0%	7/7/2020		6.18
MW-3	App. III	Sulfate	mg/L	40	0%	1/24/2017		174
MW-3	App. III	Sulfate	mg/L	40	0%	4/5/2017		167
MW-3	App. III	Sulfate	mg/L	40	0%	7/11/2016		125

Well	Constituent Type	Constituent	Unit	n	% NDs	Date	Dilution	Value
MW-3	App. III	Sulfate	mg/L	40	0%	7/19/2017		125
MW-3	App. III	Sulfate	mg/L	40	0%	10/18/2017		107
MW-3	App. III	Sulfate	mg/L	40	0%	1/24/2018		102
MW-3	App. III	Sulfate	mg/L	40	0%	10/25/2018	1	98.0
MW-3	App. III	Sulfate	mg/L	40	0%	7/17/2018		88.1
MW-3	App. III	Sulfate	mg/L	40	0%	4/24/2018		80.9
MW-3	App. III	Sulfate	mg/L	40	0%	1/25/2019	1	80.2
MW-3	App. III	Total Dissolved Solids	mg/L	40	0%	11/19/2015		256
MW-3	App. III	Total Dissolved Solids	mg/L	40	0%	1/24/2017		303
MW-3	App. III	Total Dissolved Solids	mg/L	40	0%	1/24/2018		1060
MW-3	App. IV	Chromium	ug/L	40	50%	1/25/2019	1	179
MW-3	App. IV	Cobalt	ug/L	40	82%	1/25/2019	1	6.20
MW-3	App. IV	Lithium	ug/L	40	2%	10/18/2017		236
MW-3	App. IV	Lithium	ug/L	40	2%	4/7/2016		217
MW-3	App. IV	Lithium	ug/L	40	2%	7/17/2018		36.7
MW-3	App. IV	Lithium	ug/L	40	2%	4/5/2017		129
MW-3	App. IV	Lithium	ug/L	40	2%	11/19/2015		128
MW-3	App. IV	Molybdenum	ug/L	40	2%	1/16/2020	1	35.7
MW-4	App. I Metals	Zinc	ug/L	41	59%	4/17/2020	1	47.2
MW-4	App. III	Boron	ug/L	40	57%	10/17/2017		165
MW-4	App. III	Calcium	ug/L	41	0%	4/7/2016		17900
MW-4	App. III	Calcium	ug/L	41	0%	5/25/2016		18600
MW-4	App. III	Total Dissolved Solids	mg/L	41	0%	11/19/2015		395
MW-4	App. III	Total Dissolved Solids	mg/L	41	0%	5/25/2016		486
MW-4	App. III	Total Dissolved Solids	mg/L	41	0%	4/7/2016		513
MW-4	App. IV	Barium	ug/L	41	0%	4/7/2016		85.9
MW-4	App. IV	Barium	ug/L	41	0%	5/25/2016		90.5
MW-4	App. IV	Lithium	ug/L	41	0%	8/12/2021	5	98.0
MW-5	App. I Metals	Nickel	ug/L	42	76%	7/13/2022	1	120
MW-5	App. I Metals	Zinc	ug/L	42	60%	3/31/2025	1	54.9
MW-5	App. III	Boron	ug/L	41	37%	1/23/2017		39.3
MW-5	App. III	Boron	ug/L	41	37%	10/20/2025	1	16.7
MW-5	App. III	pH (Field)	S.U.	39	0%	4/15/2020		8.54
MW-5	App. III	pH (Field)	S.U.	39	0%	7/7/2020		5.50
MW-5	App. III	pH (Field)	S.U.	39	0%	1/16/2020		5.62
MW-5	App. III	Total Dissolved Solids	mg/L	42	0%	10/17/2017		1160
MW-5	App. III	Total Dissolved Solids	mg/L	42	0%	10/14/2020	1	320
MW-5	App. IV	Chromium	ug/L	42	69%	7/13/2022	1	260
MW-5	App. IV	Lithium	ug/L	42	2%	8/9/2021	1	28.6
MW-6	App. III	Chloride	mg/L	41	0%	4/5/2016		15.3
MW-6	App. III	Chloride	mg/L	41	0%	4/15/2021	4	80.3
MW-6	App. III	Sulfate	mg/L	41	0%	4/5/2016		214
MW-6	App. III	Sulfate	mg/L	41	0%	1/5/2016		194
MW-6	App. III	Sulfate	mg/L	41	0%	4/4/2017		179
MW-6	App. III	Sulfate	mg/L	41	0%	1/24/2017		145
MW-6	App. III	Sulfate	mg/L	41	0%	11/20/2015		137

Well	Constituent Type	Constituent	Unit	n	% NDs	Date	Dilution	Value
MW-6	App. III	Sulfate	mg/L	41	0%	1/24/2018		126
MW-6	App. III	Sulfate	mg/L	41	0%	4/23/2018		96.1
MW-6	App. III	Sulfate	mg/L	41	0%	10/17/2017		90.9
MW-6	App. III	Sulfate	mg/L	41	0%	2/17/2016		87.7
MW-6	App. III	Sulfate	mg/L	41	0%	7/19/2017		86.9
MW-6	App. IV	Thallium	ug/L	41	90%	1/5/2016		6.20
MW-7R	App. I Metals	Nickel	ug/L	33	45%	7/10/2019	1	880
MW-7R	App. I Metals	Zinc	ug/L	33	67%	7/10/2019	1	53.4
MW-7R	App. III	Chloride	mg/L	33	0%	7/14/2022	7	194
MW-7R	App. III	Fluoride	mg/L	33	3%	7/20/2017		0.320
MW-7R	App. III	pH (Field)	S.U.	32	0%	7/20/2017		9.60
MW-7R	App. III	Sulfate	mg/L	33	0%	7/20/2017		51.2
MW-7R	App. IV	Barium	ug/L	33	0%	7/20/2017		50.1
MW-7R	App. IV	Chromium	ug/L	33	24%	7/10/2019	1	1940
MW-7R	App. IV	Chromium	ug/L	33	24%	10/14/2019	1	49.2
MW-7R	App. IV	Chromium	ug/L	33	24%	7/18/2018		33.7
MW-7R	App. IV	Chromium	ug/L	33	24%	1/23/2018		33.0
MW-7R	App. IV	Fluoride	mg/L	33	3%	7/20/2017		0.320
MW-7R	App. IV	Lithium	ug/L	33	0%	7/20/2017		5.60
MW-7R	App. IV	Radium-228	pCi/L	31	0%	4/14/2021	1	2.13
MW-8	App. I Metals	Copper	ug/L	42	74%	4/27/2023	1	116
MW-8	App. I Metals	Nickel	ug/L	42	50%	4/27/2023	1	157
MW-8	App. I Metals	Vanadium	ug/L	42	81%	4/27/2023	1	9.50
MW-8	App. III	Calcium	ug/L	42	0%	1/27/2021	10	4170
MW-8	App. III	Chloride	mg/L	42	0%	11/20/2015		939
MW-8	App. IV	Barium	ug/L	42	0%	4/27/2023	10	1880
MW-8	App. IV	Radium-226	pCi/L	40	0%	4/27/2023	1	2.51
MW-8	App. IV	Radium-228	pCi/L	40	0%	4/27/2023	1	4.72
MW-8	App. IV	Total Radium	pCi/L	40	0%	4/27/2023	1	7.23
MW-10	App. I Metals	Nickel	ug/L	18	33%	10/4/2023	1	27.9
MW-10	App. I Metals	Vanadium	ug/L	18	61%	10/4/2023	1	18.2
MW-10	App. I Metals	Zinc	ug/L	18	72%	10/4/2023	1	94.2
MW-10	App. III	Boron	ug/L	18	0%	10/4/2023	1	43.4
MW-10	App. IV	Arsenic	ug/L	18	78%	4/27/2023	1	1.20
MW-10	App. IV	Barium	ug/L	18	0%	10/4/2023	1	195
MW-10	App. IV	Chromium	ug/L	18	33%	10/4/2023	1	56.7
MW-11	App. I Metals	Copper	ug/L	21	48%	10/23/2025	1	34.4

Well	Constituent Type	Constituent	Unit	n	% NDs	Date	Dilution	Value
MW-11	App. III	Calcium	ug/L	21	0%	1/24/2024	1	69400
MW-11	App. III	pH (Field)	S.U.	20	0%	1/24/2024		11.7
MW-11	App. III	Total Dissolved Solids	mg/L	21	0%	1/29/2021	1	2760
MW-11	App. IV	Barium	ug/L	21	0%	1/24/2024	1	130
MW-11	App. IV	Lithium	ug/L	21	0%	1/24/2024	1	19.5
MW-11	App. IV	Radium-228	pCi/L	21	0%	4/13/2021	1	2.13
MW-11	App. IV	Total Radium	pCi/L	21	0%	4/13/2021	1	2.39
MW-11D	App. I Metals	Nickel	ug/L	19	74%	7/13/2022	1	6.20
MW-11D	App. I Metals	Zinc	ug/L	19	58%	10/23/2025	1	89.7
MW-11D	App. III	Boron	ug/L	19	0%	8/12/2021	2	109
MW-11D	App. III	Calcium	ug/L	19	0%	8/12/2021	1	94400
MW-11D	App. III	Chloride	mg/L	19	0%	8/12/2021	12	530
MW-11D	App. III	Sulfate	mg/L	19	5%	8/12/2021	12	523
MW-11D	App. III	Total Dissolved Solids	mg/L	19	0%	8/12/2021	1	1740
MW-11D	App. IV	Lithium	ug/L	19	0%	8/12/2021	2	80.7
MW-11D	App. IV	Molybdenum	ug/L	19	5%	8/12/2021	1	127
MW-11D	App. IV	Radium-228	pCi/L	19	0%	4/13/2021	1	2.23

A visual inspection of concentration vs. time scatter plots for constituents included in the outliers listed in **Table 4** reveal the presence of the potential outliers. See **Appendix D** for scatter plots of constituents with downgradient statistically-derived outliers as well as other downgradient data visualizations. Following review of the sampling protocols and field sampling records, there were no obvious reasons for the outliers noted on the sampling dates. The value for each statistical outlier for the other constituents listed above is within a reasonable range of the remaining concentrations for each constituent throughout the monitoring period. The variability in concentrations will be better understood as additional samples are obtained.

2.2 Data Distribution

Groundwater data was fitted to known distribution models using Goodness-of-Fit (GOF) tests. The Shapiro-Wilk and Lilliefors tests is used to test for normal distribution. Note that these two tests can be used to test for lognormal distributions after the data are transformed using the natural log function. The empirical distribution function (EDF) based methods, the Kolmogorov-Smirnov (K-S) and Anderson-Darling (A-D) test, are used to test for a gamma distribution. Normal, lognormal and gamma distributions are parametric distributions. If a data set cannot be fit with any of these three parametric distributions, it is considered to follow a nonparametric distribution. In addition, if more than 50 percent of the observations are non-detects, then the

dataset is assumed to follow a nonparametric distribution. Finally, the data distributions for radium 226, radium 226, and total radium are set to nonparametric for evaluation purposes as non-detect values were not flagged by the laboratory. Data distributions are listed in **Table 5**. Downgradient data distributions for each constituent-well pair are reported in **Appendix B**.

Relative to the prior background distributions assessed and used for the calculation of the current BTVs, boron, chloride, and fluoride changed from being assigned a gamma distribution to lognormal, and radium (-226, -228, and total radium) changed from nonparametric to normally distributed.

Table 5: Data Distributions – Background

Constituent	Sample Size	No. of NDs	Distribution Fit[1]
Appendix I Metals			
Copper	57	43	Nonparametric
Nickel	57	40	Nonparametric
Silver	57	56	Nonparametric
Vanadium	62	31	Nonparametric
Zinc	58	38	Nonparametric
Appendix III Constituents			
Boron	64	24	Lognormal
Calcium	71	0	Nonparametric
Chloride	71	0	Normal
Fluoride	71	0	Lognormal
pH (Field)	69	0	Normal
Sulfate	71	0	Nonparametric
Total Dissolved Solids	71	0	Nonparametric
Appendix IV Constituents			
Antimony	57	55	Nonparametric
Arsenic	57	52	Nonparametric
Barium	71	0	Nonparametric
Beryllium	57	57	Nonparametric
Cadmium	57	55	Nonparametric
Chromium	57	45	Nonparametric
Cobalt	57	45	Nonparametric
Fluoride	71	0	Lognormal
Lead	57	52	Nonparametric
Lithium	71	3	Nonparametric
Mercury	57	49	Nonparametric
Molybdenum	58	41	Nonparametric
Radium-226	68	0	Normal
Radium-228	68	0	Normal
Selenium	57	54	Nonparametric
Thallium	58	54	Nonparametric
Total Radium	68	0	Normal

[1]Parametric distribution fit is based on detected data.

2.3 Trends

2.3.1 Background

Background constituent concentrations in groundwater should demonstrate stationary conditions through time, free of trends. Constituents were analyzed for trends within the dataset using a maximum likelihood estimate (MLE) regression for constituents which followed parametric distributions and Mann-Kendall tests for those that were treated under nonparametric distributional assumptions. The MLE regression can be applied to datasets that can be fitted to a specific distribution model and that contain NDs with multiple MDLs. The Mann-Kendall test is suitable for data series with no discernable distributions and only one MDL value for NDs.

Constituents treated under nonparametric data assumptions (either tested as nonparametric or having more than 50 percent NDs) and with multiple MDLs or with less than three detected values were not assessed for trends. A summary of the trend analysis results for constituents with sufficient detected values in the background data set is provided in **Table 6**. A one percent significance level was used to detect statistically significant trends.

The background well regression analysis showed a potential increasing trend for fluoride (an Appendix III and Appendix IV constituent), boron (Appendix III) and sulfate (Appendix III). A potential decreasing trend for chloride (Appendix III) and barium (Appendix IV). There were no increasing or decreasing trends identified for other monitoring constituents with sufficient data quantity and quality for testing with the MLE analysis or Mann-Kendall test.

Table 6: Summary of Trend Analysis Results – Background

Constituent	Trend
Appendix III Constituents	
Boron	↑
Chloride	↓
Fluoride	↑
Sulfate	↑
Appendix IV Constituents	
Barium	↓
Fluoride	↑

2.3.2 Downgradient

Trends were also evaluated for constituents in each downgradient well using the same methods as described above for the background data set. Trends identified for select constituents at select monitoring well locations should be monitored as additional downgradient groundwater data are collected at the site. A summary of the statistical trends identified within the downgradient data set is provided in **Table 7**. As with the background data sets, one percent significance level was used to detect statistically significant trends.

Table 7: Summary of Trend Analysis Results – Downgradient

Constituent	Downgradient Well with Increasing or Decreasing Trend									
	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6	MW-7R	MW-8	MW-10	MW-11D
Appendix I Metals										
Nickel				↑						
Appendix III Constituents										
Boron			↑						↑	
Calcium			↑		↓					↓
Chloride				↓		↓	↓	↓		↓
Fluoride	↑							↑	↓	↓
pH (Field)		↓		↓				↑		↓
Sulfate	↓	↓	↓			↓	↓	↑	↓	↓
Total Dissolved Solids					↓		↑			↓
Appendix IV Constituents										
Barium		↑	↑		↓	↓	↑		↑	
Cobalt				↑						
Fluoride	↑							↑	↓	↓
Lithium				↑	↑	↓			↑	↓
Molybdenum		↓							↓	↓

*No trends were observed for MW-11

2.4 Spatial Variability

Spatial variability refers to identifying whether or not there are statistically identifiable differences in mean concentrations or variance levels across the well field (i.e., the pooled background data). Parametric and nonparametric analysis of variance (ANOVA) tests and visual aids (i.e., side-by-side box plots and scatter plots), as needed, were used to evaluate for spatial variability within the background data set to check that results from background wells BG-1 and BG-2 were appropriate for pooling and calculating background concentrations for constituents.

Statistical tests at the one percent level of statistical significance indicated that seven Appendix III constituents (boron, calcium, chloride, fluoride, pH, sulfate, and total dissolved solids) exhibited spatial variability. Statistical spatial variability was also identified for two Appendix IV constituents (barium and fluoride), and one Appendix I metal (vanadium). Review of side-by-side box plots for the constituents listed above indicated that the statistically-identified variability in concentrations are reasonable and the mean concentrations calculated for the monitoring wells are generally within the natural variability of concentrations of the well field conditions for Appendix III and IV constituents or within or close to one order of magnitude of the other (See Figure 10 to **Figure 17**). Therefore, the concentration distribution across the background wells should be considered reflective of the hydrogeological regime at the site and the background

results are appropriate for pooling and calculating background concentrations at this time. Note that this spatial variability analysis is updated to include data up to October 2025. Spatial variability will continue to be monitored with each background update and downgradient assessment.

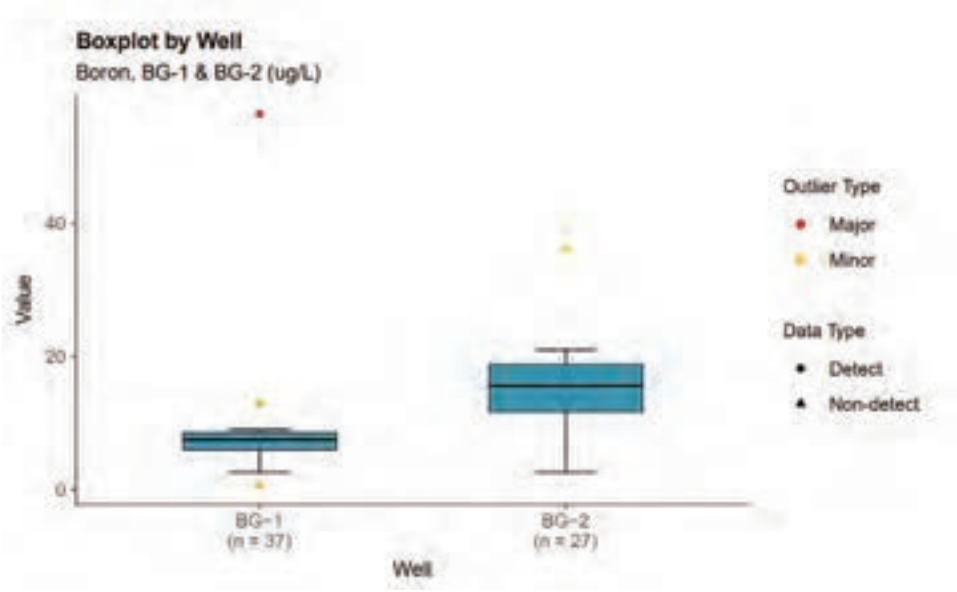

Figure 10: Boron Concentrations (ug/L) Side-by-Side Box Plots by Background Well

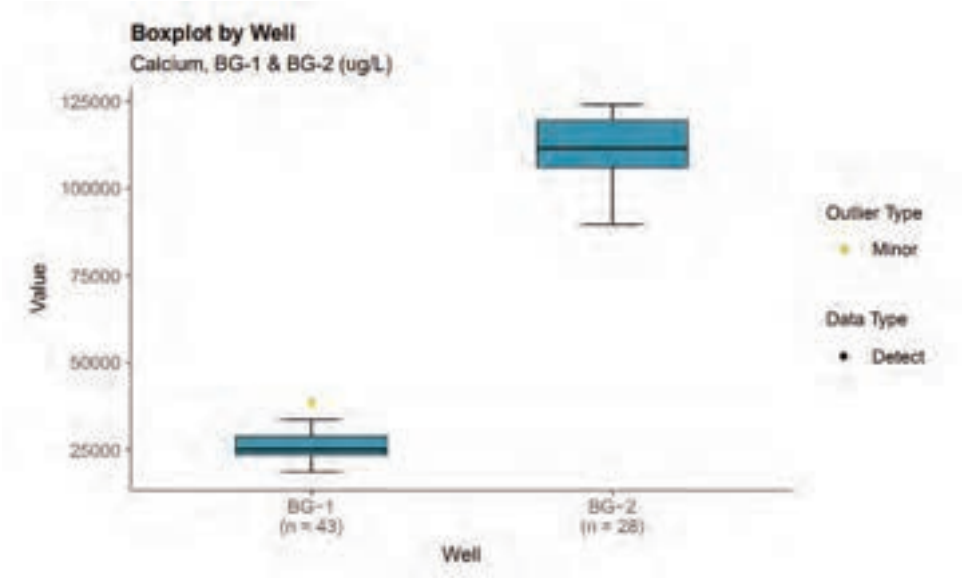

Figure 11: Calcium Concentrations (ug/L) Side-by-Side Box Plots by Background Well

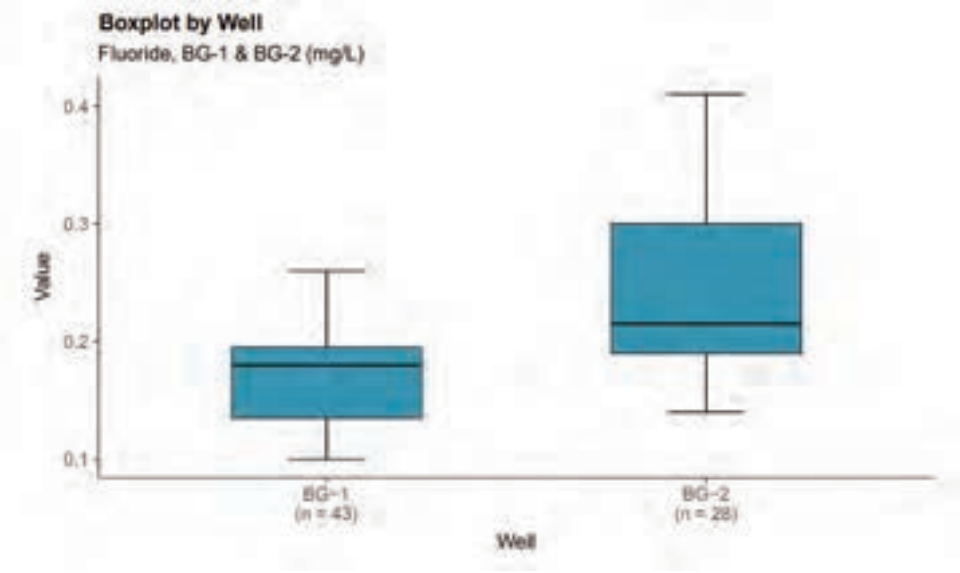

Figure 12: Fluoride Concentrations (mg/L) Side-by-Side Box Plots by Background Well

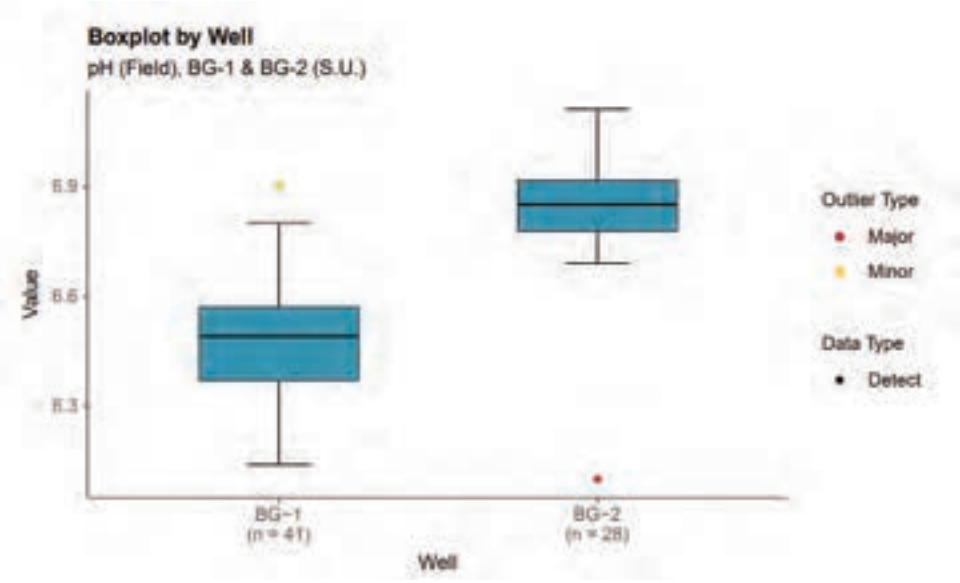

Figure 13: pH (Field) Concentrations (S.U.) Side-by-Side Box Plots by Background Well

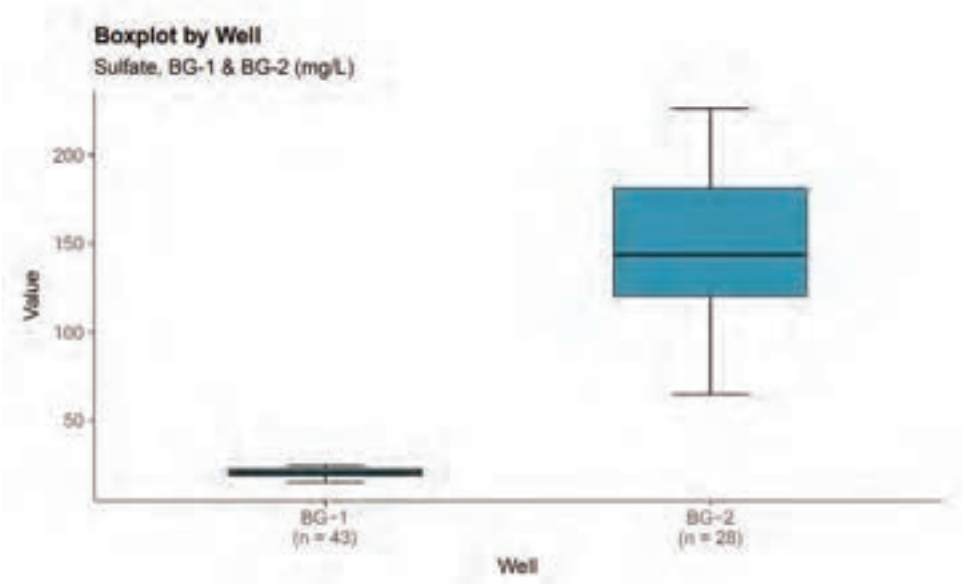

Figure 14: Sulfate Concentrations (mg/L) Side-by-Side Box Plots by Background Well

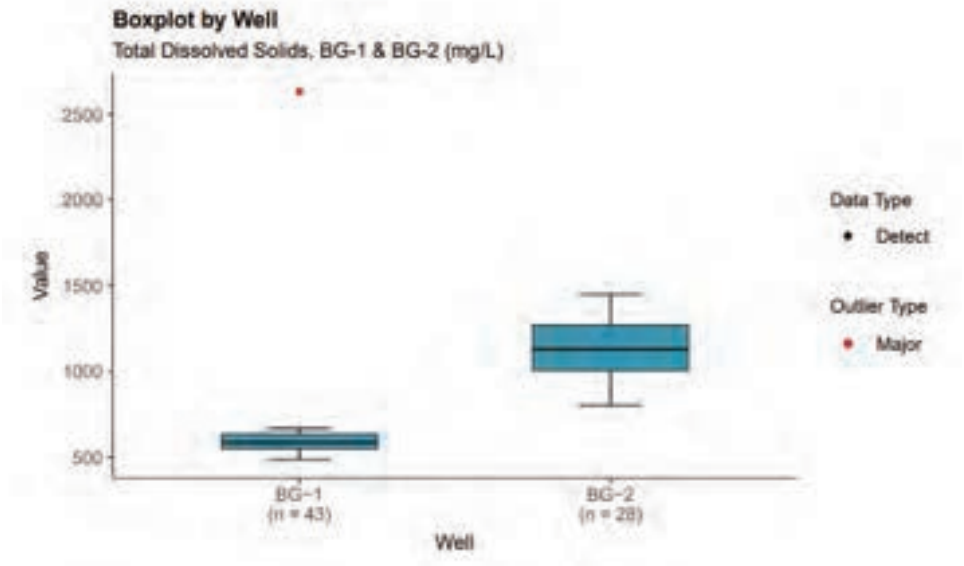

Figure 15: Total Dissolved Solids Concentration (mg/L) Side-by-Side Box Plots by Background Well

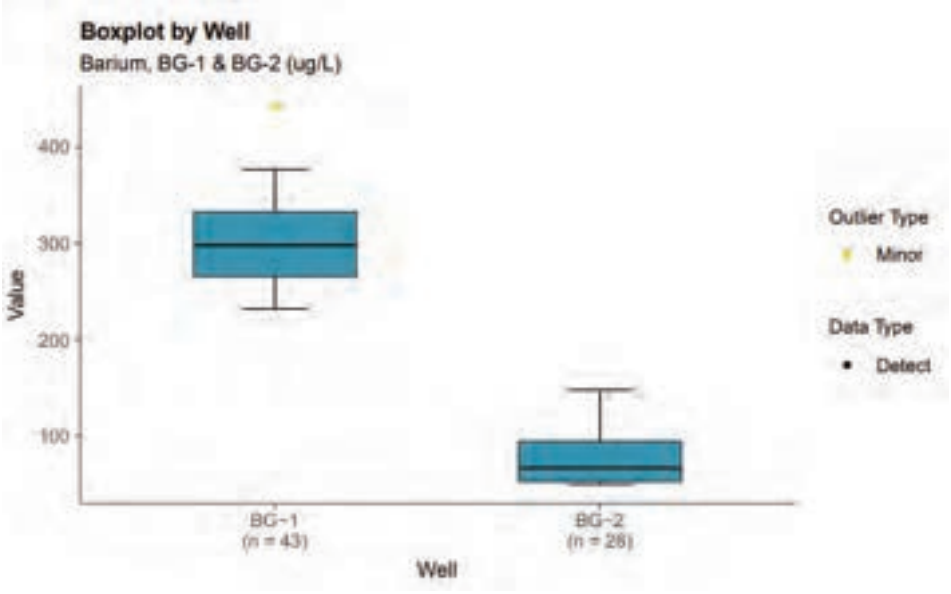

Figure 16: Barium Concentration (ug/L) Side-by-Side Box Plots by Background Well

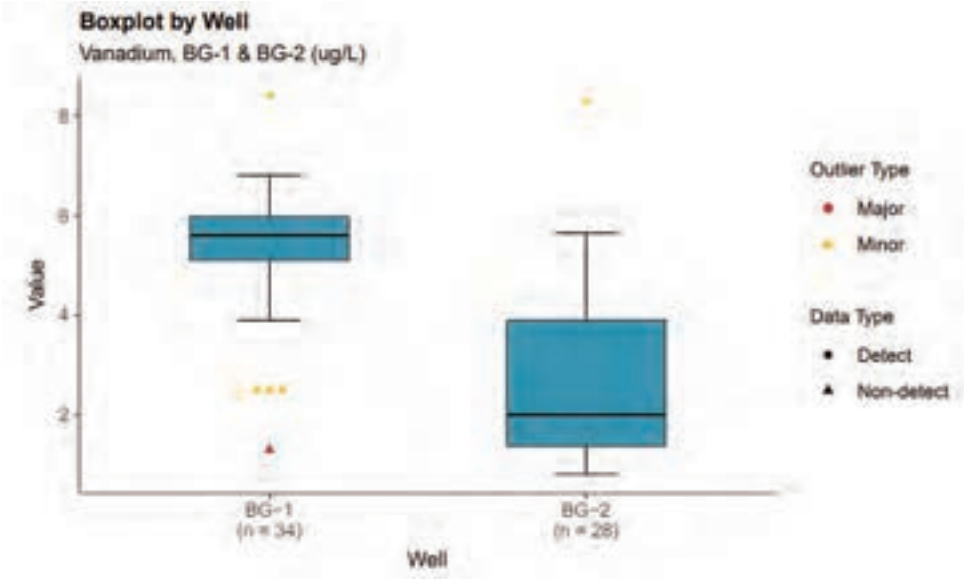

Figure 17: Vanadium Concentration (ug/L) Side-by-Side Box Plots by Background Well

3 Summary of Statistical Analysis

A summary of the statistical analysis results is provided in **Table 8** and **Table 10,** and discussed below.

- Note that for the purposes of the SSI analysis, the BTVs used include samples up to April 2025. The preliminary data analysis results for background statistics have been updated using the Q3 and Q4 sampling results for information purposes.

- The statistical outliers identified for nickel, vanadium, zinc, boron, chromium, lithium, selenium, thallium, and total radium are considered representative of background. During the next BTV update with the additional 2025 samples, the full datasets will be re-assessed for statistical outliers.
- For the background data set, there are currently sufficient data to fit the Appendix III constituents to known parametric distribution models (e.g., gamma, lognormal, or normal) using GOF tests, except for calcium, sulfate, and TDS, which are nonparametric.
- For the background data set, 11 of the 17 Appendix IV constituents exhibited high percentages of NDs at the time of BTV calculation and were be treated under nonparametric distribution assumptions. Additionally, beryllium had no detects so the double quantification rule (DQR) is used to assess SSIs.
- Downgradient samples as of October 2025 were used to establish SSIs. The statistically-derived background concentrations and the evaluation for SSIs over background for Appendix I metals, as well as Appendix III and Appendix IV constituents are included in **Section 4**.

- While multiple statistical outliers have been flagged at the downgradient wells for various constituents, the outliers can indicate contamination from the solid waste landfill or alternative sources. Unless an alternative source can be confirmed, the values remain in the sample as representing groundwater quality at the time of measurement.

Table 8: Summary of Background Preliminary Data Analysis

Constituent	Statistical Outlier	Nonparametric Data Distribution	Trend	Spatial Variability
Appendix I Metals				
Copper		✓		
Nickel	✓	✓		
Silver		✓		
Vanadium	✓	✓		✓
Zinc	✓	✓		
Appendix III Constituents				
Boron	✓		✓	✓
Calcium		✓		✓
Chloride			✓	
Fluoride			✓	✓
pH (field)				✓
Sulfate		✓	✓	✓
Total Dissolved Solids		✓		✓
Appendix IV Constituents				
Antimony		✓		
Arsenic		✓		
Barium		✓	✓	✓
Beryllium		✓		
Cadmium		✓		
Chromium	✓	✓		
Cobalt		✓		
Fluoride			✓	✓
Lead		✓		
Lithium	✓	✓		
Mercury		✓		
Molybdenum		✓		
Radium-226		✓		
Radium-228		✓		
Selenium	✓	✓		
Thallium	✓	✓		
Total Radium	✓	✓		

✓Constituent was flagged during the statistical analysis of pooled wells BG-1 and BG-2

Table 9: Summary of Downgradient Preliminary Data Analysis

Constituent	Statistical Outlier	Nonparametric Data Distribution	Trend
Appendix I Metals			
Copper	MW-2	MW-1	
	MW-3	MW-2	
	MW-8	MW-3	
	MW-11	MW-4	
		MW-5	
		MW-6	
		MW-7R	
		MW-8	
		MW-10	
		MW-11D	
Nickel	MW-2	MW-1	MW-4 (↑)
	MW-3	MW-3	
	MW-5	MW-5	
	MW-7R	MW-6	
	MW-8	MW-7R	
	MW-10	MW-8	
	MW-11D	MW-11	
		MW-11D	
Silver		MW-1	
		MW-2	
		MW-3	
		MW-4	
		MW-5	
		MW-6	
		MW-7R	
		MW-8	
		MW-10	
		MW-11	
		MW-11D	
Vanadium	MW-2	MW-1	
	MW-8	MW-2	
	MW-10	MW-3	
		MW-4	
		MW-5	
		MW-6	
		MW-8	
		MW-10	
		MW-11	
		MW-11D	
Zinc	MW-2	MW-1	
	MW-4	MW-2	
	MW-5	MW-3	
	MW-7R	MW-4	
	MW-10	MW-5	
	MW-11D	MW-6	
		MW-7R	
		MW-8	
		MW-10	
		MW-11	
		MW-11D	
Appendix III Constituents			
Boron	MW-1	MW-1	MW-3 (↑)

Constituent	Statistical Outlier	Nonparametric Data Distribution	Trend
	MW-4	MW-4	MW-10 (↑)
	MW-5	MW-5	
	MW-10	MW-6	
	MW-11D	MW-7R	
		MW-11D	
Calcium	MW-2	MW-2	MW-3 (↑)
	MW-3	MW-3	MW-5 (↓)
	MW-4	MW-4	MW-11D (↓)
	MW-8	MW-8	
	MW-11	MW-11	
	MW-11D	MW-11D	
Chloride	MW-2	MW-4	MW-4 (↓)
	MW-3	MW-6	MW-6 (↓)
	MW-6	MW-7R	MW-7R (↓)
	MW-7R	MW-8	MW-8 (↓)
	MW-8	MW-11D	MW-11D (↓)
	MW-11D		
Fluoride	MW-2	MW-1	MW-1 (↑)
	MW-7R	MW-7R	MW-8 (↑)
			MW-10 (↓)
			MW-11D (↓)
pH (field)	MW-2	MW-2	MW-2 (↓)
	MW-3	MW-3	MW-4 (↓)
	MW-5	MW-5	MW-8 (↑)
	MW-7R	MW-6	MW-11D (↓)
	MW-11	MW-7R	
		MW-11	
Sulfate	MW-2	MW-1	MW-1 (↓)
	MW-3	MW-2	MW-2 (↓)
	MW-6	MW-3	MW-3 (↓)
	MW-7R	MW-4	MW-6 (↓)
	MW-11D	MW-6	MW-7R (↓)
		MW-7R	MW-8 (↑)
		MW-11D	MW-10 (↓)
			MW-11D (↓)
Total Dissolved Solids	MW-2	MW-2	MW-5 (↓)
	MW-3	MW-3	MW-7R (↑)
	MW-4	MW-4	MW-11D (↓)
	MW-5	MW-5	
	MW-11	MW-8	
	MW-11D	MW-11	
		MW-11D	
Appendix IV Constituents			
Antimony		MW-1	
		MW-2	
		MW-3	
		MW-4	
		MW-5	
		MW-6	
		MW-7R	
		MW-8	
		MW-10	
		MW-11	
		MW-11D	
Arsenic	MW-10	MW-1	

Constituent	Statistical Outlier	Nonparametric Data Distribution	Trend
		MW-2	
		MW-3	
		MW-4	
		MW-5	
		MW-6	
		MW-7R	
		MW-8	
		MW-10	
		MW-11	
		MW-11D	
Barium	MW-4	MW-2	MW-2 (↑)
	MW-7R	MW-4	MW-3 (↑)
	MW-8	MW-6	MW-5 (↓)
	MW-10	MW-7R	MW-6 (↓)
	MW-11	MW-8	MW-7R (↑)
		MW-10	MW-10 (↑)
		MW-11	
		MW-11D	
Beryllium		MW-1	
		MW-2	
		MW-3	
		MW-4	
		MW-5	
		MW-6	
		MW-7R	
		MW-8	
		MW-10	
		MW-11	
		MW-11D	
Cadmium	MW-1	MW-1	
		MW-2	
		MW-3	
		MW-4	
		MW-5	
		MW-6	
		MW-7R	
		MW-8	
		MW-10	
		MW-11	
		MW-11D	
Chromium	MW-2	MW-1	
	MW-3	MW-2	
	MW-5	MW-3	
	MW-7R	MW-4	
	MW-10	MW-5	
		MW-6	
		MW-7R	
		MW-11	
		MW-11D	
Cobalt	MW-2	MW-1	MW-4 (↑)
	MW-3	MW-2	
		MW-3	
		MW-5	
		MW-6	
		MW-7R	

Constituent	Statistical Outlier	Nonparametric Data Distribution	Trend
		MW-8	
		MW-10	
		MW-11	
		MW-11D	
Fluoride	MW-2	MW-1	MW-1 (↑)
	MW-7R	MW-7R	MW-8 (↑)
			MW-10 (↓)
			MW-11D (↓)
Lead		MW-1	
		MW-2	
		MW-3	
		MW-4	
		MW-5	
		MW-6	
		MW-7R	
		MW-8	
		MW-10	
		MW-11	
		MW-11D	
Lithium	MW-2	MW-2	MW-4 (↑)
	MW-3	MW-3	MW-5 (↑)
	MW-4	MW-4	MW-6 (↓)
	MW-5	MW-5	MW-10 (↑)
	MW-7R	MW-6	MW-11D (↓)
	MW-11	MW-7R	
	MW-11D	MW-10	
		MW-11	
Mercury		MW-1	
		MW-2	
		MW-3	
		MW-4	
		MW-5	
		MW-6	
		MW-7R	
		MW-8	
		MW-10	
		MW-11	
		MW-11D	
Molybdenum	MW-2	MW-1	MW-2 (↓)
	MW-3	MW-3	MW-10 (↓)
	MW-11D	MW-4	MW-11D (↓)
Molybdenum (con't)		MW-5	
		MW-6	
		MW-7R	
		MW-8	
		MW-11	
Radium-226	MW-8	MW-8	
Radium-228	MW-7R	MW-8	
	MW-8	MW-11	
	MW-11		
	MW-11D		
Selenium		MW-1	
		MW-2	
		MW-3	
		MW-4	

Constituent	Statistical Outlier	Nonparametric Data Distribution	Trend
		MW-5	
		MW-6	
		MW-7R	
		MW-8	
		MW-10	
		MW-11	
		MW-11D	
Thallium	MW-2	MW-1	
	MW-6	MW-2	
		MW-3	
		MW-4	
		MW-5	
		MW-6	
		MW-7R	
		MW-8	
		MW-10	
		MW-11	
		MW-11D	
Total Radium	MW-1	MW-8	
	MW-8		
	MW-11		

4 Evaluation for SSIs over Background

The background threshold values (BTVs) developed using data available as of April 2025 for Appendix I metals, as well as Appendix III and Appendix IV constituents at the site are used to determine if concentrations for Appendix I metals, as well as Appendix III and Appendix IV constituents as of the October 2025 sampling round are SSIs.

For constituents that have all ND background values, the maximum MDL is chosen to represent background and the double quantification rule (DQR) is used to evaluate whether or not there is an SSI. The BTV provided for detection monitoring constituents is the statistically-derived background concentration (i.e., upper prediction limit [UPL]), or the maximum detected value or the maximum MDL depending on the level of censorship in each of the background samples. For pH (field), both the UPL and the lower prediction limit (LPL) were computed as pH values above or below the prediction limits at the downgradient wells can be considered statistically significant. The test significance level per constituent has been estimated such that the cumulative false positive rate over all constituent-well pair comparisons is approximately ten percent.

The number of verification samples per constituent has been selected to provide sufficient statistical power to detect an SSI when an SSI has occurred conditional to the background sample size, its distributional properties, and the total number of statistical test comparisons. The calculated background concentrations, or BTVs, for each detection monitoring constituent is provided below in **Table 10**. Detailed BTV calculations available are in the first semi-annual evaluation for 2025**,** and the full set of detection monitoring results are available in **Appendix E**.

Table 10: Background Concentrations for Detection Monitoring Constituents

Constituent	Unit	No. of Verification Samples.	BTV (UPL)
Appendix I Metals			
Copper	ug/L	2	7.10
Nickel	ug/L	2	4.20
Silver	ug/L	2	0.700
Vanadium	ug/L	2	8.30
Zinc	ug/L	2	32.4
Appendix III Constituents			
Boron	ug/L	1	56.9
Calcium	ug/L	2	124,000
Chloride	mg/L	1	374
Fluoride	mg/L	1	0.509
pH (Field)	S.U.	1	5.63-7.55*
Sulfate	mg/L	2	210
Total Dissolved Solids	mg/L	2	1,400
Appendix IV Constituents			
Antimony	ug/L	2	0.790
Arsenic	ug/L	2	8.80
Barium	ug/L	2	377
Beryllium	ug/L	DQR	0.700
Cadmium	ug/L	2	0.500
Chromium	ug/L	2	7.20
Cobalt	ug/L	2	2.30
Fluoride	mg/L	1	0.509

Constituent	Unit	No. of Verification Samples.	BTV (UPL)
Lead	ug/L	2	13.7
Lithium	ug/L	2	43.7
Mercury	ug/L	2	0.170
Molybdenum	ug/L	2	13.6
Radium-226	pCi/L	2	0.800
Radium-228	pCi/L	2	1.35
Selenium	ug/L	2	6.00
Thallium	ug/L	2	13.7
Total Radium	pCi/L	2	2.09

Note:

Values are recorded with three significant figures for reporting consistency. The laboratory reported values with varying significant figures.
* indicates the lower bound of the pH range is the lower prediction limit (LPL). The upper bound is the UPL.
If background samples are 100% non-detects, the DQR is recommended for statistical evaluation.

Downgradient sampling results from the detection monitoring rounds in April 2025 were used to test for SSIs. For constituents that have all ND background values, the DQR is applied; that is, an SSI is registered for the well-constituent pair if the downgradient concentrations exhibit detects in two consecutive sampling events. Downgradient sampling results from the January 2025 and April 2025 sampling events were used to test for SSIs for constituents that have all ND background values. Downgradient concentrations were compared to the BTVs and are summarized below in **Table 11** through **Table 13.** Eleven monitoring wells (MW-1 through MW-8) were installed and sampled (October 2015) prior to ash placement, thus representing pre-ash conditions at the site. The range of the concentrations of the pre-ash conditions are included in the tables below as a relative comparison to the current downgradient conditions.

Table 11: Summary of Evaluation for SSIs over Background for Appendix I Metals (Detection Monitoring)

	Appendix I Metals				
	Copper	**Nickel**	**Silver**	**Vanadium**	**Zinc**
Unit	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**
BTV (UPL)	7.1	4.2	0.7	8.3	32.4
Pre-Ash Range	2.50 - 16.4	2.50 - 18.2	2.50 - 2.50	2.50 - 9.90	5.00 - 106
Second Detection Monitoring Round Results					
MW-1	2.26	1.96	*2.89*	5.64	5.23
MW-2	6.04	3.09	*2.89*	*5.64*	**40.3**
MW-3	3.46	1.96	*2.89*	*5.64*	8.25
MW-4	*2.26*	**4.78**	*2.89*	*5.64*	8.95
MW-5	2.26	*1.96*	*2.89*	*5.64*	14.5
MW-6	**44.0**	1.96	*2.89*	5.64	10.7
MW-7R	**61.6**	*1.96*	*2.89*	5.64	11.3
MW-8	*2.41*	*1.96*	*2.89*	*5.64*	15.8
MW-10	**58.8**	*1.96*	*2.89*	*5.64*	10.7
MW-11	**34.4**	*1.96*	*2.89*	*5.64*	13.5
MW-11D	4.83	*1.96*	*2.89*	*5.64*	**89.7**

Notes:
Underlined concentration indicates a detect value for constituents with 100 percent background non-detects.
Bold and underlined concentration indicates an SSI over background.
Italic concentration indicates a non-detect value.

Table 12: Summary of Evaluation for SSIs over Background for Appendix III Constituents (Detection Monitoring)

	Appendix III Constituents						
	Boron	Calcium	Chloride	Fluoride	pH (Field), UPL	Sulfate	Total Dissolved Solids
Unit	ug/L	ug/L	mg/L	mg/L	S.U.	mg/L	mg/L
BTV (UPL)	56.9	124,000	374	0.509	5.63 - 7.55**	210	1,400
Pre-Ash Range	6.20 - 53.1	16,900 - 185,000	22.2 - 1,160	0.0200 - 0.590	6.17 - 7.70	3.70 - 199	296 - 2,770
Second Detection Monitoring Round Results							
MW-1	50.8	150000	508	0.120	6.85	5.80	1320
MW-2	60.9	174000	994	0.170	7.53	61.8	2290
MW-3	46.1	190000	1050	0.220	7.40	11.2	2330
MW-4	15.3	68100	290	0.380	6.31	9.10	1190
MW-5	16.7	9610	20.8	0.500	6.84	3.50	205
MW-6	12.2	34000	176	0.300	6.39	27.2	590
MW-7R	11.8	96500	265	0.100	7.41	14.2	908
MW-8	13.6	164000	499	0.0610	7.02	6.60	1630
MW-10	30.0	21300	29.9	0.400	7.91	1.70	332
MW-11	18.5	25200	139	0.140	6.69	2.00	404
MW-11D	46.4	16000	54.3	0.400	8.26	13.8	321

Notes:
** indicates the lower bound of the pH range is the LPL. The upper bound is the UPL
Underlined concentration indicates a detect value for constituents with 100 percent background non-detects.
Bold and underlined concentration indicates an SSI over background.
Italic concentration indicates a non-detect value.

Table 13: Summary of Evaluation for SSIs over Background for Appendix IV Constituents (Detection Monitoring)

	Appendix IV Constituents																
	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Fluoride	Lead	Lithium	Mercury	Molybdenum	Radium-226	Radium-228	Selenium	Thallium	Total Radium
Unit	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	pCi/L	pCi/L	ug/L	ug/L	pCi/L
BTV (UPL)	0.79	8.8	377	*0.700 (DQR)*	0.5	7.2	2.3	0.509	13.7	43.7	0.17	13.6	0.8	1.35	6	13.7	2.09
Pre-Ash Range	3.80 - 12.0	2.50 - 2.50	117 - 1,240	0.500 - 0.500	0.500 - 0.500	2.50 - 33.9	2.50 - 7.00	0.0200 - 0.590	2.50 - 6.30	7.50 - 70.4	0.100 - 0.100	2.50 - 20.6	0.0774 - 0.820	0.0230 - 1.56	5.00 - 5.00	5.00 - 5.00	0.304 - 2.93
Second Detection Monitoring Round Results																	
MW-1	*5.06*	*7.83*	153	*0.501*	*0.538*	*1.51*	*1.41*	0.120	*2.43*	33.2	*0.0700*	*1.37*	0.179	1.08	*6.16*	*0.130*	1.26
MW-2	*5.06*	*7.83*	330	*0.501*	*0.538*	4.20	*1.41*	0.170	*2.43*	154	*0.0700*	5.18	0.955	1.33	*6.16*	*0.130*	2.29
MW-3	*5.06*	*7.83*	763	*0.501*	*0.538*	*1.51*	*1.41*	0.220	*2.43*	88.0	*0.0700*	6.89	0.916	2.10	*6.16*	*0.130*	3.02
MW-4	*5.06*	*7.83*	320	*0.501*	*0.538*	*1.51*	4.90	0.380	*2.43*	43.6	*0.0700*	1.54	0.0573	0.439	6.24	*0.130*	0.496
MW-5	*5.06*	*7.83*	93.6	*0.501*	*0.538*	*1.51*	*1.41*	0.500	*2.43*	10.5	*0.0700*	*1.37*	0.118	-0.0196	*6.16*	*0.130*	0.118
MW-6	*5.06*	*7.83*	54.1	*0.501*	*0.538*	*1.51*	*1.41*	0.300	*2.43*	25.6	*0.0700*	*1.37*	0.00	0.571	*6.16*	*0.130*	0.571
MW-7R	*5.06*	*7.83*	317	*0.501*	*0.538*	3.39	*1.41*	0.100	2.79	30.9	*0.0700*	1.75	0.0622	0.598	*6.16*	*0.130*	0.660
MW-8	*5.06*	*7.83*	1370	*0.501*	*0.538*	*1.51*	*1.41*	0.0610	*2.43*	42.0	*0.0700*	*1.37*	0.444	1.12	*6.16*	*0.130*	1.56
MW-10	*5.06*	*7.83*	95.2	*0.501*	*0.538*	*1.51*	*1.41*	0.400	*2.43*	6.29	*0.0700*	21.5	0.339	1.07	7.63	*0.130*	1.41
MW-11	*5.06*	*7.83*	38.6	*0.501*	*0.538*	*1.51*	*1.41*	0.140	*2.43*	12.0	*0.0700*	1.40	0.113	1.01	*6.16*	*0.130*	1.12
MW-11D	*5.06*	*7.83*	112	*0.501*	*0.538*	*1.51*	*1.41*	0.400	*2.43*	16.9	*0.0700*	4.28	-0.187	0.187	*6.16*	*0.130*	0.187

Notes:
Underlined concentration indicates a detect value for constituents with 100 percent background non-detects.
Bold and underlined concentration indicates an SSI over background.
Italic concentration indicates a non-detect value.

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SSIs were found for three Appendix I metals (copper, nickel, and zinc), five Appendix III constituents (boron, calcium, chloride, field pH, and TDS), and eight Appendix IV constituents (barium, cobalt, lithium, molybdenum, radium-226, radium-228, selenium, and total radium). For the constituent that uses the DQR, beryllium did not have two consecutive detects.

When the October 2025 sampling event results are compared to the pre-ash sampling results from the eleven downgradient wells, current downgradient groundwater constituent concentrations are generally like concentrations reported prior to ash placement. In some cases, the BTV is not contained within the pre-ash placement range indicating that natural variability may lie beyond what was captured prior to the ash placement. Depending on the data distribution of the constituent, the BTVs have been computed to allow for one to two verification samples should an opportunity for additional sampling to take place. The validity of the initial exceedance can be confirmed by verification sampling. However, for practical purposes, should a sampling event of interest exceed the respective BTV, the event is considered an SSI.

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Appendix A – Background Wells Tables

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Table 1: Summary Statistics, Non-Detects Included

ID	Wells	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	Date Range	Distributions Fit[a]	Recommended Distribution	Mean	Median	Minimum	Maximum	SD	CV	Skewness
1_111	BG-1 & BG-2	App. I Metals	Copper	ug/L	57	43	75%	2018-10-22 to 2025-10-21	Nonparametric	Nonparametric	2.86	2.50	0.620	11.4	1.92	0.670	1.81
1_117	BG-1 & BG-2	App. I Metals	Nickel	ug/L	57	40	70%	2018-10-22 to 2025-10-21	Gamma; Lognormal	Nonparametric	2.47	2.10	0.420	14.1	1.92	0.777	4.03
1_122	BG-1 & BG-2	App. I Metals	Silver	ug/L	57	56	98%	2018-10-22 to 2025-10-21		Nonparametric	1.75	2.50	0.0700	2.89	0.939	0.538	-0.433
1_127	BG-1 & BG-2	App. I Metals	Vanadium	ug/L	62	31	50%	2016-02-16 to 2025-10-21	Nonparametric	Nonparametric	4.13	3.90	0.810	8.40	2.04	0.493	-0.0897
1_128	BG-1 & BG-2	App. I Metals	Zinc	ug/L	58	38	66%	2015-10-15 to 2025-10-21	Gamma; Lognormal	Nonparametric	8.85	9.50	3.00	34.2	5.71	0.646	2.73
2_105	BG-1 & BG-2	App. III	Boron	ug/L	64	24	38%	2015-10-15 to 2025-10-21	Lognormal	Lognormal	10.8	8.50	0.570	56.5	8.58	0.796	2.88
2_107	BG-1 & BG-2	App. III	Calcium	ug/L	71	0	0%	2015-10-15 to 2025-10-21	Nonparametric	Nonparametric	59694	29500	18600	124000	42643	0.714	0.486
2_108	BG-1 & BG-2	App. III	Chloride	mg/L	71	0	0%	2015-10-15 to 2025-10-21	Normal	Normal	234	239	149	311	39.8	0.170	-0.273
2_112	BG-1 & BG-2	App. III	Fluoride	mg/L	71	0	0%	2015-10-15 to 2025-10-21	Lognormal	Lognormal	0.197	0.190	0.100	0.410	0.0635	0.323	1.15
2_118	BG-1 & BG-2	App. III	pH (Field)	S.U.	69	0	0%	2015-10-15 to 2025-10-25	Gamma; Lognormal; Normal	Normal	6.62	6.60	6.10	7.11	0.245	0.0370	-0.141
2_123	BG-1 & BG-2	App. III	Sulfate	mg/L	71	0	0%	2015-10-15 to 2025-10-21	Nonparametric	Nonparametric	70.6	23.0	15.1	226	68.3	0.967	0.897
2_125	BG-1 & BG-2	App. III	Total Dissolved Solids	mg/L	71	0	0%	2015-10-15 to 2025-10-21	Nonparametric	Nonparametric	832	650	487	2630	360	0.433	2.10
3_101	BG-1 & BG-2	App. IV	Antimony	ug/L	57	55	96%	2018-10-22 to 2025-10-21		Nonparametric	3.61	3.60	0.200	5.50	1.08	0.299	-0.0541
3_102	BG-1 & BG-2	App. IV	Arsenic	ug/L	57	52	91%	2018-10-22 to 2025-10-21	Gamma; Lognormal; Normal	Nonparametric	4.71	4.70	0.360	34.0	4.21	0.893	6.20
3_103	BG-1 & BG-2	App. IV	Barium	ug/L	71	0	0%	2015-10-15 to 2025-10-21	Nonparametric	Nonparametric	214	254	49.5	443	118	0.553	-0.226
3_104	BG-1 & BG-2	App. IV	Beryllium	ug/L	57	57	100%	2018-10-22 to 2025-10-21		Nonparametric	0.395	0.440	0.0500	0.700	0.241	0.611	0.205
3_106	BG-1 & BG-2	App. IV	Cadmium	ug/L	57	55	96%	2018-10-22 to 2025-10-21		Nonparametric	0.380	0.400	0.0600	0.538	0.0937	0.247	-1.15
3_109	BG-1 & BG-2	App. IV	Chromium	ug/L	57	45	79%	2018-10-22 to 2025-10-21	Nonparametric	Nonparametric	2.59	1.70	0.500	26.5	3.50	1.35	5.88
3_110	BG-1 & BG-2	App. IV	Cobalt	ug/L	57	45	79%	2018-10-22 to 2025-10-21	Normal	Nonparametric	1.98	1.30	0.0650	3.60	1.23	0.624	0.318
3_112	BG-1 & BG-2	App. IV	Fluoride	mg/L	71	0	0%	2015-10-15 to 2025-10-21	Lognormal	Lognormal	0.197	0.190	0.100	0.410	0.0635	0.323	1.15
3_113	BG-1 & BG-2	App. IV	Lead	ug/L	57	52	91%	2018-10-22 to 2025-10-21	Gamma; Lognormal; Normal	Nonparametric	3.48	2.50	0.0770	14.1	2.81	0.807	2.63
3_114	BG-1 & BG-2	App. IV	Lithium	ug/L	71	3	4%	2015-10-15 to 2025-10-21	Nonparametric	Nonparametric	19.1	17.8	0.390	51.1	7.60	0.398	1.33
3_115	BG-1 & BG-2	App. IV	Mercury	ug/L	57	49	86%	2018-10-22 to 2025-10-21	Gamma; Lognormal; Normal	Nonparametric	0.115	0.120	0.0700	0.200	0.0207	0.180	1.27
3_116	BG-1 & BG-2	App. IV	Molybdenum	ug/L	58	41	71%	2016-02-16 to 2025-10-21	Gamma; Normal	Nonparametric	4.02	3.90	0.170	16.0	3.03	0.753	2.15
3_119	BG-1 & BG-2	App. IV	Radium-226	pCi/L	68	0	0%	2015-10-15 to 2025-10-21	Normal	Normal	0.209	0.183	-0.780	1.22	0.345	1.65	0.164
3_120	BG-1 & BG-2	App. IV	Radium-228	pCi/L	68	0	0%	2015-10-15 to 2025-10-21	Normal	Normal	0.598	0.562	-0.271	1.96	0.393	0.657	0.665
3_121	BG-1 & BG-2	App. IV	Selenium	ug/L	57	54	95%	2018-10-22 to 2025-10-21		Nonparametric	4.49	4.70	0.0730	6.16	1.01	0.226	-2.77
3_124	BG-1 & BG-2	App. IV	Thallium	ug/L	58	54	93%	2016-02-16 to 2025-10-21		Nonparametric	0.288	0.0500	0.0200	13.7	1.79	6.21	7.61
3_126	BG-1 & BG-2	App. IV	Total Radium	pCi/L	68	0	0%	2015-10-15 to 2025-10-21	Normal	Normal	0.858	0.808	0	2.59	0.512	0.596	1.07

[a] Non-detects are excluded from goodness-of-fit tests.

Table 2: Summary Statistics, Non-Detects Excluded

ID	Wells	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	Date Range	Distributions Fit	Recommended Distribution	Mean	Median	Minimum	Maximum	SD	CV	Skewness
1_111	BG-1 & BG-2	App. I Metals	Copper	ug/L	57	43	75%	2018-10-22 to 2025-10-21	Nonparametric	Nonparametric	3.0	1.30	0.640	11.4	3.28	1.09	1.66
1_117	BG-1 & BG-2	App. I Metals	Nickel	ug/L	57	40	70%	2018-10-22 to 2025-10-21	Gamma; Lognormal	Nonparametric	2.79	1.80	0.980	14.1	3.08	1.10	3.46
1_122	BG-1 & BG-2	App. I Metals	Silver	ug/L	57	56	98%	2018-10-22 to 2025-10-21		Nonparametric	0.700	0.700	0.700	0.700	NA	NA	NA
1_127	BG-1 & BG-2	App. I Metals	Vanadium	ug/L	62	31	50%	2016-02-16 to 2025-10-21	Nonparametric	Nonparametric	5.49	5.70	0.810	8.40	1.68	0.306	-1.51
1_128	BG-1 & BG-2	App. I Metals	Zinc	ug/L	58	38	66%	2015-10-15 to 2025-10-21	Gamma; Lognormal	Nonparametric	11.2	9.15	3.30	34.2	8.46	0.753	1.90
2_105	BG-1 & BG-2	App. III	Boron	ug/L	64	24	38%	2015-10-15 to 2025-10-21	Lognormal	Lognormal	13.8	12.9	5.50	56.5	9.39	0.679	2.76
2_107	BG-1 & BG-2	App. III	Calcium	ug/L	71	0	0%	2015-10-15 to 2025-10-21	Nonparametric	Nonparametric	59694	29500	18600	124000	42643	0.714	0.486
2_108	BG-1 & BG-2	App. III	Chloride	mg/L	71	0	0%	2015-10-15 to 2025-10-21	Normal	Normal	234	239	149	311	39.8	0.170	-0.273
2_112	BG-1 & BG-2	App. III	Fluoride	mg/L	71	0	0%	2015-10-15 to 2025-10-21	Lognormal	Lognormal	0.197	0.190	0.100	0.410	0.0635	0.323	1.15
2_118	BG-1 & BG-2	App. III	pH (Field)	S.U.	69	0	0%	2015-10-15 to 2025-10-25	Gamma; Lognormal; Normal	Normal	6.62	6.60	6.10	7.11	0.245	0.0370	-0.141
2_123	BG-1 & BG-2	App. III	Sulfate	mg/L	71	0	0%	2015-10-15 to 2025-10-21	Nonparametric	Nonparametric	70.6	23.0	15.1	226	68.3	0.967	0.897
2_125	BG-1 & BG-2	App. III	Total Dissolved Solids	mg/L	71	0	0%	2015-10-15 to 2025-10-21	Nonparametric	Nonparametric	832	650	487	2630	360	0.433	2.10
3_101	BG-1 & BG-2	App. IV	Antimony	ug/L	57	55	96%	2018-10-22 to 2025-10-21		Nonparametric	3.0	3.0	0.790	5.20	3.12	1.04	NA
3_102	BG-1 & BG-2	App. IV	Arsenic	ug/L	57	52	91%	2018-10-22 to 2025-10-21	Gamma; Lognormal; Normal	Nonparametric	4.03	4.80	0.360	8.80	3.54	0.876	0.241
3_103	BG-1 & BG-2	App. IV	Barium	ug/L	71	0	0%	2015-10-15 to 2025-10-21	Nonparametric	Nonparametric	214	254	49.5	443	118	0.553	-0.226
3_106	BG-1 & BG-2	App. IV	Cadmium	ug/L	57	55	96%	2018-10-22 to 2025-10-21		Nonparametric	0.450	0.450	0.400	0.500	0.0707	0.157	NA
3_109	BG-1 & BG-2	App. IV	Chromium	ug/L	57	45	79%	2018-10-22 to 2025-10-21	Nonparametric	Nonparametric	3.96	1.60	0.650	26.5	7.30	1.84	3.16
3_110	BG-1 & BG-2	App. IV	Cobalt	ug/L	57	45	79%	2018-10-22 to 2025-10-21	Normal	Nonparametric	1.24	1.20	0.0650	2.30	0.565	0.456	-0.117
3_112	BG-1 & BG-2	App. IV	Fluoride	mg/L	71	0	0%	2015-10-15 to 2025-10-21	Lognormal	Lognormal	0.197	0.190	0.100	0.410	0.0635	0.323	1.15
3_113	BG-1 & BG-2	App. IV	Lead	ug/L	57	52	91%	2018-10-22 to 2025-10-21	Gamma; Lognormal; Normal	Nonparametric	5.45	3.50	0.970	14.1	5.10	0.936	1.68
3_114	BG-1 & BG-2	App. IV	Lithium	ug/L	71	3	4%	2015-10-15 to 2025-10-21	Nonparametric	Nonparametric	19.9	17.9	11.9	51.1	6.79	0.341	2.41
3_115	BG-1 & BG-2	App. IV	Mercury	ug/L	57	49	86%	2018-10-22 to 2025-10-21	Gamma; Lognormal; Normal	Nonparametric	0.144	0.140	0.0900	0.200	0.0325	0.226	0.153
3_116	BG-1 & BG-2	App. IV	Molybdenum	ug/L	58	41	71%	2016-02-16 to 2025-10-21	Gamma; Normal	Nonparametric	6.10	5.50	0.170	13.6	3.59	0.589	0.584
3_119	BG-1 & BG-2	App. IV	Radium-226	pCi/L	68	0	0%	2015-10-15 to 2025-10-21	Normal	Normal	0.209	0.183	-0.780	1.22	0.345	1.65	0.164
3_120	BG-1 & BG-2	App. IV	Radium-228	pCi/L	68	0	0%	2015-10-15 to 2025-10-21	Normal	Normal	0.598	0.562	-0.271	1.96	0.393	0.657	0.665
3_121	BG-1 & BG-2	App. IV	Selenium	ug/L	57	54	95%	2018-10-22 to 2025-10-21		Nonparametric	2.05	0.0890	0.0730	6.00	3.42	1.66	1.73
3_124	BG-1 & BG-2	App. IV	Thallium	ug/L	58	54	93%	2016-02-16 to 2025-10-21		Nonparametric	3.48	0.0800	0.0570	13.7	6.81	1.96	2.0
3_126	BG-1 & BG-2	App. IV	Total Radium	pCi/L	68	0	0%	2015-10-15 to 2025-10-21	Normal	Normal	0.858	0.808	0	2.59	0.512	0.596	1.07

Table 3: Goodness-of-Fit Tests, Non-Detects Excluded

								Normal				Lognormal				Gamma						
								S-W		Lilliefors		S-W		Lilliefors		K-S		A-D				
ID	Wells	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	Stat.	p-Value	Stat.	p-Value	Stat.	p-Value	Stat.	p-Value	Stat.	p-Value	Stat.	p-Value	Log-SD (NDs excl.)	ProUCL Distributions Fit	Recommended Distribution
1_111	BG-1 & BG-2	App. I Metals	Copper	ug/L	57	43	75%	0.732	0.001	0.330	0.000	0.868	0.039	0.266	0.008	0.308	< 0.01	1.119	< 0.01	0.950	Nonparametric	Nonparametric
1_117	BG-1 & BG-2	App. I Metals	Nickel	ug/L	57	40	70%	0.540	0.000	0.279	0.001	0.879	0.031	0.151	0.379	0.200	0.05 <= p < 0.10	1.207	< 0.01	0.660	Gamma; Lognormal	Nonparametric
1_122	BG-1 & BG-2	App. I Metals	Silver	ug/L	57	56	98%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
1_127	BG-1 & BG-2	App. I Metals	Vanadium	ug/L	62	31	50%	0.790	0.000	0.280	0.000	0.586	0.000	0.385	0.000	0.359	< 0.01	4.497	< 0.01	0.532	Nonparametric	Nonparametric
1_128	BG-1 & BG-2	App. I Metals	Zinc	ug/L	58	38	66%	0.767	0.000	0.202	0.032	0.959	0.524	0.090	0.943	0.119	>= 0.10	0.535	>= 0.10	0.640	Gamma; Lognormal	Nonparametric
2_105	BG-1 & BG-2	App. III	Boron	ug/L	64	24	38%	0.721	0.000	0.188	0.001	0.923	0.009	0.136	0.061	0.147	0.01 <= p < 0.05	1.117	< 0.01	0.547	Lognormal	Lognormal
2_107	BG-1 & BG-2	App. III	Calcium	ug/L	71	0	0%	0.733	0.000	0.322	0.000	0.770	0.000	0.269	0.000	0.293	< 0.01	8.020	< 0.01	0.733	Nonparametric	Nonparametric
2_108	BG-1 & BG-2	App. III	Chloride	mg/L	71	0	0%	0.973	0.123	0.105	0.051	0.954	0.011	0.128	0.006	0.125	< 0.01	0.998	0.01 <= p < 0.05	0.178	Normal	Normal
2_112	BG-1 & BG-2	App. III	Fluoride	mg/L	71	0	0%	0.912	0.000	0.151	0.000	0.978	0.232	0.089	0.171	0.109	0.01 <= p < 0.05	0.855	0.01 <= p < 0.05	0.303	Lognormal	Lognormal
2_118	BG-1 & BG-2	App. III	pH (Field)	S.U.	69	0	0%	0.970	0.102	0.098	0.095	0.969	0.086	0.103	0.069	0.103	0.05 <= p < 0.10	0.790	0.01 <= p < 0.05	0.037	Gamma; Lognormal; Normal	Normal
2_123	BG-1 & BG-2	App. III	Sulfate	mg/L	71	0	0%	0.749	0.000	0.356	0.000	0.766	0.000	0.329	0.000	0.348	< 0.01	7.833	< 0.01	0.975	Nonparametric	Nonparametric
2_125	BG-1 & BG-2	App. III	Total Dissolved Solids	mg/L	71	0	0%	0.764	0.000	0.267	0.000	0.862	0.000	0.248	0.000	0.260	< 0.01	4.142	< 0.01	0.364	Nonparametric	Nonparametric
3_101	BG-1 & BG-2	App. IV	Antimony	ug/L	57	55	96%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		1.332		Nonparametric
3_102	BG-1 & BG-2	App. IV	Arsenic	ug/L	57	52	91%	0.916	0.501	0.226	0.544	0.866	0.249	0.303	0.136	0.296	>= 0.10	0.429	>= 0.10	1.407	Gamma; Lognormal; Normal	Nonparametric
3_103	BG-1 & BG-2	App. IV	Barium	ug/L	71	0	0%	0.868	0.000	0.181	0.000	0.818	0.000	0.266	0.000	0.241	< 0.01	5.005	< 0.01	0.741	Nonparametric	Nonparametric
3_104	BG-1 & BG-2	App. IV	Beryllium	ug/L	57	57	100%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
3_106	BG-1 & BG-2	App. IV	Cadmium	ug/L	57	55	96%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		0.158		Nonparametric
3_109	BG-1 & BG-2	App. IV	Chromium	ug/L	57	45	79%	0.477	0.000	0.439	0.000	0.813	0.013	0.317	0.002	0.399	< 0.01	1.683	< 0.01	1.036	Nonparametric	Nonparametric
3_110	BG-1 & BG-2	App. IV	Cobalt	ug/L	57	45	79%	0.950	0.642	0.208	0.161	0.647	0.000	0.319	0.001	0.271	0.01 <= p < 0.05	1.092	< 0.01	0.913	Normal	Nonparametric
3_112	BG-1 & BG-2	App. IV	Fluoride	mg/L	71	0	0%	0.912	0.000	0.151	0.000	0.978	0.232	0.089	0.171	0.109	0.01 <= p < 0.05	0.855	0.01 <= p < 0.05	0.303	Lognormal	Lognormal
3_113	BG-1 & BG-2	App. IV	Lead	ug/L	57	52	91%	0.835	0.152	0.289	0.186	0.977	0.915	0.213	0.640	0.195	>= 0.10	0.258	>= 0.10	0.972	Gamma; Lognormal; Normal	Nonparametric
3_114	BG-1 & BG-2	App. IV	Lithium	ug/L	71	3	4%	0.780	0.000	0.156	0.000	0.926	0.001	0.122	0.014	0.137	< 0.01	1.852	< 0.01	0.281	Nonparametric	Nonparametric
3_115	BG-1 & BG-2	App. IV	Mercury	ug/L	57	49	86%	0.958	0.790	0.204	0.421	0.943	0.643	0.245	0.169	0.230	>= 0.10	0.324	>= 0.10	0.236	Gamma; Lognormal; Normal	Nonparametric
3_116	BG-1 & BG-2	App. IV	Molybdenum	ug/L	58	41	71%	0.956	0.560	0.147	0.428	0.762	0.001	0.222	0.026	0.152	>= 0.10	0.480	>= 0.10	0.993	Gamma; Normal	Nonparametric
3_119	BG-1 & BG-2	App. IV	Radium-226	pCi/L	68	0	0%	0.963	0.041	0.096	0.128	NA	NA	NA	NA	NA		NA		NA	Normal	Normal
3_120	BG-1 & BG-2	App. IV	Radium-228	pCi/L	68	0	0%	0.972	0.132	0.071	0.546	NA	NA	NA	NA	NA		NA		NA	Normal	Normal
3_121	BG-1 & BG-2	App. IV	Selenium	ug/L	57	54	95%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		2.490		Nonparametric
3_124	BG-1 & BG-2	App. IV	Thallium	ug/L	58	54	93%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		2.651		Nonparametric
3_126	BG-1 & BG-2	App. IV	Total Radium	pCi/L	68	0	0%	0.934	0.001	0.071	0.550	NA	NA	NA	NA	NA		NA		NA	Normal	Normal

Note: p-values above 0.05 suggest a fit to the tested distribution; a distribution passes its GOF test when at least one of the two p-values is above 0.05.

Table 4: Autocorrelation Tests, Non-Detects Excluded

ID	Wells	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	Autocorrelation	Box-Ljung p-value	Sig.
1_111	BG-1 & BG-2	App. I Metals	Copper	ug/L	57	43	75%	0.384	0.111	
1_117	BG-1 & BG-2	App. I Metals	Nickel	ug/L	57	40	70%	0.047	0.834	
1_122	BG-1 & BG-2	App. I Metals	Silver	ug/L	57	56	98%	NA	NA	
1_127	BG-1 & BG-2	App. I Metals	Vanadium	ug/L	62	31	50%	0.132	0.440	
1_128	BG-1 & BG-2	App. I Metals	Zinc	ug/L	58	38	66%	0.050	0.810	
2_105	BG-1 & BG-2	App. III	Boron	ug/L	64	24	38%	0.293	0.054	
2_107	BG-1 & BG-2	App. III	Calcium	ug/L	71	0	0%	-0.566	0.000	***
2_108	BG-1 & BG-2	App. III	Chloride	mg/L	71	0	0%	-0.048	0.681	
2_112	BG-1 & BG-2	App. III	Fluoride	mg/L	71	0	0%	0.425	0.000	***
2_118	BG-1 & BG-2	App. III	pH (Field)	S.U.	69	0	0%	-0.457	0.000	***
2_123	BG-1 & BG-2	App. III	Sulfate	mg/L	71	0	0%	-0.371	0.001	**
2_125	BG-1 & BG-2	App. III	Total Dissolved Solids	mg/L	71	0	0%	-0.425	0.000	***
3_101	BG-1 & BG-2	App. IV	Antimony	ug/L	57	55	96%	-0.500	0.157	
3_102	BG-1 & BG-2	App. IV	Arsenic	ug/L	57	52	91%	0.056	0.868	
3_103	BG-1 & BG-2	App. IV	Barium	ug/L	71	0	0%	-0.198	0.089	
3_106	BG-1 & BG-2	App. IV	Cadmium	ug/L	57	55	96%	-0.500	0.157	
3_109	BG-1 & BG-2	App. IV	Chromium	ug/L	57	45	79%	-0.113	0.659	
3_110	BG-1 & BG-2	App. IV	Cobalt	ug/L	57	45	79%	-0.175	0.495	
3_112	BG-1 & BG-2	App. IV	Fluoride	mg/L	71	0	0%	0.425	0.000	***
3_113	BG-1 & BG-2	App. IV	Lead	ug/L	57	52	91%	0.151	0.655	
3_114	BG-1 & BG-2	App. IV	Lithium	ug/L	71	3	4%	0.212	0.074	
3_115	BG-1 & BG-2	App. IV	Mercury	ug/L	57	49	86%	0.029	0.923	
3_116	BG-1 & BG-2	App. IV	Molybdenum	ug/L	58	41	71%	0.611	0.006	**
3_119	BG-1 & BG-2	App. IV	Radium-226	pCi/L	68	0	0%	0.087	0.464	
3_120	BG-1 & BG-2	App. IV	Radium-228	pCi/L	68	0	0%	0.133	0.264	
3_121	BG-1 & BG-2	App. IV	Selenium	ug/L	57	54	95%	-0.165	0.651	
3_124	BG-1 & BG-2	App. IV	Thallium	ug/L	58	54	93%	-0.084	0.812	
3_126	BG-1 & BG-2	App. IV	Total Radium	pCi/L	68	0	0%	0.185	0.120	

*** p < 0.001, ** p < 0.01, * p < 0.05

Table 5: Outlier Counts by Date

Date	Count
2016-02-16	1
2016-04-05	1
2017-04-03	1
2019-10-14	2
2021-04-12	2
2022-07-11	1
2022-10-17	2
2023-01-24	2
2023-04-24	1
2023-04-27	1
2024-01-23	1
2024-04-01	1

Table 6: Outliers Identified at the 1% Significance Level, Non-Detects Excluded

ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	No. Detects	Date	Dilution	Value
1_117	BG-1	App. I Metals	Nickel	ug/L	57	40	70%	17	2022-10-17	1	14.1
1_127	BG-2	App. I Metals	Vanadium	ug/L	62	31	50%	31	2023-04-24	1	0.810
1_127	BG-2	App. I Metals	Vanadium	ug/L	62	31	50%	31	2023-01-24	1	1.10
1_127	BG-2	App. I Metals	Vanadium	ug/L	62	31	50%	31	2022-07-11	1	1.40
1_127	BG-1	App. I Metals	Vanadium	ug/L	62	31	50%	31	2023-01-24	1	8.40
1_127	BG-2	App. I Metals	Vanadium	ug/L	62	31	50%	31	2019-10-14	1	8.30
1_128	BG-2	App. I Metals	Zinc	ug/L	58	38	66%	20	2019-10-14	1	34.2
2_105	BG-1	App. III	Boron	ug/L	64	24	38%	40	2021-04-12	1	56.5
2_105	BG-2	App. III	Boron	ug/L	64	24	38%	40	2021-04-12	1	36.2
2_125	BG-1	App. III	Total Dissolved Solids	mg/L	71	0	0%	71	2017-04-03	NA	2630
3_109	BG-1	App. IV	Chromium	ug/L	57	45	79%	12	2022-10-17	1	26.5
3_114	BG-1	App. IV	Lithium	ug/L	71	3	4%	68	2024-01-23	1	51.1
3_114	BG-1	App. IV	Lithium	ug/L	71	3	4%	68	2023-04-27	1	43.7
3_114	BG-1	App. IV	Lithium	ug/L	71	3	4%	68	2016-04-05	NA	36.8
3_121	BG-1	App. IV	Selenium	ug/L	57	54	95%	3	2024-04-01	1	6.00
3_124	BG-1	App. IV	Thallium	ug/L	58	54	93%	4	2016-02-16	NA	13.7

Table 7: Seasonality Tests

						Full									Without Non-Detects								
						Sample Size					p-Value				Sample Size					p-Value			
ID	Wells	Constituent Type	Constituent	Unit	% NDs	Winter	Spring	Summer	Fall	Total	Kruskal-Wallis		ANOVA	Log ANOVA	Winter	Spring	Summer	Fall	Total	Kruskal-Wallis		ANOVA	Log ANOVA
1_111	BG-1 & BG-2	App. I Metals	Copper	ug/L	75%	14	14	14	15	57	0.298	NA	0.104	0.294	2	4	3	5	14	0.422	NA	0.240	0.422
1_117	BG-1 & BG-2	App. I Metals	Nickel	ug/L	70%	14	14	14	15	57	0.793	NA	0.429	0.695	5	2	7	3	17	0.423	NA	0.118	0.159
1_122	BG-1 & BG-2	App. I Metals	Silver	ug/L	98%	14	14	14	15	57	0.310	NA	0.417	0.333	1	0	0	0	1	NA	NA	NA	NA
1_127	BG-1 & BG-2	App. I Metals	Vanadium	ug/L	50%	16	14	16	16	62	0.661	NA	0.541	0.536	8	7	8	8	31	0.807	NA	0.763	0.782
1_128	BG-1 & BG-2	App. I Metals	Zinc	ug/L	66%	14	14	14	16	58	0.916	NA	0.825	0.890	4	8	5	3	20	0.737	NA	0.713	0.829
2_105	BG-1 & BG-2	App. III	Boron	ug/L	38%	15	17	15	17	64	0.870	NA	0.671	0.862	9	10	10	11	40	0.972	NA	0.356	0.734
2_107	BG-1 & BG-2	App. III	Calcium	ug/L	0%	18	18	17	18	71	0.740	NA	0.958	0.983	18	18	17	18	71	0.740	NA	0.958	0.983
2_108	BG-1 & BG-2	App. III	Chloride	mg/L	0%	18	18	17	18	71	0.847	NA	0.754	0.710	18	18	17	18	71	0.847	NA	0.754	0.710
2_112	BG-1 & BG-2	App. III	Fluoride	mg/L	0%	18	18	17	18	71	0.808	NA	0.960	0.953	18	18	17	18	71	0.808	NA	0.960	0.953
2_118	BG-1 & BG-2	App. III	pH (Field)	S.U.	0%	18	17	17	17	69	0.284	NA	0.283	0.281	18	17	17	17	69	0.284	NA	0.283	0.281
2_123	BG-1 & BG-2	App. III	Sulfate	mg/L	0%	18	18	17	18	71	0.774	NA	0.749	0.942	18	18	17	18	71	0.774	NA	0.749	0.942
2_125	BG-1 & BG-2	App. III	Total Dissolved Solids	mg/L	0%	18	18	17	18	71	0.797	NA	0.655	0.808	18	18	17	18	71	0.797	NA	0.655	0.808
3_101	BG-1 & BG-2	App. IV	Antimony	ug/L	96%	14	14	14	15	57	0.458	NA	0.073	0.061	0	1	1	0	2	0.317	NA	NA	NA
3_102	BG-1 & BG-2	App. IV	Arsenic	ug/L	91%	14	14	14	15	57	0.818	NA	0.512	0.369	1	3	1	0	5	0.766	NA	0.912	0.716
3_103	BG-1 & BG-2	App. IV	Barium	ug/L	0%	18	18	17	18	71	0.782	NA	0.924	0.961	18	18	17	18	71	0.782	NA	0.924	0.961
3_104	BG-1 & BG-2	App. IV	Beryllium	ug/L	100%	14	14	14	15	57	0.686	NA	0.762	0.747	NA	NA	NA	NA	NA	NA	NA	NA	NA
3_106	BG-1 & BG-2	App. IV	Cadmium	ug/L	96%	14	14	14	15	57	0.614	NA	0.589	0.342	1	0	0	1	2	0.317	NA	NA	NA
3_109	BG-1 & BG-2	App. IV	Chromium	ug/L	79%	14	14	14	15	57	0.673	NA	0.244	0.466	3	3	3	3	12	0.853	NA	0.254	0.362
3_110	BG-1 & BG-2	App. IV	Cobalt	ug/L	79%	14	14	14	15	57	0.841	NA	0.897	0.860	3	4	4	1	12	0.769	NA	0.686	0.715
3_112	BG-1 & BG-2	App. IV	Fluoride	mg/L	0%	18	18	17	18	71	0.808	NA	0.960	0.953	18	18	17	18	71	0.808	NA	0.960	0.953
3_113	BG-1 & BG-2	App. IV	Lead	ug/L	91%	14	14	14	15	57	0.068	NA	0.012 *	0.032 *	0	2	2	1	5	0.165	NA	0.043 *	0.208
3_114	BG-1 & BG-2	App. IV	Lithium	ug/L	4%	18	18	17	18	71	0.150	NA	0.317	0.050	15	18	17	18	68	0.409	NA	0.499	0.493
3_115	BG-1 & BG-2	App. IV	Mercury	ug/L	86%	14	14	14	15	57	0.517	NA	0.704	0.669	3	1	3	1	8	0.529	NA	0.843	0.845
3_116	BG-1 & BG-2	App. IV	Molybdenum	ug/L	71%	15	14	14	15	58	0.244	NA	0.140	0.208	3	5	5	4	17	0.379	NA	0.290	0.360
3_119	BG-1 & BG-2	App. IV	Radium-226	pCi/L	0%	18	17	17	16	68	0.133	NA	0.180	NA	18	17	17	16	68	0.133	NA	0.180	NA
3_120	BG-1 & BG-2	App. IV	Radium-228	pCi/L	0%	18	17	17	16	68	0.983	NA	0.917	NA	18	17	17	16	68	0.983	NA	0.917	NA
3_121	BG-1 & BG-2	App. IV	Selenium	ug/L	95%	14	14	14	15	57	0.457	NA	0.660	0.194	0	3	0	0	3	NA	NA	NA	NA
3_124	BG-1 & BG-2	App. IV	Thallium	ug/L	93%	15	14	14	15	58	0.862	NA	0.426	0.589	1	2	1	0	4	0.259	NA	0.000 ***	0.008 **
3_126	BG-1 & BG-2	App. IV	Total Radium	pCi/L	0%	18	17	17	16	68	0.933	NA	0.819	NA	18	17	17	16	68	0.933	NA	0.819	NA

*** p < 0.001, ** p < 0.01, * p < 0.05

Table 8: Spatial Variability Tests

						Full									Without Non-Detects								
						Sample Size			p-Value						Sample Size			p-Value					
ID	Wells	Constituent Type	Constituent	Unit	% NDs	BG-1	BG-2	Total	Kruskal-Wallis		ANOVA		Log ANOVA		BG-1	BG-2	Total	Kruskal-Wallis		ANOVA		Log ANOVA	
1_111	BG-1 & BG-2	App. I Metals	Copper	ug/L	75%	29	28	57	0.916		0.599		0.907		7	7	14	1.000		0.692		0.998	
1_117	BG-1 & BG-2	App. I Metals	Nickel	ug/L	70%	29	28	57	0.621		0.698		0.651		9	8	17	0.531		0.535		0.976	
1_122	BG-1 & BG-2	App. I Metals	Silver	ug/L	98%	29	28	57	0.958		0.940		0.969		0	1	1	NA		NA		NA	
1_127	BG-1 & BG-2	App. I Metals	Vanadium	ug/L	50%	34	28	62	0.000	***	0.000	***	0.000	***	27	4	31	0.098		0.000	***	0.000	***
1_128	BG-1 & BG-2	App. I Metals	Zinc	ug/L	66%	30	28	58	0.273		0.434		0.406		11	9	20	0.210		0.397		0.269	
2_105	BG-1 & BG-2	App. III	Boron	ug/L	38%	37	27	64	0.000	***	0.004	**	0.001	**	19	21	40	0.000	***	0.009	**	0.000	***
2_107	BG-1 & BG-2	App. III	Calcium	ug/L	0%	43	28	71	0.000	***	0.000	***	0.000	***	43	28	71	0.000	***	0.000	***	0.000	***
2_108	BG-1 & BG-2	App. III	Chloride	mg/L	0%	43	28	71	0.004	**	0.002	**	0.001	***	43	28	71	0.004	**	0.002	**	0.001	***
2_112	BG-1 & BG-2	App. III	Fluoride	mg/L	0%	43	28	71	0.000	***	0.000	***	0.000	***	43	28	71	0.000	***	0.000	***	0.000	***
2_118	BG-1 & BG-2	App. III	pH (Field)	S.U.	0%	41	28	69	0.000	***	0.000	***	0.000	***	41	28	69	0.000	***	0.000	***	0.000	***
2_123	BG-1 & BG-2	App. III	Sulfate	mg/L	0%	43	28	71	0.000	***	0.000	***	0.000	***	43	28	71	0.000	***	0.000	***	0.000	***
2_125	BG-1 & BG-2	App. III	Total Dissolved Solids	mg/L	0%	43	28	71	0.000	***	0.000	***	0.000	***	43	28	71	0.000	***	0.000	***	0.000	***
3_101	BG-1 & BG-2	App. IV	Antimony	ug/L	96%	29	28	57	0.940		0.969		0.733		1	1	2	0.317		NA		NA	
3_102	BG-1 & BG-2	App. IV	Arsenic	ug/L	91%	29	28	57	0.974		0.408		0.836		3	2	5	0.564		0.642		0.614	
3_103	BG-1 & BG-2	App. IV	Barium	ug/L	0%	43	28	71	0.000	***	0.000	***	0.000	***	43	28	71	0.000	***	0.000	***	0.000	***
3_104	BG-1 & BG-2	App. IV	Beryllium	ug/L	100%	29	28	57	0.961		0.955		0.933		NA	NA	NA	NA		NA		NA	
3_106	BG-1 & BG-2	App. IV	Cadmium	ug/L	96%	29	28	57	0.973		0.978		0.972		1	1	2	0.317		NA		NA	
3_109	BG-1 & BG-2	App. IV	Chromium	ug/L	79%	29	28	57	0.697		0.288		0.543		8	4	12	0.307		0.389		0.251	
3_110	BG-1 & BG-2	App. IV	Cobalt	ug/L	79%	29	28	57	0.420		0.561		0.232		3	9	12	0.163		0.112		0.068	
3_112	BG-1 & BG-2	App. IV	Fluoride	mg/L	0%	43	28	71	0.000	***	0.000	***	0.000	***	43	28	71	0.000	***	0.000	***	0.000	***
3_113	BG-1 & BG-2	App. IV	Lead	ug/L	91%	29	28	57	0.684		0.451		0.371		0	5	5	NA		NA		NA	
3_114	BG-1 & BG-2	App. IV	Lithium	ug/L	4%	43	28	71	0.564		0.175		0.358		42	26	68	0.801		0.289		0.391	
3_115	BG-1 & BG-2	App. IV	Mercury	ug/L	86%	29	28	57	0.645		0.775		0.763		7	1	8	0.118		0.053		0.111	
3_116	BG-1 & BG-2	App. IV	Molybdenum	ug/L	71%	30	28	58	0.006	**	0.032	*	0.010	*	4	13	17	0.497		0.617		0.467	
3_119	BG-1 & BG-2	App. IV	Radium-226	pCi/L	0%	41	27	68	0.452		0.792		NA		41	27	68	0.452		0.792		NA	
3_120	BG-1 & BG-2	App. IV	Radium-228	pCi/L	0%	41	27	68	0.749		0.463		NA		41	27	68	0.749		0.463		NA	
3_121	BG-1 & BG-2	App. IV	Selenium	ug/L	95%	29	28	57	0.613		0.754		0.891		2	1	3	0.221		0.665		0.641	
3_124	BG-1 & BG-2	App. IV	Thallium	ug/L	93%	30	28	58	0.755		0.339		0.421		3	1	4	0.655		0.665		0.630	
3_126	BG-1 & BG-2	App. IV	Total Radium	pCi/L	0%	41	27	68	0.568		0.307		NA		41	27	68	0.568		0.307		NA	

*** p < 0.001, ** p < 0.01, * p < 0.05

Table 9: Trend Tests: Lognormal MLE and MK

ID	Wells	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	Type	Method	Slope	p-value	Trend
2_105	BG-1 & BG-2	App. III	Boron	ug/L	64	24	38%	Parametric	Lognormal MLE	0.000350	0.003	↑
2_107	BG-1 & BG-2	App. III	Calcium	ug/L	71	0	0%	Nonparametric	MK	0	0.949	↔
2_108	BG-1 & BG-2	App. III	Chloride	mg/L	71	0	0%	Parametric	Lognormal MLE	-0.0000737	0.000	↓
2_112	BG-1 & BG-2	App. III	Fluoride	mg/L	71	0	0%	Parametric	Lognormal MLE	0.000225	0.000	↑
2_118	BG-1 & BG-2	App. III	pH (Field)	S.U.	69	0	0%	Parametric	Lognormal MLE	0.00000979	0.017	↔
2_123	BG-1 & BG-2	App. III	Sulfate	mg/L	71	0	0%	Nonparametric	MK	0.00409	0.000	↑
2_125	BG-1 & BG-2	App. III	Total Dissolved Solids	mg/L	71	0	0%	Nonparametric	MK	0.00267	0.897	↔
3_103	BG-1 & BG-2	App. IV	Barium	ug/L	71	0	0%	Nonparametric	MK	-0.0396	0.000	↓
3_112	BG-1 & BG-2	App. IV	Fluoride	mg/L	71	0	0%	Parametric	Lognormal MLE	0.000225	0.000	↑

Table 10: Trend Tests: Piecewise Linear-Linear

								Line 1			Line 2				
ID	Wells	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	Slope	p-Value	Trend	Slope	p-Value	Trend	Break 1	R-Squared
1_111	BG-1 & BG-2	App. I Metals	Copper	ug/L	57	43	75%	0.0021396	0.090	↔	-0.0026462	0.000	↓	2021-07-08	0.365
1_117	BG-1 & BG-2	App. I Metals	Nickel	ug/L	57	40	70%	0.001956	0.048	↔	-0.0018411	0.034	↔	2022-02-08	0.144
1_122	BG-1 & BG-2	App. I Metals	Silver	ug/L	57	56	98%	-0.0010686	0.000	↓	0.021522	0.000	↑	2025-06-27	0.689
1_127	BG-1 & BG-2	App. I Metals	Vanadium	ug/L	62	31	50%	-0.0017958	0.662	↔	0.00013112	0.720	↔	2018-10-21	0.024
1_128	BG-1 & BG-2	App. I Metals	Zinc	ug/L	58	38	66%	0.0020524	0.182	↔	-0.0084893	0.101	↔	2023-07-24	0.097
2_105	BG-1 & BG-2	App. III	Boron	ug/L	64	24	38%	0.0055684	0.018	↔	-0.00063988	0.826	↔	2021-04-12	0.143
2_107	BG-1 & BG-2	App. III	Calcium	ug/L	71	0	0%	28.409	0.052	↔	-1.252	0.907	↔	2020-06-07	0.113
2_108	BG-1 & BG-2	App. III	Chloride	mg/L	71	0	0%	-0.054324	0.003	↓	-0.0029373	0.673	↔	2019-04-16	0.291
2_112	BG-1 & BG-2	App. III	Fluoride	mg/L	71	0	0%	< 0.0001	0.000	↑	-0.00039302	0.064	↔	2025-03-24	0.571
2_118	BG-1 & BG-2	App. III	pH (Field)	S.U.	69	0	0%	< 0.0001	0.904	↔	0.00011473	0.118	↔	2020-10-14	0.092
2_123	BG-1 & BG-2	App. III	Sulfate	mg/L	71	0	0%	0.037827	0.051	↔	0.01674	0.383	↔	2021-01-25	0.187
2_125	BG-1 & BG-2	App. III	Total Dissolved Solids	mg/L	71	0	0%	0.40747	0.656	↔	0.020809	0.696	↔	2017-04-02	0.032
3_101	BG-1 & BG-2	App. IV	Antimony	ug/L	57	55	96%	-0.003333	0.263	↔	0.00064887	0.008	↑	2019-11-02	0.145
3_102	BG-1 & BG-2	App. IV	Arsenic	ug/L	57	52	91%	-0.00094856	0.259	↔	0.036851	0.395	↔	2025-06-23	0.044
3_103	BG-1 & BG-2	App. IV	Barium	ug/L	71	0	0%	-0.10719	0.001	↓	-0.01032	0.735	↔	2020-11-07	0.309
3_104	BG-1 & BG-2	App. IV	Beryllium	ug/L	57	57	100%	0.00033941	0.102	↔	-0.00021709	0.004	↓	2021-01-26	0.191
3_106	BG-1 & BG-2	App. IV	Cadmium	ug/L	57	55	96%	> -0.0001	0.000	↓	0.00075193	0.000	↑	2024-09-27	0.570
3_109	BG-1 & BG-2	App. IV	Chromium	ug/L	57	45	79%	0.0023284	0.086	↔	-0.0043802	0.050	↔	2022-10-17	0.134
3_110	BG-1 & BG-2	App. IV	Cobalt	ug/L	57	45	79%	0.0018963	0.046	↔	-0.0016031	0.000	↓	2021-04-11	0.359
3_112	BG-1 & BG-2	App. IV	Fluoride	mg/L	71	0	0%	< 0.0001	0.000	↑	-0.00039302	0.064	↔	2025-03-24	0.571
3_113	BG-1 & BG-2	App. IV	Lead	ug/L	57	52	91%	0.0022813	0.469	↔	-0.00057442	0.511	↔	2020-11-02	0.020
3_114	BG-1 & BG-2	App. IV	Lithium	ug/L	71	3	4%	-0.0054736	0.067	↔	0.0050421	0.003	↑	2020-01-14	0.167
3_115	BG-1 & BG-2	App. IV	Mercury	ug/L	57	49	86%	< 0.0001	0.001	↑	> -0.0001	0.000	↓	2021-10-08	0.356
3_116	BG-1 & BG-2	App. IV	Molybdenum	ug/L	58	41	71%	-0.0012375	0.169	↔	-0.0003161	0.894	↔	2023-04-26	0.073
3_119	BG-1 & BG-2	App. IV	Radium-226	pCi/L	68	0	0%	-0.00011803	0.008	↓	0.0010948	0.506	↔	2025-01-23	0.111
3_120	BG-1 & BG-2	App. IV	Radium-228	pCi/L	68	0	0%	-0.0019649	0.496	↔	< 0.0001	0.644	↔	2016-05-10	0.028
3_121	BG-1 & BG-2	App. IV	Selenium	ug/L	57	54	95%	-0.0011646	0.000	↓	0.0024308	0.000	↑	2023-04-26	0.367

(Table continues on next page)

Table 10: Trend Tests: Piecewise Linear-Linear *(continued)*

								Line 1			Line 2				
ID	Wells	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	Slope	p-Value	Trend	Slope	p-Value	Trend	Break 1	R-Squared
3_124	BG-1 & BG-2	App. IV	Thallium	ug/L	58	54	93%	-0.012712	0.000	↓	< 0.0001	0.218	↔	2019-01-22	0.992
3_126	BG-1 & BG-2	App. IV	Total Radium	pCi/L	68	0	0%	-0.00012554	0.109	↔	0.00060716	0.414	↔	2024-03-31	0.049

Table 11: Trend Tests: Piecewise Linear-Linear-Linear

								Line 1			Line 2			Line 3					
ID	Wells	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	Slope	p-Value	Trend	Slope	p-Value	Trend	Slope	p-Value	Trend	Break 1	Break 2	R-Squared
1_111	BG-1 & BG-2	App. I Metals	Copper	ug/L	57	43	75%	0.0028554	0.004	↑	-0.011244	0.106	↔	-0.0012961	0.140	↔	2021-11-16	2022-07-28	0.444
1_117	BG-1 & BG-2	App. I Metals	Nickel	ug/L	57	40	70%	-0.0048094	0.204	↔	0.014056	0.158	↔	-0.001467	0.009	↓	2020-02-11	2020-10-22	0.218
1_122	BG-1 & BG-2	App. I Metals	Silver	ug/L	57	56	98%	> -0.0001	1.000	↔	-0.0018107	0.000	↓	0.0076166	0.000	↑	2021-05-27	2024-12-31	0.726
1_127	BG-1 & BG-2	App. I Metals	Vanadium	ug/L	62	31	50%	-0.0021638	0.602	↔	> -0.0001	0.844	↔	0.016477	0.440	↔	2017-11-13	2025-07-08	0.036
1_128	BG-1 & BG-2	App. I Metals	Zinc	ug/L	58	38	66%	-0.0022043	0.694	↔	0.0027769	0.201	↔	-0.0092667	0.060	↔	2019-01-22	2023-07-23	0.111
2_105	BG-1 & BG-2	App. III	Boron	ug/L	64	24	38%	-0.0028111	0.377	↔	0.11	0.216	↔	-0.0032828	0.123	↔	2020-04-10	2020-08-22	0.301
2_108	BG-1 & BG-2	App. III	Chloride	mg/L	71	0	0%	-0.00085248	0.984	↔	-0.12832	0.451	↔	-0.00097829	0.875	↔	2017-10-27	2019-01-21	0.316
2_112	BG-1 & BG-2	App. III	Fluoride	mg/L	71	0	0%	< 0.0001	0.000	↑	< 0.0001	0.002	↑	-0.00040286	0.057	↔	2022-01-23	2025-02-15	0.587
2_118	BG-1 & BG-2	App. III	pH (Field)	S.U.	69	0	0%	0.0019457	0.261	↔	> -0.0001	0.487	↔	0.0001265	0.062	↔	2016-04-17	2020-08-01	0.133
2_123	BG-1 & BG-2	App. III	Sulfate	mg/L	71	0	0%	0.00011104	0.998	↔	0.14032	0.604	↔	0.01626	0.238	↔	2018-08-25	2019-08-26	0.198
2_125	BG-1 & BG-2	App. III	Total Dissolved Solids	mg/L	71	0	0%	0.92661	0.182	↔	-0.34528	0.435	↔	0.090157	0.250	↔	2017-04-03	2019-08-04	0.065
3_101	BG-1 & BG-2	App. IV	Antimony	ug/L	57	55	96%	-0.0017201	0.132	↔	0.0022014	0.250	↔	< 0.0001	0.892	↔	2020-11-07	2022-07-10	0.177
3_102	BG-1 & BG-2	App. IV	Arsenic	ug/L	57	52	91%	0.0035345	0.048	↔	-0.026518	0.515	↔	0.0039828	0.186	↔	2022-07-11	2023-03-17	0.177
3_103	BG-1 & BG-2	App. IV	Barium	ug/L	71	0	0%	-0.036453	0.773	↔	-0.17494	0.099	↔	-0.010418	0.695	↔	2018-01-21	2020-04-14	0.317
3_104	BG-1 & BG-2	App. IV	Beryllium	ug/L	57	57	100%	0.00038165	0.000	↑	-0.0064634	0.003	↓	0.00022281	0.028	↔	2022-04-10	2022-07-18	0.547
3_106	BG-1 & BG-2	App. IV	Cadmium	ug/L	57	55	96%	-0.00035186	0.422	↔	> -0.0001	0.000	↓	0.00078249	0.000	↑	2019-06-23	2024-10-18	0.580
3_109	BG-1 & BG-2	App. IV	Chromium	ug/L	57	45	79%	0.0029309	0.032	↔	-0.0079682	0.224	↔	0.0025459	0.686	↔	2022-10-17	2024-06-24	0.169
3_112	BG-1 & BG-2	App. IV	Fluoride	mg/L	71	0	0%	< 0.0001	0.000	↑	< 0.0001	0.002	↑	-0.00040286	0.057	↔	2022-01-23	2025-02-15	0.587
3_114	BG-1 & BG-2	App. IV	Lithium	ug/L	71	3	4%	0.097798	0.182	↔	-0.01103	0.010	↓	0.0051754	0.001	↑	2016-04-04	2019-09-22	0.256
3_115	BG-1 & BG-2	App. IV	Mercury	ug/L	57	49	86%	< 0.0001	0.005	↑	> -0.0001	0.096	↔	-0.00015166	0.019	↔	2020-12-18	2025-01-20	0.446
3_120	BG-1 & BG-2	App. IV	Radium-228	pCi/L	68	0	0%	-0.0033183	0.042	↔	0.0017618	0.575	↔	> -0.0001	0.436	↔	2016-08-25	2017-10-10	0.092
3_121	BG-1 & BG-2	App. IV	Selenium	ug/L	57	54	95%	-0.00010863	0.784	↔	-0.0045362	0.077	↔	0.0034516	0.000	↑	2022-02-27	2023-04-23	0.509
3_124	BG-1 & BG-2	App. IV	Thallium	ug/L	58	54	93%	-0.012735	0.000	↓	< 0.0001	0.311	↔	> -0.0001	0.809	↔	2019-01-22	2022-12-25	0.992
3_126	BG-1 & BG-2	App. IV	Total Radium	pCi/L	68	0	0%	-0.0024194	0.518	↔	> -0.0001	0.356	↔	0.00055631	0.565	↔	2016-04-14	2024-04-20	0.065

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B

Appendix B – Downgradient Wells Tables

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Table 1: Summary Statistics, Non-Detects Included

ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	Date Range	Distributions Fit[a]	Recommended Distribution	Mean	Median	Minimum	Maximum	SD	CV	Skewness
01_1_111	MW-1	App. I Metals	Copper	ug/L	42	33	79%	2015-11-20 to 2025-10-21	Lognormal	Nonparametric	3.07	2.50	0.620	15.0	2.37	0.770	3.45
01_1_117	MW-1	App. I Metals	Nickel	ug/L	42	29	69%	2015-11-20 to 2025-10-21	Gamma; Lognormal; Normal	Nonparametric	3.19	2.50	0.880	13.3	2.33	0.731	2.36
01_1_122	MW-1	App. I Metals	Silver	ug/L	42	35	83%	2015-11-20 to 2025-10-21	Gamma; Normal	Nonparametric	2.02	2.50	0.200	2.89	0.803	0.397	-1.10
01_1_127	MW-1	App. I Metals	Vanadium	ug/L	42	25	60%	2015-11-20 to 2025-10-21	Gamma; Lognormal; Normal	Nonparametric	3.50	3.15	1.30	9.80	1.72	0.492	1.59
01_1_128	MW-1	App. I Metals	Zinc	ug/L	42	25	60%	2015-11-20 to 2025-10-21	Gamma; Lognormal	Nonparametric	10.2	9.50	2.70	35.3	7.13	0.701	1.91
01_2_105	MW-1	App. III	Boron	ug/L	41	22	54%	2015-11-20 to 2025-10-21	Nonparametric	Nonparametric	10.1	8.50	0.570	50.8	11.0	1.09	2.70
01_2_107	MW-1	App. III	Calcium	ug/L	42	0	0%	2015-11-20 to 2025-10-21	Gamma; Lognormal; Normal	Normal	165016	158000	43100	311000	72612	0.440	0.144
01_2_108	MW-1	App. III	Chloride	mg/L	42	0	0%	2015-11-20 to 2025-10-21	Gamma; Normal	Normal	603	610	83.9	1240	268	0.444	-0.0473
01_2_112	MW-1	App. III	Fluoride	mg/L	42	1	2%	2015-11-20 to 2025-10-21	Nonparametric	Nonparametric	0.148	0.155	0.0200	0.210	0.0310	0.210	-1.55
01_2_118	MW-1	App. III	pH (Field)	S.U.	40	0	0%	2015-11-20 to 2025-10-25	Gamma; Lognormal; Normal	Normal	6.75	6.71	6.41	7.30	0.217	0.0321	0.686
01_2_123	MW-1	App. III	Sulfate	mg/L	42	0	0%	2015-11-20 to 2025-10-21	Nonparametric	Nonparametric	6.94	6.60	4.50	11.2	1.58	0.228	1.24
01_2_125	MW-1	App. III	Total Dissolved Solids	mg/L	42	0	0%	2015-11-20 to 2025-10-21	Gamma; Lognormal; Normal	Normal	1442	1320	346	3390	696	0.483	0.614
01_3_101	MW-1	App. IV	Antimony	ug/L	42	40	95%	2015-11-20 to 2025-10-21		Nonparametric	3.73	3.80	0.200	6.10	0.990	0.266	-0.252
01_3_102	MW-1	App. IV	Arsenic	ug/L	42	38	90%	2015-11-20 to 2025-10-21		Nonparametric	4.09	4.70	1.70	7.83	1.22	0.299	0.130
01_3_103	MW-1	App. IV	Barium	ug/L	42	0	0%	2015-11-20 to 2025-10-21	Gamma; Lognormal; Normal	Normal	211	214	36.3	421	96.7	0.458	0.293
01_3_104	MW-1	App. IV	Beryllium	ug/L	42	42	100%	2015-11-20 to 2025-10-21		Nonparametric	0.429	0.500	0.0500	0.700	0.205	0.479	-0.246
01_3_106	MW-1	App. IV	Cadmium	ug/L	42	39	93%	2015-11-20 to 2025-10-21		Nonparametric	0.432	0.480	0.0600	0.670	0.108	0.249	-0.922
01_3_109	MW-1	App. IV	Chromium	ug/L	42	28	67%	2015-11-20 to 2025-10-21	Gamma; Lognormal; Normal	Nonparametric	3.77	2.50	0.630	18.4	3.40	0.900	2.43
01_3_110	MW-1	App. IV	Cobalt	ug/L	42	37	88%	2015-11-20 to 2025-10-21	Gamma; Lognormal; Normal	Nonparametric	2.12	2.50	0.140	3.60	1.09	0.517	-0.172
01_3_112	MW-1	App. IV	Fluoride	mg/L	42	1	2%	2015-11-20 to 2025-10-21	Nonparametric	Nonparametric	0.148	0.155	0.0200	0.210	0.0310	0.210	-1.55
01_3_113	MW-1	App. IV	Lead	ug/L	42	37	88%	2015-11-20 to 2025-10-21	Gamma; Lognormal; Normal	Nonparametric	3.13	2.50	0.250	13.7	2.13	0.682	3.18
01_3_114	MW-1	App. IV	Lithium	ug/L	42	0	0%	2015-11-20 to 2025-10-21	Gamma; Lognormal; Normal	Normal	33	33.1	19.2	47.5	5.70	0.173	-0.0295
01_3_115	MW-1	App. IV	Mercury	ug/L	42	42	100%	2015-11-20 to 2025-10-21		Nonparametric	0.107	0.100	0.0700	0.120	0.0121	0.112	-0.484
01_3_116	MW-1	App. IV	Molybdenum	ug/L	42	37	88%	2015-11-20 to 2025-10-21	Gamma; Lognormal; Normal	Nonparametric	3.31	2.50	0.340	15.1	2.91	0.880	3.25
01_3_119	MW-1	App. IV	Radium-226	pCi/L	40	0	0%	2015-11-20 to 2025-10-21	Normal	Normal	0.206	0.217	-0.574	1.03	0.344	1.67	0.0950
01_3_120	MW-1	App. IV	Radium-228	pCi/L	40	0	0%	2015-11-20 to 2025-10-21	Normal	Normal	0.616	0.616	-0.0467	1.45	0.285	0.463	0.380
01_3_121	MW-1	App. IV	Selenium	ug/L	42	40	95%	2015-11-20 to 2025-10-21		Nonparametric	4.65	4.70	0.280	6.16	0.828	0.178	-3.61
01_3_124	MW-1	App. IV	Thallium	ug/L	42	42	100%	2015-11-20 to 2025-10-21		Nonparametric	0.770	0.0500	0.0200	5.00	1.75	2.27	2.11
01_3_126	MW-1	App. IV	Total Radium	pCi/L	40	0	0%	2015-11-20 to 2025-10-21	Gamma; Lognormal; Normal	Normal	0.882	0.824	0.237	2.48	0.425	0.482	1.36
02_1_111	MW-2	App. I Metals	Copper	ug/L	37	15	41%	2015-11-19 to 2025-10-21	Lognormal	Nonparametric	18.9	4.20	0.620	294	52.3	2.77	4.61
02_1_117	MW-2	App. I Metals	Nickel	ug/L	37	12	32%	2015-11-19 to 2025-10-21	Gamma; Lognormal	Gamma	13.0	4.70	0.900	115	22.1	1.69	3.40
02_1_122	MW-2	App. I Metals	Silver	ug/L	37	34	92%	2015-11-19 to 2025-10-21		Nonparametric	1.93	2.50	0.0730	2.89	0.875	0.453	-0.893
02_1_127	MW-2	App. I Metals	Vanadium	ug/L	37	25	68%	2015-11-19 to 2025-10-21	Gamma; Lognormal	Nonparametric	4.41	2.50	1.30	37.2	6.36	1.44	4.45
02_1_128	MW-2	App. I Metals	Zinc	ug/L	37	16	43%	2015-11-19 to 2025-10-21	Lognormal	Nonparametric	69.1	11.0	3.60	1590	260	3.77	5.84
02_2_105	MW-2	App. III	Boron	ug/L	36	1	3%	2015-11-19 to 2025-10-21	Gamma; Lognormal; Normal	Normal	44.2	44.5	8.50	63.9	8.81	0.199	-1.42
02_2_107	MW-2	App. III	Calcium	ug/L	37	0	0%	2015-11-19 to 2025-10-21	Nonparametric	Nonparametric	183035	188000	34300	221000	32161	0.176	-2.89
02_2_108	MW-2	App. III	Chloride	mg/L	37	0	0%	2015-11-19 to 2025-10-21	Normal	Normal	1076	1120	489	1360	183	0.170	-1.50
02_2_112	MW-2	App. III	Fluoride	mg/L	37	2	5%	2015-11-19 to 2025-10-21	Lognormal	Lognormal	0.207	0.210	0.0200	0.400	0.0649	0.313	-0.286
02_2_118	MW-2	App. III	pH (Field)	S.U.	33	0	0%	2015-11-19 to 2025-10-25	Nonparametric	Nonparametric	7.66	7.56	7.35	9.29	0.376	0.0490	3.00
02_2_123	MW-2	App. III	Sulfate	mg/L	37	0	0%	2015-11-19 to 2025-10-21	Nonparametric	Nonparametric	120	87.4	51.7	338	76.7	0.637	1.35
02_2_125	MW-2	App. III	Total Dissolved Solids	mg/L	37	0	0%	2015-11-19 to 2025-10-21	Nonparametric	Nonparametric	2630	2470	257	11700	1651	0.628	4.69
02_3_101	MW-2	App. IV	Antimony	ug/L	37	23	62%	2015-11-19 to 2025-10-21	Gamma; Lognormal; Normal	Nonparametric	5.84	4.00	0.610	30.0	4.81	0.823	3.79

(Table continues on next page)

[a] Non-detects are excluded from goodness-of-fit tests.

Table 1: Summary Statistics, Non-Detects Included *(continued)*

ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	Date Range	Distributions Fit[a]	Recommended Distribution	Mean	Median	Minimum	Maximum	SD	CV	Skewness
02_3_102	MW-2	App. IV	Arsenic	ug/L	37	26	70%	2015-11-19 to 2025-10-21	Gamma; Lognormal; Normal	Nonparametric	4.70	4.70	2.50	11.5	1.99	0.424	1.65
02_3_103	MW-2	App. IV	Barium	ug/L	37	0	0%	2015-11-19 to 2025-10-21	Nonparametric	Nonparametric	306	314	90.8	565	85.5	0.279	0.514
02_3_104	MW-2	App. IV	Beryllium	ug/L	37	34	92%	2015-11-19 to 2025-10-21		Nonparametric	0.463	0.500	0.160	1.10	0.219	0.472	0.272
02_3_106	MW-2	App. IV	Cadmium	ug/L	37	33	89%	2015-11-19 to 2025-10-21		Nonparametric	0.431	0.480	0.0780	0.680	0.107	0.248	-0.901
02_3_109	MW-2	App. IV	Chromium	ug/L	37	6	16%	2015-11-19 to 2025-10-21	Lognormal	Nonparametric	16.7	5.90	1.00	130	26.3	1.58	2.97
02_3_110	MW-2	App. IV	Cobalt	ug/L	37	28	76%	2015-11-19 to 2025-10-21	Lognormal	Nonparametric	3.45	2.50	0.440	34.8	5.58	1.62	5.25
02_3_112	MW-2	App. IV	Fluoride	mg/L	37	2	5%	2015-11-19 to 2025-10-21	Lognormal	Lognormal	0.207	0.210	0.0200	0.400	0.0649	0.313	-0.286
02_3_113	MW-2	App. IV	Lead	ug/L	37	31	84%	2015-11-19 to 2025-10-21	Gamma; Lognormal; Normal	Nonparametric	4.24	2.50	1.40	27.5	5.08	1.20	3.52
02_3_114	MW-2	App. IV	Lithium	ug/L	37	0	0%	2015-11-19 to 2025-10-21	Nonparametric	Nonparametric	152	130	41.2	512	86.0	0.567	2.75
02_3_115	MW-2	App. IV	Mercury	ug/L	37	37	100%	2015-11-19 to 2025-10-21		Nonparametric	0.108	0.100	0.0700	0.120	0.0124	0.115	-0.627
02_3_116	MW-2	App. IV	Molybdenum	ug/L	37	6	16%	2015-11-19 to 2025-10-21	Gamma; Lognormal	Gamma	9.10	6.80	2.60	41.0	7.13	0.783	2.80
02_3_119	MW-2	App. IV	Radium-226	pCi/L	36	0	0%	2015-11-19 to 2025-10-21	Normal	Normal	0.907	0.938	-0.125	2.11	0.432	0.477	0.428
02_3_120	MW-2	App. IV	Radium-228	pCi/L	36	0	0%	2015-11-19 to 2025-10-21	Gamma; Lognormal; Normal	Normal	1.38	1.35	0.433	2.23	0.457	0.332	0.0912
02_3_121	MW-2	App. IV	Selenium	ug/L	37	35	95%	2015-11-19 to 2025-10-21		Nonparametric	4.65	4.80	0.940	6.16	0.796	0.171	-2.81
02_3_124	MW-2	App. IV	Thallium	ug/L	37	24	65%	2015-11-19 to 2025-10-21	Nonparametric	Nonparametric	1.03	0.0680	0.0200	10.3	2.31	2.24	2.57
02_3_126	MW-2	App. IV	Total Radium	pCi/L	36	0	0%	2015-11-19 to 2025-10-21	Normal	Normal	2.29	2.37	1.10	4.07	0.740	0.323	0.0237
03_1_111	MW-3	App. I Metals	Copper	ug/L	40	21	52%	2015-11-19 to 2025-10-21	Lognormal	Nonparametric	9.32	3.10	0.620	137	22.8	2.44	4.95
03_1_117	MW-3	App. I Metals	Nickel	ug/L	40	20	50%	2015-11-19 to 2025-10-21	Lognormal	Nonparametric	6.86	2.50	0.900	86.0	15.1	2.20	4.50
03_1_122	MW-3	App. I Metals	Silver	ug/L	40	38	95%	2015-11-19 to 2025-10-21		Nonparametric	1.99	2.50	0.0700	2.89	0.846	0.426	-1.07
03_1_127	MW-3	App. I Metals	Vanadium	ug/L	40	25	62%	2015-11-19 to 2025-10-21	Gamma; Lognormal	Nonparametric	3.40	2.50	1.30	13.9	2.23	0.658	3.16
03_1_128	MW-3	App. I Metals	Zinc	ug/L	40	28	70%	2015-11-19 to 2025-10-21	Gamma; Lognormal; Normal	Nonparametric	9.10	6.62	3.00	42.7	7.25	0.796	2.99
03_2_105	MW-3	App. III	Boron	ug/L	39	10	26%	2015-11-19 to 2025-10-21	Normal	Normal	28.9	35.7	0.570	49.6	17.2	0.595	-0.599
03_2_107	MW-3	App. III	Calcium	ug/L	40	0	0%	2015-11-19 to 2025-10-21	Nonparametric	Nonparametric	177123	178500	117000	326000	30548	0.172	2.77
03_2_108	MW-3	App. III	Chloride	mg/L	40	0	0%	2015-11-19 to 2025-10-21	Normal	Normal	1059	1070	565	1280	131	0.124	-1.33
03_2_112	MW-3	App. III	Fluoride	mg/L	40	1	2%	2015-11-19 to 2025-10-21	Gamma; Lognormal; Normal	Normal	0.344	0.325	0.0200	0.610	0.120	0.348	0.204
03_2_118	MW-3	App. III	pH (Field)	S.U.	36	0	0%	2015-11-19 to 2025-10-25	Nonparametric	Nonparametric	7.34	7.38	6.18	7.77	0.249	0.0340	-2.84
03_2_123	MW-3	App. III	Sulfate	mg/L	40	0	0%	2015-11-19 to 2025-10-21	Nonparametric	Nonparametric	44.6	19.1	9.10	174	45.6	1.02	1.47
03_2_125	MW-3	App. III	Total Dissolved Solids	mg/L	40	0	0%	2015-11-19 to 2025-10-21	Nonparametric	Nonparametric	2251	2370	256	3180	580	0.258	-2.12
03_3_101	MW-3	App. IV	Antimony	ug/L	40	29	72%	2015-11-19 to 2025-10-21	Gamma; Lognormal; Normal	Nonparametric	5.11	3.90	1.30	15.0	2.95	0.576	1.73
03_3_102	MW-3	App. IV	Arsenic	ug/L	40	32	80%	2015-11-19 to 2025-10-21	Gamma; Lognormal; Normal	Nonparametric	4.39	4.70	1.90	9.60	1.67	0.379	0.881
03_3_103	MW-3	App. IV	Barium	ug/L	40	0	0%	2015-11-19 to 2025-10-21	Normal	Normal	663	672	353	855	107	0.161	-0.694
03_3_104	MW-3	App. IV	Beryllium	ug/L	40	40	100%	2015-11-19 to 2025-10-21		Nonparametric	0.440	0.500	0.0500	0.700	0.204	0.463	-0.366
03_3_106	MW-3	App. IV	Cadmium	ug/L	40	38	95%	2015-11-19 to 2025-10-21		Nonparametric	0.424	0.405	0.0600	0.720	0.109	0.256	-0.627
03_3_109	MW-3	App. IV	Chromium	ug/L	40	20	50%	2015-11-19 to 2025-10-21	Lognormal	Nonparametric	10.5	3.10	0.630	179	30.2	2.87	5.02
03_3_110	MW-3	App. IV	Cobalt	ug/L	40	33	82%	2015-11-19 to 2025-10-21	Gamma; Lognormal	Nonparametric	2.25	2.50	0.0610	6.20	1.26	0.561	0.500
03_3_112	MW-3	App. IV	Fluoride	mg/L	40	1	2%	2015-11-19 to 2025-10-21	Gamma; Lognormal; Normal	Normal	0.344	0.325	0.0200	0.610	0.120	0.348	0.204
03_3_113	MW-3	App. IV	Lead	ug/L	40	35	88%	2015-11-19 to 2025-10-21	Normal	Nonparametric	3.29	2.50	0.190	13.7	2.22	0.674	2.85
03_3_114	MW-3	App. IV	Lithium	ug/L	40	1	2%	2015-11-19 to 2025-10-21	Nonparametric	Nonparametric	90.2	86.5	0.390	236	37.6	0.418	2.18
03_3_115	MW-3	App. IV	Mercury	ug/L	40	40	100%	2015-11-19 to 2025-10-21		Nonparametric	0.108	0.100	0.0700	0.120	0.0122	0.114	-0.571
03_3_116	MW-3	App. IV	Molybdenum	ug/L	40	1	2%	2015-11-19 to 2025-10-21	Nonparametric	Nonparametric	8.65	7.80	2.60	35.7	4.86	0.562	4.61
03_3_119	MW-3	App. IV	Radium-226	pCi/L	39	0	0%	2015-11-19 to 2025-10-21	Gamma; Lognormal; Normal	Normal	0.931	0.848	0.213	1.92	0.373	0.400	0.356
03_3_120	MW-3	App. IV	Radium-228	pCi/L	39	0	0%	2015-11-19 to 2025-10-21	Gamma; Normal	Normal	1.51	1.55	0.326	2.86	0.555	0.369	-0.240

(Table continues on next page)

[a] Non-detects are excluded from goodness-of-fit tests.

Table 1: Summary Statistics, Non-Detects Included *(continued)*

ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	Date Range	Distributions Fit[a]	Recommended Distribution	Mean	Median	Minimum	Maximum	SD	CV	Skewness
03_3_121	MW-3	App. IV	Selenium	ug/L	40	39	98%	2015-11-19 to 2025-10-21		Nonparametric	4.63	4.70	0.270	6.16	0.857	0.185	-3.41
03_3_124	MW-3	App. IV	Thallium	ug/L	40	39	98%	2015-11-19 to 2025-10-21		Nonparametric	0.813	0.0500	0.0200	5.00	1.78	2.19	2.02
03_3_126	MW-3	App. IV	Total Radium	pCi/L	39	0	0%	2015-11-19 to 2025-10-21	Gamma; Normal	Normal	2.44	2.41	0.857	3.92	0.725	0.297	-0.110
04_1_111	MW-4	App. I Metals	Copper	ug/L	41	35	85%	2015-11-19 to 2025-10-20	Gamma; Lognormal	Nonparametric	8.25	2.50	0.620	170	27.8	3.38	5.40
04_1_117	MW-4	App. I Metals	Nickel	ug/L	41	11	27%	2015-11-19 to 2025-10-20	Gamma; Lognormal; Normal	Normal	6.38	5.60	0.900	12.8	3.44	0.539	0.365
04_1_122	MW-4	App. I Metals	Silver	ug/L	41	41	100%	2015-11-19 to 2025-10-20		Nonparametric	1.97	2.50	0.0700	2.89	0.865	0.438	-1.04
04_1_127	MW-4	App. I Metals	Vanadium	ug/L	41	37	90%	2015-11-19 to 2025-10-20		Nonparametric	2.69	2.50	0.250	10.7	1.69	0.628	2.80
04_1_128	MW-4	App. I Metals	Zinc	ug/L	41	24	59%	2015-11-19 to 2025-10-20	Gamma; Lognormal	Nonparametric	10.0	8.95	3.90	47.2	7.84	0.782	3.18
04_2_105	MW-4	App. III	Boron	ug/L	40	23	57%	2015-11-19 to 2025-10-20	Nonparametric	Nonparametric	11.5	7.20	0.570	165	25.8	2.25	5.73
04_2_107	MW-4	App. III	Calcium	ug/L	41	0	0%	2015-11-19 to 2025-10-20	Nonparametric	Nonparametric	55347	58300	17900	71600	12502	0.226	-1.44
04_2_108	MW-4	App. III	Chloride	mg/L	41	0	0%	2015-11-19 to 2025-10-20	Nonparametric	Nonparametric	398	415	144	567	104	0.262	-0.632
04_2_112	MW-4	App. III	Fluoride	mg/L	41	0	0%	2015-11-19 to 2025-10-20	Gamma; Lognormal; Normal	Normal	0.335	0.340	0.210	0.500	0.0589	0.176	0.417
04_2_118	MW-4	App. III	pH (Field)	S.U.	39	0	0%	2015-11-19 to 2025-10-25	Gamma; Lognormal; Normal	Normal	6.26	6.25	5.91	6.56	0.133	0.0212	0.0484
04_2_123	MW-4	App. III	Sulfate	mg/L	41	0	0%	2015-11-19 to 2025-10-20	Nonparametric	Nonparametric	10.1	10.7	3.40	13.4	2.27	0.224	-1.42
04_2_125	MW-4	App. III	Total Dissolved Solids	mg/L	41	0	0%	2015-11-19 to 2025-10-20	Nonparametric	Nonparametric	1078	1120	395	1580	218	0.202	-1.45
04_3_101	MW-4	App. IV	Antimony	ug/L	41	36	88%	2015-11-19 to 2025-10-20	Gamma; Lognormal; Normal	Nonparametric	3.80	3.80	0.200	7.00	1.06	0.279	0.0790
04_3_102	MW-4	App. IV	Arsenic	ug/L	41	39	95%	2015-11-19 to 2025-10-20		Nonparametric	4.00	4.70	0.360	7.83	1.33	0.331	-0.187
04_3_103	MW-4	App. IV	Barium	ug/L	41	0	0%	2015-11-19 to 2025-10-20	Nonparametric	Nonparametric	290	306	85.9	431	67.5	0.233	-1.42
04_3_104	MW-4	App. IV	Beryllium	ug/L	41	41	100%	2015-11-19 to 2025-10-20		Nonparametric	0.427	0.500	0.0500	0.700	0.208	0.486	-0.219
04_3_106	MW-4	App. IV	Cadmium	ug/L	41	40	98%	2015-11-19 to 2025-10-20		Nonparametric	0.417	0.400	0.0600	0.538	0.0962	0.231	-1.40
04_3_109	MW-4	App. IV	Chromium	ug/L	41	30	73%	2015-11-19 to 2025-10-20	Gamma; Lognormal; Normal	Nonparametric	2.72	2.50	0.580	9.90	1.91	0.701	2.04
04_3_110	MW-4	App. IV	Cobalt	ug/L	41	20	49%	2015-11-19 to 2025-10-20	Gamma; Lognormal; Normal	Normal	7.77	3.90	1.10	28.2	7.03	0.904	1.39
04_3_112	MW-4	App. IV	Fluoride	mg/L	41	0	0%	2015-11-19 to 2025-10-20	Gamma; Lognormal; Normal	Normal	0.335	0.340	0.210	0.500	0.0589	0.176	0.417
04_3_113	MW-4	App. IV	Lead	ug/L	41	40	98%	2015-11-19 to 2025-10-20		Nonparametric	3.05	2.50	0.0770	13.7	2.13	0.699	3.31
04_3_114	MW-4	App. IV	Lithium	ug/L	41	0	0%	2015-11-19 to 2025-10-20	Nonparametric	Nonparametric	32.2	28.6	15.8	98.0	12.5	0.389	3.71
04_3_115	MW-4	App. IV	Mercury	ug/L	41	41	100%	2015-11-19 to 2025-10-20		Nonparametric	0.108	0.100	0.0700	0.120	0.0122	0.113	-0.526
04_3_116	MW-4	App. IV	Molybdenum	ug/L	41	35	85%	2015-11-19 to 2025-10-20	Gamma; Lognormal; Normal	Nonparametric	4.26	2.50	0.480	20.9	4.89	1.15	2.66
04_3_119	MW-4	App. IV	Radium-226	pCi/L	39	0	0%	2015-11-19 to 2025-10-20	Normal	Normal	0.326	0.291	-0.259	0.913	0.289	0.884	0.167
04_3_120	MW-4	App. IV	Radium-228	pCi/L	39	0	0%	2015-11-19 to 2025-10-20	Normal	Normal	0.525	0.465	-0.0252	1.57	0.361	0.688	0.898
04_3_121	MW-4	App. IV	Selenium	ug/L	41	38	93%	2015-11-19 to 2025-10-20		Nonparametric	4.65	4.70	0.140	6.24	0.887	0.191	-3.26
04_3_124	MW-4	App. IV	Thallium	ug/L	41	41	100%	2015-11-19 to 2025-10-20		Nonparametric	0.785	0.0500	0.0200	5.00	1.77	2.25	2.07
04_3_126	MW-4	App. IV	Total Radium	pCi/L	39	0	0%	2015-11-19 to 2025-10-20	Gamma; Lognormal; Normal	Normal	0.866	0.760	0.146	2.26	0.479	0.553	1.05
05_1_111	MW-5	App. I Metals	Copper	ug/L	42	29	69%	2015-11-18 to 2025-10-20	Gamma; Lognormal; Normal	Nonparametric	3.39	2.50	0.620	12.9	2.38	0.703	2.31
05_1_117	MW-5	App. I Metals	Nickel	ug/L	42	32	76%	2015-11-18 to 2025-10-20	Lognormal	Nonparametric	5.43	2.50	0.640	120	18.2	3.35	6.40
05_1_122	MW-5	App. I Metals	Silver	ug/L	42	42	100%	2015-11-18 to 2025-10-20		Nonparametric	1.99	2.50	0.0700	2.89	0.858	0.432	-1.08
05_1_127	MW-5	App. I Metals	Vanadium	ug/L	42	39	93%	2015-11-18 to 2025-10-20		Nonparametric	2.48	2.50	0.510	5.64	1.09	0.439	0.600
05_1_128	MW-5	App. I Metals	Zinc	ug/L	42	25	60%	2015-11-18 to 2025-10-20	Gamma; Lognormal	Nonparametric	10.3	9.50	3.80	54.9	9.07	0.878	3.59
05_2_105	MW-5	App. III	Boron	ug/L	41	15	37%	2015-11-18 to 2025-10-20	Nonparametric	Nonparametric	9.39	9.80	0.570	39.3	6.18	0.658	2.60
05_2_107	MW-5	App. III	Calcium	ug/L	42	0	0%	2015-11-18 to 2025-10-20	Gamma; Lognormal	Gamma	10749	10100	7070	16900	2246	0.209	0.699
05_2_108	MW-5	App. III	Chloride	mg/L	42	0	0%	2015-11-18 to 2025-10-20	Gamma; Lognormal; Normal	Normal	20.0	19.6	16.9	23.1	1.60	0.0798	0.112
05_2_112	MW-5	App. III	Fluoride	mg/L	42	0	0%	2015-11-18 to 2025-10-20	Gamma; Lognormal; Normal	Normal	0.546	0.550	0.410	0.690	0.0578	0.106	0.0642
05_2_118	MW-5	App. III	pH (Field)	S.U.	39	0	0%	2015-11-18 to 2025-10-25	Nonparametric	Nonparametric	6.89	6.90	5.50	8.54	0.457	0.0663	-0.0594

(Table continues on next page)

[a] Non-detects are excluded from goodness-of-fit tests.

Table 1: Summary Statistics, Non-Detects Included *(continued)*

ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	Date Range	Distributions Fit[a]	Recommended Distribution	Mean	Median	Minimum	Maximum	SD	CV	Skewness
05_2_123	MW-5	App. III	Sulfate	mg/L	42	0	0%	2015-11-18 to 2025-10-20	Gamma; Lognormal; Normal	Normal	3.59	3.55	2.60	5.60	0.605	0.169	1.27
05_2_125	MW-5	App. III	Total Dissolved Solids	mg/L	42	0	0%	2015-11-18 to 2025-10-20	Nonparametric	Nonparametric	248	221	190	1160	147	0.590	6.14
05_3_101	MW-5	App. IV	Antimony	ug/L	42	40	95%	2015-11-18 to 2025-10-20		Nonparametric	3.71	3.80	1.10	5.50	0.829	0.223	0.151
05_3_102	MW-5	App. IV	Arsenic	ug/L	42	40	95%	2015-11-18 to 2025-10-20		Nonparametric	4.02	4.70	0.170	7.83	1.33	0.331	-0.300
05_3_103	MW-5	App. IV	Barium	ug/L	42	0	0%	2015-11-18 to 2025-10-20	Gamma; Lognormal; Normal	Normal	102	101	71.3	153	15.8	0.155	0.744
05_3_104	MW-5	App. IV	Beryllium	ug/L	42	42	100%	2015-11-18 to 2025-10-20		Nonparametric	0.429	0.500	0.0500	0.700	0.205	0.479	-0.246
05_3_106	MW-5	App. IV	Cadmium	ug/L	42	42	100%	2015-11-18 to 2025-10-20		Nonparametric	0.417	0.400	0.0600	0.538	0.0956	0.229	-1.39
05_3_109	MW-5	App. IV	Chromium	ug/L	42	29	69%	2015-11-18 to 2025-10-20	Nonparametric	Nonparametric	9.23	2.50	0.500	260	39.8	4.31	6.42
05_3_110	MW-5	App. IV	Cobalt	ug/L	42	40	95%	2015-11-18 to 2025-10-20		Nonparametric	2.11	2.50	0.100	3.60	1.12	0.529	-0.201
05_3_112	MW-5	App. IV	Fluoride	mg/L	42	0	0%	2015-11-18 to 2025-10-20	Gamma; Lognormal; Normal	Normal	0.546	0.550	0.410	0.690	0.0578	0.106	0.0642
05_3_113	MW-5	App. IV	Lead	ug/L	42	41	98%	2015-11-18 to 2025-10-20		Nonparametric	2.99	2.50	0.180	13.7	2.04	0.682	3.67
05_3_114	MW-5	App. IV	Lithium	ug/L	42	1	2%	2015-11-18 to 2025-10-20	Nonparametric	Nonparametric	9.57	9.35	4.20	28.6	3.33	0.348	4.60
05_3_115	MW-5	App. IV	Mercury	ug/L	42	42	100%	2015-11-18 to 2025-10-20		Nonparametric	0.107	0.100	0.0700	0.120	0.0121	0.112	-0.484
05_3_116	MW-5	App. IV	Molybdenum	ug/L	42	39	93%	2015-11-18 to 2025-10-20		Nonparametric	3.14	2.50	0.520	25.3	3.75	1.19	5.33
05_3_119	MW-5	App. IV	Radium-226	pCi/L	40	0	0%	2015-11-18 to 2025-10-20	Normal	Normal	0.0996	0.0749	-0.640	0.778	0.258	2.59	0.165
05_3_120	MW-5	App. IV	Radium-228	pCi/L	40	0	0%	2015-11-18 to 2025-10-20	Normal	Normal	0.413	0.382	-0.0922	1.08	0.333	0.806	0.486
05_3_121	MW-5	App. IV	Selenium	ug/L	42	41	98%	2015-11-18 to 2025-10-20		Nonparametric	4.63	4.70	0.260	6.16	0.837	0.181	-3.51
05_3_124	MW-5	App. IV	Thallium	ug/L	42	41	98%	2015-11-18 to 2025-10-20		Nonparametric	0.998	0.0500	0.0200	14.8	2.72	2.72	3.73
05_3_126	MW-5	App. IV	Total Radium	pCi/L	40	0	0%	2015-11-18 to 2025-10-20	Gamma; Normal	Normal	0.568	0.566	0.0262	1.23	0.347	0.611	0.190
06_1_111	MW-6	App. I Metals	Copper	ug/L	41	33	80%	2015-11-20 to 2025-10-22	Gamma; Lognormal	Nonparametric	4.19	2.50	0.620	44	7.02	1.67	5.05
06_1_117	MW-6	App. I Metals	Nickel	ug/L	41	28	68%	2015-11-20 to 2025-10-22	Gamma; Lognormal	Nonparametric	2.64	2.50	0.900	8.20	1.45	0.549	2.01
06_1_122	MW-6	App. I Metals	Silver	ug/L	41	41	100%	2015-11-20 to 2025-10-22		Nonparametric	2.01	2.50	0.0700	2.89	0.854	0.425	-1.17
06_1_127	MW-6	App. I Metals	Vanadium	ug/L	41	36	88%	2015-11-20 to 2025-10-22	Gamma; Lognormal; Normal	Nonparametric	2.69	2.50	0.810	7.90	1.39	0.516	1.62
06_1_128	MW-6	App. I Metals	Zinc	ug/L	41	26	63%	2015-11-20 to 2025-10-22	Gamma; Lognormal; Normal	Nonparametric	8.63	6.20	3.60	31.8	5.90	0.683	2.43
06_2_105	MW-6	App. III	Boron	ug/L	40	23	57%	2015-11-20 to 2025-10-22	Gamma; Lognormal; Normal	Nonparametric	6.60	8.40	0.570	12.2	3.27	0.496	-0.774
06_2_107	MW-6	App. III	Calcium	ug/L	41	0	0%	2015-11-20 to 2025-10-22	Gamma; Lognormal; Normal	Normal	34678	34300	30300	40200	2194	0.0633	0.503
06_2_108	MW-6	App. III	Chloride	mg/L	41	0	0%	2015-11-20 to 2025-10-22	Nonparametric	Nonparametric	204	208	15.3	279	48.2	0.236	-1.78
06_2_112	MW-6	App. III	Fluoride	mg/L	41	1	2%	2015-11-20 to 2025-10-22	Gamma; Lognormal; Normal	Normal	0.363	0.370	0.0500	0.520	0.0777	0.214	-1.61
06_2_118	MW-6	App. III	pH (Field)	S.U.	38	0	0%	2015-11-20 to 2025-10-25	Nonparametric	Nonparametric	6.40	6.37	6.15	7.00	0.183	0.0285	1.20
06_2_123	MW-6	App. III	Sulfate	mg/L	41	0	0%	2015-11-20 to 2025-10-22	Nonparametric	Nonparametric	57.1	28.1	25.1	214	51.4	0.900	1.77
06_2_125	MW-6	App. III	Total Dissolved Solids	mg/L	41	0	0%	2015-11-20 to 2025-10-22	Normal	Normal	632	610	371	946	96.1	0.152	0.463
06_3_101	MW-6	App. IV	Antimony	ug/L	41	41	100%	2015-11-20 to 2025-10-22		Nonparametric	3.62	3.80	0.200	5.50	0.875	0.242	-0.789
06_3_102	MW-6	App. IV	Arsenic	ug/L	41	39	95%	2015-11-20 to 2025-10-22		Nonparametric	4.12	4.70	0.430	8.10	1.46	0.355	0.215
06_3_103	MW-6	App. IV	Barium	ug/L	41	0	0%	2015-11-20 to 2025-10-22	Nonparametric	Nonparametric	78.9	63.8	43.0	142	29.7	0.377	0.592
06_3_104	MW-6	App. IV	Beryllium	ug/L	41	40	98%	2015-11-20 to 2025-10-22		Nonparametric	0.436	0.500	0.100	0.700	0.202	0.462	-0.269
06_3_106	MW-6	App. IV	Cadmium	ug/L	41	41	100%	2015-11-20 to 2025-10-22		Nonparametric	0.419	0.400	0.0600	0.538	0.0958	0.228	-1.47
06_3_109	MW-6	App. IV	Chromium	ug/L	41	32	78%	2015-11-20 to 2025-10-22	Gamma; Lognormal; Normal	Nonparametric	2.89	2.50	0.500	14.0	2.49	0.862	2.82
06_3_110	MW-6	App. IV	Cobalt	ug/L	41	39	95%	2015-11-20 to 2025-10-22		Nonparametric	2.18	2.50	0.440	4.20	1.13	0.520	-0.120
06_3_112	MW-6	App. IV	Fluoride	mg/L	41	1	2%	2015-11-20 to 2025-10-22	Gamma; Lognormal; Normal	Normal	0.363	0.370	0.0500	0.520	0.0777	0.214	-1.61
06_3_113	MW-6	App. IV	Lead	ug/L	41	38	93%	2015-11-20 to 2025-10-22		Nonparametric	3.25	2.50	0.890	13.7	2.40	0.737	2.94
06_3_114	MW-6	App. IV	Lithium	ug/L	41	0	0%	2015-11-20 to 2025-10-22	Nonparametric	Nonparametric	32.1	27.3	10.1	60.5	11.3	0.352	0.960
06_3_115	MW-6	App. IV	Mercury	ug/L	41	40	98%	2015-11-20 to 2025-10-22		Nonparametric	0.113	0.100	0.0700	0.320	0.0352	0.311	5.27

(Table continues on next page)

[a] Non-detects are excluded from goodness-of-fit tests.

Table 1: Summary Statistics, Non-Detects Included *(continued)*

ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	Date Range	Distributions Fit[a]	Recommended Distribution	Mean	Median	Minimum	Maximum	SD	CV	Skewness
06_3_116	MW-6	App. IV	Molybdenum	ug/L	41	36	88%	2015-11-20 to 2025-10-22	Normal	Nonparametric	3.01	2.50	0.200	8.30	1.59	0.527	1.63
06_3_119	MW-6	App. IV	Radium-226	pCi/L	39	0	0%	2015-11-20 to 2025-10-22	Normal	Normal	0.141	0.169	-0.885	0.913	0.346	2.46	-0.304
06_3_120	MW-6	App. IV	Radium-228	pCi/L	39	0	0%	2015-11-20 to 2025-10-22	Normal	Normal	0.579	0.555	-0.243	1.42	0.352	0.607	0.108
06_3_121	MW-6	App. IV	Selenium	ug/L	41	39	95%	2015-11-20 to 2025-10-22		Nonparametric	4.65	4.70	0.110	6.16	0.860	0.185	-3.74
06_3_124	MW-6	App. IV	Thallium	ug/L	41	37	90%	2015-11-20 to 2025-10-22		Nonparametric	0.801	0.0500	0.0200	6.20	1.85	2.31	2.12
06_3_126	MW-6	App. IV	Total Radium	pCi/L	39	0	0%	2015-11-20 to 2025-10-22	Gamma; Normal	Normal	0.797	0.848	0.0513	1.71	0.431	0.542	0.118
07_1_111	MW-7R	App. I Metals	Copper	ug/L	33	21	64%	2017-07-20 to 2025-10-22	Nonparametric	Nonparametric	10.5	2.60	0.620	109	24.3	2.31	3.24
07_1_117	MW-7R	App. I Metals	Nickel	ug/L	33	15	45%	2017-07-20 to 2025-10-22	Lognormal	Nonparametric	31.3	2.60	0.900	880	152	4.87	5.73
07_1_122	MW-7R	App. I Metals	Silver	ug/L	33	33	100%	2017-07-20 to 2025-10-22		Nonparametric	1.85	2.50	0.0700	2.89	0.921	0.499	-0.694
07_1_127	MW-7R	App. I Metals	Vanadium	ug/L	33	16	48%	2017-07-20 to 2025-10-22	Lognormal	Lognormal	4.76	3.90	1.30	18.8	4.25	0.892	2.67
07_1_128	MW-7R	App. I Metals	Zinc	ug/L	33	22	67%	2017-07-20 to 2025-10-22	Lognormal	Nonparametric	9.98	9.50	3.00	53.4	11.5	1.15	3.43
07_2_105	MW-7R	App. III	Boron	ug/L	32	12	38%	2017-07-20 to 2025-10-22	Nonparametric	Nonparametric	10.1	9.70	0.570	25.3	5.17	0.512	0.802
07_2_107	MW-7R	App. III	Calcium	ug/L	33	0	0%	2017-07-20 to 2025-10-22	Gamma; Lognormal; Normal	Normal	91419	91200	74000	104000	6500	0.0711	-0.434
07_2_108	MW-7R	App. III	Chloride	mg/L	33	0	0%	2017-07-20 to 2025-10-22	Nonparametric	Nonparametric	277	280	194	313	23.7	0.0855	-1.61
07_2_112	MW-7R	App. III	Fluoride	mg/L	33	1	3%	2017-07-20 to 2025-10-22	Nonparametric	Nonparametric	0.131	0.120	0.0500	0.320	0.0412	0.315	3.0
07_2_118	MW-7R	App. III	pH (Field)	S.U.	32	0	0%	2017-07-20 to 2025-10-25	Nonparametric	Nonparametric	7.45	7.35	7.13	9.60	0.418	0.0561	4.63
07_2_123	MW-7R	App. III	Sulfate	mg/L	33	0	0%	2017-07-20 to 2025-10-22	Nonparametric	Nonparametric	17.1	15.6	12.8	51.2	6.45	0.376	4.87
07_2_125	MW-7R	App. III	Total Dissolved Solids	mg/L	33	0	0%	2017-07-20 to 2025-10-22	Gamma; Lognormal; Normal	Normal	858	860	740	990	55.8	0.0651	0.0946
07_3_101	MW-7R	App. IV	Antimony	ug/L	33	32	97%	2017-07-20 to 2025-10-22		Nonparametric	3.94	3.60	0.200	13.6	2.01	0.510	3.49
07_3_102	MW-7R	App. IV	Arsenic	ug/L	33	30	91%	2017-07-20 to 2025-10-22		Nonparametric	4.30	4.70	0.770	7.83	1.33	0.310	-0.0961
07_3_103	MW-7R	App. IV	Barium	ug/L	33	0	0%	2017-07-20 to 2025-10-22	Nonparametric	Nonparametric	296	308	50.1	423	63.4	0.214	-1.74
07_3_104	MW-7R	App. IV	Beryllium	ug/L	33	33	100%	2017-07-20 to 2025-10-22		Nonparametric	0.409	0.500	0.0500	0.700	0.229	0.558	0.0311
07_3_106	MW-7R	App. IV	Cadmium	ug/L	33	33	100%	2017-07-20 to 2025-10-22		Nonparametric	0.395	0.400	0.0600	0.538	0.0963	0.244	-1.19
07_3_109	MW-7R	App. IV	Chromium	ug/L	33	8	24%	2017-07-20 to 2025-10-22	Nonparametric	Nonparametric	66.8	3.70	1.00	1940	336	5.03	5.74
07_3_110	MW-7R	App. IV	Cobalt	ug/L	33	28	85%	2017-07-20 to 2025-10-22	Gamma; Lognormal; Normal	Nonparametric	2.73	2.50	0.160	20.4	3.49	1.28	4.29
07_3_112	MW-7R	App. IV	Fluoride	mg/L	33	1	3%	2017-07-20 to 2025-10-22	Nonparametric	Nonparametric	0.131	0.120	0.0500	0.320	0.0412	0.315	3.0
07_3_113	MW-7R	App. IV	Lead	ug/L	33	27	82%	2017-07-20 to 2025-10-22	Gamma; Normal	Nonparametric	3.48	2.50	0.270	13.7	2.40	0.690	2.53
07_3_114	MW-7R	App. IV	Lithium	ug/L	33	0	0%	2017-07-20 to 2025-10-22	Nonparametric	Nonparametric	27	28.2	5.60	33.8	5.30	0.197	-2.23
07_3_115	MW-7R	App. IV	Mercury	ug/L	33	33	100%	2017-07-20 to 2025-10-22		Nonparametric	0.109	0.120	0.0700	0.120	0.0129	0.118	-0.958
07_3_116	MW-7R	App. IV	Molybdenum	ug/L	33	28	85%	2017-07-20 to 2025-10-22	Gamma; Lognormal; Normal	Nonparametric	4.77	2.60	0.900	49.5	8.71	1.83	4.66
07_3_119	MW-7R	App. IV	Radium-226	pCi/L	31	0	0%	2017-07-20 to 2025-10-22	Normal	Normal	0.230	0.132	-0.316	1.17	0.358	1.55	1.15
07_3_120	MW-7R	App. IV	Radium-228	pCi/L	31	0	0%	2017-07-20 to 2025-10-22	Normal	Normal	0.550	0.509	-0.454	2.13	0.474	0.863	1.12
07_3_121	MW-7R	App. IV	Selenium	ug/L	33	32	97%	2017-07-20 to 2025-10-22		Nonparametric	4.53	4.70	0.180	6.16	0.934	0.206	-3.14
07_3_124	MW-7R	App. IV	Thallium	ug/L	33	30	91%	2017-07-20 to 2025-10-22		Nonparametric	0.0638	0.0500	0.0200	0.480	0.0789	1.24	4.89
07_3_126	MW-7R	App. IV	Total Radium	pCi/L	31	0	0%	2017-07-20 to 2025-10-22	Gamma	Gamma	0.836	0.660	0.0664	2.31	0.559	0.668	1.11
08_1_111	MW-8	App. I Metals	Copper	ug/L	42	31	74%	2015-11-20 to 2025-10-22	Lognormal	Nonparametric	5.74	2.50	0.620	116	17.5	3.05	6.37
08_1_117	MW-8	App. I Metals	Nickel	ug/L	42	21	50%	2015-11-20 to 2025-10-22	Lognormal	Nonparametric	8.97	2.50	0.900	157	24.6	2.74	5.64
08_1_122	MW-8	App. I Metals	Silver	ug/L	42	41	98%	2015-11-20 to 2025-10-22		Nonparametric	2.04	2.50	0.490	2.89	0.803	0.394	-1.17
08_1_127	MW-8	App. I Metals	Vanadium	ug/L	42	34	81%	2015-11-20 to 2025-10-22	Gamma; Lognormal; Normal	Nonparametric	2.82	2.50	1.30	9.50	1.45	0.514	2.60
08_1_128	MW-8	App. I Metals	Zinc	ug/L	42	24	57%	2015-11-20 to 2025-10-22	Gamma; Lognormal	Nonparametric	12.8	9.50	3.20	62.0	12.7	0.995	2.63
08_2_105	MW-8	App. III	Boron	ug/L	41	15	37%	2015-11-20 to 2025-10-22	Gamma; Lognormal; Normal	Normal	8.45	9.30	0.570	14.0	4.06	0.480	-0.953
08_2_107	MW-8	App. III	Calcium	ug/L	42	0	0%	2015-11-20 to 2025-10-22	Nonparametric	Nonparametric	112990	108000	4170	194000	29600	0.262	-0.222

(Table continues on next page)

[a] Non-detects are excluded from goodness-of-fit tests.

Table 1: Summary Statistics, Non-Detects Included *(continued)*

ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	Date Range	Distributions Fit[a]	Recommended Distribution	Mean	Median	Minimum	Maximum	SD	CV	Skewness
08_2_108	MW-8	App. III	Chloride	mg/L	42	0	0%	2015-11-20 to 2025-10-22	Nonparametric	Nonparametric	410	372	229	939	145	0.354	1.85
08_2_112	MW-8	App. III	Fluoride	mg/L	42	20	48%	2015-11-20 to 2025-10-22	Gamma; Lognormal; Normal	Normal	0.0640	0.0610	0.0200	0.140	0.0307	0.479	0.234
08_2_118	MW-8	App. III	pH (Field)	S.U.	40	0	0%	2015-11-20 to 2025-10-25	Gamma; Lognormal; Normal	Normal	7.03	7.01	6.70	7.31	0.135	0.0192	0.0938
08_2_123	MW-8	App. III	Sulfate	mg/L	42	0	0%	2015-11-20 to 2025-10-22	Gamma; Lognormal; Normal	Normal	6.84	6.85	4.40	8.40	0.811	0.119	-0.596
08_2_125	MW-8	App. III	Total Dissolved Solids	mg/L	42	0	0%	2015-11-20 to 2025-10-22	Nonparametric	Nonparametric	981	921	224	1630	247	0.252	0.254
08_3_101	MW-8	App. IV	Antimony	ug/L	42	35	83%	2015-11-20 to 2025-10-22	Gamma; Lognormal; Normal	Nonparametric	4.30	3.90	0.200	10.1	1.79	0.416	1.19
08_3_102	MW-8	App. IV	Arsenic	ug/L	42	37	88%	2015-11-20 to 2025-10-22	Gamma; Lognormal; Normal	Nonparametric	4.32	4.70	2.50	7.83	1.44	0.334	0.480
08_3_103	MW-8	App. IV	Barium	ug/L	42	0	0%	2015-11-20 to 2025-10-22	Nonparametric	Nonparametric	1146	1090	880	1880	187	0.163	1.98
08_3_104	MW-8	App. IV	Beryllium	ug/L	42	41	98%	2015-11-20 to 2025-10-22		Nonparametric	0.463	0.500	0.160	1.50	0.256	0.552	1.41
08_3_106	MW-8	App. IV	Cadmium	ug/L	42	41	98%	2015-11-20 to 2025-10-22		Nonparametric	0.452	0.400	0.290	1.50	0.183	0.405	4.72
08_3_109	MW-8	App. IV	Chromium	ug/L	42	20	48%	2015-11-20 to 2025-10-22	Gamma; Lognormal	Gamma	10.7	2.50	1.00	87.6	19.3	1.82	3.03
08_3_110	MW-8	App. IV	Cobalt	ug/L	42	37	88%	2015-11-20 to 2025-10-22	Gamma; Lognormal; Normal	Nonparametric	2.18	2.50	0.440	3.80	1.08	0.493	-0.0912
08_3_112	MW-8	App. IV	Fluoride	mg/L	42	20	48%	2015-11-20 to 2025-10-22	Gamma; Lognormal; Normal	Normal	0.0640	0.0610	0.0200	0.140	0.0307	0.479	0.234
08_3_113	MW-8	App. IV	Lead	ug/L	42	39	93%	2015-11-20 to 2025-10-22		Nonparametric	3.10	2.50	1.40	13.7	1.97	0.636	3.96
08_3_114	MW-8	App. IV	Lithium	ug/L	42	1	2%	2015-11-20 to 2025-10-22	Gamma; Lognormal	Gamma	27.7	26.6	4.20	50.1	7.89	0.285	0.369
08_3_115	MW-8	App. IV	Mercury	ug/L	42	41	98%	2015-11-20 to 2025-10-22		Nonparametric	0.114	0.100	0.0700	0.370	0.0422	0.371	5.66
08_3_116	MW-8	App. IV	Molybdenum	ug/L	42	39	93%	2015-11-20 to 2025-10-22		Nonparametric	2.66	2.50	0.900	5.60	1.08	0.408	0.643
08_3_119	MW-8	App. IV	Radium-226	pCi/L	40	0	0%	2015-11-20 to 2025-10-22	Nonparametric	Nonparametric	0.449	0.376	-0.357	2.51	0.501	1.12	1.81
08_3_120	MW-8	App. IV	Radium-228	pCi/L	40	0	0%	2015-11-20 to 2025-10-22	Nonparametric	Nonparametric	0.838	0.676	-0.351	4.72	0.731	0.873	3.93
08_3_121	MW-8	App. IV	Selenium	ug/L	42	40	95%	2015-11-20 to 2025-10-22		Nonparametric	4.64	4.70	0.330	6.16	0.826	0.178	-3.49
08_3_124	MW-8	App. IV	Thallium	ug/L	42	40	95%	2015-11-20 to 2025-10-22		Nonparametric	0.843	0.0500	0.0200	8.80	2.05	2.44	2.50
08_3_126	MW-8	App. IV	Total Radium	pCi/L	40	0	0%	2015-11-20 to 2025-10-22	Nonparametric	Nonparametric	1.32	1.22	0	7.23	1.07	0.814	4.41
09_1_111	MW-10	App. I Metals	Copper	ug/L	18	9	50%	2021-08-09 to 2025-10-23	Gamma; Lognormal	Nonparametric	12.9	2.60	0.620	103	26.4	2.05	2.91
09_1_117	MW-10	App. I Metals	Nickel	ug/L	18	6	33%	2021-08-09 to 2025-10-23	Lognormal	Lognormal	3.81	2.55	0.880	27.9	6.13	1.61	3.97
09_1_122	MW-10	App. I Metals	Silver	ug/L	18	18	100%	2021-08-09 to 2025-10-23		Nonparametric	1.30	1.00	0.0700	2.89	0.953	0.732	0.581
09_1_127	MW-10	App. I Metals	Vanadium	ug/L	18	11	61%	2021-08-09 to 2025-10-23	Nonparametric	Nonparametric	3.50	2.35	1.50	18.2	3.85	1.10	3.64
09_1_128	MW-10	App. I Metals	Zinc	ug/L	18	13	72%	2021-08-09 to 2025-10-23	Lognormal	Nonparametric	12.1	9.50	3.00	94.2	20.8	1.72	4.05
09_2_105	MW-10	App. III	Boron	ug/L	18	0	0%	2021-08-09 to 2025-10-23	Gamma; Lognormal; Normal	Normal	25.5	24.9	17.8	43.4	5.53	0.217	1.94
09_2_107	MW-10	App. III	Calcium	ug/L	18	0	0%	2021-08-09 to 2025-10-23	Gamma; Lognormal; Normal	Normal	21604	21650	17700	26500	1995	0.0923	0.256
09_2_108	MW-10	App. III	Chloride	mg/L	18	0	0%	2021-08-09 to 2025-10-23	Gamma; Lognormal; Normal	Normal	29.7	29.6	28.0	32.4	1.07	0.0359	0.691
09_2_112	MW-10	App. III	Fluoride	mg/L	18	0	0%	2021-08-09 to 2025-10-23	Gamma; Lognormal; Normal	Normal	0.458	0.445	0.400	0.540	0.0434	0.0947	0.539
09_2_118	MW-10	App. III	pH (Field)	S.U.	19	0	0%	2021-04-12 to 2025-10-25	Gamma; Lognormal; Normal	Normal	7.80	7.79	7.48	8.16	0.140	0.0179	0.486
09_2_123	MW-10	App. III	Sulfate	mg/L	18	0	0%	2021-08-09 to 2025-10-23	Gamma; Lognormal; Normal	Normal	3.31	2.80	1.60	8.00	1.81	0.549	1.30
09_2_125	MW-10	App. III	Total Dissolved Solids	mg/L	18	0	0%	2021-08-09 to 2025-10-23	Gamma; Lognormal; Normal	Normal	346	347	318	368	11.8	0.0341	-0.549
09_3_101	MW-10	App. IV	Antimony	ug/L	18	17	94%	2021-08-09 to 2025-10-23		Nonparametric	3.82	3.60	0.760	5.50	1.23	0.323	-0.382
09_3_102	MW-10	App. IV	Arsenic	ug/L	18	14	78%	2021-08-09 to 2025-10-23		Nonparametric	3.75	3.40	1.20	7.83	1.44	0.384	1.06
09_3_103	MW-10	App. IV	Barium	ug/L	18	0	0%	2021-08-09 to 2025-10-23	Nonparametric	Nonparametric	84	86.1	43.2	195	33.3	0.396	2.13
09_3_104	MW-10	App. IV	Beryllium	ug/L	18	18	100%	2021-08-09 to 2025-10-23		Nonparametric	0.356	0.170	0.0500	0.700	0.249	0.698	0.496
09_3_106	MW-10	App. IV	Cadmium	ug/L	18	18	100%	2021-08-09 to 2025-10-23		Nonparametric	0.352	0.330	0.0600	0.538	0.104	0.297	-0.855
09_3_109	MW-10	App. IV	Chromium	ug/L	18	6	33%	2021-08-09 to 2025-10-23	Gamma; Lognormal	Gamma	6.33	3.00	0.630	56.7	12.9	2.05	3.87
09_3_110	MW-10	App. IV	Cobalt	ug/L	18	16	89%	2021-08-09 to 2025-10-23		Nonparametric	1.79	0.960	0.440	7.60	1.90	1.06	1.94
09_3_112	MW-10	App. IV	Fluoride	mg/L	18	0	0%	2021-08-09 to 2025-10-23	Gamma; Lognormal; Normal	Normal	0.458	0.445	0.400	0.540	0.0434	0.0947	0.539

(Table continues on next page)

[a] Non-detects are excluded from goodness-of-fit tests.

Table 1: Summary Statistics, Non-Detects Included *(continued)*

ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	Date Range	Distributions Fit[a]	Recommended Distribution	Mean	Median	Minimum	Maximum	SD	CV	Skewness
09_3_113	MW-10	App. IV	Lead	ug/L	18	16	89%	2021-08-09 to 2025-10-23		Nonparametric	3.80	2.66	0.760	13.7	3.43	0.902	2.09
09_3_114	MW-10	App. IV	Lithium	ug/L	18	0	0%	2021-08-09 to 2025-10-23	Nonparametric	Nonparametric	3.60	3.55	0.690	6.70	2.13	0.592	0.0746
09_3_115	MW-10	App. IV	Mercury	ug/L	18	18	100%	2021-08-09 to 2025-10-23		Nonparametric	0.113	0.120	0.0700	0.120	0.0148	0.131	-1.97
09_3_116	MW-10	App. IV	Molybdenum	ug/L	18	0	0%	2021-08-09 to 2025-10-23	Gamma; Lognormal	Gamma	22.0	20.2	15.4	36.2	5.90	0.268	1.21
09_3_119	MW-10	App. IV	Radium-226	pCi/L	18	0	0%	2021-08-09 to 2025-10-23	Normal	Normal	0.161	0.171	-0.305	0.537	0.241	1.49	-0.361
09_3_120	MW-10	App. IV	Radium-228	pCi/L	18	0	0%	2021-08-09 to 2025-10-23	Normal	Normal	0.591	0.513	-0.100	1.67	0.415	0.702	0.842
09_3_121	MW-10	App. IV	Selenium	ug/L	18	15	83%	2021-08-09 to 2025-10-23		Nonparametric	4.40	4.10	0.500	7.63	1.34	0.304	-0.634
09_3_124	MW-10	App. IV	Thallium	ug/L	18	17	94%	2021-08-09 to 2025-10-23		Nonparametric	0.0509	0.0500	0.0270	0.130	0.0290	0.570	2.04
09_3_126	MW-10	App. IV	Total Radium	pCi/L	18	0	0%	2021-08-09 to 2025-10-23	Normal	Normal	0.801	0.768	0	1.74	0.416	0.519	0.287
10_1_111	MW-11	App. I Metals	Copper	ug/L	21	10	48%	2020-10-15 to 2025-10-23	Gamma; Lognormal	Gamma	5.39	3.30	0.620	34.4	7.75	1.44	3.21
10_1_117	MW-11	App. I Metals	Nickel	ug/L	21	12	57%	2020-10-15 to 2025-10-23	Gamma; Lognormal	Nonparametric	2.64	2.20	0.790	7.60	1.57	0.595	1.44
10_1_122	MW-11	App. I Metals	Silver	ug/L	21	21	100%	2020-10-15 to 2025-10-23		Nonparametric	1.47	1.00	0.0700	2.89	0.978	0.664	0.168
10_1_127	MW-11	App. I Metals	Vanadium	ug/L	21	18	86%	2020-10-15 to 2025-10-23		Nonparametric	2.56	2.00	0.440	5.64	1.45	0.565	0.400
10_1_128	MW-11	App. I Metals	Zinc	ug/L	21	14	67%	2020-10-15 to 2025-10-23	Gamma; Lognormal; Normal	Nonparametric	8.75	9.50	3.00	14.4	3.19	0.365	-0.534
10_2_105	MW-11	App. III	Boron	ug/L	21	1	5%	2020-10-15 to 2025-10-23	Gamma; Lognormal	Gamma	15.8	15.8	8.50	25.2	3.35	0.212	0.597
10_2_107	MW-11	App. III	Calcium	ug/L	21	0	0%	2020-10-15 to 2025-10-23	Nonparametric	Nonparametric	29987	26500	23200	69400	10016	0.334	3.36
10_2_108	MW-11	App. III	Chloride	mg/L	21	0	0%	2020-10-15 to 2025-10-23	Gamma; Lognormal; Normal	Normal	129	132	74.5	155	18.8	0.145	-1.24
10_2_112	MW-11	App. III	Fluoride	mg/L	21	1	5%	2020-10-15 to 2025-10-23	Gamma; Lognormal; Normal	Normal	0.160	0.170	0.0500	0.220	0.0332	0.207	-1.60
10_2_118	MW-11	App. III	pH (Field)	S.U.	20	0	0%	2021-01-29 to 2025-10-25	Nonparametric	Nonparametric	6.97	6.66	6.50	11.7	1.13	0.163	4.27
10_2_123	MW-11	App. III	Sulfate	mg/L	21	0	0%	2020-10-15 to 2025-10-23	Gamma; Lognormal; Normal	Normal	2.19	2.10	1.80	3.00	0.282	0.129	1.04
10_2_125	MW-11	App. III	Total Dissolved Solids	mg/L	21	0	0%	2020-10-15 to 2025-10-23	Nonparametric	Nonparametric	528	416	296	2760	513	0.972	4.53
10_3_101	MW-11	App. IV	Antimony	ug/L	21	19	90%	2020-10-15 to 2025-10-23		Nonparametric	3.69	3.60	0.320	5.50	1.23	0.334	-0.441
10_3_102	MW-11	App. IV	Arsenic	ug/L	21	19	90%	2020-10-15 to 2025-10-23		Nonparametric	3.87	4.20	0.400	7.83	1.52	0.392	0.262
10_3_103	MW-11	App. IV	Barium	ug/L	21	0	0%	2020-10-15 to 2025-10-23	Nonparametric	Nonparametric	47.4	40.2	34.3	130	20.6	0.435	3.52
10_3_104	MW-11	App. IV	Beryllium	ug/L	21	21	100%	2020-10-15 to 2025-10-23		Nonparametric	0.405	0.440	0.0500	0.700	0.260	0.642	0.110
10_3_106	MW-11	App. IV	Cadmium	ug/L	21	21	100%	2020-10-15 to 2025-10-23		Nonparametric	0.358	0.400	0.0600	0.538	0.0978	0.273	-1.08
10_3_109	MW-11	App. IV	Chromium	ug/L	21	15	71%	2020-10-15 to 2025-10-23	Gamma; Lognormal; Normal	Nonparametric	2.87	2.70	0.500	8.80	2.22	0.772	1.39
10_3_110	MW-11	App. IV	Cobalt	ug/L	21	14	67%	2020-10-15 to 2025-10-23	Gamma; Lognormal; Normal	Nonparametric	1.94	1.30	0.440	3.60	1.36	0.702	0.402
10_3_112	MW-11	App. IV	Fluoride	mg/L	21	1	5%	2020-10-15 to 2025-10-23	Gamma; Lognormal; Normal	Normal	0.160	0.170	0.0500	0.220	0.0332	0.207	-1.60
10_3_113	MW-11	App. IV	Lead	ug/L	21	19	90%	2020-10-15 to 2025-10-23		Nonparametric	3.57	3.30	0.190	13.7	2.73	0.764	2.59
10_3_114	MW-11	App. IV	Lithium	ug/L	21	0	0%	2020-10-15 to 2025-10-23	Nonparametric	Nonparametric	10.9	10.4	8.30	19.5	2.45	0.225	2.41
10_3_115	MW-11	App. IV	Mercury	ug/L	21	21	100%	2020-10-15 to 2025-10-23		Nonparametric	0.114	0.120	0.0700	0.120	0.0139	0.122	-2.22
10_3_116	MW-11	App. IV	Molybdenum	ug/L	21	18	86%	2020-10-15 to 2025-10-23		Nonparametric	2.67	2.60	0.410	3.90	1.12	0.418	-0.185
10_3_119	MW-11	App. IV	Radium-226	pCi/L	21	0	0%	2020-10-15 to 2025-10-23	Normal	Normal	0.125	0.113	-0.149	0.478	0.184	1.47	0.294
10_3_120	MW-11	App. IV	Radium-228	pCi/L	21	0	0%	2020-10-15 to 2025-10-23	Nonparametric	Nonparametric	0.501	0.500	-0.135	2.13	0.490	0.978	1.89
10_3_121	MW-11	App. IV	Selenium	ug/L	21	21	100%	2020-10-15 to 2025-10-23		Nonparametric	4.33	4.70	0.0720	6.16	1.15	0.265	-2.48
10_3_124	MW-11	App. IV	Thallium	ug/L	21	20	95%	2020-10-15 to 2025-10-23		Nonparametric	0.0501	0.0500	0.0270	0.130	0.0225	0.449	2.39
10_3_126	MW-11	App. IV	Total Radium	pCi/L	21	0	0%	2020-10-15 to 2025-10-23	Gamma; Lognormal	Gamma	0.659	0.513	0.124	2.39	0.516	0.783	2.11
11_1_111	MW-11D	App. I Metals	Copper	ug/L	19	12	63%	2021-04-13 to 2025-10-23	Gamma; Lognormal; Normal	Nonparametric	3.75	2.60	0.620	15.4	4.18	1.11	2.22
11_1_117	MW-11D	App. I Metals	Nickel	ug/L	19	14	74%	2021-04-13 to 2025-10-23	Gamma; Lognormal	Nonparametric	2.27	1.96	0.880	6.20	1.45	0.641	1.11
11_1_122	MW-11D	App. I Metals	Silver	ug/L	19	19	100%	2021-04-13 to 2025-10-23		Nonparametric	1.37	1.00	0.0700	2.89	0.966	0.707	0.423
11_1_127	MW-11D	App. I Metals	Vanadium	ug/L	19	16	84%	2021-04-13 to 2025-10-23		Nonparametric	2.46	1.60	0.690	5.64	1.41	0.574	0.730

(Table continues on next page)

[a] Non-detects are excluded from goodness-of-fit tests.

Table 1: Summary Statistics, Non-Detects Included *(continued)*

ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	Date Range	Distributions Fit[a]	Recommended Distribution	Mean	Median	Minimum	Maximum	SD	CV	Skewness
11_1_128	MW-11D	App. I Metals	Zinc	ug/L	19	11	58%	2021-04-13 to 2025-10-23	Gamma; Lognormal	Nonparametric	13.5	9.50	2.90	89.7	19	1.41	3.98
11_2_105	MW-11D	App. III	Boron	ug/L	19	0	0%	2021-04-13 to 2025-10-23	Nonparametric	Nonparametric	52.6	48.2	41.6	109	15.6	0.296	2.99
11_2_107	MW-11D	App. III	Calcium	ug/L	19	0	0%	2021-04-13 to 2025-10-23	Nonparametric	Nonparametric	23693	16500	14000	94400	18091	0.764	3.66
11_2_108	MW-11D	App. III	Chloride	mg/L	19	0	0%	2021-04-13 to 2025-10-23	Nonparametric	Nonparametric	111	68.2	52.3	530	112	1.01	3.24
11_2_112	MW-11D	App. III	Fluoride	mg/L	19	0	0%	2021-04-13 to 2025-10-23	Gamma; Lognormal; Normal	Normal	0.477	0.480	0.400	0.640	0.0552	0.116	1.31
11_2_118	MW-11D	App. III	pH (Field)	S.U.	19	0	0%	2021-04-12 to 2025-10-25	Gamma; Lognormal; Normal	Normal	8.35	8.31	8.05	8.92	0.250	0.0299	0.915
11_2_123	MW-11D	App. III	Sulfate	mg/L	19	1	5%	2021-04-13 to 2025-10-23	Nonparametric	Nonparametric	71.3	16.1	0.500	523	121	1.70	3.21
11_2_125	MW-11D	App. III	Total Dissolved Solids	mg/L	19	0	0%	2021-04-13 to 2025-10-23	Nonparametric	Nonparametric	500	354	312	1740	340	0.679	3.04
11_3_101	MW-11D	App. IV	Antimony	ug/L	19	16	84%	2021-04-13 to 2025-10-23		Nonparametric	3.92	3.60	0.620	5.60	1.29	0.328	-0.523
11_3_102	MW-11D	App. IV	Arsenic	ug/L	19	10	53%	2021-04-13 to 2025-10-23	Gamma; Lognormal; Normal	Nonparametric	6.09	4.20	2.50	16.5	4.23	0.695	1.53
11_3_103	MW-11D	App. IV	Barium	ug/L	19	0	0%	2021-04-13 to 2025-10-23	Nonparametric	Nonparametric	107	112	65.7	124	16.2	0.152	-1.58
11_3_104	MW-11D	App. IV	Beryllium	ug/L	19	18	95%	2021-04-13 to 2025-10-23		Nonparametric	0.377	0.170	0.110	0.700	0.250	0.663	0.386
11_3_106	MW-11D	App. IV	Cadmium	ug/L	19	19	100%	2021-04-13 to 2025-10-23		Nonparametric	0.354	0.330	0.0600	0.538	0.102	0.288	-0.936
11_3_109	MW-11D	App. IV	Chromium	ug/L	19	14	74%	2021-04-13 to 2025-10-23	Gamma; Lognormal; Normal	Nonparametric	2.49	2.20	0.630	8.00	1.83	0.734	1.44
11_3_110	MW-11D	App. IV	Cobalt	ug/L	19	18	95%	2021-04-13 to 2025-10-23		Nonparametric	1.67	0.960	0.210	3.60	1.39	0.832	0.687
11_3_112	MW-11D	App. IV	Fluoride	mg/L	19	0	0%	2021-04-13 to 2025-10-23	Gamma; Lognormal; Normal	Normal	0.477	0.480	0.400	0.640	0.0552	0.116	1.31
11_3_113	MW-11D	App. IV	Lead	ug/L	19	18	95%	2021-04-13 to 2025-10-23		Nonparametric	3.54	2.90	1.40	13.7	2.78	0.787	2.88
11_3_114	MW-11D	App. IV	Lithium	ug/L	19	0	0%	2021-04-13 to 2025-10-23	Lognormal	Lognormal	26.7	20.8	14.7	80.7	16.5	0.616	2.50
11_3_115	MW-11D	App. IV	Mercury	ug/L	19	19	100%	2021-04-13 to 2025-10-23		Nonparametric	0.113	0.120	0.0700	0.120	0.0145	0.128	-2.06
11_3_116	MW-11D	App. IV	Molybdenum	ug/L	19	1	5%	2021-04-13 to 2025-10-23	Gamma; Lognormal	Gamma	18.5	7.40	2.20	127	28.9	1.56	3.25
11_3_119	MW-11D	App. IV	Radium-226	pCi/L	19	0	0%	2021-04-13 to 2025-10-23	Normal	Normal	0.138	0.0670	-0.249	0.692	0.281	2.04	0.642
11_3_120	MW-11D	App. IV	Radium-228	pCi/L	19	0	0%	2021-04-13 to 2025-10-23	Gamma; Lognormal	Gamma	0.585	0.585	0.0582	2.23	0.492	0.841	2.17
11_3_121	MW-11D	App. IV	Selenium	ug/L	19	17	89%	2021-04-13 to 2025-10-23		Nonparametric	4.32	4.10	0.230	6.16	1.19	0.276	-2.10
11_3_124	MW-11D	App. IV	Thallium	ug/L	19	18	95%	2021-04-13 to 2025-10-23		Nonparametric	0.0506	0.0500	0.0270	0.130	0.0245	0.485	2.19
11_3_126	MW-11D	App. IV	Total Radium	pCi/L	19	0	0%	2021-04-13 to 2025-10-23	Gamma; Lognormal; Normal	Normal	0.770	0.690	0.125	2.27	0.528	0.686	1.26

[a] Non-detects are excluded from goodness-of-fit tests.

Table 2: Summary Statistics, Non-Detects Excluded

ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	Date Range	Distributions Fit	Recommended Distribution	Mean	Median	Minimum	Maximum	SD	CV	Skewness
01_1_111	MW-1	App. I Metals	Copper	ug/L	42	33	79%	2015-11-20 to 2025-10-21	Lognormal	Nonparametric	4.11	1.60	0.860	15.0	4.85	1.18	1.70
01_1_117	MW-1	App. I Metals	Nickel	ug/L	42	29	69%	2015-11-20 to 2025-10-21	Gamma; Lognormal; Normal	Nonparametric	5.01	4.90	1.30	13.3	3.36	0.670	1.16
01_1_122	MW-1	App. I Metals	Silver	ug/L	42	35	83%	2015-11-20 to 2025-10-21	Gamma; Normal	Nonparametric	0.861	1.00	0.200	1.20	0.353	0.410	-1.13
01_1_127	MW-1	App. I Metals	Vanadium	ug/L	42	25	60%	2015-11-20 to 2025-10-21	Gamma; Lognormal; Normal	Nonparametric	4.41	4.10	1.90	9.80	2.10	0.476	1.21
01_1_128	MW-1	App. I Metals	Zinc	ug/L	42	25	60%	2015-11-20 to 2025-10-21	Gamma; Lognormal	Nonparametric	15.0	13.2	4.90	35.3	8.70	0.578	1.09
01_2_105	MW-1	App. III	Boron	ug/L	41	22	54%	2015-11-20 to 2025-10-21	Nonparametric	Nonparametric	14.1	10.0	6.20	50.8	12.2	0.861	2.62
01_2_107	MW-1	App. III	Calcium	ug/L	42	0	0%	2015-11-20 to 2025-10-21	Gamma; Lognormal; Normal	Normal	165016	158000	43100	311000	72612	0.440	0.144
01_2_108	MW-1	App. III	Chloride	mg/L	42	0	0%	2015-11-20 to 2025-10-21	Gamma; Normal	Normal	603	610	83.9	1240	268	0.444	-0.0473
01_2_112	MW-1	App. III	Fluoride	mg/L	42	1	2%	2015-11-20 to 2025-10-21	Nonparametric	Nonparametric	0.151	0.160	0.110	0.210	0.0239	0.158	0.134
01_2_118	MW-1	App. III	pH (Field)	S.U.	40	0	0%	2015-11-20 to 2025-10-25	Gamma; Lognormal; Normal	Normal	6.75	6.71	6.41	7.30	0.217	0.0321	0.686
01_2_123	MW-1	App. III	Sulfate	mg/L	42	0	0%	2015-11-20 to 2025-10-21	Nonparametric	Nonparametric	6.94	6.60	4.50	11.2	1.58	0.228	1.24
01_2_125	MW-1	App. III	Total Dissolved Solids	mg/L	42	0	0%	2015-11-20 to 2025-10-21	Gamma; Lognormal; Normal	Normal	1442	1320	346	3390	696	0.483	0.614
01_3_101	MW-1	App. IV	Antimony	ug/L	42	40	95%	2015-11-20 to 2025-10-21		Nonparametric	5.85	5.85	5.60	6.10	0.354	0.0604	NA
01_3_102	MW-1	App. IV	Arsenic	ug/L	42	38	90%	2015-11-20 to 2025-10-21		Nonparametric	3.23	3.00	1.70	5.20	1.51	0.468	0.737
01_3_103	MW-1	App. IV	Barium	ug/L	42	0	0%	2015-11-20 to 2025-10-21	Gamma; Lognormal; Normal	Normal	211	214	36.3	421	96.7	0.458	0.293
01_3_106	MW-1	App. IV	Cadmium	ug/L	42	39	93%	2015-11-20 to 2025-10-21		Nonparametric	0.603	0.570	0.570	0.670	0.0577	0.0957	1.73
01_3_109	MW-1	App. IV	Chromium	ug/L	42	28	67%	2015-11-20 to 2025-10-21	Gamma; Lognormal; Normal	Nonparametric	6.52	6.70	0.760	18.4	4.69	0.719	1.12
01_3_110	MW-1	App. IV	Cobalt	ug/L	42	37	88%	2015-11-20 to 2025-10-21	Gamma; Lognormal; Normal	Nonparametric	1.20	1.20	0.140	2.30	0.821	0.685	0.0972
01_3_112	MW-1	App. IV	Fluoride	mg/L	42	1	2%	2015-11-20 to 2025-10-21	Nonparametric	Nonparametric	0.151	0.160	0.110	0.210	0.0239	0.158	0.134
01_3_113	MW-1	App. IV	Lead	ug/L	42	37	88%	2015-11-20 to 2025-10-21	Gamma; Lognormal; Normal	Nonparametric	3.55	3.80	0.250	6.80	2.66	0.750	-0.0804
01_3_114	MW-1	App. IV	Lithium	ug/L	42	0	0%	2015-11-20 to 2025-10-21	Gamma; Lognormal; Normal	Normal	33	33.1	19.2	47.5	5.70	0.173	-0.0295
01_3_116	MW-1	App. IV	Molybdenum	ug/L	42	37	88%	2015-11-20 to 2025-10-21	Gamma; Lognormal; Normal	Nonparametric	8.11	9.00	0.340	15.1	6.95	0.857	-0.175
01_3_119	MW-1	App. IV	Radium-226	pCi/L	40	0	0%	2015-11-20 to 2025-10-21	Normal	Normal	0.206	0.217	-0.574	1.03	0.344	1.67	0.0950
01_3_120	MW-1	App. IV	Radium-228	pCi/L	40	0	0%	2015-11-20 to 2025-10-21	Normal	Normal	0.616	0.616	-0.0467	1.45	0.285	0.463	0.380
01_3_121	MW-1	App. IV	Selenium	ug/L	42	40	95%	2015-11-20 to 2025-10-21		Nonparametric	2.34	2.34	0.280	4.40	2.91	1.24	NA
01_3_126	MW-1	App. IV	Total Radium	pCi/L	40	0	0%	2015-11-20 to 2025-10-21	Gamma; Lognormal; Normal	Normal	0.882	0.824	0.237	2.48	0.425	0.482	1.36
02_1_111	MW-2	App. I Metals	Copper	ug/L	37	15	41%	2015-11-19 to 2025-10-21	Lognormal	Nonparametric	29.9	6.25	0.950	294	66.1	2.21	3.52
02_1_117	MW-2	App. I Metals	Nickel	ug/L	37	12	32%	2015-11-19 to 2025-10-21	Gamma; Lognormal	Gamma	18.0	8.70	2.30	115	25.5	1.41	2.79
02_1_122	MW-2	App. I Metals	Silver	ug/L	37	34	92%	2015-11-19 to 2025-10-21		Nonparametric	0.684	0.880	0.0730	1.10	0.541	0.790	-1.42
02_1_127	MW-2	App. I Metals	Vanadium	ug/L	37	25	68%	2015-11-19 to 2025-10-21	Gamma; Lognormal	Nonparametric	7.92	4.05	1.60	37.2	10.5	1.33	2.43
02_1_128	MW-2	App. I Metals	Zinc	ug/L	37	16	43%	2015-11-19 to 2025-10-21	Lognormal	Nonparametric	116	27.7	3.60	1590	342	2.94	4.42
02_2_105	MW-2	App. III	Boron	ug/L	36	1	3%	2015-11-19 to 2025-10-21	Gamma; Lognormal; Normal	Normal	45.2	44.9	34.5	63.9	6.43	0.142	1.07
02_2_107	MW-2	App. III	Calcium	ug/L	37	0	0%	2015-11-19 to 2025-10-21	Nonparametric	Nonparametric	183035	188000	34300	221000	32161	0.176	-2.89
02_2_108	MW-2	App. III	Chloride	mg/L	37	0	0%	2015-11-19 to 2025-10-21	Normal	Normal	1076	1120	489	1360	183	0.170	-1.50
02_2_112	MW-2	App. III	Fluoride	mg/L	37	2	5%	2015-11-19 to 2025-10-21	Lognormal	Lognormal	0.217	0.210	0.130	0.400	0.0510	0.235	1.21
02_2_118	MW-2	App. III	pH (Field)	S.U.	33	0	0%	2015-11-19 to 2025-10-25	Nonparametric	Nonparametric	7.66	7.56	7.35	9.29	0.376	0.0490	3.00
02_2_123	MW-2	App. III	Sulfate	mg/L	37	0	0%	2015-11-19 to 2025-10-21	Nonparametric	Nonparametric	120	87.4	51.7	338	76.7	0.637	1.35
02_2_125	MW-2	App. III	Total Dissolved Solids	mg/L	37	0	0%	2015-11-19 to 2025-10-21	Nonparametric	Nonparametric	2630	2470	257	11700	1651	0.628	4.69
02_3_101	MW-2	App. IV	Antimony	ug/L	37	23	62%	2015-11-19 to 2025-10-21	Gamma; Lognormal; Normal	Nonparametric	7.16	6.75	0.610	12.3	3.13	0.437	-0.287
02_3_102	MW-2	App. IV	Arsenic	ug/L	37	26	70%	2015-11-19 to 2025-10-21	Gamma; Lognormal; Normal	Nonparametric	6.09	5.40	3.70	11.5	2.62	0.430	1.29
02_3_103	MW-2	App. IV	Barium	ug/L	37	0	0%	2015-11-19 to 2025-10-21	Nonparametric	Nonparametric	306	314	90.8	565	85.5	0.279	0.514
02_3_104	MW-2	App. IV	Beryllium	ug/L	37	34	92%	2015-11-19 to 2025-10-21		Nonparametric	0.707	0.620	0.400	1.10	0.358	0.507	1.03
02_3_106	MW-2	App. IV	Cadmium	ug/L	37	33	89%	2015-11-19 to 2025-10-21		Nonparametric	0.440	0.500	0.0780	0.680	0.256	0.583	-1.30

(Table continues on next page)

Table 2: Summary Statistics, Non-Detects Excluded *(continued)*

ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	Date Range	Distributions Fit	Recommended Distribution	Mean	Median	Minimum	Maximum	SD	CV	Skewness
02_3_109	MW-2	App. IV	Chromium	ug/L	37	6	16%	2015-11-19 to 2025-10-21	Lognormal	Nonparametric	19.4	7.70	1.80	130	28	1.44	2.71
02_3_110	MW-2	App. IV	Cobalt	ug/L	37	28	76%	2015-11-19 to 2025-10-21	Lognormal	Nonparametric	6.64	2.40	0.810	34.8	11.1	1.66	2.57
02_3_112	MW-2	App. IV	Fluoride	mg/L	37	2	5%	2015-11-19 to 2025-10-21	Lognormal	Lognormal	0.217	0.210	0.130	0.400	0.0510	0.235	1.21
02_3_113	MW-2	App. IV	Lead	ug/L	37	31	84%	2015-11-19 to 2025-10-21	Gamma; Lognormal; Normal	Nonparametric	10.5	5.75	1.80	27.5	10.0	0.960	1.24
02_3_114	MW-2	App. IV	Lithium	ug/L	37	0	0%	2015-11-19 to 2025-10-21	Nonparametric	Nonparametric	152	130	41.2	512	86.0	0.567	2.75
02_3_116	MW-2	App. IV	Molybdenum	ug/L	37	6	16%	2015-11-19 to 2025-10-21	Gamma; Lognormal	Gamma	9.46	7.10	2.80	41.0	7.39	0.781	2.93
02_3_119	MW-2	App. IV	Radium-226	pCi/L	36	0	0%	2015-11-19 to 2025-10-21	Normal	Normal	0.907	0.938	-0.125	2.11	0.432	0.477	0.428
02_3_120	MW-2	App. IV	Radium-228	pCi/L	36	0	0%	2015-11-19 to 2025-10-21	Gamma; Lognormal; Normal	Normal	1.38	1.35	0.433	2.23	0.457	0.332	0.0912
02_3_121	MW-2	App. IV	Selenium	ug/L	37	35	95%	2015-11-19 to 2025-10-21		Nonparametric	2.87	2.87	0.940	4.80	2.73	0.951	NA
02_3_124	MW-2	App. IV	Thallium	ug/L	37	24	65%	2015-11-19 to 2025-10-21	Nonparametric	Nonparametric	0.876	0.0820	0.0370	10.3	2.83	3.23	3.60
02_3_126	MW-2	App. IV	Total Radium	pCi/L	36	0	0%	2015-11-19 to 2025-10-21	Normal	Normal	2.29	2.37	1.10	4.07	0.740	0.323	0.0237
03_1_111	MW-3	App. I Metals	Copper	ug/L	40	21	52%	2015-11-19 to 2025-10-21	Lognormal	Nonparametric	16.5	5.30	1.40	137	31.9	1.93	3.38
03_1_117	MW-3	App. I Metals	Nickel	ug/L	40	20	50%	2015-11-19 to 2025-10-21	Lognormal	Nonparametric	11.0	4.25	1.10	86.0	20.7	1.88	3.09
03_1_122	MW-3	App. I Metals	Silver	ug/L	40	38	95%	2015-11-19 to 2025-10-21		Nonparametric	1.23	1.23	0.850	1.60	0.530	0.433	NA
03_1_127	MW-3	App. I Metals	Vanadium	ug/L	40	25	62%	2015-11-19 to 2025-10-21	Gamma; Lognormal	Nonparametric	4.20	2.70	1.70	13.9	3.35	0.798	2.04
03_1_128	MW-3	App. I Metals	Zinc	ug/L	40	28	70%	2015-11-19 to 2025-10-21	Gamma; Lognormal; Normal	Nonparametric	14.1	12.2	3.50	42.7	11.3	0.804	1.57
03_2_105	MW-3	App. III	Boron	ug/L	39	10	26%	2015-11-19 to 2025-10-21	Normal	Normal	36.6	39.5	9.70	49.6	10.3	0.280	-0.863
03_2_107	MW-3	App. III	Calcium	ug/L	40	0	0%	2015-11-19 to 2025-10-21	Nonparametric	Nonparametric	177123	178500	117000	326000	30548	0.172	2.77
03_2_108	MW-3	App. III	Chloride	mg/L	40	0	0%	2015-11-19 to 2025-10-21	Normal	Normal	1059	1070	565	1280	131	0.124	-1.33
03_2_112	MW-3	App. III	Fluoride	mg/L	40	1	2%	2015-11-19 to 2025-10-21	Gamma; Lognormal; Normal	Normal	0.353	0.330	0.210	0.610	0.109	0.309	0.766
03_2_118	MW-3	App. III	pH (Field)	S.U.	36	0	0%	2015-11-19 to 2025-10-25	Nonparametric	Nonparametric	7.34	7.38	6.18	7.77	0.249	0.0340	-2.84
03_2_123	MW-3	App. III	Sulfate	mg/L	40	0	0%	2015-11-19 to 2025-10-21	Nonparametric	Nonparametric	44.6	19.1	9.10	174	45.6	1.02	1.47
03_2_125	MW-3	App. III	Total Dissolved Solids	mg/L	40	0	0%	2015-11-19 to 2025-10-21	Nonparametric	Nonparametric	2251	2370	256	3180	580	0.258	-2.12
03_3_101	MW-3	App. IV	Antimony	ug/L	40	29	72%	2015-11-19 to 2025-10-21	Gamma; Lognormal; Normal	Nonparametric	7.54	8.70	1.30	11.4	3.36	0.446	-0.601
03_3_102	MW-3	App. IV	Arsenic	ug/L	40	32	80%	2015-11-19 to 2025-10-21	Gamma; Lognormal; Normal	Nonparametric	5.49	5.60	1.90	9.60	2.60	0.473	0.0692
03_3_103	MW-3	App. IV	Barium	ug/L	40	0	0%	2015-11-19 to 2025-10-21	Normal	Normal	663	672	353	855	107	0.161	-0.694
03_3_106	MW-3	App. IV	Cadmium	ug/L	40	38	95%	2015-11-19 to 2025-10-21		Nonparametric	0.565	0.565	0.410	0.720	0.219	0.388	NA
03_3_109	MW-3	App. IV	Chromium	ug/L	40	20	50%	2015-11-19 to 2025-10-21	Lognormal	Nonparametric	18.5	5.55	0.920	179	41.7	2.25	3.50
03_3_110	MW-3	App. IV	Cobalt	ug/L	40	33	82%	2015-11-19 to 2025-10-21	Gamma; Lognormal	Nonparametric	1.75	1.30	0.0610	6.20	2.04	1.16	2.22
03_3_112	MW-3	App. IV	Fluoride	mg/L	40	1	2%	2015-11-19 to 2025-10-21	Gamma; Lognormal; Normal	Normal	0.353	0.330	0.210	0.610	0.109	0.309	0.766
03_3_113	MW-3	App. IV	Lead	ug/L	40	35	88%	2015-11-19 to 2025-10-21	Normal	Nonparametric	4.48	4.90	0.190	7.30	2.70	0.602	-1.12
03_3_114	MW-3	App. IV	Lithium	ug/L	40	1	2%	2015-11-19 to 2025-10-21	Nonparametric	Nonparametric	92.5	87.0	36.7	236	35.2	0.380	3.00
03_3_116	MW-3	App. IV	Molybdenum	ug/L	40	1	2%	2015-11-19 to 2025-10-21	Nonparametric	Nonparametric	8.80	7.80	5.10	35.7	4.82	0.548	4.80
03_3_119	MW-3	App. IV	Radium-226	pCi/L	39	0	0%	2015-11-19 to 2025-10-21	Gamma; Lognormal; Normal	Normal	0.931	0.848	0.213	1.92	0.373	0.400	0.356
03_3_120	MW-3	App. IV	Radium-228	pCi/L	39	0	0%	2015-11-19 to 2025-10-21	Gamma; Normal	Normal	1.51	1.55	0.326	2.86	0.555	0.369	-0.240
03_3_121	MW-3	App. IV	Selenium	ug/L	40	39	98%	2015-11-19 to 2025-10-21		Nonparametric	0.270	0.270	0.270	0.270	NA	NA	NA
03_3_124	MW-3	App. IV	Thallium	ug/L	40	39	98%	2015-11-19 to 2025-10-21		Nonparametric	0.0280	0.0280	0.0280	0.0280	NA	NA	NA
03_3_126	MW-3	App. IV	Total Radium	pCi/L	39	0	0%	2015-11-19 to 2025-10-21	Gamma; Normal	Normal	2.44	2.41	0.857	3.92	0.725	0.297	-0.110
04_1_111	MW-4	App. I Metals	Copper	ug/L	41	35	85%	2015-11-19 to 2025-10-20	Gamma; Lognormal	Nonparametric	41.3	4.26	0.900	170	68.2	1.65	1.81
04_1_117	MW-4	App. I Metals	Nickel	ug/L	41	11	27%	2015-11-19 to 2025-10-20	Gamma; Lognormal; Normal	Normal	7.86	7.45	3.50	12.8	2.80	0.356	0.358
04_1_127	MW-4	App. I Metals	Vanadium	ug/L	41	37	90%	2015-11-19 to 2025-10-20		Nonparametric	3.51	1.55	0.250	10.7	4.84	1.38	1.87
04_1_128	MW-4	App. I Metals	Zinc	ug/L	41	24	59%	2015-11-19 to 2025-10-20	Gamma; Lognormal	Nonparametric	15	10.8	7.40	47.2	10.0	0.671	2.42
04_2_105	MW-4	App. III	Boron	ug/L	40	23	57%	2015-11-19 to 2025-10-20	Nonparametric	Nonparametric	17.1	7.20	5.70	165	38.2	2.23	4.10

(Table continues on next page)

Table 2: Summary Statistics, Non-Detects Excluded *(continued)*

ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	Date Range	Distributions Fit	Recommended Distribution	Mean	Median	Minimum	Maximum	SD	CV	Skewness
04_2_107	MW-4	App. III	Calcium	ug/L	41	0	0%	2015-11-19 to 2025-10-20	Nonparametric	Nonparametric	55347	58300	17900	71600	12502	0.226	-1.44
04_2_108	MW-4	App. III	Chloride	mg/L	41	0	0%	2015-11-19 to 2025-10-20	Nonparametric	Nonparametric	398	415	144	567	104	0.262	-0.632
04_2_112	MW-4	App. III	Fluoride	mg/L	41	0	0%	2015-11-19 to 2025-10-20	Gamma; Lognormal; Normal	Normal	0.335	0.340	0.210	0.500	0.0589	0.176	0.417
04_2_118	MW-4	App. III	pH (Field)	S.U.	39	0	0%	2015-11-19 to 2025-10-25	Gamma; Lognormal; Normal	Normal	6.26	6.25	5.91	6.56	0.133	0.0212	0.0484
04_2_123	MW-4	App. III	Sulfate	mg/L	41	0	0%	2015-11-19 to 2025-10-20	Nonparametric	Nonparametric	10.1	10.7	3.40	13.4	2.27	0.224	-1.42
04_2_125	MW-4	App. III	Total Dissolved Solids	mg/L	41	0	0%	2015-11-19 to 2025-10-20	Nonparametric	Nonparametric	1078	1120	395	1580	218	0.202	-1.45
04_3_101	MW-4	App. IV	Antimony	ug/L	41	36	88%	2015-11-19 to 2025-10-20	Gamma; Lognormal; Normal	Nonparametric	4.32	3.40	3.10	7.00	1.69	0.392	1.30
04_3_102	MW-4	App. IV	Arsenic	ug/L	41	39	95%	2015-11-19 to 2025-10-20		Nonparametric	2.73	2.73	0.360	5.10	3.35	1.23	NA
04_3_103	MW-4	App. IV	Barium	ug/L	41	0	0%	2015-11-19 to 2025-10-20	Nonparametric	Nonparametric	290	306	85.9	431	67.5	0.233	-1.42
04_3_106	MW-4	App. IV	Cadmium	ug/L	41	40	98%	2015-11-19 to 2025-10-20		Nonparametric	0.470	0.470	0.470	0.470	NA	NA	NA
04_3_109	MW-4	App. IV	Chromium	ug/L	41	30	73%	2015-11-19 to 2025-10-20	Gamma; Lognormal; Normal	Nonparametric	3.73	2.60	0.580	9.90	3.19	0.855	0.988
04_3_110	MW-4	App. IV	Cobalt	ug/L	41	20	49%	2015-11-19 to 2025-10-20	Gamma; Lognormal; Normal	Normal	12.6	11.9	3.90	28.2	6.99	0.557	0.765
04_3_112	MW-4	App. IV	Fluoride	mg/L	41	0	0%	2015-11-19 to 2025-10-20	Gamma; Lognormal; Normal	Normal	0.335	0.340	0.210	0.500	0.0589	0.176	0.417
04_3_113	MW-4	App. IV	Lead	ug/L	41	40	98%	2015-11-19 to 2025-10-20		Nonparametric	6.80	6.80	6.80	6.80	NA	NA	NA
04_3_114	MW-4	App. IV	Lithium	ug/L	41	0	0%	2015-11-19 to 2025-10-20	Nonparametric	Nonparametric	32.2	28.6	15.8	98.0	12.5	0.389	3.71
04_3_116	MW-4	App. IV	Molybdenum	ug/L	41	35	85%	2015-11-19 to 2025-10-20	Gamma; Lognormal; Normal	Nonparametric	11.7	13.8	0.480	20.9	9.32	0.797	-0.316
04_3_119	MW-4	App. IV	Radium-226	pCi/L	39	0	0%	2015-11-19 to 2025-10-20	Normal	Normal	0.326	0.291	-0.259	0.913	0.289	0.884	0.167
04_3_120	MW-4	App. IV	Radium-228	pCi/L	39	0	0%	2015-11-19 to 2025-10-20	Normal	Normal	0.525	0.465	-0.0252	1.57	0.361	0.688	0.898
04_3_121	MW-4	App. IV	Selenium	ug/L	41	38	93%	2015-11-19 to 2025-10-20		Nonparametric	4.09	5.90	0.140	6.24	3.43	0.837	-1.71
04_3_126	MW-4	App. IV	Total Radium	pCi/L	39	0	0%	2015-11-19 to 2025-10-20	Gamma; Lognormal; Normal	Normal	0.866	0.760	0.146	2.26	0.479	0.553	1.05
05_1_111	MW-5	App. I Metals	Copper	ug/L	42	29	69%	2015-11-18 to 2025-10-20	Gamma; Lognormal; Normal	Nonparametric	4.61	2.70	0.980	12.9	3.89	0.843	0.949
05_1_117	MW-5	App. I Metals	Nickel	ug/L	42	32	76%	2015-11-18 to 2025-10-20	Lognormal	Nonparametric	15	2.40	0.640	120	37.0	2.47	3.13
05_1_127	MW-5	App. I Metals	Vanadium	ug/L	42	39	93%	2015-11-18 to 2025-10-20		Nonparametric	1.37	1.00	0.510	2.60	1.09	0.798	1.35
05_1_128	MW-5	App. I Metals	Zinc	ug/L	42	25	60%	2015-11-18 to 2025-10-20	Gamma; Lognormal	Nonparametric	15.1	11.7	3.80	54.9	12.6	0.835	2.41
05_2_105	MW-5	App. III	Boron	ug/L	41	15	37%	2015-11-18 to 2025-10-20	Nonparametric	Nonparametric	11.9	10.6	7.70	39.3	5.85	0.493	4.46
05_2_107	MW-5	App. III	Calcium	ug/L	42	0	0%	2015-11-18 to 2025-10-20	Gamma; Lognormal	Gamma	10749	10100	7070	16900	2246	0.209	0.699
05_2_108	MW-5	App. III	Chloride	mg/L	42	0	0%	2015-11-18 to 2025-10-20	Gamma; Lognormal; Normal	Normal	20.0	19.6	16.9	23.1	1.60	0.0798	0.112
05_2_112	MW-5	App. III	Fluoride	mg/L	42	0	0%	2015-11-18 to 2025-10-20	Gamma; Lognormal; Normal	Normal	0.546	0.550	0.410	0.690	0.0578	0.106	0.0642
05_2_118	MW-5	App. III	pH (Field)	S.U.	39	0	0%	2015-11-18 to 2025-10-25	Nonparametric	Nonparametric	6.89	6.90	5.50	8.54	0.457	0.0663	-0.0594
05_2_123	MW-5	App. III	Sulfate	mg/L	42	0	0%	2015-11-18 to 2025-10-20	Gamma; Lognormal; Normal	Normal	3.59	3.55	2.60	5.60	0.605	0.169	1.27
05_2_125	MW-5	App. III	Total Dissolved Solids	mg/L	42	0	0%	2015-11-18 to 2025-10-20	Nonparametric	Nonparametric	248	221	190	1160	147	0.590	6.14
05_3_101	MW-5	App. IV	Antimony	ug/L	42	40	95%	2015-11-18 to 2025-10-20		Nonparametric	2.50	2.50	1.10	3.90	1.98	0.792	NA
05_3_102	MW-5	App. IV	Arsenic	ug/L	42	40	95%	2015-11-18 to 2025-10-20		Nonparametric	2.58	2.58	0.170	5.00	3.42	1.32	NA
05_3_103	MW-5	App. IV	Barium	ug/L	42	0	0%	2015-11-18 to 2025-10-20	Gamma; Lognormal; Normal	Normal	102	101	71.3	153	15.8	0.155	0.744
05_3_109	MW-5	App. IV	Chromium	ug/L	42	29	69%	2015-11-18 to 2025-10-20	Nonparametric	Nonparametric	24.3	2.10	0.920	260	71.0	2.92	3.57
05_3_110	MW-5	App. IV	Cobalt	ug/L	42	40	95%	2015-11-18 to 2025-10-20		Nonparametric	1.50	1.50	0.100	2.90	1.98	1.32	NA
05_3_112	MW-5	App. IV	Fluoride	mg/L	42	0	0%	2015-11-18 to 2025-10-20	Gamma; Lognormal; Normal	Normal	0.546	0.550	0.410	0.690	0.0578	0.106	0.0642
05_3_113	MW-5	App. IV	Lead	ug/L	42	41	98%	2015-11-18 to 2025-10-20		Nonparametric	0.180	0.180	0.180	0.180	NA	NA	NA
05_3_114	MW-5	App. IV	Lithium	ug/L	42	1	2%	2015-11-18 to 2025-10-20	Nonparametric	Nonparametric	9.70	9.40	6.30	28.6	3.26	0.336	5.03
05_3_116	MW-5	App. IV	Molybdenum	ug/L	42	39	93%	2015-11-18 to 2025-10-20		Nonparametric	11.5	8.70	0.520	25.3	12.6	1.10	0.951
05_3_119	MW-5	App. IV	Radium-226	pCi/L	40	0	0%	2015-11-18 to 2025-10-20	Normal	Normal	0.0996	0.0749	-0.640	0.778	0.258	2.59	0.165
05_3_120	MW-5	App. IV	Radium-228	pCi/L	40	0	0%	2015-11-18 to 2025-10-20	Normal	Normal	0.413	0.382	-0.0922	1.08	0.333	0.806	0.486
05_3_121	MW-5	App. IV	Selenium	ug/L	42	41	98%	2015-11-18 to 2025-10-20		Nonparametric	0.260	0.260	0.260	0.260	NA	NA	NA

(Table continues on next page)

Table 2: Summary Statistics, Non-Detects Excluded *(continued)*

ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	Date Range	Distributions Fit	Recommended Distribution	Mean	Median	Minimum	Maximum	SD	CV	Skewness
05_3_124	MW-5	App. IV	Thallium	ug/L	42	41	98%	2015-11-18 to 2025-10-20		Nonparametric	14.8	14.8	14.8	14.8	NA	NA	NA
05_3_126	MW-5	App. IV	Total Radium	pCi/L	40	0	0%	2015-11-18 to 2025-10-20	Gamma; Normal	Normal	0.568	0.566	0.0262	1.23	0.347	0.611	0.190
06_1_111	MW-6	App. I Metals	Copper	ug/L	41	33	80%	2015-11-20 to 2025-10-22	Gamma; Lognormal	Nonparametric	10.6	4.85	0.640	44	14.8	1.40	2.08
06_1_117	MW-6	App. I Metals	Nickel	ug/L	41	28	68%	2015-11-20 to 2025-10-22	Gamma; Lognormal	Nonparametric	3.06	1.80	0.920	8.20	2.31	0.756	1.35
06_1_127	MW-6	App. I Metals	Vanadium	ug/L	41	36	88%	2015-11-20 to 2025-10-22	Gamma; Lognormal; Normal	Nonparametric	3.42	2.00	0.810	7.90	3.01	0.879	0.983
06_1_128	MW-6	App. I Metals	Zinc	ug/L	41	26	63%	2015-11-20 to 2025-10-22	Gamma; Lognormal; Normal	Nonparametric	11.9	10.7	3.60	31.8	8.27	0.694	1.44
06_2_105	MW-6	App. III	Boron	ug/L	40	23	57%	2015-11-20 to 2025-10-22	Gamma; Lognormal; Normal	Nonparametric	8.49	8.50	6.10	12.2	1.60	0.189	0.702
06_2_107	MW-6	App. III	Calcium	ug/L	41	0	0%	2015-11-20 to 2025-10-22	Gamma; Lognormal; Normal	Normal	34678	34300	30300	40200	2194	0.0633	0.503
06_2_108	MW-6	App. III	Chloride	mg/L	41	0	0%	2015-11-20 to 2025-10-22	Nonparametric	Nonparametric	204	208	15.3	279	48.2	0.236	-1.78
06_2_112	MW-6	App. III	Fluoride	mg/L	41	1	2%	2015-11-20 to 2025-10-22	Gamma; Lognormal; Normal	Normal	0.371	0.370	0.180	0.520	0.0602	0.162	-0.181
06_2_118	MW-6	App. III	pH (Field)	S.U.	38	0	0%	2015-11-20 to 2025-10-25	Nonparametric	Nonparametric	6.40	6.37	6.15	7.00	0.183	0.0285	1.20
06_2_123	MW-6	App. III	Sulfate	mg/L	41	0	0%	2015-11-20 to 2025-10-22	Nonparametric	Nonparametric	57.1	28.1	25.1	214	51.4	0.900	1.77
06_2_125	MW-6	App. III	Total Dissolved Solids	mg/L	41	0	0%	2015-11-20 to 2025-10-22	Normal	Normal	632	610	371	946	96.1	0.152	0.463
06_3_102	MW-6	App. IV	Arsenic	ug/L	41	39	95%	2015-11-20 to 2025-10-22		Nonparametric	4.26	4.26	0.430	8.10	5.42	1.27	NA
06_3_103	MW-6	App. IV	Barium	ug/L	41	0	0%	2015-11-20 to 2025-10-22	Nonparametric	Nonparametric	78.9	63.8	43.0	142	29.7	0.377	0.592
06_3_104	MW-6	App. IV	Beryllium	ug/L	41	40	98%	2015-11-20 to 2025-10-22		Nonparametric	0.100	0.100	0.100	0.100	NA	NA	NA
06_3_109	MW-6	App. IV	Chromium	ug/L	41	32	78%	2015-11-20 to 2025-10-22	Gamma; Lognormal; Normal	Nonparametric	5.25	4.70	0.640	14.0	4.29	0.816	1.18
06_3_110	MW-6	App. IV	Cobalt	ug/L	41	39	95%	2015-11-20 to 2025-10-22		Nonparametric	2.52	2.52	0.840	4.20	2.38	0.943	NA
06_3_112	MW-6	App. IV	Fluoride	mg/L	41	1	2%	2015-11-20 to 2025-10-22	Gamma; Lognormal; Normal	Normal	0.371	0.370	0.180	0.520	0.0602	0.162	-0.181
06_3_113	MW-6	App. IV	Lead	ug/L	41	38	93%	2015-11-20 to 2025-10-22		Nonparametric	5.83	5.80	0.890	10.8	4.96	0.850	0.0272
06_3_114	MW-6	App. IV	Lithium	ug/L	41	0	0%	2015-11-20 to 2025-10-22	Nonparametric	Nonparametric	32.1	27.3	10.1	60.5	11.3	0.352	0.960
06_3_115	MW-6	App. IV	Mercury	ug/L	41	40	98%	2015-11-20 to 2025-10-22		Nonparametric	0.320	0.320	0.320	0.320	NA	NA	NA
06_3_116	MW-6	App. IV	Molybdenum	ug/L	41	36	88%	2015-11-20 to 2025-10-22	Normal	Nonparametric	5.50	5.80	0.200	8.30	3.21	0.584	-1.44
06_3_119	MW-6	App. IV	Radium-226	pCi/L	39	0	0%	2015-11-20 to 2025-10-22	Normal	Normal	0.141	0.169	-0.885	0.913	0.346	2.46	-0.304
06_3_120	MW-6	App. IV	Radium-228	pCi/L	39	0	0%	2015-11-20 to 2025-10-22	Normal	Normal	0.579	0.555	-0.243	1.42	0.352	0.607	0.108
06_3_121	MW-6	App. IV	Selenium	ug/L	41	39	95%	2015-11-20 to 2025-10-22		Nonparametric	2.50	2.50	0.110	4.90	3.39	1.35	NA
06_3_124	MW-6	App. IV	Thallium	ug/L	41	37	90%	2015-11-20 to 2025-10-22		Nonparametric	1.60	0.0790	0.0300	6.20	3.07	1.92	2.0
06_3_126	MW-6	App. IV	Total Radium	pCi/L	39	0	0%	2015-11-20 to 2025-10-22	Gamma; Normal	Normal	0.797	0.848	0.0513	1.71	0.431	0.542	0.118
07_1_111	MW-7R	App. I Metals	Copper	ug/L	33	21	64%	2017-07-20 to 2025-10-22	Nonparametric	Nonparametric	23.8	3.40	0.740	109	37.6	1.58	1.56
07_1_117	MW-7R	App. I Metals	Nickel	ug/L	33	15	45%	2017-07-20 to 2025-10-22	Lognormal	Nonparametric	55.3	4.20	1.00	880	206	3.73	4.23
07_1_127	MW-7R	App. I Metals	Vanadium	ug/L	33	16	48%	2017-07-20 to 2025-10-22	Lognormal	Lognormal	6.27	3.90	2.80	18.8	5.47	0.872	1.77
07_1_128	MW-7R	App. I Metals	Zinc	ug/L	33	22	67%	2017-07-20 to 2025-10-22	Lognormal	Nonparametric	15.0	5.40	3.20	53.4	19.1	1.27	1.81
07_2_105	MW-7R	App. III	Boron	ug/L	32	12	38%	2017-07-20 to 2025-10-22	Nonparametric	Nonparametric	12.4	10.6	8.10	25.3	4.49	0.362	1.84
07_2_107	MW-7R	App. III	Calcium	ug/L	33	0	0%	2017-07-20 to 2025-10-22	Gamma; Lognormal; Normal	Normal	91419	91200	74000	104000	6500	0.0711	-0.434
07_2_108	MW-7R	App. III	Chloride	mg/L	33	0	0%	2017-07-20 to 2025-10-22	Nonparametric	Nonparametric	277	280	194	313	23.7	0.0855	-1.61
07_2_112	MW-7R	App. III	Fluoride	mg/L	33	1	3%	2017-07-20 to 2025-10-22	Nonparametric	Nonparametric	0.133	0.120	0.100	0.320	0.0392	0.293	3.70
07_2_118	MW-7R	App. III	pH (Field)	S.U.	32	0	0%	2017-07-20 to 2025-10-25	Nonparametric	Nonparametric	7.45	7.35	7.13	9.60	0.418	0.0561	4.63
07_2_123	MW-7R	App. III	Sulfate	mg/L	33	0	0%	2017-07-20 to 2025-10-22	Nonparametric	Nonparametric	17.1	15.6	12.8	51.2	6.45	0.376	4.87
07_2_125	MW-7R	App. III	Total Dissolved Solids	mg/L	33	0	0%	2017-07-20 to 2025-10-22	Gamma; Lognormal; Normal	Normal	858	860	740	990	55.8	0.0651	0.0946
07_3_101	MW-7R	App. IV	Antimony	ug/L	33	32	97%	2017-07-20 to 2025-10-22		Nonparametric	13.6	13.6	13.6	13.6	NA	NA	NA
07_3_102	MW-7R	App. IV	Arsenic	ug/L	33	30	91%	2017-07-20 to 2025-10-22		Nonparametric	3.89	3.80	0.770	7.10	3.17	0.814	0.128
07_3_103	MW-7R	App. IV	Barium	ug/L	33	0	0%	2017-07-20 to 2025-10-22	Nonparametric	Nonparametric	296	308	50.1	423	63.4	0.214	-1.74
07_3_109	MW-7R	App. IV	Chromium	ug/L	33	8	24%	2017-07-20 to 2025-10-22	Nonparametric	Nonparametric	87.2	5.90	1.10	1940	386	4.43	4.99

(Table continues on next page)

Table 2: Summary Statistics, Non-Detects Excluded *(continued)*

ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	Date Range	Distributions Fit	Recommended Distribution	Mean	Median	Minimum	Maximum	SD	CV	Skewness
07_3_110	MW-7R	App. IV	Cobalt	ug/L	33	28	85%	2017-07-20 to 2025-10-22	Gamma; Lognormal; Normal	Nonparametric	5.89	1.50	0.160	20.4	8.52	1.44	1.78
07_3_112	MW-7R	App. IV	Fluoride	mg/L	33	1	3%	2017-07-20 to 2025-10-22	Nonparametric	Nonparametric	0.133	0.120	0.100	0.320	0.0392	0.293	3.70
07_3_113	MW-7R	App. IV	Lead	ug/L	33	27	82%	2017-07-20 to 2025-10-22	Gamma; Normal	Nonparametric	3.89	3.40	0.270	6.80	2.50	0.643	-0.0536
07_3_114	MW-7R	App. IV	Lithium	ug/L	33	0	0%	2017-07-20 to 2025-10-22	Nonparametric	Nonparametric	27	28.2	5.60	33.8	5.30	0.197	-2.23
07_3_116	MW-7R	App. IV	Molybdenum	ug/L	33	28	85%	2017-07-20 to 2025-10-22	Gamma; Lognormal; Normal	Nonparametric	16.5	10.7	1.10	49.5	19.9	1.21	1.52
07_3_119	MW-7R	App. IV	Radium-226	pCi/L	31	0	0%	2017-07-20 to 2025-10-22	Normal	Normal	0.230	0.132	-0.316	1.17	0.358	1.55	1.15
07_3_120	MW-7R	App. IV	Radium-228	pCi/L	31	0	0%	2017-07-20 to 2025-10-22	Normal	Normal	0.550	0.509	-0.454	2.13	0.474	0.863	1.12
07_3_121	MW-7R	App. IV	Selenium	ug/L	33	32	97%	2017-07-20 to 2025-10-22		Nonparametric	0.180	0.180	0.180	0.180	NA	NA	NA
07_3_124	MW-7R	App. IV	Thallium	ug/L	33	30	91%	2017-07-20 to 2025-10-22		Nonparametric	0.237	0.120	0.110	0.480	0.211	0.891	1.73
07_3_126	MW-7R	App. IV	Total Radium	pCi/L	31	0	0%	2017-07-20 to 2025-10-22	Gamma	Gamma	0.836	0.660	0.0664	2.31	0.559	0.668	1.11
08_1_111	MW-8	App. I Metals	Copper	ug/L	42	31	74%	2015-11-20 to 2025-10-22	Lognormal	Nonparametric	14	3.40	0.760	116	34	2.43	3.27
08_1_117	MW-8	App. I Metals	Nickel	ug/L	42	21	50%	2015-11-20 to 2025-10-22	Lognormal	Nonparametric	15.7	4.30	1.20	157	33.8	2.16	4.02
08_1_122	MW-8	App. I Metals	Silver	ug/L	42	41	98%	2015-11-20 to 2025-10-22		Nonparametric	2.20	2.20	2.20	2.20	NA	NA	NA
08_1_127	MW-8	App. I Metals	Vanadium	ug/L	42	34	81%	2015-11-20 to 2025-10-22	Gamma; Lognormal; Normal	Nonparametric	3.14	2.10	1.30	9.50	2.71	0.863	2.33
08_1_128	MW-8	App. I Metals	Zinc	ug/L	42	24	57%	2015-11-20 to 2025-10-22	Gamma; Lognormal	Nonparametric	19.8	15.0	3.20	62.0	17.0	0.859	1.46
08_2_105	MW-8	App. III	Boron	ug/L	41	15	37%	2015-11-20 to 2025-10-22	Gamma; Lognormal; Normal	Normal	10.7	10.5	8.60	14.0	1.56	0.146	0.580
08_2_107	MW-8	App. III	Calcium	ug/L	42	0	0%	2015-11-20 to 2025-10-22	Nonparametric	Nonparametric	112990	108000	4170	194000	29600	0.262	-0.222
08_2_108	MW-8	App. III	Chloride	mg/L	42	0	0%	2015-11-20 to 2025-10-22	Nonparametric	Nonparametric	410	372	229	939	145	0.354	1.85
08_2_112	MW-8	App. III	Fluoride	mg/L	42	20	48%	2015-11-20 to 2025-10-22	Gamma; Lognormal; Normal	Normal	0.0877	0.0900	0.0610	0.140	0.0199	0.227	0.657
08_2_118	MW-8	App. III	pH (Field)	S.U.	40	0	0%	2015-11-20 to 2025-10-25	Gamma; Lognormal; Normal	Normal	7.03	7.01	6.70	7.31	0.135	0.0192	0.0938
08_2_123	MW-8	App. III	Sulfate	mg/L	42	0	0%	2015-11-20 to 2025-10-22	Gamma; Lognormal; Normal	Normal	6.84	6.85	4.40	8.40	0.811	0.119	-0.596
08_2_125	MW-8	App. III	Total Dissolved Solids	mg/L	42	0	0%	2015-11-20 to 2025-10-22	Nonparametric	Nonparametric	981	921	224	1630	247	0.252	0.254
08_3_101	MW-8	App. IV	Antimony	ug/L	42	35	83%	2015-11-20 to 2025-10-22	Gamma; Lognormal; Normal	Nonparametric	7.46	7.50	5.20	10.1	1.50	0.201	0.438
08_3_102	MW-8	App. IV	Arsenic	ug/L	42	37	88%	2015-11-20 to 2025-10-22	Gamma; Lognormal; Normal	Nonparametric	5.90	7.10	2.50	7.40	2.10	0.357	-1.42
08_3_103	MW-8	App. IV	Barium	ug/L	42	0	0%	2015-11-20 to 2025-10-22	Nonparametric	Nonparametric	1146	1090	880	1880	187	0.163	1.98
08_3_104	MW-8	App. IV	Beryllium	ug/L	42	41	98%	2015-11-20 to 2025-10-22		Nonparametric	1.50	1.50	1.50	1.50	NA	NA	NA
08_3_106	MW-8	App. IV	Cadmium	ug/L	42	41	98%	2015-11-20 to 2025-10-22		Nonparametric	1.50	1.50	1.50	1.50	NA	NA	NA
08_3_109	MW-8	App. IV	Chromium	ug/L	42	20	48%	2015-11-20 to 2025-10-22	Gamma; Lognormal	Gamma	18.2	7.50	1.20	87.6	24.6	1.35	2.01
08_3_110	MW-8	App. IV	Cobalt	ug/L	42	37	88%	2015-11-20 to 2025-10-22	Gamma; Lognormal; Normal	Nonparametric	1.47	0.820	0.520	3.80	1.37	0.928	1.77
08_3_112	MW-8	App. IV	Fluoride	mg/L	42	20	48%	2015-11-20 to 2025-10-22	Gamma; Lognormal; Normal	Normal	0.0877	0.0900	0.0610	0.140	0.0199	0.227	0.657
08_3_113	MW-8	App. IV	Lead	ug/L	42	39	93%	2015-11-20 to 2025-10-22		Nonparametric	3.07	3.00	2.80	3.40	0.306	0.0996	0.935
08_3_114	MW-8	App. IV	Lithium	ug/L	42	1	2%	2015-11-20 to 2025-10-22	Gamma; Lognormal	Gamma	28.2	26.8	18.7	50.1	7.04	0.249	1.25
08_3_115	MW-8	App. IV	Mercury	ug/L	42	41	98%	2015-11-20 to 2025-10-22		Nonparametric	0.370	0.370	0.370	0.370	NA	NA	NA
08_3_116	MW-8	App. IV	Molybdenum	ug/L	42	39	93%	2015-11-20 to 2025-10-22		Nonparametric	4.07	5.20	1.40	5.60	2.32	0.570	-1.67
08_3_119	MW-8	App. IV	Radium-226	pCi/L	40	0	0%	2015-11-20 to 2025-10-22	Nonparametric	Nonparametric	0.449	0.376	-0.357	2.51	0.501	1.12	1.81
08_3_120	MW-8	App. IV	Radium-228	pCi/L	40	0	0%	2015-11-20 to 2025-10-22	Nonparametric	Nonparametric	0.838	0.676	-0.351	4.72	0.731	0.873	3.93
08_3_121	MW-8	App. IV	Selenium	ug/L	42	40	95%	2015-11-20 to 2025-10-22		Nonparametric	2.31	2.31	0.330	4.30	2.81	1.21	NA
08_3_124	MW-8	App. IV	Thallium	ug/L	42	40	95%	2015-11-20 to 2025-10-22		Nonparametric	4.42	4.42	0.0330	8.80	6.20	1.40	NA
08_3_126	MW-8	App. IV	Total Radium	pCi/L	40	0	0%	2015-11-20 to 2025-10-22	Nonparametric	Nonparametric	1.32	1.22	0	7.23	1.07	0.814	4.41
09_1_111	MW-10	App. I Metals	Copper	ug/L	18	9	50%	2021-08-09 to 2025-10-23	Gamma; Lognormal	Nonparametric	23.5	11.4	0.680	103	35.1	1.49	1.86
09_1_117	MW-10	App. I Metals	Nickel	ug/L	18	6	33%	2021-08-09 to 2025-10-23	Lognormal	Lognormal	4.44	2.55	0.940	27.9	7.50	1.69	3.28
09_1_127	MW-10	App. I Metals	Vanadium	ug/L	18	11	61%	2021-08-09 to 2025-10-23	Nonparametric	Nonparametric	4.47	2.40	1.50	18.2	6.07	1.36	2.62
09_1_128	MW-10	App. I Metals	Zinc	ug/L	18	13	72%	2021-08-09 to 2025-10-23	Lognormal	Nonparametric	24.0	6.50	3.20	94.2	39.3	1.64	2.21

(Table continues on next page)

Table 2: Summary Statistics, Non-Detects Excluded *(continued)*

ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	Date Range	Distributions Fit	Recommended Distribution	Mean	Median	Minimum	Maximum	SD	CV	Skewness
09_2_105	MW-10	App. III	Boron	ug/L	18	0	0%	2021-08-09 to 2025-10-23	Gamma; Lognormal; Normal	Normal	25.5	24.9	17.8	43.4	5.53	0.217	1.94
09_2_107	MW-10	App. III	Calcium	ug/L	18	0	0%	2021-08-09 to 2025-10-23	Gamma; Lognormal; Normal	Normal	21604	21650	17700	26500	1995	0.0923	0.256
09_2_108	MW-10	App. III	Chloride	mg/L	18	0	0%	2021-08-09 to 2025-10-23	Gamma; Lognormal; Normal	Normal	29.7	29.6	28.0	32.4	1.07	0.0359	0.691
09_2_112	MW-10	App. III	Fluoride	mg/L	18	0	0%	2021-08-09 to 2025-10-23	Gamma; Lognormal; Normal	Normal	0.458	0.445	0.400	0.540	0.0434	0.0947	0.539
09_2_118	MW-10	App. III	pH (Field)	S.U.	19	0	0%	2021-04-12 to 2025-10-25	Gamma; Lognormal; Normal	Normal	7.80	7.79	7.48	8.16	0.140	0.0179	0.486
09_2_123	MW-10	App. III	Sulfate	mg/L	18	0	0%	2021-08-09 to 2025-10-23	Gamma; Lognormal; Normal	Normal	3.31	2.80	1.60	8.00	1.81	0.549	1.30
09_2_125	MW-10	App. III	Total Dissolved Solids	mg/L	18	0	0%	2021-08-09 to 2025-10-23	Gamma; Lognormal; Normal	Normal	346	347	318	368	11.8	0.0341	-0.549
09_3_101	MW-10	App. IV	Antimony	ug/L	18	17	94%	2021-08-09 to 2025-10-23		Nonparametric	0.760	0.760	0.760	0.760	NA	NA	NA
09_3_102	MW-10	App. IV	Arsenic	ug/L	18	14	78%	2021-08-09 to 2025-10-23		Nonparametric	2.30	2.65	1.20	2.70	0.735	0.319	-1.98
09_3_103	MW-10	App. IV	Barium	ug/L	18	0	0%	2021-08-09 to 2025-10-23	Nonparametric	Nonparametric	84	86.1	43.2	195	33.3	0.396	2.13
09_3_109	MW-10	App. IV	Chromium	ug/L	18	6	33%	2021-08-09 to 2025-10-23	Gamma; Lognormal	Gamma	8.76	4.15	0.960	56.7	15.5	1.76	3.20
09_3_110	MW-10	App. IV	Cobalt	ug/L	18	16	89%	2021-08-09 to 2025-10-23		Nonparametric	4.02	4.02	0.440	7.60	5.06	1.26	NA
09_3_112	MW-10	App. IV	Fluoride	mg/L	18	0	0%	2021-08-09 to 2025-10-23	Gamma; Lognormal; Normal	Normal	0.458	0.445	0.400	0.540	0.0434	0.0947	0.539
09_3_113	MW-10	App. IV	Lead	ug/L	18	16	89%	2021-08-09 to 2025-10-23		Nonparametric	5.98	5.98	0.760	11.2	7.38	1.23	NA
09_3_114	MW-10	App. IV	Lithium	ug/L	18	0	0%	2021-08-09 to 2025-10-23	Nonparametric	Nonparametric	3.60	3.55	0.690	6.70	2.13	0.592	0.0746
09_3_116	MW-10	App. IV	Molybdenum	ug/L	18	0	0%	2021-08-09 to 2025-10-23	Gamma; Lognormal	Gamma	22.0	20.2	15.4	36.2	5.90	0.268	1.21
09_3_119	MW-10	App. IV	Radium-226	pCi/L	18	0	0%	2021-08-09 to 2025-10-23	Normal	Normal	0.161	0.171	-0.305	0.537	0.241	1.49	-0.361
09_3_120	MW-10	App. IV	Radium-228	pCi/L	18	0	0%	2021-08-09 to 2025-10-23	Normal	Normal	0.591	0.513	-0.100	1.67	0.415	0.702	0.842
09_3_121	MW-10	App. IV	Selenium	ug/L	18	15	83%	2021-08-09 to 2025-10-23		Nonparametric	4.44	5.20	0.500	7.63	3.63	0.816	-0.897
09_3_124	MW-10	App. IV	Thallium	ug/L	18	17	94%	2021-08-09 to 2025-10-23		Nonparametric	0.120	0.120	0.120	0.120	NA	NA	NA
09_3_126	MW-10	App. IV	Total Radium	pCi/L	18	0	0%	2021-08-09 to 2025-10-23	Normal	Normal	0.801	0.768	0	1.74	0.416	0.519	0.287
10_1_111	MW-11	App. I Metals	Copper	ug/L	21	10	48%	2020-10-15 to 2025-10-23	Gamma; Lognormal	Gamma	7.32	3.30	1.00	34.4	10.5	1.43	2.19
10_1_117	MW-11	App. I Metals	Nickel	ug/L	21	12	57%	2020-10-15 to 2025-10-23	Gamma; Lognormal	Nonparametric	2.28	1.40	0.790	7.60	2.19	0.961	2.20
10_1_127	MW-11	App. I Metals	Vanadium	ug/L	21	18	86%	2020-10-15 to 2025-10-23		Nonparametric	0.980	1.20	0.440	1.30	0.470	0.480	-1.64
10_1_128	MW-11	App. I Metals	Zinc	ug/L	21	14	67%	2020-10-15 to 2025-10-23	Gamma; Lognormal; Normal	Nonparametric	8.25	7.10	3.10	14.4	4.30	0.521	0.540
10_2_105	MW-11	App. III	Boron	ug/L	21	1	5%	2020-10-15 to 2025-10-23	Gamma; Lognormal	Gamma	16.2	15.9	11.5	25.2	2.97	0.184	1.36
10_2_107	MW-11	App. III	Calcium	ug/L	21	0	0%	2020-10-15 to 2025-10-23	Nonparametric	Nonparametric	29987	26500	23200	69400	10016	0.334	3.36
10_2_108	MW-11	App. III	Chloride	mg/L	21	0	0%	2020-10-15 to 2025-10-23	Gamma; Lognormal; Normal	Normal	129	132	74.5	155	18.8	0.145	-1.24
10_2_112	MW-11	App. III	Fluoride	mg/L	21	1	5%	2020-10-15 to 2025-10-23	Gamma; Lognormal; Normal	Normal	0.166	0.170	0.140	0.220	0.0221	0.134	0.639
10_2_118	MW-11	App. III	pH (Field)	S.U.	20	0	0%	2021-01-29 to 2025-10-25	Nonparametric	Nonparametric	6.97	6.66	6.50	11.7	1.13	0.163	4.27
10_2_123	MW-11	App. III	Sulfate	mg/L	21	0	0%	2020-10-15 to 2025-10-23	Gamma; Lognormal; Normal	Normal	2.19	2.10	1.80	3.00	0.282	0.129	1.04
10_2_125	MW-11	App. III	Total Dissolved Solids	mg/L	21	0	0%	2020-10-15 to 2025-10-23	Nonparametric	Nonparametric	528	416	296	2760	513	0.972	4.53
10_3_101	MW-11	App. IV	Antimony	ug/L	21	19	90%	2020-10-15 to 2025-10-23		Nonparametric	2.06	2.06	0.320	3.80	2.46	1.19	NA
10_3_102	MW-11	App. IV	Arsenic	ug/L	21	19	90%	2020-10-15 to 2025-10-23		Nonparametric	3.00	3.00	0.400	5.60	3.68	1.23	NA
10_3_103	MW-11	App. IV	Barium	ug/L	21	0	0%	2020-10-15 to 2025-10-23	Nonparametric	Nonparametric	47.4	40.2	34.3	130	20.6	0.435	3.52
10_3_109	MW-11	App. IV	Chromium	ug/L	21	15	71%	2020-10-15 to 2025-10-23	Gamma; Lognormal; Normal	Nonparametric	3.73	2.00	0.780	8.80	3.66	0.982	0.853
10_3_110	MW-11	App. IV	Cobalt	ug/L	21	14	67%	2020-10-15 to 2025-10-23	Gamma; Lognormal; Normal	Nonparametric	0.857	0.800	0.450	1.30	0.374	0.437	0.209
10_3_112	MW-11	App. IV	Fluoride	mg/L	21	1	5%	2020-10-15 to 2025-10-23	Gamma; Lognormal; Normal	Normal	0.166	0.170	0.140	0.220	0.0221	0.134	0.639
10_3_113	MW-11	App. IV	Lead	ug/L	21	19	90%	2020-10-15 to 2025-10-23		Nonparametric	1.75	1.75	0.190	3.30	2.20	1.26	NA
10_3_114	MW-11	App. IV	Lithium	ug/L	21	0	0%	2020-10-15 to 2025-10-23	Nonparametric	Nonparametric	10.9	10.4	8.30	19.5	2.45	0.225	2.41
10_3_116	MW-11	App. IV	Molybdenum	ug/L	21	18	86%	2020-10-15 to 2025-10-23		Nonparametric	1.20	1.40	0.410	1.80	0.716	0.595	-1.15
10_3_119	MW-11	App. IV	Radium-226	pCi/L	21	0	0%	2020-10-15 to 2025-10-23	Normal	Normal	0.125	0.113	-0.149	0.478	0.184	1.47	0.294
10_3_120	MW-11	App. IV	Radium-228	pCi/L	21	0	0%	2020-10-15 to 2025-10-23	Nonparametric	Nonparametric	0.501	0.500	-0.135	2.13	0.490	0.978	1.89

(Table continues on next page)

Table 2: Summary Statistics, Non-Detects Excluded *(continued)*

ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	Date Range	Distributions Fit	Recommended Distribution	Mean	Median	Minimum	Maximum	SD	CV	Skewness
10_3_124	MW-11	App. IV	Thallium	ug/L	21	20	95%	2020-10-15 to 2025-10-23		Nonparametric	0.0850	0.0850	0.0850	0.0850	NA	NA	NA
10_3_126	MW-11	App. IV	Total Radium	pCi/L	21	0	0%	2020-10-15 to 2025-10-23	Gamma; Lognormal	Gamma	0.659	0.513	0.124	2.39	0.516	0.783	2.11
11_1_111	MW-11D	App. I Metals	Copper	ug/L	19	12	63%	2021-04-13 to 2025-10-23	Gamma; Lognormal; Normal	Nonparametric	5.89	2.30	1.10	15.4	6.28	1.07	1.09
11_1_117	MW-11D	App. I Metals	Nickel	ug/L	19	14	74%	2021-04-13 to 2025-10-23	Gamma; Lognormal	Nonparametric	2.52	1.70	1.20	6.20	2.09	0.831	2.05
11_1_127	MW-11D	App. I Metals	Vanadium	ug/L	19	16	84%	2021-04-13 to 2025-10-23		Nonparametric	1.23	1.40	0.690	1.60	0.478	0.389	-1.40
11_1_128	MW-11D	App. I Metals	Zinc	ug/L	19	11	58%	2021-04-13 to 2025-10-23	Gamma; Lognormal	Nonparametric	20	9.75	2.90	89.7	28.8	1.44	2.59
11_2_105	MW-11D	App. III	Boron	ug/L	19	0	0%	2021-04-13 to 2025-10-23	Nonparametric	Nonparametric	52.6	48.2	41.6	109	15.6	0.296	2.99
11_2_107	MW-11D	App. III	Calcium	ug/L	19	0	0%	2021-04-13 to 2025-10-23	Nonparametric	Nonparametric	23693	16500	14000	94400	18091	0.764	3.66
11_2_108	MW-11D	App. III	Chloride	mg/L	19	0	0%	2021-04-13 to 2025-10-23	Nonparametric	Nonparametric	111	68.2	52.3	530	112	1.01	3.24
11_2_112	MW-11D	App. III	Fluoride	mg/L	19	0	0%	2021-04-13 to 2025-10-23	Gamma; Lognormal; Normal	Normal	0.477	0.480	0.400	0.640	0.0552	0.116	1.31
11_2_118	MW-11D	App. III	pH (Field)	S.U.	19	0	0%	2021-04-12 to 2025-10-25	Gamma; Lognormal; Normal	Normal	8.35	8.31	8.05	8.92	0.250	0.0299	0.915
11_2_123	MW-11D	App. III	Sulfate	mg/L	19	1	5%	2021-04-13 to 2025-10-23	Nonparametric	Nonparametric	75.2	21.5	13.3	523	124	1.64	3.15
11_2_125	MW-11D	App. III	Total Dissolved Solids	mg/L	19	0	0%	2021-04-13 to 2025-10-23	Nonparametric	Nonparametric	500	354	312	1740	340	0.679	3.04
11_3_101	MW-11D	App. IV	Antimony	ug/L	19	16	84%	2021-04-13 to 2025-10-23		Nonparametric	3.47	4.20	0.620	5.60	2.57	0.739	-1.17
11_3_102	MW-11D	App. IV	Arsenic	ug/L	19	10	53%	2021-04-13 to 2025-10-23	Gamma; Lognormal; Normal	Nonparametric	8.56	7.00	3.20	16.5	4.94	0.577	0.655
11_3_103	MW-11D	App. IV	Barium	ug/L	19	0	0%	2021-04-13 to 2025-10-23	Nonparametric	Nonparametric	107	112	65.7	124	16.2	0.152	-1.58
11_3_104	MW-11D	App. IV	Beryllium	ug/L	19	18	95%	2021-04-13 to 2025-10-23		Nonparametric	0.110	0.110	0.110	0.110	NA	NA	NA
11_3_109	MW-11D	App. IV	Chromium	ug/L	19	14	74%	2021-04-13 to 2025-10-23	Gamma; Lognormal; Normal	Nonparametric	3.42	2.20	1.50	8.00	2.63	0.769	1.95
11_3_110	MW-11D	App. IV	Cobalt	ug/L	19	18	95%	2021-04-13 to 2025-10-23		Nonparametric	0.210	0.210	0.210	0.210	NA	NA	NA
11_3_112	MW-11D	App. IV	Fluoride	mg/L	19	0	0%	2021-04-13 to 2025-10-23	Gamma; Lognormal; Normal	Normal	0.477	0.480	0.400	0.640	0.0552	0.116	1.31
11_3_113	MW-11D	App. IV	Lead	ug/L	19	18	95%	2021-04-13 to 2025-10-23		Nonparametric	1.80	1.80	1.80	1.80	NA	NA	NA
11_3_114	MW-11D	App. IV	Lithium	ug/L	19	0	0%	2021-04-13 to 2025-10-23	Lognormal	Lognormal	26.7	20.8	14.7	80.7	16.5	0.616	2.50
11_3_116	MW-11D	App. IV	Molybdenum	ug/L	19	1	5%	2021-04-13 to 2025-10-23	Gamma; Lognormal	Gamma	19.4	7.75	2.20	127	29.5	1.52	3.17
11_3_119	MW-11D	App. IV	Radium-226	pCi/L	19	0	0%	2021-04-13 to 2025-10-23	Normal	Normal	0.138	0.0670	-0.249	0.692	0.281	2.04	0.642
11_3_120	MW-11D	App. IV	Radium-228	pCi/L	19	0	0%	2021-04-13 to 2025-10-23	Gamma; Lognormal	Gamma	0.585	0.585	0.0582	2.23	0.492	0.841	2.17
11_3_121	MW-11D	App. IV	Selenium	ug/L	19	17	89%	2021-04-13 to 2025-10-23		Nonparametric	3.02	3.02	0.230	5.80	3.94	1.31	NA
11_3_124	MW-11D	App. IV	Thallium	ug/L	19	18	95%	2021-04-13 to 2025-10-23		Nonparametric	0.0940	0.0940	0.0940	0.0940	NA	NA	NA
11_3_126	MW-11D	App. IV	Total Radium	pCi/L	19	0	0%	2021-04-13 to 2025-10-23	Gamma; Lognormal; Normal	Normal	0.770	0.690	0.125	2.27	0.528	0.686	1.26

Table 3: Goodness-of-Fit Tests, Non-Detects Excluded

								Normal				Lognormal				Gamma						
								S-W		Lilliefors		S-W		Lilliefors		K-S		A-D				
ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	Stat.	p-Value	Stat.	p-Value	Stat.	p-Value	Stat.	p-Value	Stat.	p-Value	Stat.	p-Value	Log-SD (NDs excl.)	ProUCL Distributions Fit	Recommended Distribution
01_1_111	MW-1	App. I Metals	Copper	ug/L	42	33	79%	0.722	0.003	0.350	0.002	0.839	0.057	0.269	0.059	0.321	0.01 <= p < 0.05	0.884	0.01 <= p < 0.05	1.066	Lognormal	Nonparametric
01_1_117	MW-1	App. I Metals	Nickel	ug/L	42	29	69%	0.890	0.096	0.142	0.677	0.931	0.354	0.224	0.072	0.188	>= 0.10	0.387	>= 0.10	0.724	Gamma; Lognormal; Normal	Nonparametric
01_1_122	MW-1	App. I Metals	Silver	ug/L	42	35	83%	0.882	0.238	0.224	0.358	0.743	0.011	0.305	0.049	0.261	>= 0.10	0.687	0.05 <= p < 0.10	0.627	Gamma; Normal	Nonparametric
01_1_127	MW-1	App. I Metals	Vanadium	ug/L	42	25	60%	0.907	0.089	0.146	0.433	0.983	0.977	0.086	0.984	0.095	>= 0.10	0.197	>= 0.10	0.452	Gamma; Lognormal; Normal	Nonparametric
01_1_128	MW-1	App. I Metals	Zinc	ug/L	42	25	60%	0.875	0.027	0.222	0.026	0.934	0.256	0.167	0.238	0.151	>= 0.10	0.493	>= 0.10	0.582	Gamma; Lognormal	Nonparametric
01_2_105	MW-1	App. III	Boron	ug/L	41	22	54%	0.563	0.000	0.340	0.000	0.780	0.001	0.230	0.009	0.264	< 0.01	2.269	< 0.01	0.553	Nonparametric	Nonparametric
01_2_107	MW-1	App. III	Calcium	ug/L	42	0	0%	0.972	0.384	0.085	0.624	0.931	0.014	0.111	0.214	0.095	>= 0.10	0.526	>= 0.10	0.523	Gamma; Lognormal; Normal	Normal
01_2_108	MW-1	App. III	Chloride	mg/L	42	0	0%	0.982	0.755	0.064	0.938	0.881	0.000	0.149	0.019	0.115	>= 0.10	0.949	0.01 <= p < 0.05	0.597	Gamma; Normal	Normal
01_2_112	MW-1	App. III	Fluoride	mg/L	42	1	2%	0.937	0.024	0.160	0.010	0.931	0.016	0.182	0.001	0.178	< 0.01	1.226	< 0.01	0.160	Nonparametric	Nonparametric
01_2_118	MW-1	App. III	pH (Field)	S.U.	40	0	0%	0.952	0.088	0.121	0.145	0.957	0.135	0.116	0.190	0.118	>= 0.10	0.547	>= 0.10	0.032	Gamma; Lognormal; Normal	Normal
01_2_123	MW-1	App. III	Sulfate	mg/L	42	0	0%	0.876	0.000	0.219	0.000	0.938	0.025	0.173	0.003	0.188	< 0.01	1.347	< 0.01	0.211	Nonparametric	Nonparametric
01_2_125	MW-1	App. III	Total Dissolved Solids	mg/L	42	0	0%	0.966	0.246	0.093	0.478	0.967	0.267	0.085	0.624	0.060	>= 0.10	0.170	>= 0.10	0.539	Gamma; Lognormal; Normal	Normal
01_3_101	MW-1	App. IV	Antimony	ug/L	42	40	95%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		0.060		Nonparametric
01_3_102	MW-1	App. IV	Arsenic	ug/L	42	38	90%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		0.477		Nonparametric
01_3_103	MW-1	App. IV	Barium	ug/L	42	0	0%	0.979	0.642	0.076	0.777	0.936	0.020	0.120	0.130	0.096	>= 0.10	0.300	>= 0.10	0.554	Gamma; Lognormal; Normal	Normal
01_3_104	MW-1	App. IV	Beryllium	ug/L	42	42	100%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
01_3_106	MW-1	App. IV	Cadmium	ug/L	42	39	93%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		0.093		Nonparametric
01_3_109	MW-1	App. IV	Chromium	ug/L	42	28	67%	0.908	0.146	0.137	0.677	0.936	0.366	0.208	0.102	0.176	>= 0.10	0.320	>= 0.10	0.888	Gamma; Lognormal; Normal	Nonparametric
01_3_110	MW-1	App. IV	Cobalt	ug/L	42	37	88%	0.999	0.999	0.112	1.000	0.874	0.282	0.251	0.376	0.204	>= 0.10	0.287	>= 0.10	1.093	Gamma; Lognormal; Normal	Nonparametric
01_3_112	MW-1	App. IV	Fluoride	mg/L	42	1	2%	0.937	0.024	0.160	0.010	0.931	0.016	0.182	0.001	0.178	< 0.01	1.226	< 0.01	0.160	Nonparametric	Nonparametric
01_3_113	MW-1	App. IV	Lead	ug/L	42	37	88%	0.970	0.874	0.168	0.914	0.860	0.229	0.255	0.352	0.248	>= 0.10	0.328	>= 0.10	1.339	Gamma; Lognormal; Normal	Nonparametric
01_3_114	MW-1	App. IV	Lithium	ug/L	42	0	0%	0.981	0.713	0.094	0.466	0.960	0.151	0.125	0.100	0.106	>= 0.10	0.508	>= 0.10	0.181	Gamma; Lognormal; Normal	Normal
01_3_115	MW-1	App. IV	Mercury	ug/L	42	42	100%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
01_3_116	MW-1	App. IV	Molybdenum	ug/L	42	37	88%	0.864	0.244	0.225	0.551	0.848	0.188	0.286	0.197	0.278	>= 0.10	0.454	>= 0.10	1.658	Gamma; Lognormal; Normal	Nonparametric
01_3_119	MW-1	App. IV	Radium-226	pCi/L	40	0	0%	0.974	0.470	0.106	0.317	NA	NA	NA	NA	NA		NA		NA	Normal	Normal
01_3_120	MW-1	App. IV	Radium-228	pCi/L	40	0	0%	0.974	0.478	0.105	0.327	NA	NA	NA	NA	NA		NA		NA	Normal	Normal
01_3_121	MW-1	App. IV	Selenium	ug/L	42	40	95%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		1.948		Nonparametric
01_3_124	MW-1	App. IV	Thallium	ug/L	42	42	100%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
01_3_126	MW-1	App. IV	Total Radium	pCi/L	40	0	0%	0.914	0.005	0.115	0.202	0.974	0.464	0.080	0.741	0.058	>= 0.10	0.195	>= 0.10	0.495	Gamma; Lognormal; Normal	Normal
02_1_111	MW-2	App. I Metals	Copper	ug/L	37	15	41%	0.464	0.000	0.349	0.000	0.912	0.053	0.189	0.040	0.263	< 0.01	2.137	< 0.01	1.375	Lognormal	Nonparametric
02_1_117	MW-2	App. I Metals	Nickel	ug/L	37	12	32%	0.623	0.000	0.269	0.000	0.946	0.201	0.131	0.327	0.176	0.05 <= p < 0.10	1.173	< 0.01	1.053	Gamma; Lognormal	Gamma
02_1_122	MW-2	App. I Metals	Silver	ug/L	37	34	92%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		1.506		Nonparametric
02_1_127	MW-2	App. I Metals	Vanadium	ug/L	37	25	68%	0.626	0.000	0.346	0.000	0.897	0.145	0.171	0.426	0.239	0.05 <= p < 0.10	0.976	0.01 <= p < 0.05	0.952	Gamma; Lognormal	Nonparametric
02_1_128	MW-2	App. I Metals	Zinc	ug/L	37	16	43%	0.330	0.000	0.398	0.000	0.926	0.115	0.159	0.178	0.306	< 0.01	2.317	< 0.01	1.390	Lognormal	Nonparametric
02_2_105	MW-2	App. III	Boron	ug/L	36	1	3%	0.932	0.032	0.129	0.146	0.968	0.385	0.100	0.496	0.111	>= 0.10	0.458	>= 0.10	0.136	Gamma; Lognormal; Normal	Normal
02_2_107	MW-2	App. III	Calcium	ug/L	37	0	0%	0.741	0.000	0.190	0.002	0.477	0.000	0.275	0.000	0.251	< 0.01	4.137	< 0.01	0.300	Nonparametric	Nonparametric
02_2_108	MW-2	App. III	Chloride	mg/L	37	0	0%	0.880	0.001	0.130	0.121	0.768	0.000	0.163	0.014	0.154	0.01 <= p < 0.05	1.906	< 0.01	0.207	Normal	Normal
02_2_112	MW-2	App. III	Fluoride	mg/L	37	2	5%	0.894	0.003	0.172	0.010	0.939	0.052	0.172	0.010	0.158	0.01 <= p < 0.05	0.961	0.01 <= p < 0.05	0.227	Lognormal	Lognormal
02_2_118	MW-2	App. III	pH (Field)	S.U.	33	0	0%	0.673	0.000	0.250	0.000	0.703	0.000	0.239	0.000	0.243	< 0.01	2.987	< 0.01	0.046	Nonparametric	Nonparametric

(Table continues on next page)

Note: p-values above 0.05 suggest a fit to the tested distribution; a distribution passes its GOF test when at least one of the two p-values is above 0.05.

Table 3: Goodness-of-Fit Tests, Non-Detects Excluded *(continued)*

								Normal			Lognormal				Gamma						
								S-W		Lilliefors		S-W		Lilliefors		K-S		A-D				
ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	Stat.	p-Value	Stat.	p-Value	Stat.	p-Value	Stat.	p-Value	Stat.	p-Value	Stat.	p-Value	Log-SD (NDs excl.)	ProUCL Distributions Fit	Recommended Distribution
02_2_123	MW-2	App. III	Sulfate	mg/L	37	0	0%	0.787	0.000	0.243	0.000	0.881	0.001	0.195	0.001	0.207	< 0.01	2.266	< 0.01	0.548	Nonparametric	Nonparametric
02_2_125	MW-2	App. III	Total Dissolved Solids	mg/L	37	0	0%	0.449	0.000	0.361	0.000	0.623	0.000	0.318	0.000	0.285	< 0.01	5.116	< 0.01	0.563	Nonparametric	Nonparametric
02_3_101	MW-2	App. IV	Antimony	ug/L	37	23	62%	0.975	0.936	0.118	0.865	0.732	0.001	0.226	0.050	0.165	>= 0.10	0.676	0.05 <= p < 0.10	0.741	Gamma; Lognormal; Normal	Nonparametric
02_3_102	MW-2	App. IV	Arsenic	ug/L	37	26	70%	0.835	0.027	0.211	0.184	0.907	0.223	0.137	0.820	0.154	>= 0.10	0.504	>= 0.10	0.387	Gamma; Lognormal; Normal	Nonparametric
02_3_103	MW-2	App. IV	Barium	ug/L	37	0	0%	0.921	0.012	0.181	0.004	0.876	0.001	0.181	0.003	0.164	0.01 <= p < 0.05	1.247	< 0.01	0.312	Nonparametric	Nonparametric
02_3_104	MW-2	App. IV	Beryllium	ug/L	37	34	92%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		0.507		Nonparametric
02_3_106	MW-2	App. IV	Cadmium	ug/L	37	33	89%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		0.991		Nonparametric
02_3_109	MW-2	App. IV	Chromium	ug/L	37	6	16%	0.629	0.000	0.280	0.000	0.953	0.187	0.137	0.144	0.214	< 0.01	1.517	< 0.01	1.107	Lognormal	Nonparametric
02_3_110	MW-2	App. IV	Cobalt	ug/L	37	28	76%	0.589	0.000	0.393	0.000	0.896	0.230	0.228	0.193	0.320	0.01 <= p < 0.05	0.834	0.01 <= p < 0.05	1.235	Lognormal	Nonparametric
02_3_112	MW-2	App. IV	Fluoride	mg/L	37	2	5%	0.894	0.003	0.172	0.010	0.939	0.052	0.172	0.010	0.158	0.01 <= p < 0.05	0.961	0.01 <= p < 0.05	0.227	Lognormal	Lognormal
02_3_113	MW-2	App. IV	Lead	ug/L	37	31	84%	0.834	0.115	0.313	0.068	0.959	0.809	0.185	0.750	0.244	>= 0.10	0.337	>= 0.10	0.999	Gamma; Lognormal; Normal	Nonparametric
02_3_114	MW-2	App. IV	Lithium	ug/L	37	0	0%	0.680	0.000	0.287	0.000	0.888	0.001	0.187	0.002	0.221	< 0.01	2.241	< 0.01	0.448	Nonparametric	Nonparametric
02_3_115	MW-2	App. IV	Mercury	ug/L	37	37	100%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
02_3_116	MW-2	App. IV	Molybdenum	ug/L	37	6	16%	0.689	0.000	0.240	0.000	0.951	0.165	0.118	0.333	0.152	0.05 <= p < 0.10	1.033	0.01 <= p < 0.05	0.577	Gamma; Lognormal	Gamma
02_3_119	MW-2	App. IV	Radium-226	pCi/L	36	0	0%	0.957	0.172	0.111	0.322	NA	NA	NA	NA	NA		NA		NA	Normal	Normal
02_3_120	MW-2	App. IV	Radium-228	pCi/L	36	0	0%	0.977	0.654	0.092	0.609	0.953	0.133	0.082	0.779	0.078	>= 0.10	0.237	>= 0.10	0.370	Gamma; Lognormal; Normal	Normal
02_3_121	MW-2	App. IV	Selenium	ug/L	37	35	95%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		1.153		Nonparametric
02_3_124	MW-2	App. IV	Thallium	ug/L	37	24	65%	0.325	0.000	0.520	0.000	0.656	0.000	0.303	0.002	0.473	< 0.01	3.230	< 0.01	1.444	Nonparametric	Nonparametric
02_3_126	MW-2	App. IV	Total Radium	pCi/L	36	0	0%	0.955	0.147	0.121	0.204	0.920	0.013	0.186	0.003	0.166	0.01 <= p < 0.05	0.975	0.01 <= p < 0.05	0.355	Normal	Normal
03_1_111	MW-3	App. I Metals	Copper	ug/L	40	21	52%	0.495	0.000	0.373	0.000	0.889	0.031	0.195	0.056	0.282	< 0.01	1.891	< 0.01	1.171	Lognormal	Nonparametric
03_1_117	MW-3	App. I Metals	Nickel	ug/L	40	20	50%	0.504	0.000	0.410	0.000	0.890	0.027	0.176	0.108	0.293	< 0.01	1.918	< 0.01	1.161	Lognormal	Nonparametric
03_1_122	MW-3	App. I Metals	Silver	ug/L	40	38	95%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		0.447		Nonparametric
03_1_127	MW-3	App. I Metals	Vanadium	ug/L	40	25	62%	0.738	0.001	0.261	0.007	0.893	0.075	0.175	0.252	0.209	0.05 <= p < 0.10	0.882	0.01 <= p < 0.05	0.630	Gamma; Lognormal	Nonparametric
03_1_128	MW-3	App. I Metals	Zinc	ug/L	40	28	70%	0.843	0.030	0.188	0.288	0.950	0.638	0.164	0.496	0.169	>= 0.10	0.308	>= 0.10	0.790	Gamma; Lognormal; Normal	Nonparametric
03_2_105	MW-3	App. III	Boron	ug/L	39	10	26%	0.927	0.045	0.143	0.133	0.816	0.000	0.210	0.002	0.191	< 0.01	1.189	< 0.01	0.365	Normal	Normal
03_2_107	MW-3	App. III	Calcium	ug/L	40	0	0%	0.739	0.000	0.190	0.001	0.857	0.000	0.150	0.023	0.159	0.01 <= p < 0.05	1.524	< 0.01	0.153	Nonparametric	Nonparametric
03_2_108	MW-3	App. III	Chloride	mg/L	40	0	0%	0.905	0.003	0.119	0.167	0.813	0.000	0.156	0.015	0.140	0.01 <= p < 0.05	1.307	< 0.01	0.141	Normal	Normal
03_2_112	MW-3	App. III	Fluoride	mg/L	40	1	2%	0.930	0.017	0.120	0.164	0.966	0.274	0.105	0.346	0.111	>= 0.10	0.410	>= 0.10	0.299	Gamma; Lognormal; Normal	Normal
03_2_118	MW-3	App. III	pH (Field)	S.U.	36	0	0%	0.737	0.000	0.238	0.000	0.701	0.000	0.248	0.000	0.242	< 0.01	2.300	< 0.01	0.036	Nonparametric	Nonparametric
03_2_123	MW-3	App. III	Sulfate	mg/L	40	0	0%	0.754	0.000	0.260	0.000	0.874	0.000	0.201	0.000	0.223	< 0.01	2.565	< 0.01	0.920	Nonparametric	Nonparametric
03_2_125	MW-3	App. III	Total Dissolved Solids	mg/L	40	0	0%	0.781	0.000	0.211	0.000	0.512	0.000	0.328	0.000	0.296	< 0.01	5.532	< 0.01	0.500	Nonparametric	Nonparametric
03_3_101	MW-3	App. IV	Antimony	ug/L	40	29	72%	0.921	0.324	0.181	0.402	0.815	0.015	0.216	0.159	0.220	>= 0.10	0.600	>= 0.10	0.655	Gamma; Lognormal; Normal	Nonparametric
03_3_102	MW-3	App. IV	Arsenic	ug/L	40	32	80%	0.975	0.937	0.125	0.971	0.933	0.541	0.159	0.798	0.149	>= 0.10	0.249	>= 0.10	0.559	Gamma; Lognormal; Normal	Nonparametric
03_3_103	MW-3	App. IV	Barium	ug/L	40	0	0%	0.955	0.115	0.138	0.053	0.906	0.003	0.145	0.034	0.146	0.01 <= p < 0.05	0.887	0.01 <= p < 0.05	0.177	Normal	Normal
03_3_104	MW-3	App. IV	Beryllium	ug/L	40	40	100%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
03_3_106	MW-3	App. IV	Cadmium	ug/L	40	38	95%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		0.398		Nonparametric
03_3_109	MW-3	App. IV	Chromium	ug/L	40	20	50%	0.444	0.000	0.424	0.000	0.924	0.121	0.180	0.090	0.311	< 0.01	1.820	< 0.01	1.361	Lognormal	Nonparametric
03_3_110	MW-3	App. IV	Cobalt	ug/L	40	33	82%	0.724	0.007	0.348	0.010	0.896	0.307	0.238	0.266	0.212	>= 0.10	0.347	>= 0.10	1.408	Gamma; Lognormal	Nonparametric
03_3_112	MW-3	App. IV	Fluoride	mg/L	40	1	2%	0.930	0.017	0.120	0.164	0.966	0.274	0.105	0.346	0.111	>= 0.10	0.410	>= 0.10	0.299	Gamma; Lognormal; Normal	Normal

(Table continues on next page)

Note: p-values above 0.05 suggest a fit to the tested distribution; a distribution passes its GOF test when at least one of the two p-values is above 0.05.

Table 3: Goodness-of-Fit Tests, Non-Detects Excluded *(continued)*

								Normal				Lognormal				Gamma						
								S-W		Lilliefors		S-W		Lilliefors		K-S		A-D				
ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	Stat.	p-Value	Stat.	p-Value	Stat.	p-Value	Stat.	p-Value	Stat.	p-Value	Stat.	p-Value	Log-SD (NDs excl.)	ProUCL Distributions Fit	Recommended Distribution
03_3_113	MW-3	App. IV	Lead	ug/L	40	35	88%	0.933	0.617	0.230	0.521	0.694	0.008	0.396	0.010	0.376	0.01 <= p < 0.05	0.743	0.01 <= p < 0.05	1.515	Normal	Nonparametric
03_3_114	MW-3	App. IV	Lithium	ug/L	40	1	2%	0.621	0.000	0.315	0.000	0.790	0.000	0.248	0.000	0.272	< 0.01	3.647	< 0.01	0.297	Nonparametric	Nonparametric
03_3_115	MW-3	App. IV	Mercury	ug/L	40	40	100%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
03_3_116	MW-3	App. IV	Molybdenum	ug/L	40	1	2%	0.498	0.000	0.269	0.000	0.818	0.000	0.184	0.002	0.220	< 0.01	2.408	< 0.01	0.333	Nonparametric	Nonparametric
03_3_119	MW-3	App. IV	Radium-226	pCi/L	39	0	0%	0.974	0.480	0.121	0.159	0.947	0.067	0.117	0.194	0.112	>= 0.10	0.421	>= 0.10	0.455	Gamma; Lognormal; Normal	Normal
03_3_120	MW-3	App. IV	Radium-228	pCi/L	39	0	0%	0.975	0.525	0.088	0.630	0.858	0.000	0.157	0.016	0.141	0.05 <= p < 0.10	1.147	< 0.01	0.485	Gamma; Normal	Normal
03_3_121	MW-3	App. IV	Selenium	ug/L	40	39	98%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
03_3_124	MW-3	App. IV	Thallium	ug/L	40	39	98%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
03_3_126	MW-3	App. IV	Total Radium	pCi/L	39	0	0%	0.985	0.876	0.082	0.732	0.934	0.025	0.146	0.034	0.124	>= 0.10	0.508	>= 0.10	0.339	Gamma; Normal	Normal
04_1_111	MW-4	App. I Metals	Copper	ug/L	41	35	85%	0.704	0.007	0.356	0.017	0.818	0.085	0.294	0.108	0.301	>= 0.10	0.619	>= 0.10	2.358	Gamma; Lognormal	Nonparametric
04_1_117	MW-4	App. I Metals	Nickel	ug/L	41	11	27%	0.937	0.078	0.124	0.286	0.955	0.233	0.116	0.384	0.123	>= 0.10	0.453	>= 0.10	0.367	Gamma; Lognormal; Normal	Normal
04_1_122	MW-4	App. I Metals	Silver	ug/L	41	41	100%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
04_1_127	MW-4	App. I Metals	Vanadium	ug/L	41	37	90%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		1.554		Nonparametric
04_1_128	MW-4	App. I Metals	Zinc	ug/L	41	24	59%	0.706	0.000	0.226	0.021	0.887	0.041	0.189	0.110	0.195	0.05 <= p < 0.10	0.963	0.01 <= p < 0.05	0.504	Gamma; Lognormal	Nonparametric
04_2_105	MW-4	App. III	Boron	ug/L	40	23	57%	0.307	0.000	0.460	0.000	0.522	0.000	0.347	0.000	0.410	< 0.01	4.308	< 0.01	0.787	Nonparametric	Nonparametric
04_2_107	MW-4	App. III	Calcium	ug/L	41	0	0%	0.872	0.000	0.170	0.004	0.731	0.000	0.232	0.000	0.214	< 0.01	2.581	< 0.01	0.303	Nonparametric	Nonparametric
04_2_108	MW-4	App. III	Chloride	mg/L	41	0	0%	0.936	0.023	0.157	0.012	0.866	0.000	0.153	0.017	0.159	0.01 <= p < 0.05	1.320	< 0.01	0.313	Nonparametric	Nonparametric
04_2_112	MW-4	App. III	Fluoride	mg/L	41	0	0%	0.981	0.705	0.093	0.503	0.989	0.951	0.106	0.289	0.096	>= 0.10	0.248	>= 0.10	0.177	Gamma; Lognormal; Normal	Normal
04_2_118	MW-4	App. III	pH (Field)	S.U.	39	0	0%	0.982	0.787	0.097	0.460	0.982	0.787	0.094	0.519	0.097	>= 0.10	0.290	>= 0.10	0.021	Gamma; Lognormal; Normal	Normal
04_2_123	MW-4	App. III	Sulfate	mg/L	41	0	0%	0.860	0.000	0.189	0.001	0.732	0.000	0.255	0.000	0.230	< 0.01	3.212	< 0.01	0.295	Nonparametric	Nonparametric
04_2_125	MW-4	App. III	Total Dissolved Solids	mg/L	41	0	0%	0.818	0.000	0.224	0.000	0.693	0.000	0.287	0.000	0.267	< 0.01	4.149	< 0.01	0.263	Nonparametric	Nonparametric
04_3_101	MW-4	App. IV	Antimony	ug/L	41	36	88%	0.812	0.100	0.307	0.127	0.834	0.150	0.296	0.158	0.322	>= 0.10	0.536	>= 0.10	0.359	Gamma; Lognormal; Normal	Nonparametric
04_3_102	MW-4	App. IV	Arsenic	ug/L	41	39	95%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		1.874		Nonparametric
04_3_103	MW-4	App. IV	Barium	ug/L	41	0	0%	0.855	0.000	0.197	0.000	0.697	0.000	0.277	0.000	0.252	< 0.01	3.614	< 0.01	0.322	Nonparametric	Nonparametric
04_3_104	MW-4	App. IV	Beryllium	ug/L	41	41	100%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
04_3_106	MW-4	App. IV	Cadmium	ug/L	41	40	98%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
04_3_109	MW-4	App. IV	Chromium	ug/L	41	30	73%	0.873	0.086	0.184	0.376	0.951	0.657	0.145	0.747	0.167	>= 0.10	0.263	>= 0.10	0.968	Gamma; Lognormal; Normal	Nonparametric
04_3_110	MW-4	App. IV	Cobalt	ug/L	41	20	49%	0.917	0.075	0.156	0.204	0.966	0.640	0.103	0.807	0.126	>= 0.10	0.324	>= 0.10	0.572	Gamma; Lognormal; Normal	Normal
04_3_112	MW-4	App. IV	Fluoride	mg/L	41	0	0%	0.981	0.705	0.093	0.503	0.989	0.951	0.106	0.289	0.096	>= 0.10	0.248	>= 0.10	0.177	Gamma; Lognormal; Normal	Normal
04_3_113	MW-4	App. IV	Lead	ug/L	41	40	98%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
04_3_114	MW-4	App. IV	Lithium	ug/L	41	0	0%	0.656	0.000	0.180	0.002	0.896	0.001	0.150	0.021	0.166	< 0.01	1.417	< 0.01	0.296	Nonparametric	Nonparametric
04_3_115	MW-4	App. IV	Mercury	ug/L	41	41	100%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
04_3_116	MW-4	App. IV	Molybdenum	ug/L	41	35	85%	0.839	0.127	0.274	0.171	0.813	0.077	0.261	0.224	0.295	>= 0.10	0.590	>= 0.10	1.591	Gamma; Lognormal; Normal	Nonparametric
04_3_119	MW-4	App. IV	Radium-226	pCi/L	39	0	0%	0.972	0.431	0.106	0.328	NA	NA	NA	NA	NA		NA		NA	Normal	Normal
04_3_120	MW-4	App. IV	Radium-228	pCi/L	39	0	0%	0.945	0.055	0.103	0.377	NA	NA	NA	NA	NA		NA		NA	Normal	Normal
04_3_121	MW-4	App. IV	Selenium	ug/L	41	38	93%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		2.176		Nonparametric
04_3_124	MW-4	App. IV	Thallium	ug/L	41	41	100%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
04_3_126	MW-4	App. IV	Total Radium	pCi/L	39	0	0%	0.926	0.014	0.121	0.158	0.983	0.798	0.070	0.896	0.063	>= 0.10	0.158	>= 0.10	0.580	Gamma; Lognormal; Normal	Normal
05_1_111	MW-5	App. I Metals	Copper	ug/L	42	29	69%	0.859	0.038	0.227	0.066	0.908	0.170	0.184	0.264	0.196	>= 0.10	0.581	>= 0.10	0.907	Gamma; Lognormal; Normal	Nonparametric

(Table continues on next page)

Note: p-values above 0.05 suggest a fit to the tested distribution; a distribution passes its GOF test when at least one of the two p-values is above 0.05.

Table 3: Goodness-of-Fit Tests, Non-Detects Excluded *(continued)*

								Normal				Lognormal				Gamma						
								S-W		Lilliefors		S-W		Lilliefors		K-S		A-D				
ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	Stat.	p-Value	Stat.	p-Value	Stat.	p-Value	Stat.	p-Value	Stat.	p-Value	Stat.	p-Value	Log-SD (NDs excl.)	ProUCL Distributions Fit	Recommended Distribution
05_1_117	MW-5	App. I Metals	Nickel	ug/L	42	32	76%	0.429	0.000	0.464	0.000	0.859	0.075	0.222	0.175	0.320	0.01 <= p < 0.05	1.455	< 0.01	1.494	Lognormal	Nonparametric
05_1_122	MW-5	App. I Metals	Silver	ug/L	42	42	100%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
05_1_127	MW-5	App. I Metals	Vanadium	ug/L	42	39	93%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		0.818		Nonparametric
05_1_128	MW-5	App. I Metals	Zinc	ug/L	42	25	60%	0.706	0.000	0.284	0.001	0.955	0.543	0.154	0.352	0.203	0.05 <= p < 0.10	0.754	0.01 <= p < 0.05	0.648	Gamma; Lognormal	Nonparametric
05_2_105	MW-5	App. III	Boron	ug/L	41	15	37%	0.437	0.000	0.339	0.000	0.653	0.000	0.232	0.001	0.270	< 0.01	3.455	< 0.01	0.295	Nonparametric	Nonparametric
05_2_107	MW-5	App. III	Calcium	ug/L	42	0	0%	0.946	0.047	0.161	0.008	0.972	0.395	0.129	0.074	0.142	0.01 <= p < 0.05	0.642	0.05 <= p < 0.10	0.203	Gamma; Lognormal	Gamma
05_2_108	MW-5	App. III	Chloride	mg/L	42	0	0%	0.966	0.243	0.104	0.303	0.968	0.291	0.091	0.521	0.096	>= 0.10	0.472	>= 0.10	0.080	Gamma; Lognormal; Normal	Normal
05_2_112	MW-5	App. III	Fluoride	mg/L	42	0	0%	0.980	0.674	0.080	0.716	0.977	0.550	0.090	0.536	0.086	>= 0.10	0.355	>= 0.10	0.107	Gamma; Lognormal; Normal	Normal
05_2_118	MW-5	App. III	pH (Field)	S.U.	39	0	0%	0.791	0.000	0.222	0.000	0.782	0.000	0.234	0.000	0.226	< 0.01	2.809	< 0.01	0.068	Nonparametric	Nonparametric
05_2_123	MW-5	App. III	Sulfate	mg/L	42	0	0%	0.898	0.001	0.126	0.094	0.947	0.049	0.136	0.051	0.136	0.05 <= p < 0.10	0.748	0.01 <= p < 0.05	0.159	Gamma; Lognormal; Normal	Normal
05_2_125	MW-5	App. III	Total Dissolved Solids	mg/L	42	0	0%	0.282	0.000	0.410	0.000	0.503	0.000	0.282	0.000	0.337	< 0.01	6.889	< 0.01	0.278	Nonparametric	Nonparametric
05_3_101	MW-5	App. IV	Antimony	ug/L	42	40	95%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		0.895		Nonparametric
05_3_102	MW-5	App. IV	Arsenic	ug/L	42	40	95%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		2.391		Nonparametric
05_3_103	MW-5	App. IV	Barium	ug/L	42	0	0%	0.965	0.221	0.110	0.228	0.989	0.948	0.080	0.720	0.089	>= 0.10	0.224	>= 0.10	0.152	Gamma; Lognormal; Normal	Normal
05_3_104	MW-5	App. IV	Beryllium	ug/L	42	42	100%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
05_3_106	MW-5	App. IV	Cadmium	ug/L	42	42	100%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
05_3_109	MW-5	App. IV	Chromium	ug/L	42	29	69%	0.364	0.000	0.465	0.000	0.808	0.008	0.241	0.038	0.338	< 0.01	2.180	< 0.01	1.545	Nonparametric	Nonparametric
05_3_110	MW-5	App. IV	Cobalt	ug/L	42	40	95%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		2.381		Nonparametric
05_3_112	MW-5	App. IV	Fluoride	mg/L	42	0	0%	0.980	0.674	0.080	0.716	0.977	0.550	0.090	0.536	0.086	>= 0.10	0.355	>= 0.10	0.107	Gamma; Lognormal; Normal	Normal
05_3_113	MW-5	App. IV	Lead	ug/L	42	41	98%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
05_3_114	MW-5	App. IV	Lithium	ug/L	42	1	2%	0.482	0.000	0.282	0.000	0.734	0.000	0.186	0.001	0.218	< 0.01	3.222	< 0.01	0.226	Nonparametric	Nonparametric
05_3_115	MW-5	App. IV	Mercury	ug/L	42	42	100%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
05_3_116	MW-5	App. IV	Molybdenum	ug/L	42	39	93%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		2.007		Nonparametric
05_3_119	MW-5	App. IV	Radium-226	pCi/L	40	0	0%	0.963	0.208	0.107	0.302	NA	NA	NA	NA	NA		NA		NA	Normal	Normal
05_3_120	MW-5	App. IV	Radium-228	pCi/L	40	0	0%	0.946	0.056	0.097	0.451	NA	NA	NA	NA	NA		NA		NA	Normal	Normal
05_3_121	MW-5	App. IV	Selenium	ug/L	42	41	98%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
05_3_124	MW-5	App. IV	Thallium	ug/L	42	41	98%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
05_3_126	MW-5	App. IV	Total Radium	pCi/L	40	0	0%	0.950	0.076	0.126	0.115	0.895	0.001	0.156	0.016	0.122	>= 0.10	0.813	0.01 <= p < 0.05	0.876	Gamma; Normal	Normal
06_1_111	MW-6	App. I Metals	Copper	ug/L	41	33	80%	0.706	0.003	0.356	0.004	0.976	0.938	0.157	0.813	0.241	>= 0.10	0.350	>= 0.10	1.392	Gamma; Lognormal	Nonparametric
06_1_117	MW-6	App. I Metals	Nickel	ug/L	41	28	68%	0.807	0.008	0.277	0.007	0.922	0.263	0.211	0.119	0.240	0.05 <= p < 0.10	0.694	0.05 <= p < 0.10	0.681	Gamma; Lognormal	Nonparametric
06_1_122	MW-6	App. I Metals	Silver	ug/L	41	41	100%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
06_1_127	MW-6	App. I Metals	Vanadium	ug/L	41	36	88%	0.875	0.288	0.282	0.214	0.951	0.742	0.183	0.839	0.237	>= 0.10	0.302	>= 0.10	0.945	Gamma; Lognormal; Normal	Nonparametric
06_1_128	MW-6	App. I Metals	Zinc	ug/L	41	26	63%	0.841	0.013	0.200	0.108	0.967	0.816	0.092	0.980	0.117	>= 0.10	0.325	>= 0.10	0.647	Gamma; Lognormal; Normal	Nonparametric
06_2_105	MW-6	App. III	Boron	ug/L	40	23	57%	0.950	0.460	0.175	0.179	0.972	0.858	0.145	0.449	0.150	>= 0.10	0.272	>= 0.10	0.184	Gamma; Lognormal; Normal	Nonparametric
06_2_107	MW-6	App. III	Calcium	ug/L	41	0	0%	0.972	0.395	0.124	0.116	0.980	0.678	0.112	0.220	0.116	>= 0.10	0.412	>= 0.10	0.063	Gamma; Lognormal; Normal	Normal
06_2_108	MW-6	App. III	Chloride	mg/L	41	0	0%	0.861	0.000	0.157	0.013	0.511	0.000	0.301	0.000	0.258	< 0.01	3.787	< 0.01	0.458	Nonparametric	Nonparametric
06_2_112	MW-6	App. III	Fluoride	mg/L	41	1	2%	0.956	0.118	0.095	0.485	0.893	0.001	0.106	0.313	0.086	>= 0.10	0.482	>= 0.10	0.176	Gamma; Lognormal; Normal	Normal
06_2_118	MW-6	App. III	pH (Field)	S.U.	38	0	0%	0.905	0.004	0.166	0.010	0.914	0.007	0.161	0.015	0.162	0.01 <= p < 0.05	1.079	< 0.01	0.028	Nonparametric	Nonparametric
06_2_123	MW-6	App. III	Sulfate	mg/L	41	0	0%	0.674	0.000	0.345	0.000	0.745	0.000	0.356	0.000	0.362	< 0.01	4.949	< 0.01	0.697	Nonparametric	Nonparametric

(Table continues on next page)

Note: p-values above 0.05 suggest a fit to the tested distribution; a distribution passes its GOF test when at least one of the two p-values is above 0.05.

Table 3: Goodness-of-Fit Tests, Non-Detects Excluded *(continued)*

								Normal				Lognormal				Gamma						
								S-W		Lilliefors		S-W		Lilliefors		K-S		A-D				
ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	Stat.	p-Value	Stat.	p-Value	Stat.	p-Value	Stat.	p-Value	Stat.	p-Value	Stat.	p-Value	Log-SD (NDs excl.)	ProUCL Distributions Fit	Recommended Distribution
06_2_125	MW-6	App. III	Total Dissolved Solids	mg/L	41	0	0%	0.923	0.009	0.131	0.073	0.912	0.004	0.148	0.024	0.137	0.01 <= p < 0.05	1.084	< 0.01	0.155	Normal	Normal
06_3_101	MW-6	App. IV	Antimony	ug/L	41	41	100%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
06_3_102	MW-6	App. IV	Arsenic	ug/L	41	39	95%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		2.076		Nonparametric
06_3_103	MW-6	App. IV	Barium	ug/L	41	0	0%	0.885	0.001	0.208	0.000	0.905	0.002	0.180	0.002	0.192	< 0.01	1.663	< 0.01	0.368	Nonparametric	Nonparametric
06_3_104	MW-6	App. IV	Beryllium	ug/L	41	40	98%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
06_3_106	MW-6	App. IV	Cadmium	ug/L	41	41	100%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
06_3_109	MW-6	App. IV	Chromium	ug/L	41	32	78%	0.896	0.227	0.208	0.315	0.972	0.909	0.151	0.798	0.115	>= 0.10	0.156	>= 0.10	0.946	Gamma; Lognormal; Normal	Nonparametric
06_3_110	MW-6	App. IV	Cobalt	ug/L	41	39	95%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		1.138		Nonparametric
06_3_112	MW-6	App. IV	Fluoride	mg/L	41	1	2%	0.956	0.118	0.095	0.485	0.893	0.001	0.106	0.313	0.086	>= 0.10	0.482	>= 0.10	0.176	Gamma; Lognormal; Normal	Normal
06_3_113	MW-6	App. IV	Lead	ug/L	41	38	93%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		1.299		Nonparametric
06_3_114	MW-6	App. IV	Lithium	ug/L	41	0	0%	0.871	0.000	0.209	0.000	0.905	0.002	0.143	0.034	0.165	< 0.01	1.754	< 0.01	0.344	Nonparametric	Nonparametric
06_3_115	MW-6	App. IV	Mercury	ug/L	41	40	98%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
06_3_116	MW-6	App. IV	Molybdenum	ug/L	41	36	88%	0.860	0.230	0.288	0.190	0.657	0.003	0.421	0.004	0.417	0.01 <= p < 0.05	0.880	0.01 <= p < 0.05	1.582	Normal	Nonparametric
06_3_119	MW-6	App. IV	Radium-226	pCi/L	39	0	0%	0.957	0.146	0.094	0.519	NA	NA	NA	NA	NA		NA		NA	Normal	Normal
06_3_120	MW-6	App. IV	Radium-228	pCi/L	39	0	0%	0.990	0.978	0.071	0.888	NA	NA	NA	NA	NA		NA		NA	Normal	Normal
06_3_121	MW-6	App. IV	Selenium	ug/L	41	39	95%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		2.685		Nonparametric
06_3_124	MW-6	App. IV	Thallium	ug/L	41	37	90%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		2.402		Nonparametric
06_3_126	MW-6	App. IV	Total Radium	pCi/L	39	0	0%	0.973	0.455	0.114	0.233	0.853	0.000	0.159	0.014	0.136	0.05 <= p < 0.10	0.752	0.05 <= p < 0.10	0.814	Gamma; Normal	Normal
07_1_111	MW-7R	App. I Metals	Copper	ug/L	33	21	64%	0.681	0.001	0.338	0.000	0.843	0.030	0.260	0.025	0.273	0.01 <= p < 0.05	1.023	0.01 <= p < 0.05	1.939	Nonparametric	Nonparametric
07_1_117	MW-7R	App. I Metals	Nickel	ug/L	33	15	45%	0.278	0.000	0.502	0.000	0.832	0.004	0.158	0.277	0.344	< 0.01	3.221	< 0.01	1.657	Lognormal	Nonparametric
07_1_122	MW-7R	App. I Metals	Silver	ug/L	33	33	100%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
07_1_127	MW-7R	App. I Metals	Vanadium	ug/L	33	16	48%	0.636	0.000	0.343	0.000	0.771	0.001	0.202	0.063	0.259	< 0.01	2.042	< 0.01	0.651	Lognormal	Lognormal
07_1_128	MW-7R	App. I Metals	Zinc	ug/L	33	22	67%	0.616	0.000	0.395	0.000	0.820	0.017	0.232	0.099	0.296	0.01 <= p < 0.05	1.257	< 0.01	0.996	Lognormal	Nonparametric
07_2_105	MW-7R	App. III	Boron	ug/L	32	12	38%	0.772	0.000	0.252	0.002	0.869	0.011	0.199	0.036	0.220	0.01 <= p < 0.05	1.286	< 0.01	0.303	Nonparametric	Nonparametric
07_2_107	MW-7R	App. III	Calcium	ug/L	33	0	0%	0.979	0.761	0.107	0.443	0.966	0.386	0.121	0.256	0.112	>= 0.10	0.329	>= 0.10	0.073	Gamma; Lognormal; Normal	Normal
07_2_108	MW-7R	App. III	Chloride	mg/L	33	0	0%	0.881	0.002	0.162	0.029	0.828	0.000	0.179	0.009	0.174	0.01 <= p < 0.05	1.337	< 0.01	0.093	Nonparametric	Nonparametric
07_2_112	MW-7R	App. III	Fluoride	mg/L	33	1	3%	0.612	0.000	0.246	0.000	0.788	0.000	0.177	0.012	0.201	< 0.01	1.998	< 0.01	0.220	Nonparametric	Nonparametric
07_2_118	MW-7R	App. III	pH (Field)	S.U.	32	0	0%	0.477	0.000	0.281	0.000	0.519	0.000	0.257	0.000	0.262	< 0.01	4.326	< 0.01	0.050	Nonparametric	Nonparametric
07_2_123	MW-7R	App. III	Sulfate	mg/L	33	0	0%	0.439	0.000	0.308	0.000	0.649	0.000	0.226	0.000	0.258	< 0.01	3.643	< 0.01	0.237	Nonparametric	Nonparametric
07_2_125	MW-7R	App. III	Total Dissolved Solids	mg/L	33	0	0%	0.988	0.964	0.079	0.866	0.988	0.967	0.092	0.687	0.087	>= 0.10	0.221	>= 0.10	0.065	Gamma; Lognormal; Normal	Normal
07_3_101	MW-7R	App. IV	Antimony	ug/L	33	32	97%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
07_3_102	MW-7R	App. IV	Arsenic	ug/L	33	30	91%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		1.146		Nonparametric
07_3_103	MW-7R	App. IV	Barium	ug/L	33	0	0%	0.838	0.000	0.213	0.001	0.567	0.000	0.262	0.000	0.248	< 0.01	3.169	< 0.01	0.348	Nonparametric	Nonparametric
07_3_104	MW-7R	App. IV	Beryllium	ug/L	33	33	100%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
07_3_106	MW-7R	App. IV	Cadmium	ug/L	33	33	100%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
07_3_109	MW-7R	App. IV	Chromium	ug/L	33	8	24%	0.223	0.000	0.499	0.000	0.822	0.001	0.179	0.038	0.340	< 0.01	5.069	< 0.01	1.538	Nonparametric	Nonparametric
07_3_110	MW-7R	App. IV	Cobalt	ug/L	33	28	85%	0.765	0.041	0.297	0.155	0.986	0.964	0.149	0.972	0.236	>= 0.10	0.247	>= 0.10	1.895	Gamma; Lognormal; Normal	Nonparametric
07_3_112	MW-7R	App. IV	Fluoride	mg/L	33	1	3%	0.612	0.000	0.246	0.000	0.788	0.000	0.177	0.012	0.201	< 0.01	1.998	< 0.01	0.220	Nonparametric	Nonparametric
07_3_113	MW-7R	App. IV	Lead	ug/L	33	27	82%	0.913	0.456	0.202	0.619	0.768	0.030	0.344	0.025	0.290	>= 0.10	0.524	>= 0.10	1.192	Gamma; Normal	Nonparametric

(Table continues on next page)

Note: p-values above 0.05 suggest a fit to the tested distribution; a distribution passes its GOF test when at least one of the two p-values is above 0.05.

Table 3: Goodness-of-Fit Tests, Non-Detects Excluded *(continued)*

								Normal				Lognormal				Gamma						
								S-W		Lilliefors		S-W		Lilliefors		K-S		A-D				
ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	Stat.	p-Value	Stat.	p-Value	Stat.	p-Value	Stat.	p-Value	Stat.	p-Value	Stat.	p-Value	Log-SD (NDs excl.)	ProUCL Distributions Fit	Recommended Distribution
07_3_114	MW-7R	App. IV	Lithium	ug/L	33	0	0%	0.818	0.000	0.159	0.034	0.571	0.000	0.235	0.000	0.204	< 0.01	2.829	< 0.01	0.311	Nonparametric	Nonparametric
07_3_115	MW-7R	App. IV	Mercury	ug/L	33	33	100%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
07_3_116	MW-7R	App. IV	Molybdenum	ug/L	33	28	85%	0.838	0.158	0.240	0.447	0.931	0.605	0.211	0.657	0.236	>= 0.10	0.266	>= 0.10	1.612	Gamma; Lognormal; Normal	Nonparametric
07_3_119	MW-7R	App. IV	Radium-226	pCi/L	31	0	0%	0.901	0.008	0.152	0.067	NA	NA	NA	NA	NA		NA		NA	Normal	Normal
07_3_120	MW-7R	App. IV	Radium-228	pCi/L	31	0	0%	0.910	0.013	0.151	0.068	NA	NA	NA	NA	NA		NA		NA	Normal	Normal
07_3_121	MW-7R	App. IV	Selenium	ug/L	33	32	97%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
07_3_124	MW-7R	App. IV	Thallium	ug/L	33	30	91%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		0.827		Nonparametric
07_3_126	MW-7R	App. IV	Total Radium	pCi/L	31	0	0%	0.893	0.005	0.190	0.006	0.902	0.008	0.162	0.038	0.118	>= 0.10	0.489	>= 0.10	0.803	Gamma	Gamma
08_1_111	MW-8	App. I Metals	Copper	ug/L	42	31	74%	0.424	0.000	0.453	0.000	0.887	0.126	0.150	0.702	0.296	0.01 <= p < 0.05	1.317	< 0.01	1.459	Lognormal	Nonparametric
08_1_117	MW-8	App. I Metals	Nickel	ug/L	42	21	50%	0.437	0.000	0.335	0.000	0.928	0.123	0.146	0.286	0.211	0.01 <= p < 0.05	1.376	< 0.01	1.288	Lognormal	Nonparametric
08_1_122	MW-8	App. I Metals	Silver	ug/L	42	41	98%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
08_1_127	MW-8	App. I Metals	Vanadium	ug/L	42	34	81%	0.689	0.002	0.285	0.055	0.886	0.217	0.199	0.459	0.216	>= 0.10	0.641	0.05 <= p < 0.10	0.644	Gamma; Lognormal; Normal	Nonparametric
08_1_128	MW-8	App. I Metals	Zinc	ug/L	42	24	57%	0.813	0.002	0.248	0.005	0.959	0.591	0.127	0.624	0.147	>= 0.10	0.414	>= 0.10	0.859	Gamma; Lognormal	Nonparametric
08_2_105	MW-8	App. III	Boron	ug/L	41	15	37%	0.940	0.131	0.126	0.354	0.953	0.279	0.098	0.746	0.107	>= 0.10	0.376	>= 0.10	0.143	Gamma; Lognormal; Normal	Normal
08_2_107	MW-8	App. III	Calcium	ug/L	42	0	0%	0.830	0.000	0.208	0.000	0.429	0.000	0.374	0.000	0.315	< 0.01	4.549	< 0.01	0.543	Nonparametric	Nonparametric
08_2_108	MW-8	App. III	Chloride	mg/L	42	0	0%	0.810	0.000	0.229	0.000	0.923	0.008	0.172	0.003	0.194	< 0.01	1.693	< 0.01	0.302	Nonparametric	Nonparametric
08_2_112	MW-8	App. III	Fluoride	mg/L	42	20	48%	0.917	0.065	0.148	0.239	0.935	0.157	0.166	0.120	0.163	>= 0.10	0.655	0.05 <= p < 0.10	0.222	Gamma; Lognormal; Normal	Normal
08_2_118	MW-8	App. III	pH (Field)	S.U.	40	0	0%	0.963	0.209	0.130	0.085	0.964	0.221	0.128	0.100	0.126	>= 0.10	0.631	0.05 <= p < 0.10	0.019	Gamma; Lognormal; Normal	Normal
08_2_123	MW-8	App. III	Sulfate	mg/L	42	0	0%	0.971	0.364	0.100	0.363	0.938	0.024	0.127	0.087	0.112	>= 0.10	0.484	>= 0.10	0.126	Gamma; Lognormal; Normal	Normal
08_2_125	MW-8	App. III	Total Dissolved Solids	mg/L	42	0	0%	0.918	0.005	0.148	0.022	0.778	0.000	0.200	0.000	0.173	< 0.01	1.303	< 0.01	0.304	Nonparametric	Nonparametric
08_3_101	MW-8	App. IV	Antimony	ug/L	42	35	83%	0.957	0.795	0.191	0.613	0.963	0.846	0.180	0.707	0.165	>= 0.10	0.265	>= 0.10	0.203	Gamma; Lognormal; Normal	Nonparametric
08_3_102	MW-8	App. IV	Arsenic	ug/L	42	37	88%	0.800	0.081	0.316	0.103	0.752	0.031	0.311	0.116	0.336	0.05 <= p < 0.10	0.676	0.05 <= p < 0.10	0.463	Gamma; Lognormal; Normal	Nonparametric
08_3_103	MW-8	App. IV	Barium	ug/L	42	0	0%	0.809	0.000	0.204	0.000	0.875	0.000	0.176	0.002	0.185	< 0.01	2.084	< 0.01	0.146	Nonparametric	Nonparametric
08_3_104	MW-8	App. IV	Beryllium	ug/L	42	41	98%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
08_3_106	MW-8	App. IV	Cadmium	ug/L	42	41	98%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
08_3_109	MW-8	App. IV	Chromium	ug/L	42	20	48%	0.698	0.000	0.288	0.000	0.943	0.230	0.122	0.542	0.202	0.01 <= p < 0.05	0.759	0.05 <= p < 0.10	1.338	Gamma; Lognormal	Gamma
08_3_110	MW-8	App. IV	Cobalt	ug/L	42	37	88%	0.780	0.055	0.284	0.205	0.908	0.455	0.243	0.432	0.283	>= 0.10	0.431	>= 0.10	0.812	Gamma; Lognormal; Normal	Nonparametric
08_3_112	MW-8	App. IV	Fluoride	mg/L	42	20	48%	0.917	0.065	0.148	0.239	0.935	0.157	0.166	0.120	0.163	>= 0.10	0.655	0.05 <= p < 0.10	0.222	Gamma; Lognormal; Normal	Normal
08_3_113	MW-8	App. IV	Lead	ug/L	42	39	93%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		0.098		Nonparametric
08_3_114	MW-8	App. IV	Lithium	ug/L	42	1	2%	0.901	0.002	0.161	0.009	0.962	0.182	0.114	0.197	0.130	0.05 <= p < 0.10	0.726	0.05 <= p < 0.10	0.230	Gamma; Lognormal	Gamma
08_3_115	MW-8	App. IV	Mercury	ug/L	42	41	98%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
08_3_116	MW-8	App. IV	Molybdenum	ug/L	42	39	93%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		0.780		Nonparametric
08_3_119	MW-8	App. IV	Radium-226	pCi/L	40	0	0%	0.871	0.000	0.142	0.041	NA	NA	NA	NA	NA		NA		NA	Nonparametric	Nonparametric
08_3_120	MW-8	App. IV	Radium-228	pCi/L	40	0	0%	0.616	0.000	0.235	0.000	NA	NA	NA	NA	NA		NA		NA	Nonparametric	Nonparametric
08_3_121	MW-8	App. IV	Selenium	ug/L	42	40	95%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		1.815		Nonparametric
08_3_124	MW-8	App. IV	Thallium	ug/L	42	40	95%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		3.950		Nonparametric
08_3_126	MW-8	App. IV	Total Radium	pCi/L	40	0	0%	0.565	0.000	0.256	0.000	NA	NA	NA	NA	NA		NA		NA	Nonparametric	Nonparametric
09_1_111	MW-10	App. I Metals	Copper	ug/L	18	9	50%	0.716	0.002	0.337	0.004	0.864	0.106	0.269	0.060	0.271	>= 0.10	0.563	>= 0.10	1.954	Gamma; Lognormal	Nonparametric
09_1_117	MW-10	App. I Metals	Nickel	ug/L	18	6	33%	0.475	0.000	0.404	0.000	0.844	0.031	0.238	0.059	0.329	< 0.01	1.354	< 0.01	0.944	Lognormal	Lognormal

(Table continues on next page)

Note: p-values above 0.05 suggest a fit to the tested distribution; a distribution passes its GOF test when at least one of the two p-values is above 0.05.

Table 3: Goodness-of-Fit Tests, Non-Detects Excluded *(continued)*

								Normal				Lognormal				Gamma						
								S-W		Lilliefors		S-W		Lilliefors		K-S		A-D				
ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	Stat.	p-Value	Stat.	p-Value	Stat.	p-Value	Stat.	p-Value	Stat.	p-Value	Stat.	p-Value	Log-SD (NDs excl.)	ProUCL Distributions Fit	Recommended Distribution
09_1_122	MW-10	App. I Metals	Silver	ug/L	18	18	100%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
09_1_127	MW-10	App. I Metals	Vanadium	ug/L	18	11	61%	0.522	0.000	0.472	0.000	0.692	0.003	0.391	0.002	0.446	< 0.01	1.388	< 0.01	0.838	Nonparametric	Nonparametric
09_1_128	MW-10	App. I Metals	Zinc	ug/L	18	13	72%	0.616	0.001	0.432	0.003	0.845	0.178	0.287	0.191	0.372	0.01 <= p < 0.05	0.745	0.01 <= p < 0.05	1.311	Lognormal	Nonparametric
09_2_105	MW-10	App. III	Boron	ug/L	18	0	0%	0.829	0.004	0.178	0.140	0.921	0.137	0.136	0.508	0.143	>= 0.10	0.549	>= 0.10	0.195	Gamma; Lognormal; Normal	Normal
09_2_107	MW-10	App. III	Calcium	ug/L	18	0	0%	0.951	0.441	0.158	0.277	0.953	0.475	0.175	0.156	0.167	>= 0.10	0.459	>= 0.10	0.093	Gamma; Lognormal; Normal	Normal
09_2_108	MW-10	App. III	Chloride	mg/L	18	0	0%	0.964	0.674	0.115	0.760	0.970	0.806	0.108	0.833	0.108	>= 0.10	0.209	>= 0.10	0.036	Gamma; Lognormal; Normal	Normal
09_2_112	MW-10	App. III	Fluoride	mg/L	18	0	0%	0.929	0.183	0.164	0.229	0.938	0.268	0.153	0.323	0.159	>= 0.10	0.419	>= 0.10	0.093	Gamma; Lognormal; Normal	Normal
09_2_118	MW-10	App. III	pH (Field)	S.U.	19	0	0%	0.917	0.100	0.183	0.095	0.919	0.108	0.180	0.106	0.180	>= 0.10	0.711	0.05 <= p < 0.10	0.018	Gamma; Lognormal; Normal	Normal
09_2_123	MW-10	App. III	Sulfate	mg/L	18	0	0%	0.848	0.008	0.190	0.086	0.924	0.153	0.167	0.207	0.172	>= 0.10	0.611	>= 0.10	0.496	Gamma; Lognormal; Normal	Normal
09_2_125	MW-10	App. III	Total Dissolved Solids	mg/L	18	0	0%	0.971	0.824	0.132	0.561	0.965	0.700	0.138	0.486	0.137	>= 0.10	0.278	>= 0.10	0.034	Gamma; Lognormal; Normal	Normal
09_3_101	MW-10	App. IV	Antimony	ug/L	18	17	94%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
09_3_102	MW-10	App. IV	Arsenic	ug/L	18	14	78%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		0.400		Nonparametric
09_3_103	MW-10	App. IV	Barium	ug/L	18	0	0%	0.757	0.000	0.305	0.000	0.889	0.037	0.236	0.009	0.251	< 0.01	0.921	0.01 <= p < 0.05	0.351	Nonparametric	Nonparametric
09_3_104	MW-10	App. IV	Beryllium	ug/L	18	18	100%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
09_3_106	MW-10	App. IV	Cadmium	ug/L	18	18	100%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
09_3_109	MW-10	App. IV	Chromium	ug/L	18	6	33%	0.509	0.000	0.373	0.000	0.919	0.277	0.149	0.649	0.247	0.05 <= p < 0.10	0.876	0.01 <= p < 0.05	1.172	Gamma; Lognormal	Gamma
09_3_110	MW-10	App. IV	Cobalt	ug/L	18	16	89%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		2.015		Nonparametric
09_3_112	MW-10	App. IV	Fluoride	mg/L	18	0	0%	0.929	0.183	0.164	0.229	0.938	0.268	0.153	0.323	0.159	>= 0.10	0.419	>= 0.10	0.093	Gamma; Lognormal; Normal	Normal
09_3_113	MW-10	App. IV	Lead	ug/L	18	16	89%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		1.902		Nonparametric
09_3_114	MW-10	App. IV	Lithium	ug/L	18	0	0%	0.883	0.029	0.204	0.047	0.893	0.044	0.236	0.009	0.229	0.01 <= p < 0.05	0.825	0.01 <= p < 0.05	0.733	Nonparametric	Nonparametric
09_3_115	MW-10	App. IV	Mercury	ug/L	18	18	100%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
09_3_116	MW-10	App. IV	Molybdenum	ug/L	18	0	0%	0.872	0.019	0.202	0.050	0.928	0.178	0.164	0.227	0.179	>= 0.10	0.639	0.05 <= p < 0.10	0.246	Gamma; Lognormal	Gamma
09_3_119	MW-10	App. IV	Radium-226	pCi/L	18	0	0%	0.956	0.519	0.158	0.280	NA	NA	NA	NA	NA		NA		NA	Normal	Normal
09_3_120	MW-10	App. IV	Radium-228	pCi/L	18	0	0%	0.950	0.420	0.162	0.243	NA	NA	NA	NA	NA		NA		NA	Normal	Normal
09_3_121	MW-10	App. IV	Selenium	ug/L	18	15	83%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		1.475		Nonparametric
09_3_124	MW-10	App. IV	Thallium	ug/L	18	17	94%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
09_3_126	MW-10	App. IV	Total Radium	pCi/L	18	0	0%	0.983	0.975	0.098	0.917	NA	NA	NA	NA	NA		NA		NA	Normal	Normal
10_1_111	MW-11	App. I Metals	Copper	ug/L	21	10	48%	0.650	0.000	0.372	0.000	0.912	0.255	0.158	0.621	0.246	0.05 <= p < 0.10	0.763	0.01 <= p < 0.05	1.170	Gamma; Lognormal	Gamma
10_1_117	MW-11	App. I Metals	Nickel	ug/L	21	12	57%	0.704	0.002	0.292	0.026	0.898	0.242	0.171	0.629	0.221	>= 0.10	0.648	0.05 <= p < 0.10	0.735	Gamma; Lognormal	Nonparametric
10_1_122	MW-11	App. I Metals	Silver	ug/L	21	21	100%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
10_1_127	MW-11	App. I Metals	Vanadium	ug/L	21	18	86%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		0.604		Nonparametric
10_1_128	MW-11	App. I Metals	Zinc	ug/L	21	14	67%	0.915	0.435	0.177	0.729	0.956	0.787	0.153	0.890	0.179	>= 0.10	0.249	>= 0.10	0.552	Gamma; Lognormal; Normal	Nonparametric
10_2_105	MW-11	App. III	Boron	ug/L	21	1	5%	0.901	0.042	0.196	0.044	0.956	0.462	0.160	0.201	0.170	>= 0.10	0.438	>= 0.10	0.173	Gamma; Lognormal	Gamma
10_2_107	MW-11	App. III	Calcium	ug/L	21	0	0%	0.577	0.000	0.285	0.000	0.713	0.000	0.243	0.002	0.257	< 0.01	2.278	< 0.01	0.246	Nonparametric	Nonparametric
10_2_108	MW-11	App. III	Chloride	mg/L	21	0	0%	0.913	0.062	0.128	0.492	0.841	0.003	0.168	0.124	0.150	>= 0.10	0.691	0.05 <= p < 0.10	0.164	Gamma; Lognormal; Normal	Normal
10_2_112	MW-11	App. III	Fluoride	mg/L	21	1	5%	0.906	0.054	0.158	0.210	0.914	0.077	0.156	0.231	0.162	>= 0.10	0.639	0.05 <= p < 0.10	0.131	Gamma; Lognormal; Normal	Normal
10_2_118	MW-11	App. III	pH (Field)	S.U.	20	0	0%	0.367	0.000	0.403	0.000	0.409	0.000	0.375	0.000	0.385	< 0.01	4.712	< 0.01	0.127	Nonparametric	Nonparametric
10_2_123	MW-11	App. III	Sulfate	mg/L	21	0	0%	0.911	0.057	0.152	0.233	0.938	0.201	0.128	0.489	0.136	>= 0.10	0.469	>= 0.10	0.124	Gamma; Lognormal; Normal	Normal
10_2_125	MW-11	App. III	Total Dissolved Solids	mg/L	21	0	0%	0.295	0.000	0.461	0.000	0.441	0.000	0.370	0.000	0.404	< 0.01	5.379	< 0.01	0.427	Nonparametric	Nonparametric

(Table continues on next page)

Note: p-values above 0.05 suggest a fit to the tested distribution; a distribution passes its GOF test when at least one of the two p-values is above 0.05.

Table 3: Goodness-of-Fit Tests, Non-Detects Excluded *(continued)*

								Normal				Lognormal				Gamma						
								S-W		Lilliefors		S-W		Lilliefors		K-S		A-D				
ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	Stat.	p-Value	Stat.	p-Value	Stat.	p-Value	Stat.	p-Value	Stat.	p-Value	Stat.	p-Value	Log-SD (NDs excl.)	ProUCL Distributions Fit	Recommended Distribution
10_3_101	MW-11	App. IV	Antimony	ug/L	21	19	90%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		1.750		Nonparametric
10_3_102	MW-11	App. IV	Arsenic	ug/L	21	19	90%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		1.866		Nonparametric
10_3_103	MW-11	App. IV	Barium	ug/L	21	0	0%	0.551	0.000	0.341	0.000	0.720	0.000	0.284	0.000	0.308	< 0.01	2.302	< 0.01	0.298	Nonparametric	Nonparametric
10_3_104	MW-11	App. IV	Beryllium	ug/L	21	21	100%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
10_3_106	MW-11	App. IV	Cadmium	ug/L	21	21	100%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
10_3_109	MW-11	App. IV	Chromium	ug/L	21	15	71%	0.786	0.044	0.277	0.159	0.869	0.220	0.208	0.573	0.247	>= 0.10	0.517	>= 0.10	1.076	Gamma; Lognormal; Normal	Nonparametric
10_3_110	MW-11	App. IV	Cobalt	ug/L	21	14	67%	0.852	0.128	0.237	0.272	0.864	0.163	0.234	0.295	0.254	>= 0.10	0.520	>= 0.10	0.458	Gamma; Lognormal; Normal	Nonparametric
10_3_112	MW-11	App. IV	Fluoride	mg/L	21	1	5%	0.906	0.054	0.158	0.210	0.914	0.077	0.156	0.231	0.162	>= 0.10	0.639	0.05 <= p < 0.10	0.131	Gamma; Lognormal; Normal	Normal
10_3_113	MW-11	App. IV	Lead	ug/L	21	19	90%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		2.019		Nonparametric
10_3_114	MW-11	App. IV	Lithium	ug/L	21	0	0%	0.754	0.000	0.235	0.004	0.853	0.005	0.198	0.031	0.212	0.01 <= p < 0.05	1.144	< 0.01	0.191	Nonparametric	Nonparametric
10_3_115	MW-11	App. IV	Mercury	ug/L	21	21	100%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
10_3_116	MW-11	App. IV	Molybdenum	ug/L	21	18	86%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		0.792		Nonparametric
10_3_119	MW-11	App. IV	Radium-226	pCi/L	21	0	0%	0.944	0.267	0.170	0.117	NA	NA	NA	NA	NA		NA		NA	Normal	Normal
10_3_120	MW-11	App. IV	Radium-228	pCi/L	21	0	0%	0.837	0.003	0.216	0.011	NA	NA	NA	NA	NA		NA		NA	Nonparametric	Nonparametric
10_3_121	MW-11	App. IV	Selenium	ug/L	21	21	100%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
10_3_124	MW-11	App. IV	Thallium	ug/L	21	20	95%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
10_3_126	MW-11	App. IV	Total Radium	pCi/L	21	0	0%	0.799	0.001	0.243	0.002	0.974	0.815	0.132	0.441	0.168	>= 0.10	0.337	>= 0.10	0.728	Gamma; Lognormal	Gamma
11_1_111	MW-11D	App. I Metals	Copper	ug/L	19	12	63%	0.748	0.012	0.288	0.083	0.874	0.202	0.220	0.383	0.268	>= 0.10	0.590	>= 0.10	1.101	Gamma; Lognormal; Normal	Nonparametric
11_1_117	MW-11D	App. I Metals	Nickel	ug/L	19	14	74%	0.714	0.013	0.361	0.032	0.844	0.176	0.257	0.338	0.301	>= 0.10	0.595	0.05 <= p < 0.10	0.663	Gamma; Lognormal	Nonparametric
11_1_122	MW-11D	App. I Metals	Silver	ug/L	19	19	100%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
11_1_127	MW-11D	App. I Metals	Vanadium	ug/L	19	16	84%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		0.452		Nonparametric
11_1_128	MW-11D	App. I Metals	Zinc	ug/L	19	11	58%	0.609	0.000	0.389	0.001	0.940	0.611	0.181	0.617	0.259	>= 0.10	0.598	>= 0.10	1.074	Gamma; Lognormal	Nonparametric
11_2_105	MW-11D	App. III	Boron	ug/L	19	0	0%	0.635	0.000	0.290	0.000	0.759	0.000	0.228	0.011	0.247	< 0.01	1.672	< 0.01	0.230	Nonparametric	Nonparametric
11_2_107	MW-11D	App. III	Calcium	ug/L	19	0	0%	0.501	0.000	0.296	0.000	0.726	0.000	0.255	0.002	0.277	< 0.01	2.236	< 0.01	0.454	Nonparametric	Nonparametric
11_2_108	MW-11D	App. III	Chloride	mg/L	19	0	0%	0.562	0.000	0.301	0.000	0.792	0.001	0.226	0.012	0.243	< 0.01	1.824	< 0.01	0.629	Nonparametric	Nonparametric
11_2_112	MW-11D	App. III	Fluoride	mg/L	19	0	0%	0.899	0.046	0.146	0.352	0.935	0.214	0.122	0.638	0.130	>= 0.10	0.444	>= 0.10	0.110	Gamma; Lognormal; Normal	Normal
11_2_118	MW-11D	App. III	pH (Field)	S.U.	19	0	0%	0.916	0.094	0.139	0.437	0.922	0.121	0.133	0.511	0.133	>= 0.10	0.472	>= 0.10	0.030	Gamma; Lognormal; Normal	Normal
11_2_123	MW-11D	App. III	Sulfate	mg/L	19	1	5%	0.559	0.000	0.308	0.000	0.823	0.003	0.260	0.002	0.258	< 0.01	1.666	< 0.01	1.133	Nonparametric	Nonparametric
11_2_125	MW-11D	App. III	Total Dissolved Solids	mg/L	19	0	0%	0.594	0.000	0.290	0.000	0.766	0.000	0.225	0.012	0.246	< 0.01	1.905	< 0.01	0.456	Nonparametric	Nonparametric
11_3_101	MW-11D	App. IV	Antimony	ug/L	19	16	84%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		1.196		Nonparametric
11_3_102	MW-11D	App. IV	Arsenic	ug/L	19	10	53%	0.886	0.183	0.243	0.129	0.934	0.517	0.161	0.717	0.179	>= 0.10	0.346	>= 0.10	0.597	Gamma; Lognormal; Normal	Nonparametric
11_3_103	MW-11D	App. IV	Barium	ug/L	19	0	0%	0.816	0.002	0.220	0.016	0.757	0.000	0.245	0.004	0.240	< 0.01	1.658	< 0.01	0.176	Nonparametric	Nonparametric
11_3_104	MW-11D	App. IV	Beryllium	ug/L	19	18	95%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
11_3_106	MW-11D	App. IV	Cadmium	ug/L	19	19	100%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
11_3_109	MW-11D	App. IV	Chromium	ug/L	19	14	74%	0.751	0.031	0.333	0.072	0.891	0.361	0.256	0.344	0.288	>= 0.10	0.520	>= 0.10	0.637	Gamma; Lognormal; Normal	Nonparametric
11_3_110	MW-11D	App. IV	Cobalt	ug/L	19	18	95%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
11_3_112	MW-11D	App. IV	Fluoride	mg/L	19	0	0%	0.899	0.046	0.146	0.352	0.935	0.214	0.122	0.638	0.130	>= 0.10	0.444	>= 0.10	0.110	Gamma; Lognormal; Normal	Normal
11_3_113	MW-11D	App. IV	Lead	ug/L	19	18	95%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
11_3_114	MW-11D	App. IV	Lithium	ug/L	19	0	0%	0.675	0.000	0.273	0.001	0.854	0.008	0.172	0.145	0.206	0.01 <= p < 0.05	1.323	< 0.01	0.450	Lognormal	Lognormal

(Table continues on next page)

Note: p-values above 0.05 suggest a fit to the tested distribution; a distribution passes its GOF test when at least one of the two p-values is above 0.05.

Table 3: Goodness-of-Fit Tests, Non-Detects Excluded *(continued)*

								Normal				Lognormal				Gamma						
								S-W		Lilliefors		S-W		Lilliefors		K-S		A-D				
ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	Stat.	p-Value	Stat.	p-Value	Stat.	p-Value	Stat.	p-Value	Stat.	p-Value	Stat.	p-Value	Log-SD (NDs excl.)	ProUCL Distributions Fit	Recommended Distribution
11_3_115	MW-11D	App. IV	Mercury	ug/L	19	19	100%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
11_3_116	MW-11D	App. IV	Molybdenum	ug/L	19	1	5%	0.583	0.000	0.280	0.001	0.917	0.116	0.192	0.079	0.207	0.05 <= p < 0.10	1.048	0.01 <= p < 0.05	1.103	Gamma; Lognormal	Gamma
11_3_119	MW-11D	App. IV	Radium-226	pCi/L	19	0	0%	0.928	0.156	0.193	0.061	NA	NA	NA	NA	NA		NA		NA	Normal	Normal
11_3_120	MW-11D	App. IV	Radium-228	pCi/L	19	0	0%	0.796	0.001	0.210	0.027	0.944	0.306	0.168	0.172	0.129	>= 0.10	0.343	>= 0.10	0.900	Gamma; Lognormal	Gamma
11_3_121	MW-11D	App. IV	Selenium	ug/L	19	17	89%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		2.282		Nonparametric
11_3_124	MW-11D	App. IV	Thallium	ug/L	19	18	95%	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		Nonparametric
11_3_126	MW-11D	App. IV	Total Radium	pCi/L	19	0	0%	0.905	0.059	0.146	0.351	0.963	0.629	0.129	0.559	0.096	>= 0.10	0.189	>= 0.10	0.765	Gamma; Lognormal; Normal	Normal

Note: p-values above 0.05 suggest a fit to the tested distribution; a distribution passes its GOF test when at least one of the two p-values is above 0.05.

Table 4: Autocorrelation Tests, Non-Detects Excluded

ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	Autocorrelation	Box-Ljung p-value	Sig.
01_1_111	MW-1	App. I Metals	Copper	ug/L	42	33	79%	0.542	0.056	
01_1_117	MW-1	App. I Metals	Nickel	ug/L	42	29	69%	0.151	0.542	
01_1_122	MW-1	App. I Metals	Silver	ug/L	42	35	83%	0.155	0.615	
01_1_127	MW-1	App. I Metals	Vanadium	ug/L	42	25	60%	0.137	0.537	
01_1_128	MW-1	App. I Metals	Zinc	ug/L	42	25	60%	-0.062	0.780	
01_2_105	MW-1	App. III	Boron	ug/L	41	22	54%	-0.015	0.943	
01_2_107	MW-1	App. III	Calcium	ug/L	42	0	0%	0.563	0.000	***
01_2_108	MW-1	App. III	Chloride	mg/L	42	0	0%	0.320	0.032	*
01_2_112	MW-1	App. III	Fluoride	mg/L	42	1	2%	0.402	0.008	**
01_2_118	MW-1	App. III	pH (Field)	S.U.	40	0	0%	0.159	0.298	
01_2_123	MW-1	App. III	Sulfate	mg/L	42	0	0%	0.713	0.000	***
01_2_125	MW-1	App. III	Total Dissolved Solids	mg/L	42	0	0%	0.636	0.000	***
01_3_101	MW-1	App. IV	Antimony	ug/L	42	40	95%	-0.500	0.157	
01_3_102	MW-1	App. IV	Arsenic	ug/L	42	38	90%	-0.308	0.383	
01_3_103	MW-1	App. IV	Barium	ug/L	42	0	0%	0.455	0.002	**
01_3_106	MW-1	App. IV	Cadmium	ug/L	42	39	93%	-0.667	0.068	
01_3_109	MW-1	App. IV	Chromium	ug/L	42	28	67%	0.144	0.549	
01_3_110	MW-1	App. IV	Cobalt	ug/L	42	37	88%	0.096	0.776	
01_3_112	MW-1	App. IV	Fluoride	mg/L	42	1	2%	0.402	0.008	**
01_3_113	MW-1	App. IV	Lead	ug/L	42	37	88%	-0.153	0.651	
01_3_114	MW-1	App. IV	Lithium	ug/L	42	0	0%	0.303	0.042	*
01_3_116	MW-1	App. IV	Molybdenum	ug/L	42	37	88%	0.489	0.148	
01_3_119	MW-1	App. IV	Radium-226	pCi/L	40	0	0%	0.267	0.079	
01_3_120	MW-1	App. IV	Radium-228	pCi/L	40	0	0%	-0.057	0.706	
01_3_121	MW-1	App. IV	Selenium	ug/L	42	40	95%	-0.500	0.157	
01_3_126	MW-1	App. IV	Total Radium	pCi/L	40	0	0%	0.042	0.781	
02_1_111	MW-2	App. I Metals	Copper	ug/L	37	15	41%	0.277	0.165	
02_1_117	MW-2	App. I Metals	Nickel	ug/L	37	12	32%	-0.091	0.629	
02_1_122	MW-2	App. I Metals	Silver	ug/L	37	34	92%	-0.295	0.418	
02_1_127	MW-2	App. I Metals	Vanadium	ug/L	37	25	68%	-0.241	0.346	
02_1_128	MW-2	App. I Metals	Zinc	ug/L	37	16	43%	-0.077	0.706	
02_2_105	MW-2	App. III	Boron	ug/L	36	1	3%	0.067	0.679	
02_2_107	MW-2	App. III	Calcium	ug/L	37	0	0%	0.058	0.711	
02_2_108	MW-2	App. III	Chloride	mg/L	37	0	0%	0.289	0.067	
02_2_112	MW-2	App. III	Fluoride	mg/L	37	2	5%	0.057	0.726	
02_2_118	MW-2	App. III	pH (Field)	S.U.	33	0	0%	-0.060	0.718	
02_2_123	MW-2	App. III	Sulfate	mg/L	37	0	0%	0.838	0.000	***
02_2_125	MW-2	App. III	Total Dissolved Solids	mg/L	37	0	0%	0.010	0.948	
02_3_101	MW-2	App. IV	Antimony	ug/L	37	23	62%	0.453	0.060	
02_3_102	MW-2	App. IV	Arsenic	ug/L	37	26	70%	-0.125	0.635	
02_3_103	MW-2	App. IV	Barium	ug/L	37	0	0%	-0.003	0.986	
02_3_104	MW-2	App. IV	Beryllium	ug/L	37	34	92%	-0.604	0.098	

(Table continues on next page)

*** p < 0.001, ** p < 0.01, * p < 0.05

Table 4: Autocorrelation Tests, Non-Detects Excluded *(continued)*

ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	Autocorrelation	Box-Ljung p-value	Sig.
02_3_106	MW-2	App. IV	Cadmium	ug/L	37	33	89%	-0.418	0.237	
02_3_109	MW-2	App. IV	Chromium	ug/L	37	6	16%	-0.048	0.781	
02_3_110	MW-2	App. IV	Cobalt	ug/L	37	28	76%	-0.271	0.341	
02_3_112	MW-2	App. IV	Fluoride	mg/L	37	2	5%	0.057	0.726	
02_3_113	MW-2	App. IV	Lead	ug/L	37	31	84%	-0.029	0.928	
02_3_114	MW-2	App. IV	Lithium	ug/L	37	0	0%	0.278	0.078	
02_3_116	MW-2	App. IV	Molybdenum	ug/L	37	6	16%	0.118	0.490	
02_3_119	MW-2	App. IV	Radium-226	pCi/L	36	0	0%	-0.306	0.056	
02_3_120	MW-2	App. IV	Radium-228	pCi/L	36	0	0%	0.195	0.223	
02_3_121	MW-2	App. IV	Selenium	ug/L	37	35	95%	-0.500	0.157	
02_3_124	MW-2	App. IV	Thallium	ug/L	37	24	65%	-0.009	0.971	
02_3_126	MW-2	App. IV	Total Radium	pCi/L	36	0	0%	-0.141	0.379	
03_1_111	MW-3	App. I Metals	Copper	ug/L	40	21	52%	0.210	0.322	
03_1_117	MW-3	App. I Metals	Nickel	ug/L	40	20	50%	0.382	0.066	
03_1_122	MW-3	App. I Metals	Silver	ug/L	40	38	95%	-0.500	0.157	
03_1_127	MW-3	App. I Metals	Vanadium	ug/L	40	25	62%	0.521	0.026	*
03_1_128	MW-3	App. I Metals	Zinc	ug/L	40	28	70%	0.362	0.158	
03_2_105	MW-3	App. III	Boron	ug/L	39	10	26%	0.542	0.002	**
03_2_107	MW-3	App. III	Calcium	ug/L	40	0	0%	0.216	0.156	
03_2_108	MW-3	App. III	Chloride	mg/L	40	0	0%	0.549	0.000	***
03_2_112	MW-3	App. III	Fluoride	mg/L	40	1	2%	0.695	0.000	***
03_2_118	MW-3	App. III	pH (Field)	S.U.	36	0	0%	-0.151	0.345	
03_2_123	MW-3	App. III	Sulfate	mg/L	40	0	0%	0.874	0.000	***
03_2_125	MW-3	App. III	Total Dissolved Solids	mg/L	40	0	0%	0.178	0.243	
03_3_101	MW-3	App. IV	Antimony	ug/L	40	29	72%	0.584	0.027	*
03_3_102	MW-3	App. IV	Arsenic	ug/L	40	32	80%	-0.128	0.666	
03_3_103	MW-3	App. IV	Barium	ug/L	40	0	0%	0.630	0.000	***
03_3_106	MW-3	App. IV	Cadmium	ug/L	40	38	95%	-0.500	0.157	
03_3_109	MW-3	App. IV	Chromium	ug/L	40	20	50%	-0.054	0.794	
03_3_110	MW-3	App. IV	Cobalt	ug/L	40	33	82%	-0.249	0.419	
03_3_112	MW-3	App. IV	Fluoride	mg/L	40	1	2%	0.695	0.000	***
03_3_113	MW-3	App. IV	Lead	ug/L	40	35	88%	-0.013	0.969	
03_3_114	MW-3	App. IV	Lithium	ug/L	40	1	2%	0.043	0.778	
03_3_116	MW-3	App. IV	Molybdenum	ug/L	40	1	2%	0.014	0.927	
03_3_119	MW-3	App. IV	Radium-226	pCi/L	39	0	0%	-0.219	0.155	
03_3_120	MW-3	App. IV	Radium-228	pCi/L	39	0	0%	0.359	0.020	*
03_3_121	MW-3	App. IV	Selenium	ug/L	40	39	98%	NA	NA	
03_3_124	MW-3	App. IV	Thallium	ug/L	40	39	98%	NA	NA	
03_3_126	MW-3	App. IV	Total Radium	pCi/L	39	0	0%	0.158	0.306	
04_1_111	MW-4	App. I Metals	Copper	ug/L	41	35	85%	0.053	0.869	
04_1_117	MW-4	App. I Metals	Nickel	ug/L	41	11	27%	0.154	0.375	
04_1_127	MW-4	App. I Metals	Vanadium	ug/L	41	37	90%	0.009	0.979	

(Table continues on next page)

*** p < 0.001, ** p < 0.01, * p < 0.05

Table 4: Autocorrelation Tests, Non-Detects Excluded *(continued)*

ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	Autocorrelation	Box-Ljung p-value	Sig.
04_1_128	MW-4	App. I Metals	Zinc	ug/L	41	24	59%	-0.093	0.676	
04_2_105	MW-4	App. III	Boron	ug/L	40	23	57%	-0.082	0.714	
04_2_107	MW-4	App. III	Calcium	ug/L	41	0	0%	0.671	0.000	***
04_2_108	MW-4	App. III	Chloride	mg/L	41	0	0%	0.788	0.000	***
04_2_112	MW-4	App. III	Fluoride	mg/L	41	0	0%	0.476	0.002	**
04_2_118	MW-4	App. III	pH (Field)	S.U.	39	0	0%	0.297	0.054	
04_2_123	MW-4	App. III	Sulfate	mg/L	41	0	0%	0.663	0.000	***
04_2_125	MW-4	App. III	Total Dissolved Solids	mg/L	41	0	0%	0.601	0.000	***
04_3_101	MW-4	App. IV	Antimony	ug/L	41	36	88%	0.172	0.612	
04_3_102	MW-4	App. IV	Arsenic	ug/L	41	39	95%	-0.500	0.157	
04_3_103	MW-4	App. IV	Barium	ug/L	41	0	0%	0.704	0.000	***
04_3_106	MW-4	App. IV	Cadmium	ug/L	41	40	98%	NA	NA	
04_3_109	MW-4	App. IV	Chromium	ug/L	41	30	73%	0.232	0.380	
04_3_110	MW-4	App. IV	Cobalt	ug/L	41	20	49%	-0.110	0.587	
04_3_112	MW-4	App. IV	Fluoride	mg/L	41	0	0%	0.476	0.002	**
04_3_113	MW-4	App. IV	Lead	ug/L	41	40	98%	NA	NA	
04_3_114	MW-4	App. IV	Lithium	ug/L	41	0	0%	0.187	0.216	
04_3_116	MW-4	App. IV	Molybdenum	ug/L	41	35	85%	0.278	0.389	
04_3_119	MW-4	App. IV	Radium-226	pCi/L	39	0	0%	0.383	0.013	*
04_3_120	MW-4	App. IV	Radium-228	pCi/L	39	0	0%	0.195	0.207	
04_3_121	MW-4	App. IV	Selenium	ug/L	41	38	93%	-0.665	0.069	
04_3_126	MW-4	App. IV	Total Radium	pCi/L	39	0	0%	0.308	0.046	*
05_1_111	MW-5	App. I Metals	Copper	ug/L	42	29	69%	0.517	0.037	*
05_1_117	MW-5	App. I Metals	Nickel	ug/L	42	32	76%	-0.069	0.802	
05_1_127	MW-5	App. I Metals	Vanadium	ug/L	42	39	93%	-0.057	0.875	
05_1_128	MW-5	App. I Metals	Zinc	ug/L	42	25	60%	0.026	0.907	
05_2_105	MW-5	App. III	Boron	ug/L	41	15	37%	-0.052	0.779	
05_2_107	MW-5	App. III	Calcium	ug/L	42	0	0%	0.593	0.000	***
05_2_108	MW-5	App. III	Chloride	mg/L	42	0	0%	0.435	0.004	**
05_2_112	MW-5	App. III	Fluoride	mg/L	42	0	0%	0.065	0.661	
05_2_118	MW-5	App. III	pH (Field)	S.U.	39	0	0%	-0.559	0.000	***
05_2_123	MW-5	App. III	Sulfate	mg/L	42	0	0%	0.270	0.070	
05_2_125	MW-5	App. III	Total Dissolved Solids	mg/L	42	0	0%	0.017	0.912	
05_3_101	MW-5	App. IV	Antimony	ug/L	42	40	95%	-0.500	0.157	
05_3_102	MW-5	App. IV	Arsenic	ug/L	42	40	95%	-0.500	0.157	
05_3_103	MW-5	App. IV	Barium	ug/L	42	0	0%	0.252	0.090	
05_3_109	MW-5	App. IV	Chromium	ug/L	42	29	69%	-0.049	0.844	
05_3_110	MW-5	App. IV	Cobalt	ug/L	42	40	95%	-0.500	0.157	
05_3_112	MW-5	App. IV	Fluoride	mg/L	42	0	0%	0.065	0.661	
05_3_113	MW-5	App. IV	Lead	ug/L	42	41	98%	NA	NA	
05_3_114	MW-5	App. IV	Lithium	ug/L	42	1	2%	0.050	0.741	
05_3_116	MW-5	App. IV	Molybdenum	ug/L	42	39	93%	-0.025	0.946	

(Table continues on next page)

*** p < 0.001, ** p < 0.01, * p < 0.05

Table 4: Autocorrelation Tests, Non-Detects Excluded *(continued)*

ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	Autocorrelation	Box-Ljung p-value	Sig.
05_3_119	MW-5	App. IV	Radium-226	pCi/L	40	0	0%	-0.333	0.029	*
05_3_120	MW-5	App. IV	Radium-228	pCi/L	40	0	0%	-0.158	0.299	
05_3_121	MW-5	App. IV	Selenium	ug/L	42	41	98%	NA	NA	
05_3_124	MW-5	App. IV	Thallium	ug/L	42	41	98%	NA	NA	
05_3_126	MW-5	App. IV	Total Radium	pCi/L	40	0	0%	-0.057	0.708	
06_1_111	MW-6	App. I Metals	Copper	ug/L	41	33	80%	-0.025	0.934	
06_1_117	MW-6	App. I Metals	Nickel	ug/L	41	28	68%	0.176	0.477	
06_1_127	MW-6	App. I Metals	Vanadium	ug/L	41	36	88%	0.323	0.340	
06_1_128	MW-6	App. I Metals	Zinc	ug/L	41	26	63%	-0.054	0.819	
06_2_105	MW-6	App. III	Boron	ug/L	40	23	57%	-0.109	0.625	
06_2_107	MW-6	App. III	Calcium	ug/L	41	0	0%	0.293	0.052	
06_2_108	MW-6	App. III	Chloride	mg/L	41	0	0%	0.209	0.166	
06_2_112	MW-6	App. III	Fluoride	mg/L	41	1	2%	0.198	0.194	
06_2_118	MW-6	App. III	pH (Field)	S.U.	38	0	0%	0.420	0.007	**
06_2_123	MW-6	App. III	Sulfate	mg/L	41	0	0%	0.595	0.000	***
06_2_125	MW-6	App. III	Total Dissolved Solids	mg/L	41	0	0%	0.037	0.804	
06_3_102	MW-6	App. IV	Arsenic	ug/L	41	39	95%	-0.500	0.157	
06_3_103	MW-6	App. IV	Barium	ug/L	41	0	0%	0.655	0.000	***
06_3_104	MW-6	App. IV	Beryllium	ug/L	41	40	98%	NA	NA	
06_3_109	MW-6	App. IV	Chromium	ug/L	41	32	78%	0.132	0.642	
06_3_110	MW-6	App. IV	Cobalt	ug/L	41	39	95%	-0.500	0.157	
06_3_112	MW-6	App. IV	Fluoride	mg/L	41	1	2%	0.198	0.194	
06_3_113	MW-6	App. IV	Lead	ug/L	41	38	93%	0.000	1.000	
06_3_114	MW-6	App. IV	Lithium	ug/L	41	0	0%	0.717	0.000	***
06_3_115	MW-6	App. IV	Mercury	ug/L	41	40	98%	NA	NA	
06_3_116	MW-6	App. IV	Molybdenum	ug/L	41	36	88%	0.127	0.707	
06_3_119	MW-6	App. IV	Radium-226	pCi/L	39	0	0%	-0.174	0.258	
06_3_120	MW-6	App. IV	Radium-228	pCi/L	39	0	0%	-0.214	0.164	
06_3_121	MW-6	App. IV	Selenium	ug/L	41	39	95%	-0.500	0.157	
06_3_124	MW-6	App. IV	Thallium	ug/L	41	37	90%	-0.082	0.817	
06_3_126	MW-6	App. IV	Total Radium	pCi/L	39	0	0%	-0.102	0.508	
07_1_111	MW-7R	App. I Metals	Copper	ug/L	33	21	64%	-0.186	0.467	
07_1_117	MW-7R	App. I Metals	Nickel	ug/L	33	15	45%	-0.034	0.877	
07_1_127	MW-7R	App. I Metals	Vanadium	ug/L	33	16	48%	0.692	0.002	**
07_1_128	MW-7R	App. I Metals	Zinc	ug/L	33	22	67%	0.491	0.063	
07_2_105	MW-7R	App. III	Boron	ug/L	32	12	38%	0.168	0.417	
07_2_107	MW-7R	App. III	Calcium	ug/L	33	0	0%	0.357	0.032	*
07_2_108	MW-7R	App. III	Chloride	mg/L	33	0	0%	0.303	0.068	
07_2_112	MW-7R	App. III	Fluoride	mg/L	33	1	3%	0.056	0.740	
07_2_118	MW-7R	App. III	pH (Field)	S.U.	32	0	0%	0.099	0.556	
07_2_123	MW-7R	App. III	Sulfate	mg/L	33	0	0%	0.228	0.171	
07_2_125	MW-7R	App. III	Total Dissolved Solids	mg/L	33	0	0%	0.085	0.607	

(Table continues on next page)

*** p < 0.001, ** p < 0.01, * p < 0.05

Table 4: Autocorrelation Tests, Non-Detects Excluded *(continued)*

ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	Autocorrelation	Box-Ljung p-value	Sig.
07_3_101	MW-7R	App. IV	Antimony	ug/L	33	32	97%	NA	NA	
07_3_102	MW-7R	App. IV	Arsenic	ug/L	33	30	91%	-0.486	0.184	
07_3_103	MW-7R	App. IV	Barium	ug/L	33	0	0%	0.373	0.025	*
07_3_109	MW-7R	App. IV	Chromium	ug/L	33	8	24%	-0.024	0.898	
07_3_110	MW-7R	App. IV	Cobalt	ug/L	33	28	85%	0.190	0.575	
07_3_112	MW-7R	App. IV	Fluoride	mg/L	33	1	3%	0.056	0.740	
07_3_113	MW-7R	App. IV	Lead	ug/L	33	27	82%	0.039	0.903	
07_3_114	MW-7R	App. IV	Lithium	ug/L	33	0	0%	0.227	0.173	
07_3_116	MW-7R	App. IV	Molybdenum	ug/L	33	28	85%	0.141	0.676	
07_3_119	MW-7R	App. IV	Radium-226	pCi/L	31	0	0%	-0.132	0.442	
07_3_120	MW-7R	App. IV	Radium-228	pCi/L	31	0	0%	0.050	0.772	
07_3_121	MW-7R	App. IV	Selenium	ug/L	33	32	97%	NA	NA	
07_3_124	MW-7R	App. IV	Thallium	ug/L	33	30	91%	-0.153	0.675	
07_3_126	MW-7R	App. IV	Total Radium	pCi/L	31	0	0%	0.025	0.884	
08_1_111	MW-8	App. I Metals	Copper	ug/L	42	31	74%	-0.125	0.636	
08_1_117	MW-8	App. I Metals	Nickel	ug/L	42	21	50%	-0.104	0.608	
08_1_122	MW-8	App. I Metals	Silver	ug/L	42	41	98%	NA	NA	
08_1_127	MW-8	App. I Metals	Vanadium	ug/L	42	34	81%	-0.257	0.385	
08_1_128	MW-8	App. I Metals	Zinc	ug/L	42	24	57%	0.015	0.946	
08_2_105	MW-8	App. III	Boron	ug/L	41	15	37%	0.293	0.114	
08_2_107	MW-8	App. III	Calcium	ug/L	42	0	0%	0.162	0.278	
08_2_108	MW-8	App. III	Chloride	mg/L	42	0	0%	0.590	0.000	***
08_2_112	MW-8	App. III	Fluoride	mg/L	42	20	48%	0.549	0.006	**
08_2_118	MW-8	App. III	pH (Field)	S.U.	40	0	0%	0.252	0.098	
08_2_123	MW-8	App. III	Sulfate	mg/L	42	0	0%	0.544	0.000	***
08_2_125	MW-8	App. III	Total Dissolved Solids	mg/L	42	0	0%	0.097	0.516	
08_3_101	MW-8	App. IV	Antimony	ug/L	42	35	83%	0.016	0.957	
08_3_102	MW-8	App. IV	Arsenic	ug/L	42	37	88%	-0.132	0.697	
08_3_103	MW-8	App. IV	Barium	ug/L	42	0	0%	0.227	0.127	
08_3_104	MW-8	App. IV	Beryllium	ug/L	42	41	98%	NA	NA	
08_3_106	MW-8	App. IV	Cadmium	ug/L	42	41	98%	NA	NA	
08_3_109	MW-8	App. IV	Chromium	ug/L	42	20	48%	-0.038	0.847	
08_3_110	MW-8	App. IV	Cobalt	ug/L	42	37	88%	0.210	0.535	
08_3_112	MW-8	App. IV	Fluoride	mg/L	42	20	48%	0.549	0.006	**
08_3_113	MW-8	App. IV	Lead	ug/L	42	39	93%	-0.381	0.297	
08_3_114	MW-8	App. IV	Lithium	ug/L	42	1	2%	0.381	0.011	*
08_3_115	MW-8	App. IV	Mercury	ug/L	42	41	98%	NA	NA	
08_3_116	MW-8	App. IV	Molybdenum	ug/L	42	39	93%	-0.120	0.743	
08_3_119	MW-8	App. IV	Radium-226	pCi/L	40	0	0%	0.019	0.901	
08_3_120	MW-8	App. IV	Radium-228	pCi/L	40	0	0%	-0.086	0.573	
08_3_121	MW-8	App. IV	Selenium	ug/L	42	40	95%	-0.500	0.157	
08_3_124	MW-8	App. IV	Thallium	ug/L	42	40	95%	-0.500	0.157	

(Table continues on next page)

*** p < 0.001, ** p < 0.01, * p < 0.05

Table 4: Autocorrelation Tests, Non-Detects Excluded *(continued)*

ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	Autocorrelation	Box-Ljung p-value	Sig.
08_3_126	MW-8	App. IV	Total Radium	pCi/L	40	0	0%	-0.045	0.769	
09_1_111	MW-10	App. I Metals	Copper	ug/L	18	9	50%	-0.065	0.820	
09_1_117	MW-10	App. I Metals	Nickel	ug/L	18	6	33%	-0.174	0.496	
09_1_127	MW-10	App. I Metals	Vanadium	ug/L	18	11	61%	-0.275	0.373	
09_1_128	MW-10	App. I Metals	Zinc	ug/L	18	13	72%	-0.302	0.372	
09_2_105	MW-10	App. III	Boron	ug/L	18	0	0%	-0.010	0.962	
09_2_107	MW-10	App. III	Calcium	ug/L	18	0	0%	0.218	0.316	
09_2_108	MW-10	App. III	Chloride	mg/L	18	0	0%	-0.565	0.009	**
09_2_112	MW-10	App. III	Fluoride	mg/L	18	0	0%	0.292	0.180	
09_2_118	MW-10	App. III	pH (Field)	S.U.	19	0	0%	-0.270	0.204	
09_2_123	MW-10	App. III	Sulfate	mg/L	18	0	0%	0.805	0.000	***
09_2_125	MW-10	App. III	Total Dissolved Solids	mg/L	18	0	0%	0.347	0.110	
09_3_101	MW-10	App. IV	Antimony	ug/L	18	17	94%	NA	NA	
09_3_102	MW-10	App. IV	Arsenic	ug/L	18	14	78%	-0.031	0.930	
09_3_103	MW-10	App. IV	Barium	ug/L	18	0	0%	0.276	0.204	
09_3_109	MW-10	App. IV	Chromium	ug/L	18	6	33%	-0.201	0.433	
09_3_110	MW-10	App. IV	Cobalt	ug/L	18	16	89%	-0.500	0.157	
09_3_112	MW-10	App. IV	Fluoride	mg/L	18	0	0%	0.292	0.180	
09_3_113	MW-10	App. IV	Lead	ug/L	18	16	89%	-0.500	0.157	
09_3_114	MW-10	App. IV	Lithium	ug/L	18	0	0%	0.719	0.001	***
09_3_116	MW-10	App. IV	Molybdenum	ug/L	18	0	0%	0.717	0.001	***
09_3_119	MW-10	App. IV	Radium-226	pCi/L	18	0	0%	0.112	0.606	
09_3_120	MW-10	App. IV	Radium-228	pCi/L	18	0	0%	-0.136	0.533	
09_3_121	MW-10	App. IV	Selenium	ug/L	18	15	83%	-0.592	0.105	
09_3_124	MW-10	App. IV	Thallium	ug/L	18	17	94%	NA	NA	
09_3_126	MW-10	App. IV	Total Radium	pCi/L	18	0	0%	-0.049	0.822	
10_1_111	MW-11	App. I Metals	Copper	ug/L	21	10	48%	0.004	0.988	
10_1_117	MW-11	App. I Metals	Nickel	ug/L	21	12	57%	-0.049	0.864	
10_1_127	MW-11	App. I Metals	Vanadium	ug/L	21	18	86%	-0.109	0.764	
10_1_128	MW-11	App. I Metals	Zinc	ug/L	21	14	67%	0.586	0.058	
10_2_105	MW-11	App. III	Boron	ug/L	21	1	5%	-0.048	0.818	
10_2_107	MW-11	App. III	Calcium	ug/L	21	0	0%	-0.071	0.728	
10_2_108	MW-11	App. III	Chloride	mg/L	21	0	0%	0.094	0.643	
10_2_112	MW-11	App. III	Fluoride	mg/L	21	1	5%	0.414	0.047	*
10_2_118	MW-11	App. III	pH (Field)	S.U.	20	0	0%	-0.069	0.741	
10_2_123	MW-11	App. III	Sulfate	mg/L	21	0	0%	-0.252	0.215	
10_2_125	MW-11	App. III	Total Dissolved Solids	mg/L	21	0	0%	-0.007	0.974	
10_3_101	MW-11	App. IV	Antimony	ug/L	21	19	90%	-0.500	0.157	
10_3_102	MW-11	App. IV	Arsenic	ug/L	21	19	90%	-0.500	0.157	
10_3_103	MW-11	App. IV	Barium	ug/L	21	0	0%	0.006	0.977	
10_3_109	MW-11	App. IV	Chromium	ug/L	21	15	71%	0.441	0.172	
10_3_110	MW-11	App. IV	Cobalt	ug/L	21	14	67%	-0.402	0.193	

(Table continues on next page)

*** p < 0.001, ** p < 0.01, * p < 0.05

Table 4: Autocorrelation Tests, Non-Detects Excluded *(continued)*

ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	Autocorrelation	Box-Ljung p-value	Sig.
10_3_112	MW-11	App. IV	Fluoride	mg/L	21	1	5%	0.414	0.047	*
10_3_113	MW-11	App. IV	Lead	ug/L	21	19	90%	-0.500	0.157	
10_3_114	MW-11	App. IV	Lithium	ug/L	21	0	0%	0.047	0.819	
10_3_116	MW-11	App. IV	Molybdenum	ug/L	21	18	86%	-0.347	0.342	
10_3_119	MW-11	App. IV	Radium-226	pCi/L	21	0	0%	0.209	0.304	
10_3_120	MW-11	App. IV	Radium-228	pCi/L	21	0	0%	-0.323	0.113	
10_3_124	MW-11	App. IV	Thallium	ug/L	21	20	95%	NA	NA	
10_3_126	MW-11	App. IV	Total Radium	pCi/L	21	0	0%	-0.116	0.569	
11_1_111	MW-11D	App. I Metals	Copper	ug/L	19	12	63%	0.448	0.147	
11_1_117	MW-11D	App. I Metals	Nickel	ug/L	19	14	74%	0.001	0.998	
11_1_127	MW-11D	App. I Metals	Vanadium	ug/L	19	16	84%	-0.063	0.863	
11_1_128	MW-11D	App. I Metals	Zinc	ug/L	19	11	58%	-0.072	0.806	
11_2_105	MW-11D	App. III	Boron	ug/L	19	0	0%	0.058	0.786	
11_2_107	MW-11D	App. III	Calcium	ug/L	19	0	0%	0.037	0.863	
11_2_108	MW-11D	App. III	Chloride	mg/L	19	0	0%	0.279	0.188	
11_2_112	MW-11D	App. III	Fluoride	mg/L	19	0	0%	0.204	0.338	
11_2_118	MW-11D	App. III	pH (Field)	S.U.	19	0	0%	0.593	0.005	**
11_2_123	MW-11D	App. III	Sulfate	mg/L	19	1	5%	0.418	0.054	
11_2_125	MW-11D	App. III	Total Dissolved Solids	mg/L	19	0	0%	0.294	0.166	
11_3_101	MW-11D	App. IV	Antimony	ug/L	19	16	84%	-0.617	0.091	
11_3_102	MW-11D	App. IV	Arsenic	ug/L	19	10	53%	0.041	0.886	
11_3_103	MW-11D	App. IV	Barium	ug/L	19	0	0%	0.283	0.183	
11_3_104	MW-11D	App. IV	Beryllium	ug/L	19	18	95%	NA	NA	
11_3_109	MW-11D	App. IV	Chromium	ug/L	19	14	74%	0.117	0.729	
11_3_110	MW-11D	App. IV	Cobalt	ug/L	19	18	95%	NA	NA	
11_3_112	MW-11D	App. IV	Fluoride	mg/L	19	0	0%	0.204	0.338	
11_3_113	MW-11D	App. IV	Lead	ug/L	19	18	95%	NA	NA	
11_3_114	MW-11D	App. IV	Lithium	ug/L	19	0	0%	0.549	0.010	**
11_3_116	MW-11D	App. IV	Molybdenum	ug/L	19	1	5%	0.237	0.275	
11_3_119	MW-11D	App. IV	Radium-226	pCi/L	19	0	0%	0.391	0.066	
11_3_120	MW-11D	App. IV	Radium-228	pCi/L	19	0	0%	0.070	0.743	
11_3_121	MW-11D	App. IV	Selenium	ug/L	19	17	89%	-0.500	0.157	
11_3_124	MW-11D	App. IV	Thallium	ug/L	19	18	95%	NA	NA	
11_3_126	MW-11D	App. IV	Total Radium	pCi/L	19	0	0%	0.167	0.430	

*** p < 0.001, ** p < 0.01, * p < 0.05

Table 5: Outlier Counts by Date

Date	Count
2015-11-19	5
2015-11-20	2
2016-01-05	2
2016-01-06	1
2016-02-17	3
2016-04-05	2
2016-04-06	1
2016-04-07	4
2016-05-25	3
2016-05-27	2
2016-07-11	1
2016-07-12	3
2017-01-23	1
2017-01-24	3
2017-01-26	1
2017-04-04	1
2017-04-05	4
2017-07-18	3
2017-07-19	2
2017-07-20	6
2017-10-17	3
2017-10-18	3
2018-01-23	1
2018-01-24	3
2018-01-25	1
2018-04-23	1
2018-04-24	1
2018-07-17	2
2018-07-18	1
2018-10-25	3
2019-01-25	4
2019-07-10	4
2019-10-14	1
2020-01-16	2
2020-01-17	2
2020-04-15	1
2020-04-17	1
2020-07-07	2
2020-10-14	2
2021-01-27	1
2021-01-28	1
2021-01-29	1
2021-04-13	3

(Table continues on next page)

Table 5: Outlier Counts by Date *(continued)*

Date	Count
2021-04-14	1
2021-04-15	1
2021-08-09	1
2021-08-10	1
2021-08-12	8
2021-11-18	1
2022-04-20	1
2022-07-12	2
2022-07-13	3
2022-07-14	1
2022-10-19	2
2023-04-27	8
2023-10-04	10
2024-01-24	5
2024-01-26	2
2024-10-31	1
2025-01-23	1
2025-03-31	1
2025-10-20	1
2025-10-21	1
2025-10-23	2

Table 6: Outliers Identified at the 1% Significance Level, Non-Detects Excluded

ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	No. Detects	Date	Dilution	Value
01_2_105	MW-1	App. III	Boron	ug/L	41	22	54%	19	2025-10-21	1	50.8
01_3_106	MW-1	App. IV	Cadmium	ug/L	42	39	93%	3	2020-10-14	1	0.670
01_3_126	MW-1	App. IV	Total Radium	pCi/L	40	0	0%	40	2019-07-10	1	2.48
02_1_111	MW-2	App. I Metals	Copper	ug/L	37	15	41%	22	2021-11-18	1	294
02_1_117	MW-2	App. I Metals	Nickel	ug/L	37	12	32%	25	2022-10-19	1	115
02_1_117	MW-2	App. I Metals	Nickel	ug/L	37	12	32%	25	2023-10-04	1	63.5
02_1_117	MW-2	App. I Metals	Nickel	ug/L	37	12	32%	25	2018-10-25	1	54.4
02_1_127	MW-2	App. I Metals	Vanadium	ug/L	37	25	68%	12	2023-10-04	1	37.2
02_1_128	MW-2	App. I Metals	Zinc	ug/L	37	16	43%	21	2024-10-31	1	1590
02_2_107	MW-2	App. III	Calcium	ug/L	37	0	0%	37	2024-01-26	1	34300
02_2_108	MW-2	App. III	Chloride	mg/L	37	0	0%	37	2024-01-26	11	489
02_2_108	MW-2	App. III	Chloride	mg/L	37	0	0%	37	2022-07-12	26	552
02_2_112	MW-2	App. III	Fluoride	mg/L	37	2	5%	35	2017-07-18	NA	0.400
02_2_118	MW-2	App. III	pH (Field)	S.U.	33	0	0%	33	2024-01-24	NA	9.29
02_2_118	MW-2	App. III	pH (Field)	S.U.	33	0	0%	33	2016-07-12	NA	8.50
02_2_123	MW-2	App. III	Sulfate	mg/L	37	0	0%	37	2017-01-26	NA	338
02_2_123	MW-2	App. III	Sulfate	mg/L	37	0	0%	37	2017-04-05	NA	295

(Table continues on next page)

Table 6: Outliers Identified at the 1% Significance Level, Non-Detects Excluded *(continued)*

ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	No. Detects	Date	Dilution	Value
02_2_123	MW-2	App. III	Sulfate	mg/L	37	0	0%	37	2016-02-17	NA	247
02_2_123	MW-2	App. III	Sulfate	mg/L	37	0	0%	37	2015-11-19	NA	238
02_2_123	MW-2	App. III	Sulfate	mg/L	37	0	0%	37	2016-04-06	NA	230
02_2_123	MW-2	App. III	Sulfate	mg/L	37	0	0%	37	2016-01-06	NA	228
02_2_123	MW-2	App. III	Sulfate	mg/L	37	0	0%	37	2017-07-18	NA	226
02_2_123	MW-2	App. III	Sulfate	mg/L	37	0	0%	37	2016-07-12	NA	205
02_2_123	MW-2	App. III	Sulfate	mg/L	37	0	0%	37	2017-10-18	NA	167
02_2_123	MW-2	App. III	Sulfate	mg/L	37	0	0%	37	2016-05-27	NA	163
02_2_125	MW-2	App. III	Total Dissolved Solids	mg/L	37	0	0%	37	2020-01-17	1	11700
02_2_125	MW-2	App. III	Total Dissolved Solids	mg/L	37	0	0%	37	2015-11-19	NA	257
02_2_125	MW-2	App. III	Total Dissolved Solids	mg/L	37	0	0%	37	2021-01-28	1	428
02_3_109	MW-2	App. IV	Chromium	ug/L	37	6	16%	31	2022-10-19	1	130
02_3_109	MW-2	App. IV	Chromium	ug/L	37	6	16%	31	2018-10-25	1	84.0
02_3_109	MW-2	App. IV	Chromium	ug/L	37	6	16%	31	2018-01-25	NA	56.8
02_3_109	MW-2	App. IV	Chromium	ug/L	37	6	16%	31	2017-04-05	NA	48.8
02_3_109	MW-2	App. IV	Chromium	ug/L	37	6	16%	31	2023-10-04	1	46.2
02_3_110	MW-2	App. IV	Cobalt	ug/L	37	28	76%	9	2023-10-04	1	34.8
02_3_112	MW-2	App. IV	Fluoride	mg/L	37	2	5%	35	2017-07-18	NA	0.400
02_3_114	MW-2	App. IV	Lithium	ug/L	37	0	0%	37	2021-08-10	5	512
02_3_114	MW-2	App. IV	Lithium	ug/L	37	0	0%	37	2016-07-12	NA	356
02_3_114	MW-2	App. IV	Lithium	ug/L	37	0	0%	37	2016-05-27	NA	350
02_3_116	MW-2	App. IV	Molybdenum	ug/L	37	6	16%	31	2020-01-17	1	41.0
02_3_124	MW-2	App. IV	Thallium	ug/L	37	24	65%	13	2016-02-17	NA	10.3
03_1_111	MW-3	App. I Metals	Copper	ug/L	40	21	52%	19	2022-04-20	1	137
03_1_117	MW-3	App. I Metals	Nickel	ug/L	40	20	50%	20	2019-01-25	1	86.0
03_2_107	MW-3	App. III	Calcium	ug/L	40	0	0%	40	2025-01-23	10	326000
03_2_108	MW-3	App. III	Chloride	mg/L	40	0	0%	40	2022-07-12	25	565
03_2_118	MW-3	App. III	pH (Field)	S.U.	36	0	0%	36	2020-07-07	NA	6.18
03_2_123	MW-3	App. III	Sulfate	mg/L	40	0	0%	40	2017-01-24	NA	174
03_2_123	MW-3	App. III	Sulfate	mg/L	40	0	0%	40	2017-04-05	NA	167
03_2_123	MW-3	App. III	Sulfate	mg/L	40	0	0%	40	2016-07-11	NA	125
03_2_123	MW-3	App. III	Sulfate	mg/L	40	0	0%	40	2017-07-19	NA	125
03_2_123	MW-3	App. III	Sulfate	mg/L	40	0	0%	40	2017-10-18	NA	107
03_2_123	MW-3	App. III	Sulfate	mg/L	40	0	0%	40	2018-01-24	NA	102
03_2_123	MW-3	App. III	Sulfate	mg/L	40	0	0%	40	2018-10-25	1	98.0
03_2_123	MW-3	App. III	Sulfate	mg/L	40	0	0%	40	2018-07-17	NA	88.1
03_2_123	MW-3	App. III	Sulfate	mg/L	40	0	0%	40	2018-04-24	NA	80.9
03_2_123	MW-3	App. III	Sulfate	mg/L	40	0	0%	40	2019-01-25	1	80.2
03_2_125	MW-3	App. III	Total Dissolved Solids	mg/L	40	0	0%	40	2015-11-19	NA	256
03_2_125	MW-3	App. III	Total Dissolved Solids	mg/L	40	0	0%	40	2017-01-24	NA	303
03_2_125	MW-3	App. III	Total Dissolved Solids	mg/L	40	0	0%	40	2018-01-24	NA	1060
03_3_109	MW-3	App. IV	Chromium	ug/L	40	20	50%	20	2019-01-25	1	179
03_3_110	MW-3	App. IV	Cobalt	ug/L	40	33	82%	7	2019-01-25	1	6.20

(Table continues on next page)

Table 6: Outliers Identified at the 1% Significance Level, Non-Detects Excluded *(continued)*

ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	No. Detects	Date	Dilution	Value
03_3_114	MW-3	App. IV	Lithium	ug/L	40	1	2%	39	2017-10-18	NA	236
03_3_114	MW-3	App. IV	Lithium	ug/L	40	1	2%	39	2016-04-07	NA	217
03_3_114	MW-3	App. IV	Lithium	ug/L	40	1	2%	39	2018-07-17	NA	36.7
03_3_114	MW-3	App. IV	Lithium	ug/L	40	1	2%	39	2017-04-05	NA	129
03_3_114	MW-3	App. IV	Lithium	ug/L	40	1	2%	39	2015-11-19	NA	128
03_3_116	MW-3	App. IV	Molybdenum	ug/L	40	1	2%	39	2020-01-16	1	35.7
04_1_128	MW-4	App. I Metals	Zinc	ug/L	41	24	59%	17	2020-04-17	1	47.2
04_2_105	MW-4	App. III	Boron	ug/L	40	23	57%	17	2017-10-17	NA	165
04_2_107	MW-4	App. III	Calcium	ug/L	41	0	0%	41	2016-04-07	NA	17900
04_2_107	MW-4	App. III	Calcium	ug/L	41	0	0%	41	2016-05-25	NA	18600
04_2_125	MW-4	App. III	Total Dissolved Solids	mg/L	41	0	0%	41	2015-11-19	NA	395
04_2_125	MW-4	App. III	Total Dissolved Solids	mg/L	41	0	0%	41	2016-05-25	NA	486
04_2_125	MW-4	App. III	Total Dissolved Solids	mg/L	41	0	0%	41	2016-04-07	NA	513
04_3_103	MW-4	App. IV	Barium	ug/L	41	0	0%	41	2016-04-07	NA	85.9
04_3_103	MW-4	App. IV	Barium	ug/L	41	0	0%	41	2016-05-25	NA	90.5
04_3_114	MW-4	App. IV	Lithium	ug/L	41	0	0%	41	2021-08-12	5	98.0
05_1_117	MW-5	App. I Metals	Nickel	ug/L	42	32	76%	10	2022-07-13	1	120
05_1_128	MW-5	App. I Metals	Zinc	ug/L	42	25	60%	17	2025-03-31	1	54.9
05_2_105	MW-5	App. III	Boron	ug/L	41	15	37%	26	2017-01-23	NA	39.3
05_2_105	MW-5	App. III	Boron	ug/L	41	15	37%	26	2025-10-20	1	16.7
05_2_118	MW-5	App. III	pH (Field)	S.U.	39	0	0%	39	2020-04-15	NA	8.54
05_2_118	MW-5	App. III	pH (Field)	S.U.	39	0	0%	39	2020-07-07	NA	5.50
05_2_118	MW-5	App. III	pH (Field)	S.U.	39	0	0%	39	2020-01-16	NA	5.62
05_2_125	MW-5	App. III	Total Dissolved Solids	mg/L	42	0	0%	42	2017-10-17	NA	1160
05_2_125	MW-5	App. III	Total Dissolved Solids	mg/L	42	0	0%	42	2020-10-14	1	320
05_3_109	MW-5	App. IV	Chromium	ug/L	42	29	69%	13	2022-07-13	1	260
05_3_114	MW-5	App. IV	Lithium	ug/L	42	1	2%	41	2021-08-09	1	28.6
06_2_108	MW-6	App. III	Chloride	mg/L	41	0	0%	41	2016-04-05	NA	15.3
06_2_108	MW-6	App. III	Chloride	mg/L	41	0	0%	41	2021-04-15	4	80.3
06_2_123	MW-6	App. III	Sulfate	mg/L	41	0	0%	41	2016-04-05	NA	214
06_2_123	MW-6	App. III	Sulfate	mg/L	41	0	0%	41	2016-01-05	NA	194
06_2_123	MW-6	App. III	Sulfate	mg/L	41	0	0%	41	2017-04-04	NA	179
06_2_123	MW-6	App. III	Sulfate	mg/L	41	0	0%	41	2017-01-24	NA	145
06_2_123	MW-6	App. III	Sulfate	mg/L	41	0	0%	41	2015-11-20	NA	137
06_2_123	MW-6	App. III	Sulfate	mg/L	41	0	0%	41	2018-01-24	NA	126
06_2_123	MW-6	App. III	Sulfate	mg/L	41	0	0%	41	2018-04-23	NA	96.1
06_2_123	MW-6	App. III	Sulfate	mg/L	41	0	0%	41	2017-10-17	NA	90.9
06_2_123	MW-6	App. III	Sulfate	mg/L	41	0	0%	41	2016-02-17	NA	87.7
06_2_123	MW-6	App. III	Sulfate	mg/L	41	0	0%	41	2017-07-19	NA	86.9
06_3_124	MW-6	App. IV	Thallium	ug/L	41	37	90%	4	2016-01-05	NA	6.20
07_1_117	MW-7R	App. I Metals	Nickel	ug/L	33	15	45%	18	2019-07-10	1	880
07_1_128	MW-7R	App. I Metals	Zinc	ug/L	33	22	67%	11	2019-07-10	1	53.4
07_2_108	MW-7R	App. III	Chloride	mg/L	33	0	0%	33	2022-07-14	7	194

(Table continues on next page)

Table 6: Outliers Identified at the 1% Significance Level, Non-Detects Excluded *(continued)*

ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	No. Detects	Date	Dilution	Value
07_2_112	MW-7R	App. III	Fluoride	mg/L	33	1	3%	32	2017-07-20	NA	0.320
07_2_118	MW-7R	App. III	pH (Field)	S.U.	32	0	0%	32	2017-07-20	NA	9.60
07_2_123	MW-7R	App. III	Sulfate	mg/L	33	0	0%	33	2017-07-20	NA	51.2
07_3_103	MW-7R	App. IV	Barium	ug/L	33	0	0%	33	2017-07-20	NA	50.1
07_3_109	MW-7R	App. IV	Chromium	ug/L	33	8	24%	25	2019-07-10	1	1940
07_3_109	MW-7R	App. IV	Chromium	ug/L	33	8	24%	25	2019-10-14	1	49.2
07_3_109	MW-7R	App. IV	Chromium	ug/L	33	8	24%	25	2018-07-18	NA	33.7
07_3_109	MW-7R	App. IV	Chromium	ug/L	33	8	24%	25	2018-01-23	NA	33.0
07_3_112	MW-7R	App. IV	Fluoride	mg/L	33	1	3%	32	2017-07-20	NA	0.320
07_3_114	MW-7R	App. IV	Lithium	ug/L	33	0	0%	33	2017-07-20	NA	5.60
07_3_120	MW-7R	App. IV	Radium-228	pCi/L	31	0	0%	31	2021-04-14	1	2.13
08_1_111	MW-8	App. I Metals	Copper	ug/L	42	31	74%	11	2023-04-27	1	116
08_1_117	MW-8	App. I Metals	Nickel	ug/L	42	21	50%	21	2023-04-27	1	157
08_1_127	MW-8	App. I Metals	Vanadium	ug/L	42	34	81%	8	2023-04-27	1	9.50
08_2_107	MW-8	App. III	Calcium	ug/L	42	0	0%	42	2021-01-27	10	4170
08_2_108	MW-8	App. III	Chloride	mg/L	42	0	0%	42	2015-11-20	NA	939
08_3_103	MW-8	App. IV	Barium	ug/L	42	0	0%	42	2023-04-27	10	1880
08_3_119	MW-8	App. IV	Radium-226	pCi/L	40	0	0%	40	2023-04-27	1	2.51
08_3_120	MW-8	App. IV	Radium-228	pCi/L	40	0	0%	40	2023-04-27	1	4.72
08_3_126	MW-8	App. IV	Total Radium	pCi/L	40	0	0%	40	2023-04-27	1	7.23
09_1_117	MW-10	App. I Metals	Nickel	ug/L	18	6	33%	12	2023-10-04	1	27.9
09_1_127	MW-10	App. I Metals	Vanadium	ug/L	18	11	61%	7	2023-10-04	1	18.2
09_1_128	MW-10	App. I Metals	Zinc	ug/L	18	13	72%	5	2023-10-04	1	94.2
09_2_105	MW-10	App. III	Boron	ug/L	18	0	0%	18	2023-10-04	1	43.4
09_3_102	MW-10	App. IV	Arsenic	ug/L	18	14	78%	4	2023-04-27	1	1.20
09_3_103	MW-10	App. IV	Barium	ug/L	18	0	0%	18	2023-10-04	1	195
09_3_109	MW-10	App. IV	Chromium	ug/L	18	6	33%	12	2023-10-04	1	56.7
10_1_111	MW-11	App. I Metals	Copper	ug/L	21	10	48%	11	2025-10-23	1	34.4
10_2_107	MW-11	App. III	Calcium	ug/L	21	0	0%	21	2024-01-24	1	69400
10_2_118	MW-11	App. III	pH (Field)	S.U.	20	0	0%	20	2024-01-24	NA	11.7
10_2_125	MW-11	App. III	Total Dissolved Solids	mg/L	21	0	0%	21	2021-01-29	1	2760
10_3_103	MW-11	App. IV	Barium	ug/L	21	0	0%	21	2024-01-24	1	130
10_3_114	MW-11	App. IV	Lithium	ug/L	21	0	0%	21	2024-01-24	1	19.5
10_3_120	MW-11	App. IV	Radium-228	pCi/L	21	0	0%	21	2021-04-13	1	2.13
10_3_126	MW-11	App. IV	Total Radium	pCi/L	21	0	0%	21	2021-04-13	1	2.39
11_1_117	MW-11D	App. I Metals	Nickel	ug/L	19	14	74%	5	2022-07-13	1	6.20
11_1_128	MW-11D	App. I Metals	Zinc	ug/L	19	11	58%	8	2025-10-23	1	89.7
11_2_105	MW-11D	App. III	Boron	ug/L	19	0	0%	19	2021-08-12	2	109
11_2_107	MW-11D	App. III	Calcium	ug/L	19	0	0%	19	2021-08-12	1	94400
11_2_108	MW-11D	App. III	Chloride	mg/L	19	0	0%	19	2021-08-12	12	530
11_2_123	MW-11D	App. III	Sulfate	mg/L	19	1	5%	18	2021-08-12	12	523
11_2_125	MW-11D	App. III	Total Dissolved Solids	mg/L	19	0	0%	19	2021-08-12	1	1740
11_3_114	MW-11D	App. IV	Lithium	ug/L	19	0	0%	19	2021-08-12	2	80.7

(Table continues on next page)

Table 6: Outliers Identified at the 1% Significance Level, Non-Detects Excluded *(continued)*

ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	No. Detects	Date	Dilution	Value
11_3_116	MW-11D	App. IV	Molybdenum	ug/L	19	1	5%	18	2021-08-12	1	127
11_3_120	MW-11D	App. IV	Radium-228	pCi/L	19	0	0%	19	2021-04-13	1	2.23

Table 7: Seasonality Tests

						Full								Without Non-Detects							
						Sample Size					p-Value			Sample Size					p-Value			
ID	Well	Constituent Type	Constituent	Unit	% NDs	Winter	Spring	Summer	Fall	Total	Kruskal-Wallis	ANOVA	Log ANOVA	Winter	Spring	Summer	Fall	Total	Kruskal-Wallis	ANOVA	Log ANOVA	
01_1_111	MW-1	App. I Metals	Copper	ug/L	79%	11	11	10	10	42	0.922	0.612	0.914	2	3	2	2	9	0.605	0.460	0.508	
01_1_117	MW-1	App. I Metals	Nickel	ug/L	69%	11	11	10	10	42	0.630	0.687	0.727	3	3	5	2	13	0.821	0.635	0.928	
01_1_122	MW-1	App. I Metals	Silver	ug/L	83%	11	11	10	10	42	0.598	0.740	0.673	2	1	2	2	7	0.321	0.178	0.042	*
01_1_127	MW-1	App. I Metals	Vanadium	ug/L	60%	11	11	10	10	42	0.977	0.952	0.987	4	5	5	3	17	0.619	0.596	0.522	
01_1_128	MW-1	App. I Metals	Zinc	ug/L	60%	11	11	10	10	42	0.374	0.609	0.416	5	4	4	4	17	0.545	0.866	0.686	
01_2_105	MW-1	App. III	Boron	ug/L	54%	10	11	10	10	41	0.890	0.307	0.948	5	6	3	5	19	0.159	0.053	0.033	*
01_2_107	MW-1	App. III	Calcium	ug/L	0%	11	11	10	10	42	0.543	0.585	0.579	11	11	10	10	42	0.543	0.585	0.579	
01_2_108	MW-1	App. III	Chloride	mg/L	0%	11	11	10	10	42	0.659	0.611	0.745	11	11	10	10	42	0.659	0.611	0.745	
01_2_112	MW-1	App. III	Fluoride	mg/L	2%	11	11	10	10	42	0.812	0.801	0.622	11	10	10	10	41	0.745	0.705	0.738	
01_2_118	MW-1	App. III	pH (Field)	S.U.	0%	11	10	10	9	40	0.323	0.362	0.362	11	10	10	9	40	0.323	0.362	0.362	
01_2_123	MW-1	App. III	Sulfate	mg/L	0%	11	11	10	10	42	0.931	0.900	0.928	11	11	10	10	42	0.931	0.900	0.928	
01_2_125	MW-1	App. III	Total Dissolved Solids	mg/L	0%	11	11	10	10	42	0.346	0.332	0.414	11	11	10	10	42	0.346	0.332	0.414	
01_3_101	MW-1	App. IV	Antimony	ug/L	95%	11	11	10	10	42	0.617	0.249	0.304	0	0	2	0	2	NA	NA	NA	
01_3_102	MW-1	App. IV	Arsenic	ug/L	90%	11	11	10	10	42	0.697	0.590	0.685	1	1	0	2	4	0.407	0.731	0.627	
01_3_103	MW-1	App. IV	Barium	ug/L	0%	11	11	10	10	42	0.441	0.512	0.545	11	11	10	10	42	0.441	0.512	0.545	
01_3_104	MW-1	App. IV	Beryllium	ug/L	100%	11	11	10	10	42	0.819	0.933	0.953	NA	NA	NA	NA	NA	NA	NA	NA	
01_3_106	MW-1	App. IV	Cadmium	ug/L	93%	11	11	10	10	42	0.951	0.866	0.713	1	0	1	1	3	0.368	NA	NA	
01_3_109	MW-1	App. IV	Chromium	ug/L	67%	11	11	10	10	42	0.987	0.777	0.937	3	4	4	3	14	0.508	0.294	0.400	
01_3_110	MW-1	App. IV	Cobalt	ug/L	88%	11	11	10	10	42	0.980	0.989	0.950	0	2	3	0	5	0.564	0.546	0.395	
01_3_112	MW-1	App. IV	Fluoride	mg/L	2%	11	11	10	10	42	0.812	0.801	0.622	11	10	10	10	41	0.745	0.705	0.738	
01_3_113	MW-1	App. IV	Lead	ug/L	88%	11	11	10	10	42	0.637	0.317	0.340	1	2	2	0	5	0.223	0.262	0.520	
01_3_114	MW-1	App. IV	Lithium	ug/L	0%	11	11	10	10	42	0.280	0.400	0.414	11	11	10	10	42	0.280	0.400	0.414	
01_3_115	MW-1	App. IV	Mercury	ug/L	100%	11	11	10	10	42	0.872	0.962	0.950	NA	NA	NA	NA	NA	NA	NA	NA	
01_3_116	MW-1	App. IV	Molybdenum	ug/L	88%	11	11	10	10	42	0.645	0.600	0.352	1	1	2	1	5	0.362	0.771	0.576	
01_3_119	MW-1	App. IV	Radium-226	pCi/L	0%	11	10	10	9	40	0.927	0.894	NA	11	10	10	9	40	0.927	0.894	NA	
01_3_120	MW-1	App. IV	Radium-228	pCi/L	0%	11	10	10	9	40	0.968	0.921	NA	11	10	10	9	40	0.968	0.921	NA	
01_3_121	MW-1	App. IV	Selenium	ug/L	95%	11	11	10	10	42	0.937	0.820	0.574	0	1	1	0	2	0.317	NA	NA	
01_3_124	MW-1	App. IV	Thallium	ug/L	100%	11	11	10	10	42	0.729	0.891	0.731	NA	NA	NA	NA	NA	NA	NA	NA	
01_3_126	MW-1	App. IV	Total Radium	pCi/L	0%	11	10	10	9	40	0.944	0.825	0.907	11	10	10	9	40	0.944	0.825	0.907	
02_1_111	MW-2	App. I Metals	Copper	ug/L	41%	11	10	7	9	37	0.144	0.283	0.090	5	6	4	7	22	0.020	* 0.487	0.060	
02_1_117	MW-2	App. I Metals	Nickel	ug/L	32%	11	10	7	9	37	0.754	0.113	0.524	8	5	5	7	25	0.600	0.172	0.468	
02_1_122	MW-2	App. I Metals	Silver	ug/L	92%	11	10	7	9	37	0.506	0.574	0.647	1	1	1	0	3	0.368	NA	NA	
02_1_127	MW-2	App. I Metals	Vanadium	ug/L	68%	11	10	7	9	37	0.269	0.426	0.322	3	3	3	3	12	0.183	0.472	0.258	
02_1_128	MW-2	App. I Metals	Zinc	ug/L	43%	11	10	7	9	37	0.518	0.284	0.327	6	5	4	6	21	0.364	0.401	0.266	
02_2_105	MW-2	App. III	Boron	ug/L	3%	10	10	7	9	36	0.773	0.616	0.494	9	10	7	9	35	0.844	0.921	0.923	
02_2_107	MW-2	App. III	Calcium	ug/L	0%	11	10	7	9	37	0.124	0.683	0.754	11	10	7	9	37	0.124	0.683	0.754	
02_2_108	MW-2	App. III	Chloride	mg/L	0%	11	10	7	9	37	0.496	0.541	0.555	11	10	7	9	37	0.496	0.541	0.555	
02_2_112	MW-2	App. III	Fluoride	mg/L	5%	11	10	7	9	37	0.985	0.731	0.746	10	10	7	8	35	0.984	0.738	0.819	
02_2_118	MW-2	App. III	pH (Field)	S.U.	0%	11	8	7	7	33	0.387	0.662	0.664	11	8	7	7	33	0.387	0.662	0.664	

(Table continues on next page)

*** p < 0.001, ** p < 0.01, * p < 0.05

Table 7: Seasonality Tests *(continued)*

						Full								Without Non-Detects							
						Sample Size					p-Value			Sample Size					p-Value		
ID	Well	Constituent Type	Constituent	Unit	% NDs	Winter	Spring	Summer	Fall	Total	Kruskal-Wallis	ANOVA	Log ANOVA	Winter	Spring	Summer	Fall	Total	Kruskal-Wallis	ANOVA	Log ANOVA
02_2_123	MW-2	App. III	Sulfate	mg/L	0%	11	10	7	9	37	0.819	0.870	0.909	11	10	7	9	37	0.819	0.870	0.909
02_2_125	MW-2	App. III	Total Dissolved Solids	mg/L	0%	11	10	7	9	37	0.324	0.692	0.535	11	10	7	9	37	0.324	0.692	0.535
02_3_101	MW-2	App. IV	Antimony	ug/L	62%	11	10	7	9	37	0.696	0.555	0.533	4	5	3	2	14	0.720	0.783	0.617
02_3_102	MW-2	App. IV	Arsenic	ug/L	70%	11	10	7	9	37	0.899	0.722	0.877	3	3	3	2	11	0.698	0.585	0.658
02_3_103	MW-2	App. IV	Barium	ug/L	0%	11	10	7	9	37	0.821	0.603	0.625	11	10	7	9	37	0.821	0.603	0.625
02_3_104	MW-2	App. IV	Beryllium	ug/L	92%	11	10	7	9	37	0.424	0.404	0.431	0	2	0	1	3	0.221	0.199	0.284
02_3_106	MW-2	App. IV	Cadmium	ug/L	89%	11	10	7	9	37	0.713	0.622	0.640	1	1	1	1	4	0.392	NA	NA
02_3_109	MW-2	App. IV	Chromium	ug/L	16%	11	10	7	9	37	0.674	0.201	0.473	8	9	6	8	31	0.424	0.215	0.316
02_3_110	MW-2	App. IV	Cobalt	ug/L	76%	11	10	7	9	37	0.142	0.315	0.119	1	3	2	3	9	0.207	0.668	0.468
02_3_112	MW-2	App. IV	Fluoride	mg/L	5%	11	10	7	9	37	0.985	0.731	0.746	10	10	7	8	35	0.984	0.738	0.819
02_3_113	MW-2	App. IV	Lead	ug/L	84%	11	10	7	9	37	0.461	0.279	0.243	0	3	2	1	6	0.343	0.159	0.409
02_3_114	MW-2	App. IV	Lithium	ug/L	0%	11	10	7	9	37	0.515	0.125	0.177	11	10	7	9	37	0.515	0.125	0.177
02_3_115	MW-2	App. IV	Mercury	ug/L	100%	11	10	7	9	37	0.869	0.978	0.971	NA	NA	NA	NA	NA	NA	NA	NA
02_3_116	MW-2	App. IV	Molybdenum	ug/L	16%	11	10	7	9	37	0.497	0.243	0.403	8	9	6	8	31	0.119	0.081	0.055
02_3_119	MW-2	App. IV	Radium-226	pCi/L	0%	11	9	7	9	36	0.027 *	0.009 **	NA	11	9	7	9	36	0.027 *	0.009 **	NA
02_3_120	MW-2	App. IV	Radium-228	pCi/L	0%	11	9	7	9	36	0.486	0.586	0.701	11	9	7	9	36	0.486	0.586	0.701
02_3_121	MW-2	App. IV	Selenium	ug/L	95%	11	10	7	9	37	0.751	0.924	0.800	0	2	0	0	2	NA	NA	NA
02_3_124	MW-2	App. IV	Thallium	ug/L	65%	11	10	7	9	37	0.752	0.847	0.843	3	4	3	3	13	0.504	0.384	0.521
02_3_126	MW-2	App. IV	Total Radium	pCi/L	0%	11	9	7	9	36	0.108	0.066	0.104	11	9	7	9	36	0.108	0.066	0.104
03_1_111	MW-3	App. I Metals	Copper	ug/L	52%	11	11	9	9	40	0.855	0.599	0.742	5	5	4	5	19	0.267	0.546	0.364
03_1_117	MW-3	App. I Metals	Nickel	ug/L	50%	11	11	9	9	40	0.348	0.801	0.887	4	7	6	3	20	0.793	0.631	0.997
03_1_122	MW-3	App. I Metals	Silver	ug/L	95%	11	11	9	9	40	0.709	0.866	0.812	1	0	1	0	2	0.317	NA	NA
03_1_127	MW-3	App. I Metals	Vanadium	ug/L	62%	11	11	9	9	40	0.838	0.826	0.753	4	5	3	3	15	0.833	0.894	0.966
03_1_128	MW-3	App. I Metals	Zinc	ug/L	70%	11	11	9	9	40	0.645	0.886	0.855	3	5	2	2	12	0.724	0.935	0.930
03_2_105	MW-3	App. III	Boron	ug/L	26%	10	11	9	9	39	0.695	0.757	0.914	6	8	7	8	29	0.630	0.802	0.792
03_2_107	MW-3	App. III	Calcium	ug/L	0%	11	11	9	9	40	0.543	0.256	0.257	11	11	9	9	40	0.543	0.256	0.257
03_2_108	MW-3	App. III	Chloride	mg/L	0%	11	11	9	9	40	0.590	0.434	0.420	11	11	9	9	40	0.590	0.434	0.420
03_2_112	MW-3	App. III	Fluoride	mg/L	2%	11	11	9	9	40	0.448	0.320	0.259	10	11	9	9	39	0.657	0.621	0.687
03_2_118	MW-3	App. III	pH (Field)	S.U.	0%	11	9	9	7	36	0.392	0.174	0.175	11	9	9	7	36	0.392	0.174	0.175
03_2_123	MW-3	App. III	Sulfate	mg/L	0%	11	11	9	9	40	0.909	0.927	0.939	11	11	9	9	40	0.909	0.927	0.939
03_2_125	MW-3	App. III	Total Dissolved Solids	mg/L	0%	11	11	9	9	40	0.615	0.445	0.459	11	11	9	9	40	0.615	0.445	0.459
03_3_101	MW-3	App. IV	Antimony	ug/L	72%	11	11	9	9	40	0.938	0.899	0.993	3	4	2	2	11	0.626	0.775	0.696
03_3_102	MW-3	App. IV	Arsenic	ug/L	80%	11	11	9	9	40	0.575	0.414	0.607	1	2	2	3	8	0.761	0.892	0.871
03_3_103	MW-3	App. IV	Barium	ug/L	0%	11	11	9	9	40	0.783	0.733	0.701	11	11	9	9	40	0.783	0.733	0.701
03_3_104	MW-3	App. IV	Beryllium	ug/L	100%	11	11	9	9	40	0.716	0.863	0.891	NA	NA	NA	NA	NA	NA	NA	NA
03_3_106	MW-3	App. IV	Cadmium	ug/L	95%	11	11	9	9	40	0.982	0.943	0.818	0	0	1	1	2	0.317	NA	NA
03_3_109	MW-3	App. IV	Chromium	ug/L	50%	11	11	9	9	40	0.539	0.733	0.926	4	7	4	5	20	0.950	0.456	0.985
03_3_110	MW-3	App. IV	Cobalt	ug/L	82%	11	11	9	9	40	0.954	0.911	0.876	2	3	2	0	7	0.368	0.364	0.366
03_3_112	MW-3	App. IV	Fluoride	mg/L	2%	11	11	9	9	40	0.448	0.320	0.259	10	11	9	9	39	0.657	0.621	0.687

(Table continues on next page)

*** p < 0.001, ** p < 0.01, * p < 0.05

Table 7: Seasonality Tests *(continued)*

						Full								Without Non-Detects							
						Sample Size					p-Value			Sample Size					p-Value		
ID	Well	Constituent Type	Constituent	Unit	% NDs	Winter	Spring	Summer	Fall	Total	Kruskal-Wallis	ANOVA	Log ANOVA	Winter	Spring	Summer	Fall	Total	Kruskal-Wallis	ANOVA	Log ANOVA
03_3_113	MW-3	App. IV	Lead	ug/L	88%	11	11	9	9	40	0.533	0.347	0.290	1	2	2	0	5	0.165	0.270	0.508
03_3_114	MW-3	App. IV	Lithium	ug/L	2%	11	11	9	9	40	0.433	0.155	0.304	10	11	9	9	39	0.537	0.231	0.148
03_3_115	MW-3	App. IV	Mercury	ug/L	100%	11	11	9	9	40	0.877	0.978	0.974	NA	NA	NA	NA	NA	NA	NA	NA
03_3_116	MW-3	App. IV	Molybdenum	ug/L	2%	11	11	9	9	40	0.804	0.369	0.725	10	11	9	9	39	0.545	0.179	0.156
03_3_119	MW-3	App. IV	Radium-226	pCi/L	0%	11	10	9	9	39	0.622	0.682	0.862	11	10	9	9	39	0.622	0.682	0.862
03_3_120	MW-3	App. IV	Radium-228	pCi/L	0%	11	10	9	9	39	0.840	0.800	0.781	11	10	9	9	39	0.840	0.800	0.781
03_3_121	MW-3	App. IV	Selenium	ug/L	98%	11	11	9	9	40	0.938	0.844	0.615	0	1	0	0	1	NA	NA	NA
03_3_124	MW-3	App. IV	Thallium	ug/L	98%	11	11	9	9	40	0.552	0.927	0.679	0	0	1	0	1	NA	NA	NA
03_3_126	MW-3	App. IV	Total Radium	pCi/L	0%	11	10	9	9	39	0.817	0.836	0.751	11	10	9	9	39	0.817	0.836	0.751
04_1_111	MW-4	App. I Metals	Copper	ug/L	85%	11	10	10	10	41	0.963	0.489	0.659	1	3	1	1	6	0.378	0.168	0.458
04_1_117	MW-4	App. I Metals	Nickel	ug/L	27%	11	10	10	10	41	0.533	0.630	0.521	7	8	8	7	30	0.696	0.841	0.739
04_1_122	MW-4	App. I Metals	Silver	ug/L	100%	11	10	10	10	41	0.686	0.808	0.732	NA	NA	NA	NA	NA	NA	NA	NA
04_1_127	MW-4	App. I Metals	Vanadium	ug/L	90%	11	10	10	10	41	0.745	0.573	0.924	1	2	1	0	4	0.861	0.881	0.987
04_1_128	MW-4	App. I Metals	Zinc	ug/L	59%	11	10	10	10	41	0.913	0.604	0.803	5	5	3	4	17	0.652	0.659	0.706
04_2_105	MW-4	App. III	Boron	ug/L	57%	10	10	10	10	40	0.908	0.451	0.820	5	5	3	4	17	0.931	0.346	0.288
04_2_107	MW-4	App. III	Calcium	ug/L	0%	11	10	10	10	41	0.545	0.213	0.143	11	10	10	10	41	0.545	0.213	0.143
04_2_108	MW-4	App. III	Chloride	mg/L	0%	11	10	10	10	41	0.926	0.806	0.623	11	10	10	10	41	0.926	0.806	0.623
04_2_112	MW-4	App. III	Fluoride	mg/L	0%	11	10	10	10	41	0.755	0.571	0.528	11	10	10	10	41	0.755	0.571	0.528
04_2_118	MW-4	App. III	pH (Field)	S.U.	0%	11	9	10	9	39	0.116	0.138	0.136	11	9	10	9	39	0.116	0.138	0.136
04_2_123	MW-4	App. III	Sulfate	mg/L	0%	11	10	10	10	41	0.554	0.886	0.773	11	10	10	10	41	0.554	0.886	0.773
04_2_125	MW-4	App. III	Total Dissolved Solids	mg/L	0%	11	10	10	10	41	0.062	0.244	0.316	11	10	10	10	41	0.062	0.244	0.316
04_3_101	MW-4	App. IV	Antimony	ug/L	88%	11	10	10	10	41	0.919	0.923	0.552	2	2	1	0	5	0.949	0.821	0.863
04_3_102	MW-4	App. IV	Arsenic	ug/L	95%	11	10	10	10	41	0.862	0.542	0.460	0	2	0	0	2	NA	NA	NA
04_3_103	MW-4	App. IV	Barium	ug/L	0%	11	10	10	10	41	0.410	0.433	0.312	11	10	10	10	41	0.410	0.433	0.312
04_3_104	MW-4	App. IV	Beryllium	ug/L	100%	11	10	10	10	41	0.822	0.935	0.940	NA	NA	NA	NA	NA	NA	NA	NA
04_3_106	MW-4	App. IV	Cadmium	ug/L	98%	11	10	10	10	41	0.989	0.962	0.746	0	0	1	0	1	NA	NA	NA
04_3_109	MW-4	App. IV	Chromium	ug/L	73%	11	10	10	10	41	0.729	0.340	0.854	3	5	3	0	11	0.453	0.321	0.505
04_3_110	MW-4	App. IV	Cobalt	ug/L	49%	11	10	10	10	41	0.612	0.762	0.638	4	5	7	5	21	0.641	0.825	0.651
04_3_112	MW-4	App. IV	Fluoride	mg/L	0%	11	10	10	10	41	0.755	0.571	0.528	11	10	10	10	41	0.755	0.571	0.528
04_3_113	MW-4	App. IV	Lead	ug/L	98%	11	10	10	10	41	0.652	0.311	0.307	0	0	1	0	1	NA	NA	NA
04_3_114	MW-4	App. IV	Lithium	ug/L	0%	11	10	10	10	41	0.897	0.400	0.452	11	10	10	10	41	0.897	0.400	0.452
04_3_115	MW-4	App. IV	Mercury	ug/L	100%	11	10	10	10	41	0.898	0.968	0.953	NA	NA	NA	NA	NA	NA	NA	NA
04_3_116	MW-4	App. IV	Molybdenum	ug/L	85%	11	10	10	10	41	0.399	0.436	0.184	2	1	1	2	6	0.488	0.693	0.397
04_3_119	MW-4	App. IV	Radium-226	pCi/L	0%	11	9	10	9	39	0.729	0.798	NA	11	9	10	9	39	0.729	0.798	NA
04_3_120	MW-4	App. IV	Radium-228	pCi/L	0%	11	9	10	9	39	0.895	0.975	NA	11	9	10	9	39	0.895	0.975	NA
04_3_121	MW-4	App. IV	Selenium	ug/L	93%	11	10	10	10	41	0.869	0.620	0.468	0	1	0	2	3	0.221	0.031 *	0.008 **
04_3_124	MW-4	App. IV	Thallium	ug/L	100%	11	10	10	10	41	0.756	0.872	0.775	NA	NA	NA	NA	NA	NA	NA	NA
04_3_126	MW-4	App. IV	Total Radium	pCi/L	0%	11	9	10	9	39	0.944	0.974	0.830	11	9	10	9	39	0.944	0.974	0.830
05_1_111	MW-5	App. I Metals	Copper	ug/L	69%	11	11	10	10	42	0.888	0.838	0.960	3	4	4	2	13	0.947	0.871	0.973

(Table continues on next page)

*** p < 0.001, ** p < 0.01, * p < 0.05

Table 7: Seasonality Tests *(continued)*

						Full								Without Non-Detects							
						Sample Size					p-Value			Sample Size					p-Value		
ID	Well	Constituent Type	Constituent	Unit	% NDs	Winter	Spring	Summer	Fall	Total	Kruskal-Wallis	ANOVA	Log ANOVA	Winter	Spring	Summer	Fall	Total	Kruskal-Wallis	ANOVA	Log ANOVA
05_1_117	MW-5	App. I Metals	Nickel	ug/L	76%	11	11	10	10	42	0.670	0.412	0.632	4	1	2	3	10	0.378	0.308	0.410
05_1_122	MW-5	App. I Metals	Silver	ug/L	100%	11	11	10	10	42	0.705	0.828	0.799	NA	NA	NA	NA	NA	NA	NA	NA
05_1_127	MW-5	App. I Metals	Vanadium	ug/L	93%	11	11	10	10	42	0.845	0.641	0.823	0	1	1	1	3	0.368	NA	NA
05_1_128	MW-5	App. I Metals	Zinc	ug/L	60%	11	11	10	10	42	0.134	0.163	0.120	3	6	6	2	17	0.809	0.491	0.728
05_2_105	MW-5	App. III	Boron	ug/L	37%	10	11	10	10	41	0.309	0.254	0.373	9	7	5	5	26	0.855	0.696	0.716
05_2_107	MW-5	App. III	Calcium	ug/L	0%	11	11	10	10	42	0.841	0.586	0.681	11	11	10	10	42	0.841	0.586	0.681
05_2_108	MW-5	App. III	Chloride	mg/L	0%	11	11	10	10	42	0.949	0.979	0.974	11	11	10	10	42	0.949	0.979	0.974
05_2_112	MW-5	App. III	Fluoride	mg/L	0%	11	11	10	10	42	0.656	0.622	0.608	11	11	10	10	42	0.656	0.622	0.608
05_2_118	MW-5	App. III	pH (Field)	S.U.	0%	11	10	10	8	39	0.537	0.225	0.234	11	10	10	8	39	0.537	0.225	0.234
05_2_123	MW-5	App. III	Sulfate	mg/L	0%	11	11	10	10	42	0.278	0.405	0.413	11	11	10	10	42	0.278	0.405	0.413
05_2_125	MW-5	App. III	Total Dissolved Solids	mg/L	0%	11	11	10	10	42	0.762	0.342	0.362	11	11	10	10	42	0.762	0.342	0.362
05_3_101	MW-5	App. IV	Antimony	ug/L	95%	11	11	10	10	42	0.798	0.439	0.372	1	1	0	0	2	0.317	NA	NA
05_3_102	MW-5	App. IV	Arsenic	ug/L	95%	11	11	10	10	42	0.890	0.605	0.520	0	2	0	0	2	NA	NA	NA
05_3_103	MW-5	App. IV	Barium	ug/L	0%	11	11	10	10	42	0.390	0.383	0.401	11	11	10	10	42	0.390	0.383	0.401
05_3_104	MW-5	App. IV	Beryllium	ug/L	100%	11	11	10	10	42	0.819	0.933	0.953	NA	NA	NA	NA	NA	NA	NA	NA
05_3_106	MW-5	App. IV	Cadmium	ug/L	100%	11	11	10	10	42	0.946	0.988	0.851	NA	NA	NA	NA	NA	NA	NA	NA
05_3_109	MW-5	App. IV	Chromium	ug/L	69%	11	11	10	10	42	0.904	0.397	0.559	4	2	4	3	13	0.962	0.611	0.871
05_3_110	MW-5	App. IV	Cobalt	ug/L	95%	11	11	10	10	42	0.973	0.985	0.929	0	1	1	0	2	0.317	NA	NA
05_3_112	MW-5	App. IV	Fluoride	mg/L	0%	11	11	10	10	42	0.656	0.622	0.608	11	11	10	10	42	0.656	0.622	0.608
05_3_113	MW-5	App. IV	Lead	ug/L	98%	11	11	10	10	42	0.654	0.263	0.316	0	1	0	0	1	NA	NA	NA
05_3_114	MW-5	App. IV	Lithium	ug/L	2%	11	11	10	10	42	0.470	0.181	0.102	10	11	10	10	41	0.659	0.257	0.214
05_3_115	MW-5	App. IV	Mercury	ug/L	100%	11	11	10	10	42	0.872	0.962	0.950	NA	NA	NA	NA	NA	NA	NA	NA
05_3_116	MW-5	App. IV	Molybdenum	ug/L	93%	11	11	10	10	42	0.971	0.678	0.987	0	2	1	0	3	1.000	0.877	0.838
05_3_119	MW-5	App. IV	Radium-226	pCi/L	0%	11	10	10	9	40	0.047 *	0.050	NA	11	10	10	9	40	0.047 *	0.050	NA
05_3_120	MW-5	App. IV	Radium-228	pCi/L	0%	11	10	10	9	40	0.389	0.547	NA	11	10	10	9	40	0.389	0.547	NA
05_3_121	MW-5	App. IV	Selenium	ug/L	98%	11	11	10	10	42	0.920	0.834	0.584	0	1	0	0	1	NA	NA	NA
05_3_124	MW-5	App. IV	Thallium	ug/L	98%	11	11	10	10	42	0.837	0.643	0.784	1	0	0	0	1	NA	NA	NA
05_3_126	MW-5	App. IV	Total Radium	pCi/L	0%	11	10	10	9	40	0.407	0.315	0.694	11	10	10	9	40	0.407	0.315	0.694
06_1_111	MW-6	App. I Metals	Copper	ug/L	80%	11	11	9	10	41	0.339	0.165	0.283	1	1	3	3	8	0.695	0.551	0.873
06_1_117	MW-6	App. I Metals	Nickel	ug/L	68%	11	11	9	10	41	0.517	0.081	0.325	3	3	4	3	13	0.109	0.071	0.077
06_1_122	MW-6	App. I Metals	Silver	ug/L	100%	11	11	9	10	41	0.782	0.900	0.812	NA	NA	NA	NA	NA	NA	NA	NA
06_1_127	MW-6	App. I Metals	Vanadium	ug/L	88%	11	11	9	10	41	0.718	0.447	0.584	0	1	2	2	5	0.301	0.680	0.525
06_1_128	MW-6	App. I Metals	Zinc	ug/L	63%	11	11	9	10	41	0.748	0.571	0.721	4	4	3	4	15	0.735	0.578	0.733
06_2_105	MW-6	App. III	Boron	ug/L	57%	10	11	9	10	40	0.932	0.986	0.970	5	4	4	4	17	0.781	0.676	0.662
06_2_107	MW-6	App. III	Calcium	ug/L	0%	11	11	9	10	41	0.852	0.700	0.720	11	11	9	10	41	0.852	0.700	0.720
06_2_108	MW-6	App. III	Chloride	mg/L	0%	11	11	9	10	41	0.710	0.632	0.396	11	11	9	10	41	0.710	0.632	0.396
06_2_112	MW-6	App. III	Fluoride	mg/L	2%	11	11	9	10	41	0.610	0.802	0.581	11	10	9	10	40	0.434	0.652	0.785
06_2_118	MW-6	App. III	pH (Field)	S.U.	0%	11	9	9	9	38	0.381	0.251	0.255	11	9	9	9	38	0.381	0.251	0.255
06_2_123	MW-6	App. III	Sulfate	mg/L	0%	11	11	9	10	41	0.671	0.550	0.704	11	11	9	10	41	0.671	0.550	0.704

(Table continues on next page)

*** p < 0.001, ** p < 0.01, * p < 0.05

Table 7: Seasonality Tests *(continued)*

						Full								Without Non-Detects							
						Sample Size					p-Value			Sample Size					p-Value		
ID	Well	Constituent Type	Constituent	Unit	% NDs	Winter	Spring	Summer	Fall	Total	Kruskal-Wallis	ANOVA	Log ANOVA	Winter	Spring	Summer	Fall	Total	Kruskal-Wallis	ANOVA	Log ANOVA
06_2_125	MW-6	App. III	Total Dissolved Solids	mg/L	0%	11	11	9	10	41	0.114	0.032 *	0.031 *	11	11	9	10	41	0.114	0.032 *	0.031 *
06_3_101	MW-6	App. IV	Antimony	ug/L	100%	11	11	9	10	41	0.961	0.527	0.412	NA	NA	NA	NA	NA	NA	NA	NA
06_3_102	MW-6	App. IV	Arsenic	ug/L	95%	11	11	9	10	41	0.919	0.801	0.720	0	2	0	0	2	NA	NA	NA
06_3_103	MW-6	App. IV	Barium	ug/L	0%	11	11	9	10	41	0.822	0.882	0.888	11	11	9	10	41	0.822	0.882	0.888
06_3_104	MW-6	App. IV	Beryllium	ug/L	98%	11	11	9	10	41	0.866	0.966	0.979	0	1	0	0	1	NA	NA	NA
06_3_106	MW-6	App. IV	Cadmium	ug/L	100%	11	11	9	10	41	0.988	0.990	0.836	NA	NA	NA	NA	NA	NA	NA	NA
06_3_109	MW-6	App. IV	Chromium	ug/L	78%	11	11	9	10	41	0.809	0.232	0.672	2	3	3	1	9	0.427	0.363	0.437
06_3_110	MW-6	App. IV	Cobalt	ug/L	95%	11	11	9	10	41	0.924	0.936	0.967	0	1	1	0	2	0.317	NA	NA
06_3_112	MW-6	App. IV	Fluoride	mg/L	2%	11	11	9	10	41	0.610	0.802	0.581	11	10	9	10	40	0.434	0.652	0.785
06_3_113	MW-6	App. IV	Lead	ug/L	93%	11	11	9	10	41	0.480	0.259	0.262	0	1	1	1	3	0.368	NA	NA
06_3_114	MW-6	App. IV	Lithium	ug/L	0%	11	11	9	10	41	0.325	0.523	0.337	11	11	9	10	41	0.325	0.523	0.337
06_3_115	MW-6	App. IV	Mercury	ug/L	98%	11	11	9	10	41	0.716	0.389	0.402	1	0	0	0	1	NA	NA	NA
06_3_116	MW-6	App. IV	Molybdenum	ug/L	88%	11	11	9	10	41	0.488	0.447	0.235	2	1	1	1	5	0.284	0.056	0.020 *
06_3_119	MW-6	App. IV	Radium-226	pCi/L	0%	11	10	9	9	39	0.638	0.783	NA	11	10	9	9	39	0.638	0.783	NA
06_3_120	MW-6	App. IV	Radium-228	pCi/L	0%	11	10	9	9	39	0.123	0.115	NA	11	10	9	9	39	0.123	0.115	NA
06_3_121	MW-6	App. IV	Selenium	ug/L	95%	11	11	9	10	41	0.947	0.791	0.542	0	1	1	0	2	0.317	NA	NA
06_3_124	MW-6	App. IV	Thallium	ug/L	90%	11	11	9	10	41	0.989	0.911	0.962	1	1	1	1	4	0.392	NA	NA
06_3_126	MW-6	App. IV	Total Radium	pCi/L	0%	11	10	9	9	39	0.176	0.192	0.191	11	10	9	9	39	0.176	0.192	0.191
07_1_111	MW-7R	App. I Metals	Copper	ug/L	64%	8	8	9	8	33	0.337	0.787	0.610	3	2	3	4	12	0.391	0.563	0.682
07_1_117	MW-7R	App. I Metals	Nickel	ug/L	45%	8	8	9	8	33	0.294	0.460	0.363	4	4	6	4	18	0.723	0.613	0.613
07_1_122	MW-7R	App. I Metals	Silver	ug/L	100%	8	8	9	8	33	0.718	0.841	0.725	NA	NA	NA	NA	NA	NA	NA	NA
07_1_127	MW-7R	App. I Metals	Vanadium	ug/L	48%	8	8	9	8	33	0.097	0.165	0.085	3	4	7	3	17	0.432	0.500	0.473
07_1_128	MW-7R	App. I Metals	Zinc	ug/L	67%	8	8	9	8	33	0.161	0.401	0.195	2	4	2	3	11	0.332	0.474	0.497
07_2_105	MW-7R	App. III	Boron	ug/L	38%	7	8	9	8	32	0.468	0.344	0.300	6	5	5	4	20	0.734	0.454	0.532
07_2_107	MW-7R	App. III	Calcium	ug/L	0%	8	8	9	8	33	0.277	0.412	0.430	8	8	9	8	33	0.277	0.412	0.430
07_2_108	MW-7R	App. III	Chloride	mg/L	0%	8	8	9	8	33	0.451	0.484	0.475	8	8	9	8	33	0.451	0.484	0.475
07_2_112	MW-7R	App. III	Fluoride	mg/L	3%	8	8	9	8	33	0.327	0.274	0.259	8	7	9	8	32	0.374	0.334	0.303
07_2_118	MW-7R	App. III	pH (Field)	S.U.	0%	8	7	9	8	32	0.078	0.277	0.253	8	7	9	8	32	0.078	0.277	0.253
07_2_123	MW-7R	App. III	Sulfate	mg/L	0%	8	8	9	8	33	0.927	0.504	0.568	8	8	9	8	33	0.927	0.504	0.568
07_2_125	MW-7R	App. III	Total Dissolved Solids	mg/L	0%	8	8	9	8	33	0.150	0.118	0.142	8	8	9	8	33	0.150	0.118	0.142
07_3_101	MW-7R	App. IV	Antimony	ug/L	97%	8	8	9	8	33	0.327	0.195	0.187	0	0	1	0	1	NA	NA	NA
07_3_102	MW-7R	App. IV	Arsenic	ug/L	91%	8	8	9	8	33	0.940	0.820	0.800	0	2	1	0	3	1.000	0.984	0.843
07_3_103	MW-7R	App. IV	Barium	ug/L	0%	8	8	9	8	33	0.311	0.461	0.450	8	8	9	8	33	0.311	0.461	0.450
07_3_104	MW-7R	App. IV	Beryllium	ug/L	100%	8	8	9	8	33	0.862	0.940	0.939	NA	NA	NA	NA	NA	NA	NA	NA
07_3_106	MW-7R	App. IV	Cadmium	ug/L	100%	8	8	9	8	33	0.972	0.935	0.716	NA	NA	NA	NA	NA	NA	NA	NA
07_3_109	MW-7R	App. IV	Chromium	ug/L	24%	8	8	9	8	33	0.694	0.463	0.544	5	7	8	5	25	0.894	0.578	0.760
07_3_110	MW-7R	App. IV	Cobalt	ug/L	85%	8	8	9	8	33	0.675	0.543	0.631	0	2	2	1	5	0.223	0.616	0.314
07_3_112	MW-7R	App. IV	Fluoride	mg/L	3%	8	8	9	8	33	0.327	0.274	0.259	8	7	9	8	32	0.374	0.334	0.303
07_3_113	MW-7R	App. IV	Lead	ug/L	82%	8	8	9	8	33	0.113	0.089	0.086	0	2	2	2	6	0.276	0.380	0.353

(Table continues on next page)

*** p < 0.001, ** p < 0.01, * p < 0.05

Table 7: Seasonality Tests *(continued)*

						Full								Without Non-Detects							
						Sample Size					p-Value			Sample Size					p-Value		
ID	Well	Constituent Type	Constituent	Unit	% NDs	Winter	Spring	Summer	Fall	Total	Kruskal-Wallis	ANOVA	Log ANOVA	Winter	Spring	Summer	Fall	Total	Kruskal-Wallis	ANOVA	Log ANOVA
07_3_114	MW-7R	App. IV	Lithium	ug/L	0%	8	8	9	8	33	0.426	0.177	0.194	8	8	9	8	33	0.426	0.177	0.194
07_3_115	MW-7R	App. IV	Mercury	ug/L	100%	8	8	9	8	33	0.766	0.876	0.868	NA	NA	NA	NA	NA	NA	NA	NA
07_3_116	MW-7R	App. IV	Molybdenum	ug/L	85%	8	8	9	8	33	0.576	0.266	0.281	0	1	2	2	5	0.165	0.309	0.200
07_3_119	MW-7R	App. IV	Radium-226	pCi/L	0%	8	7	9	7	31	0.836	0.904	NA	8	7	9	7	31	0.836	0.904	NA
07_3_120	MW-7R	App. IV	Radium-228	pCi/L	0%	8	7	9	7	31	0.311	0.309	NA	8	7	9	7	31	0.311	0.309	NA
07_3_121	MW-7R	App. IV	Selenium	ug/L	97%	8	8	9	8	33	0.952	0.750	0.496	0	1	0	0	1	NA	NA	NA
07_3_124	MW-7R	App. IV	Thallium	ug/L	91%	8	8	9	8	33	0.935	0.649	0.845	1	0	1	1	3	0.368	NA	NA
07_3_126	MW-7R	App. IV	Total Radium	pCi/L	0%	8	7	9	7	31	0.552	0.428	0.531	8	7	9	7	31	0.552	0.428	0.531
08_1_111	MW-8	App. I Metals	Copper	ug/L	74%	11	11	10	10	42	0.970	0.414	0.717	3	4	1	3	11	0.574	0.659	0.548
08_1_117	MW-8	App. I Metals	Nickel	ug/L	50%	11	11	10	10	42	0.760	0.491	0.689	7	5	5	4	21	0.515	0.400	0.466
08_1_122	MW-8	App. I Metals	Silver	ug/L	98%	11	11	10	10	42	0.699	0.761	0.832	0	1	0	0	1	NA	NA	NA
08_1_127	MW-8	App. I Metals	Vanadium	ug/L	81%	11	11	10	10	42	0.924	0.764	0.928	3	1	3	1	8	0.223	0.007 **	0.059
08_1_128	MW-8	App. I Metals	Zinc	ug/L	57%	11	11	10	10	42	0.749	0.708	0.843	6	5	4	3	18	0.951	0.653	0.882
08_2_105	MW-8	App. III	Boron	ug/L	37%	10	11	10	10	41	0.844	0.783	0.822	8	7	5	6	26	0.961	0.976	0.973
08_2_107	MW-8	App. III	Calcium	ug/L	0%	11	11	10	10	42	0.627	0.742	0.651	11	11	10	10	42	0.627	0.742	0.651
08_2_108	MW-8	App. III	Chloride	mg/L	0%	11	11	10	10	42	0.228	0.318	0.240	11	11	10	10	42	0.228	0.318	0.240
08_2_112	MW-8	App. III	Fluoride	mg/L	48%	11	11	10	10	42	0.645	0.685	0.605	5	5	6	6	22	0.816	0.689	0.701
08_2_118	MW-8	App. III	pH (Field)	S.U.	0%	11	10	10	9	40	0.249	0.525	0.539	11	10	10	9	40	0.249	0.525	0.539
08_2_123	MW-8	App. III	Sulfate	mg/L	0%	11	11	10	10	42	0.915	0.934	0.918	11	11	10	10	42	0.915	0.934	0.918
08_2_125	MW-8	App. III	Total Dissolved Solids	mg/L	0%	11	11	10	10	42	0.777	0.786	0.531	11	11	10	10	42	0.777	0.786	0.531
08_3_101	MW-8	App. IV	Antimony	ug/L	83%	11	11	10	10	42	0.975	0.996	0.768	2	3	1	1	7	0.508	0.364	0.504
08_3_102	MW-8	App. IV	Arsenic	ug/L	88%	11	11	10	10	42	0.737	0.732	0.800	1	2	1	1	5	0.284	0.043 *	0.027 *
08_3_103	MW-8	App. IV	Barium	ug/L	0%	11	11	10	10	42	0.200	0.379	0.367	11	11	10	10	42	0.200	0.379	0.367
08_3_104	MW-8	App. IV	Beryllium	ug/L	98%	11	11	10	10	42	0.683	0.474	0.591	0	1	0	0	1	NA	NA	NA
08_3_106	MW-8	App. IV	Cadmium	ug/L	98%	11	11	10	10	42	0.599	0.300	0.324	0	1	0	0	1	NA	NA	NA
08_3_109	MW-8	App. IV	Chromium	ug/L	48%	11	11	10	10	42	0.926	0.698	0.770	8	5	5	4	22	0.736	0.660	0.734
08_3_110	MW-8	App. IV	Cobalt	ug/L	88%	11	11	10	10	42	0.793	0.834	0.798	1	2	2	0	5	0.301	0.657	0.611
08_3_112	MW-8	App. IV	Fluoride	mg/L	48%	11	11	10	10	42	0.645	0.685	0.605	5	5	6	6	22	0.816	0.689	0.701
08_3_113	MW-8	App. IV	Lead	ug/L	93%	11	11	10	10	42	0.498	0.314	0.363	0	1	2	0	3	0.221	0.212	0.228
08_3_114	MW-8	App. IV	Lithium	ug/L	2%	11	11	10	10	42	0.511	0.642	0.810	10	11	10	10	41	0.295	0.336	0.324
08_3_115	MW-8	App. IV	Mercury	ug/L	98%	11	11	10	10	42	0.621	0.360	0.354	1	0	0	0	1	NA	NA	NA
08_3_116	MW-8	App. IV	Molybdenum	ug/L	93%	11	11	10	10	42	0.867	0.829	0.868	1	1	1	0	3	0.368	NA	NA
08_3_119	MW-8	App. IV	Radium-226	pCi/L	0%	11	10	10	9	40	0.286	0.343	NA	11	10	10	9	40	0.286	0.343	NA
08_3_120	MW-8	App. IV	Radium-228	pCi/L	0%	11	10	10	9	40	0.183	0.176	NA	11	10	10	9	40	0.183	0.176	NA
08_3_121	MW-8	App. IV	Selenium	ug/L	95%	11	11	10	10	42	0.901	0.860	0.615	0	2	0	0	2	NA	NA	NA
08_3_124	MW-8	App. IV	Thallium	ug/L	95%	11	11	10	10	42	0.896	0.817	0.912	1	0	1	0	2	0.317	NA	NA
08_3_126	MW-8	App. IV	Total Radium	pCi/L	0%	11	10	10	9	40	0.245	0.226	NA	11	10	10	9	40	0.245	0.226	NA
09_1_111	MW-10	App. I Metals	Copper	ug/L	50%	4	4	5	5	18	0.576	0.355	0.384	1	3	2	3	9	0.143	0.664	0.180
09_1_117	MW-10	App. I Metals	Nickel	ug/L	33%	4	4	5	5	18	0.722	0.498	0.562	2	4	3	3	12	0.663	0.471	0.617

(Table continues on next page)

*** p < 0.001, ** p < 0.01, * p < 0.05

Table 7: Seasonality Tests *(continued)*

						Full								Without Non-Detects							
						Sample Size					p-Value			Sample Size					p-Value		
ID	Well	Constituent Type	Constituent	Unit	% NDs	Winter	Spring	Summer	Fall	Total	Kruskal-Wallis	ANOVA	Log ANOVA	Winter	Spring	Summer	Fall	Total	Kruskal-Wallis	ANOVA	Log ANOVA
09_1_122	MW-10	App. I Metals	Silver	ug/L	100%	4	4	5	5	18	0.411	0.492	0.394	NA	NA	NA	NA	NA	NA	NA	NA
09_1_127	MW-10	App. I Metals	Vanadium	ug/L	61%	4	4	5	5	18	0.460	0.300	0.270	2	1	2	2	7	0.658	0.588	0.556
09_1_128	MW-10	App. I Metals	Zinc	ug/L	72%	4	4	5	5	18	0.500	0.424	0.433	0	2	1	2	5	0.165	0.563	0.345
09_2_105	MW-10	App. III	Boron	ug/L	0%	4	4	5	5	18	0.415	0.296	0.323	4	4	5	5	18	0.415	0.296	0.323
09_2_107	MW-10	App. III	Calcium	ug/L	0%	4	4	5	5	18	0.116	0.144	0.135	4	4	5	5	18	0.116	0.144	0.135
09_2_108	MW-10	App. III	Chloride	mg/L	0%	4	4	5	5	18	0.647	0.668	0.670	4	4	5	5	18	0.647	0.668	0.670
09_2_112	MW-10	App. III	Fluoride	mg/L	0%	4	4	5	5	18	0.921	0.884	0.900	4	4	5	5	18	0.921	0.884	0.900
09_2_118	MW-10	App. III	pH (Field)	S.U.	0%	4	5	5	5	19	0.130	0.178	0.173	4	5	5	5	19	0.130	0.178	0.173
09_2_123	MW-10	App. III	Sulfate	mg/L	0%	4	4	5	5	18	0.986	0.977	0.986	4	4	5	5	18	0.986	0.977	0.986
09_2_125	MW-10	App. III	Total Dissolved Solids	mg/L	0%	4	4	5	5	18	0.164	0.119	0.123	4	4	5	5	18	0.164	0.119	0.123
09_3_101	MW-10	App. IV	Antimony	ug/L	94%	4	4	5	5	18	0.547	0.339	0.262	0	1	0	0	1	NA	NA	NA
09_3_102	MW-10	App. IV	Arsenic	ug/L	78%	4	4	5	5	18	0.432	0.403	0.417	0	2	1	1	4	0.264	0.778	0.790
09_3_103	MW-10	App. IV	Barium	ug/L	0%	4	4	5	5	18	0.928	0.574	0.679	4	4	5	5	18	0.928	0.574	0.679
09_3_104	MW-10	App. IV	Beryllium	ug/L	100%	4	4	5	5	18	0.727	0.838	0.802	NA	NA	NA	NA	NA	NA	NA	NA
09_3_106	MW-10	App. IV	Cadmium	ug/L	100%	4	4	5	5	18	0.694	0.664	0.506	NA	NA	NA	NA	NA	NA	NA	NA
09_3_109	MW-10	App. IV	Chromium	ug/L	33%	4	4	5	5	18	0.713	0.495	0.596	3	3	2	4	12	0.778	0.661	0.719
09_3_110	MW-10	App. IV	Cobalt	ug/L	89%	4	4	5	5	18	0.681	0.622	0.729	0	1	0	1	2	0.317	NA	NA
09_3_112	MW-10	App. IV	Fluoride	mg/L	0%	4	4	5	5	18	0.921	0.884	0.900	4	4	5	5	18	0.921	0.884	0.900
09_3_113	MW-10	App. IV	Lead	ug/L	89%	4	4	5	5	18	0.267	0.137	0.178	0	1	0	1	2	0.317	NA	NA
09_3_114	MW-10	App. IV	Lithium	ug/L	0%	4	4	5	5	18	0.636	0.788	0.852	4	4	5	5	18	0.636	0.788	0.852
09_3_115	MW-10	App. IV	Mercury	ug/L	100%	4	4	5	5	18	0.613	0.725	0.732	NA	NA	NA	NA	NA	NA	NA	NA
09_3_116	MW-10	App. IV	Molybdenum	ug/L	0%	4	4	5	5	18	0.889	0.886	0.887	4	4	5	5	18	0.889	0.886	0.887
09_3_119	MW-10	App. IV	Radium-226	pCi/L	0%	4	4	5	5	18	0.417	0.514	NA	4	4	5	5	18	0.417	0.514	NA
09_3_120	MW-10	App. IV	Radium-228	pCi/L	0%	4	4	5	5	18	0.838	0.836	NA	4	4	5	5	18	0.838	0.836	NA
09_3_121	MW-10	App. IV	Selenium	ug/L	83%	4	4	5	5	18	0.782	0.498	0.425	0	1	0	2	3	0.221	0.218	0.083
09_3_124	MW-10	App. IV	Thallium	ug/L	94%	4	4	5	5	18	0.358	0.159	0.260	0	0	0	1	1	NA	NA	NA
09_3_126	MW-10	App. IV	Total Radium	pCi/L	0%	4	4	5	5	18	0.945	0.972	NA	4	4	5	5	18	0.945	0.972	NA
10_1_111	MW-11	App. I Metals	Copper	ug/L	48%	5	5	5	6	21	0.337	0.162	0.196	2	3	2	4	11	0.433	0.328	0.417
10_1_117	MW-11	App. I Metals	Nickel	ug/L	57%	5	5	5	6	21	0.946	0.814	0.939	2	2	3	2	9	0.769	0.685	0.728
10_1_122	MW-11	App. I Metals	Silver	ug/L	100%	5	5	5	6	21	0.481	0.524	0.513	NA	NA	NA	NA	NA	NA	NA	NA
10_1_127	MW-11	App. I Metals	Vanadium	ug/L	86%	5	5	5	6	21	0.555	0.446	0.570	0	1	1	1	3	0.368	NA	NA
10_1_128	MW-11	App. I Metals	Zinc	ug/L	67%	5	5	5	6	21	0.369	0.716	0.919	1	3	1	2	7	0.508	0.590	0.746
10_2_105	MW-11	App. III	Boron	ug/L	5%	5	5	5	6	21	0.149	0.236	0.304	4	5	5	6	20	0.047 *	0.097	0.071
10_2_107	MW-11	App. III	Calcium	ug/L	0%	5	5	5	6	21	0.022 *	0.086	0.045 *	5	5	5	6	21	0.022 *	0.086	0.045 *
10_2_108	MW-11	App. III	Chloride	mg/L	0%	5	5	5	6	21	0.270	0.195	0.182	5	5	5	6	21	0.270	0.195	0.182
10_2_112	MW-11	App. III	Fluoride	mg/L	5%	5	5	5	6	21	0.743	0.431	0.364	4	5	5	6	20	0.952	0.954	0.963
10_2_118	MW-11	App. III	pH (Field)	S.U.	0%	5	5	5	5	20	0.013 *	0.158	0.109	5	5	5	5	20	0.013 *	0.158	0.109
10_2_123	MW-11	App. III	Sulfate	mg/L	0%	5	5	5	6	21	0.757	0.601	0.680	5	5	5	6	21	0.757	0.601	0.680
10_2_125	MW-11	App. III	Total Dissolved Solids	mg/L	0%	5	5	5	6	21	0.887	0.473	0.686	5	5	5	6	21	0.887	0.473	0.686

(Table continues on next page)

*** p < 0.001, ** p < 0.01, * p < 0.05

Table 7: Seasonality Tests *(continued)*

						Full								Without Non-Detects							
						Sample Size					p-Value			Sample Size					p-Value		
ID	Well	Constituent Type	Constituent	Unit	% NDs	Winter	Spring	Summer	Fall	Total	Kruskal-Wallis	ANOVA	Log ANOVA	Winter	Spring	Summer	Fall	Total	Kruskal-Wallis	ANOVA	Log ANOVA
10_3_101	MW-11	App. IV	Antimony	ug/L	90%	5	5	5	6	21	0.398	0.255	0.247	1	1	0	0	2	0.317	NA	NA
10_3_102	MW-11	App. IV	Arsenic	ug/L	90%	5	5	5	6	21	0.659	0.526	0.484	1	1	0	0	2	0.317	NA	NA
10_3_103	MW-11	App. IV	Barium	ug/L	0%	5	5	5	6	21	0.027 *	0.114	0.060	5	5	5	6	21	0.027 *	0.114	0.060
10_3_104	MW-11	App. IV	Beryllium	ug/L	100%	5	5	5	6	21	0.813	0.801	0.830	NA	NA	NA	NA	NA	NA	NA	NA
10_3_106	MW-11	App. IV	Cadmium	ug/L	100%	5	5	5	6	21	0.781	0.721	0.573	NA	NA	NA	NA	NA	NA	NA	NA
10_3_109	MW-11	App. IV	Chromium	ug/L	71%	5	5	5	6	21	0.755	0.660	0.752	1	2	2	1	6	0.232	0.388	0.195
10_3_110	MW-11	App. IV	Cobalt	ug/L	67%	5	5	5	6	21	0.830	0.855	0.886	2	2	2	1	7	0.282	0.250	0.363
10_3_112	MW-11	App. IV	Fluoride	mg/L	5%	5	5	5	6	21	0.743	0.431	0.364	4	5	5	6	20	0.952	0.954	0.963
10_3_113	MW-11	App. IV	Lead	ug/L	90%	5	5	5	6	21	0.476	0.353	0.357	0	1	1	0	2	0.317	NA	NA
10_3_114	MW-11	App. IV	Lithium	ug/L	0%	5	5	5	6	21	0.707	0.740	0.756	5	5	5	6	21	0.707	0.740	0.756
10_3_115	MW-11	App. IV	Mercury	ug/L	100%	5	5	5	6	21	0.507	0.653	0.673	NA	NA	NA	NA	NA	NA	NA	NA
10_3_116	MW-11	App. IV	Molybdenum	ug/L	86%	5	5	5	6	21	0.890	0.809	0.735	0	1	1	1	3	0.368	NA	NA
10_3_119	MW-11	App. IV	Radium-226	pCi/L	0%	5	5	5	6	21	0.825	0.757	NA	5	5	5	6	21	0.825	0.757	NA
10_3_120	MW-11	App. IV	Radium-228	pCi/L	0%	5	5	5	6	21	0.194	0.303	NA	5	5	5	6	21	0.194	0.303	NA
10_3_121	MW-11	App. IV	Selenium	ug/L	100%	5	5	5	6	21	0.815	0.669	0.452	NA	NA	NA	NA	NA	NA	NA	NA
10_3_124	MW-11	App. IV	Thallium	ug/L	95%	5	5	5	6	21	0.639	0.574	0.624	0	1	0	0	1	NA	NA	NA
10_3_126	MW-11	App. IV	Total Radium	pCi/L	0%	5	5	5	6	21	0.070	0.237	0.126	5	5	5	6	21	0.070	0.237	0.126
11_1_111	MW-11D	App. I Metals	Copper	ug/L	63%	4	5	5	5	19	0.639	0.585	0.764	1	3	1	2	7	0.294	0.745	0.584
11_1_117	MW-11D	App. I Metals	Nickel	ug/L	74%	4	5	5	5	19	0.815	0.782	0.792	1	2	1	1	5	0.362	0.193	0.352
11_1_122	MW-11D	App. I Metals	Silver	ug/L	100%	4	5	5	5	19	0.568	0.620	0.635	NA	NA	NA	NA	NA	NA	NA	NA
11_1_127	MW-11D	App. I Metals	Vanadium	ug/L	84%	4	5	5	5	19	0.679	0.494	0.605	0	1	1	1	3	0.368	NA	NA
11_1_128	MW-11D	App. I Metals	Zinc	ug/L	58%	4	5	5	5	19	0.739	0.524	0.603	2	2	3	1	8	0.423	0.003 **	0.183
11_2_105	MW-11D	App. III	Boron	ug/L	0%	4	5	5	5	19	0.844	0.807	0.901	4	5	5	5	19	0.844	0.807	0.901
11_2_107	MW-11D	App. III	Calcium	ug/L	0%	4	5	5	5	19	0.801	0.542	0.729	4	5	5	5	19	0.801	0.542	0.729
11_2_108	MW-11D	App. III	Chloride	mg/L	0%	4	5	5	5	19	0.785	0.713	0.926	4	5	5	5	19	0.785	0.713	0.926
11_2_112	MW-11D	App. III	Fluoride	mg/L	0%	4	5	5	5	19	0.969	0.860	0.888	4	5	5	5	19	0.969	0.860	0.888
11_2_118	MW-11D	App. III	pH (Field)	S.U.	0%	4	5	5	5	19	0.733	0.977	0.973	4	5	5	5	19	0.733	0.977	0.973
11_2_123	MW-11D	App. III	Sulfate	mg/L	5%	4	5	5	5	19	0.776	0.625	0.568	4	5	5	4	18	0.946	0.703	0.943
11_2_125	MW-11D	App. III	Total Dissolved Solids	mg/L	0%	4	5	5	5	19	0.917	0.653	0.722	4	5	5	5	19	0.917	0.653	0.722
11_3_101	MW-11D	App. IV	Antimony	ug/L	84%	4	5	5	5	19	0.115	0.109	0.166	0	2	1	0	3	0.221	0.491	0.590
11_3_102	MW-11D	App. IV	Arsenic	ug/L	53%	4	5	5	5	19	0.533	0.986	0.906	2	3	1	3	9	0.322	0.290	0.417
11_3_103	MW-11D	App. IV	Barium	ug/L	0%	4	5	5	5	19	0.720	0.979	0.956	4	5	5	5	19	0.720	0.979	0.956
11_3_104	MW-11D	App. IV	Beryllium	ug/L	95%	4	5	5	5	19	0.825	0.798	0.815	0	1	0	0	1	NA	NA	NA
11_3_106	MW-11D	App. IV	Cadmium	ug/L	100%	4	5	5	5	19	0.717	0.742	0.644	NA	NA	NA	NA	NA	NA	NA	NA
11_3_109	MW-11D	App. IV	Chromium	ug/L	74%	4	5	5	5	19	0.759	0.674	0.712	0	2	2	1	5	0.331	0.616	0.558
11_3_110	MW-11D	App. IV	Cobalt	ug/L	95%	4	5	5	5	19	0.825	0.896	0.889	0	1	0	0	1	NA	NA	NA
11_3_112	MW-11D	App. IV	Fluoride	mg/L	0%	4	5	5	5	19	0.969	0.860	0.888	4	5	5	5	19	0.969	0.860	0.888
11_3_113	MW-11D	App. IV	Lead	ug/L	95%	4	5	5	5	19	0.407	0.360	0.357	0	1	0	0	1	NA	NA	NA
11_3_114	MW-11D	App. IV	Lithium	ug/L	0%	4	5	5	5	19	0.987	0.790	0.909	4	5	5	5	19	0.987	0.790	0.909

(Table continues on next page)

*** p < 0.001, ** p < 0.01, * p < 0.05

Table 7: Seasonality Tests *(continued)*

						Full								Without Non-Detects							
						Sample Size					p-Value			Sample Size					p-Value		
ID	Well	Constituent Type	Constituent	Unit	% NDs	Winter	Spring	Summer	Fall	Total	Kruskal-Wallis	ANOVA	Log ANOVA	Winter	Spring	Summer	Fall	Total	Kruskal-Wallis	ANOVA	Log ANOVA
11_3_115	MW-11D	App. IV	Mercury	ug/L	100%	4	5	5	5	19	0.586	0.689	0.694	NA	NA	NA	NA	NA	NA	NA	NA
11_3_116	MW-11D	App. IV	Molybdenum	ug/L	5%	4	5	5	5	19	0.928	0.628	0.952	3	5	5	5	18	0.975	0.682	0.989
11_3_119	MW-11D	App. IV	Radium-226	pCi/L	0%	4	5	5	5	19	0.446	0.497	NA	4	5	5	5	19	0.446	0.497	NA
11_3_120	MW-11D	App. IV	Radium-228	pCi/L	0%	4	5	5	5	19	0.153	0.321	0.293	4	5	5	5	19	0.153	0.321	0.293
11_3_121	MW-11D	App. IV	Selenium	ug/L	89%	4	5	5	5	19	0.818	0.726	0.553	0	1	1	0	2	0.317	NA	NA
11_3_124	MW-11D	App. IV	Thallium	ug/L	95%	4	5	5	5	19	0.686	0.584	0.653	0	1	0	0	1	NA	NA	NA
11_3_126	MW-11D	App. IV	Total Radium	pCi/L	0%	4	5	5	5	19	0.704	0.766	0.667	4	5	5	5	19	0.704	0.766	0.667

*** p < 0.001, ** p < 0.01, * p < 0.05

Table 8: Trend Tests: Lognormal MLE and MK

ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	Type	Method	Slope	p-value	Trend
01_2_107	MW-1	App. III	Calcium	ug/L	42	0	0%	Parametric	Lognormal MLE	0.000138	0.047	↔
01_2_108	MW-1	App. III	Chloride	mg/L	42	0	0%	Parametric	Lognormal MLE	0.0000729	0.372	↔
01_2_112	MW-1	App. III	Fluoride	mg/L	42	1	2%	Nonparametric	MK	0.0000102	0.003	↑
01_2_118	MW-1	App. III	pH (Field)	S.U.	40	0	0%	Parametric	Lognormal MLE	0.00000573	0.189	↔
01_2_123	MW-1	App. III	Sulfate	mg/L	42	0	0%	Nonparametric	MK	-0.000917	0.000	↓
01_2_125	MW-1	App. III	Total Dissolved Solids	mg/L	42	0	0%	Parametric	Lognormal MLE	0.0000988	0.175	↔
01_3_103	MW-1	App. IV	Barium	ug/L	42	0	0%	Parametric	Lognormal MLE	0.0000517	0.497	↔
01_3_112	MW-1	App. IV	Fluoride	mg/L	42	1	2%	Nonparametric	MK	0.0000102	0.003	↑
01_3_114	MW-1	App. IV	Lithium	ug/L	42	0	0%	Parametric	Lognormal MLE	0.0000438	0.069	↔
01_3_126	MW-1	App. IV	Total Radium	pCi/L	40	0	0%	Parametric	Lognormal MLE	0.0000190	0.783	↔
02_1_117	MW-2	App. I Metals	Nickel	ug/L	37	12	32%	Parametric	Lognormal MLE	0.000268	0.231	↔
02_2_105	MW-2	App. III	Boron	ug/L	36	1	3%	Parametric	Lognormal MLE	-0.0000320	0.464	↔
02_2_107	MW-2	App. III	Calcium	ug/L	37	0	0%	Nonparametric	MK	-6.24	0.043	↔
02_2_108	MW-2	App. III	Chloride	mg/L	37	0	0%	Parametric	Lognormal MLE	-0.0000683	0.010	↔
02_2_112	MW-2	App. III	Fluoride	mg/L	37	2	5%	Parametric	Lognormal MLE	0.0000294	0.689	↔
02_2_118	MW-2	App. III	pH (Field)	S.U.	33	0	0%	Nonparametric	MK	-0.0000719	0.001	↓
02_2_123	MW-2	App. III	Sulfate	mg/L	37	0	0%	Nonparametric	MK	-0.0395	0.000	↓
02_2_125	MW-2	App. III	Total Dissolved Solids	mg/L	37	0	0%	Nonparametric	MK	-0.0525	0.301	↔
02_3_103	MW-2	App. IV	Barium	ug/L	37	0	0%	Nonparametric	MK	0.0285	0.002	↑
02_3_112	MW-2	App. IV	Fluoride	mg/L	37	2	5%	Parametric	Lognormal MLE	0.0000294	0.689	↔
02_3_114	MW-2	App. IV	Lithium	ug/L	37	0	0%	Nonparametric	MK	-0.000867	0.814	↔
02_3_116	MW-2	App. IV	Molybdenum	ug/L	37	6	16%	Parametric	Lognormal MLE	-0.000390	0.000	↓
02_3_120	MW-2	App. IV	Radium-228	pCi/L	36	0	0%	Parametric	Lognormal MLE	0.0000561	0.272	↔
02_3_126	MW-2	App. IV	Total Radium	pCi/L	36	0	0%	Parametric	Lognormal MLE	-0.00000109	0.983	↔
03_2_105	MW-3	App. III	Boron	ug/L	39	10	26%	Parametric	Lognormal MLE	0.000604	0.010	↑
03_2_107	MW-3	App. III	Calcium	ug/L	40	0	0%	Nonparametric	MK	7.51	0.006	↑
03_2_108	MW-3	App. III	Chloride	mg/L	40	0	0%	Parametric	Lognormal MLE	-0.0000349	0.062	↔
03_2_112	MW-3	App. III	Fluoride	mg/L	40	1	2%	Parametric	Lognormal MLE	0.0000335	0.659	↔
03_2_118	MW-3	App. III	pH (Field)	S.U.	36	0	0%	Nonparametric	MK	0.0000326	0.048	↔
03_2_123	MW-3	App. III	Sulfate	mg/L	40	0	0%	Nonparametric	MK	-0.0212	0.000	↓
03_2_125	MW-3	App. III	Total Dissolved Solids	mg/L	40	0	0%	Nonparametric	MK	0.111	0.044	↔
03_3_103	MW-3	App. IV	Barium	ug/L	40	0	0%	Parametric	Lognormal MLE	0.0000693	0.002	↑
03_3_112	MW-3	App. IV	Fluoride	mg/L	40	1	2%	Parametric	Lognormal MLE	0.0000335	0.659	↔
03_3_114	MW-3	App. IV	Lithium	ug/L	40	1	2%	Nonparametric	MK	-0.00141	0.449	↔
03_3_116	MW-3	App. IV	Molybdenum	ug/L	40	1	2%	Nonparametric	MK	-0.000741	0.028	↔
03_3_119	MW-3	App. IV	Radium-226	pCi/L	39	0	0%	Parametric	Lognormal MLE	0.0000740	0.236	↔
03_3_120	MW-3	App. IV	Radium-228	pCi/L	39	0	0%	Parametric	Lognormal MLE	0.0000797	0.230	↔
03_3_126	MW-3	App. IV	Total Radium	pCi/L	39	0	0%	Parametric	Lognormal MLE	0.0000619	0.181	↔
04_1_117	MW-4	App. I Metals	Nickel	ug/L	41	11	27%	Parametric	Lognormal MLE	0.000496	0.000	↑
04_2_107	MW-4	App. III	Calcium	ug/L	41	0	0%	Nonparametric	MK	-1.95	0.312	↔
04_2_108	MW-4	App. III	Chloride	mg/L	41	0	0%	Nonparametric	MK	-0.0581	0.001	↓
04_2_112	MW-4	App. III	Fluoride	mg/L	41	0	0%	Parametric	Lognormal MLE	0.0000558	0.015	↔
04_2_118	MW-4	App. III	pH (Field)	S.U.	39	0	0%	Parametric	Lognormal MLE	-0.00000993	0.000	↓

(Table continues on next page)

Table 8: Trend Tests: Lognormal MLE and MK *(continued)*

ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	Type	Method	Slope	p-value	Trend
04_2_123	MW-4	App. III	Sulfate	mg/L	41	0	0%	Nonparametric	MK	0.000599	0.046	↔
04_2_125	MW-4	App. III	Total Dissolved Solids	mg/L	41	0	0%	Nonparametric	MK	0	0.893	↔
04_3_103	MW-4	App. IV	Barium	ug/L	41	0	0%	Nonparametric	MK	0.0158	0.032	↔
04_3_110	MW-4	App. IV	Cobalt	ug/L	41	20	49%	Parametric	Lognormal MLE	0.000841	0.000	↑
04_3_112	MW-4	App. IV	Fluoride	mg/L	41	0	0%	Parametric	Lognormal MLE	0.0000558	0.015	↔
04_3_114	MW-4	App. IV	Lithium	ug/L	41	0	0%	Nonparametric	MK	0.00524	0.000	↑
04_3_126	MW-4	App. IV	Total Radium	pCi/L	39	0	0%	Parametric	Lognormal MLE	-0.0000232	0.774	↔
05_2_107	MW-5	App. III	Calcium	ug/L	42	0	0%	Parametric	Lognormal MLE	-0.000125	0.000	↓
05_2_108	MW-5	App. III	Chloride	mg/L	42	0	0%	Parametric	Lognormal MLE	-0.0000117	0.284	↔
05_2_112	MW-5	App. III	Fluoride	mg/L	42	0	0%	Parametric	Lognormal MLE	0.0000210	0.145	↔
05_2_118	MW-5	App. III	pH (Field)	S.U.	39	0	0%	Nonparametric	MK	-0.0000649	0.044	↔
05_2_123	MW-5	App. III	Sulfate	mg/L	42	0	0%	Parametric	Lognormal MLE	-0.0000153	0.482	↔
05_2_125	MW-5	App. III	Total Dissolved Solids	mg/L	42	0	0%	Nonparametric	MK	-0.0135	0.000	↓
05_3_103	MW-5	App. IV	Barium	ug/L	42	0	0%	Parametric	Lognormal MLE	-0.0000588	0.002	↓
05_3_112	MW-5	App. IV	Fluoride	mg/L	42	0	0%	Parametric	Lognormal MLE	0.0000210	0.145	↔
05_3_114	MW-5	App. IV	Lithium	ug/L	42	1	2%	Nonparametric	MK	0.000565	0.002	↑
05_3_126	MW-5	App. IV	Total Radium	pCi/L	40	0	0%	Parametric	Lognormal MLE	0.000116	0.337	↔
06_2_107	MW-6	App. III	Calcium	ug/L	41	0	0%	Parametric	Lognormal MLE	-0.0000103	0.230	↔
06_2_108	MW-6	App. III	Chloride	mg/L	41	0	0%	Nonparametric	MK	-0.0215	0.000	↓
06_2_112	MW-6	App. III	Fluoride	mg/L	41	1	2%	Parametric	Lognormal MLE	-0.0000457	0.365	↔
06_2_118	MW-6	App. III	pH (Field)	S.U.	38	0	0%	Nonparametric	MK	-0.0000461	0.051	↔
06_2_123	MW-6	App. III	Sulfate	mg/L	41	0	0%	Nonparametric	MK	-0.0160	0.000	↓
06_2_125	MW-6	App. III	Total Dissolved Solids	mg/L	41	0	0%	Parametric	Lognormal MLE	-0.0000508	0.012	↔
06_3_103	MW-6	App. IV	Barium	ug/L	41	0	0%	Nonparametric	MK	-0.0175	0.000	↓
06_3_112	MW-6	App. IV	Fluoride	mg/L	41	1	2%	Parametric	Lognormal MLE	-0.0000457	0.365	↔
06_3_114	MW-6	App. IV	Lithium	ug/L	41	0	0%	Nonparametric	MK	-0.00561	0.000	↓
06_3_126	MW-6	App. IV	Total Radium	pCi/L	39	0	0%	Parametric	Lognormal MLE	-0.0000643	0.573	↔
07_1_127	MW-7R	App. I Metals	Vanadium	ug/L	33	16	48%	Parametric	Lognormal MLE	0.000122	0.563	↔
07_2_107	MW-7R	App. III	Calcium	ug/L	33	0	0%	Parametric	Lognormal MLE	0.0000282	0.035	↔
07_2_108	MW-7R	App. III	Chloride	mg/L	33	0	0%	Nonparametric	MK	-0.0109	0.002	↓
07_2_112	MW-7R	App. III	Fluoride	mg/L	33	1	3%	Nonparametric	MK	0.00000787	0.059	↔
07_2_118	MW-7R	App. III	pH (Field)	S.U.	32	0	0%	Nonparametric	MK	-0.0000274	0.435	↔
07_2_123	MW-7R	App. III	Sulfate	mg/L	33	0	0%	Nonparametric	MK	-0.00187	0.000	↓
07_2_125	MW-7R	App. III	Total Dissolved Solids	mg/L	33	0	0%	Parametric	Lognormal MLE	0.0000331	0.004	↑
07_3_103	MW-7R	App. IV	Barium	ug/L	33	0	0%	Nonparametric	MK	0.0259	0.001	↑
07_3_112	MW-7R	App. IV	Fluoride	mg/L	33	1	3%	Nonparametric	MK	0.00000787	0.059	↔
07_3_114	MW-7R	App. IV	Lithium	ug/L	33	0	0%	Nonparametric	MK	0.00206	0.023	↔
07_3_126	MW-7R	App. IV	Total Radium	pCi/L	31	0	0%	Parametric	Lognormal MLE	-0.0000247	0.881	↔
08_2_105	MW-8	App. III	Boron	ug/L	41	15	37%	Parametric	Lognormal MLE	0.000395	0.027	↔
08_2_107	MW-8	App. III	Calcium	ug/L	42	0	0%	Nonparametric	MK	-4.78	0.081	↔
08_2_108	MW-8	App. III	Chloride	mg/L	42	0	0%	Nonparametric	MK	-0.0457	0.001	↓
08_2_112	MW-8	App. III	Fluoride	mg/L	42	20	48%	Parametric	Lognormal MLE	0.000643	0.000	↑
08_2_118	MW-8	App. III	pH (Field)	S.U.	40	0	0%	Parametric	Lognormal MLE	0.00000732	0.003	↑

(Table continues on next page)

Table 8: Trend Tests: Lognormal MLE and MK *(continued)*

ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	Type	Method	Slope	p-value	Trend
08_2_123	MW-8	App. III	Sulfate	mg/L	42	0	0%	Parametric	Lognormal MLE	0.0000435	0.007	↑
08_2_125	MW-8	App. III	Total Dissolved Solids	mg/L	42	0	0%	Nonparametric	MK	0.00110	0.940	↔
08_3_103	MW-8	App. IV	Barium	ug/L	42	0	0%	Nonparametric	MK	-0.0379	0.025	↔
08_3_109	MW-8	App. IV	Chromium	ug/L	42	20	48%	Parametric	Lognormal MLE	0.000410	0.211	↔
08_3_112	MW-8	App. IV	Fluoride	mg/L	42	20	48%	Parametric	Lognormal MLE	0.000643	0.000	↑
08_3_114	MW-8	App. IV	Lithium	ug/L	42	1	2%	Parametric	Lognormal MLE	-0.0000293	0.572	↔
08_3_119	MW-8	App. IV	Radium-226	pCi/L	40	0	0%	Nonparametric	MK	-0.000117	0.071	↔
08_3_120	MW-8	App. IV	Radium-228	pCi/L	40	0	0%	Nonparametric	MK	-0.0000217	0.658	↔
08_3_126	MW-8	App. IV	Total Radium	pCi/L	40	0	0%	Nonparametric	MK	-0.0000860	0.249	↔
09_1_117	MW-10	App. I Metals	Nickel	ug/L	18	6	33%	Parametric	Lognormal MLE	-0.000675	0.202	↔
09_2_105	MW-10	App. III	Boron	ug/L	18	0	0%	Parametric	Lognormal MLE	0.000230	0.003	↑
09_2_107	MW-10	App. III	Calcium	ug/L	18	0	0%	Parametric	Lognormal MLE	0.0000364	0.413	↔
09_2_108	MW-10	App. III	Chloride	mg/L	18	0	0%	Parametric	Lognormal MLE	-0.00000360	0.836	↔
09_2_112	MW-10	App. III	Fluoride	mg/L	18	0	0%	Parametric	Lognormal MLE	-0.000131	0.000	↓
09_2_118	MW-10	App. III	pH (Field)	S.U.	19	0	0%	Parametric	Lognormal MLE	0.00000754	0.338	↔
09_2_123	MW-10	App. III	Sulfate	mg/L	18	0	0%	Parametric	Lognormal MLE	-0.000975	0.000	↓
09_2_125	MW-10	App. III	Total Dissolved Solids	mg/L	18	0	0%	Parametric	Lognormal MLE	-0.00000108	0.949	↔
09_3_103	MW-10	App. IV	Barium	ug/L	18	0	0%	Nonparametric	MK	0.0343	0.000	↑
09_3_109	MW-10	App. IV	Chromium	ug/L	18	6	33%	Parametric	Lognormal MLE	-0.00171	0.016	↔
09_3_112	MW-10	App. IV	Fluoride	mg/L	18	0	0%	Parametric	Lognormal MLE	-0.000131	0.000	↓
09_3_114	MW-10	App. IV	Lithium	ug/L	18	0	0%	Nonparametric	MK	0.00383	0.000	↑
09_3_116	MW-10	App. IV	Molybdenum	ug/L	18	0	0%	Parametric	Lognormal MLE	-0.000355	0.000	↓
10_1_111	MW-11	App. I Metals	Copper	ug/L	21	10	48%	Parametric	Lognormal MLE	0.000241	0.682	↔
10_2_105	MW-11	App. III	Boron	ug/L	21	1	5%	Parametric	Lognormal MLE	0.000104	0.220	↔
10_2_107	MW-11	App. III	Calcium	ug/L	21	0	0%	Nonparametric	MK	-1.37	0.264	↔
10_2_108	MW-11	App. III	Chloride	mg/L	21	0	0%	Parametric	Lognormal MLE	-0.0000338	0.593	↔
10_2_112	MW-11	App. III	Fluoride	mg/L	21	1	5%	Parametric	Lognormal MLE	0.0000144	0.903	↔
10_2_118	MW-11	App. III	pH (Field)	S.U.	20	0	0%	Nonparametric	MK	-0.0000452	0.626	↔
10_2_123	MW-11	App. III	Sulfate	mg/L	21	0	0%	Parametric	Lognormal MLE	-0.0000139	0.772	↔
10_2_125	MW-11	App. III	Total Dissolved Solids	mg/L	21	0	0%	Nonparametric	MK	-0.00755	0.566	↔
10_3_103	MW-11	App. IV	Barium	ug/L	21	0	0%	Nonparametric	MK	-0.00481	0.165	↔
10_3_112	MW-11	App. IV	Fluoride	mg/L	21	1	5%	Parametric	Lognormal MLE	0.0000144	0.903	↔
10_3_114	MW-11	App. IV	Lithium	ug/L	21	0	0%	Nonparametric	MK	0.000151	0.856	↔
10_3_120	MW-11	App. IV	Radium-228	pCi/L	21	0	0%	Nonparametric	MK	0.000257	0.156	↔
10_3_126	MW-11	App. IV	Total Radium	pCi/L	21	0	0%	Parametric	Lognormal MLE	0.000441	0.097	↔
11_2_105	MW-11D	App. III	Boron	ug/L	19	0	0%	Nonparametric	MK	-0.00869	0.013	↔
11_2_107	MW-11D	App. III	Calcium	ug/L	19	0	0%	Nonparametric	MK	-7.06	0.001	↓
11_2_108	MW-11D	App. III	Chloride	mg/L	19	0	0%	Nonparametric	MK	-0.0604	0.000	↓
11_2_112	MW-11D	App. III	Fluoride	mg/L	19	0	0%	Parametric	Lognormal MLE	-0.000139	0.000	↓
11_2_118	MW-11D	App. III	pH (Field)	S.U.	19	0	0%	Parametric	Lognormal MLE	-0.0000453	0.000	↓
11_2_123	MW-11D	App. III	Sulfate	mg/L	19	1	5%	Nonparametric	MK	-0.0613	0.001	↓
11_2_125	MW-11D	App. III	Total Dissolved Solids	mg/L	19	0	0%	Nonparametric	MK	-0.233	0.000	↓
11_3_103	MW-11D	App. IV	Barium	ug/L	19	0	0%	Nonparametric	MK	0.00749	0.421	↔

(Table continues on next page)

Table 8: Trend Tests: Lognormal MLE and MK *(continued)*

ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	Type	Method	Slope	p-value	Trend
11_3_112	MW-11D	App. IV	Fluoride	mg/L	19	0	0%	Parametric	Lognormal MLE	-0.000139	0.000	↓
11_3_114	MW-11D	App. IV	Lithium	ug/L	19	0	0%	Parametric	Lognormal MLE	-0.000765	0.000	↓
11_3_116	MW-11D	App. IV	Molybdenum	ug/L	19	1	5%	Parametric	Lognormal MLE	-0.00193	0.000	↓
11_3_120	MW-11D	App. IV	Radium-228	pCi/L	19	0	0%	Parametric	Lognormal MLE	-0.000430	0.274	↔
11_3_126	MW-11D	App. IV	Total Radium	pCi/L	19	0	0%	Parametric	Lognormal MLE	-0.000746	0.013	↔

Table 9: Trend Tests: Piecewise Linear-Linear

								Line 1			Line 2				
ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	Slope	p-Value	Trend	Slope	p-Value	Trend	Break 1	R-Squared
01_1_111	MW-1	App. I Metals	Copper	ug/L	42	33	79%	0.0014368	0.010	↔	-0.0038961	0.014	↔	2022-04-20	0.292
01_1_117	MW-1	App. I Metals	Nickel	ug/L	42	29	69%	-0.00013683	0.729	↔	0.0022872	0.845	↔	2024-10-30	0.005
01_1_122	MW-1	App. I Metals	Silver	ug/L	42	35	83%	> -0.0001	1.000	↔	-0.00091206	0.000	↓	2020-06-09	0.560
01_1_127	MW-1	App. I Metals	Vanadium	ug/L	42	25	60%	0.00022489	0.406	↔	0.0076147	0.527	↔	2025-02-10	0.083
01_1_128	MW-1	App. I Metals	Zinc	ug/L	42	25	60%	0.0014178	0.295	↔	-0.0093859	0.532	↔	2024-01-27	0.042
01_2_105	MW-1	App. III	Boron	ug/L	41	22	54%	-0.026196	0.193	↔	0.0071615	0.000	↑	2017-05-12	0.326
01_2_107	MW-1	App. III	Calcium	ug/L	42	0	0%	74.998	0.000	↑	-93.103	0.008	↓	2021-12-18	0.451
01_2_108	MW-1	App. III	Chloride	mg/L	42	0	0%	0.33303	0.001	↑	-0.1978	0.032	↔	2020-07-08	0.353
01_2_112	MW-1	App. III	Fluoride	mg/L	42	1	2%	< 0.0001	0.000	↑	-0.00019781	0.133	↔	2025-01-13	0.309
01_2_118	MW-1	App. III	pH (Field)	S.U.	40	0	0%	-0.00019674	0.312	↔	0.0001315	0.018	↔	2019-01-23	0.168
01_2_123	MW-1	App. III	Sulfate	mg/L	42	0	0%	-0.0044923	0.000	↓	-0.00056506	0.001	↓	2017-12-10	0.793
01_2_125	MW-1	App. III	Total Dissolved Solids	mg/L	42	0	0%	0.77006	0.000	↑	-0.89586	0.004	↓	2021-08-18	0.464
01_3_101	MW-1	App. IV	Antimony	ug/L	42	40	95%	-0.00066687	0.094	↔	0.00056754	0.147	↔	2020-08-25	0.121
01_3_102	MW-1	App. IV	Arsenic	ug/L	42	38	90%	0.0058232	0.008	↑	-0.00052315	0.009	↓	2017-05-21	0.396
01_3_103	MW-1	App. IV	Barium	ug/L	42	0	0%	0.075427	0.002	↑	-0.12844	0.025	↔	2022-03-07	0.301
01_3_104	MW-1	App. IV	Beryllium	ug/L	42	42	100%	< 0.0001	0.892	↔	-0.00018172	0.071	↔	2021-08-09	0.172
01_3_106	MW-1	App. IV	Cadmium	ug/L	42	39	93%	> -0.0001	0.000	↓	0.00076441	0.052	↔	2024-11-21	0.499
01_3_109	MW-1	App. IV	Chromium	ug/L	42	28	67%	0.0040561	0.382	↔	-0.00095177	0.191	↔	2018-01-24	0.070
01_3_110	MW-1	App. IV	Cobalt	ug/L	42	37	88%	0.00015617	0.621	↔	-0.0013262	0.009	↓	2021-08-09	0.288
01_3_112	MW-1	App. IV	Fluoride	mg/L	42	1	2%	< 0.0001	0.000	↑	-0.00019781	0.133	↔	2025-01-13	0.309
01_3_113	MW-1	App. IV	Lead	ug/L	42	37	88%	0.00039063	0.325	↔	0.0017025	0.699	↔	2024-01-23	0.074
01_3_114	MW-1	App. IV	Lithium	ug/L	42	0	0%	0.0046777	0.005	↑	-0.0047388	0.098	↔	2021-10-07	0.260
01_3_115	MW-1	App. IV	Mercury	ug/L	42	42	100%	< 0.0001	0.000	↑	-0.00015811	0.000	↓	2024-12-10	0.672
01_3_116	MW-1	App. IV	Molybdenum	ug/L	42	37	88%	0.0031369	0.037	↔	-0.0023201	0.006	↓	2019-10-13	0.258
01_3_119	MW-1	App. IV	Radium-226	pCi/L	40	0	0%	0.00024792	0.159	↔	-0.00033712	0.000	↓	2019-06-20	0.404
01_3_120	MW-1	App. IV	Radium-228	pCi/L	40	0	0%	0.00019611	0.264	↔	< 0.0001	0.815	↔	2019-07-09	0.125
01_3_121	MW-1	App. IV	Selenium	ug/L	42	40	95%	-0.00044742	0.000	↓	0.0060914	0.015	↔	2024-09-25	0.390
01_3_124	MW-1	App. IV	Thallium	ug/L	42	42	100%	-0.0116	0.000	↓	> -0.0001	0.963	↔	2017-04-24	0.943
01_3_126	MW-1	App. IV	Total Radium	pCi/L	40	0	0%	0.00041931	0.154	↔	-0.00021109	0.077	↔	2019-04-17	0.134
02_1_111	MW-2	App. I Metals	Copper	ug/L	37	15	41%	0.029916	0.058	↔	-0.042205	0.168	↔	2021-11-18	0.153
02_1_117	MW-2	App. I Metals	Nickel	ug/L	37	12	32%	0.0062448	0.245	↔	-0.016296	0.435	↔	2022-10-19	0.058

(Table continues on next page)

Table 9: Trend Tests: Piecewise Linear-Linear *(continued)*

								Line 1			Line 2				
ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	Slope	p-Value	Trend	Slope	p-Value	Trend	Break 1	R-Squared
02_1_122	MW-2	App. I Metals	Silver	ug/L	37	34	92%	-0.00059045	0.000	↓	0.0087943	0.329	↔	2025-04-23	0.564
02_1_127	MW-2	App. I Metals	Vanadium	ug/L	37	25	68%	0.0015544	0.119	↔	-0.015963	0.866	↔	2025-04-02	0.073
02_1_128	MW-2	App. I Metals	Zinc	ug/L	37	16	43%	-0.010103	0.883	↔	0.22641	0.235	↔	2022-05-24	0.104
02_2_105	MW-2	App. III	Boron	ug/L	36	1	3%	-0.0014645	0.270	↔	0.10237	0.425	↔	2025-04-28	0.129
02_2_107	MW-2	App. III	Calcium	ug/L	37	0	0%	49.924	0.448	↔	-14.306	0.030	↔	2017-06-25	0.151
02_2_108	MW-2	App. III	Chloride	mg/L	37	0	0%	0.56389	0.217	↔	-0.11029	0.001	↓	2017-01-26	0.312
02_2_112	MW-2	App. III	Fluoride	mg/L	37	2	5%	-0.00066657	0.292	↔	< 0.0001	0.680	↔	2016-05-02	0.110
02_2_118	MW-2	App. III	pH (Field)	S.U.	33	0	0%	> -0.0001	0.643	↔	-0.00041559	0.591	↔	2024-01-28	0.063
02_2_123	MW-2	App. III	Sulfate	mg/L	37	0	0%	-0.11994	0.000	↓	-0.011944	0.393	↔	2019-09-27	0.772
02_2_125	MW-2	App. III	Total Dissolved Solids	mg/L	37	0	0%	1.3015	0.210	↔	-1.0019	0.095	↔	2020-01-16	0.124
02_3_101	MW-2	App. IV	Antimony	ug/L	37	23	62%	-0.011423	0.143	↔	0.00055811	0.583	↔	2017-07-18	0.147
02_3_102	MW-2	App. IV	Arsenic	ug/L	37	26	70%	0.005812	0.139	↔	< 0.0001	0.928	↔	2017-05-12	0.230
02_3_103	MW-2	App. IV	Barium	ug/L	37	0	0%	0.057447	0.076	↔	-0.002984	0.934	↔	2021-04-14	0.242
02_3_104	MW-2	App. IV	Beryllium	ug/L	37	34	92%	< 0.0001	0.582	↔	-0.00017907	0.077	↔	2021-04-14	0.138
02_3_106	MW-2	App. IV	Cadmium	ug/L	37	33	89%	> -0.0001	0.000	↓	0.00040221	0.017	↔	2024-02-22	0.505
02_3_109	MW-2	App. IV	Chromium	ug/L	37	6	16%	0.037571	0.625	↔	-0.0050475	0.338	↔	2017-04-04	0.039
02_3_110	MW-2	App. IV	Cobalt	ug/L	37	28	76%	0.0013395	0.232	↔	-0.004244	0.662	↔	2023-10-10	0.049
02_3_112	MW-2	App. IV	Fluoride	mg/L	37	2	5%	-0.00066657	0.292	↔	< 0.0001	0.680	↔	2016-05-02	0.110
02_3_113	MW-2	App. IV	Lead	ug/L	37	31	84%	0.0016928	0.030	↔	-0.024675	0.736	↔	2025-04-02	0.139
02_3_114	MW-2	App. IV	Lithium	ug/L	37	0	0%	0.012491	0.669	↔	-0.046555	0.339	↔	2021-08-10	0.049
02_3_115	MW-2	App. IV	Mercury	ug/L	37	37	100%	< 0.0001	0.000	↑	-0.00015933	0.000	↓	2024-12-11	0.706
02_3_116	MW-2	App. IV	Molybdenum	ug/L	37	6	16%	-0.074068	0.243	↔	-0.0019575	0.073	↔	2016-04-06	0.261
02_3_119	MW-2	App. IV	Radium-226	pCi/L	36	0	0%	> -0.0001	0.831	↔	-0.0018742	0.777	↔	2025-04-02	0.032
02_3_120	MW-2	App. IV	Radium-228	pCi/L	36	0	0%	0.00021031	0.173	↔	-0.00017103	0.499	↔	2021-08-10	0.086
02_3_121	MW-2	App. IV	Selenium	ug/L	37	35	95%	-0.00040505	0.001	↓	0.0061085	0.011	↔	2024-10-09	0.421
02_3_124	MW-2	App. IV	Thallium	ug/L	37	24	65%	-0.014266	0.000	↓	< 0.0001	0.948	↔	2017-04-11	0.848
02_3_126	MW-2	App. IV	Total Radium	pCi/L	36	0	0%	< 0.0001	0.515	↔	-0.0031696	0.780	↔	2025-04-02	0.028
03_1_111	MW-3	App. I Metals	Copper	ug/L	40	21	52%	0.010887	0.064	↔	-0.023045	0.159	↔	2022-04-20	0.139
03_1_117	MW-3	App. I Metals	Nickel	ug/L	40	20	50%	0.016679	0.133	↔	-0.0085675	0.038	↔	2019-01-24	0.163
03_1_122	MW-3	App. I Metals	Silver	ug/L	40	38	95%	-0.00058147	0.000	↓	0.0074045	0.389	↔	2025-04-06	0.543
03_1_127	MW-3	App. I Metals	Vanadium	ug/L	40	25	62%	0.0032508	0.024	↔	-0.0013539	0.033	↔	2019-01-25	0.228
03_1_128	MW-3	App. I Metals	Zinc	ug/L	40	28	70%	0.0085676	0.115	↔	-0.0024576	0.215	↔	2019-01-24	0.133
03_2_105	MW-3	App. III	Boron	ug/L	39	10	26%	-0.096907	0.002	↓	0.014318	0.000	↑	2017-03-25	0.661
03_2_107	MW-3	App. III	Calcium	ug/L	40	0	0%	-55.026	0.486	↔	16.981	0.002	↑	2017-04-04	0.250
03_2_108	MW-3	App. III	Chloride	mg/L	40	0	0%	-0.48564	0.047	↔	0.0080459	0.717	↔	2017-05-25	0.317
03_2_112	MW-3	App. III	Fluoride	mg/L	40	1	2%	0.00040278	0.000	↑	> -0.0001	0.000	↓	2018-02-28	0.593
03_2_118	MW-3	App. III	pH (Field)	S.U.	36	0	0%	> -0.0001	0.727	↔	< 0.0001	0.280	↔	2018-07-17	0.065
03_2_123	MW-3	App. III	Sulfate	mg/L	40	0	0%	0.35526	0.006	↑	-0.041441	0.000	↓	2016-11-13	0.744
03_2_125	MW-3	App. III	Total Dissolved Solids	mg/L	40	0	0%	0.36858	0.069	↔	-0.02451	0.923	↔	2021-01-28	0.183
03_3_101	MW-3	App. IV	Antimony	ug/L	40	29	72%	-0.013437	0.006	↓	-0.00021225	0.626	↔	2017-04-05	0.484
03_3_102	MW-3	App. IV	Arsenic	ug/L	40	32	80%	0.0053593	0.034	↔	-0.00050088	0.108	↔	2017-08-30	0.274
03_3_103	MW-3	App. IV	Barium	ug/L	40	0	0%	-0.58632	0.002	↓	0.094058	0.000	↑	2017-04-04	0.699

(Table continues on next page)

Table 9: Trend Tests: Piecewise Linear-Linear *(continued)*

								Line 1			Line 2				
ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	Slope	p-Value	Trend	Slope	p-Value	Trend	Break 1	R-Squared
03_3_104	MW-3	App. IV	Beryllium	ug/L	40	40	100%	< 0.0001	0.665	↔	-0.00020112	0.025	↔	2021-04-13	0.230
03_3_106	MW-3	App. IV	Cadmium	ug/L	40	38	95%	> -0.0001	0.000	↓	0.001022	0.000	↑	2024-10-23	0.668
03_3_109	MW-3	App. IV	Chromium	ug/L	40	20	50%	0.032318	0.144	↔	-0.017971	0.030	↔	2019-01-24	0.170
03_3_110	MW-3	App. IV	Cobalt	ug/L	40	33	82%	0.00033602	0.380	↔	-0.0016308	0.002	↓	2021-04-13	0.364
03_3_112	MW-3	App. IV	Fluoride	mg/L	40	1	2%	0.00040278	0.000	↑	> -0.0001	0.000	↓	2018-02-28	0.593
03_3_113	MW-3	App. IV	Lead	ug/L	40	35	88%	0.00078224	0.341	↔	-0.00015391	0.883	↔	2021-04-13	0.055
03_3_114	MW-3	App. IV	Lithium	ug/L	40	1	2%	-0.028416	0.050	↔	0.014458	0.351	↔	2020-12-20	0.171
03_3_115	MW-3	App. IV	Mercury	ug/L	40	40	100%	< 0.0001	0.000	↑	-0.00015991	0.000	↓	2024-12-10	0.685
03_3_116	MW-3	App. IV	Molybdenum	ug/L	40	1	2%	-0.00049966	0.647	↔	-0.0034558	0.505	↔	2023-04-25	0.063
03_3_119	MW-3	App. IV	Radium-226	pCi/L	39	0	0%	0.00037041	0.296	↔	> -0.0001	0.478	↔	2018-09-03	0.072
03_3_120	MW-3	App. IV	Radium-228	pCi/L	39	0	0%	-0.00010498	0.547	↔	0.00042301	0.172	↔	2021-11-01	0.086
03_3_121	MW-3	App. IV	Selenium	ug/L	40	39	98%	-0.00046008	0.000	↓	0.006125	0.018	↔	2024-09-20	0.399
03_3_124	MW-3	App. IV	Thallium	ug/L	40	39	98%	-0.011584	0.000	↓	> -0.0001	0.955	↔	2017-04-23	0.942
03_3_126	MW-3	App. IV	Total Radium	pCi/L	39	0	0%	> -0.0001	0.935	↔	0.0017153	0.375	↔	2024-04-03	0.100
04_1_111	MW-4	App. I Metals	Copper	ug/L	41	35	85%	0.014339	0.093	↔	-0.023523	0.120	↔	2021-11-16	0.130
04_1_117	MW-4	App. I Metals	Nickel	ug/L	41	11	27%	0.0022561	0.000	↑	-0.014475	0.267	↔	2025-01-17	0.457
04_1_122	MW-4	App. I Metals	Silver	ug/L	41	41	100%	< 0.0001	1.000	↔	-0.00098066	0.000	↓	2020-06-10	0.562
04_1_127	MW-4	App. I Metals	Vanadium	ug/L	41	37	90%	0.00093875	0.213	↔	-0.00092987	0.140	↔	2020-05-09	0.096
04_1_128	MW-4	App. I Metals	Zinc	ug/L	41	24	59%	0.007013	0.038	↔	-0.0019481	0.478	↔	2020-04-17	0.186
04_2_105	MW-4	App. III	Boron	ug/L	40	23	57%	0.028696	0.508	↔	-0.0056272	0.304	↔	2017-10-09	0.045
04_2_107	MW-4	App. III	Calcium	ug/L	41	0	0%	75.542	0.000	↑	-5.0721	0.002	↓	2017-05-13	0.625
04_2_108	MW-4	App. III	Chloride	mg/L	41	0	0%	0.6875	0.000	↑	-0.079843	0.000	↓	2017-04-24	0.753
04_2_112	MW-4	App. III	Fluoride	mg/L	41	0	0%	> -0.0001	0.046	↔	< 0.0001	0.000	↑	2020-07-05	0.433
04_2_118	MW-4	App. III	pH (Field)	S.U.	39	0	0%	> -0.0001	0.000	↓	0.00034251	0.339	↔	2024-07-16	0.367
04_2_123	MW-4	App. III	Sulfate	mg/L	41	0	0%	0.0087496	0.000	↑	-0.00018907	0.517	↔	2017-11-22	0.674
04_2_125	MW-4	App. III	Total Dissolved Solids	mg/L	41	0	0%	1.0628	0.000	↑	-0.06714	0.014	↔	2017-09-08	0.687
04_3_101	MW-4	App. IV	Antimony	ug/L	41	36	88%	-0.00011076	0.516	↔	0.005194	0.496	↔	2025-02-10	0.045
04_3_102	MW-4	App. IV	Arsenic	ug/L	41	39	95%	0.0058018	0.018	↔	-0.00058035	0.011	↔	2017-05-23	0.345
04_3_103	MW-4	App. IV	Barium	ug/L	41	0	0%	0.37151	0.005	↑	0.0010426	0.898	↔	2017-04-03	0.615
04_3_104	MW-4	App. IV	Beryllium	ug/L	41	41	100%	< 0.0001	0.898	↔	-0.00018123	0.076	↔	2021-08-11	0.170
04_3_106	MW-4	App. IV	Cadmium	ug/L	41	40	98%	> -0.0001	0.000	↓	0.00075838	0.001	↑	2024-10-24	0.690
04_3_109	MW-4	App. IV	Chromium	ug/L	41	30	73%	0.00073547	0.128	↔	-0.0028851	0.016	↔	2022-04-20	0.234
04_3_110	MW-4	App. IV	Cobalt	ug/L	41	20	49%	0.0041868	0.000	↑	-0.02282	0.425	↔	2024-12-20	0.370
04_3_112	MW-4	App. IV	Fluoride	mg/L	41	0	0%	> -0.0001	0.046	↔	< 0.0001	0.000	↑	2020-07-05	0.433
04_3_113	MW-4	App. IV	Lead	ug/L	41	40	98%	0.00055472	0.119	↔	-0.0055864	0.595	↔	2024-10-31	0.072
04_3_114	MW-4	App. IV	Lithium	ug/L	41	0	0%	0.014723	0.794	↔	0.0051325	0.013	↔	2017-01-24	0.271
04_3_115	MW-4	App. IV	Mercury	ug/L	41	41	100%	< 0.0001	0.000	↑	> -0.0001	0.006	↓	2023-05-26	0.479
04_3_116	MW-4	App. IV	Molybdenum	ug/L	41	35	85%	0.0045073	0.077	↔	-0.0031101	0.045	↔	2019-10-14	0.171
04_3_119	MW-4	App. IV	Radium-226	pCi/L	39	0	0%	0.00073295	0.366	↔	> -0.0001	0.097	↔	2017-04-04	0.112
04_3_120	MW-4	App. IV	Radium-228	pCi/L	39	0	0%	0.0011115	0.138	↔	-0.00010385	0.152	↔	2017-04-05	0.140
04_3_121	MW-4	App. IV	Selenium	ug/L	41	38	93%	-0.00043993	0.001	↓	0.0063266	0.023	↔	2024-10-03	0.347
04_3_124	MW-4	App. IV	Thallium	ug/L	41	41	100%	-0.011557	0.000	↓	> -0.0001	0.918	↔	2017-04-24	0.943

(Table continues on next page)

Table 9: Trend Tests: Piecewise Linear-Linear *(continued)*

								Line 1			Line 2				
ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	Slope	p-Value	Trend	Slope	p-Value	Trend	Break 1	R-Squared
04_3_126	MW-4	App. IV	Total Radium	pCi/L	39	0	0%	0.0017898	0.062	↔	-0.00018915	0.042	↔	2017-04-05	0.216
05_1_111	MW-5	App. I Metals	Copper	ug/L	42	29	69%	0.0015541	0.008	↑	-0.0041654	0.003	↓	2022-04-18	0.332
05_1_117	MW-5	App. I Metals	Nickel	ug/L	42	32	76%	0.0064177	0.156	↔	-0.014718	0.327	↔	2022-07-13	0.076
05_1_122	MW-5	App. I Metals	Silver	ug/L	42	42	100%	< 0.0001	1.000	↔	-0.00098153	0.000	↓	2020-06-10	0.567
05_1_127	MW-5	App. I Metals	Vanadium	ug/L	42	39	93%	-0.00019783	0.224	↔	0.013509	0.066	↔	2025-03-27	0.178
05_1_128	MW-5	App. I Metals	Zinc	ug/L	42	25	60%	-0.00053697	0.742	↔	0.025973	0.158	↔	2024-04-01	0.125
05_2_105	MW-5	App. III	Boron	ug/L	41	15	37%	-0.005773	0.217	↔	0.0024686	0.132	↔	2019-01-23	0.100
05_2_107	MW-5	App. III	Calcium	ug/L	42	0	0%	0.29275	0.746	↔	-2.1789	0.000	↓	2019-07-24	0.522
05_2_108	MW-5	App. III	Chloride	mg/L	42	0	0%	0.0014127	0.039	↔	-0.0014964	0.004	↓	2020-03-19	0.276
05_2_112	MW-5	App. III	Fluoride	mg/L	42	0	0%	-0.00047988	0.393	↔	< 0.0001	0.090	↔	2016-04-15	0.093
05_2_118	MW-5	App. III	pH (Field)	S.U.	39	0	0%	-0.00014815	0.440	↔	< 0.0001	0.856	↔	2020-07-07	0.029
05_2_123	MW-5	App. III	Sulfate	mg/L	42	0	0%	0.0011367	0.368	↔	-0.00021267	0.069	↔	2017-07-18	0.110
05_2_125	MW-5	App. III	Total Dissolved Solids	mg/L	42	0	0%	0.20257	0.389	↔	-0.064134	0.030	↔	2017-10-16	0.133
05_3_101	MW-5	App. IV	Antimony	ug/L	42	40	95%	-0.00043812	0.190	↔	0.00047944	0.149	↔	2020-07-07	0.097
05_3_102	MW-5	App. IV	Arsenic	ug/L	42	40	95%	0.0058155	0.018	↔	-0.00059412	0.008	↓	2017-05-25	0.348
05_3_103	MW-5	App. IV	Barium	ug/L	42	0	0%	0.012628	0.118	↔	-0.015101	0.000	↓	2019-07-08	0.374
05_3_104	MW-5	App. IV	Beryllium	ug/L	42	42	100%	< 0.0001	0.891	↔	-0.00018188	0.071	↔	2021-08-08	0.172
05_3_106	MW-5	App. IV	Cadmium	ug/L	42	42	100%	> -0.0001	0.000	↓	0.0007513	0.000	↑	2024-10-20	0.695
05_3_109	MW-5	App. IV	Chromium	ug/L	42	29	69%	0.013869	0.161	↔	-0.03171	0.335	↔	2022-07-13	0.074
05_3_110	MW-5	App. IV	Cobalt	ug/L	42	40	95%	0.00022062	0.433	↔	-0.0017438	0.001	↓	2021-11-15	0.389
05_3_112	MW-5	App. IV	Fluoride	mg/L	42	0	0%	-0.00047988	0.393	↔	< 0.0001	0.090	↔	2016-04-15	0.093
05_3_113	MW-5	App. IV	Lead	ug/L	42	41	98%	0.00051567	0.129	↔	-0.0050383	0.614	↔	2024-10-28	0.066
05_3_114	MW-5	App. IV	Lithium	ug/L	42	1	2%	0.0018225	0.076	↔	-0.0011645	0.518	↔	2021-08-09	0.114
05_3_115	MW-5	App. IV	Mercury	ug/L	42	42	100%	< 0.0001	0.000	↑	-0.00015923	0.000	↓	2024-12-11	0.671
05_3_116	MW-5	App. IV	Molybdenum	ug/L	42	39	93%	0.0018465	0.054	↔	-0.0038051	0.157	↔	2022-04-19	0.138
05_3_119	MW-5	App. IV	Radium-226	pCi/L	40	0	0%	> -0.0001	0.552	↔	0.00031755	0.562	↔	2024-01-30	0.029
05_3_120	MW-5	App. IV	Radium-228	pCi/L	40	0	0%	-0.00021536	0.643	↔	< 0.0001	0.435	↔	2017-10-23	0.023
05_3_121	MW-5	App. IV	Selenium	ug/L	42	41	98%	-0.00046106	0.000	↓	0.0060806	0.015	↔	2024-09-18	0.398
05_3_124	MW-5	App. IV	Thallium	ug/L	42	41	98%	-0.01649	0.000	↓	> -0.0001	0.986	↔	2017-04-03	0.722
05_3_126	MW-5	App. IV	Total Radium	pCi/L	40	0	0%	-0.0044494	0.678	↔	< 0.0001	0.303	↔	2016-02-13	0.048
06_1_111	MW-6	App. I Metals	Copper	ug/L	41	33	80%	-0.00023942	0.712	↔	0.16493	0.009	↑	2025-04-02	0.667
06_1_117	MW-6	App. I Metals	Nickel	ug/L	41	28	68%	> -0.0001	0.914	↔	0.0047822	0.509	↔	2024-12-28	0.032
06_1_122	MW-6	App. I Metals	Silver	ug/L	41	41	100%	< 0.0001	1.000	↔	-0.00097247	0.000	↓	2020-06-20	0.557
06_1_127	MW-6	App. I Metals	Vanadium	ug/L	41	36	88%	> -0.0001	0.658	↔	0.018257	0.030	↔	2025-02-07	0.355
06_1_128	MW-6	App. I Metals	Zinc	ug/L	41	26	63%	0.0011659	0.192	↔	0.035479	0.362	↔	2025-01-22	0.191
06_2_105	MW-6	App. III	Boron	ug/L	40	23	57%	-0.018625	0.093	↔	0.0026997	0.000	↑	2017-01-23	0.613
06_2_107	MW-6	App. III	Calcium	ug/L	41	0	0%	-19.243	0.372	↔	-0.13646	0.700	↔	2016-04-28	0.100
06_2_108	MW-6	App. III	Chloride	mg/L	41	0	0%	0.099223	0.665	↔	-0.024283	0.004	↓	2017-01-17	0.209
06_2_112	MW-6	App. III	Fluoride	mg/L	41	1	2%	< 0.0001	0.465	↔	> -0.0001	0.068	↔	2018-01-11	0.100
06_2_118	MW-6	App. III	pH (Field)	S.U.	38	0	0%	-0.00016579	0.023	↔	< 0.0001	0.624	↔	2020-10-08	0.289
06_2_123	MW-6	App. III	Sulfate	mg/L	41	0	0%	-0.080412	0.000	↓	0.000666	0.949	↔	2020-01-20	0.690
06_2_125	MW-6	App. III	Total Dissolved Solids	mg/L	41	0	0%	-0.051439	0.067	↔	-0.01339	0.785	↔	2021-09-21	0.206

(Table continues on next page)

Table 9: Trend Tests: Piecewise Linear-Linear *(continued)*

								Line 1			Line 2				
ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	Slope	p-Value	Trend	Slope	p-Value	Trend	Break 1	R-Squared
06_3_101	MW-6	App. IV	Antimony	ug/L	41	41	100%	-0.00048645	0.140	↔	0.00052911	0.160	↔	2020-12-06	0.105
06_3_102	MW-6	App. IV	Arsenic	ug/L	41	39	95%	0.0058341	0.036	↔	-0.00054724	0.032	↔	2017-05-31	0.298
06_3_103	MW-6	App. IV	Barium	ug/L	41	0	0%	-0.041033	0.000	↓	0.0090763	0.256	↔	2020-11-16	0.648
06_3_104	MW-6	App. IV	Beryllium	ug/L	41	40	98%	< 0.0001	0.824	↔	-0.00017723	0.075	↔	2021-08-10	0.162
06_3_106	MW-6	App. IV	Cadmium	ug/L	41	41	100%	> -0.0001	0.000	↓	0.00075292	0.000	↑	2024-10-20	0.690
06_3_109	MW-6	App. IV	Chromium	ug/L	41	32	78%	0.00087287	0.395	↔	-0.0010315	0.310	↔	2020-07-06	0.049
06_3_110	MW-6	App. IV	Cobalt	ug/L	41	39	95%	0.00014897	0.650	↔	-0.0011243	0.061	↔	2021-08-11	0.190
06_3_112	MW-6	App. IV	Fluoride	mg/L	41	1	2%	< 0.0001	0.465	↔	> -0.0001	0.068	↔	2018-01-11	0.100
06_3_113	MW-6	App. IV	Lead	ug/L	41	38	93%	< 0.0001	1.000	↔	0.0010306	0.134	↔	2019-05-13	0.120
06_3_114	MW-6	App. IV	Lithium	ug/L	41	0	0%	-0.014017	0.000	↓	0.000377	0.905	↔	2020-10-18	0.615
06_3_115	MW-6	App. IV	Mercury	ug/L	41	40	98%	< 0.0001	0.478	↔	-0.00015915	0.357	↔	2024-12-08	0.065
06_3_116	MW-6	App. IV	Molybdenum	ug/L	41	36	88%	0.0013523	0.104	↔	-0.0012147	0.010	↓	2019-10-13	0.221
06_3_119	MW-6	App. IV	Radium-226	pCi/L	39	0	0%	> -0.0001	0.202	↔	-0.0020273	0.677	↔	2025-04-02	0.124
06_3_120	MW-6	App. IV	Radium-228	pCi/L	39	0	0%	> -0.0001	0.394	↔	0.00093264	0.317	↔	2024-04-02	0.101
06_3_121	MW-6	App. IV	Selenium	ug/L	41	39	95%	-0.00045968	0.001	↓	0.0060949	0.021	↔	2024-09-20	0.371
06_3_124	MW-6	App. IV	Thallium	ug/L	41	37	90%	-0.01246	0.000	↓	< 0.0001	0.919	↔	2017-04-16	0.953
06_3_126	MW-6	App. IV	Total Radium	pCi/L	39	0	0%	-0.00017559	0.198	↔	0.00026242	0.275	↔	2021-08-11	0.078
07_1_111	MW-7R	App. I Metals	Copper	ug/L	33	21	64%	-0.0034581	0.514	↔	0.30463	0.385	↔	2025-05-14	0.122
07_1_117	MW-7R	App. I Metals	Nickel	ug/L	33	15	45%	-0.040951	0.449	↔	-0.0010056	0.996	↔	2023-05-04	0.036
07_1_122	MW-7R	App. I Metals	Silver	ug/L	33	33	100%	-0.0008929	0.000	↓	0.012776	0.136	↔	2025-05-14	0.645
07_1_127	MW-7R	App. I Metals	Vanadium	ug/L	33	16	48%	-0.047374	0.112	↔	-0.00045444	0.593	↔	2018-03-19	0.269
07_1_128	MW-7R	App. I Metals	Zinc	ug/L	33	22	67%	0.028378	0.163	↔	-0.0074712	0.021	↔	2019-07-09	0.219
07_2_105	MW-7R	App. III	Boron	ug/L	32	12	38%	-0.039785	0.012	↔	0.0017406	0.092	↔	2018-10-23	0.456
07_2_107	MW-7R	App. III	Calcium	ug/L	33	0	0%	16.167	0.098	↔	0.33547	0.856	↔	2019-07-10	0.219
07_2_108	MW-7R	App. III	Chloride	mg/L	33	0	0%	-0.0094374	0.153	↔	-0.021054	0.653	↔	2024-01-25	0.171
07_2_112	MW-7R	App. III	Fluoride	mg/L	33	1	3%	-0.00085739	0.000	↓	< 0.0001	0.009	↑	2018-03-19	0.718
07_2_118	MW-7R	App. III	pH (Field)	S.U.	32	0	0%	-0.014262	0.000	↓	< 0.0001	0.955	↔	2017-12-10	0.833
07_2_123	MW-7R	App. III	Sulfate	mg/L	33	0	0%	-0.13443	0.000	↓	-0.0015054	0.000	↓	2018-03-19	0.966
07_2_125	MW-7R	App. III	Total Dissolved Solids	mg/L	33	0	0%	0.12511	0.067	↔	0.0077924	0.629	↔	2019-10-14	0.294
07_3_101	MW-7R	App. IV	Antimony	ug/L	33	32	97%	-0.00096767	0.474	↔	0.00042617	0.687	↔	2021-06-15	0.030
07_3_102	MW-7R	App. IV	Arsenic	ug/L	33	30	91%	-0.00094999	0.000	↓	0.029627	0.040	↔	2025-05-14	0.536
07_3_103	MW-7R	App. IV	Barium	ug/L	33	0	0%	0.30161	0.000	↑	-0.0053861	0.625	↔	2019-07-09	0.673
07_3_104	MW-7R	App. IV	Beryllium	ug/L	33	33	100%	< 0.0001	0.582	↔	-0.00019185	0.070	↔	2021-04-13	0.159
07_3_106	MW-7R	App. IV	Cadmium	ug/L	33	33	100%	> -0.0001	0.000	↓	0.00075207	0.001	↑	2024-09-28	0.655
07_3_109	MW-7R	App. IV	Chromium	ug/L	33	8	24%	-0.091218	0.445	↔	0.00039051	0.999	↔	2023-04-27	0.036
07_3_110	MW-7R	App. IV	Cobalt	ug/L	33	28	85%	0.0064874	0.280	↔	-0.0026178	0.007	↓	2019-07-09	0.252
07_3_112	MW-7R	App. IV	Fluoride	mg/L	33	1	3%	-0.00085739	0.000	↓	< 0.0001	0.009	↑	2018-03-19	0.718
07_3_113	MW-7R	App. IV	Lead	ug/L	33	27	82%	0.0031833	0.417	↔	-0.00033041	0.663	↔	2019-07-10	0.042
07_3_114	MW-7R	App. IV	Lithium	ug/L	33	0	0%	0.026978	0.000	↑	> -0.0001	0.979	↔	2019-04-25	0.607
07_3_115	MW-7R	App. IV	Mercury	ug/L	33	33	100%	< 0.0001	0.000	↑	-0.00015882	0.000	↓	2024-12-02	0.650
07_3_116	MW-7R	App. IV	Molybdenum	ug/L	33	28	85%	-0.043308	0.508	↔	-0.0022399	0.243	↔	2018-03-19	0.128
07_3_119	MW-7R	App. IV	Radium-226	pCi/L	31	0	0%	0.0011492	0.268	↔	-0.0001219	0.208	↔	2018-10-24	0.103

(Table continues on next page)

Table 9: Trend Tests: Piecewise Linear-Linear *(continued)*

								Line 1			Line 2				
ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	Slope	p-Value	Trend	Slope	p-Value	Trend	Break 1	R-Squared
07_3_120	MW-7R	App. IV	Radium-228	pCi/L	31	0	0%	0.00058194	0.464	↔	> -0.0001	0.543	↔	2019-08-28	0.039
07_3_121	MW-7R	App. IV	Selenium	ug/L	33	32	97%	-0.00092937	0.001	↓	0.0021675	0.026	↔	2023-04-25	0.390
07_3_124	MW-7R	App. IV	Thallium	ug/L	33	30	91%	-0.0016774	0.000	↓	< 0.0001	0.893	↔	2018-03-19	0.832
07_3_126	MW-7R	App. IV	Total Radium	pCi/L	31	0	0%	0.0014713	0.364	↔	-0.00017942	0.237	↔	2019-01-23	0.095
08_1_111	MW-8	App. I Metals	Copper	ug/L	42	31	74%	0.0060381	0.106	↔	-0.020838	0.325	↔	2023-04-27	0.091
08_1_117	MW-8	App. I Metals	Nickel	ug/L	42	21	50%	0.0069993	0.185	↔	-0.027607	0.357	↔	2023-04-27	0.070
08_1_122	MW-8	App. I Metals	Silver	ug/L	42	41	98%	> -0.0001	1.000	↔	-0.00097452	0.000	↓	2020-09-14	0.567
08_1_127	MW-8	App. I Metals	Vanadium	ug/L	42	34	81%	0.00048573	0.118	↔	-0.0010718	0.542	↔	2023-04-27	0.074
08_1_128	MW-8	App. I Metals	Zinc	ug/L	42	24	57%	-0.016592	0.122	↔	0.002109	0.485	↔	2018-09-13	0.137
08_2_105	MW-8	App. III	Boron	ug/L	41	15	37%	-0.014836	0.129	↔	0.0026761	0.000	↑	2017-01-24	0.364
08_2_107	MW-8	App. III	Calcium	ug/L	42	0	0%	-75.991	0.002	↓	8.5415	0.114	↔	2018-06-29	0.447
08_2_108	MW-8	App. III	Chloride	mg/L	42	0	0%	-0.53887	0.000	↓	0.0024377	0.895	↔	2017-11-22	0.664
08_2_112	MW-8	App. III	Fluoride	mg/L	42	20	48%	< 0.0001	0.000	↑	> -0.0001	0.346	↔	2023-04-27	0.841
08_2_118	MW-8	App. III	pH (Field)	S.U.	40	0	0%	0.00040314	0.008	↑	> -0.0001	0.683	↔	2017-12-06	0.426
08_2_123	MW-8	App. III	Sulfate	mg/L	42	0	0%	0.003078	0.000	↑	-0.00020773	0.076	↔	2017-12-15	0.586
08_2_125	MW-8	App. III	Total Dissolved Solids	mg/L	42	0	0%	-0.029121	0.430	↔	3.0707	0.067	↔	2025-03-29	0.174
08_3_101	MW-8	App. IV	Antimony	ug/L	42	35	83%	-0.010548	0.000	↓	< 0.0001	0.655	↔	2017-04-19	0.685
08_3_102	MW-8	App. IV	Arsenic	ug/L	42	37	88%	0.0058389	0.032	↔	-0.00040325	0.099	↔	2017-06-05	0.307
08_3_103	MW-8	App. IV	Barium	ug/L	42	0	0%	-0.41608	0.011	↔	0.045684	0.227	↔	2018-05-29	0.310
08_3_104	MW-8	App. IV	Beryllium	ug/L	42	41	98%	< 0.0001	0.572	↔	-0.00018751	0.226	↔	2021-11-16	0.075
08_3_106	MW-8	App. IV	Cadmium	ug/L	42	41	98%	> -0.0001	0.204	↔	0.00059291	0.648	↔	2025-01-21	0.050
08_3_109	MW-8	App. IV	Chromium	ug/L	42	20	48%	0.0030667	0.460	↔	-0.022132	0.352	↔	2023-04-27	0.057
08_3_110	MW-8	App. IV	Cobalt	ug/L	42	37	88%	0.00025248	0.345	↔	-0.0015803	0.006	↓	2021-11-16	0.328
08_3_112	MW-8	App. IV	Fluoride	mg/L	42	20	48%	< 0.0001	0.000	↑	> -0.0001	0.346	↔	2023-04-27	0.841
08_3_113	MW-8	App. IV	Lead	ug/L	42	39	93%	0.00065836	0.042	↔	-0.0062794	0.502	↔	2024-10-31	0.115
08_3_114	MW-8	App. IV	Lithium	ug/L	42	1	2%	-0.015238	0.001	↓	0.0049293	0.005	↑	2019-04-16	0.430
08_3_115	MW-8	App. IV	Mercury	ug/L	42	41	98%	< 0.0001	0.756	↔	-0.00015844	0.448	↔	2024-12-26	0.039
08_3_116	MW-8	App. IV	Molybdenum	ug/L	42	39	93%	0.00019128	0.563	↔	-0.00090016	0.133	↔	2021-11-15	0.098
08_3_119	MW-8	App. IV	Radium-226	pCi/L	40	0	0%	> -0.0001	0.247	↔	0.0012819	0.604	↔	2024-11-30	0.046
08_3_120	MW-8	App. IV	Radium-228	pCi/L	40	0	0%	0.00019096	0.227	↔	-0.00078618	0.381	↔	2023-04-27	0.065
08_3_121	MW-8	App. IV	Selenium	ug/L	42	40	95%	-0.00045002	0.000	↓	0.0060857	0.014	↔	2024-09-23	0.396
08_3_124	MW-8	App. IV	Thallium	ug/L	42	40	95%	-0.013556	0.000	↓	< 0.0001	0.974	↔	2017-04-15	0.896
08_3_126	MW-8	App. IV	Total Radium	pCi/L	40	0	0%	0.00015634	0.505	↔	-0.00083855	0.531	↔	2023-05-05	0.029
09_1_111	MW-10	App. I Metals	Copper	ug/L	18	9	50%	-0.018926	0.226	↔	0.58367	0.121	↔	2025-07-08	0.278
09_1_117	MW-10	App. I Metals	Nickel	ug/L	18	6	33%	0.006628	0.412	↔	-0.010454	0.343	↔	2023-10-04	0.128
09_1_122	MW-10	App. I Metals	Silver	ug/L	18	18	100%	-0.0018162	0.003	↓	0.0079088	0.032	↔	2025-01-09	0.569
09_1_128	MW-10	App. I Metals	Zinc	ug/L	18	13	72%	0.027804	0.305	↔	-0.038132	0.301	↔	2023-10-04	0.155
09_2_105	MW-10	App. III	Boron	ug/L	18	0	0%	0.012334	0.066	↔	-0.0017383	0.839	↔	2023-10-04	0.333
09_2_107	MW-10	App. III	Calcium	ug/L	18	0	0%	6.4872	0.008	↑	-5.6269	0.015	↔	2023-10-03	0.569
09_2_108	MW-10	App. III	Chloride	mg/L	18	0	0%	0.0067791	0.686	↔	-0.00043129	0.535	↔	2022-01-23	0.063
09_2_112	MW-10	App. III	Fluoride	mg/L	18	0	0%	< 0.0001	0.869	↔	> -0.0001	0.015	↔	2022-09-10	0.479
09_2_123	MW-10	App. III	Sulfate	mg/L	18	0	0%	-0.0082845	0.000	↓	-0.0018267	0.010	↓	2022-11-10	0.891

(Table continues on next page)

Table 9: Trend Tests: Piecewise Linear-Linear *(continued)*

								Line 1			Line 2				
ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	Slope	p-Value	Trend	Slope	p-Value	Trend	Break 1	R-Squared
09_2_125	MW-10	App. III	Total Dissolved Solids	mg/L	18	0	0%	0.068298	0.006	↑	-0.026344	0.002	↓	2022-12-29	0.665
09_3_101	MW-10	App. IV	Antimony	ug/L	18	17	94%	0.0047273	0.500	↔	-0.00031197	0.743	↔	2022-07-14	0.115
09_3_102	MW-10	App. IV	Arsenic	ug/L	18	14	78%	-0.0019212	0.011	↔	0.017203	0.001	↑	2025-01-07	0.683
09_3_103	MW-10	App. IV	Barium	ug/L	18	0	0%	0.10122	0.006	↑	-0.034743	0.431	↔	2023-10-04	0.520
09_3_104	MW-10	App. IV	Beryllium	ug/L	18	18	100%	-0.0014104	0.015	↔	0.00023548	0.187	↔	2022-12-07	0.548
09_3_106	MW-10	App. IV	Cadmium	ug/L	18	18	100%	-0.00011996	0.095	↔	0.00074845	0.020	↔	2024-09-15	0.508
09_3_109	MW-10	App. IV	Chromium	ug/L	18	6	33%	0.015139	0.368	↔	-0.024114	0.295	↔	2023-10-04	0.153
09_3_110	MW-10	App. IV	Cobalt	ug/L	18	16	89%	-0.0063114	0.375	↔	-0.00061778	0.685	↔	2022-09-07	0.239
09_3_112	MW-10	App. IV	Fluoride	mg/L	18	0	0%	< 0.0001	0.869	↔	> -0.0001	0.015	↔	2022-09-10	0.479
09_3_113	MW-10	App. IV	Lead	ug/L	18	16	89%	0.00096209	0.730	↔	-0.0077899	0.668	↔	2024-10-29	0.040
09_3_114	MW-10	App. IV	Lithium	ug/L	18	0	0%	-0.0014139	0.881	↔	0.004351	0.000	↑	2022-04-20	0.778
09_3_115	MW-10	App. IV	Mercury	ug/L	18	18	100%	> -0.0001	0.722	↔	-0.00015834	0.002	↓	2025-01-17	0.733
09_3_116	MW-10	App. IV	Molybdenum	ug/L	18	0	0%	-0.022988	0.000	↓	0.007841	0.041	↔	2023-10-20	0.899
09_3_119	MW-10	App. IV	Radium-226	pCi/L	18	0	0%	-0.00062857	0.145	↔	0.00033891	0.250	↔	2023-04-27	0.219
09_3_120	MW-10	App. IV	Radium-228	pCi/L	18	0	0%	-0.013071	0.016	↔	0.00022279	0.279	↔	2021-11-16	0.476
09_3_121	MW-10	App. IV	Selenium	ug/L	18	15	83%	-0.0041651	0.063	↔	0.0038591	0.002	↑	2023-04-26	0.575
09_3_126	MW-10	App. IV	Total Radium	pCi/L	18	0	0%	-0.008301	0.135	↔	0.00021648	0.334	↔	2021-12-26	0.374
10_1_111	MW-11	App. I Metals	Copper	ug/L	21	10	48%	-0.0037089	0.054	↔	0.31067	0.000	↑	2025-07-06	0.788
10_1_117	MW-11	App. I Metals	Nickel	ug/L	21	12	57%	-0.0016964	0.047	↔	0.0024736	0.727	↔	2025-01-20	0.276
10_1_122	MW-11	App. I Metals	Silver	ug/L	21	21	100%	-0.0016705	0.000	↓	0.0079163	0.018	↔	2025-01-16	0.646
10_1_127	MW-11	App. I Metals	Vanadium	ug/L	21	18	86%	-0.0039632	0.010	↓	0.0022905	0.068	↔	2023-04-23	0.485
10_1_128	MW-11	App. I Metals	Zinc	ug/L	21	14	67%	-0.0042284	0.003	↓	0.027244	0.023	↔	2024-10-29	0.570
10_2_105	MW-11	App. III	Boron	ug/L	21	1	5%	-0.018524	0.490	↔	0.0025784	0.146	↔	2021-04-13	0.147
10_2_107	MW-11	App. III	Calcium	ug/L	21	0	0%	-60.055	0.474	↔	0.87318	0.871	↔	2021-04-29	0.067
10_2_108	MW-11	App. III	Chloride	mg/L	21	0	0%	-0.017877	0.120	↔	0.074352	0.263	↔	2024-08-17	0.204
10_2_112	MW-11	App. III	Fluoride	mg/L	21	1	5%	< 0.0001	0.294	↔	> -0.0001	0.451	↔	2022-09-09	0.115
10_2_118	MW-11	App. III	pH (Field)	S.U.	20	0	0%	0.0011234	0.312	↔	-0.0021419	0.283	↔	2024-01-23	0.127
10_2_123	MW-11	App. III	Sulfate	mg/L	21	0	0%	0.00012381	0.614	↔	-0.0004618	0.364	↔	2024-01-23	0.075
10_2_125	MW-11	App. III	Total Dissolved Solids	mg/L	21	0	0%	-2.4075	0.128	↔	-0.0021195	0.994	↔	2021-11-17	0.279
10_3_101	MW-11	App. IV	Antimony	ug/L	21	19	90%	0.0021214	0.418	↔	> -0.0001	0.980	↔	2022-07-12	0.117
10_3_102	MW-11	App. IV	Arsenic	ug/L	21	19	90%	-0.0019634	0.002	↓	0.017232	0.002	↑	2025-01-01	0.631
10_3_103	MW-11	App. IV	Barium	ug/L	21	0	0%	-0.070127	0.684	↔	0.0016911	0.879	↔	2021-08-11	0.063
10_3_104	MW-11	App. IV	Beryllium	ug/L	21	21	100%	-0.00073341	0.004	↓	0.00024079	0.230	↔	2023-04-23	0.569
10_3_106	MW-11	App. IV	Cadmium	ug/L	21	21	100%	-0.00010959	0.024	↔	0.00075033	0.010	↔	2024-09-21	0.521
10_3_109	MW-11	App. IV	Chromium	ug/L	21	15	71%	0.00059516	0.893	↔	-0.0025676	0.117	↔	2022-07-12	0.211
10_3_110	MW-11	App. IV	Cobalt	ug/L	21	14	67%	-0.0035929	0.004	↓	-0.00036394	0.700	↔	2023-01-25	0.637
10_3_112	MW-11	App. IV	Fluoride	mg/L	21	1	5%	< 0.0001	0.294	↔	> -0.0001	0.451	↔	2022-09-09	0.115
10_3_113	MW-11	App. IV	Lead	ug/L	21	19	90%	-0.0031909	0.364	↔	0.0019913	0.509	↔	2023-04-23	0.088
10_3_114	MW-11	App. IV	Lithium	ug/L	21	0	0%	> -0.0001	0.959	↔	0.0099038	0.586	↔	2025-01-21	0.077
10_3_115	MW-11	App. IV	Mercury	ug/L	21	21	100%	> -0.0001	0.560	↔	-0.00015873	0.000	↓	2025-01-17	0.744
10_3_116	MW-11	App. IV	Molybdenum	ug/L	21	18	86%	-0.0028889	0.030	↔	< 0.0001	0.947	↔	2023-01-14	0.496
10_3_119	MW-11	App. IV	Radium-226	pCi/L	21	0	0%	-0.00025727	0.313	↔	0.00031485	0.066	↔	2023-01-24	0.233

(Table continues on next page)

Table 9: Trend Tests: Piecewise Linear-Linear *(continued)*

								Line 1			Line 2				
ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	Slope	p-Value	Trend	Slope	p-Value	Trend	Break 1	R-Squared
10_3_120	MW-11	App. IV	Radium-228	pCi/L	21	0	0%	-0.00090483	0.485	↔	0.00036012	0.293	↔	2022-04-18	0.092
10_3_121	MW-11	App. IV	Selenium	ug/L	21	21	100%	-0.00245	0.020	↔	0.0029546	0.015	↔	2023-04-24	0.462
10_3_126	MW-11	App. IV	Total Radium	pCi/L	21	0	0%	-0.0012041	0.265	↔	0.0005151	0.185	↔	2022-04-24	0.160
11_1_111	MW-11D	App. I Metals	Copper	ug/L	19	12	63%	-0.0068402	0.024	↔	0.0084237	0.526	↔	2024-08-29	0.356
11_1_117	MW-11D	App. I Metals	Nickel	ug/L	19	14	74%	-0.0027719	0.005	↓	0.0034908	0.404	↔	2024-08-27	0.479
11_1_122	MW-11D	App. I Metals	Silver	ug/L	19	19	100%	-0.0015431	0.001	↓	0.0212	0.034	↔	2025-06-13	0.633
11_1_127	MW-11D	App. I Metals	Vanadium	ug/L	19	16	84%	-0.0016597	0.010	↔	0.0364	0.025	↔	2025-06-17	0.554
11_2_105	MW-11D	App. III	Boron	ug/L	19	0	0%	-0.0544	0.148	↔	-0.0062843	0.570	↔	2022-08-20	0.396
11_2_107	MW-11D	App. III	Calcium	ug/L	19	0	0%	-81.167	0.287	↔	-8.4777	0.428	↔	2022-04-18	0.360
11_2_108	MW-11D	App. III	Chloride	mg/L	19	0	0%	-0.67158	0.032	↔	-0.050808	0.408	↔	2022-04-19	0.554
11_2_112	MW-11D	App. III	Fluoride	mg/L	19	0	0%	< 0.0001	0.682	↔	-0.00013045	0.024	↔	2023-04-24	0.484
11_2_118	MW-11D	App. III	pH (Field)	S.U.	19	0	0%	-0.00072574	0.003	↓	> -0.0001	0.840	↔	2023-07-24	0.729
11_2_123	MW-11D	App. III	Sulfate	mg/L	19	1	5%	-0.69581	0.133	↔	-0.048697	0.445	↔	2022-04-18	0.494
11_2_125	MW-11D	App. III	Total Dissolved Solids	mg/L	19	0	0%	-1.561	0.030	↔	-0.12854	0.525	↔	2022-08-06	0.577
11_3_101	MW-11D	App. IV	Antimony	ug/L	19	16	84%	-0.00027902	0.763	↔	0.0044459	0.511	↔	2025-01-20	0.050
11_3_102	MW-11D	App. IV	Arsenic	ug/L	19	10	53%	-0.0087223	0.006	↓	0.0097355	0.282	↔	2024-06-24	0.492
11_3_103	MW-11D	App. IV	Barium	ug/L	19	0	0%	0.050184	0.117	↔	0.0010594	0.937	↔	2022-11-23	0.351
11_3_104	MW-11D	App. IV	Beryllium	ug/L	19	18	95%	-0.0010401	0.017	↔	0.00021422	0.224	↔	2023-01-23	0.551
11_3_106	MW-11D	App. IV	Cadmium	ug/L	19	19	100%	-0.00011831	0.058	↔	0.00075033	0.016	↔	2024-09-16	0.514
11_3_109	MW-11D	App. IV	Chromium	ug/L	19	14	74%	-0.0032904	0.008	↓	0.0034652	0.511	↔	2024-09-22	0.471
11_3_110	MW-11D	App. IV	Cobalt	ug/L	19	18	95%	-0.0051808	0.019	↔	> -0.0001	0.952	↔	2023-01-15	0.620
11_3_112	MW-11D	App. IV	Fluoride	mg/L	19	0	0%	< 0.0001	0.682	↔	-0.00013045	0.024	↔	2023-04-24	0.484
11_3_113	MW-11D	App. IV	Lead	ug/L	19	18	95%	-0.0038043	0.463	↔	0.001491	0.636	↔	2023-03-10	0.064
11_3_114	MW-11D	App. IV	Lithium	ug/L	19	0	0%	-0.1191	0.007	↓	-0.0098682	0.088	↔	2022-04-08	0.791
11_3_115	MW-11D	App. IV	Mercury	ug/L	19	19	100%	> -0.0001	0.657	↔	-0.00015873	0.001	↓	2025-01-17	0.738
11_3_116	MW-11D	App. IV	Molybdenum	ug/L	19	1	5%	-0.12463	0.054	↔	-0.012553	0.499	↔	2022-07-23	0.510
11_3_119	MW-11D	App. IV	Radium-226	pCi/L	19	0	0%	-0.00015966	0.360	↔	-0.0010413	0.409	↔	2024-10-29	0.311
11_3_120	MW-11D	App. IV	Radium-228	pCi/L	19	0	0%	-0.012223	0.004	↓	> -0.0001	0.926	↔	2021-09-02	0.671
11_3_121	MW-11D	App. IV	Selenium	ug/L	19	17	89%	-0.0032016	0.026	↔	0.0032326	0.010	↑	2023-04-24	0.516
11_3_126	MW-11D	App. IV	Total Radium	pCi/L	19	0	0%	-0.0085769	0.070	↔	-0.00024124	0.260	↔	2021-09-27	0.576

Table 10: Trend Tests: Piecewise Linear-Linear-Linear

								Line 1			Line 2			Line 3					
ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	Slope	p-Value	Trend	Slope	p-Value	Trend	Slope	p-Value	Trend	Break 1	Break 2	R-Squared
01_1_111	MW-1	App. I Metals	Copper	ug/L	42	33	79%	0.00013689	0.923	↔	0.0027342	0.106	↔	-0.0045358	0.005	↓	2019-03-21	2022-04-20	0.326
01_1_122	MW-1	App. I Metals	Silver	ug/L	42	35	83%	> -0.0001	1.000	↔	-0.0015127	0.000	↓	0.010282	0.001	↑	2021-04-05	2025-03-21	0.763
01_2_105	MW-1	App. III	Boron	ug/L	41	22	54%	-0.026495	0.288	↔	0.0051501	0.006	↑	0.1281	0.317	↔	2017-03-05	2025-04-01	0.458
01_2_107	MW-1	App. III	Calcium	ug/L	42	0	0%	83.226	0.000	↑	-853.93	0.217	↔	114.64	0.032	↔	2022-10-25	2023-06-13	0.695
01_2_108	MW-1	App. III	Chloride	mg/L	42	0	0%	0.89852	0.444	↔	0.24236	0.059	↔	-0.24203	0.028	↔	2016-07-12	2021-04-01	0.357

(Table continues on next page)

Table 10: Trend Tests: Piecewise Linear-Linear-Linear *(continued)*

								Line 1			Line 2			Line 3					
ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	Slope	p-Value	Trend	Slope	p-Value	Trend	Slope	p-Value	Trend	Break 1	Break 2	R-Squared
01_2_112	MW-1	App. III	Fluoride	mg/L	42	1	2%	-0.00023931	0.171	↔	< 0.0001	0.000	↑	-0.00019781	0.114	↔	2016-06-12	2024-12-14	0.410
01_2_118	MW-1	App. III	pH (Field)	S.U.	40	0	0%	> -0.0001	0.142	↔	0.0020548	0.491	↔	-0.00045343	0.053	↔	2022-10-19	2023-06-19	0.345
01_2_125	MW-1	App. III	Total Dissolved Solids	mg/L	42	0	0%	0.79567	0.000	↑	-8.6854	0.004	↓	1.2205	0.010	↔	2022-10-18	2023-06-14	0.746
01_3_101	MW-1	App. IV	Antimony	ug/L	42	40	95%	-0.00064283	0.139	↔	0.00040922	0.371	↔	0.004578	0.507	↔	2020-07-07	2025-03-28	0.138
01_3_102	MW-1	App. IV	Arsenic	ug/L	42	38	90%	0.0053726	0.000	↑	-0.001042	0.000	↓	0.014132	0.000	↑	2017-09-15	2024-12-30	0.752
01_3_103	MW-1	App. IV	Barium	ug/L	42	0	0%	0.092616	0.000	↑	-1.4494	0.194	↔	0.14411	0.091	↔	2022-11-17	2023-05-13	0.555
01_3_106	MW-1	App. IV	Cadmium	ug/L	42	39	93%	< 0.0001	0.915	↔	-0.00031337	0.004	↓	0.00025904	0.001	↑	2021-01-03	2023-04-24	0.624
01_3_109	MW-1	App. IV	Chromium	ug/L	42	28	67%	0.0055973	0.224	↔	-0.0023048	0.089	↔	0.003461	0.331	↔	2018-01-24	2023-04-15	0.143
01_3_112	MW-1	App. IV	Fluoride	mg/L	42	1	2%	-0.00023931	0.171	↔	< 0.0001	0.000	↑	-0.00019781	0.114	↔	2016-06-12	2024-12-14	0.410
01_3_114	MW-1	App. IV	Lithium	ug/L	42	0	0%	0.0052683	0.000	↑	-0.055119	0.103	↔	0.010851	0.047	↔	2022-10-18	2023-06-26	0.482
01_3_115	MW-1	App. IV	Mercury	ug/L	42	42	100%	< 0.0001	1.000	↔	< 0.0001	0.000	↑	-0.00015811	0.000	↓	2017-12-13	2024-11-30	0.687
01_3_116	MW-1	App. IV	Molybdenum	ug/L	42	37	88%	0.0039117	0.010	↑	-0.0044501	0.064	↔	0.00028449	0.893	↔	2019-10-13	2022-09-21	0.313
01_3_119	MW-1	App. IV	Radium-226	pCi/L	40	0	0%	0.0002632	0.106	↔	-0.00037717	0.002	↓	0.0005495	0.780	↔	2019-07-10	2025-01-20	0.418
01_3_120	MW-1	App. IV	Radium-228	pCi/L	40	0	0%	0.00024205	0.124	↔	> -0.0001	0.623	↔	0.0016682	0.210	↔	2019-07-10	2025-01-06	0.205
01_3_121	MW-1	App. IV	Selenium	ug/L	42	40	95%	-0.00015494	0.278	↔	-0.005938	0.026	↔	0.0035069	0.000	↑	2022-05-26	2023-04-25	0.617
01_3_124	MW-1	App. IV	Thallium	ug/L	42	42	100%	-0.011672	0.000	↓	0.00012772	0.787	↔	> -0.0001	0.765	↔	2017-04-28	2020-01-16	0.943
01_3_126	MW-1	App. IV	Total Radium	pCi/L	40	0	0%	0.00066273	0.006	↑	-0.0014692	0.652	↔	< 0.0001	0.962	↔	2019-07-12	2020-09-21	0.239
02_1_111	MW-2	App. I Metals	Copper	ug/L	37	15	41%	0.034051	0.016	↔	-0.2044	0.780	↔	0.00039652	0.993	↔	2022-04-19	2023-01-19	0.190
02_1_117	MW-2	App. I Metals	Nickel	ug/L	37	12	32%	-0.0033766	0.641	↔	0.074246	0.550	↔	-0.035625	0.053	↔	2021-08-17	2022-10-18	0.167
02_1_122	MW-2	App. I Metals	Silver	ug/L	37	34	92%	> -0.0001	1.000	↔	-0.001529	0.000	↓	0.013387	0.062	↔	2021-03-13	2025-04-23	0.753
02_1_127	MW-2	App. I Metals	Vanadium	ug/L	37	25	68%	0.00032542	0.859	↔	0.010612	0.434	↔	-0.0076659	0.487	↔	2022-02-16	2023-10-04	0.118
02_1_128	MW-2	App. I Metals	Zinc	ug/L	37	16	43%	-0.068625	0.903	↔	0.0027308	0.981	↔	0.22641	0.250	↔	2017-05-22	2022-07-01	0.104
02_2_105	MW-2	App. III	Boron	ug/L	36	1	3%	0.025199	0.150	↔	-0.0058162	0.024	↔	0.024522	0.084	↔	2017-05-16	2024-01-25	0.273
02_2_107	MW-2	App. III	Calcium	ug/L	37	0	0%	21.326	0.297	↔	-29.48	0.454	↔	-7.4814	0.775	↔	2019-05-01	2022-07-12	0.157
02_2_108	MW-2	App. III	Chloride	mg/L	37	0	0%	0.64082	0.163	↔	-0.14282	0.002	↓	0.15606	0.634	↔	2017-02-01	2024-01-26	0.354
02_2_112	MW-2	App. III	Fluoride	mg/L	37	2	5%	-0.00066657	0.304	↔	< 0.0001	0.535	↔	-0.00019786	0.669	↔	2016-05-08	2025-03-13	0.124
02_2_118	MW-2	App. III	pH (Field)	S.U.	33	0	0%	0.0026213	0.183	↔	-0.0015528	0.618	↔	< 0.0001	0.962	↔	2016-07-12	2017-07-18	0.141
02_2_123	MW-2	App. III	Sulfate	mg/L	37	0	0%	-0.12193	0.001	↓	-0.056057	0.281	↔	-0.0060597	0.761	↔	2018-11-07	2021-04-15	0.774
02_3_101	MW-2	App. IV	Antimony	ug/L	37	23	62%	-0.011419	0.077	↔	0.0019474	0.242	↔	-0.0057979	0.466	↔	2017-11-01	2023-10-04	0.198
02_3_102	MW-2	App. IV	Arsenic	ug/L	37	26	70%	0.005821	0.142	↔	-0.00015152	0.714	↔	0.012221	0.655	↔	2017-06-14	2025-04-23	0.265
02_3_103	MW-2	App. IV	Barium	ug/L	37	0	0%	-0.43676	0.263	↔	0.16208	0.089	↔	-0.00062976	0.982	↔	2016-09-17	2019-07-08	0.324
02_3_104	MW-2	App. IV	Beryllium	ug/L	37	34	92%	< 0.0001	0.287	↔	-0.00038492	0.049	↔	0.0010157	0.167	↔	2021-08-20	2024-10-03	0.271
02_3_106	MW-2	App. IV	Cadmium	ug/L	37	33	89%	< 0.0001	0.986	↔	-0.00017818	0.009	↓	0.00028069	0.004	↑	2019-10-13	2023-04-26	0.562
02_3_110	MW-2	App. IV	Cobalt	ug/L	37	28	76%	-0.00019779	0.909	↔	0.0097952	0.408	↔	-0.0098163	0.227	↔	2022-01-10	2023-10-03	0.109
02_3_112	MW-2	App. IV	Fluoride	mg/L	37	2	5%	-0.00066657	0.304	↔	< 0.0001	0.535	↔	-0.00019786	0.669	↔	2016-05-08	2025-03-13	0.124
02_3_113	MW-2	App. IV	Lead	ug/L	37	31	84%	-0.00017026	0.957	↔	0.0031941	0.134	↔	-0.03161	0.671	↔	2020-01-16	2025-04-02	0.163
02_3_114	MW-2	App. IV	Lithium	ug/L	37	0	0%	1.316	0.017	↔	-0.69239	0.091	↔	0.0005171	0.974	↔	2016-07-11	2017-04-24	0.297
02_3_115	MW-2	App. IV	Mercury	ug/L	37	37	100%	< 0.0001	1.000	↔	< 0.0001	0.000	↑	-0.00015933	0.000	↓	2017-07-02	2024-12-05	0.714
02_3_116	MW-2	App. IV	Molybdenum	ug/L	37	6	16%	-0.091149	0.157	↔	0.0016486	0.774	↔	-0.0040752	0.090	↔	2016-04-11	2020-01-16	0.293
02_3_119	MW-2	App. IV	Radium-226	pCi/L	36	0	0%	-0.0011387	0.625	↔	< 0.0001	0.854	↔	-0.0020506	0.762	↔	2016-07-12	2025-04-02	0.048
02_3_120	MW-2	App. IV	Radium-228	pCi/L	36	0	0%	0.0001985	0.027	↔	-0.0037927	0.682	↔	0.001261	0.290	↔	2023-10-04	2024-05-04	0.205
02_3_121	MW-2	App. IV	Selenium	ug/L	37	35	95%	-0.00017143	0.259	↔	-0.0045779	0.076	↔	0.0031816	0.000	↑	2022-04-17	2023-04-25	0.622

(Table continues on next page)

Table 10: Trend Tests: Piecewise Linear-Linear-Linear *(continued)*

								Line 1			Line 2			Line 3					
ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	Slope	p-Value	Trend	Slope	p-Value	Trend	Slope	p-Value	Trend	Break 1	Break 2	R-Squared
02_3_124	MW-2	App. IV	Thallium	ug/L	37	24	65%	-0.014292	0.000	↓	0.00021073	0.899	↔	> -0.0001	0.881	↔	2017-04-18	2020-01-16	0.848
02_3_126	MW-2	App. IV	Total Radium	pCi/L	36	0	0%	< 0.0001	0.982	↔	0.0062872	0.378	↔	-0.0090462	0.426	↔	2024-10-22	2025-04-13	0.094
03_1_111	MW-3	App. I Metals	Copper	ug/L	40	21	52%	0.0036371	0.812	↔	0.018205	0.444	↔	-0.026268	0.084	↔	2019-04-03	2022-04-19	0.149
03_1_117	MW-3	App. I Metals	Nickel	ug/L	40	20	50%	0.025416	0.011	↔	-0.028152	0.233	↔	0.00095995	0.893	↔	2019-01-25	2021-05-10	0.250
03_1_122	MW-3	App. I Metals	Silver	ug/L	40	38	95%	> -0.0001	1.000	↔	-0.0015229	0.000	↓	0.011674	0.082	↔	2021-03-27	2025-04-06	0.747
03_1_127	MW-3	App. I Metals	Vanadium	ug/L	40	25	62%	0.0033934	0.017	↔	-0.0020193	0.013	↔	0.01142	0.247	↔	2019-04-17	2025-01-05	0.304
03_1_128	MW-3	App. I Metals	Zinc	ug/L	40	28	70%	0.0097057	0.045	↔	-0.0048979	0.094	↔	0.025814	0.303	↔	2019-03-24	2024-09-15	0.211
03_2_105	MW-3	App. III	Boron	ug/L	39	10	26%	-0.039203	0.000	↓	0.030249	0.003	↑	0.010728	0.129	↔	2018-12-15	2022-01-27	0.675
03_2_107	MW-3	App. III	Calcium	ug/L	40	0	0%	-102.76	0.469	↔	19.145	0.002	↑	-119.51	0.541	↔	2016-10-19	2025-01-23	0.280
03_2_108	MW-3	App. III	Chloride	mg/L	40	0	0%	-0.48151	0.054	↔	0.026041	0.463	↔	-0.084936	0.601	↔	2017-07-01	2023-10-05	0.331
03_2_112	MW-3	App. III	Fluoride	mg/L	40	1	2%	-0.00025303	0.167	↔	0.0020311	0.023	↔	-0.00010194	0.000	↓	2017-01-24	2017-08-03	0.758
03_2_118	MW-3	App. III	pH (Field)	S.U.	36	0	0%	-0.0027151	0.729	↔	< 0.0001	0.987	↔	< 0.0001	0.313	↔	2016-02-09	2019-01-23	0.083
03_2_123	MW-3	App. III	Sulfate	mg/L	40	0	0%	0.39598	0.000	↑	-0.1216	0.000	↓	-0.017011	0.003	↓	2017-01-23	2019-08-24	0.891
03_2_125	MW-3	App. III	Total Dissolved Solids	mg/L	40	0	0%	-1.2238	0.657	↔	0.65999	0.055	↔	-0.1045	0.655	↔	2017-01-19	2020-12-18	0.243
03_3_101	MW-3	App. IV	Antimony	ug/L	40	29	72%	-0.014203	0.005	↓	0.0008971	0.748	↔	-0.00066278	0.399	↔	2017-04-30	2020-04-01	0.493
03_3_102	MW-3	App. IV	Arsenic	ug/L	40	32	80%	0.001954	0.001	↑	-0.0026897	0.001	↓	0.012644	0.008	↑	2020-10-14	2024-10-28	0.497
03_3_103	MW-3	App. IV	Barium	ug/L	40	0	0%	-0.72542	0.000	↓	0.24164	0.121	↔	0.070615	0.000	↑	2017-04-07	2019-01-03	0.738
03_3_104	MW-3	App. IV	Beryllium	ug/L	40	40	100%	< 0.0001	0.285	↔	-0.00047277	0.004	↓	0.0010566	0.082	↔	2021-09-24	2024-08-18	0.430
03_3_106	MW-3	App. IV	Cadmium	ug/L	40	38	95%	> -0.0001	1.000	↔	-0.0001073	0.000	↓	0.001022	0.000	↑	2018-07-26	2024-09-29	0.703
03_3_109	MW-3	App. IV	Chromium	ug/L	40	20	50%	0.048476	0.014	↔	-0.049666	0.208	↔	0.0049087	0.749	↔	2019-01-25	2021-10-30	0.260
03_3_112	MW-3	App. IV	Fluoride	mg/L	40	1	2%	-0.00025303	0.167	↔	0.0020311	0.023	↔	-0.00010194	0.000	↓	2017-01-24	2017-08-03	0.758
03_3_113	MW-3	App. IV	Lead	ug/L	40	35	88%	-0.00011717	0.981	↔	0.0010179	0.511	↔	-0.00018751	0.862	↔	2017-04-08	2021-01-28	0.057
03_3_114	MW-3	App. IV	Lithium	ug/L	40	1	2%	-0.035278	0.018	↔	0.11336	0.663	↔	< 0.0001	0.999	↔	2021-01-27	2021-10-05	0.199
03_3_115	MW-3	App. IV	Mercury	ug/L	40	40	100%	< 0.0001	0.000	↑	> -0.0001	0.955	↔	-0.00015978	0.000	↓	2022-01-27	2025-01-12	0.710
03_3_116	MW-3	App. IV	Molybdenum	ug/L	40	1	2%	0.0015052	0.621	↔	-0.0028929	0.331	↔	-0.0014168	0.867	↔	2020-01-08	2023-12-11	0.096
03_3_119	MW-3	App. IV	Radium-226	pCi/L	39	0	0%	0.00044918	0.130	↔	-0.00024102	0.132	↔	0.00092354	0.224	↔	2019-01-24	2024-03-30	0.176
03_3_120	MW-3	App. IV	Radium-228	pCi/L	39	0	0%	0.0002583	0.264	↔	-0.0037957	0.597	↔	0.00066144	0.011	↔	2020-08-31	2021-04-13	0.214
03_3_121	MW-3	App. IV	Selenium	ug/L	40	39	98%	-0.00015076	0.340	↔	-0.0049305	0.014	↔	0.0034664	0.000	↑	2022-03-20	2023-04-26	0.616
03_3_124	MW-3	App. IV	Thallium	ug/L	40	39	98%	-0.011536	0.000	↓	0.00021072	0.711	↔	> -0.0001	0.666	↔	2017-05-06	2020-01-16	0.942
03_3_126	MW-3	App. IV	Total Radium	pCi/L	39	0	0%	0.00071675	0.059	↔	-0.0025392	0.280	↔	0.00076679	0.032	↔	2020-01-16	2021-06-05	0.233
04_1_111	MW-4	App. I Metals	Copper	ug/L	41	35	85%	-0.008315	0.647	↔	0.04352	0.242	↔	-0.033617	0.027	↔	2019-04-29	2021-11-16	0.201
04_1_122	MW-4	App. I Metals	Silver	ug/L	41	41	100%	< 0.0001	1.000	↔	-0.001696	0.000	↓	0.010388	0.002	↑	2021-04-27	2025-03-03	0.780
04_1_127	MW-4	App. I Metals	Vanadium	ug/L	41	37	90%	0.00099142	0.102	↔	-0.0019433	0.029	↔	0.017836	0.111	↔	2020-12-17	2025-03-03	0.253
04_2_105	MW-4	App. III	Boron	ug/L	40	23	57%	0.037569	0.303	↔	-0.013659	0.493	↔	0.0021871	0.872	↔	2017-10-17	2021-08-11	0.062
04_2_107	MW-4	App. III	Calcium	ug/L	41	0	0%	75.542	0.000	↑	-6.4103	0.000	↓	73.572	0.513	↔	2017-05-30	2025-04-01	0.667
04_2_108	MW-4	App. III	Chloride	mg/L	41	0	0%	0.66426	0.000	↑	-0.042702	0.403	↔	-0.095394	0.000	↓	2017-04-05	2020-05-05	0.763
04_2_112	MW-4	App. III	Fluoride	mg/L	41	0	0%	-0.00022831	0.312	↔	< 0.0001	0.965	↔	< 0.0001	0.001	↑	2017-01-21	2020-12-17	0.507
04_2_118	MW-4	App. III	pH (Field)	S.U.	39	0	0%	0.00048166	0.659	↔	> -0.0001	0.001	↓	0.00036589	0.204	↔	2016-04-27	2024-07-15	0.383
04_2_123	MW-4	App. III	Sulfate	mg/L	41	0	0%	0.0087703	0.000	↑	-0.00096125	0.240	↔	0.00054939	0.501	↔	2018-01-19	2021-11-17	0.690
04_2_125	MW-4	App. III	Total Dissolved Solids	mg/L	41	0	0%	0.98881	0.000	↑	-0.096736	0.014	↔	0.12922	0.708	↔	2017-11-12	2024-04-03	0.696
04_3_101	MW-4	App. IV	Antimony	ug/L	41	36	88%	-0.00031604	0.636	↔	< 0.0001	0.973	↔	0.005077	0.516	↔	2019-07-09	2025-02-28	0.050
04_3_102	MW-4	App. IV	Arsenic	ug/L	41	39	95%	0.004813	0.000	↑	-0.0011416	0.000	↓	0.017787	0.003	↑	2017-11-18	2025-02-03	0.697

(Table continues on next page)

Table 10: Trend Tests: Piecewise Linear-Linear-Linear *(continued)*

								Line 1			Line 2			Line 3					
ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	Slope	p-Value	Trend	Slope	p-Value	Trend	Slope	p-Value	Trend	Break 1	Break 2	R-Squared
04_3_103	MW-4	App. IV	Barium	ug/L	41	0	0%	0.34591	0.001	↑	-0.004505	0.699	↔	0.044993	0.707	↔	2017-05-20	2024-05-01	0.618
04_3_106	MW-4	App. IV	Cadmium	ug/L	41	40	98%	< 0.0001	1.000	↔	> -0.0001	0.000	↓	0.00075838	0.000	↑	2018-03-23	2024-09-29	0.722
04_3_110	MW-4	App. IV	Cobalt	ug/L	41	20	49%	0.0017351	0.317	↔	0.012537	0.042	↔	-0.024775	0.103	↔	2021-11-10	2024-07-15	0.452
04_3_112	MW-4	App. IV	Fluoride	mg/L	41	0	0%	-0.00022831	0.312	↔	< 0.0001	0.965	↔	< 0.0001	0.001	↑	2017-01-21	2020-12-17	0.507
04_3_114	MW-4	App. IV	Lithium	ug/L	41	0	0%	0.0025038	0.742	↔	0.016771	0.374	↔	-0.00091548	0.872	↔	2019-05-17	2021-08-11	0.308
04_3_115	MW-4	App. IV	Mercury	ug/L	41	41	100%	< 0.0001	0.000	↑	> -0.0001	0.978	↔	-0.0001604	0.000	↓	2022-03-20	2025-01-12	0.696
04_3_116	MW-4	App. IV	Molybdenum	ug/L	41	35	85%	0.0066465	0.008	↑	-0.0091665	0.086	↔	0.0022641	0.486	↔	2019-10-14	2022-05-27	0.285
04_3_119	MW-4	App. IV	Radium-226	pCi/L	39	0	0%	0.00045055	0.004	↑	-0.0015322	0.063	↔	0.00023964	0.035	↔	2019-10-22	2021-03-18	0.422
04_3_120	MW-4	App. IV	Radium-228	pCi/L	39	0	0%	0.00098898	0.579	↔	< 0.0001	0.807	↔	-0.00040922	0.215	↔	2017-01-07	2022-10-18	0.183
04_3_121	MW-4	App. IV	Selenium	ug/L	41	38	93%	> -0.0001	0.733	↔	-0.0049756	0.096	↔	0.0035427	0.000	↑	2022-02-15	2023-04-25	0.586
04_3_124	MW-4	App. IV	Thallium	ug/L	41	41	100%	-0.01159	0.000	↓	0.00014644	0.765	↔	> -0.0001	0.718	↔	2017-05-01	2020-01-16	0.943
04_3_126	MW-4	App. IV	Total Radium	pCi/L	39	0	0%	0.000748	0.002	↑	-0.0060875	0.430	↔	< 0.0001	0.961	↔	2020-02-06	2020-07-06	0.297
05_1_111	MW-5	App. I Metals	Copper	ug/L	42	29	69%	0.00055812	0.689	↔	0.0025881	0.166	↔	-0.0046708	0.001	↓	2019-04-07	2022-04-18	0.352
05_1_117	MW-5	App. I Metals	Nickel	ug/L	42	32	76%	-0.0028143	0.719	↔	0.030034	0.313	↔	-0.024708	0.067	↔	2020-06-16	2022-07-12	0.147
05_1_122	MW-5	App. I Metals	Silver	ug/L	42	42	100%	> -0.0001	1.000	↔	-0.0018149	0.000	↓	0.0079565	0.001	↑	2021-05-29	2025-01-08	0.779
05_1_128	MW-5	App. I Metals	Zinc	ug/L	42	25	60%	-0.006731	0.441	↔	0.0014599	0.636	↔	0.021961	0.236	↔	2018-06-02	2024-04-01	0.153
05_2_107	MW-5	App. III	Calcium	ug/L	42	0	0%	0.69645	0.297	↔	-10.178	0.166	↔	-0.7801	0.316	↔	2020-06-03	2021-05-06	0.597
05_2_108	MW-5	App. III	Chloride	mg/L	42	0	0%	-0.019083	0.002	↓	0.0045438	0.002	↑	-0.0015637	0.000	↓	2016-08-06	2019-06-21	0.566
05_2_112	MW-5	App. III	Fluoride	mg/L	42	0	0%	-0.00043578	0.430	↔	< 0.0001	0.022	↔	-0.00023569	0.392	↔	2016-05-19	2024-10-28	0.171
05_2_123	MW-5	App. III	Sulfate	mg/L	42	0	0%	0.0022247	0.000	↑	-0.0049626	0.198	↔	0.00014447	0.255	↔	2018-01-25	2018-12-16	0.430
05_2_125	MW-5	App. III	Total Dissolved Solids	mg/L	42	0	0%	0.37746	0.107	↔	-0.30184	0.213	↔	-0.012028	0.778	↔	2017-10-16	2019-09-12	0.211
05_3_101	MW-5	App. IV	Antimony	ug/L	42	40	95%	0.00011074	0.842	↔	-0.010976	0.441	↔	0.00054067	0.036	↔	2019-04-14	2019-07-09	0.148
05_3_102	MW-5	App. IV	Arsenic	ug/L	42	40	95%	0.0048126	0.000	↑	-0.0011518	0.000	↓	0.017606	0.003	↑	2017-11-18	2025-01-31	0.693
05_3_103	MW-5	App. IV	Barium	ug/L	42	0	0%	0.016803	0.022	↔	-0.023976	0.012	↔	0.0052659	0.692	↔	2019-07-09	2023-04-24	0.440
05_3_106	MW-5	App. IV	Cadmium	ug/L	42	42	100%	< 0.0001	1.000	↔	-0.00010001	0.000	↓	0.0007513	0.000	↑	2018-03-19	2024-09-24	0.728
05_3_109	MW-5	App. IV	Chromium	ug/L	42	29	69%	-0.0088515	0.745	↔	0.033639	0.249	↔	-0.043203	0.195	↔	2019-02-22	2022-07-13	0.108
05_3_112	MW-5	App. IV	Fluoride	mg/L	42	0	0%	-0.00043578	0.430	↔	< 0.0001	0.022	↔	-0.00023569	0.392	↔	2016-05-19	2024-10-28	0.171
05_3_114	MW-5	App. IV	Lithium	ug/L	42	1	2%	-0.00024076	0.873	↔	0.0083463	0.447	↔	-0.0026701	0.105	↔	2020-02-02	2021-08-08	0.198
05_3_115	MW-5	App. IV	Mercury	ug/L	42	42	100%	< 0.0001	1.000	↔	< 0.0001	0.000	↑	-0.00015923	0.000	↓	2017-12-12	2024-12-01	0.686
05_3_116	MW-5	App. IV	Molybdenum	ug/L	42	39	93%	-0.00082553	0.611	↔	0.0083391	0.142	↔	-0.0062422	0.009	↓	2020-04-07	2022-04-18	0.262
05_3_120	MW-5	App. IV	Radium-228	pCi/L	40	0	0%	0.00096856	0.325	↔	-0.0020022	0.663	↔	< 0.0001	0.216	↔	2017-01-23	2017-09-15	0.083
05_3_121	MW-5	App. IV	Selenium	ug/L	42	41	98%	-0.00016128	0.292	↔	-0.0050369	0.064	↔	0.0034823	0.000	↑	2022-04-02	2023-04-25	0.615
05_3_124	MW-5	App. IV	Thallium	ug/L	42	41	98%	-0.016569	0.000	↓	0.00013328	0.943	↔	> -0.0001	0.920	↔	2017-04-06	2020-01-15	0.722
06_1_111	MW-6	App. I Metals	Copper	ug/L	41	33	80%	0.0021151	0.081	↔	-0.0059852	0.041	↔	0.18834	0.000	↑	2021-11-16	2025-04-01	0.738
06_1_117	MW-6	App. I Metals	Nickel	ug/L	41	28	68%	0.00060049	0.092	↔	-0.011842	0.563	↔	0.0023827	0.149	↔	2022-07-13	2023-02-09	0.165
06_1_122	MW-6	App. I Metals	Silver	ug/L	41	41	100%	> -0.0001	1.000	↔	-0.0016945	0.000	↓	0.010356	0.002	↑	2021-04-30	2025-03-04	0.776
06_1_127	MW-6	App. I Metals	Vanadium	ug/L	41	36	88%	0.00041851	0.227	↔	-0.001513	0.108	↔	0.019784	0.001	↑	2021-11-16	2025-01-05	0.438
06_1_128	MW-6	App. I Metals	Zinc	ug/L	41	26	63%	-0.0018291	0.910	↔	0.0014467	0.262	↔	0.034115	0.220	↔	2017-03-31	2025-01-21	0.195
06_2_105	MW-6	App. III	Boron	ug/L	40	23	57%	-0.018816	0.002	↓	0.0043803	0.000	↑	0.00091455	0.416	↔	2017-03-21	2021-08-11	0.666
06_2_112	MW-6	App. III	Fluoride	mg/L	41	1	2%	0.00014842	0.044	↔	-0.00021022	0.287	↔	< 0.0001	0.674	↔	2018-04-23	2020-01-12	0.233
06_2_123	MW-6	App. III	Sulfate	mg/L	41	0	0%	-0.080412	0.000	↓	0.0018518	0.940	↔	-0.0012895	0.976	↔	2020-01-29	2023-07-16	0.690
06_3_101	MW-6	App. IV	Antimony	ug/L	41	41	100%	0.00011105	0.850	↔	-0.010843	0.464	↔	0.00053021	0.051	↔	2019-04-13	2019-07-21	0.156

(Table continues on next page)

Table 10: Trend Tests: Piecewise Linear-Linear-Linear *(continued)*

								Line 1			Line 2			Line 3					
ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	Slope	p-Value	Trend	Slope	p-Value	Trend	Slope	p-Value	Trend	Break 1	Break 2	R-Squared
06_3_102	MW-6	App. IV	Arsenic	ug/L	41	39	95%	0.0042817	0.001	↑	-0.0011415	0.000	↓	0.017731	0.019	↔	2018-02-02	2025-02-10	0.558
06_3_103	MW-6	App. IV	Barium	ug/L	41	0	0%	-0.040036	0.000	↓	0.035718	0.278	↔	-0.0073174	0.780	↔	2021-06-19	2023-04-25	0.659
06_3_106	MW-6	App. IV	Cadmium	ug/L	41	41	100%	> -0.0001	1.000	↔	-0.00010172	0.000	↓	0.00075292	0.000	↑	2018-03-28	2024-09-22	0.725
06_3_109	MW-6	App. IV	Chromium	ug/L	41	32	78%	0.00098081	0.226	↔	-0.0031281	0.136	↔	0.011936	0.176	↔	2021-04-30	2024-09-19	0.163
06_3_112	MW-6	App. IV	Fluoride	mg/L	41	1	2%	0.00014842	0.044	↔	-0.00021022	0.287	↔	< 0.0001	0.674	↔	2018-04-23	2020-01-12	0.233
06_3_113	MW-6	App. IV	Lead	ug/L	41	38	93%	0.00082012	0.231	↔	-0.0017077	0.701	↔	0.0059984	0.137	↔	2022-01-24	2024-01-22	0.167
06_3_114	MW-6	App. IV	Lithium	ug/L	41	0	0%	-0.18344	0.111	↔	-0.010928	0.000	↓	0.0013725	0.702	↔	2016-02-17	2021-07-19	0.658
06_3_115	MW-6	App. IV	Mercury	ug/L	41	40	98%	< 0.0001	0.435	↔	> -0.0001	0.740	↔	-0.00013031	0.453	↔	2018-01-23	2024-12-11	0.104
06_3_116	MW-6	App. IV	Molybdenum	ug/L	41	36	88%	-0.0053952	0.458	↔	0.0028485	0.062	↔	-0.0014396	0.002	↓	2016-11-27	2019-10-13	0.306
06_3_119	MW-6	App. IV	Radium-226	pCi/L	39	0	0%	> -0.0001	0.442	↔	> -0.0001	0.901	↔	-0.0021976	0.661	↔	2021-11-16	2025-04-04	0.125
06_3_120	MW-6	App. IV	Radium-228	pCi/L	39	0	0%	0.00029856	0.448	↔	-0.00058502	0.249	↔	0.00028788	0.043	↔	2018-06-02	2020-10-12	0.168
06_3_121	MW-6	App. IV	Selenium	ug/L	41	39	95%	-0.00014188	0.356	↔	-0.0059564	0.003	↓	0.0038715	0.000	↑	2022-04-10	2023-04-25	0.632
06_3_124	MW-6	App. IV	Thallium	ug/L	41	37	90%	-0.01246	0.000	↓	< 0.0001	0.994	↔	0.00043714	0.885	↔	2017-04-16	2025-04-01	0.953
07_1_111	MW-7R	App. I Metals	Copper	ug/L	33	21	64%	0.033914	0.453	↔	-0.0098687	0.213	↔	0.34423	0.329	↔	2019-07-09	2025-05-14	0.178
07_1_117	MW-7R	App. I Metals	Nickel	ug/L	33	15	45%	0.598	0.010	↑	-1.2383	0.554	↔	0.011059	0.817	↔	2019-07-10	2020-03-14	0.316
07_1_122	MW-7R	App. I Metals	Silver	ug/L	33	33	100%	< 0.0001	1.000	↔	-0.0015938	0.000	↓	0.016454	0.026	↔	2021-03-29	2025-05-14	0.767
07_1_127	MW-7R	App. I Metals	Vanadium	ug/L	33	16	48%	-0.046655	0.129	↔	-0.0006257	0.519	↔	0.011507	0.841	↔	2018-03-19	2025-05-13	0.275
07_2_105	MW-7R	App. III	Boron	ug/L	32	12	38%	-0.040188	0.002	↓	0.0019137	0.177	↔	-0.0020501	0.919	↔	2018-10-24	2024-12-24	0.458
07_2_107	MW-7R	App. III	Calcium	ug/L	33	0	0%	14.258	0.222	↔	1.8756	0.477	↔	-8.807	0.591	↔	2019-07-09	2024-04-12	0.248
07_2_108	MW-7R	App. III	Chloride	mg/L	33	0	0%	-0.027213	0.003	↓	0.15113	0.616	↔	-0.052525	0.018	↔	2022-07-16	2023-04-16	0.398
07_2_112	MW-7R	App. III	Fluoride	mg/L	33	1	3%	-0.00087957	0.000	↓	< 0.0001	0.002	↑	-0.00019733	0.203	↔	2018-03-19	2025-03-03	0.766
07_2_118	MW-7R	App. III	pH (Field)	S.U.	32	0	0%	-0.013767	0.000	↓	-0.00010037	0.696	↔	< 0.0001	0.704	↔	2017-12-10	2020-04-15	0.835
07_2_125	MW-7R	App. III	Total Dissolved Solids	mg/L	33	0	0%	0.1158	0.007	↑	-0.21049	0.817	↔	0.023512	0.356	↔	2020-10-13	2021-05-31	0.332
07_3_101	MW-7R	App. IV	Antimony	ug/L	33	32	97%	0.0012856	0.749	↔	-0.00062675	0.402	↔	0.0078133	0.605	↔	2019-07-09	2025-03-08	0.042
07_3_102	MW-7R	App. IV	Arsenic	ug/L	33	30	91%	-0.00025236	0.563	↔	-0.0027468	0.006	↓	0.017245	0.000	↑	2022-04-12	2024-12-20	0.628
07_3_106	MW-7R	App. IV	Cadmium	ug/L	33	33	100%	-0.00010904	0.000	↓	< 0.0001	0.941	↔	0.00079322	0.011	↔	2023-05-08	2024-12-05	0.667
07_3_109	MW-7R	App. IV	Chromium	ug/L	33	8	24%	1.1671	0.024	↔	-1.6718	0.294	↔	0.039595	0.751	↔	2019-07-10	2020-07-18	0.277
07_3_110	MW-7R	App. IV	Cobalt	ug/L	33	28	85%	0.0076932	0.209	↔	-0.0036305	0.031	↔	0.0011316	0.837	↔	2019-07-09	2023-11-19	0.282
07_3_112	MW-7R	App. IV	Fluoride	mg/L	33	1	3%	-0.00087957	0.000	↓	< 0.0001	0.002	↑	-0.00019733	0.203	↔	2018-03-19	2025-03-03	0.766
07_3_113	MW-7R	App. IV	Lead	ug/L	33	27	82%	0.0013848	0.217	↔	-0.02451	0.475	↔	0.0026635	0.247	↔	2022-06-30	2022-11-11	0.126
07_3_114	MW-7R	App. IV	Lithium	ug/L	33	0	0%	0.026915	0.000	↑	-0.0016387	0.306	↔	0.0082585	0.250	↔	2019-06-08	2024-04-01	0.644
07_3_115	MW-7R	App. IV	Mercury	ug/L	33	33	100%	< 0.0001	0.000	↑	> -0.0001	0.756	↔	-0.00015882	0.000	↓	2021-09-01	2025-01-16	0.720
07_3_116	MW-7R	App. IV	Molybdenum	ug/L	33	28	85%	0.0061663	0.710	↔	-0.0074371	0.250	↔	0.0022373	0.785	↔	2019-07-03	2023-01-16	0.132
07_3_119	MW-7R	App. IV	Radium-226	pCi/L	31	0	0%	0.0014511	0.081	↔	-0.00077873	0.310	↔	< 0.0001	0.848	↔	2019-01-24	2020-10-14	0.186
07_3_120	MW-7R	App. IV	Radium-228	pCi/L	31	0	0%	0.00049811	0.606	↔	0.00014529	0.899	↔	-0.00015642	0.512	↔	2019-05-07	2021-04-13	0.046
07_3_121	MW-7R	App. IV	Selenium	ug/L	33	32	97%	> -0.0001	0.970	↔	-0.0028979	0.023	↔	0.0031038	0.001	↑	2021-06-25	2023-04-25	0.539
07_3_124	MW-7R	App. IV	Thallium	ug/L	33	30	91%	-0.0016492	0.000	↓	> -0.0001	0.472	↔	0.00047088	0.320	↔	2018-03-19	2025-05-14	0.860
07_3_126	MW-7R	App. IV	Total Radium	pCi/L	31	0	0%	0.0017153	0.299	↔	-0.00032069	0.151	↔	0.00070744	0.642	↔	2019-01-23	2024-04-03	0.137
08_1_111	MW-8	App. I Metals	Copper	ug/L	42	31	74%	> -0.0001	0.993	↔	0.12358	0.593	↔	-0.050644	0.005	↓	2022-08-22	2023-04-26	0.249
08_1_117	MW-8	App. I Metals	Nickel	ug/L	42	21	50%	-0.0015761	0.809	↔	0.077533	0.497	↔	-0.057401	0.028	↔	2022-02-01	2023-04-26	0.173
08_1_122	MW-8	App. I Metals	Silver	ug/L	42	41	98%	< 0.0001	1.000	↔	-0.0016961	0.000	↓	0.010319	0.001	↑	2021-07-20	2025-03-15	0.783
08_1_128	MW-8	App. I Metals	Zinc	ug/L	42	24	57%	-0.015745	0.025	↔	0.010932	0.217	↔	-0.014957	0.246	↔	2019-07-27	2023-04-26	0.208

(Table continues on next page)

Table 10: Trend Tests: Piecewise Linear-Linear-Linear *(continued)*

								Line 1			Line 2			Line 3					
ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	Slope	p-Value	Trend	Slope	p-Value	Trend	Slope	p-Value	Trend	Break 1	Break 2	R-Squared
08_2_105	MW-8	App. III	Boron	ug/L	41	15	37%	-0.018772	0.054	↔	0.0050512	0.031	↔	0.0007582	0.596	↔	2017-02-09	2021-01-26	0.417
08_2_107	MW-8	App. III	Calcium	ug/L	42	0	0%	-85.061	0.028	↔	-15.177	0.362	↔	18.977	0.077	↔	2017-10-06	2021-01-27	0.492
08_2_108	MW-8	App. III	Chloride	mg/L	42	0	0%	-2.0287	0.010	↓	-0.17478	0.024	↔	0.013967	0.503	↔	2016-05-25	2019-03-24	0.758
08_2_112	MW-8	App. III	Fluoride	mg/L	42	20	48%	< 0.0001	0.000	↑	< 0.0001	0.044	↔	> -0.0001	0.013	↔	2022-01-02	2023-03-12	0.872
08_2_118	MW-8	App. III	pH (Field)	S.U.	40	0	0%	0.00092538	0.101	↔	< 0.0001	0.354	↔	> -0.0001	0.459	↔	2016-10-02	2023-01-22	0.441
08_2_123	MW-8	App. III	Sulfate	mg/L	42	0	0%	0.0021942	0.000	↑	-0.0015106	0.106	↔	0.00011668	0.647	↔	2019-02-28	2021-02-17	0.602
08_2_125	MW-8	App. III	Total Dissolved Solids	mg/L	42	0	0%	6.0001	0.091	↔	-0.06057	0.123	↔	3.2693	0.040	↔	2016-02-20	2025-03-29	0.305
08_3_101	MW-8	App. IV	Antimony	ug/L	42	35	83%	-0.011046	0.001	↓	-0.00055402	0.424	↔	0.00052515	0.248	↔	2017-02-13	2021-01-26	0.700
08_3_102	MW-8	App. IV	Arsenic	ug/L	42	37	88%	0.0053851	0.005	↑	-0.00076976	0.005	↓	0.017669	0.027	↔	2017-09-10	2025-03-23	0.488
08_3_103	MW-8	App. IV	Barium	ug/L	42	0	0%	-1.9999	0.436	↔	-0.27672	0.136	↔	0.043966	0.271	↔	2016-04-05	2018-08-27	0.341
08_3_106	MW-8	App. IV	Cadmium	ug/L	42	41	98%	> -0.0001	0.928	↔	-0.00038224	0.427	↔	0.0010026	0.266	↔	2023-04-27	2024-11-26	0.105
08_3_109	MW-8	App. IV	Chromium	ug/L	42	20	48%	0.082287	0.415	↔	-0.038012	0.455	↔	-0.00080671	0.860	↔	2017-01-23	2018-06-13	0.097
08_3_112	MW-8	App. IV	Fluoride	mg/L	42	20	48%	< 0.0001	0.000	↑	< 0.0001	0.044	↔	> -0.0001	0.013	↔	2022-01-02	2023-03-12	0.872
08_3_114	MW-8	App. IV	Lithium	ug/L	42	1	2%	-0.16276	0.092	↔	-0.010858	0.013	↔	0.0049599	0.010	↑	2016-02-20	2019-08-01	0.494
08_3_115	MW-8	App. IV	Mercury	ug/L	42	41	98%	< 0.0001	0.419	↔	> -0.0001	0.509	↔	-0.00012081	0.563	↔	2018-01-22	2025-01-01	0.087
08_3_119	MW-8	App. IV	Radium-226	pCi/L	40	0	0%	-0.0032638	0.837	↔	> -0.0001	0.383	↔	0.0012259	0.629	↔	2016-02-15	2024-12-02	0.054
08_3_120	MW-8	App. IV	Radium-228	pCi/L	40	0	0%	0.00027044	0.087	↔	-0.003224	0.571	↔	0.0012606	0.402	↔	2023-05-01	2024-04-01	0.138
08_3_121	MW-8	App. IV	Selenium	ug/L	42	40	95%	-0.00016197	0.285	↔	-0.0048827	0.012	↔	0.0034373	0.000	↑	2022-03-31	2023-04-27	0.612
08_3_124	MW-8	App. IV	Thallium	ug/L	42	40	95%	-0.013556	0.000	↓	> -0.0001	0.995	↔	0.00030393	0.951	↔	2017-04-15	2025-03-29	0.896
08_3_126	MW-8	App. IV	Total Radium	pCi/L	40	0	0%	-0.00019061	0.683	↔	0.00095288	0.418	↔	-0.0013907	0.306	↔	2020-10-05	2023-04-27	0.064
09_1_111	MW-10	App. I Metals	Copper	ug/L	18	9	50%	0.23014	0.122	↔	-0.17324	0.371	↔	0.02565	0.362	↔	2022-04-21	2023-03-12	0.325
09_1_117	MW-10	App. I Metals	Nickel	ug/L	18	6	33%	0.008663	0.311	↔	-0.019209	0.550	↔	0.012739	0.695	↔	2023-10-04	2025-01-16	0.182
09_1_122	MW-10	App. I Metals	Silver	ug/L	18	18	100%	-0.0039916	0.040	↔	-0.00056875	0.471	↔	0.021414	0.034	↔	2022-11-06	2025-07-03	0.697
09_1_128	MW-10	App. I Metals	Zinc	ug/L	18	13	72%	0.04101	0.143	↔	-0.1087	0.534	↔	0.04236	0.580	↔	2023-10-04	2024-09-20	0.275
09_2_105	MW-10	App. III	Boron	ug/L	18	0	0%	-0.0023618	0.906	↔	0.022441	0.393	↔	-0.004108	0.580	↔	2022-08-16	2023-10-03	0.384
09_2_108	MW-10	App. III	Chloride	mg/L	18	0	0%	0.002401	0.255	↔	-0.0090626	0.702	↔	0.00089143	0.657	↔	2023-04-28	2023-10-17	0.164
09_2_112	MW-10	App. III	Fluoride	mg/L	18	0	0%	< 0.0001	0.553	↔	-0.00041618	0.543	↔	> -0.0001	0.688	↔	2023-04-27	2023-10-06	0.582
09_2_125	MW-10	App. III	Total Dissolved Solids	mg/L	18	0	0%	0.17267	0.012	↔	-0.0058706	0.500	↔	-0.053075	0.051	↔	2022-03-15	2024-10-25	0.757
09_3_101	MW-10	App. IV	Antimony	ug/L	18	17	94%	0.005975	0.232	↔	-0.0057044	0.235	↔	0.001794	0.414	↔	2022-10-22	2023-10-04	0.268
09_3_102	MW-10	App. IV	Arsenic	ug/L	18	14	78%	-0.0034005	0.051	↔	-0.00025056	0.894	↔	0.017788	0.015	↔	2023-04-27	2025-02-13	0.721
09_3_103	MW-10	App. IV	Barium	ug/L	18	0	0%	0.0555	0.333	↔	0.28371	0.500	↔	-0.057427	0.135	↔	2023-04-18	2023-10-02	0.580
09_3_104	MW-10	App. IV	Beryllium	ug/L	18	18	100%	-0.001374	0.075	↔	> -0.0001	0.960	↔	0.0010429	0.267	↔	2022-10-23	2024-12-13	0.603
09_3_106	MW-10	App. IV	Cadmium	ug/L	18	18	100%	-0.0002748	0.132	↔	< 0.0001	0.592	↔	0.00069063	0.095	↔	2023-04-26	2024-11-12	0.593
09_3_109	MW-10	App. IV	Chromium	ug/L	18	6	33%	0.026419	0.127	↔	-0.11528	0.677	↔	0.0083033	0.812	↔	2023-10-04	2024-04-13	0.291
09_3_112	MW-10	App. IV	Fluoride	mg/L	18	0	0%	< 0.0001	0.553	↔	-0.00041618	0.543	↔	> -0.0001	0.688	↔	2023-04-27	2023-10-06	0.582
09_3_114	MW-10	App. IV	Lithium	ug/L	18	0	0%	-0.0002955	0.911	↔	0.013945	0.082	↔	0.0012739	0.347	↔	2023-01-12	2023-10-03	0.865
09_3_115	MW-10	App. IV	Mercury	ug/L	18	18	100%	> -0.0001	0.283	↔	< 0.0001	0.280	↔	-0.00015976	0.002	↓	2023-07-24	2024-12-03	0.779
09_3_121	MW-10	App. IV	Selenium	ug/L	18	15	83%	-0.003533	0.052	↔	0.0023936	0.236	↔	0.010206	0.145	↔	2023-04-27	2025-02-05	0.650
09_3_124	MW-10	App. IV	Thallium	ug/L	18	17	94%	< 0.0001	0.339	↔	> -0.0001	0.044	↔	0.0010819	0.002	↑	2023-10-03	2025-07-03	0.704
10_1_111	MW-11	App. I Metals	Copper	ug/L	21	10	48%	0.010548	0.850	↔	-0.0040295	0.094	↔	0.30975	0.000	↑	2021-02-04	2025-07-05	0.790
10_1_122	MW-11	App. I Metals	Silver	ug/L	21	21	100%	-0.0017458	0.001	↓	0.0009089	0.780	↔	0.0212	0.029	↔	2024-07-05	2025-07-14	0.700
10_1_127	MW-11	App. I Metals	Vanadium	ug/L	21	18	86%	-0.0038108	0.004	↓	0.0005313	0.691	↔	0.0364	0.014	↔	2023-02-04	2025-07-13	0.697

(Table continues on next page)

Table 10: Trend Tests: Piecewise Linear-Linear-Linear *(continued)*

								Line 1			Line 2			Line 3					
ID	Well	Constituent Type	Constituent	Unit	n	No. NDs	% NDs	Slope	p-Value	Trend	Slope	p-Value	Trend	Slope	p-Value	Trend	Break 1	Break 2	R-Squared
10_1_128	MW-11	App. I Metals	Zinc	ug/L	21	14	67%	> -0.0001	0.982	↔	-0.020494	0.006	↓	0.030312	0.000	↑	2023-07-24	2024-08-08	0.759
10_2_107	MW-11	App. III	Calcium	ug/L	21	0	0%	-21.734	0.299	↔	28.093	0.192	↔	-29.465	0.166	↔	2022-06-17	2024-01-24	0.265
10_2_112	MW-11	App. III	Fluoride	mg/L	21	1	5%	< 0.0001	0.233	↔	> -0.0001	0.588	↔	< 0.0001	0.726	↔	2022-06-10	2024-01-23	0.145
10_2_118	MW-11	App. III	pH (Field)	S.U.	20	0	0%	-0.0014512	0.557	↔	0.003806	0.375	↔	-0.0032434	0.112	↔	2022-09-14	2024-01-23	0.250
10_2_123	MW-11	App. III	Sulfate	mg/L	21	0	0%	-0.00051934	0.391	↔	0.001538	0.471	↔	-0.00048222	0.131	↔	2022-06-24	2023-04-11	0.212
10_2_125	MW-11	App. III	Total Dissolved Solids	mg/L	21	0	0%	-2.3648	0.319	↔	-0.079913	0.899	↔	0.11371	0.913	↔	2021-11-11	2024-01-24	0.280
10_3_101	MW-11	App. IV	Antimony	ug/L	21	19	90%	0.002911	0.125	↔	-0.0039998	0.560	↔	0.0017126	0.434	↔	2022-10-24	2023-10-09	0.211
10_3_102	MW-11	App. IV	Arsenic	ug/L	21	19	90%	> -0.0001	1.000	↔	-0.0023114	0.017	↔	0.017232	0.004	↑	2021-09-19	2024-12-23	0.641
10_3_103	MW-11	App. IV	Barium	ug/L	21	0	0%	-0.051597	0.227	↔	0.061817	0.266	↔	-0.059991	0.097	↔	2022-06-28	2024-01-23	0.289
10_3_104	MW-11	App. IV	Beryllium	ug/L	21	21	100%	-0.00071482	0.006	↓	> -0.0001	0.827	↔	0.001054	0.257	↔	2023-01-25	2024-11-29	0.616
10_3_106	MW-11	App. IV	Cadmium	ug/L	21	21	100%	< 0.0001	1.000	↔	-0.00011984	0.085	↔	0.00075033	0.016	↔	2021-05-21	2024-09-16	0.524
10_3_109	MW-11	App. IV	Chromium	ug/L	21	15	71%	0.0011588	0.802	↔	-0.0034428	0.160	↔	0.0053377	0.736	↔	2022-07-12	2025-03-06	0.240
10_3_110	MW-11	App. IV	Cobalt	ug/L	21	14	67%	> -0.0001	1.000	↔	-0.0026429	0.005	↓	0.0027787	0.422	↔	2021-04-26	2024-09-03	0.633
10_3_112	MW-11	App. IV	Fluoride	mg/L	21	1	5%	< 0.0001	0.233	↔	> -0.0001	0.588	↔	< 0.0001	0.726	↔	2022-06-10	2024-01-23	0.145
10_3_114	MW-11	App. IV	Lithium	ug/L	21	0	0%	0.010063	0.640	↔	-0.0052464	0.726	↔	0.0021038	0.301	↔	2021-04-13	2022-06-30	0.094
10_3_115	MW-11	App. IV	Mercury	ug/L	21	21	100%	> -0.0001	0.264	↔	< 0.0001	0.419	↔	-0.00016796	0.000	↓	2023-07-24	2024-12-25	0.775
10_3_116	MW-11	App. IV	Molybdenum	ug/L	21	18	86%	-0.0033436	0.001	↓	0.0042015	0.304	↔	-0.0036021	0.097	↔	2023-04-24	2024-05-23	0.643
10_3_119	MW-11	App. IV	Radium-226	pCi/L	21	0	0%	-0.00015098	0.204	↔	0.001394	0.065	↔	-0.0018224	0.113	↔	2024-03-31	2025-03-21	0.464
10_3_120	MW-11	App. IV	Radium-228	pCi/L	21	0	0%	-0.0012254	0.480	↔	0.00020972	0.597	↔	0.0042426	0.581	↔	2021-11-22	2025-07-14	0.117
10_3_121	MW-11	App. IV	Selenium	ug/L	21	21	100%	0.00093672	0.749	↔	-0.0043022	0.186	↔	0.0034106	0.003	↑	2021-11-23	2023-04-23	0.536
10_3_124	MW-11	App. IV	Thallium	ug/L	21	20	95%	< 0.0001	0.421	↔	> -0.0001	0.086	↔	0.0010608	0.000	↑	2024-04-01	2025-07-04	0.864
11_1_117	MW-11D	App. I Metals	Nickel	ug/L	19	14	74%	0.0021934	0.565	↔	-0.010735	0.054	↔	0.00087775	0.508	↔	2022-07-12	2023-05-06	0.607
11_1_122	MW-11D	App. I Metals	Silver	ug/L	19	19	100%	-0.0029436	0.043	↔	-0.00056649	0.468	↔	0.0212	0.032	↔	2023-01-21	2025-07-02	0.700
11_1_127	MW-11D	App. I Metals	Vanadium	ug/L	19	16	84%	-0.0048861	0.020	↔	0.00059173	0.586	↔	0.035613	0.013	↔	2023-01-24	2025-07-11	0.726
11_2_105	MW-11D	App. III	Boron	ug/L	19	0	0%	-0.053188	0.298	↔	-0.015169	0.614	↔	0.00021516	0.994	↔	2022-06-30	2024-01-24	0.402
11_2_107	MW-11D	App. III	Calcium	ug/L	19	0	0%	-76.431	0.349	↔	-13.057	0.657	↔	-1.9286	0.956	↔	2022-04-18	2024-03-16	0.363
11_2_108	MW-11D	App. III	Chloride	mg/L	19	0	0%	-0.64483	0.137	↔	-0.07546	0.559	↔	-0.00097551	0.997	↔	2022-04-18	2024-06-03	0.557
11_2_112	MW-11D	App. III	Fluoride	mg/L	19	0	0%	< 0.0001	0.643	↔	-0.0001642	0.107	↔	> -0.0001	0.849	↔	2023-04-23	2024-11-18	0.499
11_2_123	MW-11D	App. III	Sulfate	mg/L	19	1	5%	-0.67401	0.175	↔	-0.06831	0.646	↔	-0.0028846	0.992	↔	2022-04-18	2024-07-03	0.496
11_3_101	MW-11D	App. IV	Antimony	ug/L	19	16	84%	0.0024455	0.533	↔	-0.0037696	0.479	↔	0.002146	0.387	↔	2022-10-23	2023-12-15	0.120
11_3_102	MW-11D	App. IV	Arsenic	ug/L	19	10	53%	0.006501	0.771	↔	-0.011683	0.014	↔	0.0097355	0.296	↔	2022-01-11	2024-05-01	0.538
11_3_106	MW-11D	App. IV	Cadmium	ug/L	19	19	100%	-0.00023556	0.099	↔	< 0.0001	0.610	↔	0.0007504	0.064	↔	2023-04-23	2024-12-07	0.586
11_3_109	MW-11D	App. IV	Chromium	ug/L	19	14	74%	0.0031773	0.390	↔	-0.0067382	0.034	↔	0.0037533	0.304	↔	2022-07-13	2024-05-18	0.620
11_3_110	MW-11D	App. IV	Cobalt	ug/L	19	18	95%	-0.0051808	0.025	↔	-0.0010858	0.523	↔	0.0029904	0.533	↔	2022-11-08	2024-12-06	0.644
11_3_112	MW-11D	App. IV	Fluoride	mg/L	19	0	0%	< 0.0001	0.643	↔	-0.0001642	0.107	↔	> -0.0001	0.849	↔	2023-04-23	2024-11-18	0.499
11_3_113	MW-11D	App. IV	Lead	ug/L	19	18	95%	-0.0041406	0.176	↔	0.018276	0.177	↔	-0.016319	0.233	↔	2023-12-24	2024-10-29	0.313
11_3_114	MW-11D	App. IV	Lithium	ug/L	19	0	0%	-0.1191	0.012	↔	-0.011315	0.140	↔	0.019653	0.877	↔	2022-04-03	2025-06-08	0.793
11_3_115	MW-11D	App. IV	Mercury	ug/L	19	19	100%	> -0.0001	0.319	↔	< 0.0001	0.487	↔	-0.00017433	0.001	↓	2023-07-24	2025-01-08	0.771
11_3_116	MW-11D	App. IV	Molybdenum	ug/L	19	1	5%	-0.14786	0.091	↔	-0.025094	0.544	↔	-0.00081366	0.990	↔	2022-04-19	2024-04-16	0.527
11_3_119	MW-11D	App. IV	Radium-226	pCi/L	19	0	0%	-0.00051856	0.050	↔	0.0015737	0.399	↔	-0.0020987	0.020	↔	2024-01-13	2024-10-28	0.536
11_3_121	MW-11D	App. IV	Selenium	ug/L	19	17	89%	0.00055563	0.899	↔	-0.0051987	0.120	↔	0.0035862	0.007	↑	2022-03-09	2023-04-24	0.565
11_3_124	MW-11D	App. IV	Thallium	ug/L	19	18	95%	< 0.0001	0.346	↔	-0.00010211	0.130	↔	0.0010511	0.000	↑	2024-04-01	2025-07-01	0.820

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C

Appendix C – Background Wells Plots

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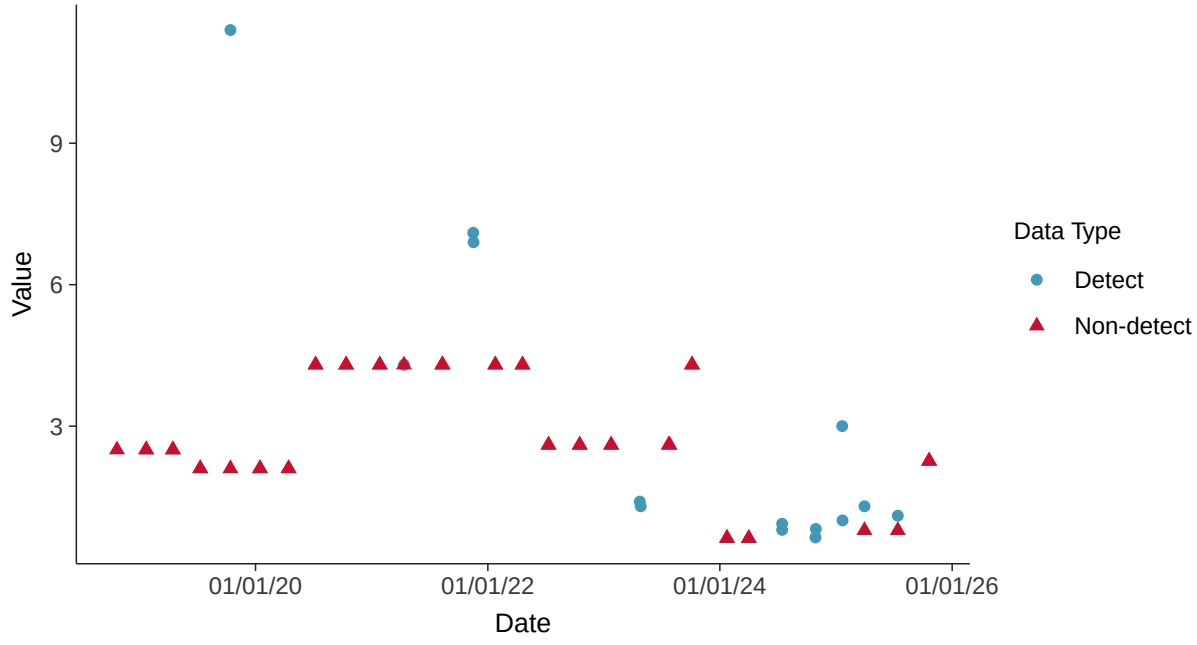
App. I Metals: Copper, BG-1 & BG-2

ID: 1_111

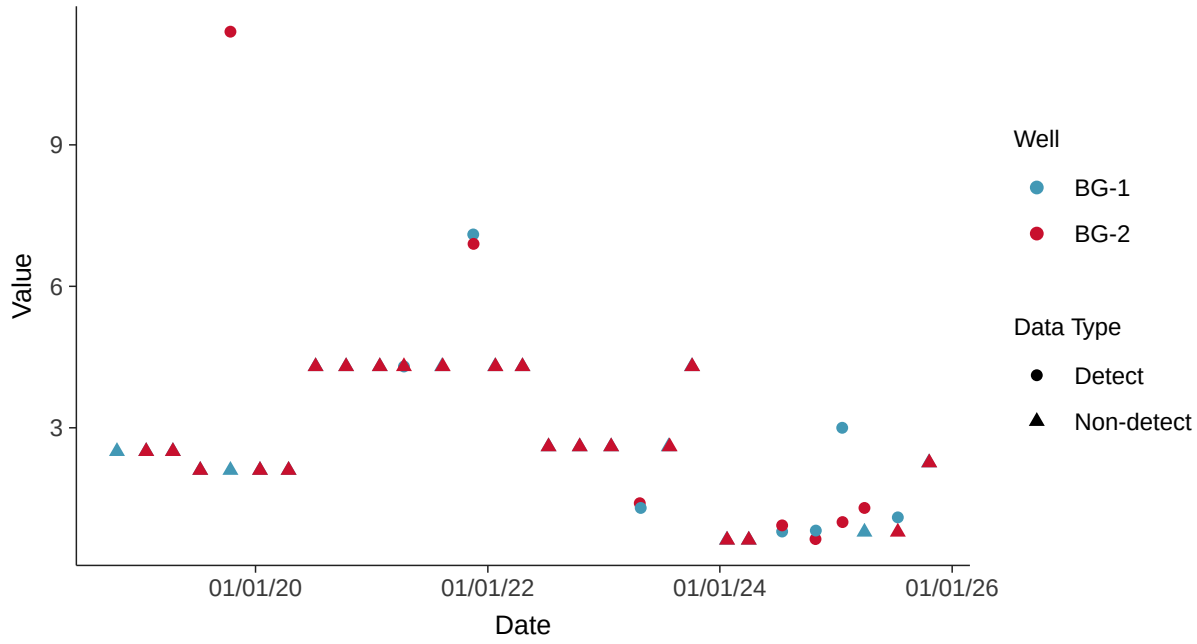
Scatter Plot

Copper, BG-1 & BG-2 (ug/L)



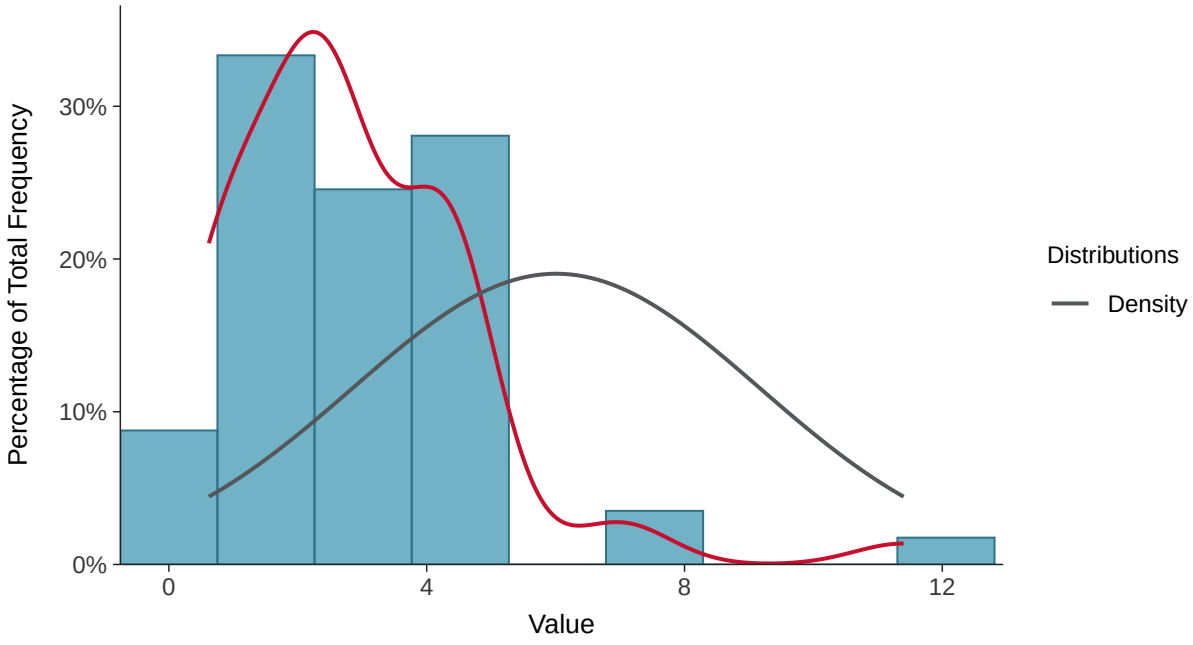
Scatter Plot by Well

Copper, BG-1 & BG-2 (ug/L)



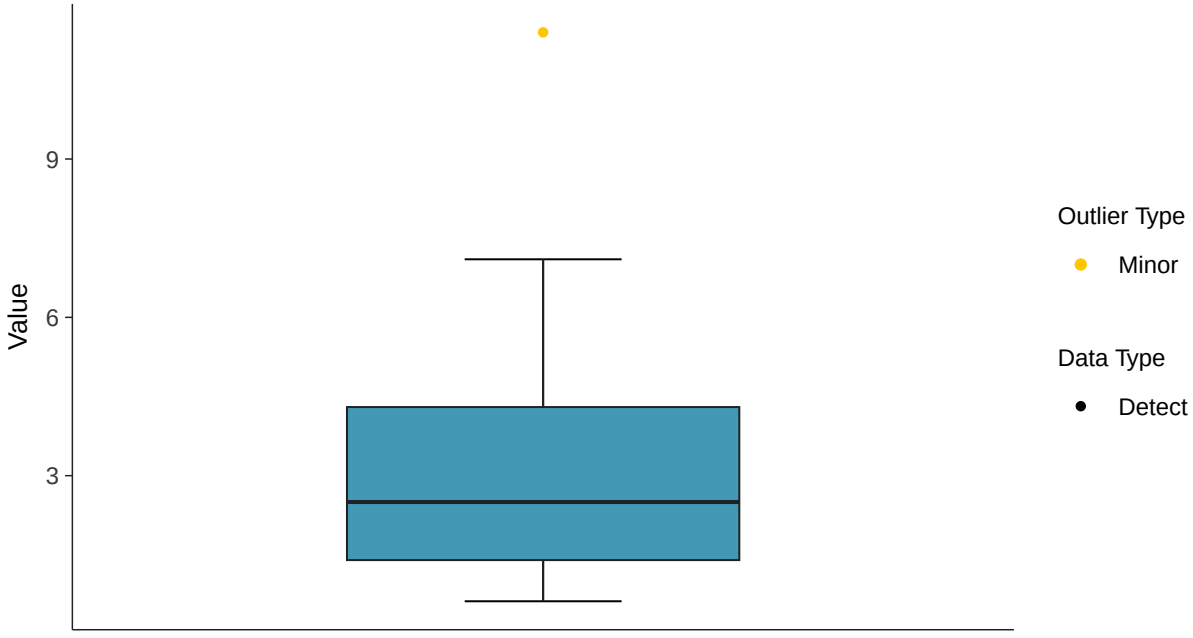
Histogram

Copper, BG-1 & BG-2 (ug/L)



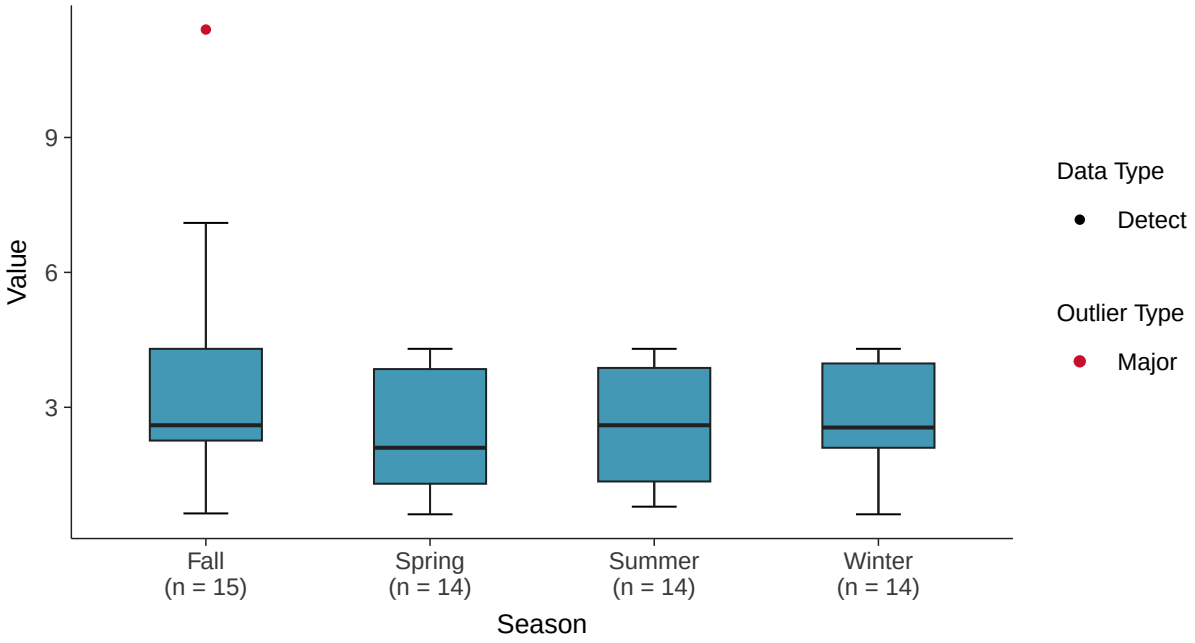
Boxplot

Copper, BG-1 & BG-2 (ug/L)



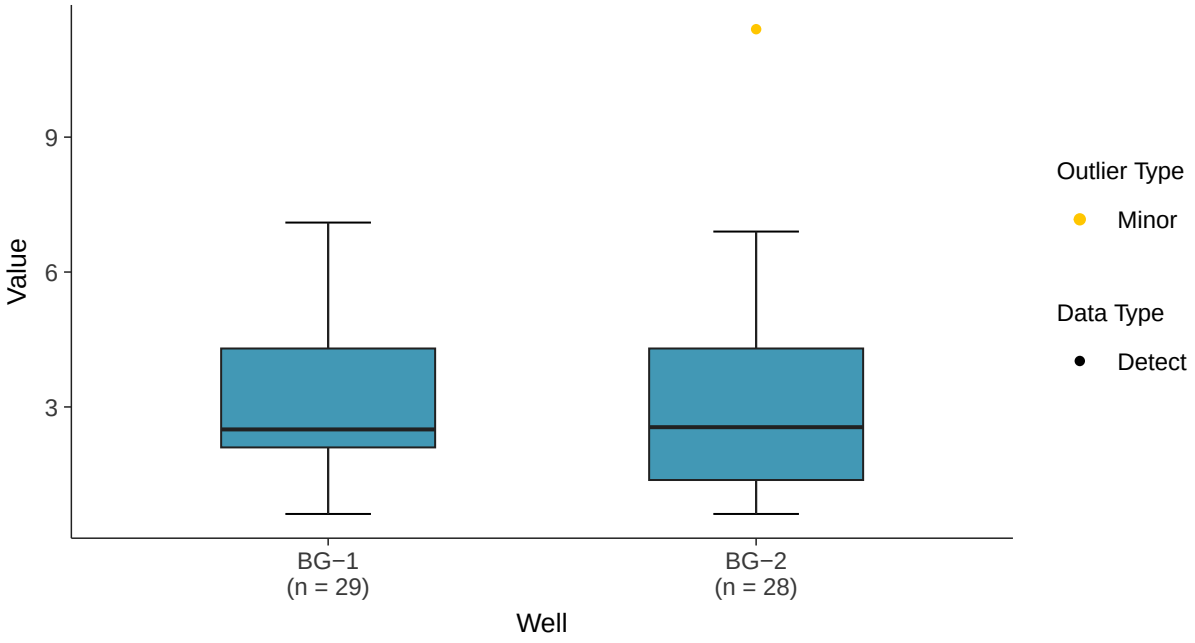
Boxplot by Season

Copper, BG-1 & BG-2 (ug/L)



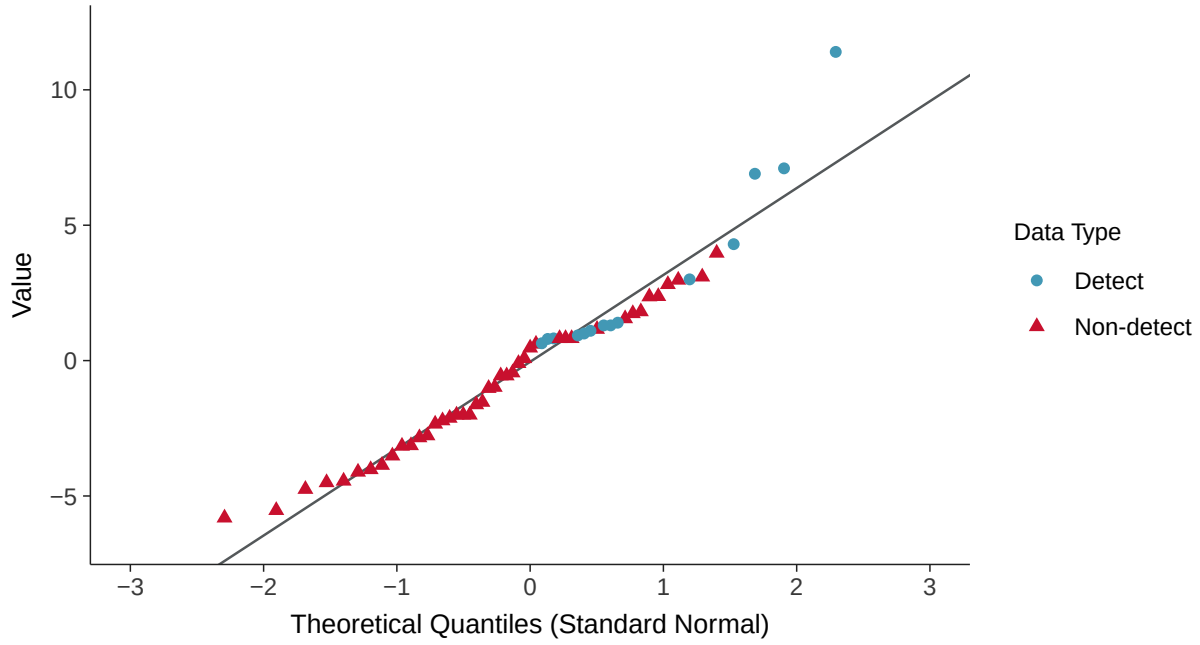
Boxplot by Well

Copper, BG-1 & BG-2 (ug/L)



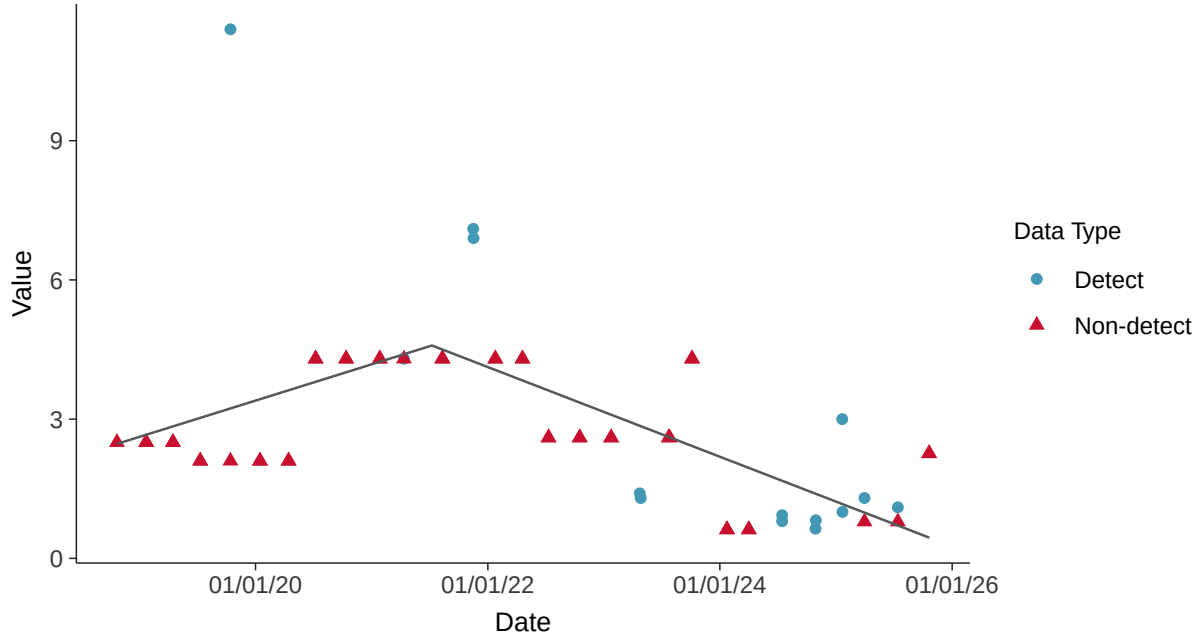
Normal Q-Q plot using ROS Imputed Estimates

Copper, BG-1 & BG-2 (ug/L)



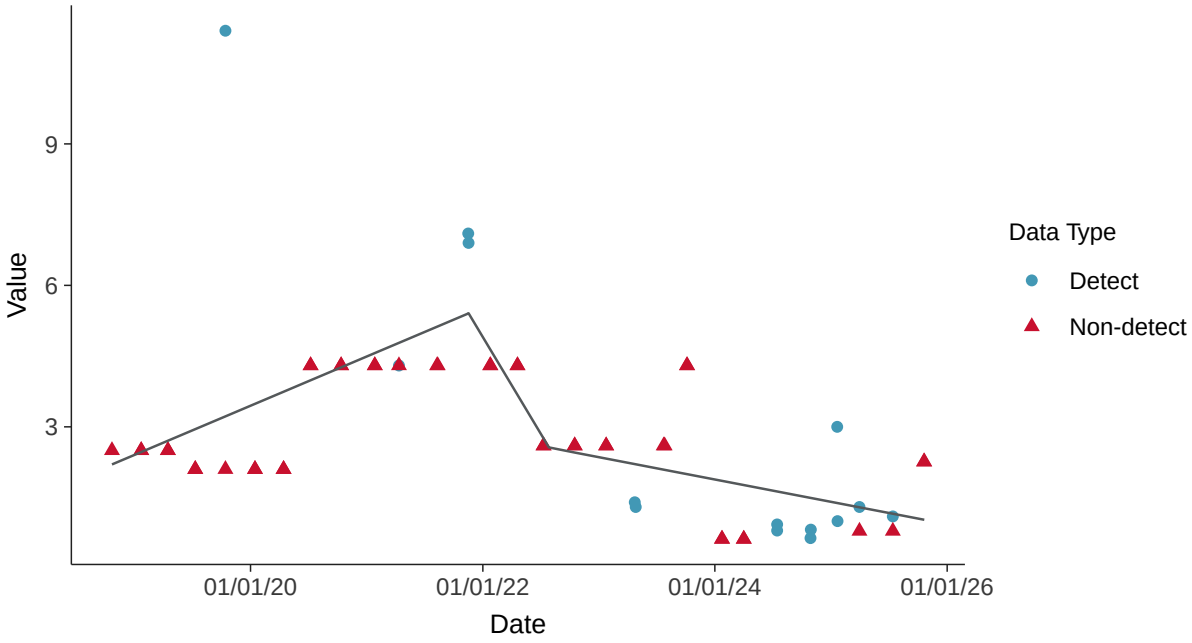
Trend Regression: Piecewise Linear-Linear

Copper, BG-1 & BG-2 (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Copper, BG-1 & BG-2 (ug/L)

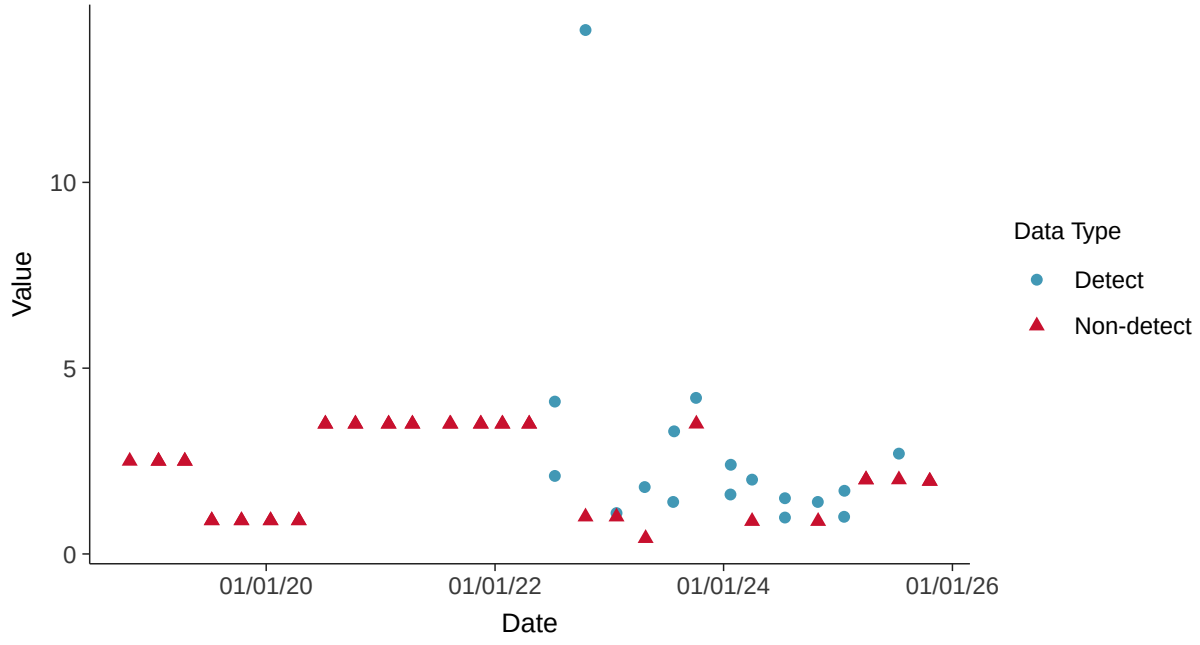


App. I Metals: Nickel, BG-1 & BG-2

ID: 1_117

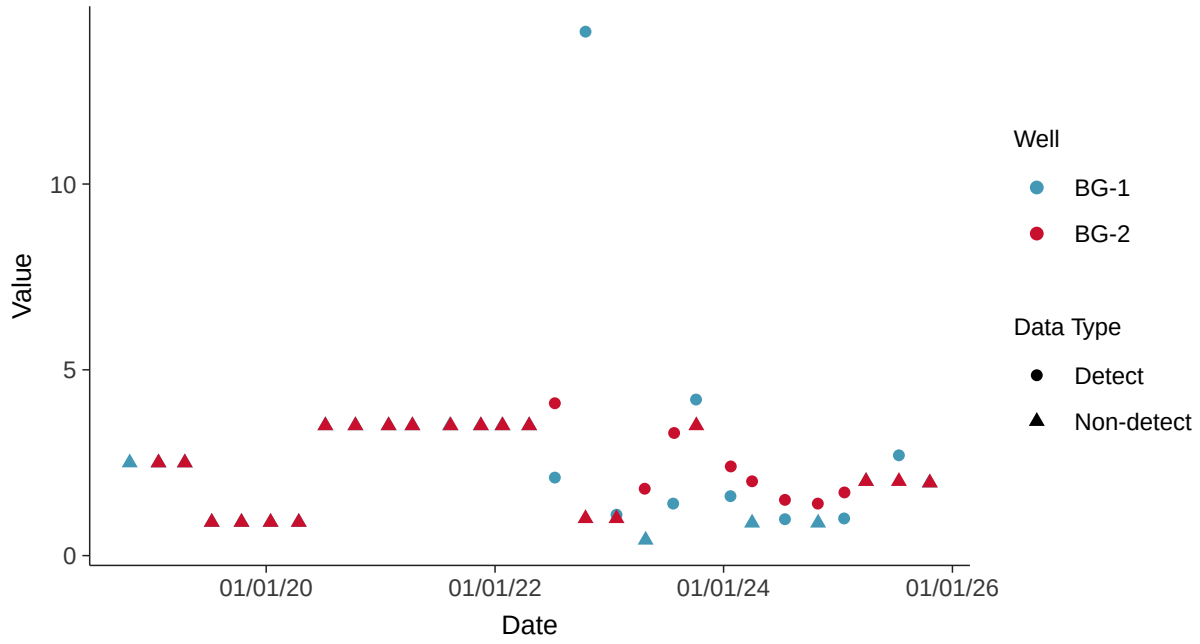
Scatter Plot

Nickel, BG-1 & BG-2 (ug/L)



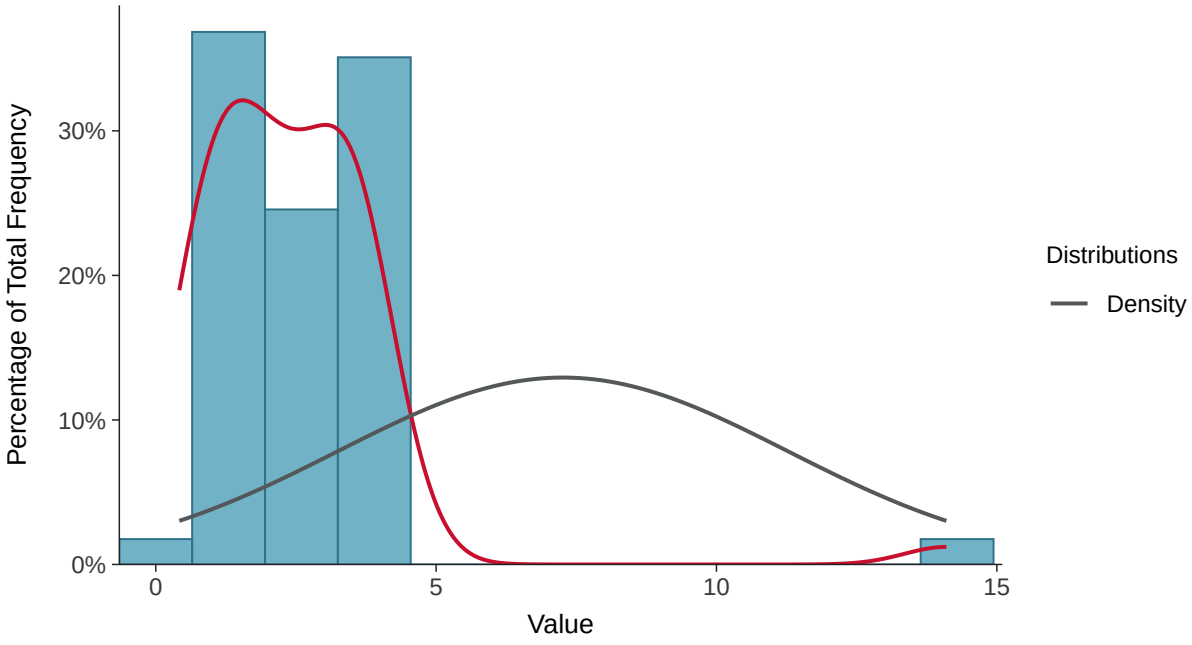
Scatter Plot by Well

Nickel, BG-1 & BG-2 (ug/L)



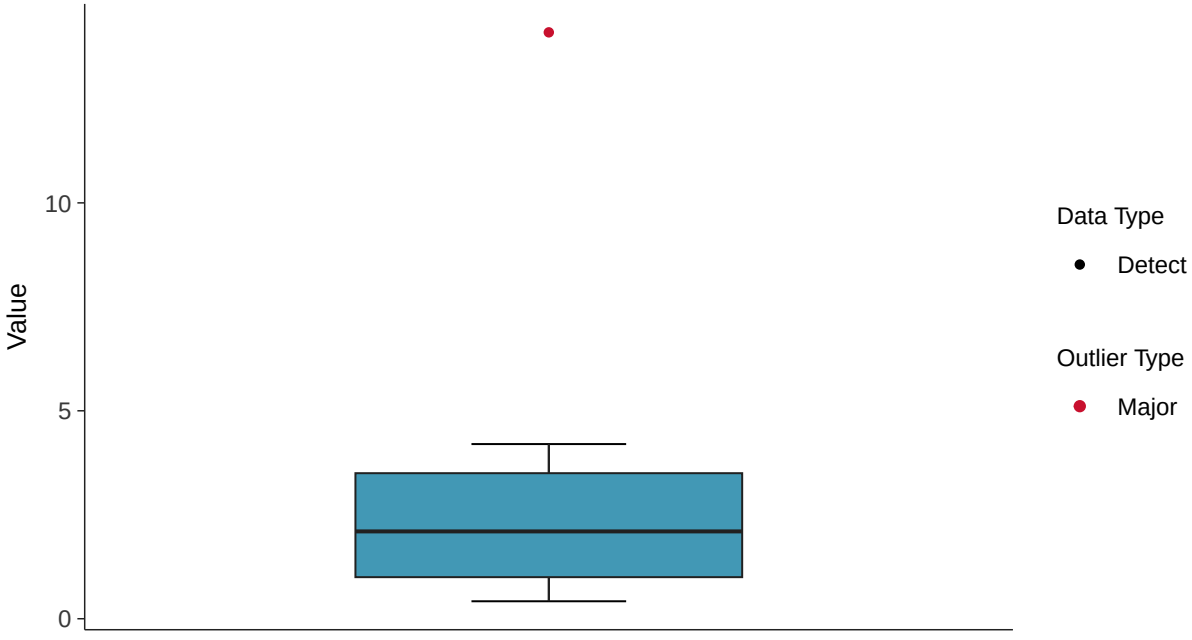
Histogram

Nickel, BG-1 & BG-2 (ug/L)



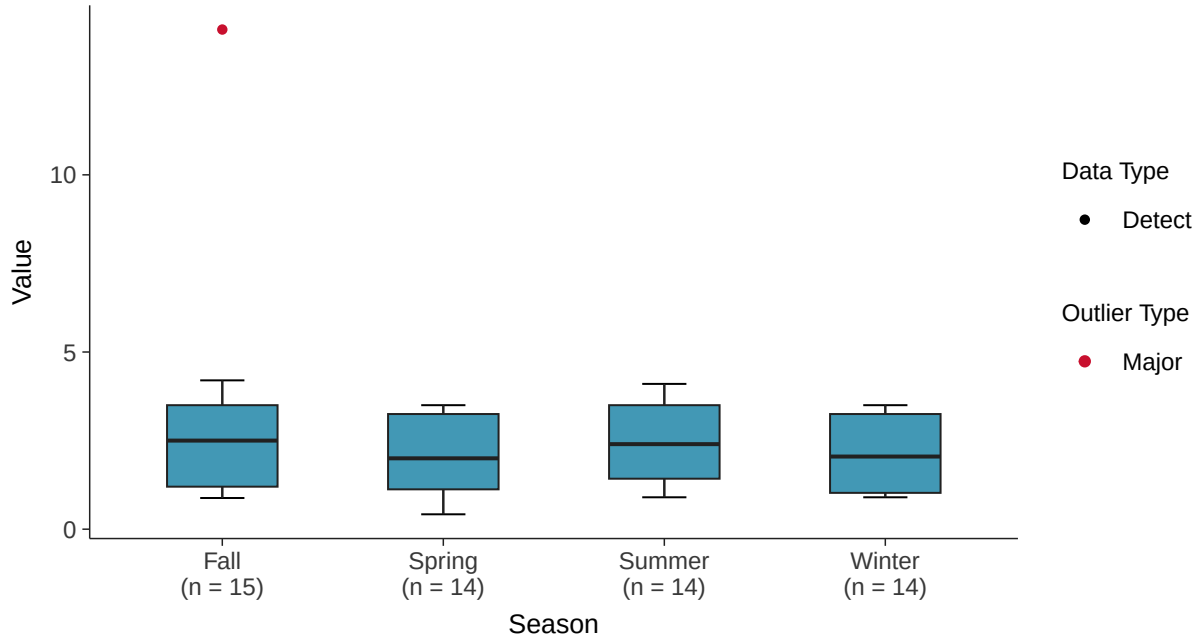
Boxplot

Nickel, BG-1 & BG-2 (ug/L)



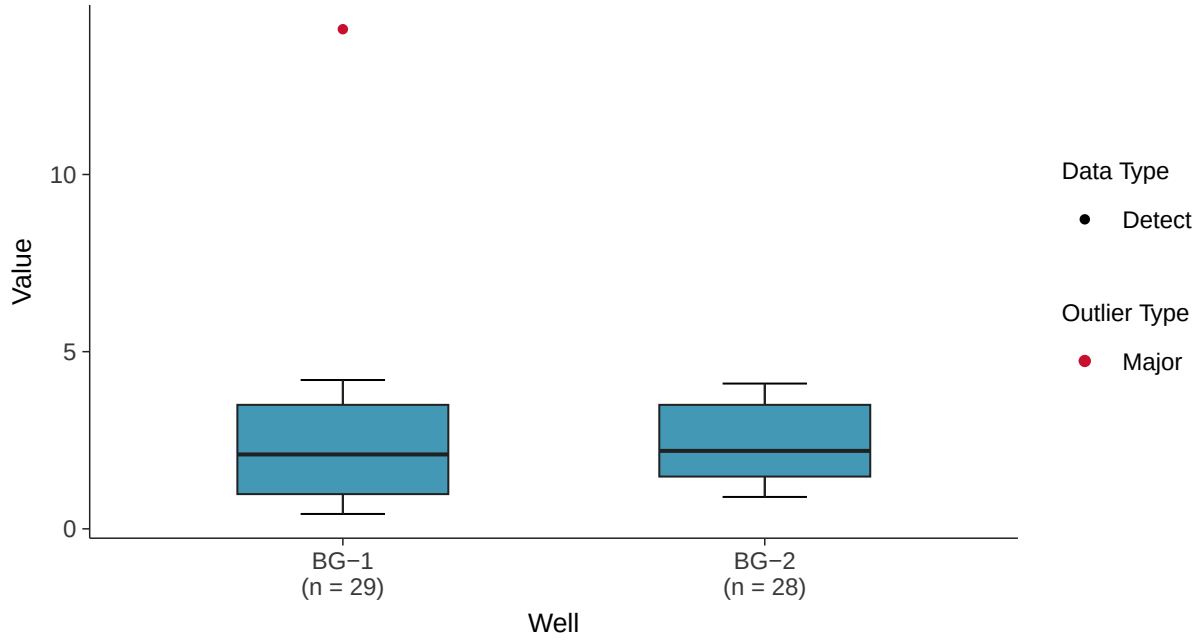
Boxplot by Season

Nickel, BG-1 & BG-2 (ug/L)



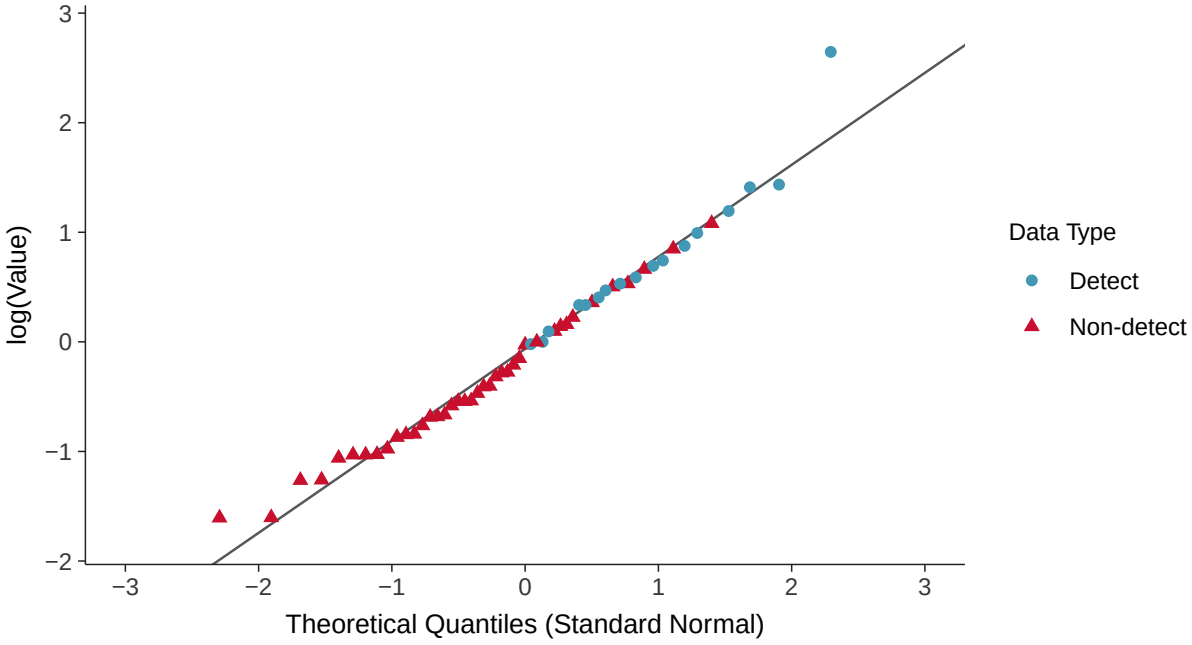
Boxplot by Well

Nickel, BG-1 & BG-2 (ug/L)



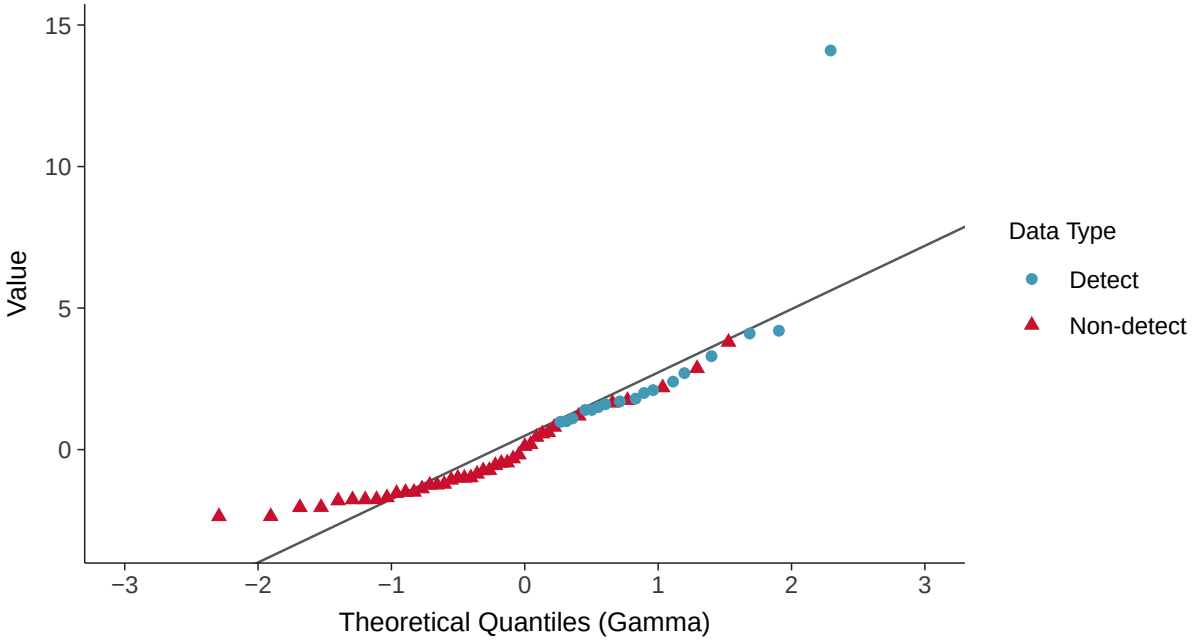
Lognormal Q-Q plot using ROS Imputed Estimates

Nickel, BG-1 & BG-2 (ug/L)



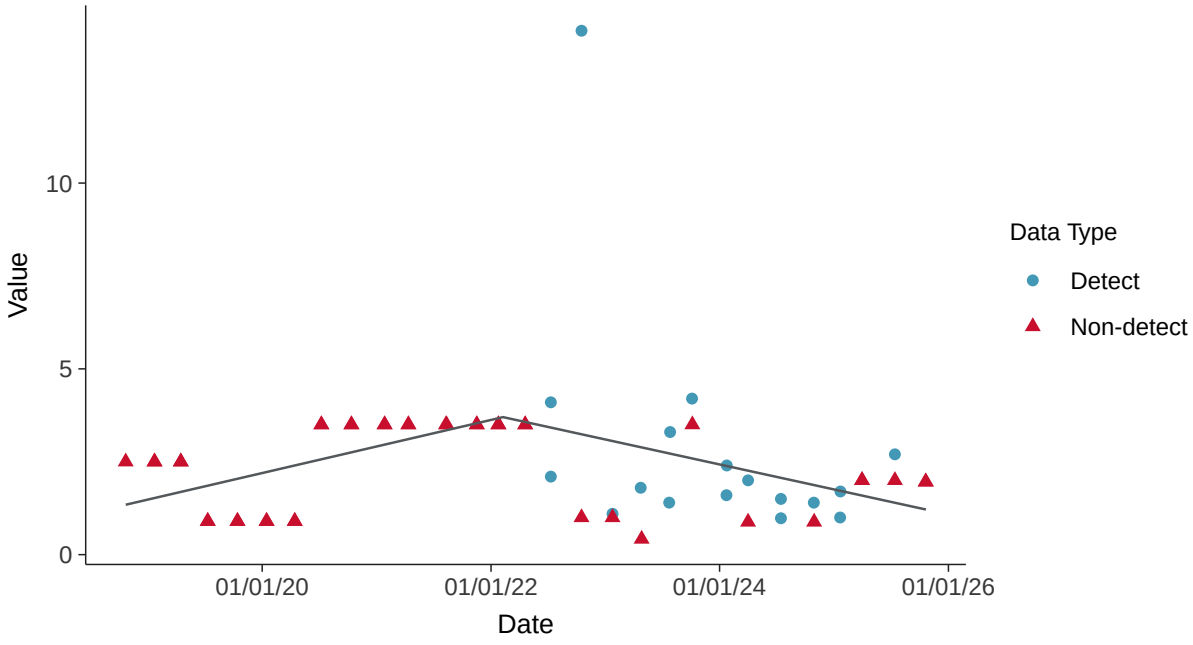
Gamma Q-Q plot using ROS Imputed Estimates

Nickel, BG-1 & BG-2 (ug/L)



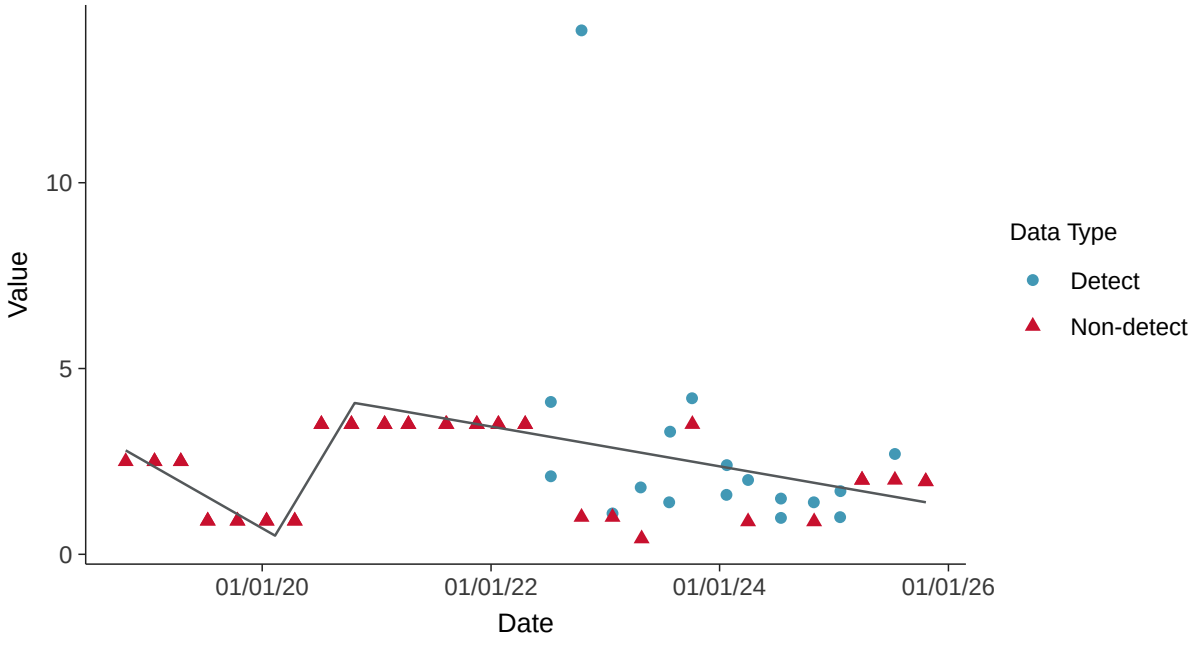
Trend Regression: Piecewise Linear-Linear

Nickel, BG-1 & BG-2 (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Nickel, BG-1 & BG-2 (ug/L)

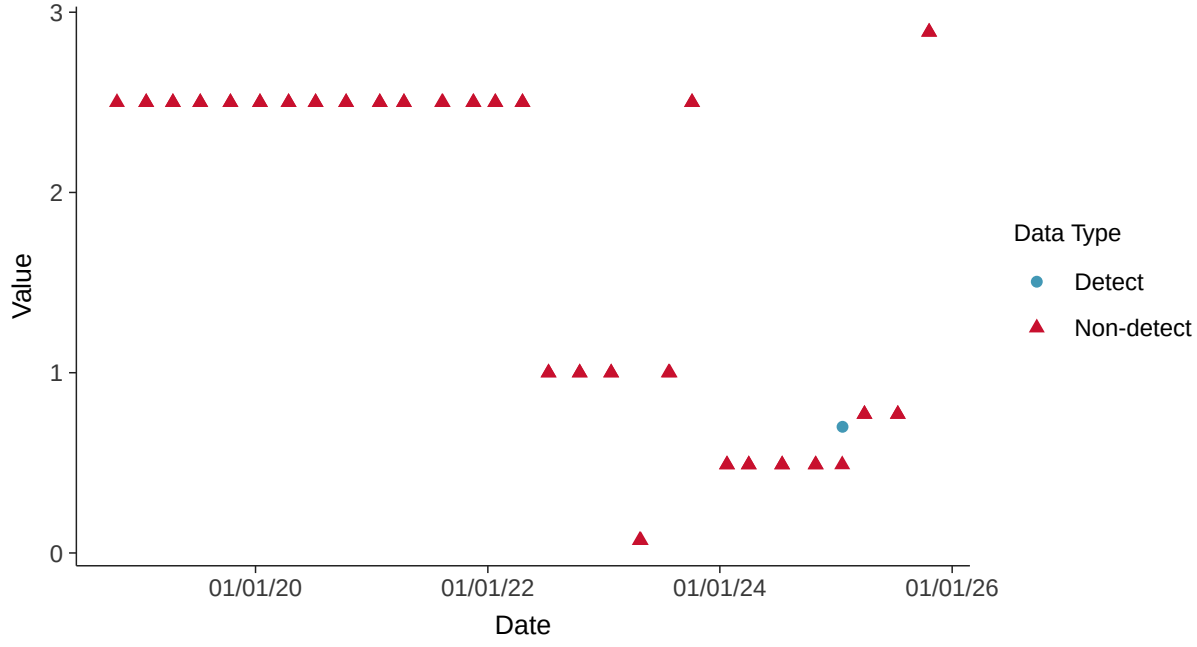


App. I Metals: Silver, BG-1 & BG-2

ID: 1_122

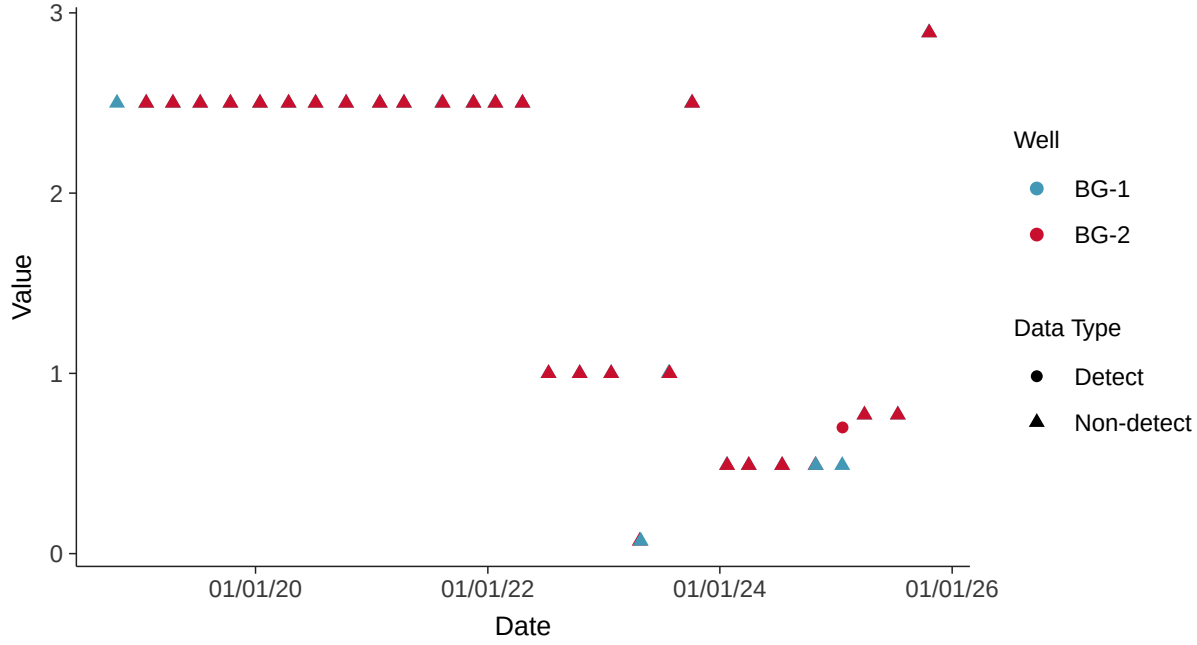
Scatter Plot

Silver, BG-1 & BG-2 (ug/L)



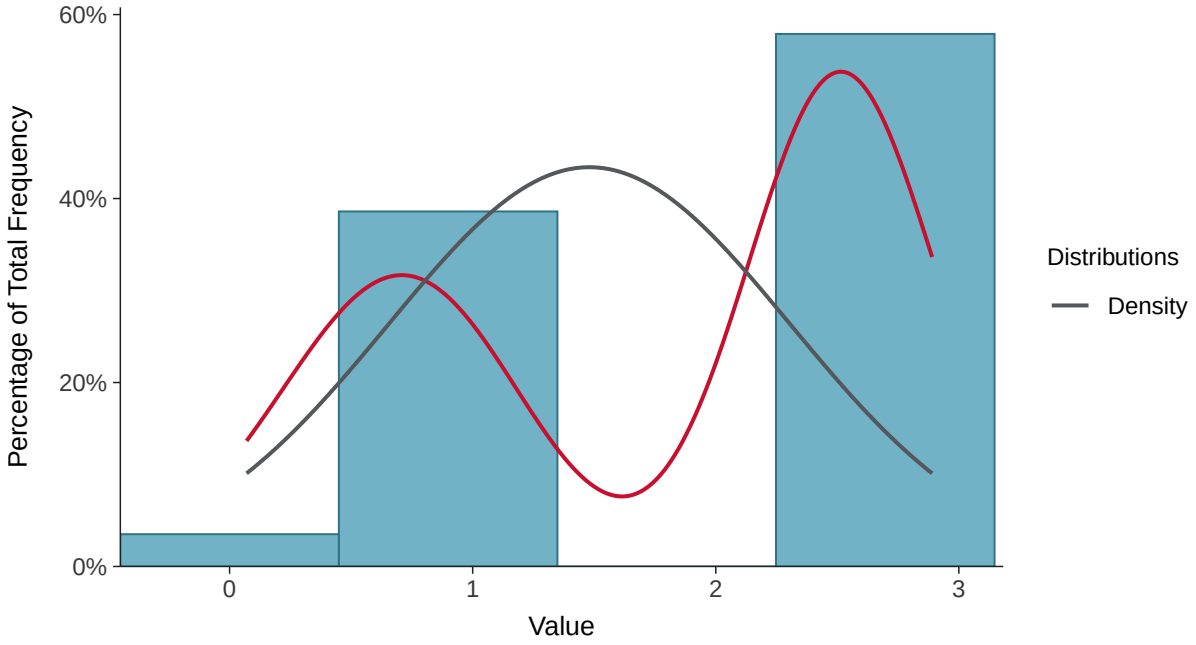
Scatter Plot by Well

Silver, BG-1 & BG-2 (ug/L)



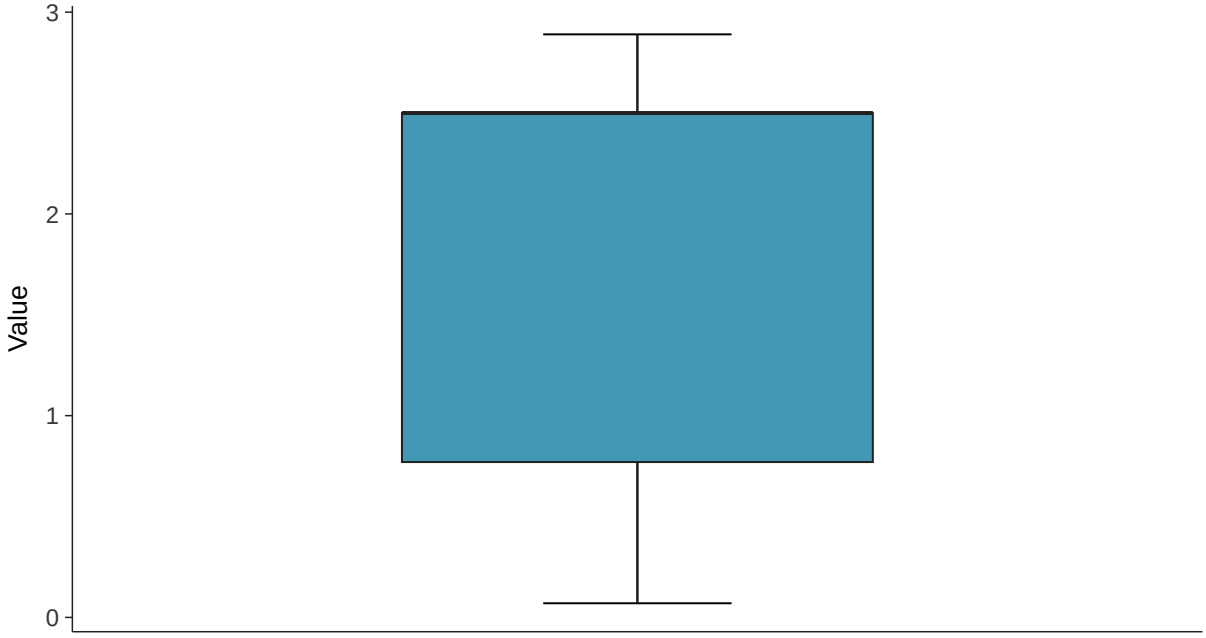
Histogram

Silver, BG-1 & BG-2 (ug/L)



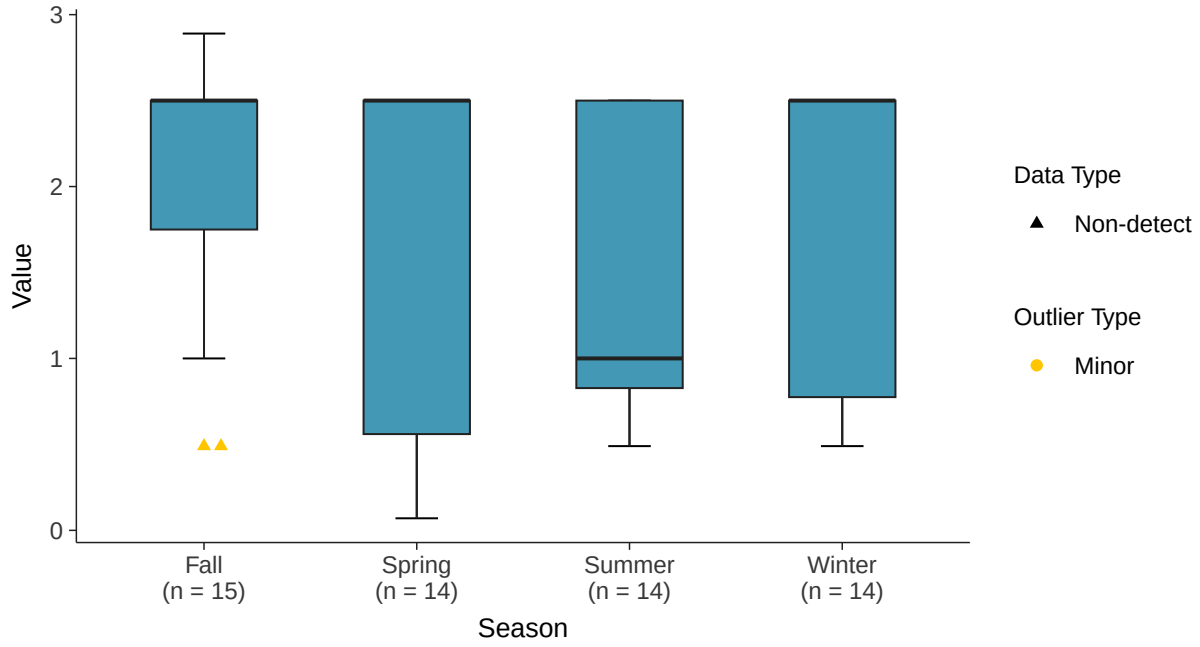
Boxplot

Silver, BG-1 & BG-2 (ug/L)



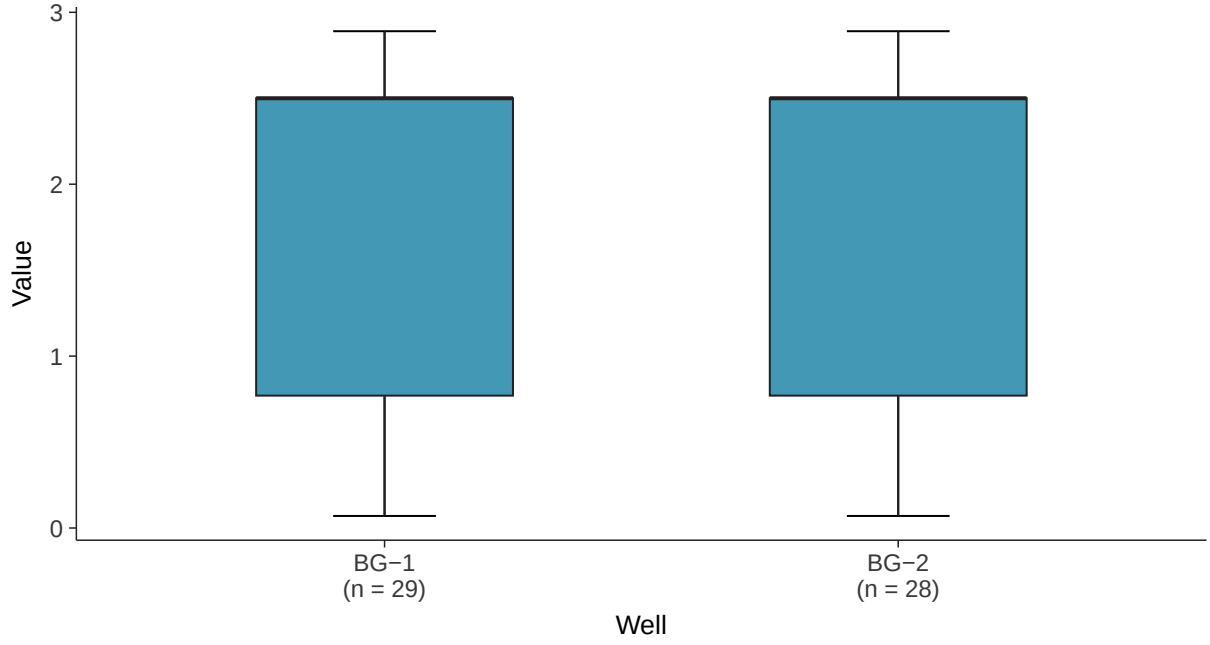
Boxplot by Season

Silver, BG-1 & BG-2 (ug/L)



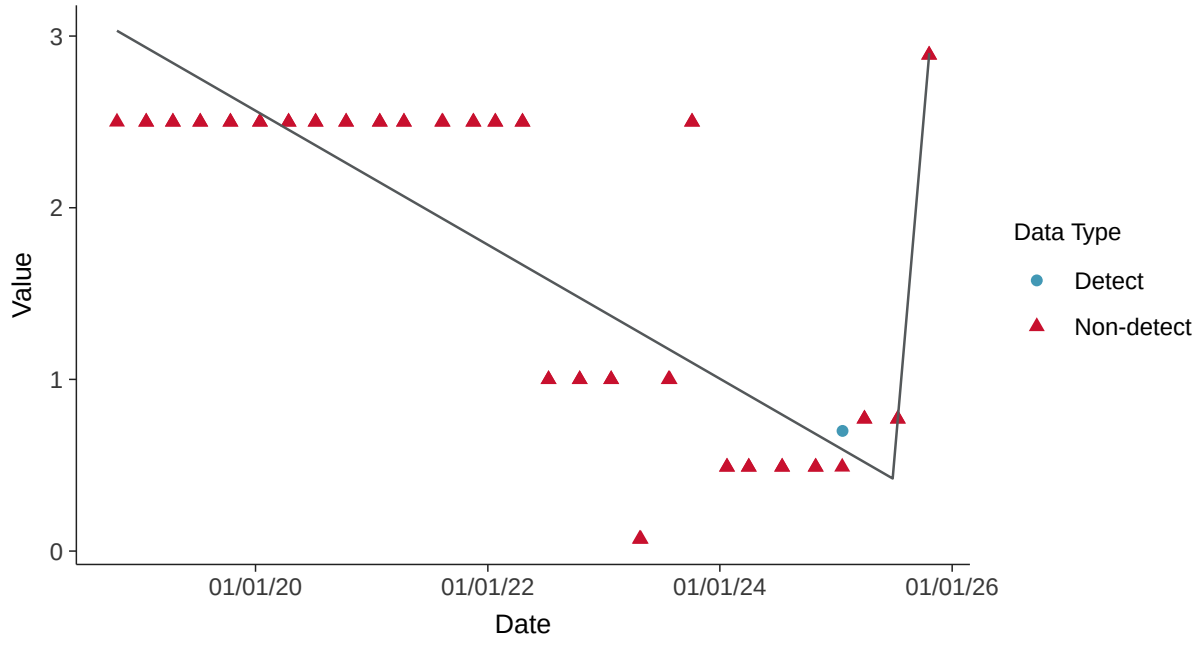
Boxplot by Well

Silver, BG-1 & BG-2 (ug/L)



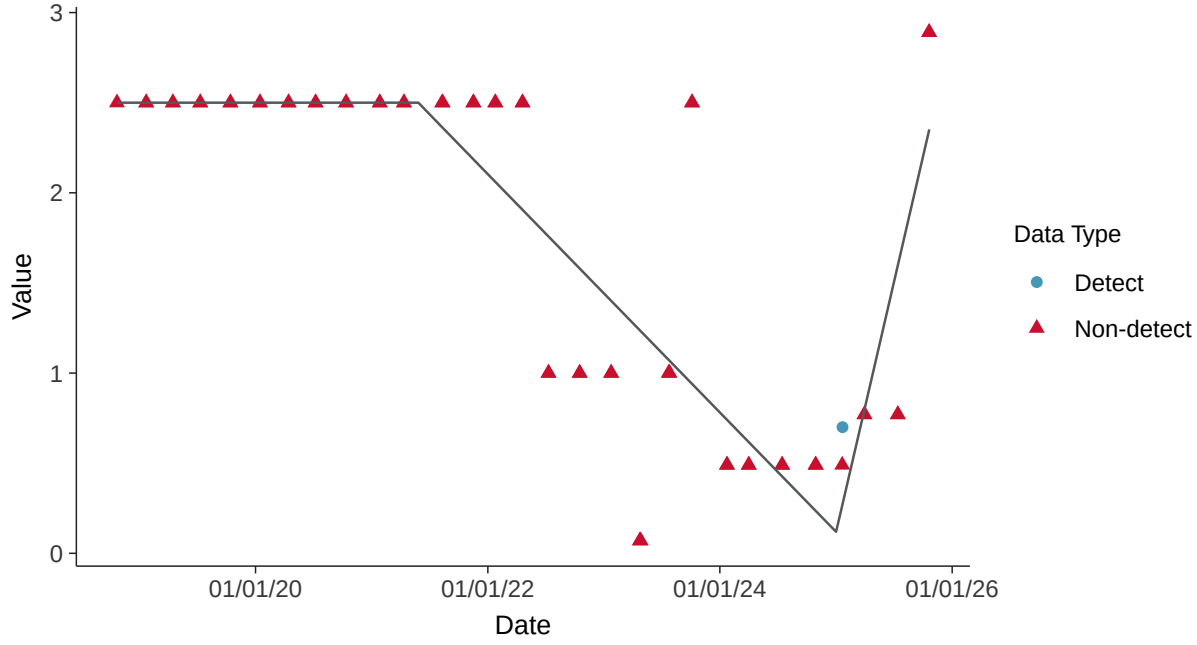
Trend Regression: Piecewise Linear-Linear

Silver, BG-1 & BG-2 (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Silver, BG-1 & BG-2 (ug/L)

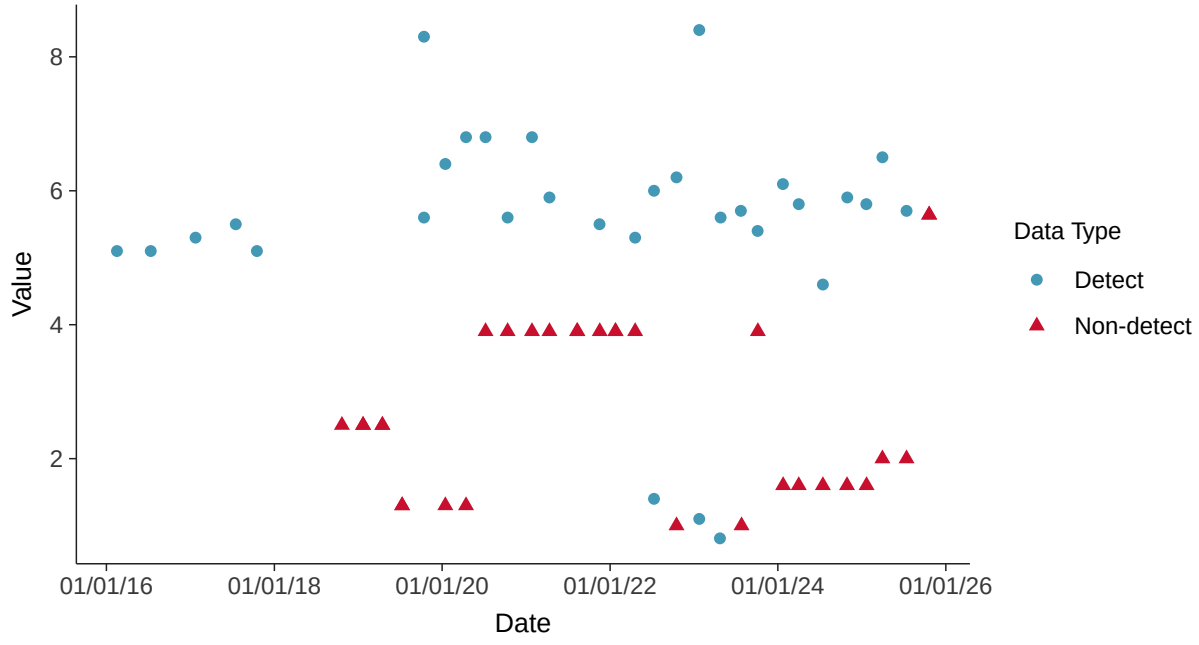


App. I Metals: Vanadium, BG-1 & BG-2

ID: 1_127

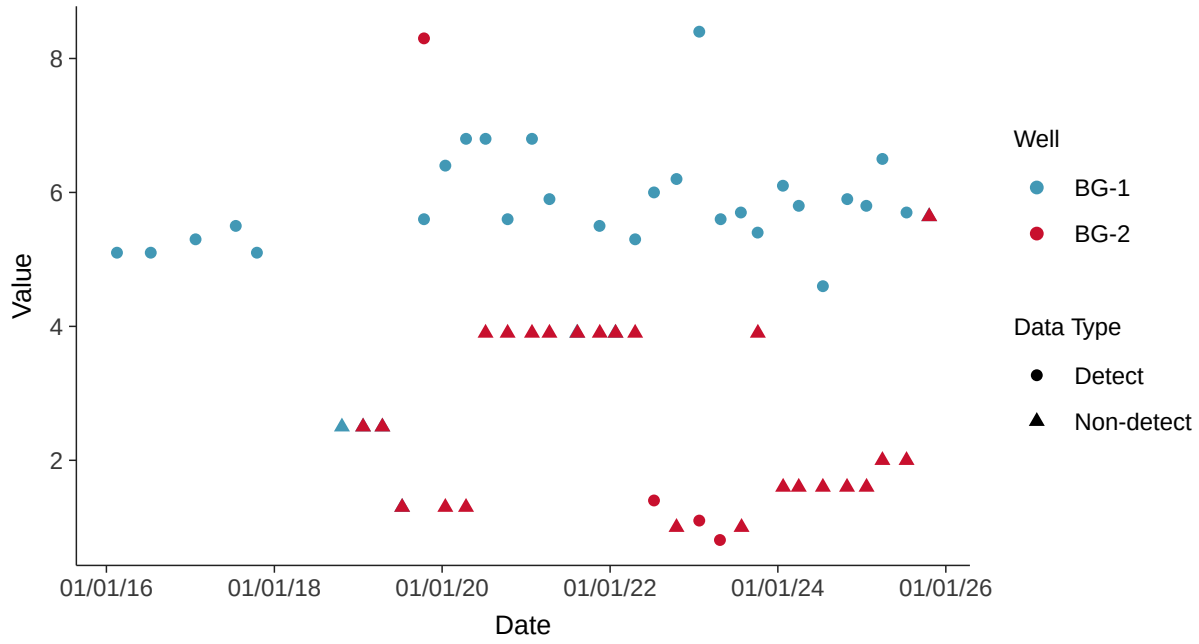
Scatter Plot

Vanadium, BG-1 & BG-2 (ug/L)



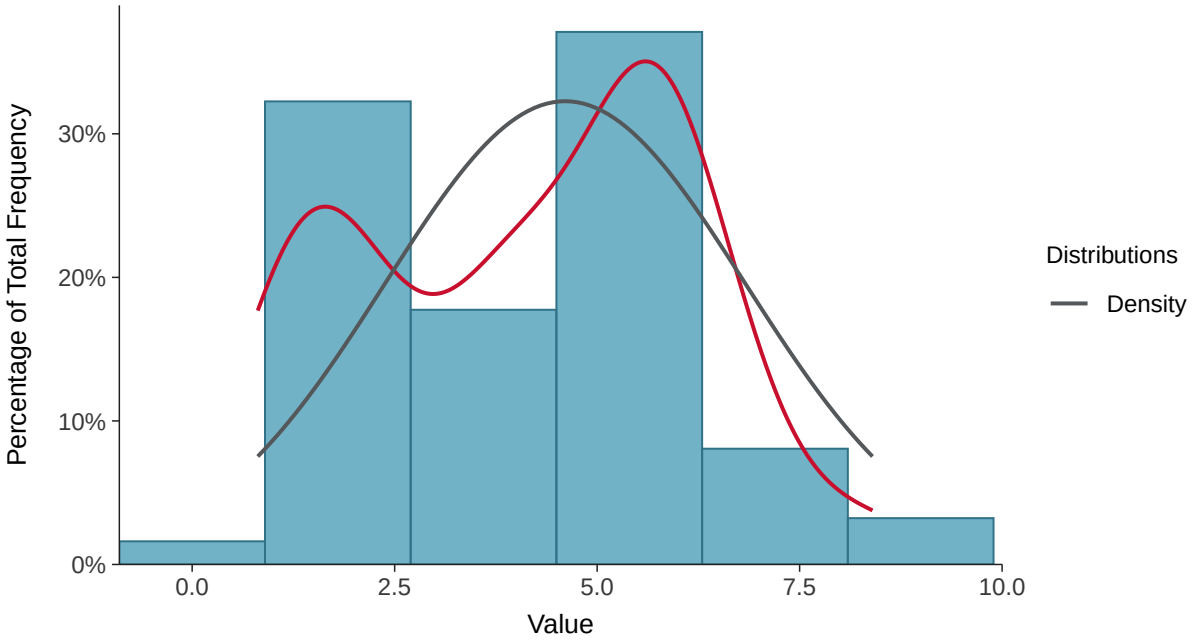
Scatter Plot by Well

Vanadium, BG-1 & BG-2 (ug/L)



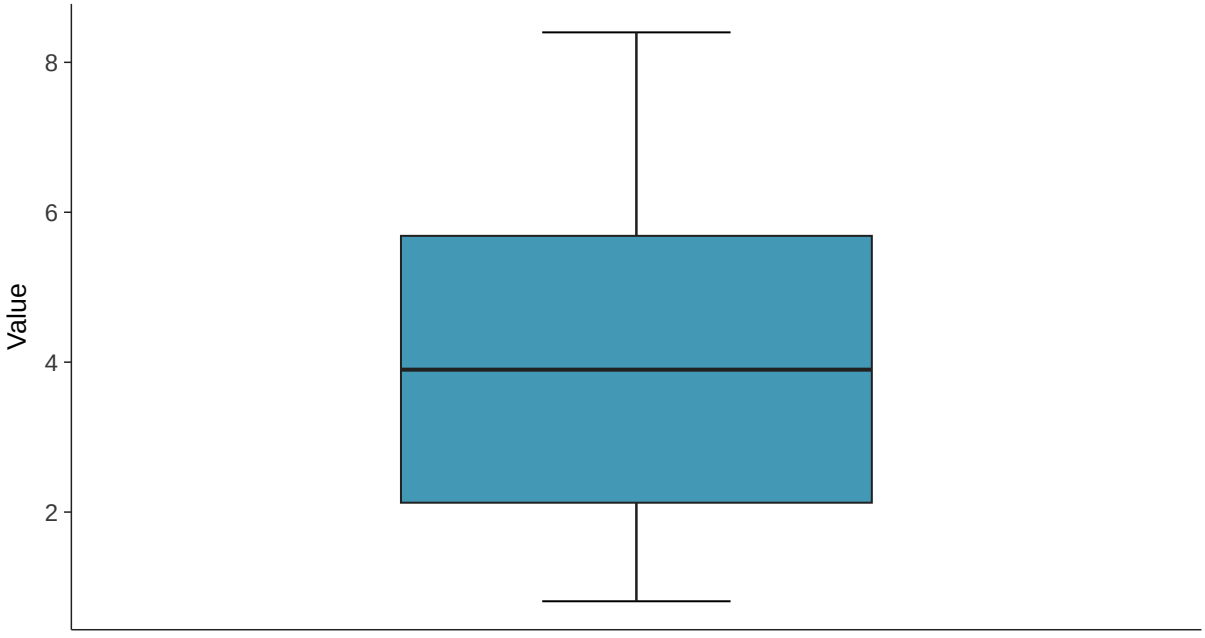
Histogram

Vanadium, BG-1 & BG-2 (ug/L)



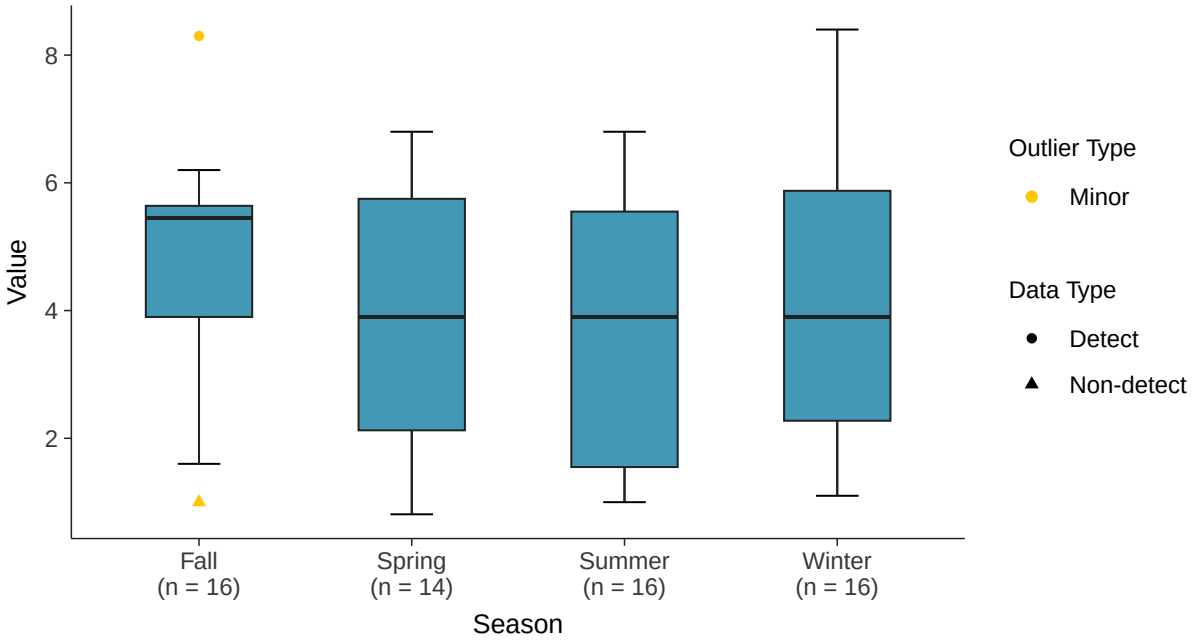
Boxplot

Vanadium, BG-1 & BG-2 (ug/L)



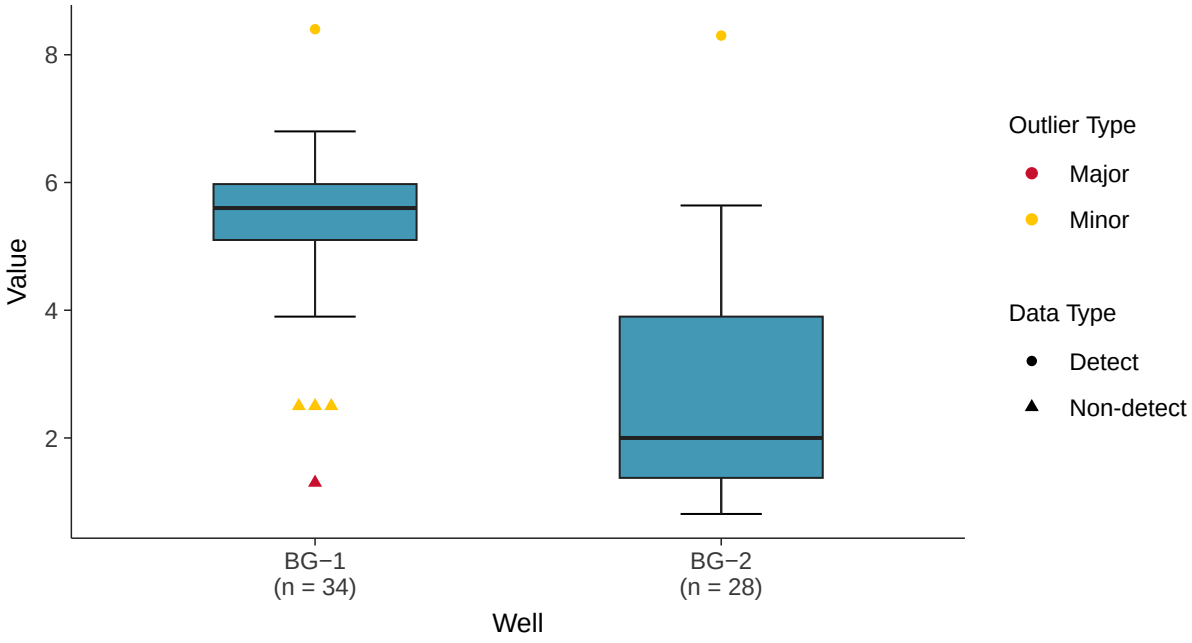
Boxplot by Season

Vanadium, BG-1 & BG-2 (ug/L)



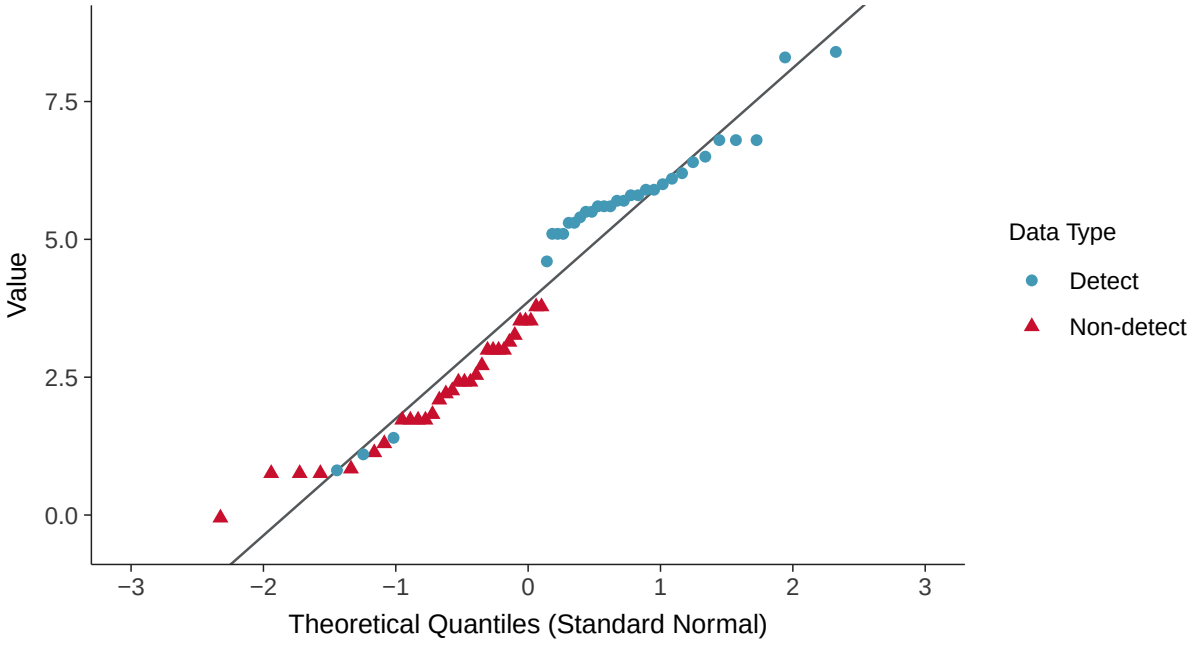
Boxplot by Well

Vanadium, BG-1 & BG-2 (ug/L)



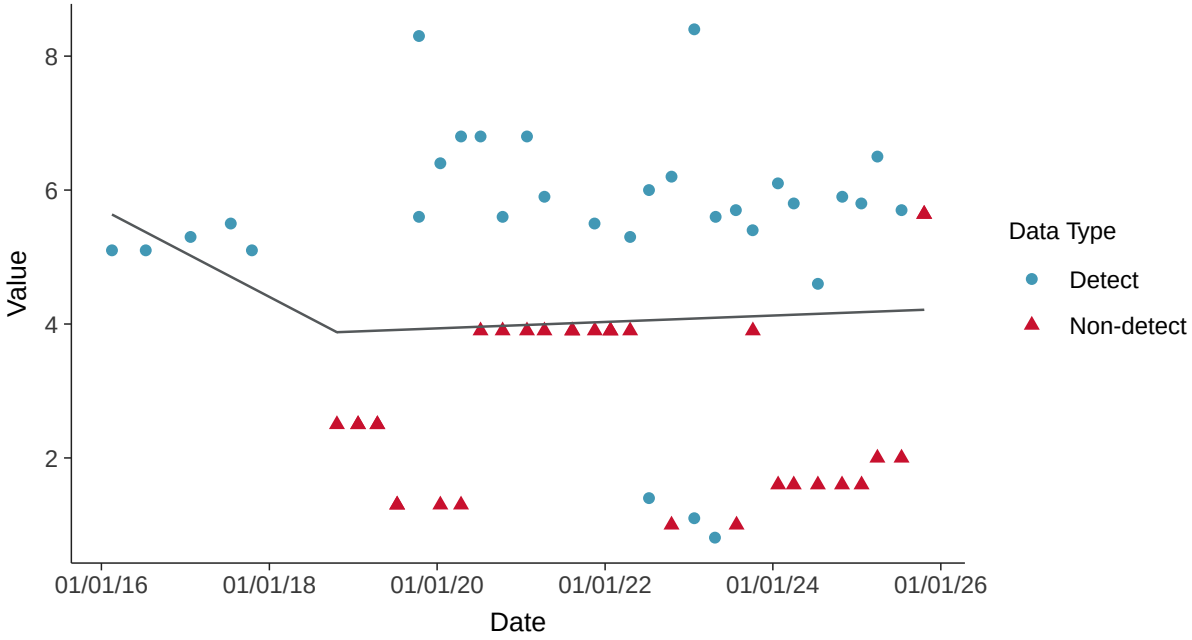
Normal Q-Q plot using ROS Imputed Estimates

Vanadium, BG-1 & BG-2 (ug/L)



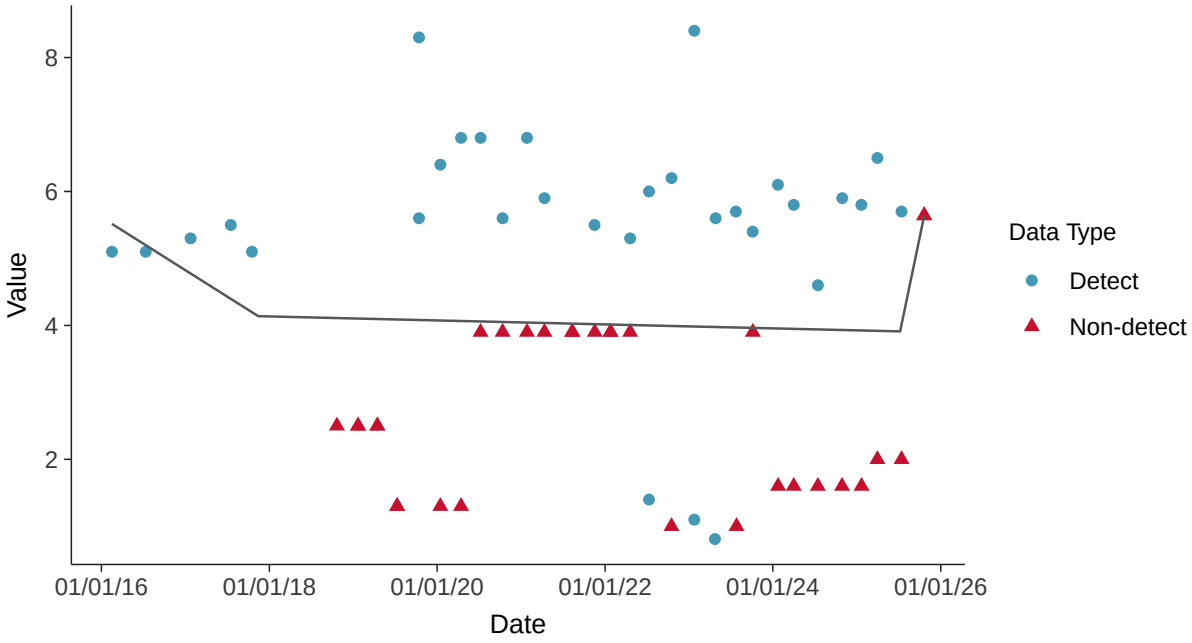
Trend Regression: Piecewise Linear-Linear

Vanadium, BG-1 & BG-2 (ug/L)



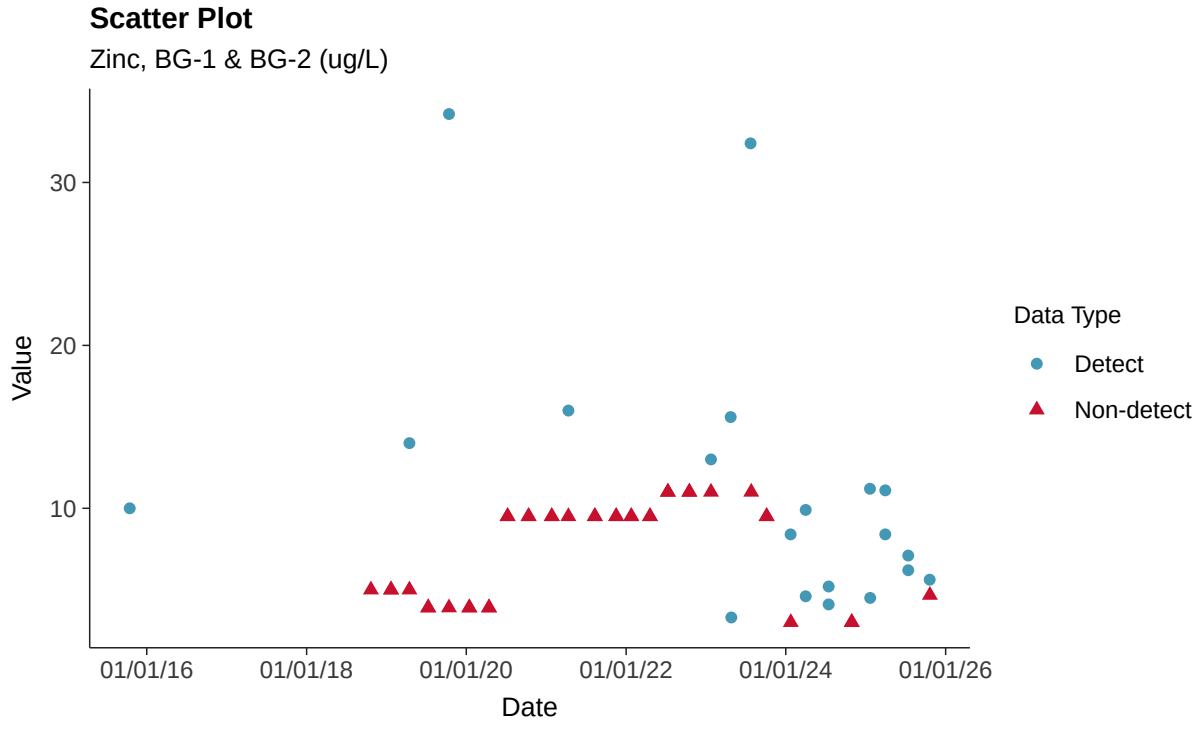
Trend Regression: Piecewise Linear-Linear-Linear

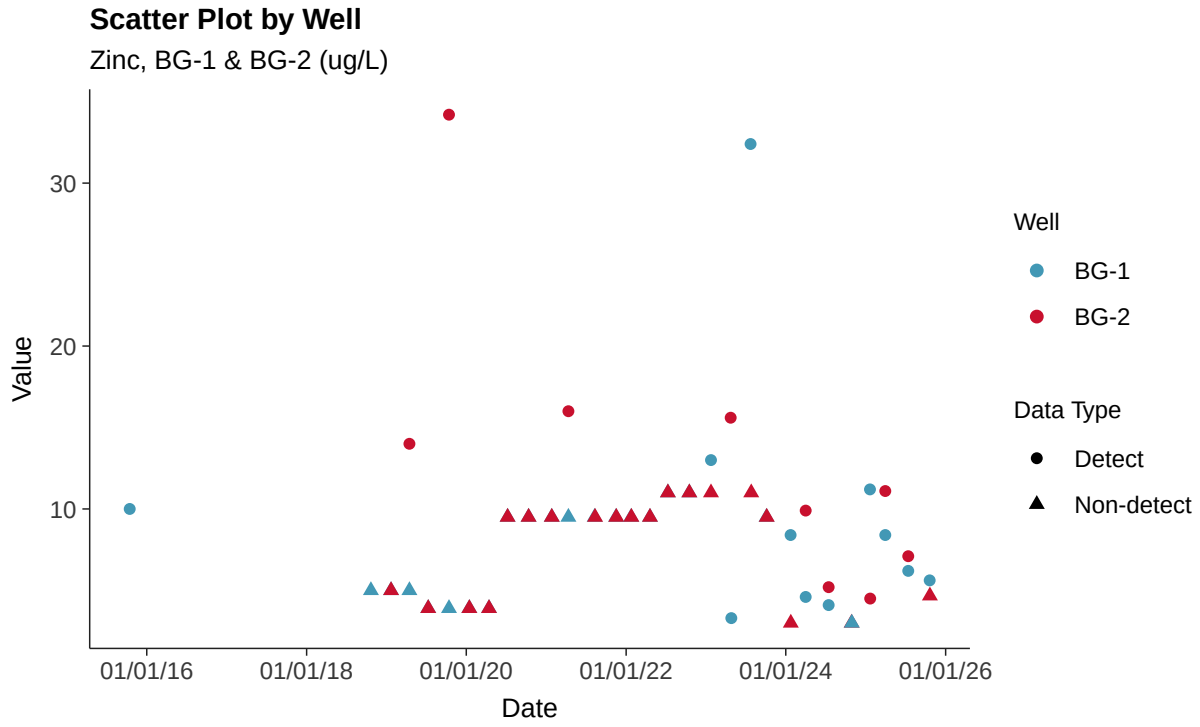
Vanadium, BG-1 & BG-2 (ug/L)



App. I Metals: Zinc, BG-1 & BG-2

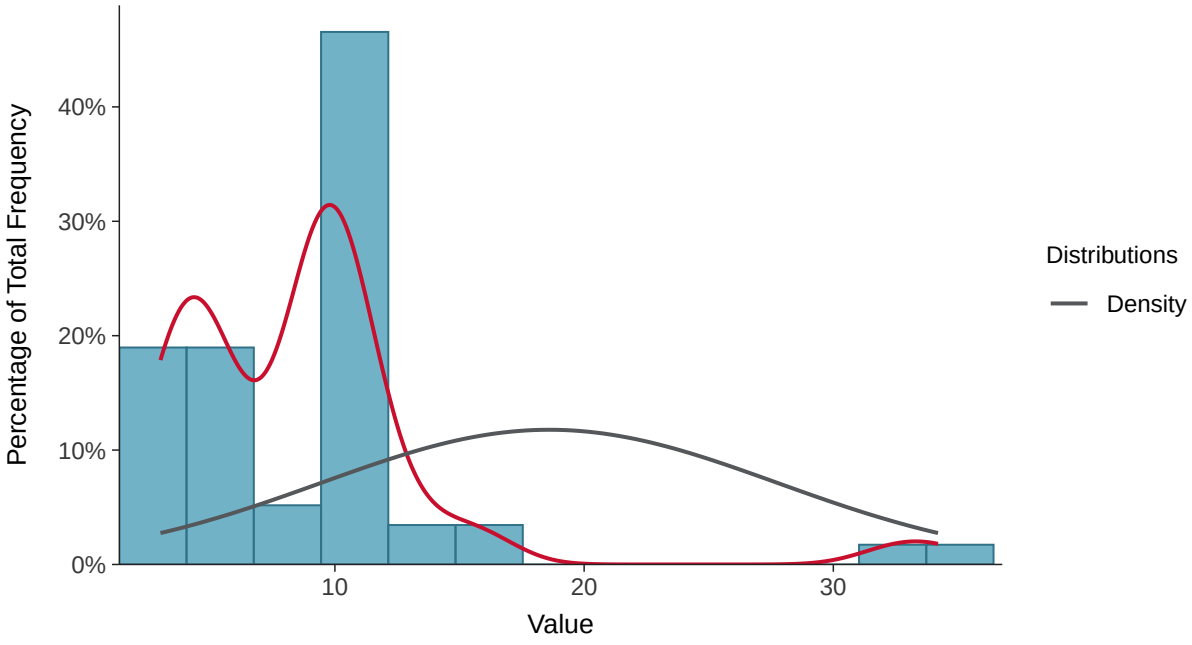
ID: 1_128





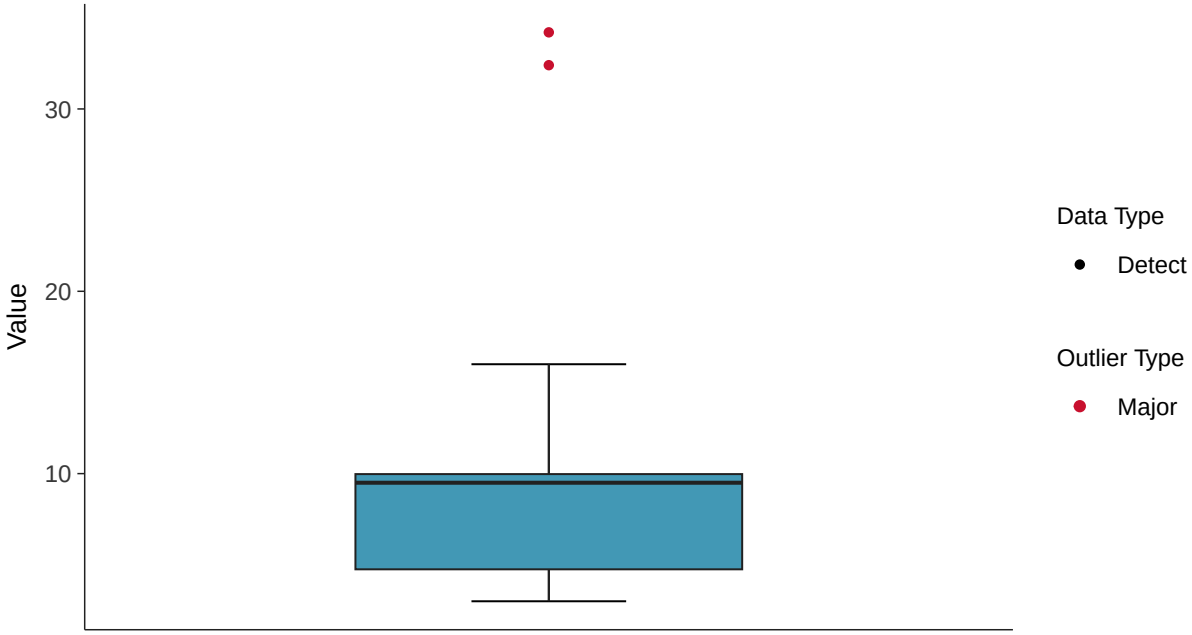
Histogram

Zinc, BG-1 & BG-2 (ug/L)



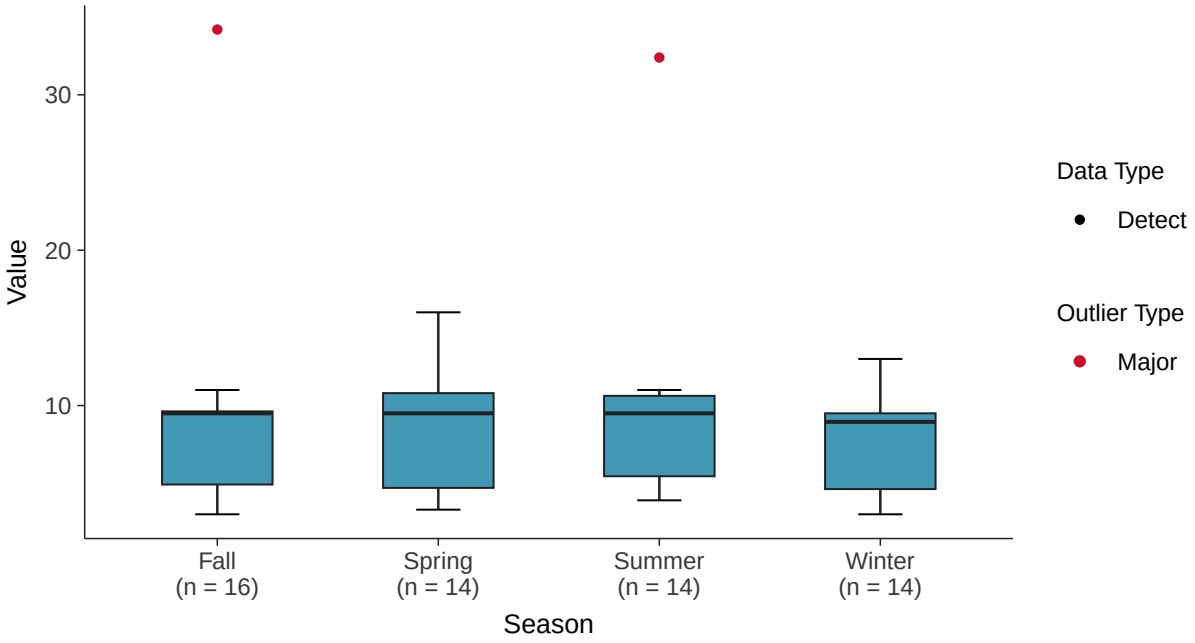
Boxplot

Zinc, BG-1 & BG-2 (ug/L)



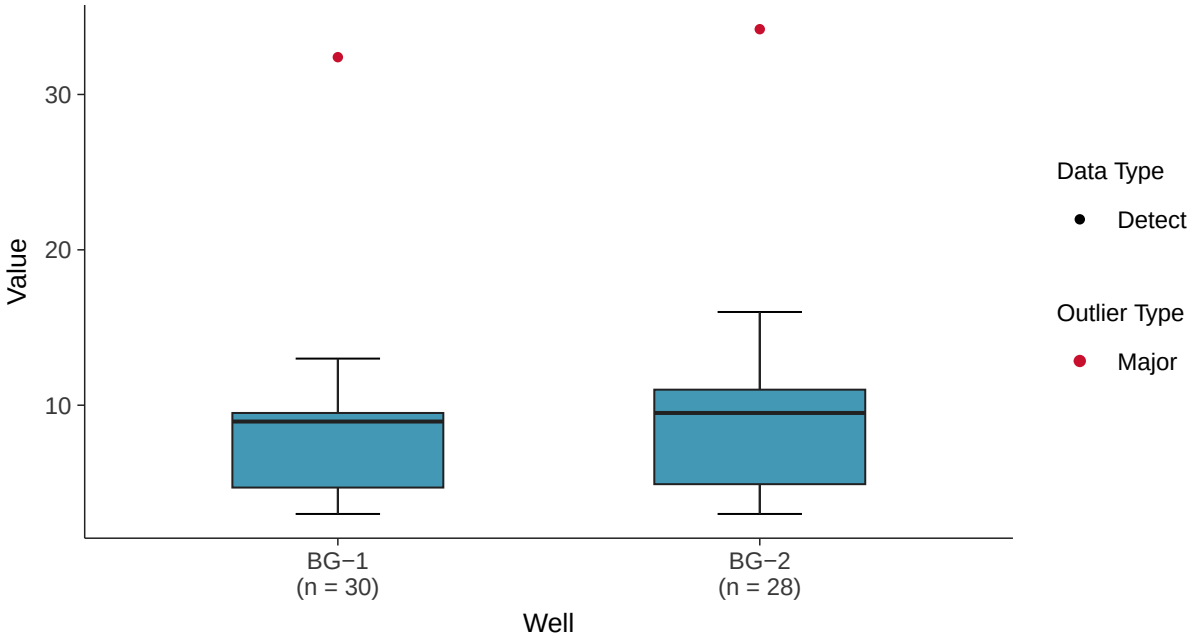
Boxplot by Season

Zinc, BG-1 & BG-2 (ug/L)



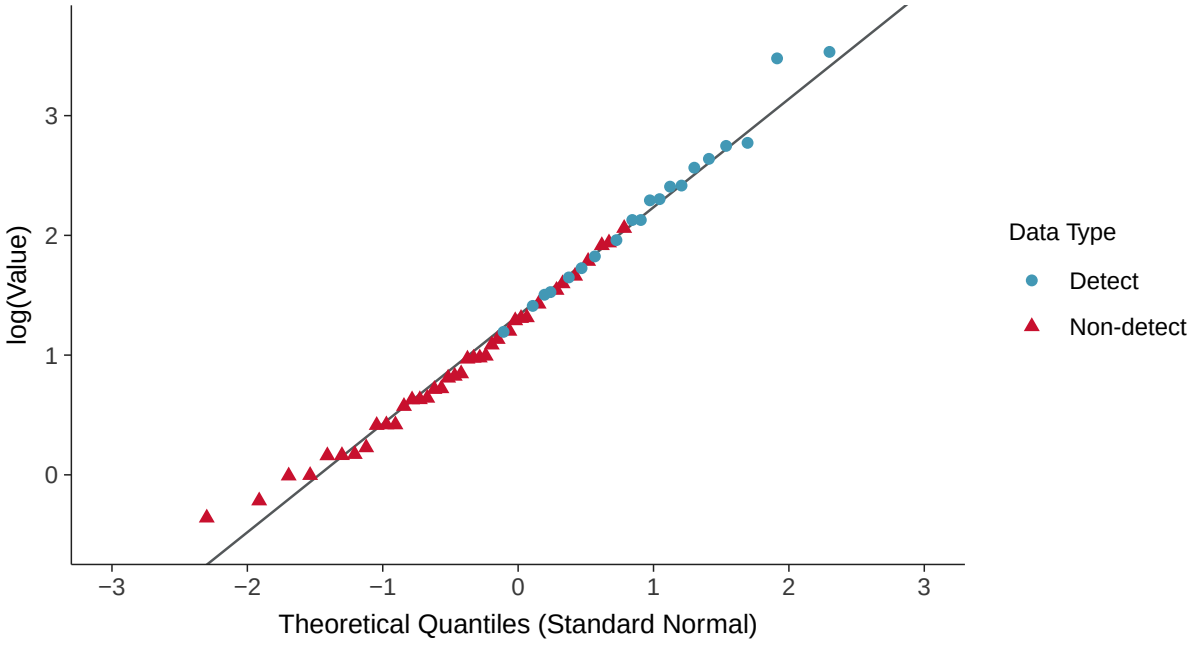
Boxplot by Well

Zinc, BG-1 & BG-2 (ug/L)



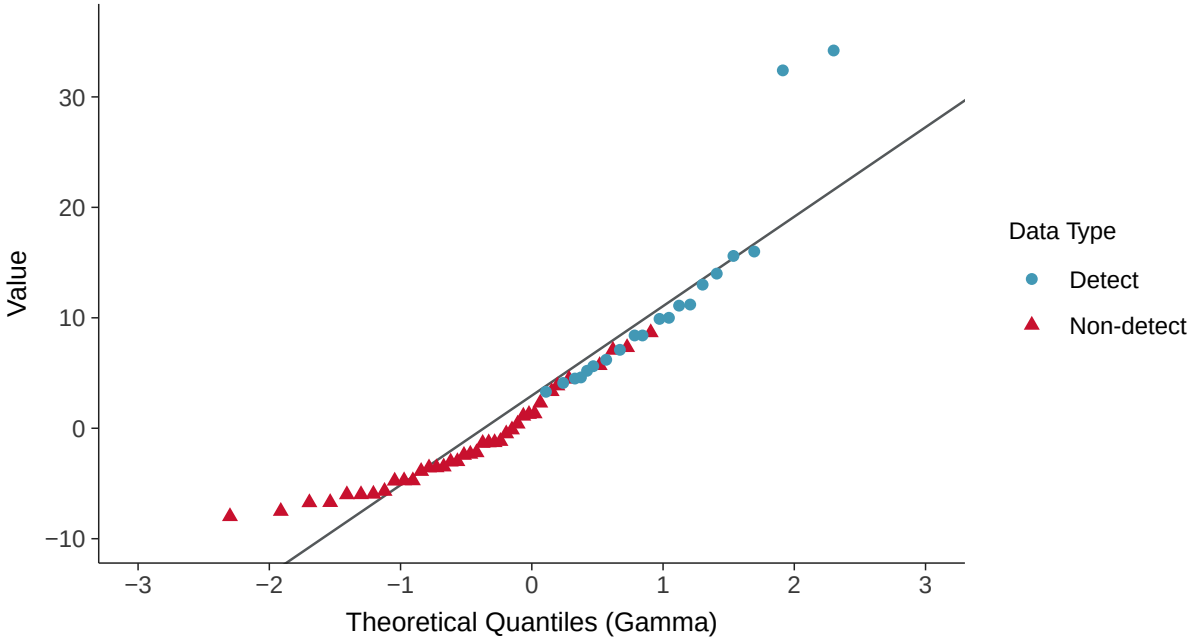
Lognormal Q-Q plot using ROS Imputed Estimates

Zinc, BG-1 & BG-2 (ug/L)



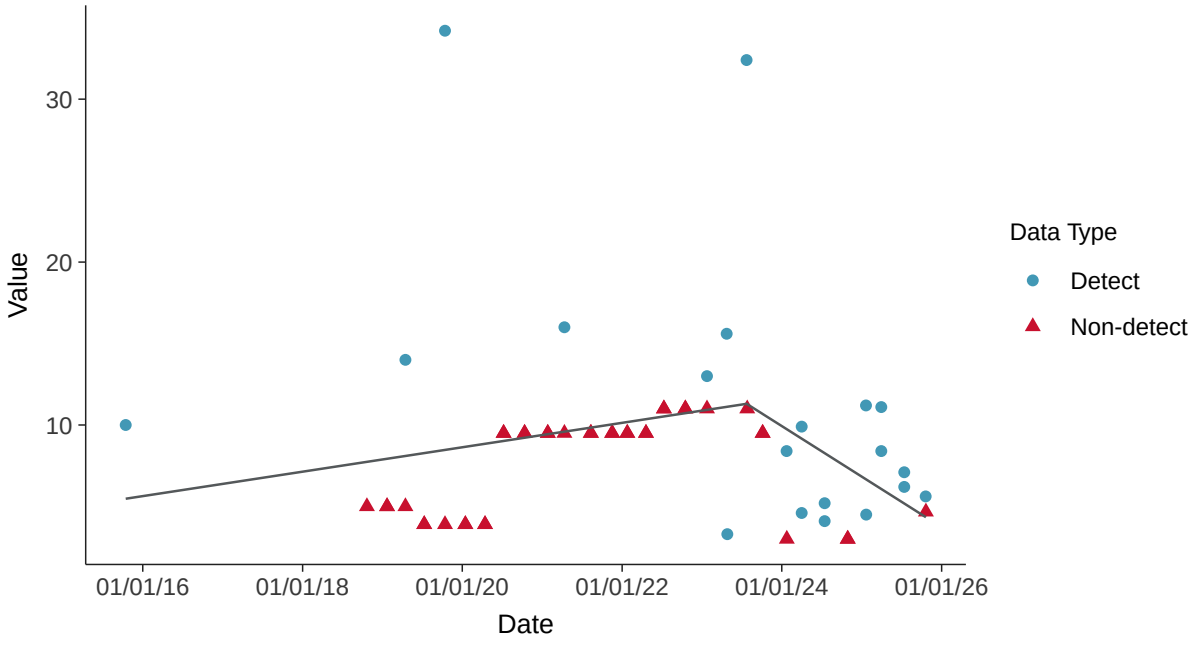
Gamma Q-Q plot using ROS Imputed Estimates

Zinc, BG-1 & BG-2 (ug/L)



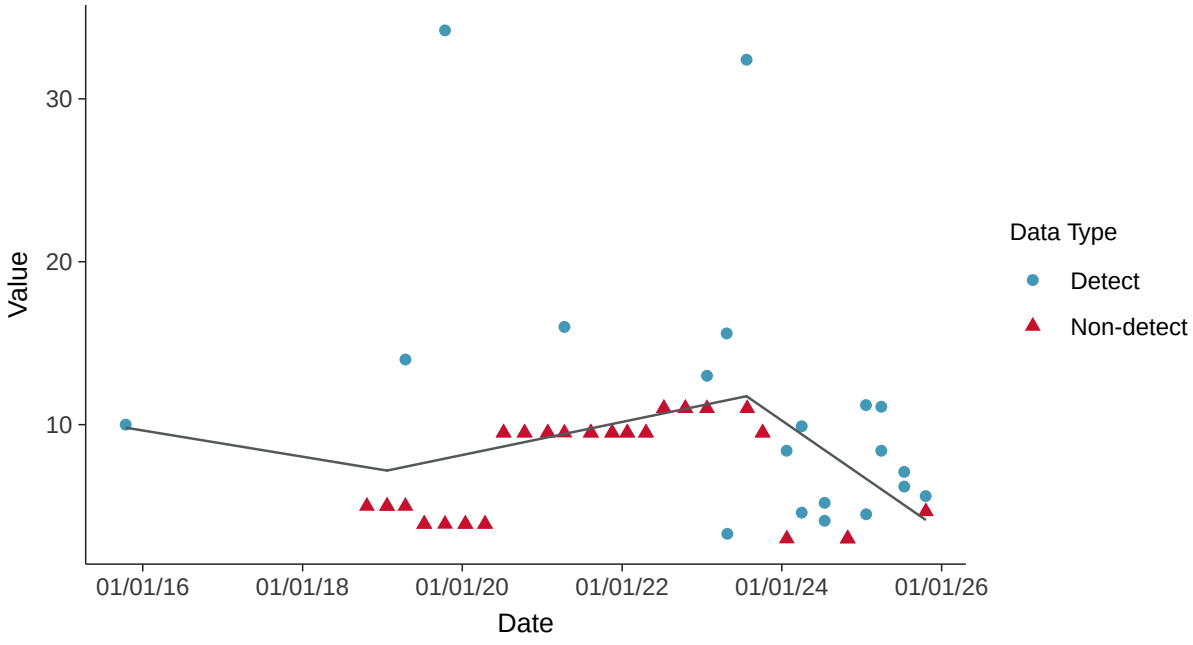
Trend Regression: Piecewise Linear-Linear

Zinc, BG-1 & BG-2 (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Zinc, BG-1 & BG-2 (ug/L)

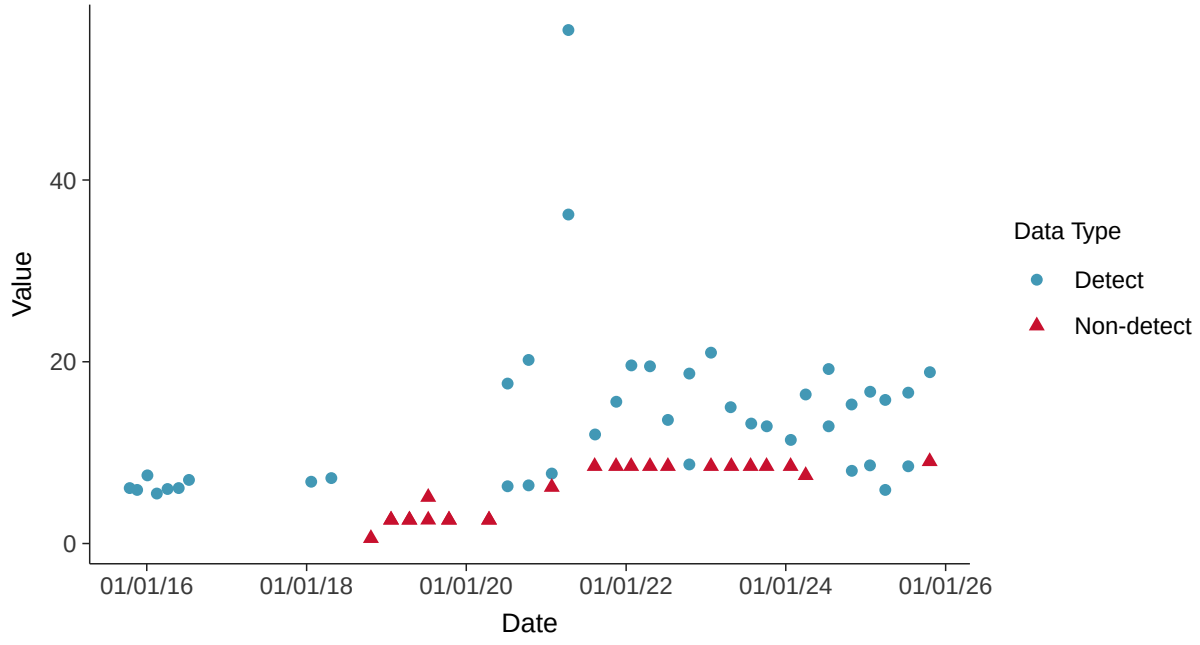


App. III: Boron, BG-1 & BG-2

ID: 2_105

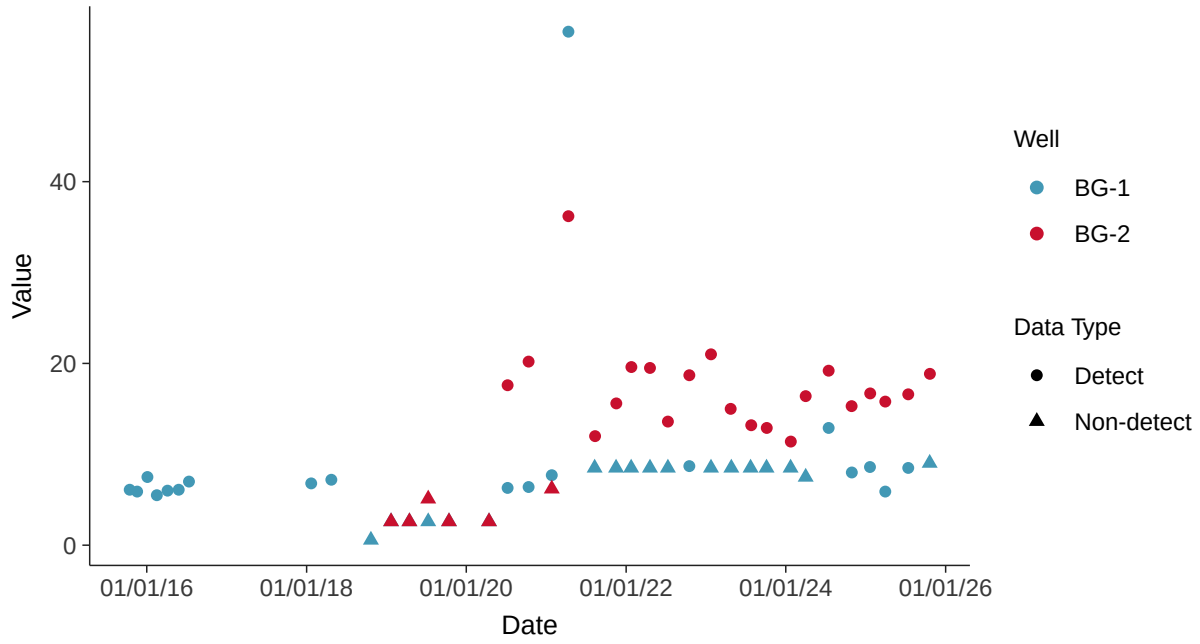
Scatter Plot

Boron, BG-1 & BG-2 (ug/L)



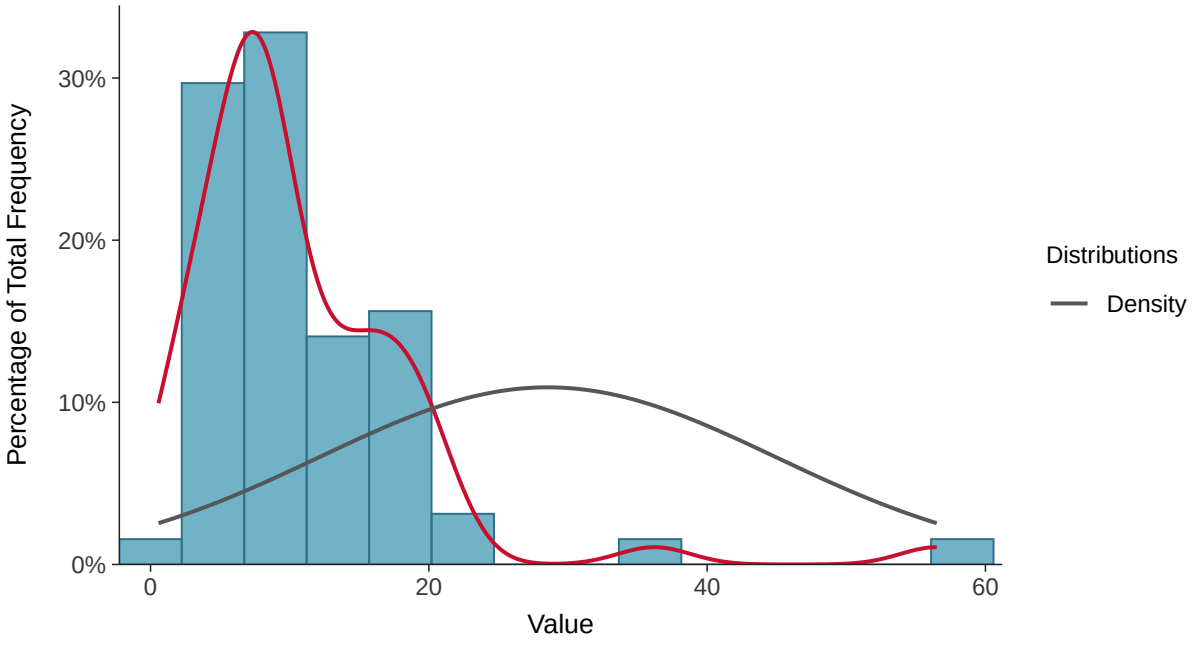
Scatter Plot by Well

Boron, BG-1 & BG-2 (ug/L)



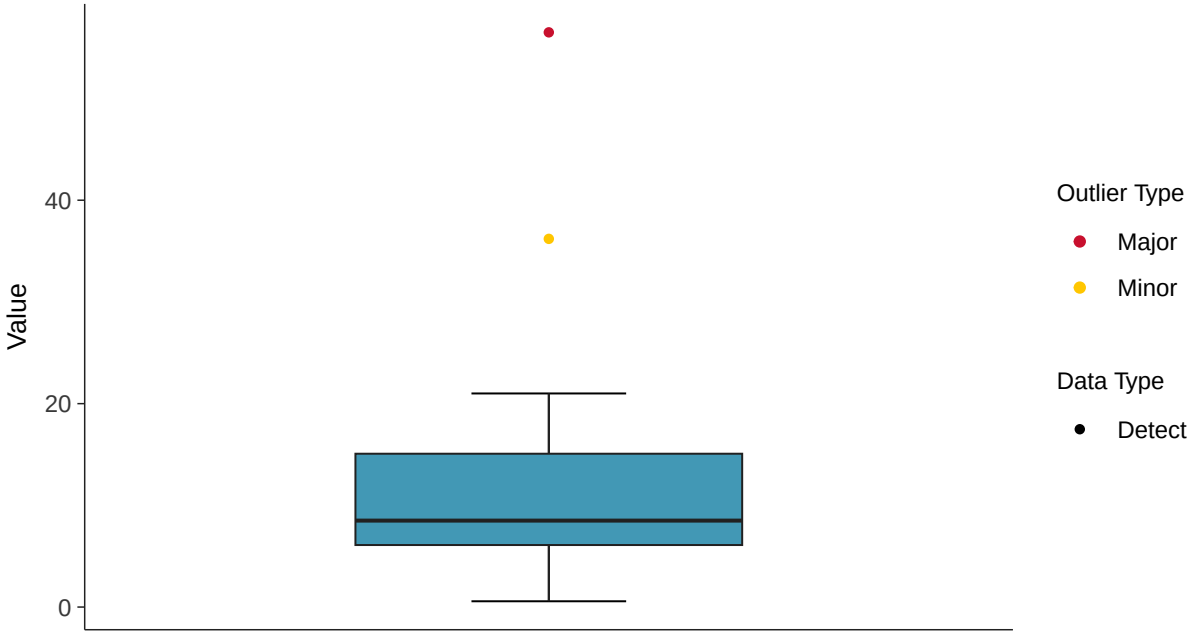
Histogram

Boron, BG-1 & BG-2 (ug/L)



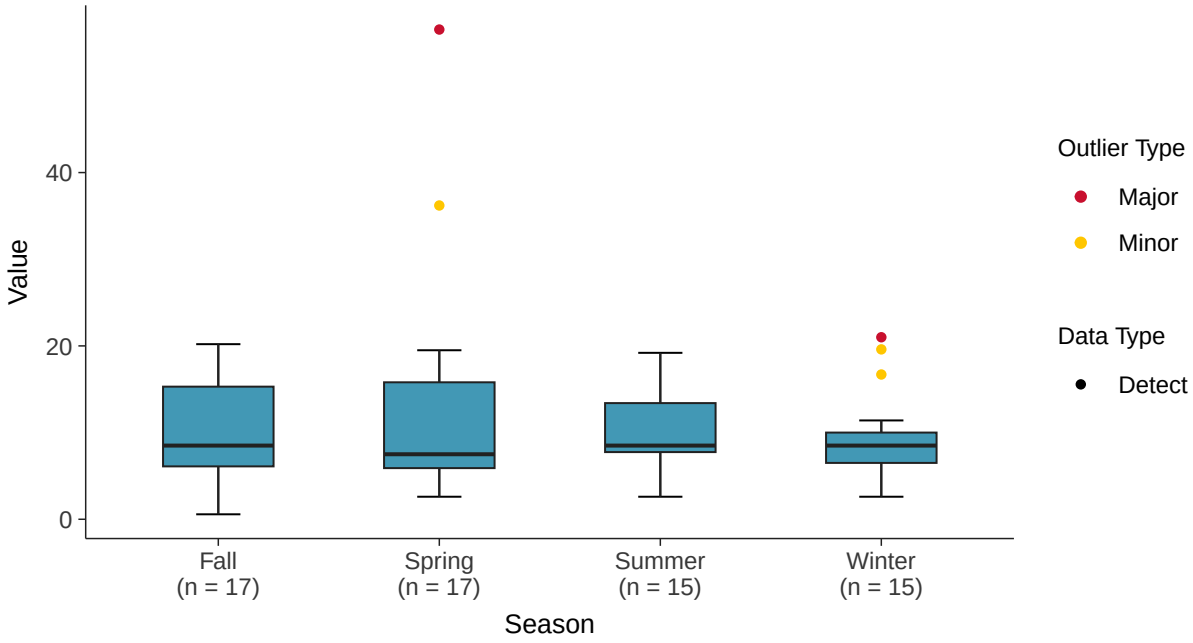
Boxplot

Boron, BG-1 & BG-2 (ug/L)



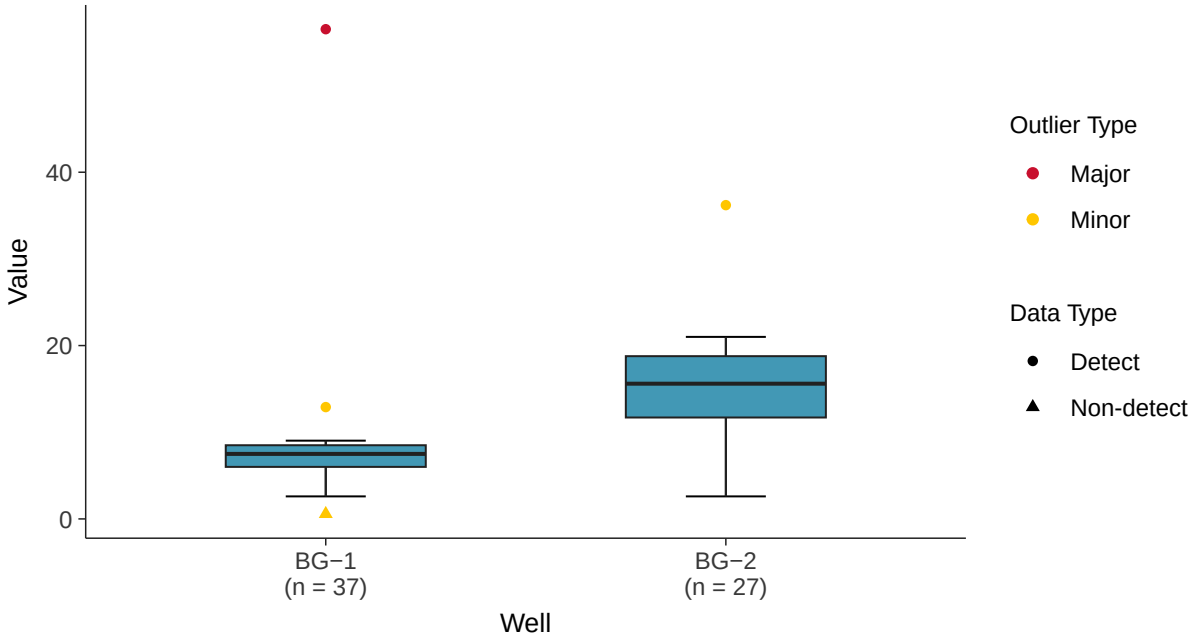
Boxplot by Season

Boron, BG-1 & BG-2 (ug/L)



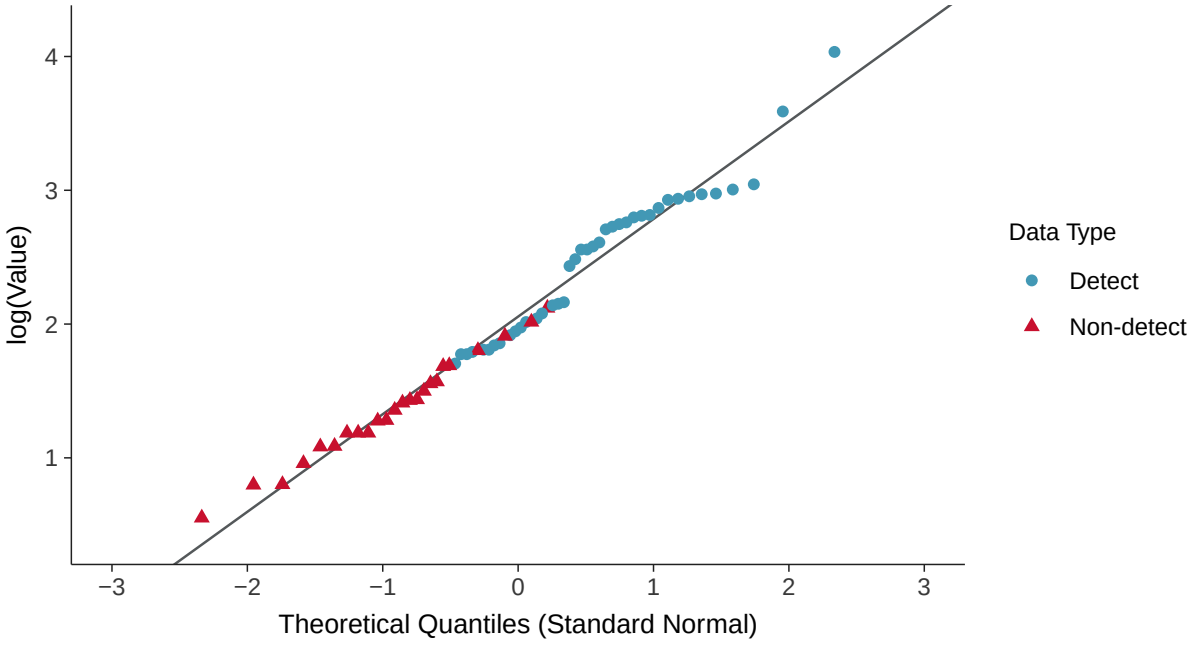
Boxplot by Well

Boron, BG-1 & BG-2 (ug/L)



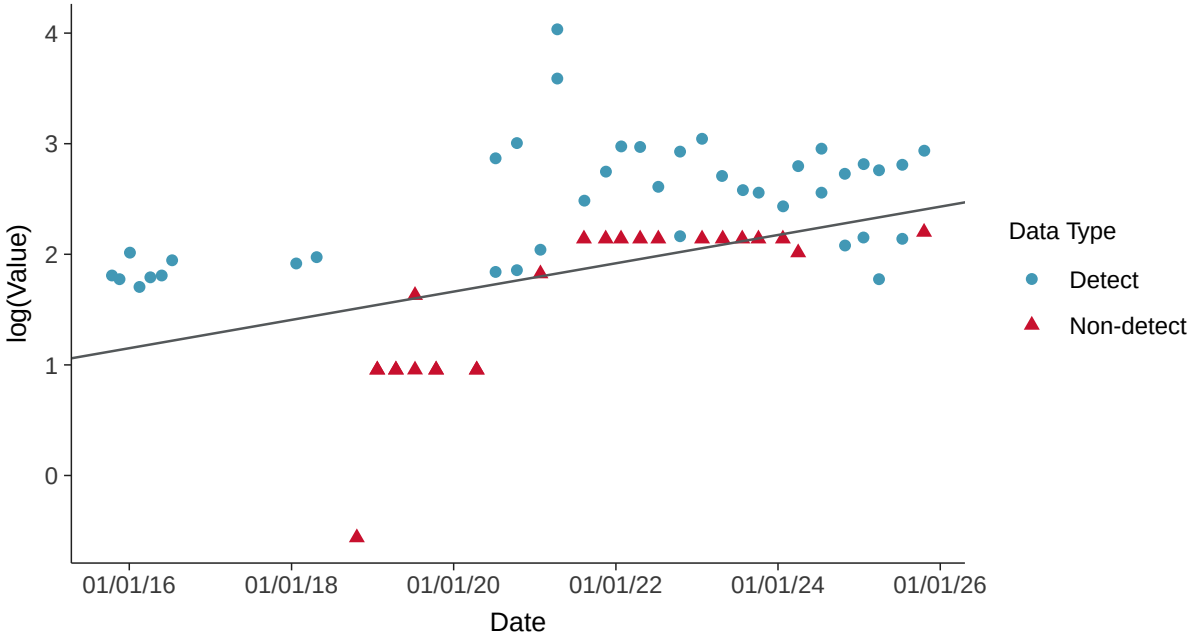
Lognormal Q-Q plot using ROS Imputed Estimates

Boron, BG-1 & BG-2 (ug/L)



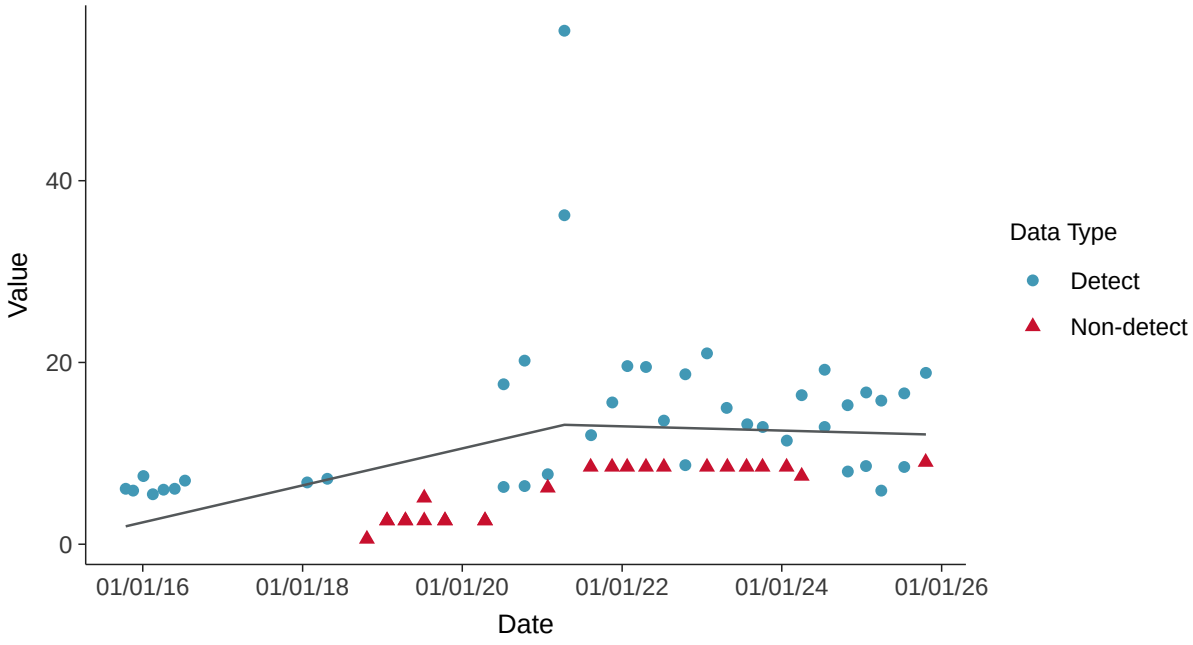
Trend Regression: Lognormal MLE

Boron, BG-1 & BG-2 (ug/L)



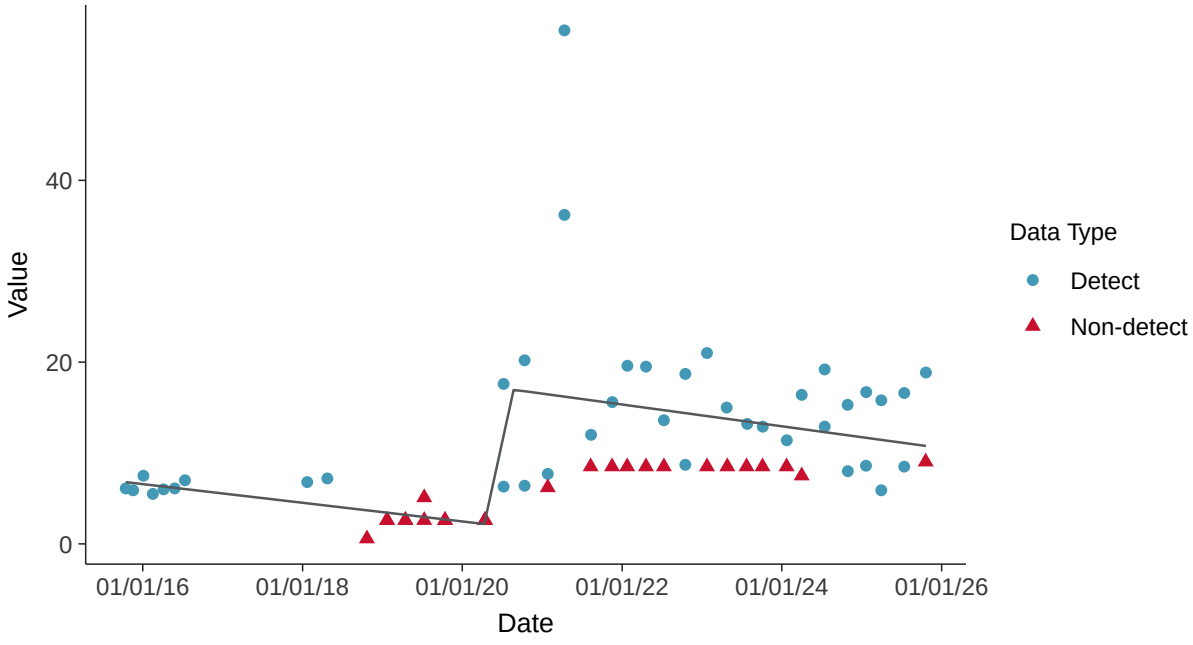
Trend Regression: Piecewise Linear-Linear

Boron, BG-1 & BG-2 (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Boron, BG-1 & BG-2 (ug/L)

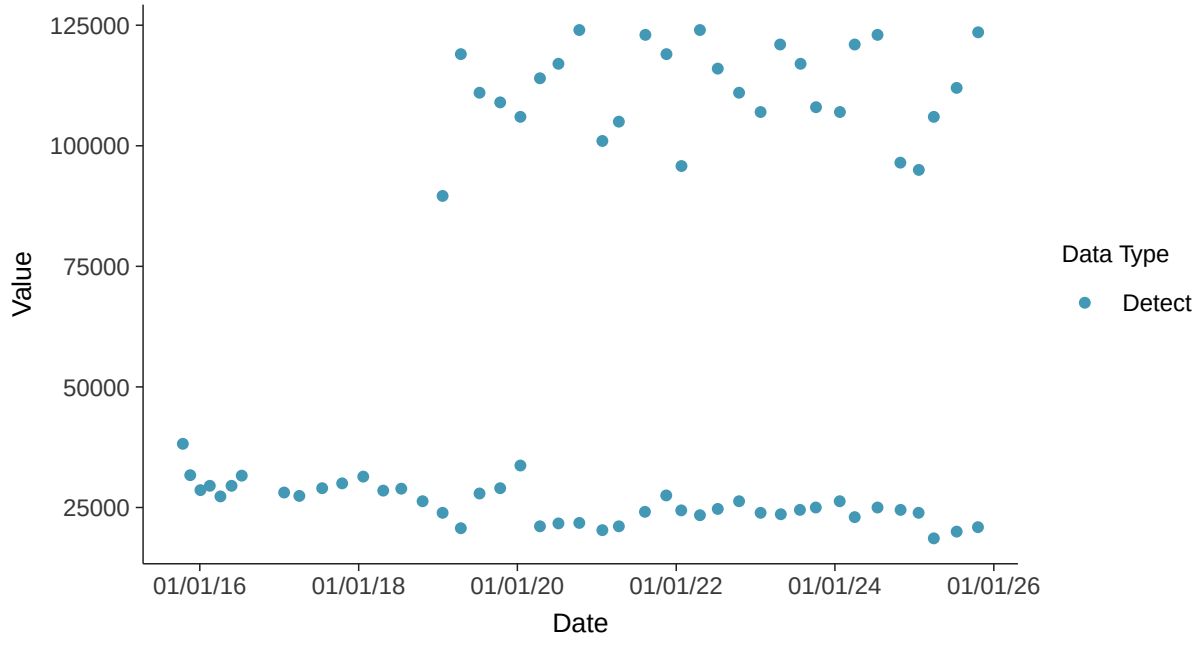


App. III: Calcium, BG-1 & BG-2

ID: 2_107

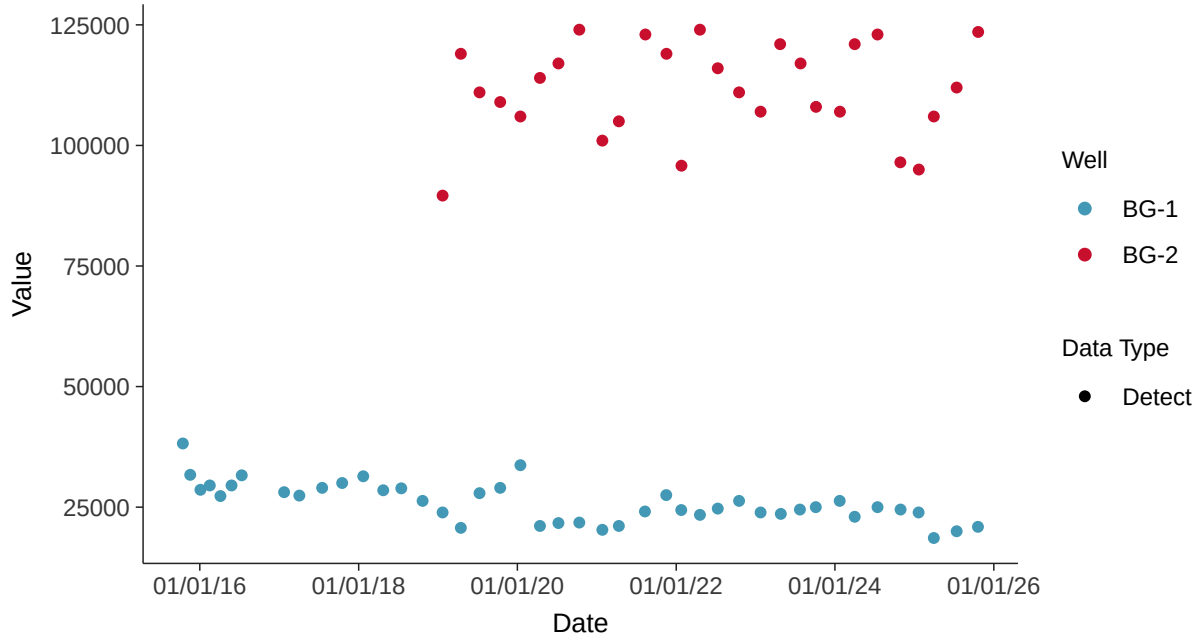
Scatter Plot

Calcium, BG-1 & BG-2 (ug/L)



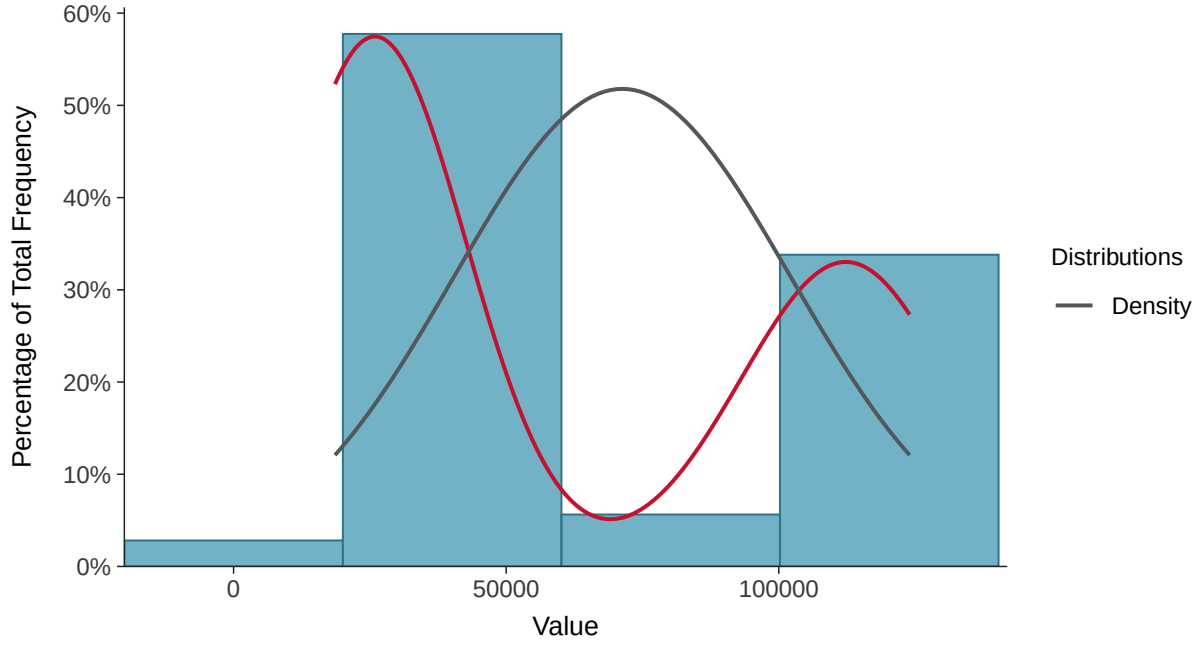
Scatter Plot by Well

Calcium, BG-1 & BG-2 (ug/L)



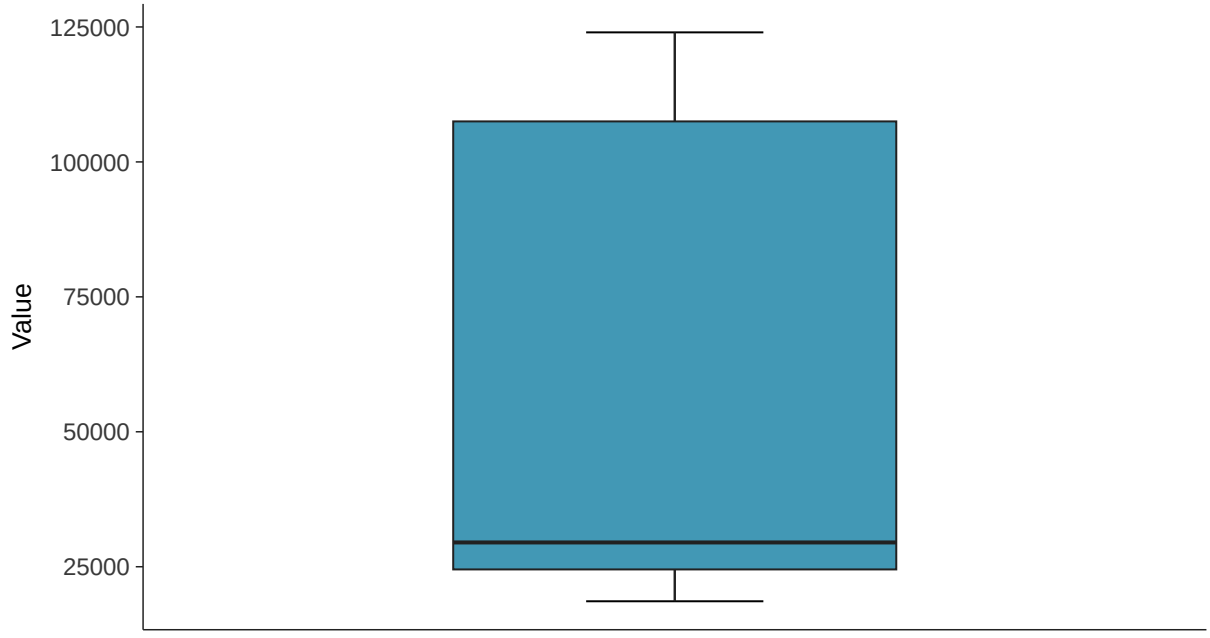
Histogram

Calcium, BG-1 & BG-2 (ug/L)



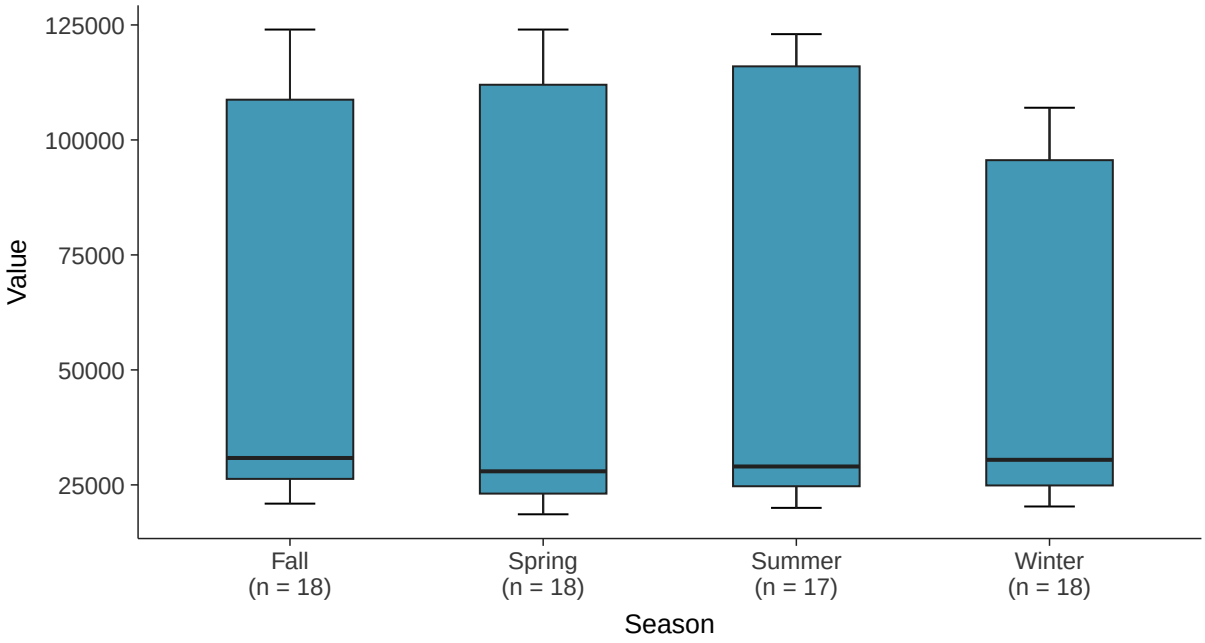
Boxplot

Calcium, BG-1 & BG-2 (ug/L)



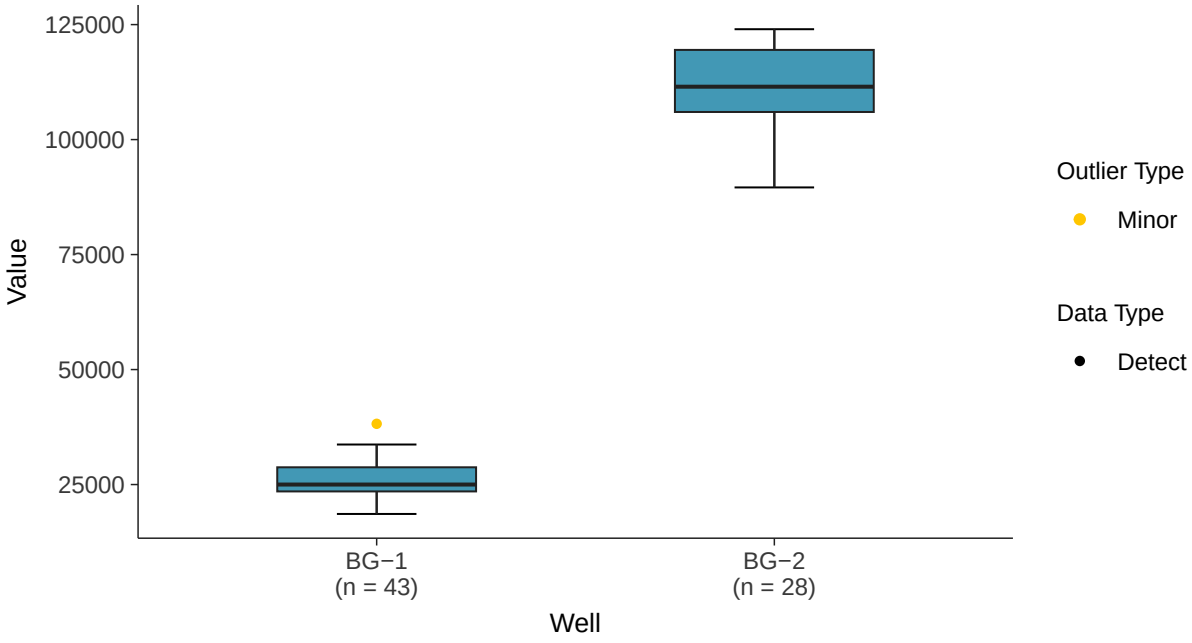
Boxplot by Season

Calcium, BG-1 & BG-2 (ug/L)



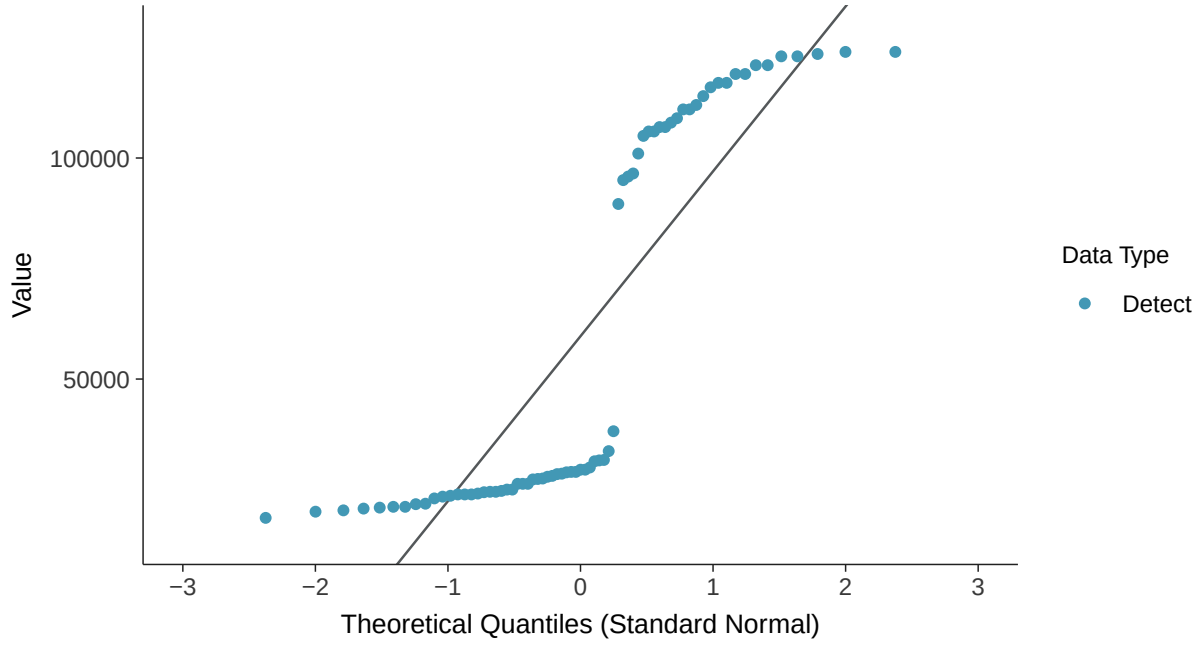
Boxplot by Well

Calcium, BG-1 & BG-2 (ug/L)



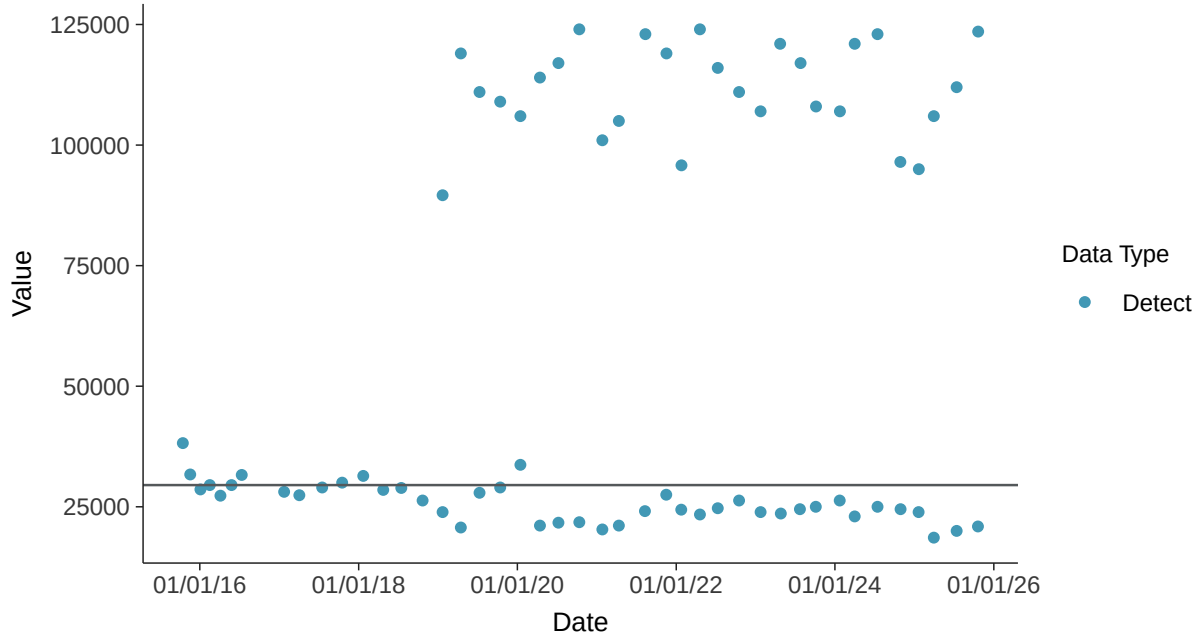
Normal Q-Q plot

Calcium, BG-1 & BG-2 (ug/L)



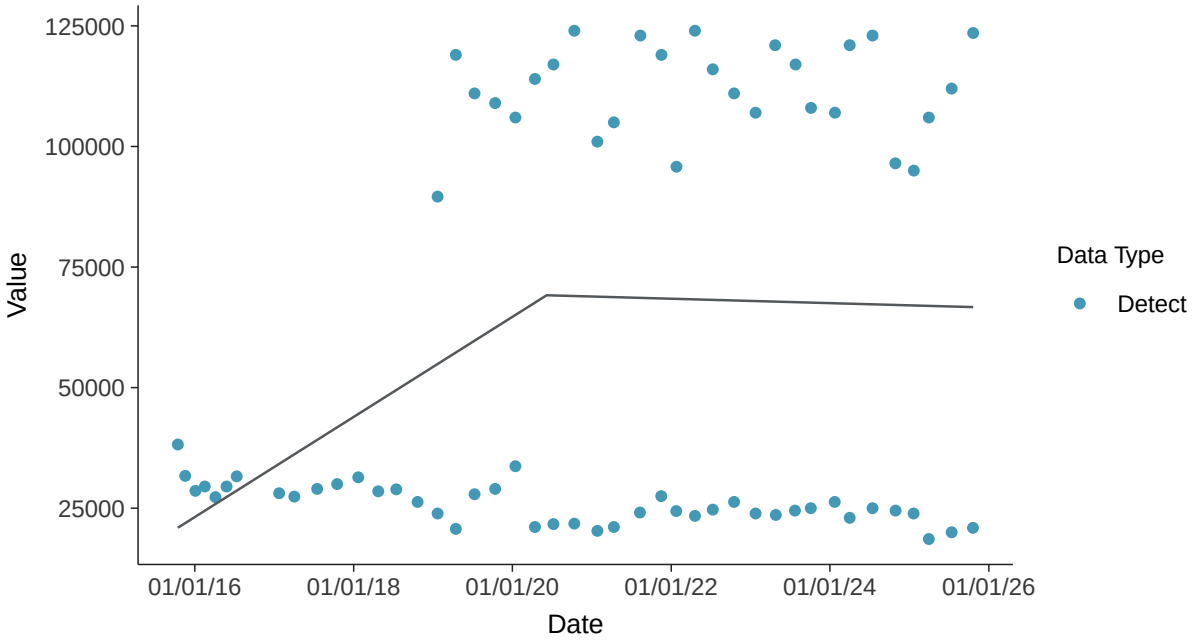
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Calcium, BG-1 & BG-2 (ug/L)



Trend Regression: Piecewise Linear-Linear

Calcium, BG-1 & BG-2 (ug/L)

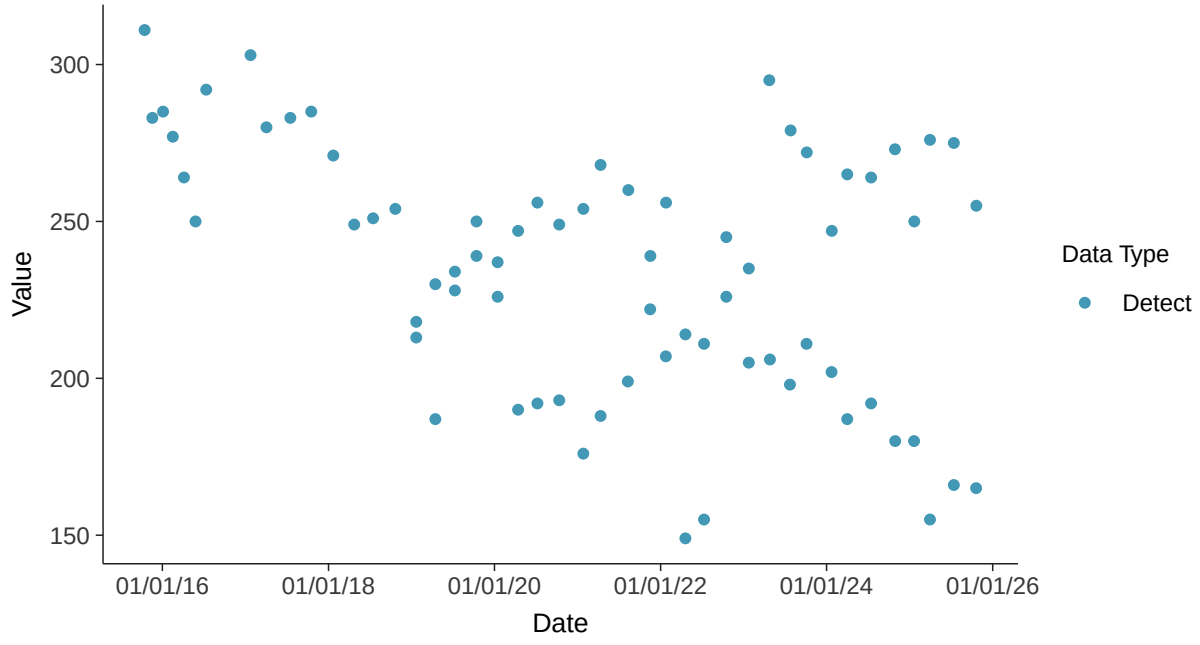


App. III: Chloride, BG-1 & BG-2

ID: 2_108

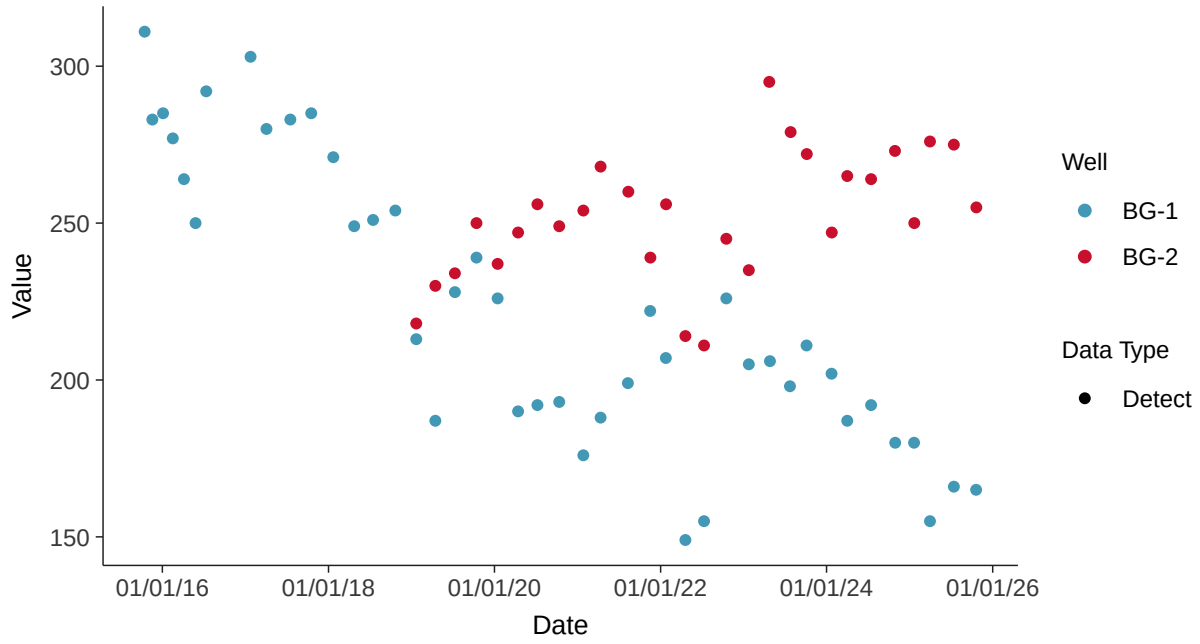
Scatter Plot

Chloride, BG-1 & BG-2 (mg/L)



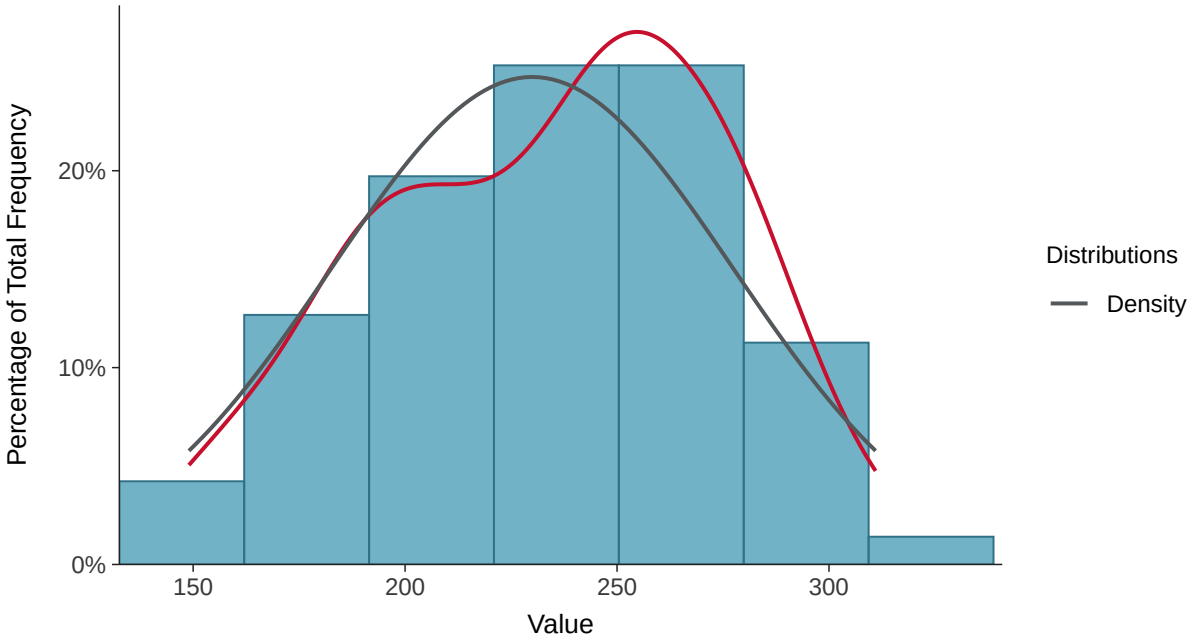
Scatter Plot by Well

Chloride, BG-1 & BG-2 (mg/L)



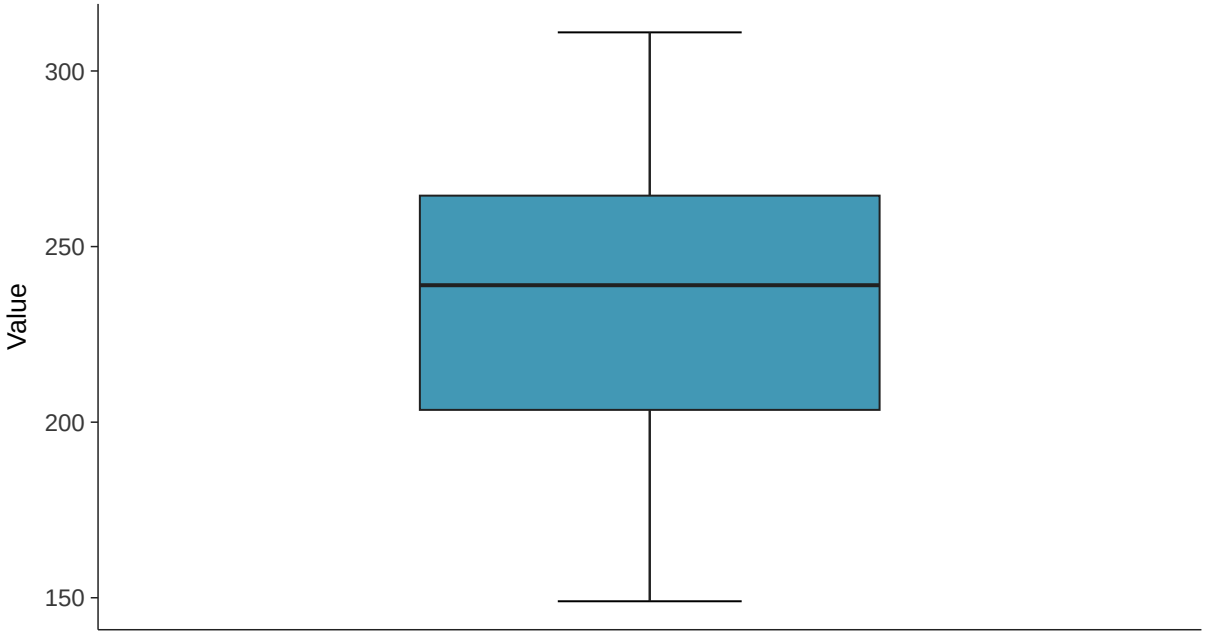
Histogram

Chloride, BG-1 & BG-2 (mg/L)



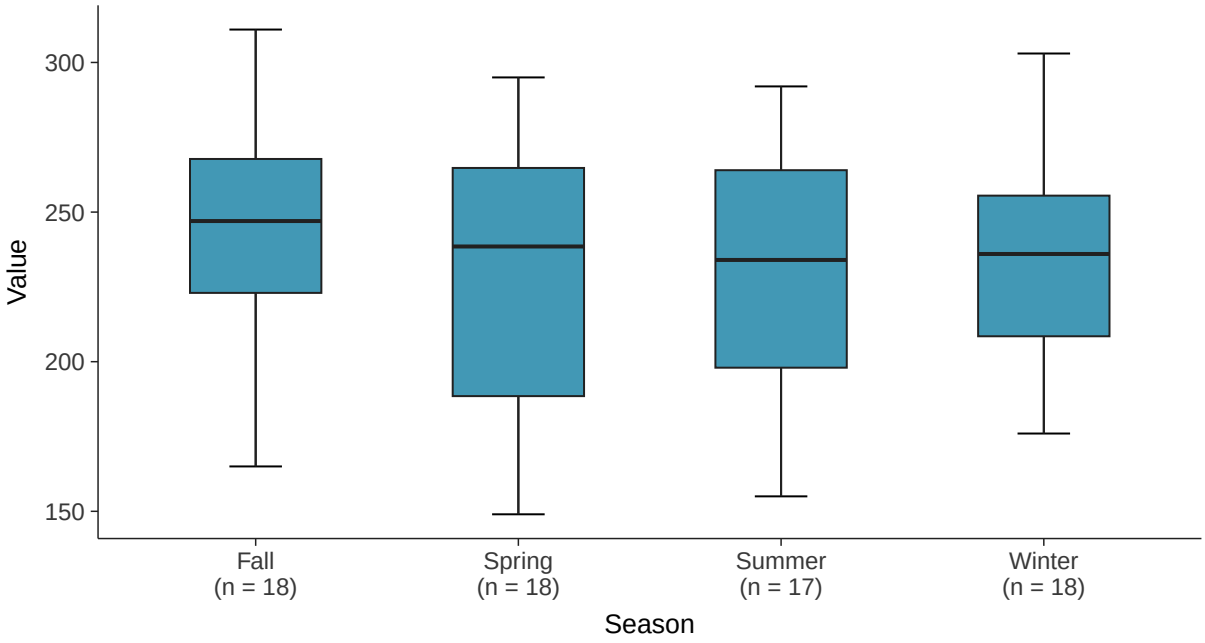
Boxplot

Chloride, BG-1 & BG-2 (mg/L)



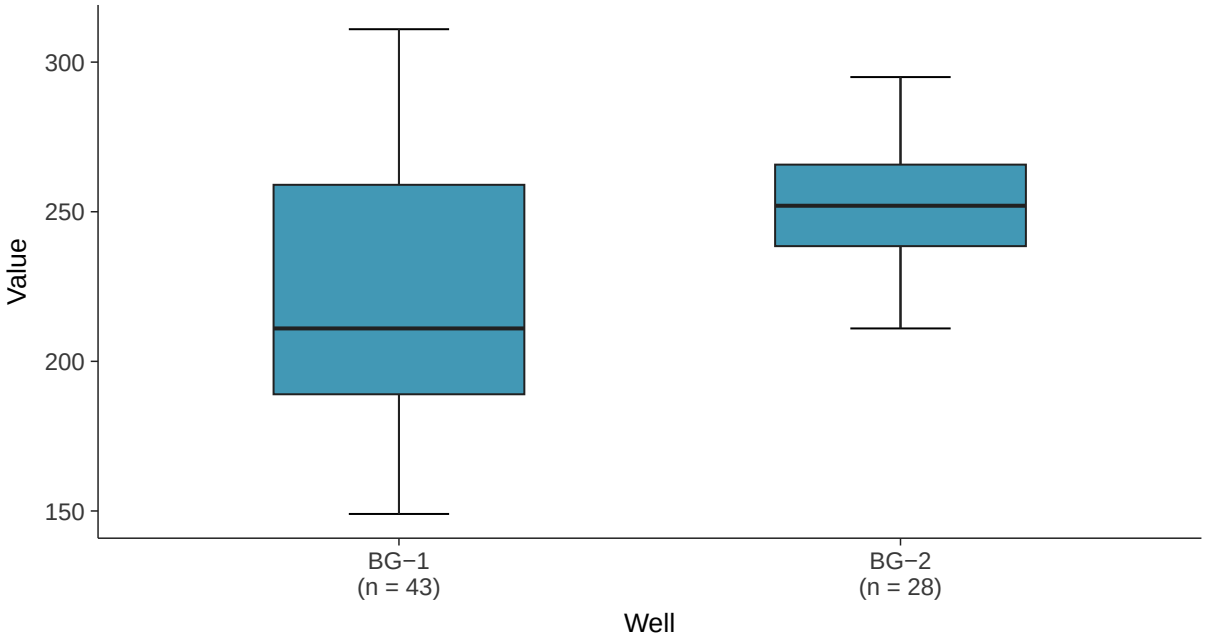
Boxplot by Season

Chloride, BG-1 & BG-2 (mg/L)



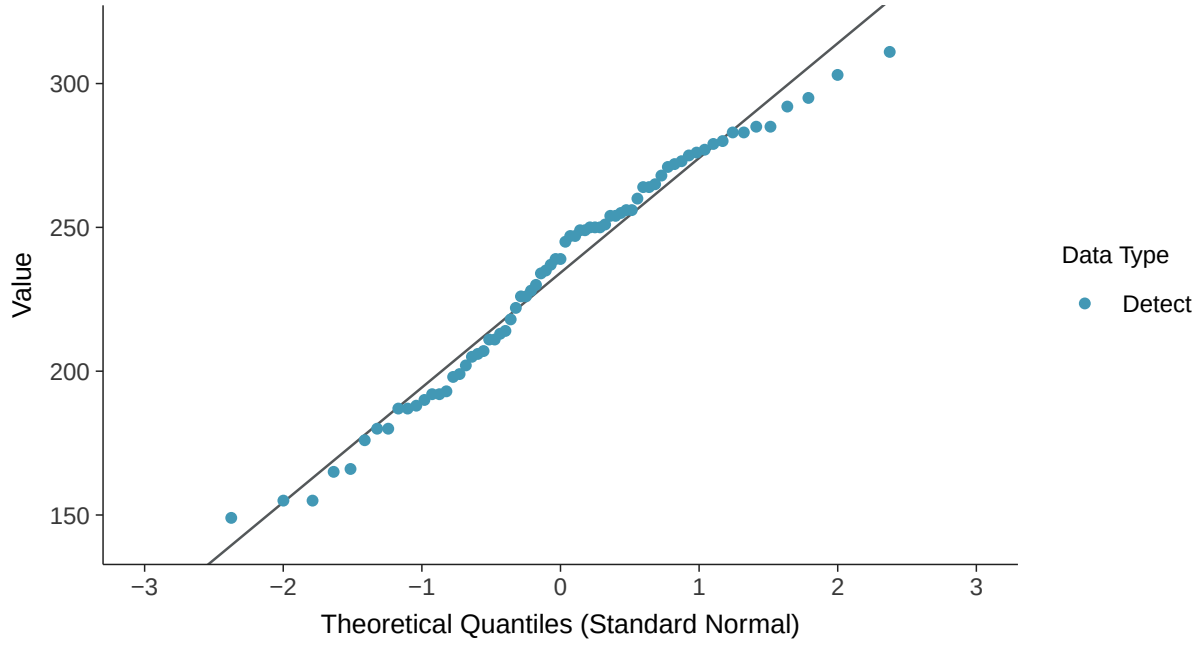
Boxplot by Well

Chloride, BG-1 & BG-2 (mg/L)



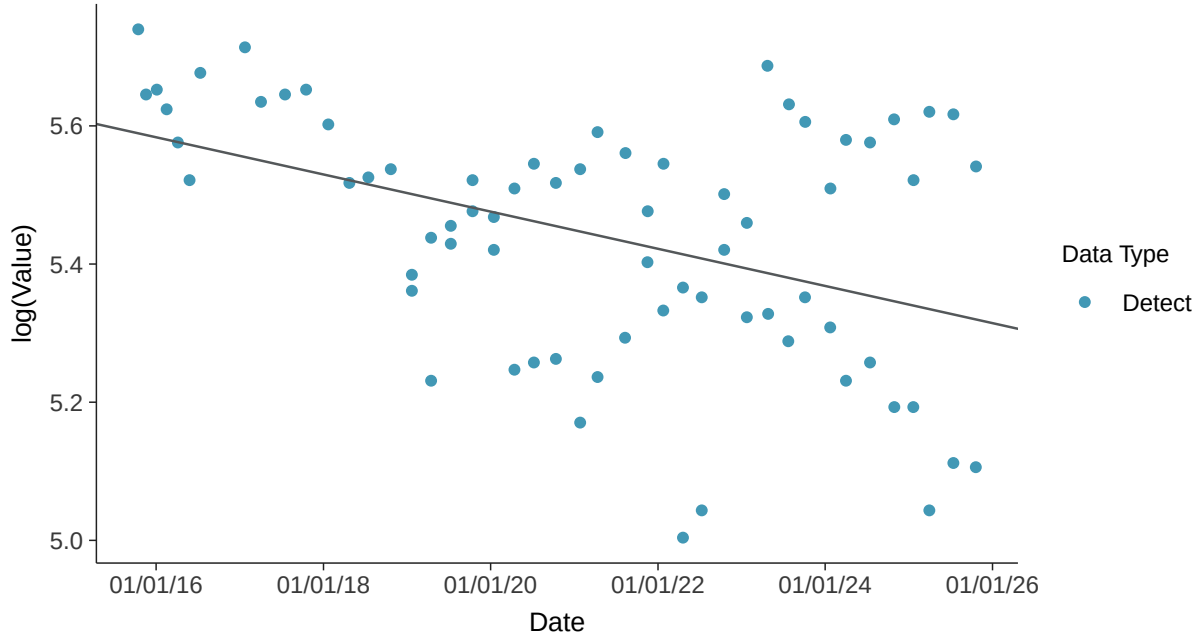
Normal Q-Q plot

Chloride, BG-1 & BG-2 (mg/L)



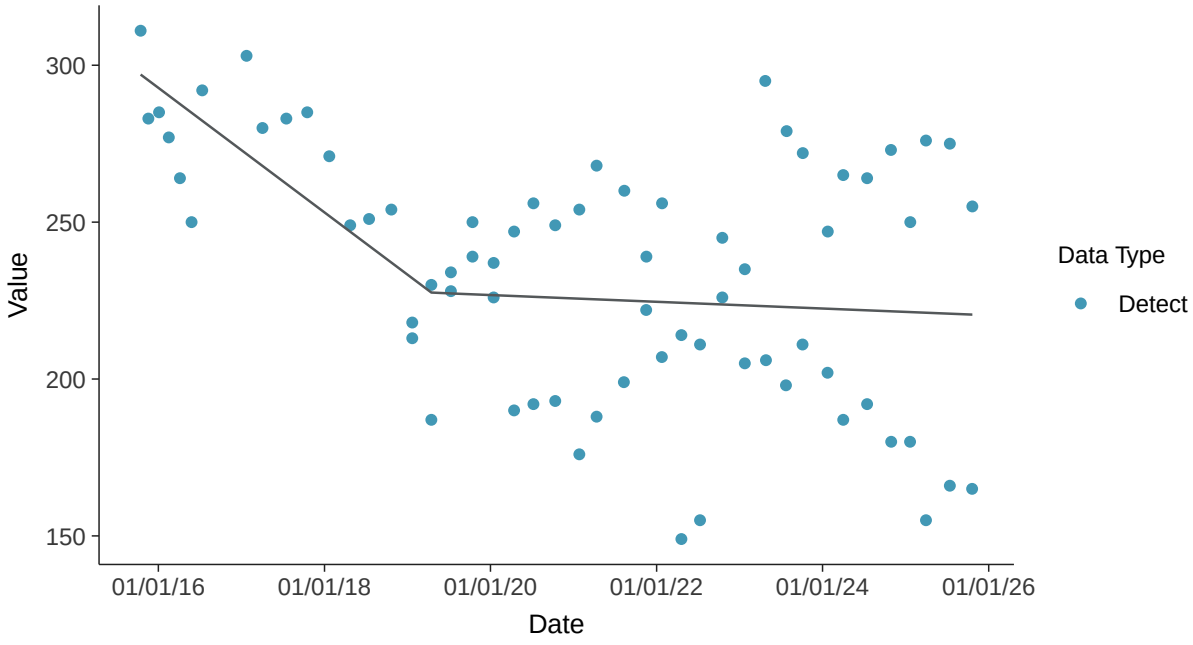
Trend Regression: Lognormal MLE

Chloride, BG-1 & BG-2 (mg/L)



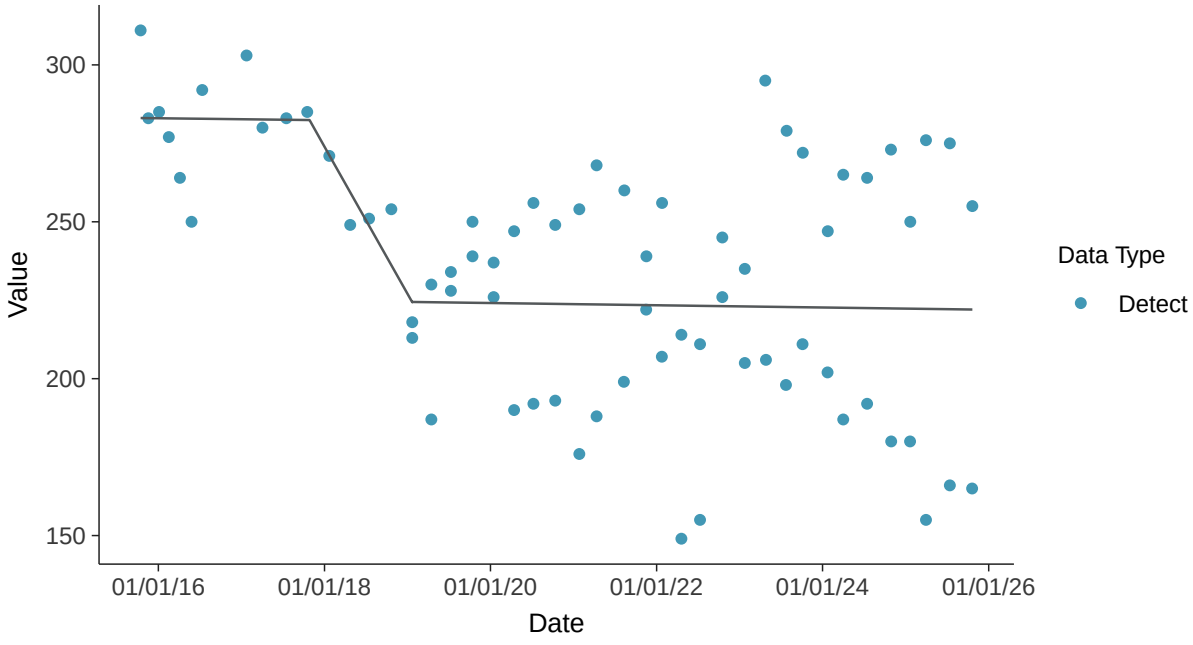
Trend Regression: Piecewise Linear-Linear

Chloride, BG-1 & BG-2 (mg/L)



Trend Regression: Piecewise Linear-Linear-Linear

Chloride, BG-1 & BG-2 (mg/L)

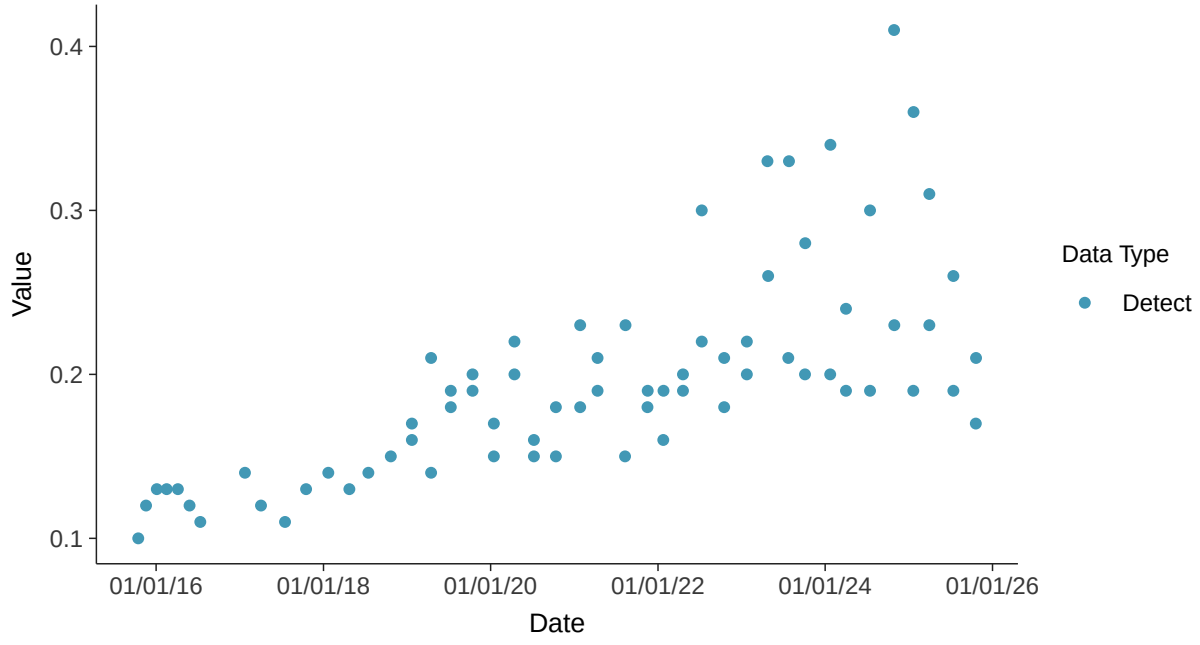


App. III: Fluoride, BG-1 & BG-2

ID: 2_112

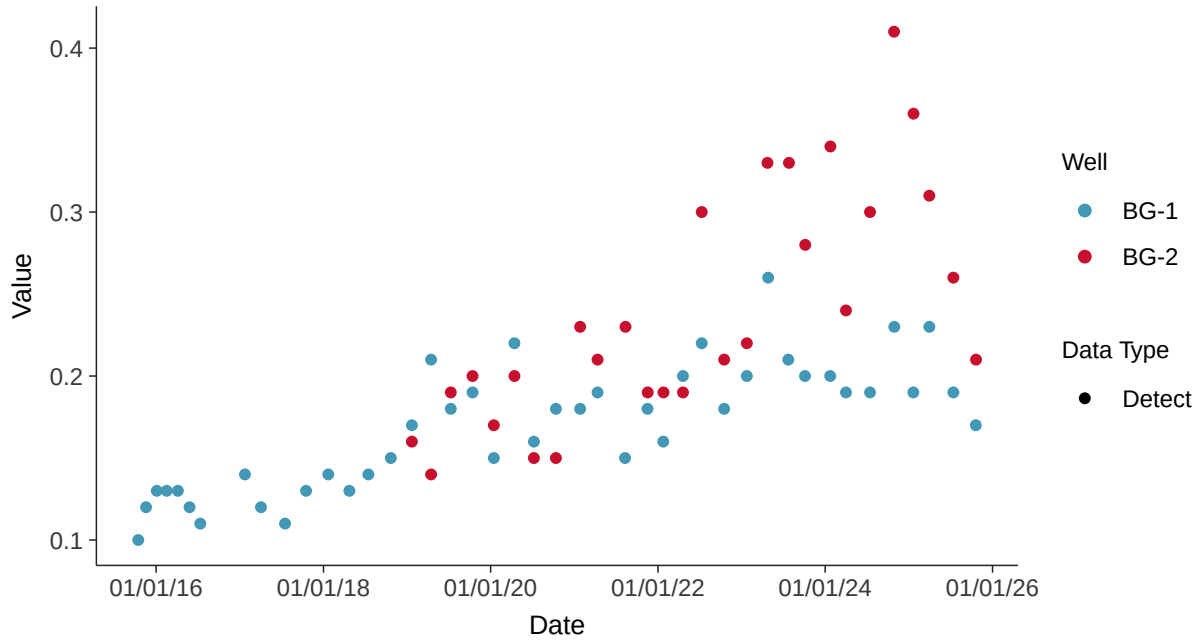
Scatter Plot

Fluoride, BG-1 & BG-2 (mg/L)



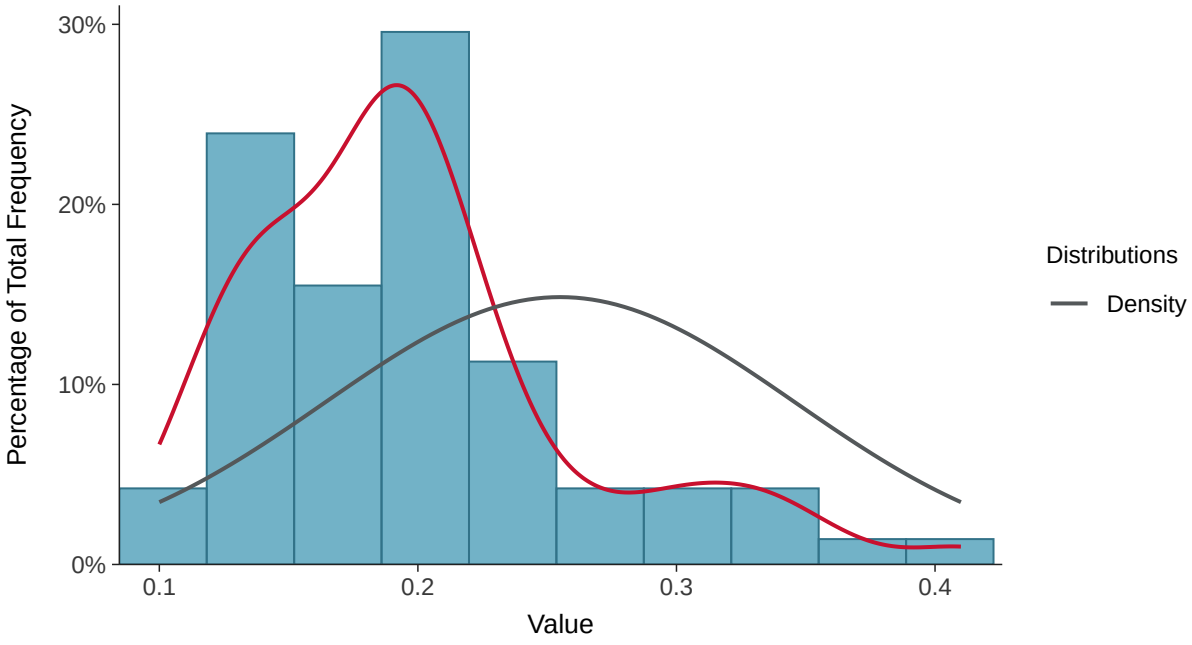
Scatter Plot by Well

Fluoride, BG-1 & BG-2 (mg/L)



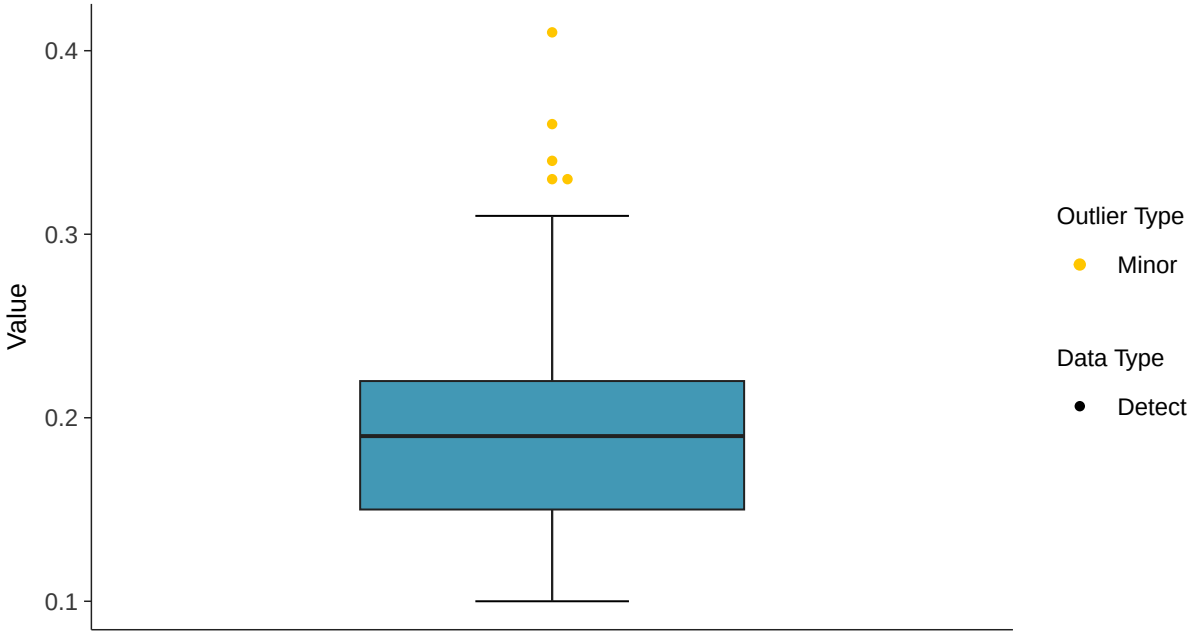
Histogram

Fluoride, BG-1 & BG-2 (mg/L)



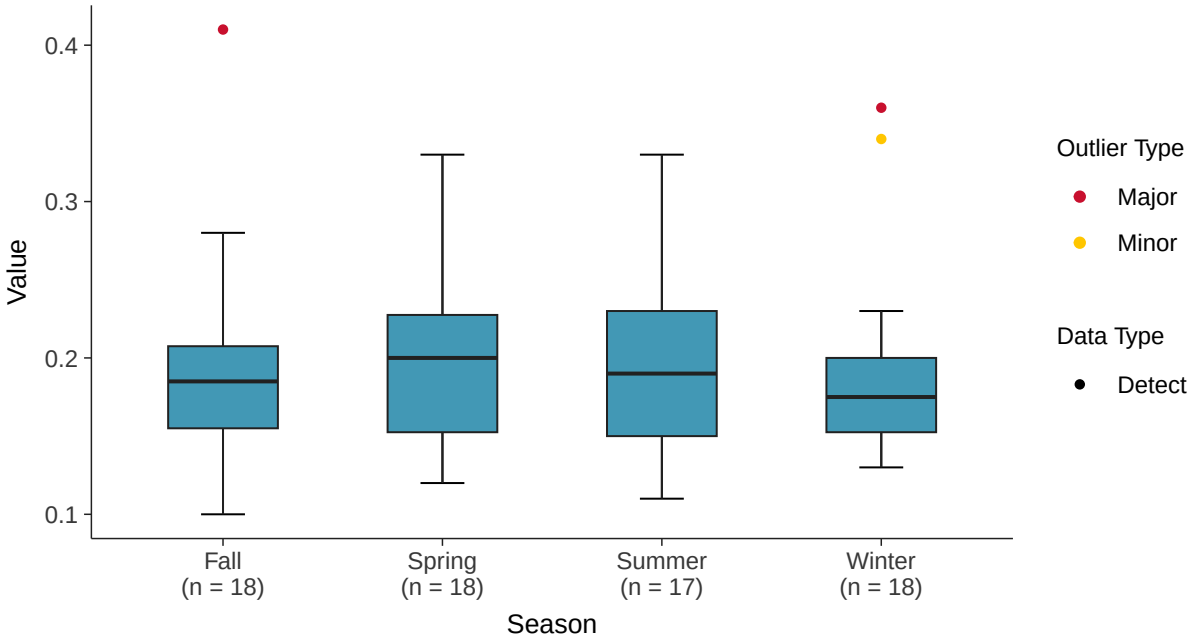
Boxplot

Fluoride, BG-1 & BG-2 (mg/L)



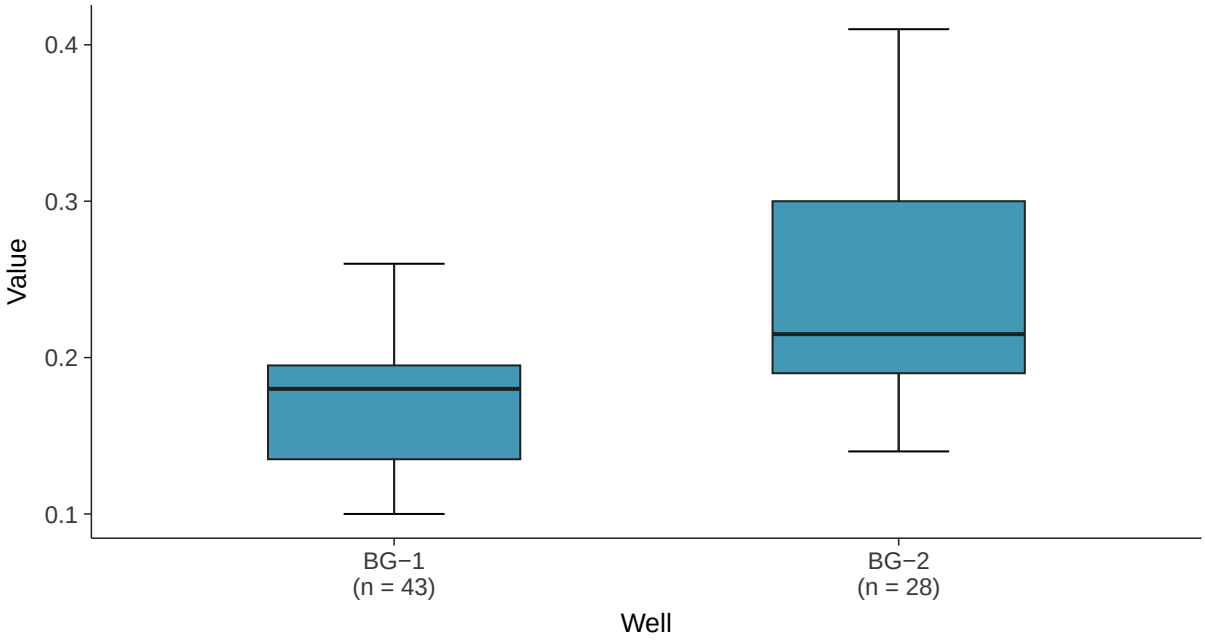
Boxplot by Season

Fluoride, BG-1 & BG-2 (mg/L)



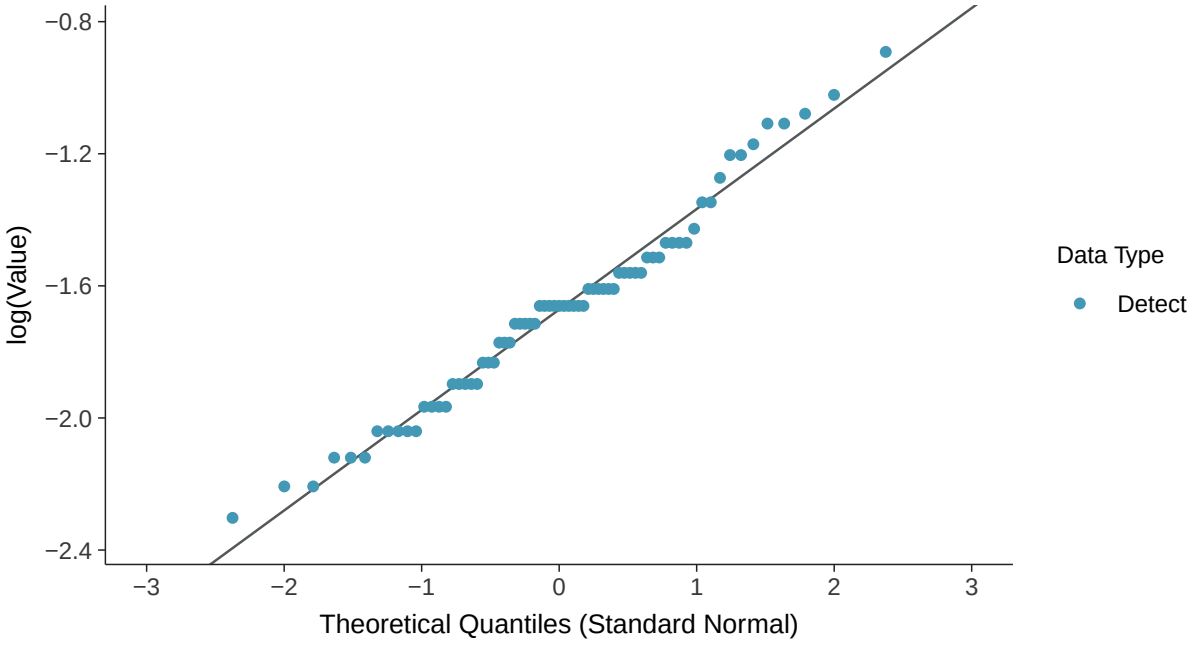
Boxplot by Well

Fluoride, BG-1 & BG-2 (mg/L)



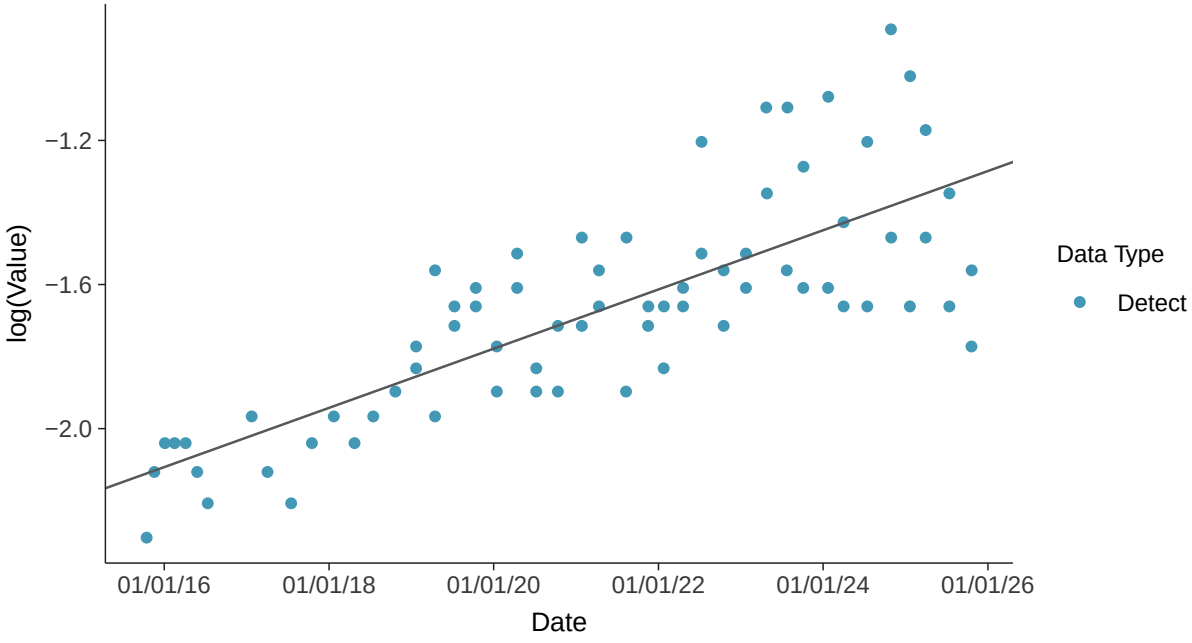
Lognormal Q-Q plot

Fluoride, BG-1 & BG-2 (mg/L)



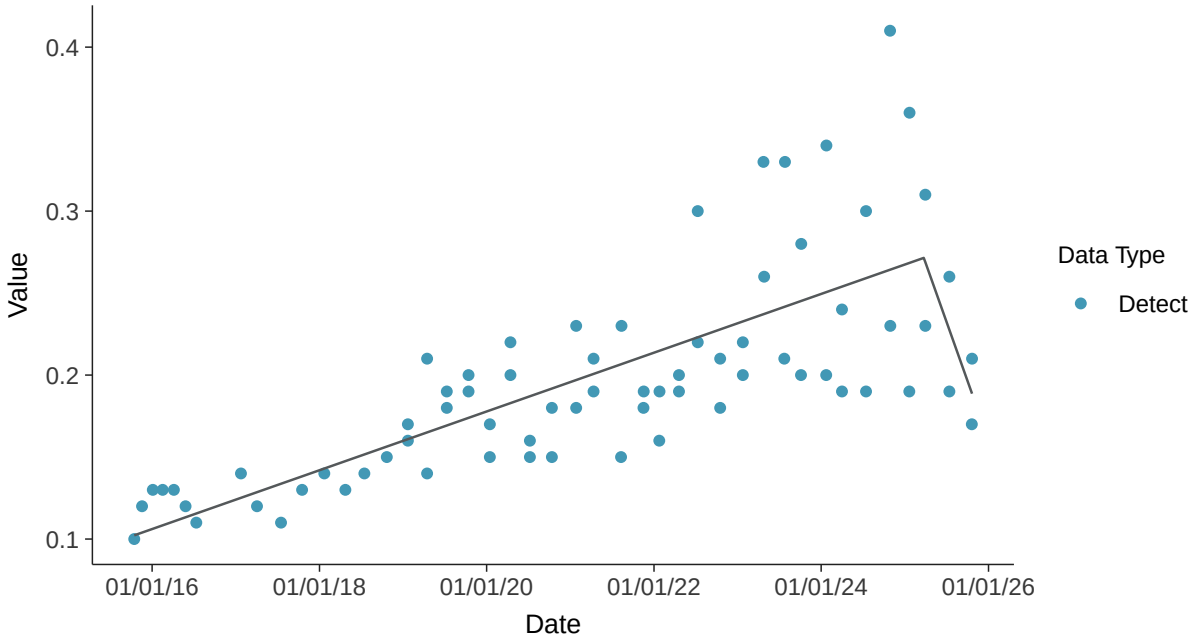
Trend Regression: Lognormal MLE

Fluoride, BG-1 & BG-2 (mg/L)



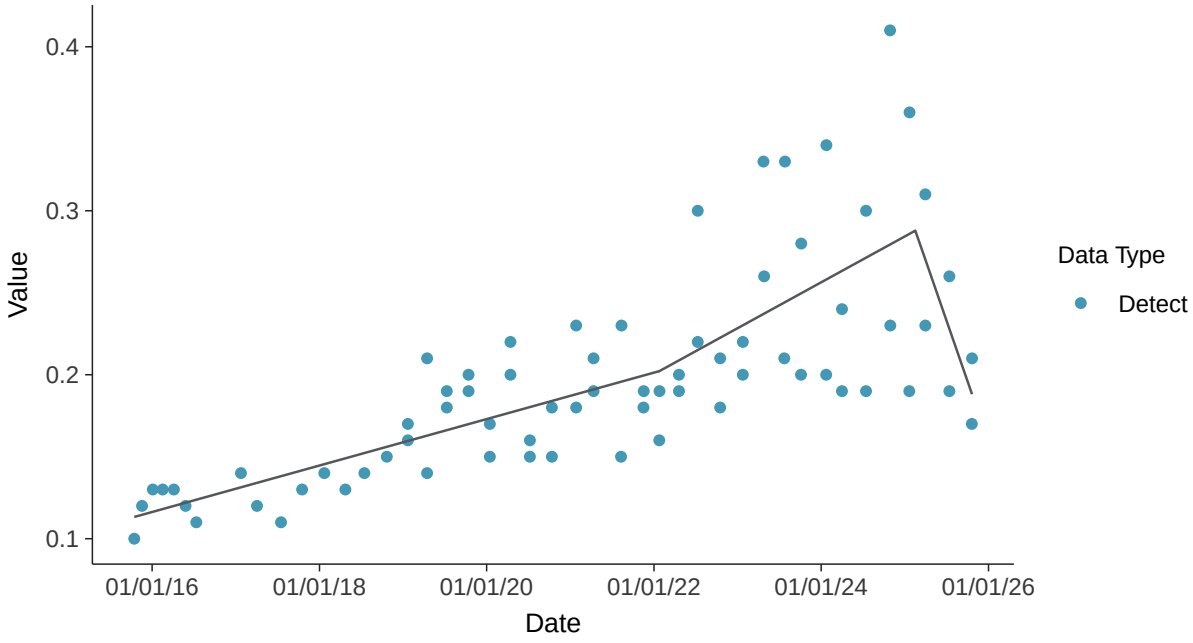
Trend Regression: Piecewise Linear-Linear

Fluoride, BG-1 & BG-2 (mg/L)



Trend Regression: Piecewise Linear-Linear-Linear

Fluoride, BG-1 & BG-2 (mg/L)

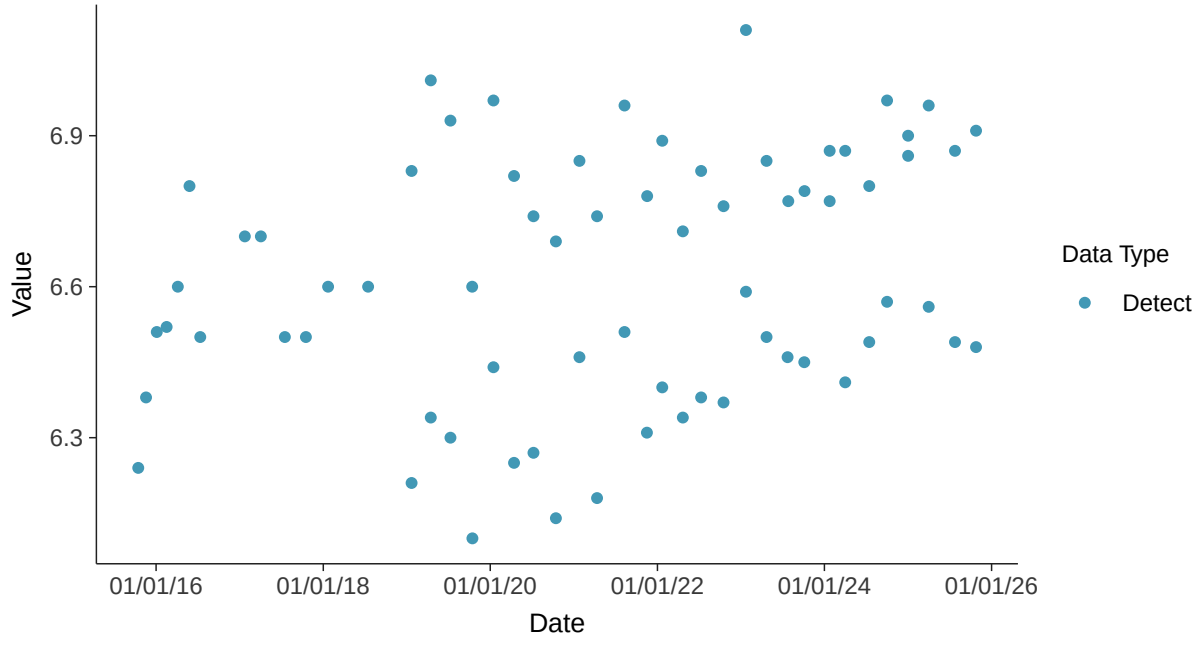


App. III: pH (Field), BG-1 & BG-2

ID: 2_118

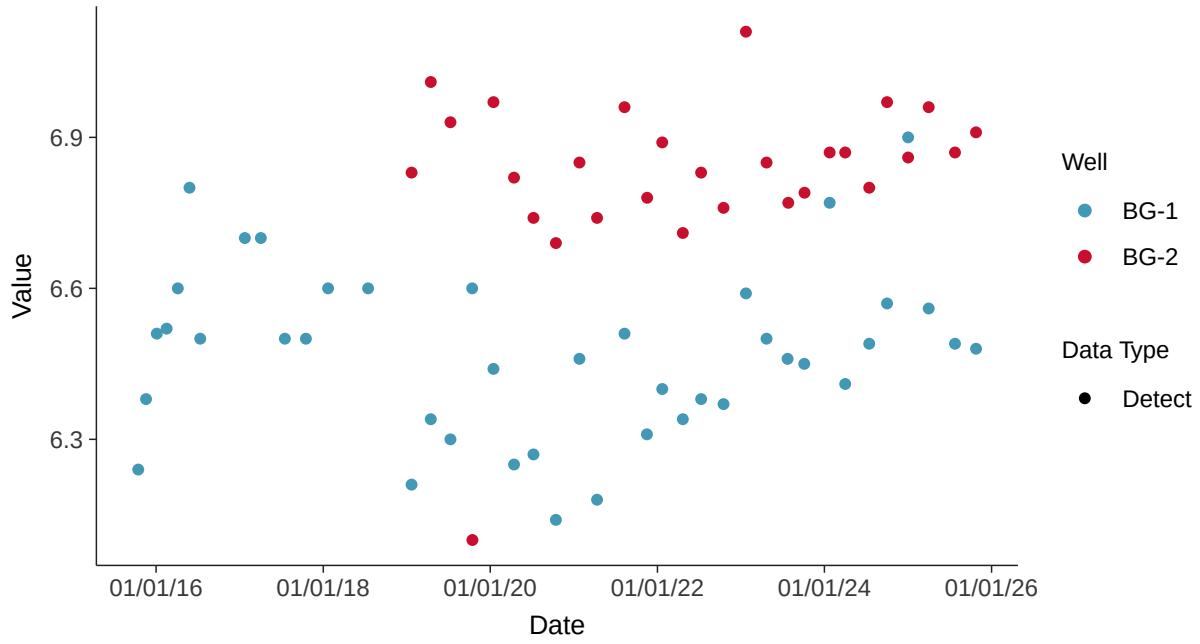
Scatter Plot

pH (Field), BG-1 & BG-2 (S.U.)



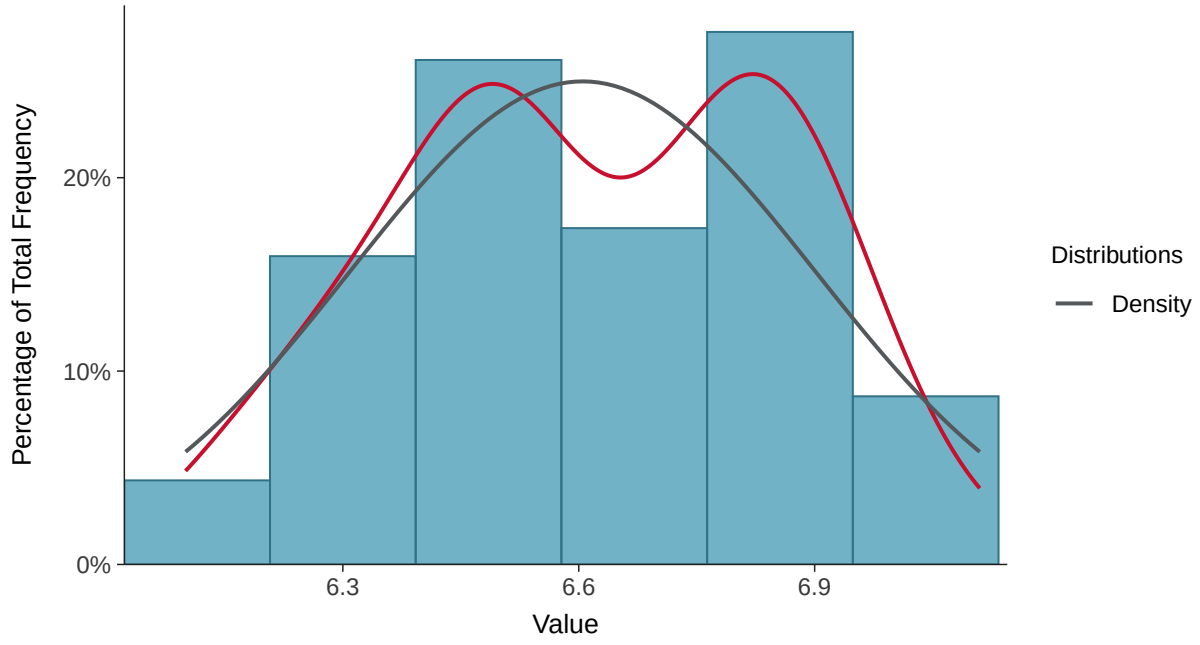
Scatter Plot by Well

pH (Field), BG-1 & BG-2 (S.U.)



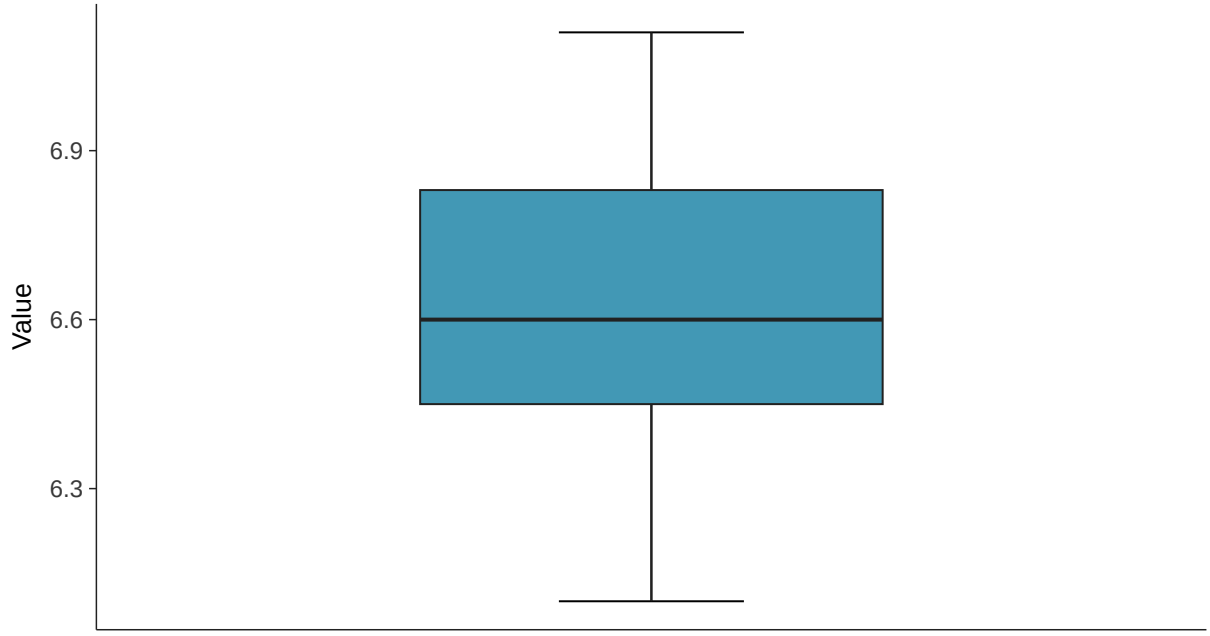
Histogram

pH (Field), BG-1 & BG-2 (S.U.)



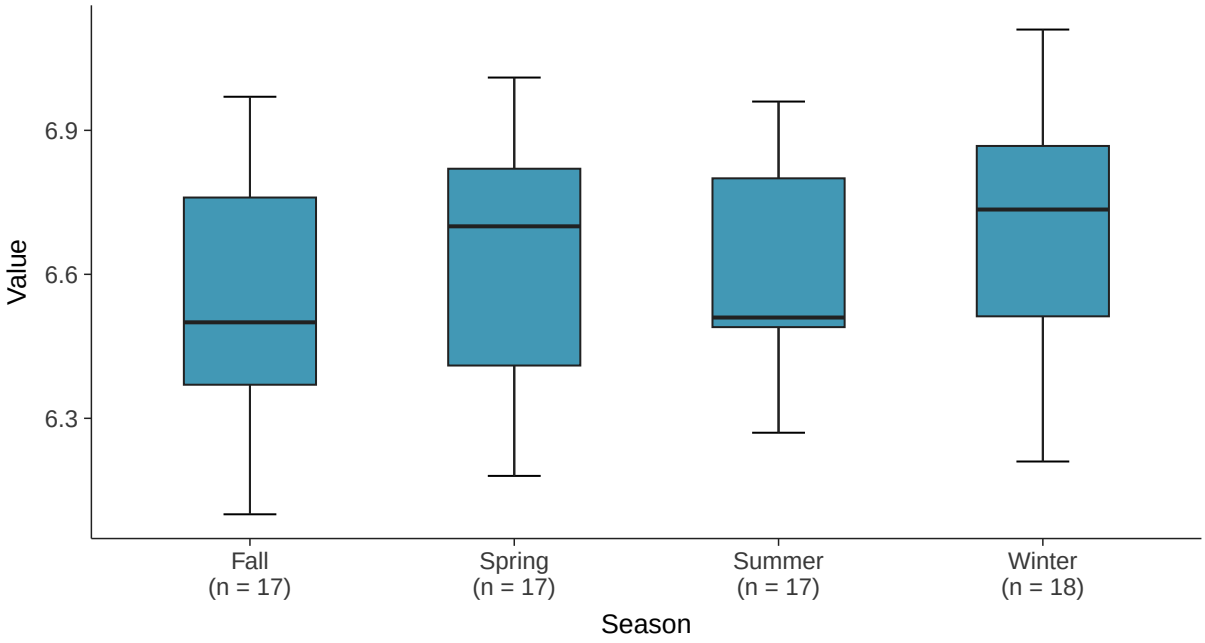
Boxplot

pH (Field), BG-1 & BG-2 (S.U.)



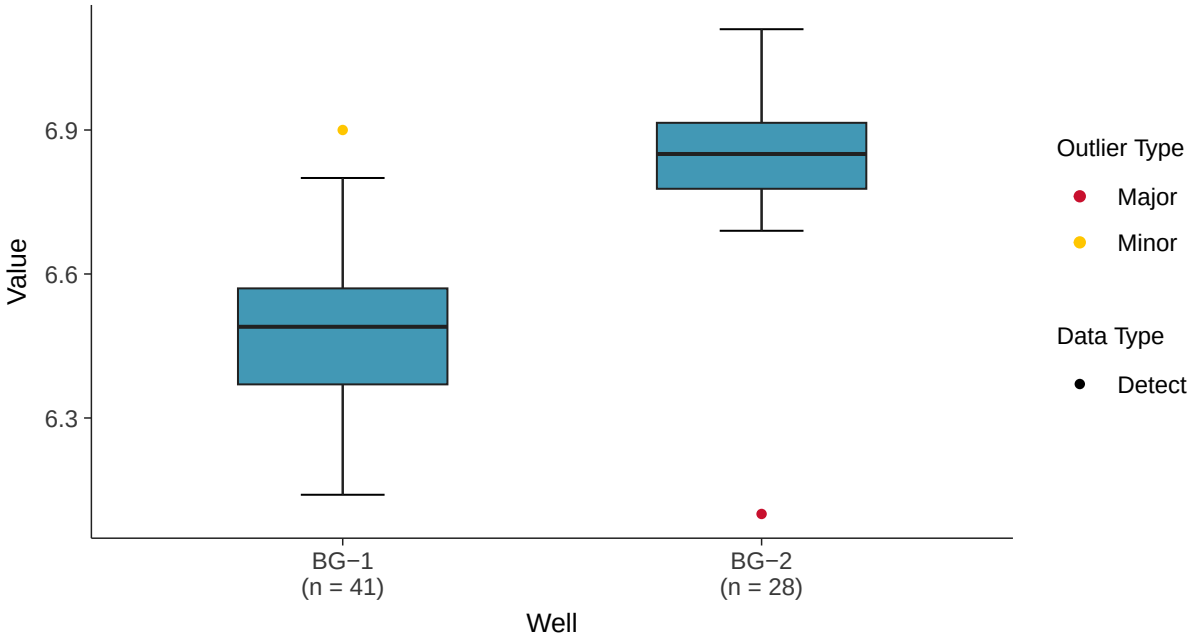
Boxplot by Season

pH (Field), BG-1 & BG-2 (S.U.)



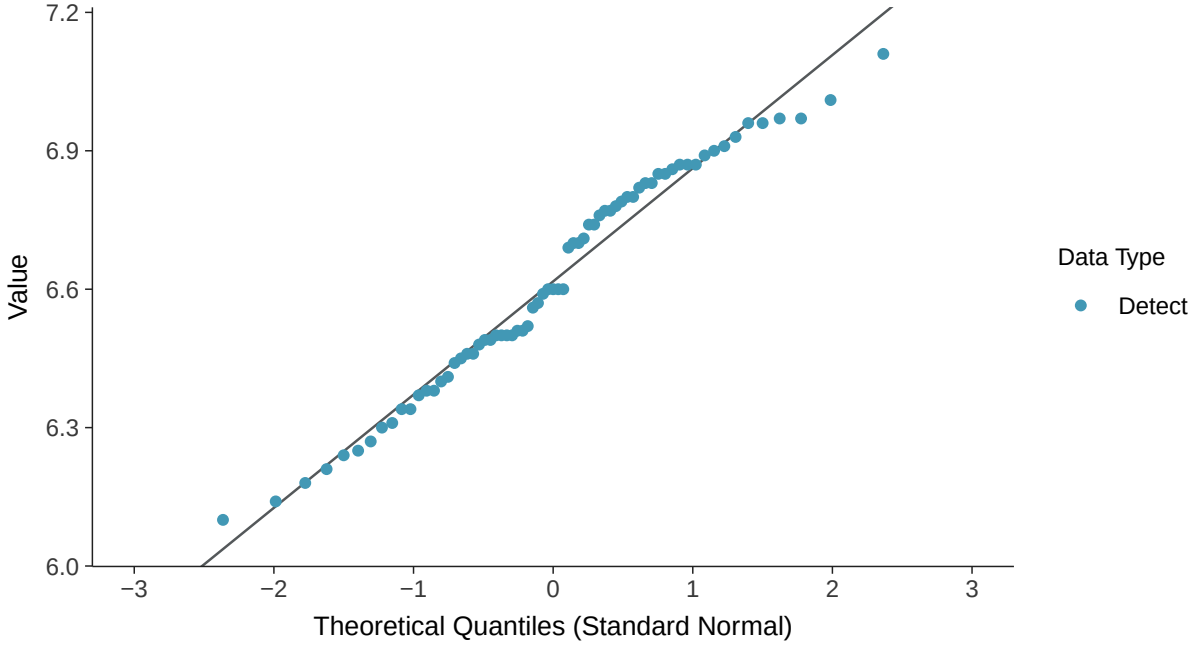
Boxplot by Well

pH (Field), BG-1 & BG-2 (S.U.)



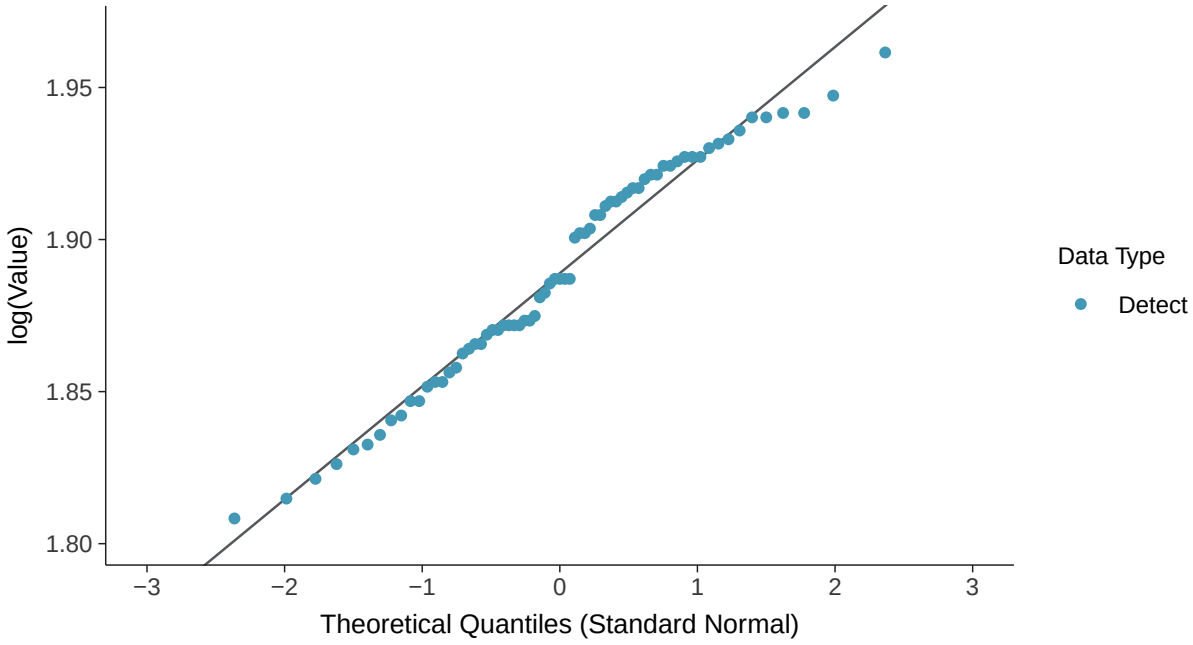
Normal Q-Q plot

pH (Field), BG-1 & BG-2 (S.U.)



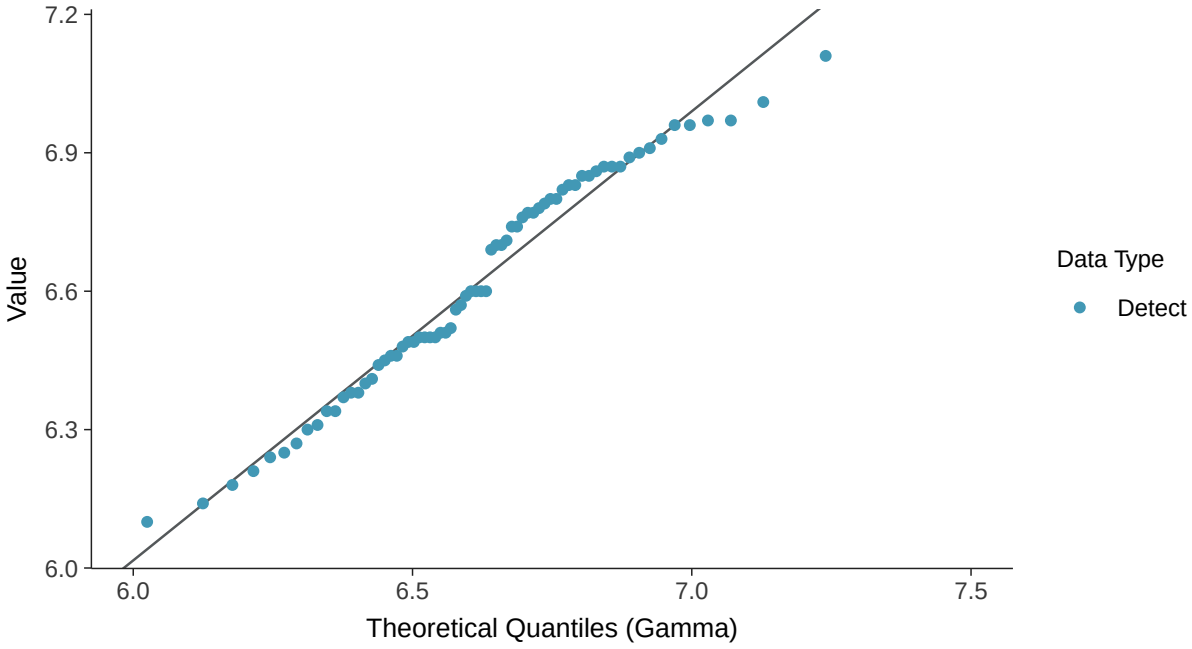
Lognormal Q-Q plot

pH (Field), BG-1 & BG-2 (S.U.)



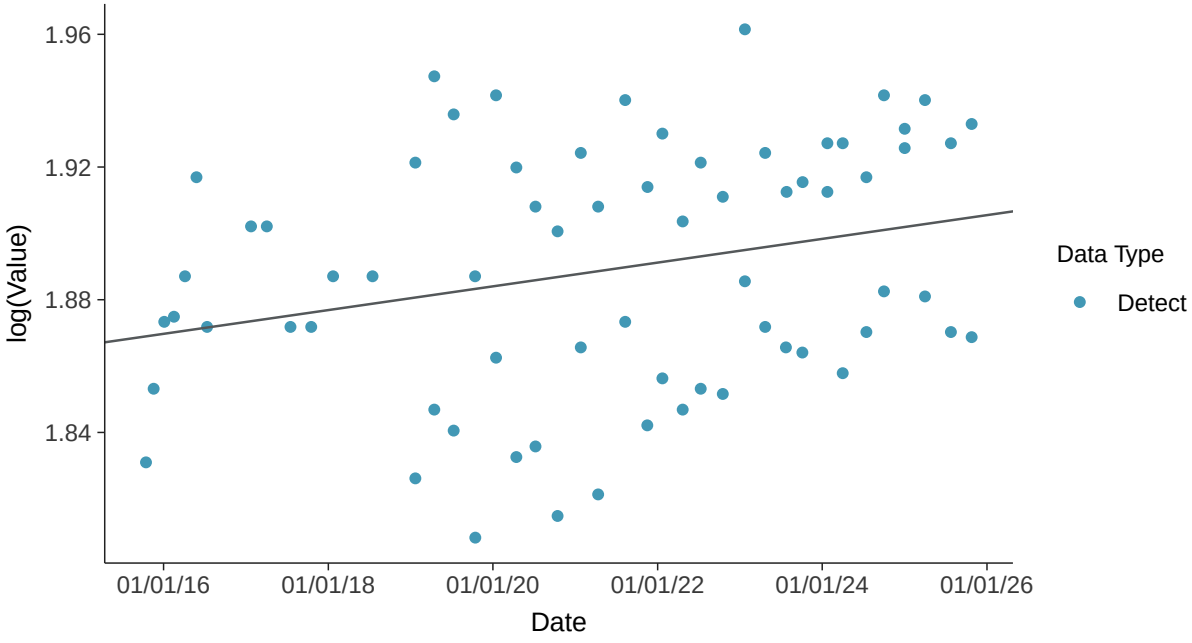
Gamma Q-Q plot

pH (Field), BG-1 & BG-2 (S.U.)



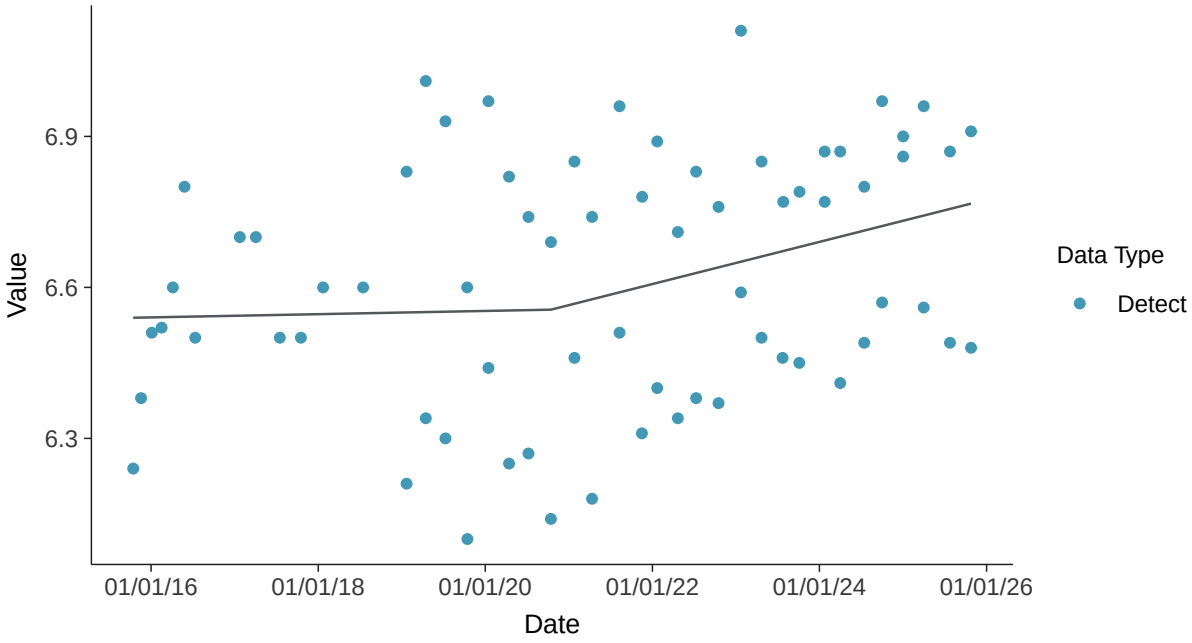
Trend Regression: Lognormal MLE

pH (Field), BG-1 & BG-2 (S.U.)



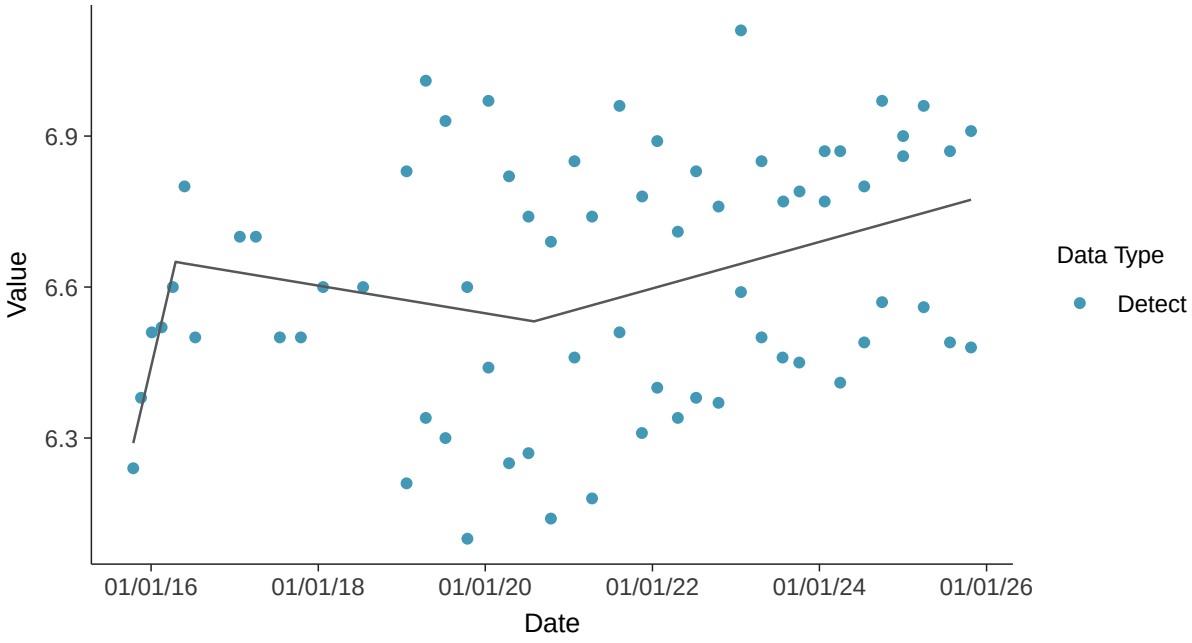
Trend Regression: Piecewise Linear-Linear

pH (Field), BG-1 & BG-2 (S.U.)



Trend Regression: Piecewise Linear-Linear-Linear

pH (Field), BG-1 & BG-2 (S.U.)

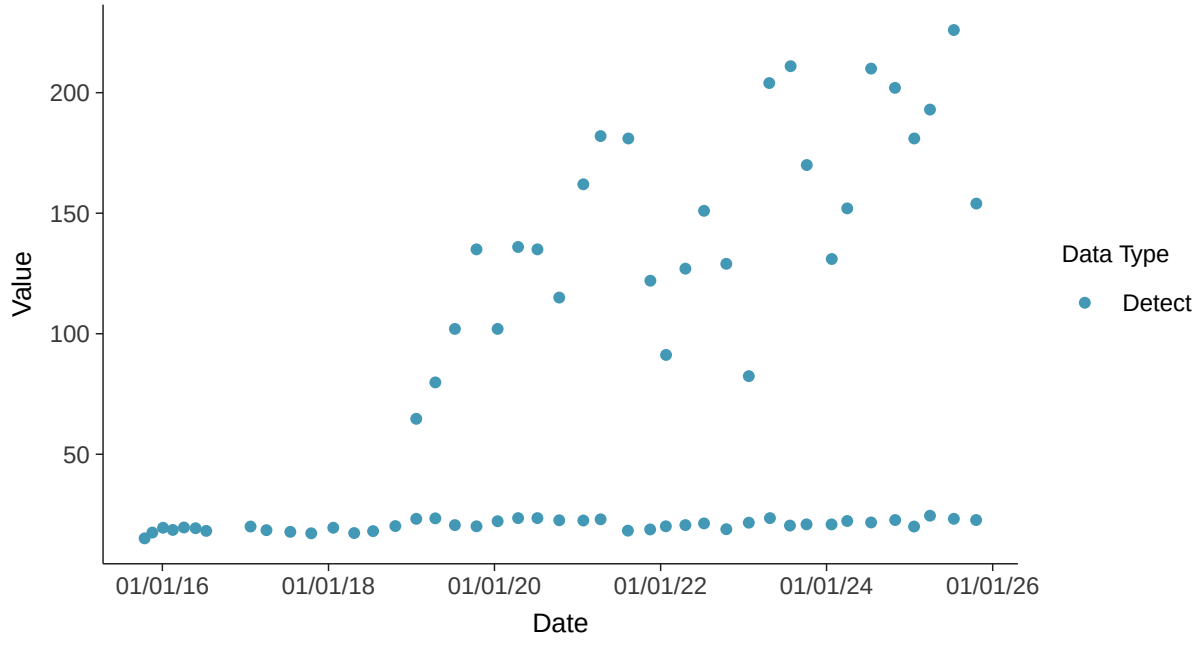


App. III: Sulfate, BG-1 & BG-2

ID: 2_123

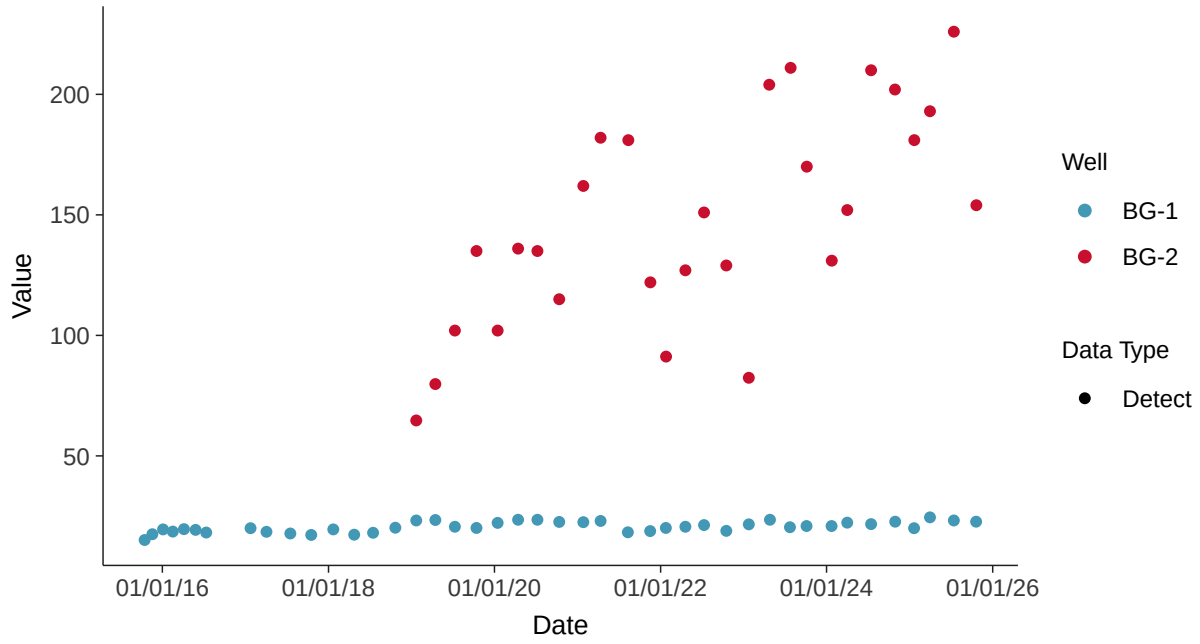
Scatter Plot

Sulfate, BG-1 & BG-2 (mg/L)



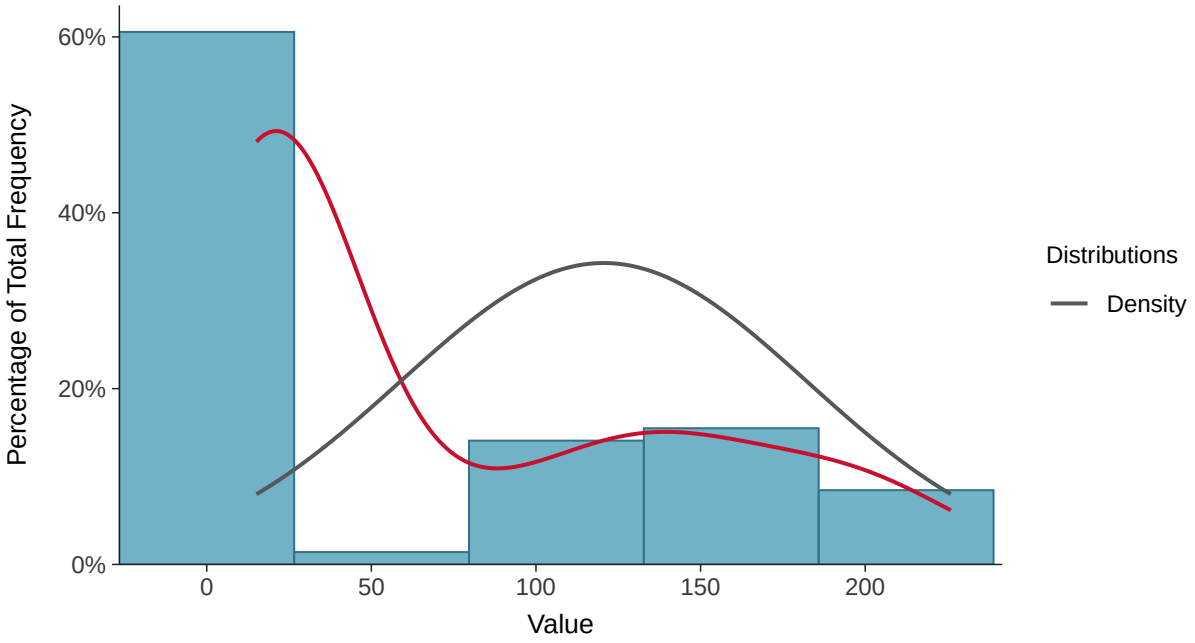
Scatter Plot by Well

Sulfate, BG-1 & BG-2 (mg/L)



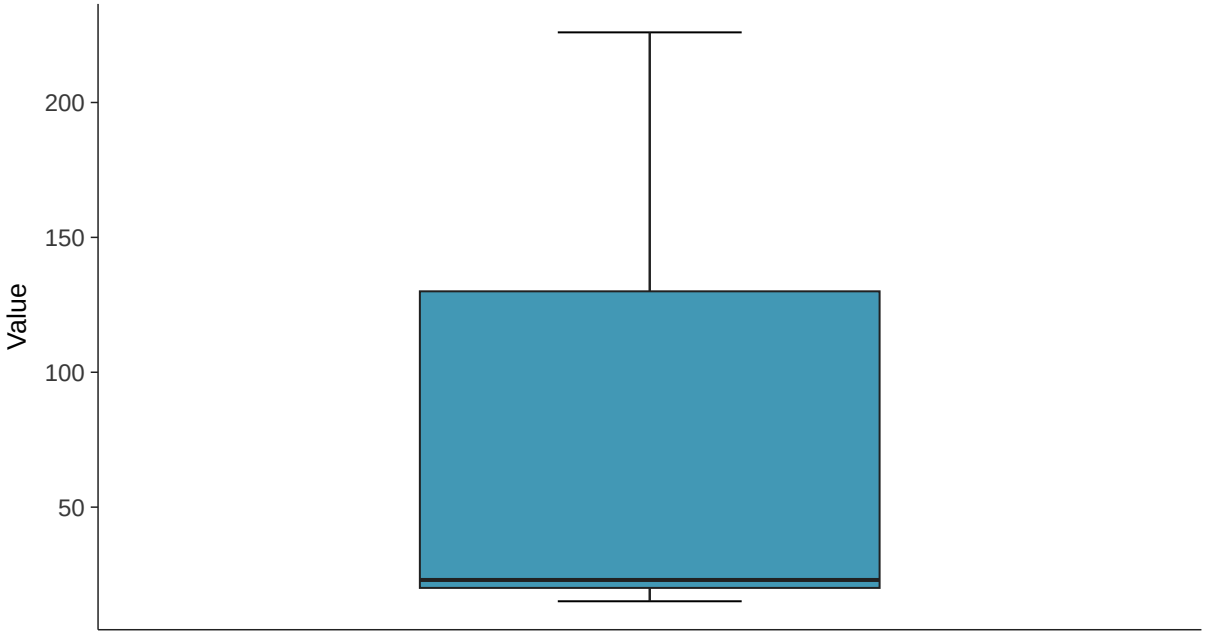
Histogram

Sulfate, BG-1 & BG-2 (mg/L)



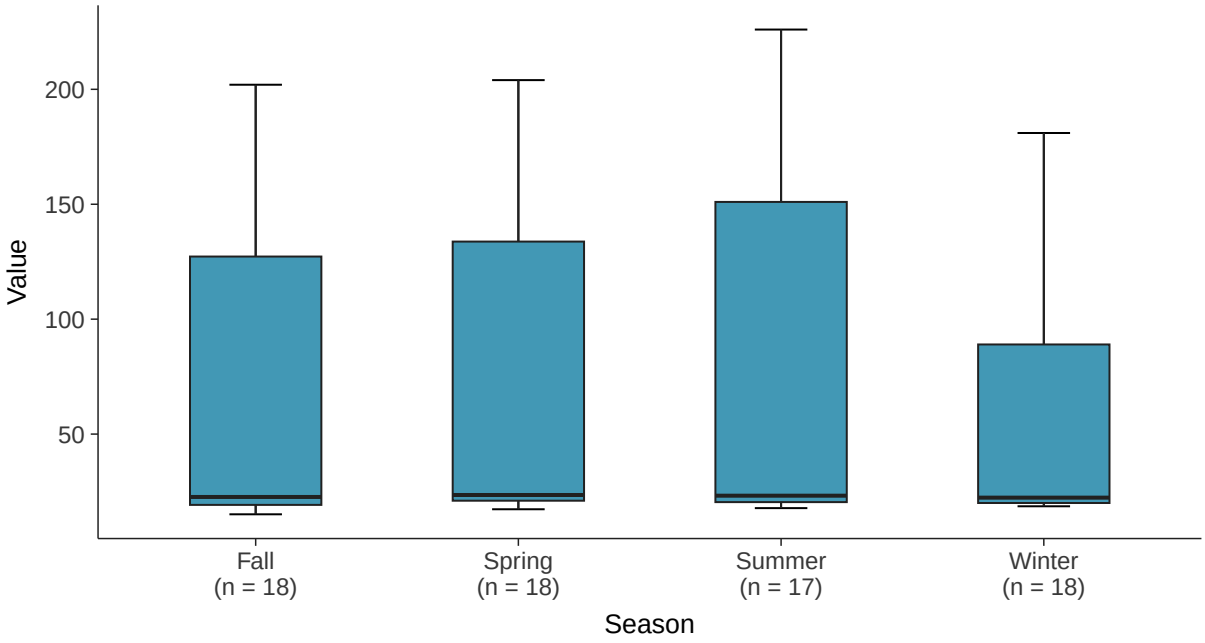
Boxplot

Sulfate, BG-1 & BG-2 (mg/L)



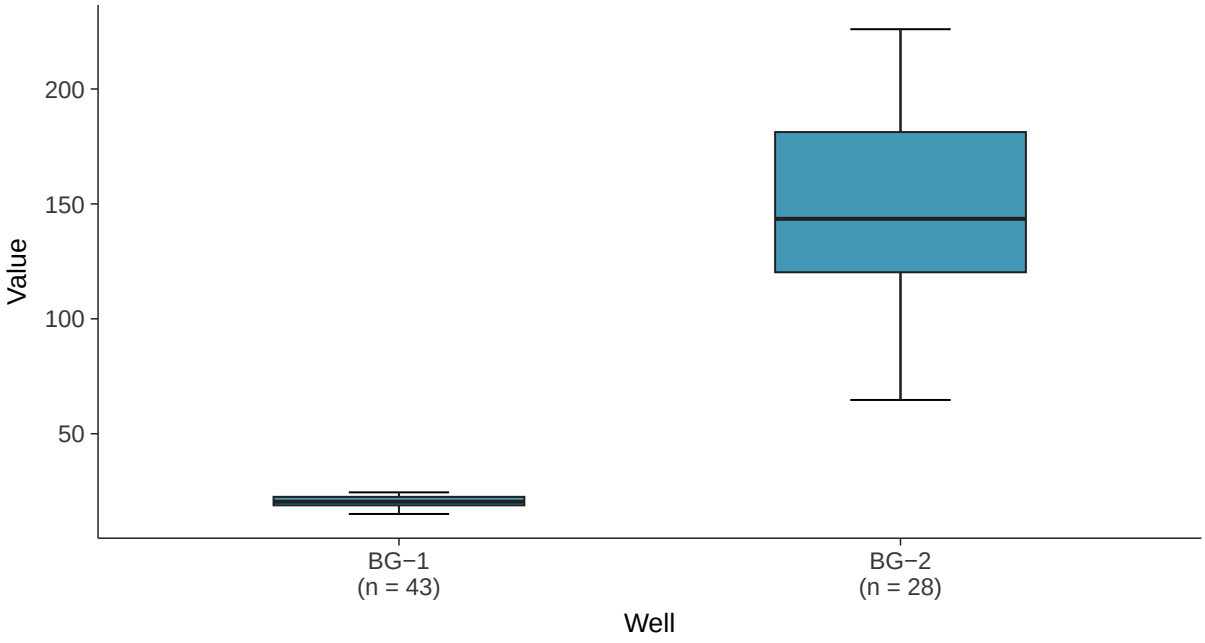
Boxplot by Season

Sulfate, BG-1 & BG-2 (mg/L)



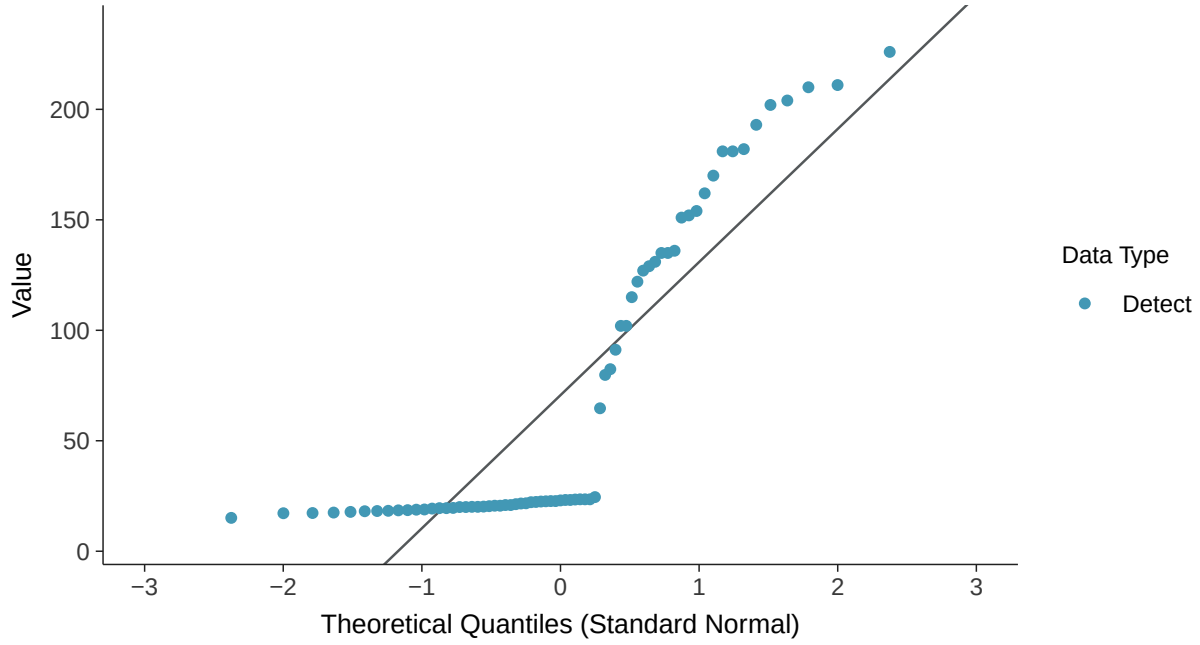
Boxplot by Well

Sulfate, BG-1 & BG-2 (mg/L)



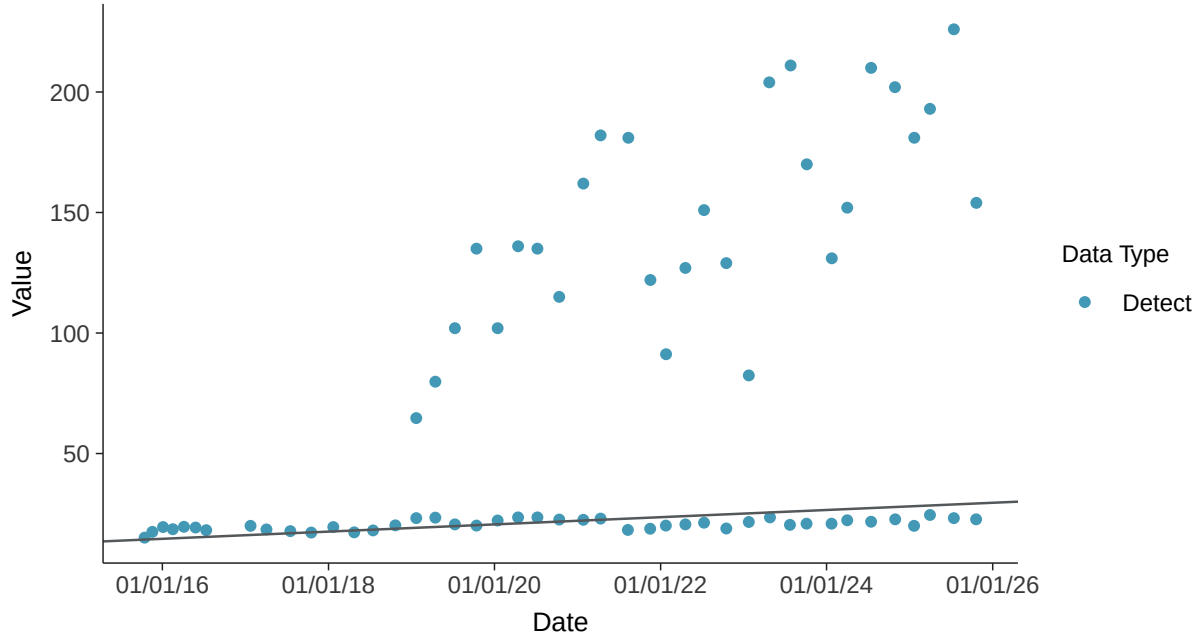
Normal Q-Q plot

Sulfate, BG-1 & BG-2 (mg/L)



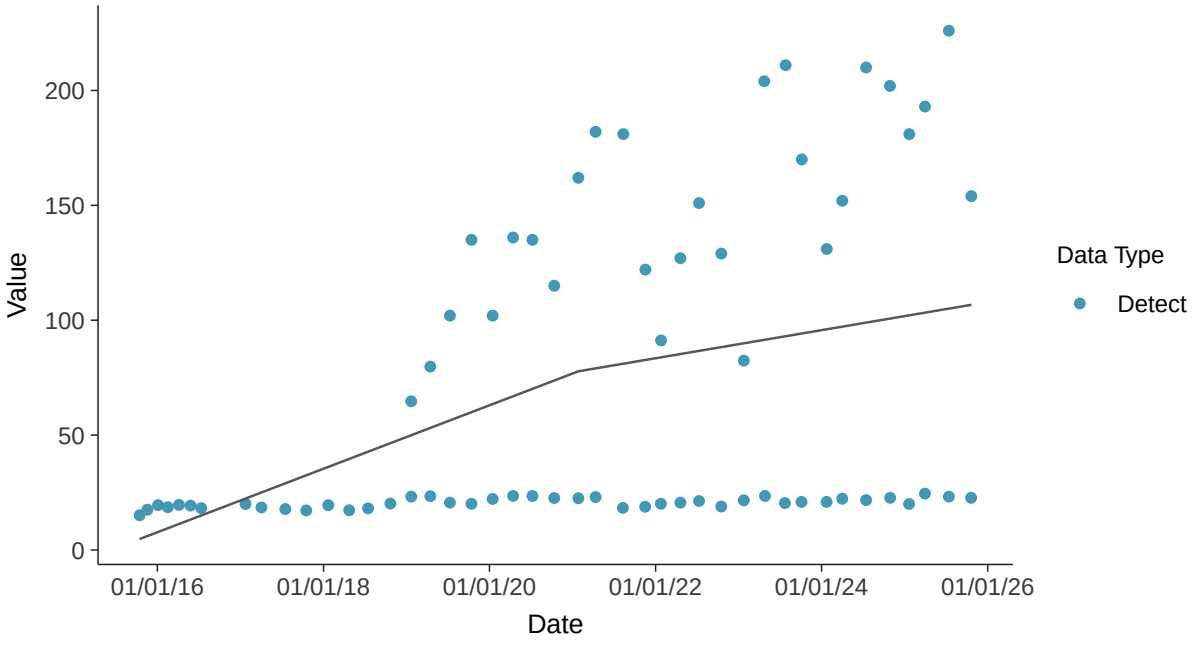
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Sulfate, BG-1 & BG-2 (mg/L)



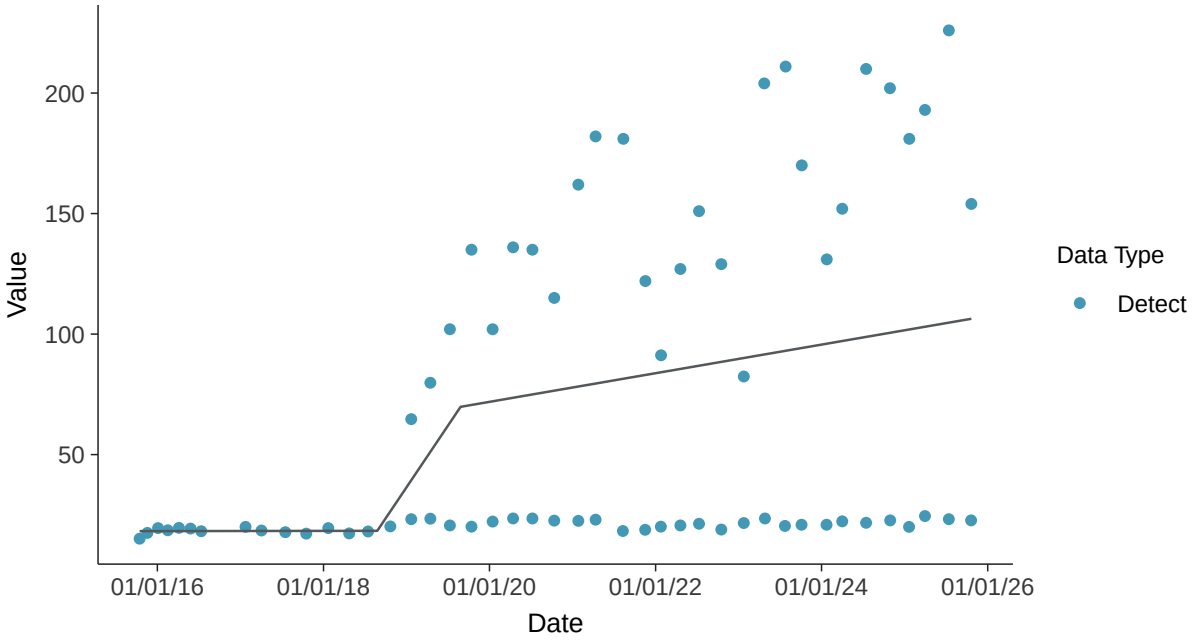
Trend Regression: Piecewise Linear-Linear

Sulfate, BG-1 & BG-2 (mg/L)



Trend Regression: Piecewise Linear-Linear-Linear

Sulfate, BG-1 & BG-2 (mg/L)

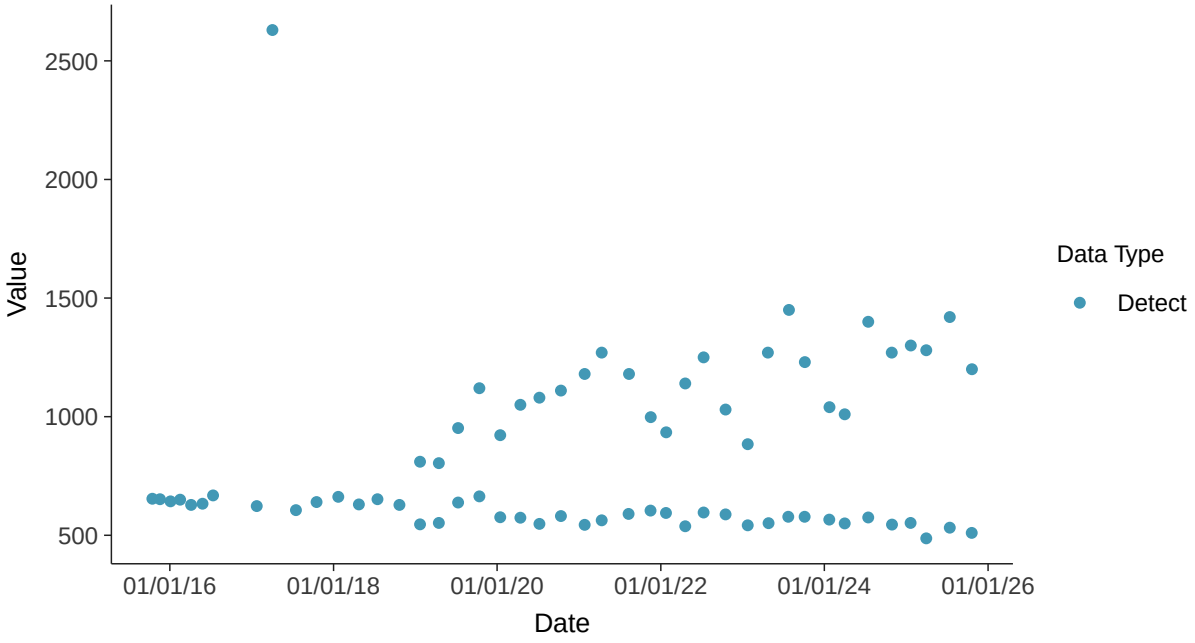


App. III: Total Dissolved Solids, BG-1 & BG-2

ID: 2_125

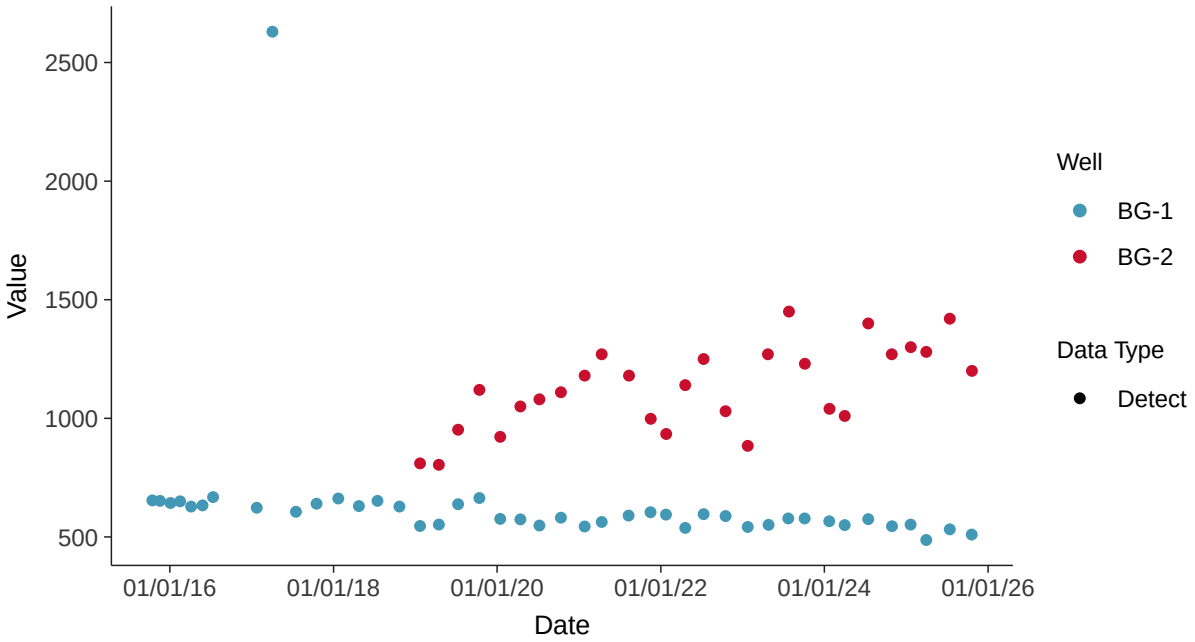
Scatter Plot

Total Dissolved Solids, BG-1 & BG-2 (mg/L)



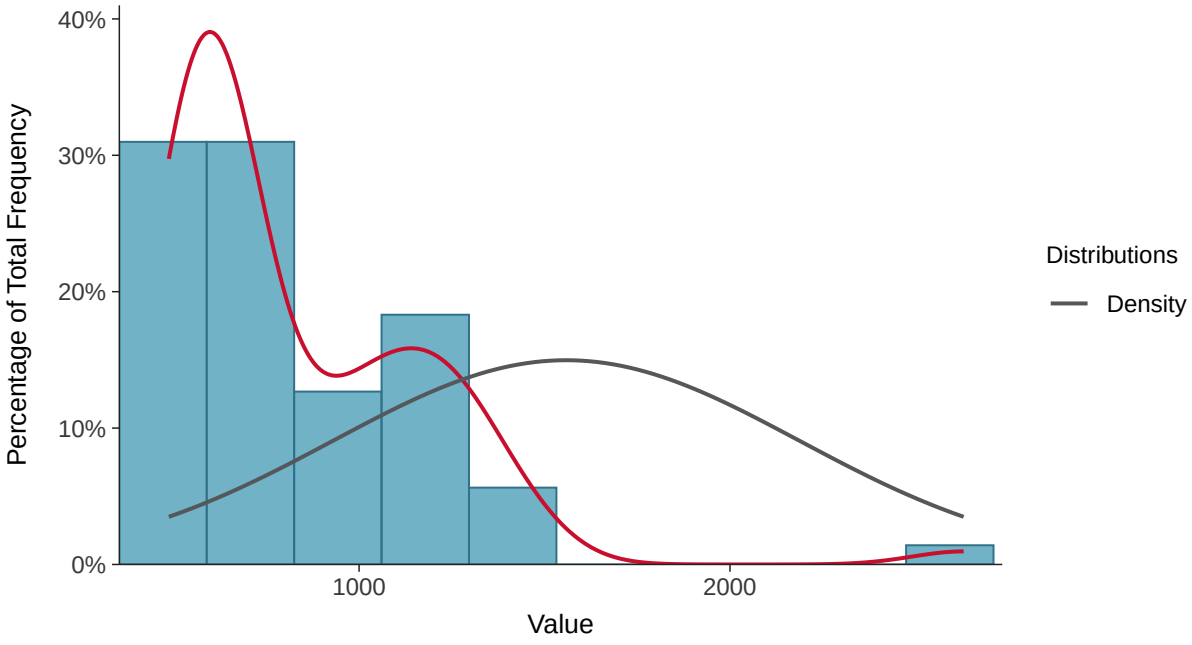
Scatter Plot by Well

Total Dissolved Solids, BG-1 & BG-2 (mg/L)



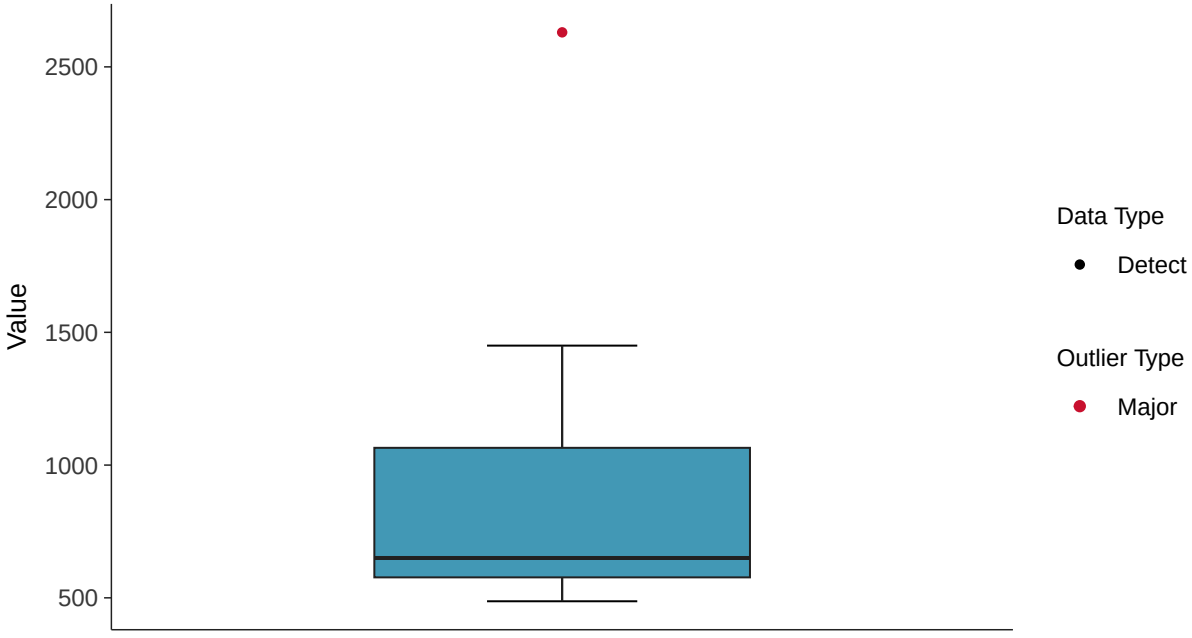
Histogram

Total Dissolved Solids, BG-1 & BG-2 (mg/L)



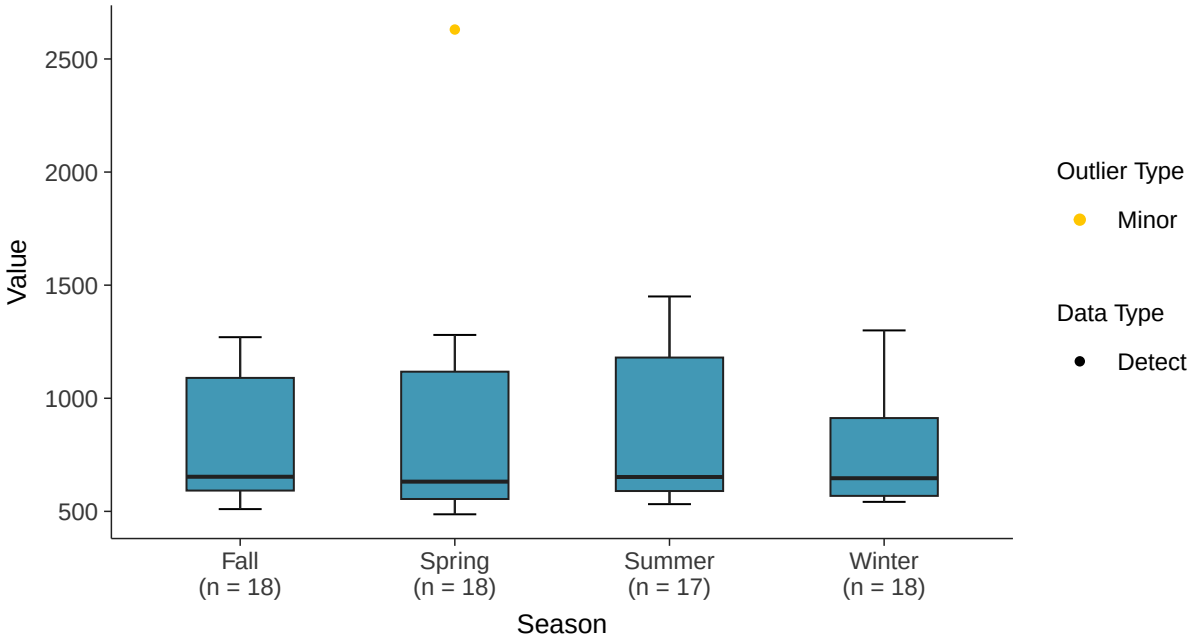
Boxplot

Total Dissolved Solids, BG-1 & BG-2 (mg/L)



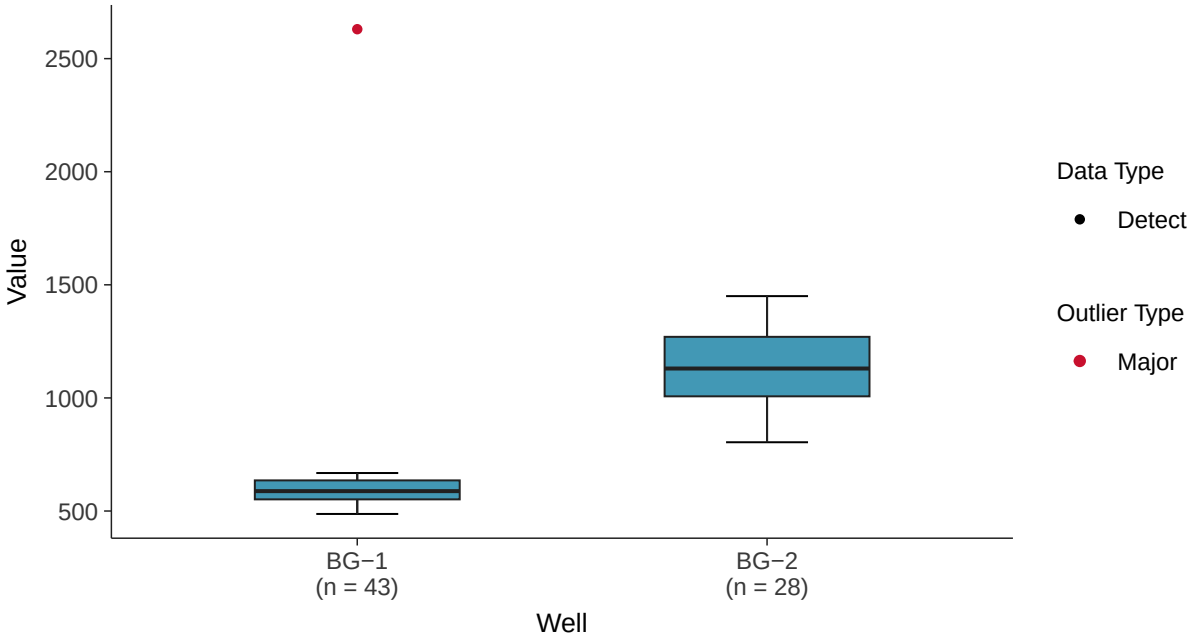
Boxplot by Season

Total Dissolved Solids, BG-1 & BG-2 (mg/L)



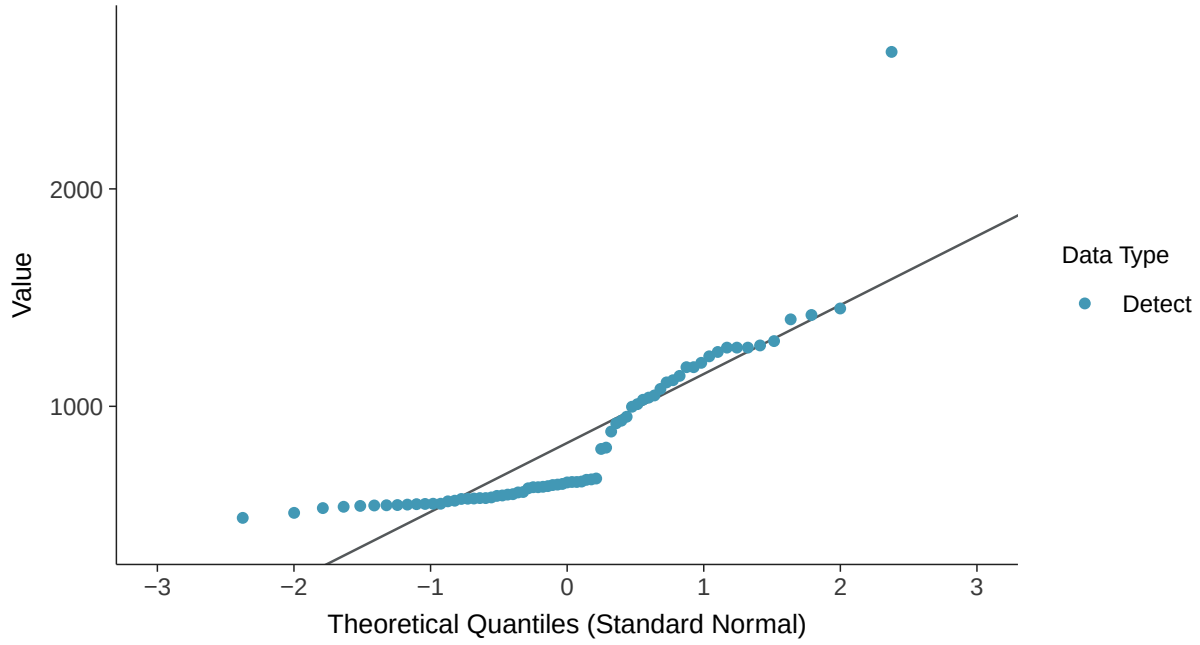
Boxplot by Well

Total Dissolved Solids, BG-1 & BG-2 (mg/L)



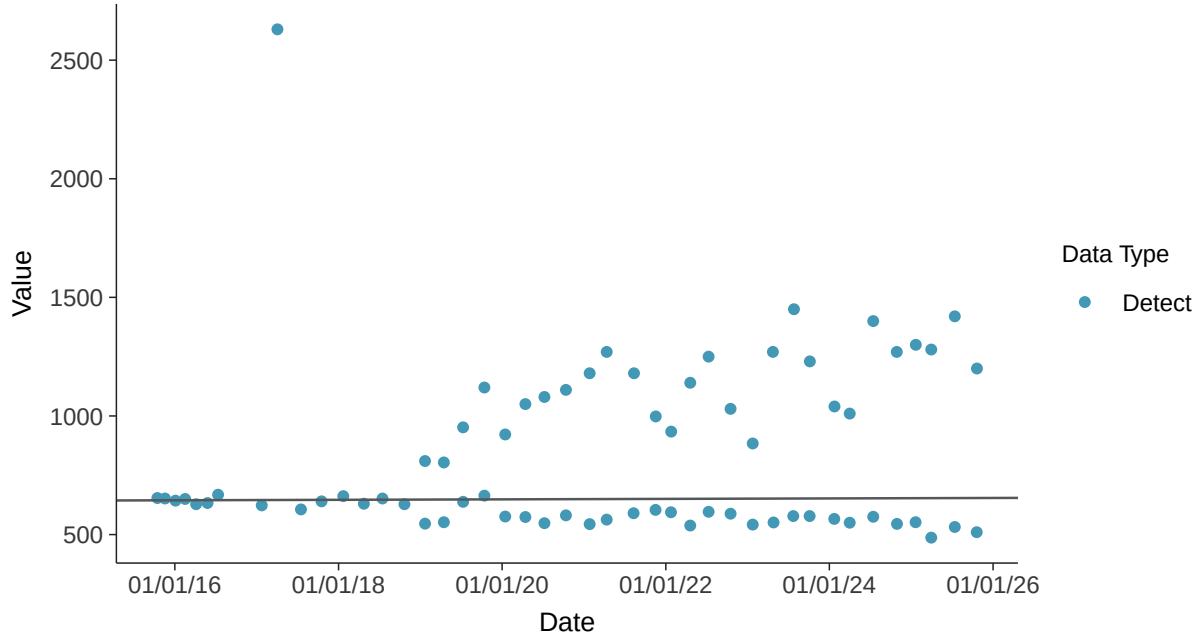
Normal Q-Q plot

Total Dissolved Solids, BG-1 & BG-2 (mg/L)



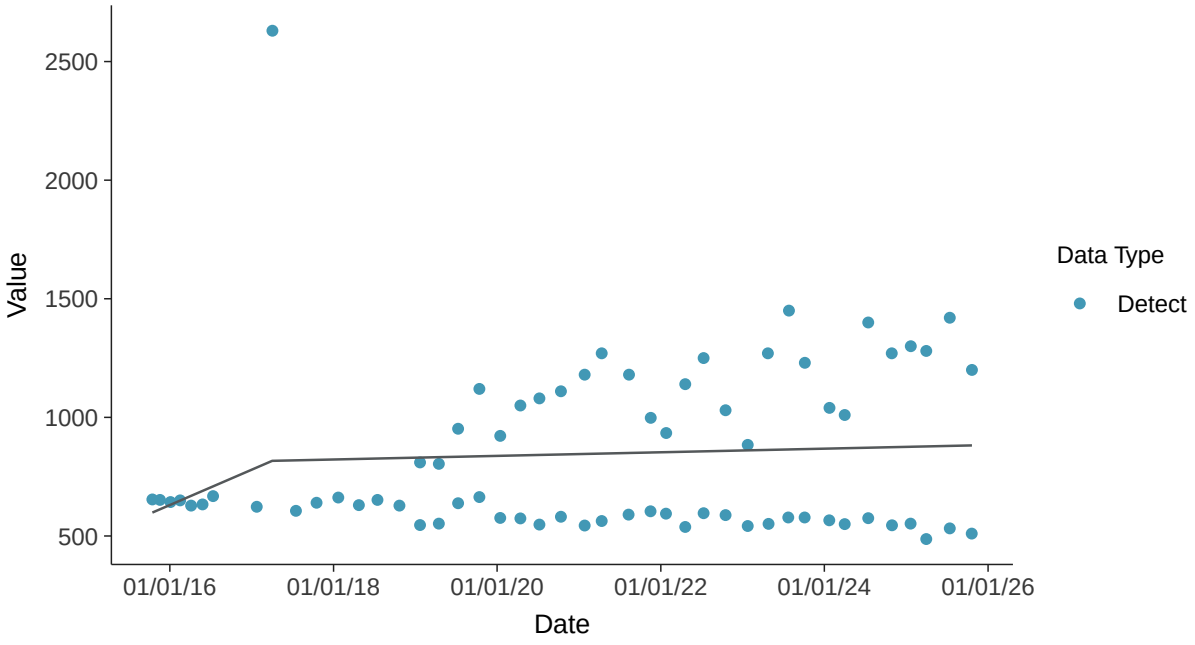
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Total Dissolved Solids, BG-1 & BG-2 (mg/L)



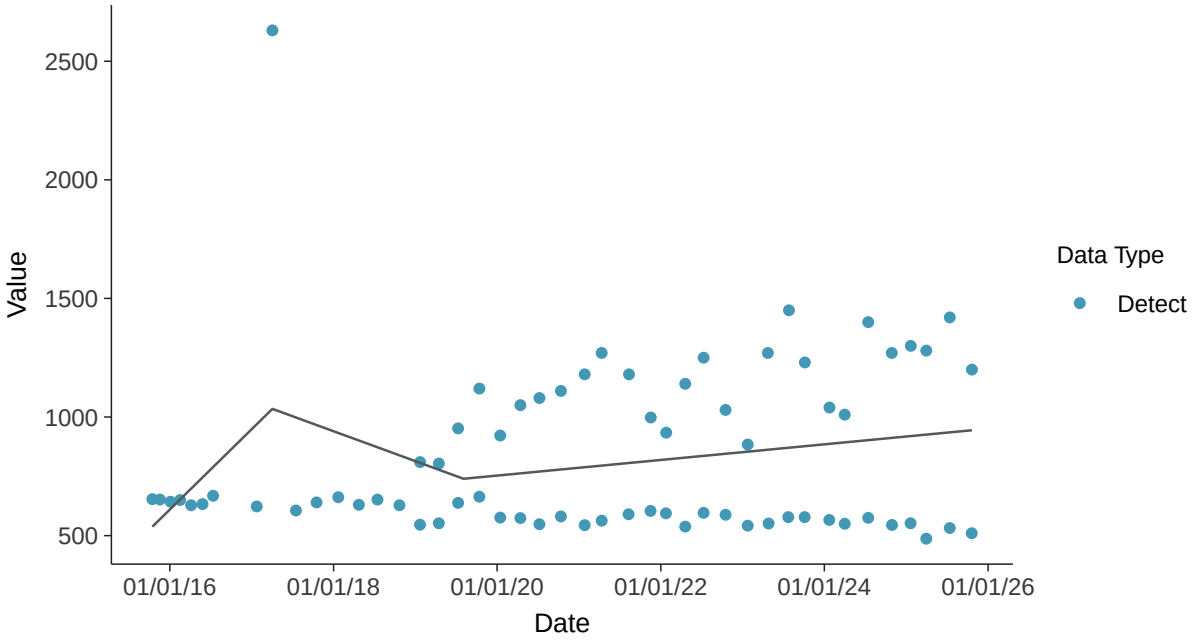
Trend Regression: Piecewise Linear-Linear

Total Dissolved Solids, BG-1 & BG-2 (mg/L)



Trend Regression: Piecewise Linear-Linear-Linear

Total Dissolved Solids, BG-1 & BG-2 (mg/L)

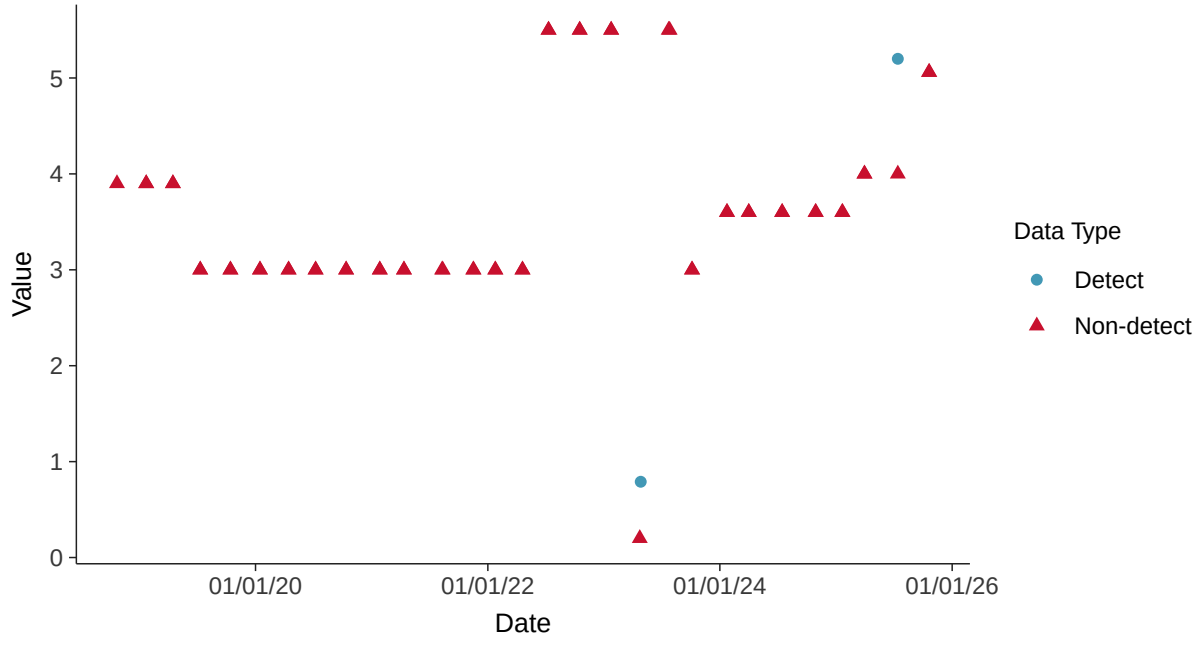


App. IV: Antimony, BG-1 & BG-2

ID: 3_101

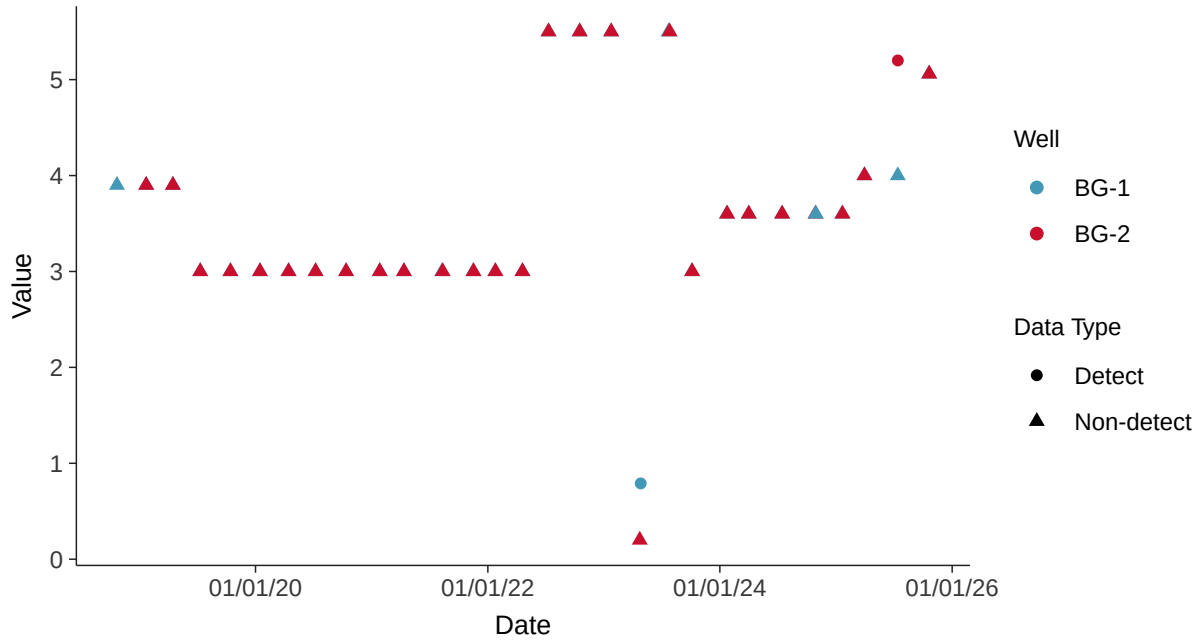
Scatter Plot

Antimony, BG-1 & BG-2 (ug/L)



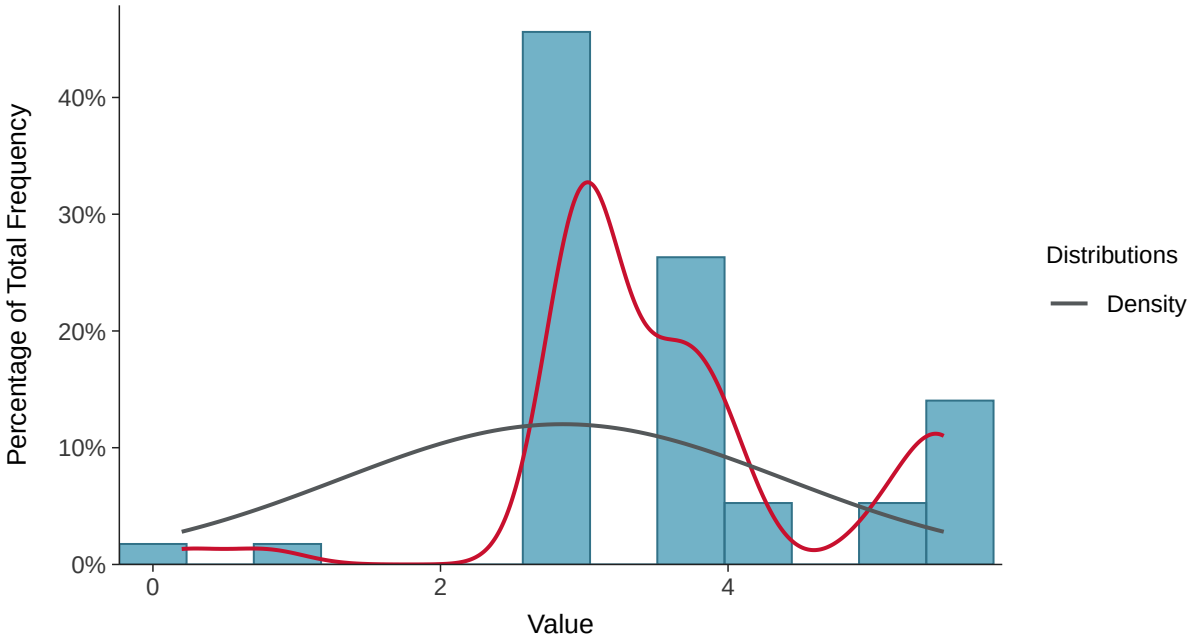
Scatter Plot by Well

Antimony, BG-1 & BG-2 (ug/L)



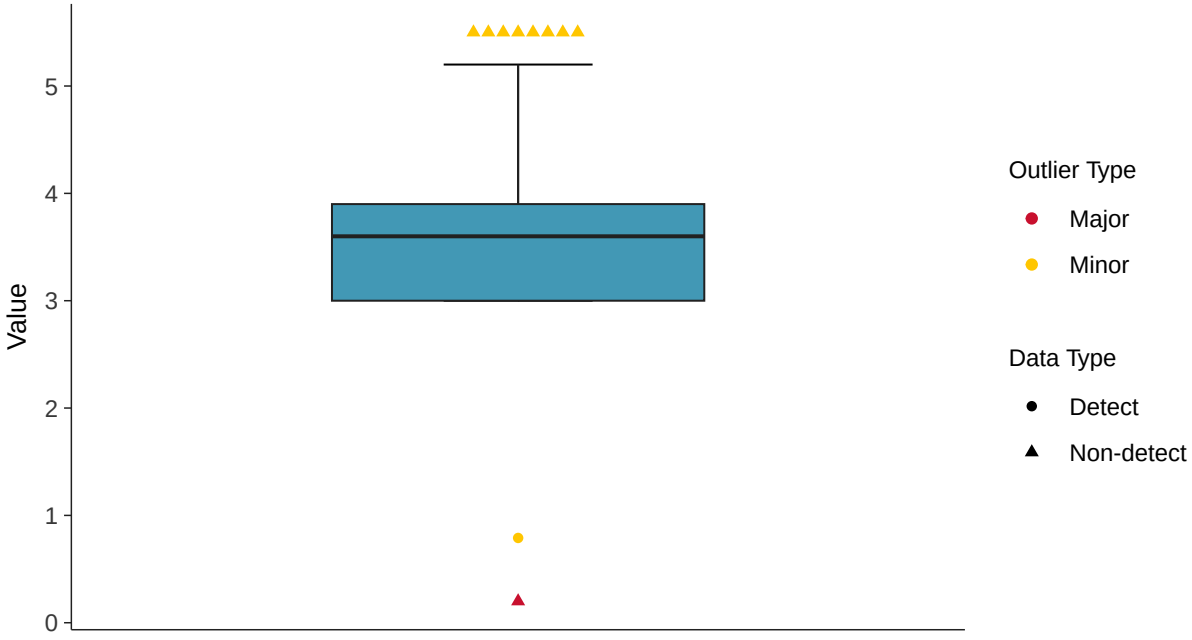
Histogram

Antimony, BG-1 & BG-2 (ug/L)



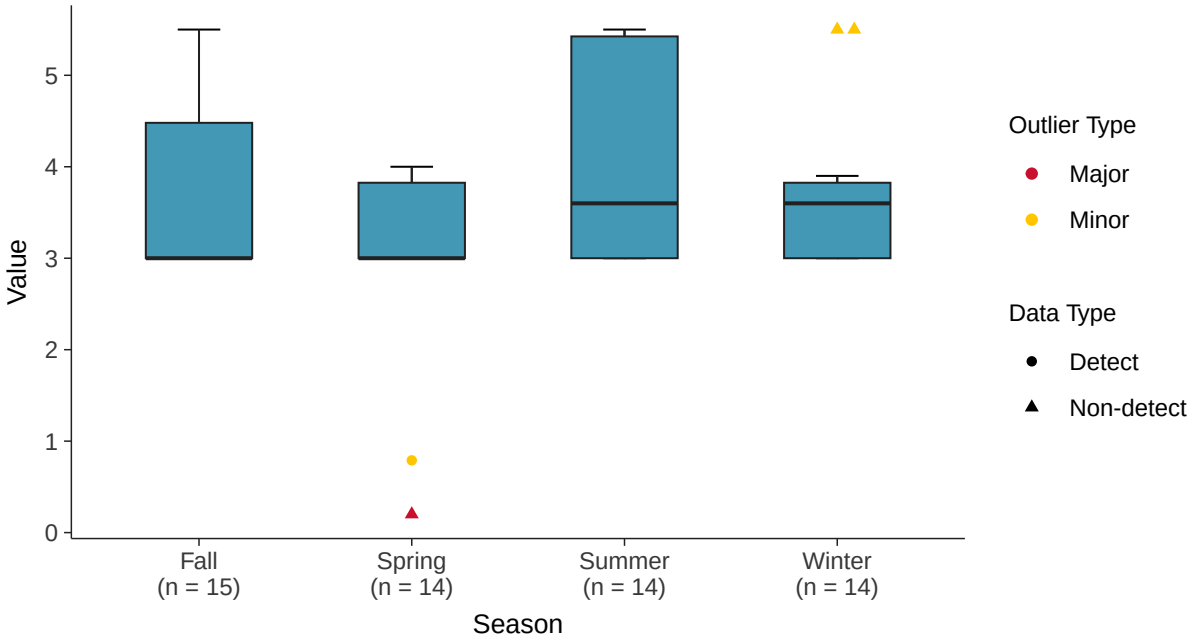
Boxplot

Antimony, BG-1 & BG-2 (ug/L)



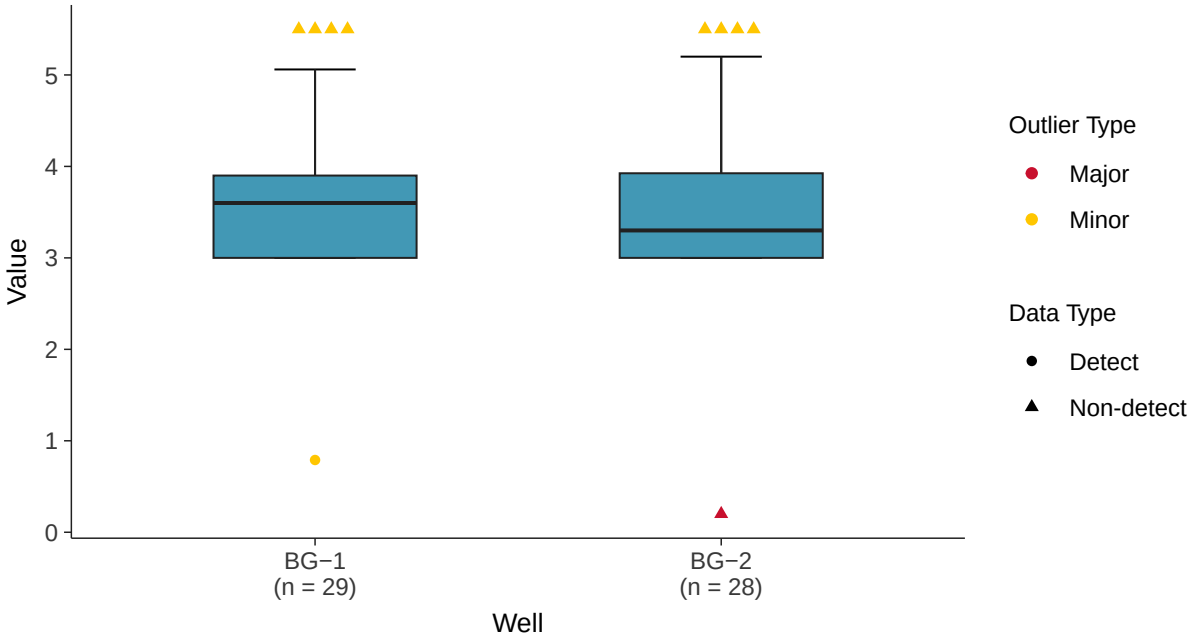
Boxplot by Season

Antimony, BG-1 & BG-2 (ug/L)



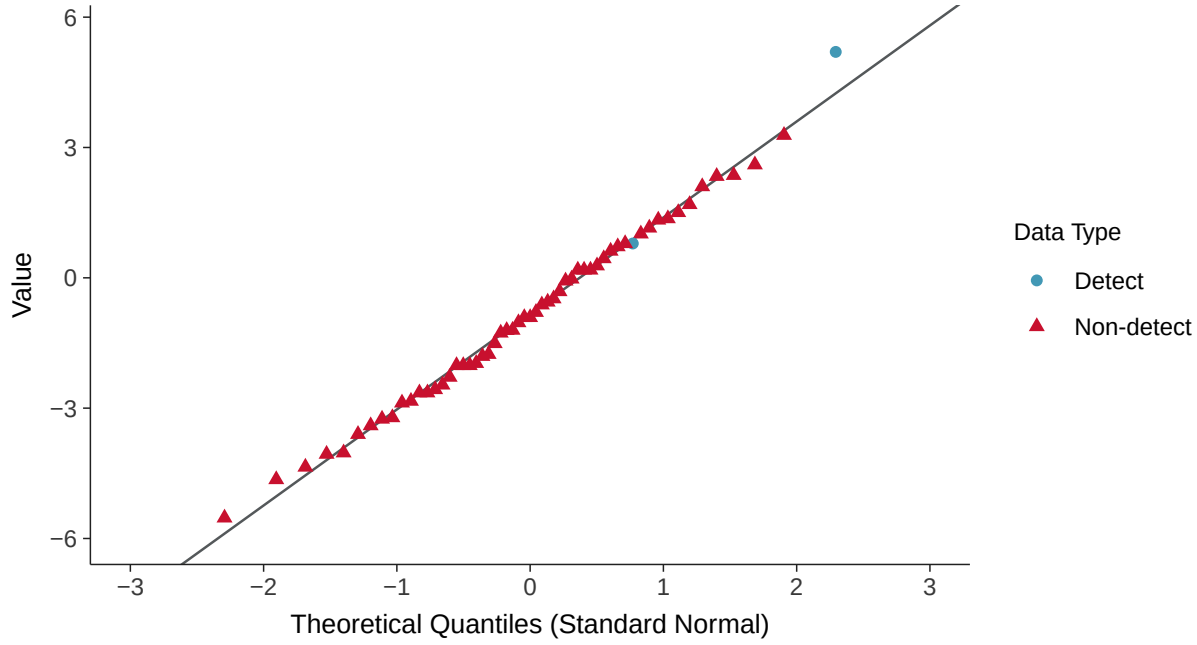
Boxplot by Well

Antimony, BG-1 & BG-2 (ug/L)



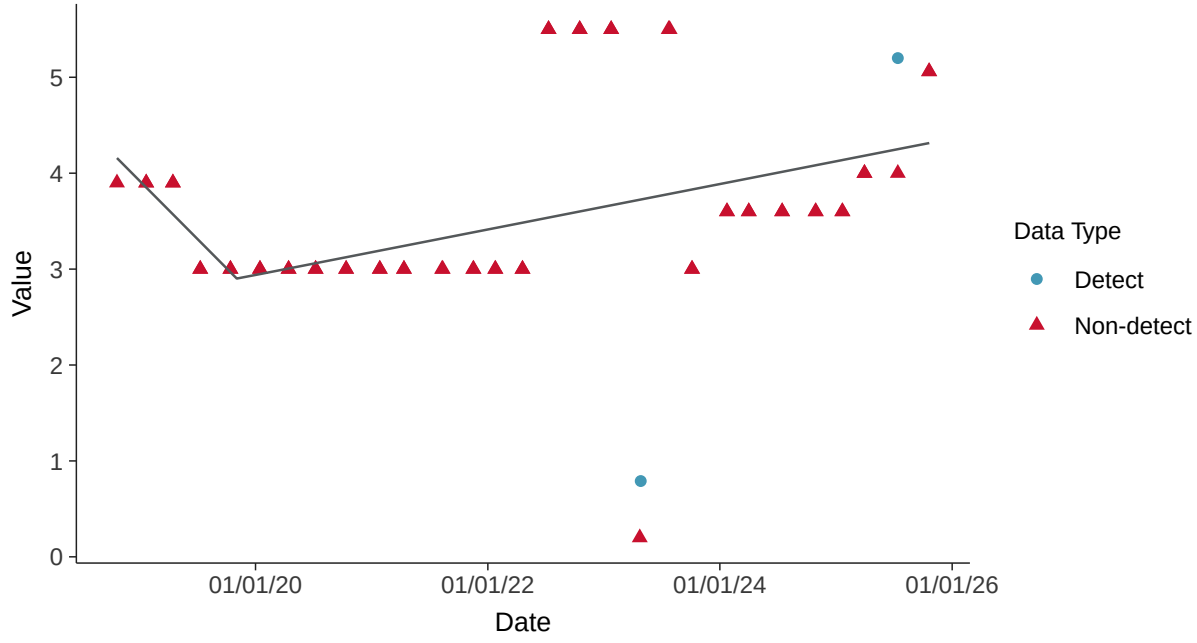
Normal Q-Q plot using ROS Imputed Estimates

Antimony, BG-1 & BG-2 (ug/L)



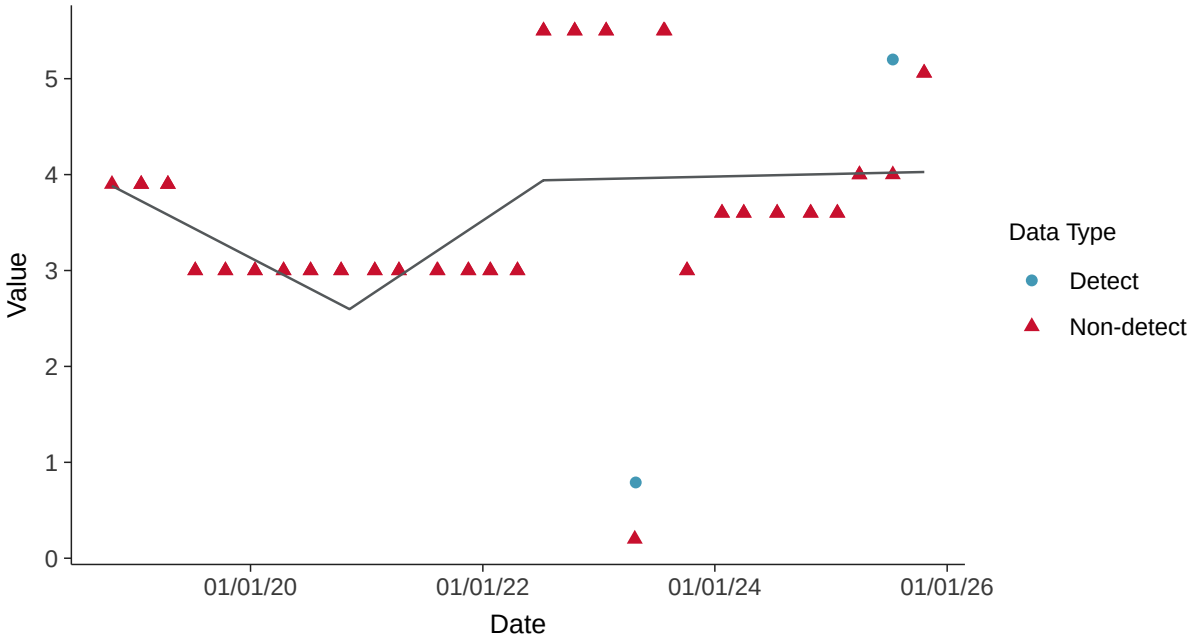
Trend Regression: Piecewise Linear-Linear

Antimony, BG-1 & BG-2 (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Antimony, BG-1 & BG-2 (ug/L)

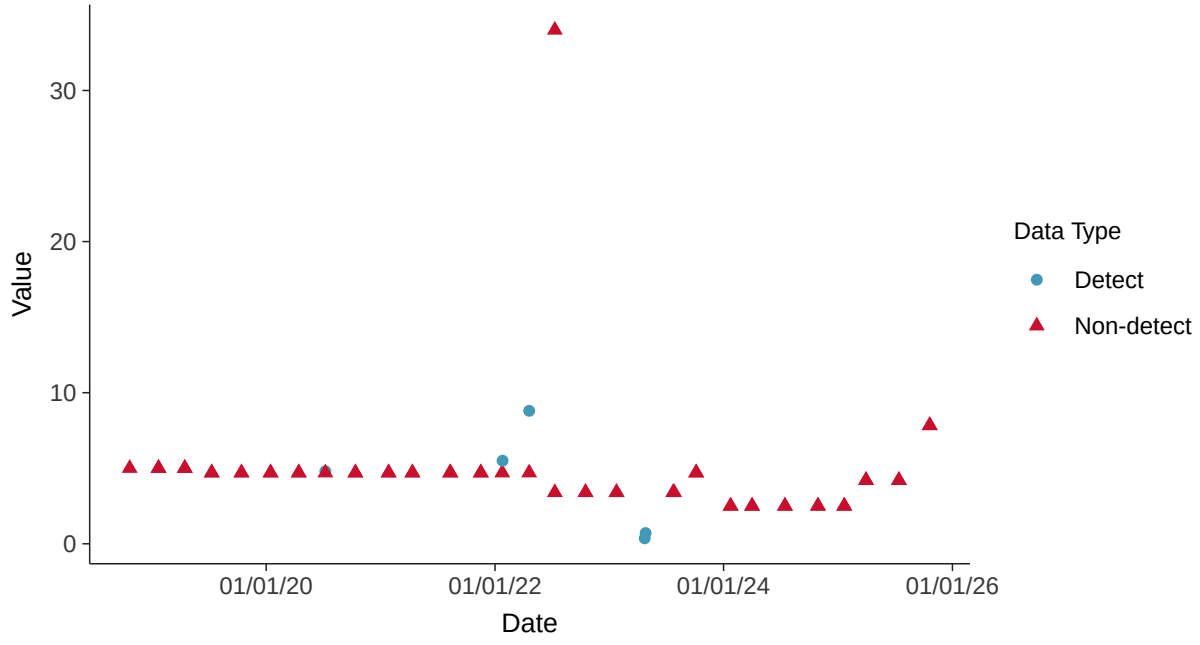


App. IV: Arsenic, BG-1 & BG-2

ID: 3_102

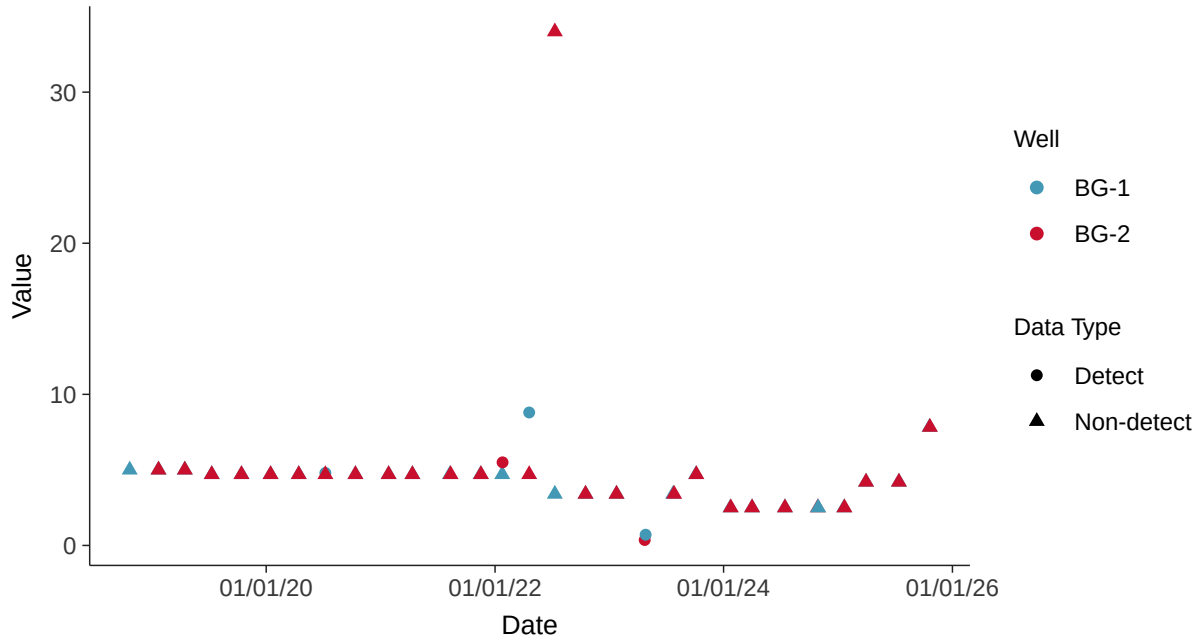
Scatter Plot

Arsenic, BG-1 & BG-2 (ug/L)



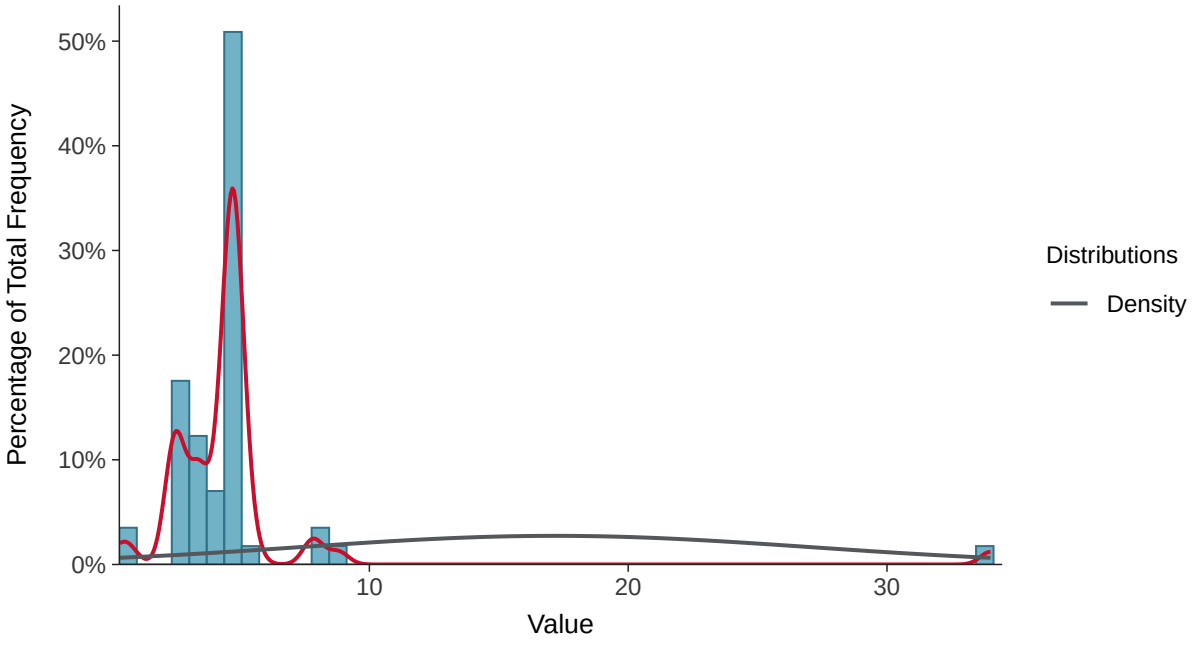
Scatter Plot by Well

Arsenic, BG-1 & BG-2 (ug/L)



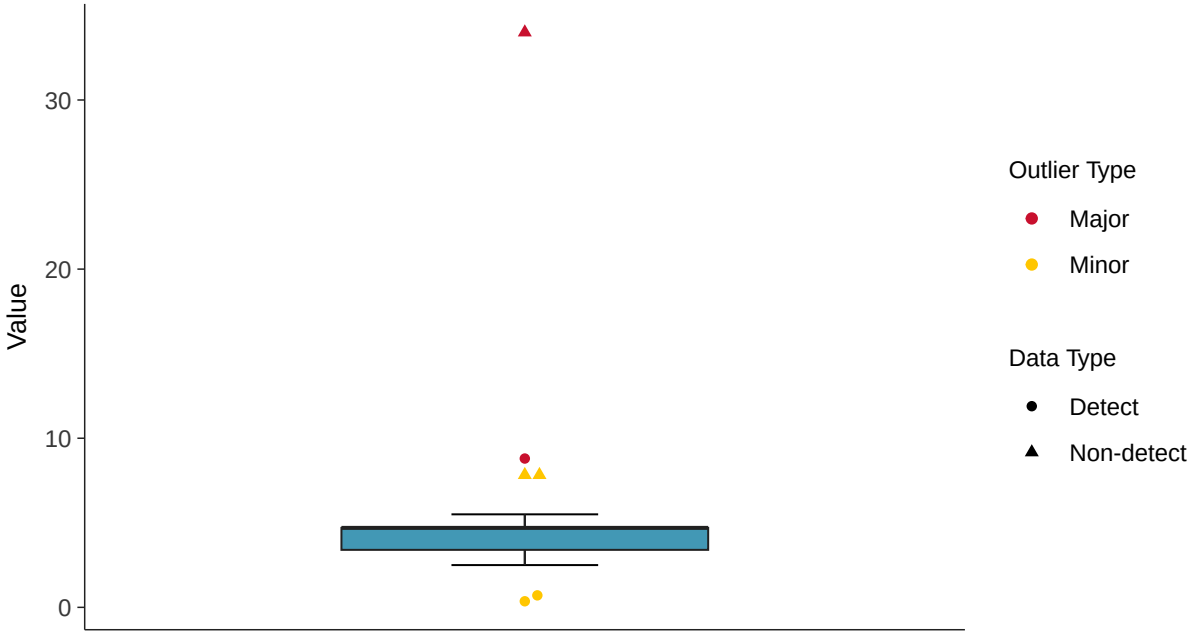
Histogram

Arsenic, BG-1 & BG-2 (ug/L)



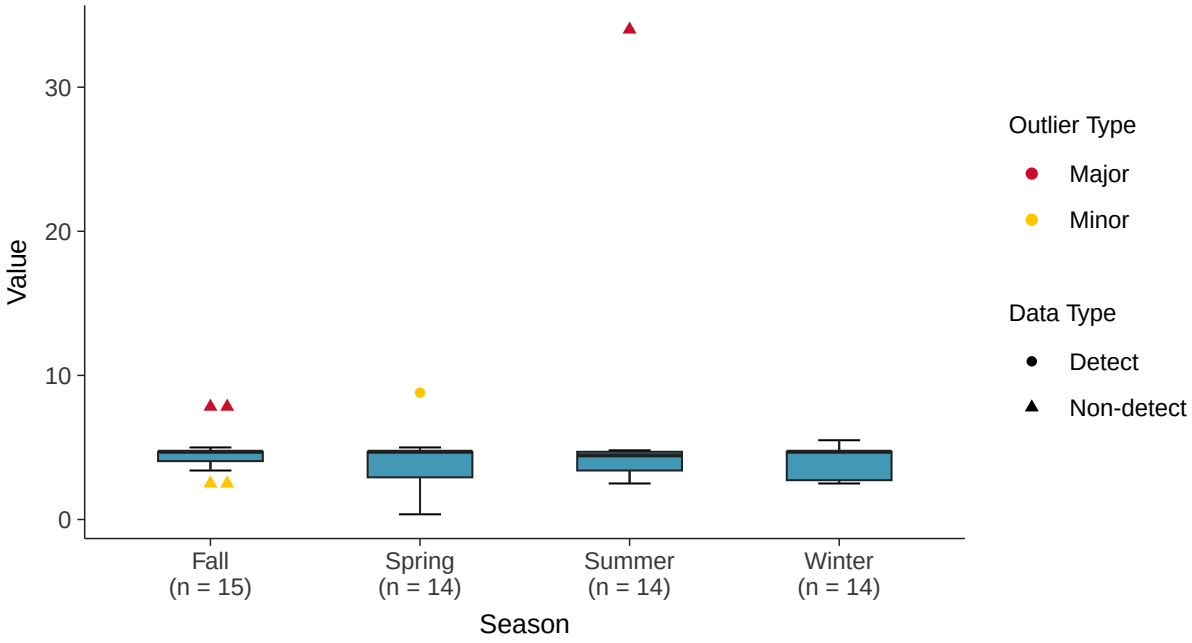
Boxplot

Arsenic, BG-1 & BG-2 (ug/L)



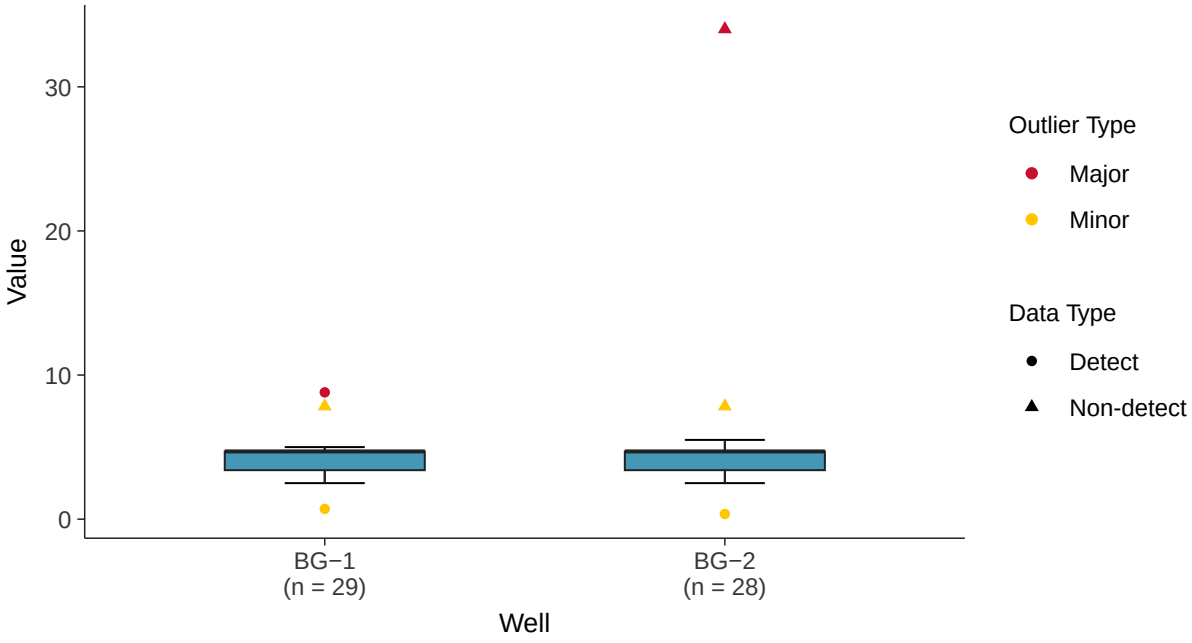
Boxplot by Season

Arsenic, BG-1 & BG-2 (ug/L)



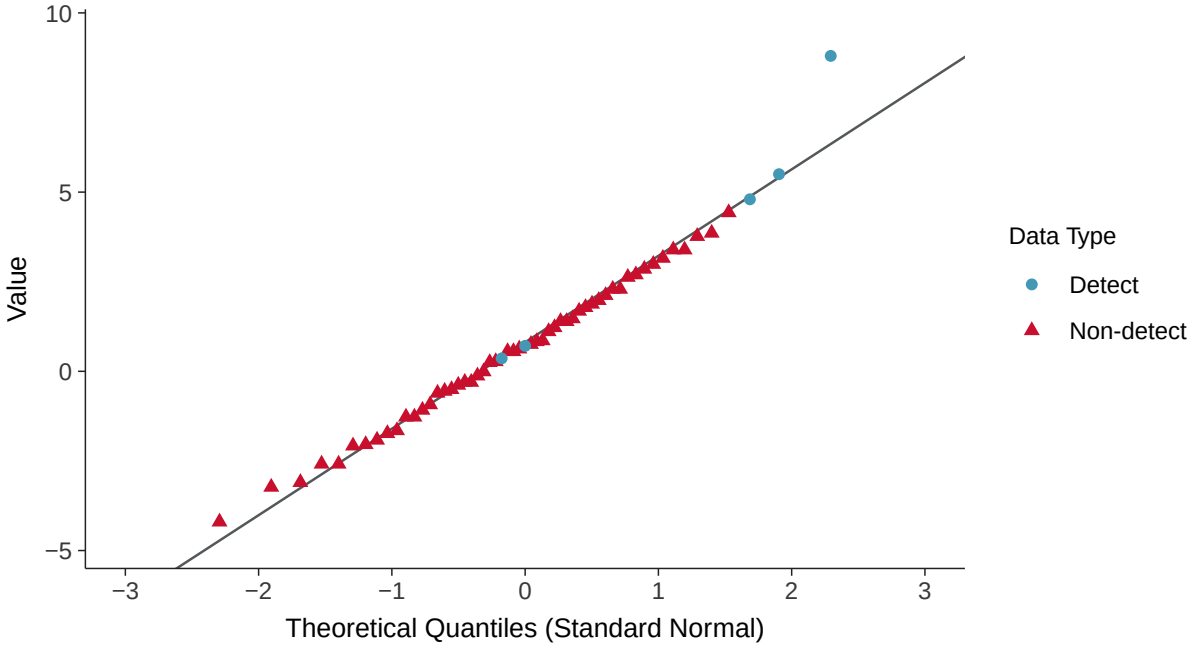
Boxplot by Well

Arsenic, BG-1 & BG-2 (ug/L)



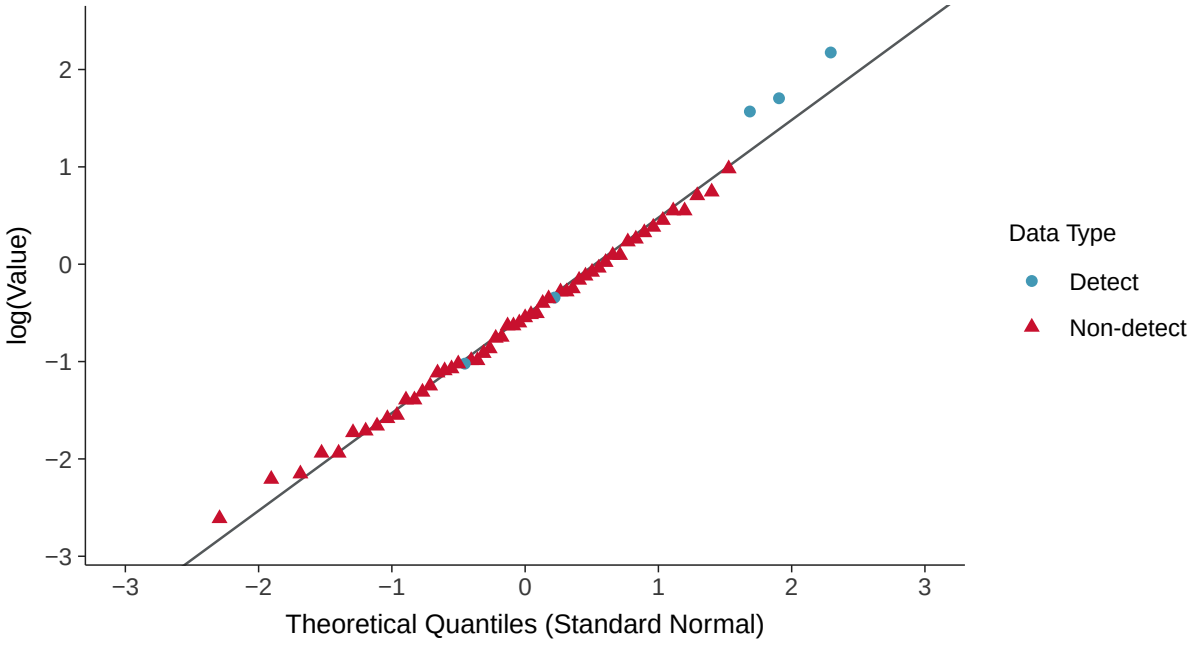
Normal Q-Q plot using ROS Imputed Estimates

Arsenic, BG-1 & BG-2 (ug/L)



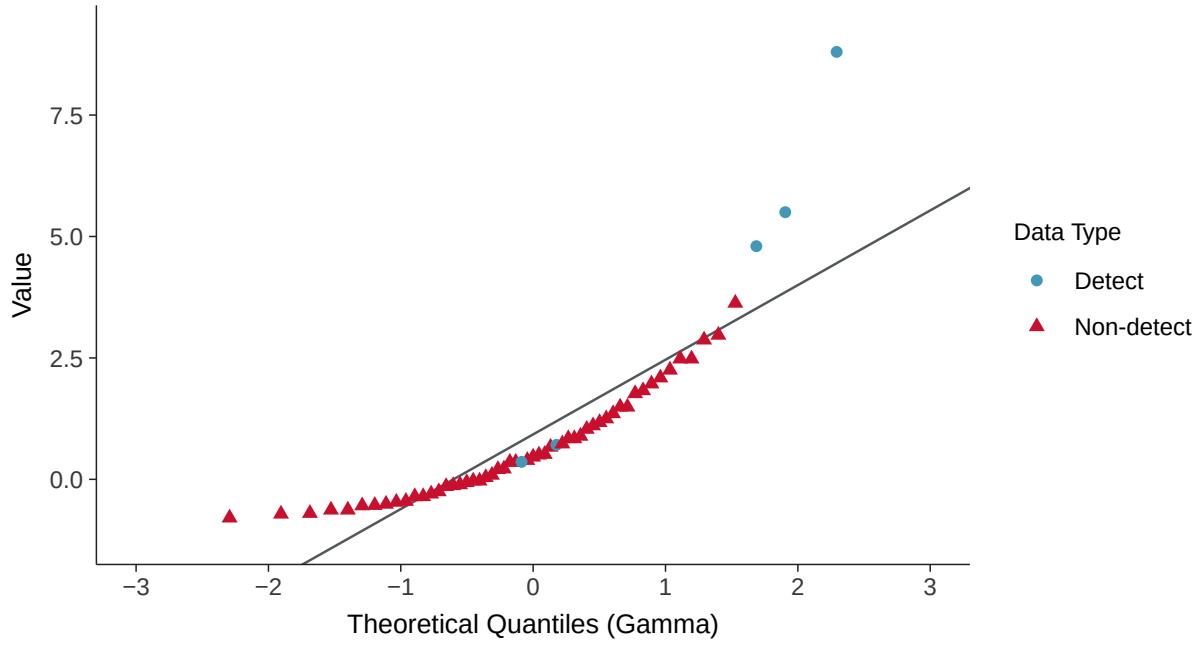
Lognormal Q-Q plot using ROS Imputed Estimates

Arsenic, BG-1 & BG-2 (ug/L)



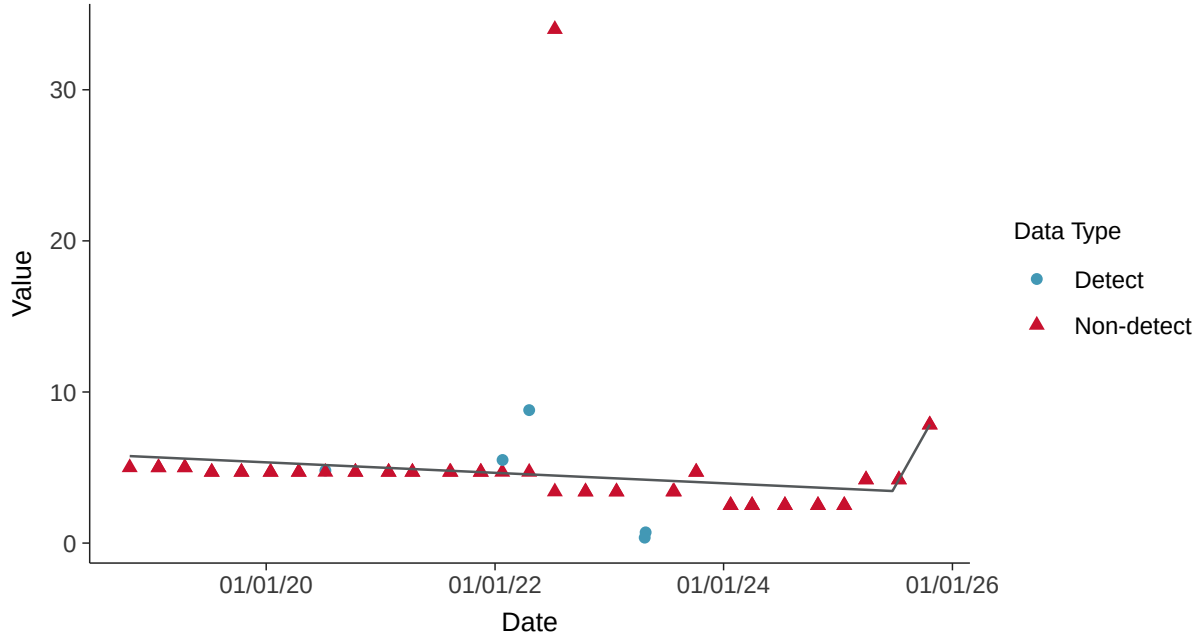
Gamma Q-Q plot using ROS Imputed Estimates

Arsenic, BG-1 & BG-2 (ug/L)



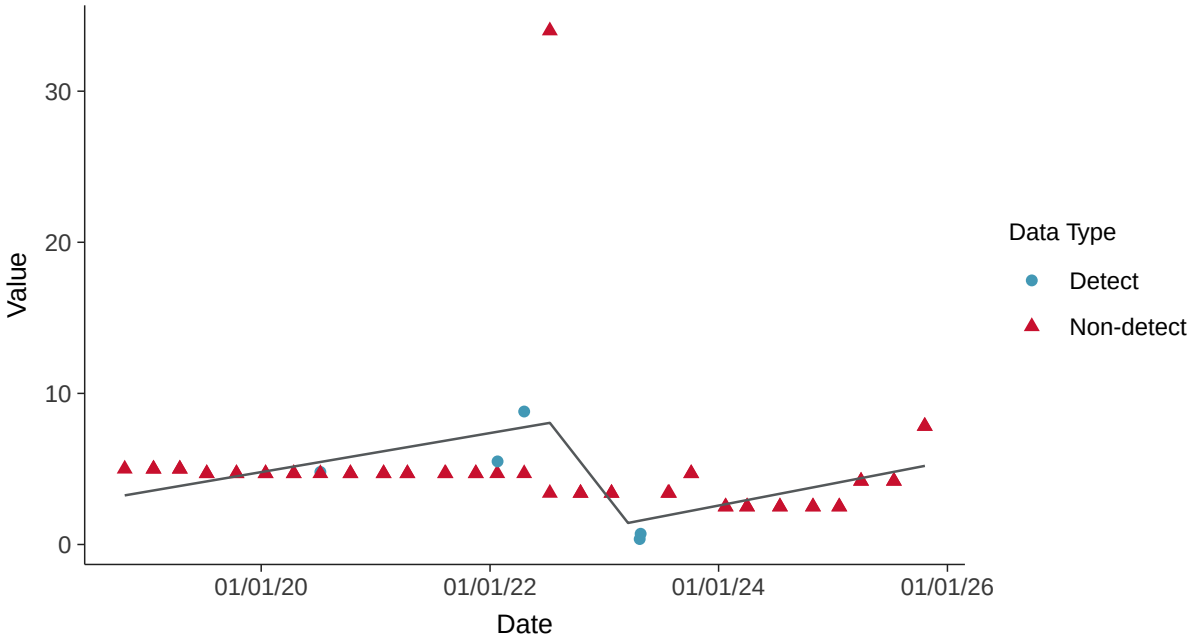
Trend Regression: Piecewise Linear-Linear

Arsenic, BG-1 & BG-2 (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Arsenic, BG-1 & BG-2 (ug/L)

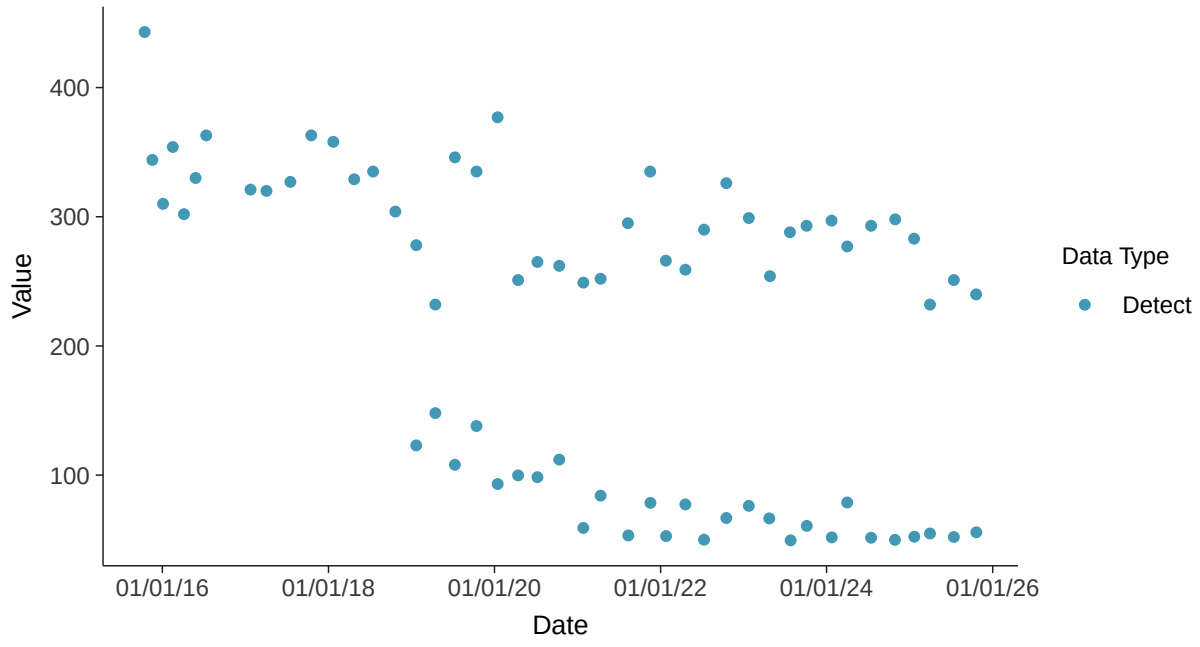


App. IV: Barium, BG-1 & BG-2

ID: 3_103

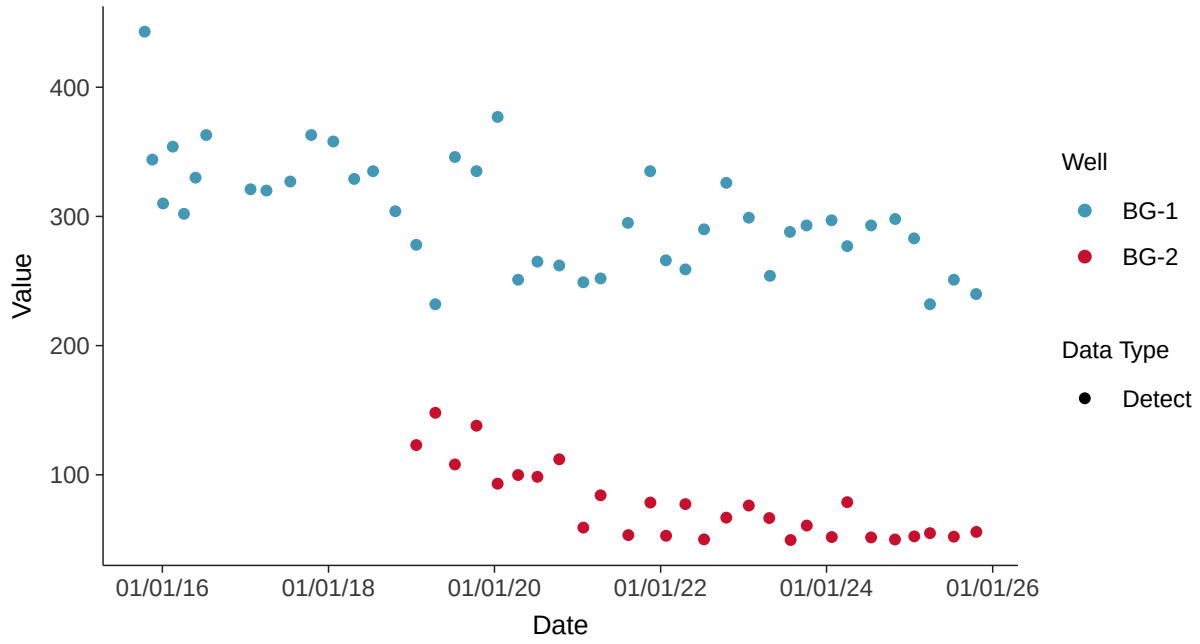
Scatter Plot

Barium, BG-1 & BG-2 (ug/L)



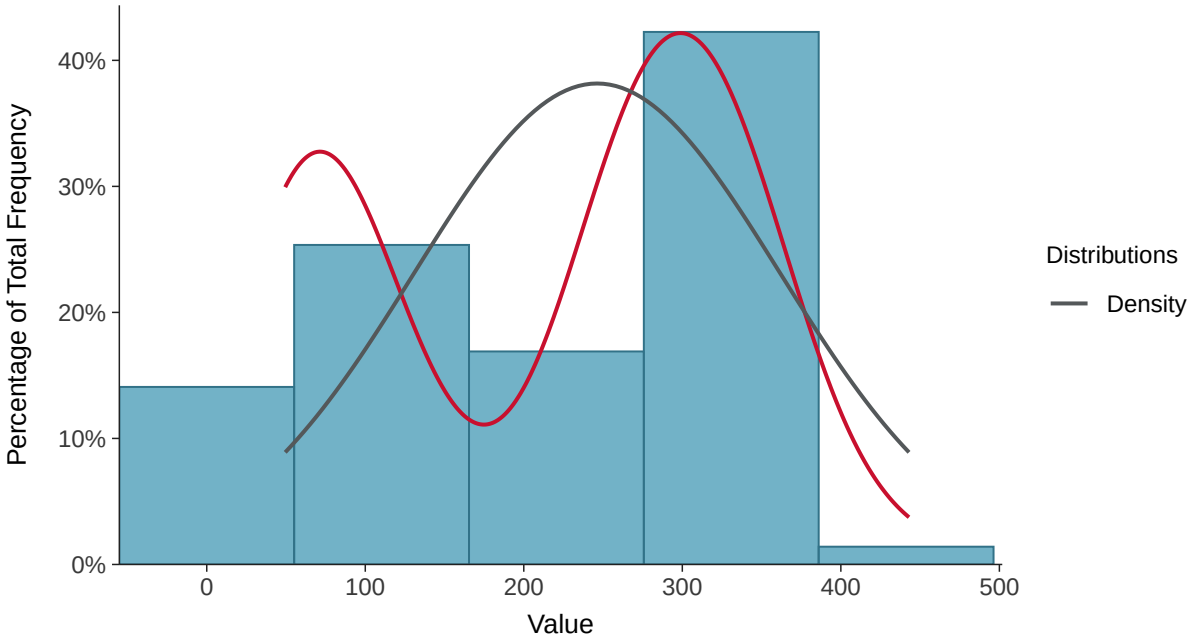
Scatter Plot by Well

Barium, BG-1 & BG-2 (ug/L)



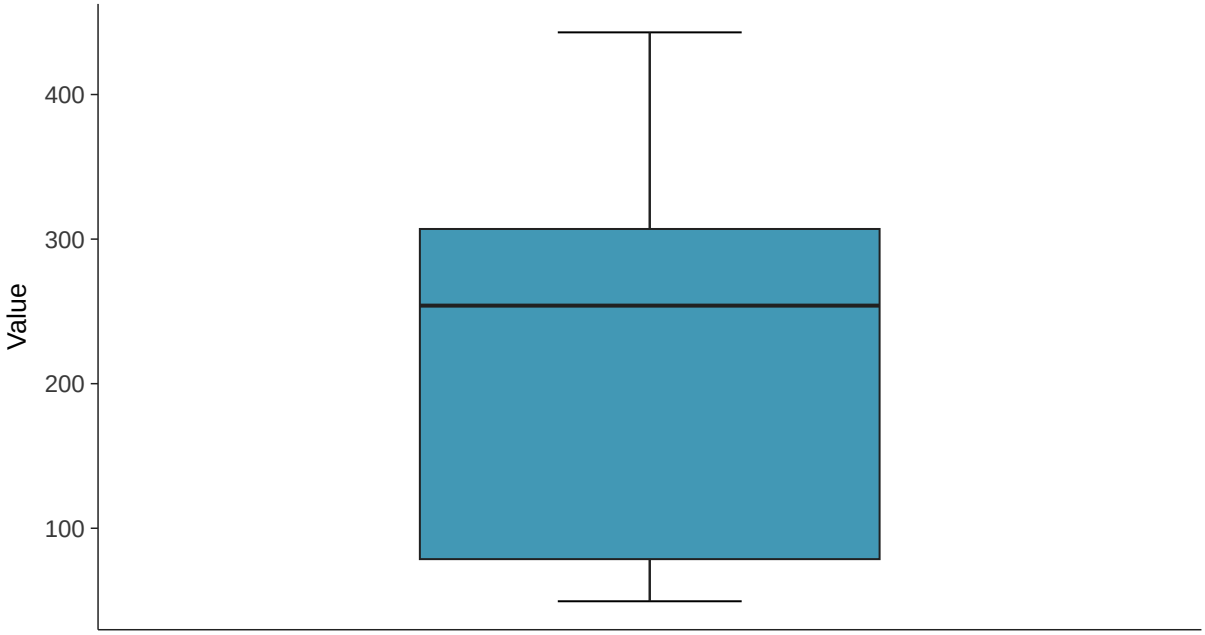
Histogram

Barium, BG-1 & BG-2 (ug/L)



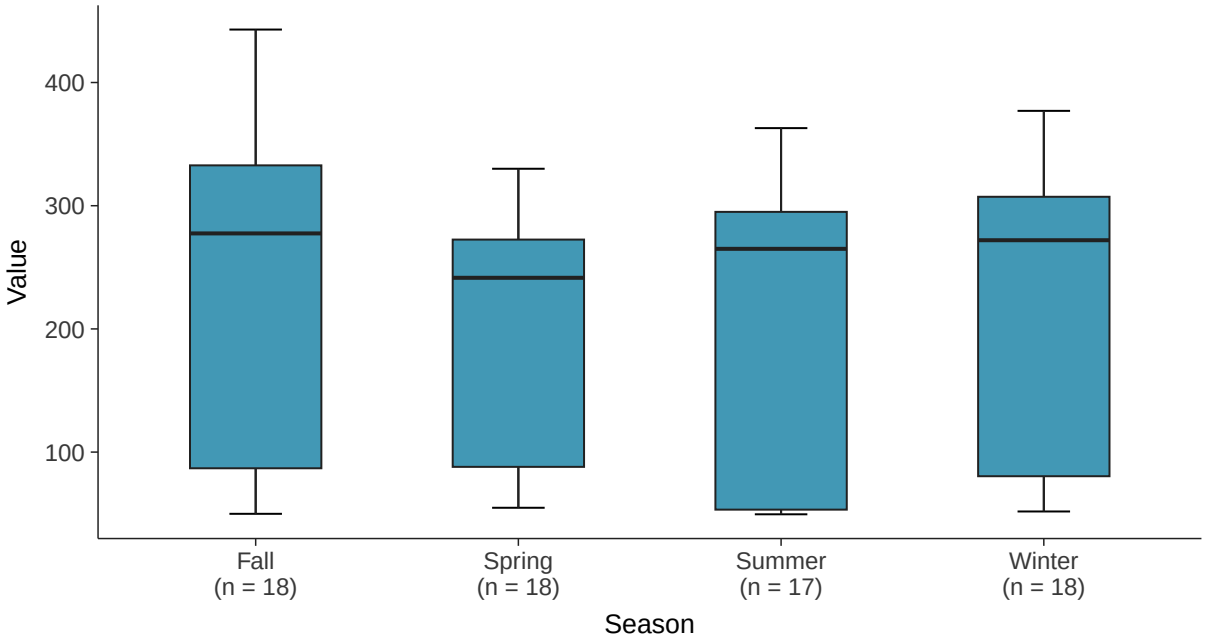
Boxplot

Barium, BG-1 & BG-2 (ug/L)



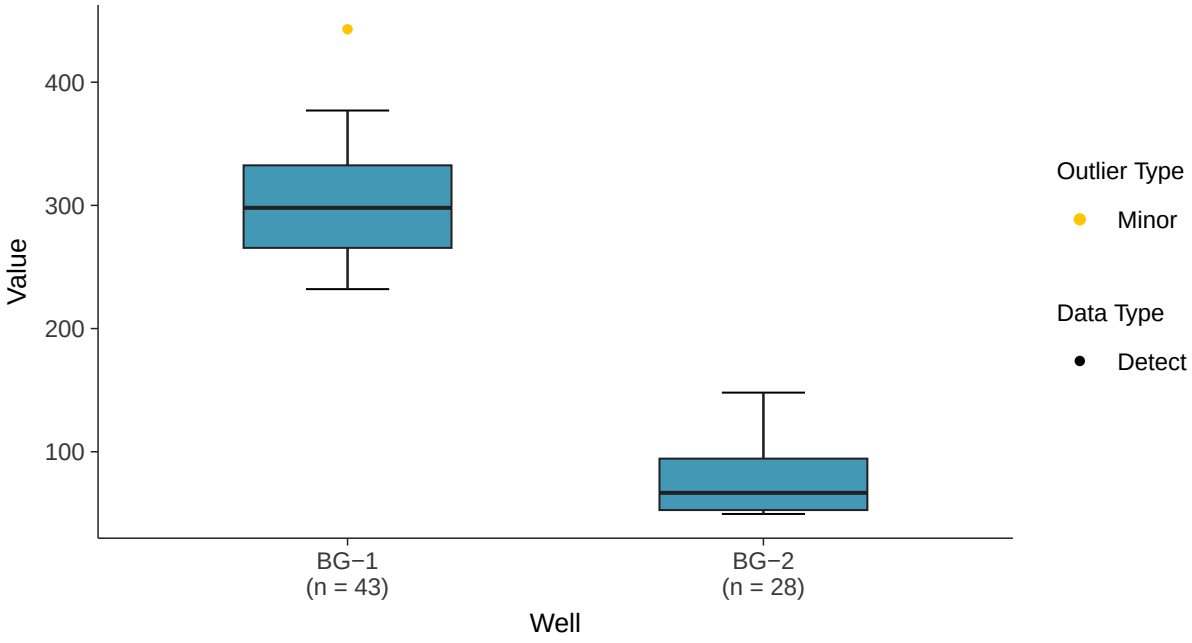
Boxplot by Season

Barium, BG-1 & BG-2 (ug/L)



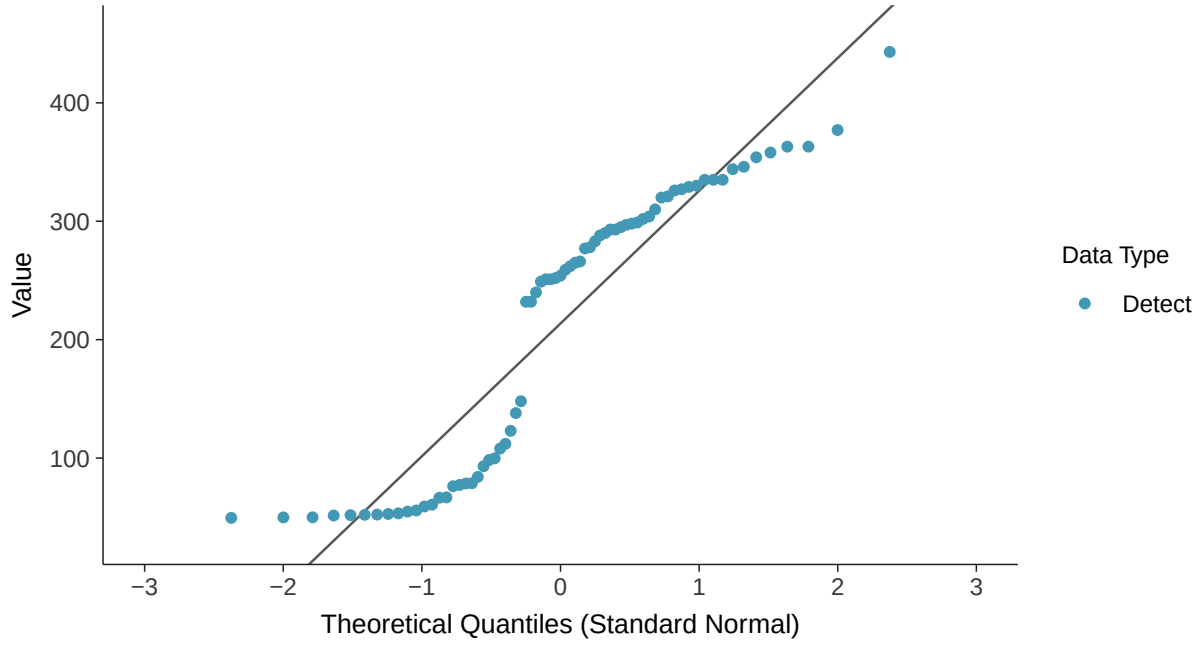
Boxplot by Well

Barium, BG-1 & BG-2 (ug/L)



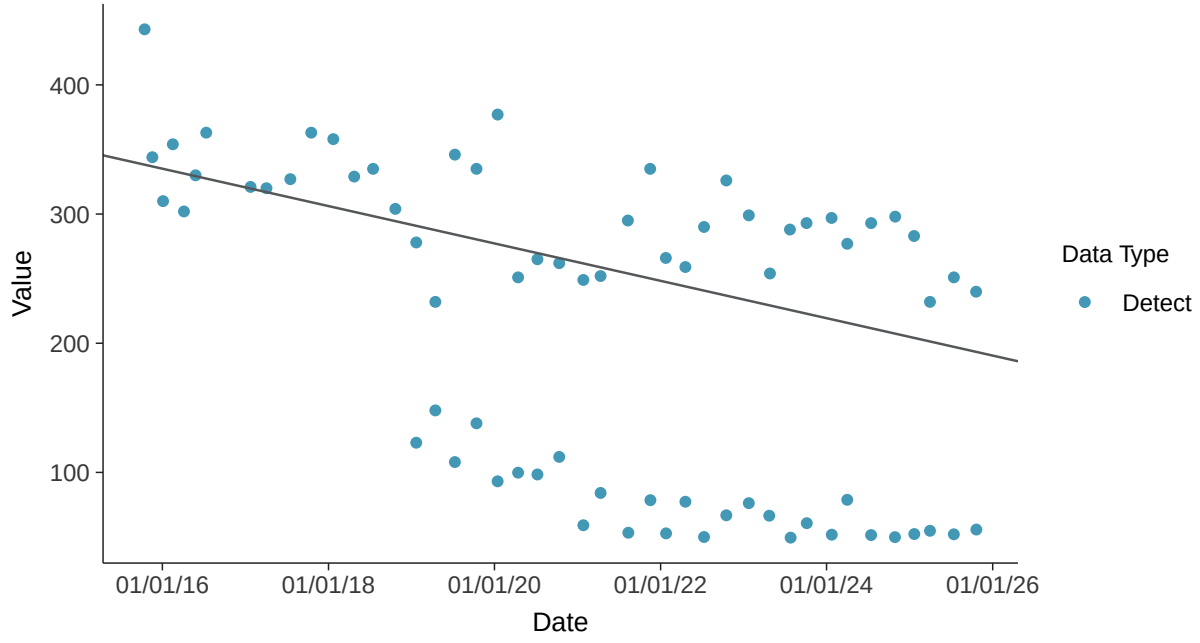
Normal Q-Q plot

Barium, BG-1 & BG-2 (ug/L)



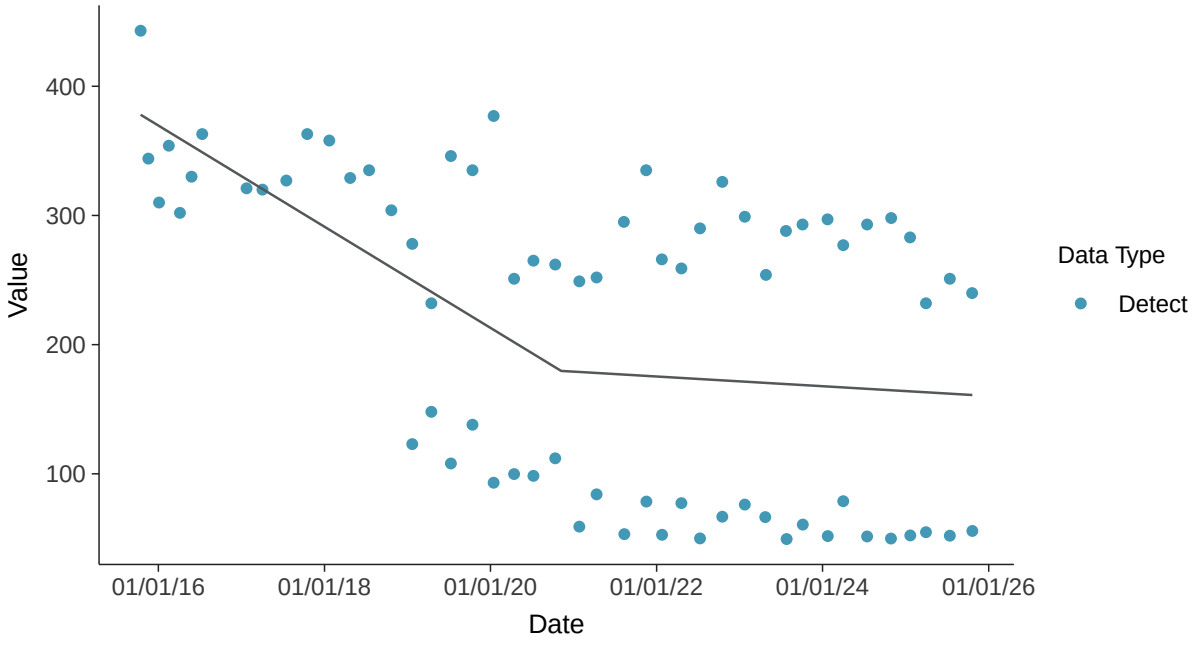
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Barium, BG-1 & BG-2 (ug/L)



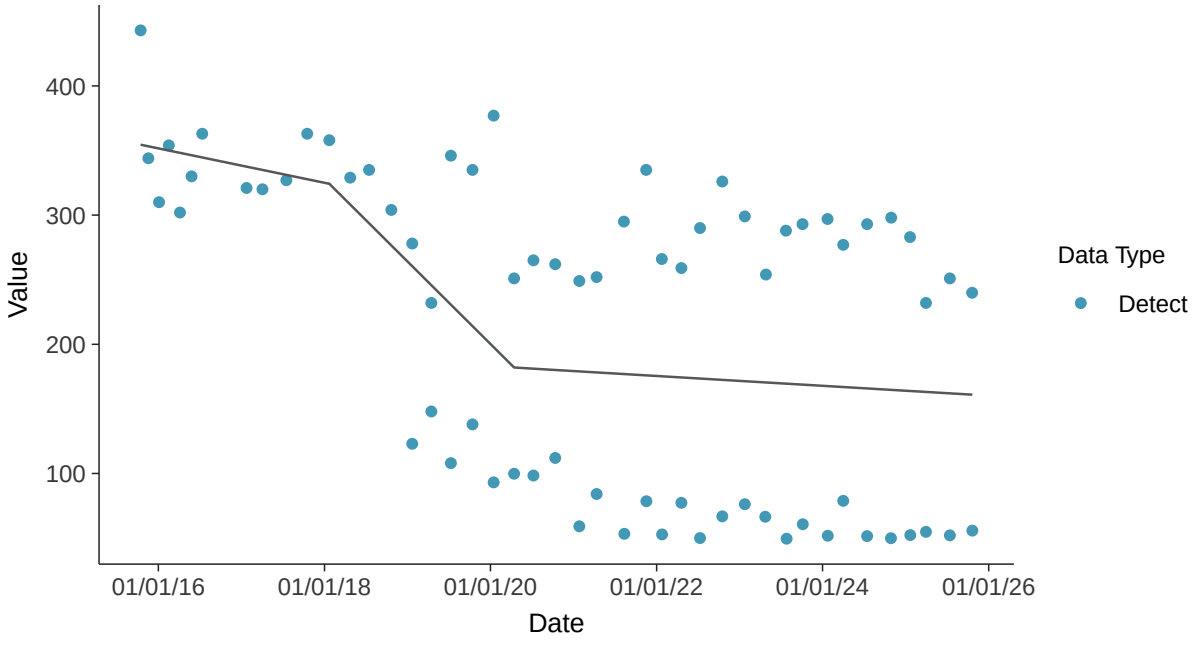
Trend Regression: Piecewise Linear-Linear

Barium, BG-1 & BG-2 (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Barium, BG-1 & BG-2 (ug/L)

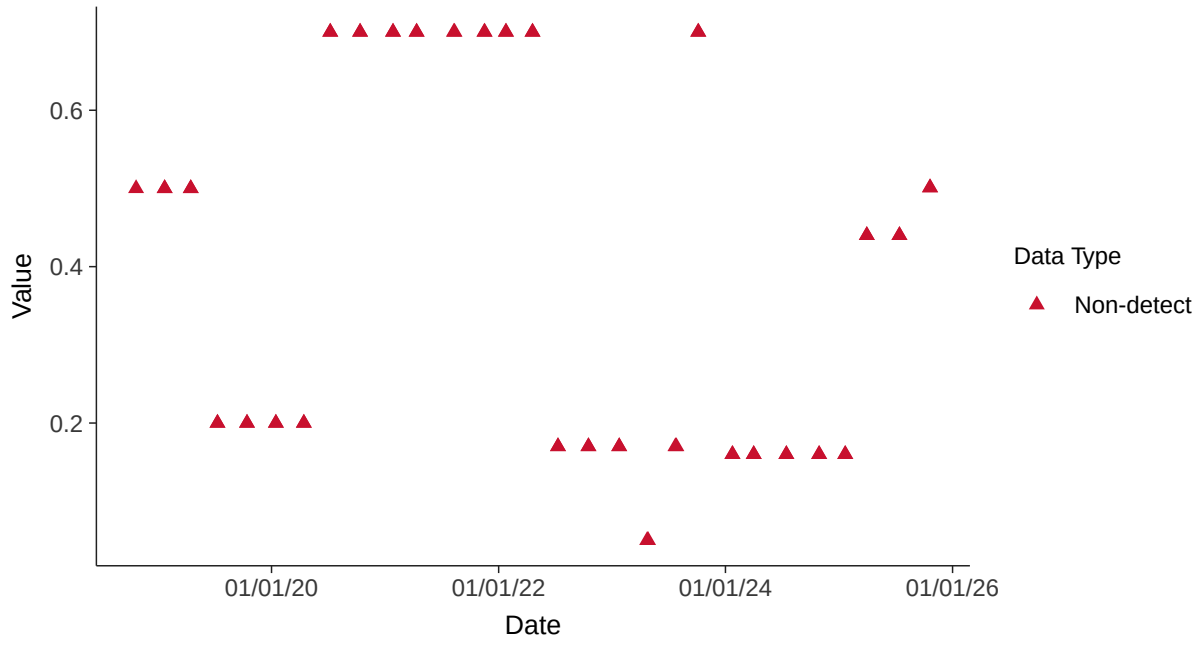


App. IV: Beryllium, BG-1 & BG-2

ID: 3_104

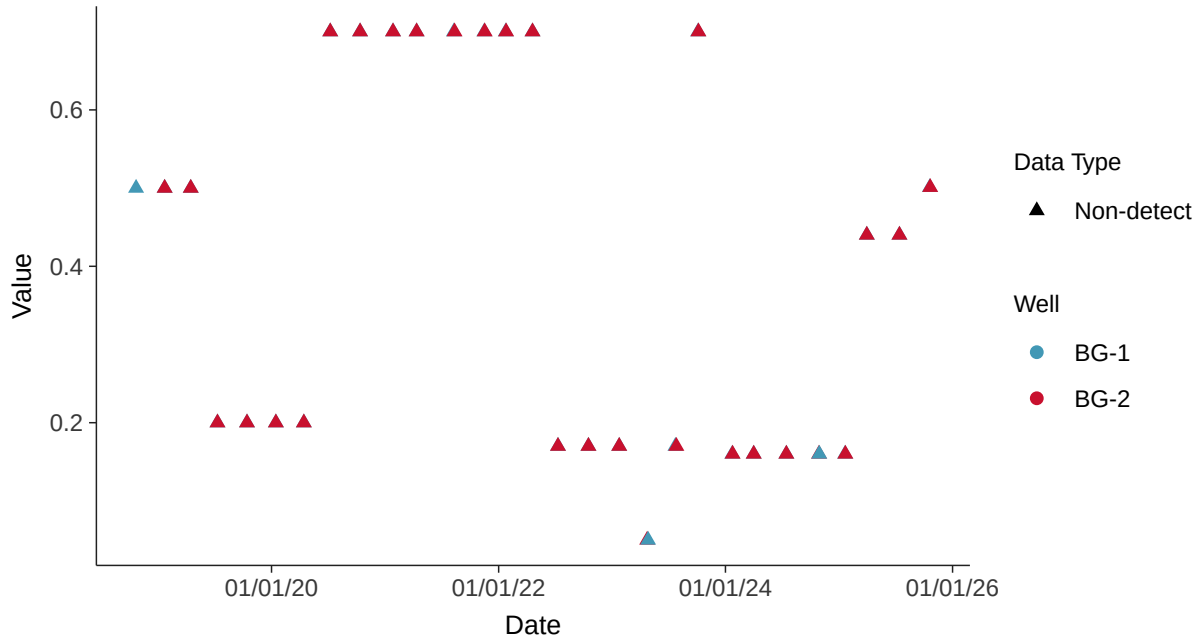
Scatter Plot

Beryllium, BG-1 & BG-2 (ug/L)



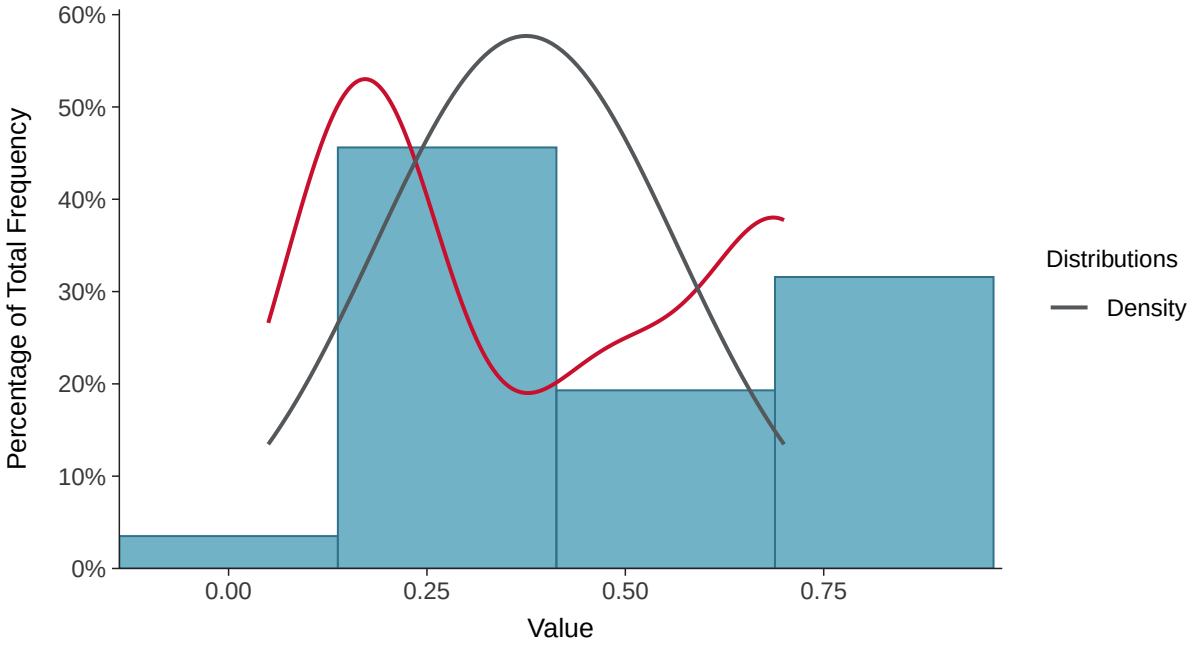
Scatter Plot by Well

Beryllium, BG-1 & BG-2 (ug/L)



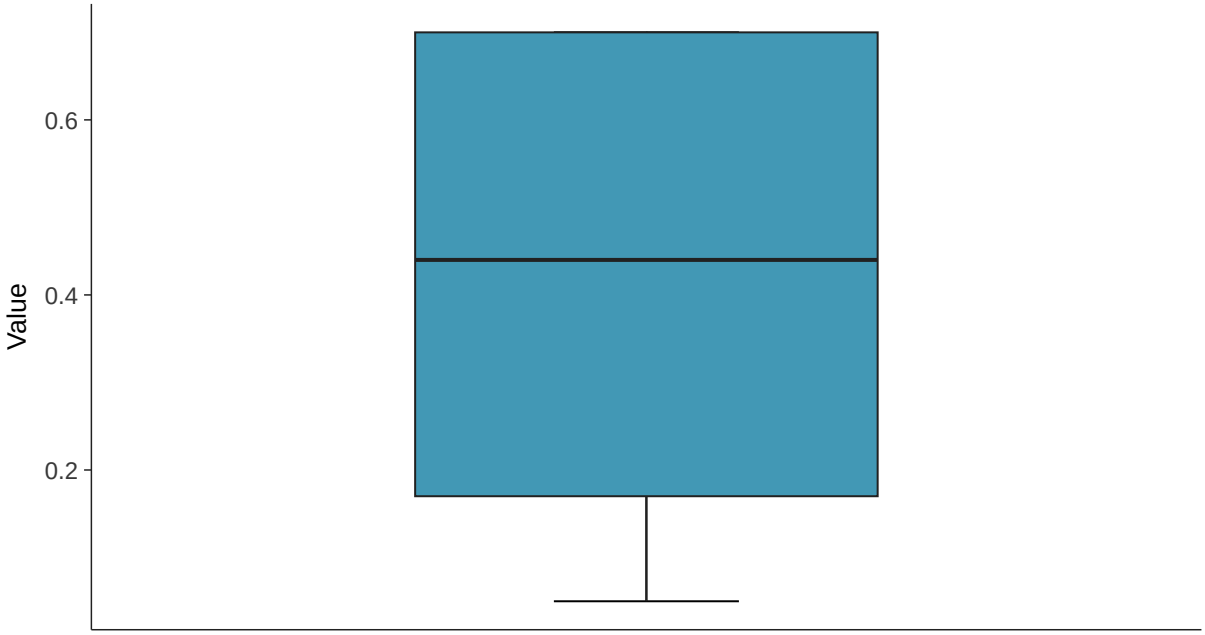
Histogram

Beryllium, BG-1 & BG-2 (ug/L)



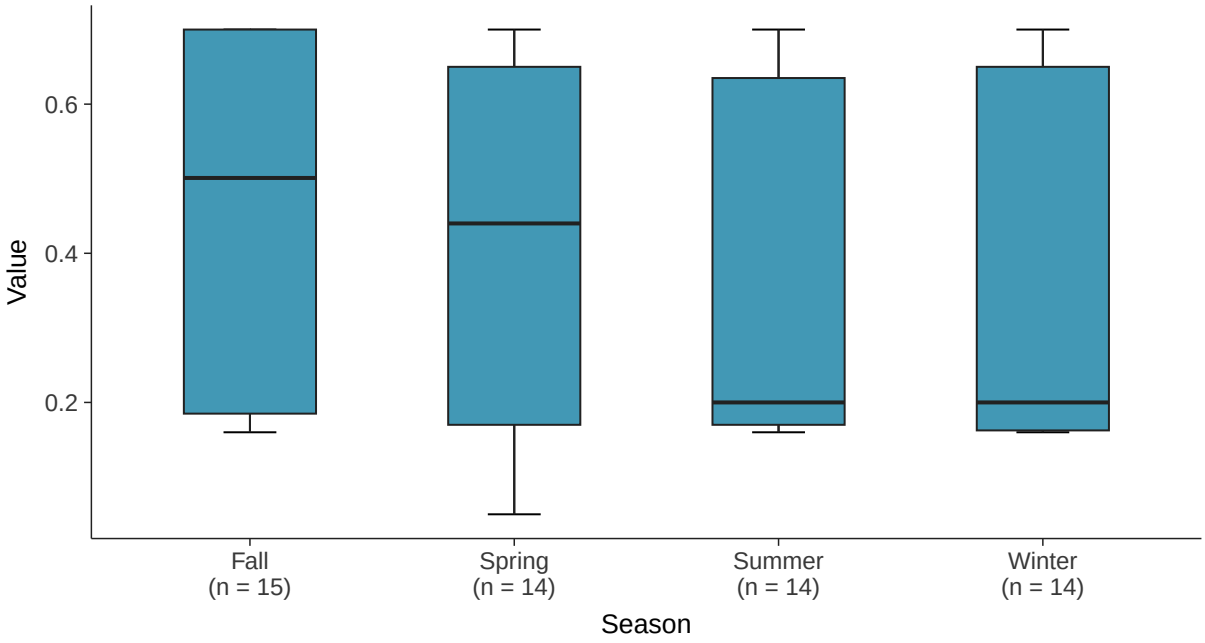
Boxplot

Beryllium, BG-1 & BG-2 (ug/L)



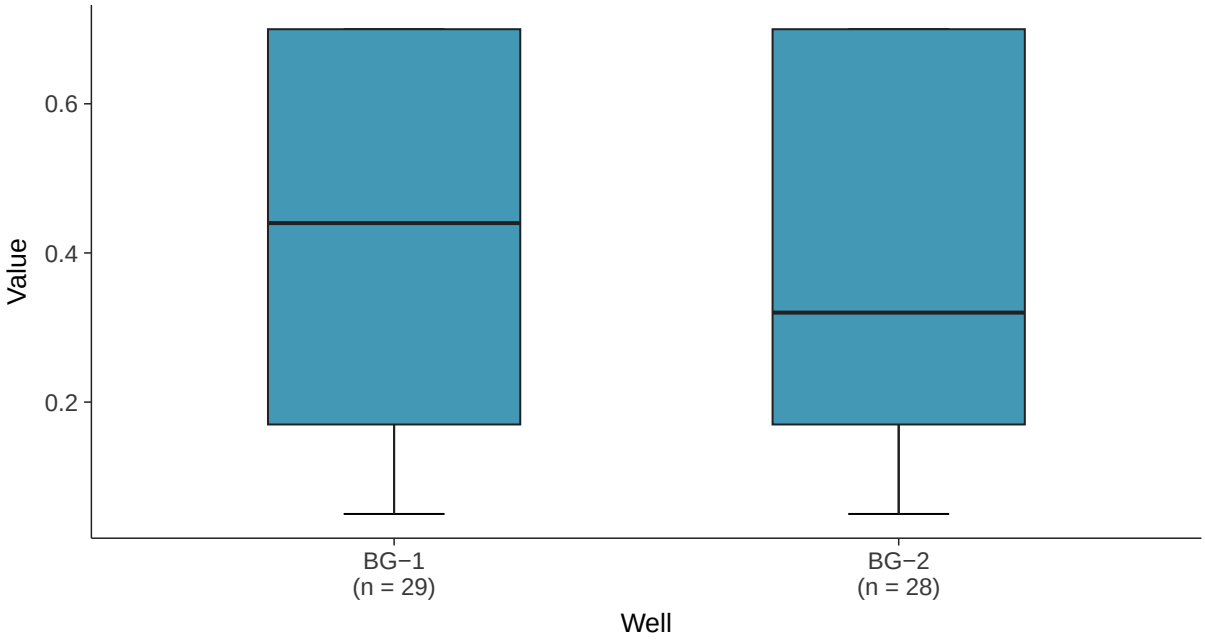
Boxplot by Season

Beryllium, BG-1 & BG-2 (ug/L)



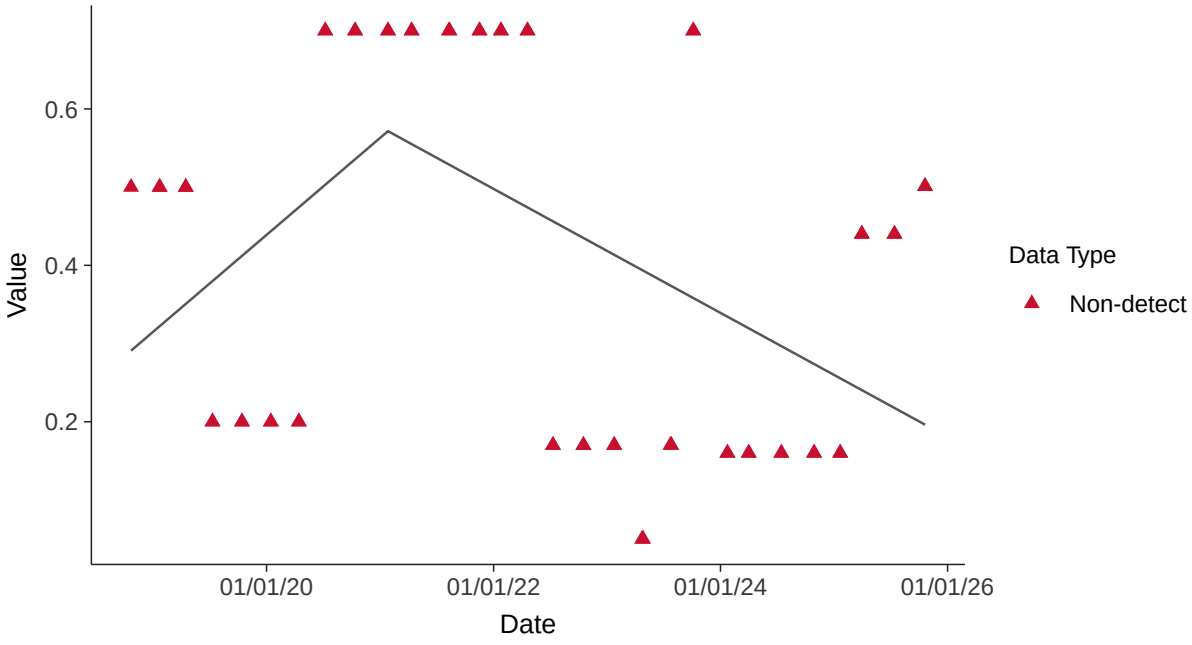
Boxplot by Well

Beryllium, BG-1 & BG-2 (ug/L)



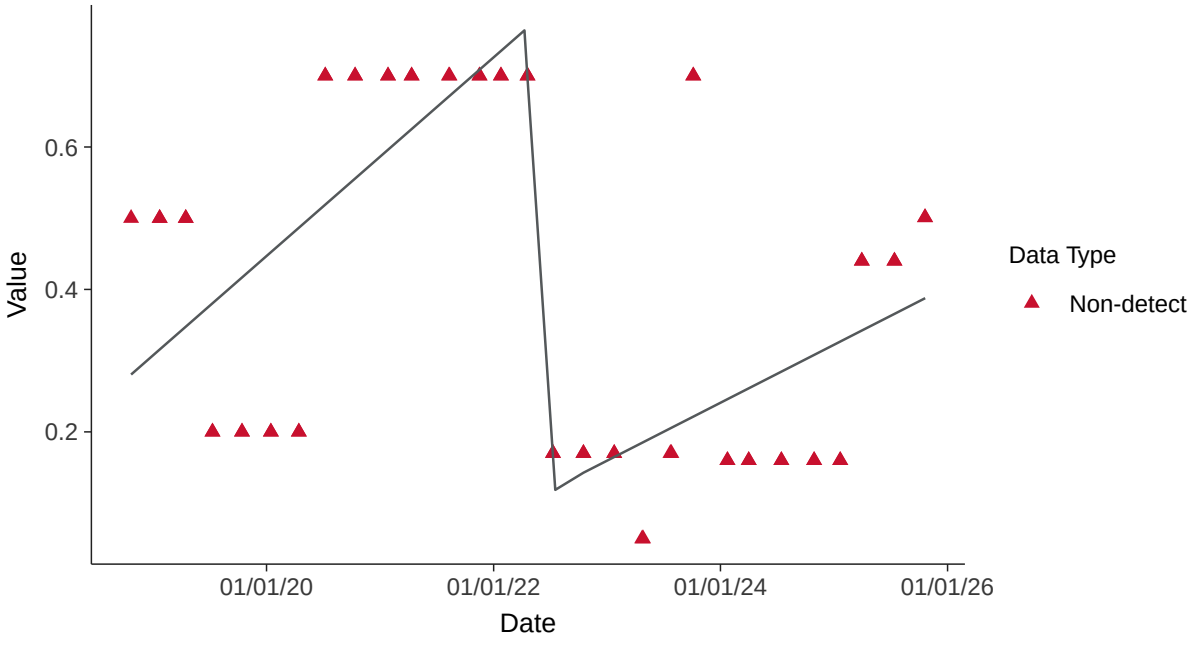
Trend Regression: Piecewise Linear-Linear

Beryllium, BG-1 & BG-2 (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Beryllium, BG-1 & BG-2 (ug/L)

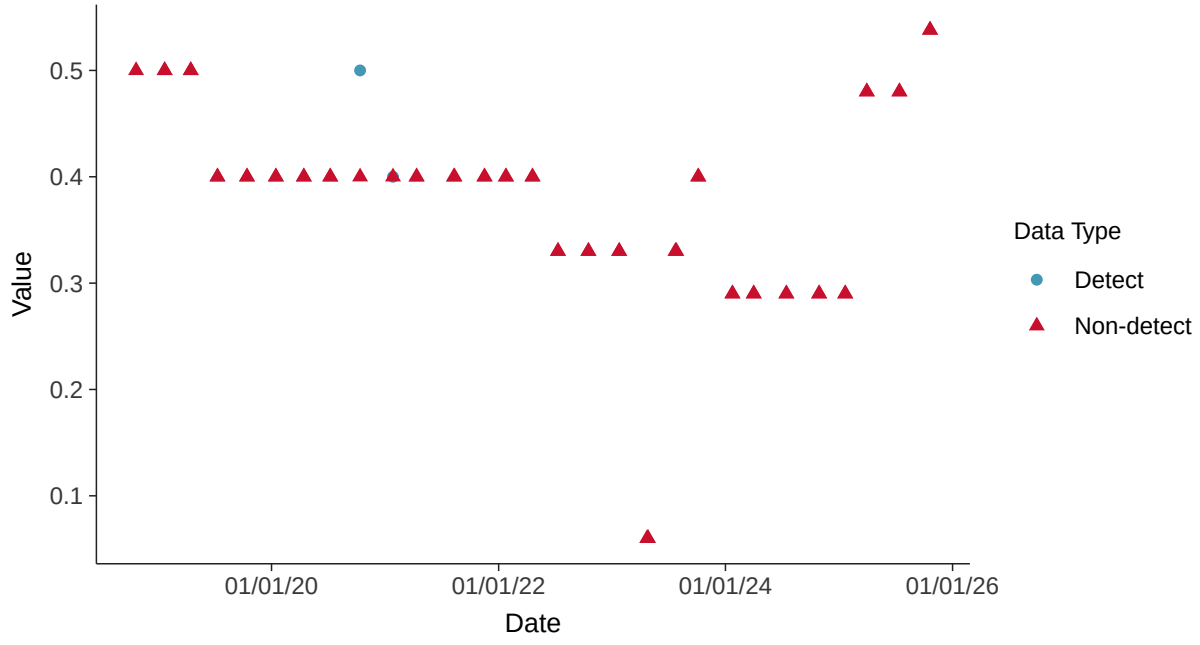


App. IV: Cadmium, BG-1 & BG-2

ID: 3_106

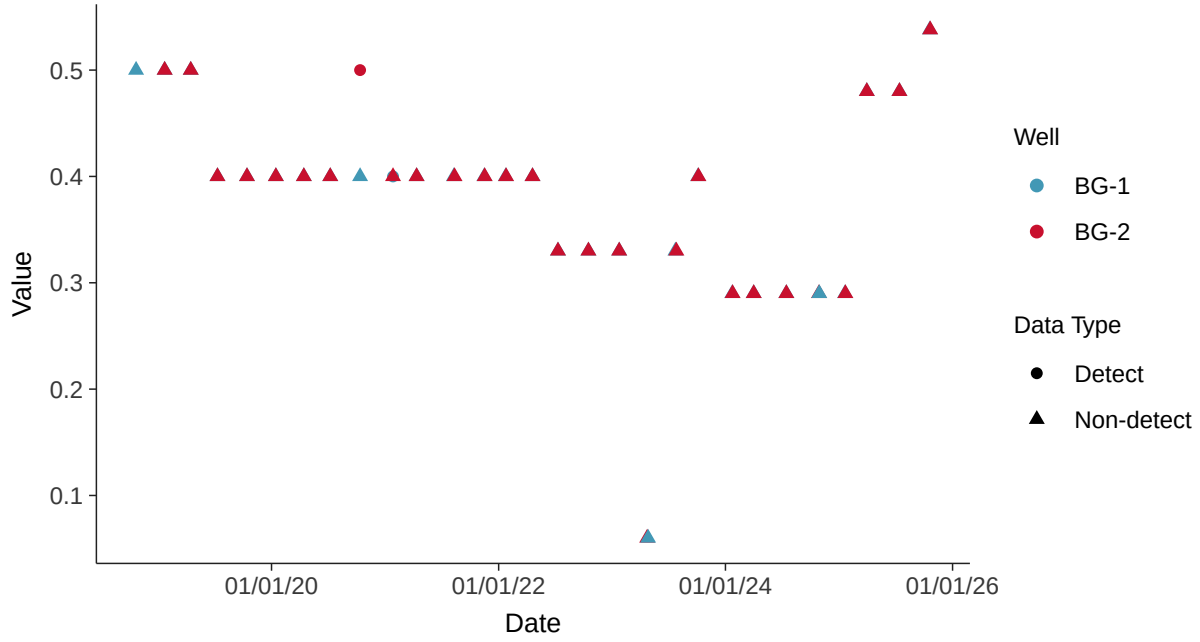
Scatter Plot

Cadmium, BG-1 & BG-2 (ug/L)



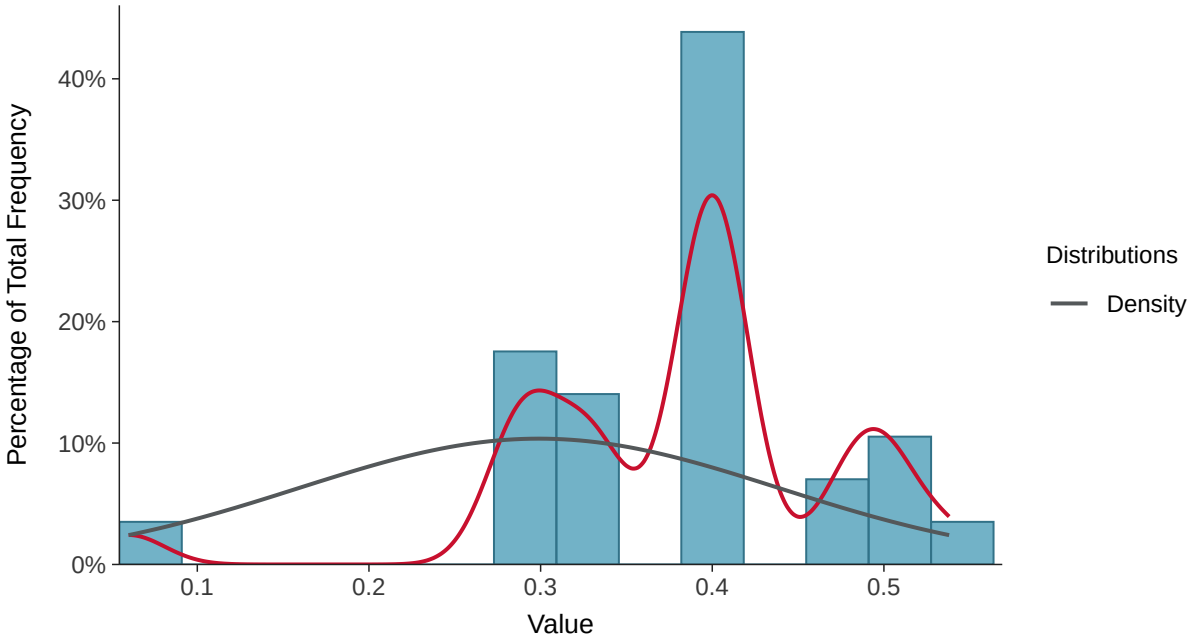
Scatter Plot by Well

Cadmium, BG-1 & BG-2 (ug/L)



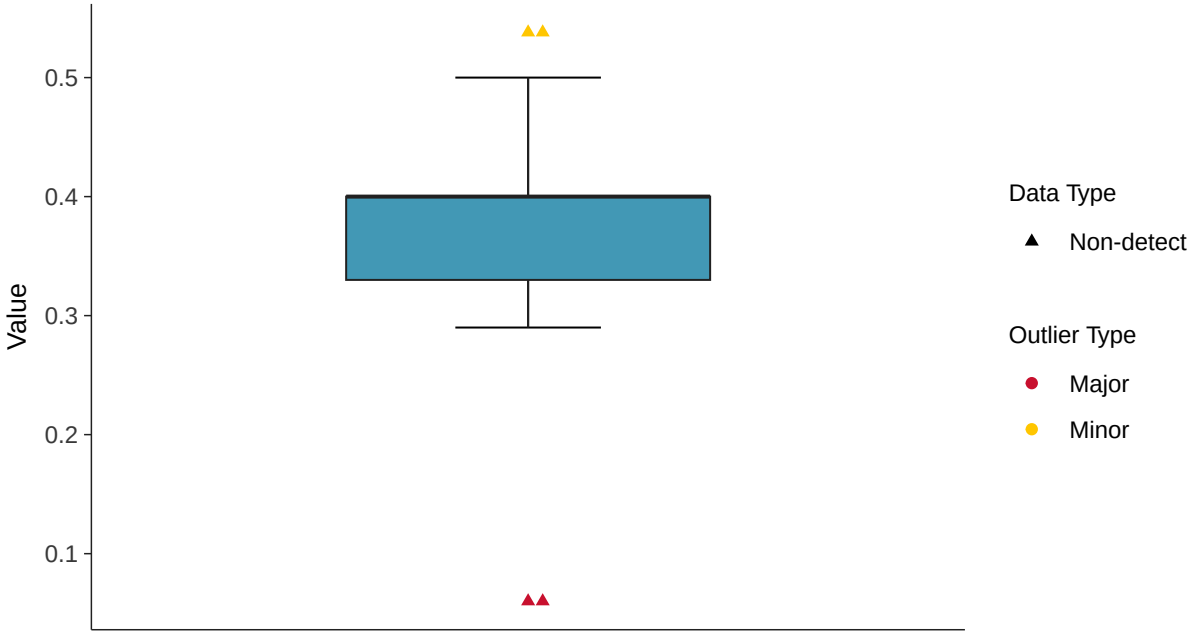
Histogram

Cadmium, BG-1 & BG-2 (ug/L)



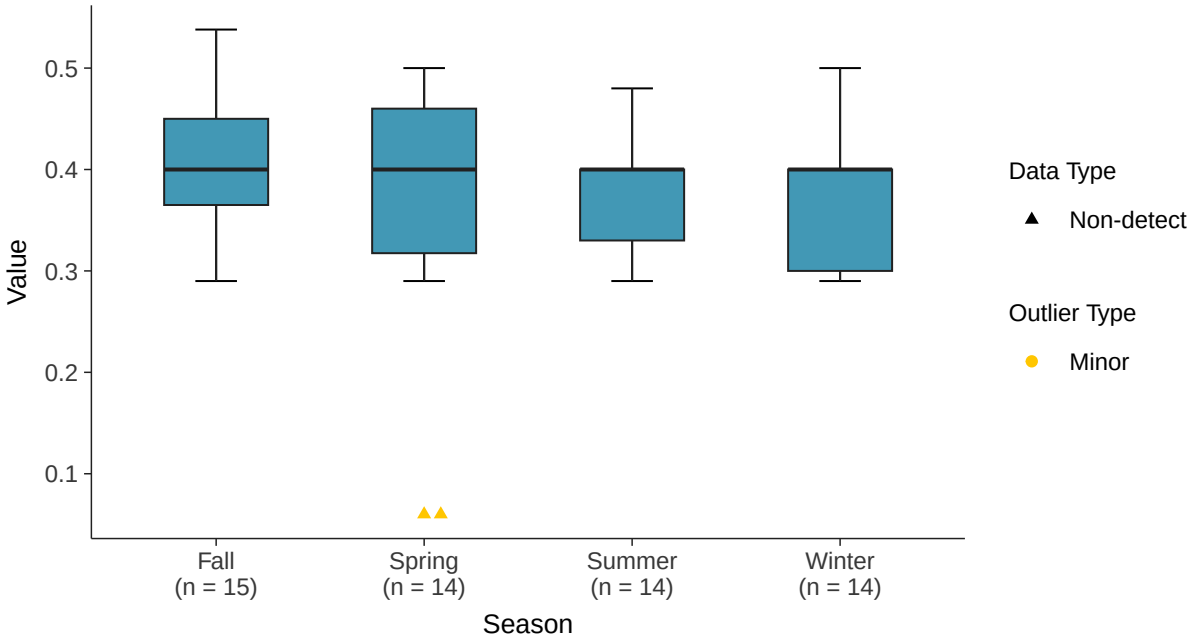
Boxplot

Cadmium, BG-1 & BG-2 (ug/L)



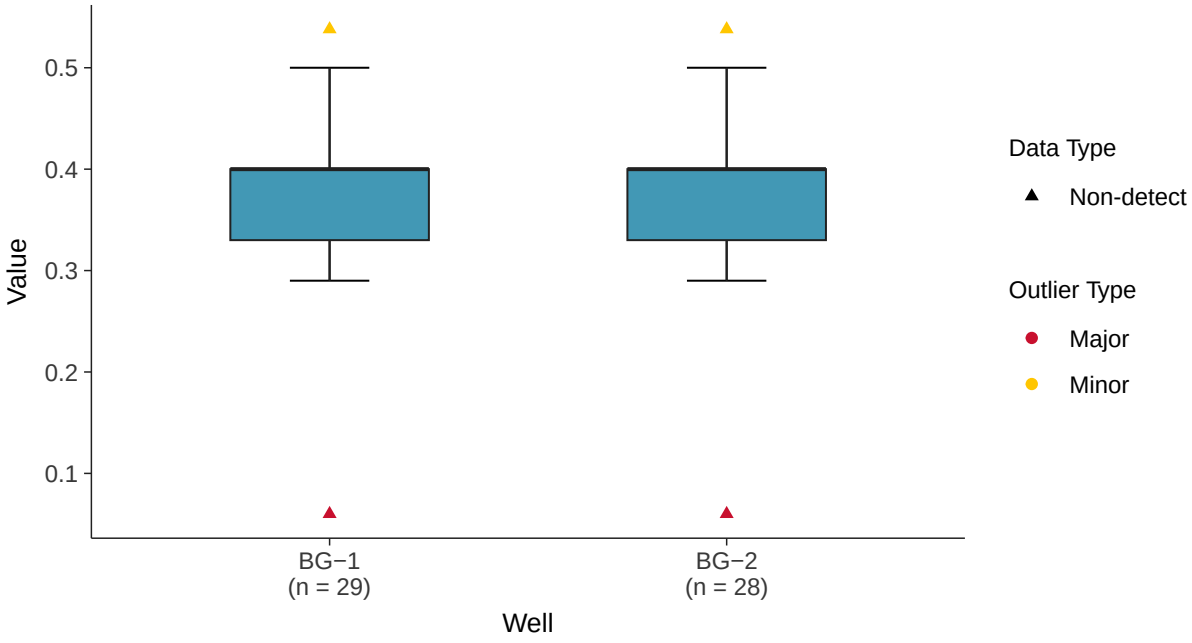
Boxplot by Season

Cadmium, BG-1 & BG-2 (ug/L)



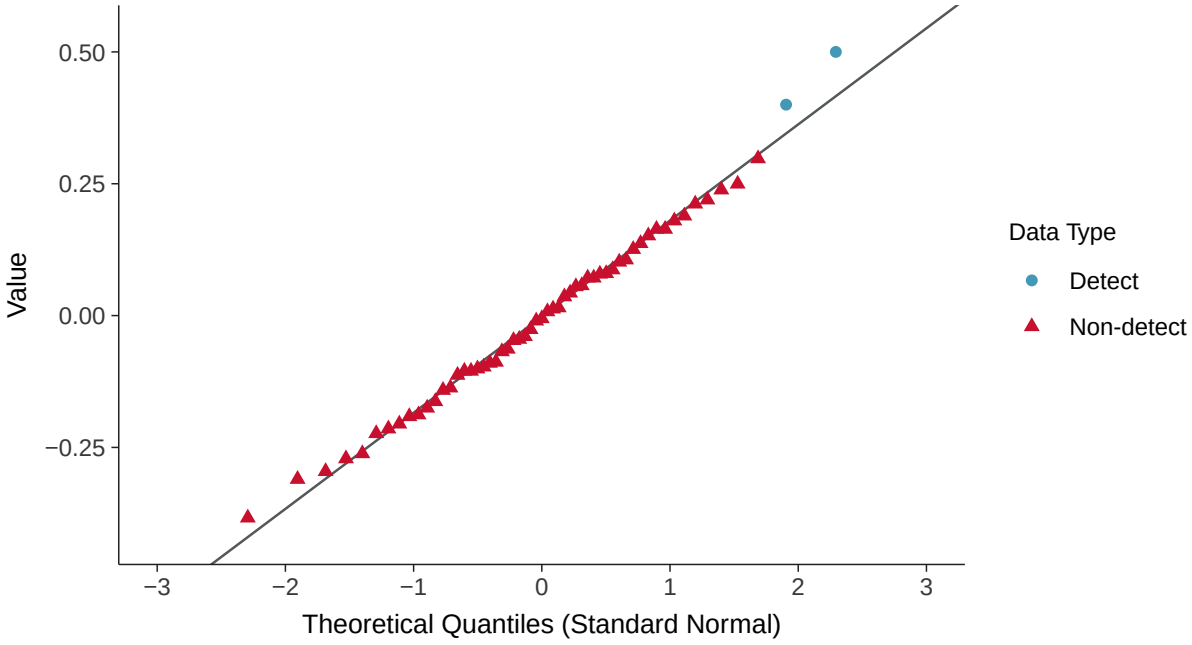
Boxplot by Well

Cadmium, BG-1 & BG-2 (ug/L)



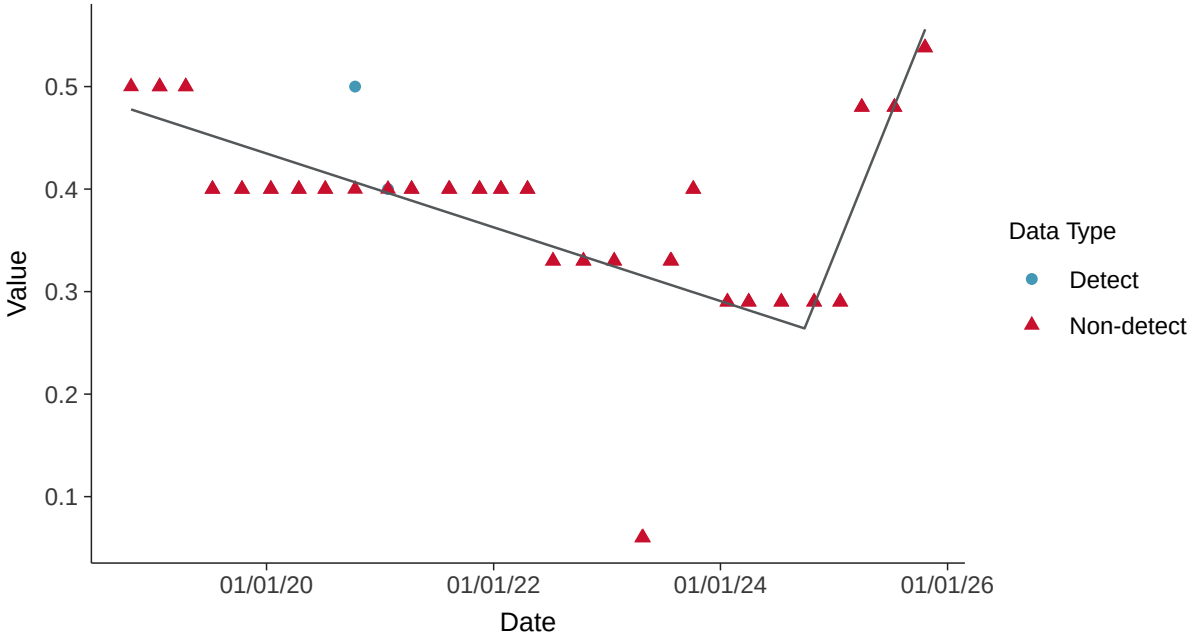
Normal Q-Q plot using ROS Imputed Estimates

Cadmium, BG-1 & BG-2 (ug/L)



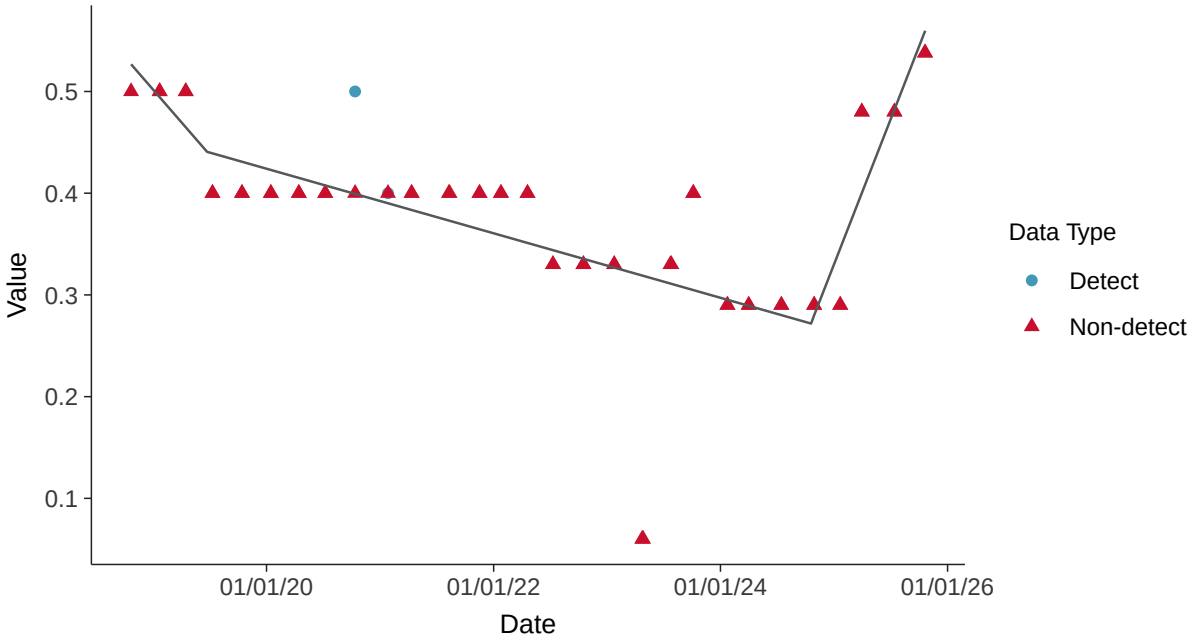
Trend Regression: Piecewise Linear-Linear

Cadmium, BG-1 & BG-2 (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Cadmium, BG-1 & BG-2 (ug/L)

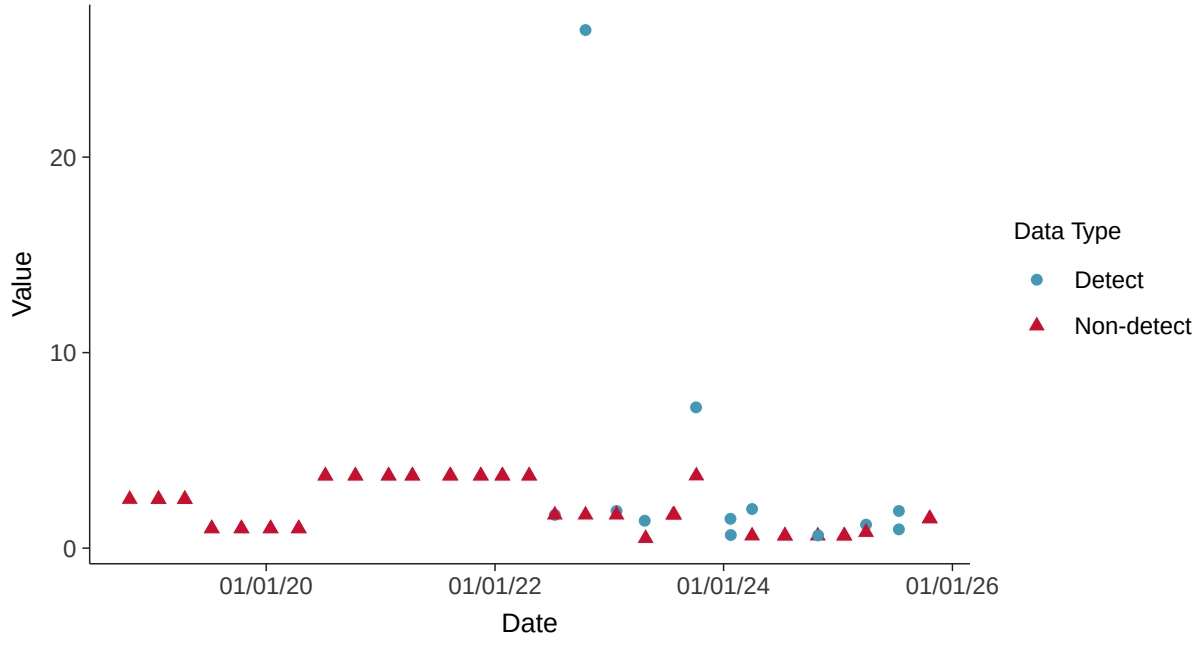


App. IV: Chromium, BG-1 & BG-2

ID: 3_109

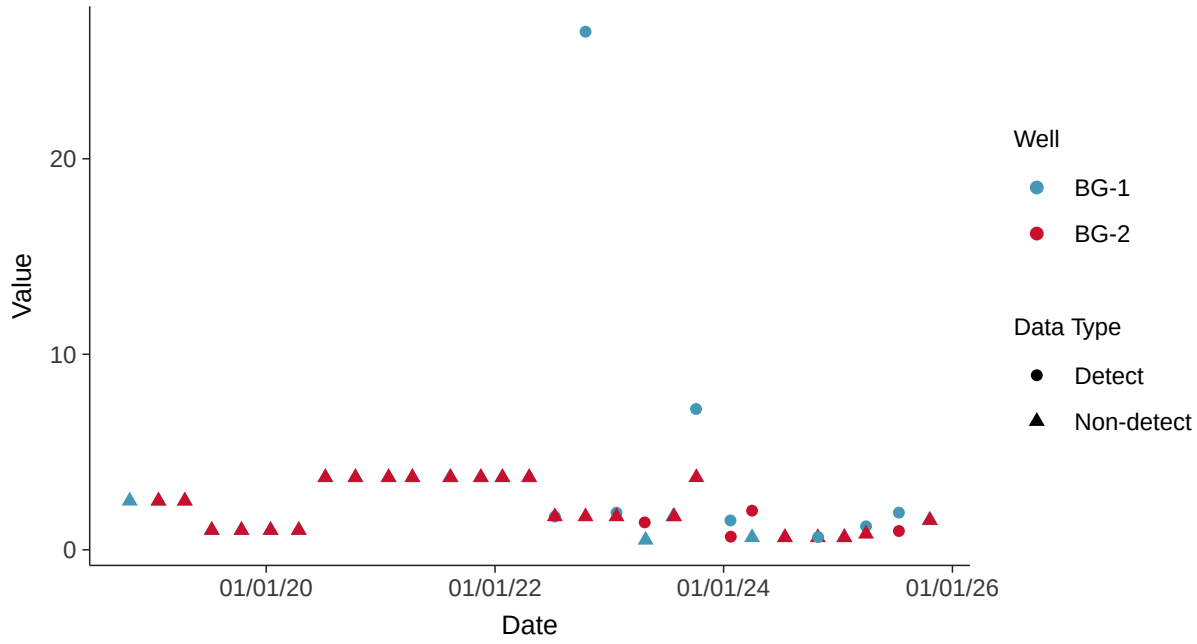
Scatter Plot

Chromium, BG-1 & BG-2 (ug/L)



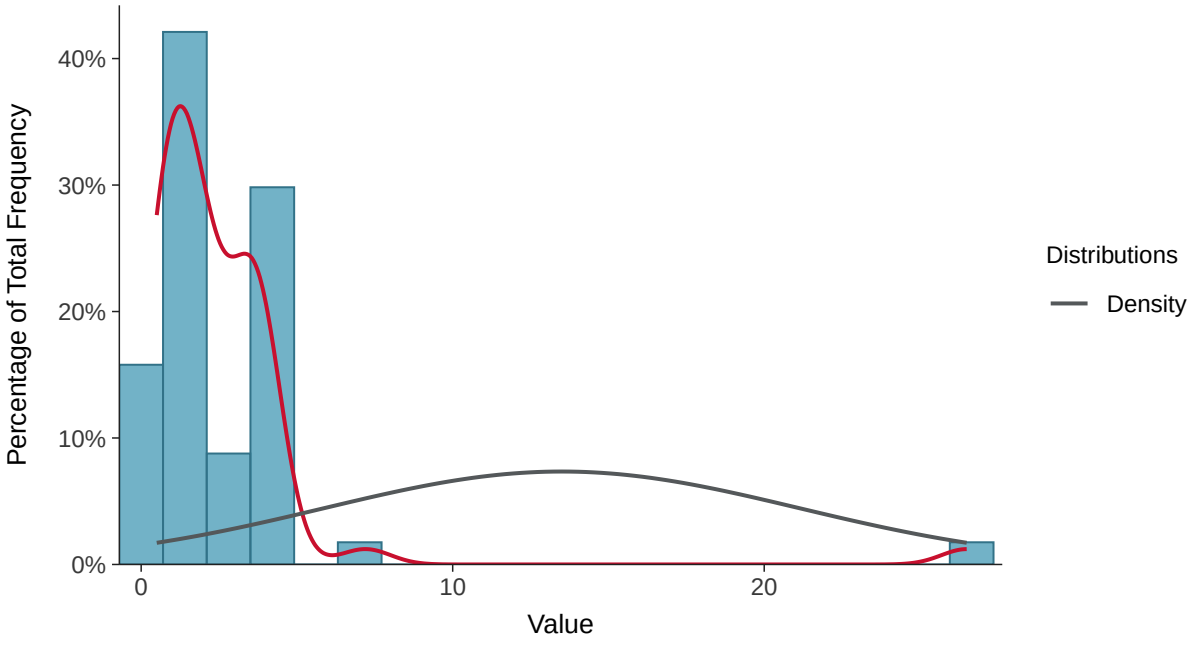
Scatter Plot by Well

Chromium, BG-1 & BG-2 (ug/L)



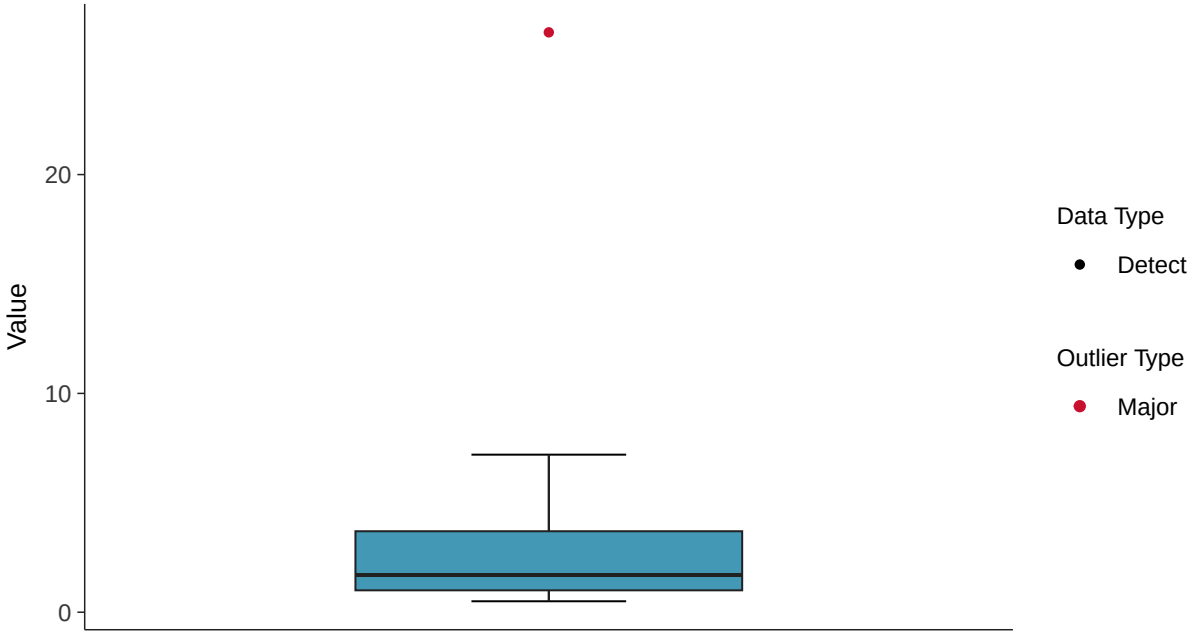
Histogram

Chromium, BG-1 & BG-2 (ug/L)



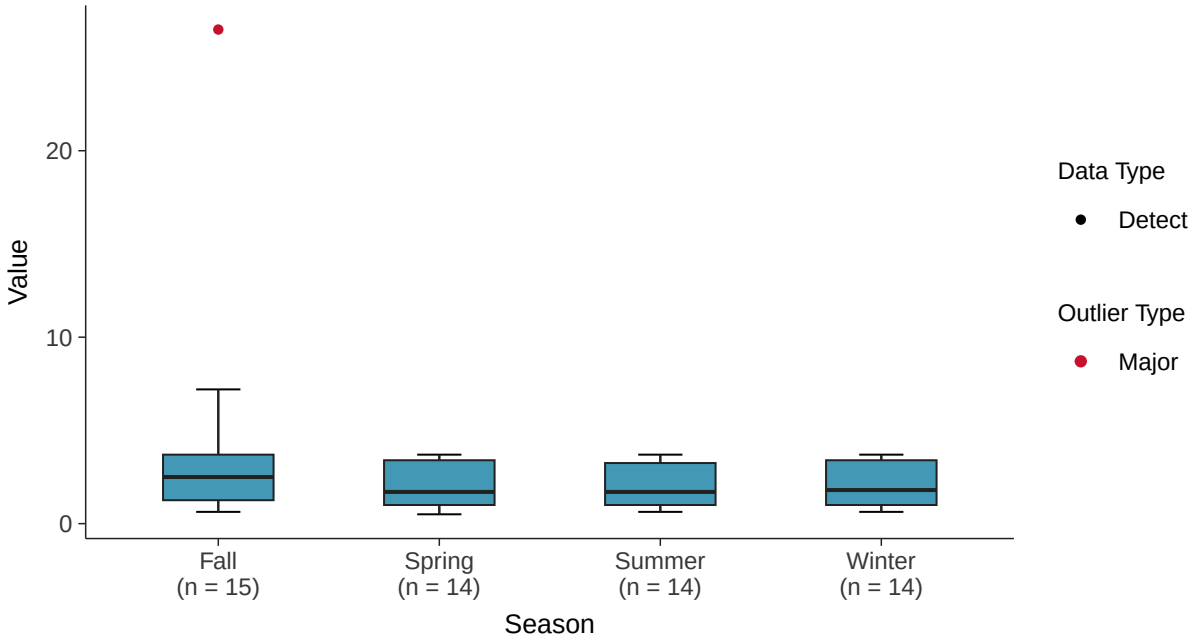
Boxplot

Chromium, BG-1 & BG-2 (ug/L)



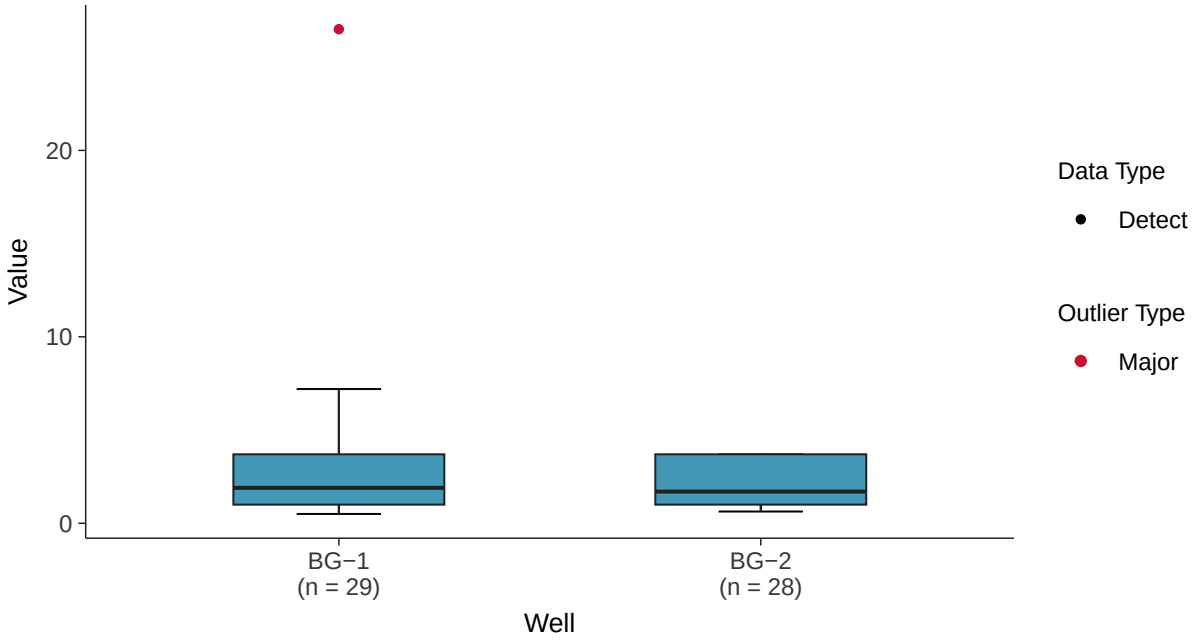
Boxplot by Season

Chromium, BG-1 & BG-2 (ug/L)



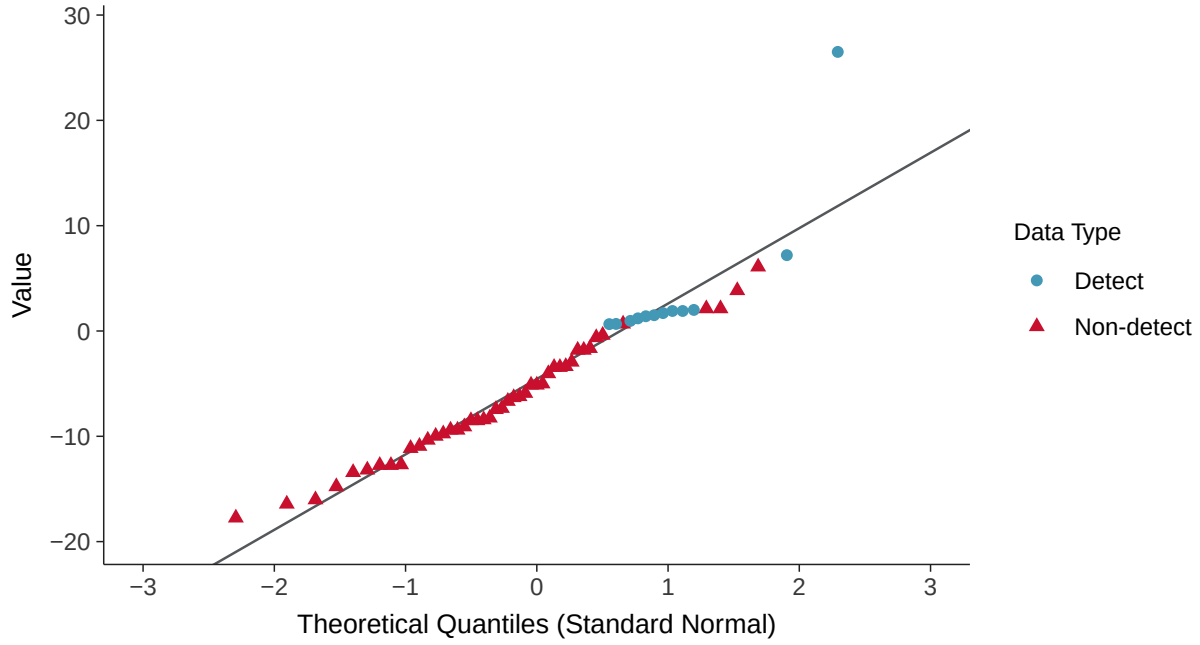
Boxplot by Well

Chromium, BG-1 & BG-2 (ug/L)



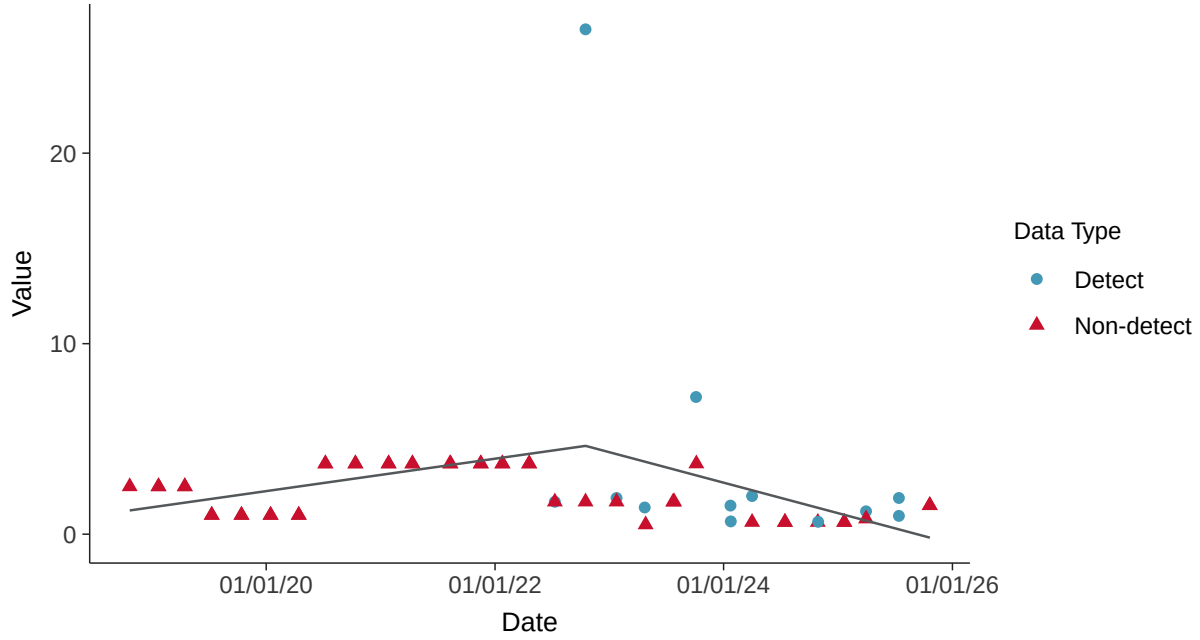
Normal Q-Q plot using ROS Imputed Estimates

Chromium, BG-1 & BG-2 (ug/L)



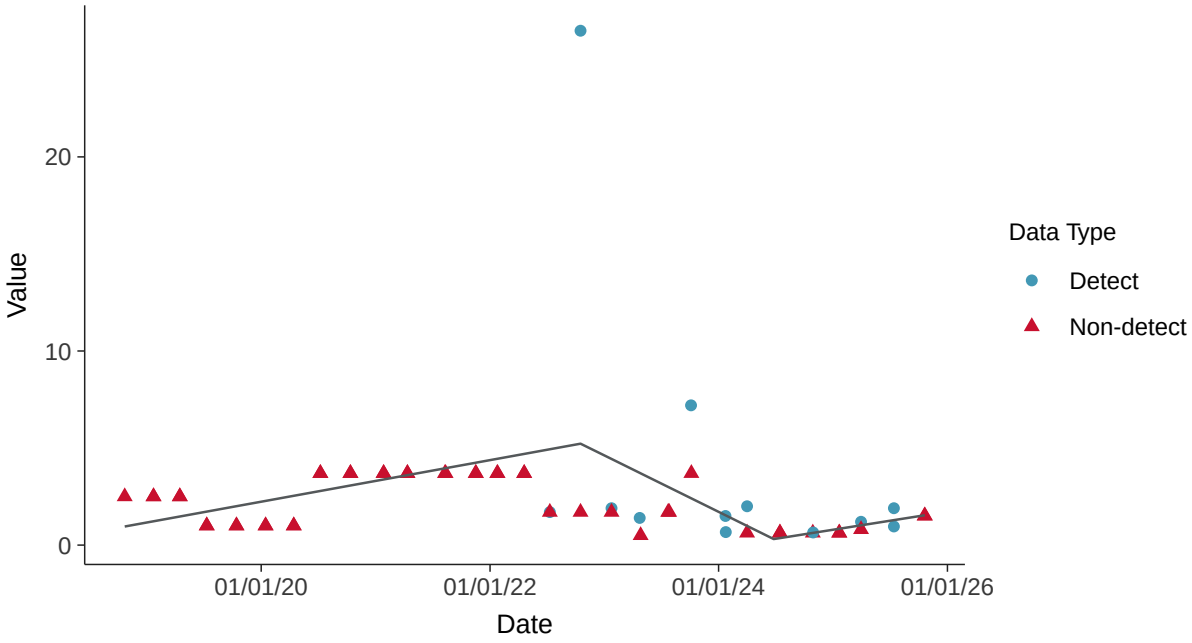
Trend Regression: Piecewise Linear-Linear

Chromium, BG-1 & BG-2 (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Chromium, BG-1 & BG-2 (ug/L)

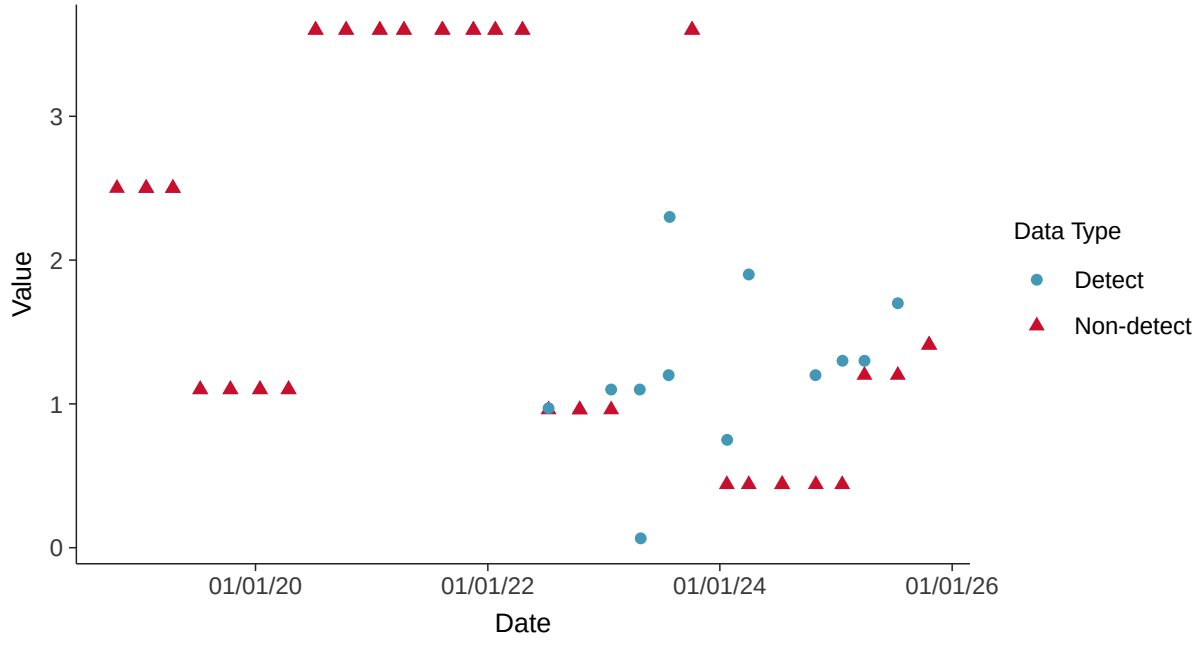


App. IV: Cobalt, BG-1 & BG-2

ID: 3_110

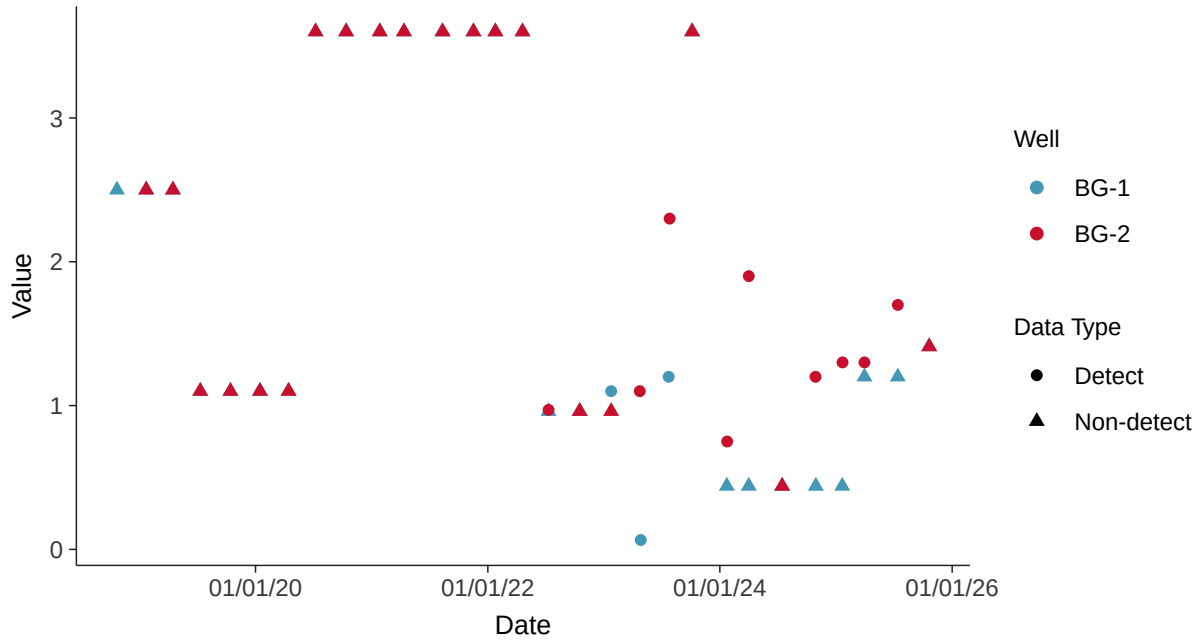
Scatter Plot

Cobalt, BG-1 & BG-2 (ug/L)



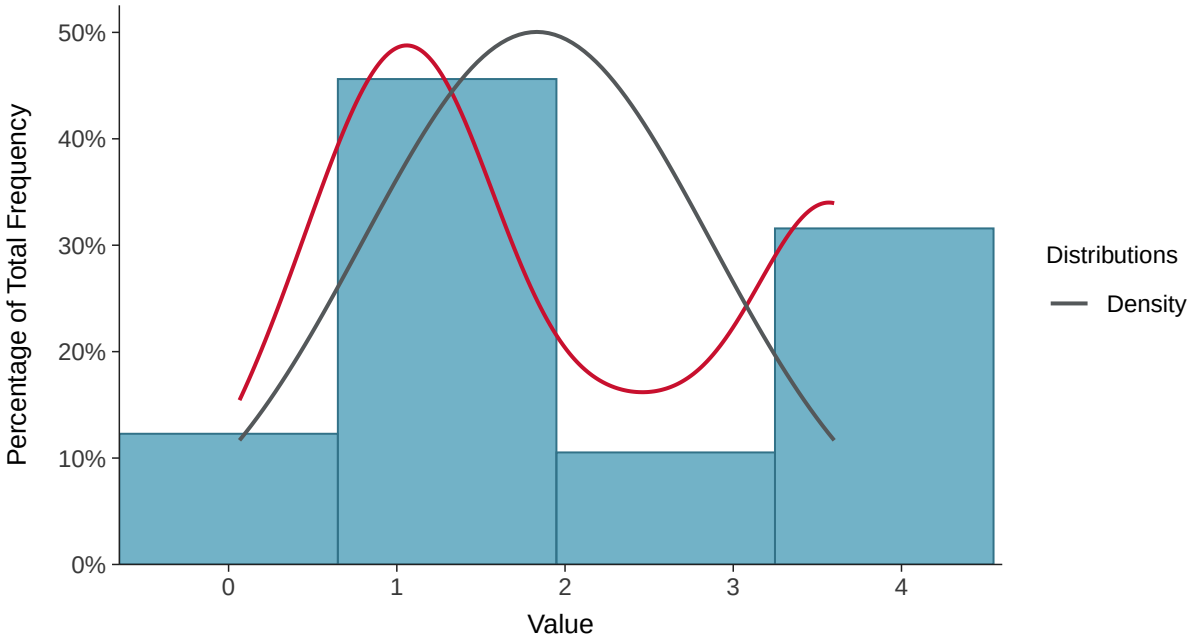
Scatter Plot by Well

Cobalt, BG-1 & BG-2 (ug/L)



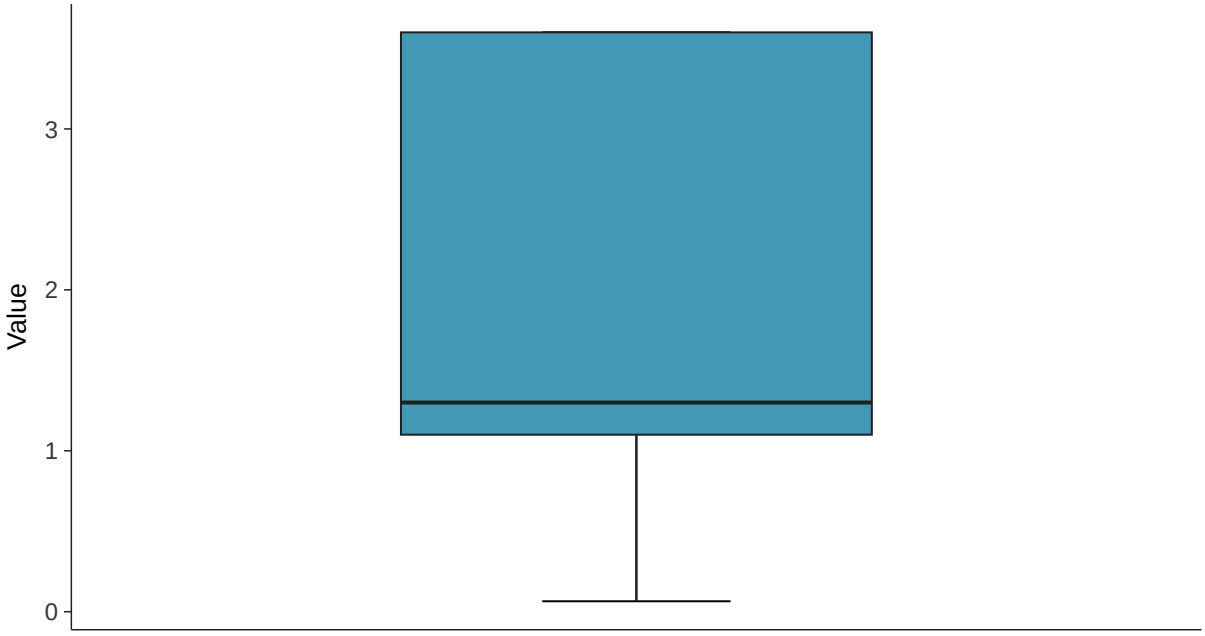
Histogram

Cobalt, BG-1 & BG-2 (ug/L)



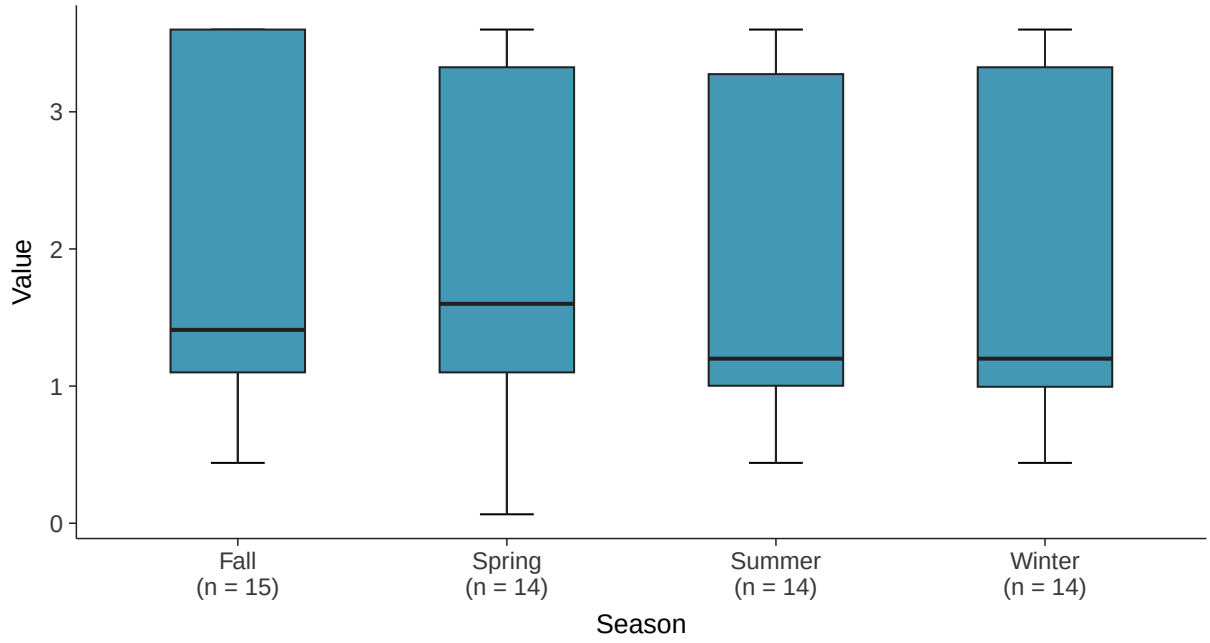
Boxplot

Cobalt, BG-1 & BG-2 (ug/L)



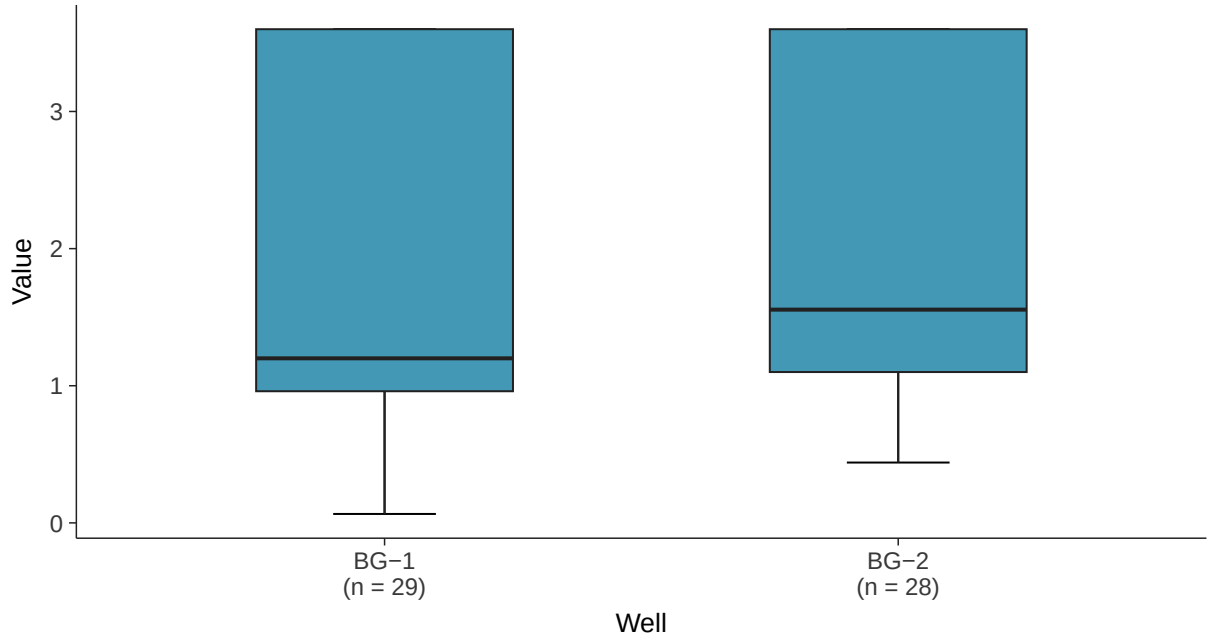
Boxplot by Season

Cobalt, BG-1 & BG-2 (ug/L)



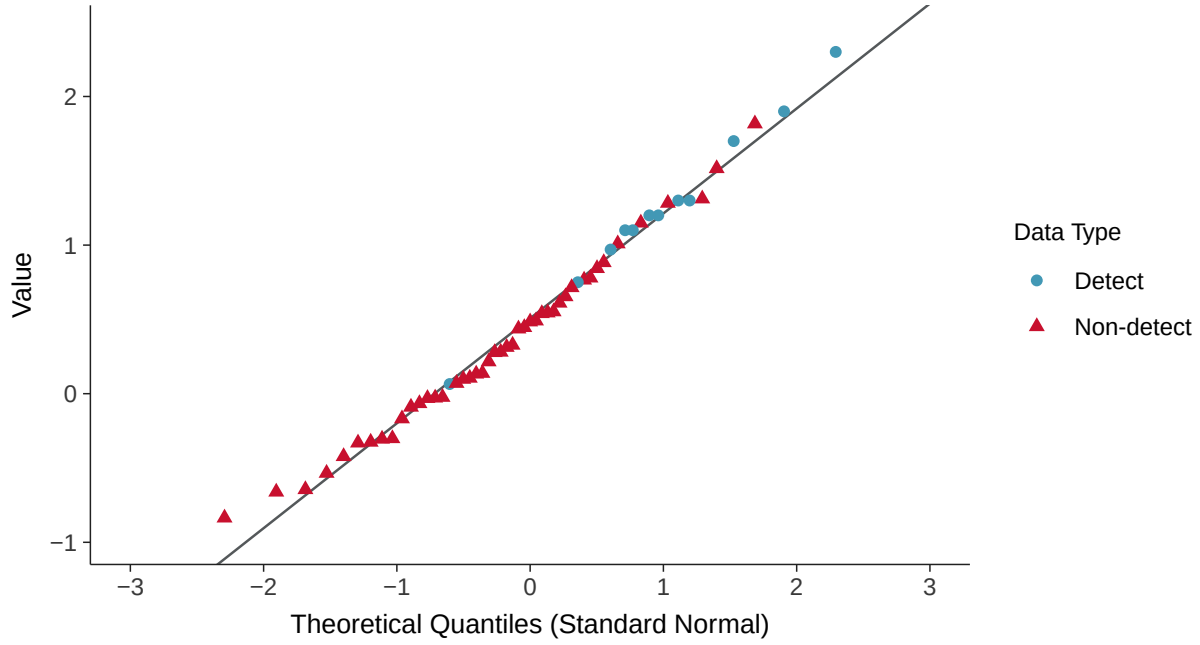
Boxplot by Well

Cobalt, BG-1 & BG-2 (ug/L)



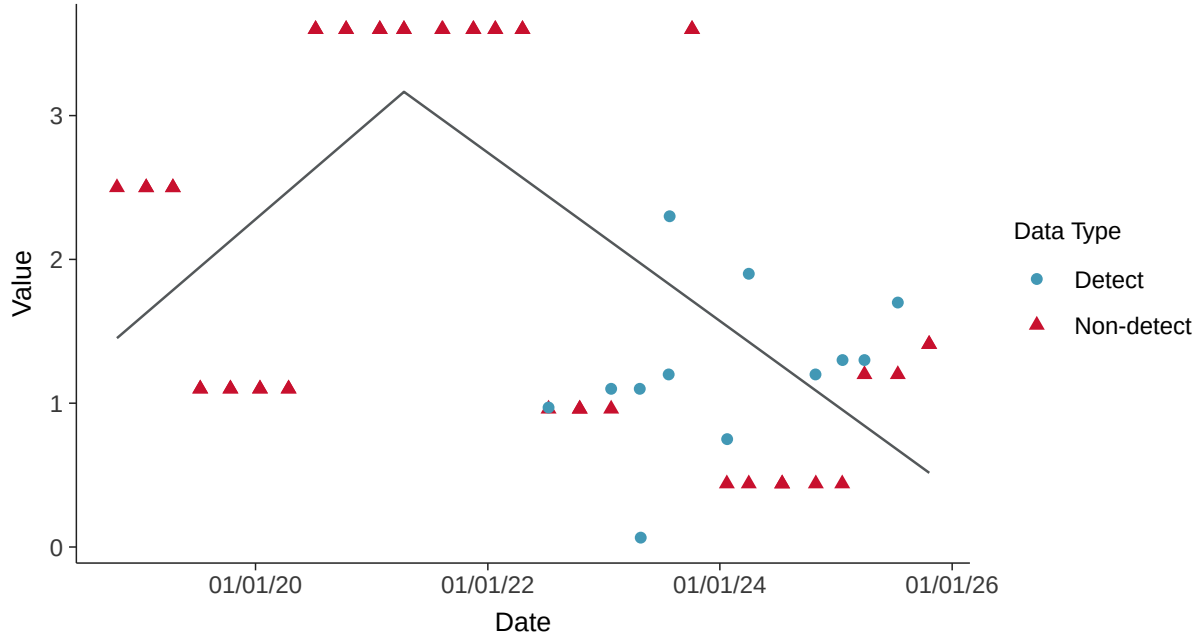
Normal Q-Q plot using ROS Imputed Estimates

Cobalt, BG-1 & BG-2 (ug/L)



Trend Regression: Piecewise Linear-Linear

Cobalt, BG-1 & BG-2 (ug/L)

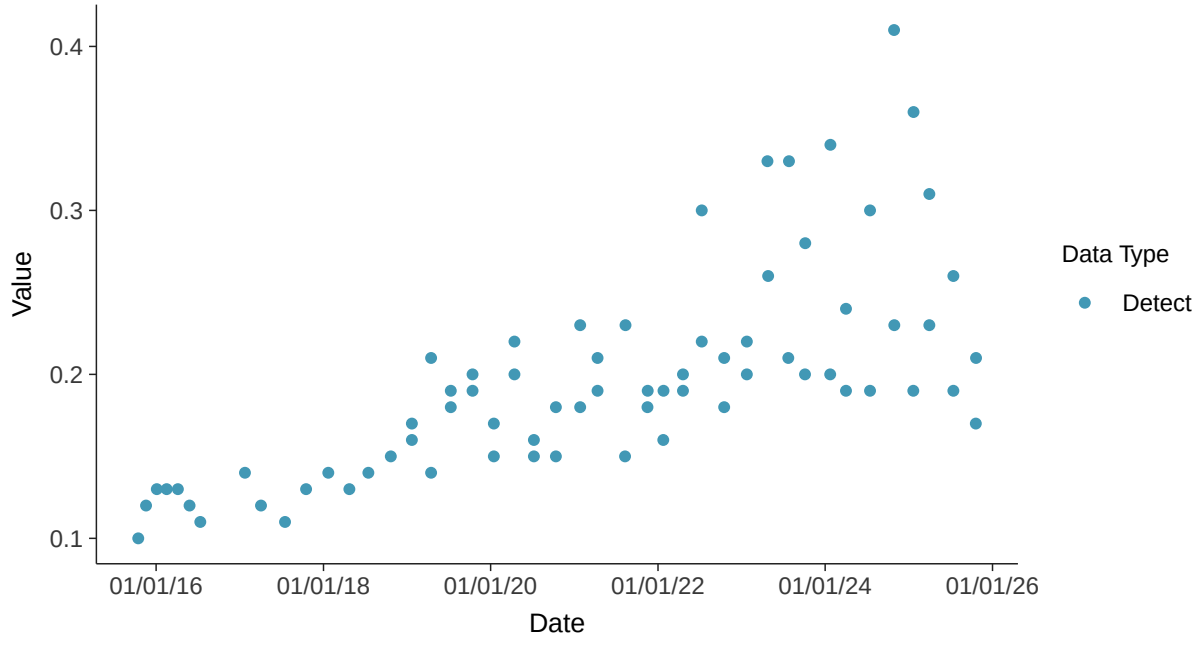


App. IV: Fluoride, BG-1 & BG-2

ID: 3_112

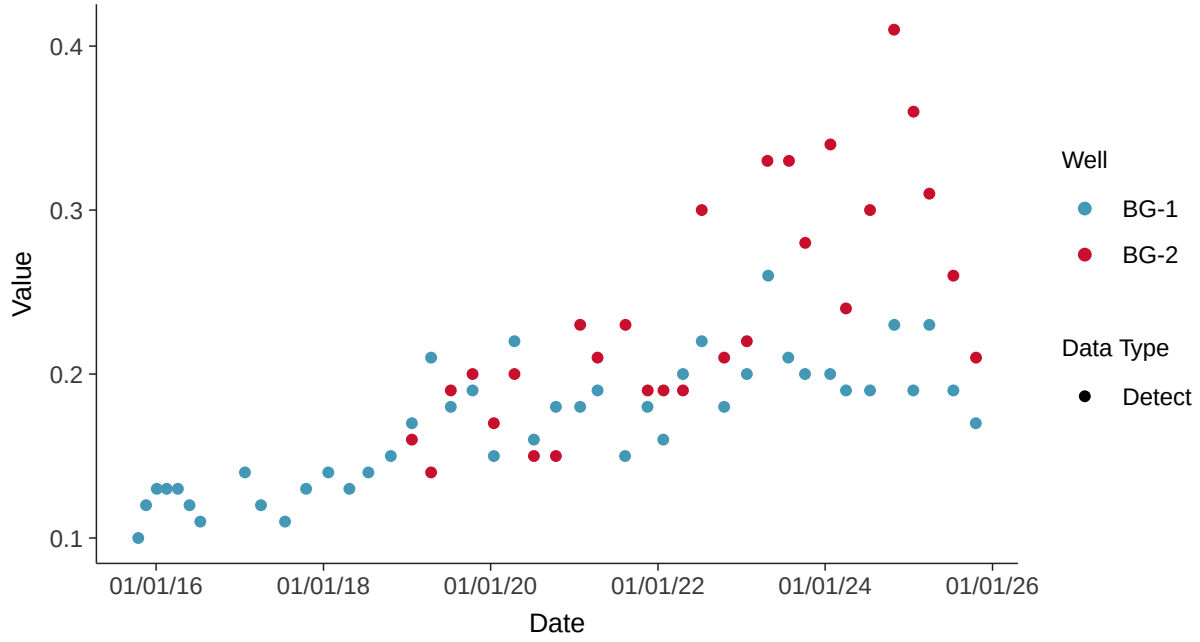
Scatter Plot

Fluoride, BG-1 & BG-2 (mg/L)



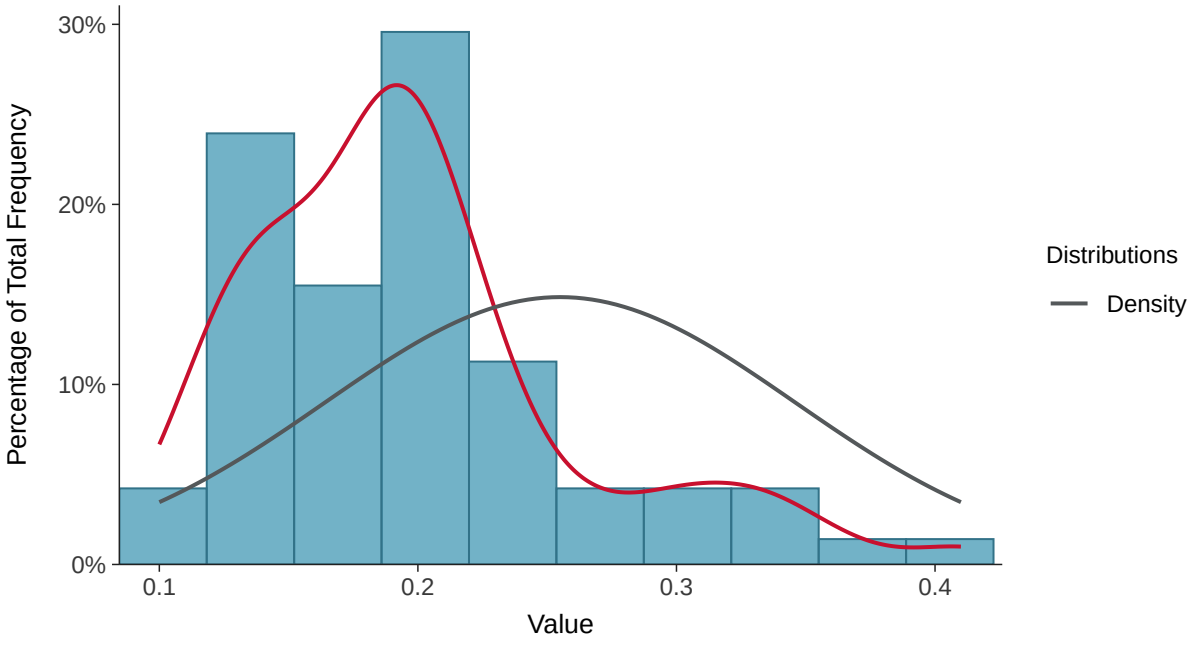
Scatter Plot by Well

Fluoride, BG-1 & BG-2 (mg/L)



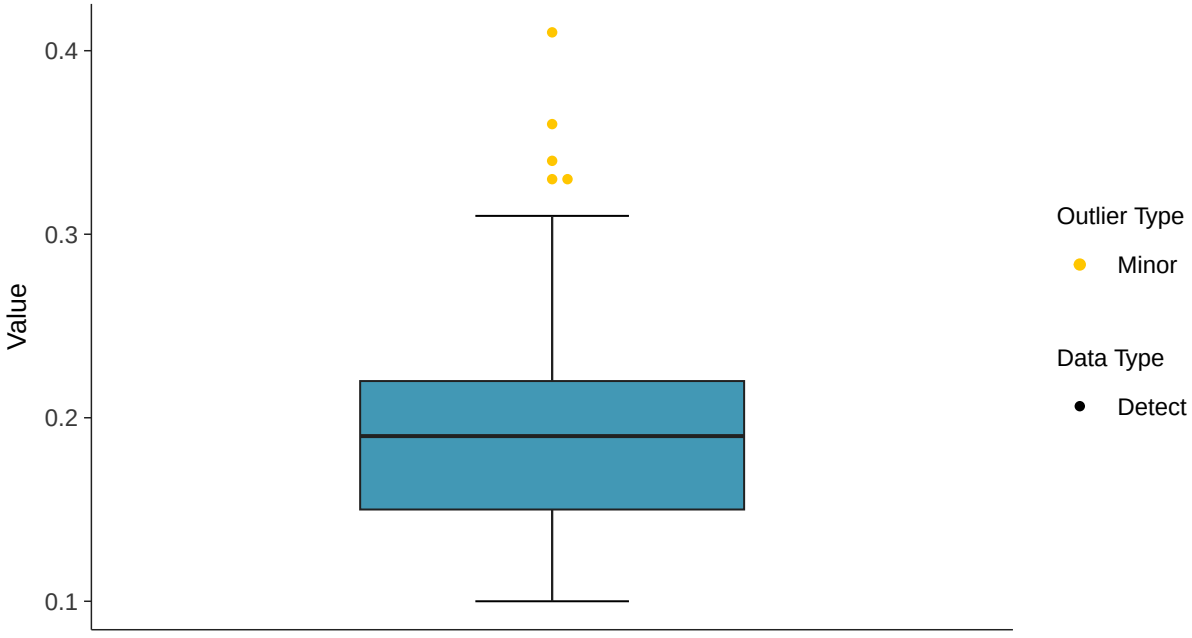
Histogram

Fluoride, BG-1 & BG-2 (mg/L)



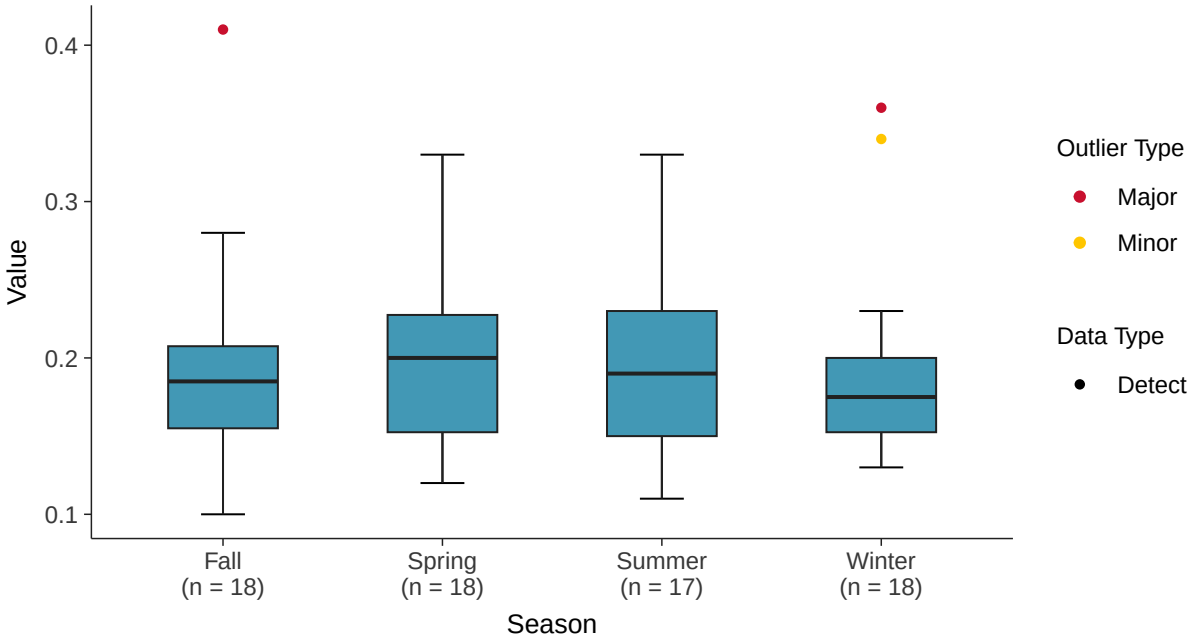
Boxplot

Fluoride, BG-1 & BG-2 (mg/L)



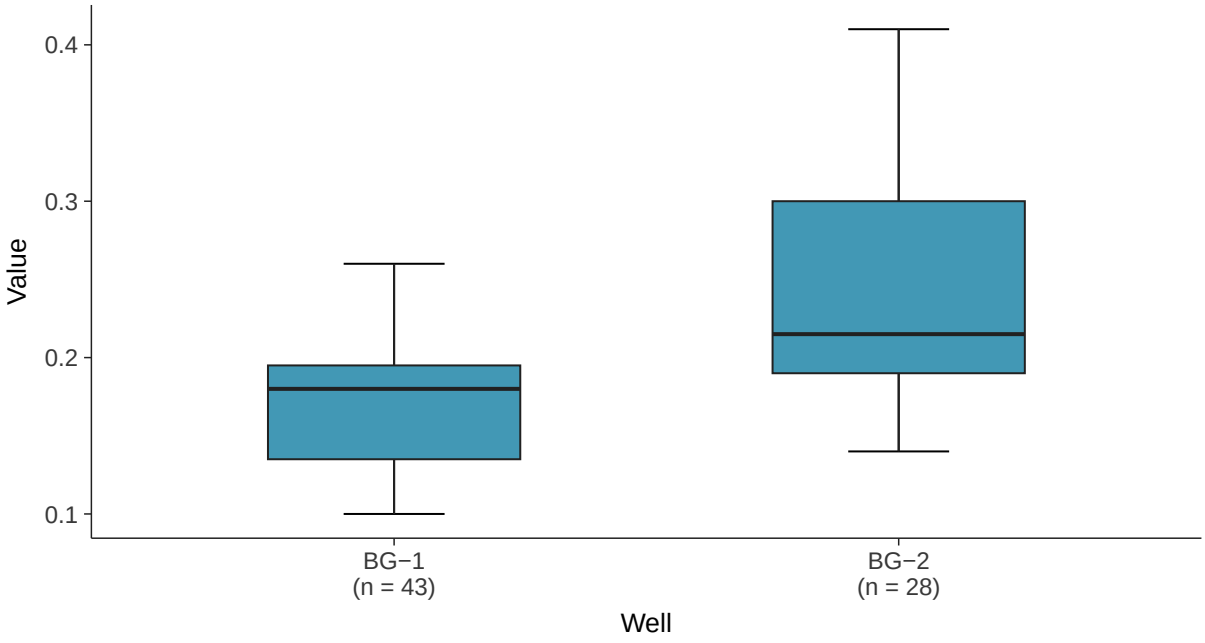
Boxplot by Season

Fluoride, BG-1 & BG-2 (mg/L)



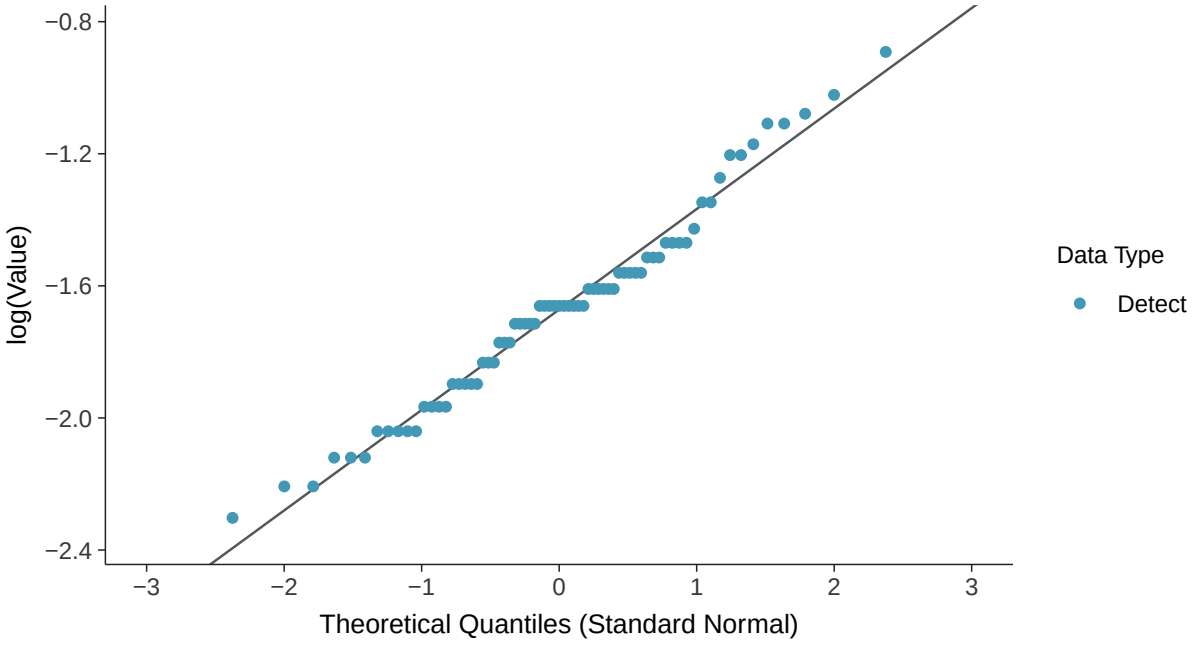
Boxplot by Well

Fluoride, BG-1 & BG-2 (mg/L)



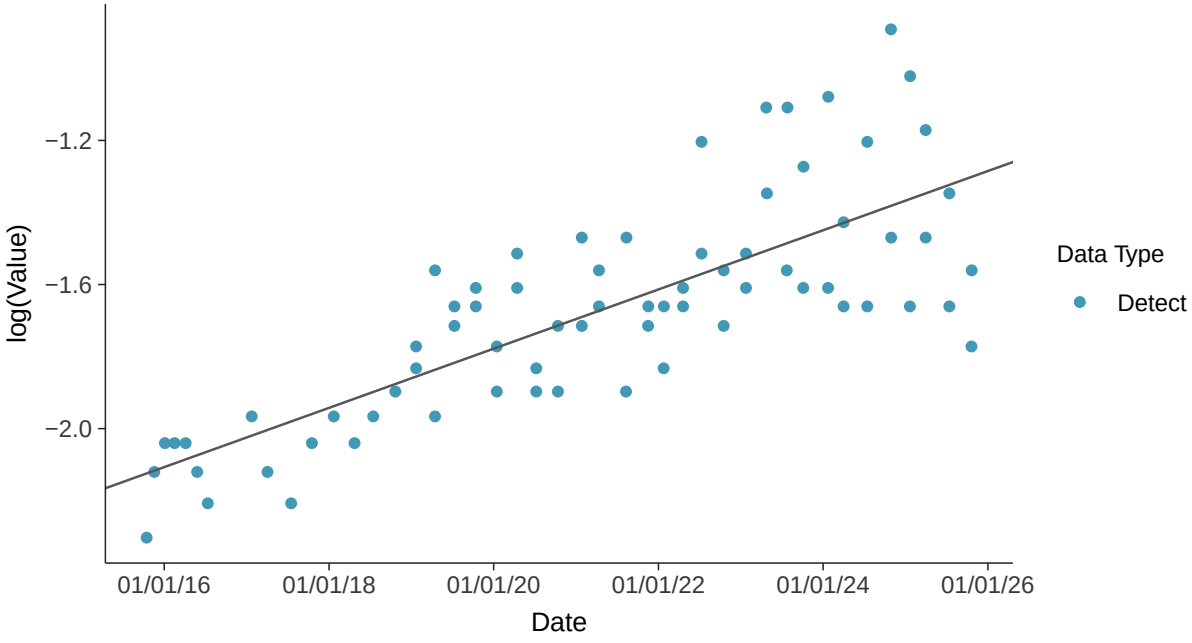
Lognormal Q-Q plot

Fluoride, BG-1 & BG-2 (mg/L)



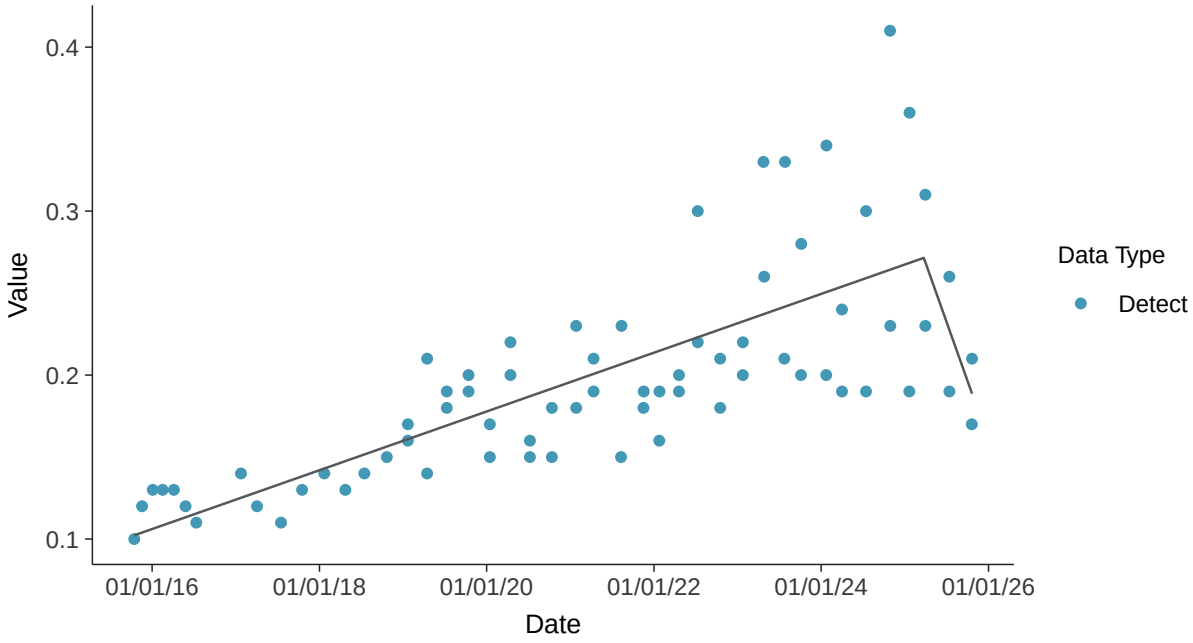
Trend Regression: Lognormal MLE

Fluoride, BG-1 & BG-2 (mg/L)



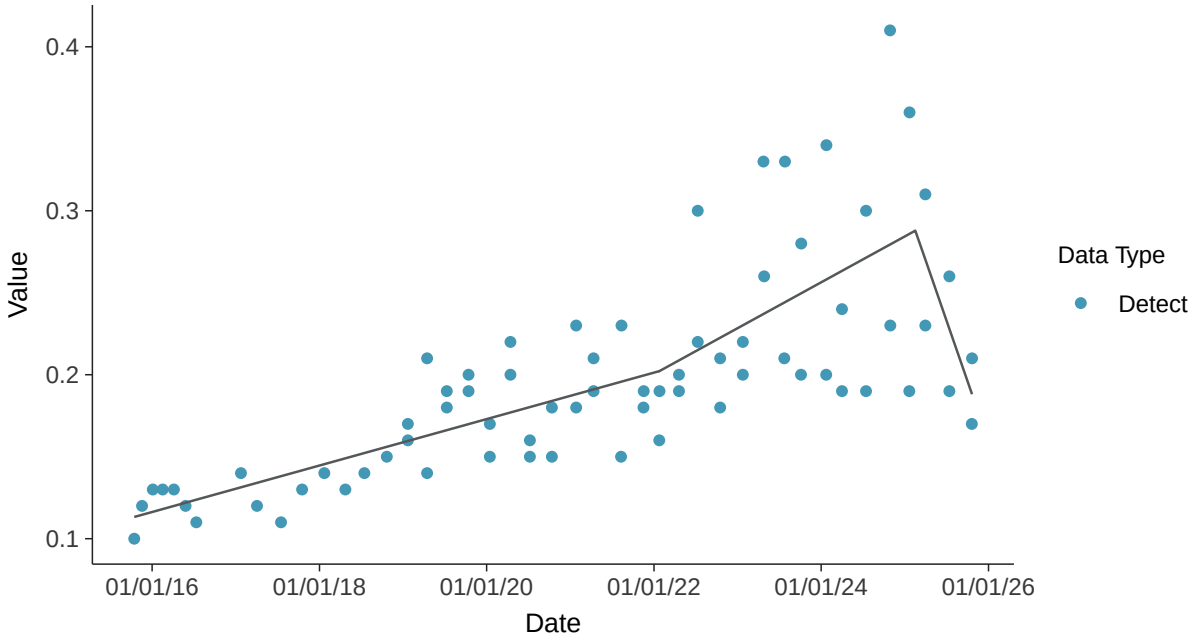
Trend Regression: Piecewise Linear-Linear

Fluoride, BG-1 & BG-2 (mg/L)



Trend Regression: Piecewise Linear-Linear-Linear

Fluoride, BG-1 & BG-2 (mg/L)

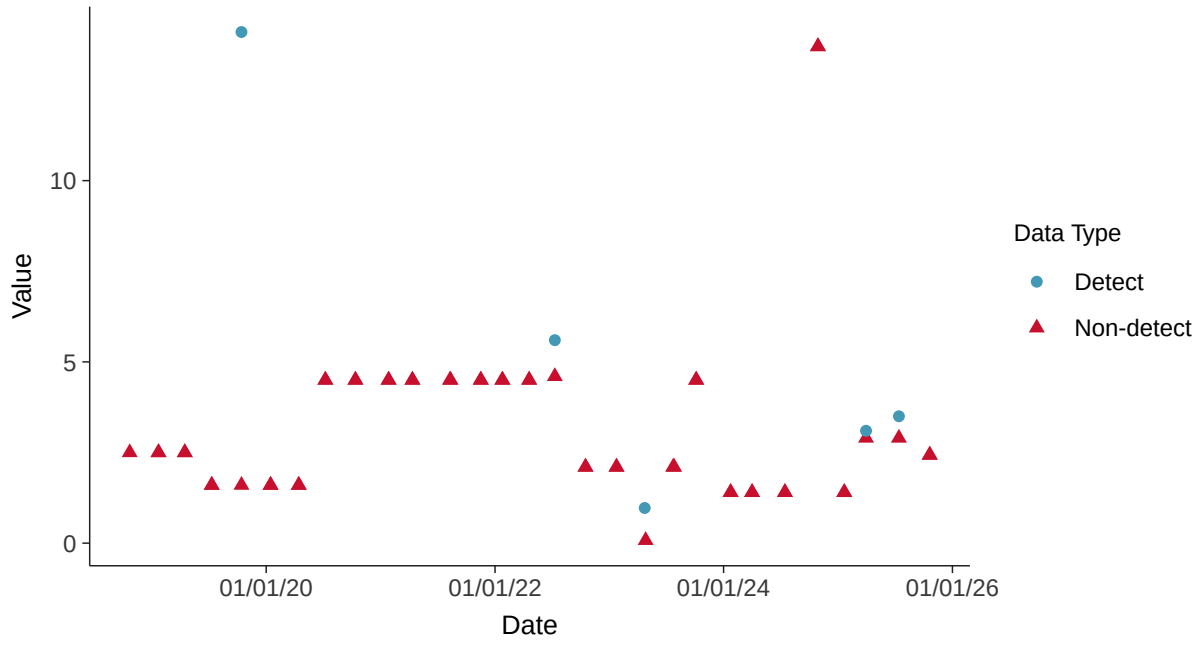


App. IV: Lead, BG-1 & BG-2

ID: 3_113

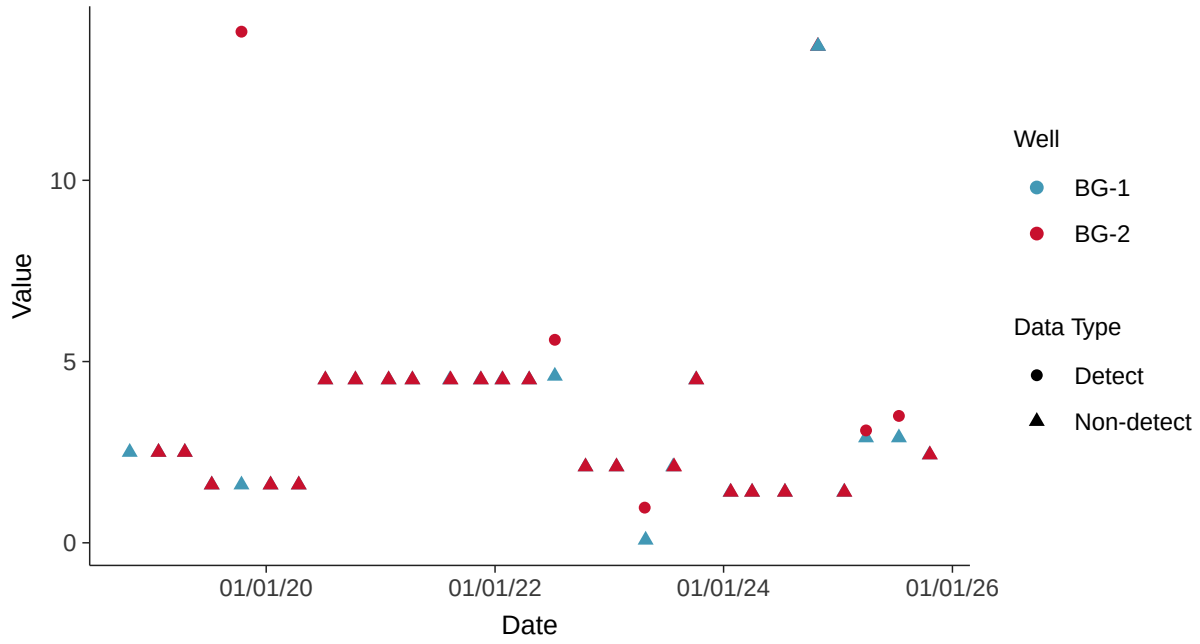
Scatter Plot

Lead, BG-1 & BG-2 (ug/L)



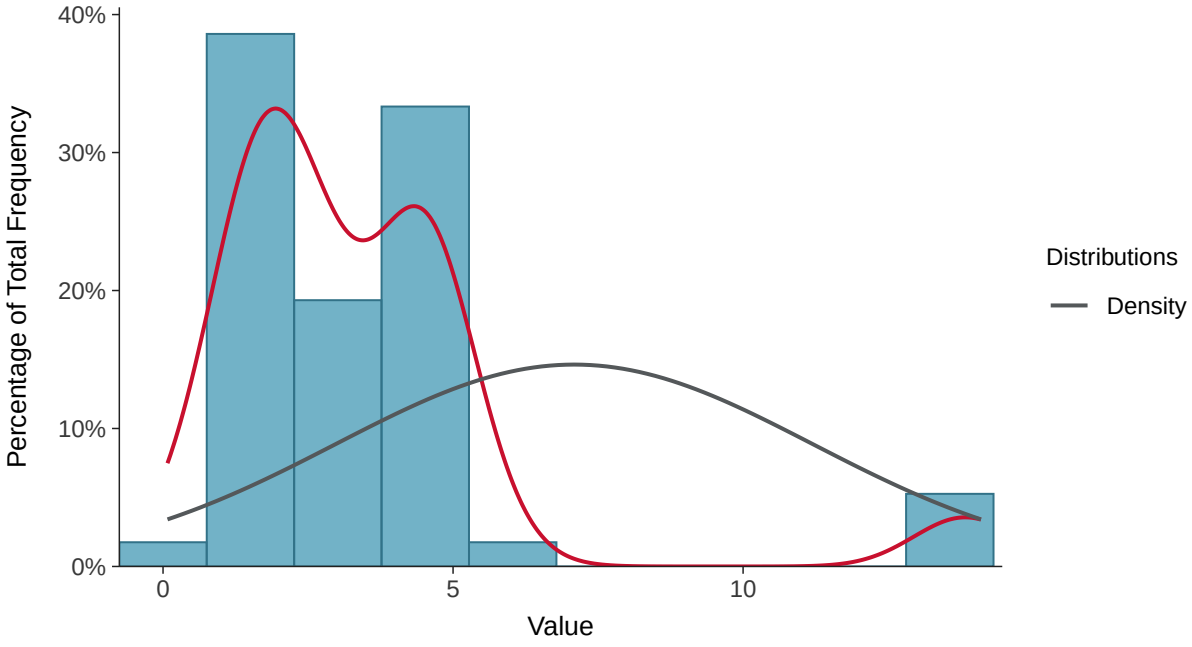
Scatter Plot by Well

Lead, BG-1 & BG-2 (ug/L)



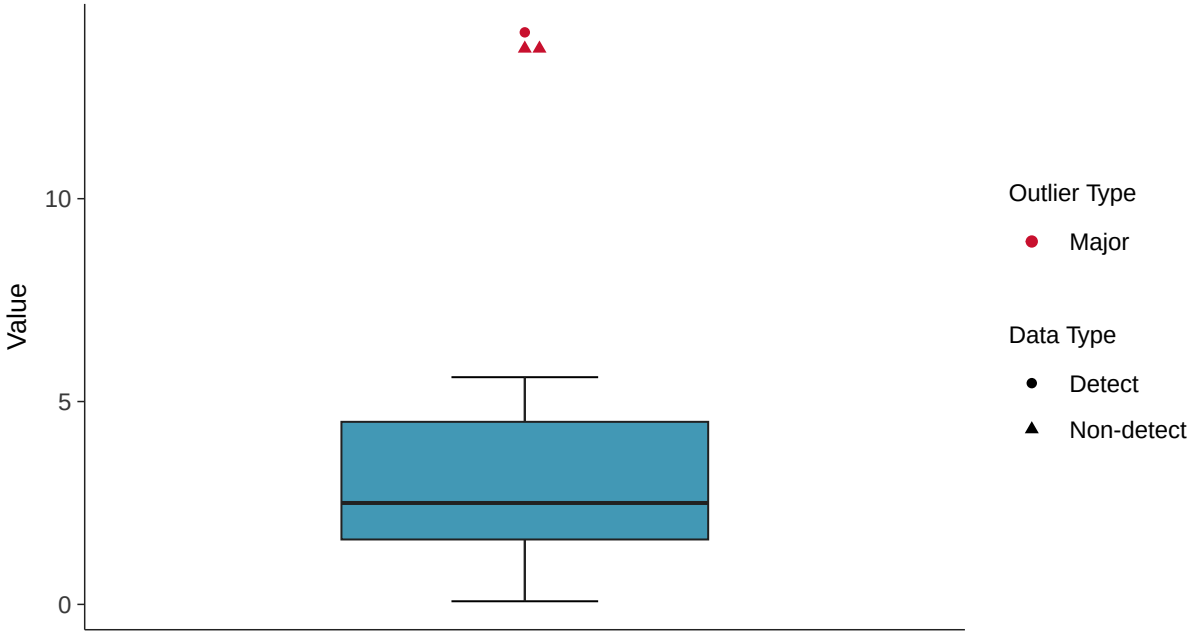
Histogram

Lead, BG-1 & BG-2 (ug/L)



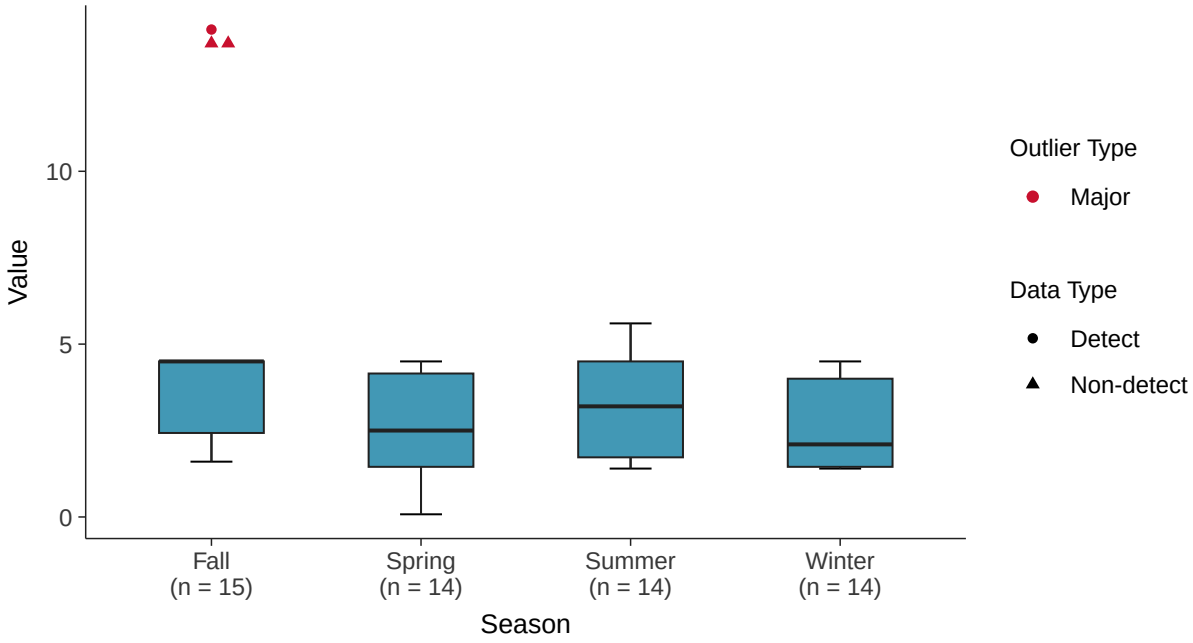
Boxplot

Lead, BG-1 & BG-2 (ug/L)



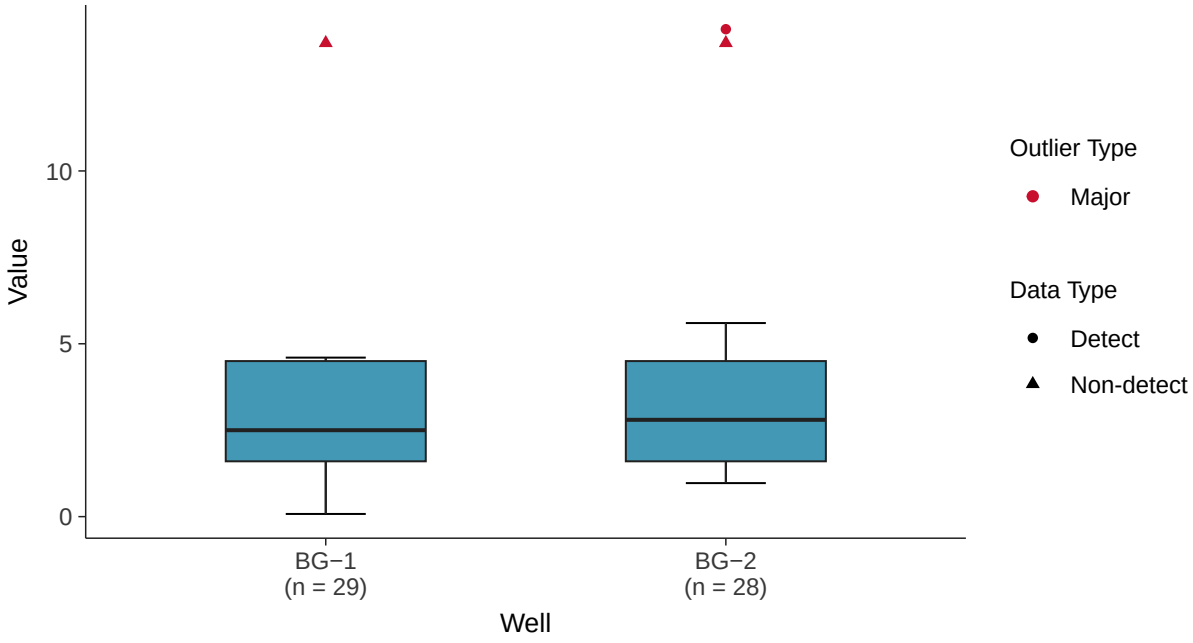
Boxplot by Season

Lead, BG-1 & BG-2 (ug/L)



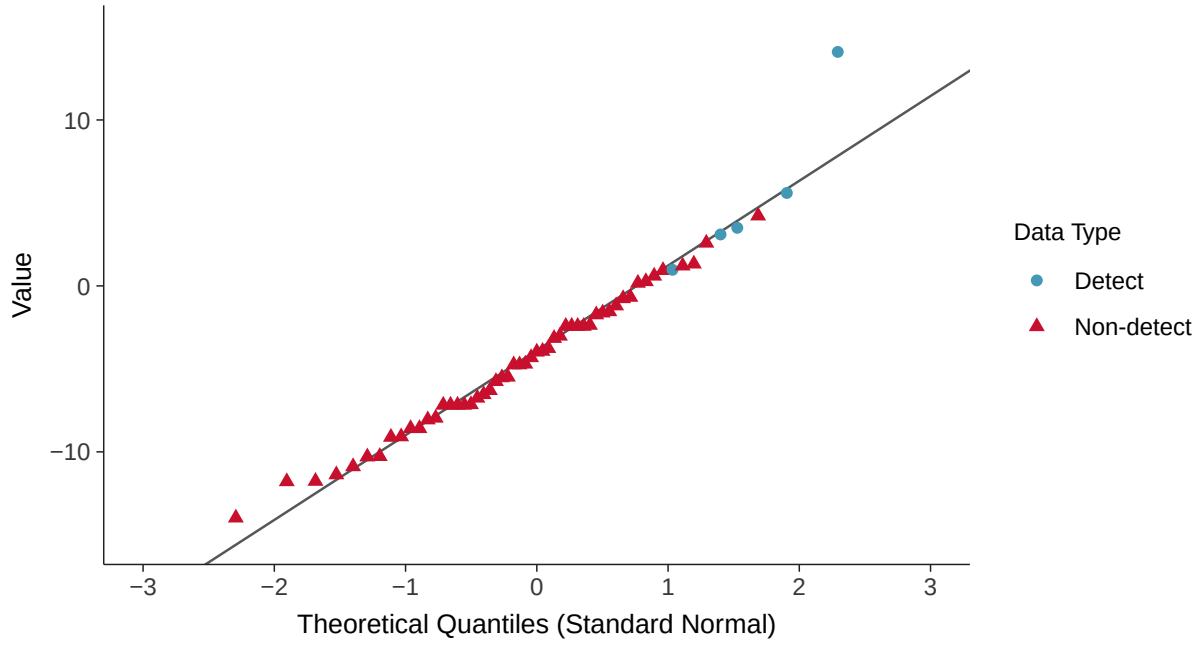
Boxplot by Well

Lead, BG-1 & BG-2 (ug/L)



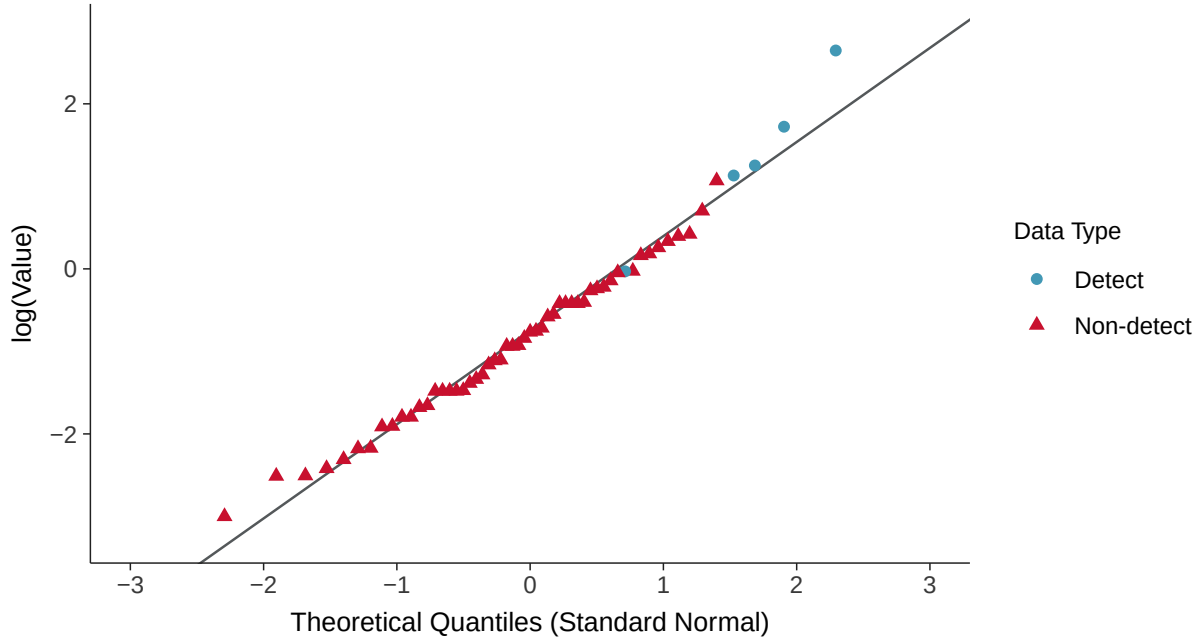
Normal Q-Q plot using ROS Imputed Estimates

Lead, BG-1 & BG-2 (ug/L)



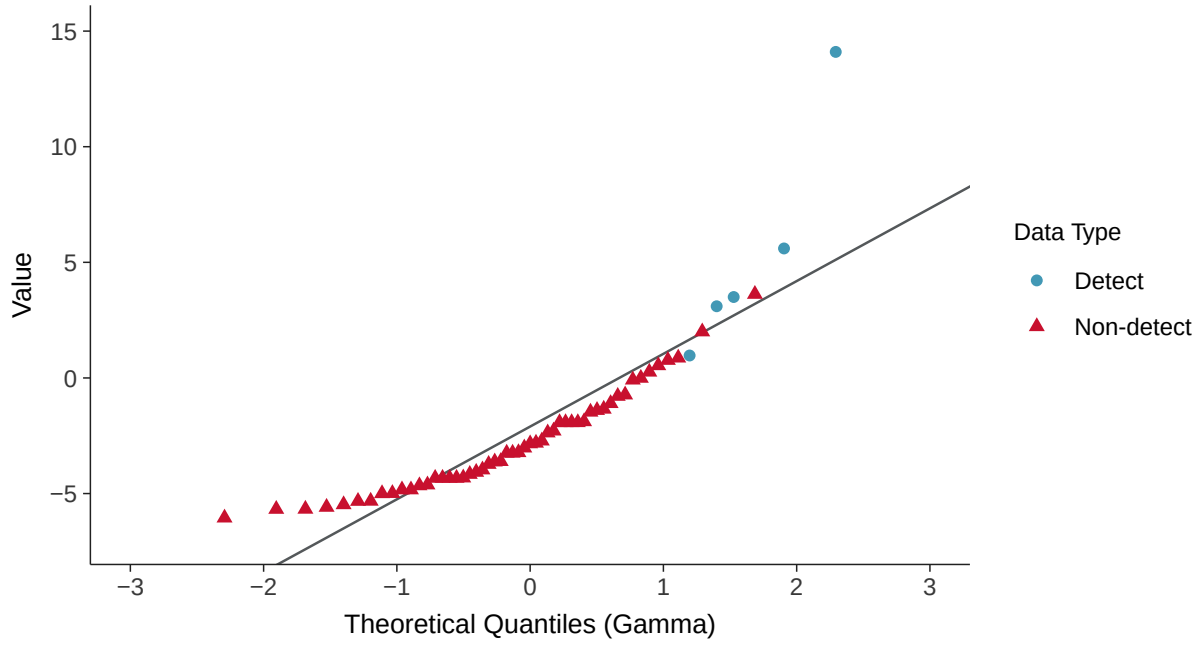
Lognormal Q-Q plot using ROS Imputed Estimates

Lead, BG-1 & BG-2 (ug/L)



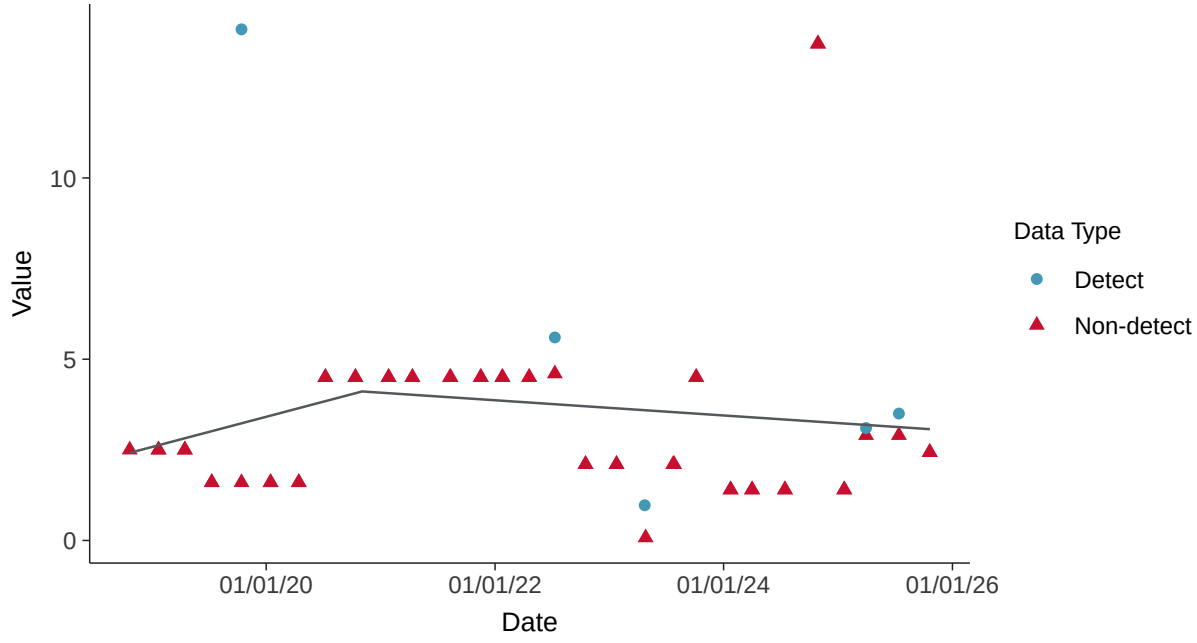
Gamma Q-Q plot using ROS Imputed Estimates

Lead, BG-1 & BG-2 (ug/L)



Trend Regression: Piecewise Linear-Linear

Lead, BG-1 & BG-2 (ug/L)

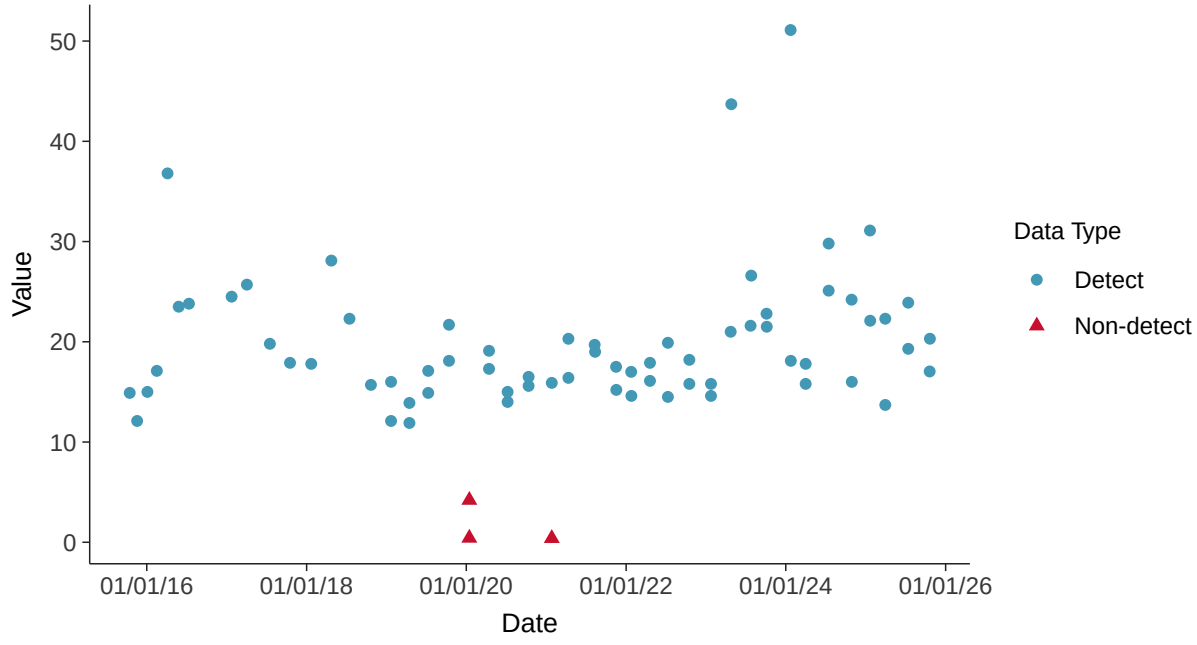


App. IV: Lithium, BG-1 & BG-2

ID: 3_114

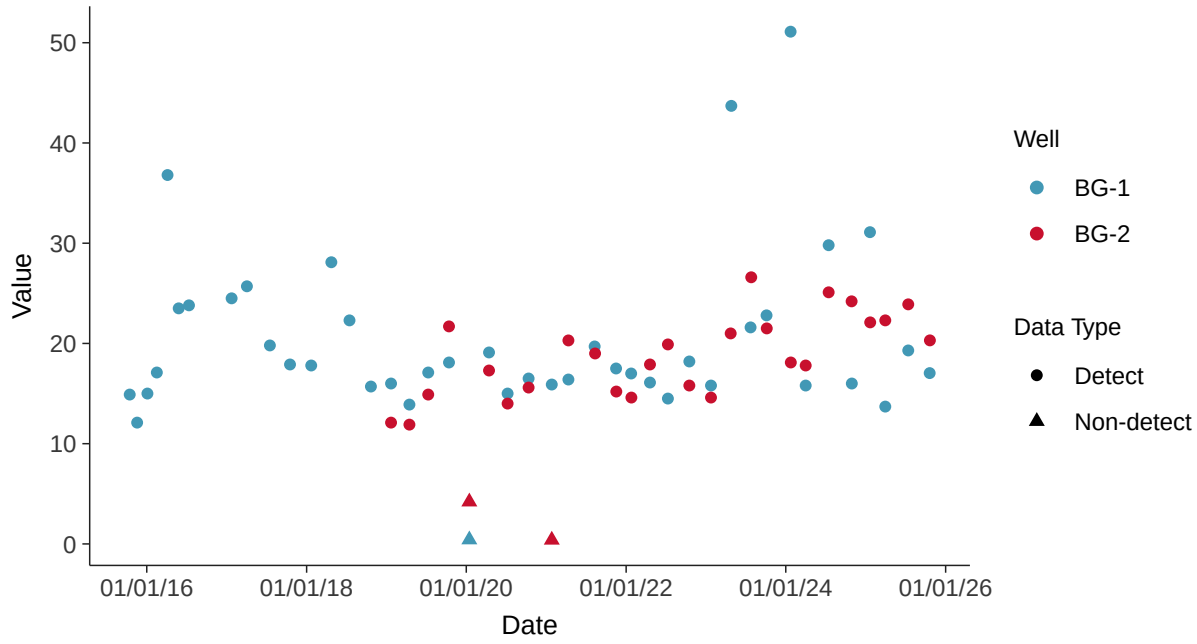
Scatter Plot

Lithium, BG-1 & BG-2 (ug/L)



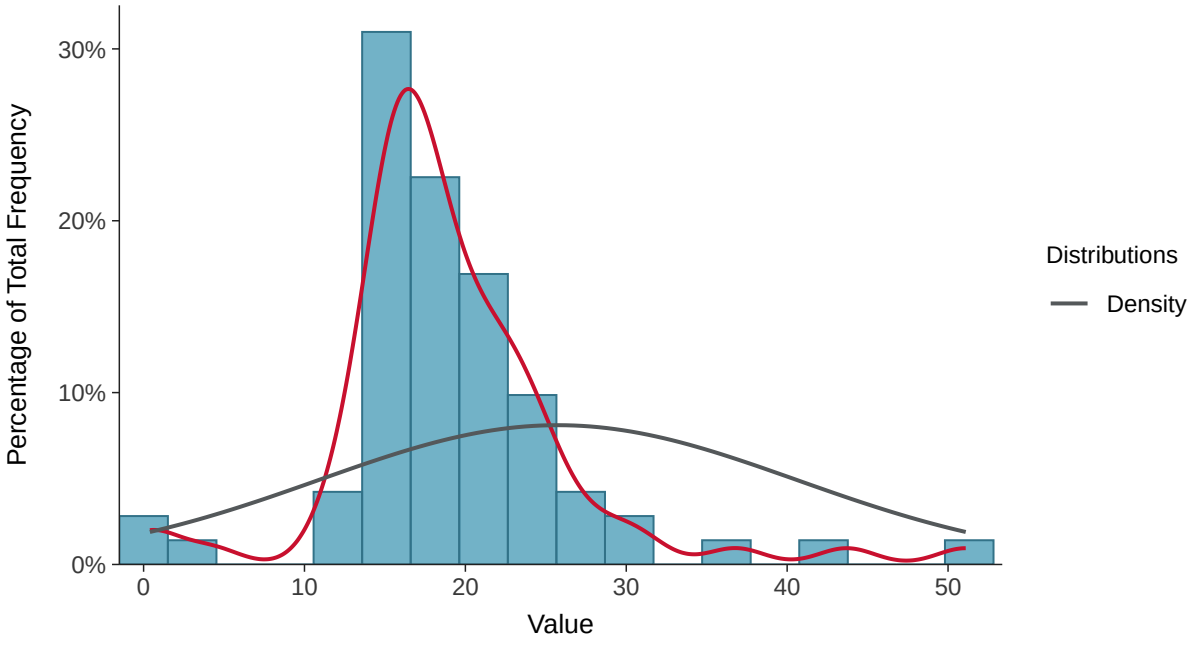
Scatter Plot by Well

Lithium, BG-1 & BG-2 (ug/L)



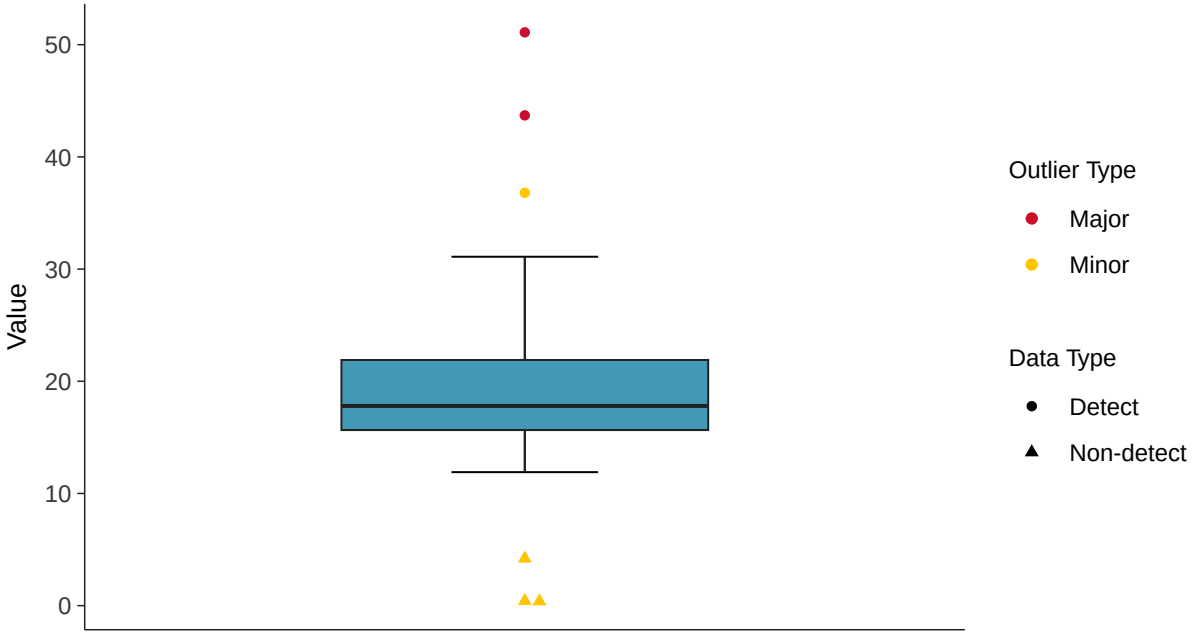
Histogram

Lithium, BG-1 & BG-2 (ug/L)



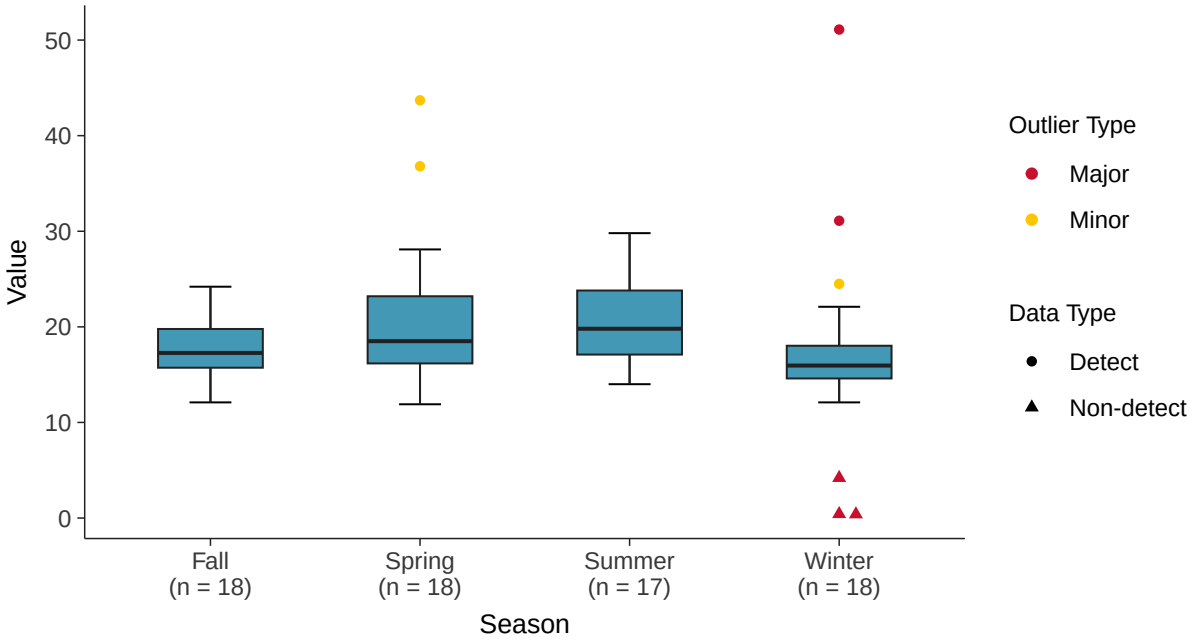
Boxplot

Lithium, BG-1 & BG-2 (ug/L)



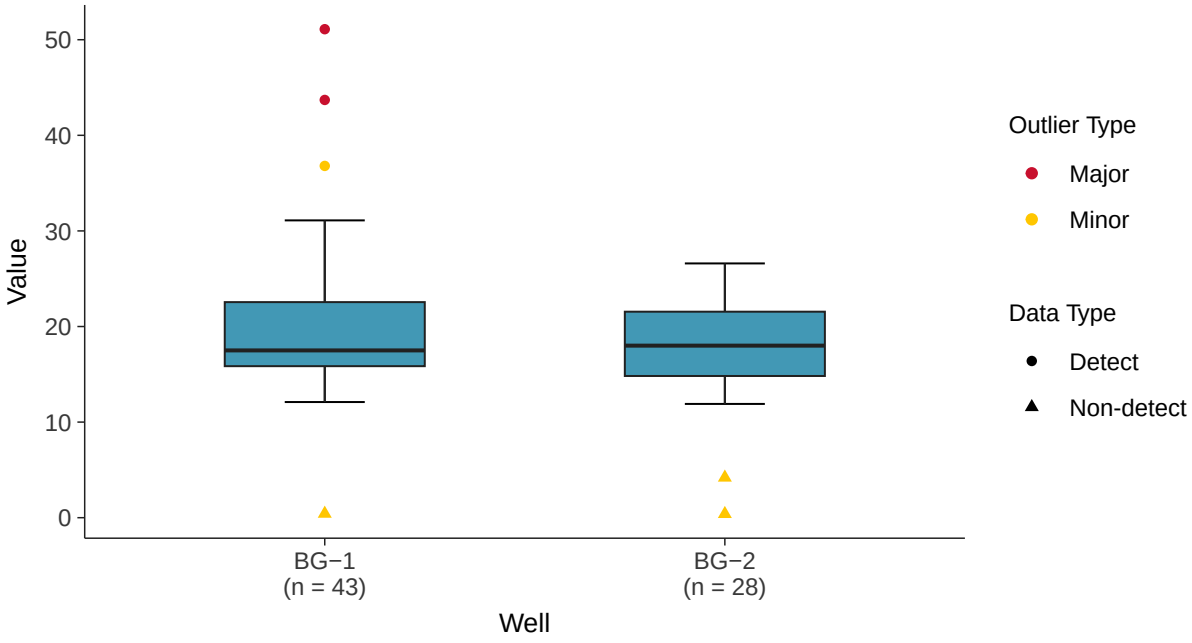
Boxplot by Season

Lithium, BG-1 & BG-2 (ug/L)



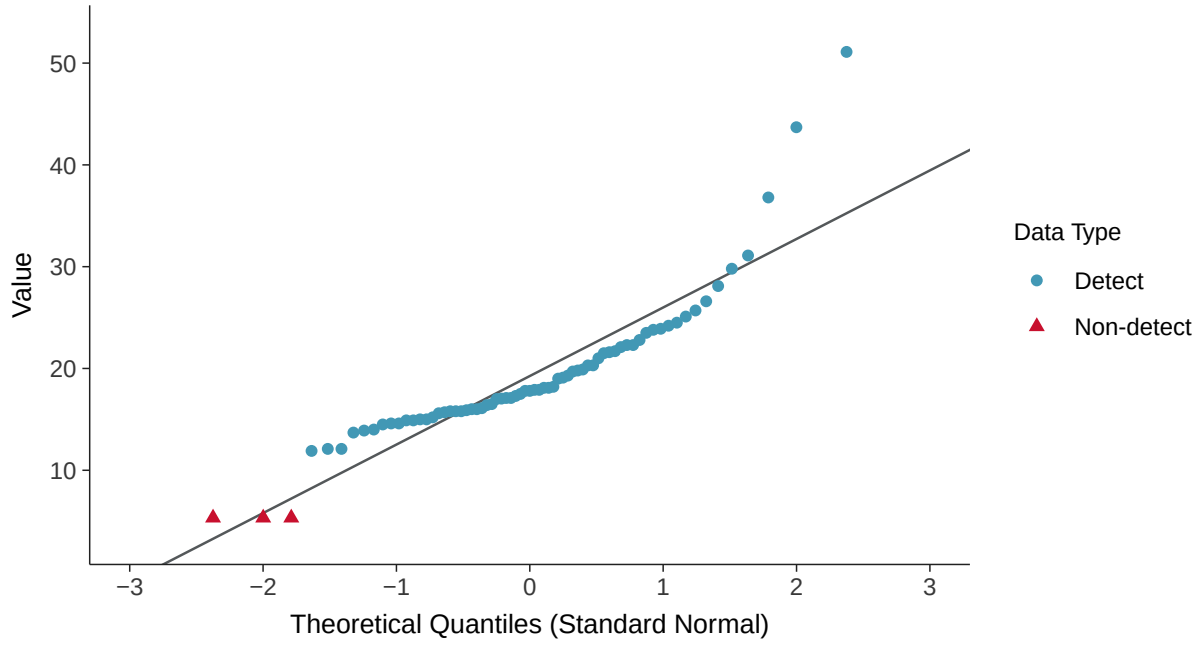
Boxplot by Well

Lithium, BG-1 & BG-2 (ug/L)



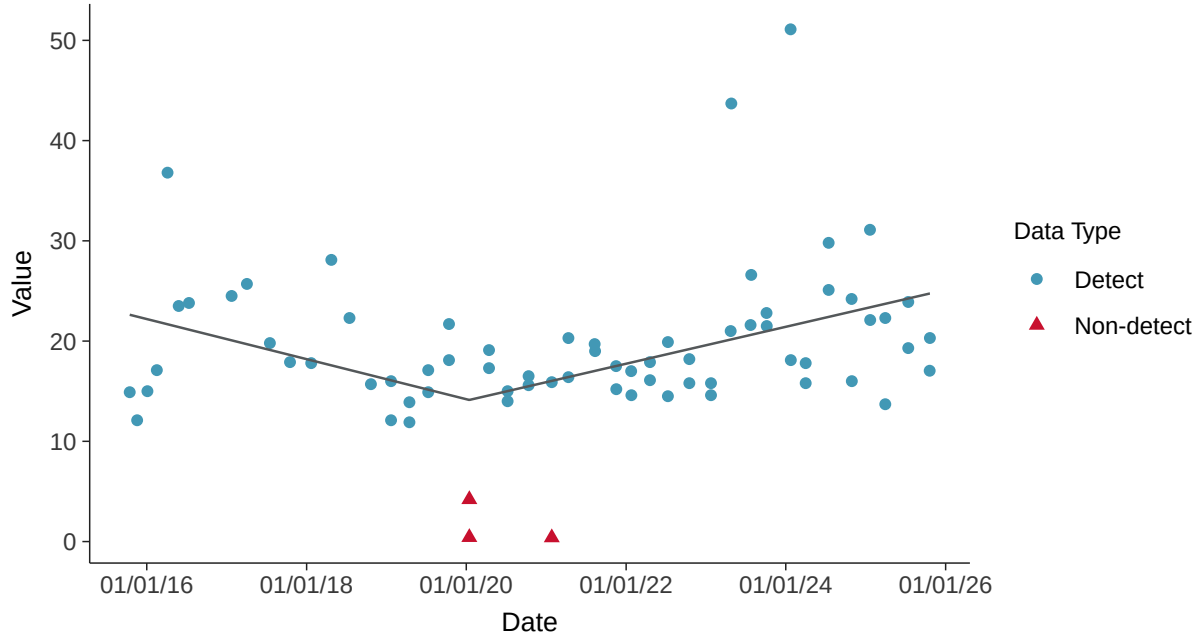
Normal Q-Q plot using ROS Imputed Estimates

Lithium, BG-1 & BG-2 (ug/L)



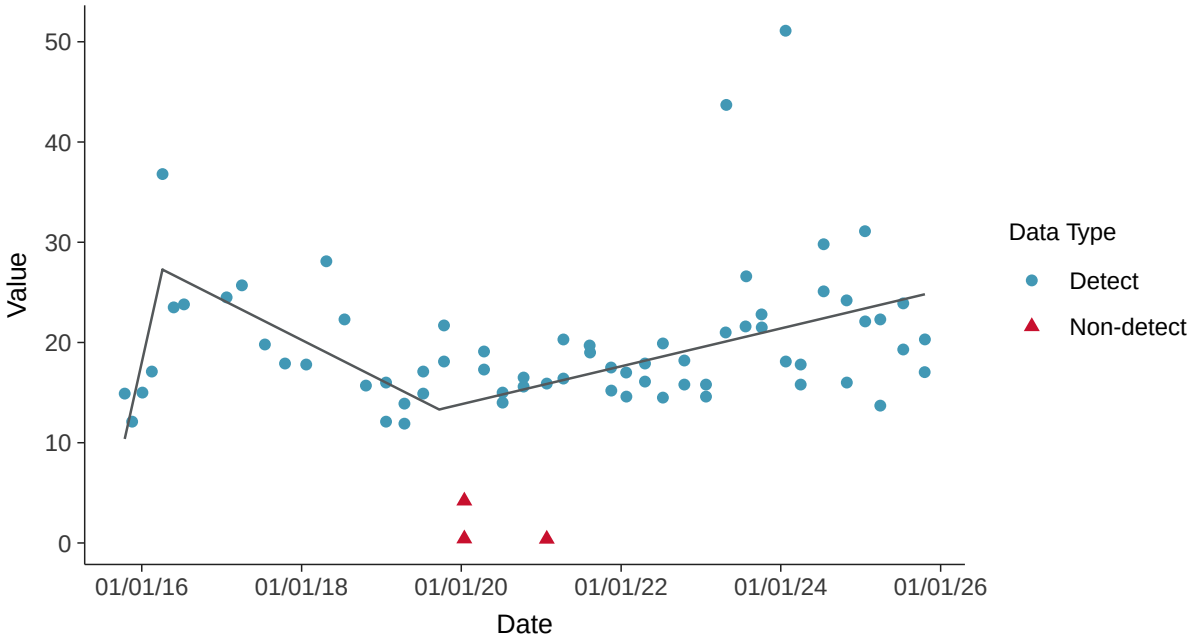
Trend Regression: Piecewise Linear-Linear

Lithium, BG-1 & BG-2 (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Lithium, BG-1 & BG-2 (ug/L)

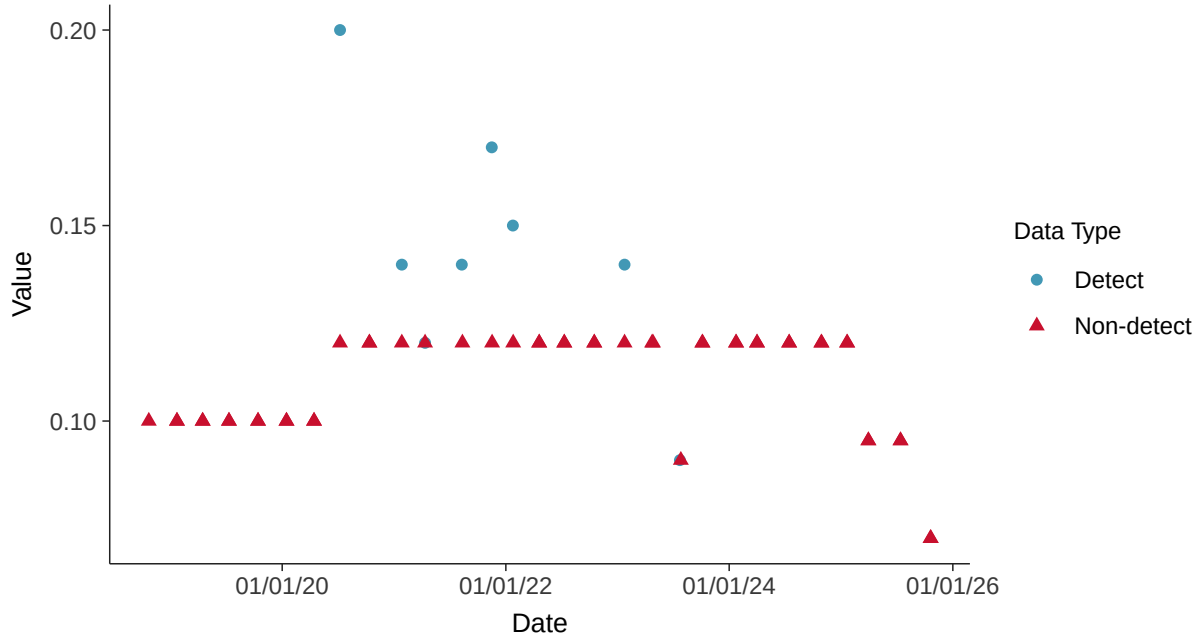


App. IV: Mercury, BG-1 & BG-2

ID: 3_115

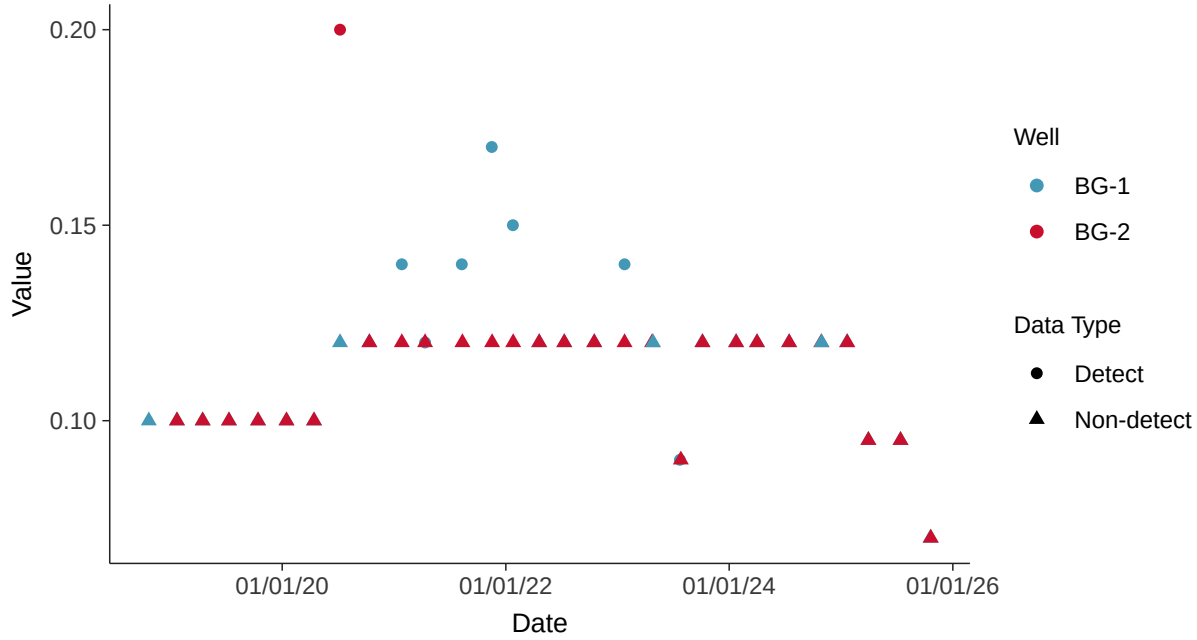
Scatter Plot

Mercury, BG-1 & BG-2 (ug/L)



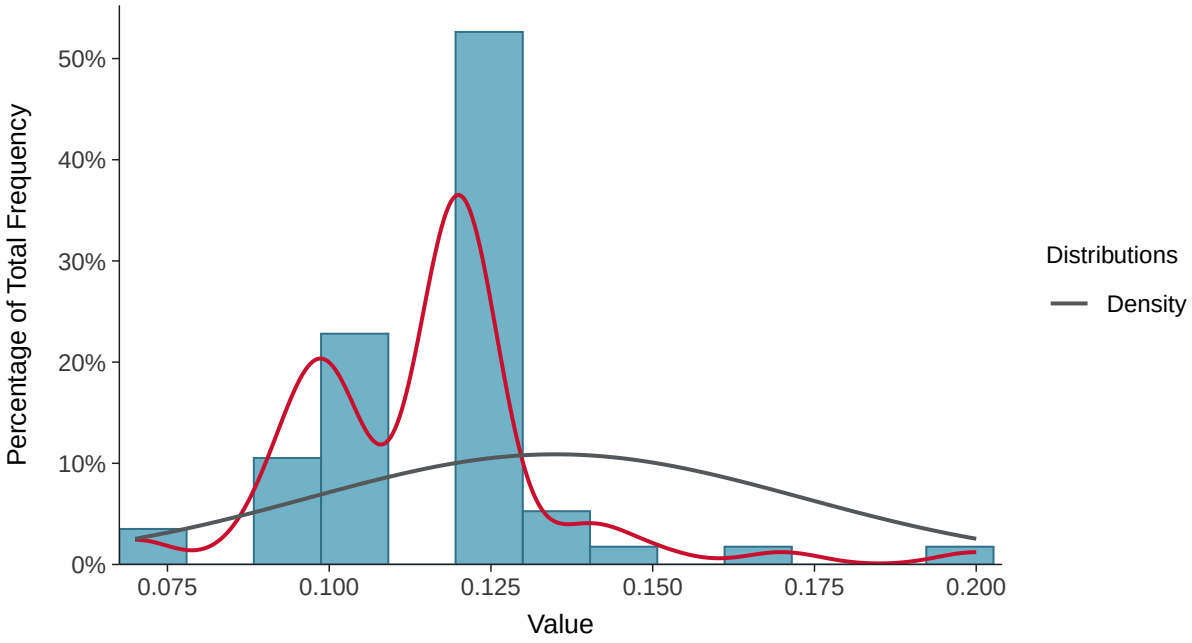
Scatter Plot by Well

Mercury, BG-1 & BG-2 (ug/L)



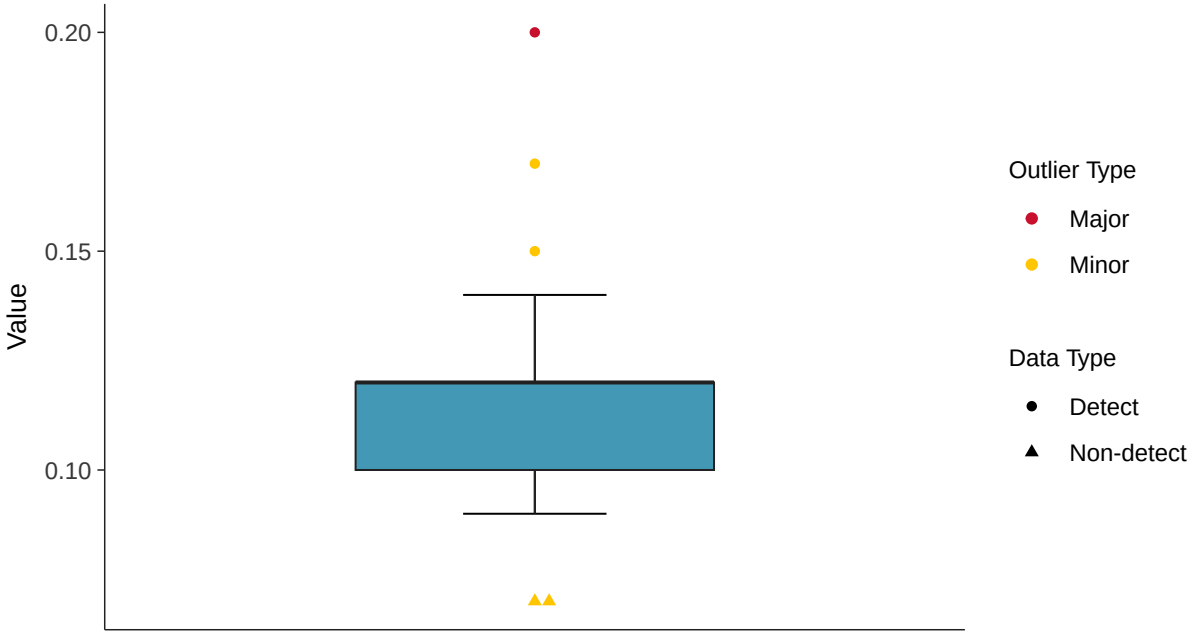
Histogram

Mercury, BG-1 & BG-2 (ug/L)



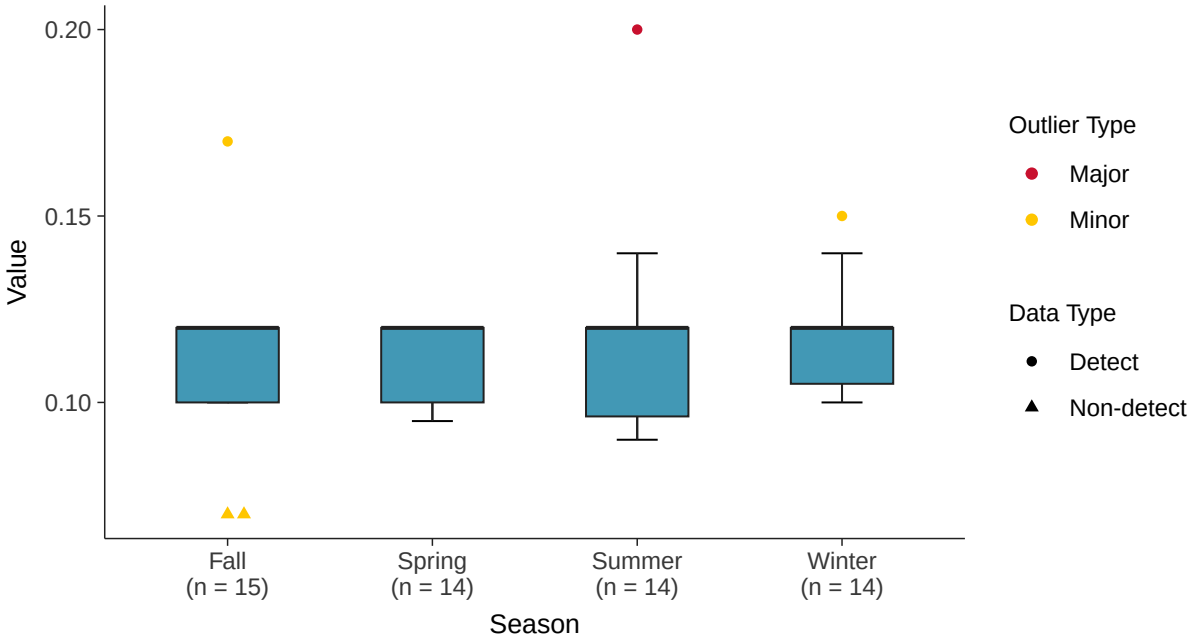
Boxplot

Mercury, BG-1 & BG-2 (ug/L)



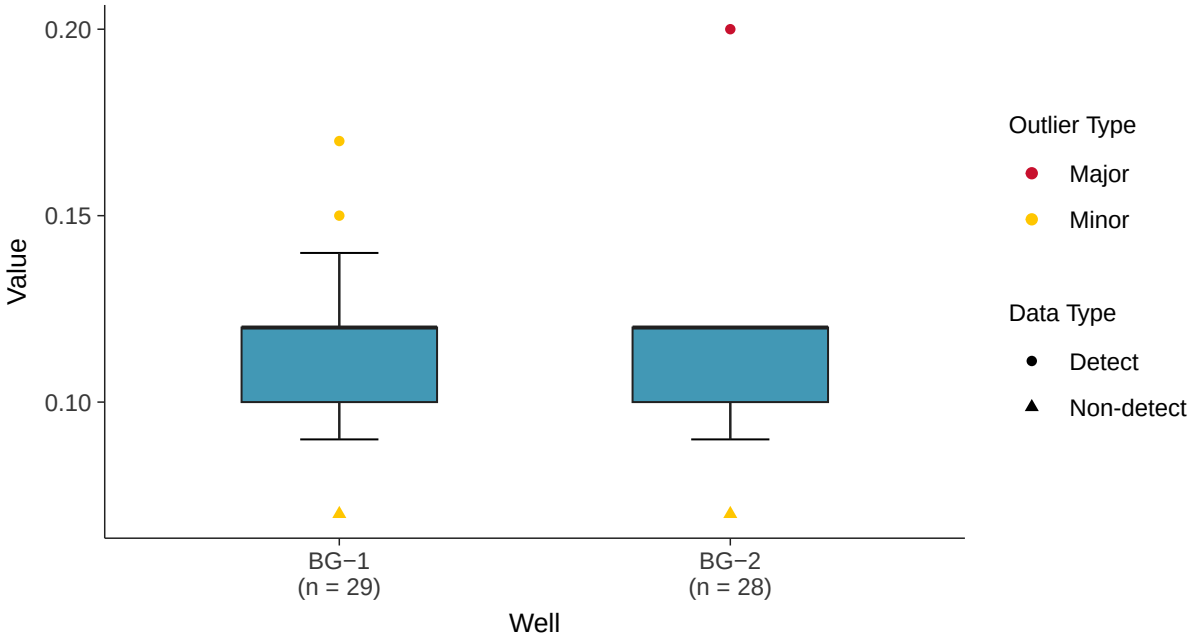
Boxplot by Season

Mercury, BG-1 & BG-2 (ug/L)



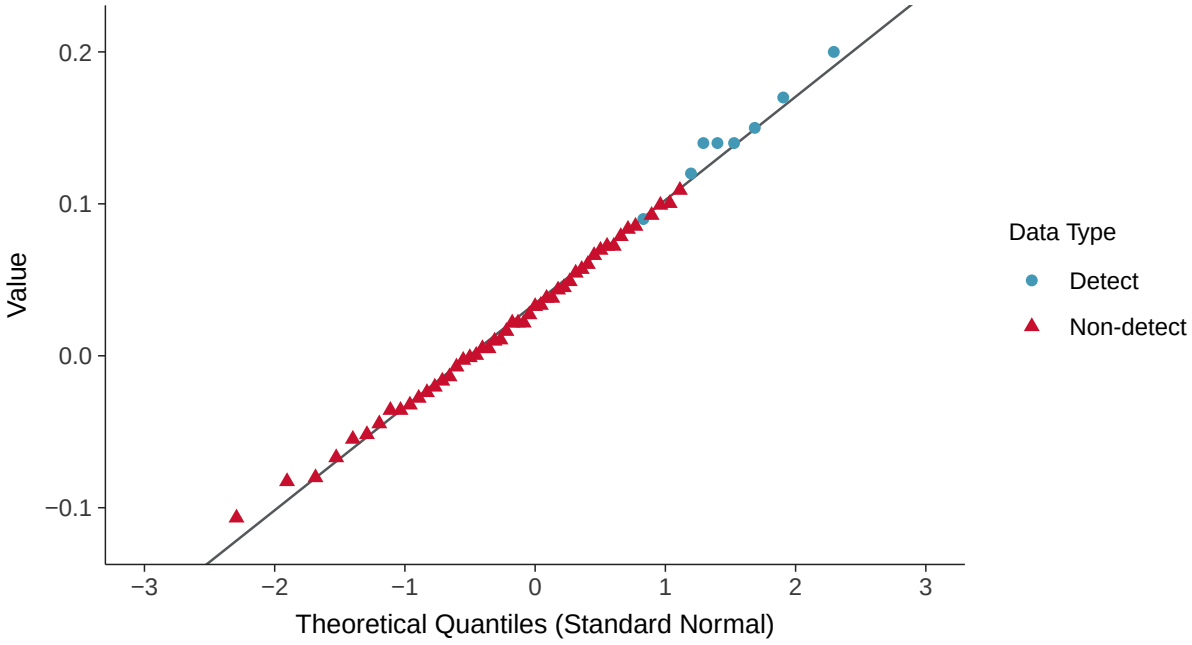
Boxplot by Well

Mercury, BG-1 & BG-2 (ug/L)



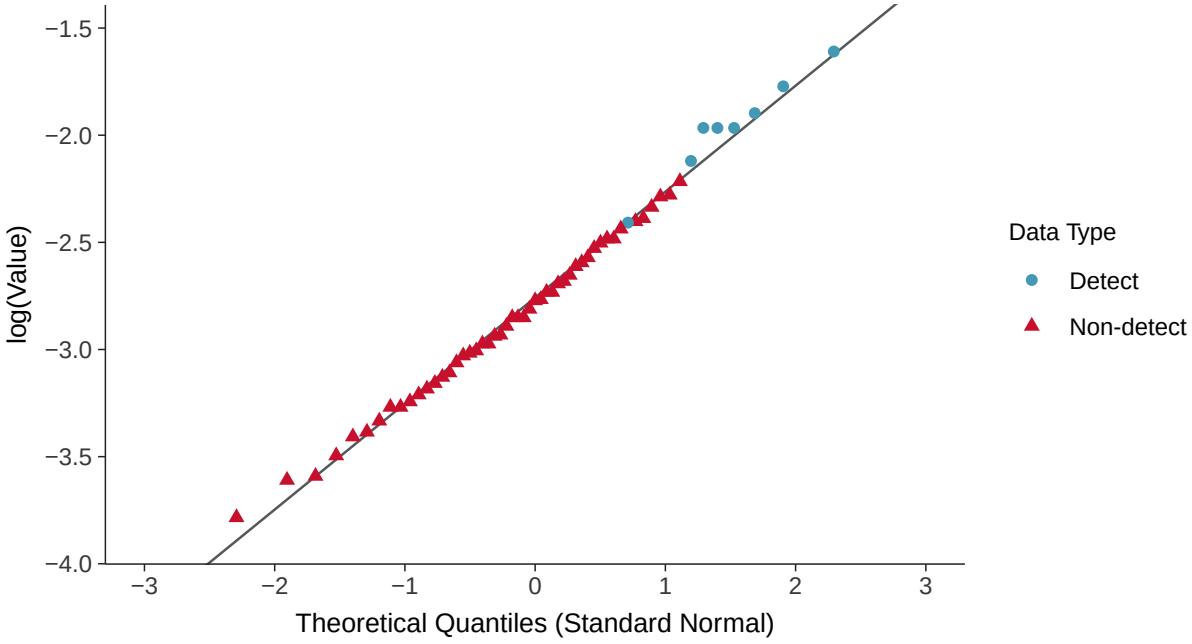
Normal Q-Q plot using ROS Imputed Estimates

Mercury, BG-1 & BG-2 (ug/L)



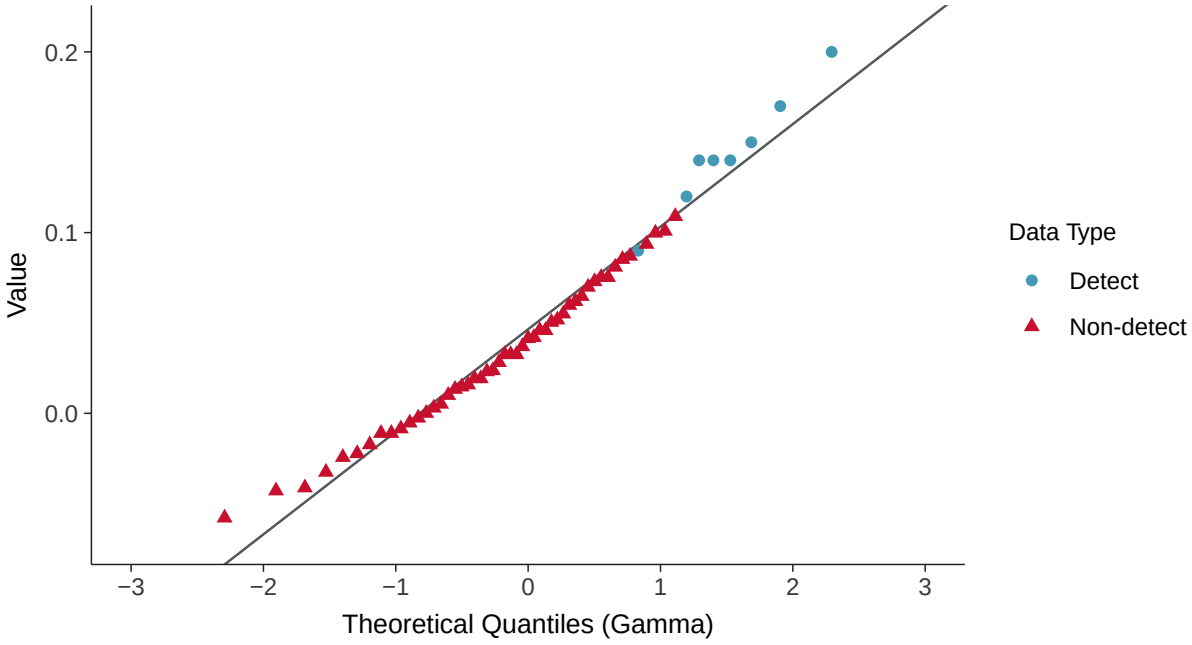
Lognormal Q-Q plot using ROS Imputed Estimates

Mercury, BG-1 & BG-2 (ug/L)



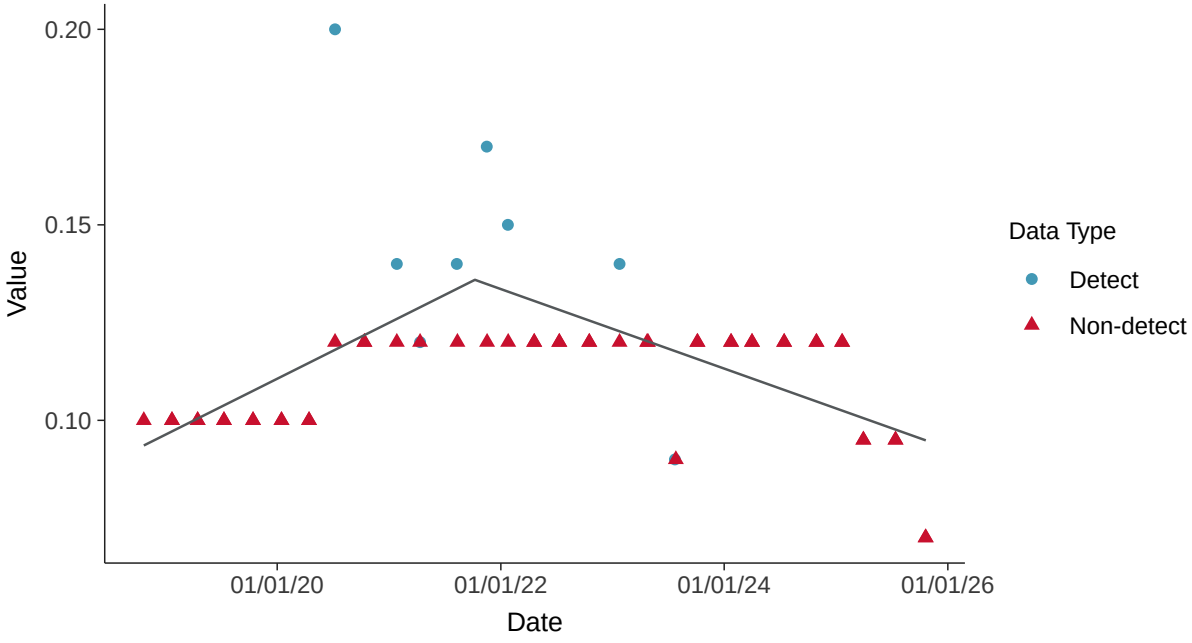
Gamma Q-Q plot using ROS Imputed Estimates

Mercury, BG-1 & BG-2 (ug/L)



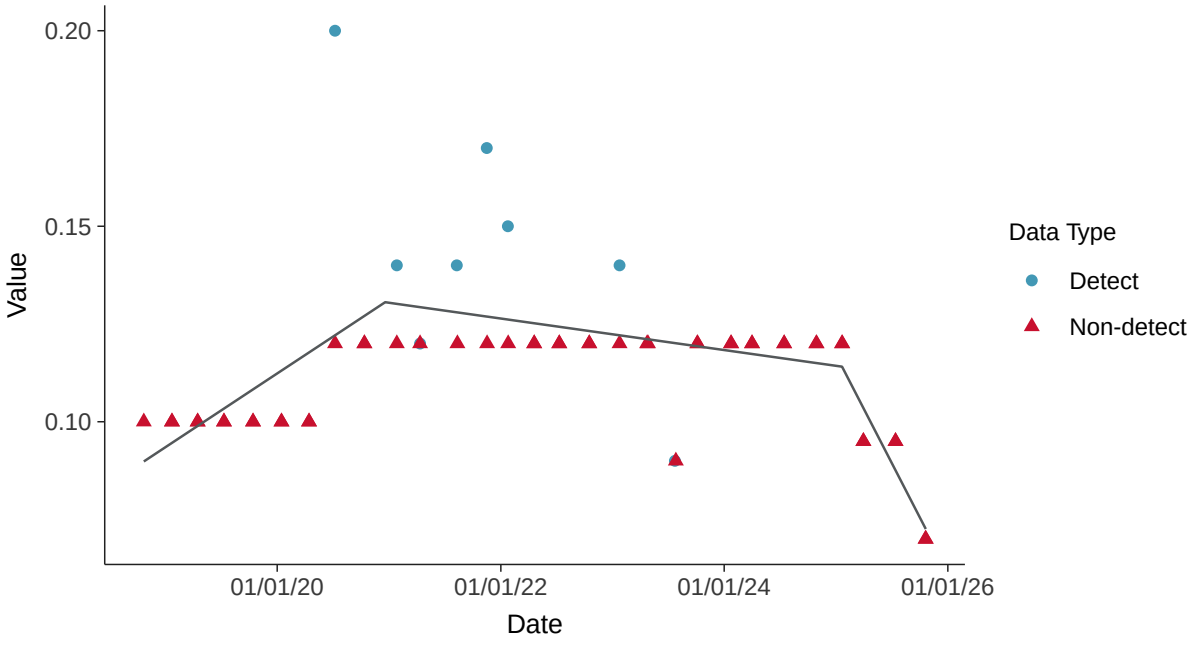
Trend Regression: Piecewise Linear-Linear

Mercury, BG-1 & BG-2 (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Mercury, BG-1 & BG-2 (ug/L)

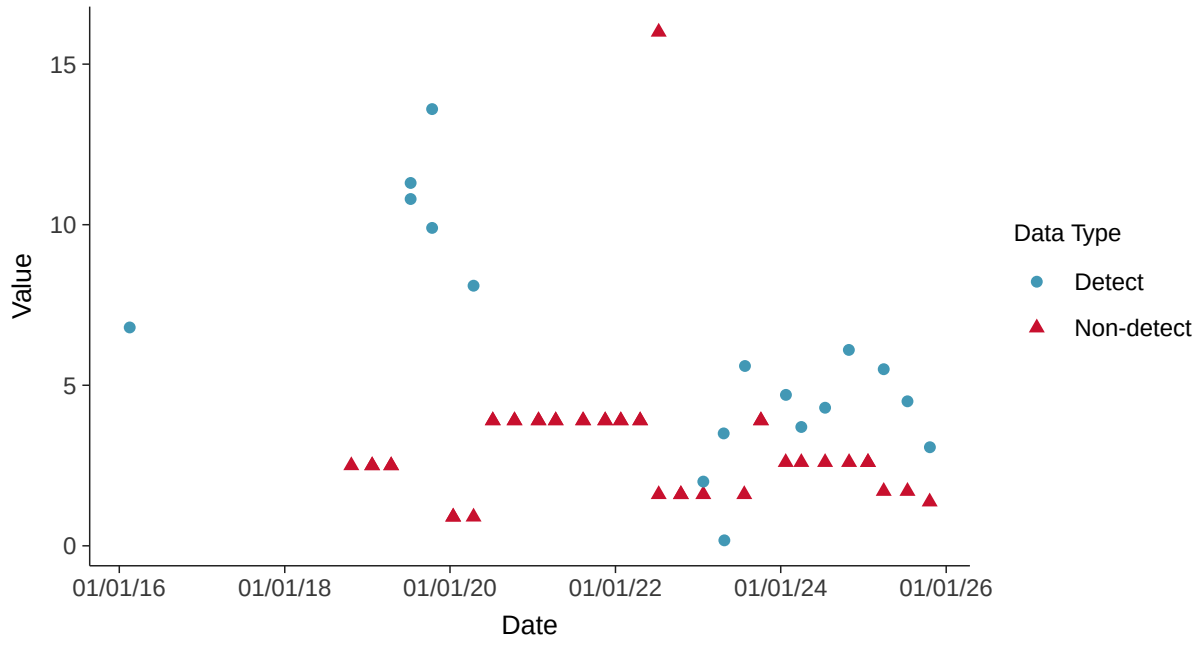


App. IV: Molybdenum, BG-1 & BG-2

ID: 3_116

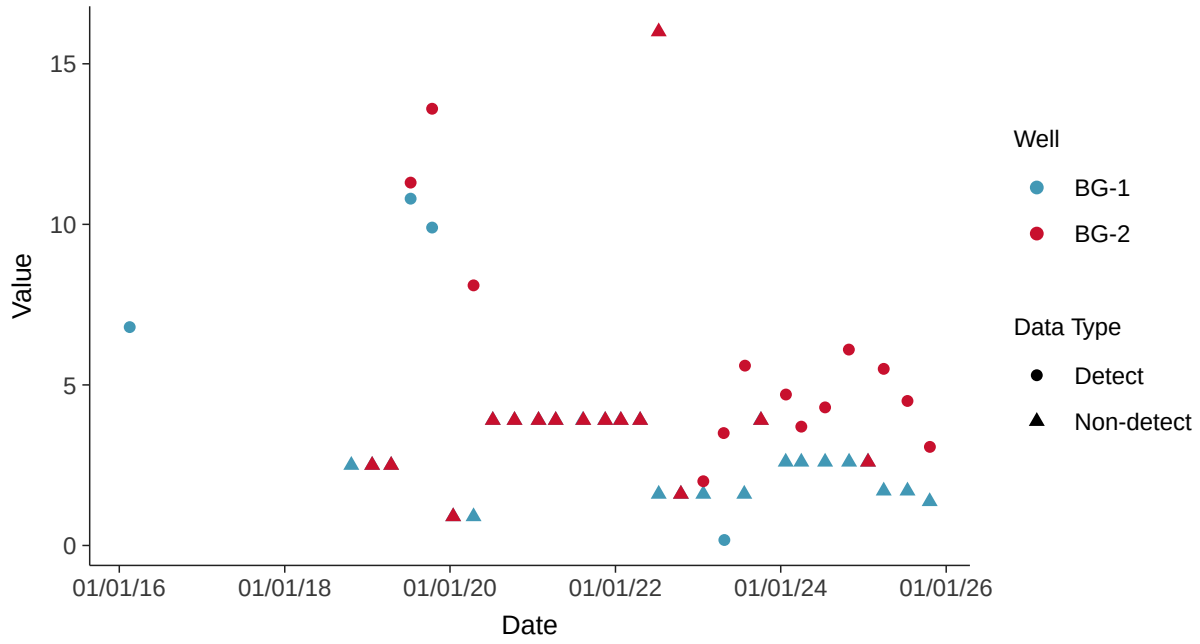
Scatter Plot

Molybdenum, BG-1 & BG-2 (ug/L)



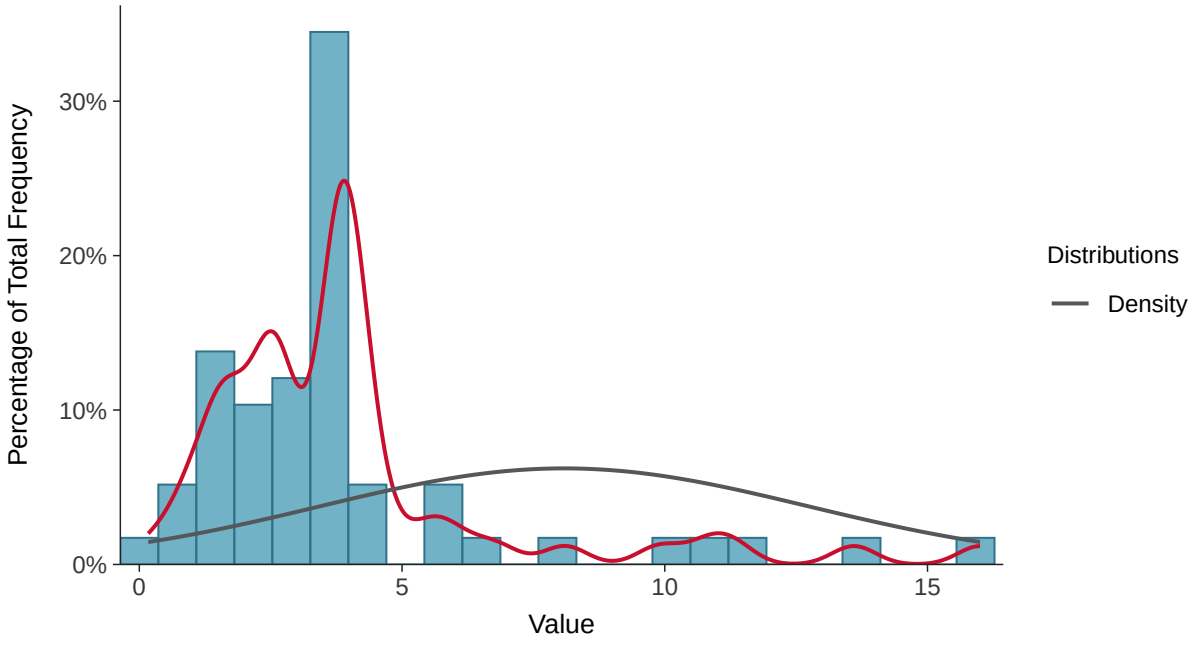
Scatter Plot by Well

Molybdenum, BG-1 & BG-2 (ug/L)



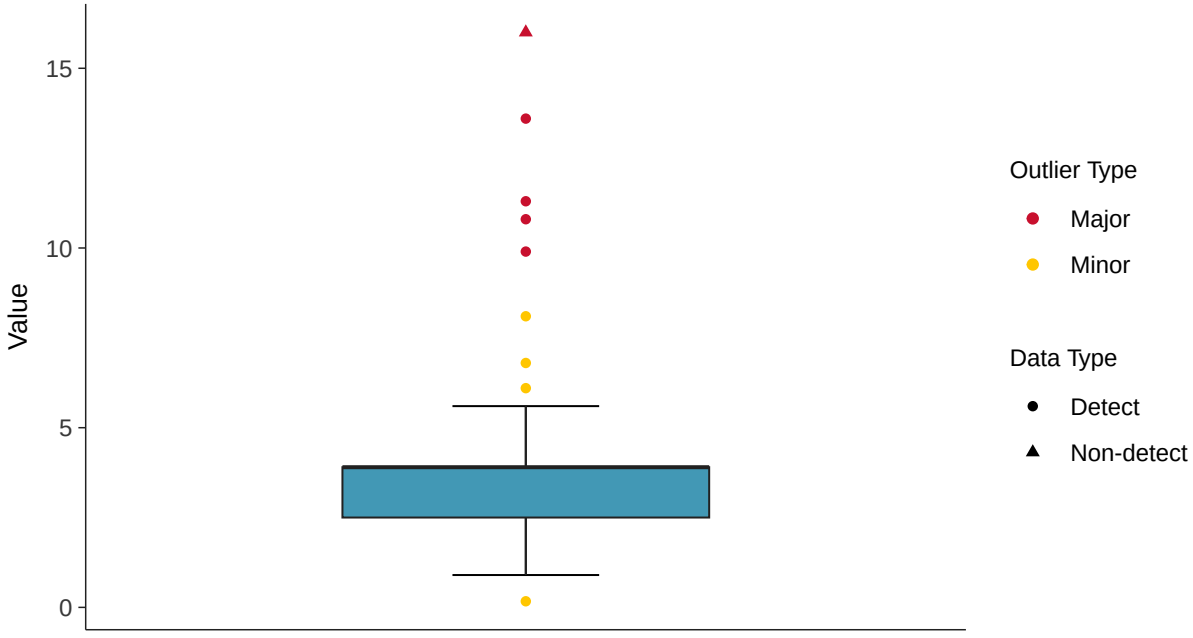
Histogram

Molybdenum, BG-1 & BG-2 (ug/L)



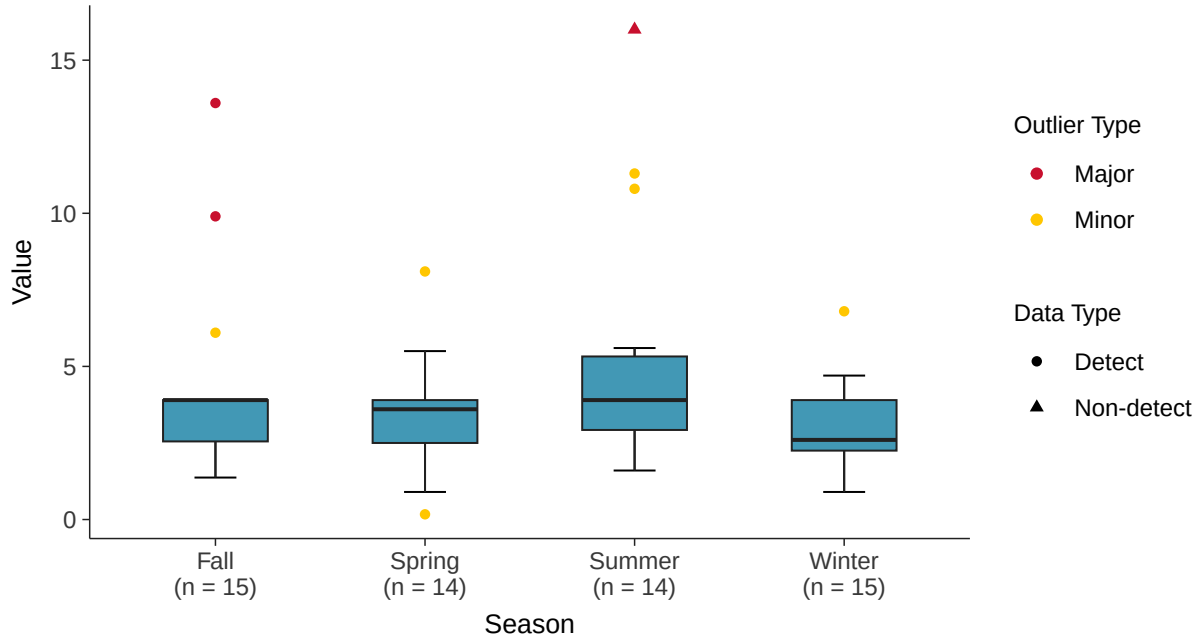
Boxplot

Molybdenum, BG-1 & BG-2 (ug/L)



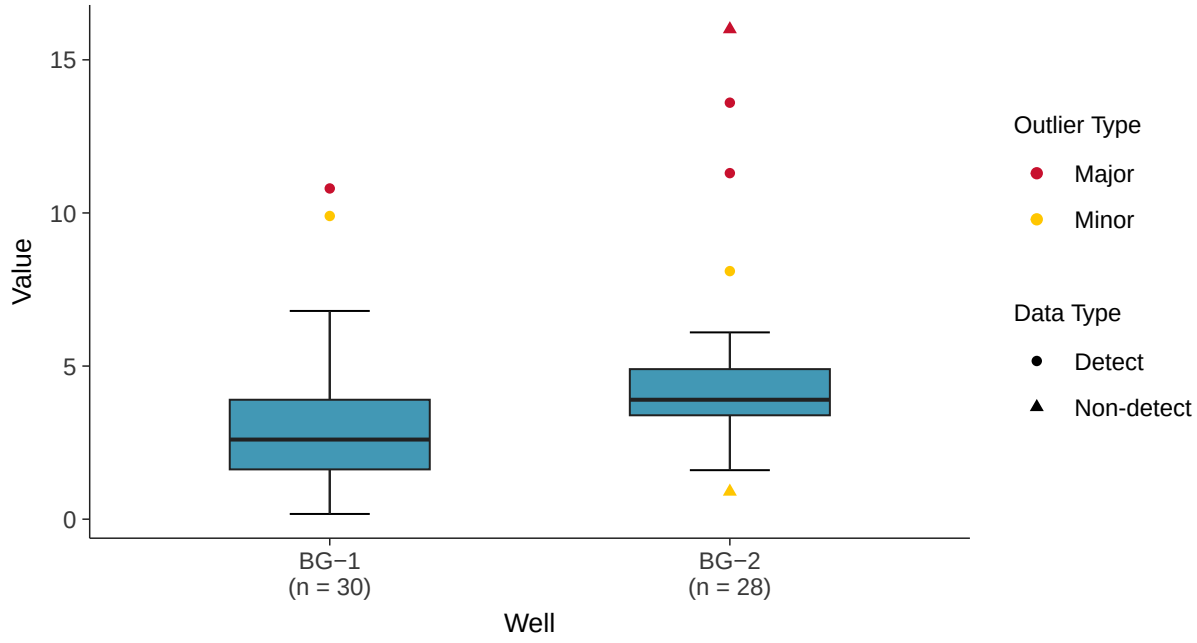
Boxplot by Season

Molybdenum, BG-1 & BG-2 (ug/L)



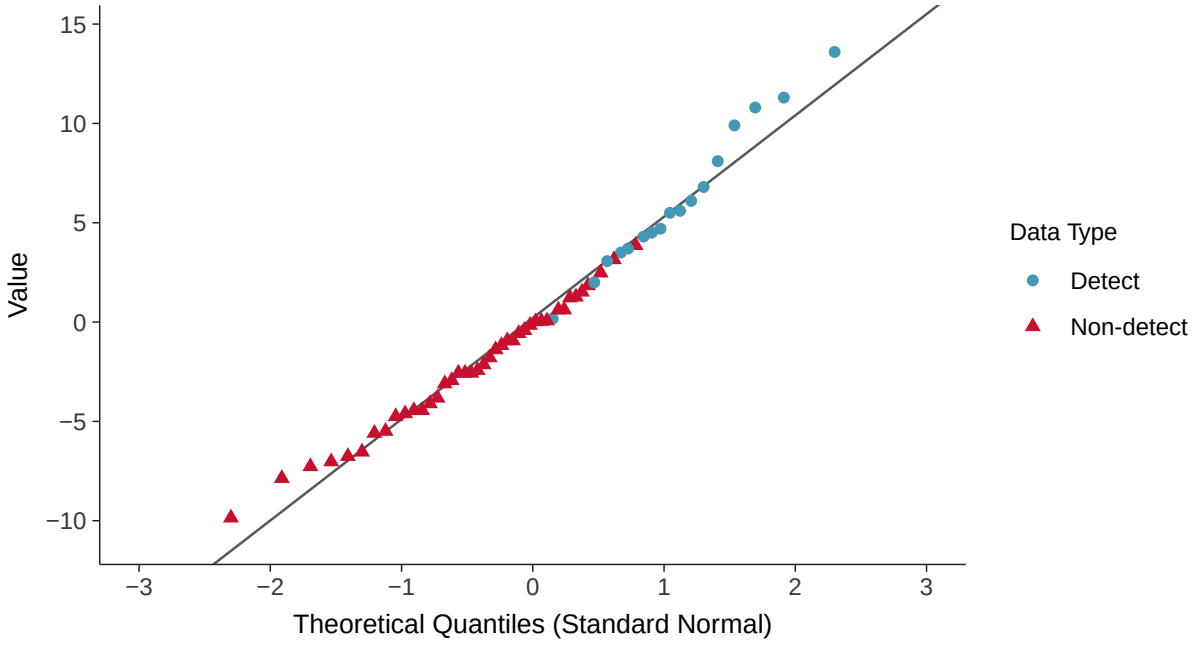
Boxplot by Well

Molybdenum, BG-1 & BG-2 (ug/L)



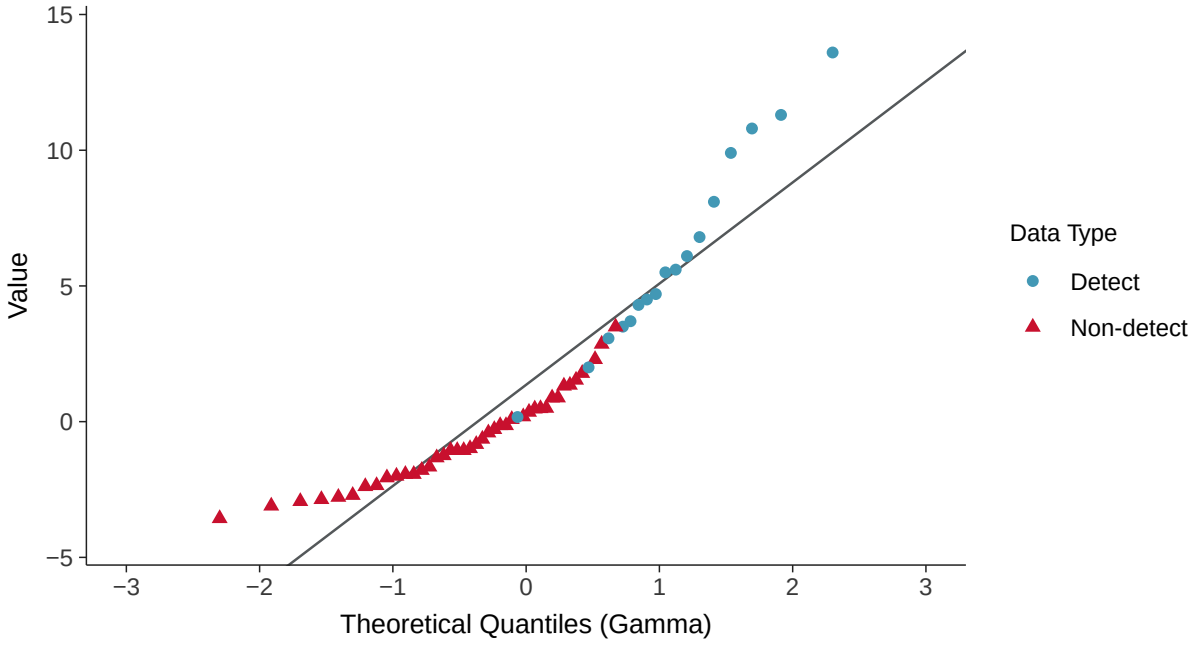
Normal Q-Q plot using ROS Imputed Estimates

Molybdenum, BG-1 & BG-2 (ug/L)



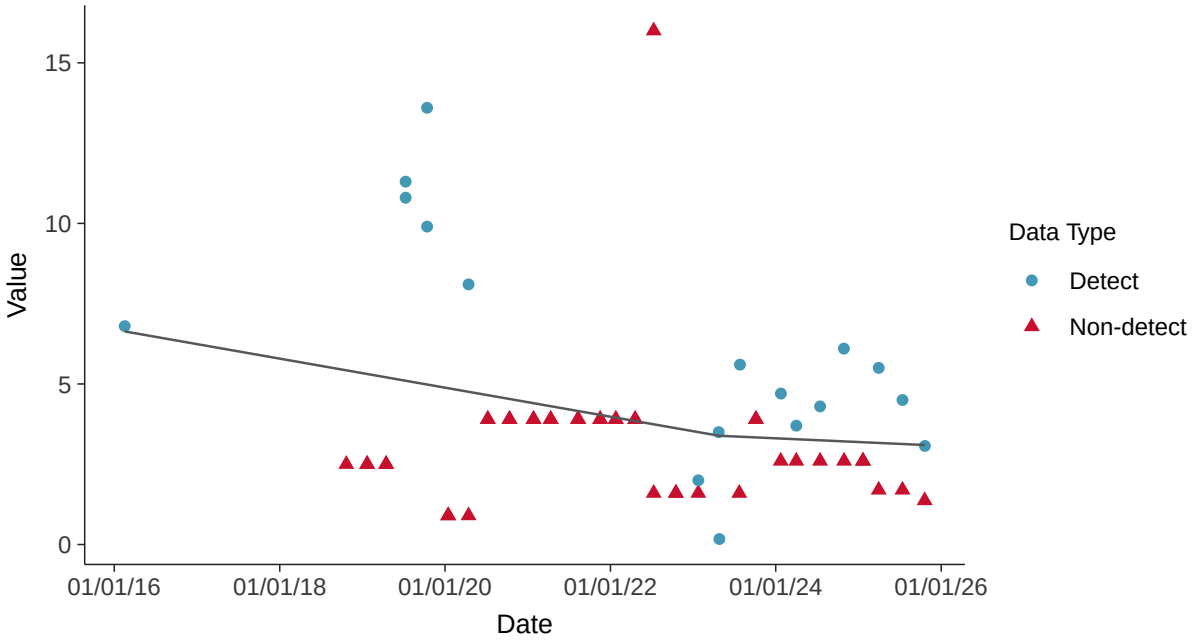
Gamma Q-Q plot using ROS Imputed Estimates

Molybdenum, BG-1 & BG-2 (ug/L)



Trend Regression: Piecewise Linear-Linear

Molybdenum, BG-1 & BG-2 (ug/L)

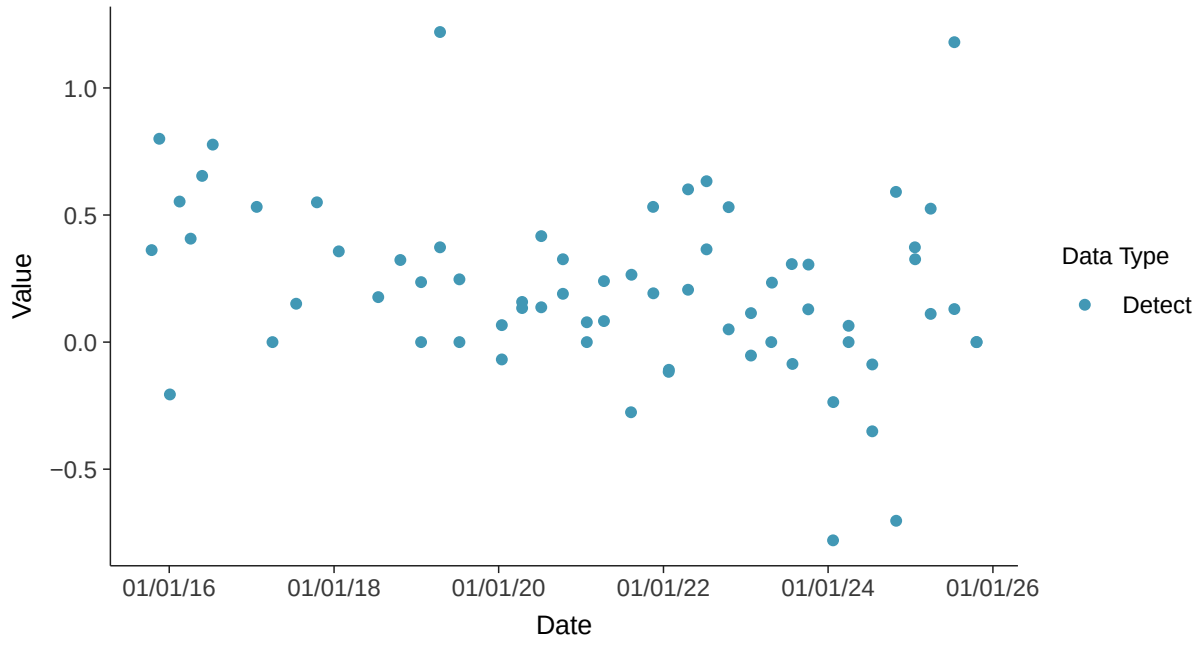


App. IV: Radium-226, BG-1 & BG-2

ID: 3_119

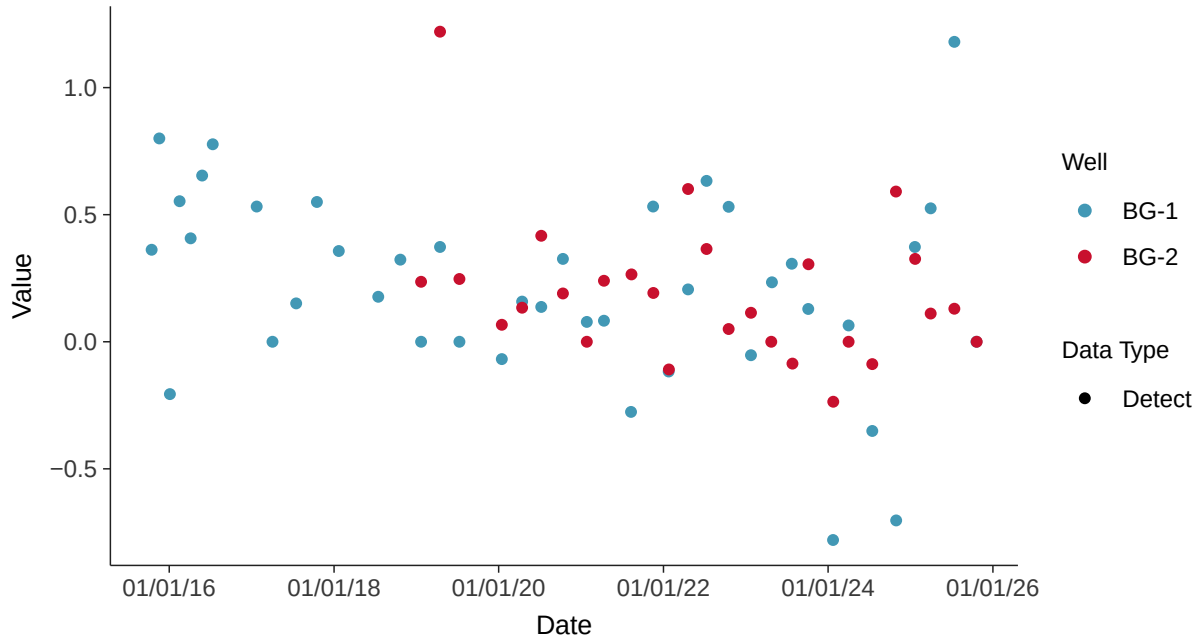
Scatter Plot

Radium-226, BG-1 & BG-2 (pCi/L)



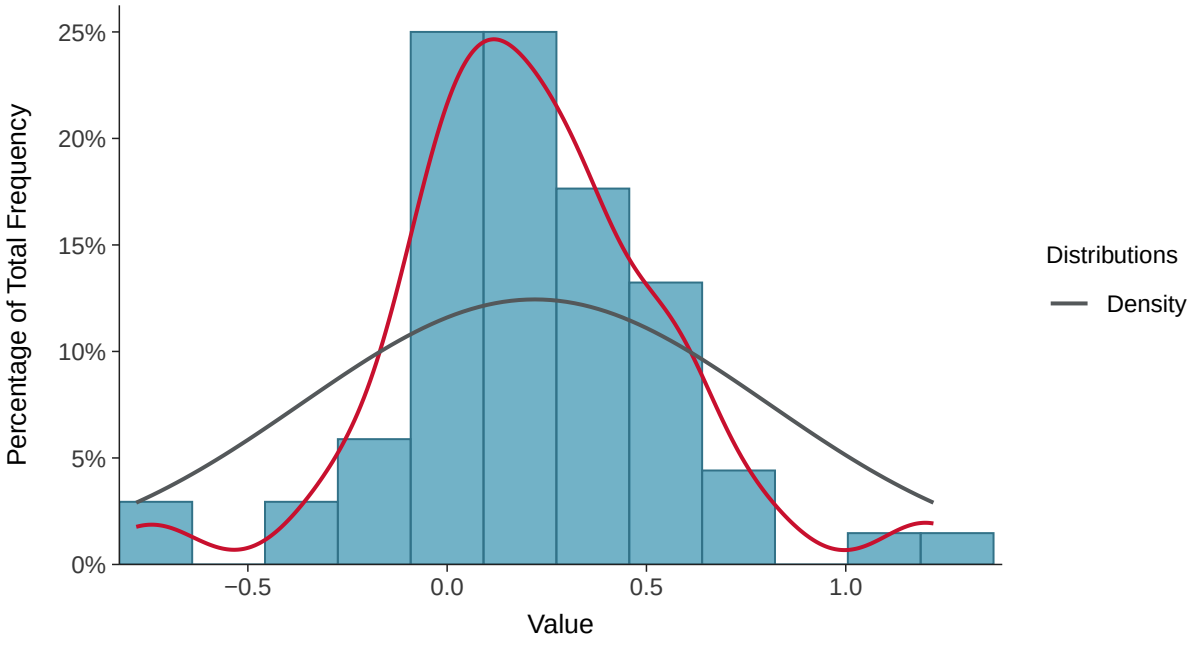
Scatter Plot by Well

Radium-226, BG-1 & BG-2 (pCi/L)



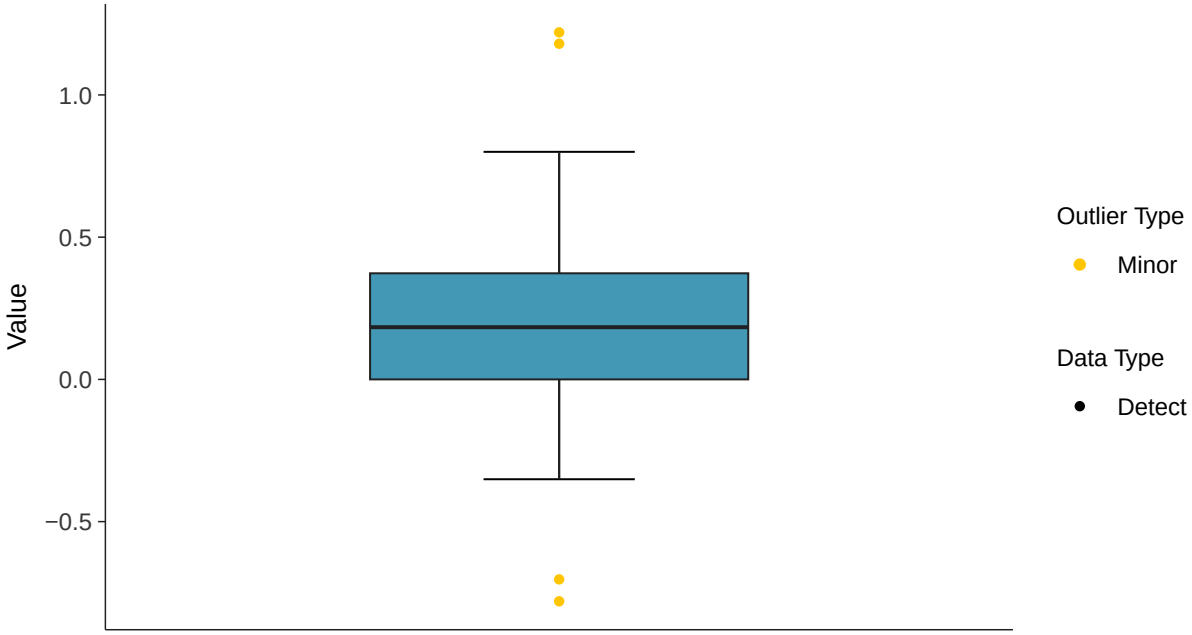
Histogram

Radium-226, BG-1 & BG-2 (pCi/L)



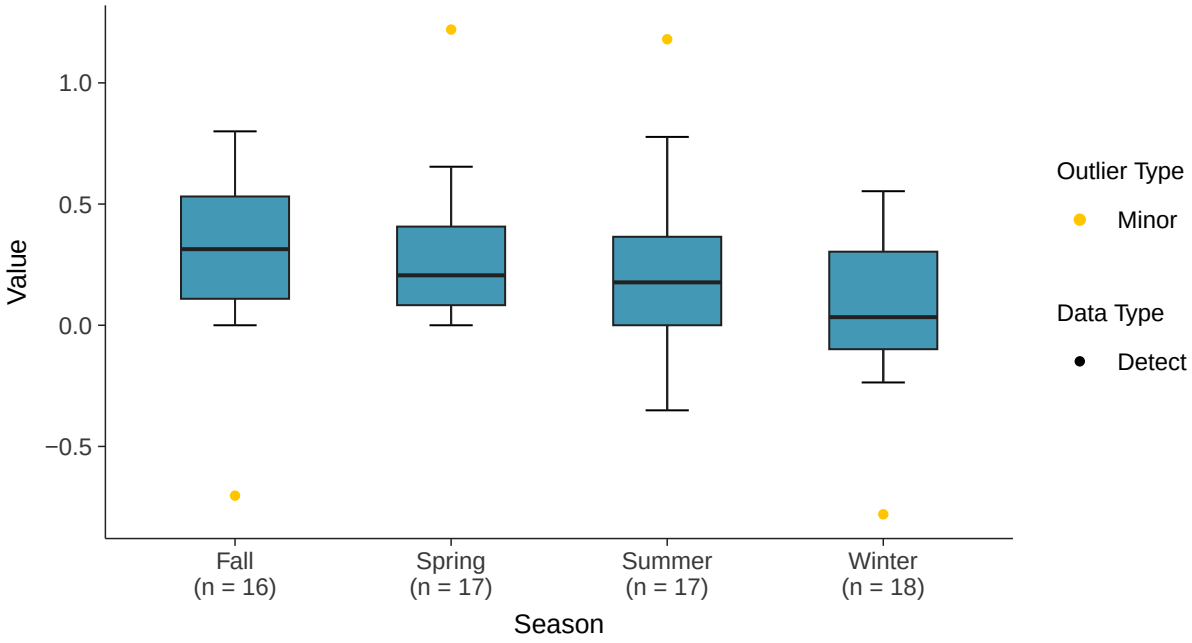
Boxplot

Radium-226, BG-1 & BG-2 (pCi/L)



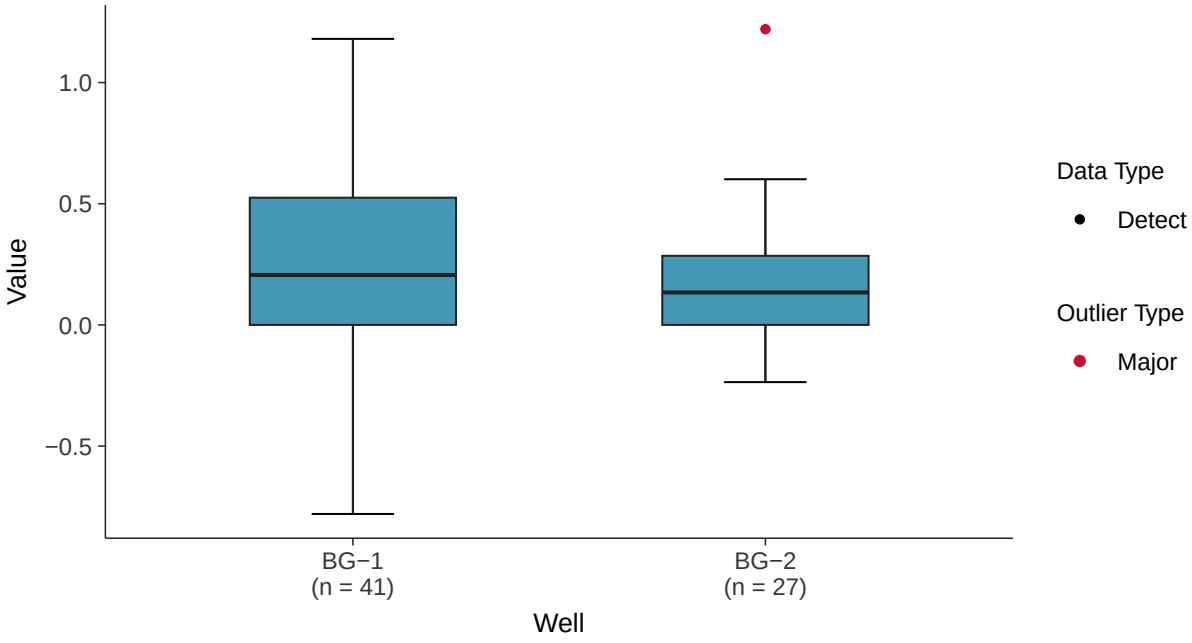
Boxplot by Season

Radium-226, BG-1 & BG-2 (pCi/L)



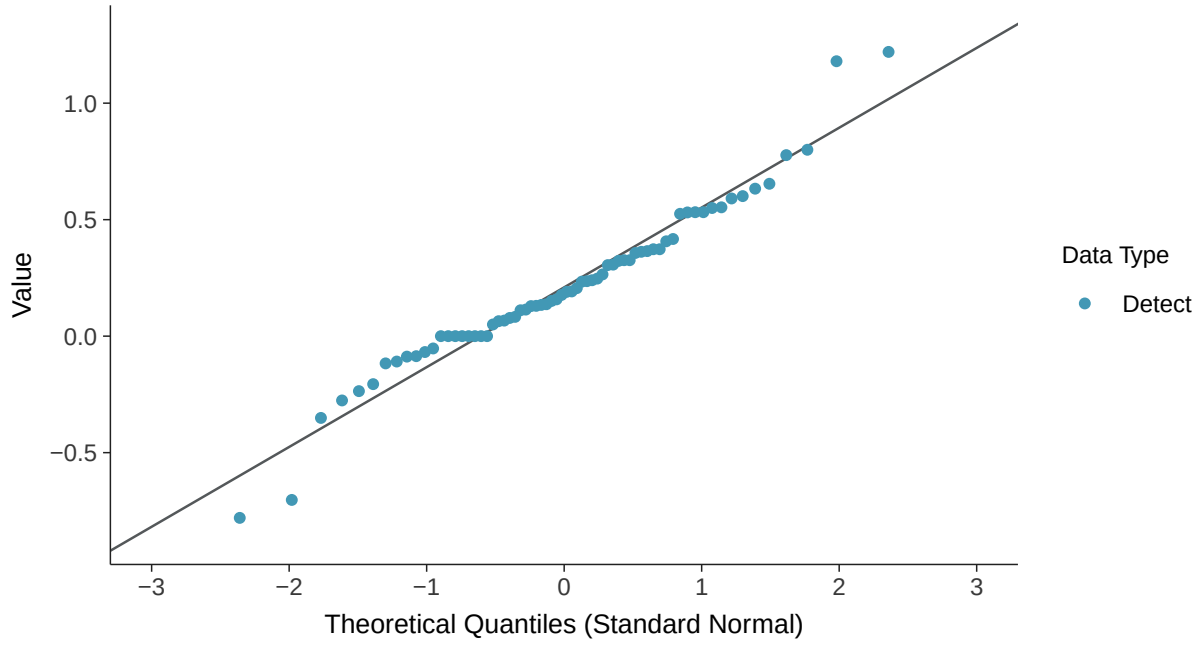
Boxplot by Well

Radium-226, BG-1 & BG-2 (pCi/L)



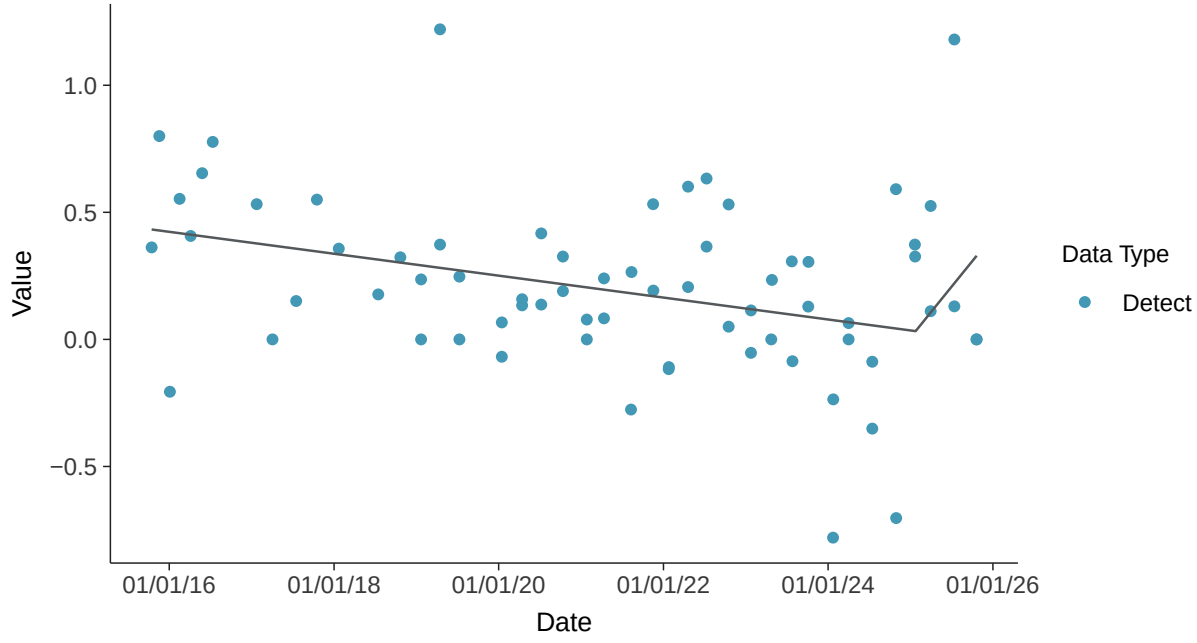
Normal Q-Q plot

Radium-226, BG-1 & BG-2 (pCi/L)



Trend Regression: Piecewise Linear-Linear

Radium-226, BG-1 & BG-2 (pCi/L)

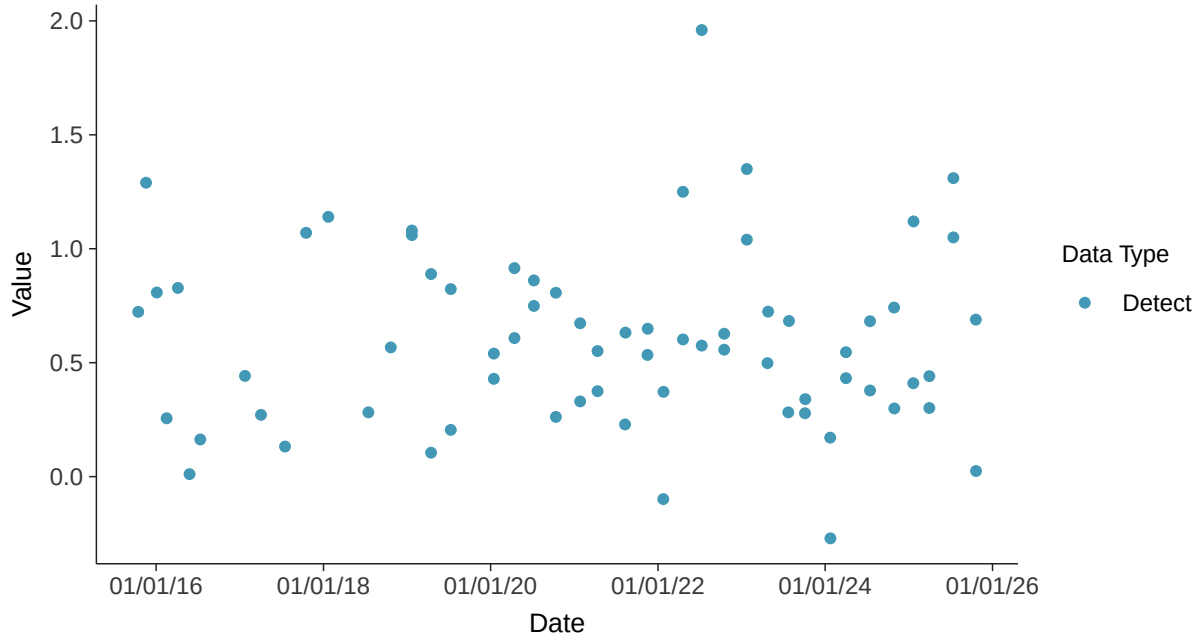


App. IV: Radium-228, BG-1 & BG-2

ID: 3_120

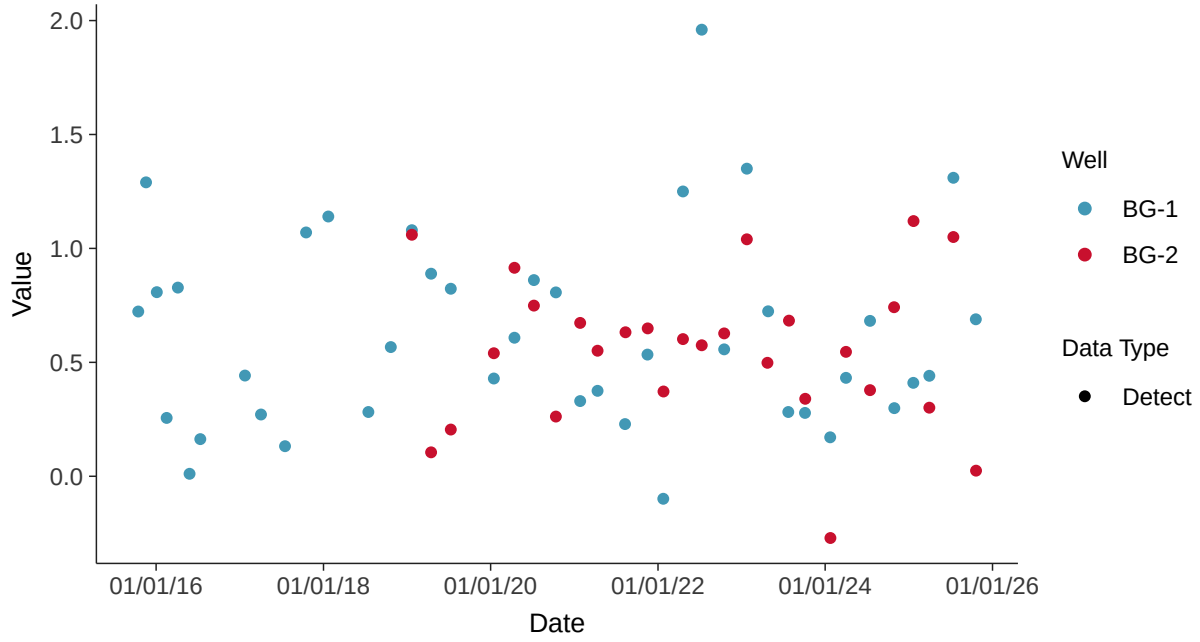
Scatter Plot

Radium-228, BG-1 & BG-2 (pCi/L)



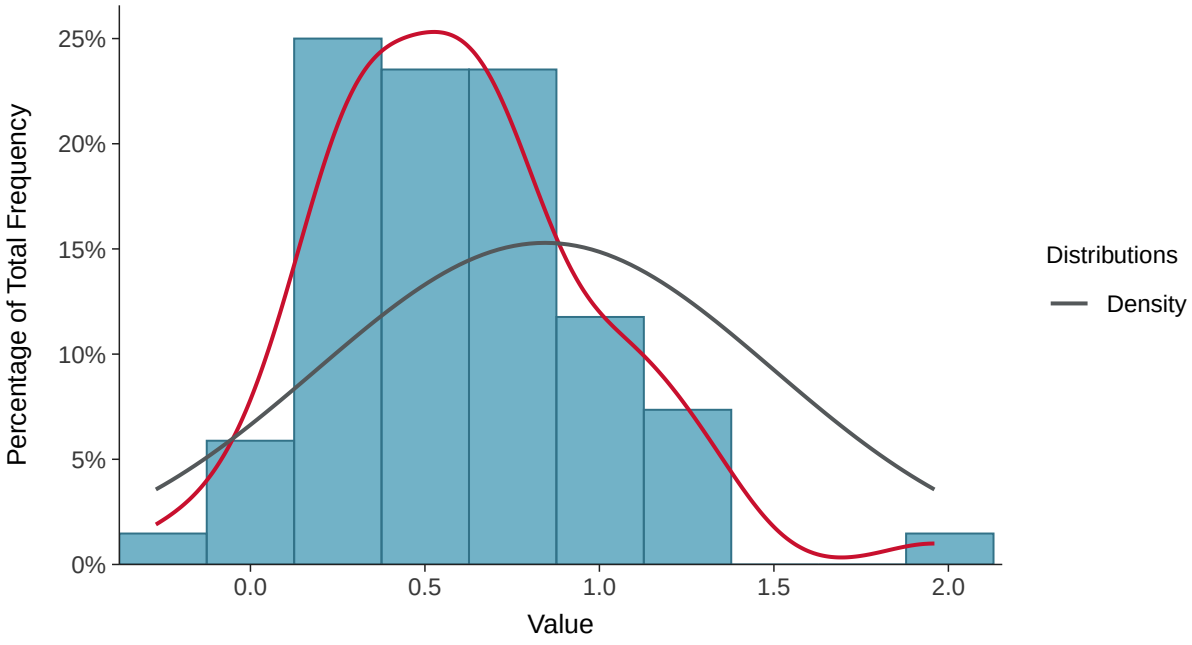
Scatter Plot by Well

Radium-228, BG-1 & BG-2 (pCi/L)



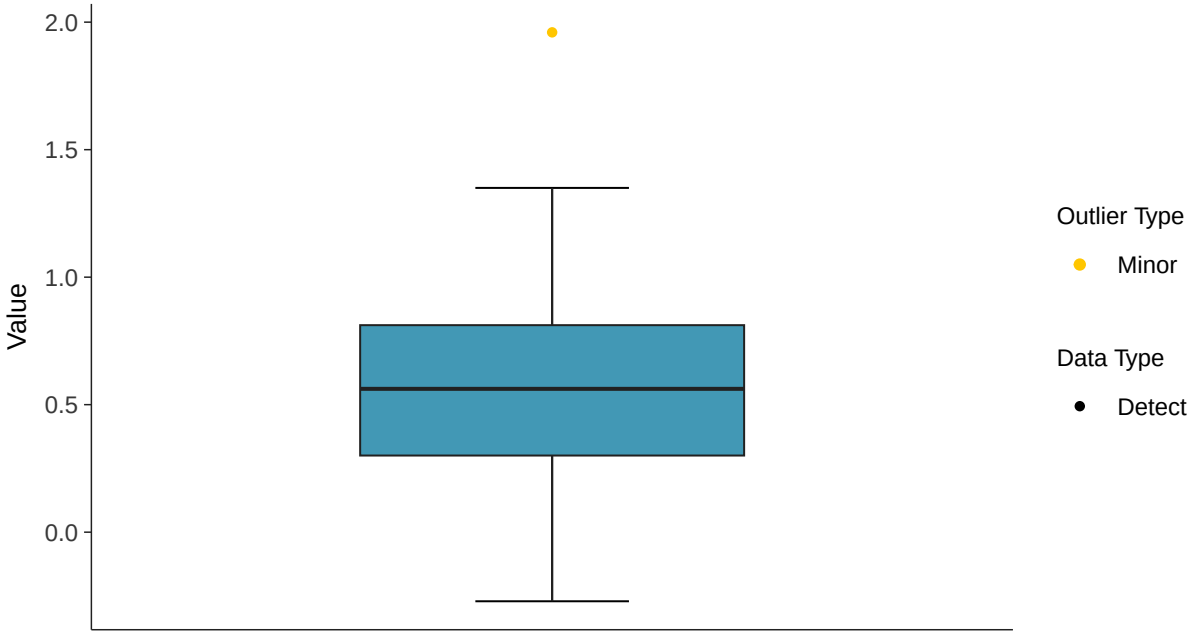
Histogram

Radium-228, BG-1 & BG-2 (pCi/L)



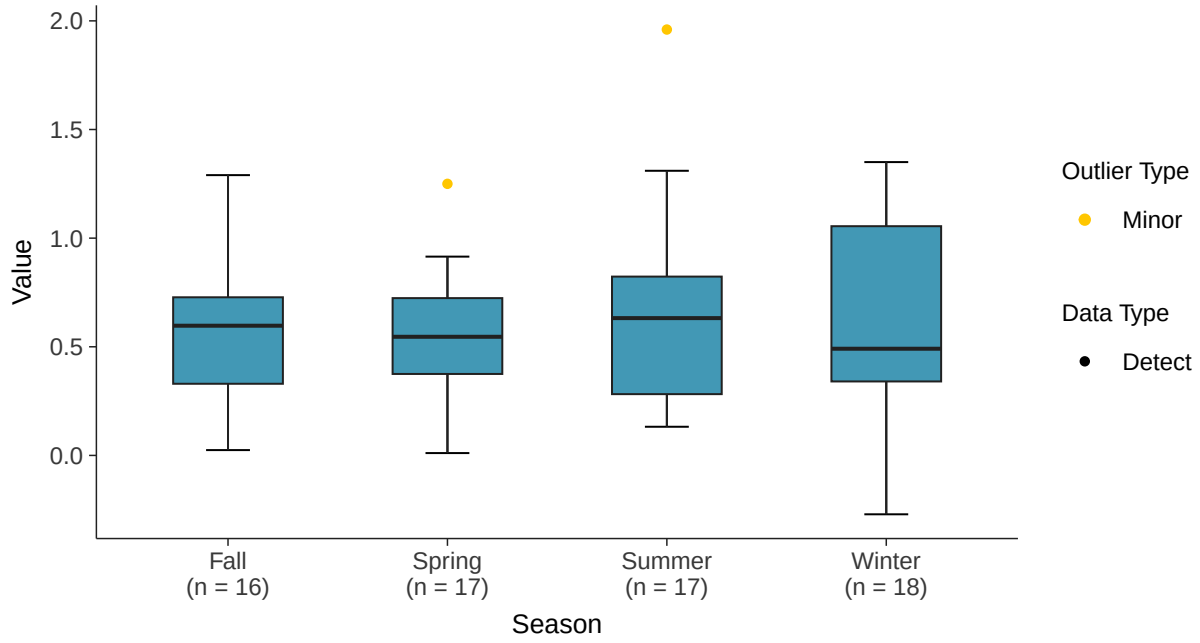
Boxplot

Radium-228, BG-1 & BG-2 (pCi/L)



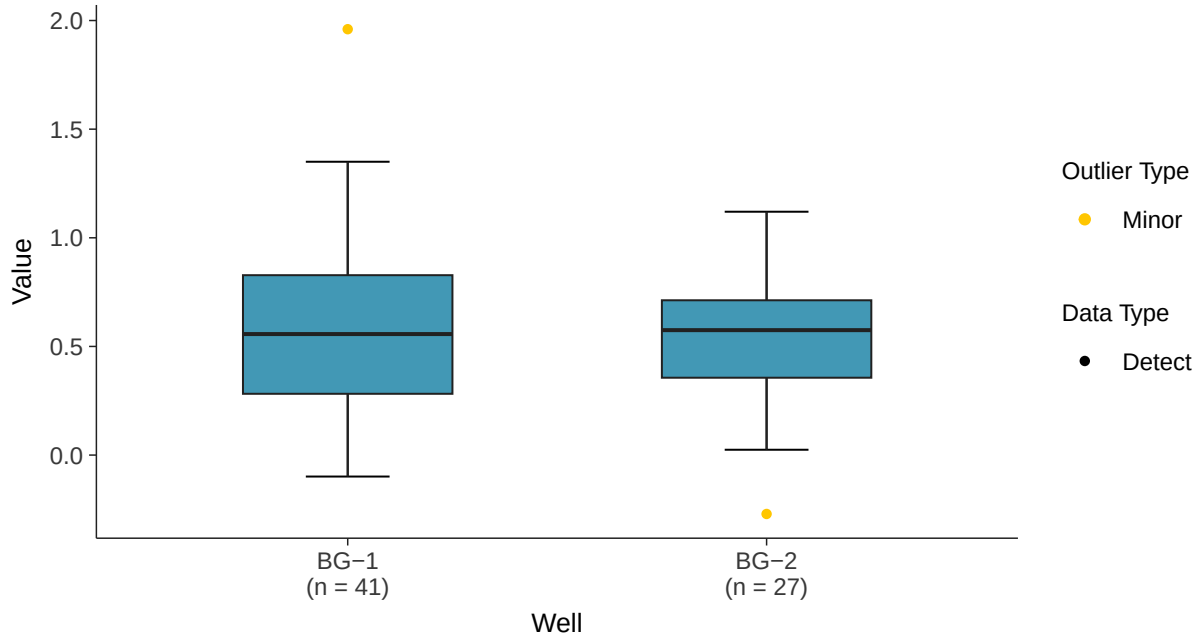
Boxplot by Season

Radium-228, BG-1 & BG-2 (pCi/L)



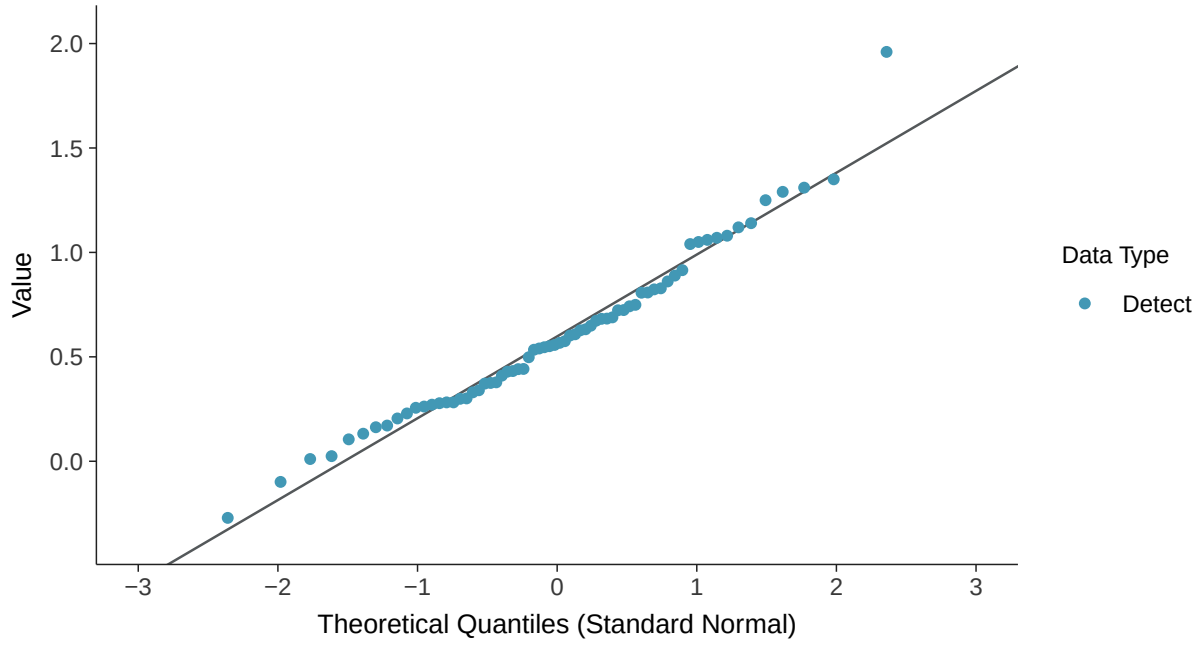
Boxplot by Well

Radium-228, BG-1 & BG-2 (pCi/L)



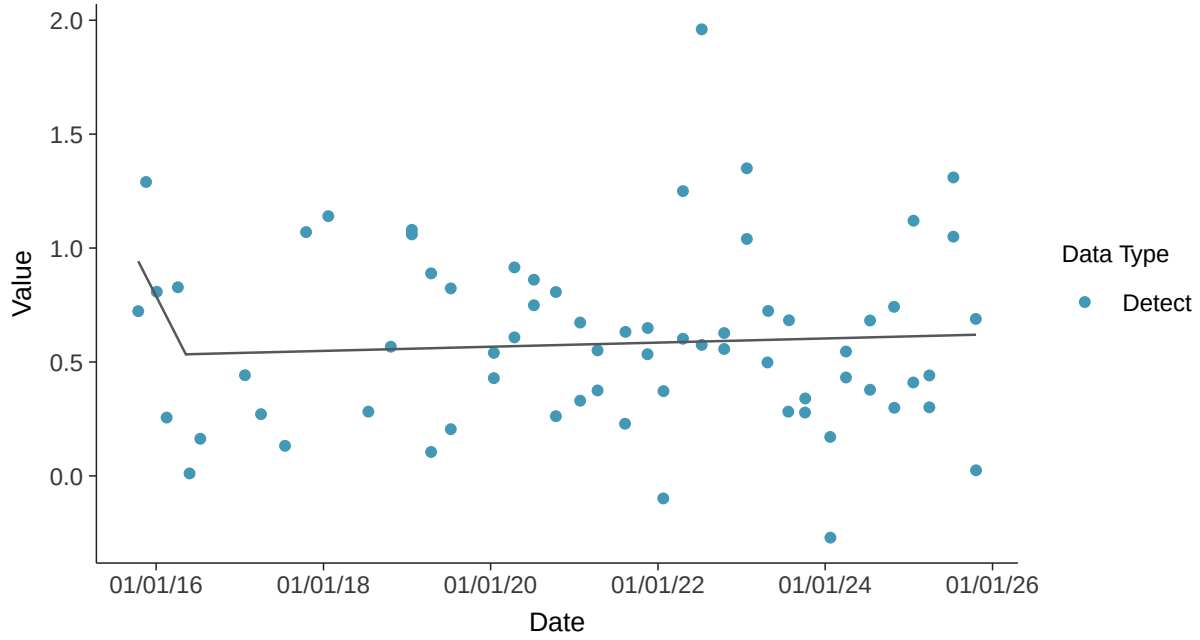
Normal Q-Q plot

Radium-228, BG-1 & BG-2 (pCi/L)



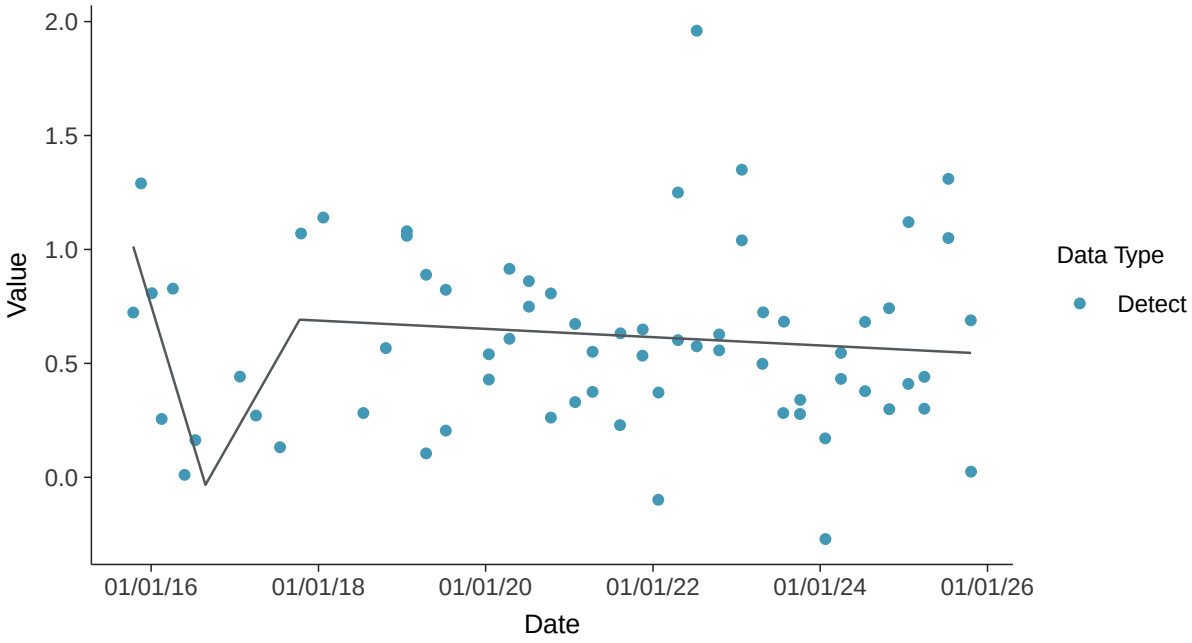
Trend Regression: Piecewise Linear-Linear

Radium-228, BG-1 & BG-2 (pCi/L)



Trend Regression: Piecewise Linear-Linear-Linear

Radium-228, BG-1 & BG-2 (pCi/L)

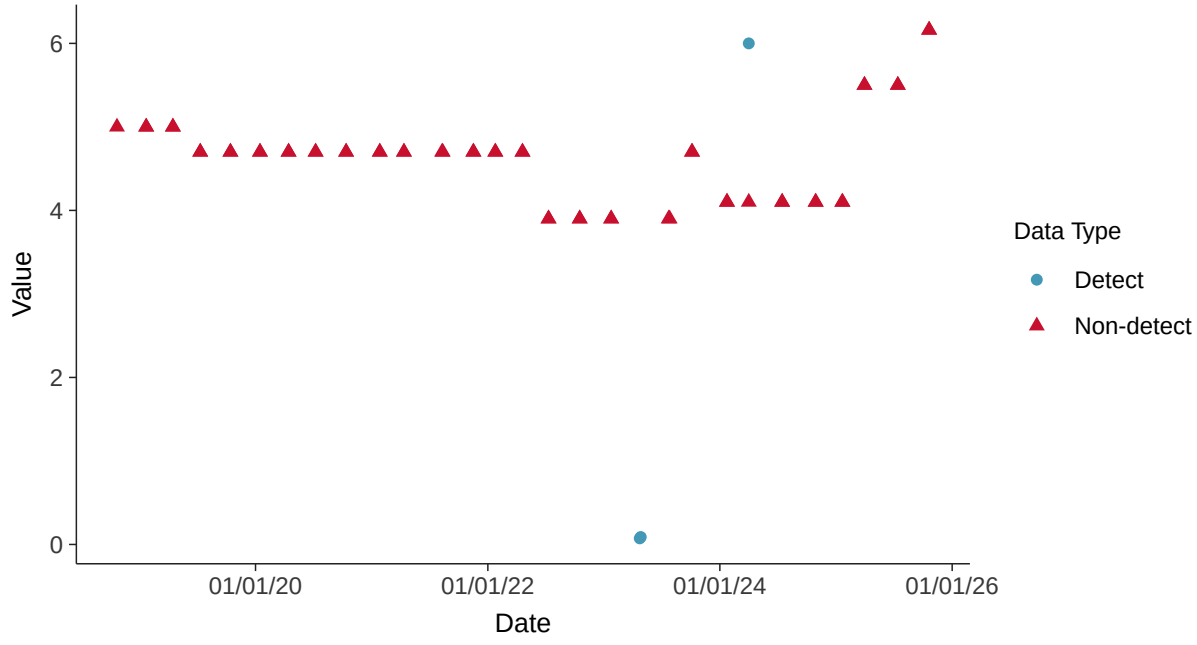


App. IV: Selenium, BG-1 & BG-2

ID: 3_121

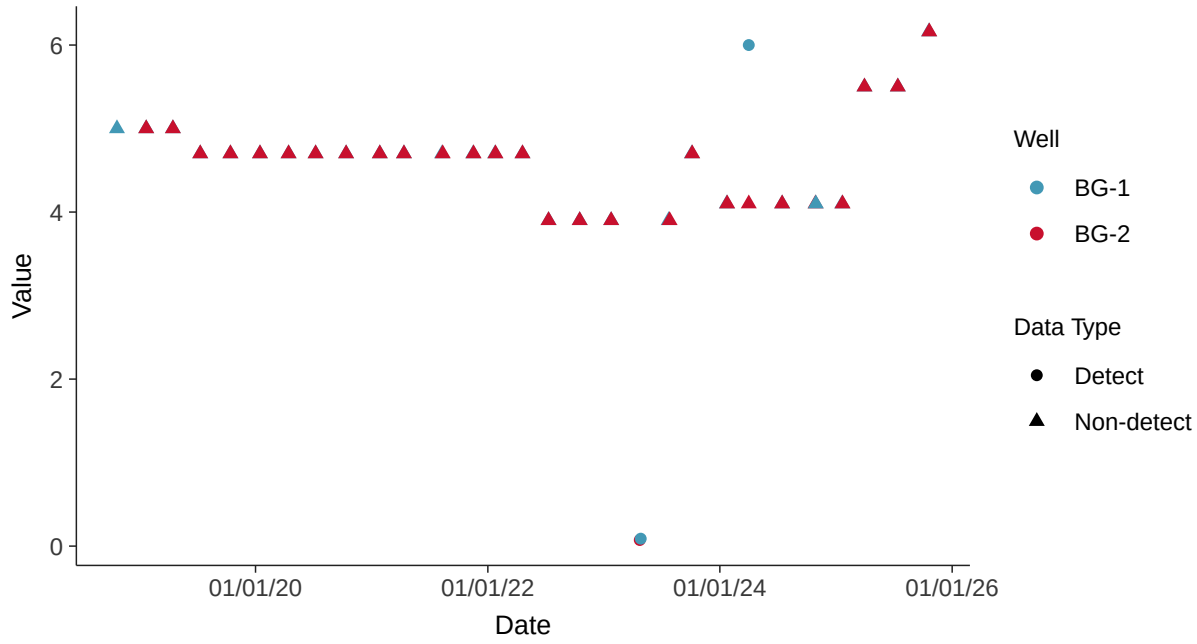
Scatter Plot

Selenium, BG-1 & BG-2 (ug/L)



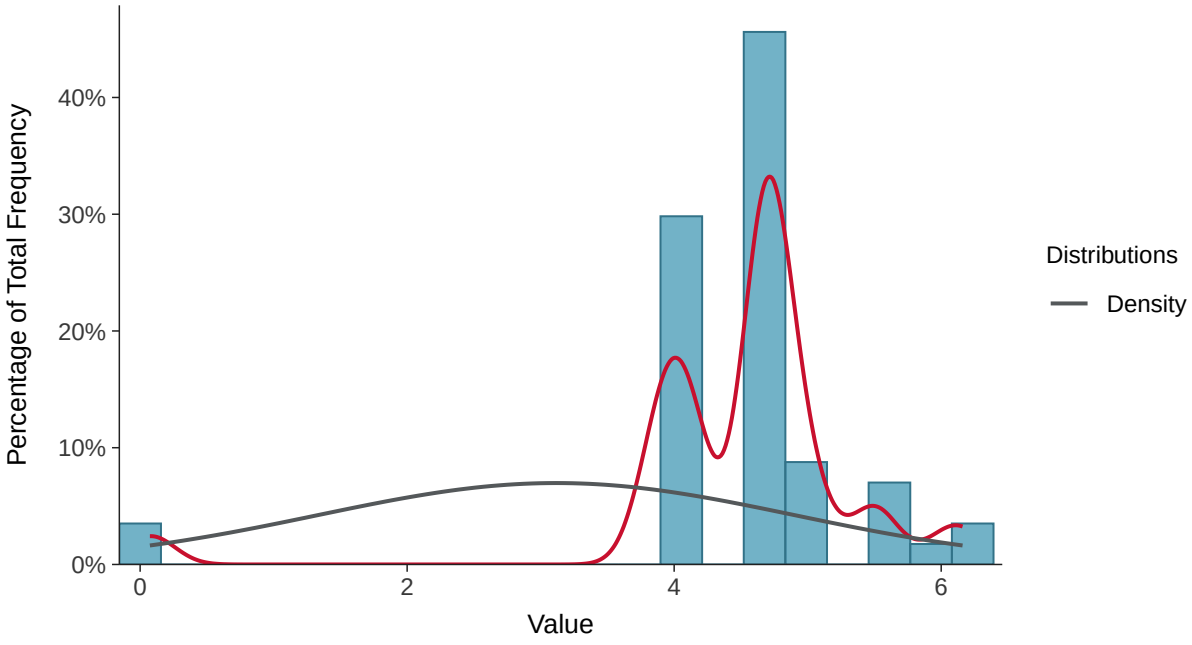
Scatter Plot by Well

Selenium, BG-1 & BG-2 (ug/L)



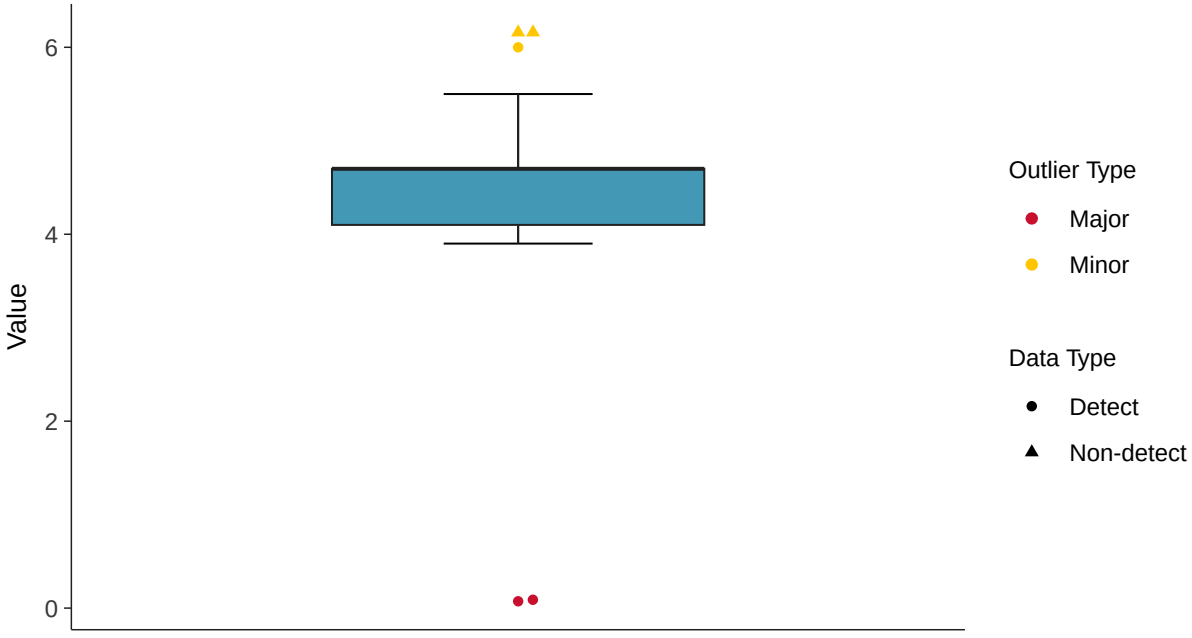
Histogram

Selenium, BG-1 & BG-2 (ug/L)



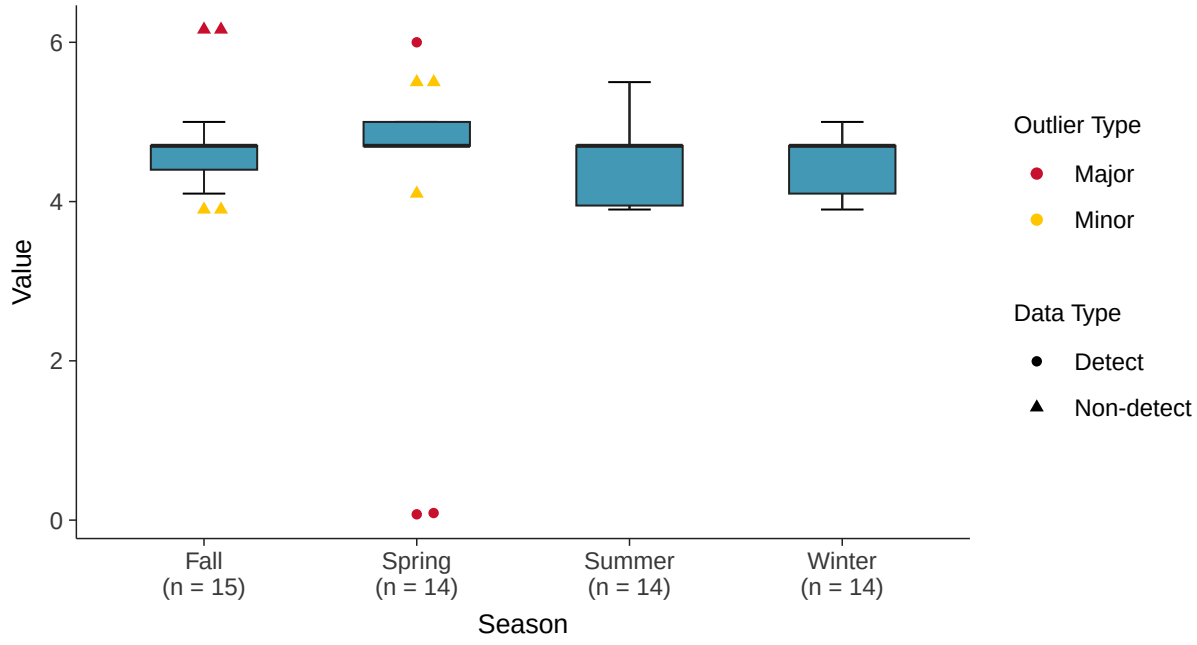
Boxplot

Selenium, BG-1 & BG-2 (ug/L)



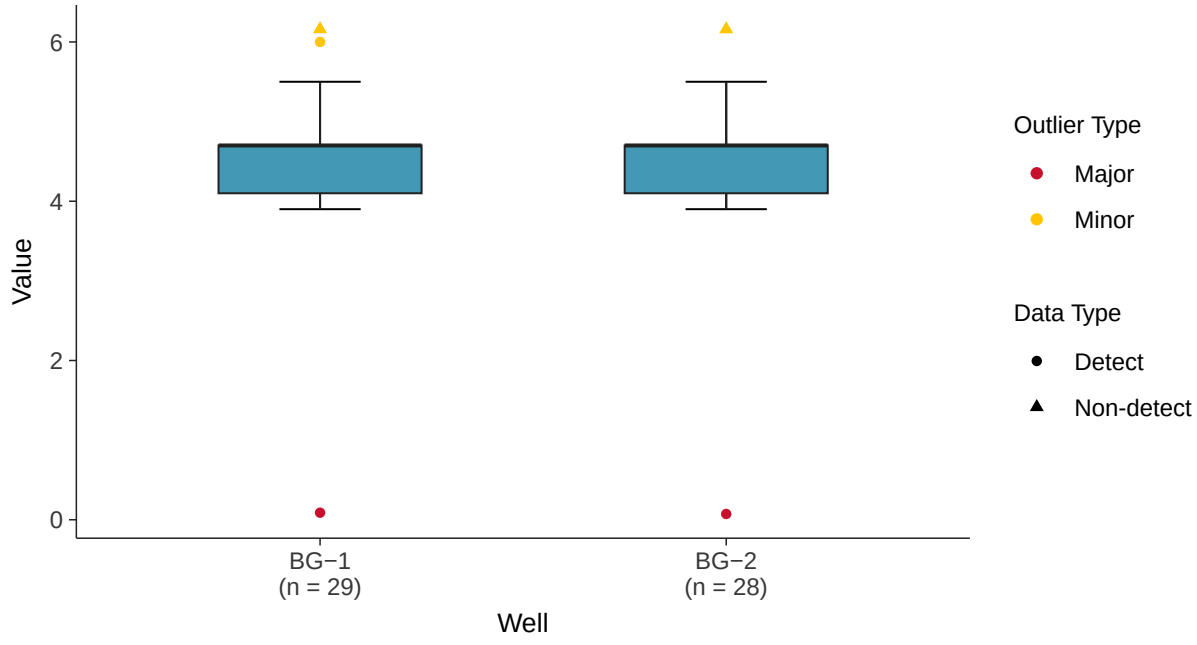
Boxplot by Season

Selenium, BG-1 & BG-2 (ug/L)



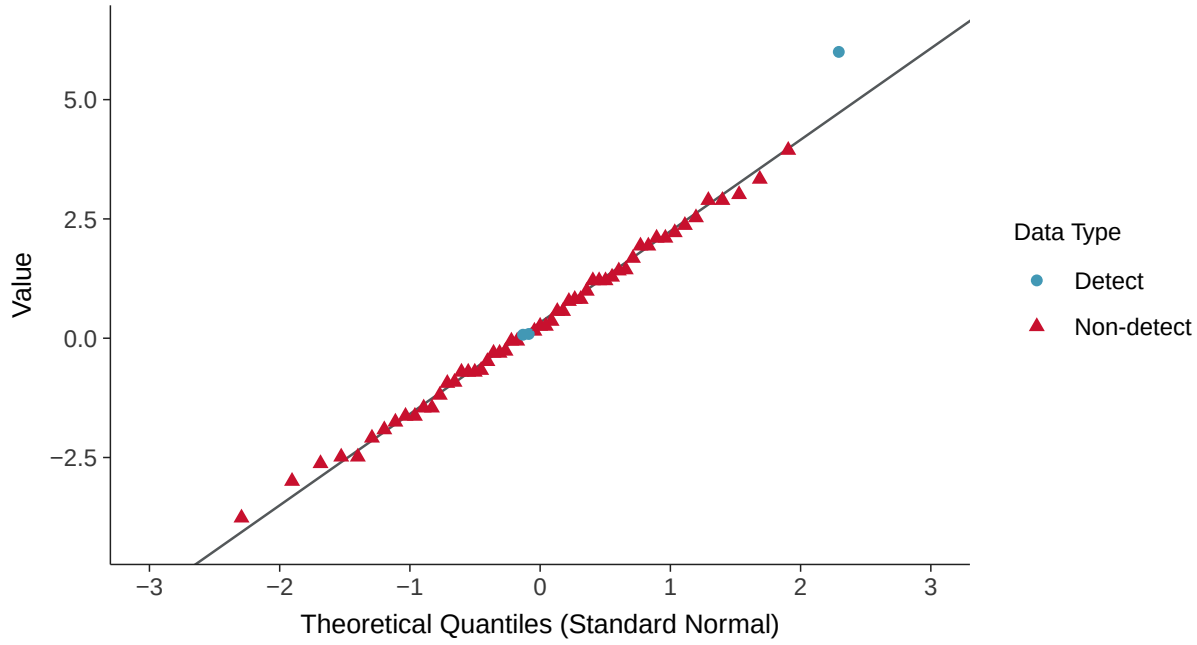
Boxplot by Well

Selenium, BG-1 & BG-2 (ug/L)



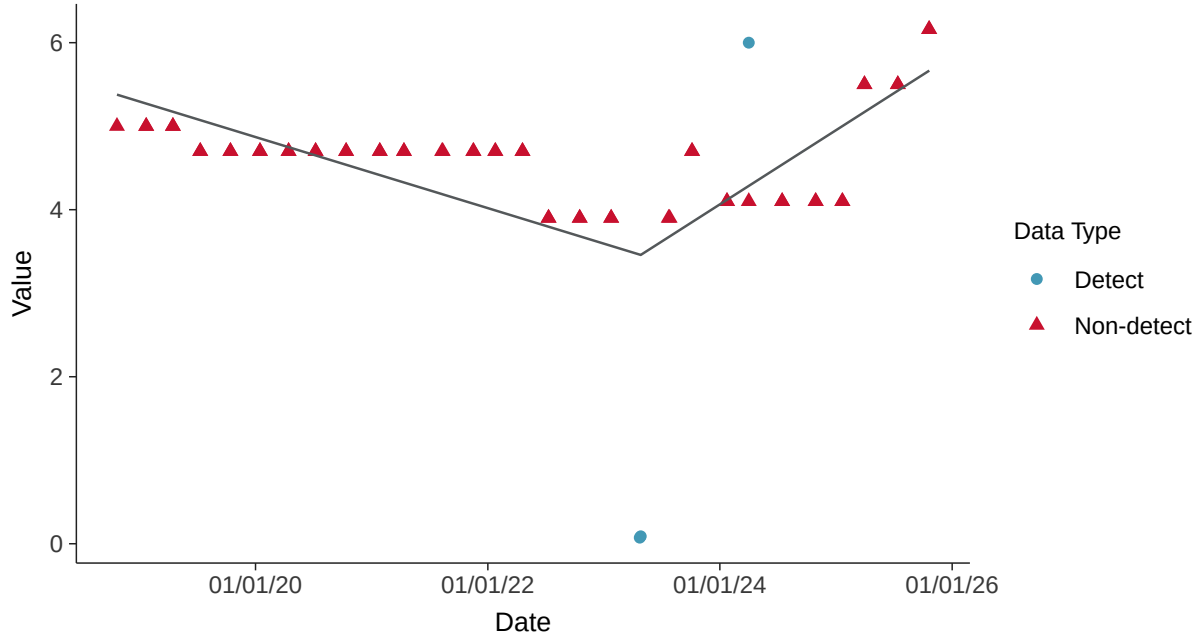
Normal Q-Q plot using ROS Imputed Estimates

Selenium, BG-1 & BG-2 (ug/L)



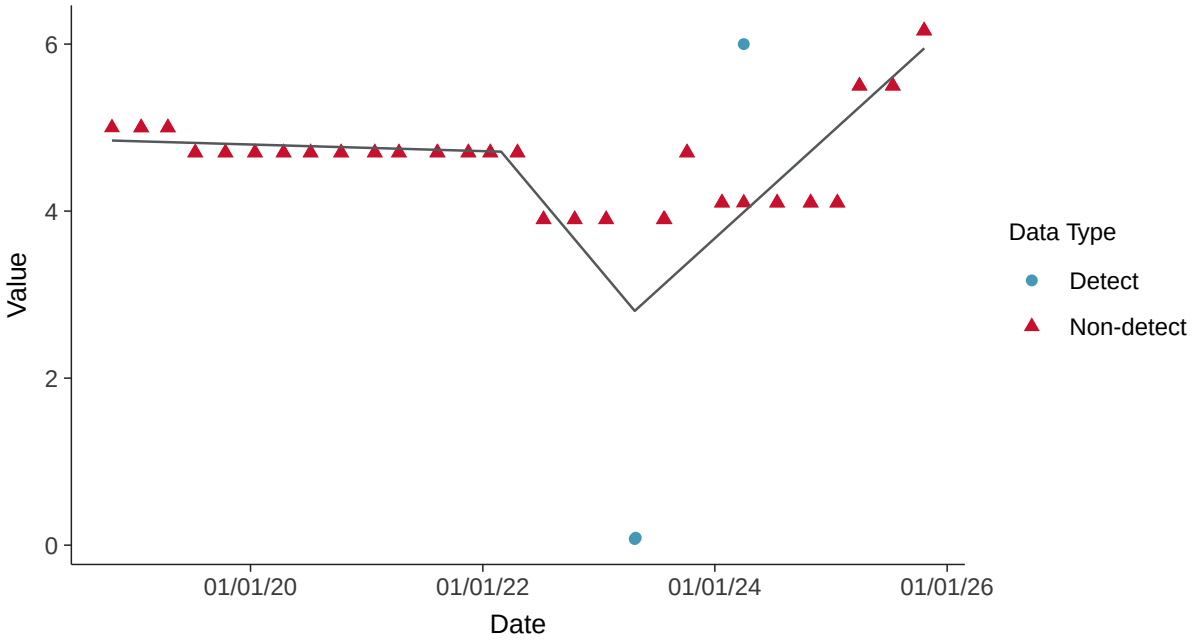
Trend Regression: Piecewise Linear-Linear

Selenium, BG-1 & BG-2 (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Selenium, BG-1 & BG-2 (ug/L)

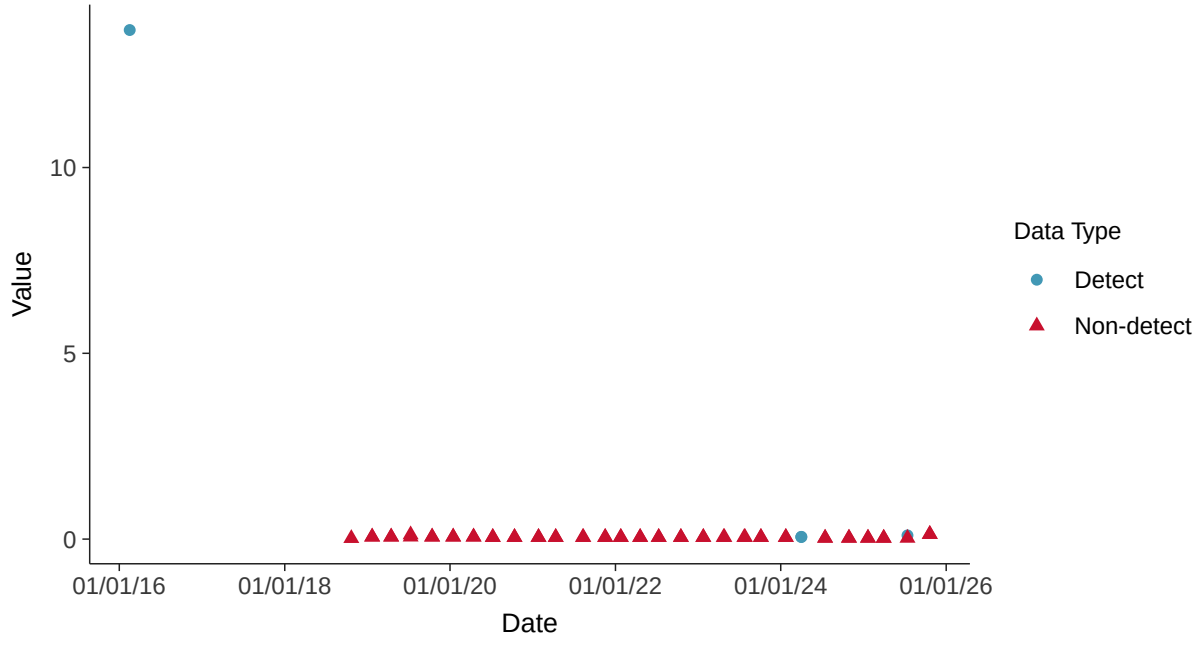


App. IV: Thallium, BG-1 & BG-2

ID: 3_124

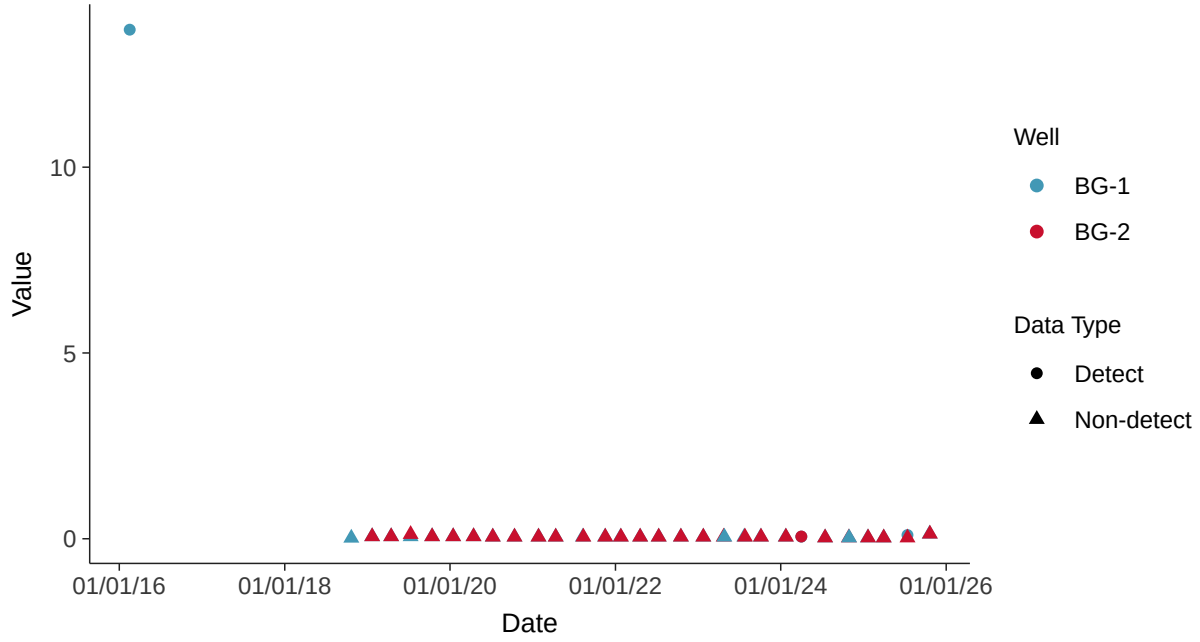
Scatter Plot

Thallium, BG-1 & BG-2 (ug/L)



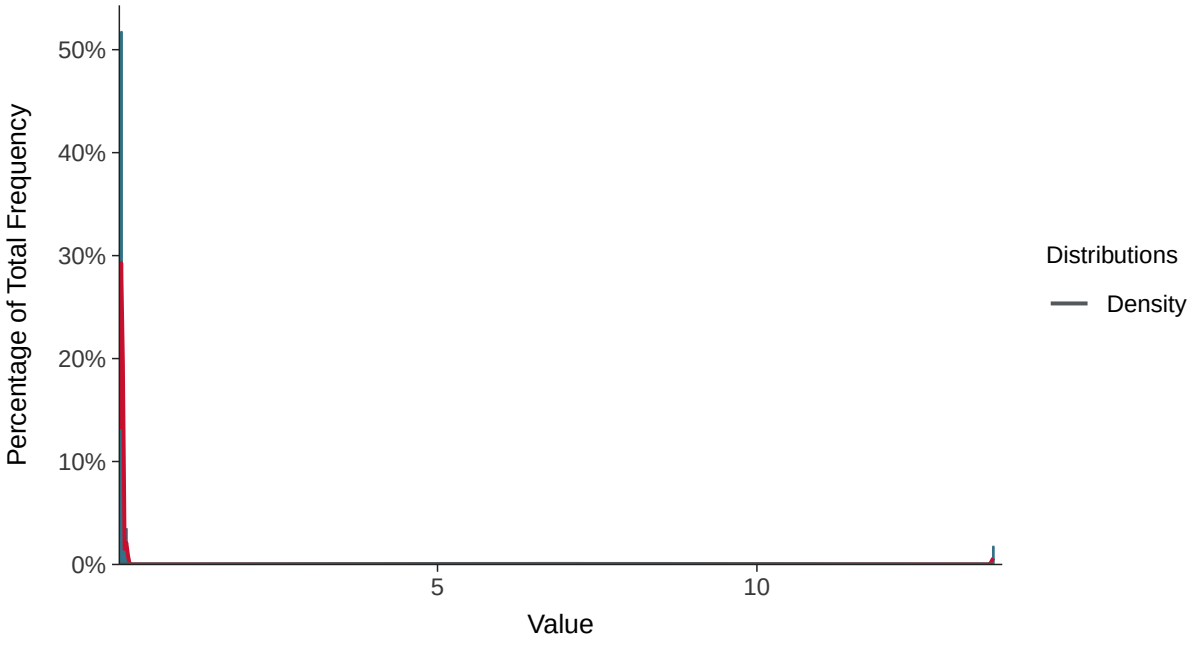
Scatter Plot by Well

Thallium, BG-1 & BG-2 (ug/L)



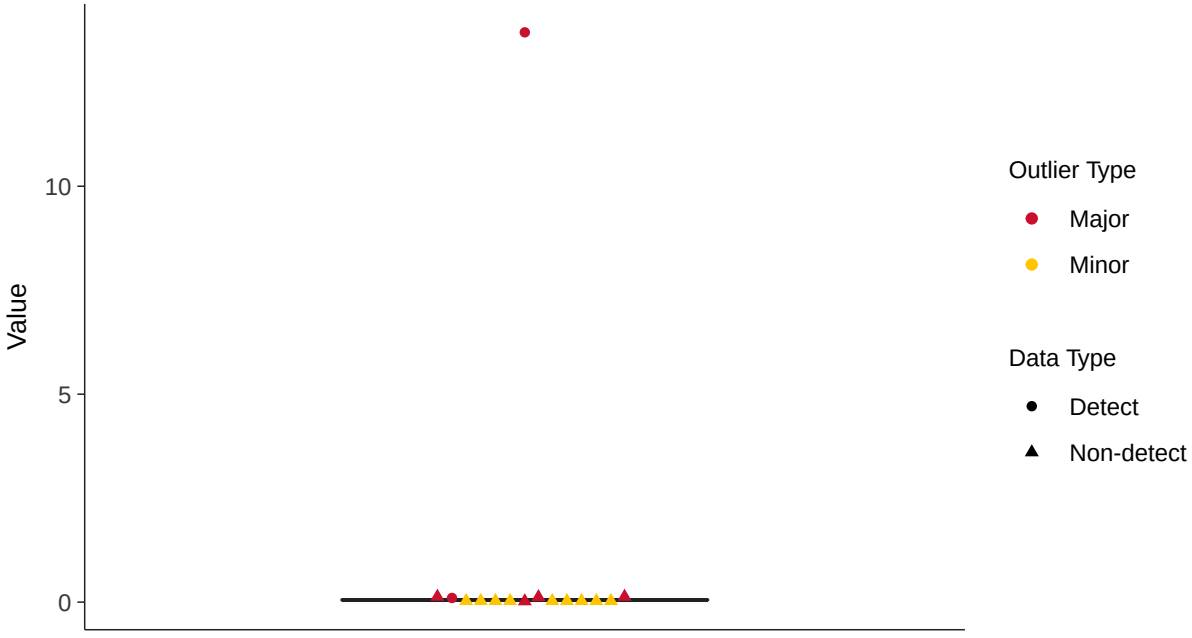
Histogram

Thallium, BG-1 & BG-2 (ug/L)



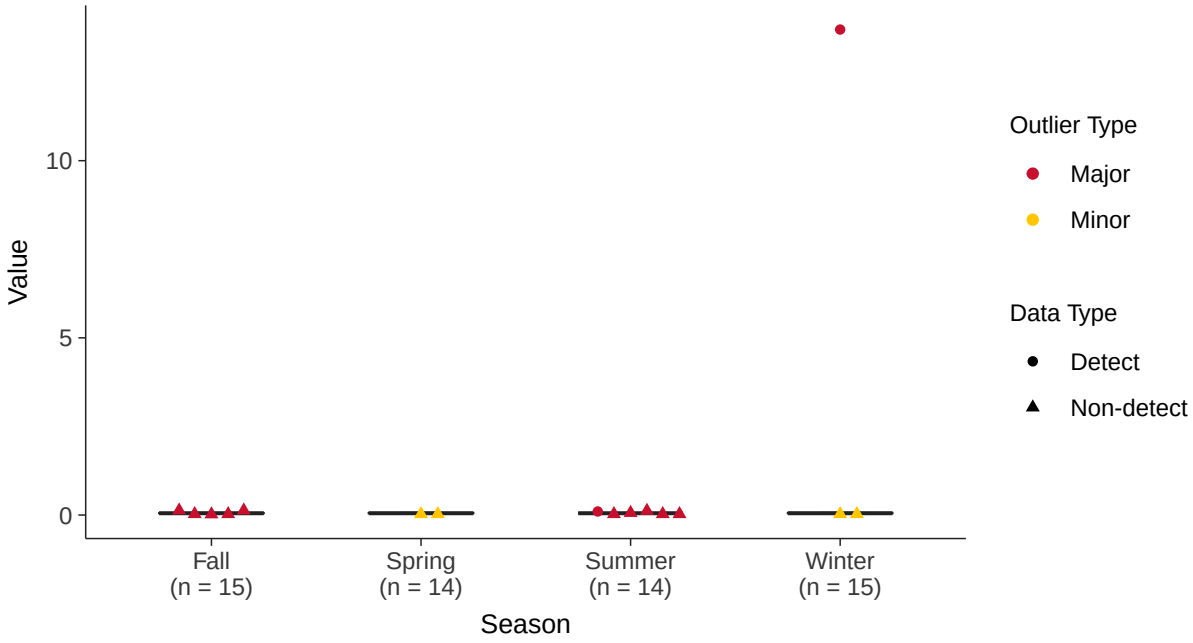
Boxplot

Thallium, BG-1 & BG-2 (ug/L)



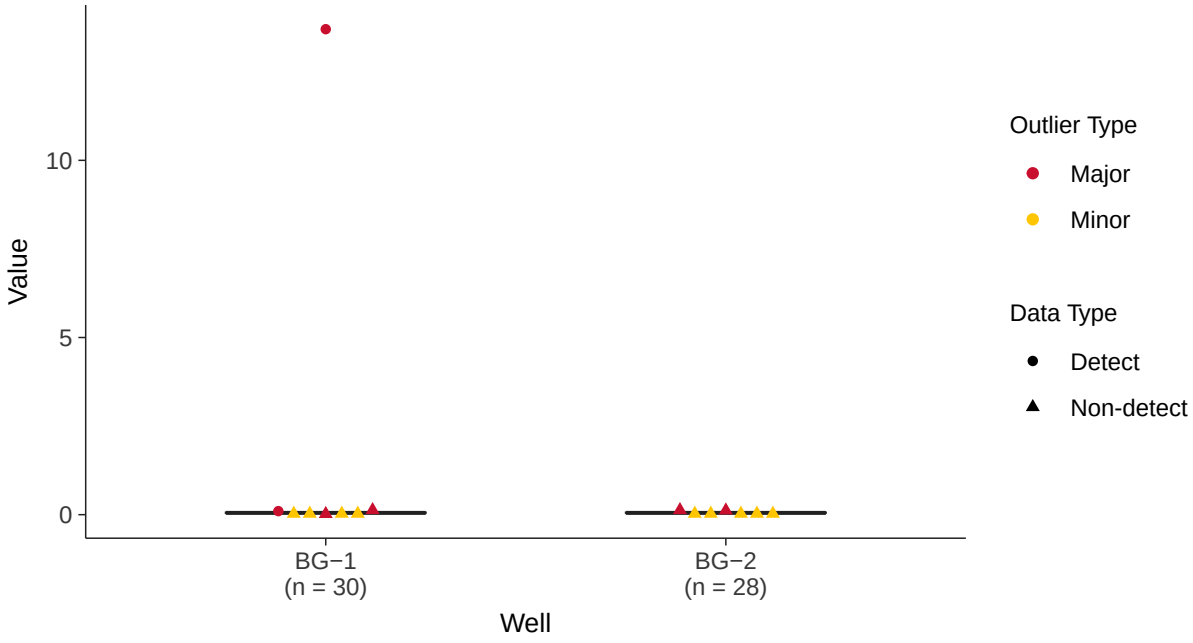
Boxplot by Season

Thallium, BG-1 & BG-2 (ug/L)



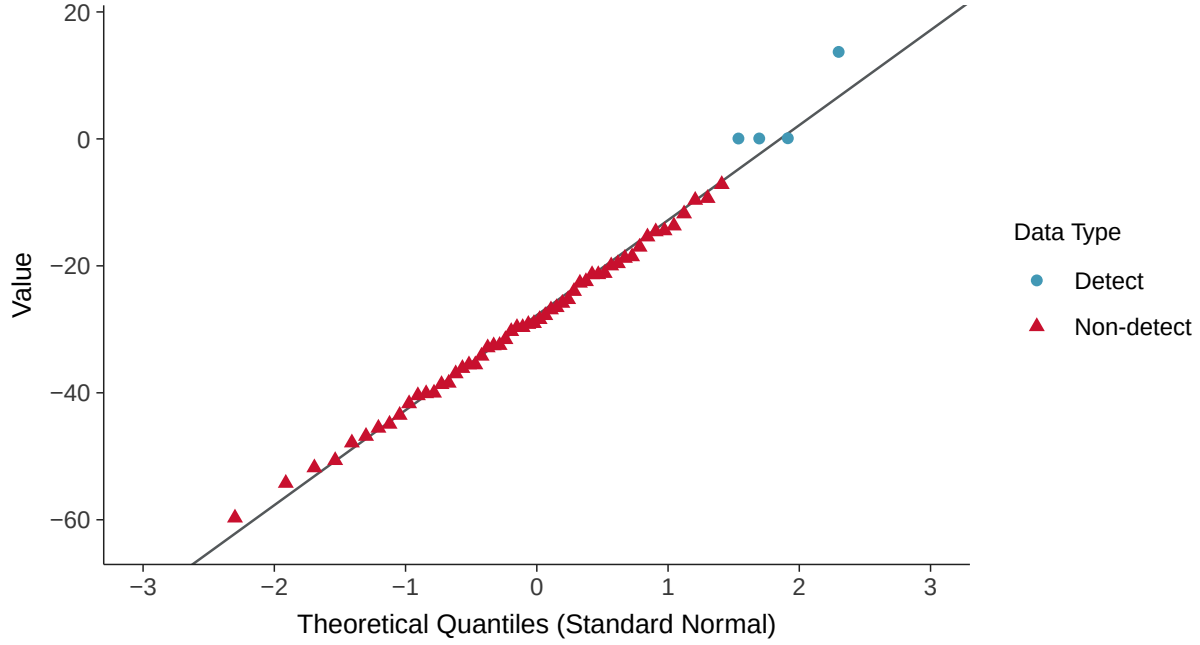
Boxplot by Well

Thallium, BG-1 & BG-2 (ug/L)



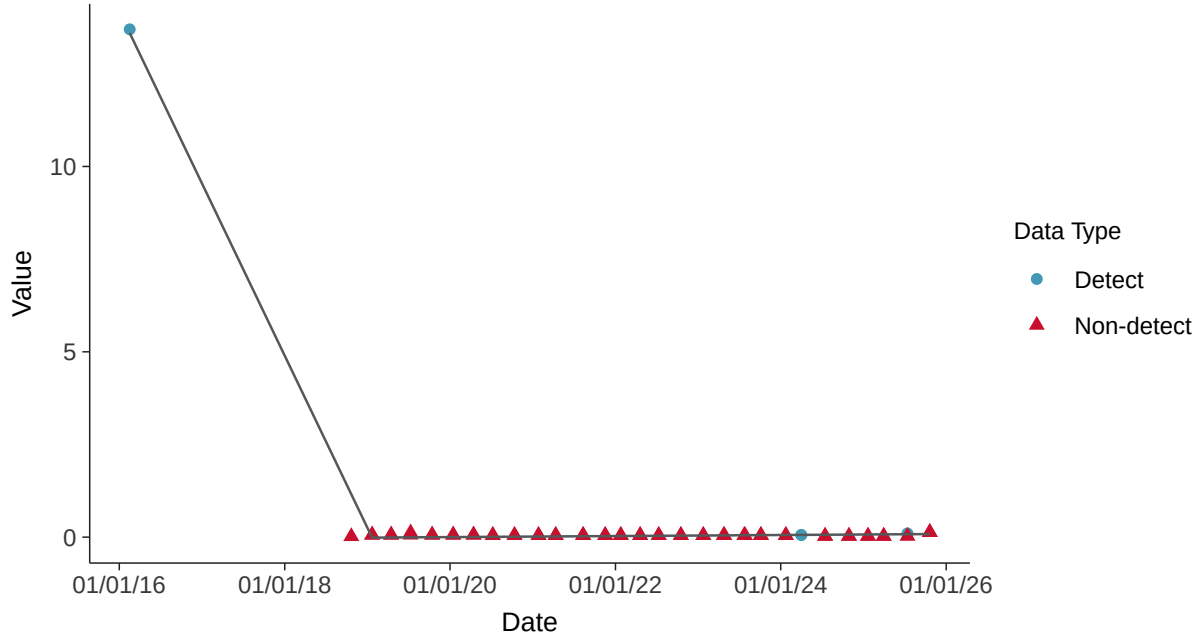
Normal Q-Q plot using ROS Imputed Estimates

Thallium, BG-1 & BG-2 (ug/L)



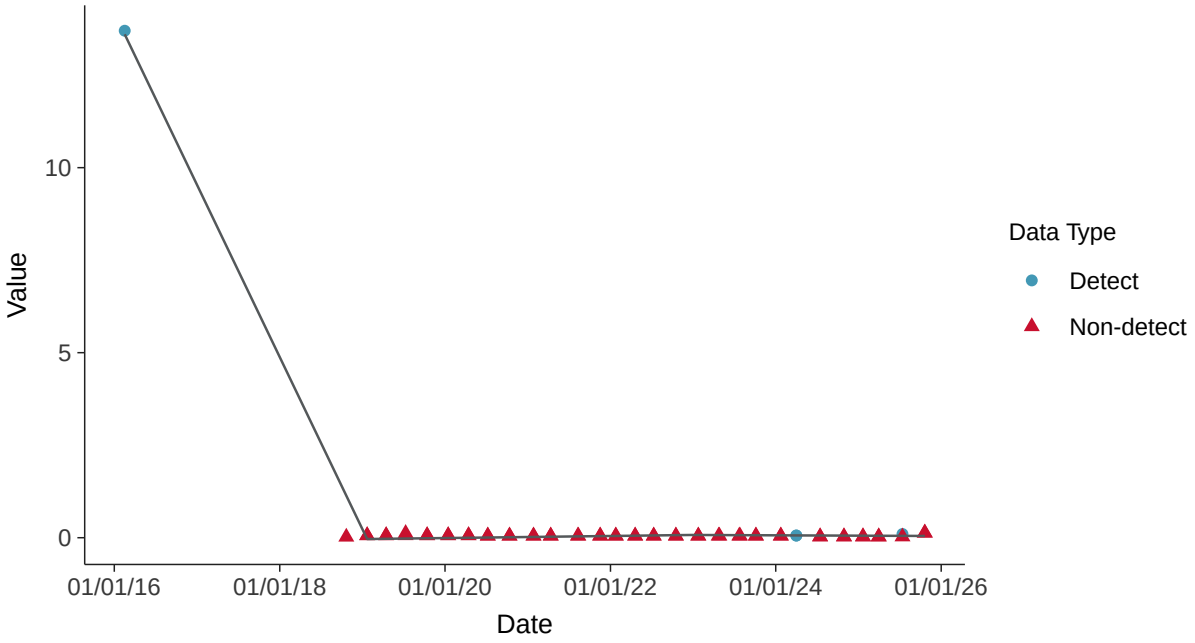
Trend Regression: Piecewise Linear-Linear

Thallium, BG-1 & BG-2 (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Thallium, BG-1 & BG-2 (ug/L)

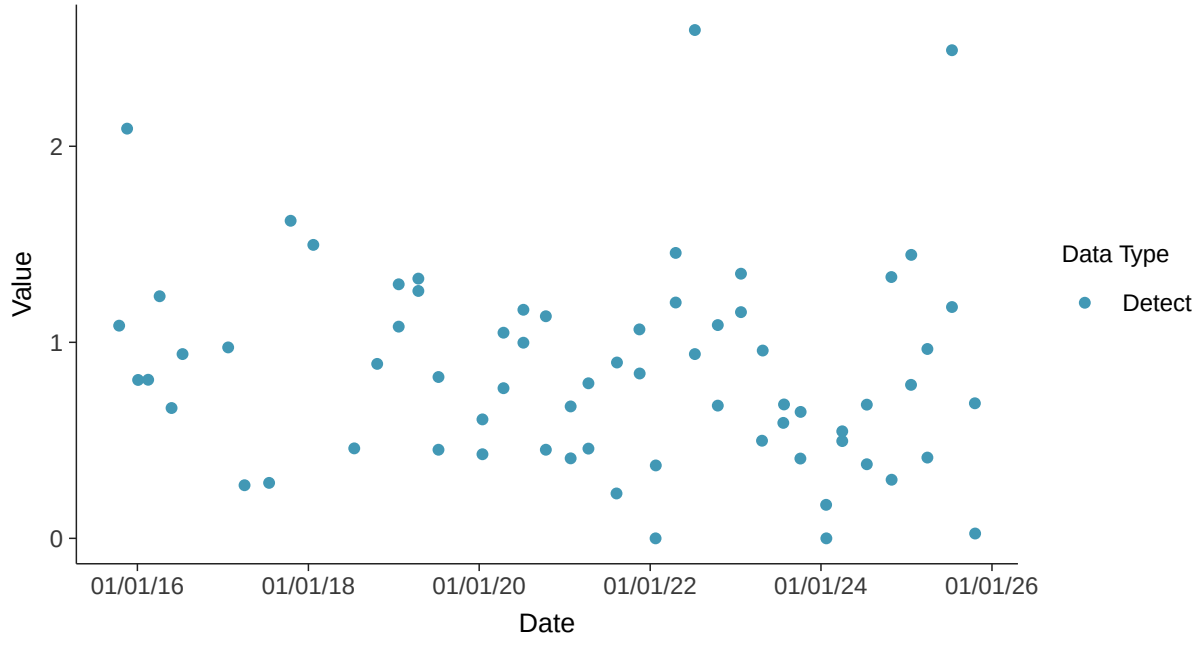


App. IV: Total Radium, BG-1 & BG-2

ID: 3_126

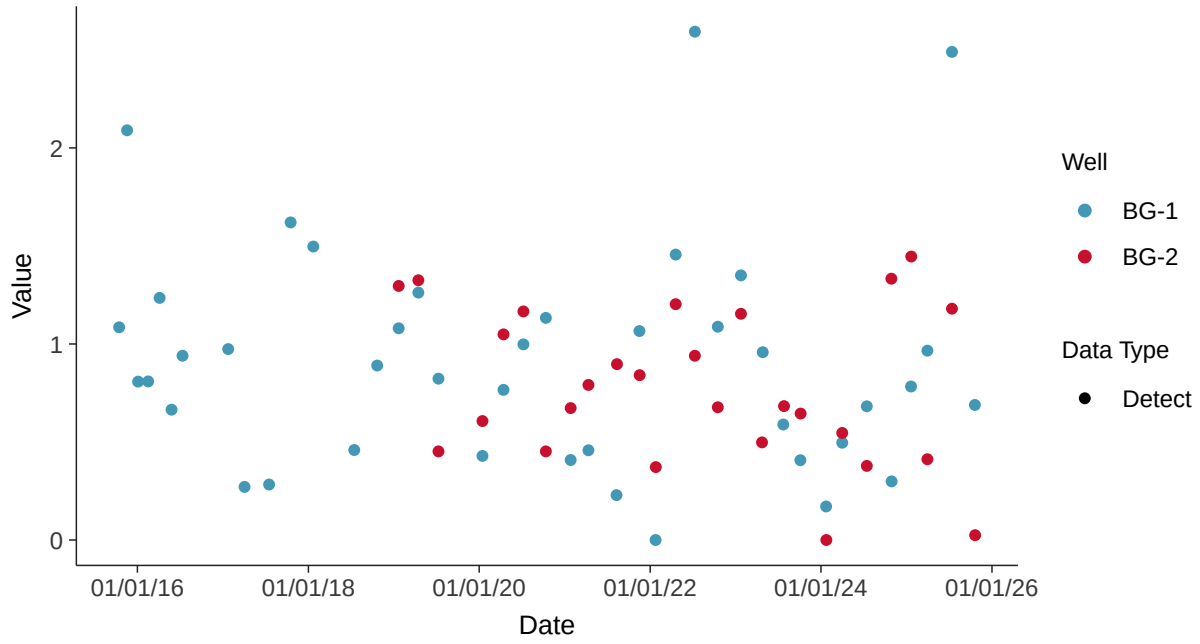
Scatter Plot

Total Radium, BG-1 & BG-2 (pCi/L)



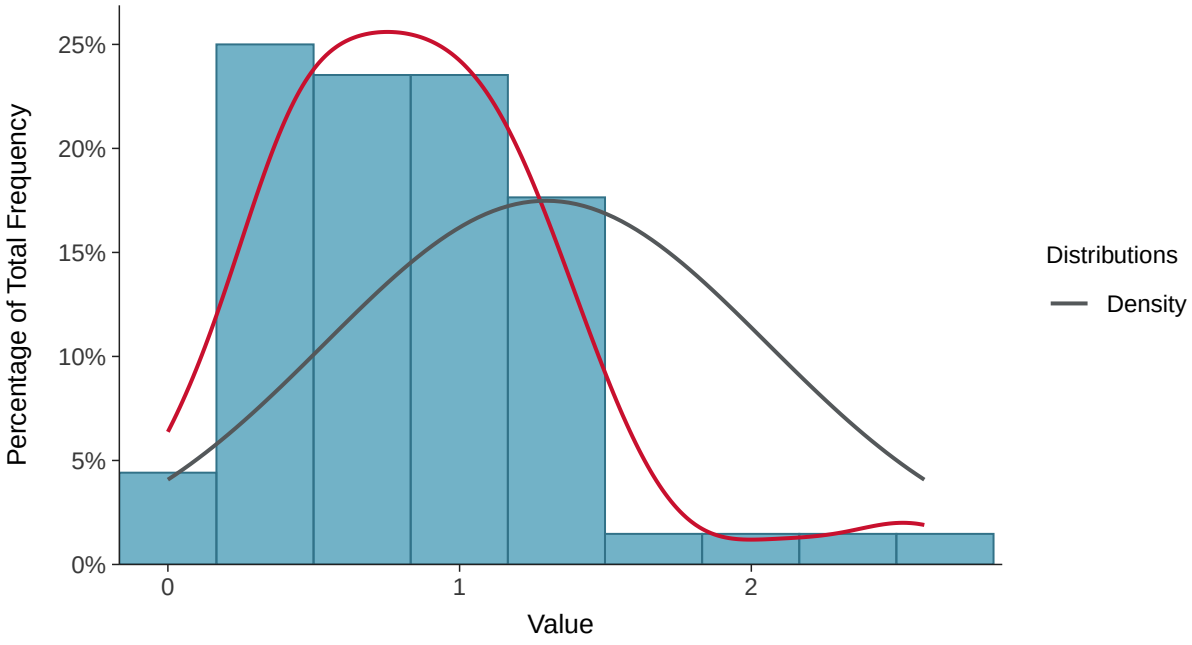
Scatter Plot by Well

Total Radium, BG-1 & BG-2 (pCi/L)



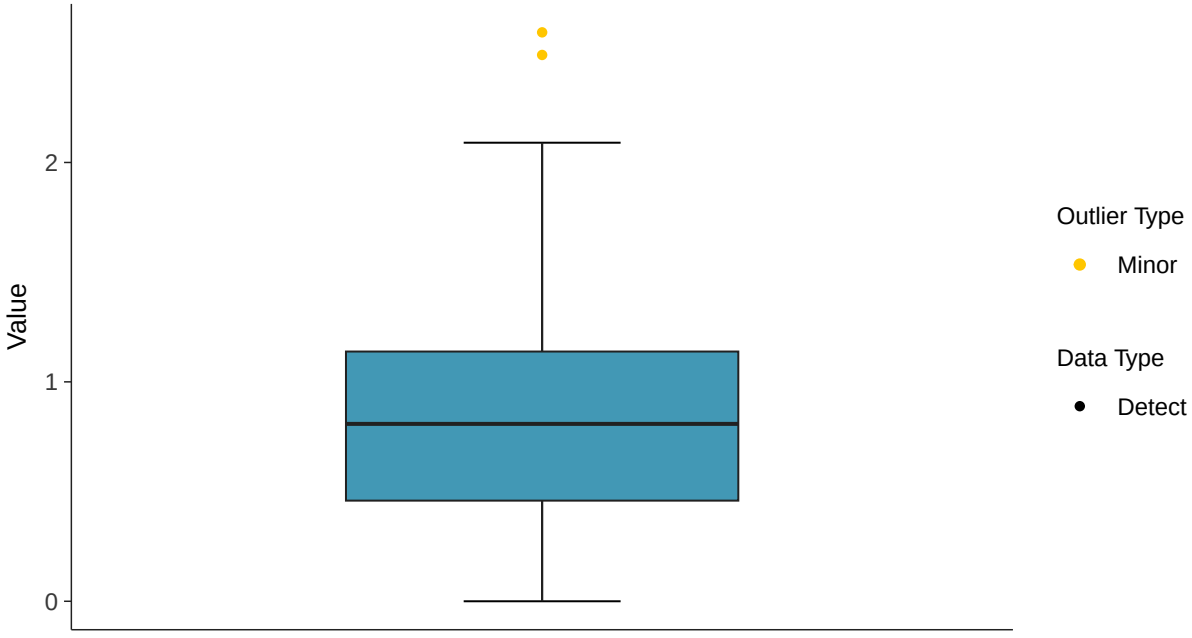
Histogram

Total Radium, BG-1 & BG-2 (pCi/L)



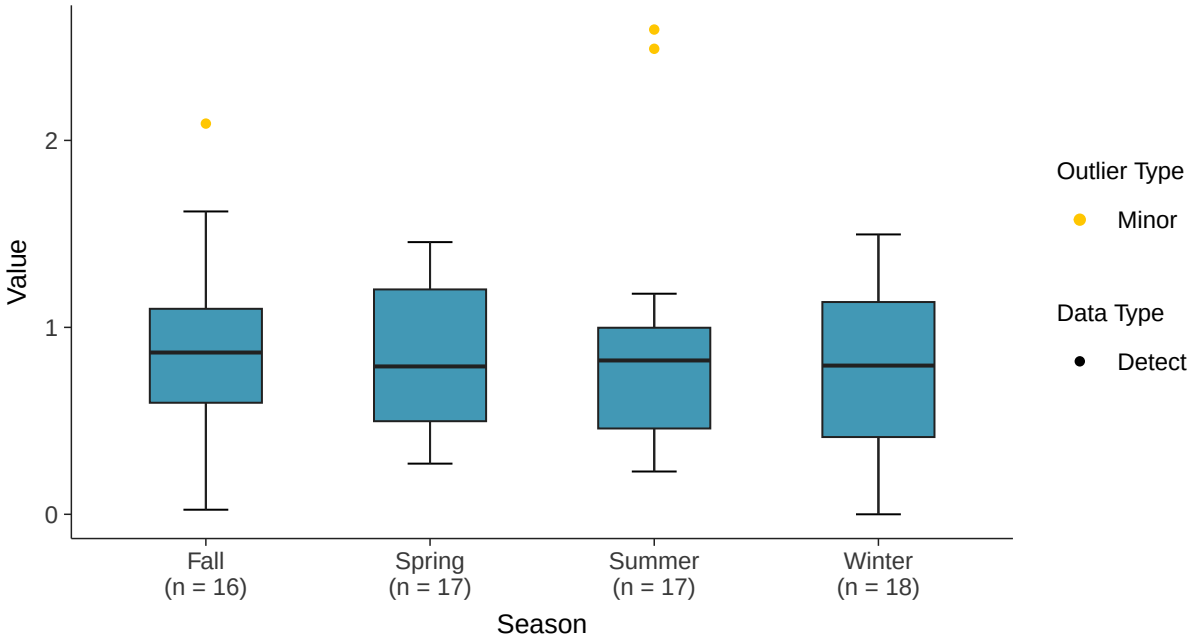
Boxplot

Total Radium, BG-1 & BG-2 (pCi/L)



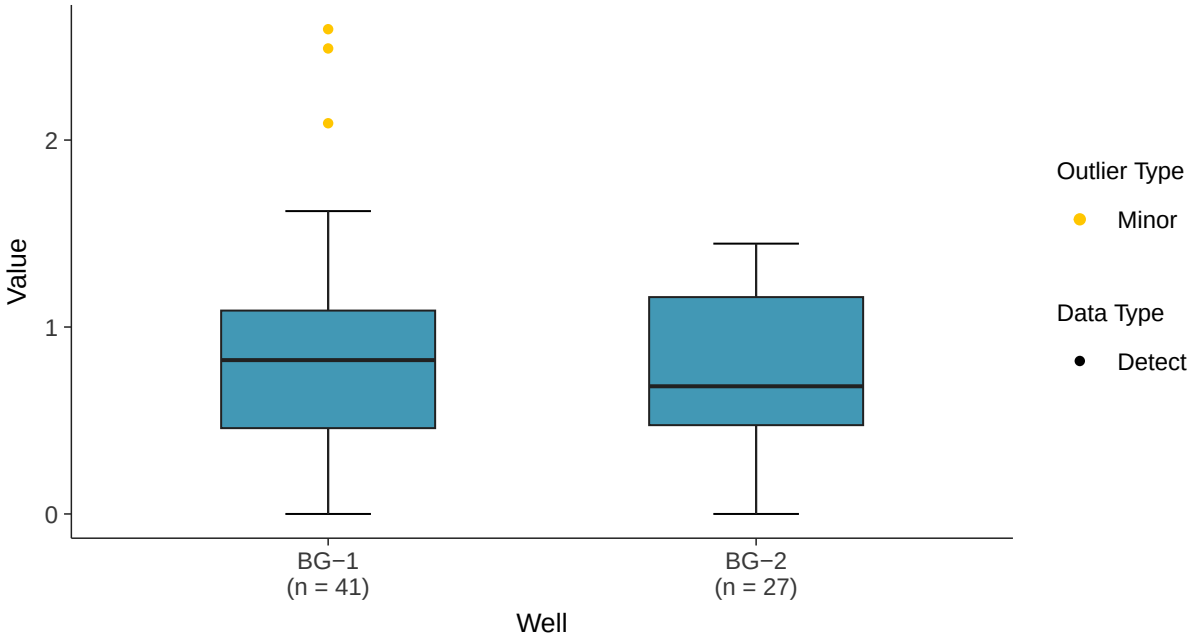
Boxplot by Season

Total Radium, BG-1 & BG-2 (pCi/L)



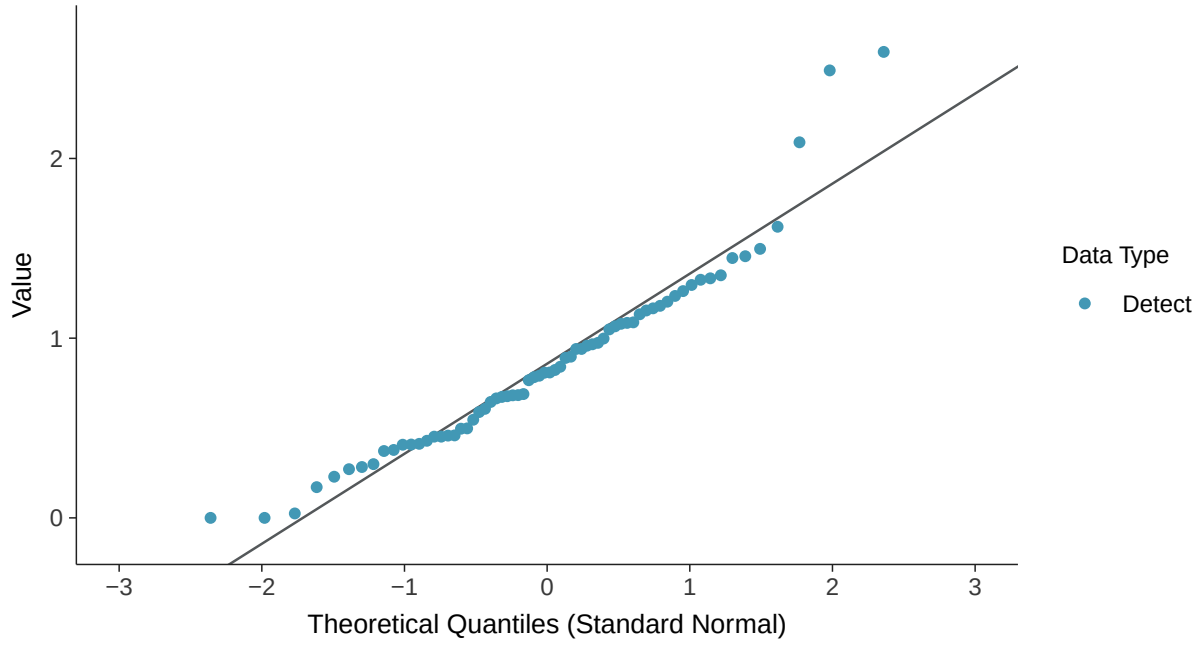
Boxplot by Well

Total Radium, BG-1 & BG-2 (pCi/L)



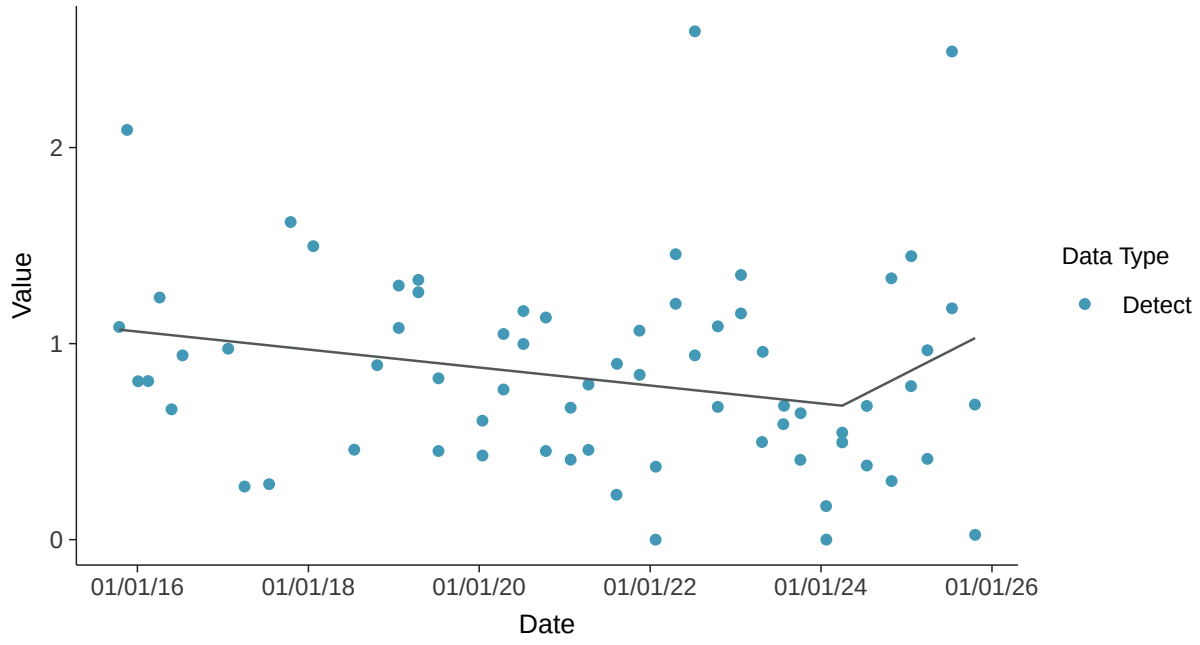
Normal Q-Q plot

Total Radium, BG-1 & BG-2 (pCi/L)



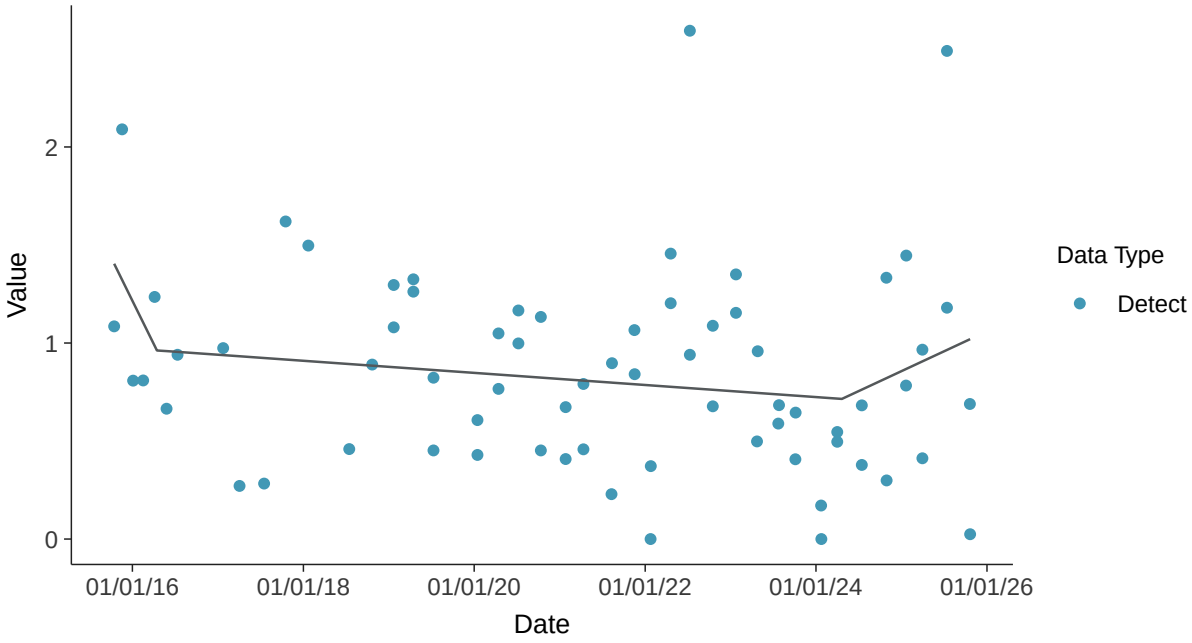
Trend Regression: Piecewise Linear-Linear

Total Radium, BG-1 & BG-2 (pCi/L)



Trend Regression: Piecewise Linear-Linear-Linear

Total Radium, BG-1 & BG-2 (pCi/L)



D

Appendix D – Downgradient Wells Plots

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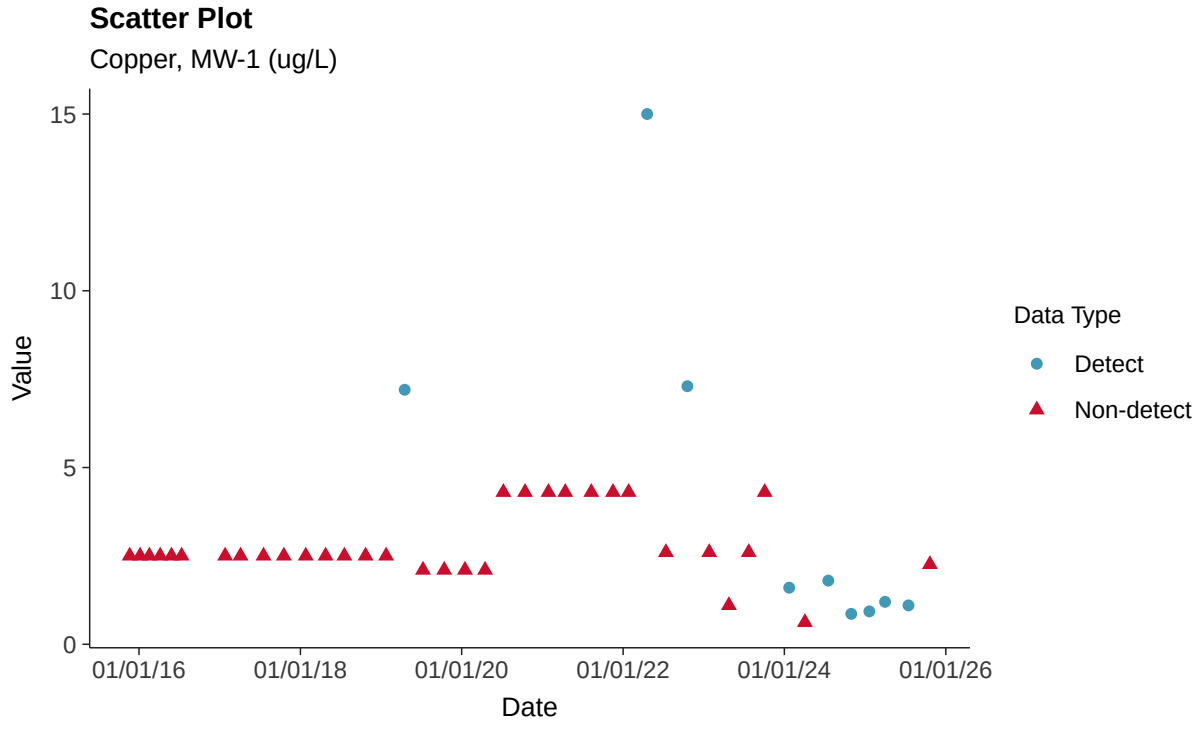
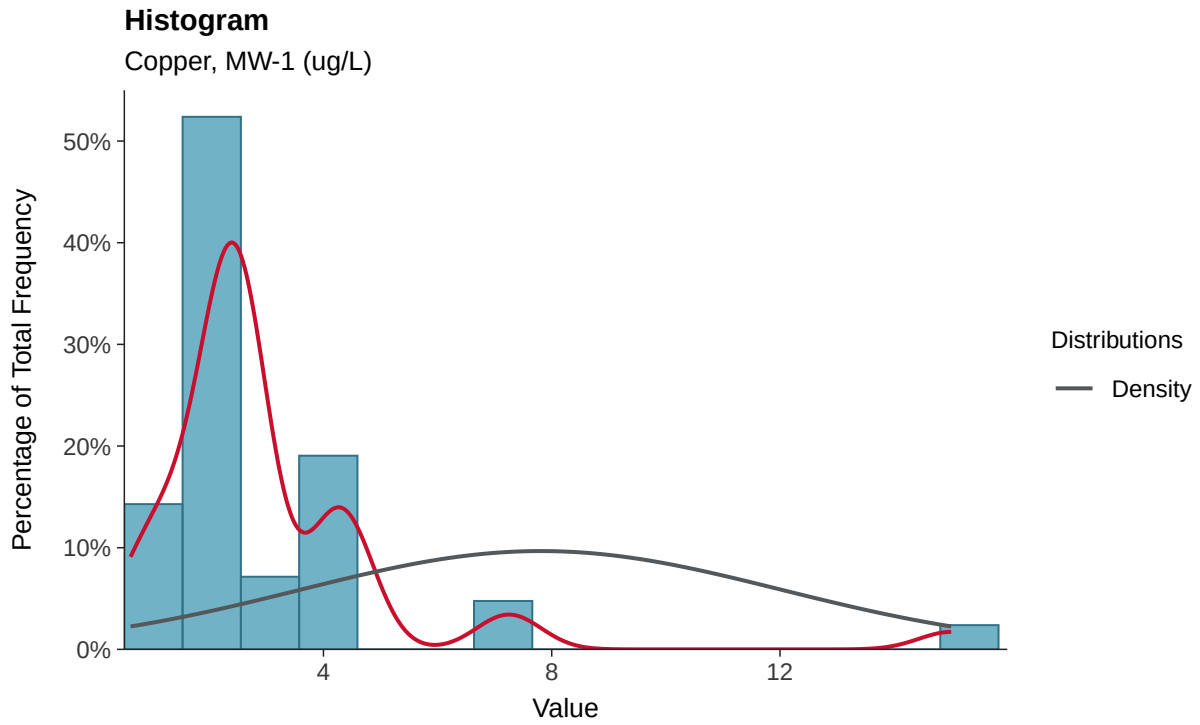
App. I Metals: Copper, MW-1

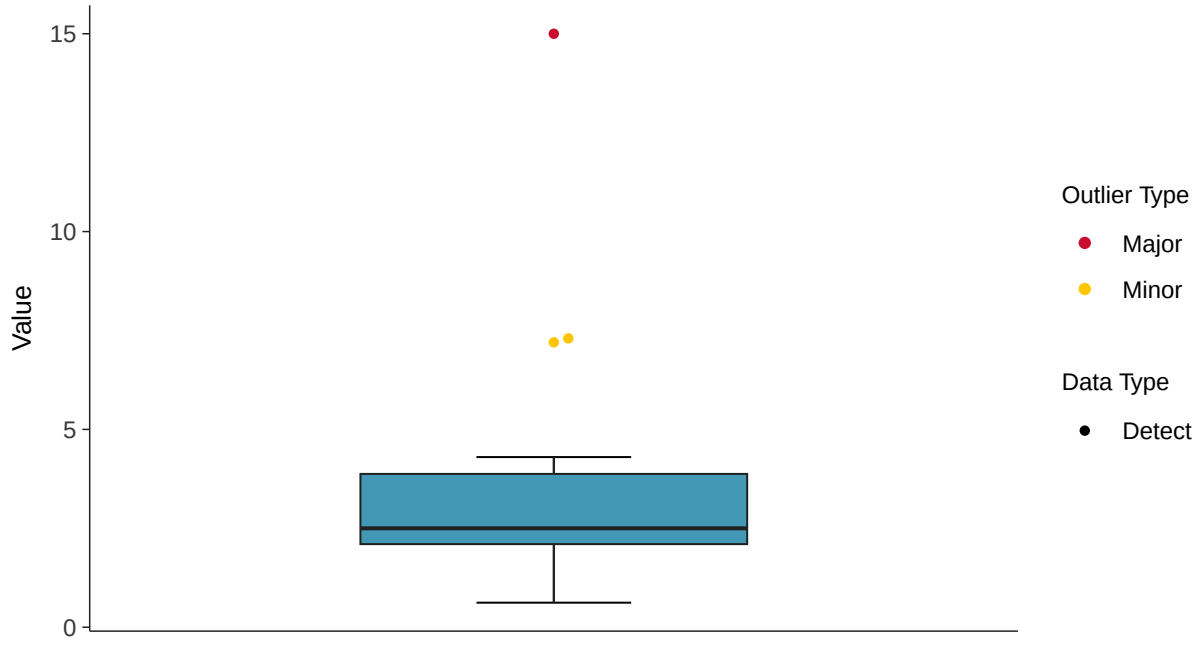
ID: 01_1_111





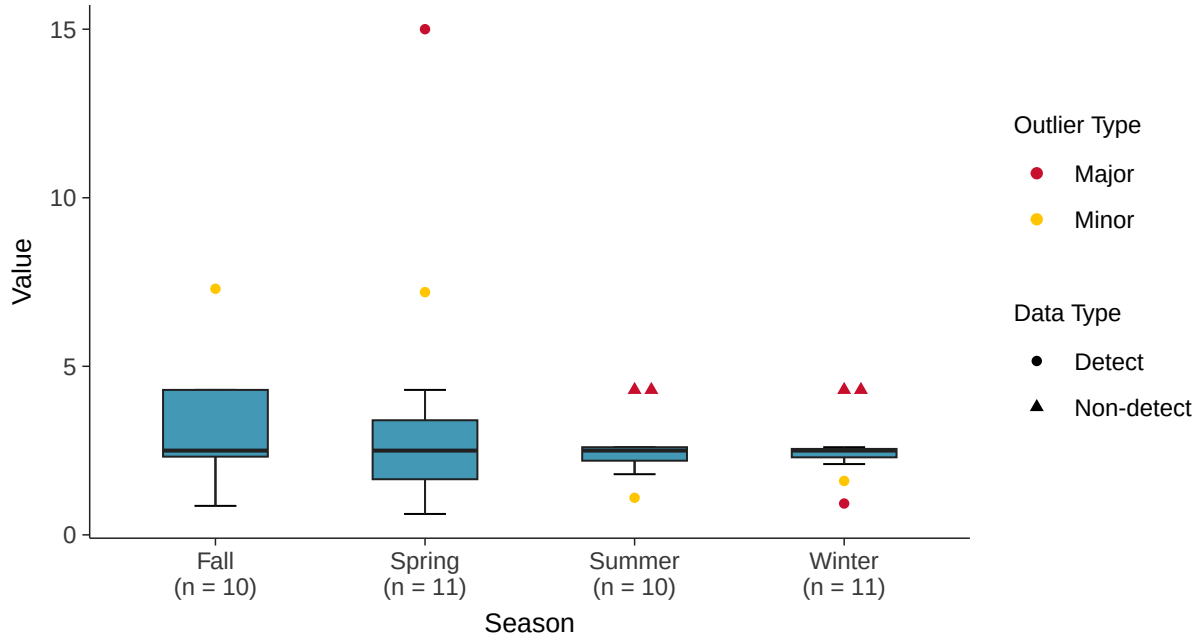
Boxplot

Copper, MW-1 (ug/L)



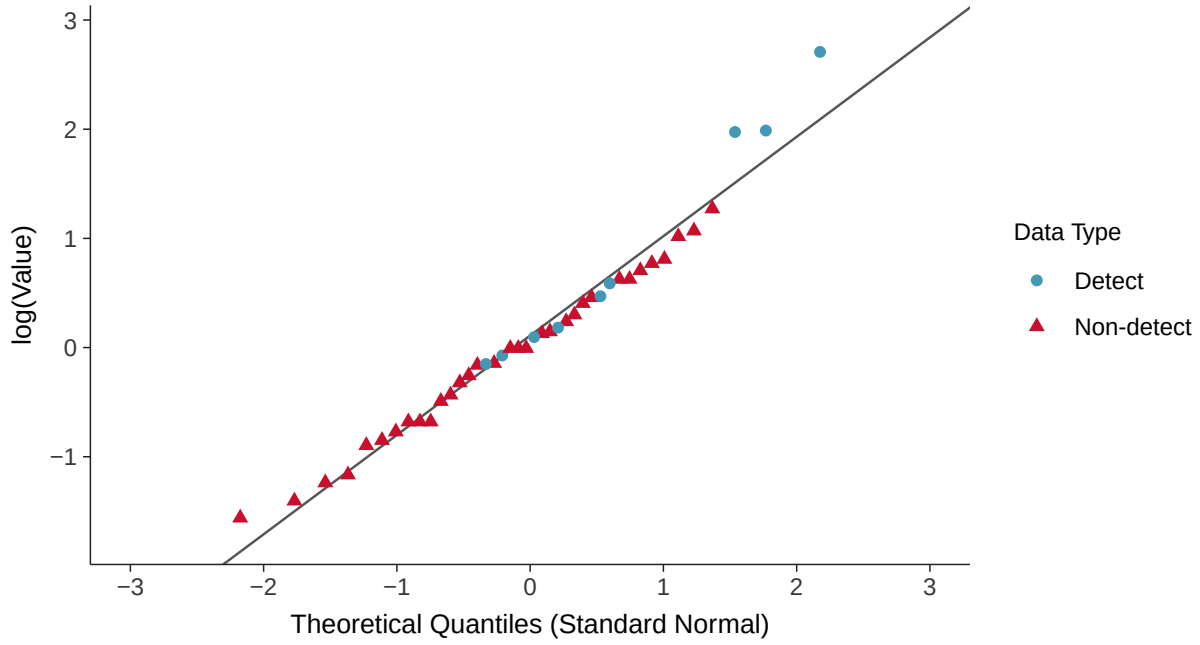
Boxplot by Season

Copper, MW-1 (ug/L)



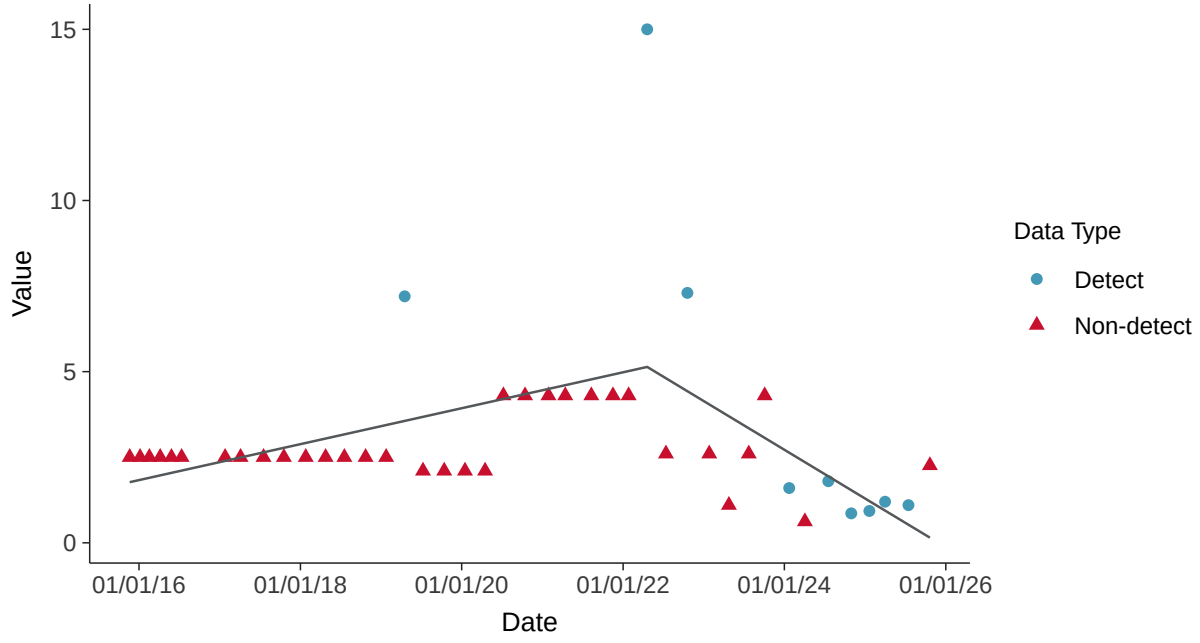
Lognormal Q-Q plot using ROS Imputed Estimates

Copper, MW-1 (ug/L)



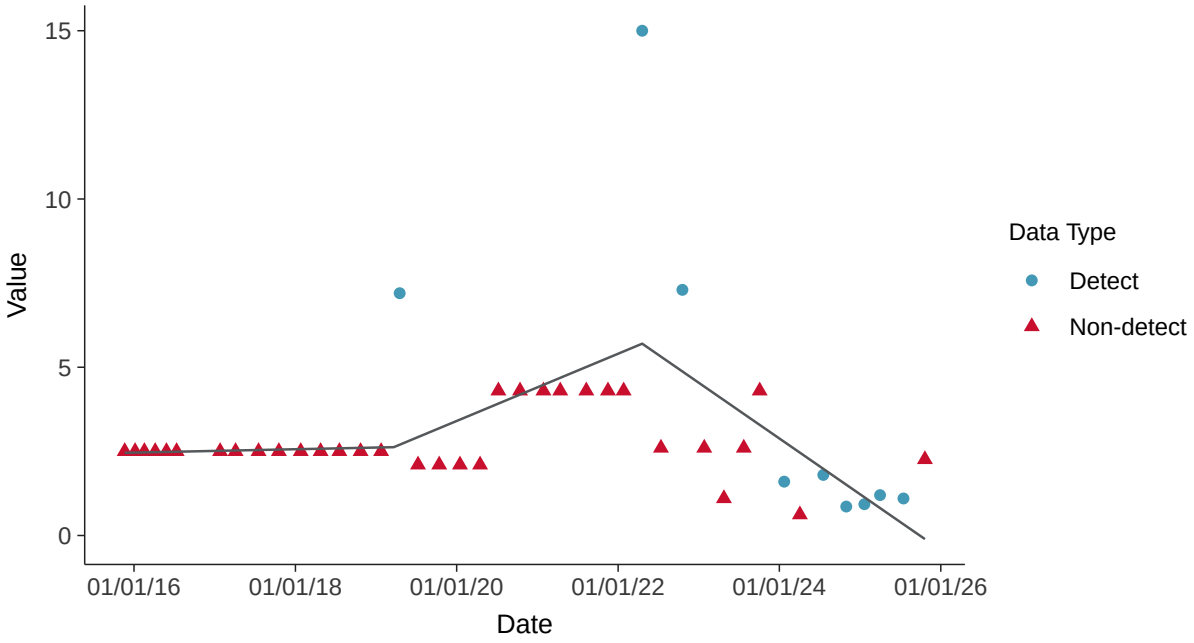
Trend Regression: Piecewise Linear-Linear

Copper, MW-1 (ug/L)



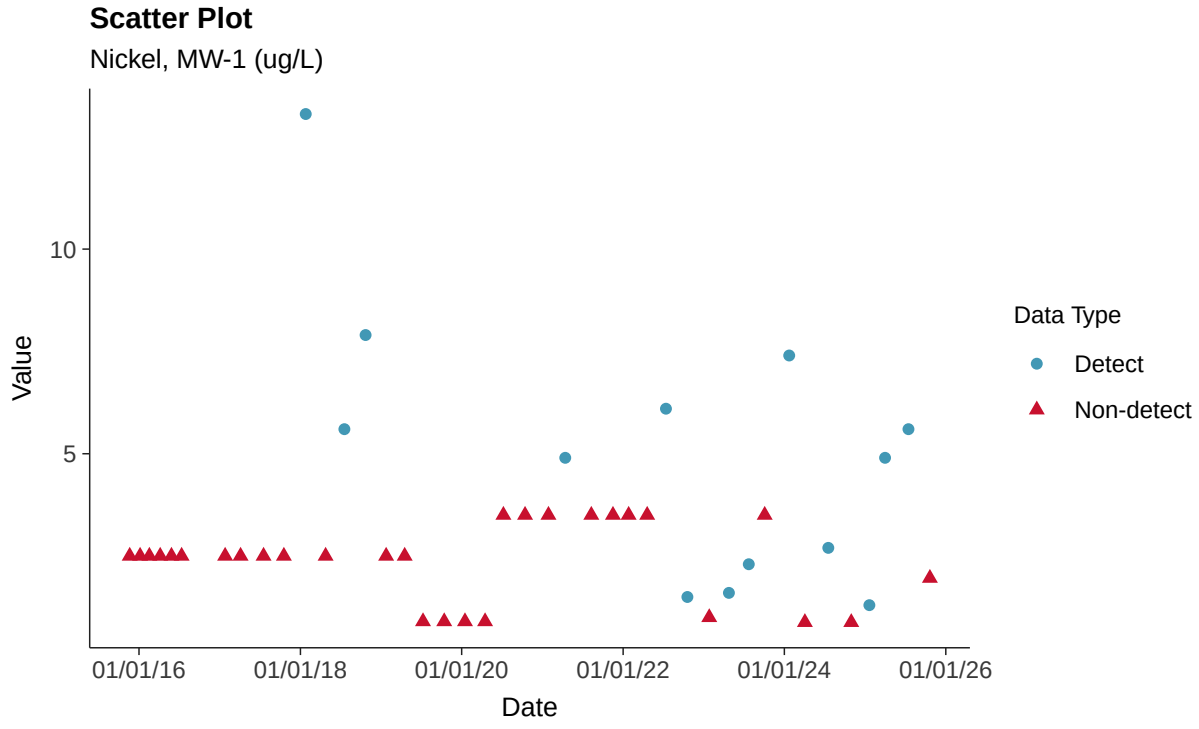
Trend Regression: Piecewise Linear-Linear-Linear

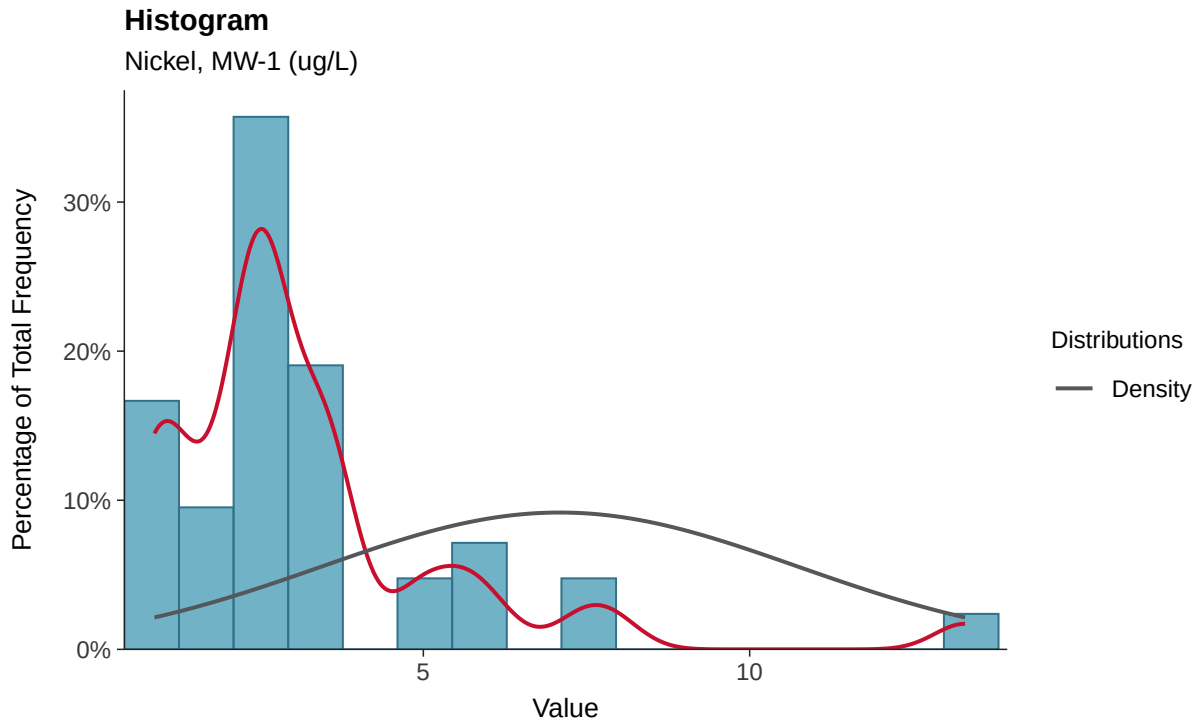
Copper, MW-1 (ug/L)



App. I Metals: Nickel, MW-1

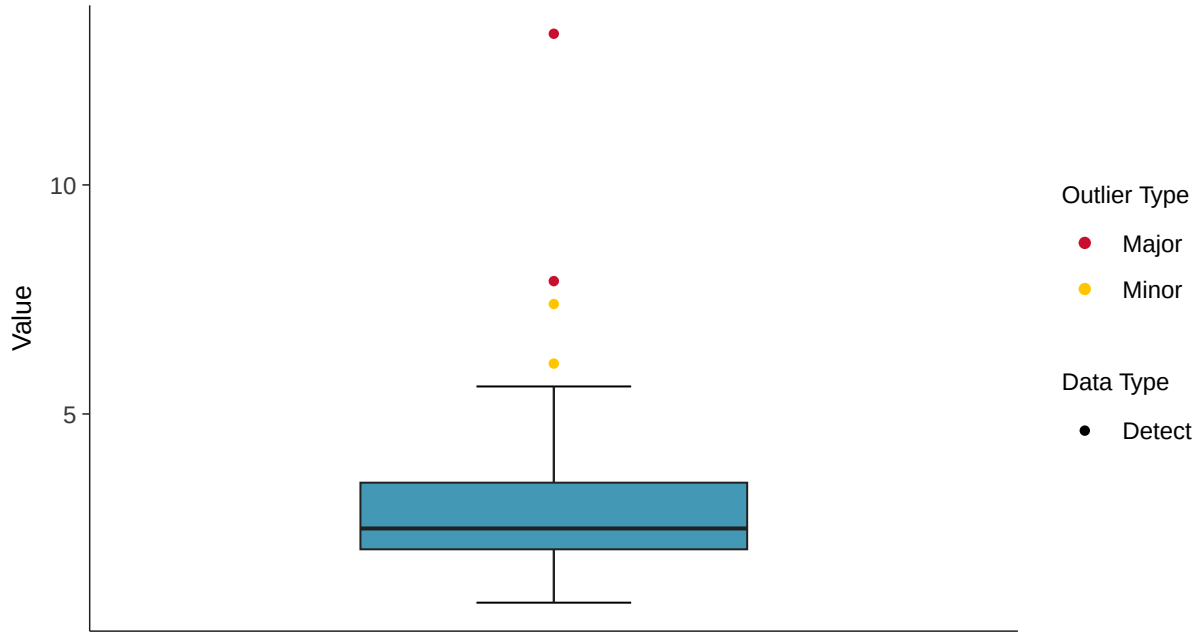
ID: 01_1_117





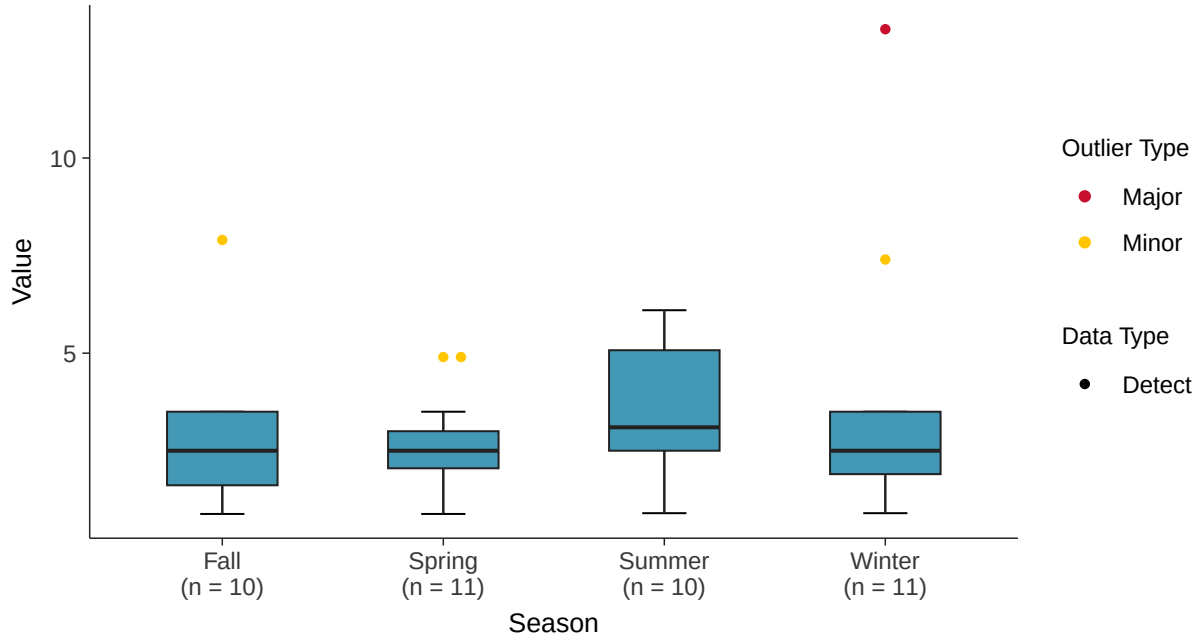
Boxplot

Nickel, MW-1 (ug/L)



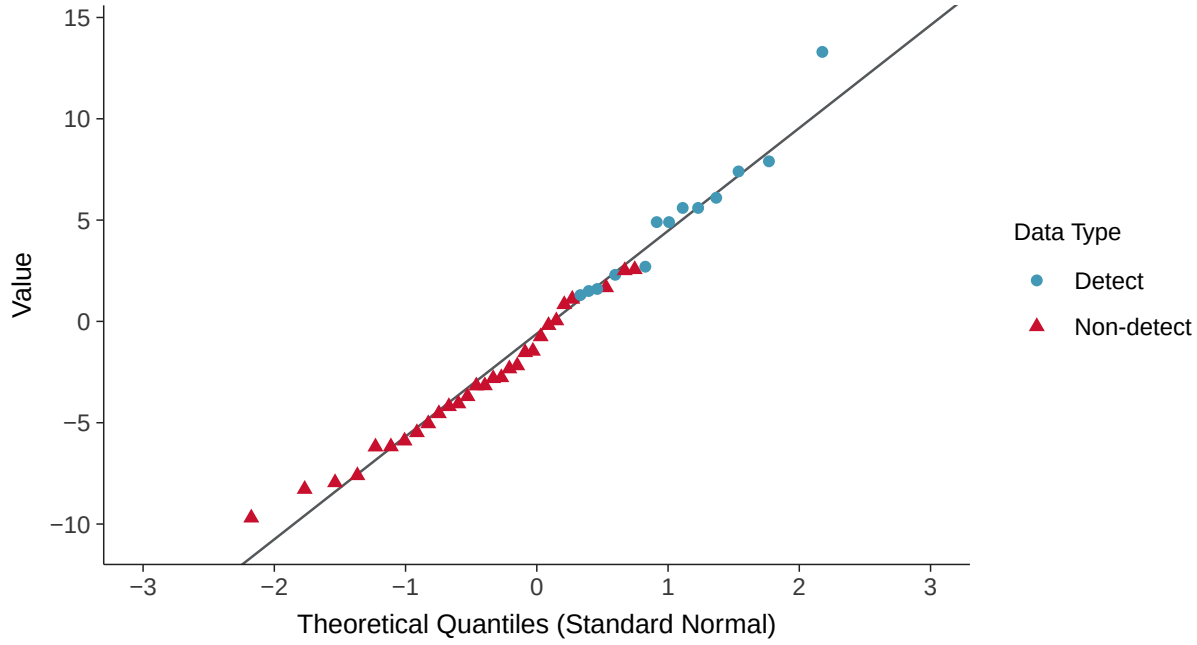
Boxplot by Season

Nickel, MW-1 (ug/L)



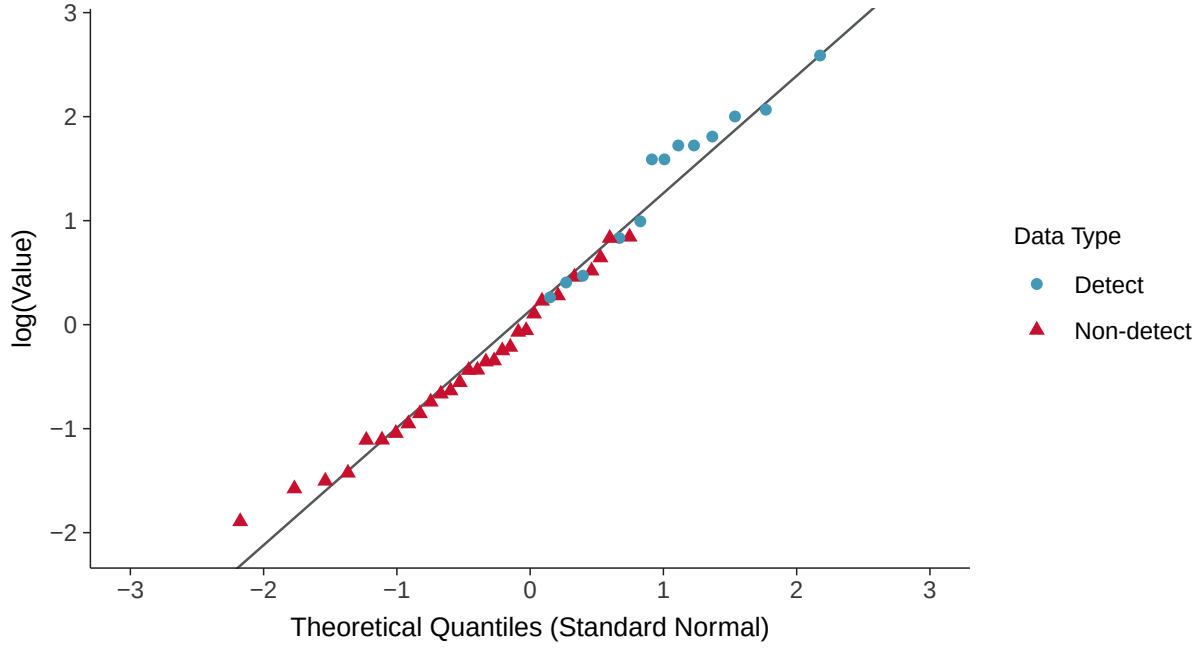
Normal Q-Q plot using ROS Imputed Estimates

Nickel, MW-1 (ug/L)



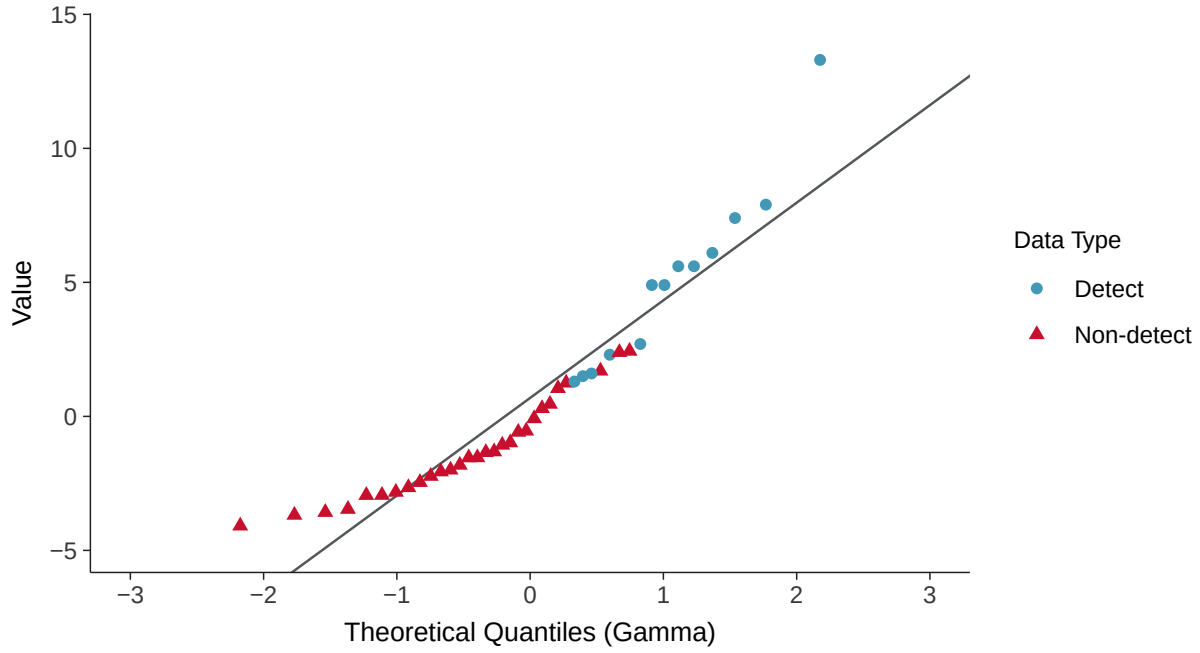
Lognormal Q-Q plot using ROS Imputed Estimates

Nickel, MW-1 (ug/L)



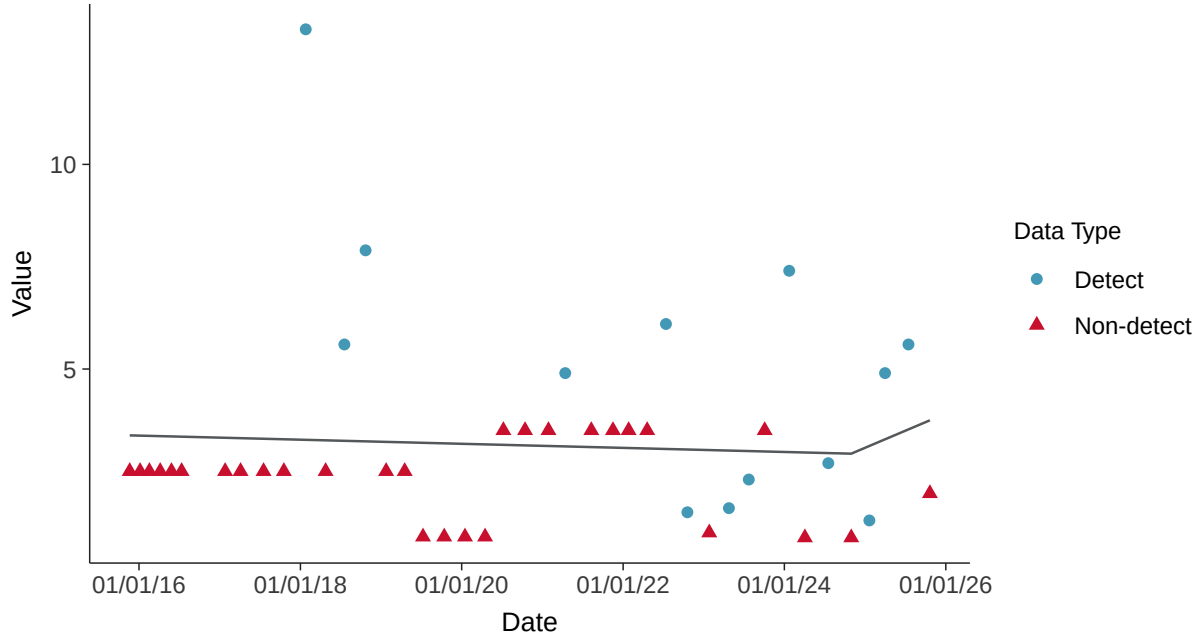
Gamma Q-Q plot using ROS Imputed Estimates

Nickel, MW-1 (ug/L)



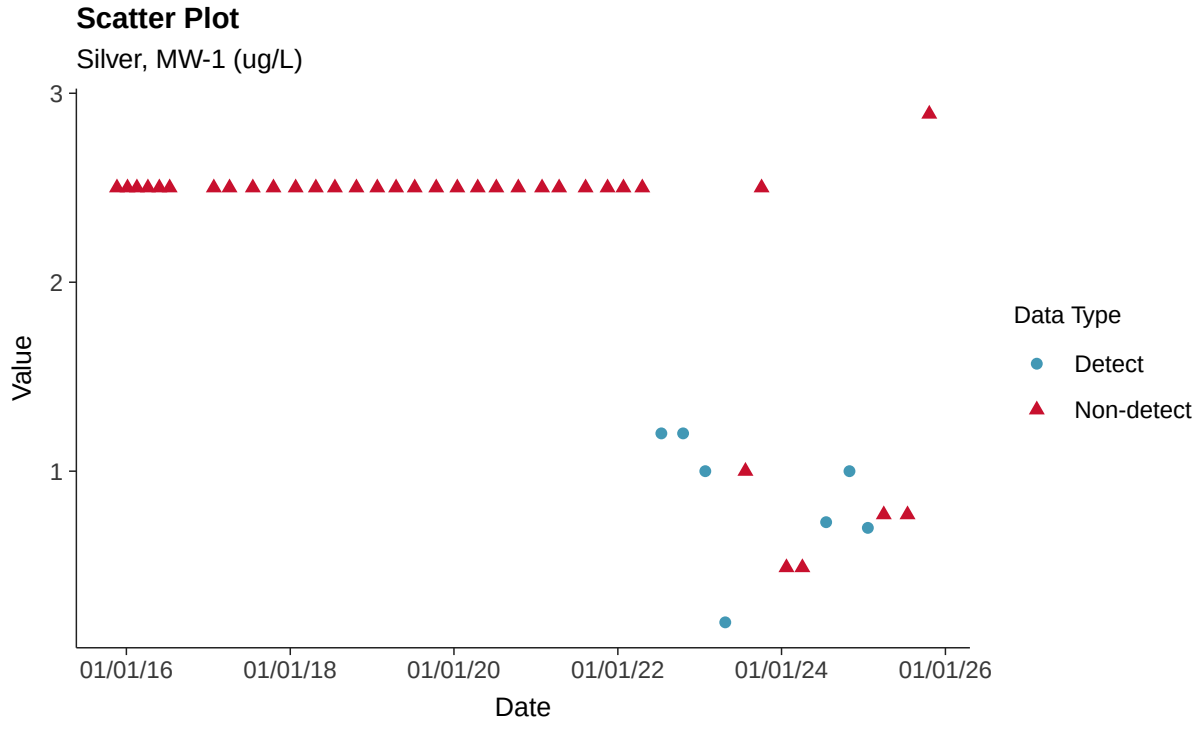
Trend Regression: Piecewise Linear-Linear

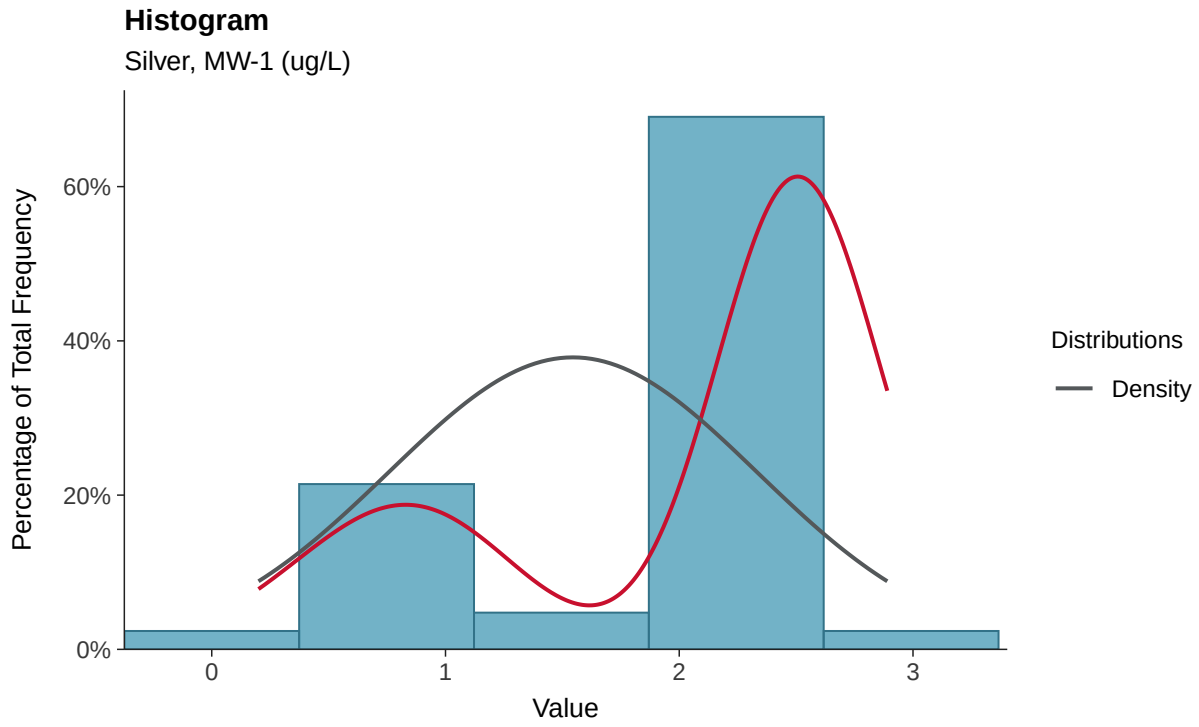
Nickel, MW-1 (ug/L)



App. I Metals: Silver, MW-1

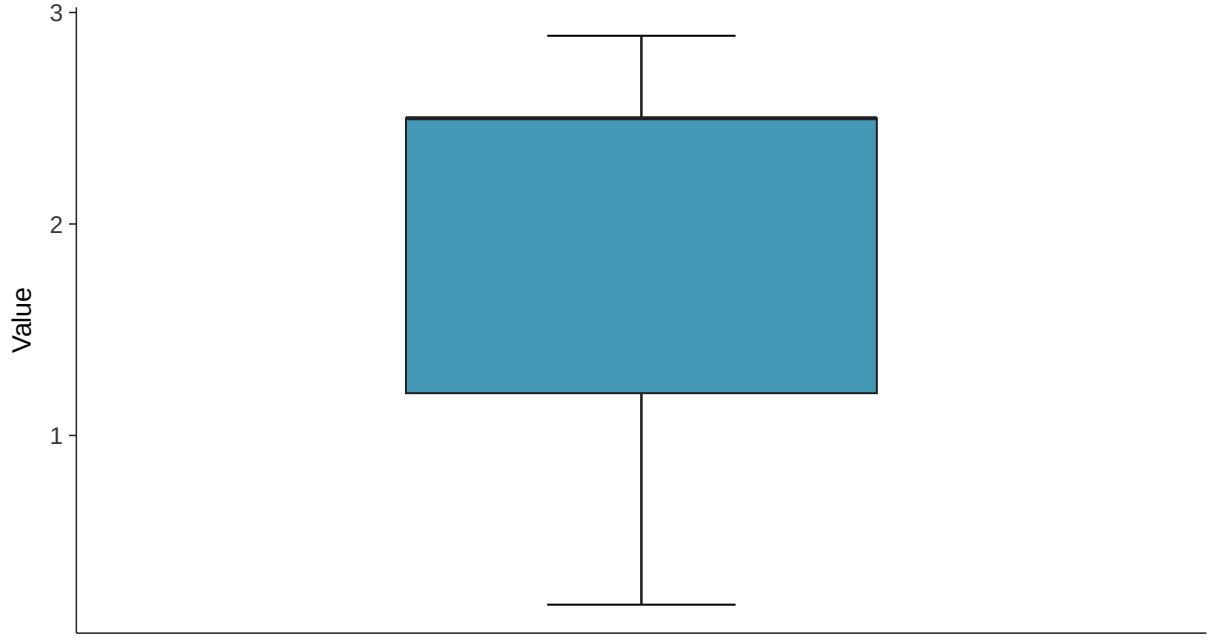
ID: 01_1_122





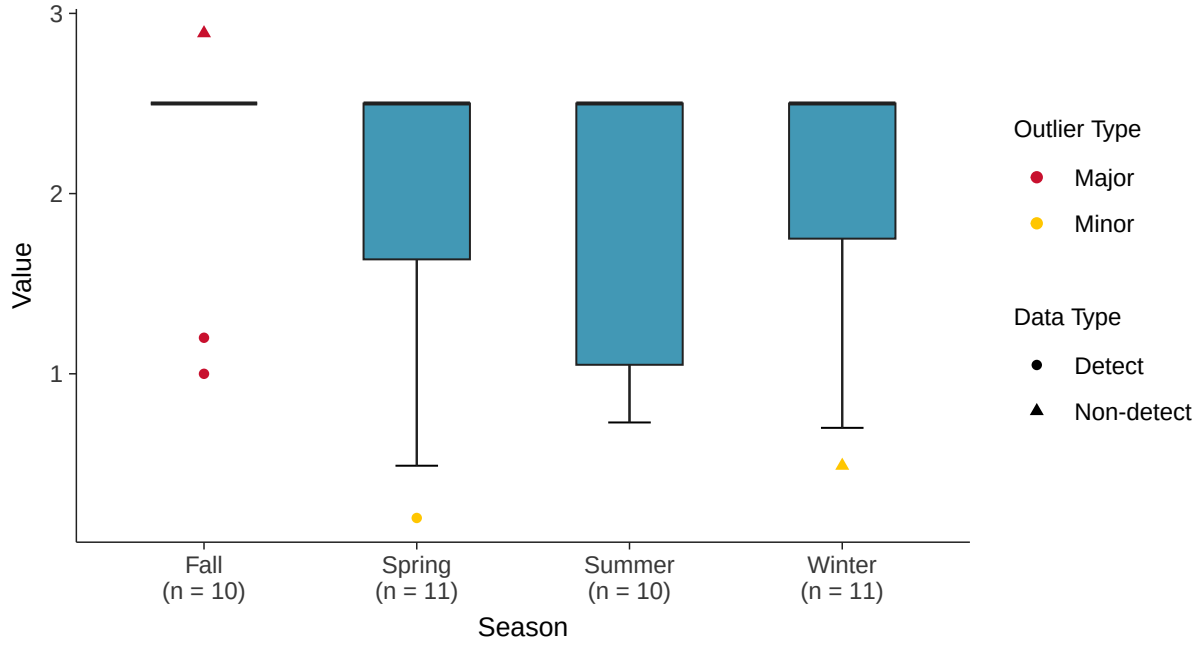
Boxplot

Silver, MW-1 (ug/L)



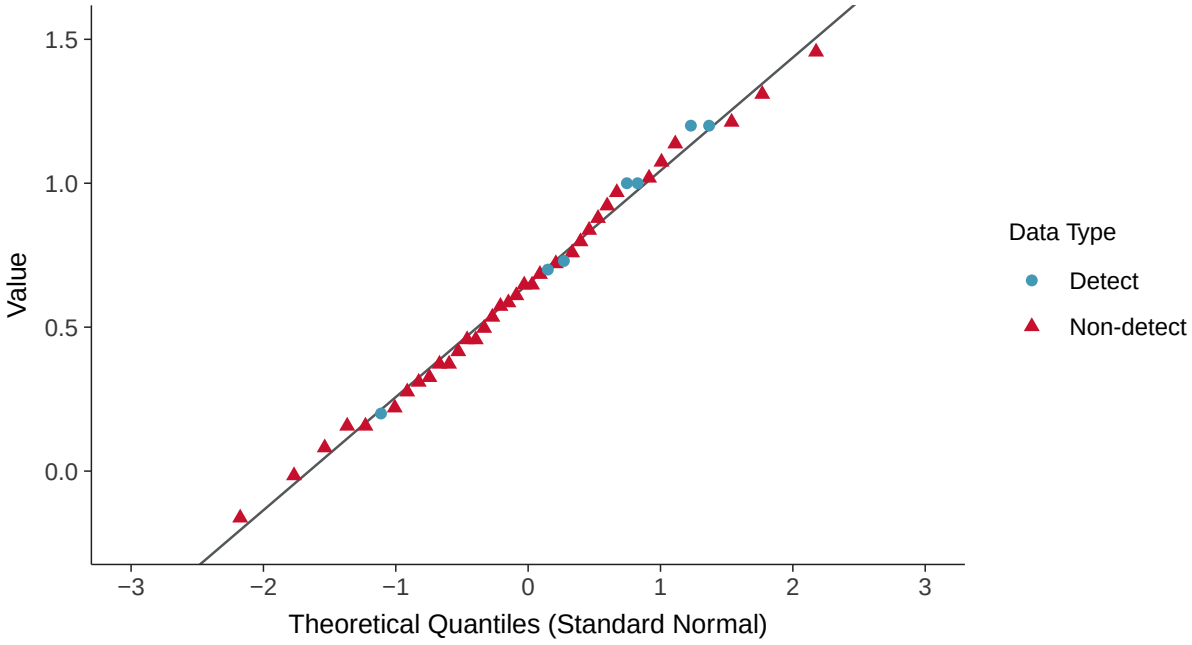
Boxplot by Season

Silver, MW-1 (ug/L)



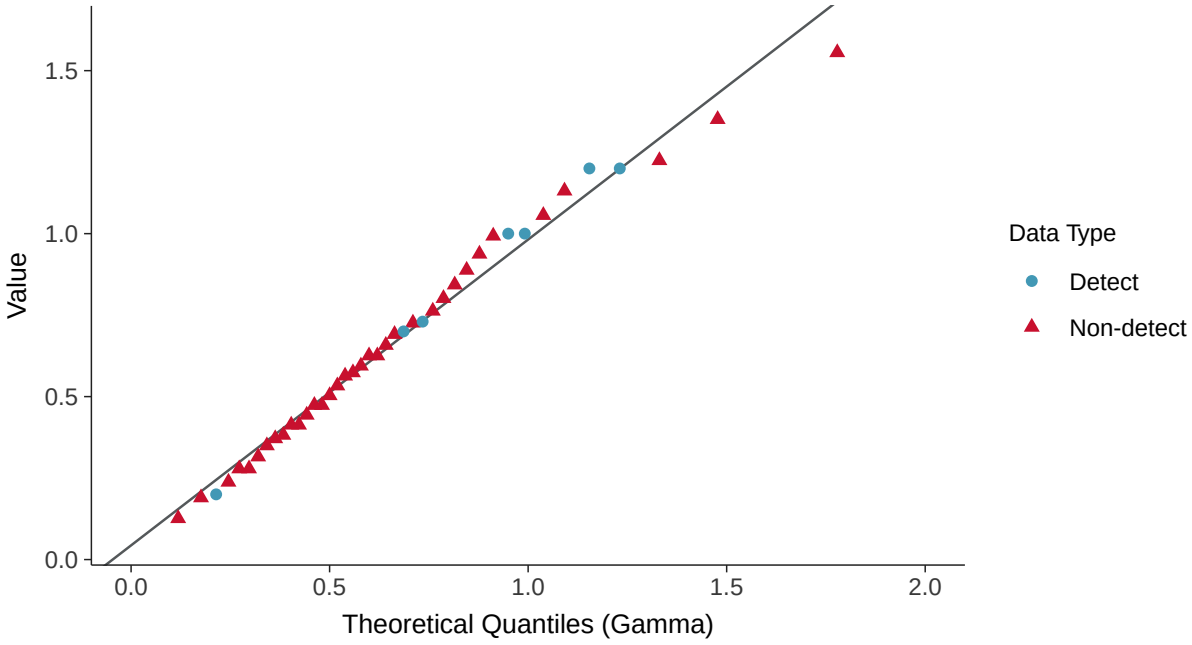
Normal Q-Q plot using ROS Imputed Estimates

Silver, MW-1 (ug/L)



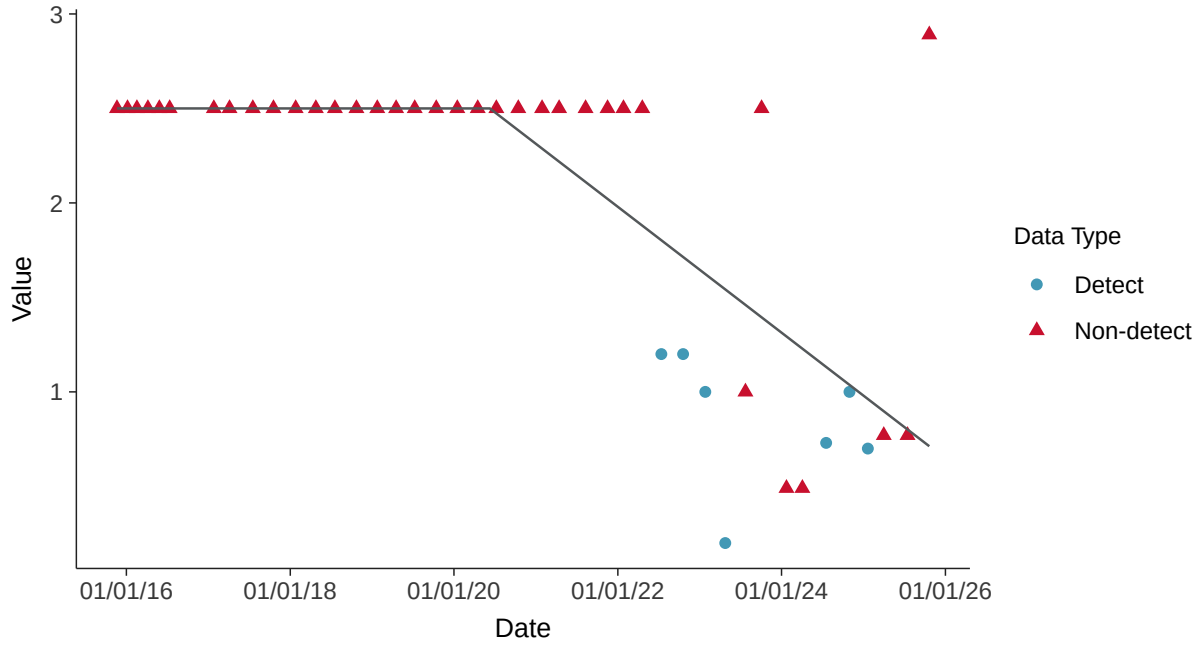
Gamma Q-Q plot using ROS Imputed Estimates

Silver, MW-1 (ug/L)



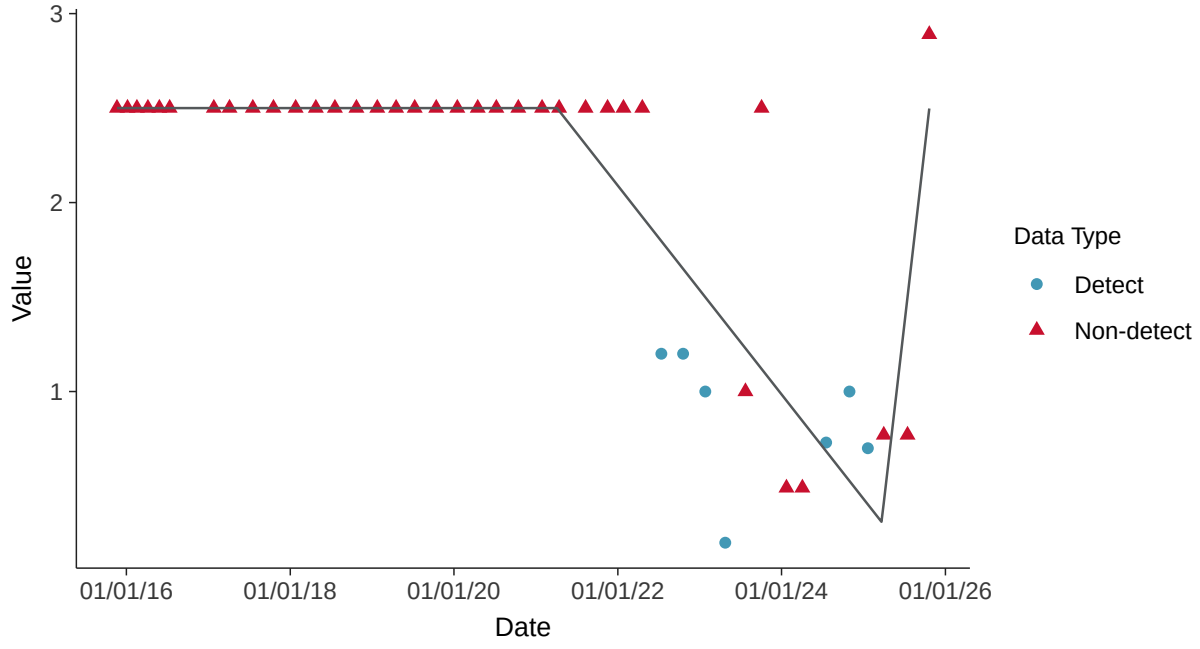
Trend Regression: Piecewise Linear-Linear

Silver, MW-1 (ug/L)



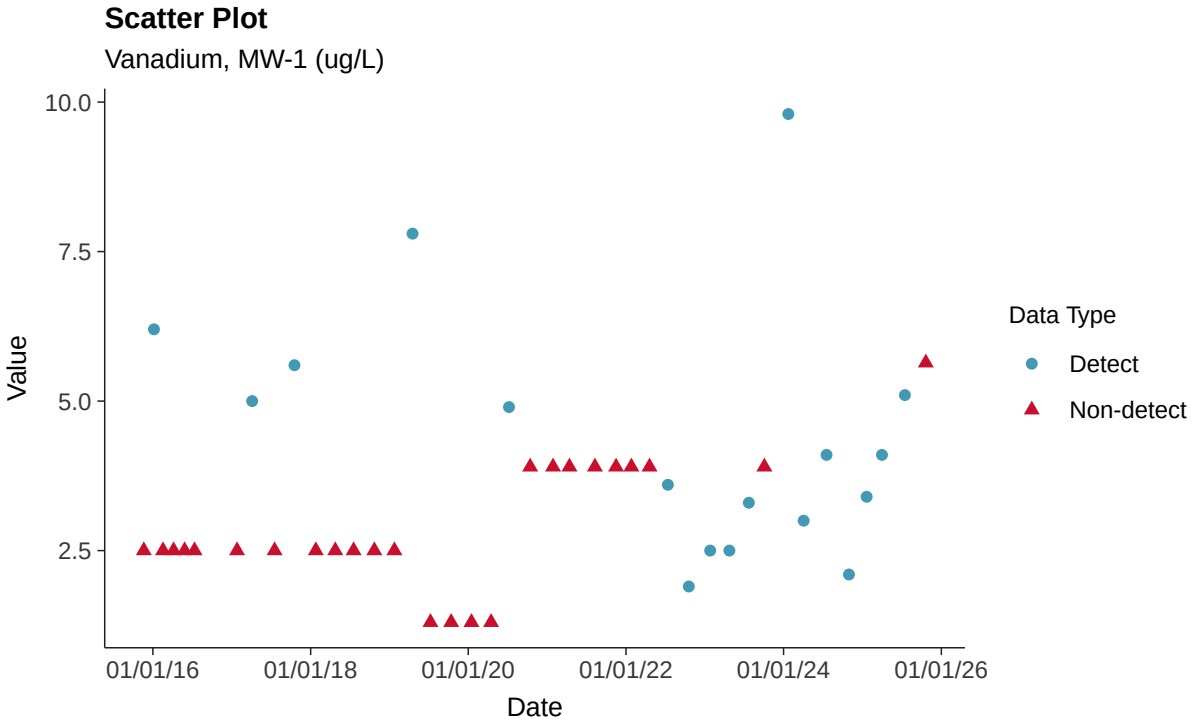
Trend Regression: Piecewise Linear-Linear-Linear

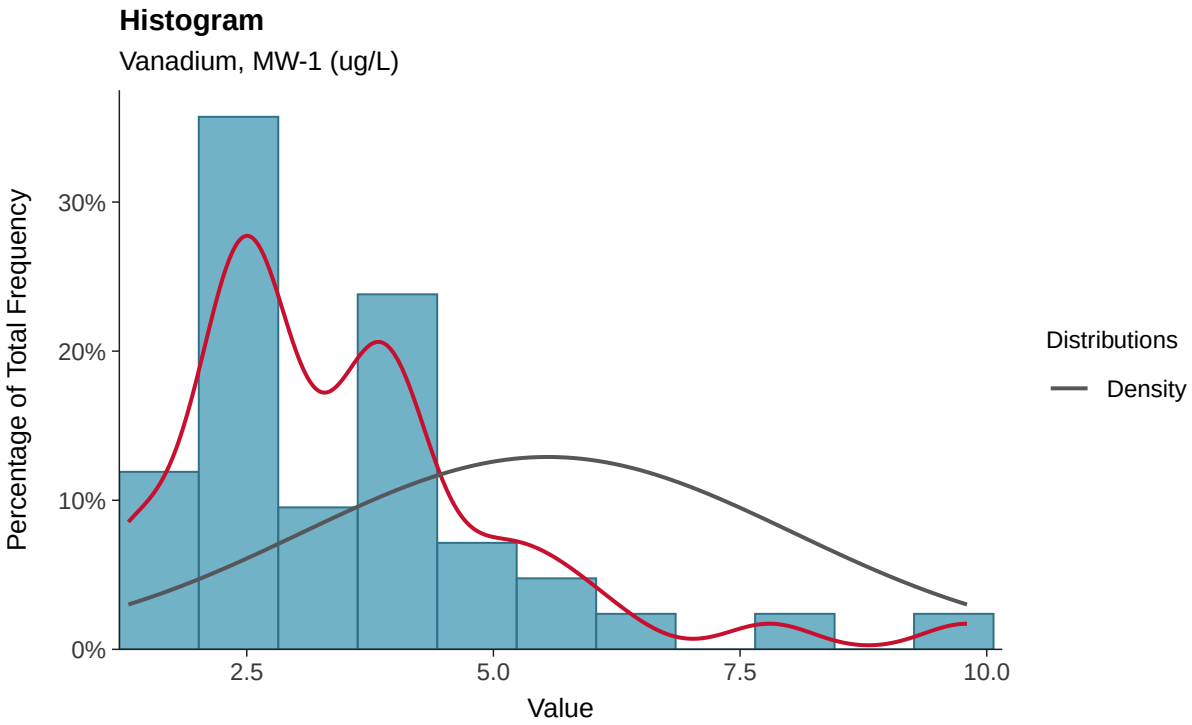
Silver, MW-1 (ug/L)



App. I Metals: Vanadium, MW-1

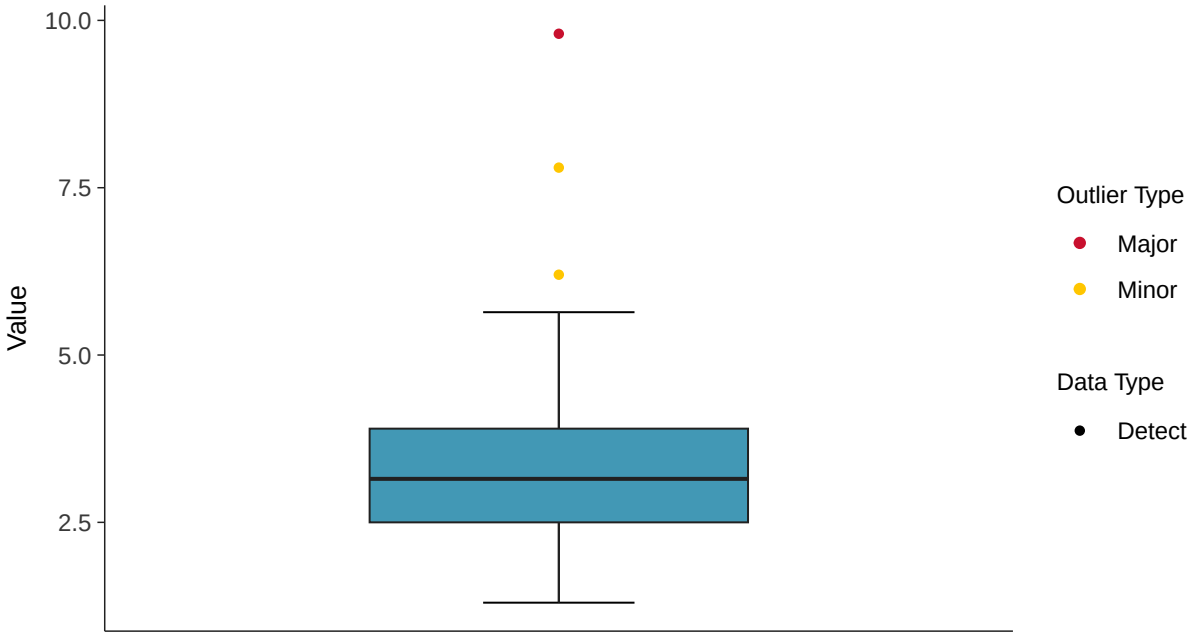
ID: 01_1_127





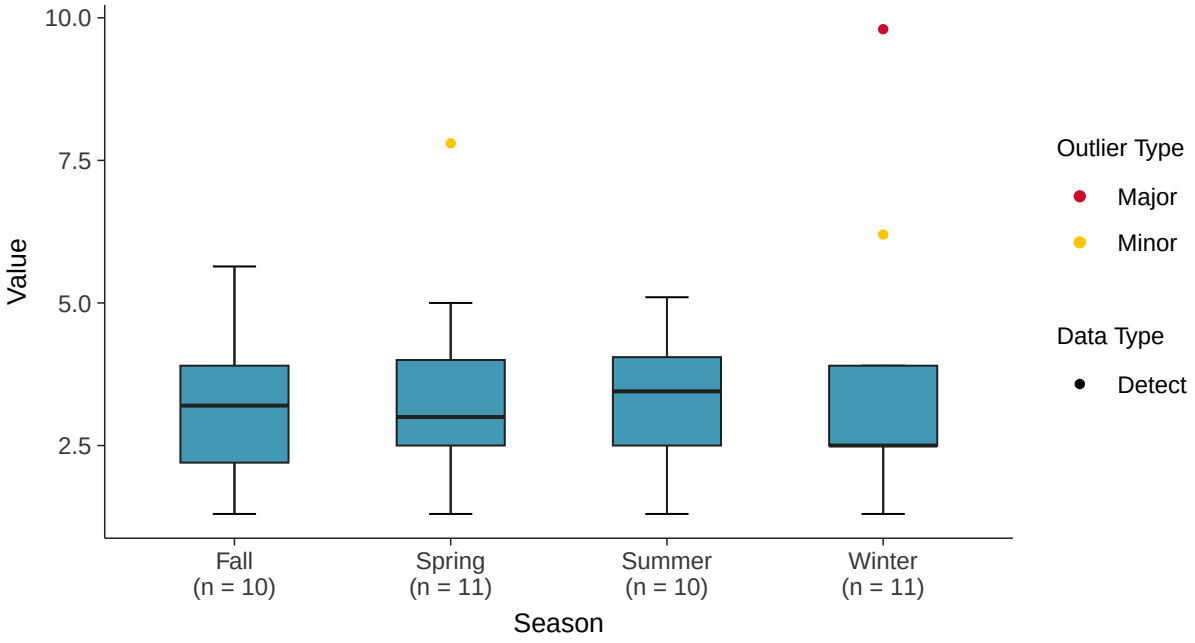
Boxplot

Vanadium, MW-1 (ug/L)



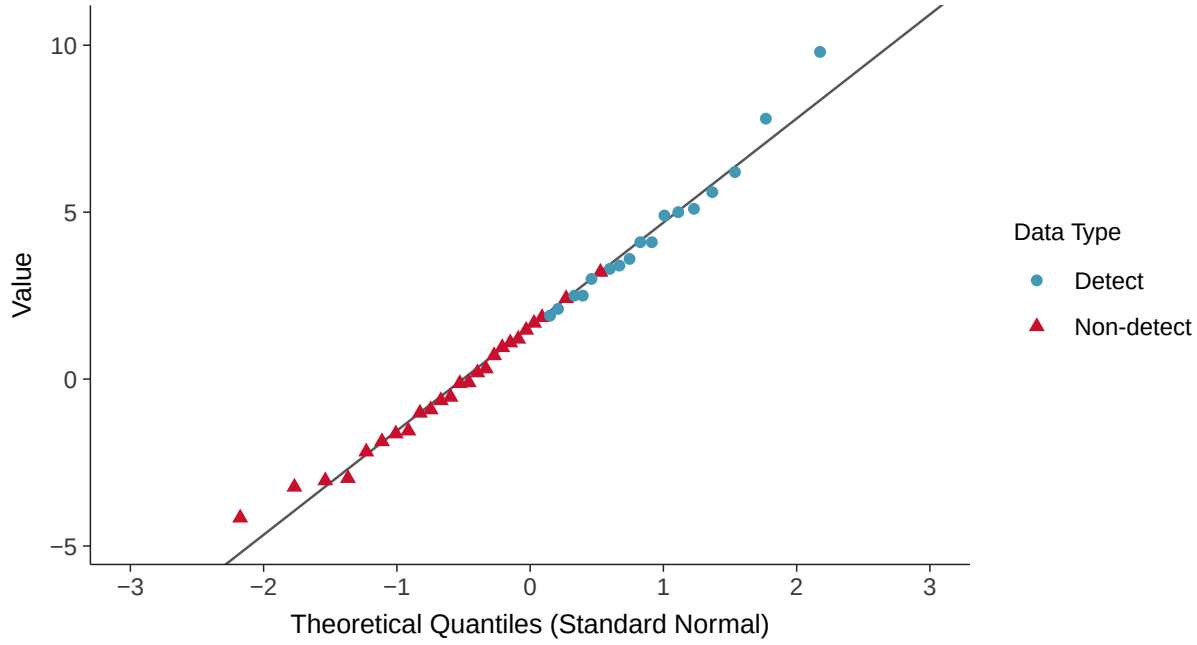
Boxplot by Season

Vanadium, MW-1 (ug/L)



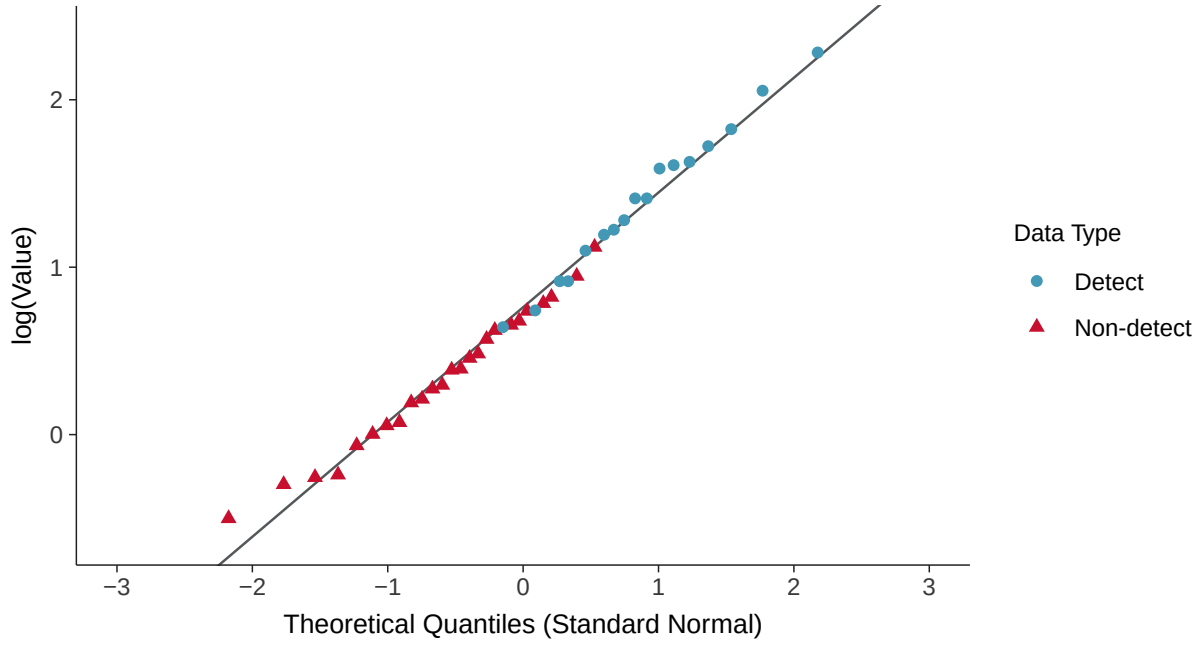
Normal Q-Q plot using ROS Imputed Estimates

Vanadium, MW-1 (ug/L)



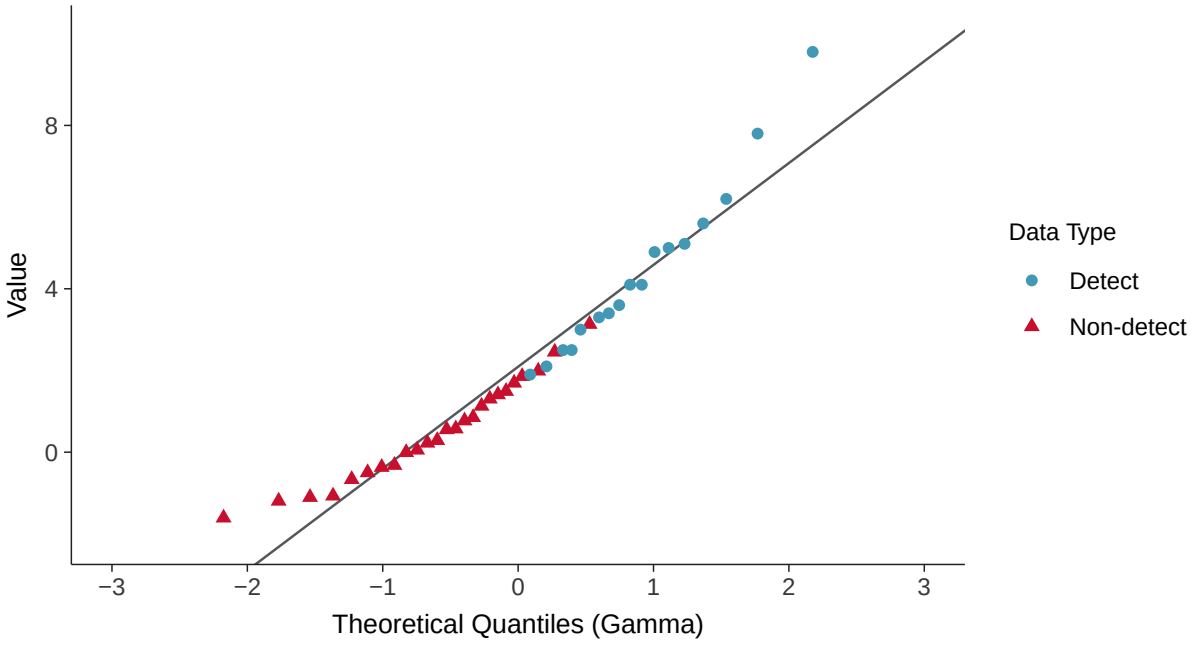
Lognormal Q-Q plot using ROS Imputed Estimates

Vanadium, MW-1 (ug/L)



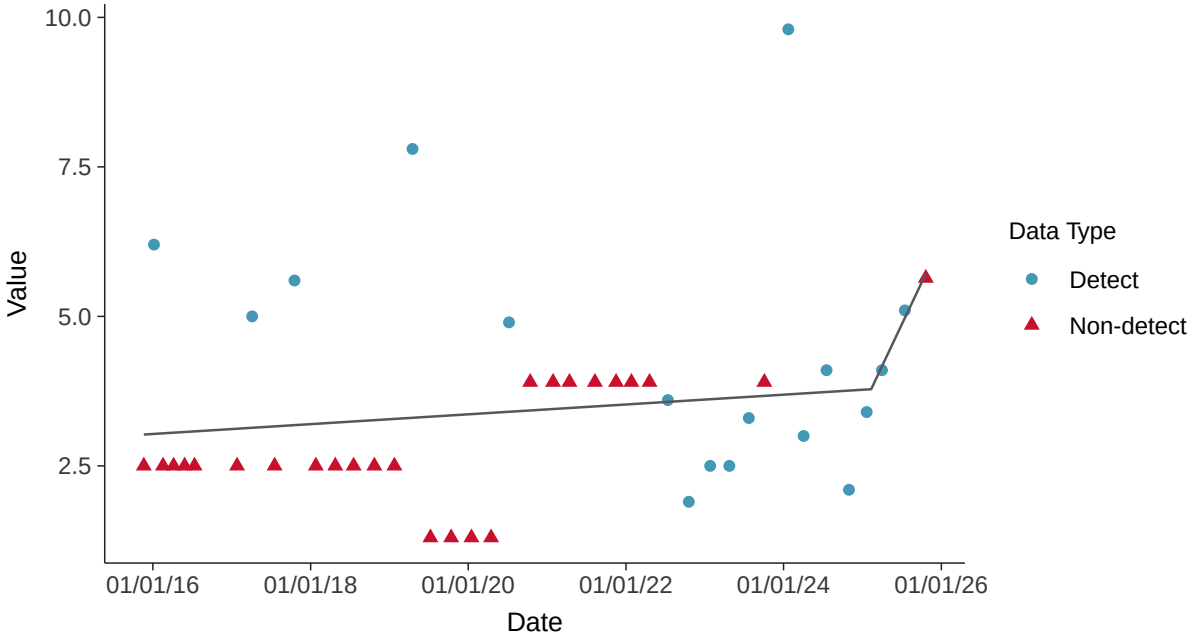
Gamma Q-Q plot using ROS Imputed Estimates

Vanadium, MW-1 (ug/L)



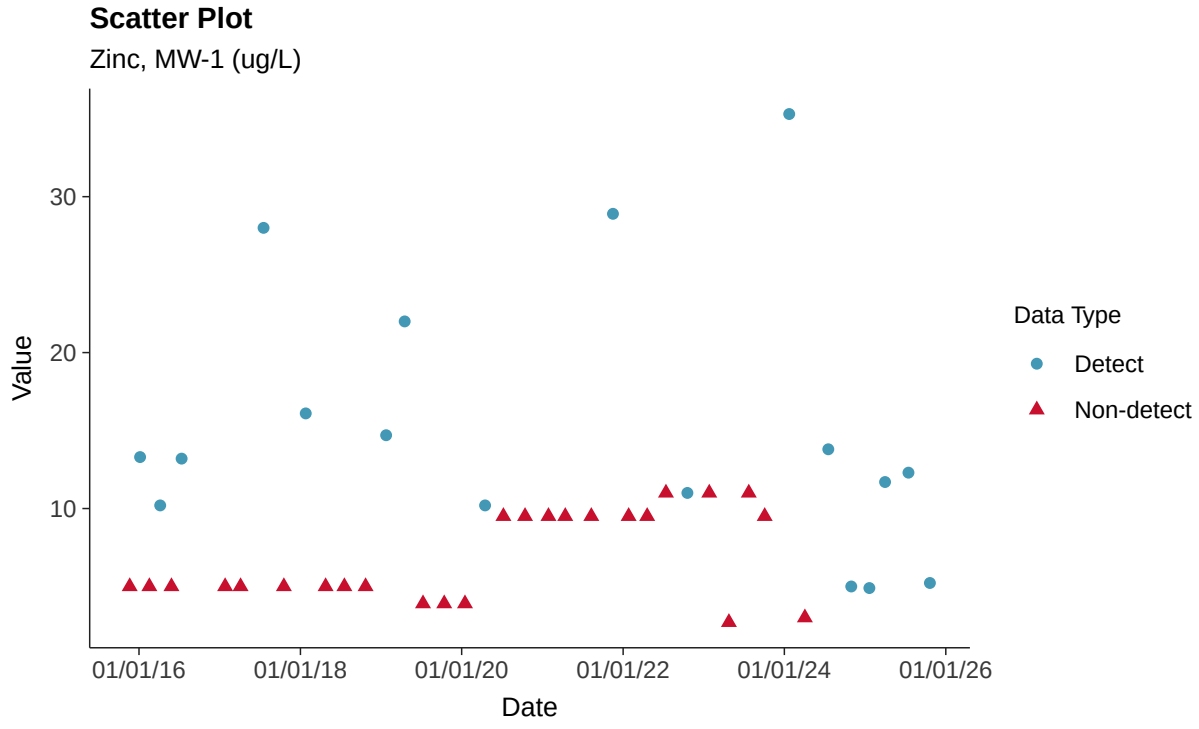
Trend Regression: Piecewise Linear-Linear

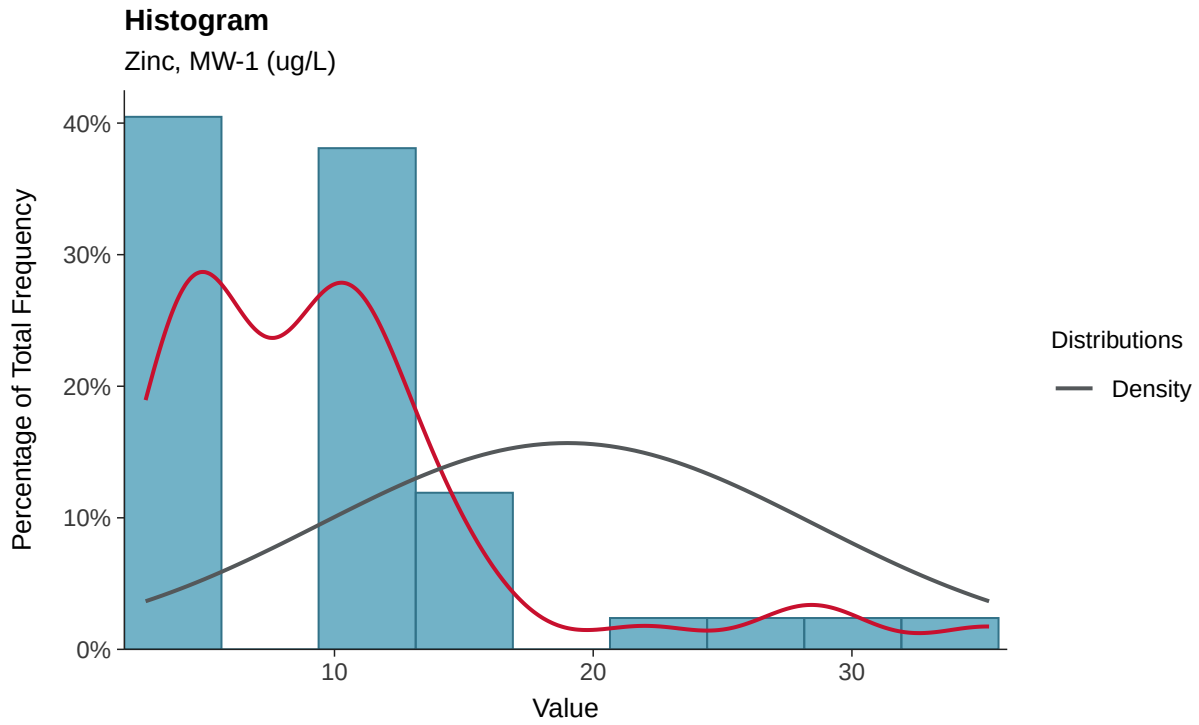
Vanadium, MW-1 (ug/L)



App. I Metals: Zinc, MW-1

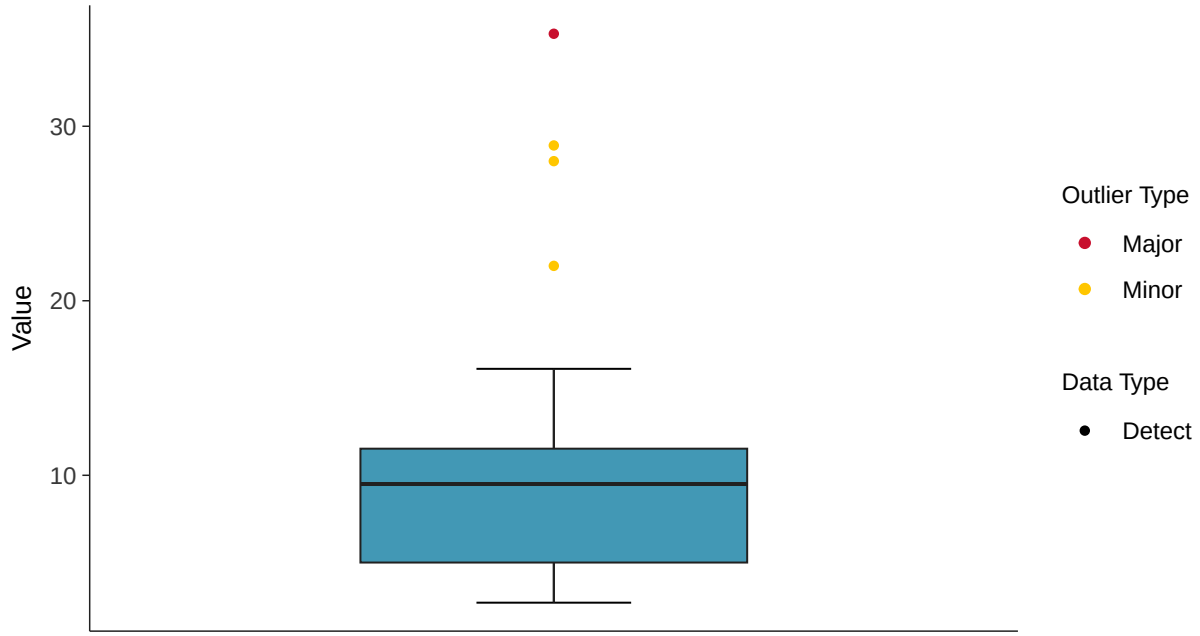
ID: 01_1_128





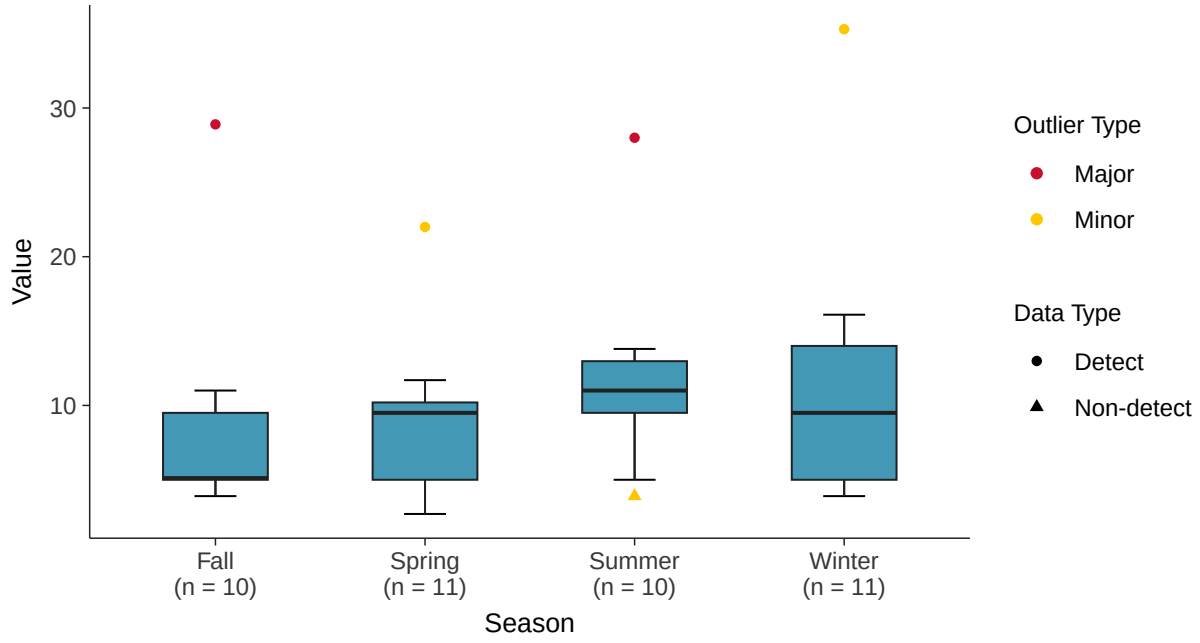
Boxplot

Zinc, MW-1 (ug/L)



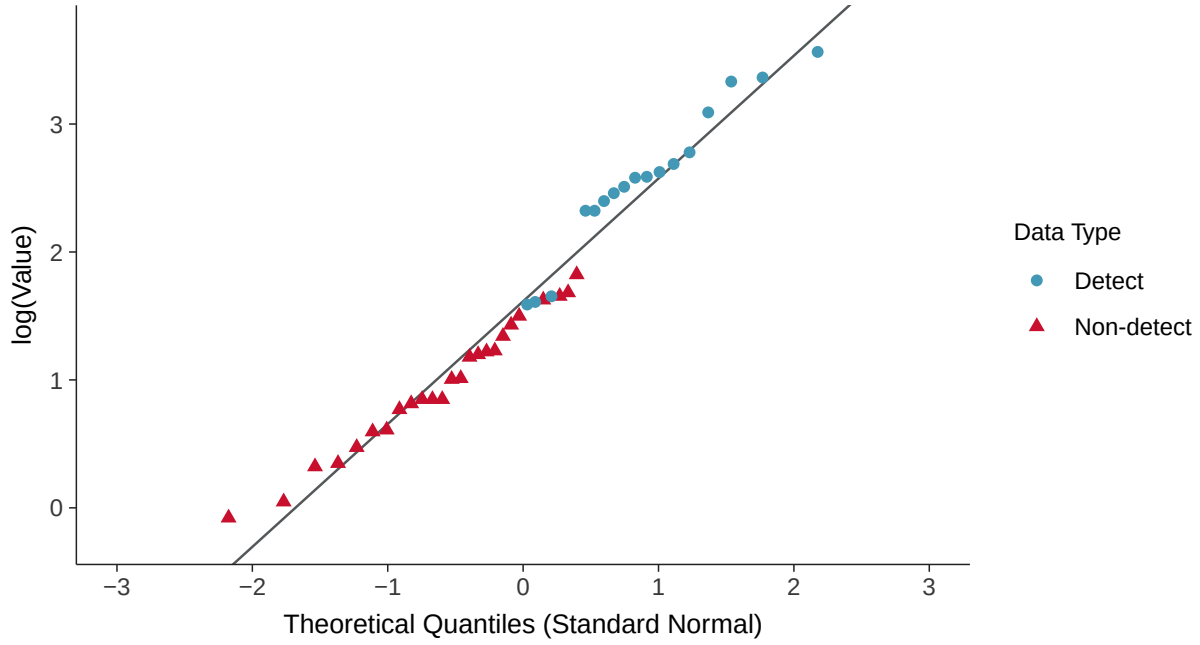
Boxplot by Season

Zinc, MW-1 (ug/L)



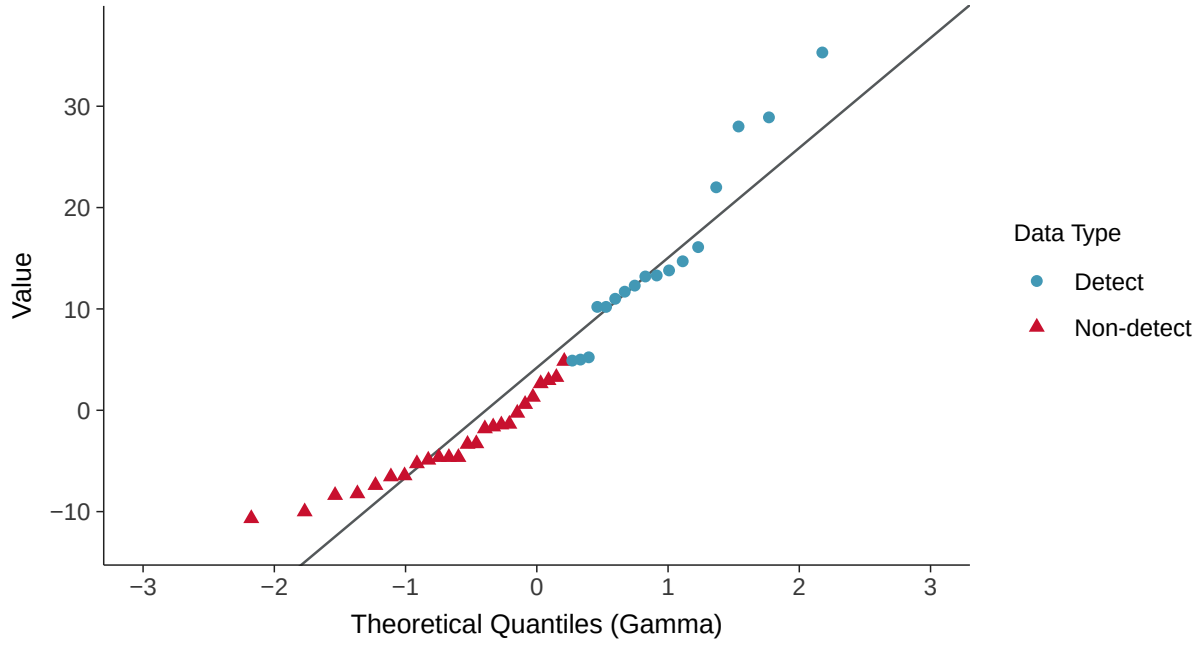
Lognormal Q-Q plot using ROS Imputed Estimates

Zinc, MW-1 (ug/L)



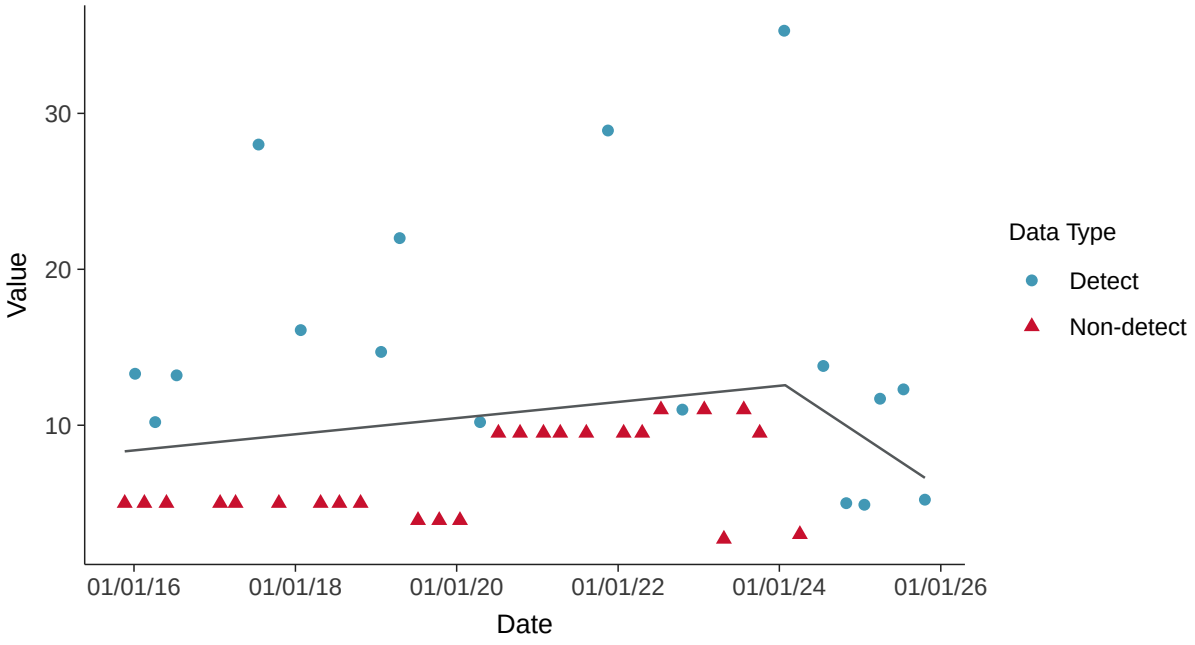
Gamma Q-Q plot using ROS Imputed Estimates

Zinc, MW-1 (ug/L)



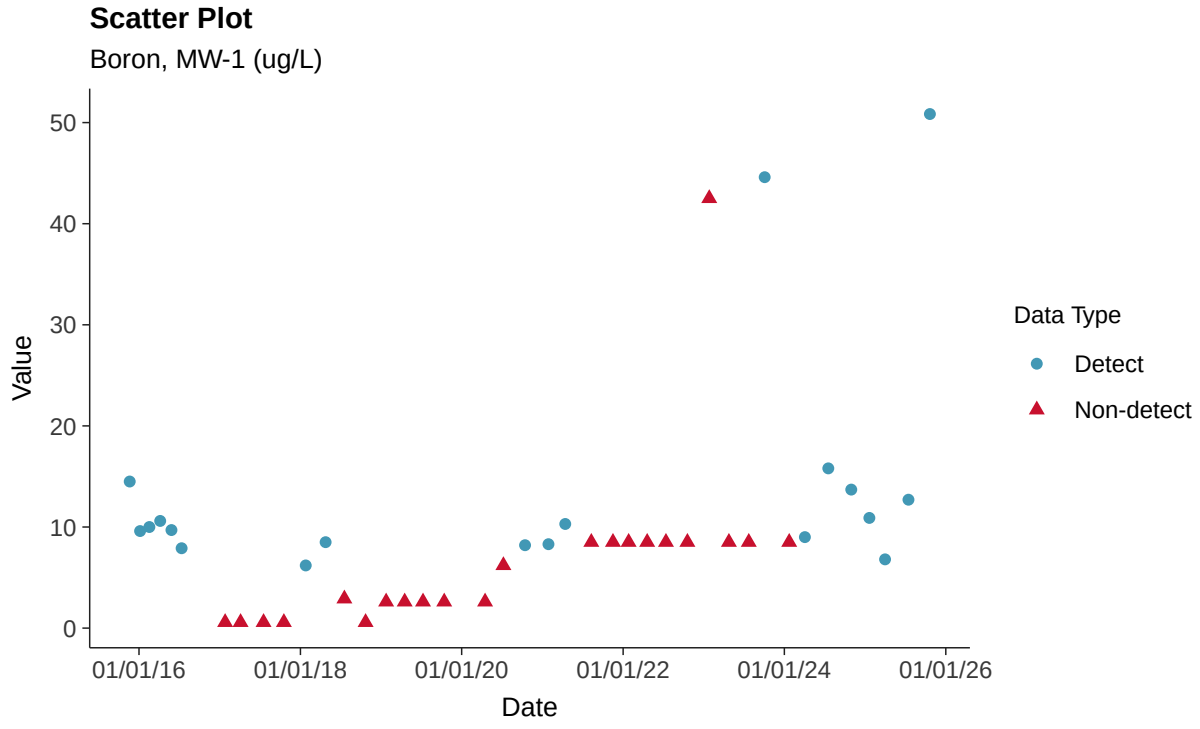
Trend Regression: Piecewise Linear-Linear

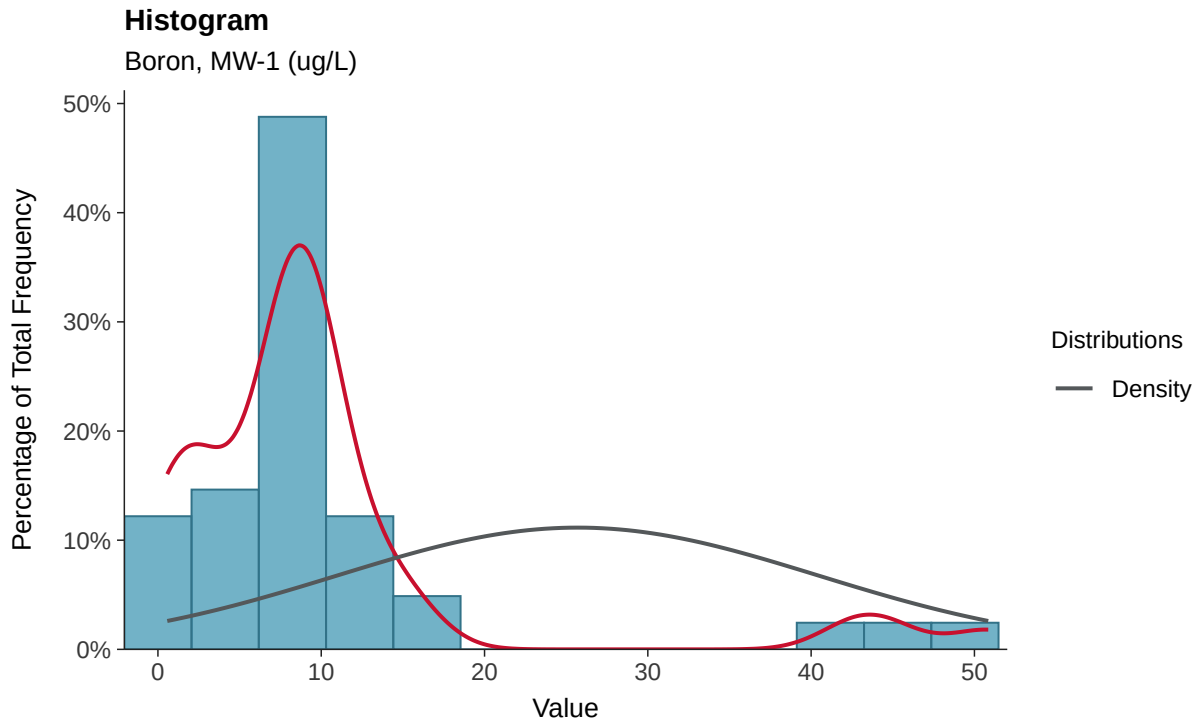
Zinc, MW-1 (ug/L)



App. III: Boron, MW-1

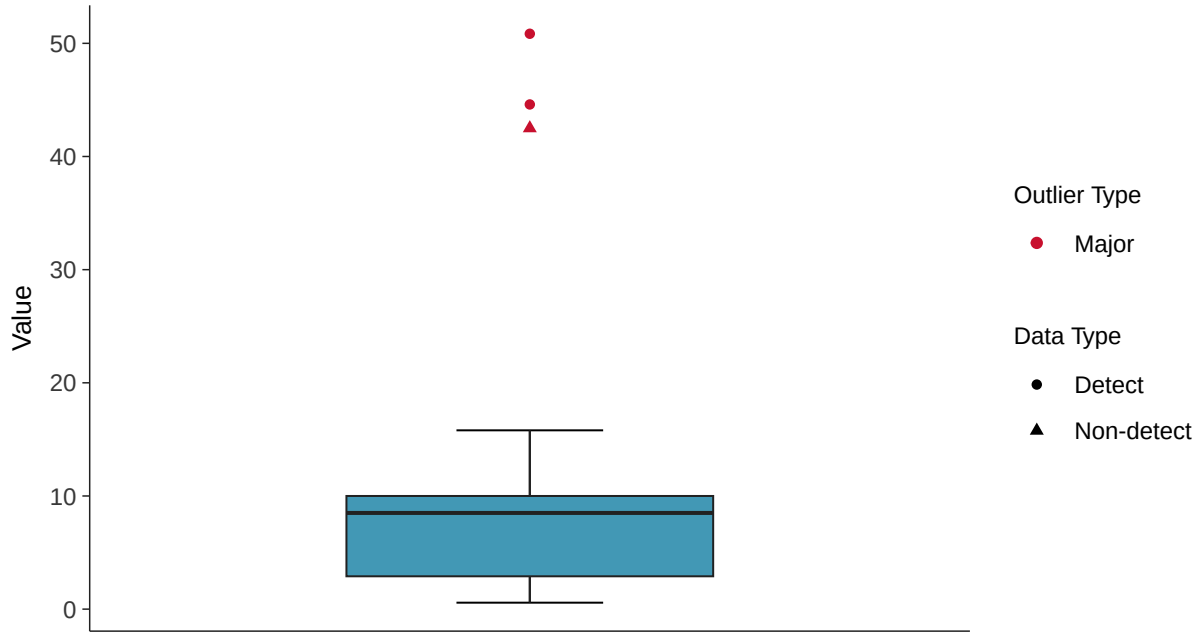
ID: 01_2_105





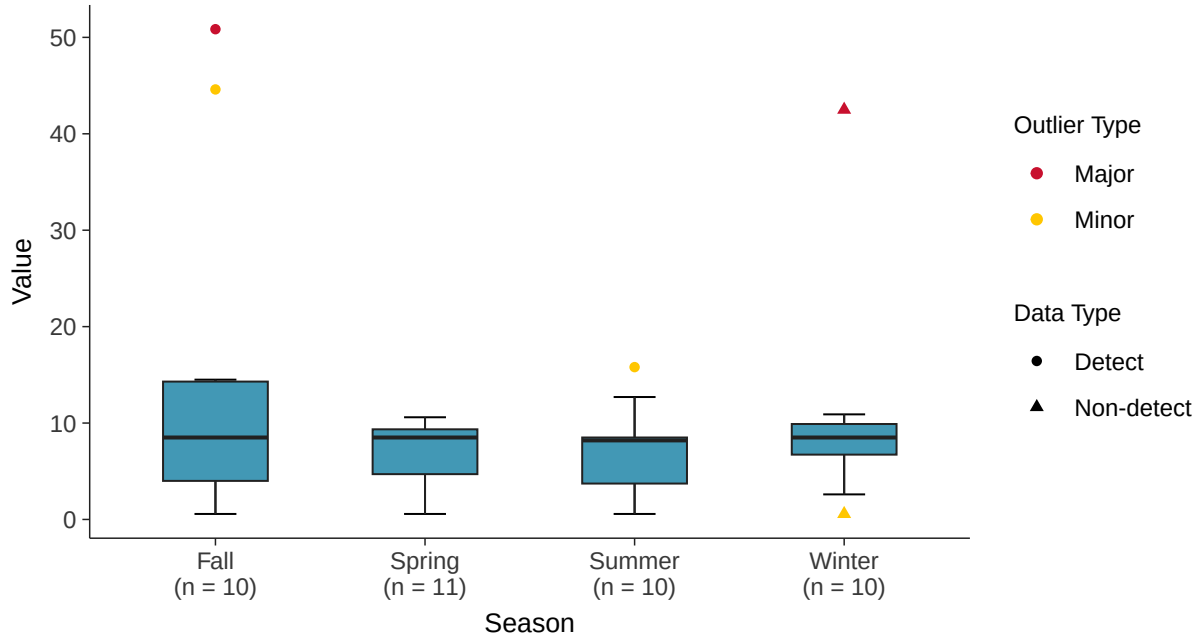
Boxplot

Boron, MW-1 (ug/L)



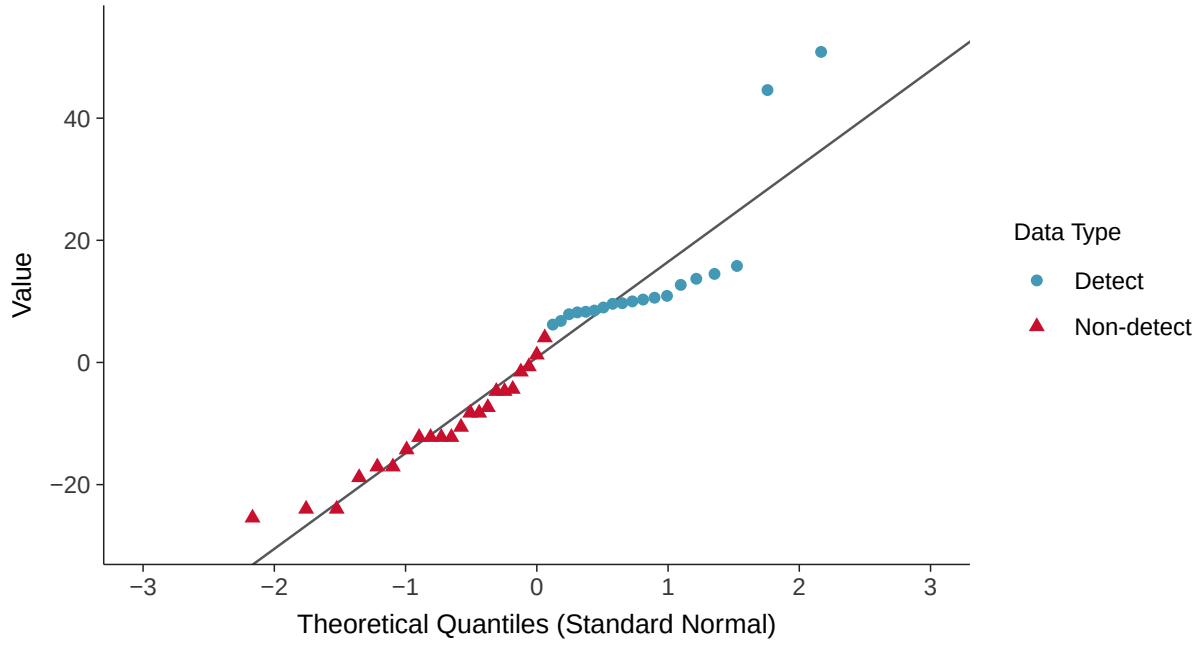
Boxplot by Season

Boron, MW-1 (ug/L)



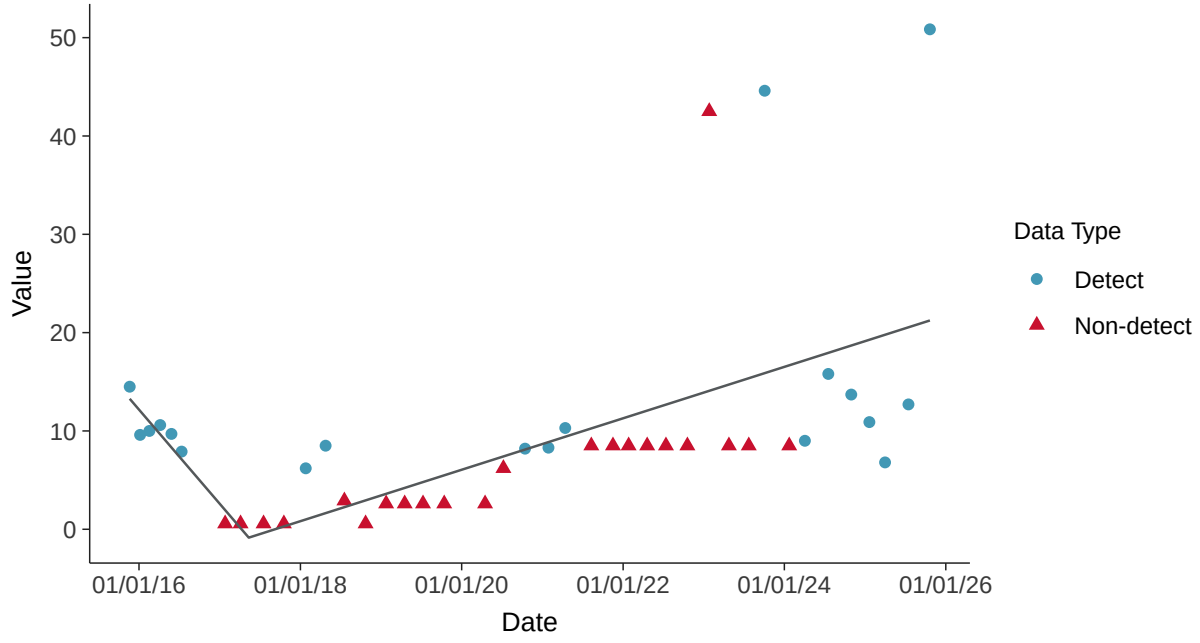
Normal Q-Q plot using ROS Imputed Estimates

Boron, MW-1 (ug/L)



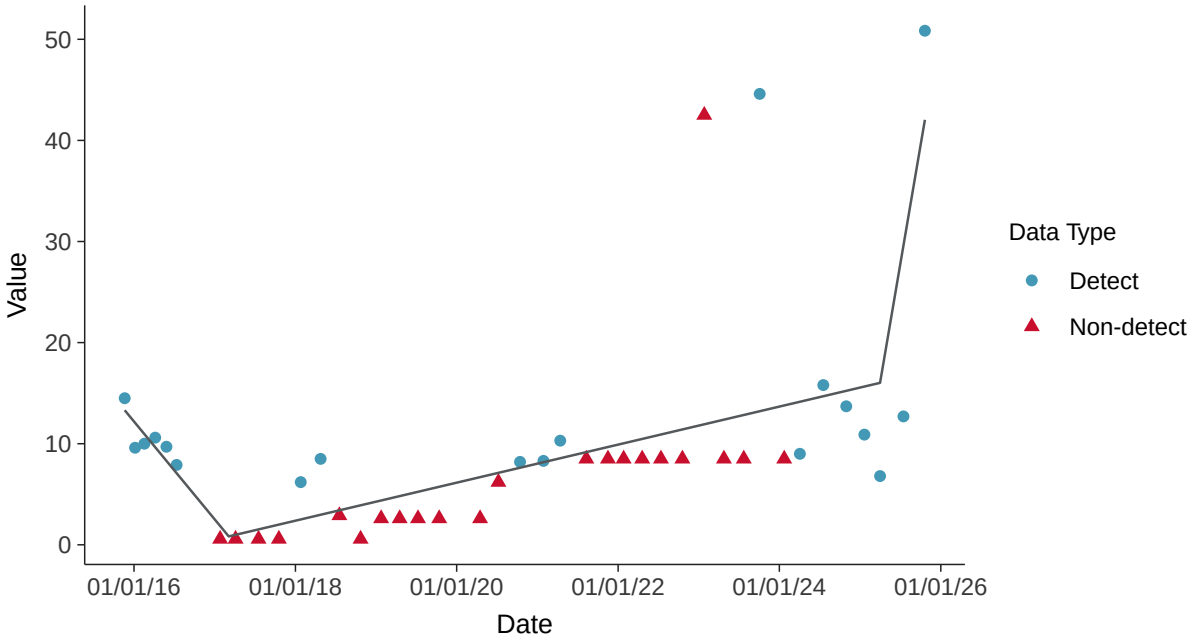
Trend Regression: Piecewise Linear-Linear

Boron, MW-1 (ug/L)



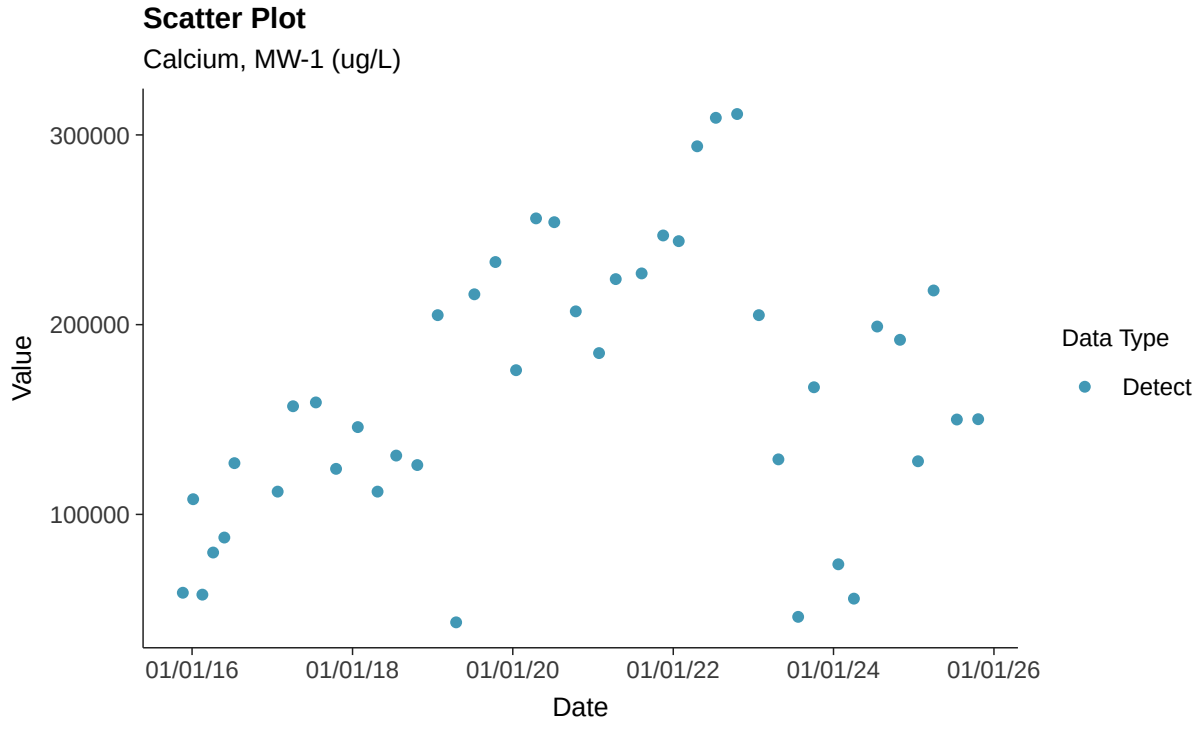
Trend Regression: Piecewise Linear-Linear-Linear

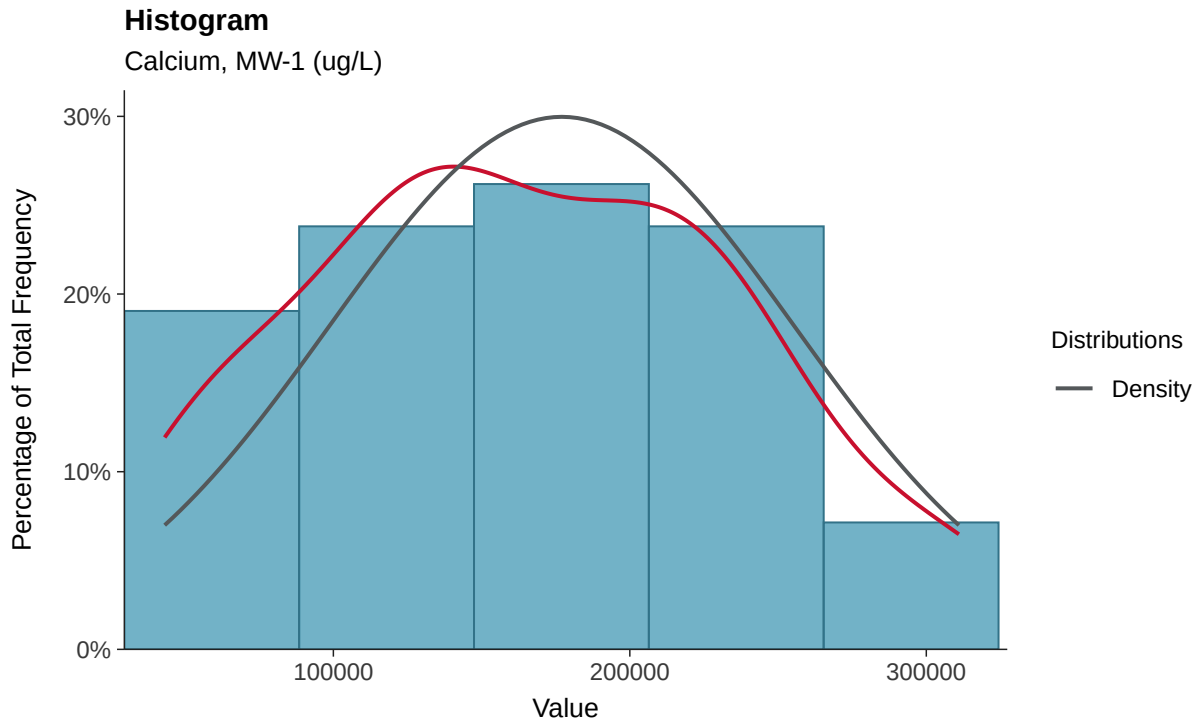
Boron, MW-1 (ug/L)



App. III: Calcium, MW-1

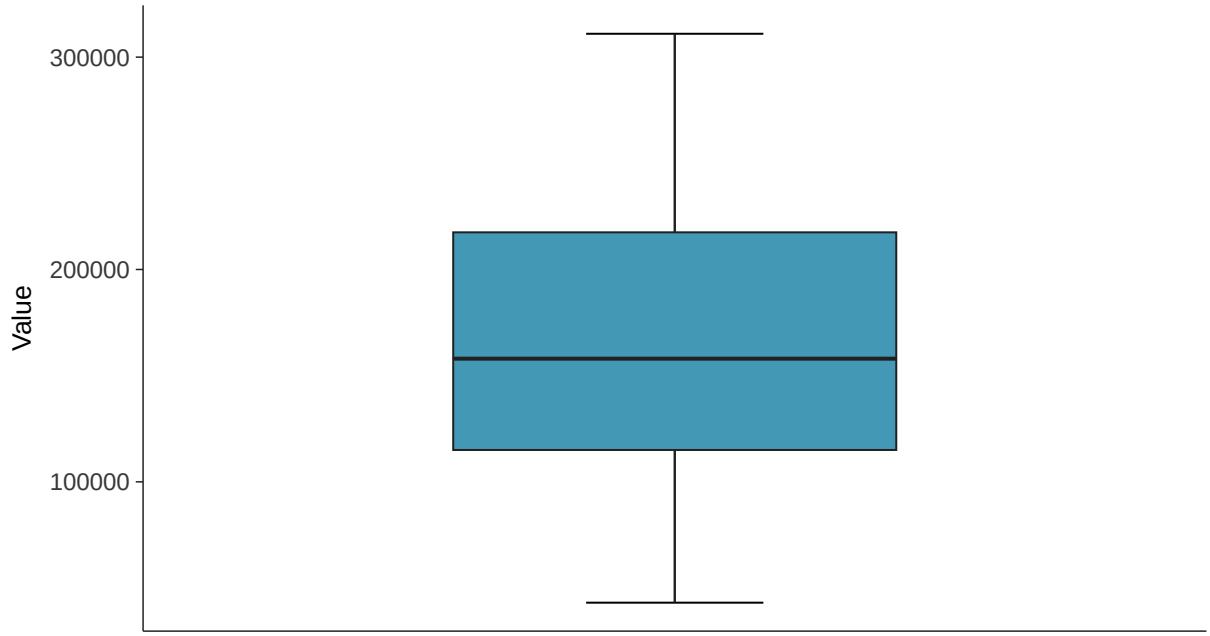
ID: 01_2_107





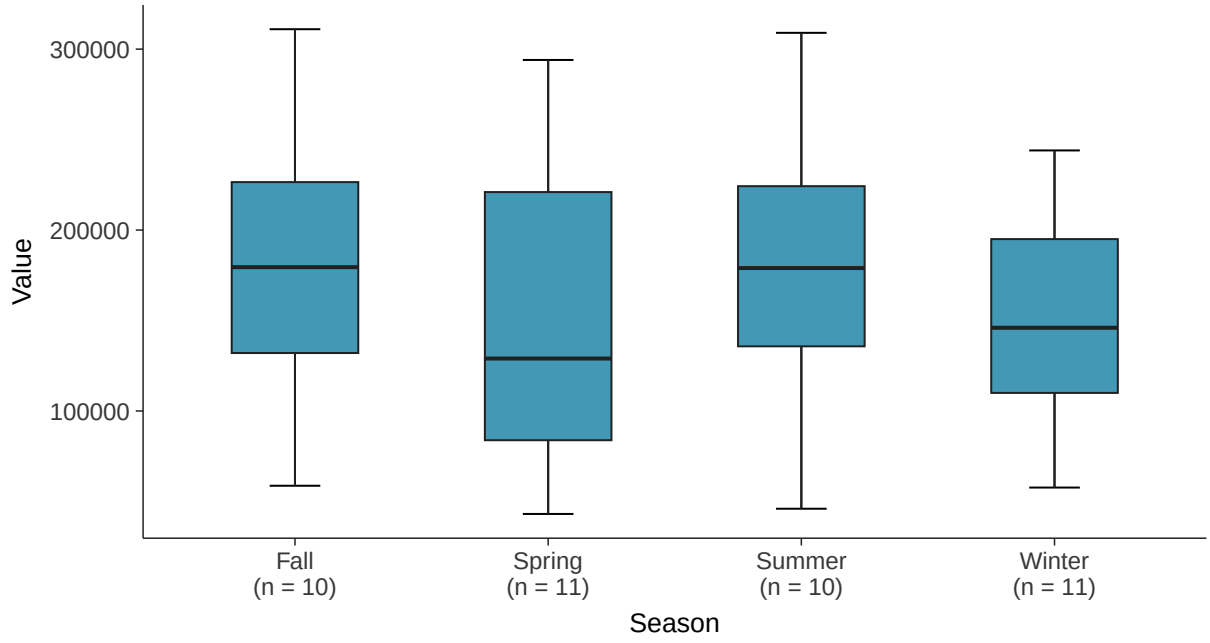
Boxplot

Calcium, MW-1 (ug/L)



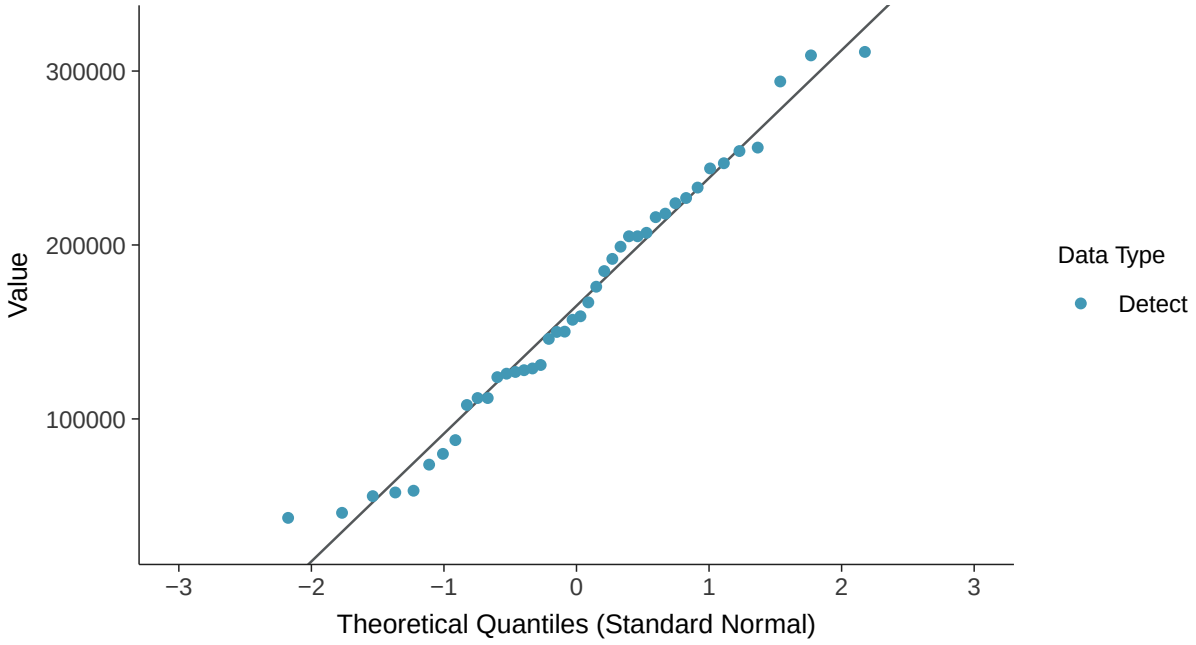
Boxplot by Season

Calcium, MW-1 (ug/L)



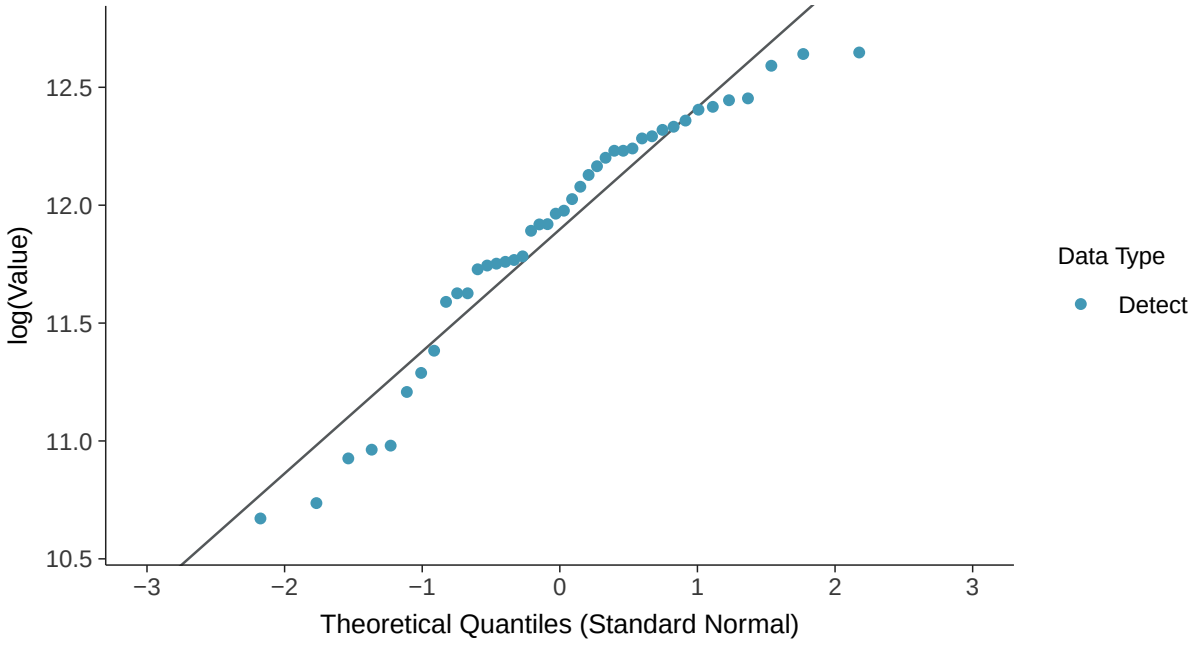
Normal Q-Q plot

Calcium, MW-1 (ug/L)



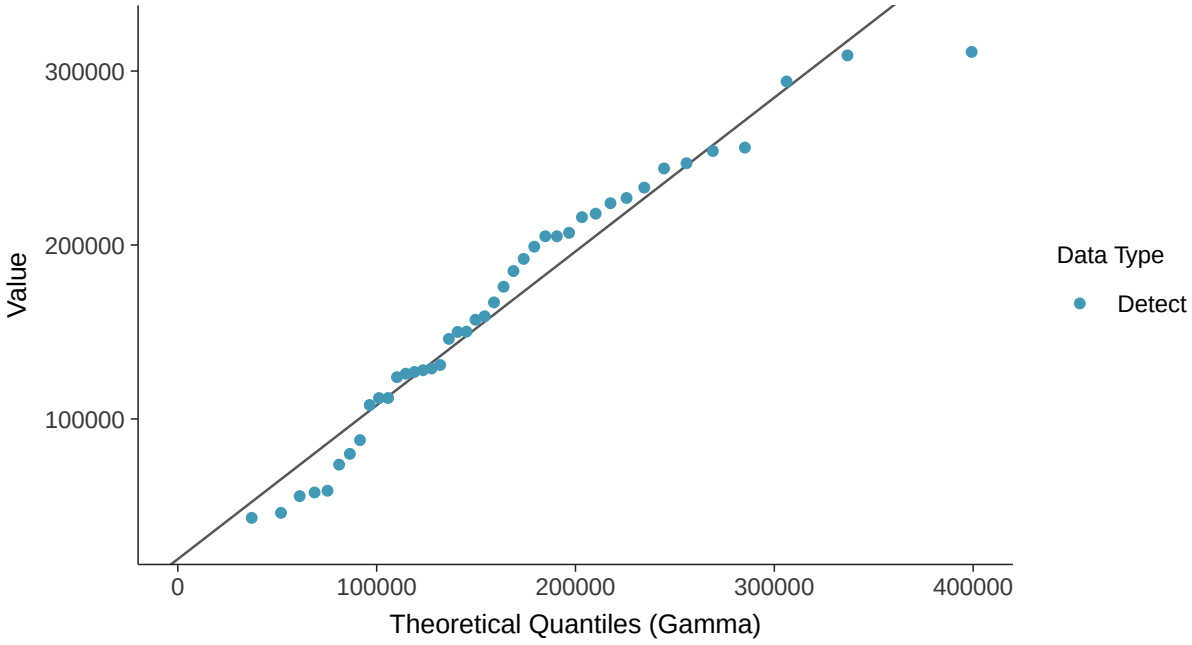
Lognormal Q-Q plot

Calcium, MW-1 (ug/L)



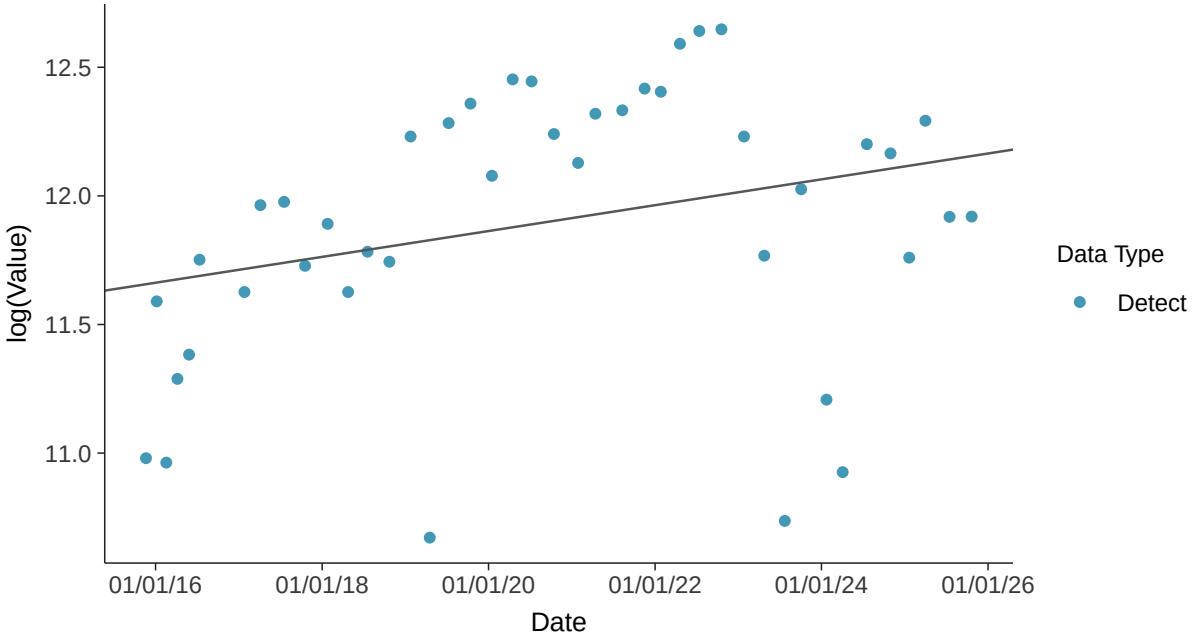
Gamma Q-Q plot

Calcium, MW-1 (ug/L)



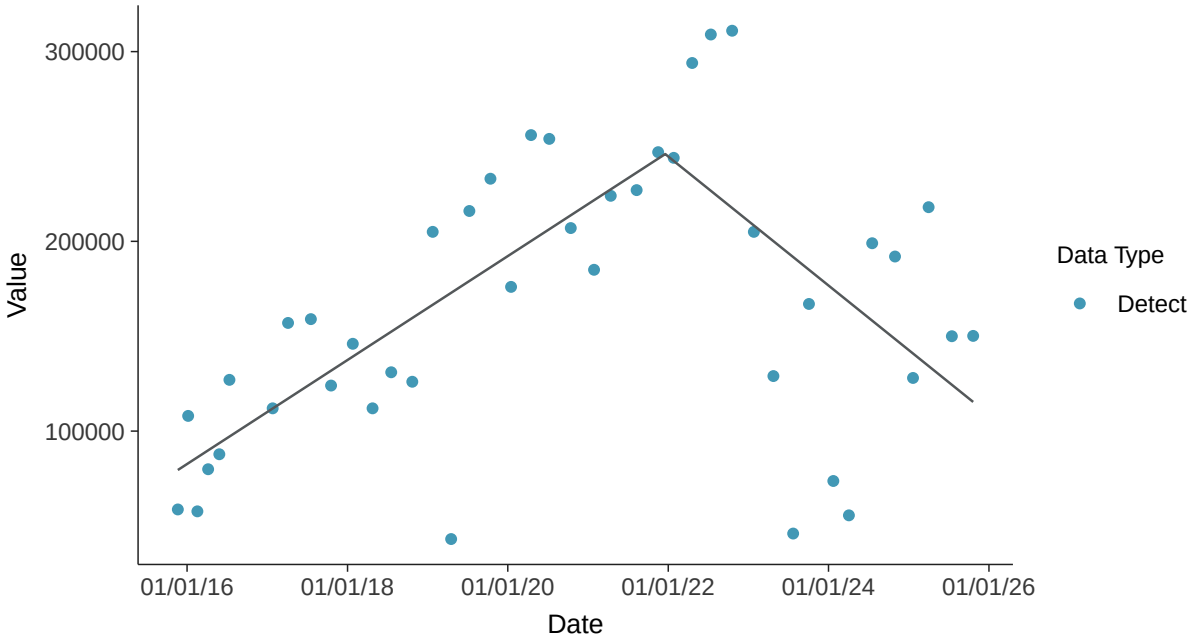
Trend Regression: Lognormal MLE

Calcium, MW-1 (ug/L)



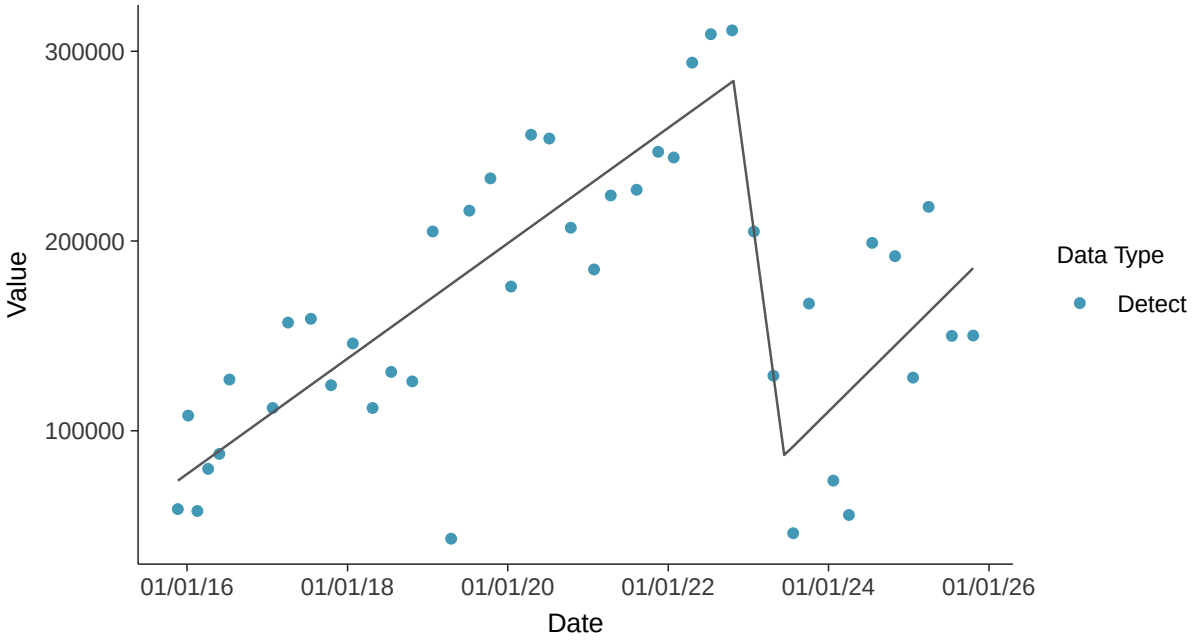
Trend Regression: Piecewise Linear-Linear

Calcium, MW-1 (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Calcium, MW-1 (ug/L)

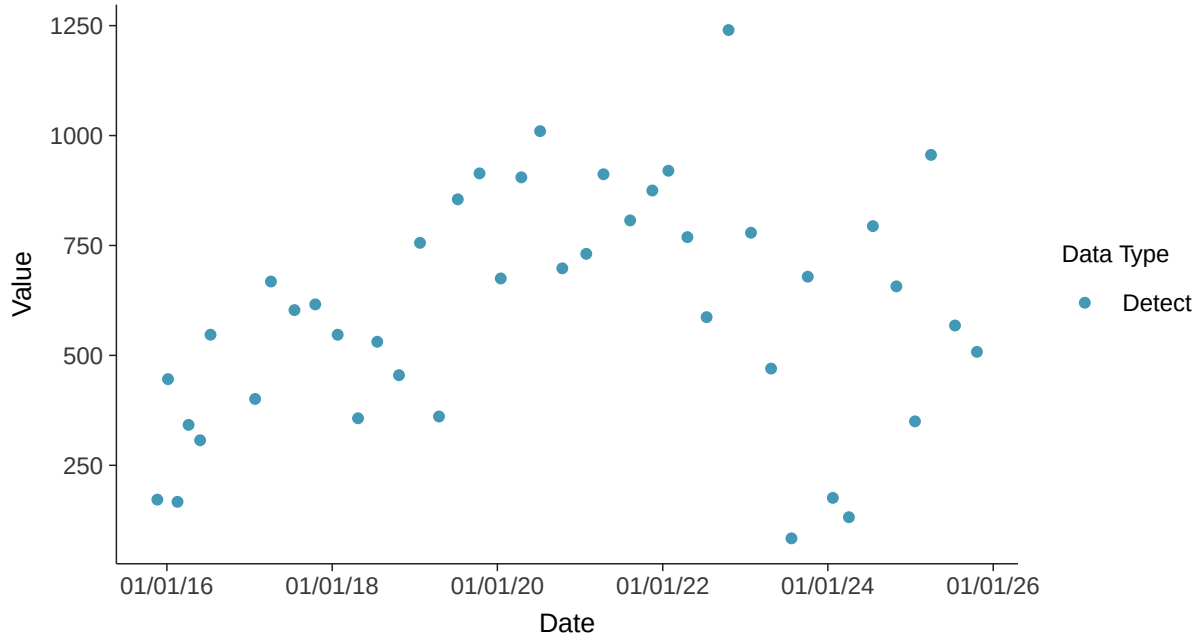


App. III: Chloride, MW-1

ID: 01_2_108

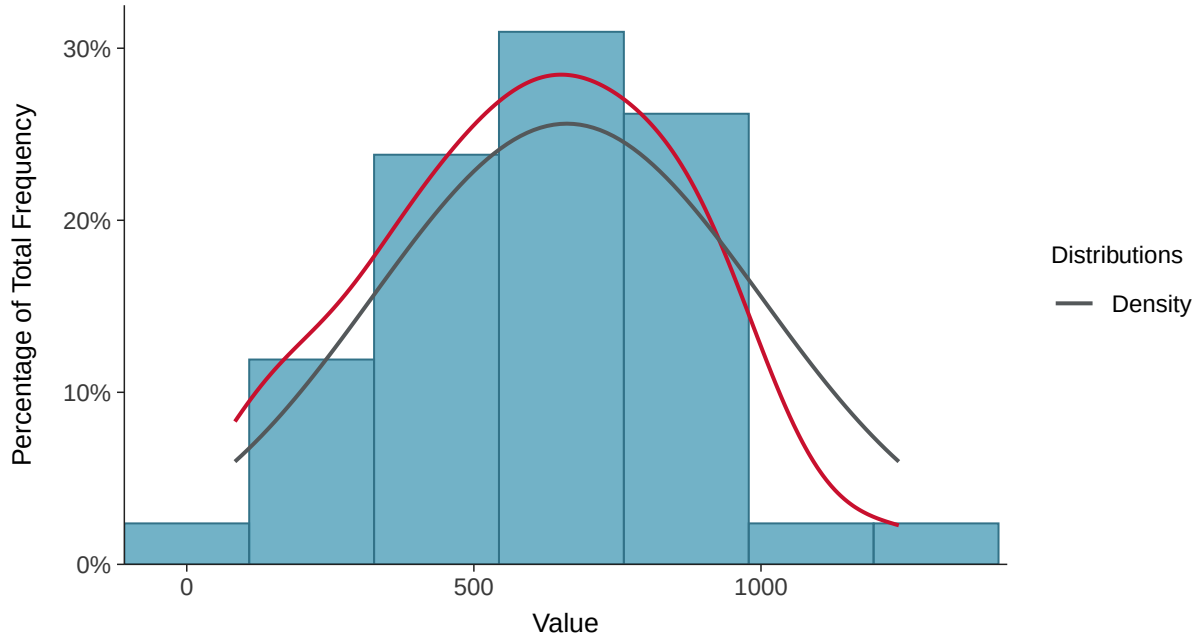
Scatter Plot

Chloride, MW-1 (mg/L)



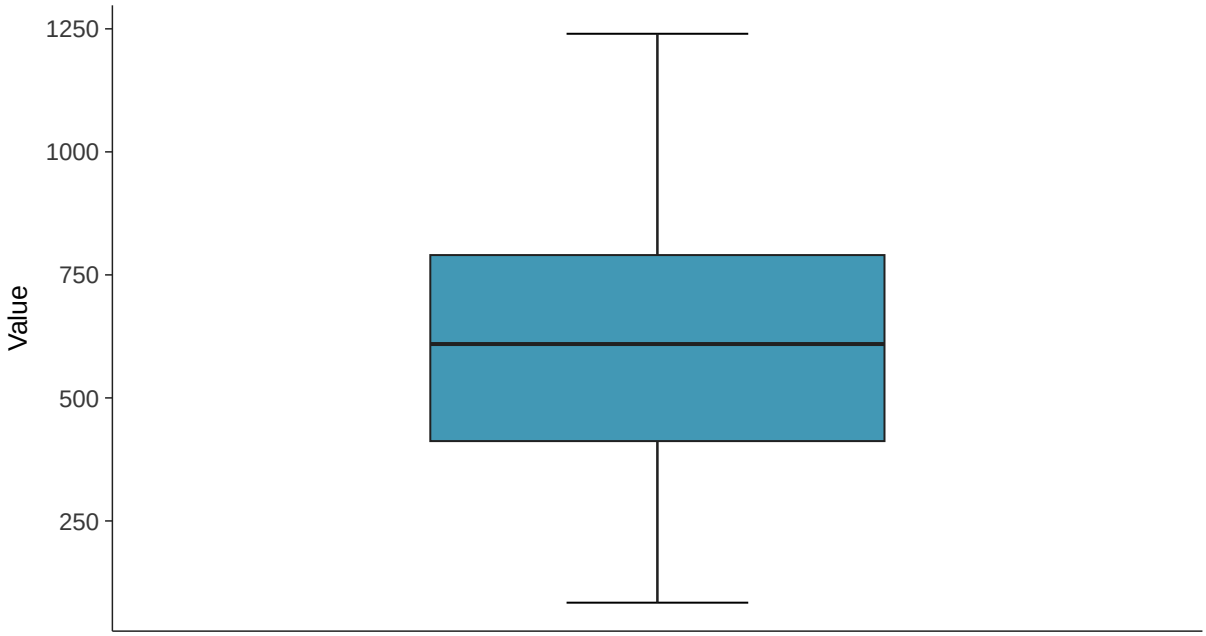
Histogram

Chloride, MW-1 (mg/L)



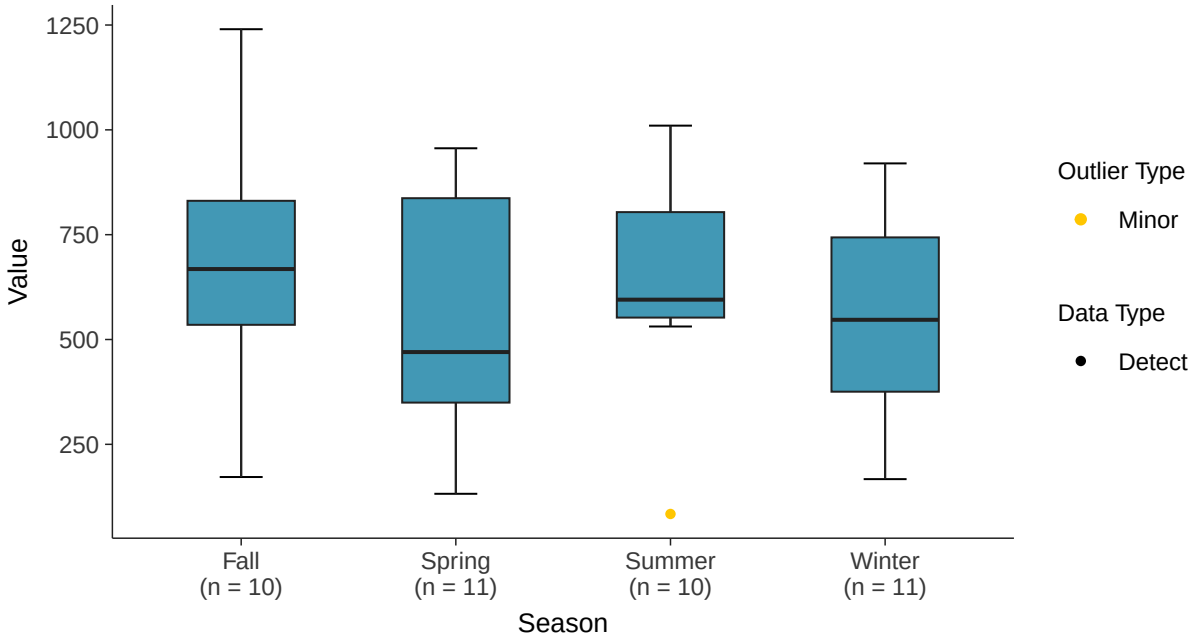
Boxplot

Chloride, MW-1 (mg/L)



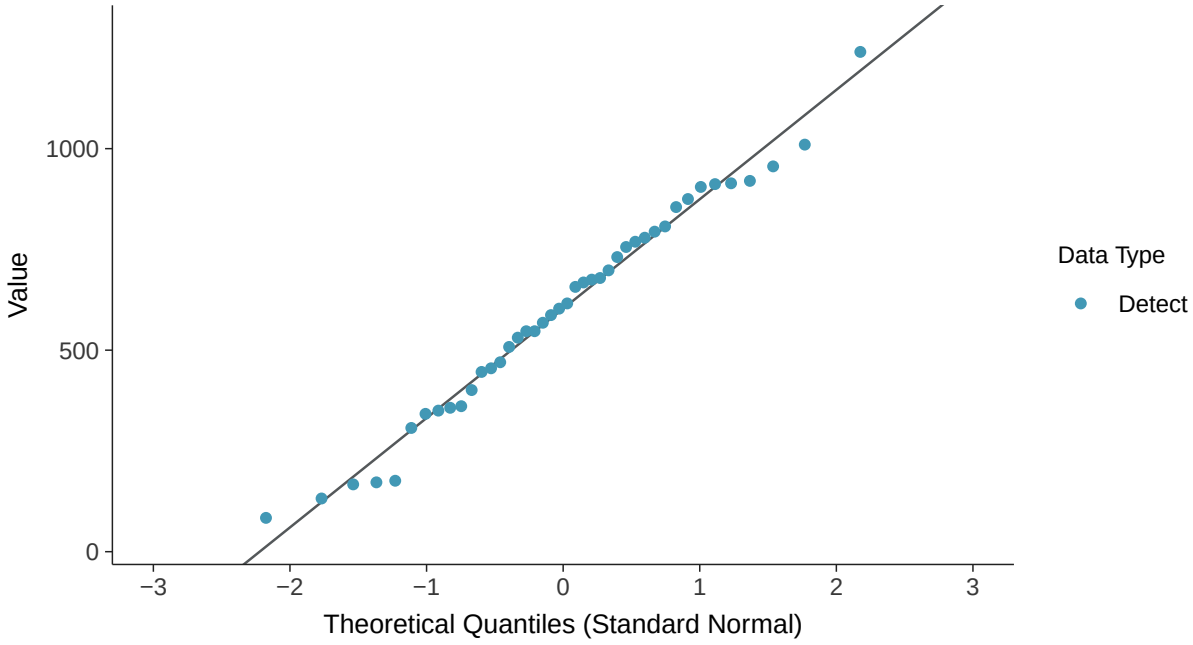
Boxplot by Season

Chloride, MW-1 (mg/L)



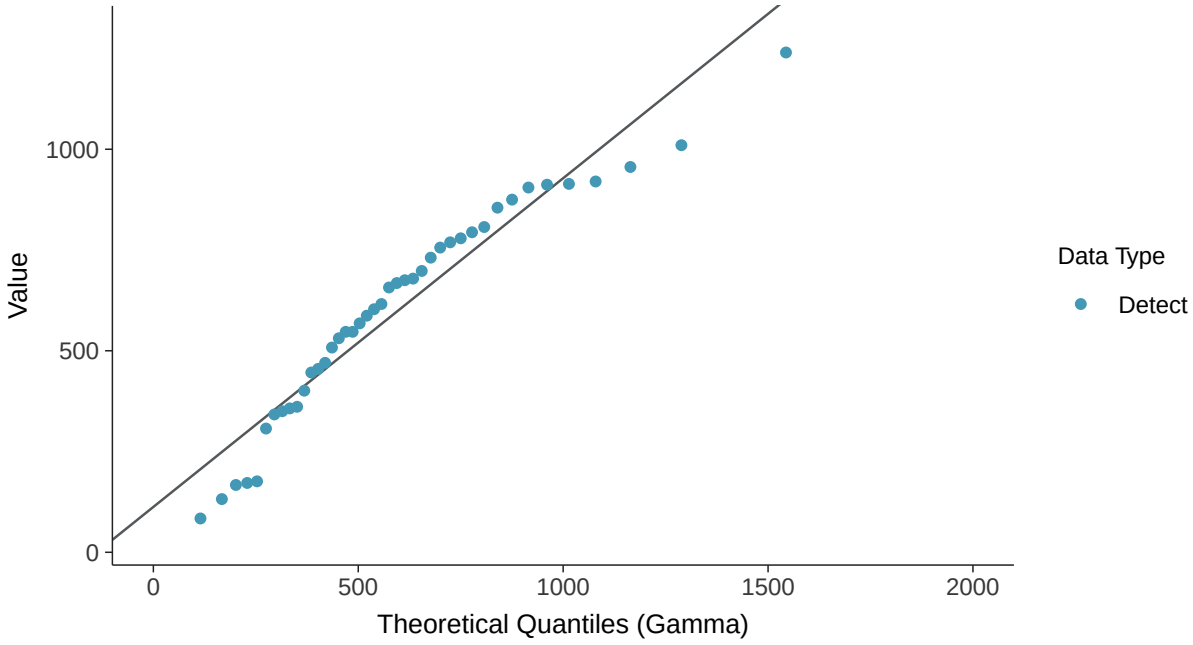
Normal Q-Q plot

Chloride, MW-1 (mg/L)



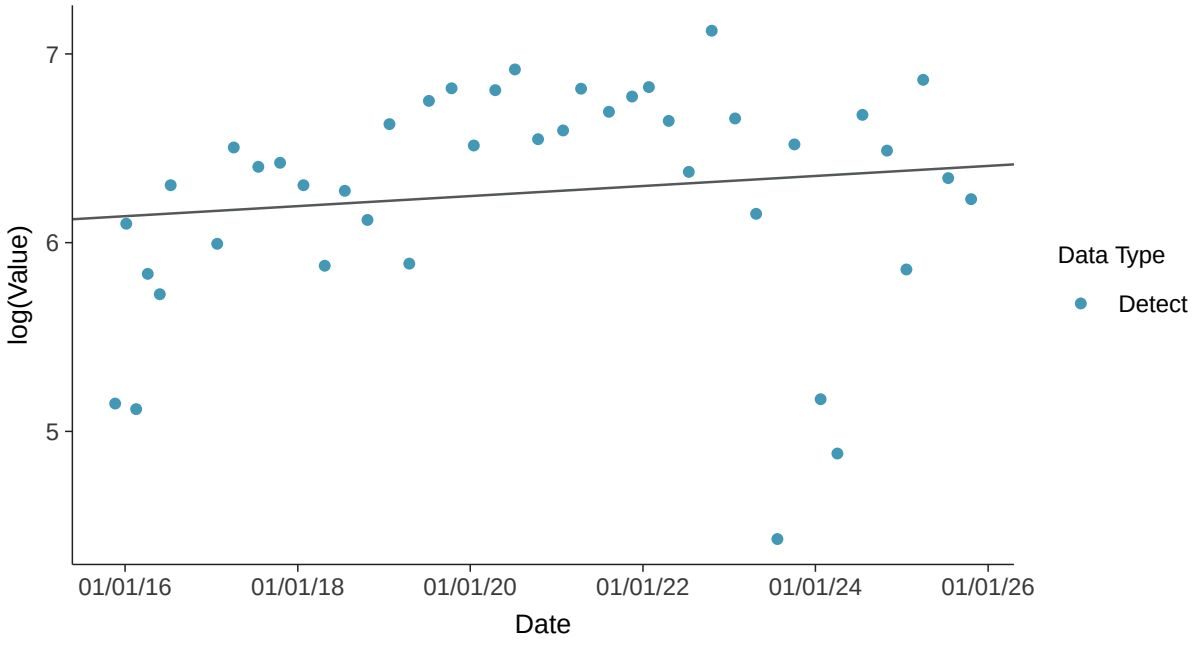
Gamma Q-Q plot

Chloride, MW-1 (mg/L)



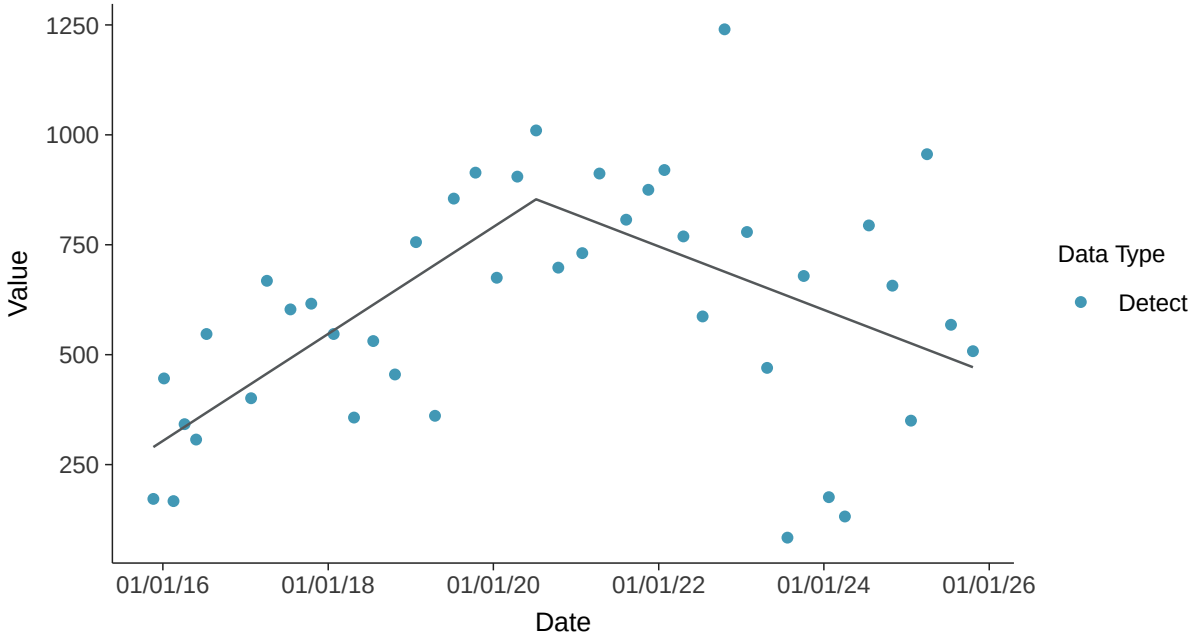
Trend Regression: Lognormal MLE

Chloride, MW-1 (mg/L)



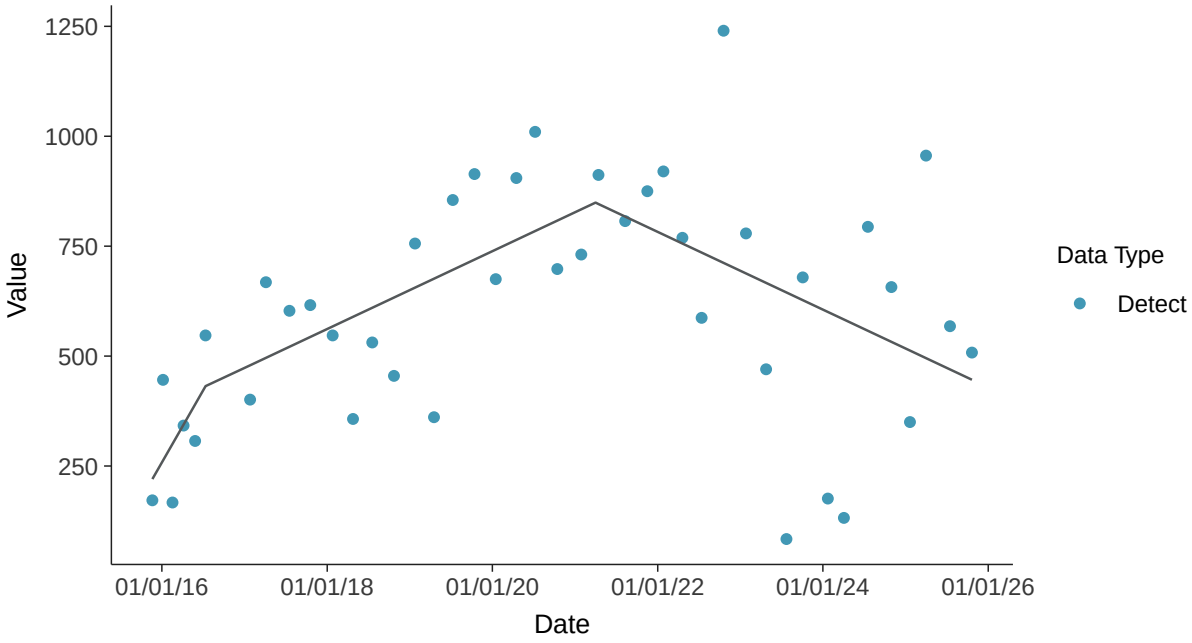
Trend Regression: Piecewise Linear-Linear

Chloride, MW-1 (mg/L)



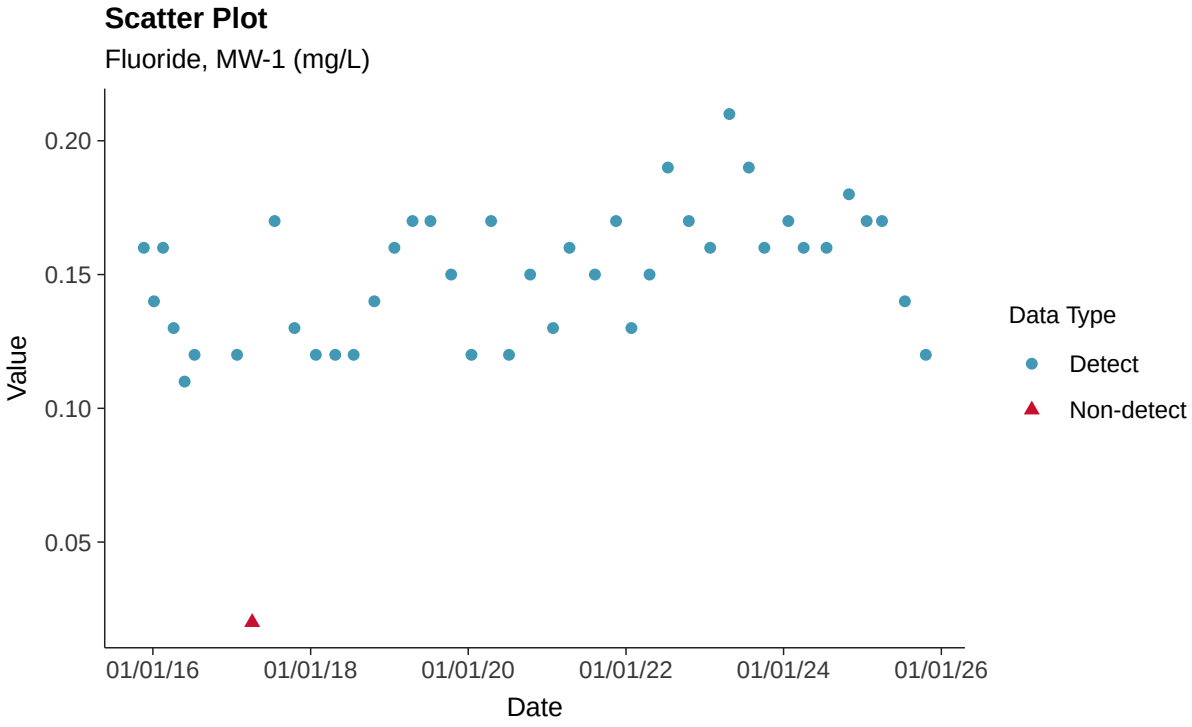
Trend Regression: Piecewise Linear-Linear-Linear

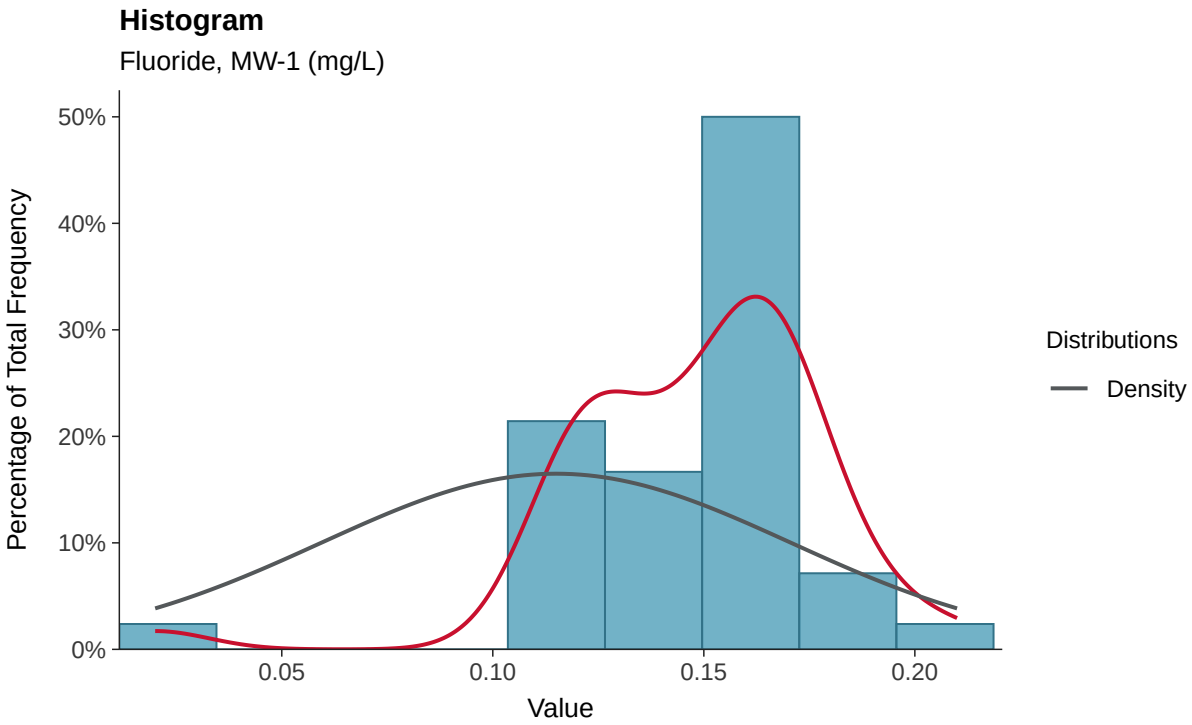
Chloride, MW-1 (mg/L)



App. III: Fluoride, MW-1

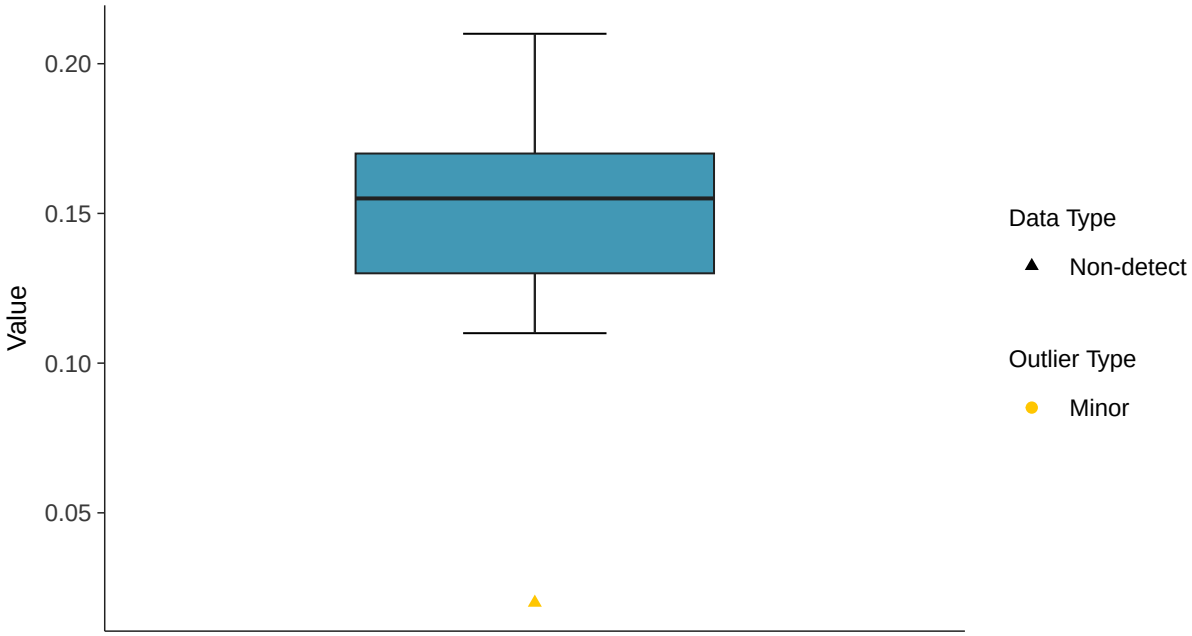
ID: 01_2_112





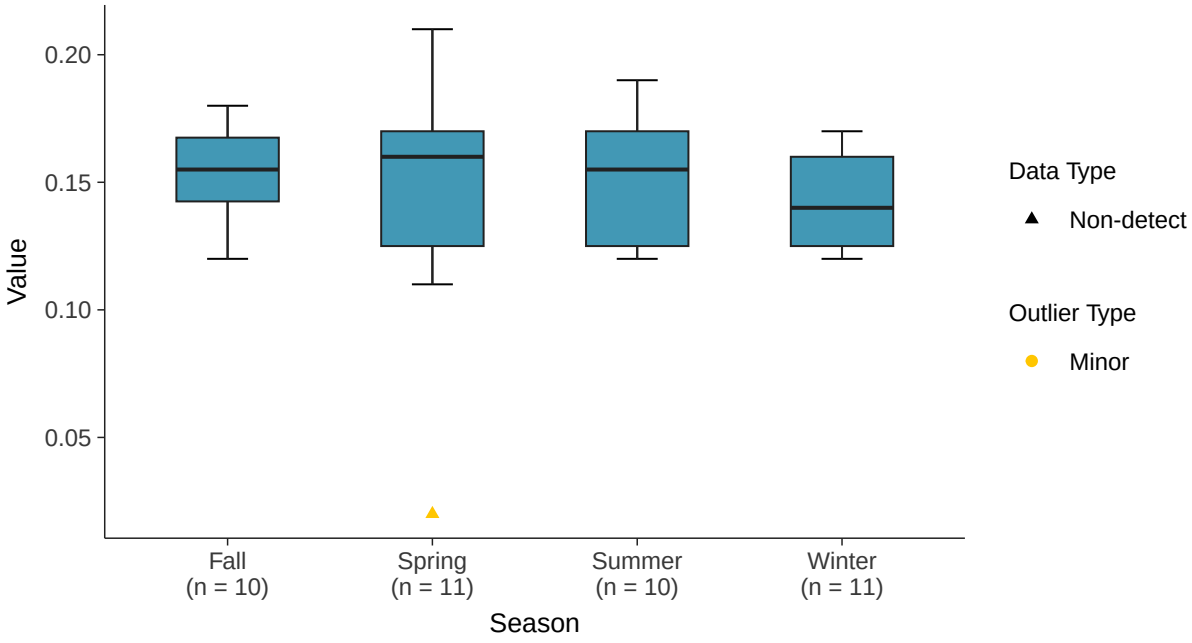
Boxplot

Fluoride, MW-1 (mg/L)



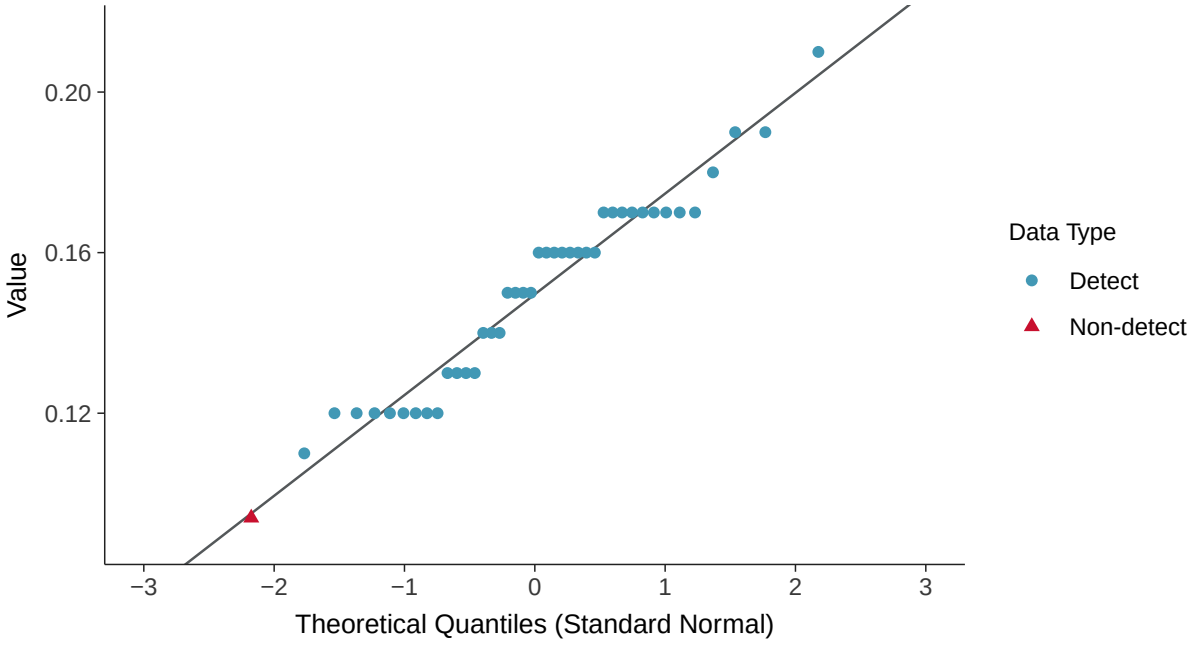
Boxplot by Season

Fluoride, MW-1 (mg/L)



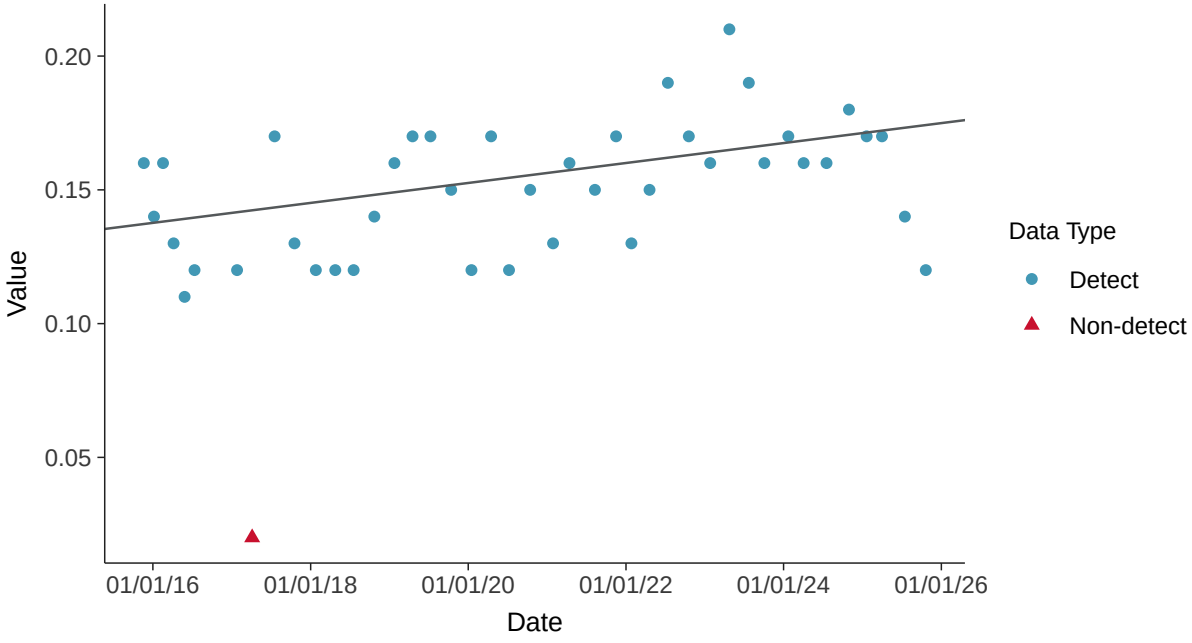
Normal Q-Q plot using ROS Imputed Estimates

Fluoride, MW-1 (mg/L)



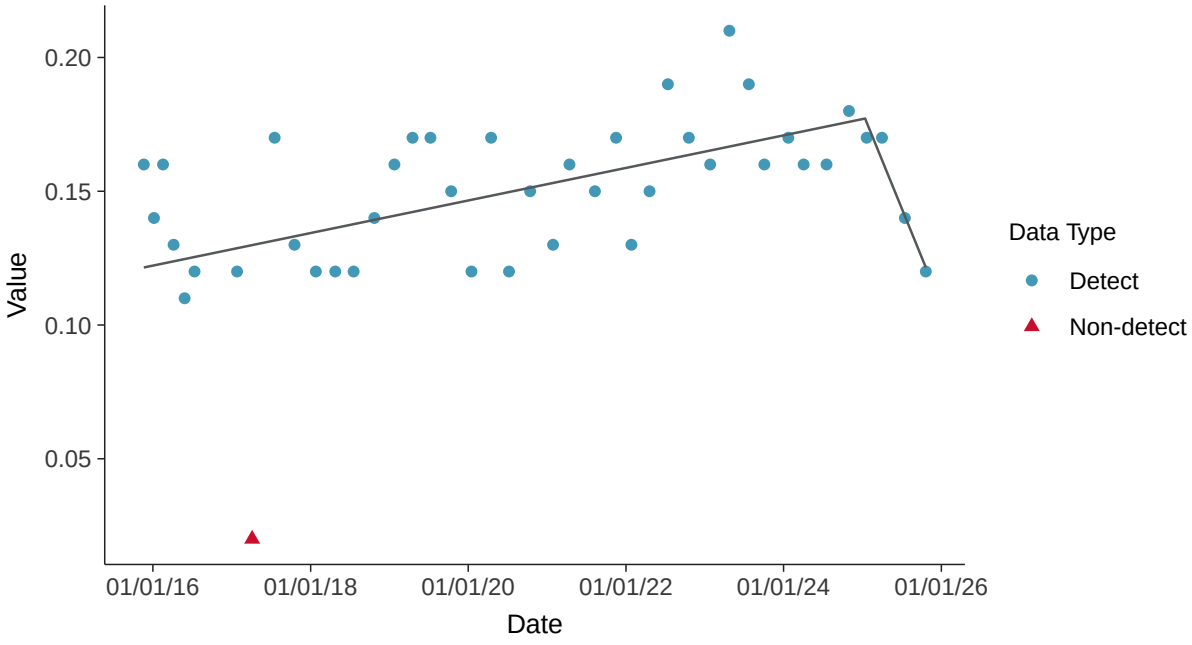
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Fluoride, MW-1 (mg/L)



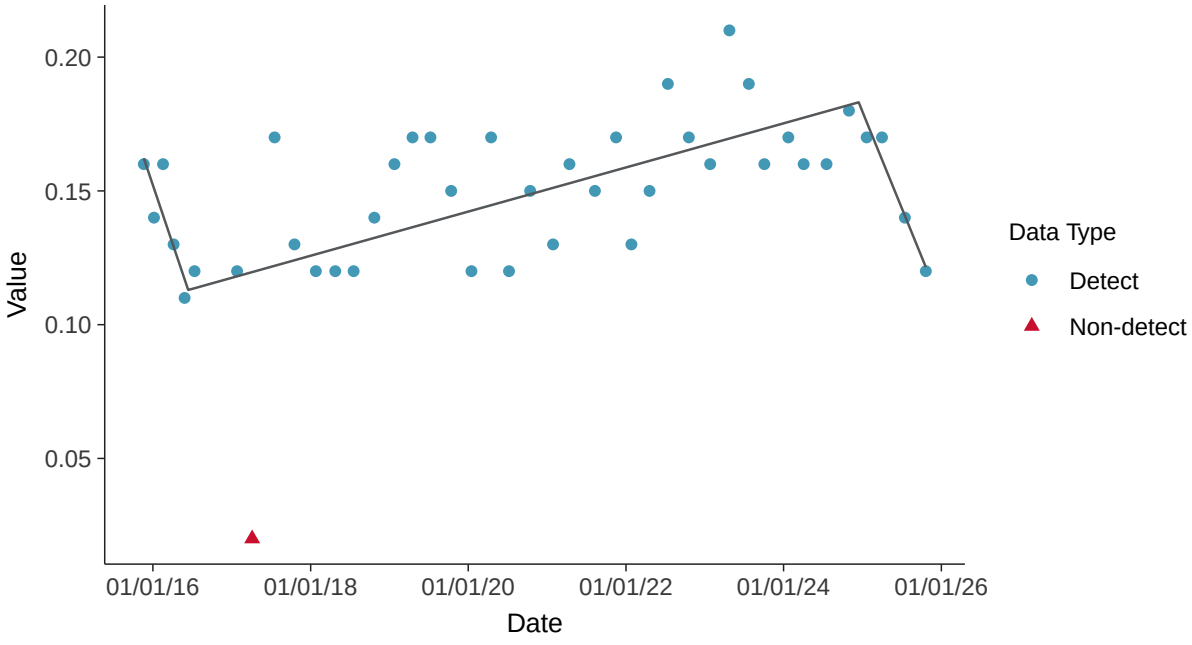
Trend Regression: Piecewise Linear-Linear

Fluoride, MW-1 (mg/L)



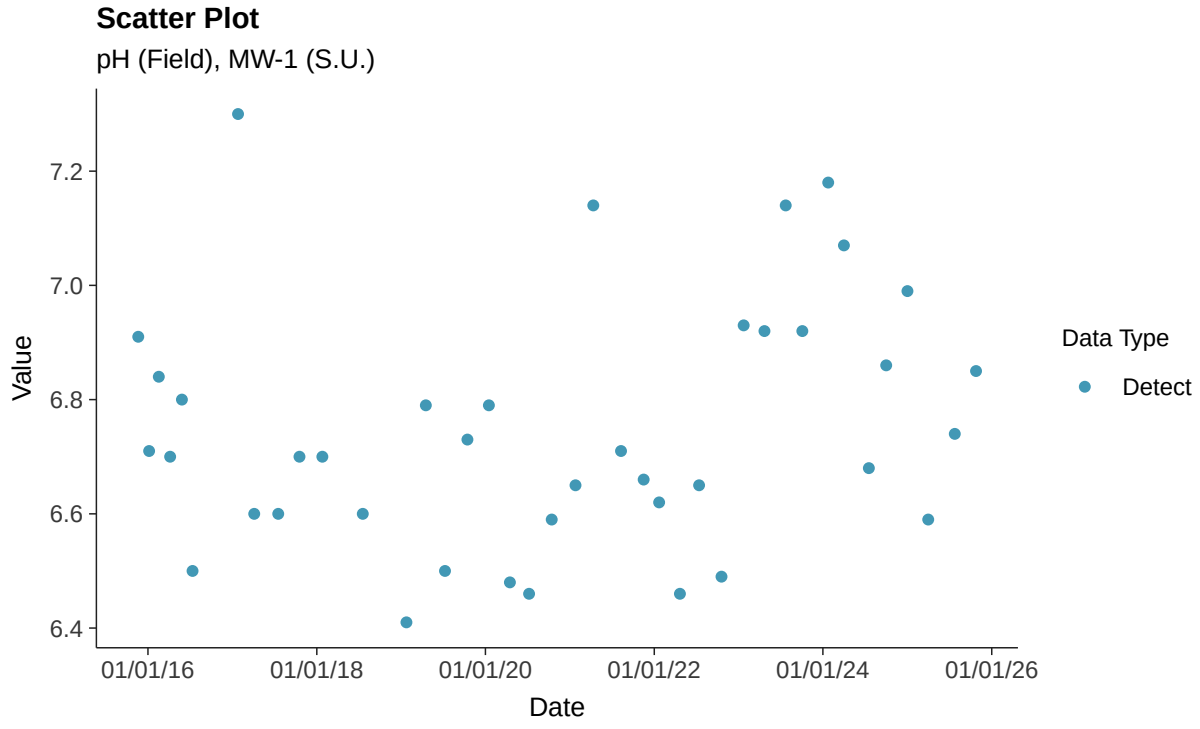
Trend Regression: Piecewise Linear-Linear-Linear

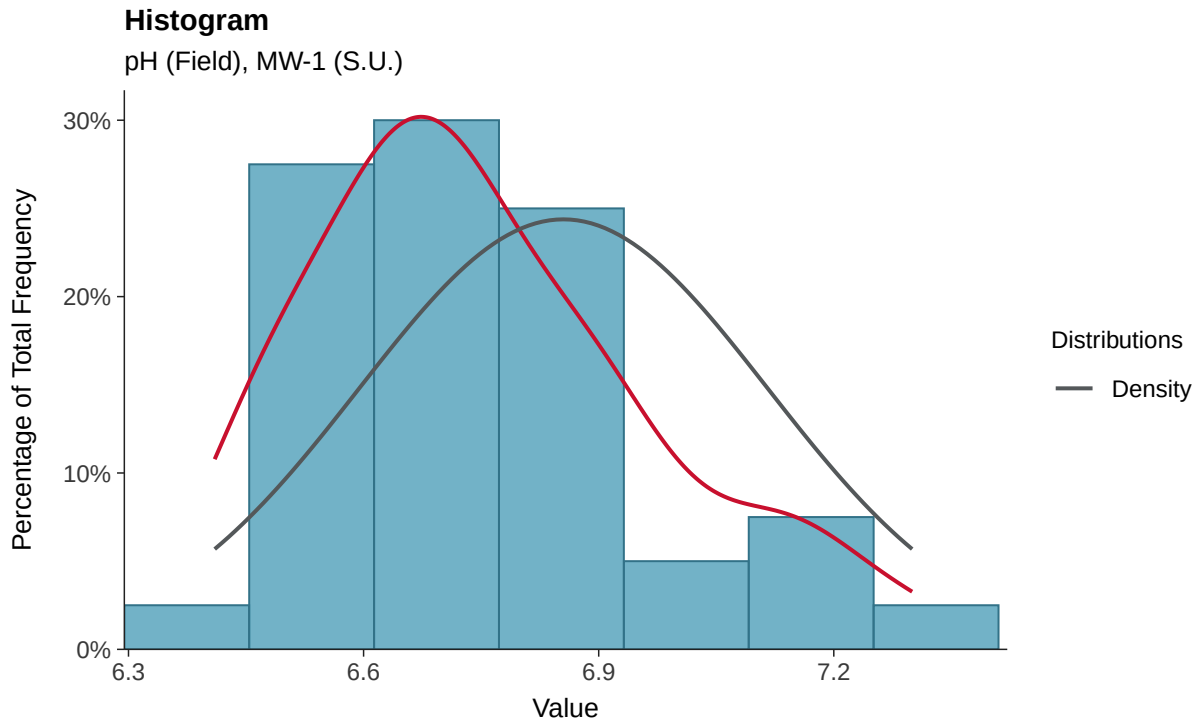
Fluoride, MW-1 (mg/L)



App. III: pH (Field), MW-1

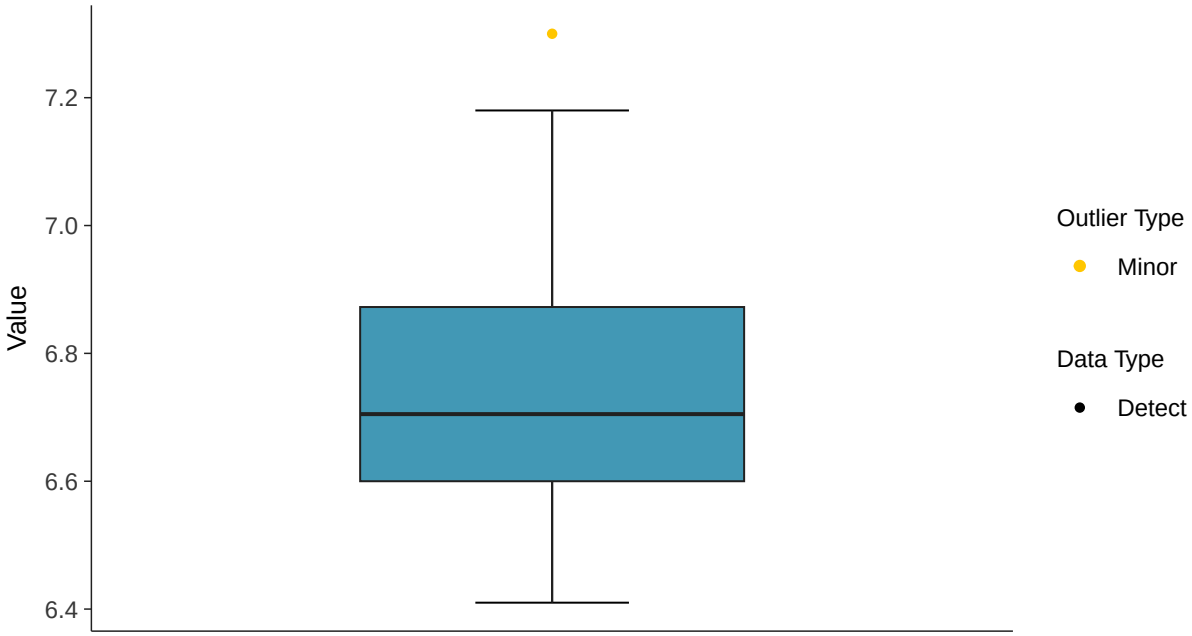
ID: 01_2_118





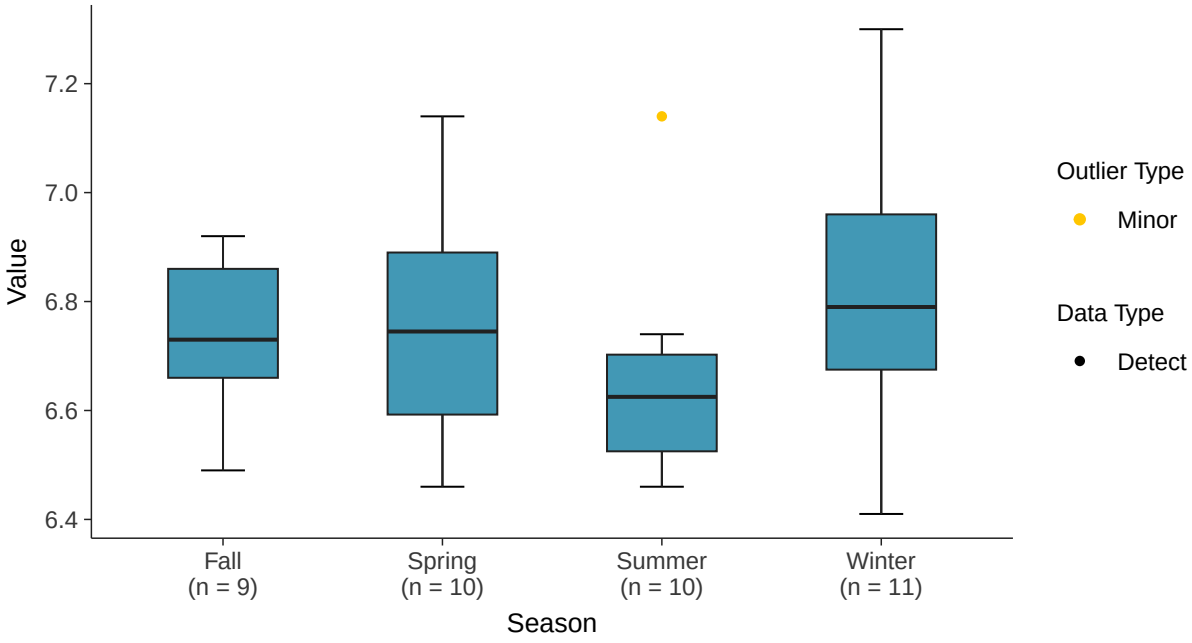
Boxplot

pH (Field), MW-1 (S.U.)



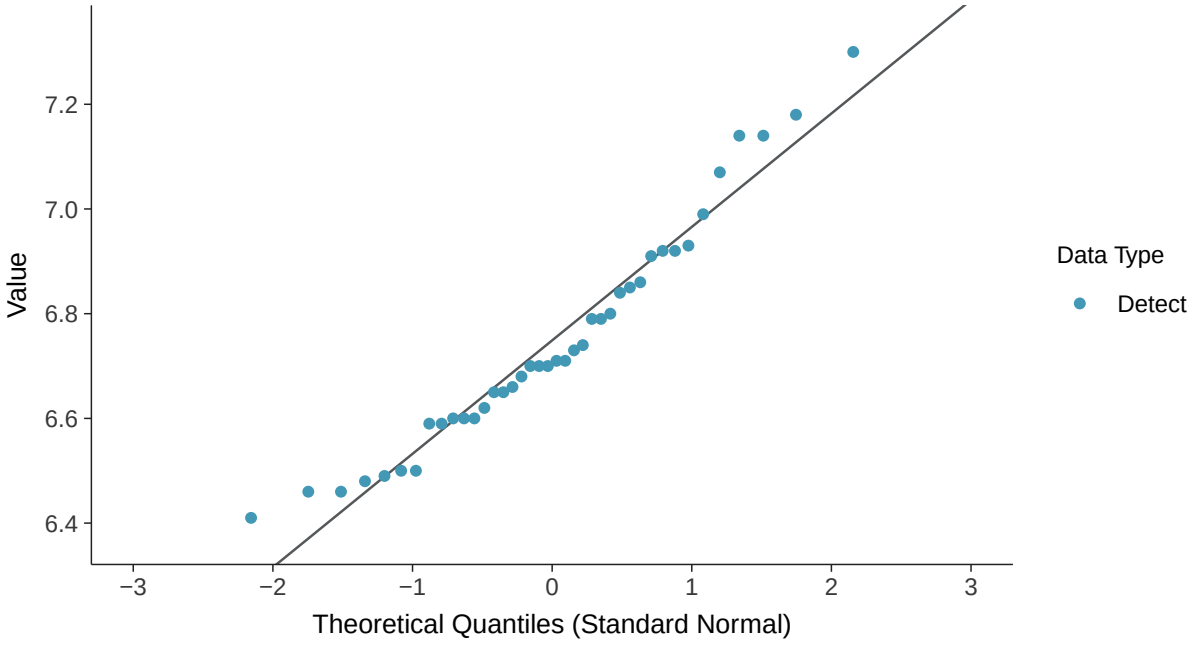
Boxplot by Season

pH (Field), MW-1 (S.U.)



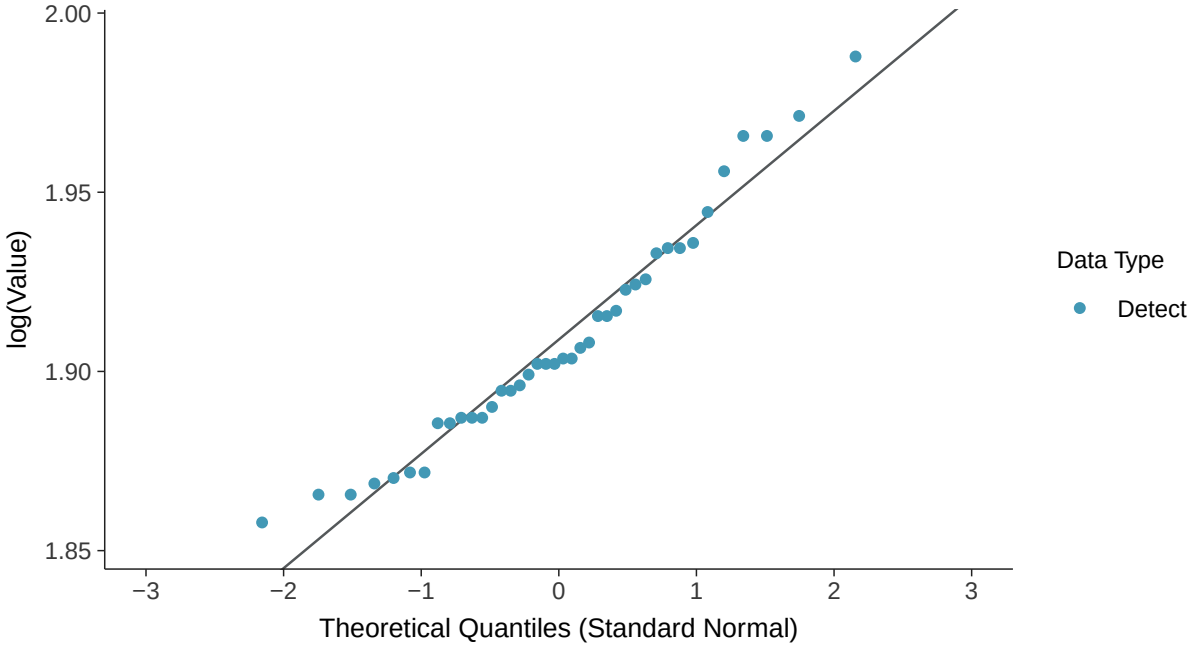
Normal Q-Q plot

pH (Field), MW-1 (S.U.)



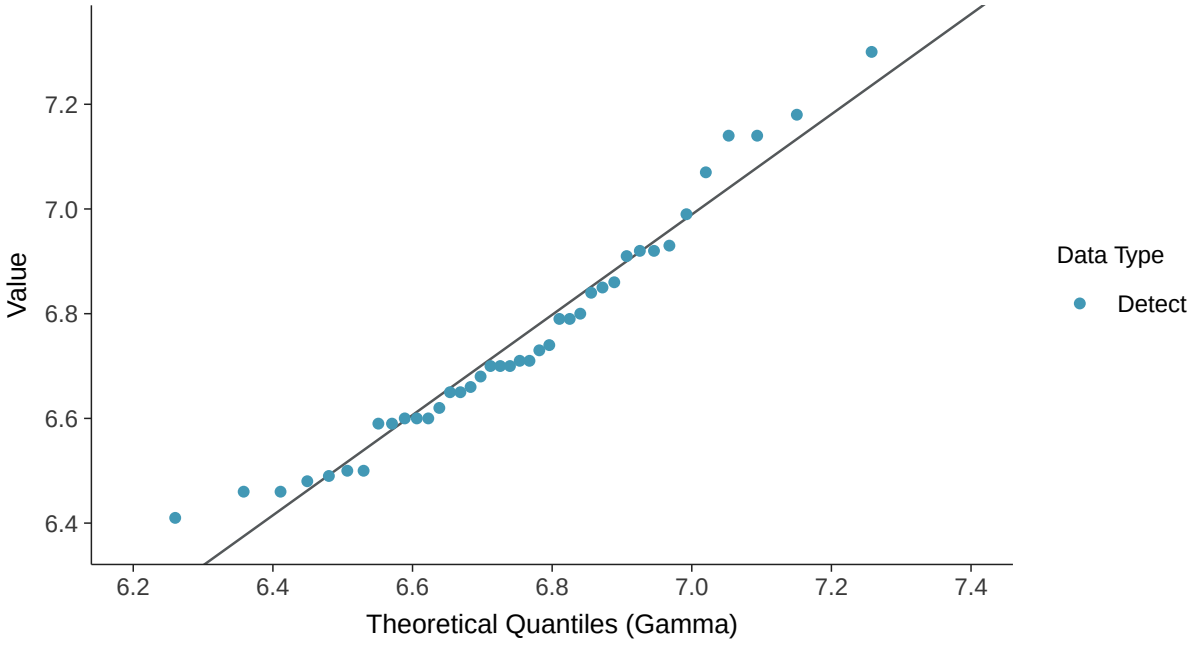
Lognormal Q-Q plot

pH (Field), MW-1 (S.U.)



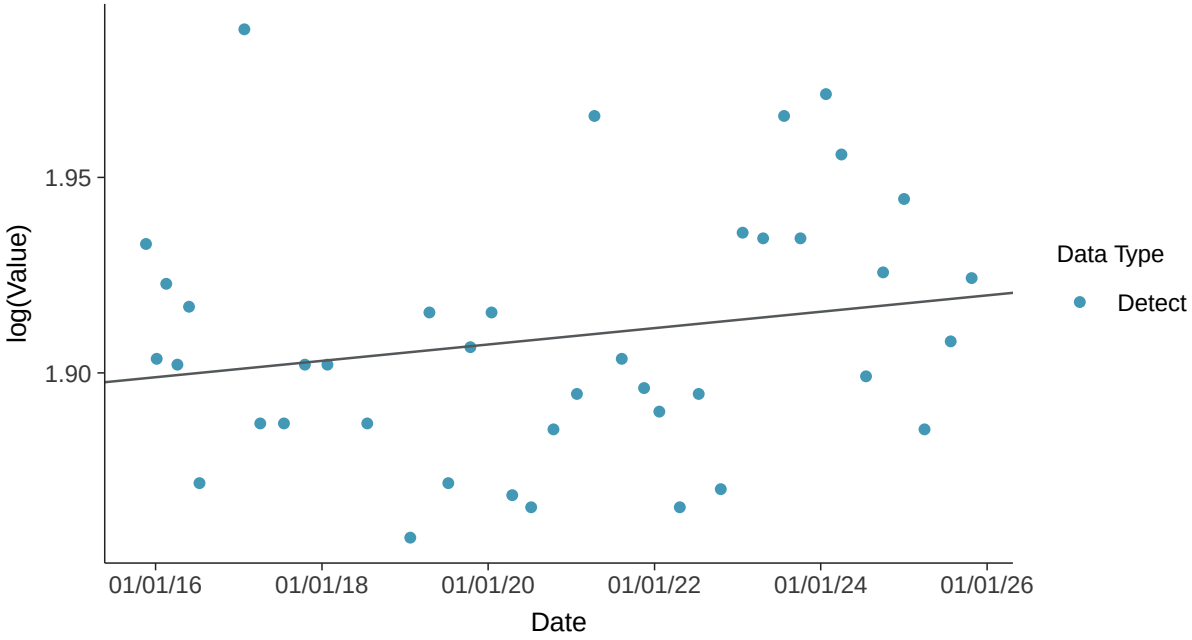
Gamma Q-Q plot

pH (Field), MW-1 (S.U.)



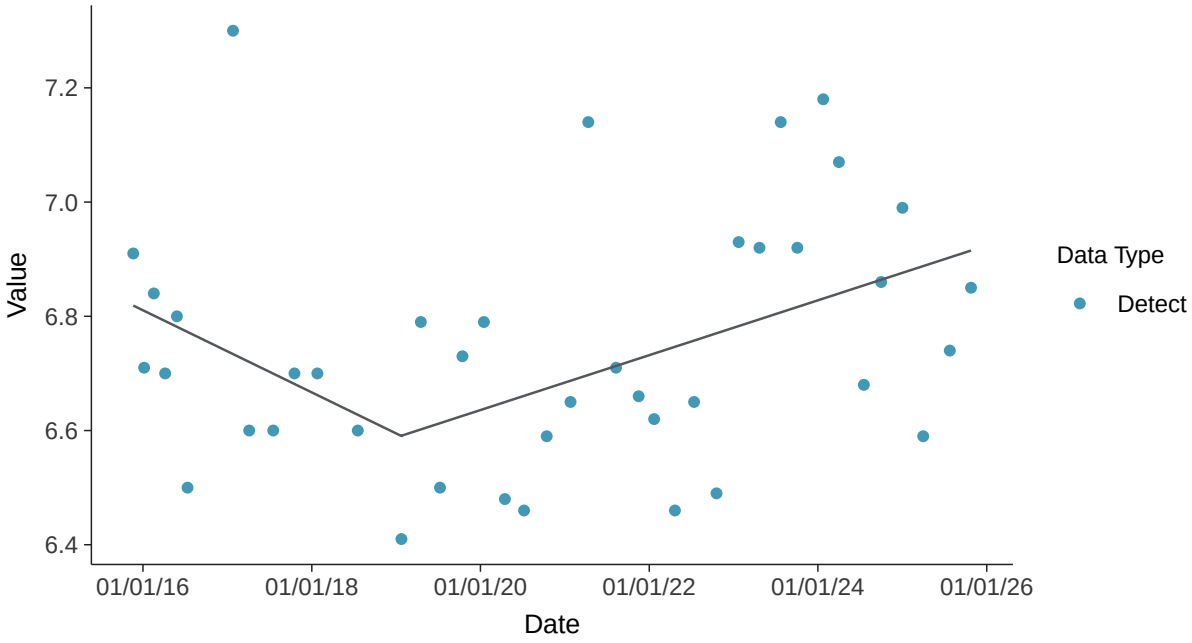
Trend Regression: Lognormal MLE

pH (Field), MW-1 (S.U.)



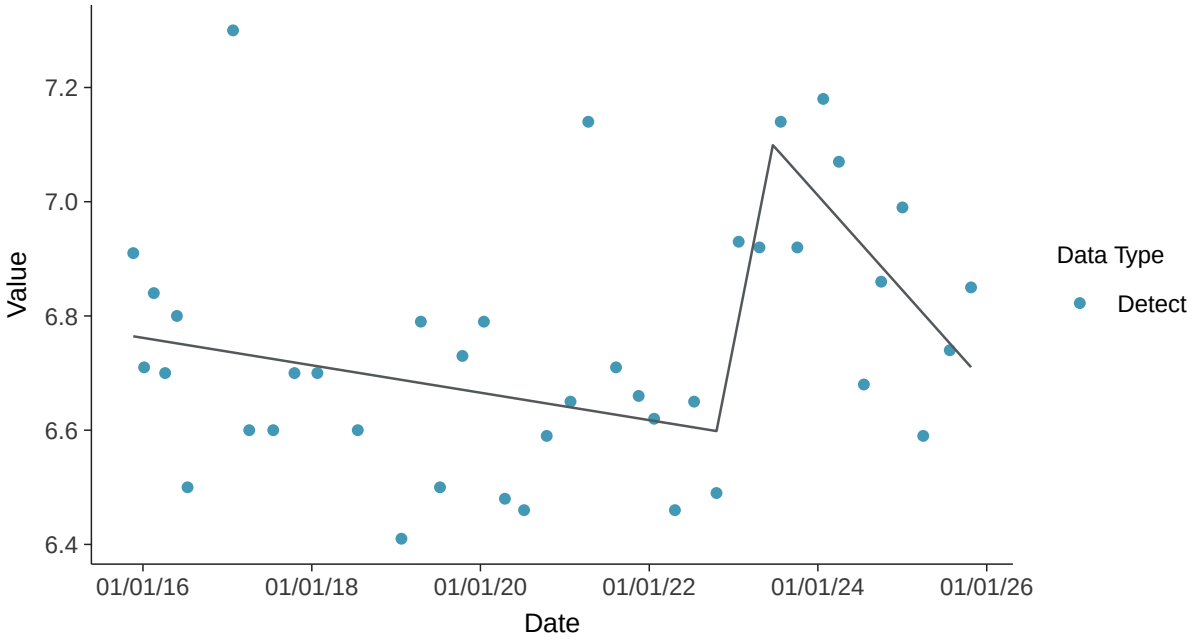
Trend Regression: Piecewise Linear-Linear

pH (Field), MW-1 (S.U.)



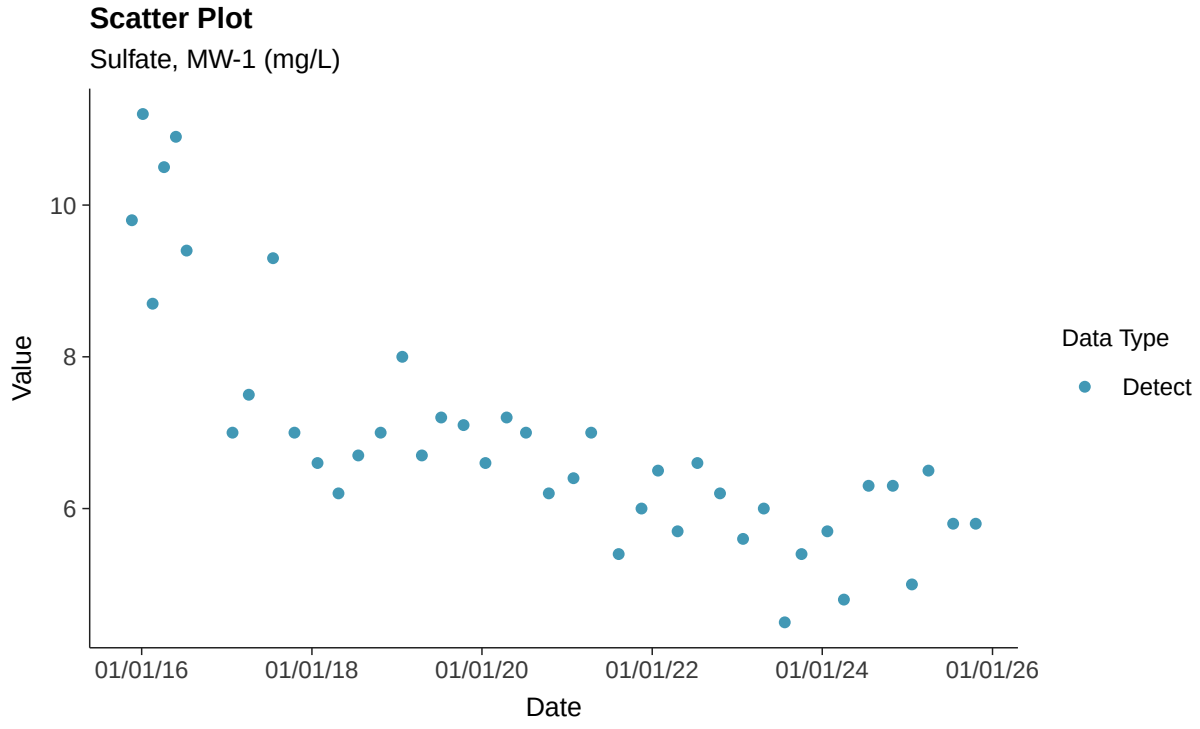
Trend Regression: Piecewise Linear-Linear-Linear

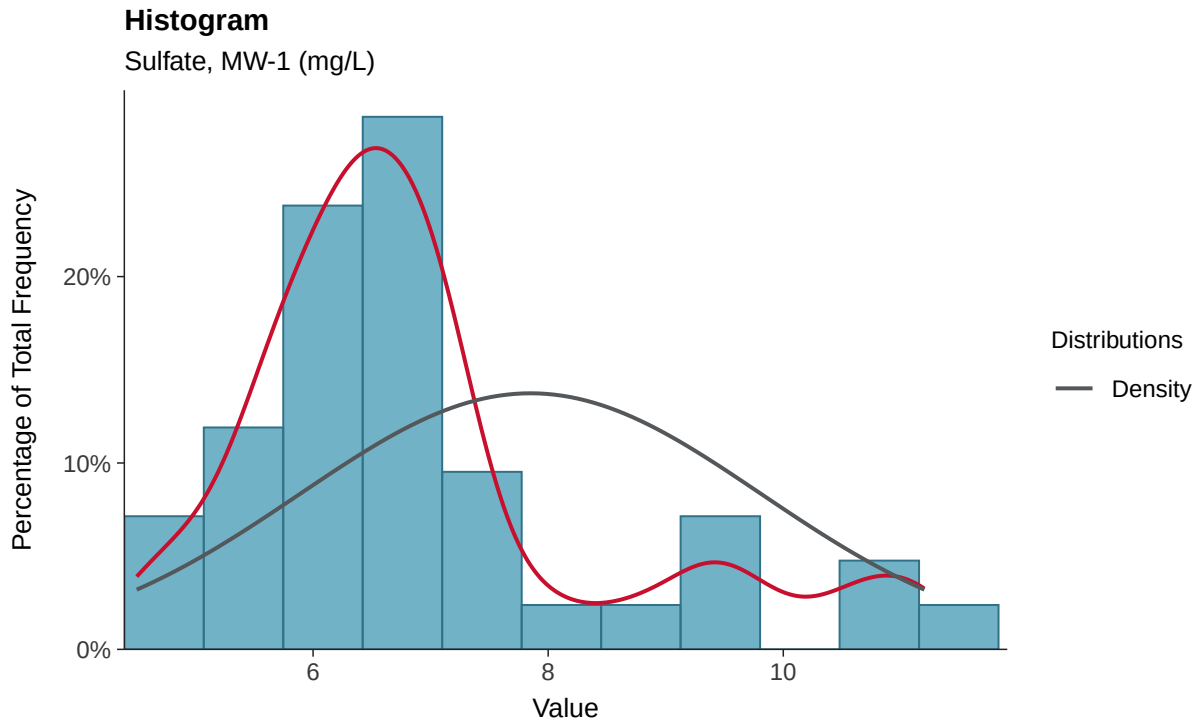
pH (Field), MW-1 (S.U.)



App. III: Sulfate, MW-1

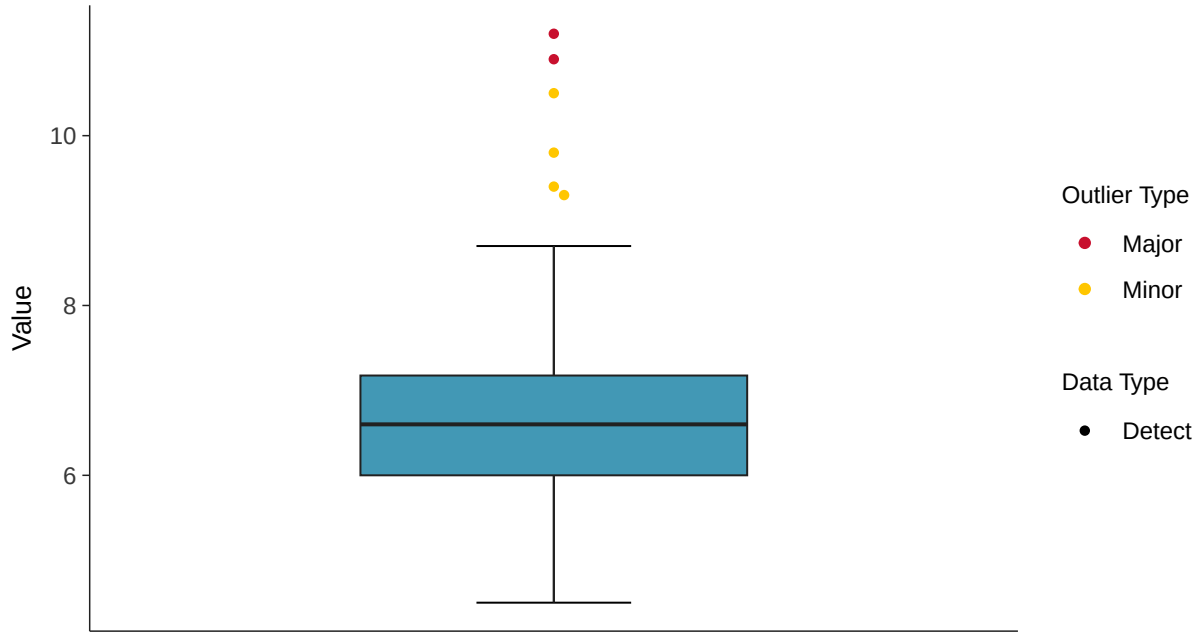
ID: 01_2_123





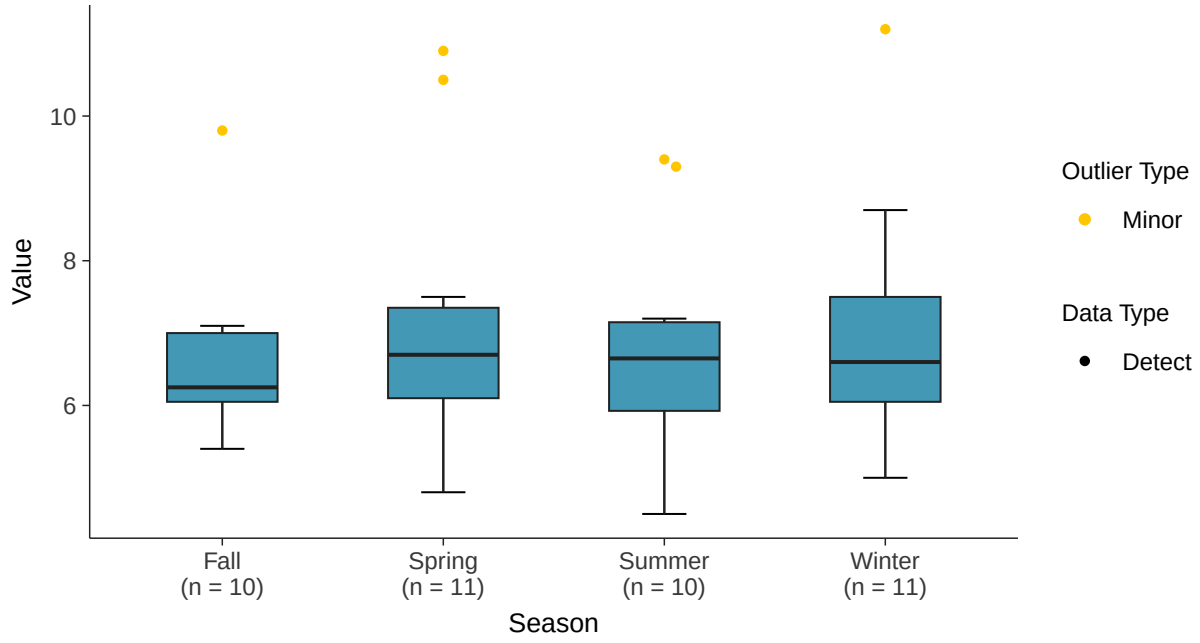
Boxplot

Sulfate, MW-1 (mg/L)



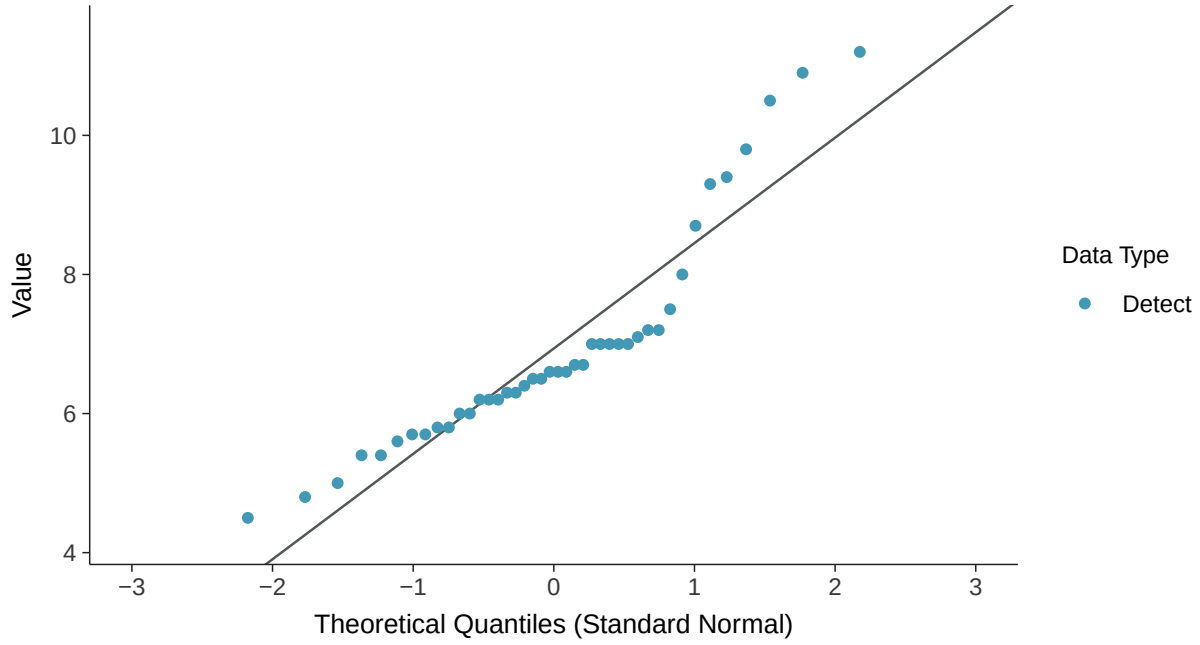
Boxplot by Season

Sulfate, MW-1 (mg/L)



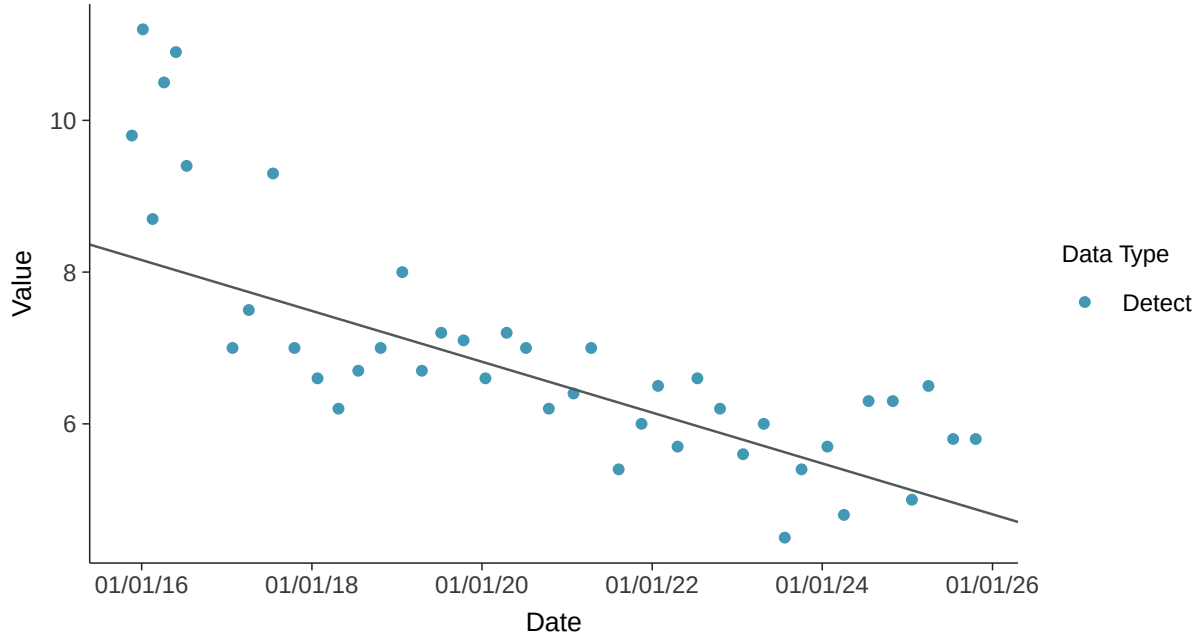
Normal Q-Q plot

Sulfate, MW-1 (mg/L)



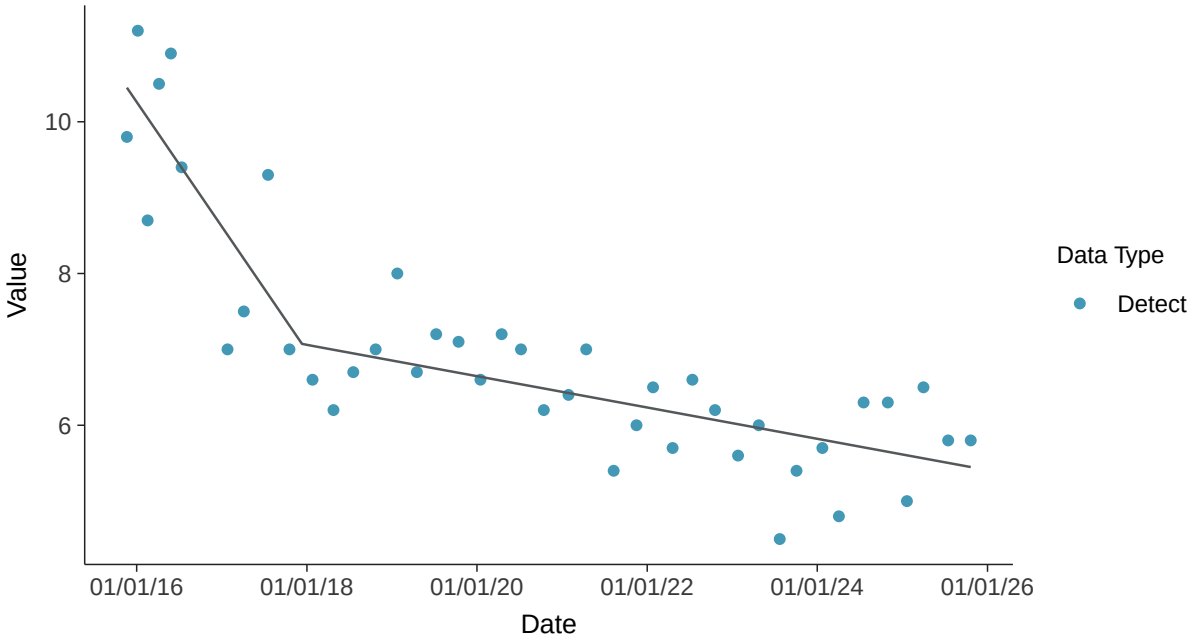
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Sulfate, MW-1 (mg/L)



Trend Regression: Piecewise Linear-Linear

Sulfate, MW-1 (mg/L)

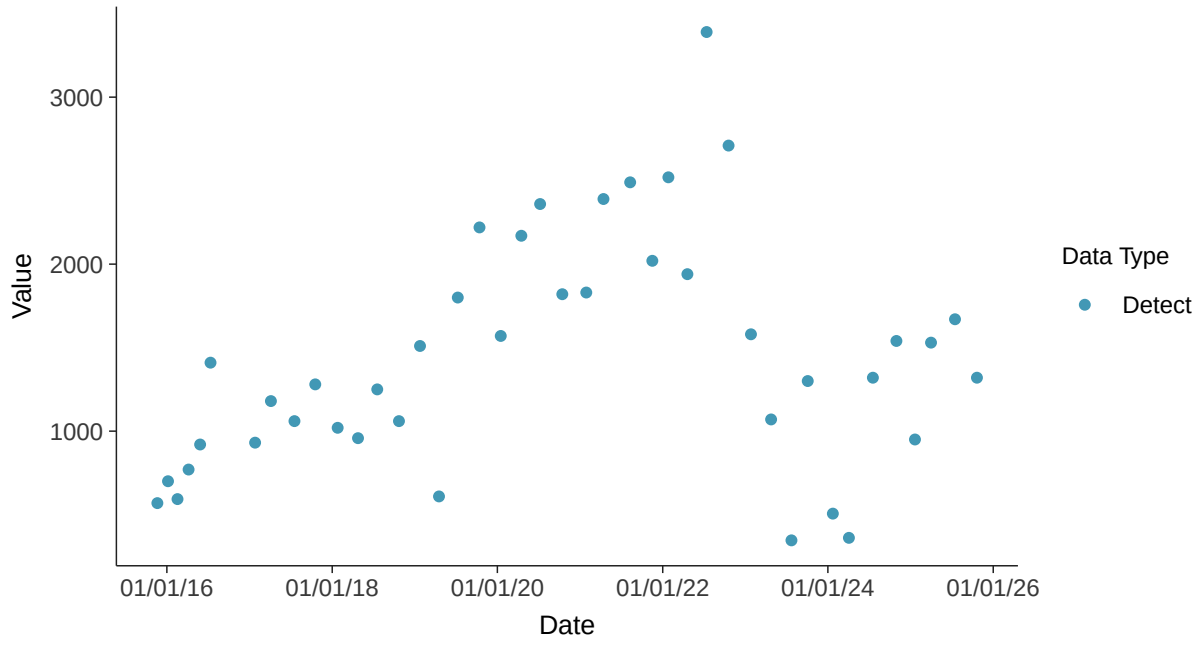


App. III: Total Dissolved Solids, MW-1

ID: 01_2_125

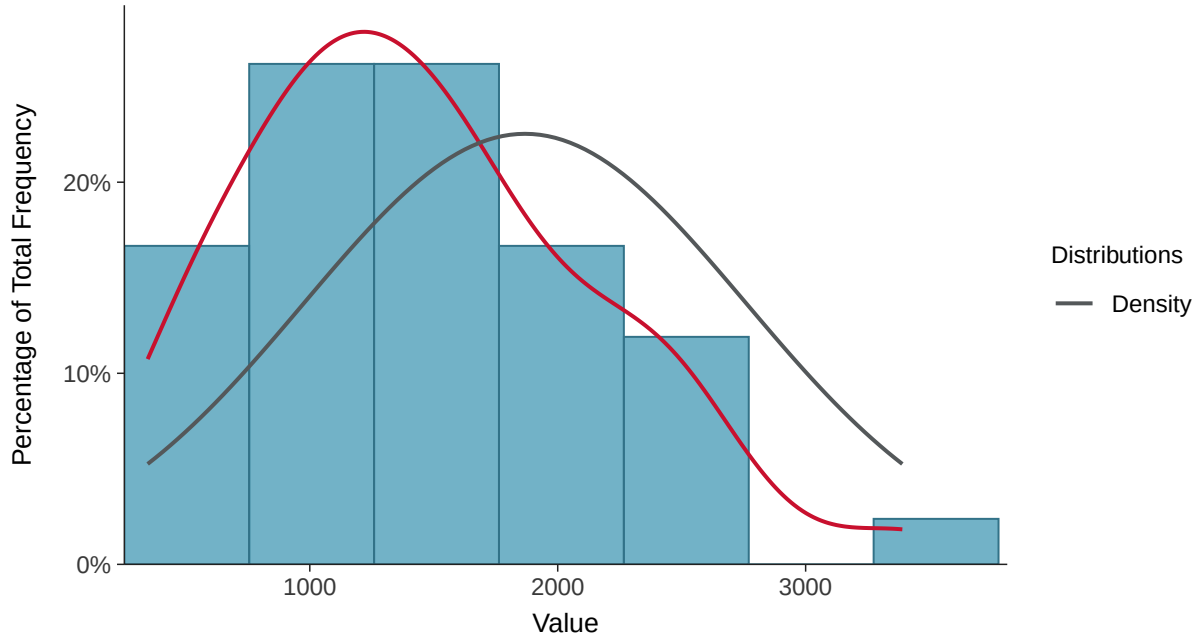
Scatter Plot

Total Dissolved Solids, MW-1 (mg/L)



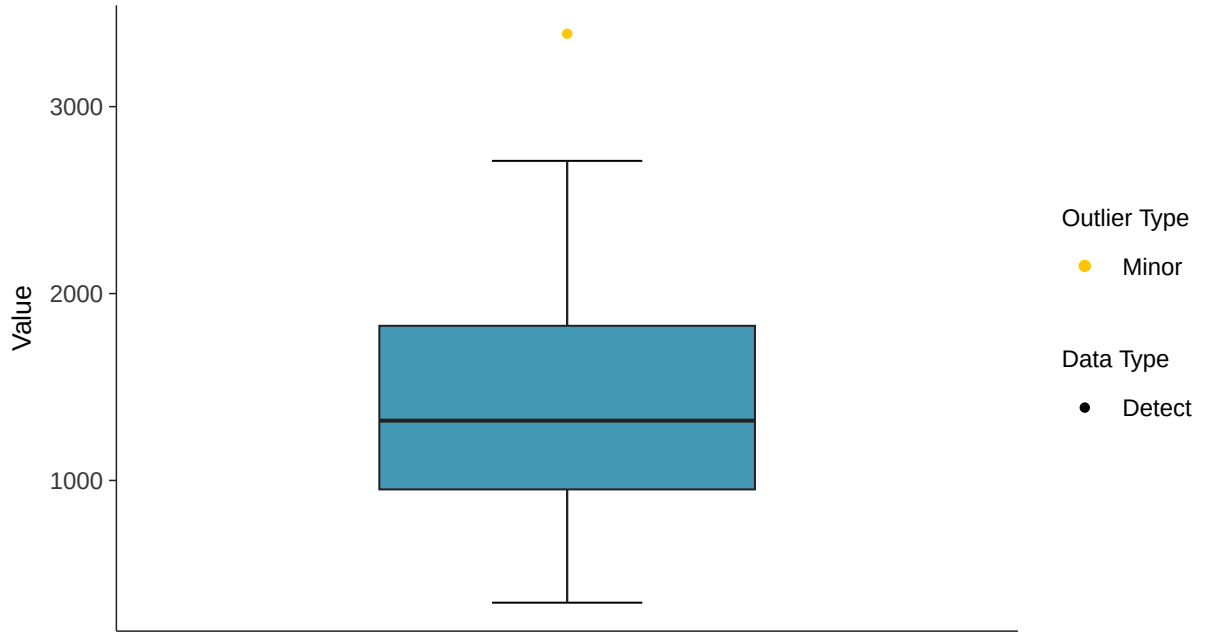
Histogram

Total Dissolved Solids, MW-1 (mg/L)



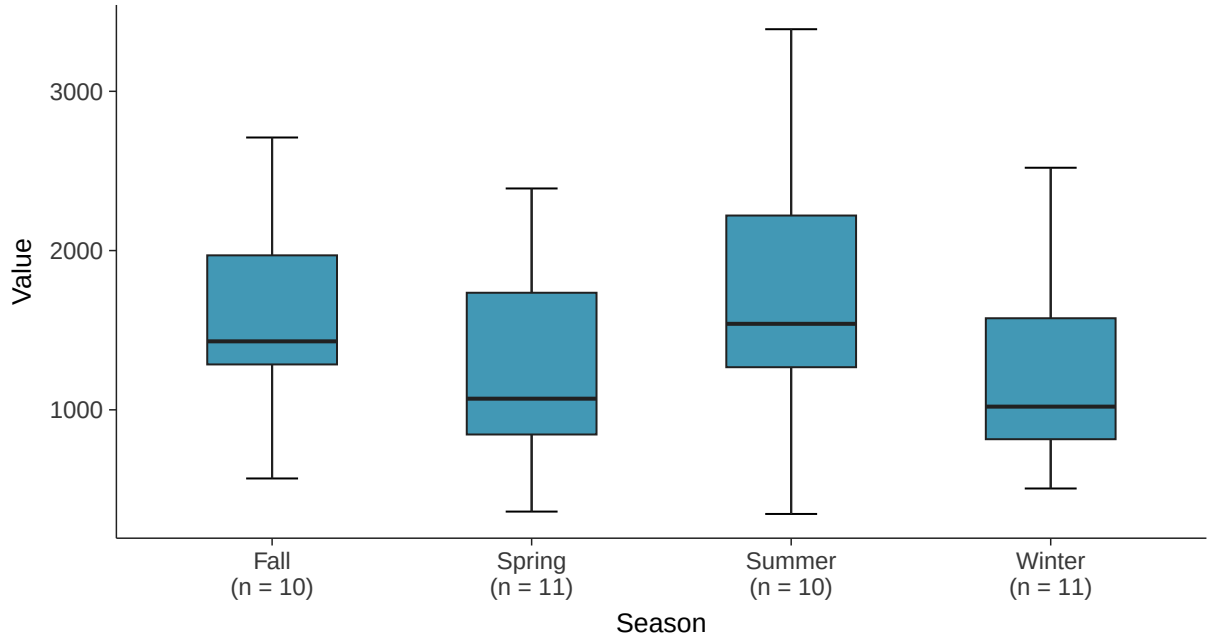
Boxplot

Total Dissolved Solids, MW-1 (mg/L)



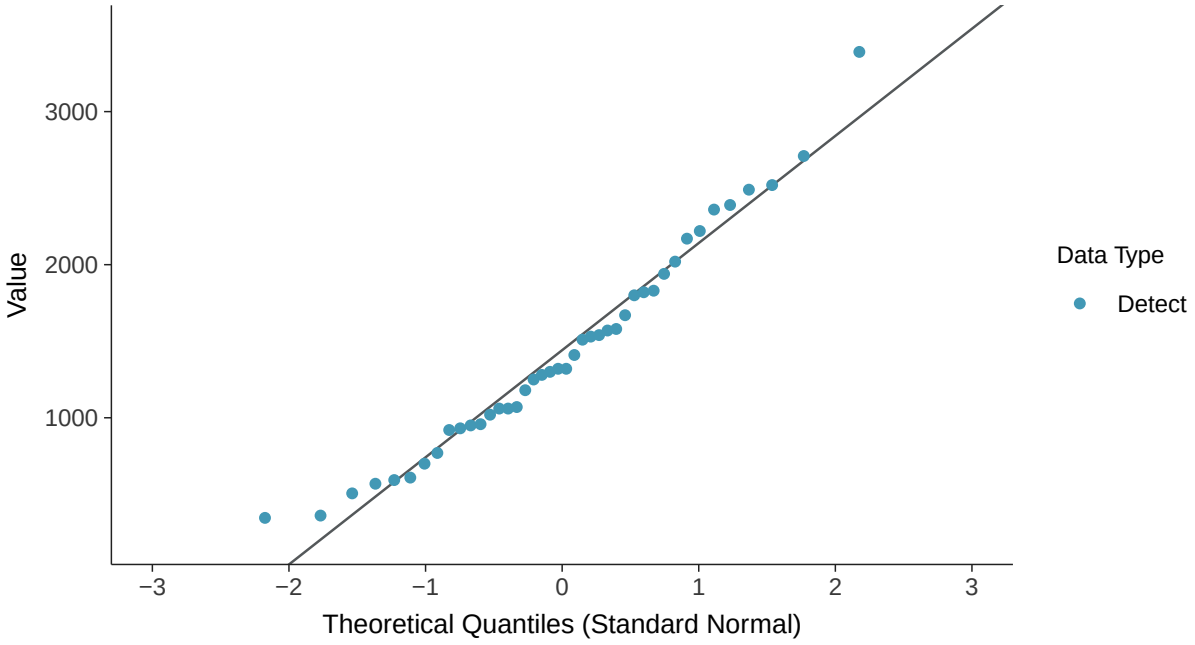
Boxplot by Season

Total Dissolved Solids, MW-1 (mg/L)



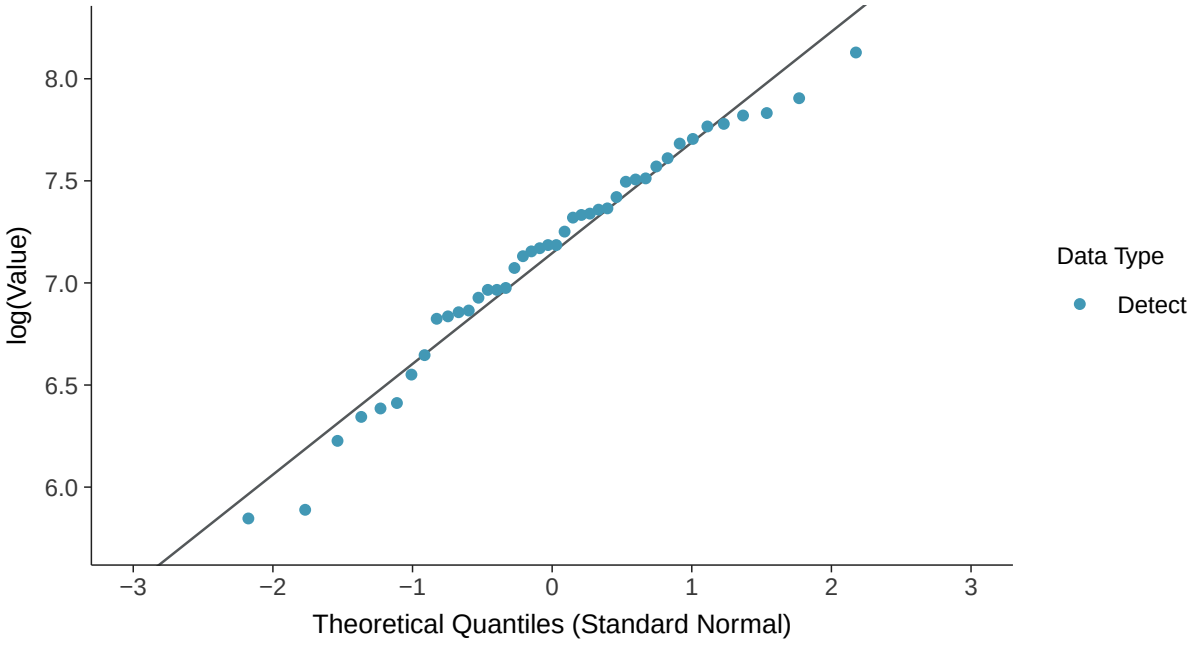
Normal Q-Q plot

Total Dissolved Solids, MW-1 (mg/L)



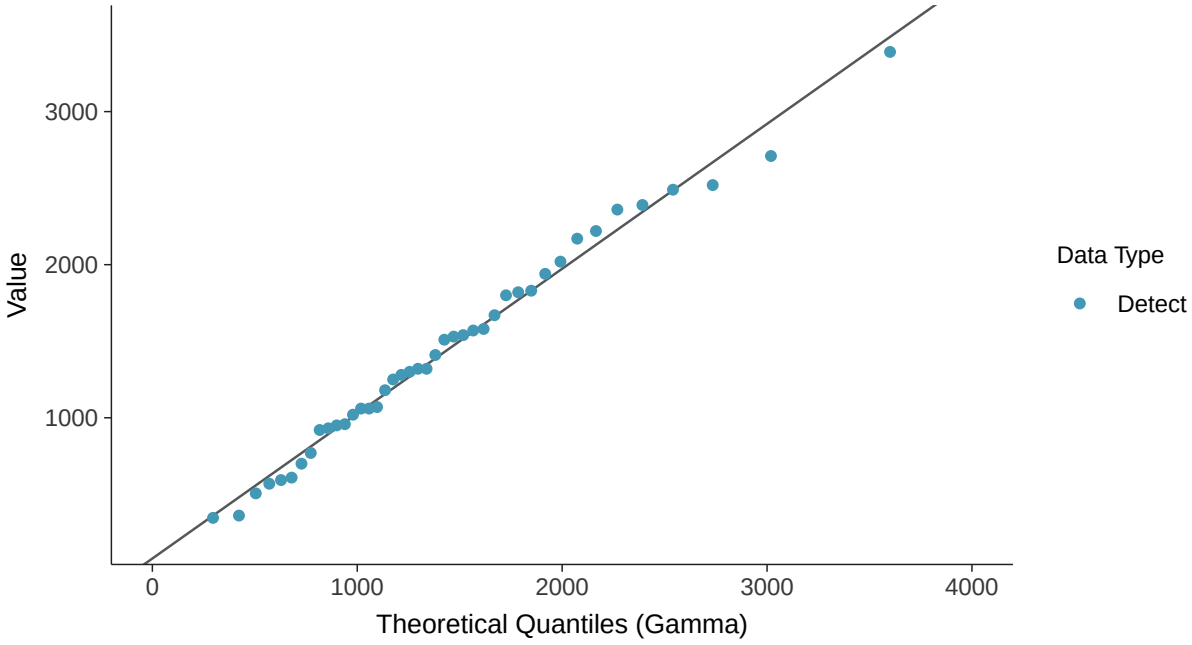
Lognormal Q-Q plot

Total Dissolved Solids, MW-1 (mg/L)



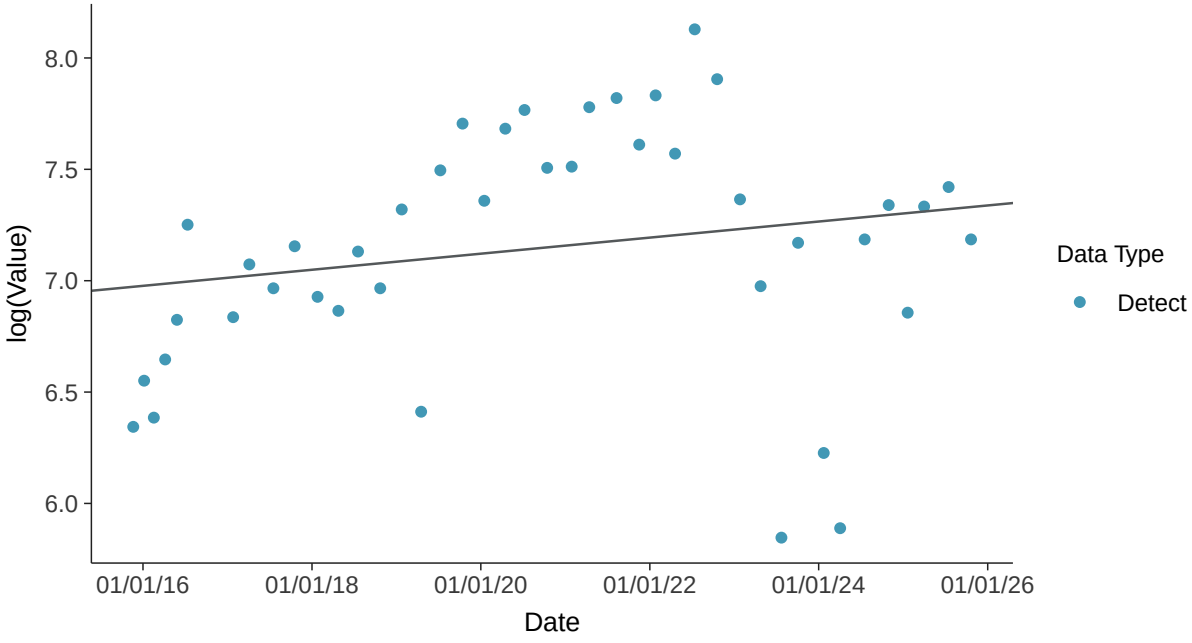
Gamma Q-Q plot

Total Dissolved Solids, MW-1 (mg/L)



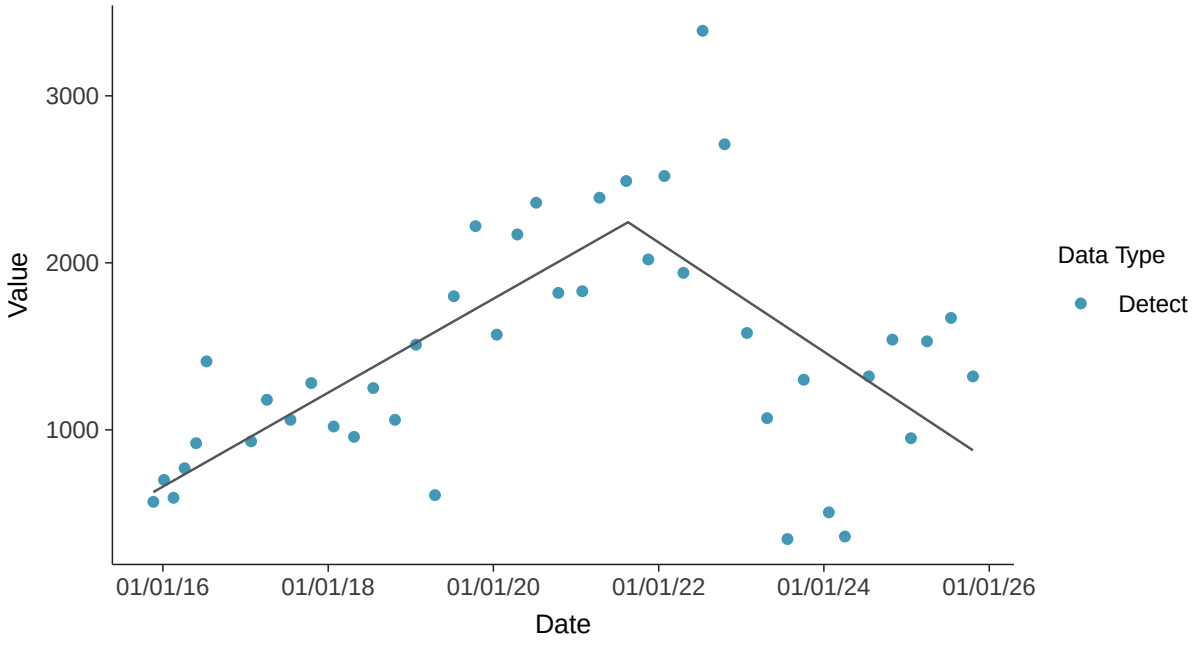
Trend Regression: Lognormal MLE

Total Dissolved Solids, MW-1 (mg/L)



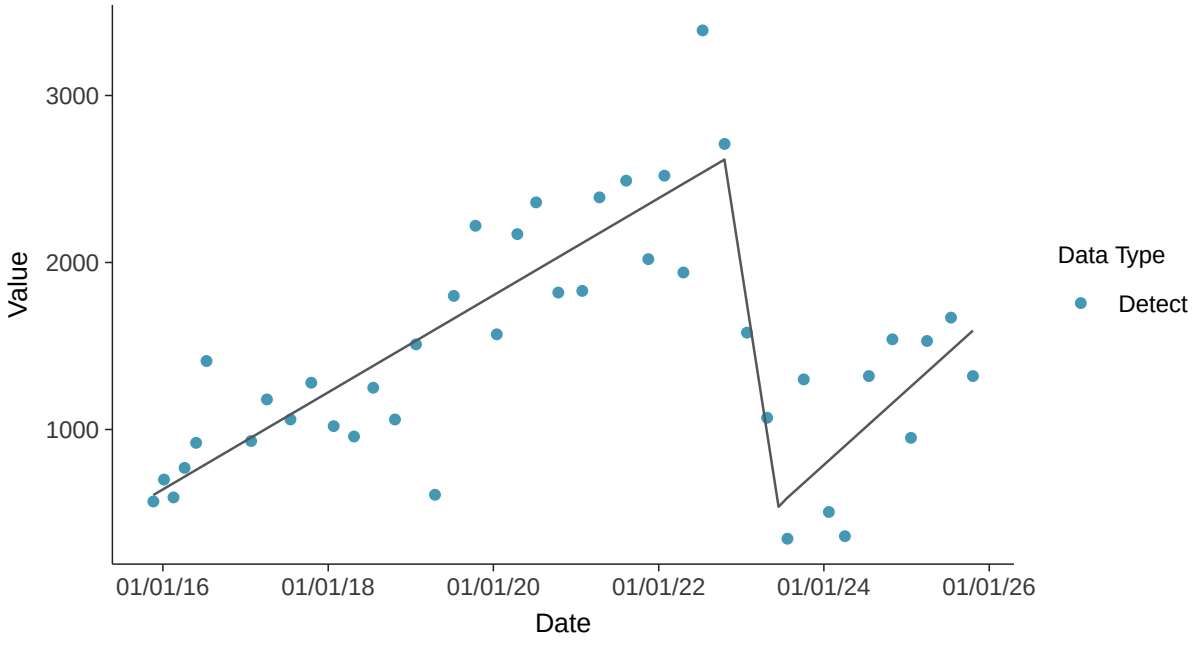
Trend Regression: Piecewise Linear-Linear

Total Dissolved Solids, MW-1 (mg/L)



Trend Regression: Piecewise Linear-Linear-Linear

Total Dissolved Solids, MW-1 (mg/L)

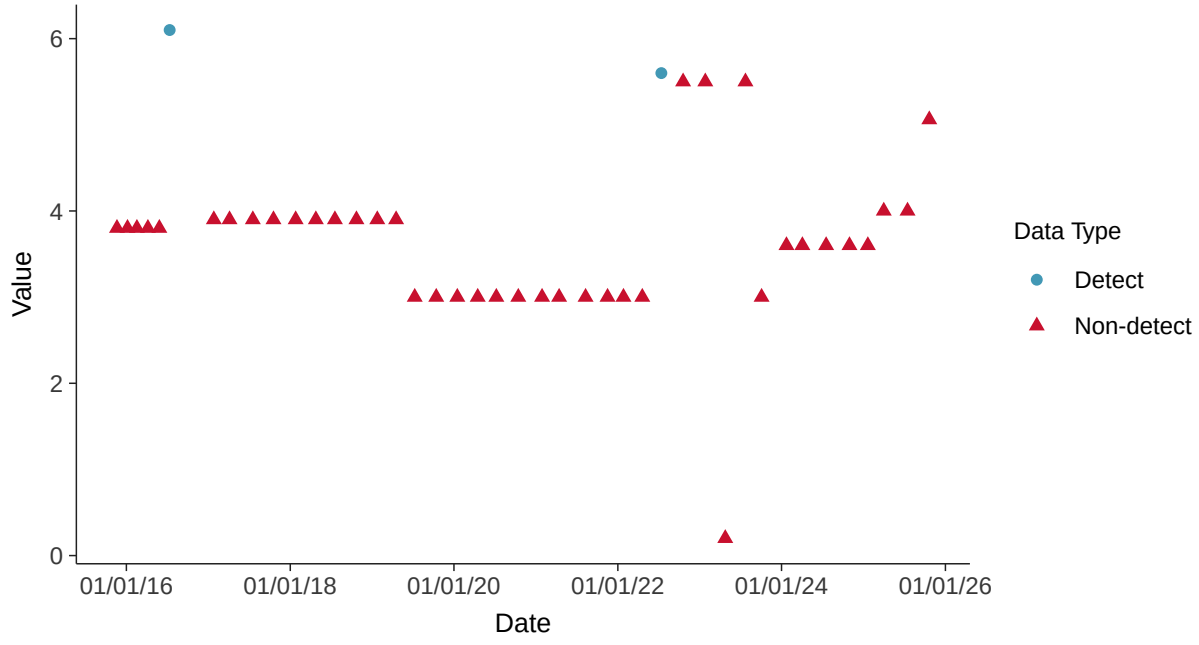


App. IV: Antimony, MW-1

ID: 01_3_101

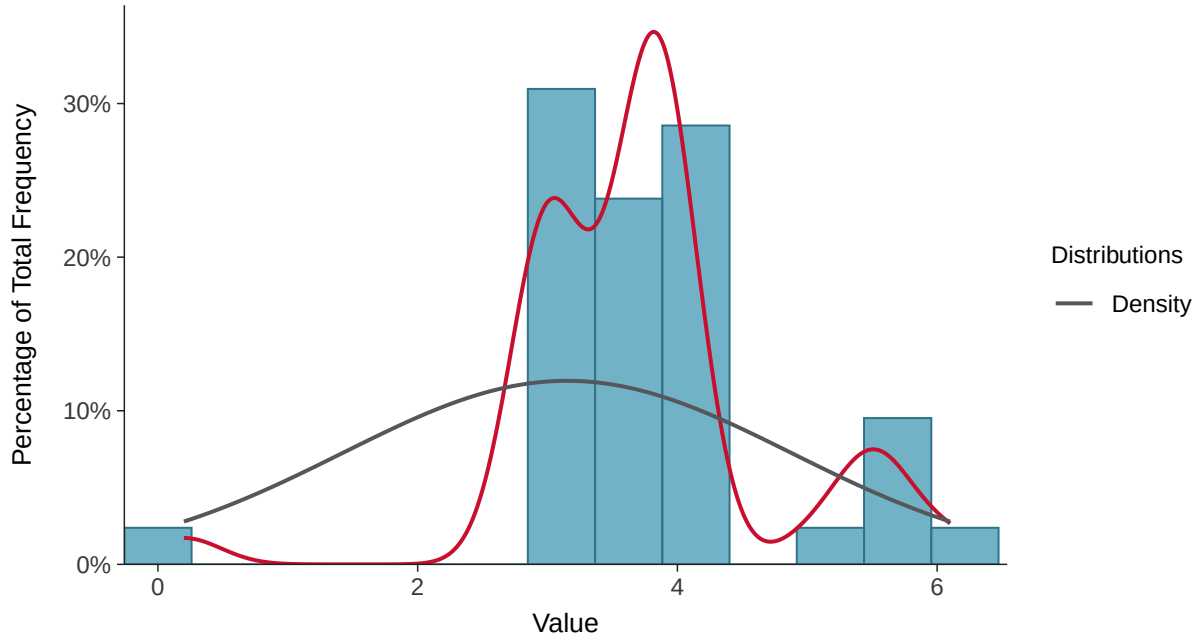
Scatter Plot

Antimony, MW-1 (ug/L)



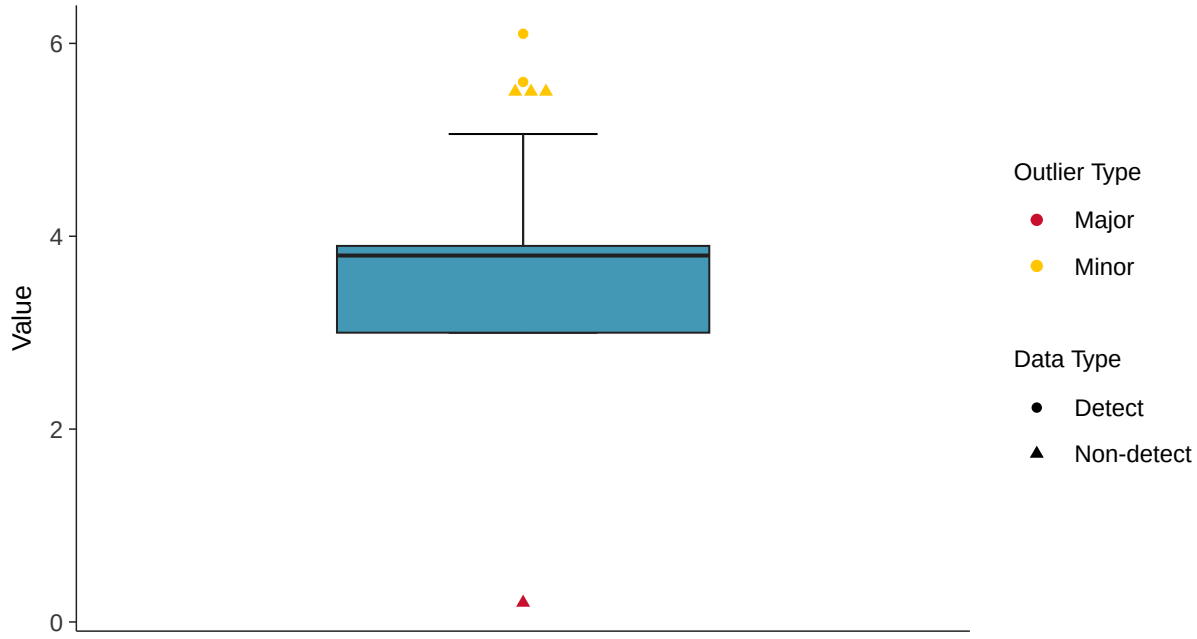
Histogram

Antimony, MW-1 (ug/L)



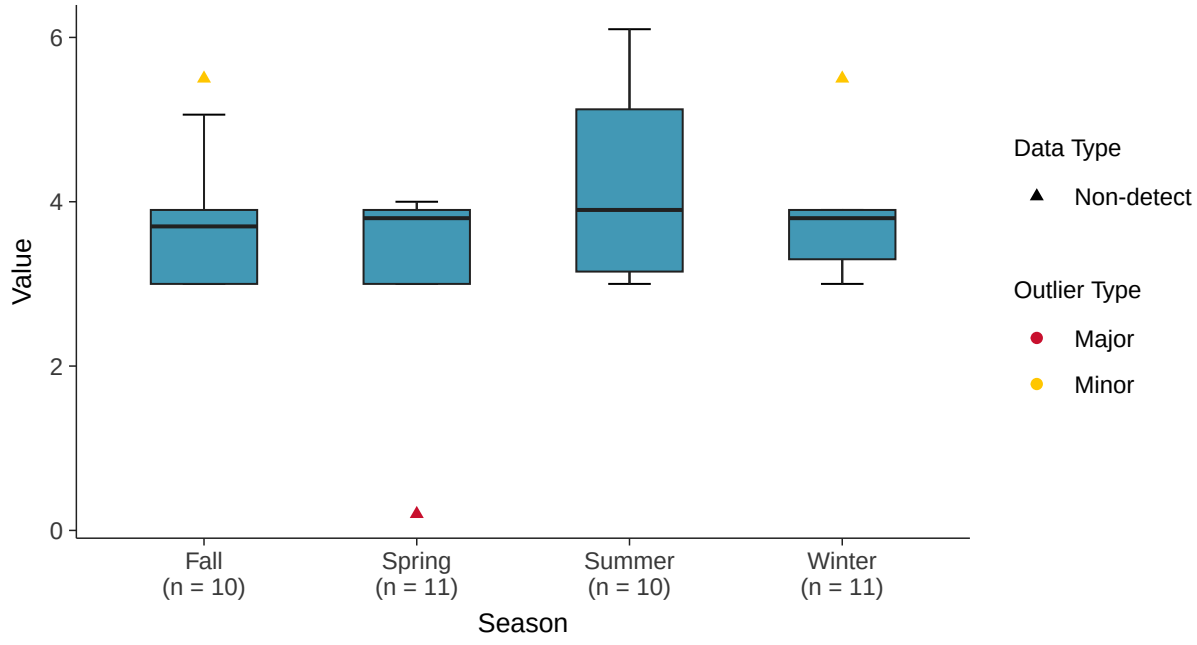
Boxplot

Antimony, MW-1 (ug/L)



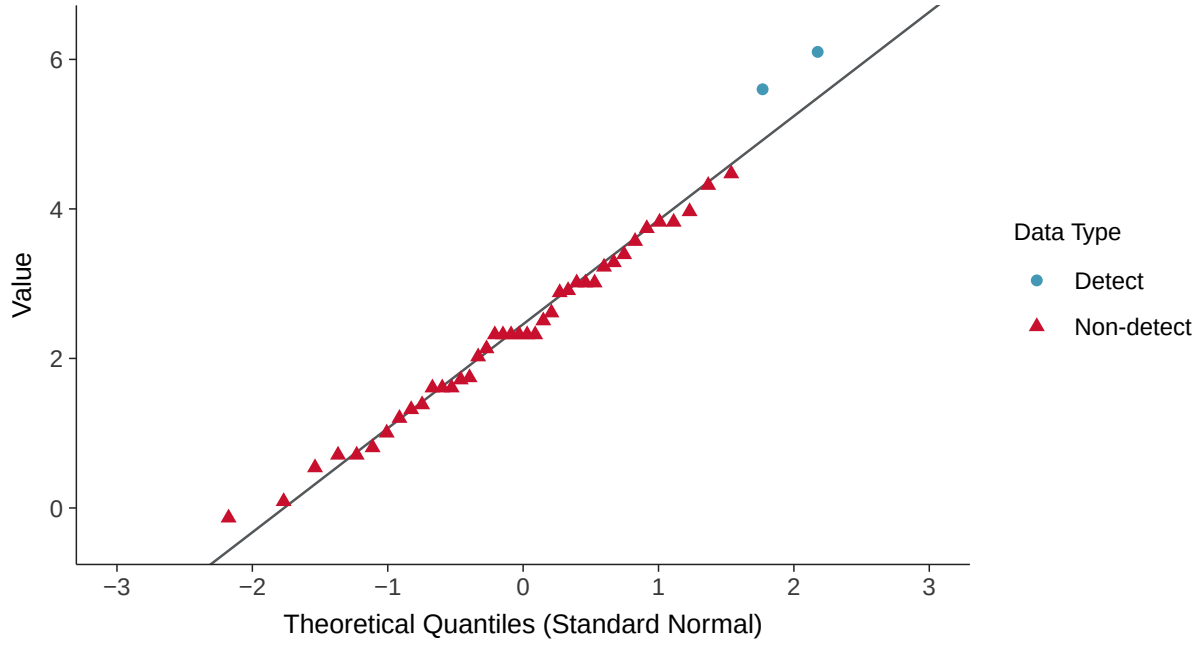
Boxplot by Season

Antimony, MW-1 (ug/L)



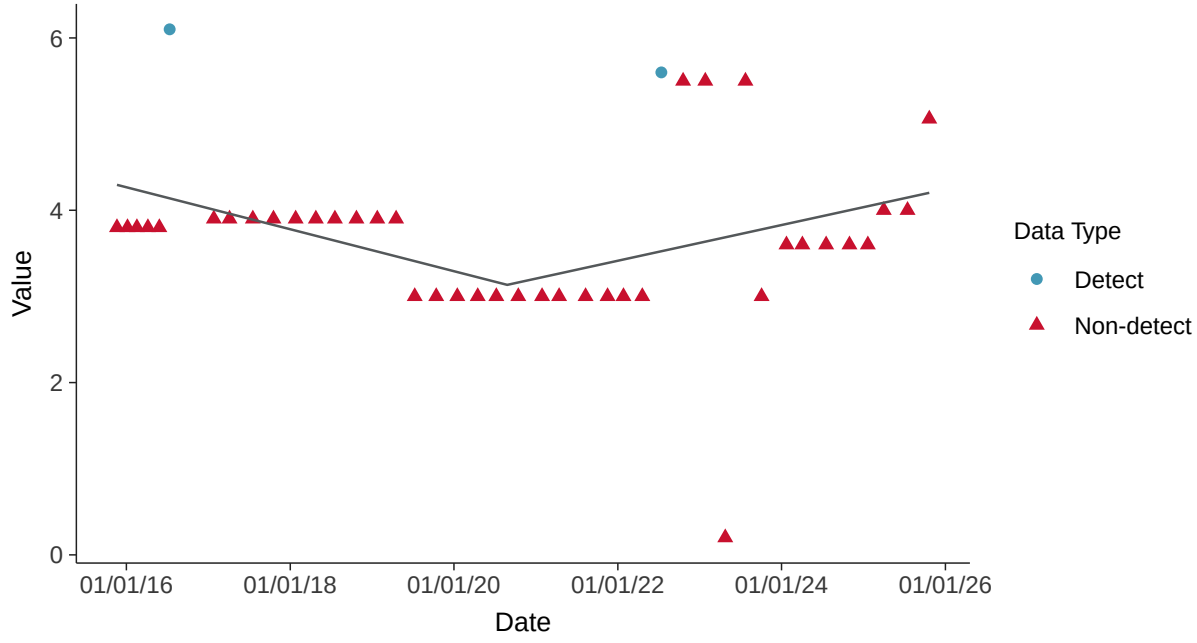
Normal Q-Q plot using ROS Imputed Estimates

Antimony, MW-1 (ug/L)



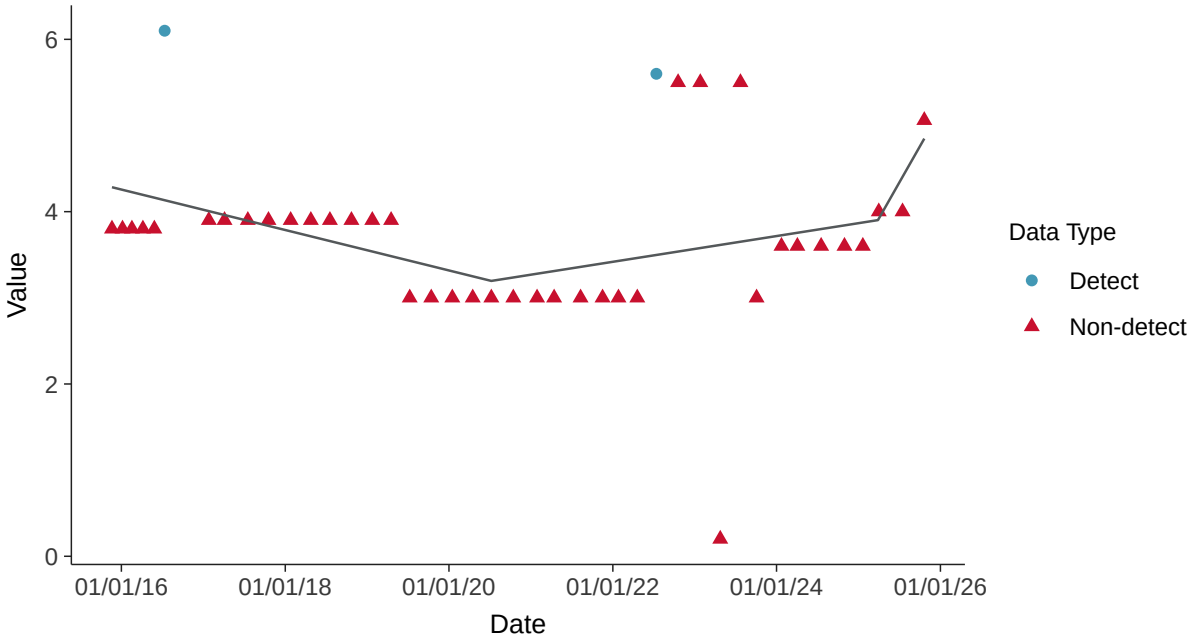
Trend Regression: Piecewise Linear-Linear

Antimony, MW-1 (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Antimony, MW-1 (ug/L)

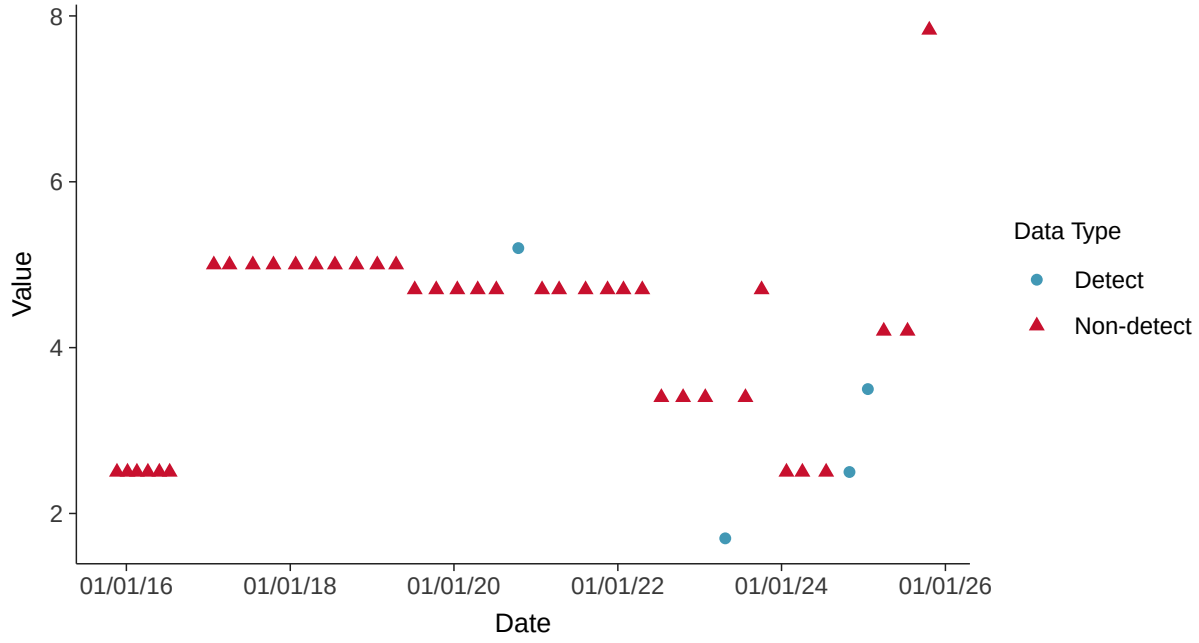


App. IV: Arsenic, MW-1

ID: 01_3_102

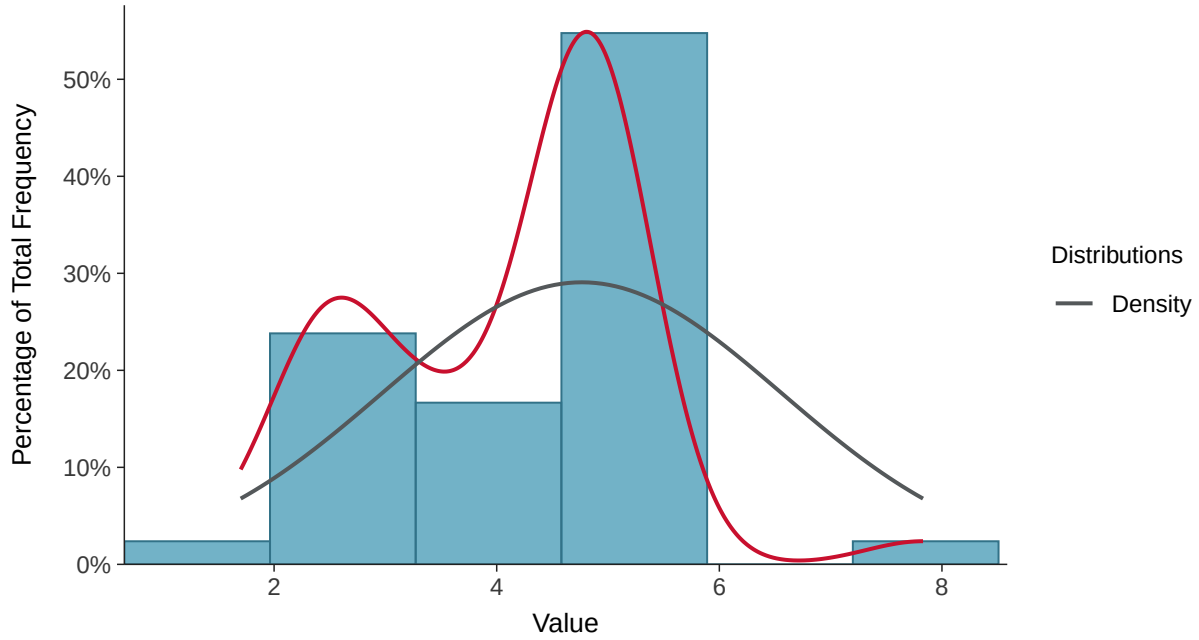
Scatter Plot

Arsenic, MW-1 (ug/L)



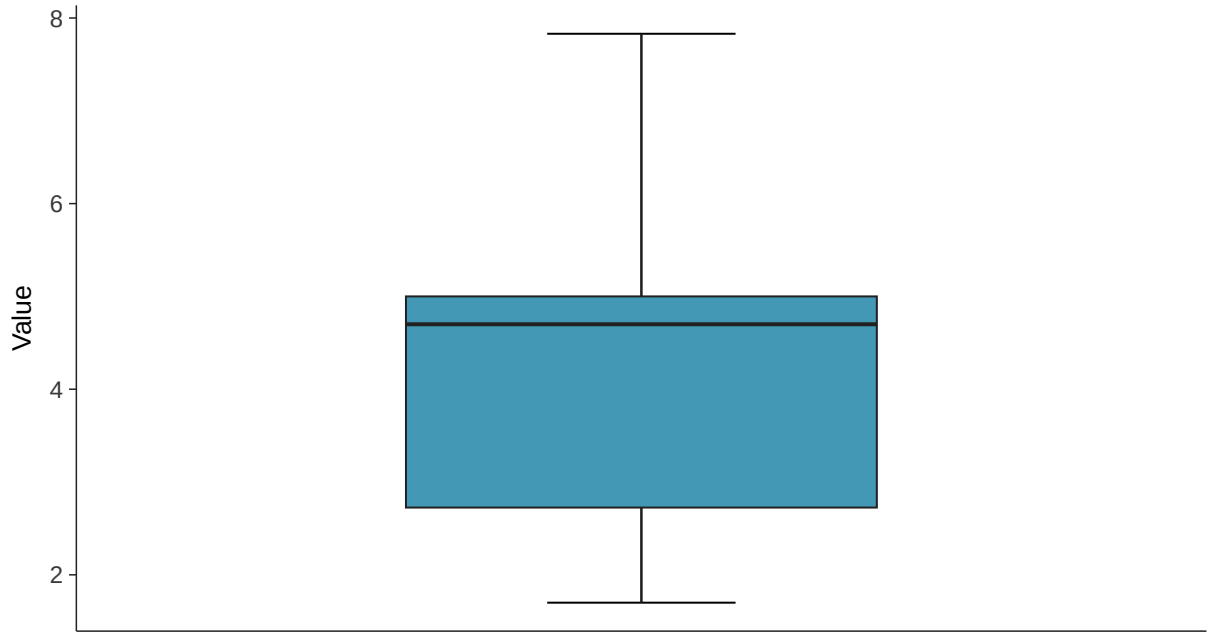
Histogram

Arsenic, MW-1 (ug/L)



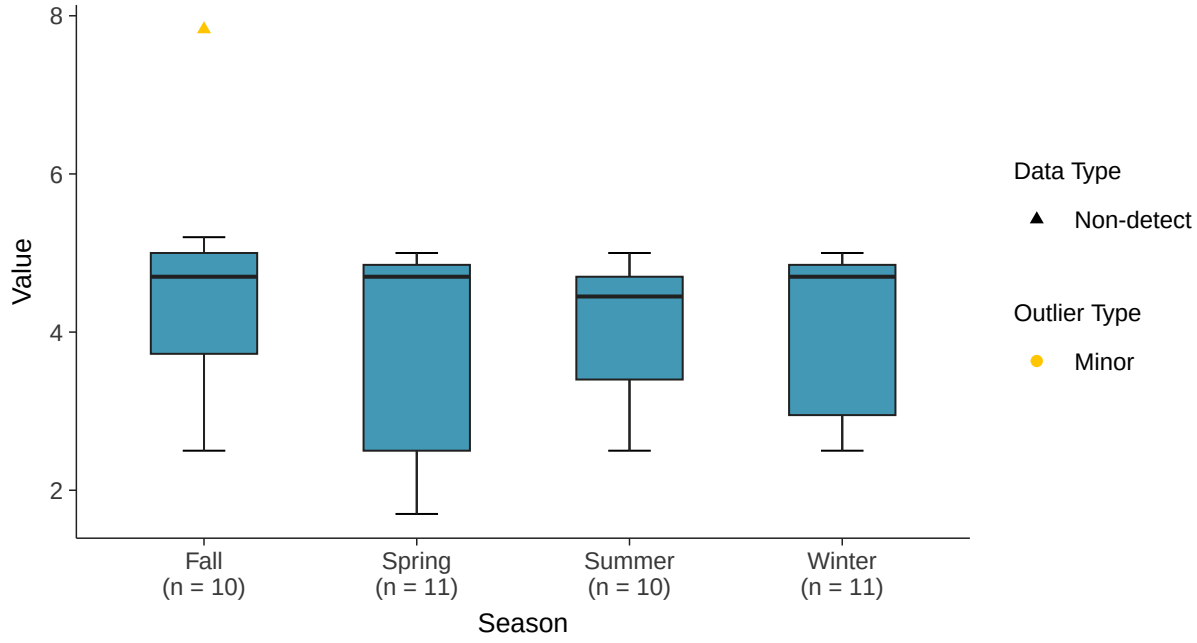
Boxplot

Arsenic, MW-1 (ug/L)



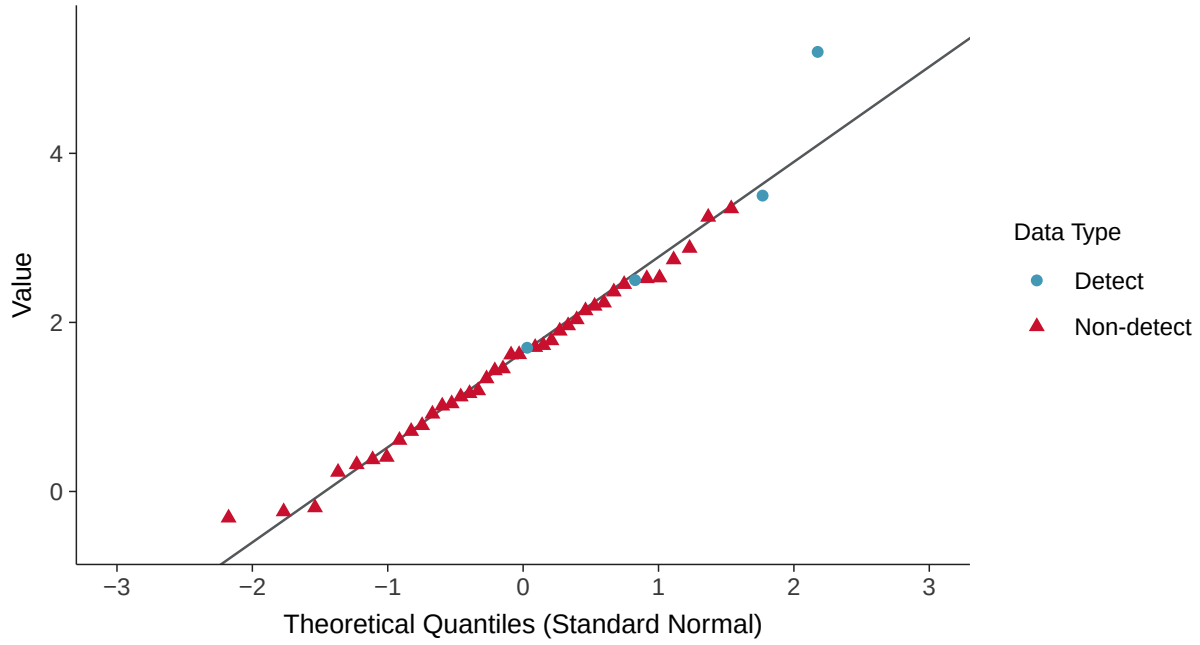
Boxplot by Season

Arsenic, MW-1 (ug/L)



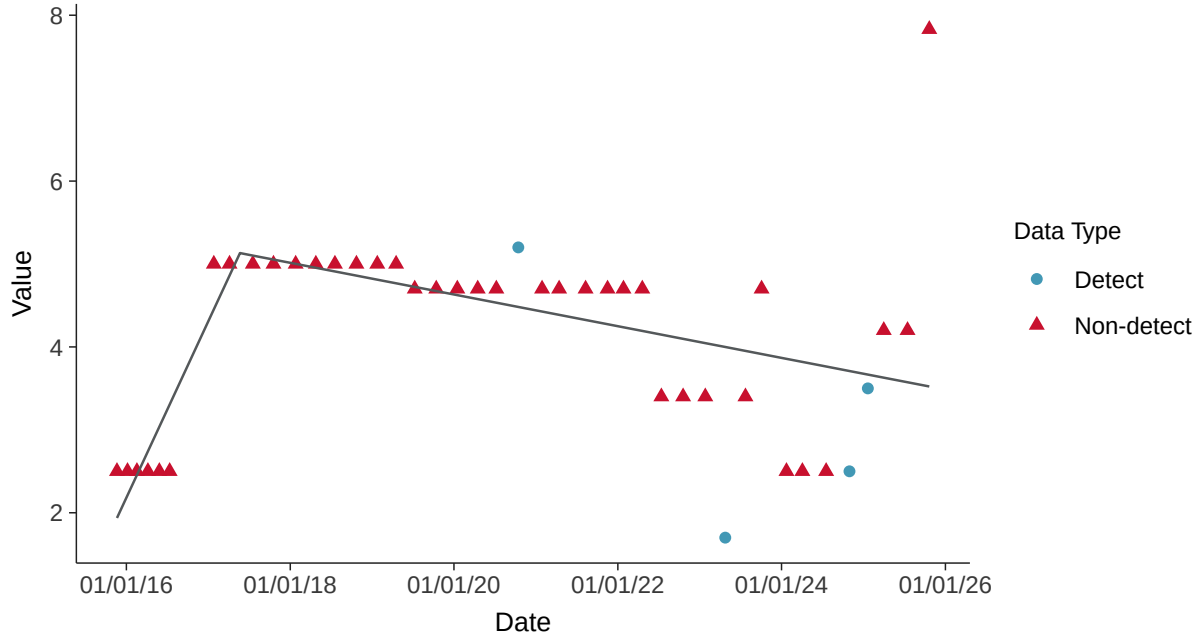
Normal Q-Q plot using ROS Imputed Estimates

Arsenic, MW-1 (ug/L)



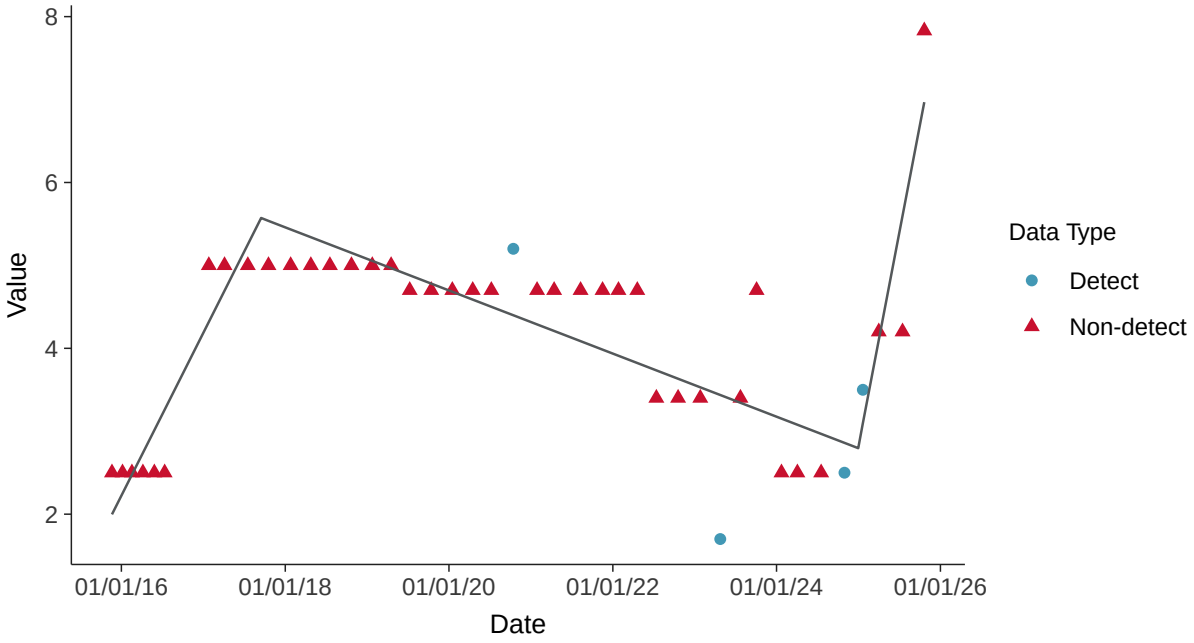
Trend Regression: Piecewise Linear-Linear

Arsenic, MW-1 (ug/L)



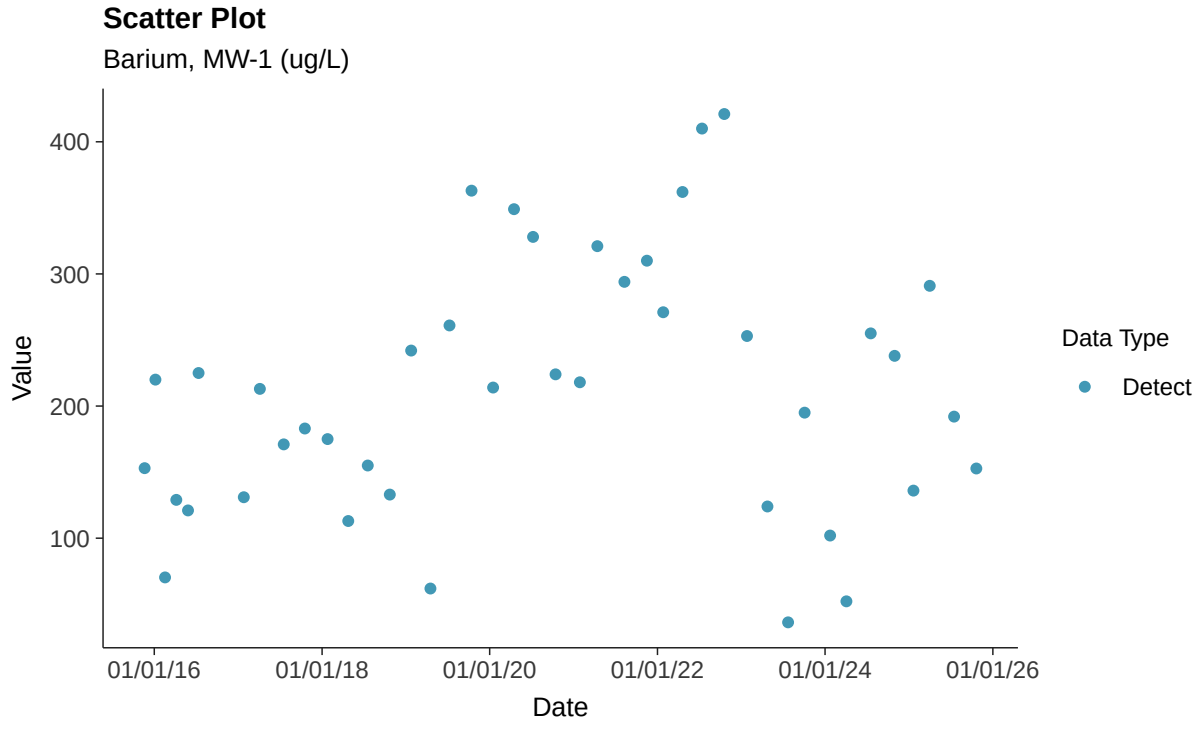
Trend Regression: Piecewise Linear-Linear-Linear

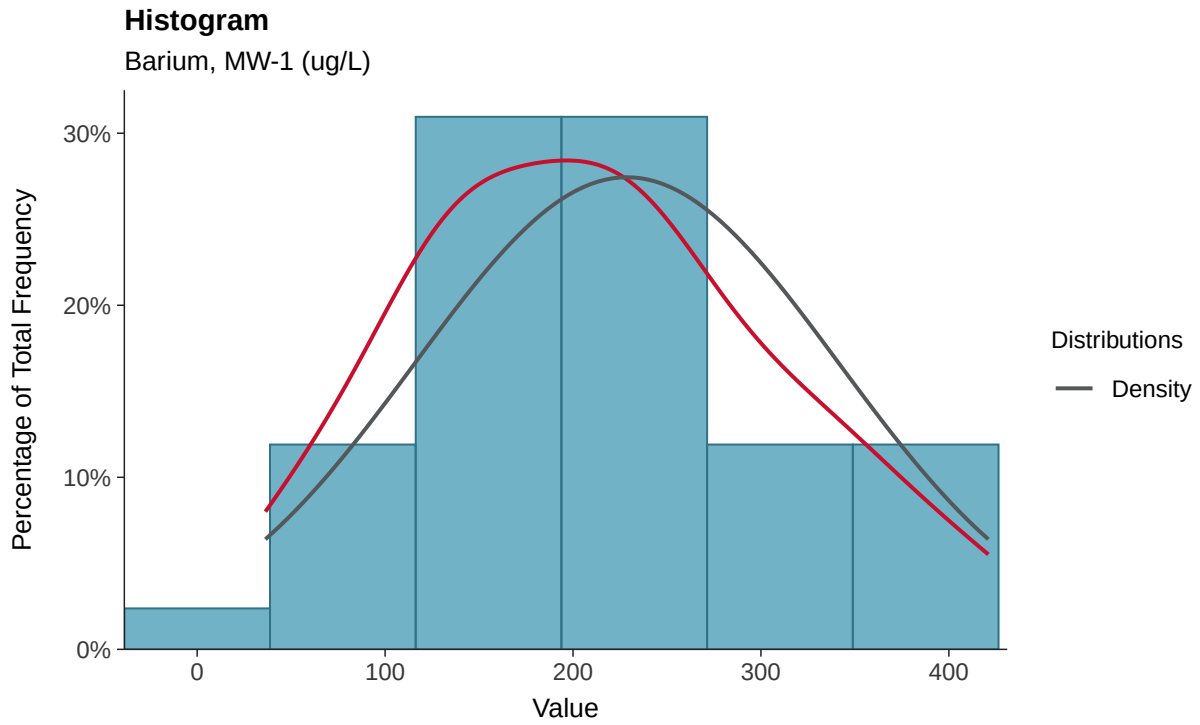
Arsenic, MW-1 (ug/L)



App. IV: Barium, MW-1

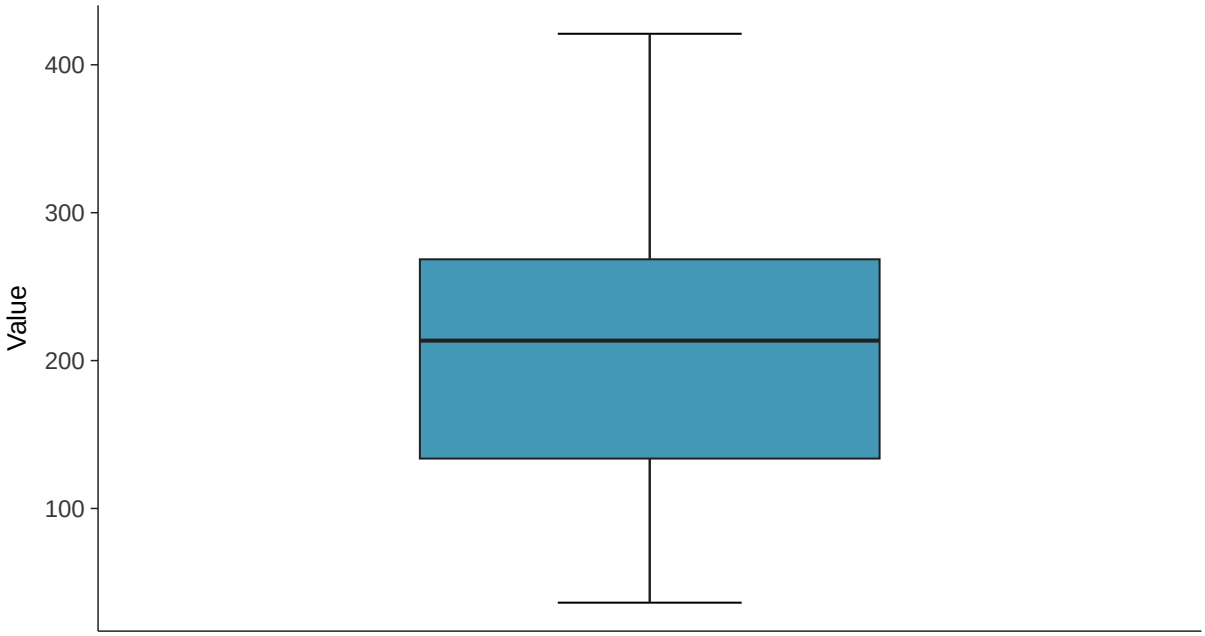
ID: 01_3_103





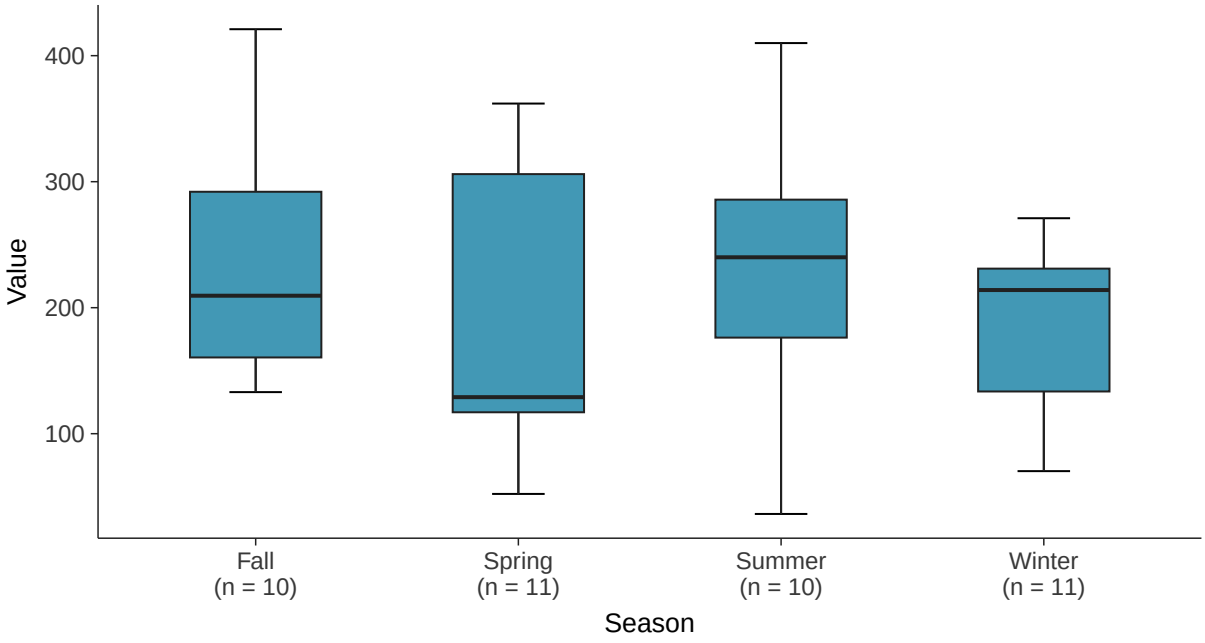
Boxplot

Barium, MW-1 (ug/L)



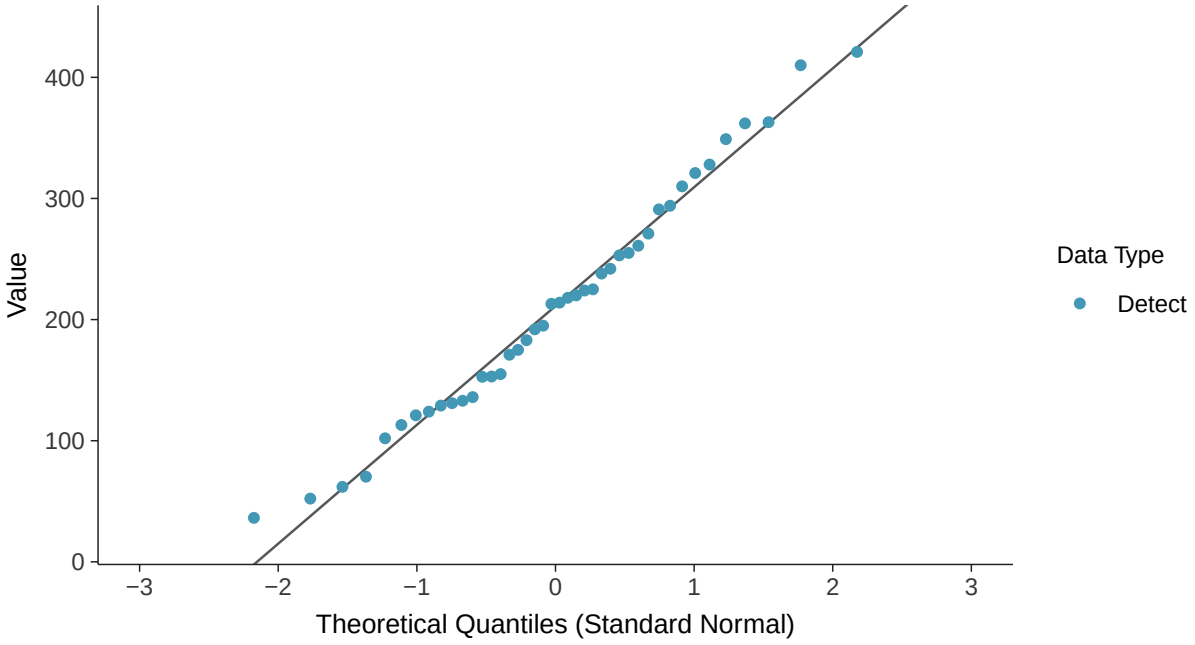
Boxplot by Season

Barium, MW-1 (ug/L)



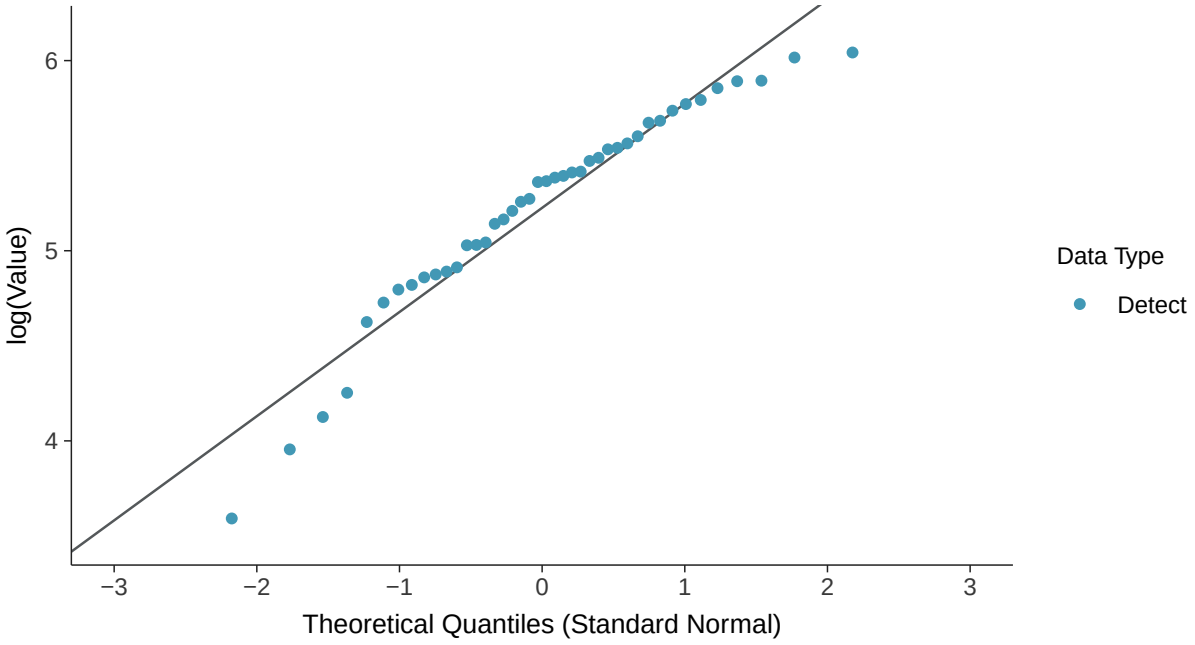
Normal Q-Q plot

Barium, MW-1 (ug/L)



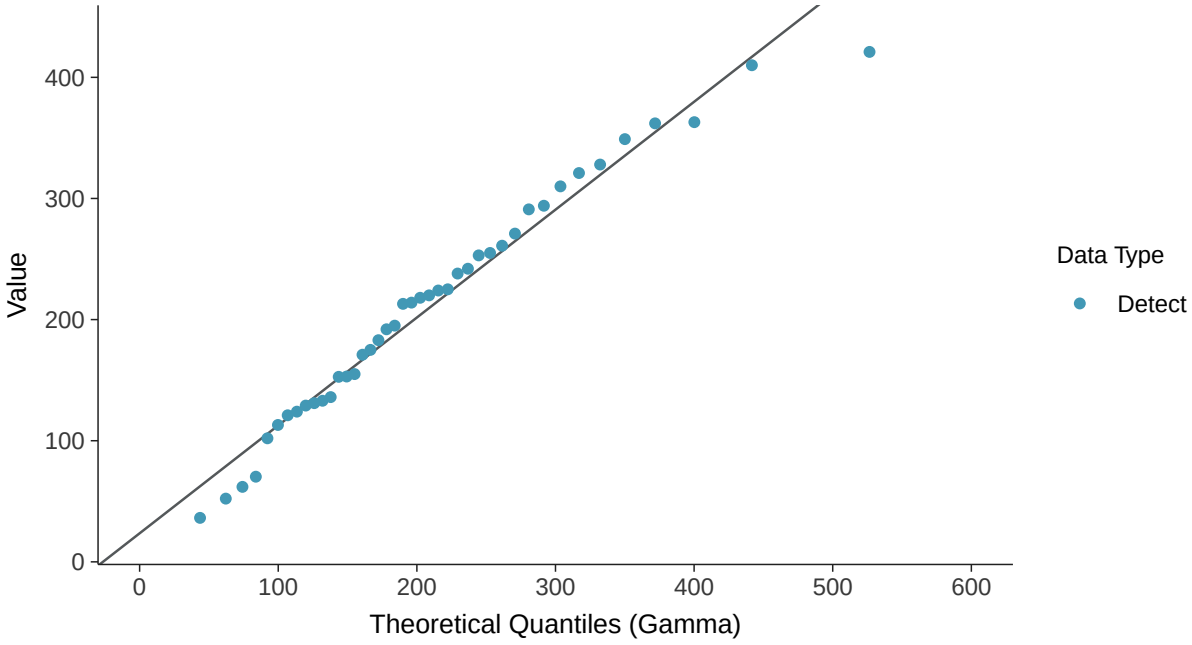
Lognormal Q-Q plot

Barium, MW-1 (ug/L)



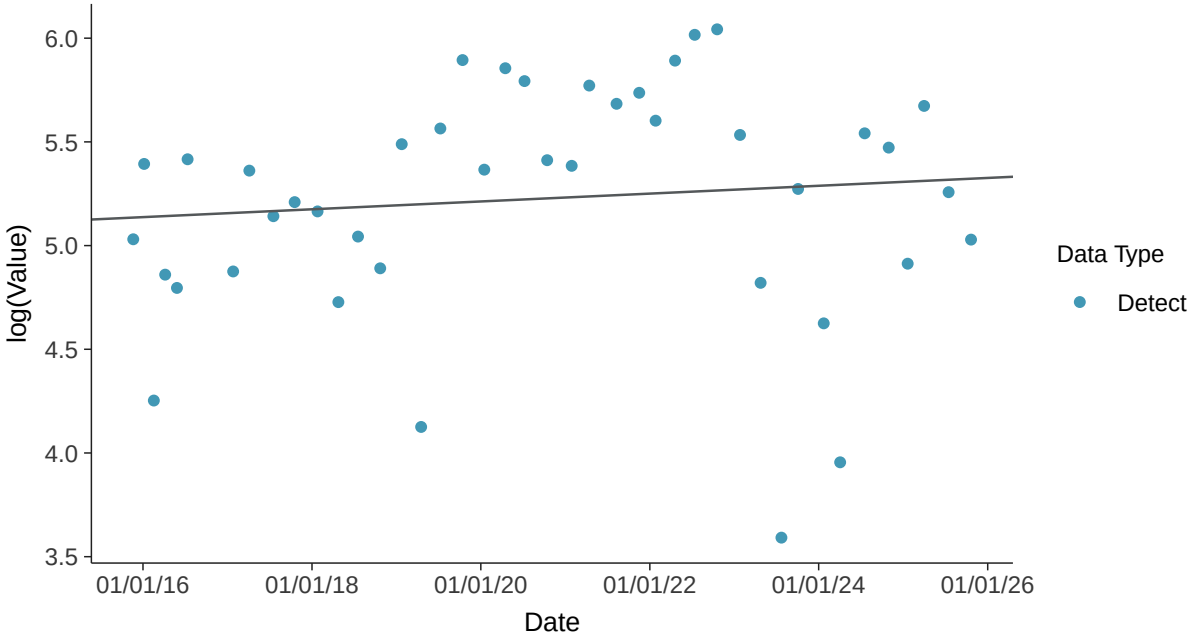
Gamma Q-Q plot

Barium, MW-1 (ug/L)



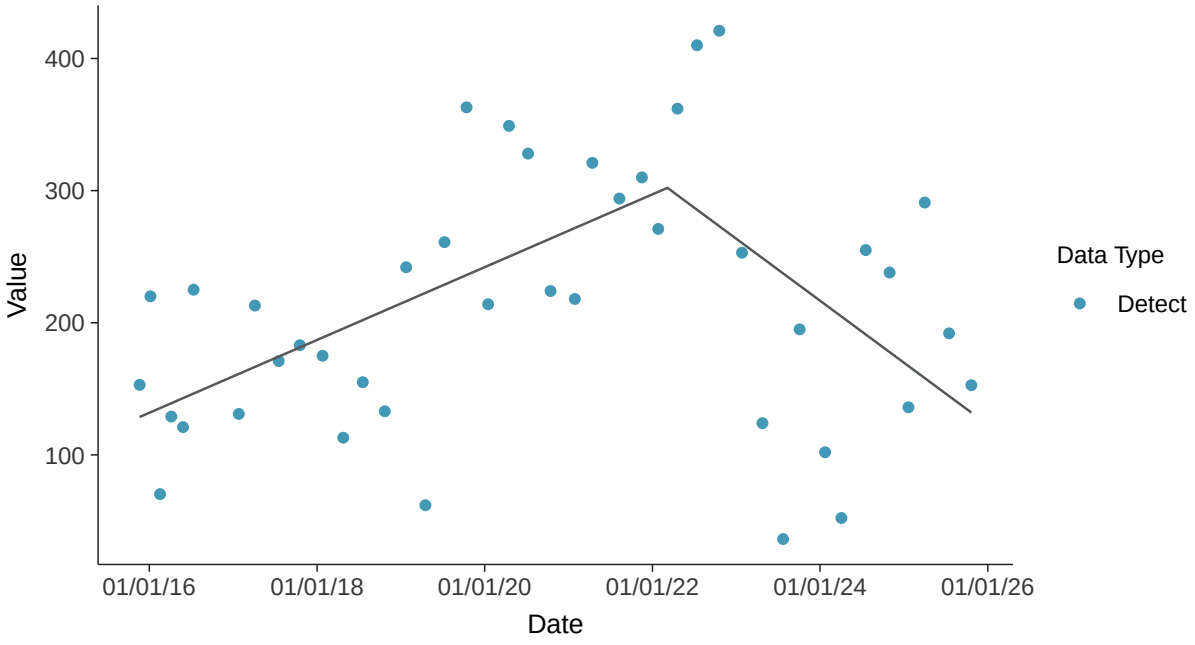
Trend Regression: Lognormal MLE

Barium, MW-1 (ug/L)



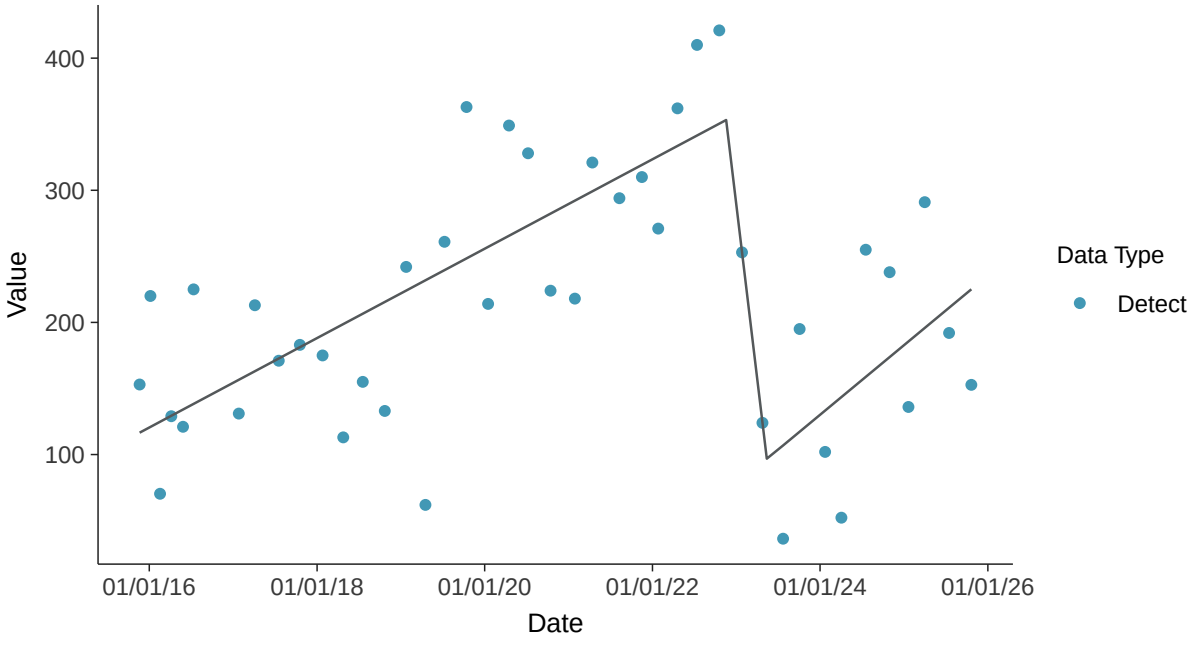
Trend Regression: Piecewise Linear-Linear

Barium, MW-1 (ug/L)



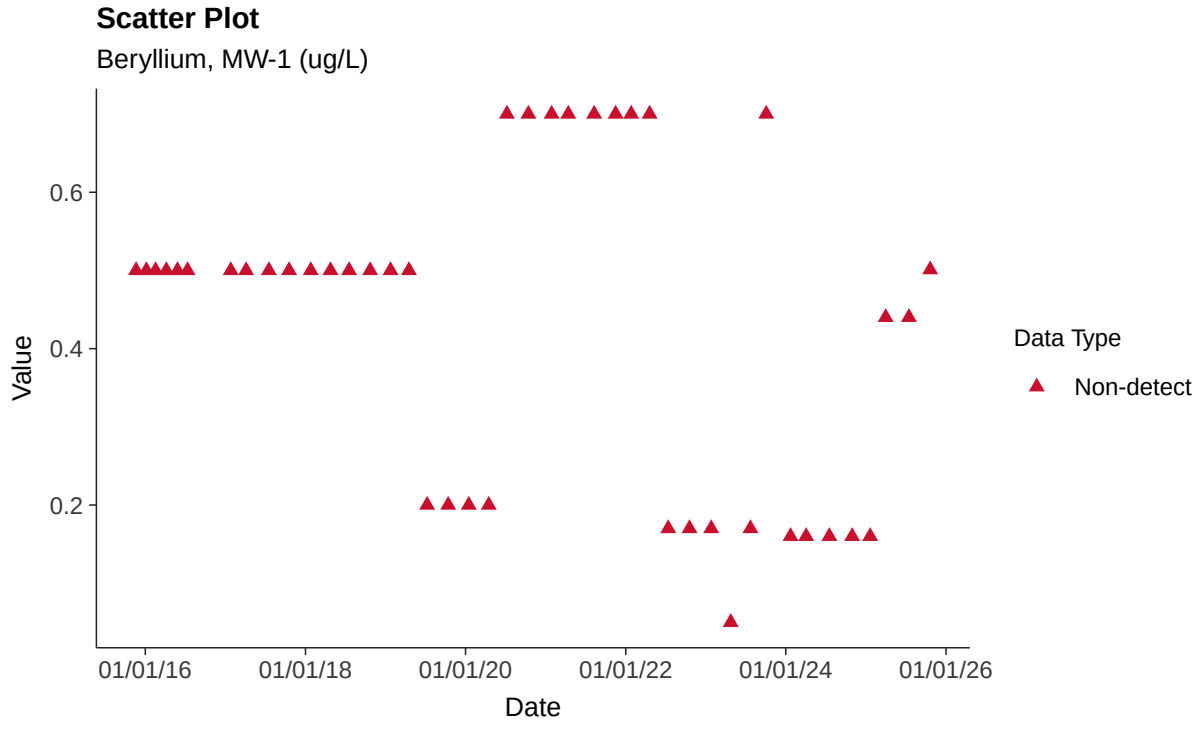
Trend Regression: Piecewise Linear-Linear-Linear

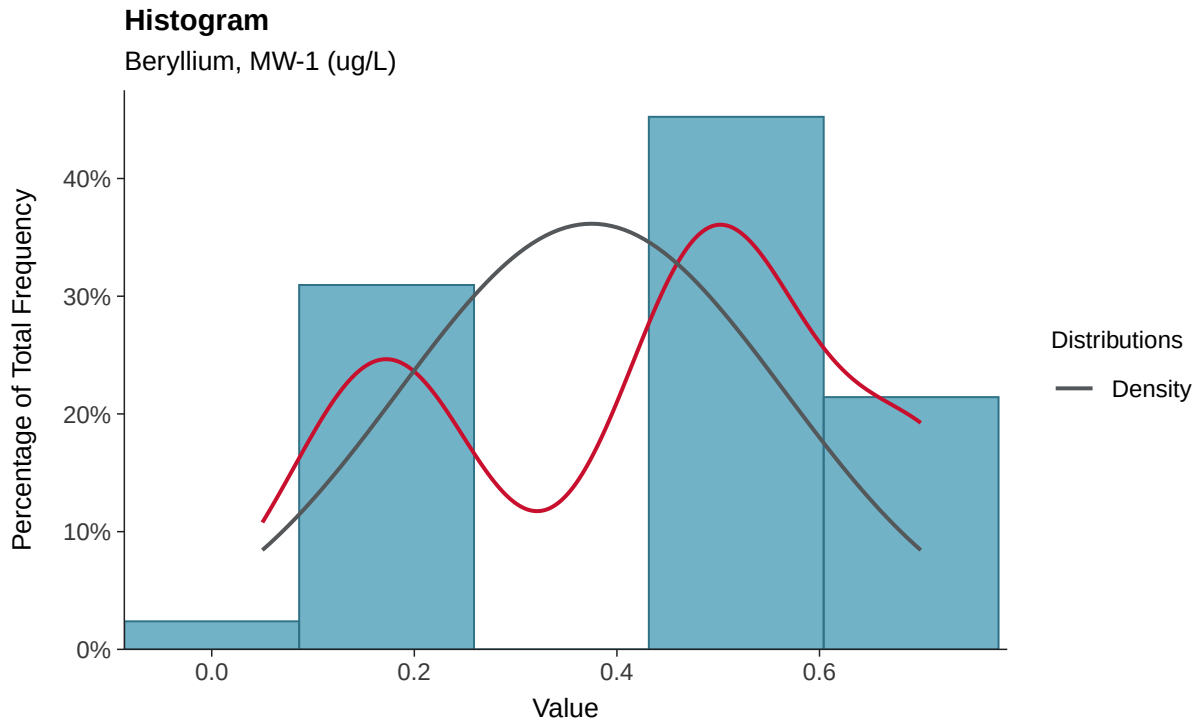
Barium, MW-1 (ug/L)



App. IV: Beryllium, MW-1

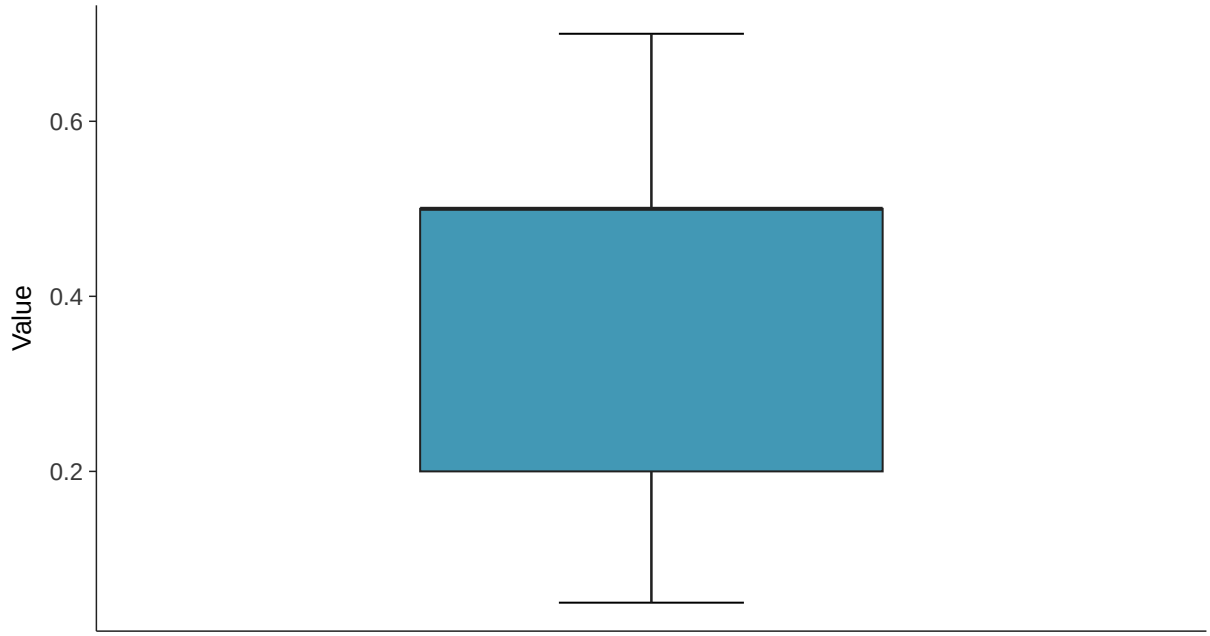
ID: 01_3_104





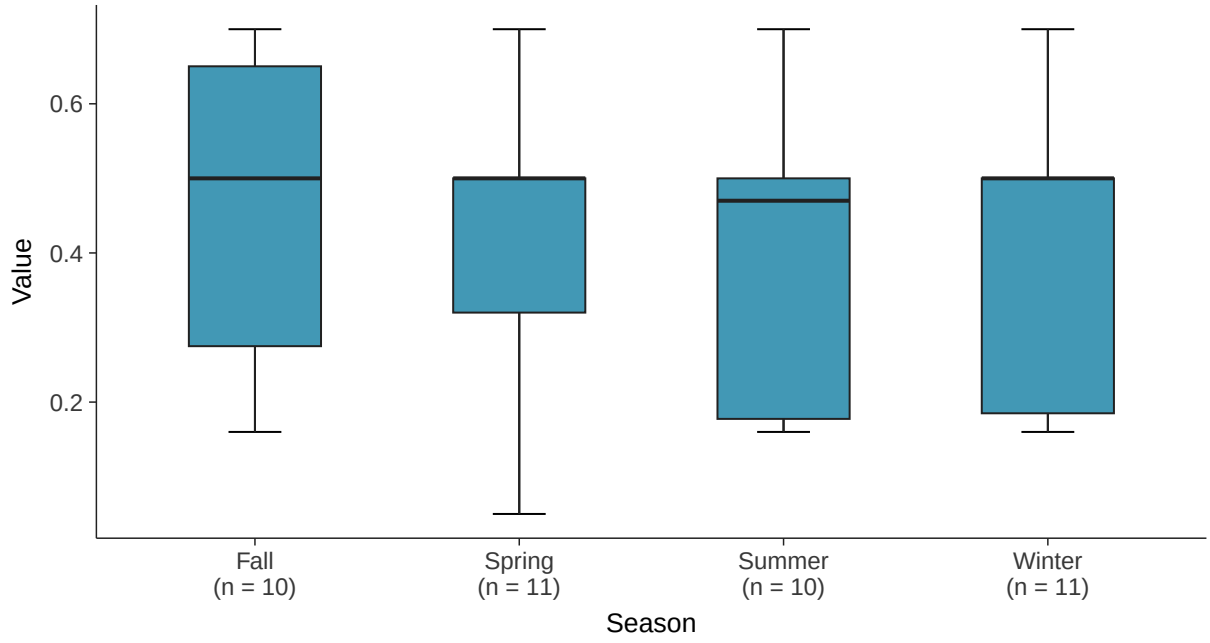
Boxplot

Beryllium, MW-1 (ug/L)



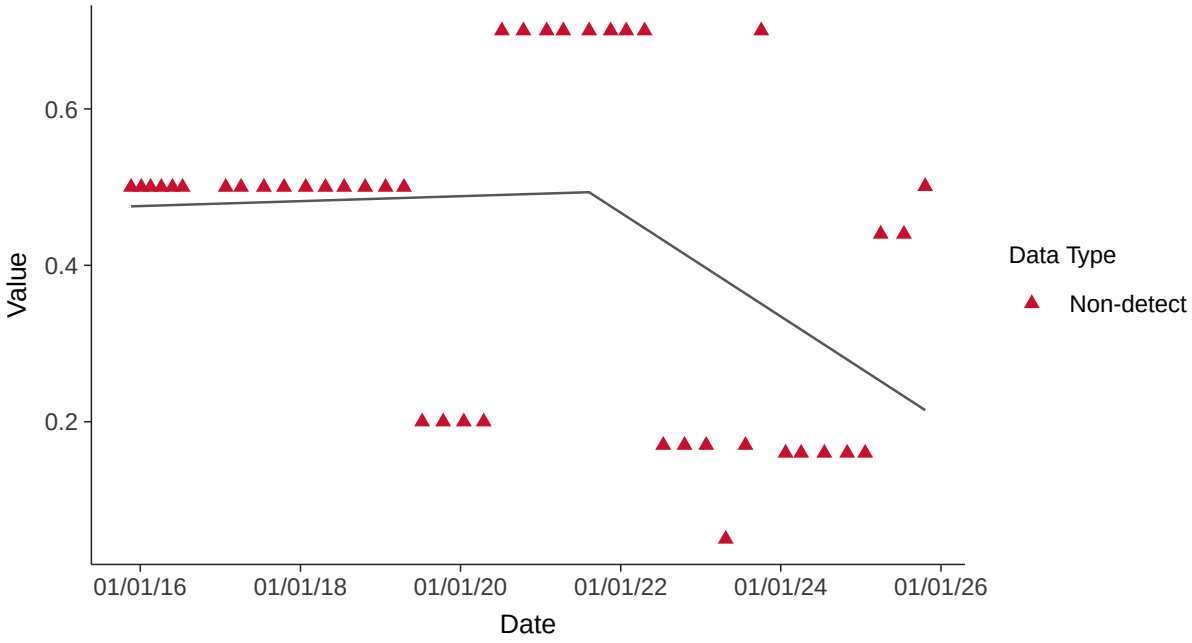
Boxplot by Season

Beryllium, MW-1 (ug/L)



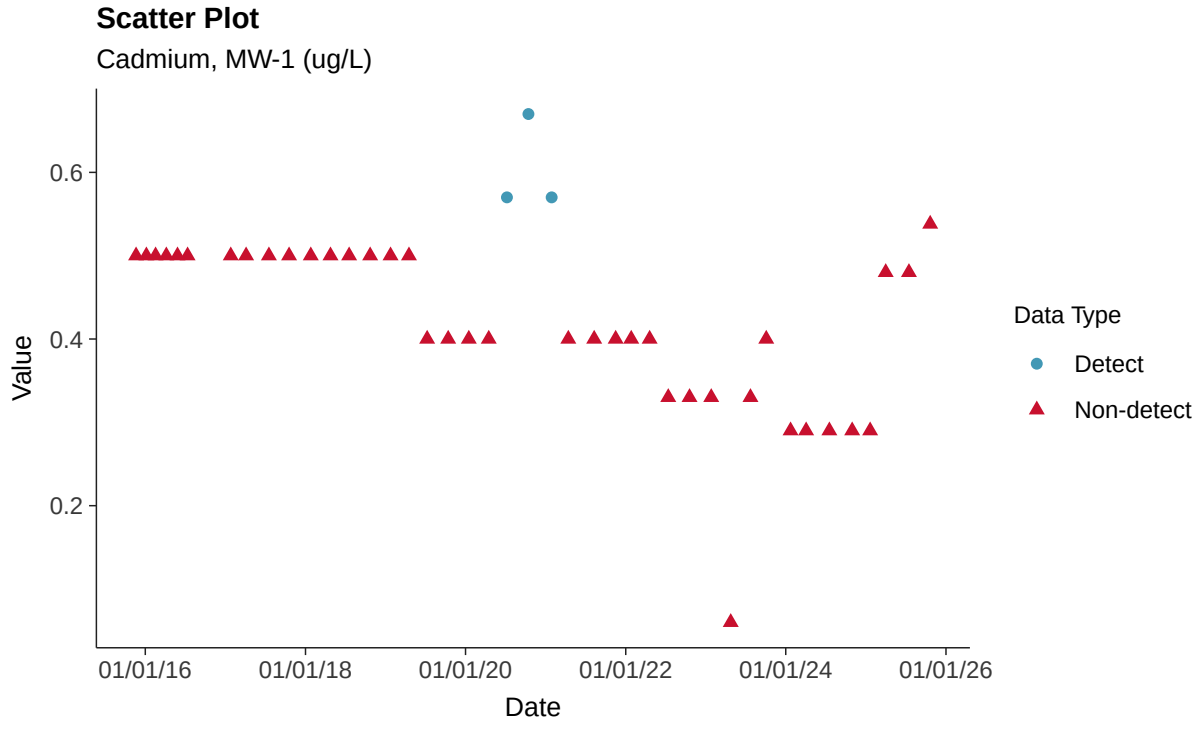
Trend Regression: Piecewise Linear-Linear

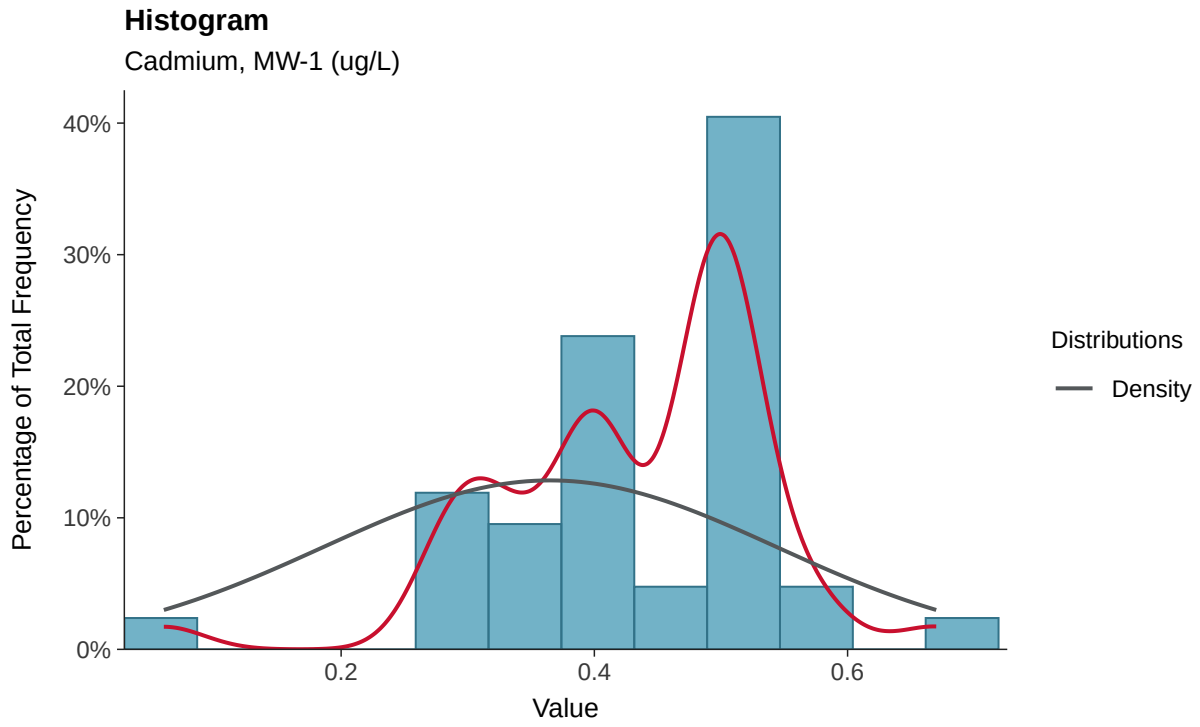
Beryllium, MW-1 (ug/L)



App. IV: Cadmium, MW-1

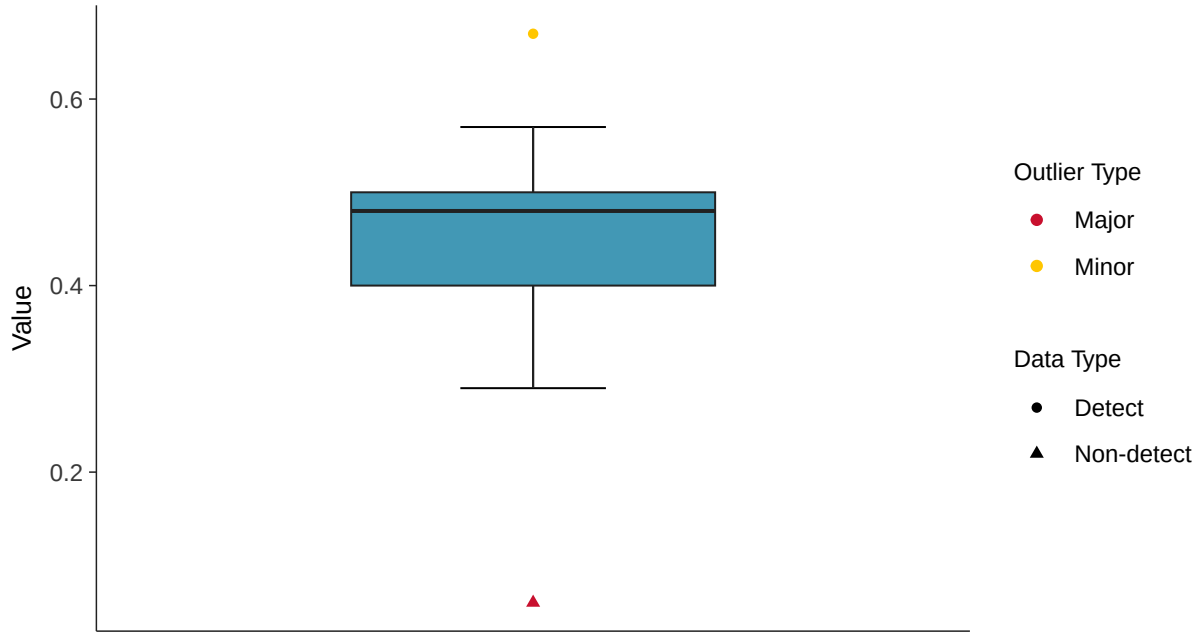
ID: 01_3_106





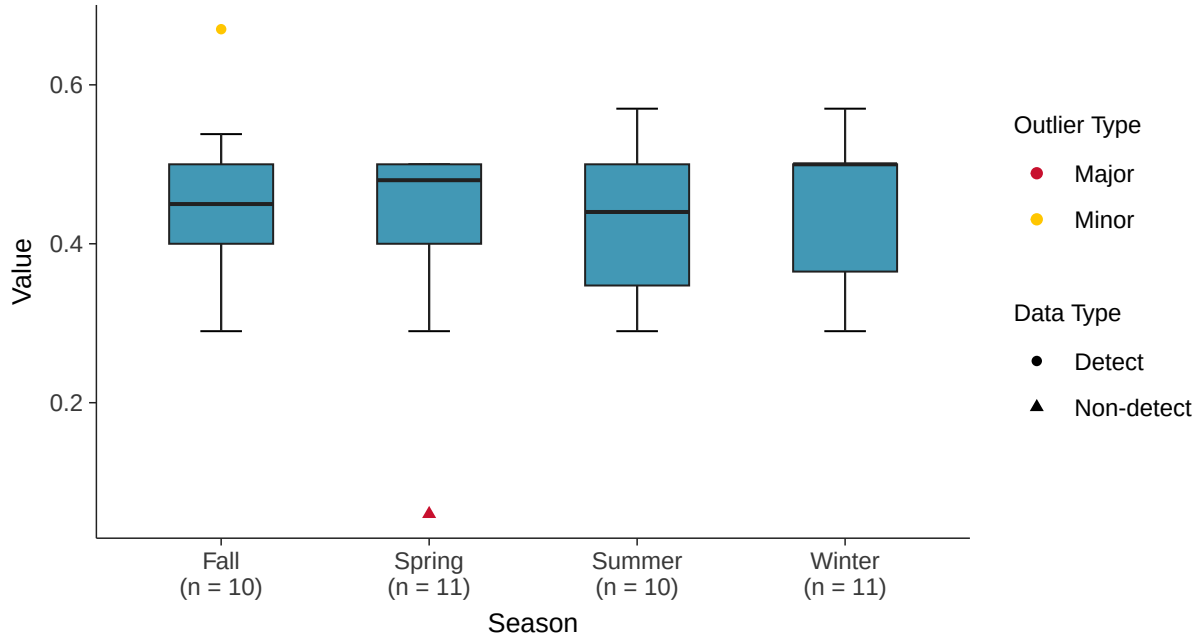
Boxplot

Cadmium, MW-1 (ug/L)



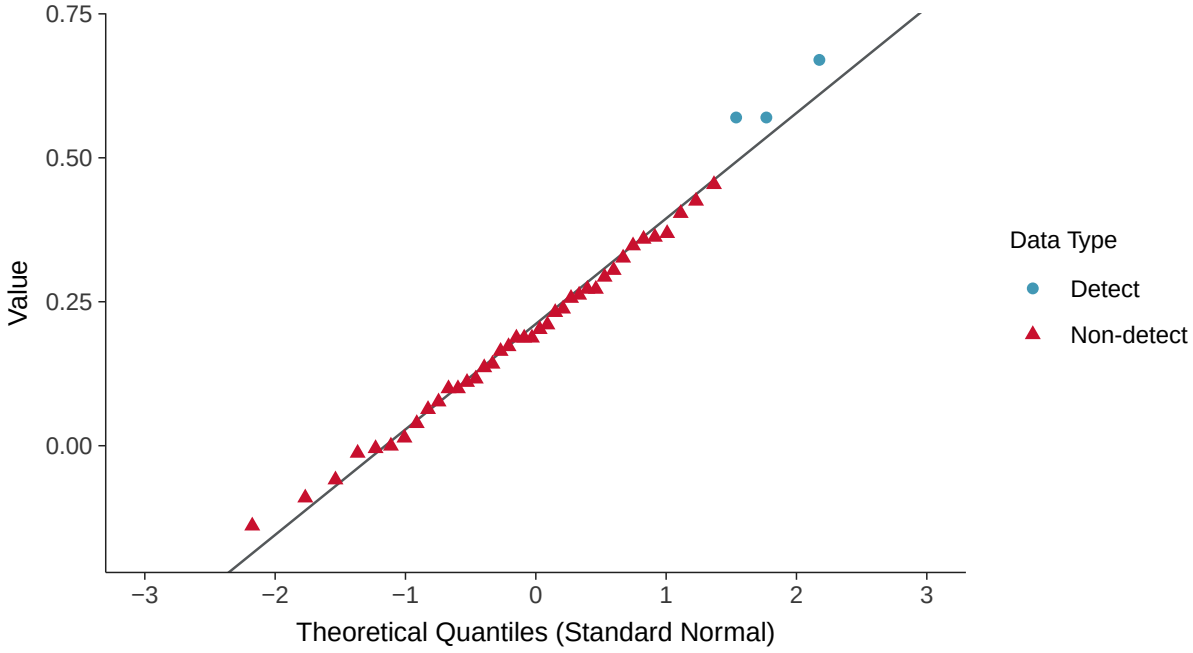
Boxplot by Season

Cadmium, MW-1 (ug/L)



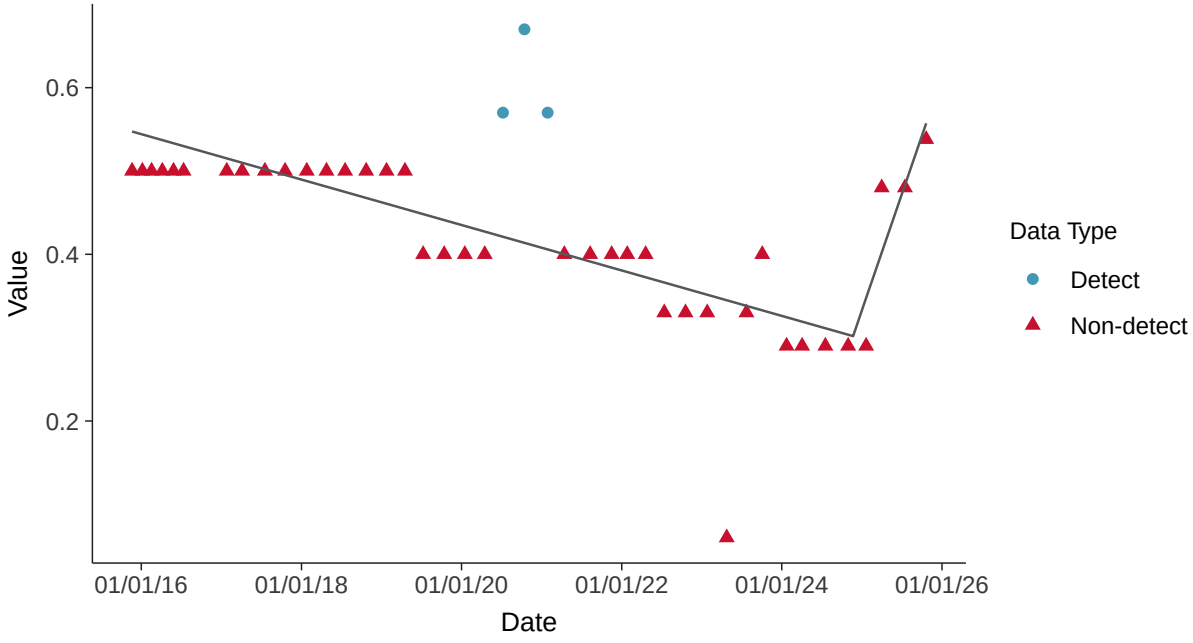
Normal Q-Q plot using ROS Imputed Estimates

Cadmium, MW-1 (ug/L)



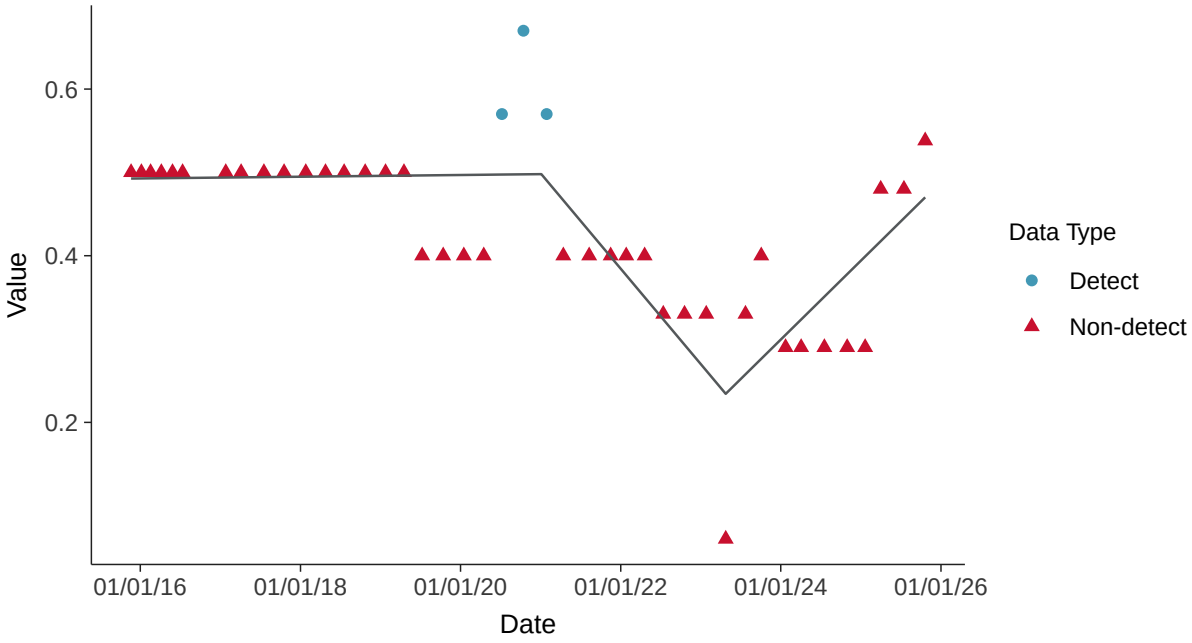
Trend Regression: Piecewise Linear-Linear

Cadmium, MW-1 (ug/L)



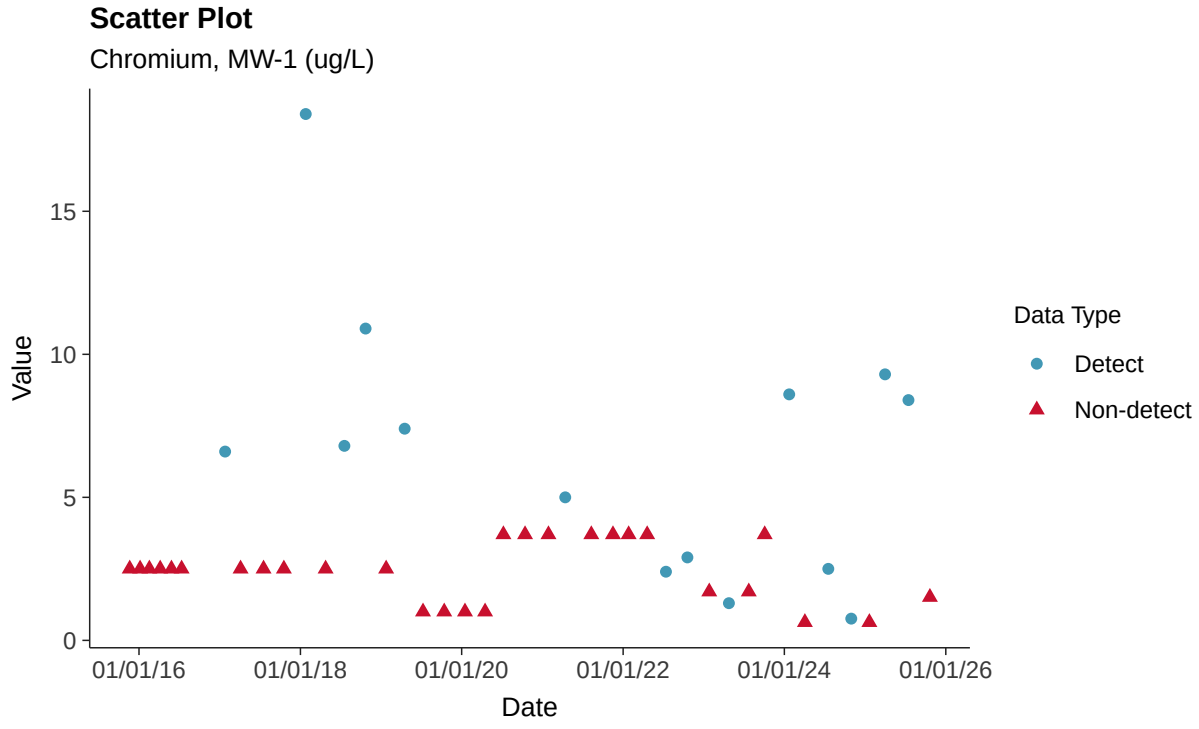
Trend Regression: Piecewise Linear-Linear-Linear

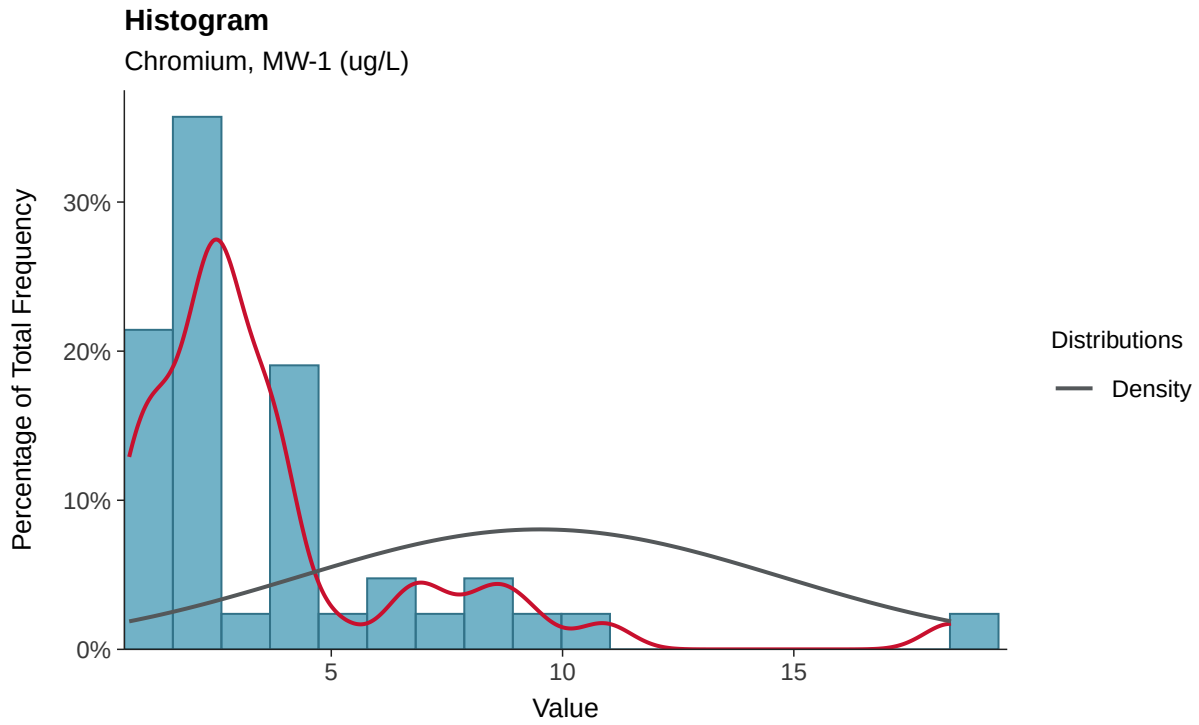
Cadmium, MW-1 (ug/L)



App. IV: Chromium, MW-1

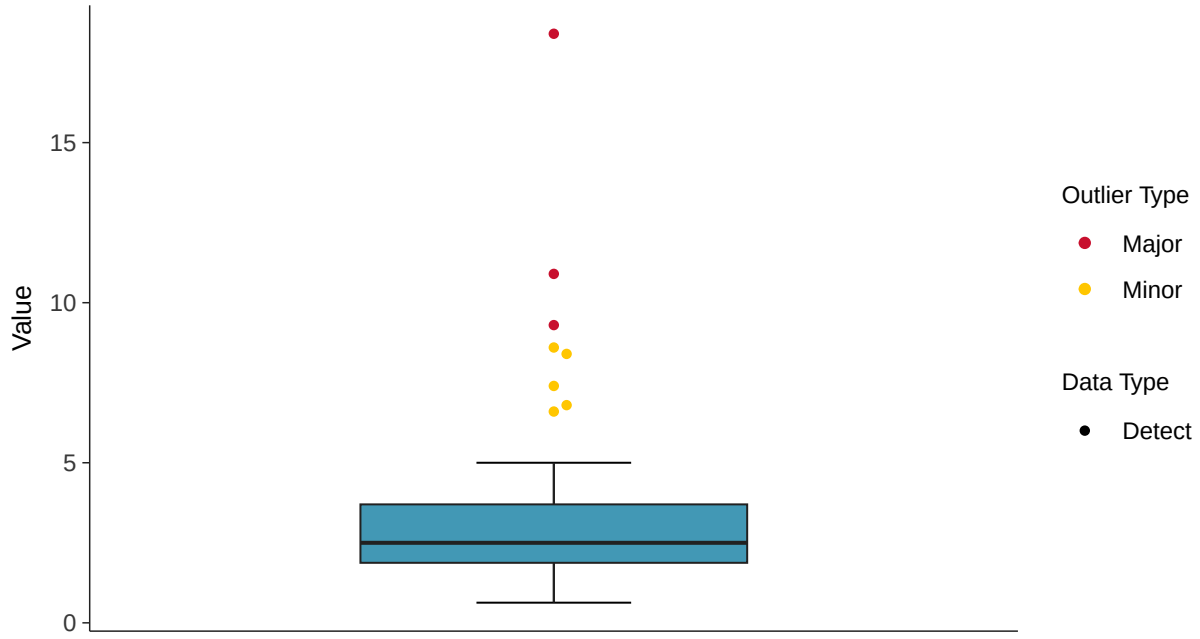
ID: 01_3_109





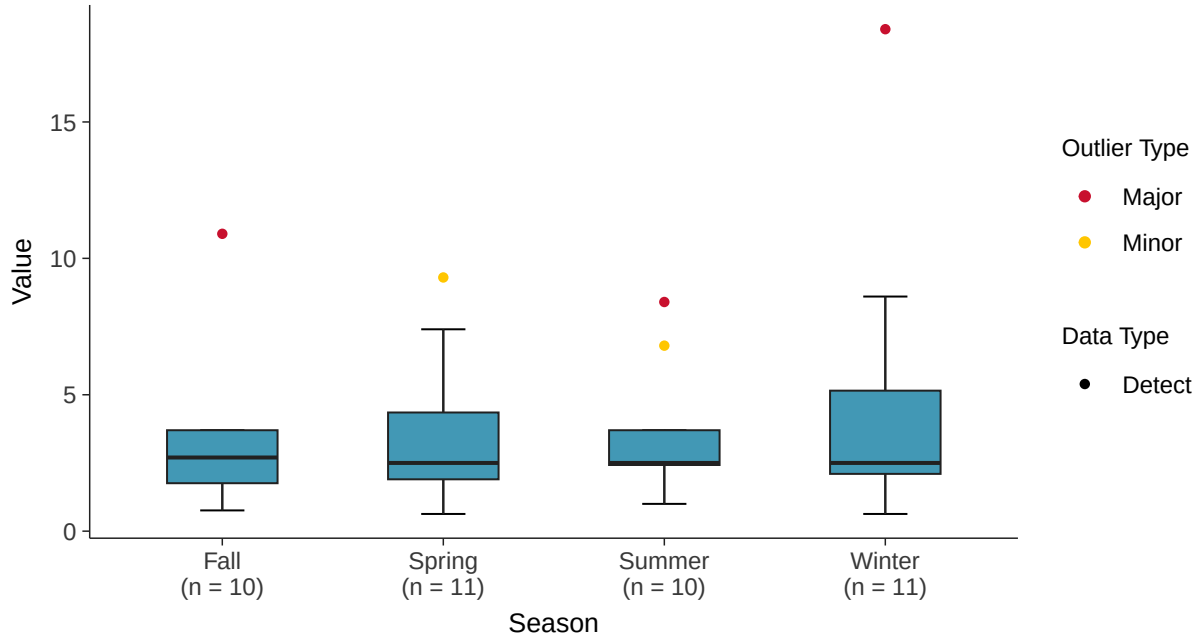
Boxplot

Chromium, MW-1 (ug/L)



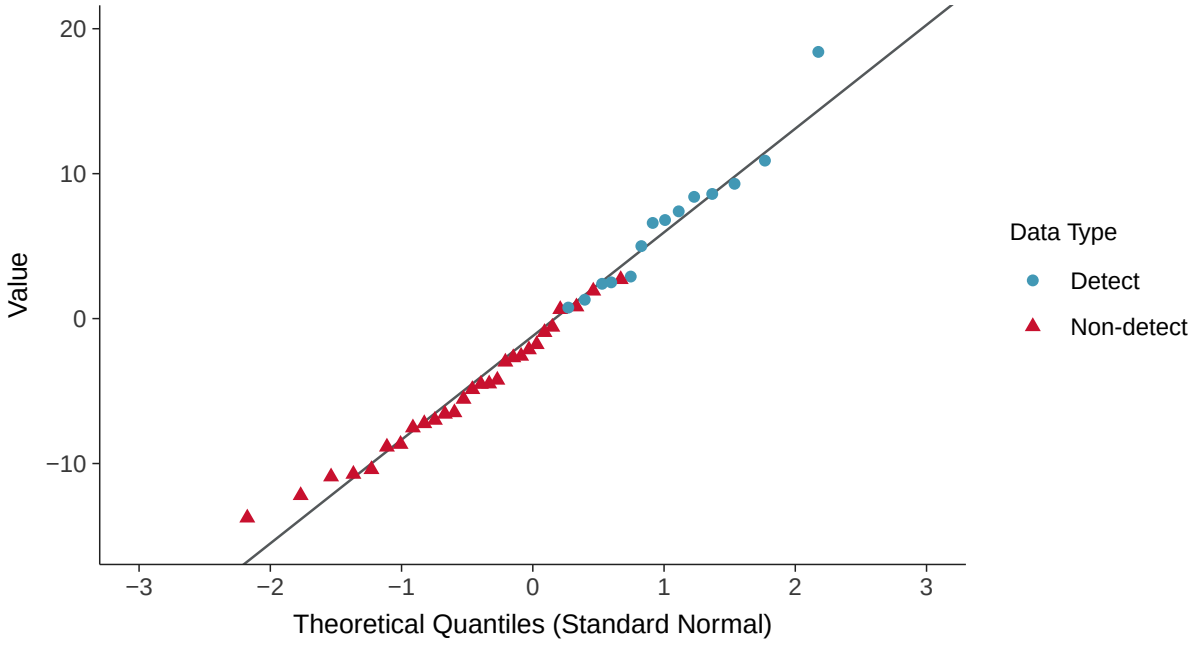
Boxplot by Season

Chromium, MW-1 (ug/L)



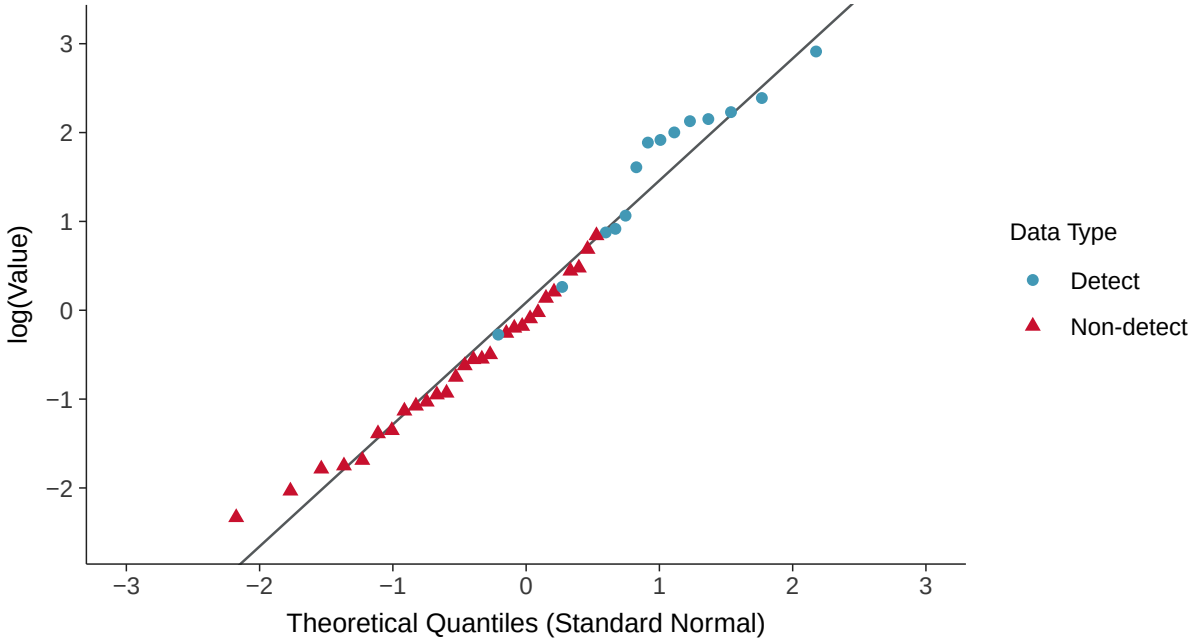
Normal Q-Q plot using ROS Imputed Estimates

Chromium, MW-1 (ug/L)



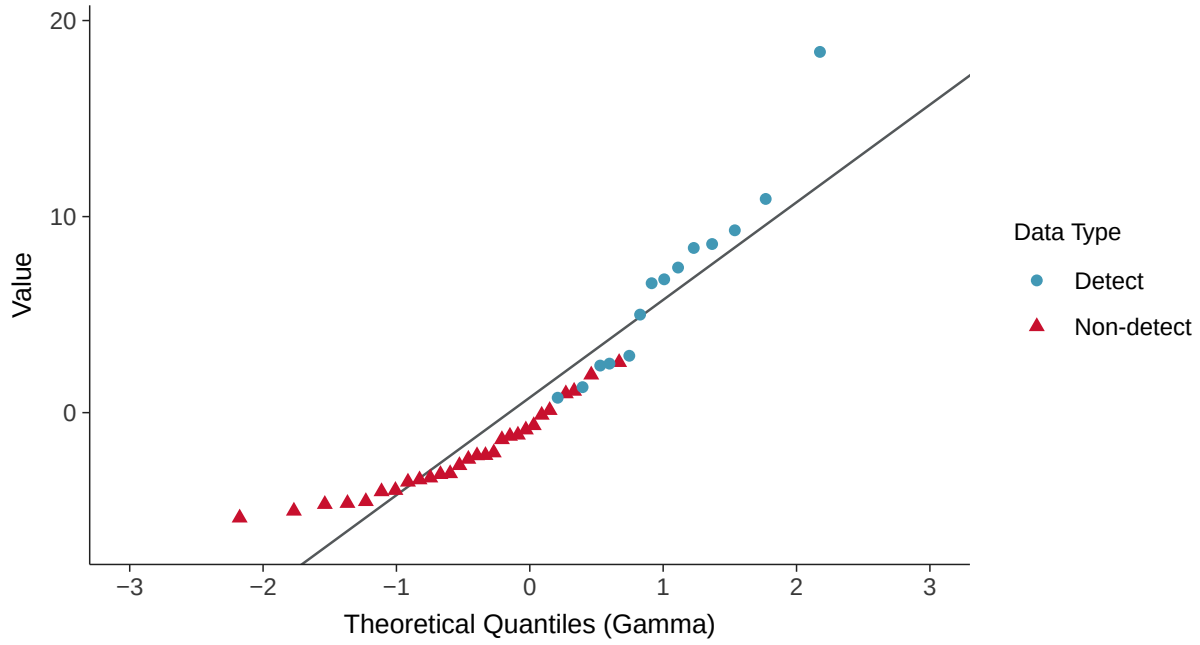
Lognormal Q-Q plot using ROS Imputed Estimates

Chromium, MW-1 (ug/L)



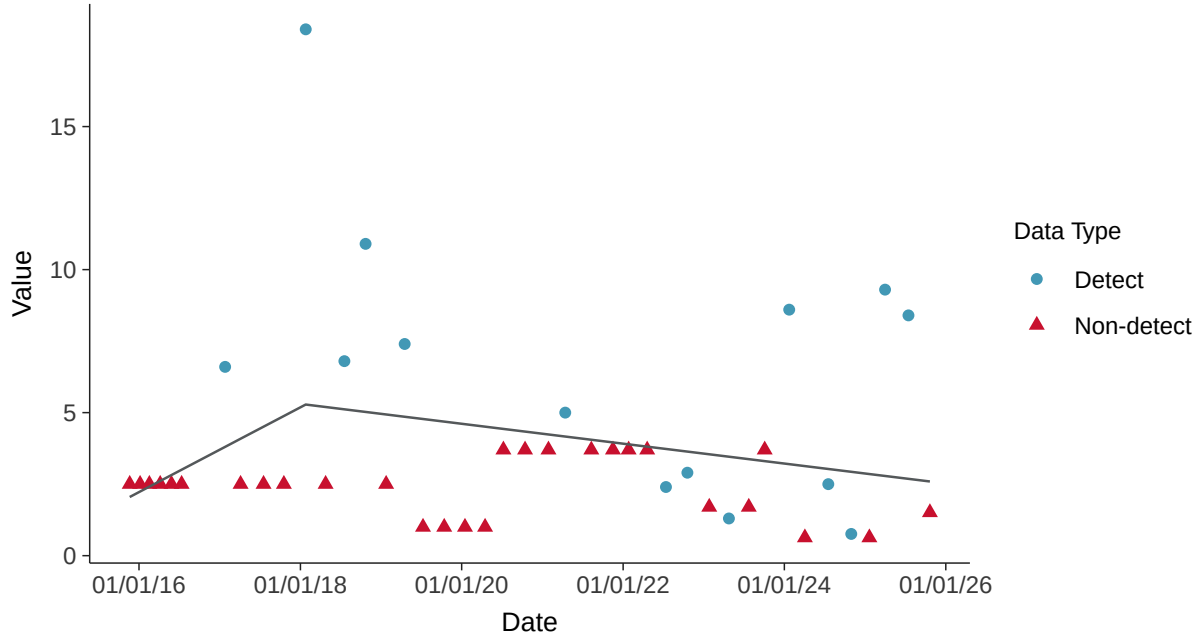
Gamma Q-Q plot using ROS Imputed Estimates

Chromium, MW-1 (ug/L)



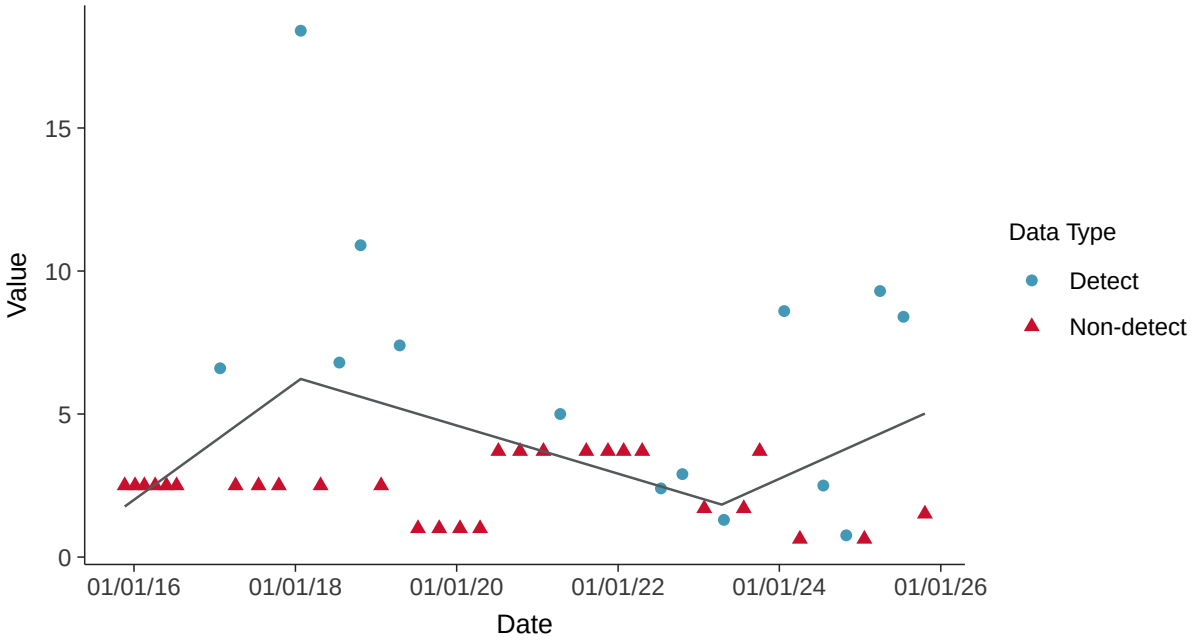
Trend Regression: Piecewise Linear-Linear

Chromium, MW-1 (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Chromium, MW-1 (ug/L)

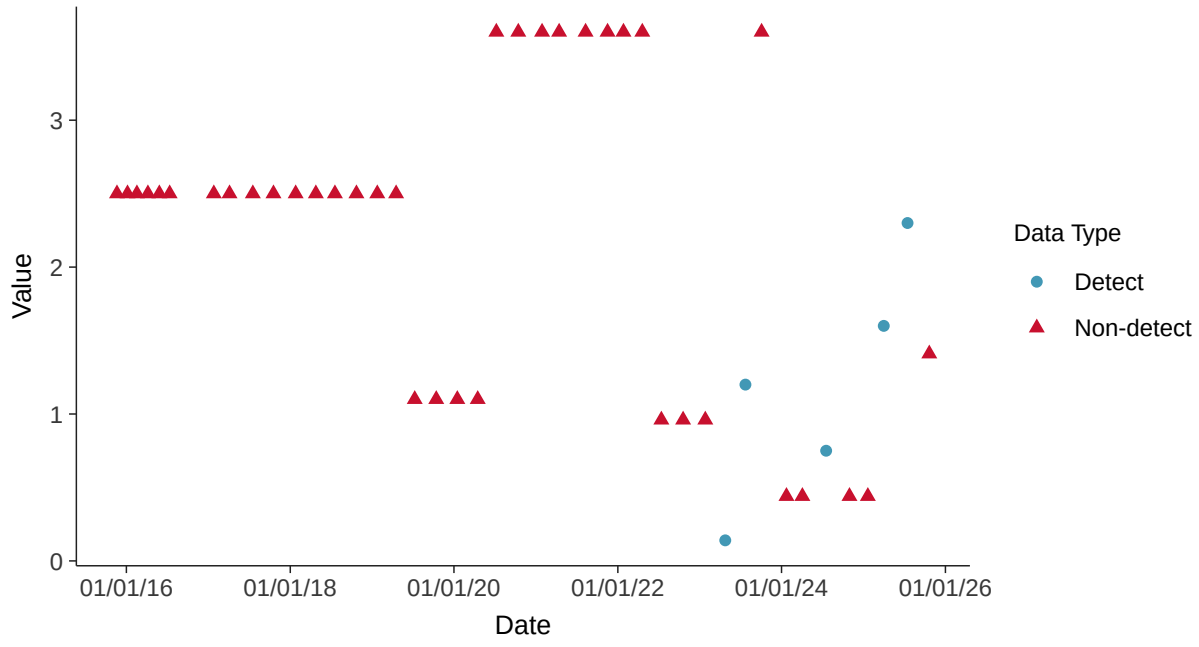


App. IV: Cobalt, MW-1

ID: 01_3_110

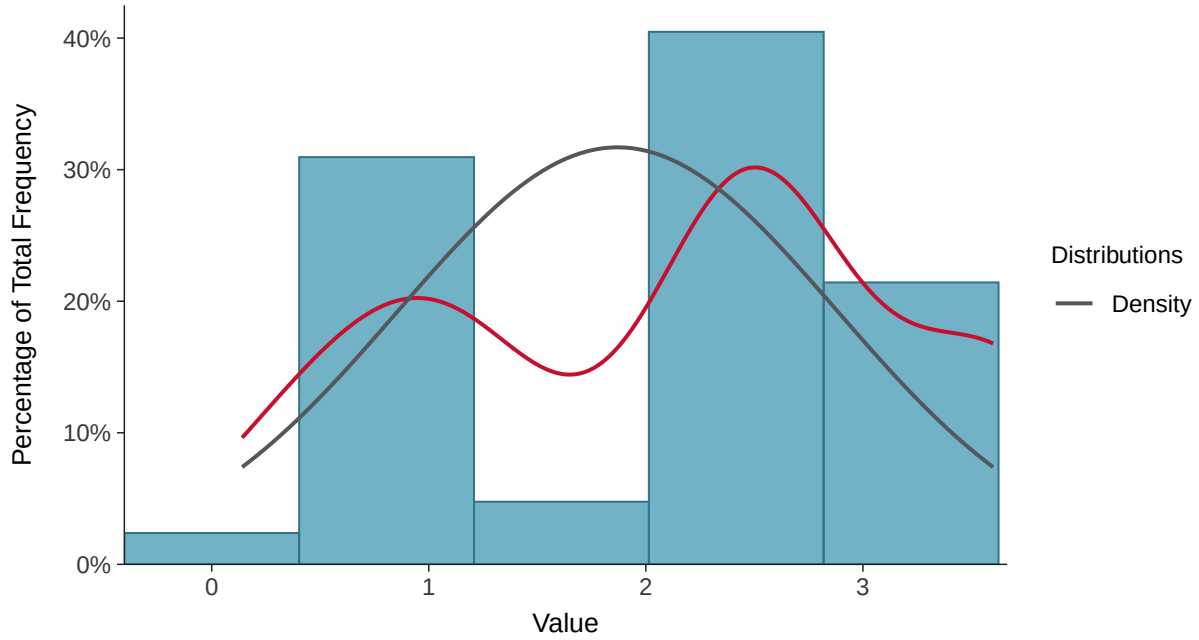
Scatter Plot

Cobalt, MW-1 (ug/L)



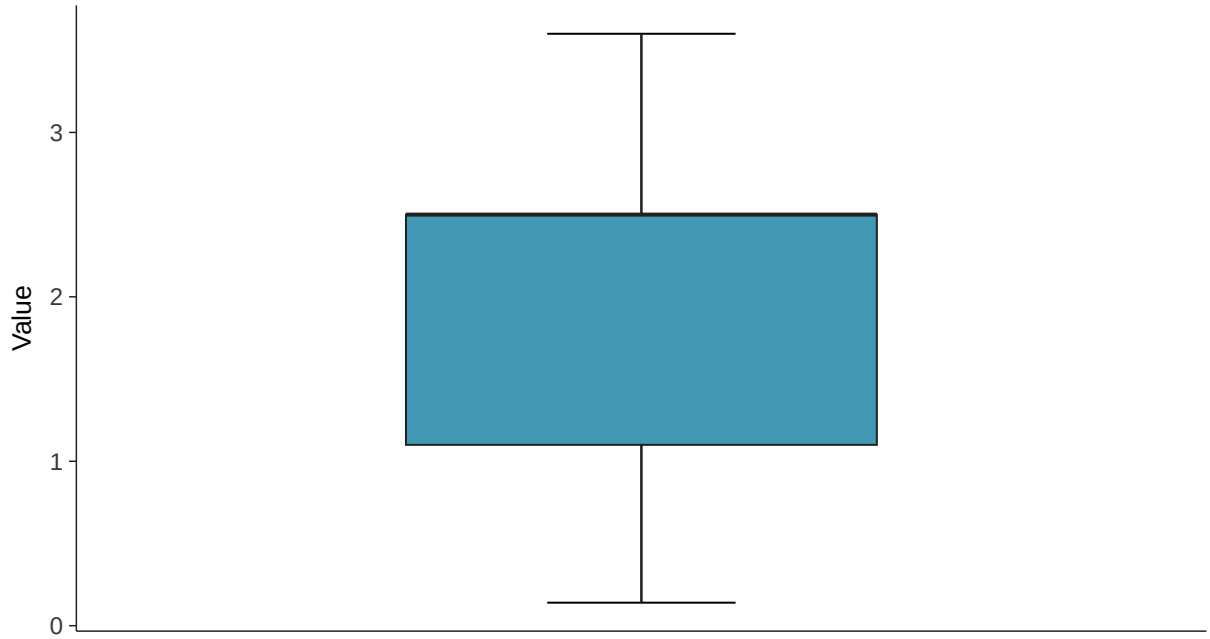
Histogram

Cobalt, MW-1 (ug/L)



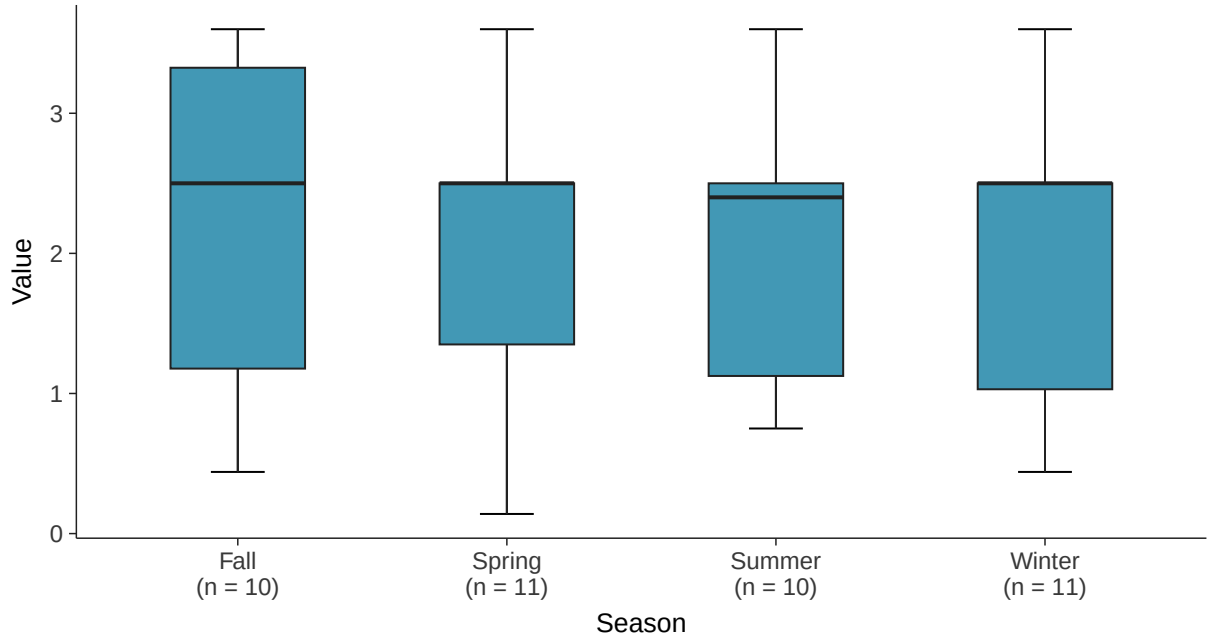
Boxplot

Cobalt, MW-1 (ug/L)



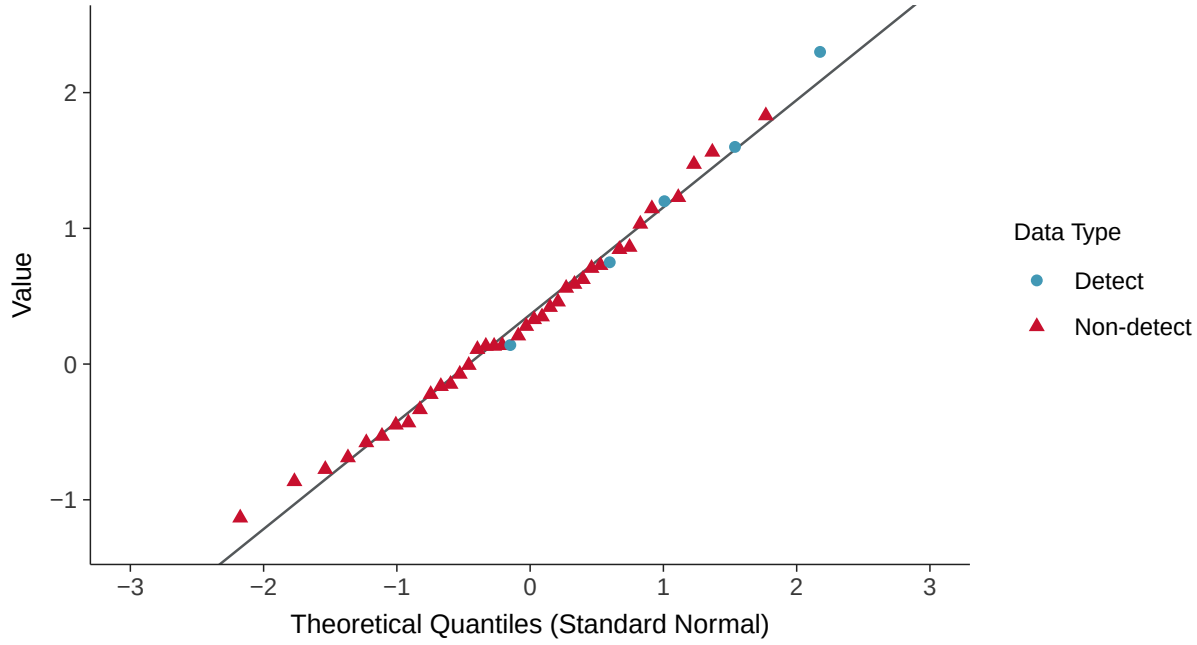
Boxplot by Season

Cobalt, MW-1 (ug/L)



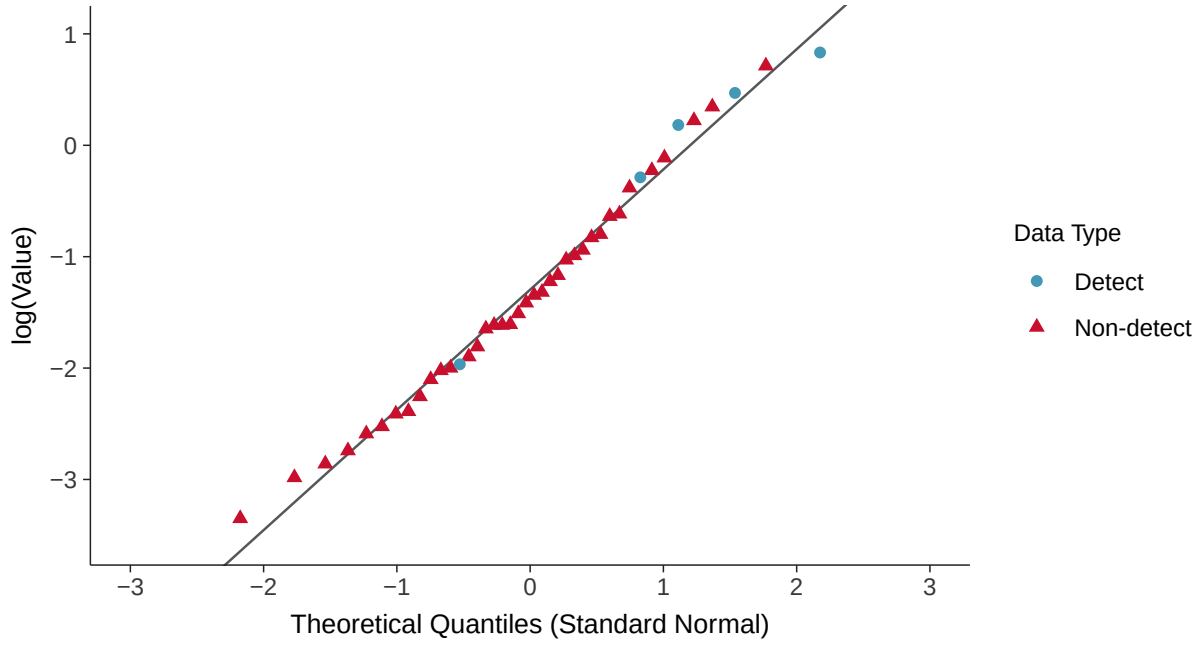
Normal Q-Q plot using ROS Imputed Estimates

Cobalt, MW-1 (ug/L)



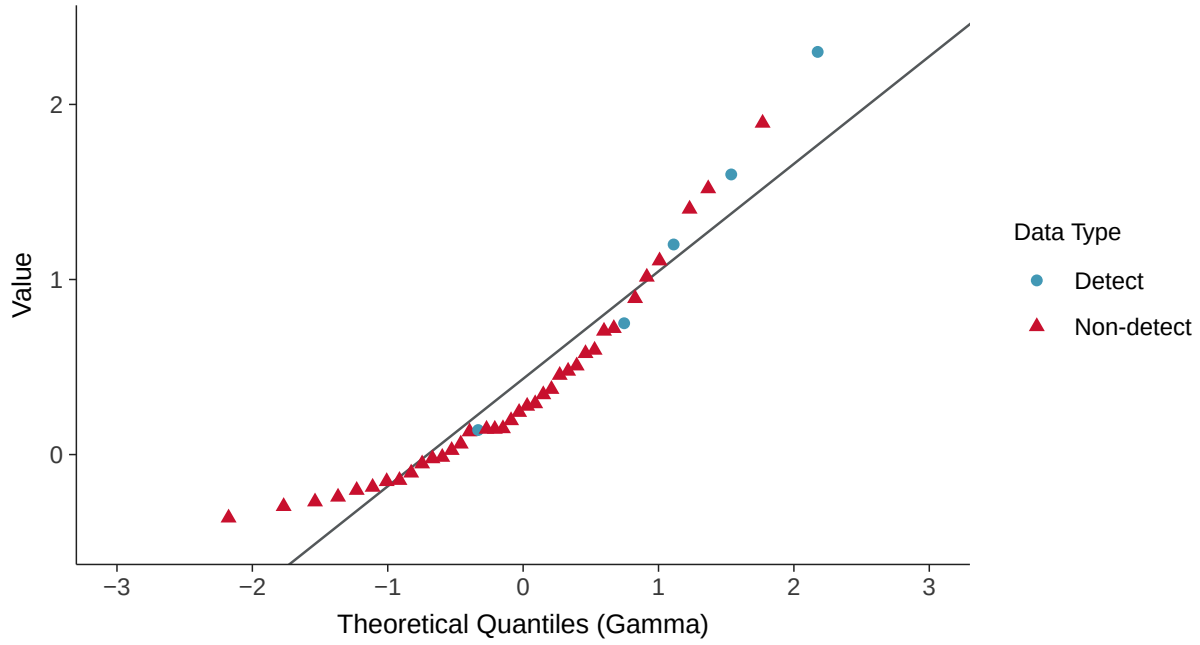
Lognormal Q-Q plot using ROS Imputed Estimates

Cobalt, MW-1 (ug/L)



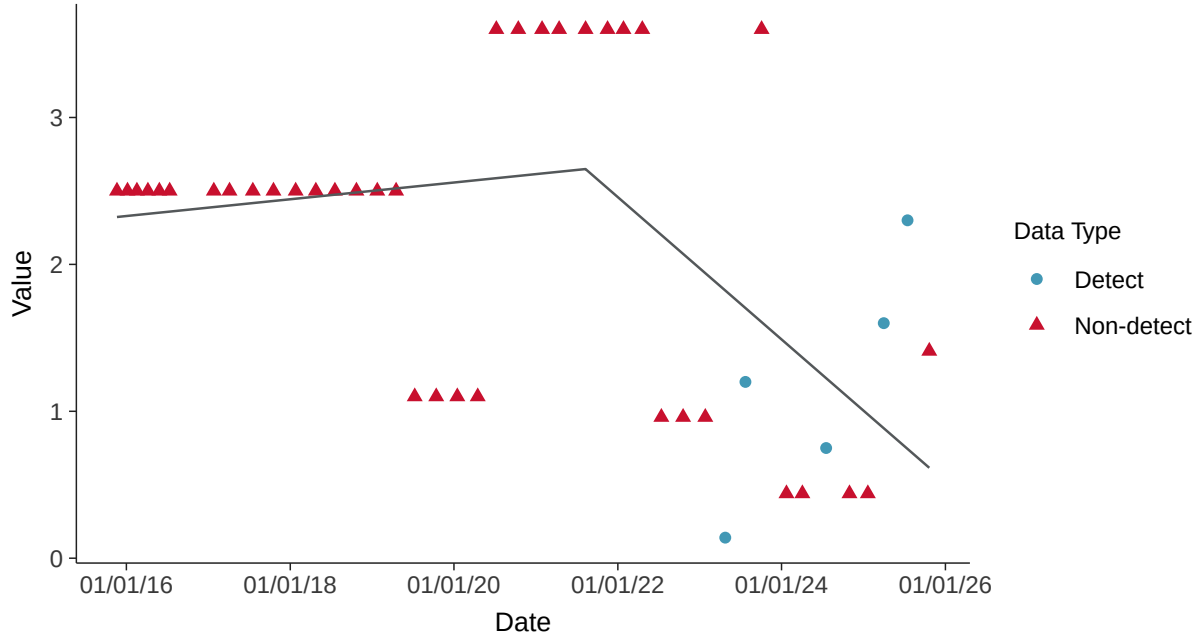
Gamma Q-Q plot using ROS Imputed Estimates

Cobalt, MW-1 (ug/L)



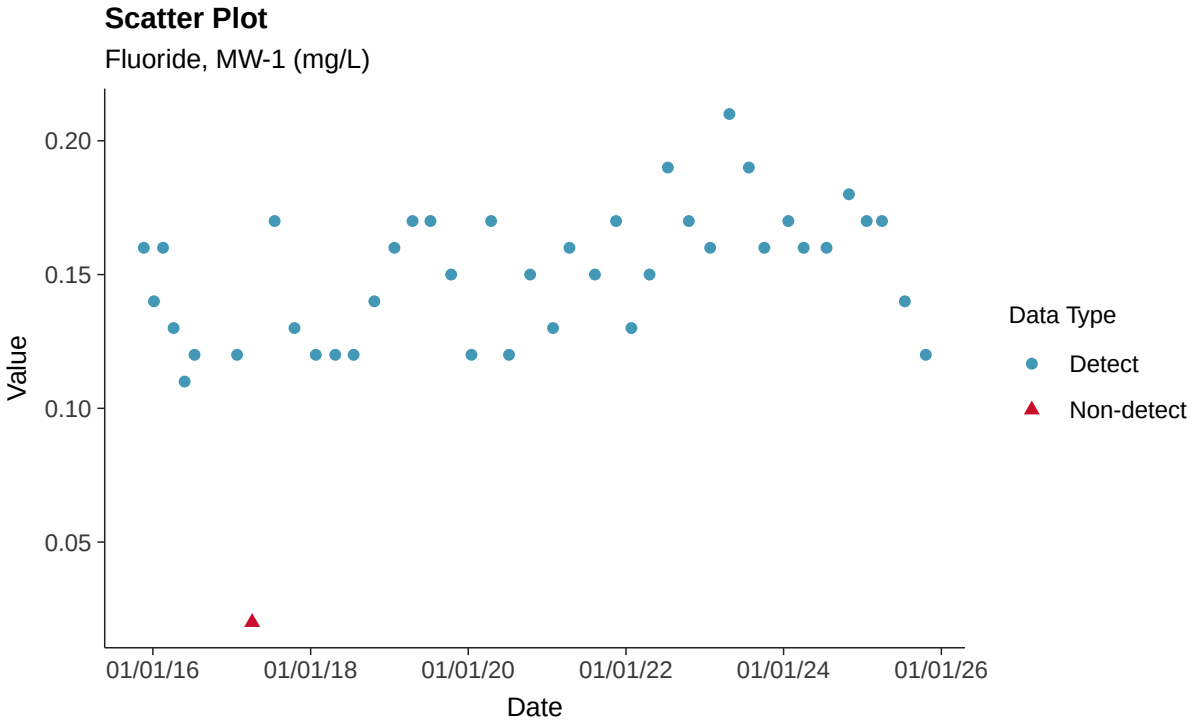
Trend Regression: Piecewise Linear-Linear

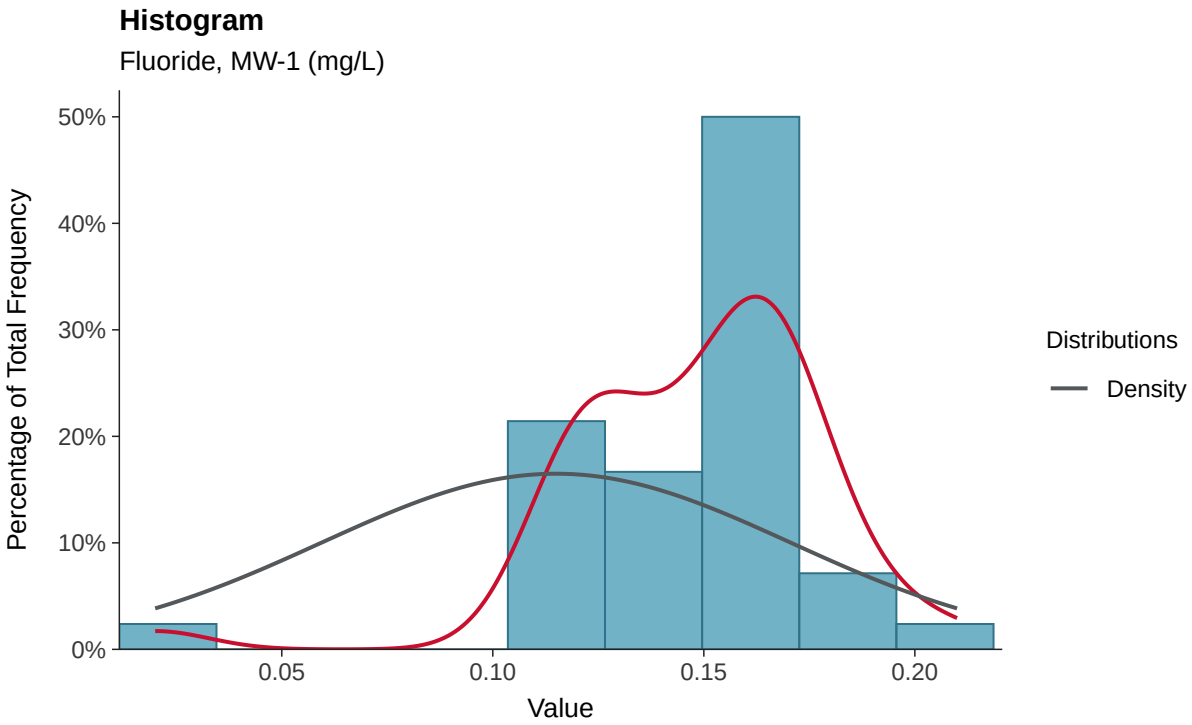
Cobalt, MW-1 (ug/L)



App. IV: Fluoride, MW-1

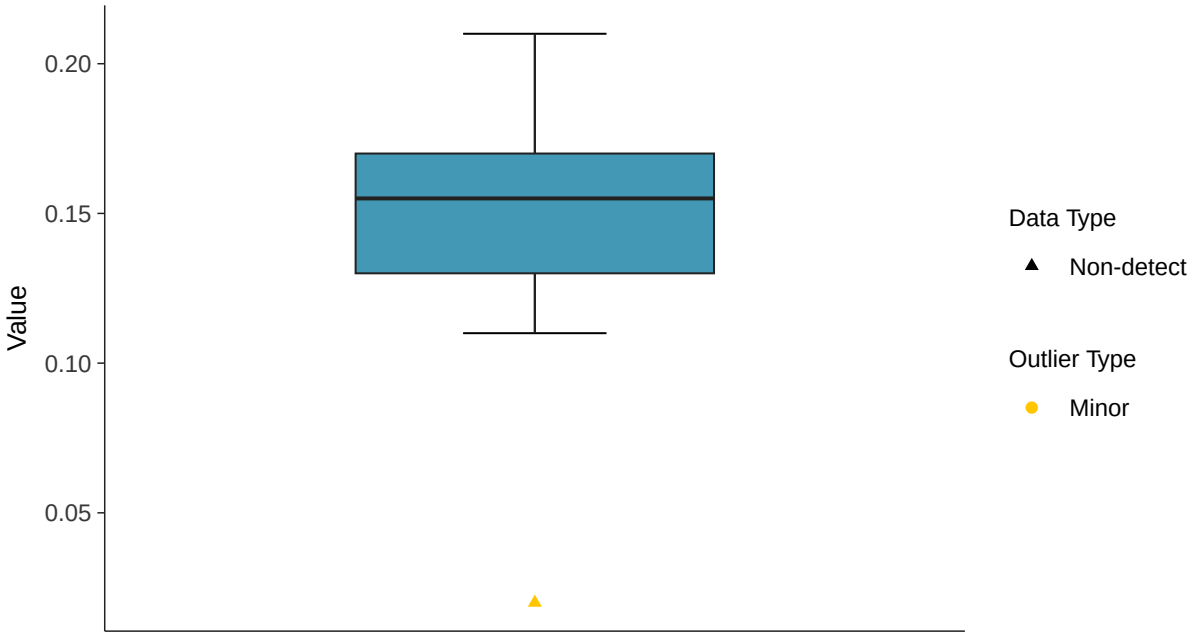
ID: 01_3_112





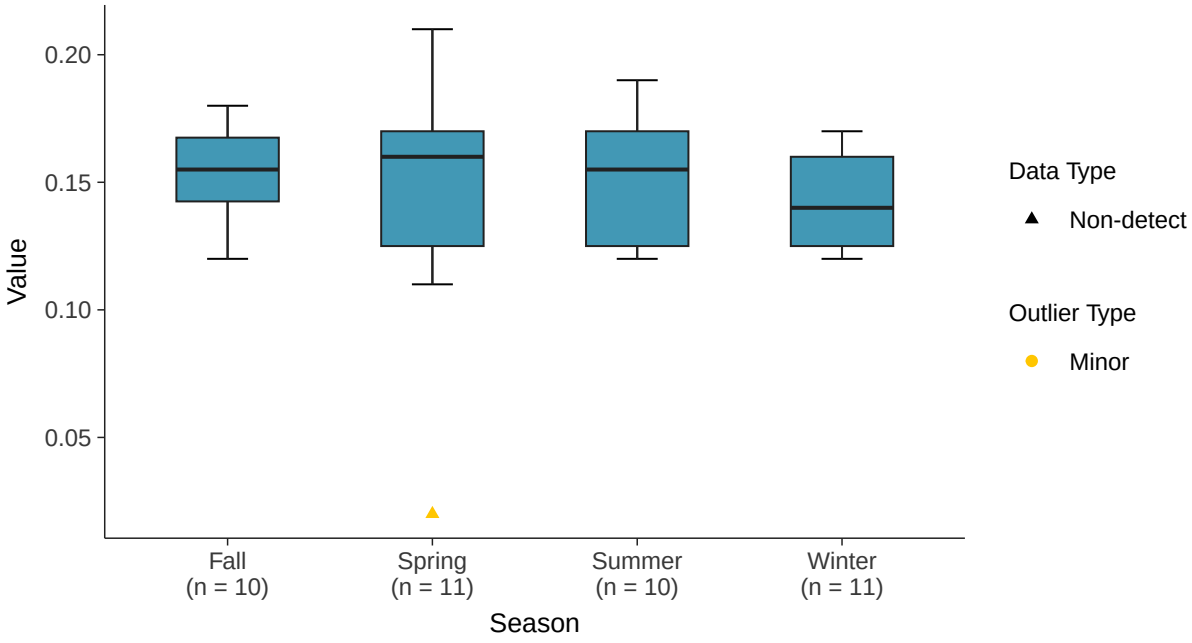
Boxplot

Fluoride, MW-1 (mg/L)



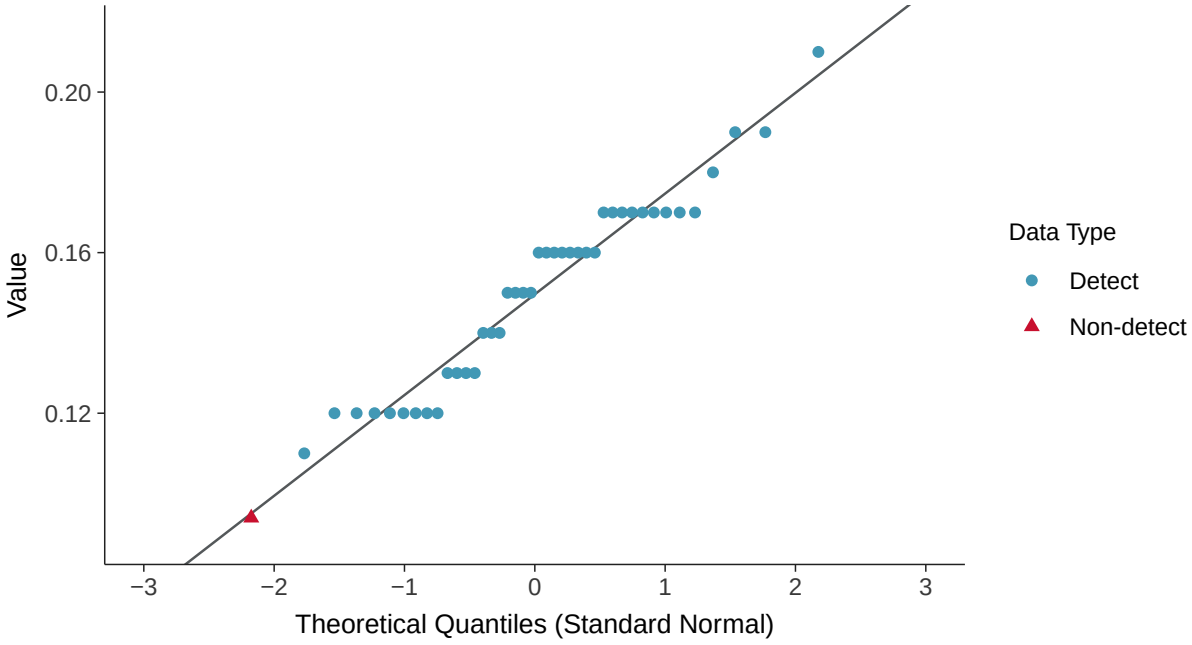
Boxplot by Season

Fluoride, MW-1 (mg/L)



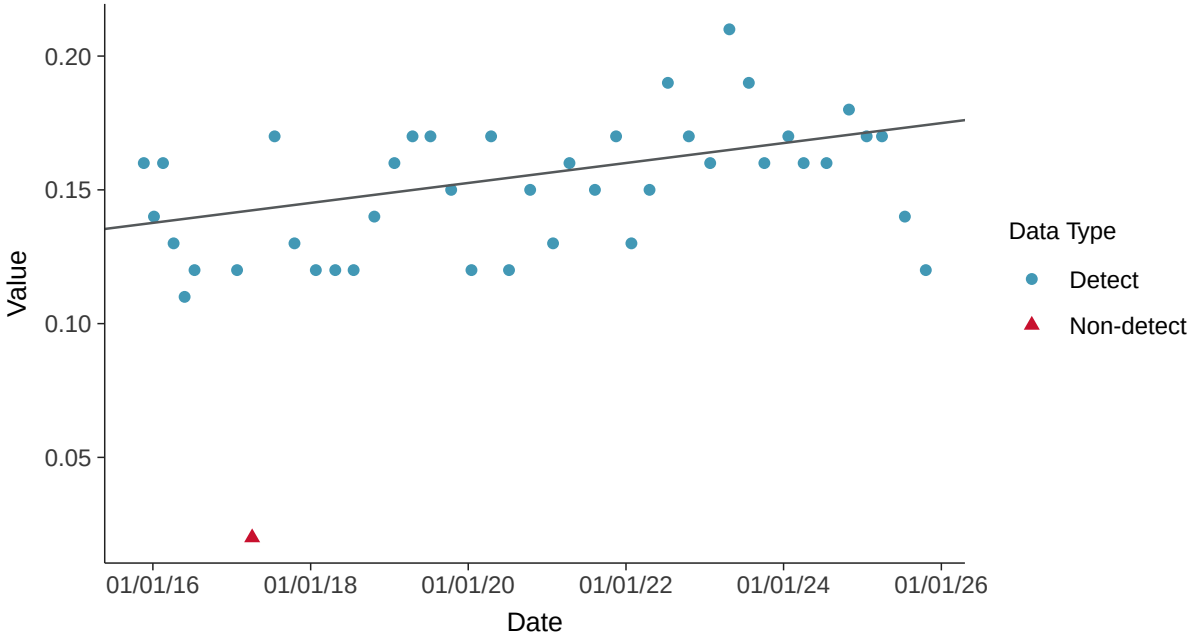
Normal Q-Q plot using ROS Imputed Estimates

Fluoride, MW-1 (mg/L)



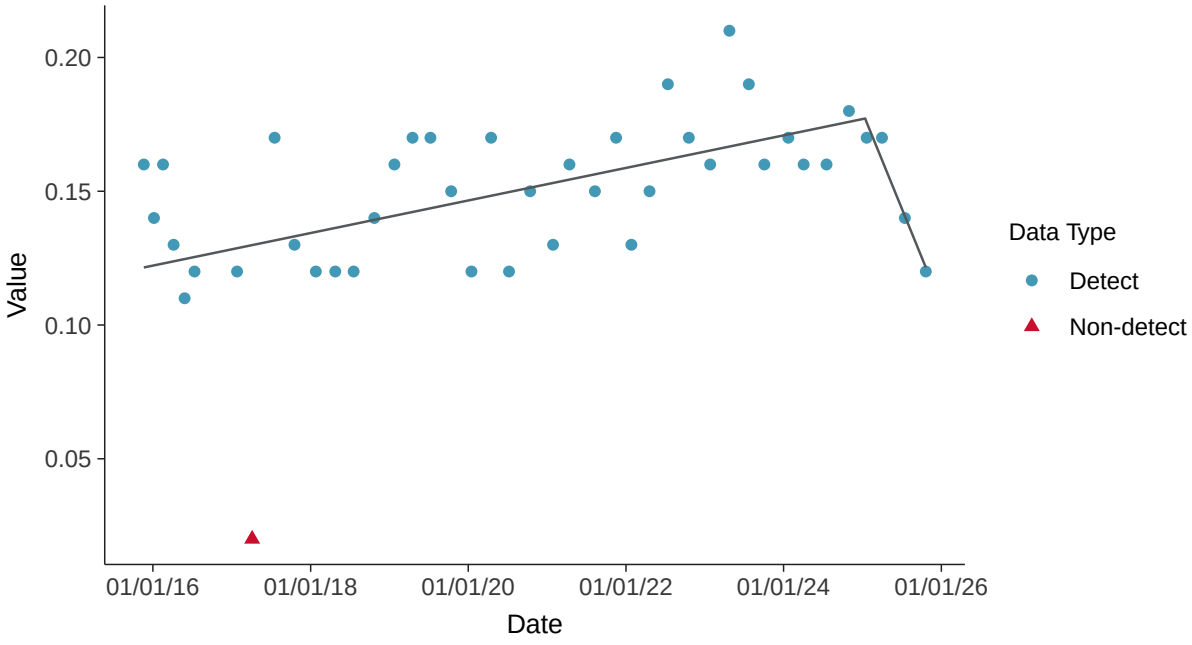
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Fluoride, MW-1 (mg/L)



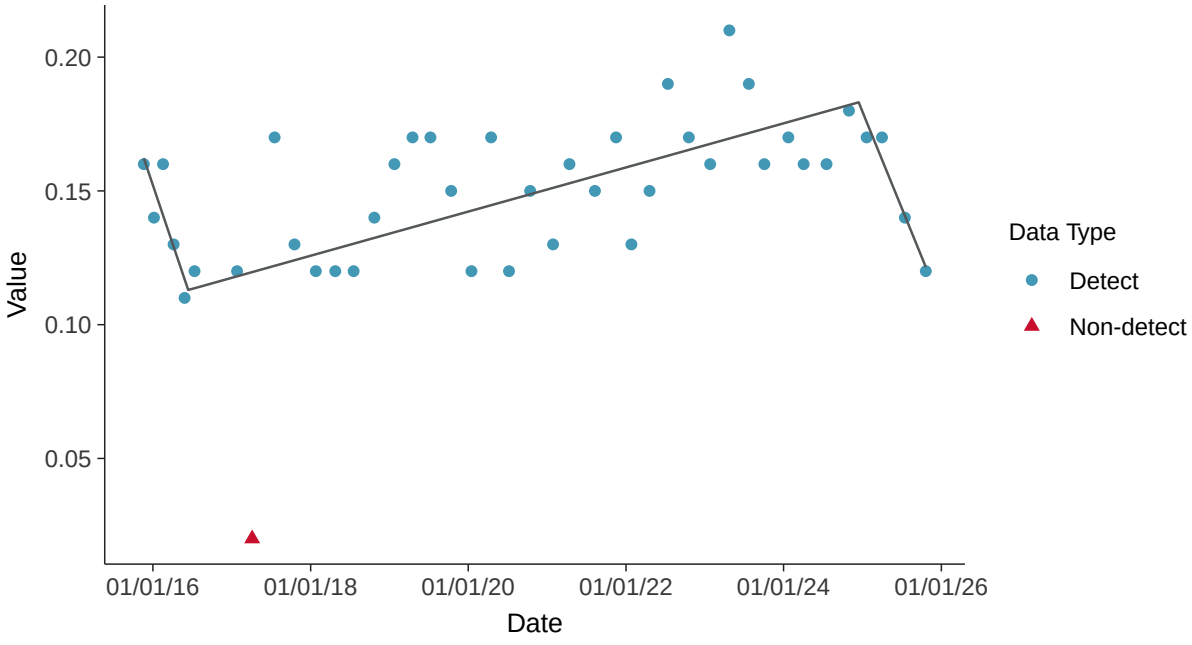
Trend Regression: Piecewise Linear-Linear

Fluoride, MW-1 (mg/L)



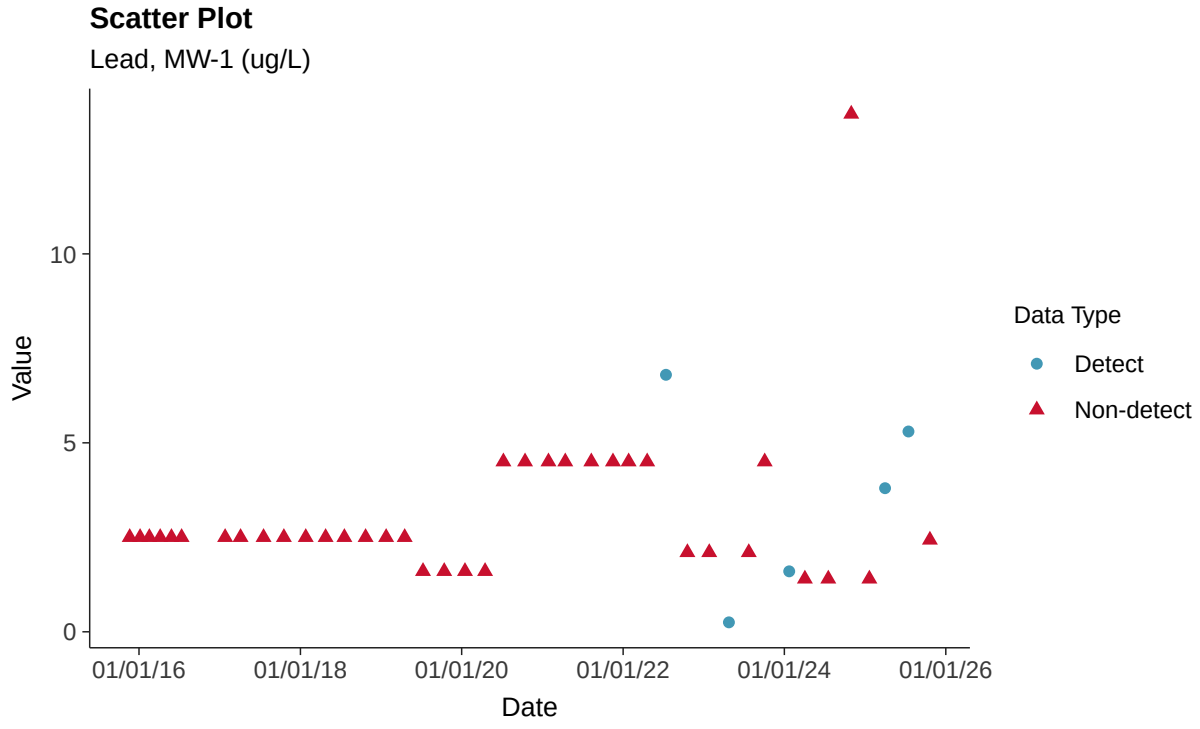
Trend Regression: Piecewise Linear-Linear-Linear

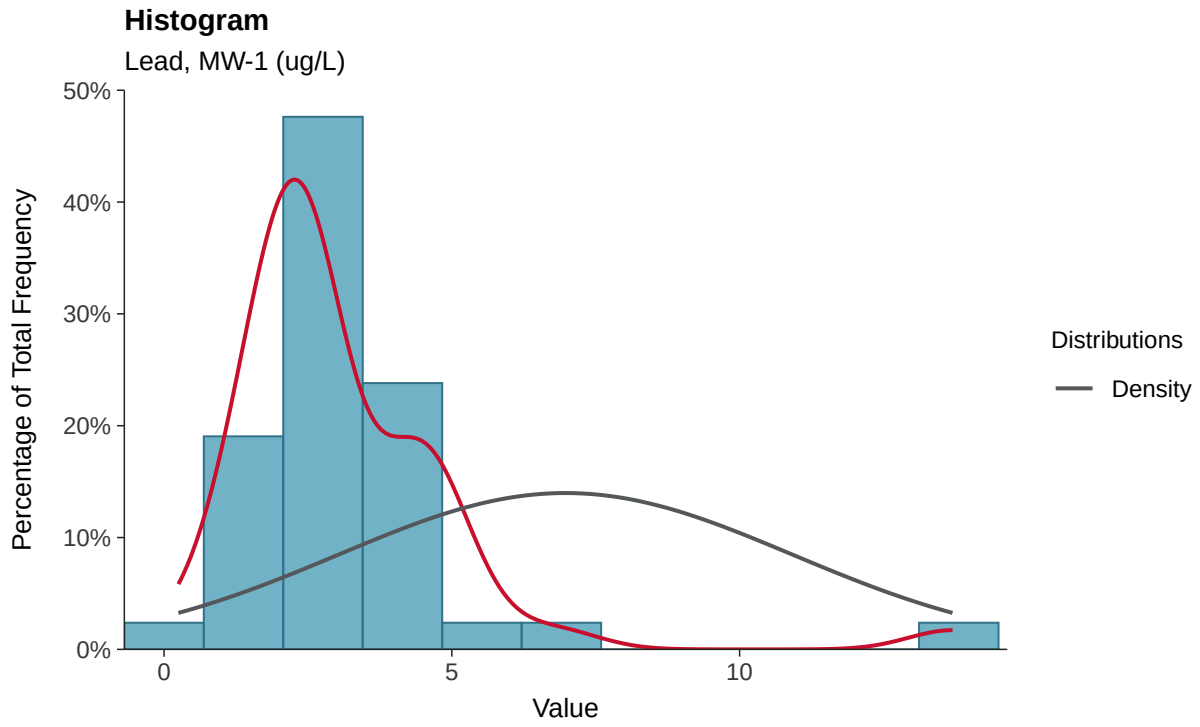
Fluoride, MW-1 (mg/L)



App. IV: Lead, MW-1

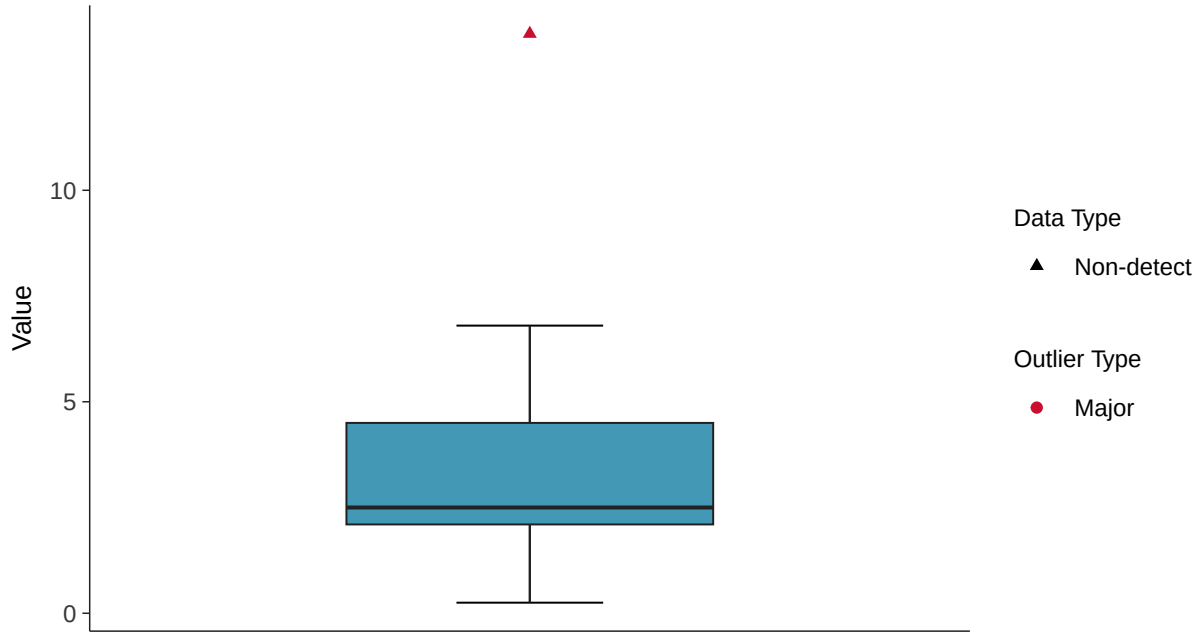
ID: 01_3_113





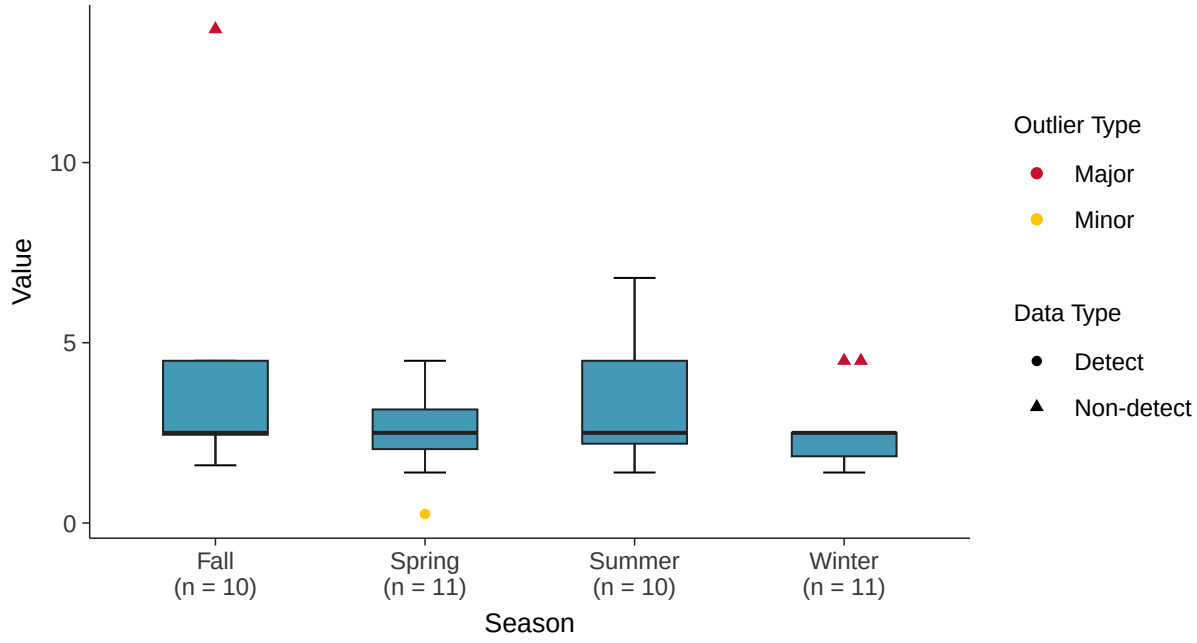
Boxplot

Lead, MW-1 (ug/L)



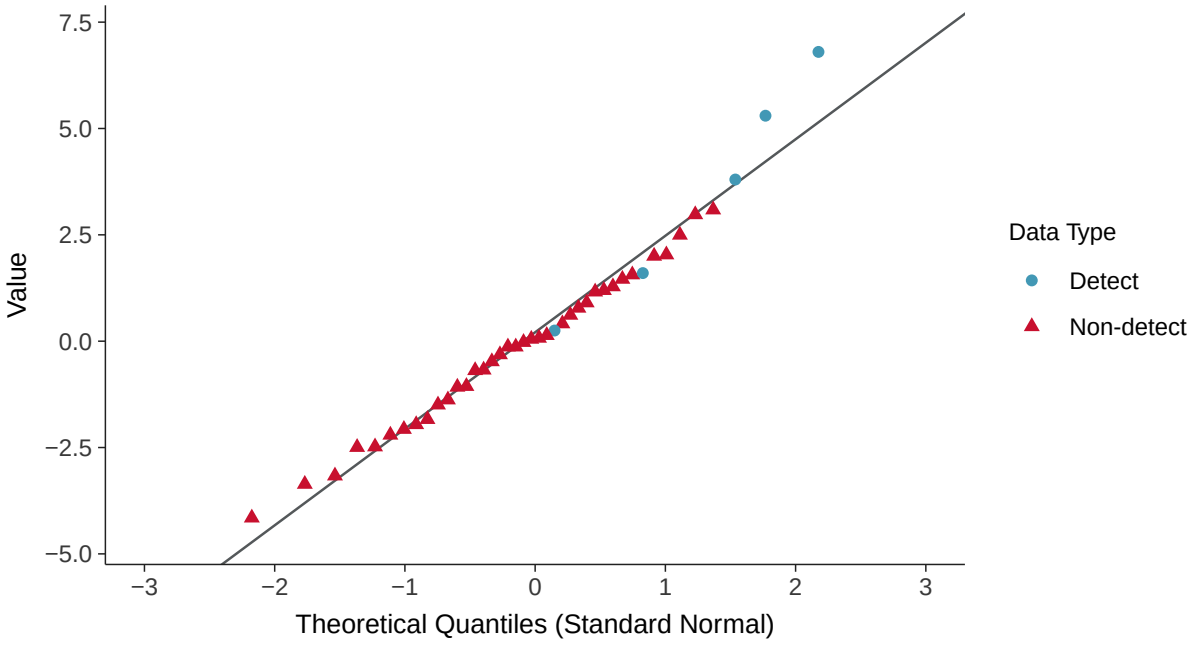
Boxplot by Season

Lead, MW-1 (ug/L)



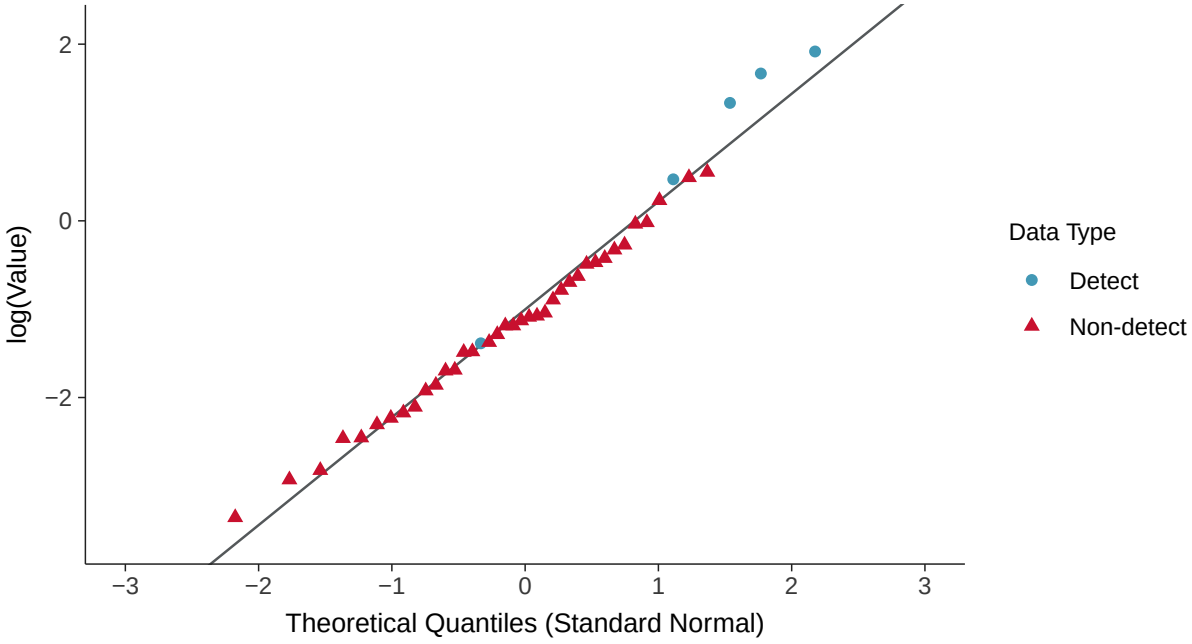
Normal Q-Q plot using ROS Imputed Estimates

Lead, MW-1 (ug/L)



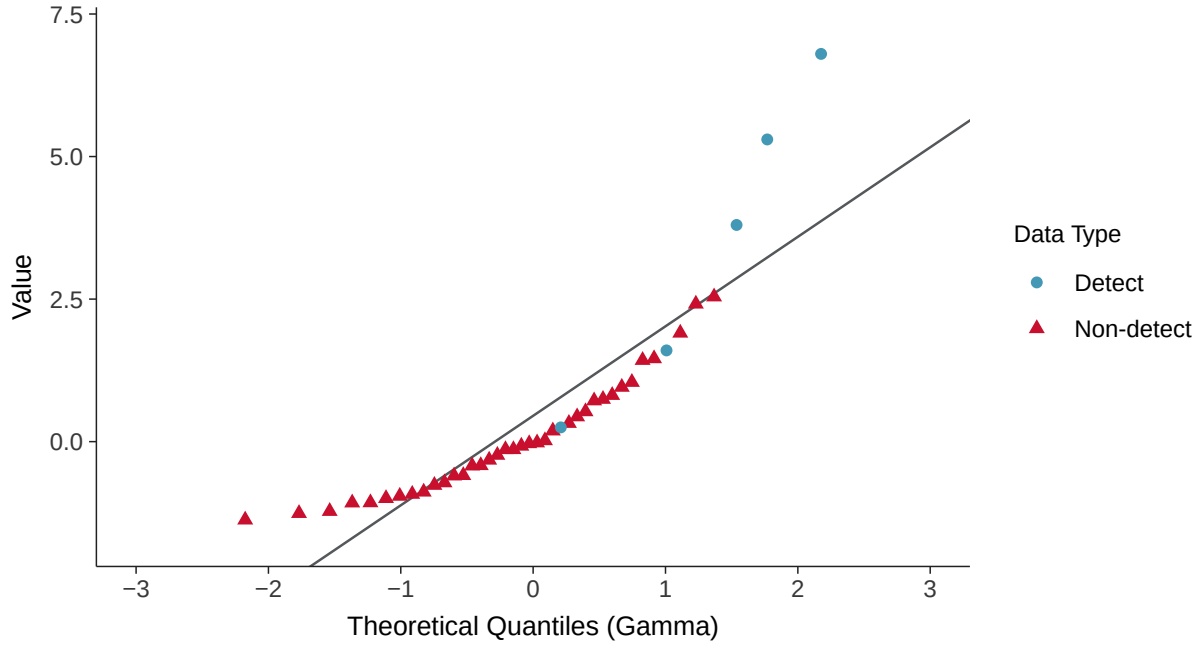
Lognormal Q-Q plot using ROS Imputed Estimates

Lead, MW-1 (ug/L)



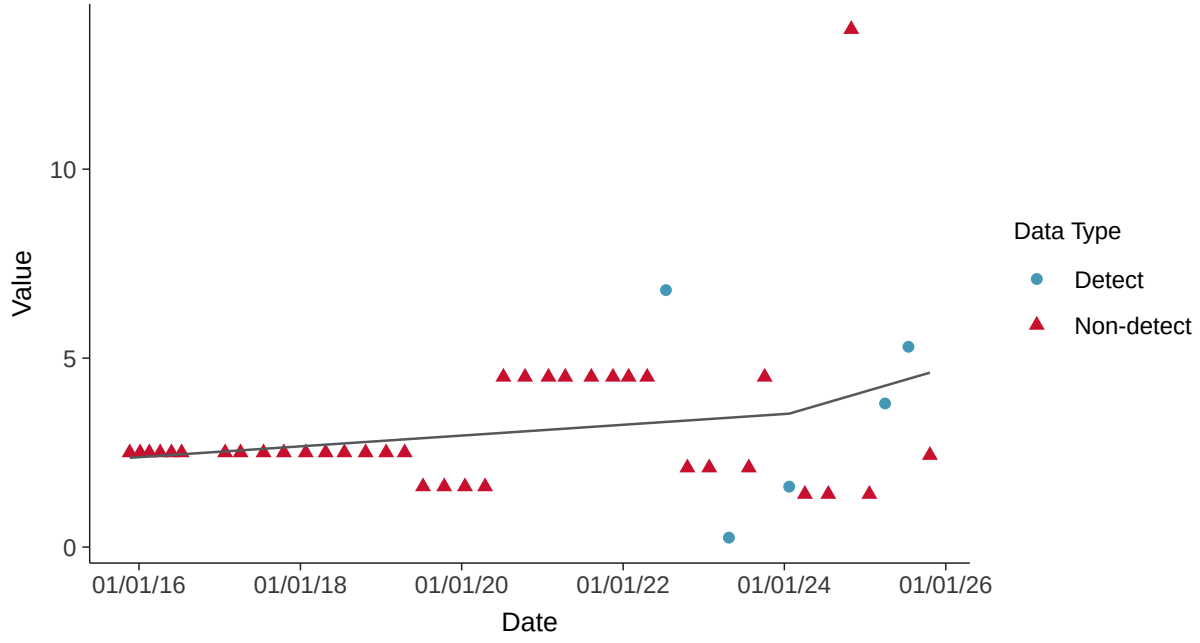
Gamma Q-Q plot using ROS Imputed Estimates

Lead, MW-1 (ug/L)



Trend Regression: Piecewise Linear-Linear

Lead, MW-1 (ug/L)

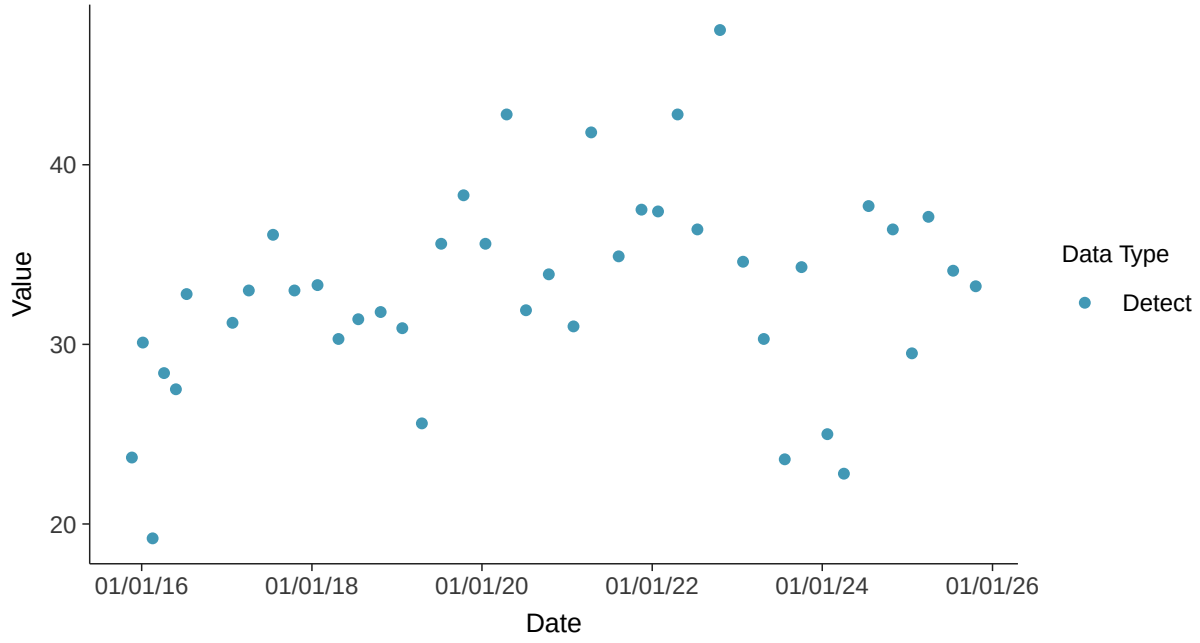


App. IV: Lithium, MW-1

ID: 01_3_114

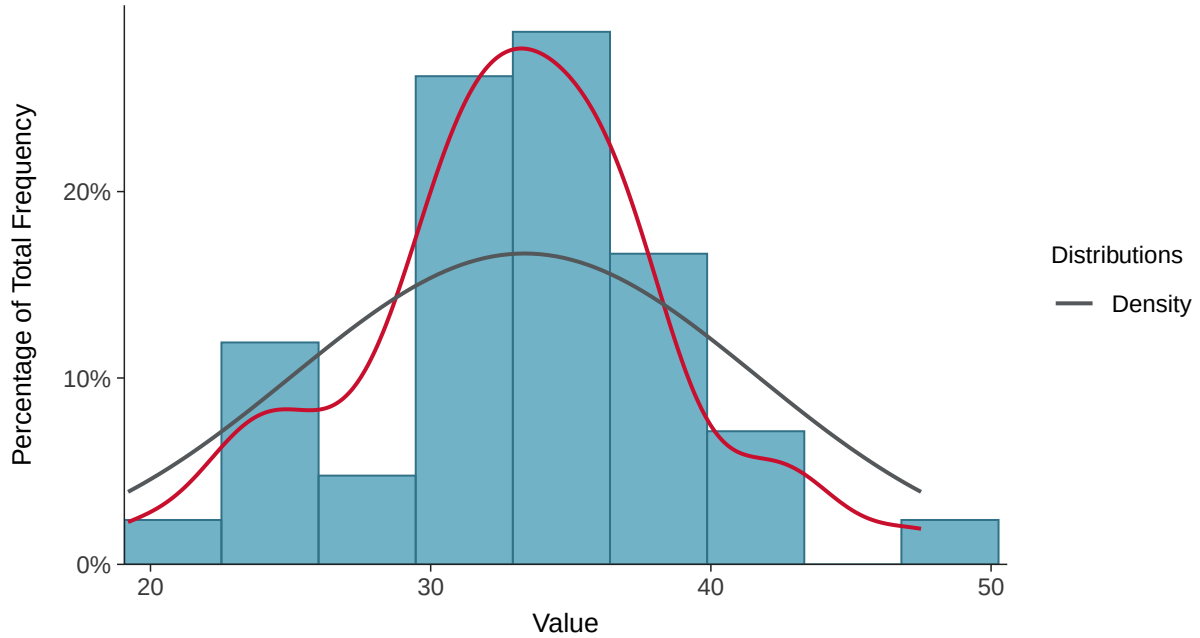
Scatter Plot

Lithium, MW-1 (ug/L)



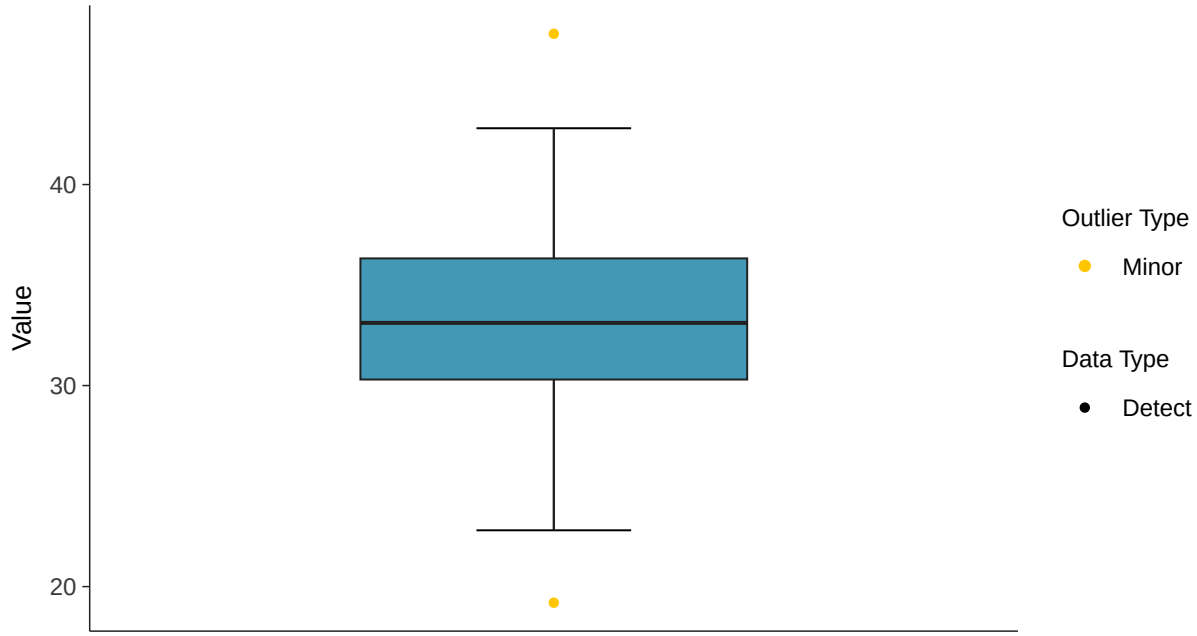
Histogram

Lithium, MW-1 (ug/L)



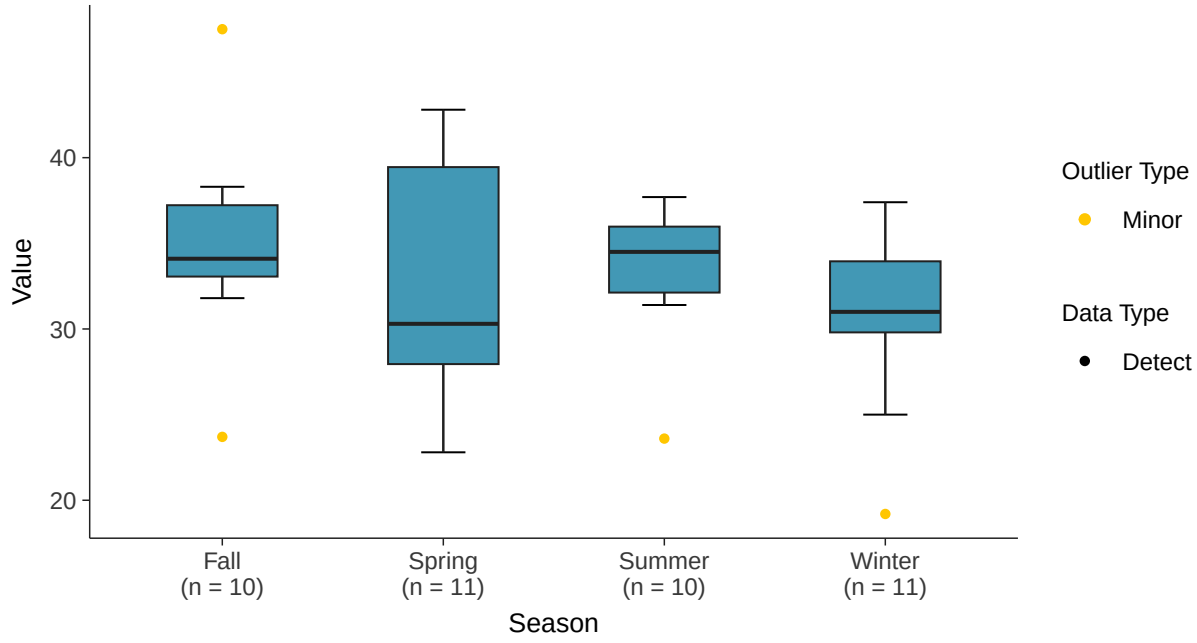
Boxplot

Lithium, MW-1 (ug/L)



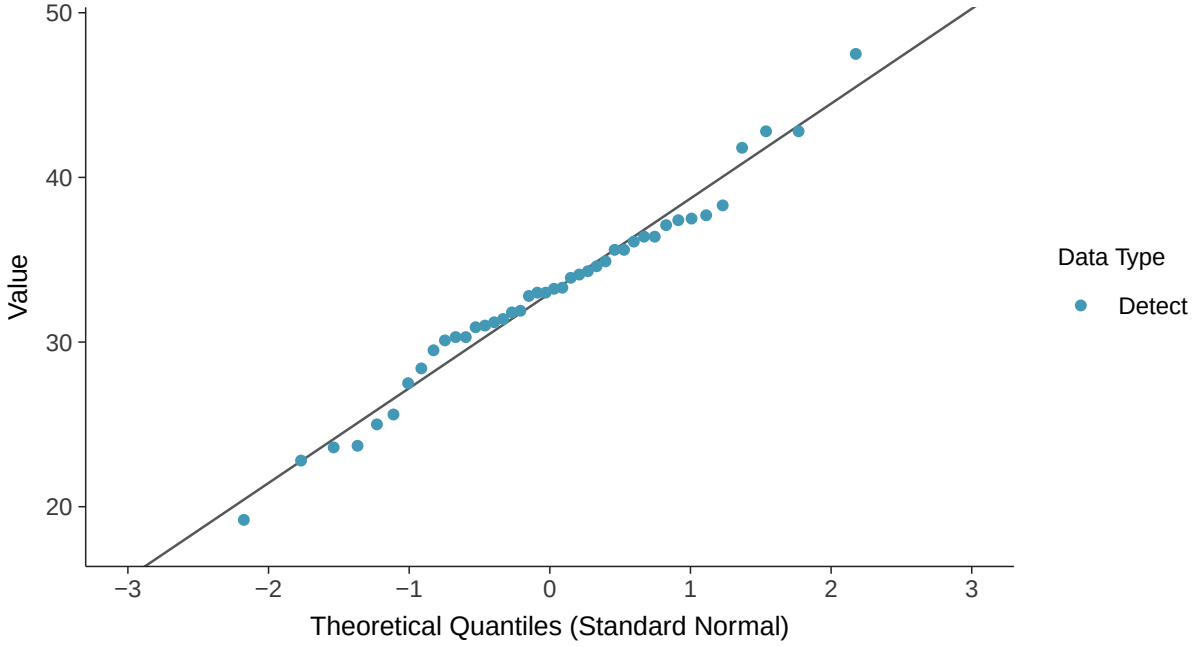
Boxplot by Season

Lithium, MW-1 (ug/L)



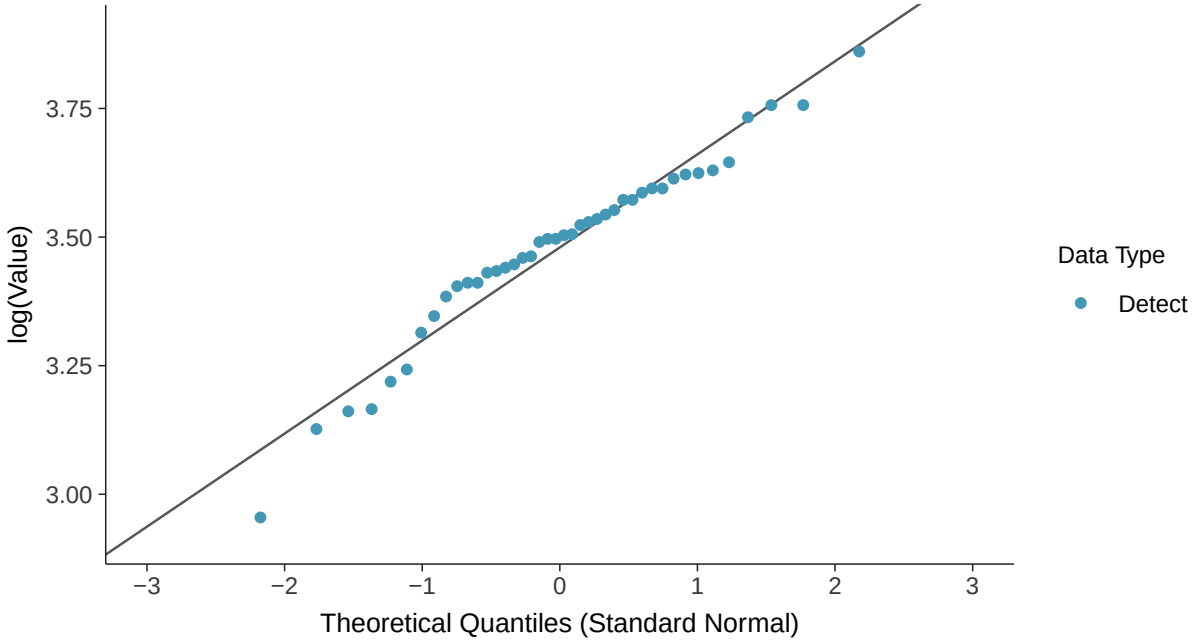
Normal Q-Q plot

Lithium, MW-1 (ug/L)



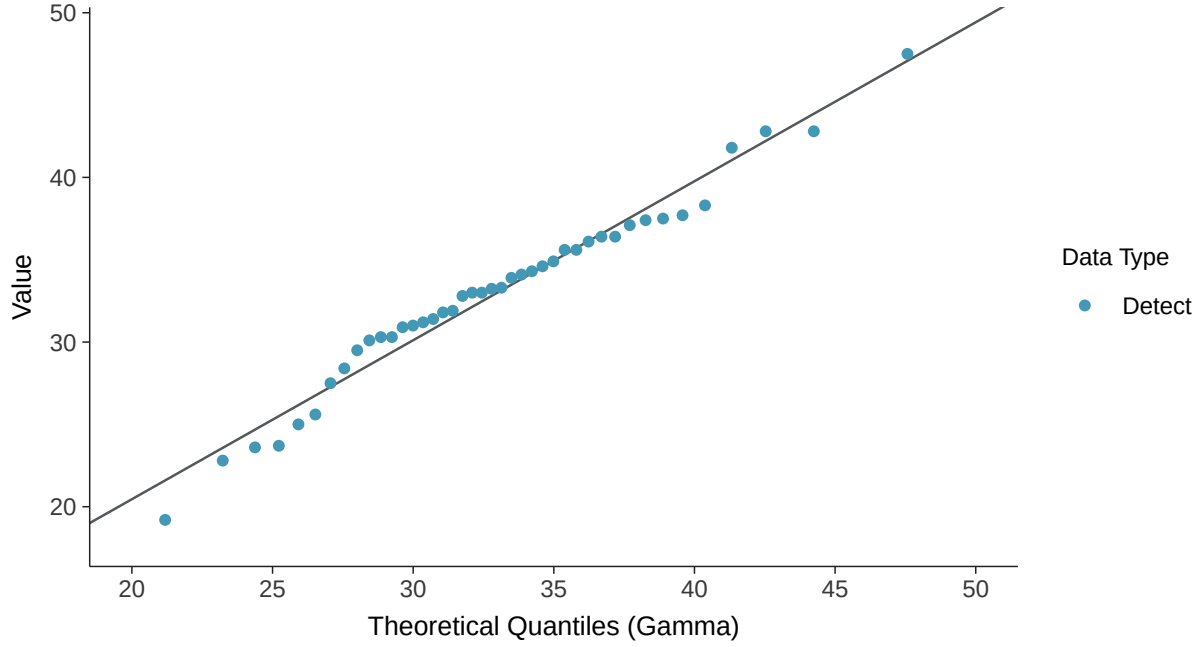
Lognormal Q-Q plot

Lithium, MW-1 (ug/L)



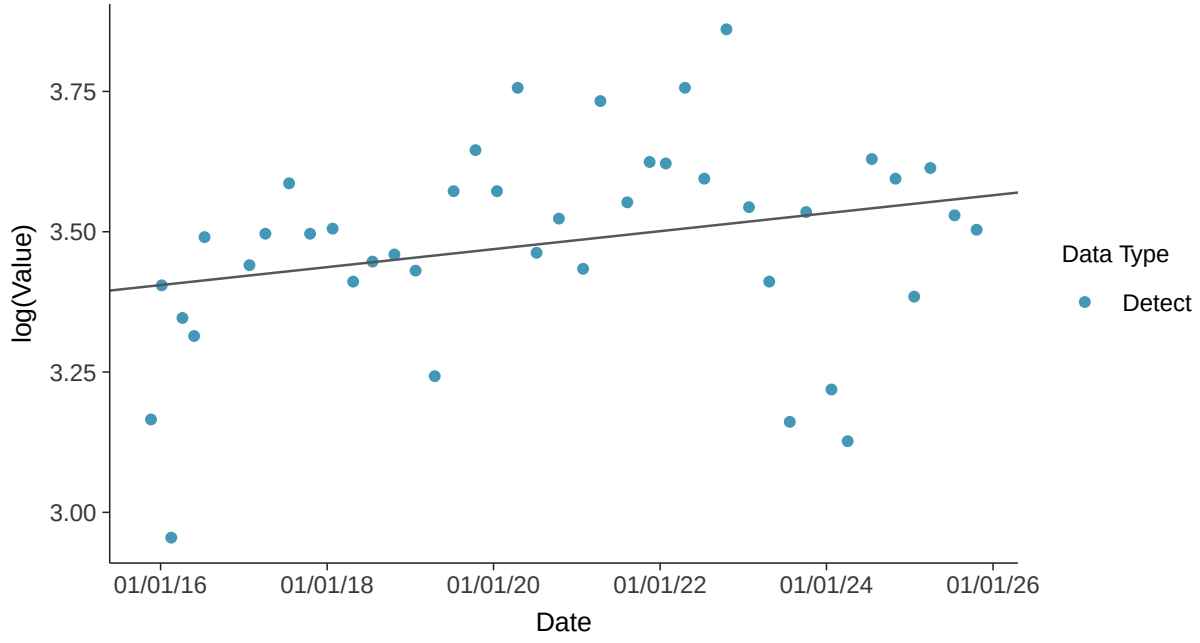
Gamma Q-Q plot

Lithium, MW-1 (ug/L)



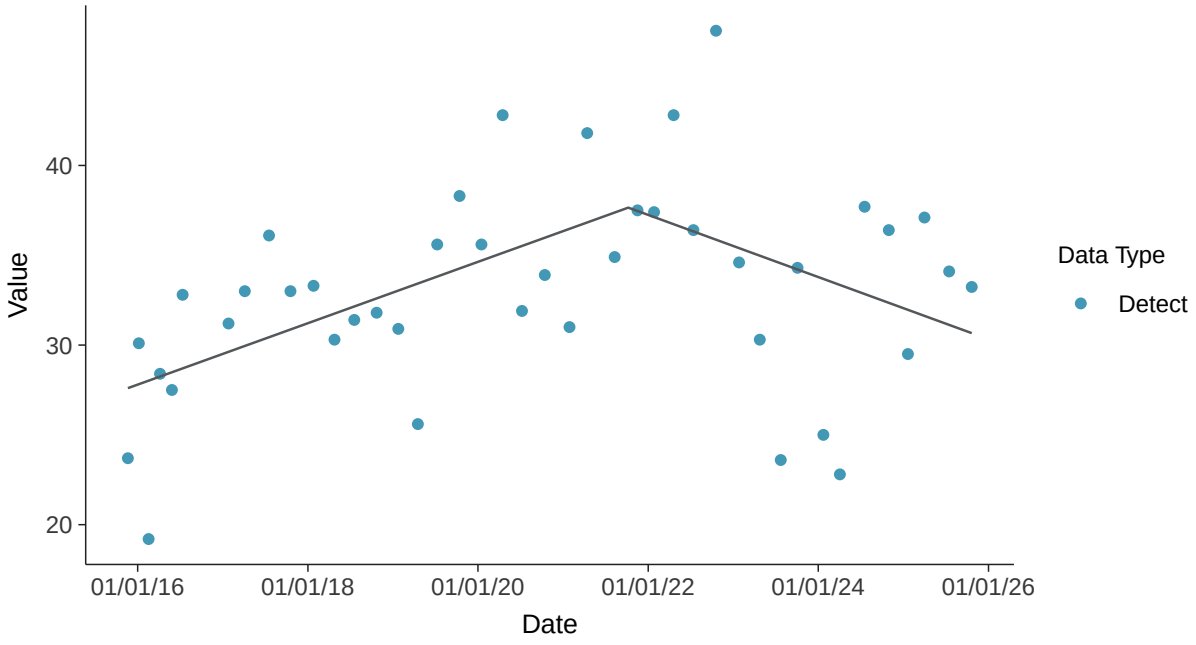
Trend Regression: Lognormal MLE

Lithium, MW-1 (ug/L)



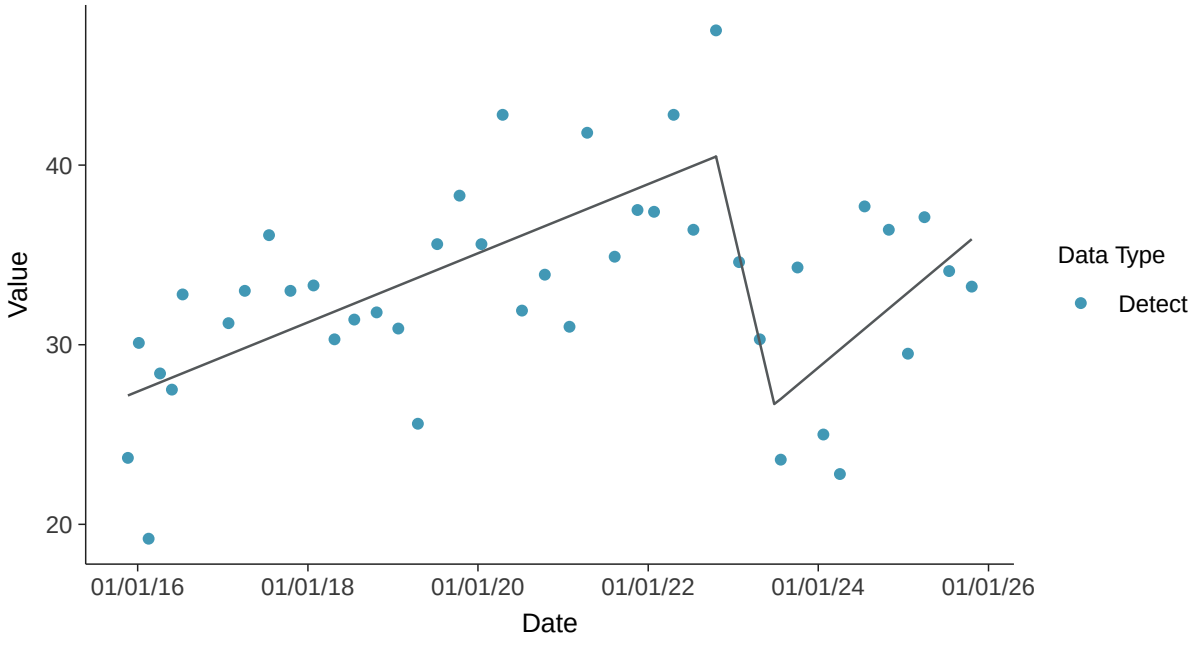
Trend Regression: Piecewise Linear-Linear

Lithium, MW-1 (ug/L)



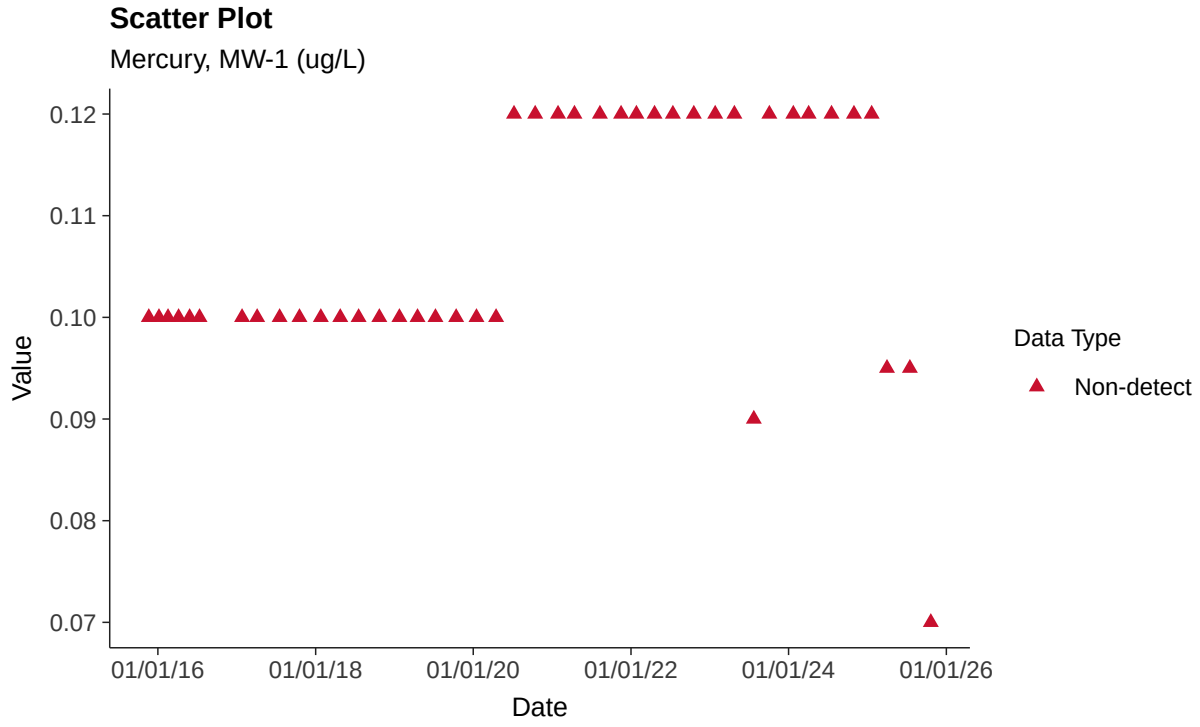
Trend Regression: Piecewise Linear-Linear-Linear

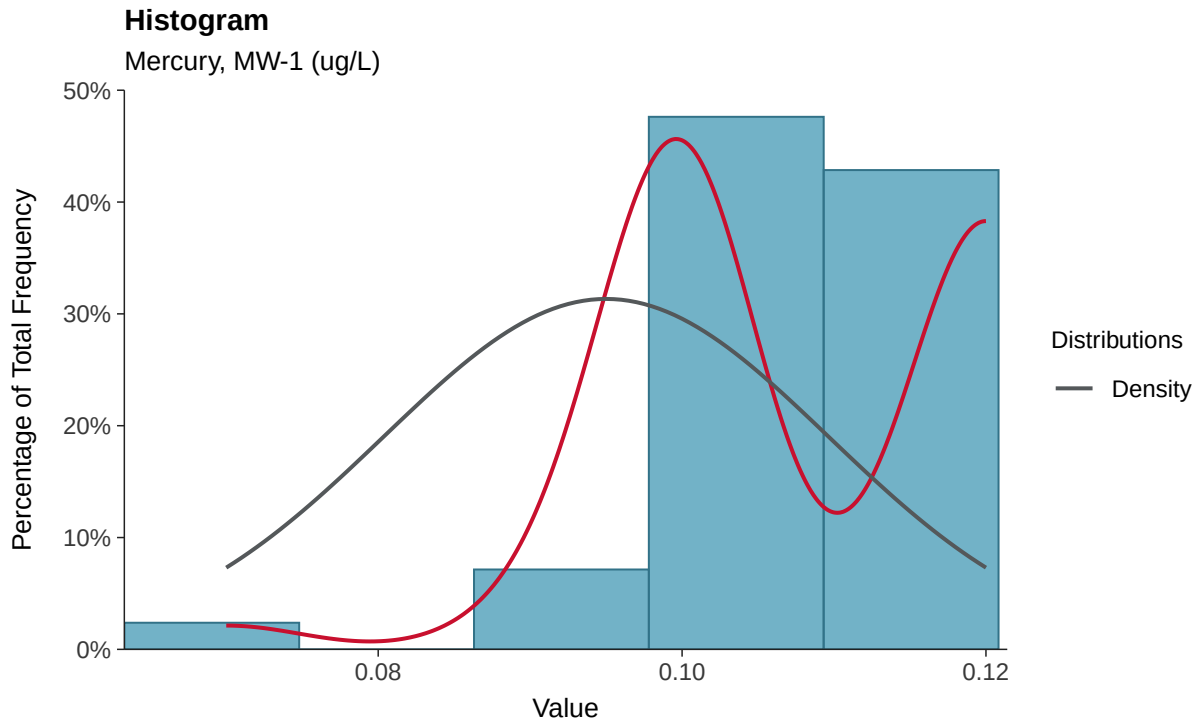
Lithium, MW-1 (ug/L)



App. IV: Mercury, MW-1

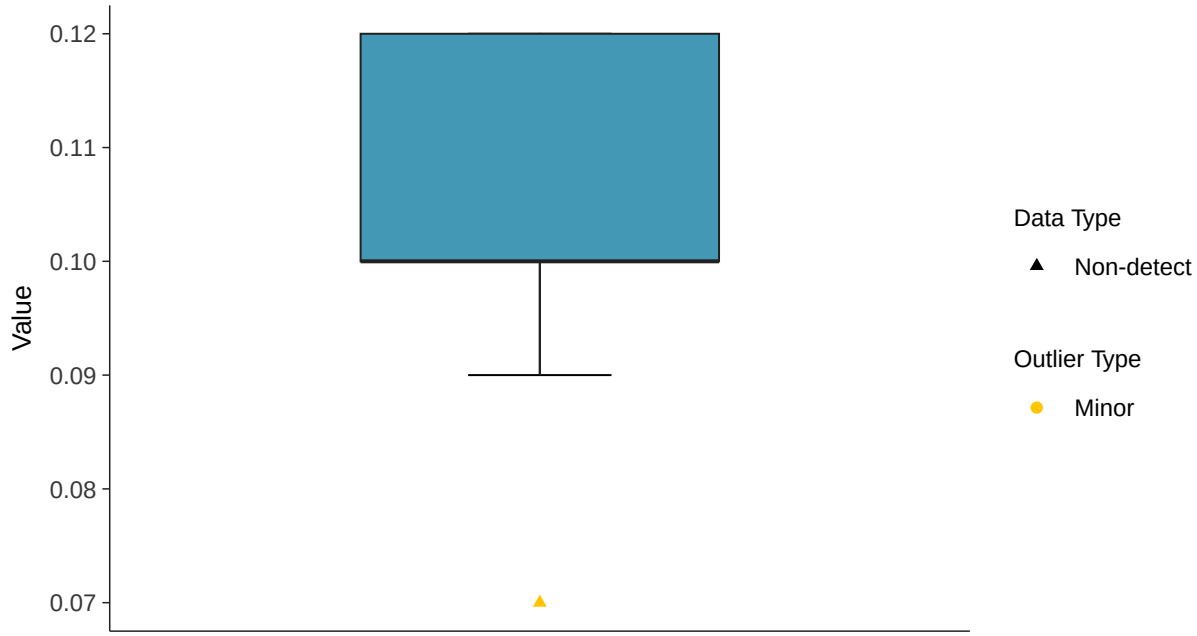
ID: 01_3_115





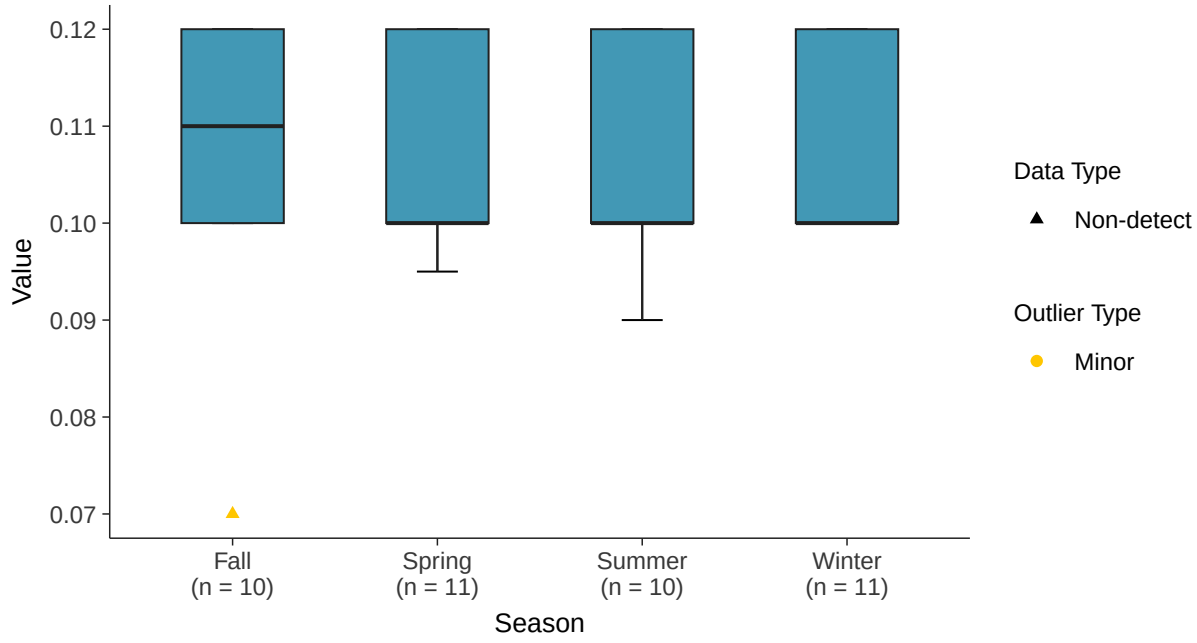
Boxplot

Mercury, MW-1 (ug/L)



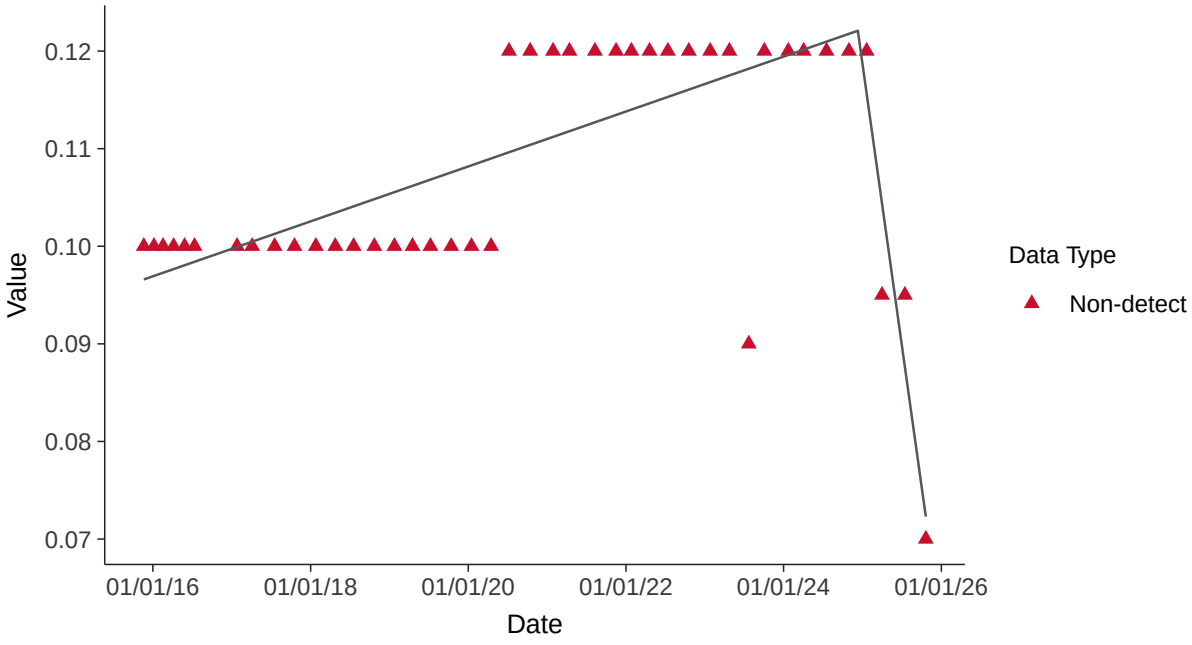
Boxplot by Season

Mercury, MW-1 (ug/L)



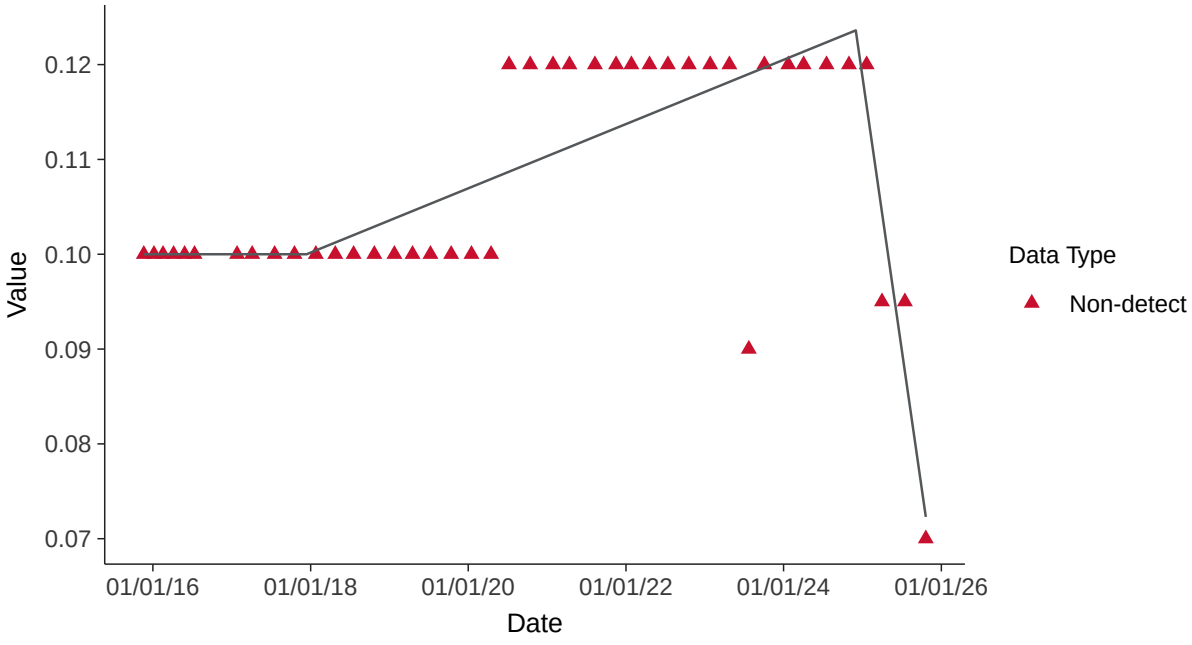
Trend Regression: Piecewise Linear-Linear

Mercury, MW-1 (ug/L)



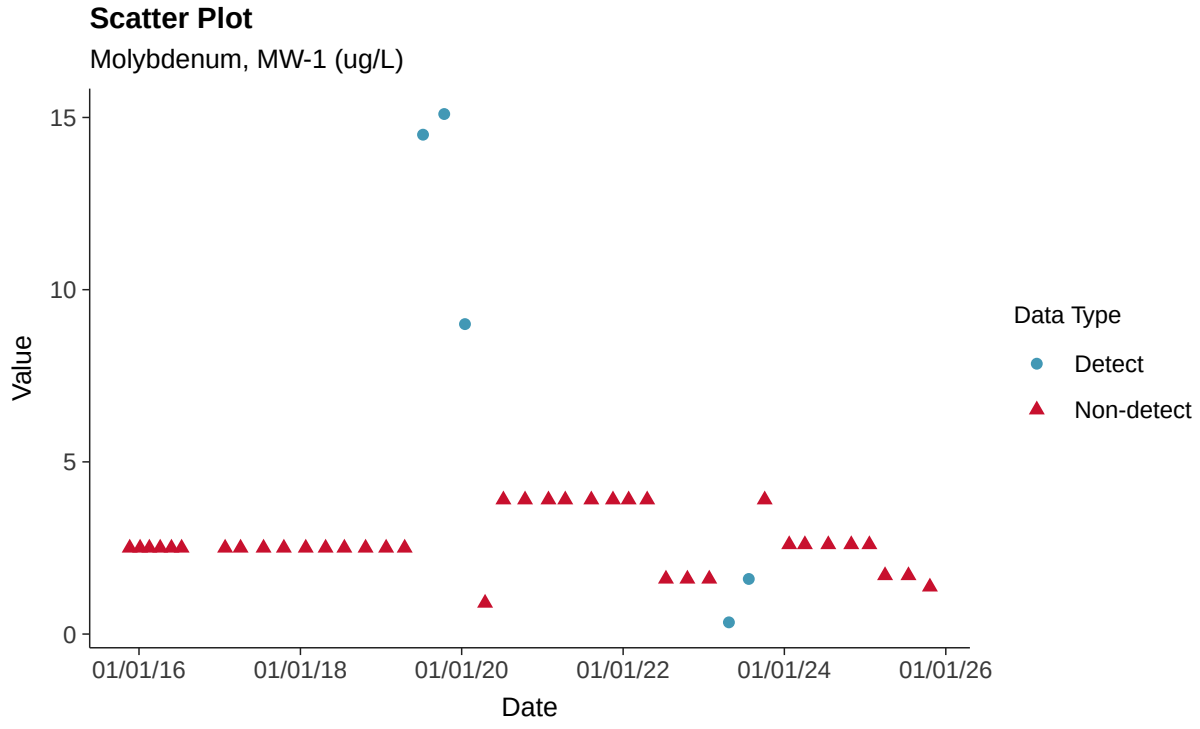
Trend Regression: Piecewise Linear-Linear-Linear

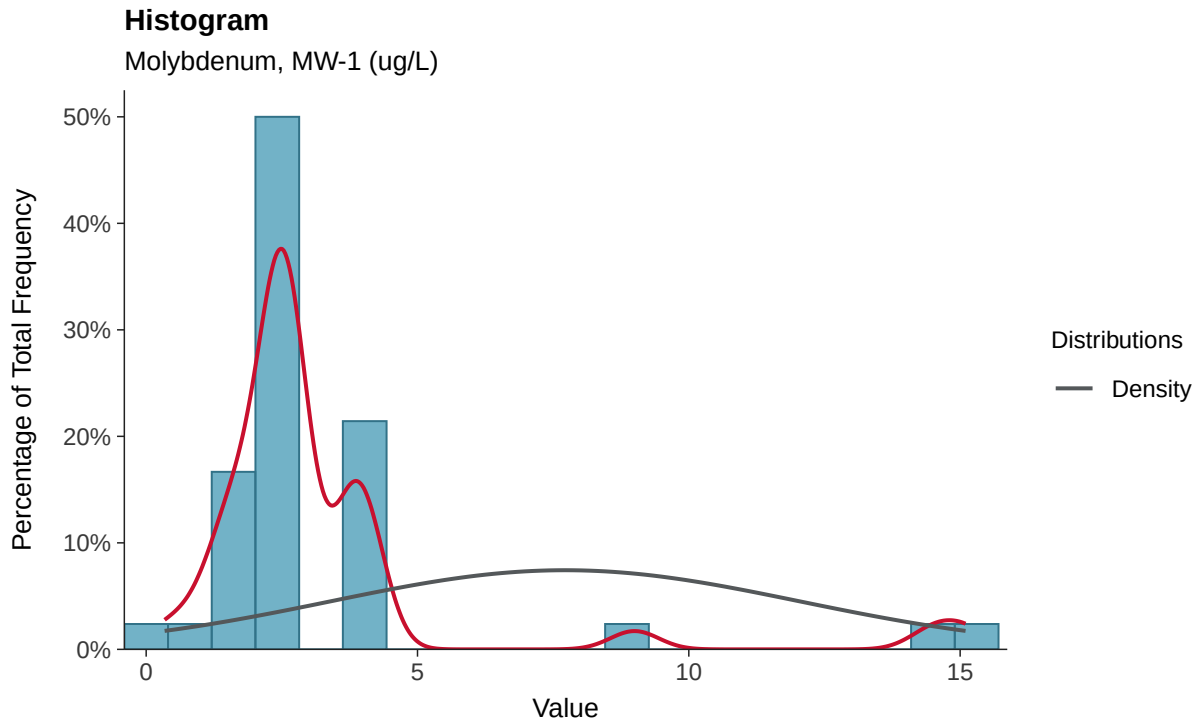
Mercury, MW-1 (ug/L)



App. IV: Molybdenum, MW-1

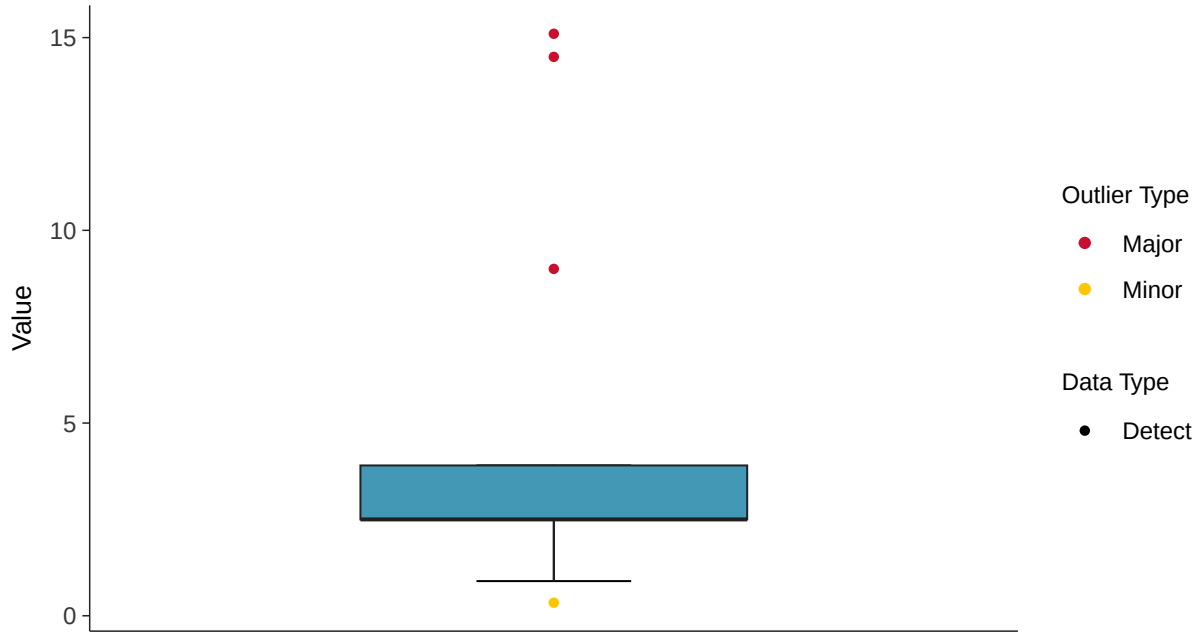
ID: 01_3_116





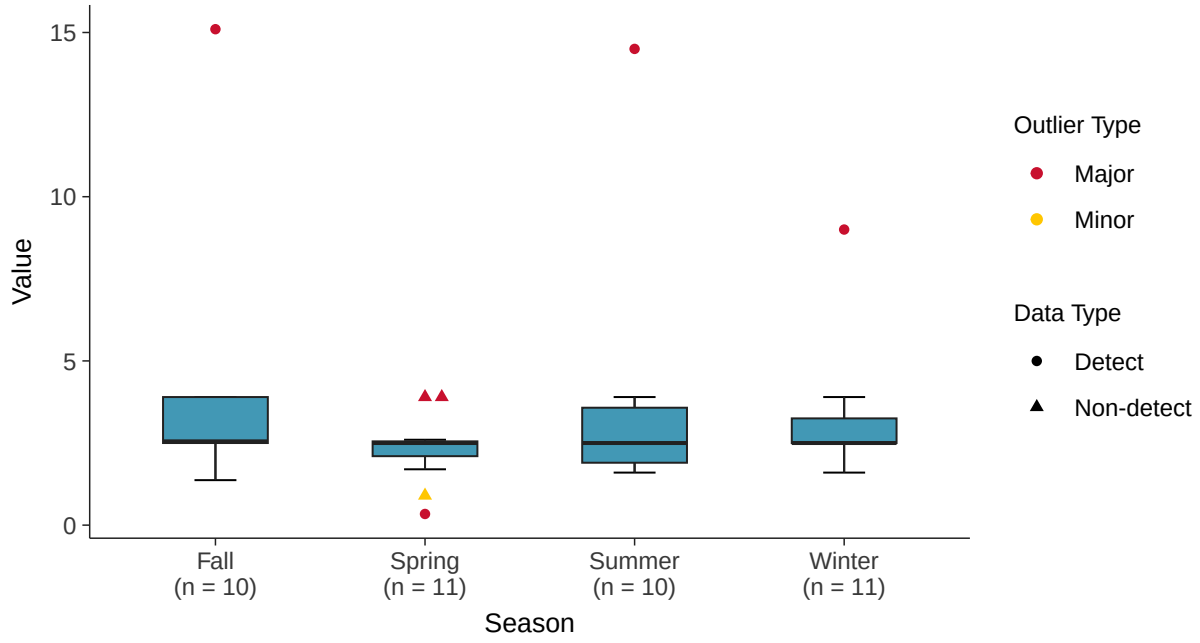
Boxplot

Molybdenum, MW-1 (ug/L)



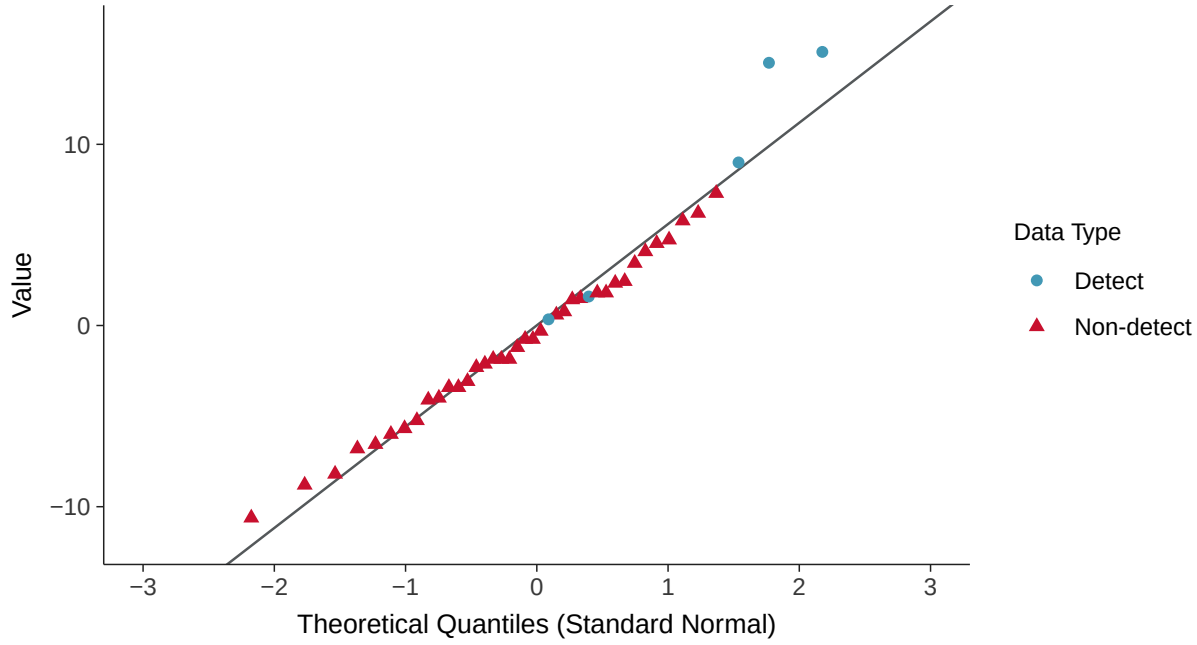
Boxplot by Season

Molybdenum, MW-1 (ug/L)



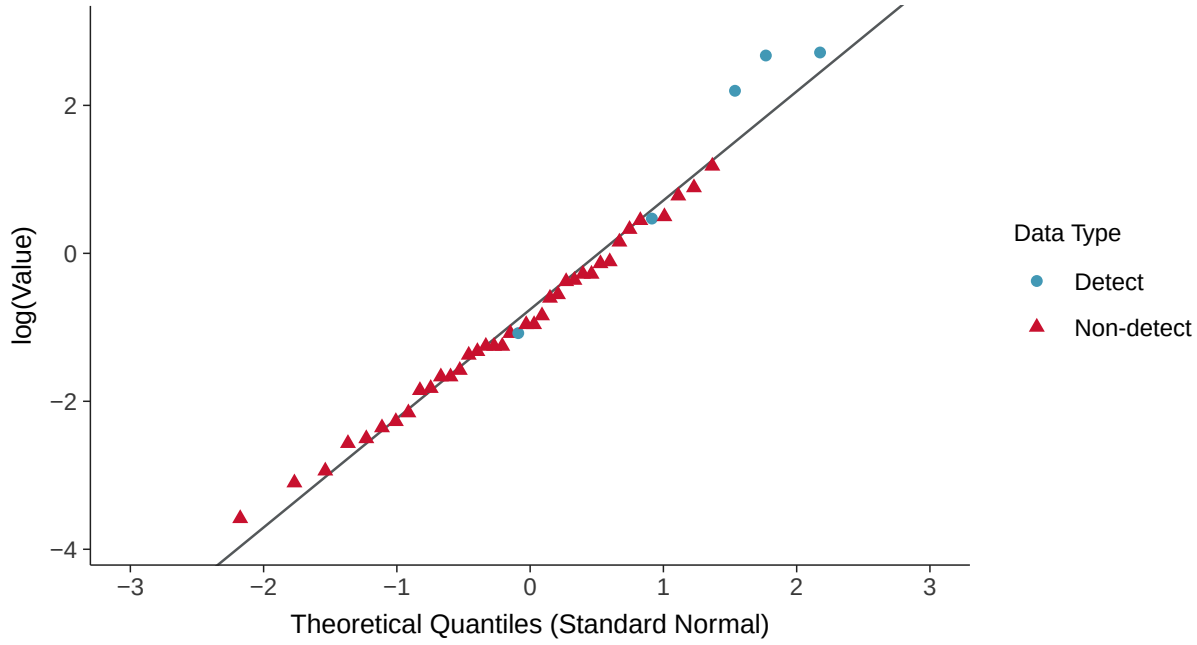
Normal Q-Q plot using ROS Imputed Estimates

Molybdenum, MW-1 (ug/L)



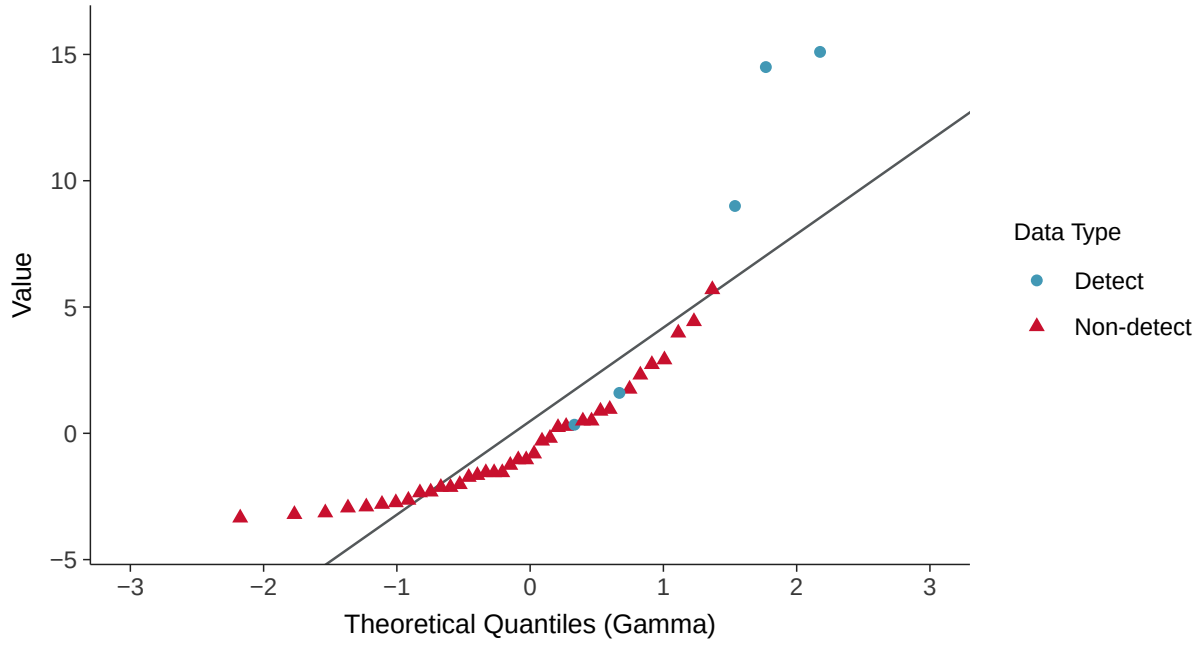
Lognormal Q-Q plot using ROS Imputed Estimates

Molybdenum, MW-1 (ug/L)



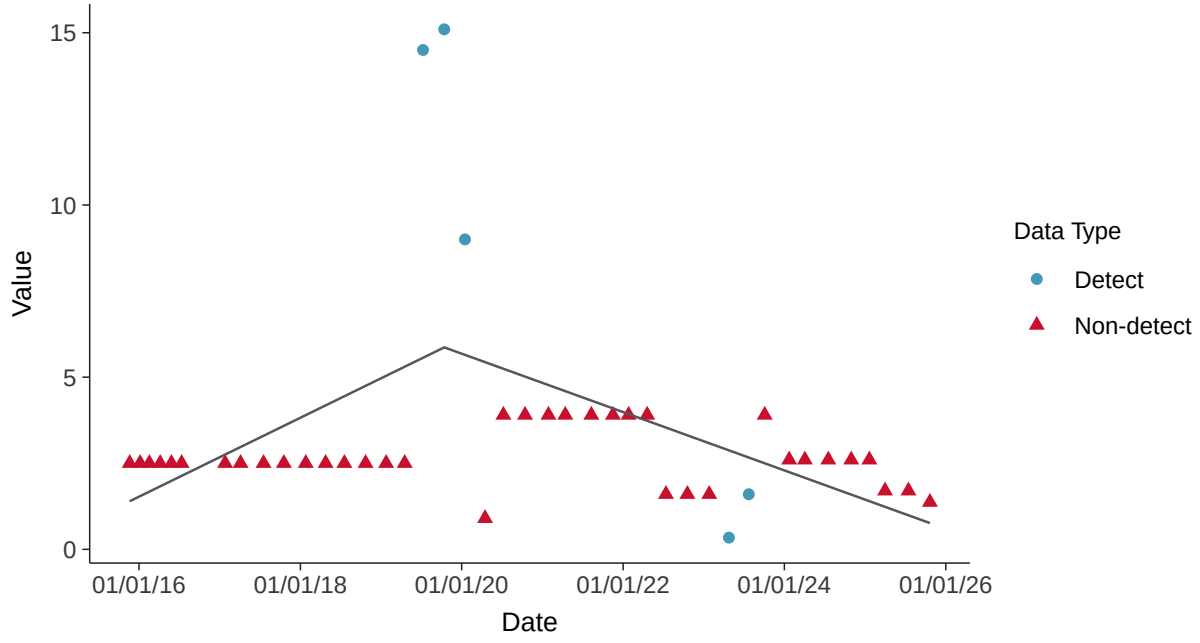
Gamma Q-Q plot using ROS Imputed Estimates

Molybdenum, MW-1 (ug/L)



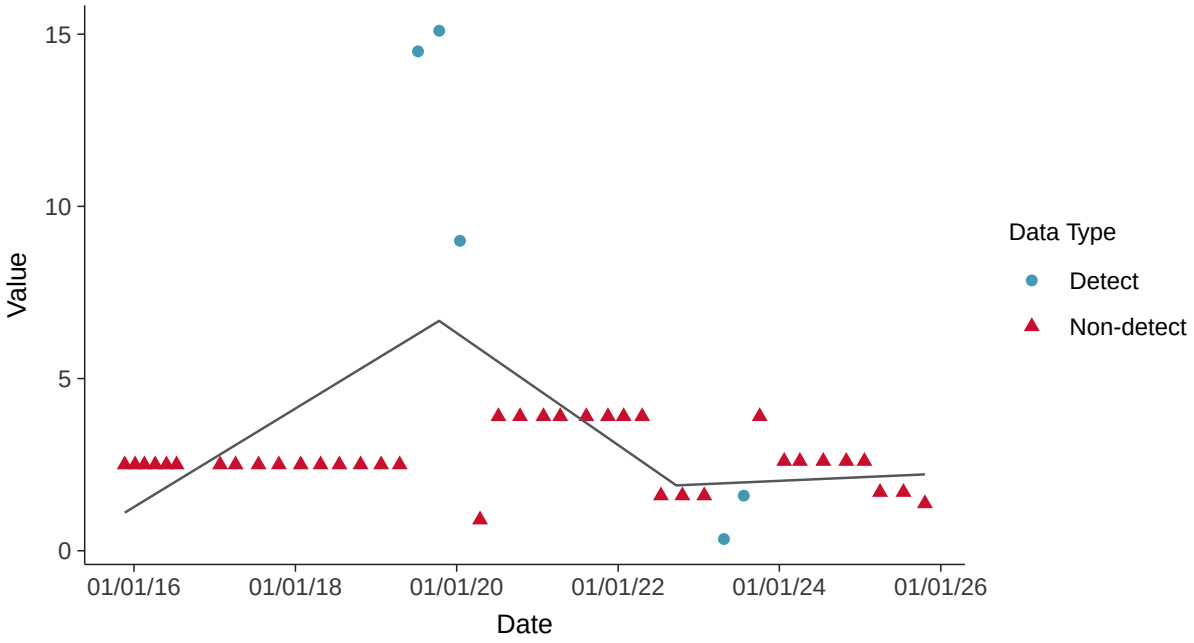
Trend Regression: Piecewise Linear-Linear

Molybdenum, MW-1 (ug/L)



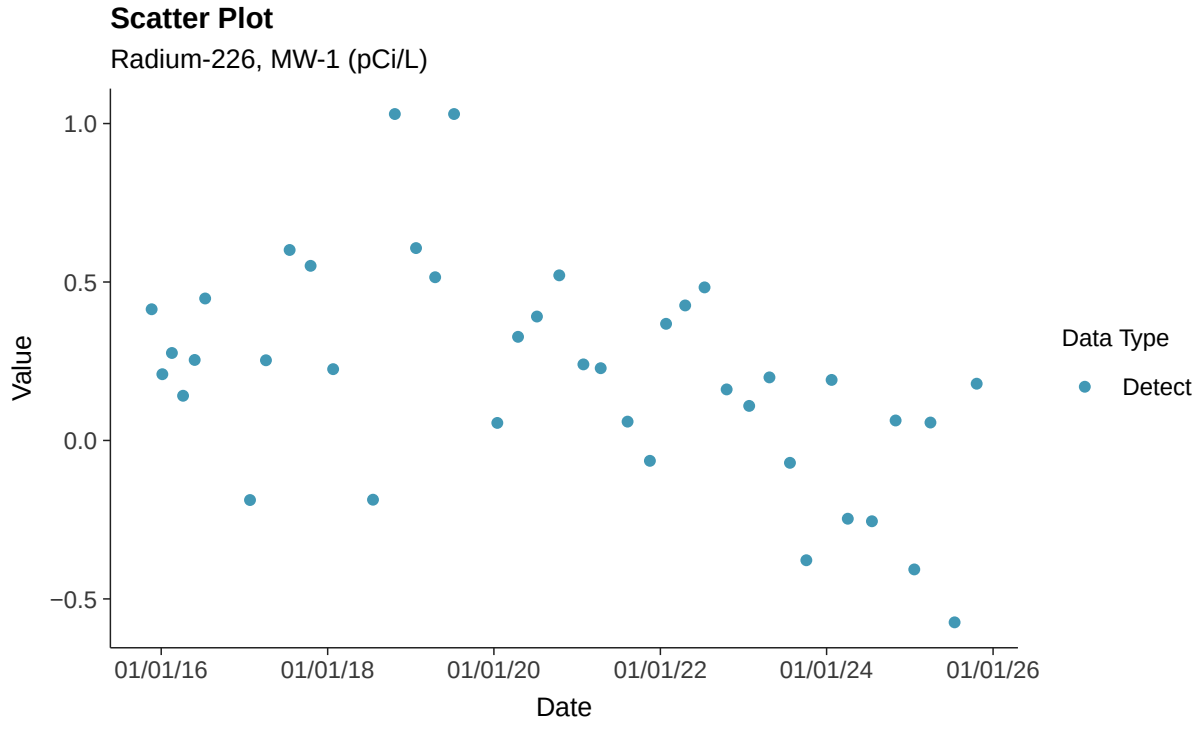
Trend Regression: Piecewise Linear-Linear-Linear

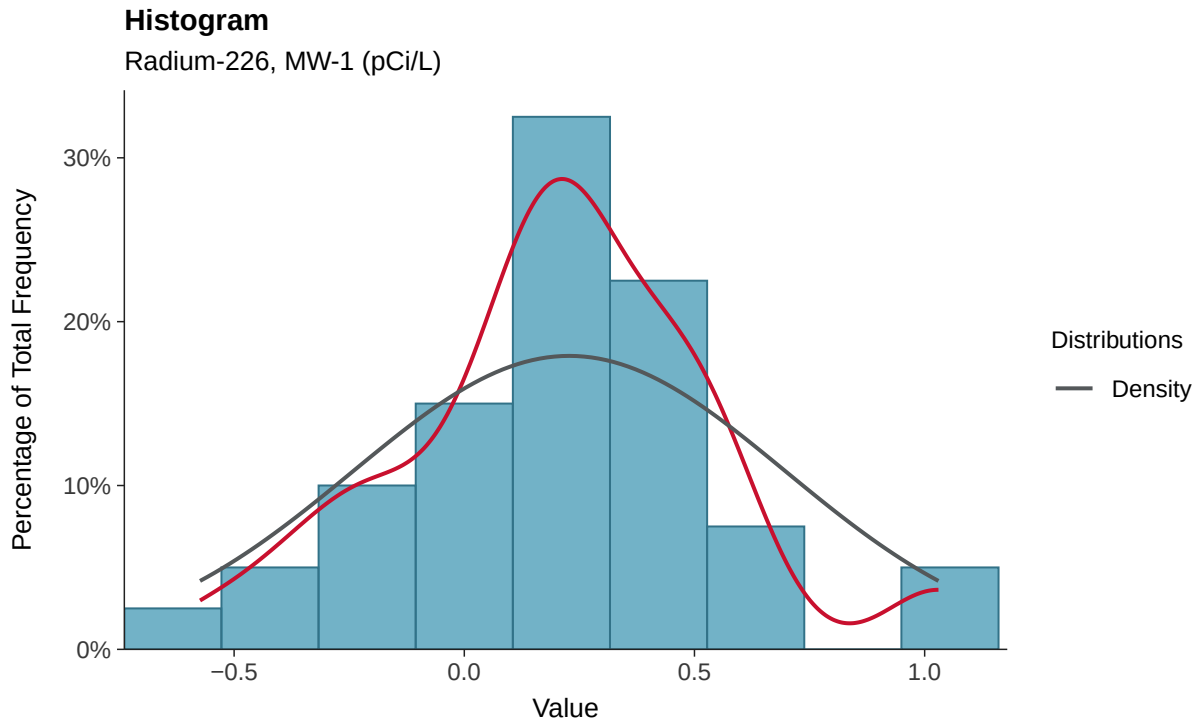
Molybdenum, MW-1 (ug/L)



App. IV: Radium-226, MW-1

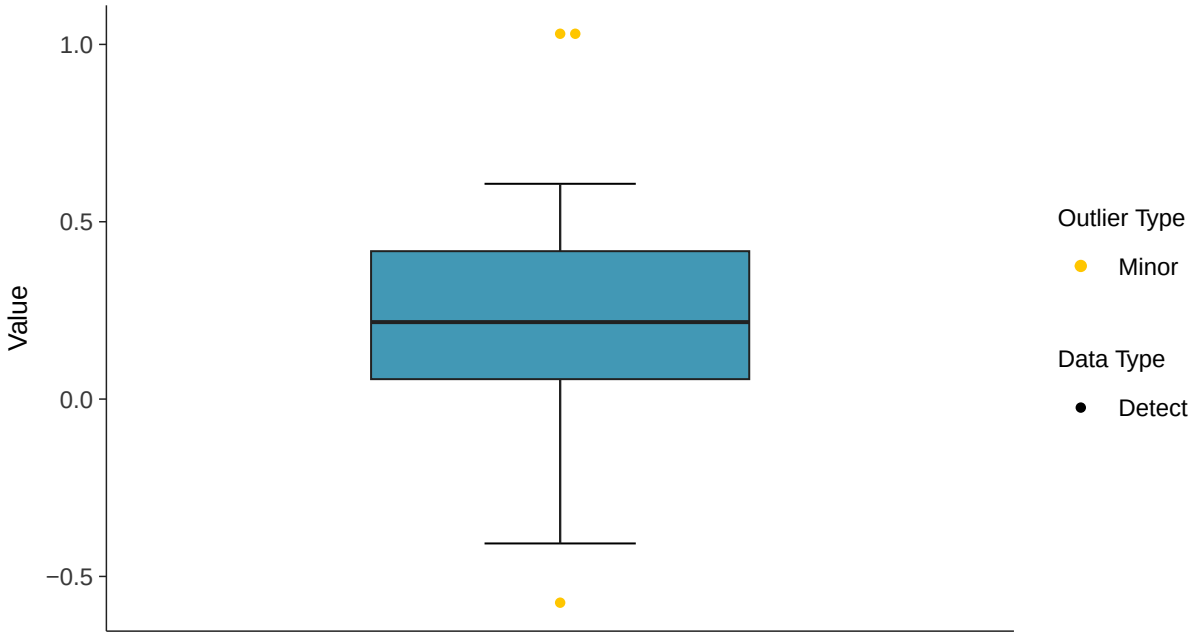
ID: 01_3_119





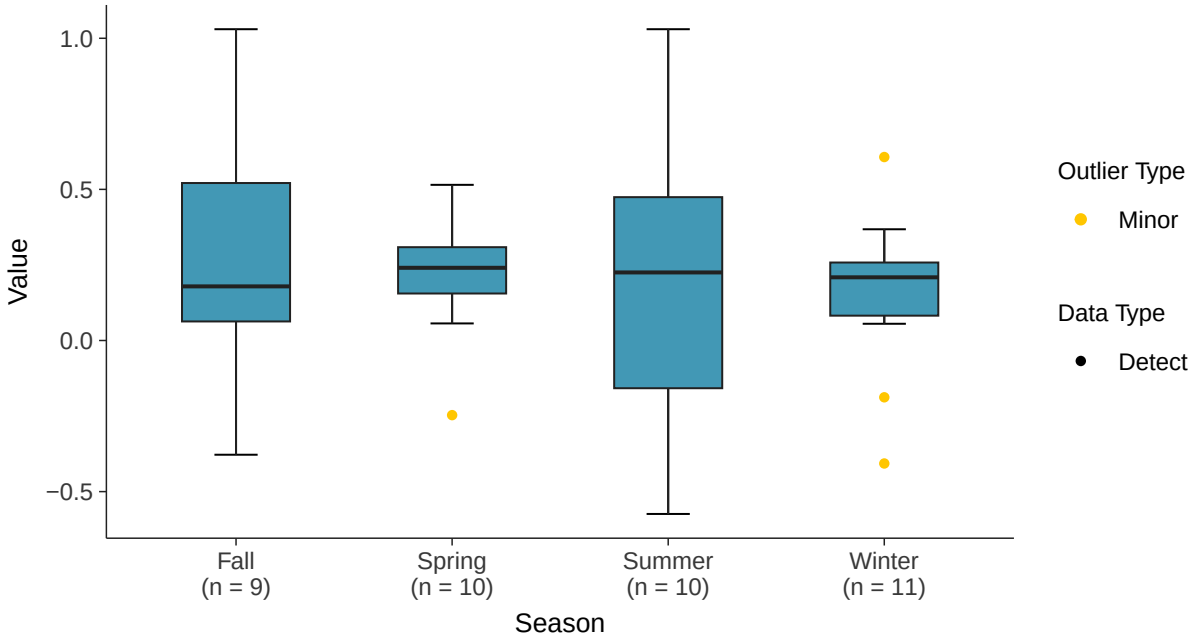
Boxplot

Radium-226, MW-1 (pCi/L)



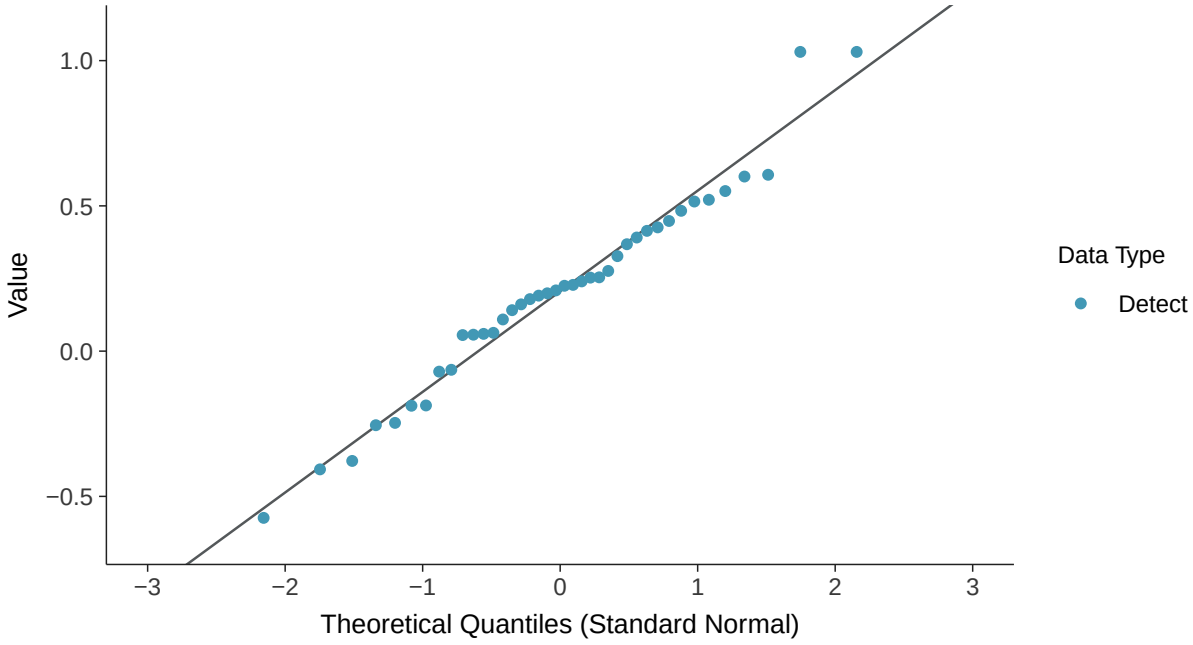
Boxplot by Season

Radium-226, MW-1 (pCi/L)



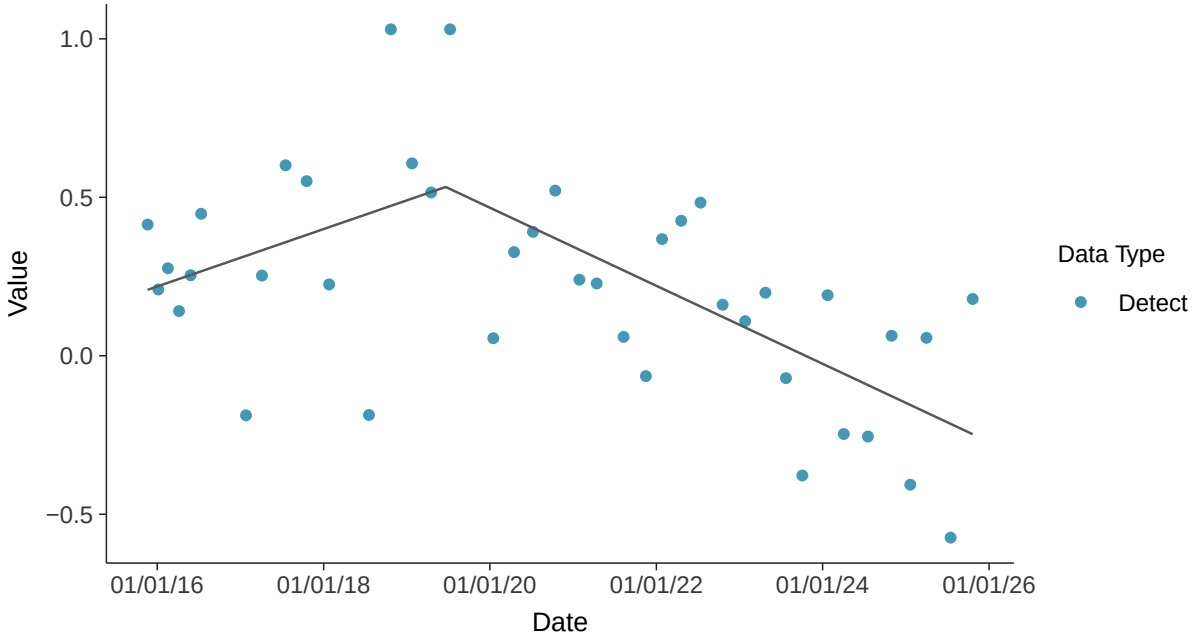
Normal Q-Q plot

Radium-226, MW-1 (pCi/L)



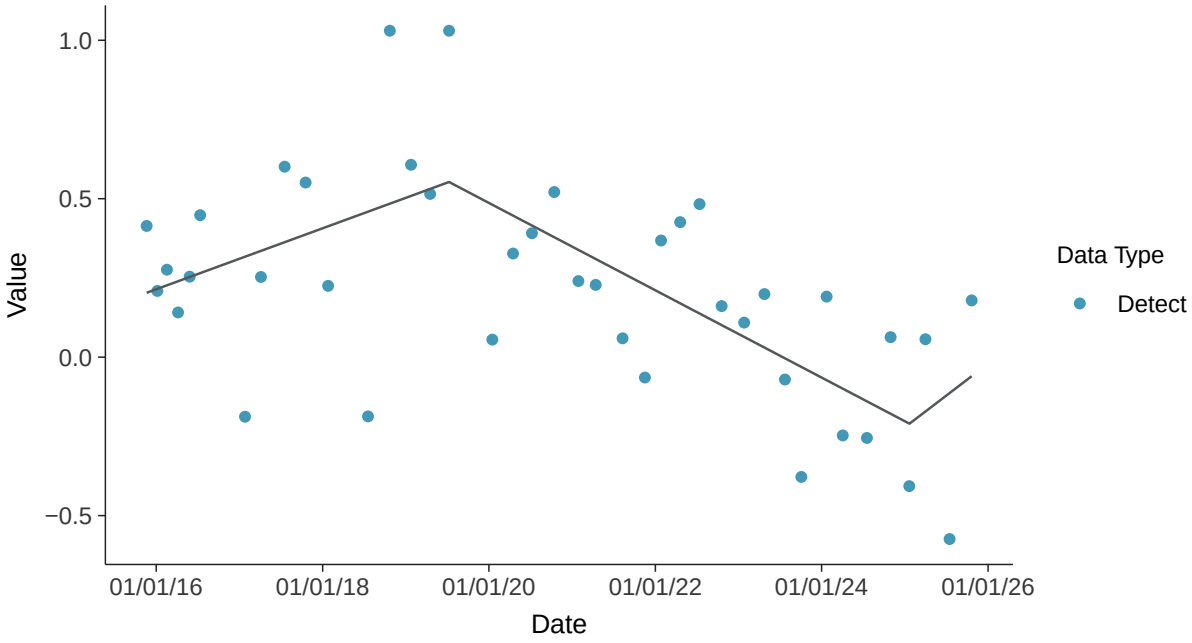
Trend Regression: Piecewise Linear-Linear

Radium-226, MW-1 (pCi/L)



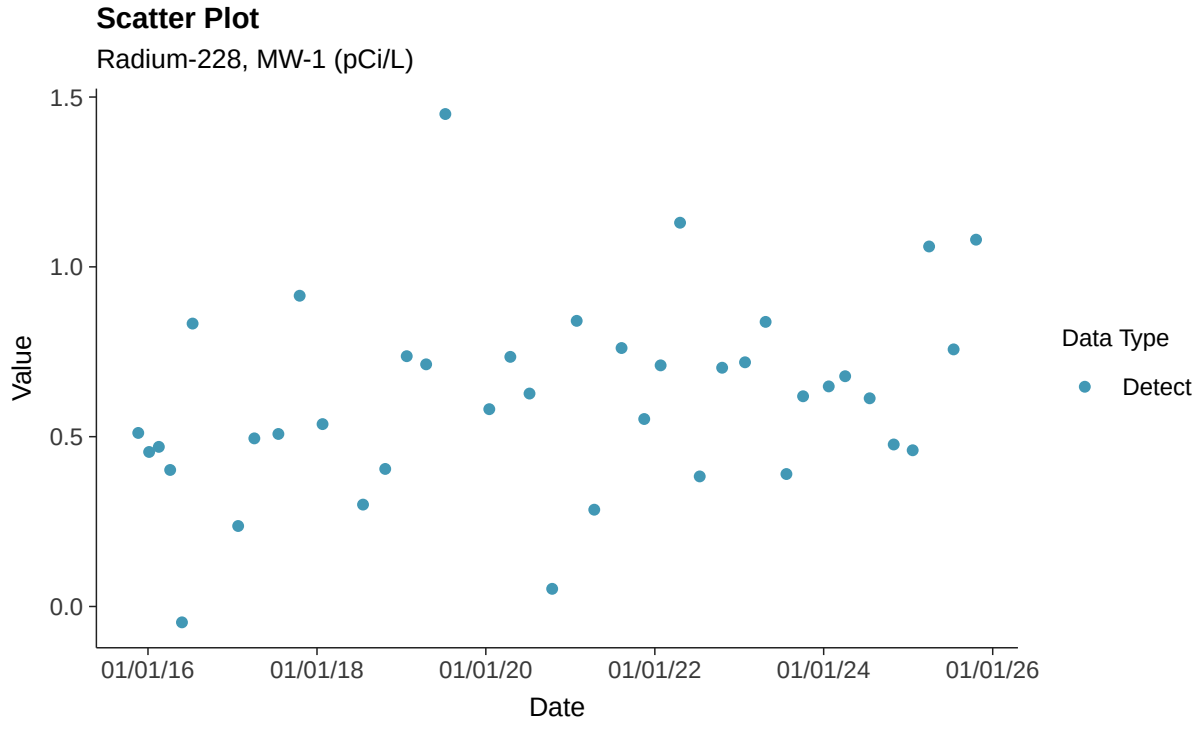
Trend Regression: Piecewise Linear-Linear-Linear

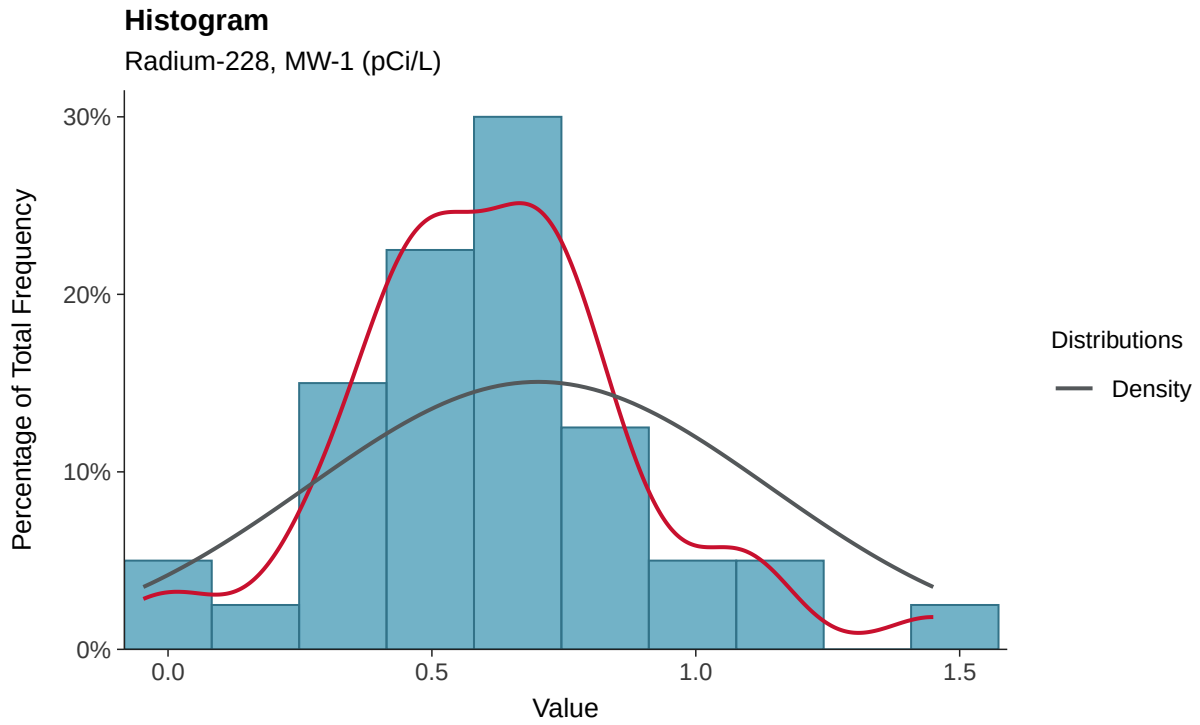
Radium-226, MW-1 (pCi/L)



App. IV: Radium-228, MW-1

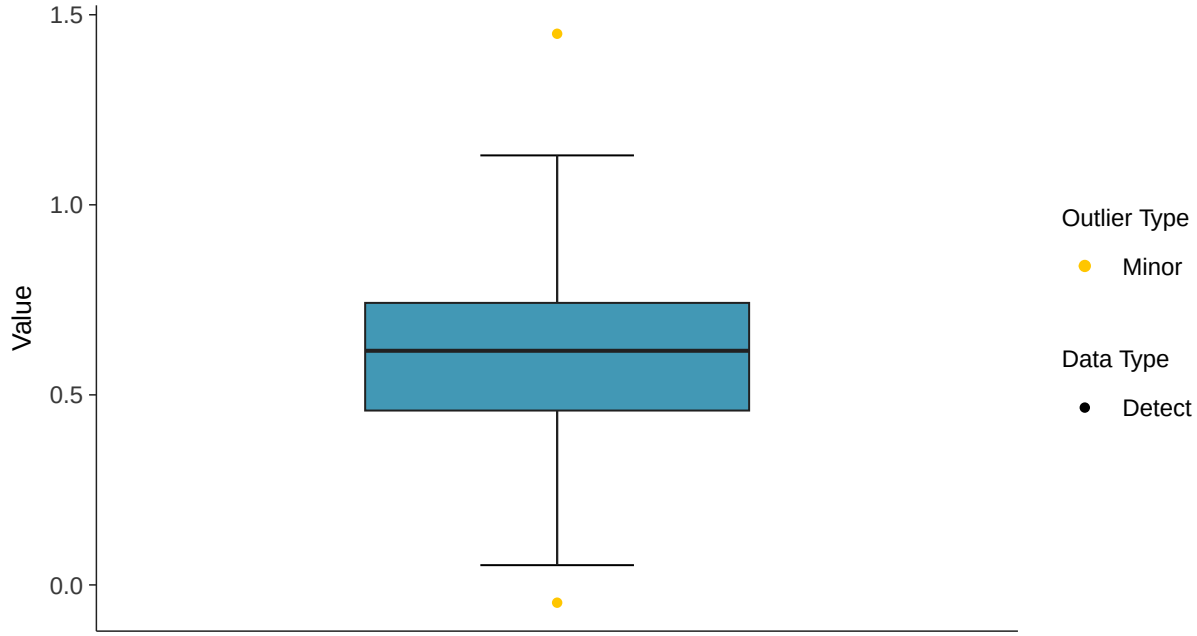
ID: 01_3_120





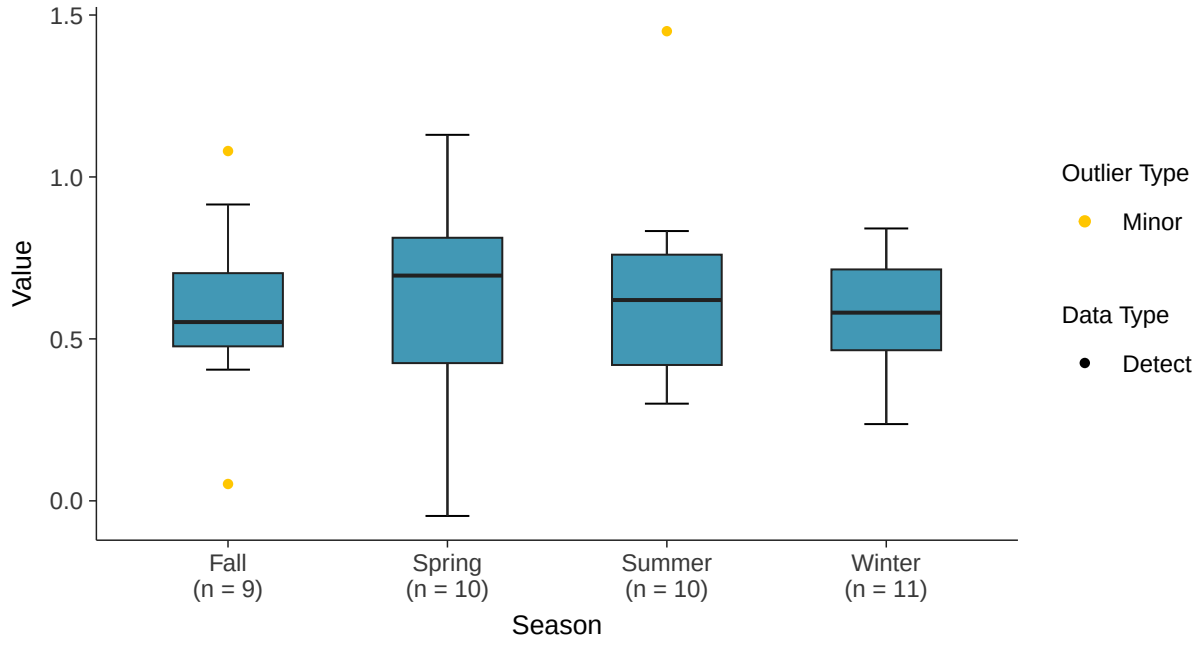
Boxplot

Radium-228, MW-1 (pCi/L)



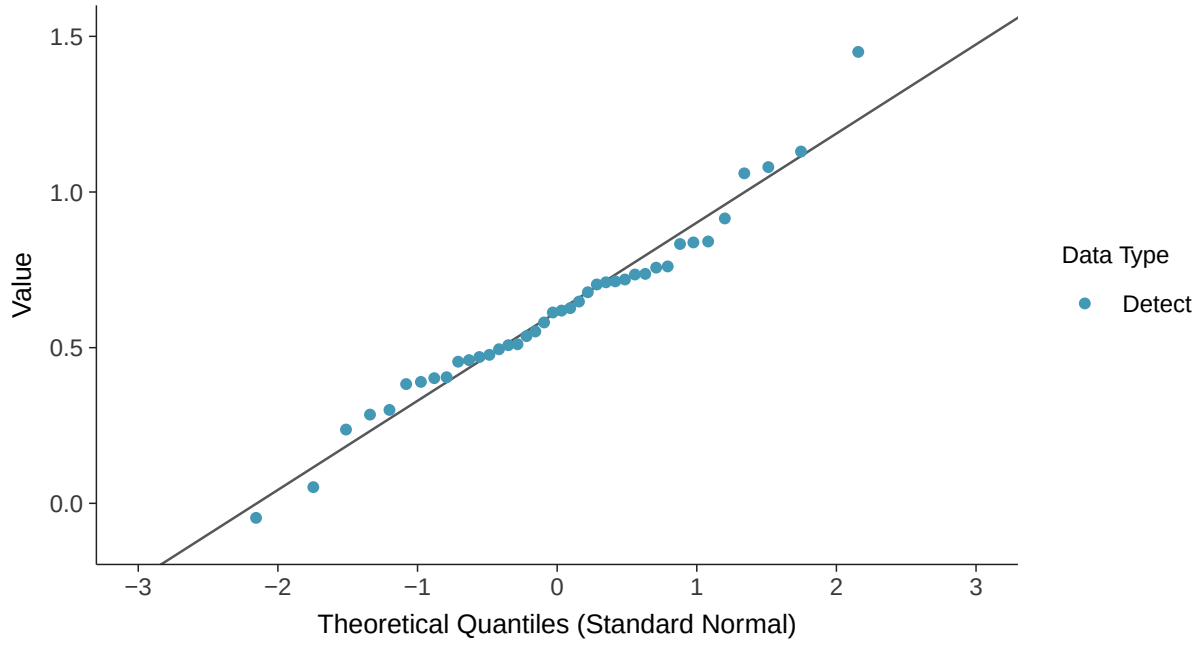
Boxplot by Season

Radium-228, MW-1 (pCi/L)



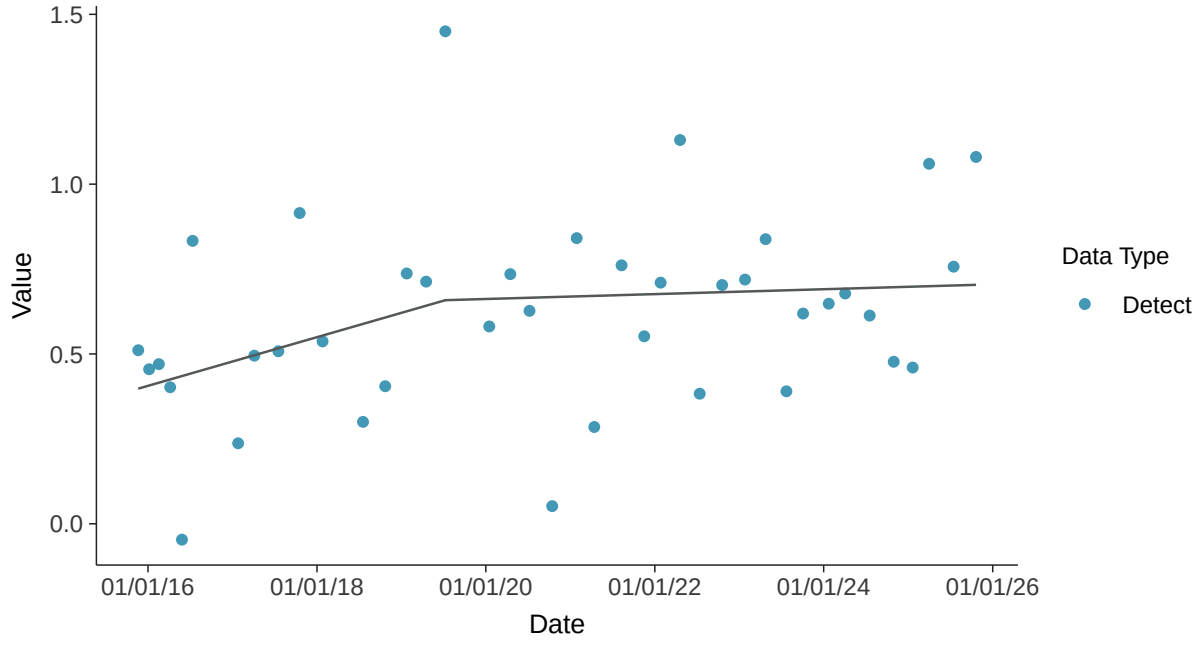
Normal Q-Q plot

Radium-228, MW-1 (pCi/L)



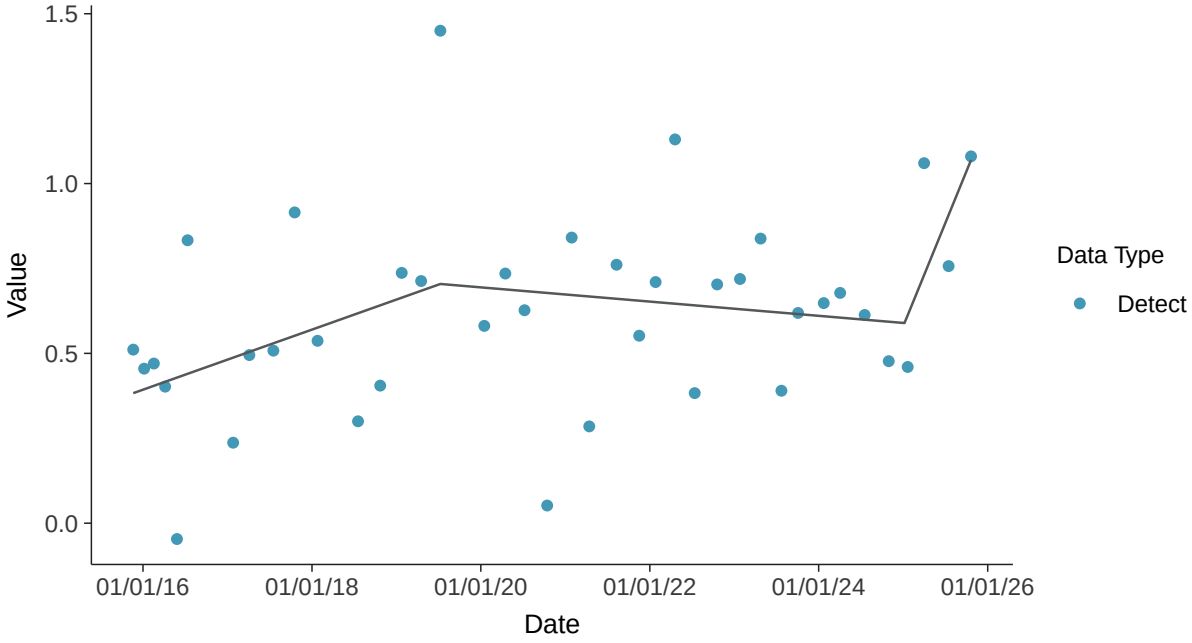
Trend Regression: Piecewise Linear-Linear

Radium-228, MW-1 (pCi/L)



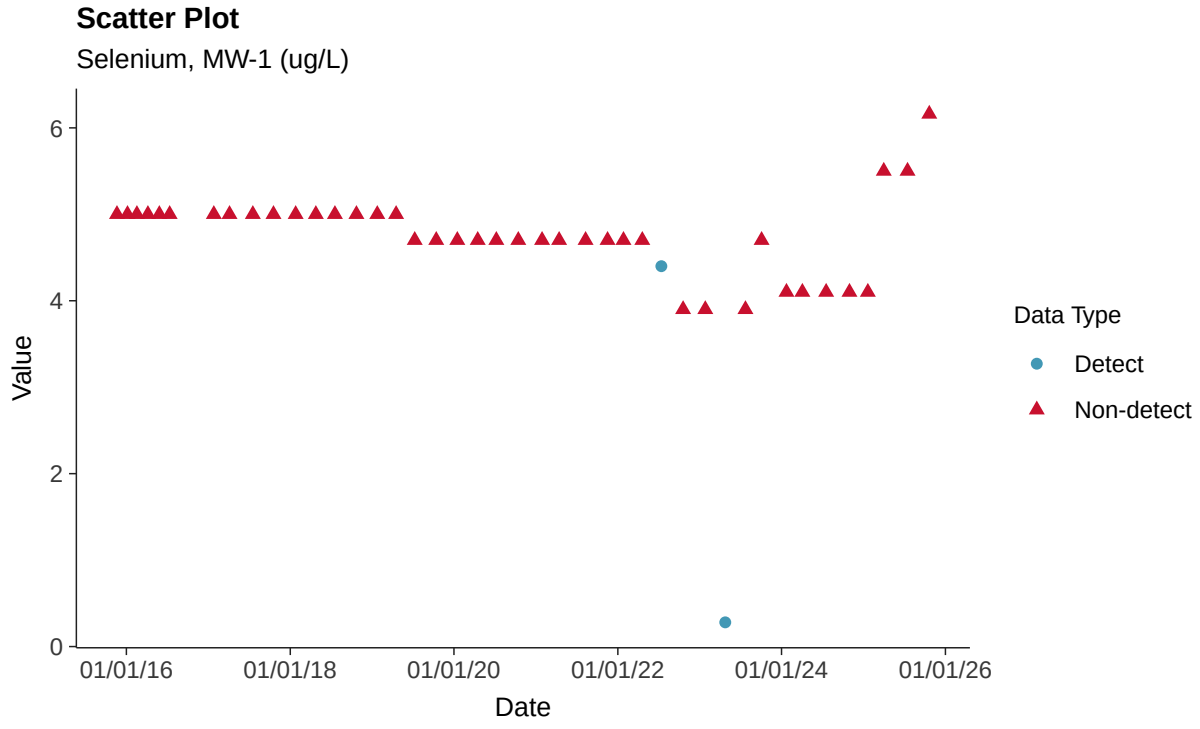
Trend Regression: Piecewise Linear-Linear-Linear

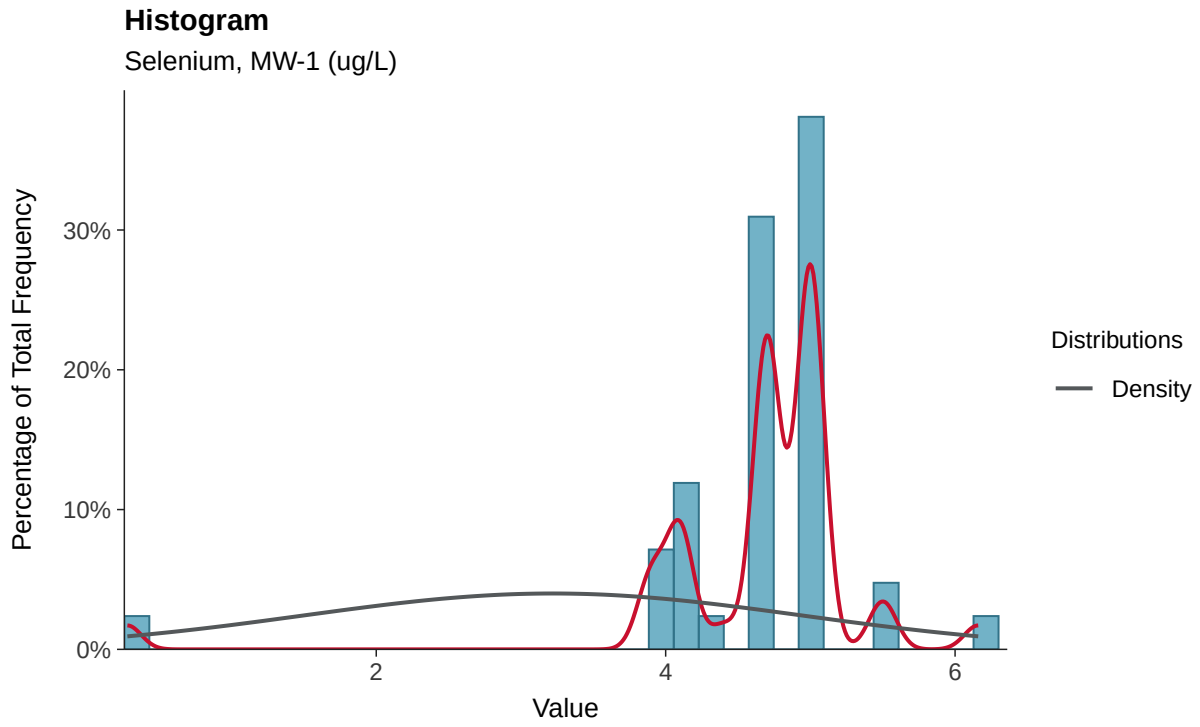
Radium-228, MW-1 (pCi/L)



App. IV: Selenium, MW-1

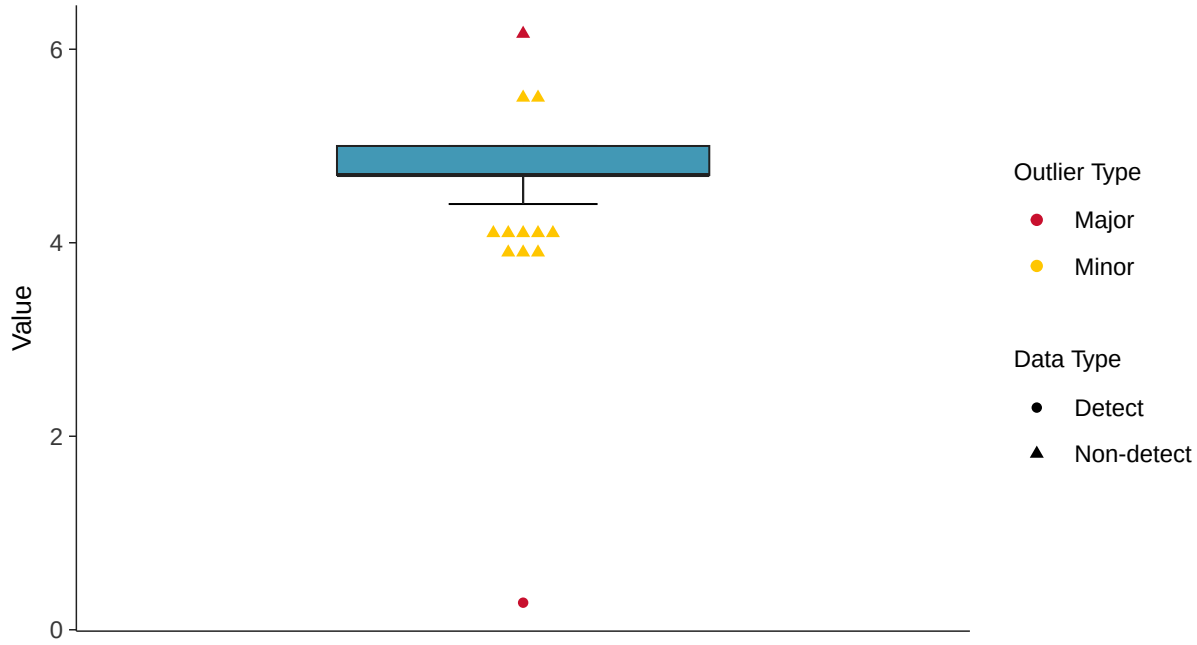
ID: 01_3_121





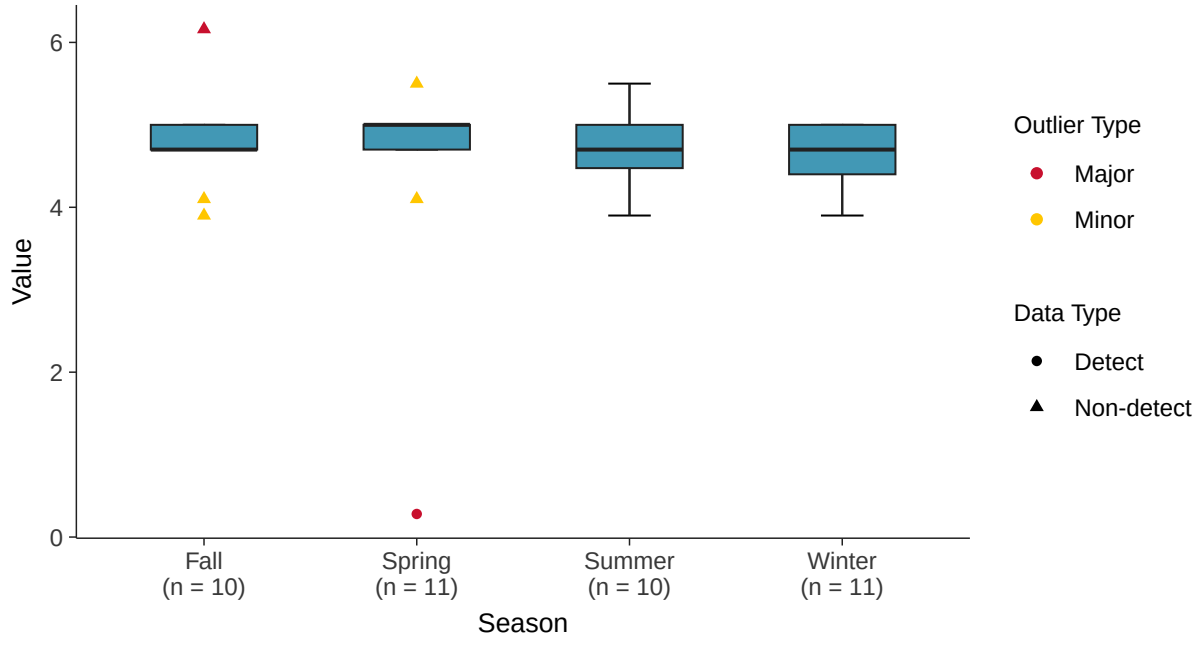
Boxplot

Selenium, MW-1 (ug/L)



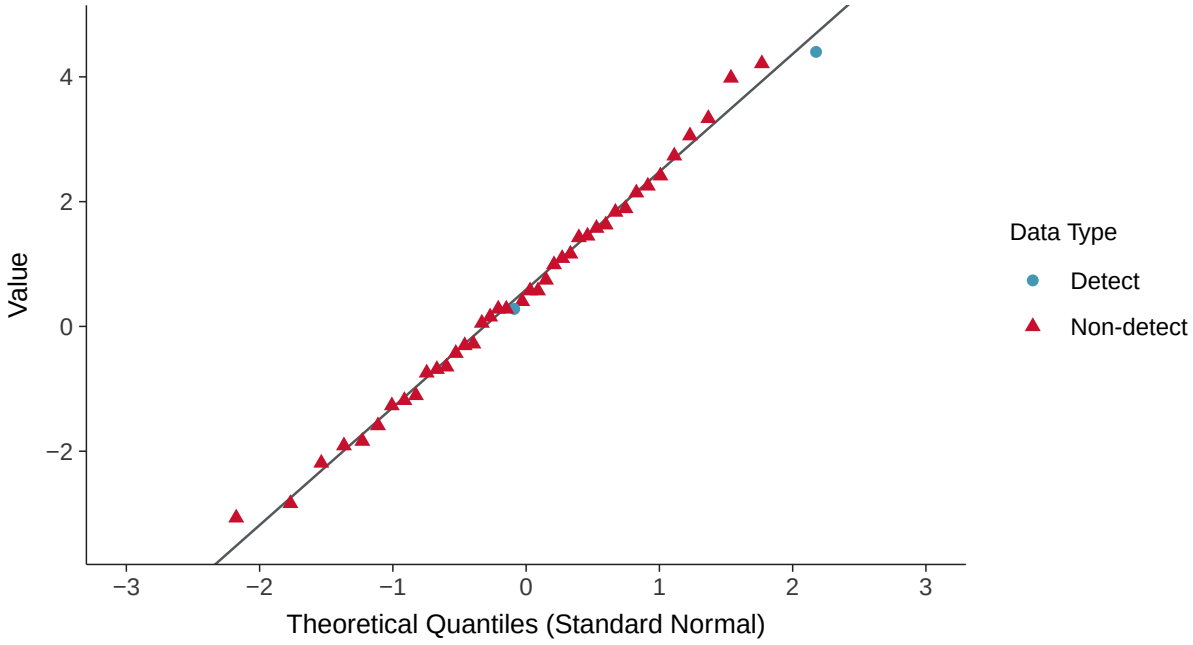
Boxplot by Season

Selenium, MW-1 (ug/L)



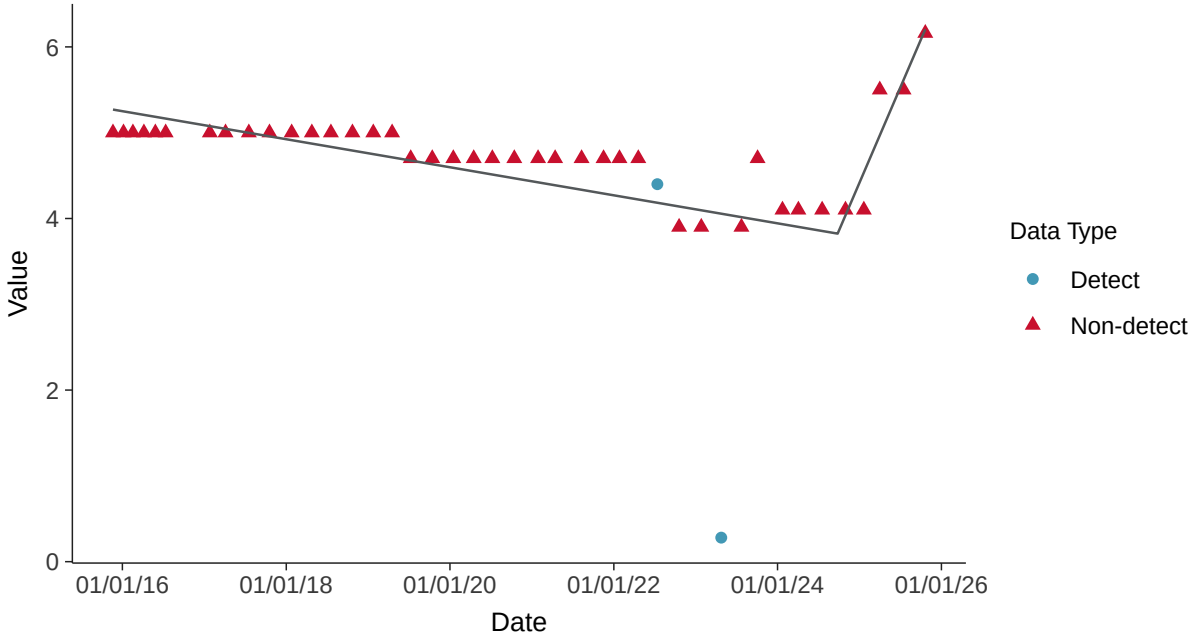
Normal Q-Q plot using ROS Imputed Estimates

Selenium, MW-1 (ug/L)



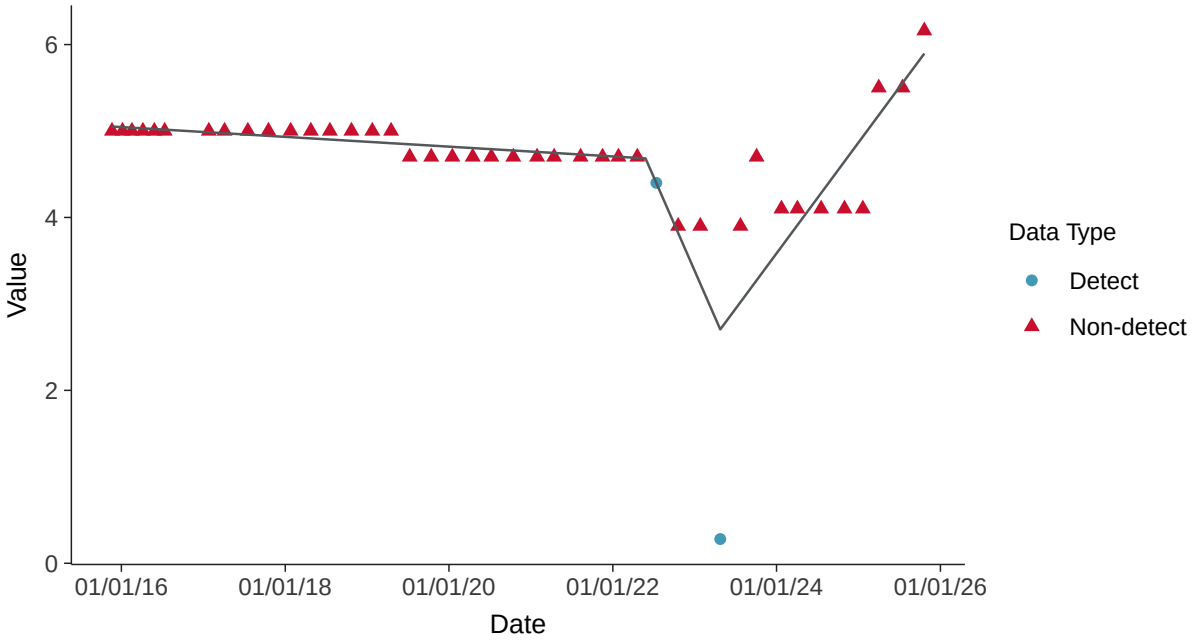
Trend Regression: Piecewise Linear-Linear

Selenium, MW-1 (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Selenium, MW-1 (ug/L)

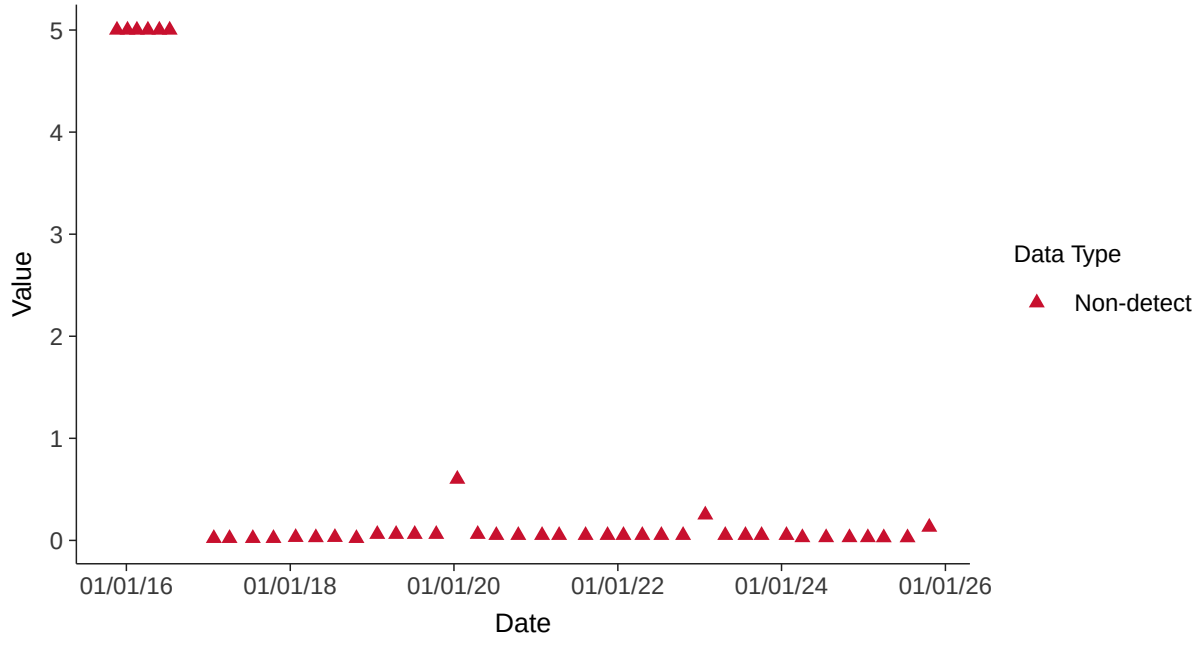


App. IV: Thallium, MW-1

ID: 01_3_124

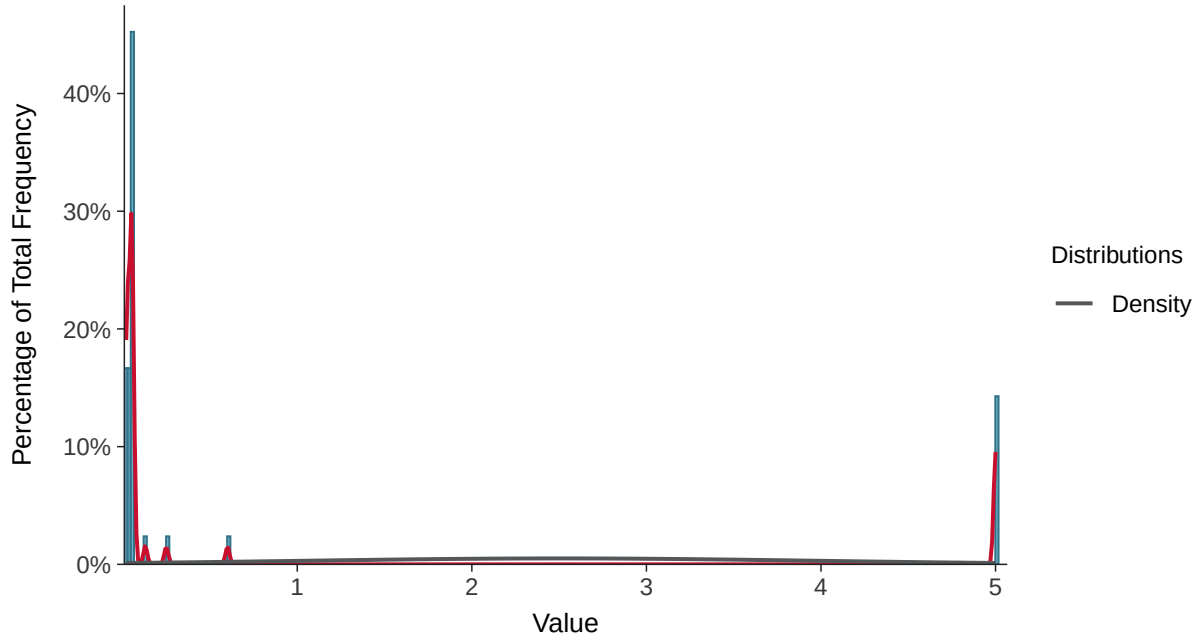
Scatter Plot

Thallium, MW-1 (ug/L)



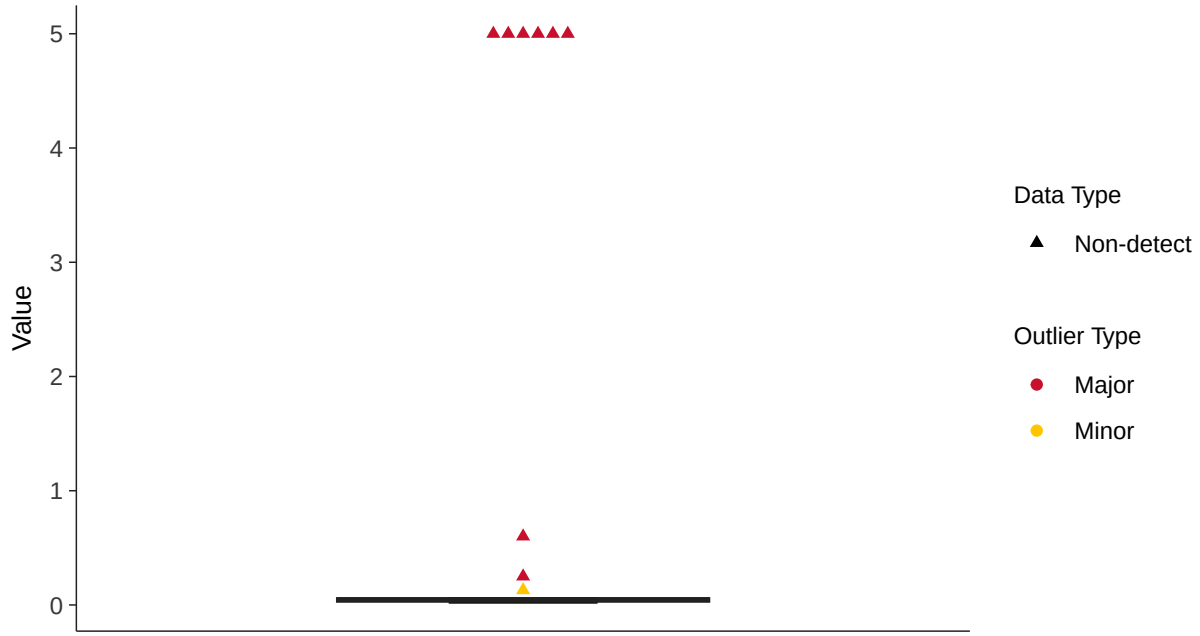
Histogram

Thallium, MW-1 (ug/L)



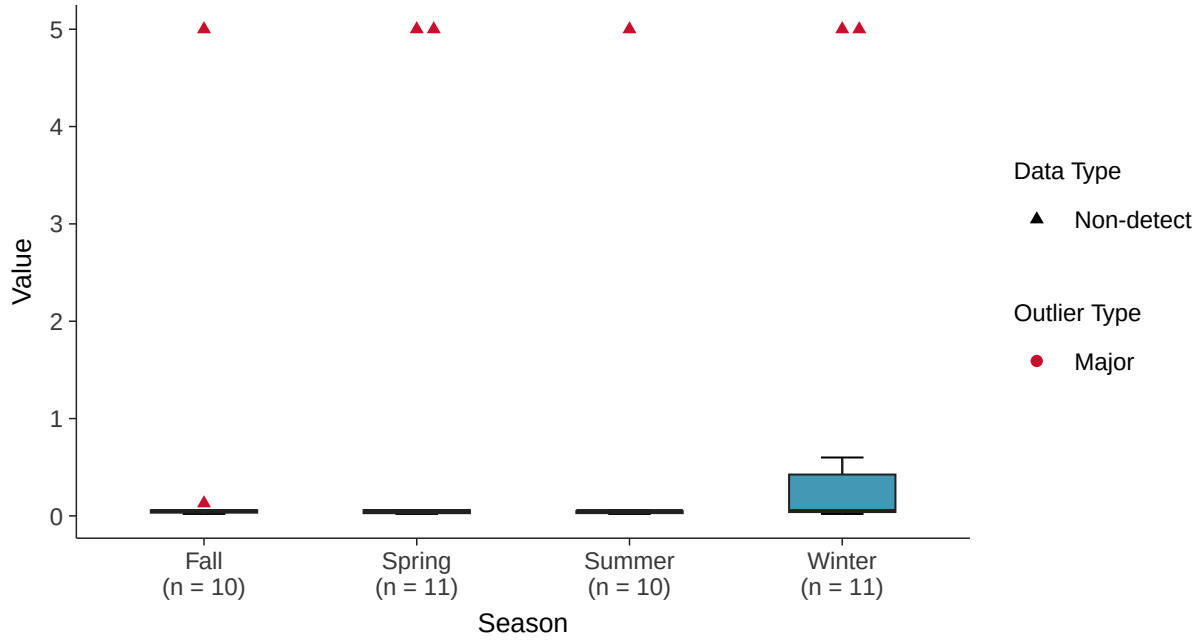
Boxplot

Thallium, MW-1 (ug/L)



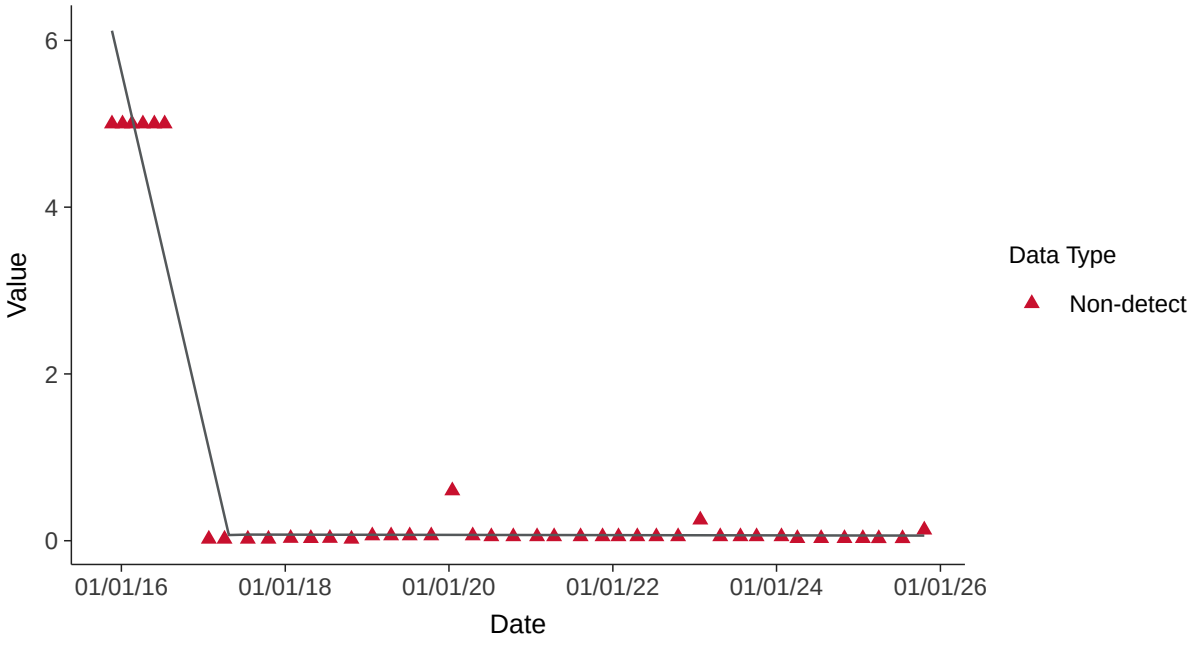
Boxplot by Season

Thallium, MW-1 (ug/L)



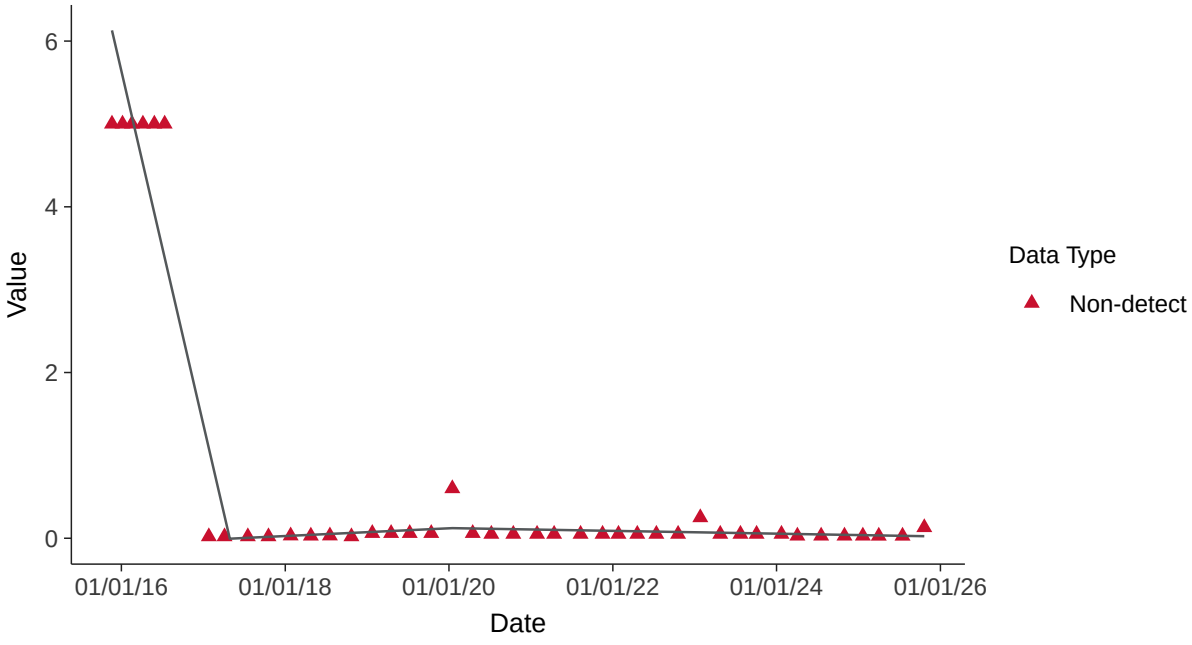
Trend Regression: Piecewise Linear-Linear

Thallium, MW-1 (ug/L)



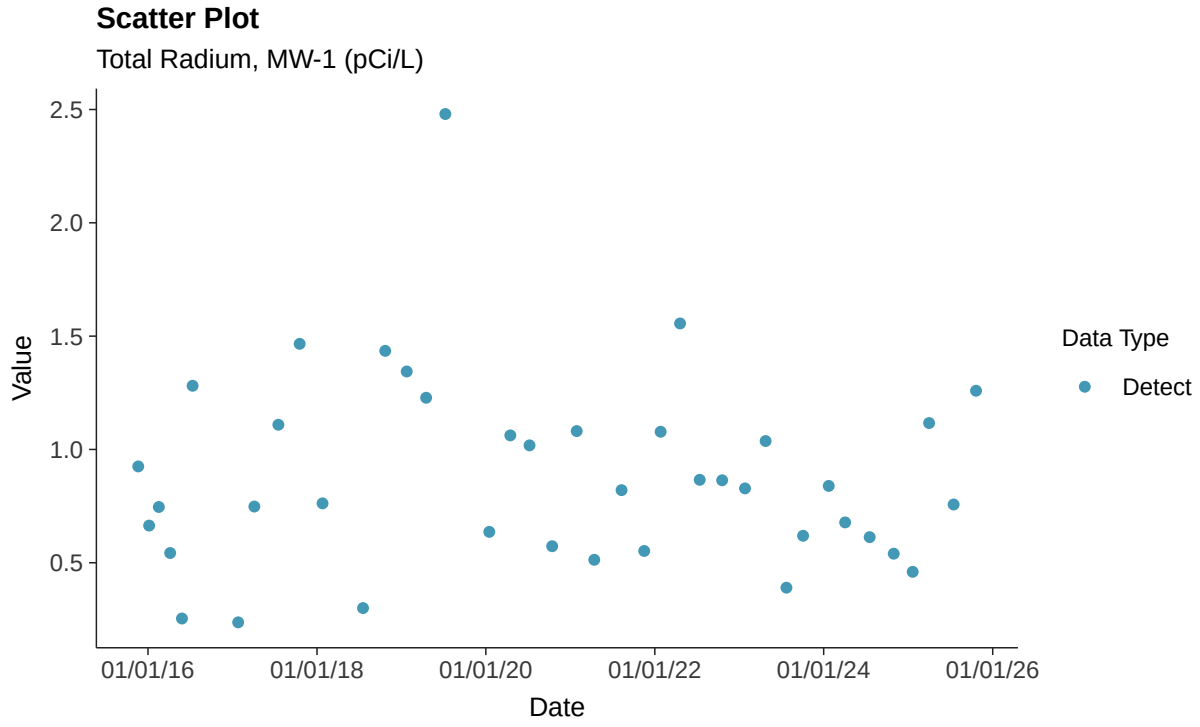
Trend Regression: Piecewise Linear-Linear-Linear

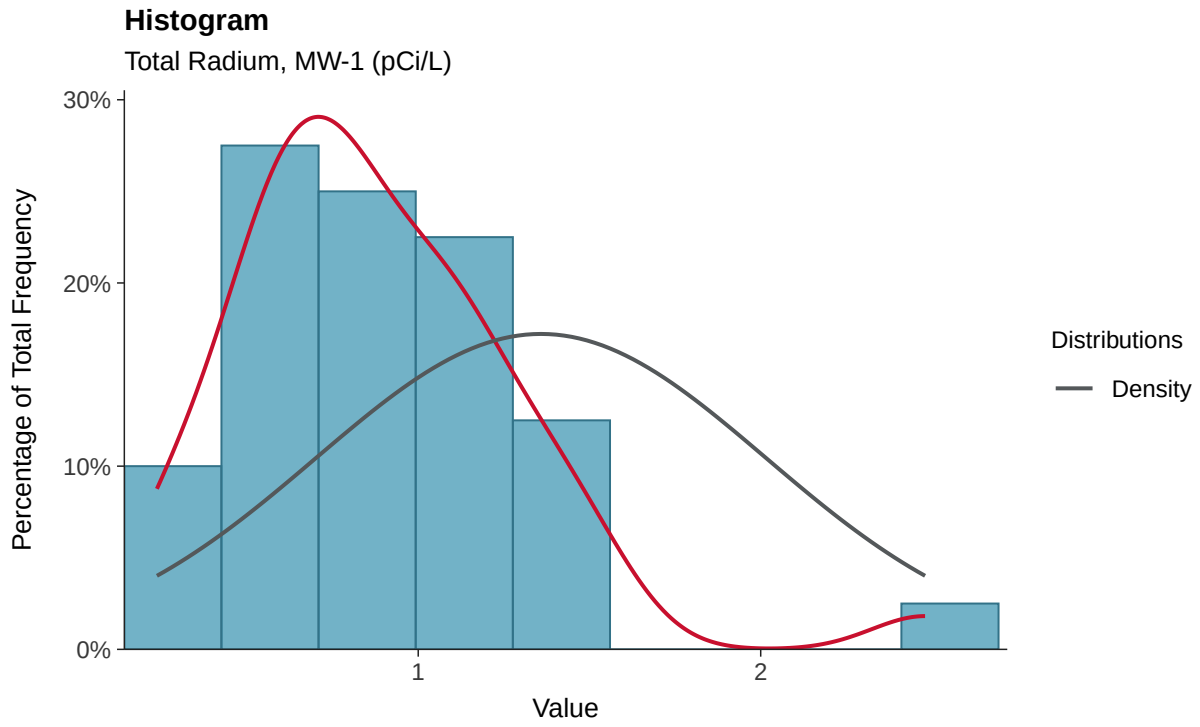
Thallium, MW-1 (ug/L)



App. IV: Total Radium, MW-1

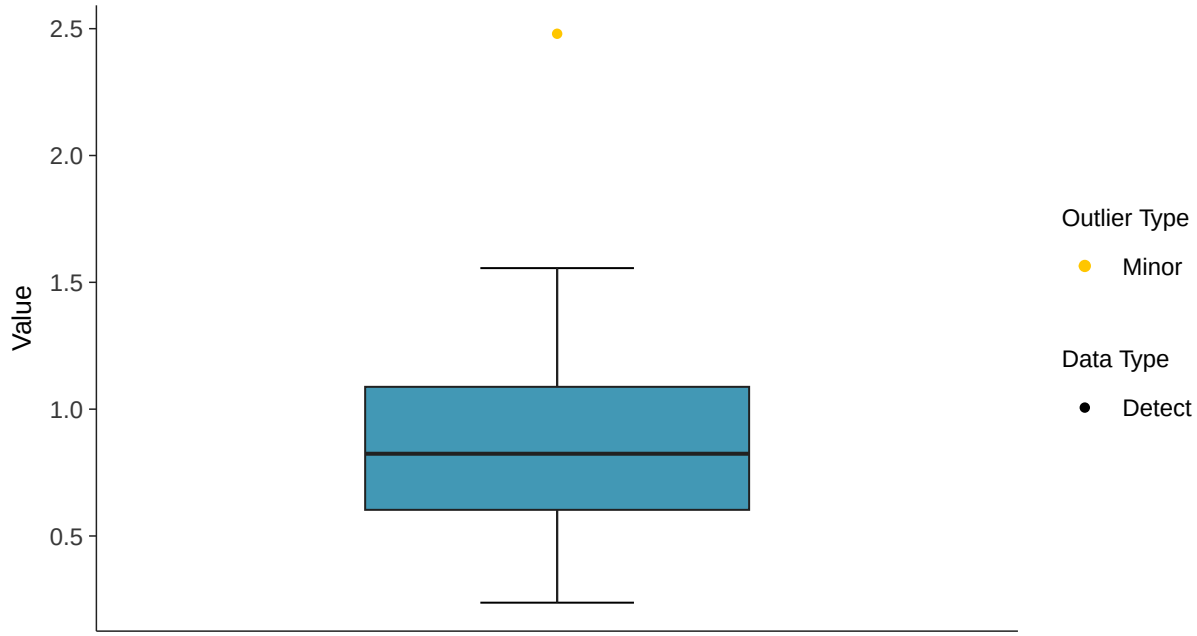
ID: 01_3_126





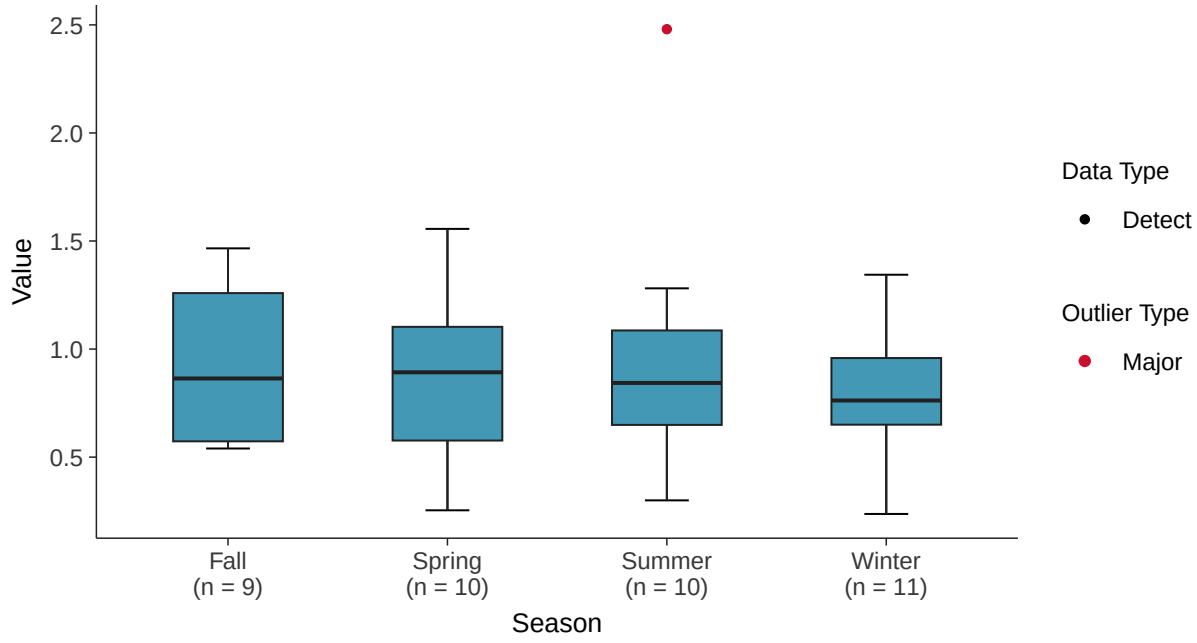
Boxplot

Total Radium, MW-1 (pCi/L)



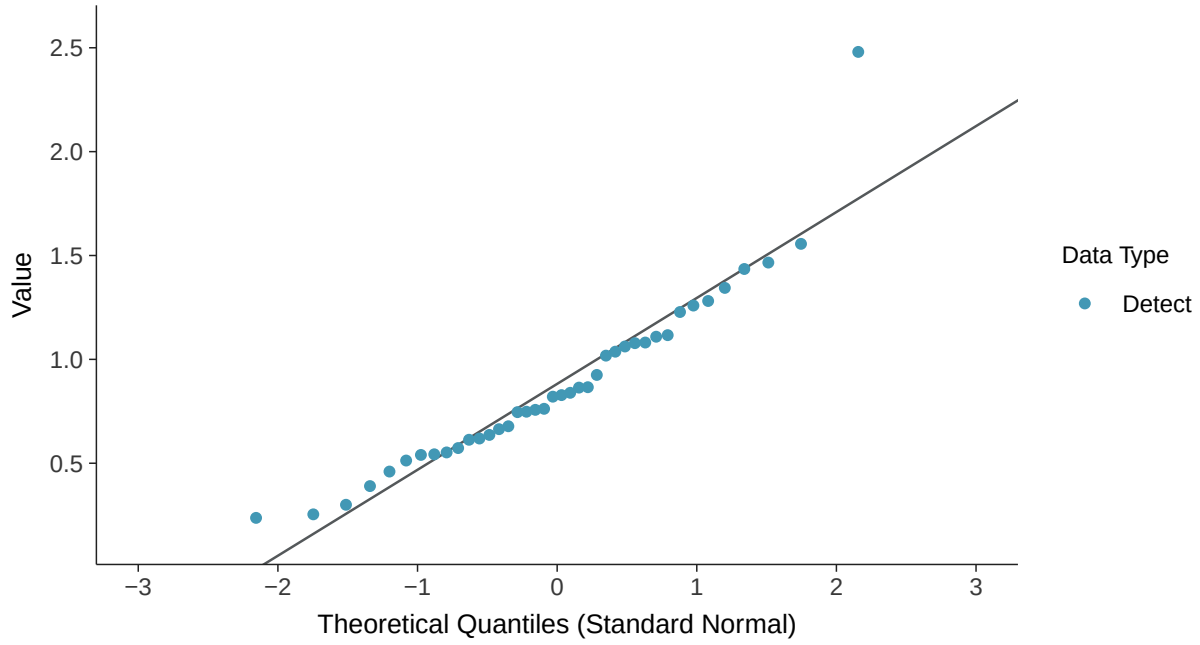
Boxplot by Season

Total Radium, MW-1 (pCi/L)



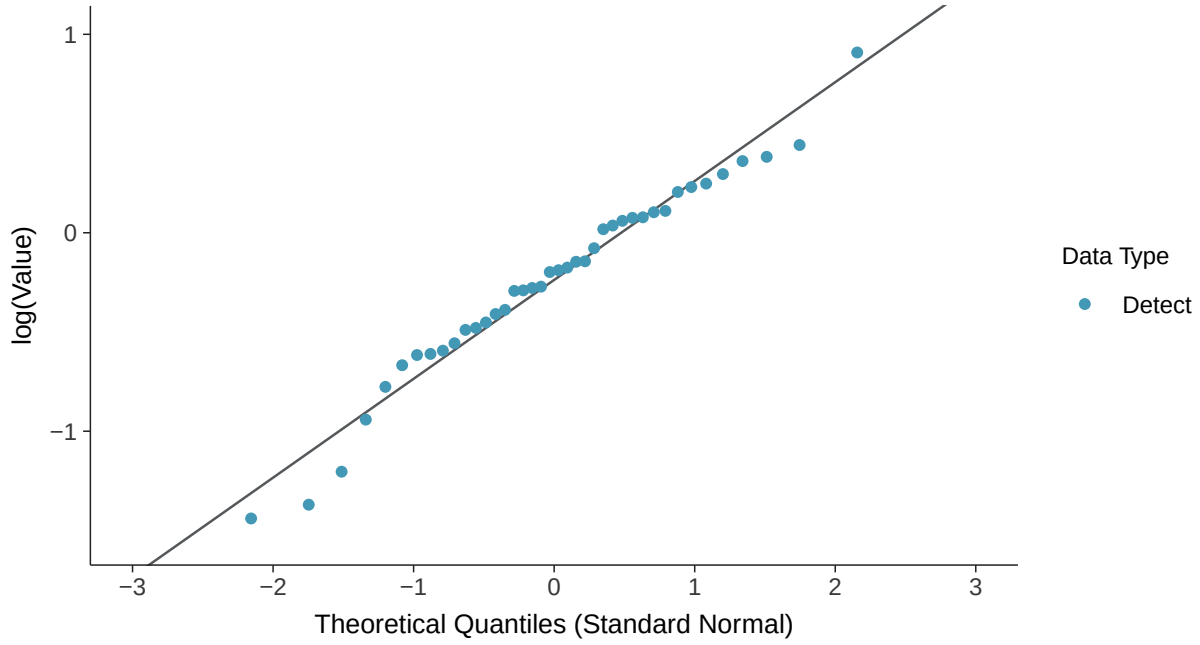
Normal Q-Q plot

Total Radium, MW-1 (pCi/L)



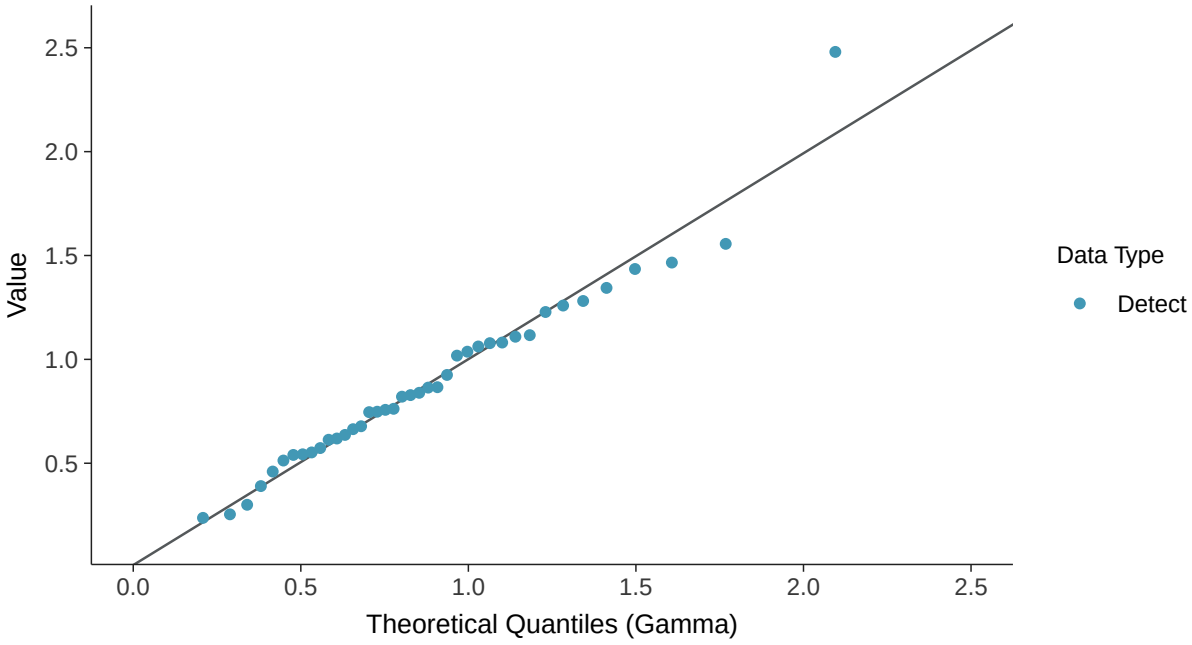
Lognormal Q-Q plot

Total Radium, MW-1 (pCi/L)



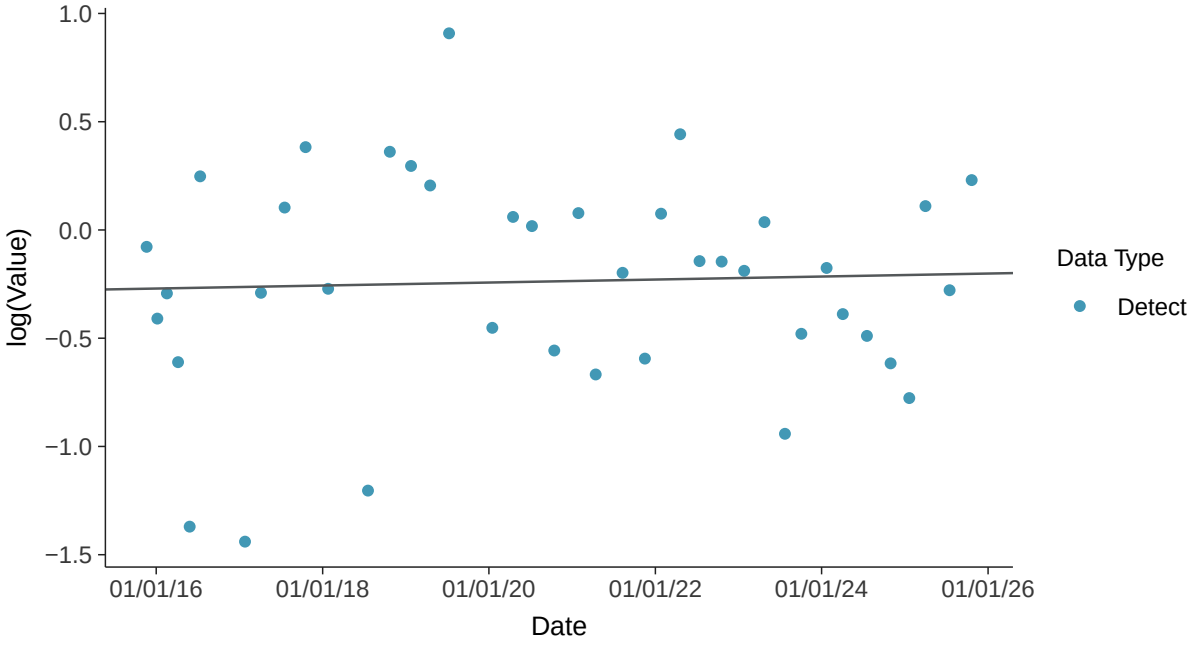
Gamma Q-Q plot

Total Radium, MW-1 (pCi/L)



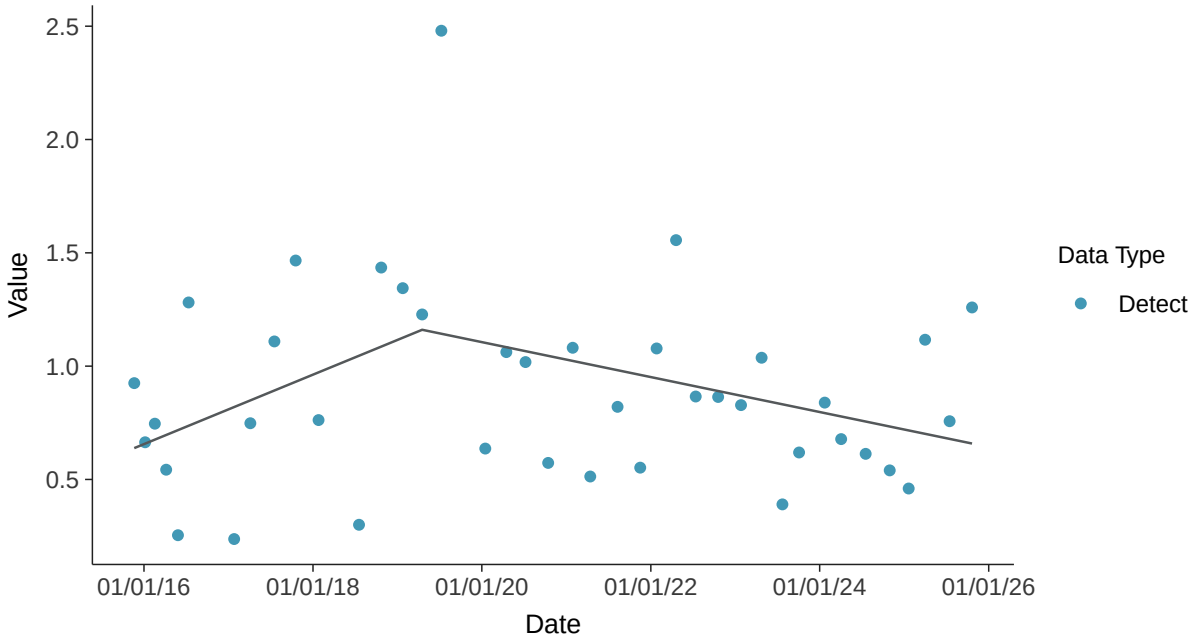
Trend Regression: Lognormal MLE

Total Radium, MW-1 (pCi/L)



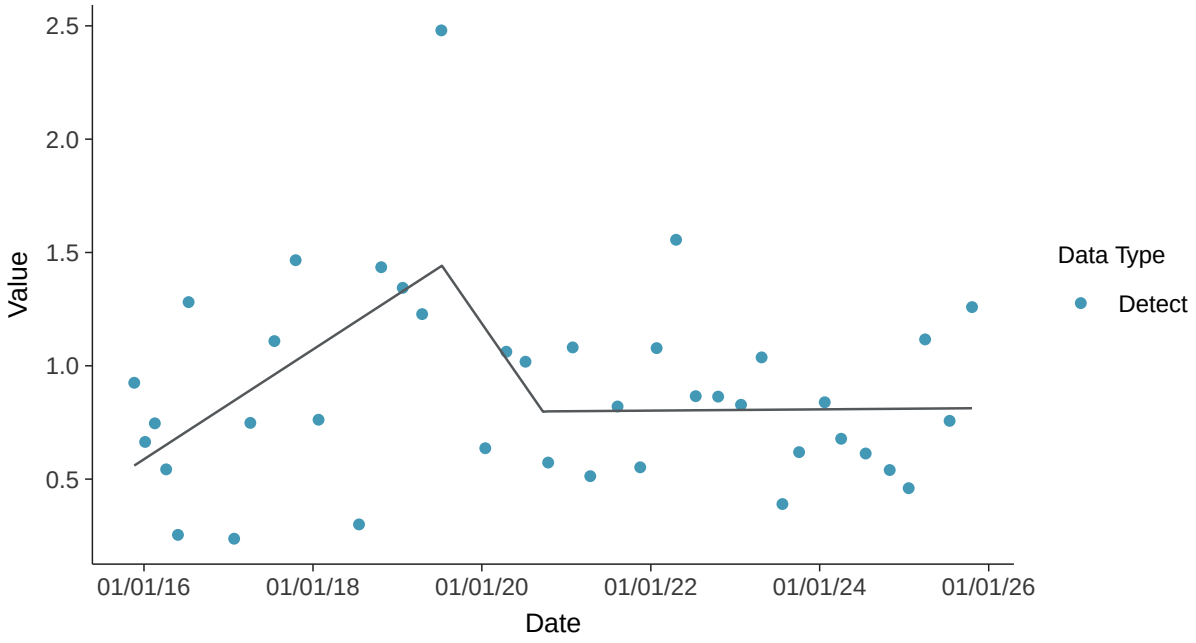
Trend Regression: Piecewise Linear-Linear

Total Radium, MW-1 (pCi/L)



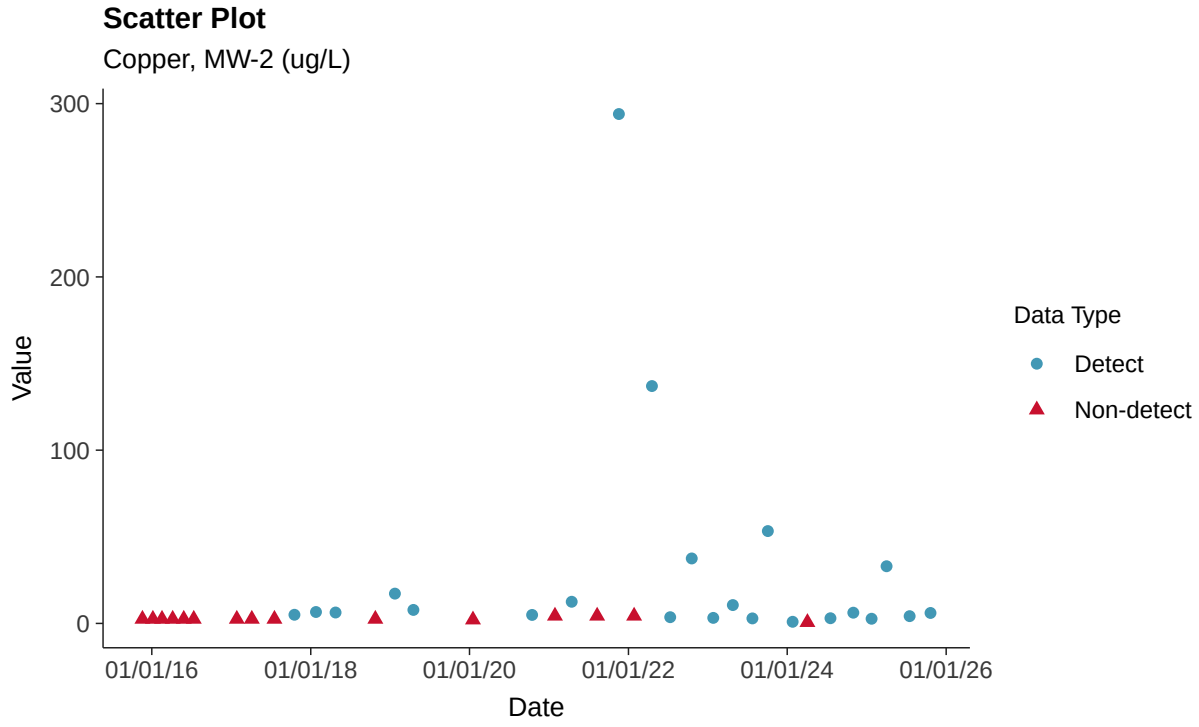
Trend Regression: Piecewise Linear-Linear-Linear

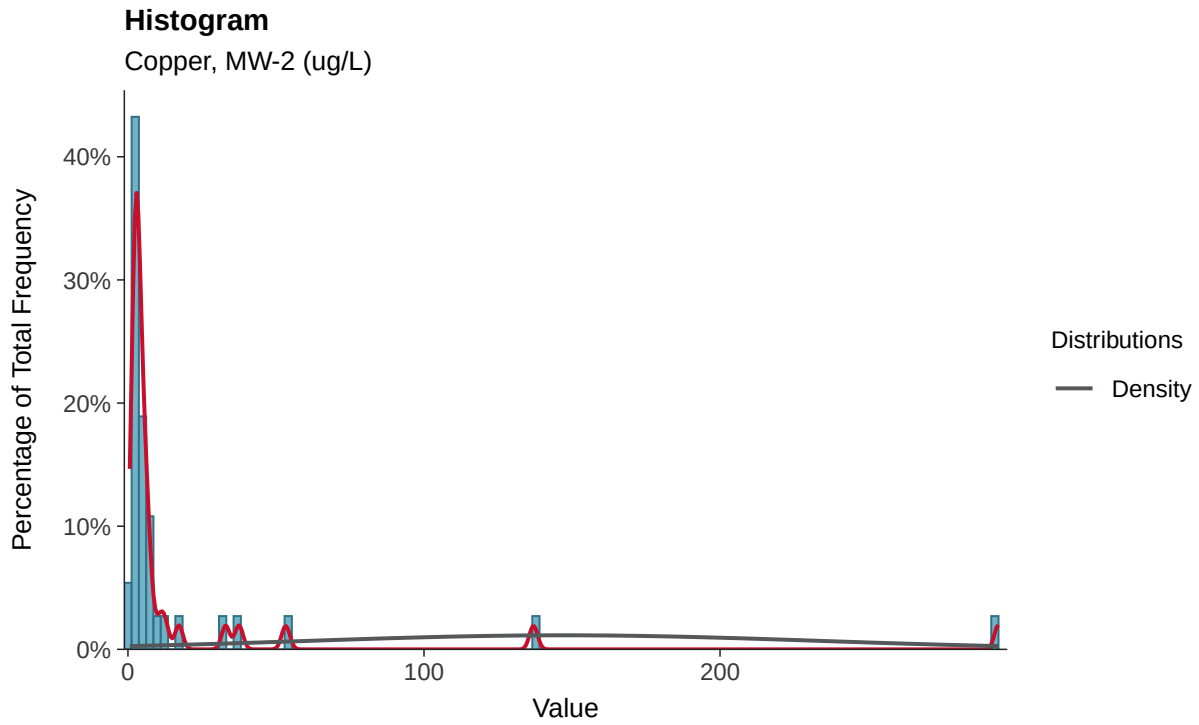
Total Radium, MW-1 (pCi/L)



App. I Metals: Copper, MW-2

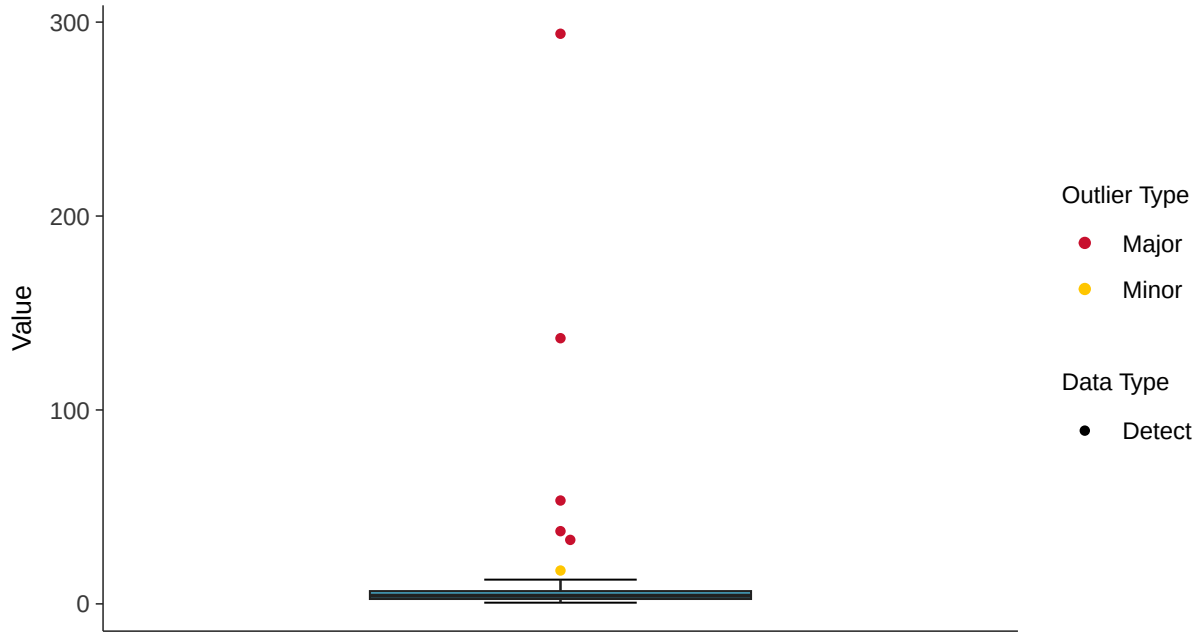
ID: 02_1_111





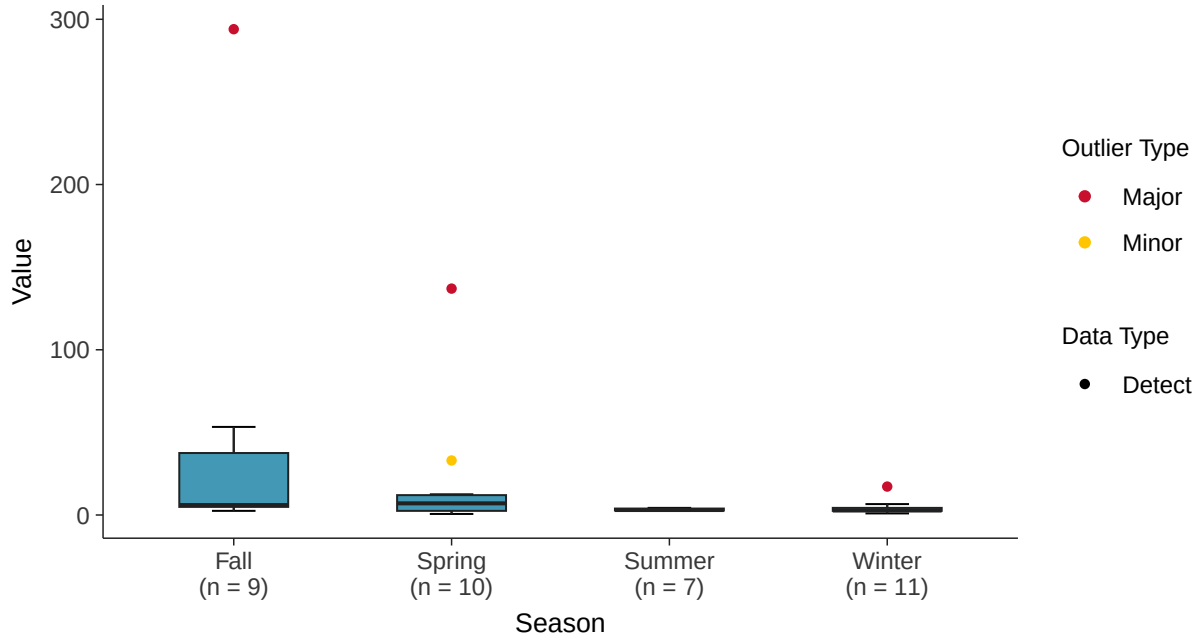
Boxplot

Copper, MW-2 (ug/L)



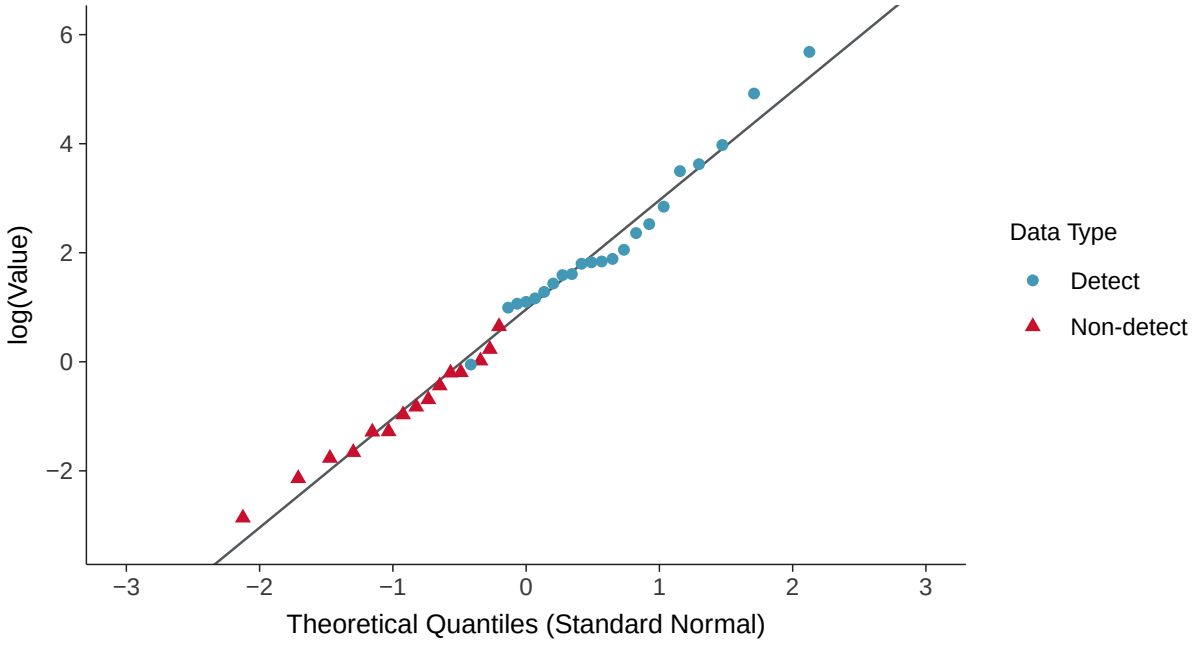
Boxplot by Season

Copper, MW-2 (ug/L)



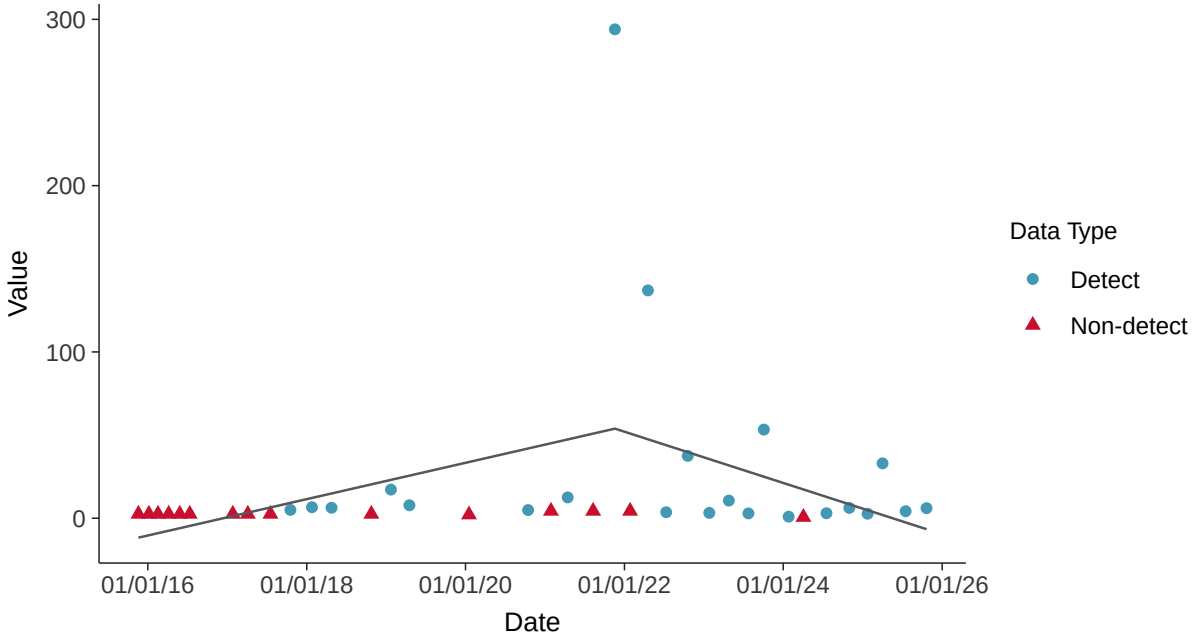
Lognormal Q-Q plot using ROS Imputed Estimates

Copper, MW-2 (ug/L)



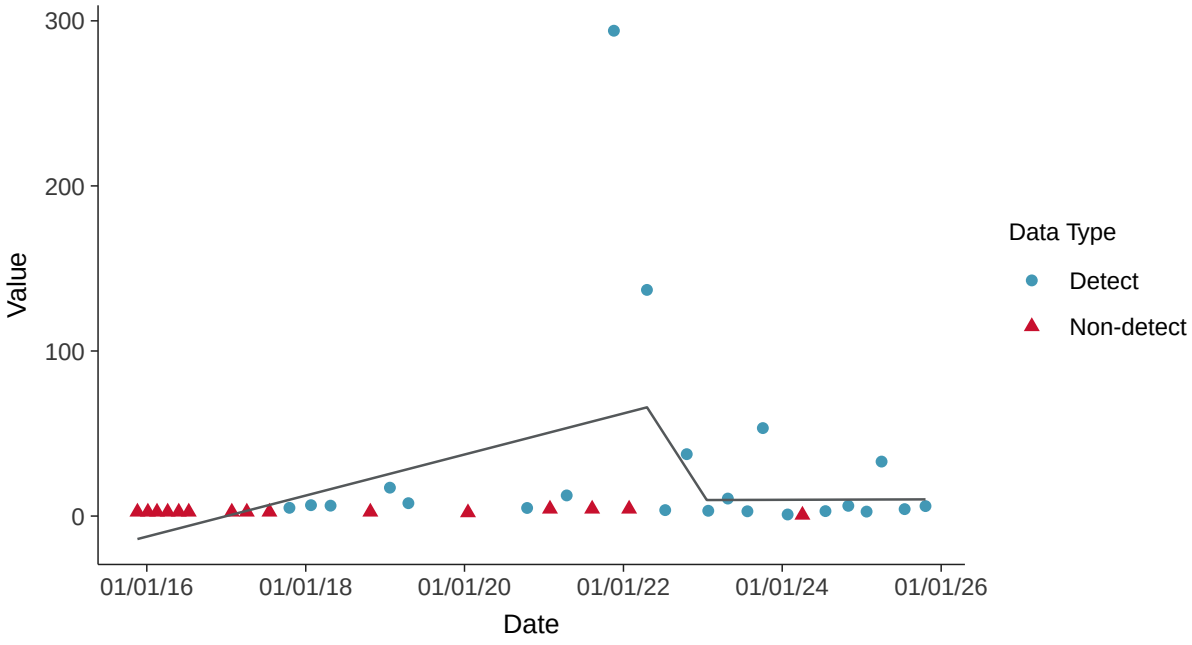
Trend Regression: Piecewise Linear-Linear

Copper, MW-2 (ug/L)



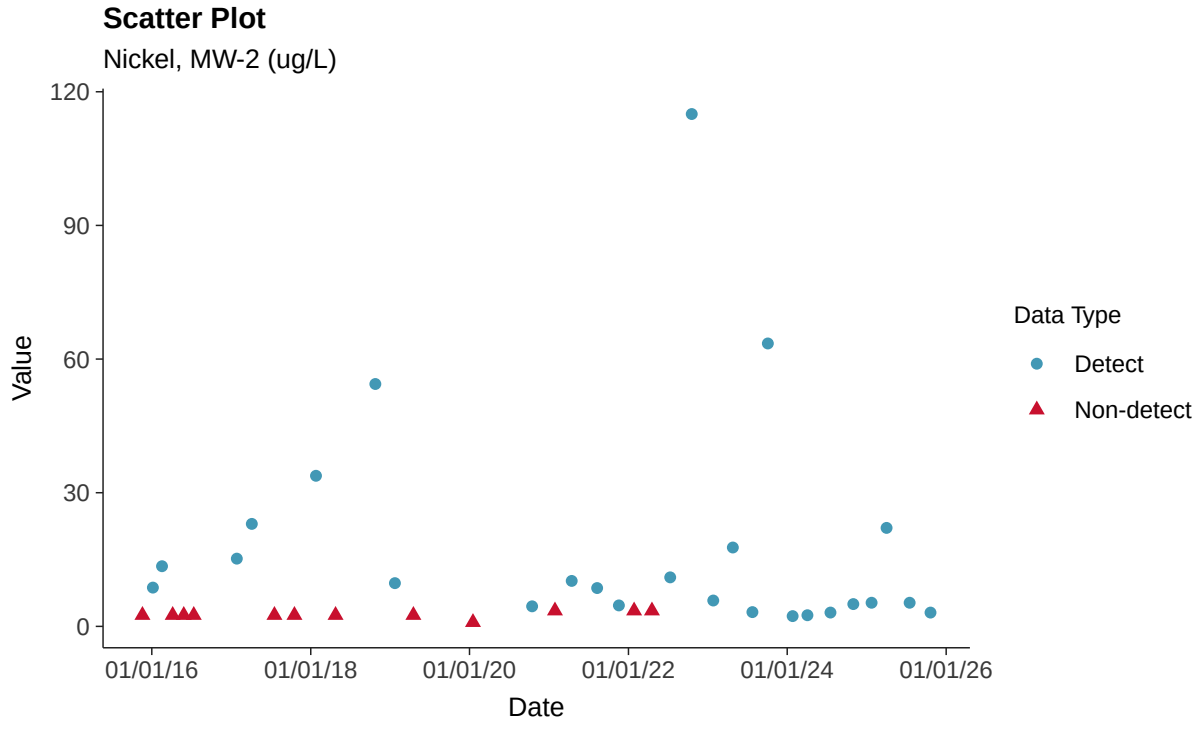
Trend Regression: Piecewise Linear-Linear-Linear

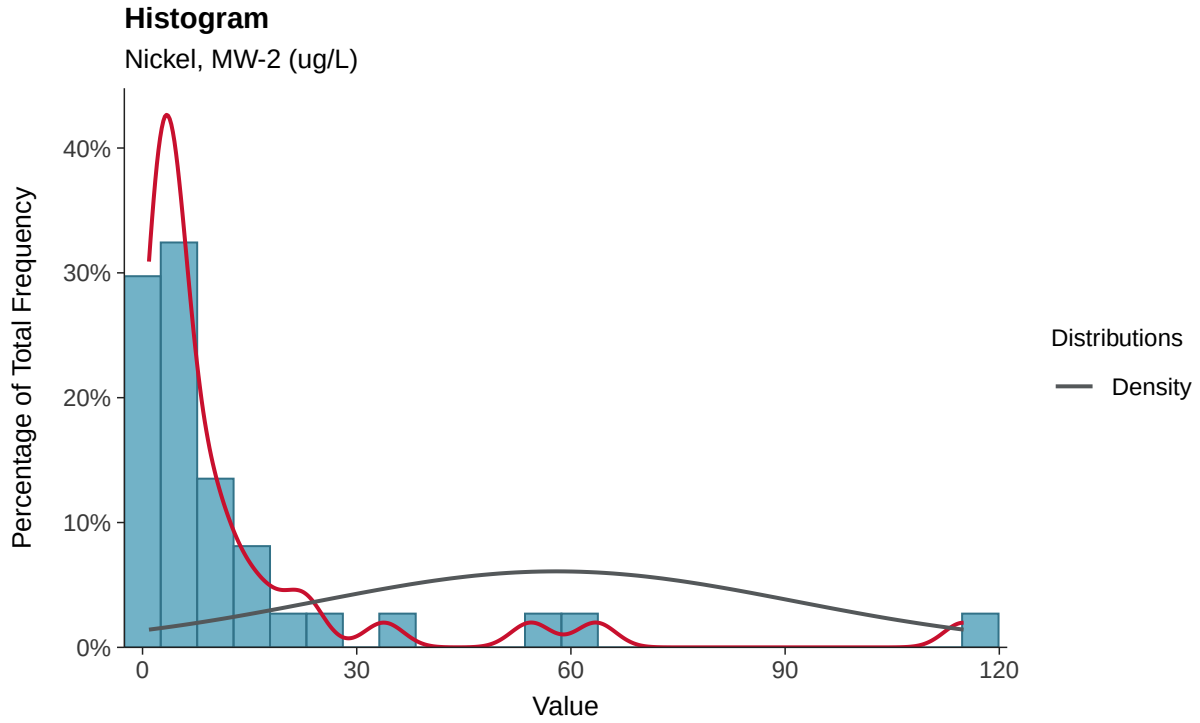
Copper, MW-2 (ug/L)



App. I Metals: Nickel, MW-2

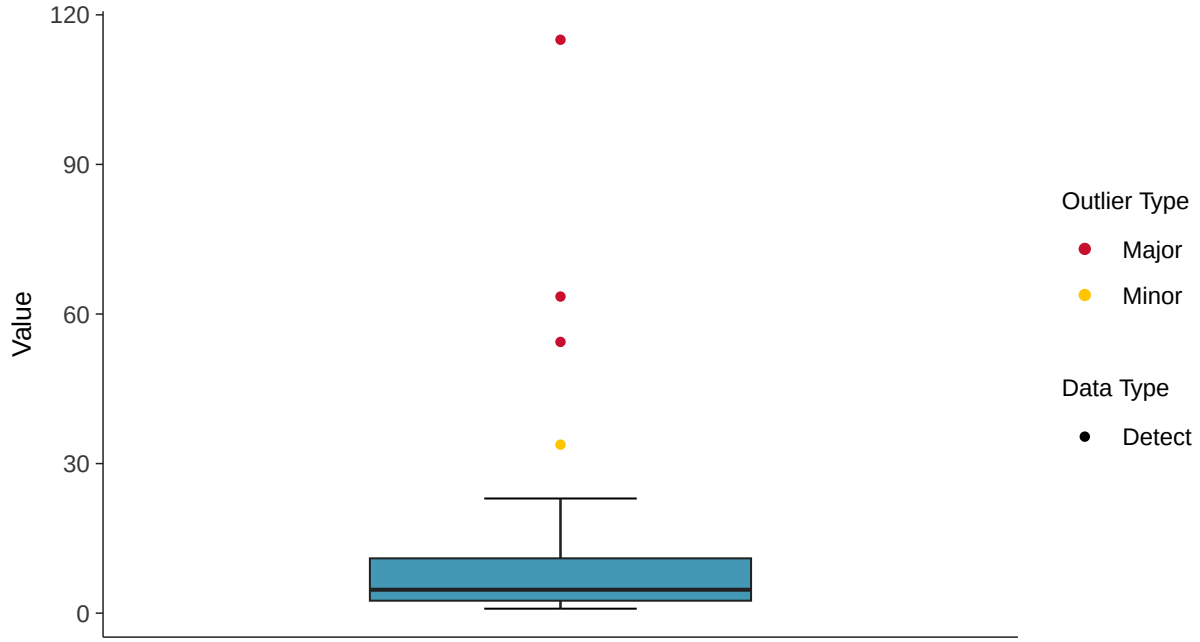
ID: 02_1_117





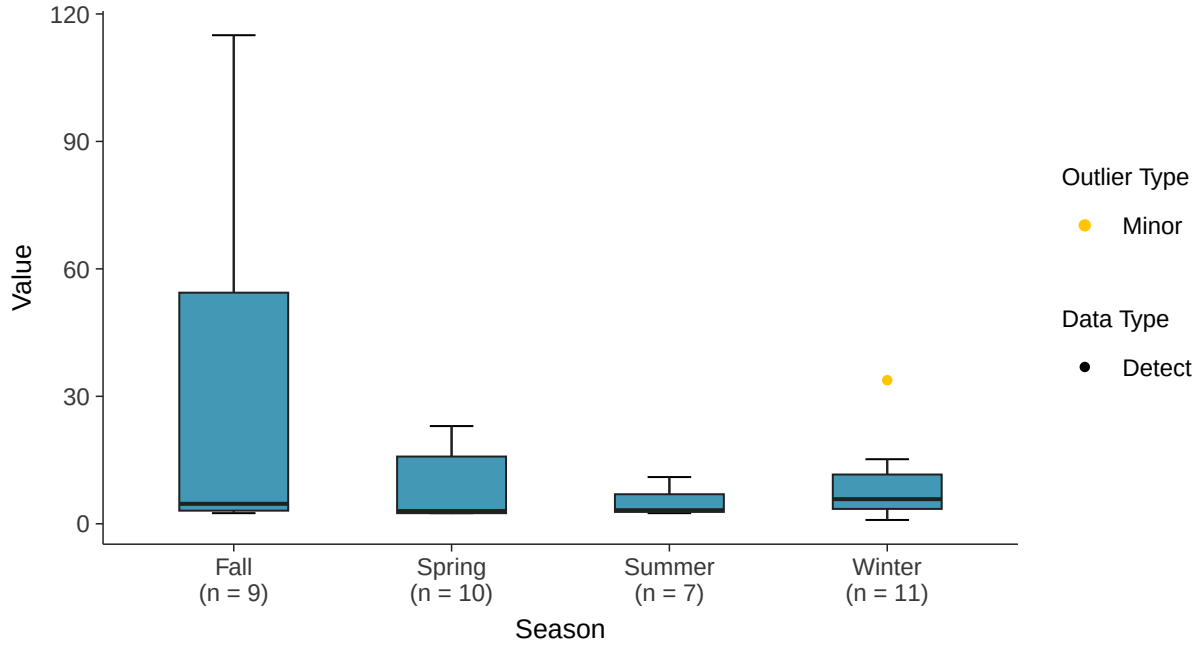
Boxplot

Nickel, MW-2 (ug/L)



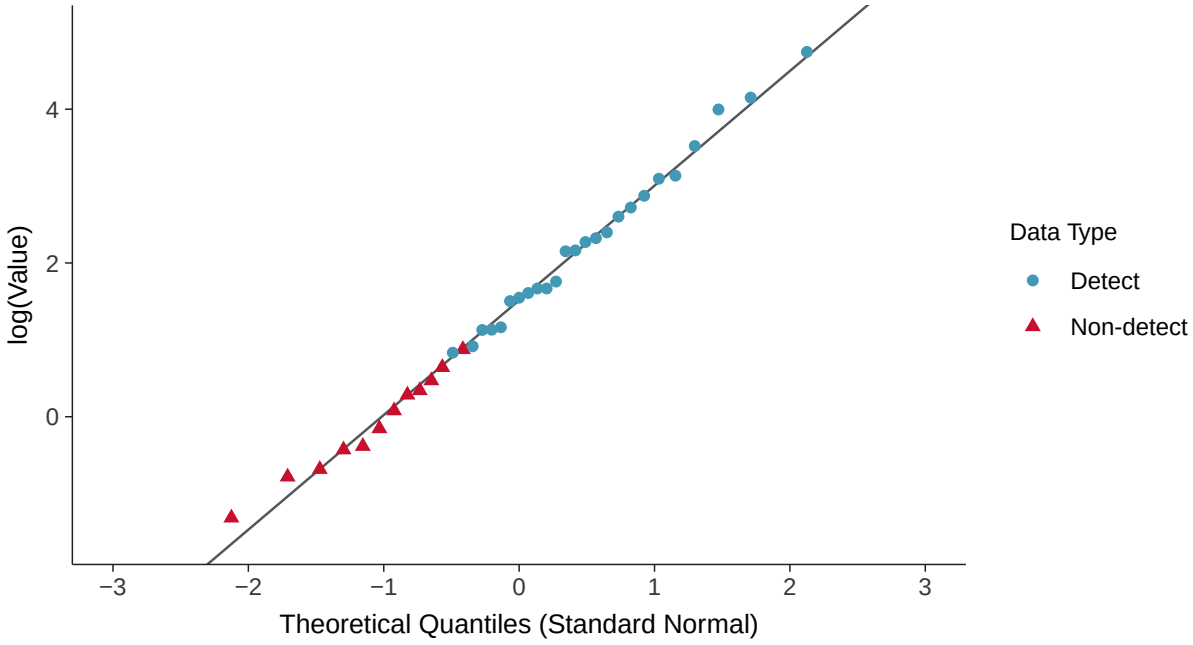
Boxplot by Season

Nickel, MW-2 (ug/L)



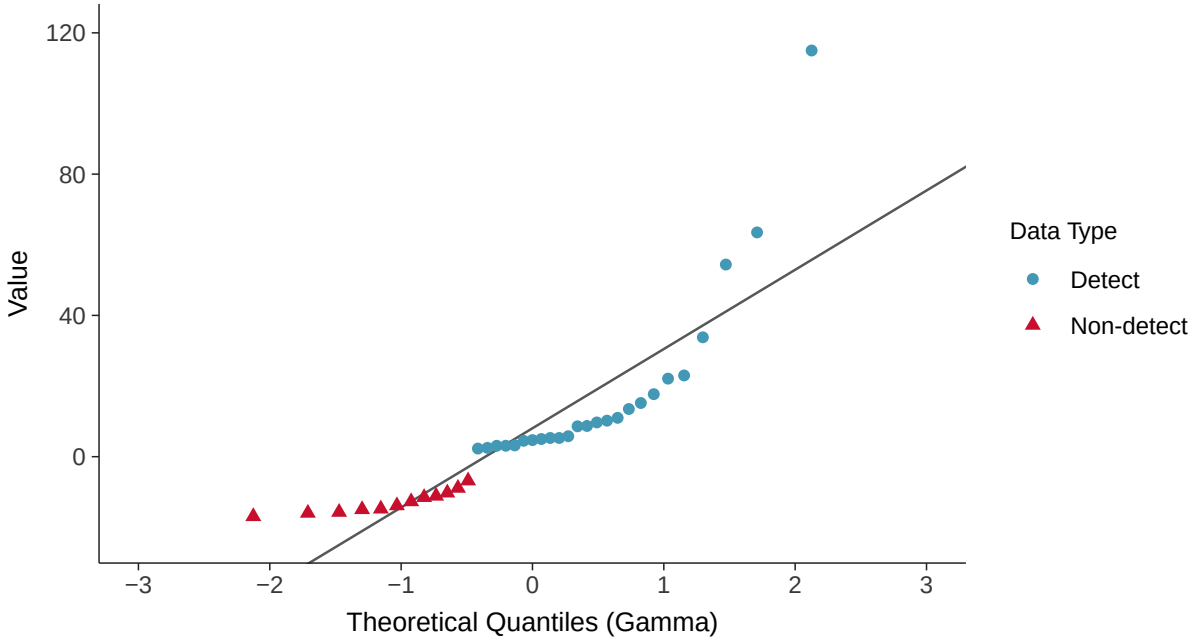
Lognormal Q-Q plot using ROS Imputed Estimates

Nickel, MW-2 (ug/L)



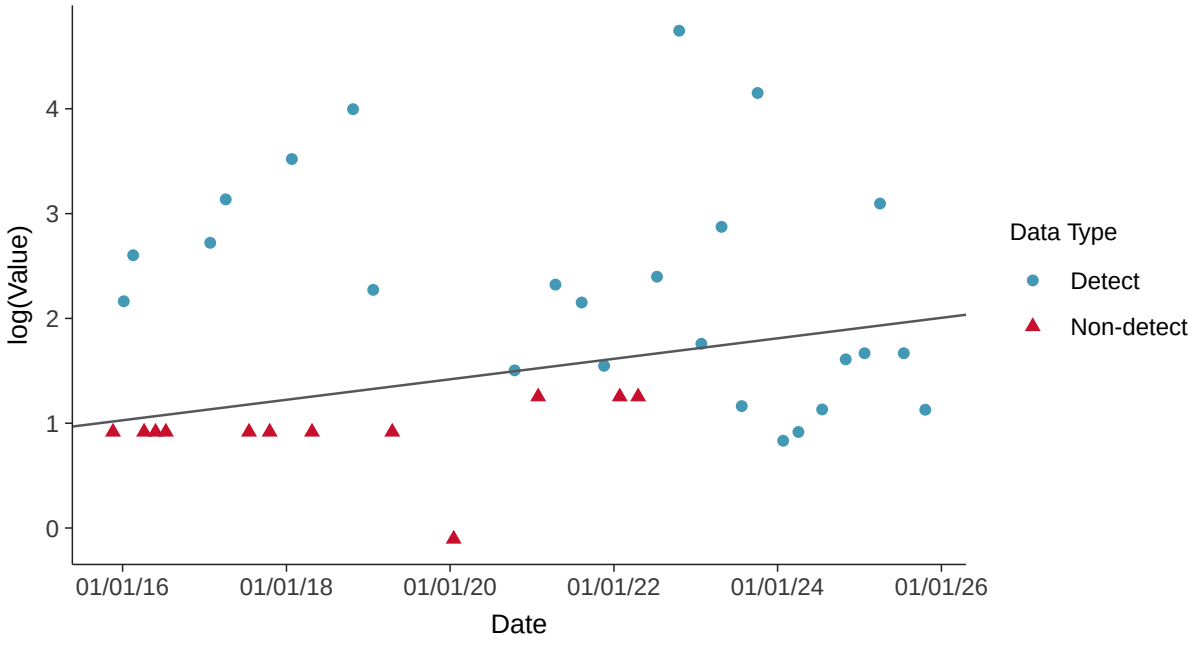
Gamma Q-Q plot using ROS Imputed Estimates

Nickel, MW-2 (ug/L)



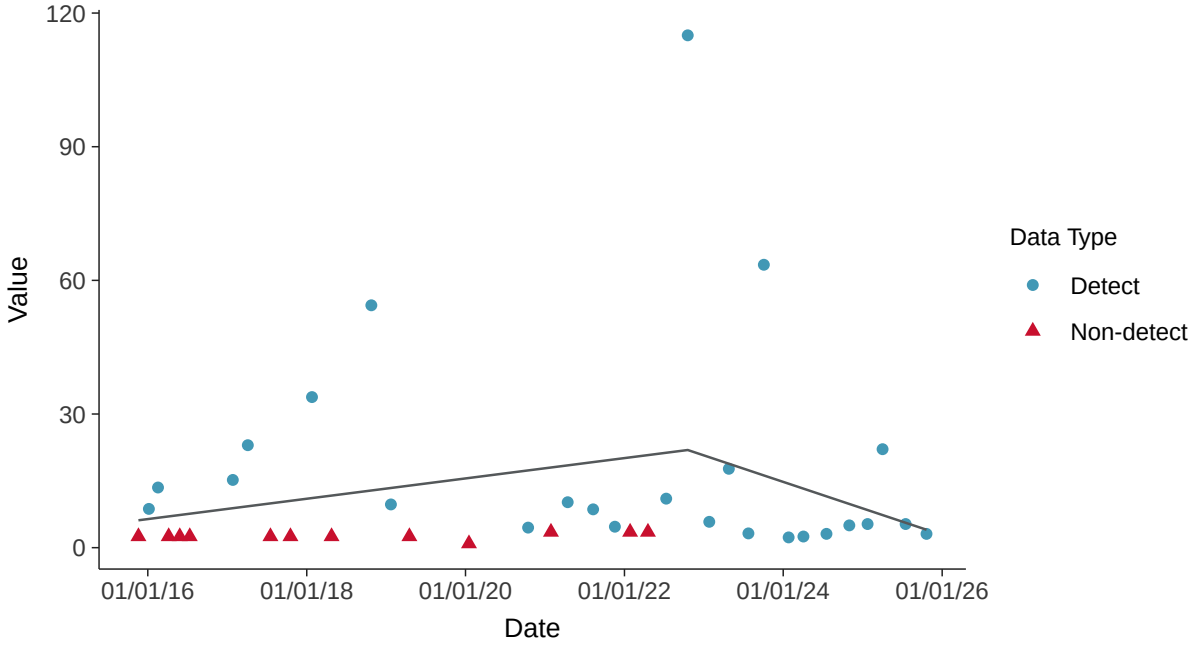
Trend Regression: Lognormal MLE

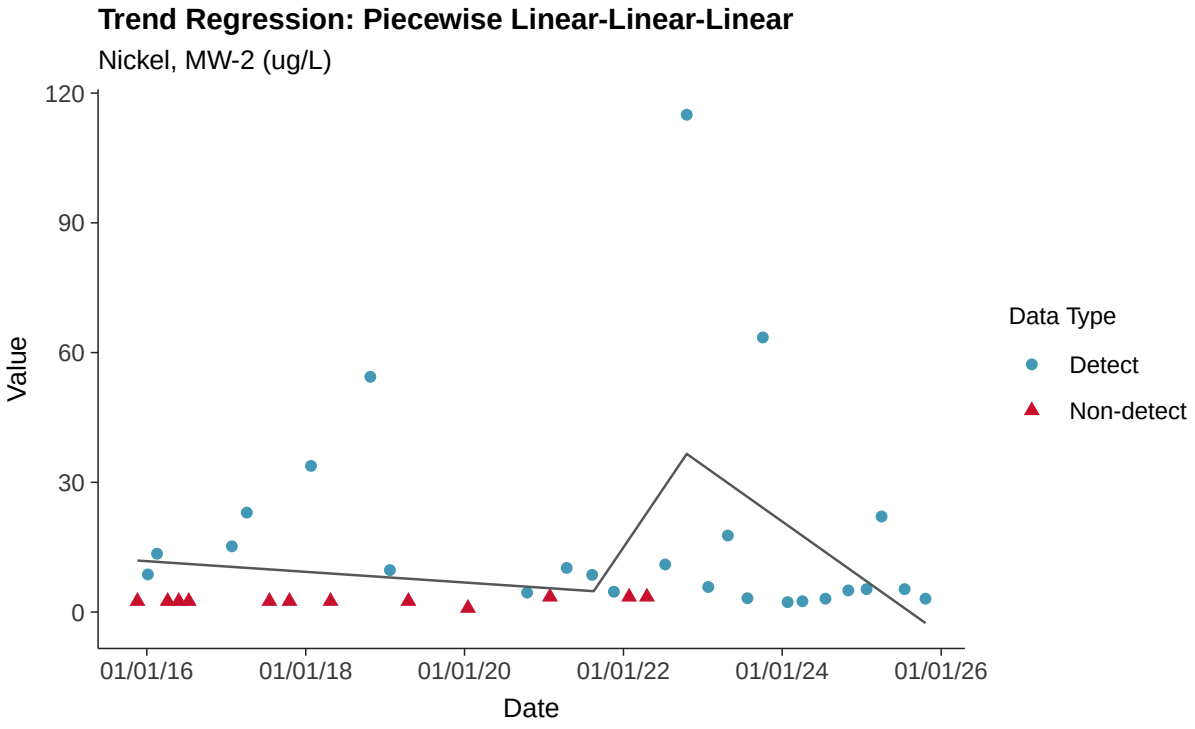
Nickel, MW-2 (ug/L)



Trend Regression: Piecewise Linear-Linear

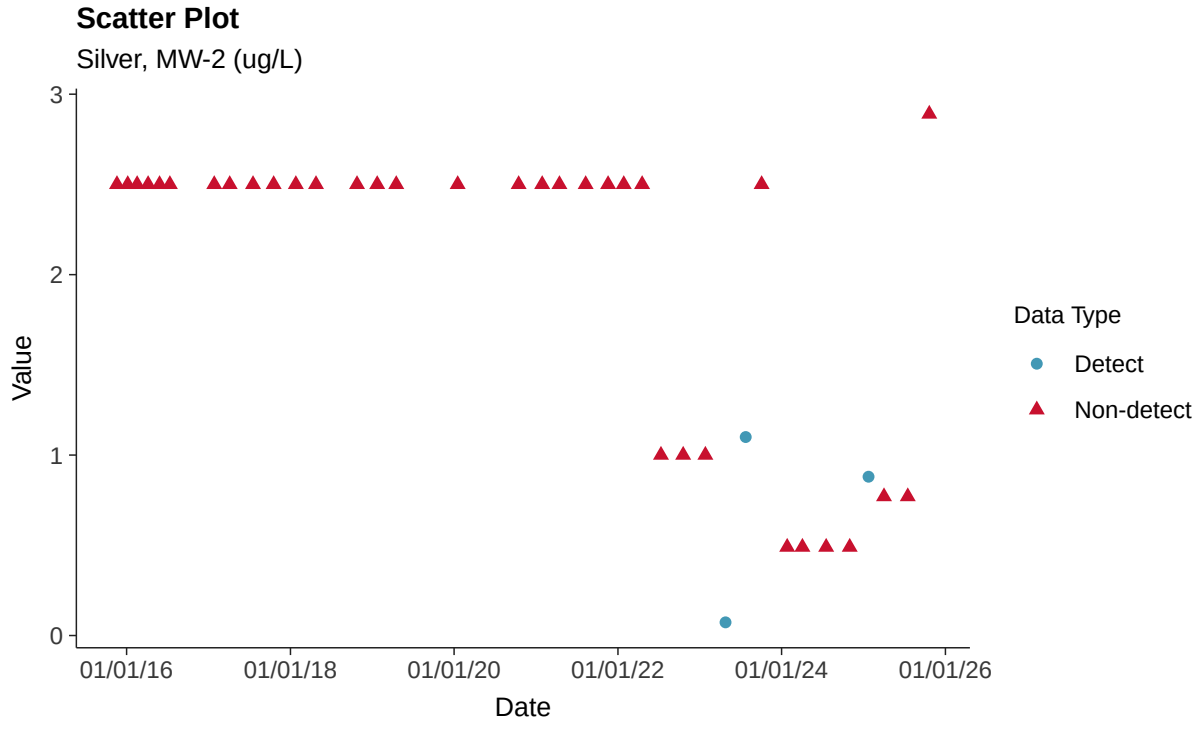
Nickel, MW-2 (ug/L)

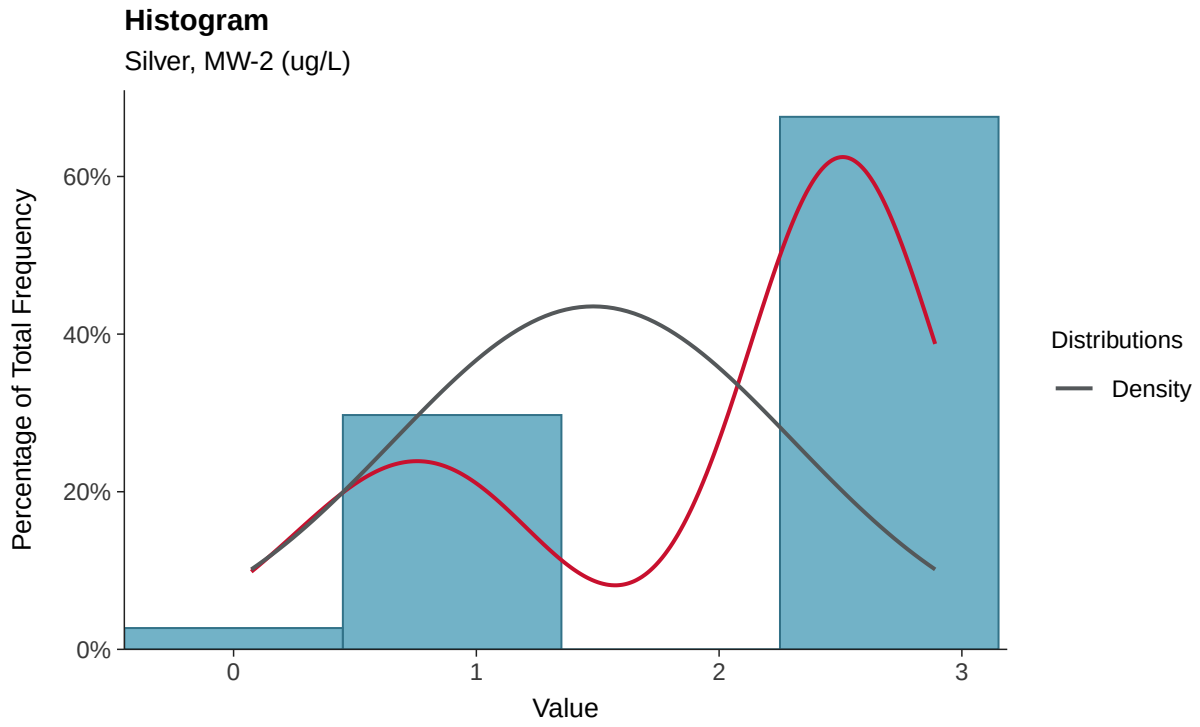



Trend Regression: Piecewise Linear-Linear-Linear
Nickel, MW-2 (ug/L)
Value
120
90
60
30
0
01/01/16
01/01/18
01/01/20
01/01/22
01/01/24
01/01/26
Date
Data Type
Detect
Non-detect

App. I Metals: Silver, MW-2

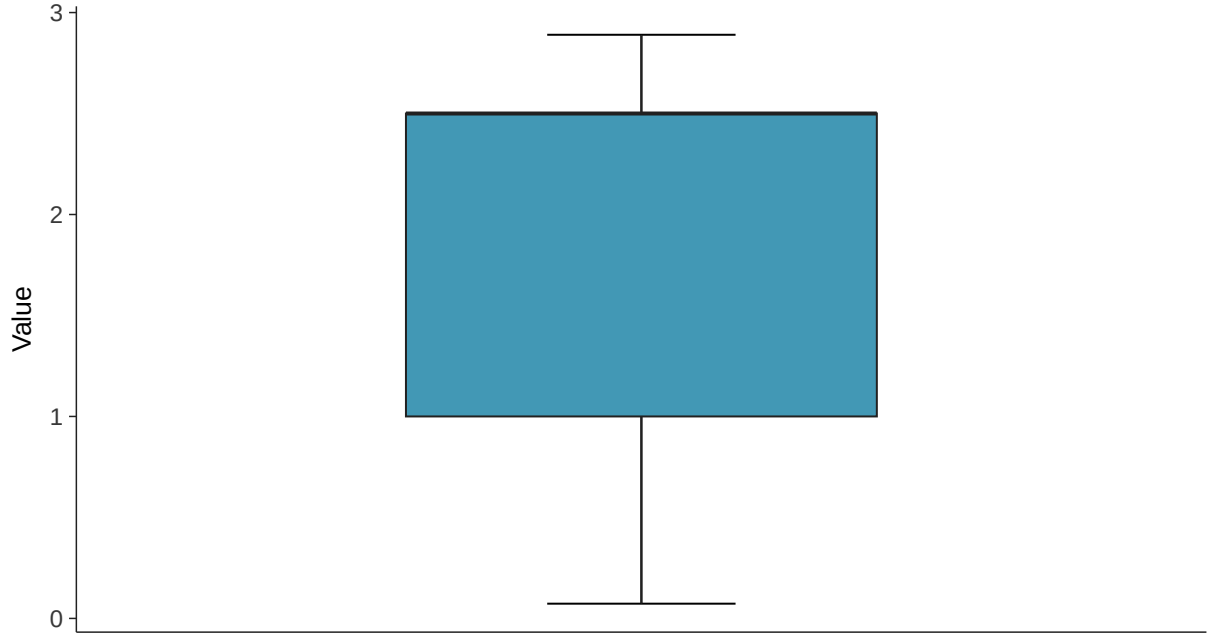
ID: 02_1_122





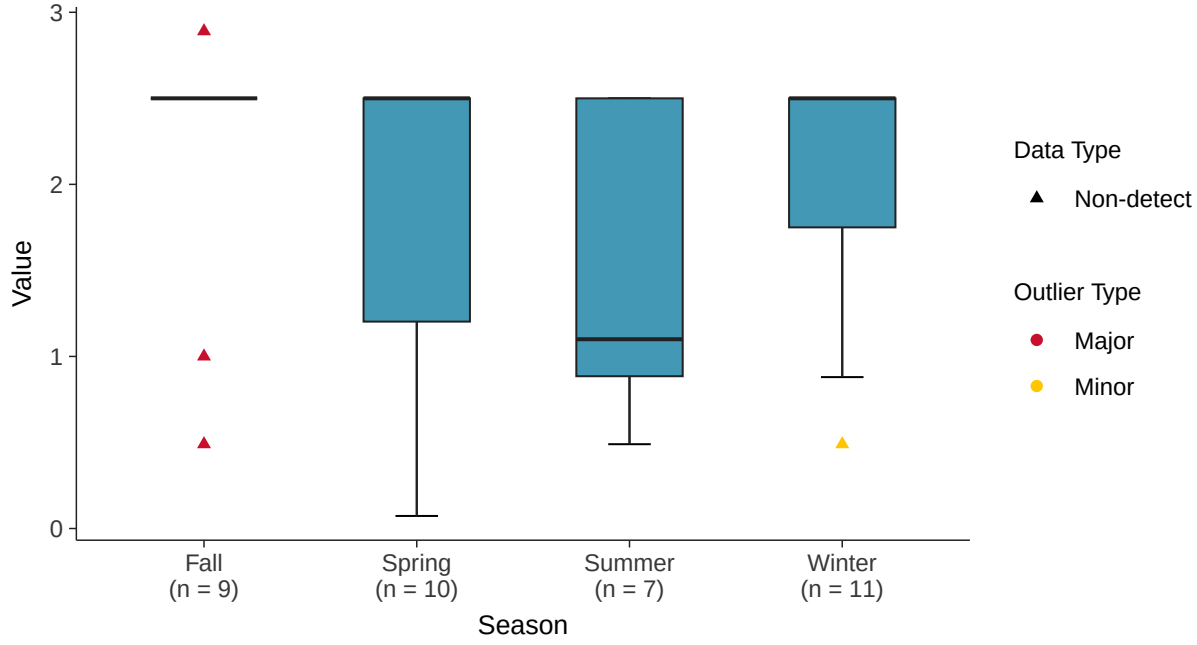
Boxplot

Silver, MW-2 (ug/L)



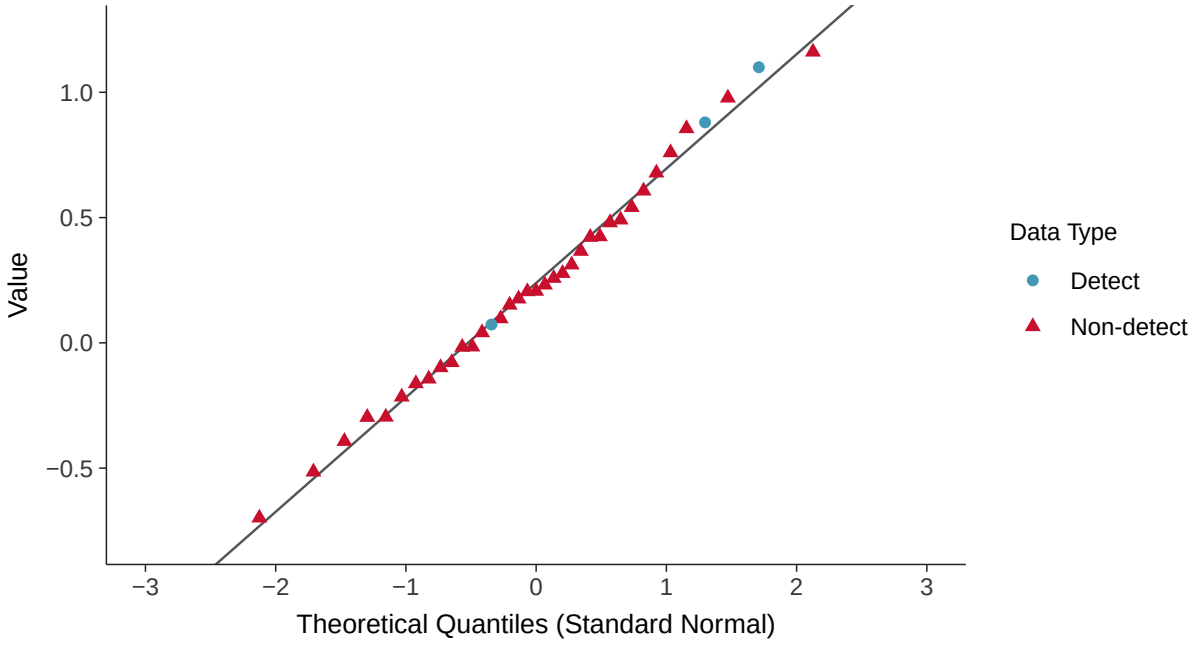
Boxplot by Season

Silver, MW-2 (ug/L)



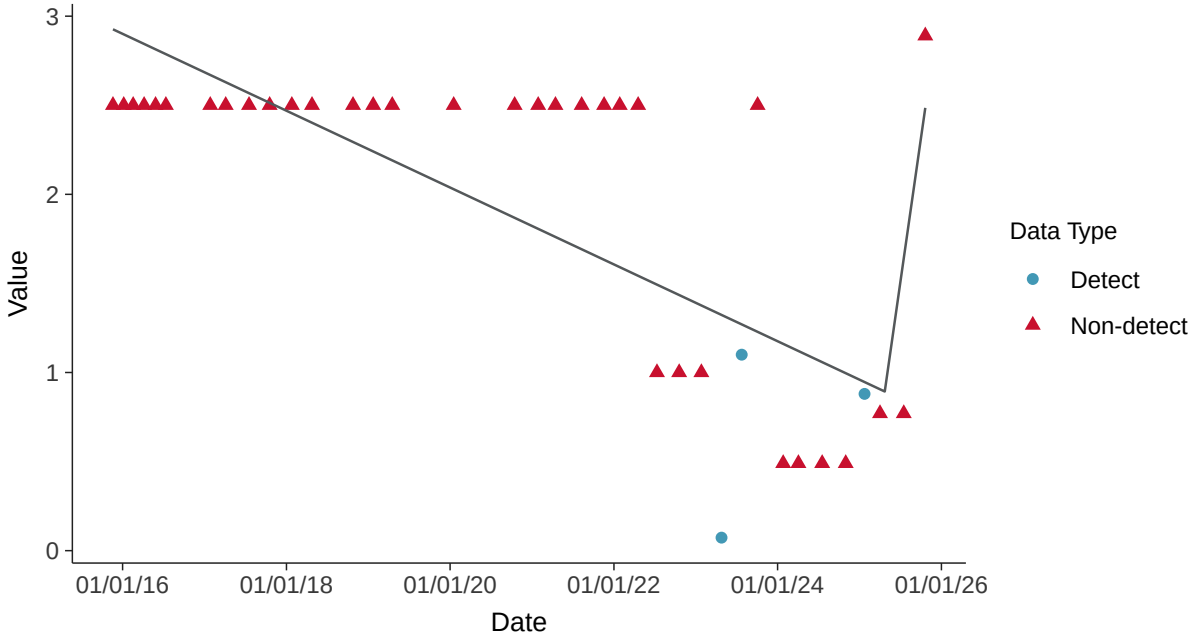
Normal Q-Q plot using ROS Imputed Estimates

Silver, MW-2 (ug/L)



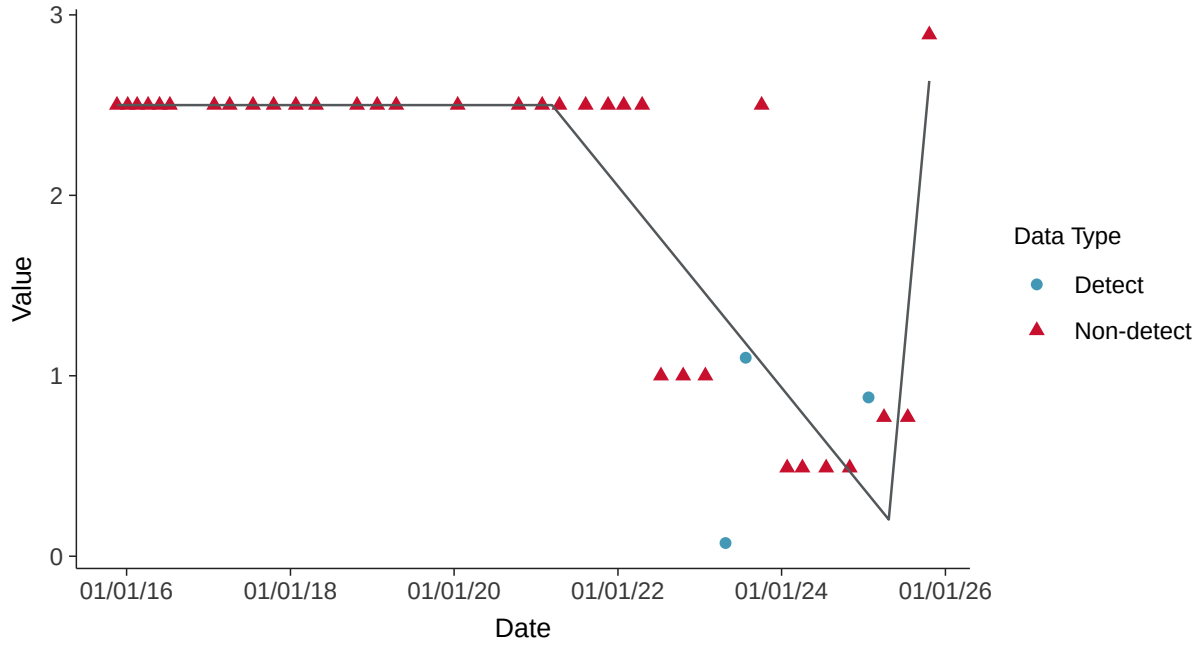
Trend Regression: Piecewise Linear-Linear

Silver, MW-2 (ug/L)



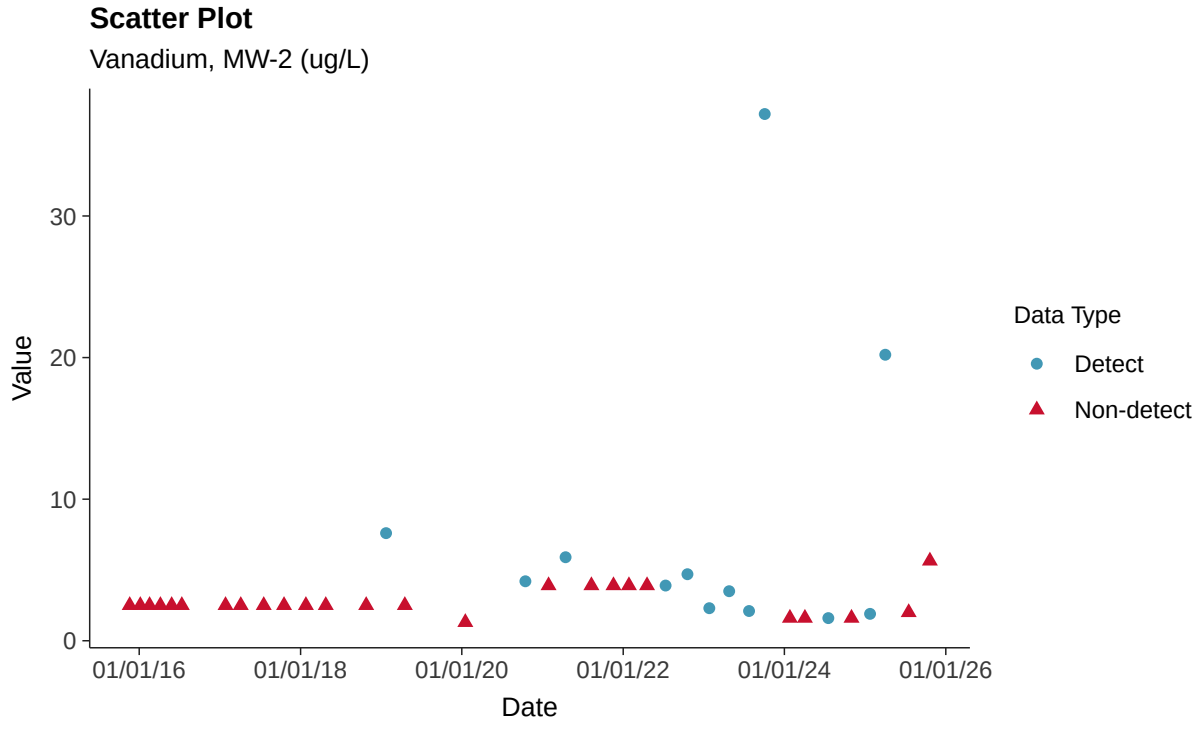
Trend Regression: Piecewise Linear-Linear-Linear

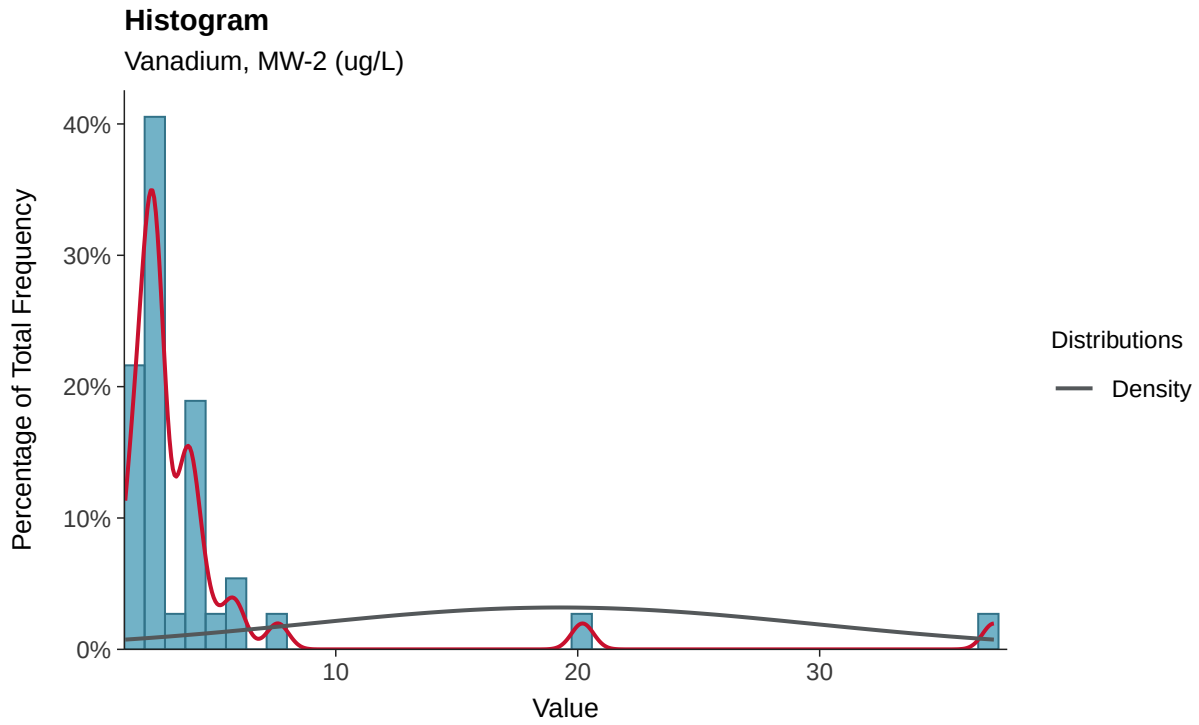
Silver, MW-2 (ug/L)



App. I Metals: Vanadium, MW-2

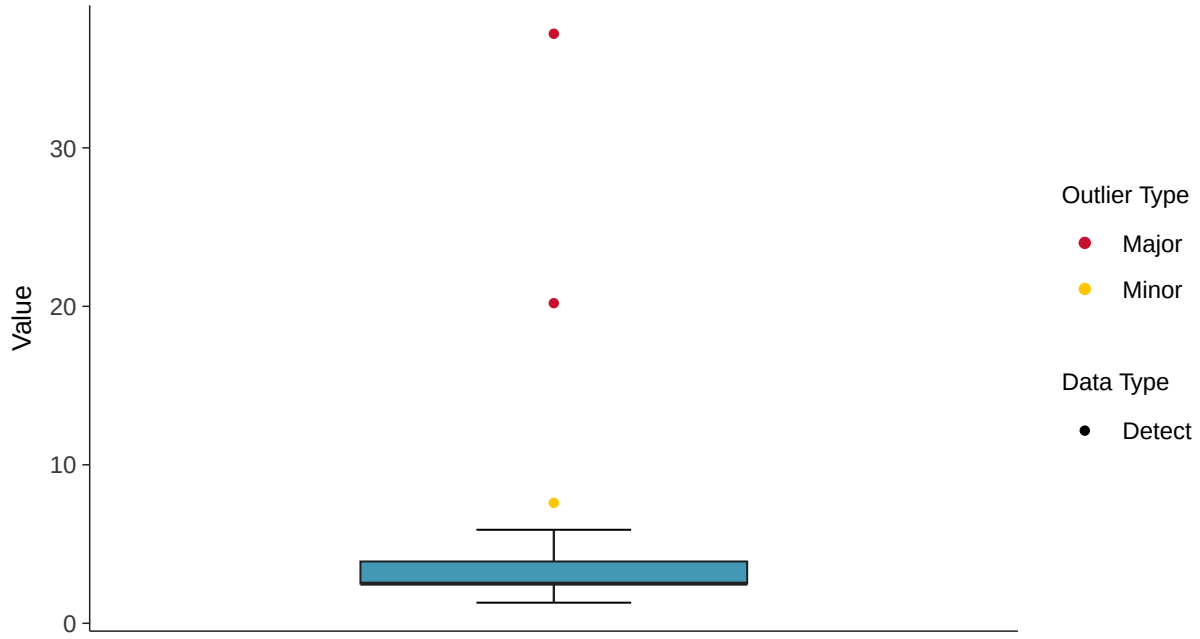
ID: 02_1_127





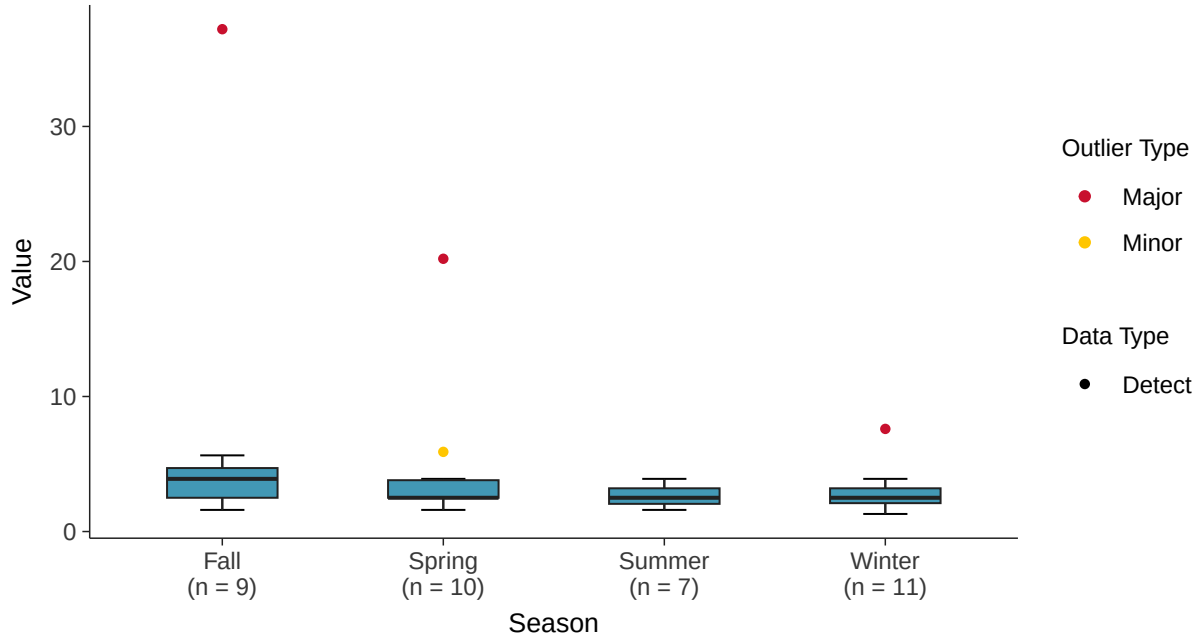
Boxplot

Vanadium, MW-2 (ug/L)



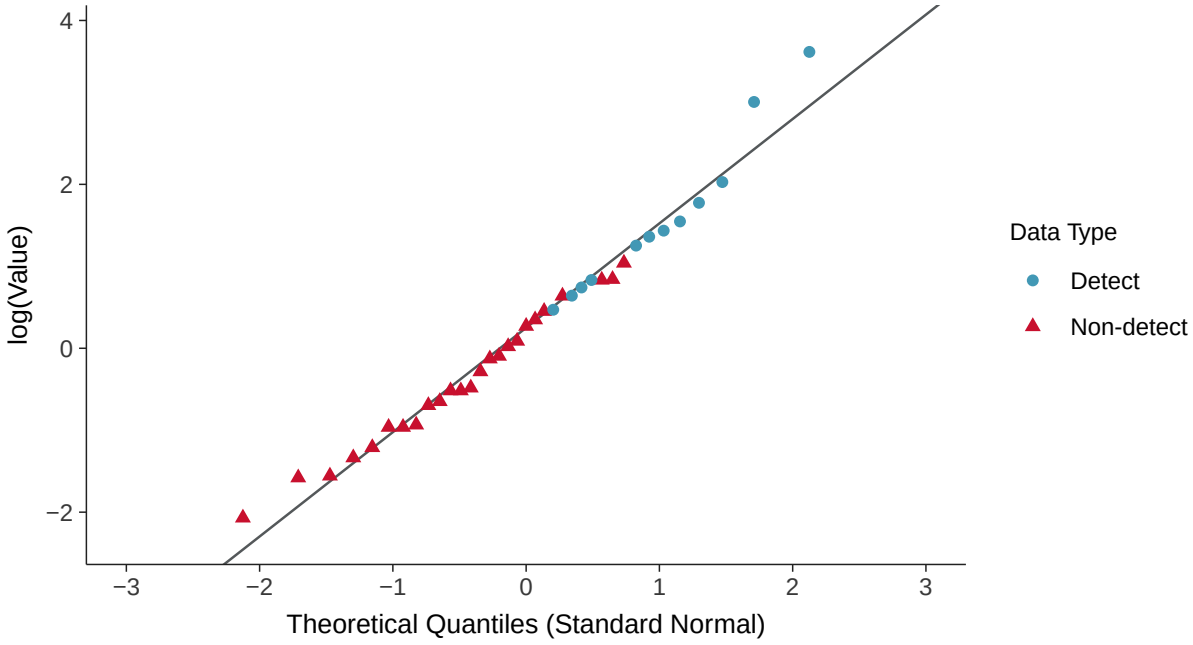
Boxplot by Season

Vanadium, MW-2 (ug/L)



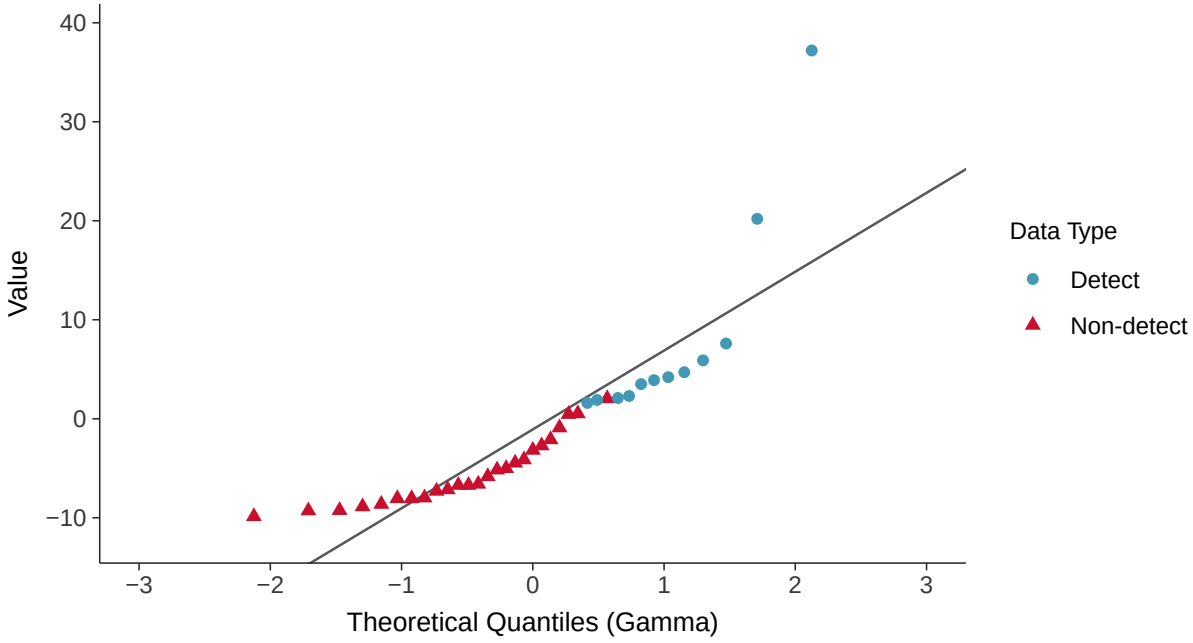
Lognormal Q-Q plot using ROS Imputed Estimates

Vanadium, MW-2 (ug/L)



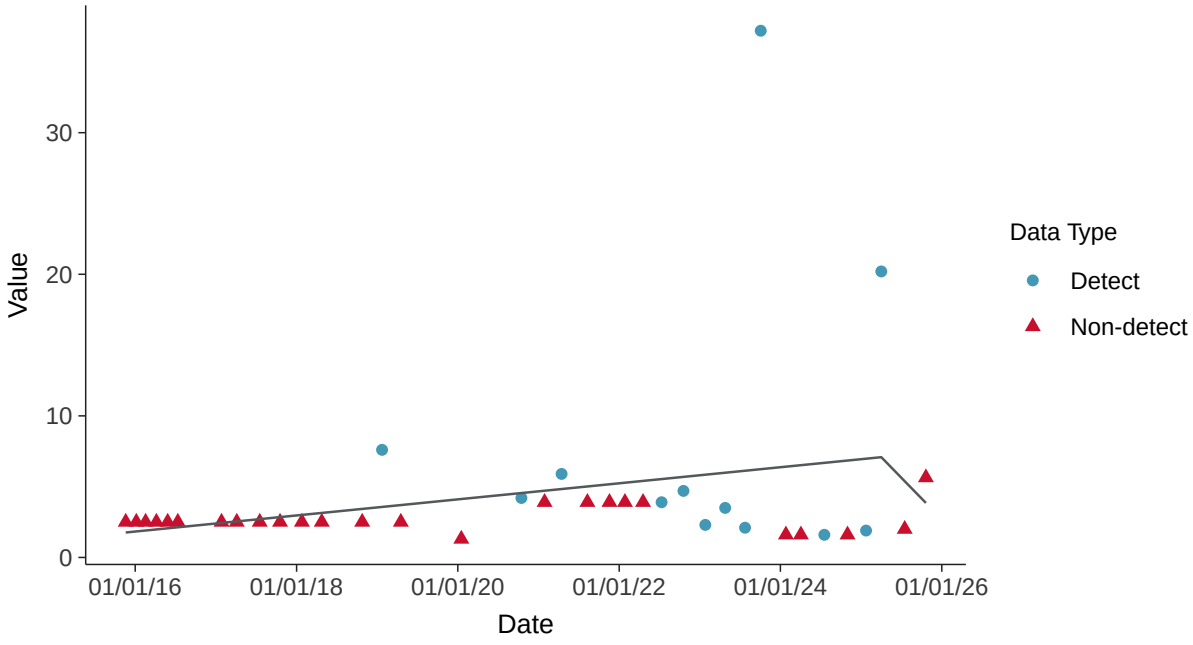
Gamma Q-Q plot using ROS Imputed Estimates

Vanadium, MW-2 (ug/L)



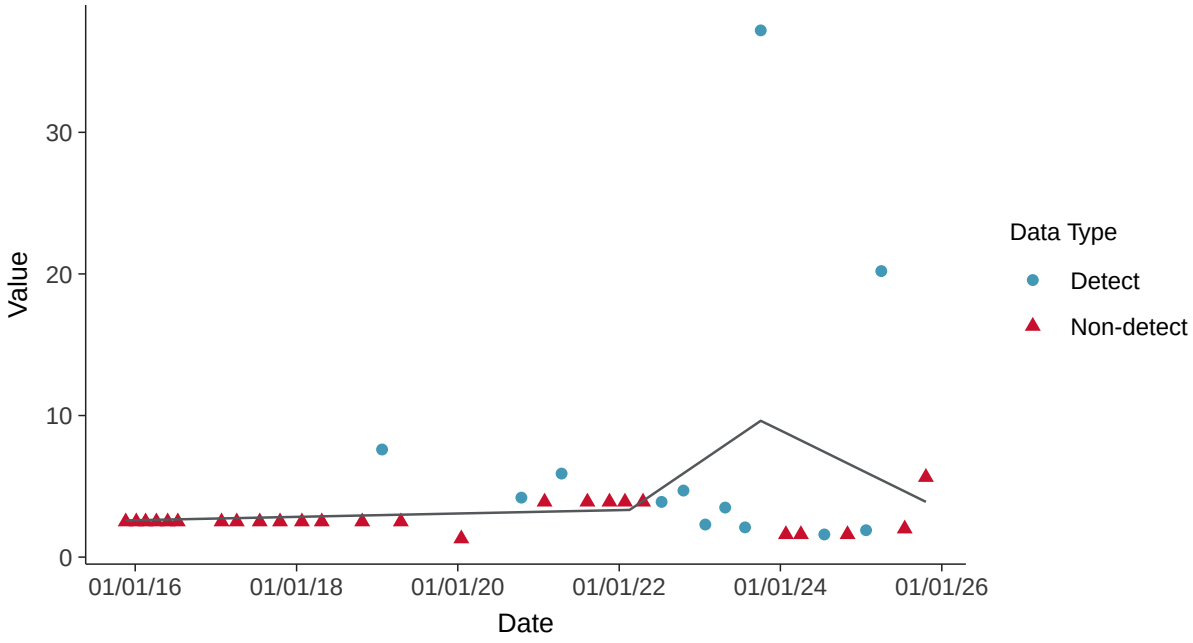
Trend Regression: Piecewise Linear-Linear

Vanadium, MW-2 (ug/L)



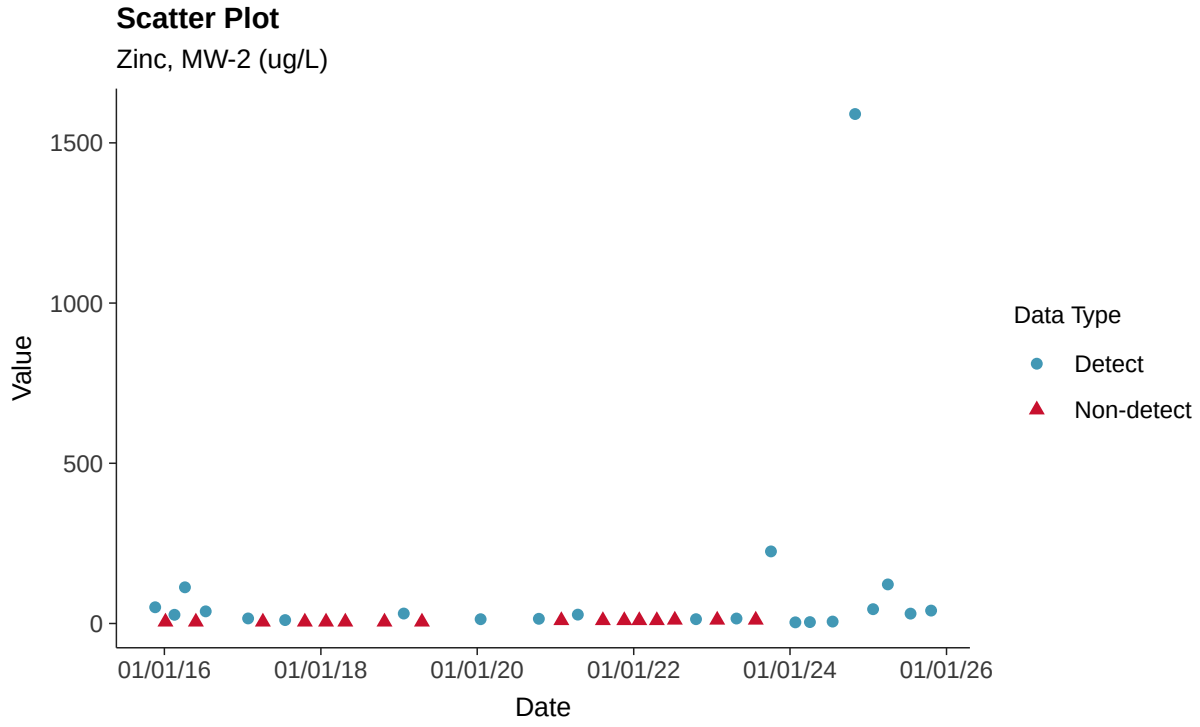
Trend Regression: Piecewise Linear-Linear-Linear

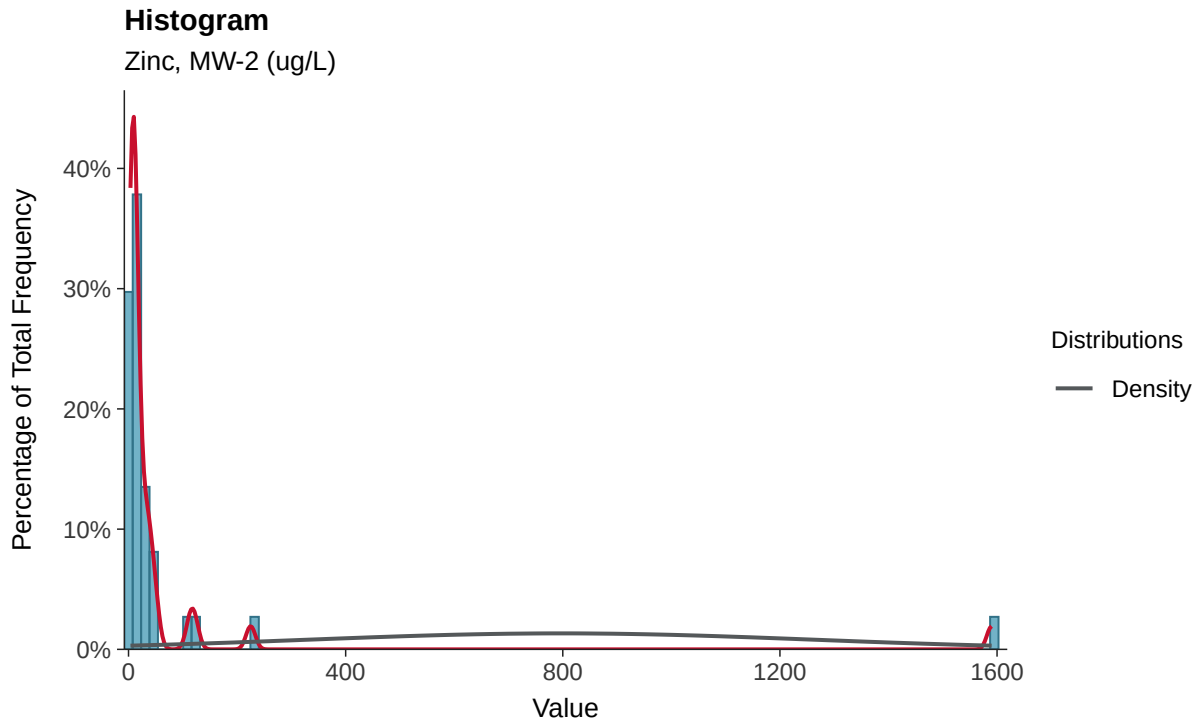
Vanadium, MW-2 (ug/L)



App. I Metals: Zinc, MW-2

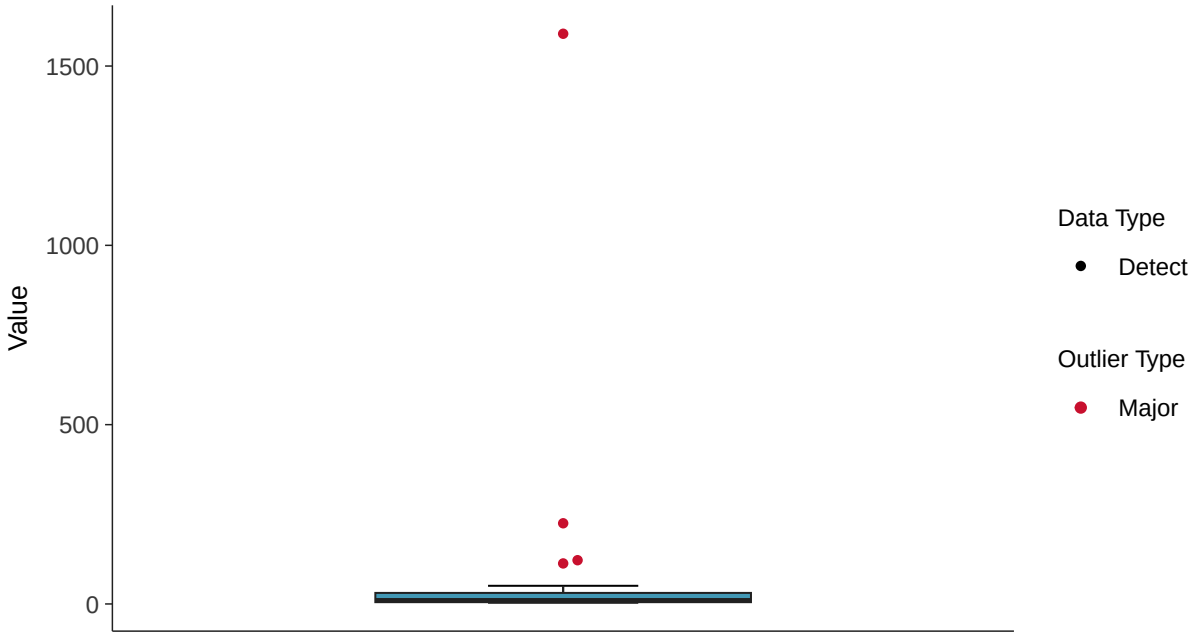
ID: 02_1_128





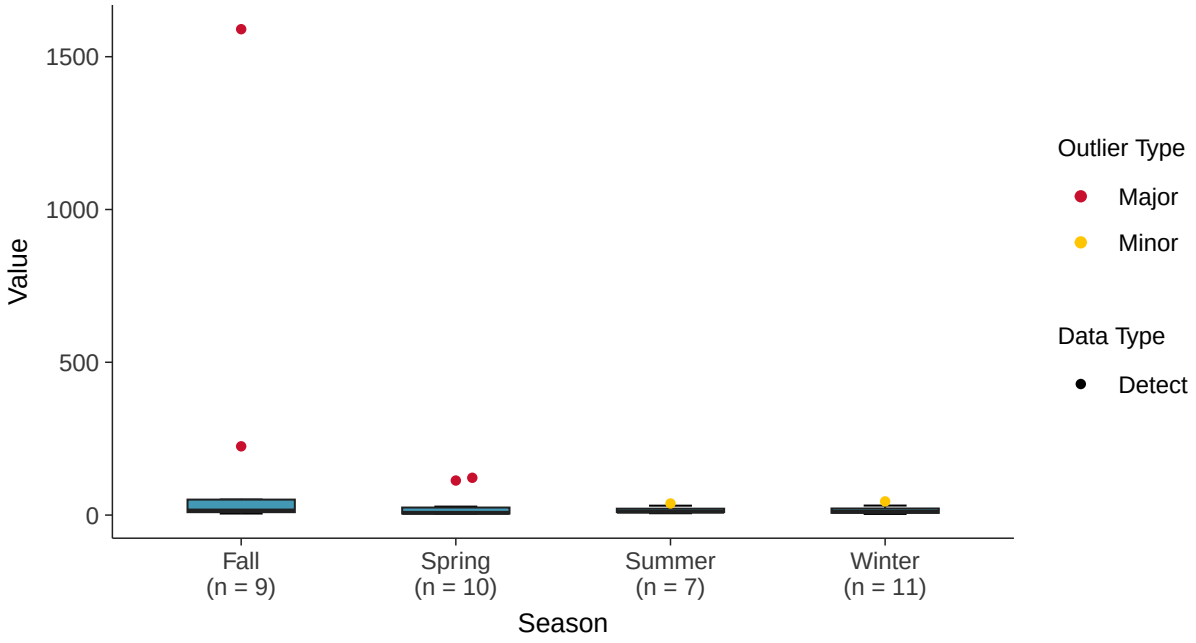
Boxplot

Zinc, MW-2 (ug/L)



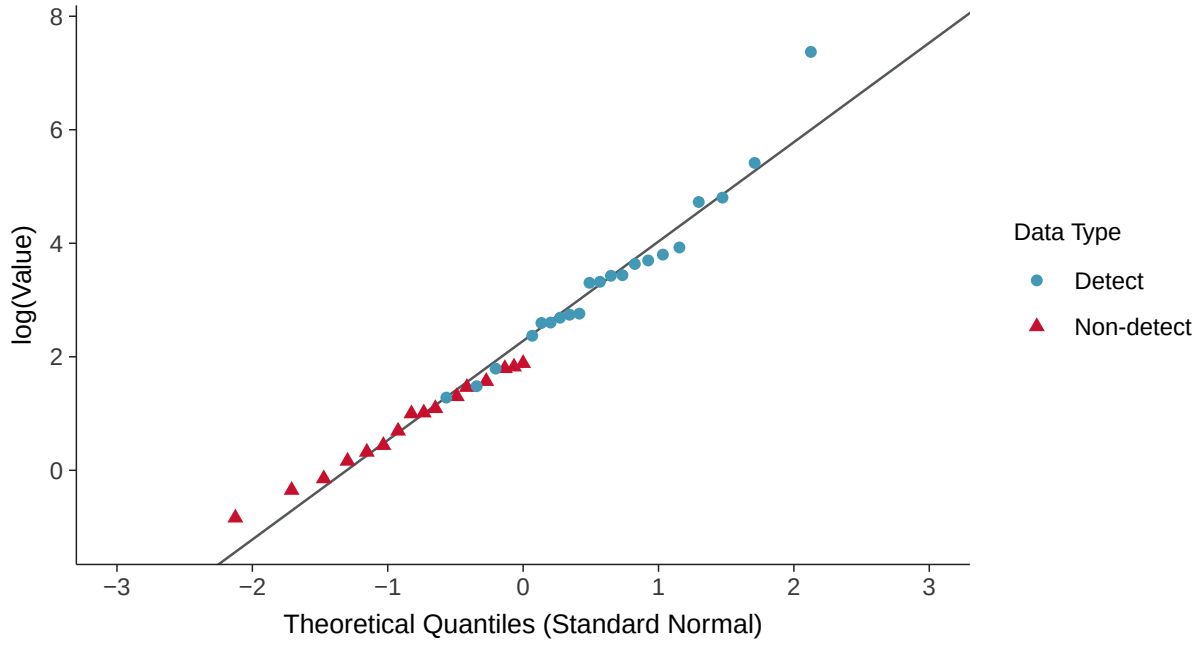
Boxplot by Season

Zinc, MW-2 (ug/L)



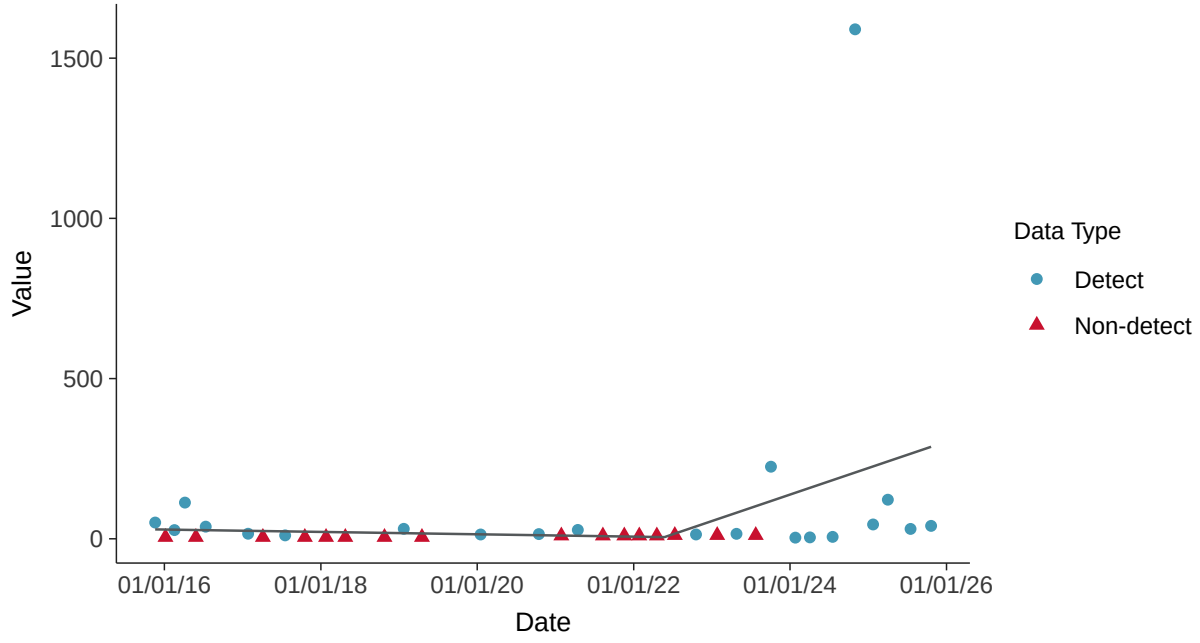
Lognormal Q-Q plot using ROS Imputed Estimates

Zinc, MW-2 (ug/L)



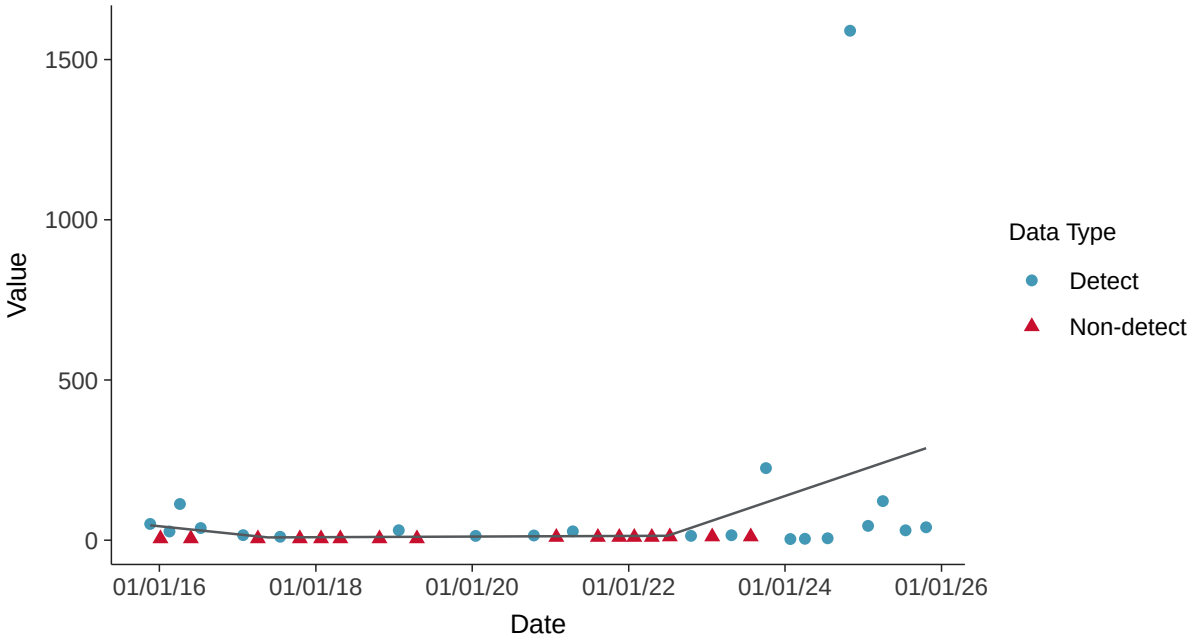
Trend Regression: Piecewise Linear-Linear

Zinc, MW-2 (ug/L)



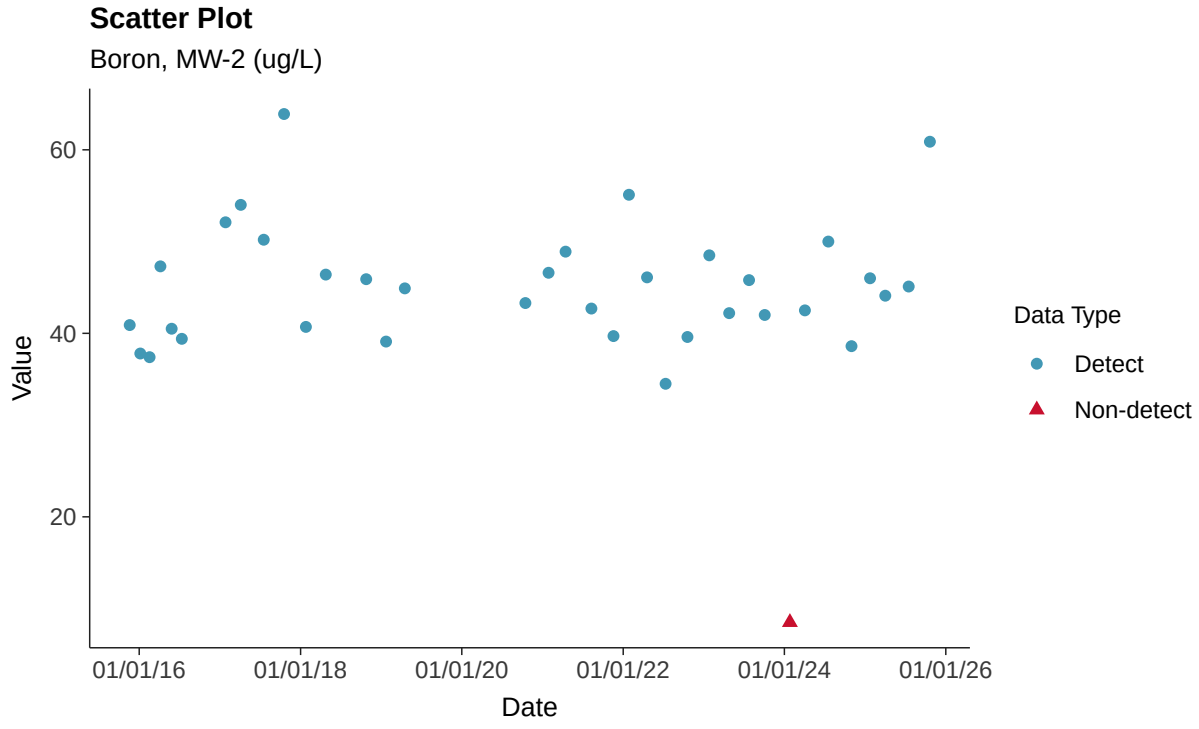
Trend Regression: Piecewise Linear-Linear-Linear

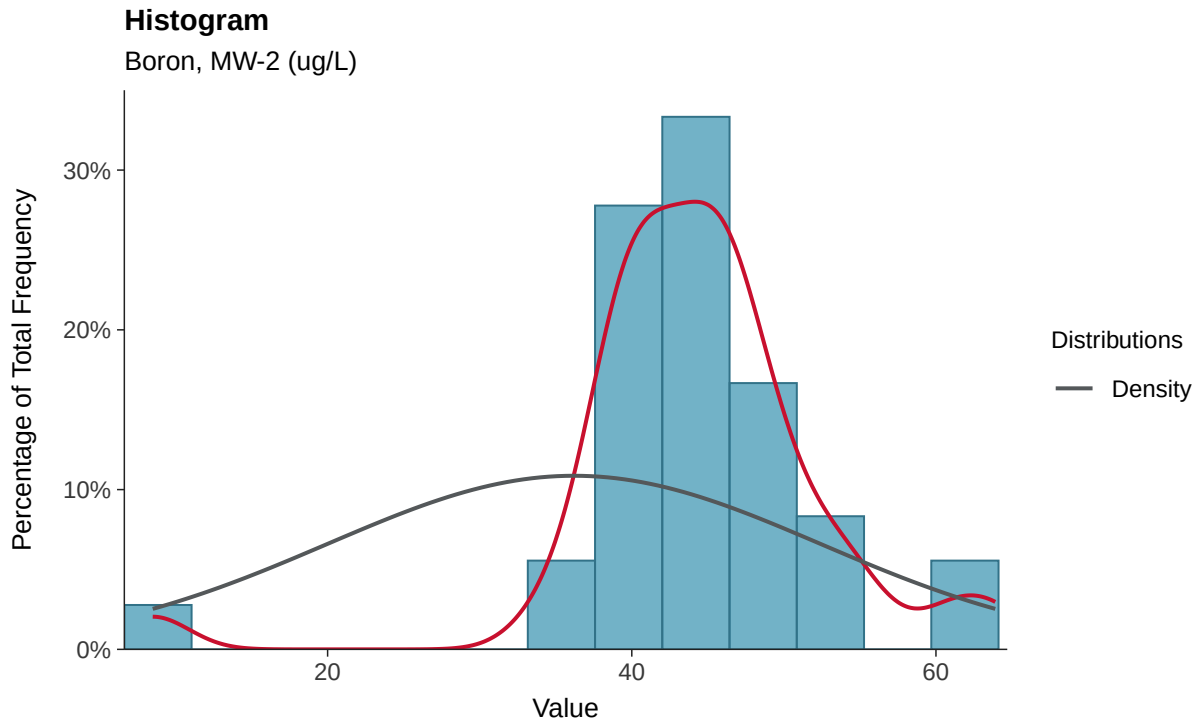
Zinc, MW-2 (ug/L)



App. III: Boron, MW-2

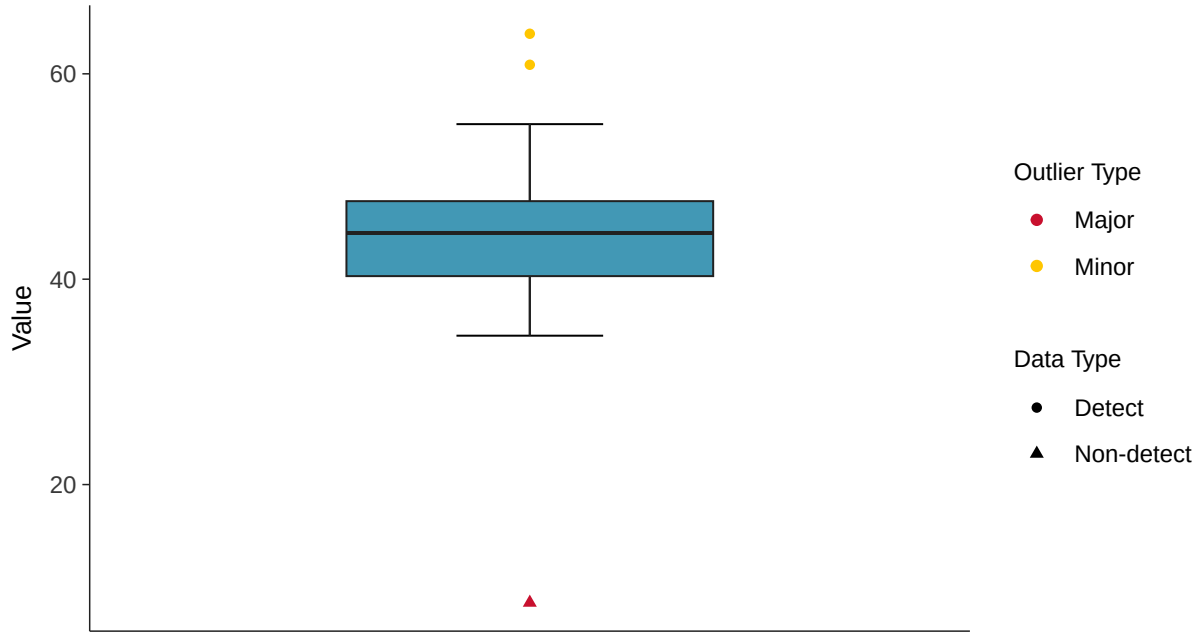
ID: 02_2_105





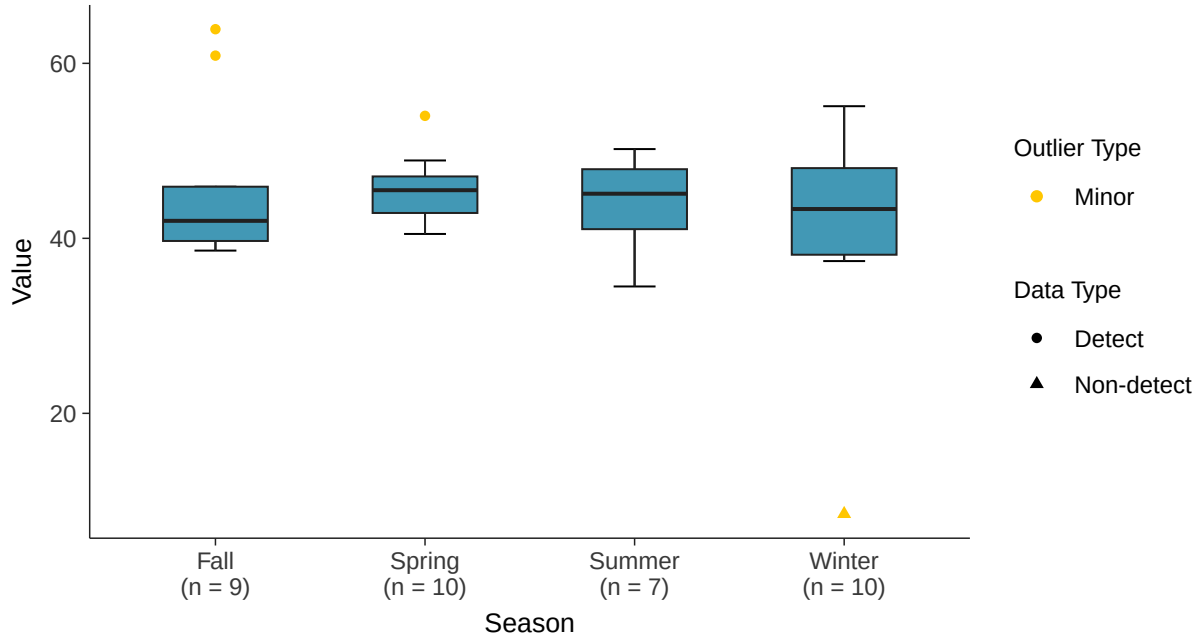
Boxplot

Boron, MW-2 (ug/L)



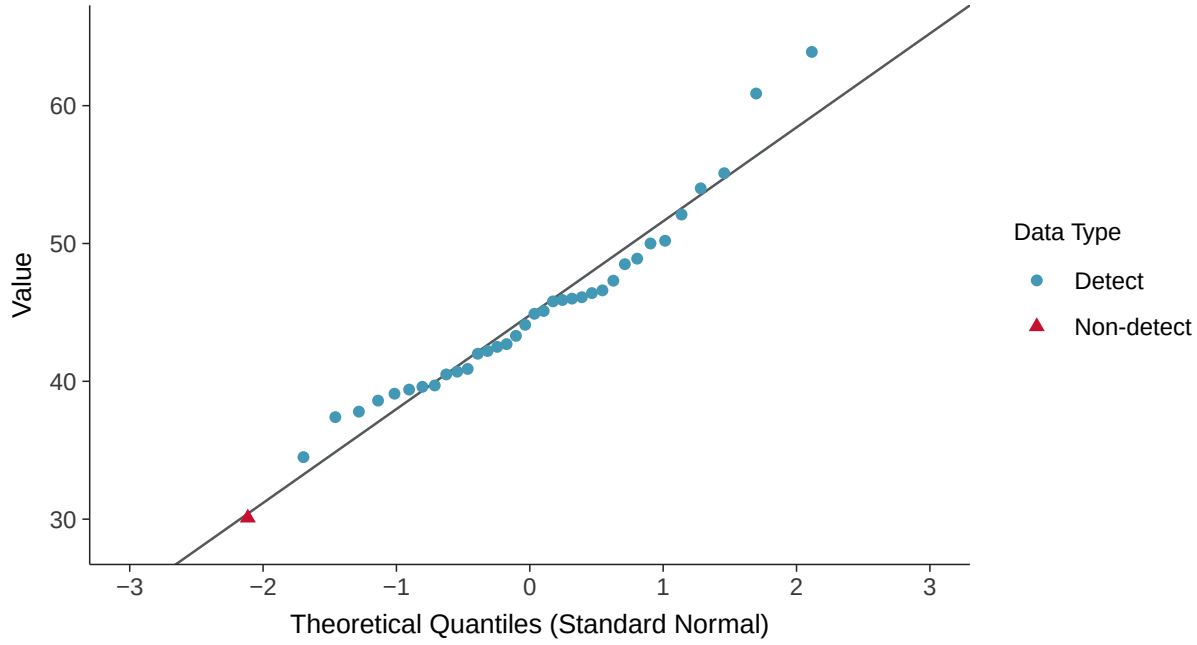
Boxplot by Season

Boron, MW-2 (ug/L)



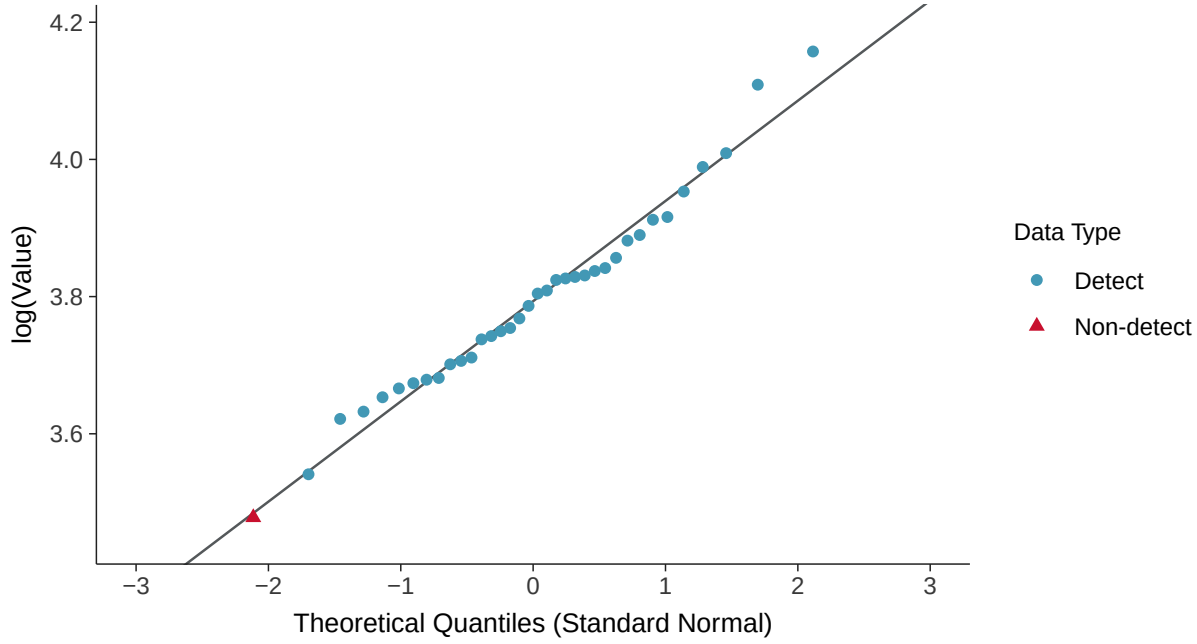
Normal Q-Q plot using ROS Imputed Estimates

Boron, MW-2 (ug/L)



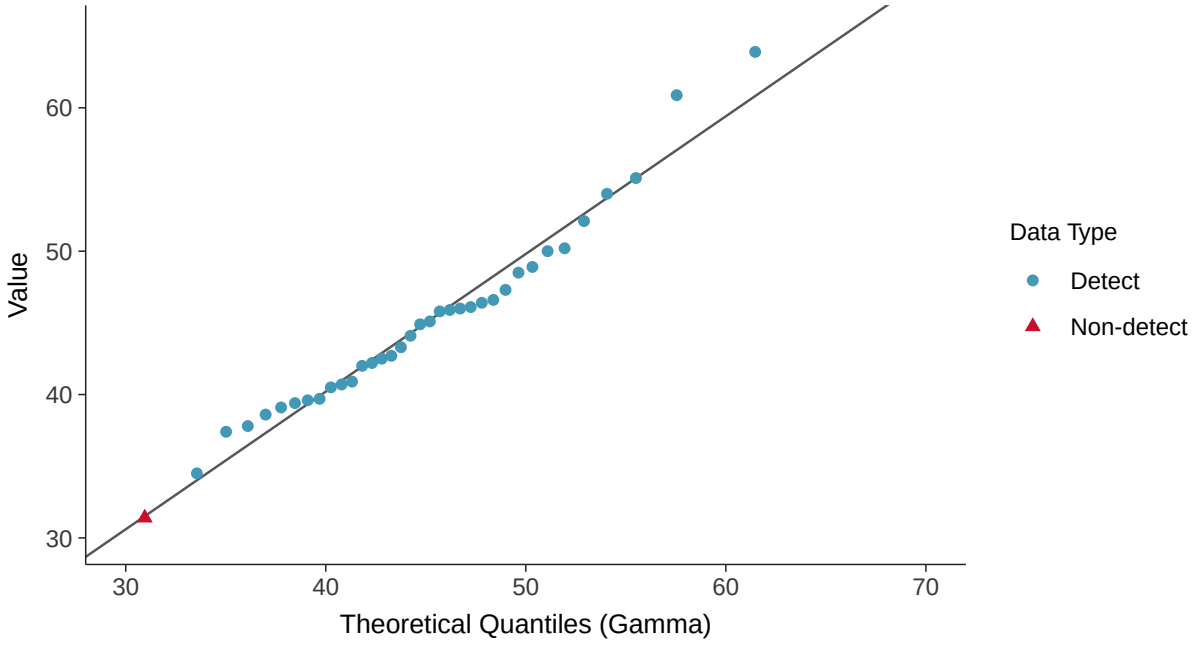
Lognormal Q-Q plot using ROS Imputed Estimates

Boron, MW-2 (ug/L)



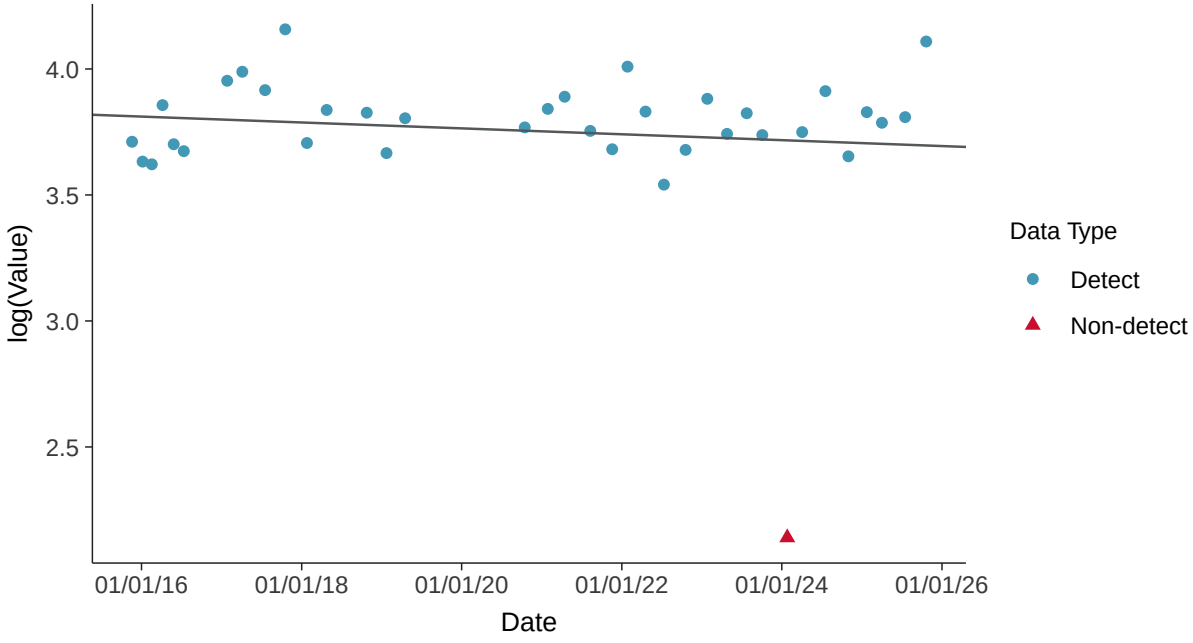
Gamma Q-Q plot using ROS Imputed Estimates

Boron, MW-2 (ug/L)



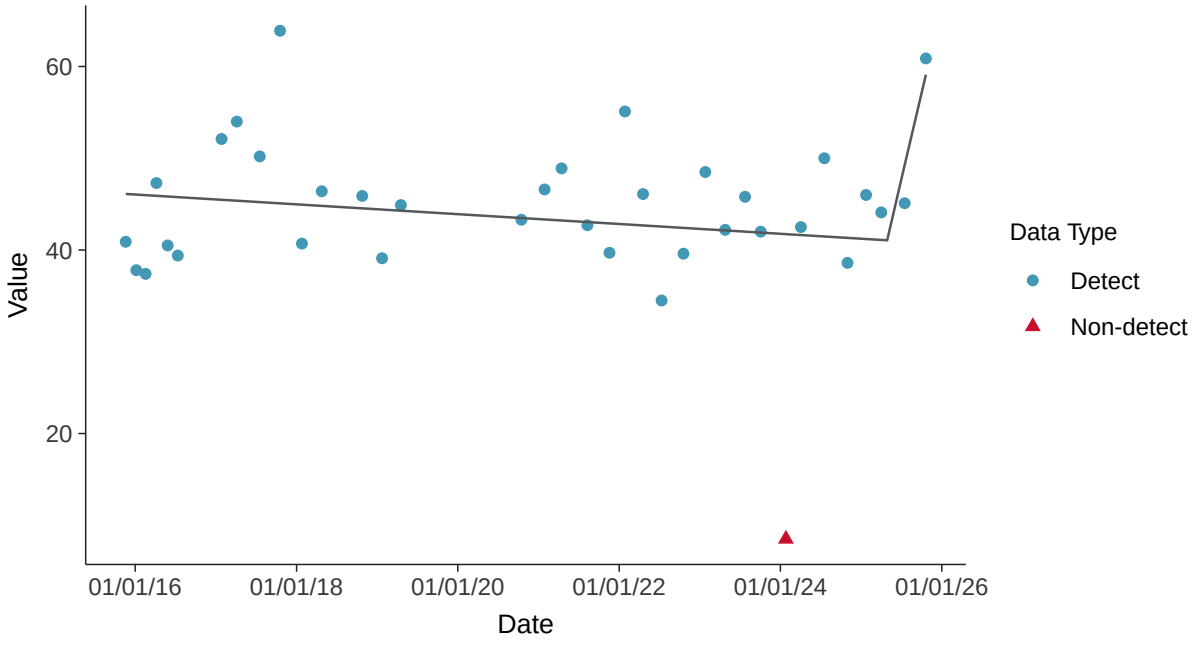
Trend Regression: Lognormal MLE

Boron, MW-2 (ug/L)



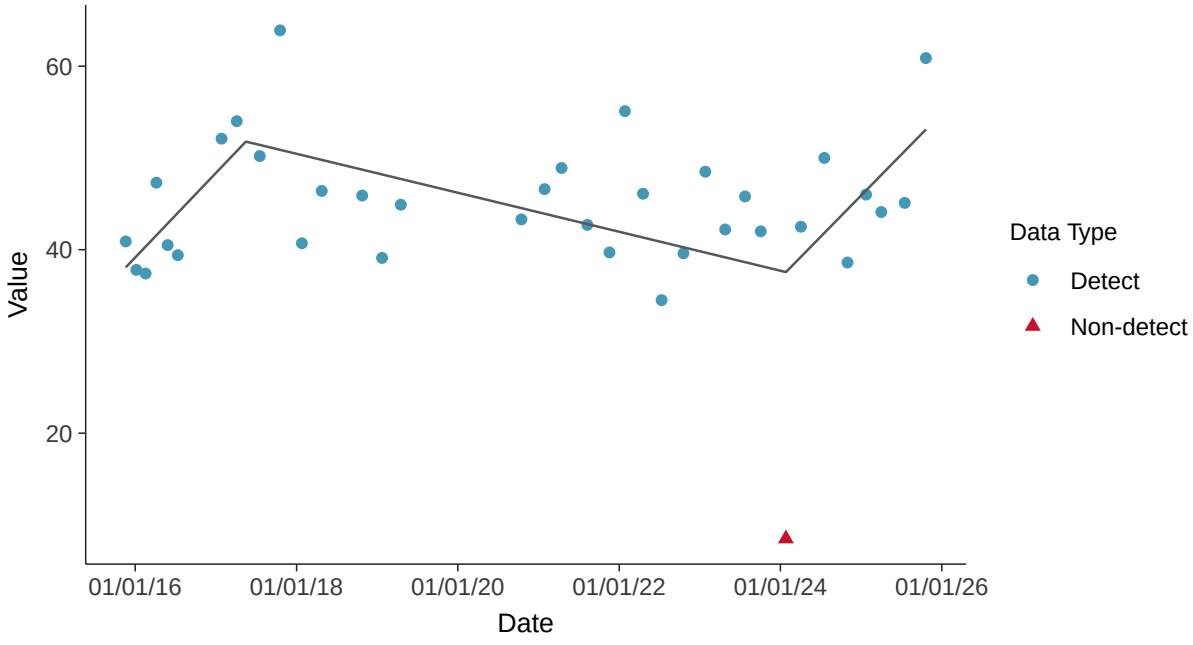
Trend Regression: Piecewise Linear-Linear

Boron, MW-2 (ug/L)



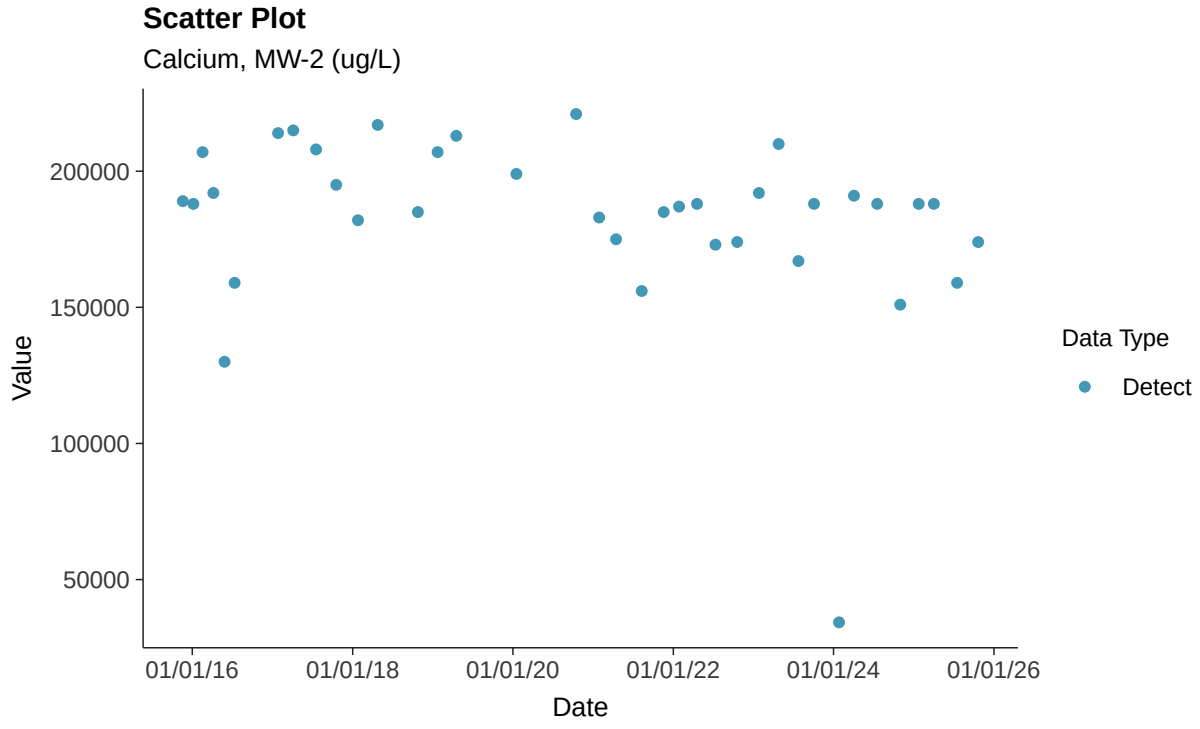
Trend Regression: Piecewise Linear-Linear-Linear

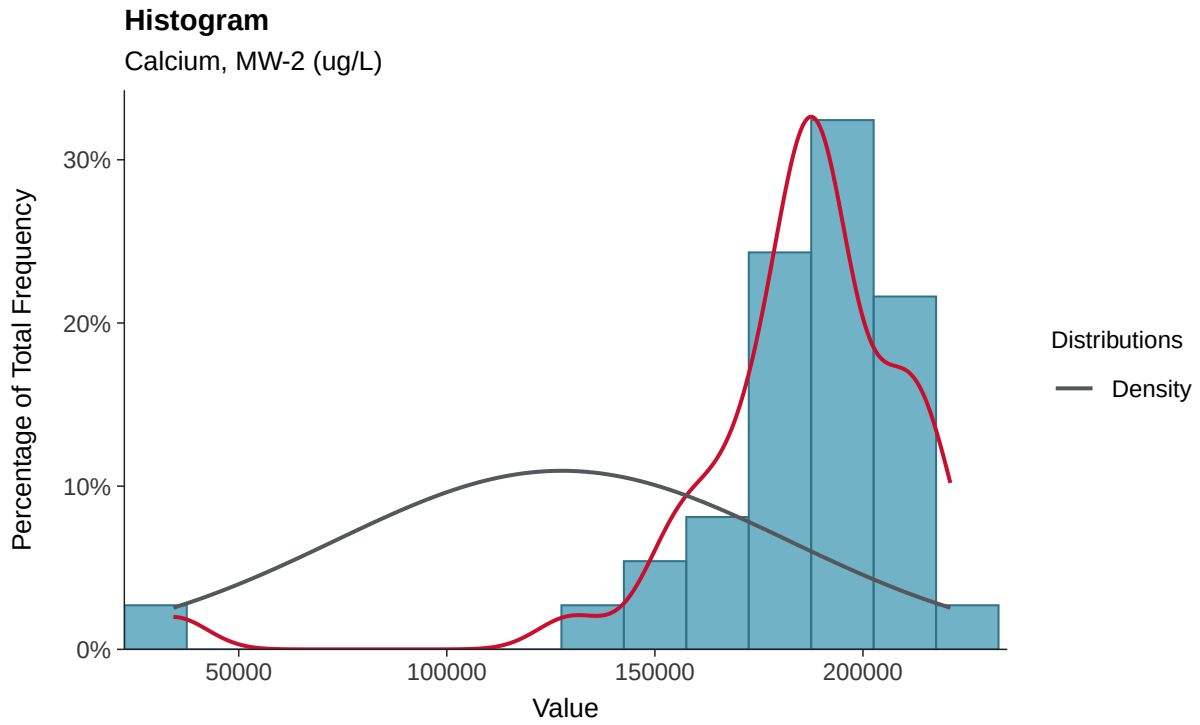
Boron, MW-2 (ug/L)



App. III: Calcium, MW-2

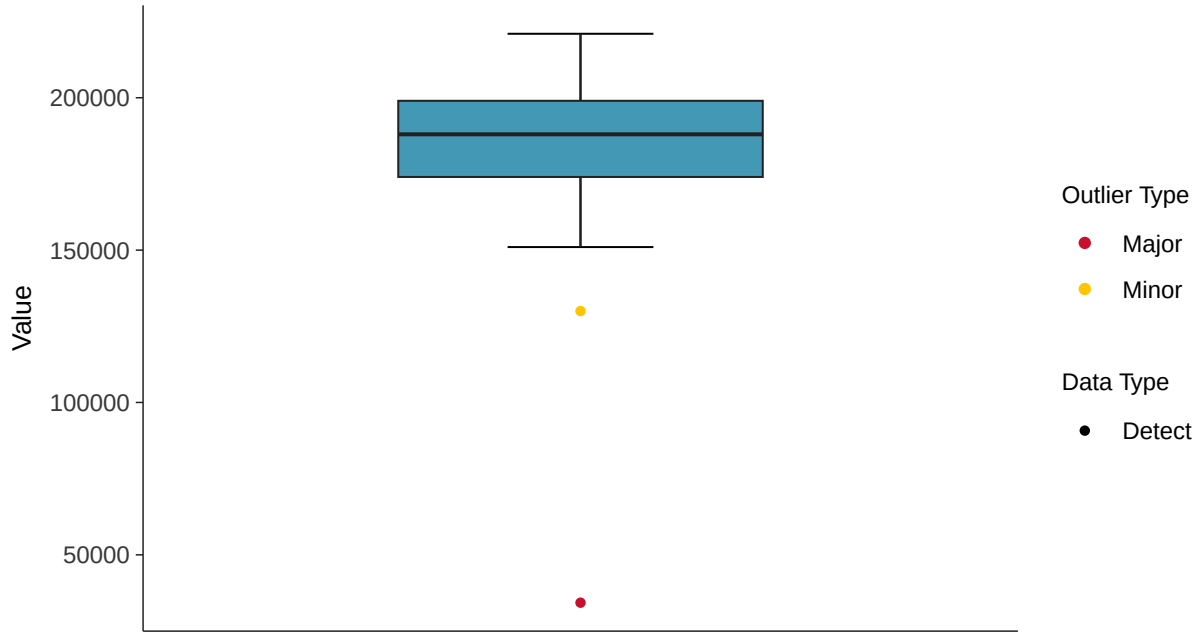
ID: 02_2_107





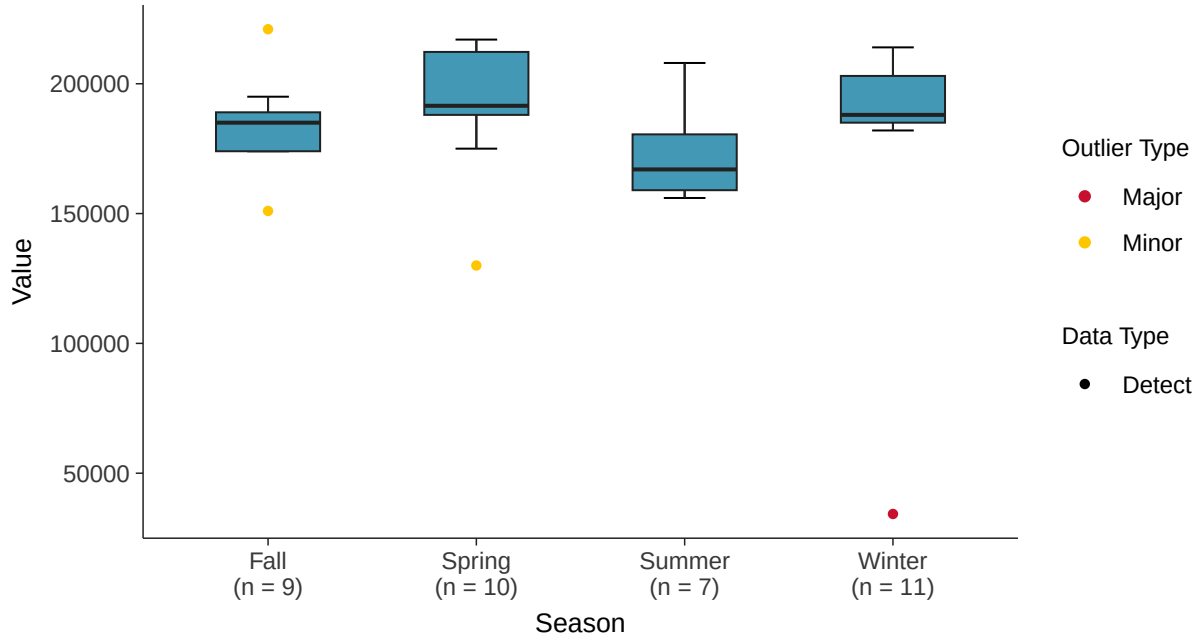
Boxplot

Calcium, MW-2 (ug/L)



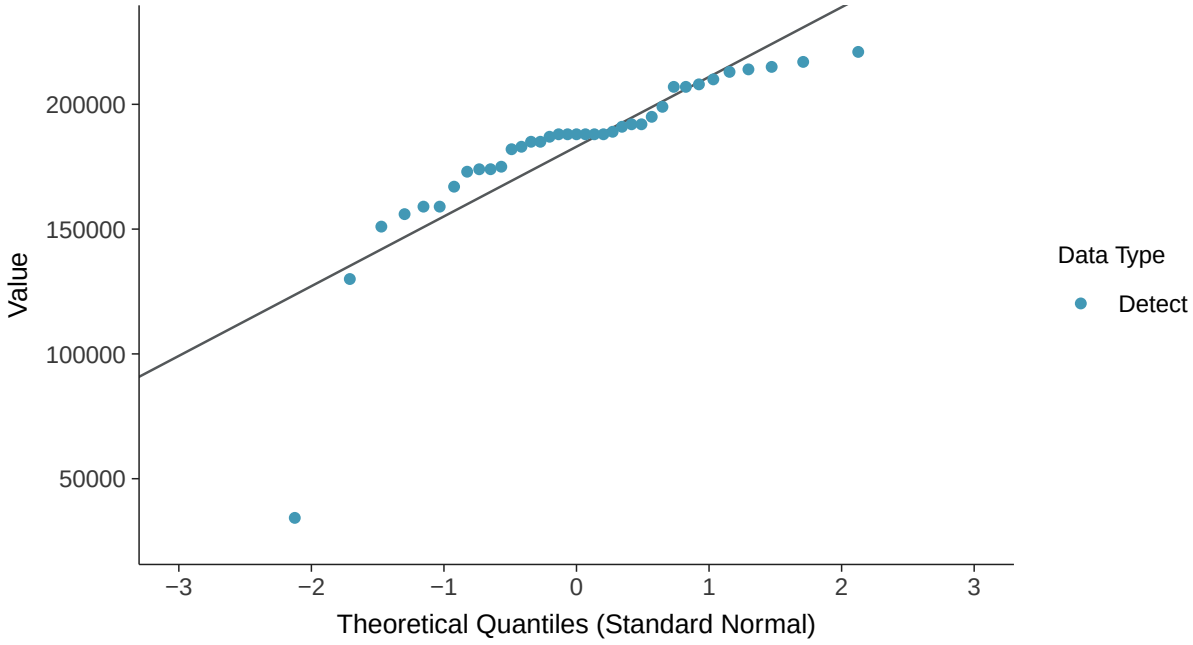
Boxplot by Season

Calcium, MW-2 (ug/L)



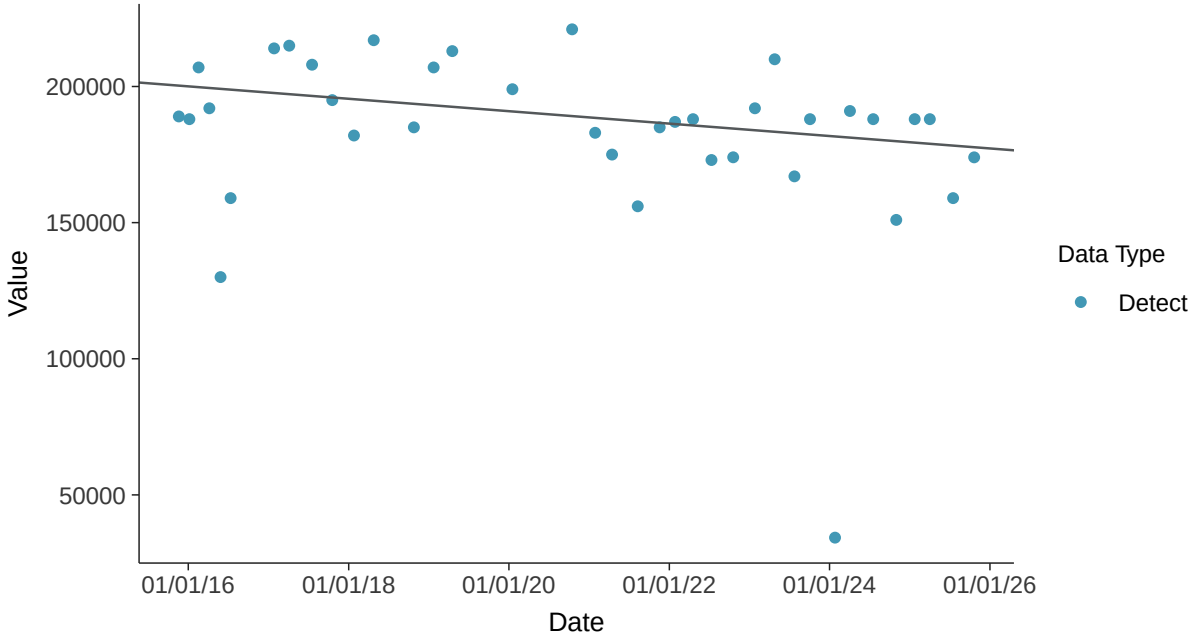
Normal Q-Q plot

Calcium, MW-2 (ug/L)



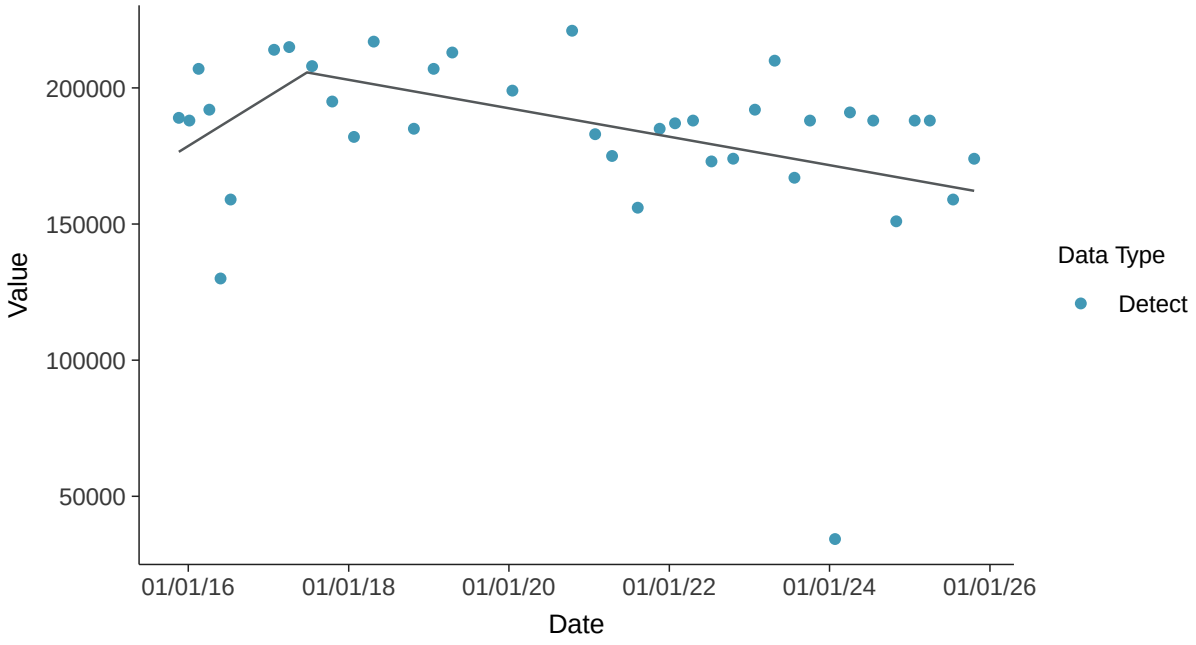
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Calcium, MW-2 (ug/L)



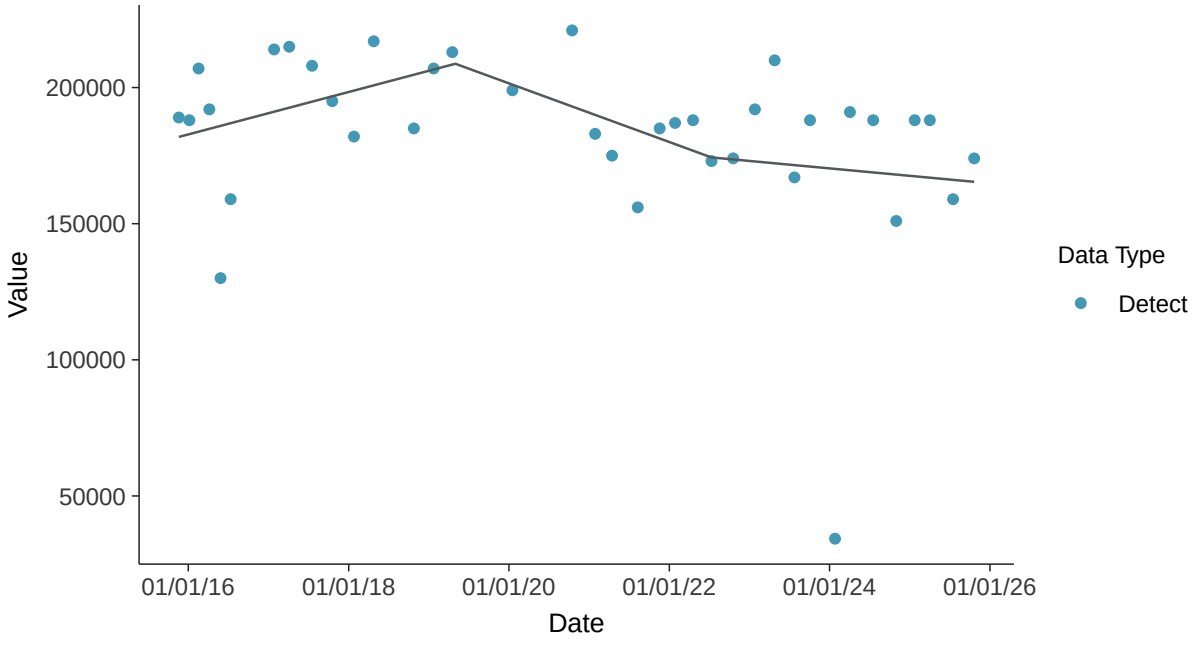
Trend Regression: Piecewise Linear-Linear

Calcium, MW-2 (ug/L)



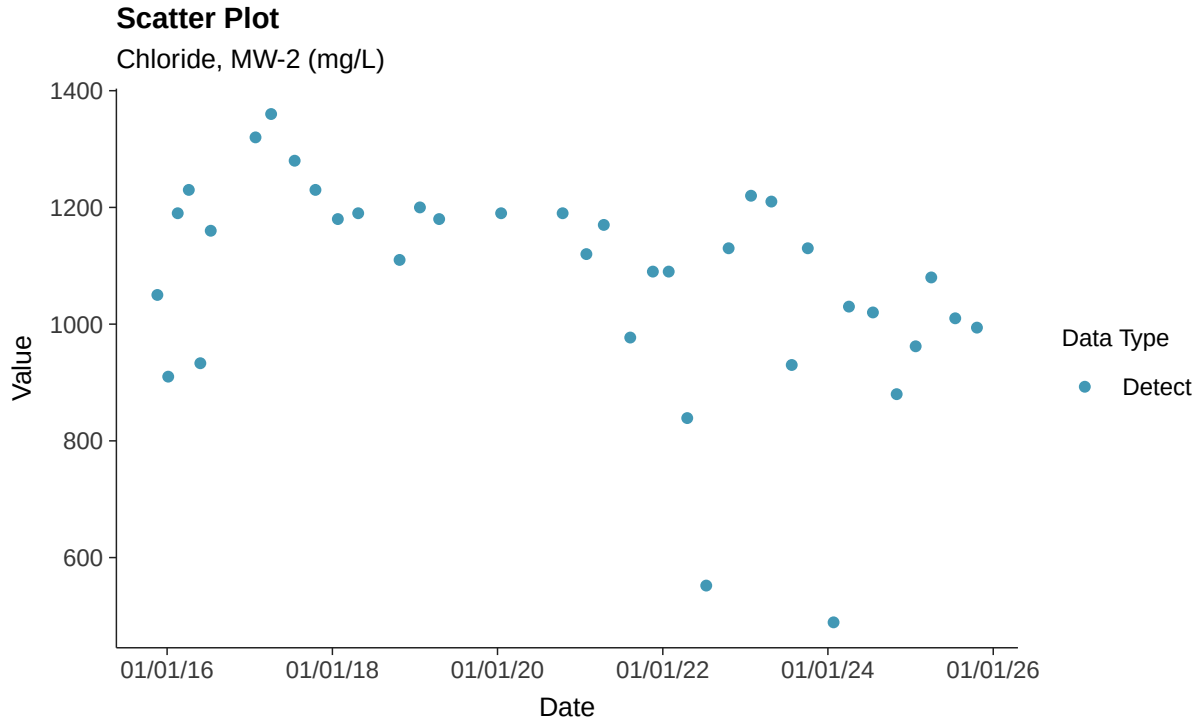
Trend Regression: Piecewise Linear-Linear-Linear

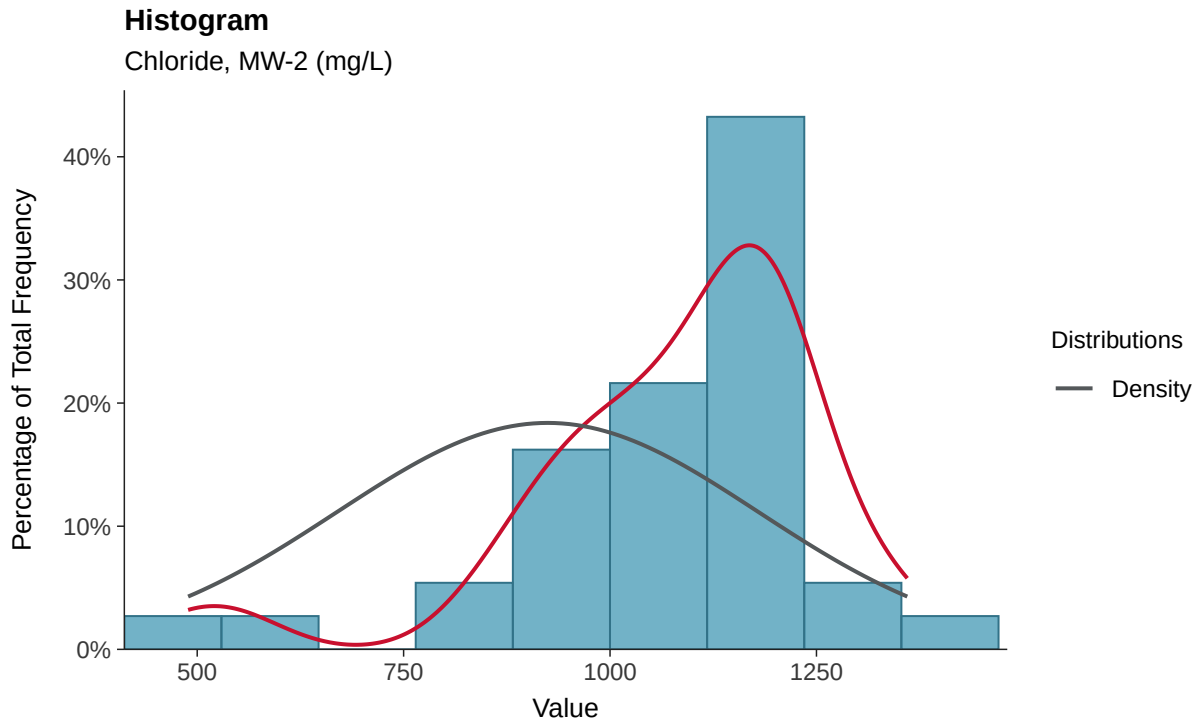
Calcium, MW-2 (ug/L)



App. III: Chloride, MW-2

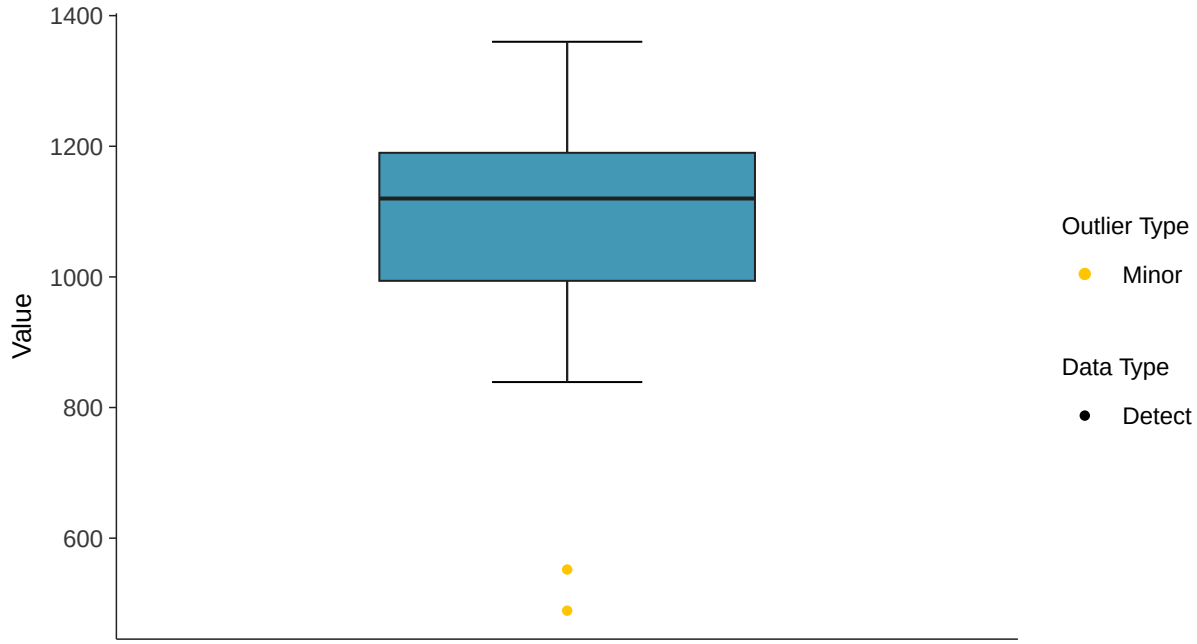
ID: 02_2_108





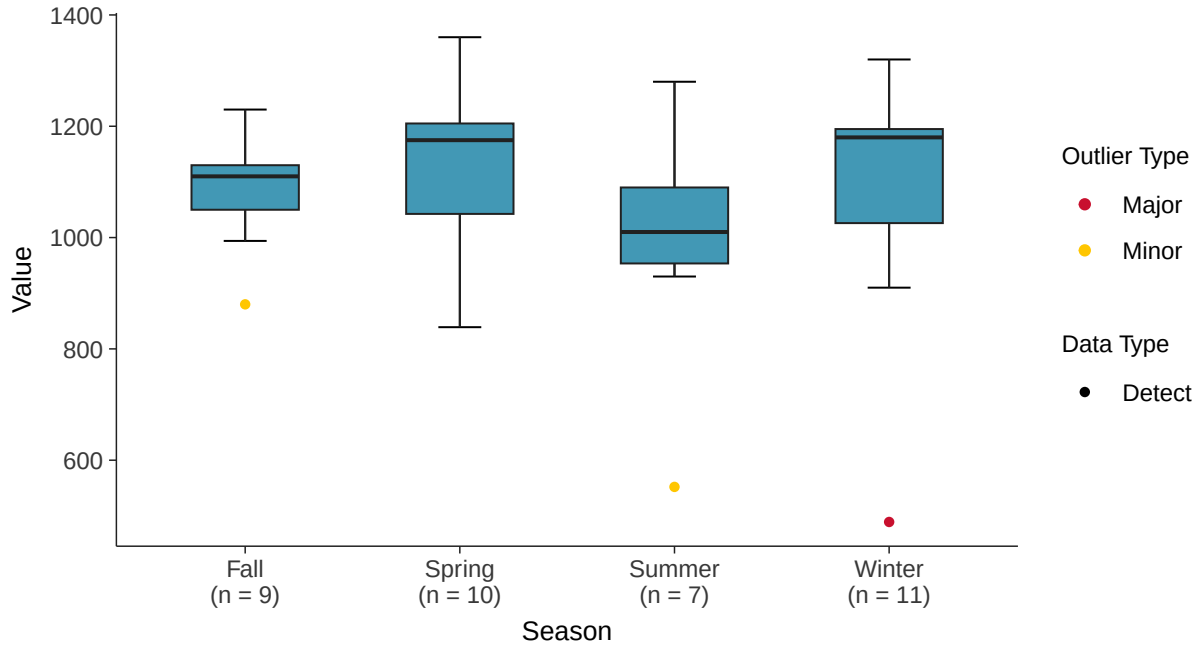
Boxplot

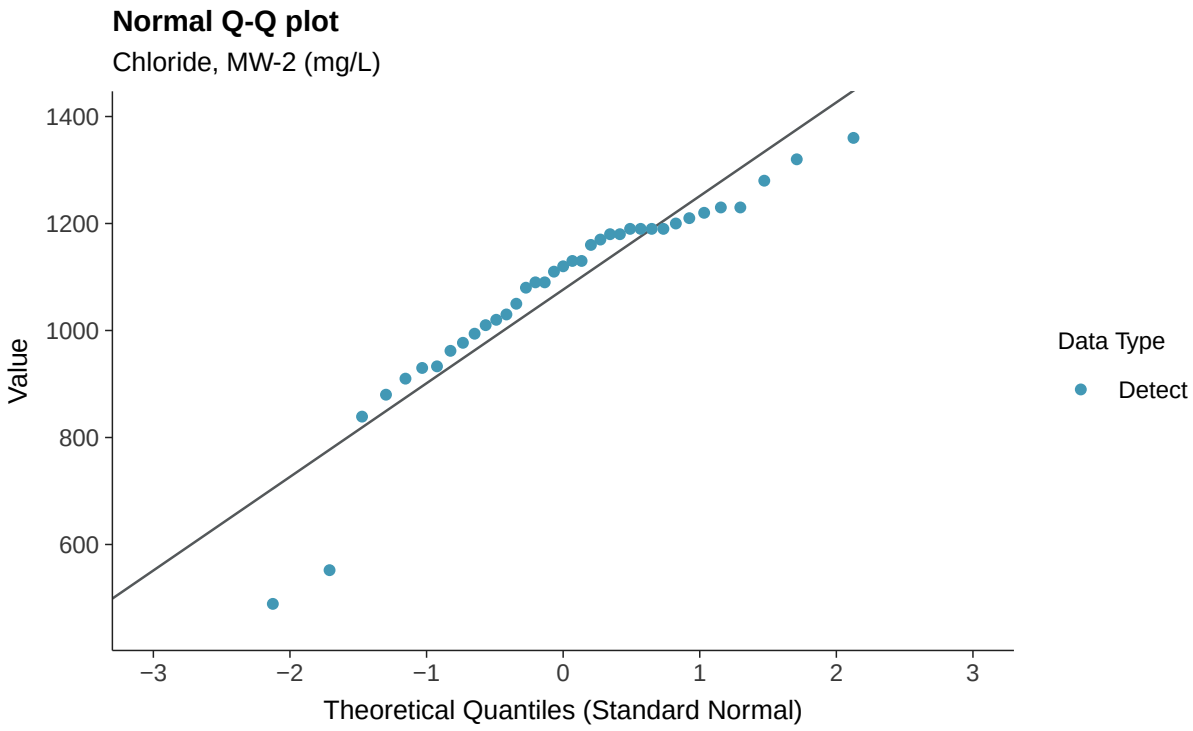
Chloride, MW-2 (mg/L)

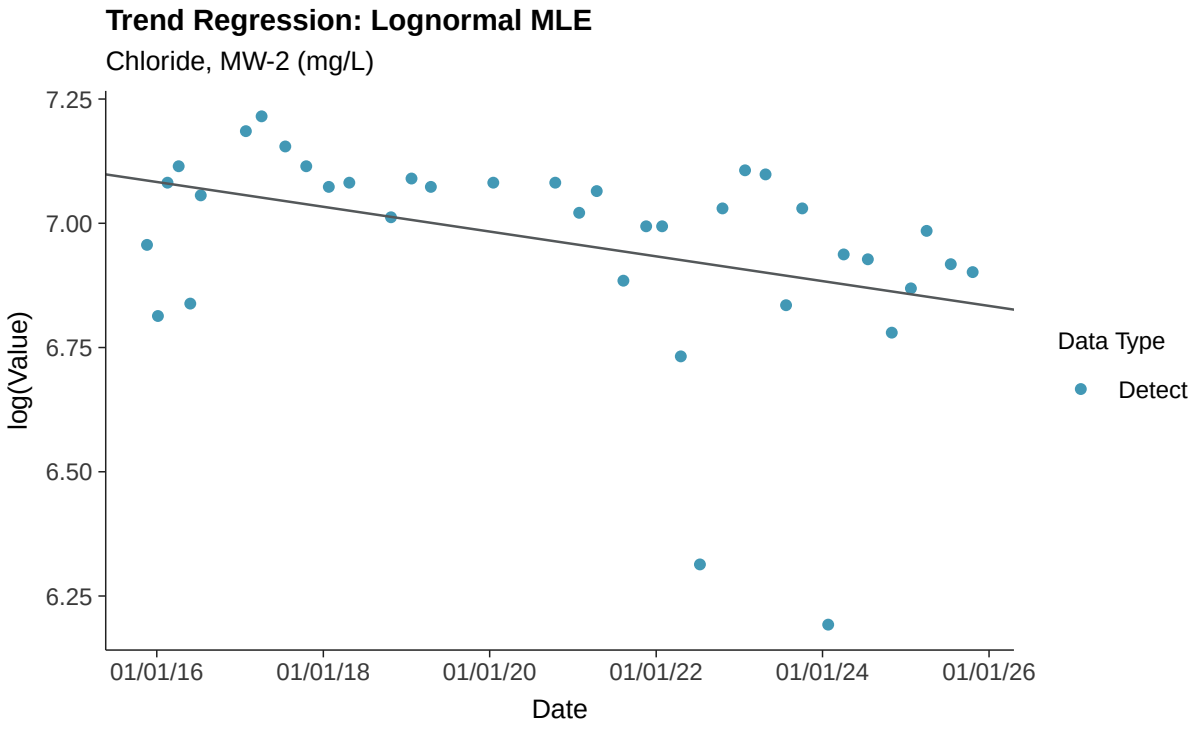


Boxplot by Season

Chloride, MW-2 (mg/L)

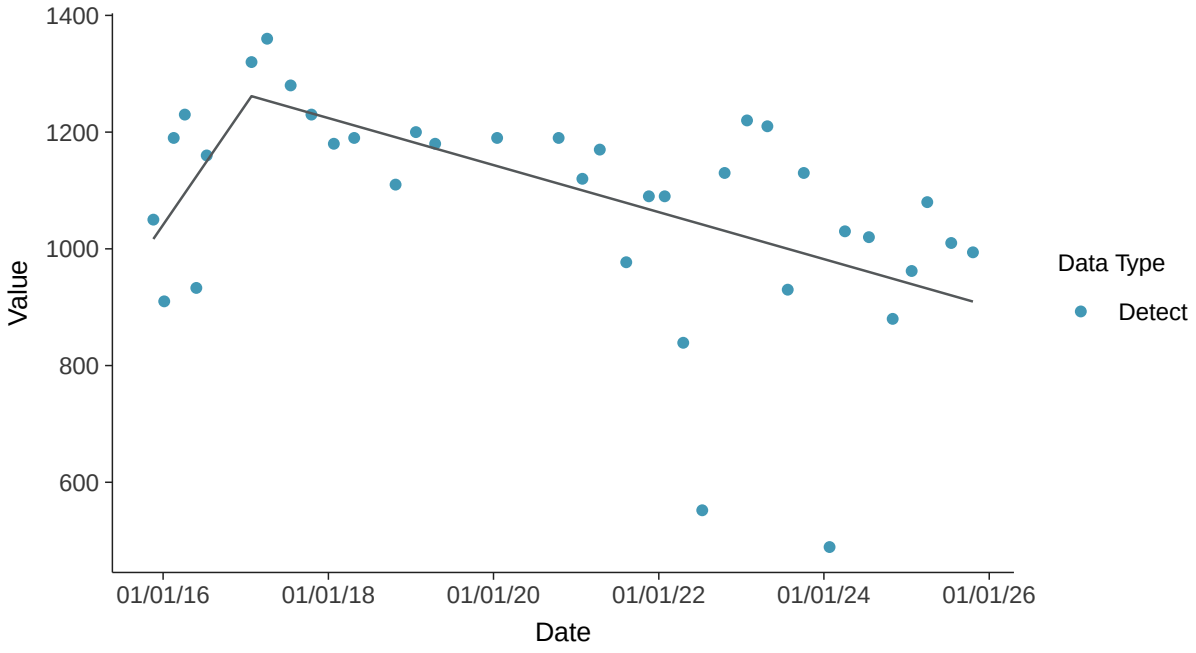



Normal Q-Q plot
Chloride, MW-2 (mg/L)
Value
1400
1200
1000
800
600
−3
−2
−1
0
1
2
3
Theoretical Quantiles (Standard Normal)
Data Type
Detect


Trend Regression: Lognormal MLE
Chloride, MW-2 (mg/L)
log(Value)
7.25
7.00
6.75
6.50
6.25
01/01/16
01/01/18
01/01/20
01/01/22
01/01/24
01/01/26
Date
Data Type
Detect

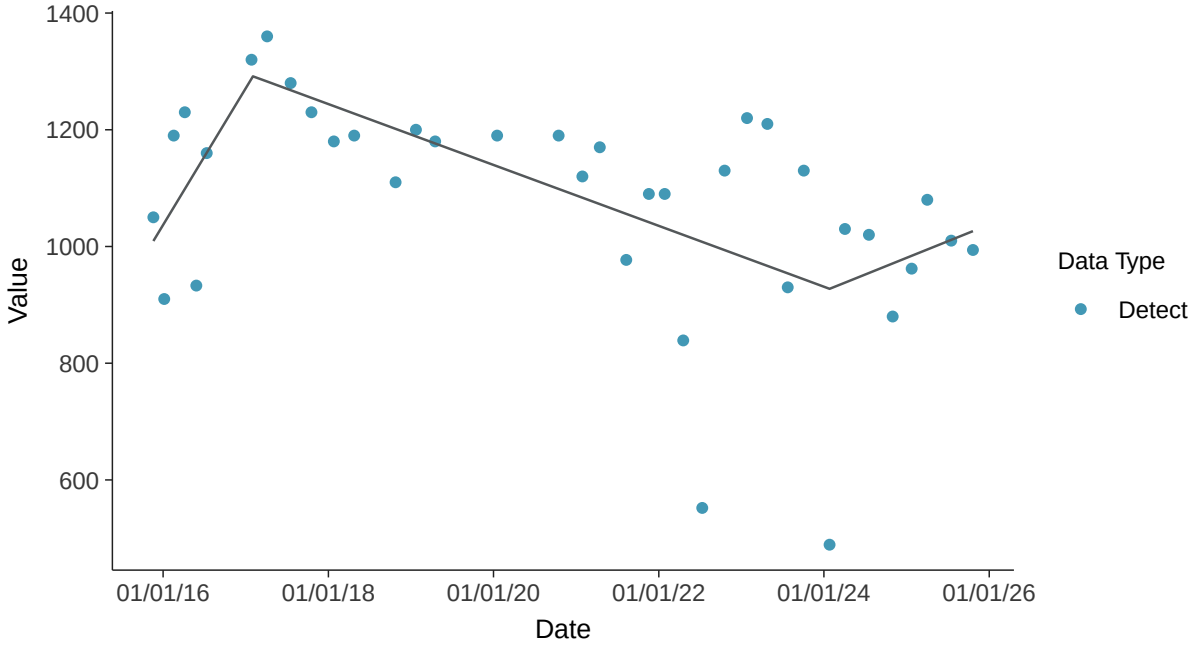
Trend Regression: Piecewise Linear-Linear

Chloride, MW-2 (mg/L)



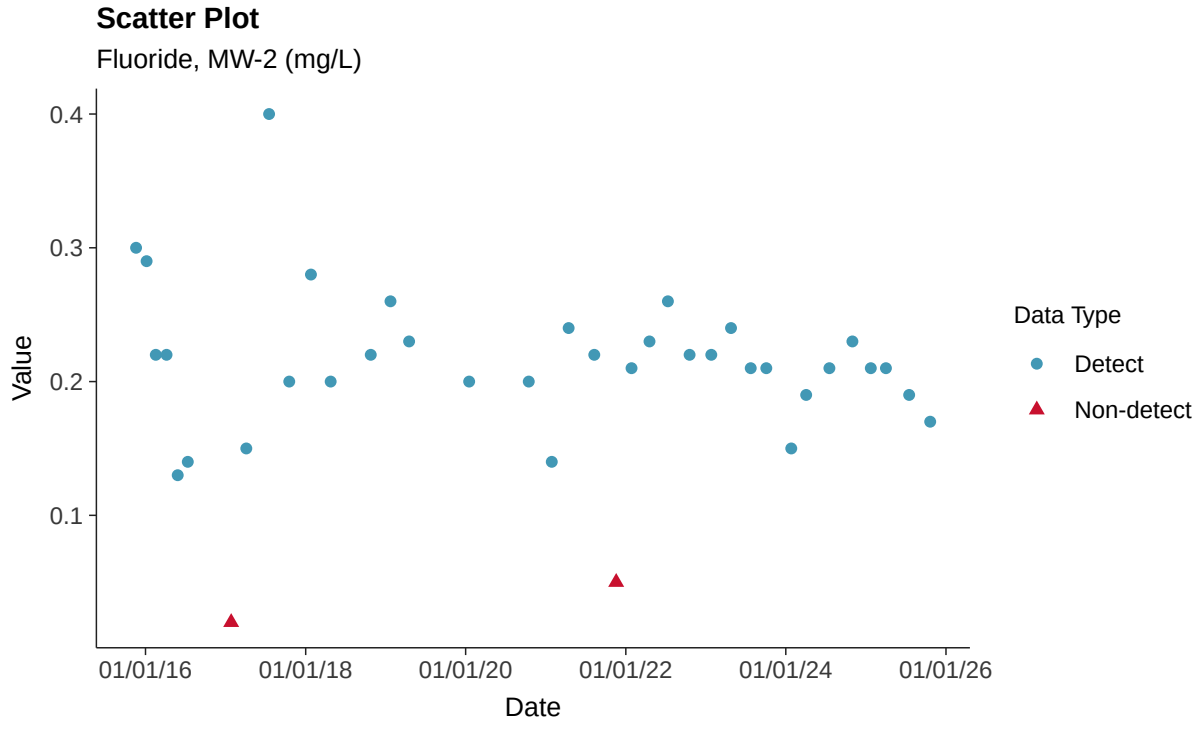
Trend Regression: Piecewise Linear-Linear-Linear

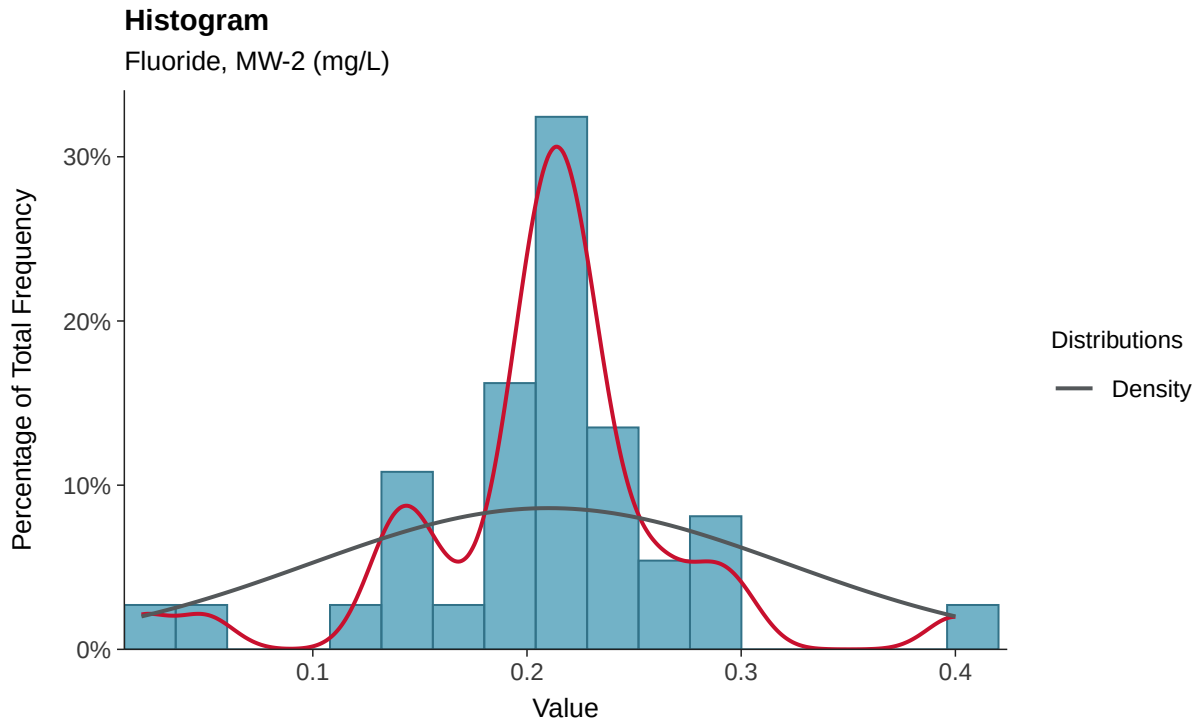
Chloride, MW-2 (mg/L)



App. III: Fluoride, MW-2

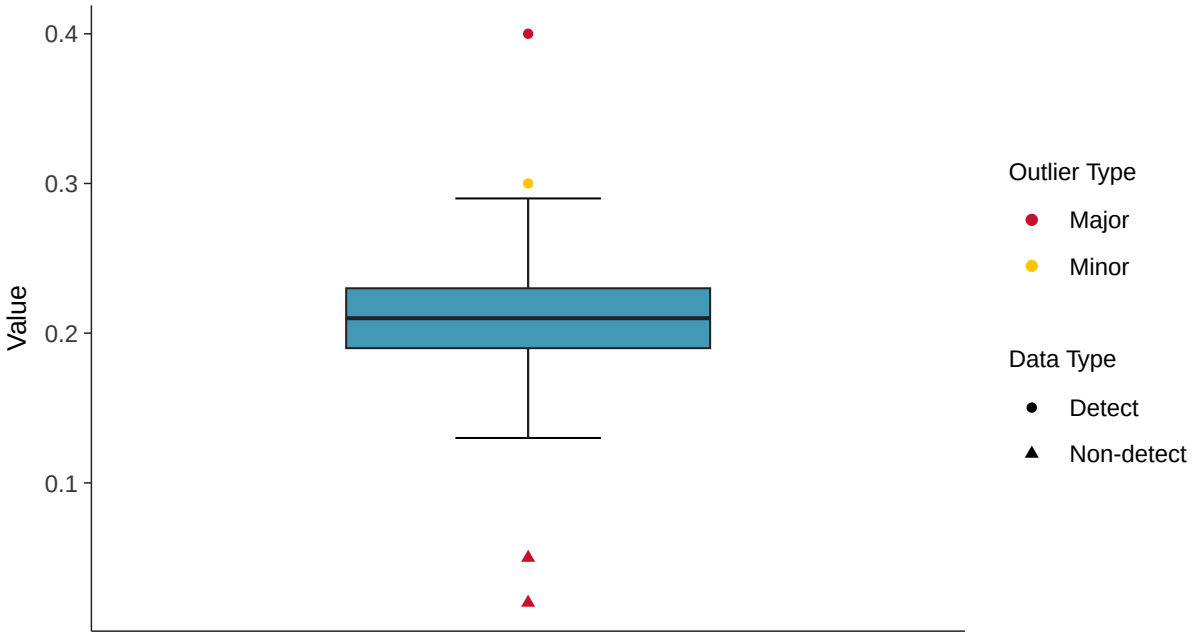
ID: 02_2_112





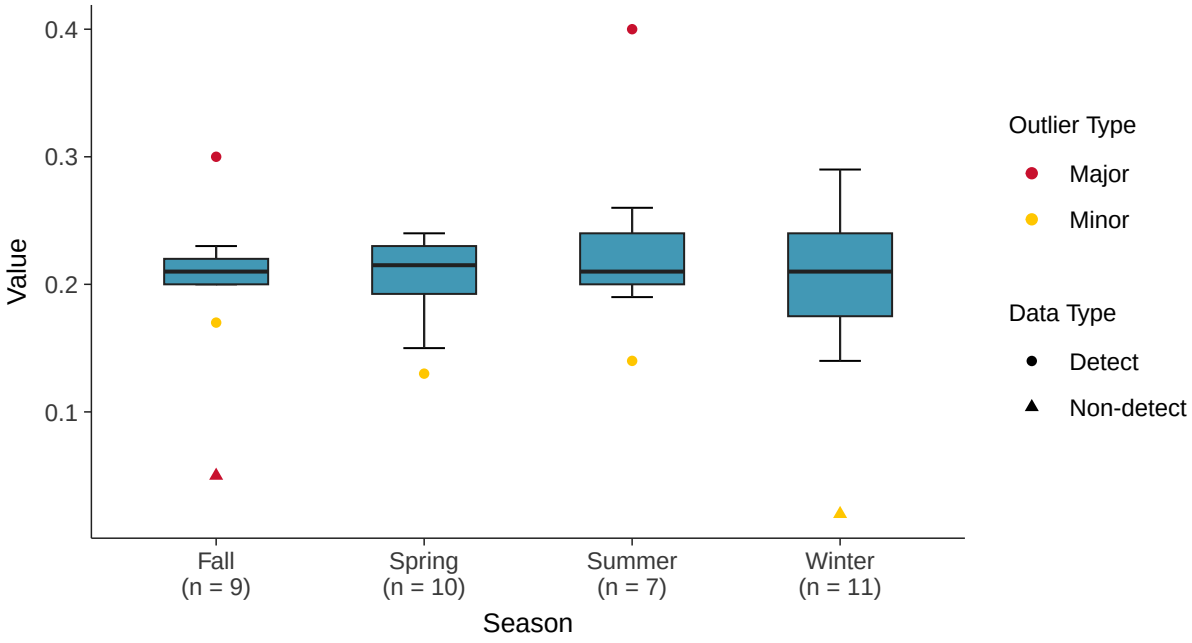
Boxplot

Fluoride, MW-2 (mg/L)



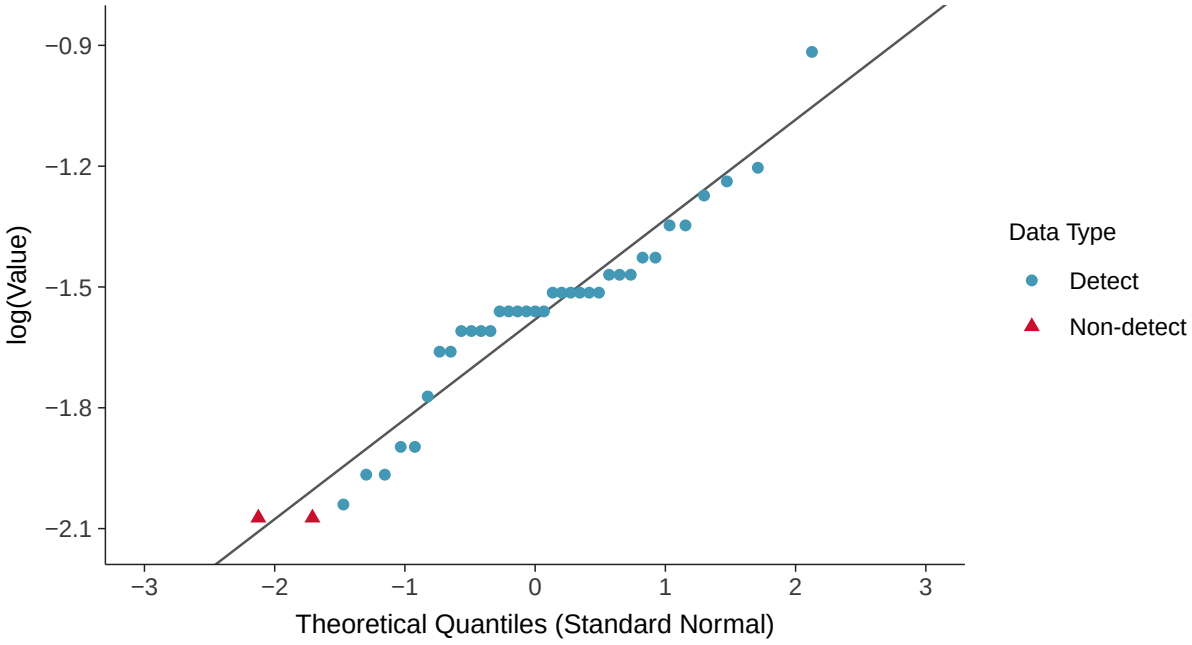
Boxplot by Season

Fluoride, MW-2 (mg/L)



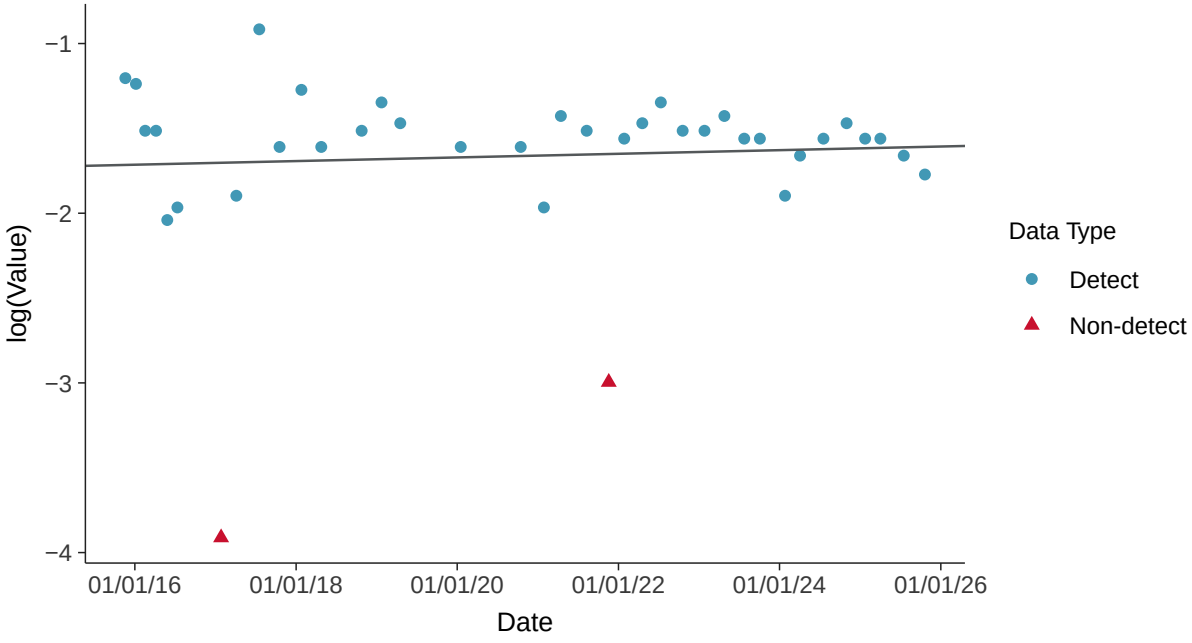
Lognormal Q-Q plot using ROS Imputed Estimates

Fluoride, MW-2 (mg/L)



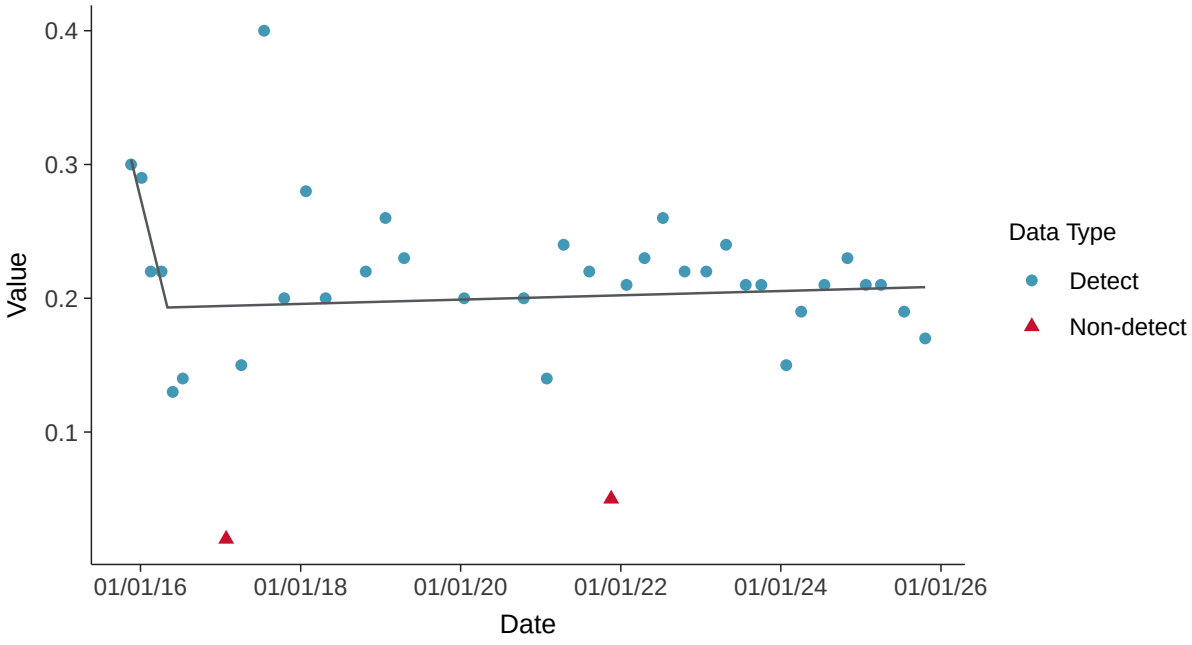
Trend Regression: Lognormal MLE

Fluoride, MW-2 (mg/L)



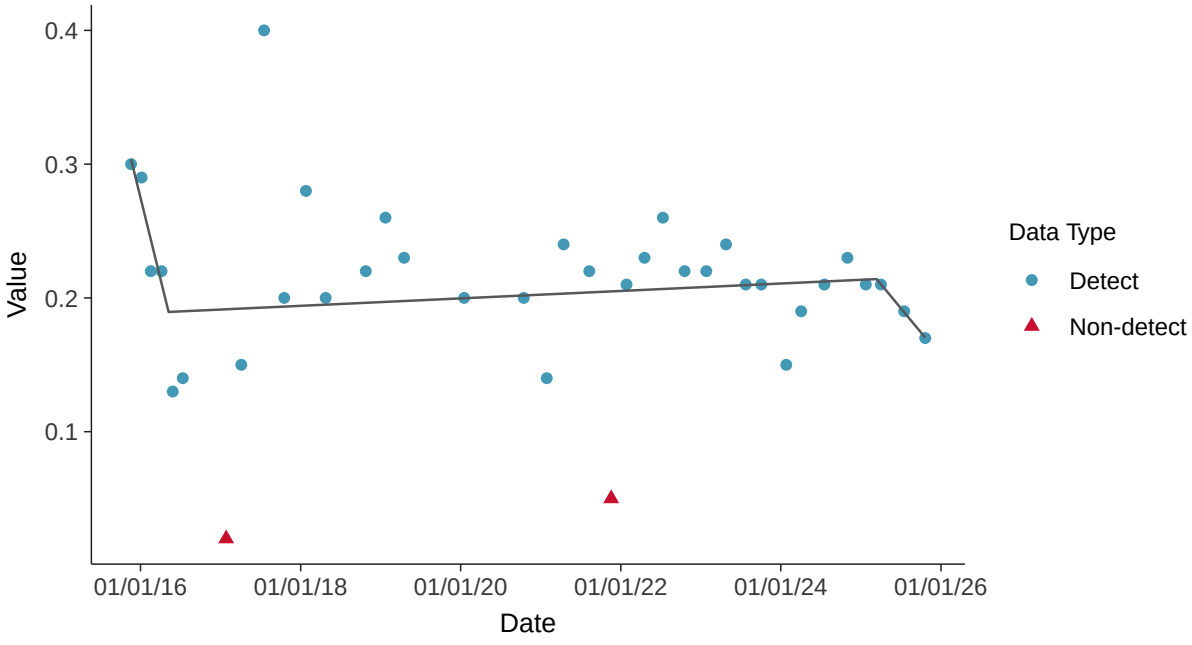
Trend Regression: Piecewise Linear-Linear

Fluoride, MW-2 (mg/L)



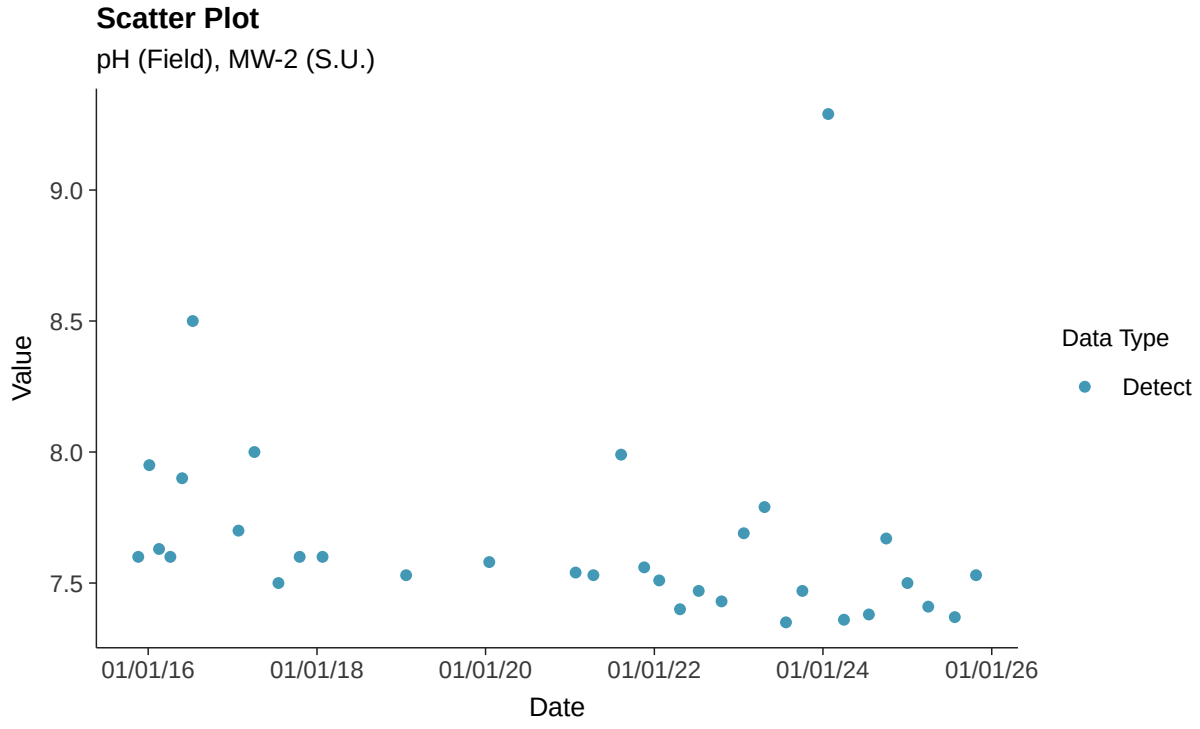
Trend Regression: Piecewise Linear-Linear-Linear

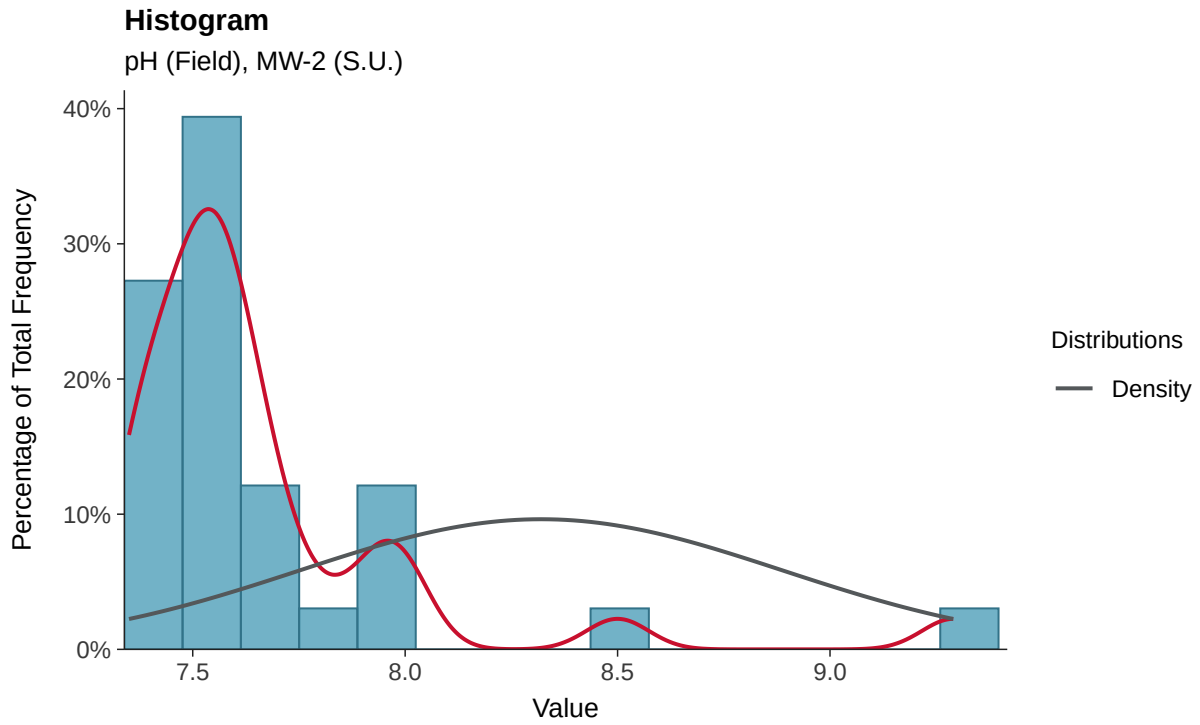
Fluoride, MW-2 (mg/L)



App. III: pH (Field), MW-2

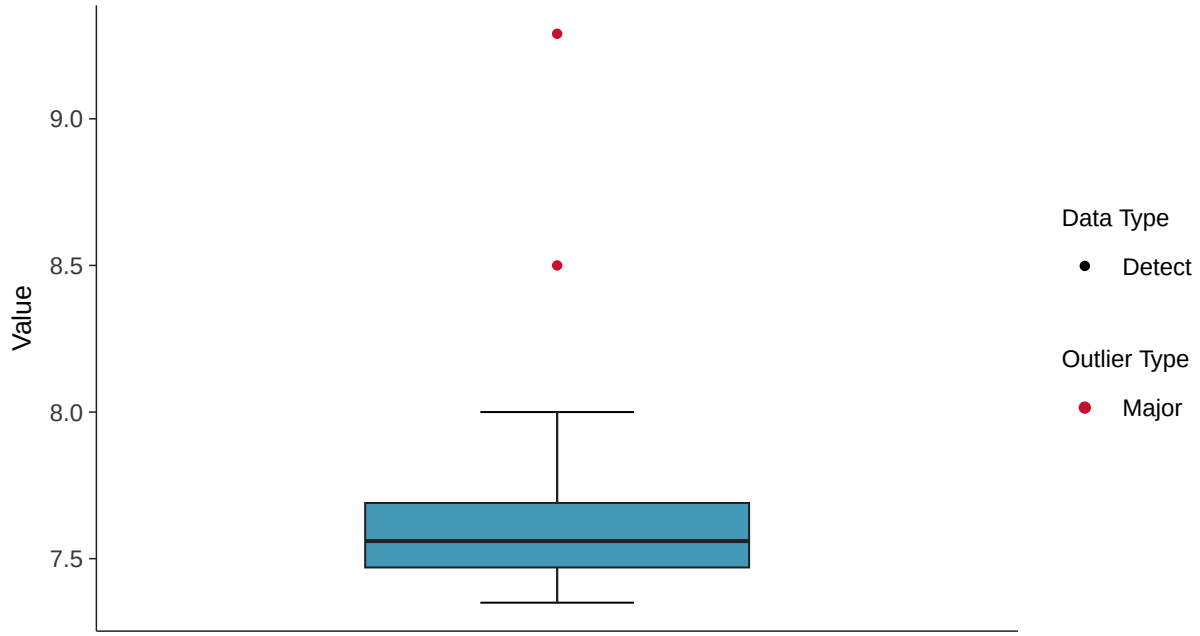
ID: 02_2_118





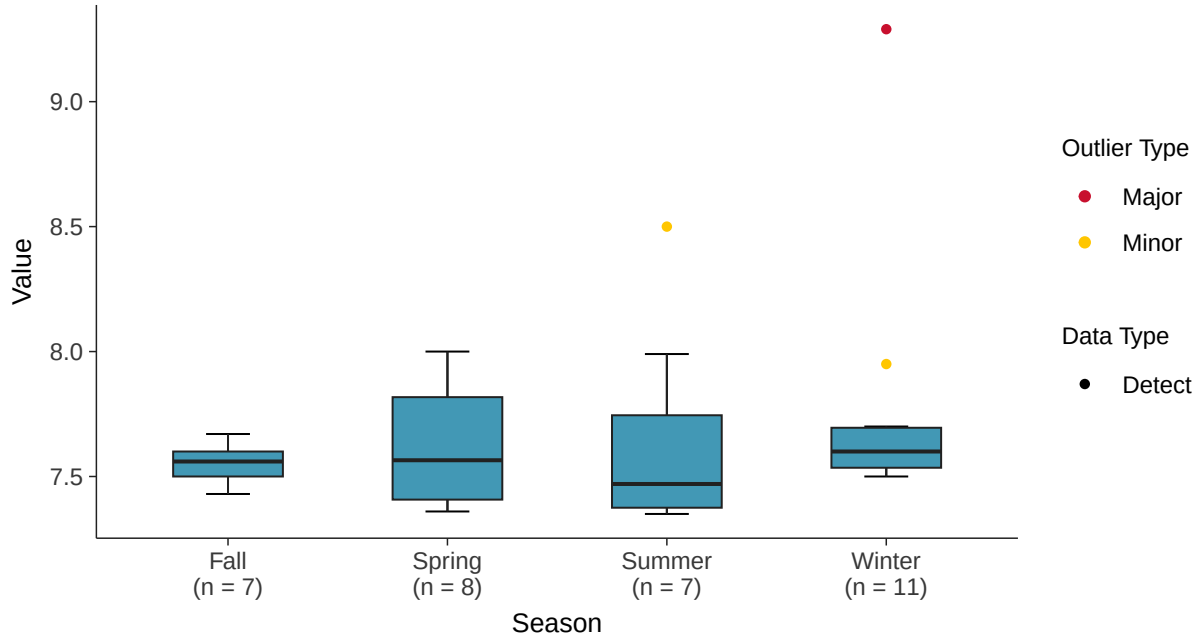
Boxplot

pH (Field), MW-2 (S.U.)



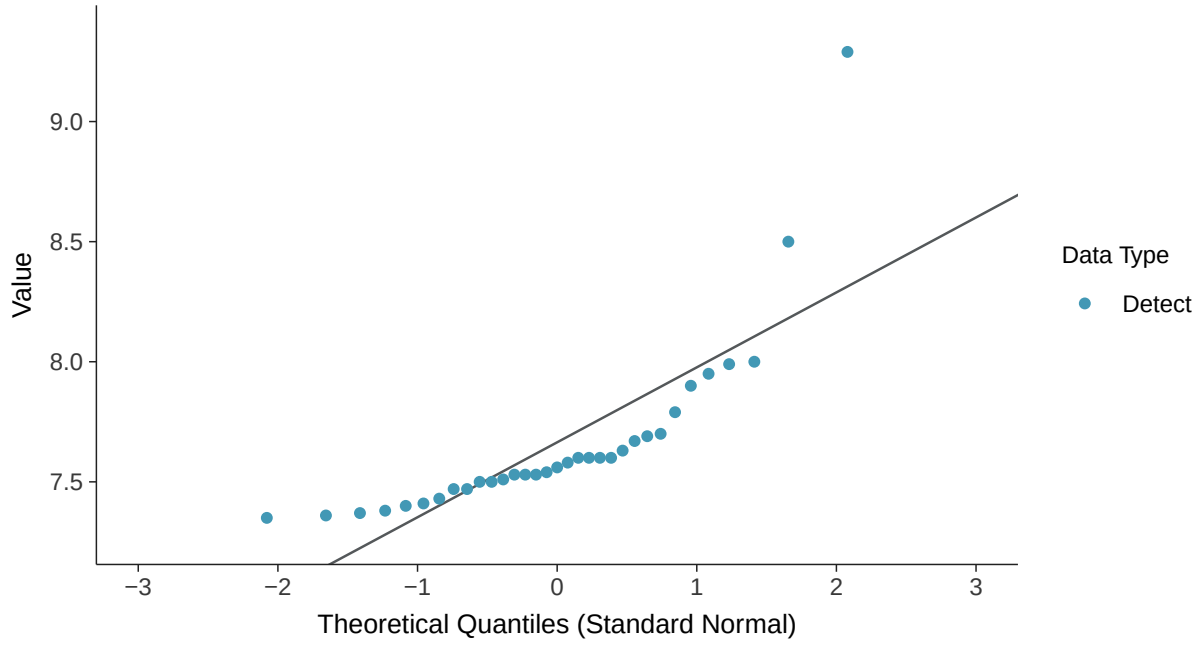
Boxplot by Season

pH (Field), MW-2 (S.U.)



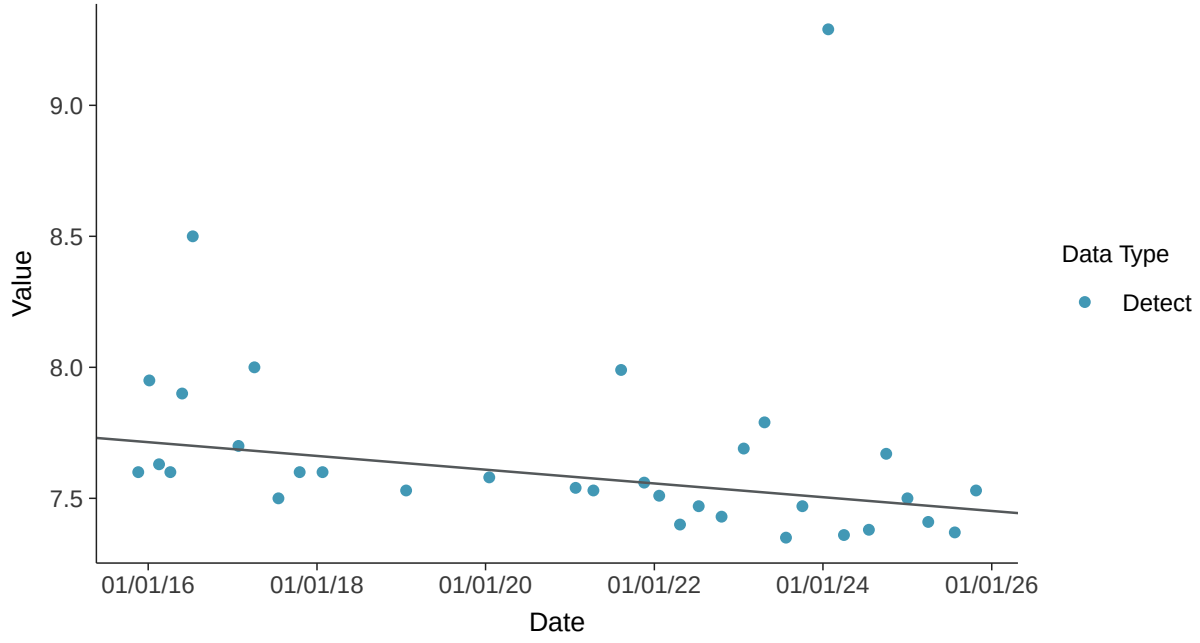
Normal Q-Q plot

pH (Field), MW-2 (S.U.)



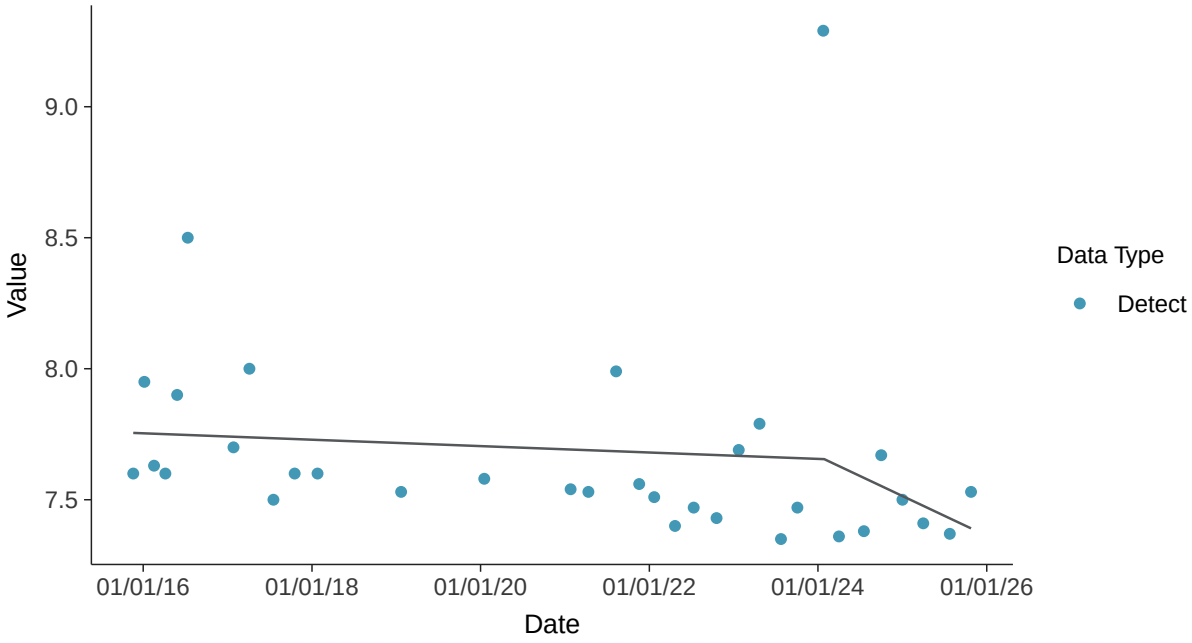
Trend Regression: Mann-Kendall/Theil-Sen Estimate

pH (Field), MW-2 (S.U.)



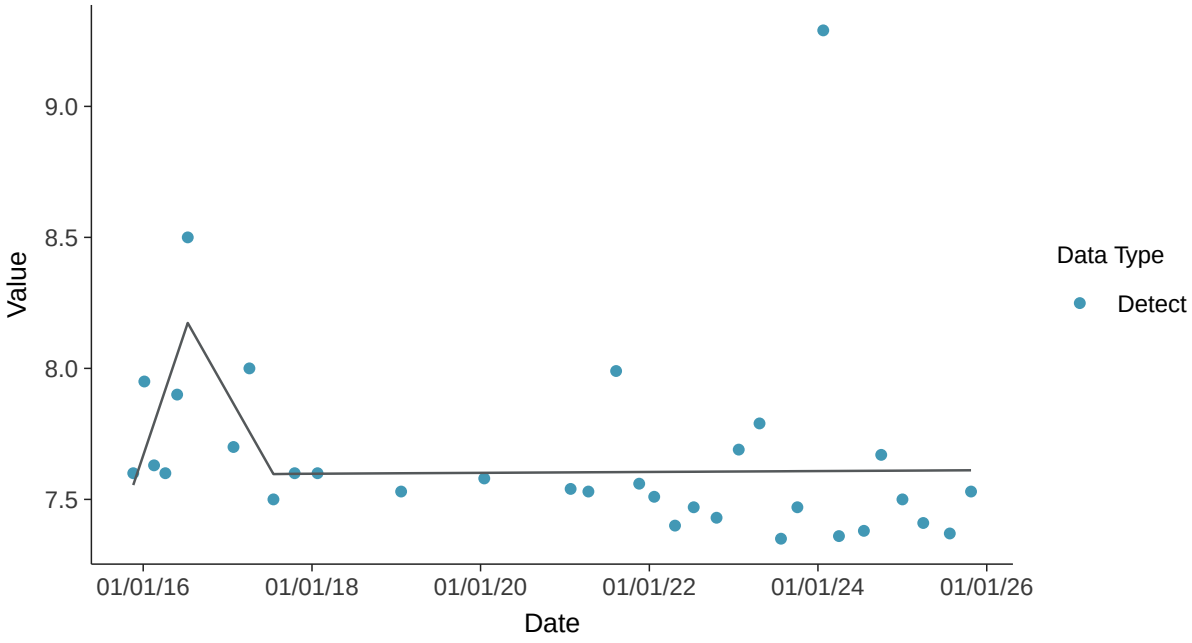
Trend Regression: Piecewise Linear-Linear

pH (Field), MW-2 (S.U.)



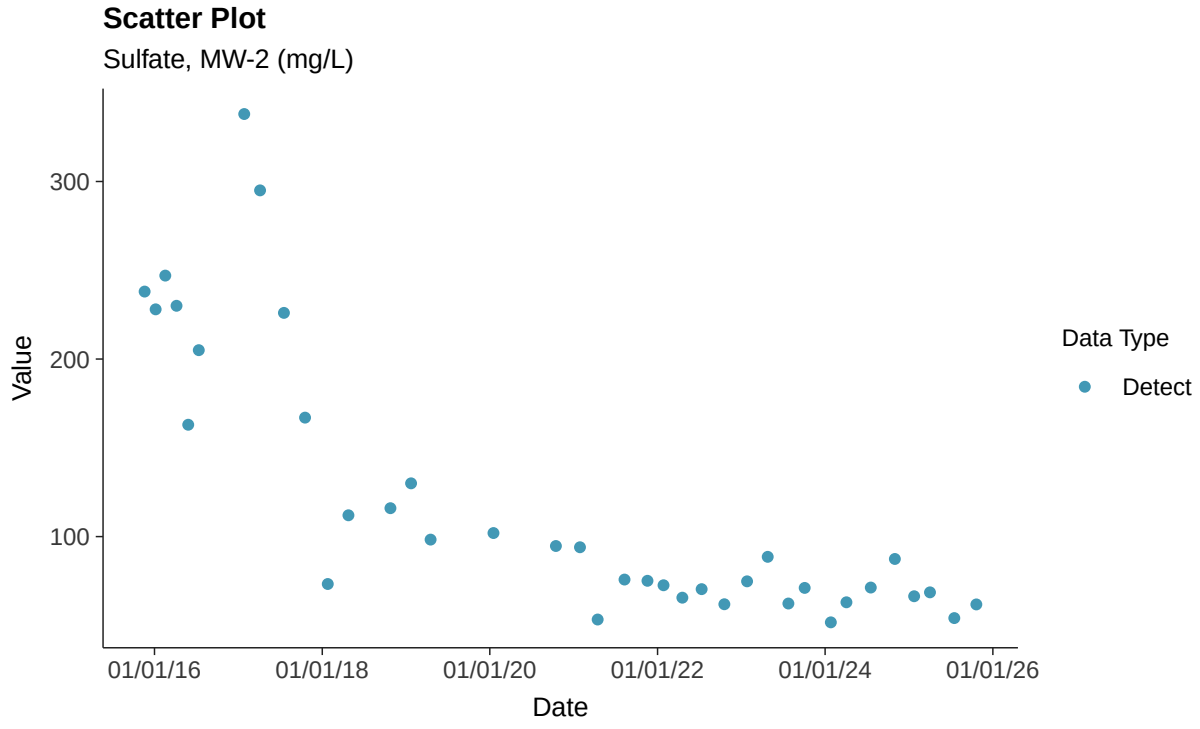
Trend Regression: Piecewise Linear-Linear-Linear

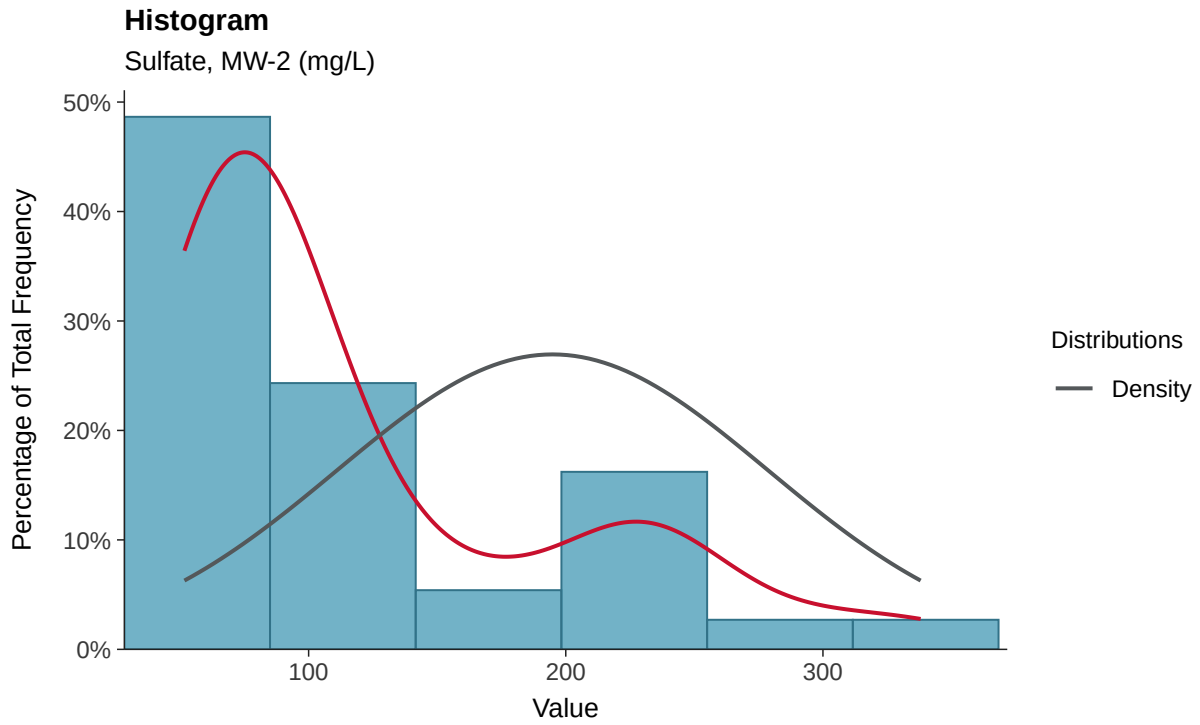
pH (Field), MW-2 (S.U.)



App. III: Sulfate, MW-2

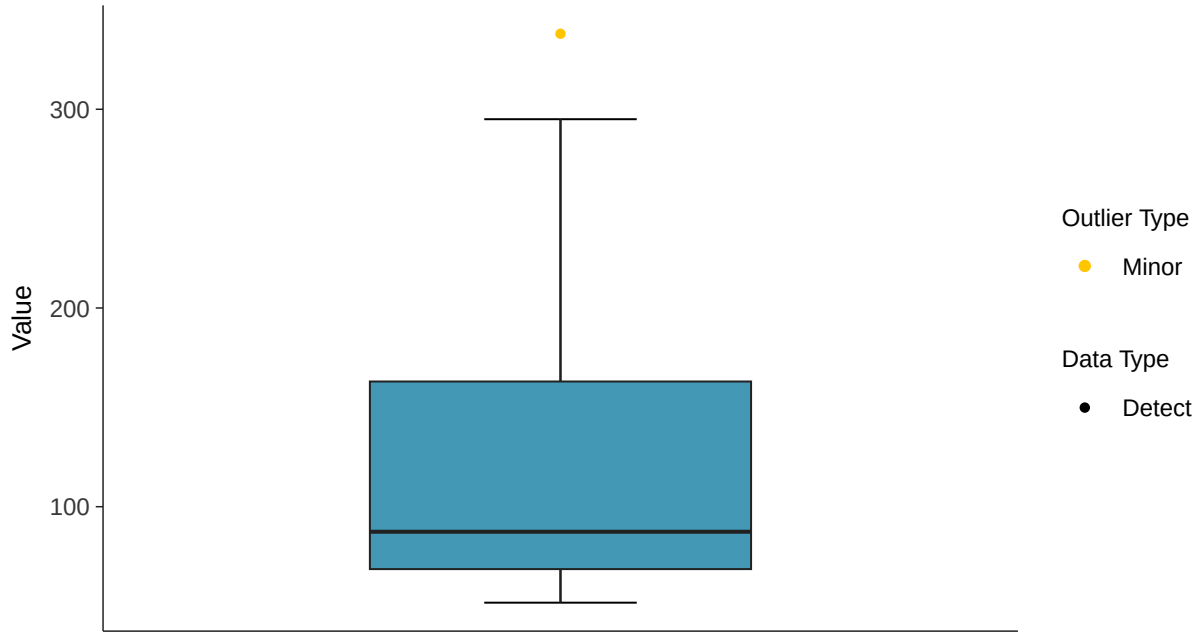
ID: 02_2_123





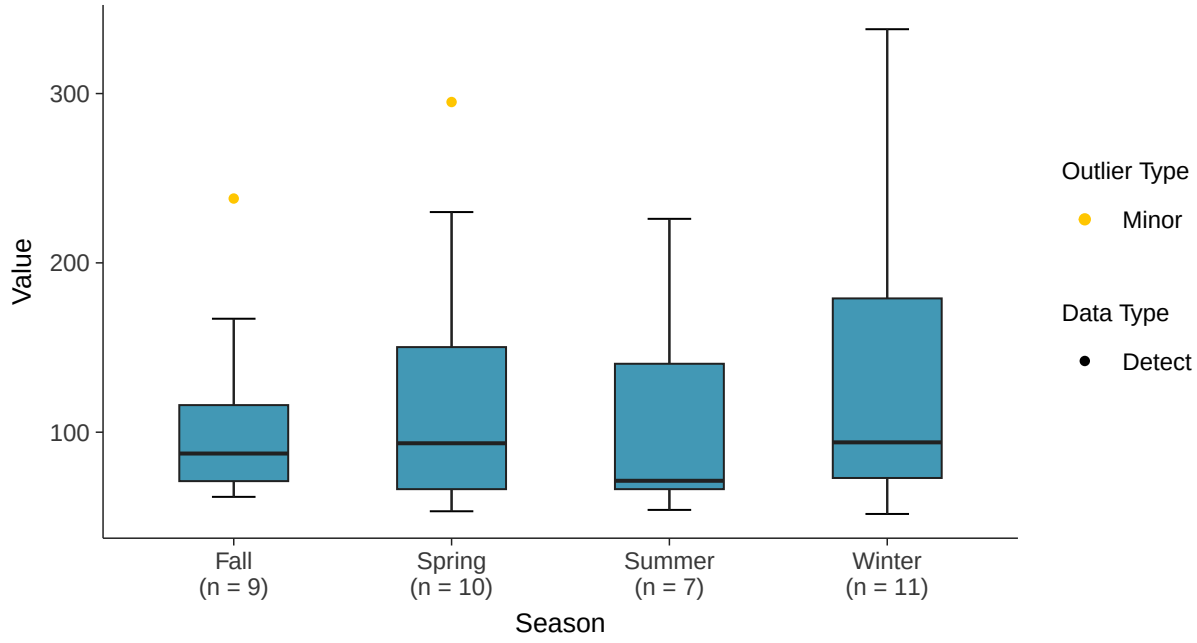
Boxplot

Sulfate, MW-2 (mg/L)



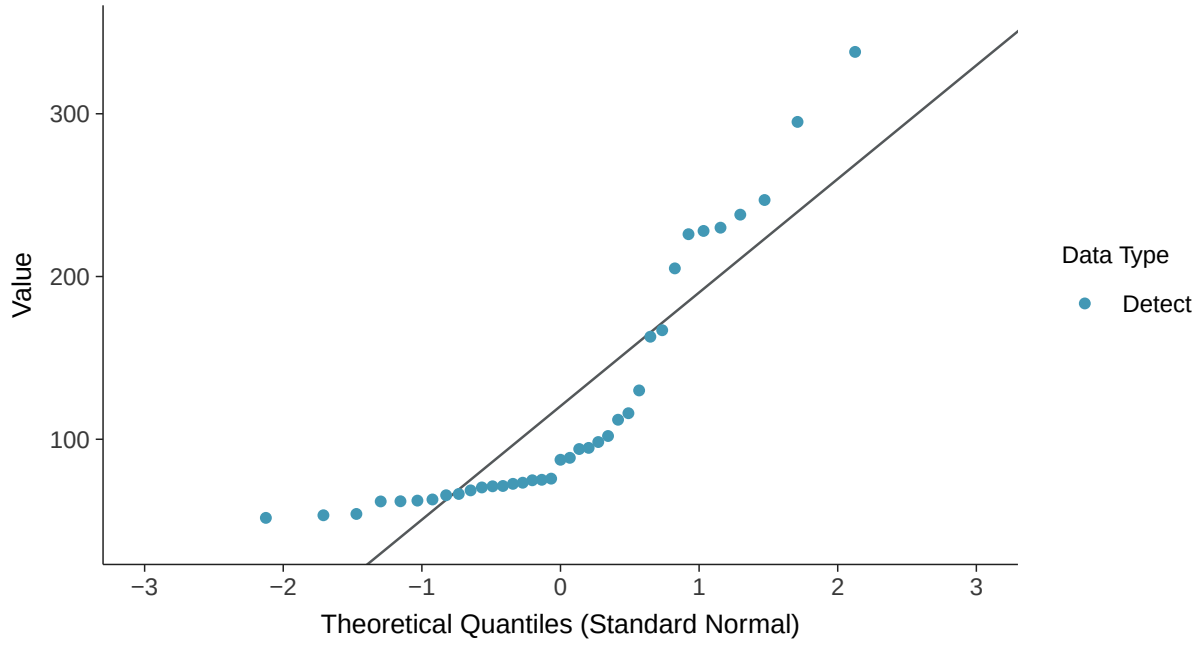
Boxplot by Season

Sulfate, MW-2 (mg/L)



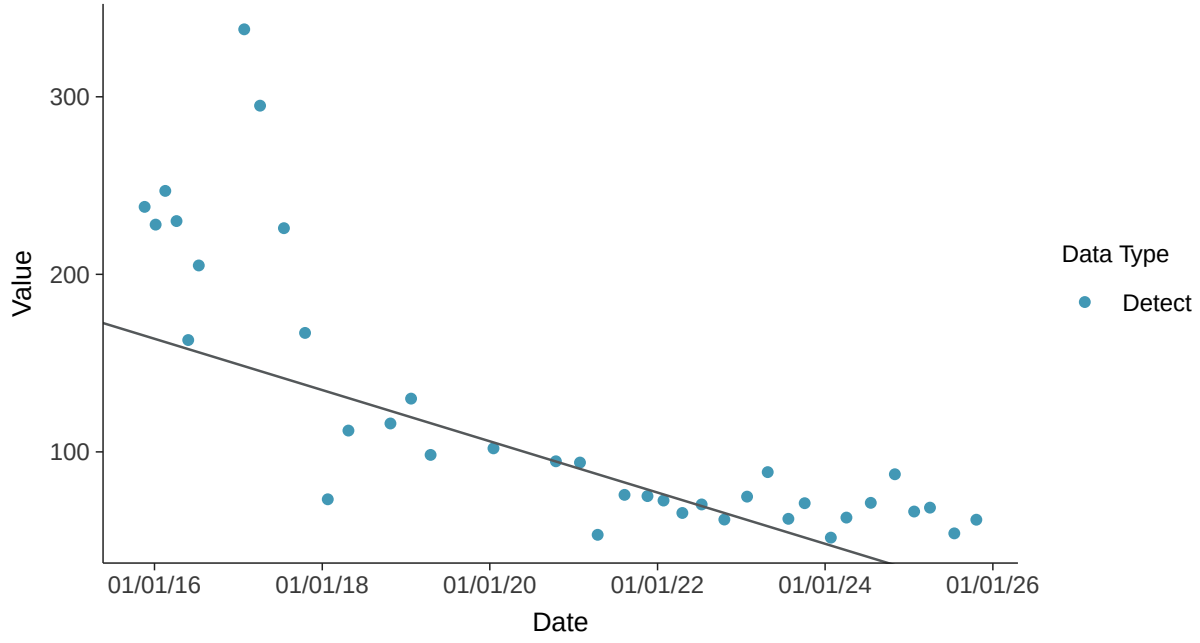
Normal Q-Q plot

Sulfate, MW-2 (mg/L)



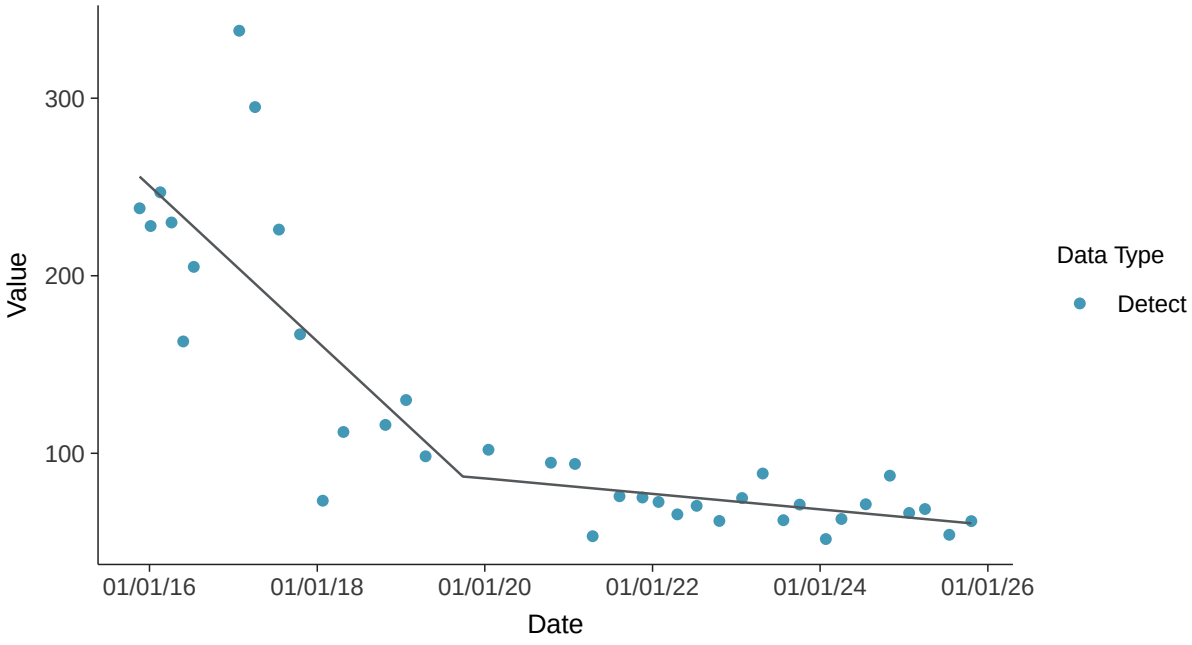
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Sulfate, MW-2 (mg/L)



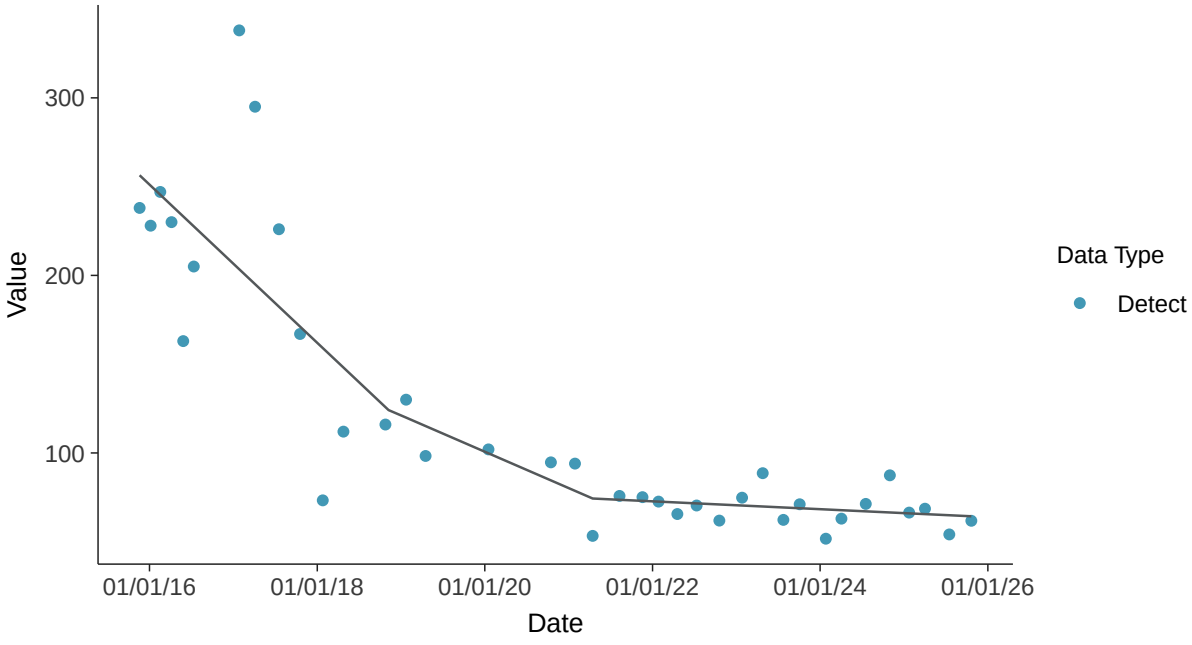
Trend Regression: Piecewise Linear-Linear

Sulfate, MW-2 (mg/L)



Trend Regression: Piecewise Linear-Linear-Linear

Sulfate, MW-2 (mg/L)

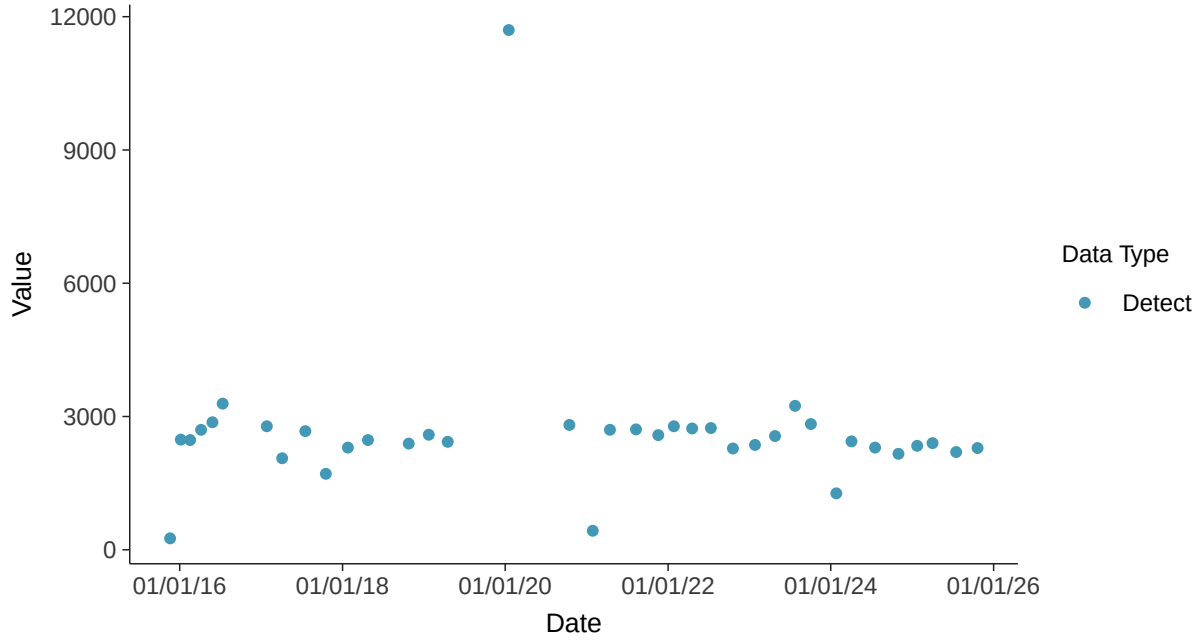


App. III: Total Dissolved Solids, MW-2

ID: 02_2_125

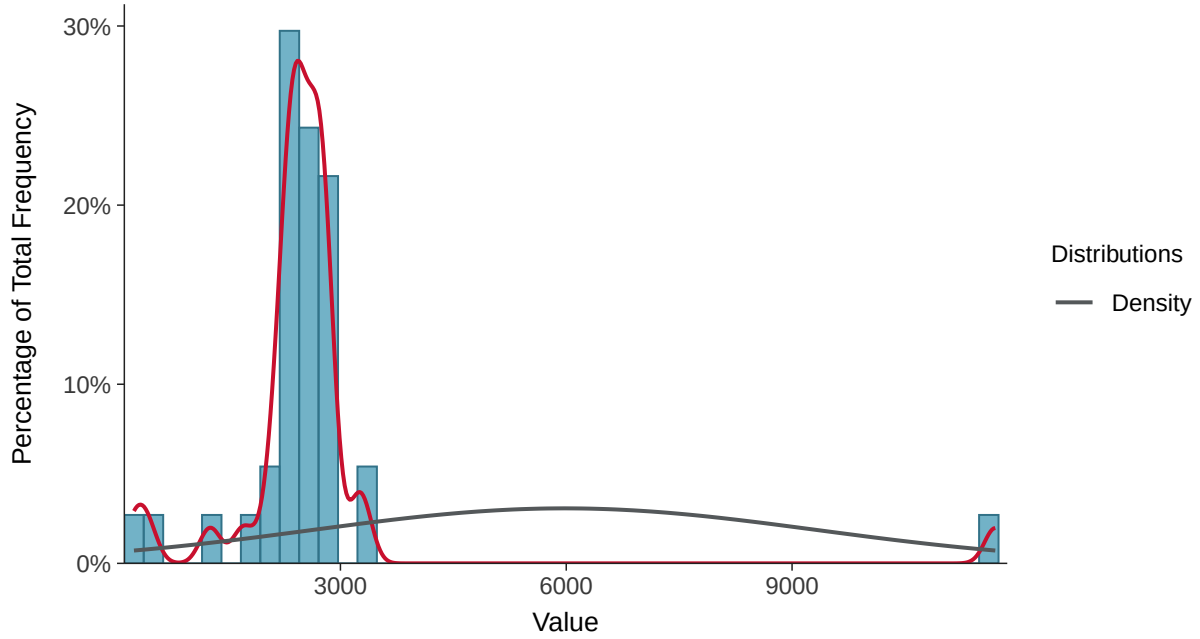
Scatter Plot

Total Dissolved Solids, MW-2 (mg/L)



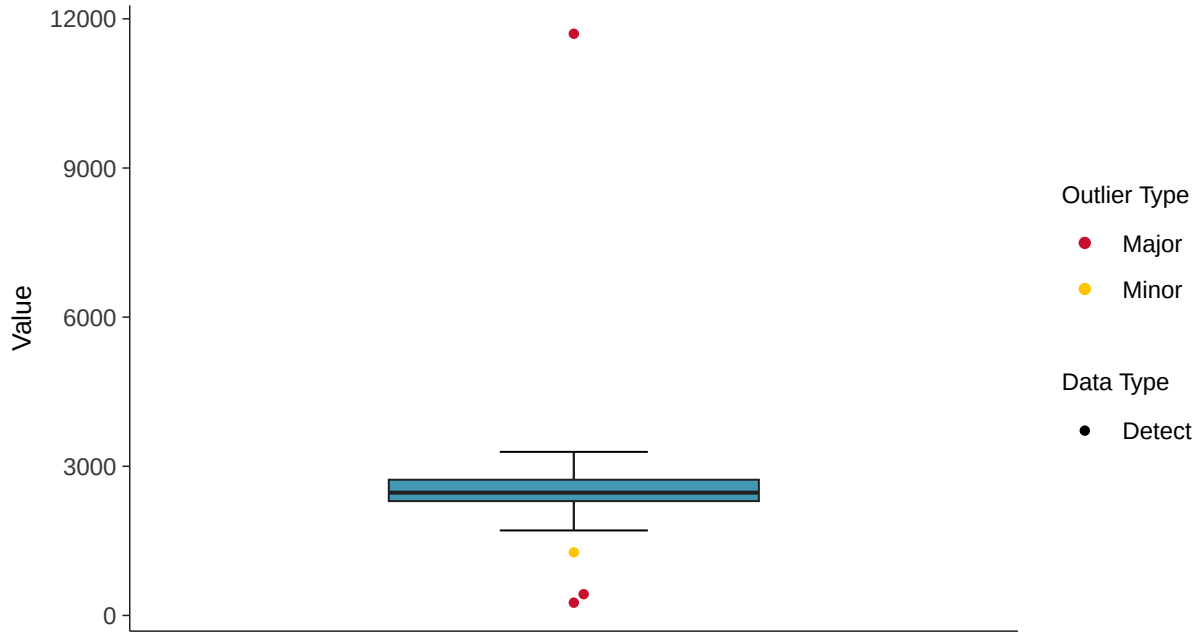
Histogram

Total Dissolved Solids, MW-2 (mg/L)



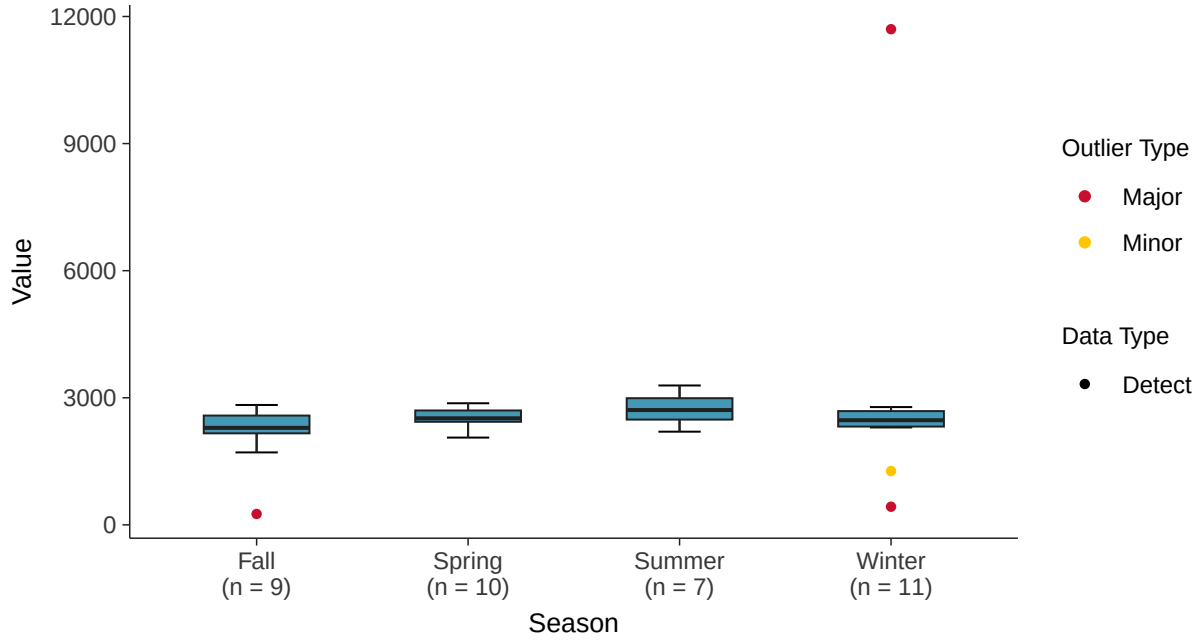
Boxplot

Total Dissolved Solids, MW-2 (mg/L)



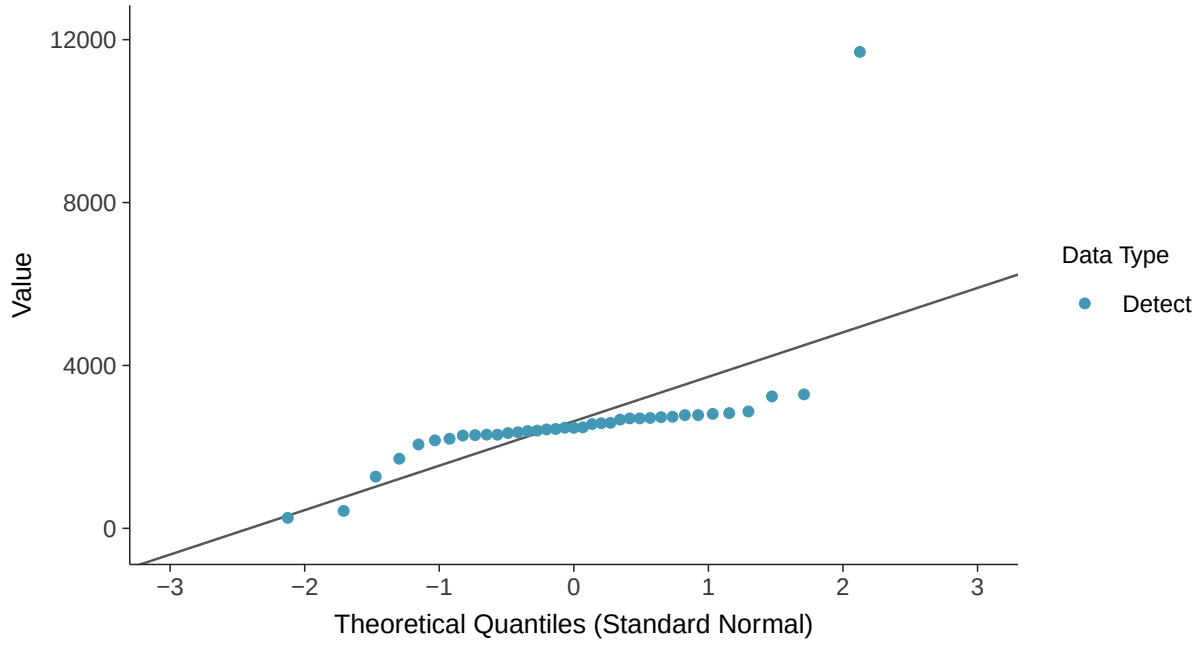
Boxplot by Season

Total Dissolved Solids, MW-2 (mg/L)



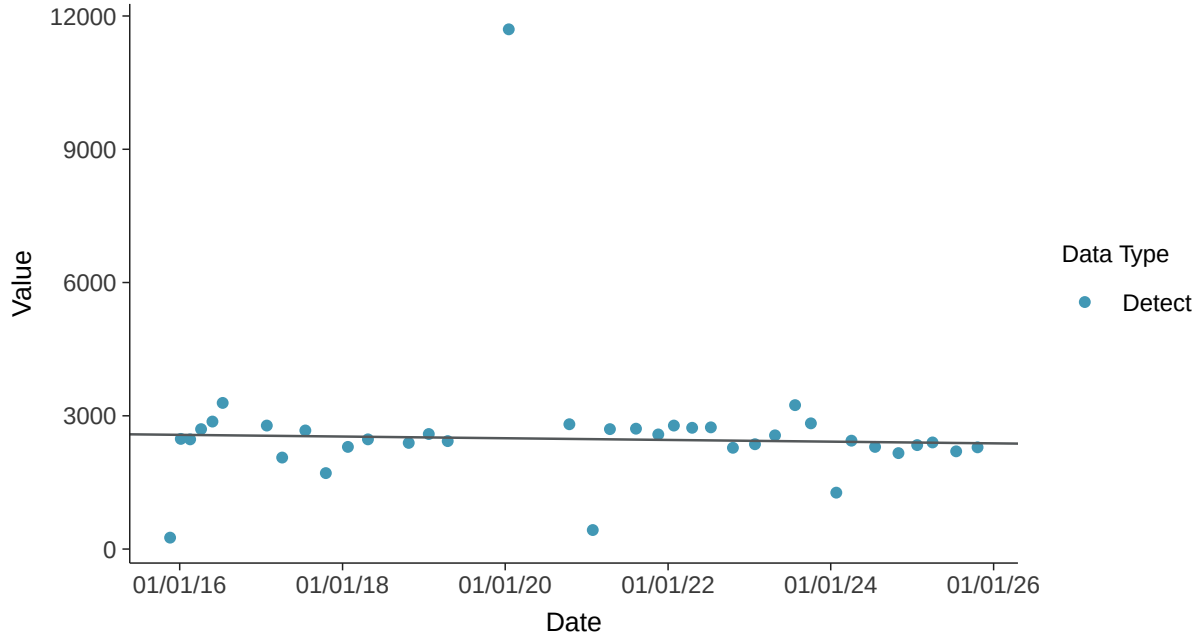
Normal Q-Q plot

Total Dissolved Solids, MW-2 (mg/L)



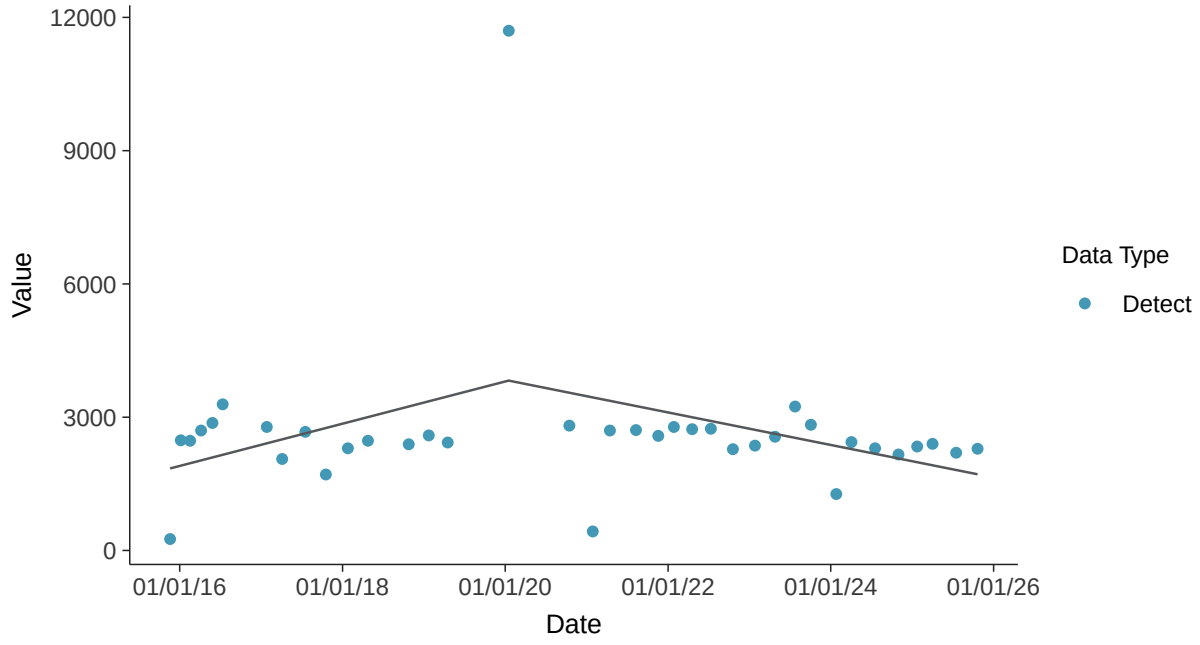
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Total Dissolved Solids, MW-2 (mg/L)



Trend Regression: Piecewise Linear-Linear

Total Dissolved Solids, MW-2 (mg/L)

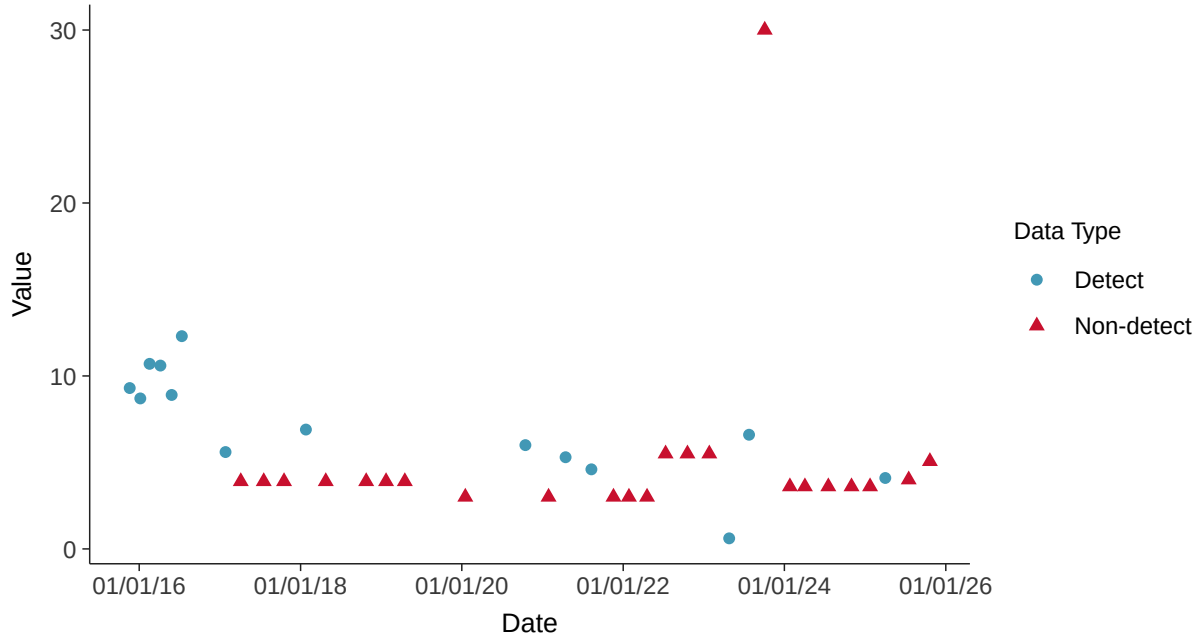


App. IV: Antimony, MW-2

ID: 02_3_101

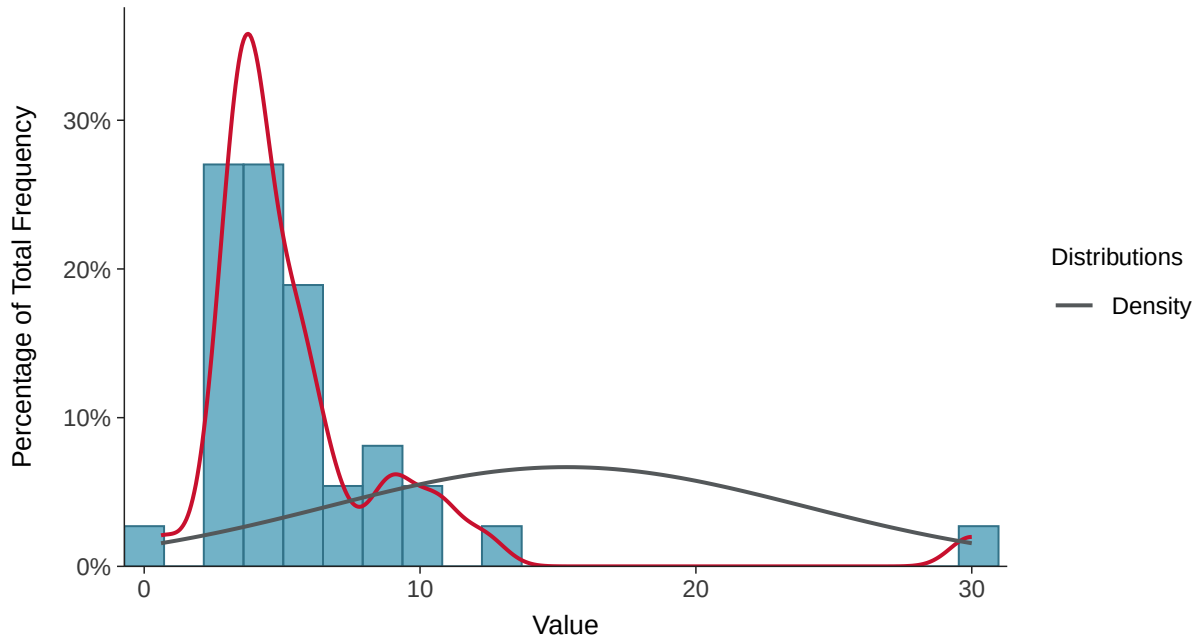
Scatter Plot

Antimony, MW-2 (ug/L)



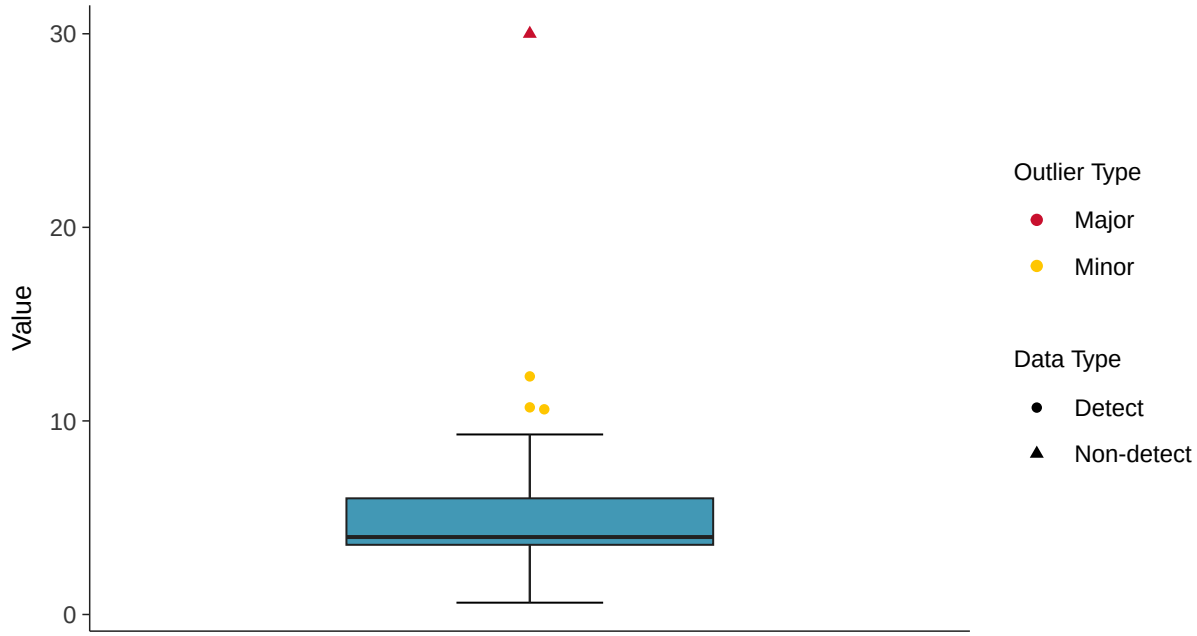
Histogram

Antimony, MW-2 (ug/L)



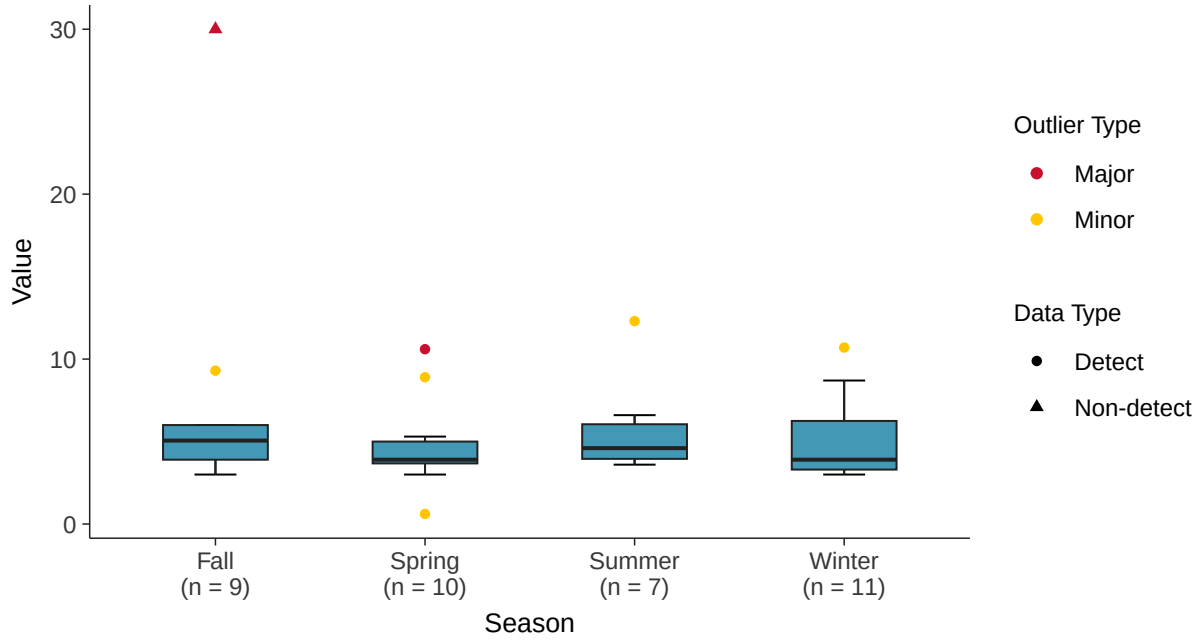
Boxplot

Antimony, MW-2 (ug/L)



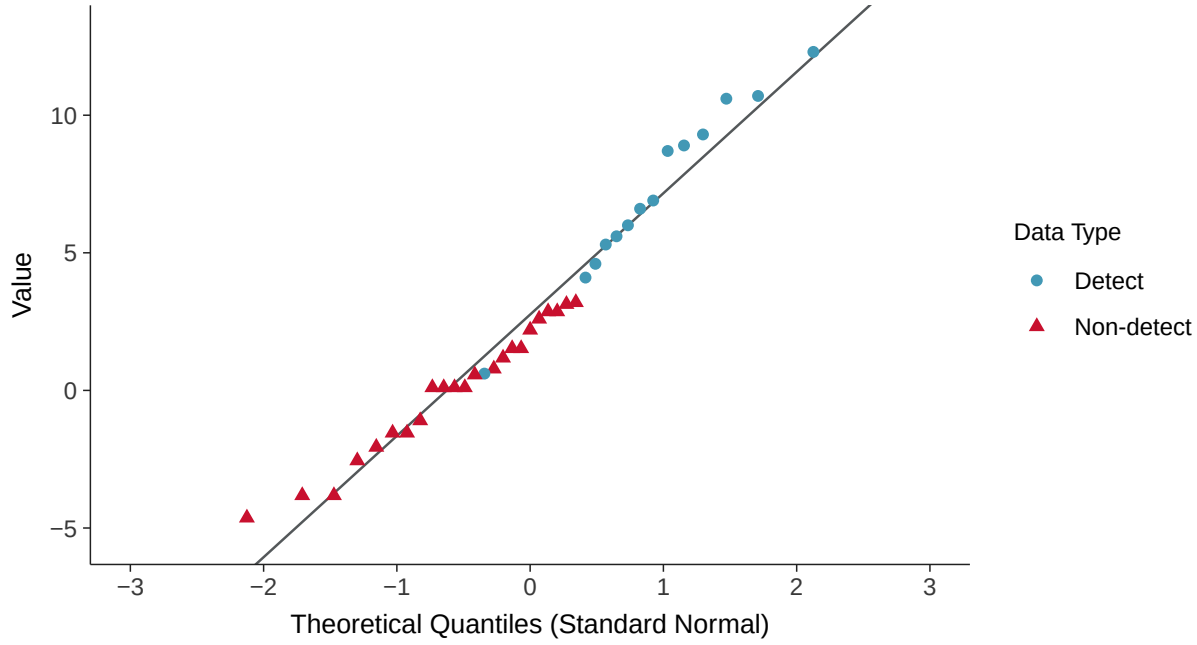
Boxplot by Season

Antimony, MW-2 (ug/L)



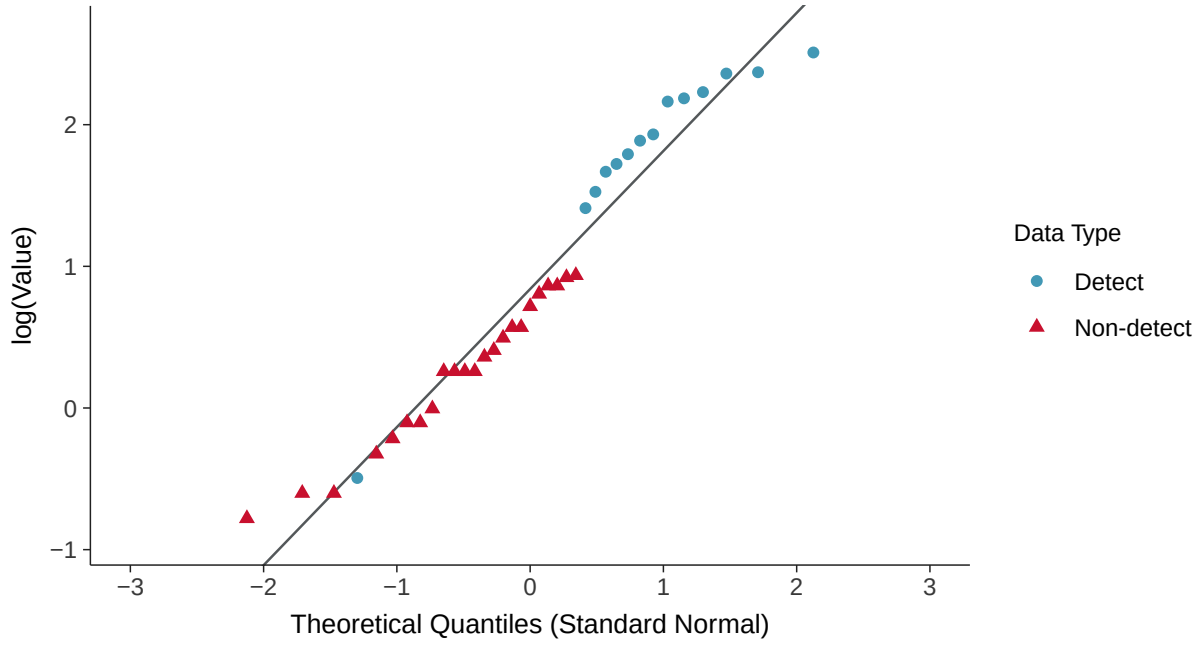
Normal Q-Q plot using ROS Imputed Estimates

Antimony, MW-2 (ug/L)



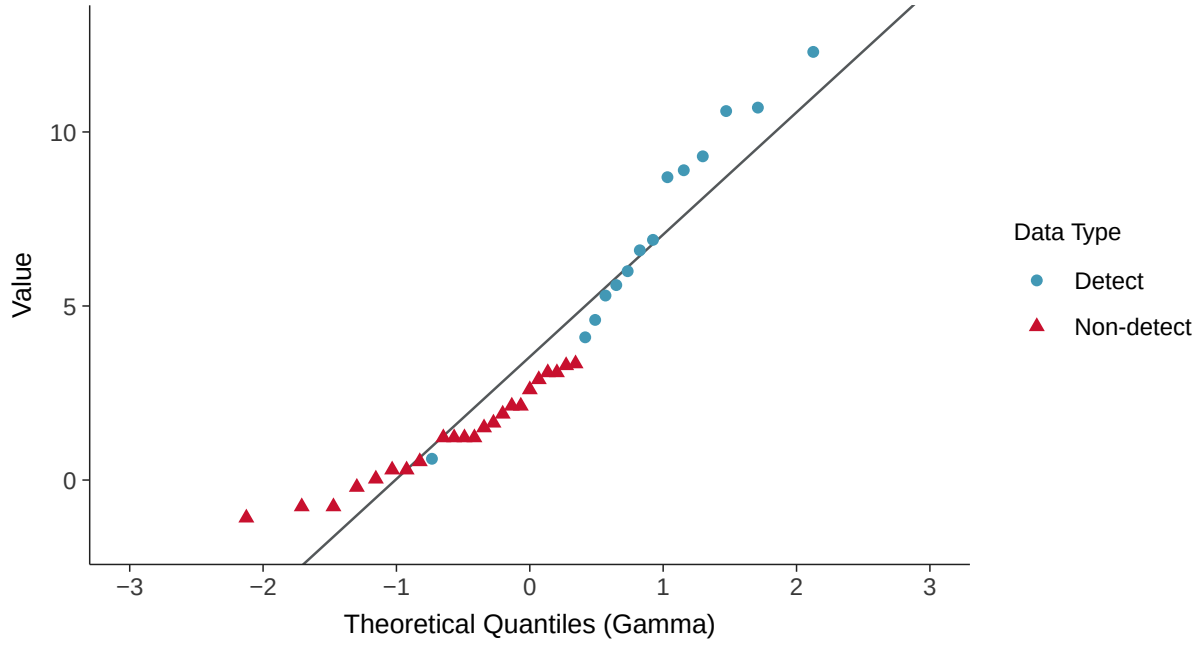
Lognormal Q-Q plot using ROS Imputed Estimates

Antimony, MW-2 (ug/L)



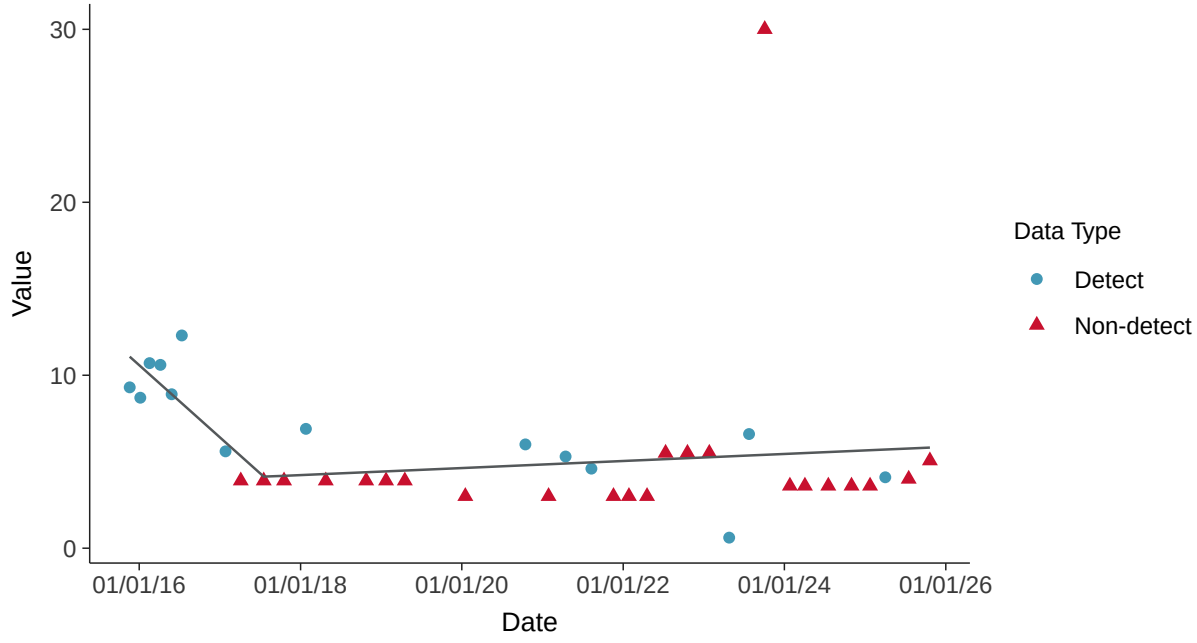
Gamma Q-Q plot using ROS Imputed Estimates

Antimony, MW-2 (ug/L)



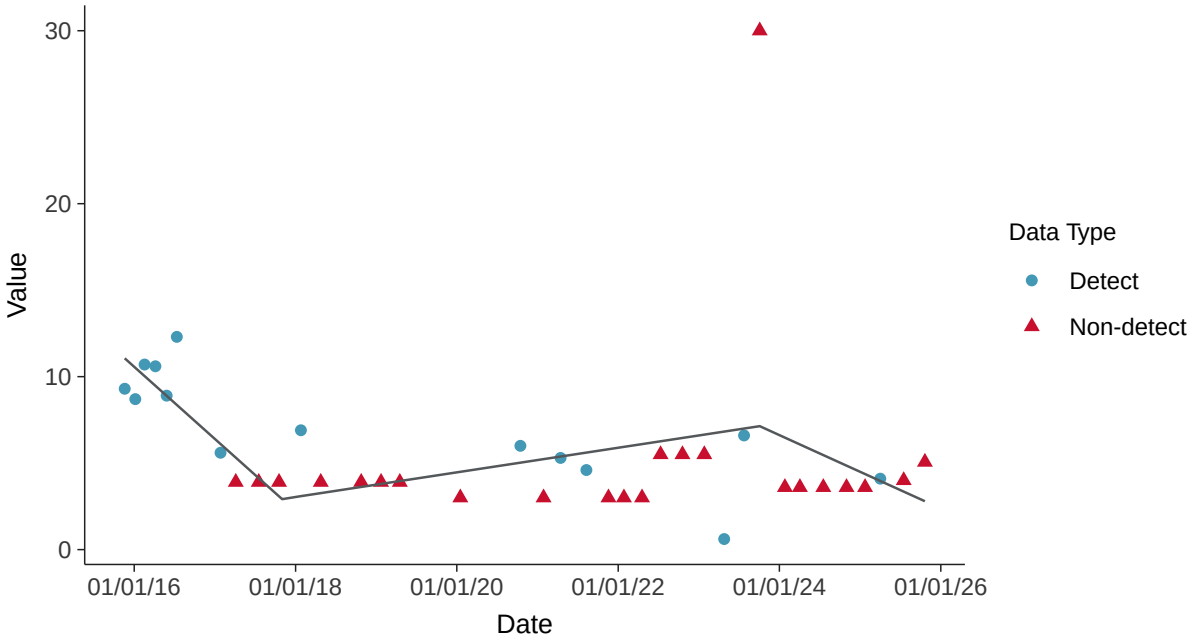
Trend Regression: Piecewise Linear-Linear

Antimony, MW-2 (ug/L)



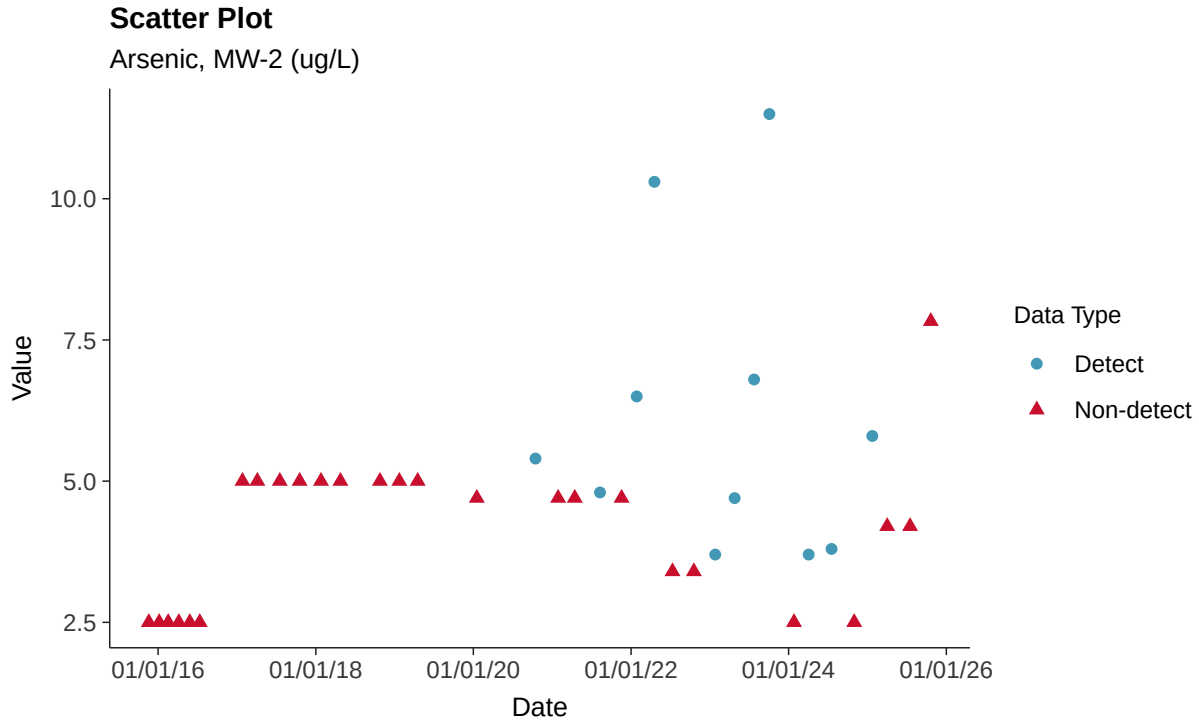
Trend Regression: Piecewise Linear-Linear-Linear

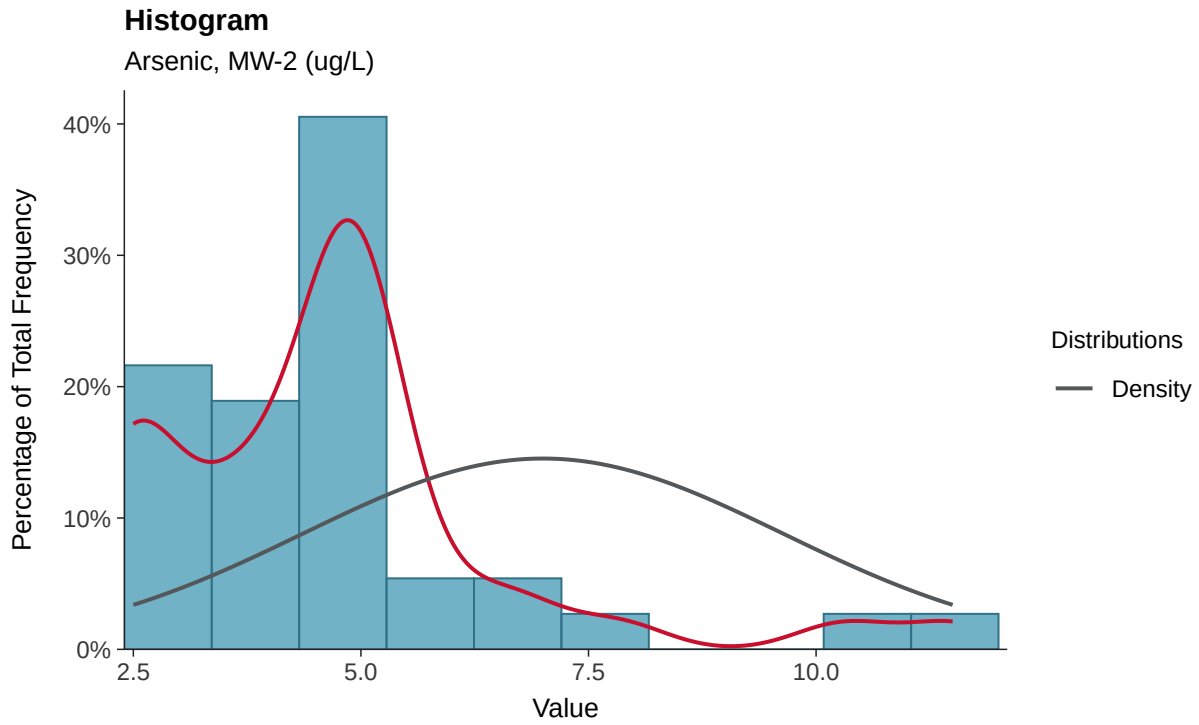
Antimony, MW-2 (ug/L)



App. IV: Arsenic, MW-2

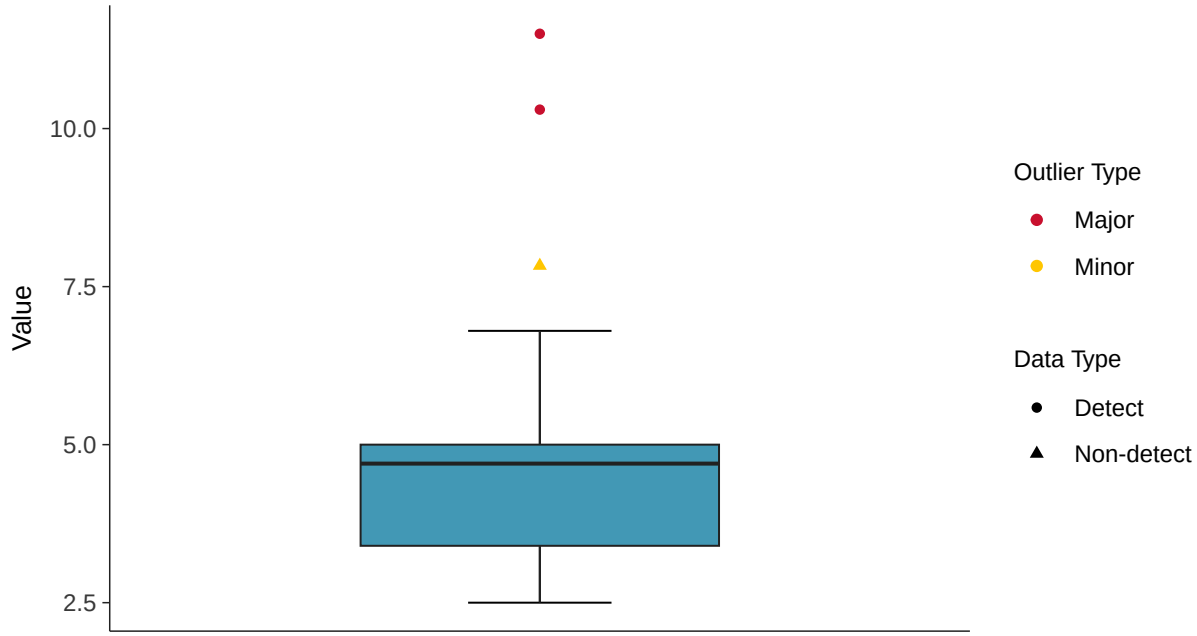
ID: 02_3_102





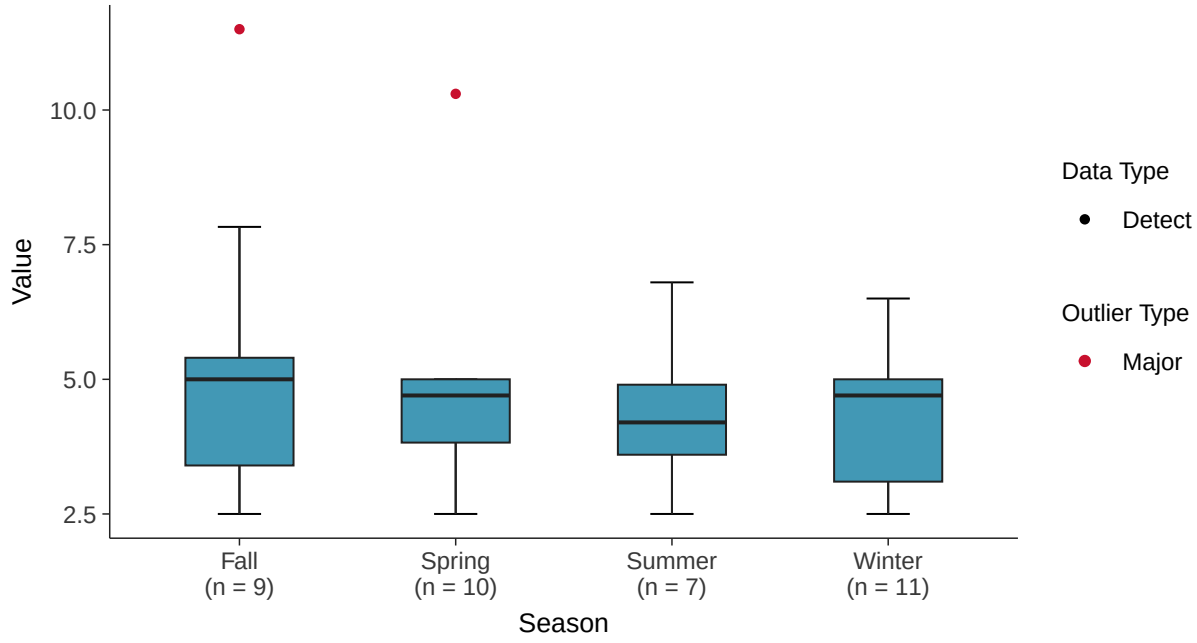
Boxplot

Arsenic, MW-2 (ug/L)



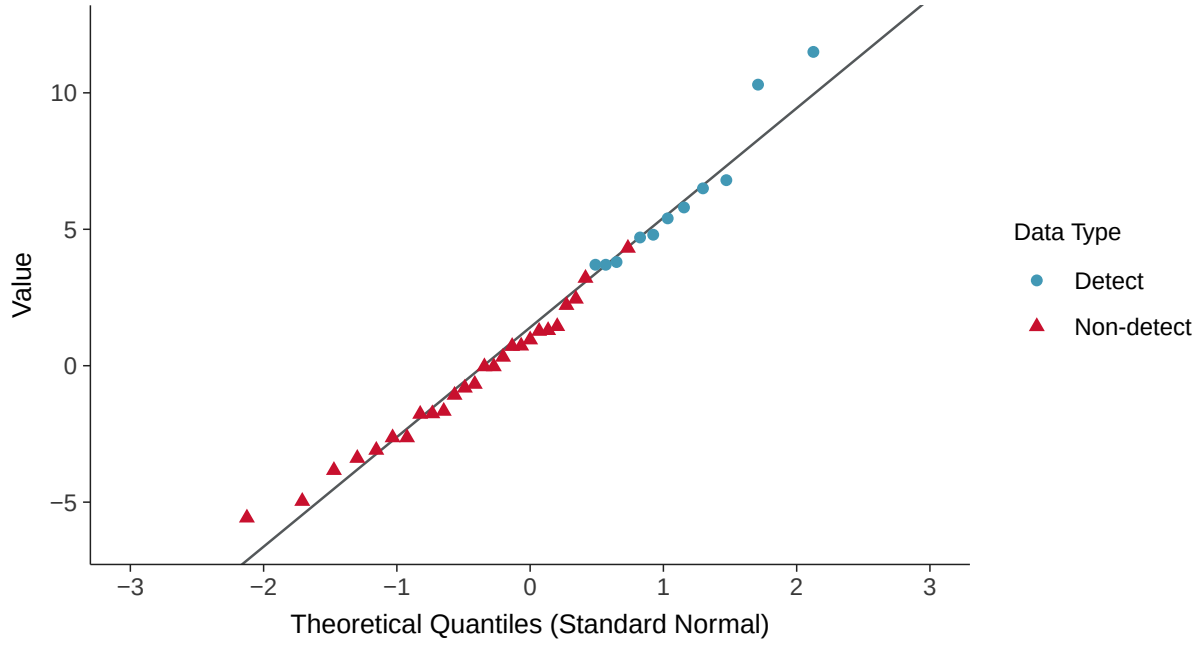
Boxplot by Season

Arsenic, MW-2 (ug/L)



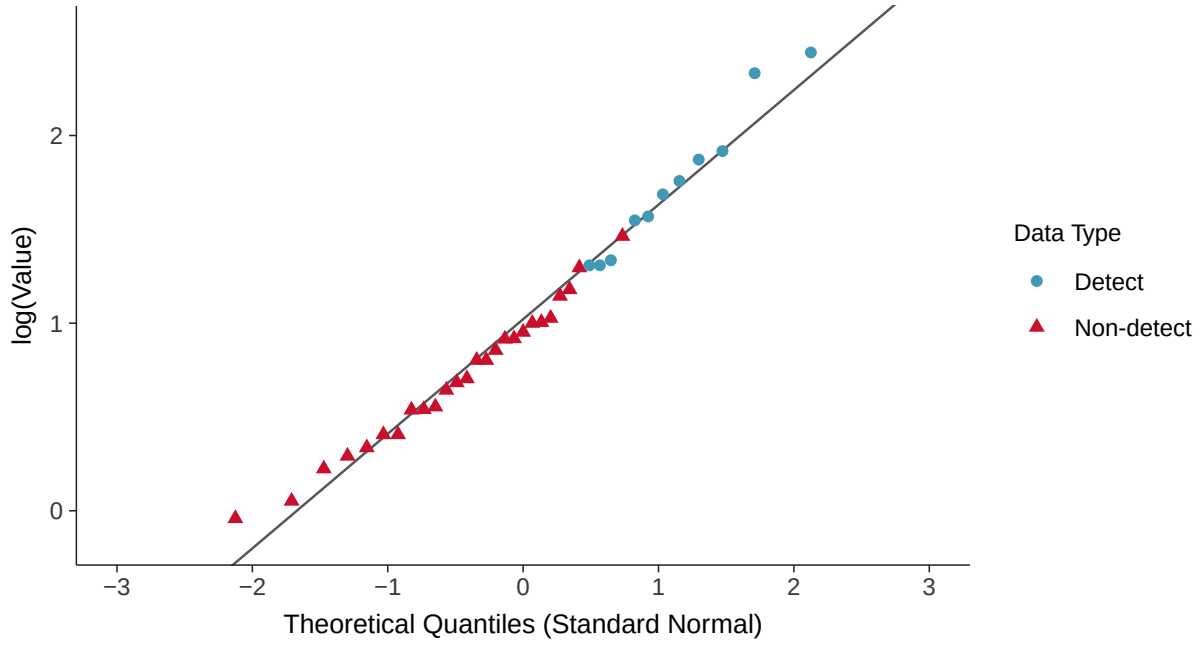
Normal Q-Q plot using ROS Imputed Estimates

Arsenic, MW-2 (ug/L)



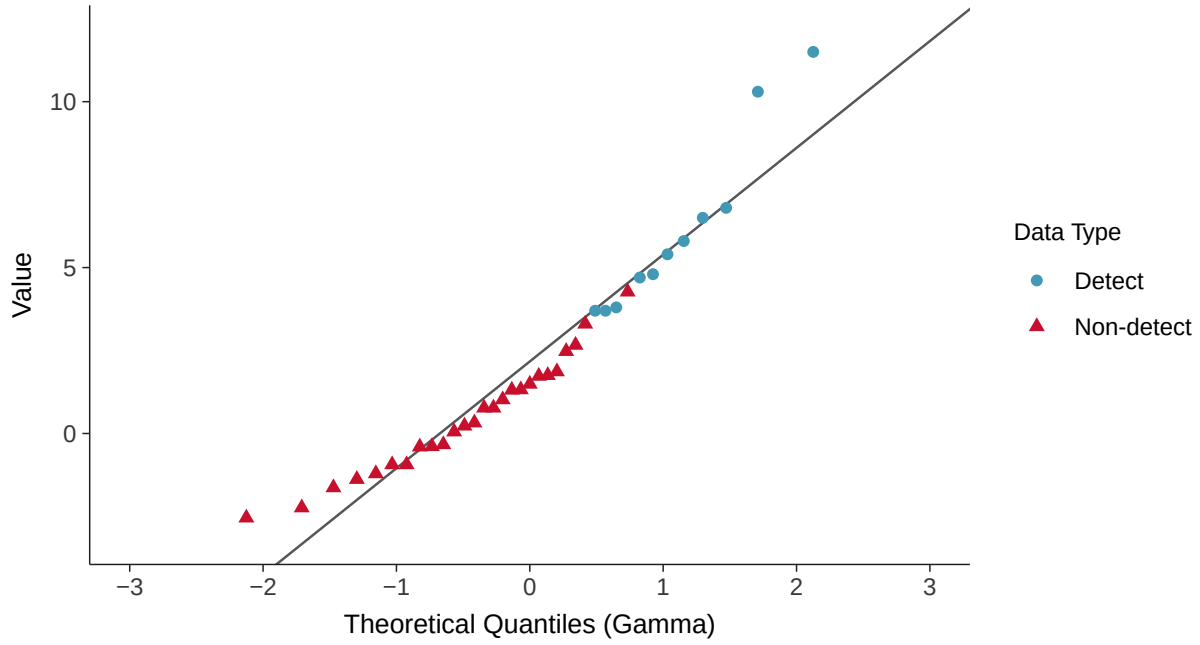
Lognormal Q-Q plot using ROS Imputed Estimates

Arsenic, MW-2 (ug/L)



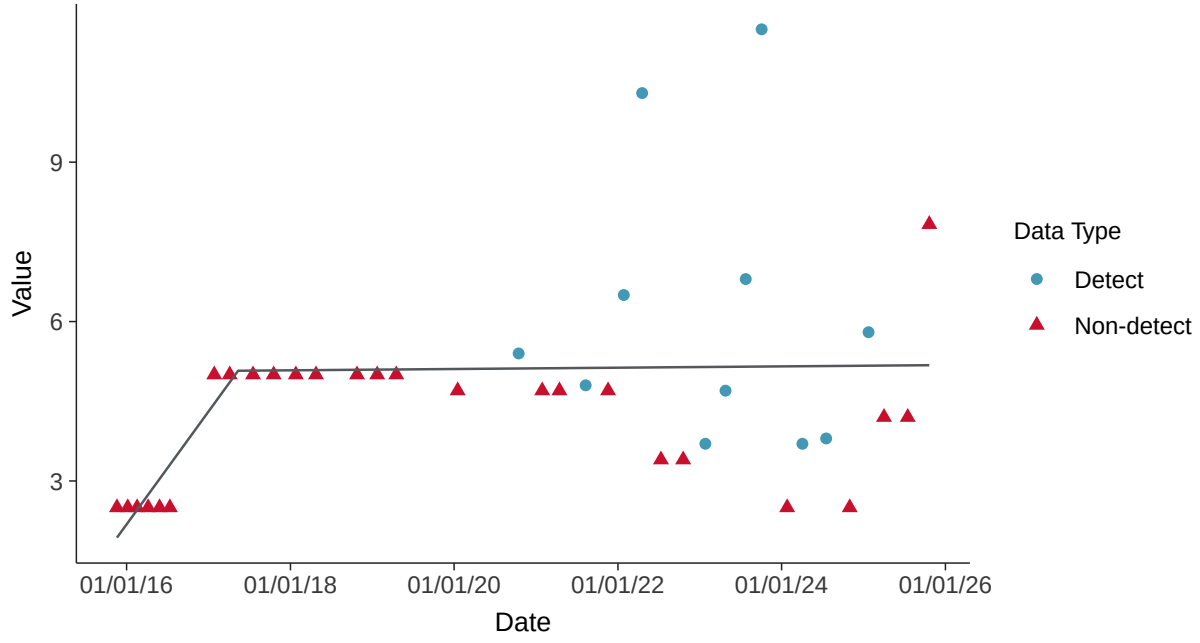
Gamma Q-Q plot using ROS Imputed Estimates

Arsenic, MW-2 (ug/L)



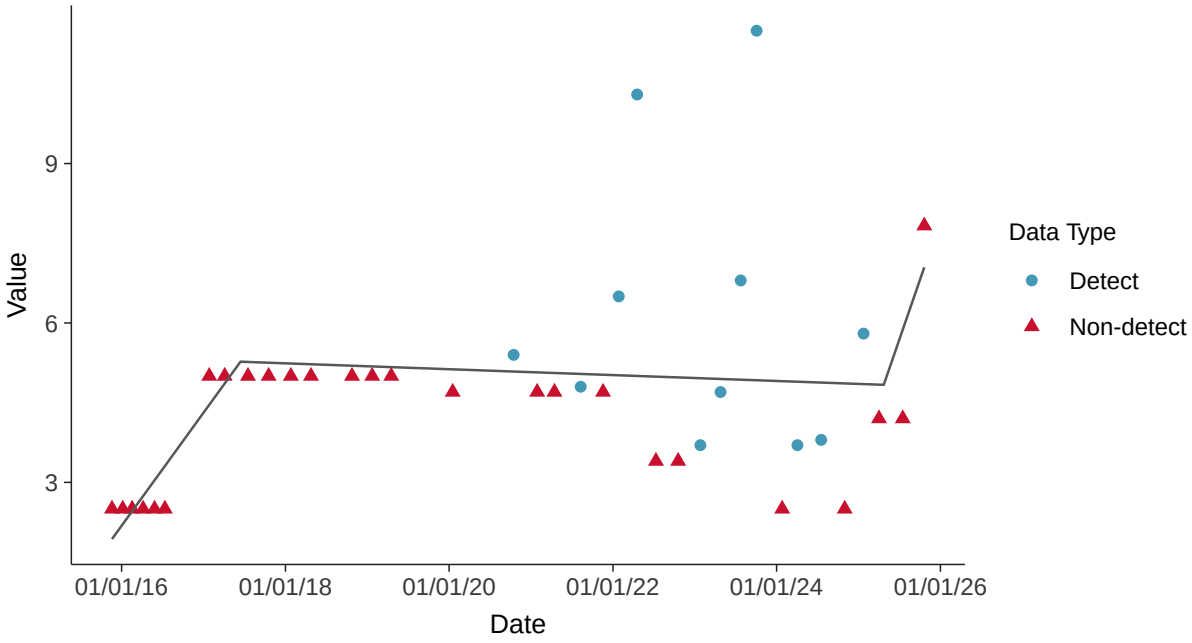
Trend Regression: Piecewise Linear-Linear

Arsenic, MW-2 (ug/L)



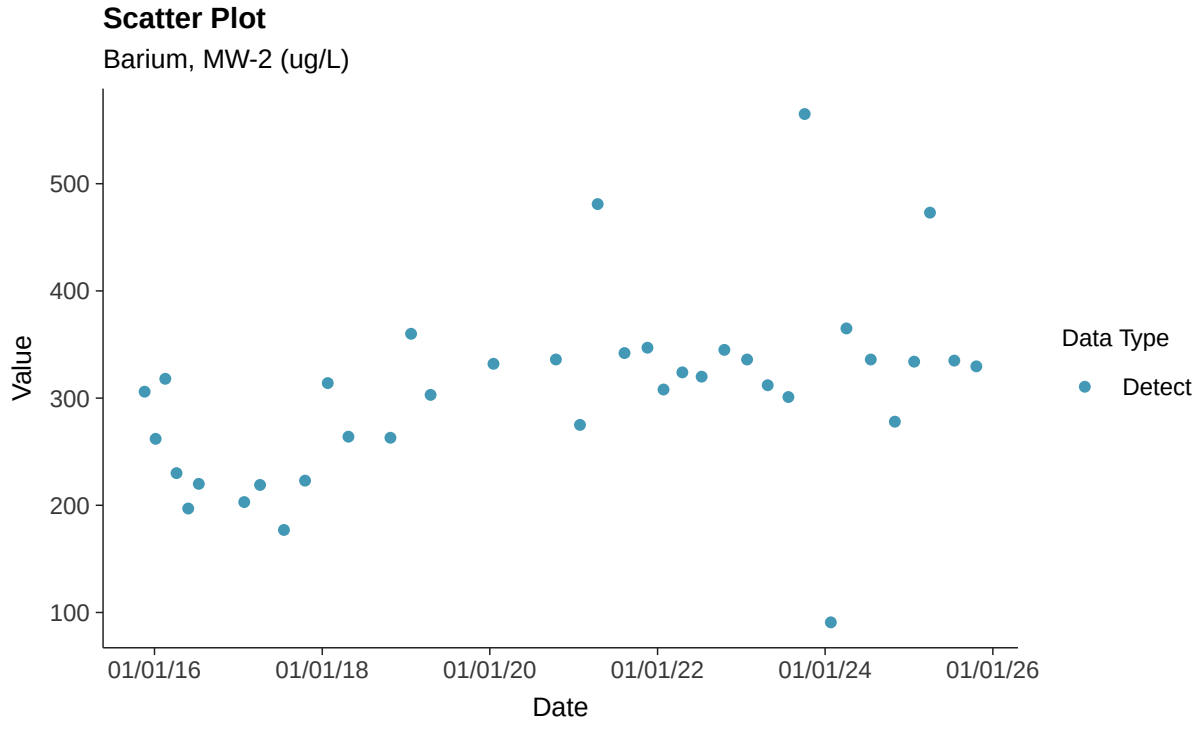
Trend Regression: Piecewise Linear-Linear-Linear

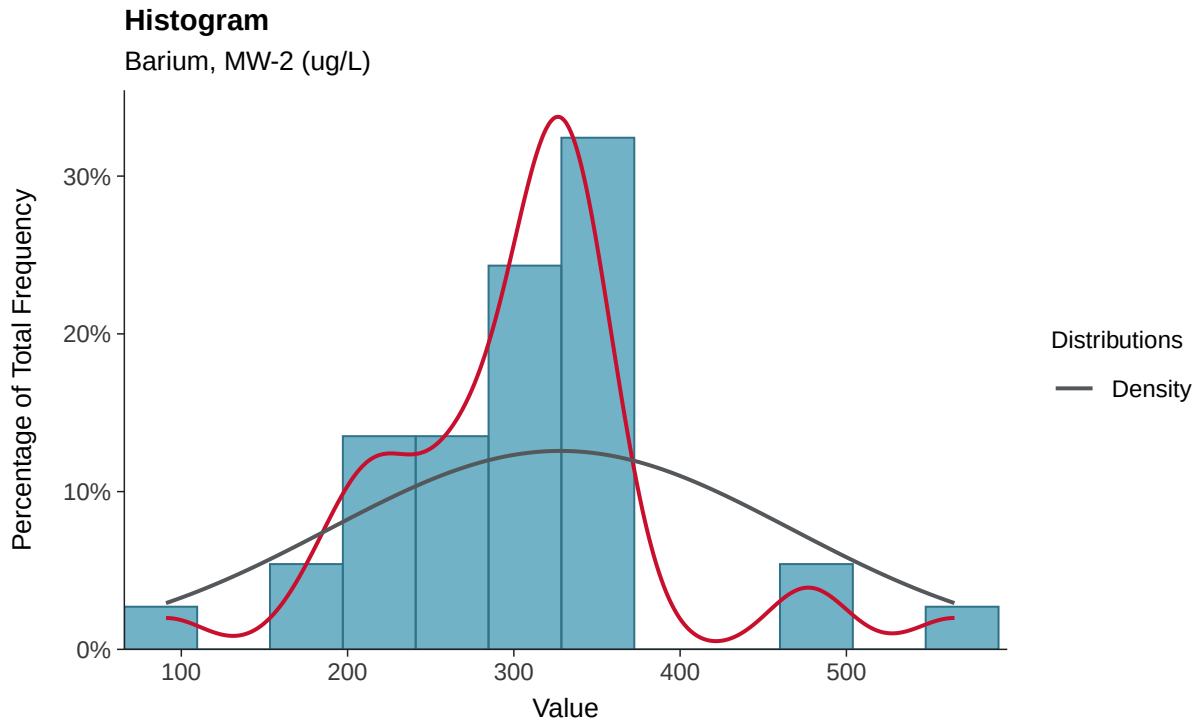
Arsenic, MW-2 (ug/L)



App. IV: Barium, MW-2

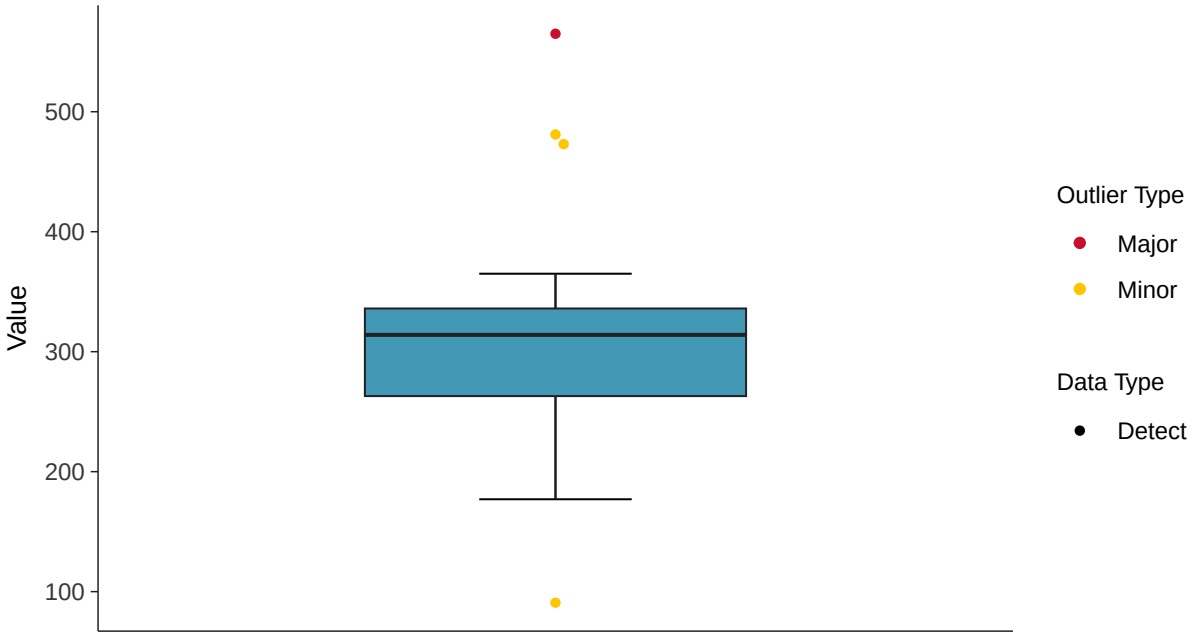
ID: 02_3_103





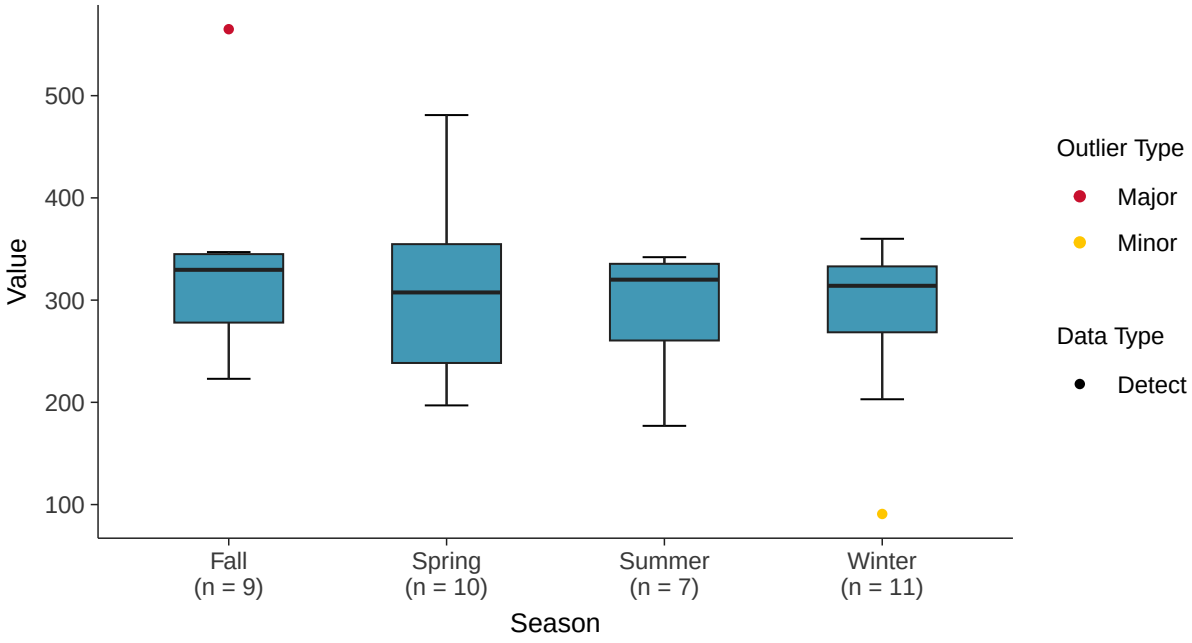
Boxplot

Barium, MW-2 (ug/L)



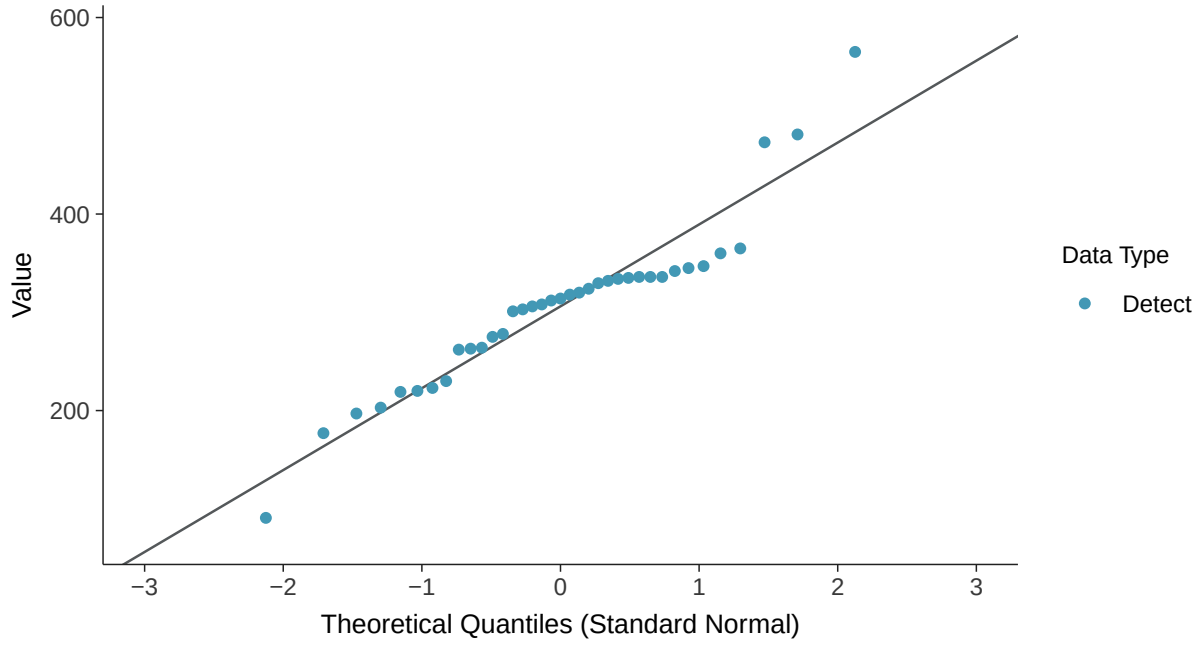
Boxplot by Season

Barium, MW-2 (ug/L)



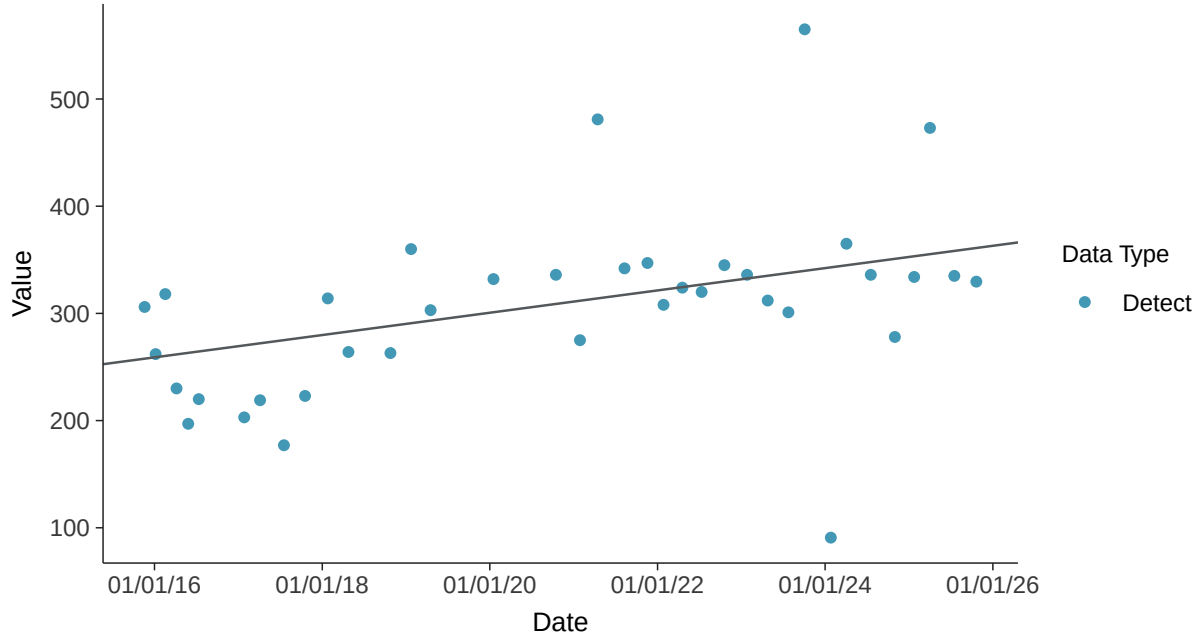
Normal Q-Q plot

Barium, MW-2 (ug/L)



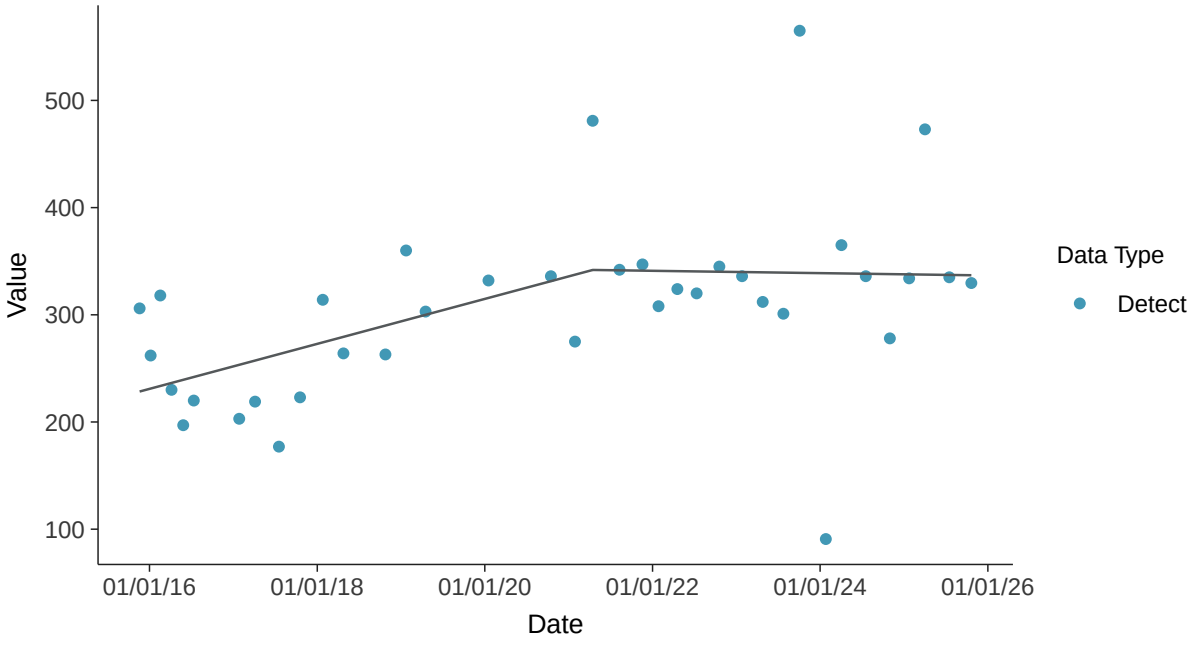
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Barium, MW-2 (ug/L)



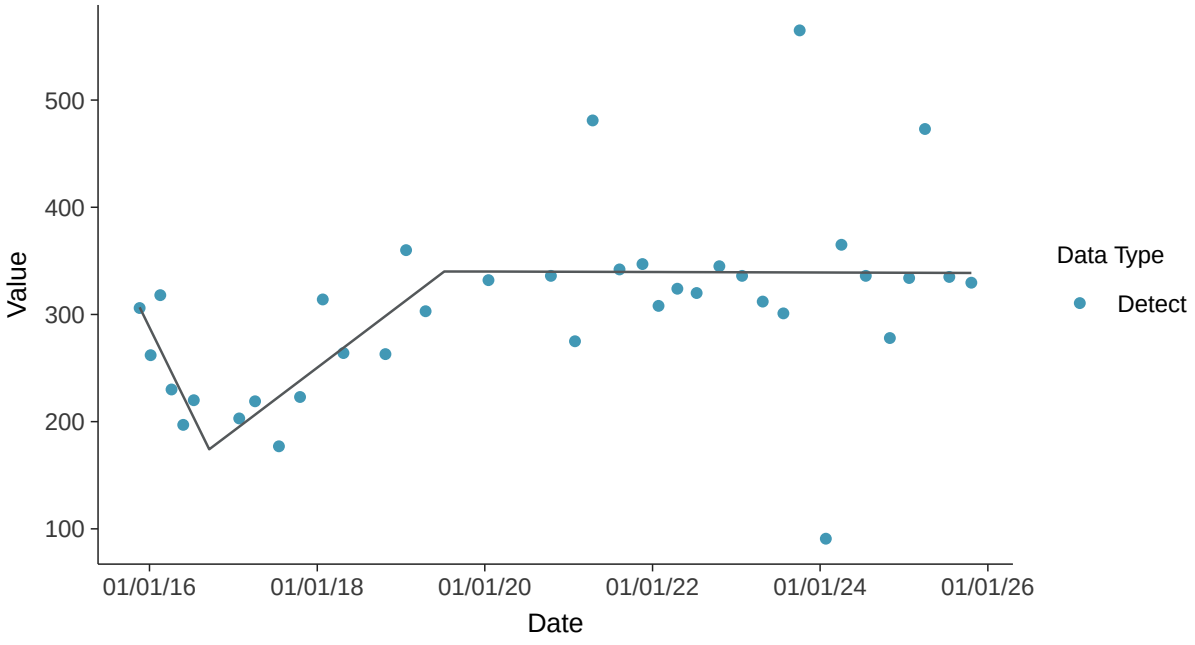
Trend Regression: Piecewise Linear-Linear

Barium, MW-2 (ug/L)



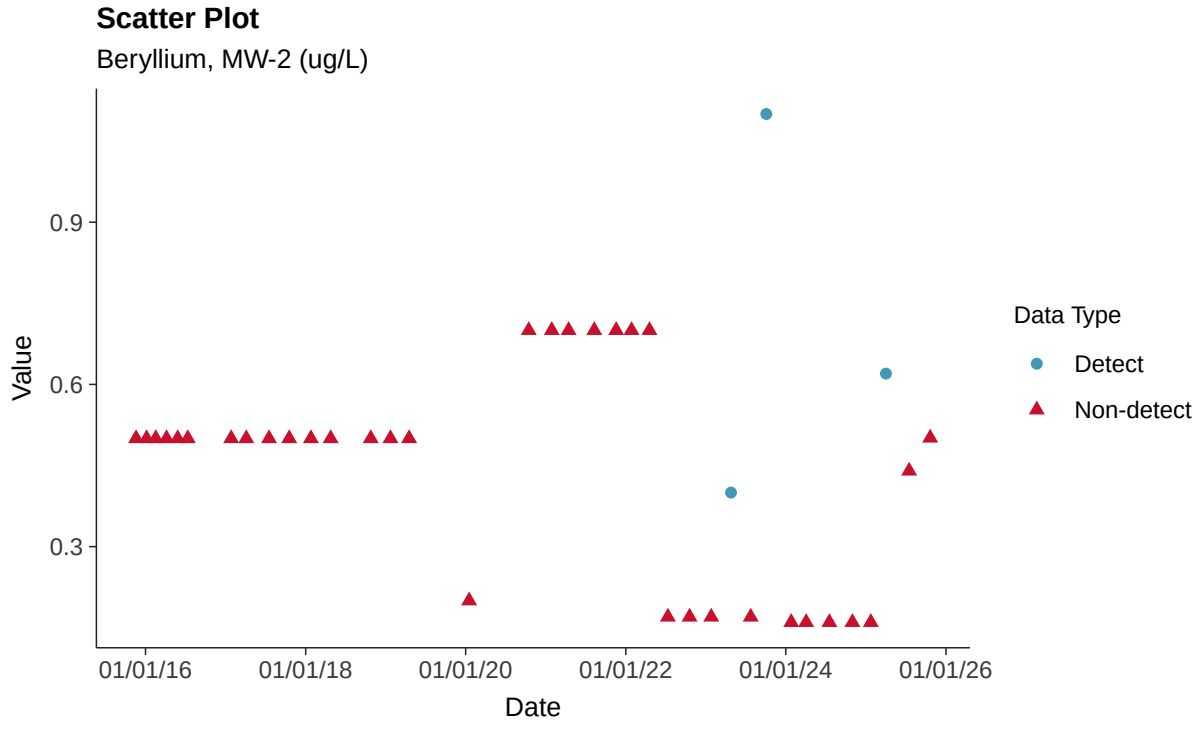
Trend Regression: Piecewise Linear-Linear-Linear

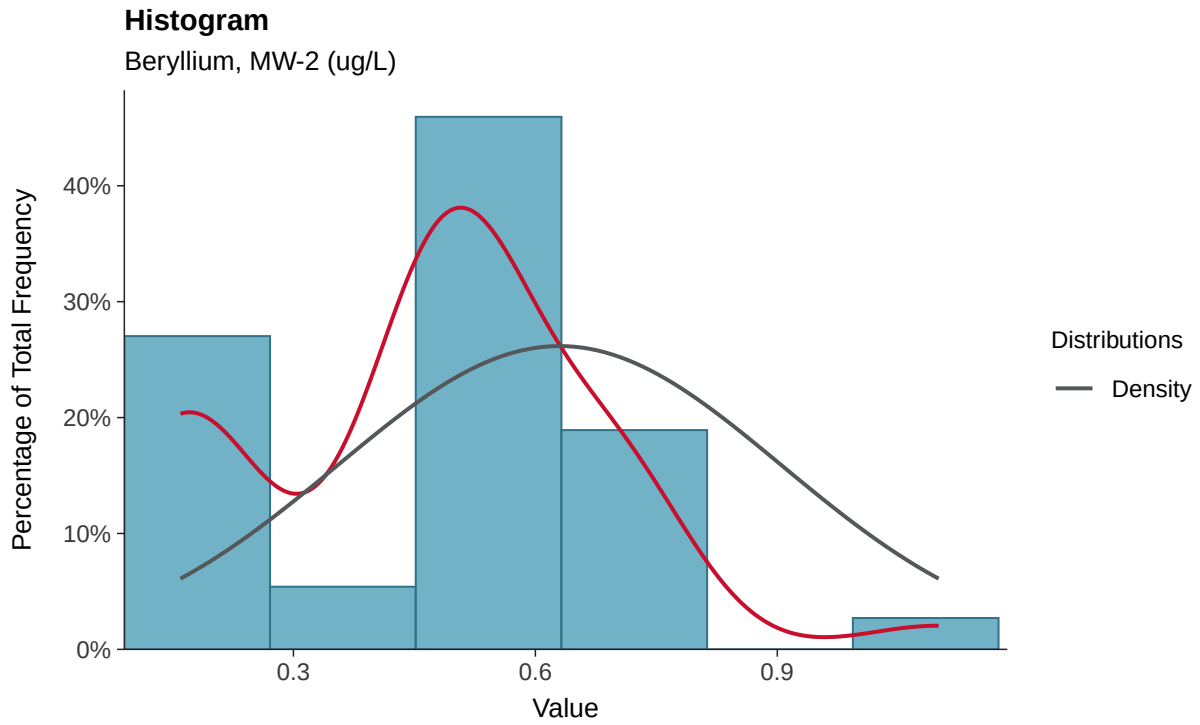
Barium, MW-2 (ug/L)



App. IV: Beryllium, MW-2

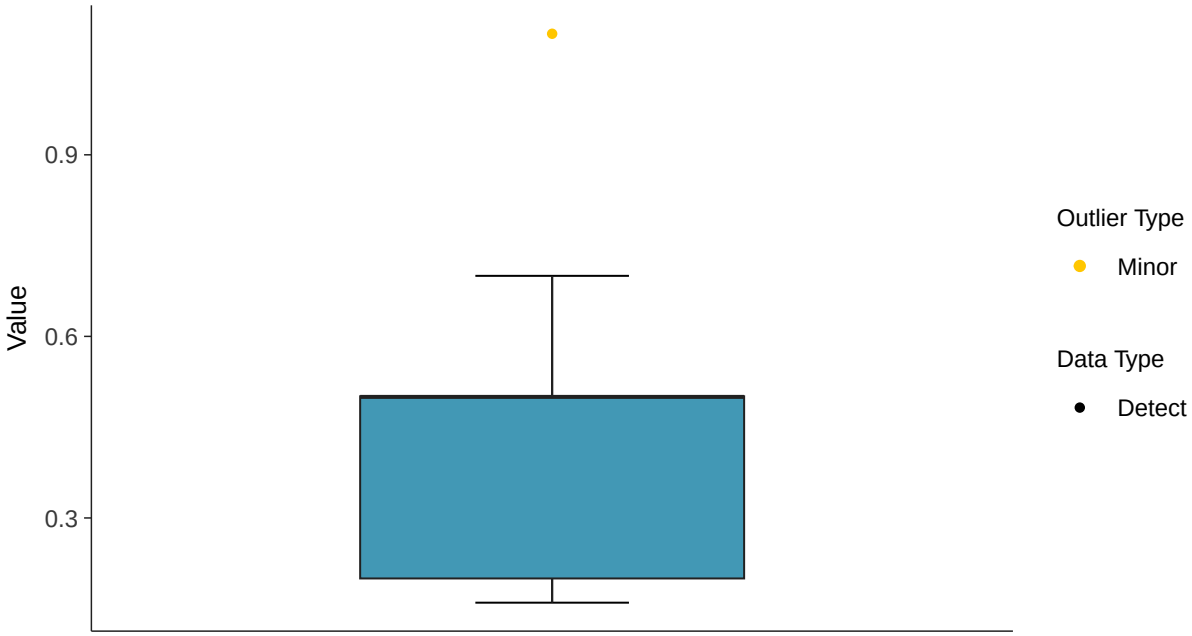
ID: 02_3_104





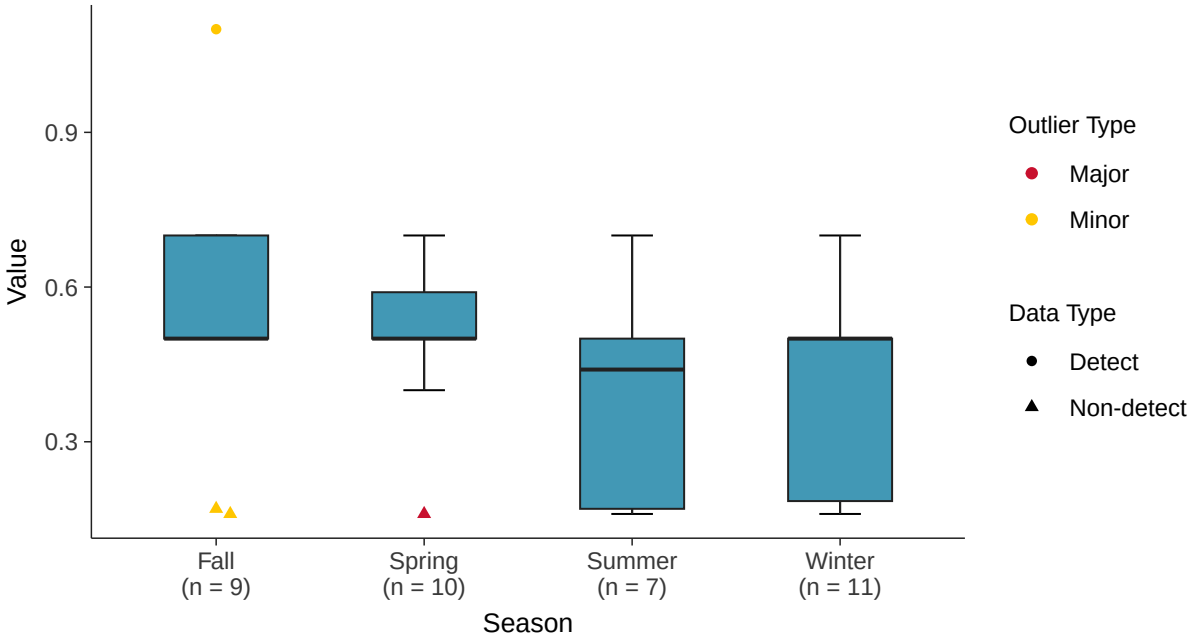
Boxplot

Beryllium, MW-2 (ug/L)



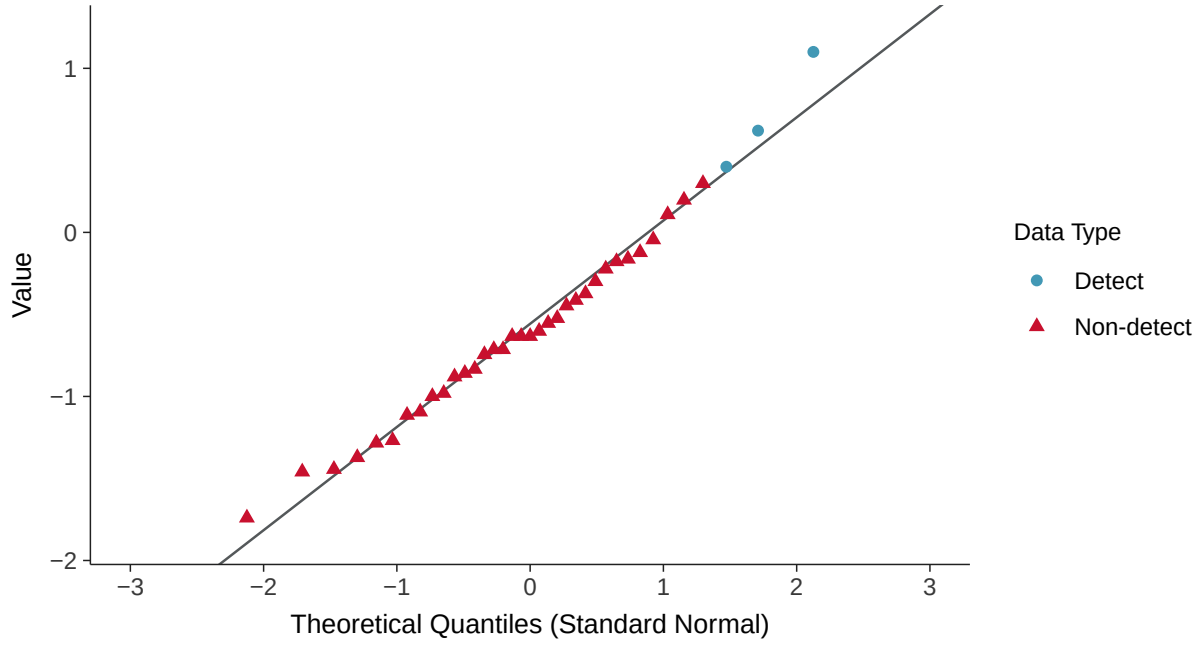
Boxplot by Season

Beryllium, MW-2 (ug/L)



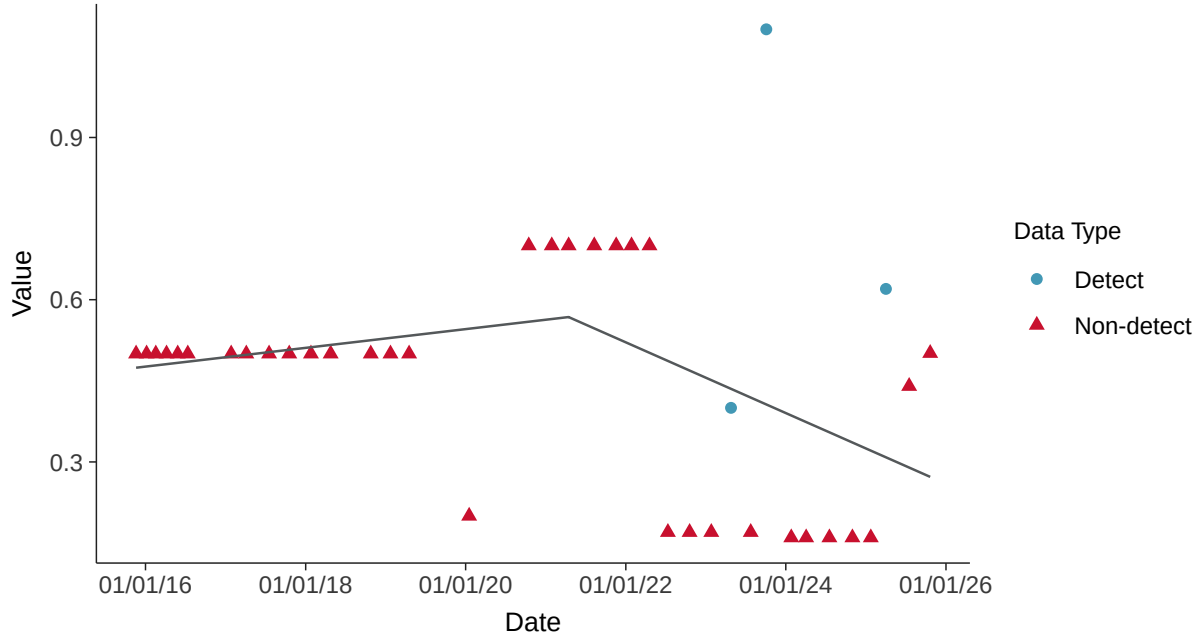
Normal Q-Q plot using ROS Imputed Estimates

Beryllium, MW-2 (ug/L)



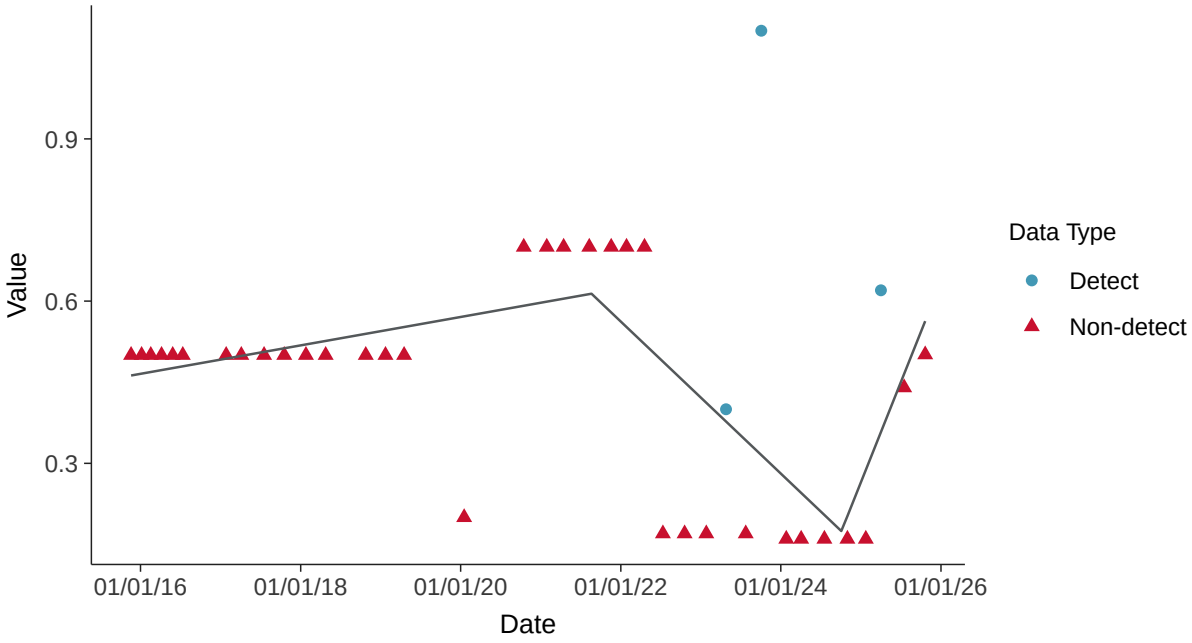
Trend Regression: Piecewise Linear-Linear

Beryllium, MW-2 (ug/L)



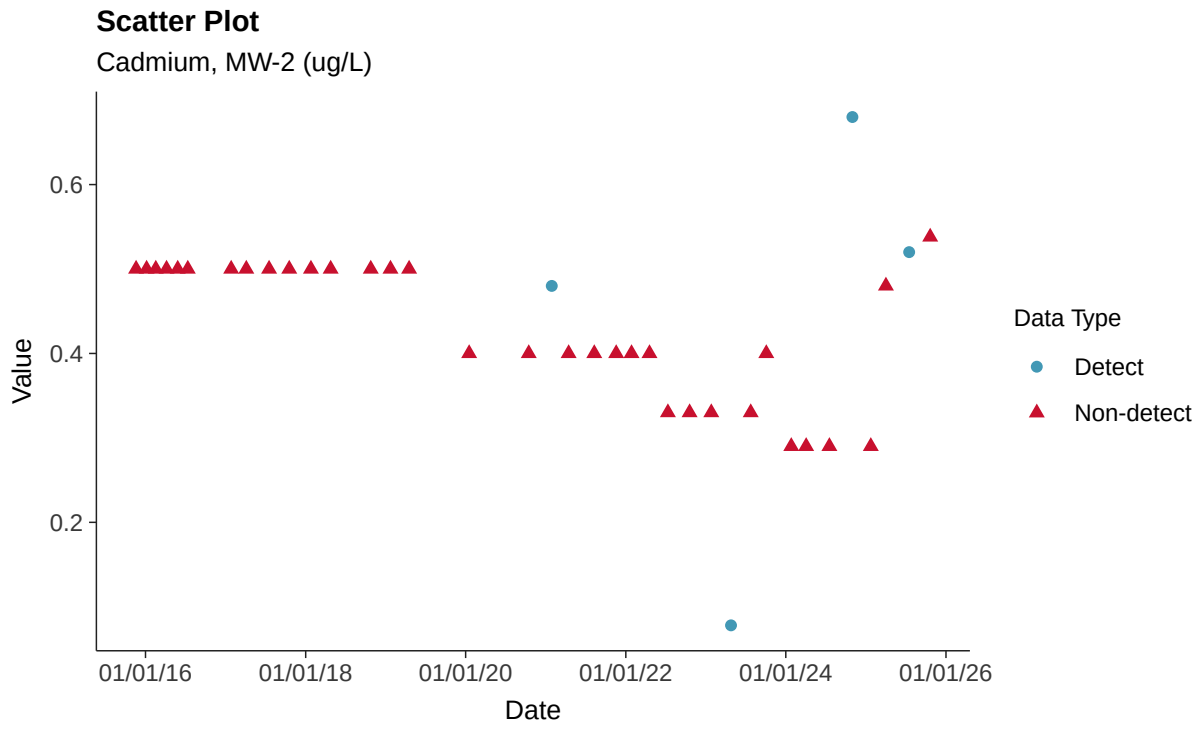
Trend Regression: Piecewise Linear-Linear-Linear

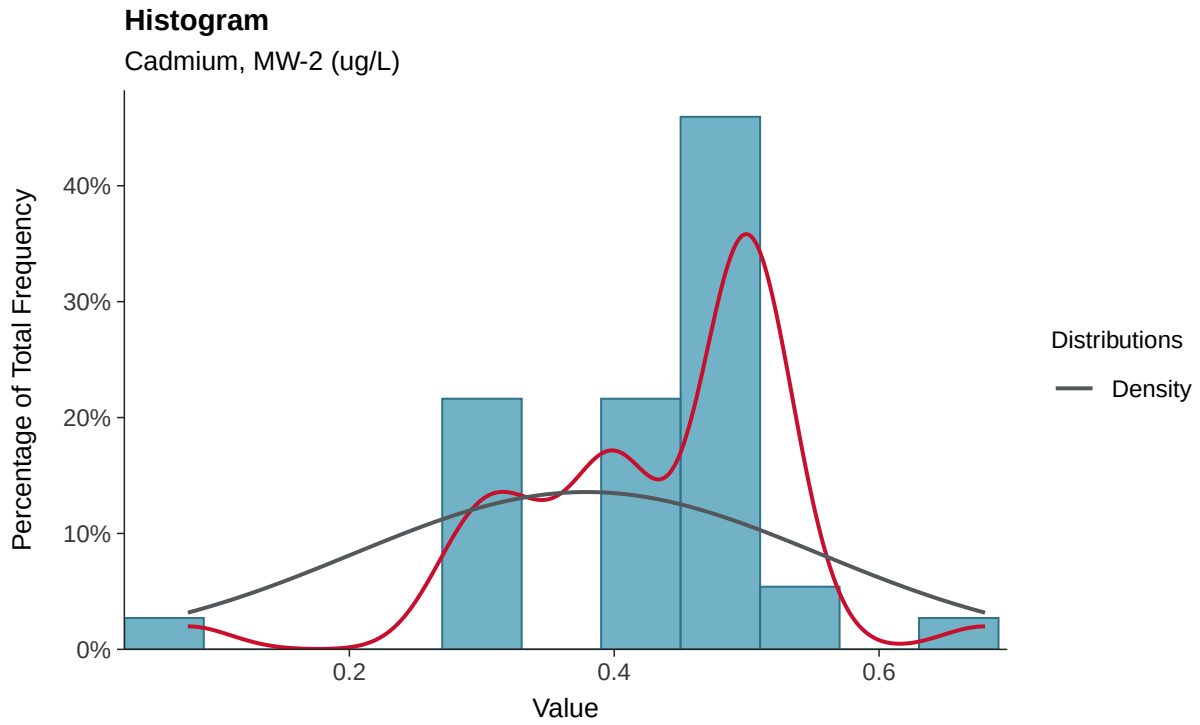
Beryllium, MW-2 (ug/L)



App. IV: Cadmium, MW-2

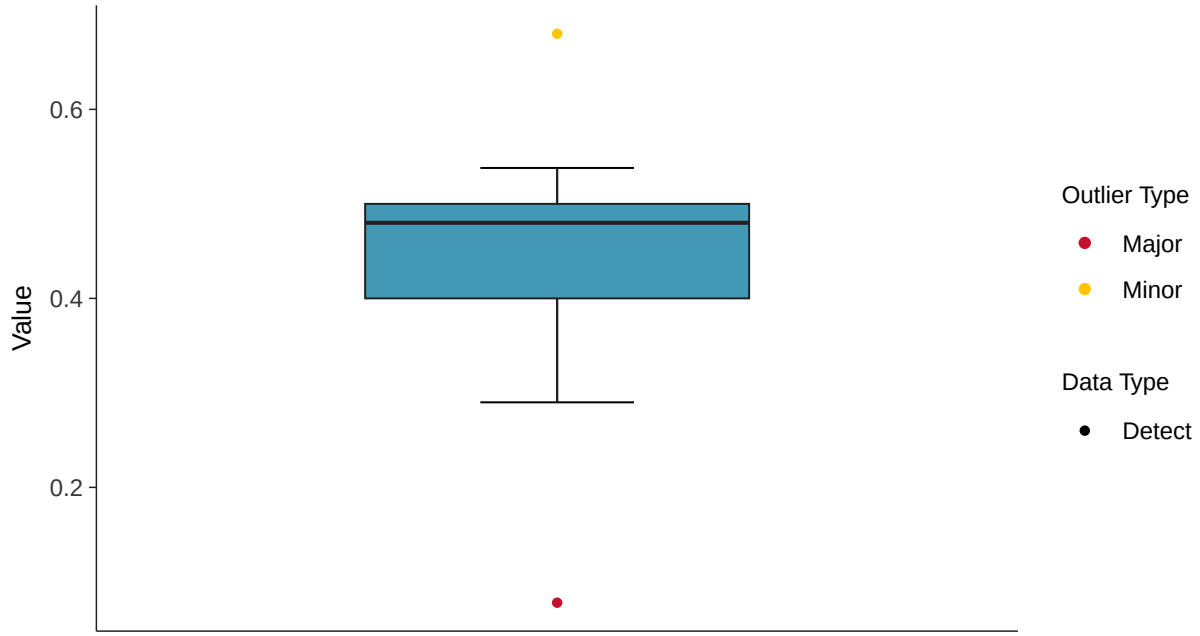
ID: 02_3_106





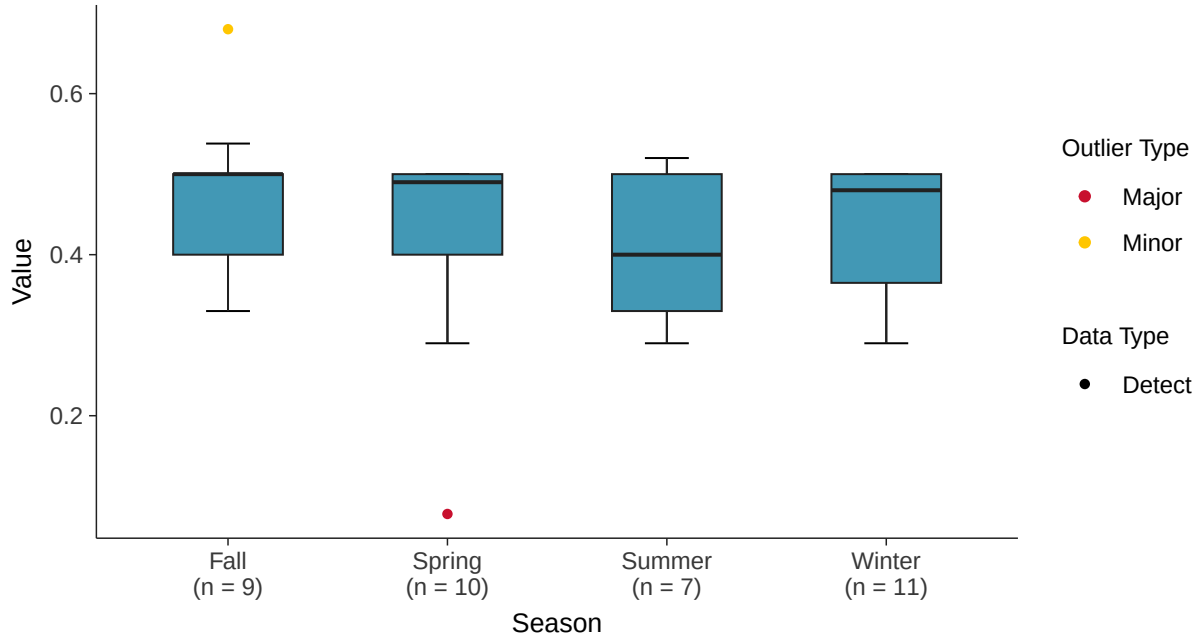
Boxplot

Cadmium, MW-2 (ug/L)



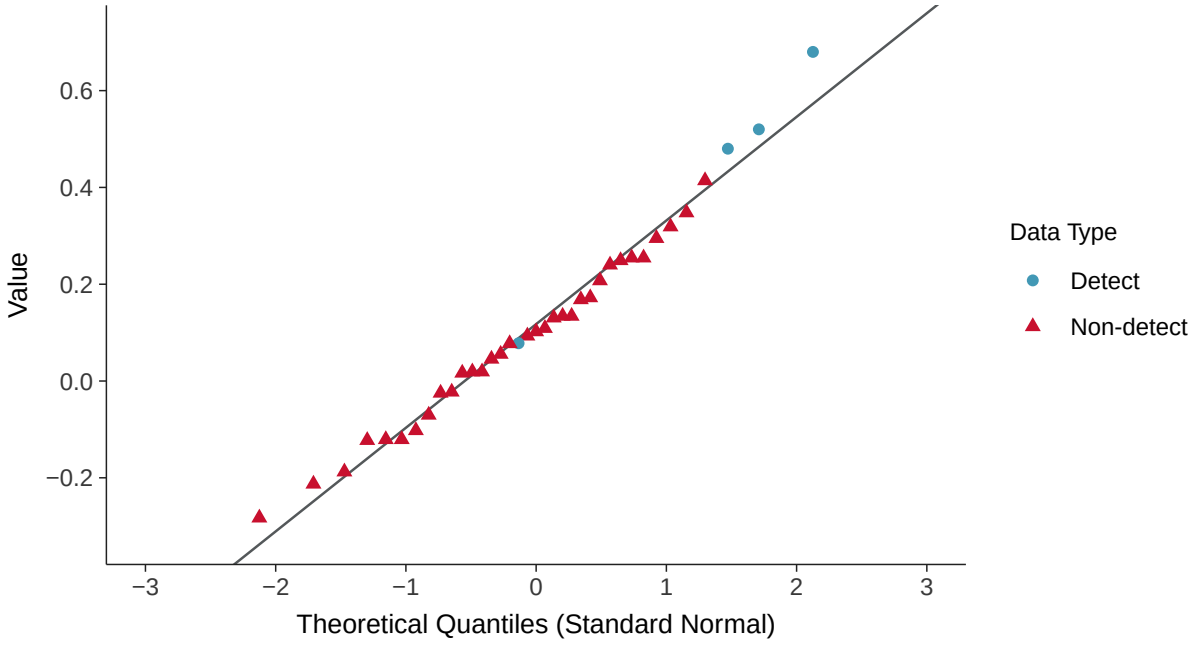
Boxplot by Season

Cadmium, MW-2 (ug/L)



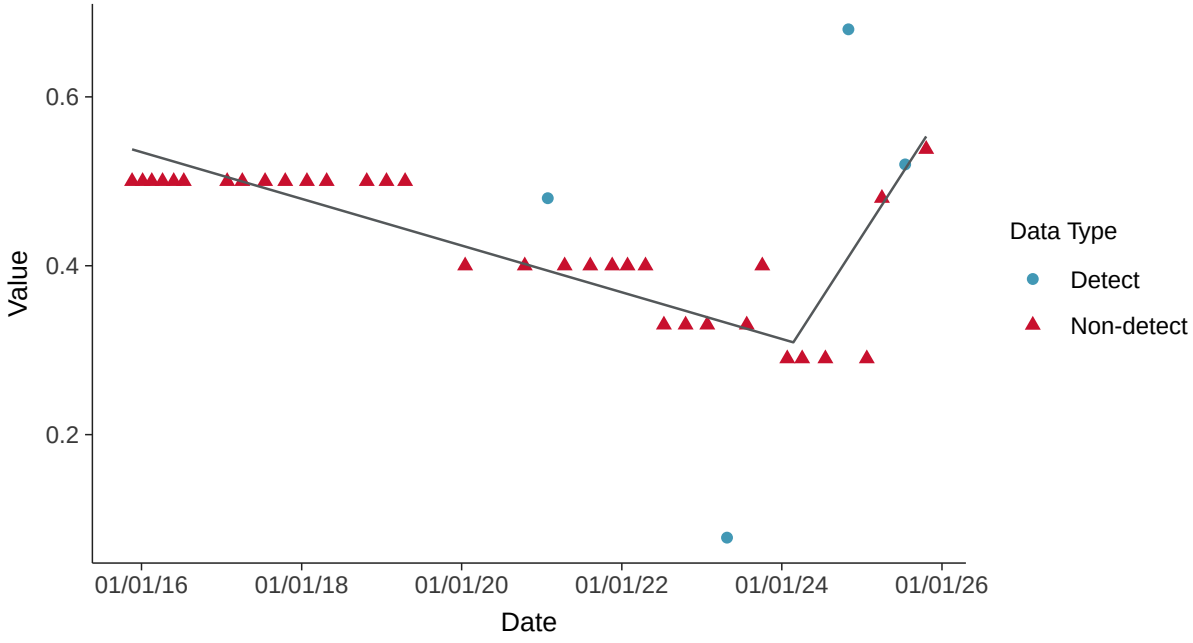
Normal Q-Q plot using ROS Imputed Estimates

Cadmium, MW-2 (ug/L)



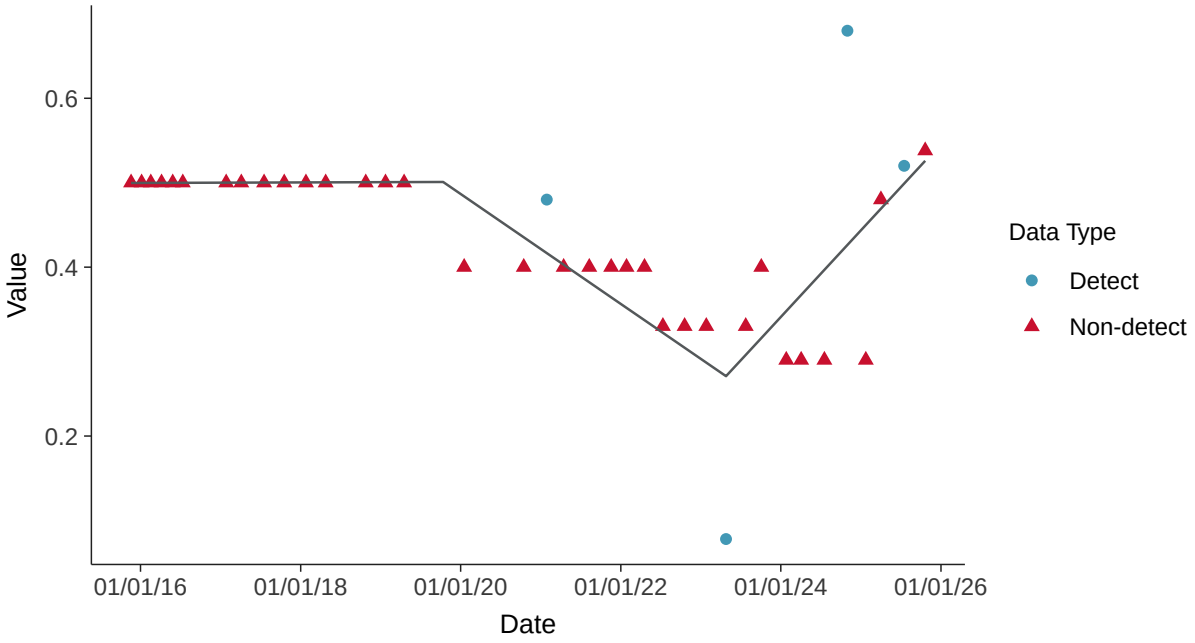
Trend Regression: Piecewise Linear-Linear

Cadmium, MW-2 (ug/L)



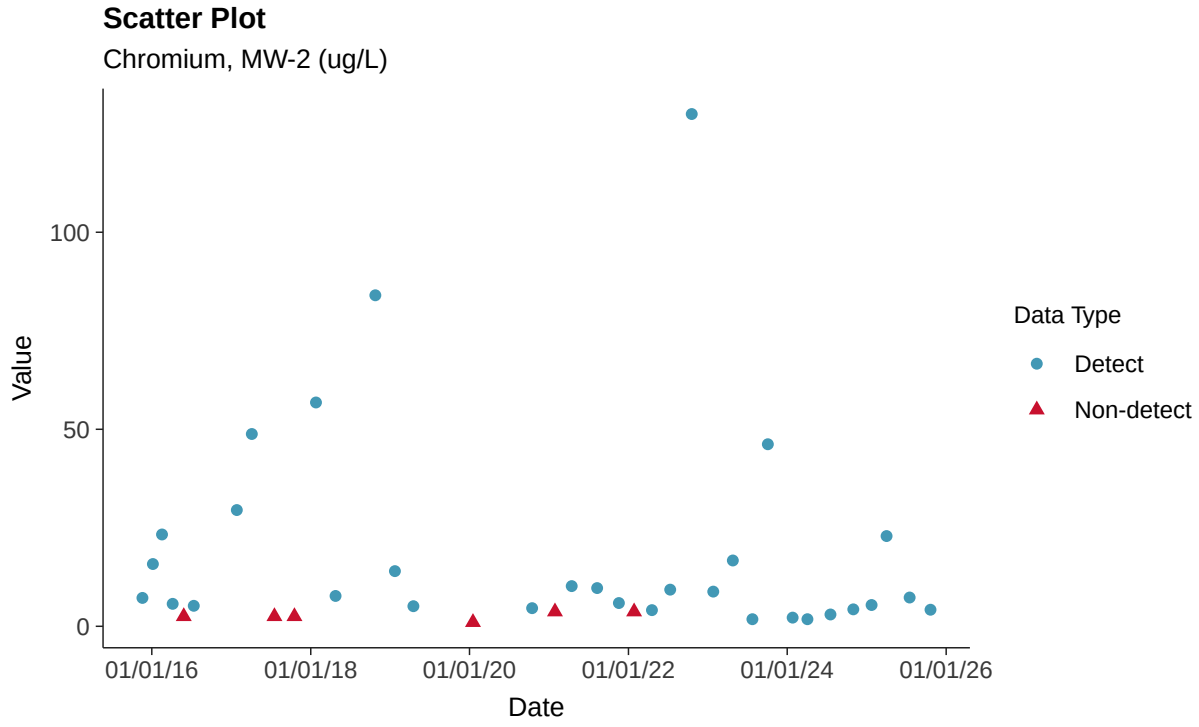
Trend Regression: Piecewise Linear-Linear-Linear

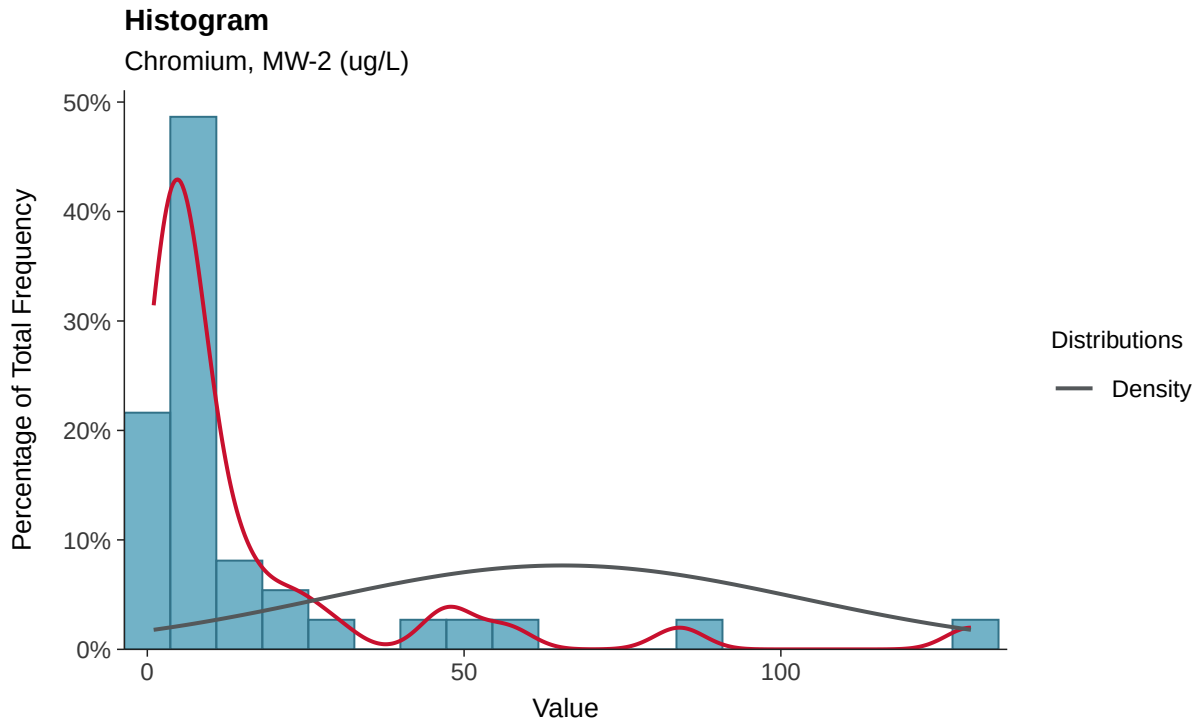
Cadmium, MW-2 (ug/L)



App. IV: Chromium, MW-2

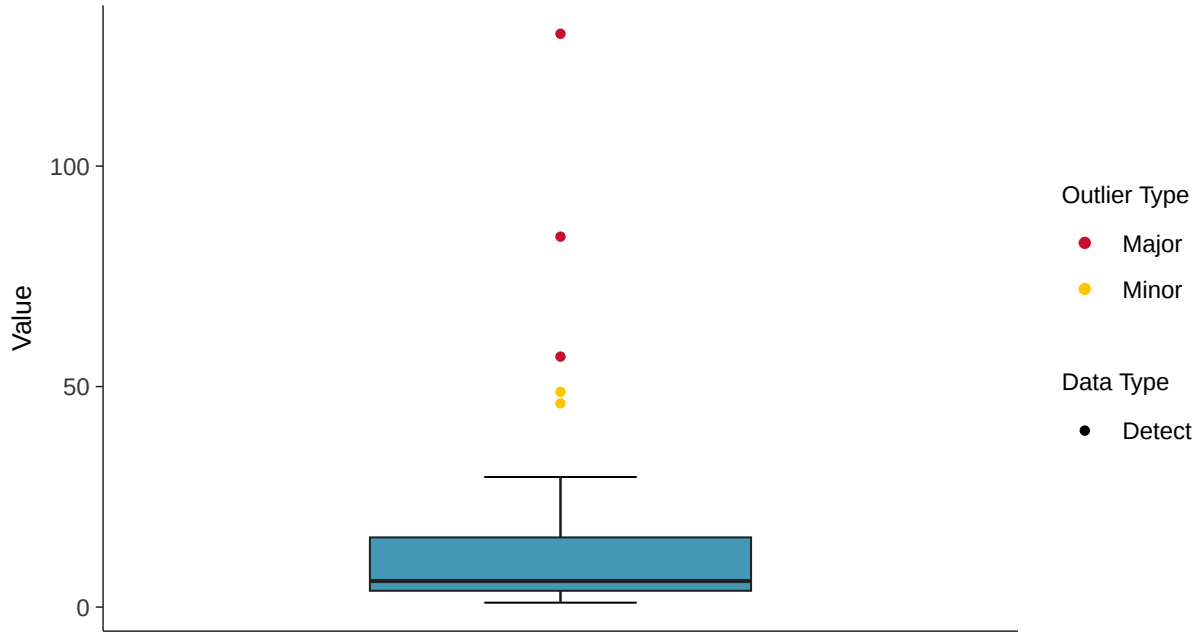
ID: 02_3_109





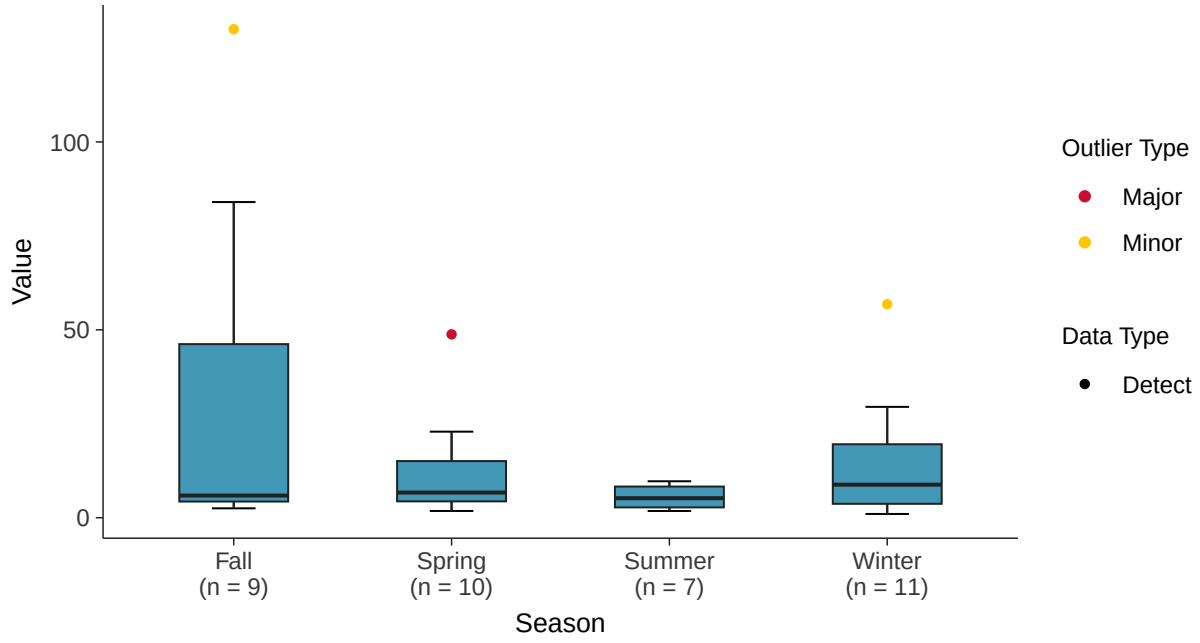
Boxplot

Chromium, MW-2 (ug/L)



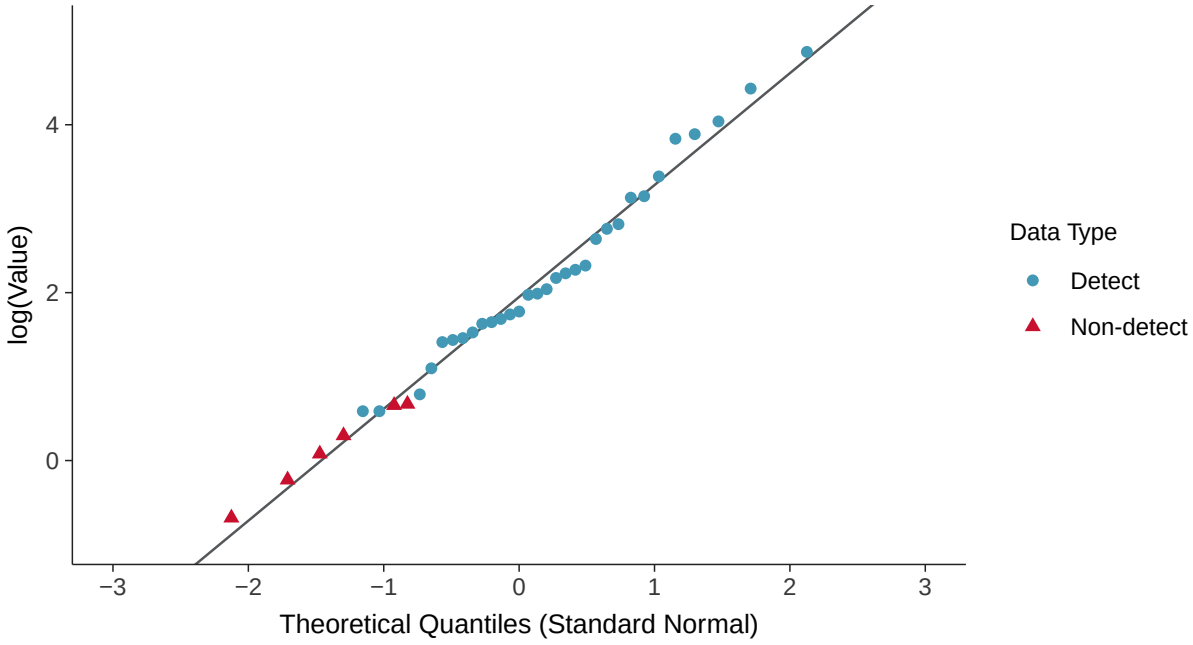
Boxplot by Season

Chromium, MW-2 (ug/L)



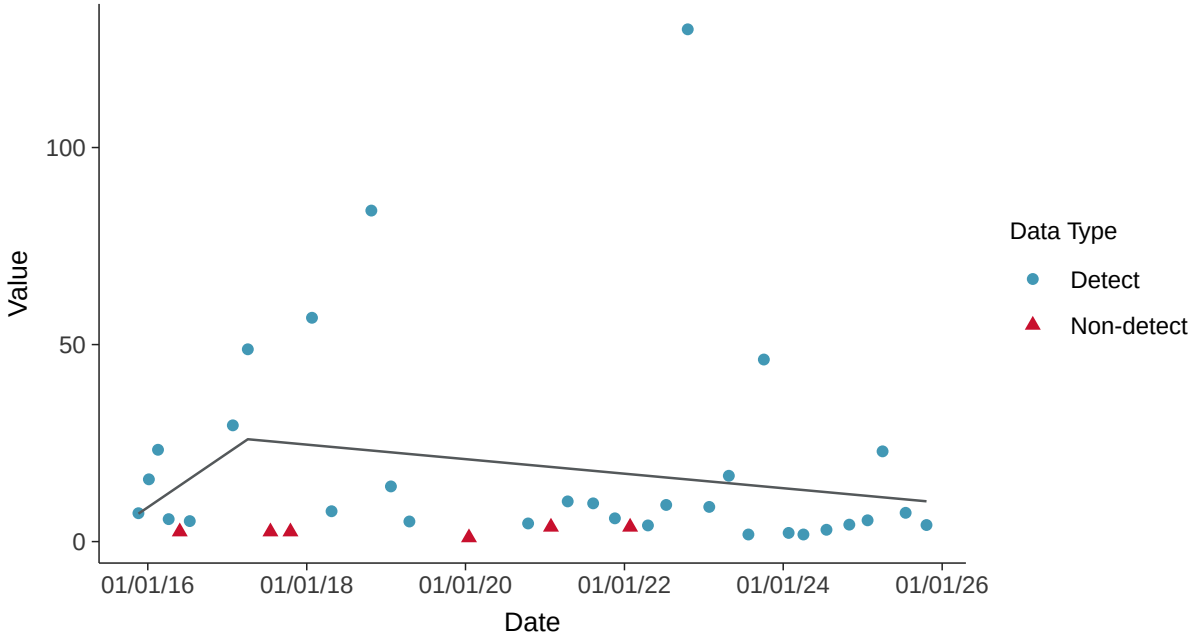
Lognormal Q-Q plot using ROS Imputed Estimates

Chromium, MW-2 (ug/L)



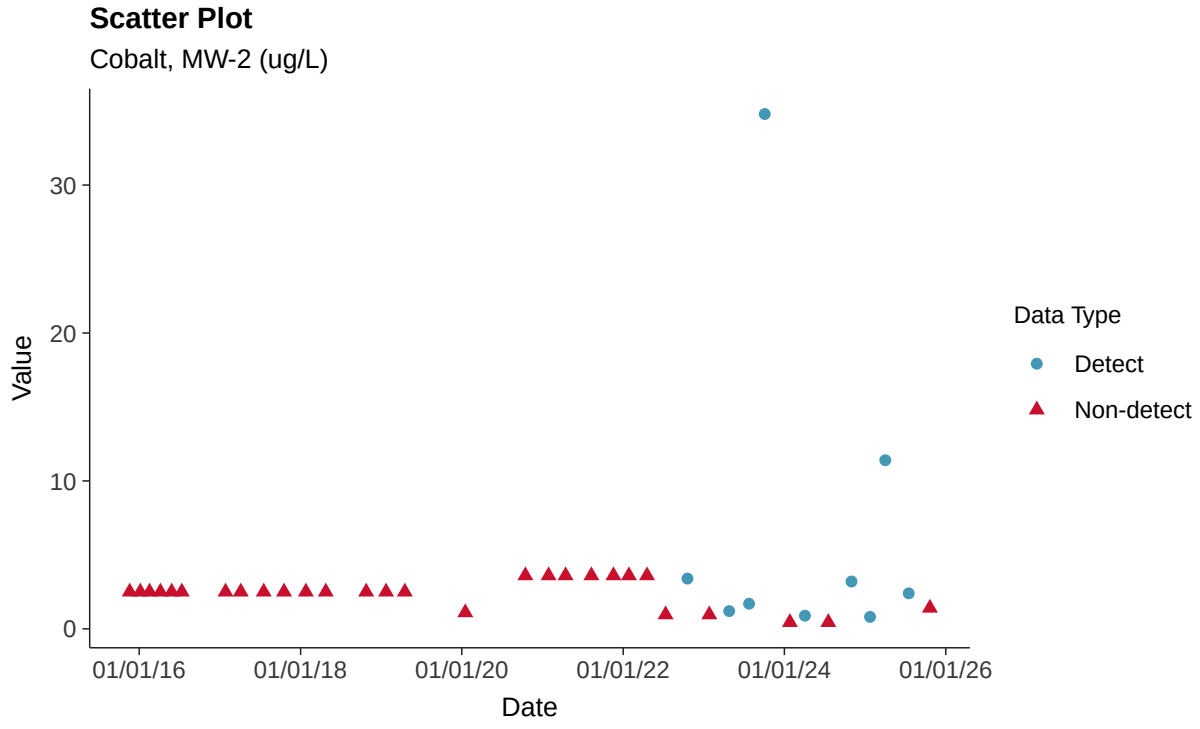
Trend Regression: Piecewise Linear-Linear

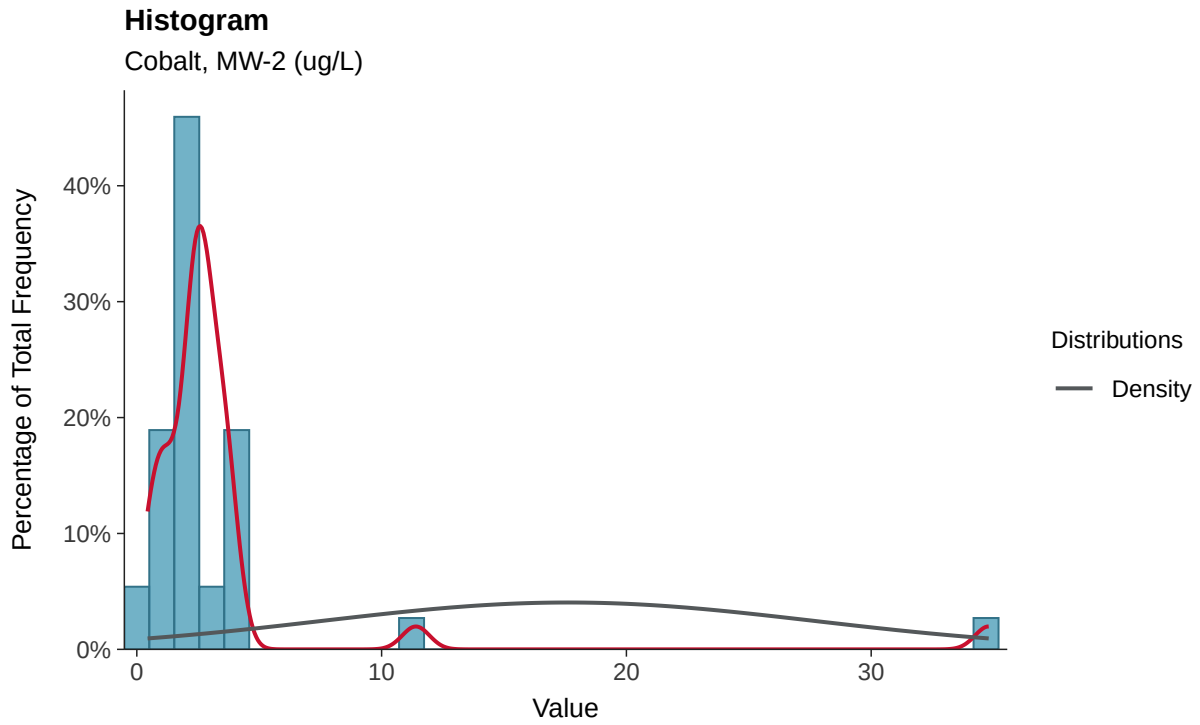
Chromium, MW-2 (ug/L)



App. IV: Cobalt, MW-2

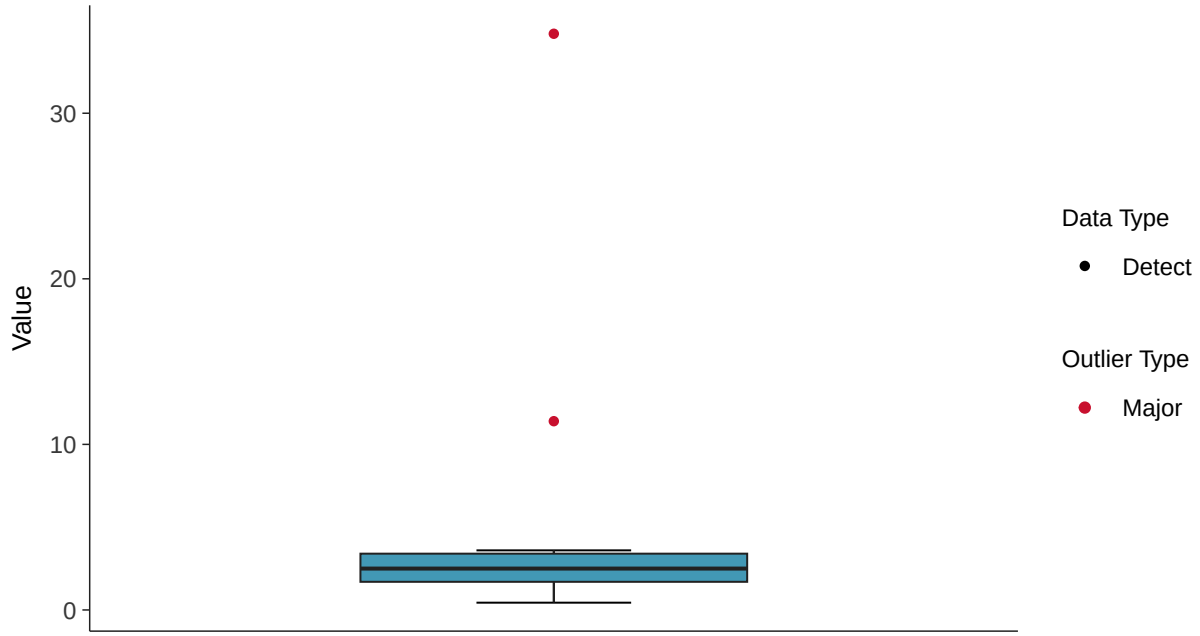
ID: 02_3_110





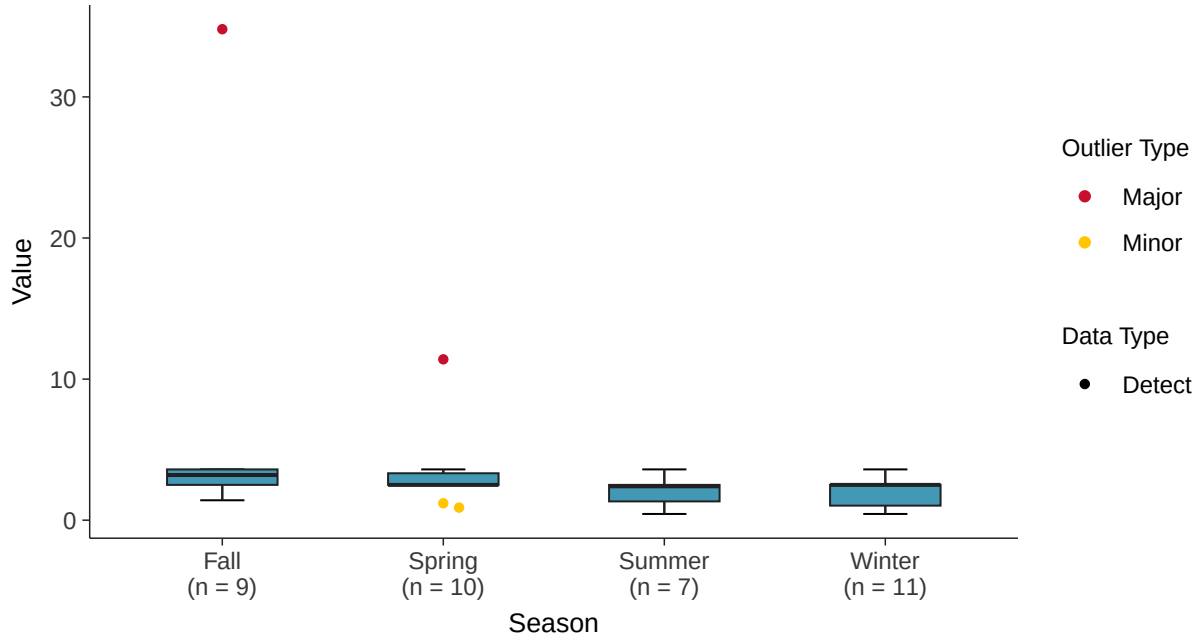
Boxplot

Cobalt, MW-2 (ug/L)



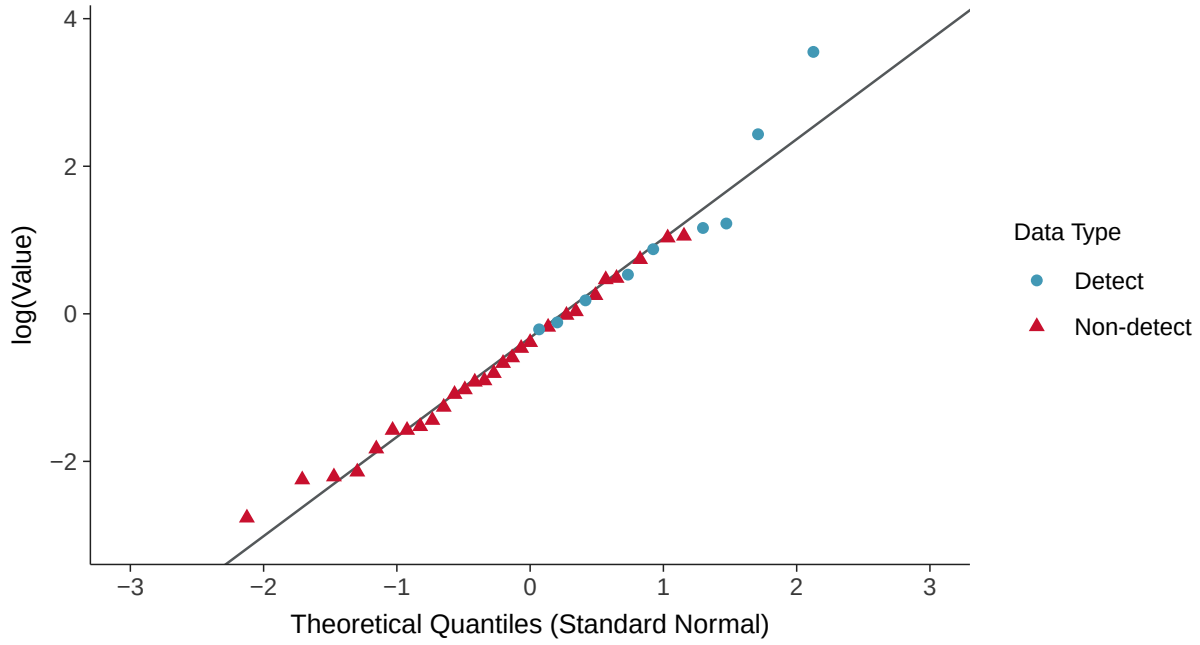
Boxplot by Season

Cobalt, MW-2 (ug/L)



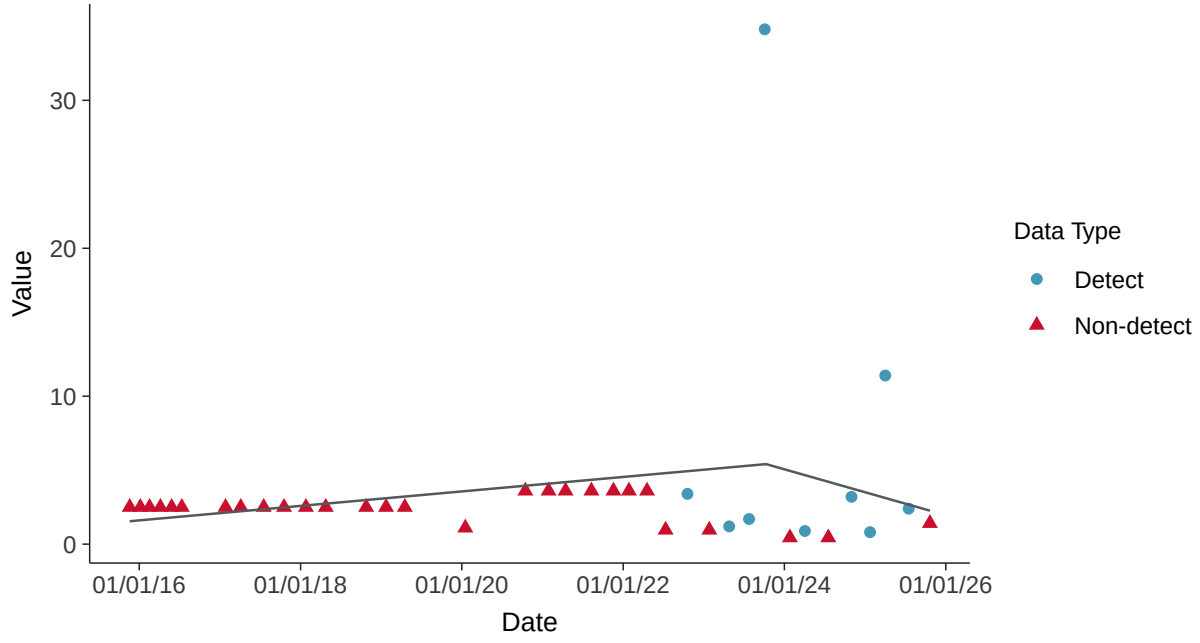
Lognormal Q-Q plot using ROS Imputed Estimates

Cobalt, MW-2 (ug/L)



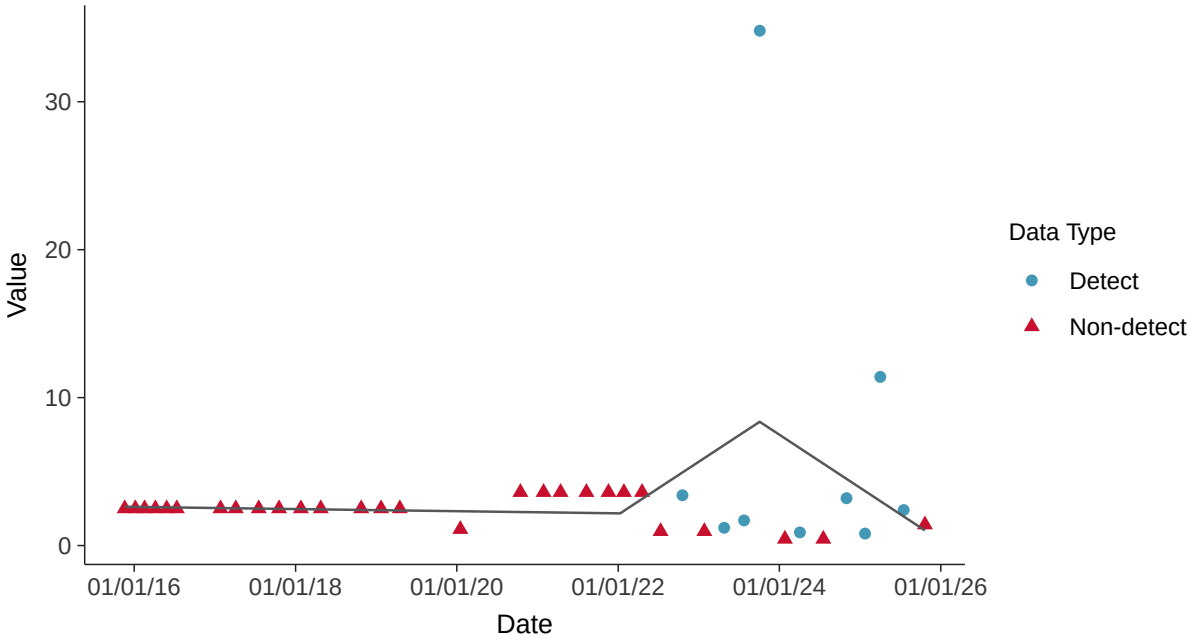
Trend Regression: Piecewise Linear-Linear

Cobalt, MW-2 (ug/L)



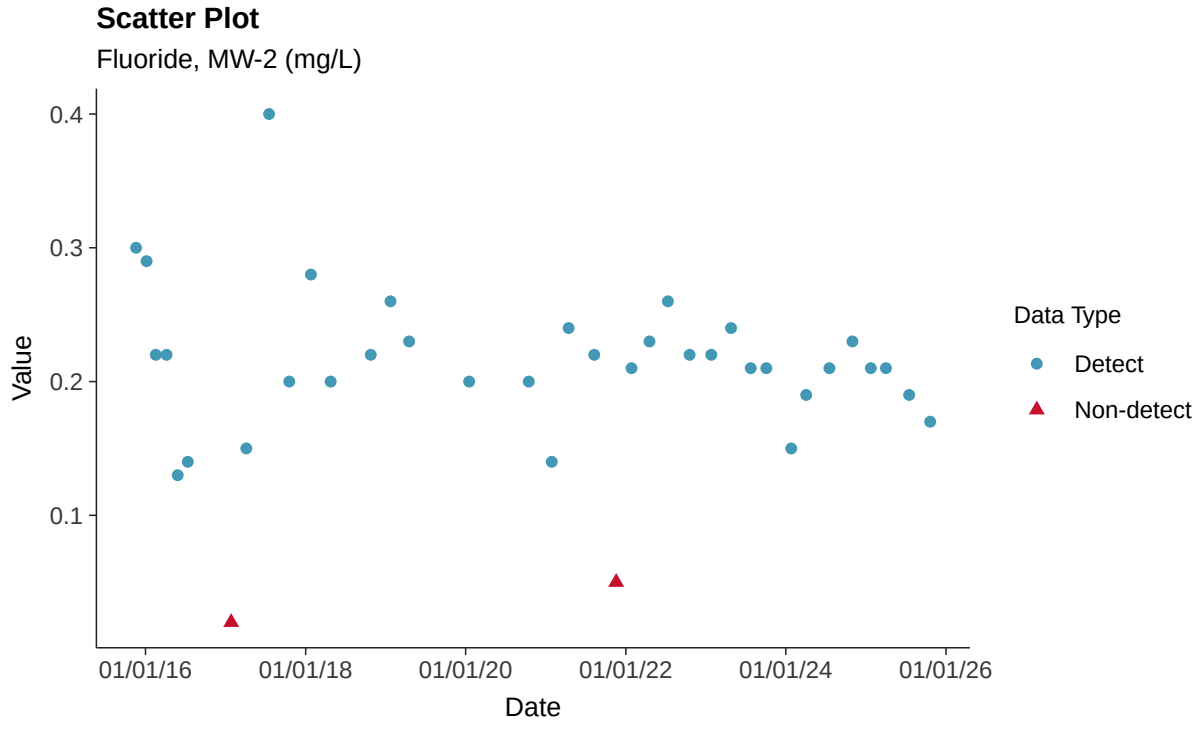
Trend Regression: Piecewise Linear-Linear-Linear

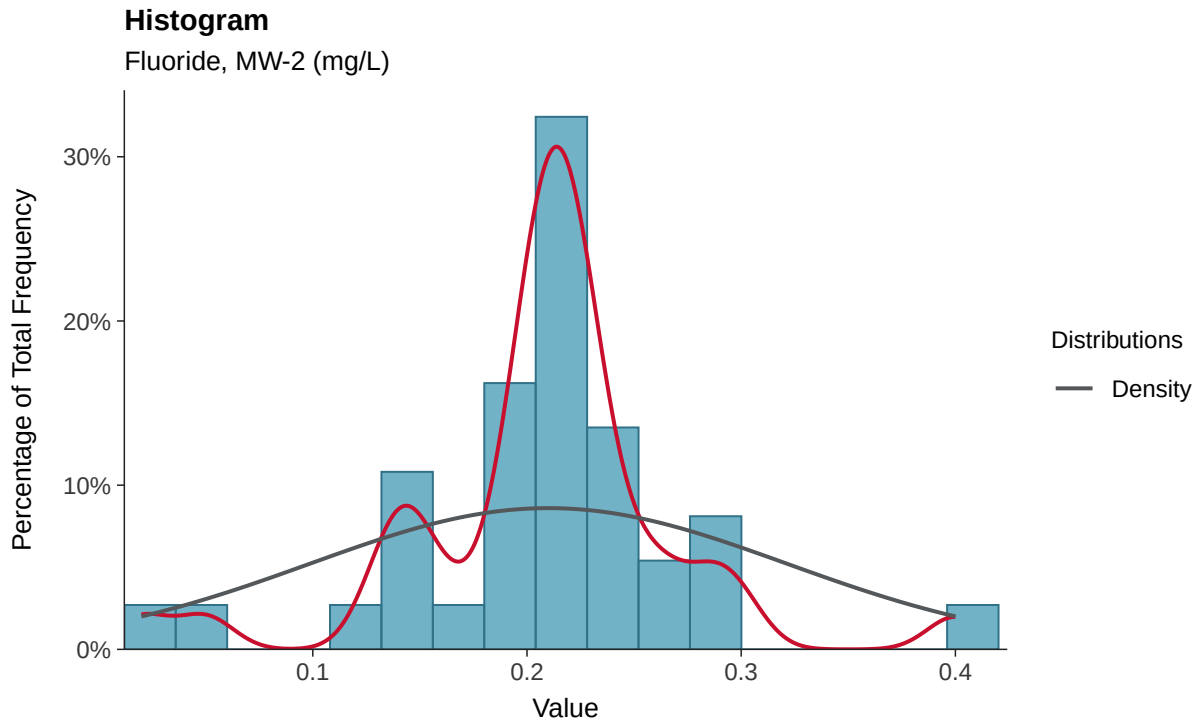
Cobalt, MW-2 (ug/L)



App. IV: Fluoride, MW-2

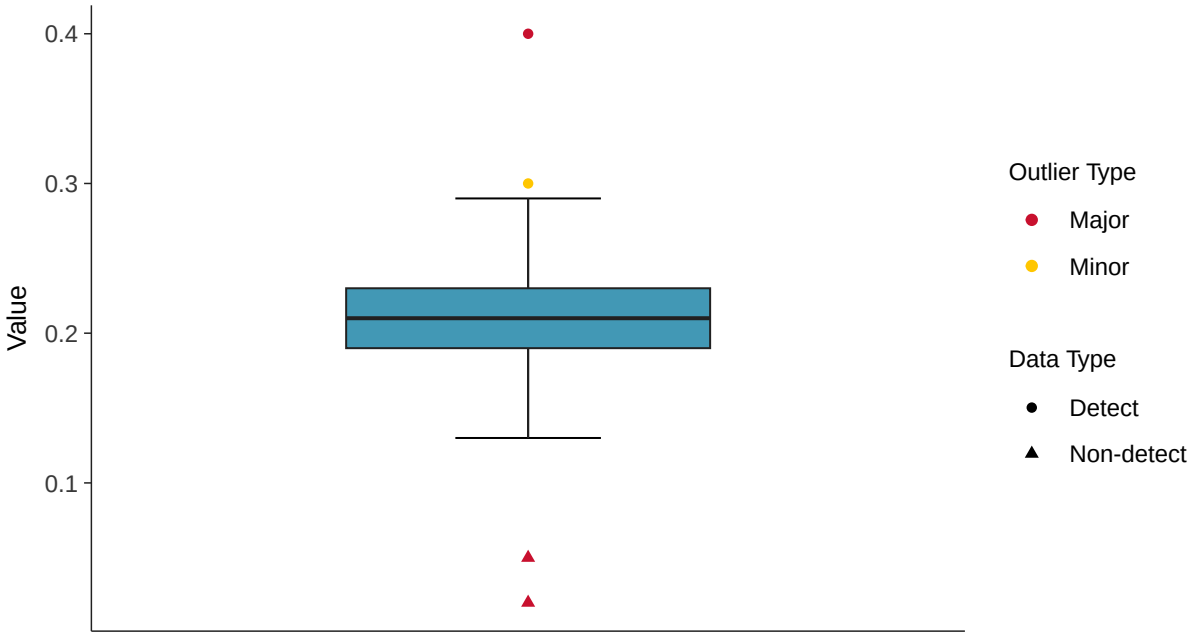
ID: 02_3_112





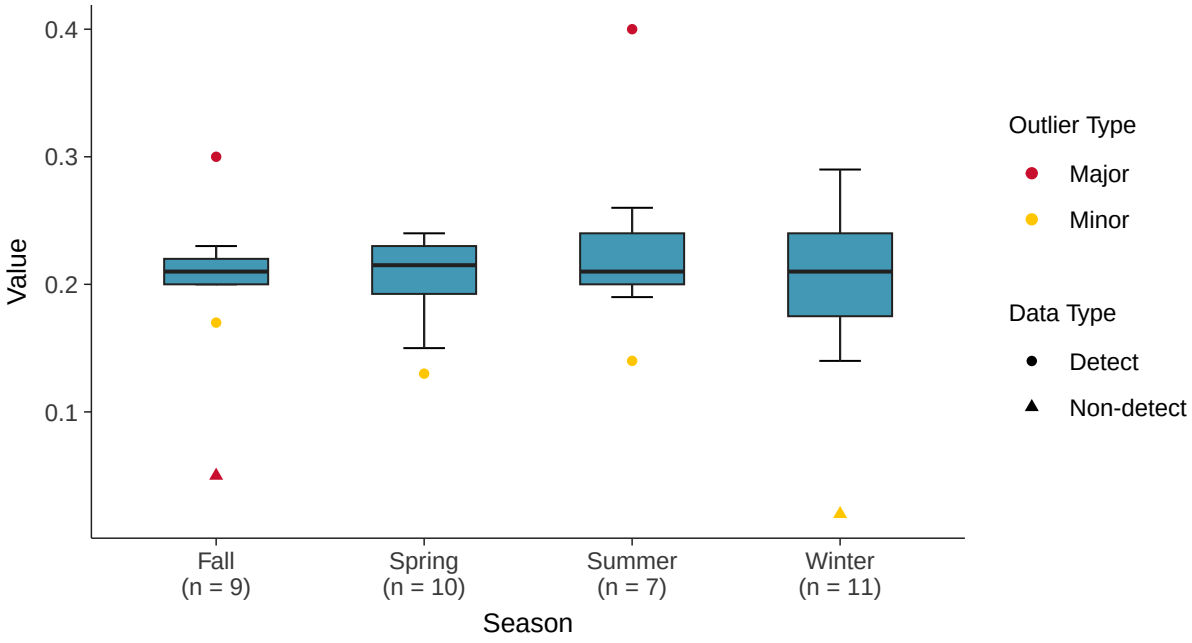
Boxplot

Fluoride, MW-2 (mg/L)



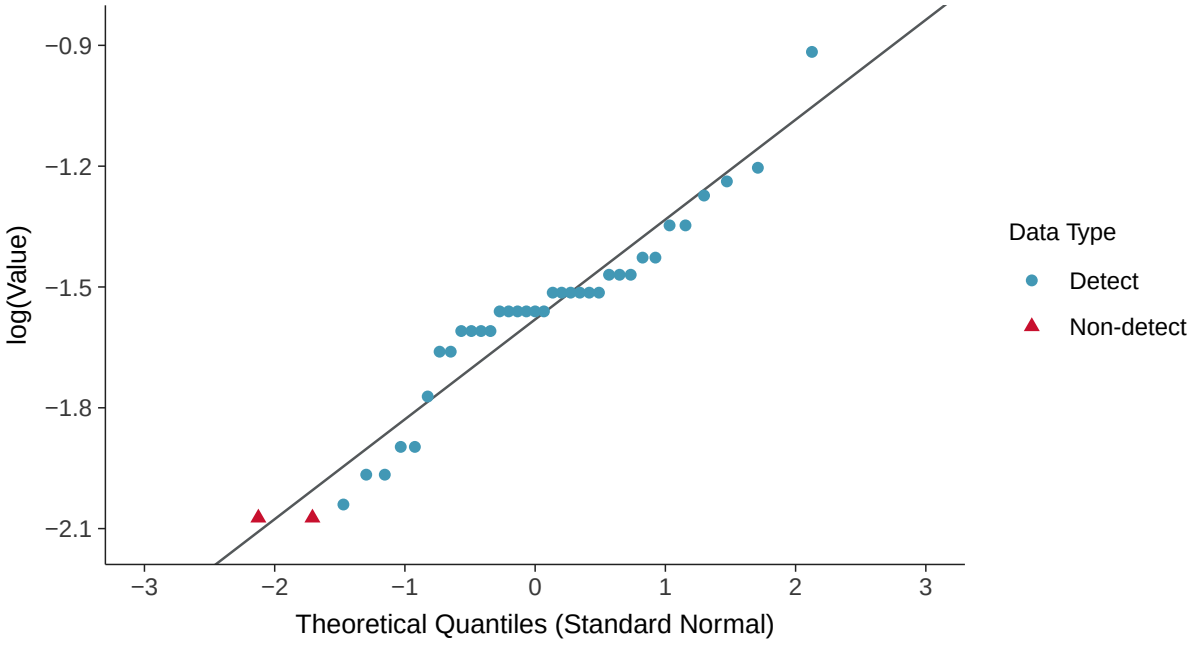
Boxplot by Season

Fluoride, MW-2 (mg/L)



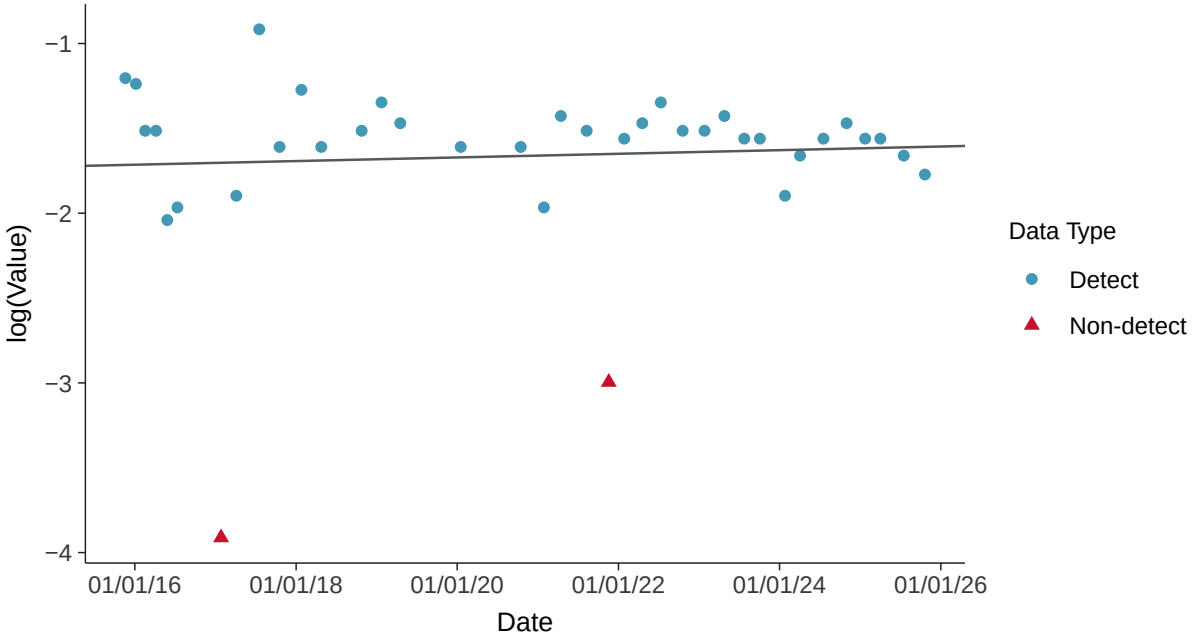
Lognormal Q-Q plot using ROS Imputed Estimates

Fluoride, MW-2 (mg/L)



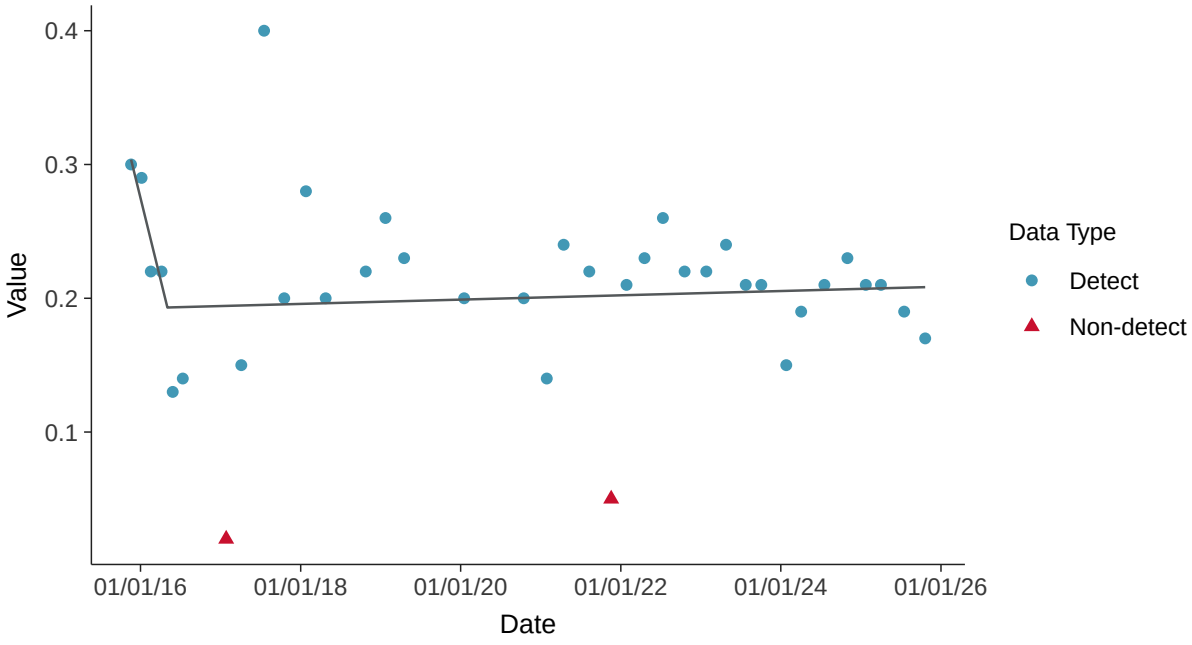
Trend Regression: Lognormal MLE

Fluoride, MW-2 (mg/L)



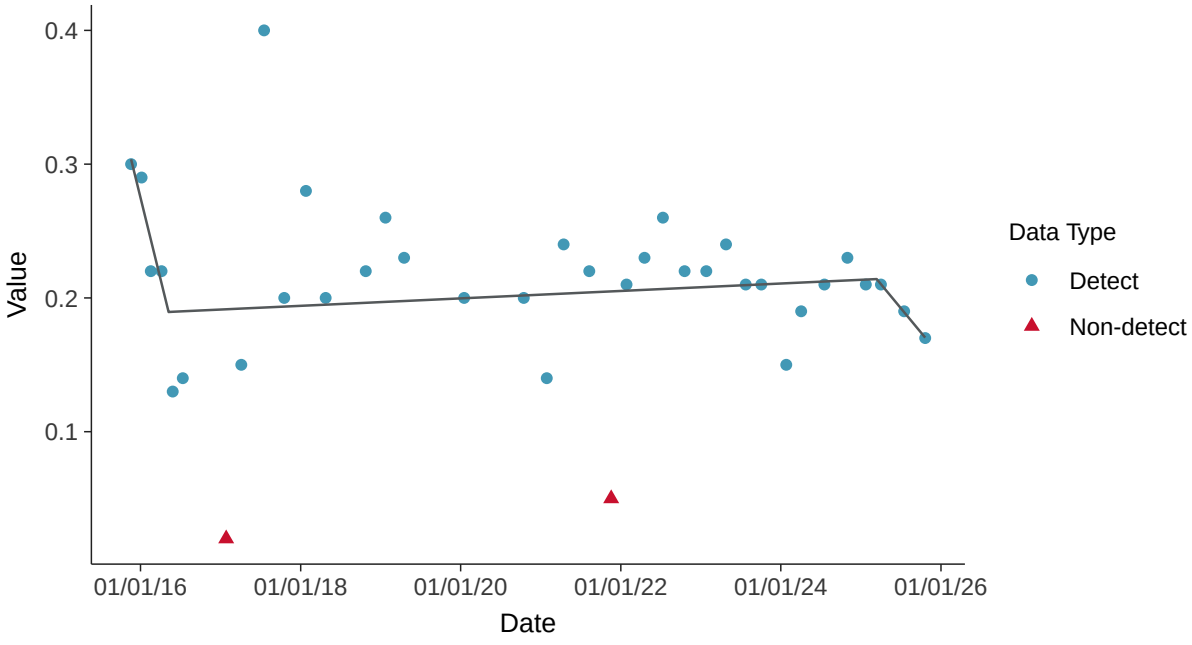
Trend Regression: Piecewise Linear-Linear

Fluoride, MW-2 (mg/L)



Trend Regression: Piecewise Linear-Linear-Linear

Fluoride, MW-2 (mg/L)

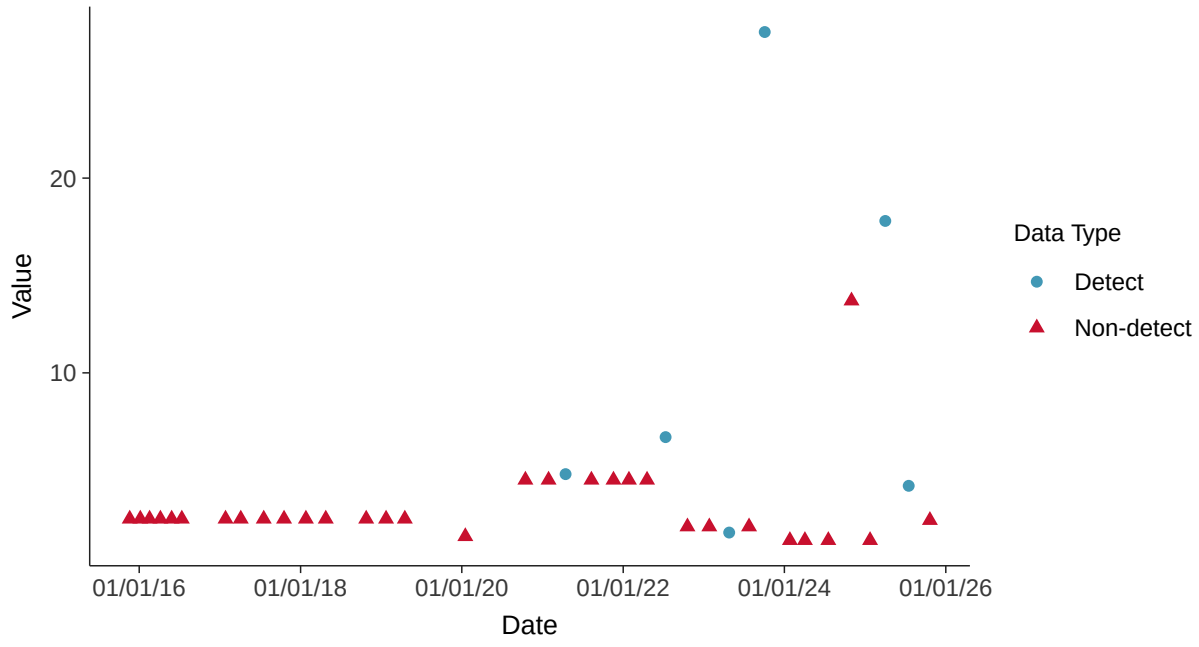


App. IV: Lead, MW-2

ID: 02_3_113

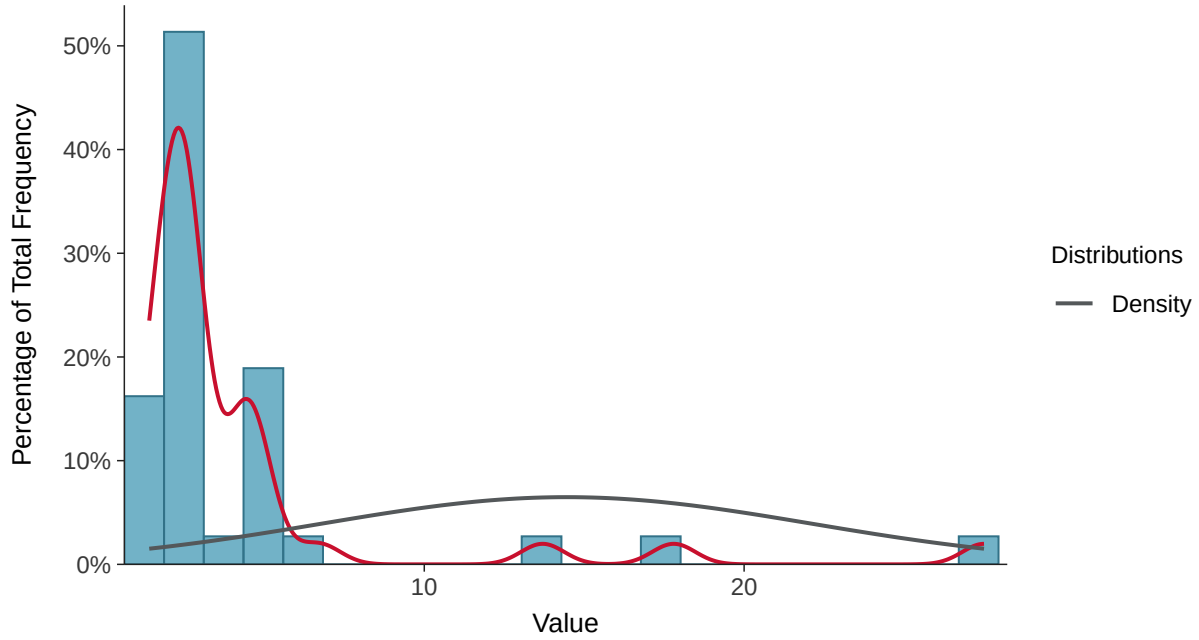
Scatter Plot

Lead, MW-2 (ug/L)



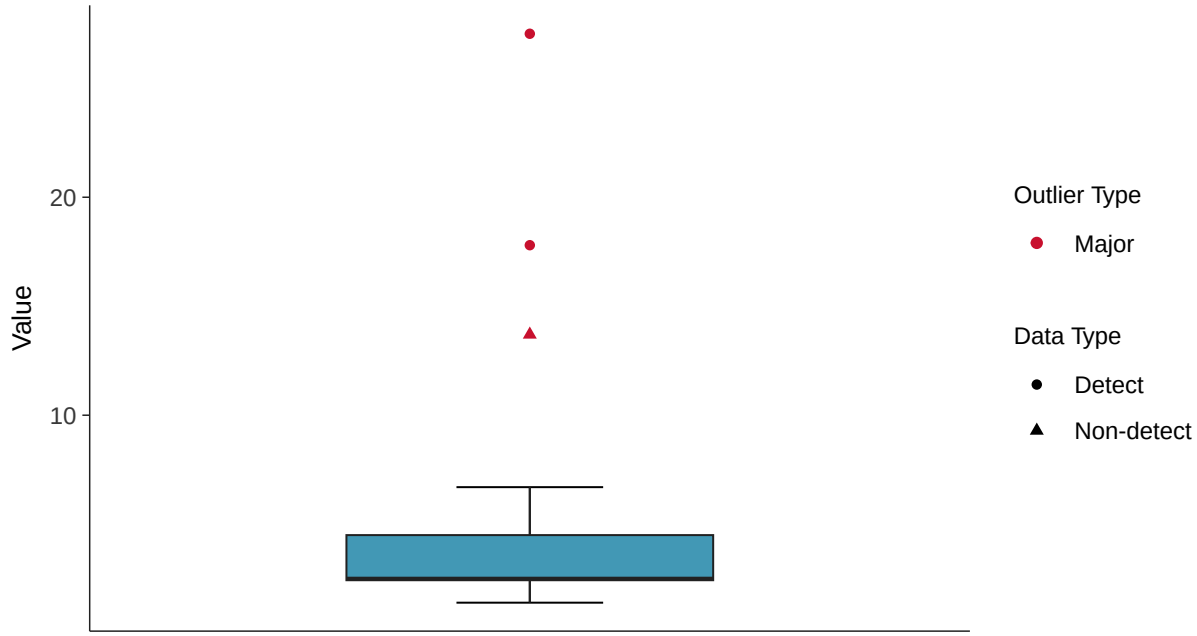
Histogram

Lead, MW-2 (ug/L)



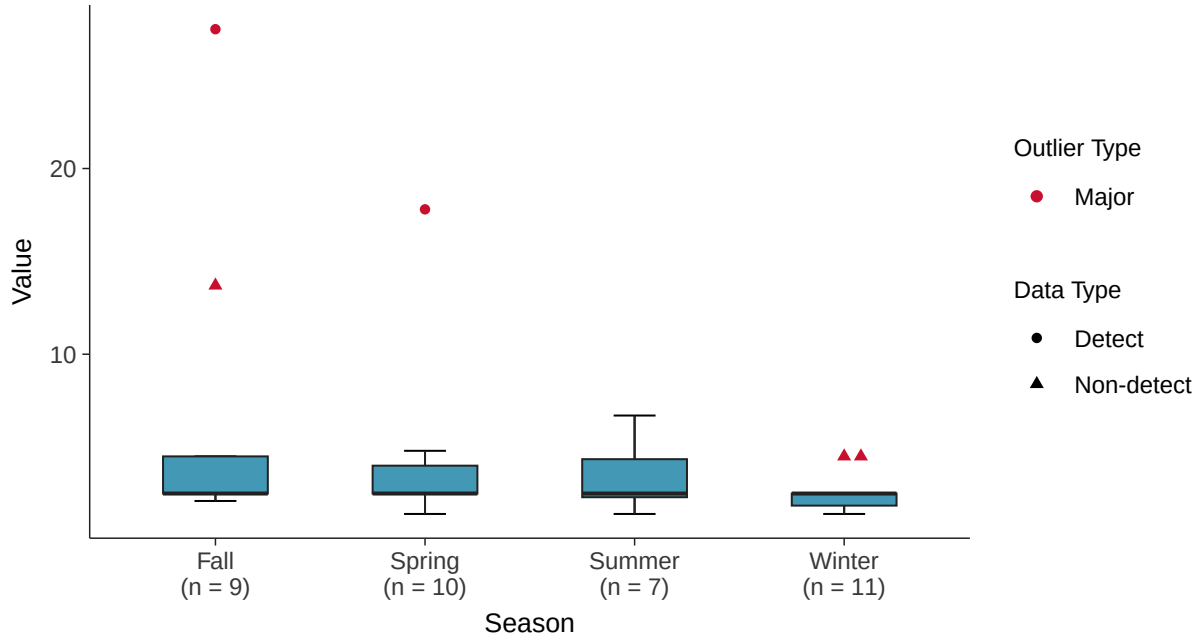
Boxplot

Lead, MW-2 (ug/L)



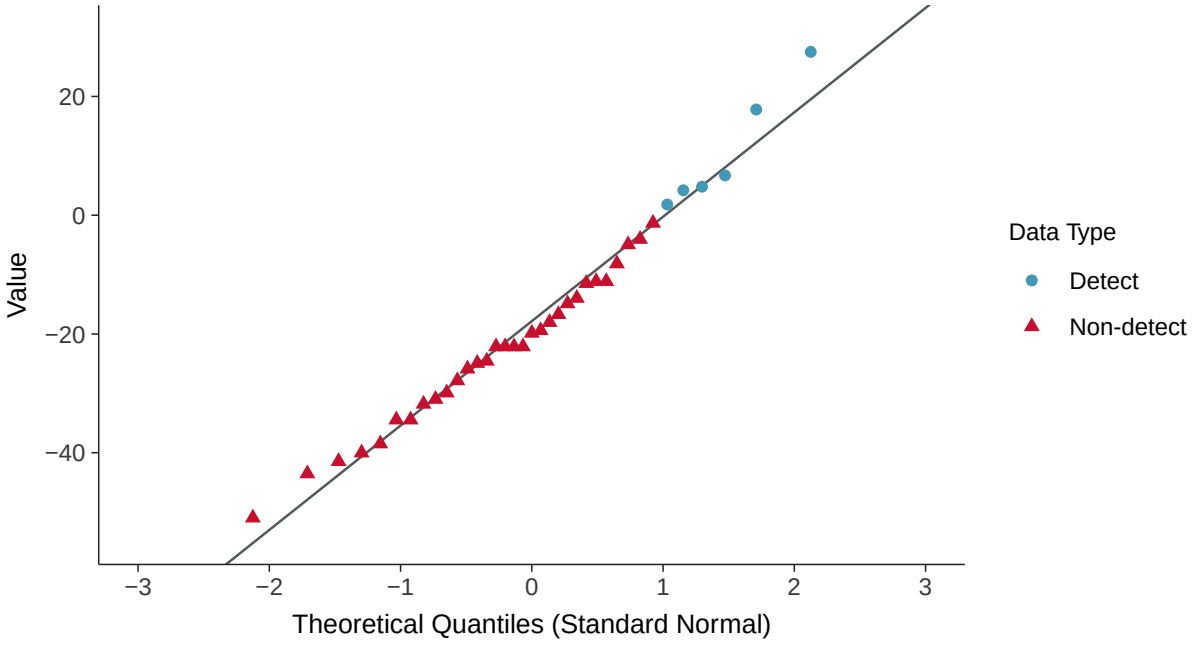
Boxplot by Season

Lead, MW-2 (ug/L)



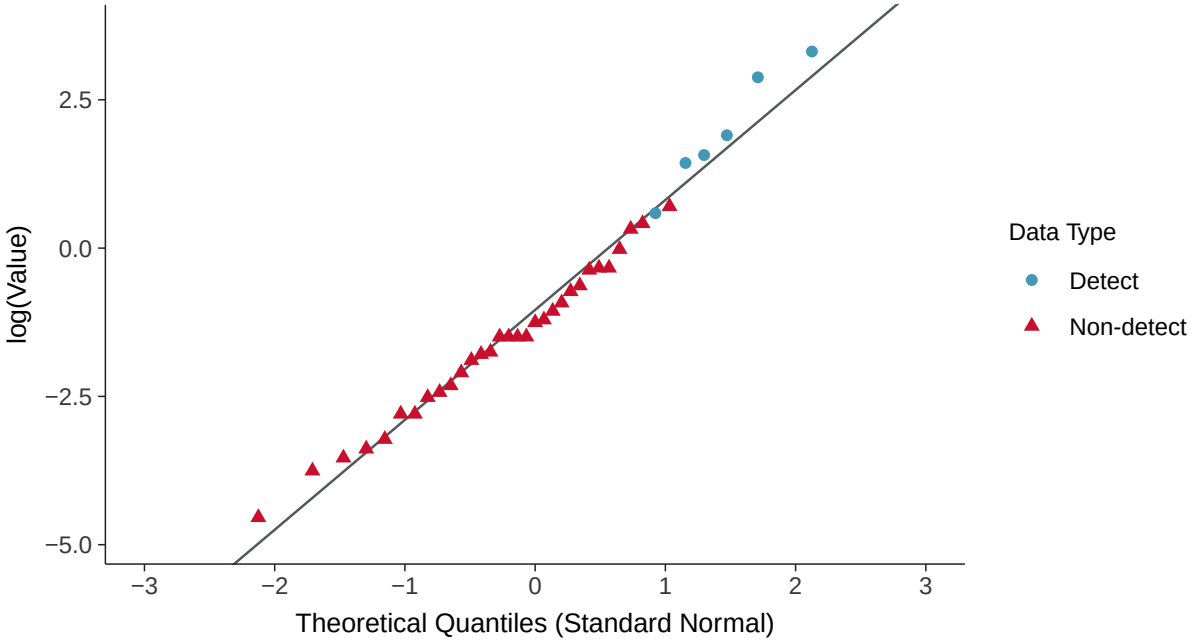
Normal Q-Q plot using ROS Imputed Estimates

Lead, MW-2 (ug/L)



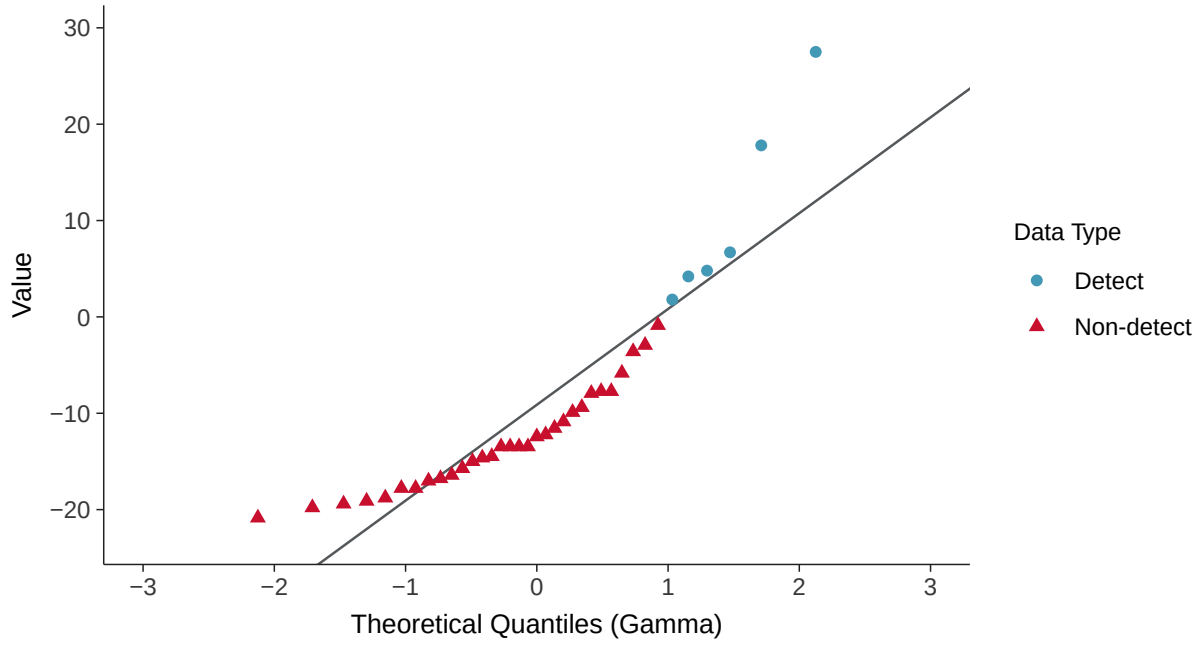
Lognormal Q-Q plot using ROS Imputed Estimates

Lead, MW-2 (ug/L)



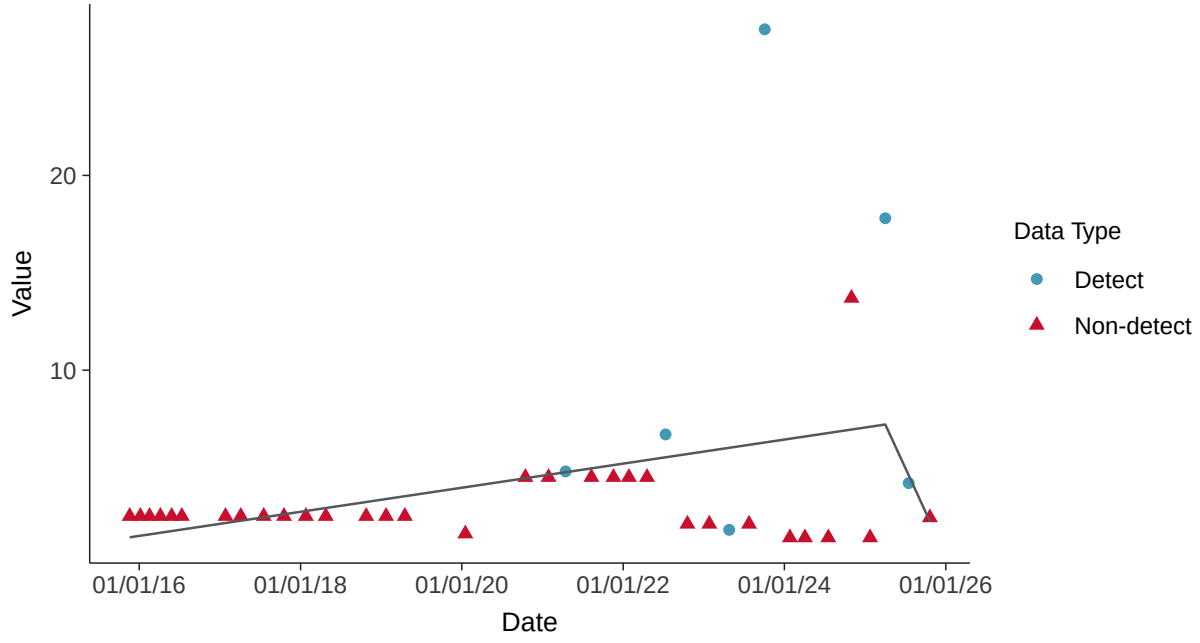
Gamma Q-Q plot using ROS Imputed Estimates

Lead, MW-2 (ug/L)



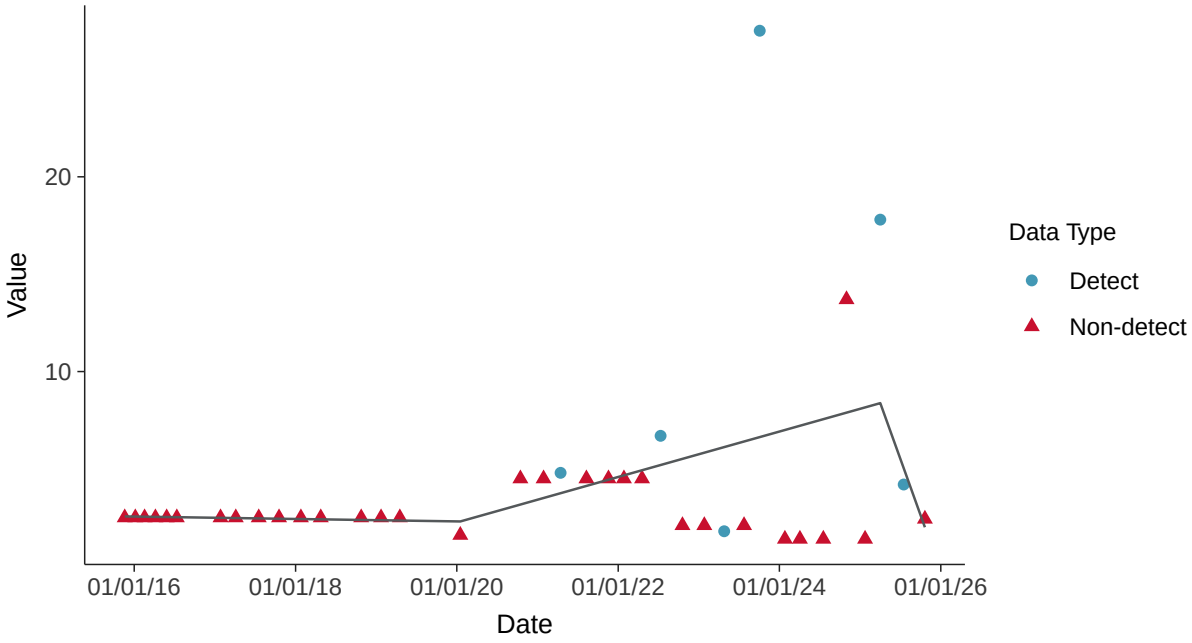
Trend Regression: Piecewise Linear-Linear

Lead, MW-2 (ug/L)



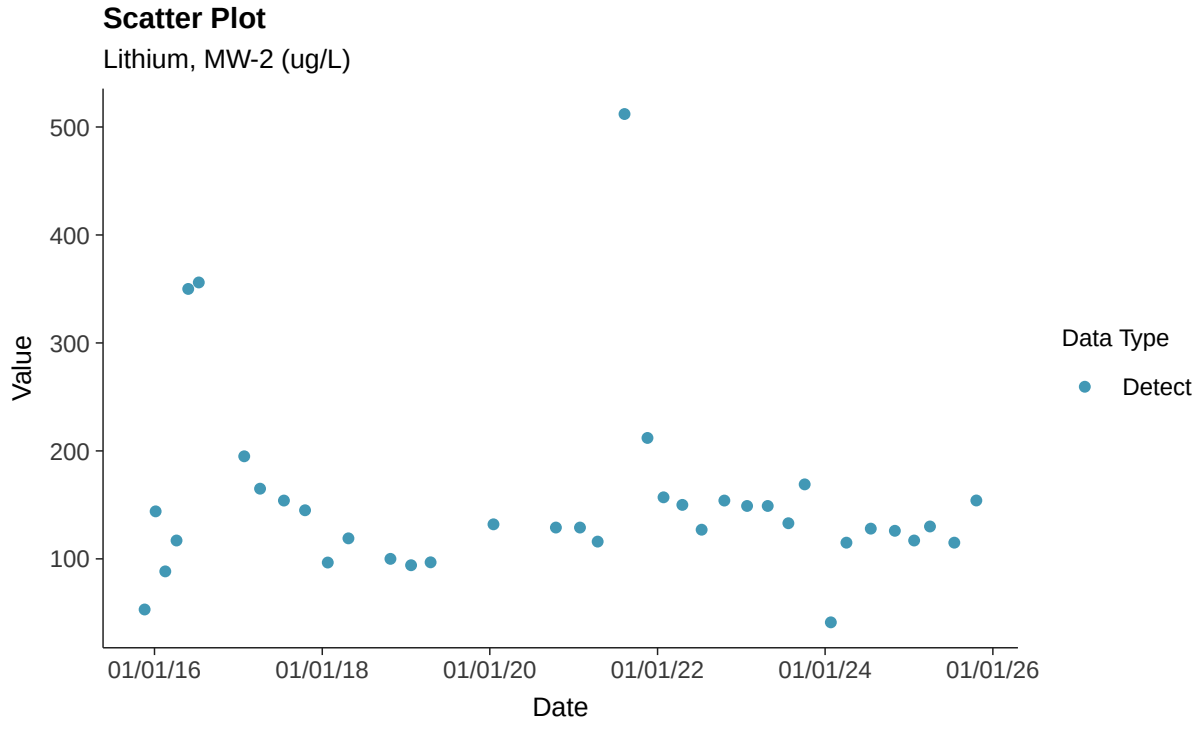
Trend Regression: Piecewise Linear-Linear-Linear

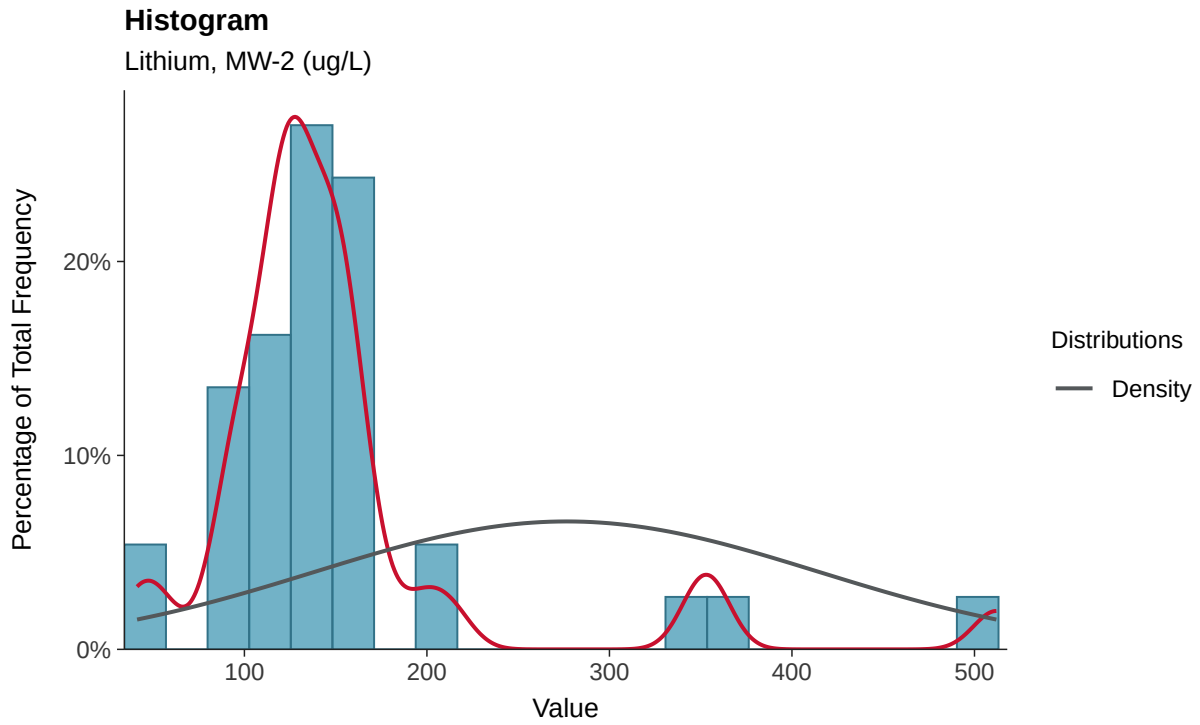
Lead, MW-2 (ug/L)



App. IV: Lithium, MW-2

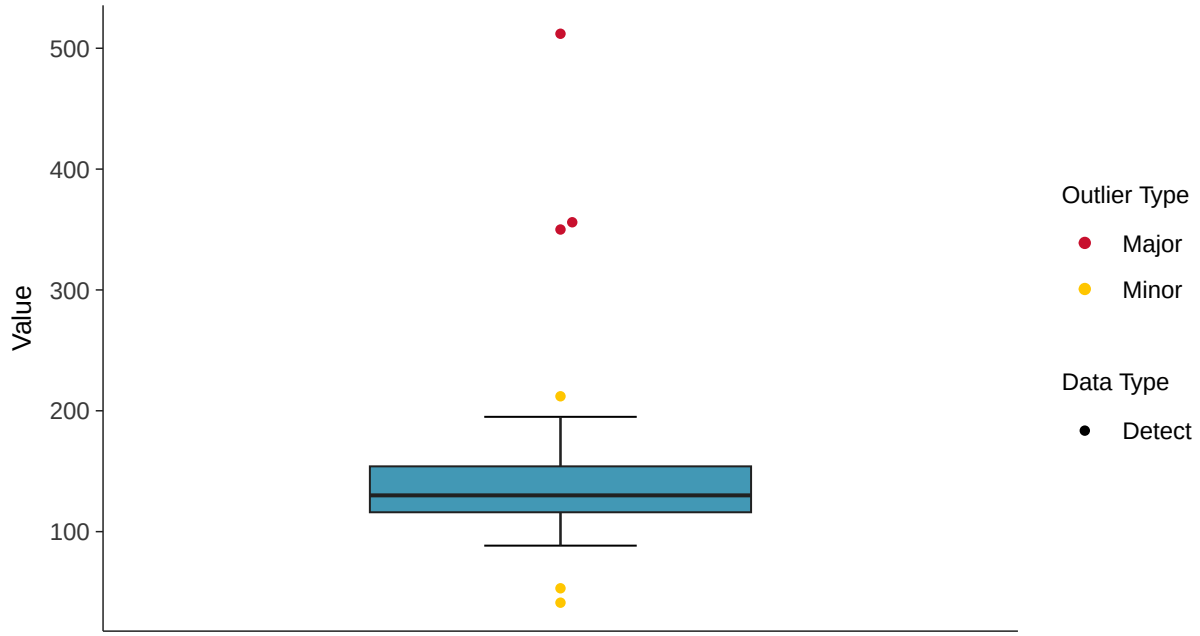
ID: 02_3_114





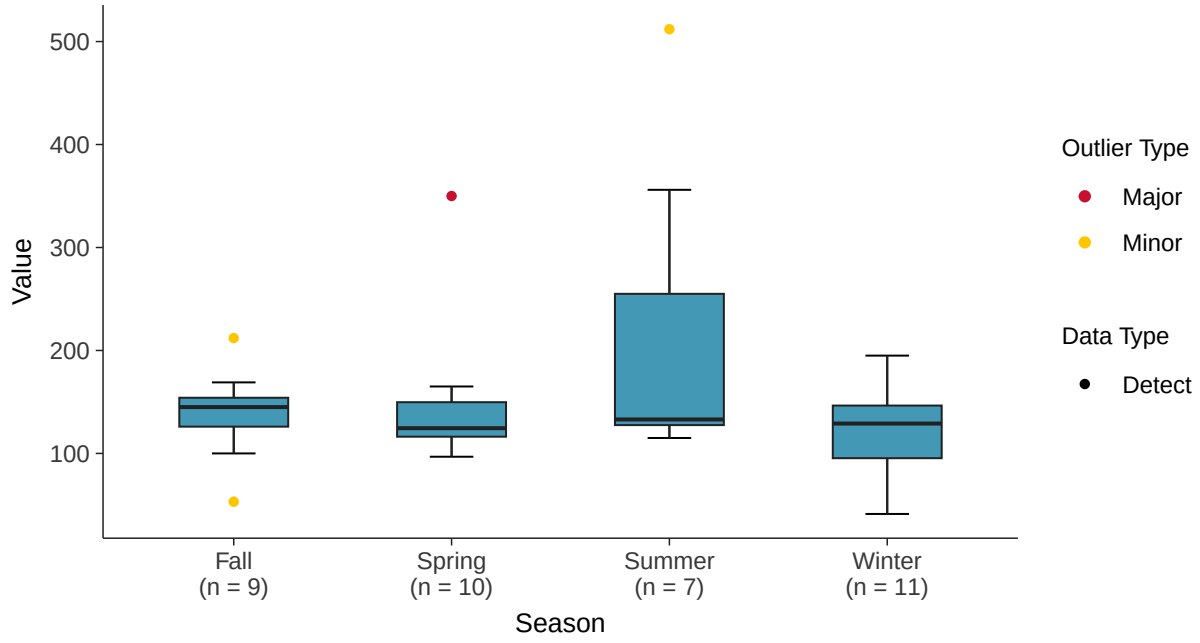
Boxplot

Lithium, MW-2 (ug/L)



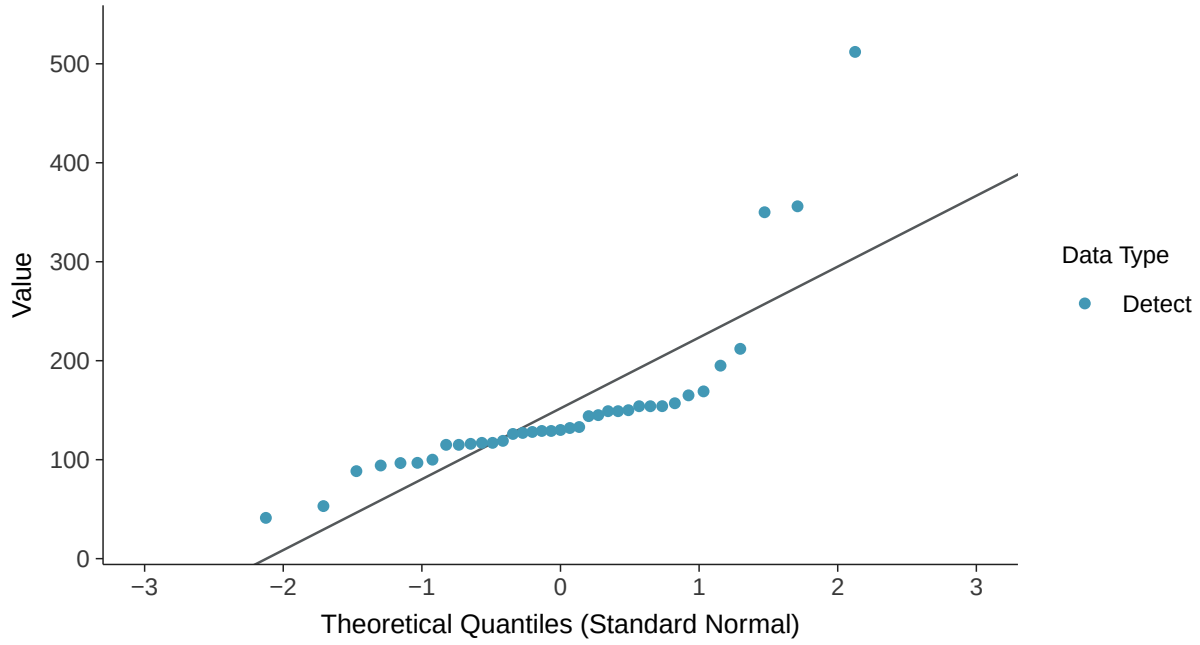
Boxplot by Season

Lithium, MW-2 (ug/L)



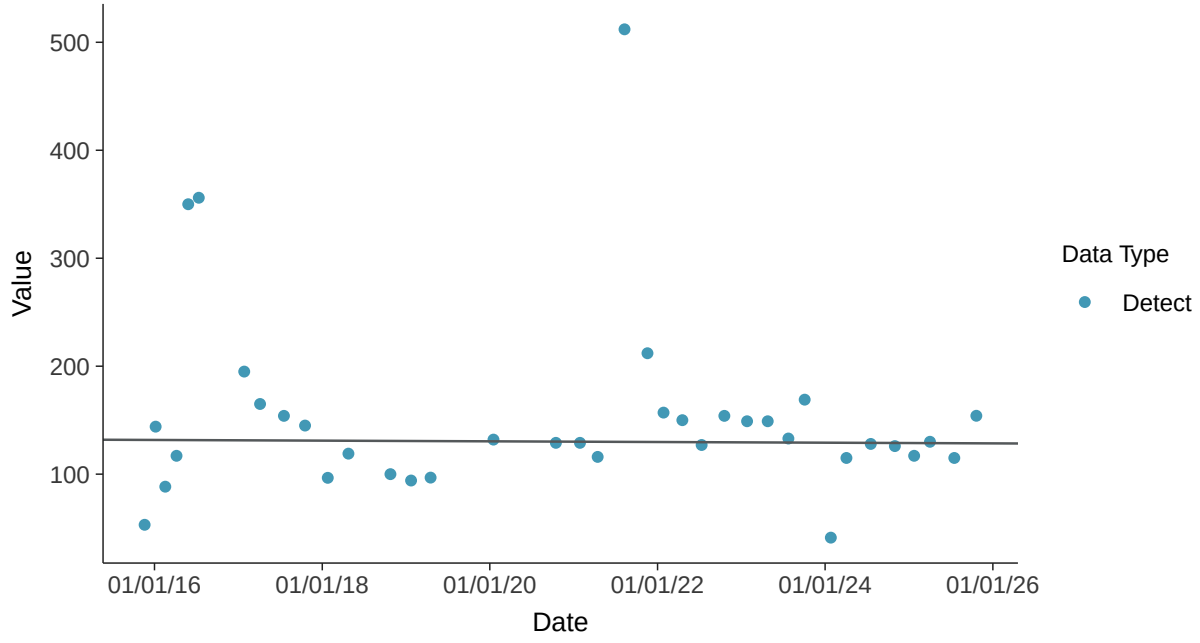
Normal Q-Q plot

Lithium, MW-2 (ug/L)



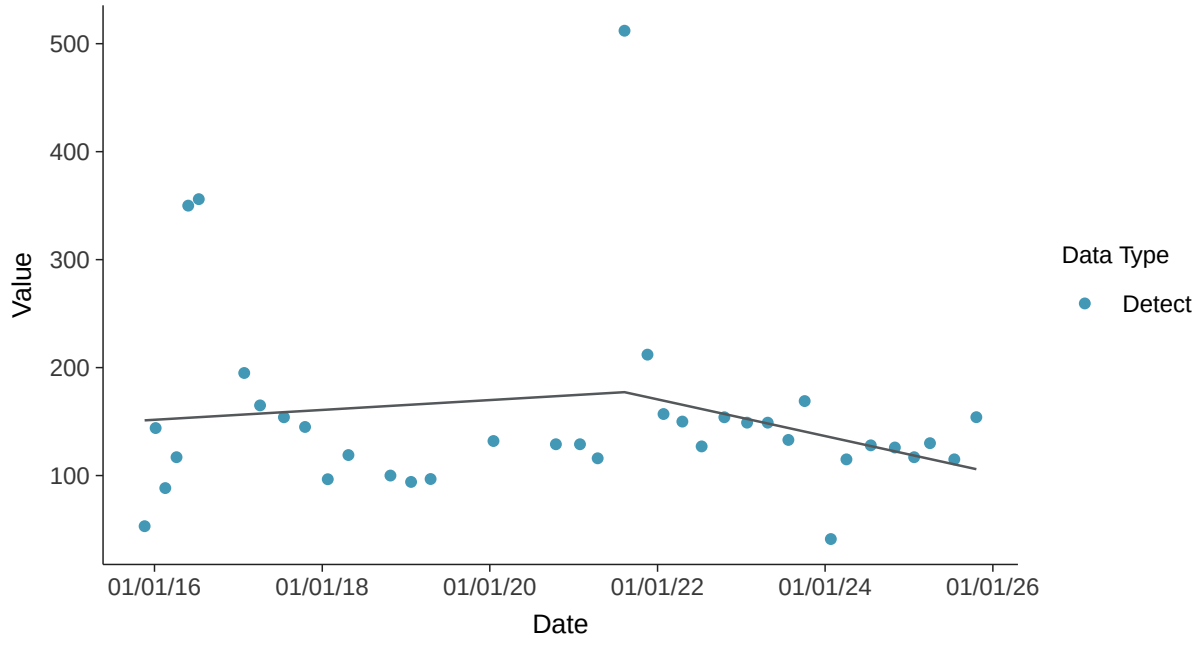
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Lithium, MW-2 (ug/L)



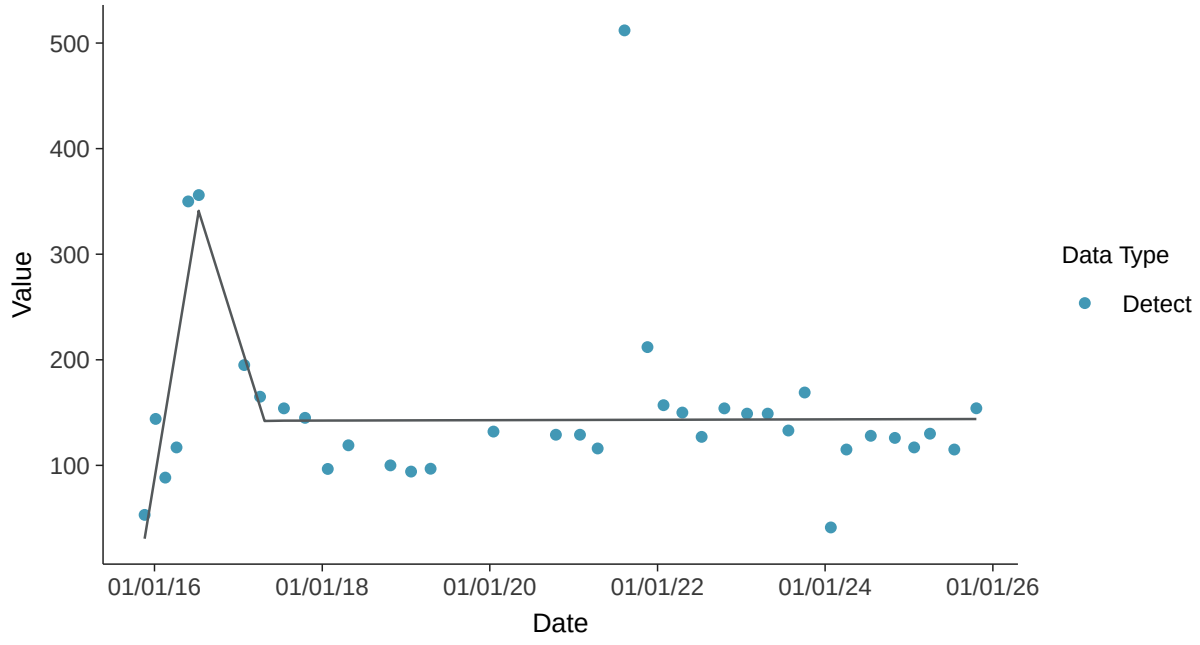
Trend Regression: Piecewise Linear-Linear

Lithium, MW-2 (ug/L)



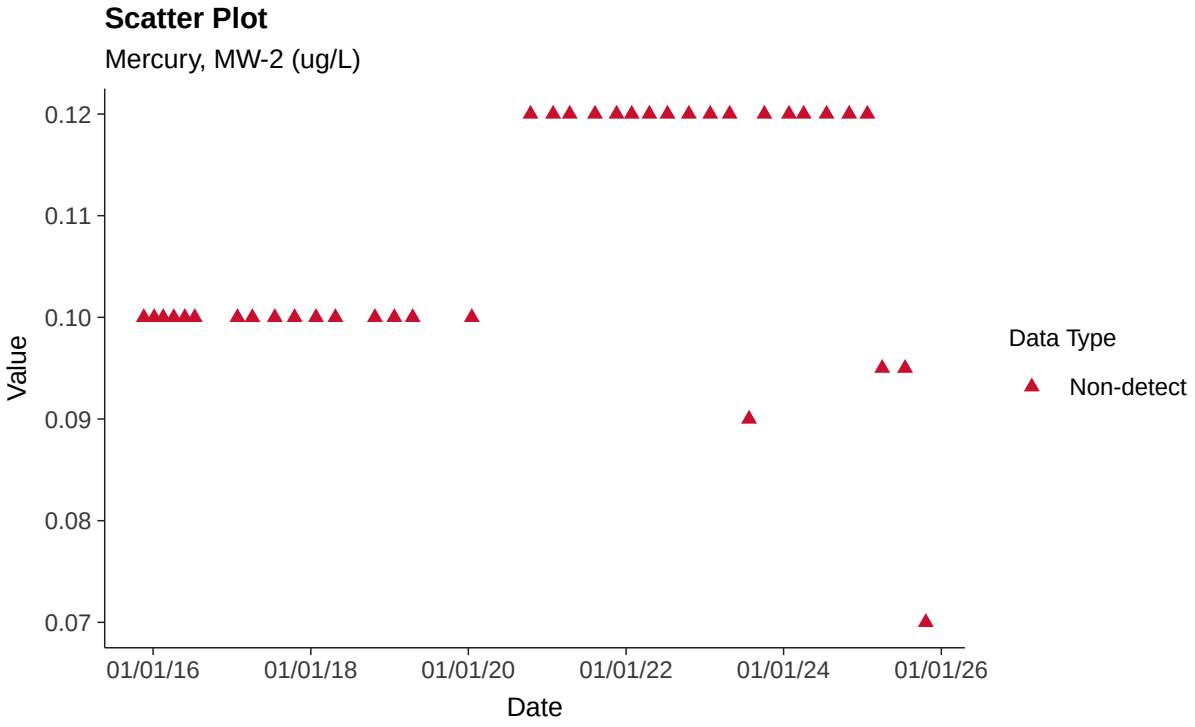
Trend Regression: Piecewise Linear-Linear-Linear

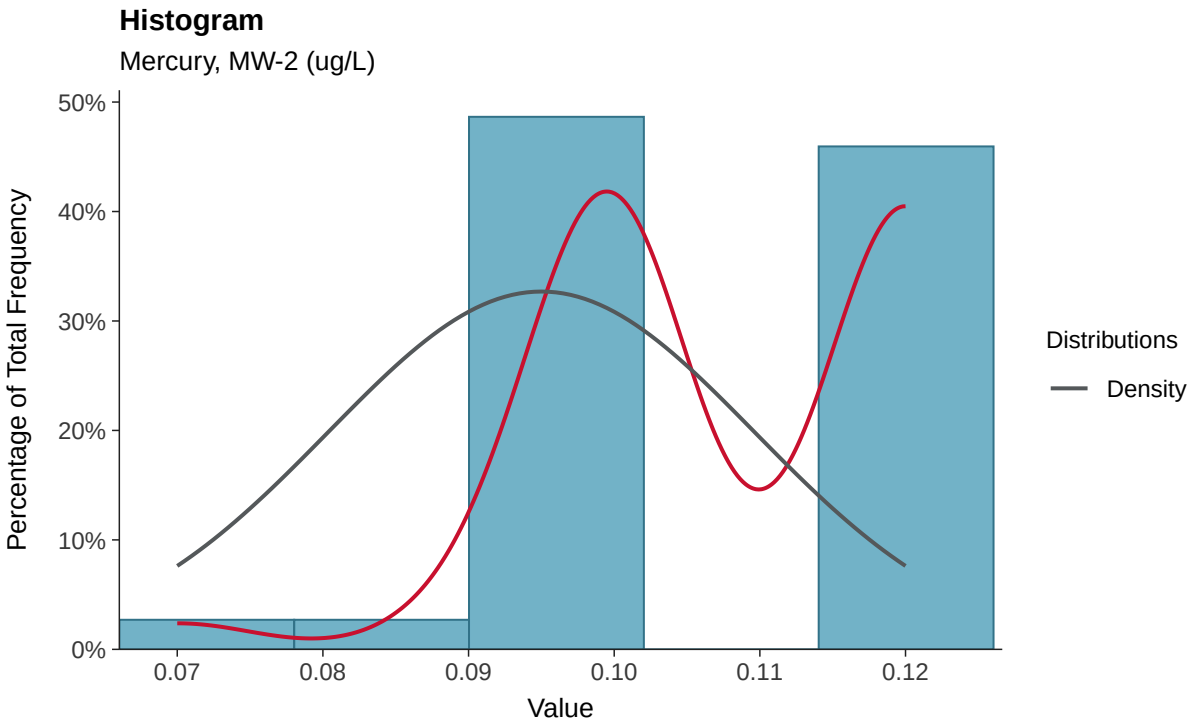
Lithium, MW-2 (ug/L)



App. IV: Mercury, MW-2

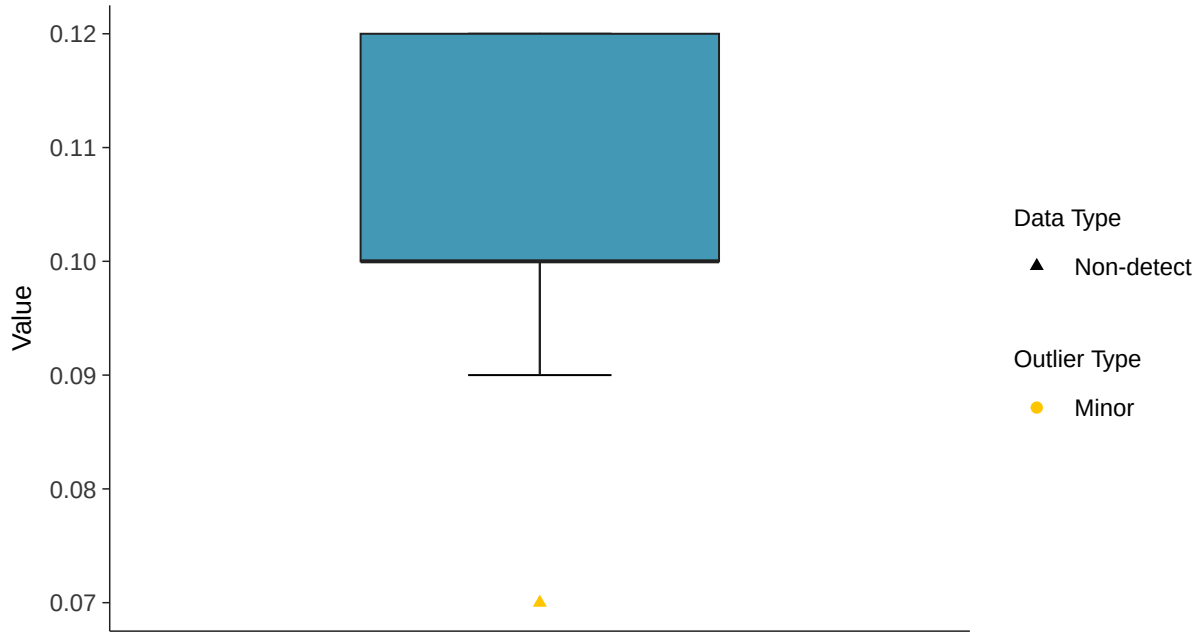
ID: 02_3_115





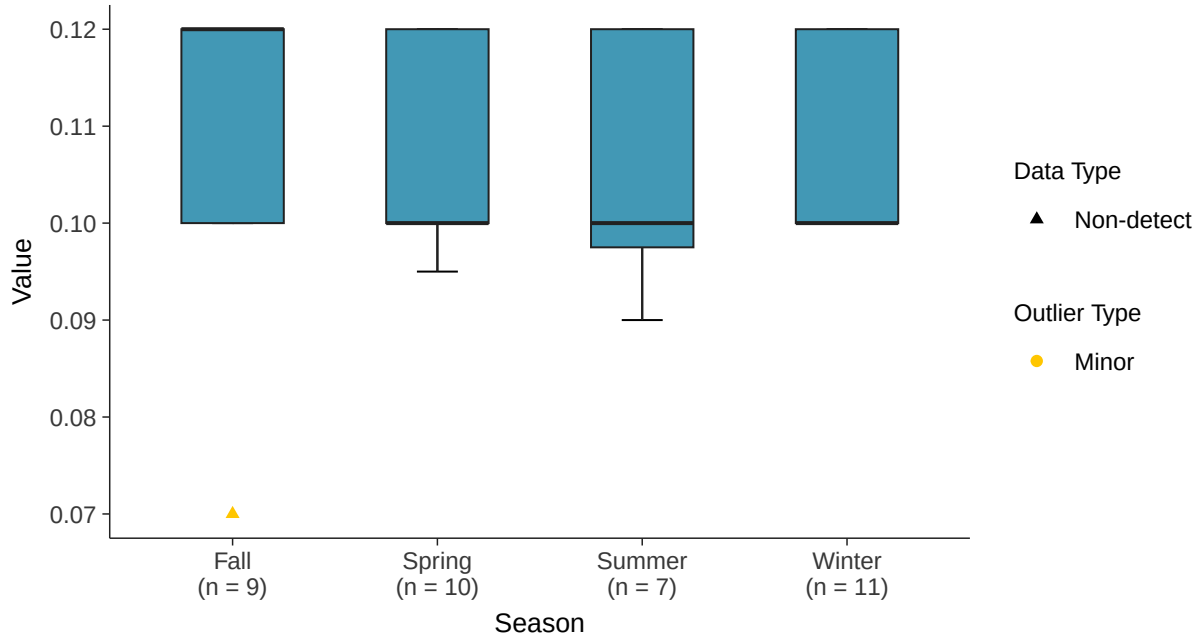
Boxplot

Mercury, MW-2 (ug/L)



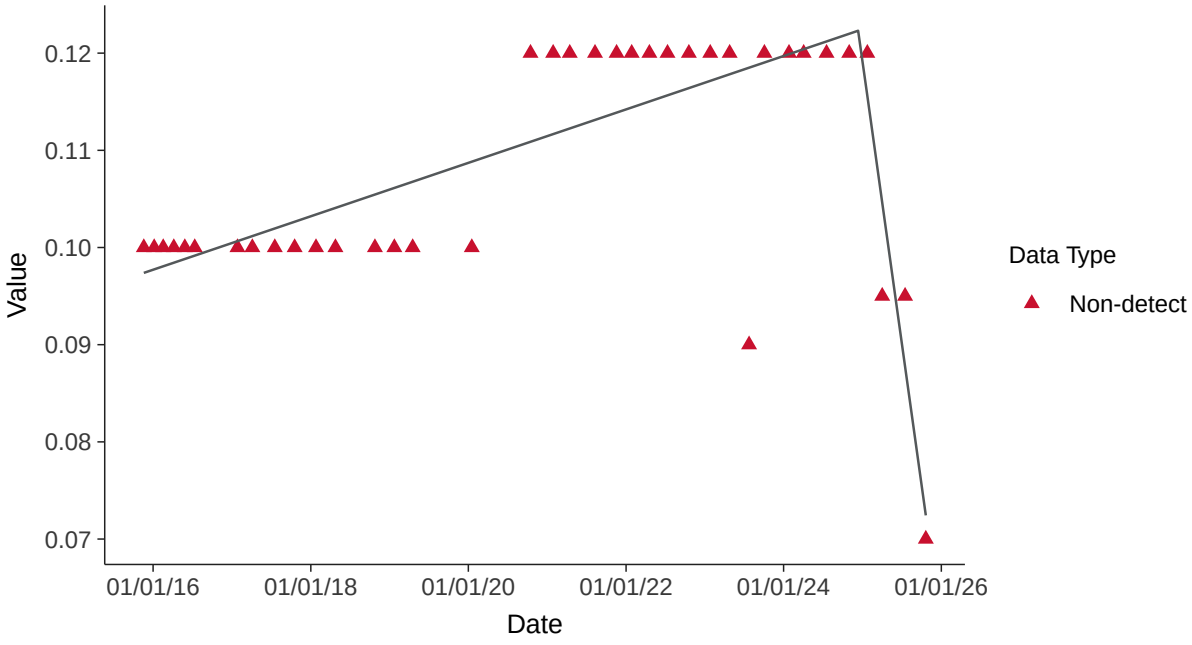
Boxplot by Season

Mercury, MW-2 (ug/L)



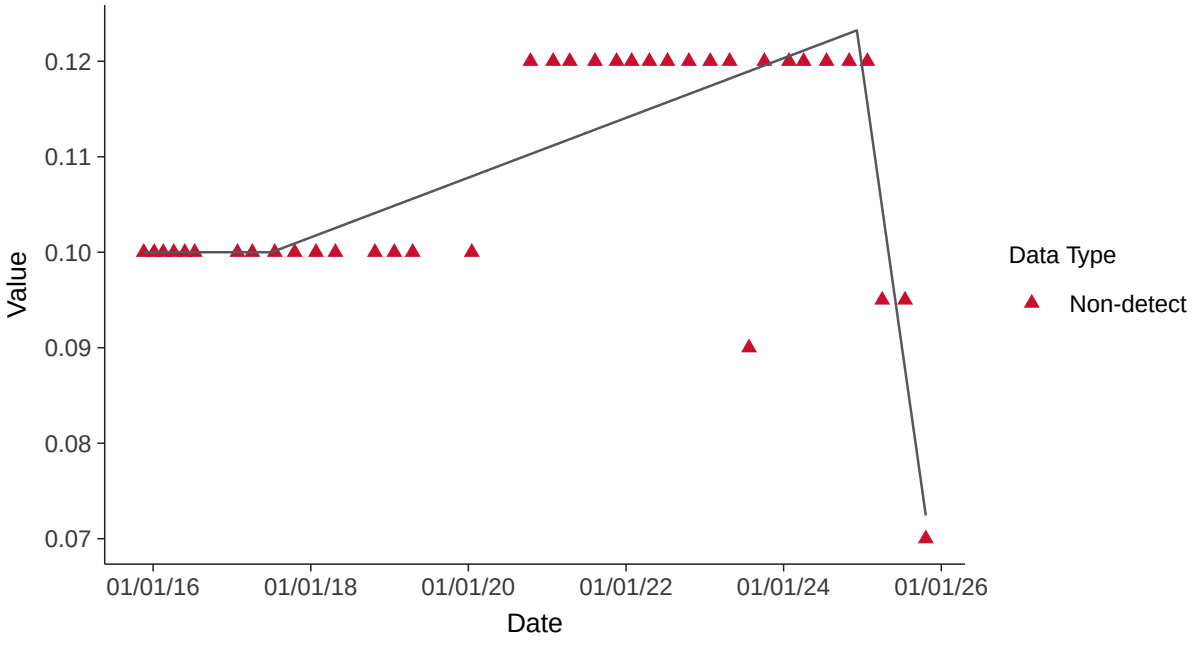
Trend Regression: Piecewise Linear-Linear

Mercury, MW-2 (ug/L)



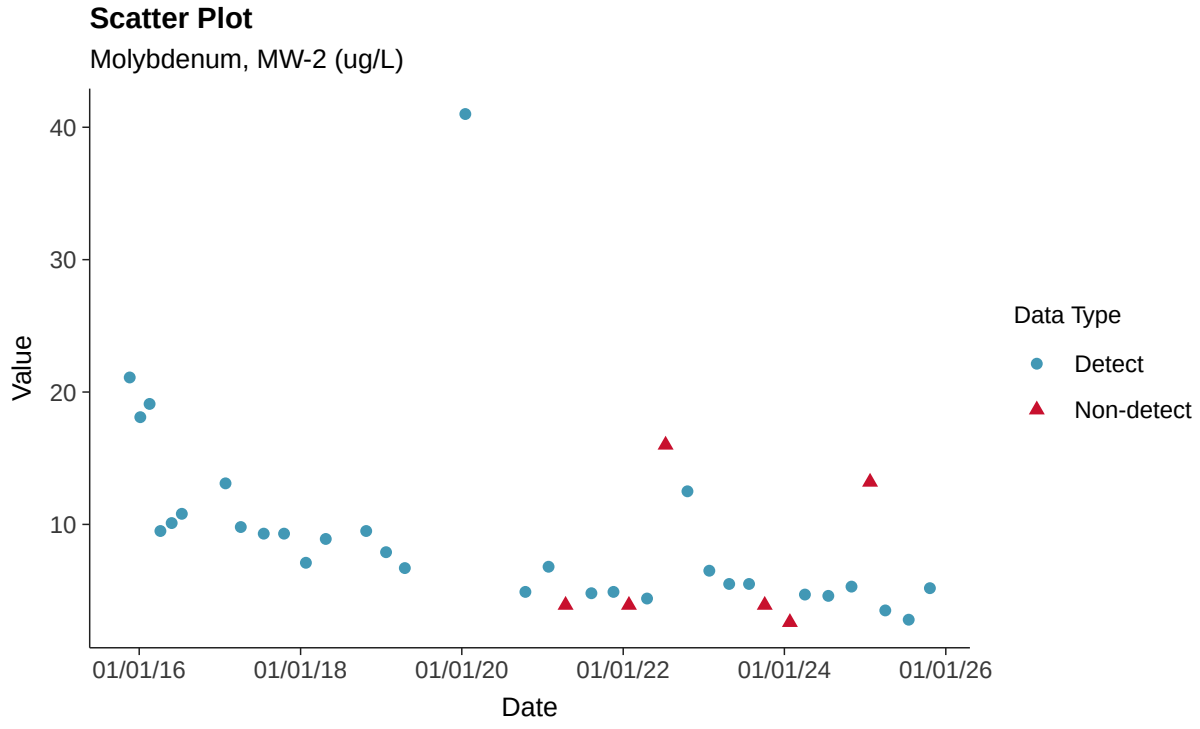
Trend Regression: Piecewise Linear-Linear-Linear

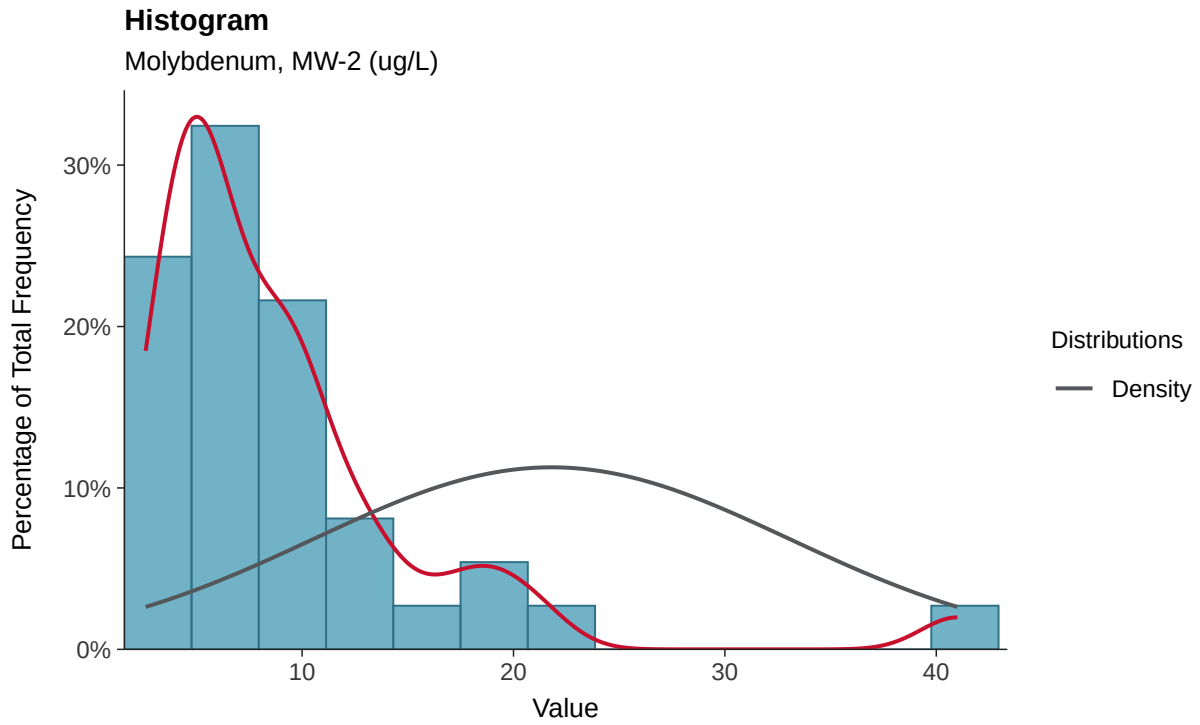
Mercury, MW-2 (ug/L)



App. IV: Molybdenum, MW-2

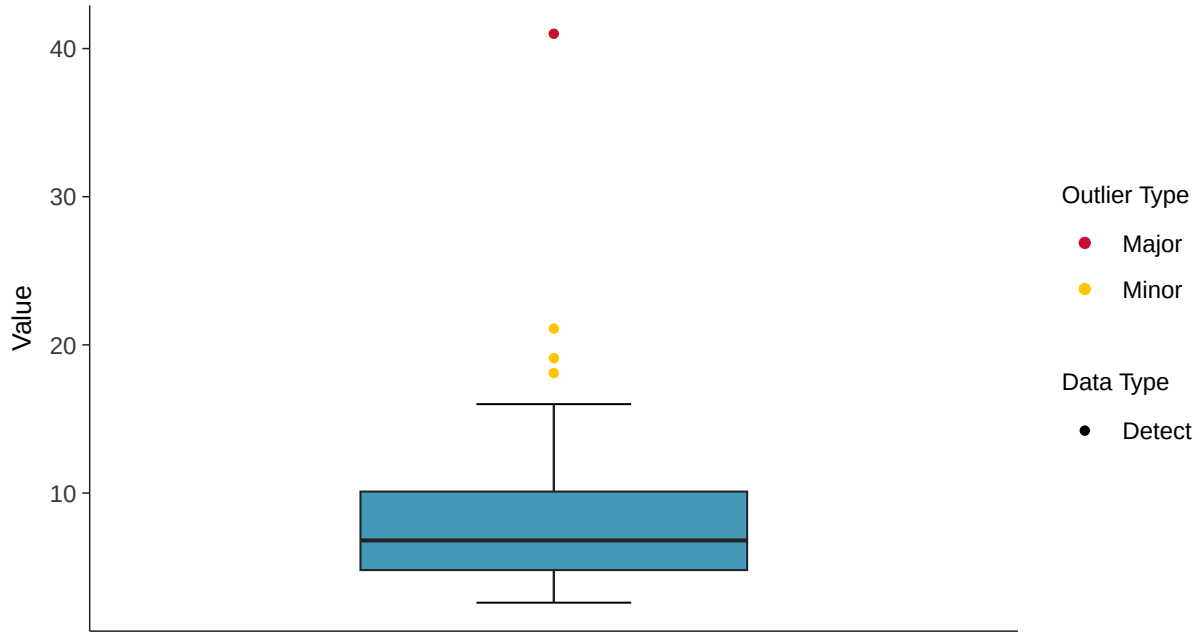
ID: 02_3_116





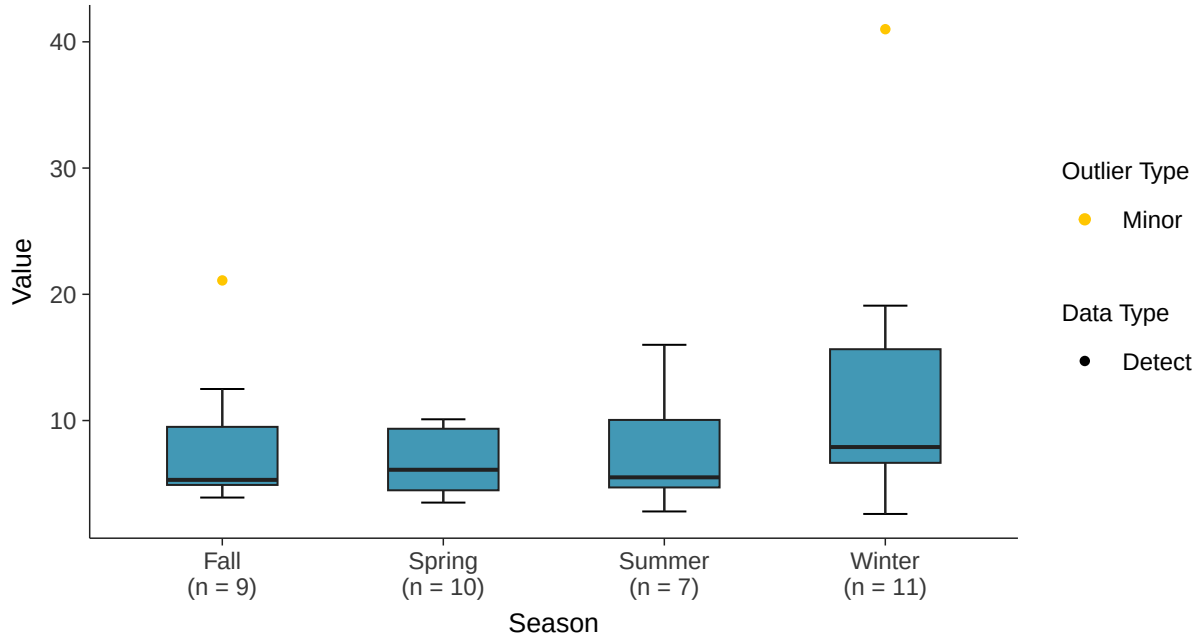
Boxplot

Molybdenum, MW-2 (ug/L)



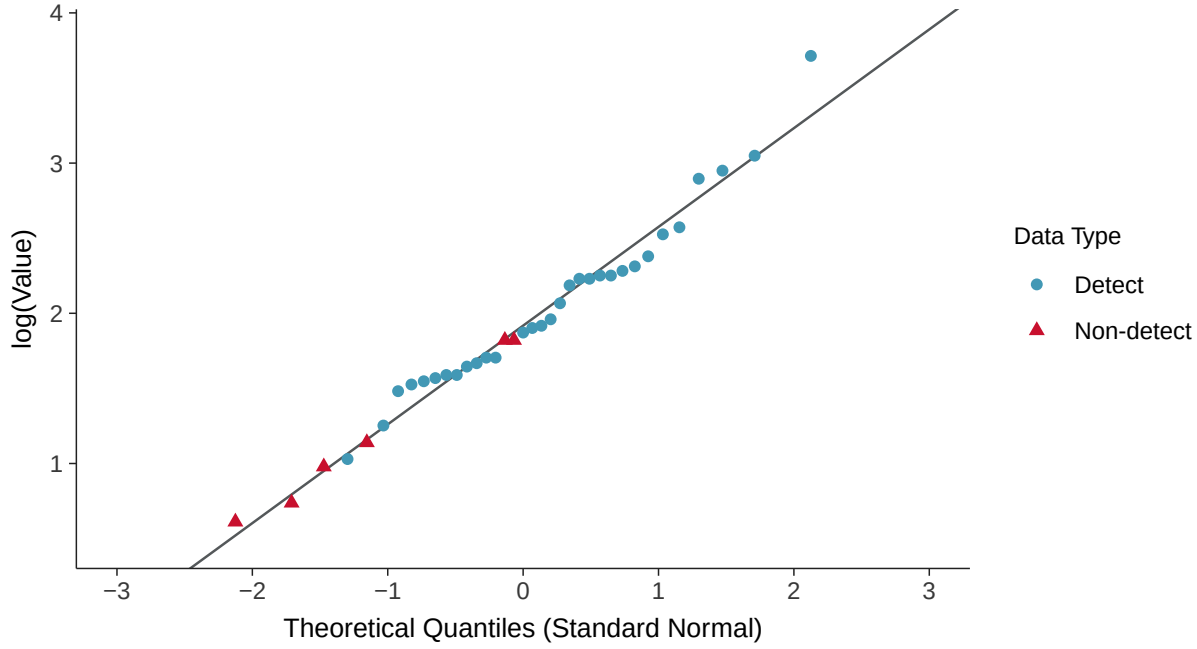
Boxplot by Season

Molybdenum, MW-2 (ug/L)



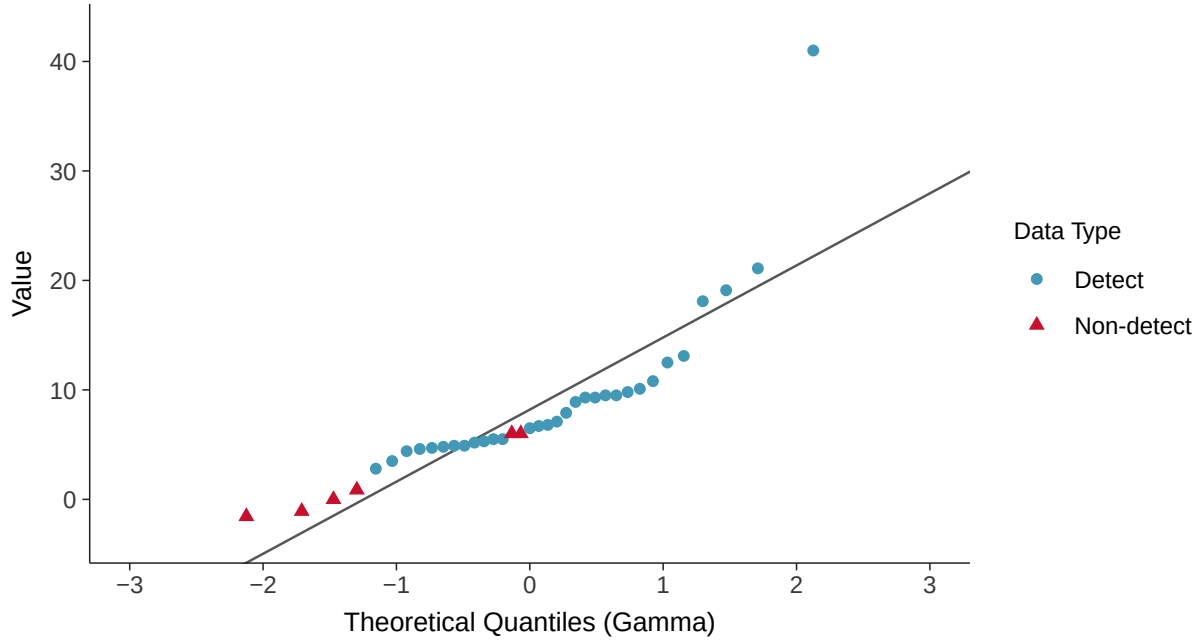
Lognormal Q-Q plot using ROS Imputed Estimates

Molybdenum, MW-2 (ug/L)



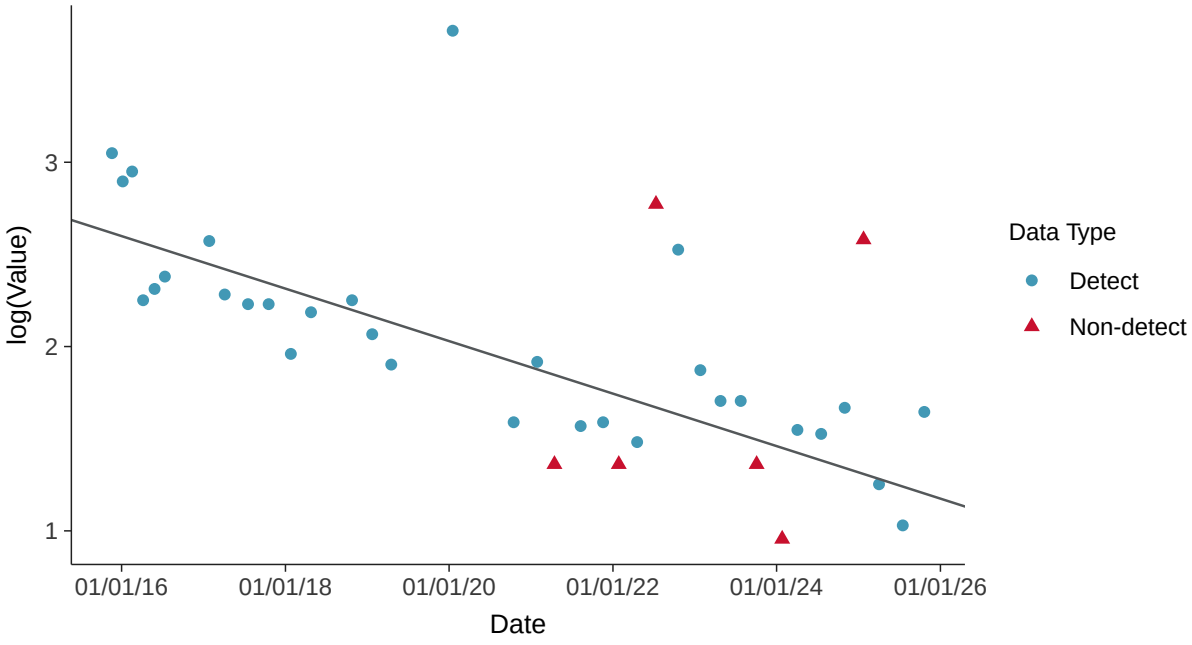
Gamma Q-Q plot using ROS Imputed Estimates

Molybdenum, MW-2 (ug/L)



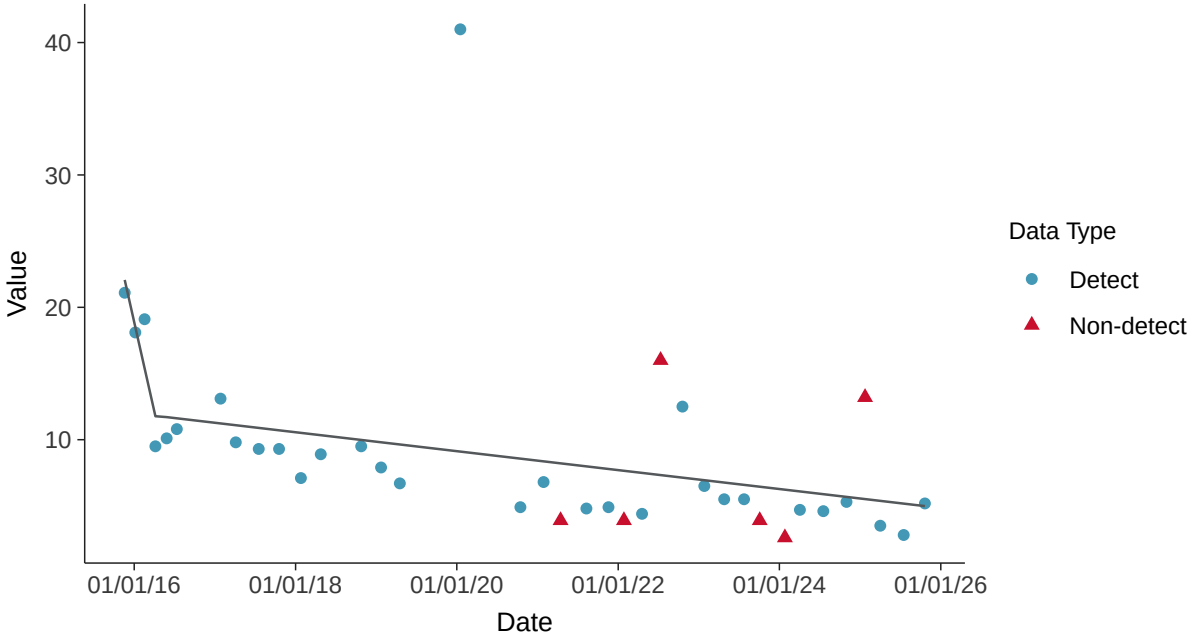
Trend Regression: Lognormal MLE

Molybdenum, MW-2 (ug/L)



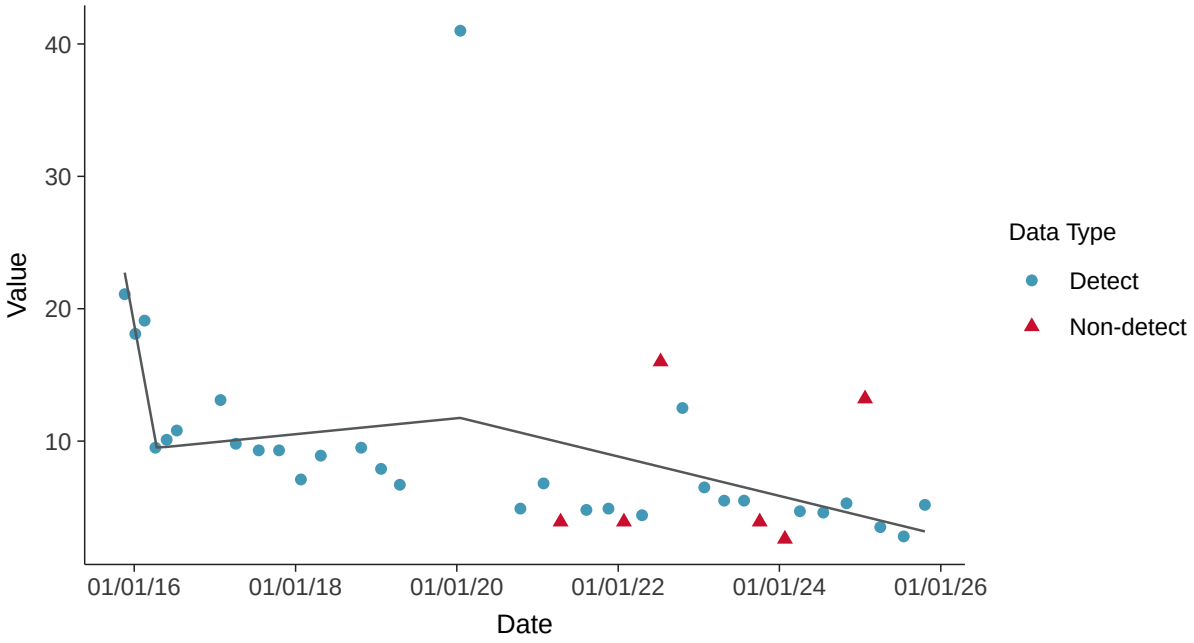
Trend Regression: Piecewise Linear-Linear

Molybdenum, MW-2 (ug/L)



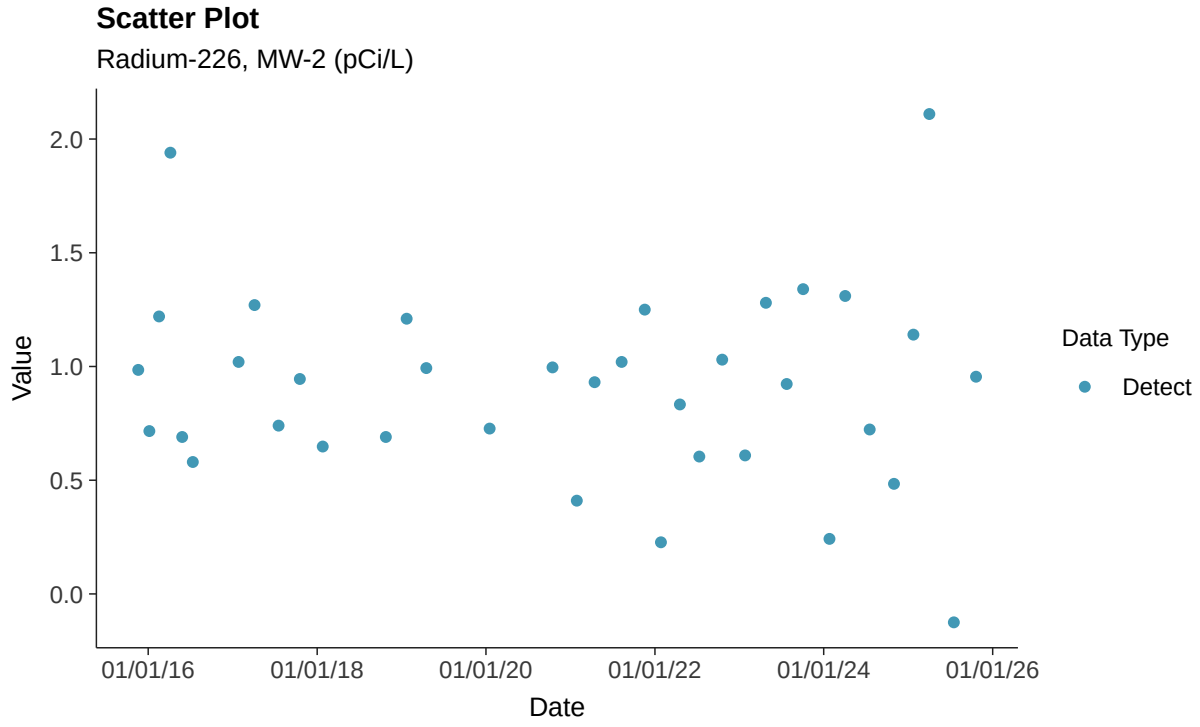
Trend Regression: Piecewise Linear-Linear-Linear

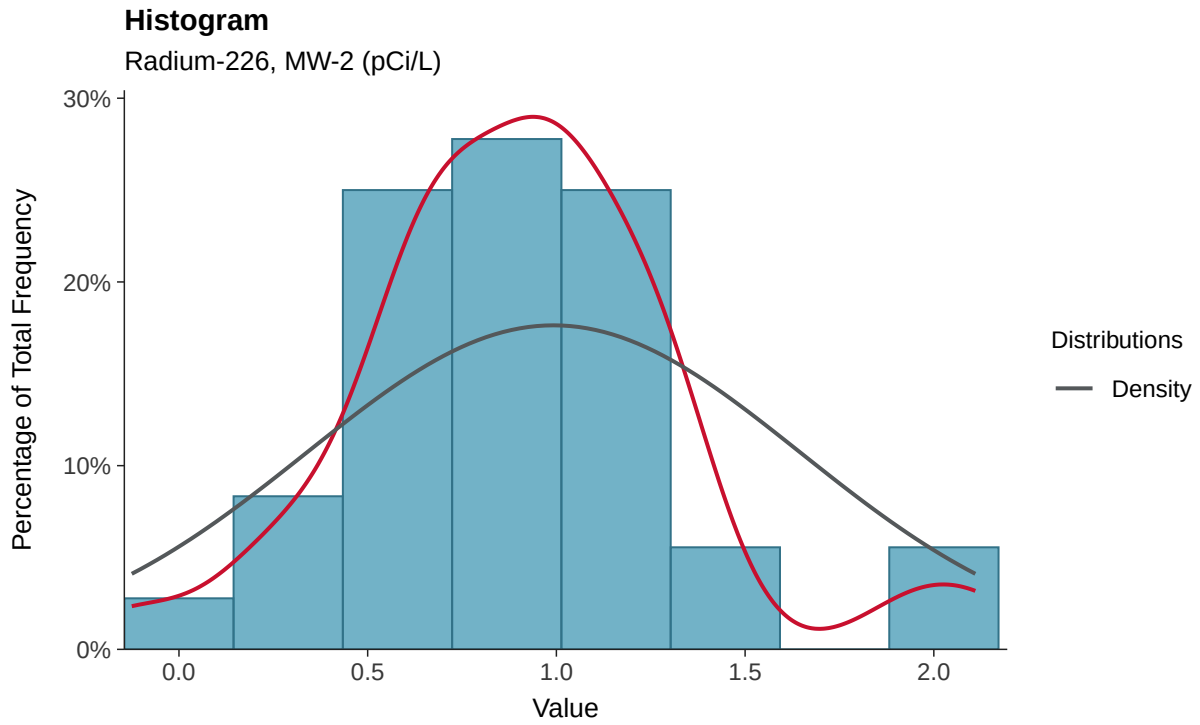
Molybdenum, MW-2 (ug/L)



App. IV: Radium-226, MW-2

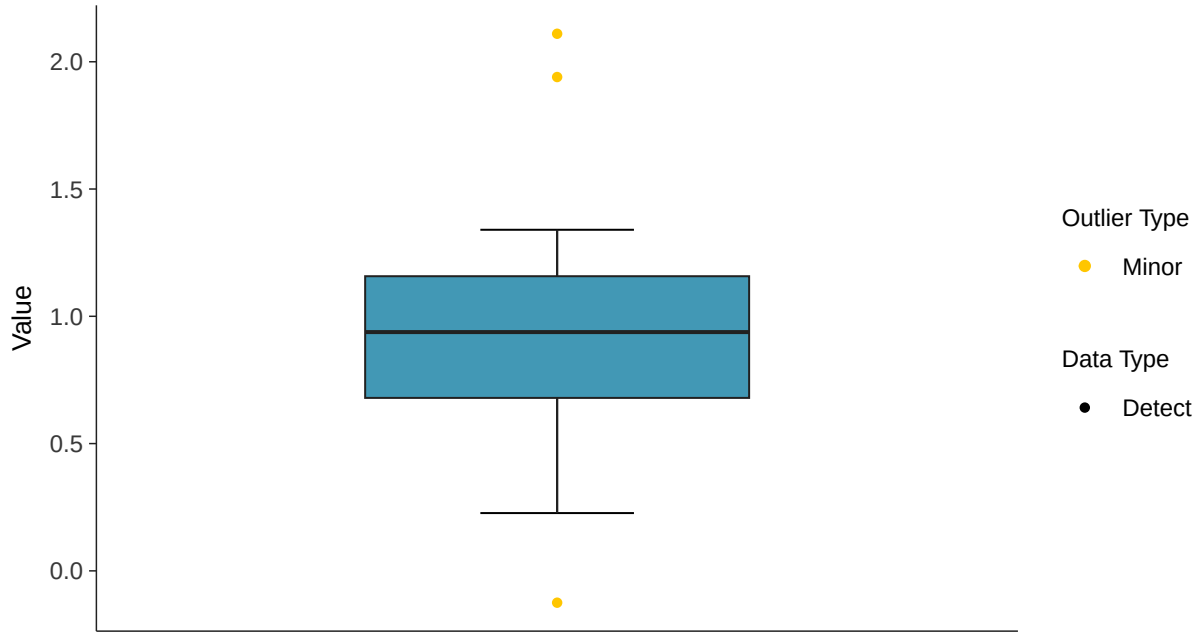
ID: 02_3_119





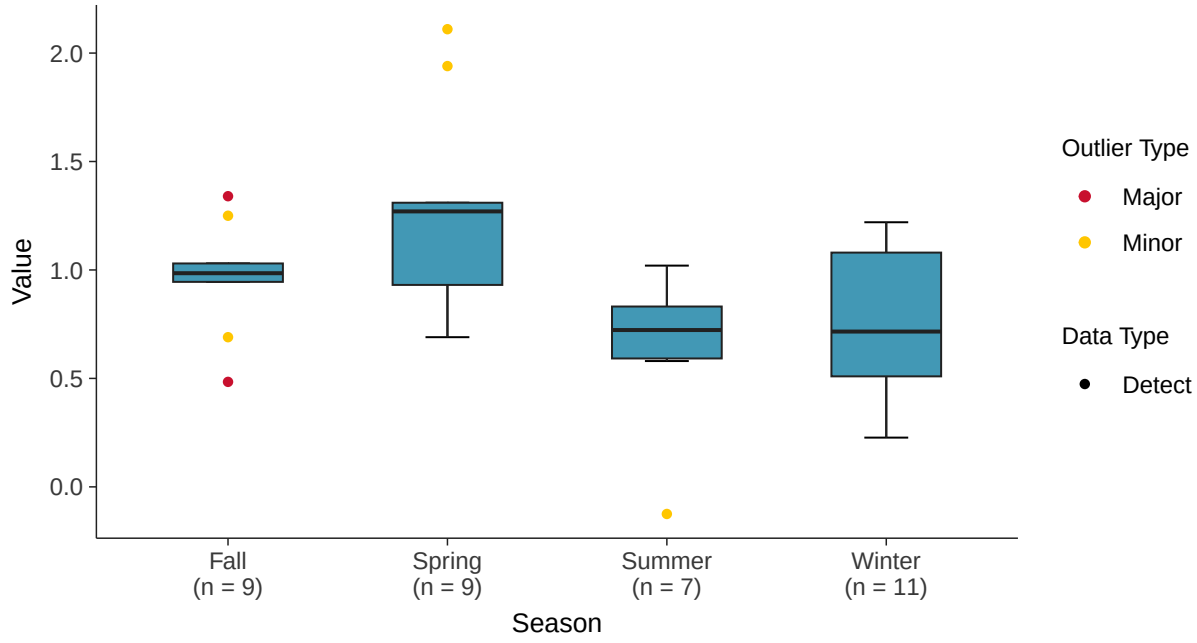
Boxplot

Radium-226, MW-2 (pCi/L)



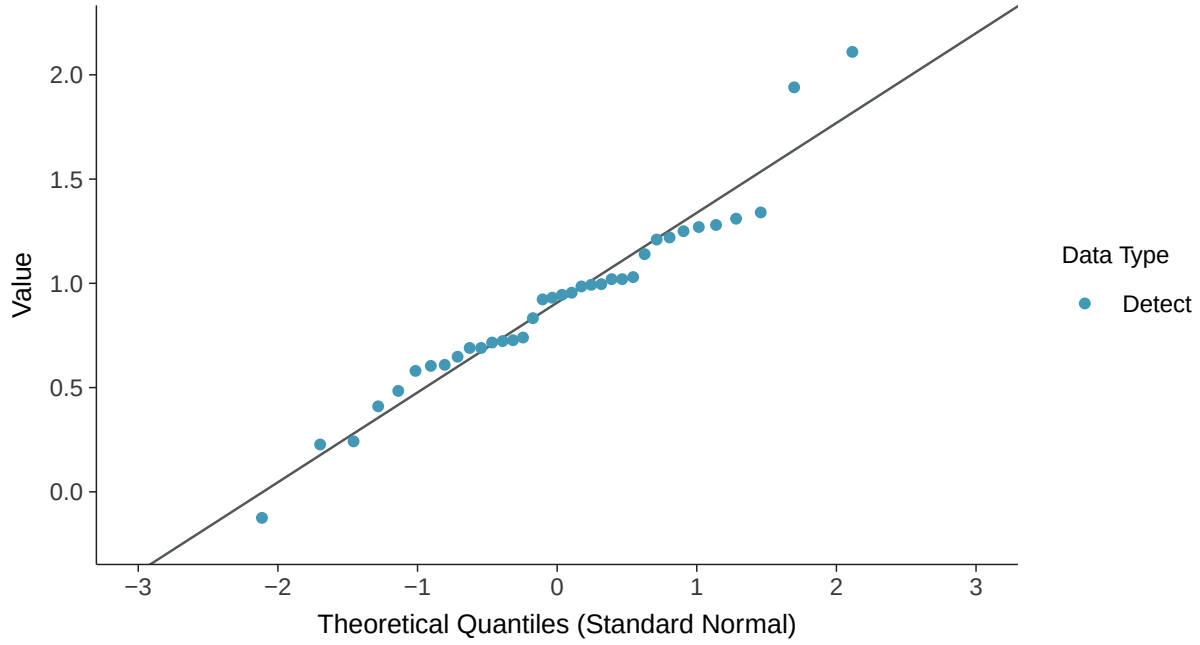
Boxplot by Season

Radium-226, MW-2 (pCi/L)



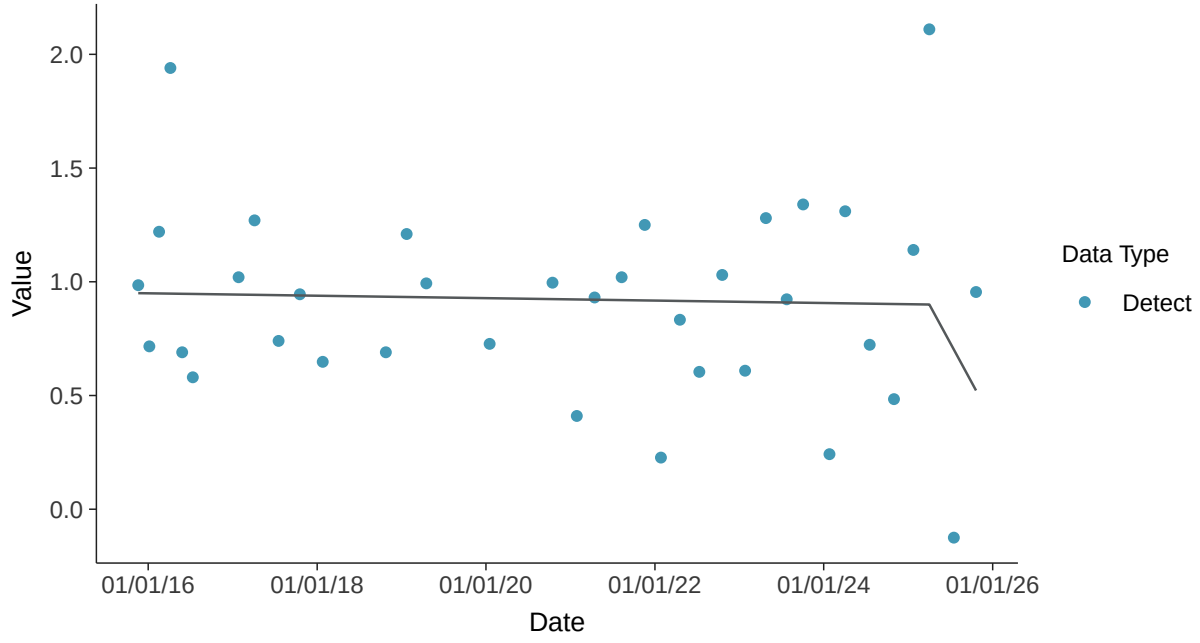
Normal Q-Q plot

Radium-226, MW-2 (pCi/L)



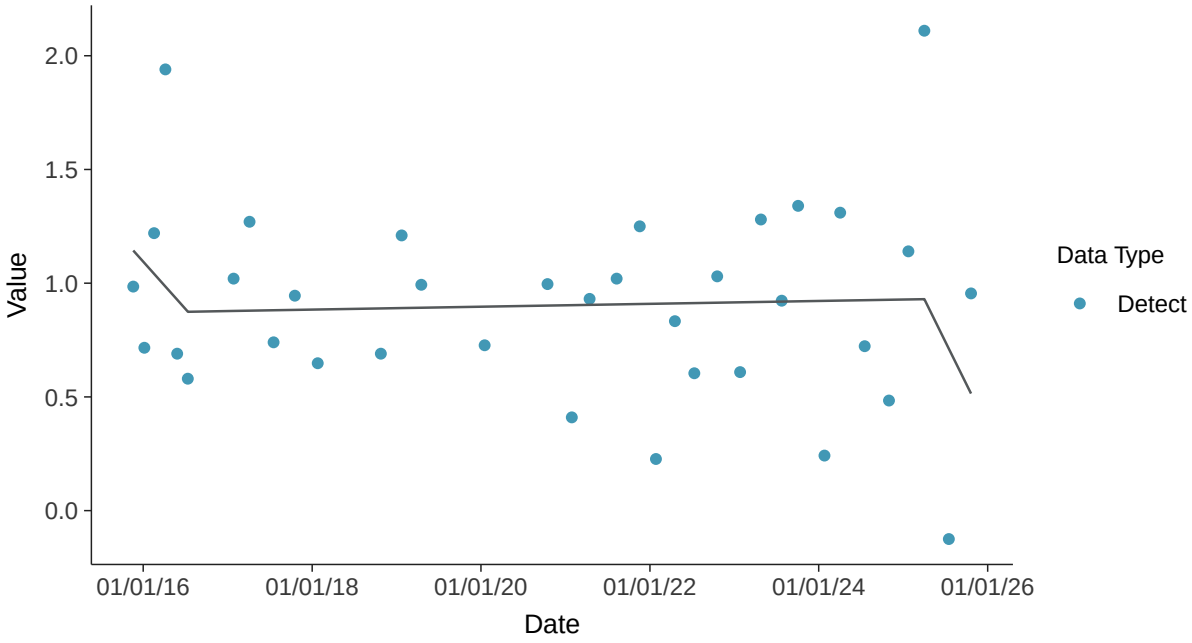
Trend Regression: Piecewise Linear-Linear

Radium-226, MW-2 (pCi/L)



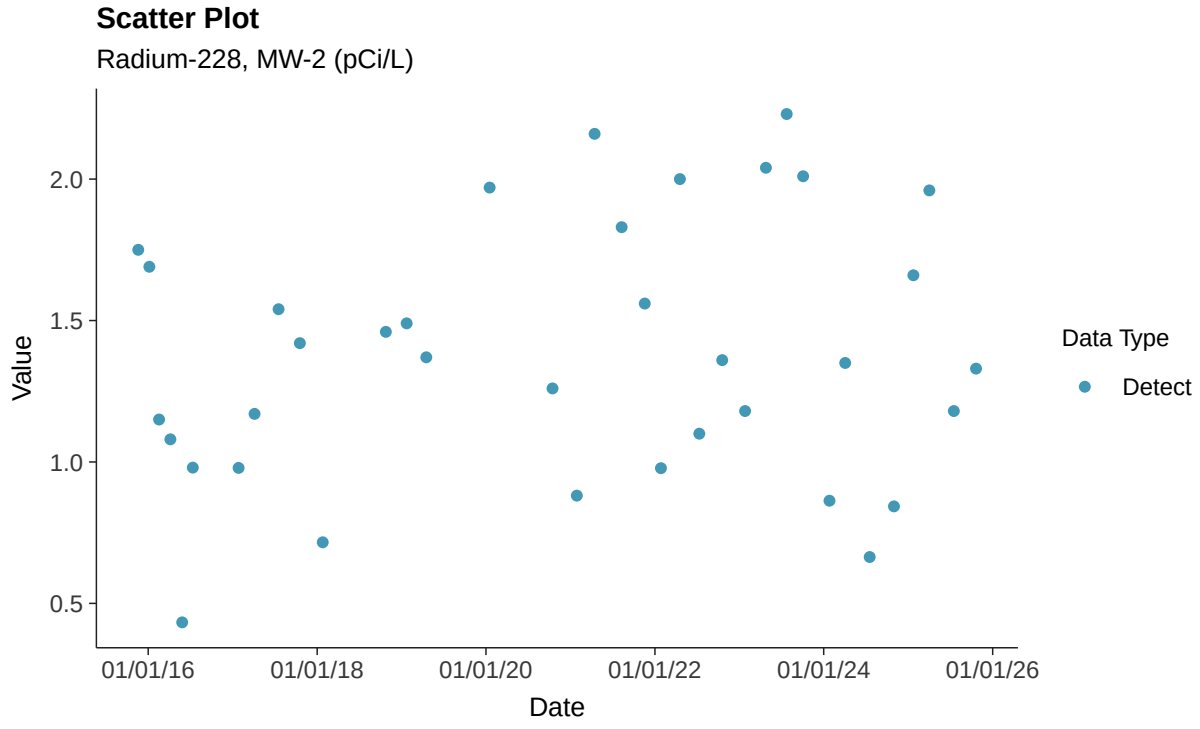
Trend Regression: Piecewise Linear-Linear-Linear

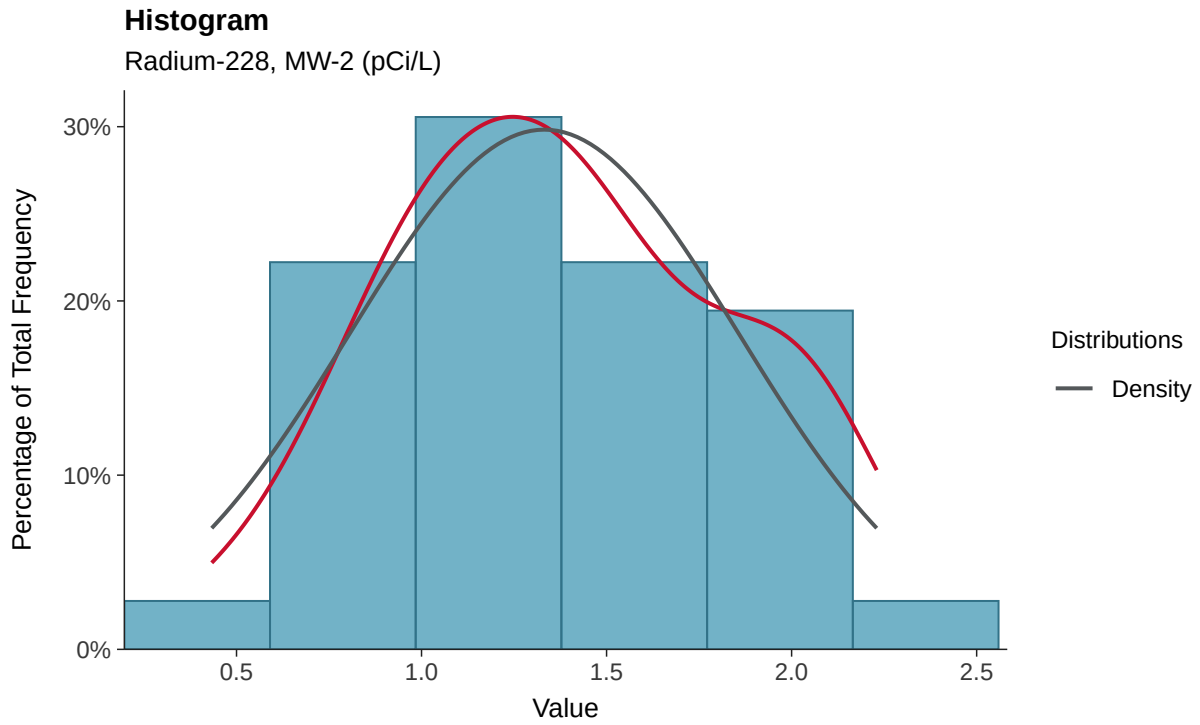
Radium-226, MW-2 (pCi/L)



App. IV: Radium-228, MW-2

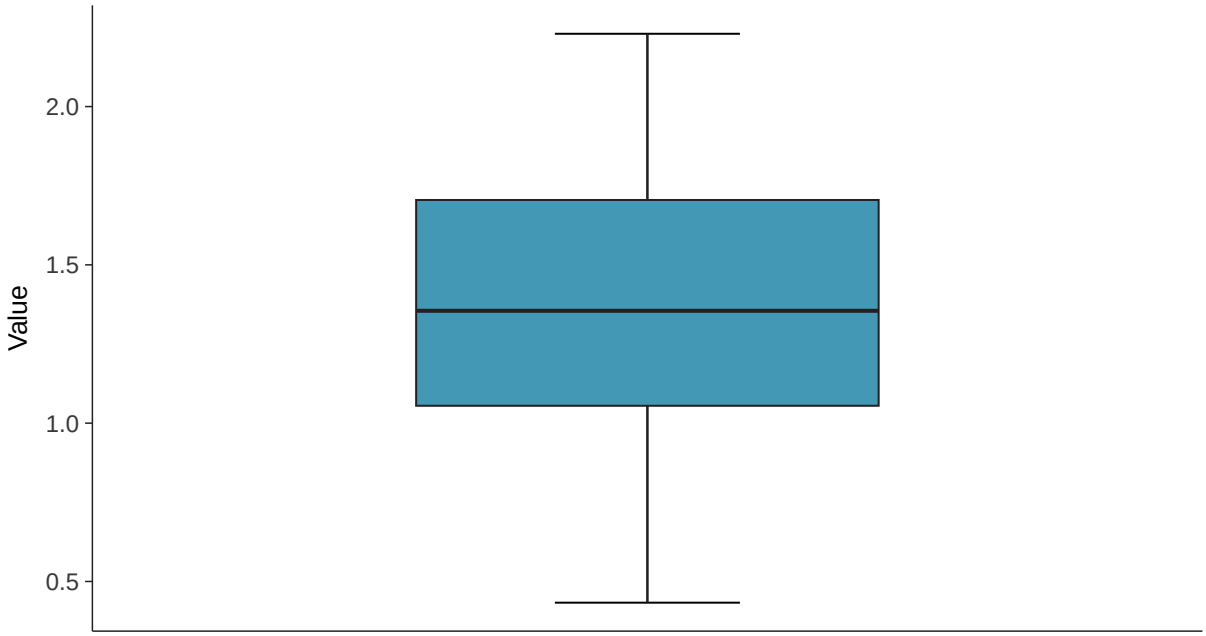
ID: 02_3_120





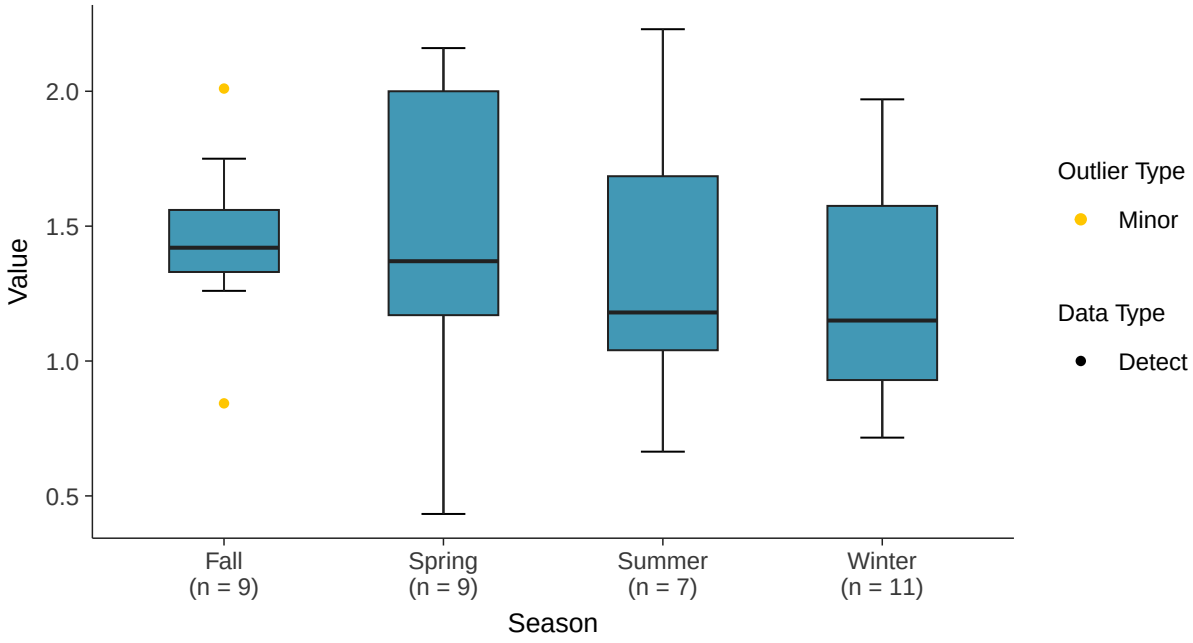
Boxplot

Radium-228, MW-2 (pCi/L)



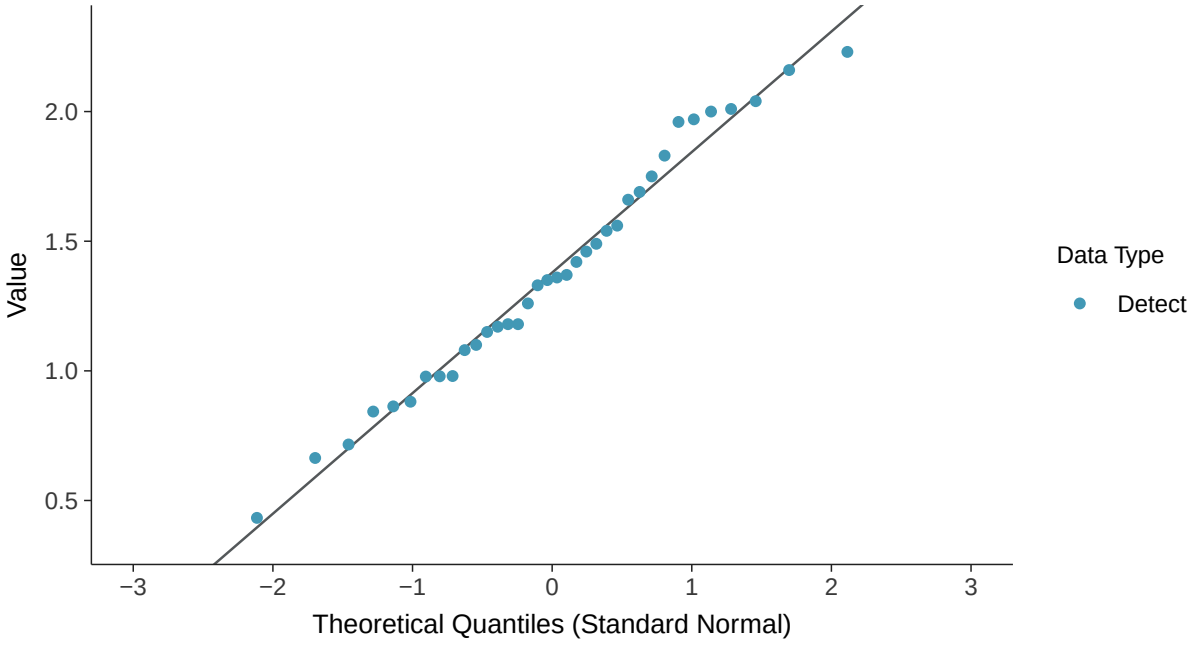
Boxplot by Season

Radium-228, MW-2 (pCi/L)



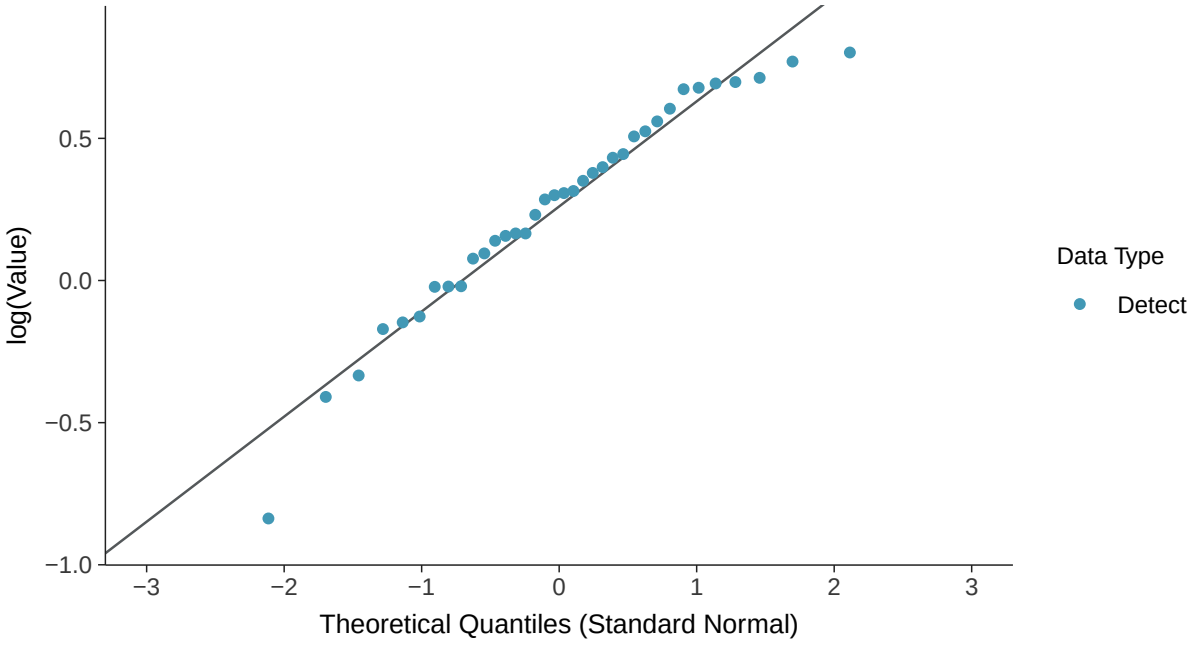
Normal Q-Q plot

Radium-228, MW-2 (pCi/L)



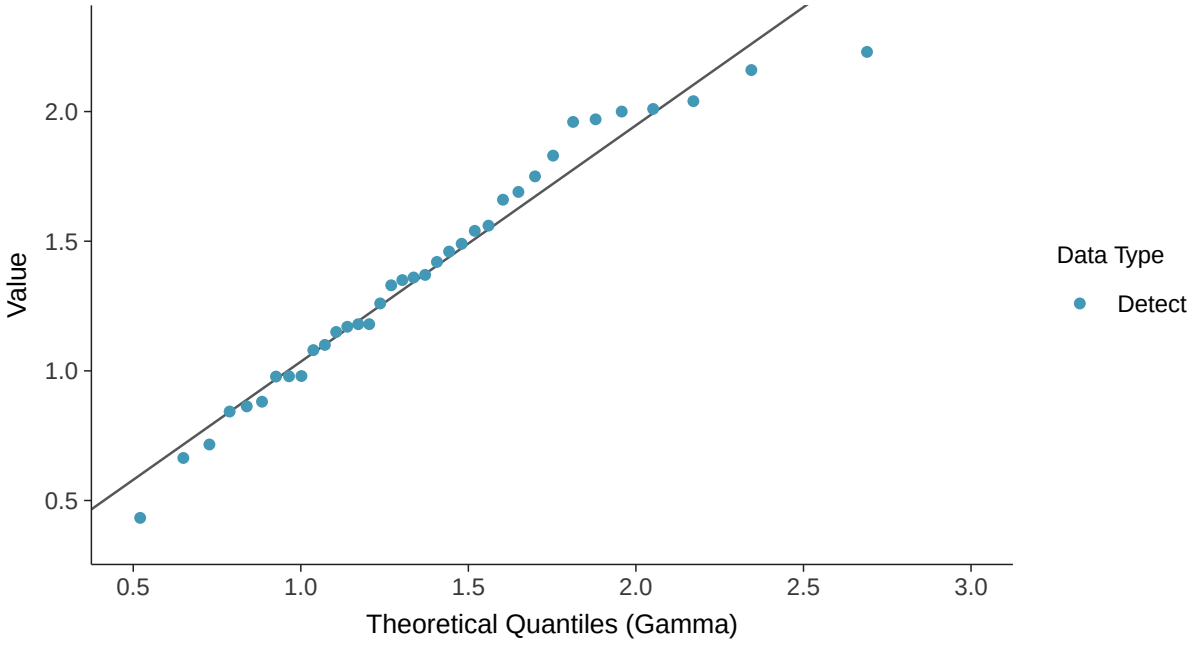
Lognormal Q-Q plot

Radium-228, MW-2 (pCi/L)



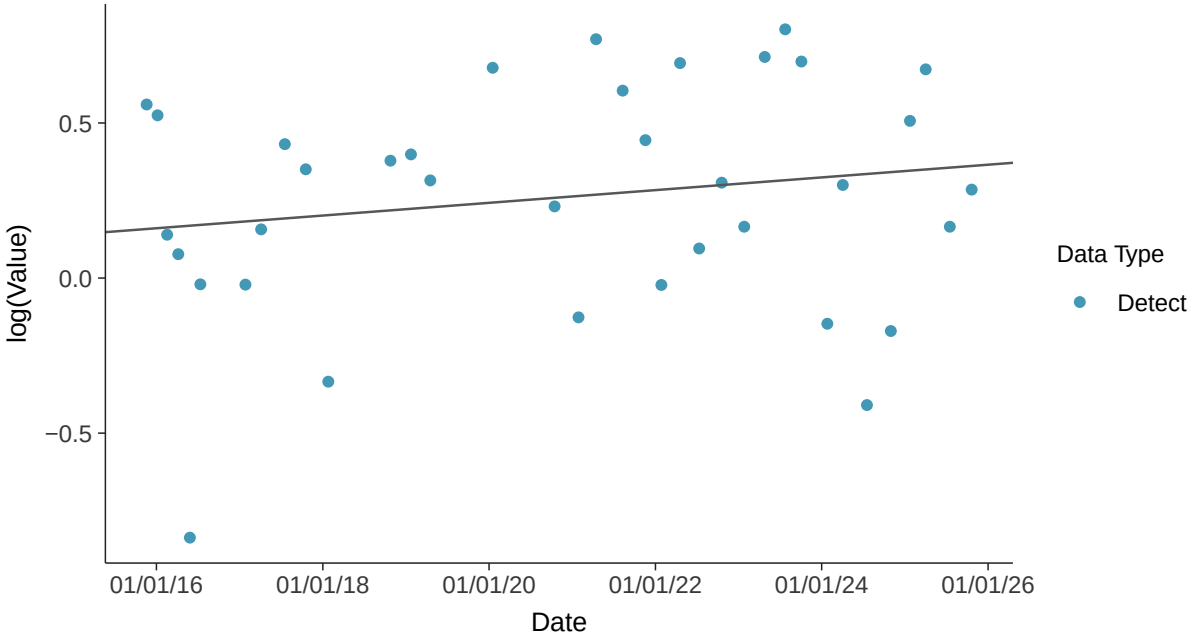
Gamma Q-Q plot

Radium-228, MW-2 (pCi/L)



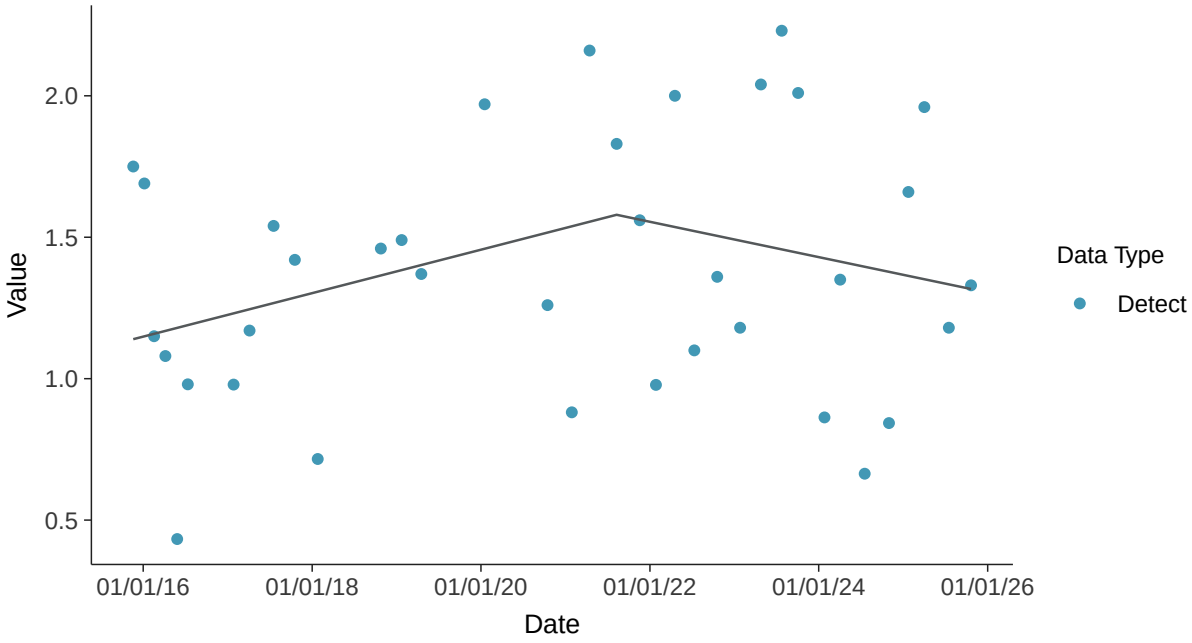
Trend Regression: Lognormal MLE

Radium-228, MW-2 (pCi/L)



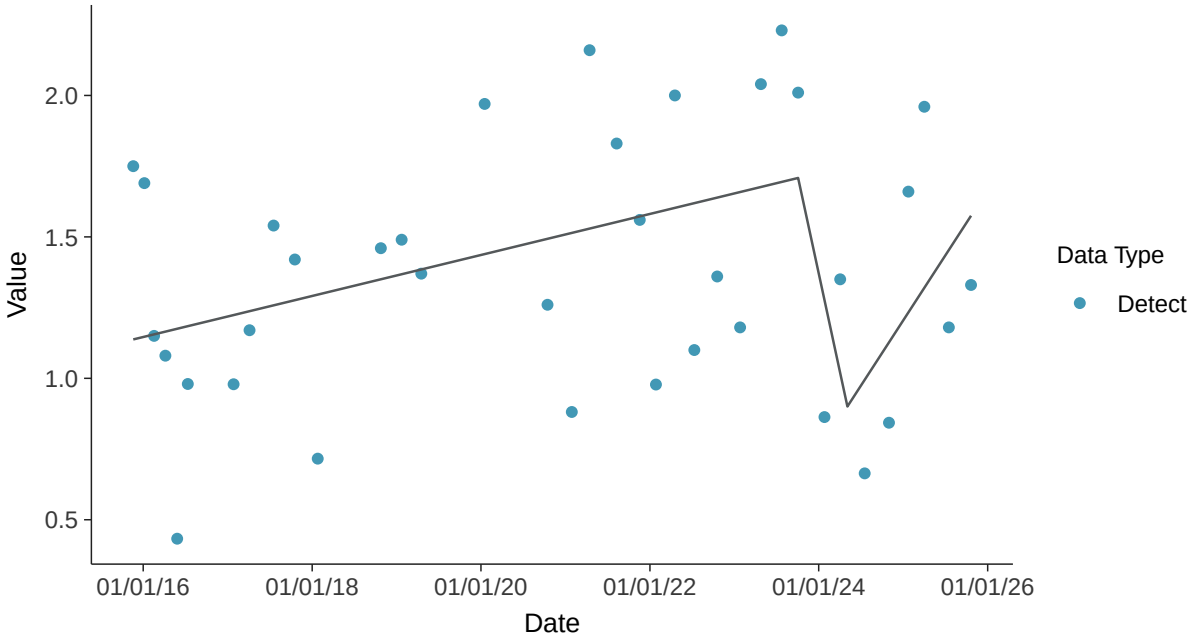
Trend Regression: Piecewise Linear-Linear

Radium-228, MW-2 (pCi/L)



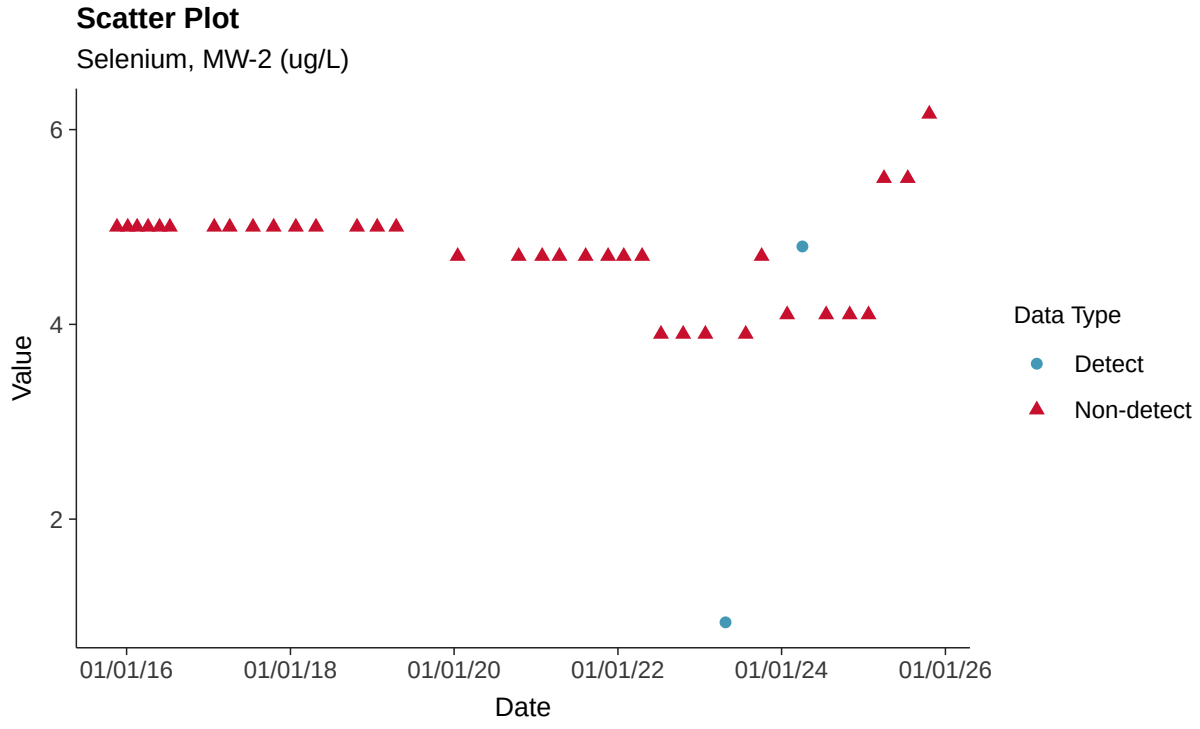
Trend Regression: Piecewise Linear-Linear-Linear

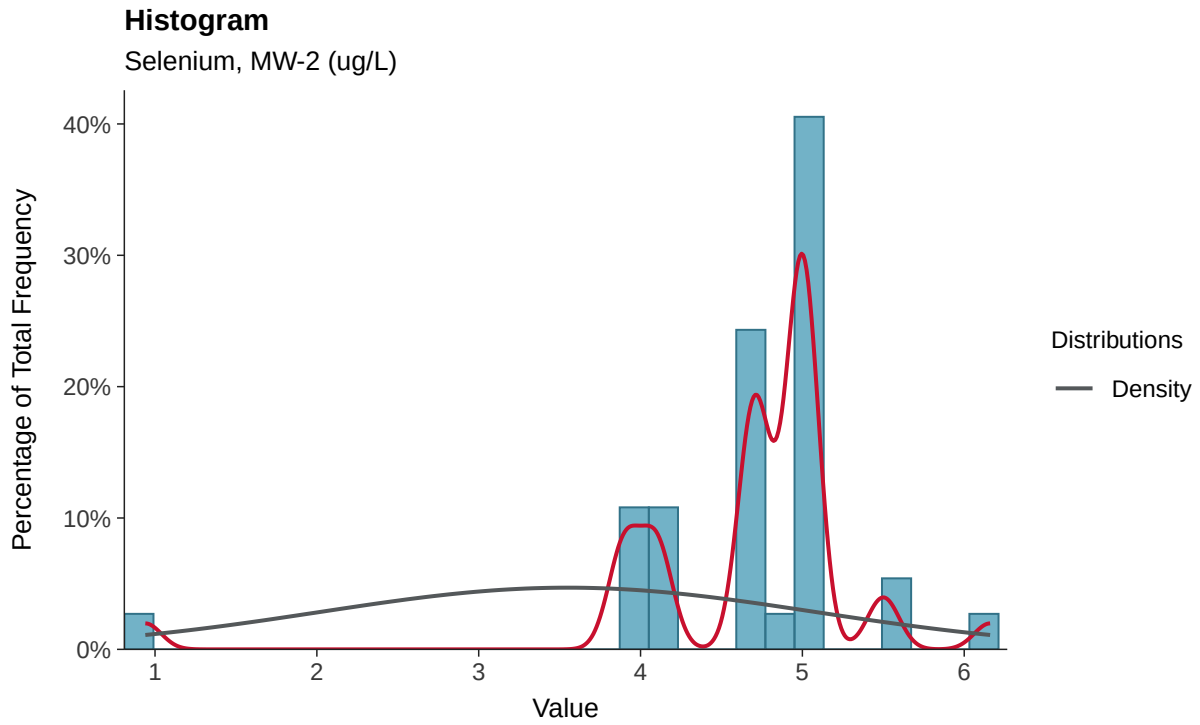
Radium-228, MW-2 (pCi/L)



App. IV: Selenium, MW-2

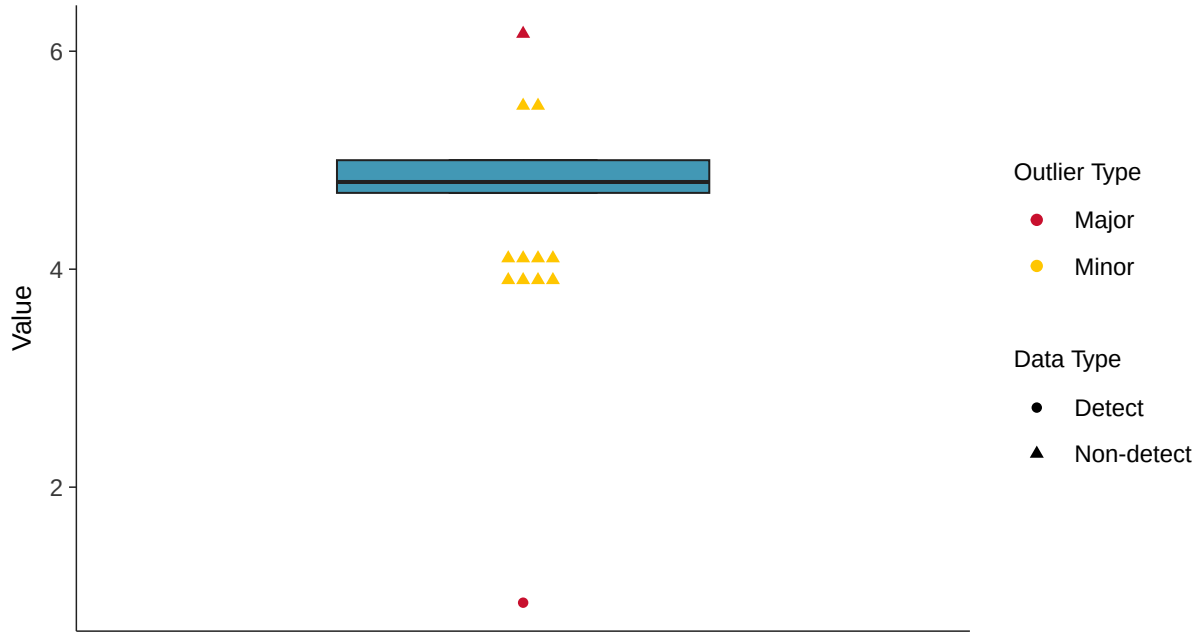
ID: 02_3_121





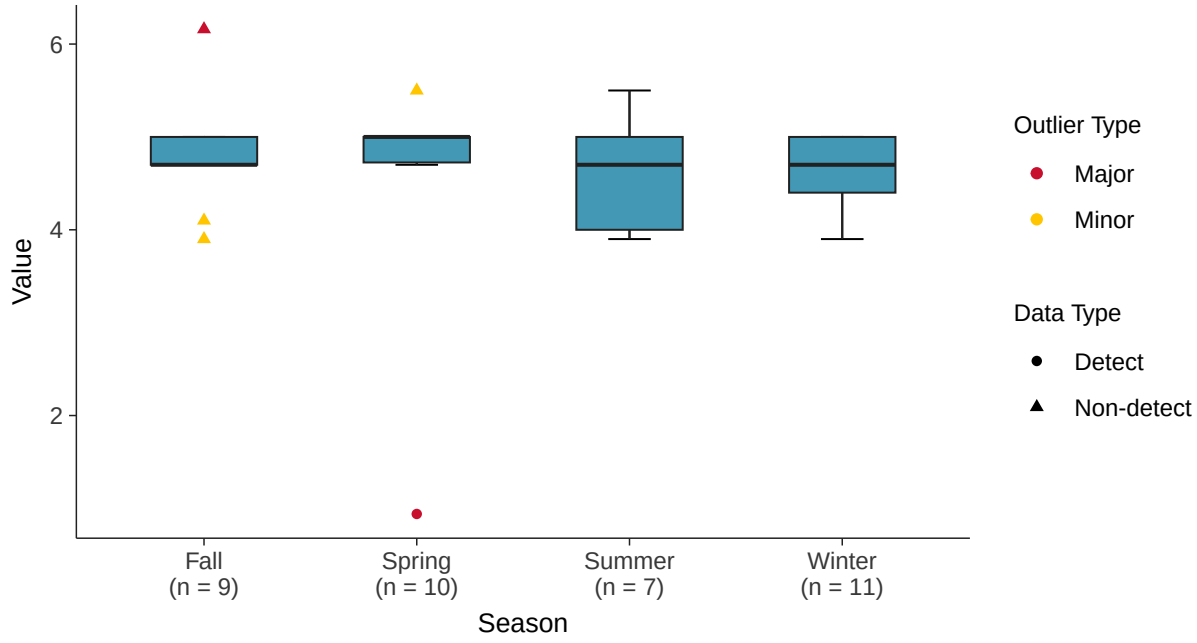
Boxplot

Selenium, MW-2 (ug/L)



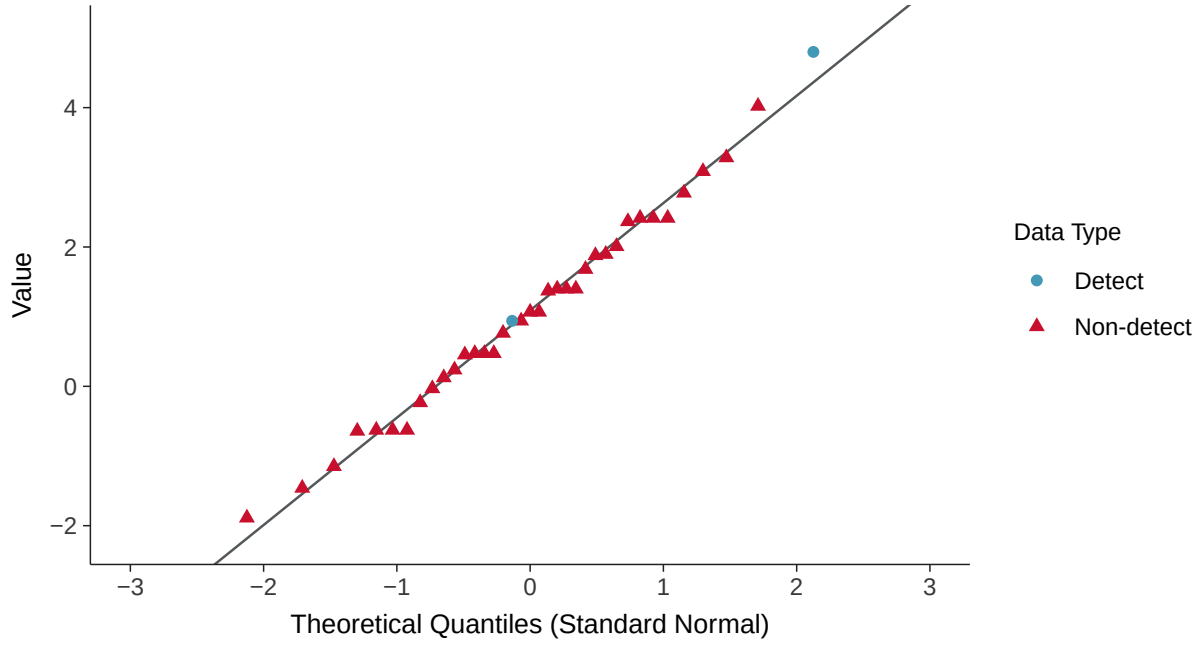
Boxplot by Season

Selenium, MW-2 (ug/L)



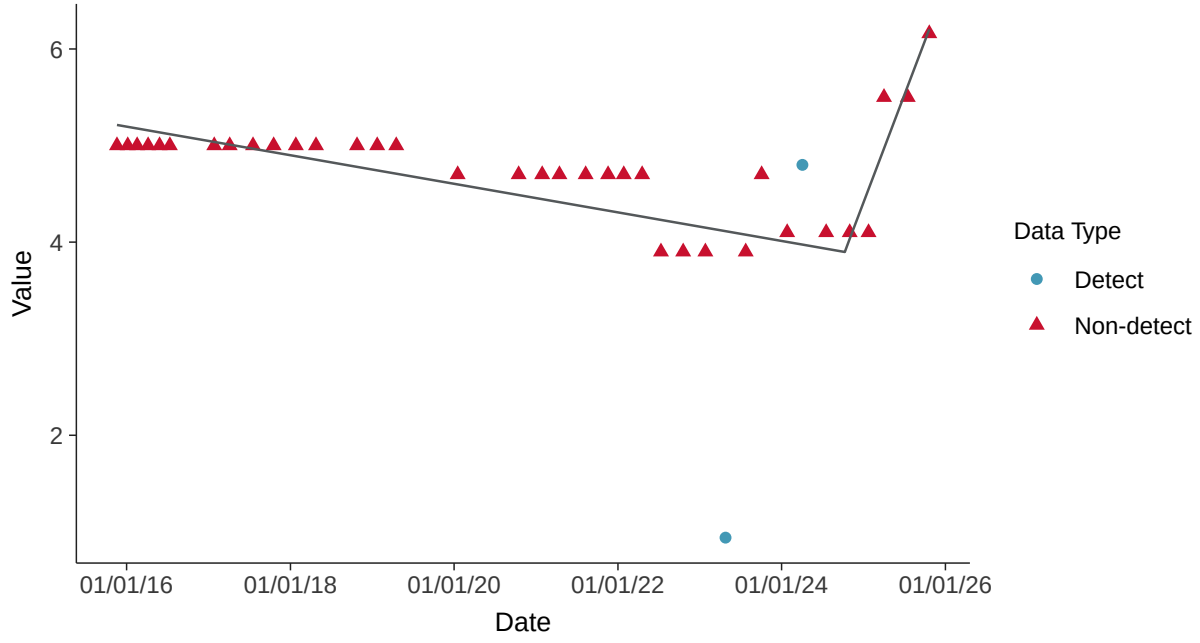
Normal Q-Q plot using ROS Imputed Estimates

Selenium, MW-2 (ug/L)



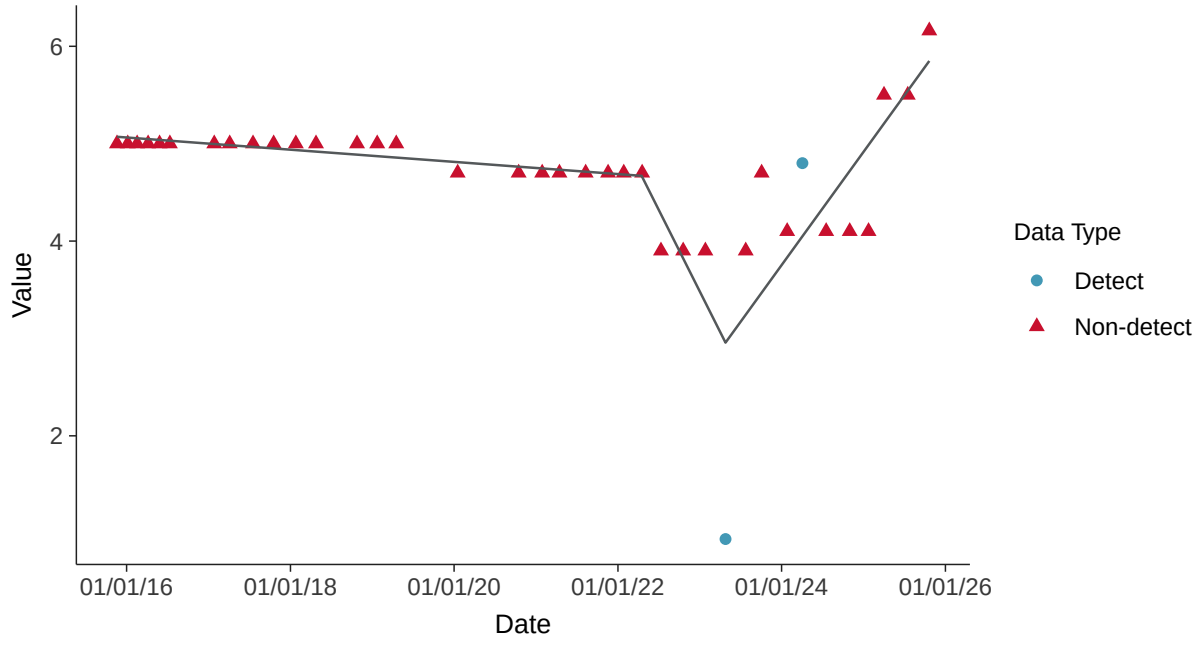
Trend Regression: Piecewise Linear-Linear

Selenium, MW-2 (ug/L)



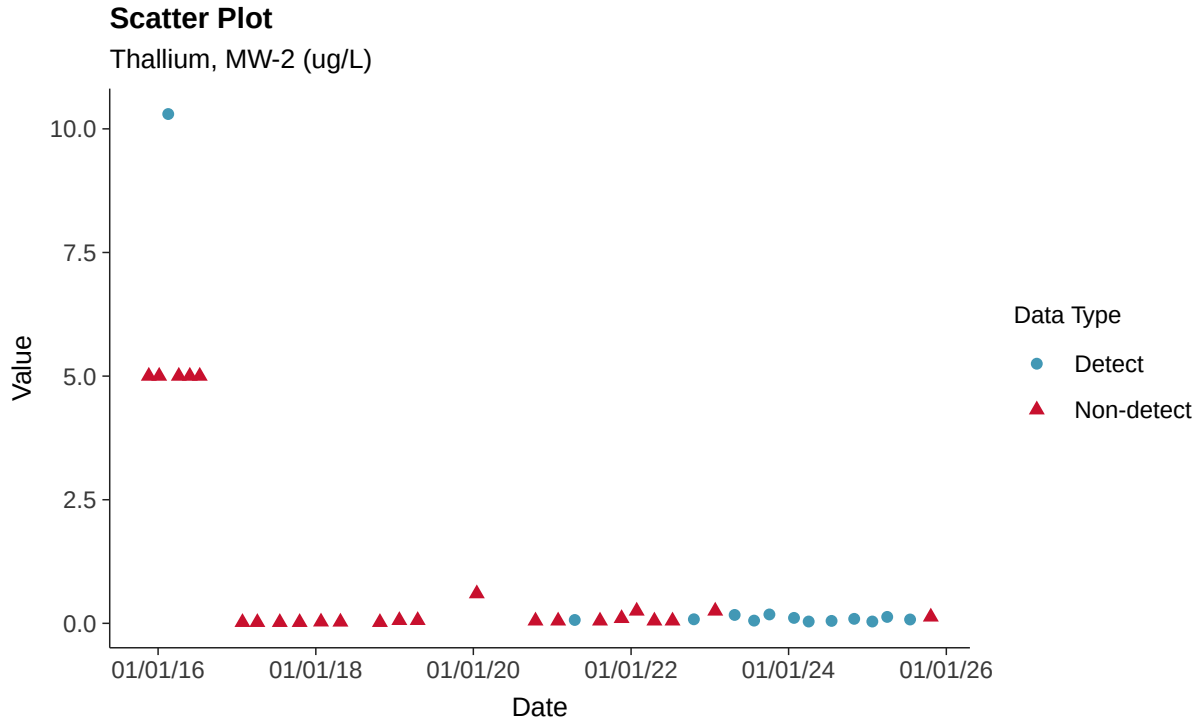
Trend Regression: Piecewise Linear-Linear-Linear

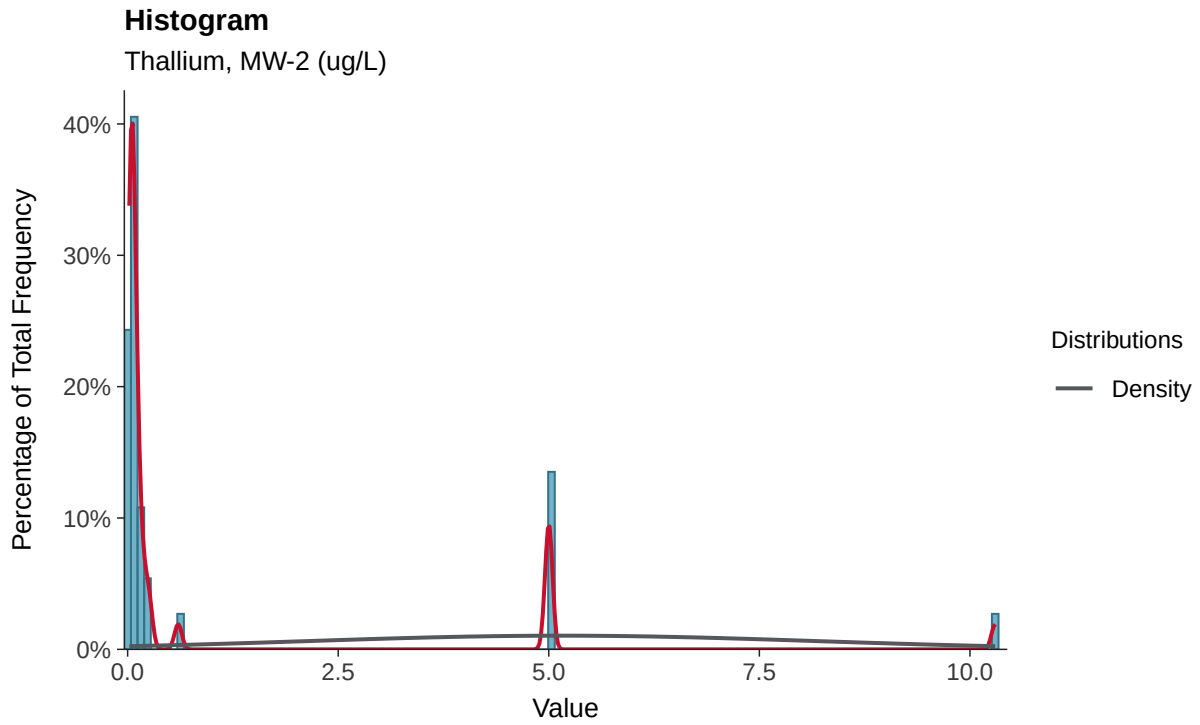
Selenium, MW-2 (ug/L)



App. IV: Thallium, MW-2

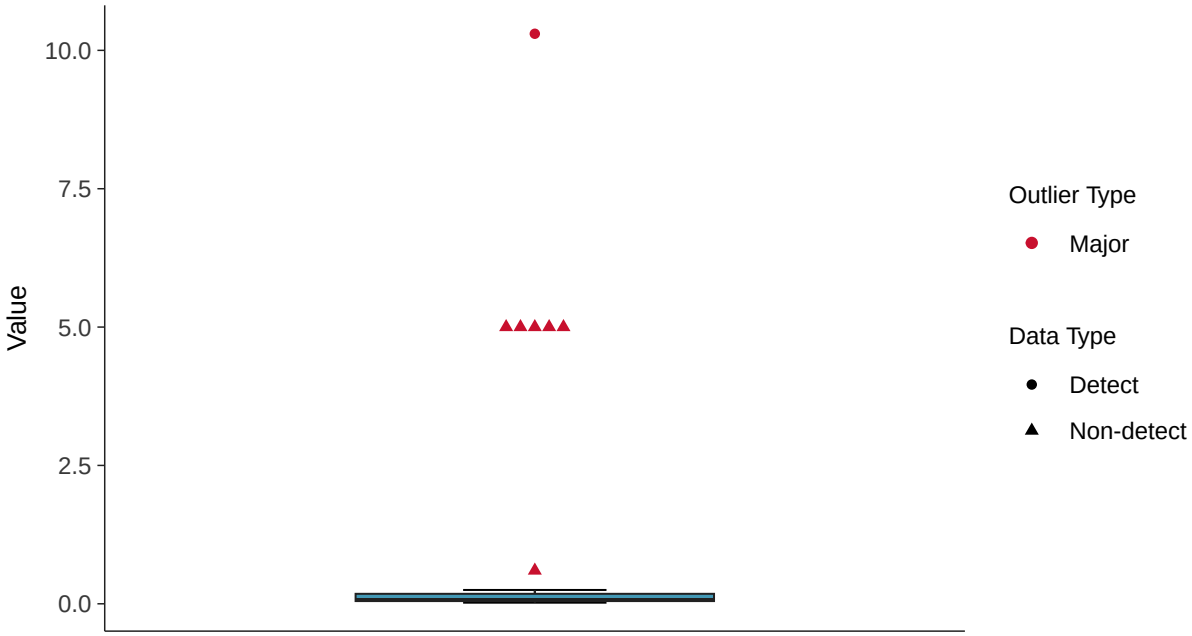
ID: 02_3_124





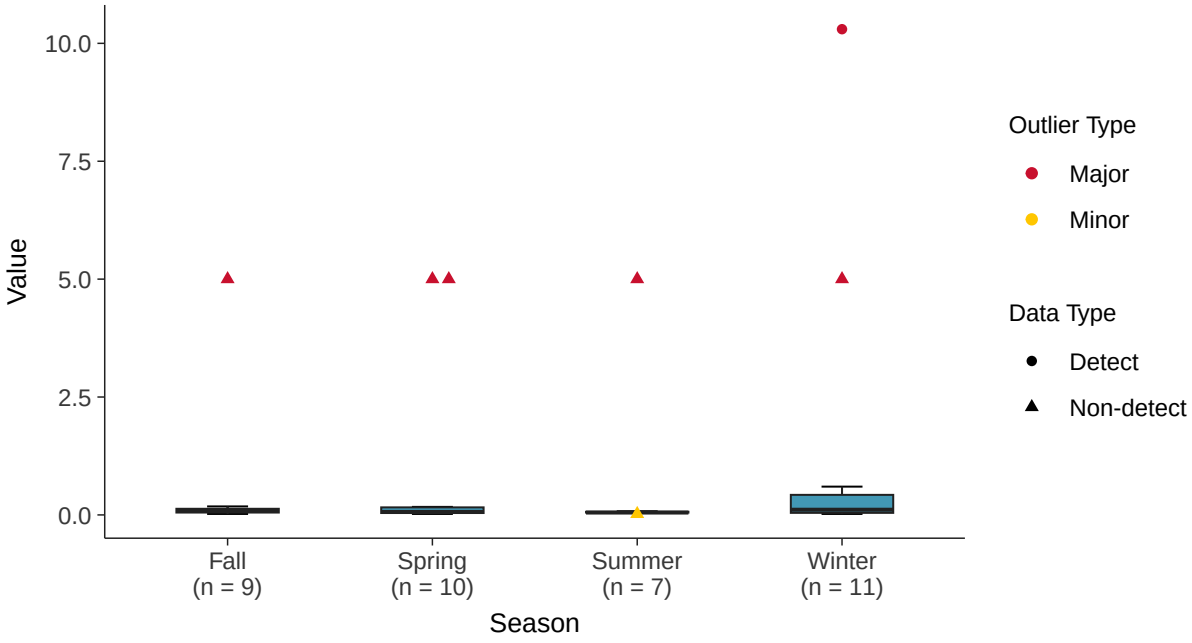
Boxplot

Thallium, MW-2 (ug/L)



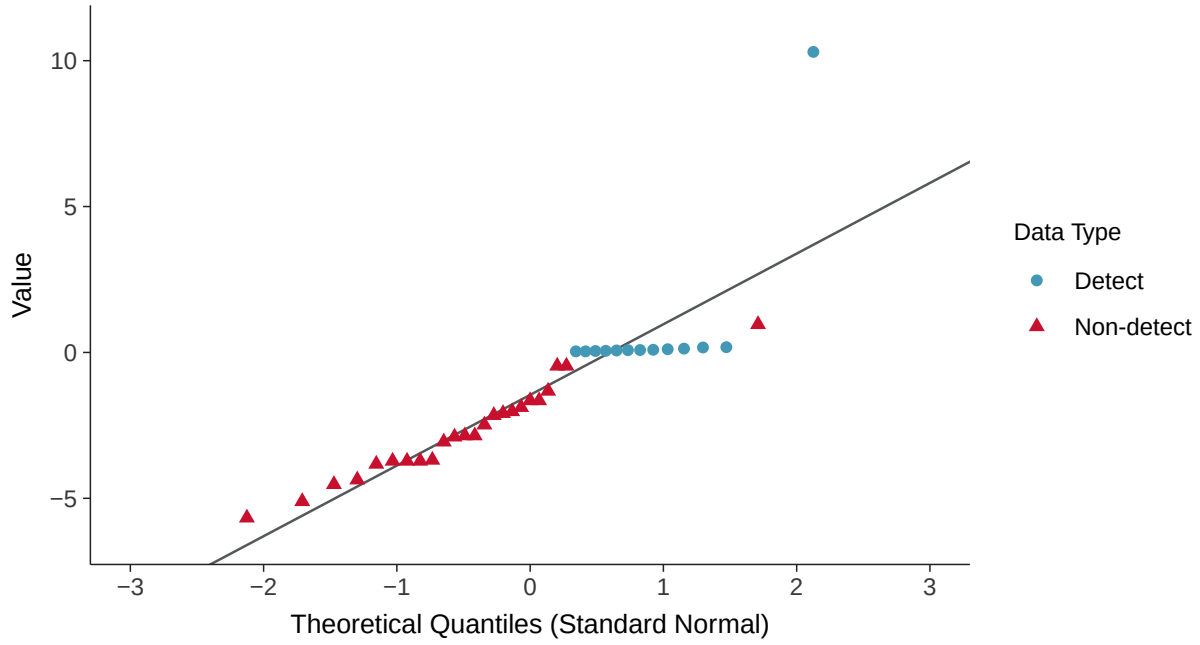
Boxplot by Season

Thallium, MW-2 (ug/L)



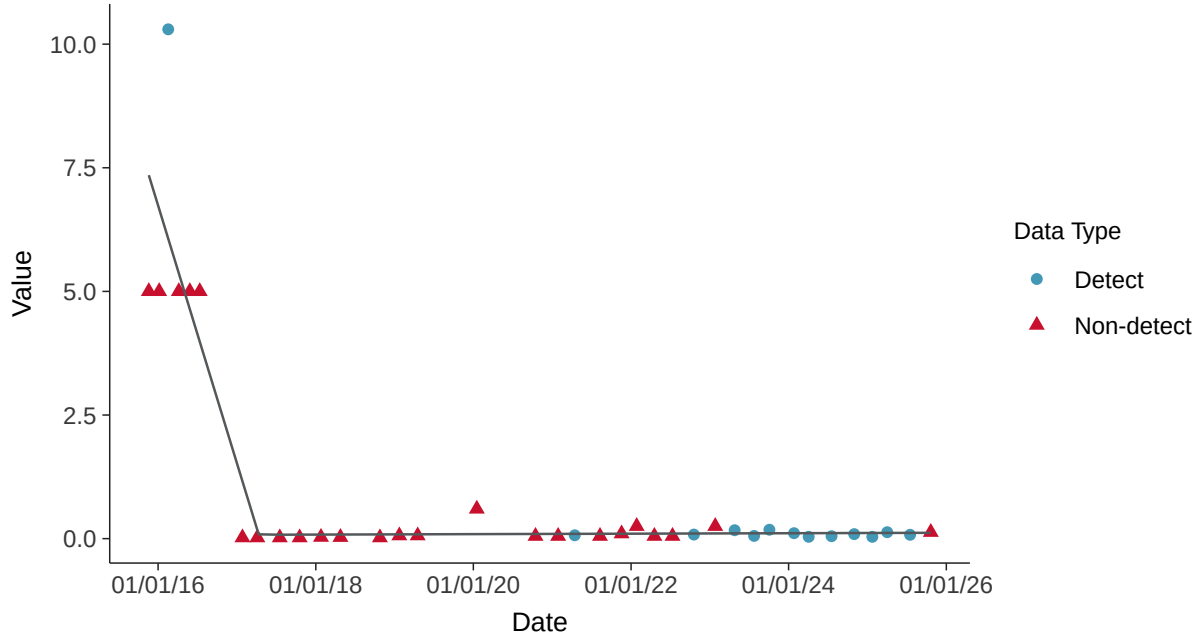
Normal Q-Q plot using ROS Imputed Estimates

Thallium, MW-2 (ug/L)



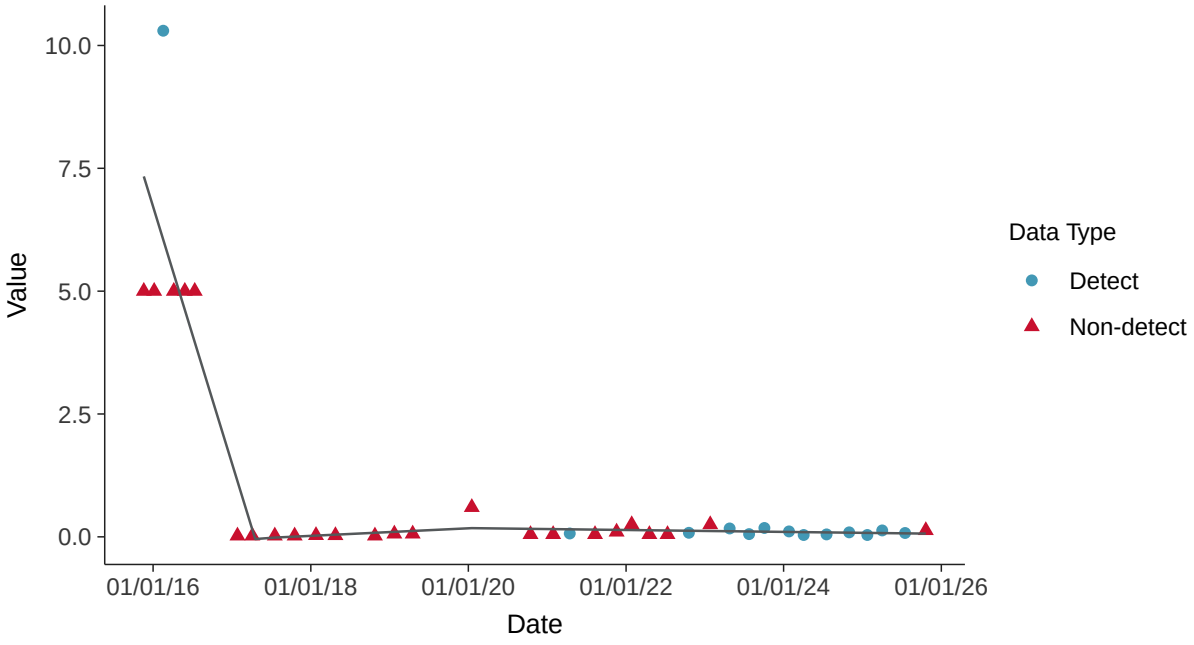
Trend Regression: Piecewise Linear-Linear

Thallium, MW-2 (ug/L)



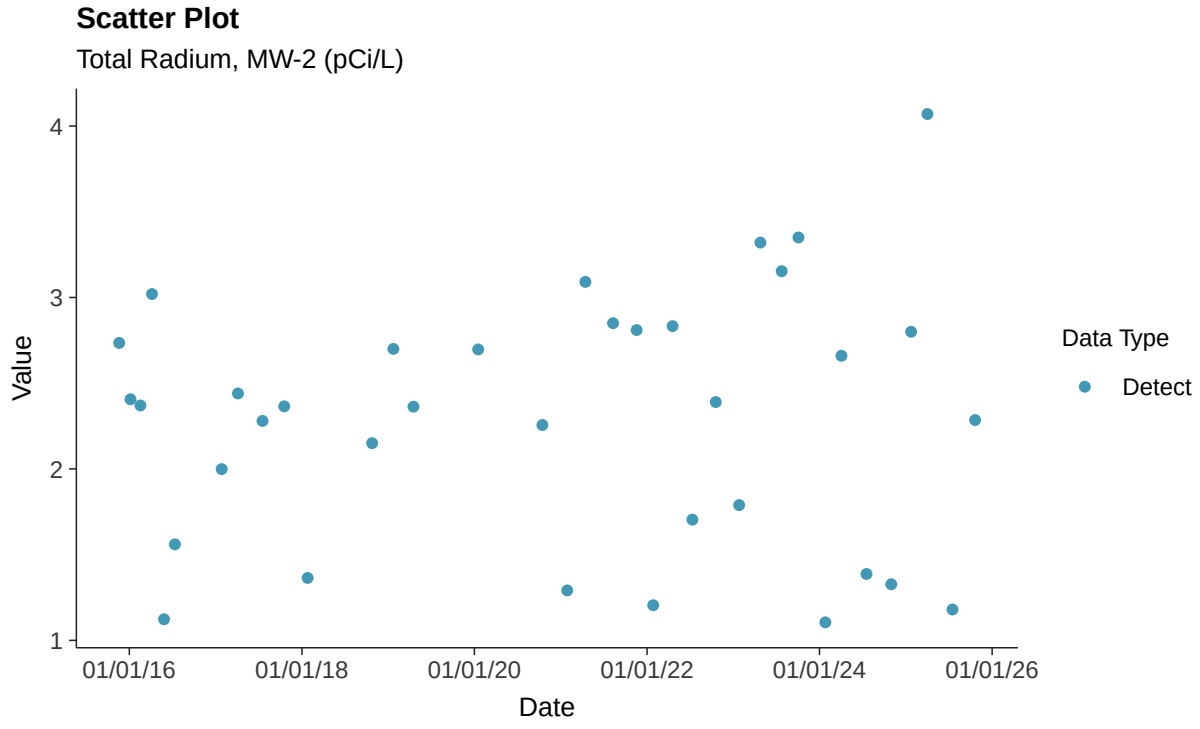
Trend Regression: Piecewise Linear-Linear-Linear

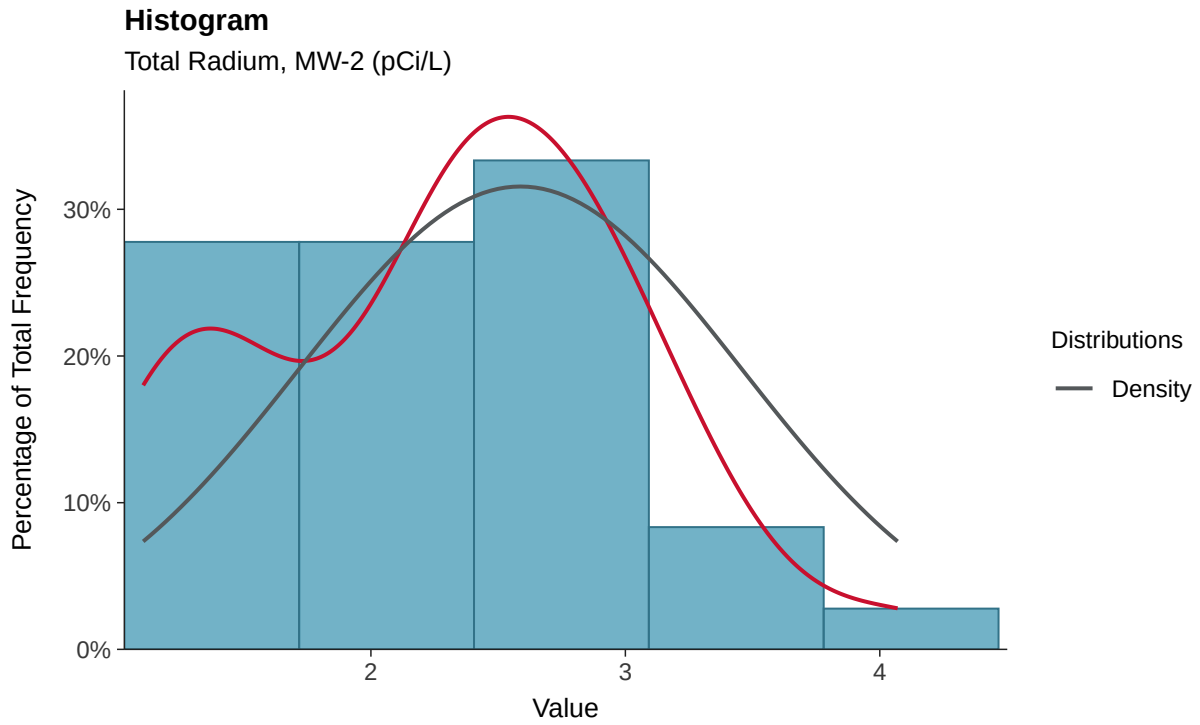
Thallium, MW-2 (ug/L)



App. IV: Total Radium, MW-2

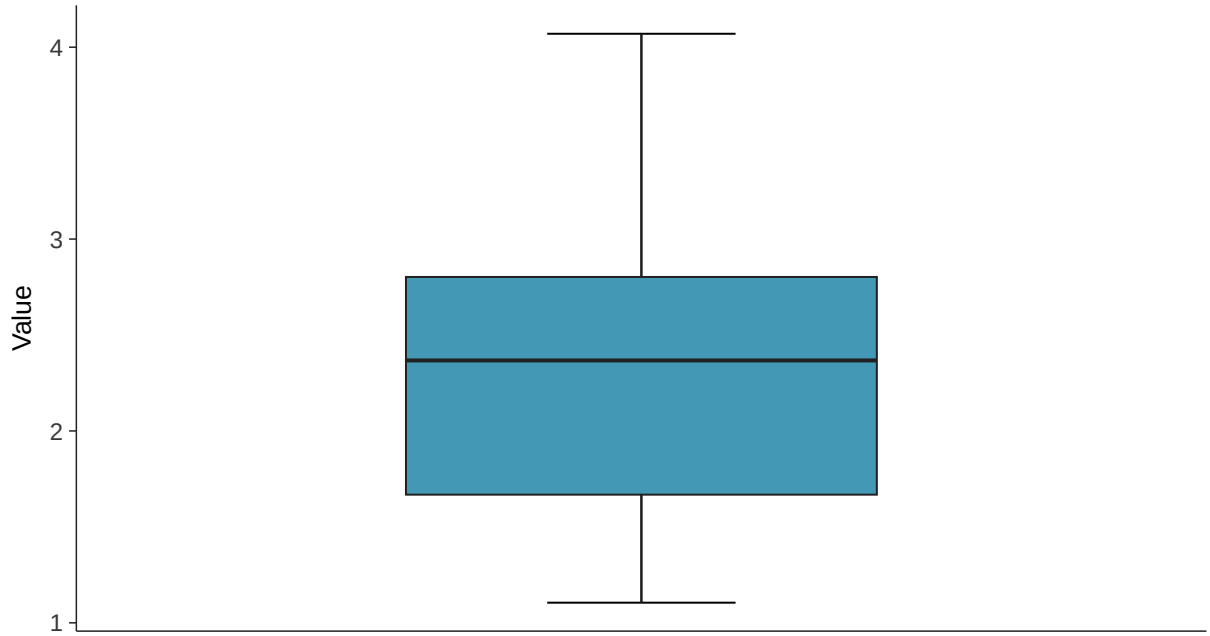
ID: 02_3_126





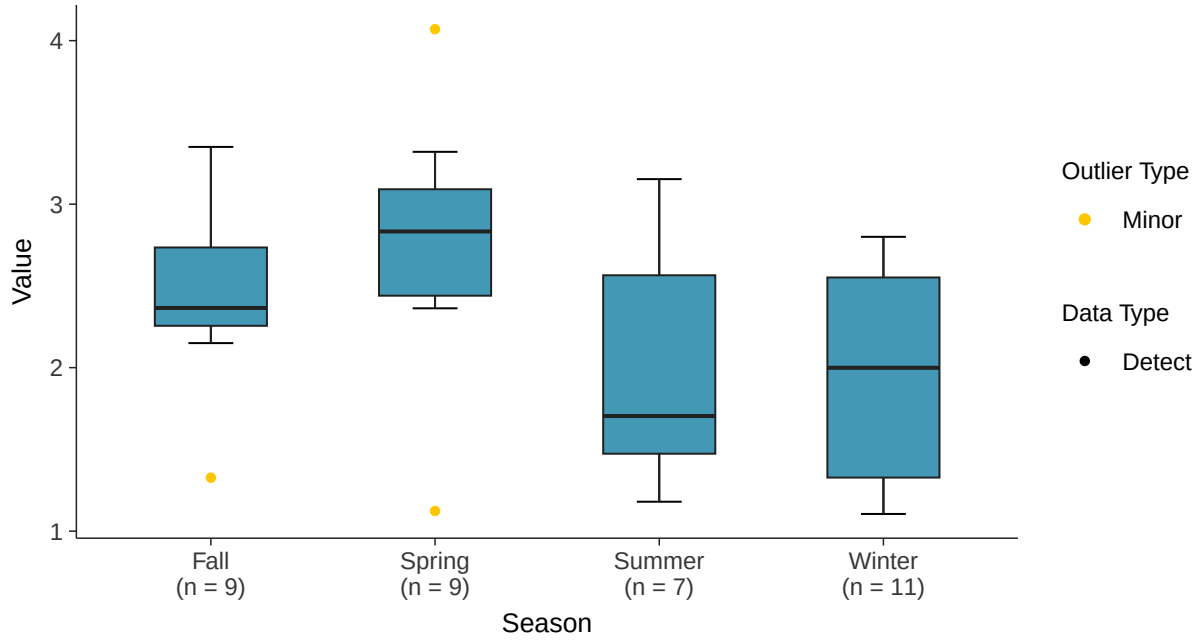
Boxplot

Total Radium, MW-2 (pCi/L)



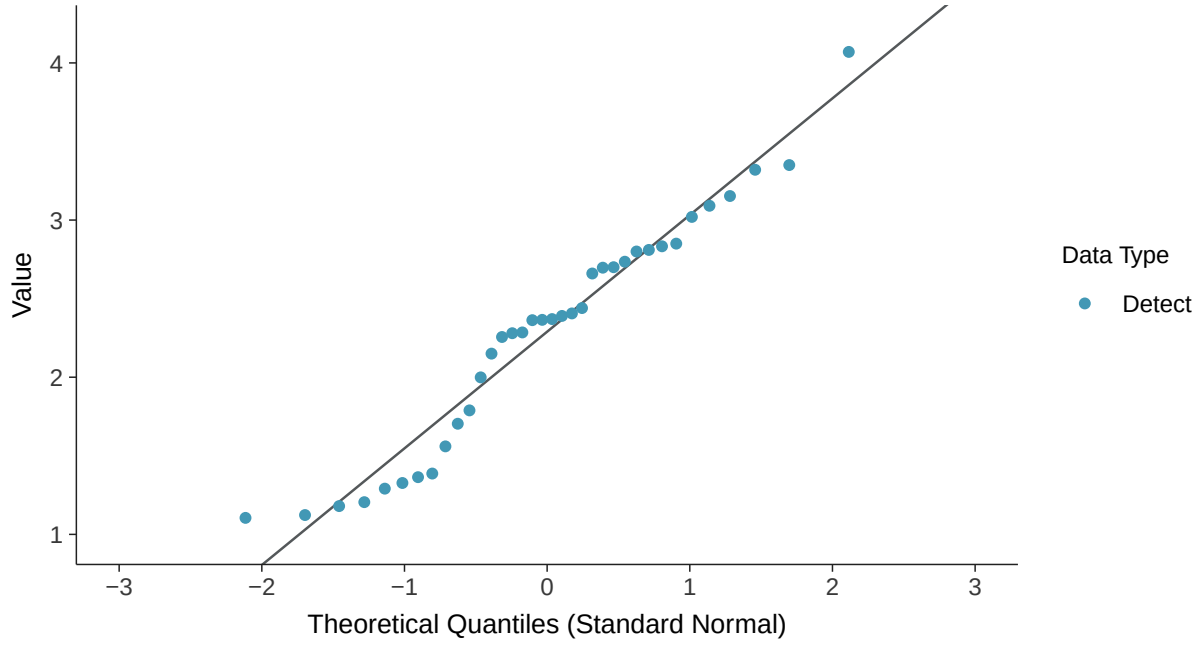
Boxplot by Season

Total Radium, MW-2 (pCi/L)



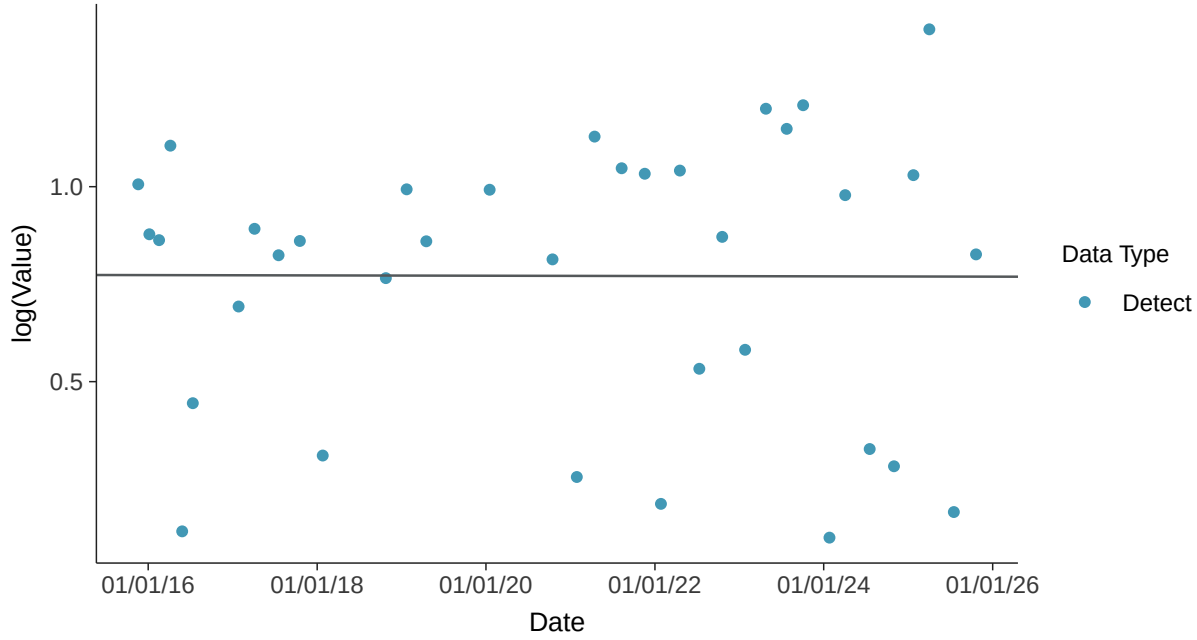
Normal Q-Q plot

Total Radium, MW-2 (pCi/L)



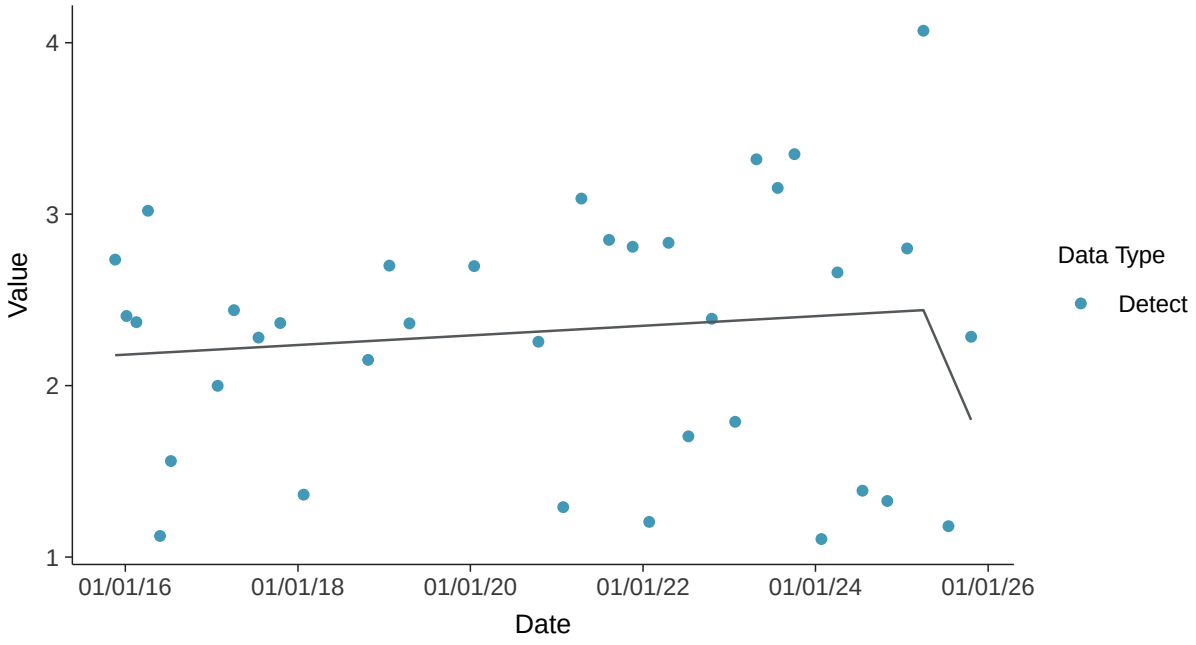
Trend Regression: Lognormal MLE

Total Radium, MW-2 (pCi/L)



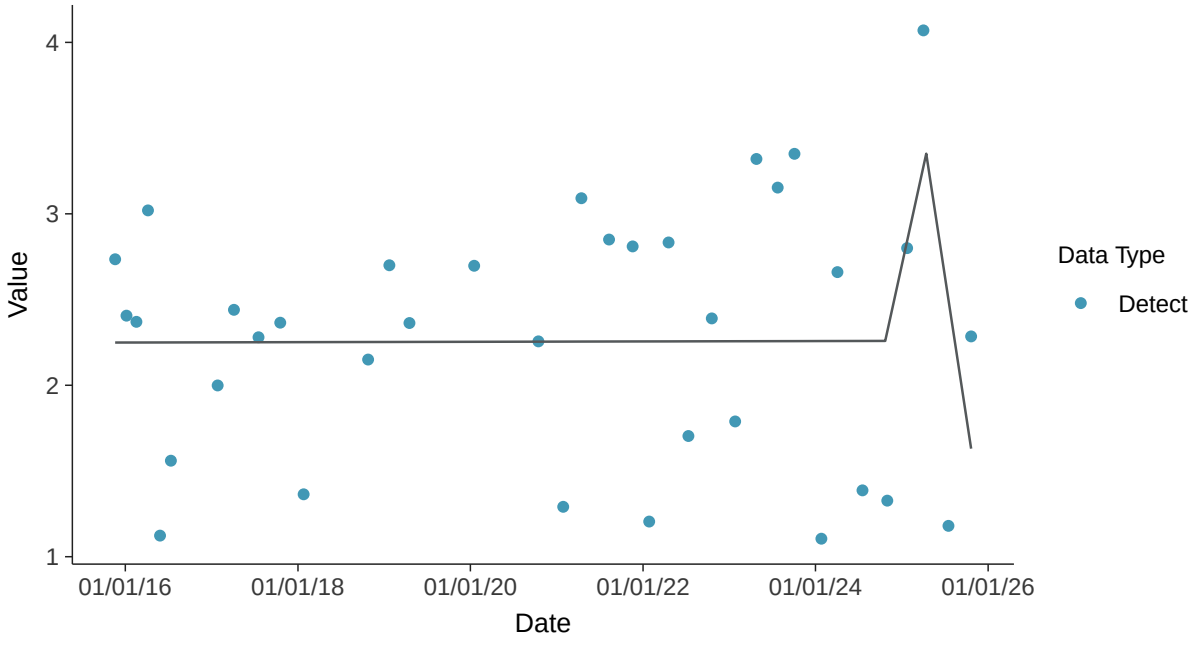
Trend Regression: Piecewise Linear-Linear

Total Radium, MW-2 (pCi/L)



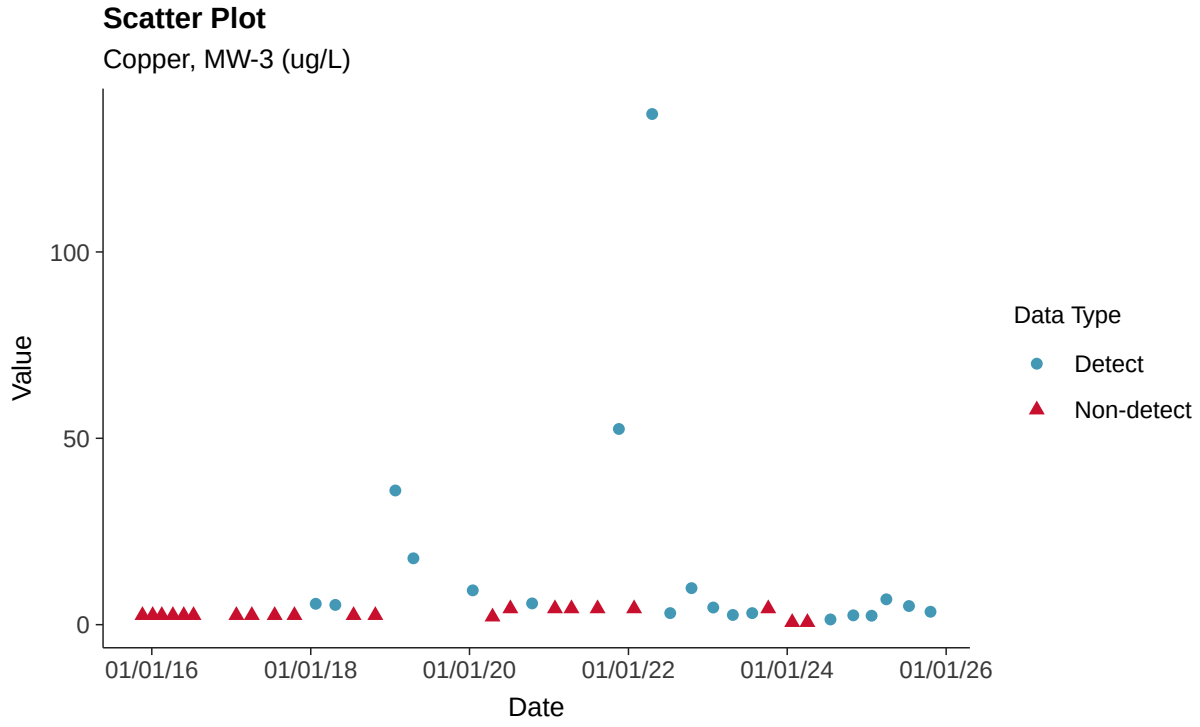
Trend Regression: Piecewise Linear-Linear-Linear

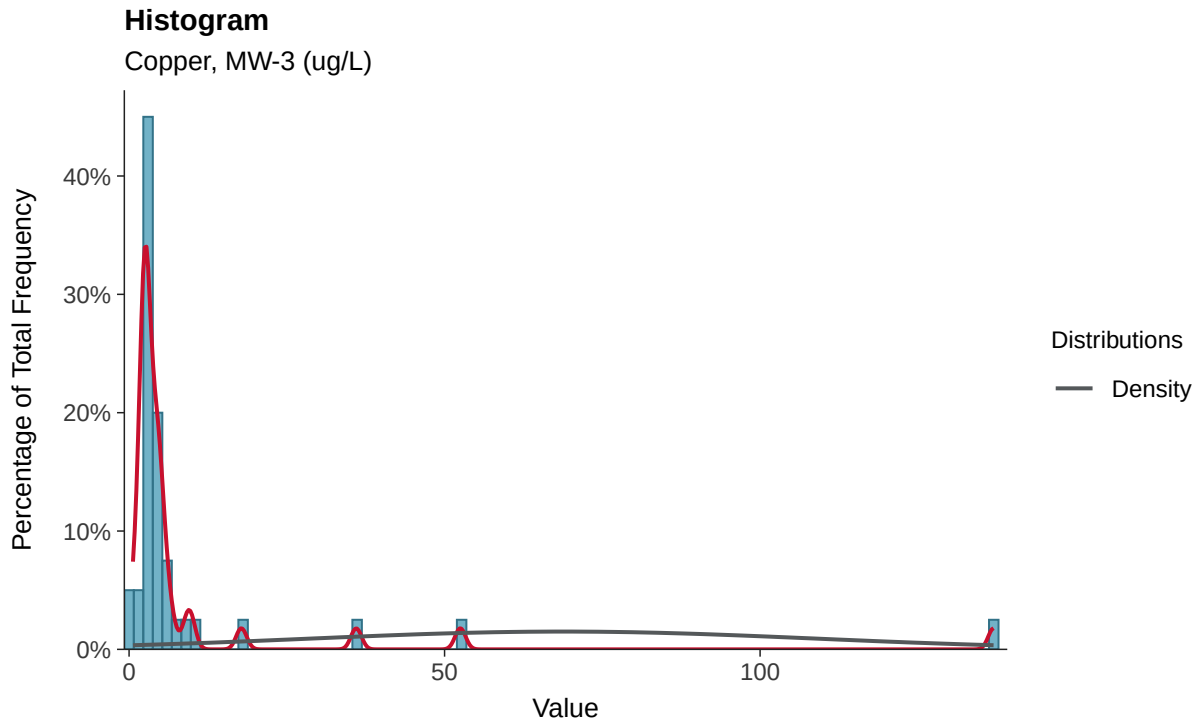
Total Radium, MW-2 (pCi/L)



App. I Metals: Copper, MW-3

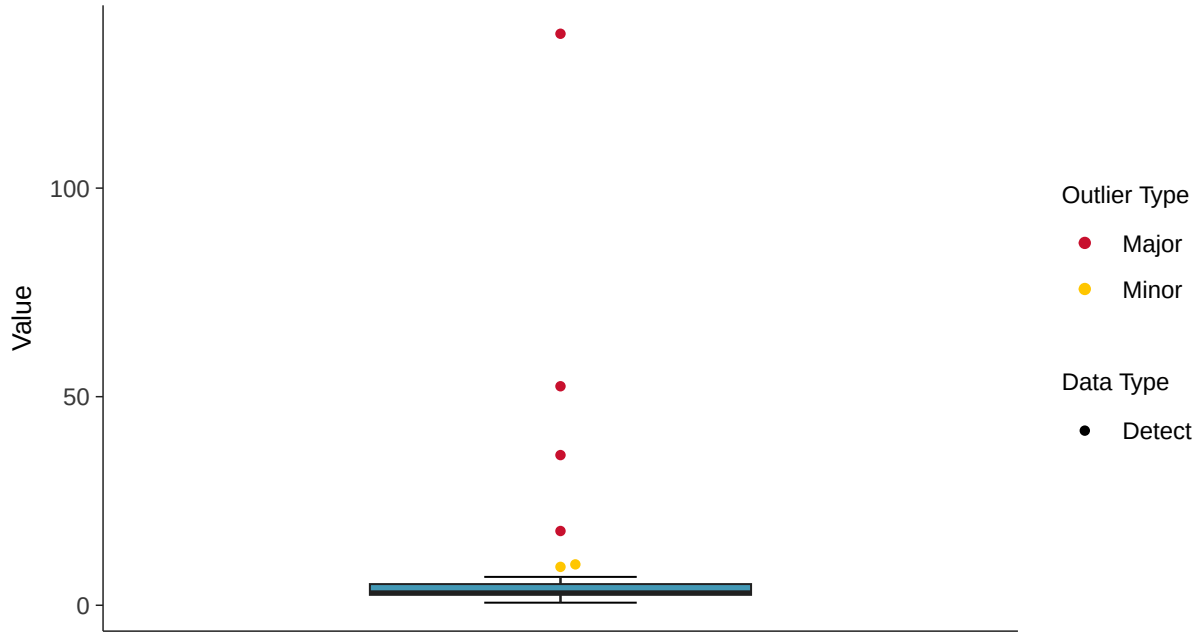
ID: 03_1_111





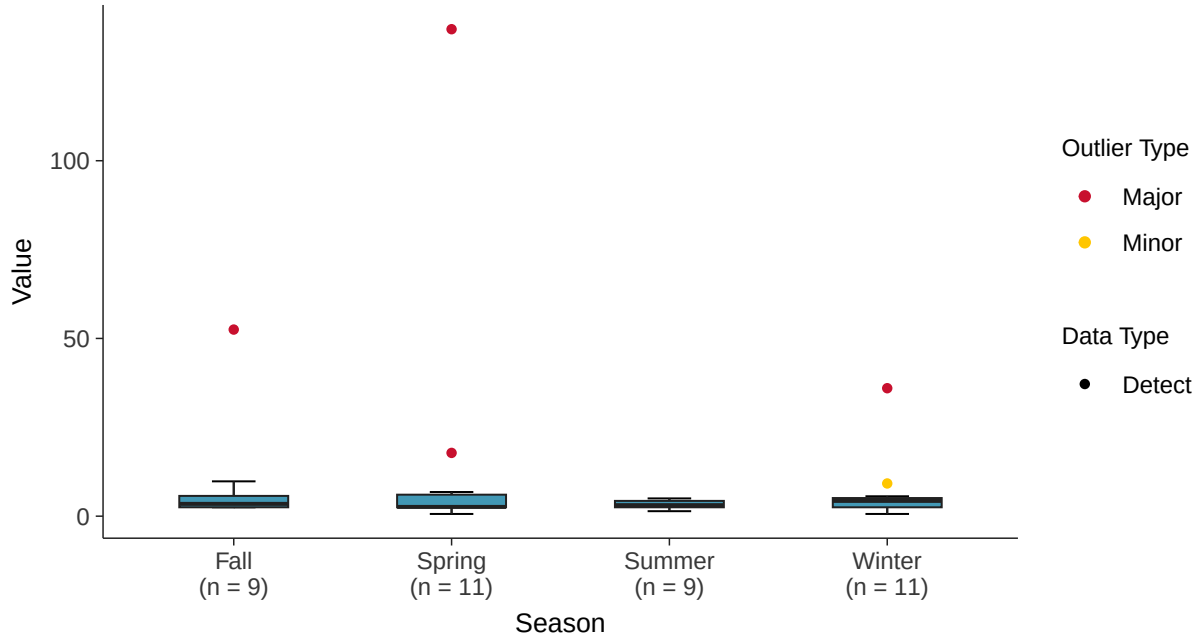
Boxplot

Copper, MW-3 (ug/L)



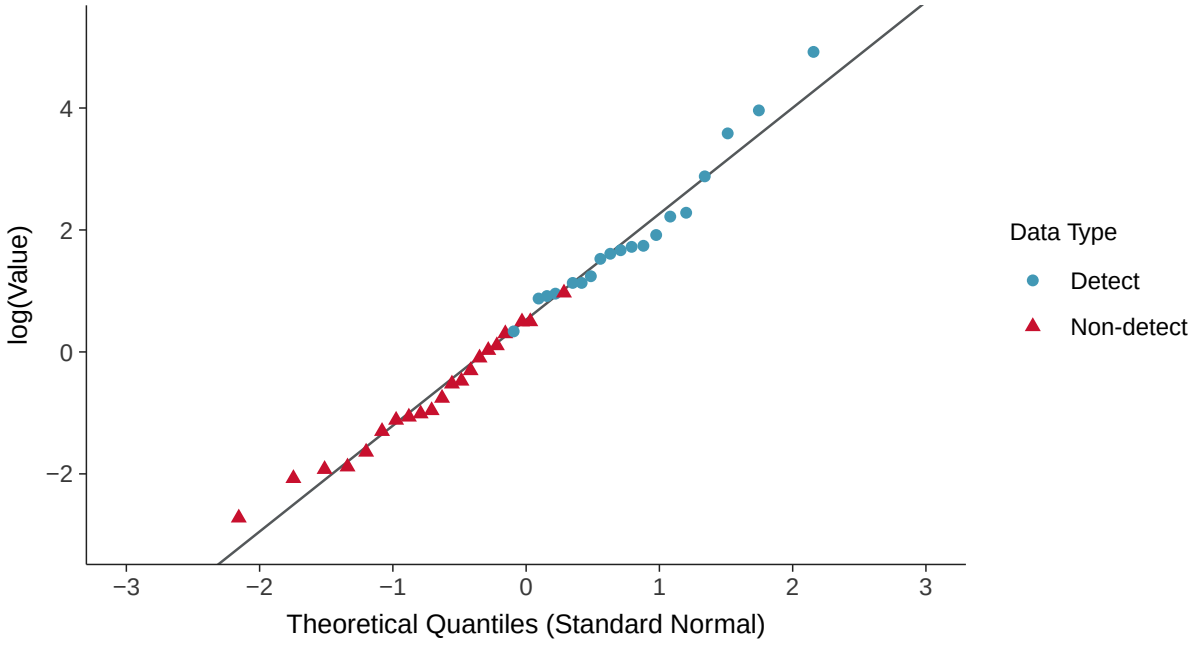
Boxplot by Season

Copper, MW-3 (ug/L)



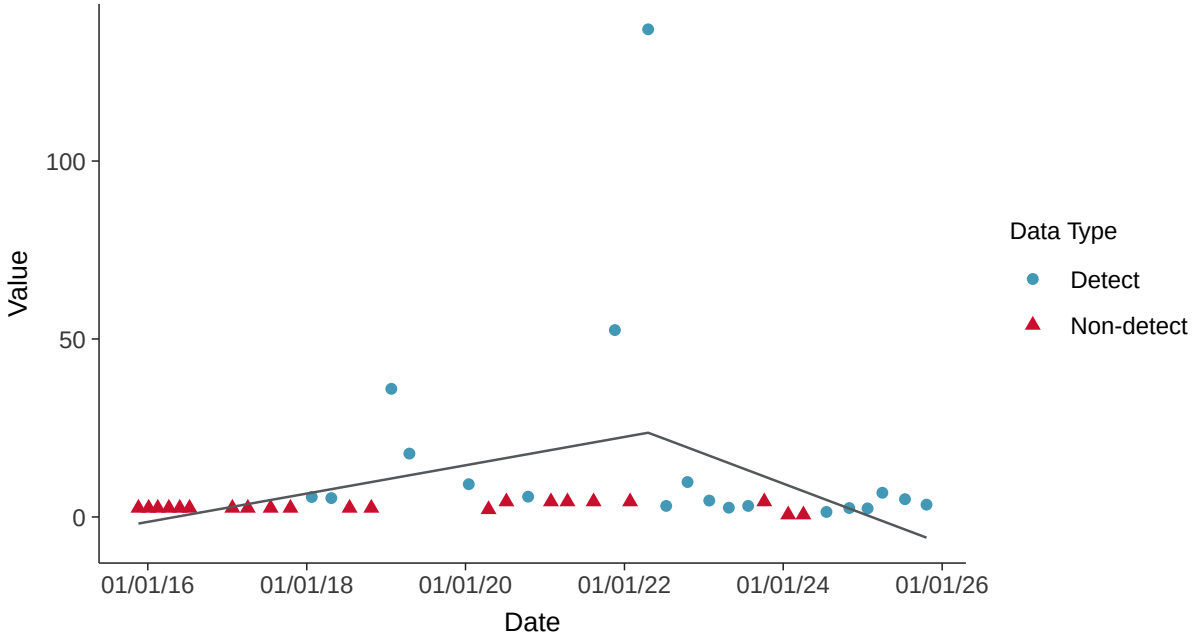
Lognormal Q-Q plot using ROS Imputed Estimates

Copper, MW-3 (ug/L)



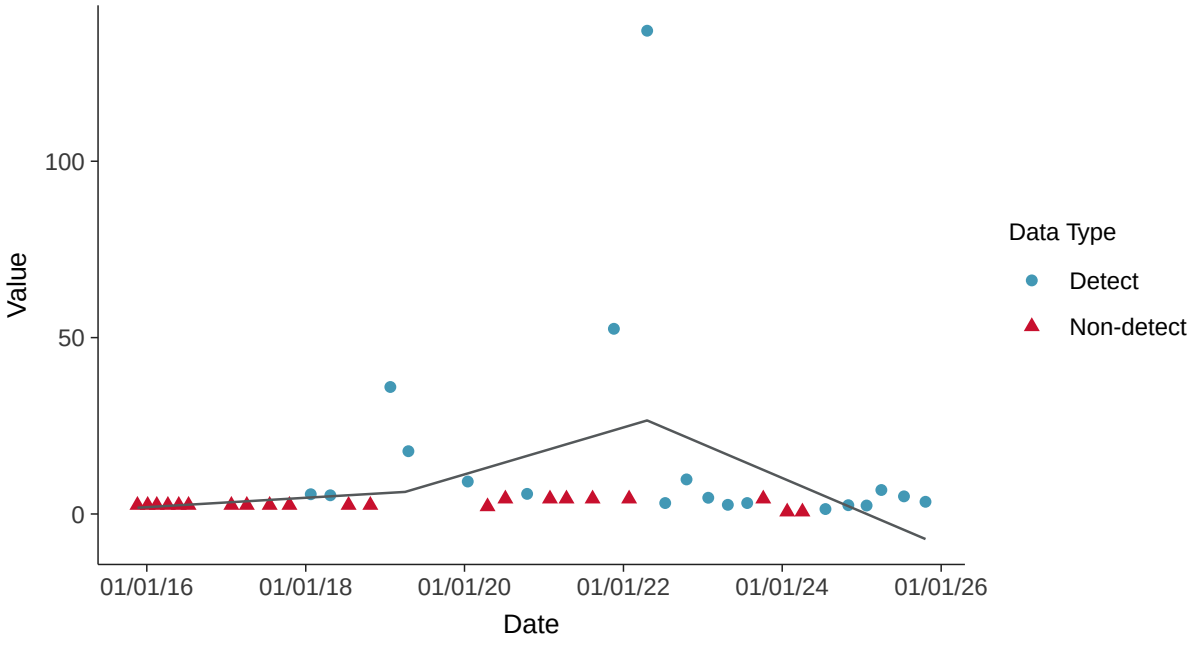
Trend Regression: Piecewise Linear-Linear

Copper, MW-3 (ug/L)



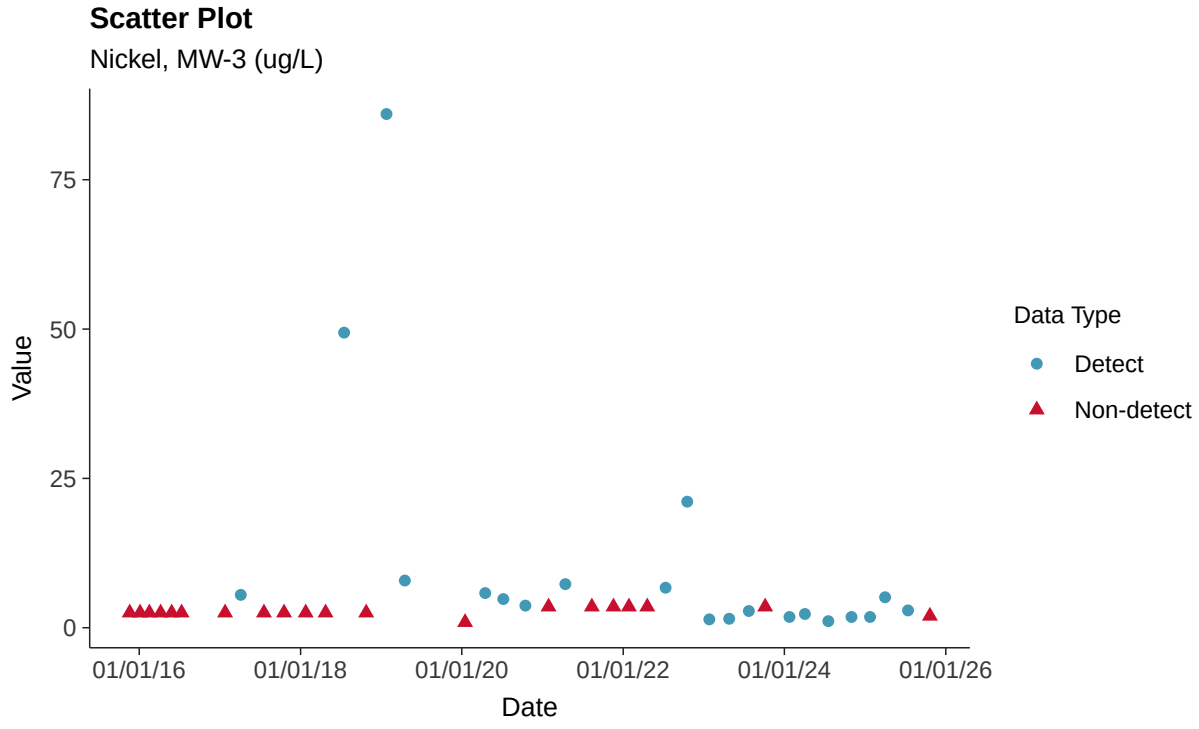
Trend Regression: Piecewise Linear-Linear-Linear

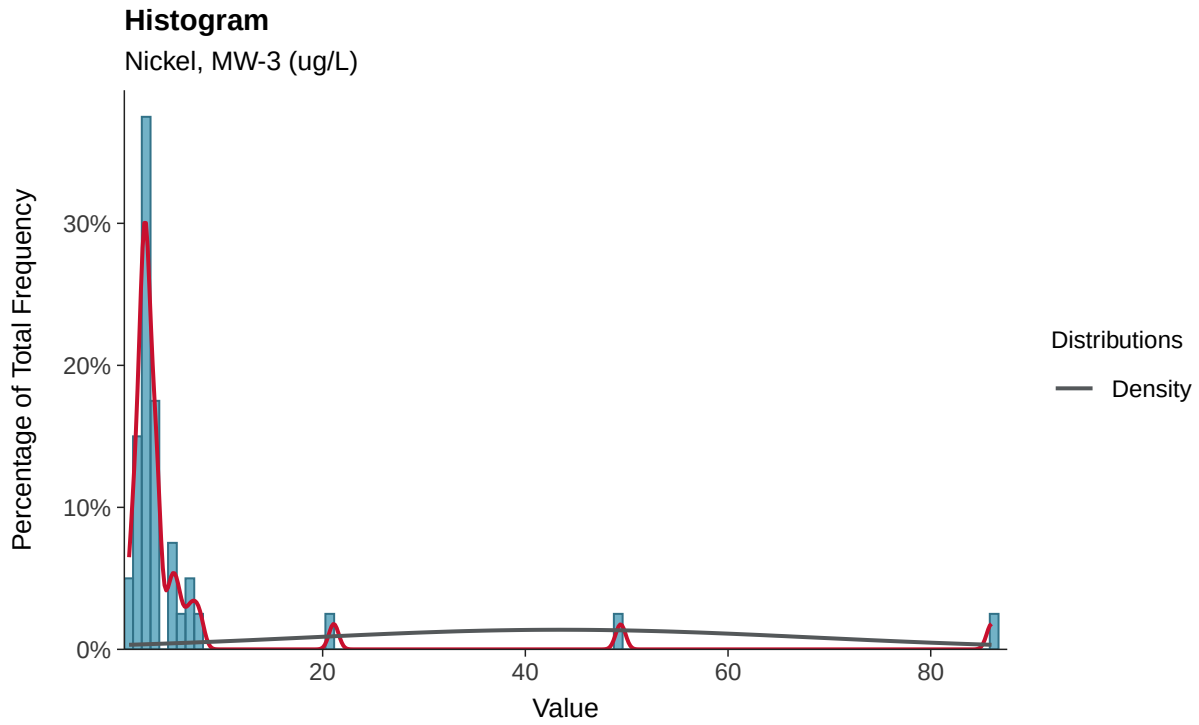
Copper, MW-3 (ug/L)



App. I Metals: Nickel, MW-3

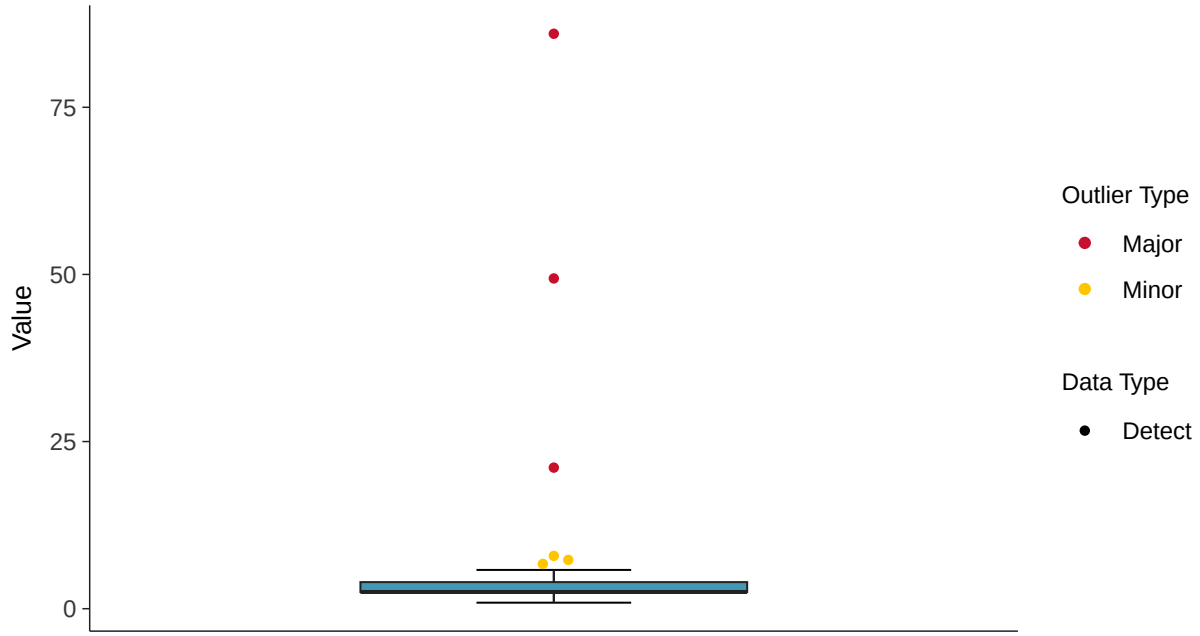
ID: 03_1_117





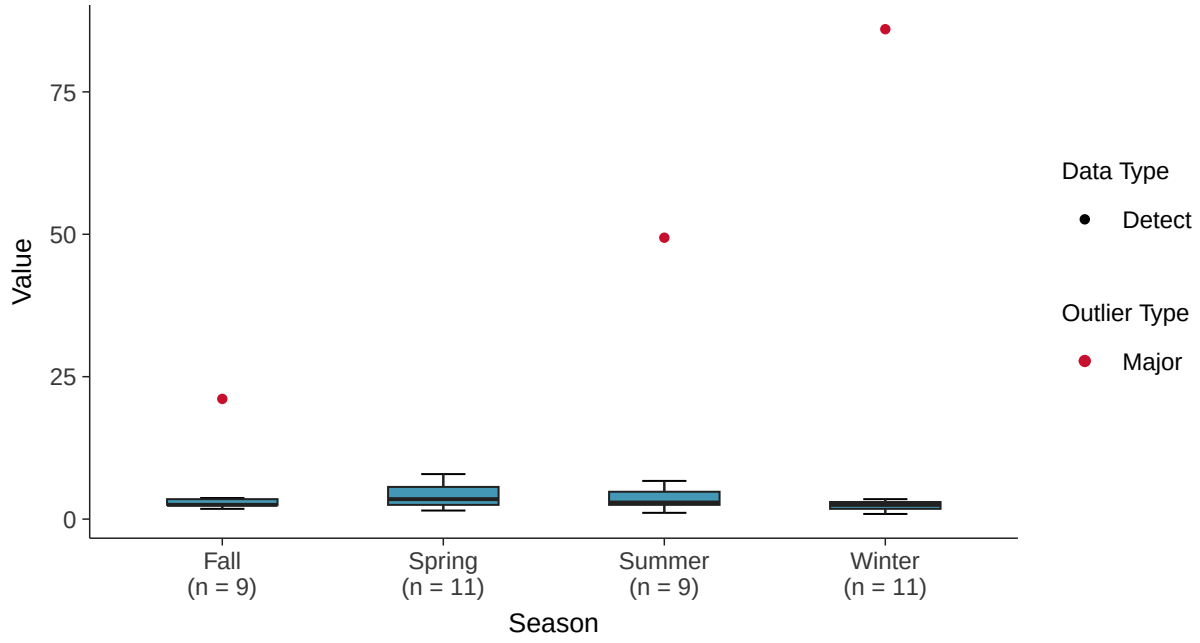
Boxplot

Nickel, MW-3 (ug/L)



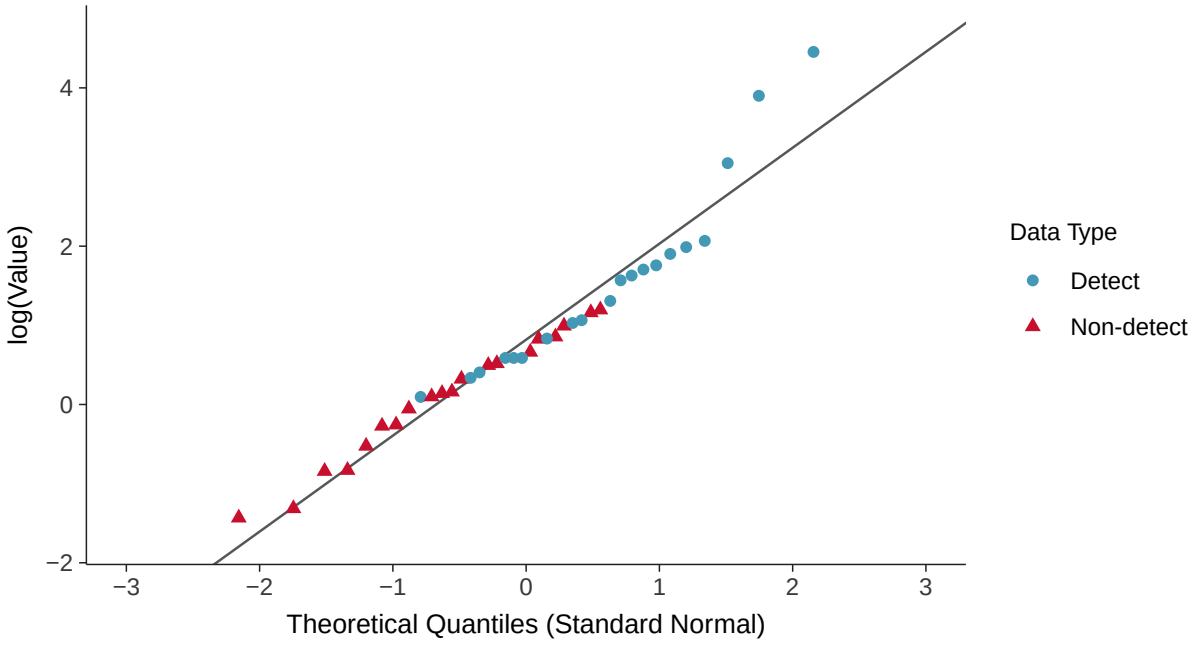
Boxplot by Season

Nickel, MW-3 (ug/L)



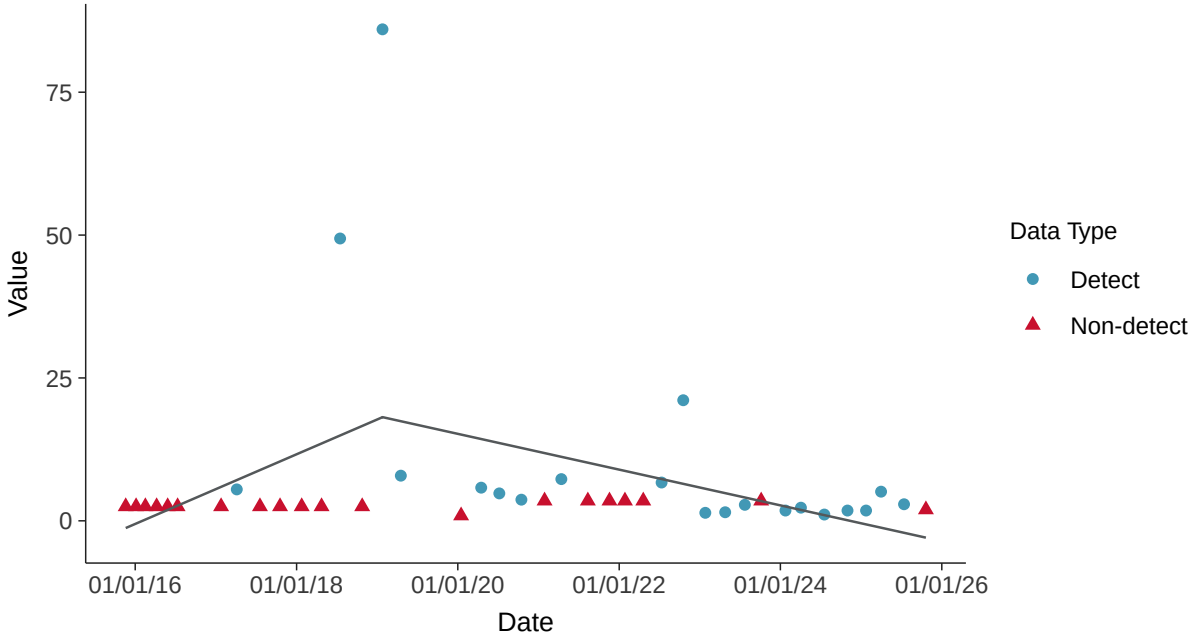
Lognormal Q-Q plot using ROS Imputed Estimates

Nickel, MW-3 (ug/L)



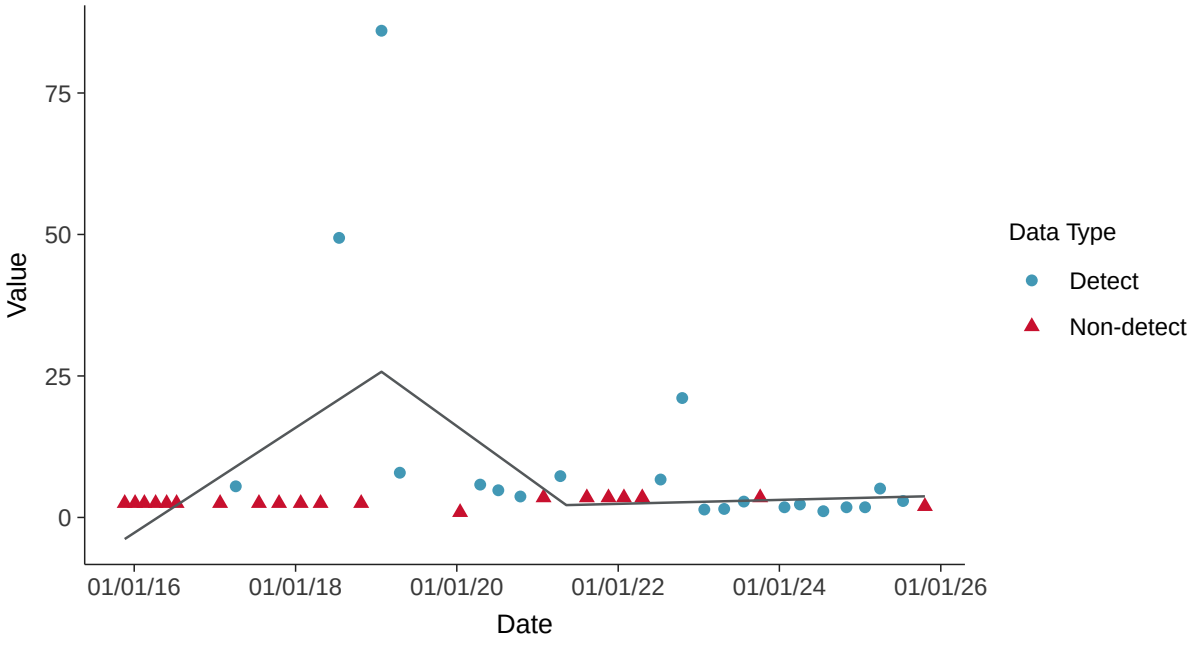
Trend Regression: Piecewise Linear-Linear

Nickel, MW-3 (ug/L)



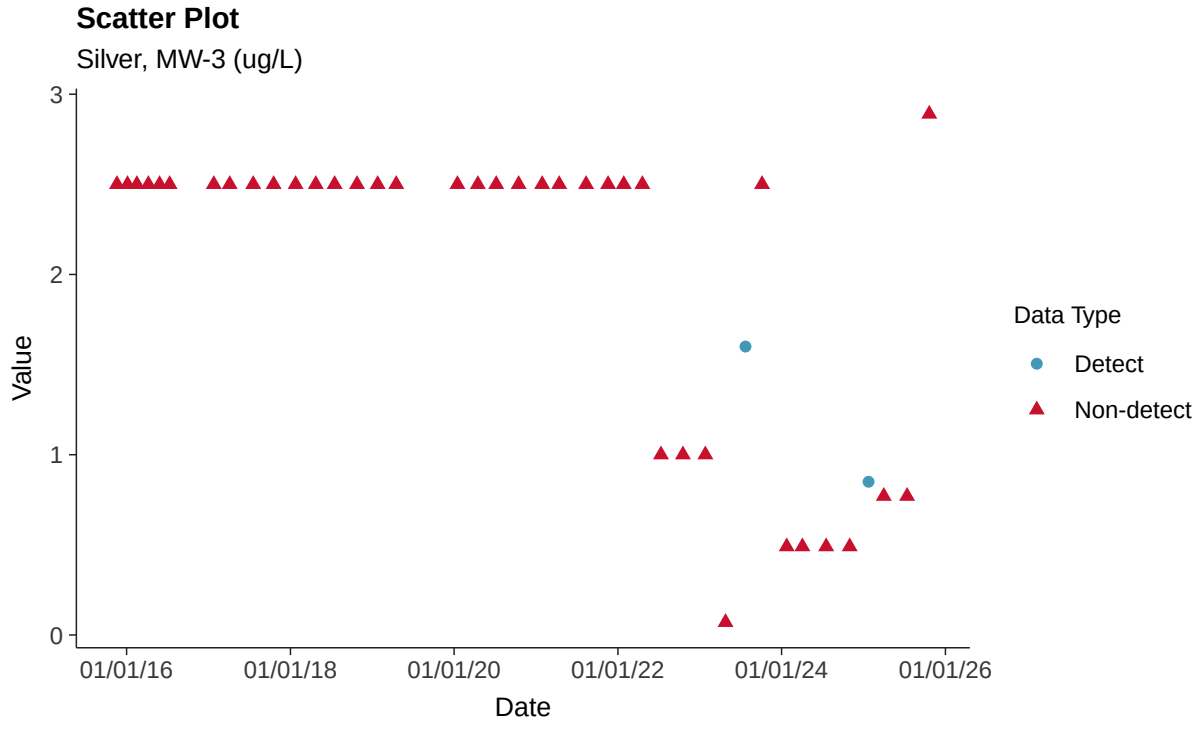
Trend Regression: Piecewise Linear-Linear-Linear

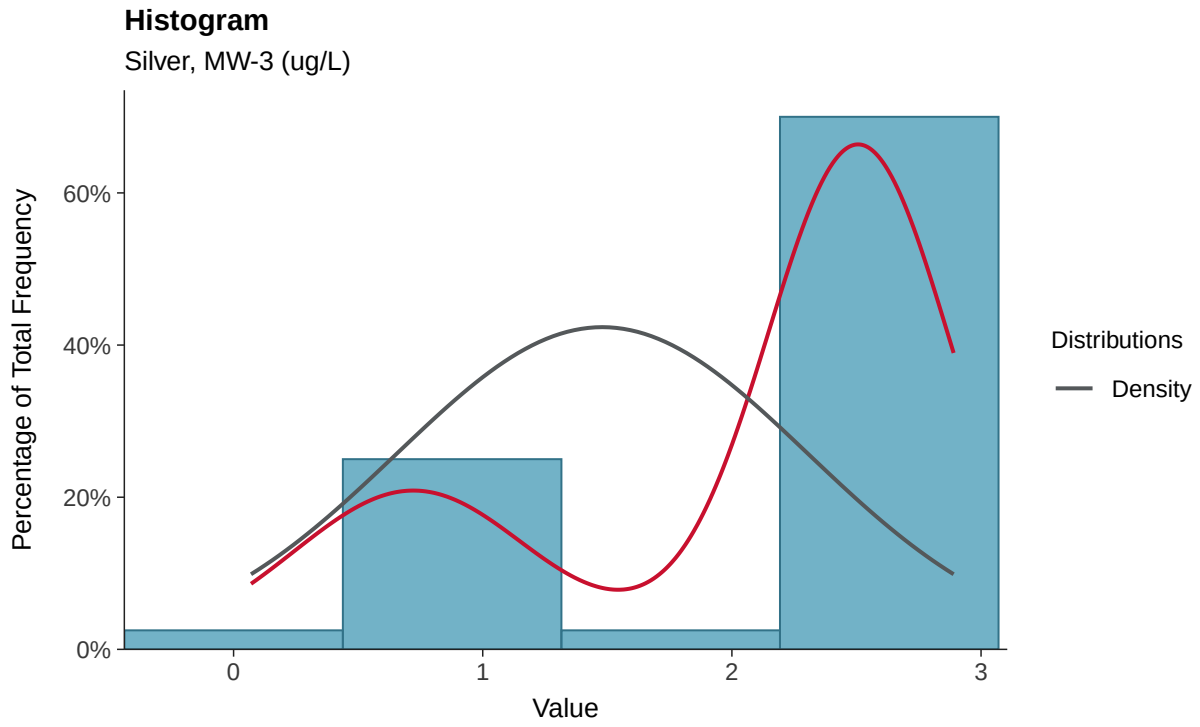
Nickel, MW-3 (ug/L)



App. I Metals: Silver, MW-3

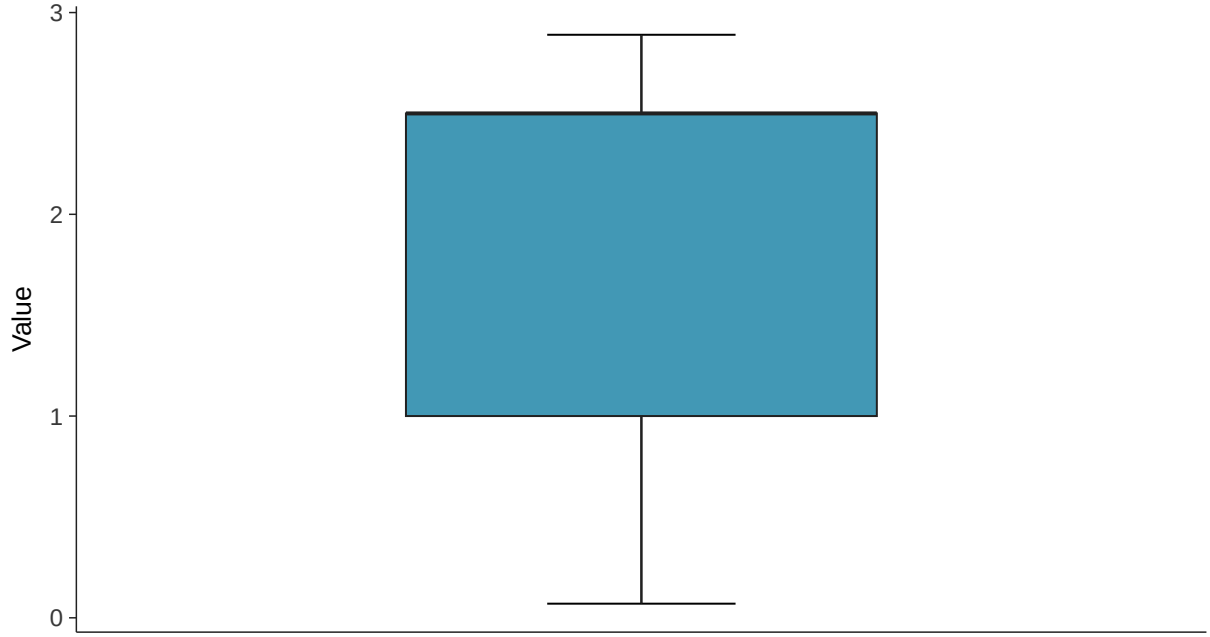
ID: 03_1_122





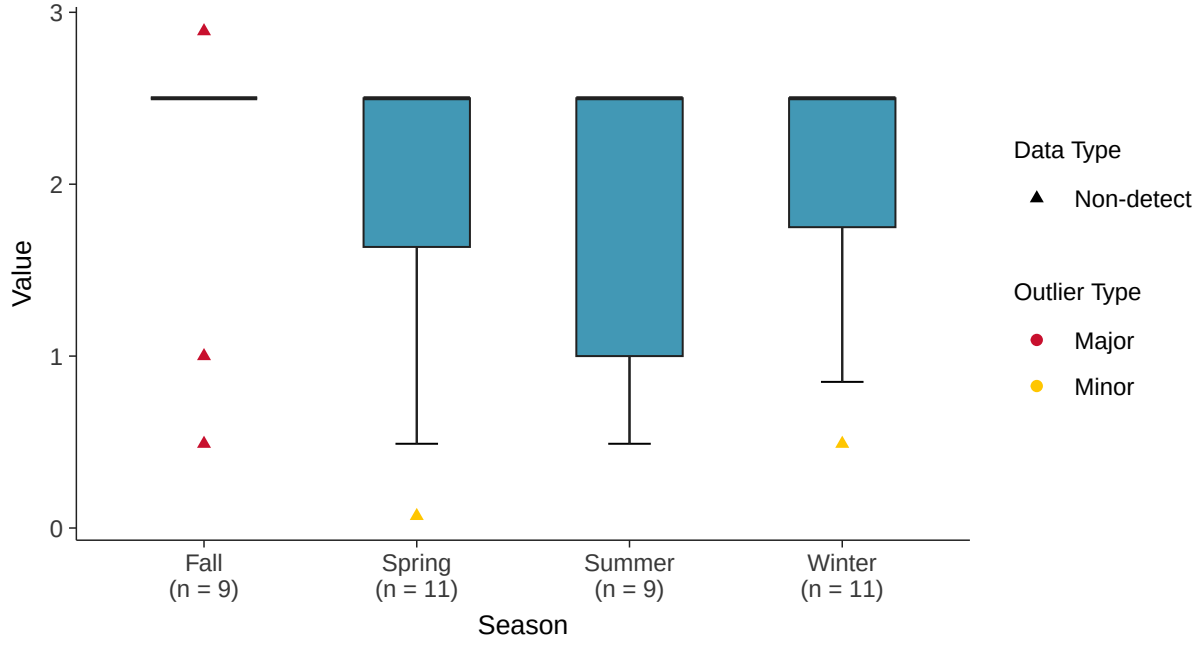
Boxplot

Silver, MW-3 (ug/L)



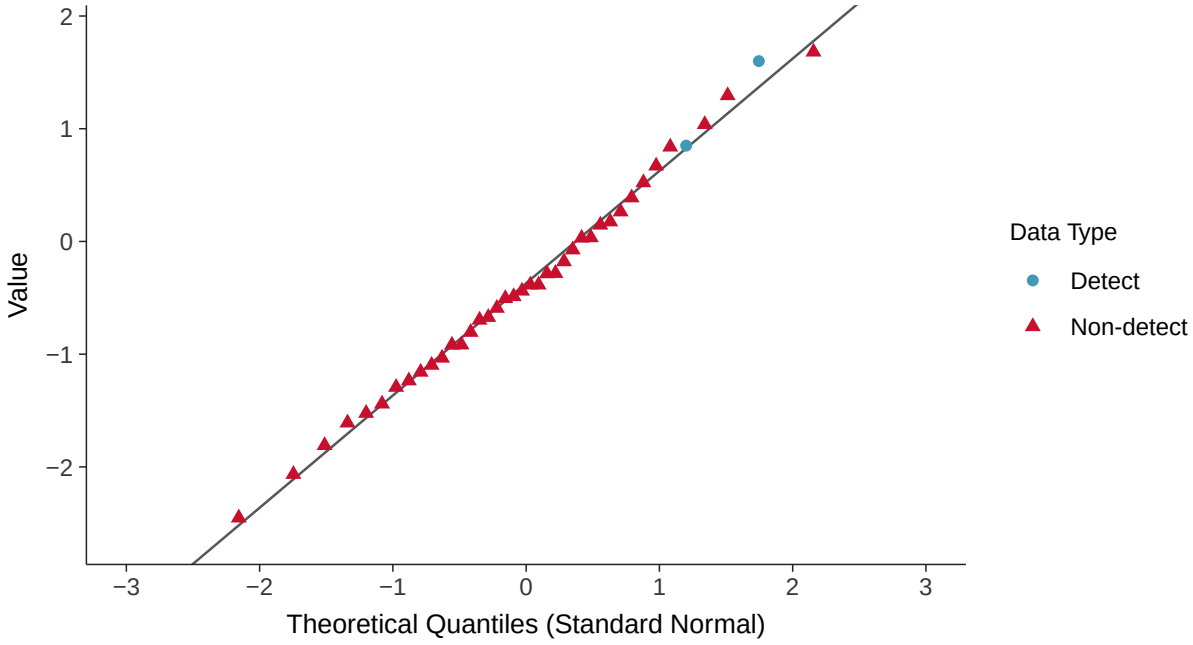
Boxplot by Season

Silver, MW-3 (ug/L)



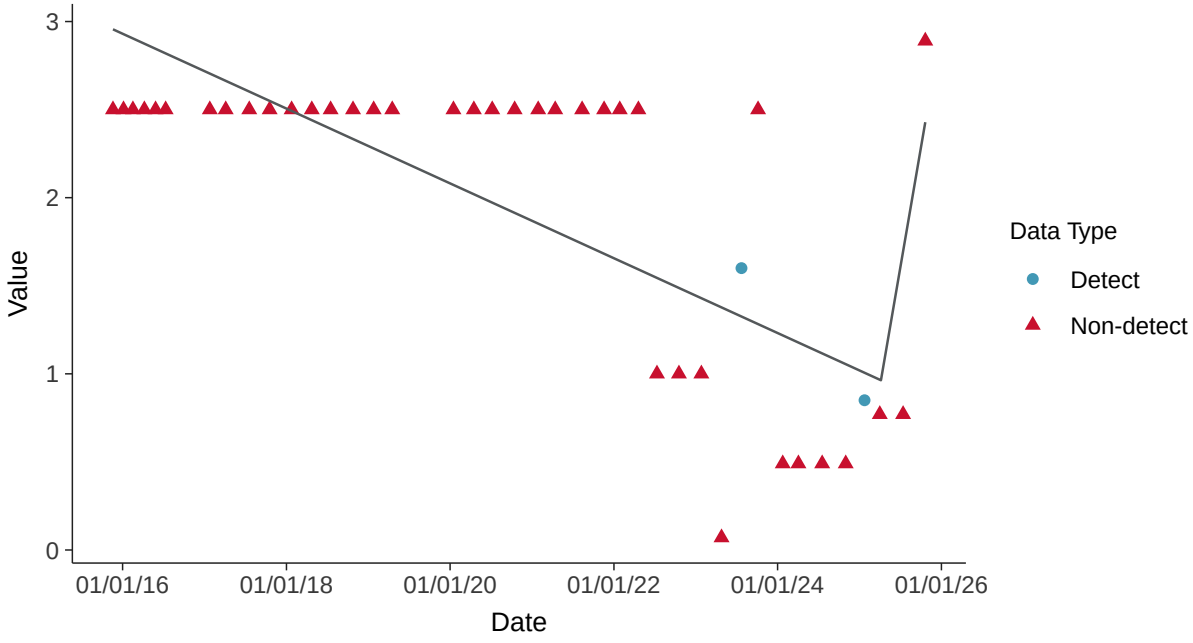
Normal Q-Q plot using ROS Imputed Estimates

Silver, MW-3 (ug/L)



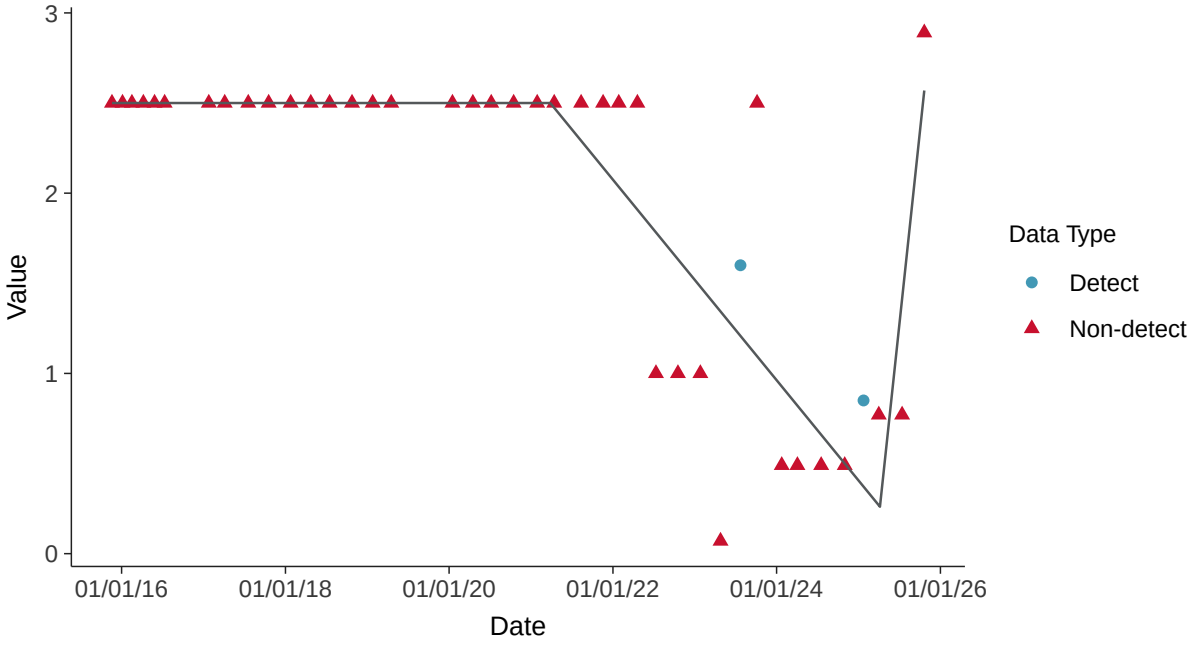
Trend Regression: Piecewise Linear-Linear

Silver, MW-3 (ug/L)



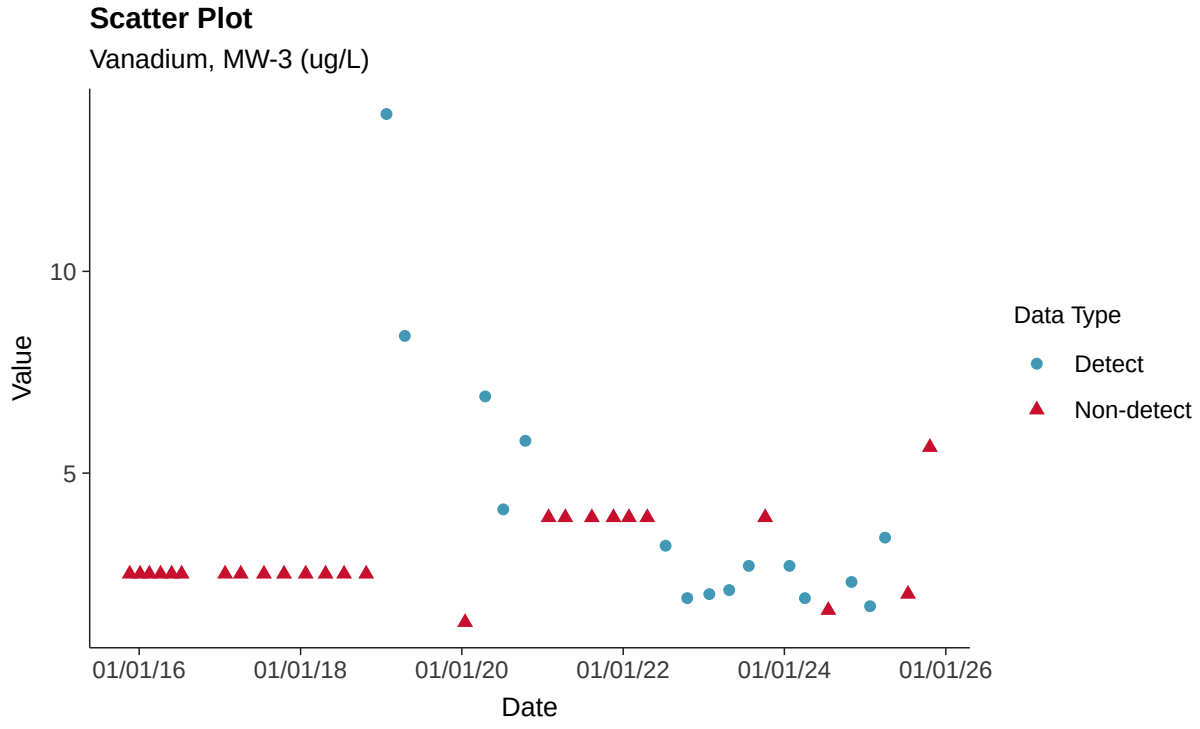
Trend Regression: Piecewise Linear-Linear-Linear

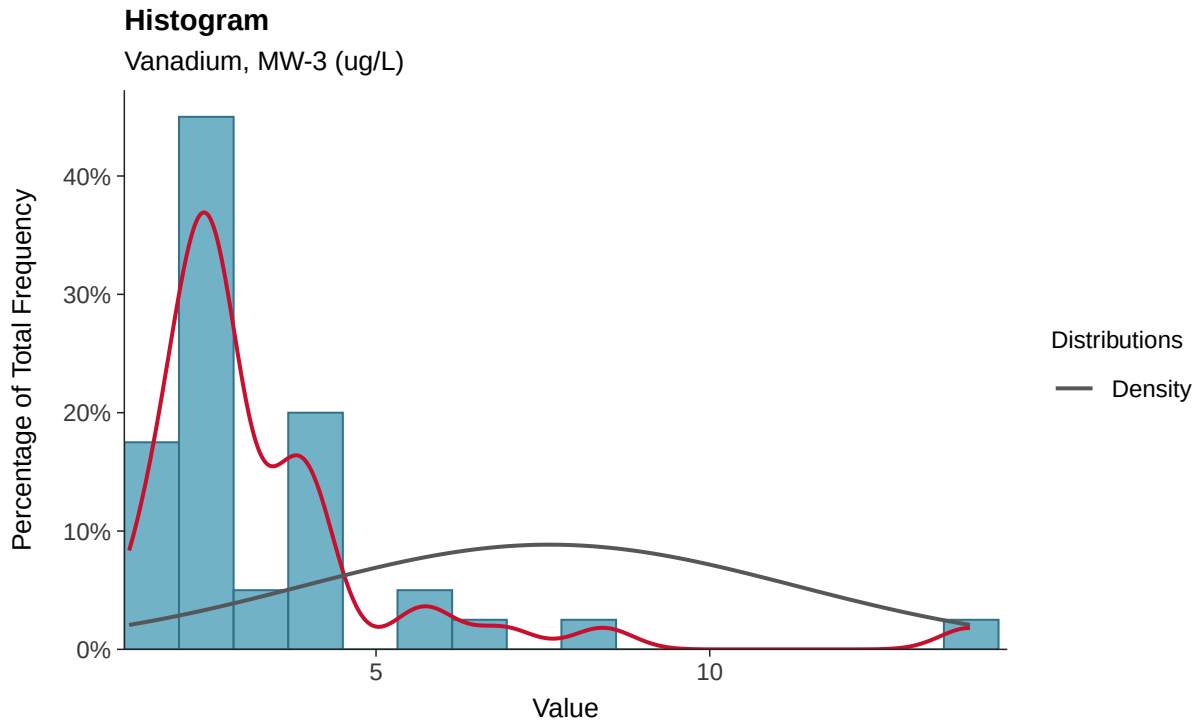
Silver, MW-3 (ug/L)



App. I Metals: Vanadium, MW-3

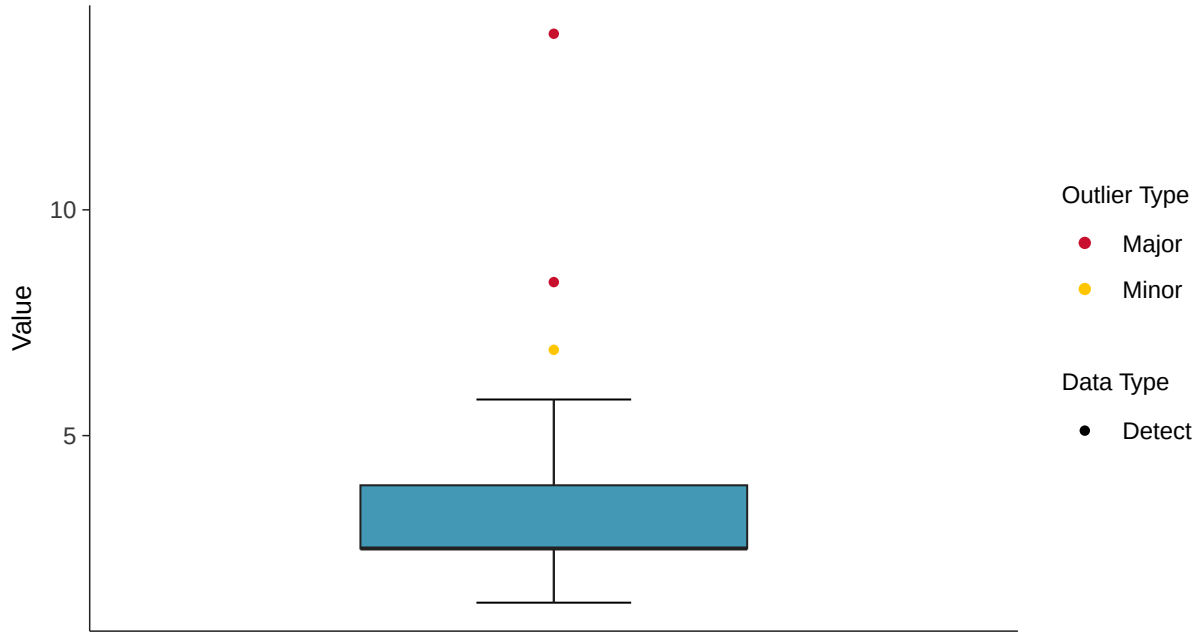
ID: 03_1_127





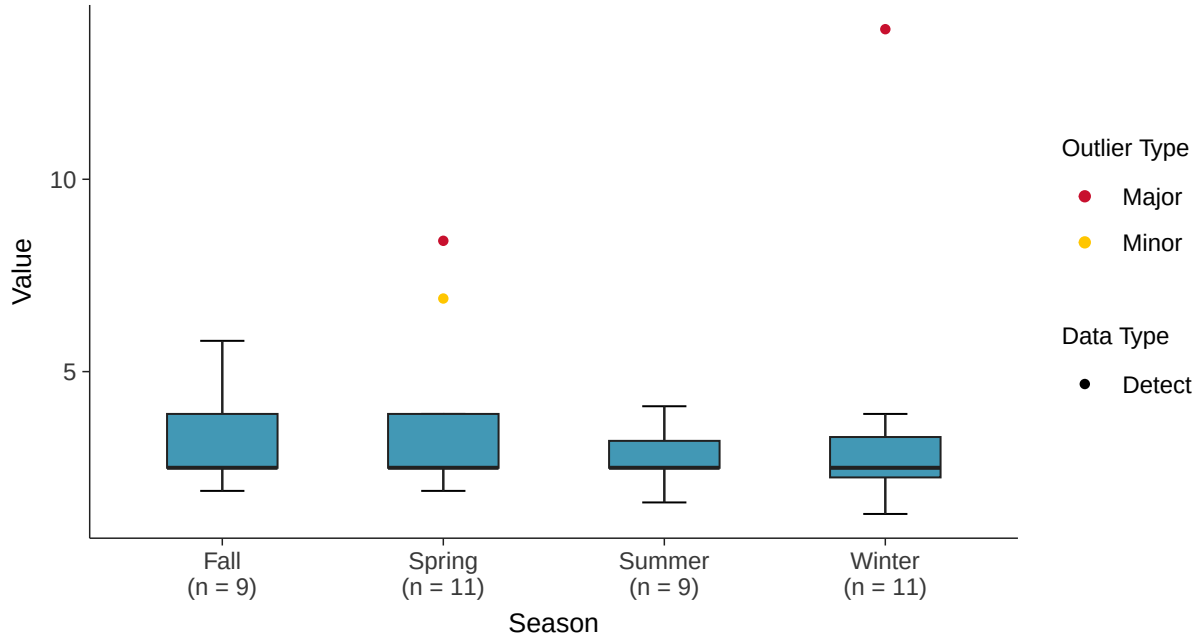
Boxplot

Vanadium, MW-3 (ug/L)



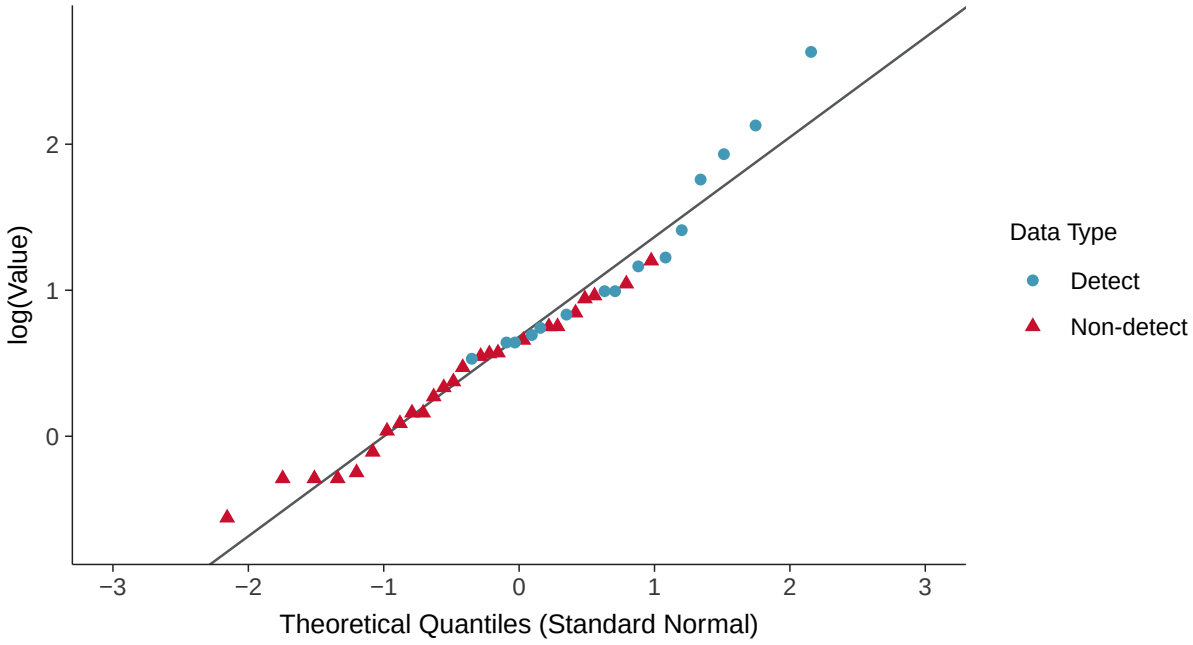
Boxplot by Season

Vanadium, MW-3 (ug/L)



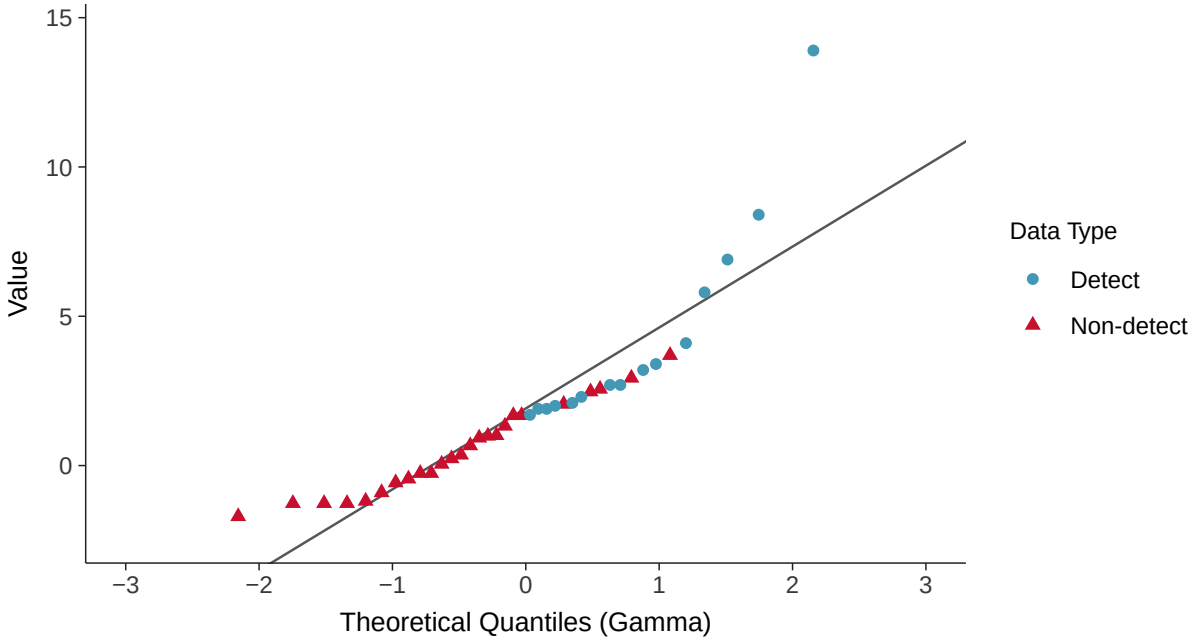
Lognormal Q-Q plot using ROS Imputed Estimates

Vanadium, MW-3 (ug/L)



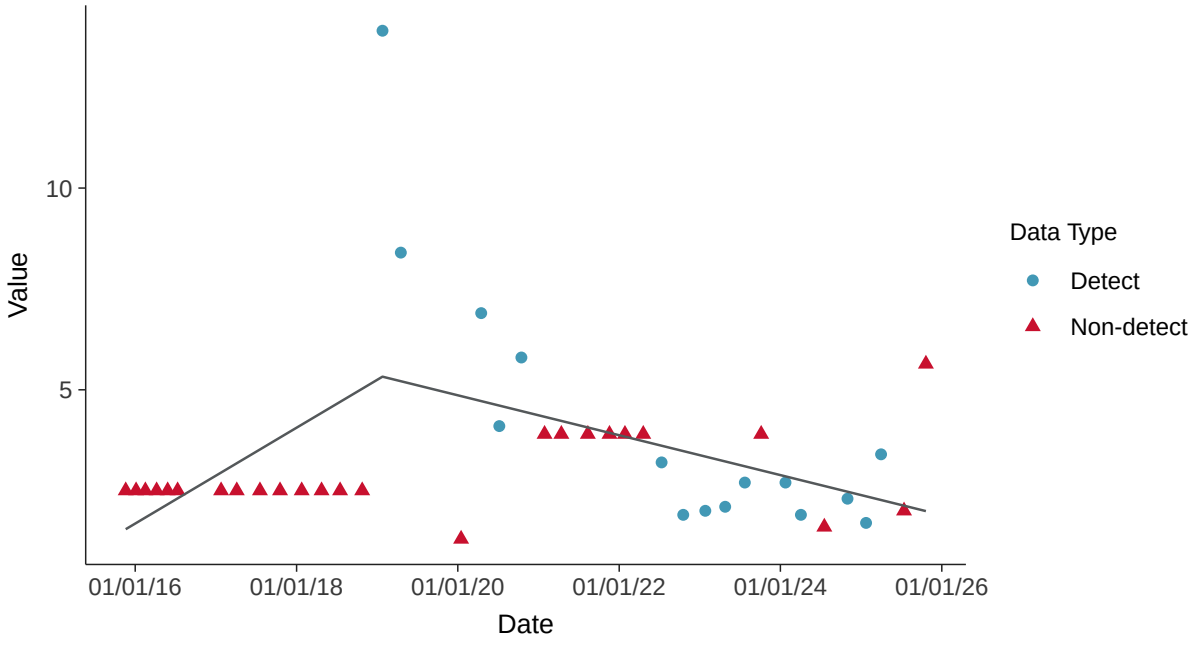
Gamma Q-Q plot using ROS Imputed Estimates

Vanadium, MW-3 (ug/L)



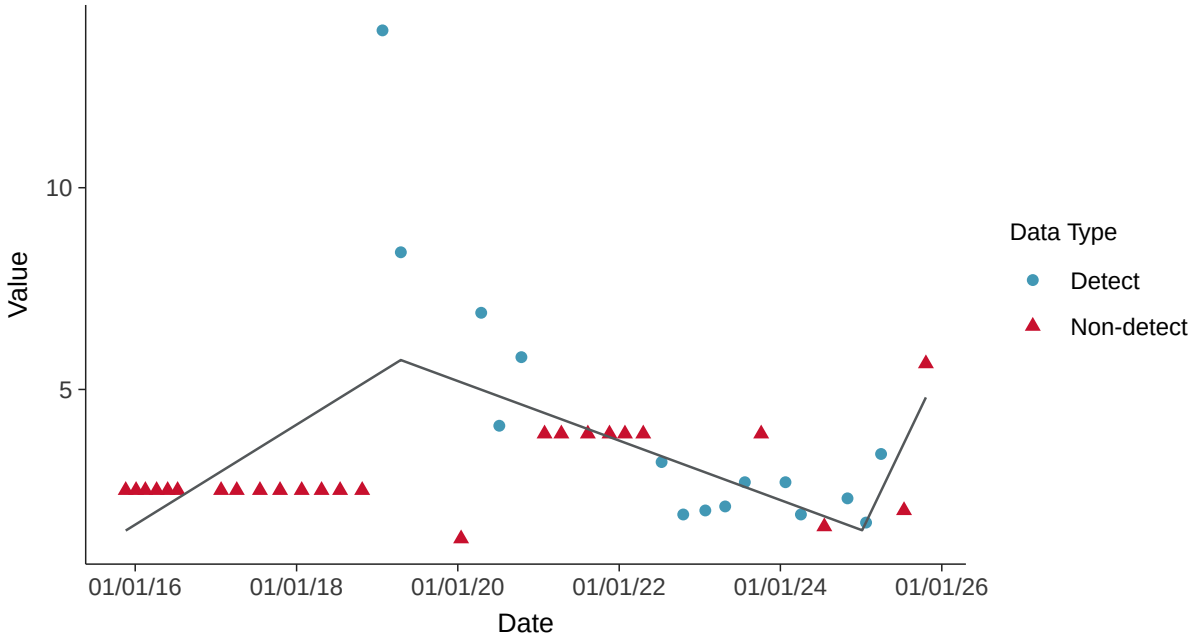
Trend Regression: Piecewise Linear-Linear

Vanadium, MW-3 (ug/L)



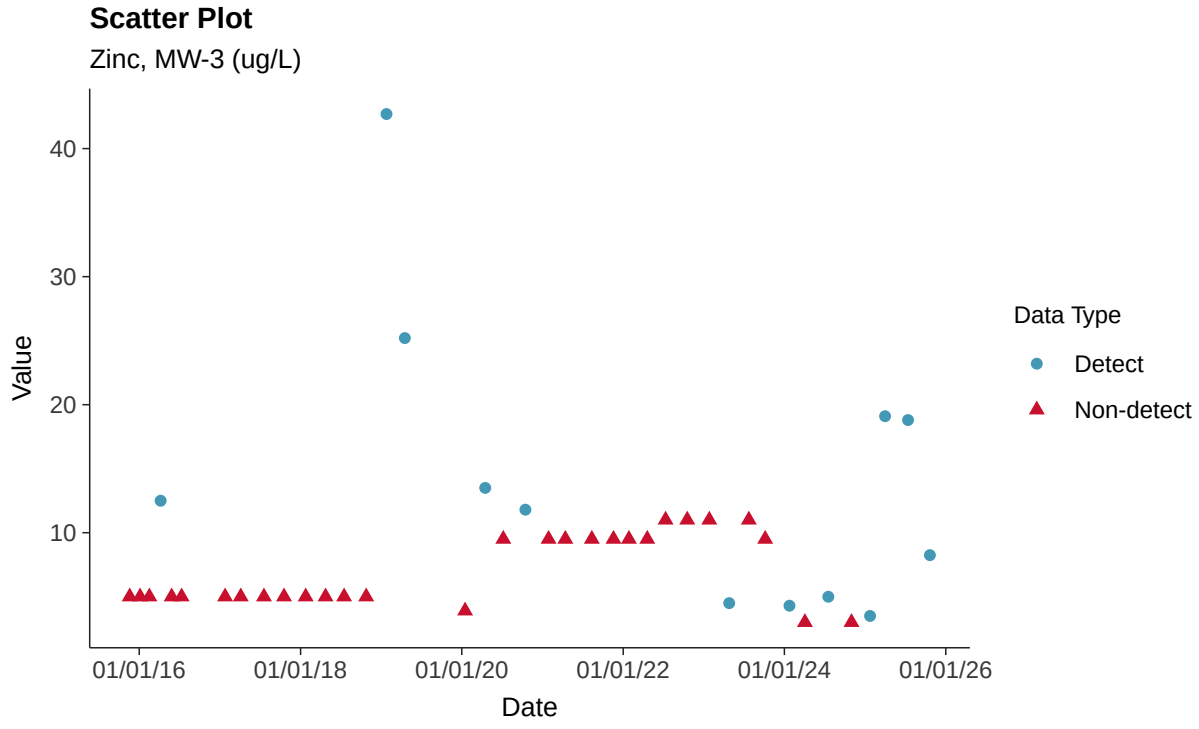
Trend Regression: Piecewise Linear-Linear-Linear

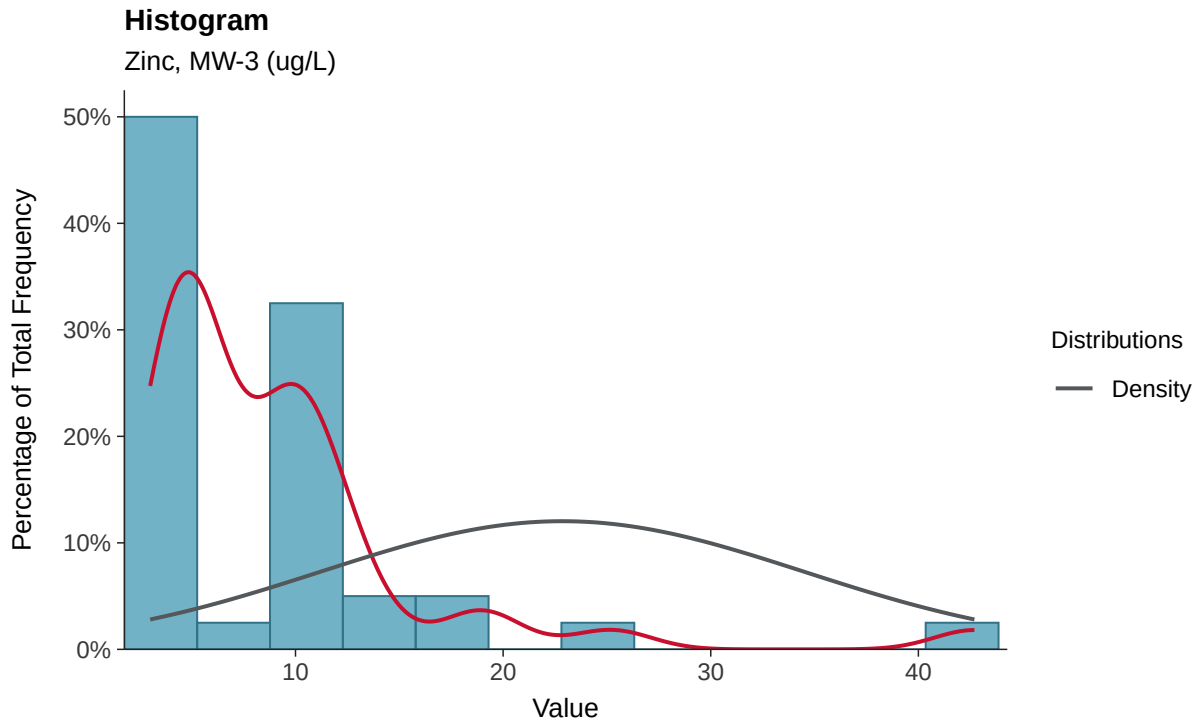
Vanadium, MW-3 (ug/L)



App. I Metals: Zinc, MW-3

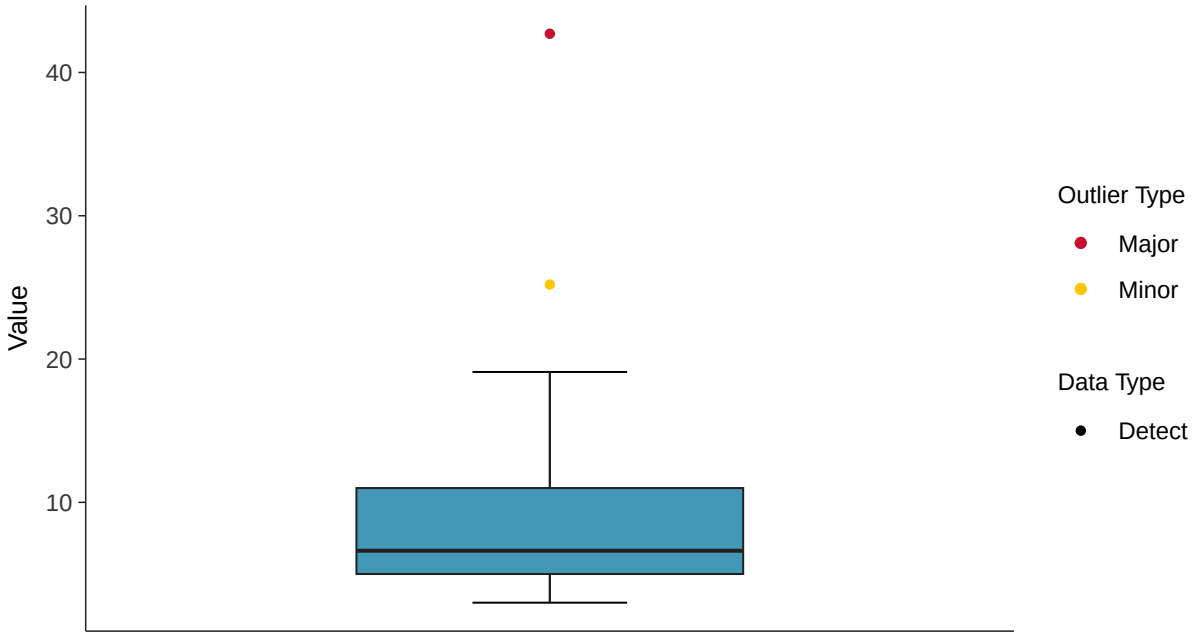
ID: 03_1_128





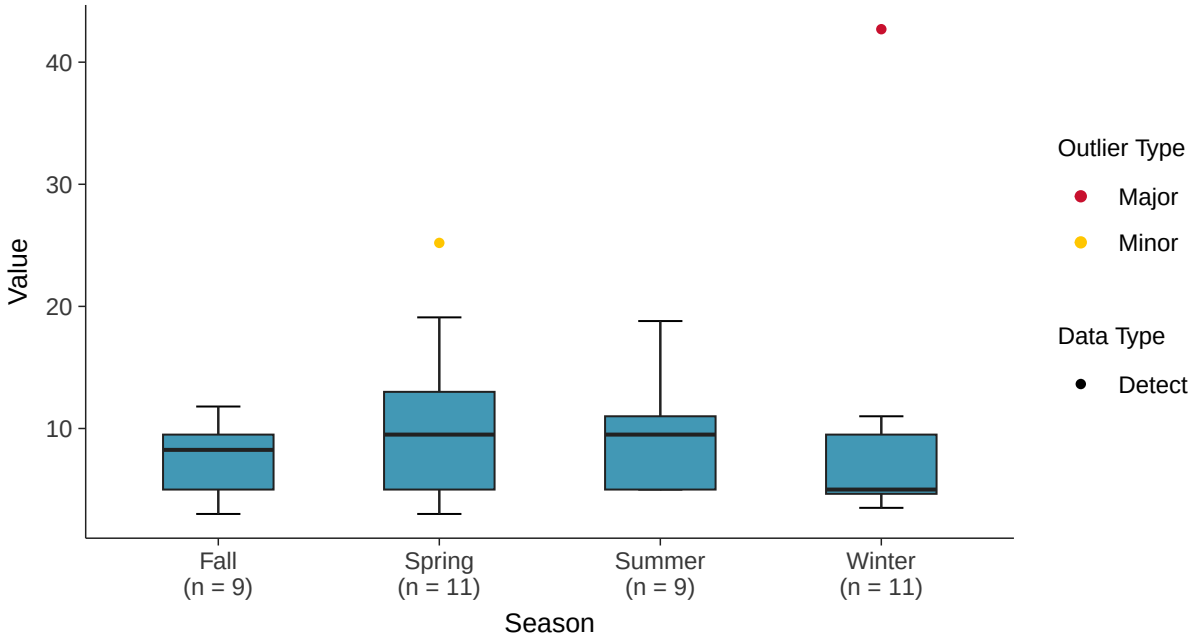
Boxplot

Zinc, MW-3 (ug/L)



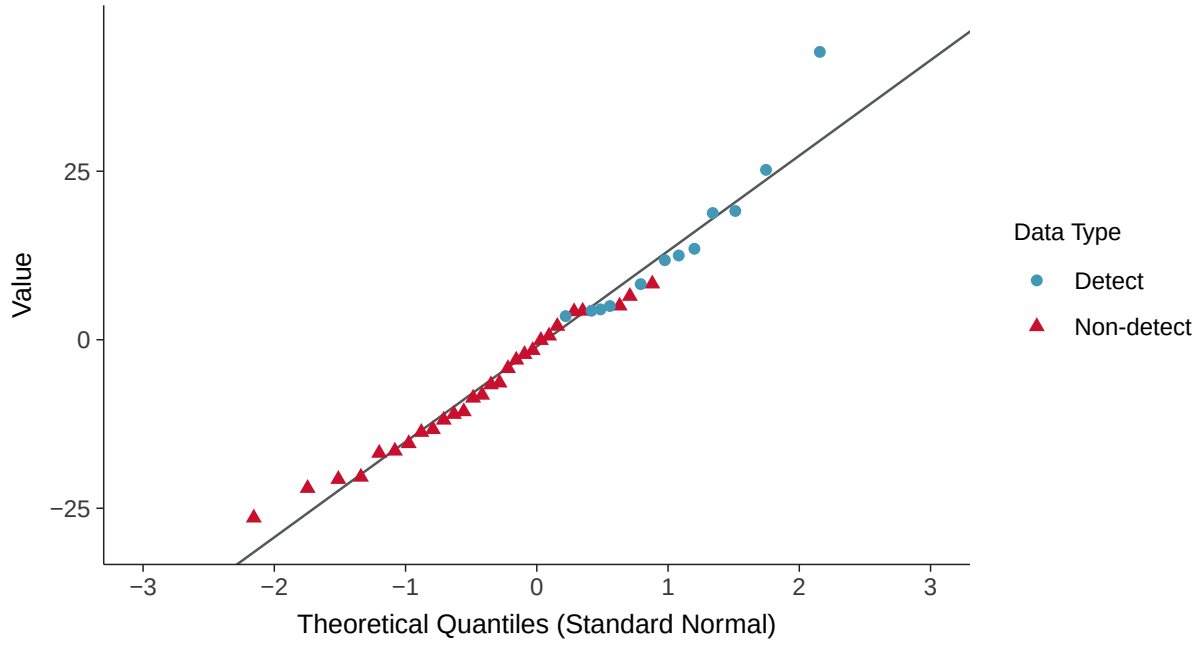
Boxplot by Season

Zinc, MW-3 (ug/L)



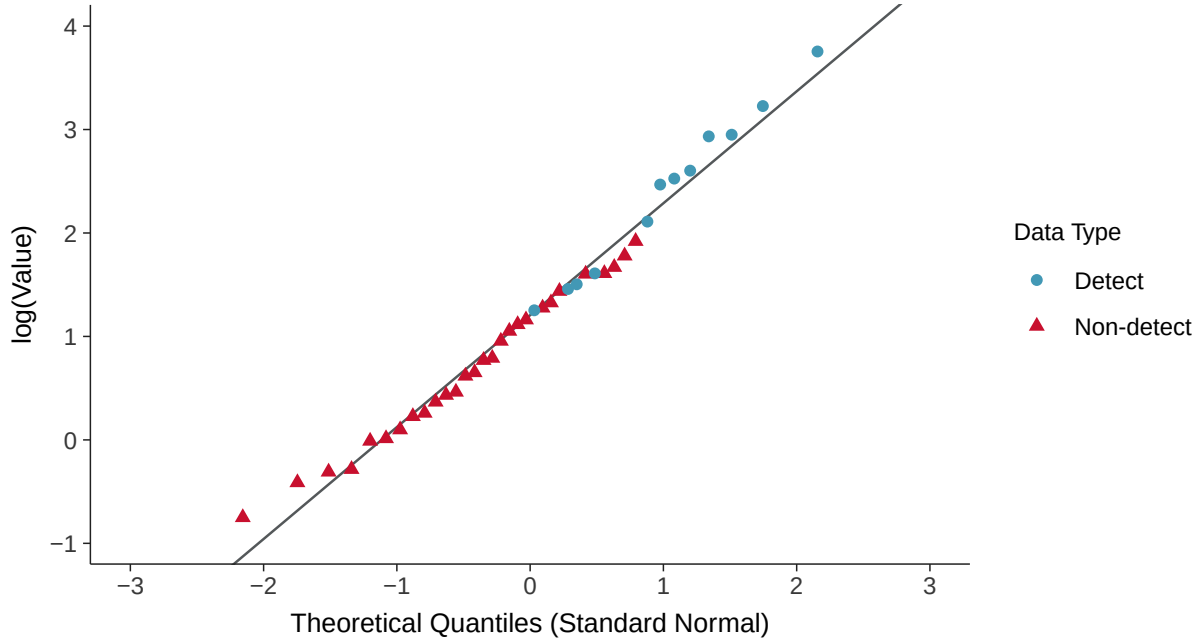
Normal Q-Q plot using ROS Imputed Estimates

Zinc, MW-3 (ug/L)



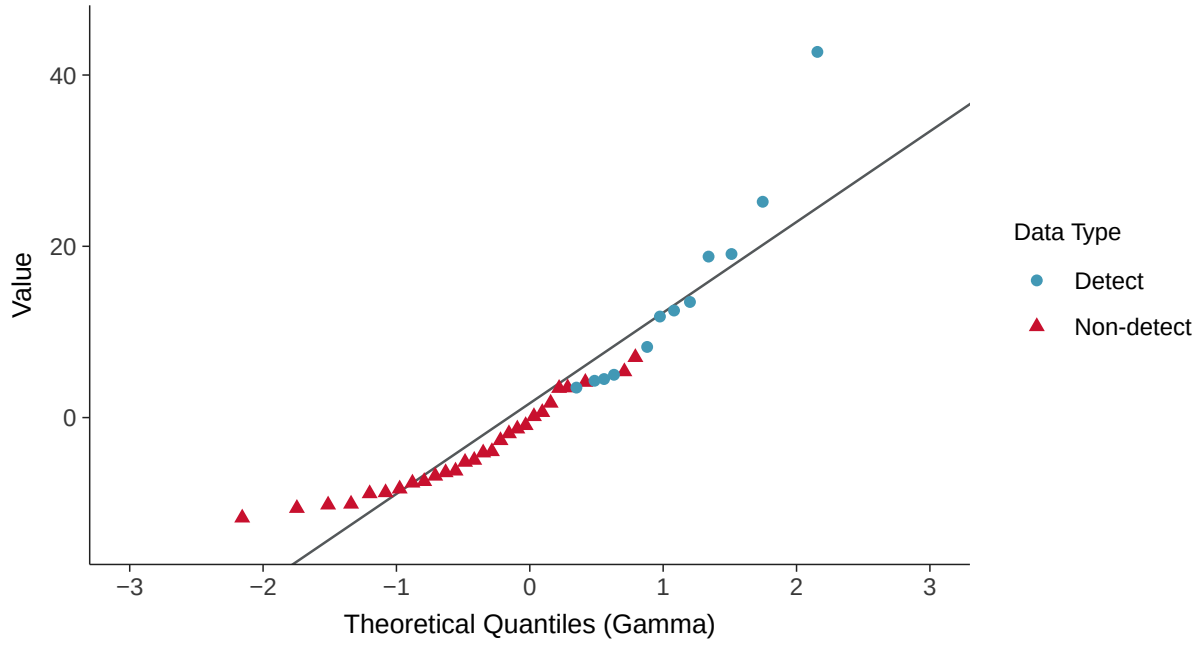
Lognormal Q-Q plot using ROS Imputed Estimates

Zinc, MW-3 (ug/L)



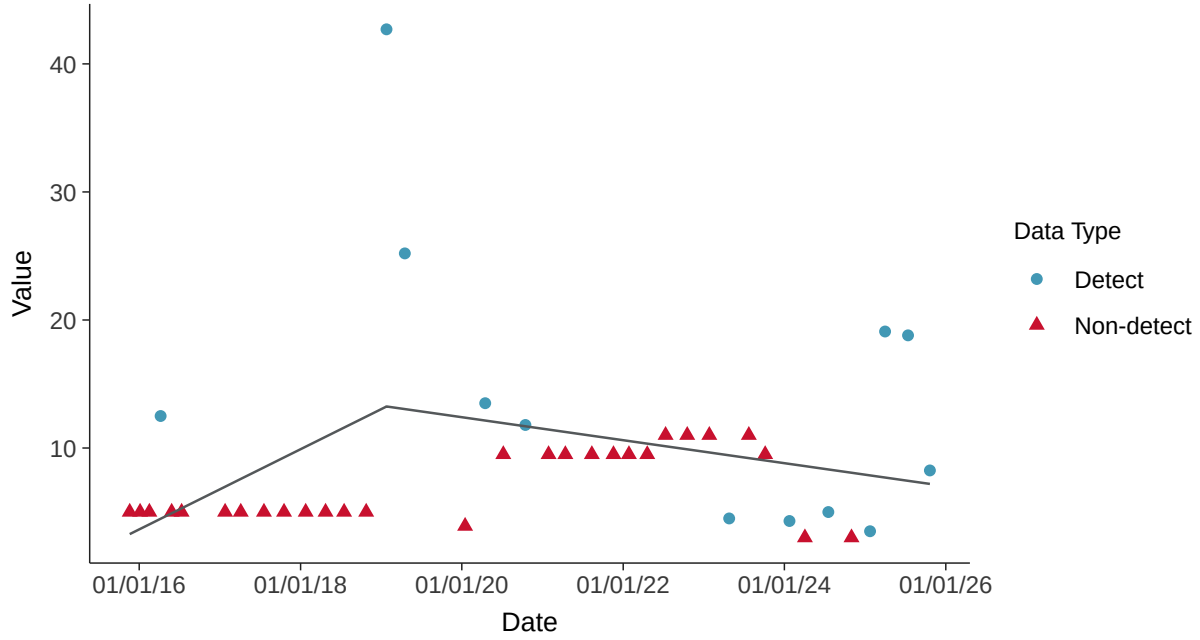
Gamma Q-Q plot using ROS Imputed Estimates

Zinc, MW-3 (ug/L)



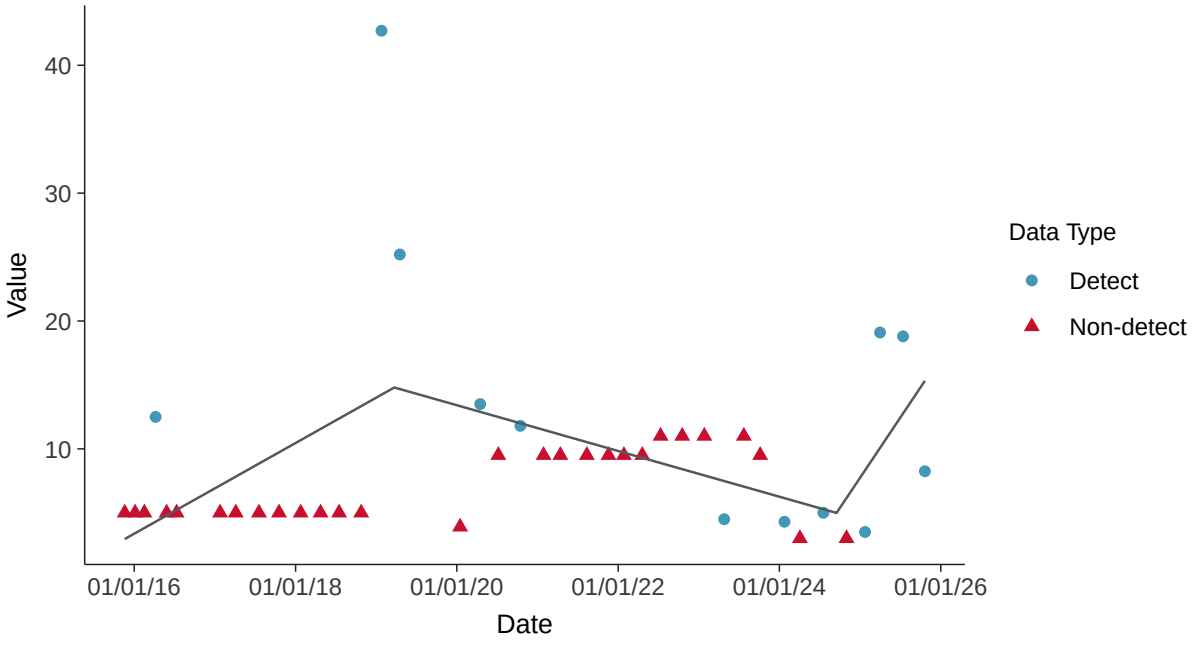
Trend Regression: Piecewise Linear-Linear

Zinc, MW-3 (ug/L)



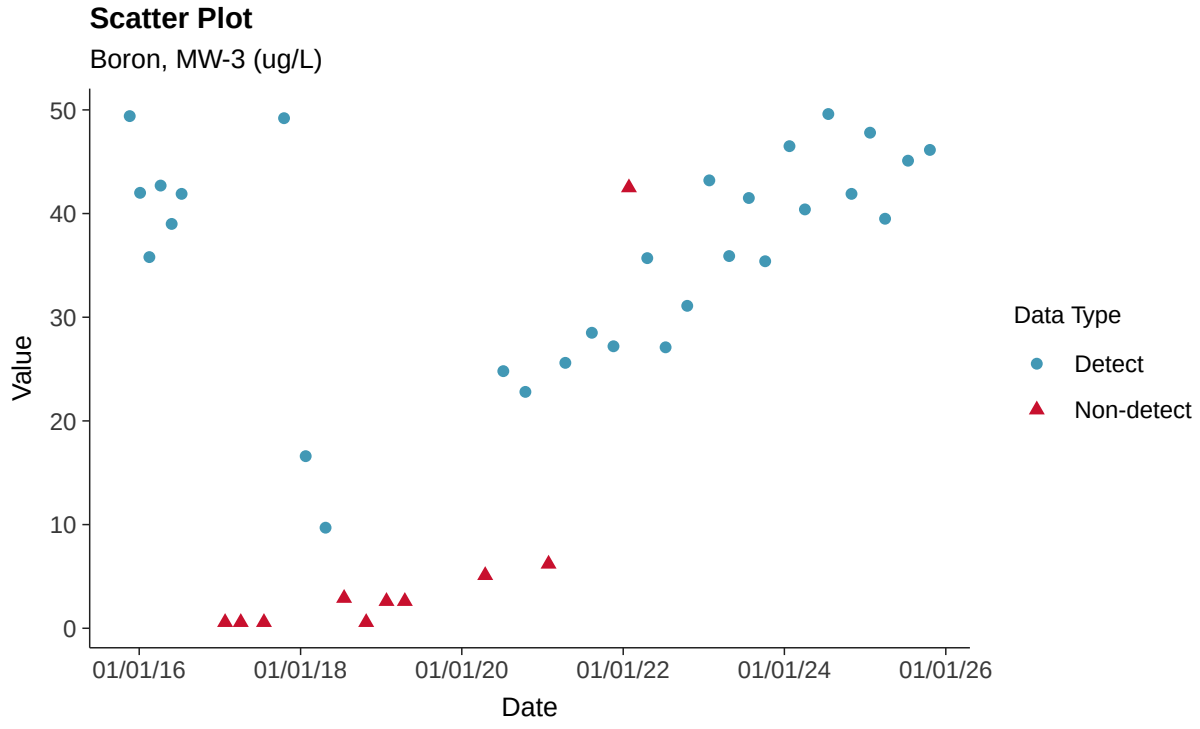
Trend Regression: Piecewise Linear-Linear-Linear

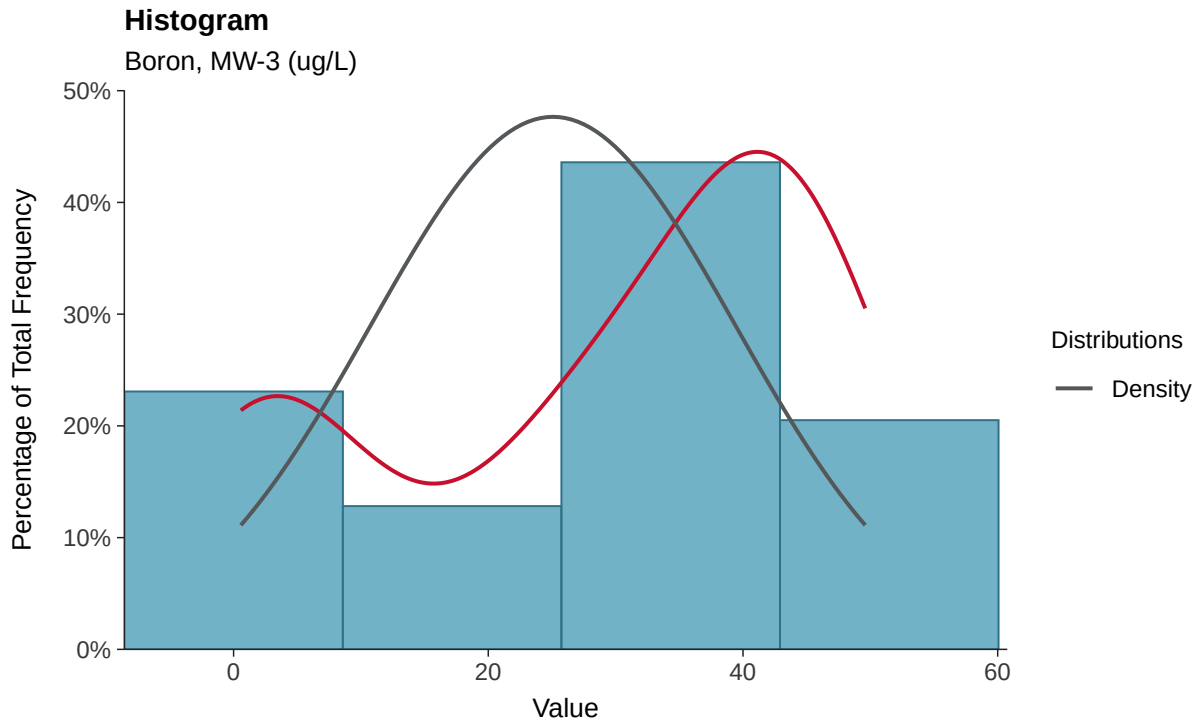
Zinc, MW-3 (ug/L)



App. III: Boron, MW-3

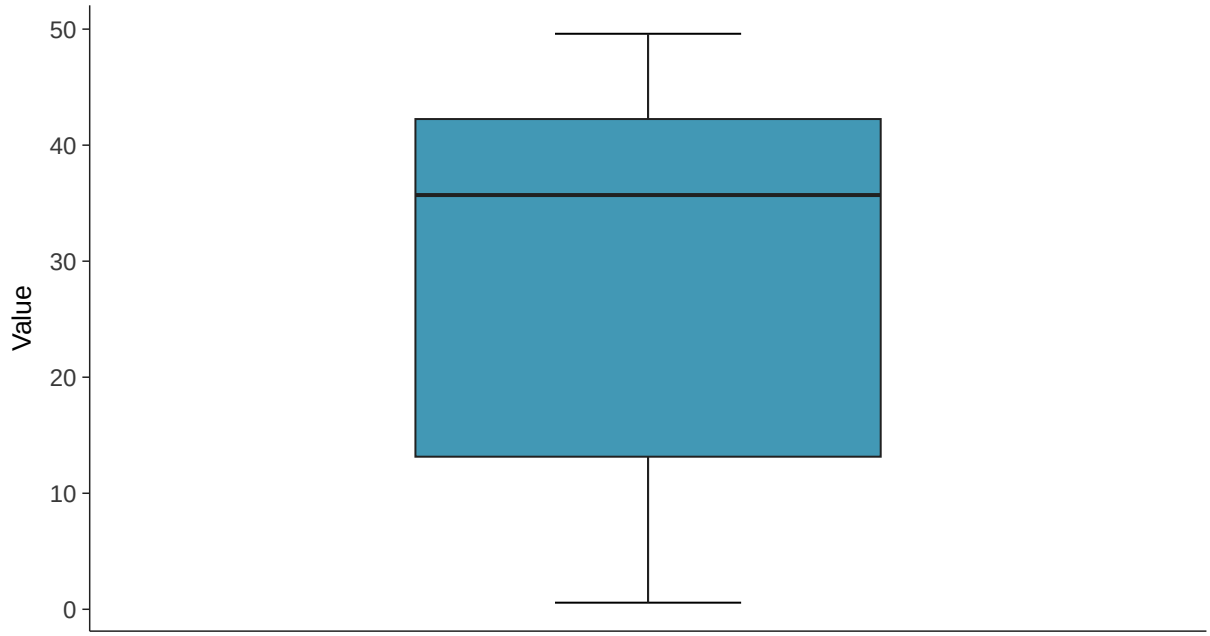
ID: 03_2_105





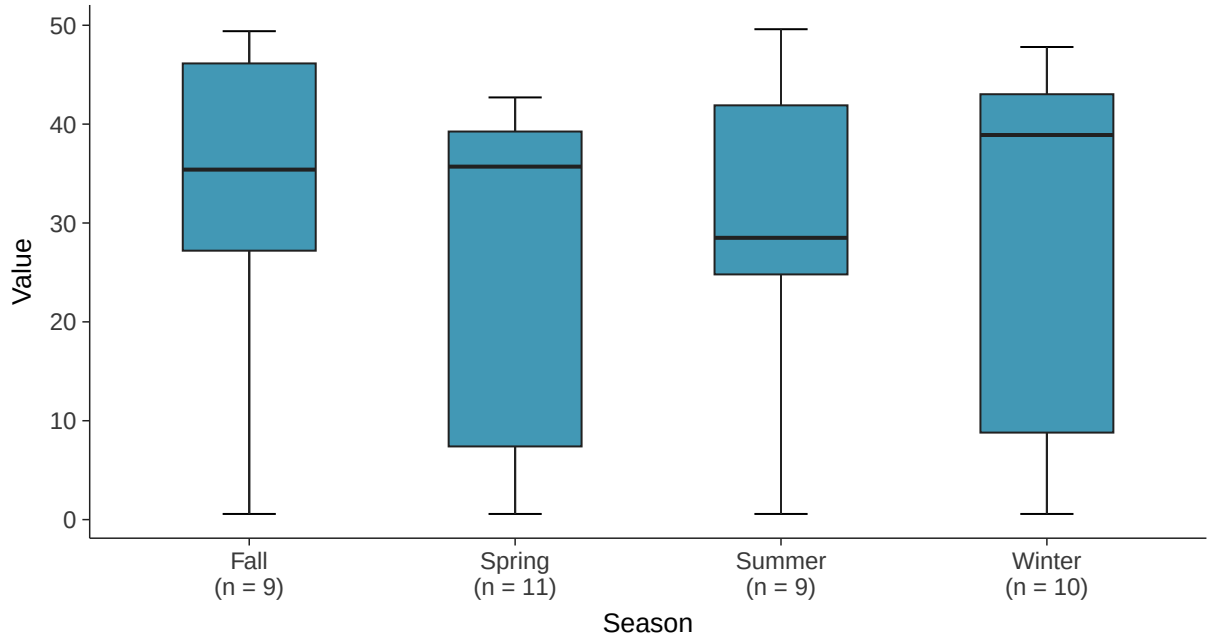
Boxplot

Boron, MW-3 (ug/L)



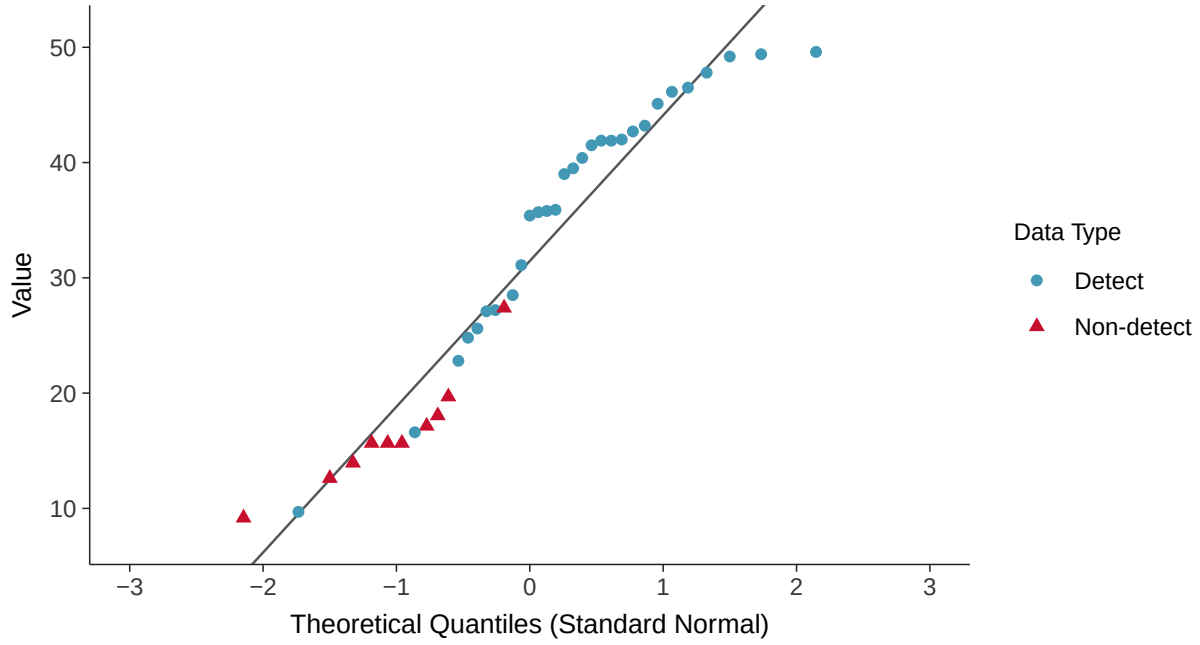
Boxplot by Season

Boron, MW-3 (ug/L)



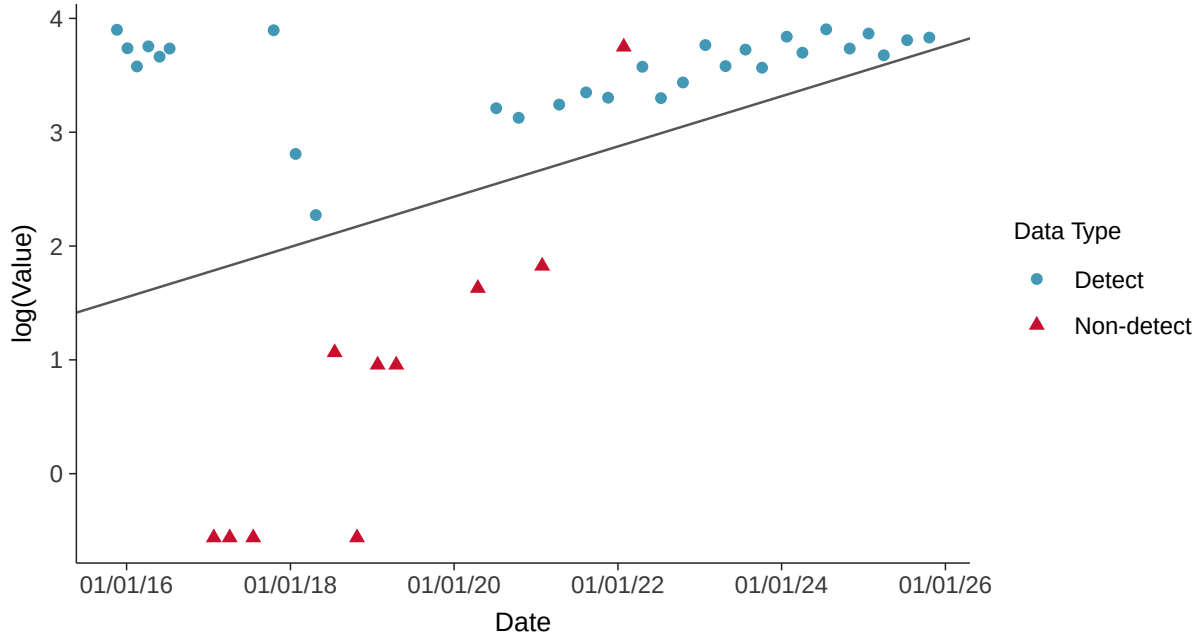
Normal Q-Q plot using ROS Imputed Estimates

Boron, MW-3 (ug/L)



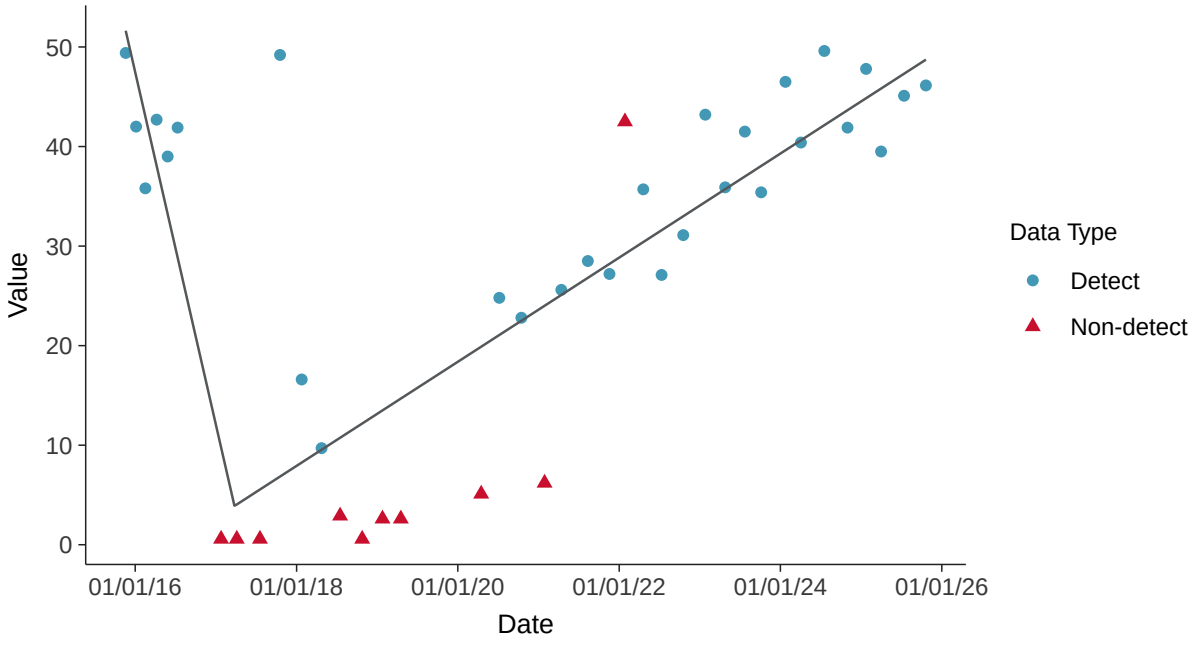
Trend Regression: Lognormal MLE

Boron, MW-3 (ug/L)



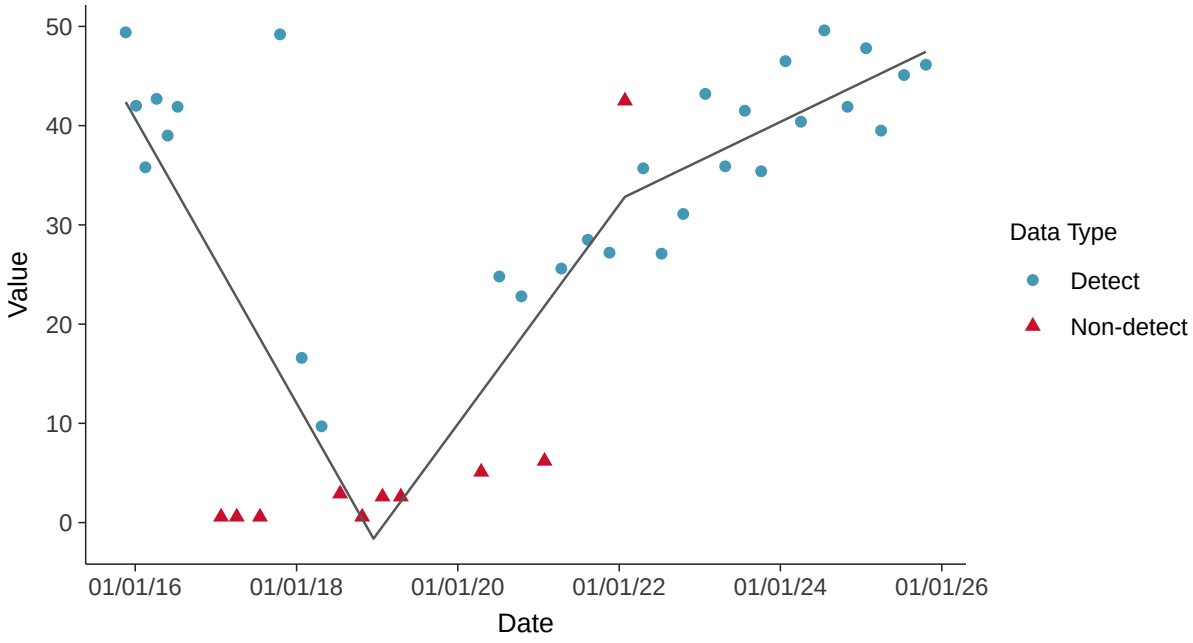
Trend Regression: Piecewise Linear-Linear

Boron, MW-3 (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Boron, MW-3 (ug/L)

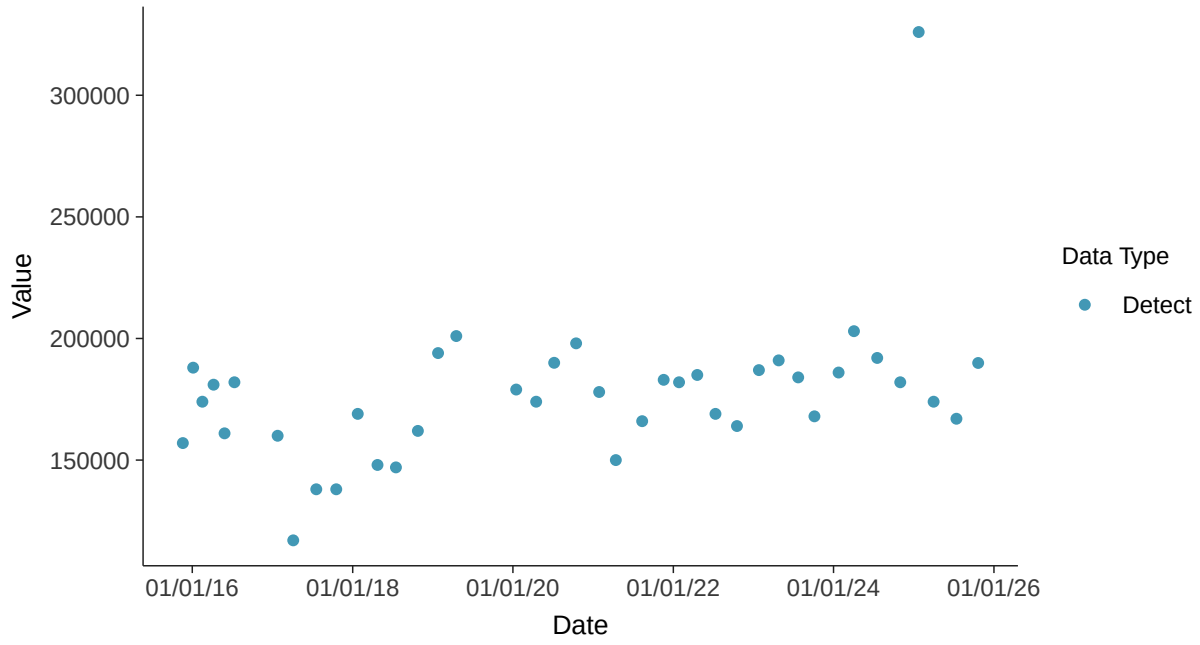


App. III: Calcium, MW-3

ID: 03_2_107

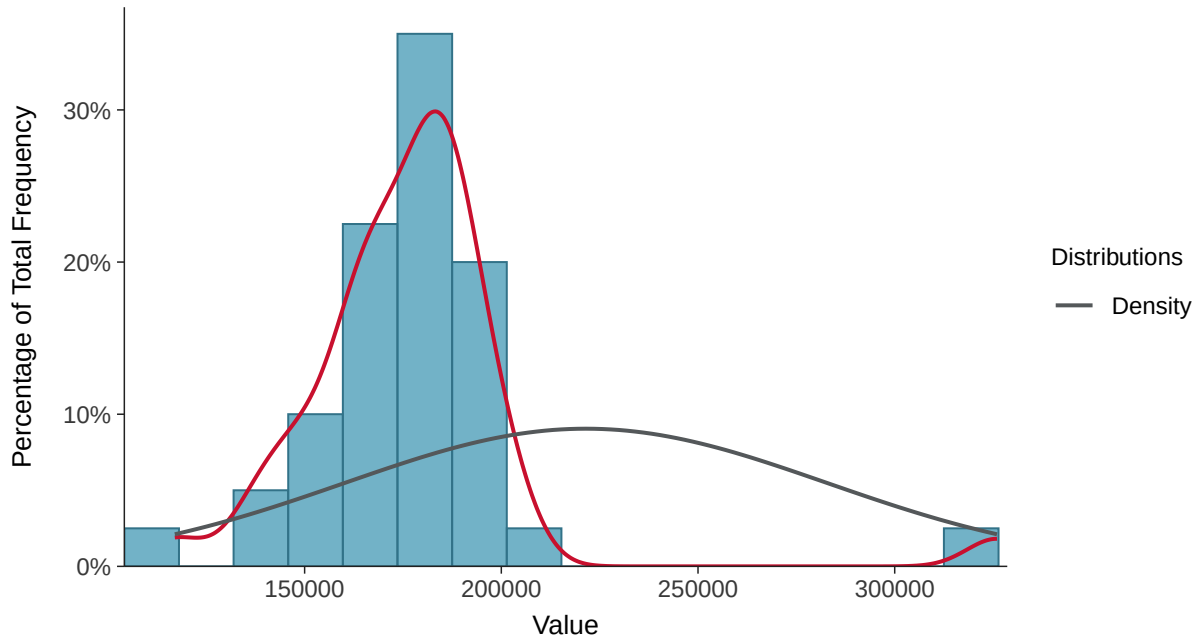
Scatter Plot

Calcium, MW-3 (ug/L)



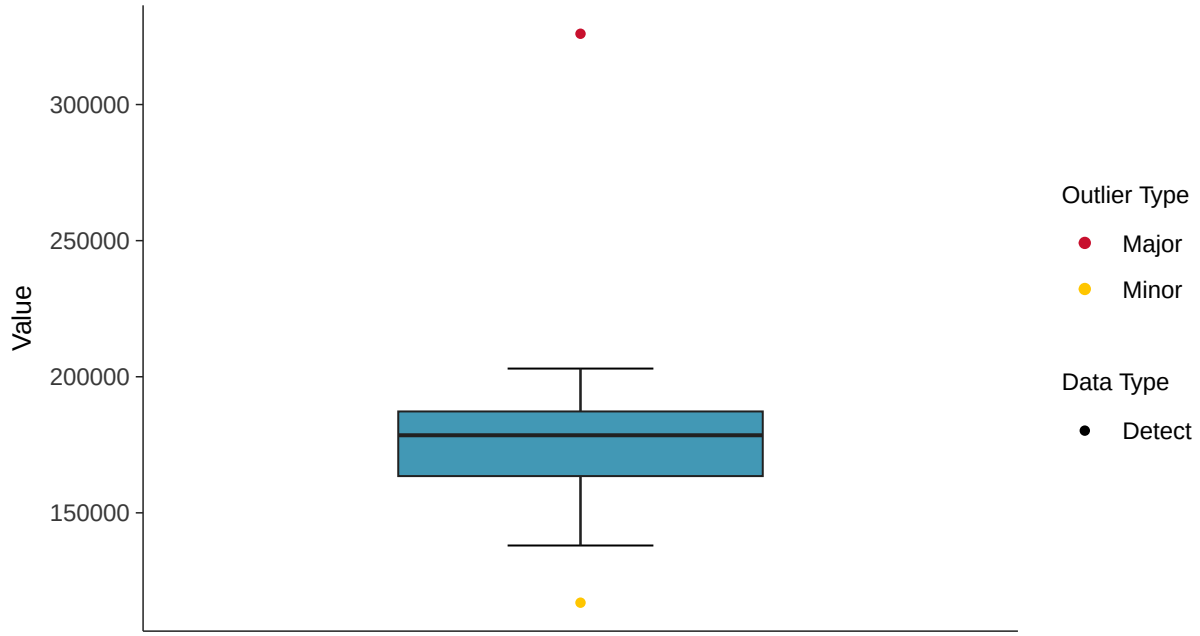
Histogram

Calcium, MW-3 (ug/L)



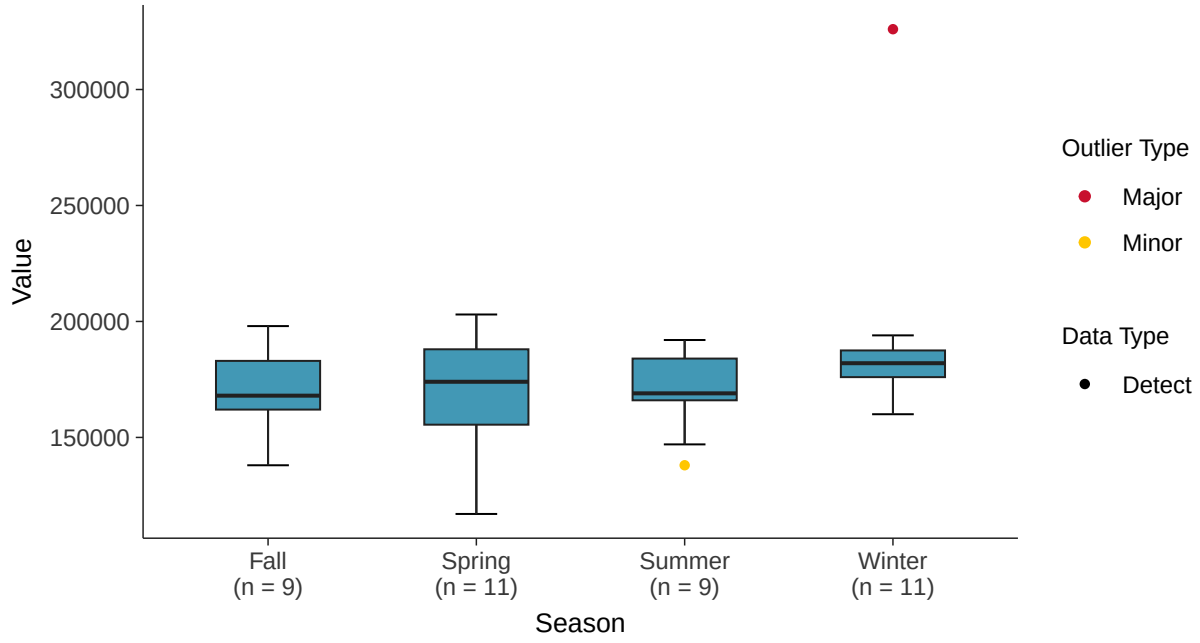
Boxplot

Calcium, MW-3 (ug/L)



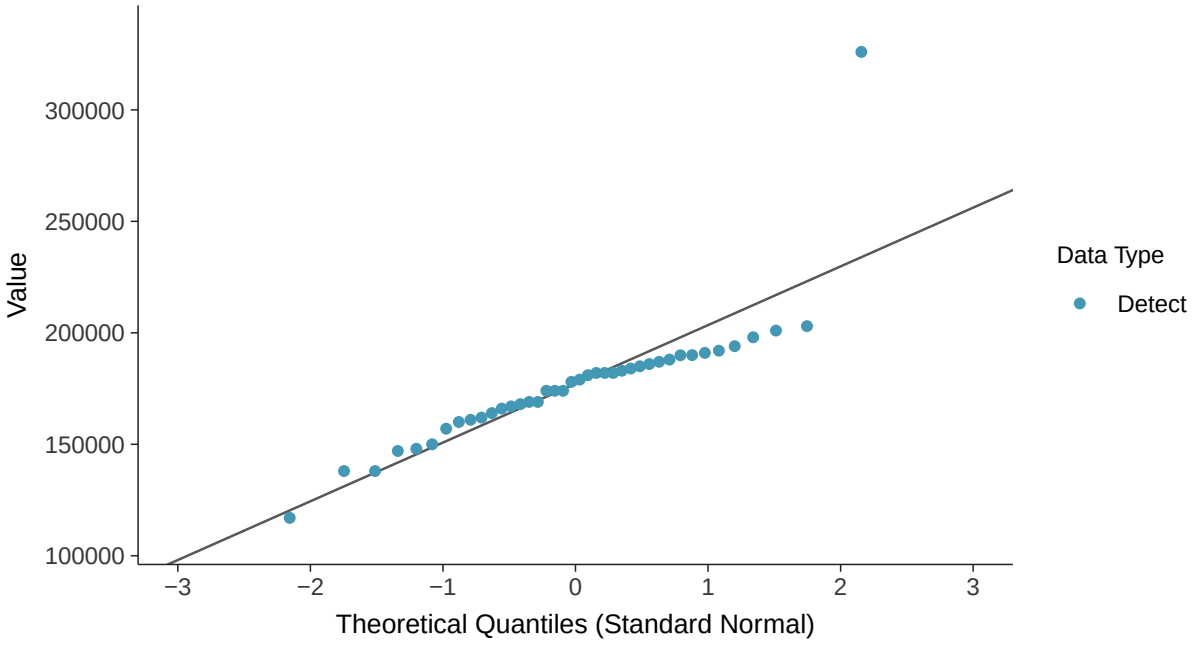
Boxplot by Season

Calcium, MW-3 (ug/L)



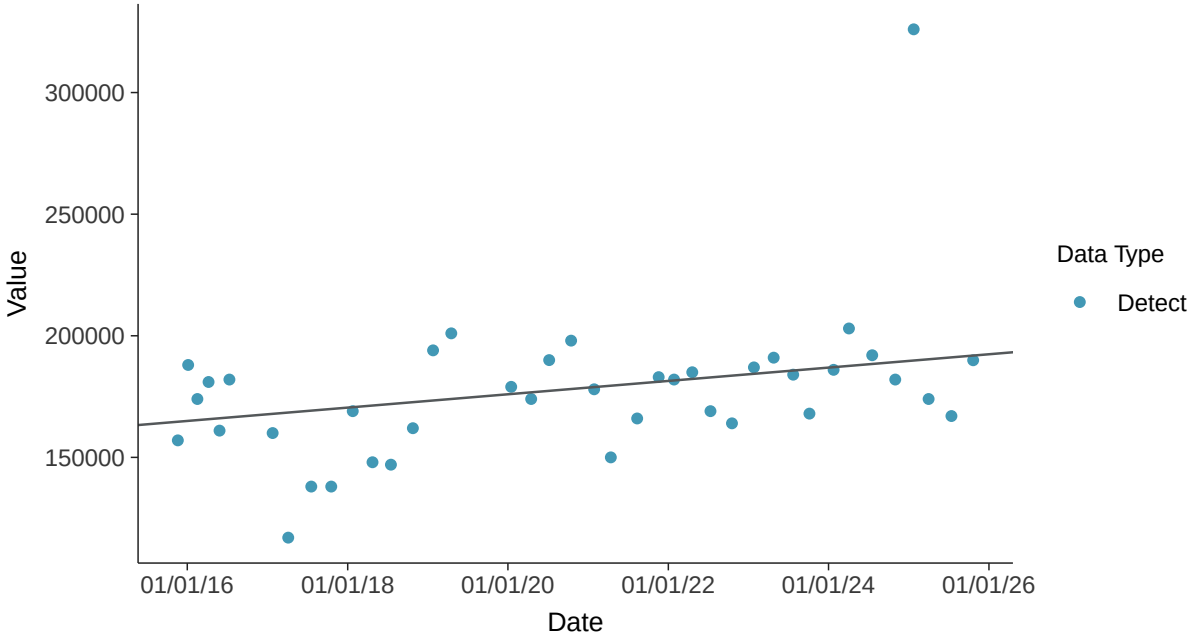
Normal Q-Q plot

Calcium, MW-3 (ug/L)



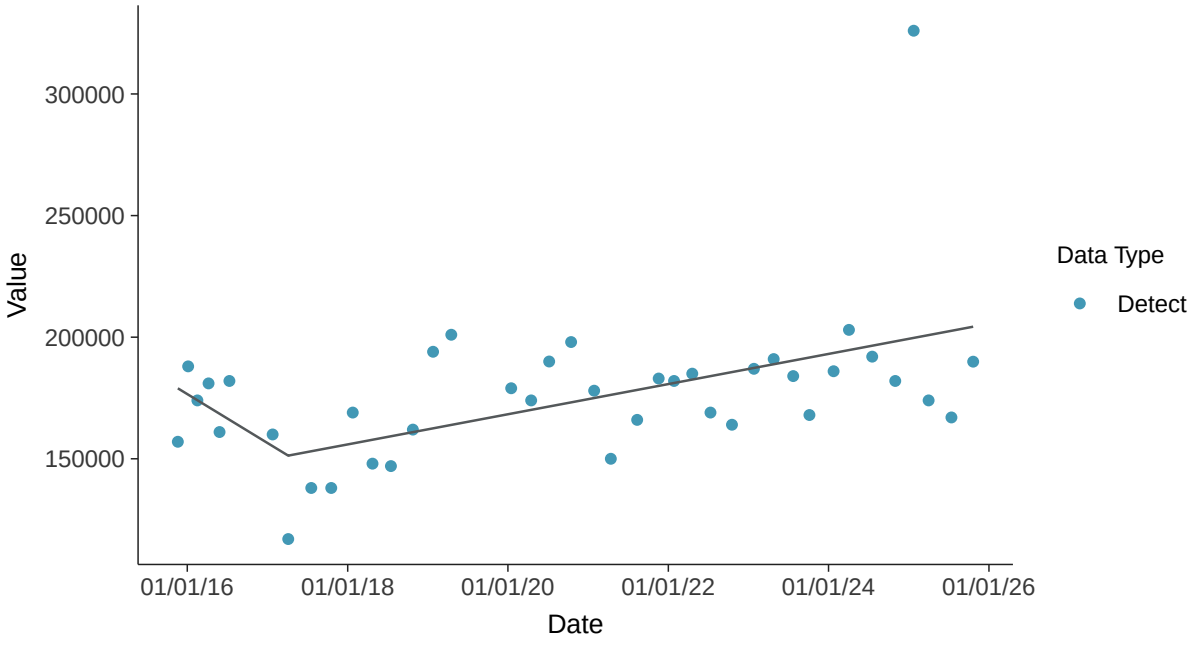
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Calcium, MW-3 (ug/L)



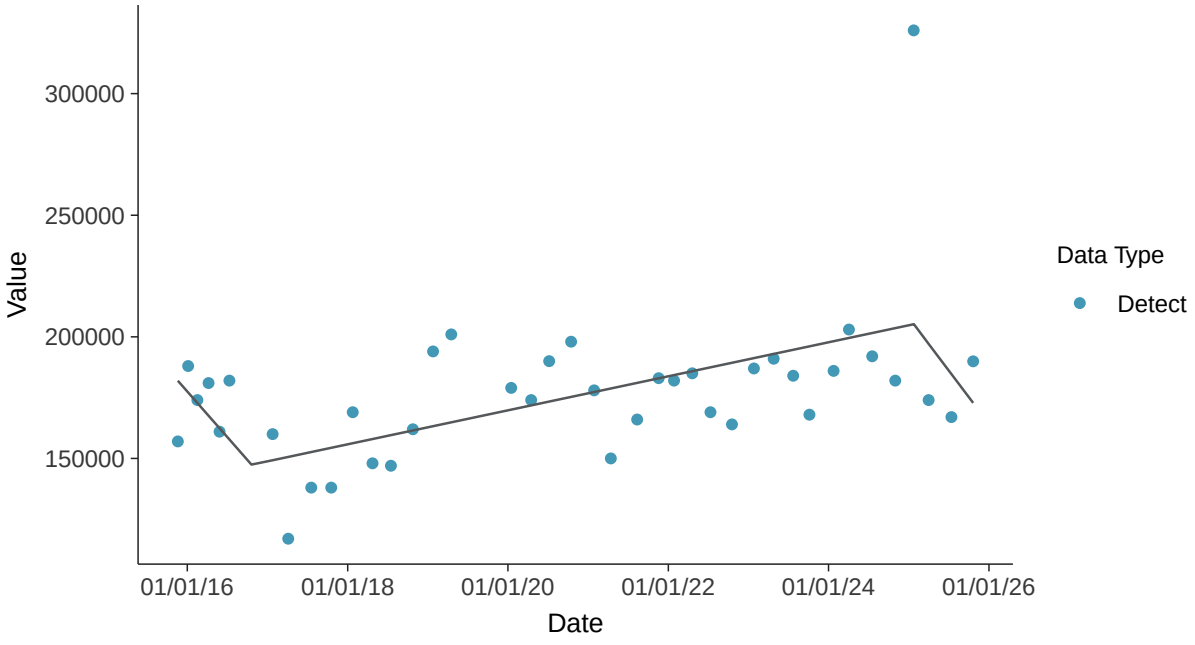
Trend Regression: Piecewise Linear-Linear

Calcium, MW-3 (ug/L)



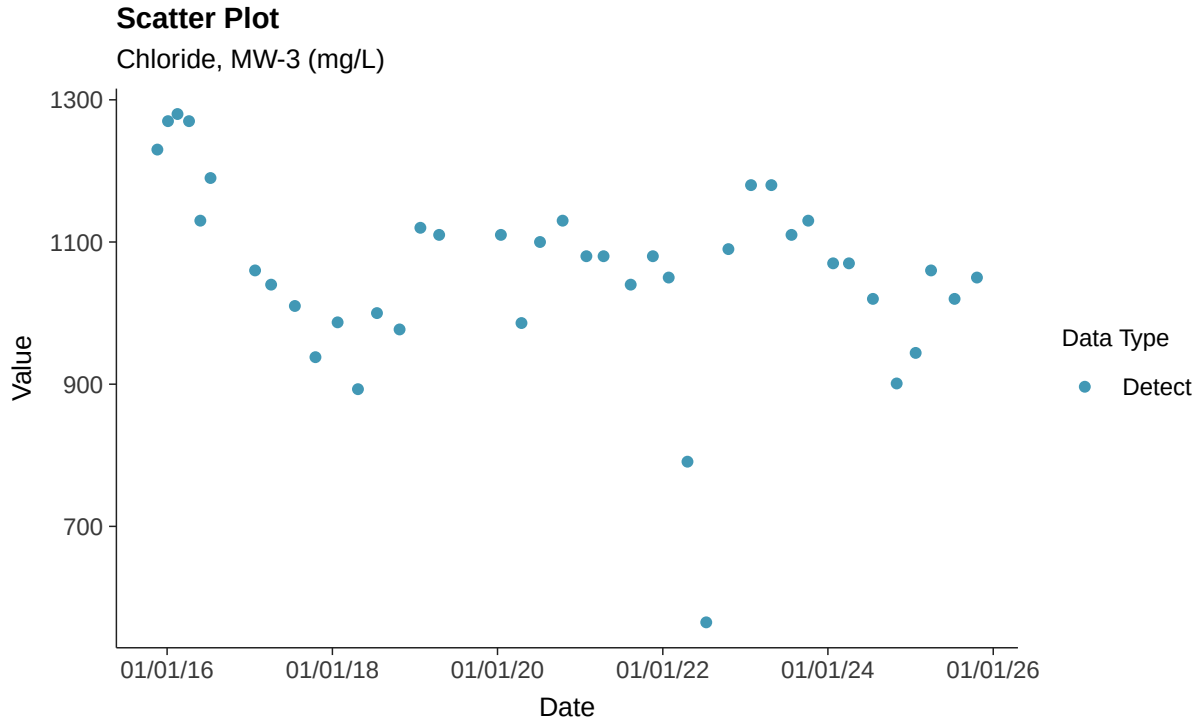
Trend Regression: Piecewise Linear-Linear-Linear

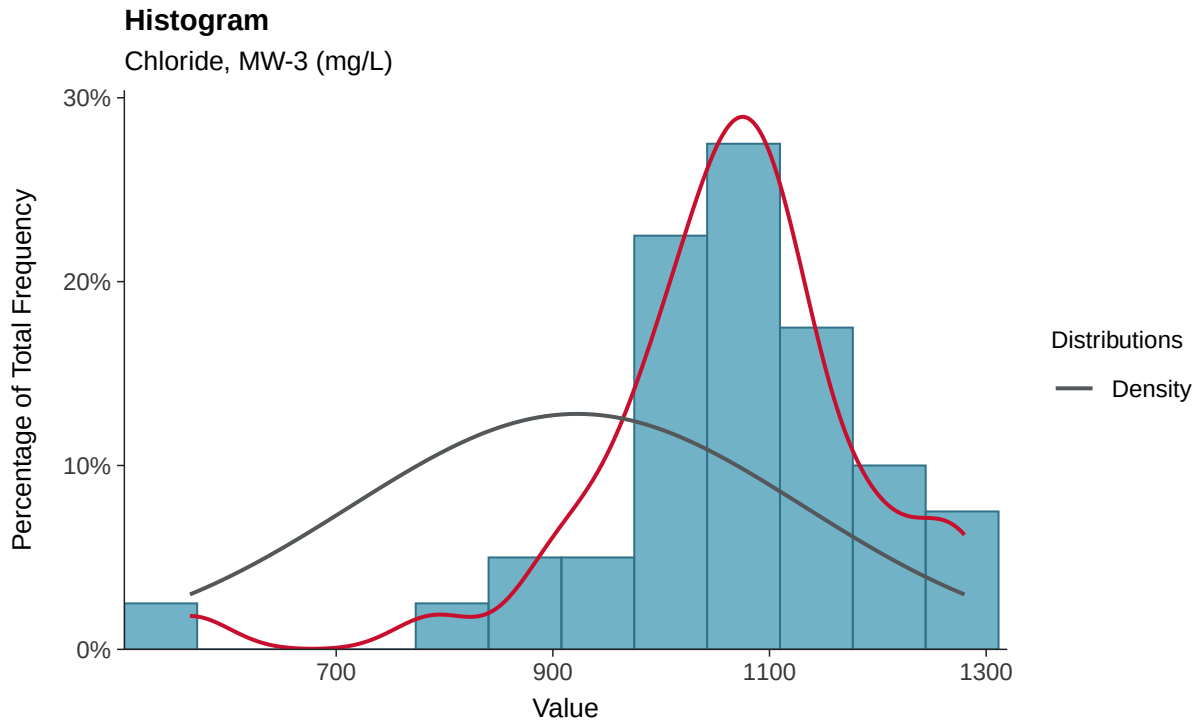
Calcium, MW-3 (ug/L)



App. III: Chloride, MW-3

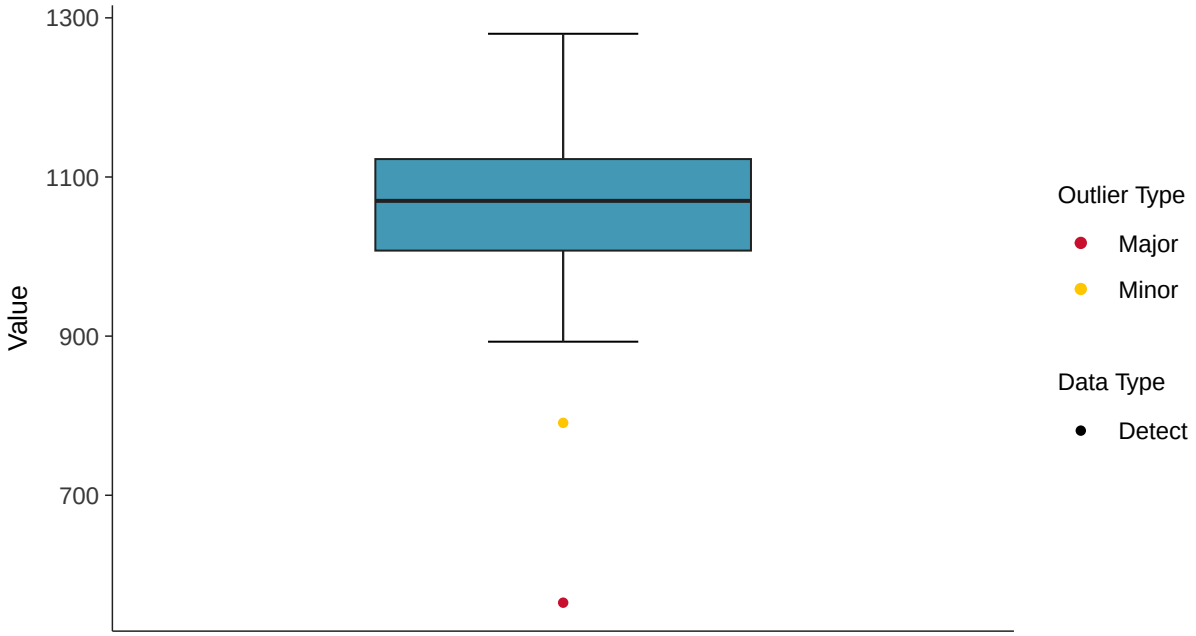
ID: 03_2_108





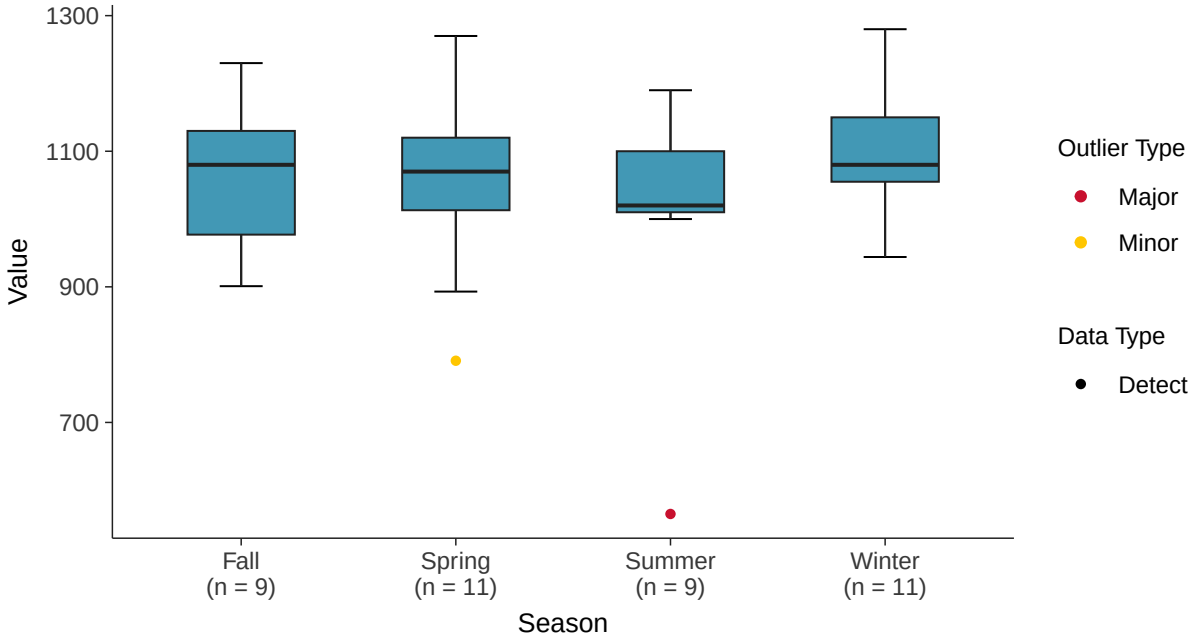
Boxplot

Chloride, MW-3 (mg/L)



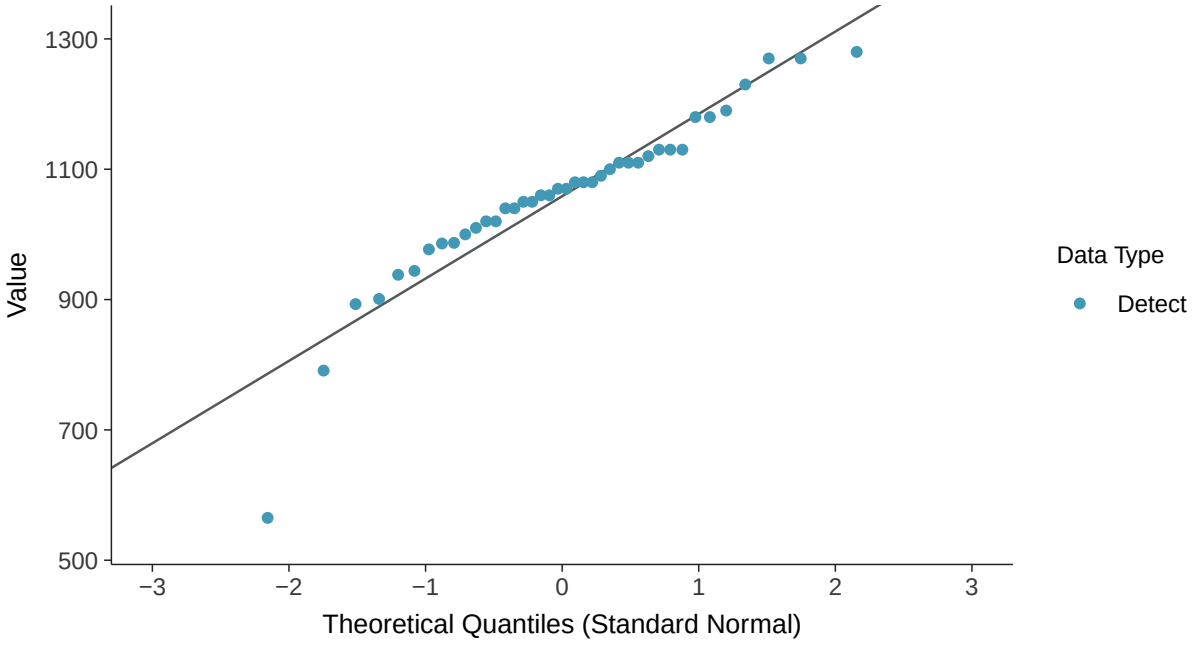
Boxplot by Season

Chloride, MW-3 (mg/L)



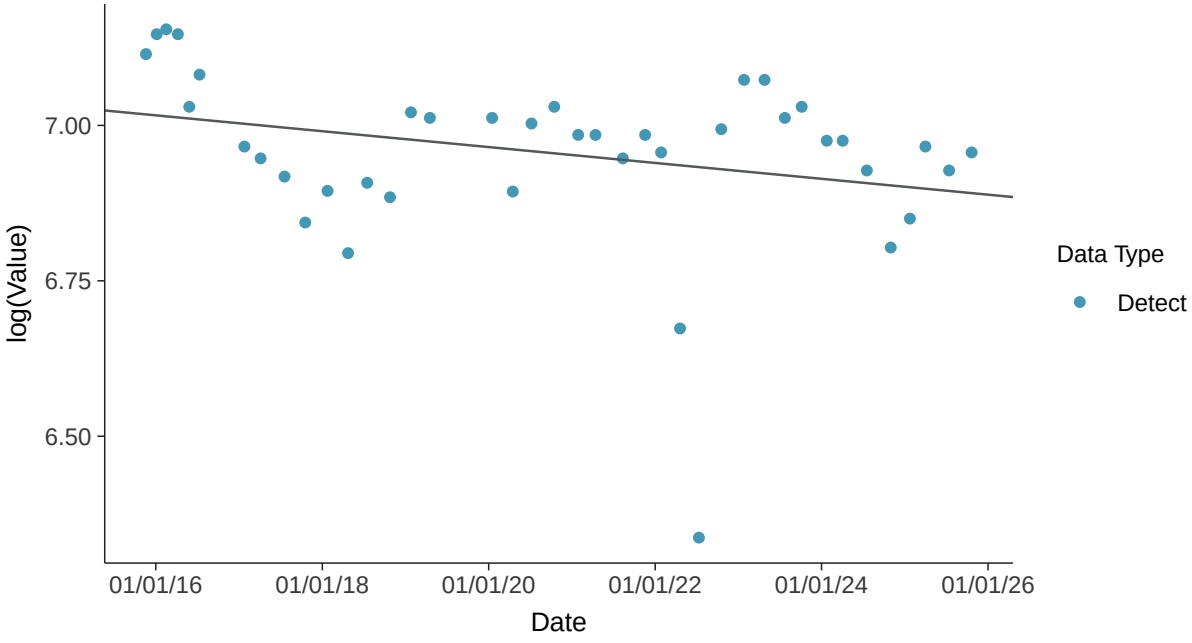
Normal Q-Q plot

Chloride, MW-3 (mg/L)



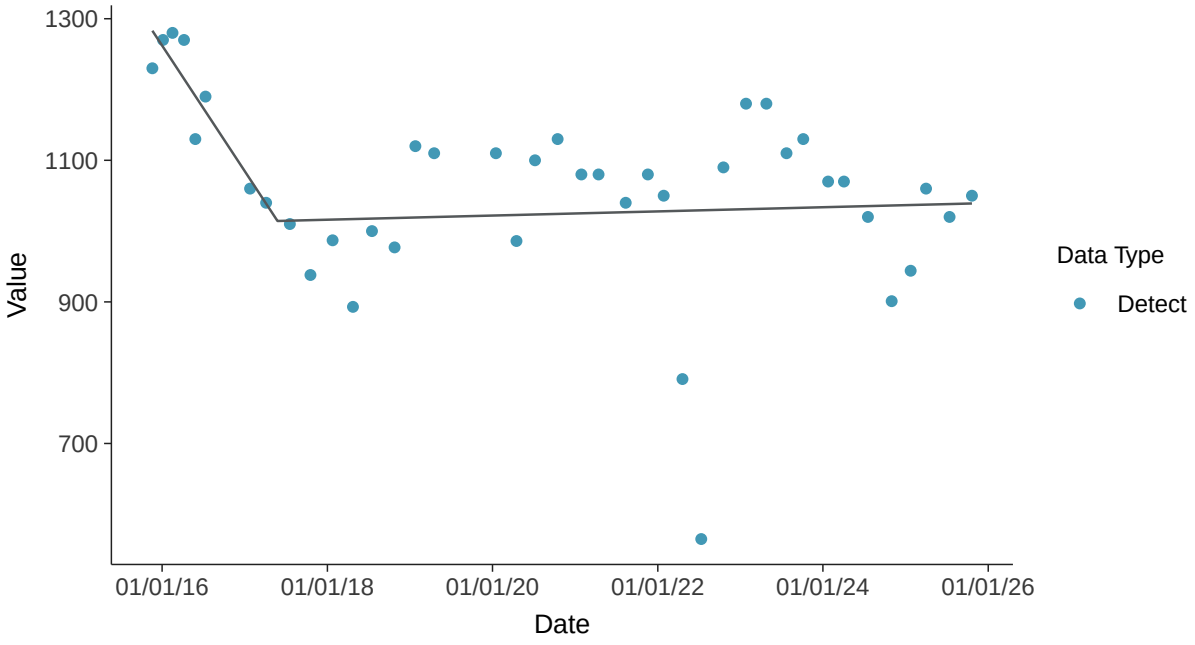
Trend Regression: Lognormal MLE

Chloride, MW-3 (mg/L)



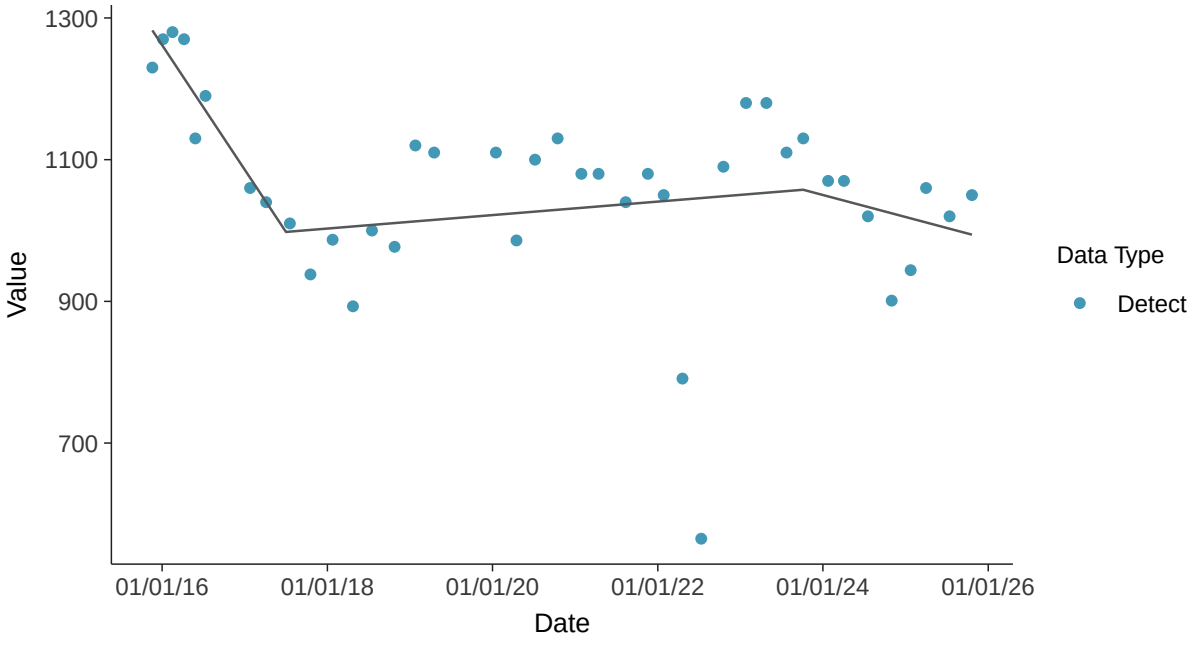
Trend Regression: Piecewise Linear-Linear

Chloride, MW-3 (mg/L)



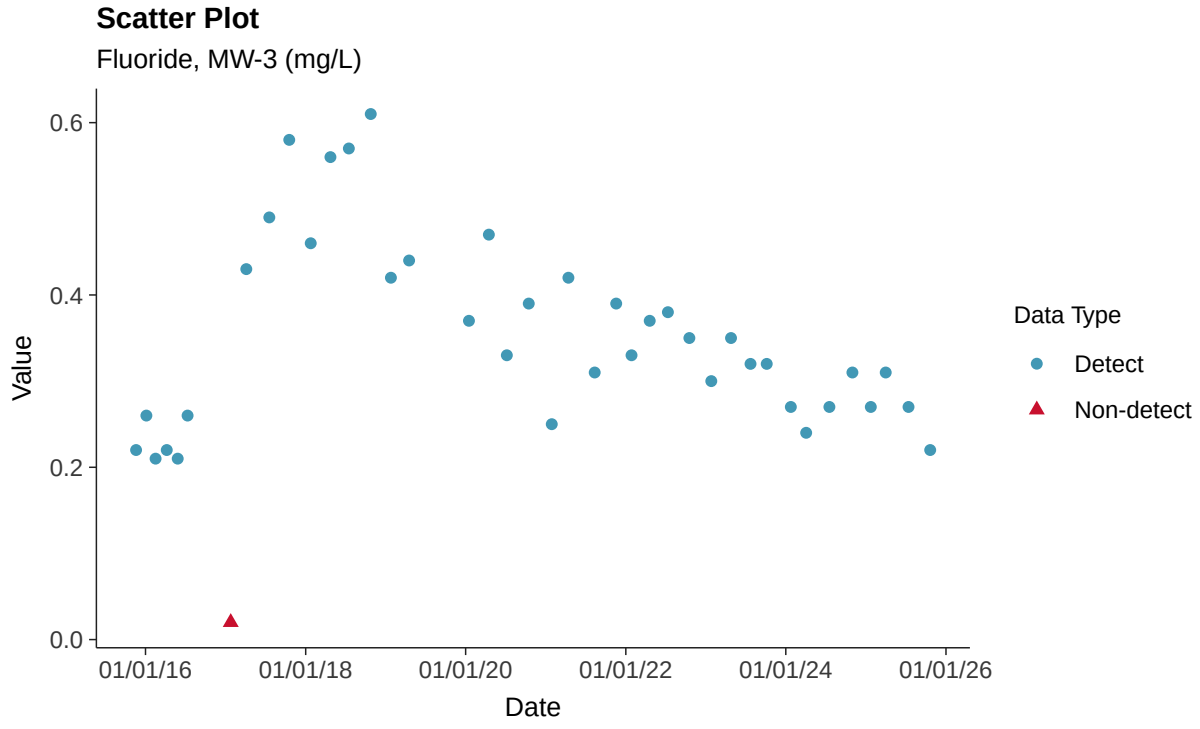
Trend Regression: Piecewise Linear-Linear-Linear

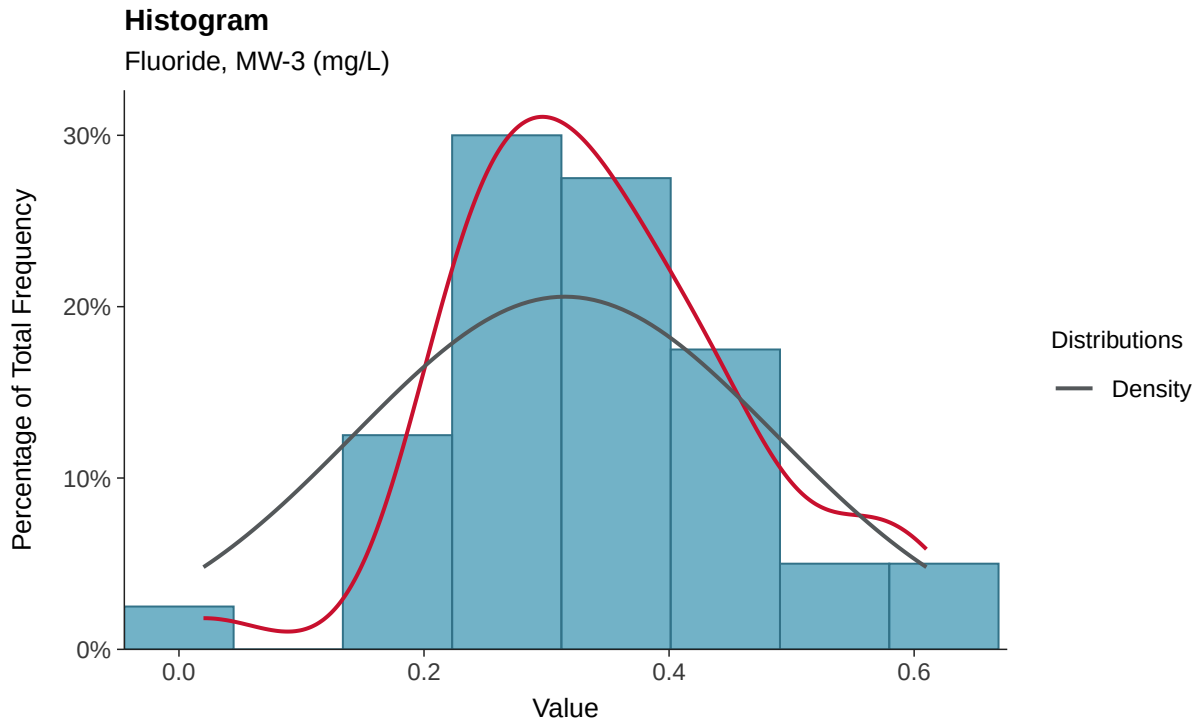
Chloride, MW-3 (mg/L)



App. III: Fluoride, MW-3

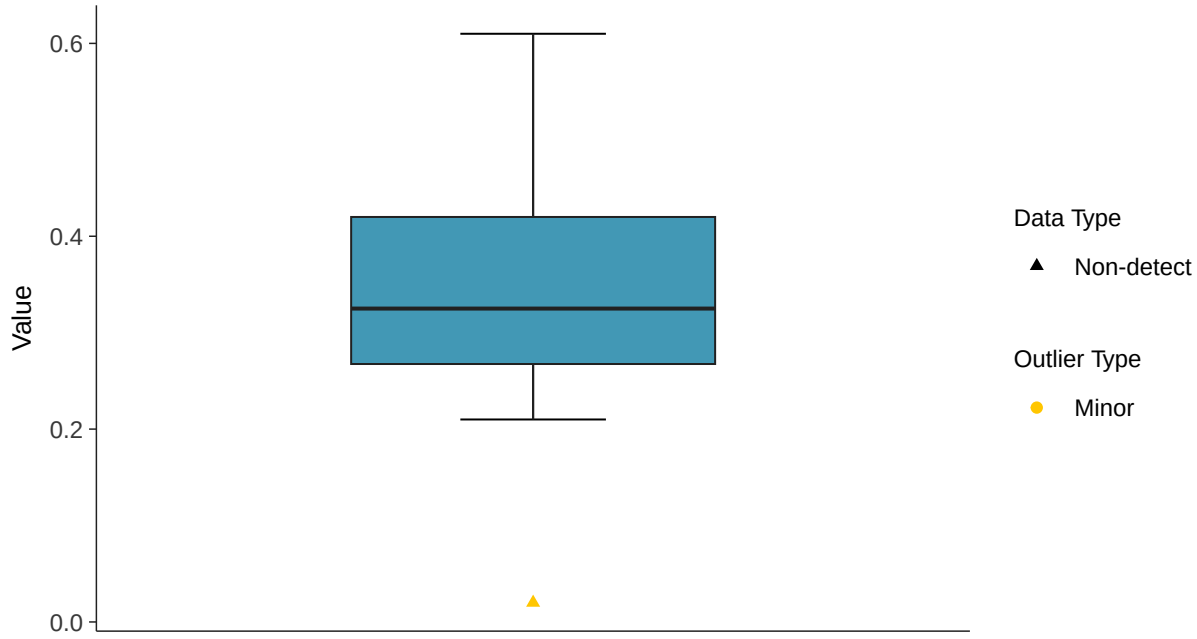
ID: 03_2_112





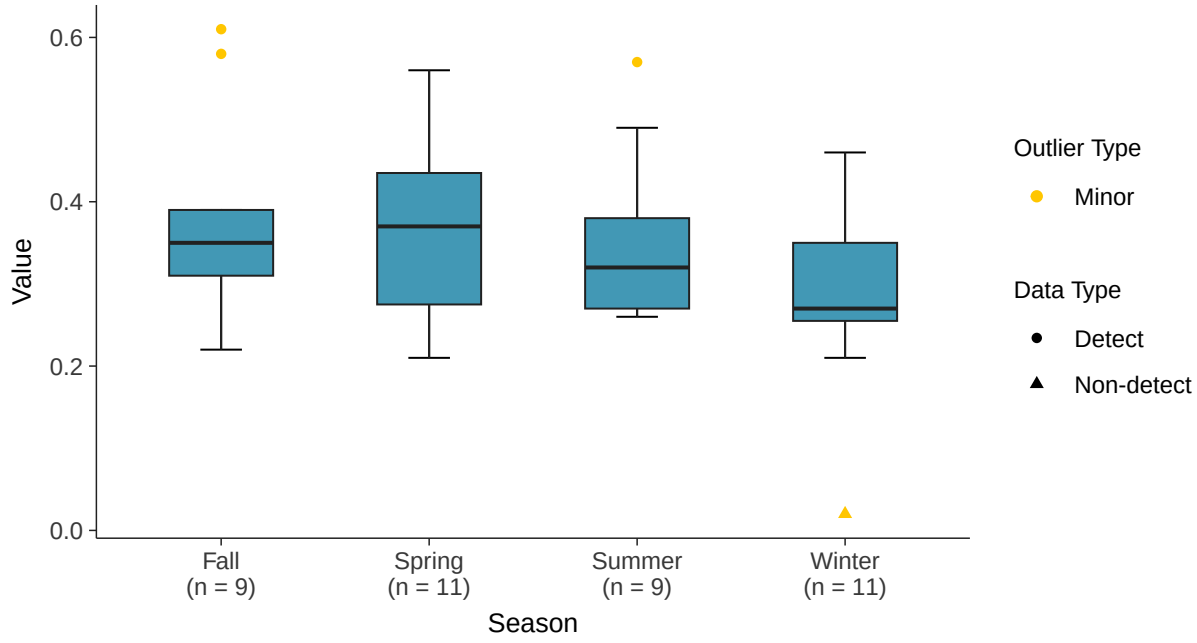
Boxplot

Fluoride, MW-3 (mg/L)



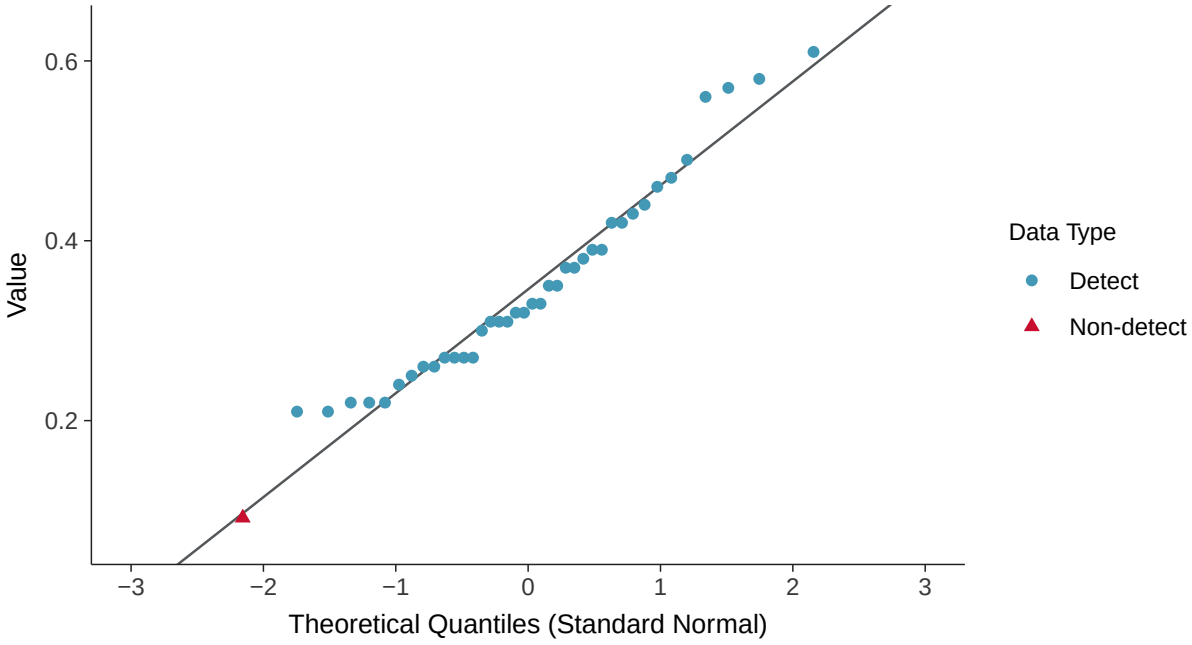
Boxplot by Season

Fluoride, MW-3 (mg/L)



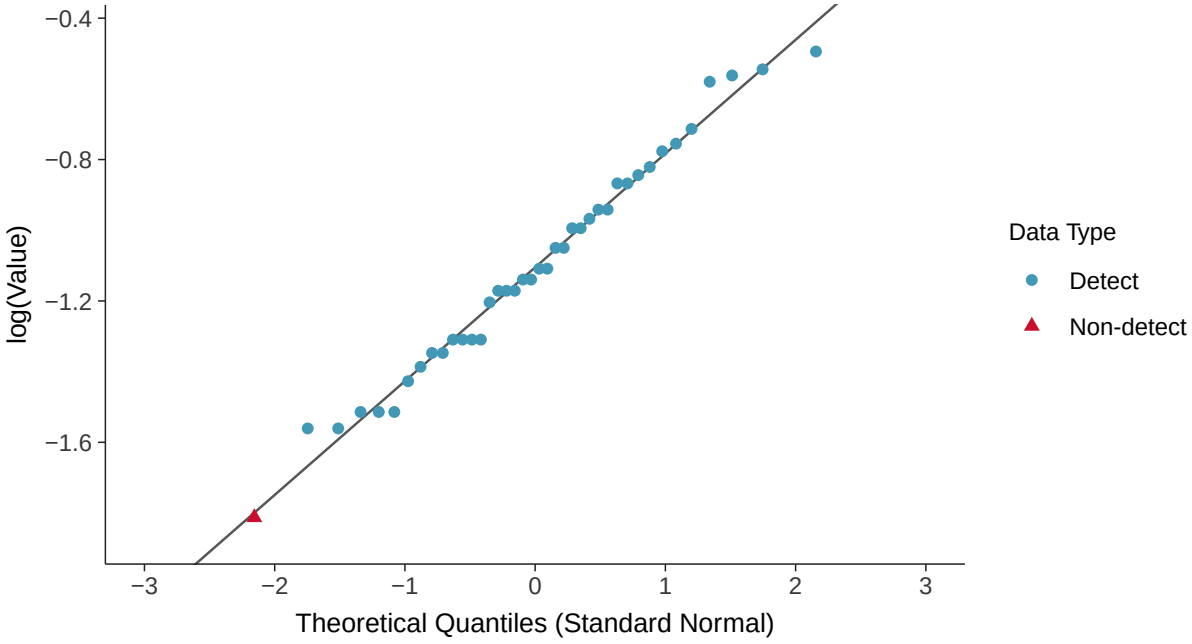
Normal Q-Q plot using ROS Imputed Estimates

Fluoride, MW-3 (mg/L)



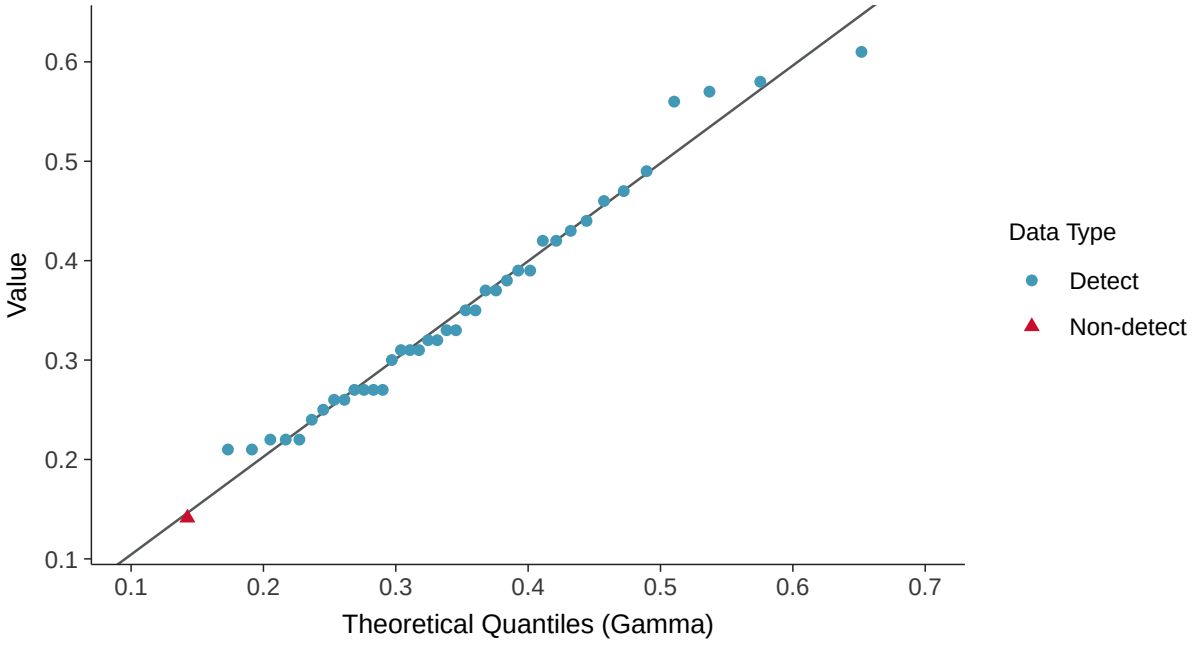
Lognormal Q-Q plot using ROS Imputed Estimates

Fluoride, MW-3 (mg/L)



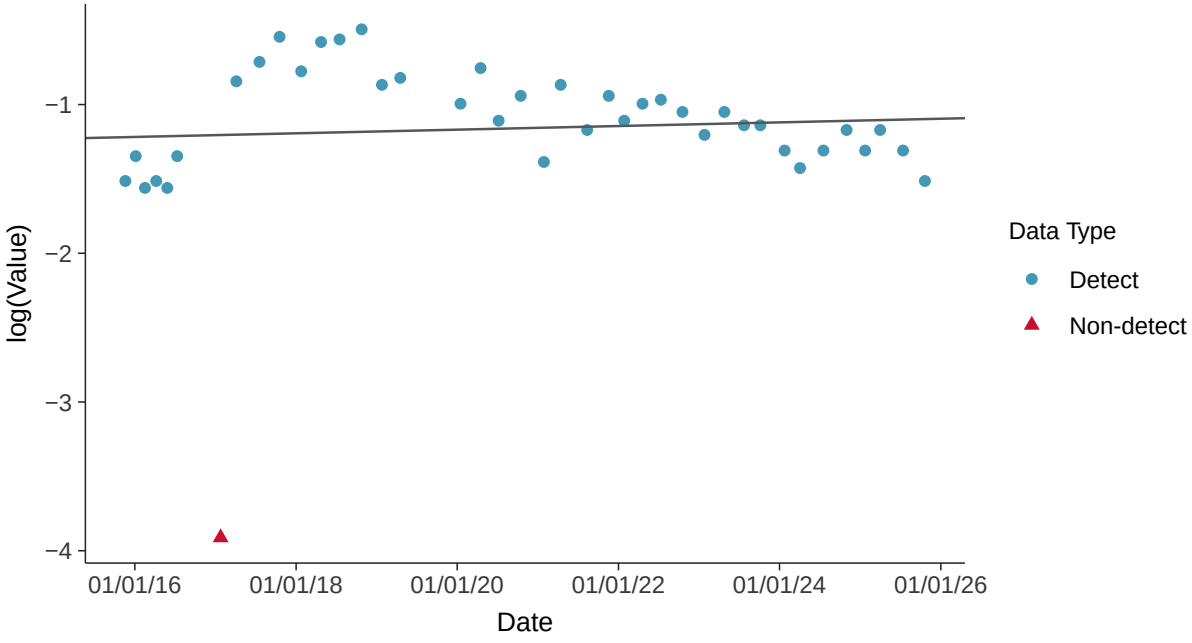
Gamma Q-Q plot using ROS Imputed Estimates

Fluoride, MW-3 (mg/L)



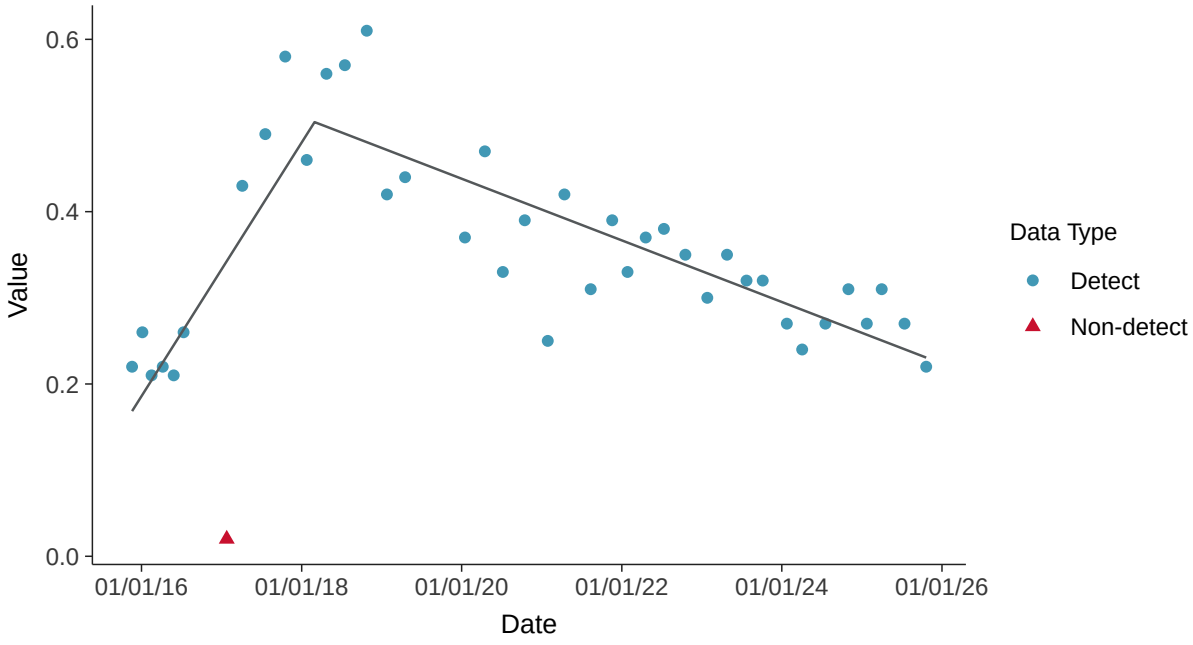
Trend Regression: Lognormal MLE

Fluoride, MW-3 (mg/L)



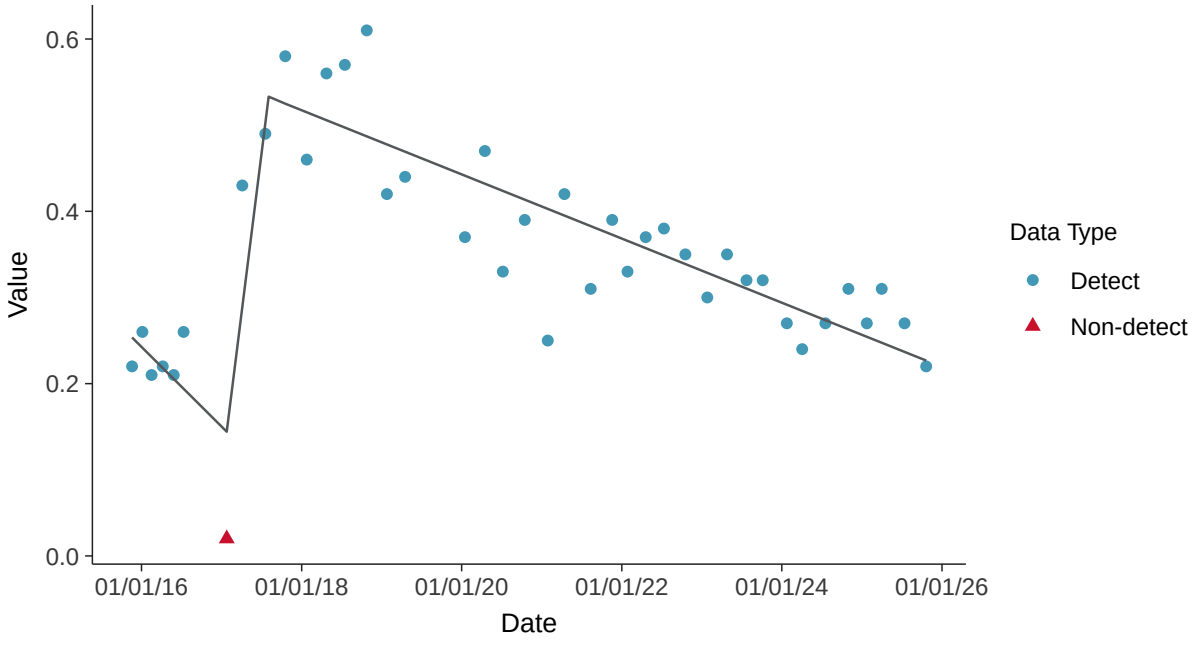
Trend Regression: Piecewise Linear-Linear

Fluoride, MW-3 (mg/L)



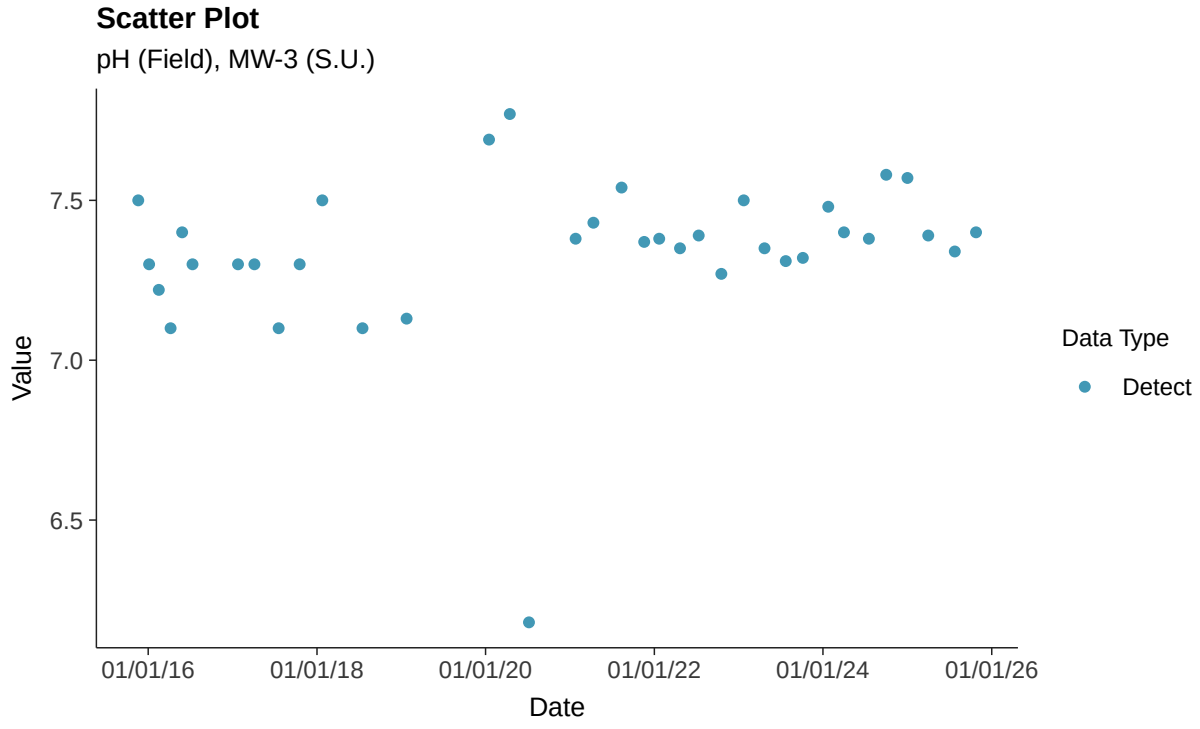
Trend Regression: Piecewise Linear-Linear-Linear

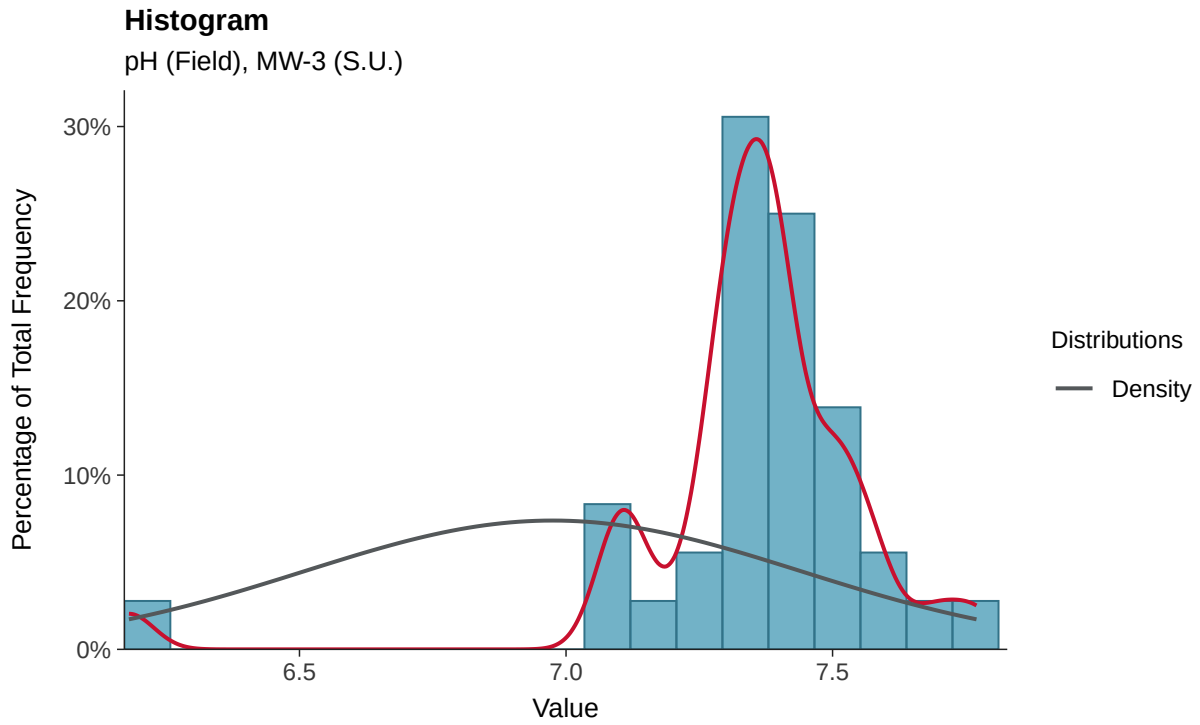
Fluoride, MW-3 (mg/L)



App. III: pH (Field), MW-3

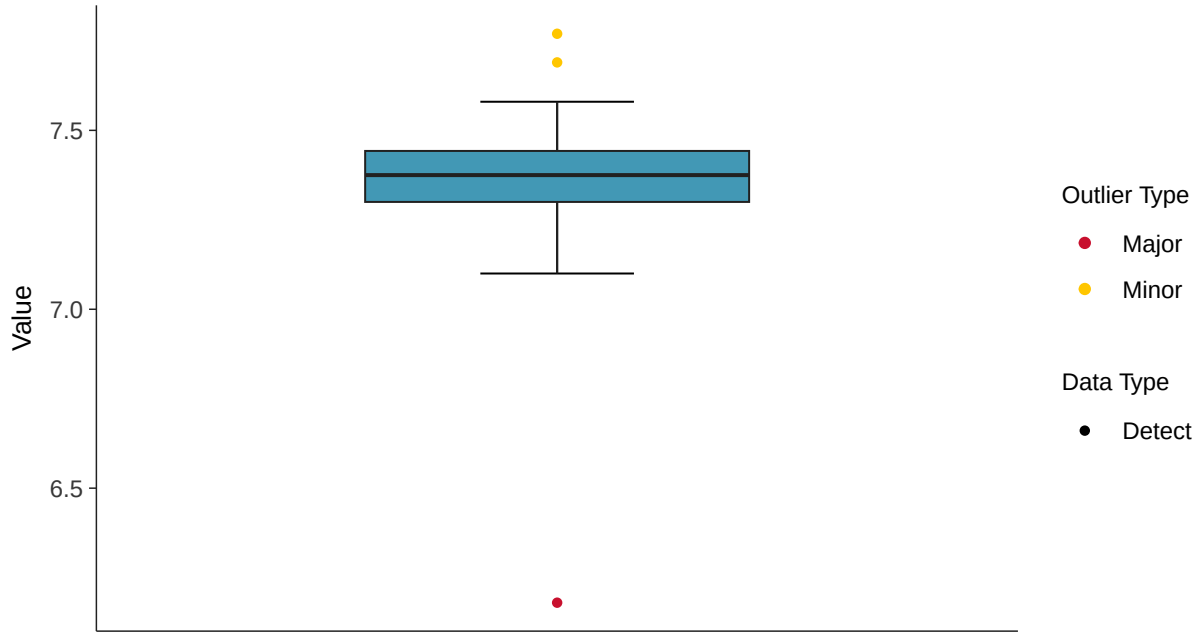
ID: 03_2_118





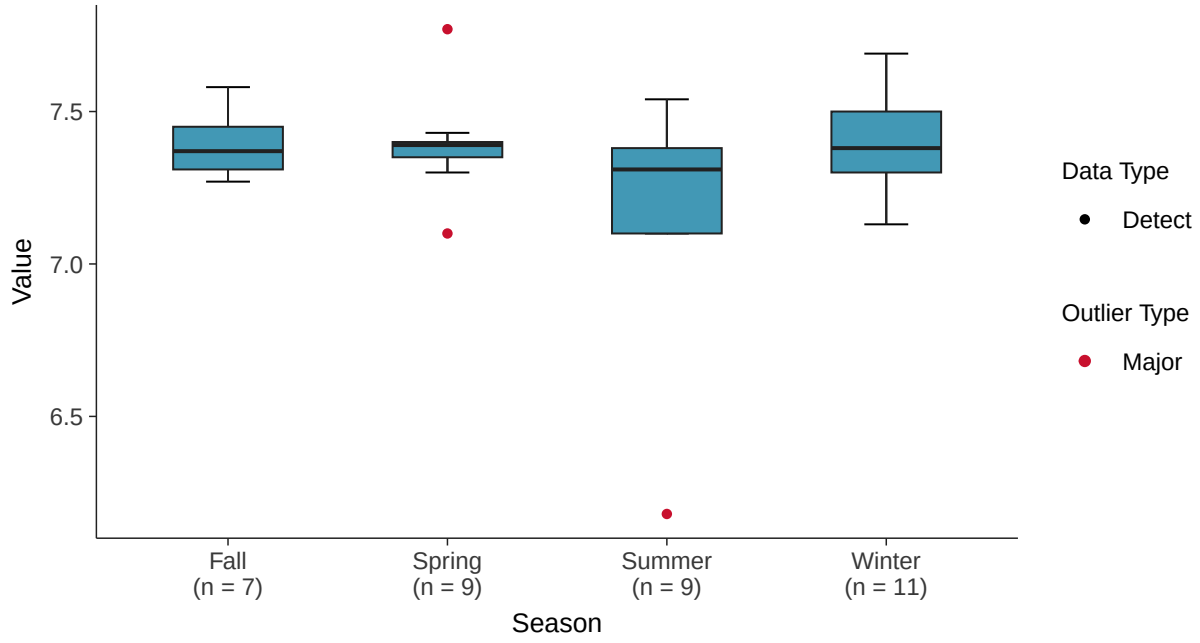
Boxplot

pH (Field), MW-3 (S.U.)



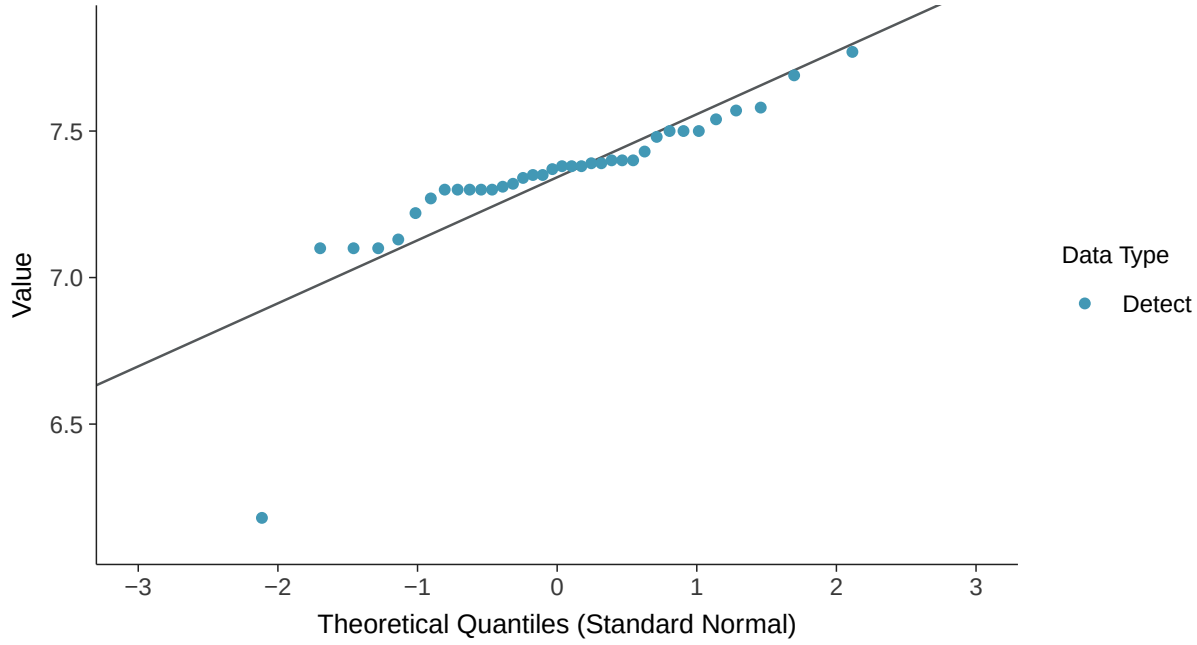
Boxplot by Season

pH (Field), MW-3 (S.U.)



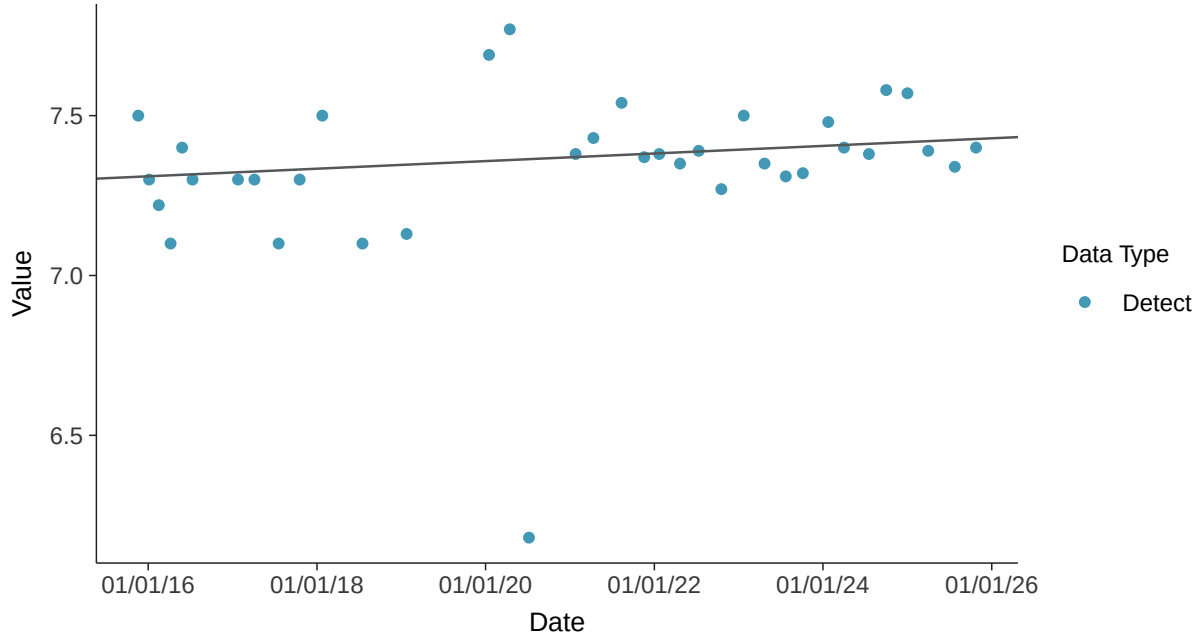
Normal Q-Q plot

pH (Field), MW-3 (S.U.)



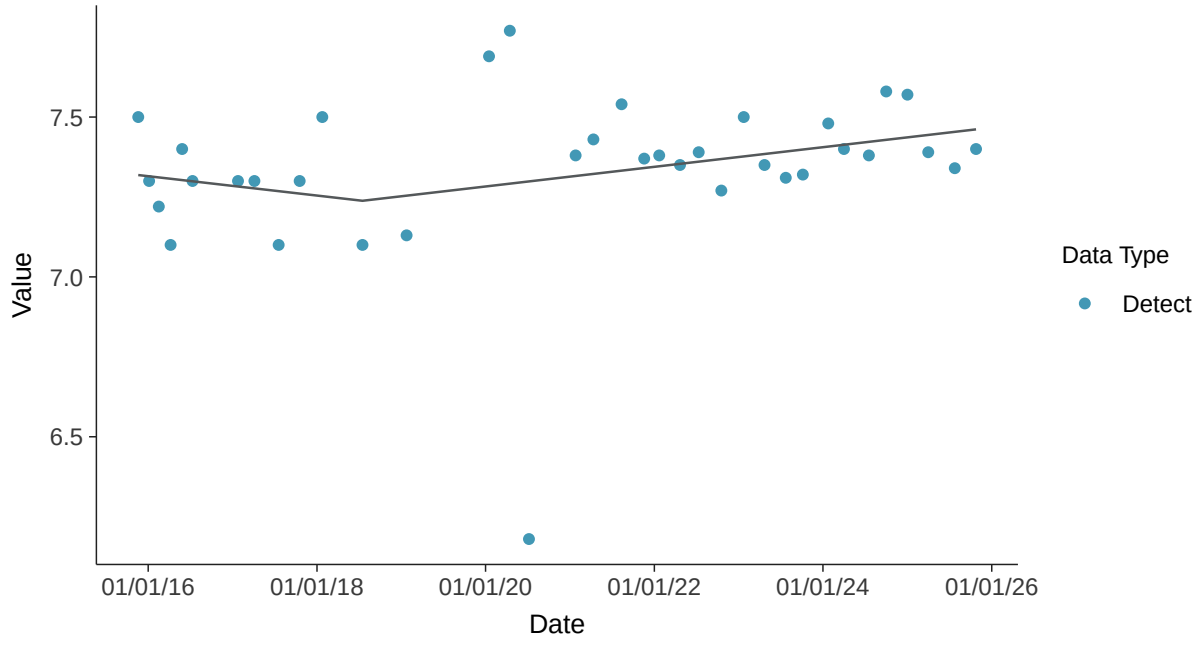
Trend Regression: Mann-Kendall/Theil-Sen Estimate

pH (Field), MW-3 (S.U.)



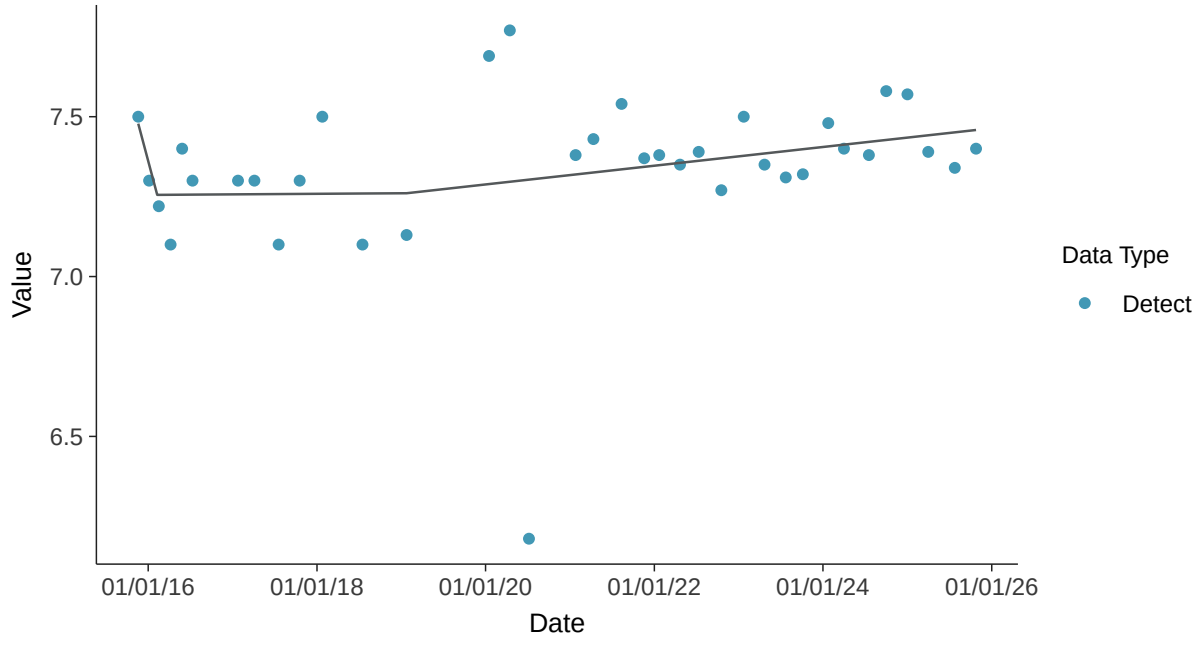
Trend Regression: Piecewise Linear-Linear

pH (Field), MW-3 (S.U.)



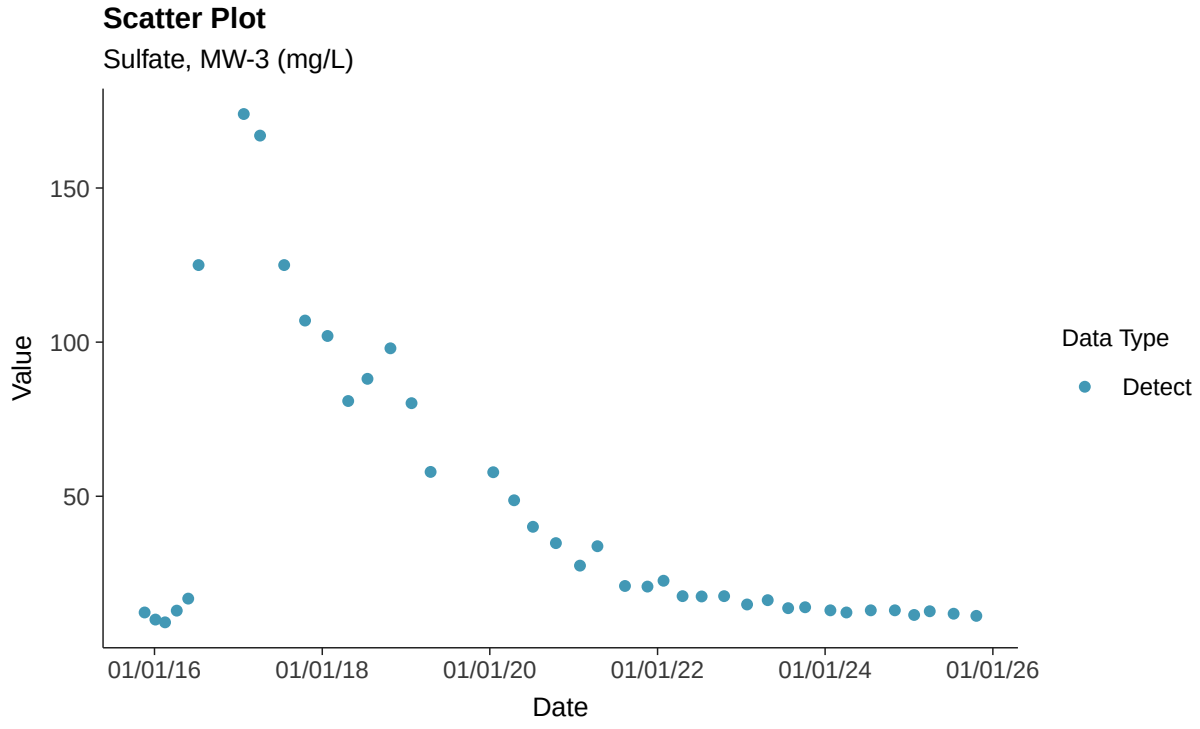
Trend Regression: Piecewise Linear-Linear-Linear

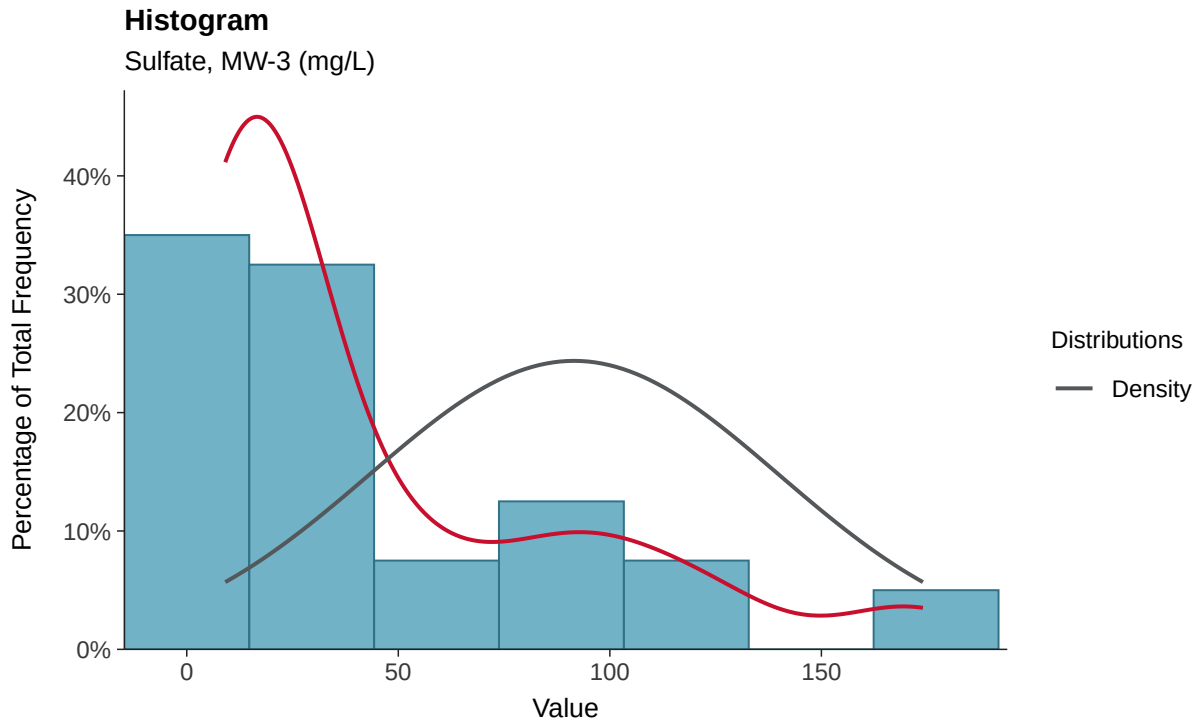
pH (Field), MW-3 (S.U.)



App. III: Sulfate, MW-3

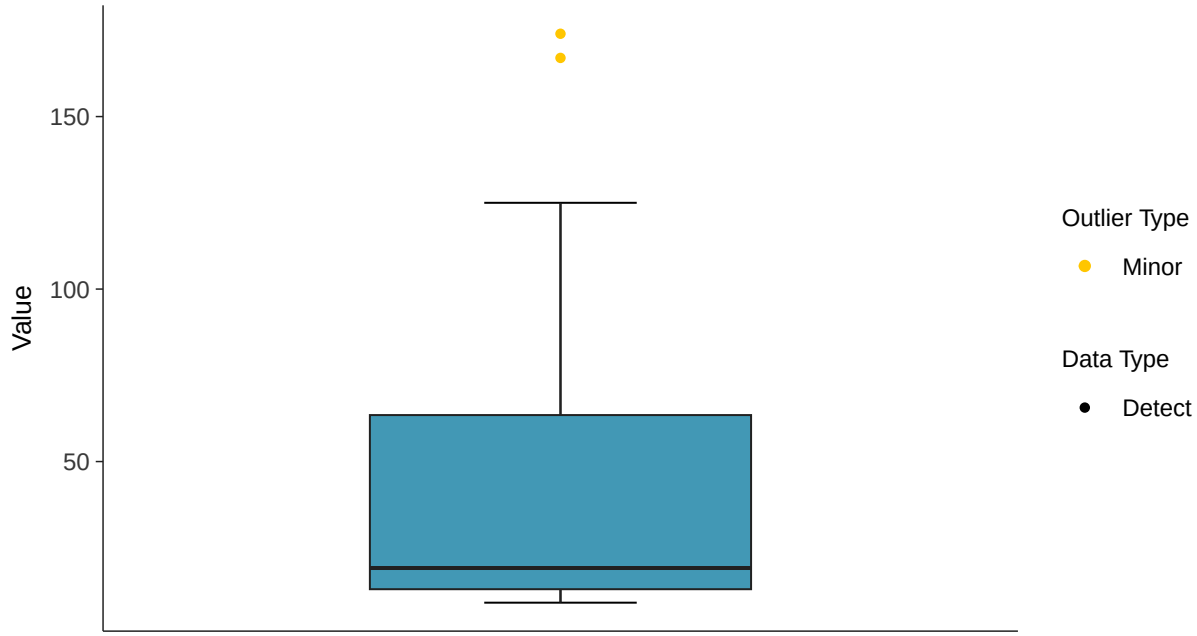
ID: 03_2_123





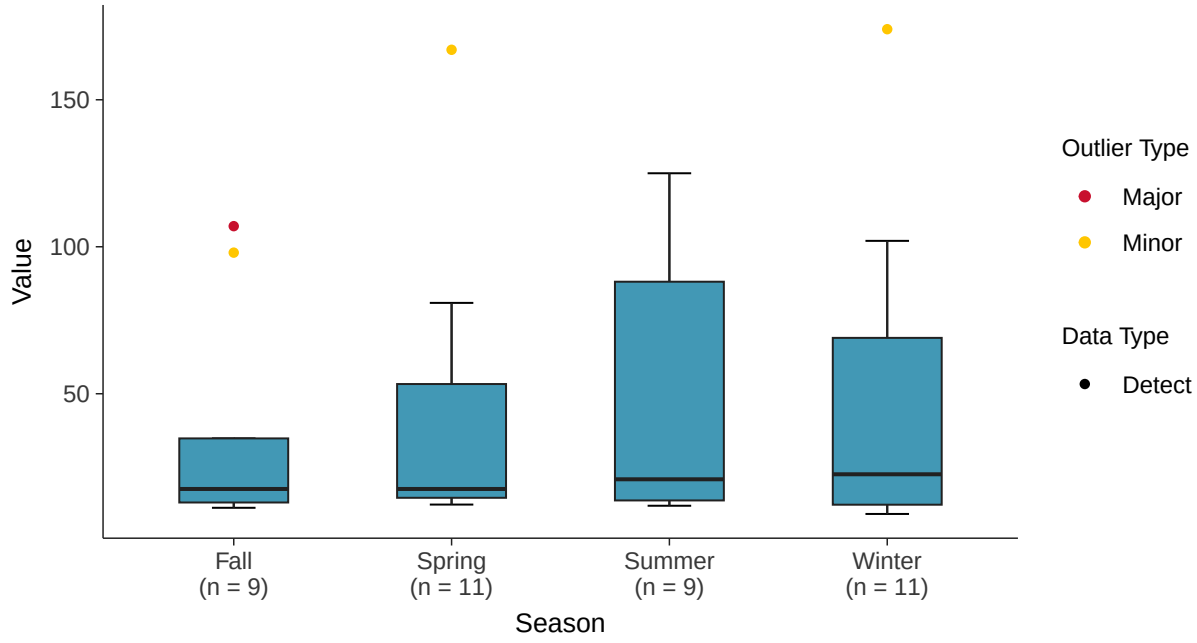
Boxplot

Sulfate, MW-3 (mg/L)



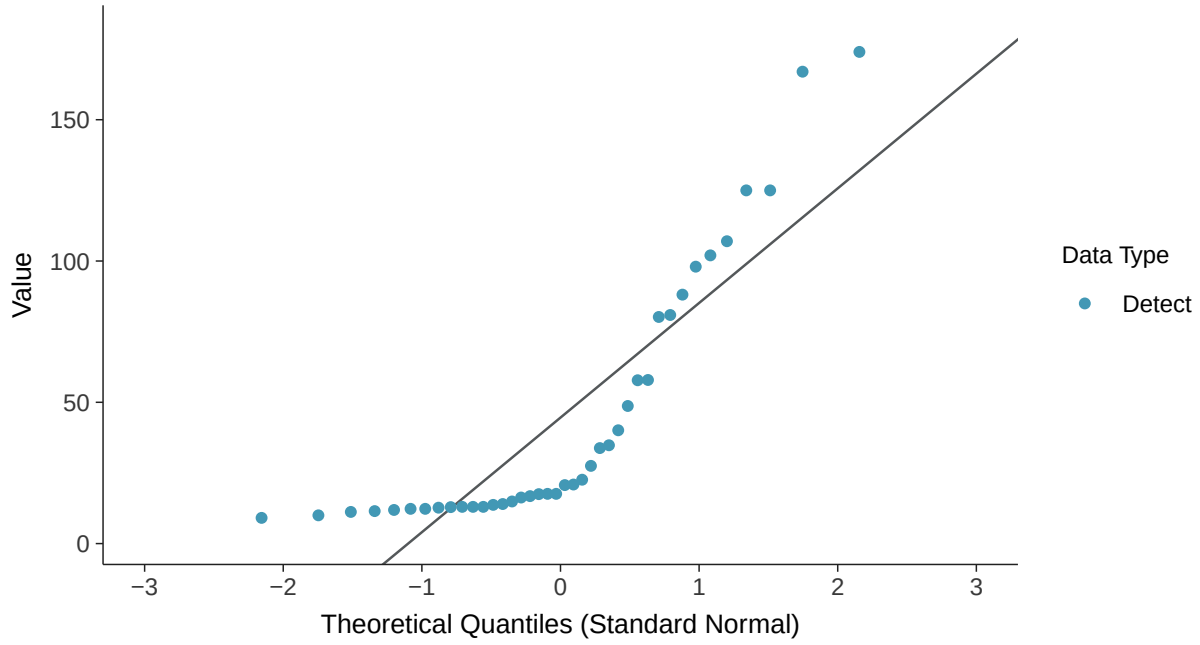
Boxplot by Season

Sulfate, MW-3 (mg/L)



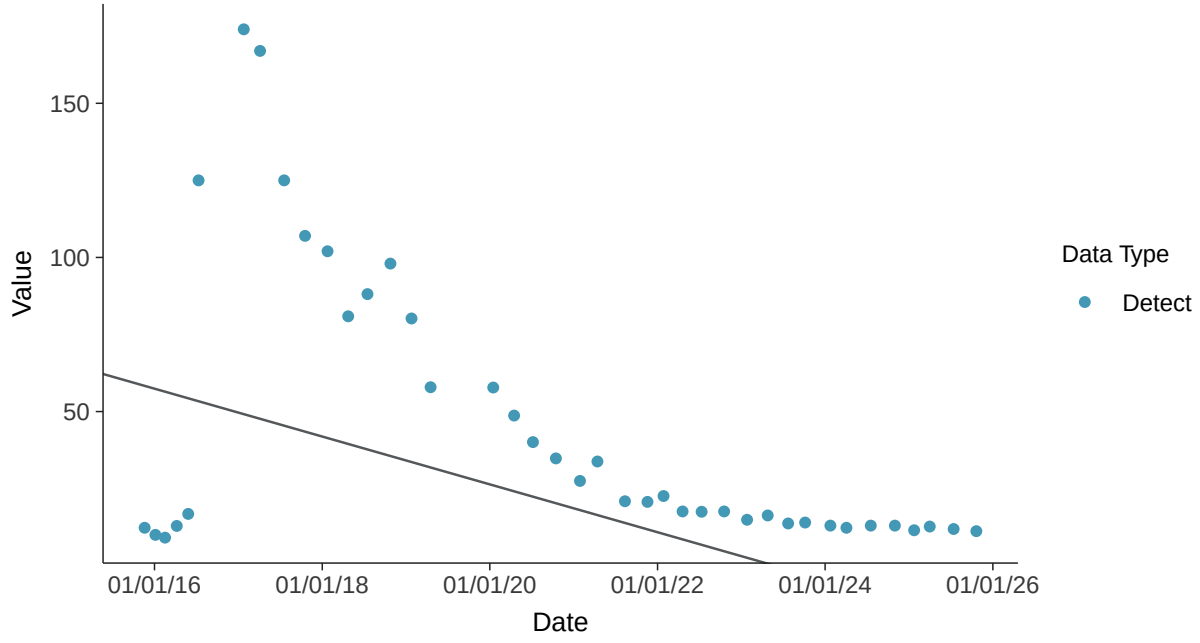
Normal Q-Q plot

Sulfate, MW-3 (mg/L)



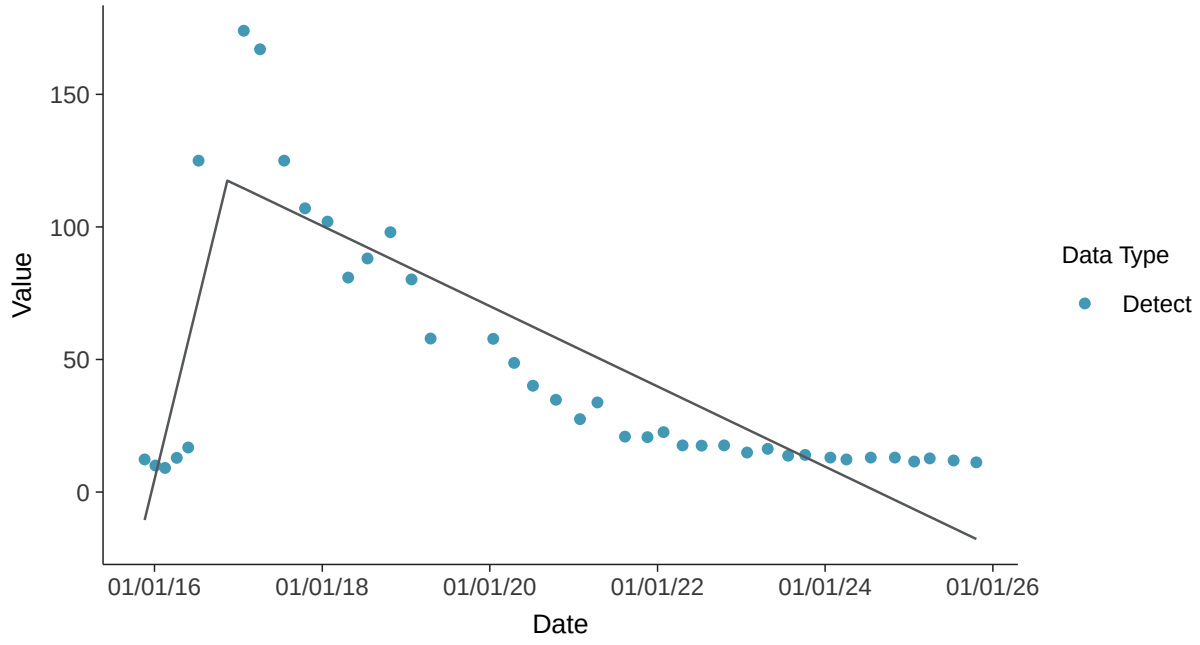
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Sulfate, MW-3 (mg/L)



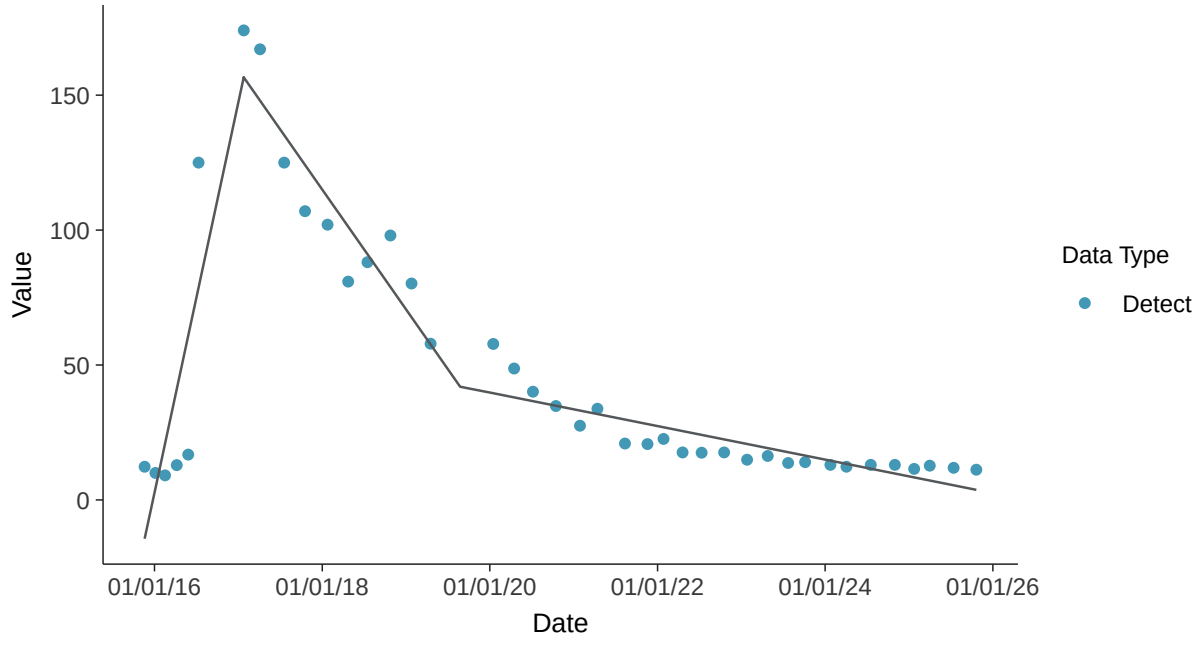
Trend Regression: Piecewise Linear-Linear

Sulfate, MW-3 (mg/L)



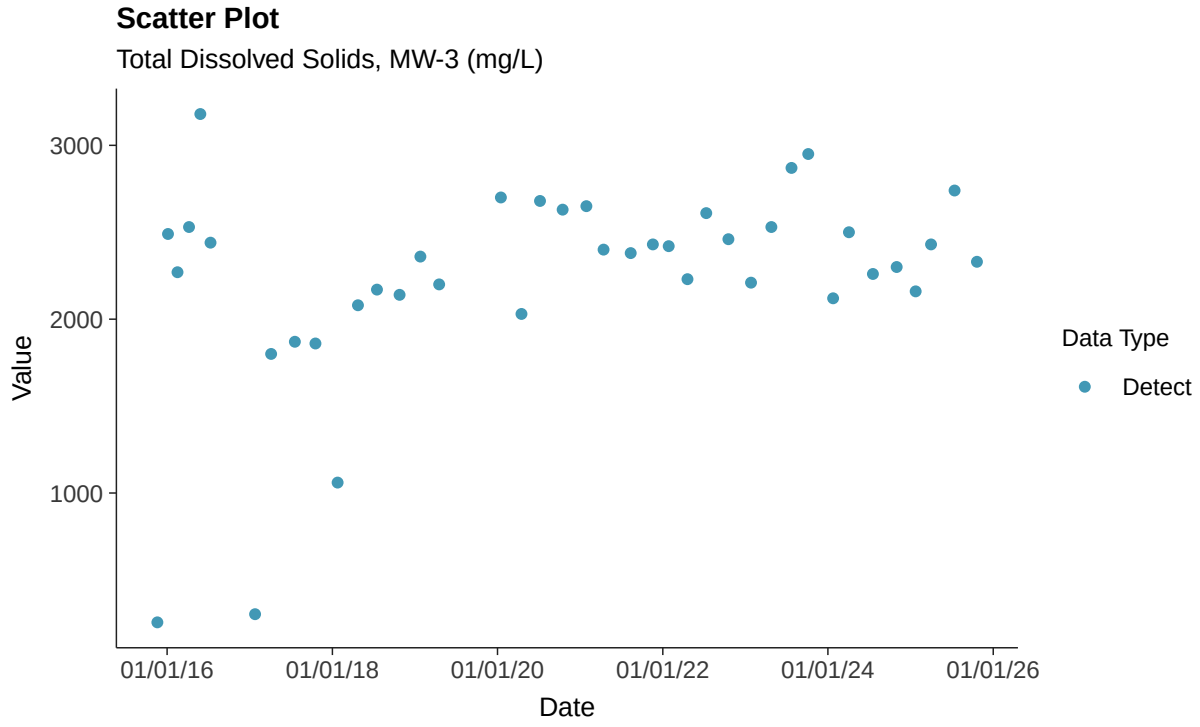
Trend Regression: Piecewise Linear-Linear-Linear

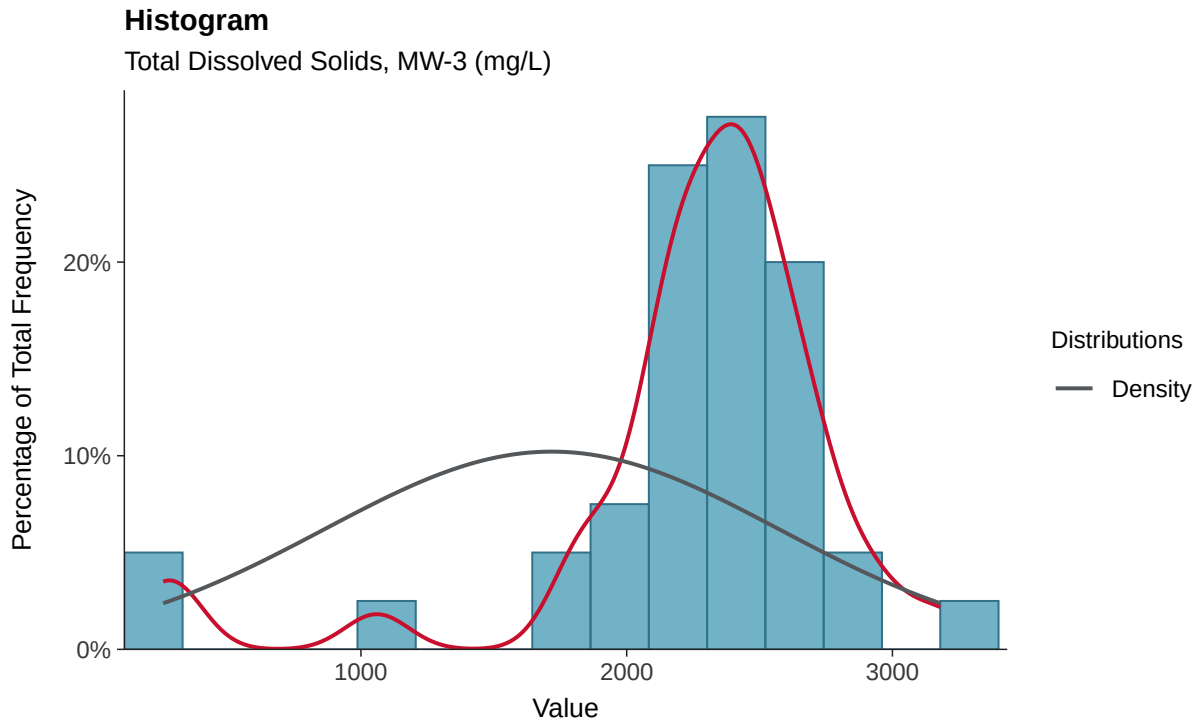
Sulfate, MW-3 (mg/L)



App. III: Total Dissolved Solids, MW-3

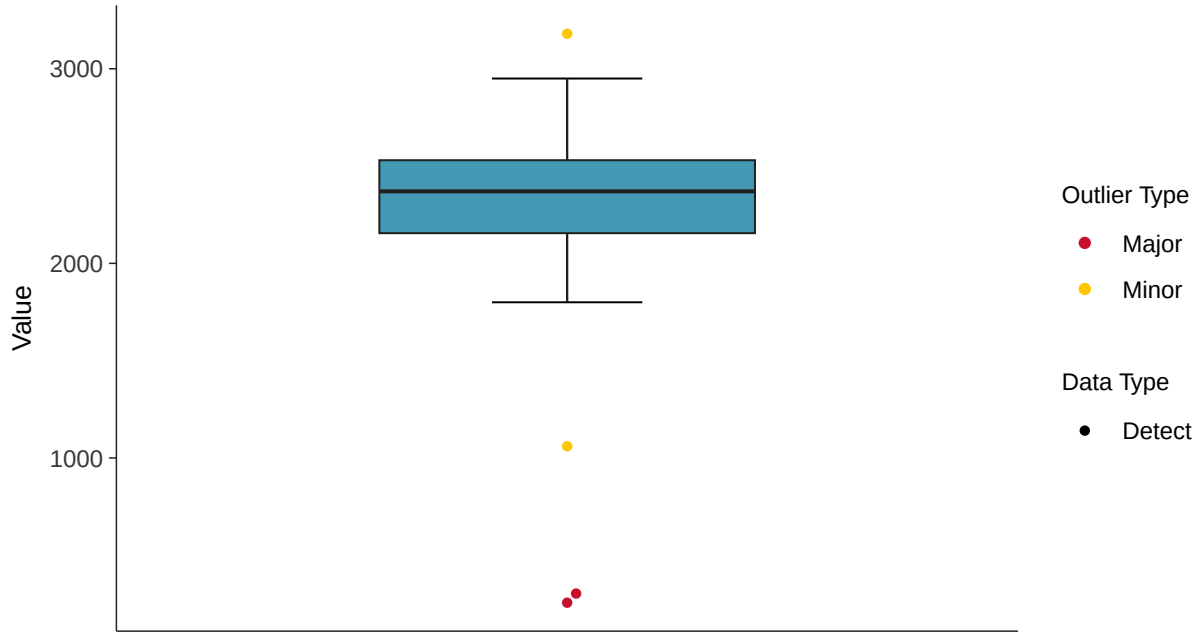
ID: 03_2_125





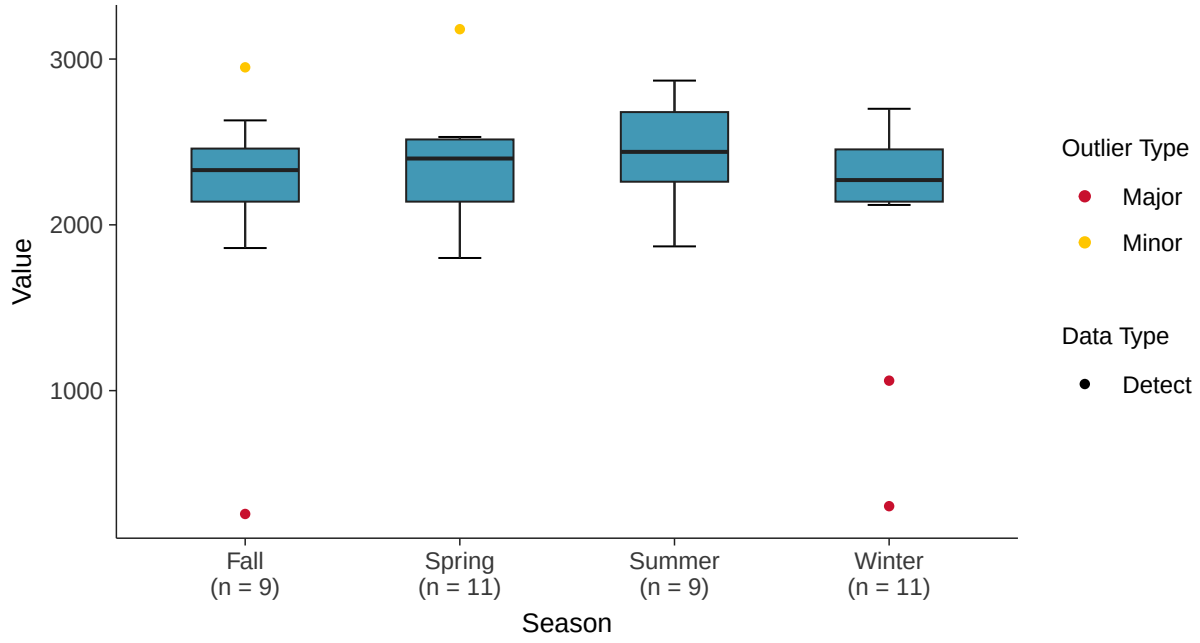
Boxplot

Total Dissolved Solids, MW-3 (mg/L)



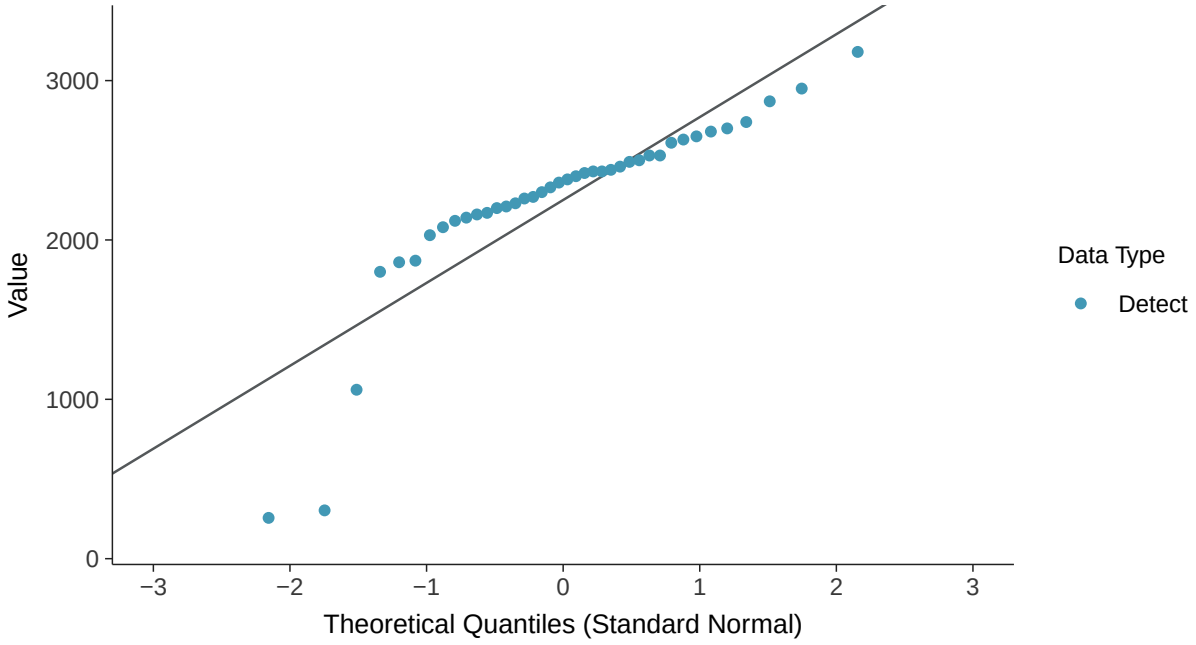
Boxplot by Season

Total Dissolved Solids, MW-3 (mg/L)



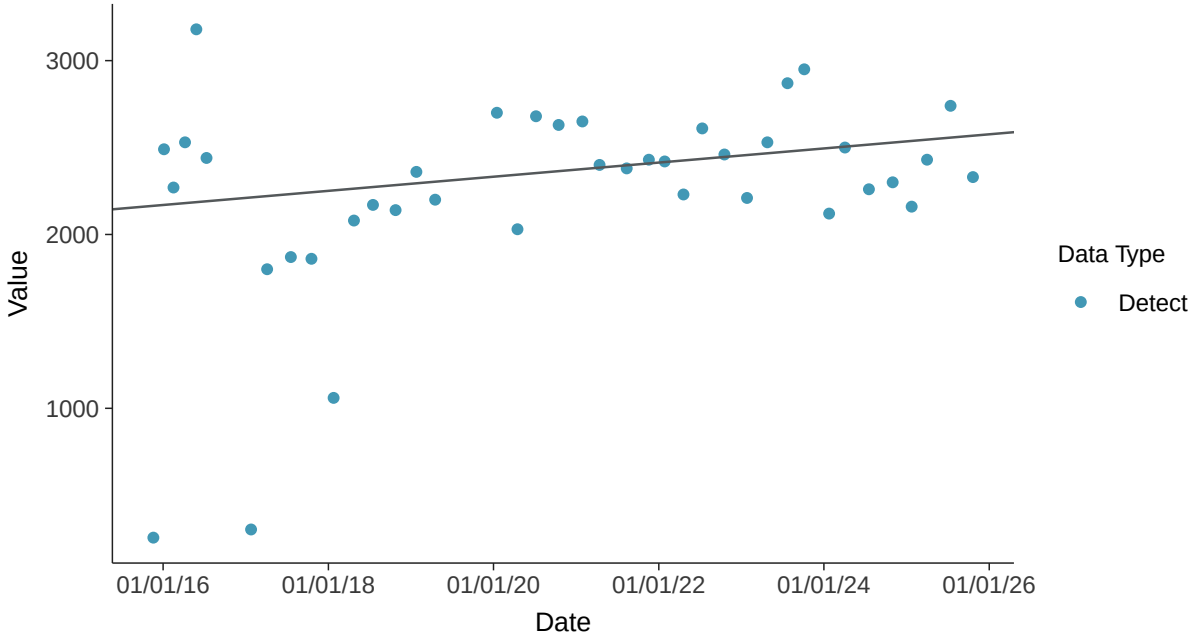
Normal Q-Q plot

Total Dissolved Solids, MW-3 (mg/L)



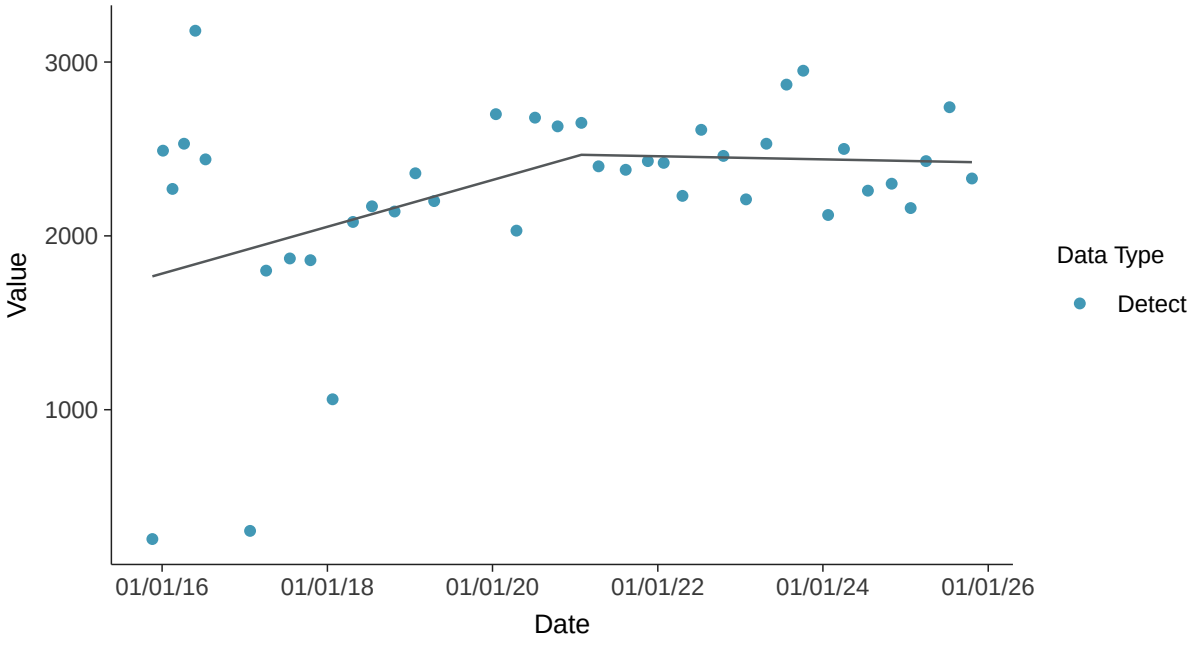
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Total Dissolved Solids, MW-3 (mg/L)



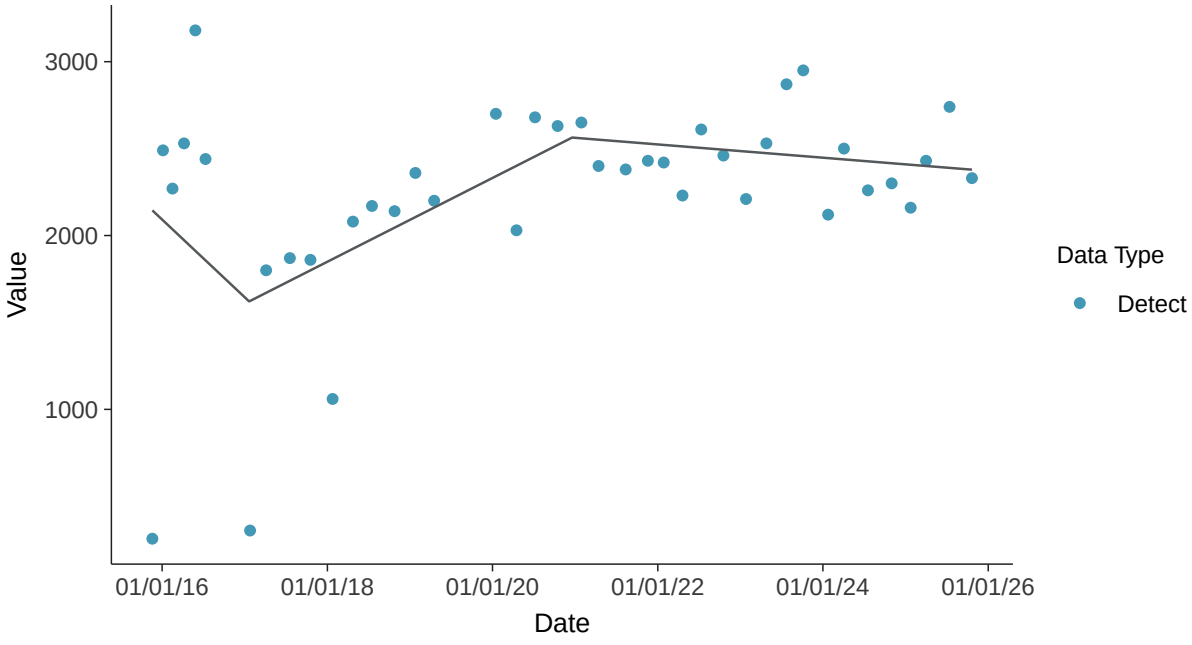
Trend Regression: Piecewise Linear-Linear

Total Dissolved Solids, MW-3 (mg/L)



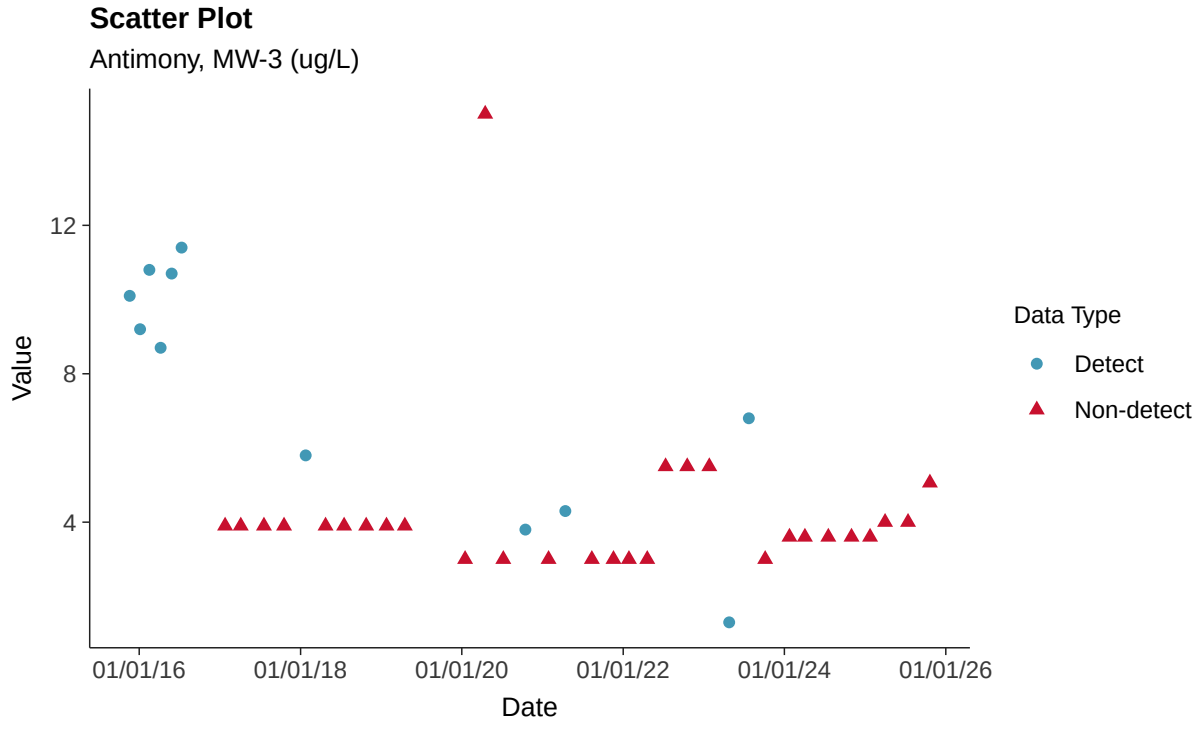
Trend Regression: Piecewise Linear-Linear-Linear

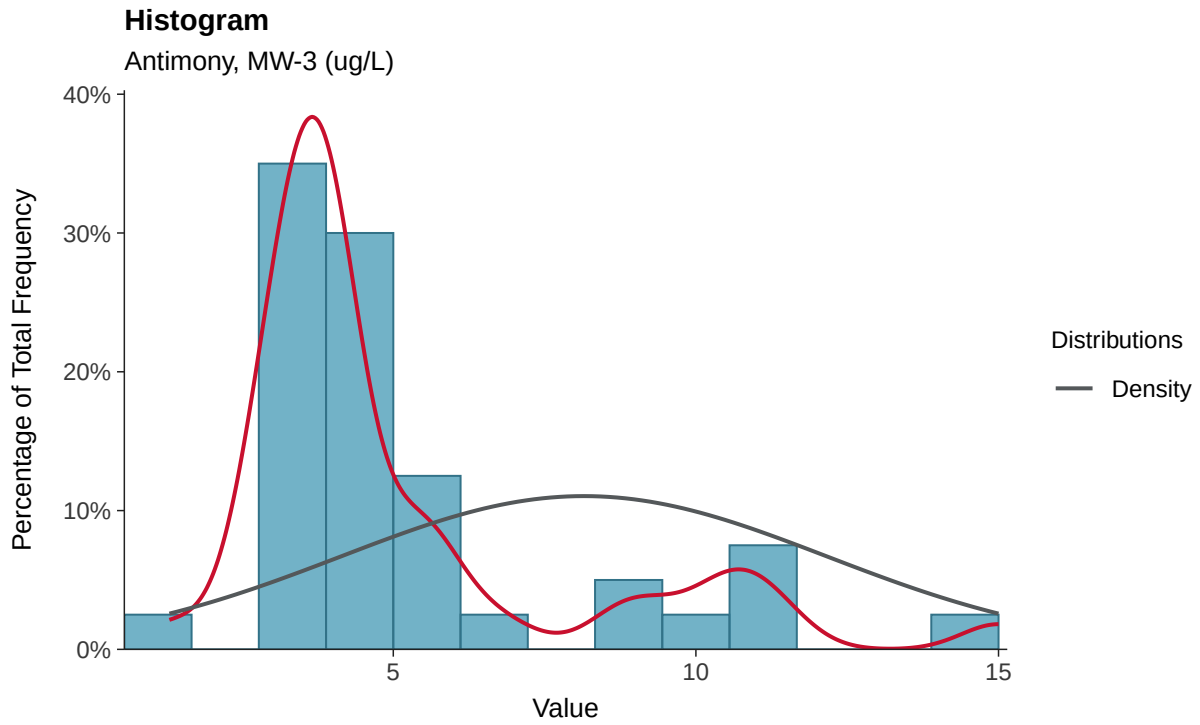
Total Dissolved Solids, MW-3 (mg/L)



App. IV: Antimony, MW-3

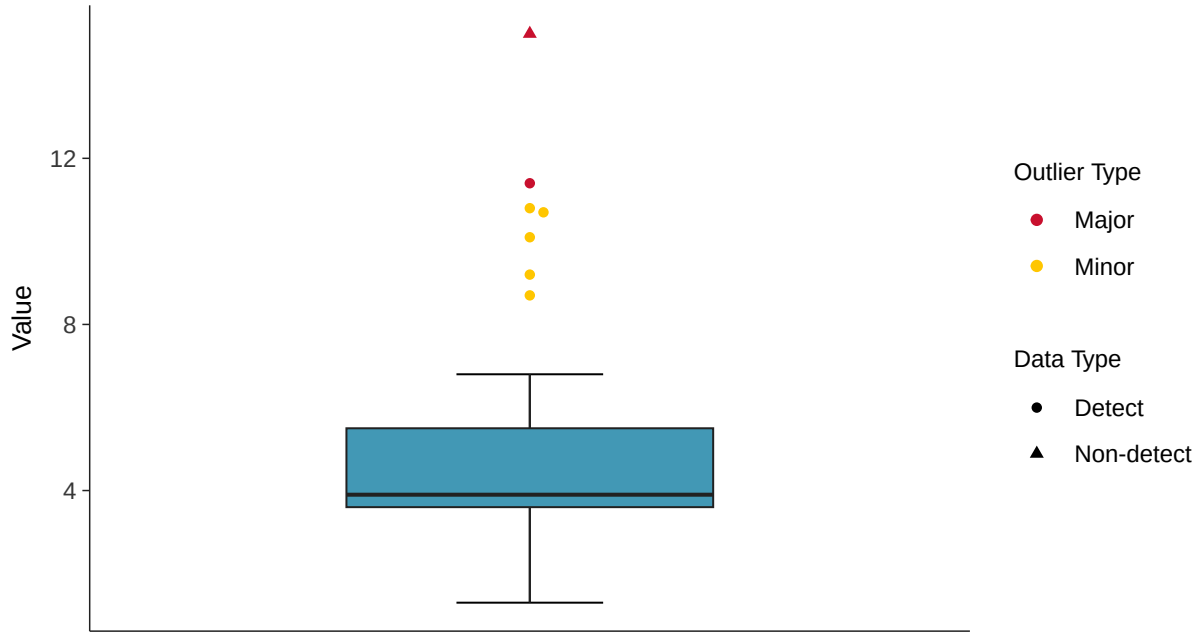
ID: 03_3_101





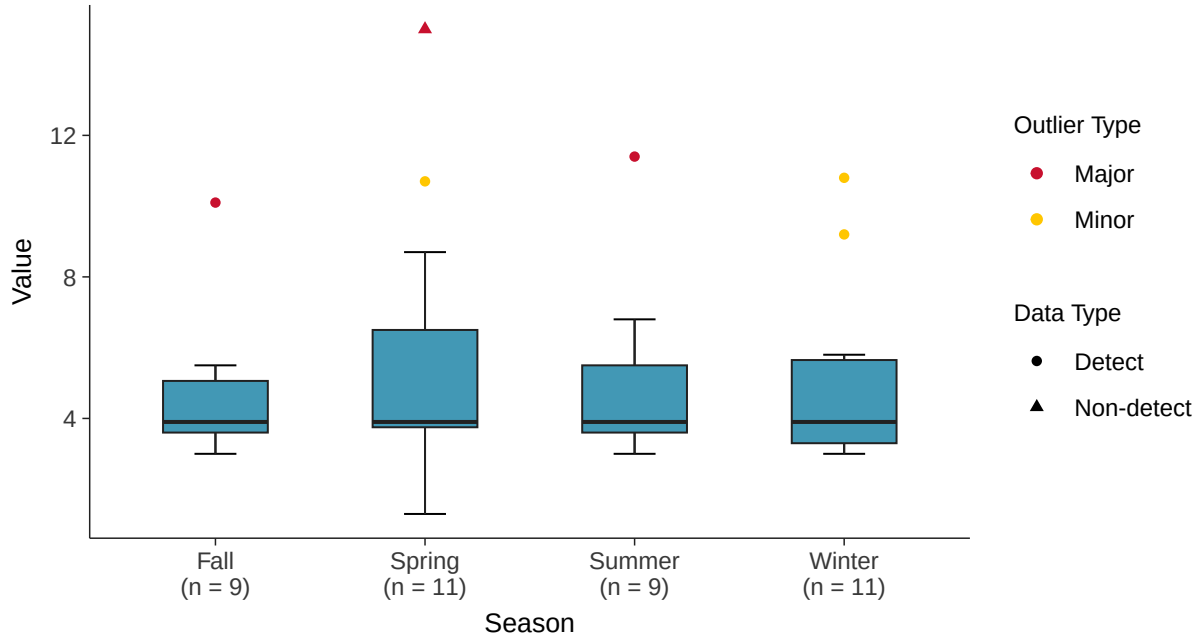
Boxplot

Antimony, MW-3 (ug/L)



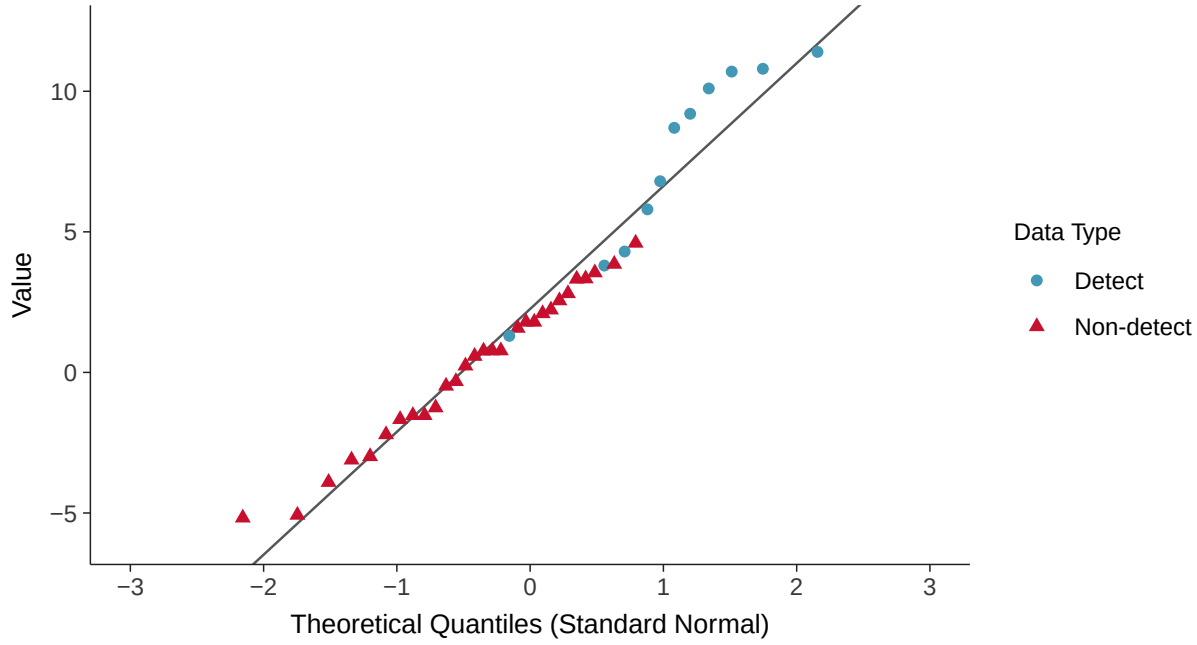
Boxplot by Season

Antimony, MW-3 (ug/L)



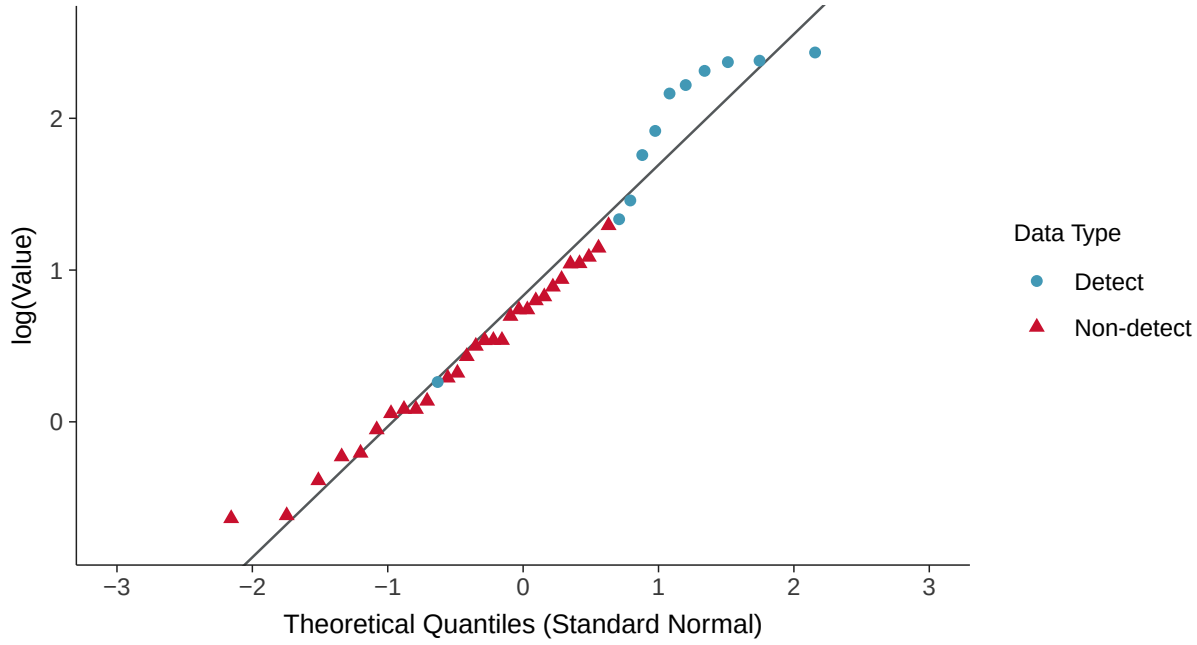
Normal Q-Q plot using ROS Imputed Estimates

Antimony, MW-3 (ug/L)



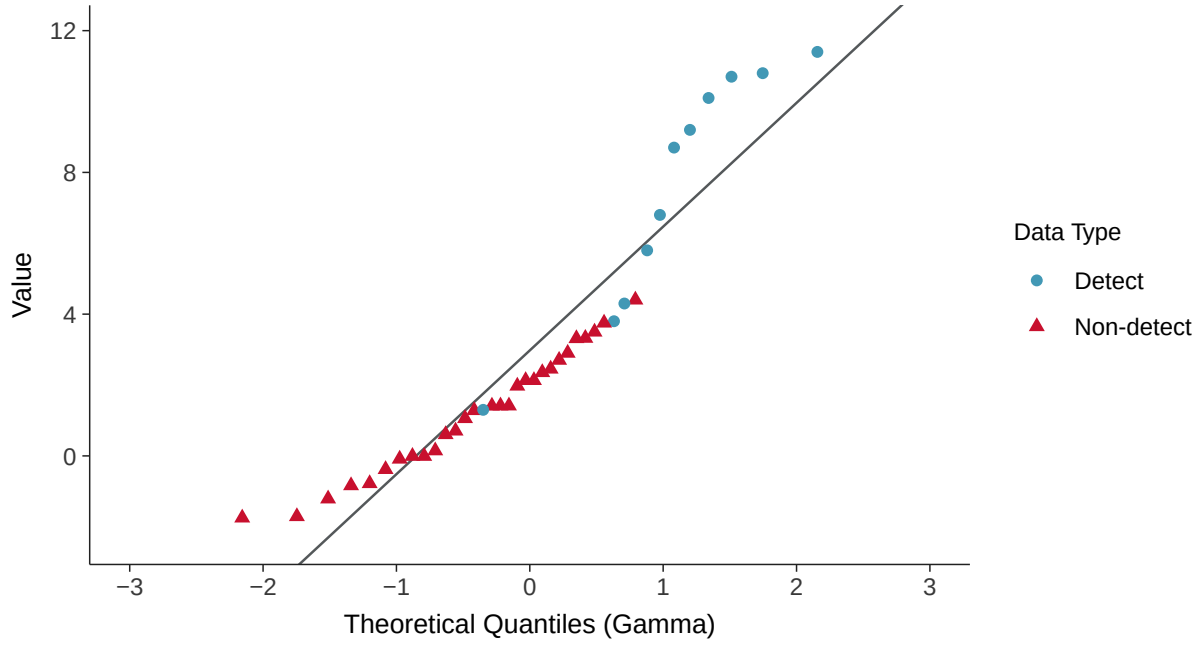
Lognormal Q-Q plot using ROS Imputed Estimates

Antimony, MW-3 (ug/L)



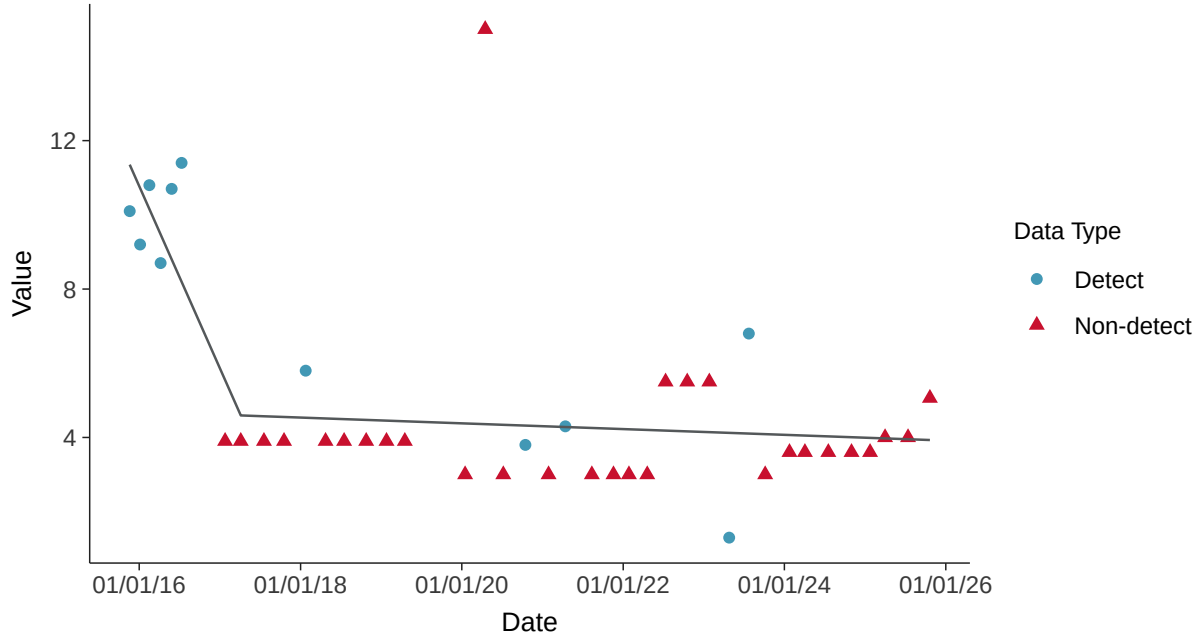
Gamma Q-Q plot using ROS Imputed Estimates

Antimony, MW-3 (ug/L)



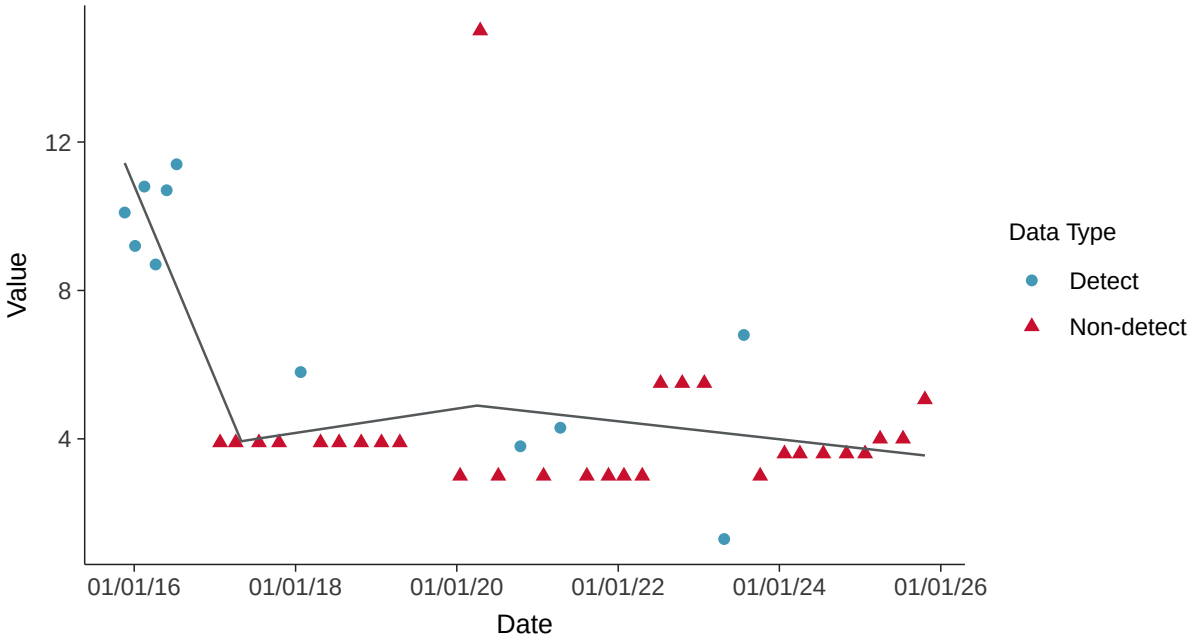
Trend Regression: Piecewise Linear-Linear

Antimony, MW-3 (ug/L)



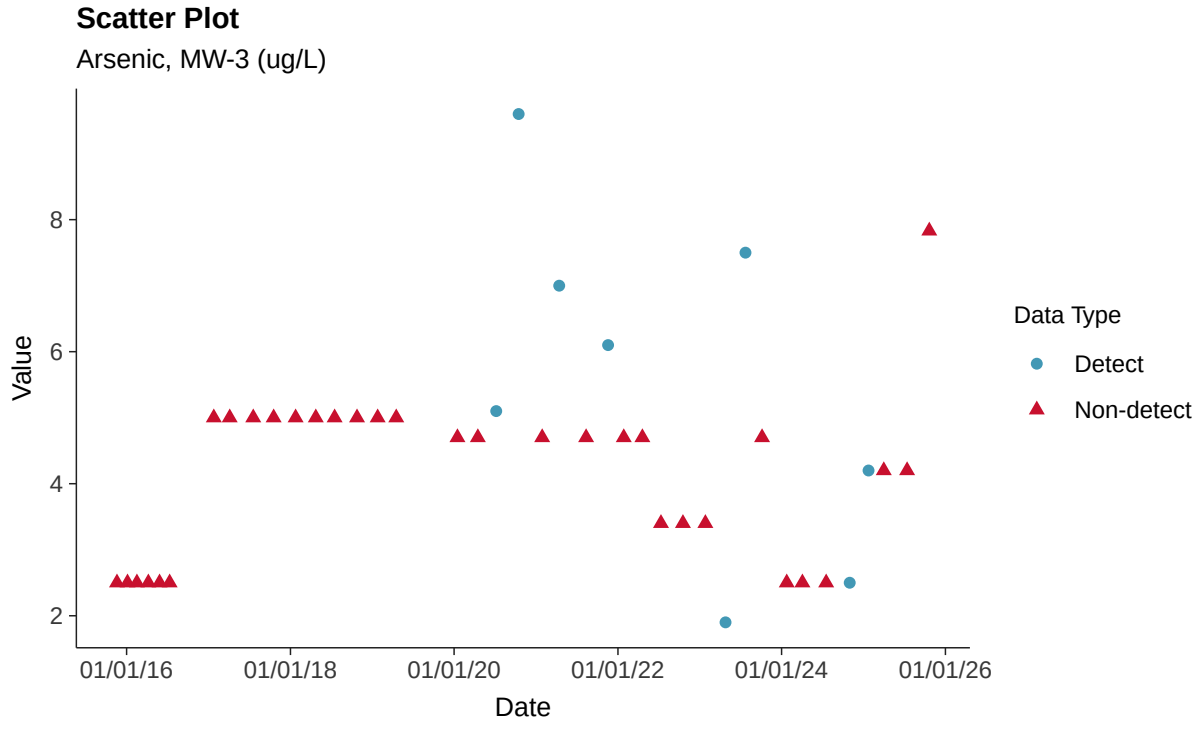
Trend Regression: Piecewise Linear-Linear-Linear

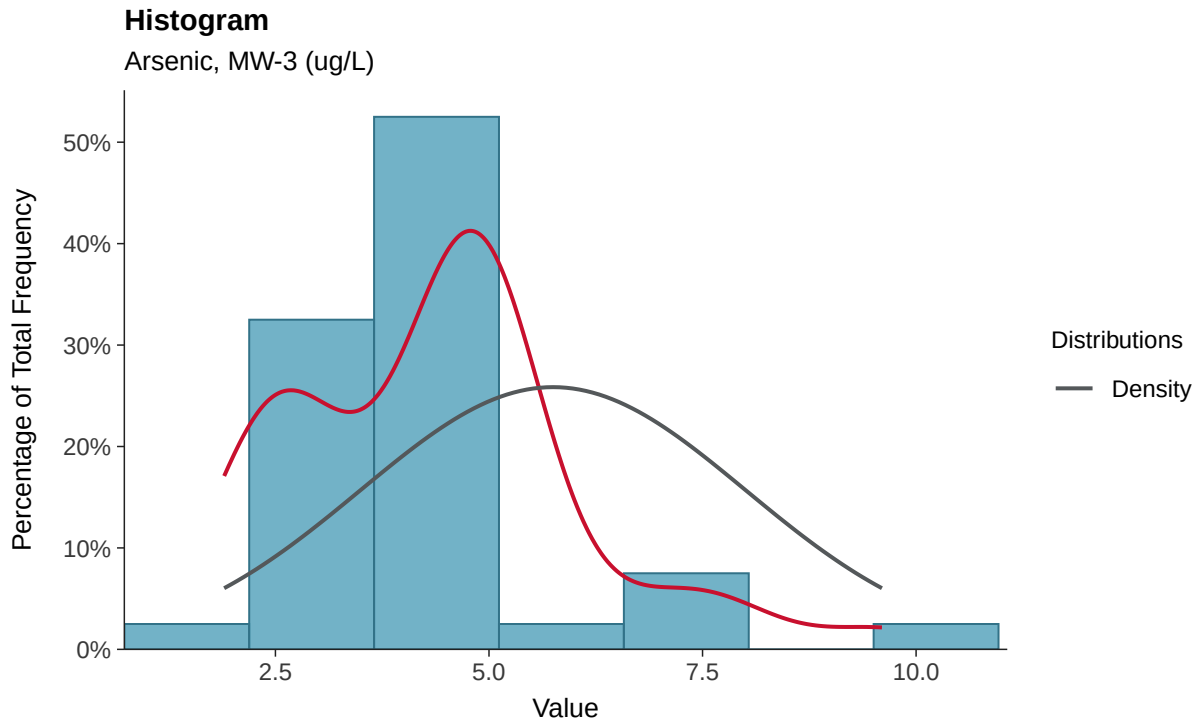
Antimony, MW-3 (ug/L)



App. IV: Arsenic, MW-3

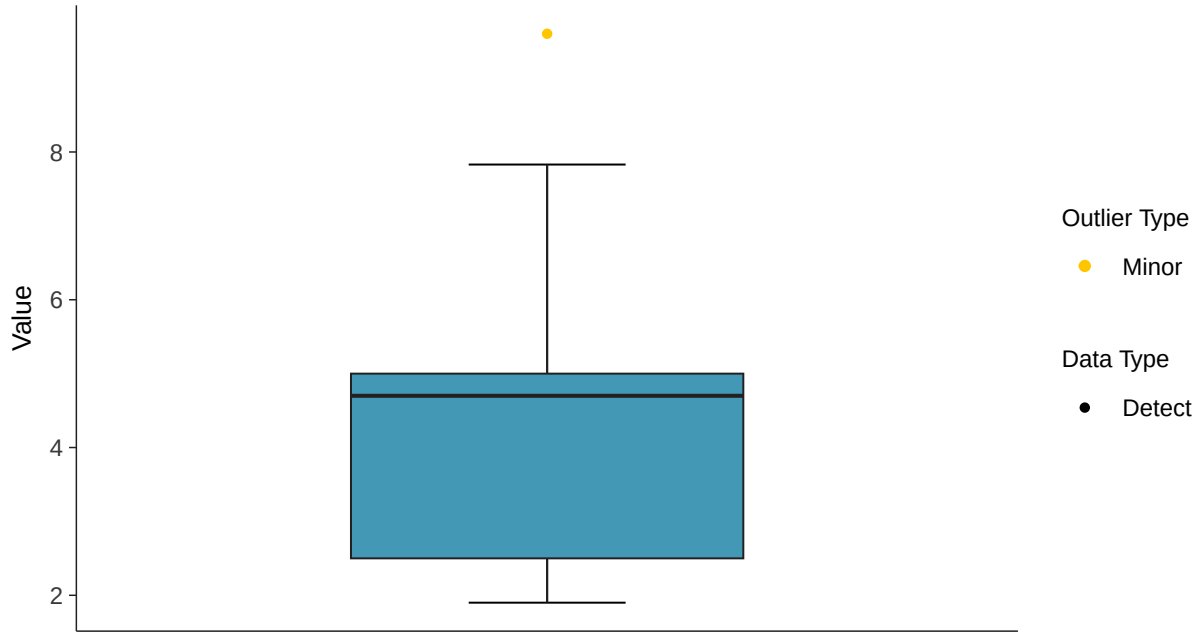
ID: 03_3_102





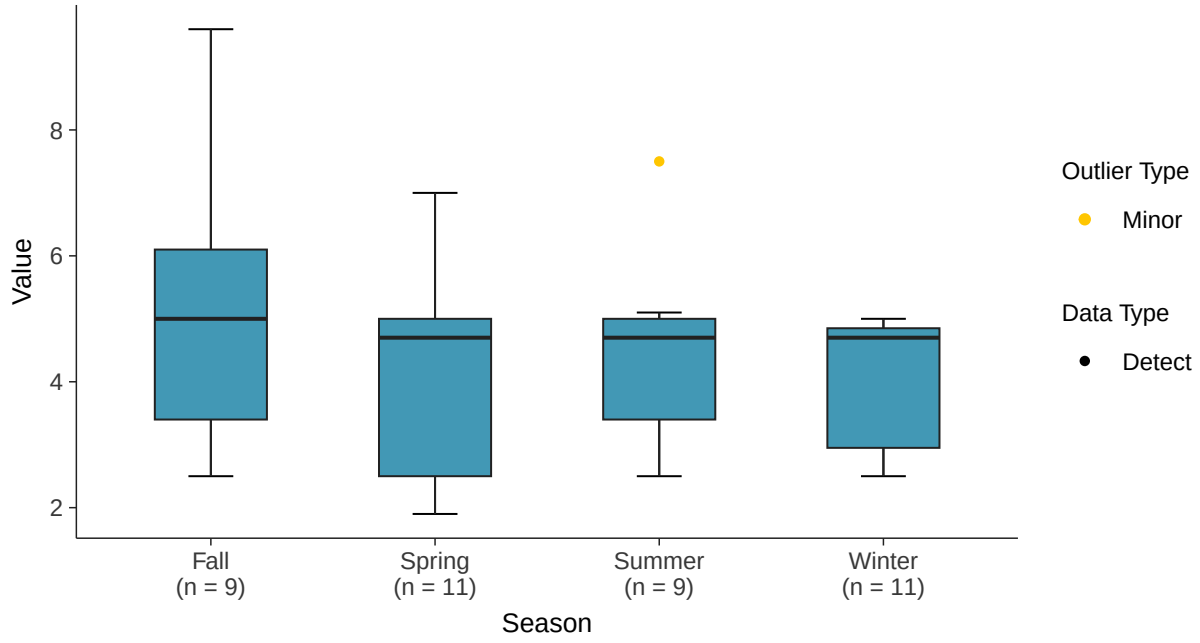
Boxplot

Arsenic, MW-3 (ug/L)



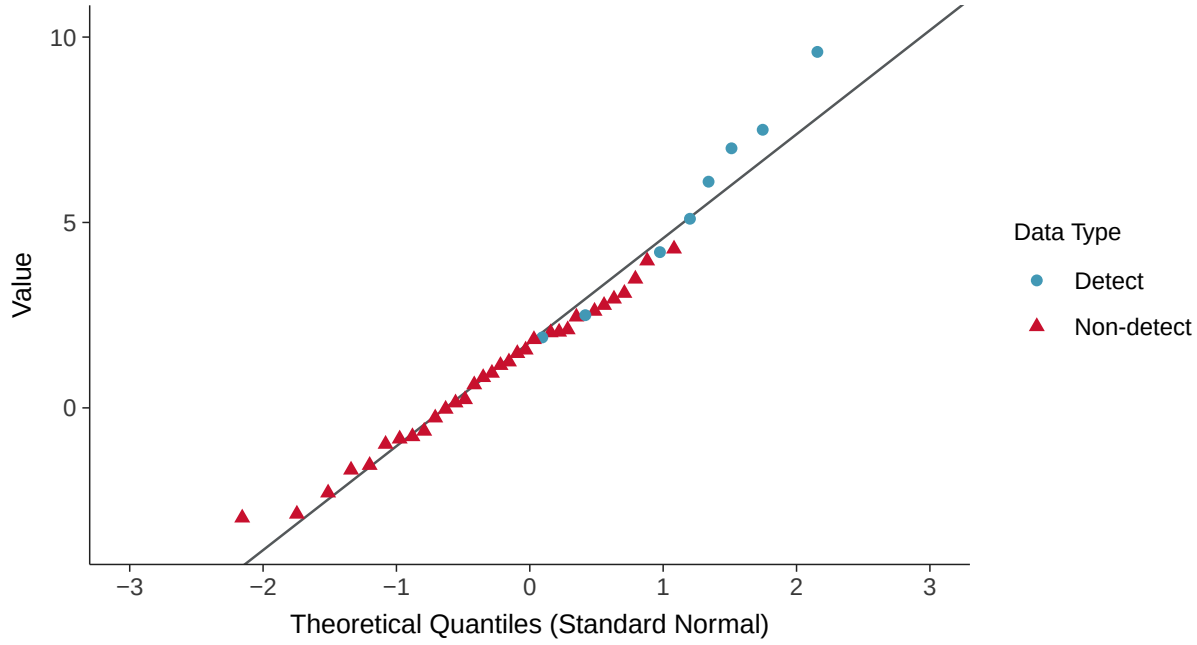
Boxplot by Season

Arsenic, MW-3 (ug/L)



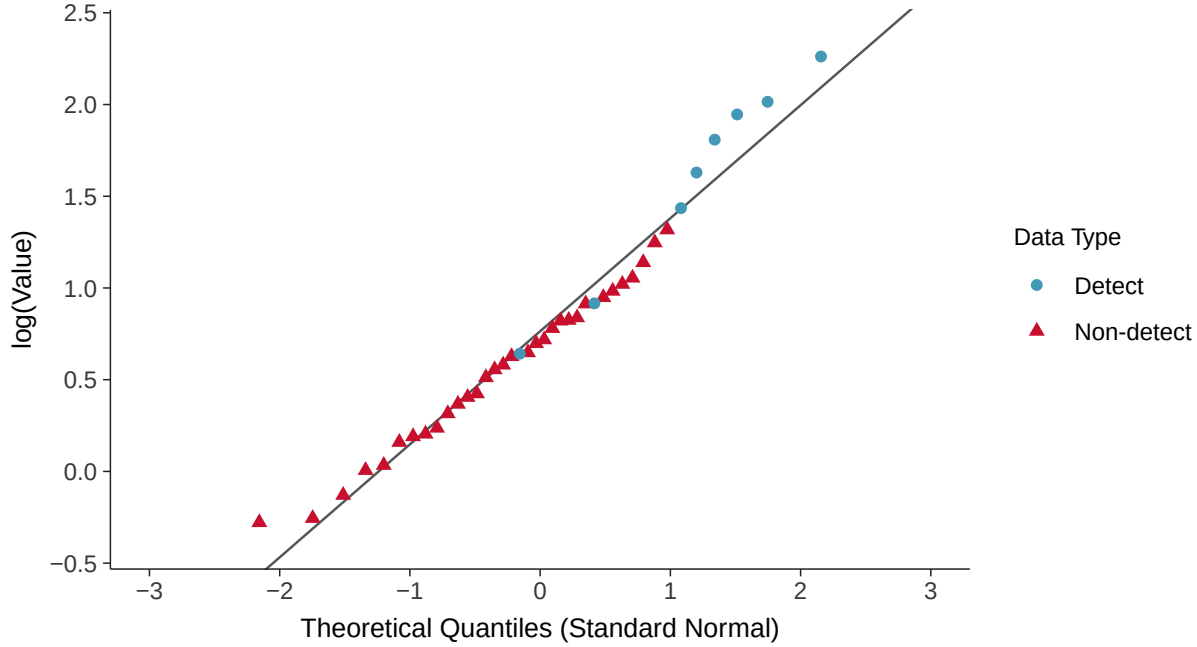
Normal Q-Q plot using ROS Imputed Estimates

Arsenic, MW-3 (ug/L)



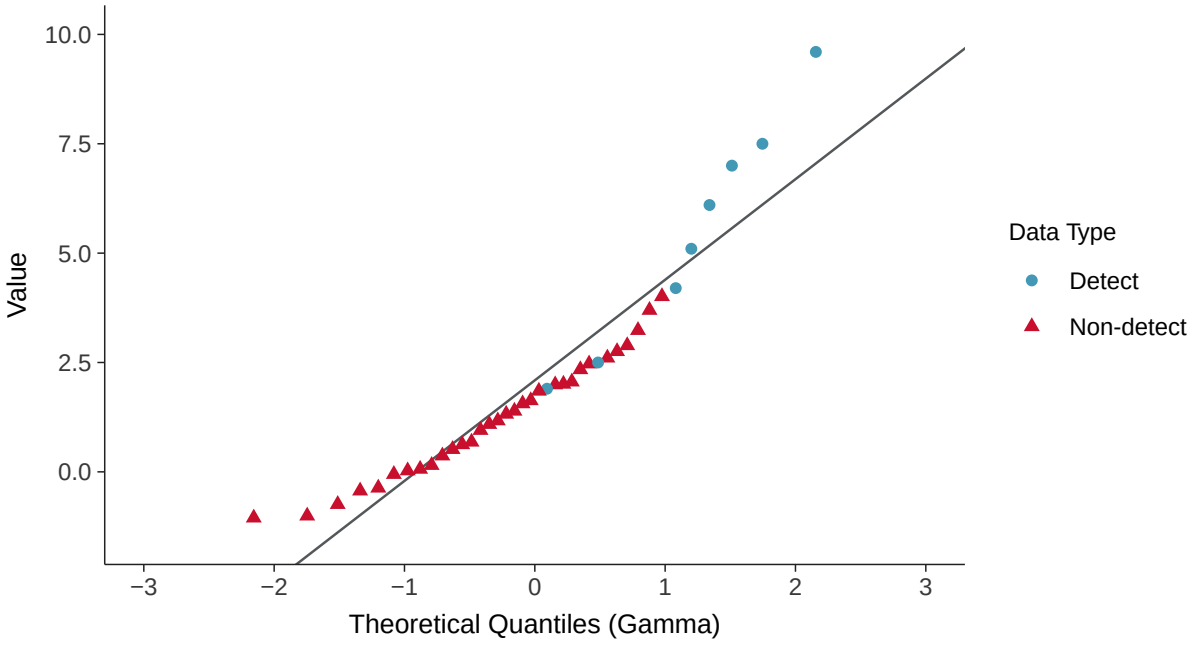
Lognormal Q-Q plot using ROS Imputed Estimates

Arsenic, MW-3 (ug/L)



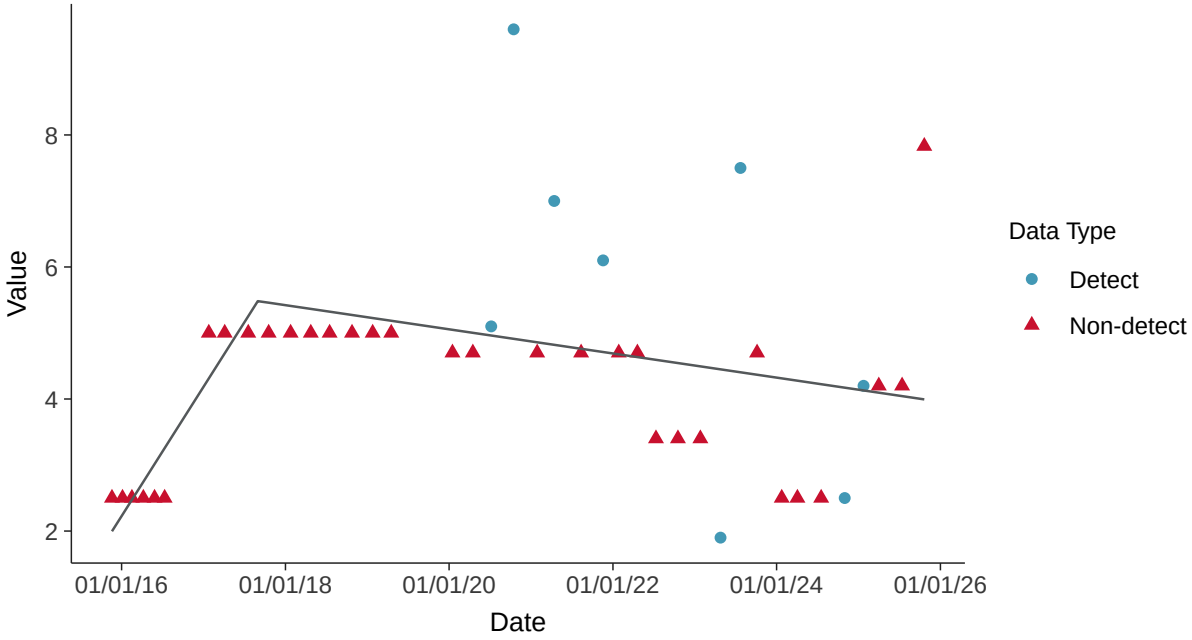
Gamma Q-Q plot using ROS Imputed Estimates

Arsenic, MW-3 (ug/L)



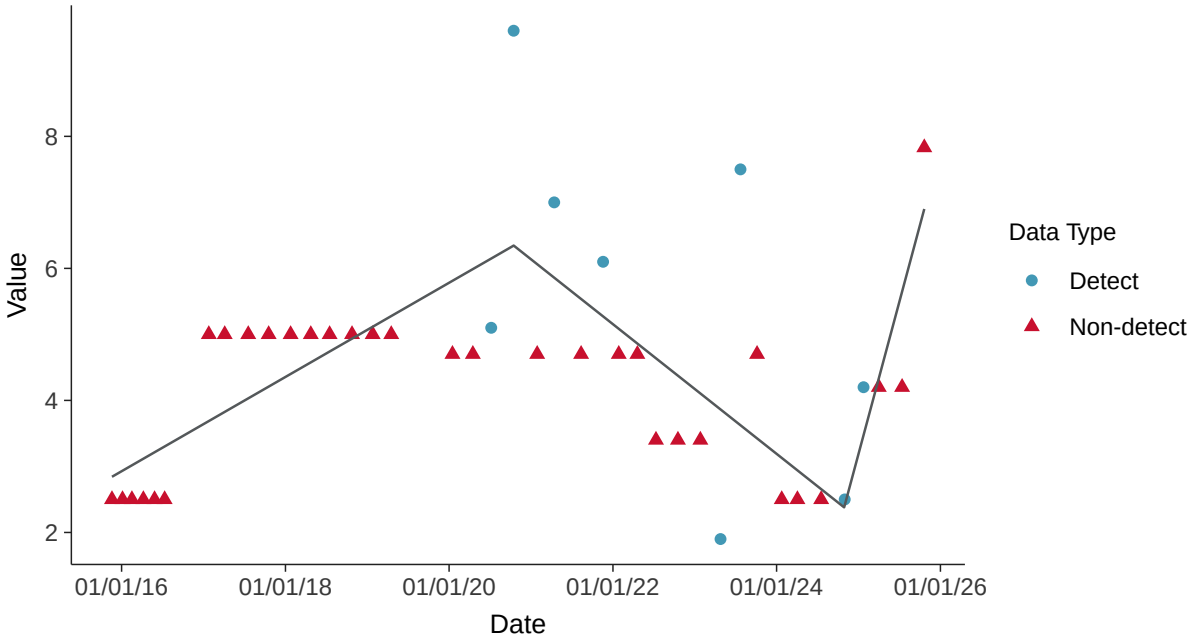
Trend Regression: Piecewise Linear-Linear

Arsenic, MW-3 (ug/L)



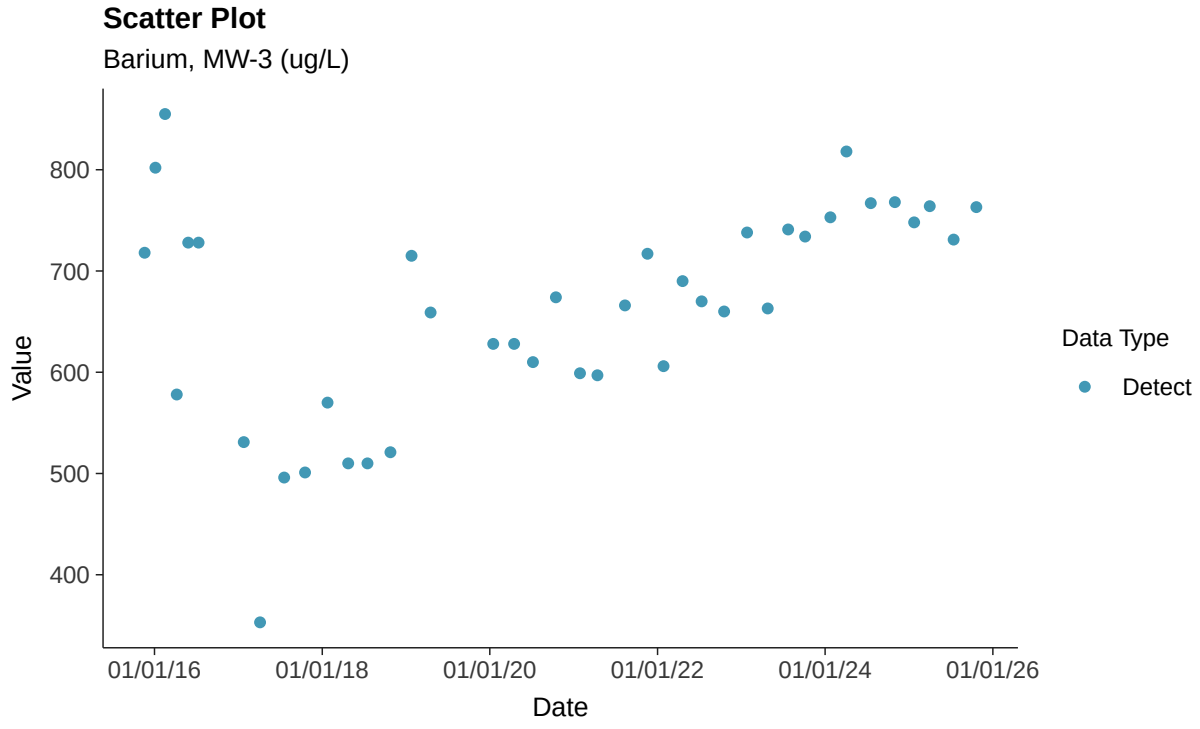
Trend Regression: Piecewise Linear-Linear-Linear

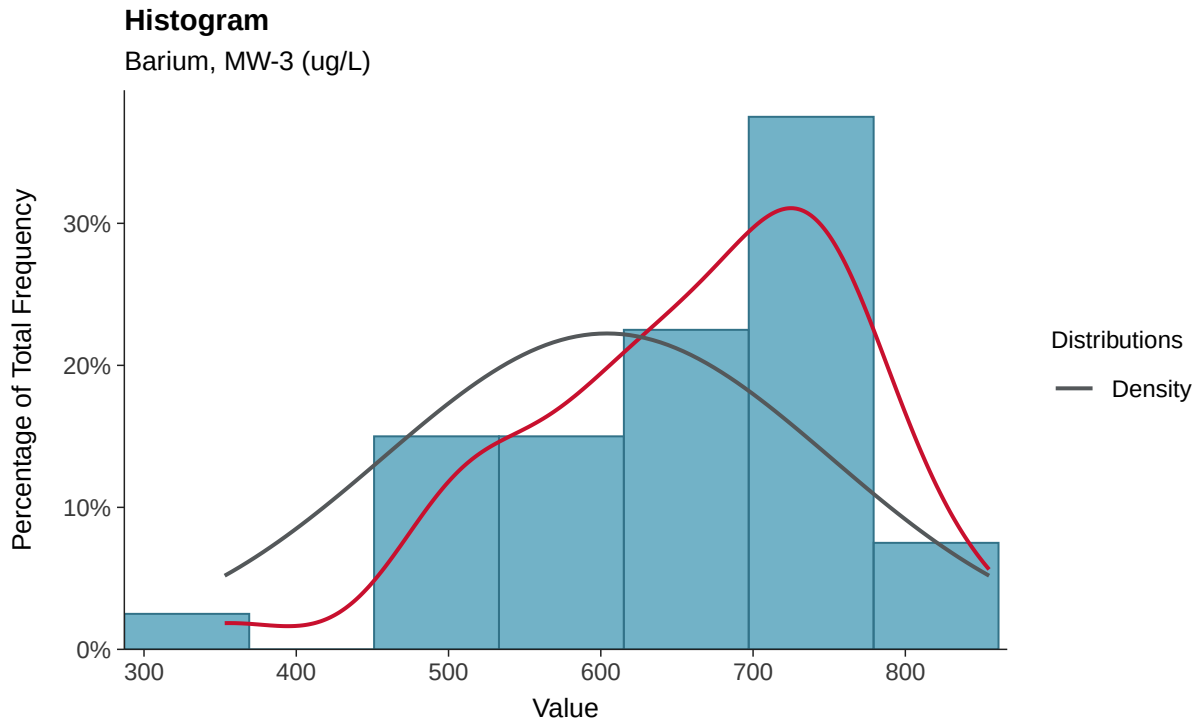
Arsenic, MW-3 (ug/L)



App. IV: Barium, MW-3

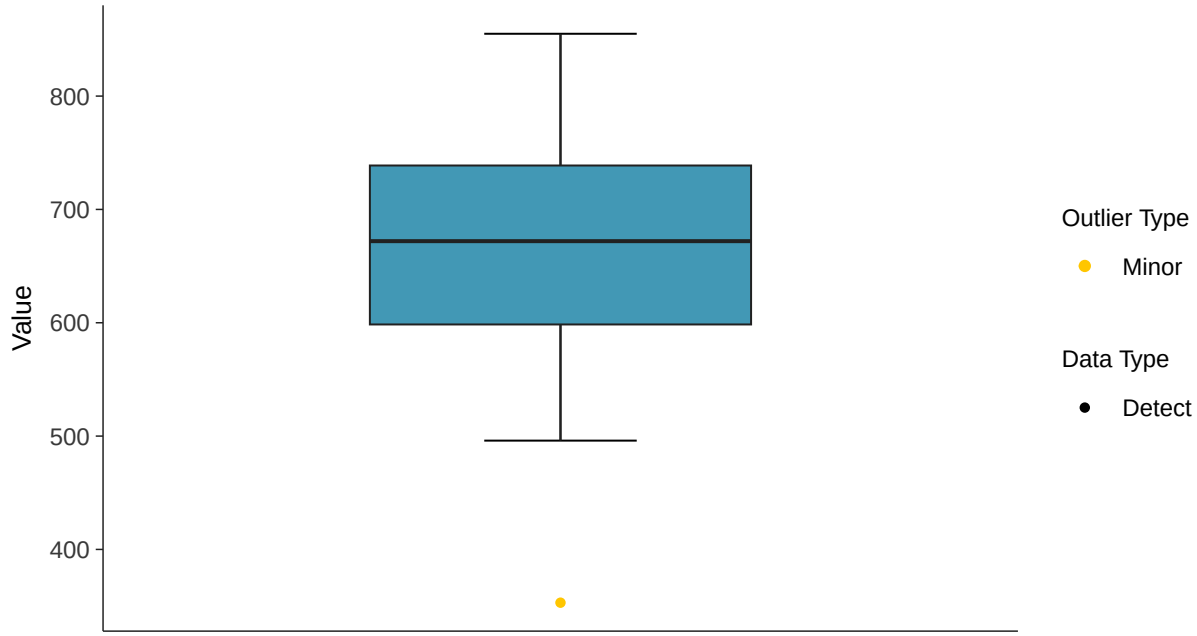
ID: 03_3_103





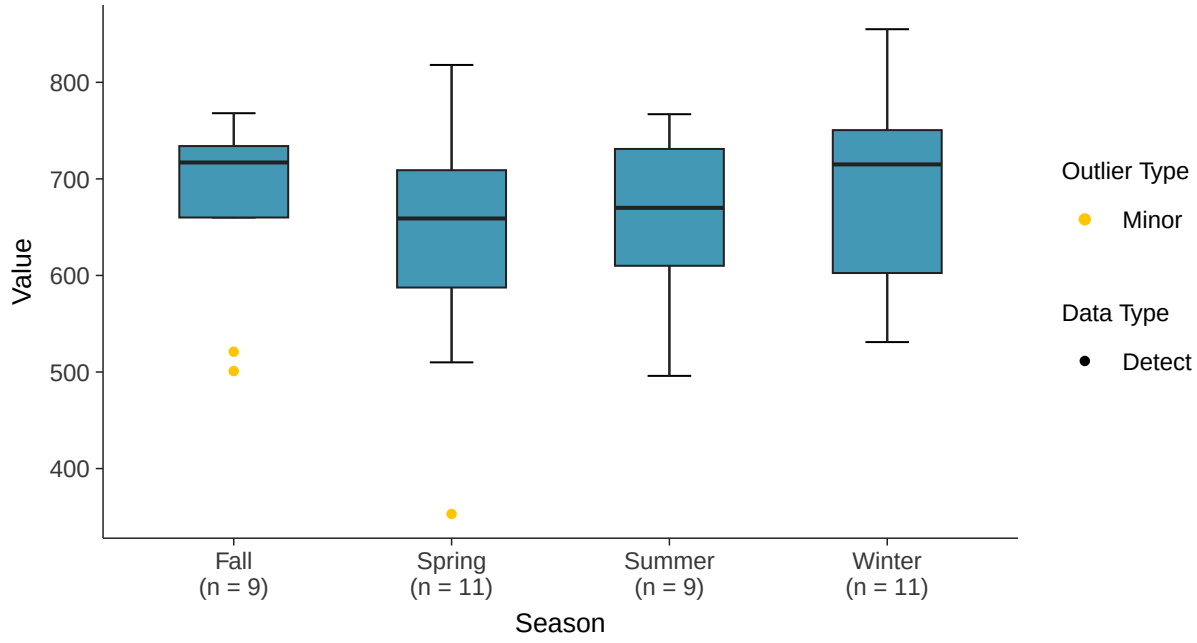
Boxplot

Barium, MW-3 (ug/L)



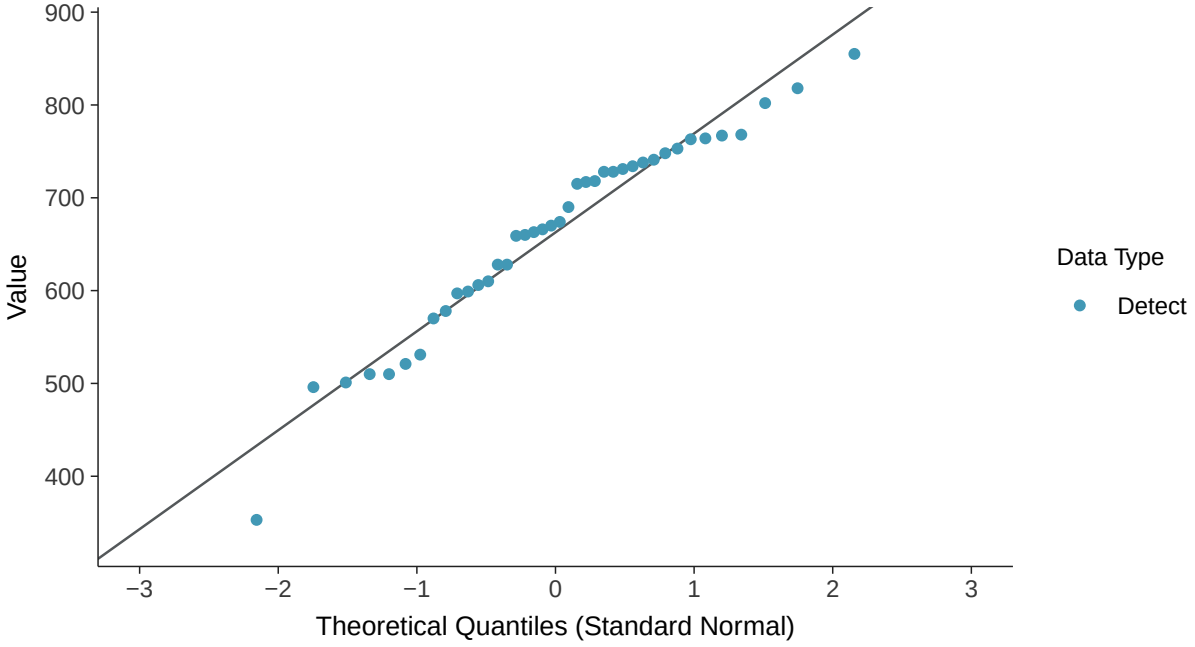
Boxplot by Season

Barium, MW-3 (ug/L)



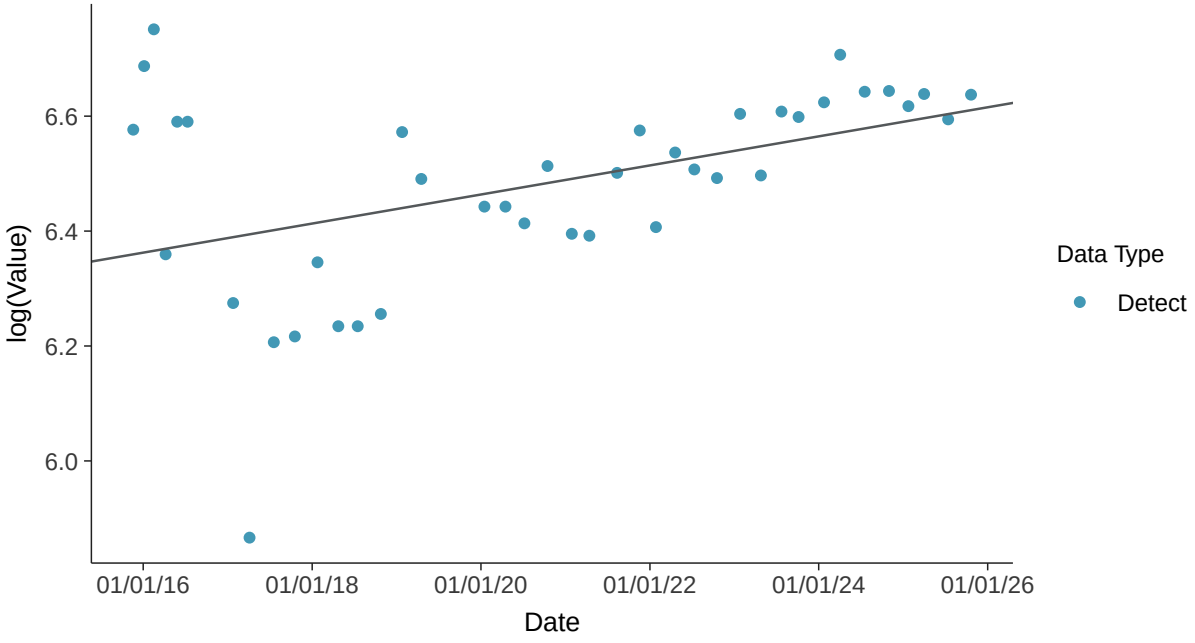
Normal Q-Q plot

Barium, MW-3 (ug/L)



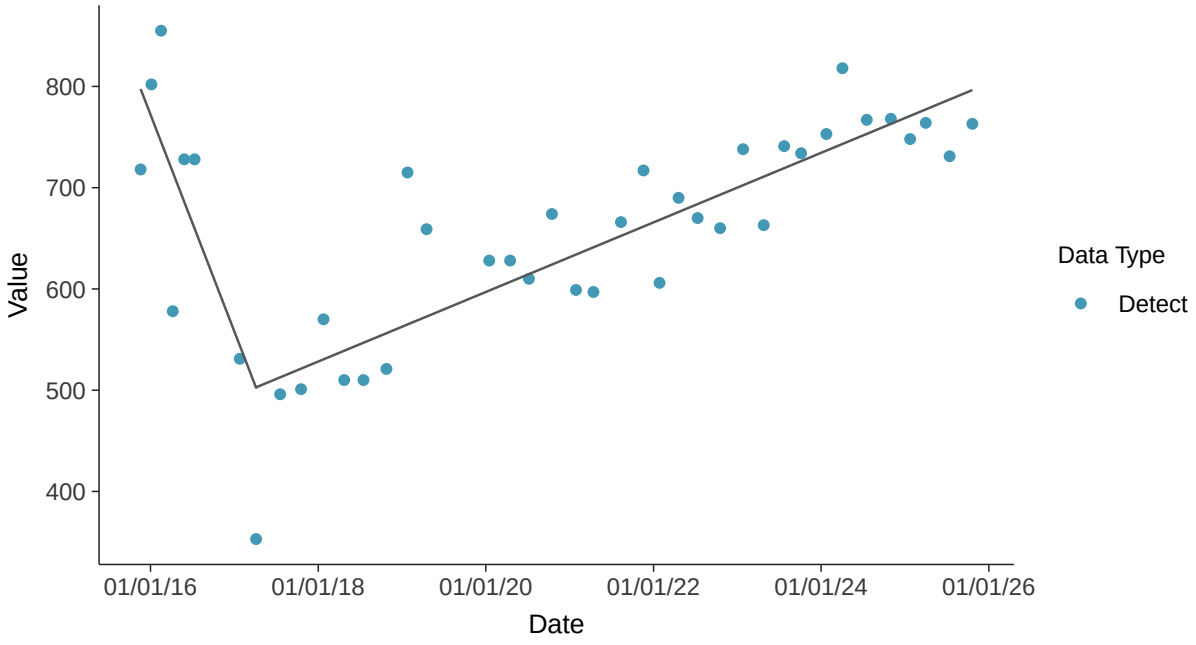
Trend Regression: Lognormal MLE

Barium, MW-3 (ug/L)



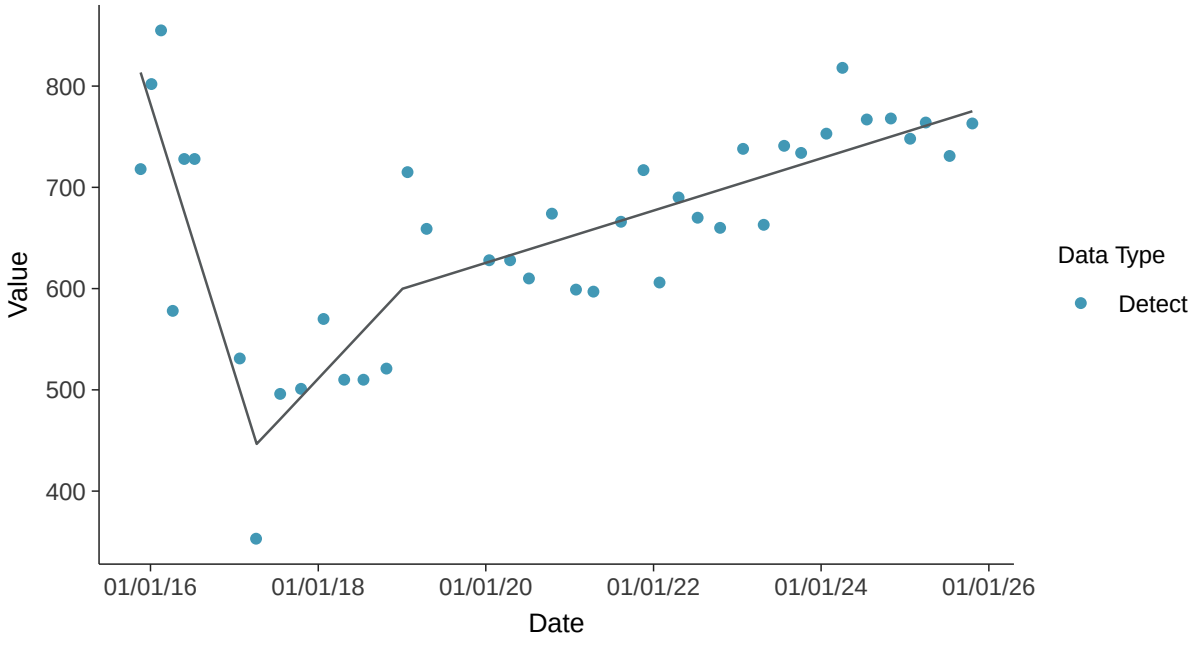
Trend Regression: Piecewise Linear-Linear

Barium, MW-3 (ug/L)



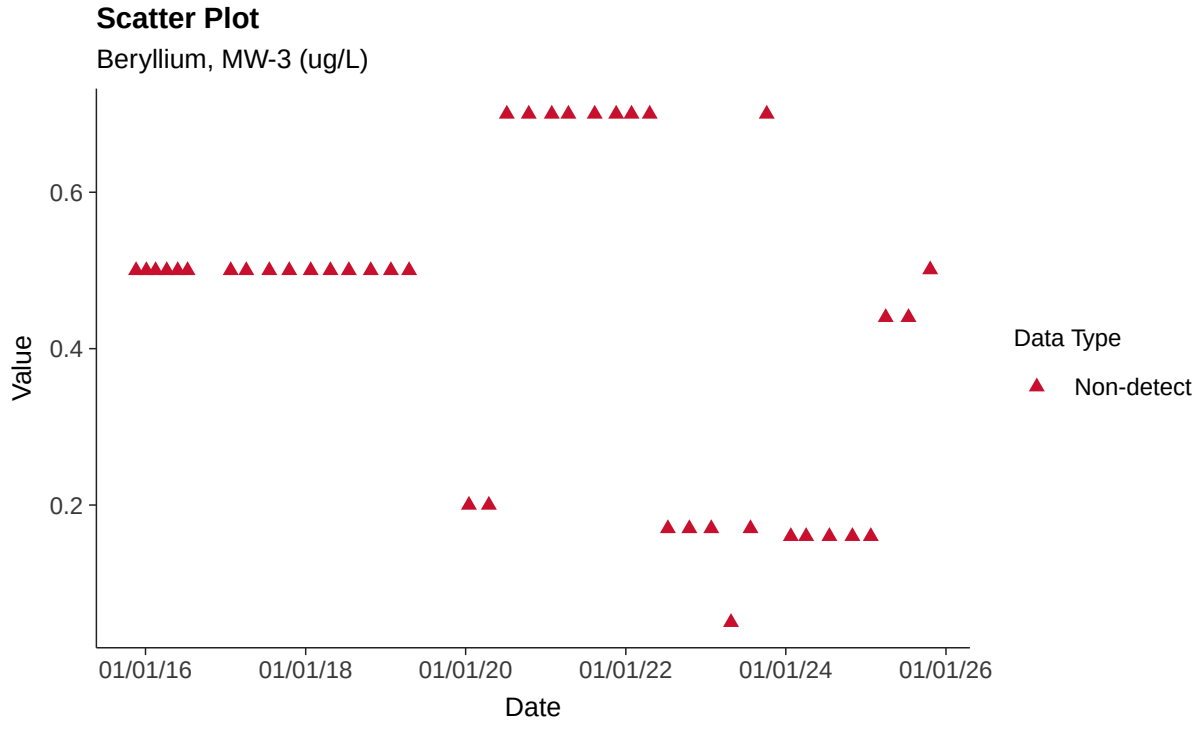
Trend Regression: Piecewise Linear-Linear-Linear

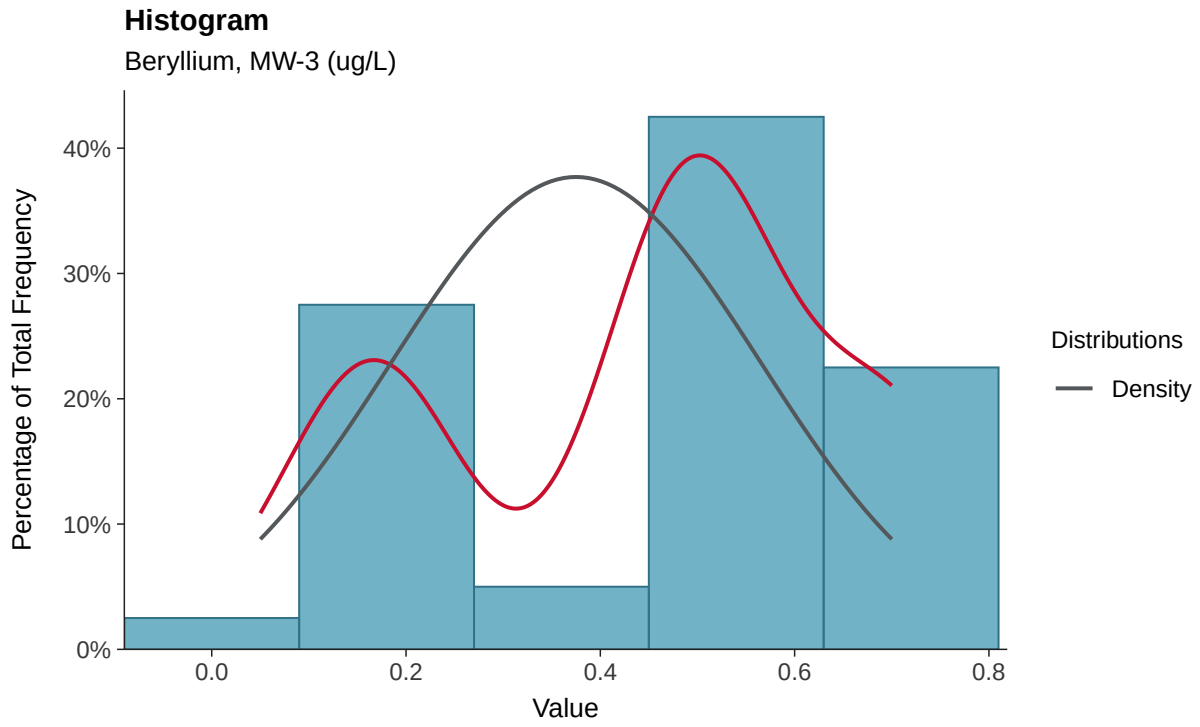
Barium, MW-3 (ug/L)



App. IV: Beryllium, MW-3

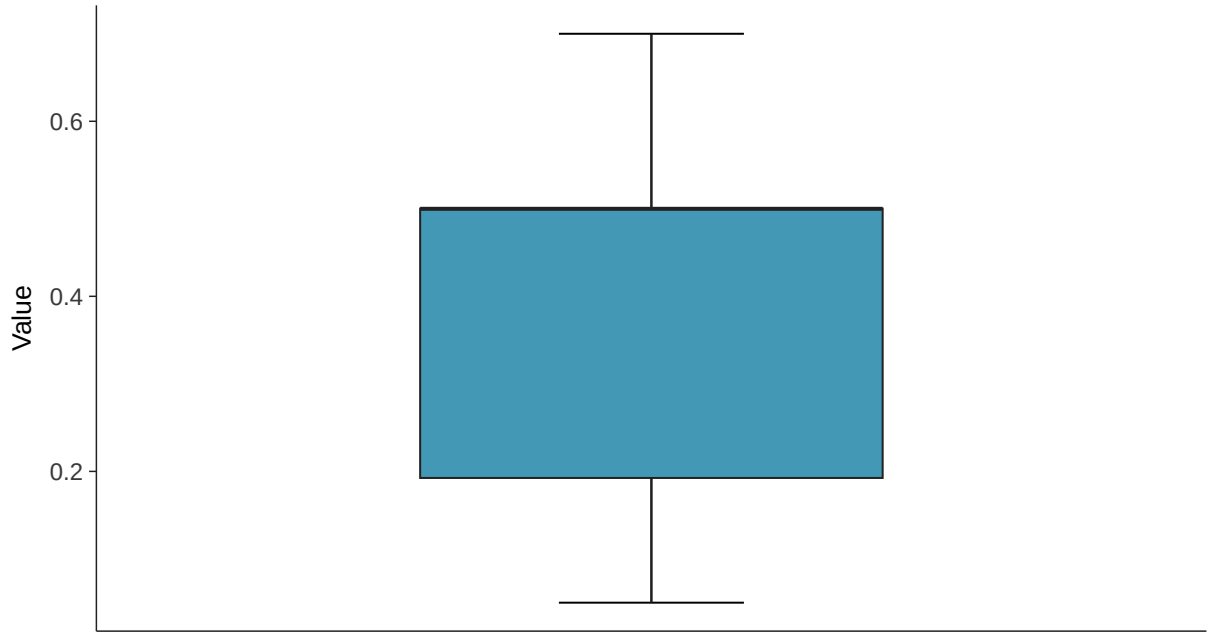
ID: 03_3_104





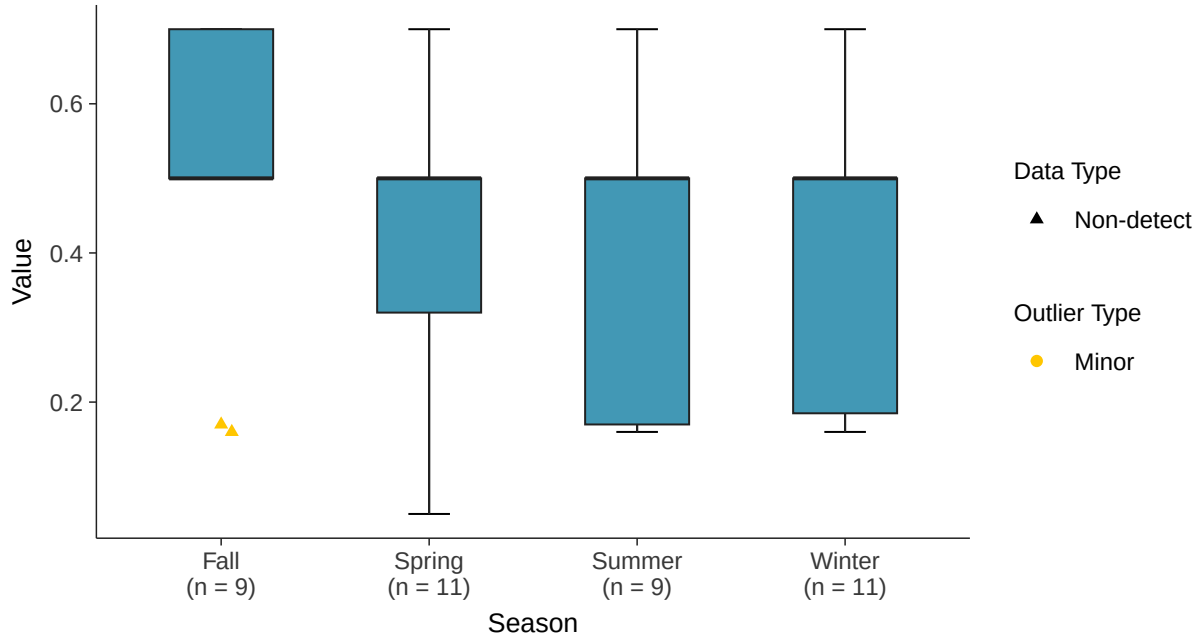
Boxplot

Beryllium, MW-3 (ug/L)



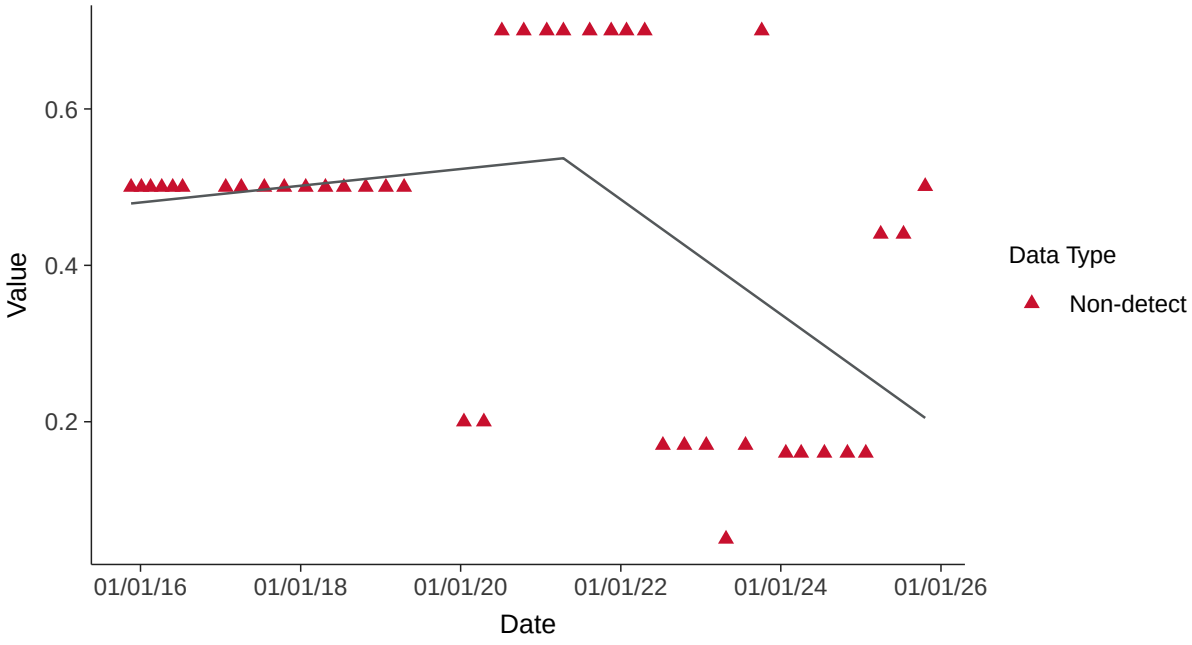
Boxplot by Season

Beryllium, MW-3 (ug/L)



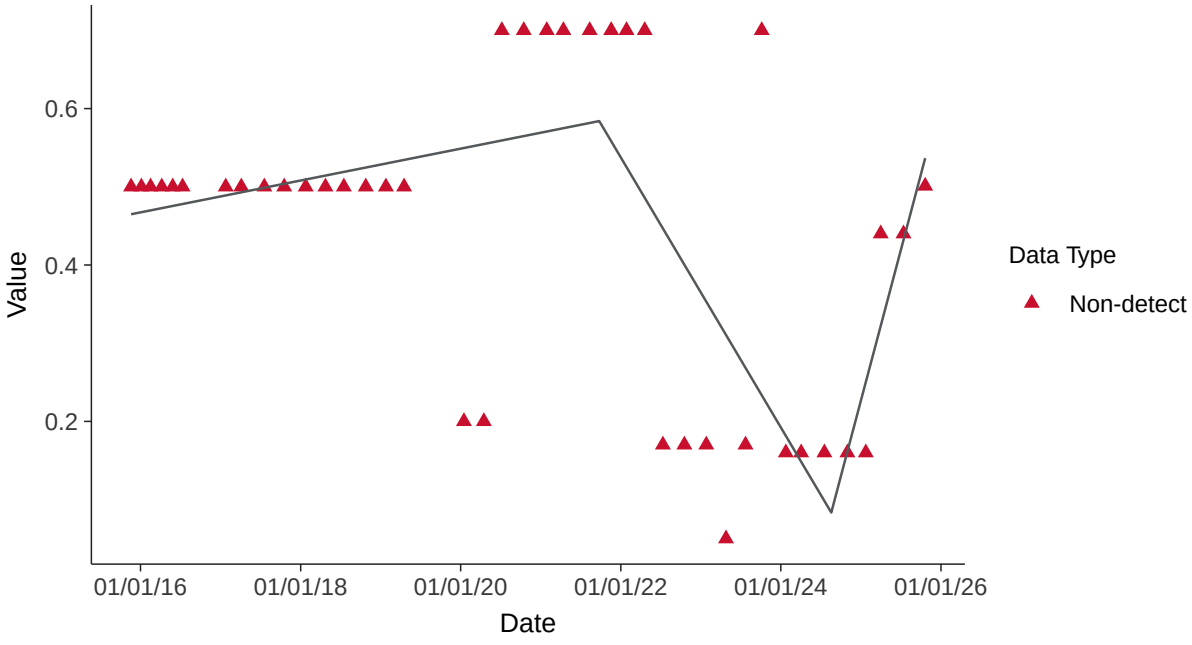
Trend Regression: Piecewise Linear-Linear

Beryllium, MW-3 (ug/L)



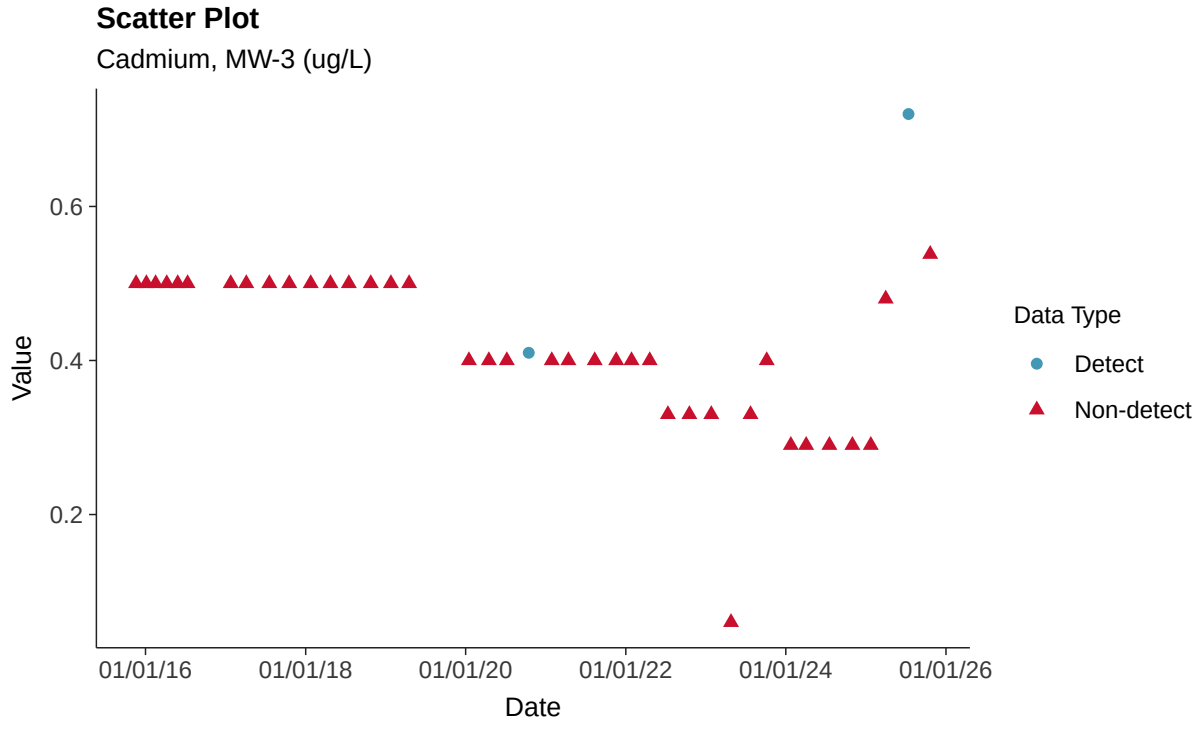
Trend Regression: Piecewise Linear-Linear-Linear

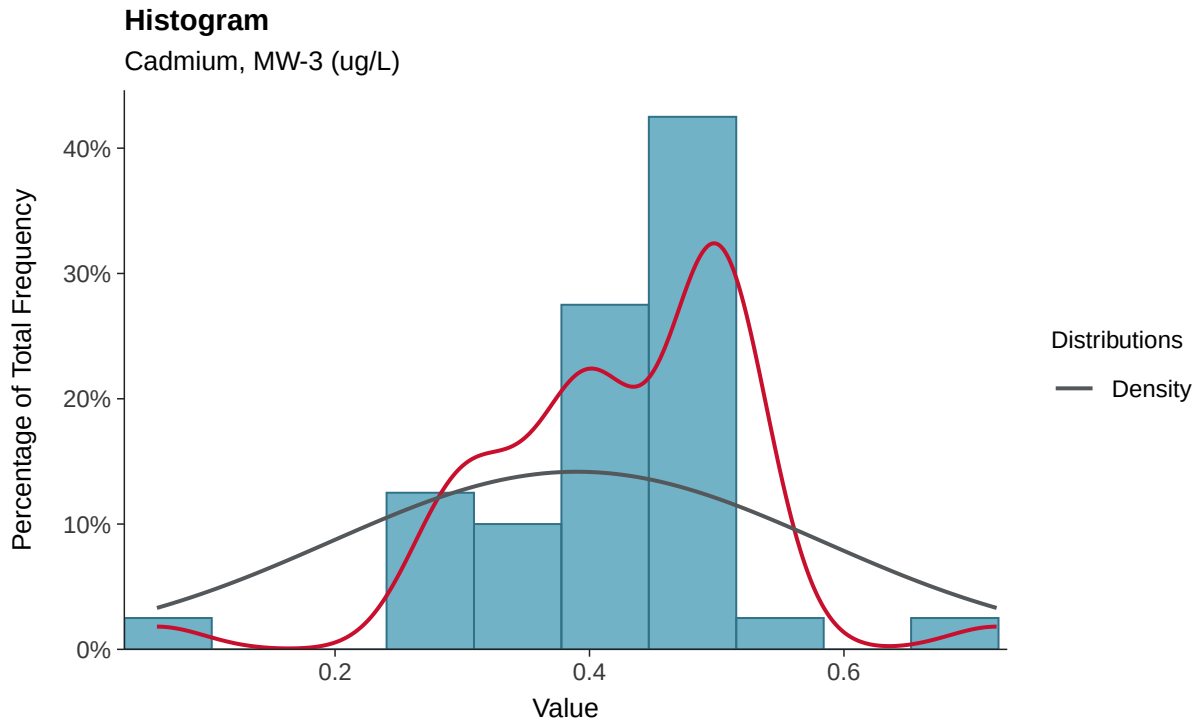
Beryllium, MW-3 (ug/L)



App. IV: Cadmium, MW-3

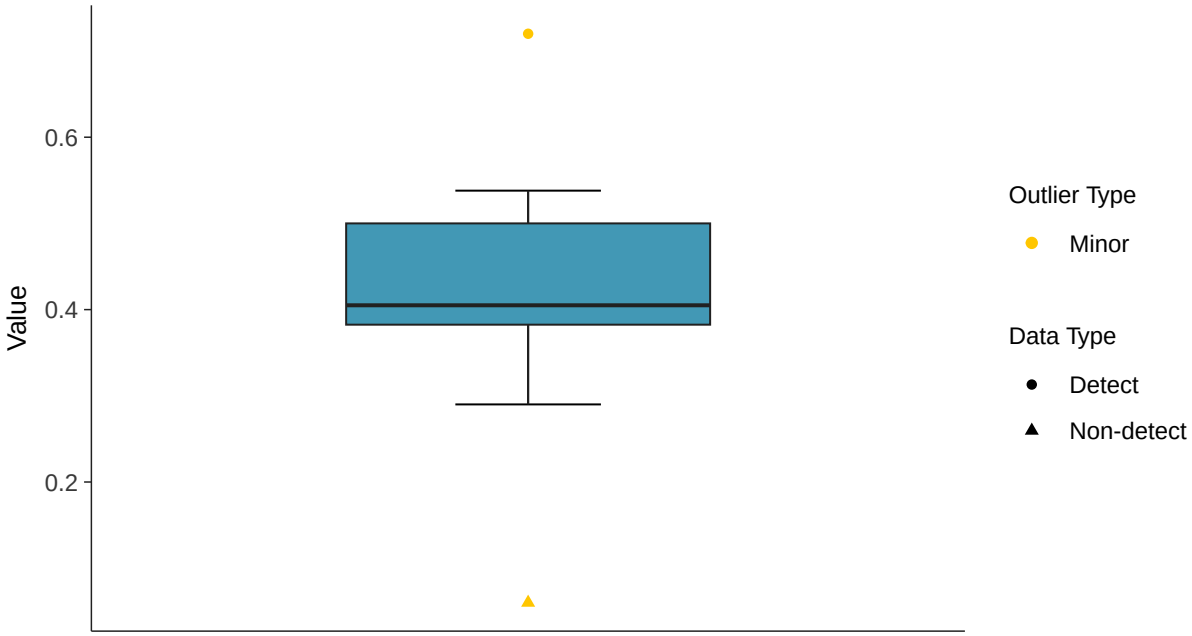
ID: 03_3_106





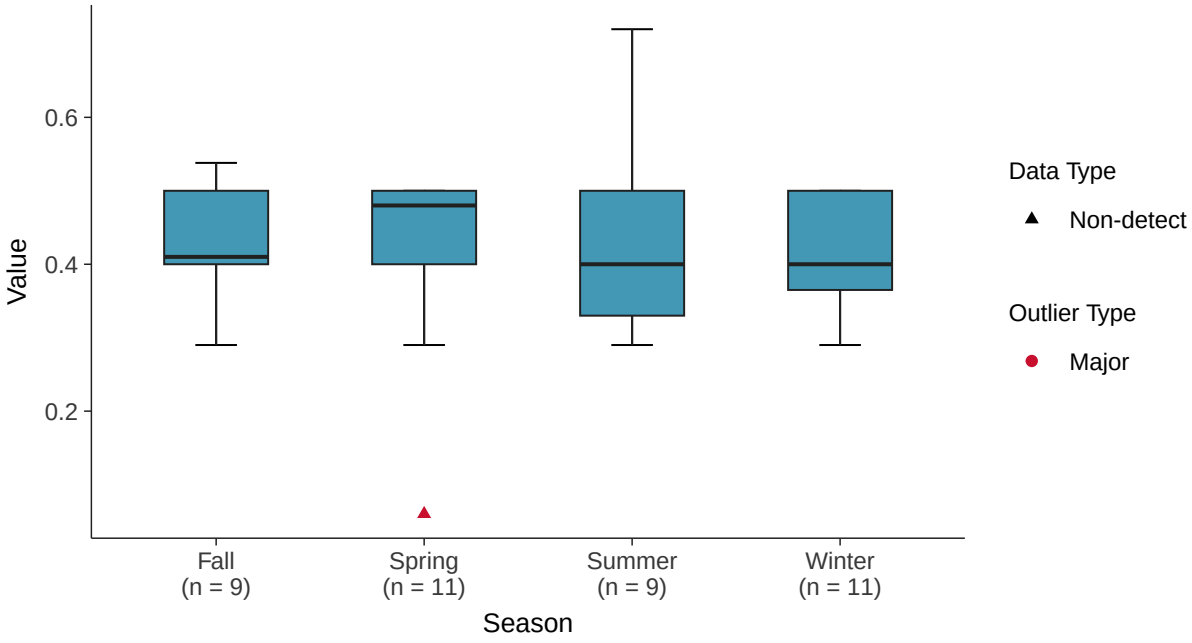
Boxplot

Cadmium, MW-3 (ug/L)



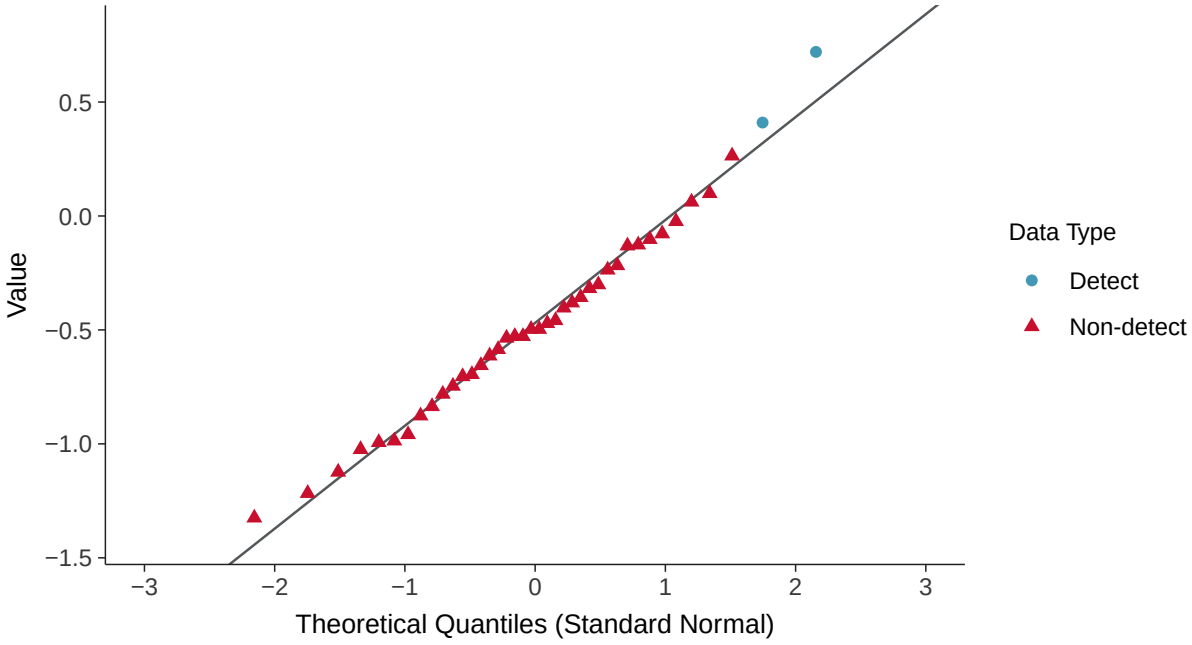
Boxplot by Season

Cadmium, MW-3 (ug/L)



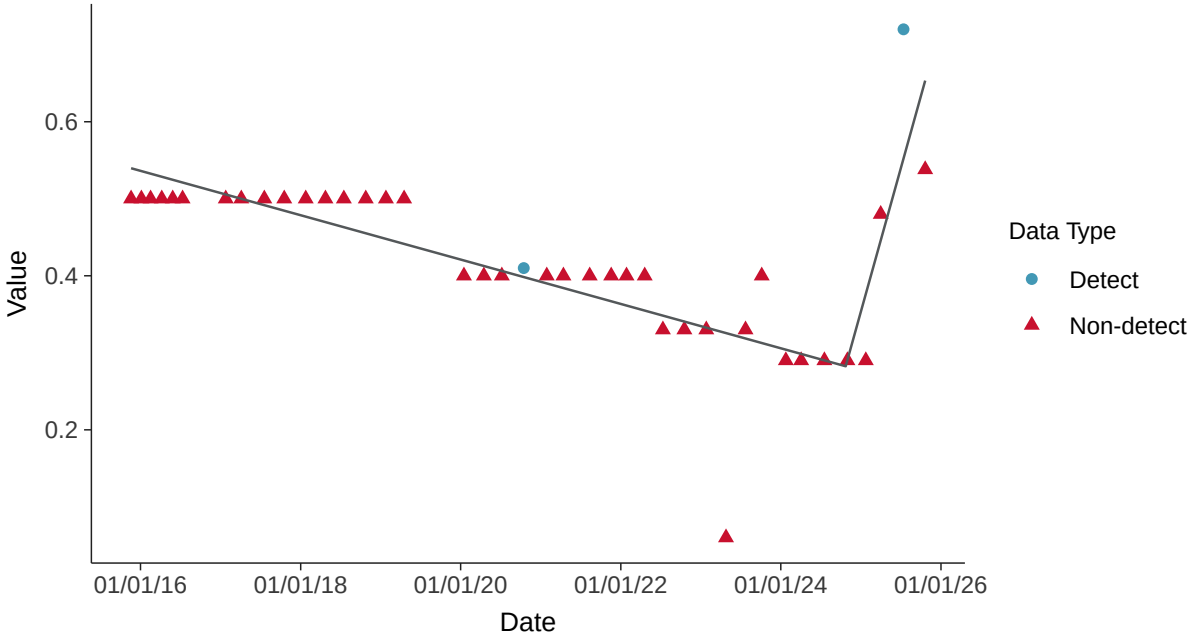
Normal Q-Q plot using ROS Imputed Estimates

Cadmium, MW-3 (ug/L)



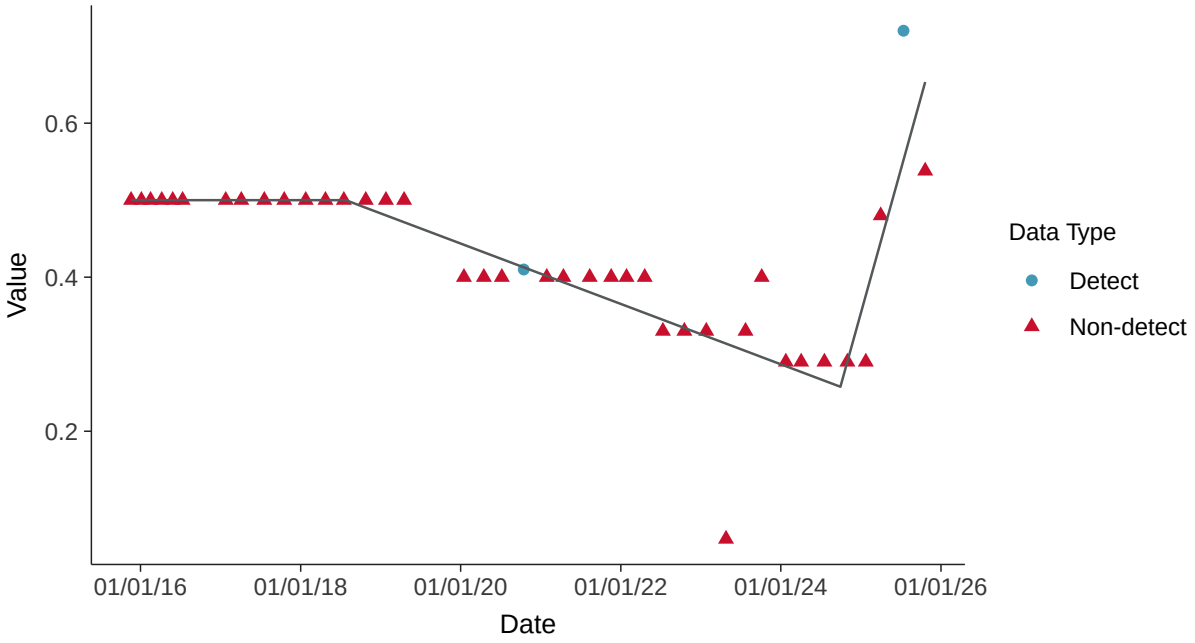
Trend Regression: Piecewise Linear-Linear

Cadmium, MW-3 (ug/L)



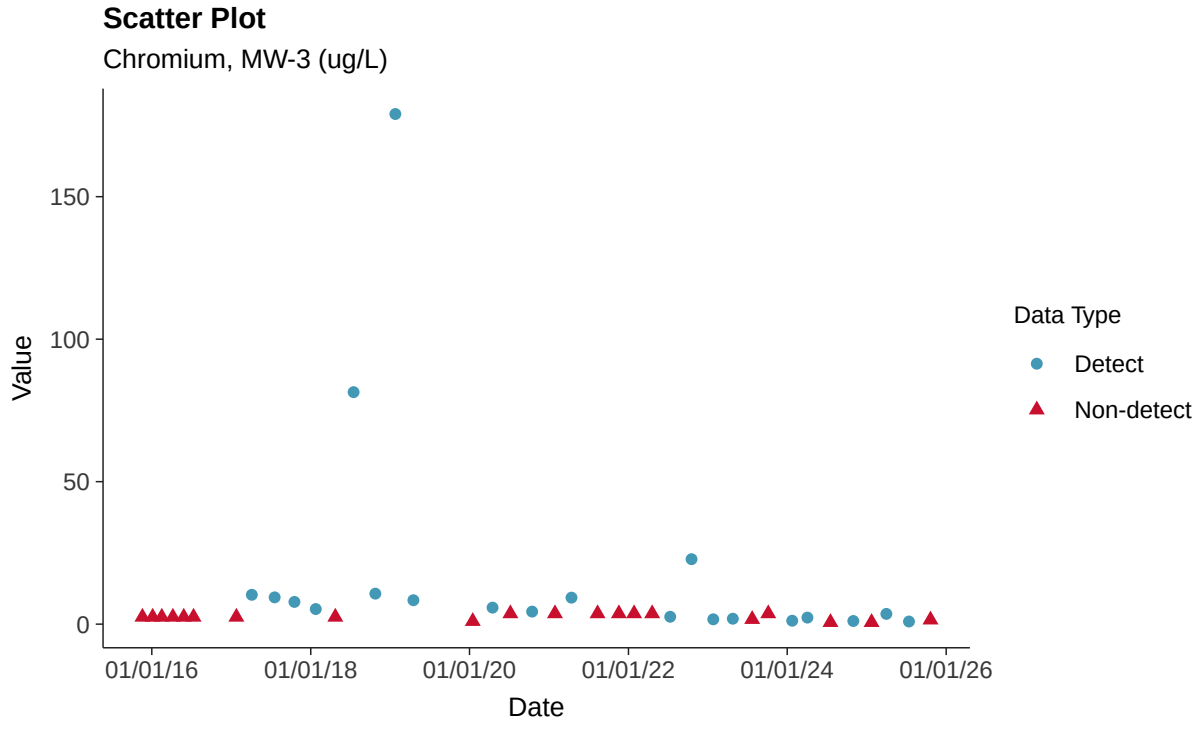
Trend Regression: Piecewise Linear-Linear-Linear

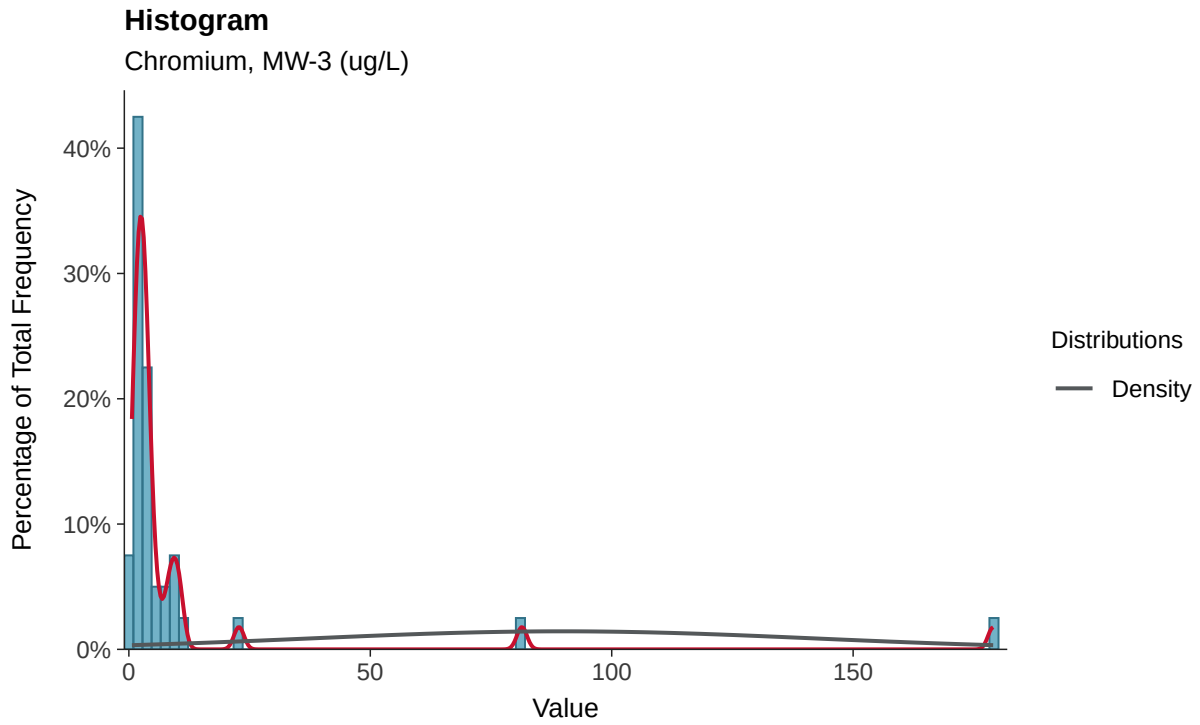
Cadmium, MW-3 (ug/L)



App. IV: Chromium, MW-3

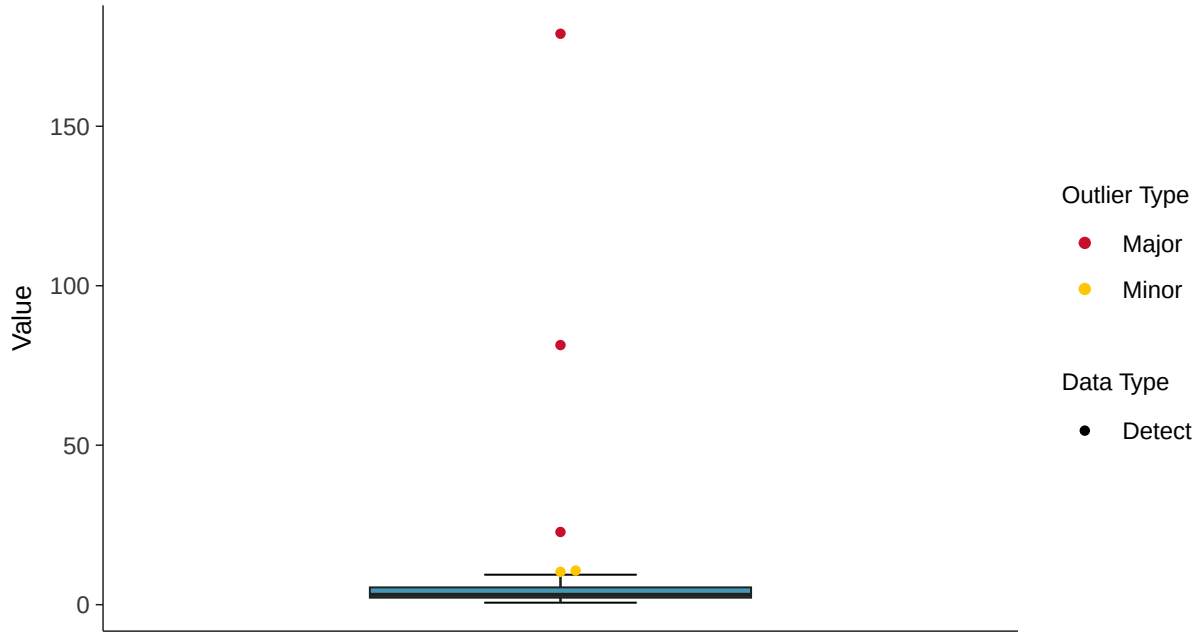
ID: 03_3_109





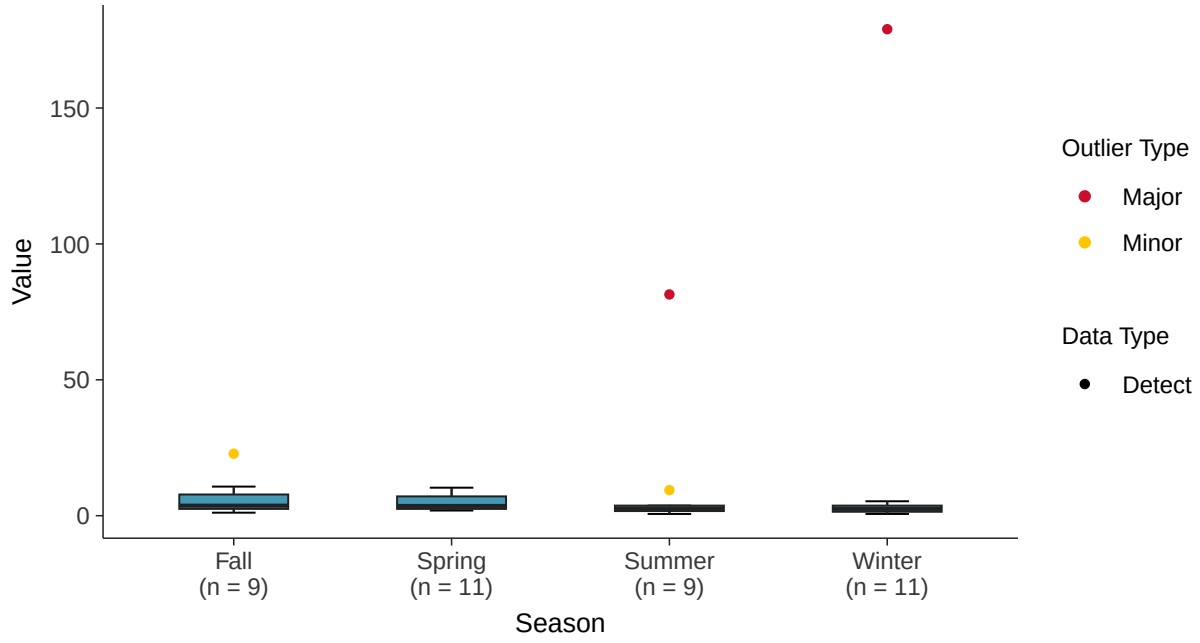
Boxplot

Chromium, MW-3 (ug/L)



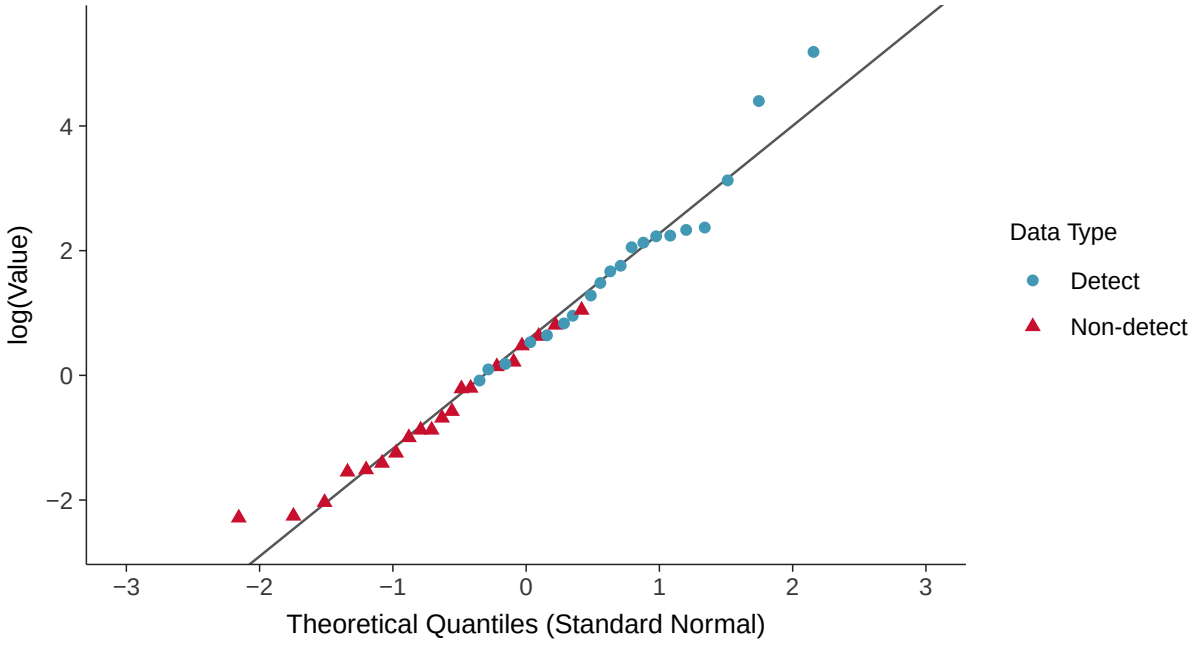
Boxplot by Season

Chromium, MW-3 (ug/L)



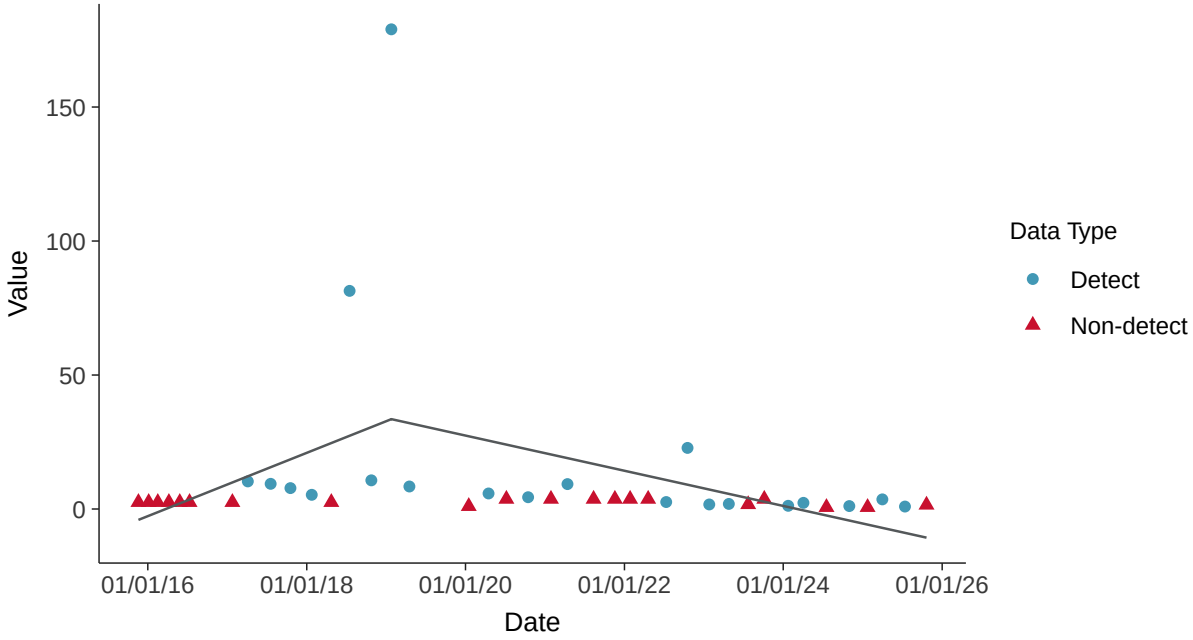
Lognormal Q-Q plot using ROS Imputed Estimates

Chromium, MW-3 (ug/L)



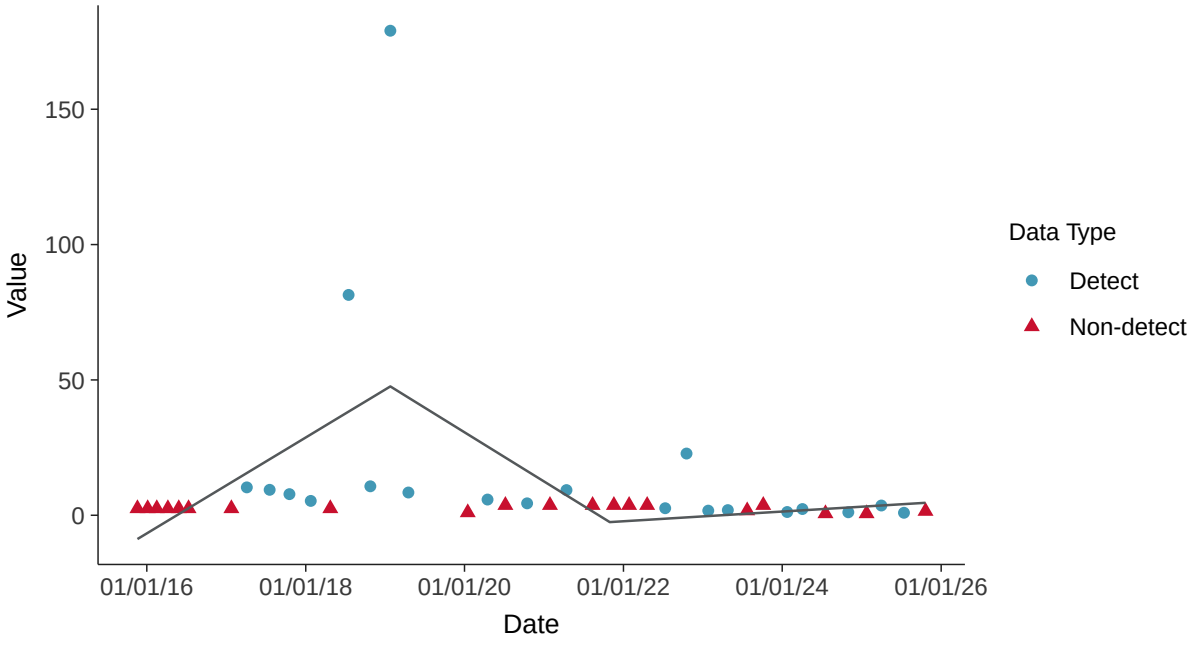
Trend Regression: Piecewise Linear-Linear

Chromium, MW-3 (ug/L)



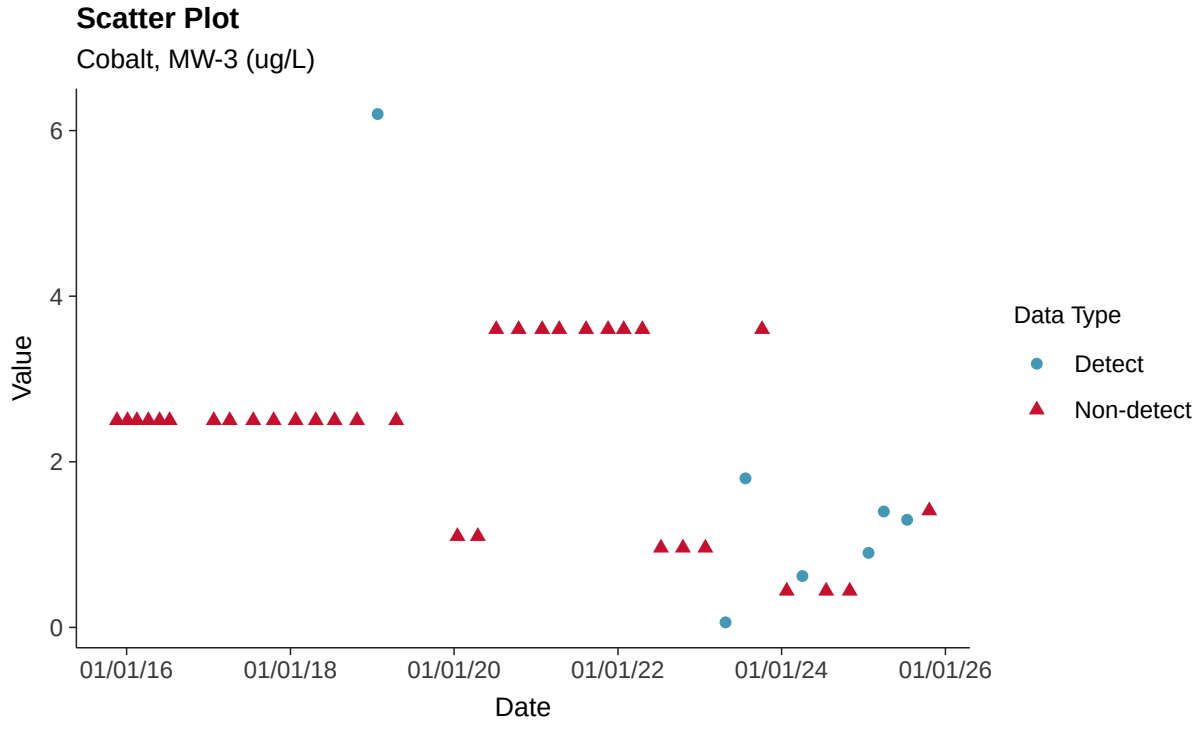
Trend Regression: Piecewise Linear-Linear-Linear

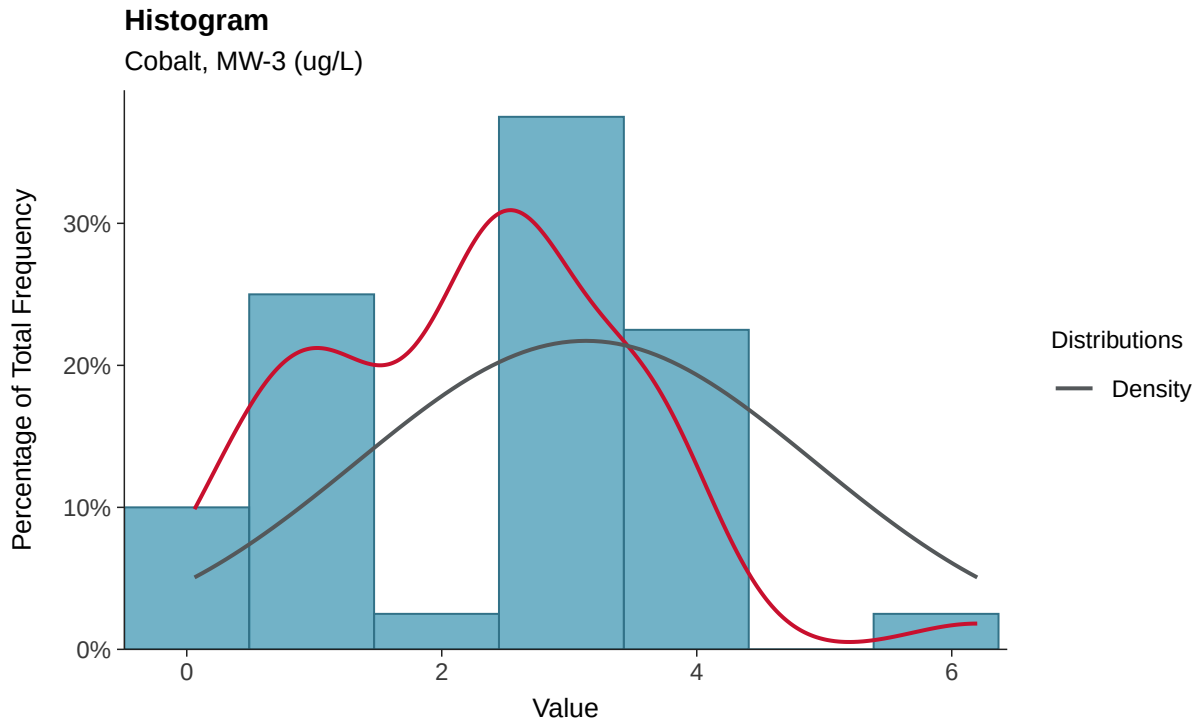
Chromium, MW-3 (ug/L)



App. IV: Cobalt, MW-3

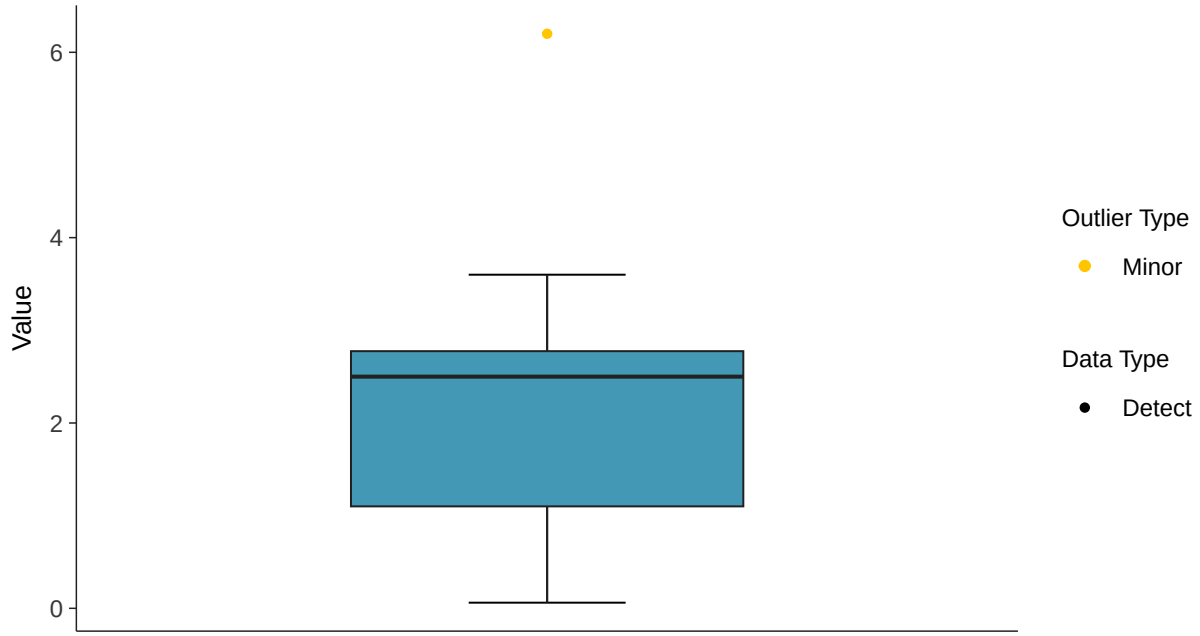
ID: 03_3_110





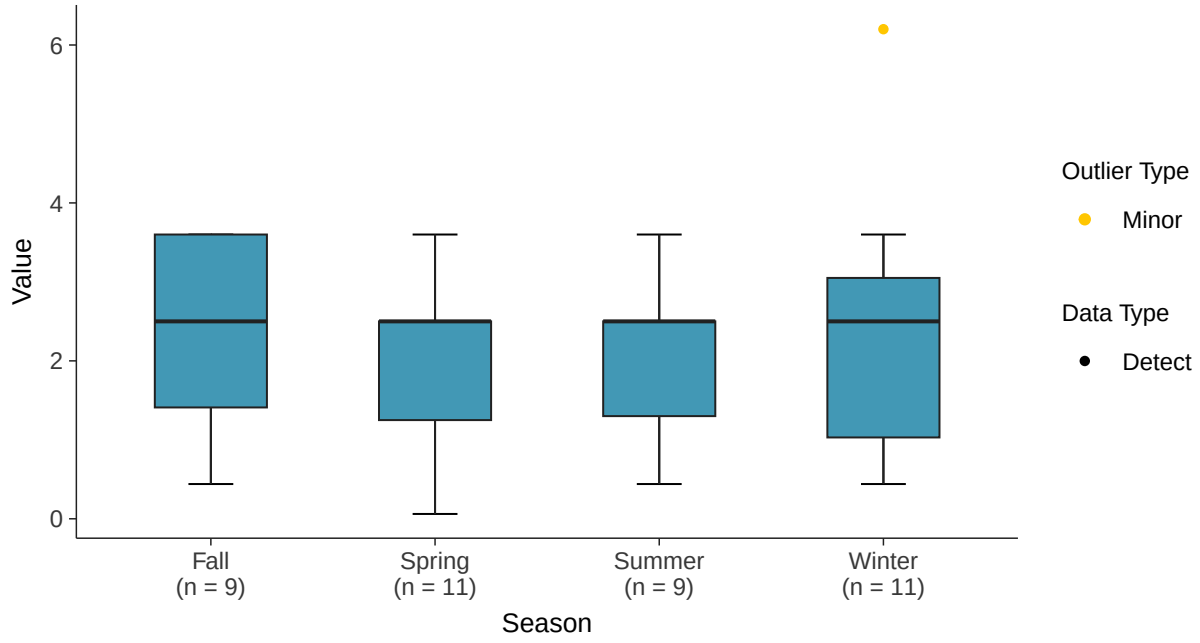
Boxplot

Cobalt, MW-3 (ug/L)



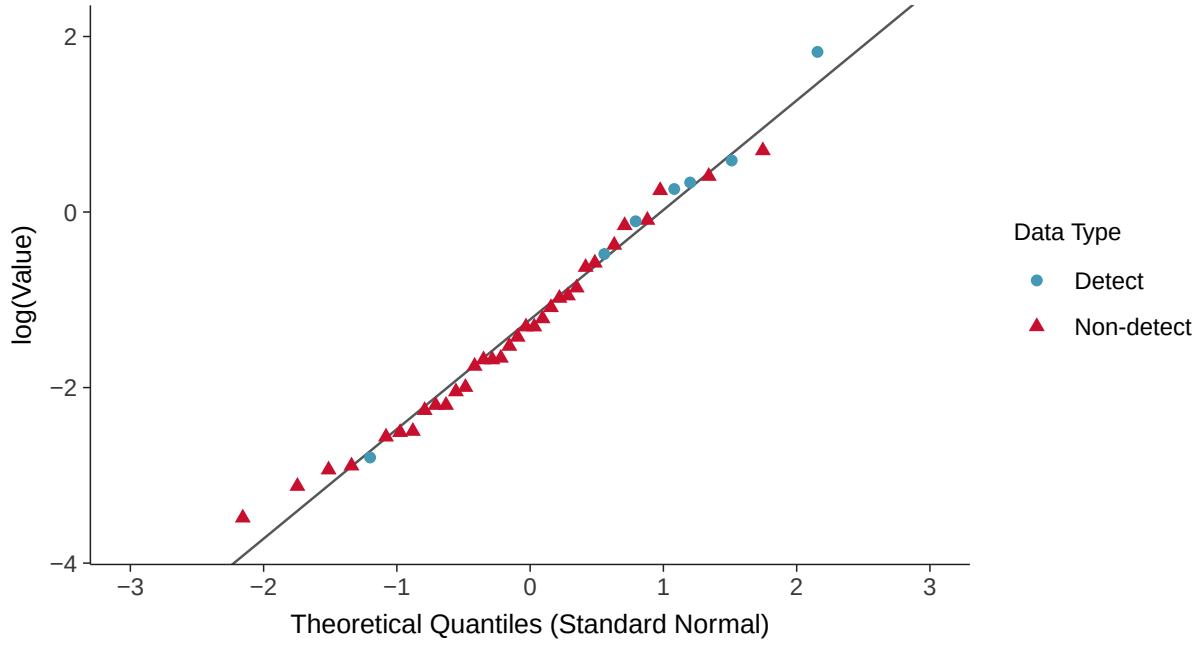
Boxplot by Season

Cobalt, MW-3 (ug/L)



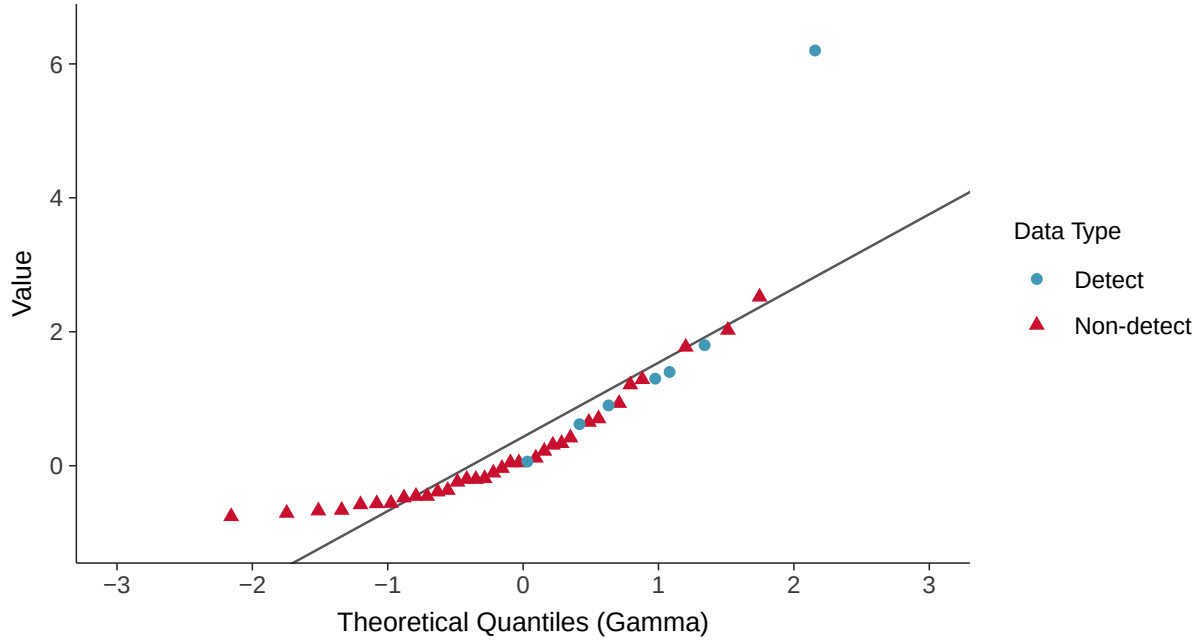
Lognormal Q-Q plot using ROS Imputed Estimates

Cobalt, MW-3 (ug/L)



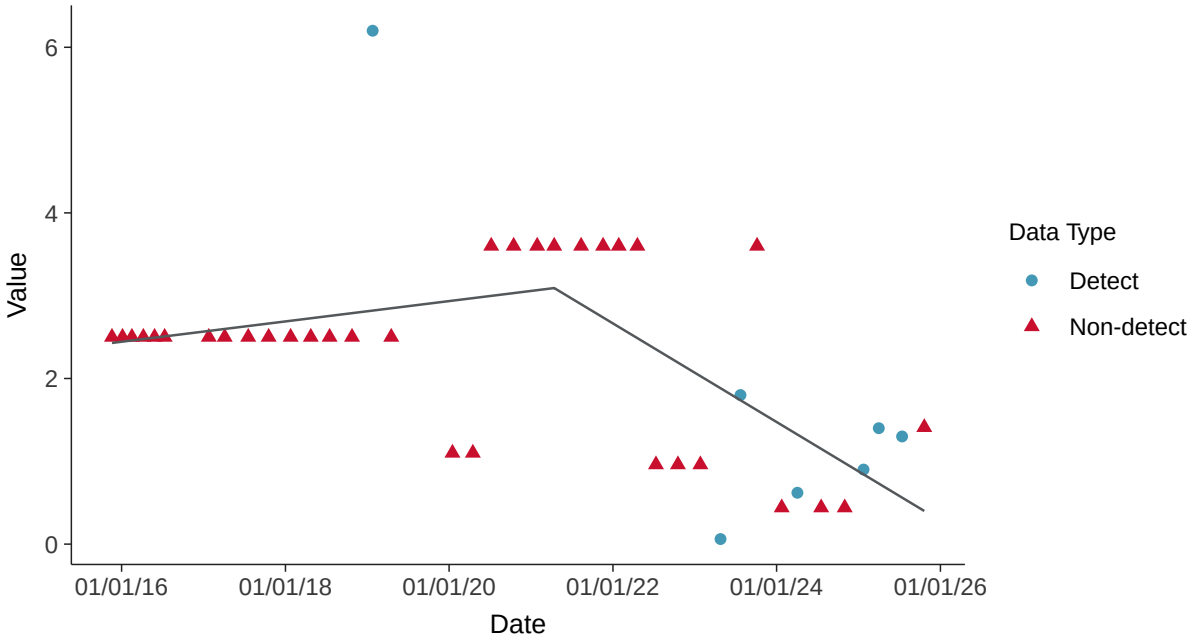
Gamma Q-Q plot using ROS Imputed Estimates

Cobalt, MW-3 (ug/L)



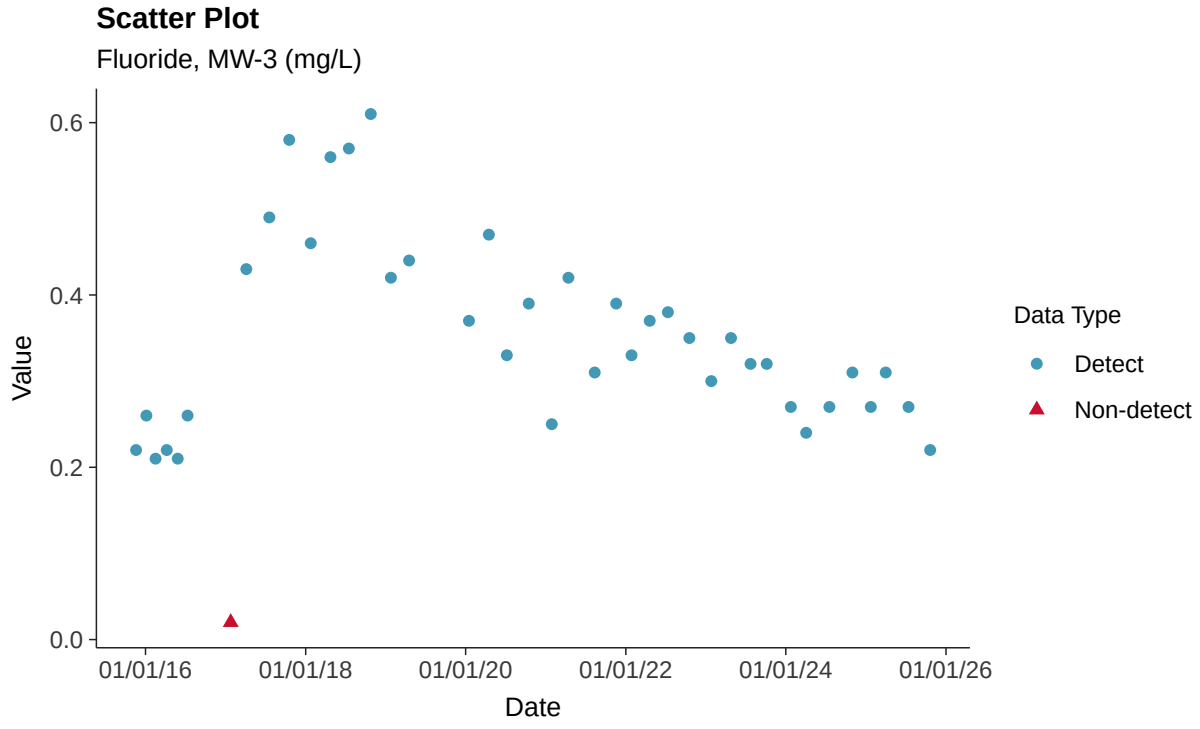
Trend Regression: Piecewise Linear-Linear

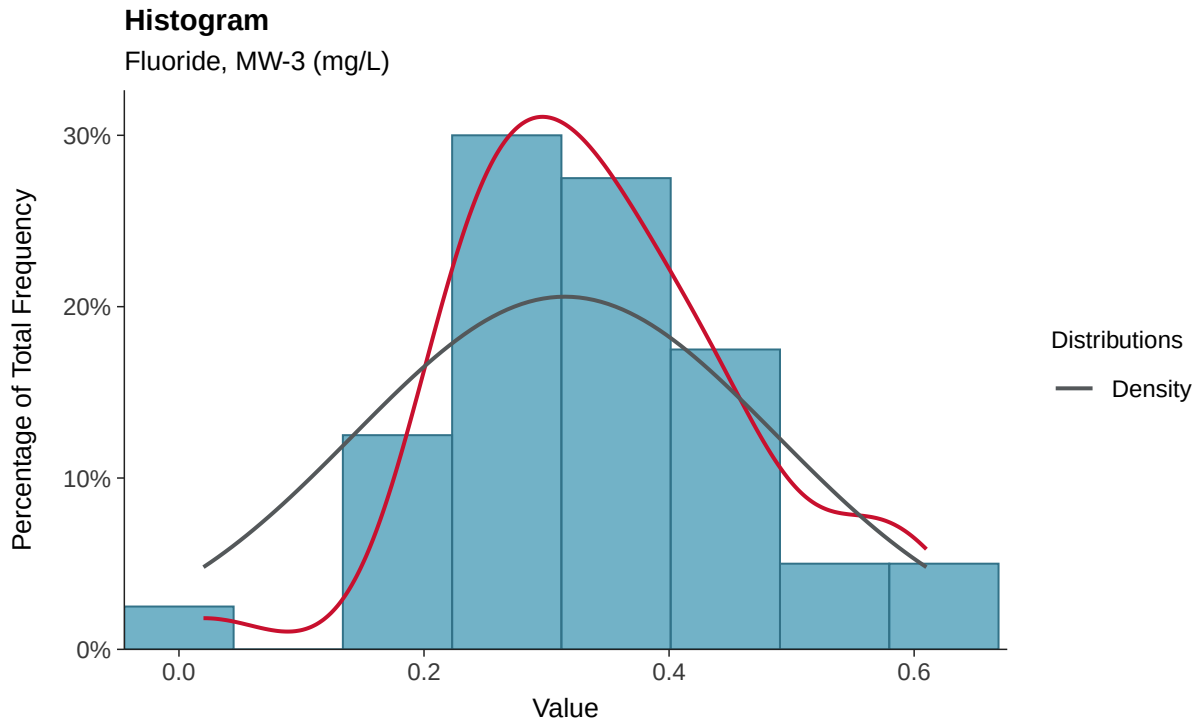
Cobalt, MW-3 (ug/L)



App. IV: Fluoride, MW-3

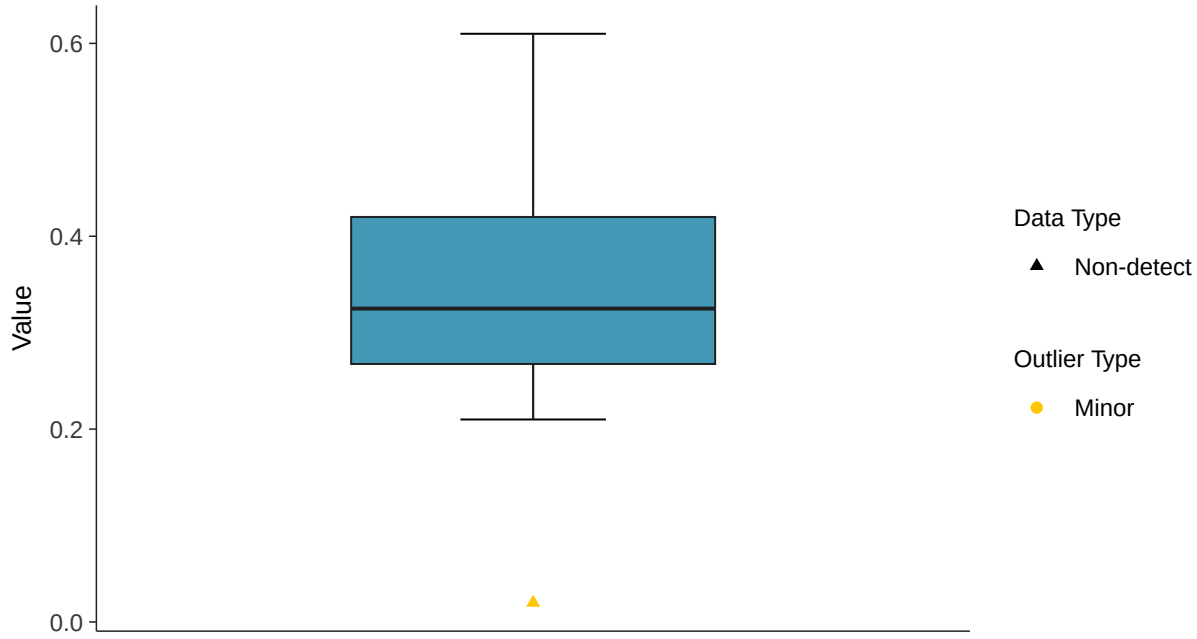
ID: 03_3_112





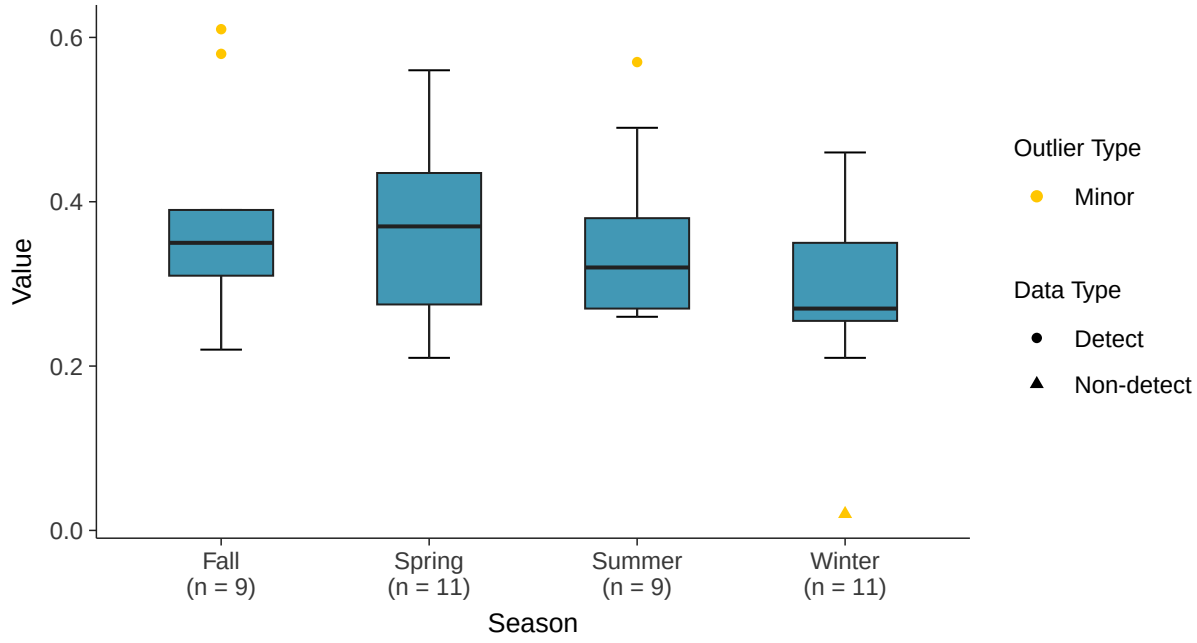
Boxplot

Fluoride, MW-3 (mg/L)



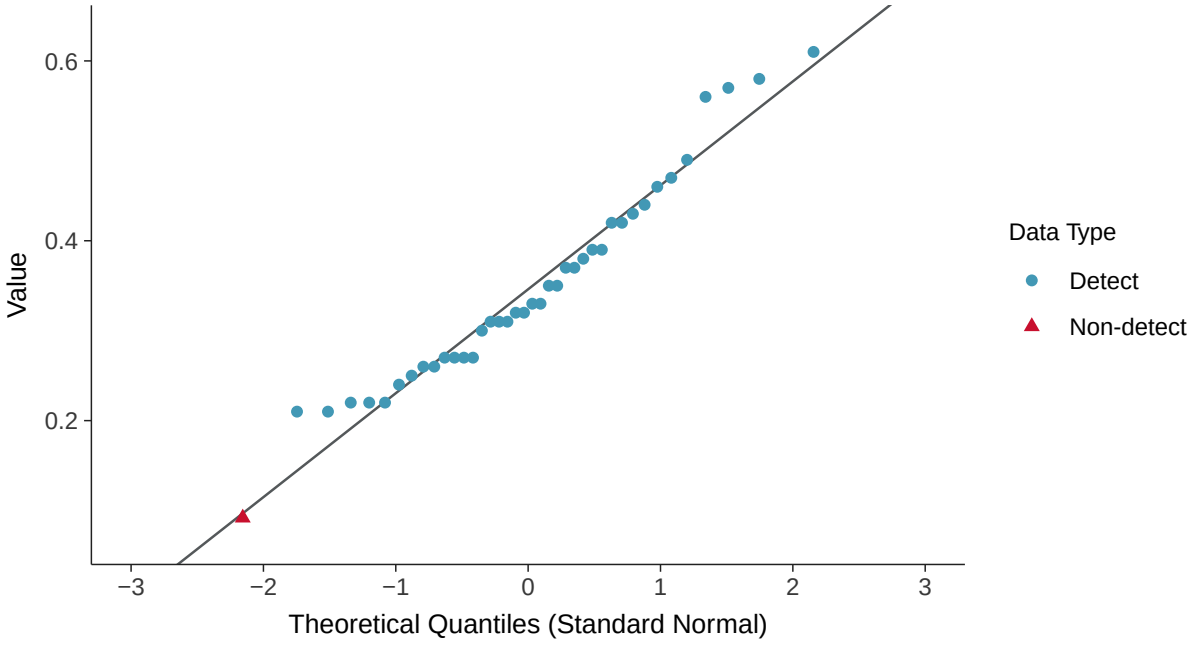
Boxplot by Season

Fluoride, MW-3 (mg/L)



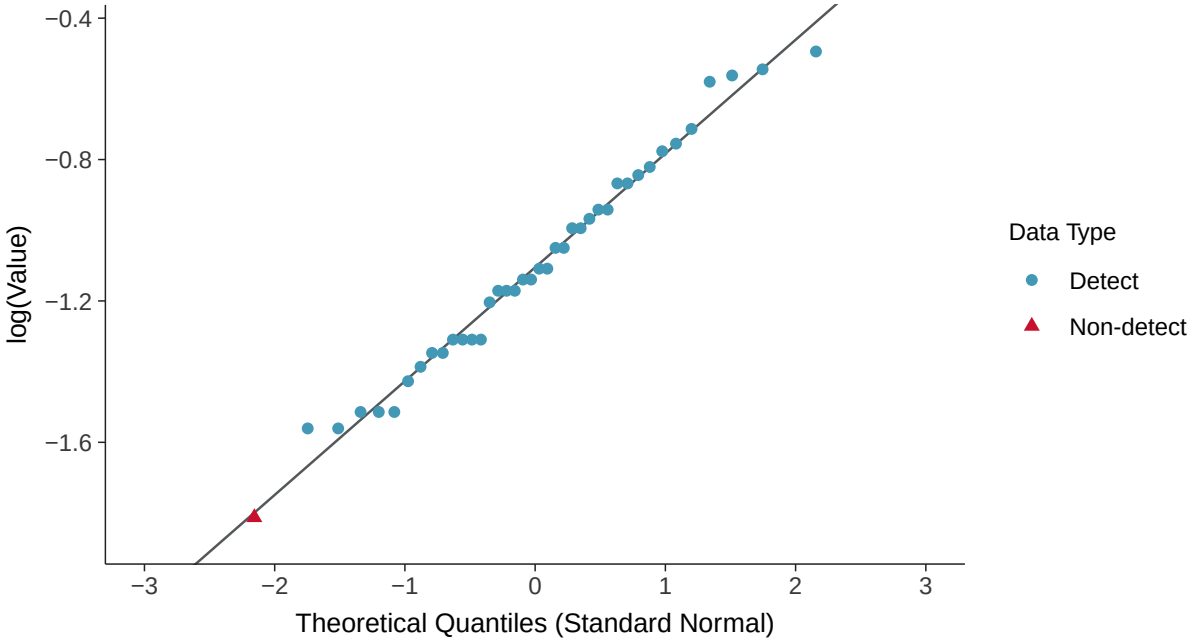
Normal Q-Q plot using ROS Imputed Estimates

Fluoride, MW-3 (mg/L)



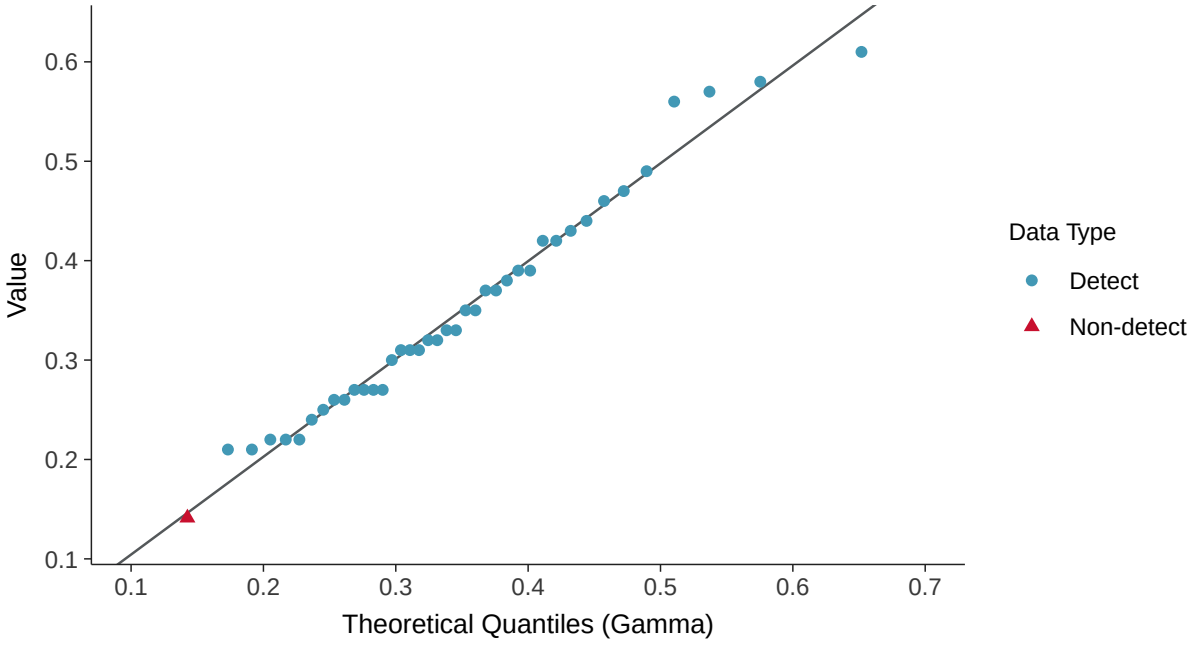
Lognormal Q-Q plot using ROS Imputed Estimates

Fluoride, MW-3 (mg/L)



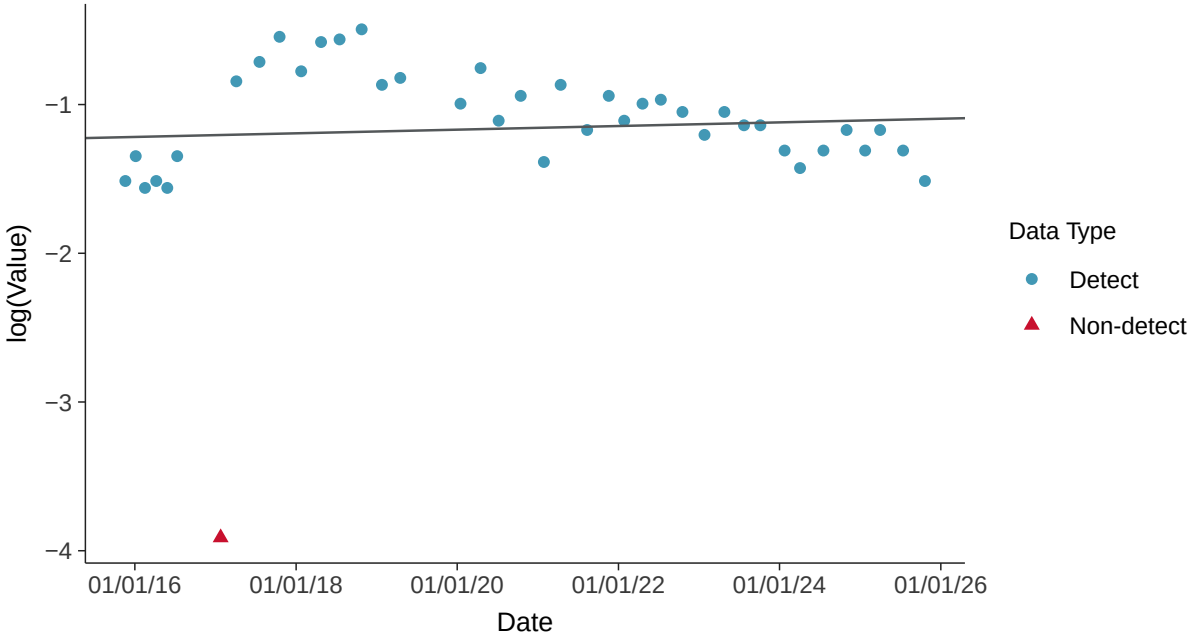
Gamma Q-Q plot using ROS Imputed Estimates

Fluoride, MW-3 (mg/L)



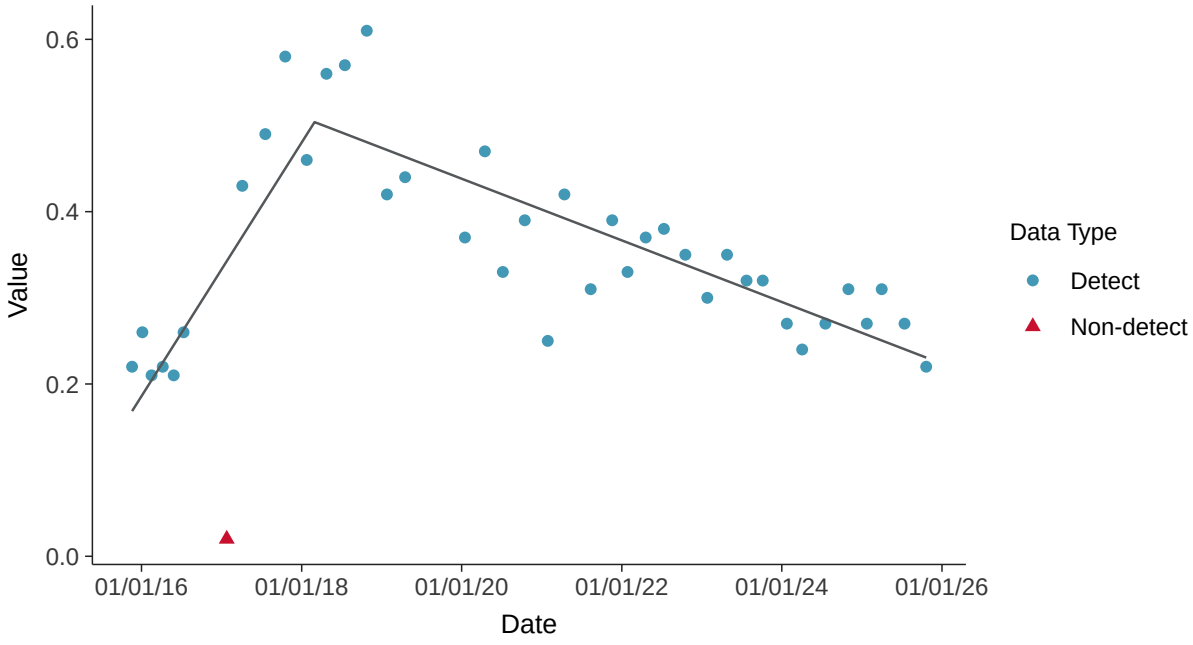
Trend Regression: Lognormal MLE

Fluoride, MW-3 (mg/L)



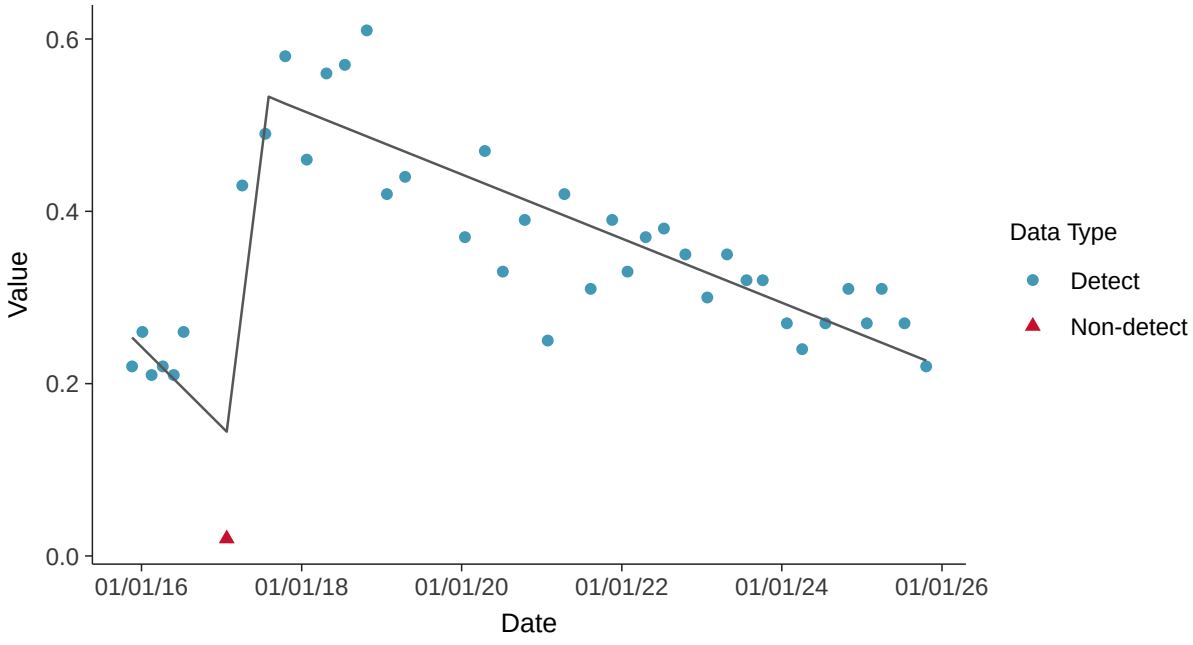
Trend Regression: Piecewise Linear-Linear

Fluoride, MW-3 (mg/L)



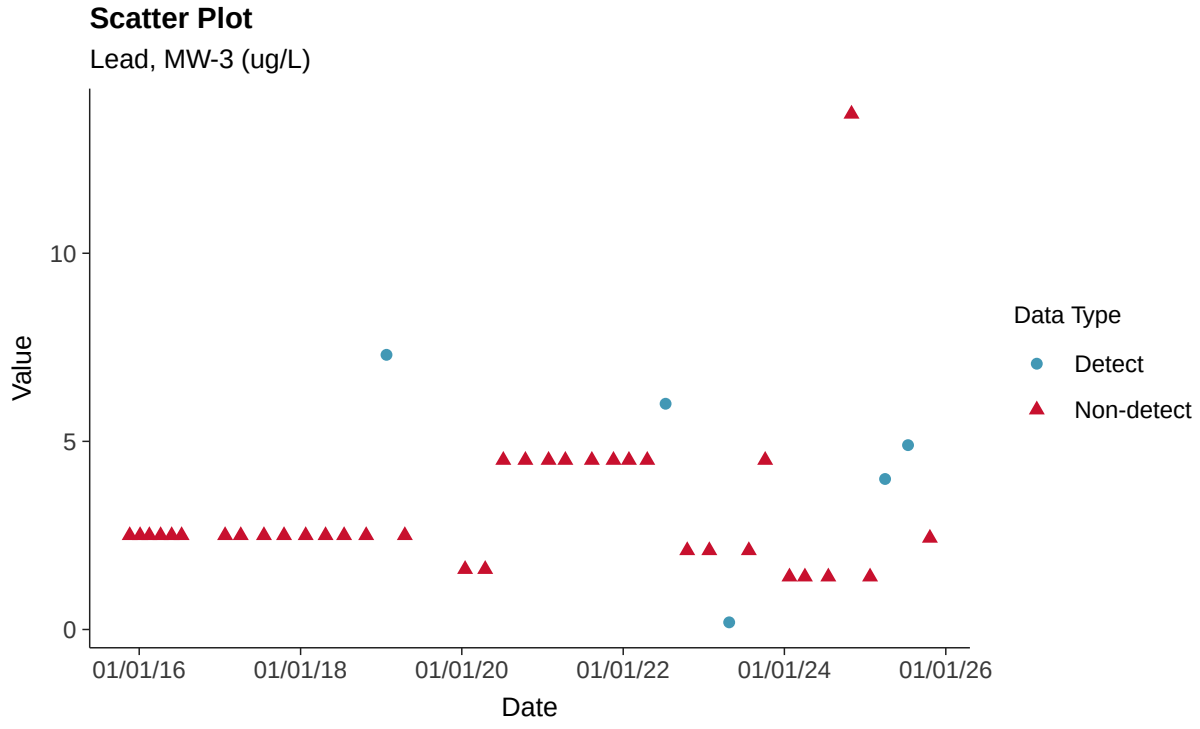
Trend Regression: Piecewise Linear-Linear-Linear

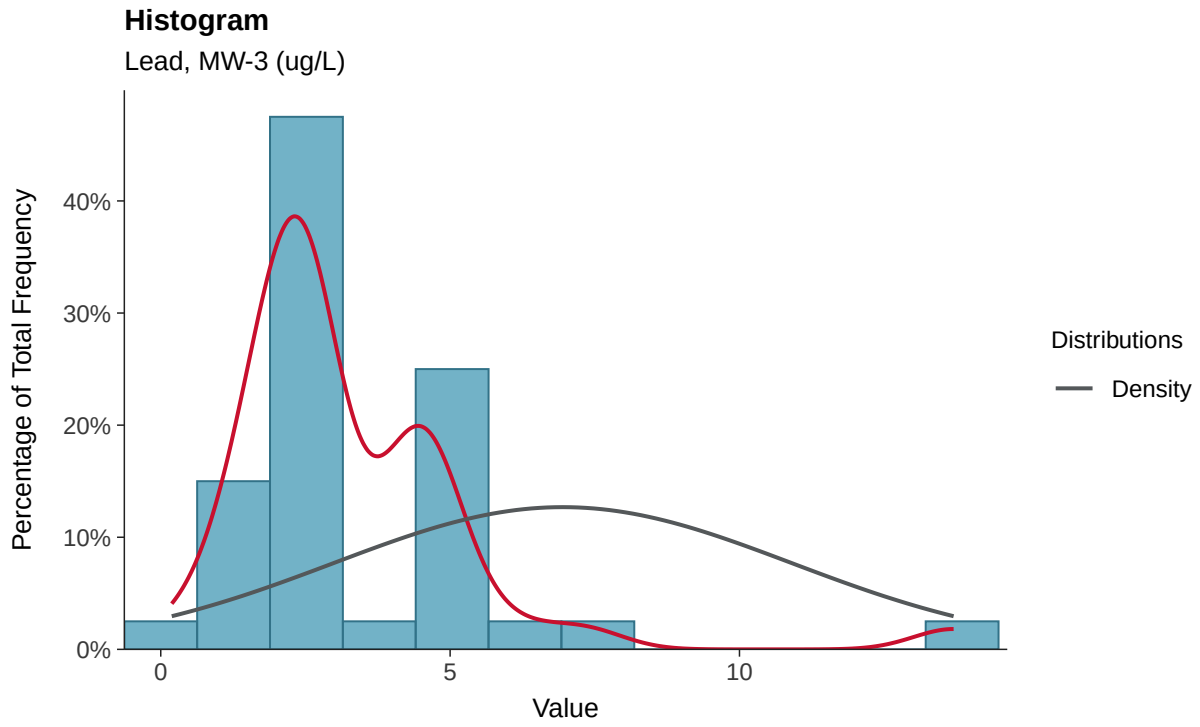
Fluoride, MW-3 (mg/L)



App. IV: Lead, MW-3

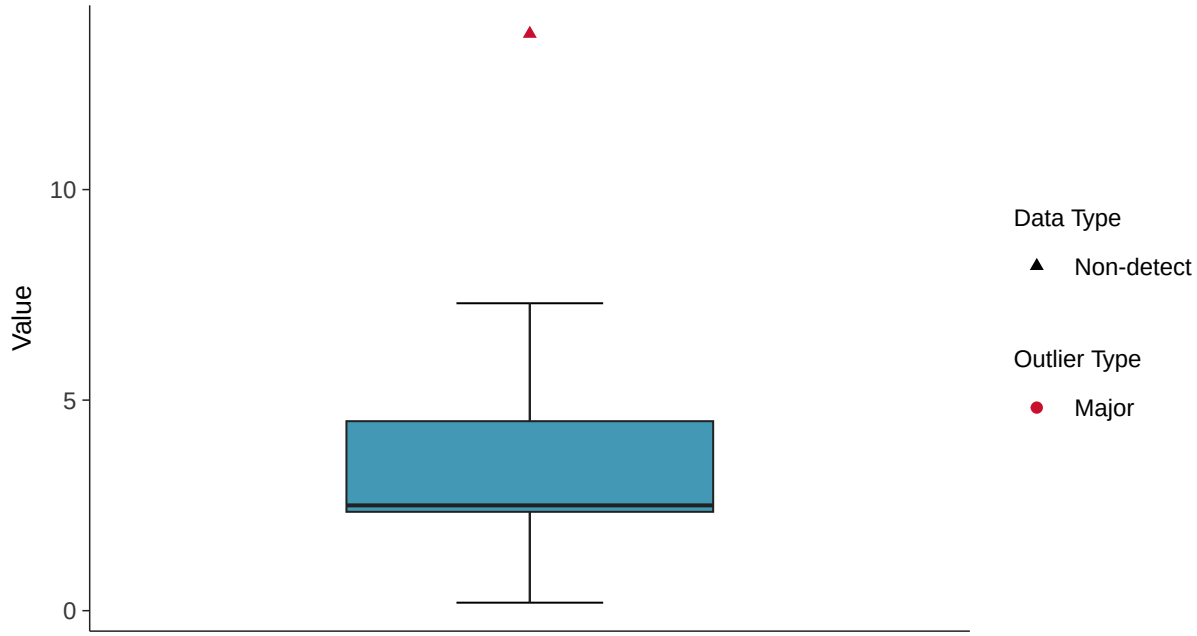
ID: 03_3_113





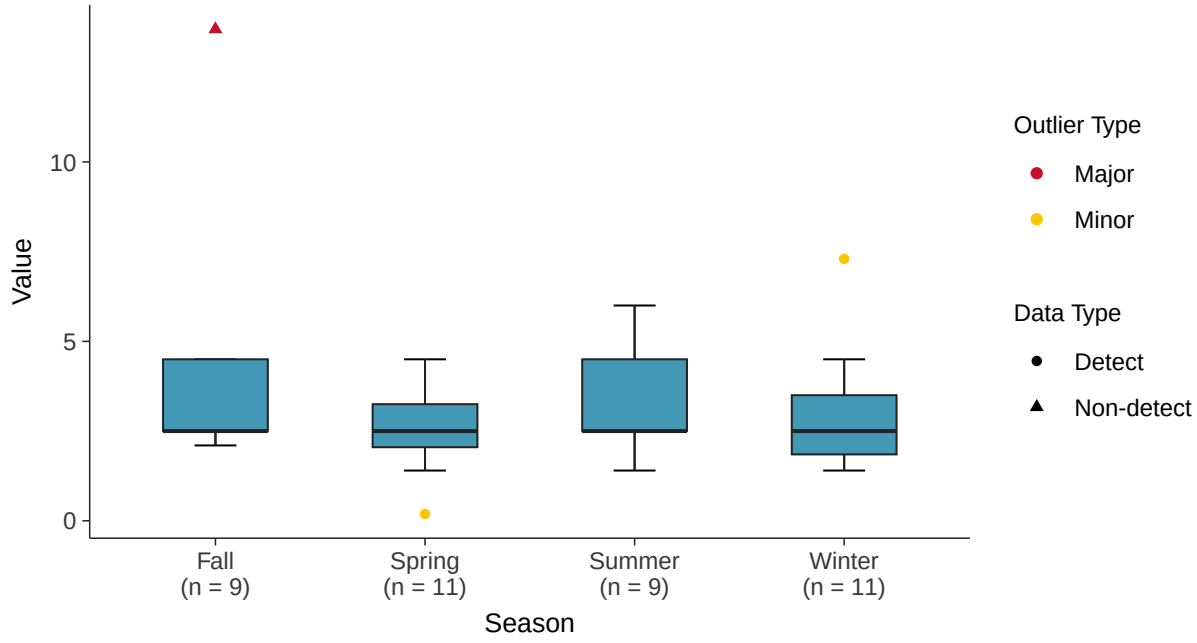
Boxplot

Lead, MW-3 (ug/L)



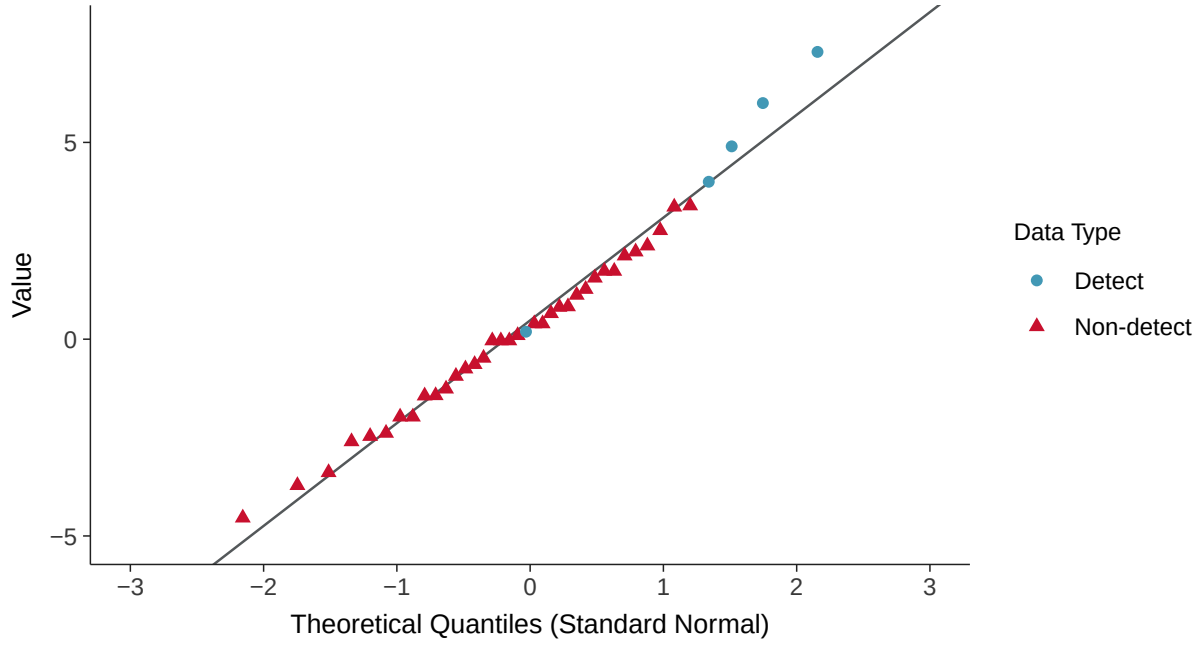
Boxplot by Season

Lead, MW-3 (ug/L)



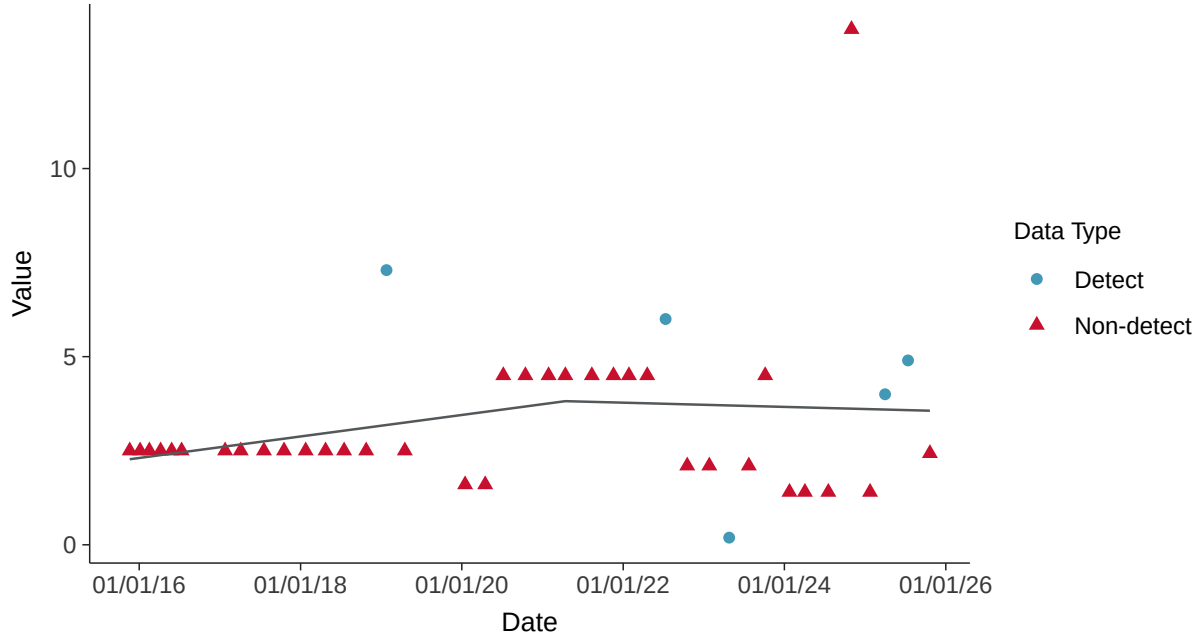
Normal Q-Q plot using ROS Imputed Estimates

Lead, MW-3 (ug/L)



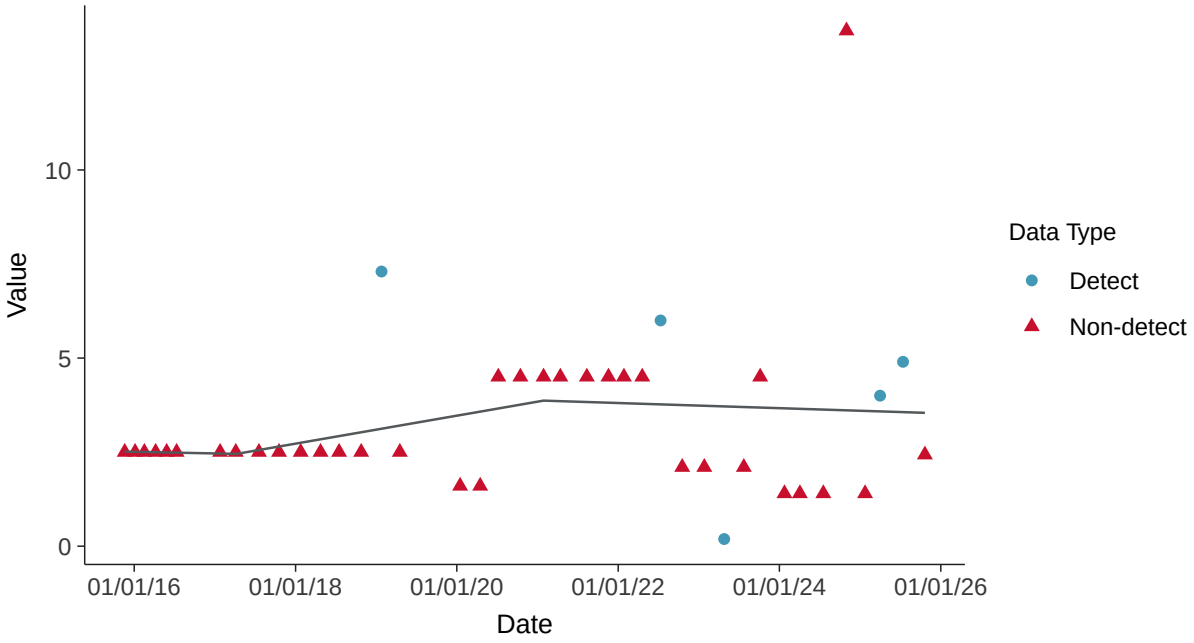
Trend Regression: Piecewise Linear-Linear

Lead, MW-3 (ug/L)



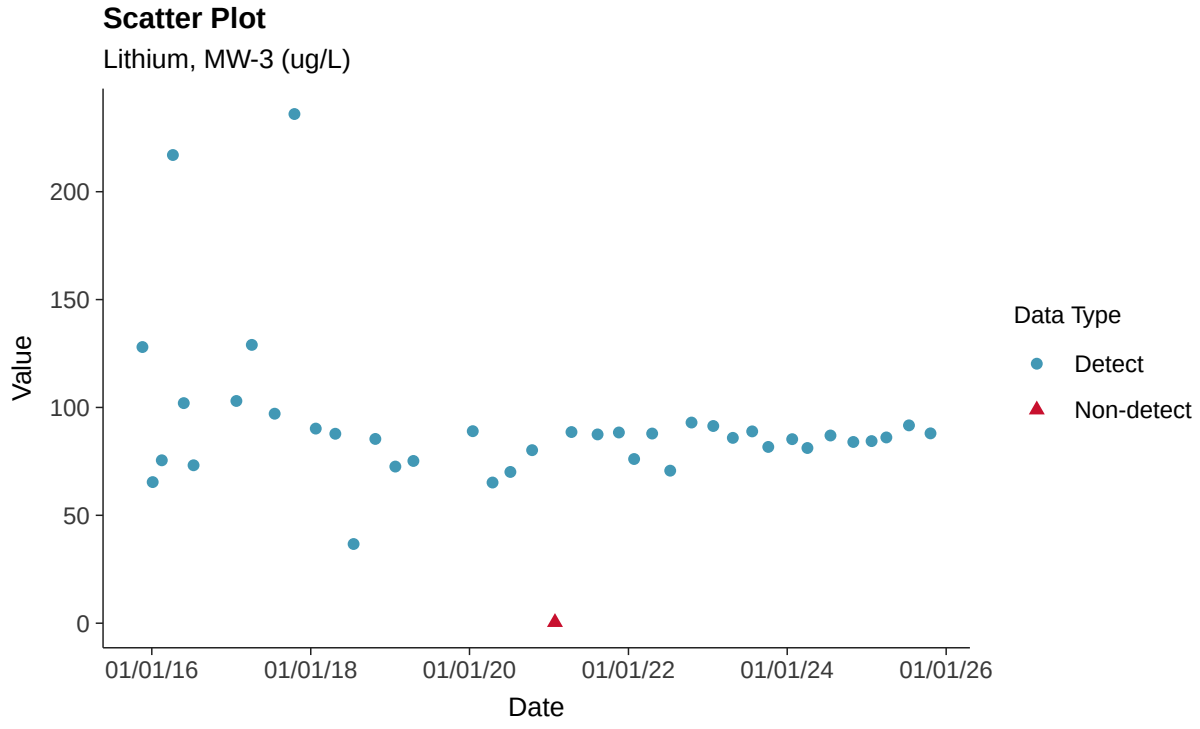
Trend Regression: Piecewise Linear-Linear-Linear

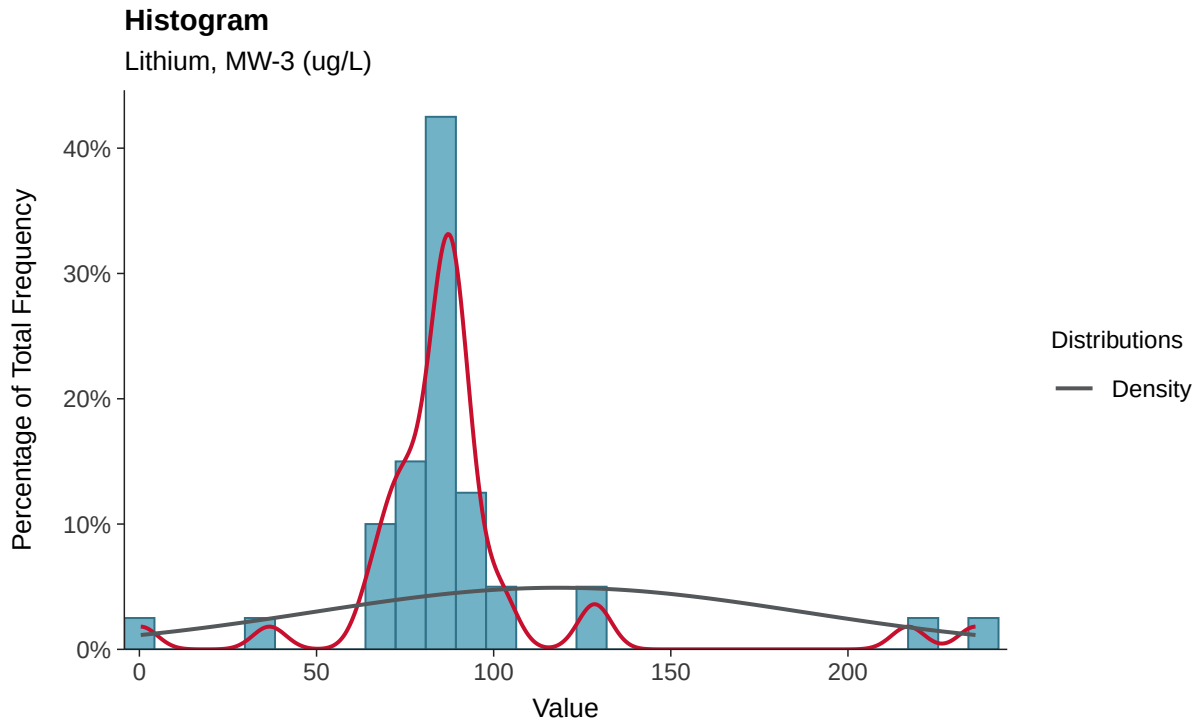
Lead, MW-3 (ug/L)



App. IV: Lithium, MW-3

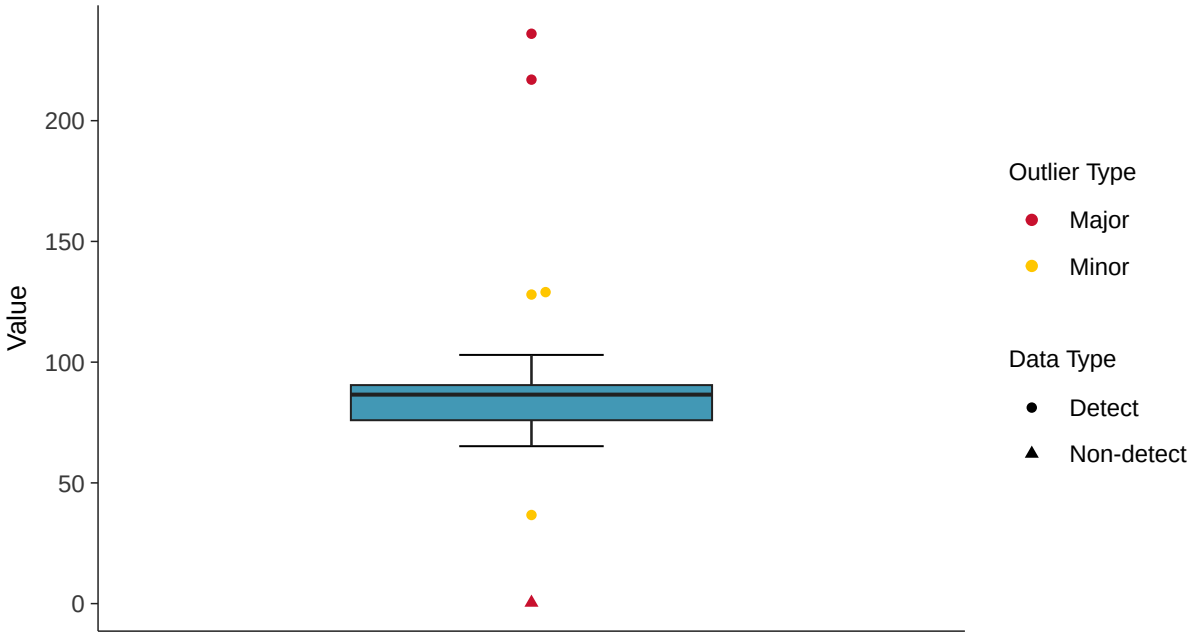
ID: 03_3_114





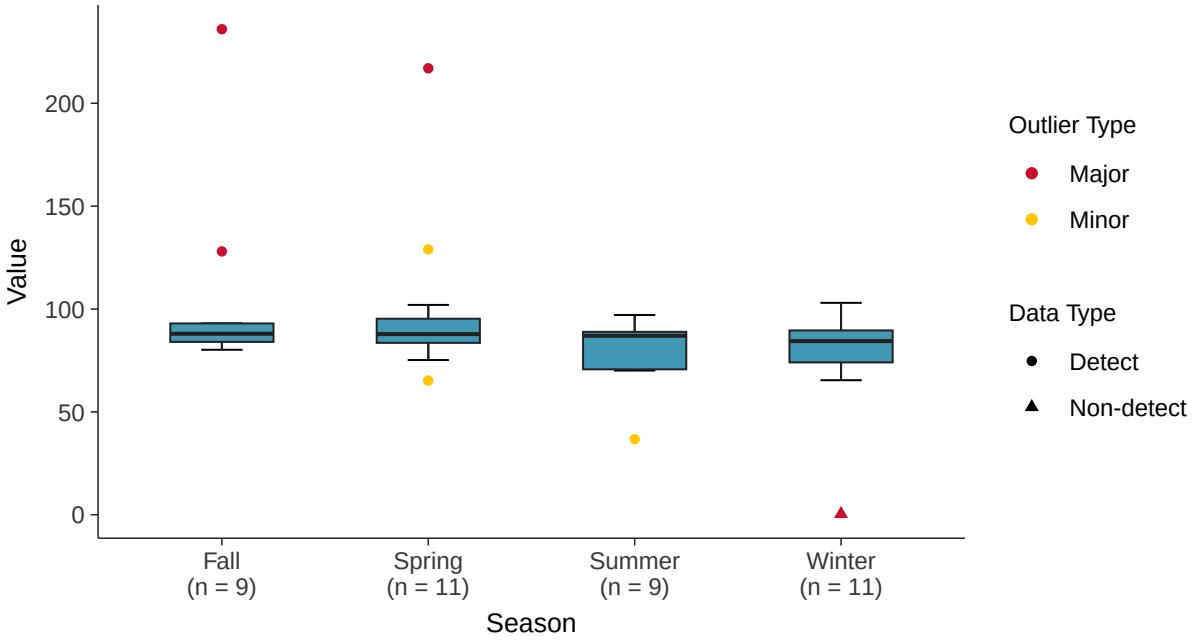
Boxplot

Lithium, MW-3 (ug/L)



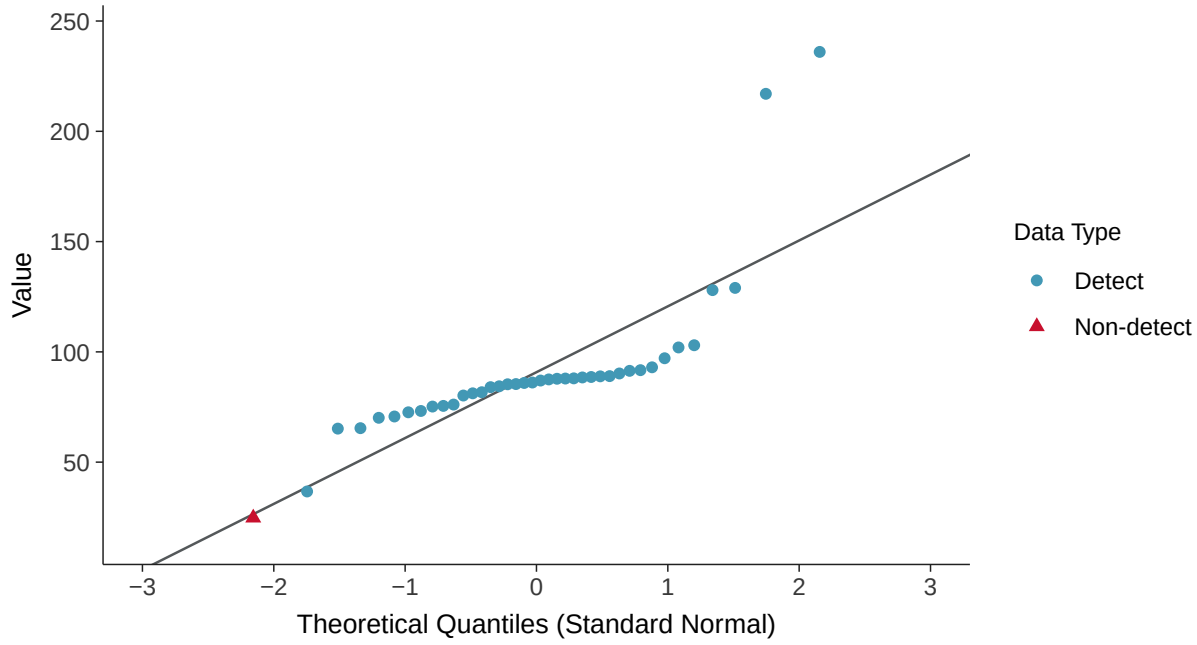
Boxplot by Season

Lithium, MW-3 (ug/L)



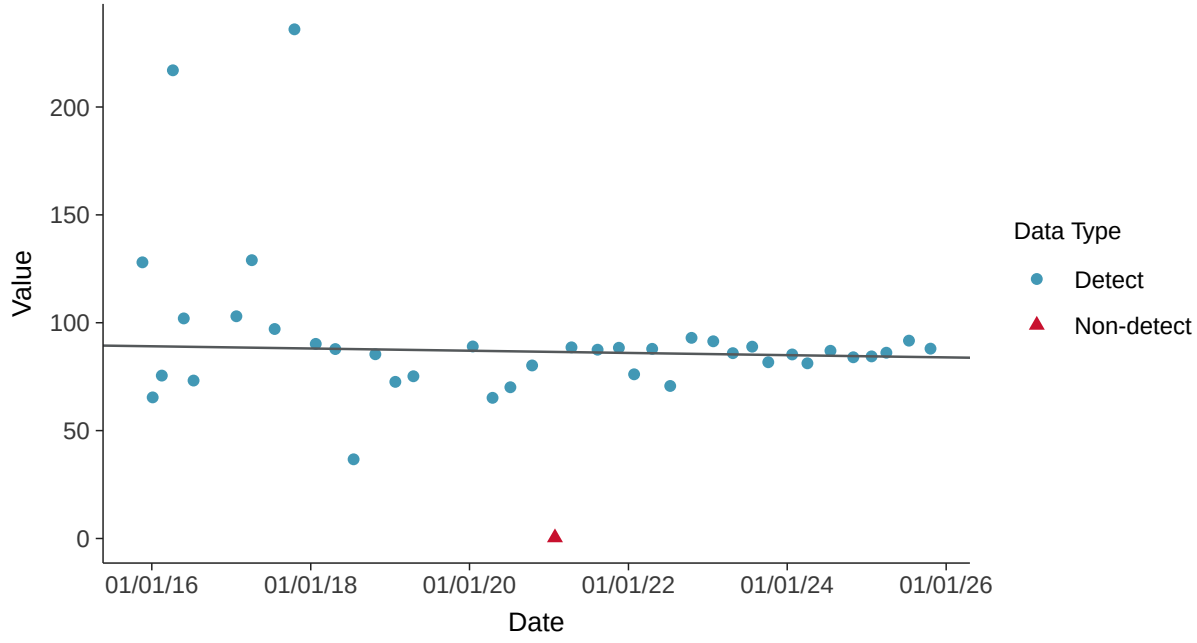
Normal Q-Q plot using ROS Imputed Estimates

Lithium, MW-3 (ug/L)



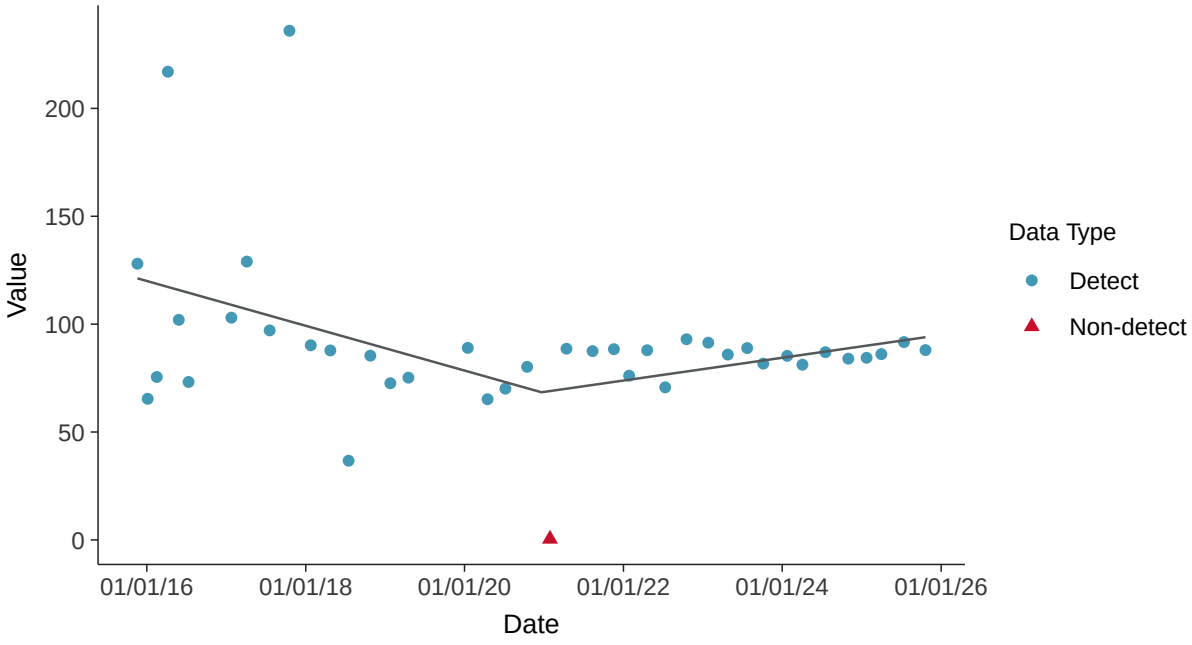
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Lithium, MW-3 (ug/L)



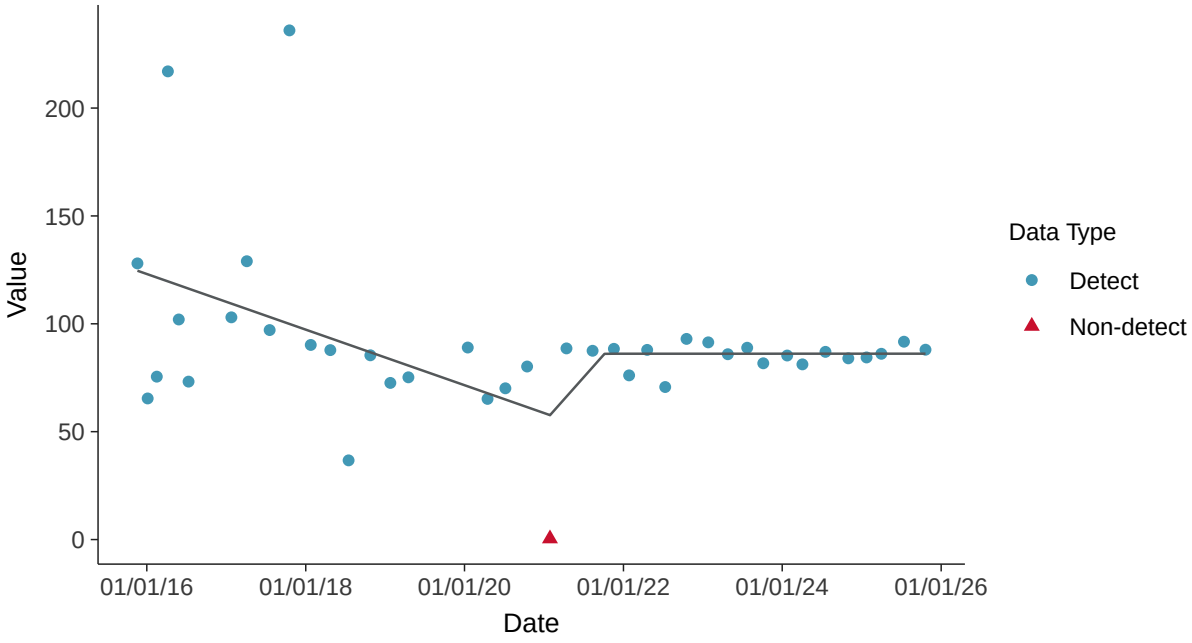
Trend Regression: Piecewise Linear-Linear

Lithium, MW-3 (ug/L)



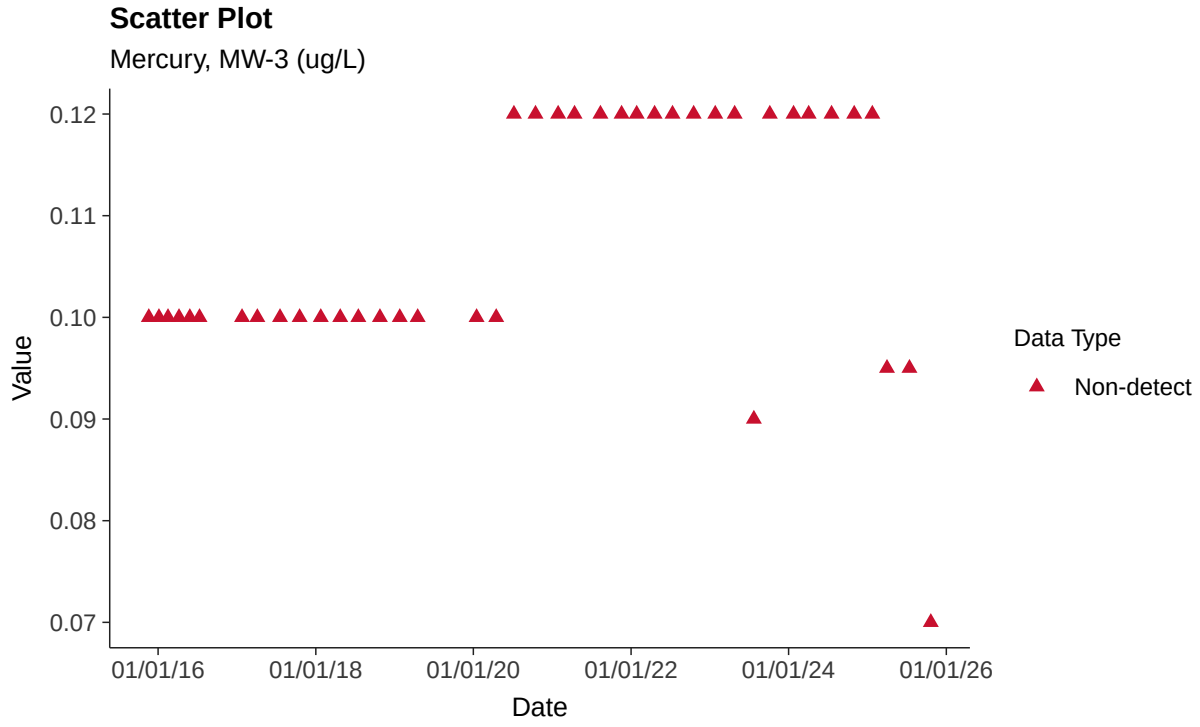
Trend Regression: Piecewise Linear-Linear-Linear

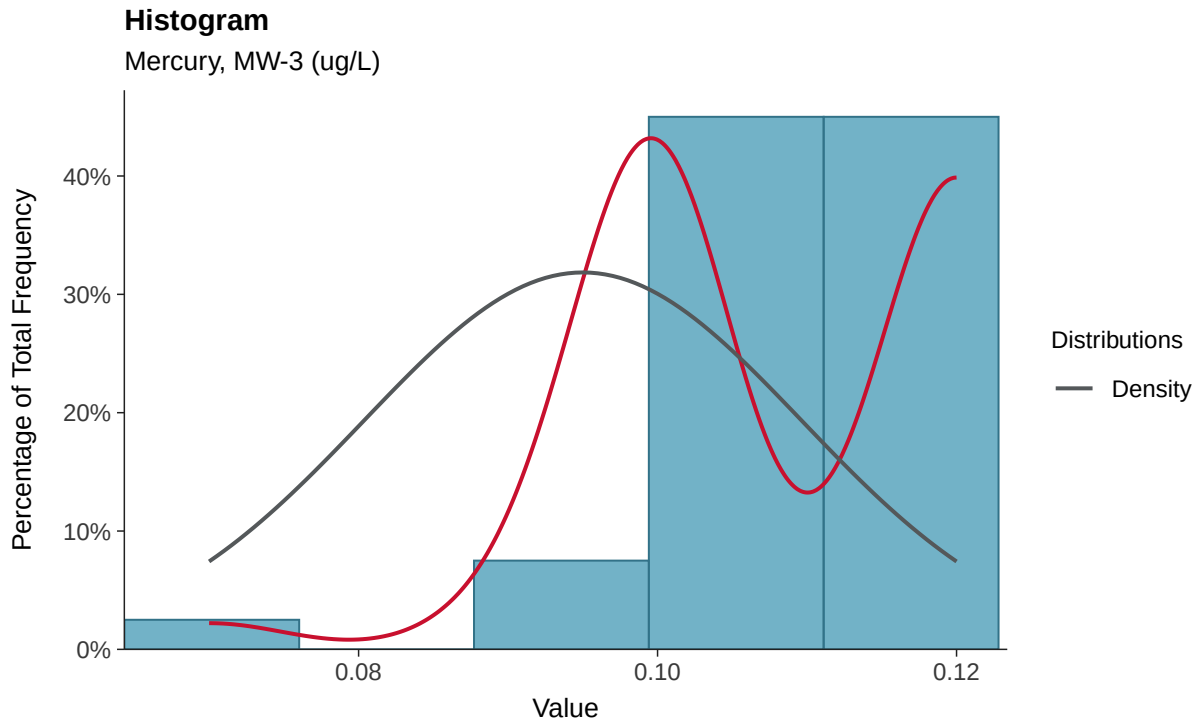
Lithium, MW-3 (ug/L)



App. IV: Mercury, MW-3

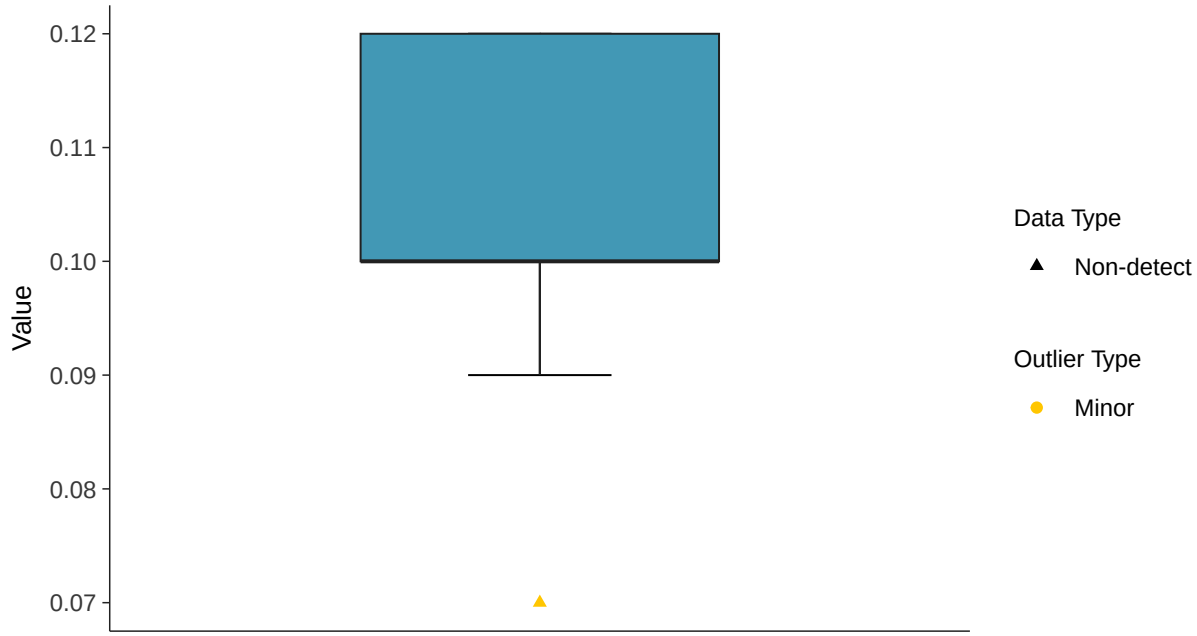
ID: 03_3_115





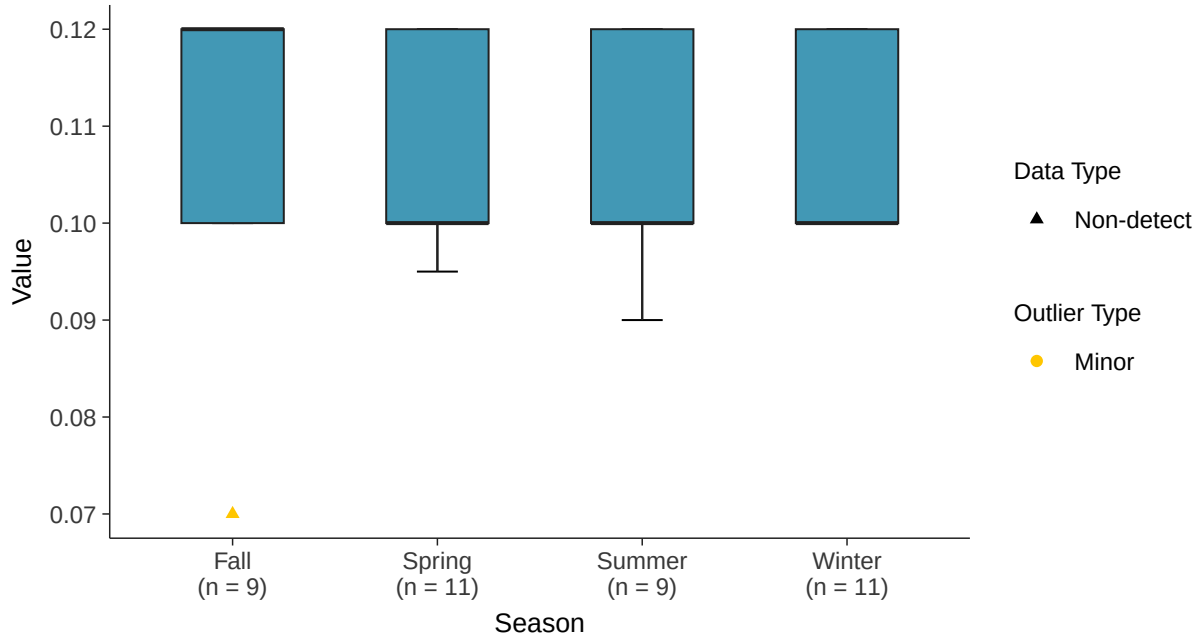
Boxplot

Mercury, MW-3 (ug/L)



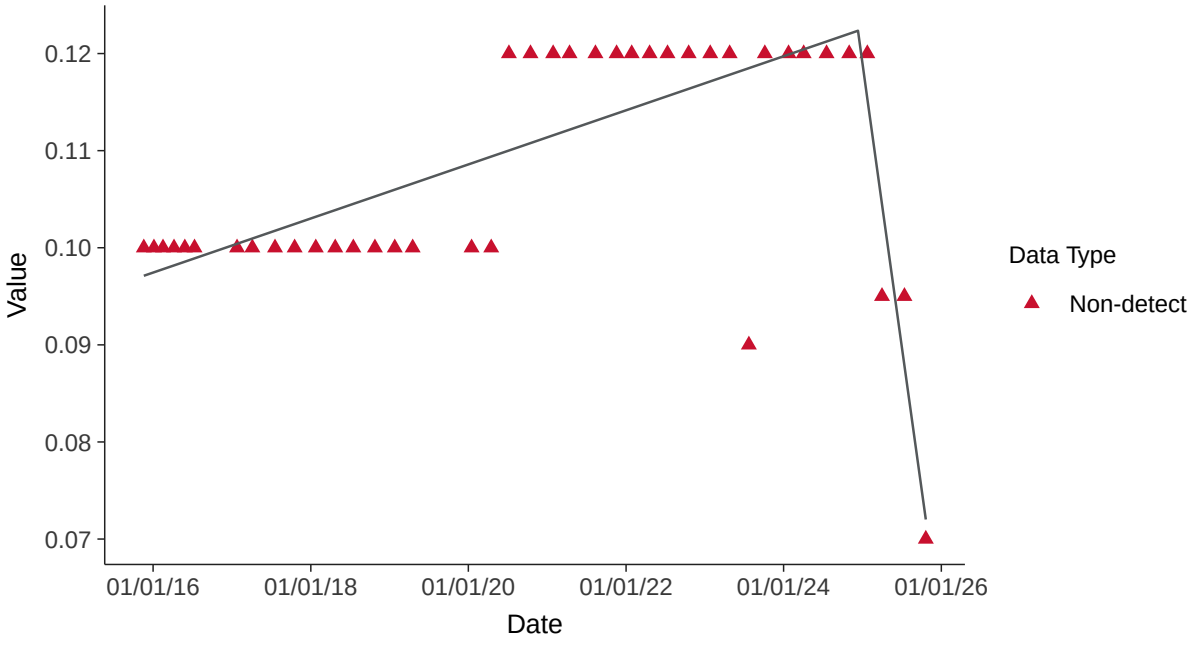
Boxplot by Season

Mercury, MW-3 (ug/L)



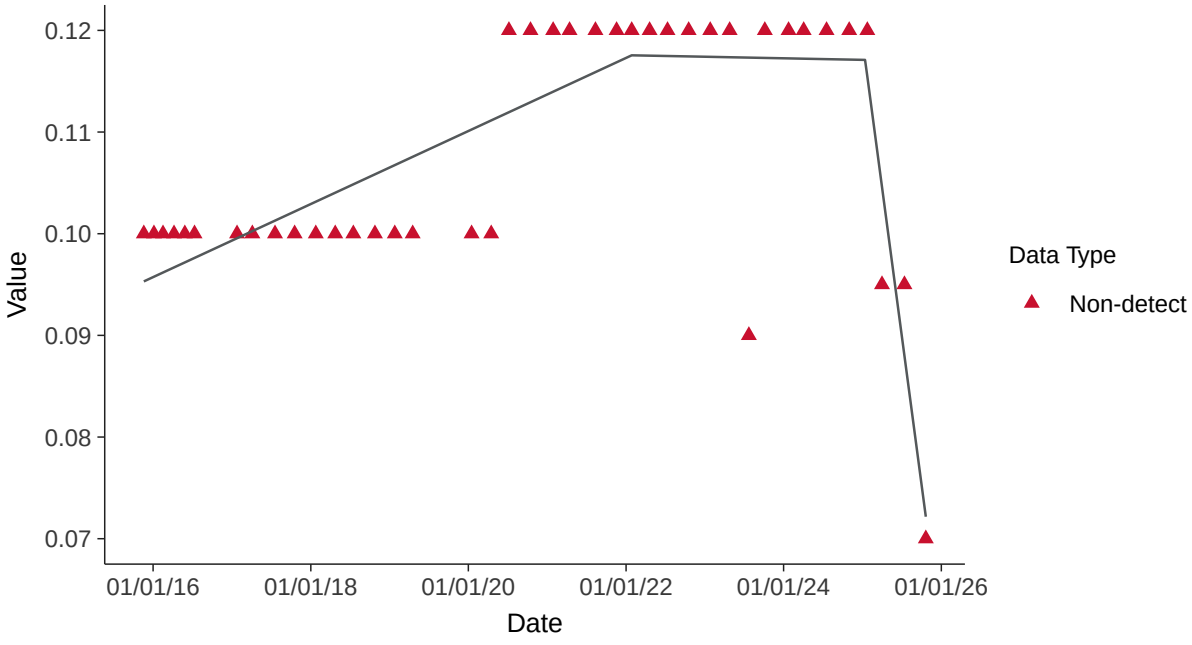
Trend Regression: Piecewise Linear-Linear

Mercury, MW-3 (ug/L)



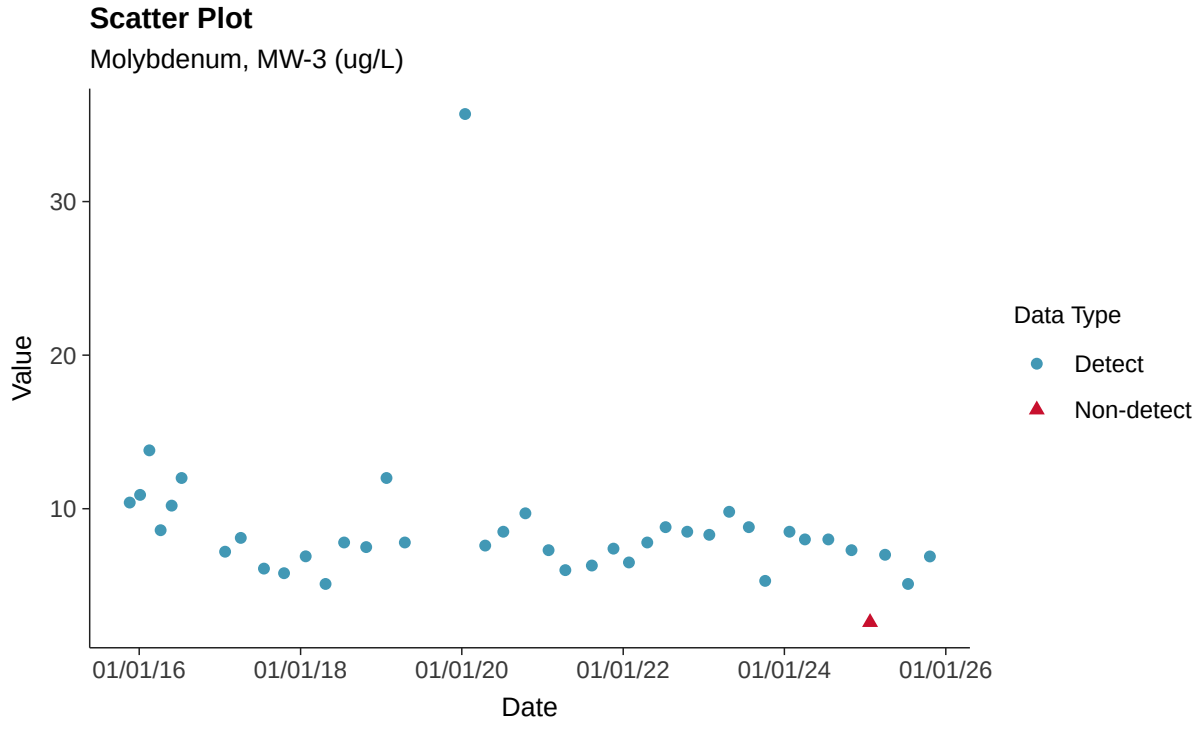
Trend Regression: Piecewise Linear-Linear-Linear

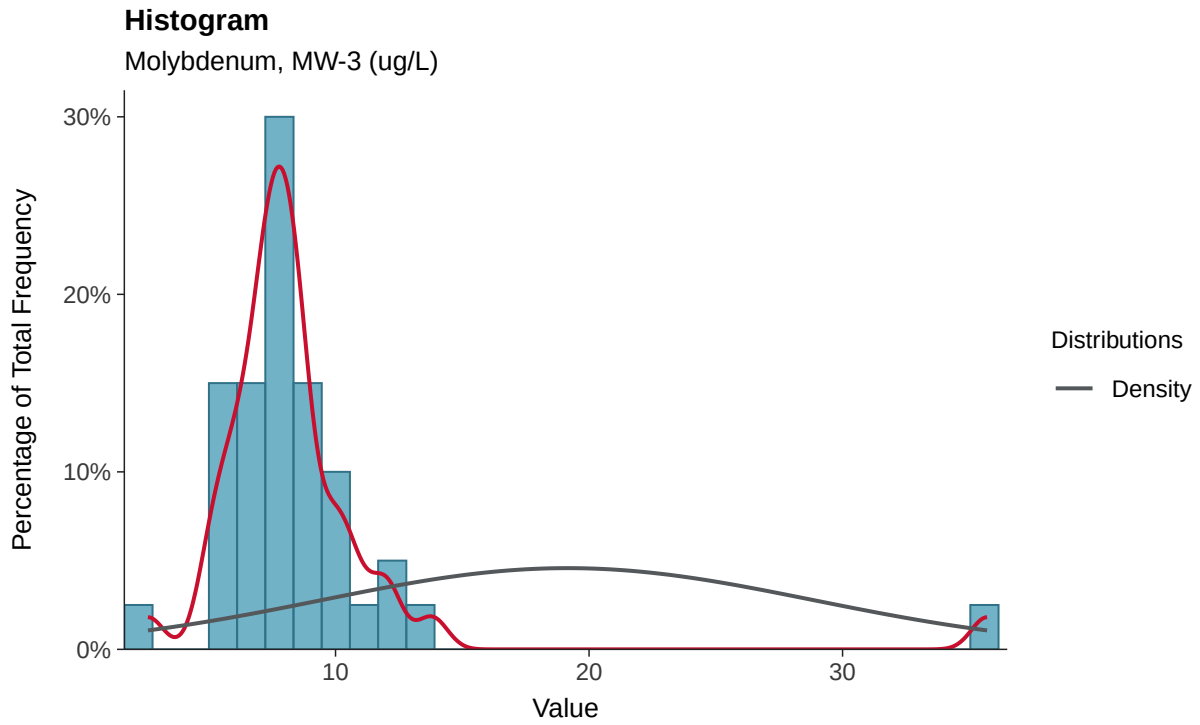
Mercury, MW-3 (ug/L)



App. IV: Molybdenum, MW-3

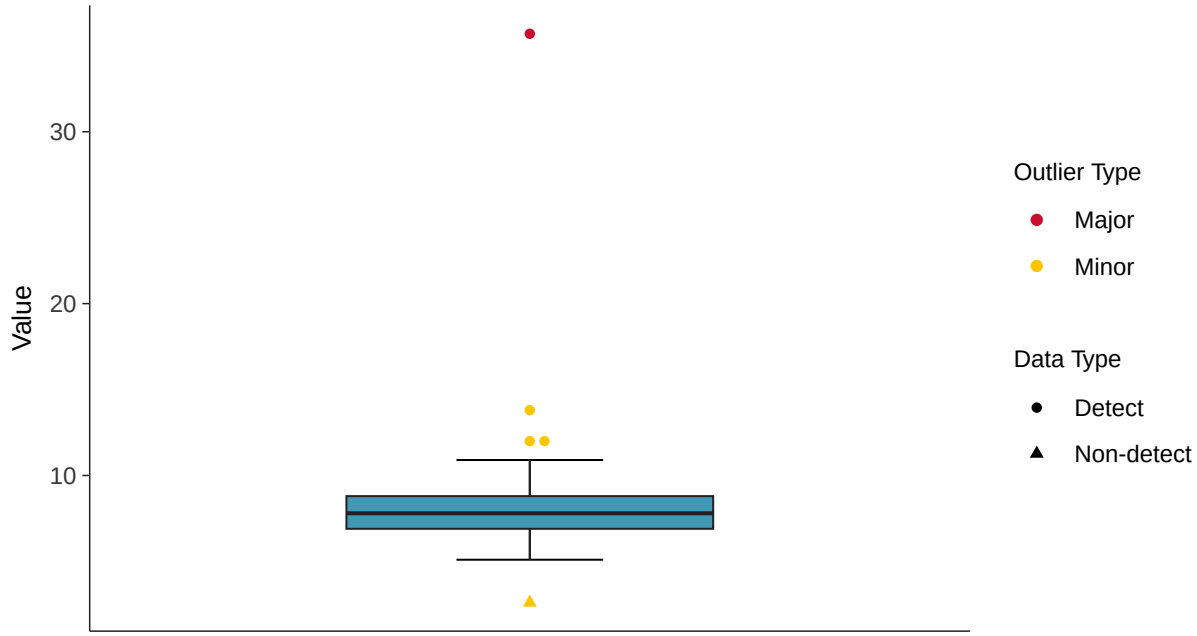
ID: 03_3_116





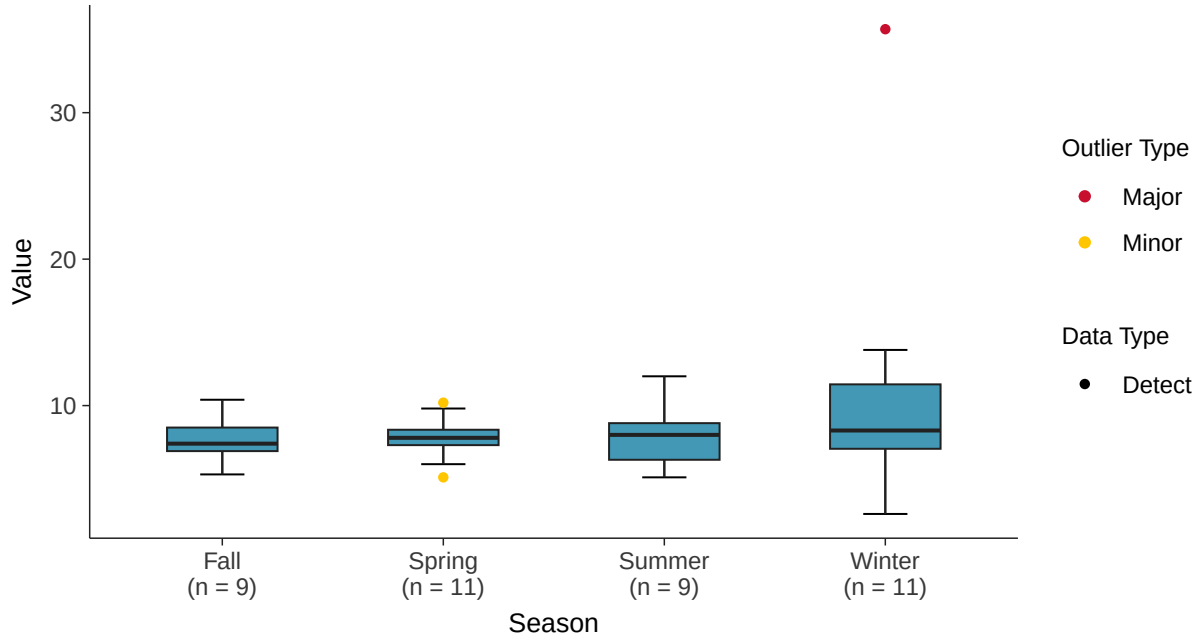
Boxplot

Molybdenum, MW-3 (ug/L)



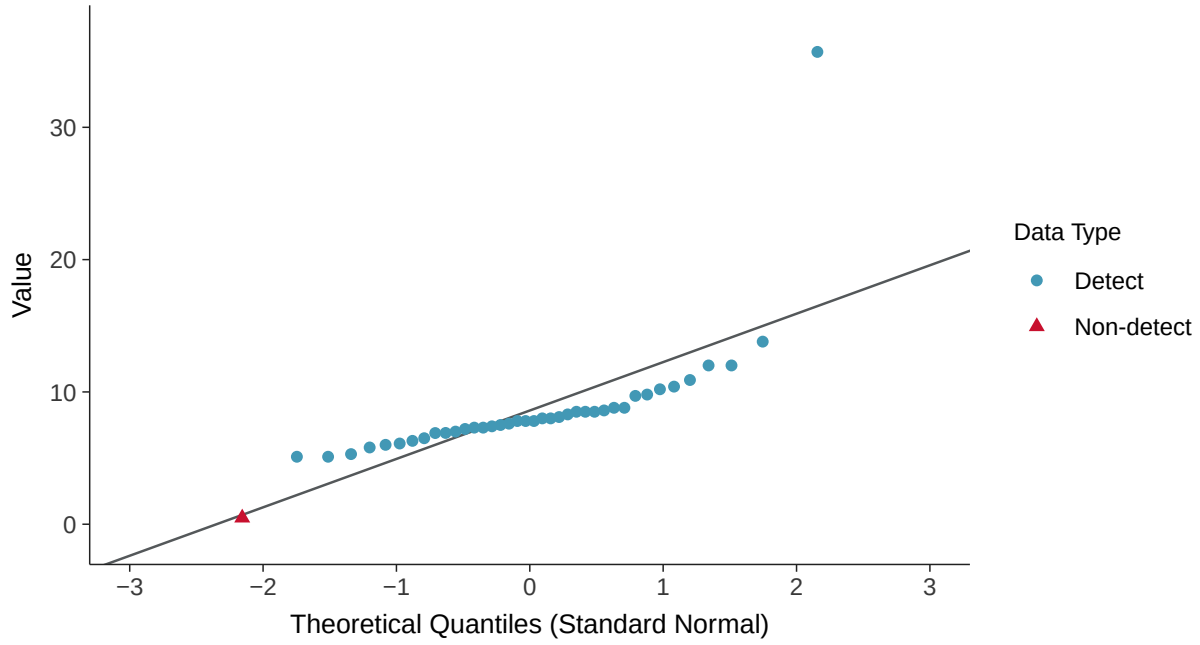
Boxplot by Season

Molybdenum, MW-3 (ug/L)



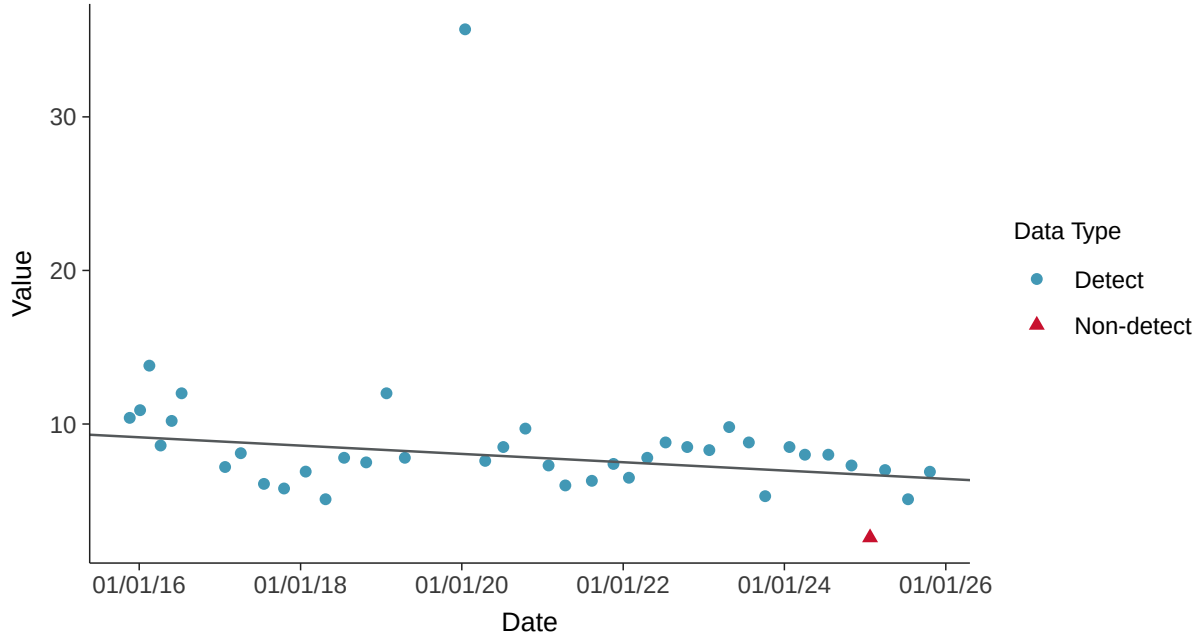
Normal Q-Q plot using ROS Imputed Estimates

Molybdenum, MW-3 (ug/L)



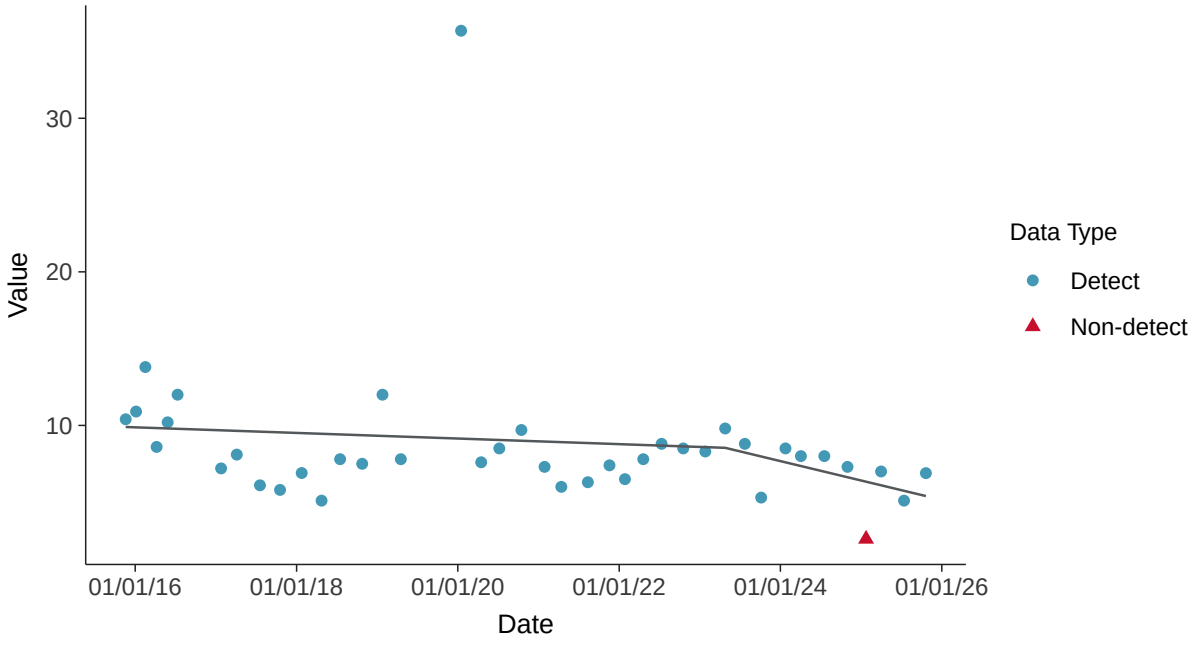
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Molybdenum, MW-3 (ug/L)



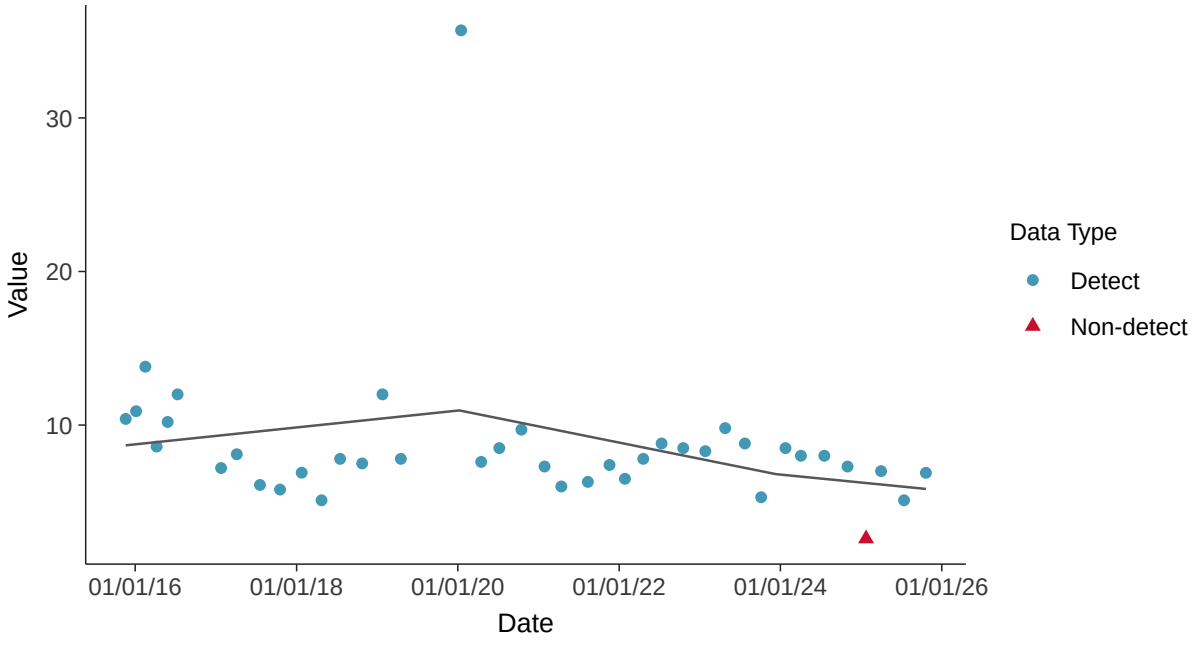
Trend Regression: Piecewise Linear-Linear

Molybdenum, MW-3 (ug/L)



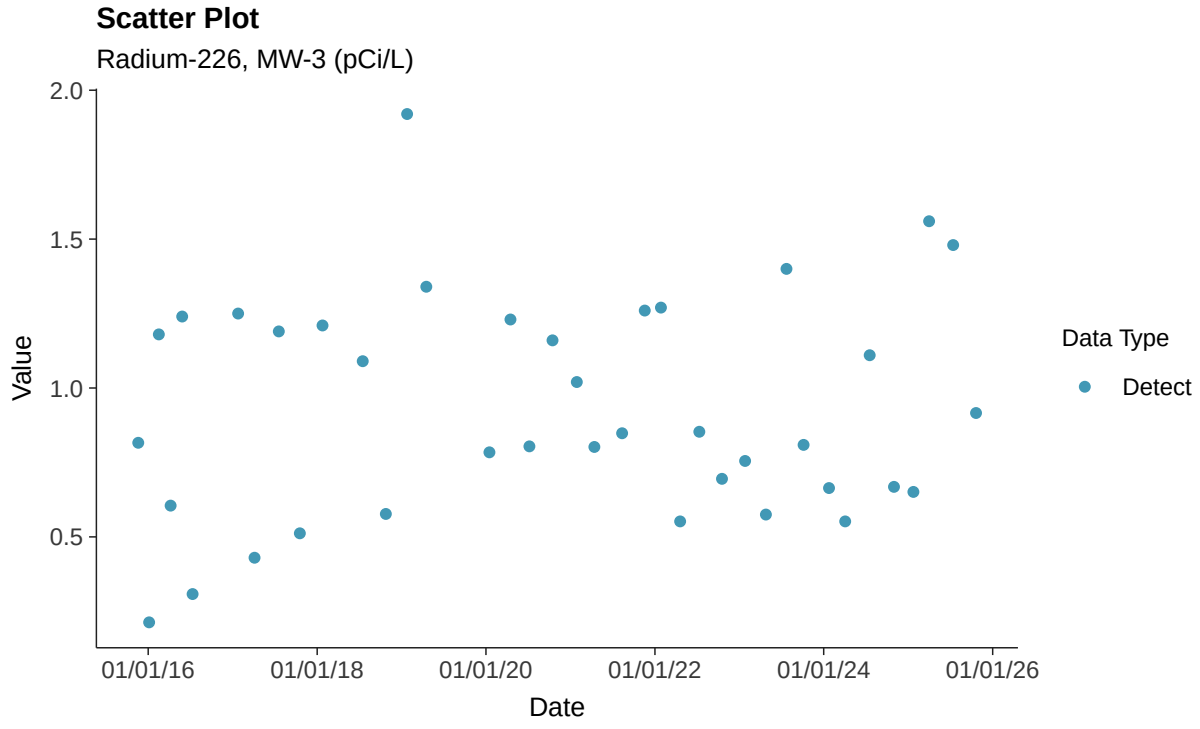
Trend Regression: Piecewise Linear-Linear-Linear

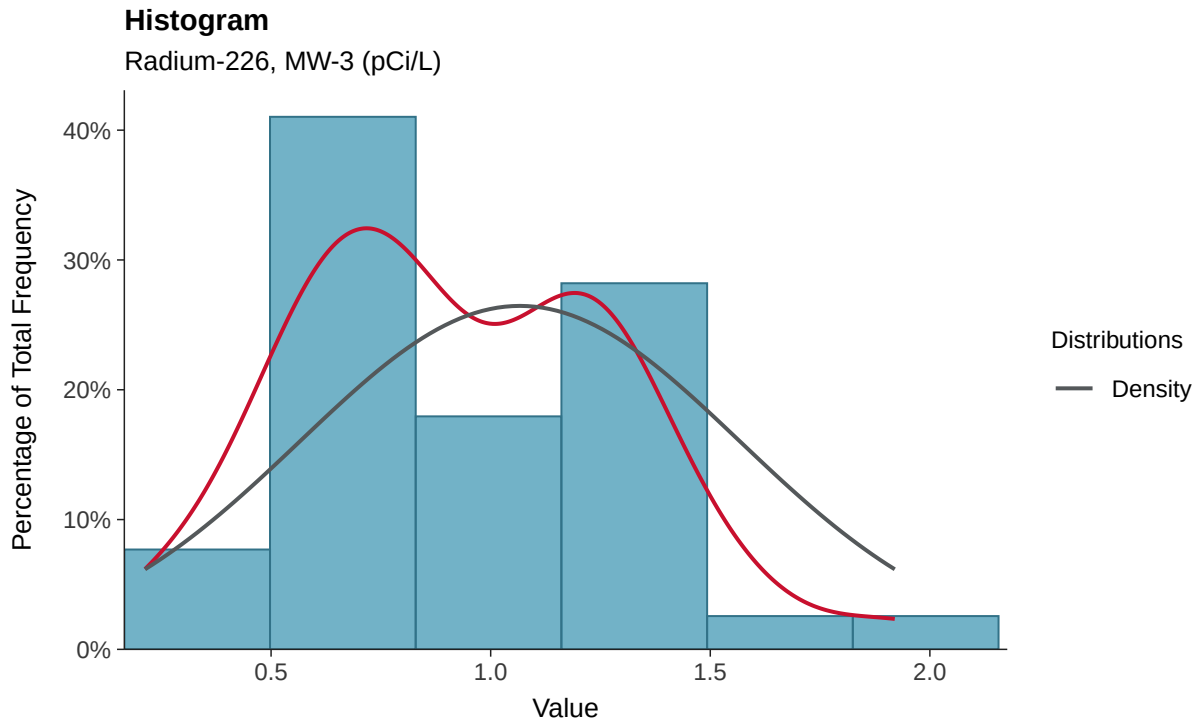
Molybdenum, MW-3 (ug/L)



App. IV: Radium-226, MW-3

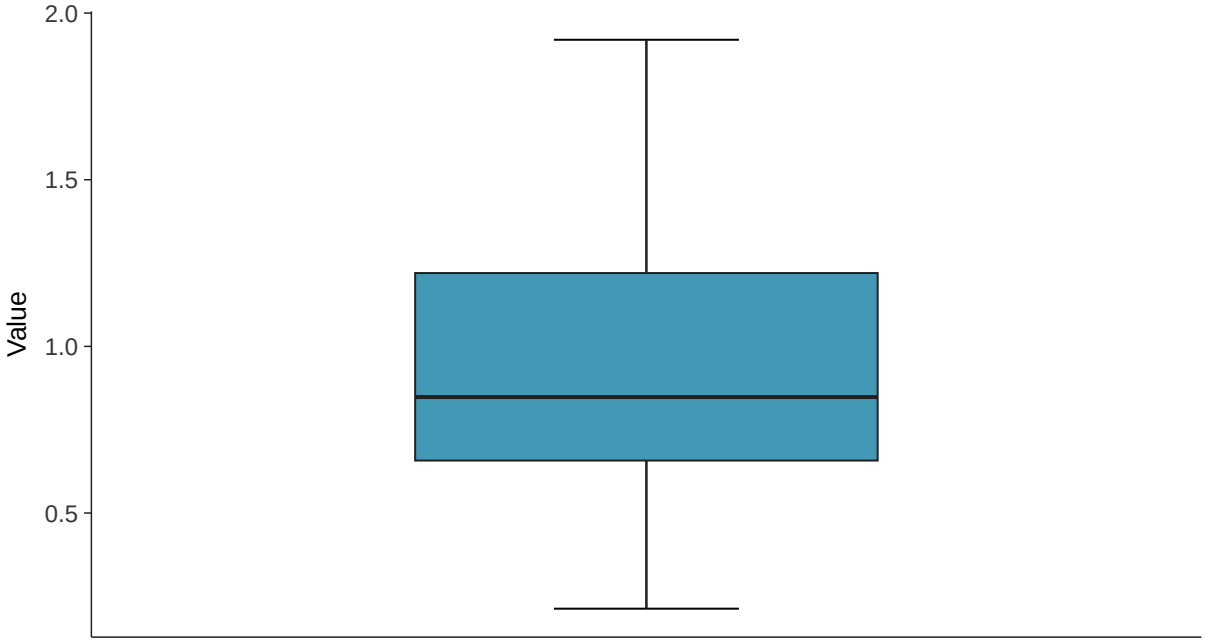
ID: 03_3_119





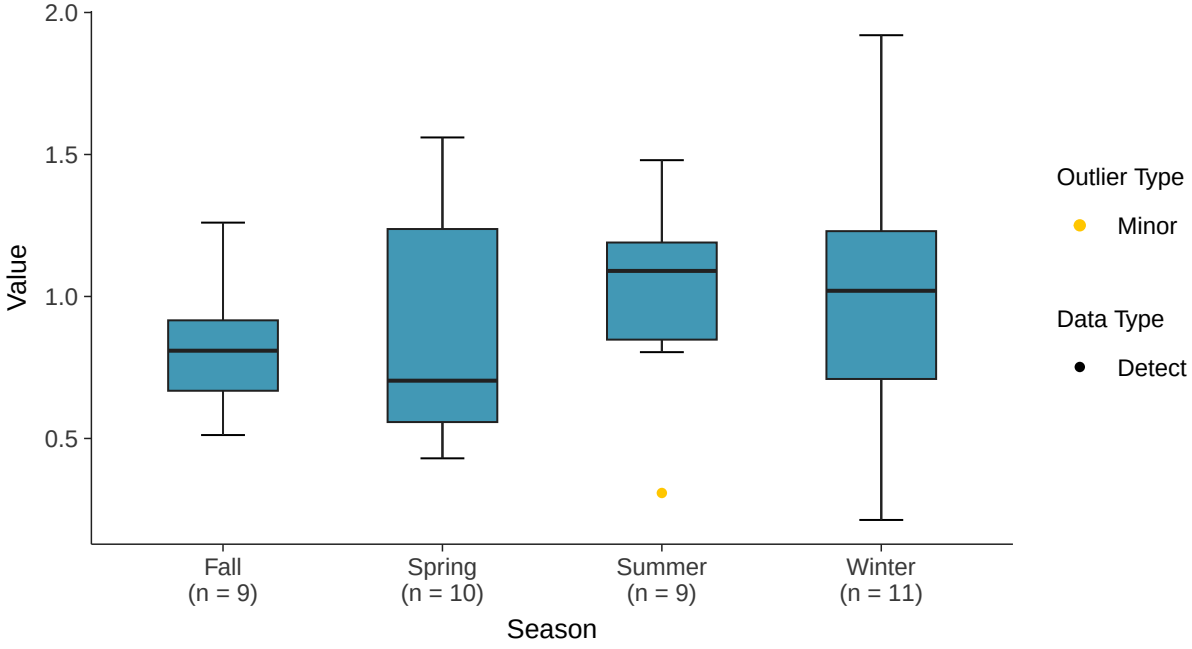
Boxplot

Radium-226, MW-3 (pCi/L)



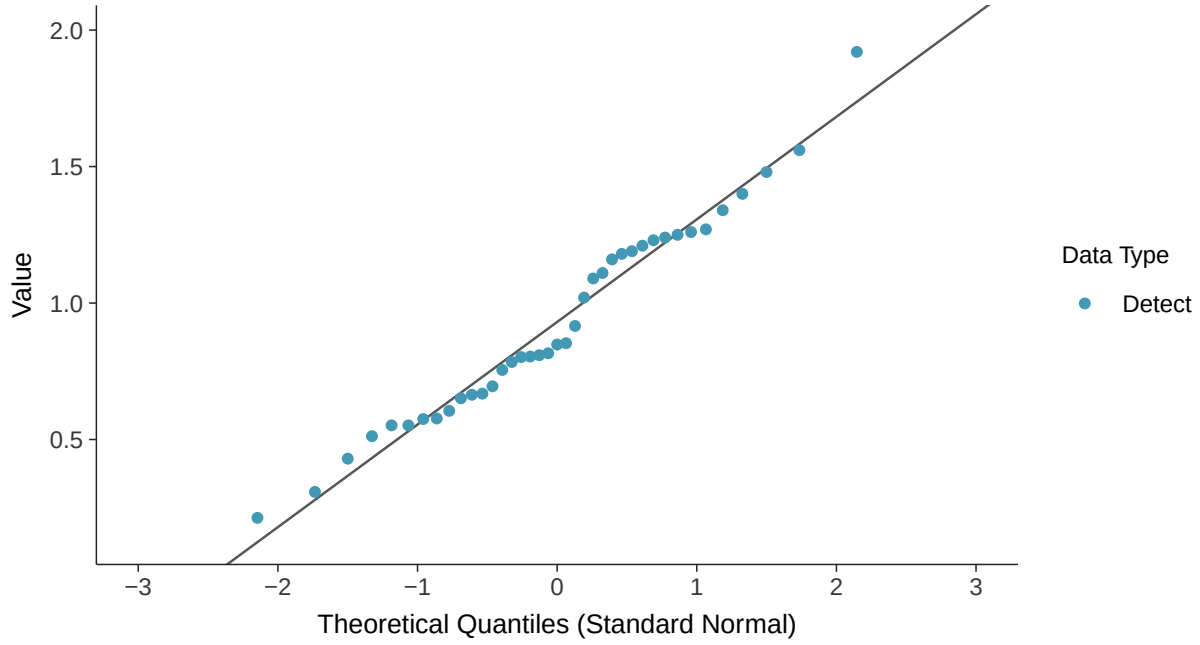
Boxplot by Season

Radium-226, MW-3 (pCi/L)



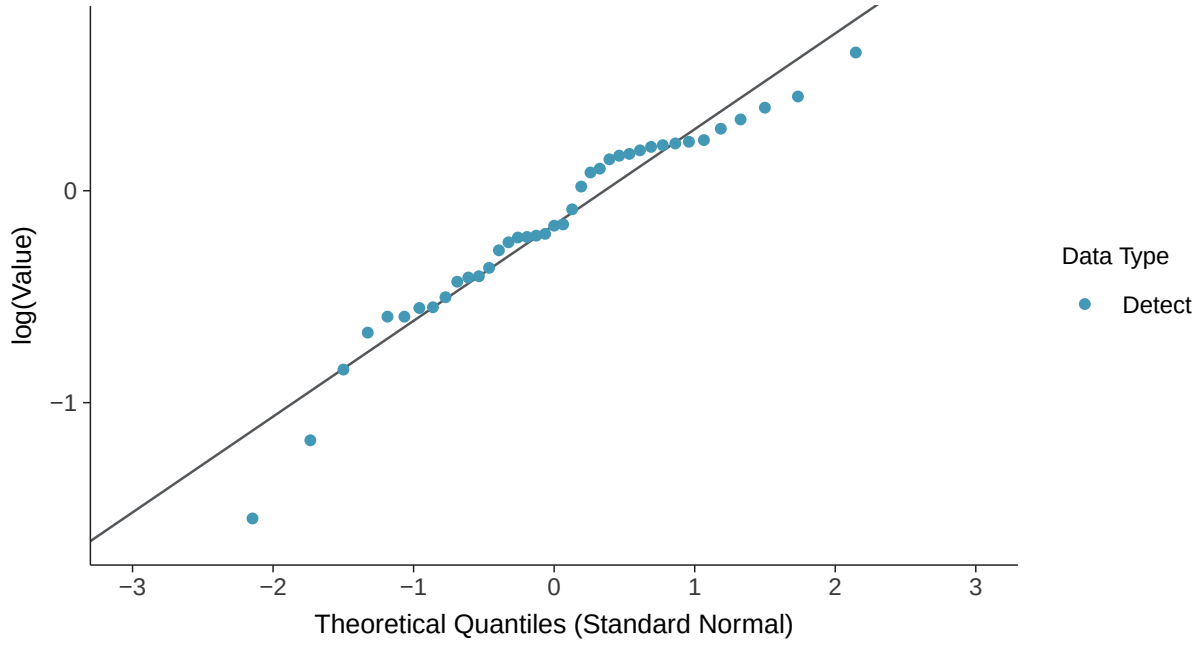
Normal Q-Q plot

Radium-226, MW-3 (pCi/L)



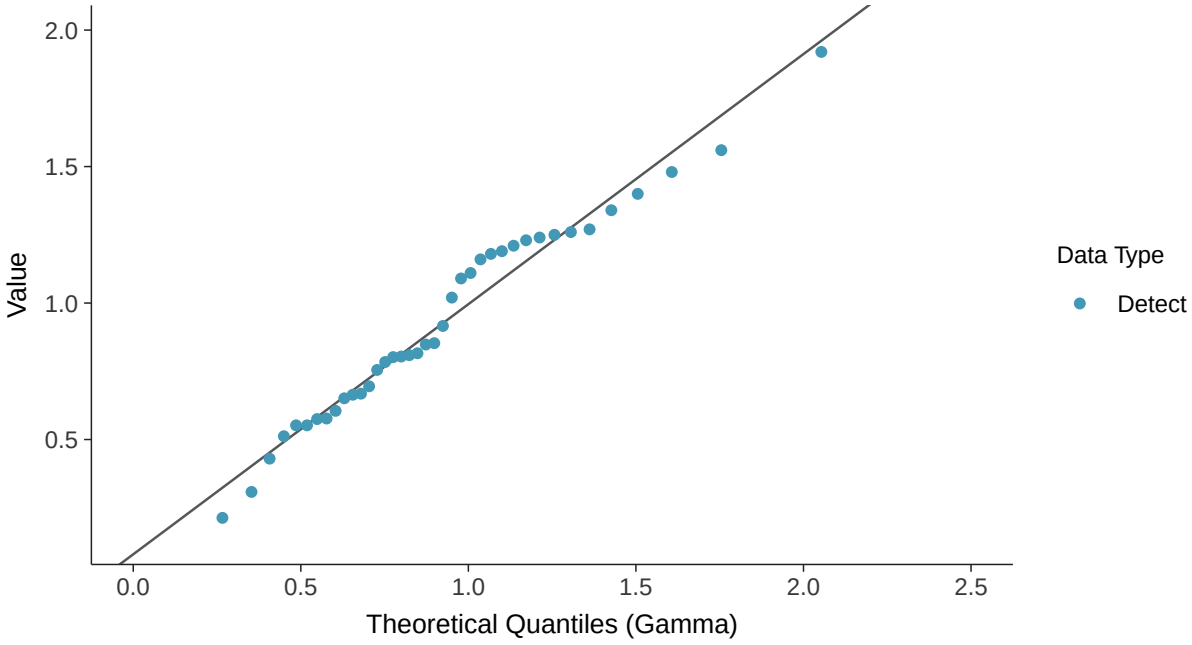
Lognormal Q-Q plot

Radium-226, MW-3 (pCi/L)



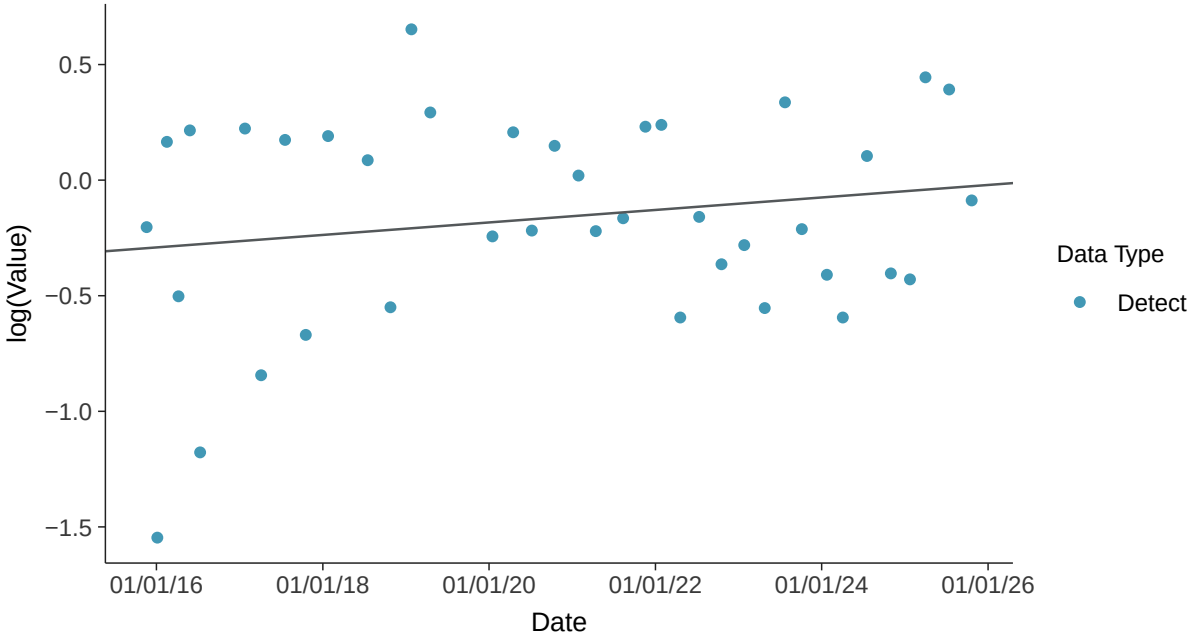
Gamma Q-Q plot

Radium-226, MW-3 (pCi/L)



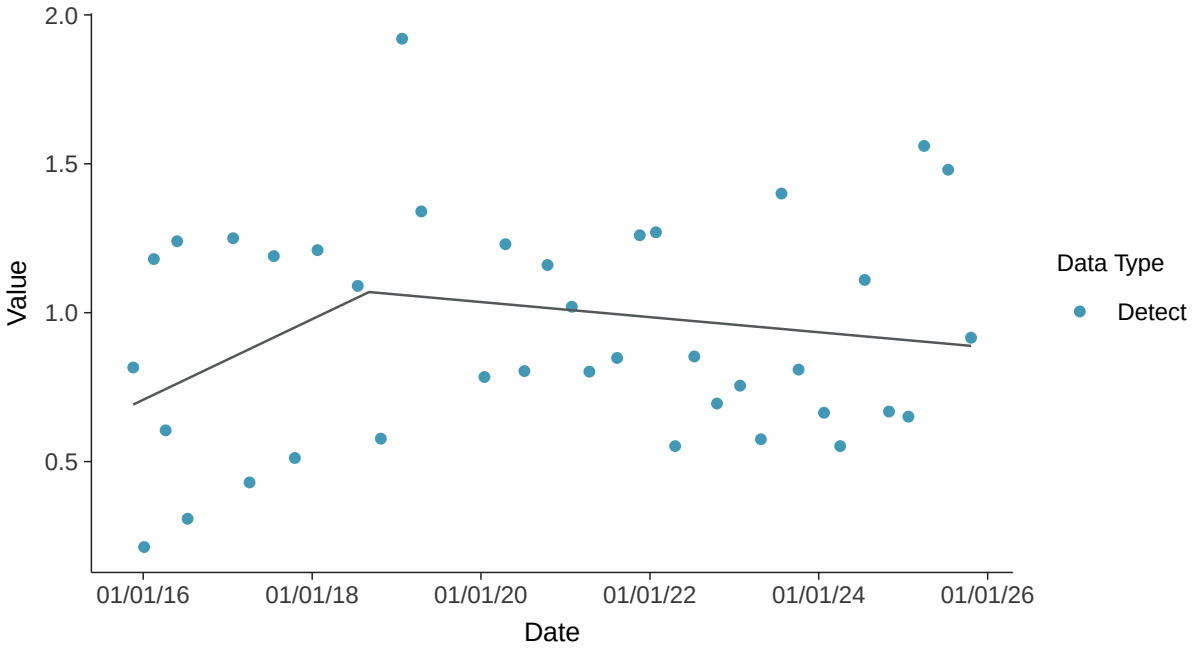
Trend Regression: Lognormal MLE

Radium-226, MW-3 (pCi/L)



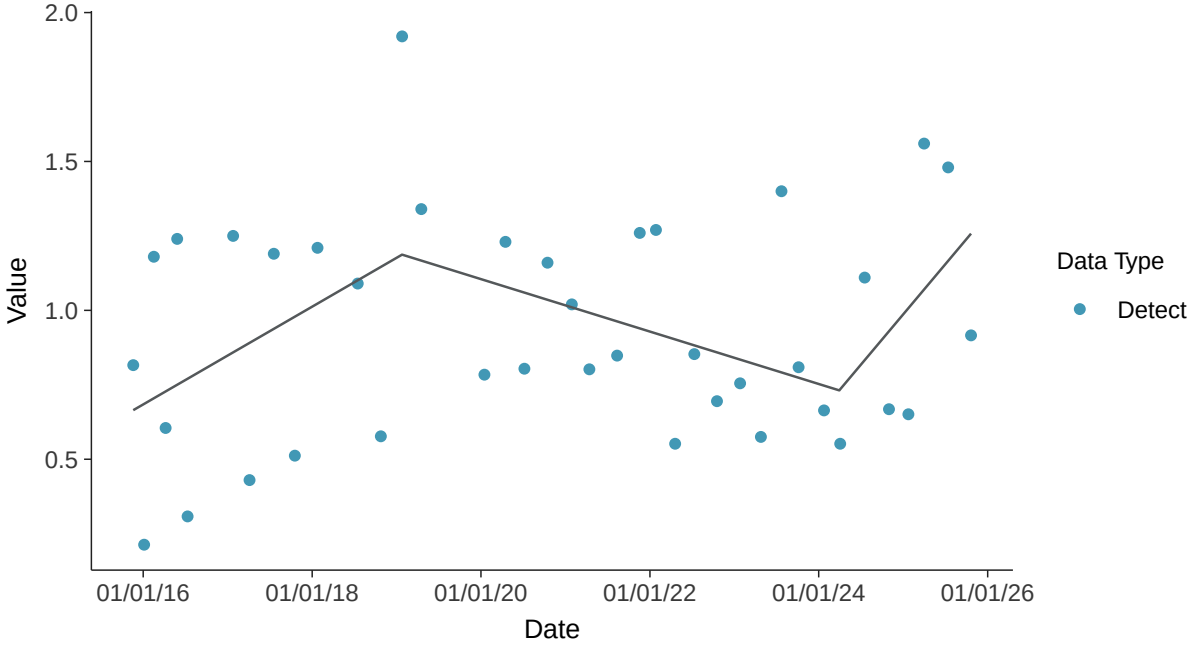
Trend Regression: Piecewise Linear-Linear

Radium-226, MW-3 (pCi/L)



Trend Regression: Piecewise Linear-Linear-Linear

Radium-226, MW-3 (pCi/L)

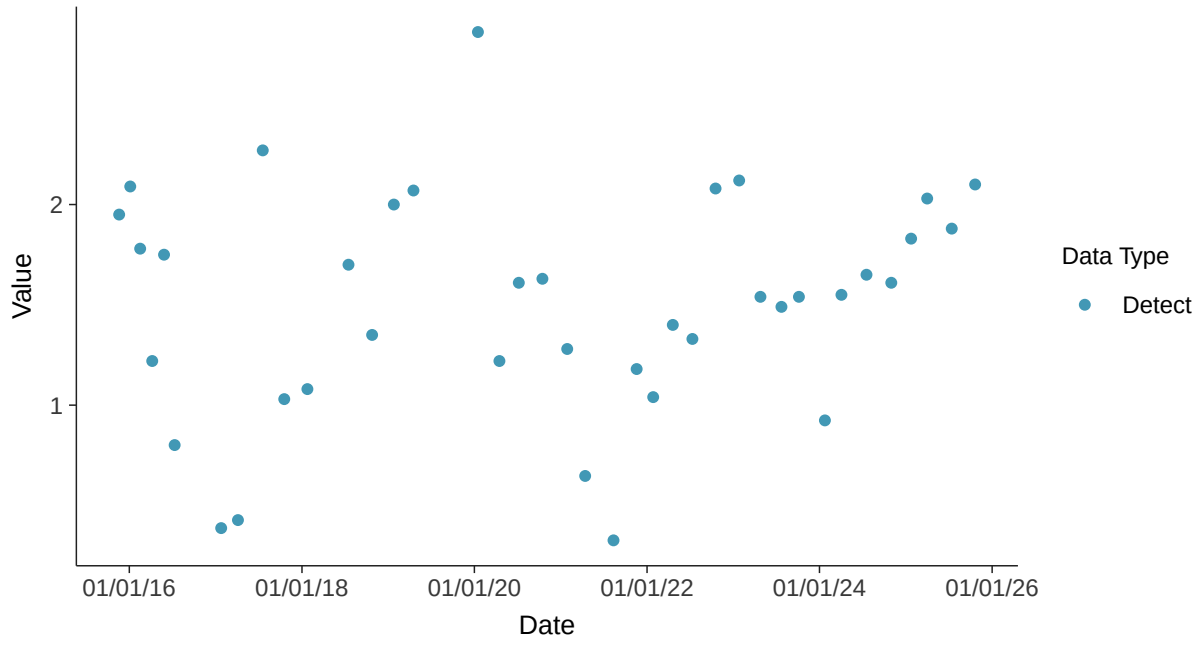


App. IV: Radium-228, MW-3

ID: 03_3_120

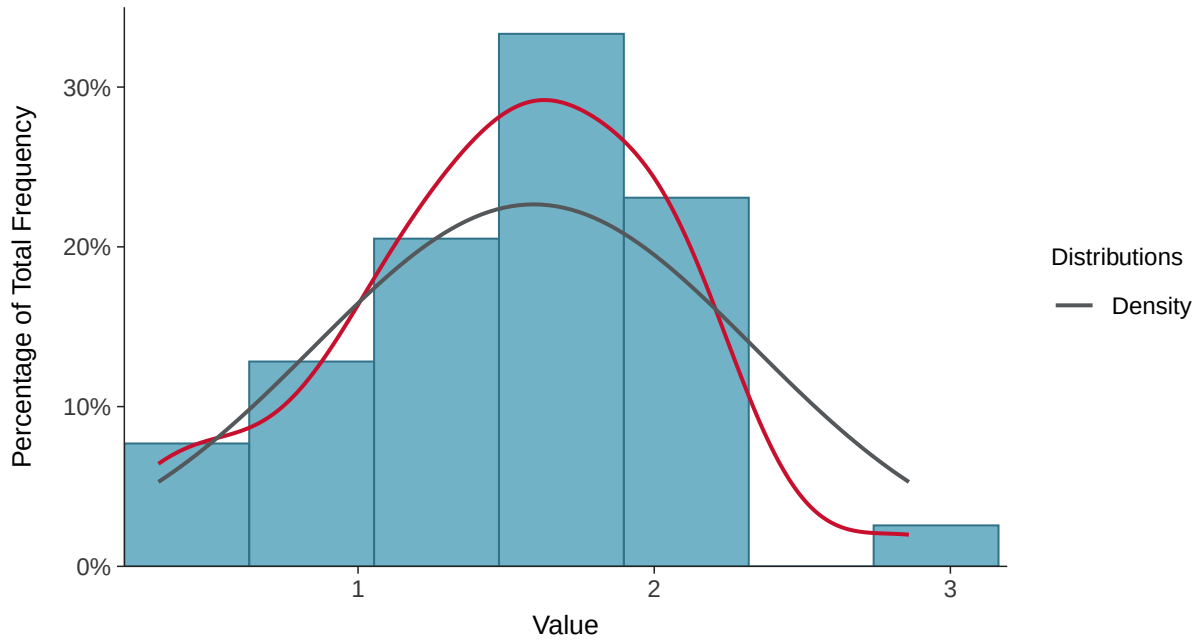
Scatter Plot

Radium-228, MW-3 (pCi/L)



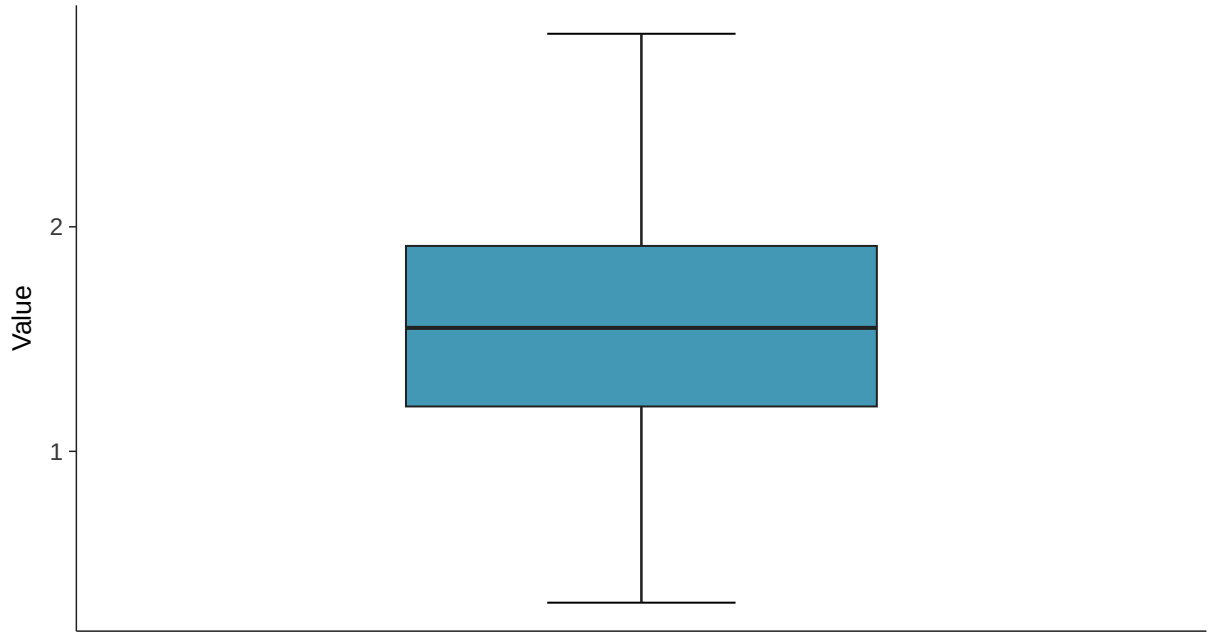
Histogram

Radium-228, MW-3 (pCi/L)



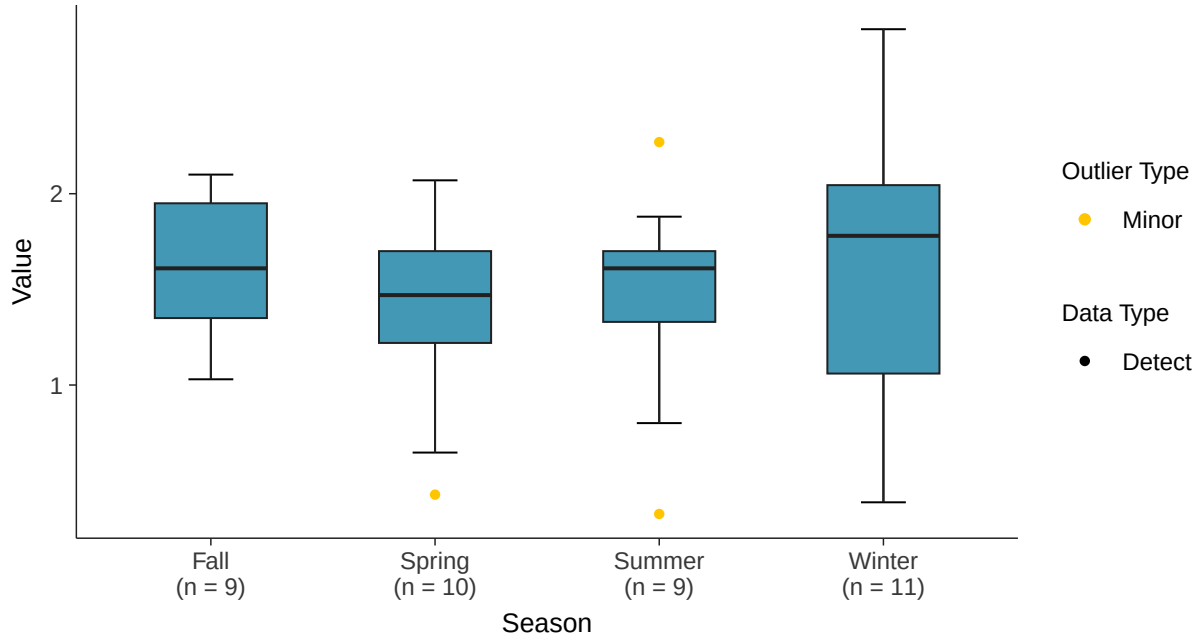
Boxplot

Radium-228, MW-3 (pCi/L)



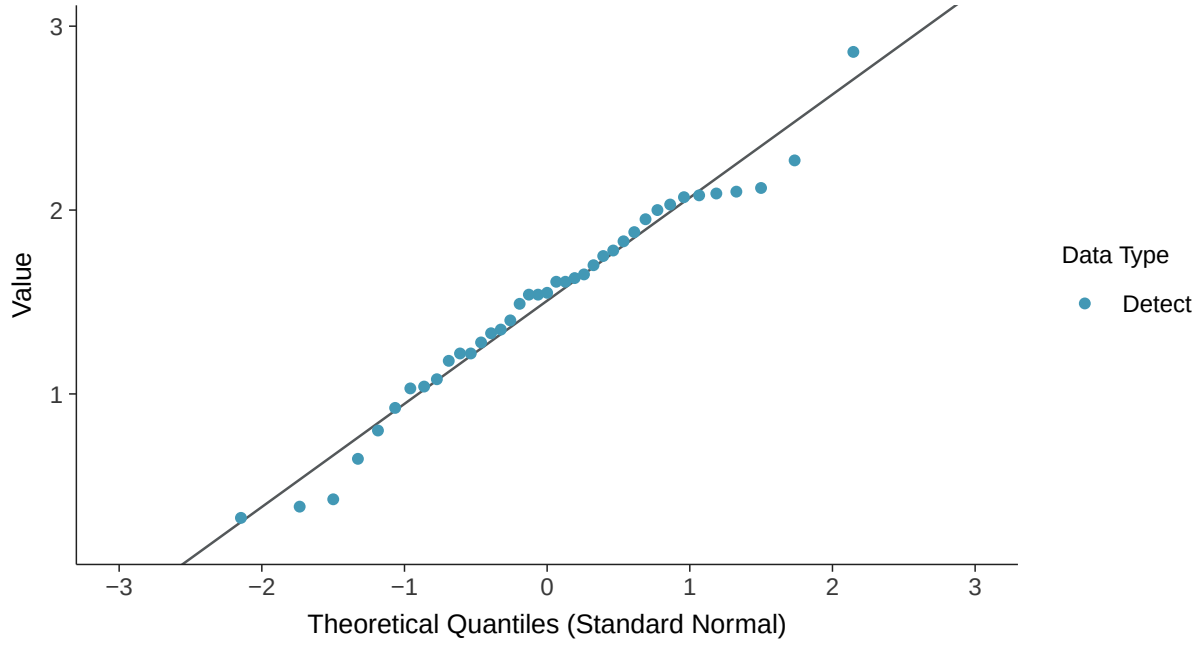
Boxplot by Season

Radium-228, MW-3 (pCi/L)



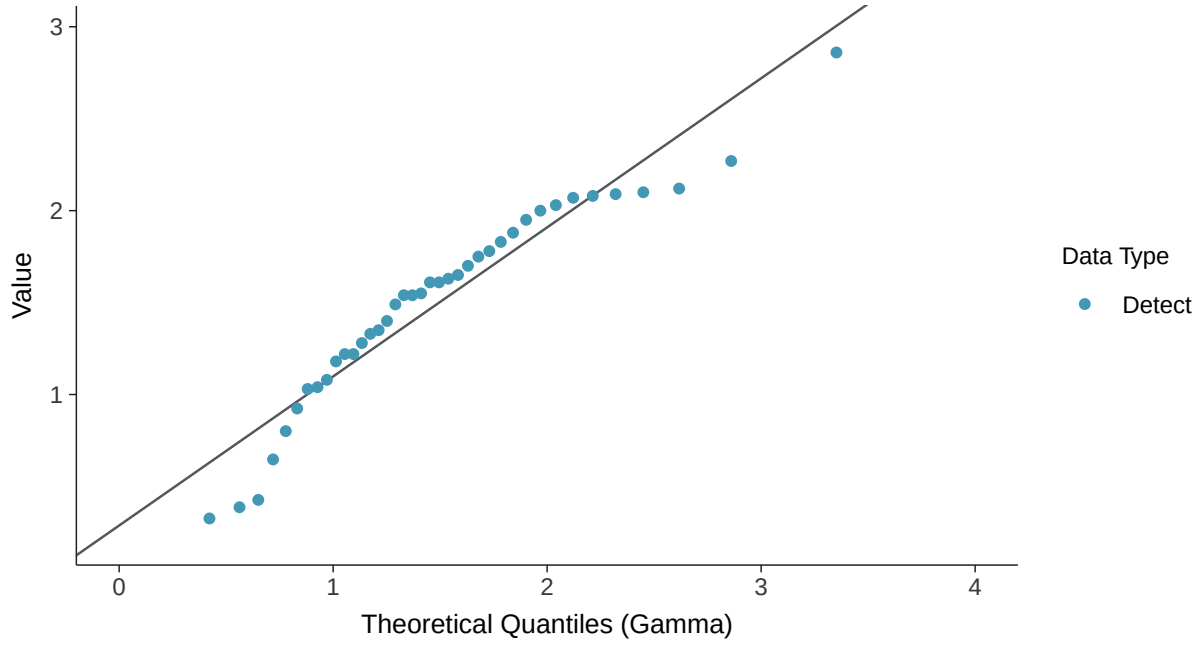
Normal Q-Q plot

Radium-228, MW-3 (pCi/L)



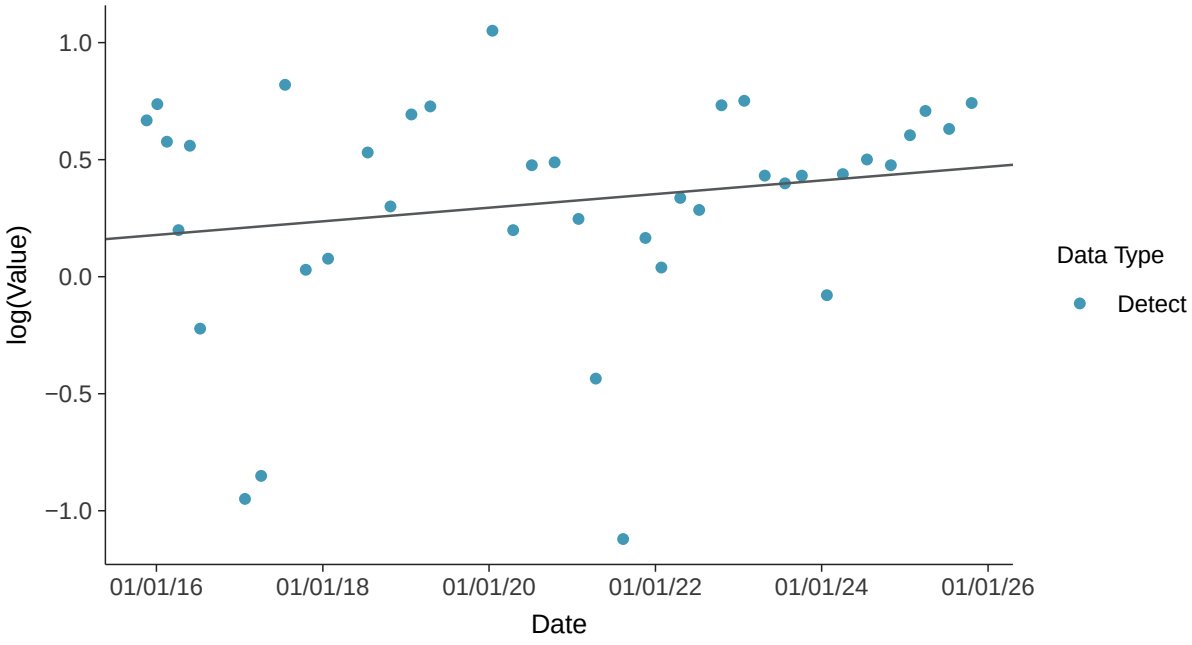
Gamma Q-Q plot

Radium-228, MW-3 (pCi/L)



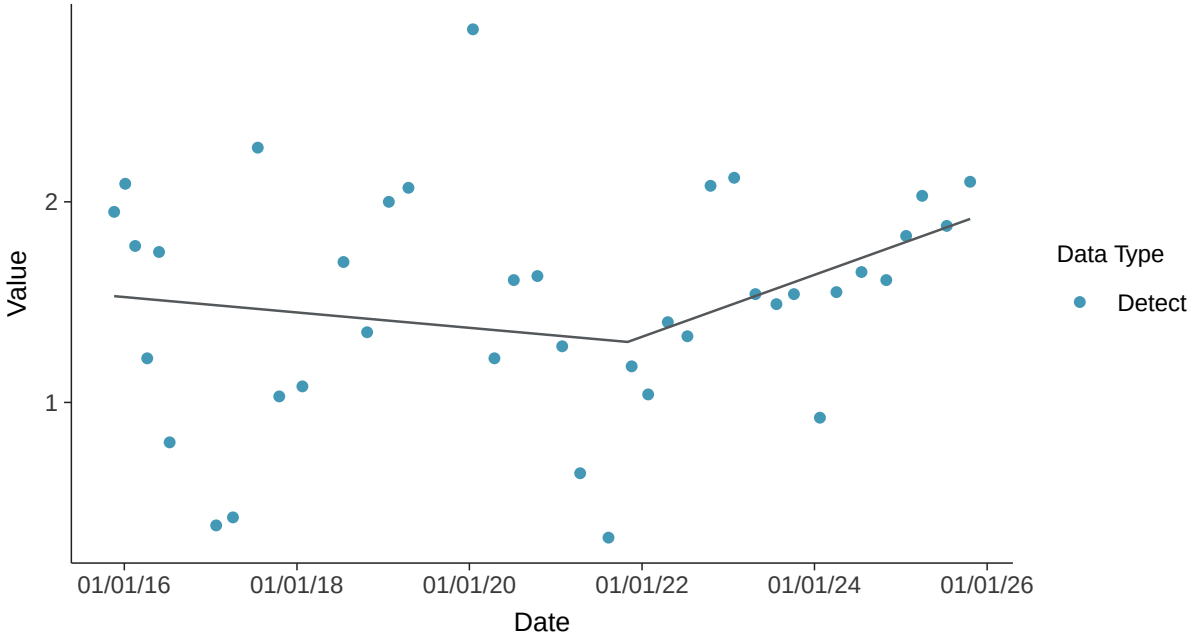
Trend Regression: Lognormal MLE

Radium-228, MW-3 (pCi/L)



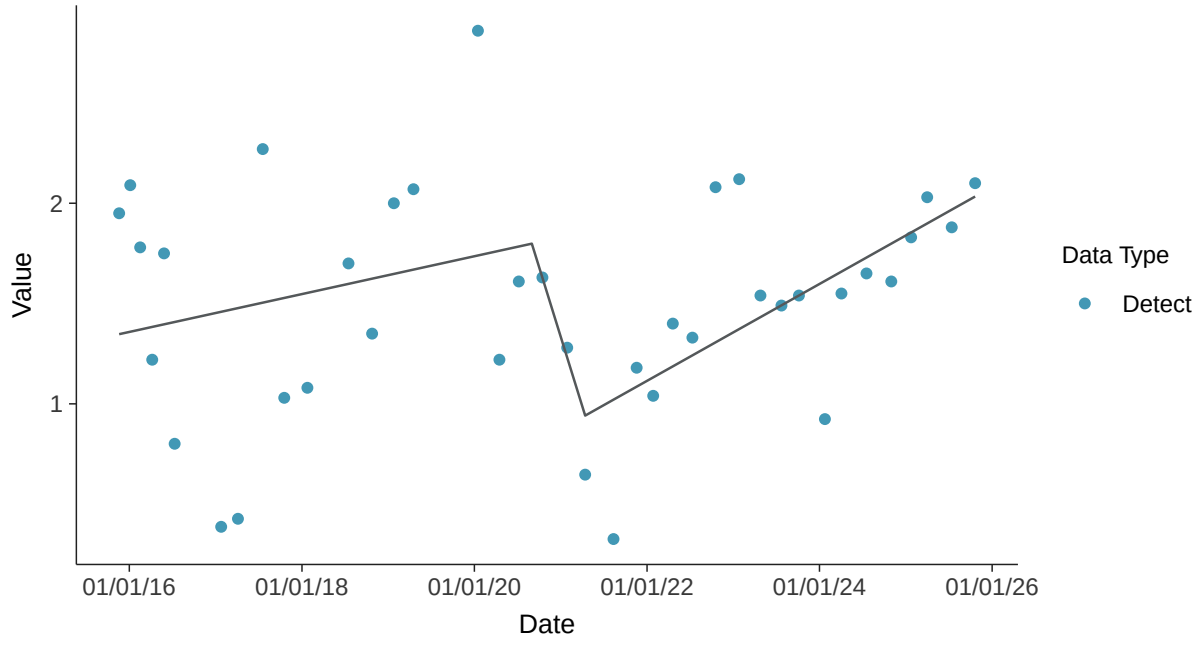
Trend Regression: Piecewise Linear-Linear

Radium-228, MW-3 (pCi/L)



Trend Regression: Piecewise Linear-Linear-Linear

Radium-228, MW-3 (pCi/L)

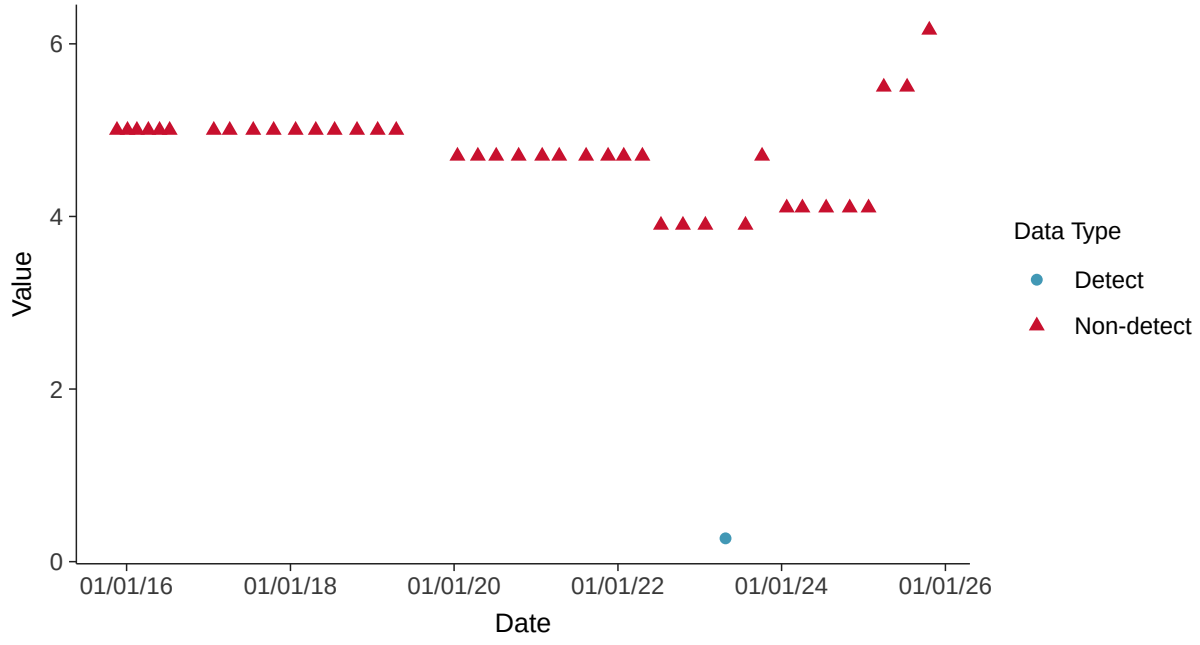


App. IV: Selenium, MW-3

ID: 03_3_121

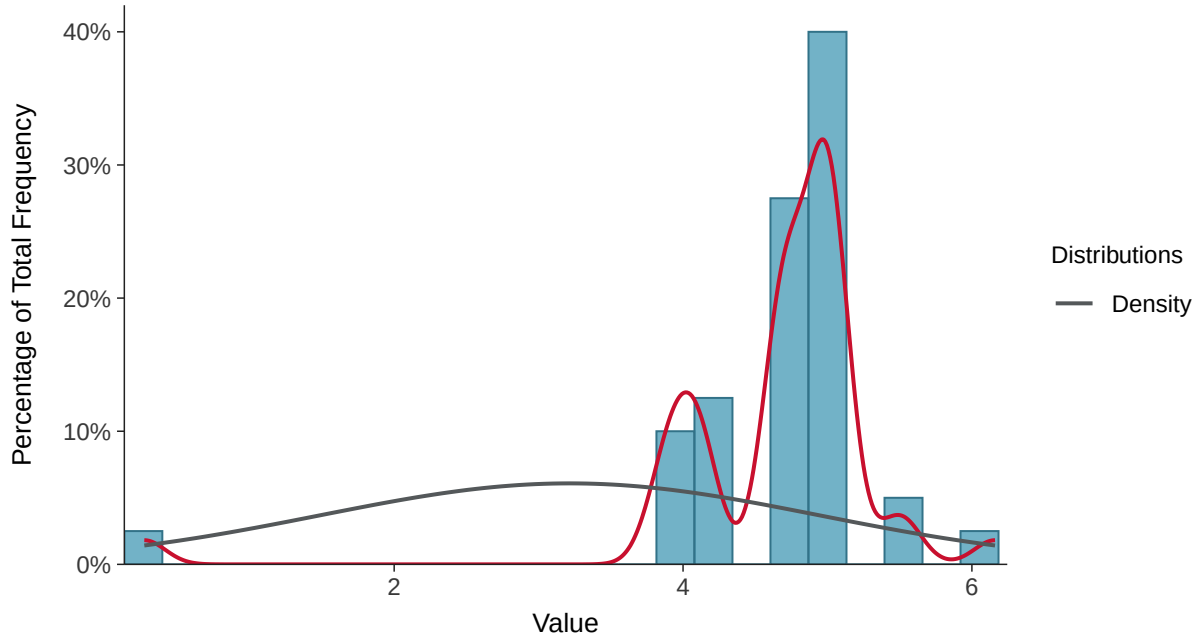
Scatter Plot

Selenium, MW-3 (ug/L)



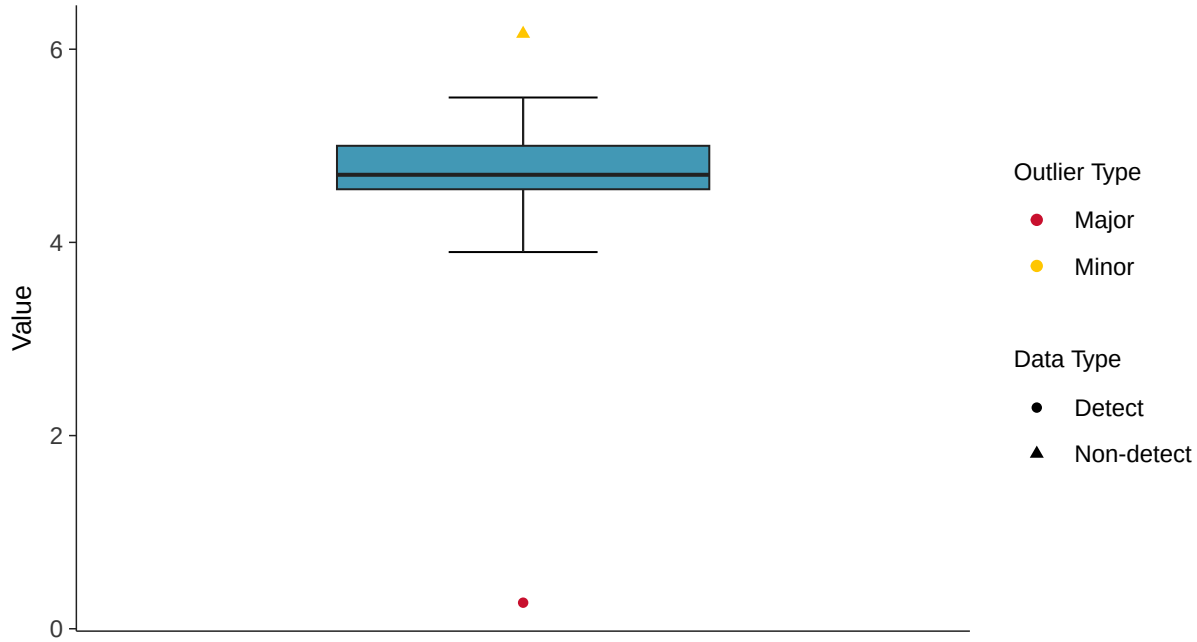
Histogram

Selenium, MW-3 (ug/L)



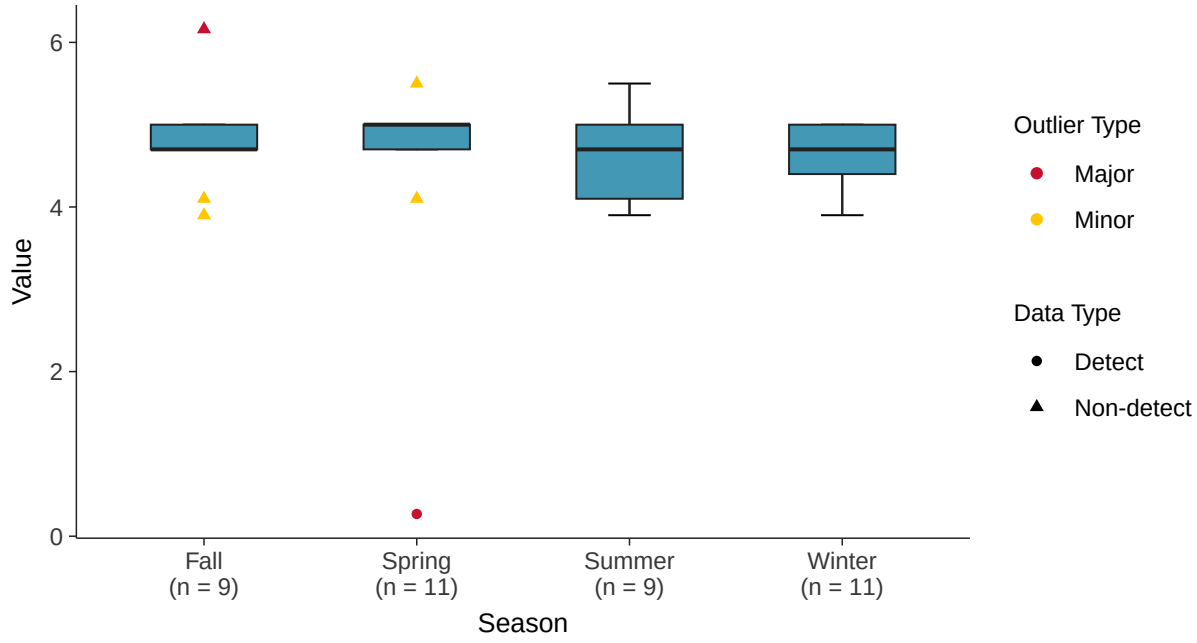
Boxplot

Selenium, MW-3 (ug/L)



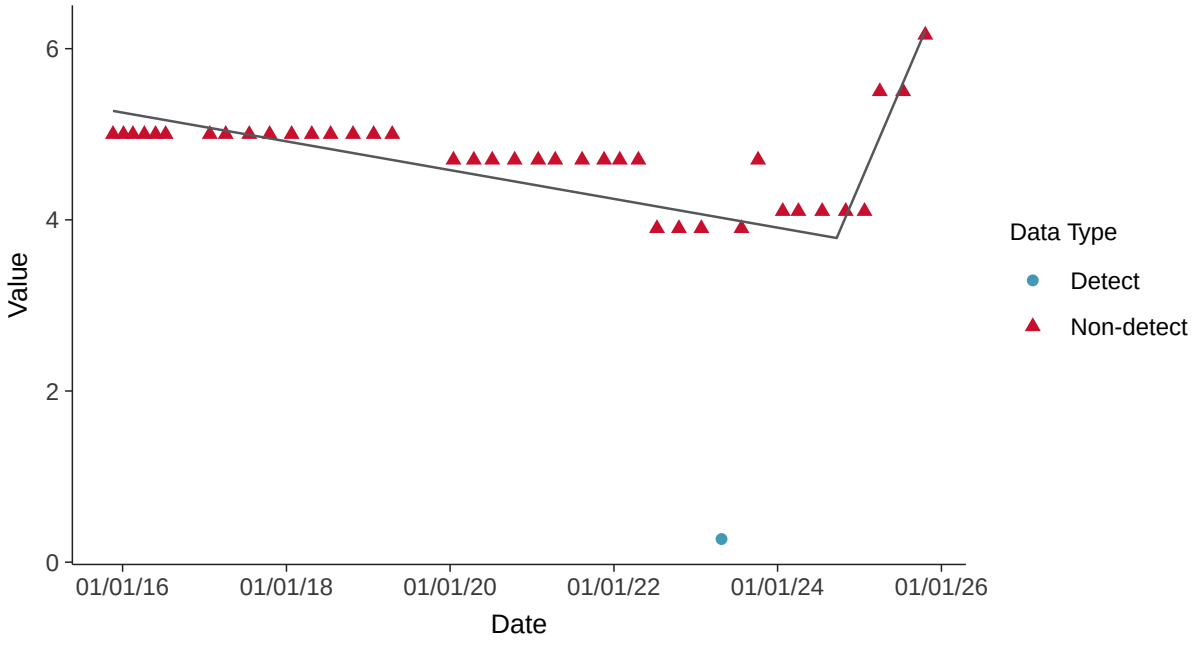
Boxplot by Season

Selenium, MW-3 (ug/L)



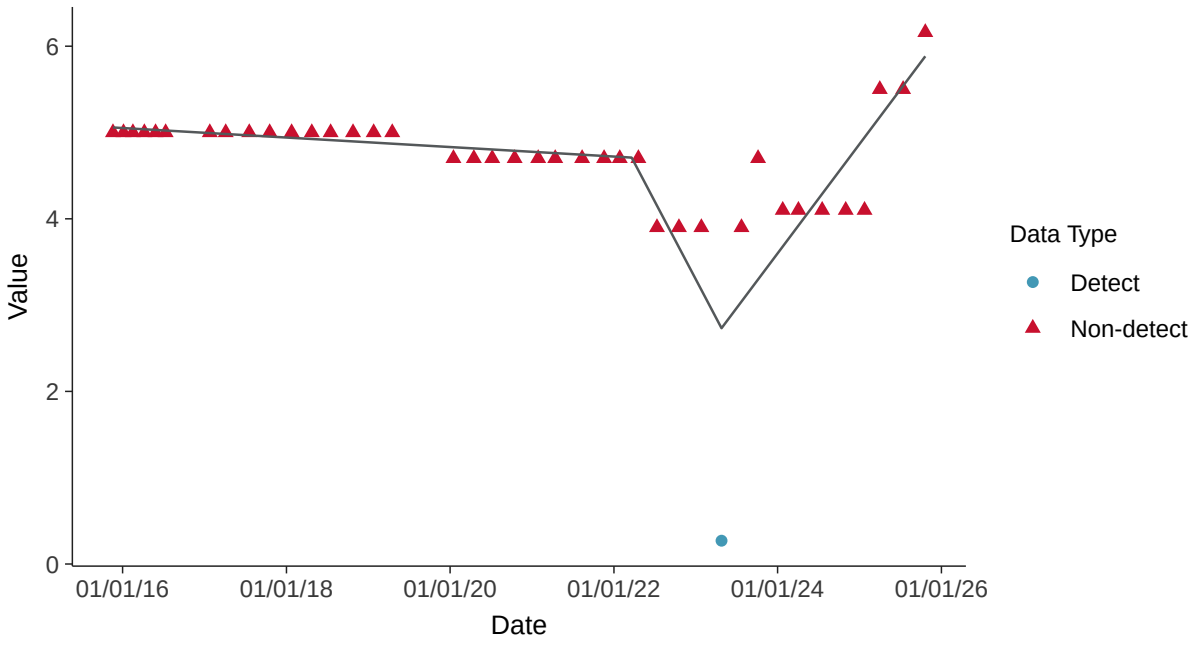
Trend Regression: Piecewise Linear-Linear

Selenium, MW-3 (ug/L)



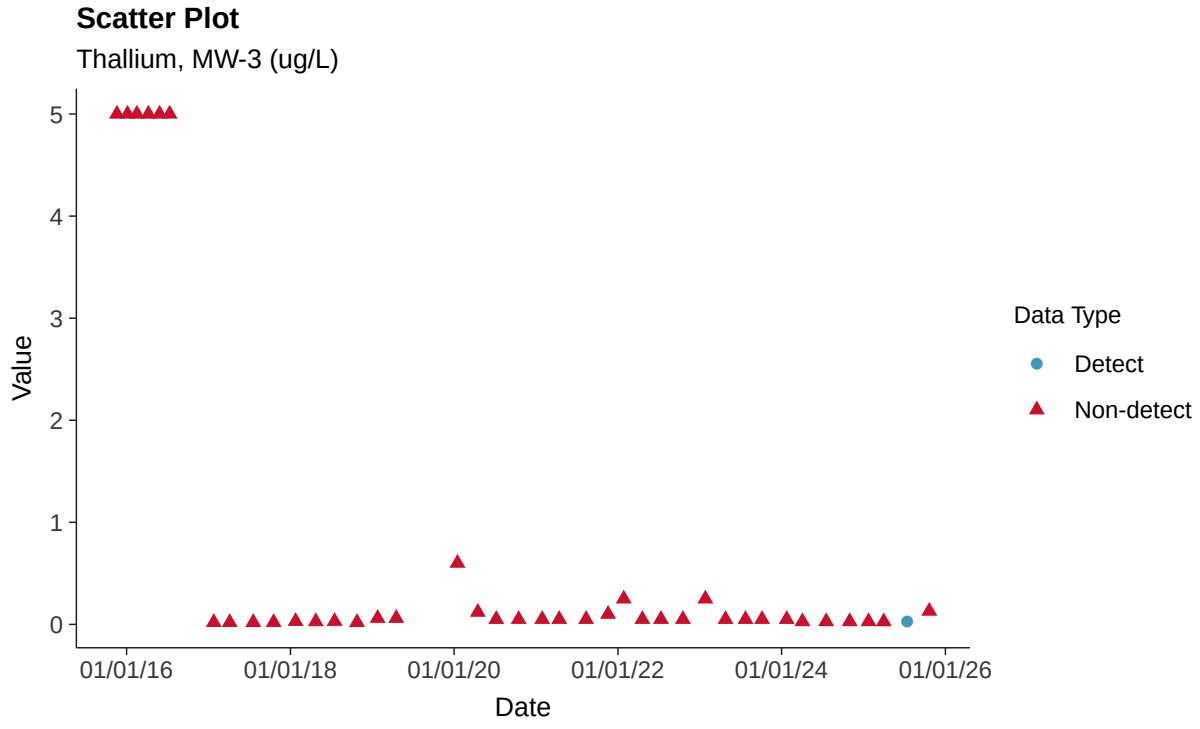
Trend Regression: Piecewise Linear-Linear-Linear

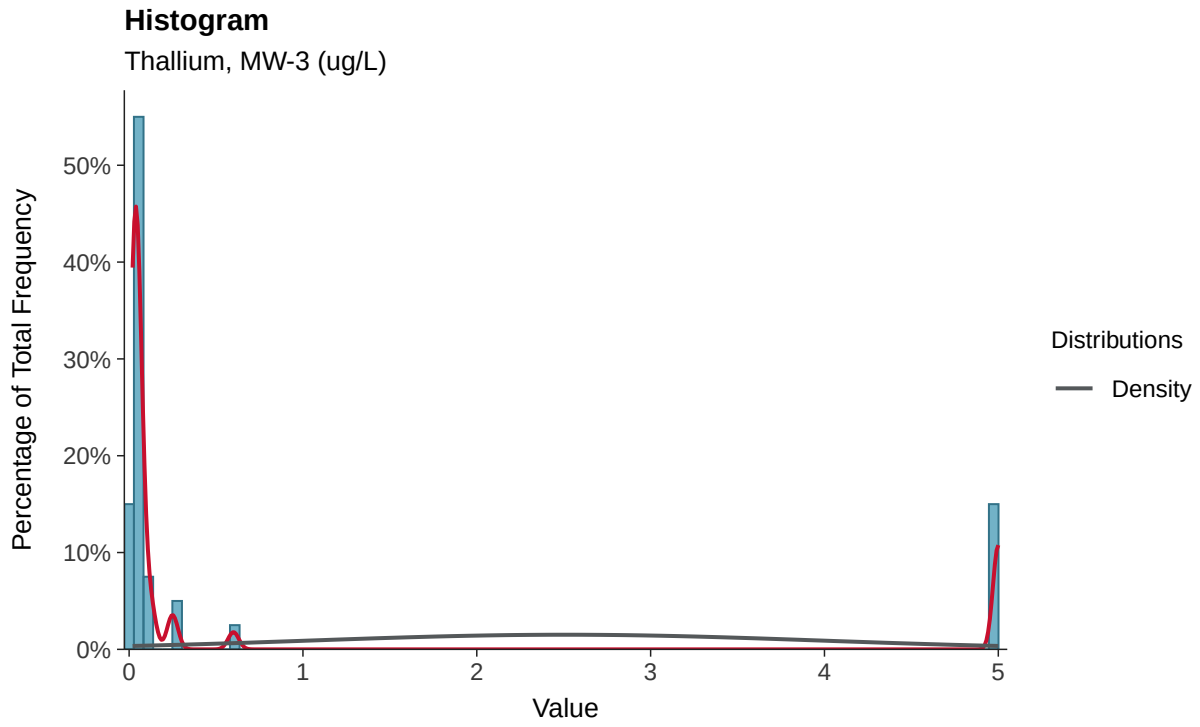
Selenium, MW-3 (ug/L)



App. IV: Thallium, MW-3

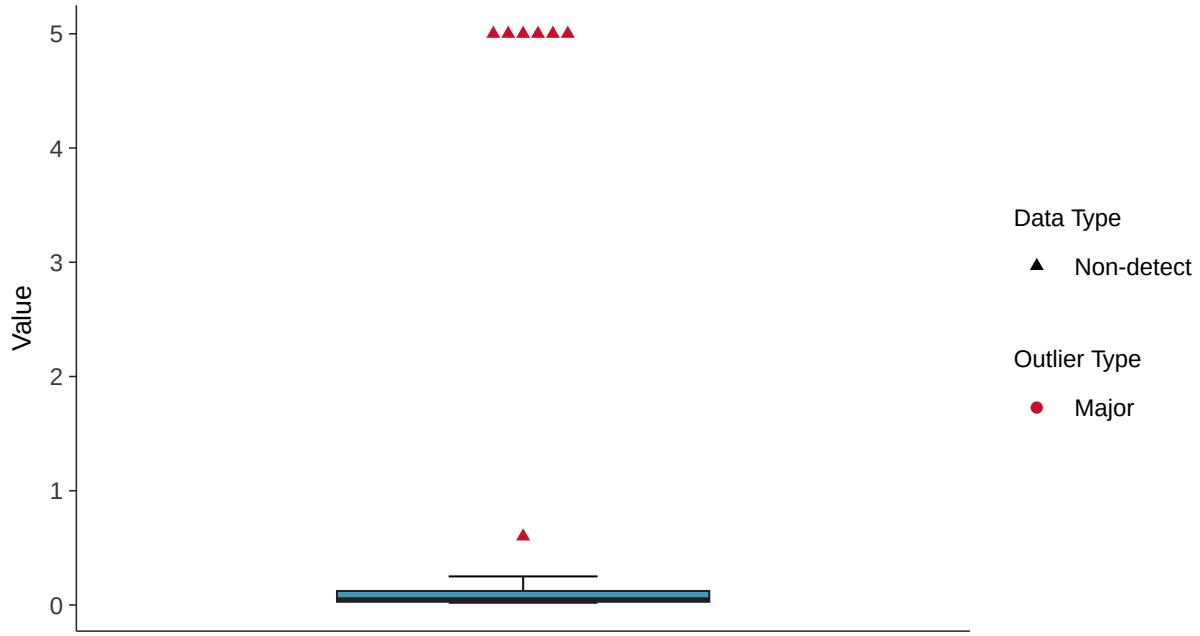
ID: 03_3_124





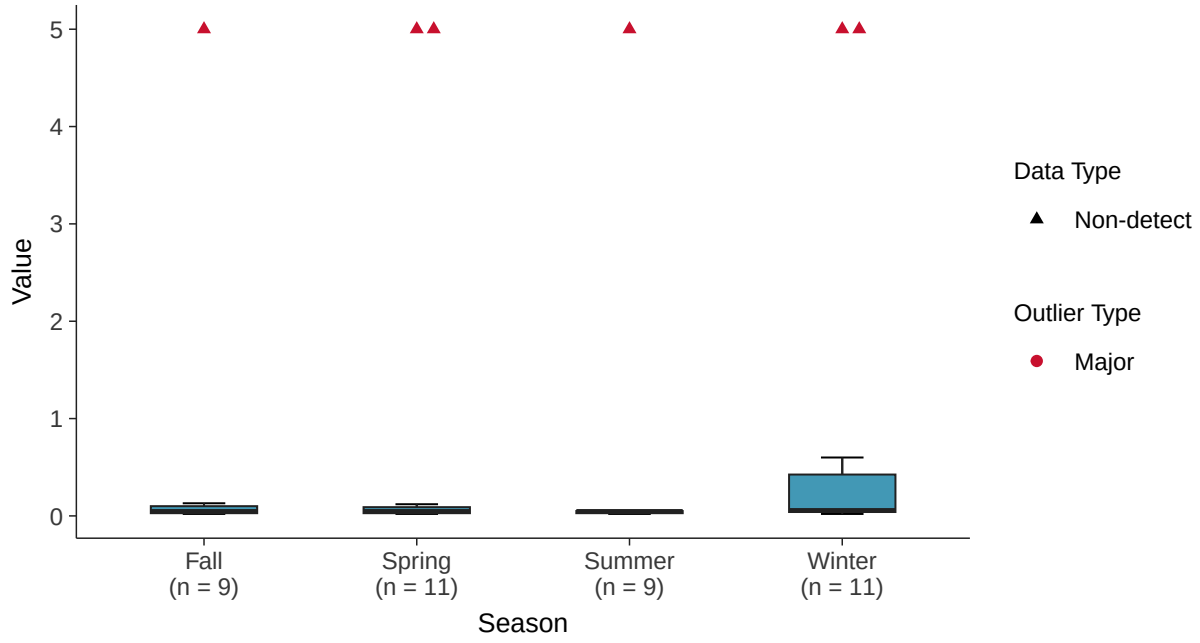
Boxplot

Thallium, MW-3 (ug/L)



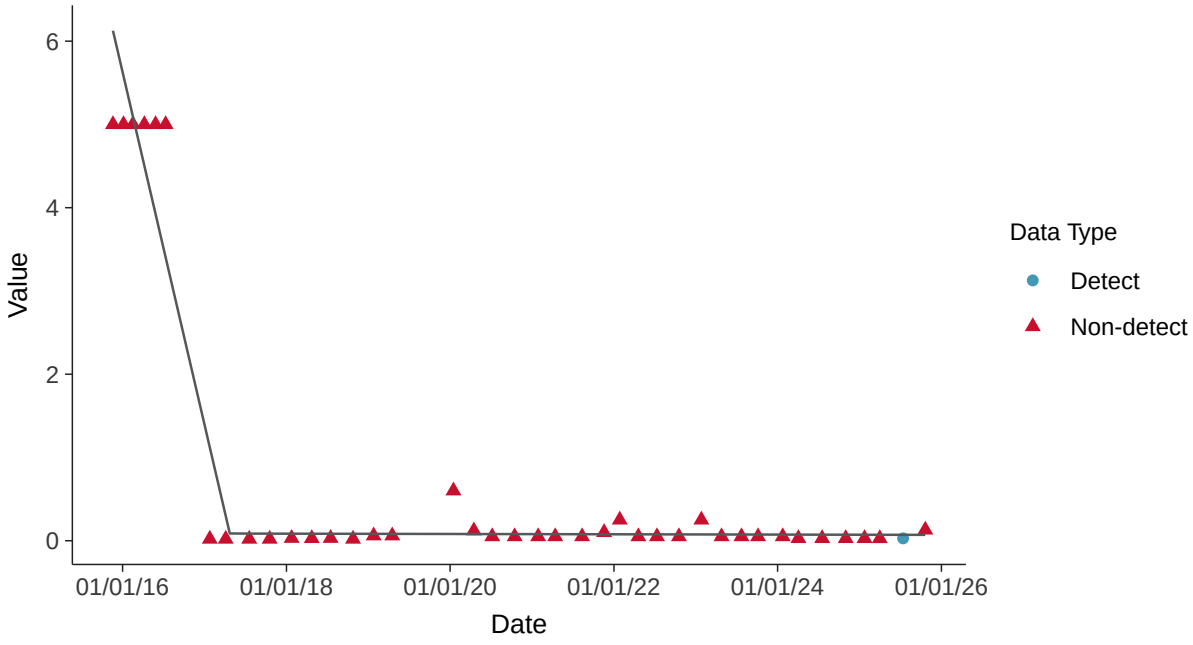
Boxplot by Season

Thallium, MW-3 (ug/L)



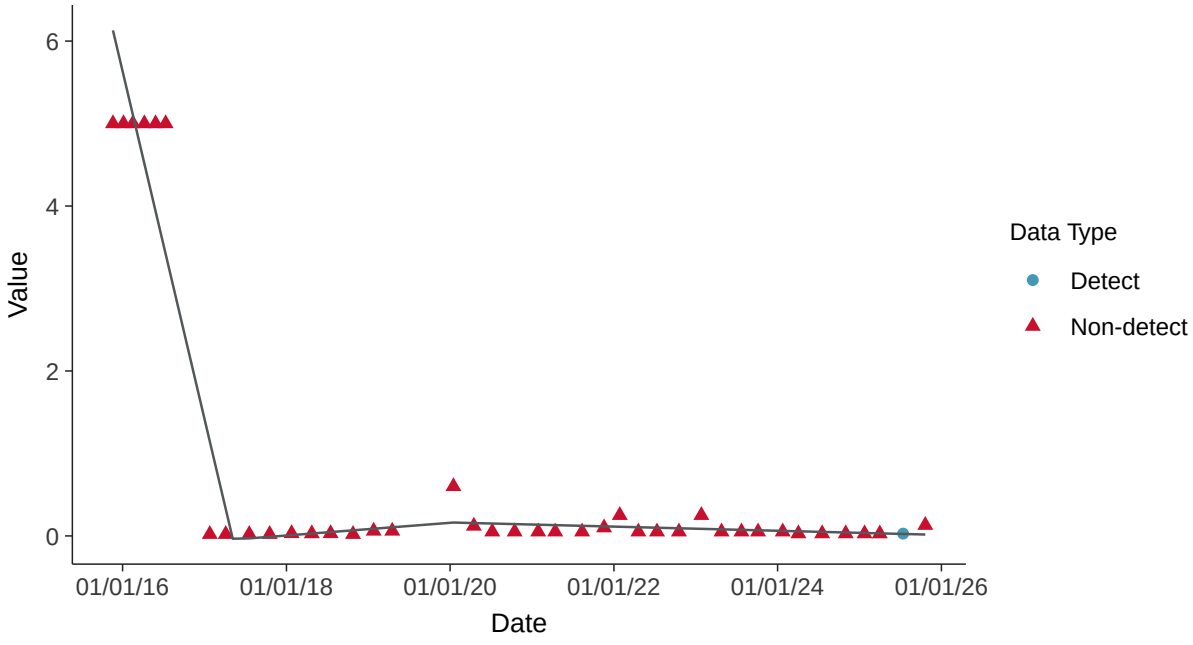
Trend Regression: Piecewise Linear-Linear

Thallium, MW-3 (ug/L)



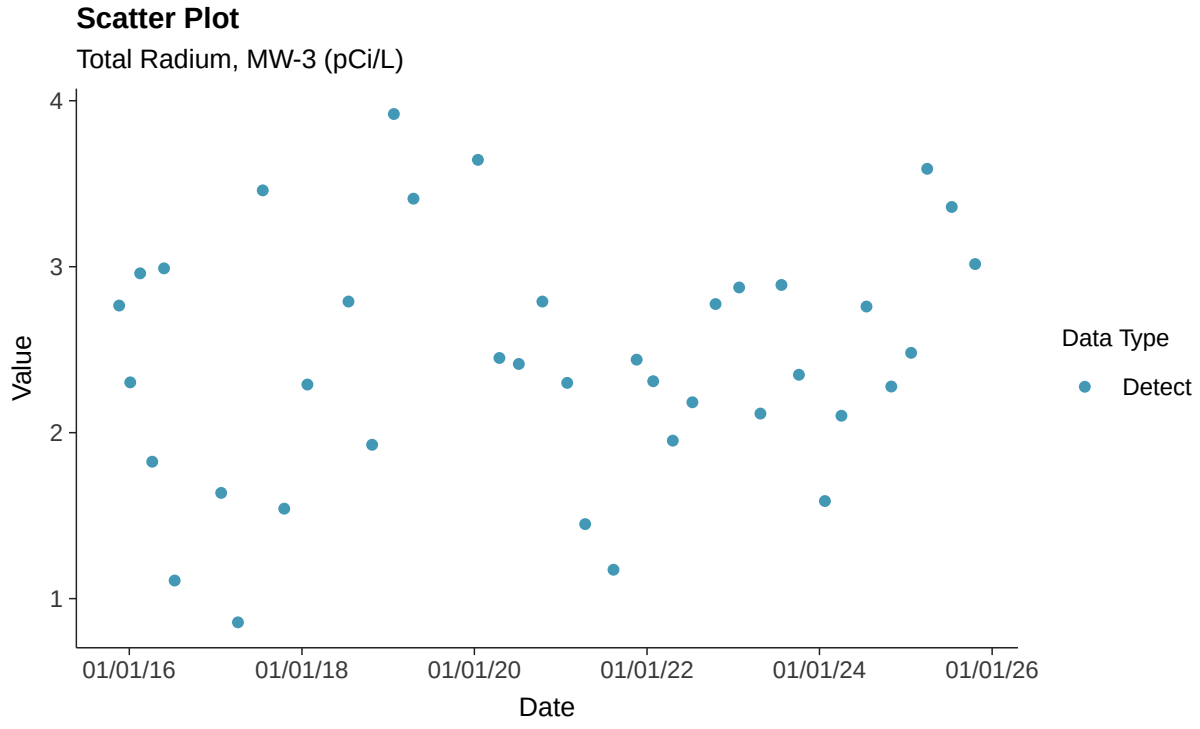
Trend Regression: Piecewise Linear-Linear-Linear

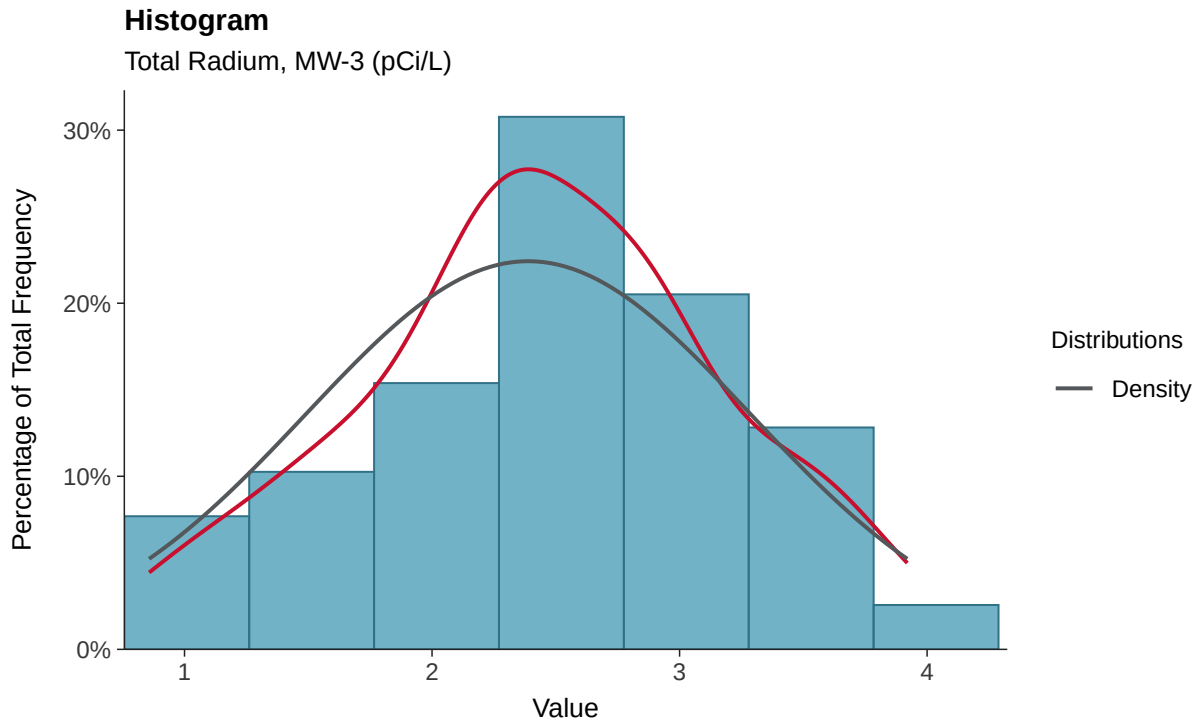
Thallium, MW-3 (ug/L)



App. IV: Total Radium, MW-3

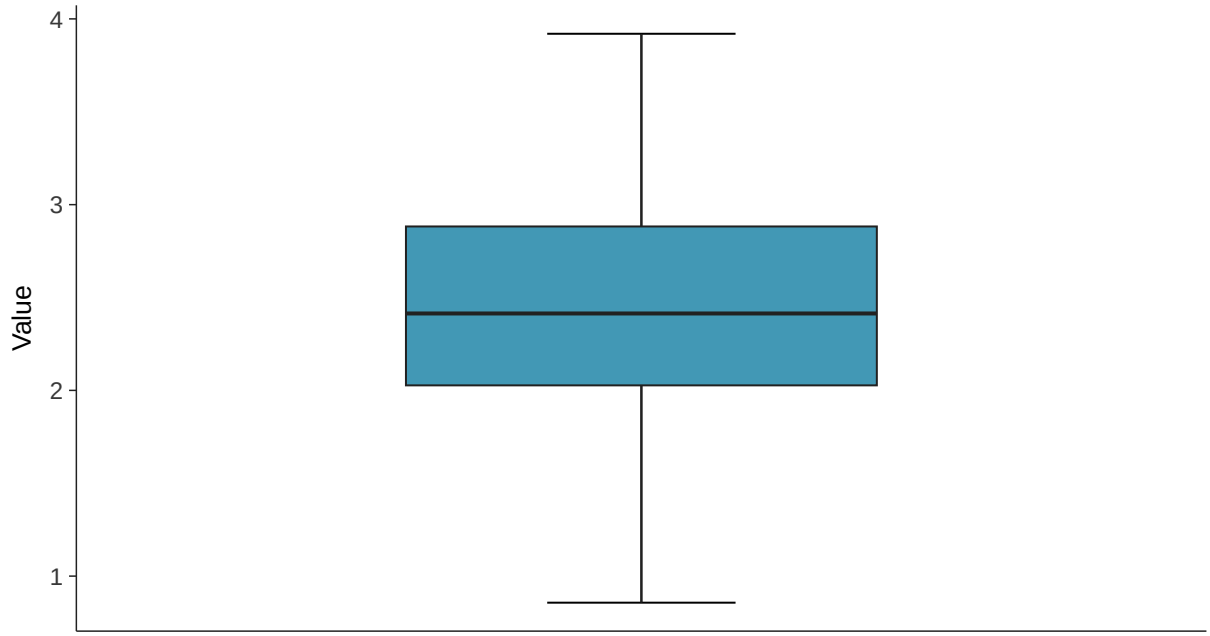
ID: 03_3_126





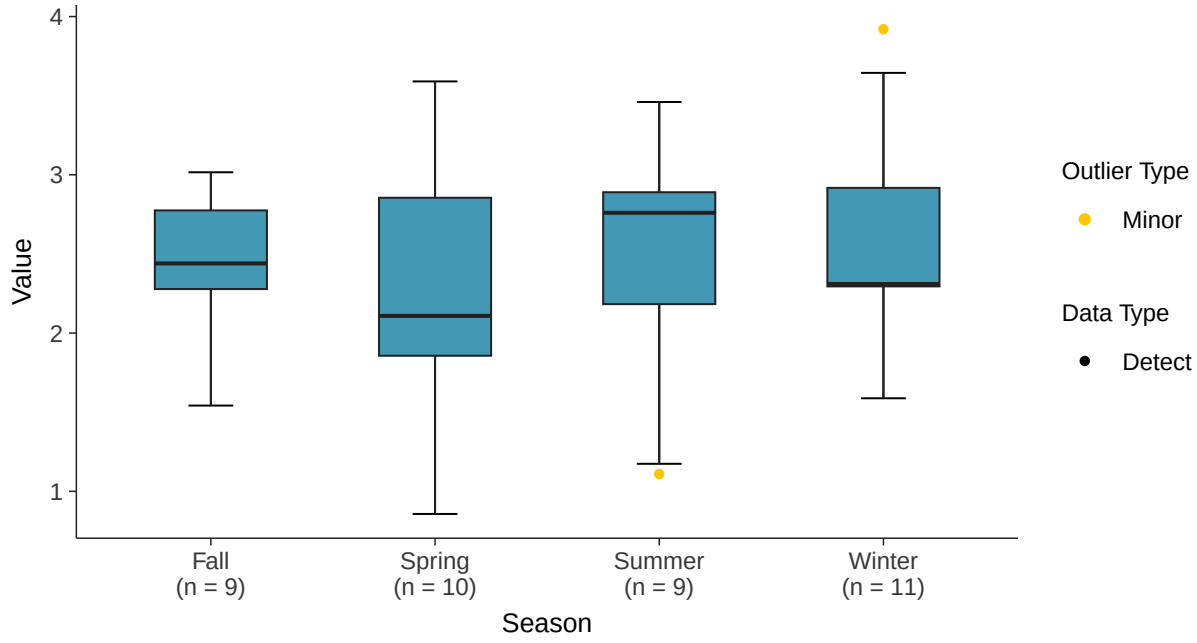
Boxplot

Total Radium, MW-3 (pCi/L)



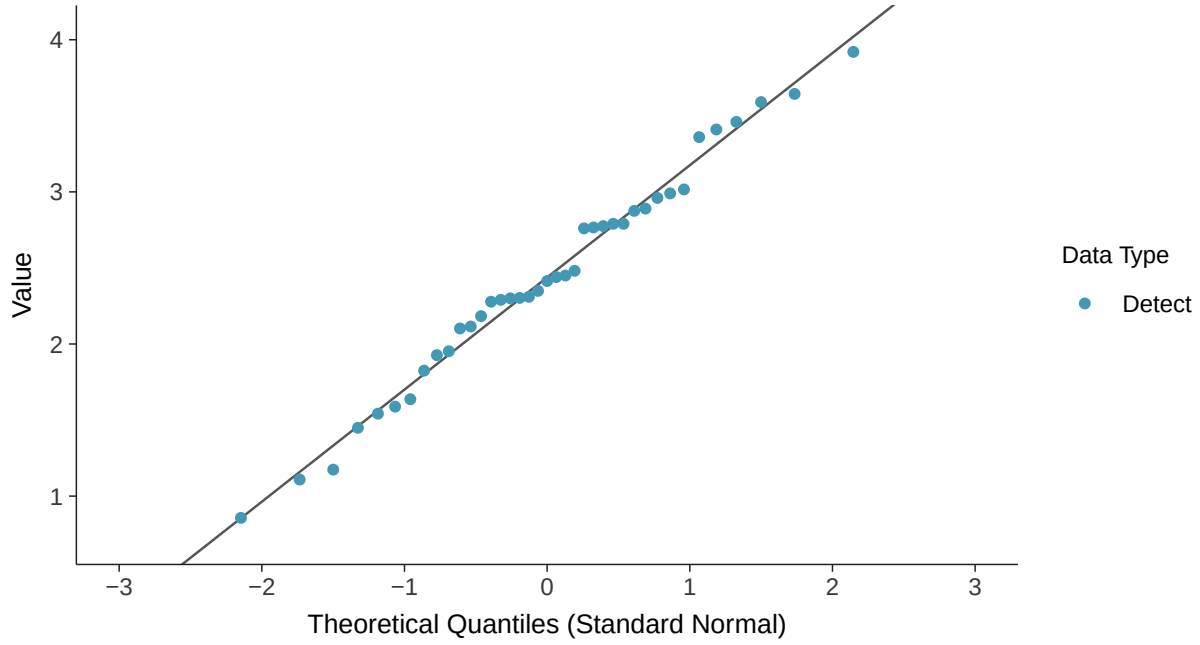
Boxplot by Season

Total Radium, MW-3 (pCi/L)



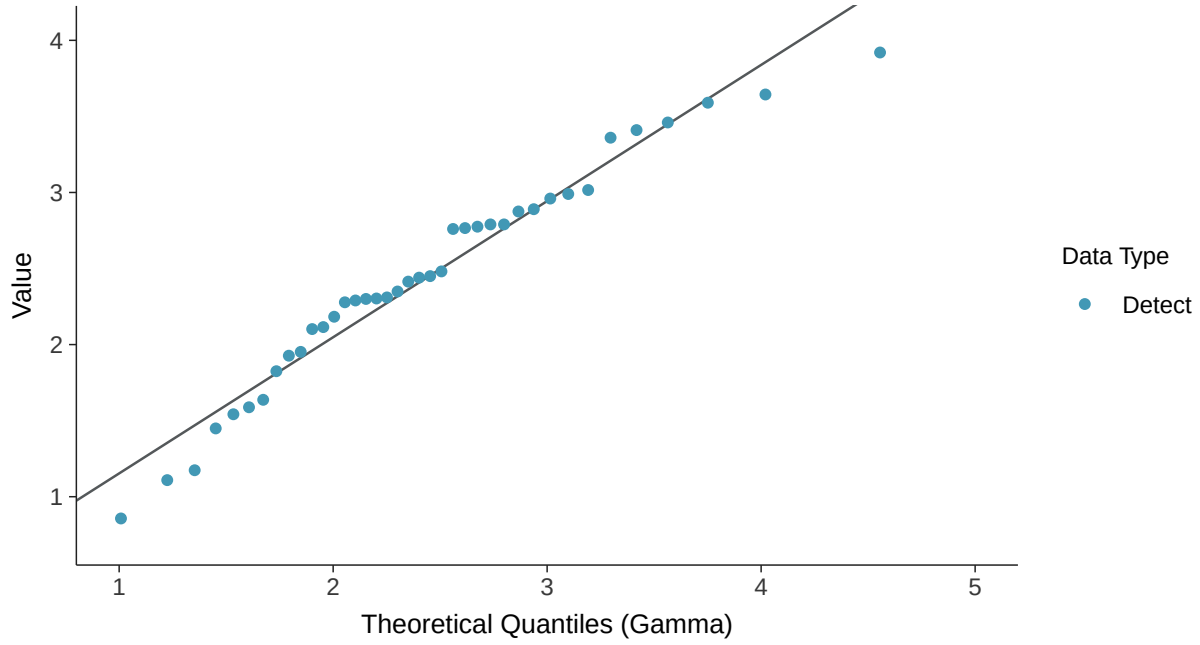
Normal Q-Q plot

Total Radium, MW-3 (pCi/L)



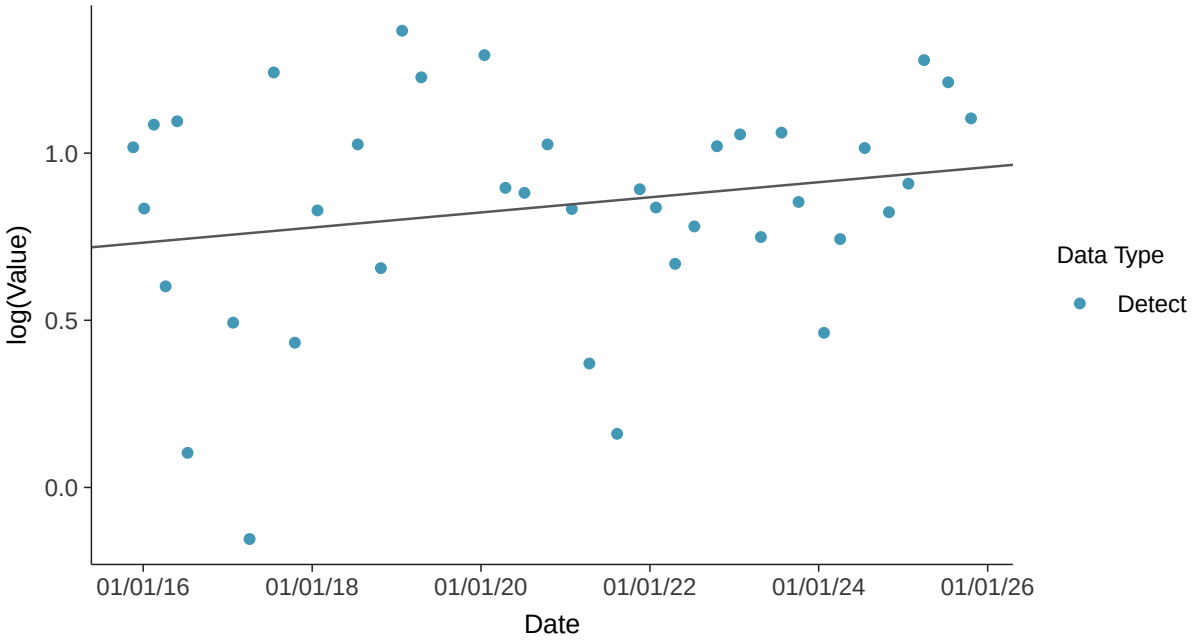
Gamma Q-Q plot

Total Radium, MW-3 (pCi/L)



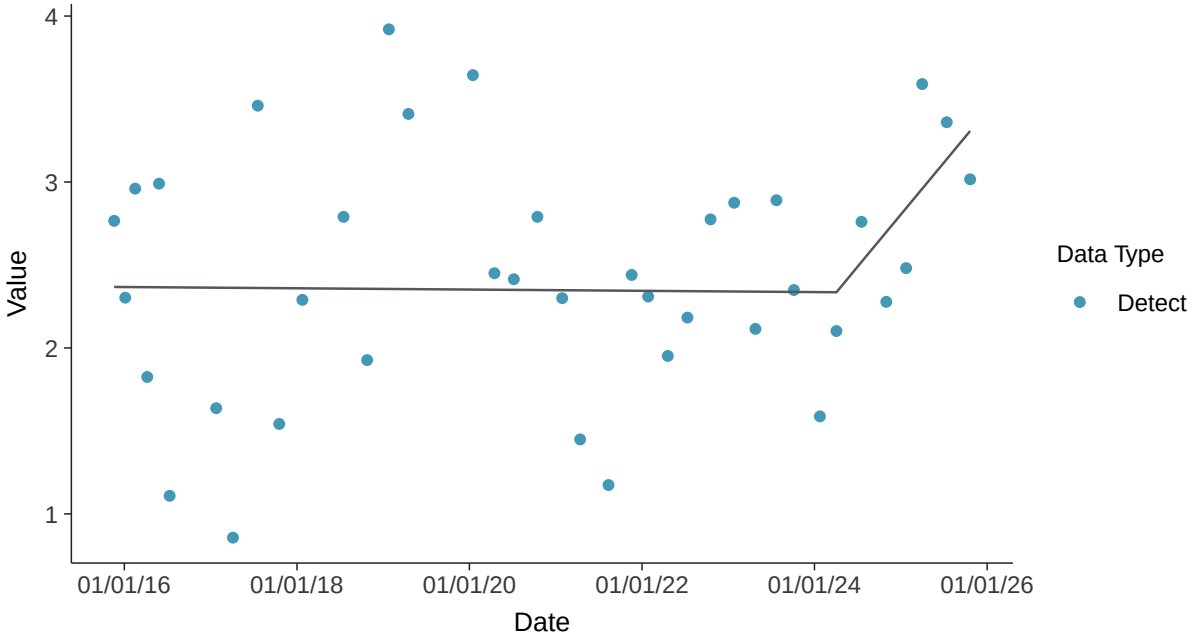
Trend Regression: Lognormal MLE

Total Radium, MW-3 (pCi/L)



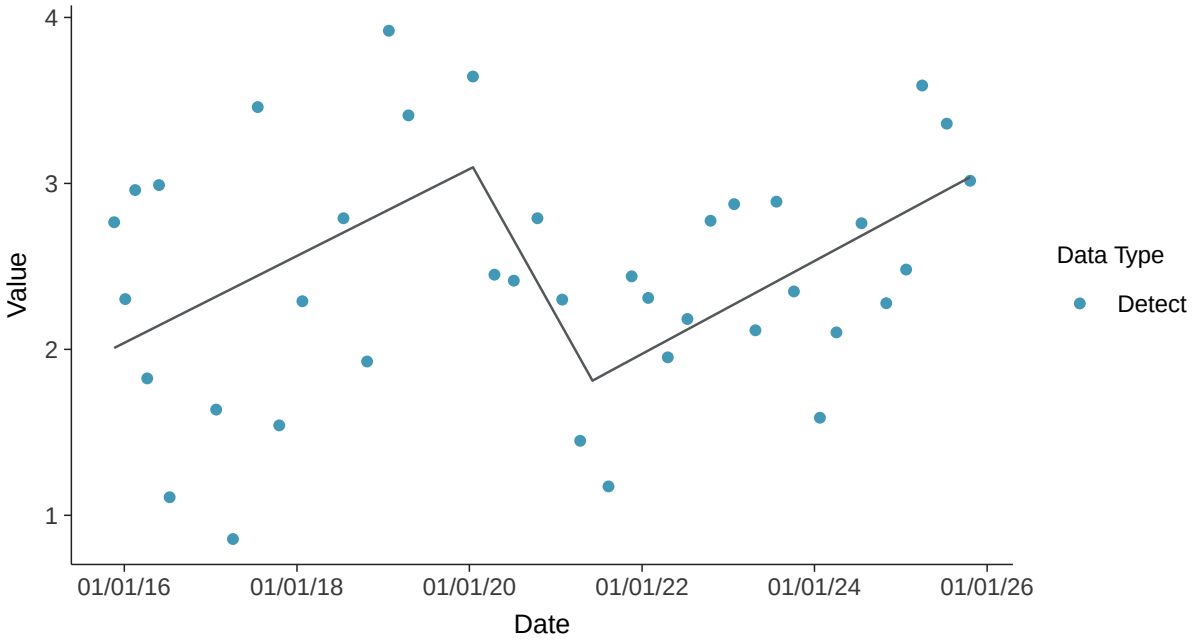
Trend Regression: Piecewise Linear-Linear

Total Radium, MW-3 (pCi/L)



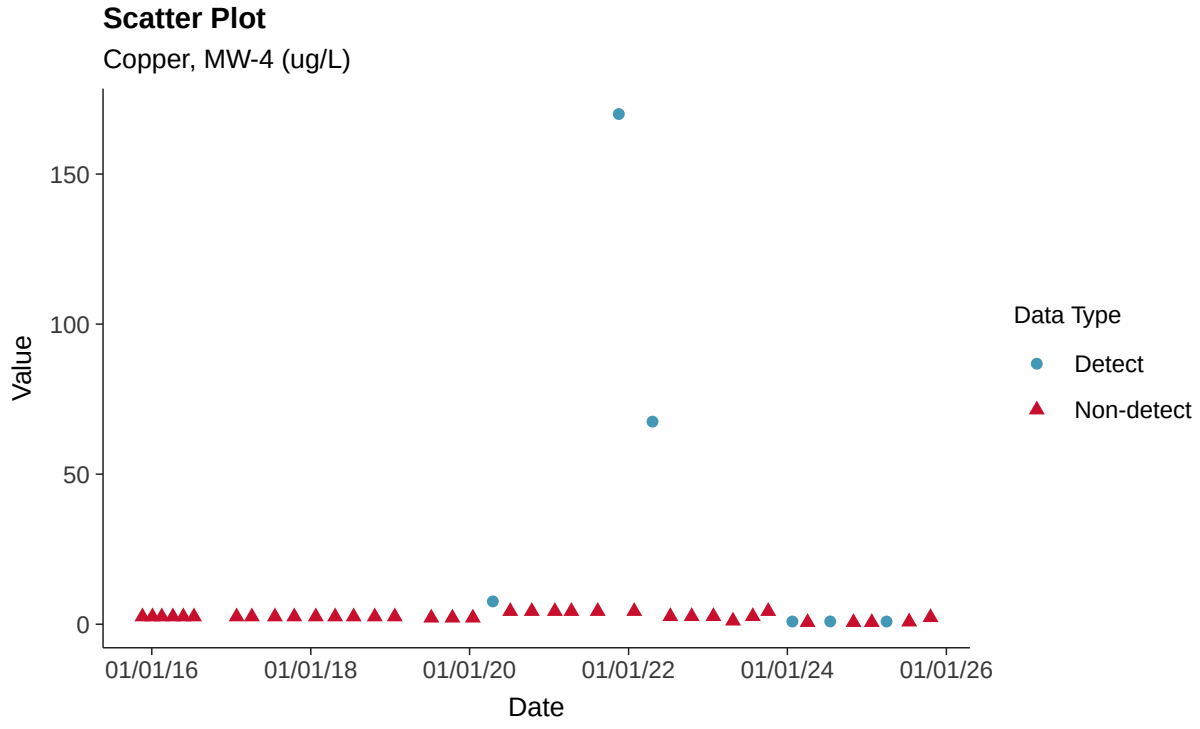
Trend Regression: Piecewise Linear-Linear-Linear

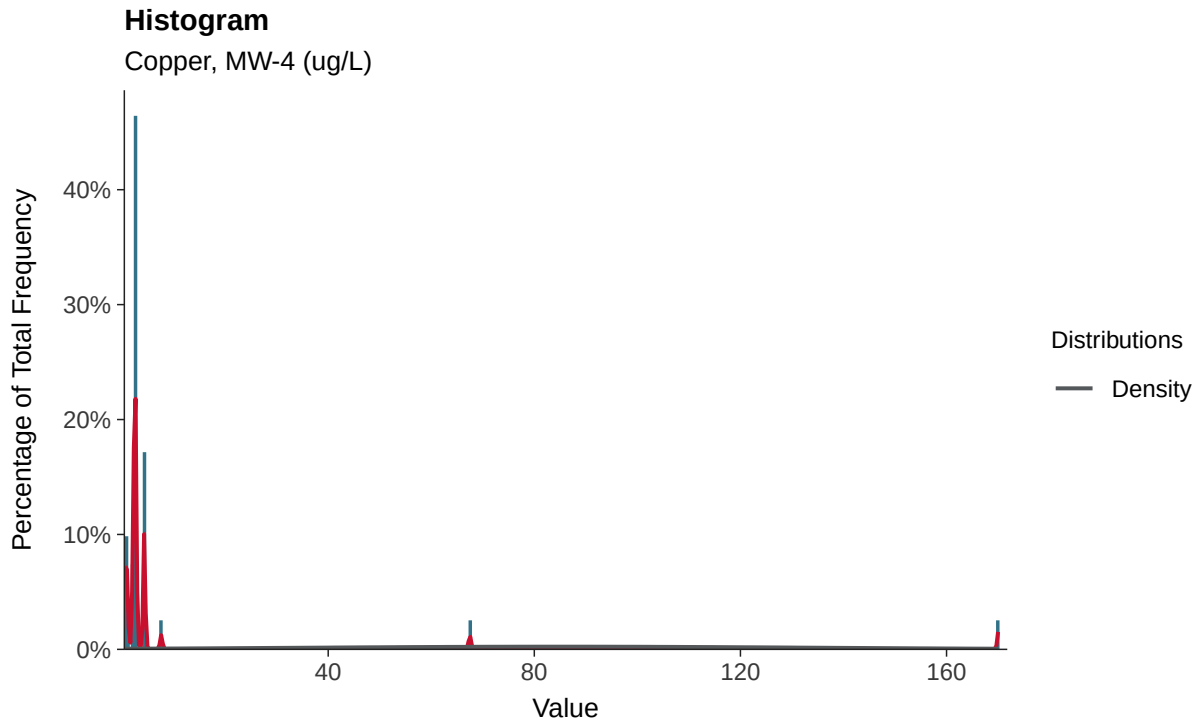
Total Radium, MW-3 (pCi/L)



App. I Metals: Copper, MW-4

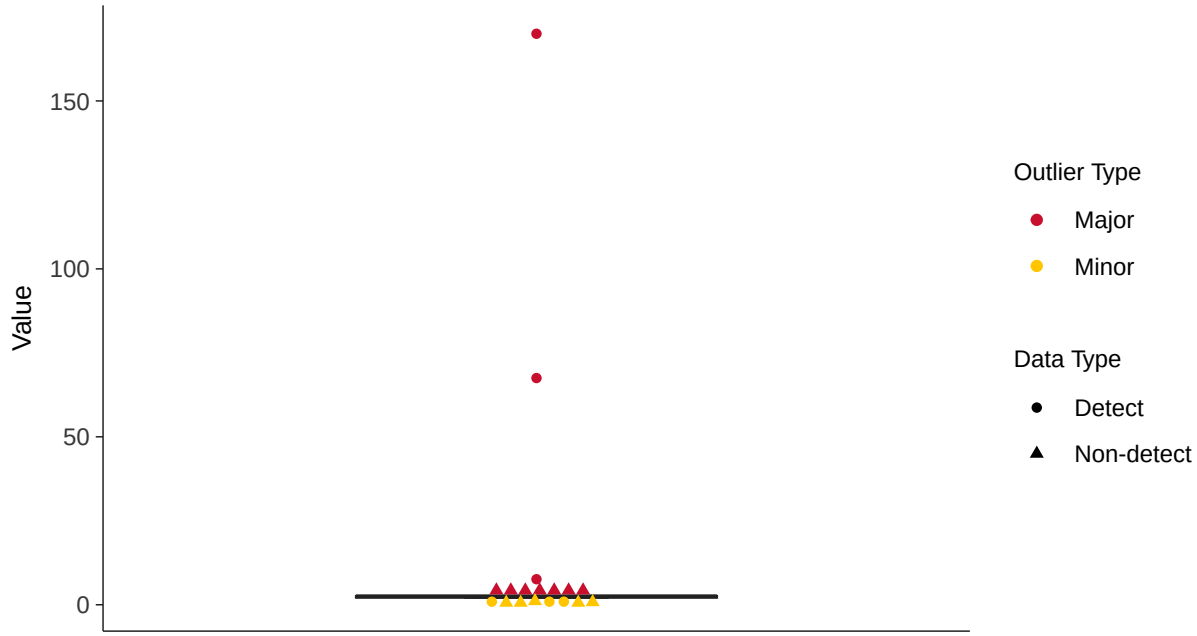
ID: 04_1_111





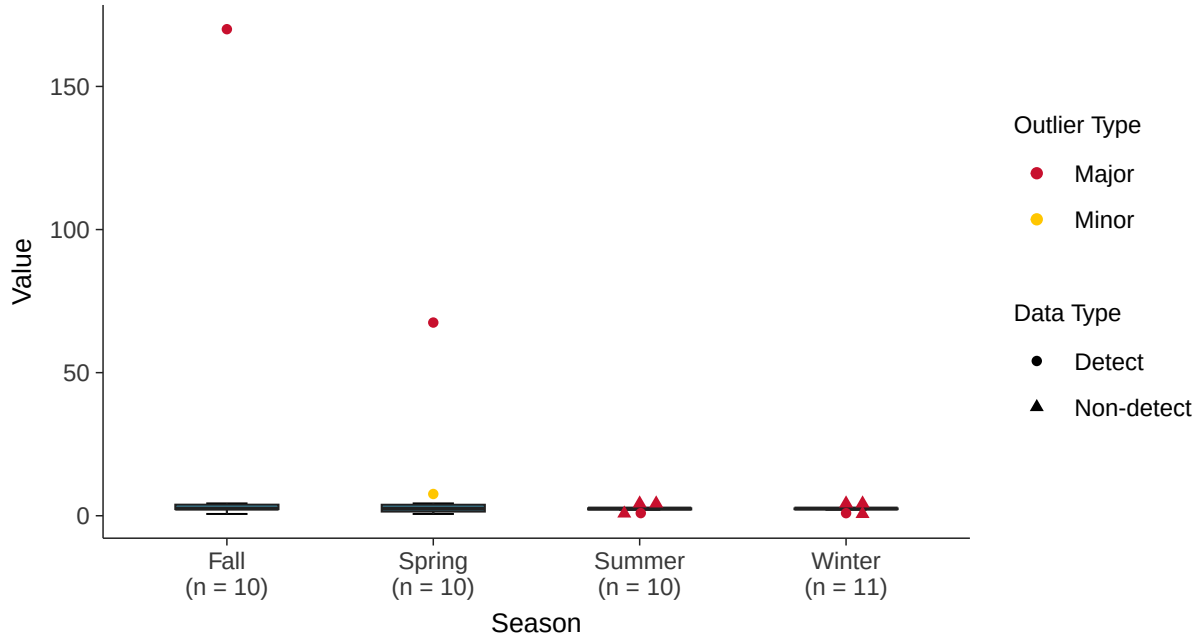
Boxplot

Copper, MW-4 (ug/L)



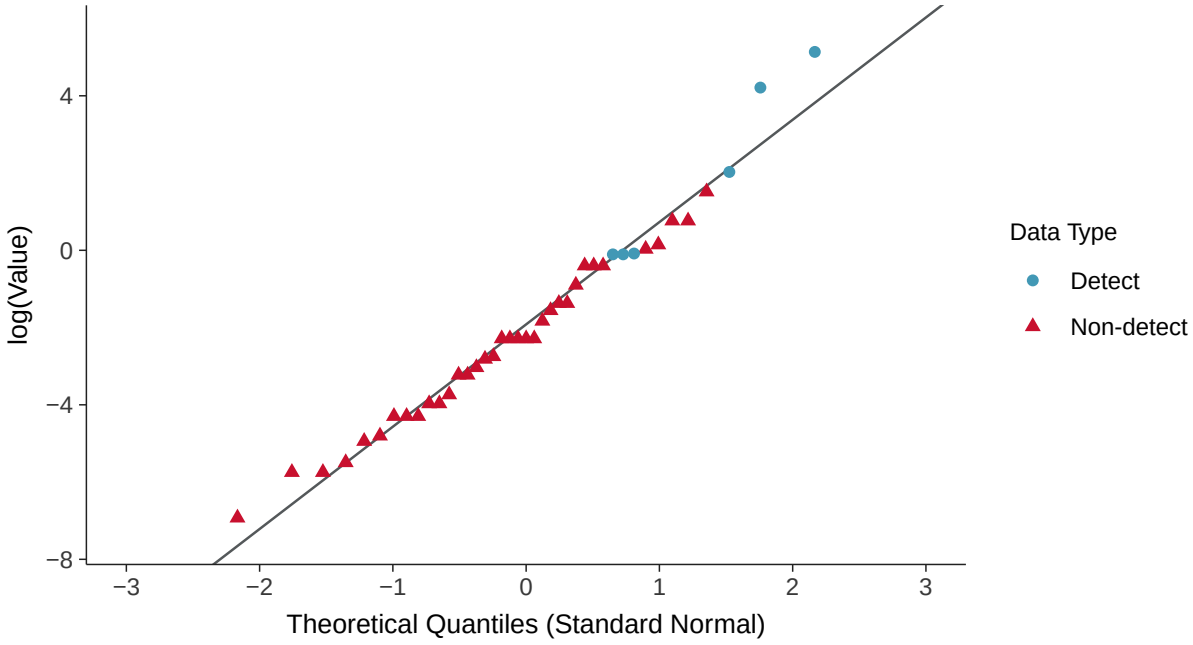
Boxplot by Season

Copper, MW-4 (ug/L)



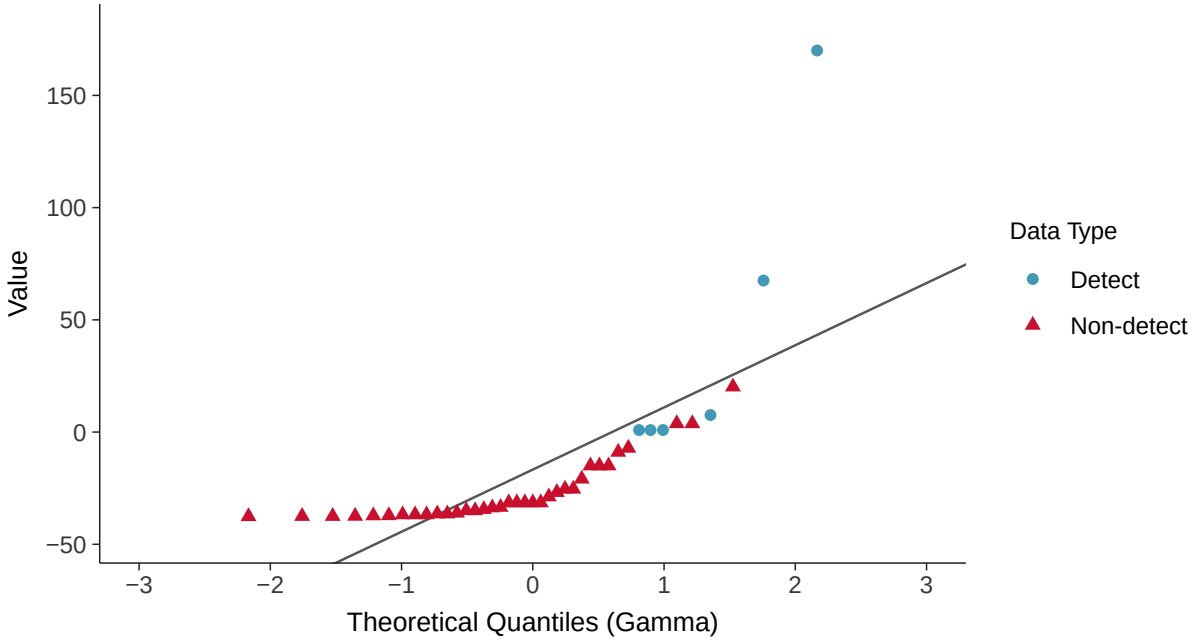
Lognormal Q-Q plot using ROS Imputed Estimates

Copper, MW-4 (ug/L)



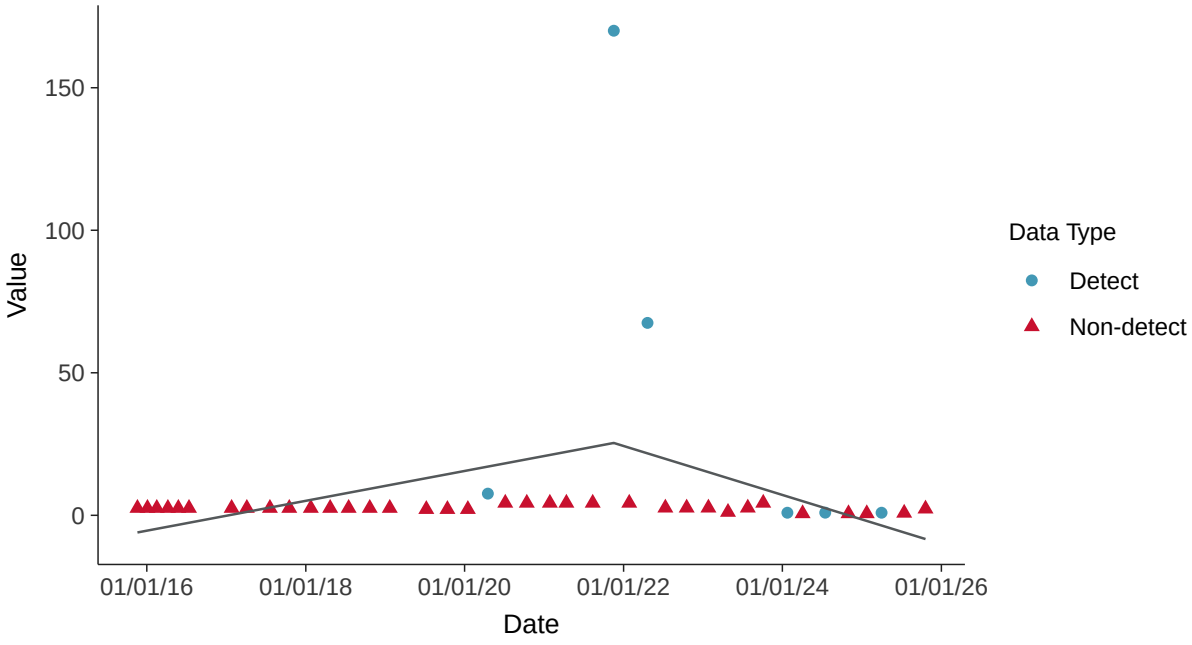
Gamma Q-Q plot using ROS Imputed Estimates

Copper, MW-4 (ug/L)



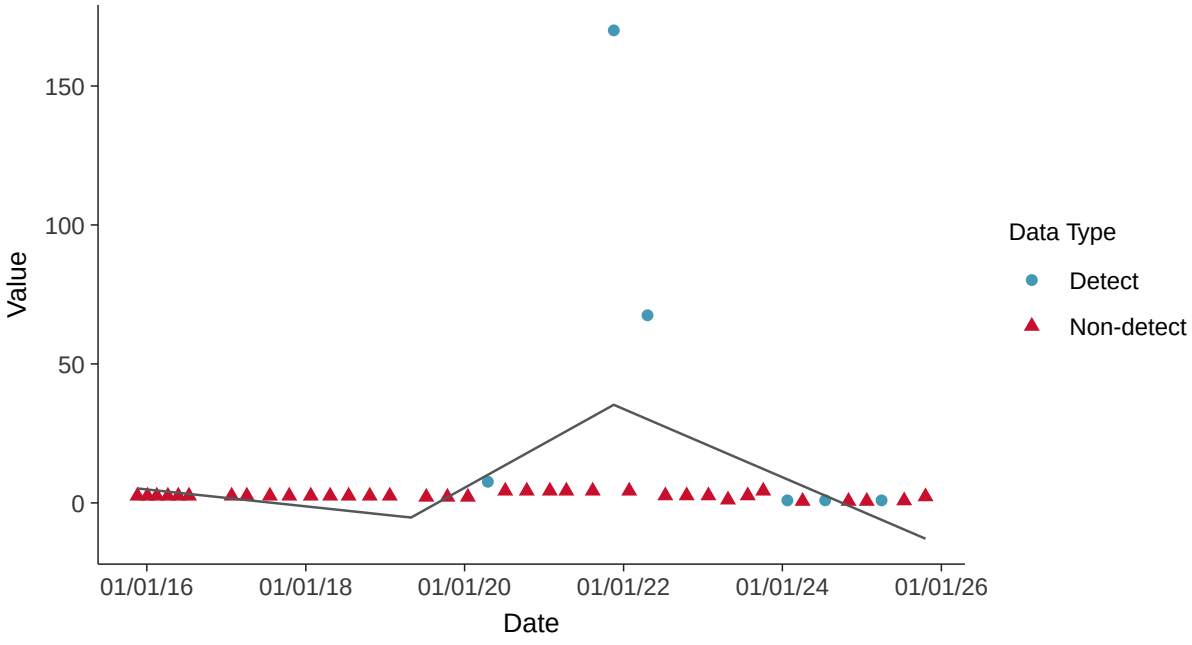
Trend Regression: Piecewise Linear-Linear

Copper, MW-4 (ug/L)



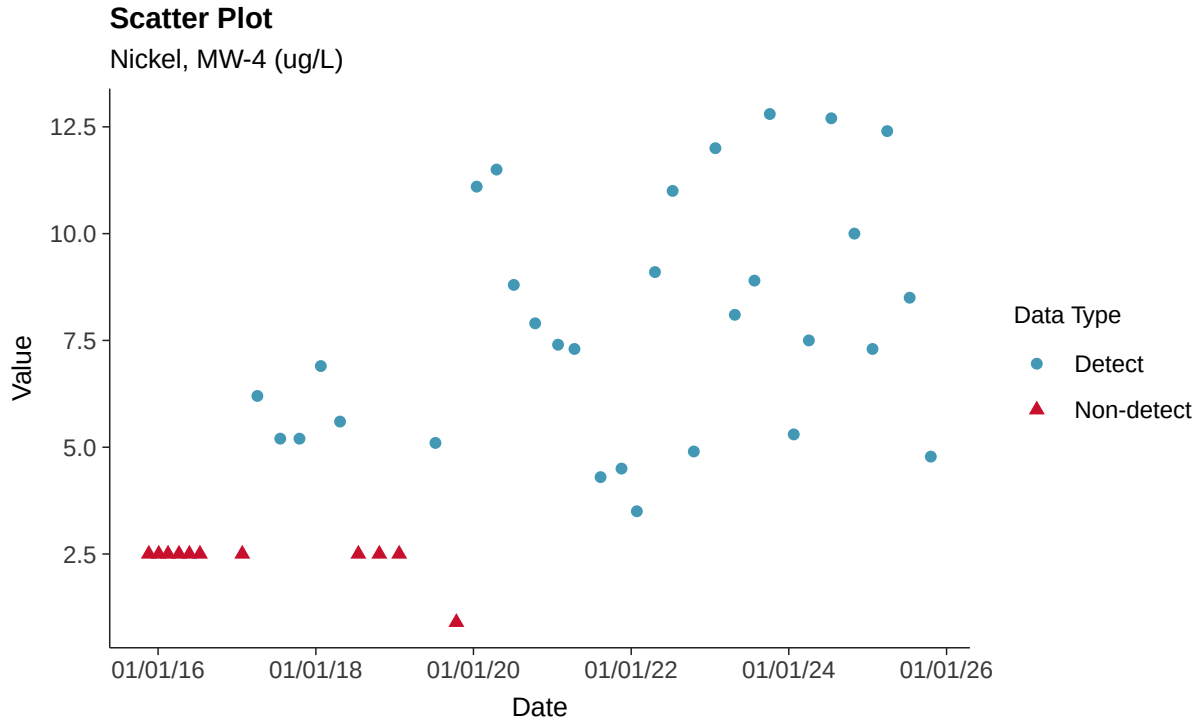
Trend Regression: Piecewise Linear-Linear-Linear

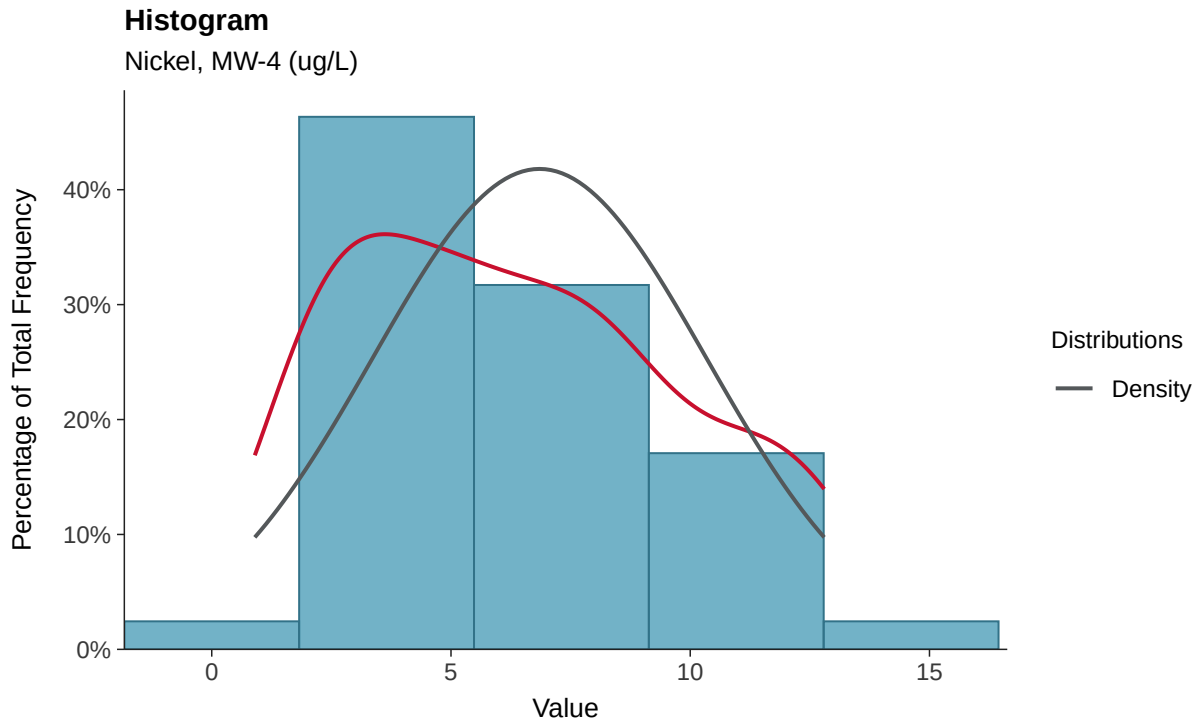
Copper, MW-4 (ug/L)



App. I Metals: Nickel, MW-4

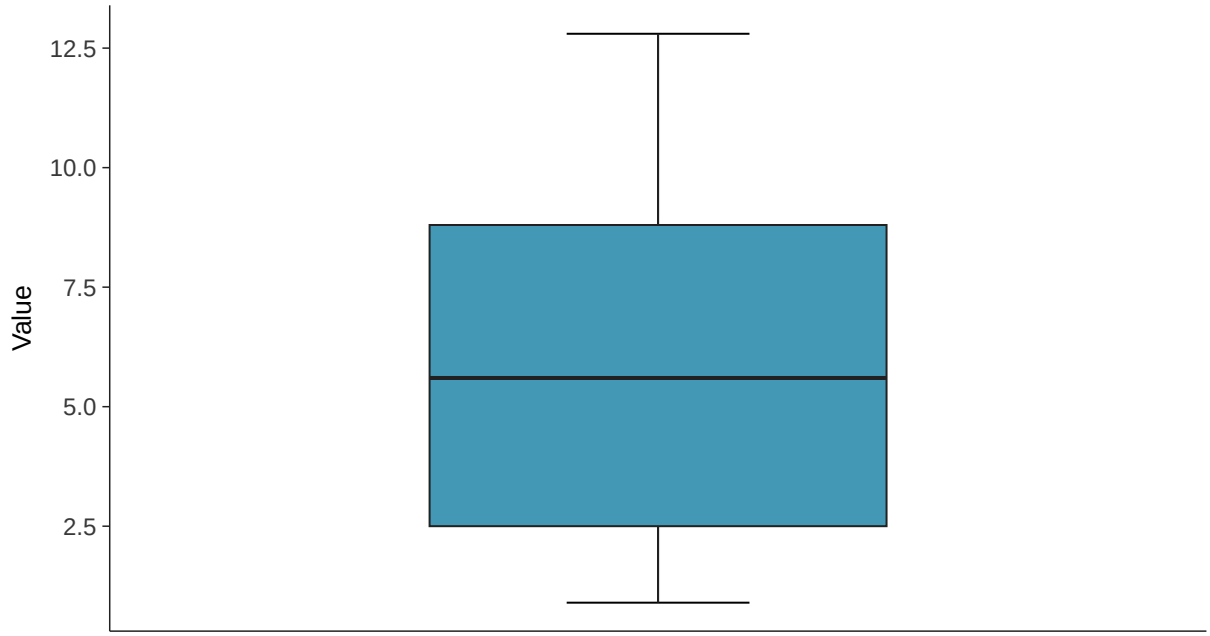
ID: 04_1_117





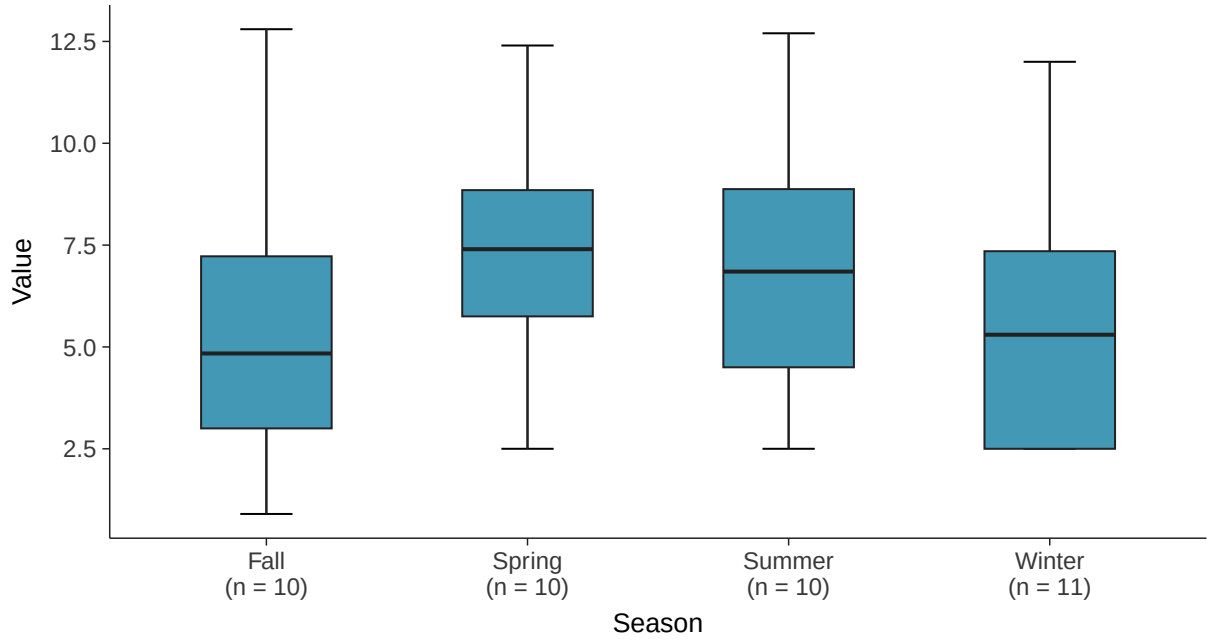
Boxplot

Nickel, MW-4 (ug/L)



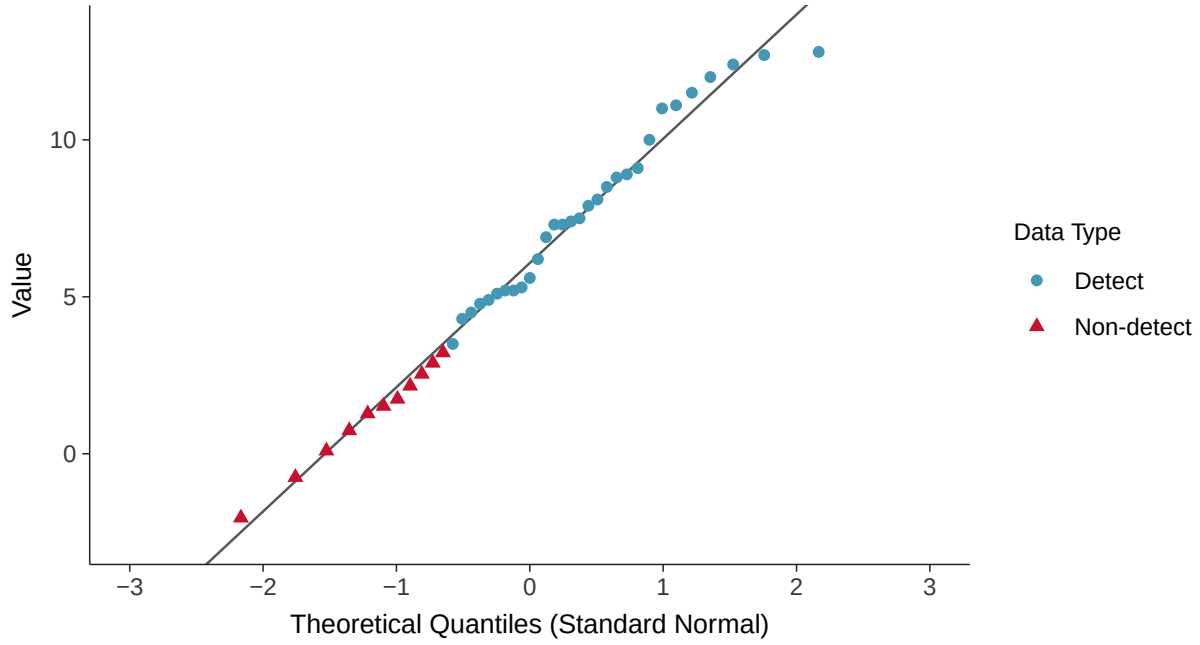
Boxplot by Season

Nickel, MW-4 (ug/L)



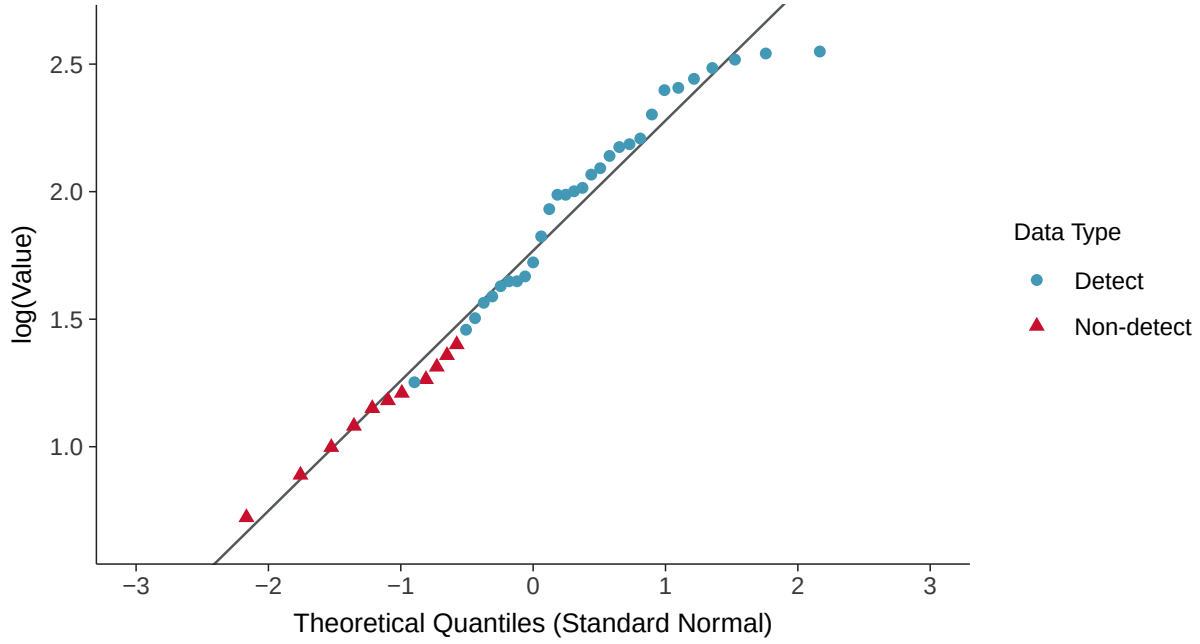
Normal Q-Q plot using ROS Imputed Estimates

Nickel, MW-4 (ug/L)



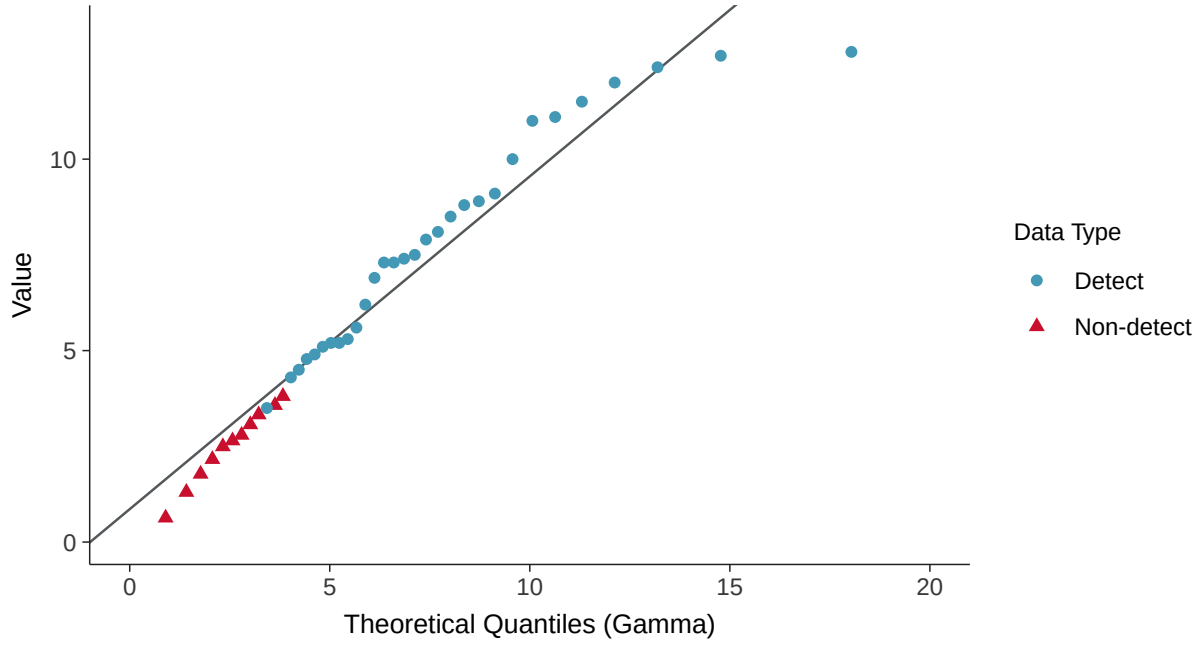
Lognormal Q-Q plot using ROS Imputed Estimates

Nickel, MW-4 (ug/L)



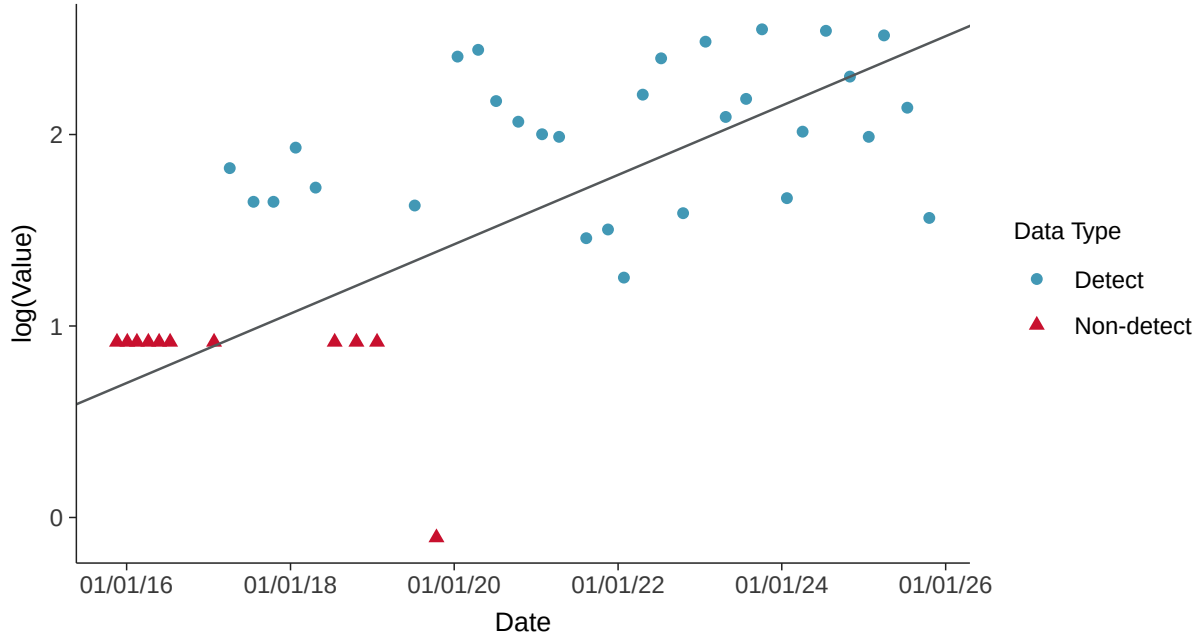
Gamma Q-Q plot using ROS Imputed Estimates

Nickel, MW-4 (ug/L)



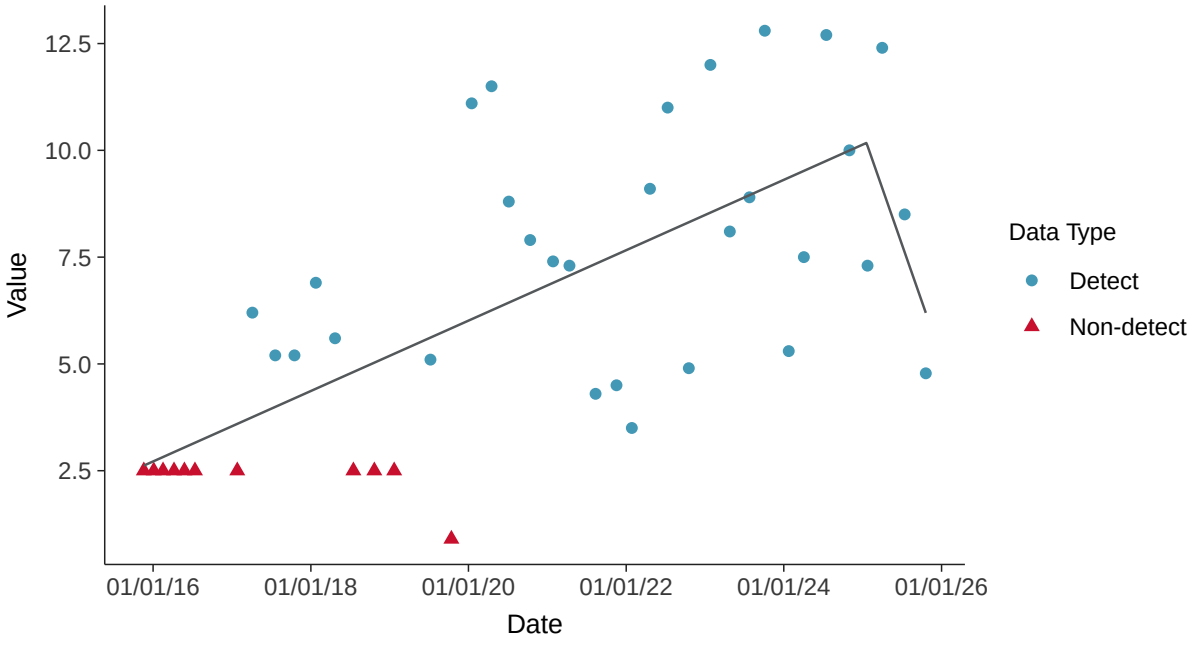
Trend Regression: Lognormal MLE

Nickel, MW-4 (ug/L)



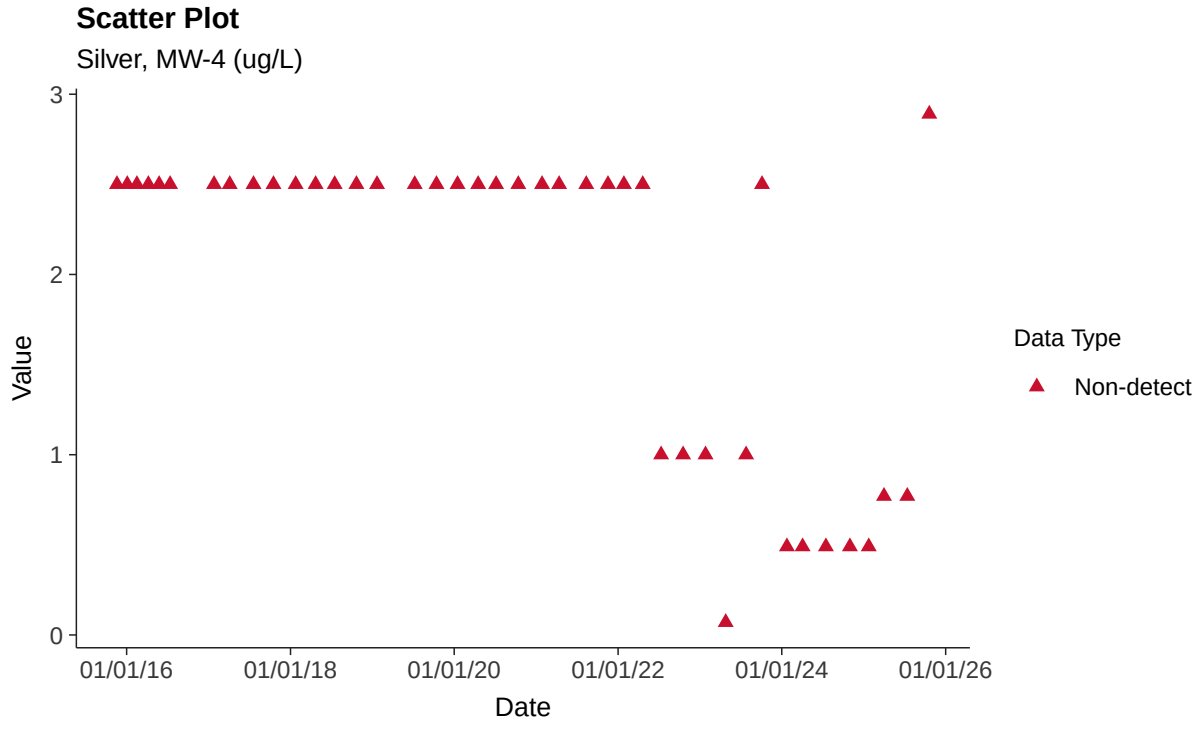
Trend Regression: Piecewise Linear-Linear

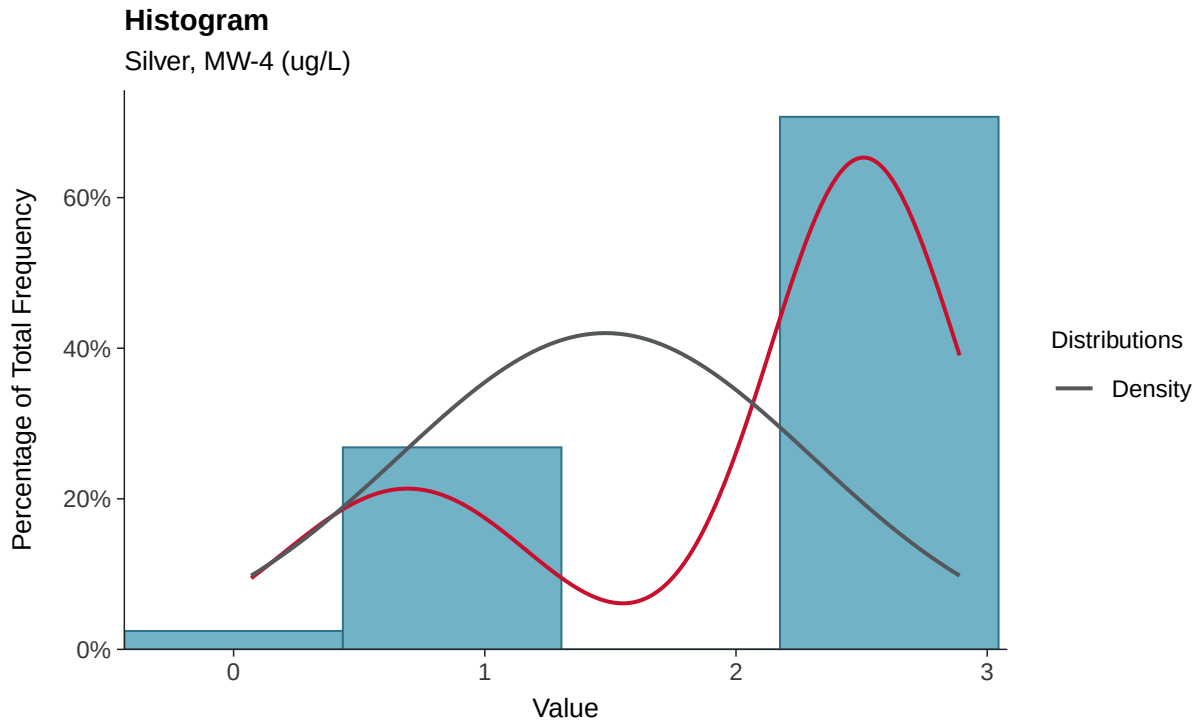
Nickel, MW-4 (ug/L)



App. I Metals: Silver, MW-4

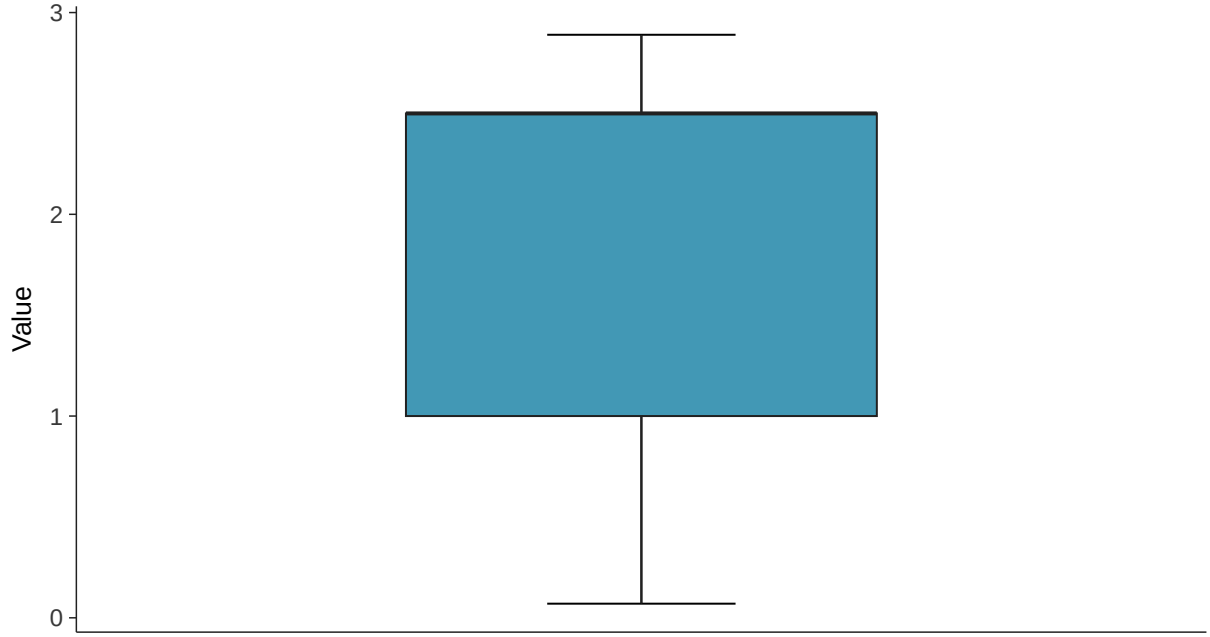
ID: 04_1_122





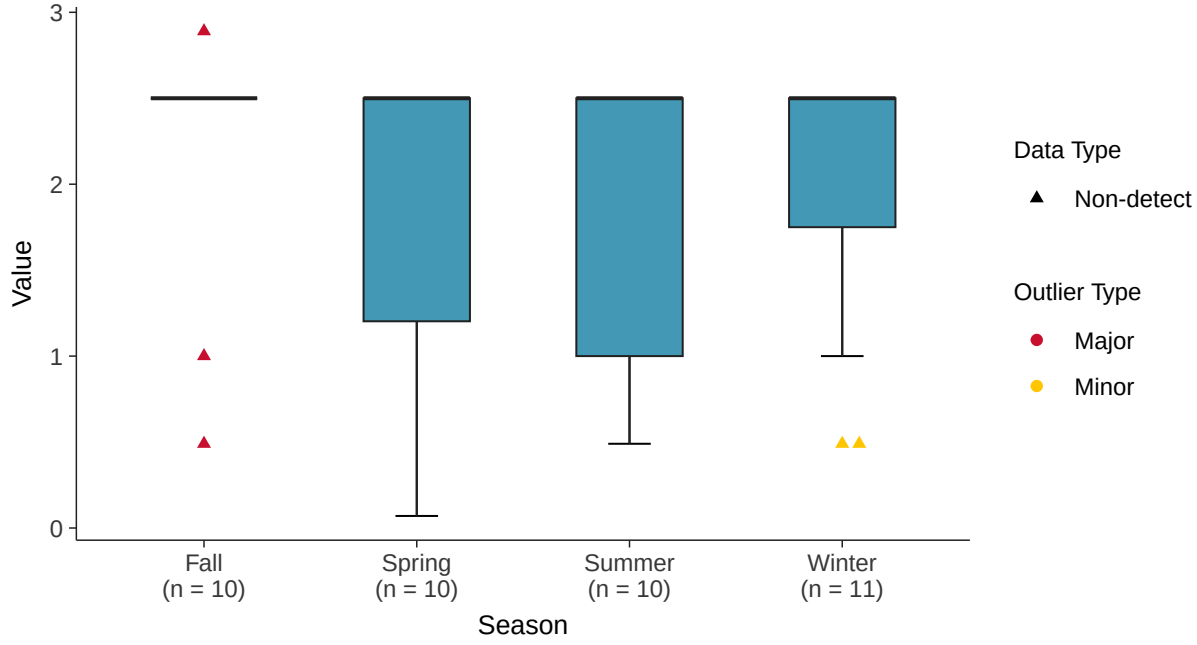
Boxplot

Silver, MW-4 (ug/L)



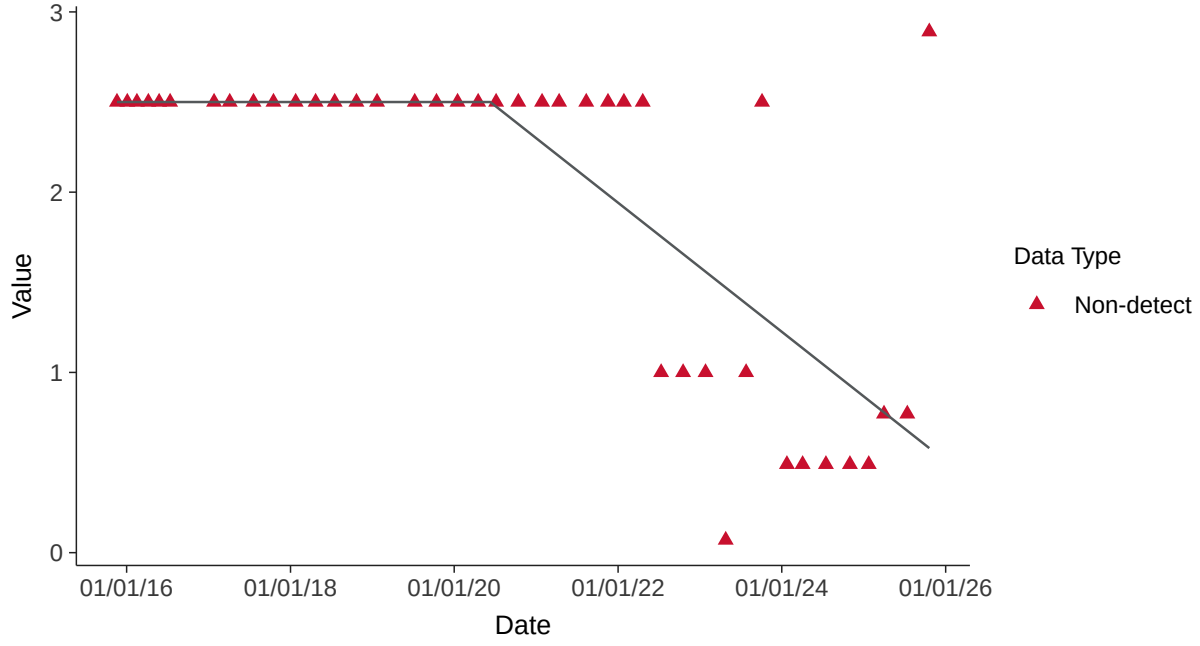
Boxplot by Season

Silver, MW-4 (ug/L)



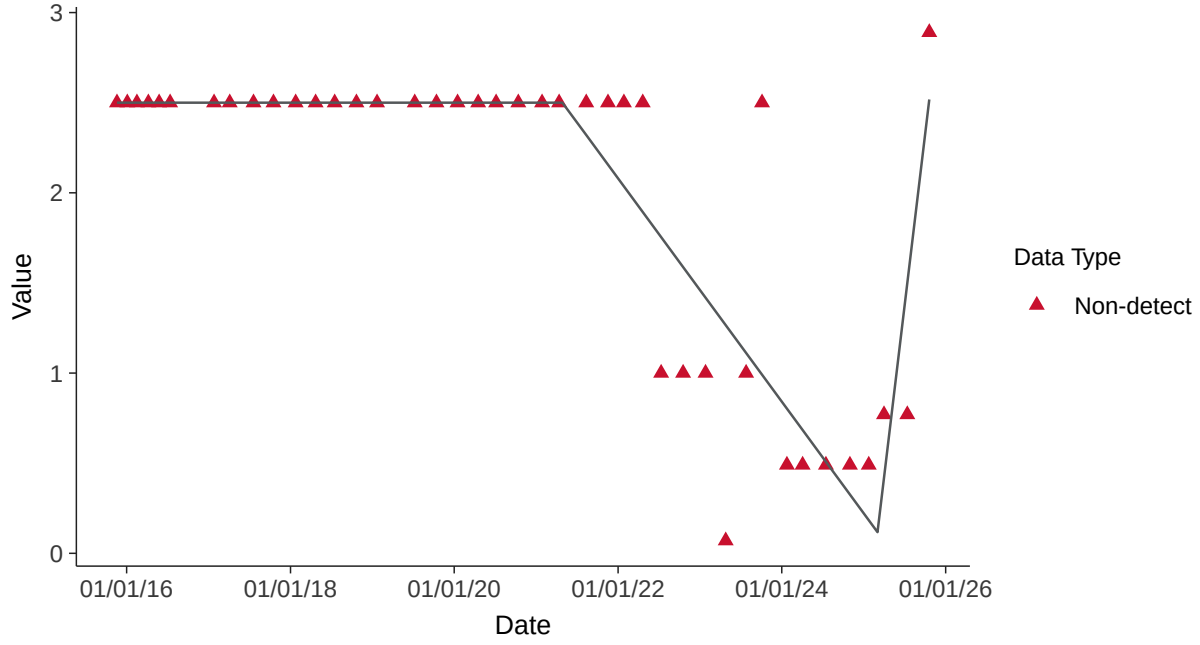
Trend Regression: Piecewise Linear-Linear

Silver, MW-4 (ug/L)



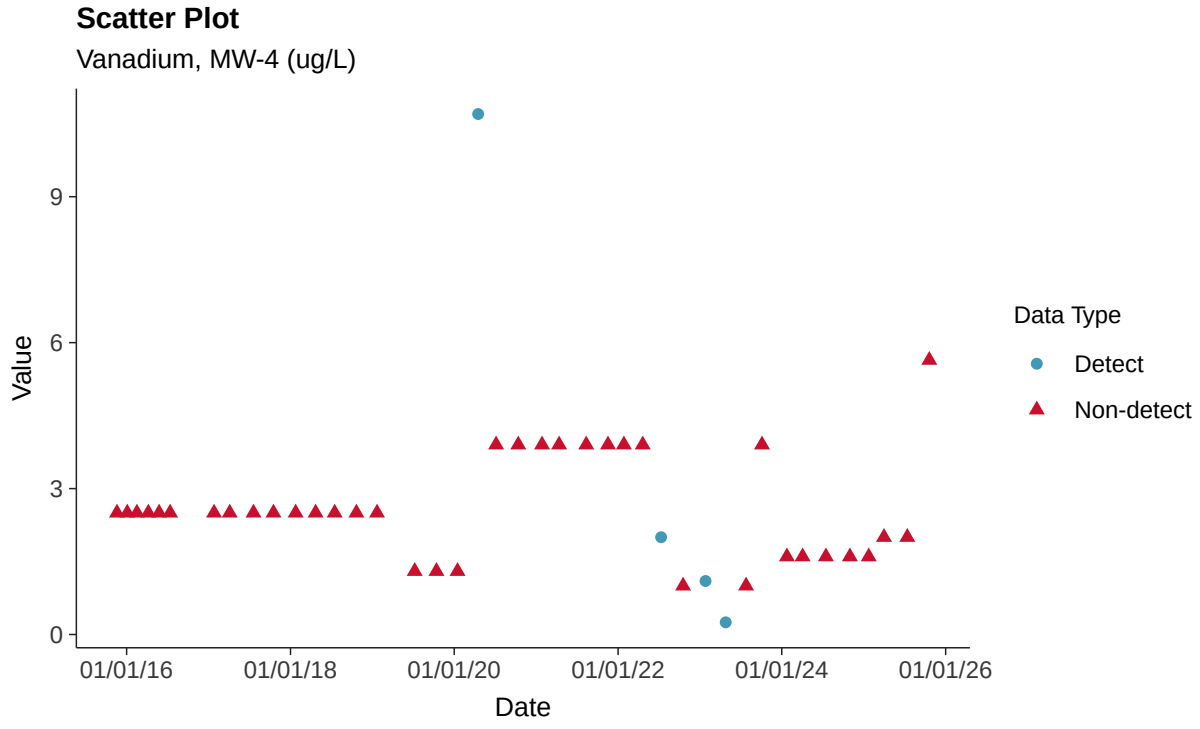
Trend Regression: Piecewise Linear-Linear-Linear

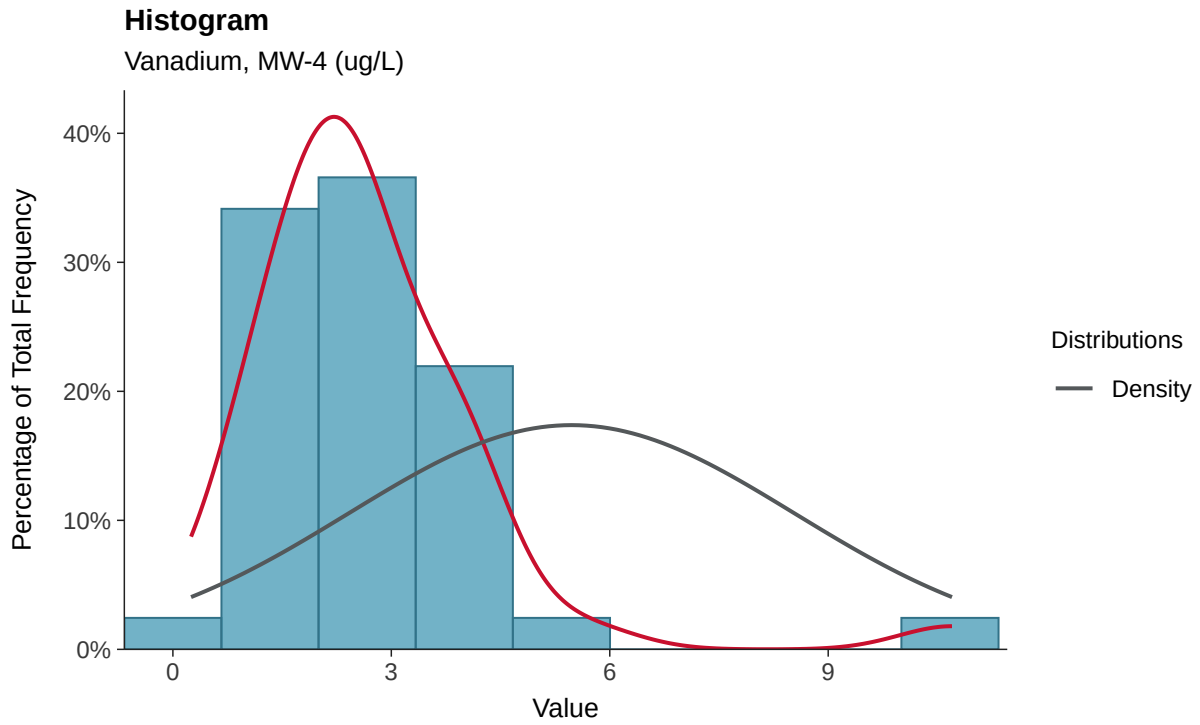
Silver, MW-4 (ug/L)



App. I Metals: Vanadium, MW-4

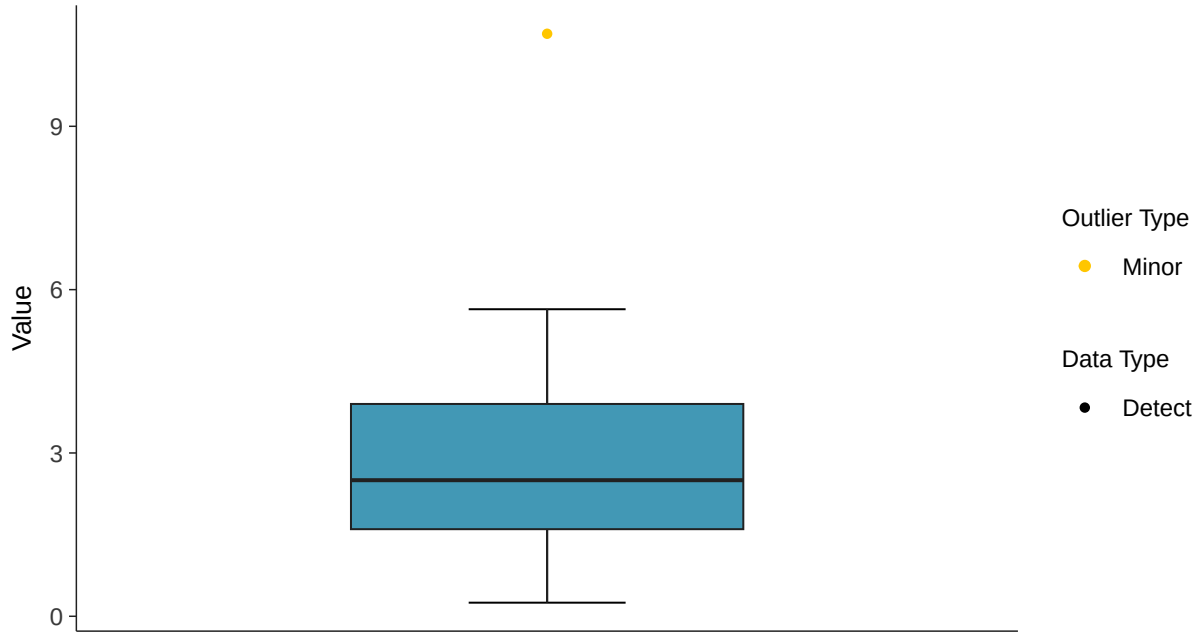
ID: 04_1_127





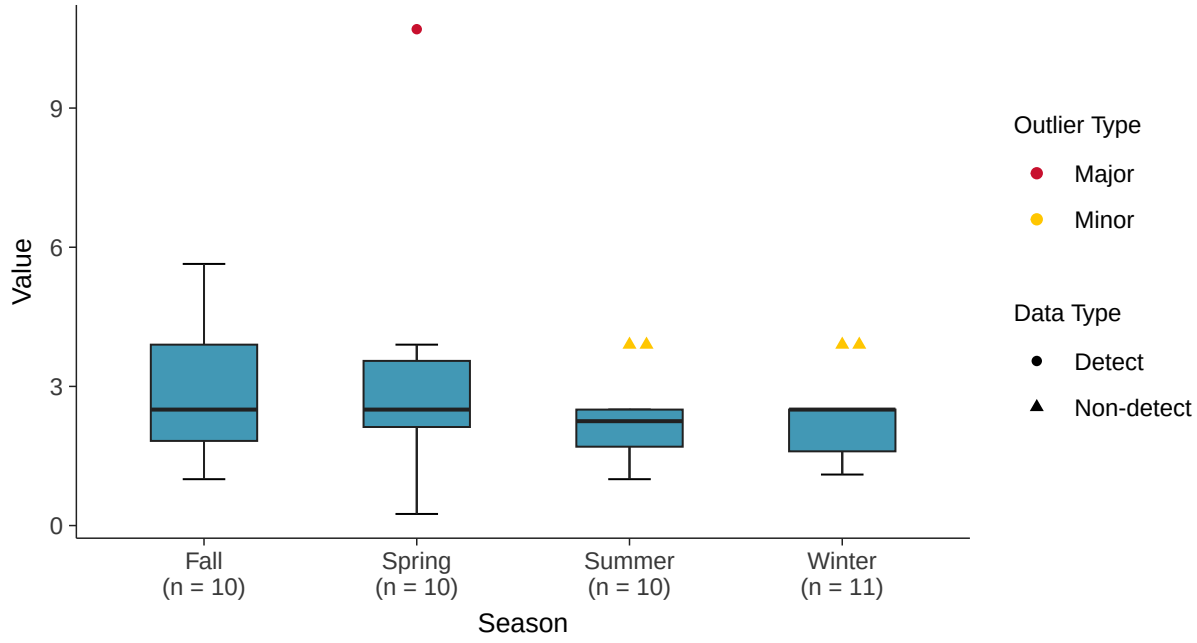
Boxplot

Vanadium, MW-4 (ug/L)



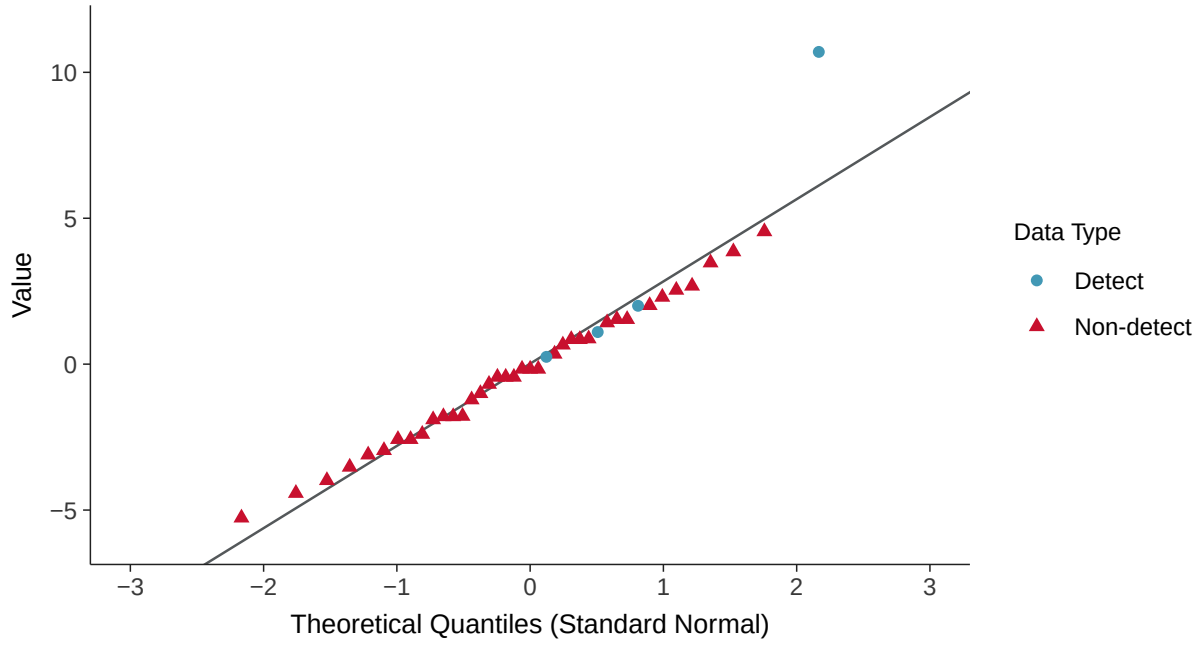
Boxplot by Season

Vanadium, MW-4 (ug/L)



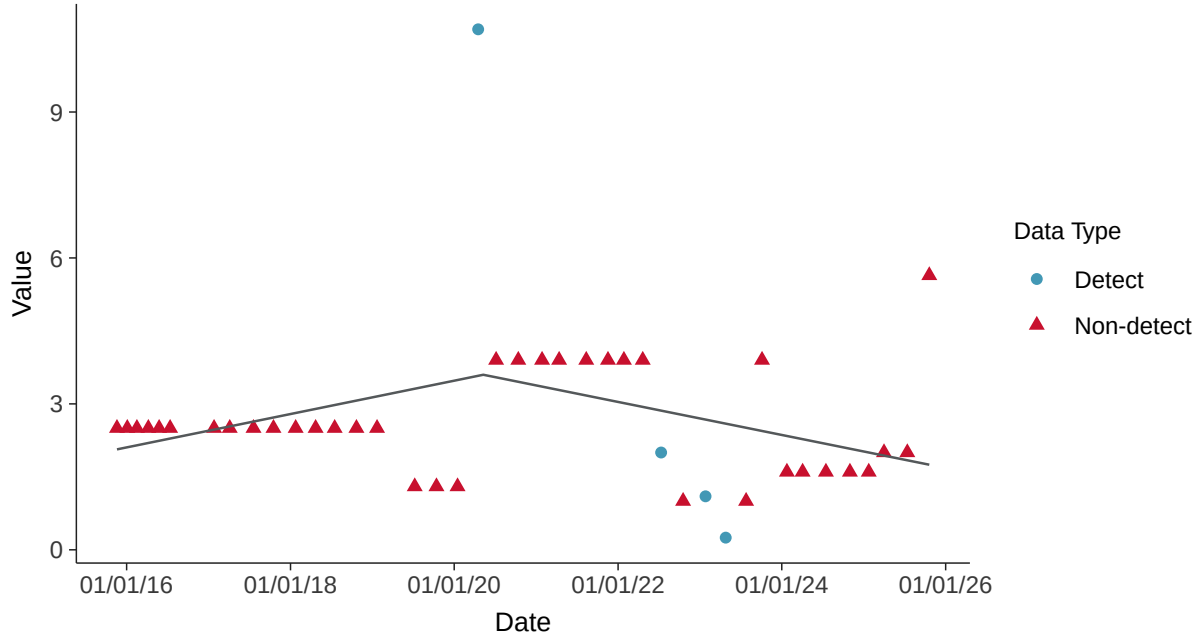
Normal Q-Q plot using ROS Imputed Estimates

Vanadium, MW-4 (ug/L)



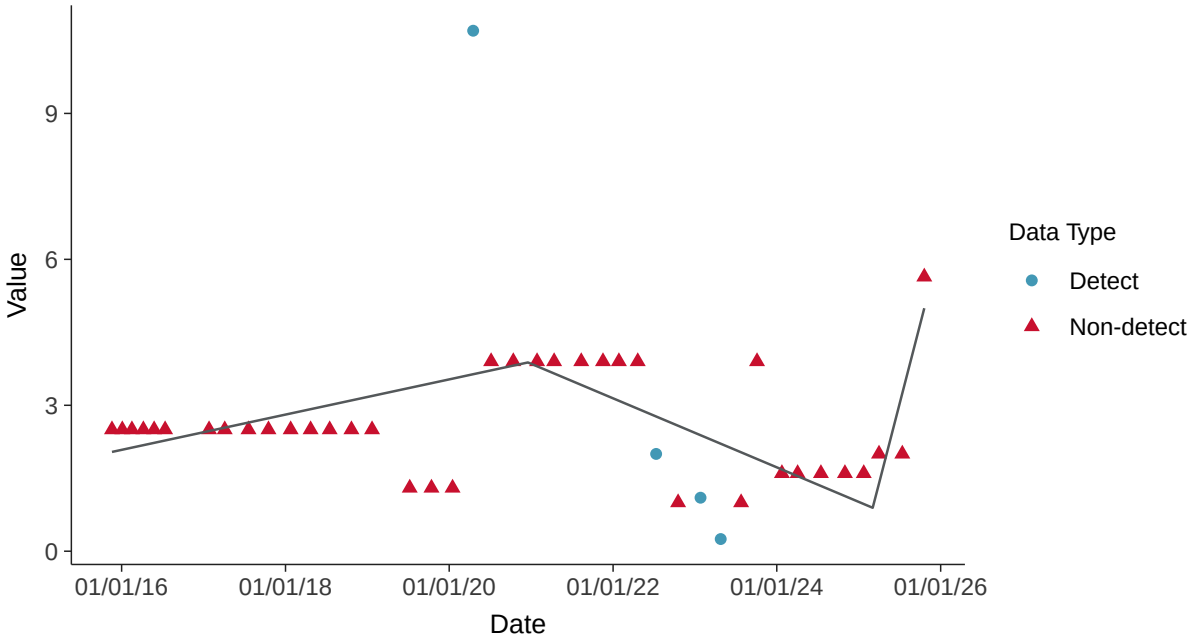
Trend Regression: Piecewise Linear-Linear

Vanadium, MW-4 (ug/L)



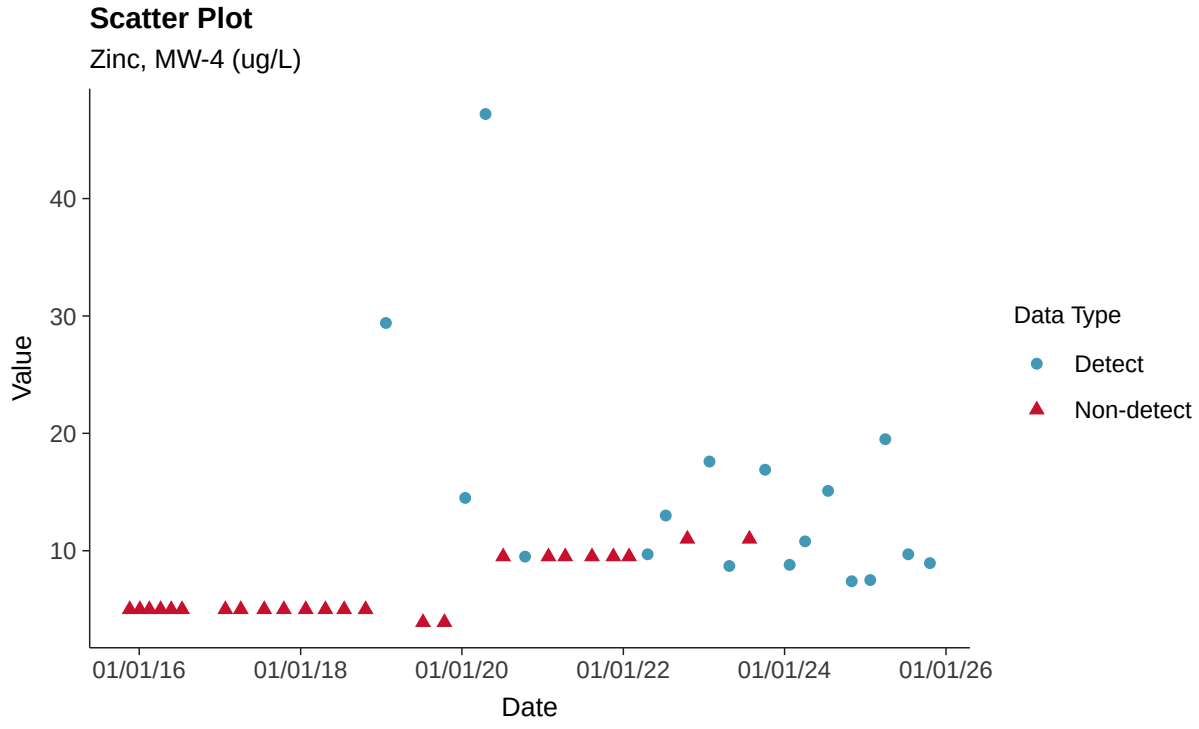
Trend Regression: Piecewise Linear-Linear-Linear

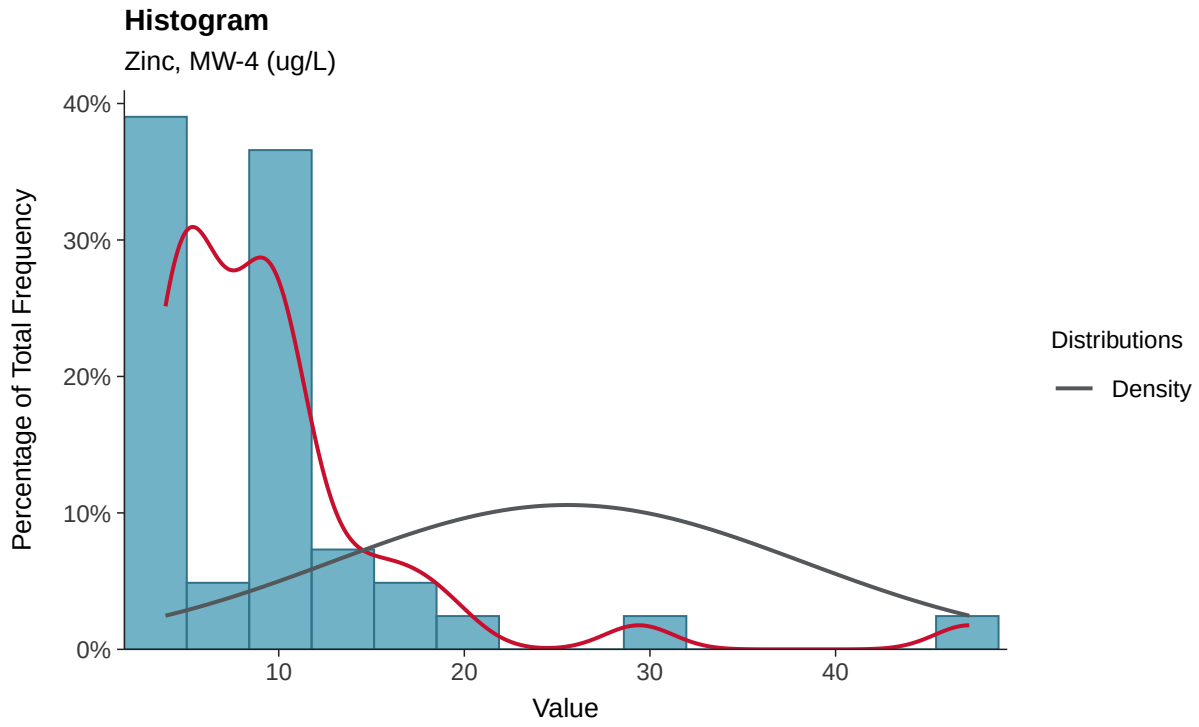
Vanadium, MW-4 (ug/L)



App. I Metals: Zinc, MW-4

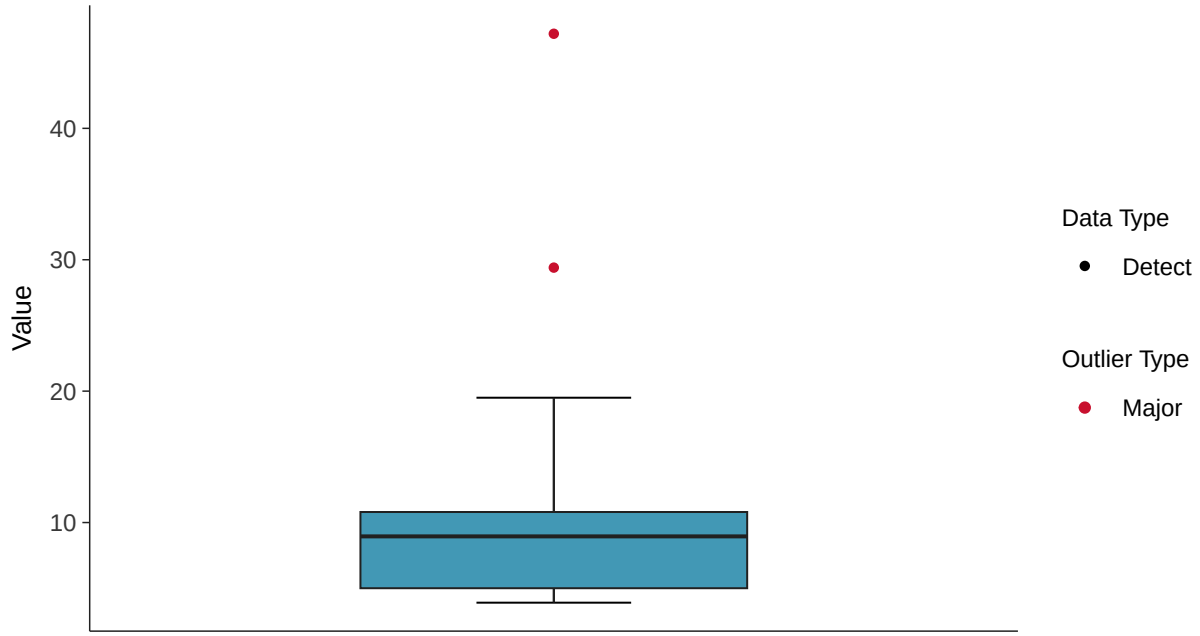
ID: 04_1_128





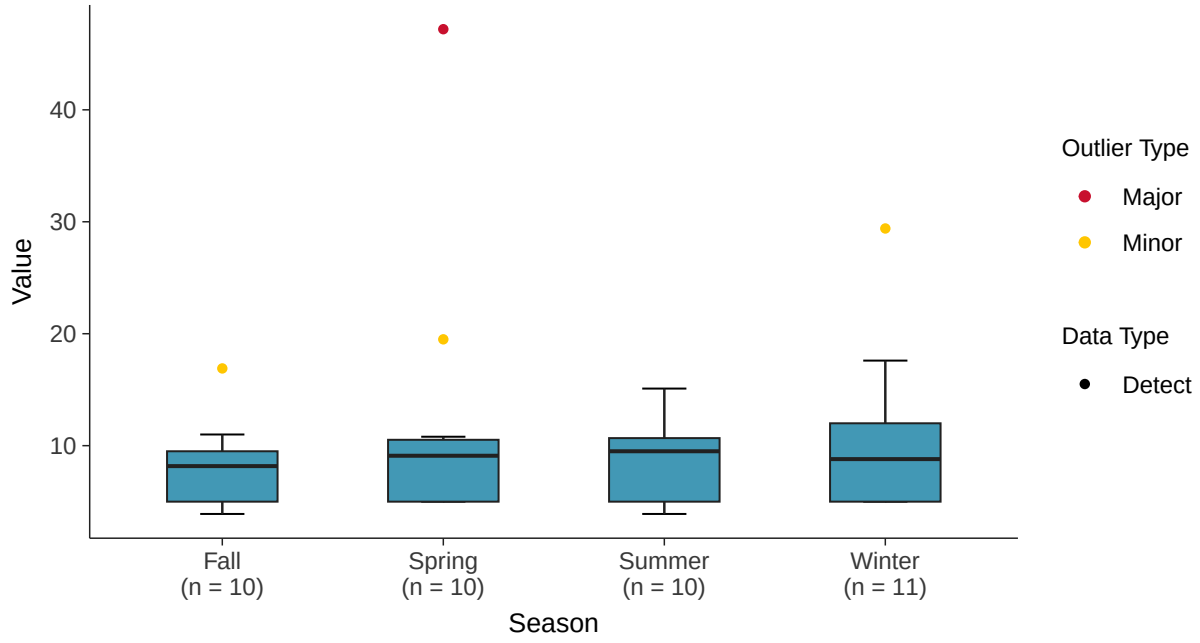
Boxplot

Zinc, MW-4 (ug/L)



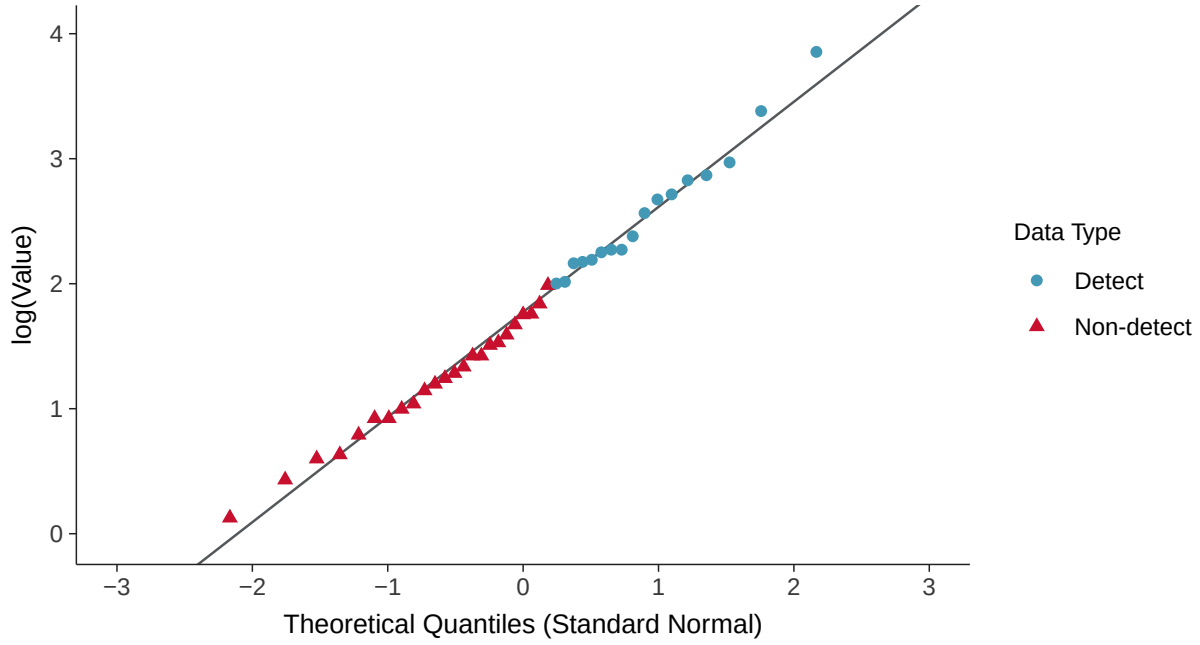
Boxplot by Season

Zinc, MW-4 (ug/L)



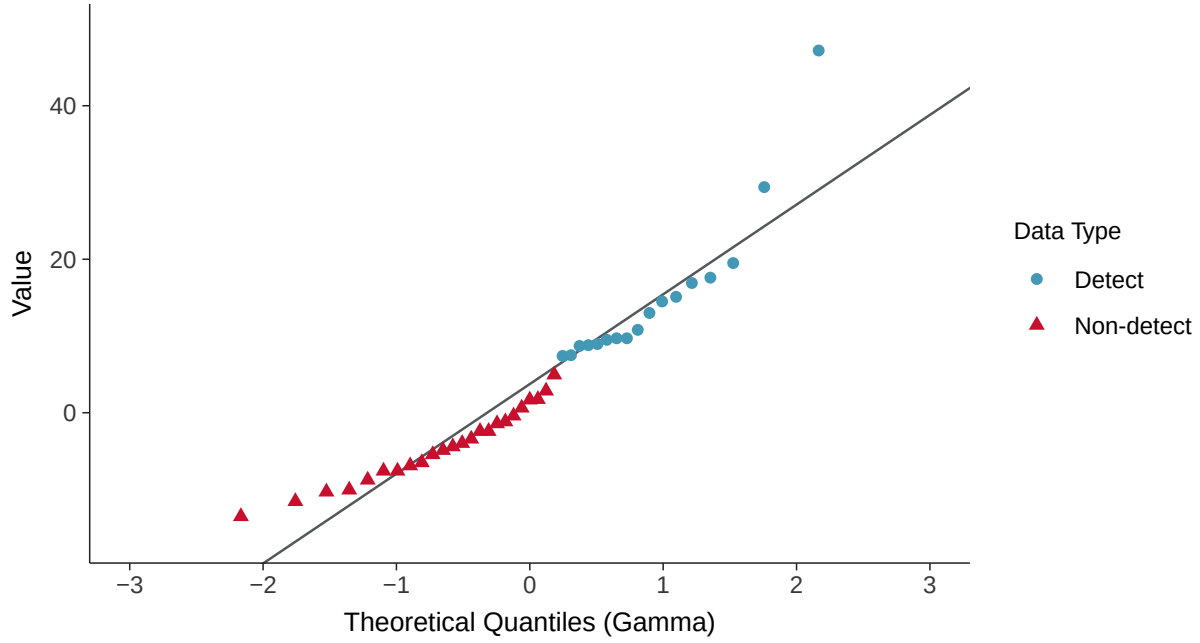
Lognormal Q-Q plot using ROS Imputed Estimates

Zinc, MW-4 (ug/L)



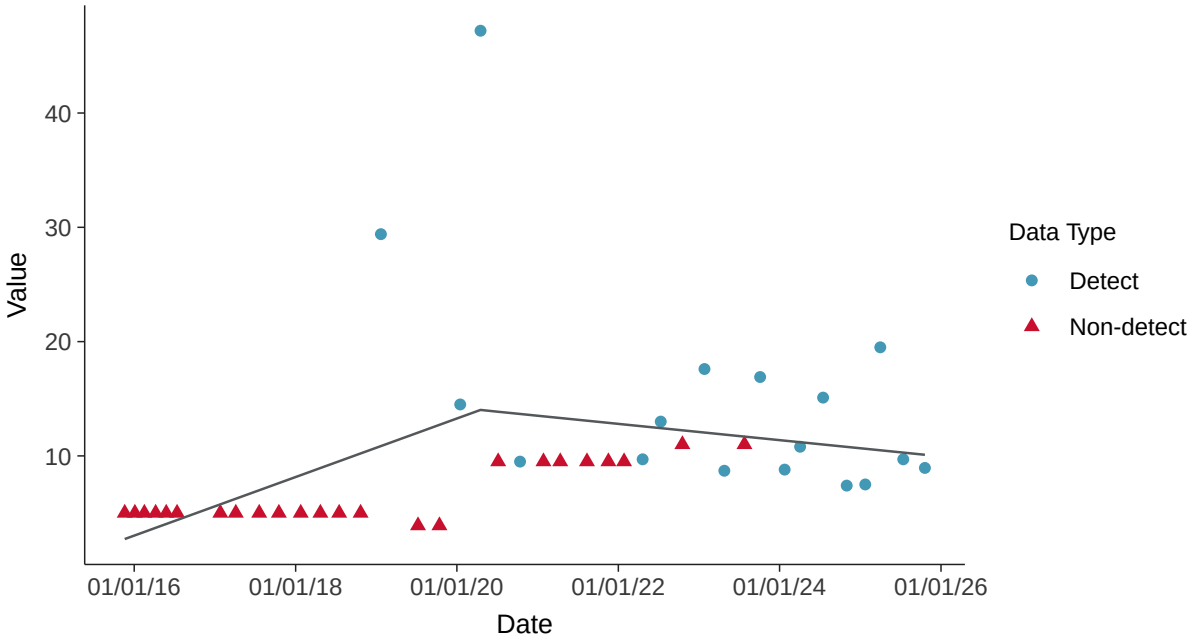
Gamma Q-Q plot using ROS Imputed Estimates

Zinc, MW-4 (ug/L)



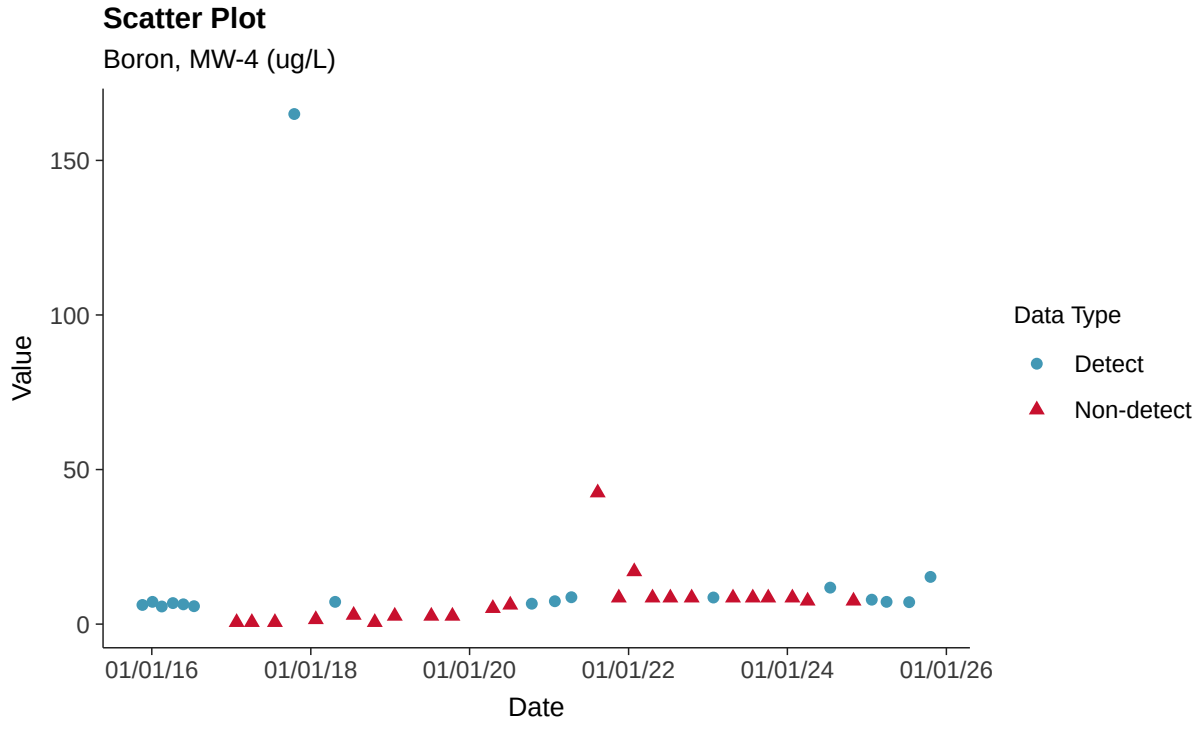
Trend Regression: Piecewise Linear-Linear

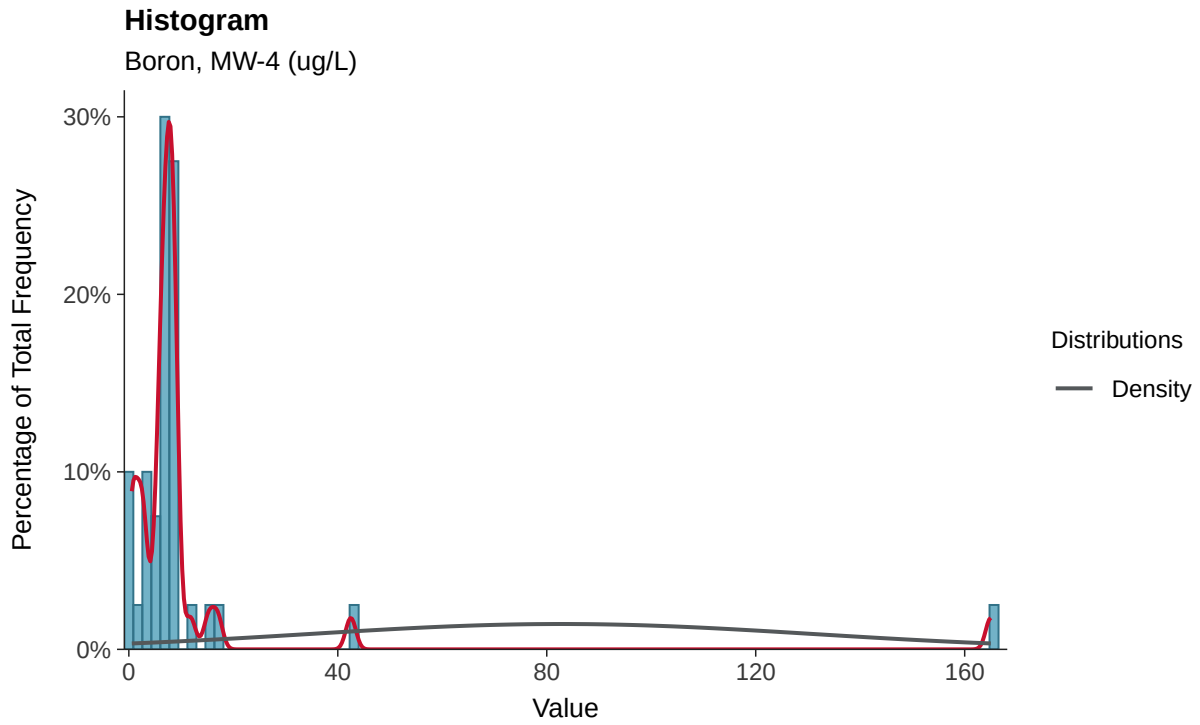
Zinc, MW-4 (ug/L)



App. III: Boron, MW-4

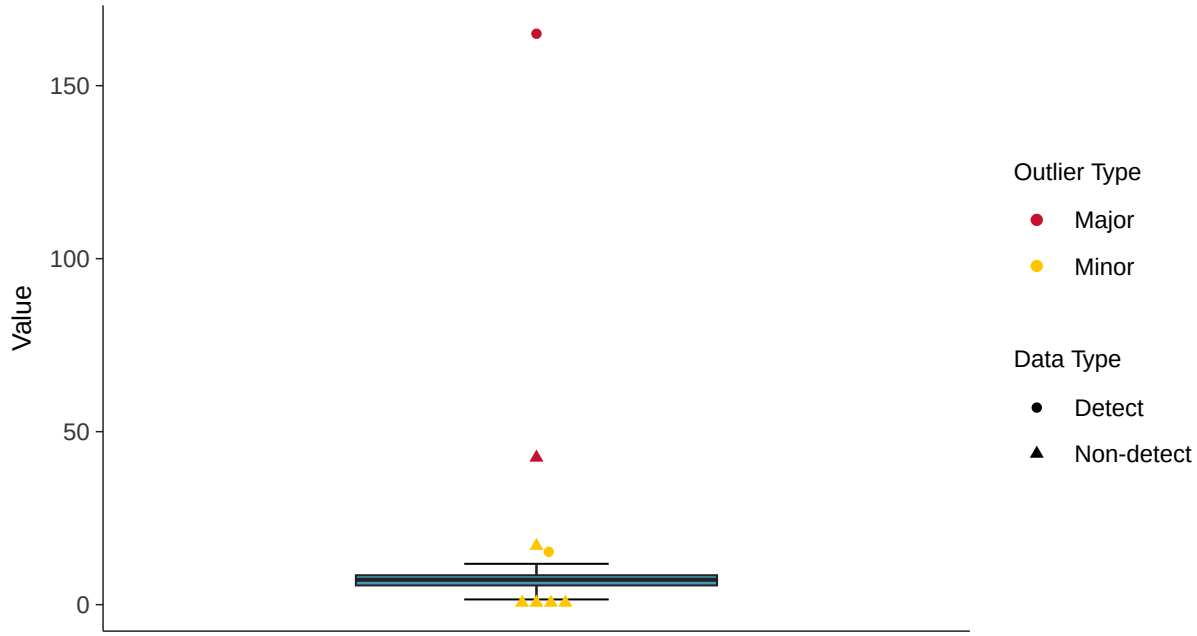
ID: 04_2_105





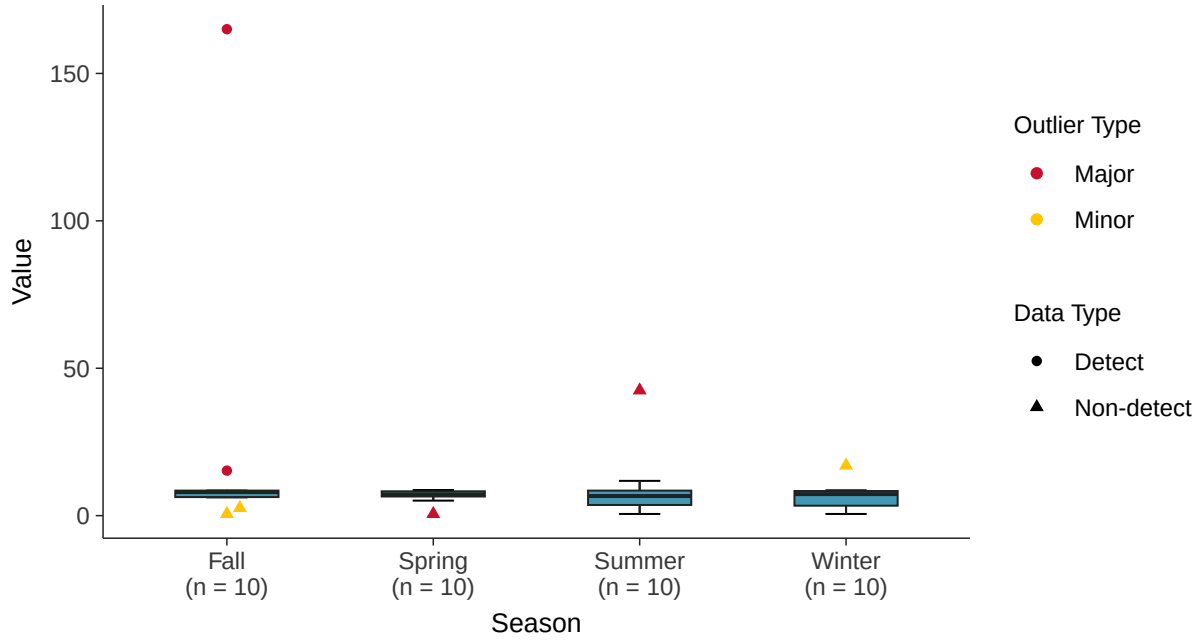
Boxplot

Boron, MW-4 (ug/L)



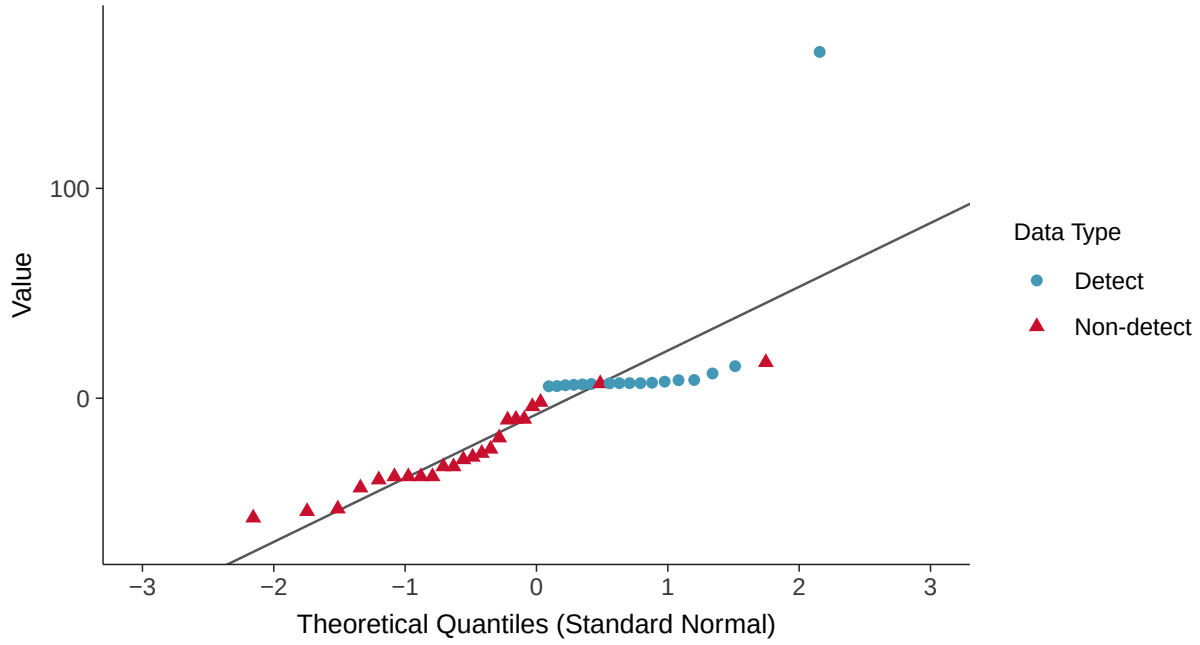
Boxplot by Season

Boron, MW-4 (ug/L)



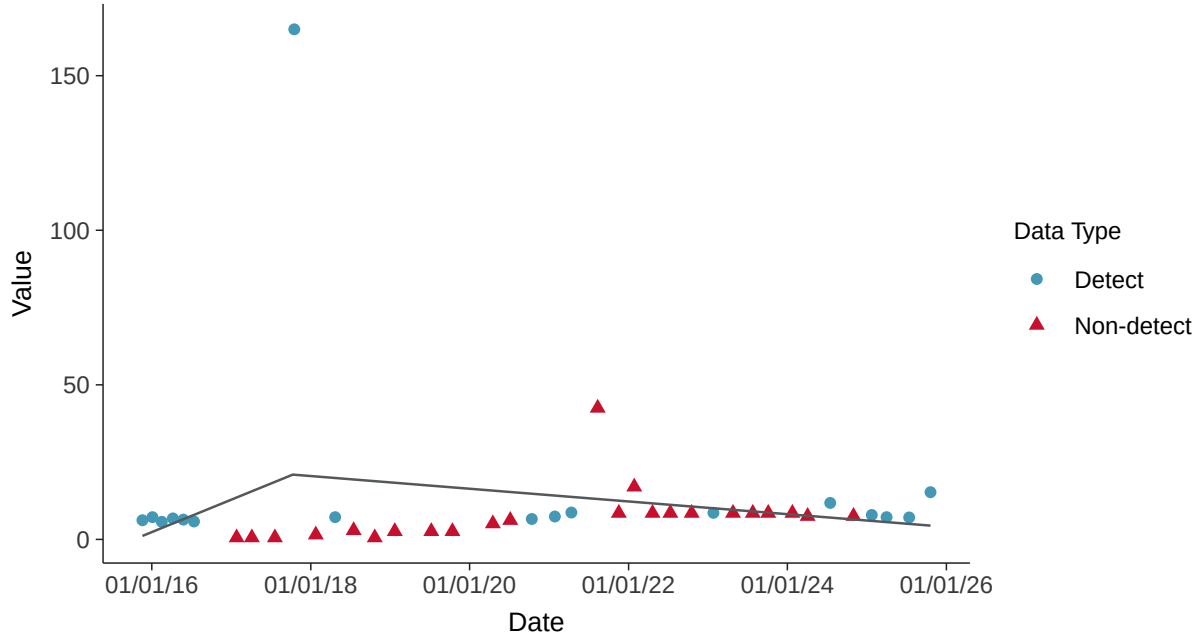
Normal Q-Q plot using ROS Imputed Estimates

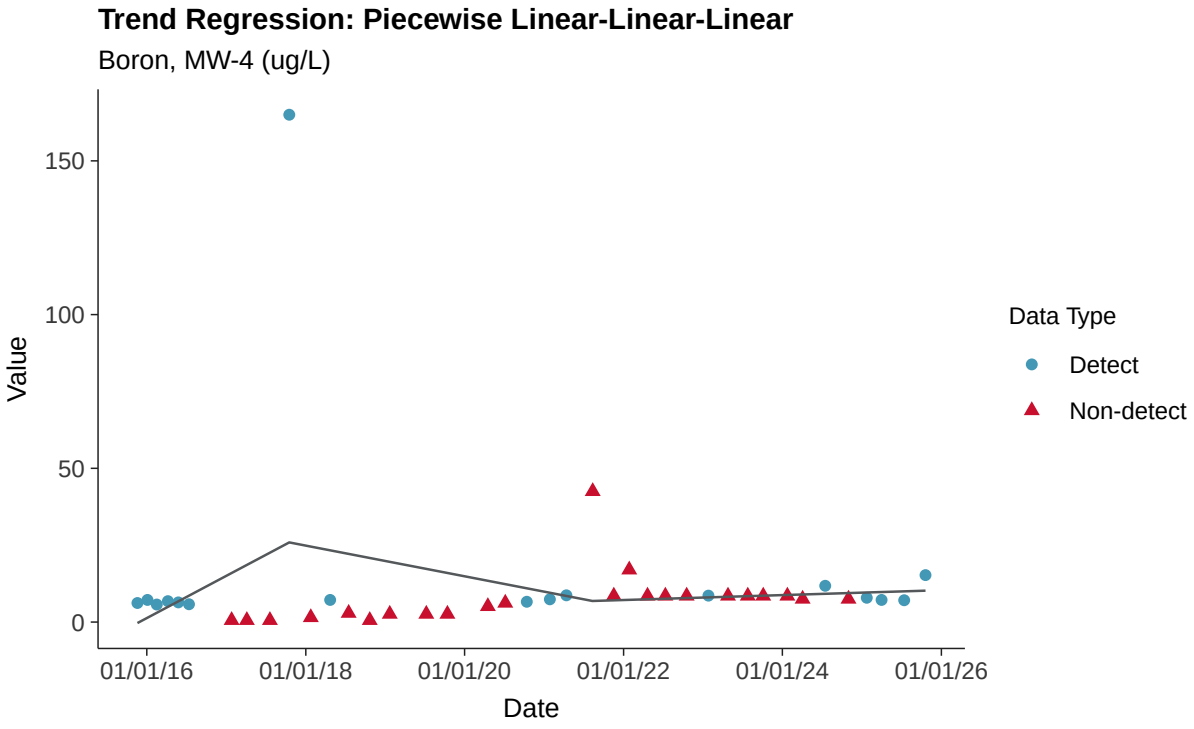
Boron, MW-4 (ug/L)



Trend Regression: Piecewise Linear-Linear

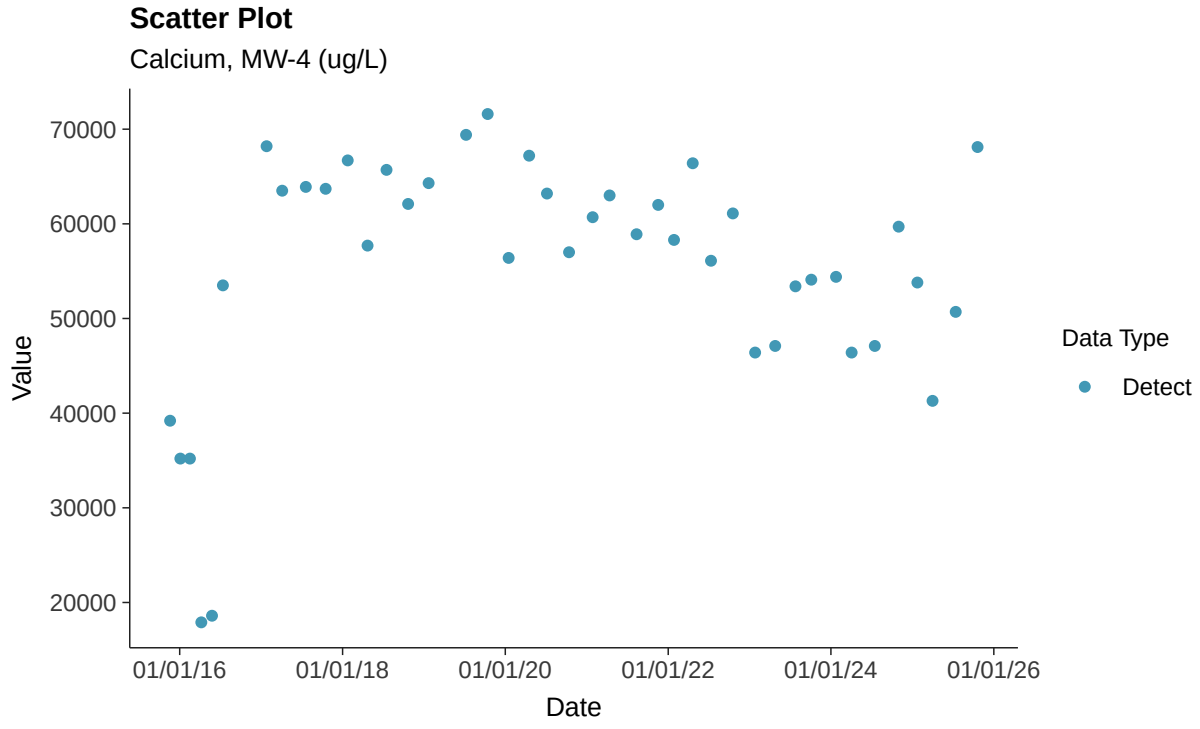
Boron, MW-4 (ug/L)

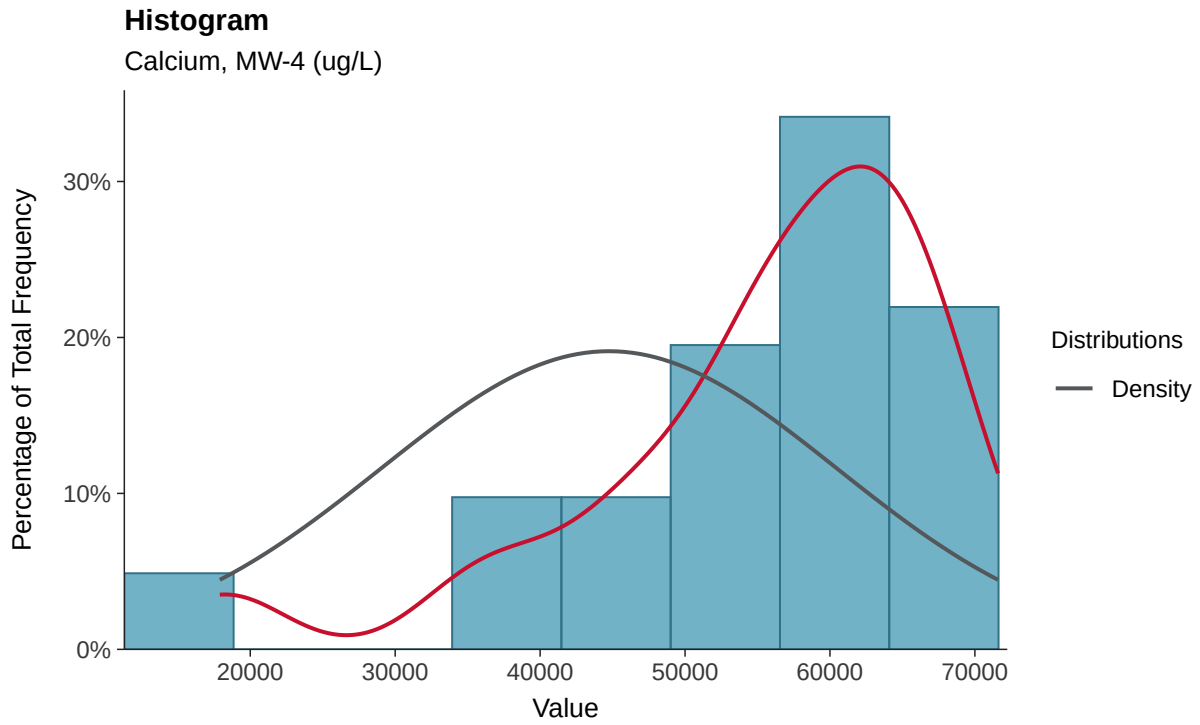



Trend Regression: Piecewise Linear-Linear-Linear
Boron, MW-4 (ug/L)
Value
150
100
50
0
01/01/16
01/01/18
01/01/20
01/01/22
01/01/24
01/01/26
Date
Data Type
Detect
Non-detect

App. III: Calcium, MW-4

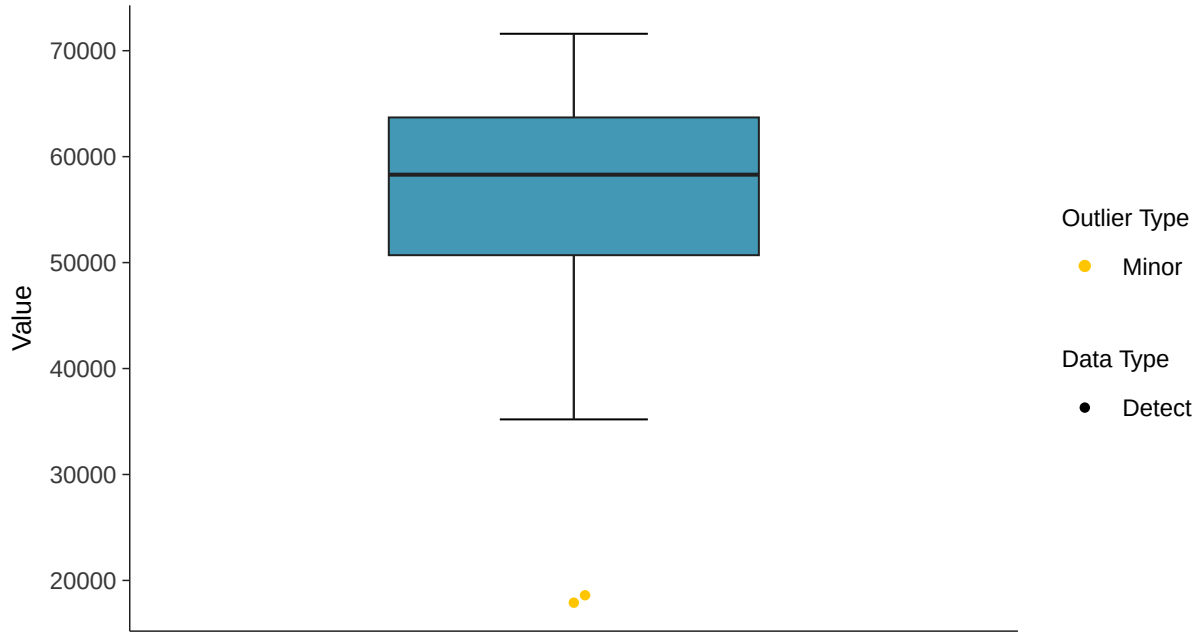
ID: 04_2_107





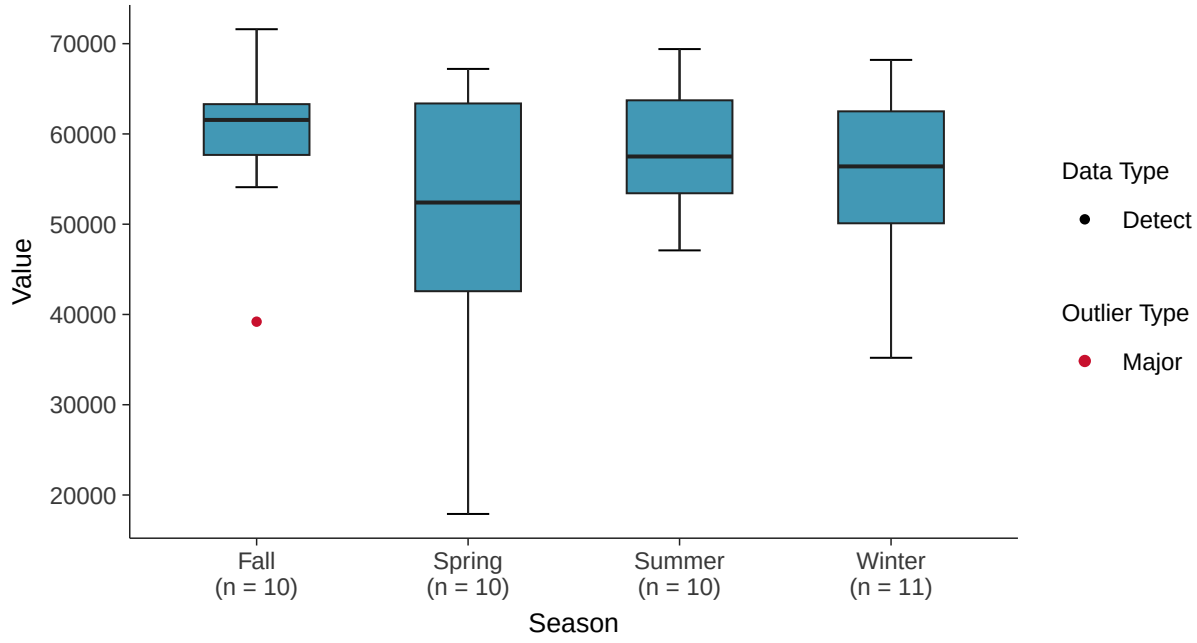
Boxplot

Calcium, MW-4 (ug/L)



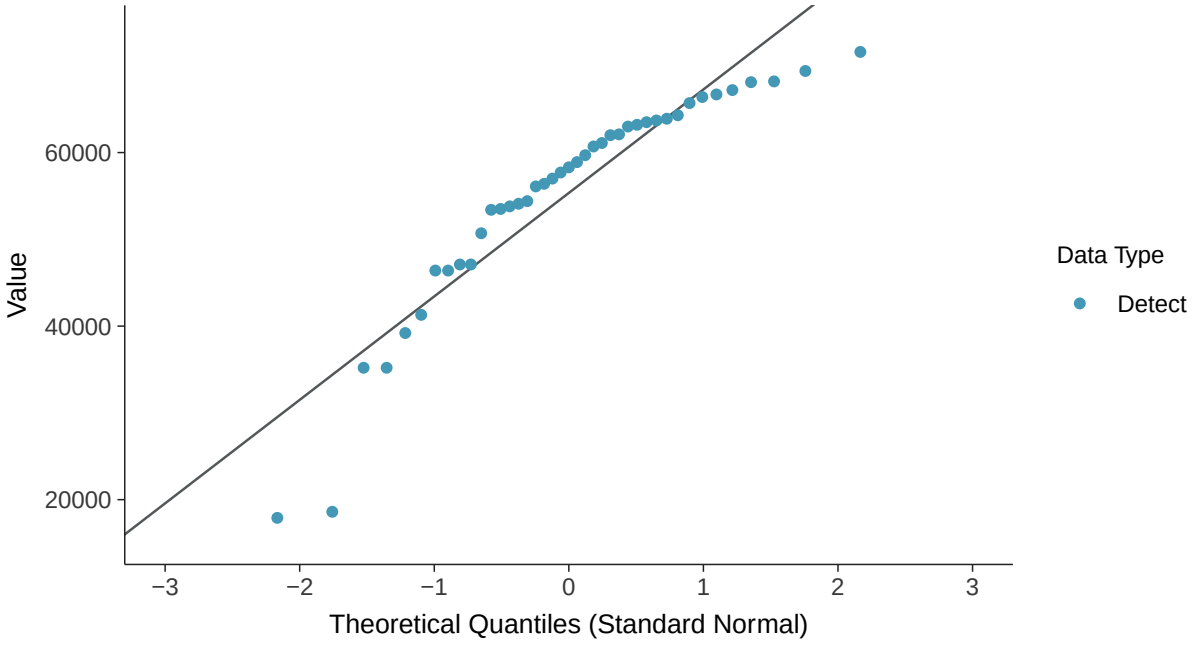
Boxplot by Season

Calcium, MW-4 (ug/L)



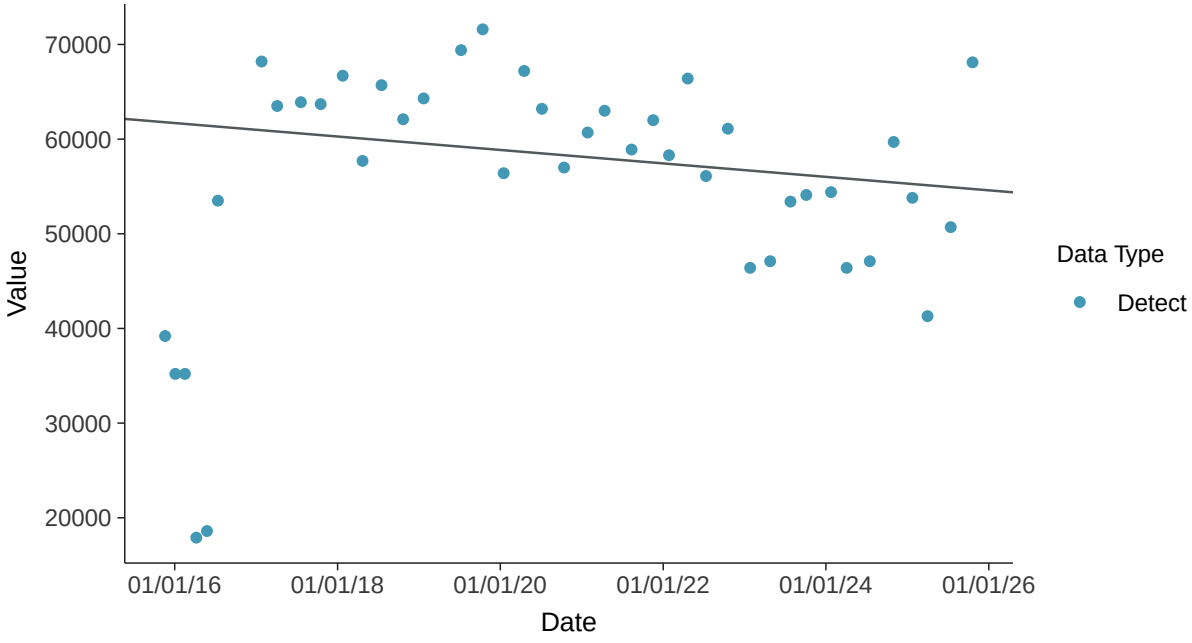
Normal Q-Q plot

Calcium, MW-4 (ug/L)



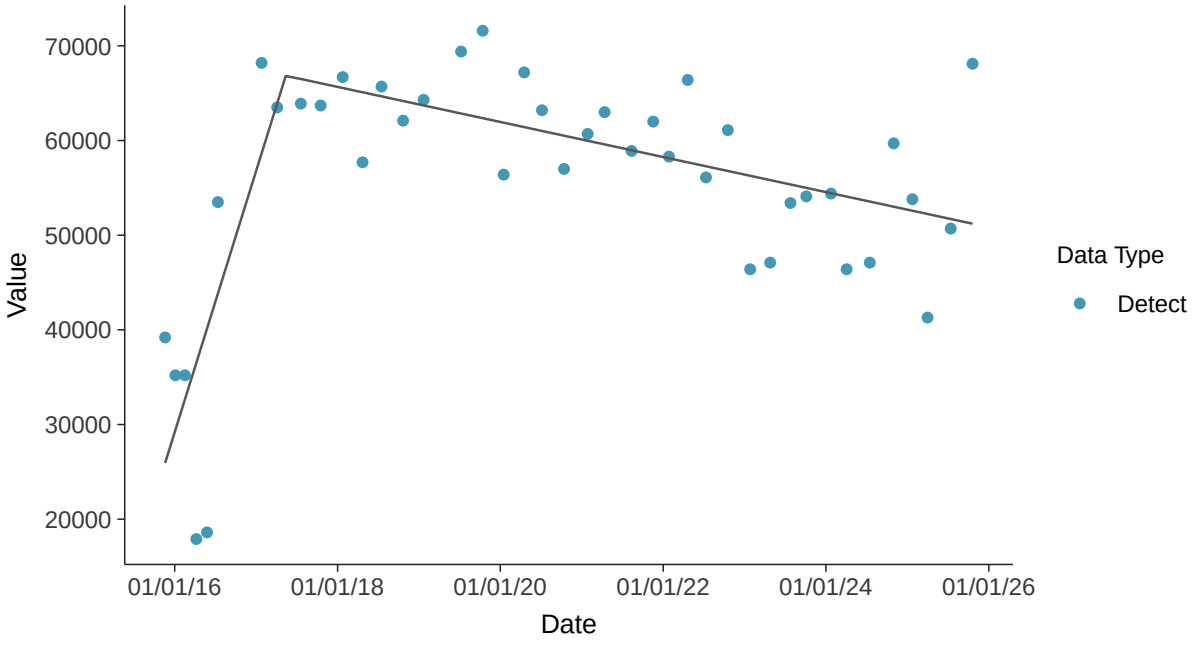
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Calcium, MW-4 (ug/L)



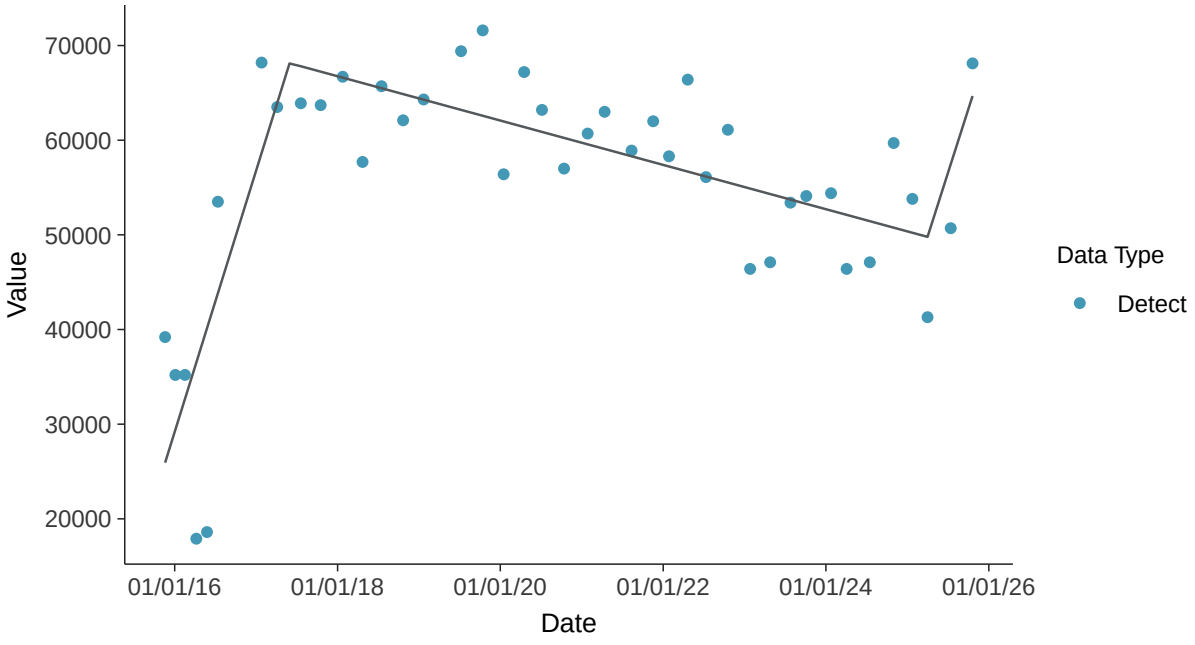
Trend Regression: Piecewise Linear-Linear

Calcium, MW-4 (ug/L)



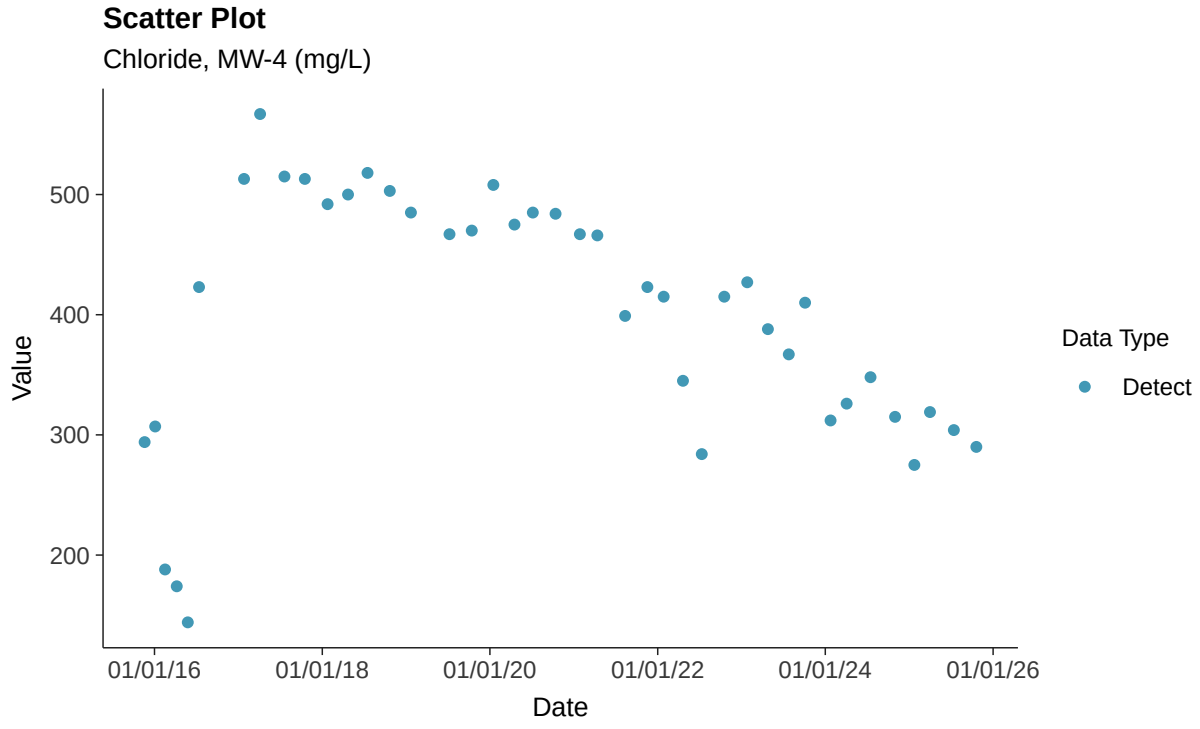
Trend Regression: Piecewise Linear-Linear-Linear

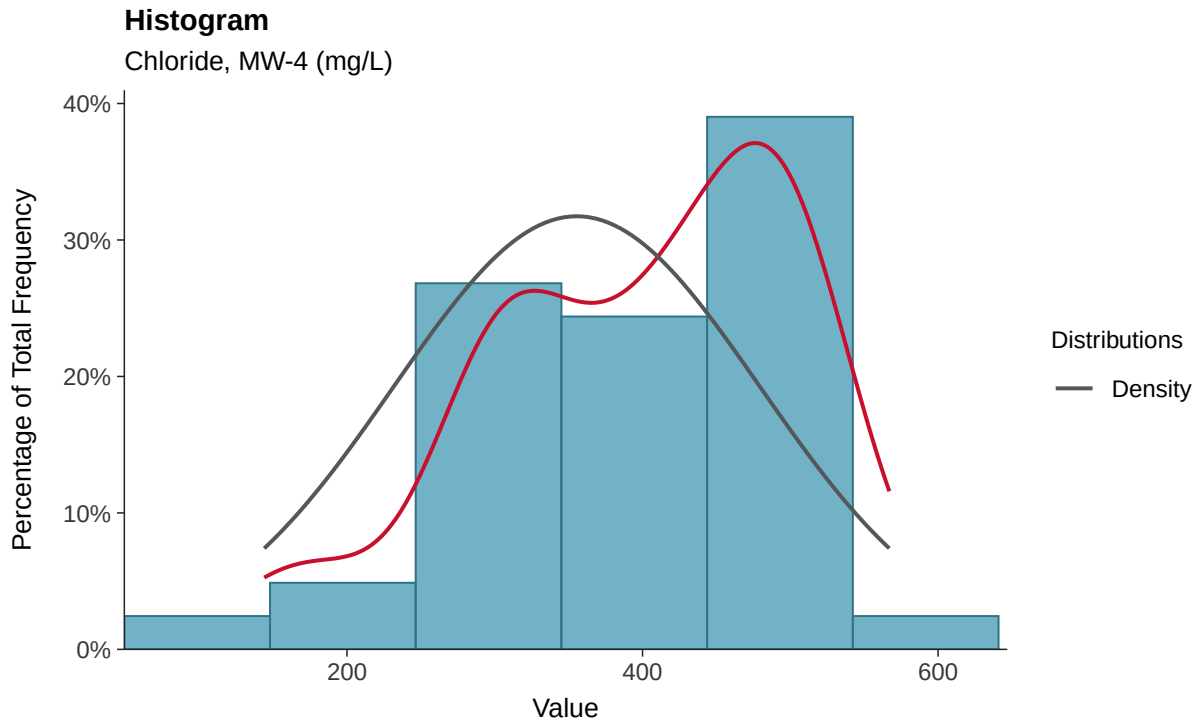
Calcium, MW-4 (ug/L)



App. III: Chloride, MW-4

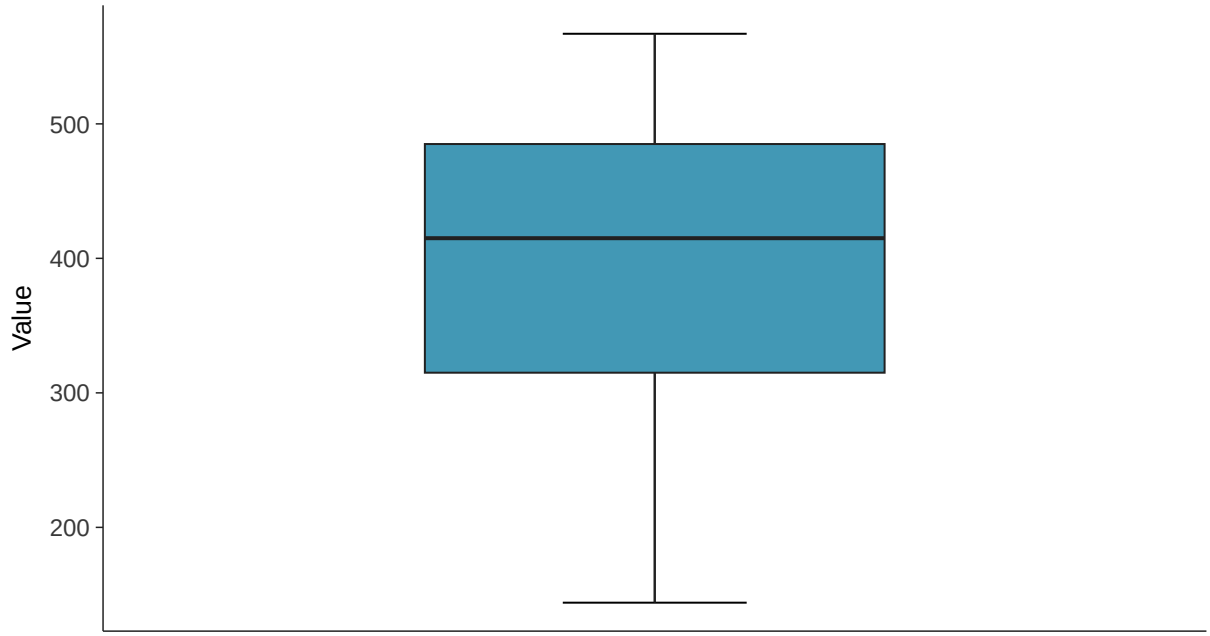
ID: 04_2_108





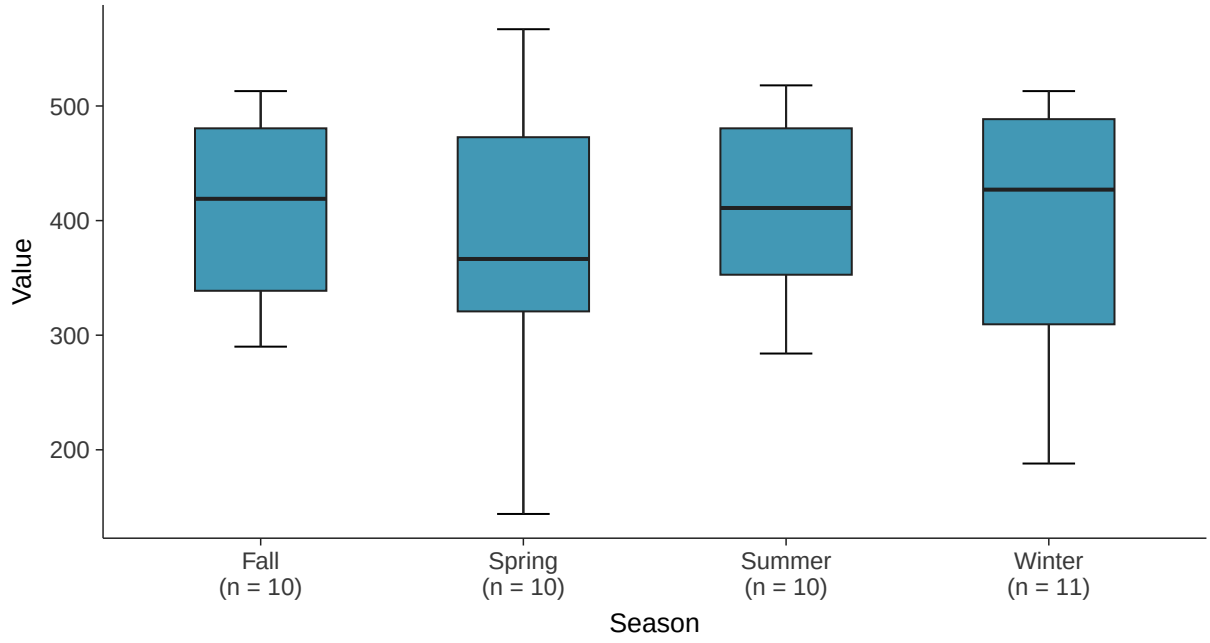
Boxplot

Chloride, MW-4 (mg/L)



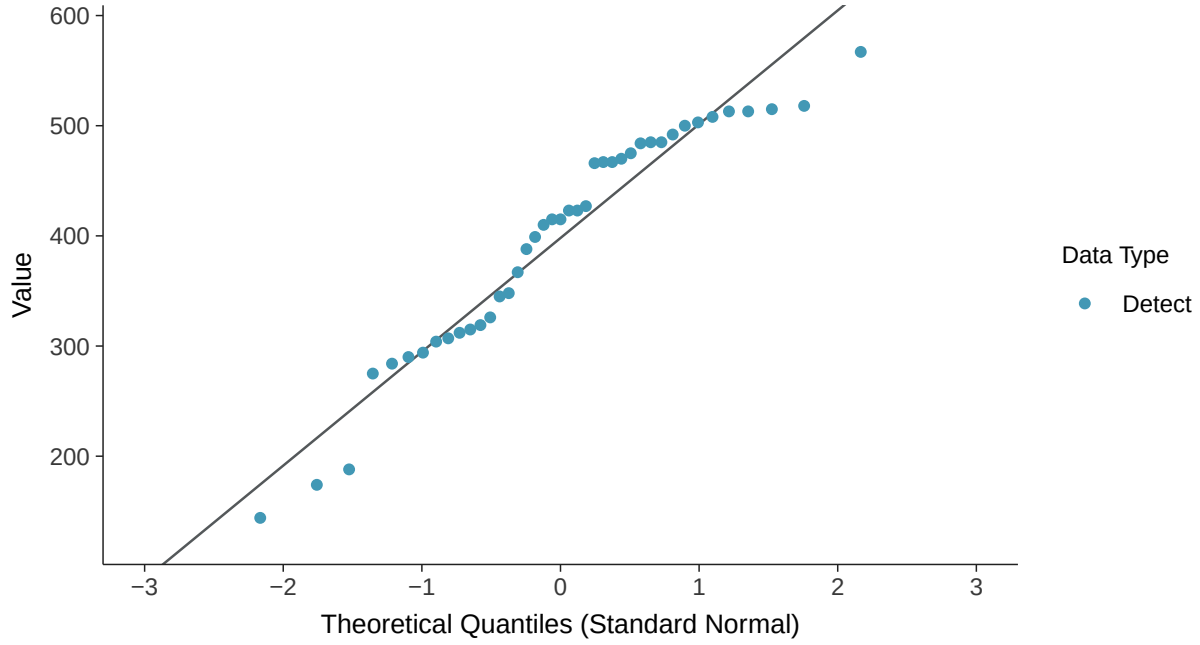
Boxplot by Season

Chloride, MW-4 (mg/L)



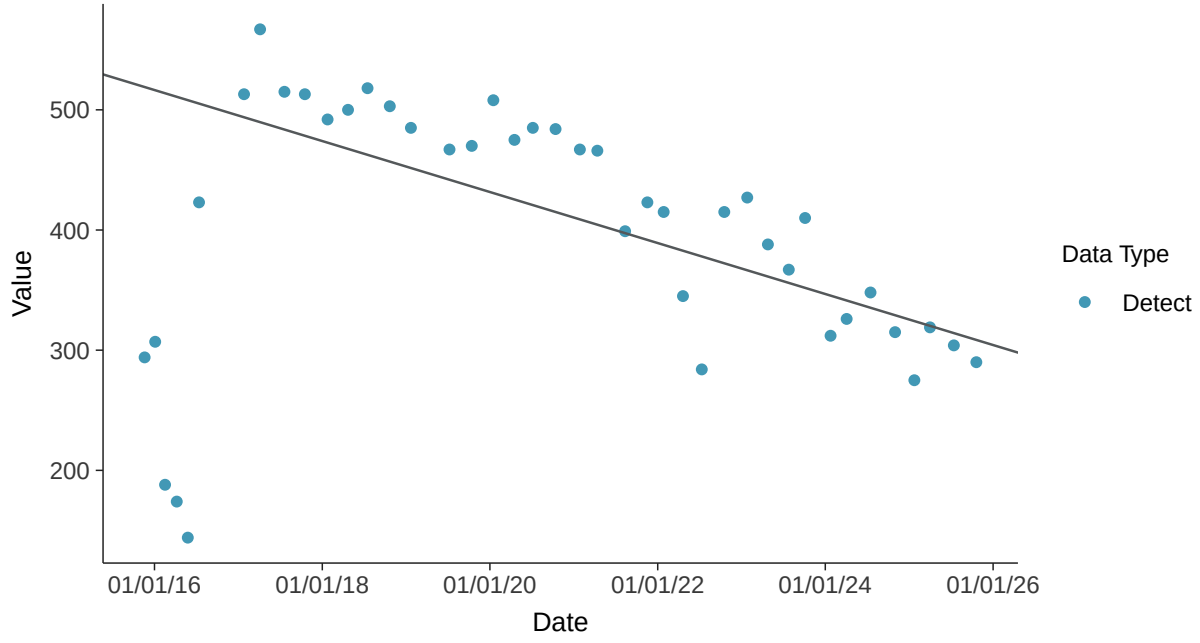
Normal Q-Q plot

Chloride, MW-4 (mg/L)



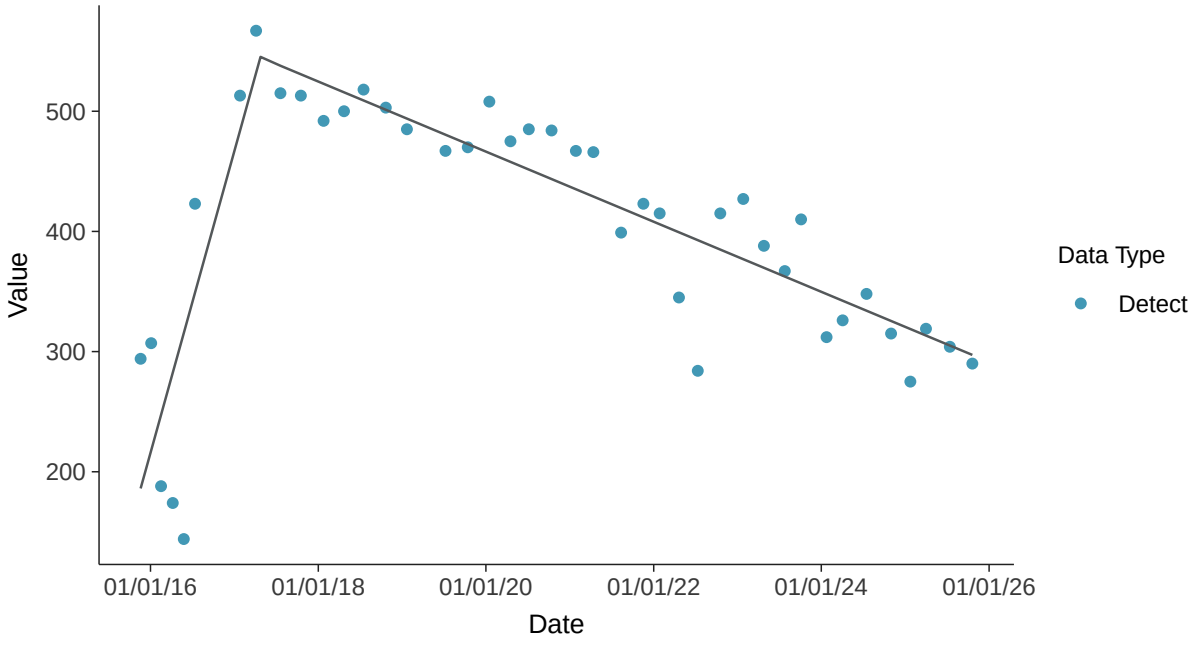
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Chloride, MW-4 (mg/L)



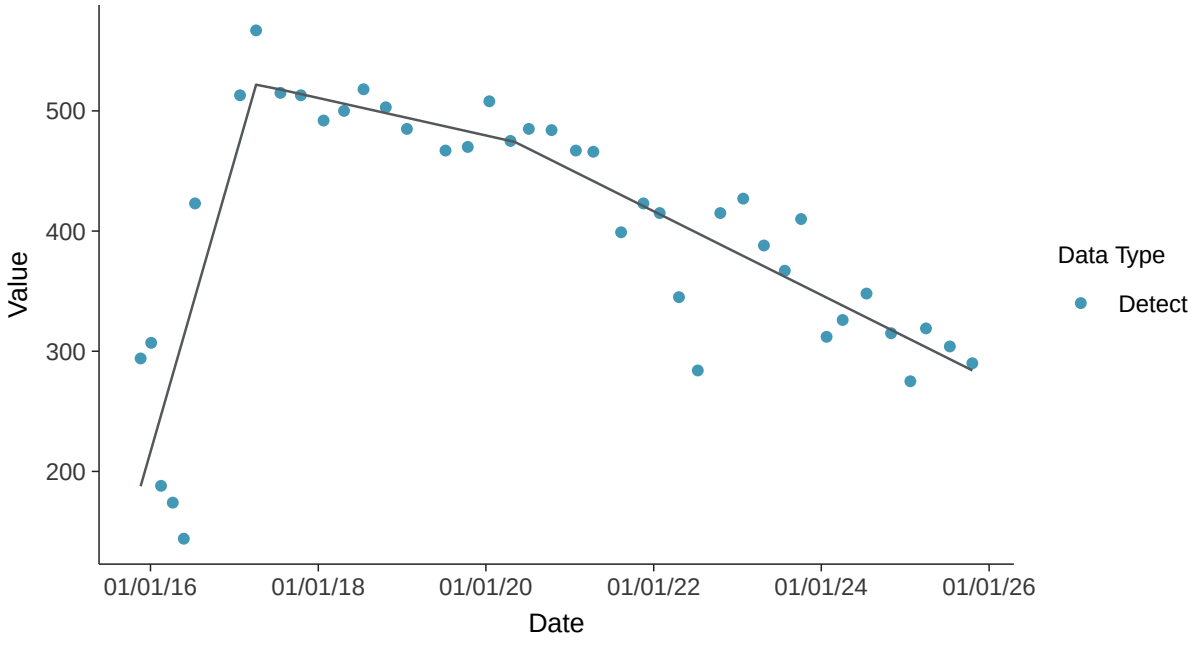
Trend Regression: Piecewise Linear-Linear

Chloride, MW-4 (mg/L)



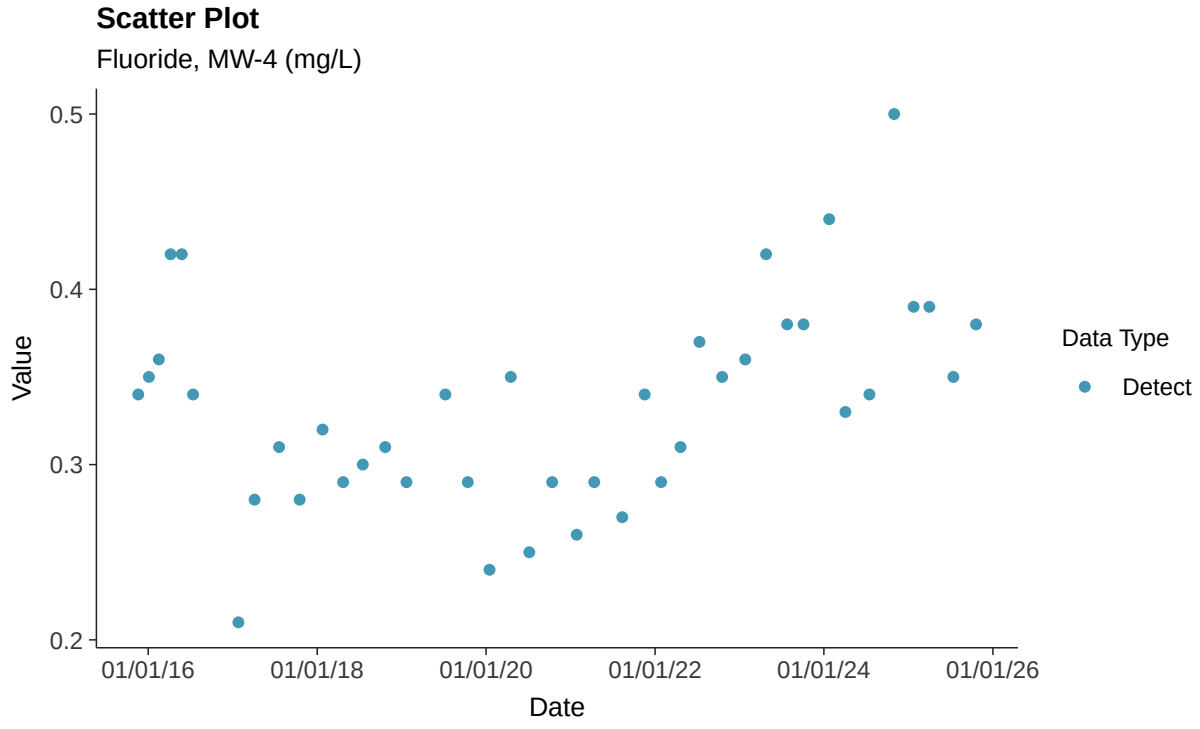
Trend Regression: Piecewise Linear-Linear-Linear

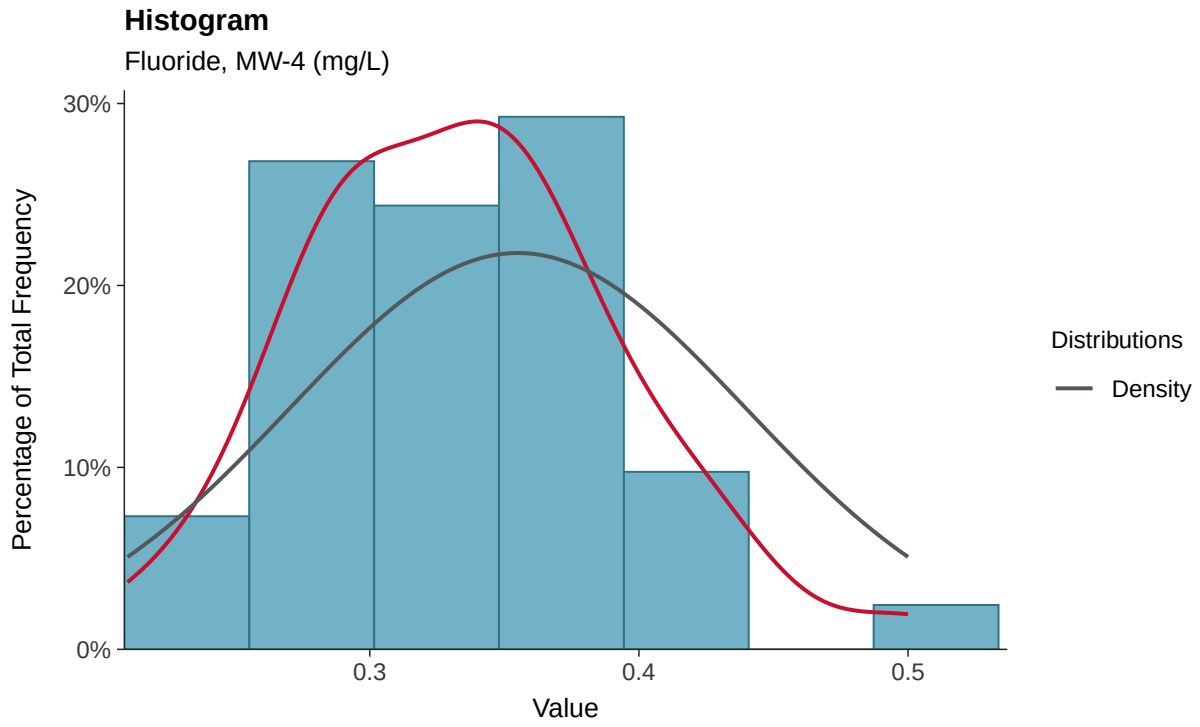
Chloride, MW-4 (mg/L)



App. III: Fluoride, MW-4

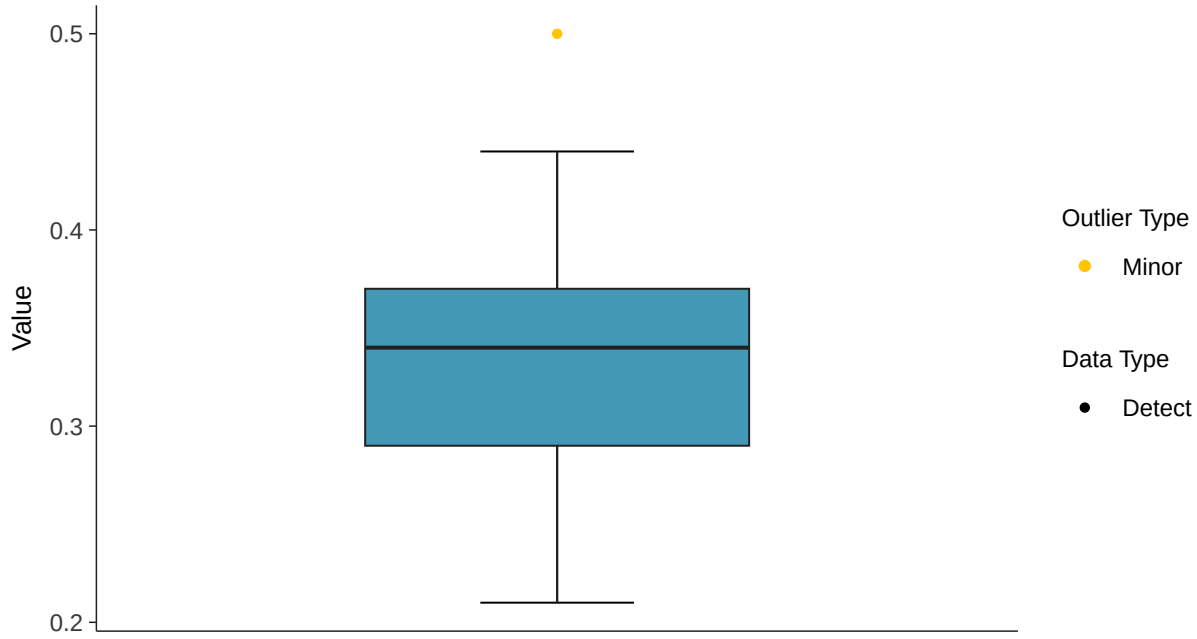
ID: 04_2_112





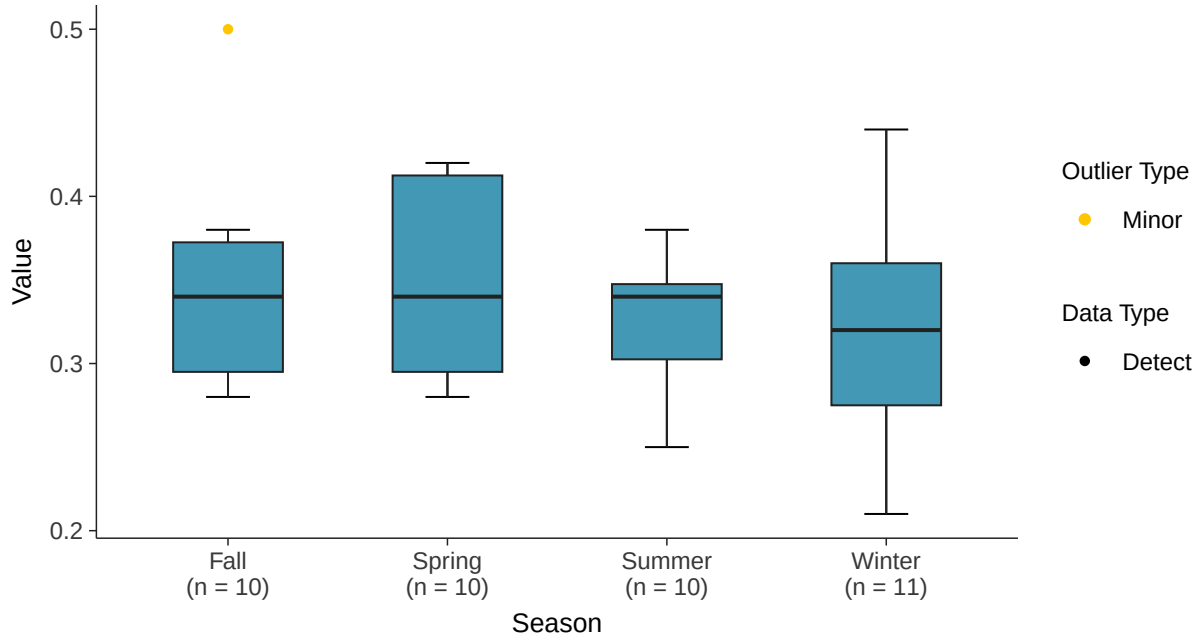
Boxplot

Fluoride, MW-4 (mg/L)



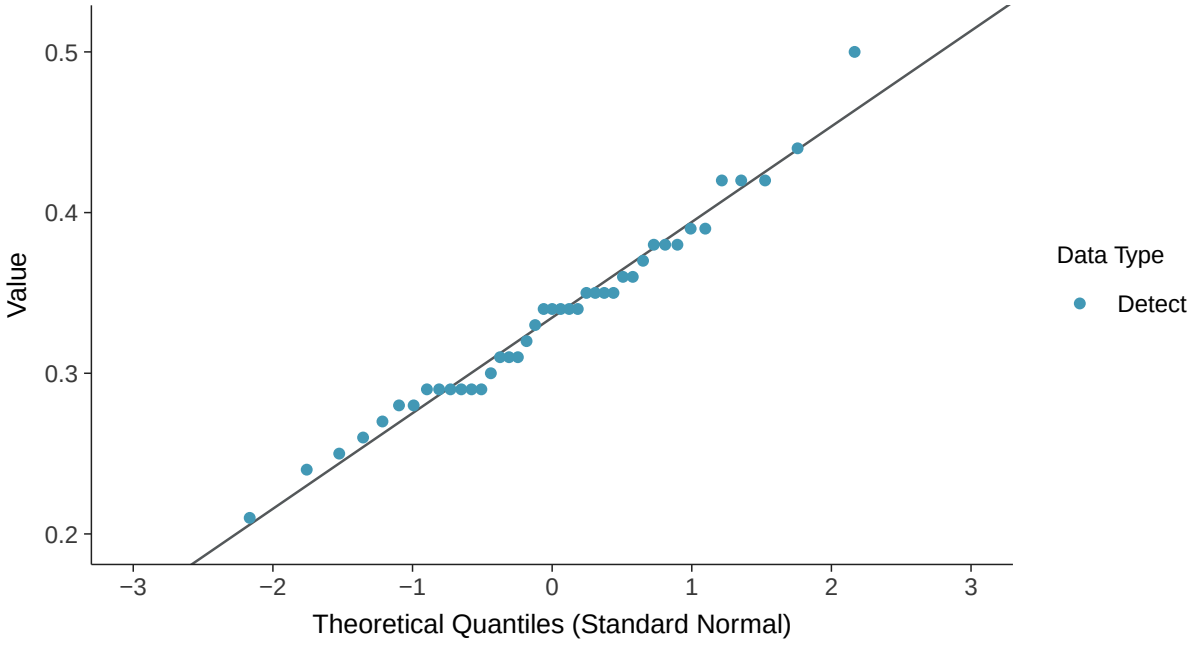
Boxplot by Season

Fluoride, MW-4 (mg/L)



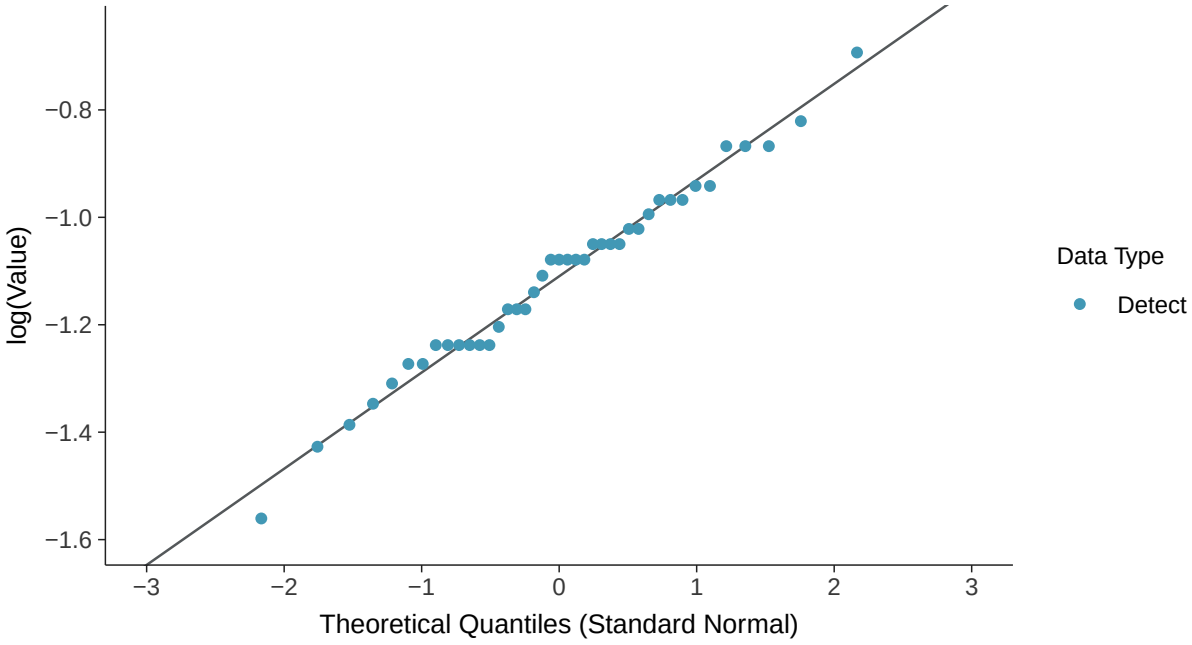
Normal Q-Q plot

Fluoride, MW-4 (mg/L)



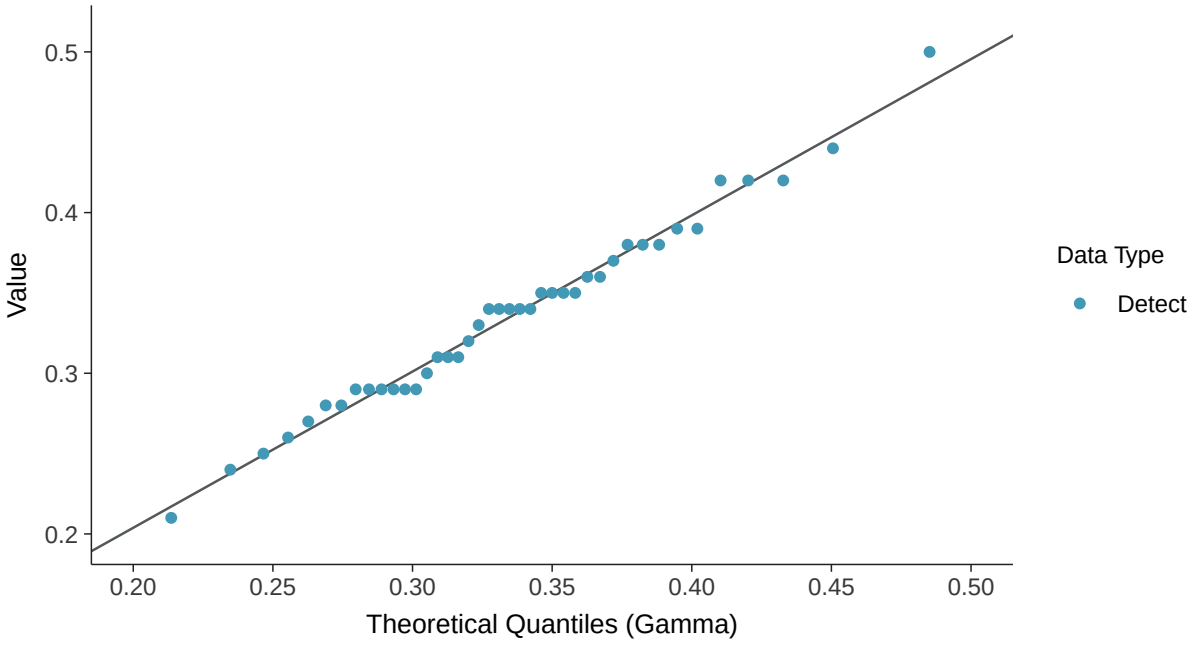
Lognormal Q-Q plot

Fluoride, MW-4 (mg/L)



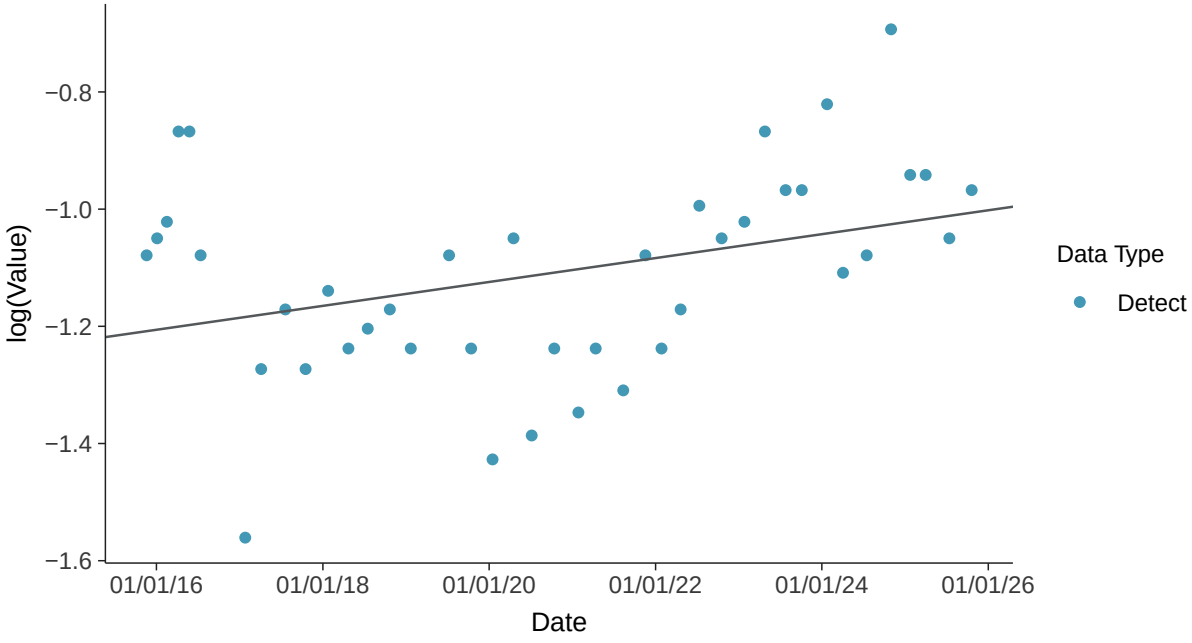
Gamma Q-Q plot

Fluoride, MW-4 (mg/L)



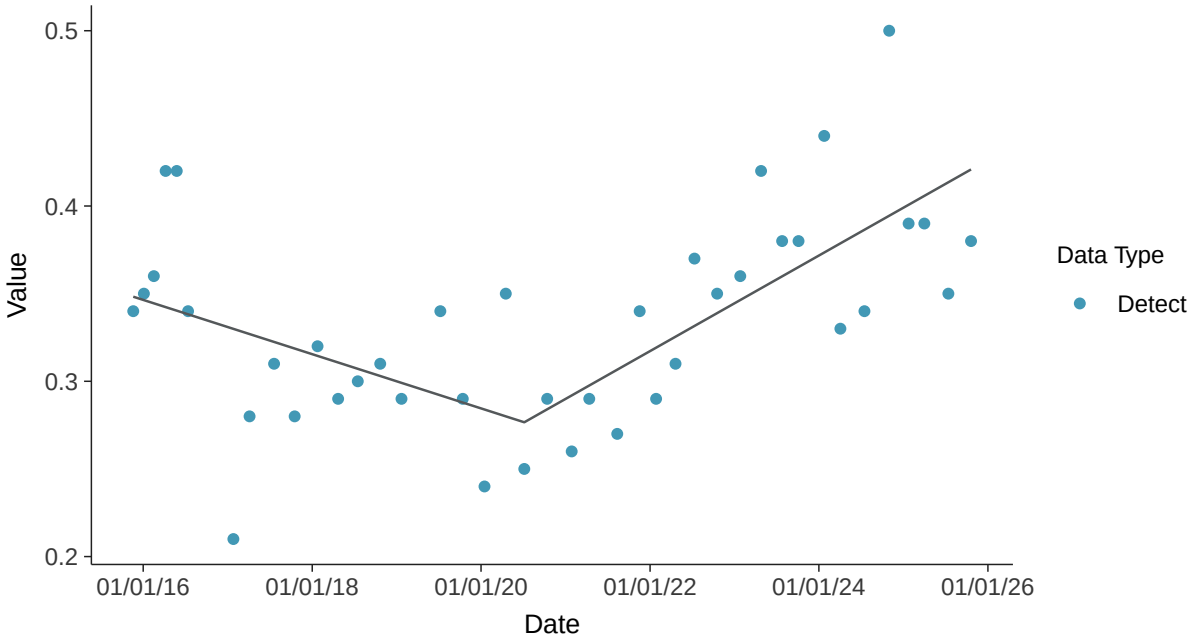
Trend Regression: Lognormal MLE

Fluoride, MW-4 (mg/L)



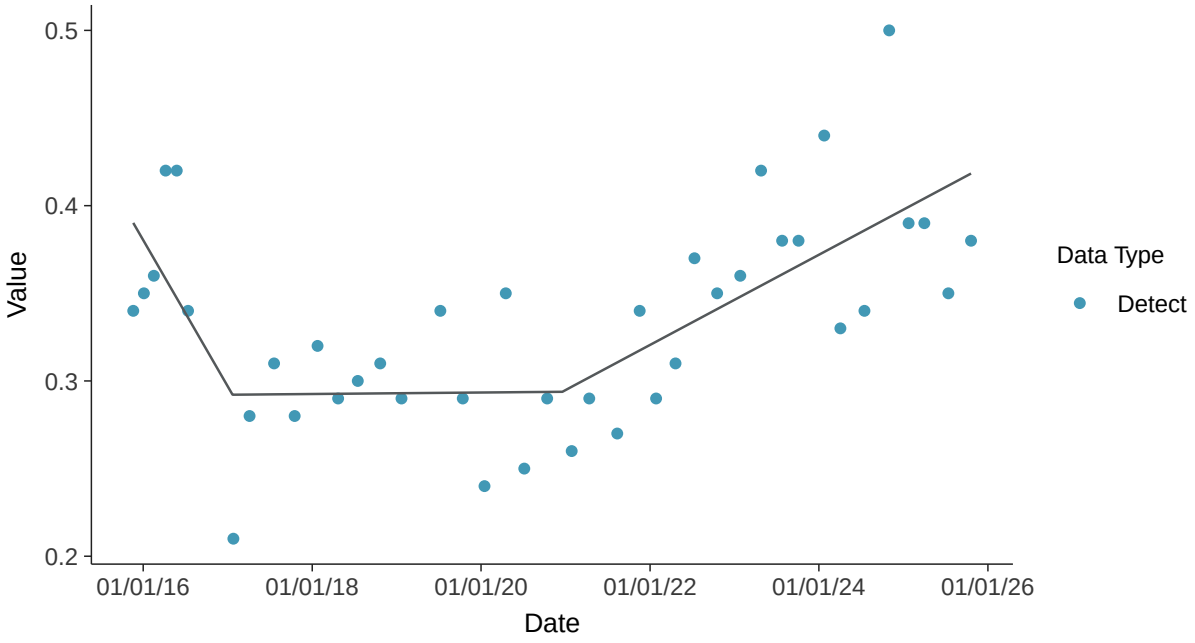
Trend Regression: Piecewise Linear-Linear

Fluoride, MW-4 (mg/L)



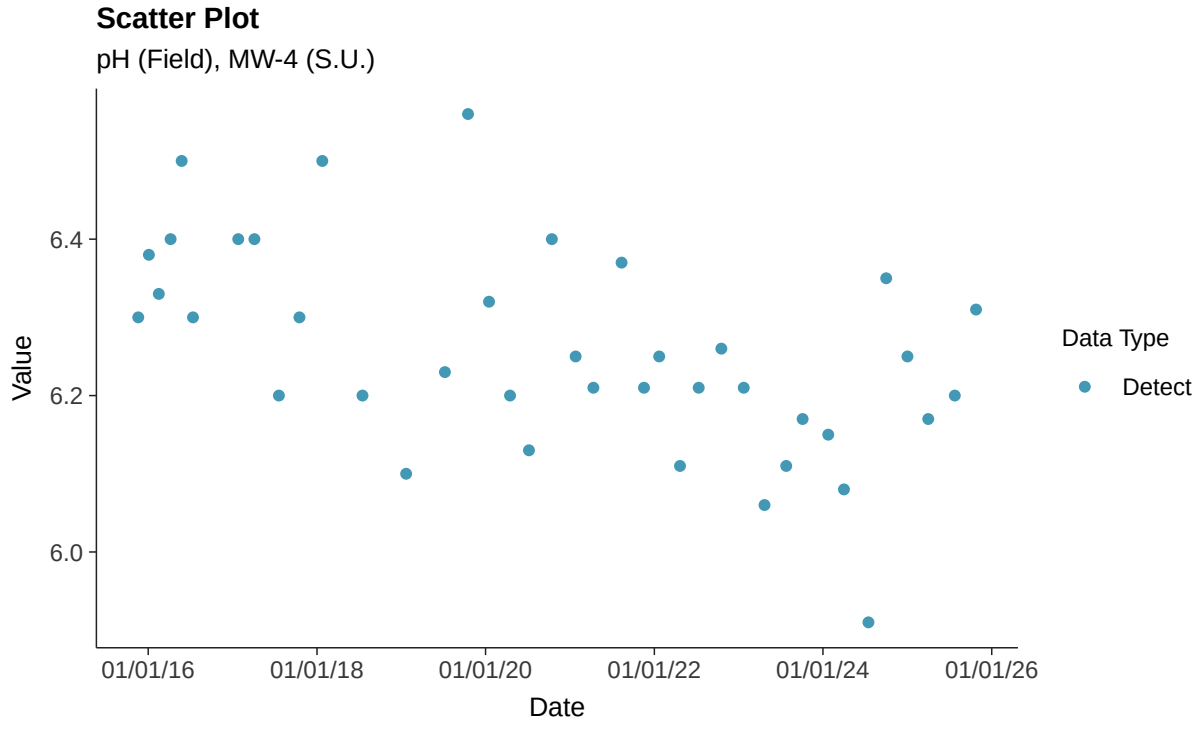
Trend Regression: Piecewise Linear-Linear-Linear

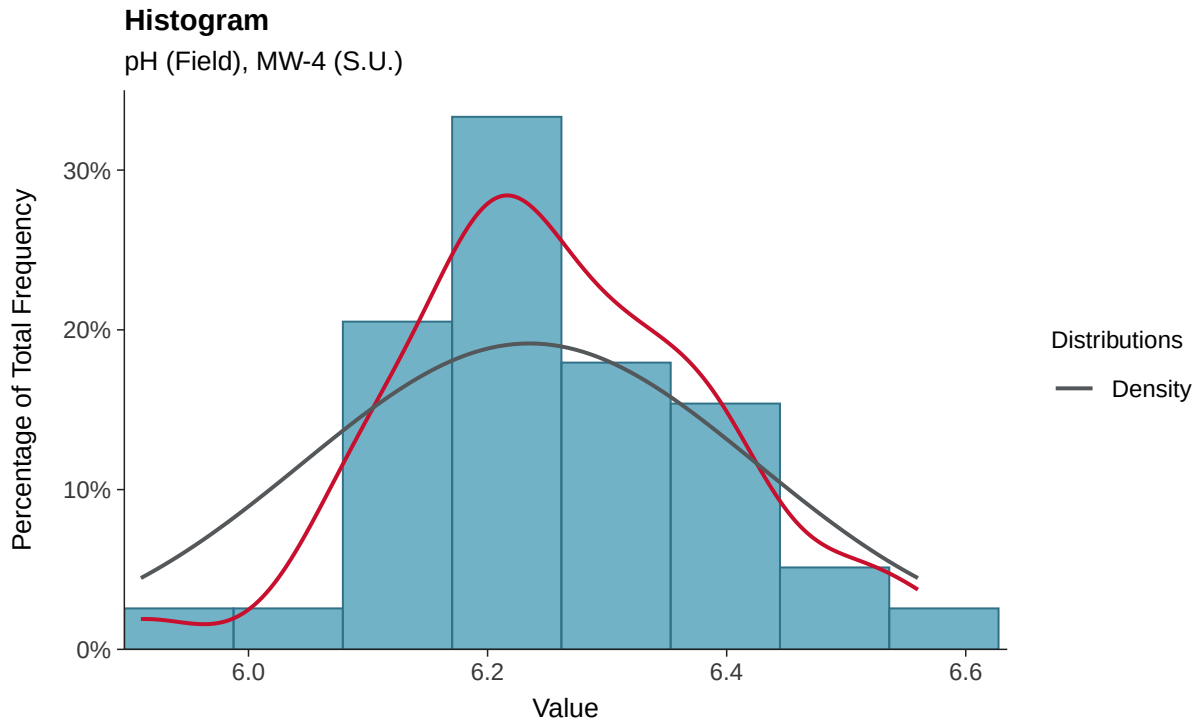
Fluoride, MW-4 (mg/L)



App. III: pH (Field), MW-4

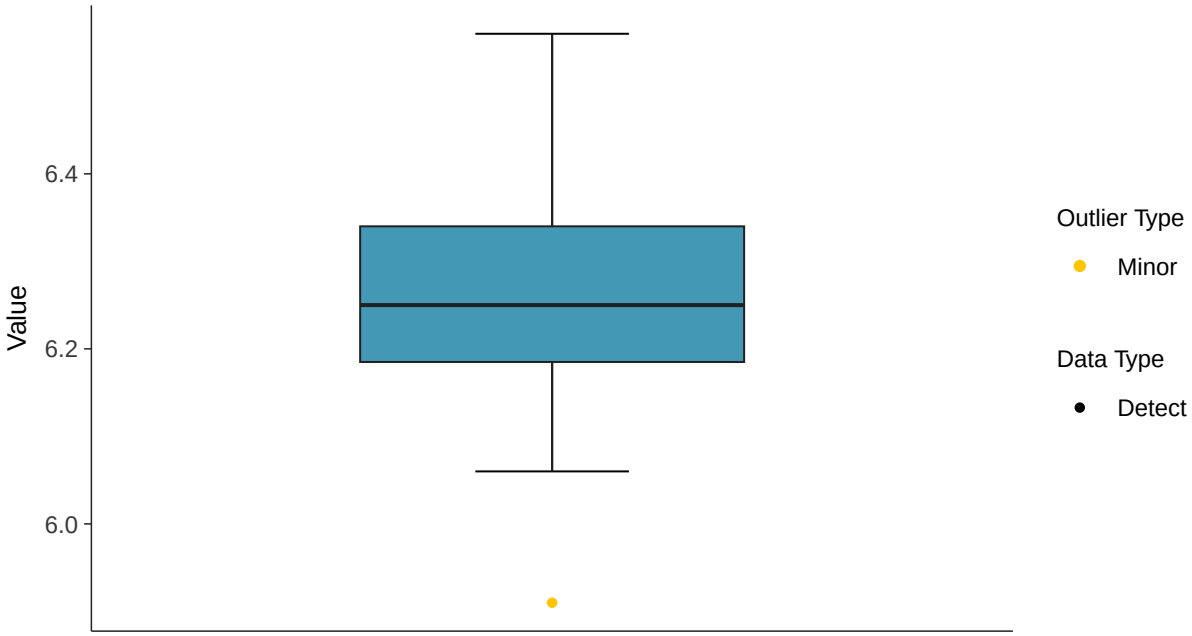
ID: 04_2_118





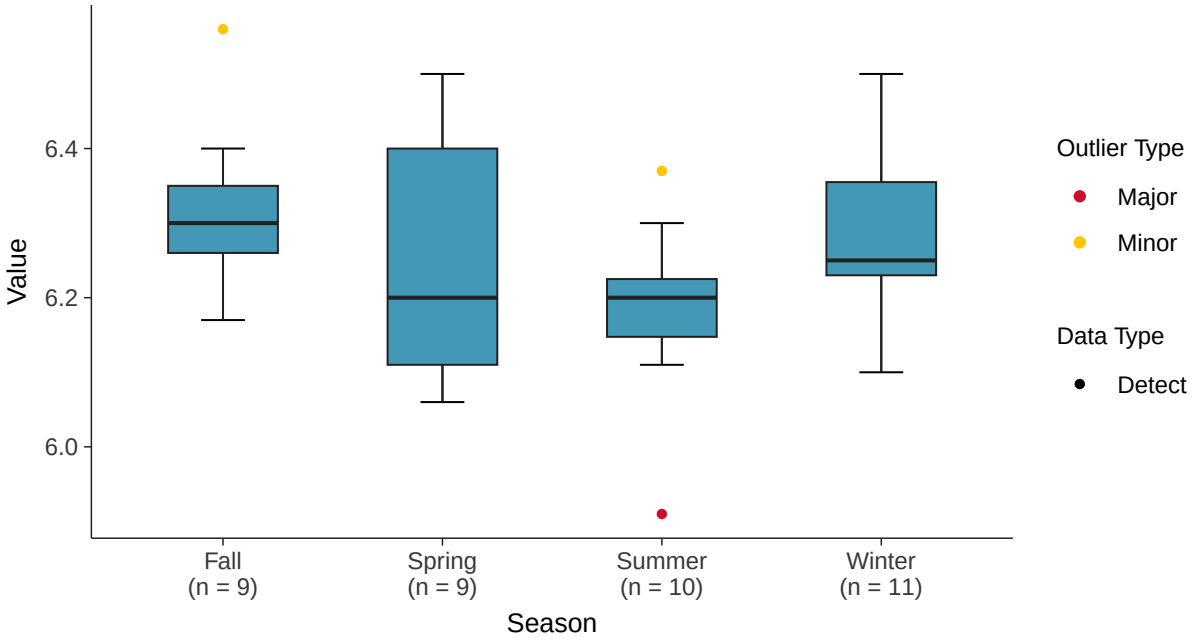
Boxplot

pH (Field), MW-4 (S.U.)



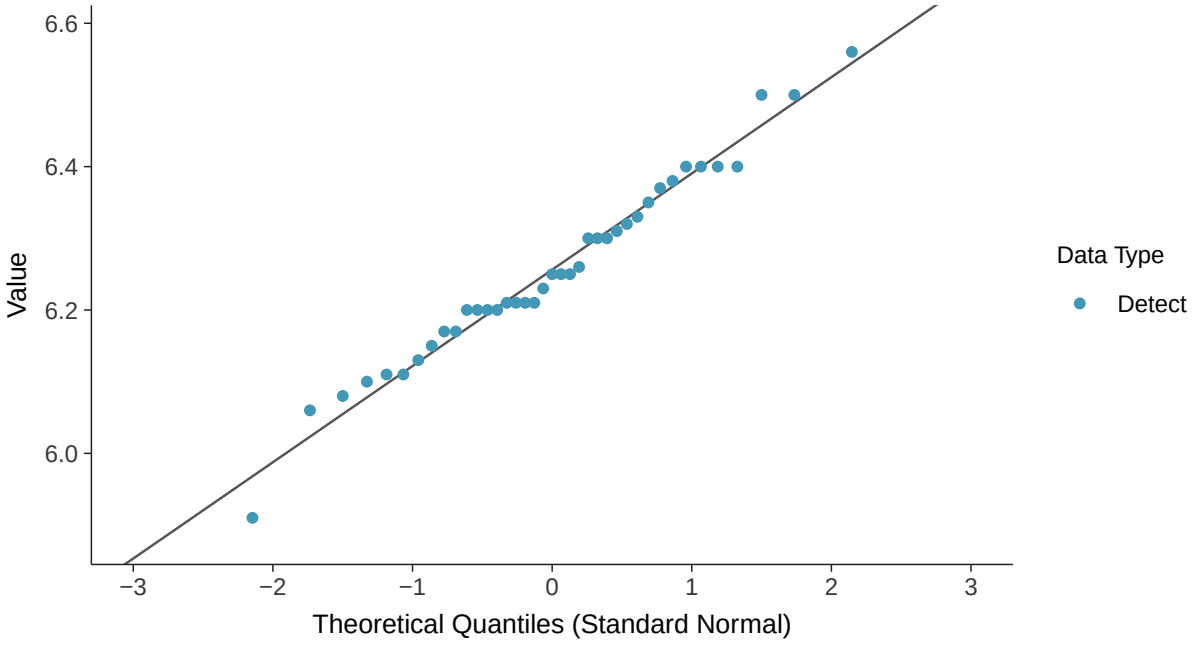
Boxplot by Season

pH (Field), MW-4 (S.U.)



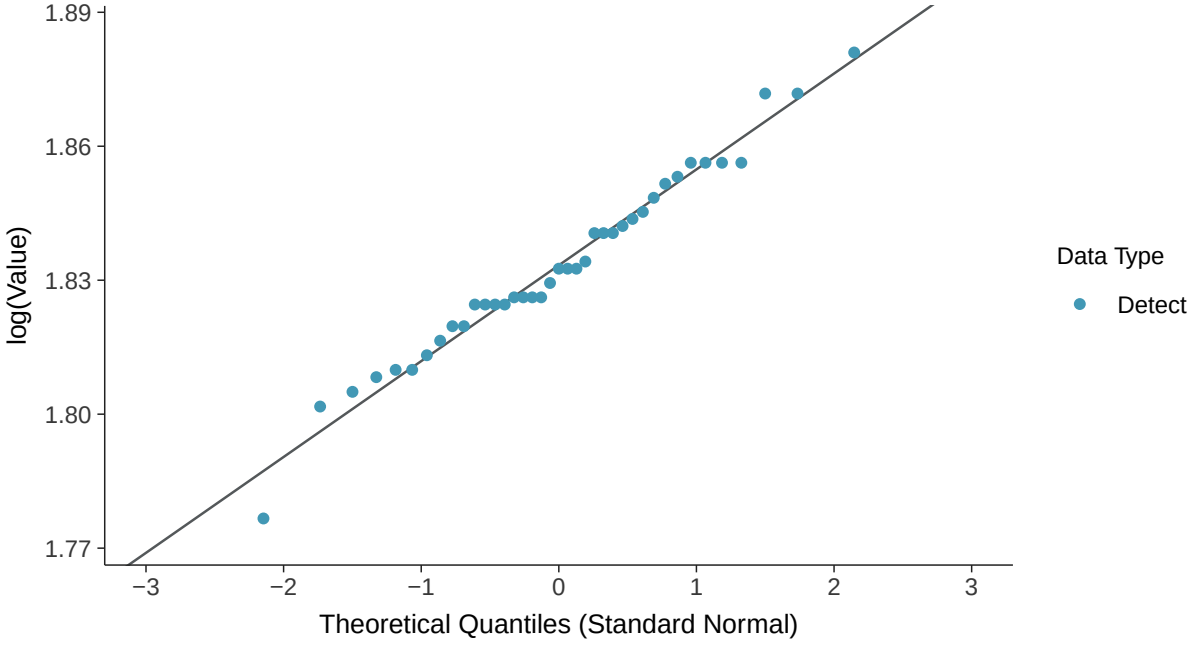
Normal Q-Q plot

pH (Field), MW-4 (S.U.)



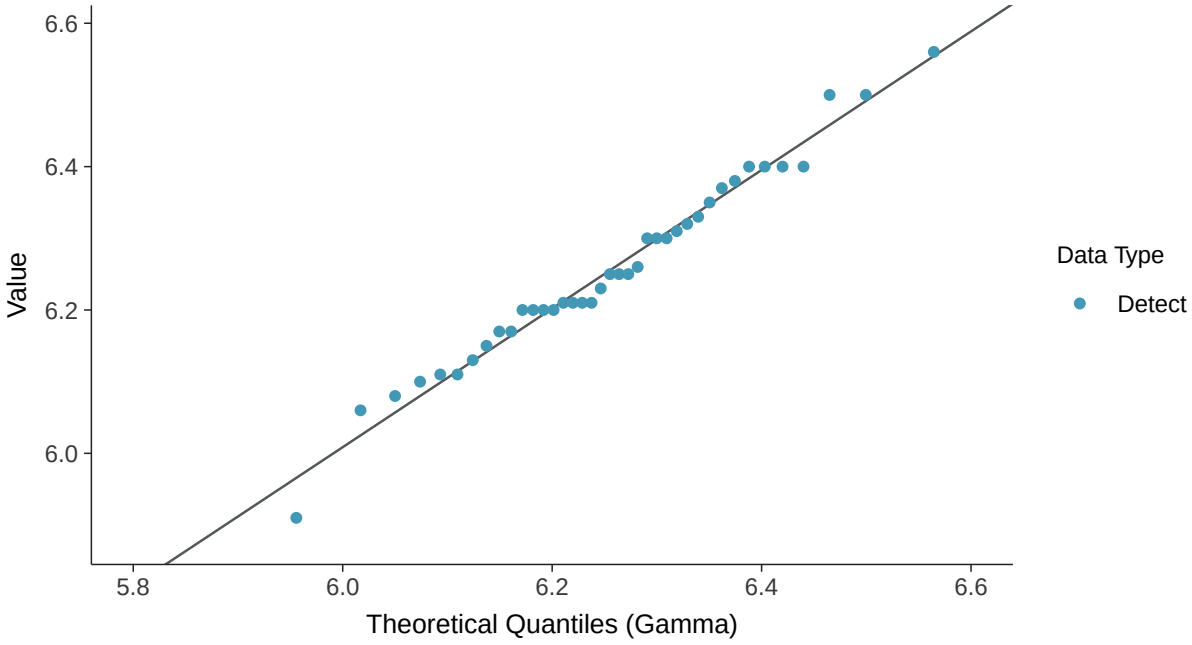
Lognormal Q-Q plot

pH (Field), MW-4 (S.U.)



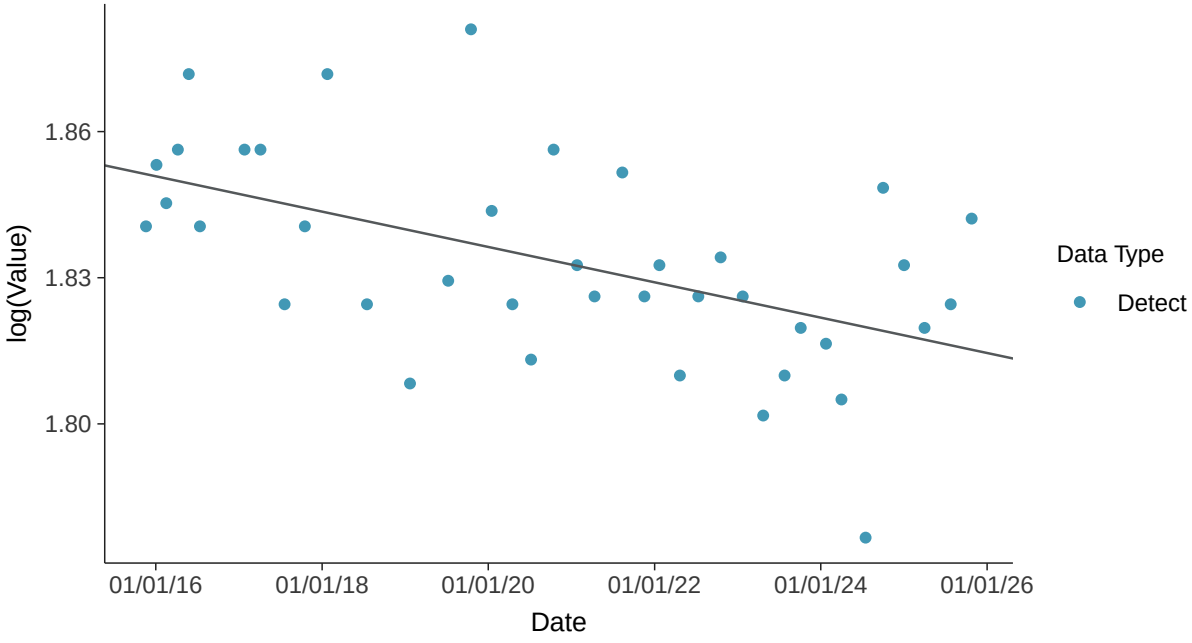
Gamma Q-Q plot

pH (Field), MW-4 (S.U.)



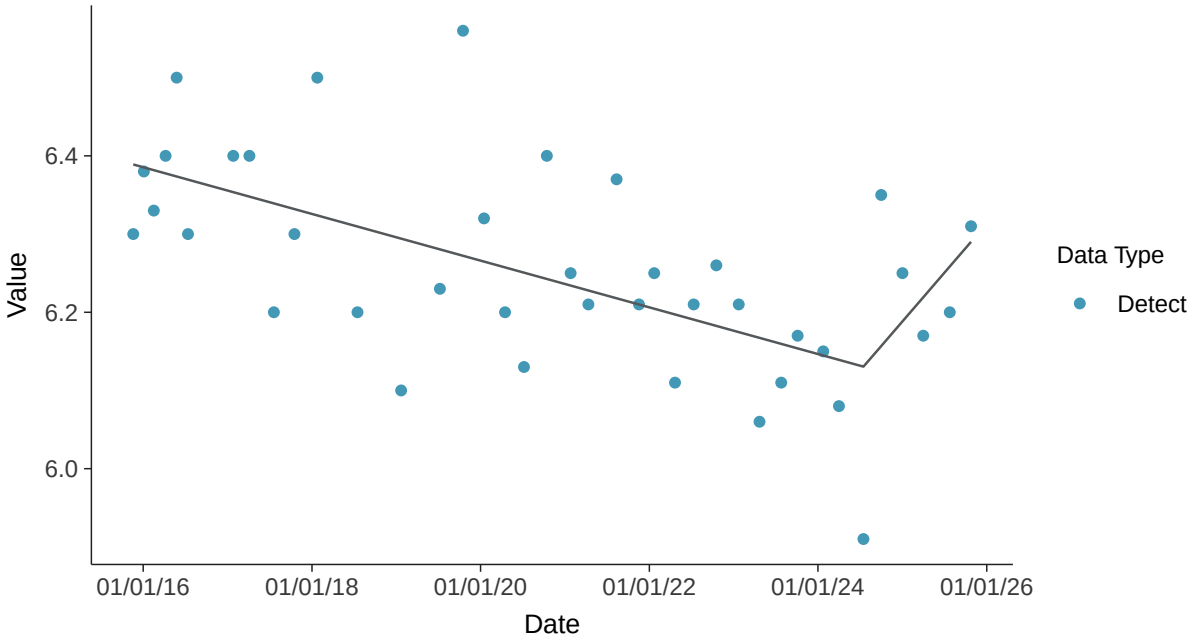
Trend Regression: Lognormal MLE

pH (Field), MW-4 (S.U.)



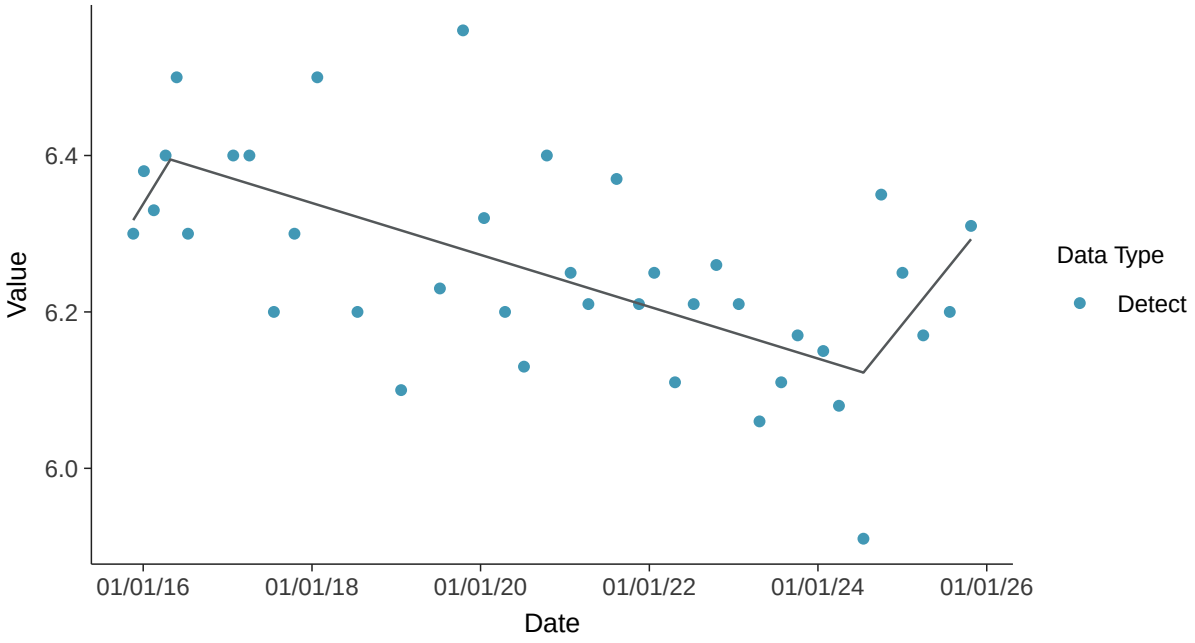
Trend Regression: Piecewise Linear-Linear

pH (Field), MW-4 (S.U.)



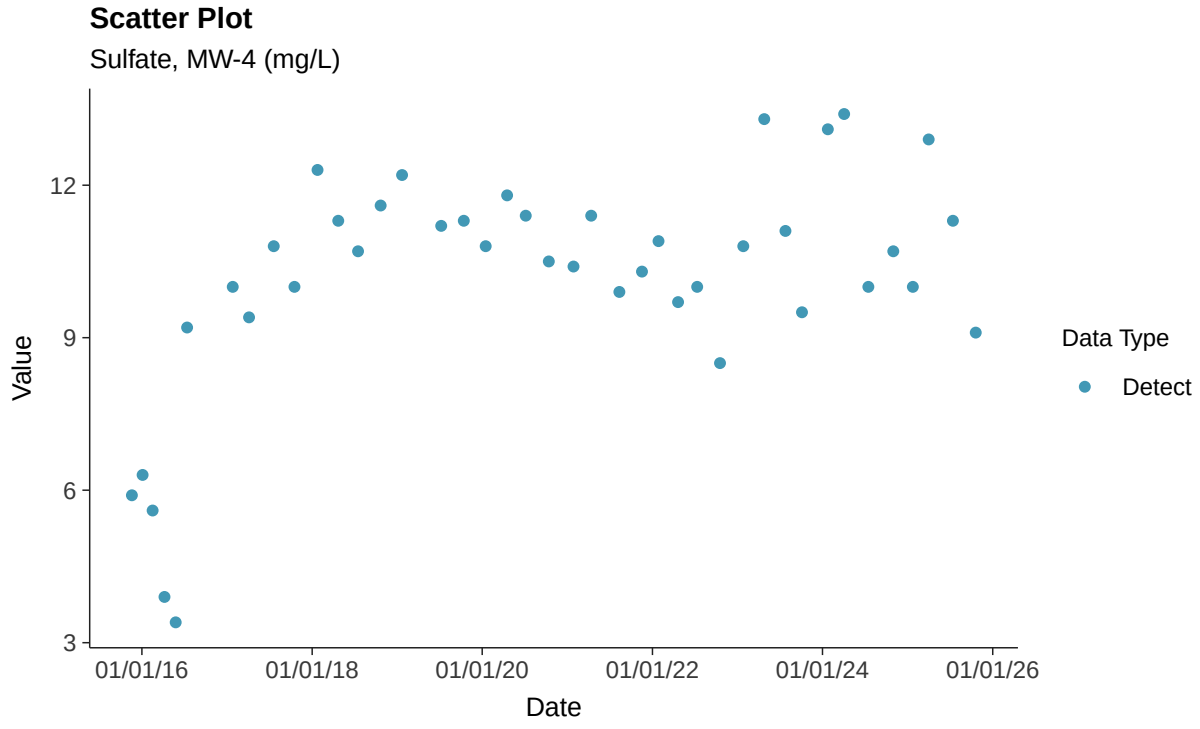
Trend Regression: Piecewise Linear-Linear-Linear

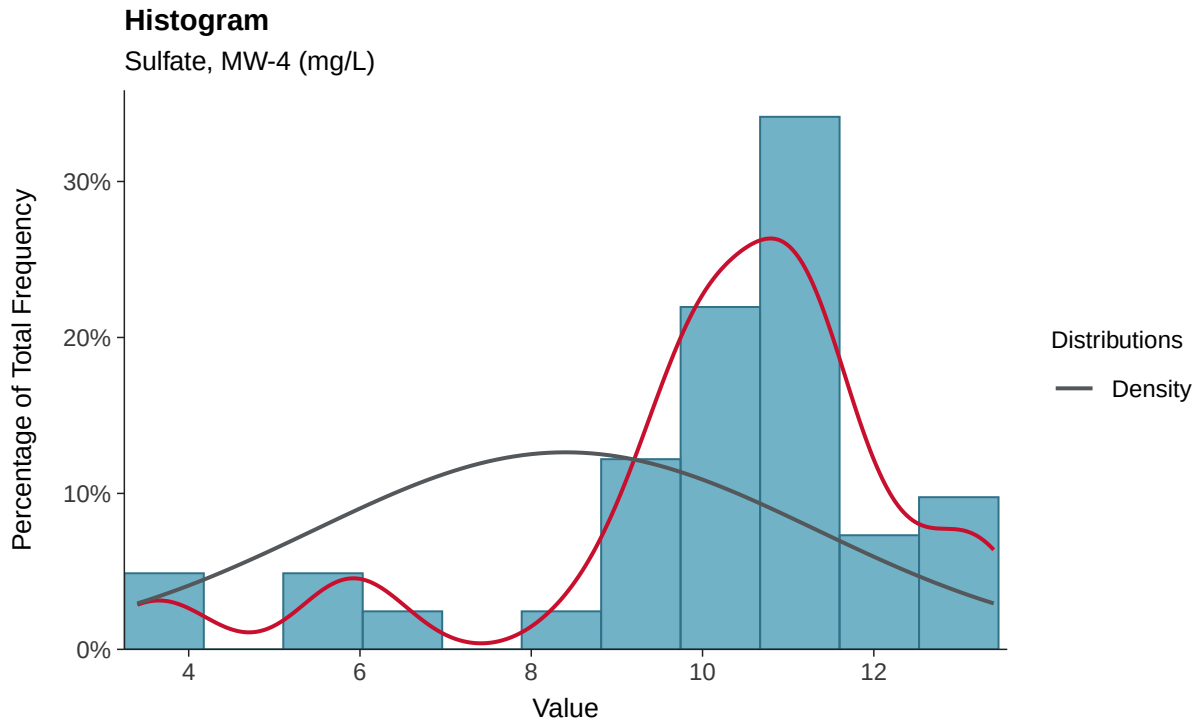
pH (Field), MW-4 (S.U.)



App. III: Sulfate, MW-4

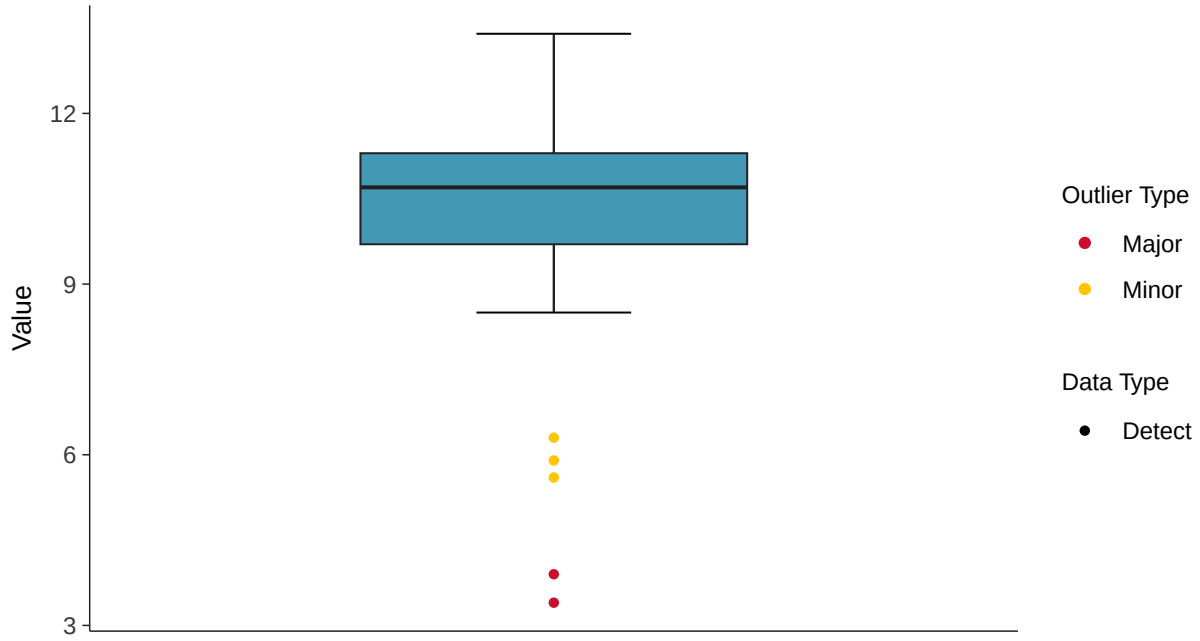
ID: 04_2_123





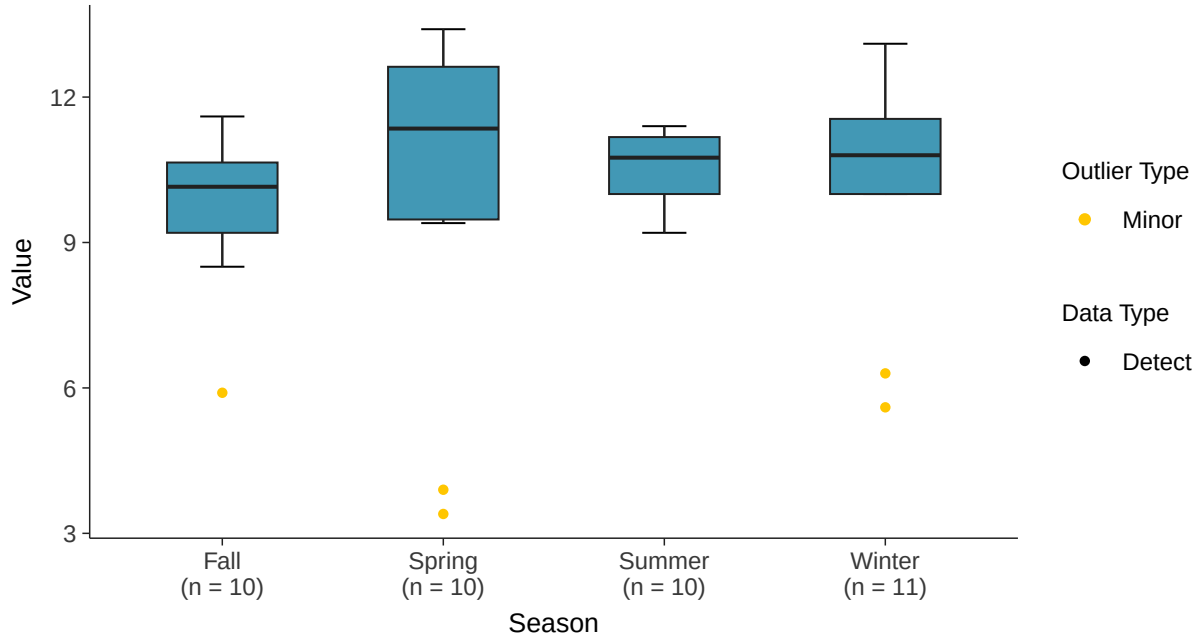
Boxplot

Sulfate, MW-4 (mg/L)



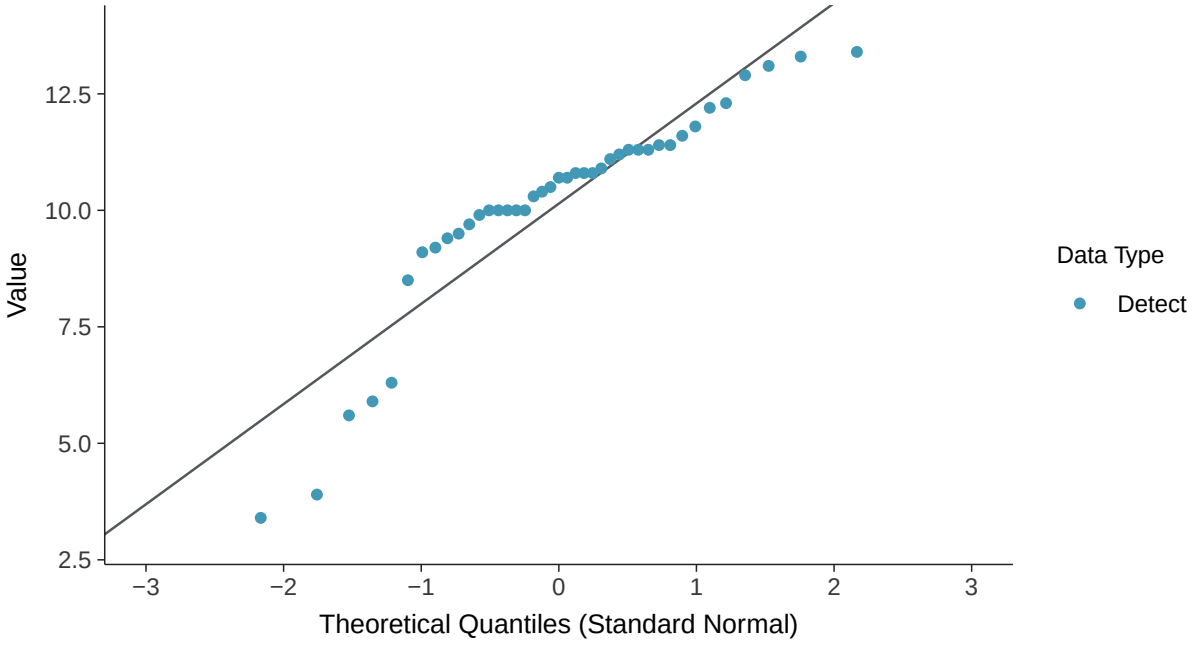
Boxplot by Season

Sulfate, MW-4 (mg/L)



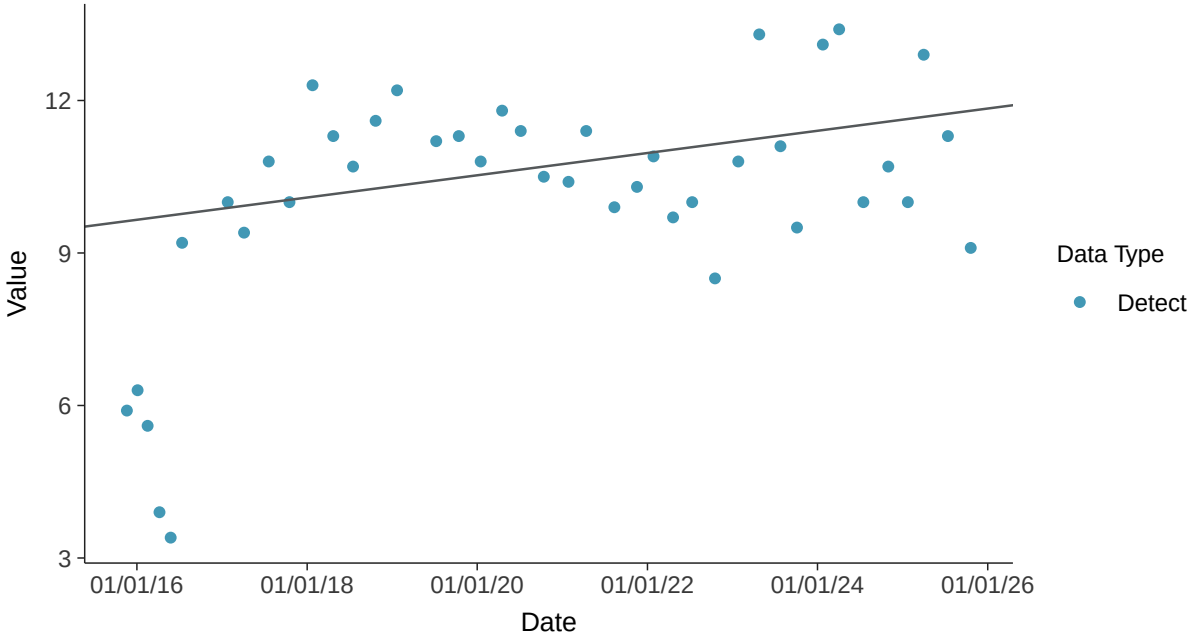
Normal Q-Q plot

Sulfate, MW-4 (mg/L)



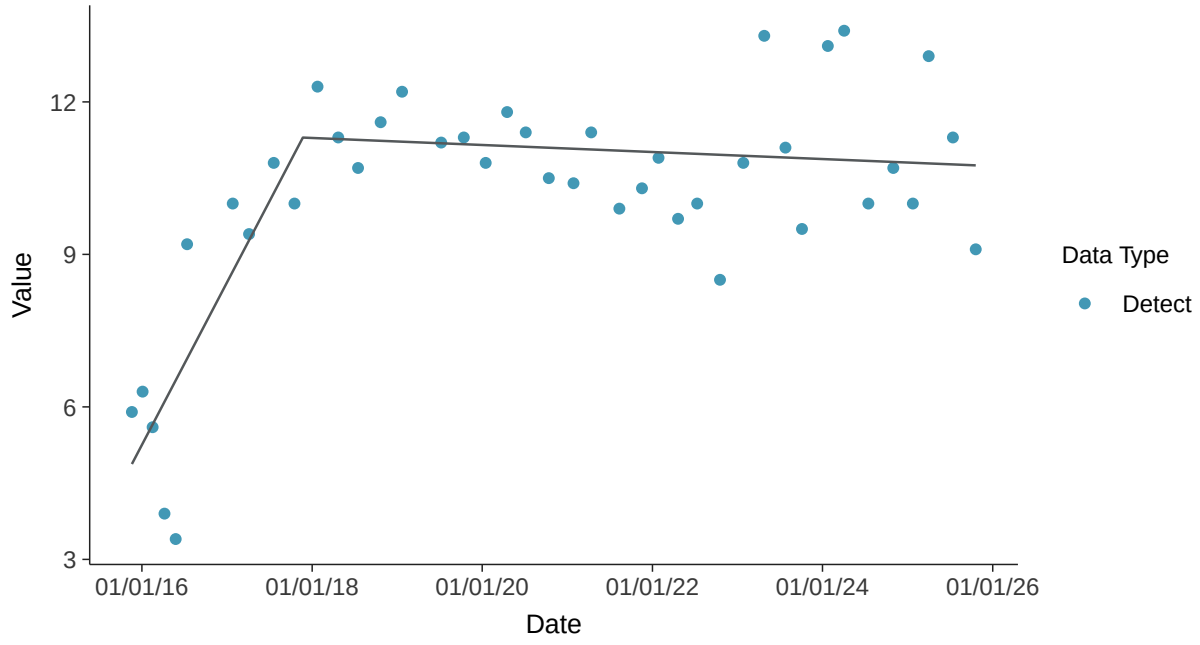
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Sulfate, MW-4 (mg/L)



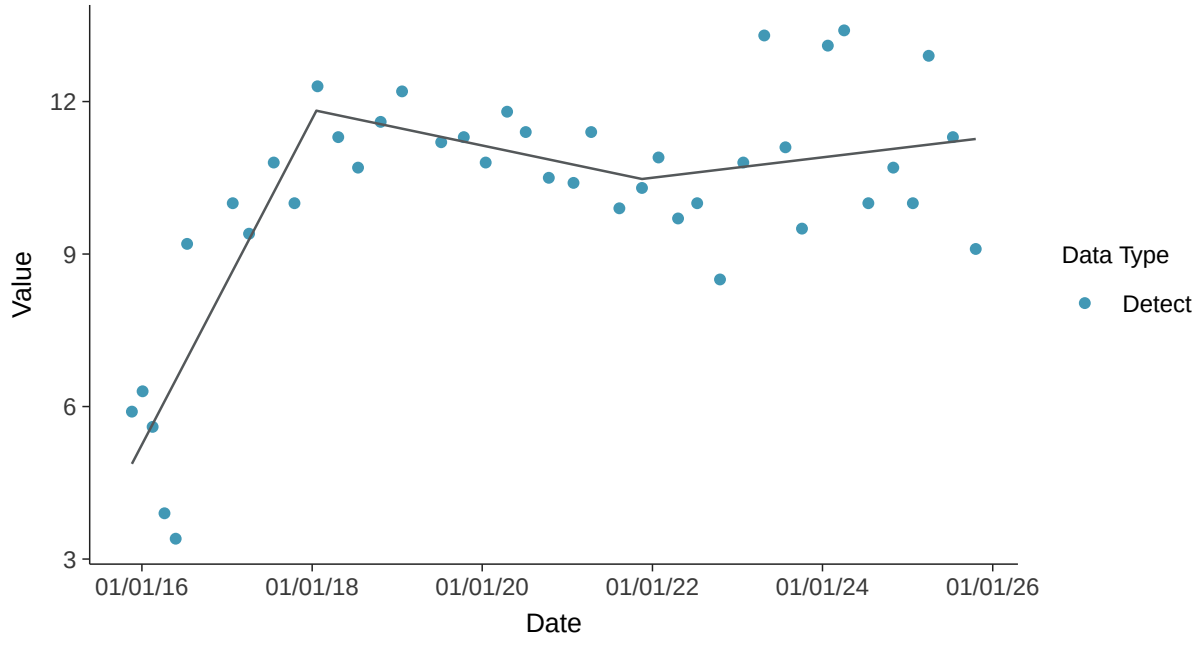
Trend Regression: Piecewise Linear-Linear

Sulfate, MW-4 (mg/L)



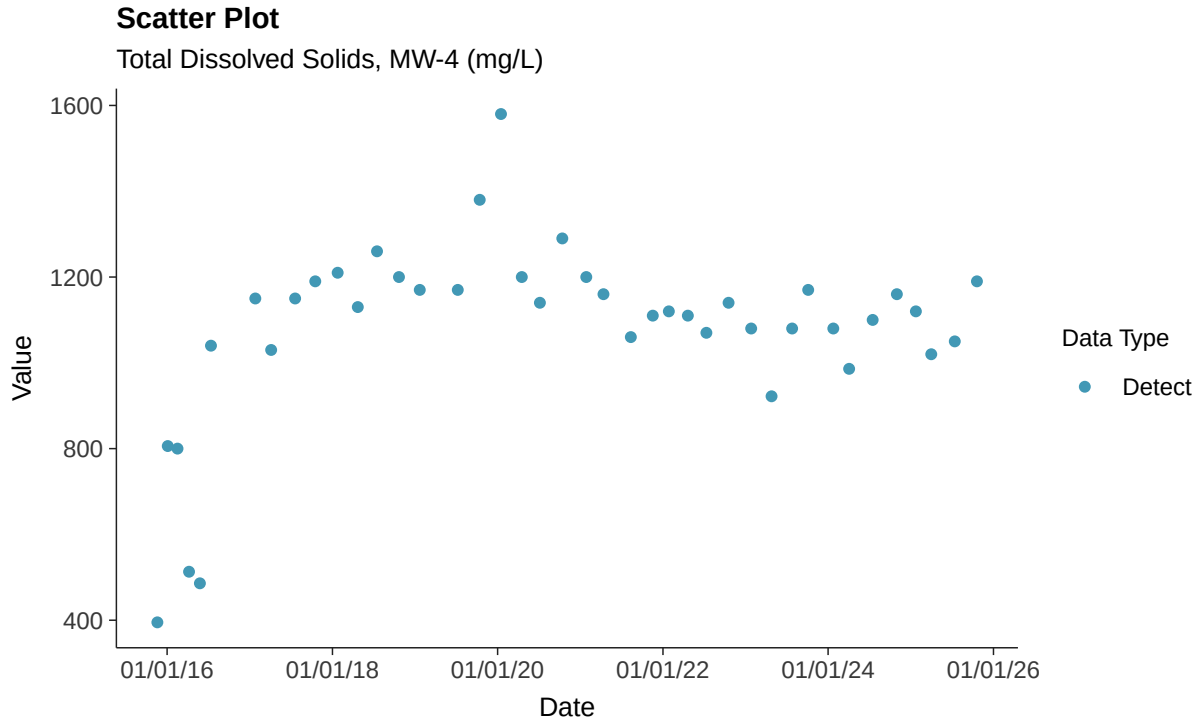
Trend Regression: Piecewise Linear-Linear-Linear

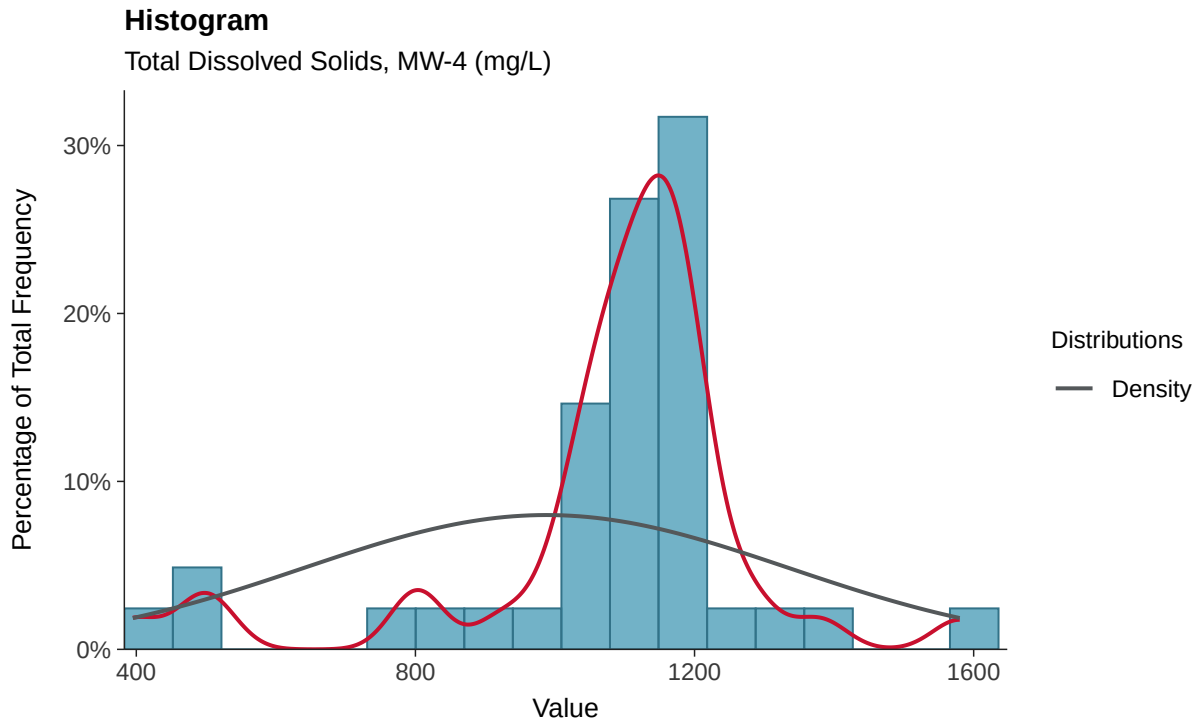
Sulfate, MW-4 (mg/L)



App. III: Total Dissolved Solids, MW-4

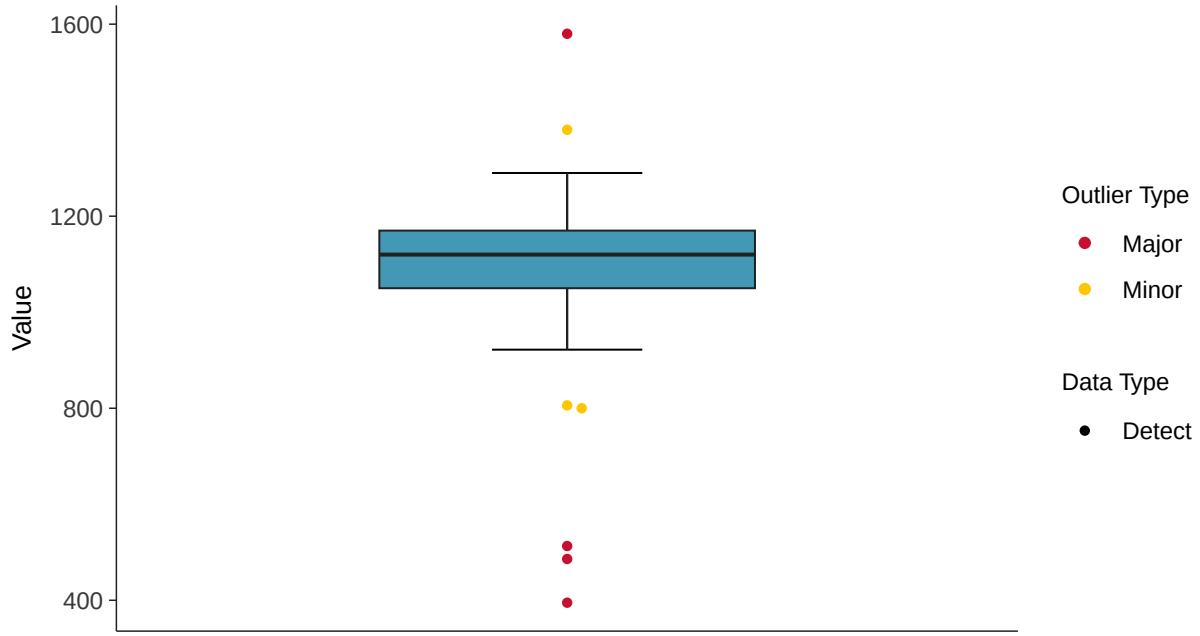
ID: 04_2_125





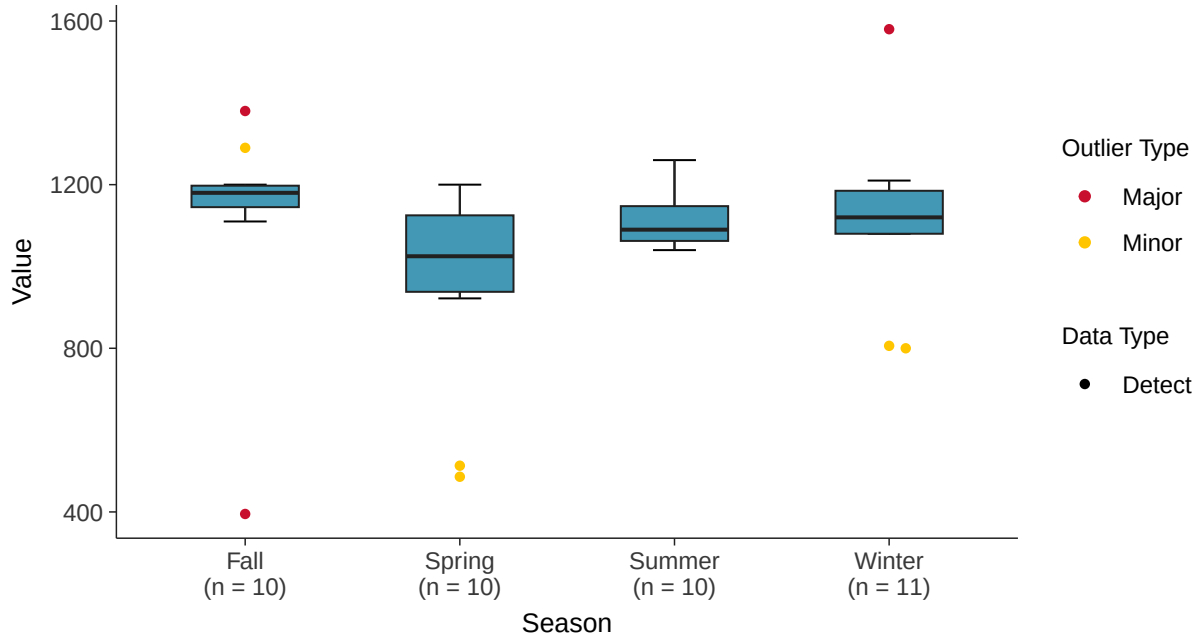
Boxplot

Total Dissolved Solids, MW-4 (mg/L)



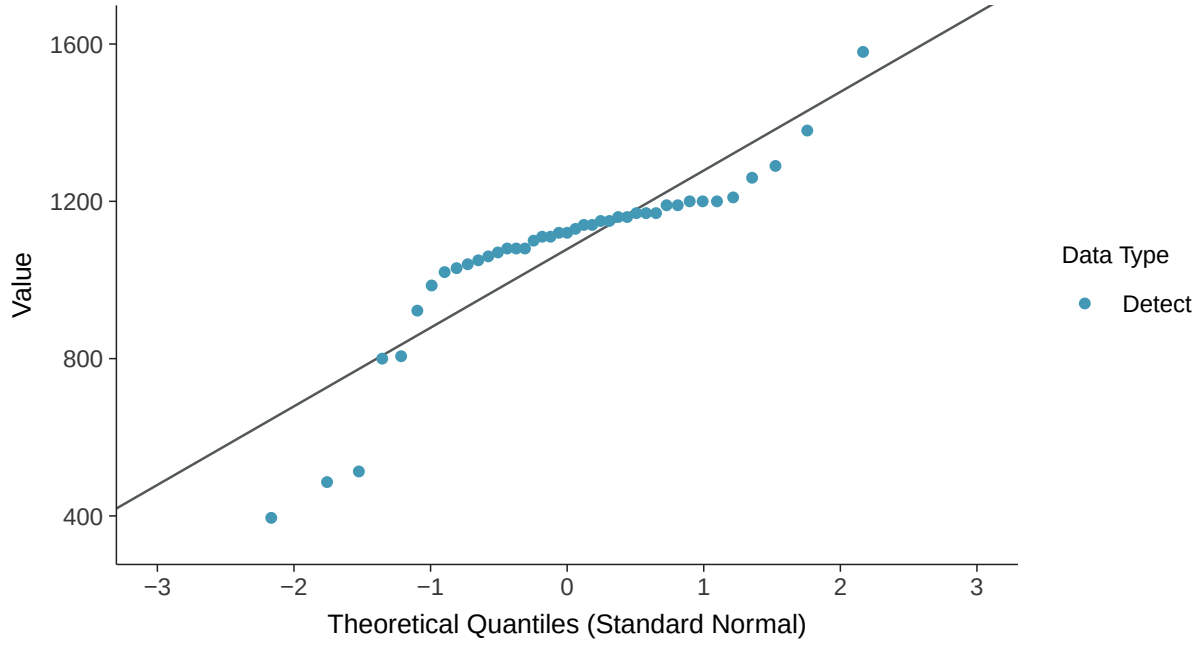
Boxplot by Season

Total Dissolved Solids, MW-4 (mg/L)



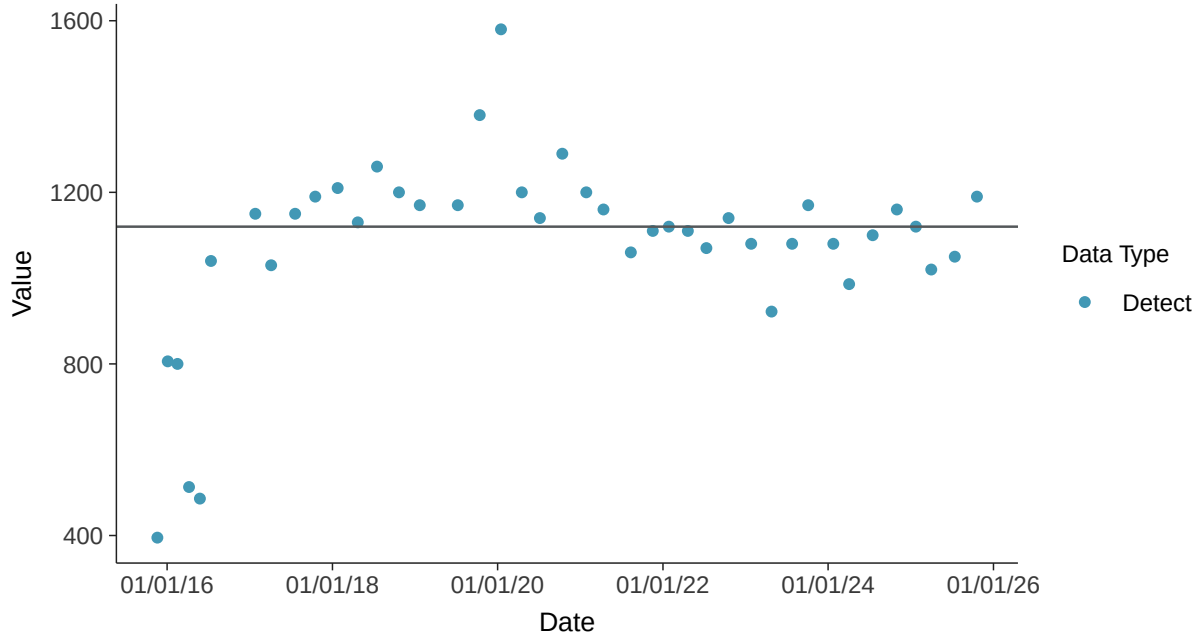
Normal Q-Q plot

Total Dissolved Solids, MW-4 (mg/L)



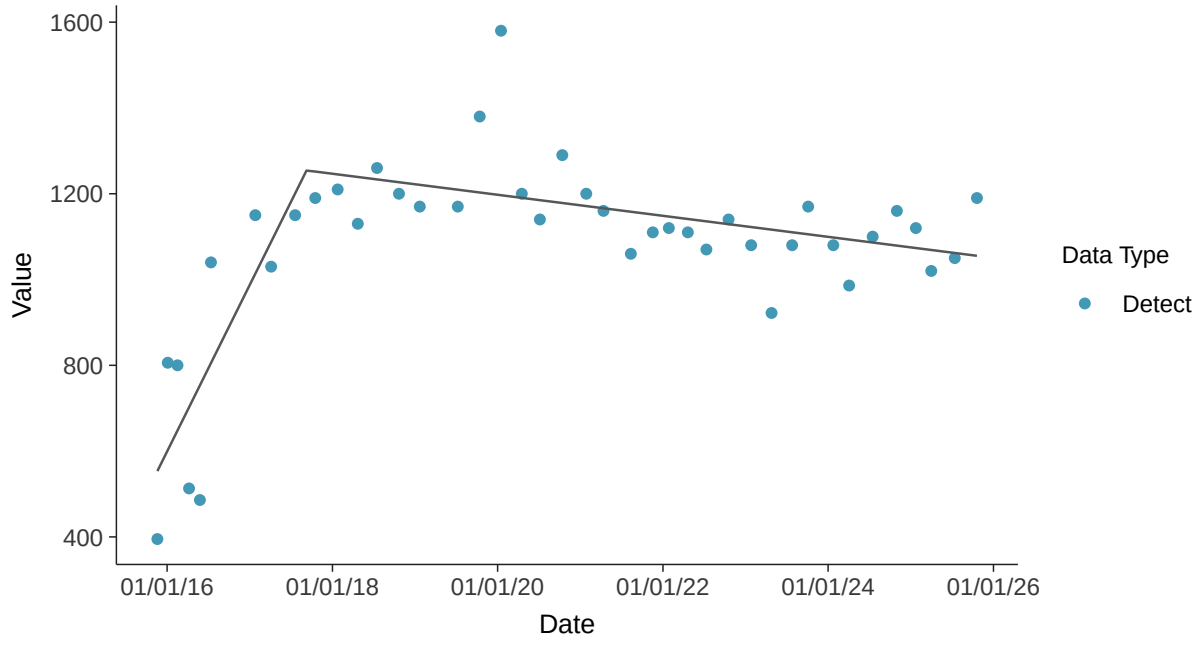
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Total Dissolved Solids, MW-4 (mg/L)



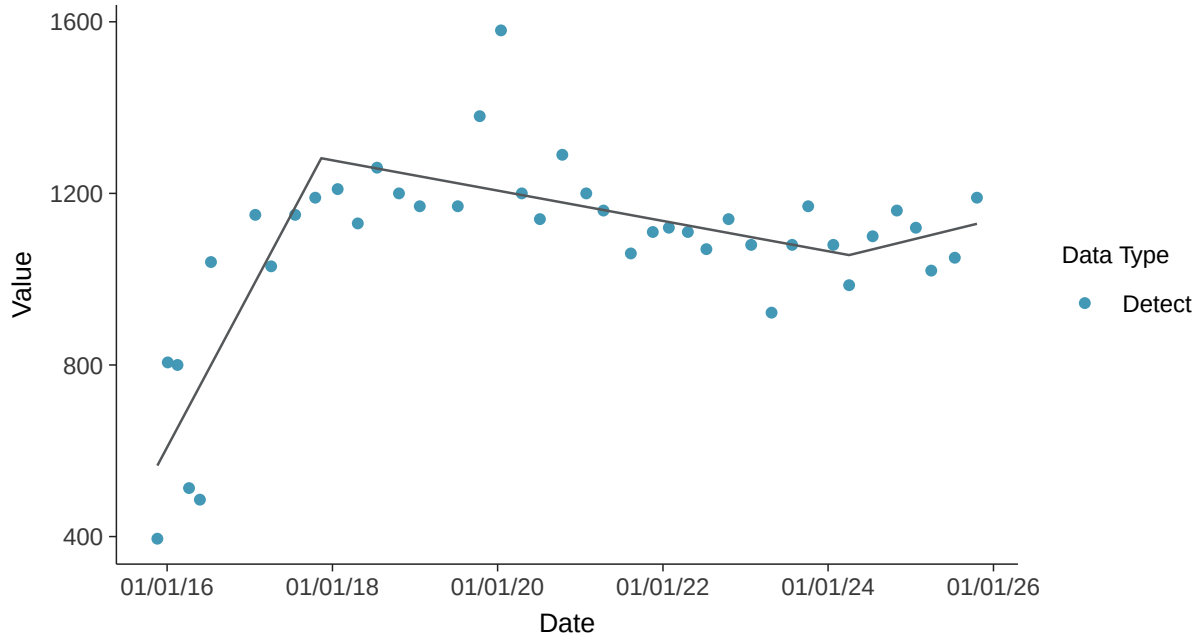
Trend Regression: Piecewise Linear-Linear

Total Dissolved Solids, MW-4 (mg/L)



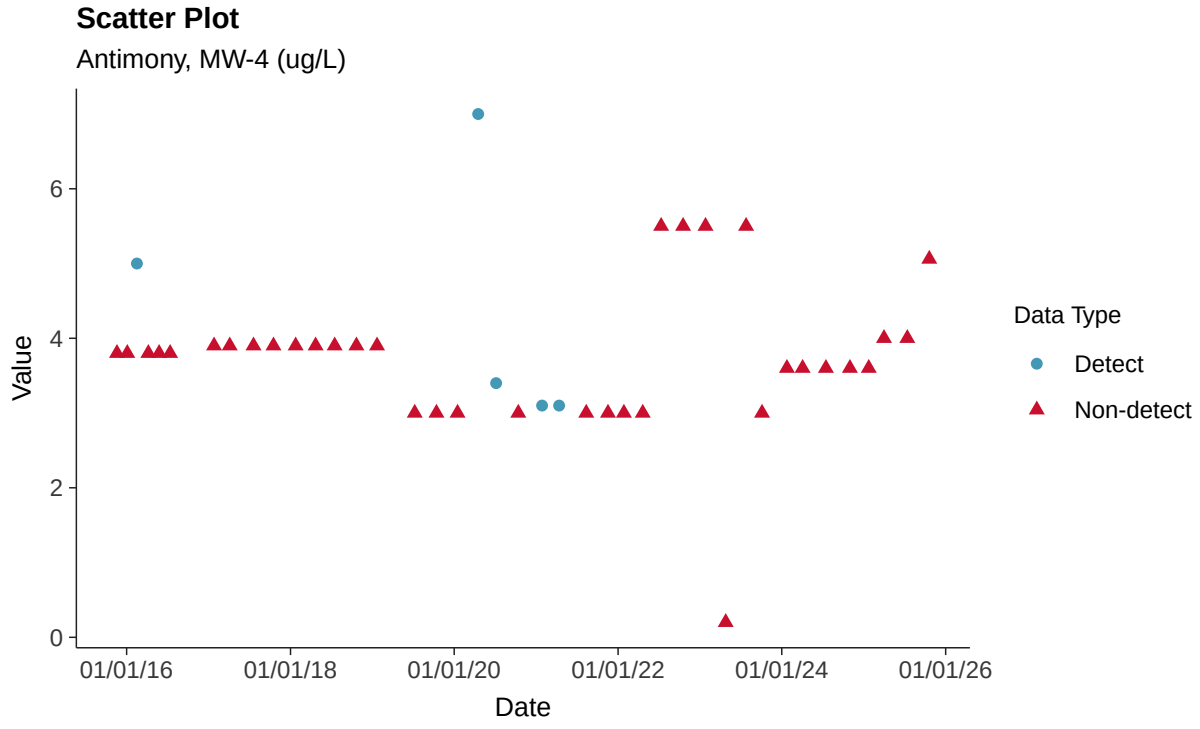
Trend Regression: Piecewise Linear-Linear-Linear

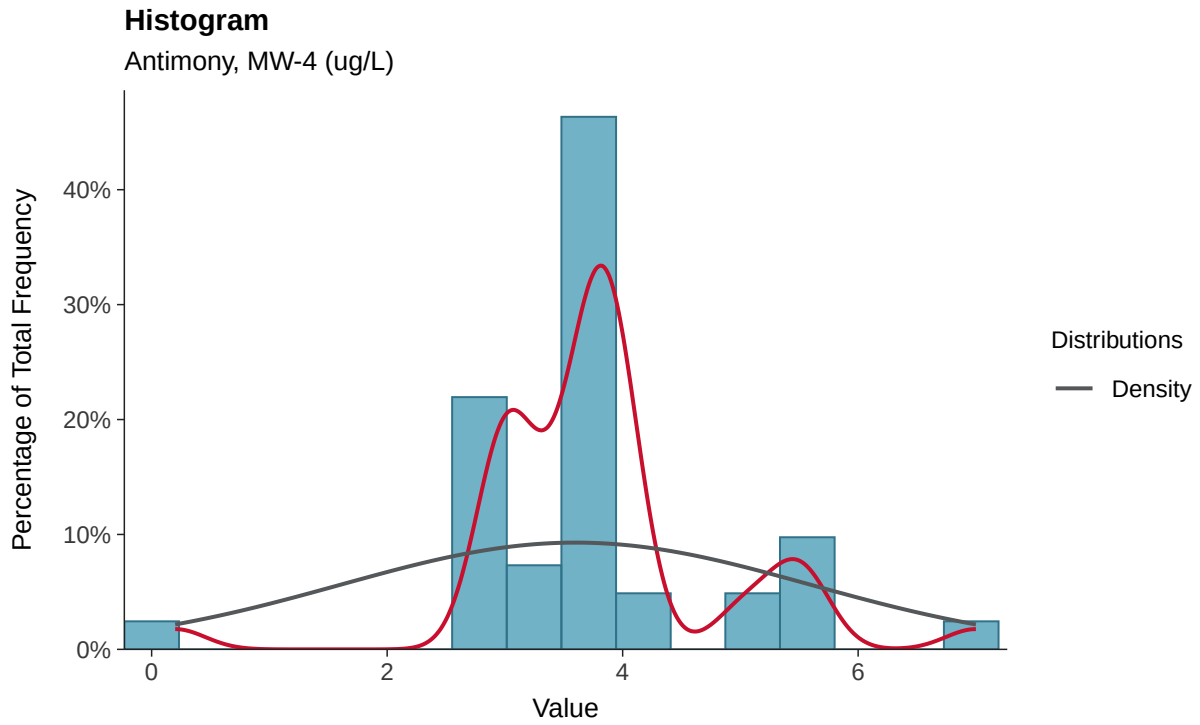
Total Dissolved Solids, MW-4 (mg/L)



App. IV: Antimony, MW-4

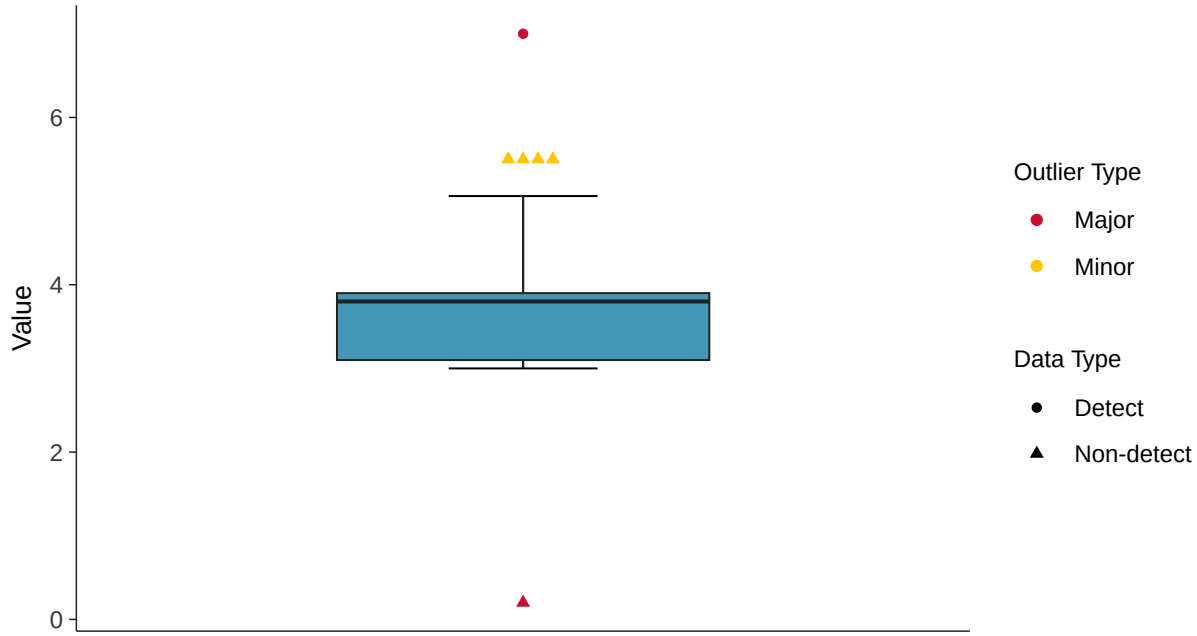
ID: 04_3_101





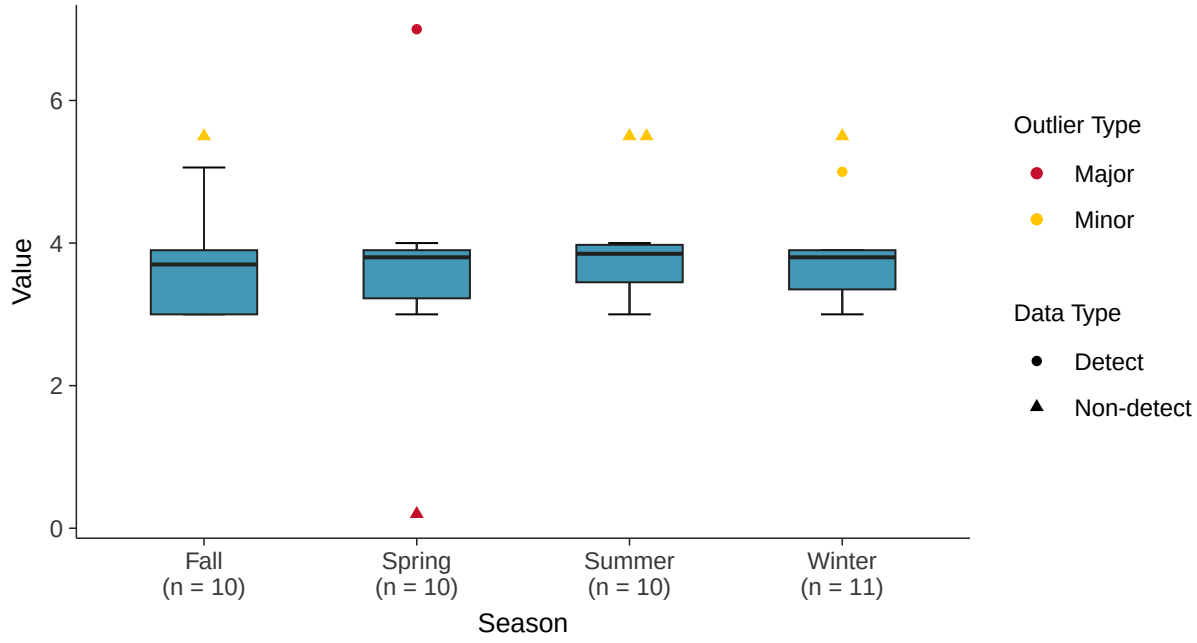
Boxplot

Antimony, MW-4 (ug/L)



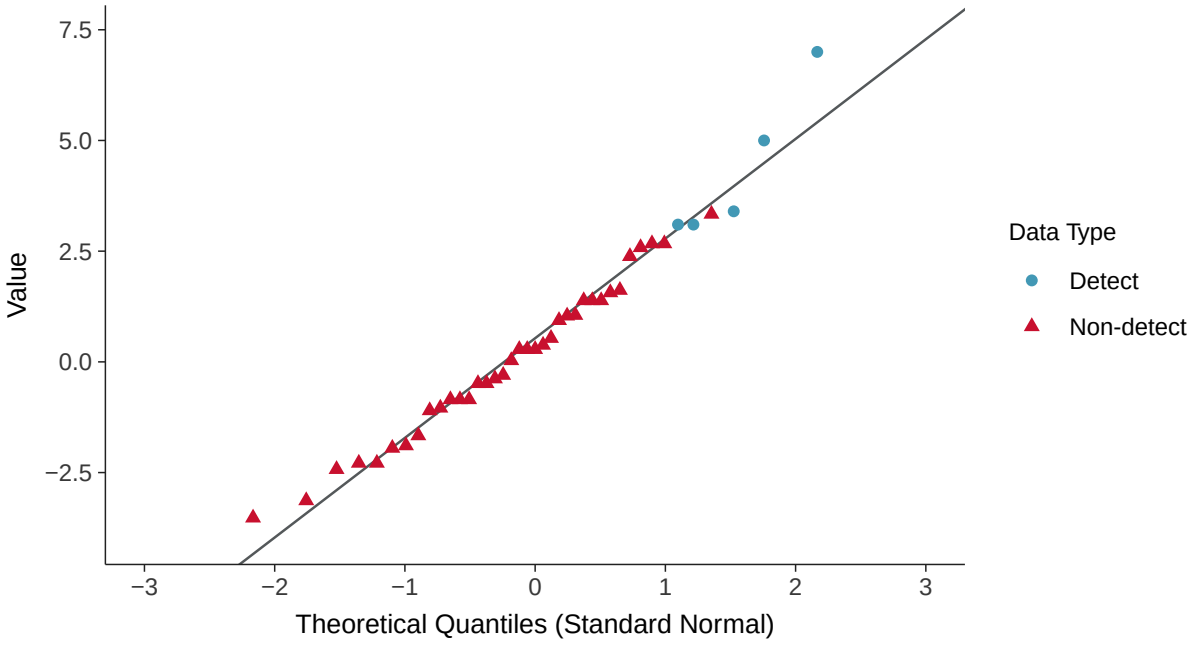
Boxplot by Season

Antimony, MW-4 (ug/L)



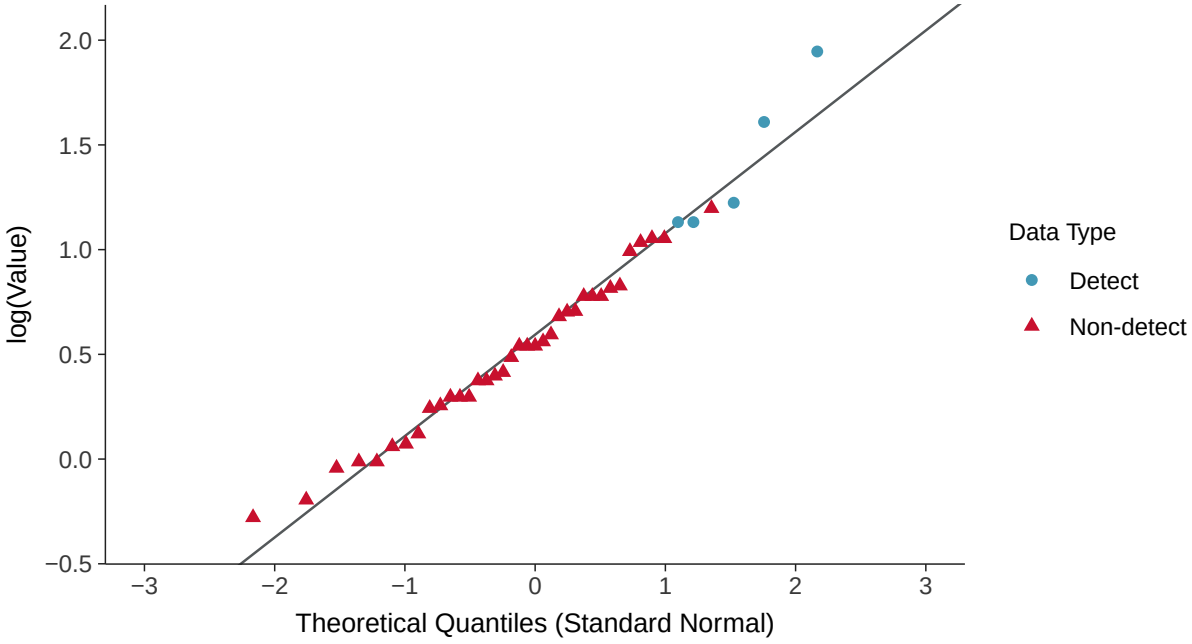
Normal Q-Q plot using ROS Imputed Estimates

Antimony, MW-4 (ug/L)



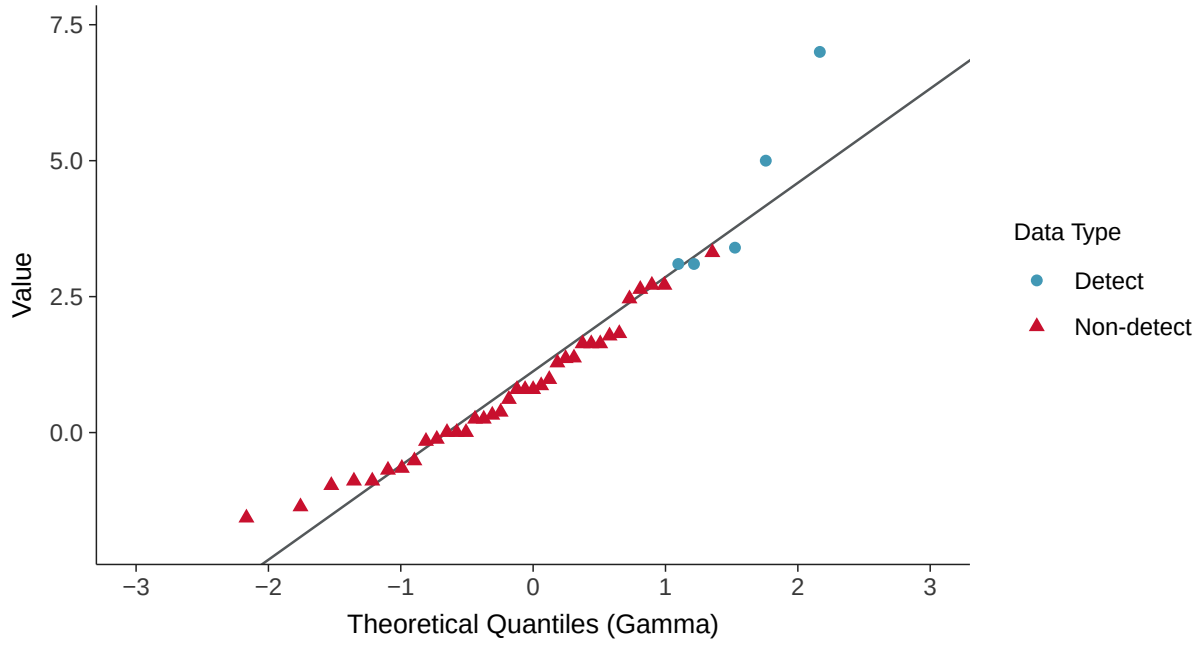
Lognormal Q-Q plot using ROS Imputed Estimates

Antimony, MW-4 (ug/L)



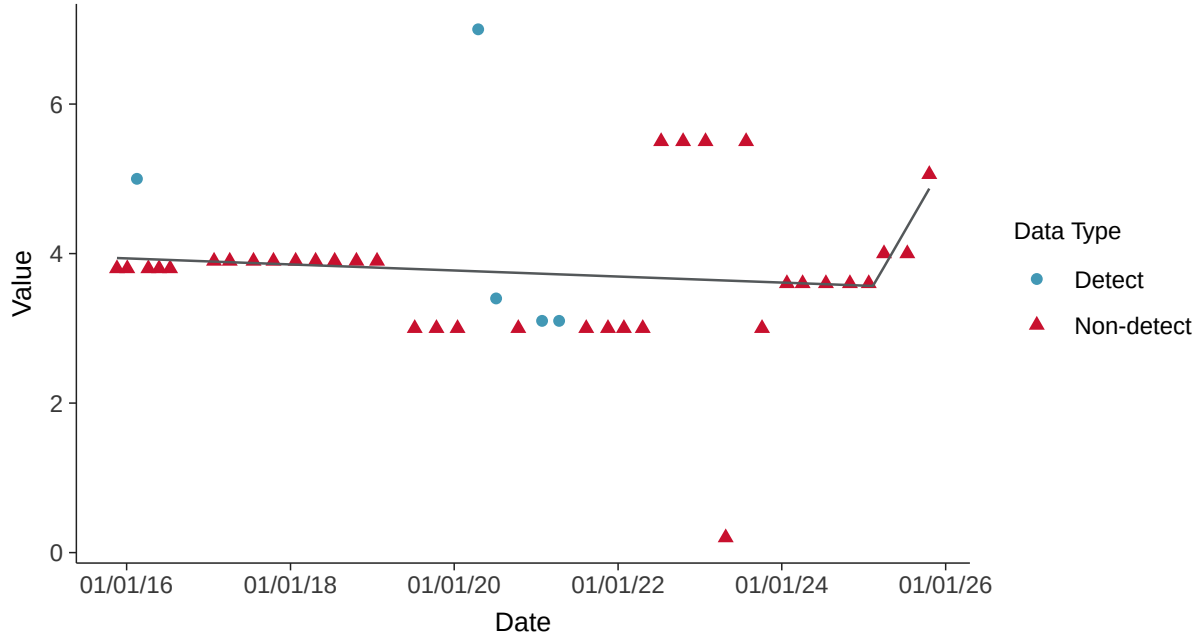
Gamma Q-Q plot using ROS Imputed Estimates

Antimony, MW-4 (ug/L)



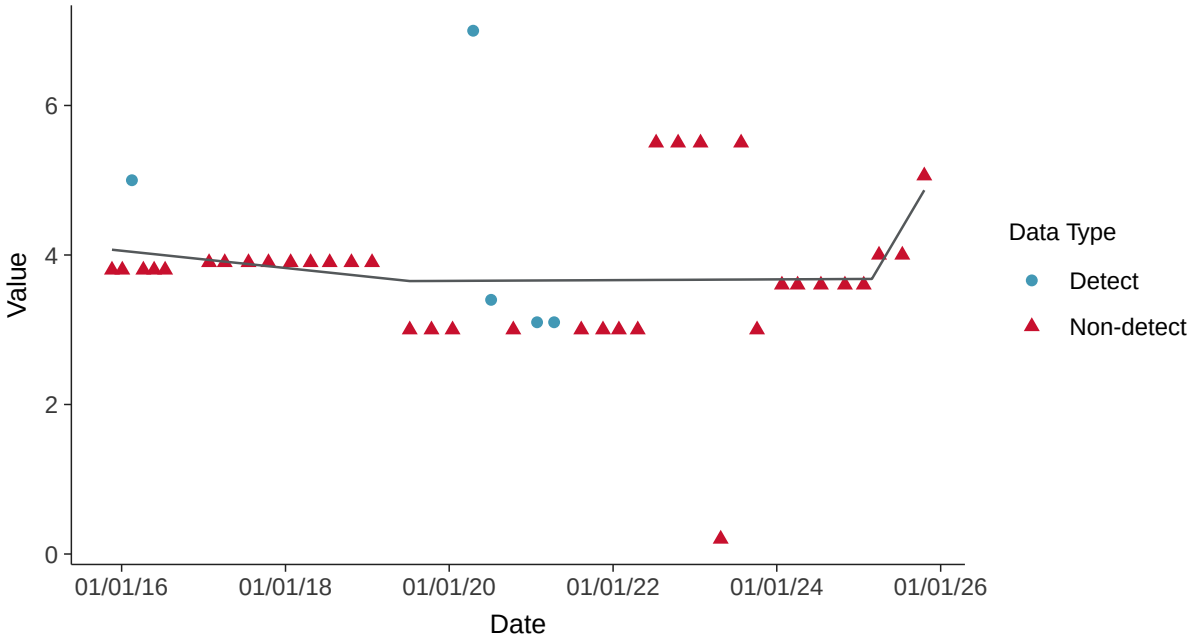
Trend Regression: Piecewise Linear-Linear

Antimony, MW-4 (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Antimony, MW-4 (ug/L)

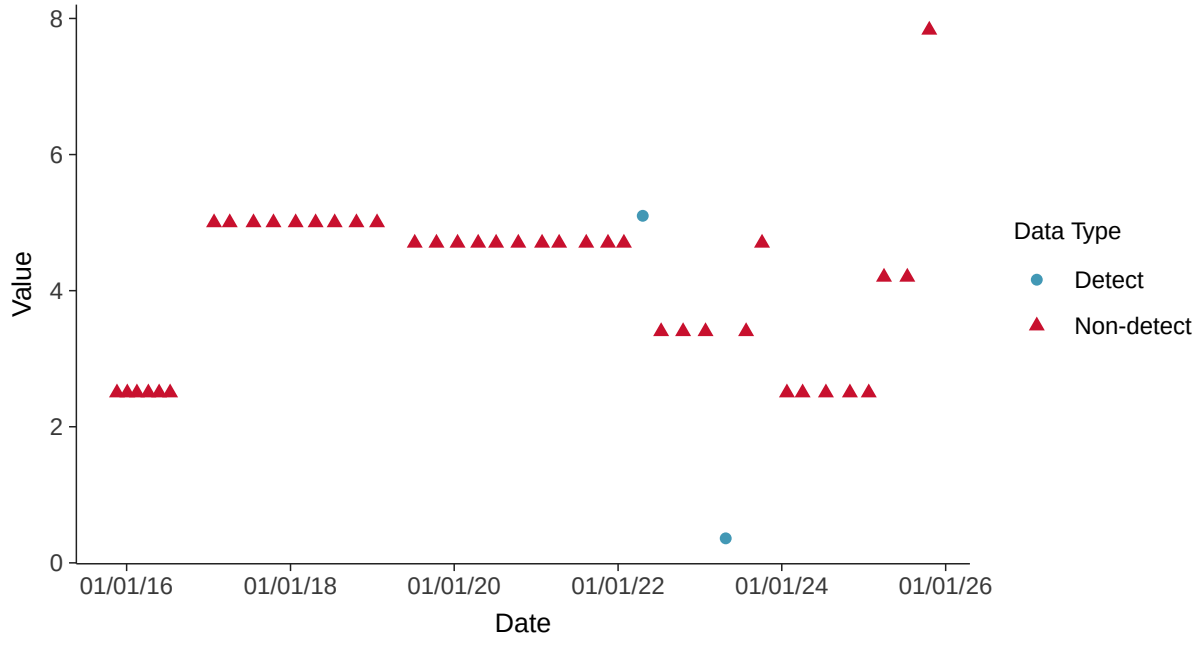


App. IV: Arsenic, MW-4

ID: 04_3_102

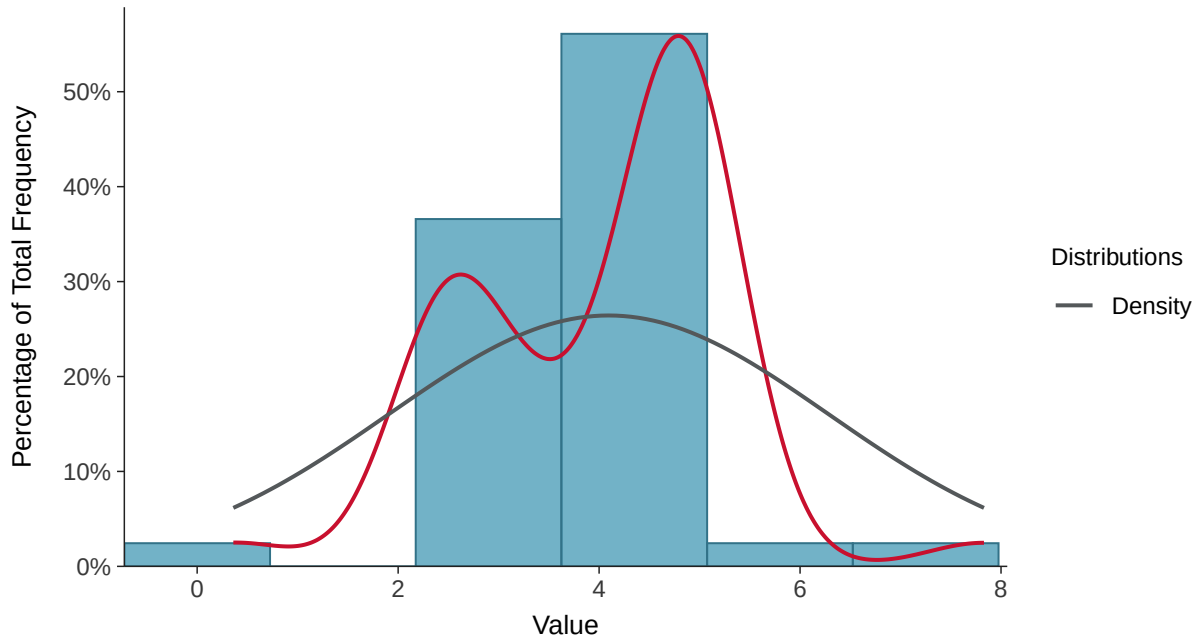
Scatter Plot

Arsenic, MW-4 (ug/L)



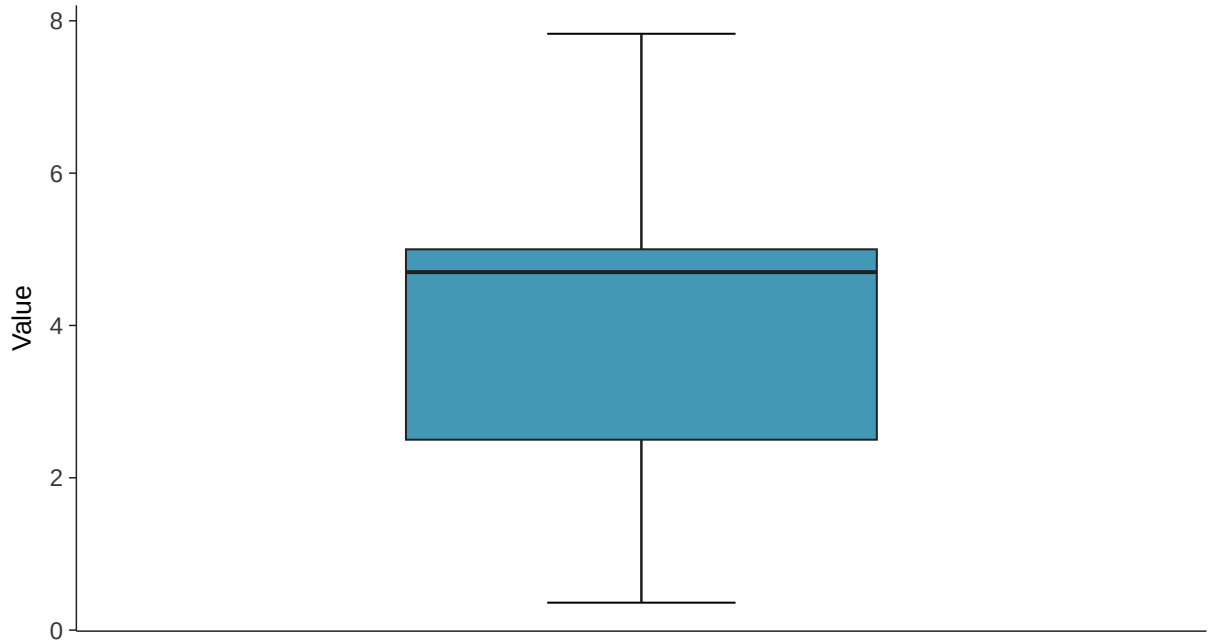
Histogram

Arsenic, MW-4 (ug/L)



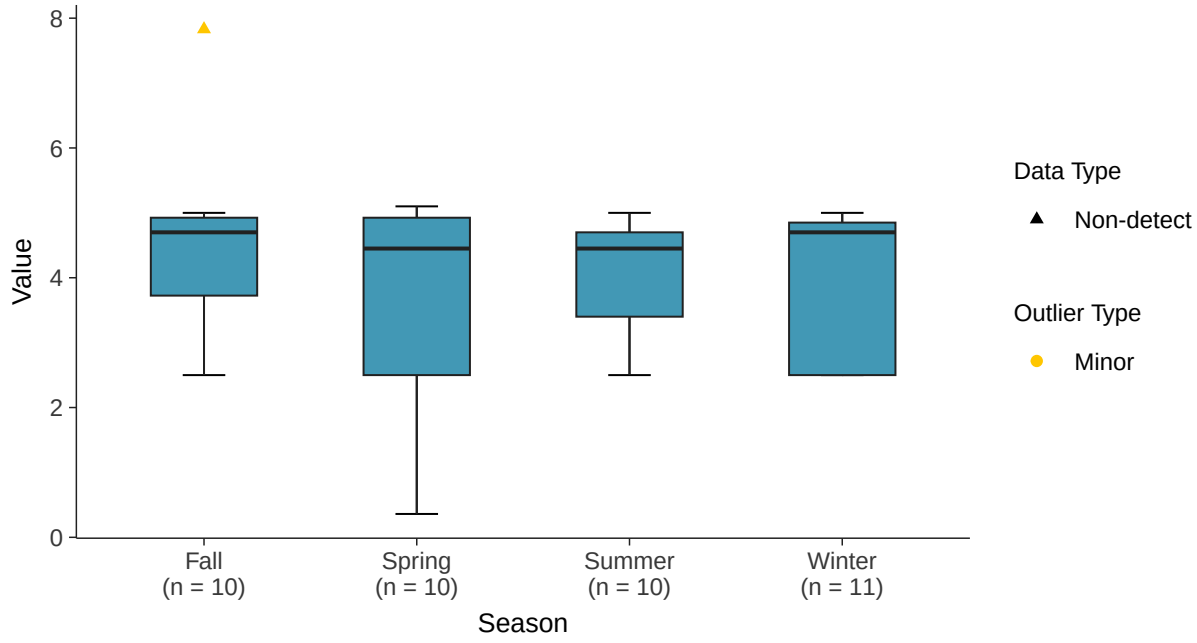
Boxplot

Arsenic, MW-4 (ug/L)



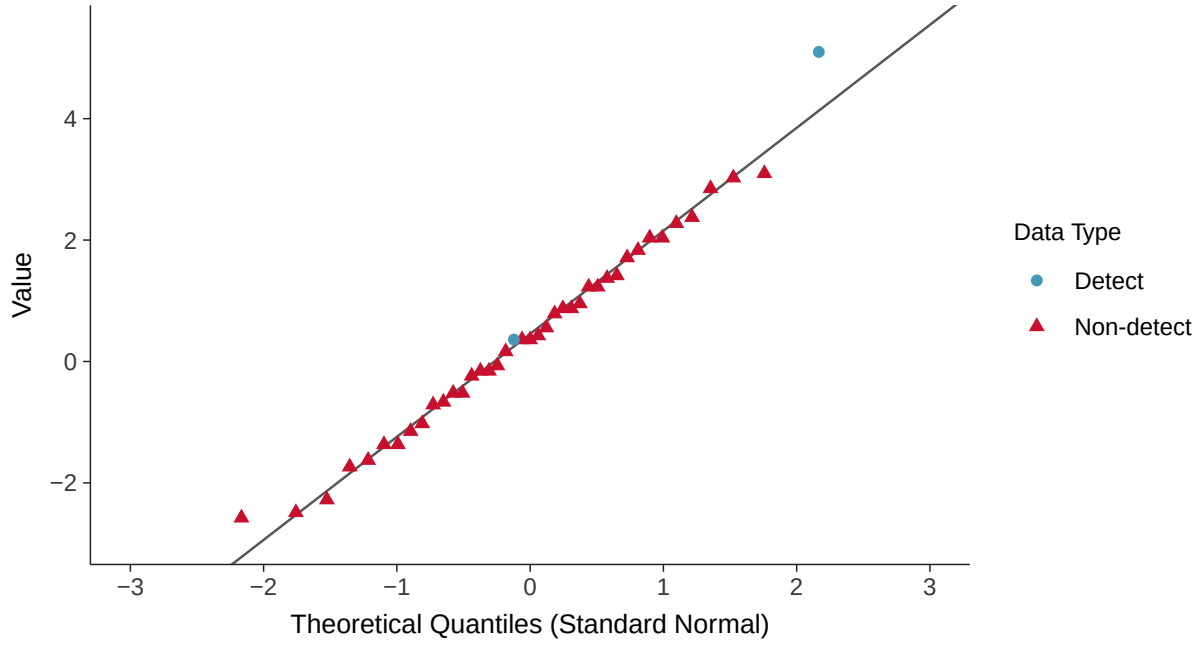
Boxplot by Season

Arsenic, MW-4 (ug/L)



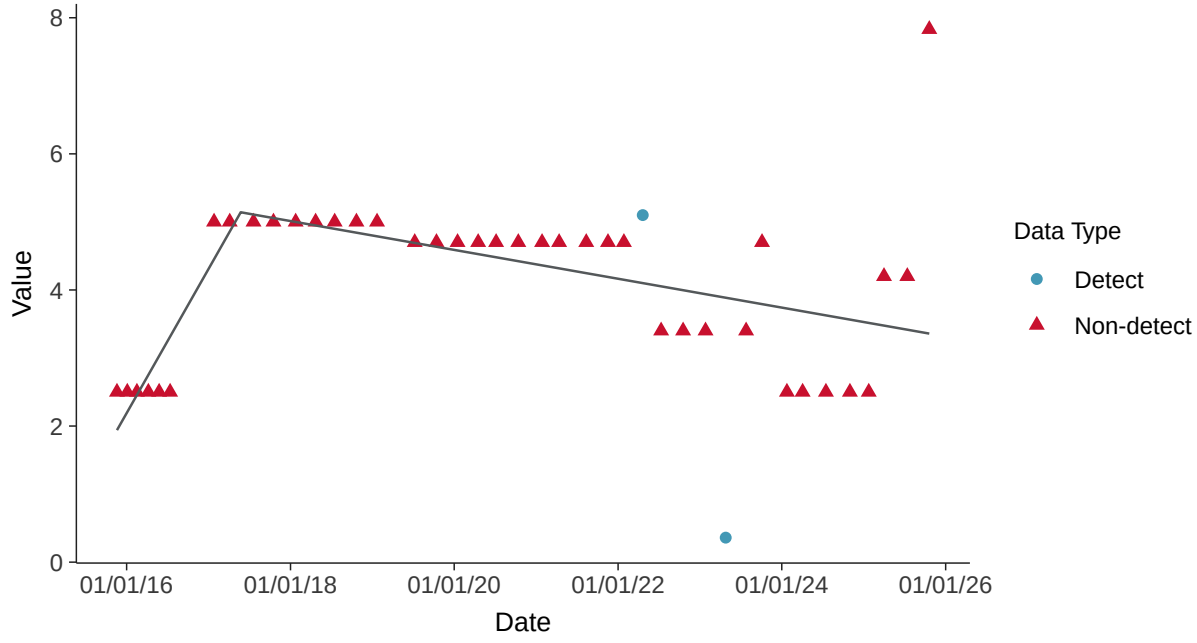
Normal Q-Q plot using ROS Imputed Estimates

Arsenic, MW-4 (ug/L)



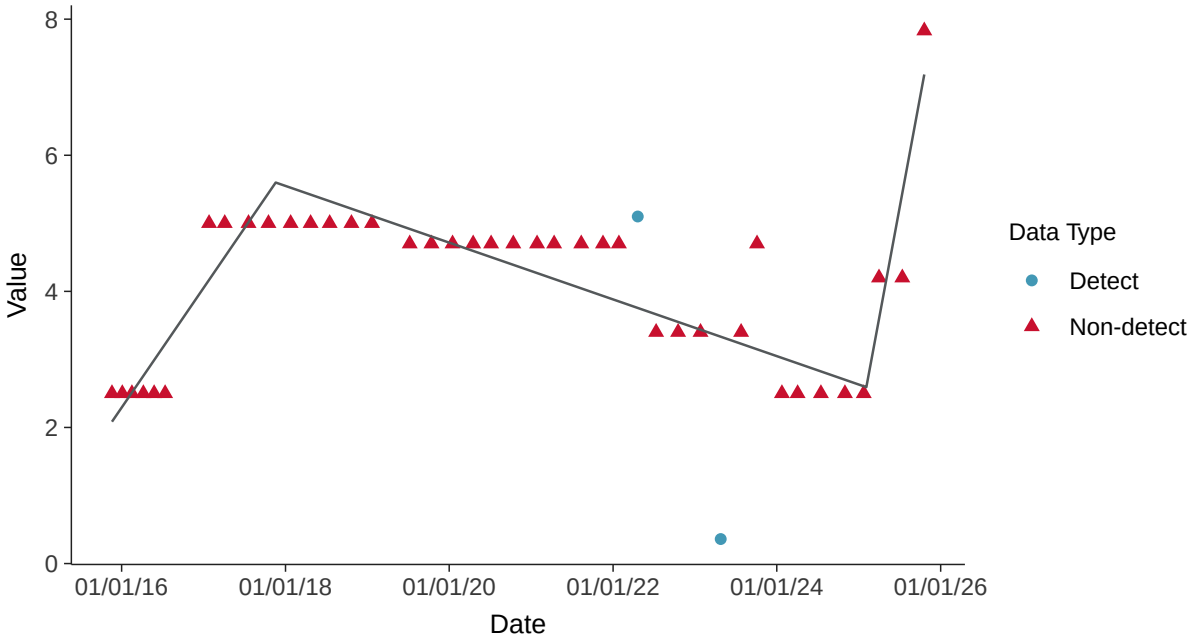
Trend Regression: Piecewise Linear-Linear

Arsenic, MW-4 (ug/L)



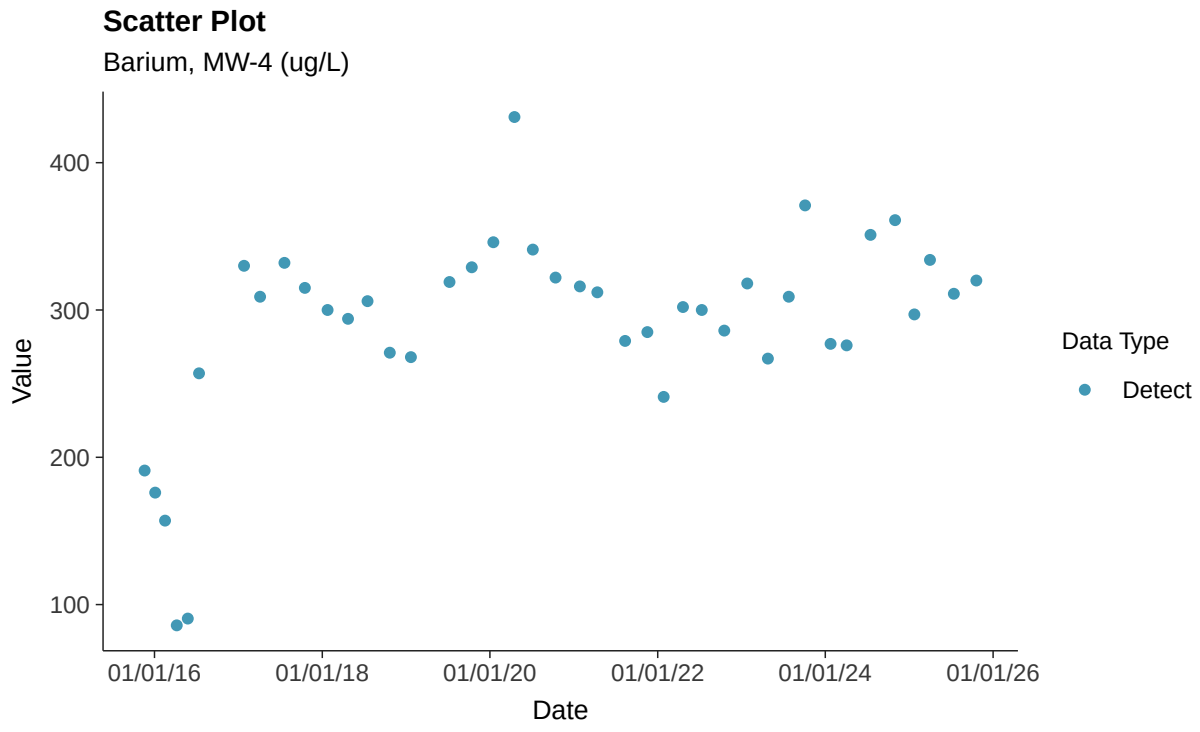
Trend Regression: Piecewise Linear-Linear-Linear

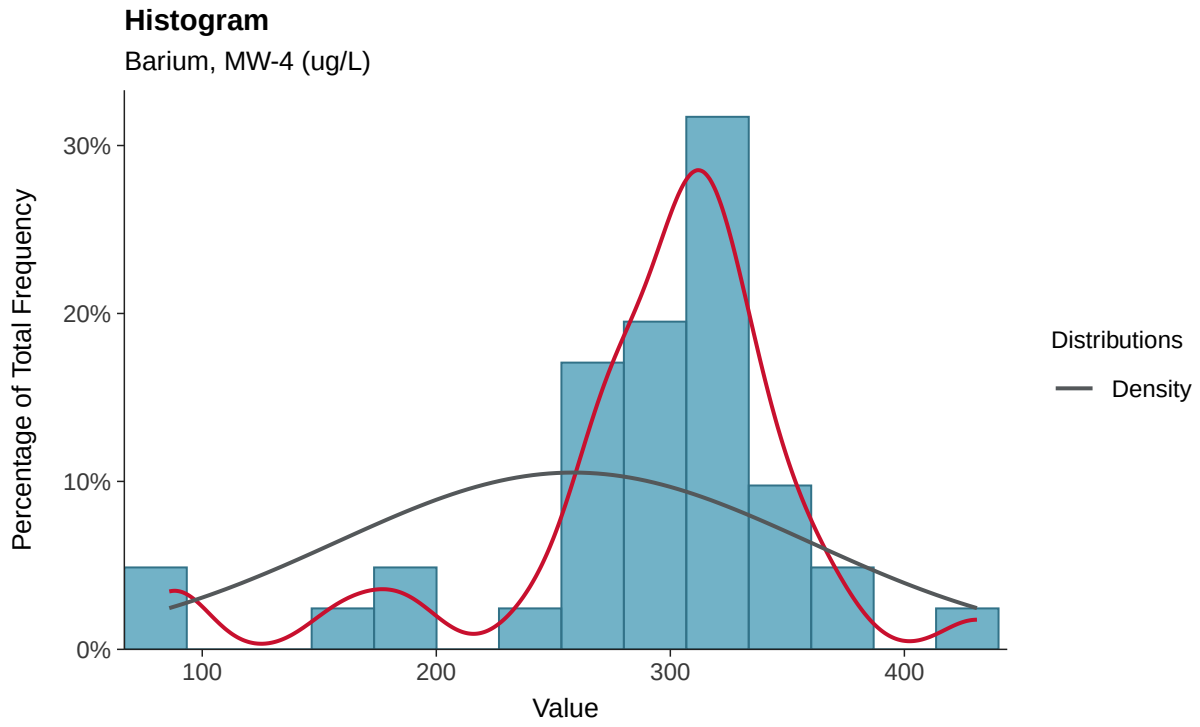
Arsenic, MW-4 (ug/L)



App. IV: Barium, MW-4

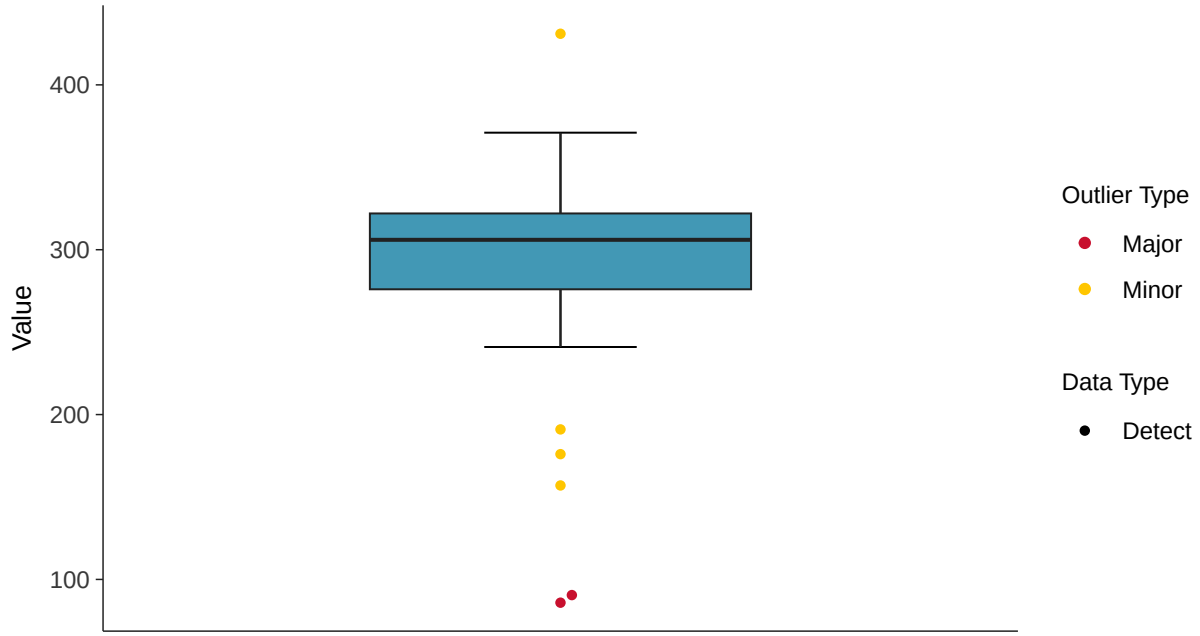
ID: 04_3_103





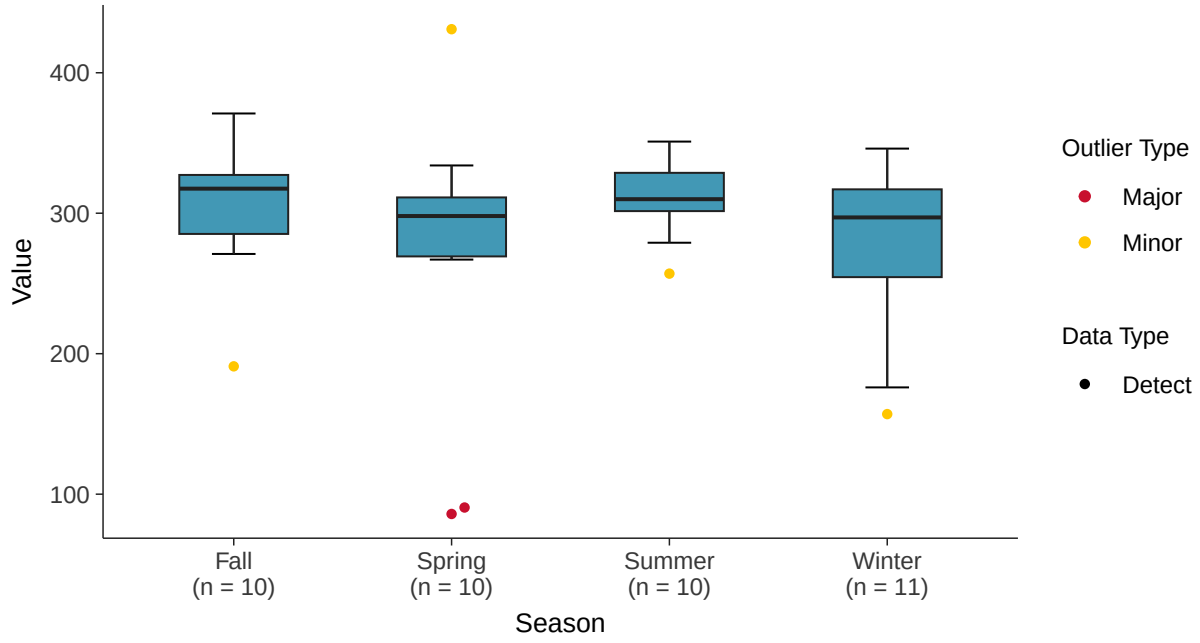
Boxplot

Barium, MW-4 (ug/L)



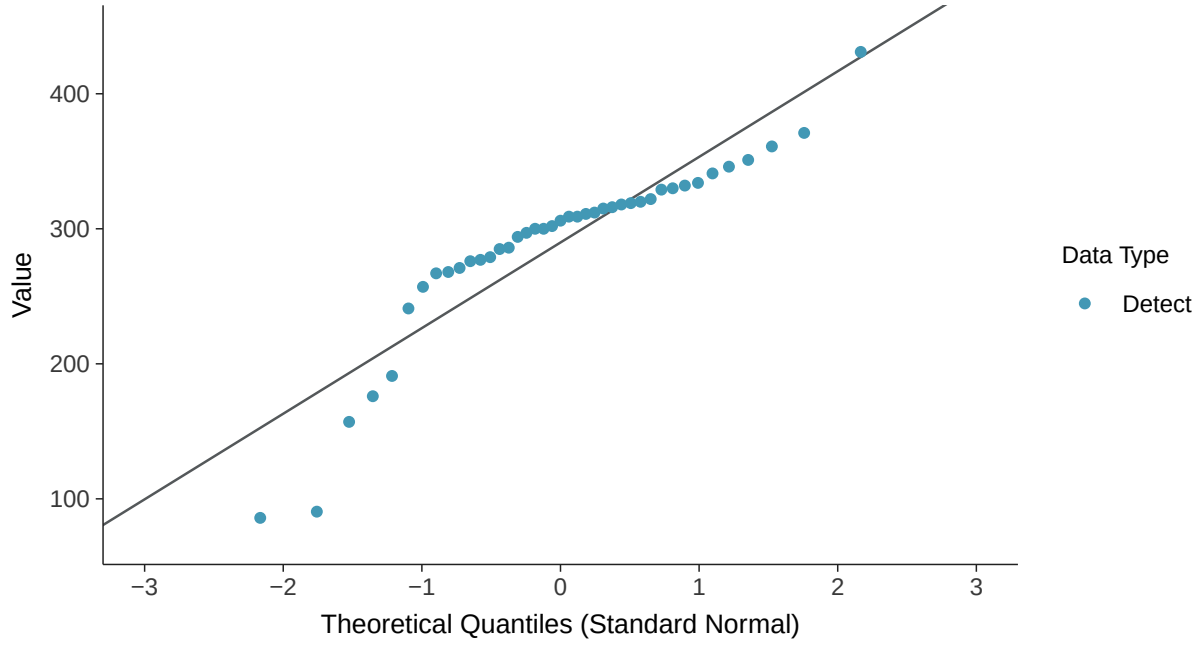
Boxplot by Season

Barium, MW-4 (ug/L)



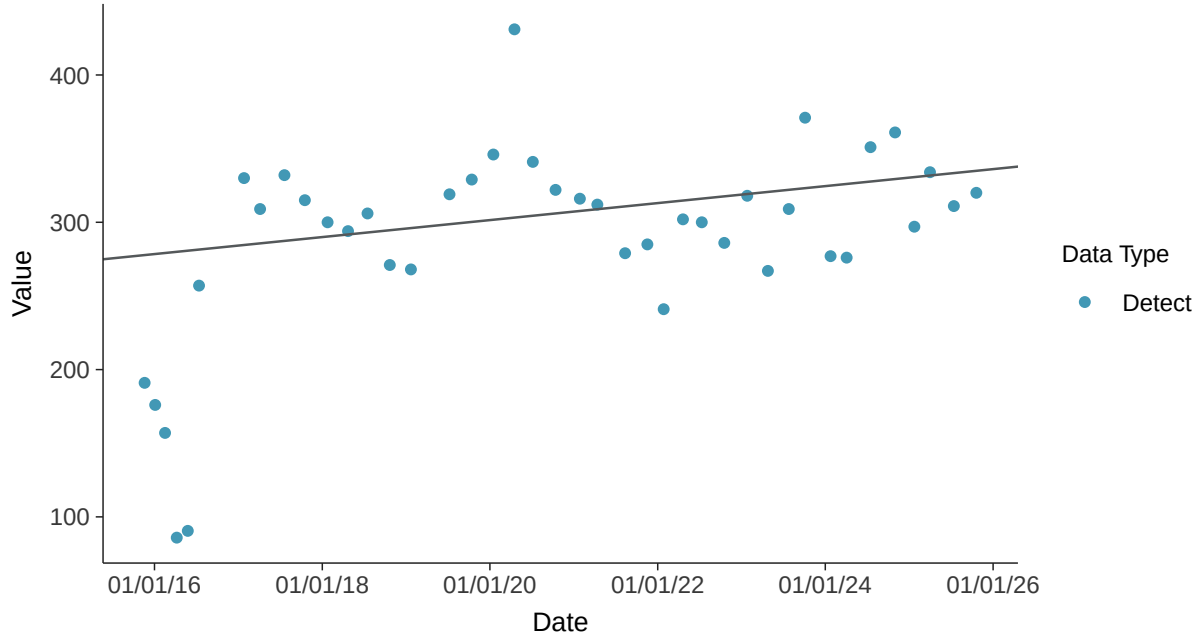
Normal Q-Q plot

Barium, MW-4 (ug/L)



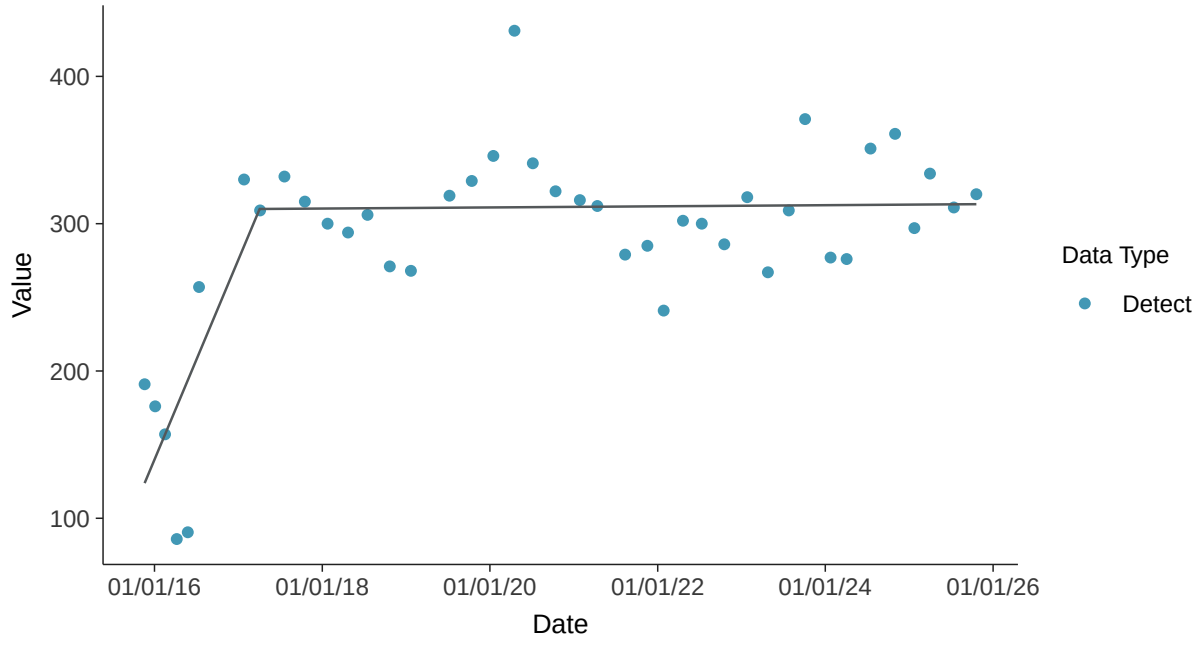
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Barium, MW-4 (ug/L)



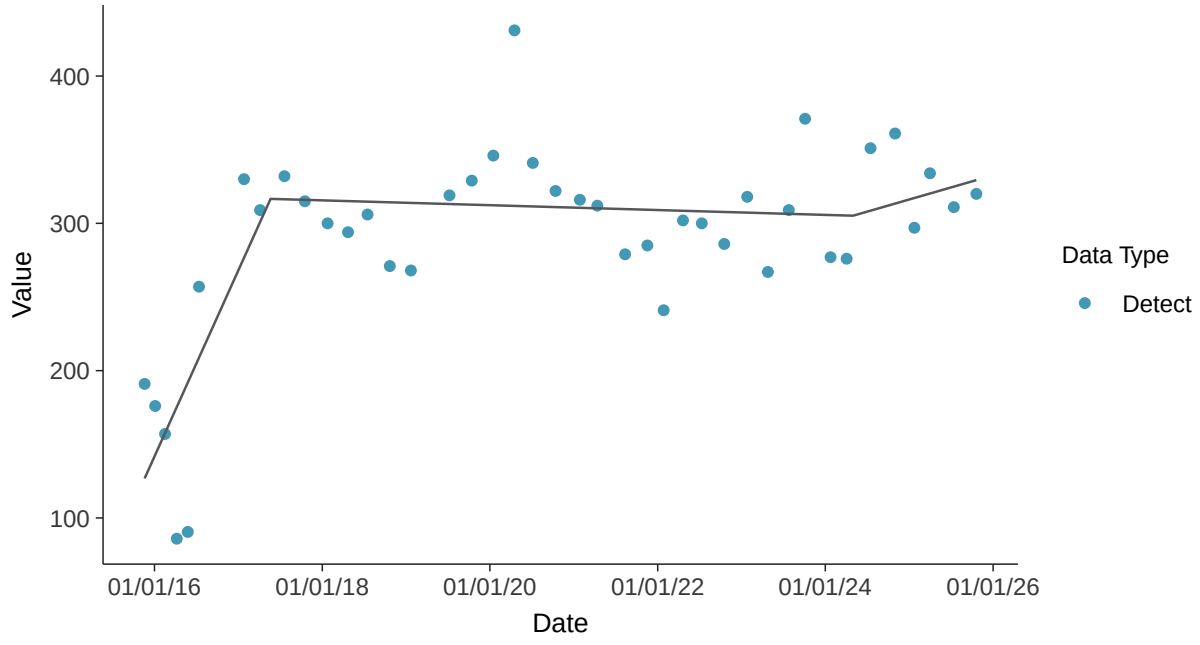
Trend Regression: Piecewise Linear-Linear

Barium, MW-4 (ug/L)



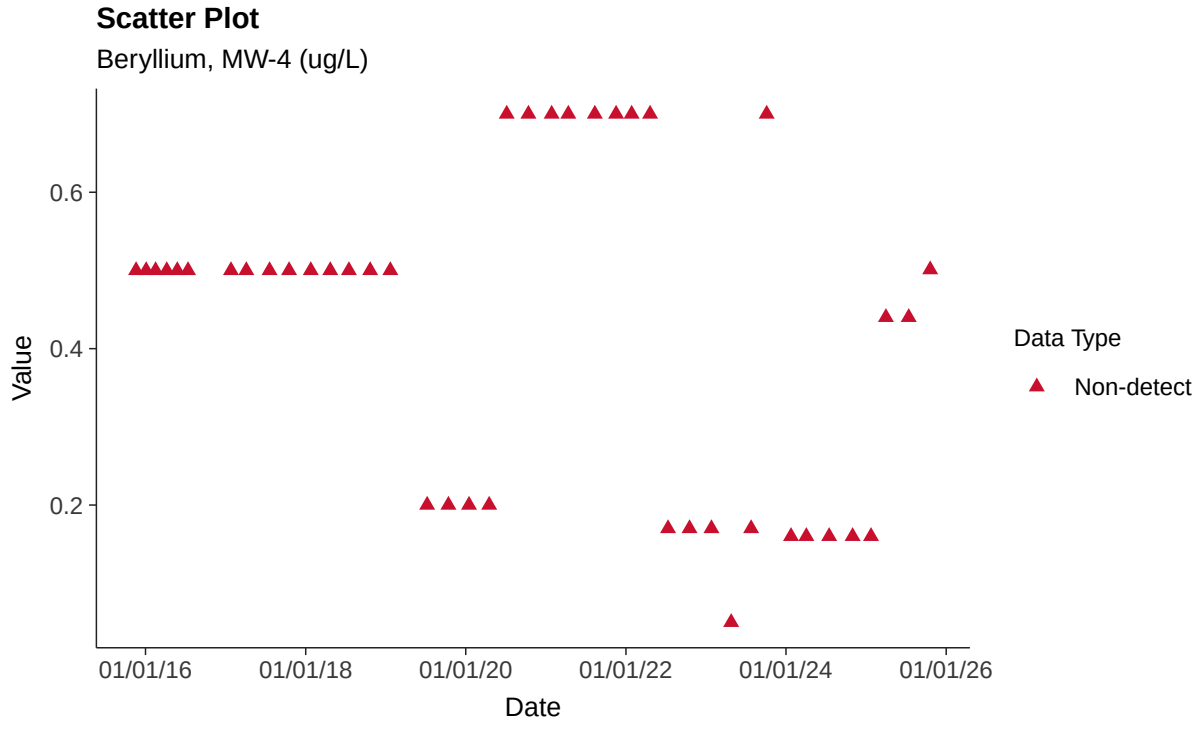
Trend Regression: Piecewise Linear-Linear-Linear

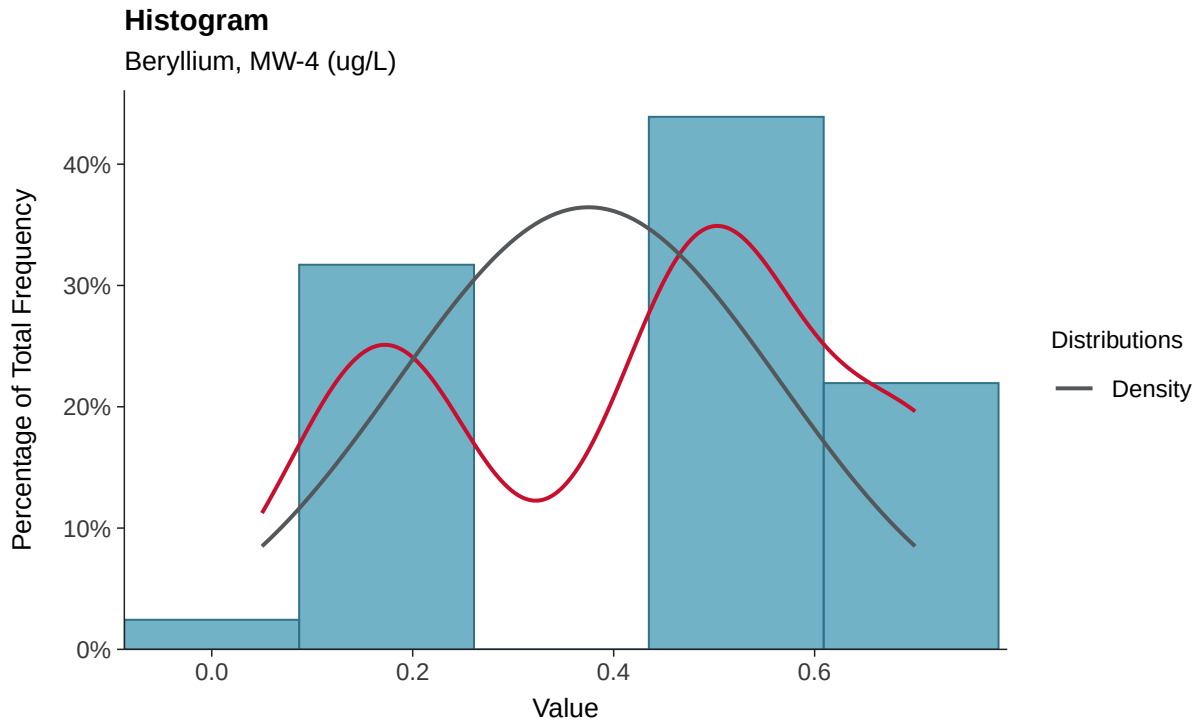
Barium, MW-4 (ug/L)



App. IV: Beryllium, MW-4

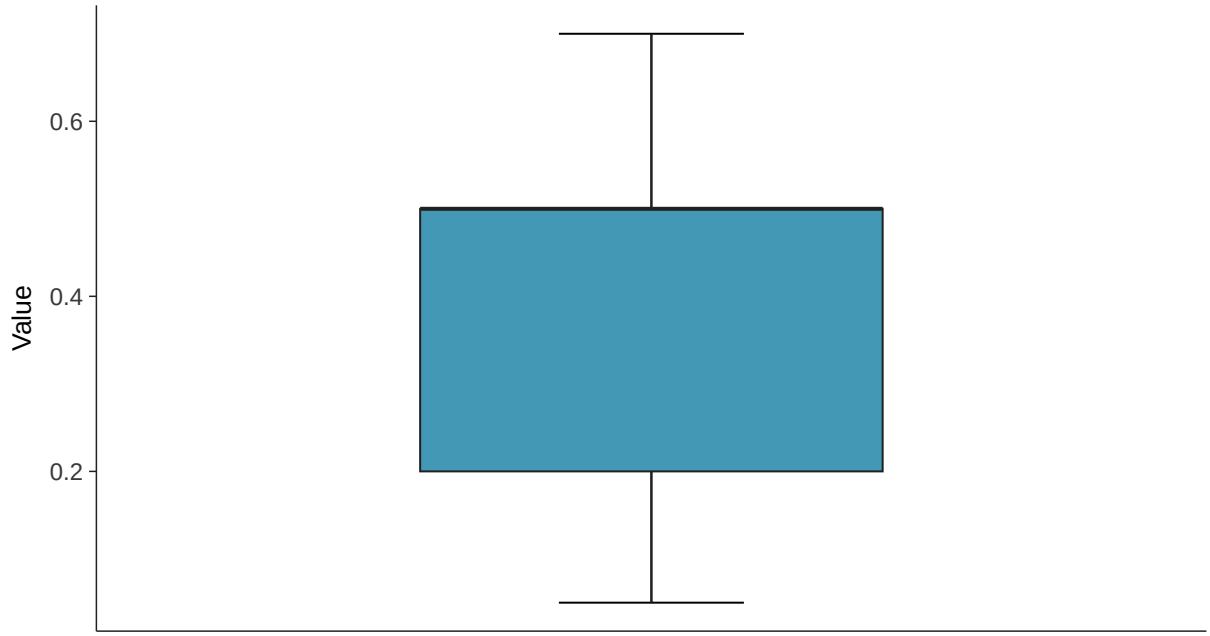
ID: 04_3_104





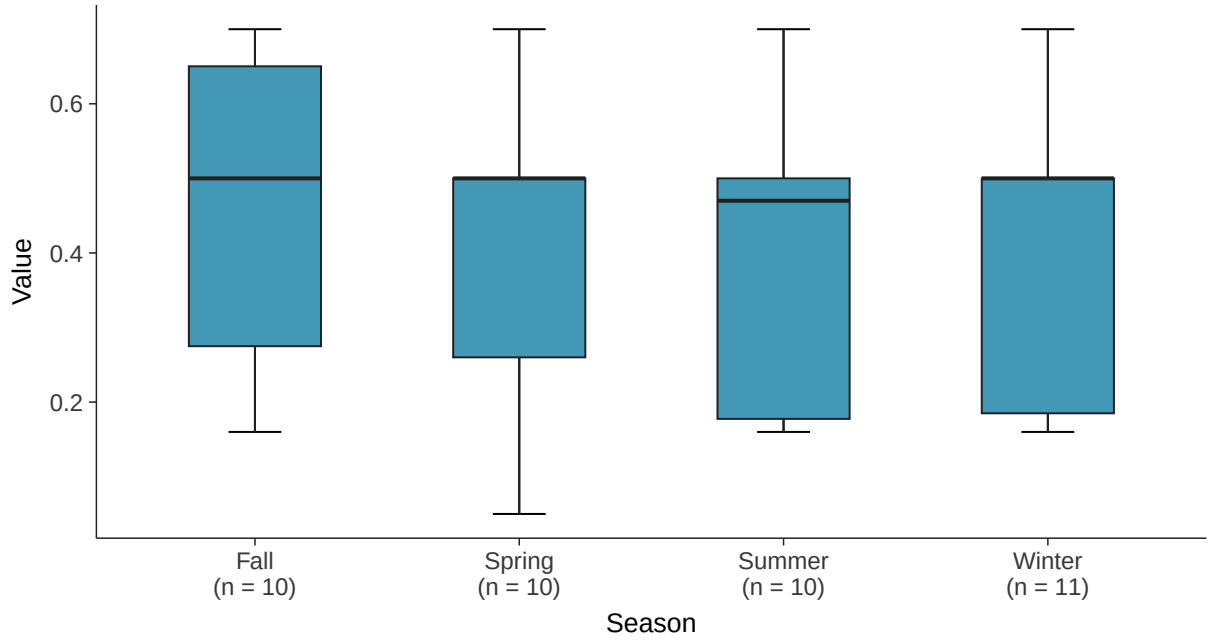
Boxplot

Beryllium, MW-4 (ug/L)



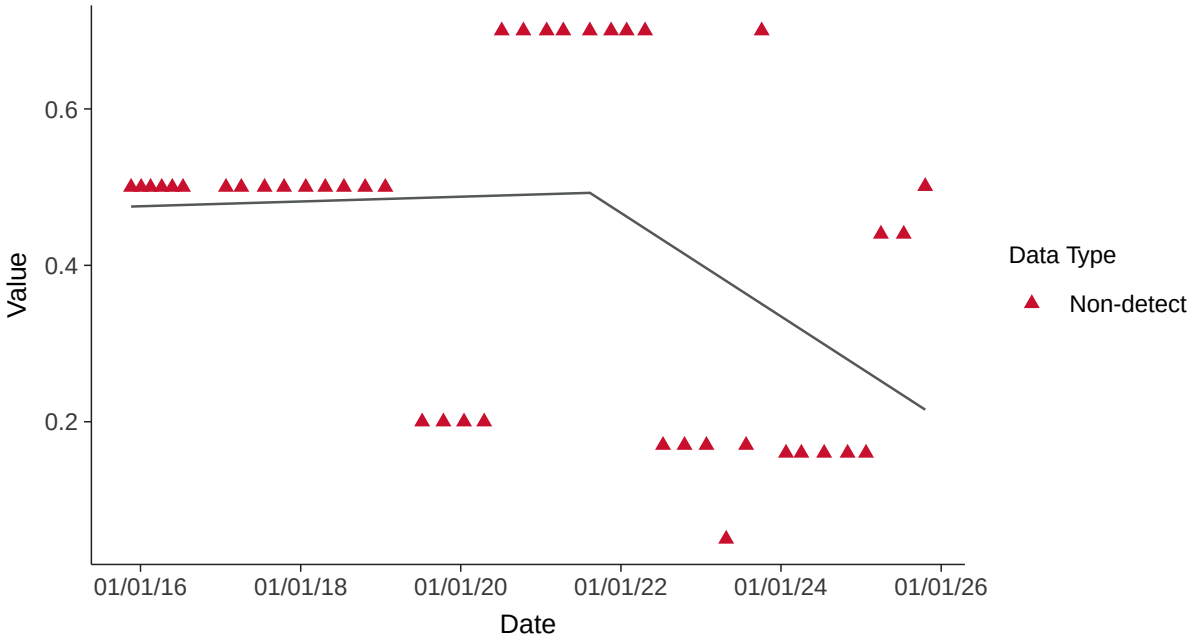
Boxplot by Season

Beryllium, MW-4 (ug/L)



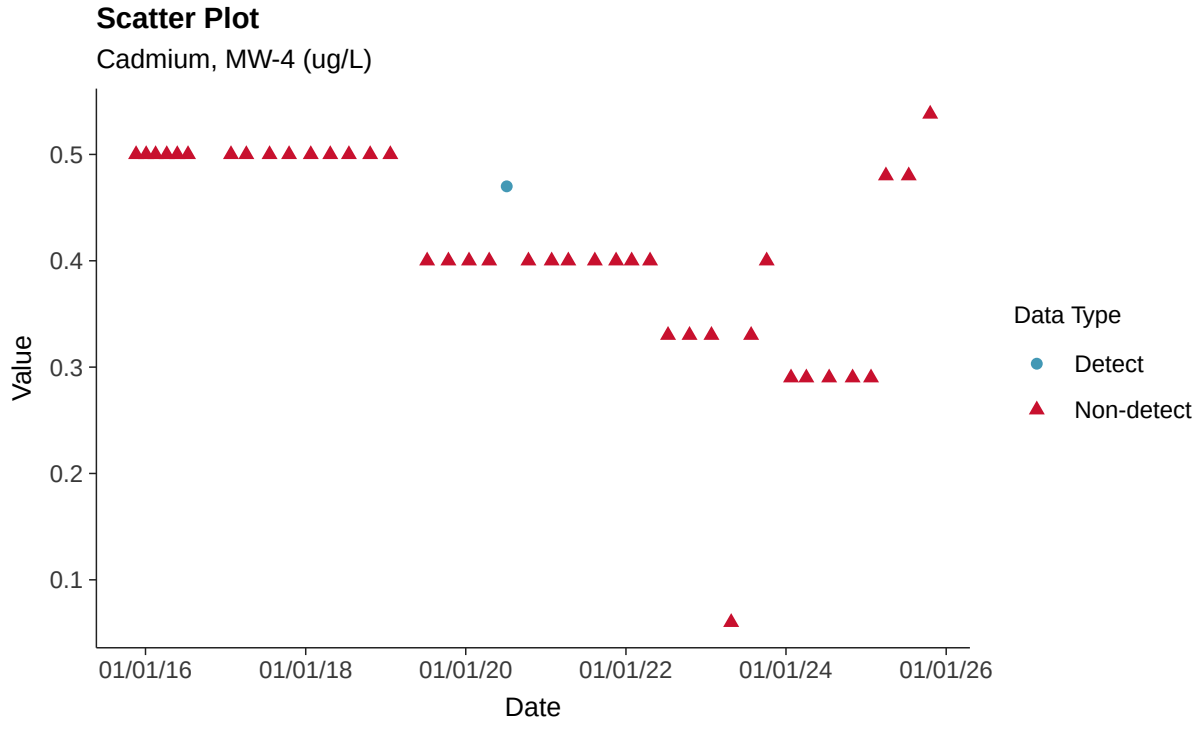
Trend Regression: Piecewise Linear-Linear

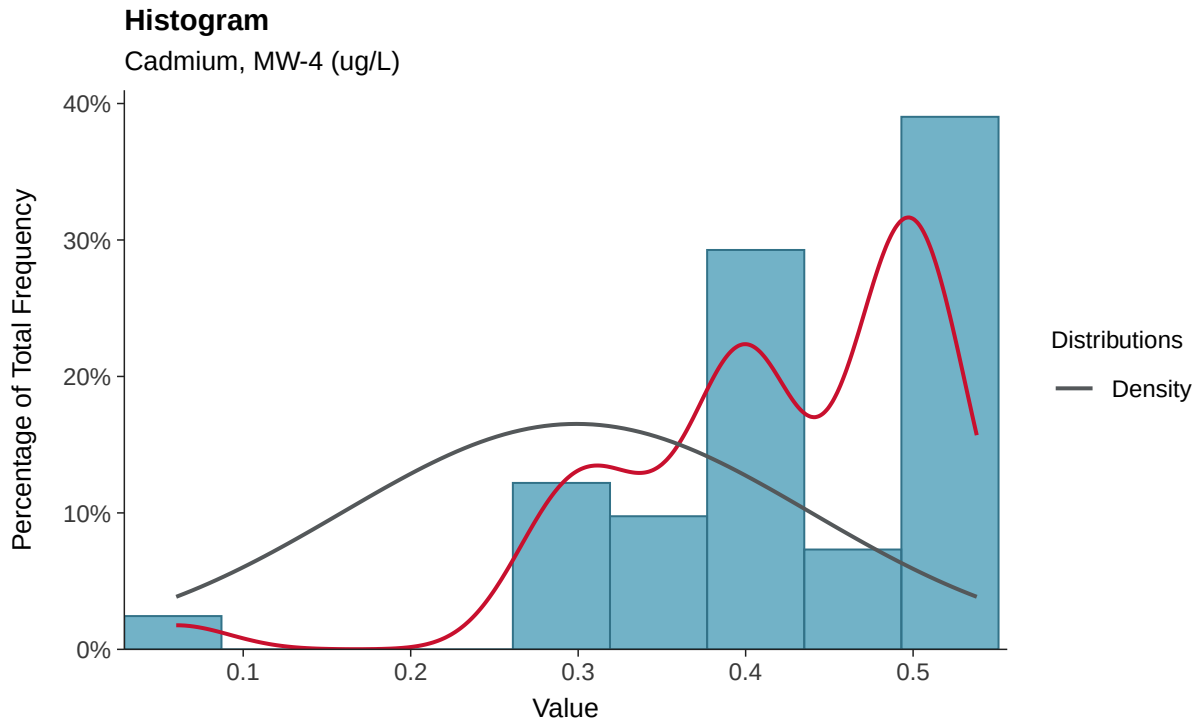
Beryllium, MW-4 (ug/L)



App. IV: Cadmium, MW-4

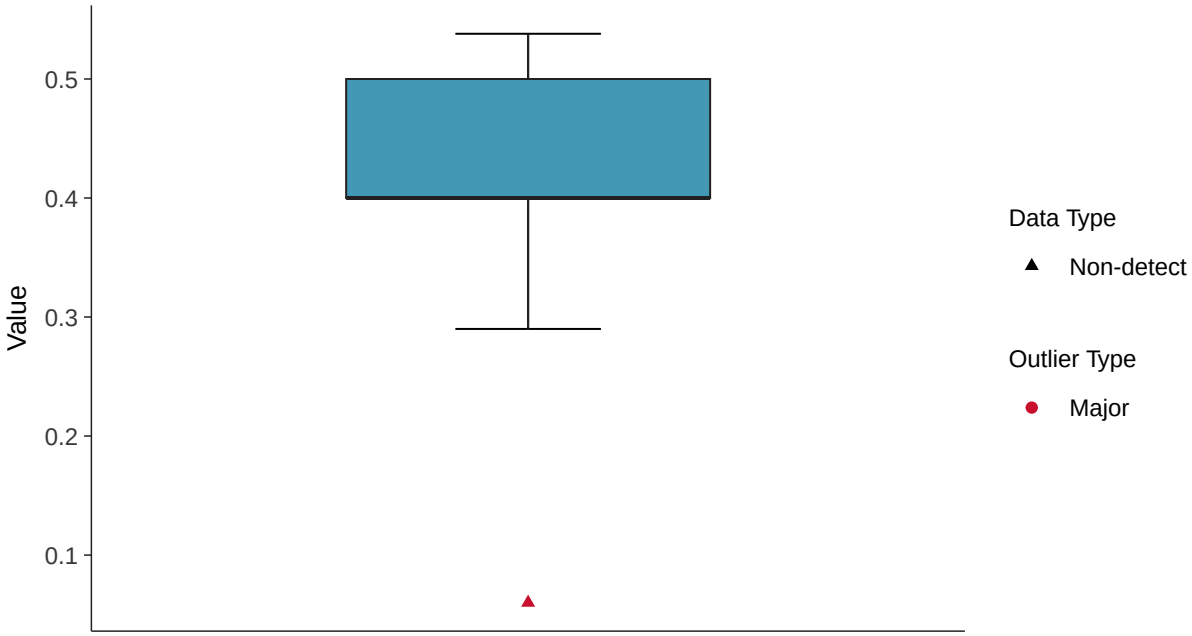
ID: 04_3_106





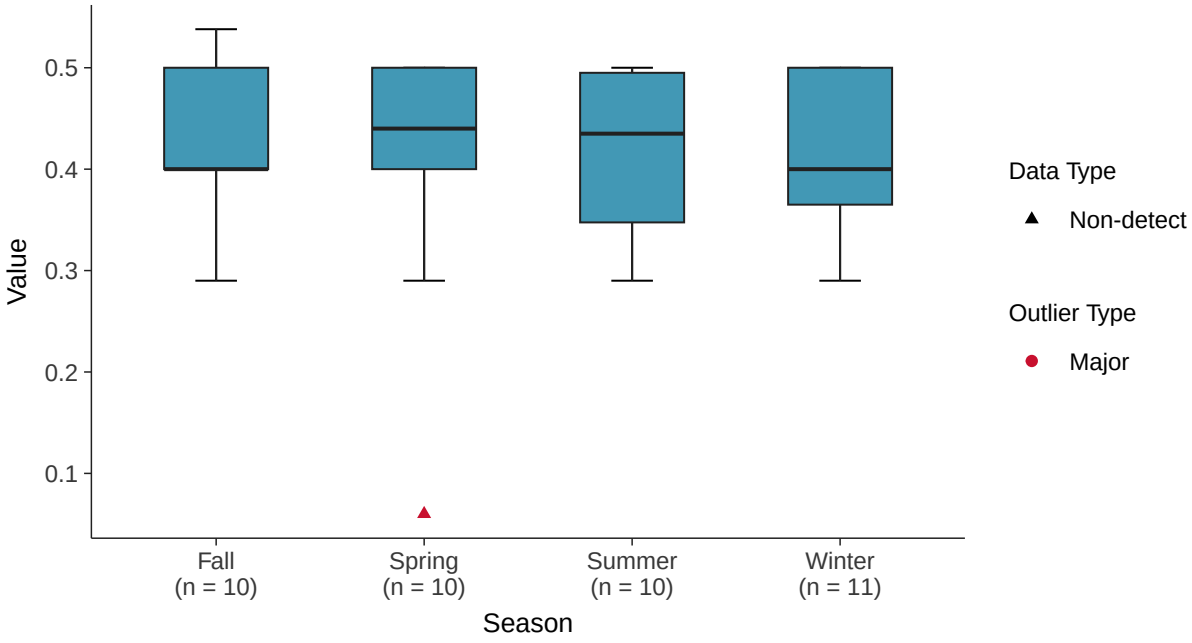
Boxplot

Cadmium, MW-4 (ug/L)



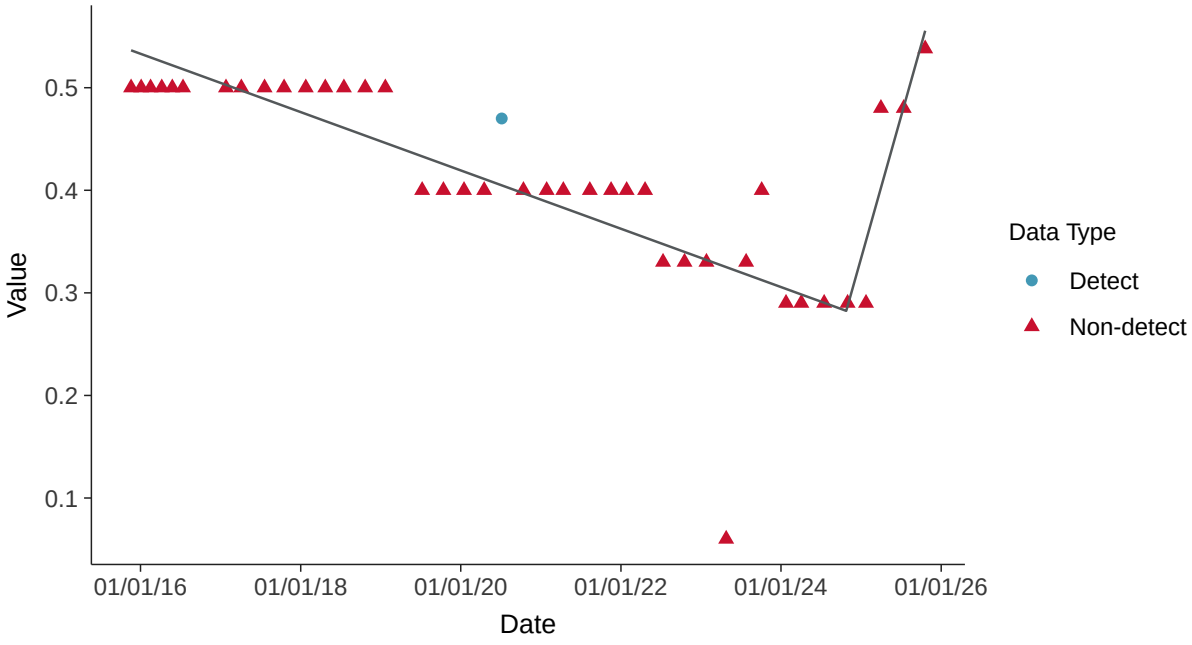
Boxplot by Season

Cadmium, MW-4 (ug/L)



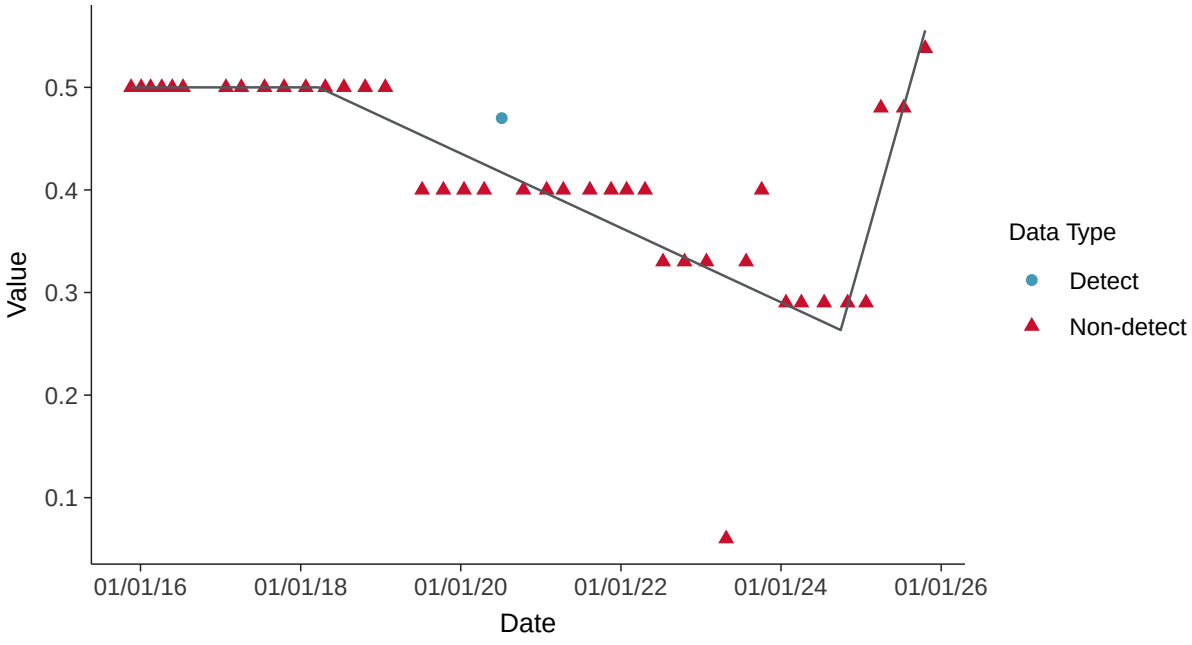
Trend Regression: Piecewise Linear-Linear

Cadmium, MW-4 (ug/L)



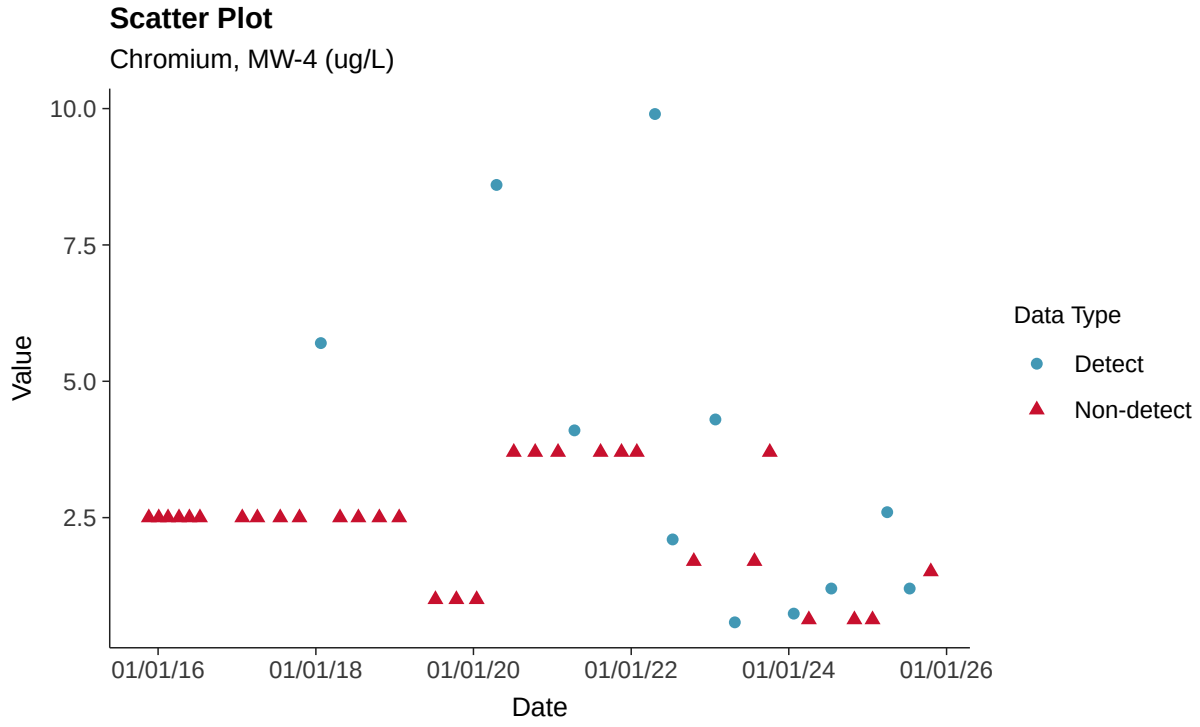
Trend Regression: Piecewise Linear-Linear-Linear

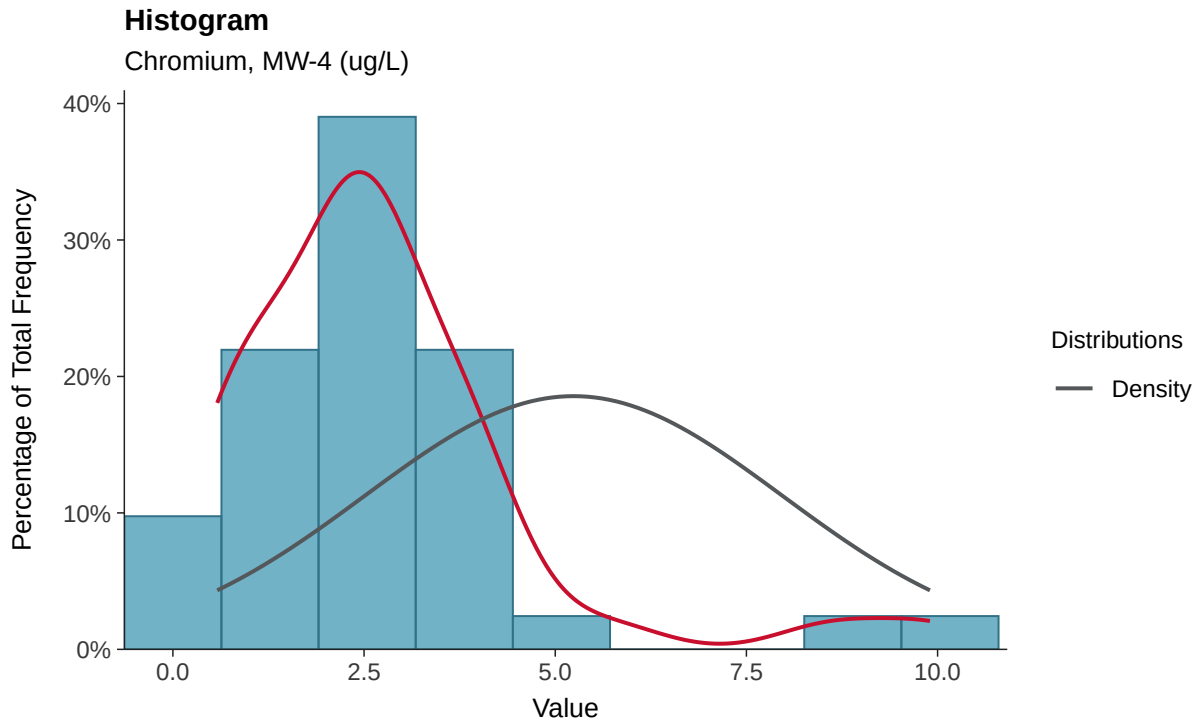
Cadmium, MW-4 (ug/L)



App. IV: Chromium, MW-4

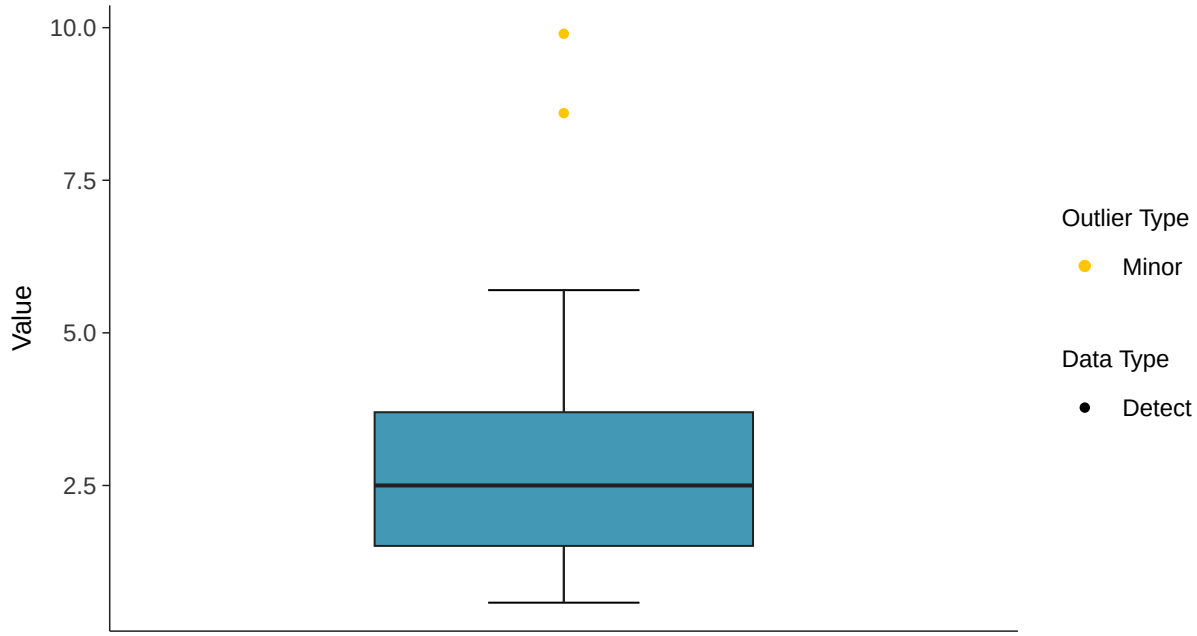
ID: 04_3_109





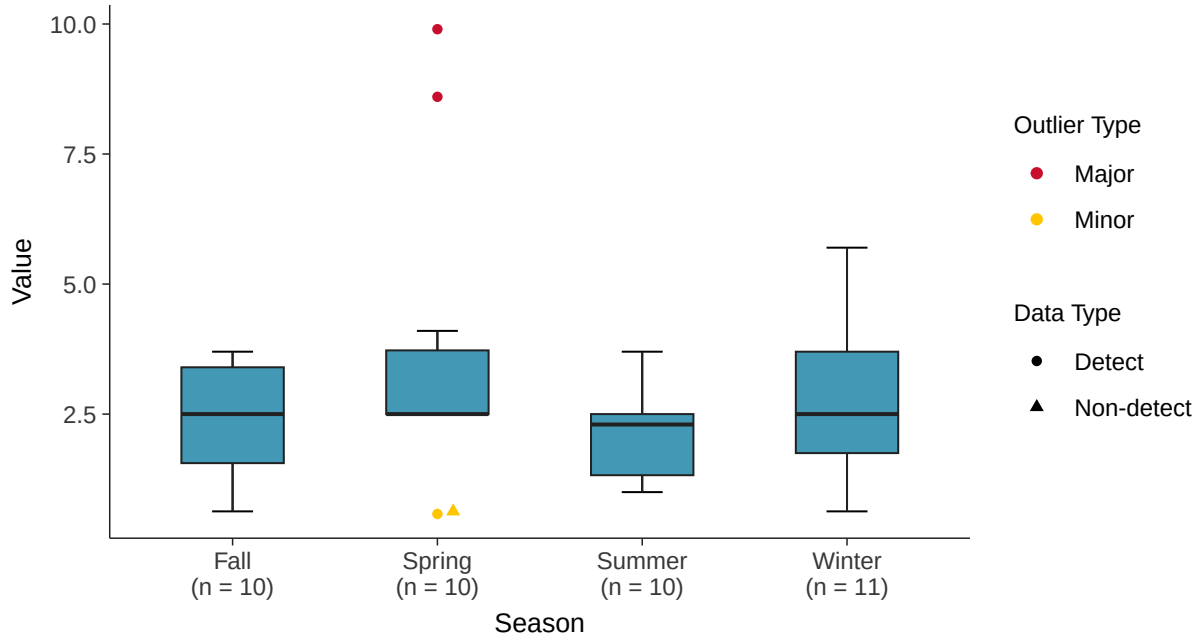
Boxplot

Chromium, MW-4 (ug/L)



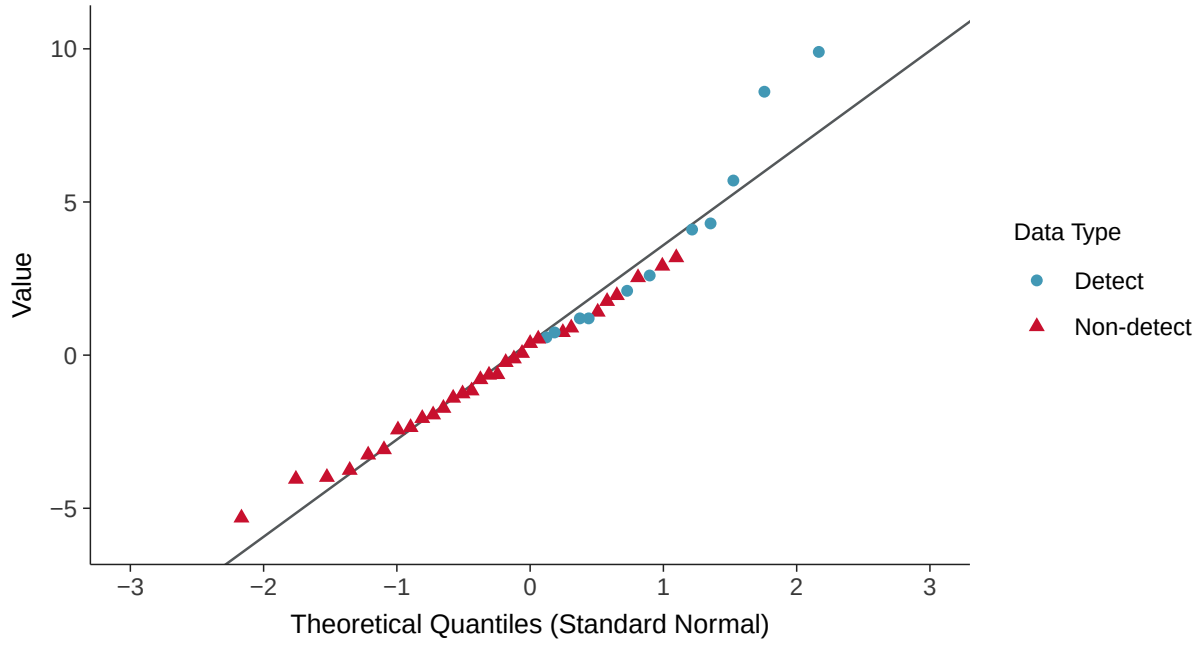
Boxplot by Season

Chromium, MW-4 (ug/L)



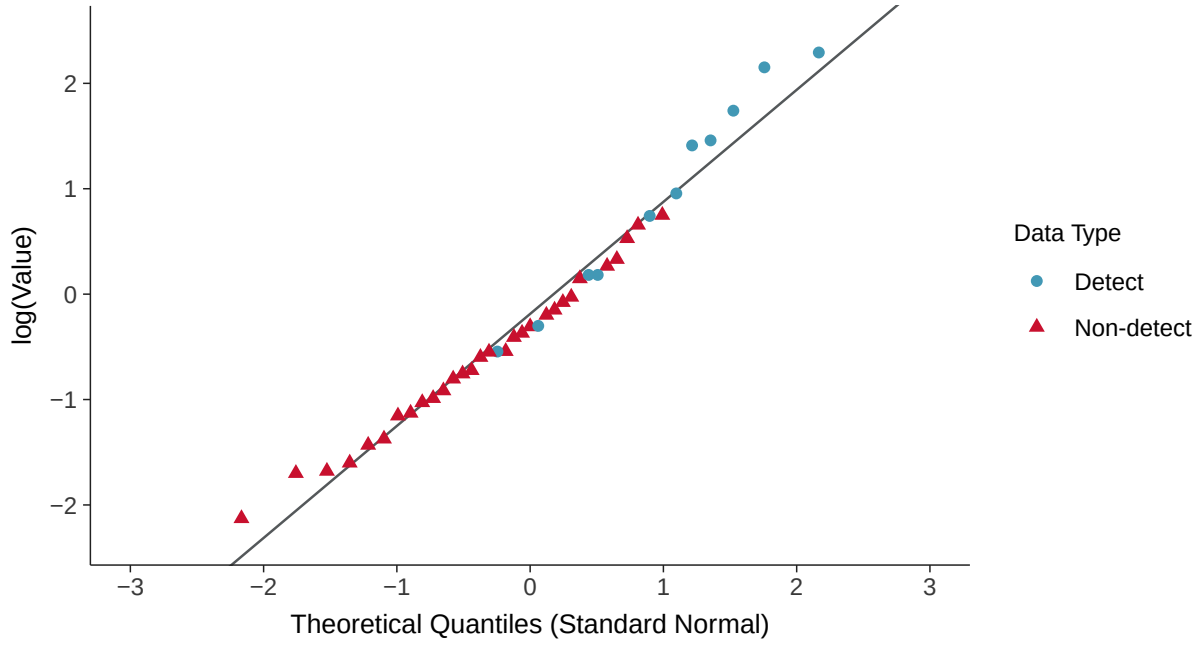
Normal Q-Q plot using ROS Imputed Estimates

Chromium, MW-4 (ug/L)



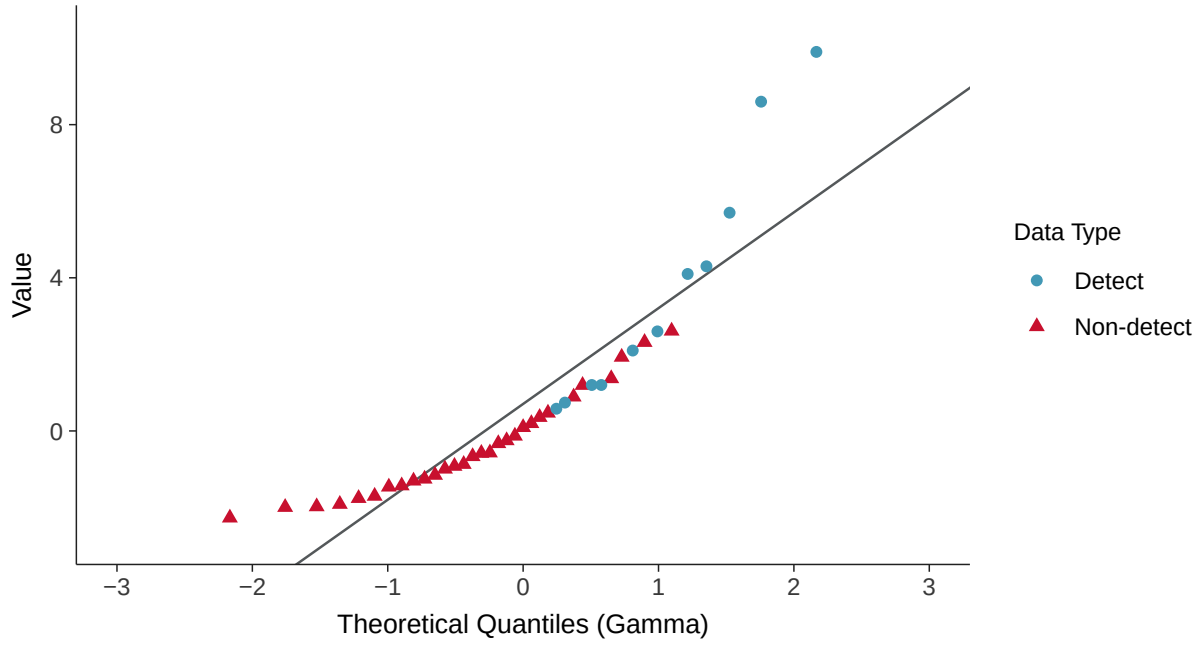
Lognormal Q-Q plot using ROS Imputed Estimates

Chromium, MW-4 (ug/L)



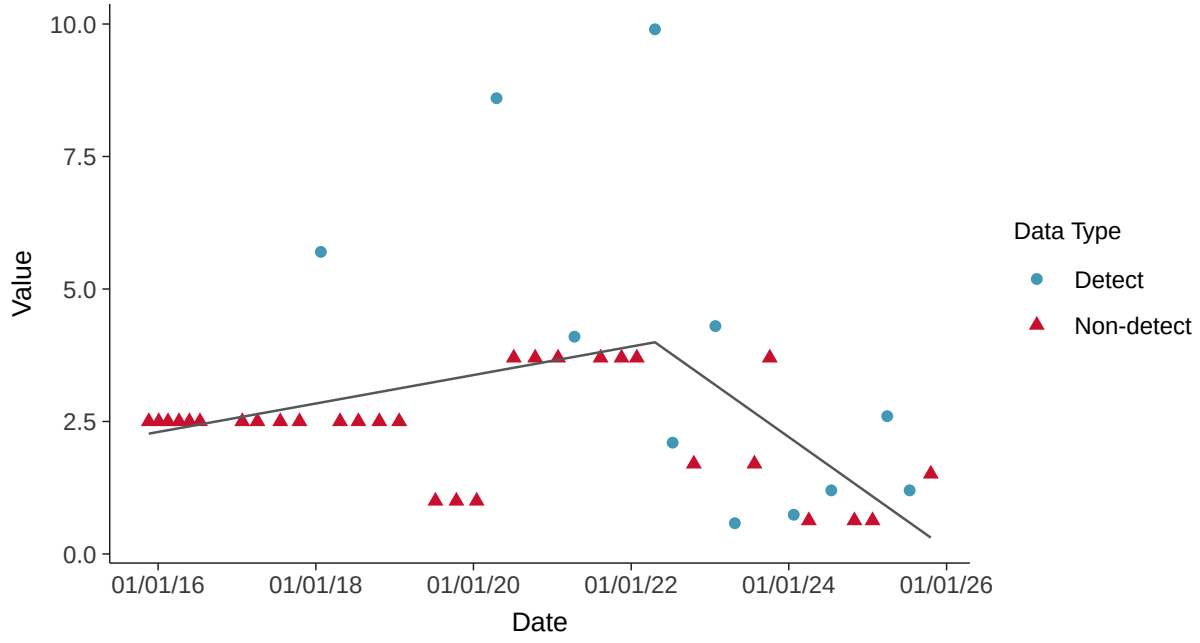
Gamma Q-Q plot using ROS Imputed Estimates

Chromium, MW-4 (ug/L)



Trend Regression: Piecewise Linear-Linear

Chromium, MW-4 (ug/L)

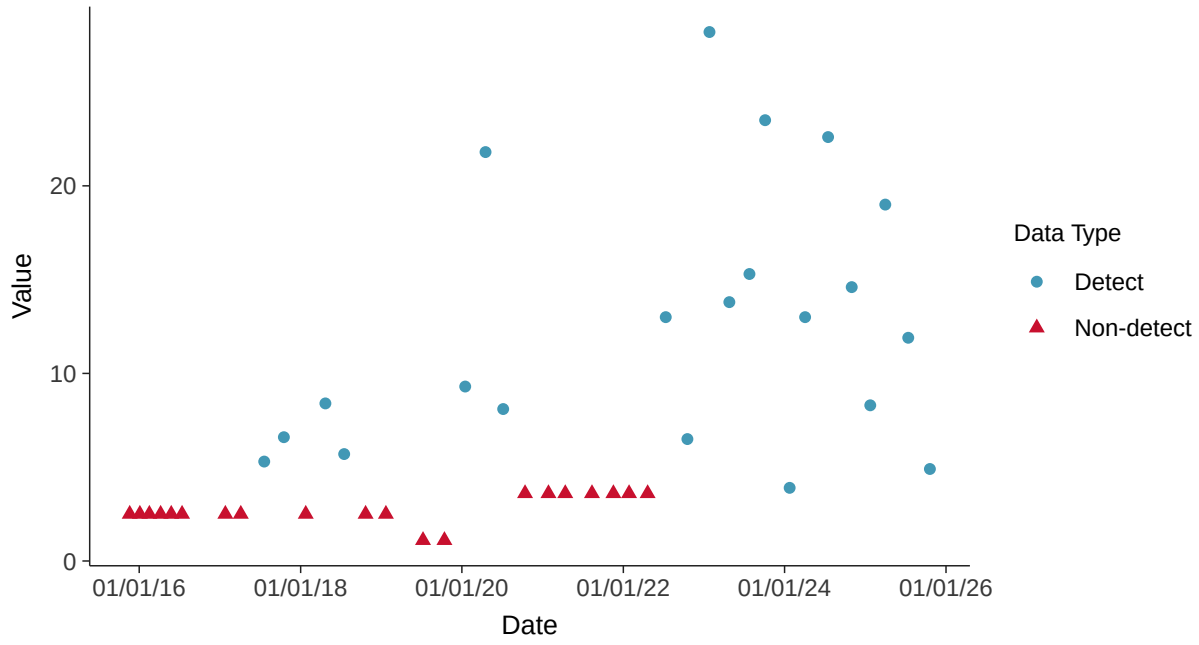


App. IV: Cobalt, MW-4

ID: 04_3_110

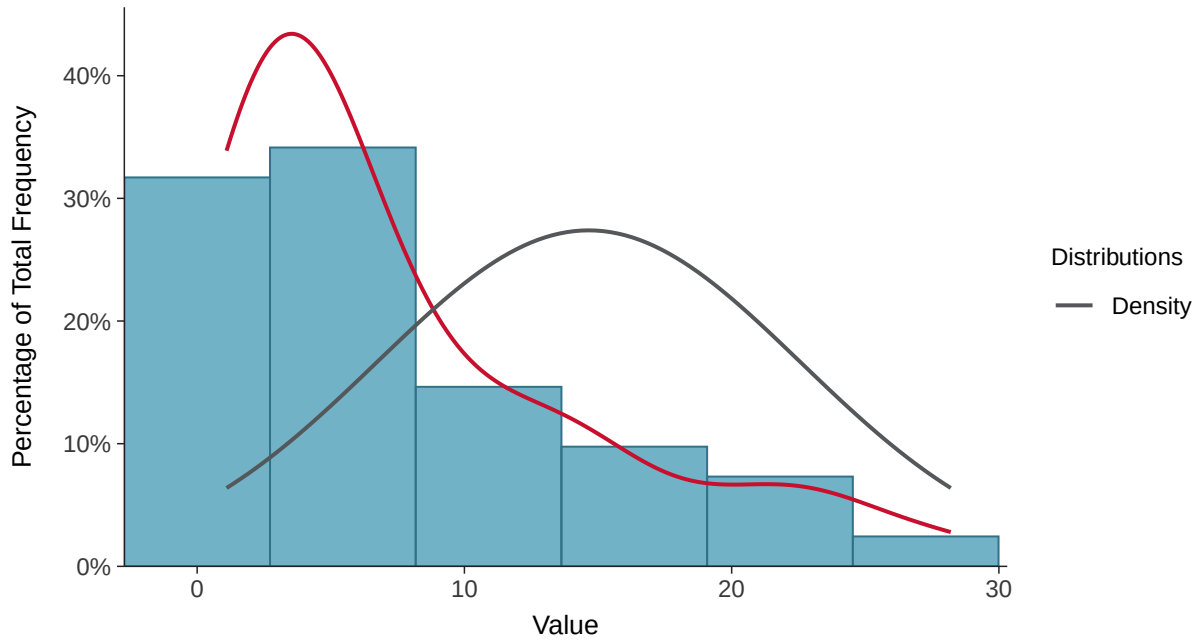
Scatter Plot

Cobalt, MW-4 (ug/L)



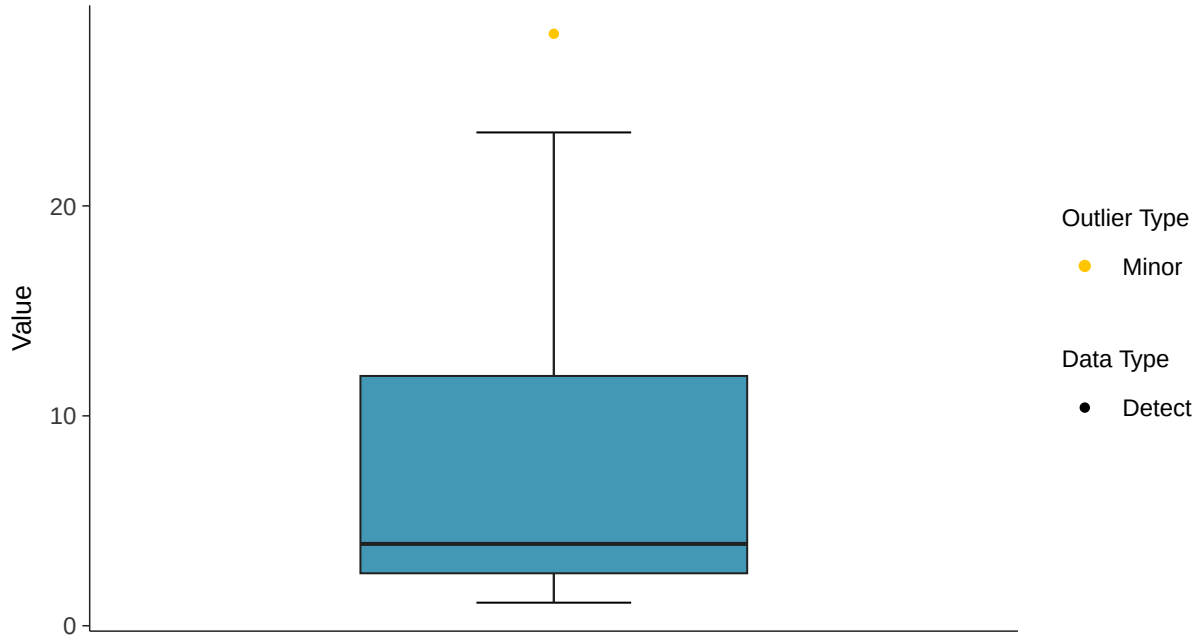
Histogram

Cobalt, MW-4 (ug/L)



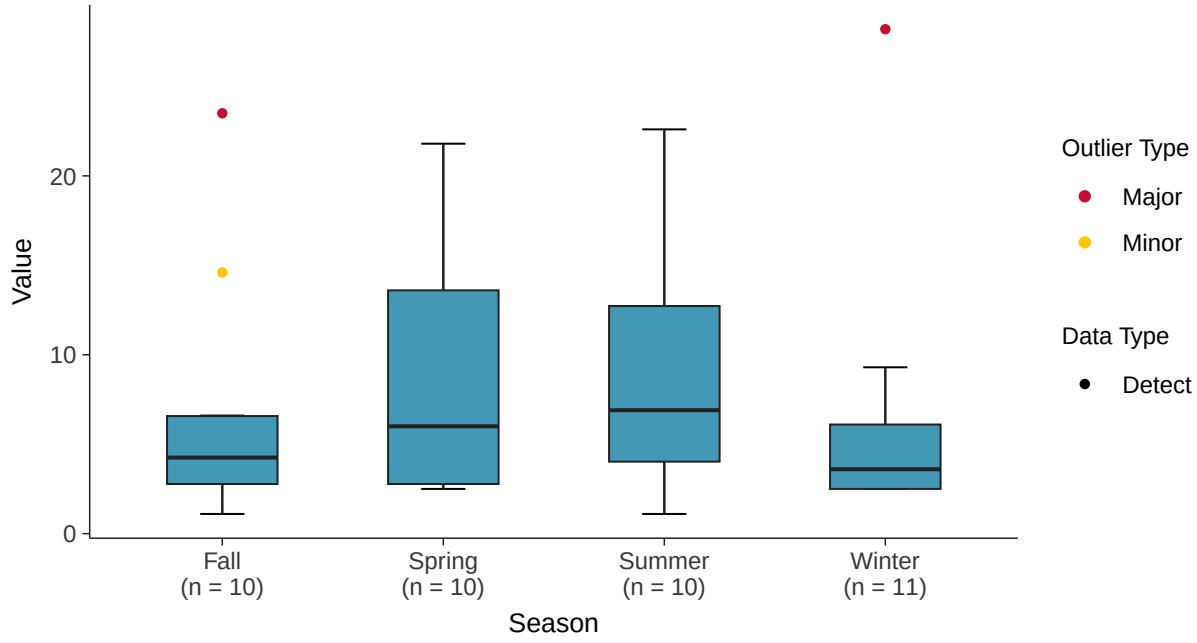
Boxplot

Cobalt, MW-4 (ug/L)



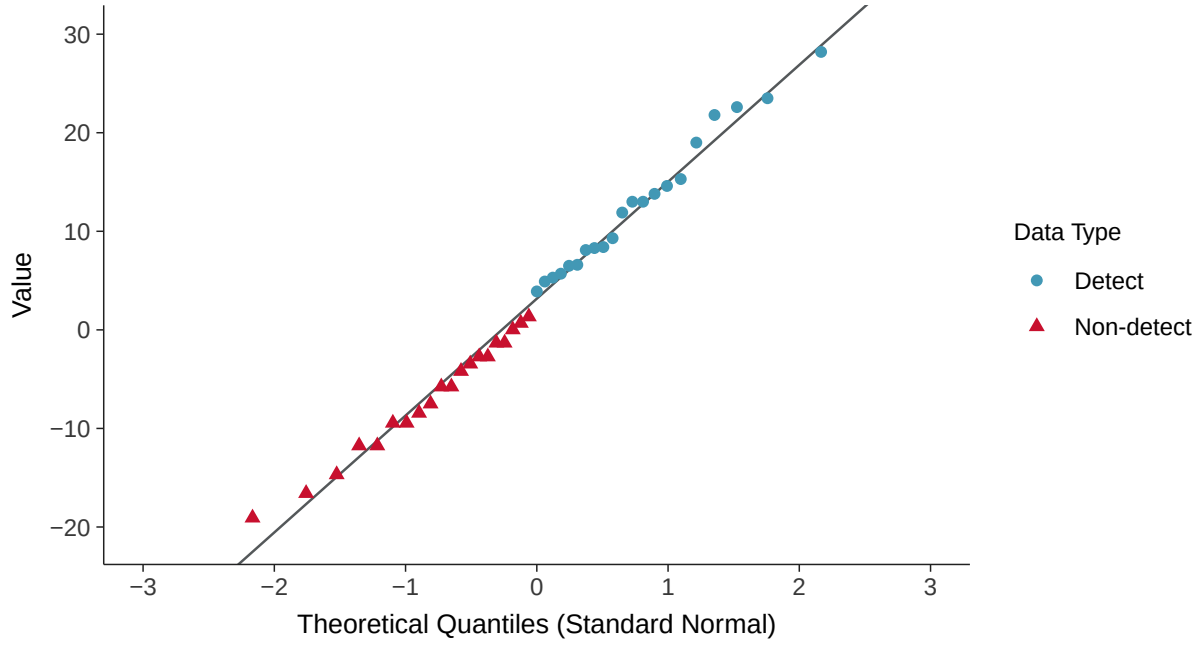
Boxplot by Season

Cobalt, MW-4 (ug/L)



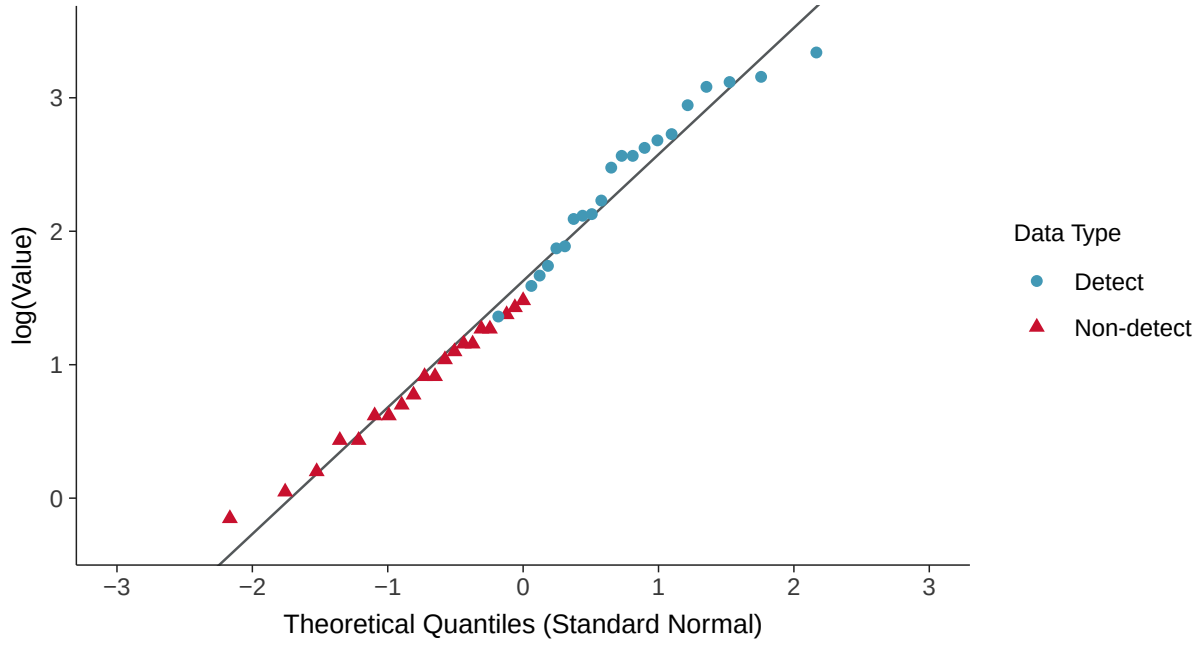
Normal Q-Q plot using ROS Imputed Estimates

Cobalt, MW-4 (ug/L)



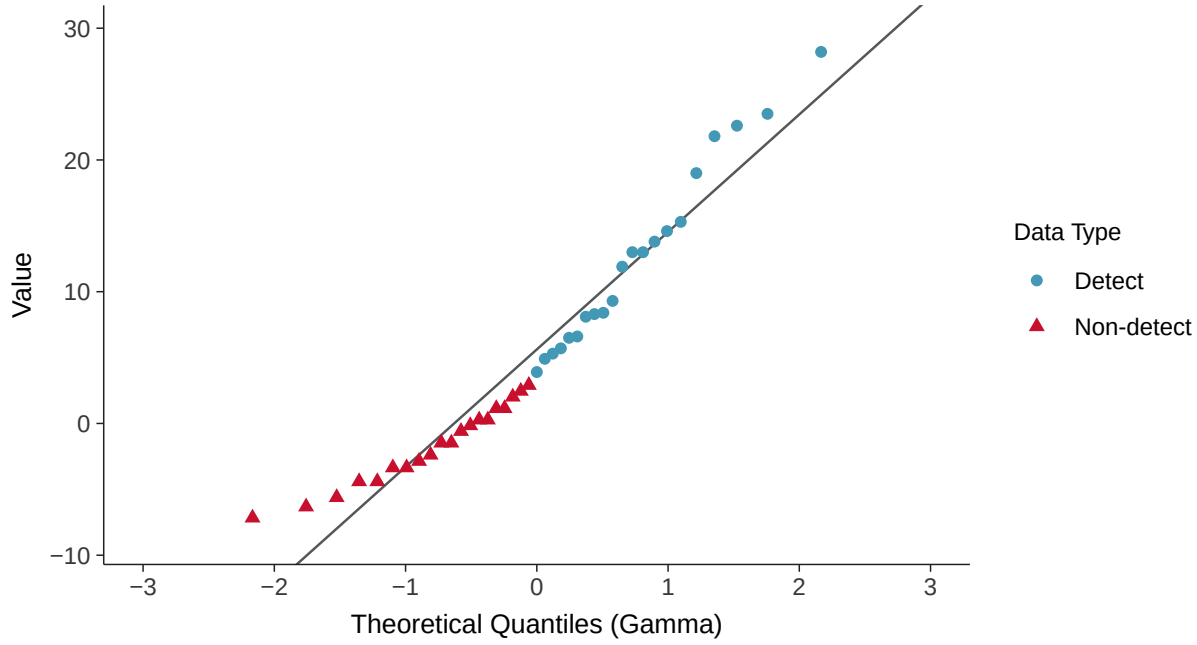
Lognormal Q-Q plot using ROS Imputed Estimates

Cobalt, MW-4 (ug/L)



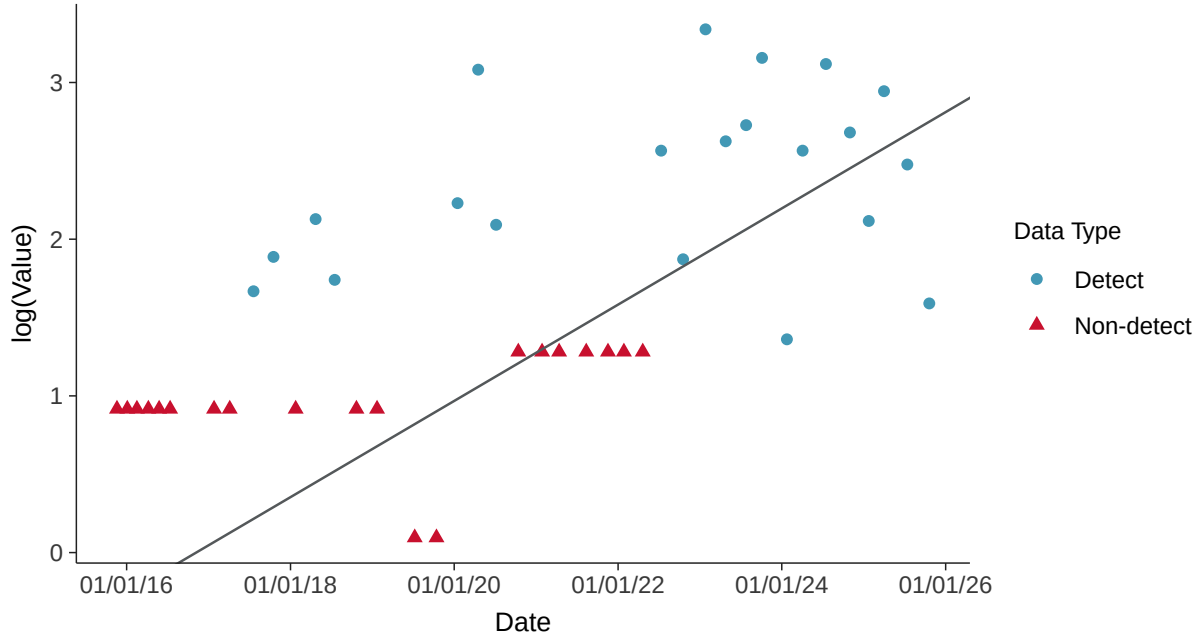
Gamma Q-Q plot using ROS Imputed Estimates

Cobalt, MW-4 (ug/L)



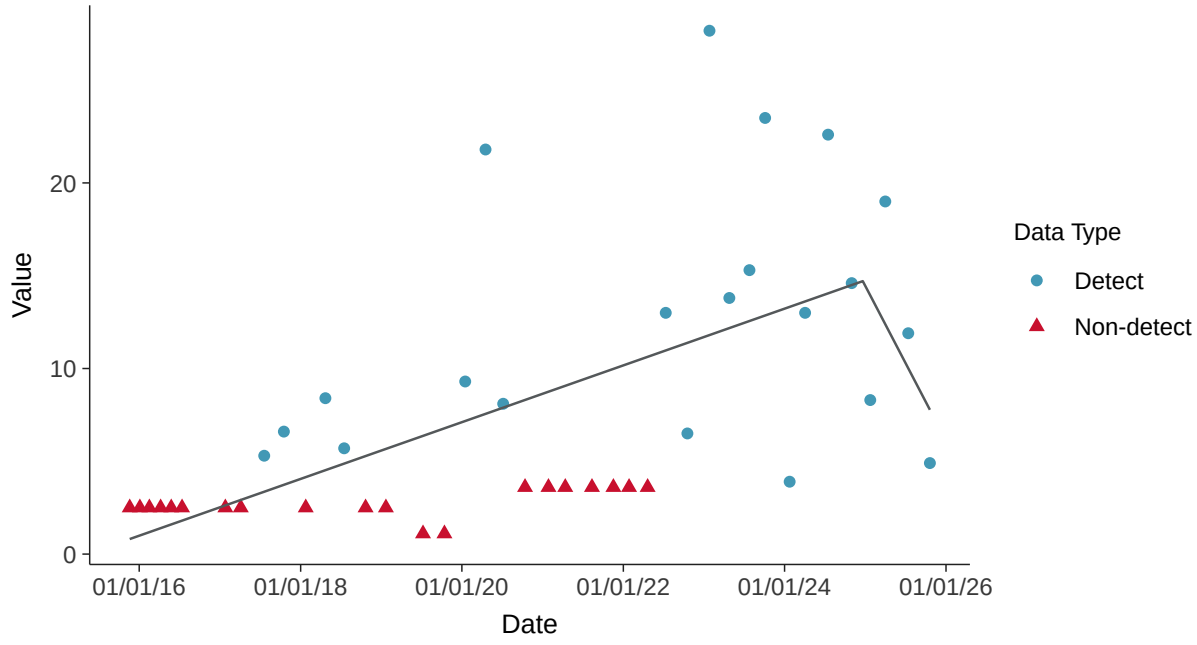
Trend Regression: Lognormal MLE

Cobalt, MW-4 (ug/L)



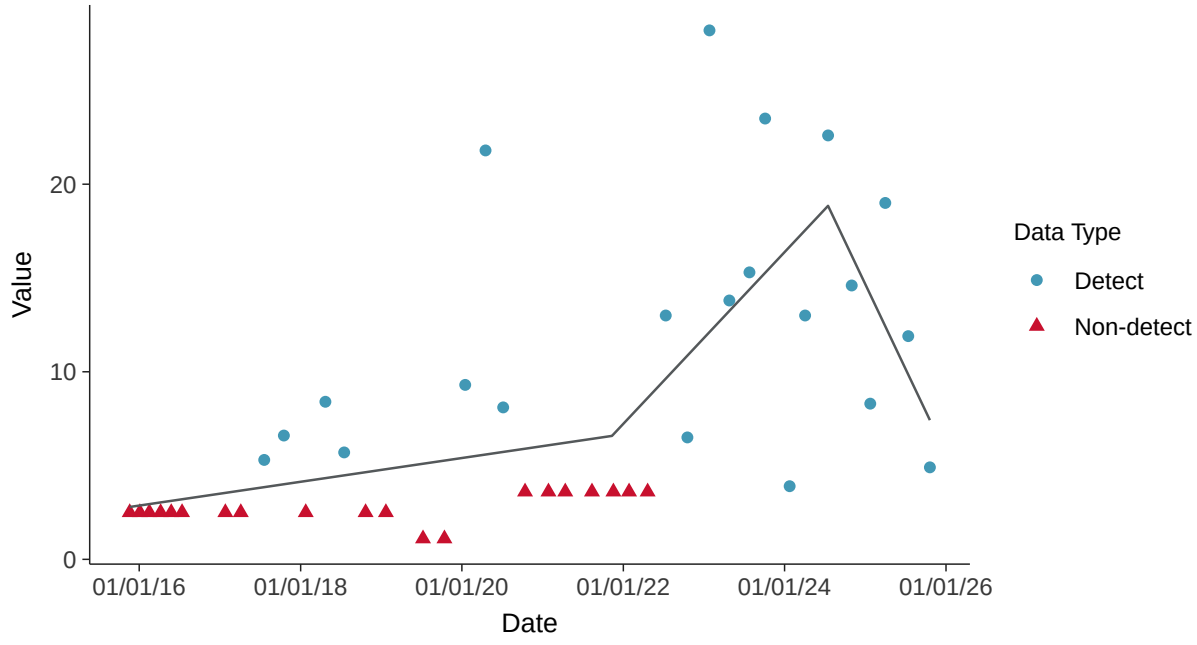
Trend Regression: Piecewise Linear-Linear

Cobalt, MW-4 (ug/L)



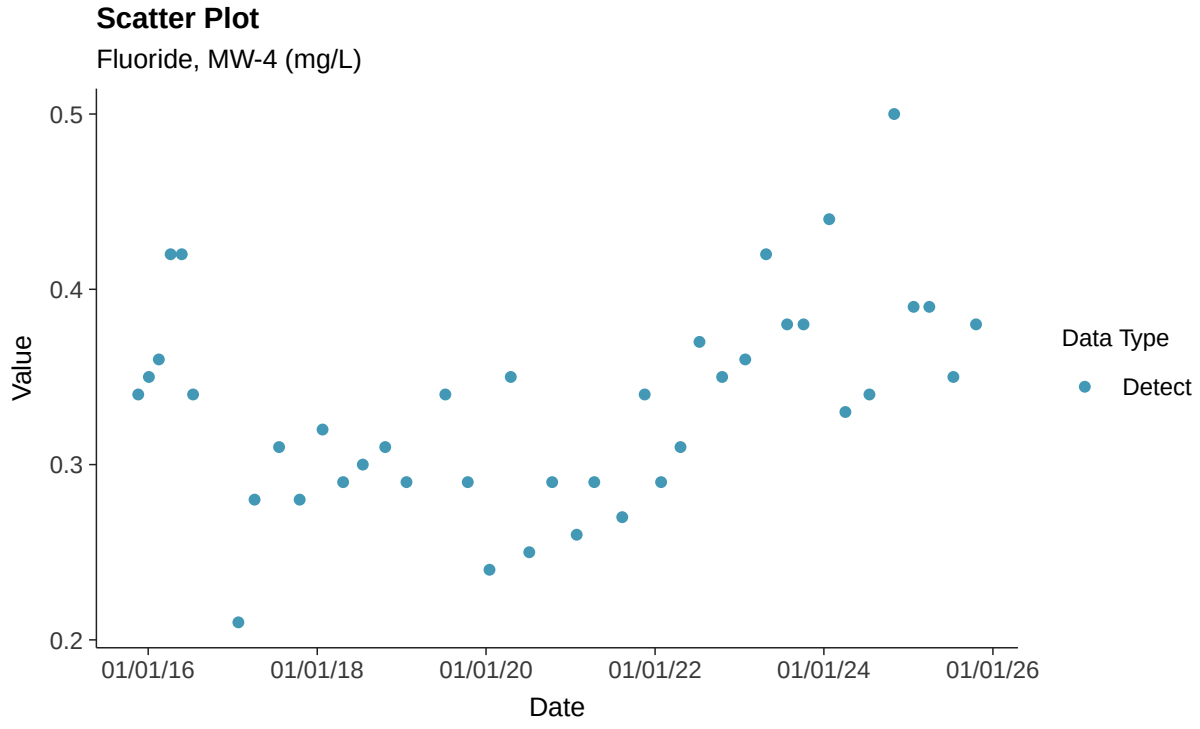
Trend Regression: Piecewise Linear-Linear-Linear

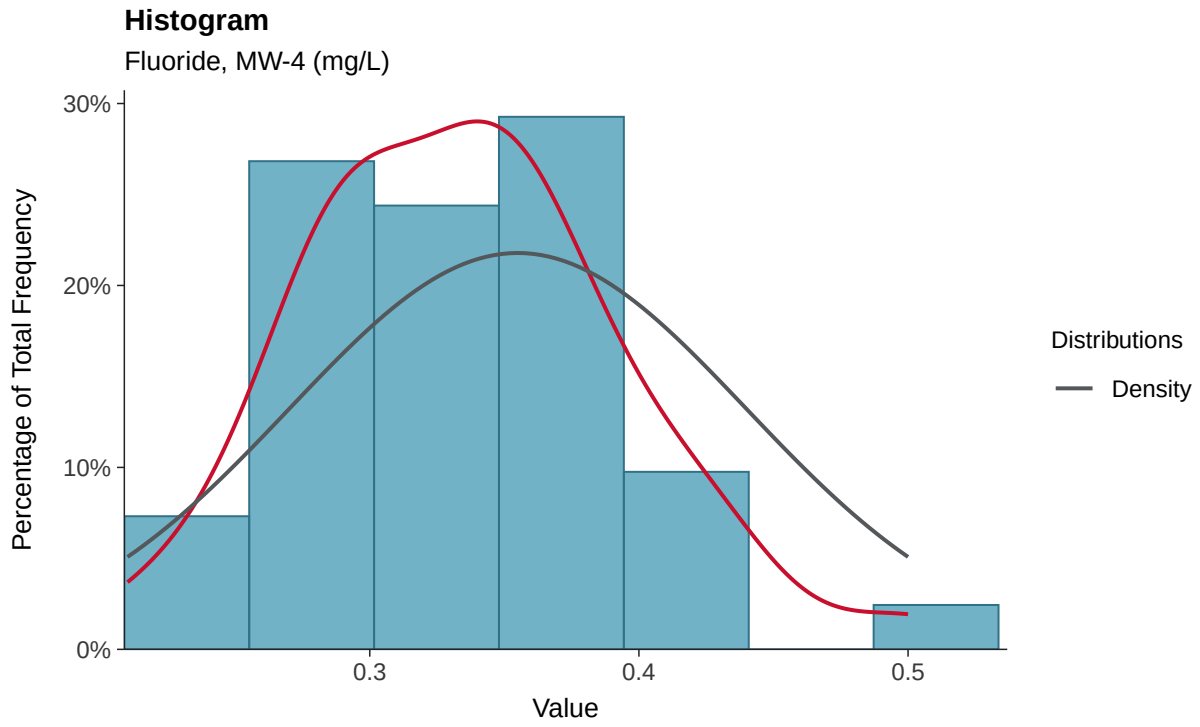
Cobalt, MW-4 (ug/L)



App. IV: Fluoride, MW-4

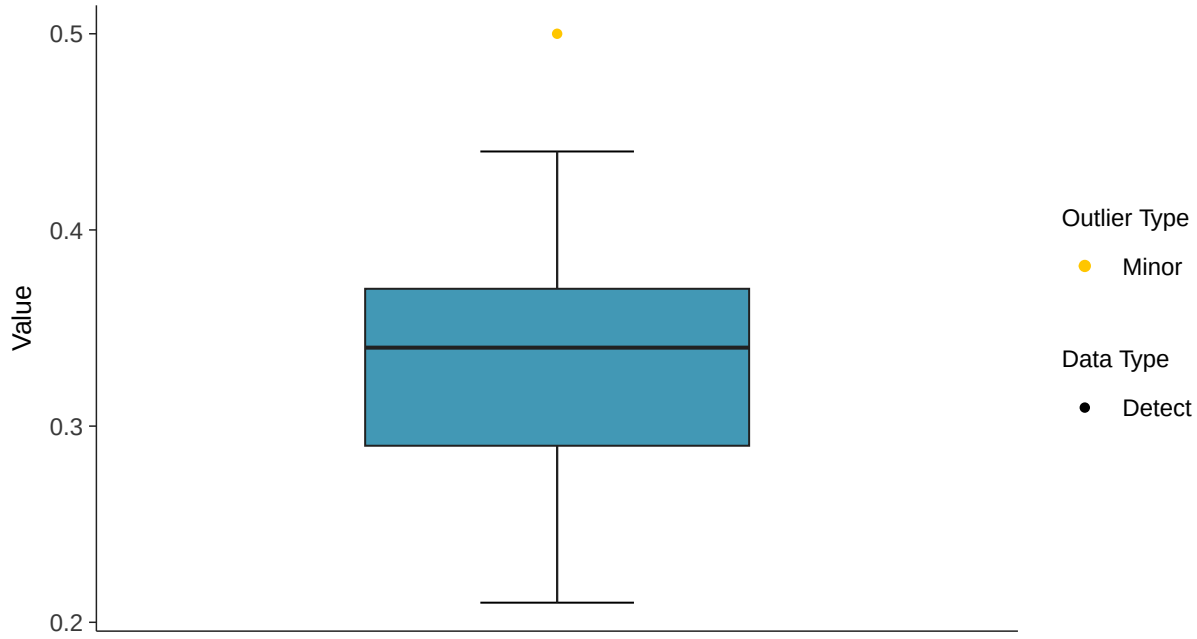
ID: 04_3_112





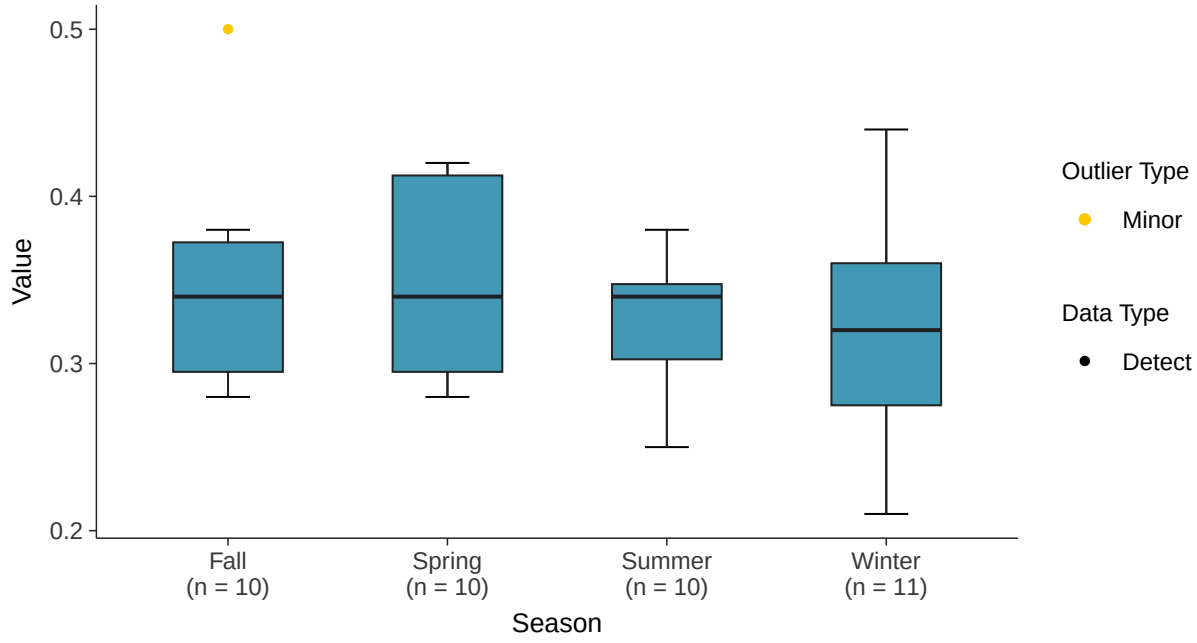
Boxplot

Fluoride, MW-4 (mg/L)



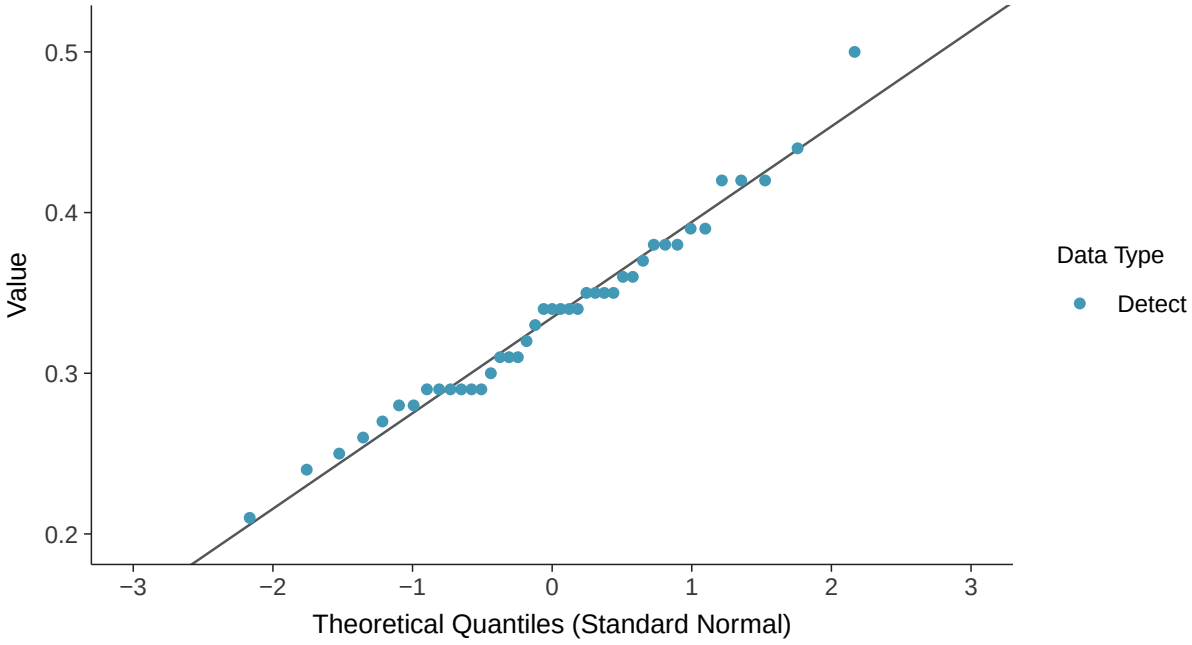
Boxplot by Season

Fluoride, MW-4 (mg/L)



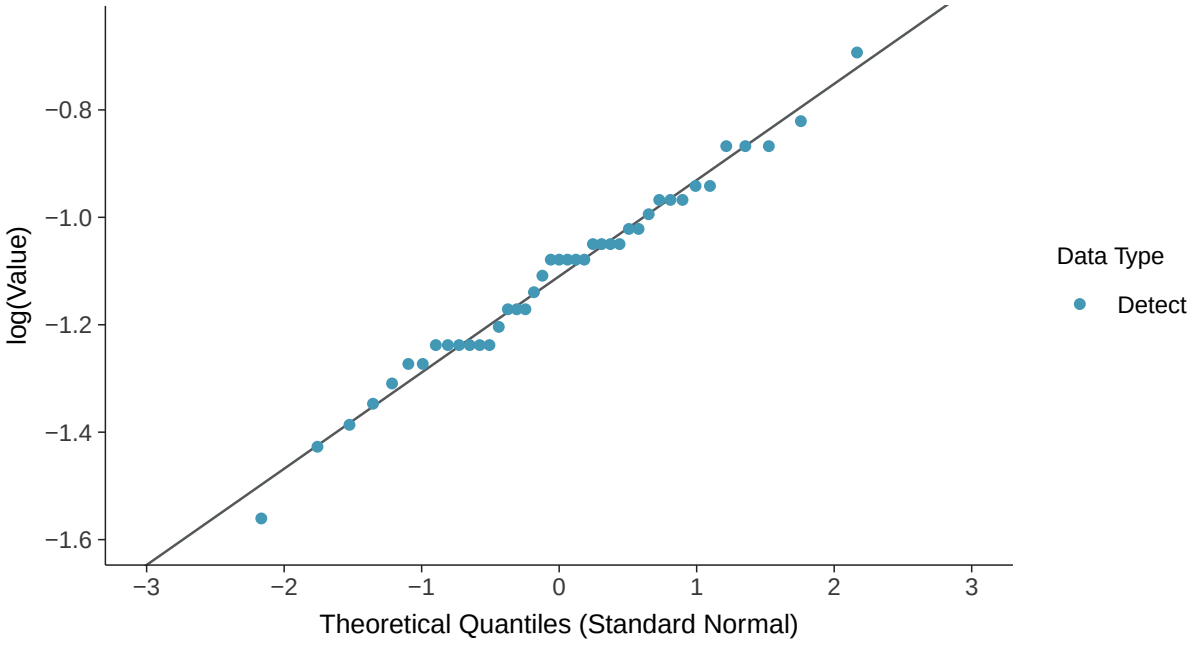
Normal Q-Q plot

Fluoride, MW-4 (mg/L)



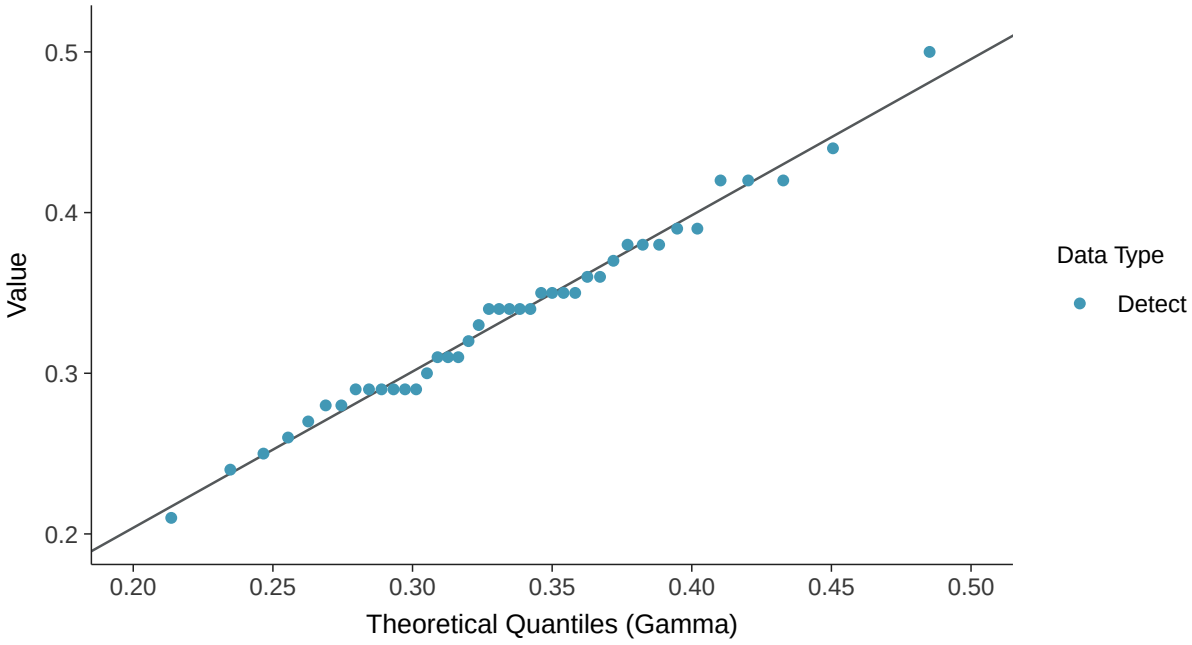
Lognormal Q-Q plot

Fluoride, MW-4 (mg/L)



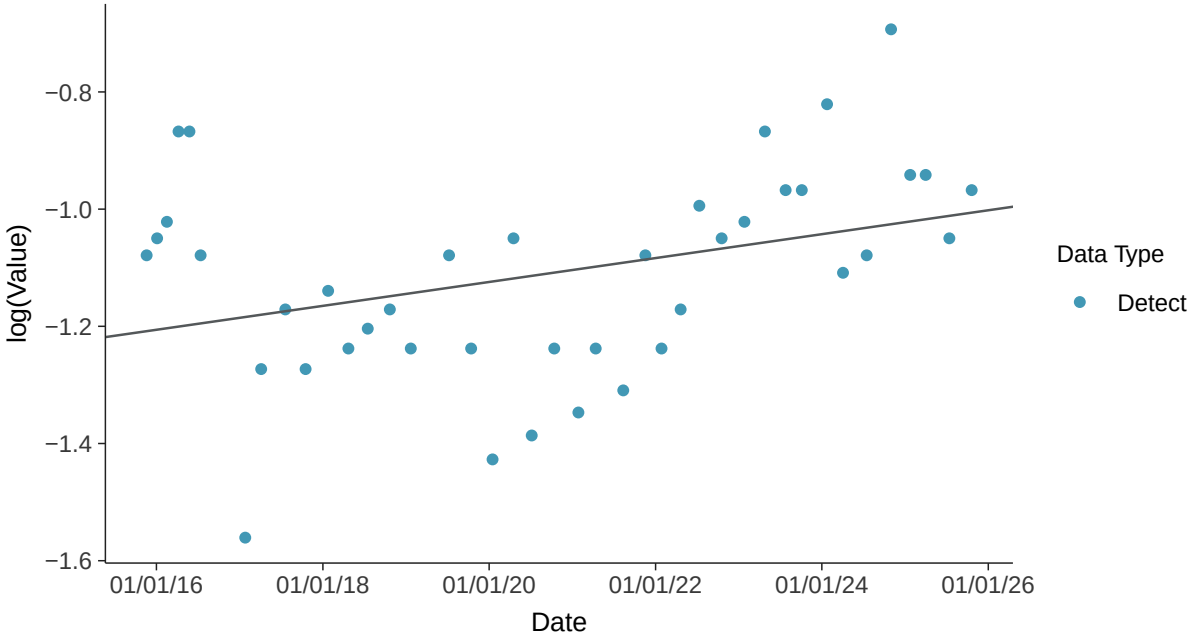
Gamma Q-Q plot

Fluoride, MW-4 (mg/L)



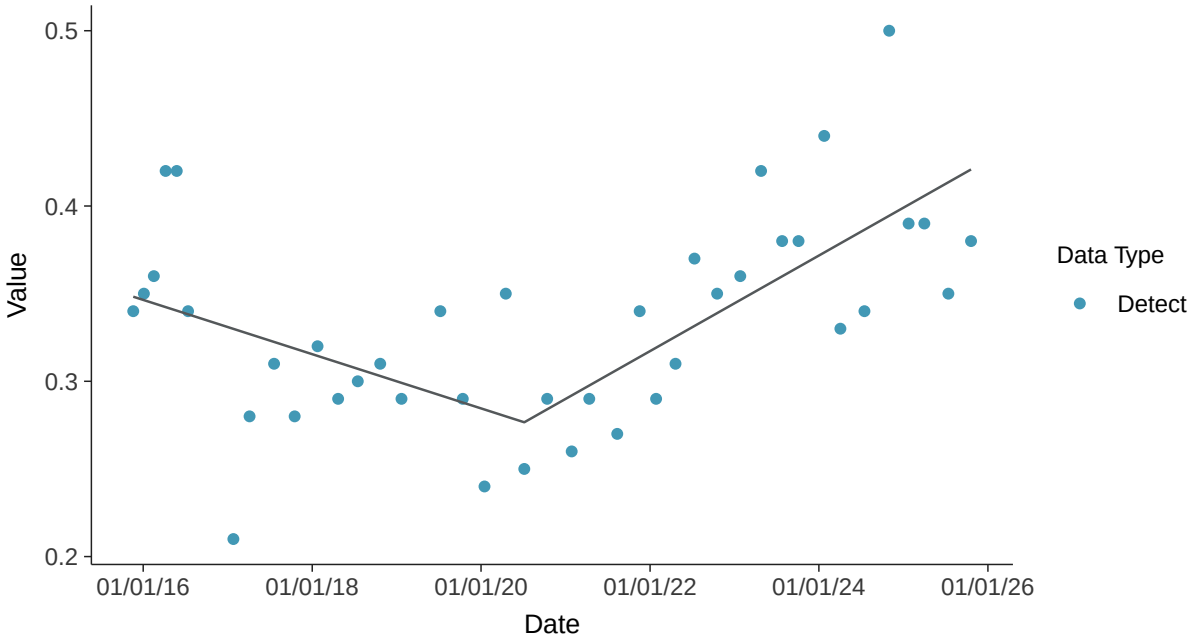
Trend Regression: Lognormal MLE

Fluoride, MW-4 (mg/L)



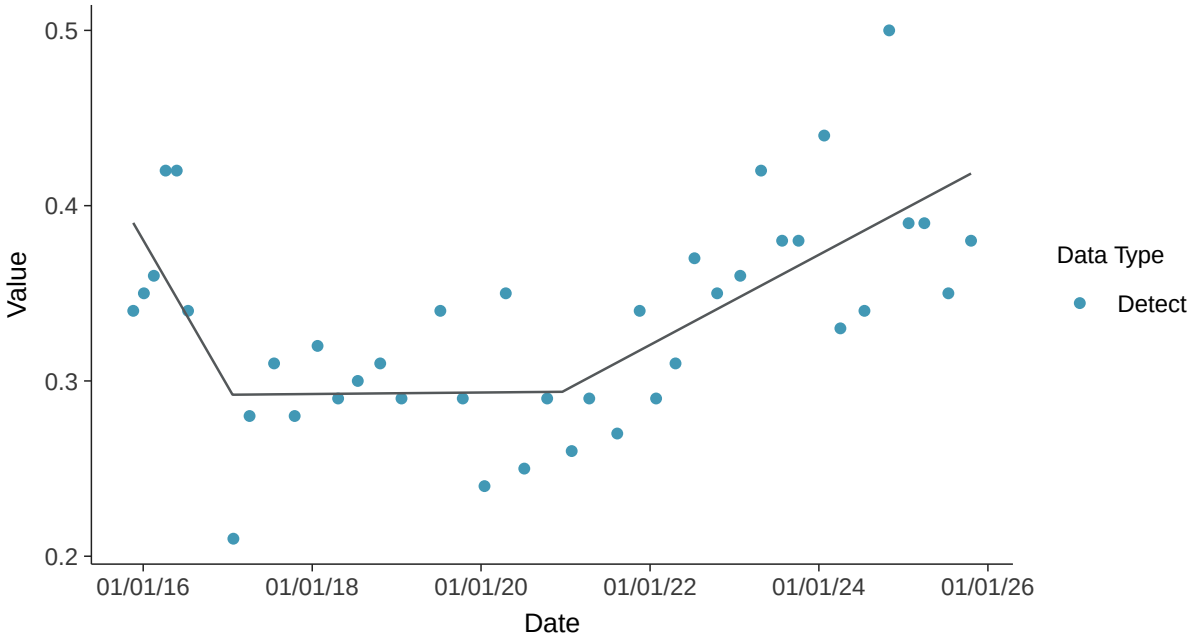
Trend Regression: Piecewise Linear-Linear

Fluoride, MW-4 (mg/L)



Trend Regression: Piecewise Linear-Linear-Linear

Fluoride, MW-4 (mg/L)

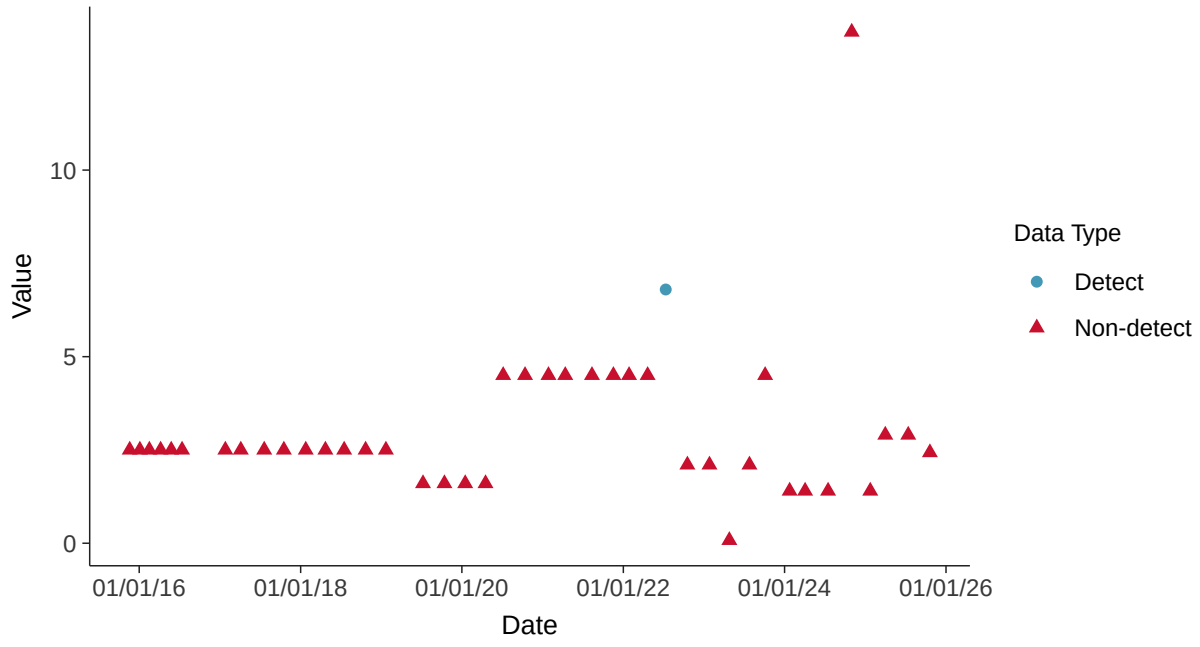


App. IV: Lead, MW-4

ID: 04_3_113

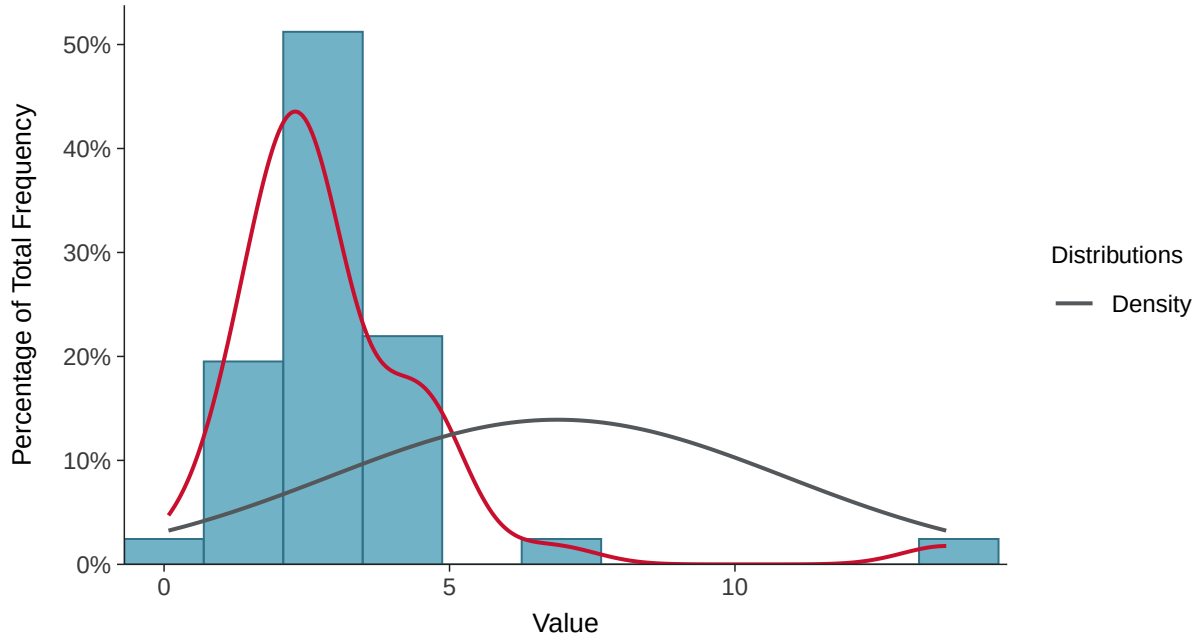
Scatter Plot

Lead, MW-4 (ug/L)



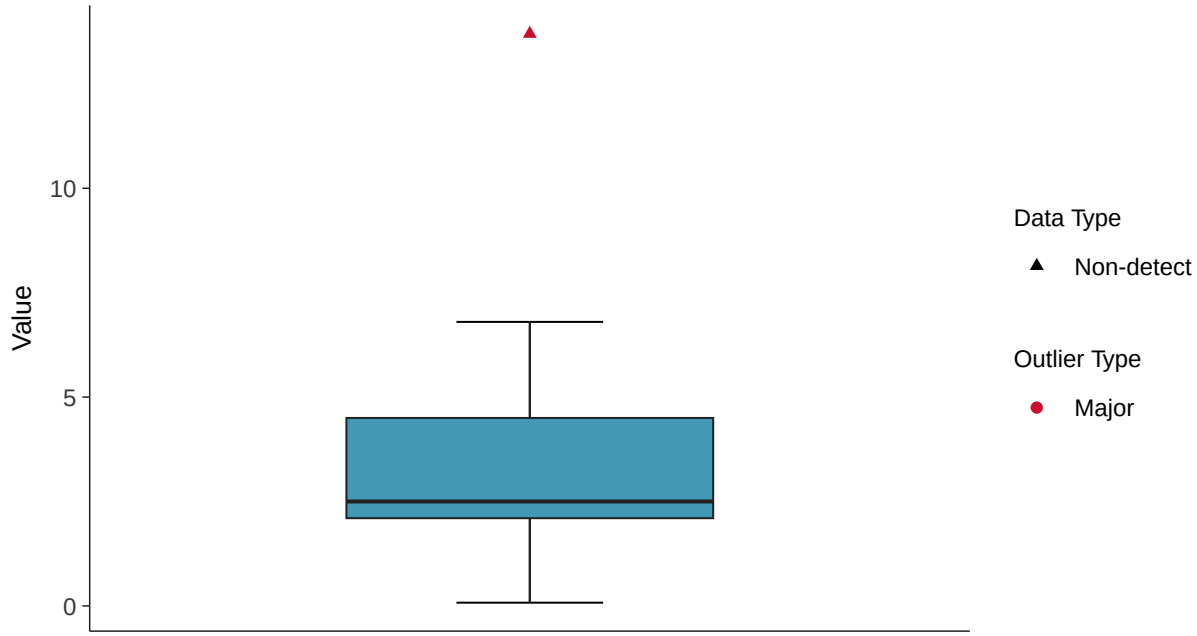
Histogram

Lead, MW-4 (ug/L)



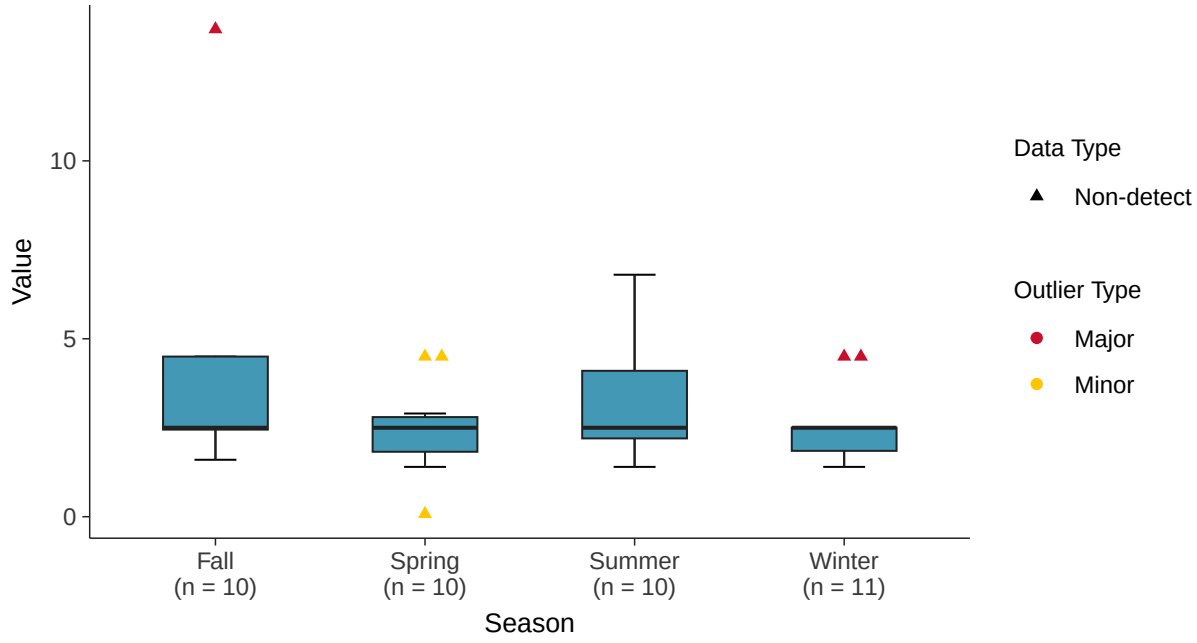
Boxplot

Lead, MW-4 (ug/L)



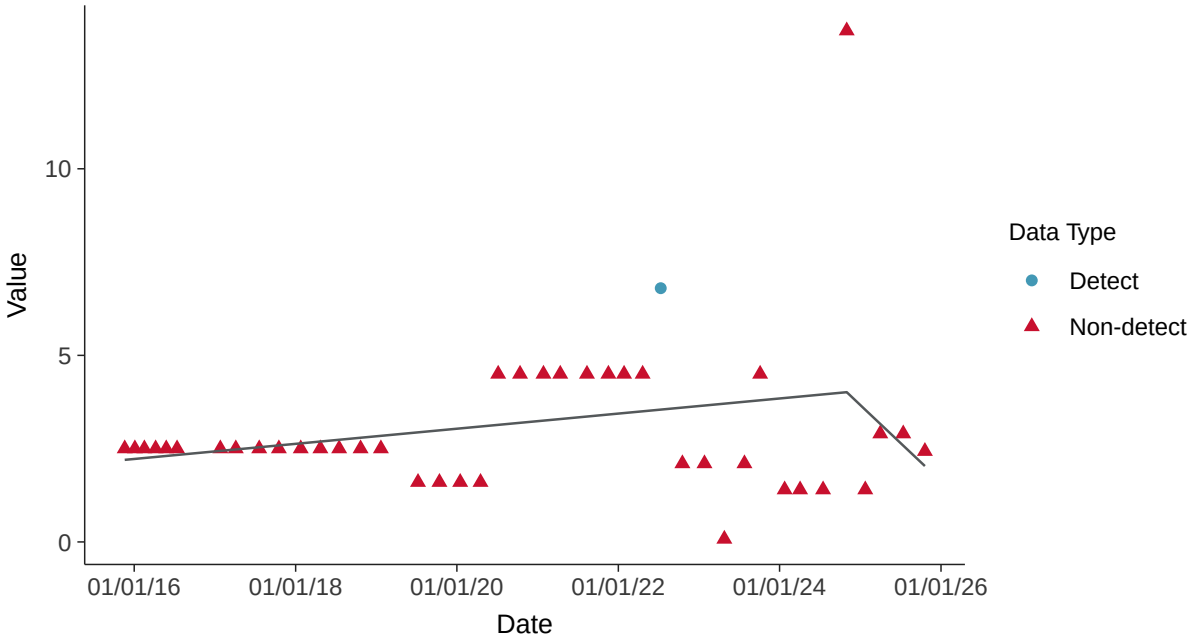
Boxplot by Season

Lead, MW-4 (ug/L)



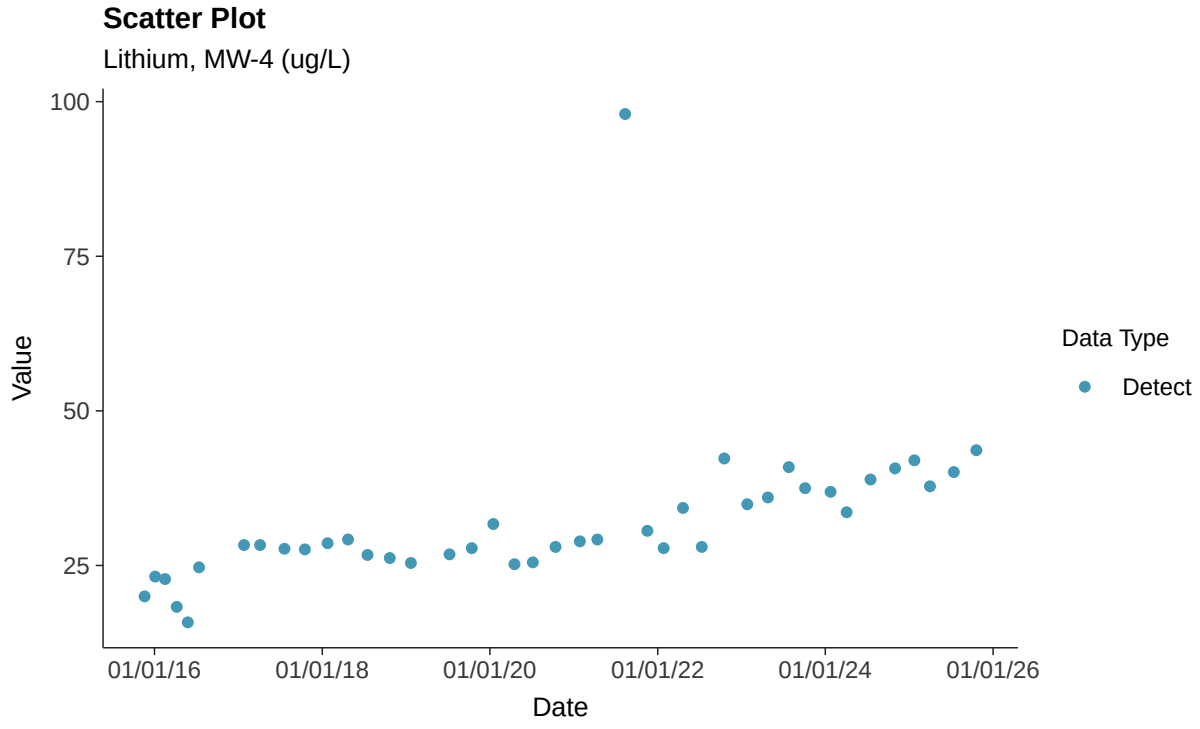
Trend Regression: Piecewise Linear-Linear

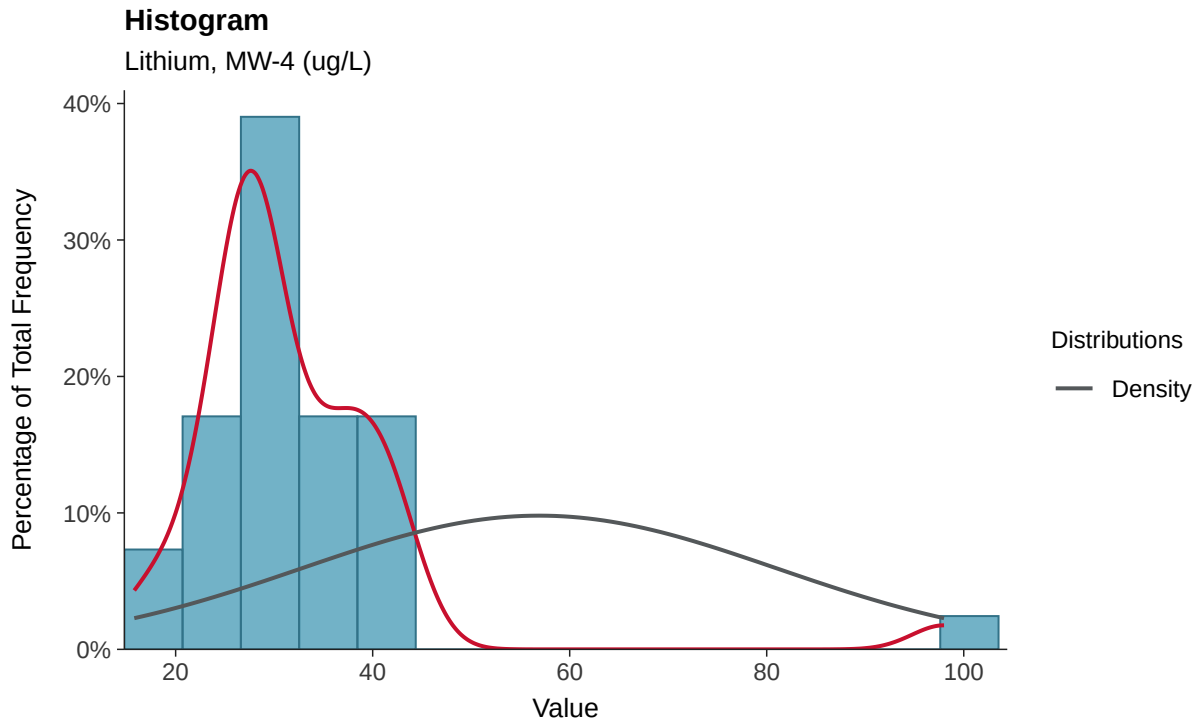
Lead, MW-4 (ug/L)



App. IV: Lithium, MW-4

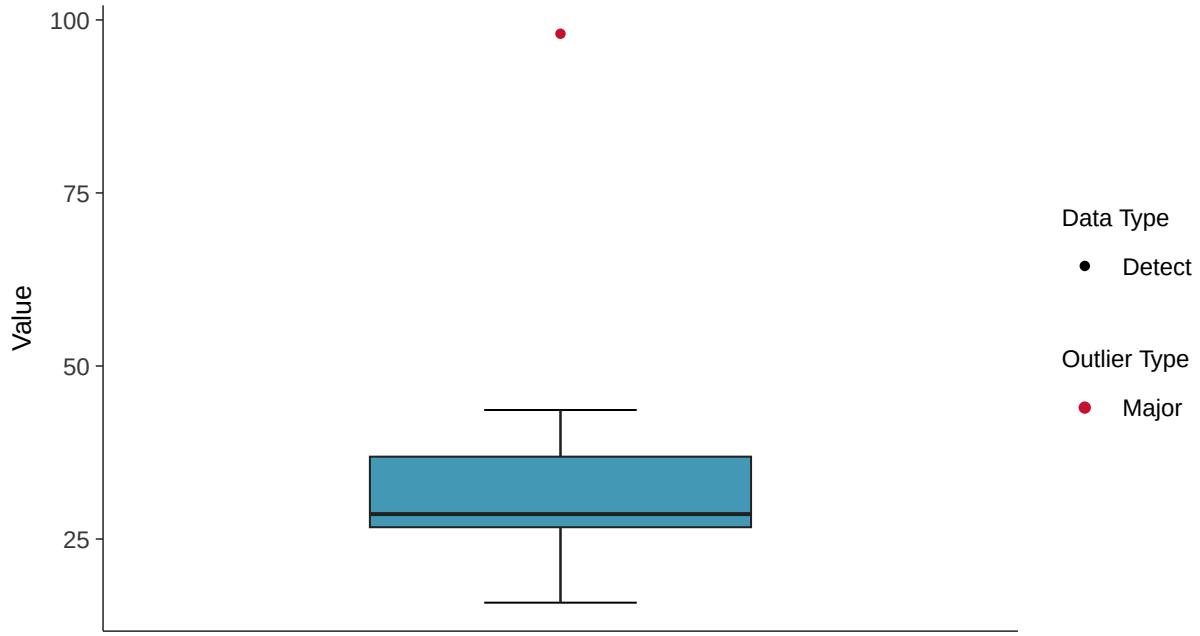
ID: 04_3_114





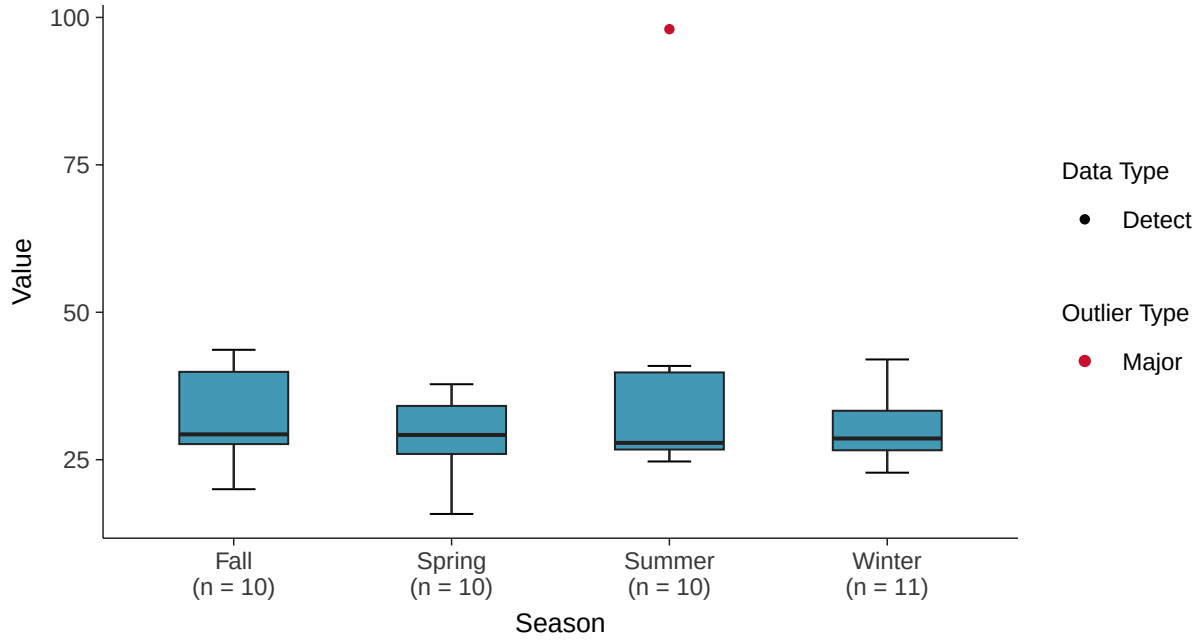
Boxplot

Lithium, MW-4 (ug/L)



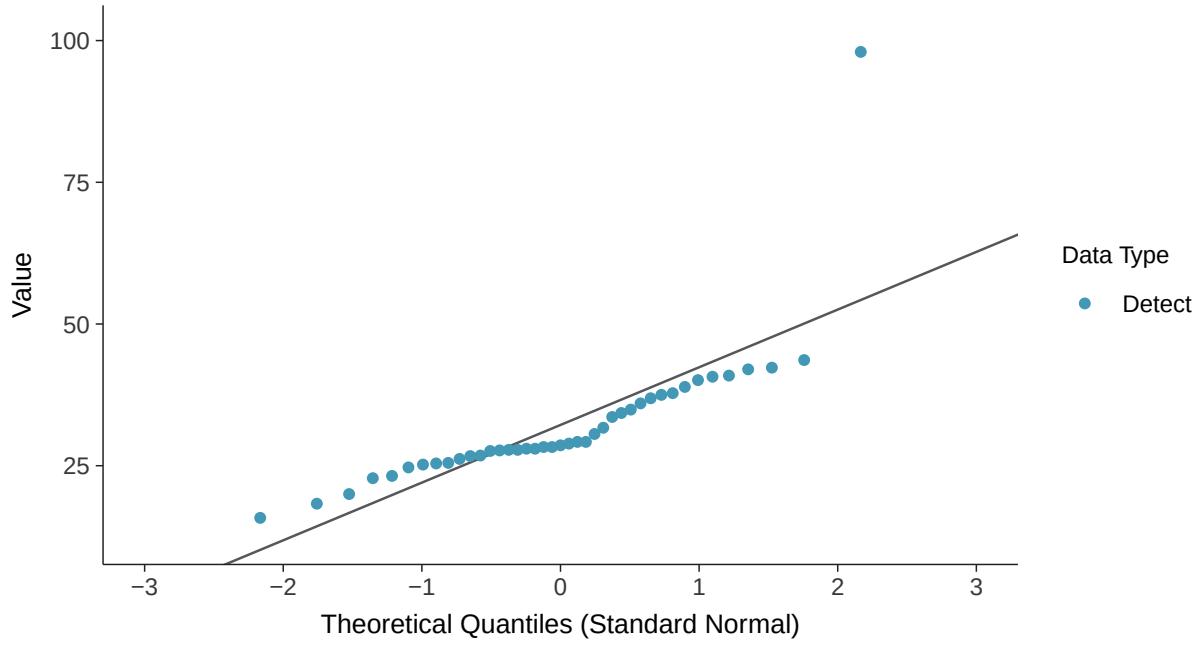
Boxplot by Season

Lithium, MW-4 (ug/L)



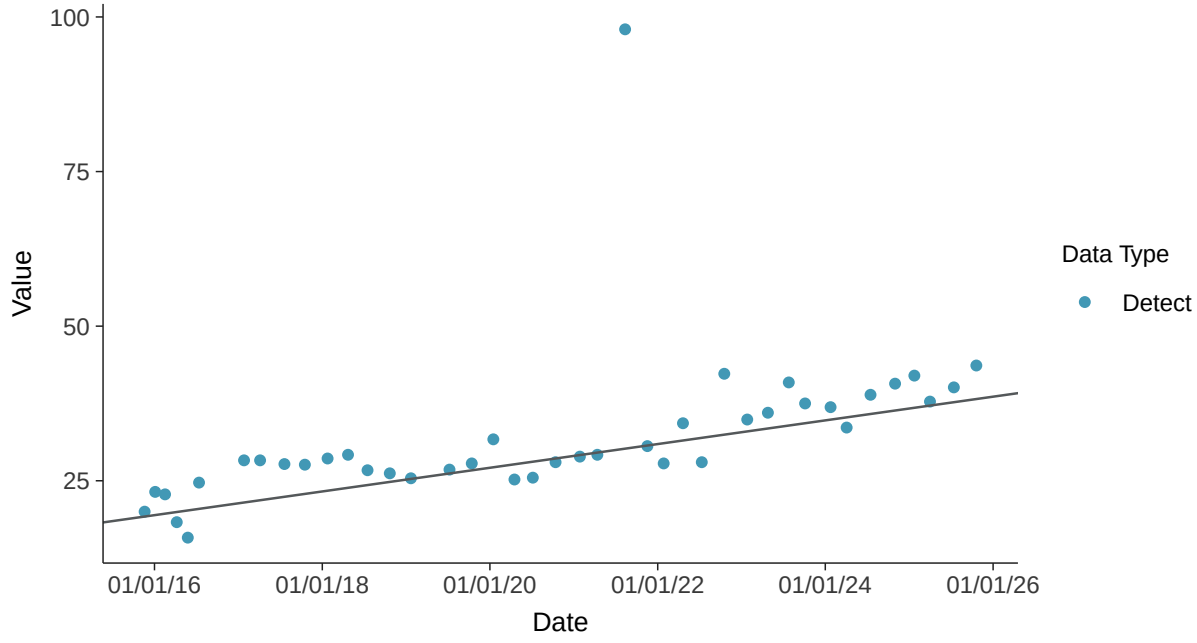
Normal Q-Q plot

Lithium, MW-4 (ug/L)



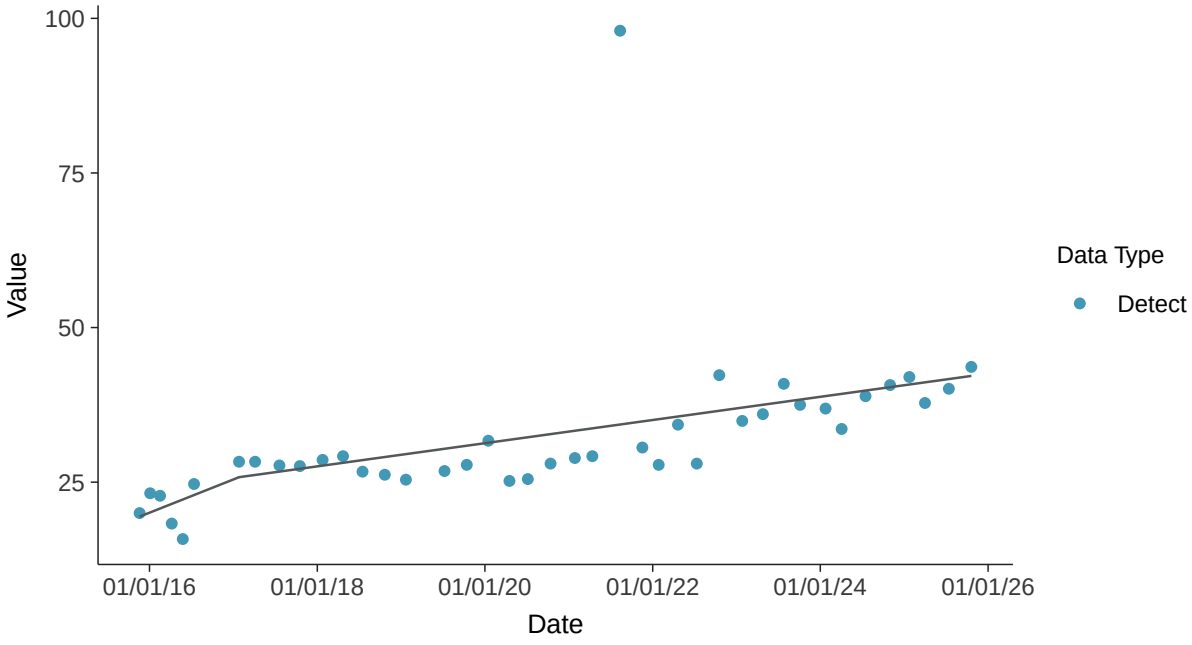
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Lithium, MW-4 (ug/L)



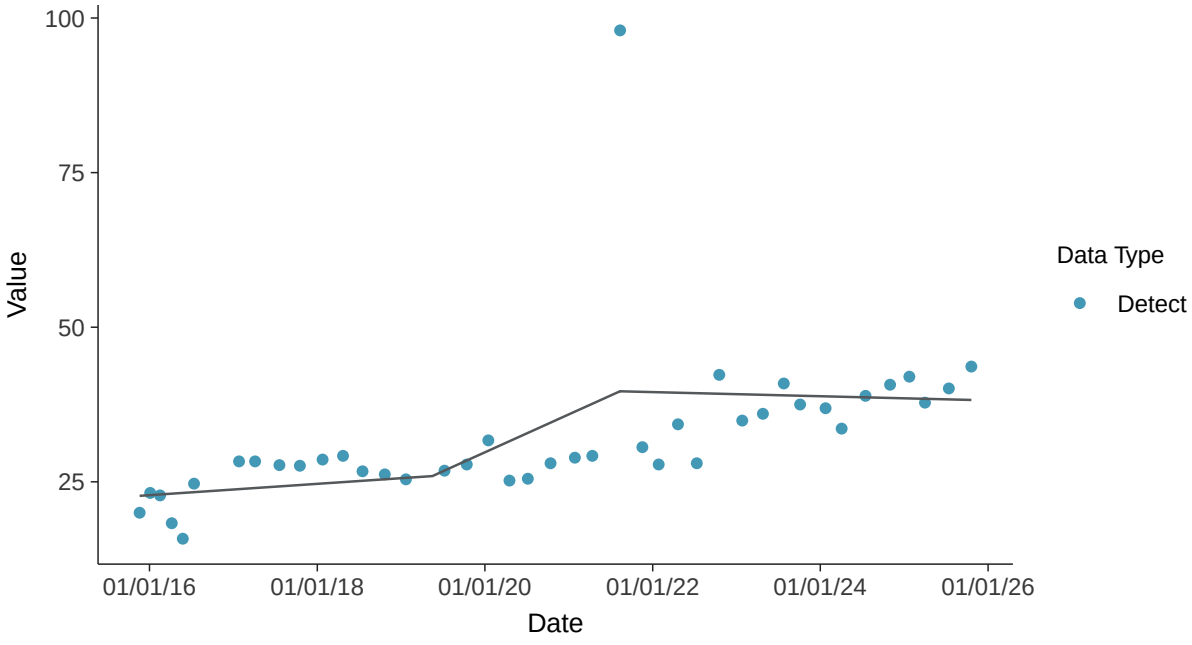
Trend Regression: Piecewise Linear-Linear

Lithium, MW-4 (ug/L)



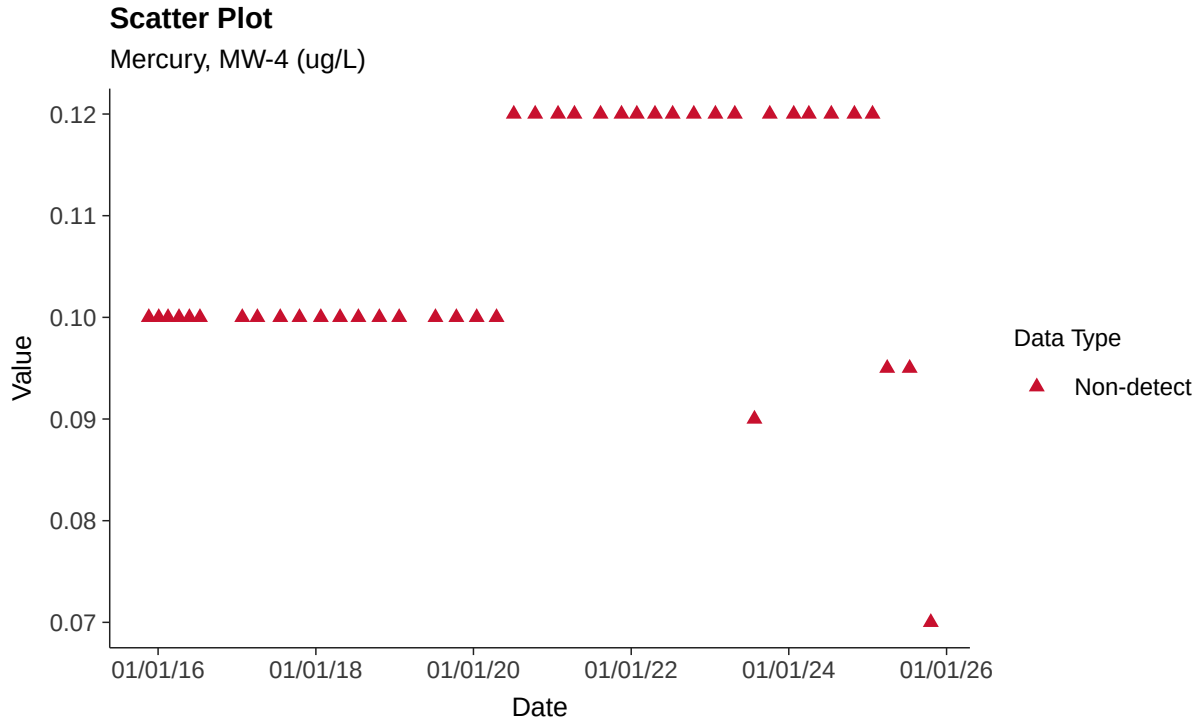
Trend Regression: Piecewise Linear-Linear-Linear

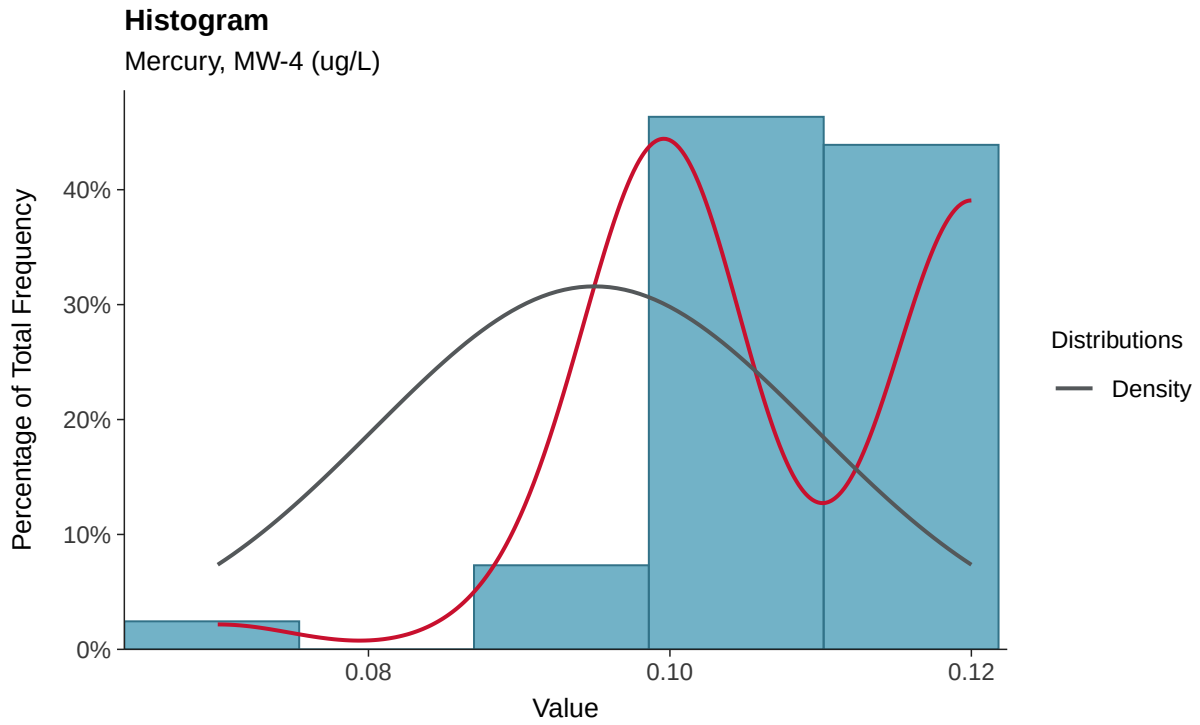
Lithium, MW-4 (ug/L)



App. IV: Mercury, MW-4

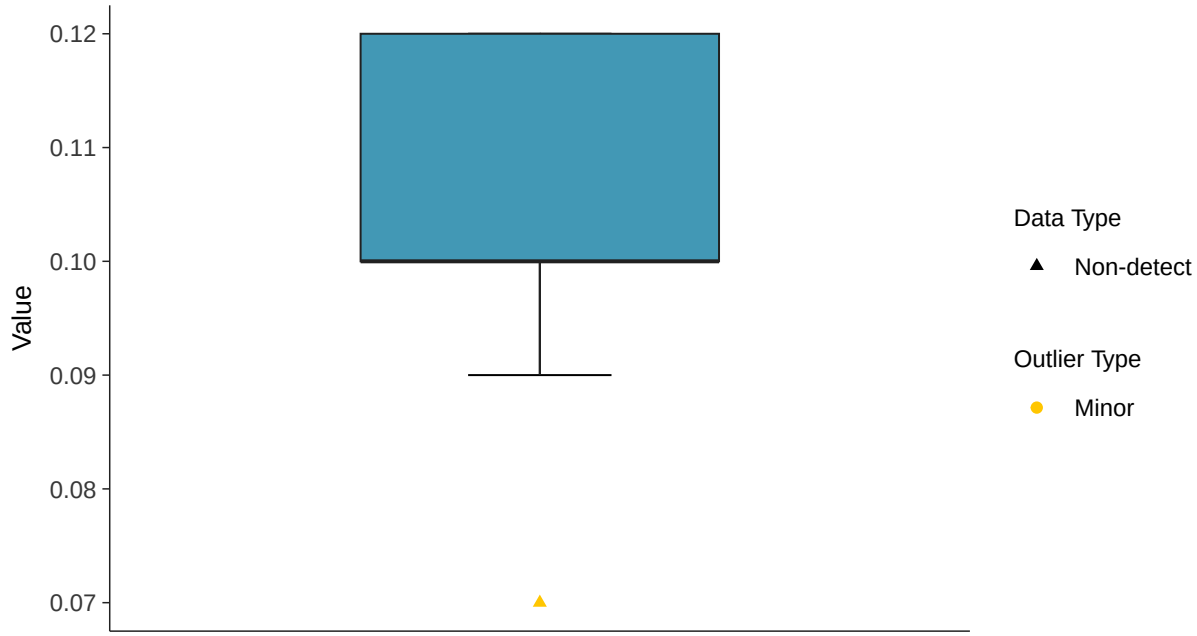
ID: 04_3_115





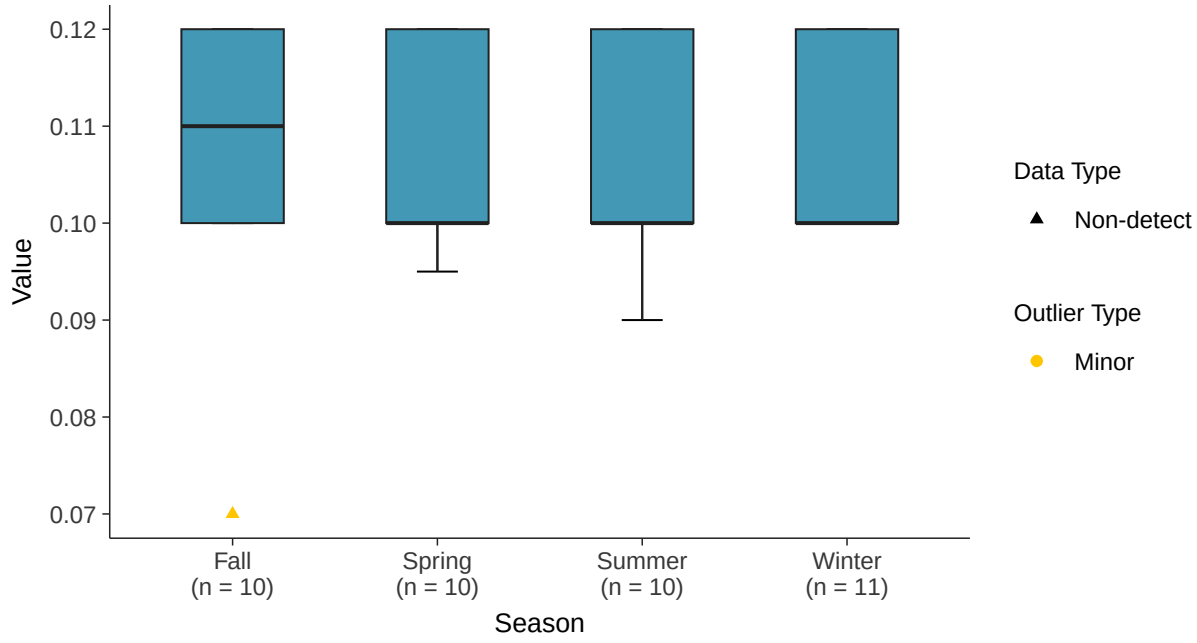
Boxplot

Mercury, MW-4 (ug/L)



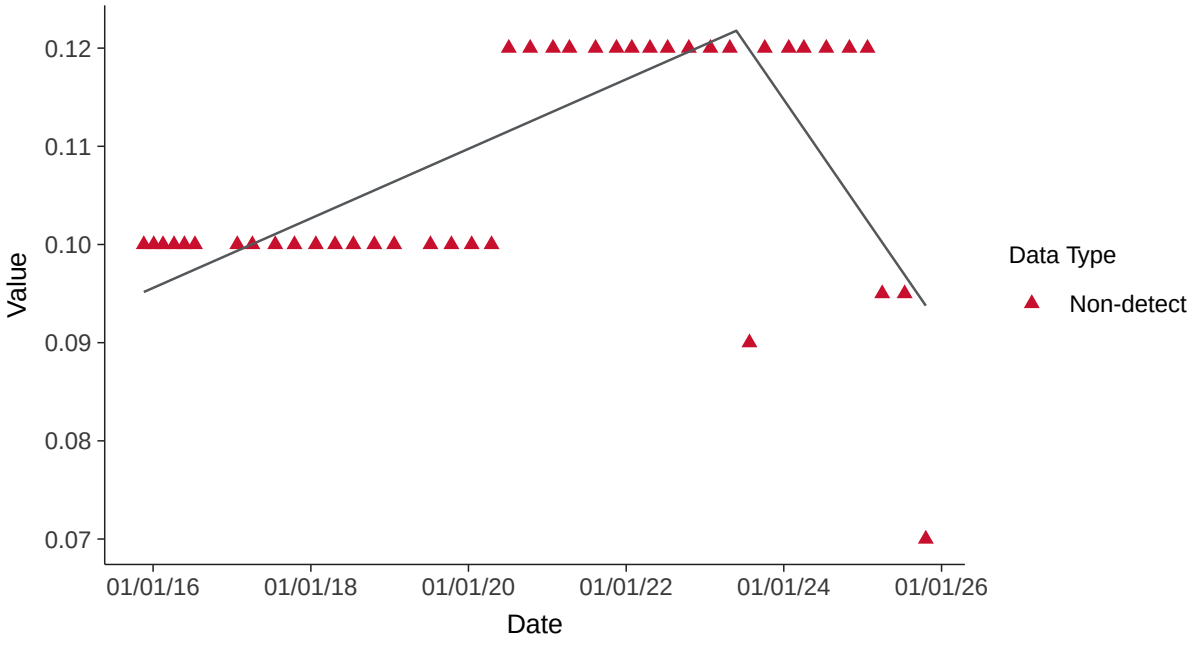
Boxplot by Season

Mercury, MW-4 (ug/L)



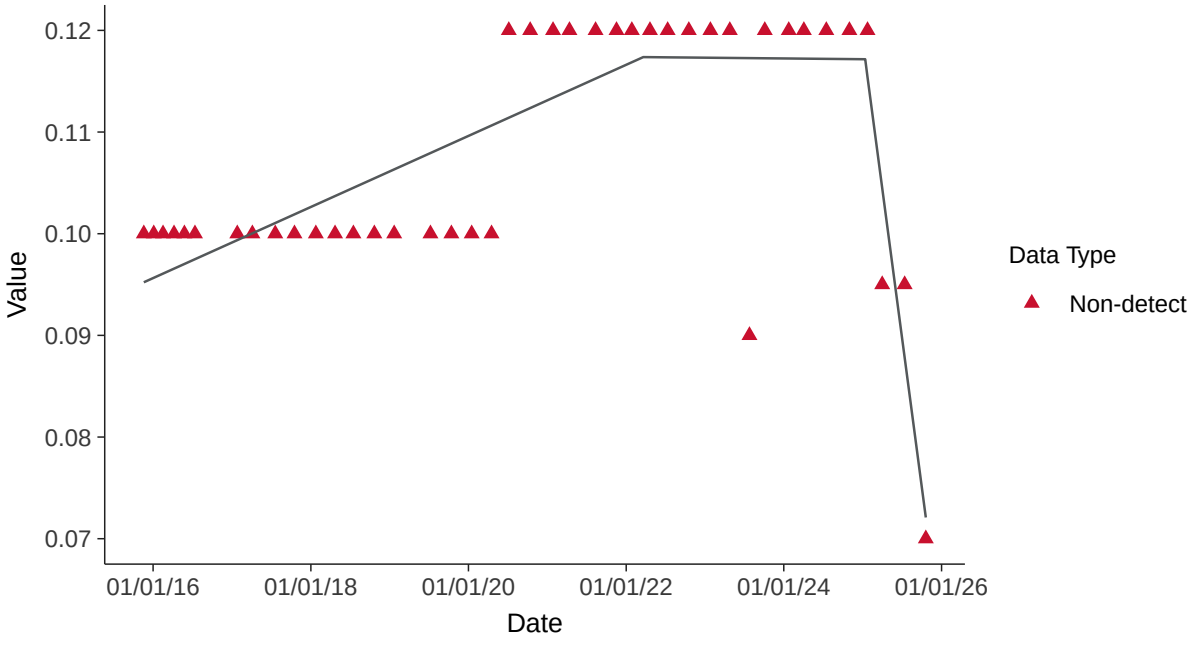
Trend Regression: Piecewise Linear-Linear

Mercury, MW-4 (ug/L)



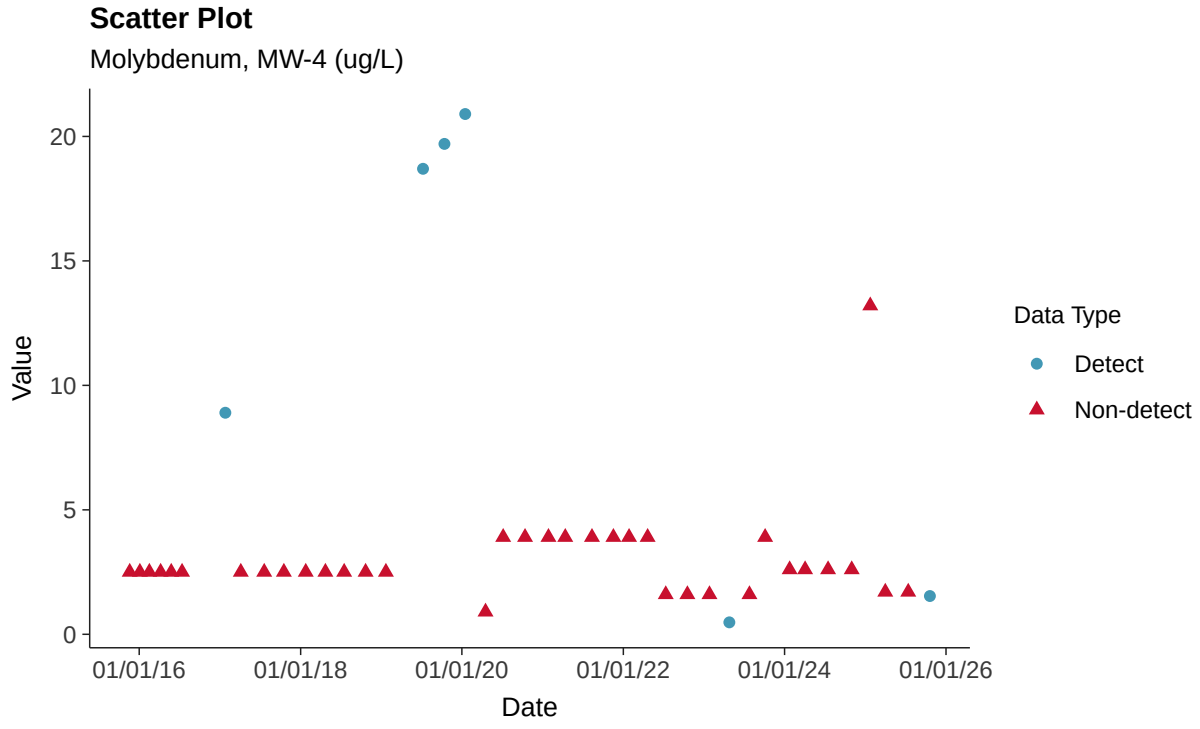
Trend Regression: Piecewise Linear-Linear-Linear

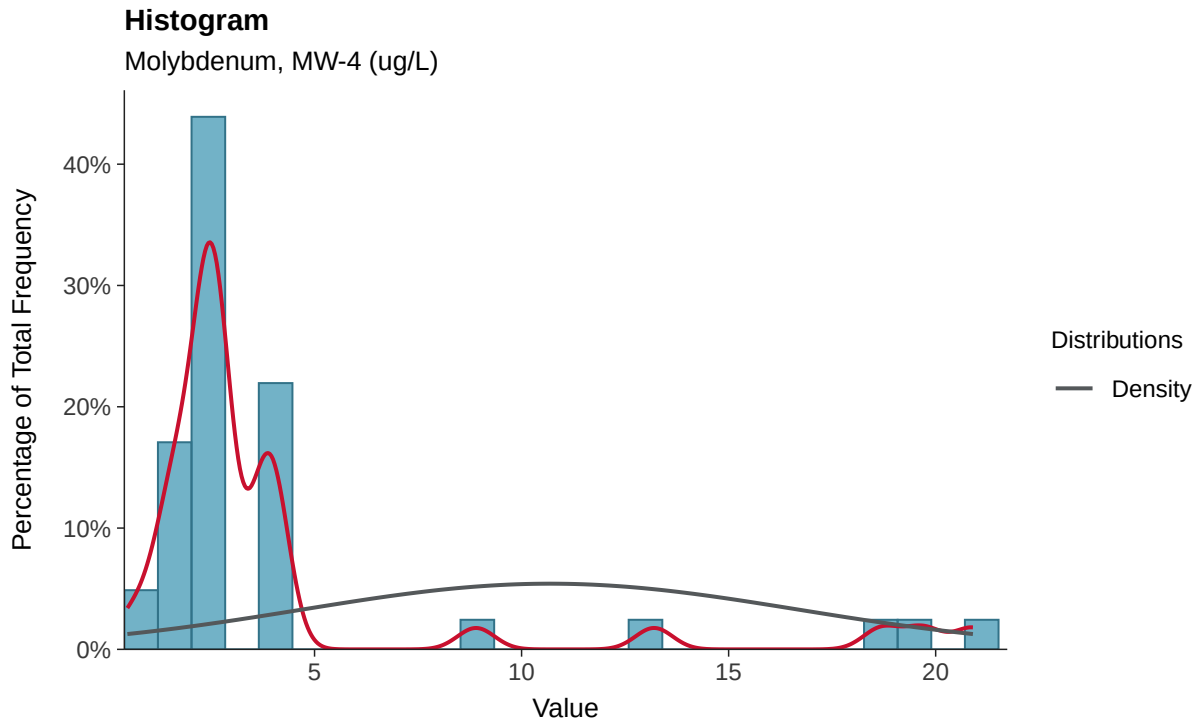
Mercury, MW-4 (ug/L)



App. IV: Molybdenum, MW-4

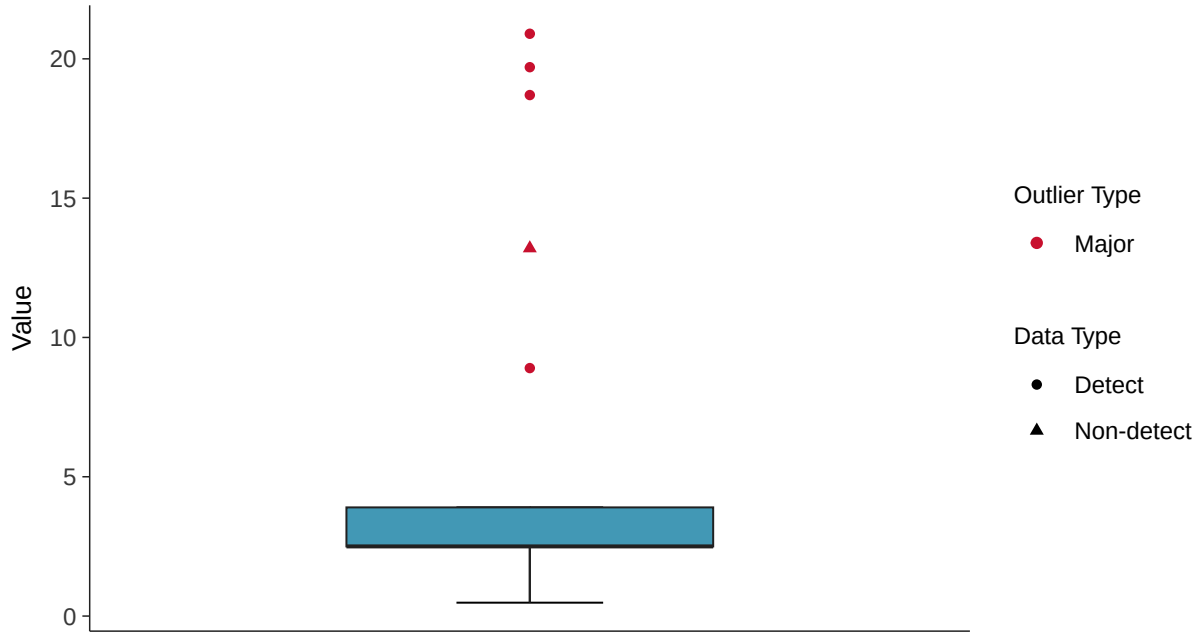
ID: 04_3_116





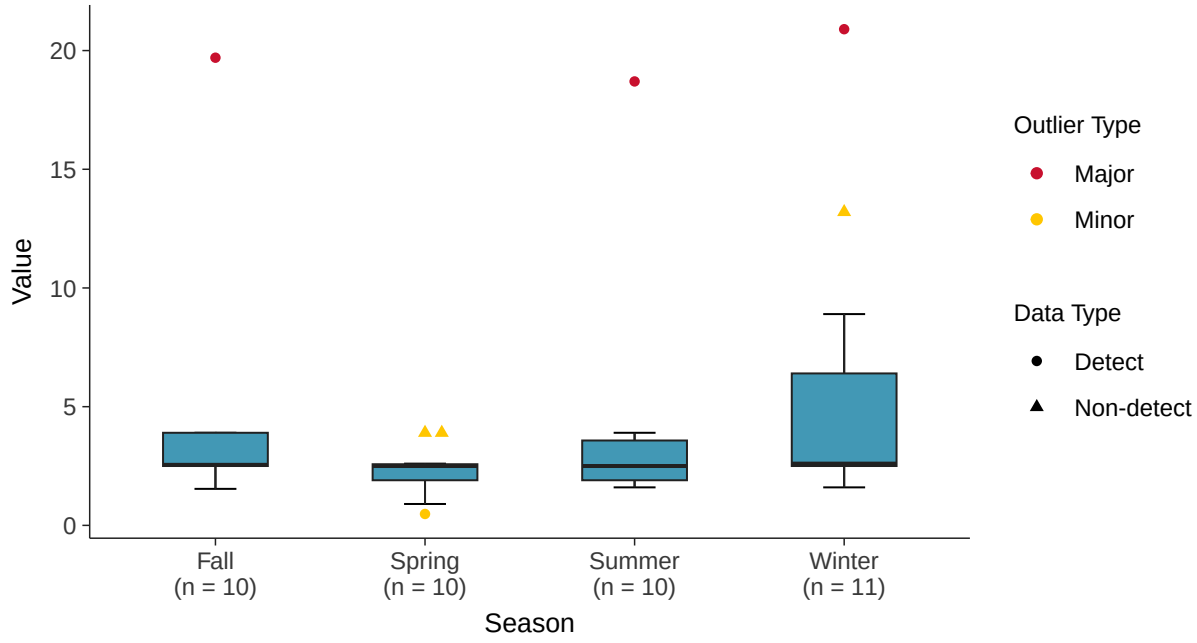
Boxplot

Molybdenum, MW-4 (ug/L)



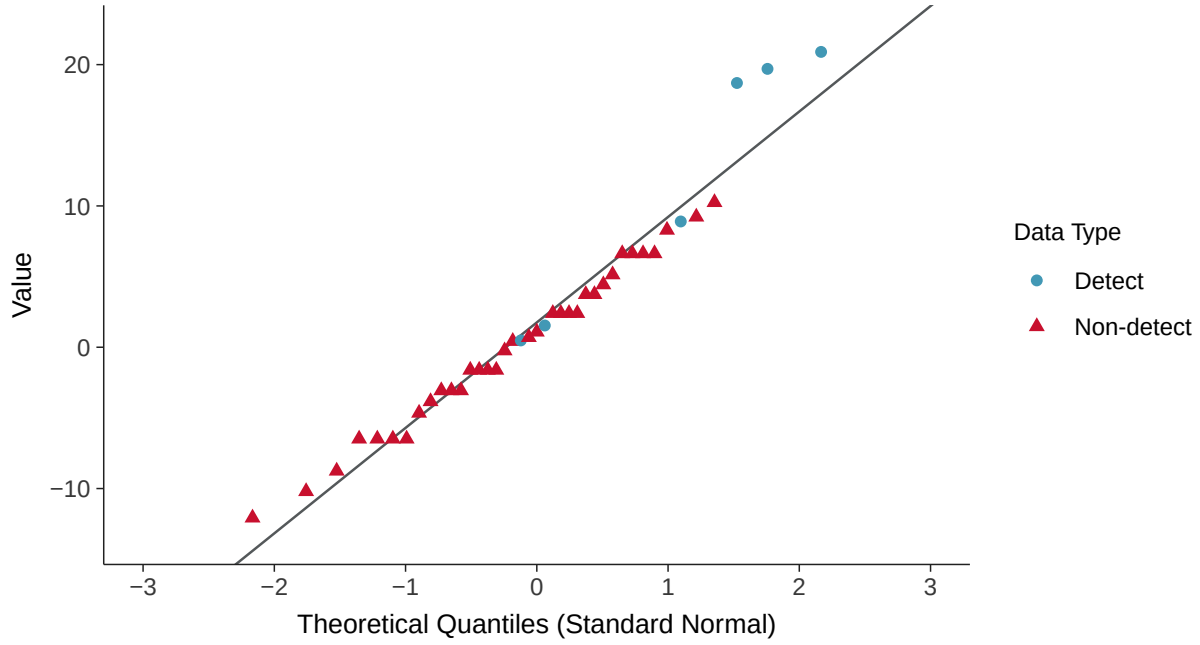
Boxplot by Season

Molybdenum, MW-4 (ug/L)



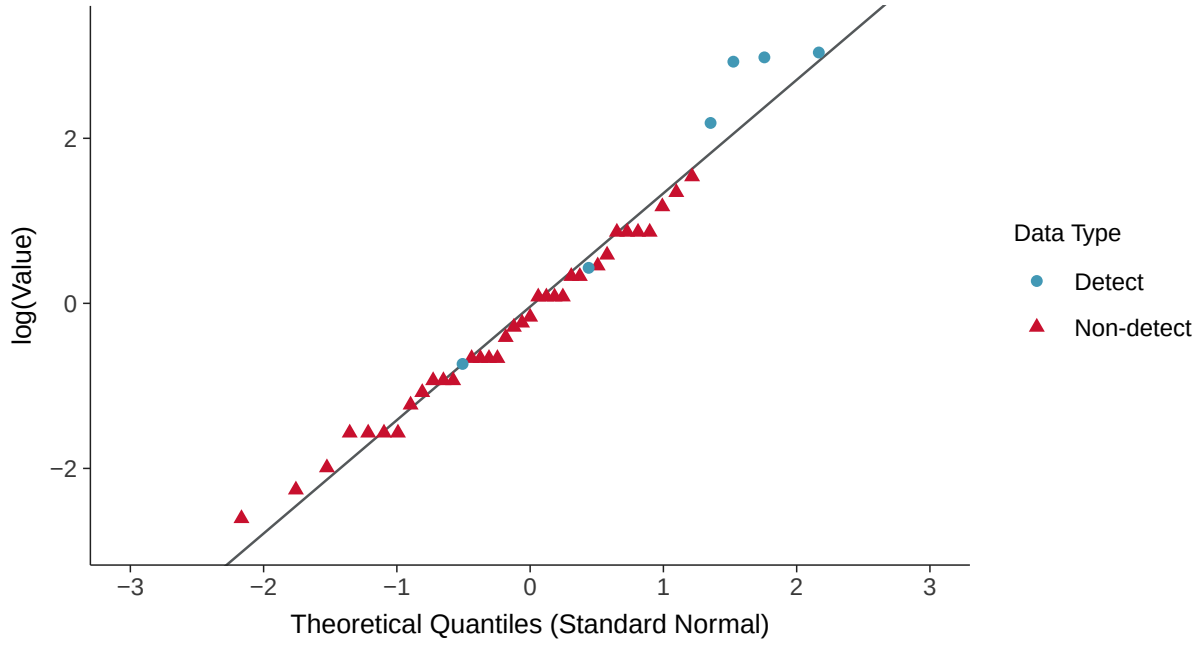
Normal Q-Q plot using ROS Imputed Estimates

Molybdenum, MW-4 (ug/L)



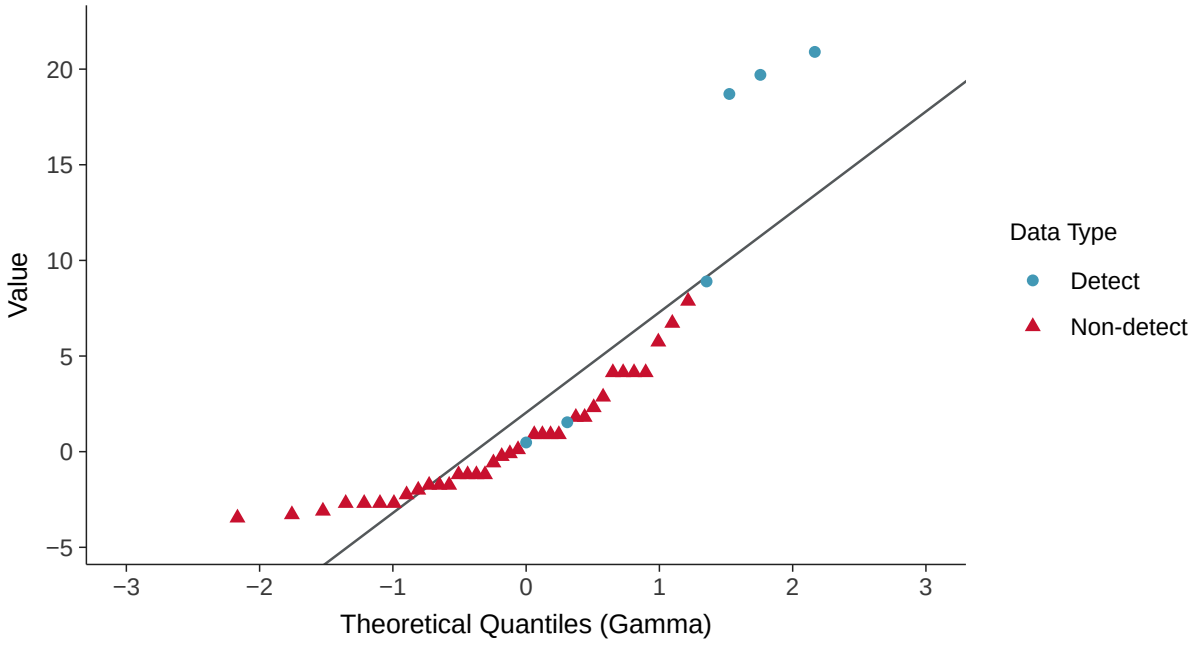
Lognormal Q-Q plot using ROS Imputed Estimates

Molybdenum, MW-4 (ug/L)



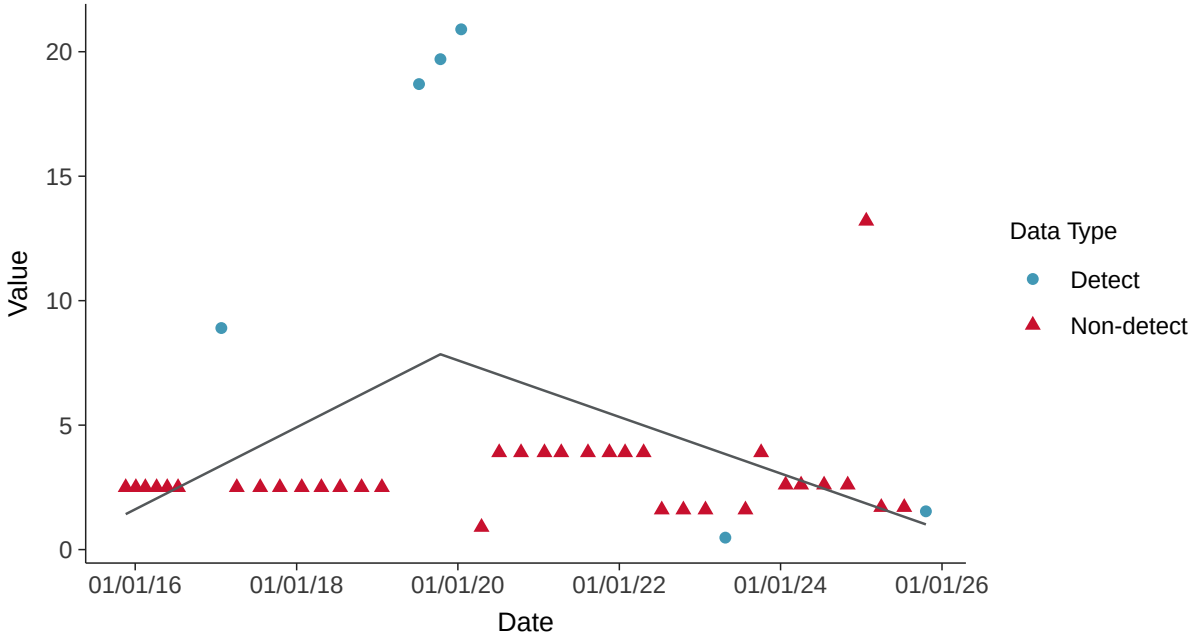
Gamma Q-Q plot using ROS Imputed Estimates

Molybdenum, MW-4 (ug/L)



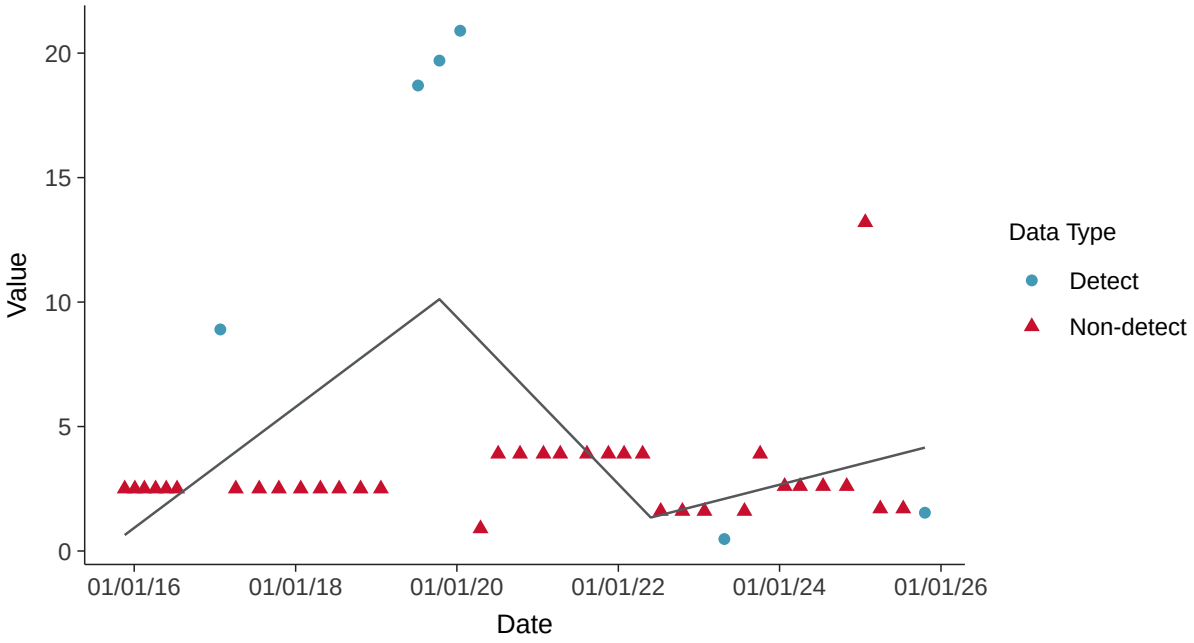
Trend Regression: Piecewise Linear-Linear

Molybdenum, MW-4 (ug/L)



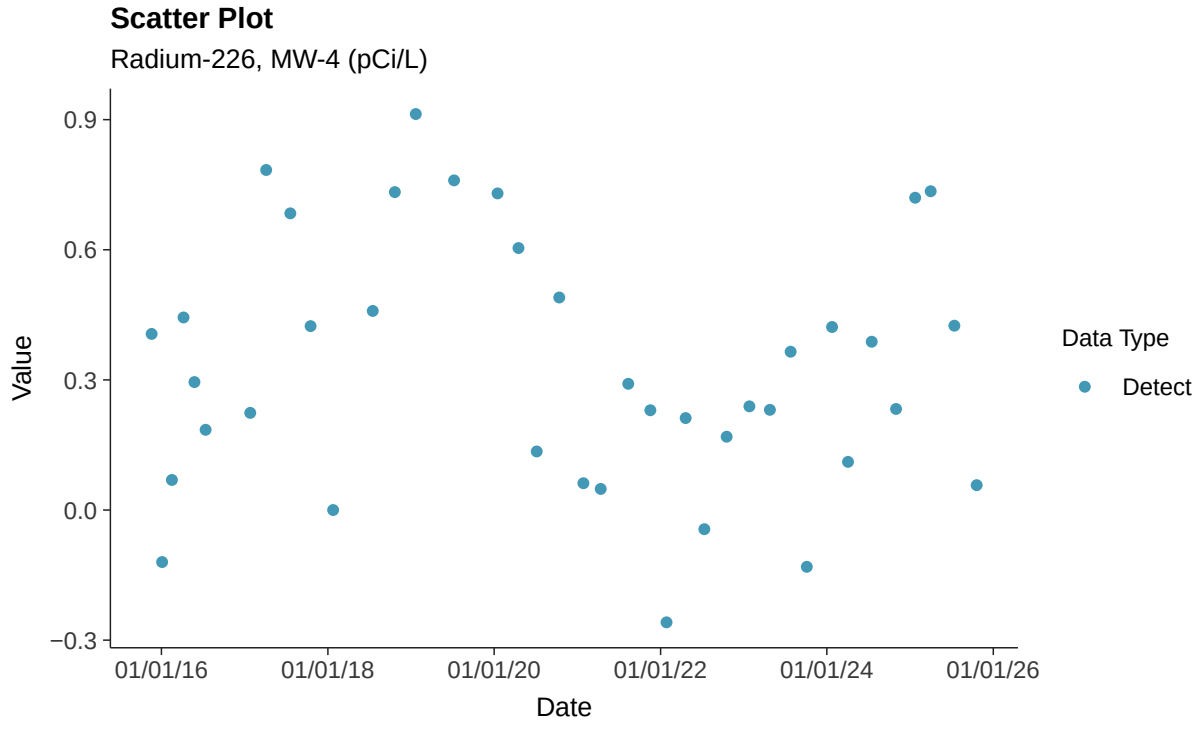
Trend Regression: Piecewise Linear-Linear-Linear

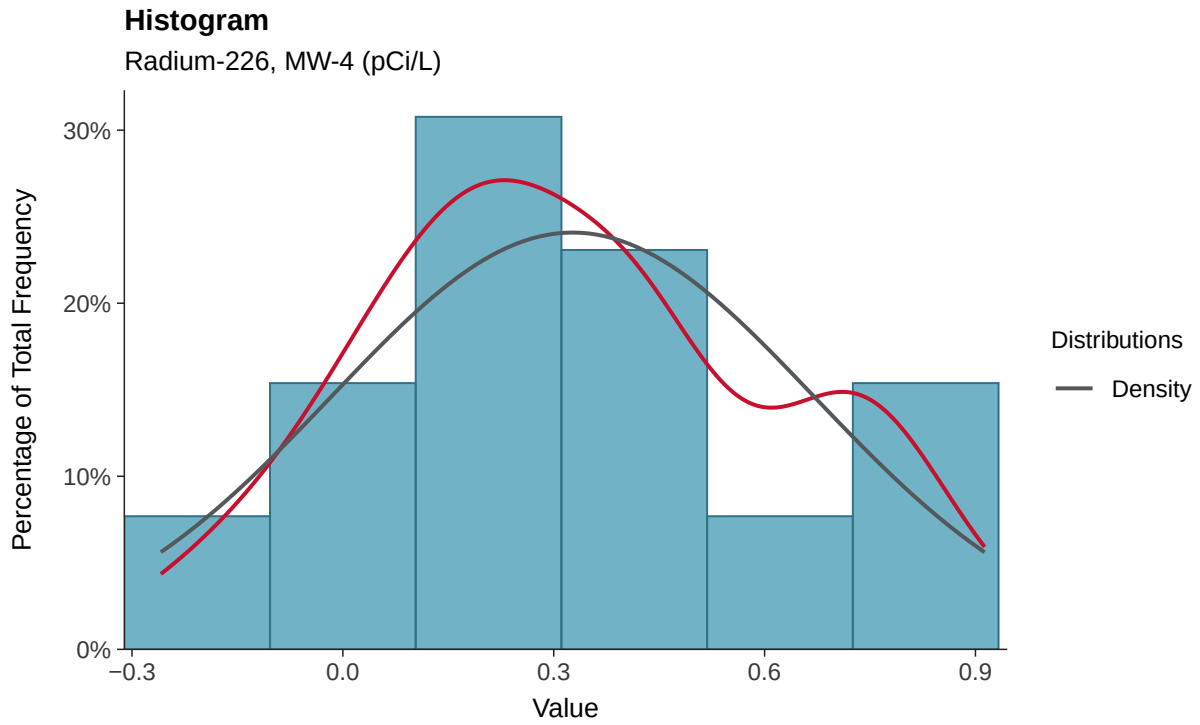
Molybdenum, MW-4 (ug/L)



App. IV: Radium-226, MW-4

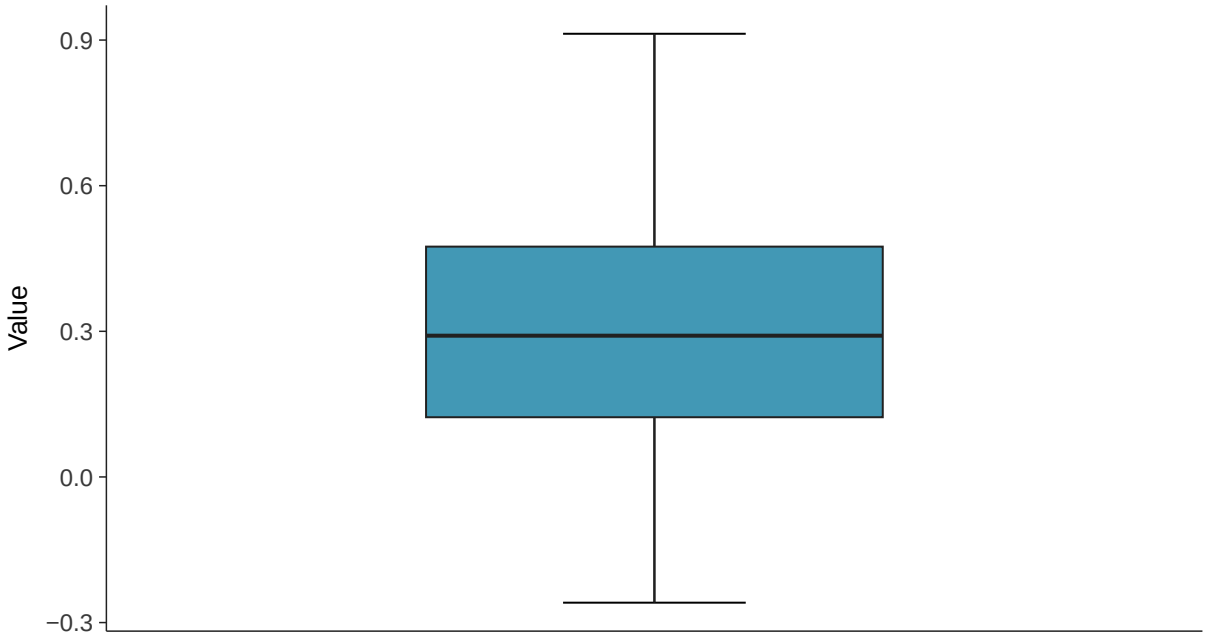
ID: 04_3_119





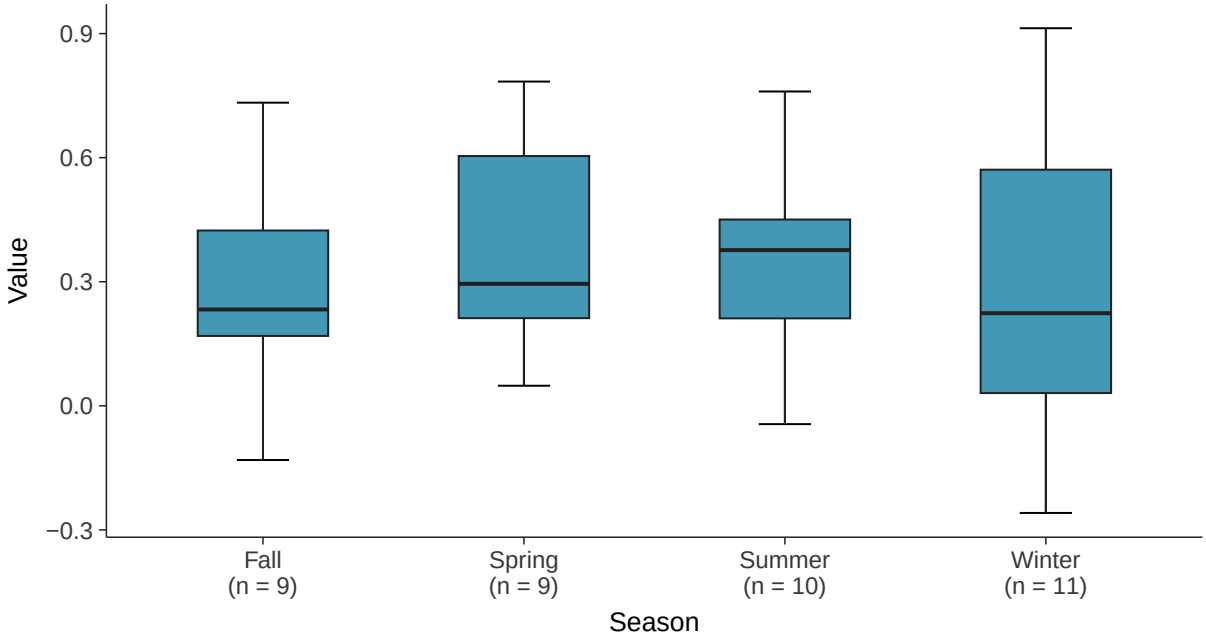
Boxplot

Radium-226, MW-4 (pCi/L)



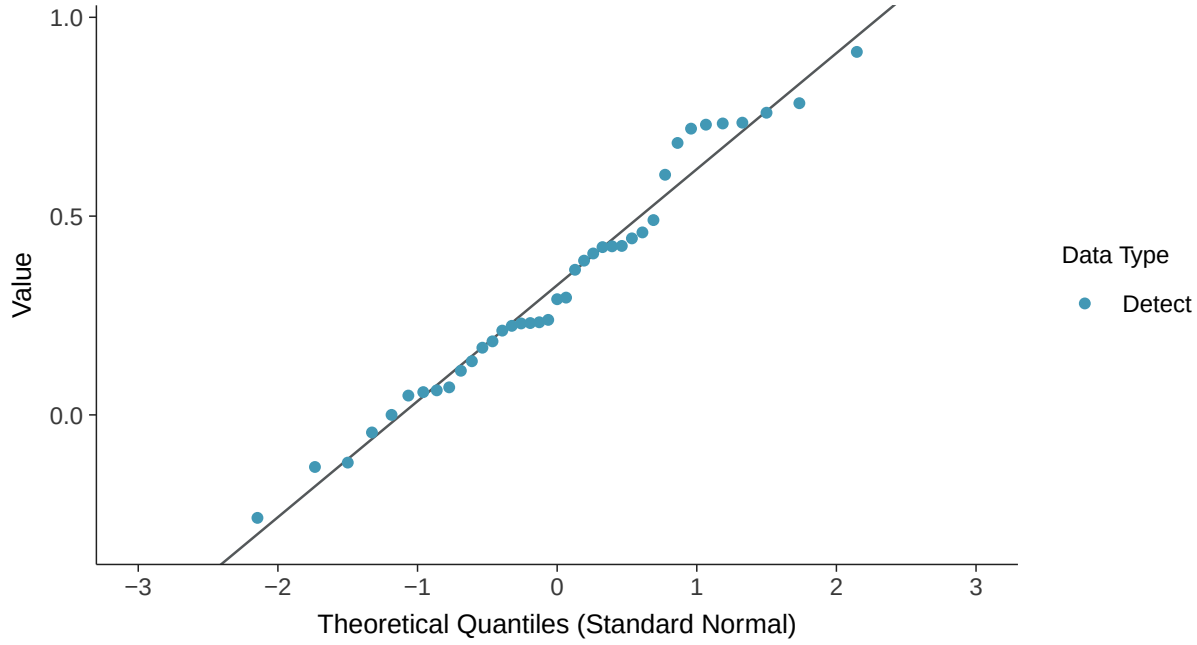
Boxplot by Season

Radium-226, MW-4 (pCi/L)



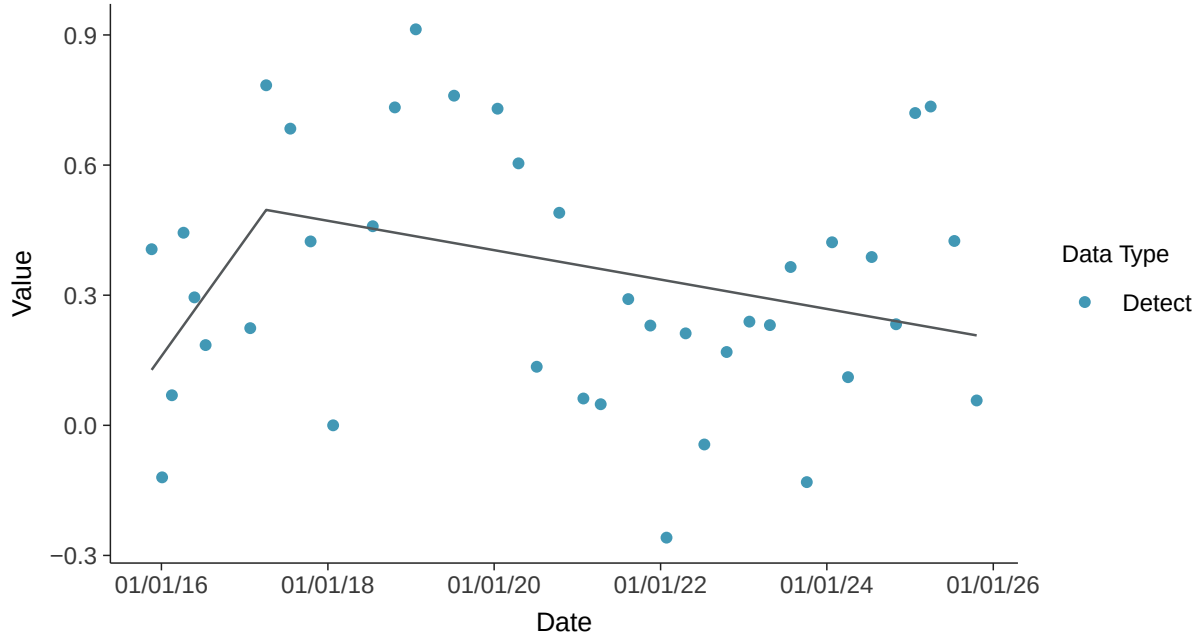
Normal Q-Q plot

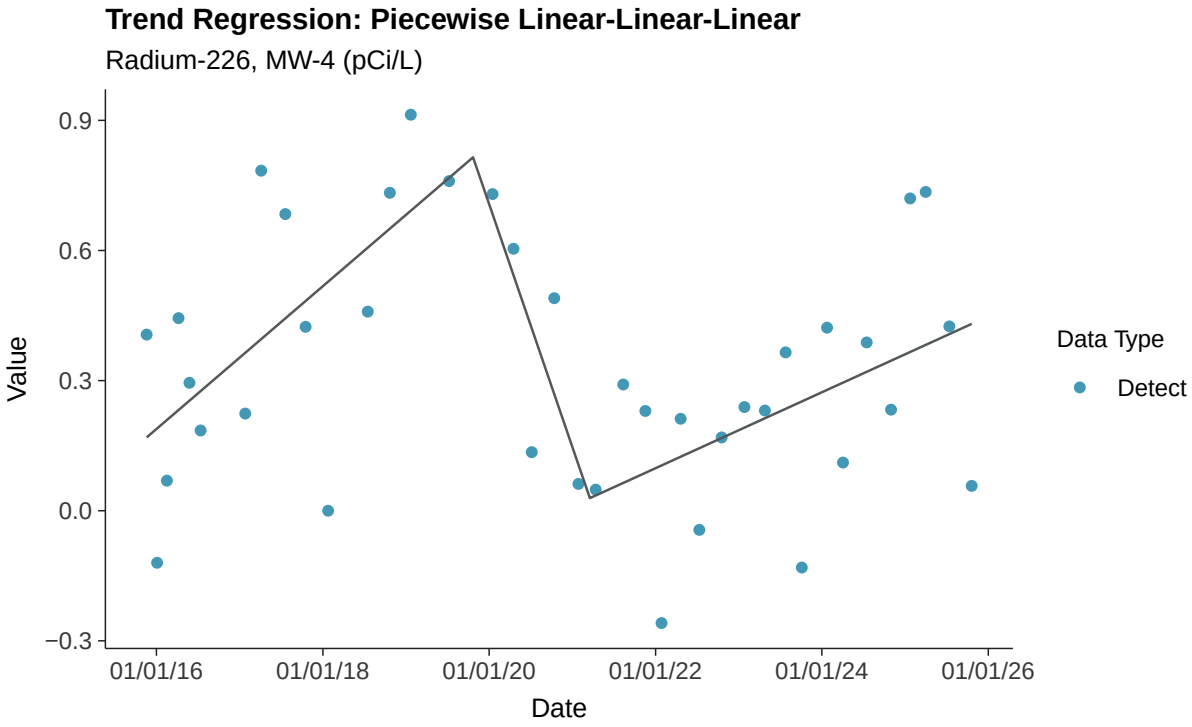
Radium-226, MW-4 (pCi/L)



Trend Regression: Piecewise Linear-Linear

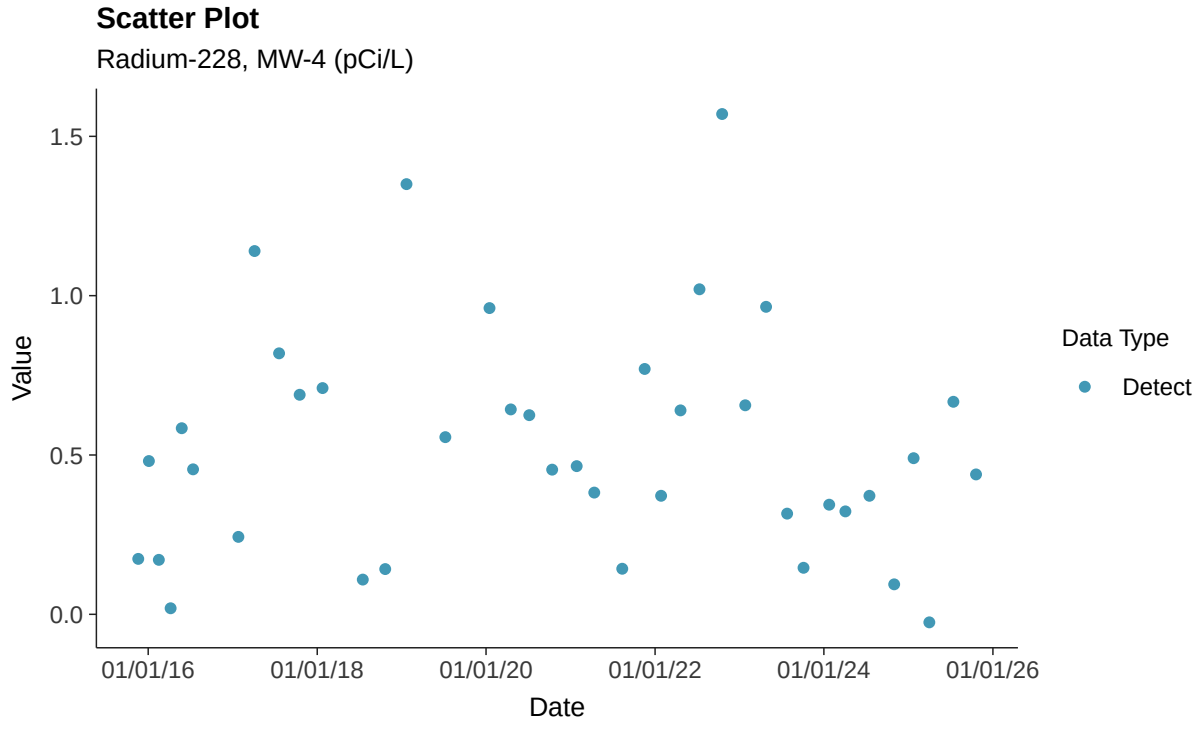
Radium-226, MW-4 (pCi/L)

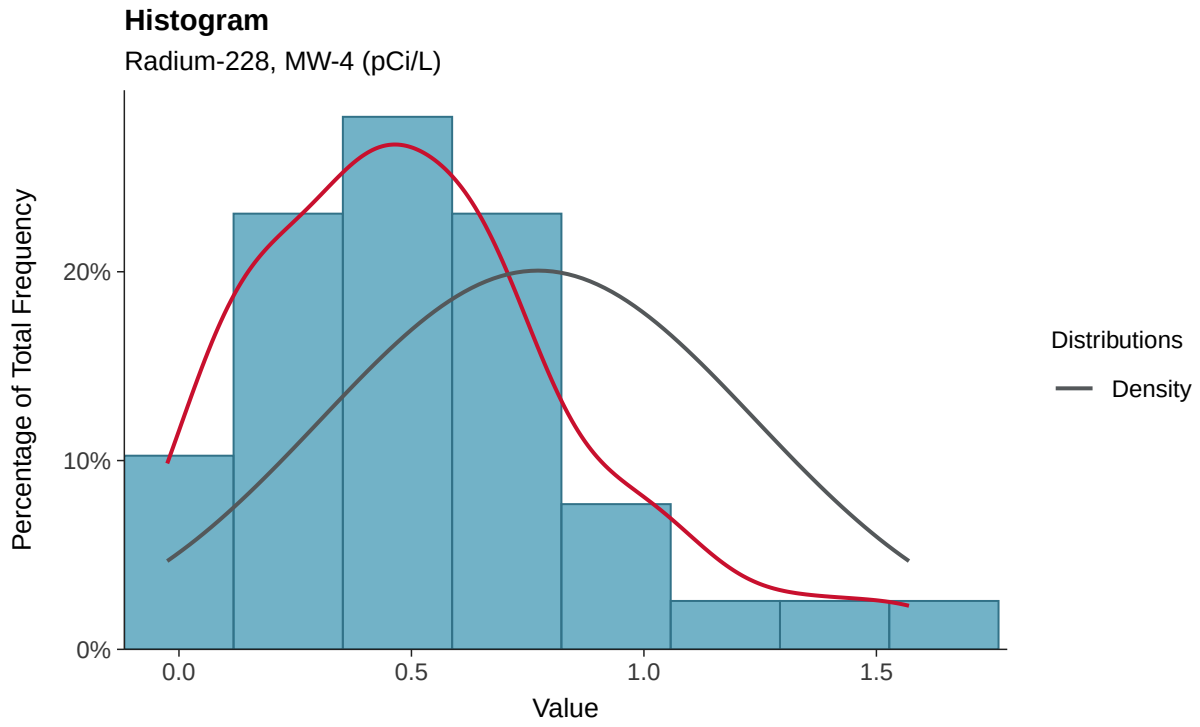



Trend Regression: Piecewise Linear-Linear-Linear
Radium-226, MW-4 (pCi/L)
Value
0.9
0.6
0.3
0.0
−0.3
01/01/16
01/01/18
01/01/20
01/01/22
01/01/24
01/01/26
Date
Data Type
Detect

App. IV: Radium-228, MW-4

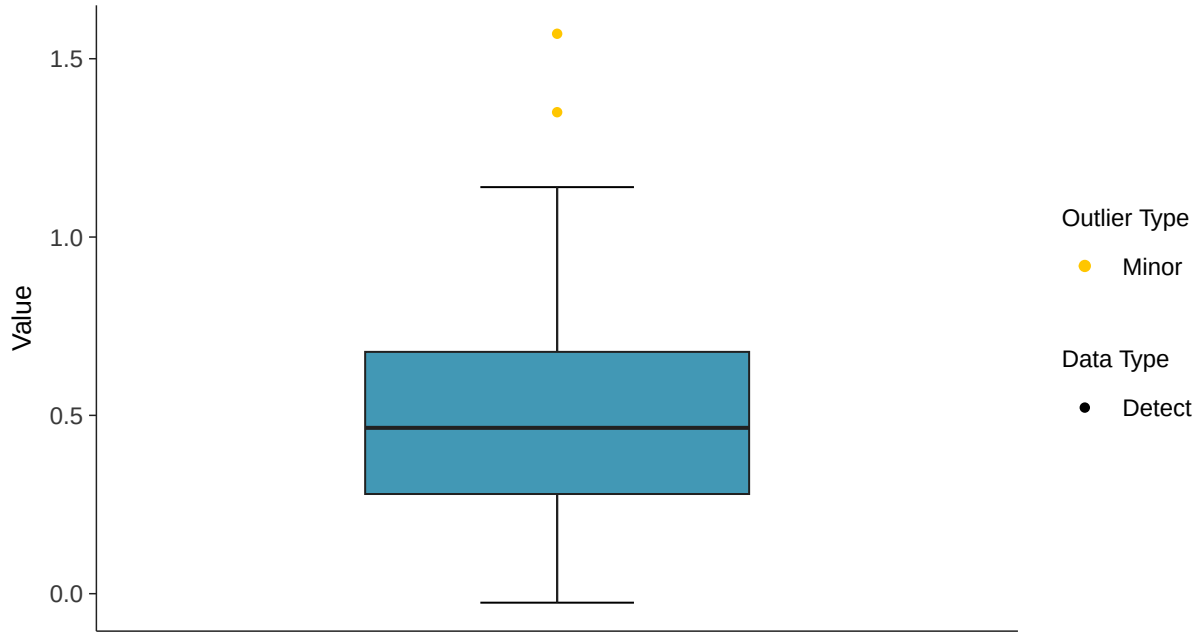
ID: 04_3_120





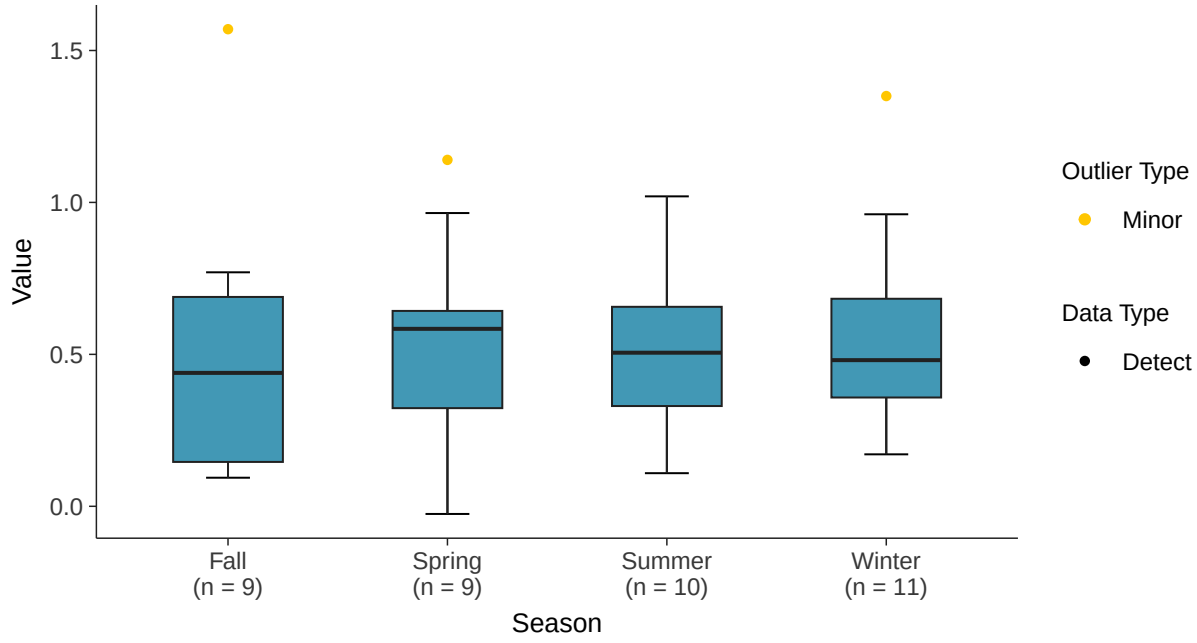
Boxplot

Radium-228, MW-4 (pCi/L)



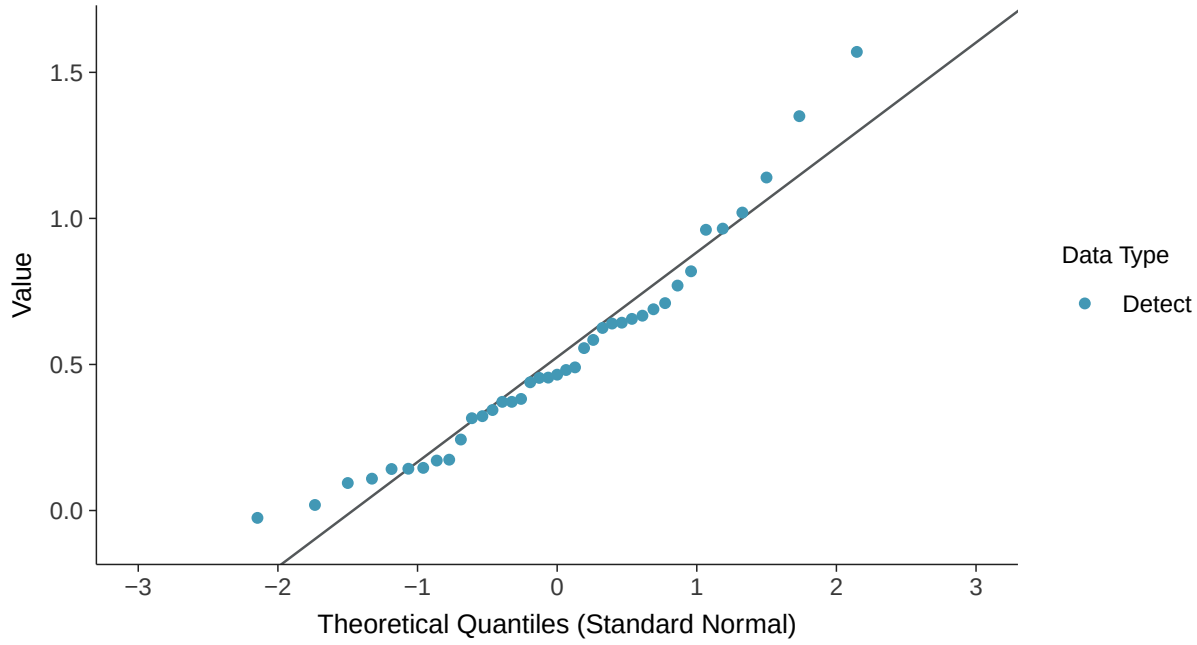
Boxplot by Season

Radium-228, MW-4 (pCi/L)



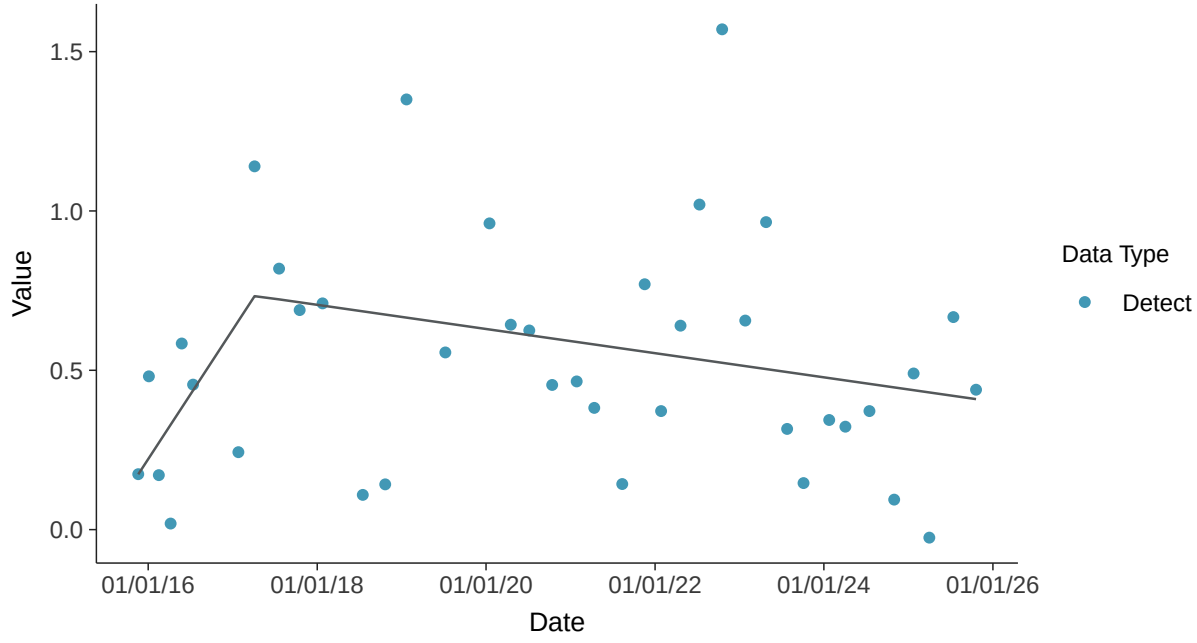
Normal Q-Q plot

Radium-228, MW-4 (pCi/L)



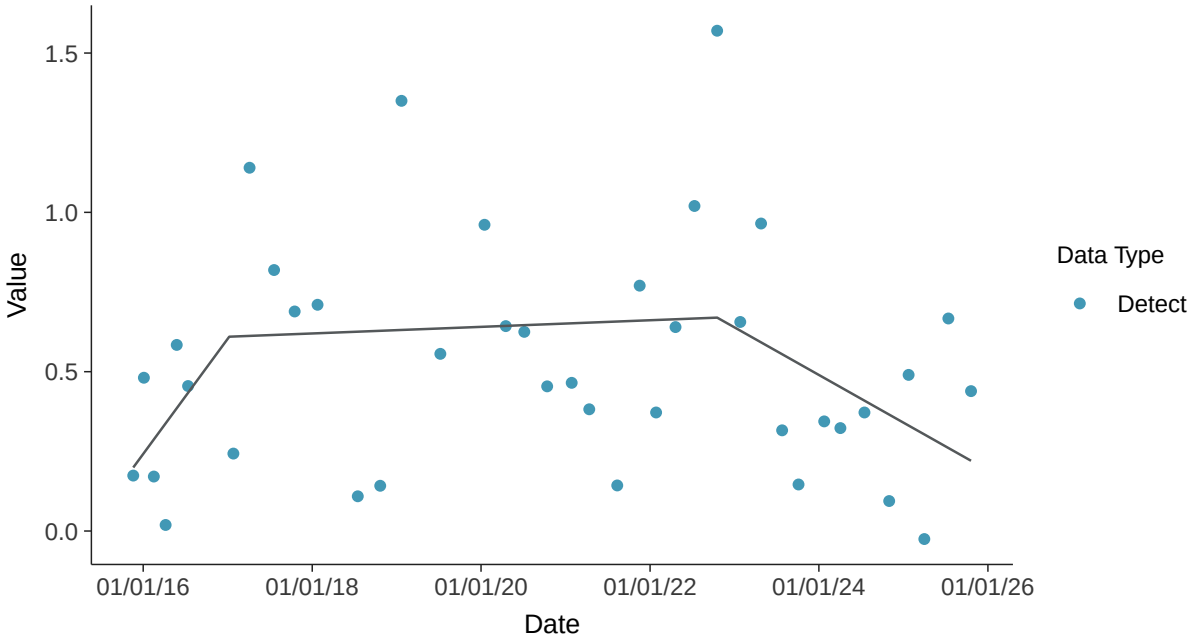
Trend Regression: Piecewise Linear-Linear

Radium-228, MW-4 (pCi/L)



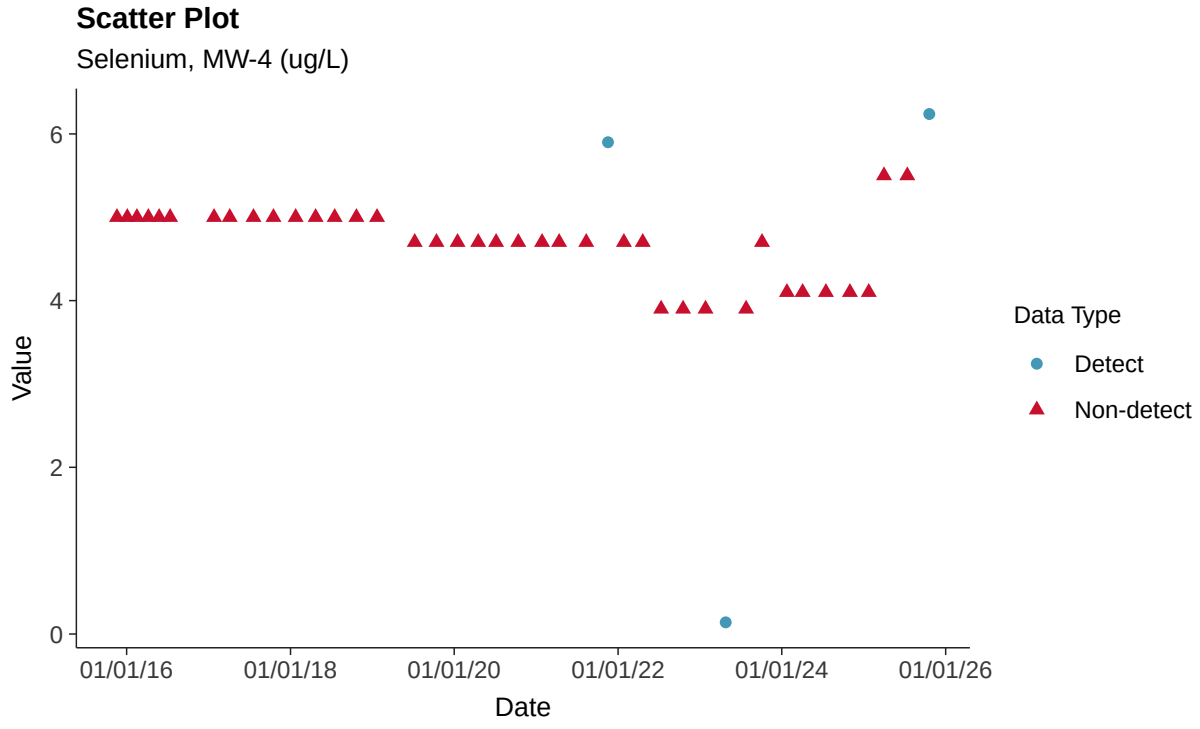
Trend Regression: Piecewise Linear-Linear-Linear

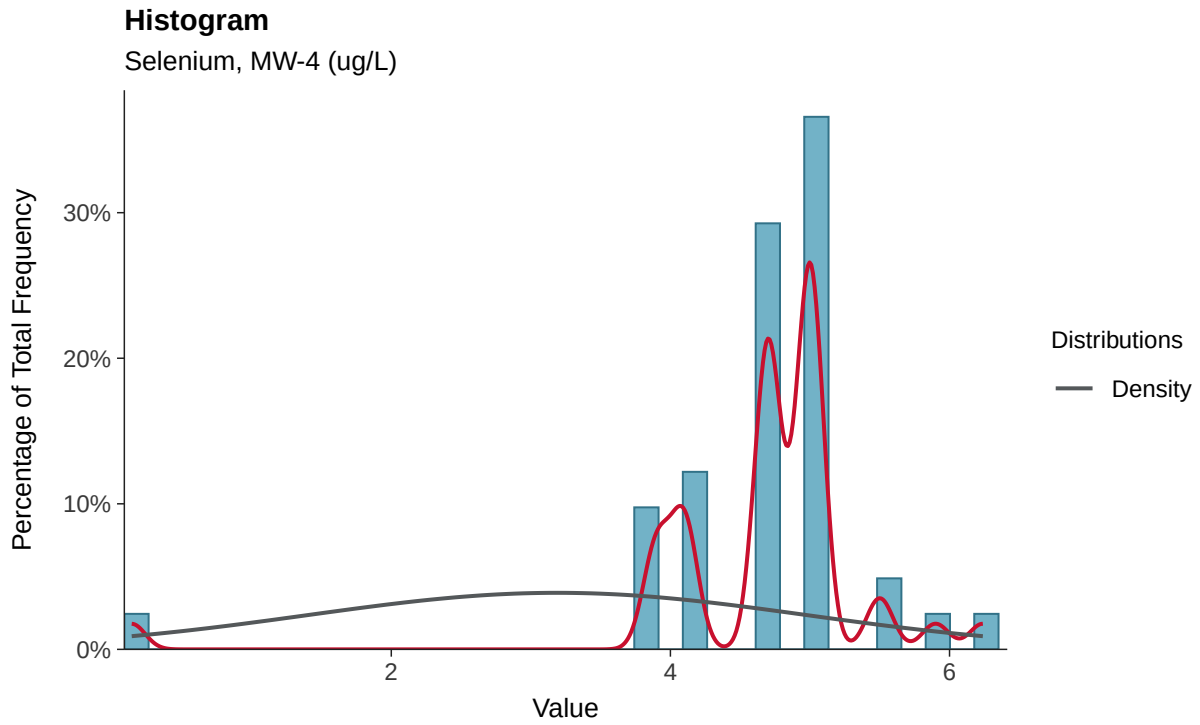
Radium-228, MW-4 (pCi/L)



App. IV: Selenium, MW-4

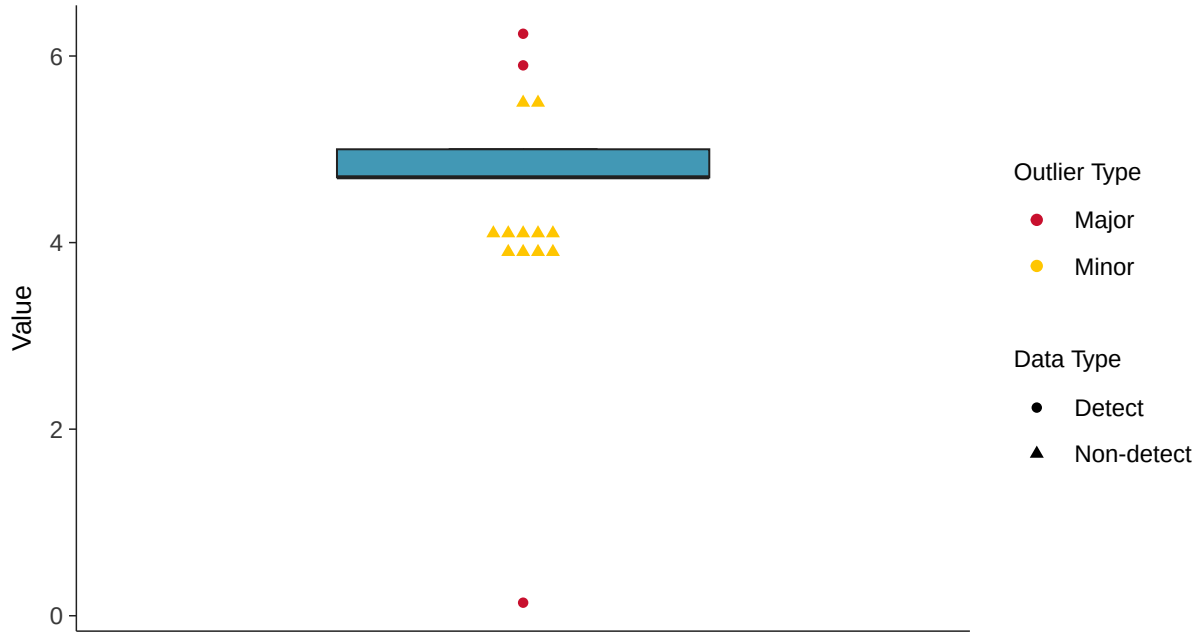
ID: 04_3_121





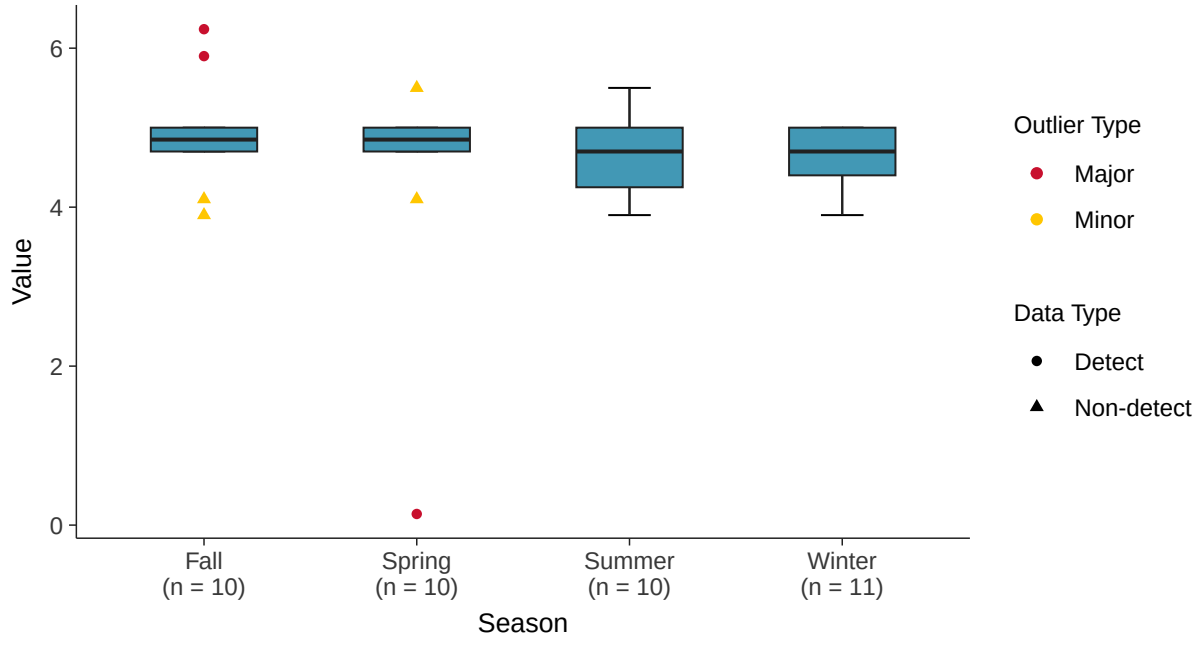
Boxplot

Selenium, MW-4 (ug/L)



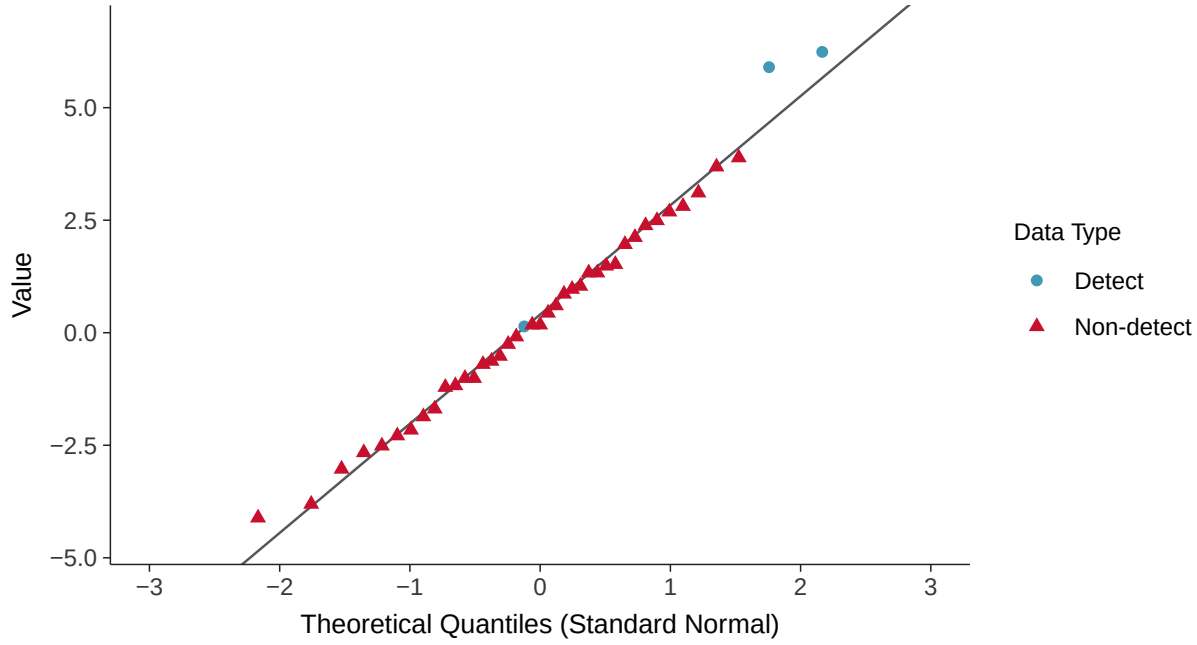
Boxplot by Season

Selenium, MW-4 (ug/L)



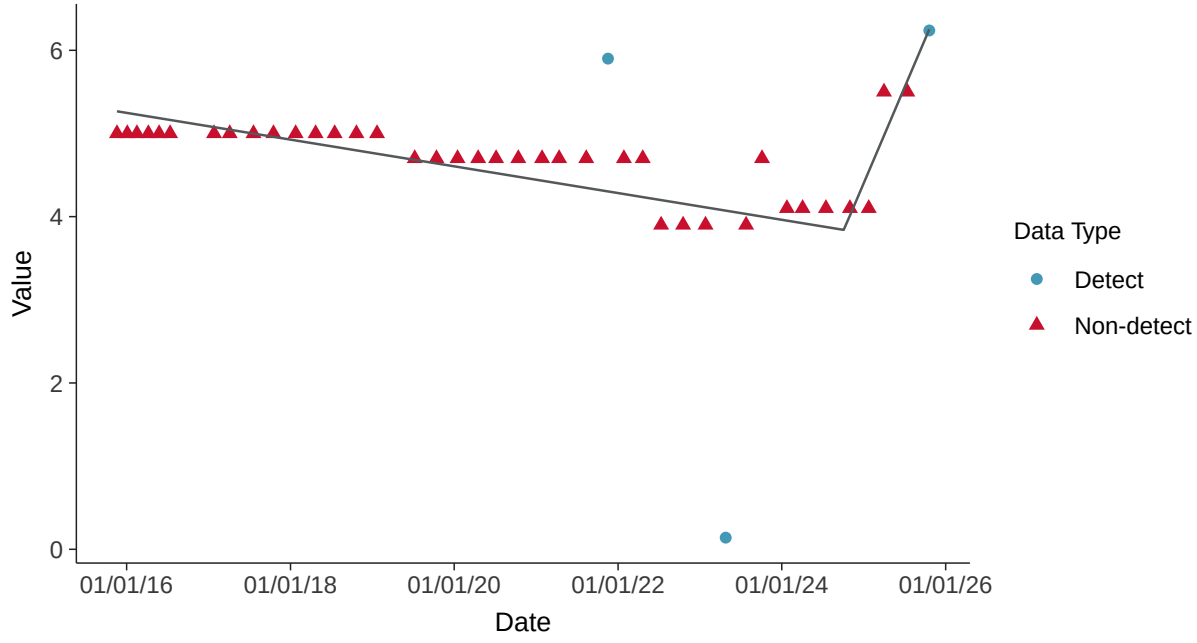
Normal Q-Q plot using ROS Imputed Estimates

Selenium, MW-4 (ug/L)



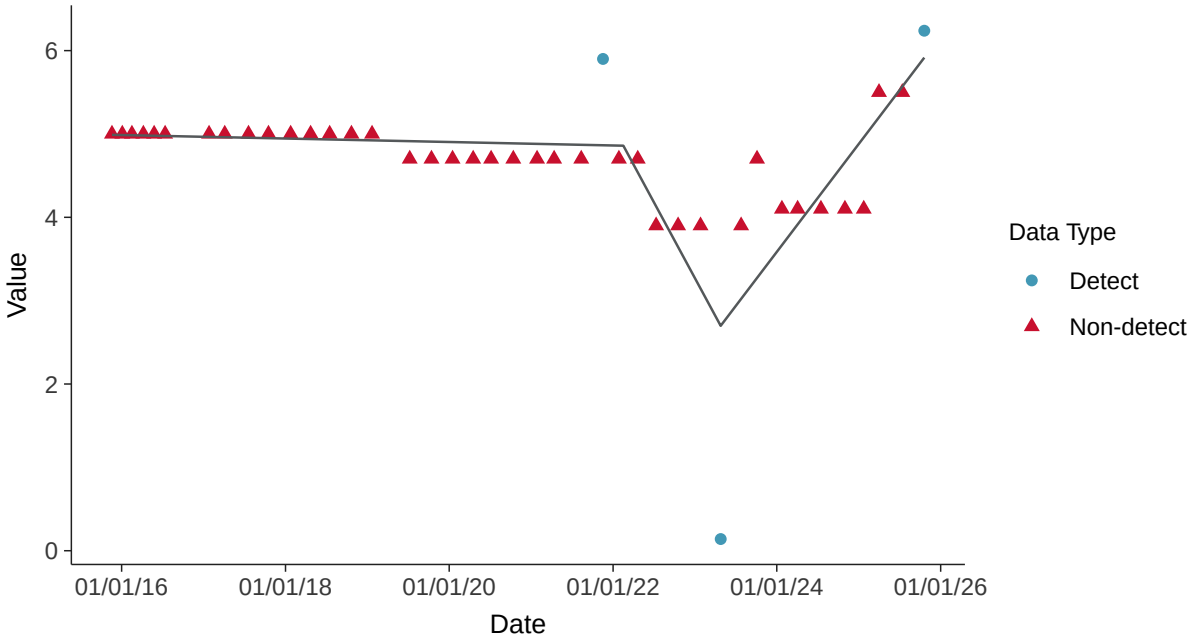
Trend Regression: Piecewise Linear-Linear

Selenium, MW-4 (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Selenium, MW-4 (ug/L)

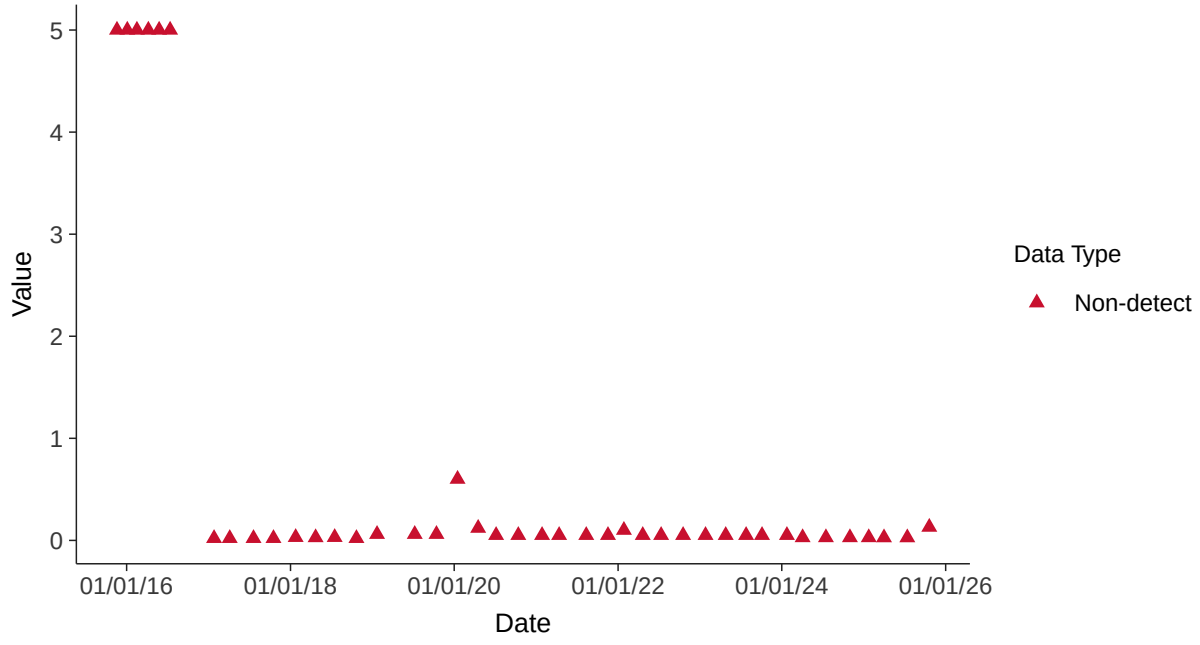


App. IV: Thallium, MW-4

ID: 04_3_124

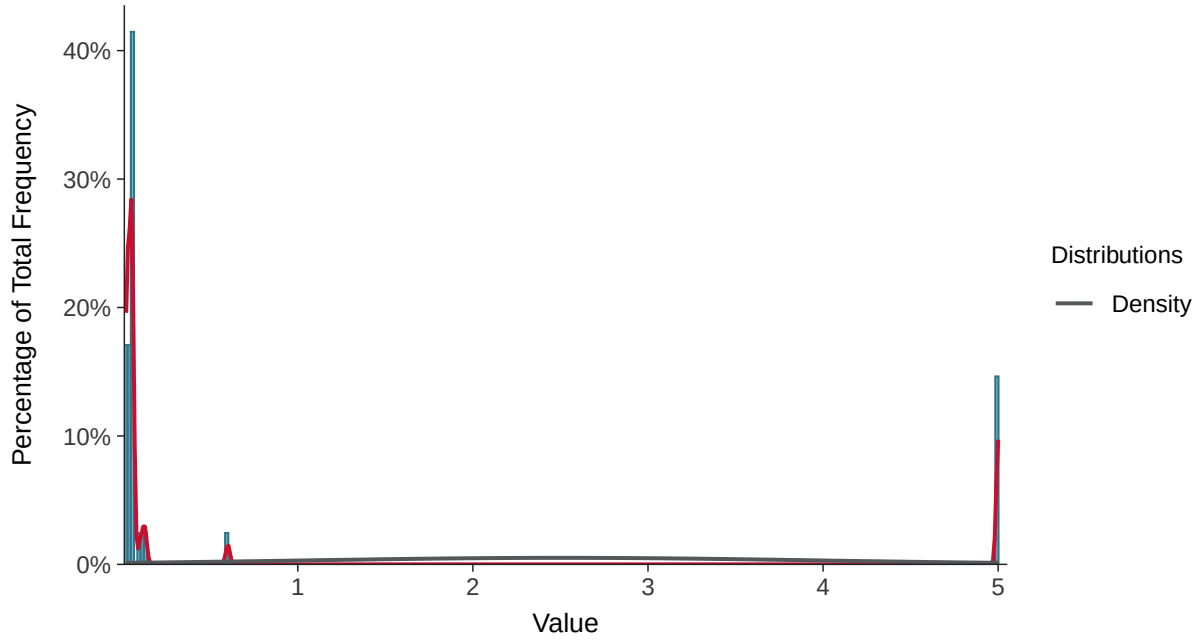
Scatter Plot

Thallium, MW-4 (ug/L)



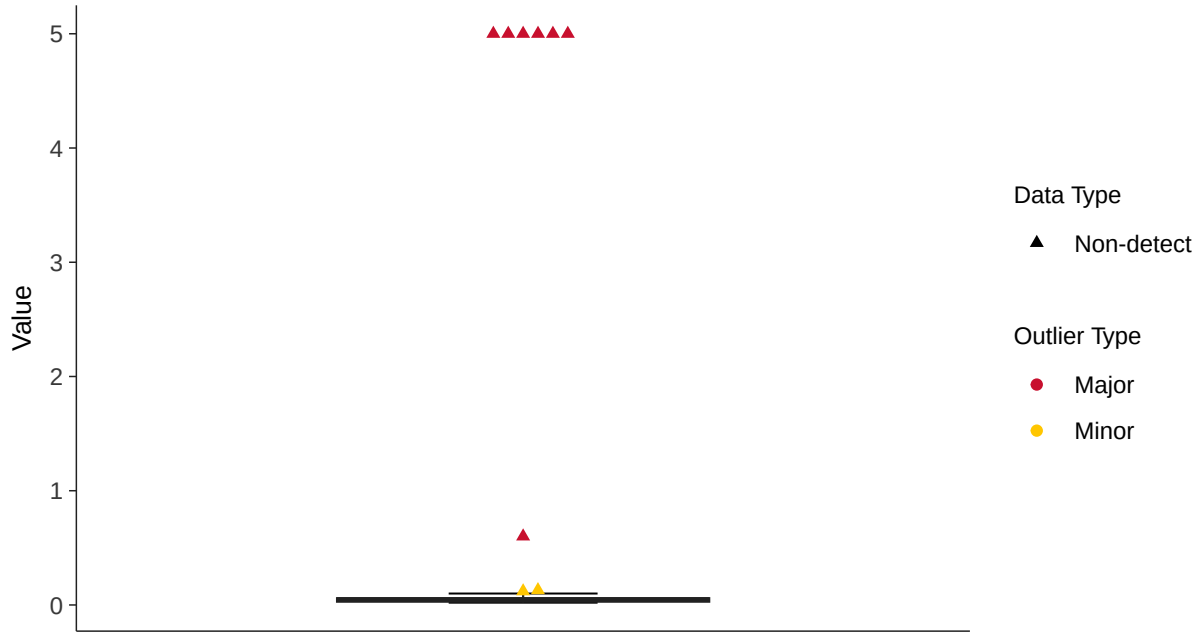
Histogram

Thallium, MW-4 (ug/L)



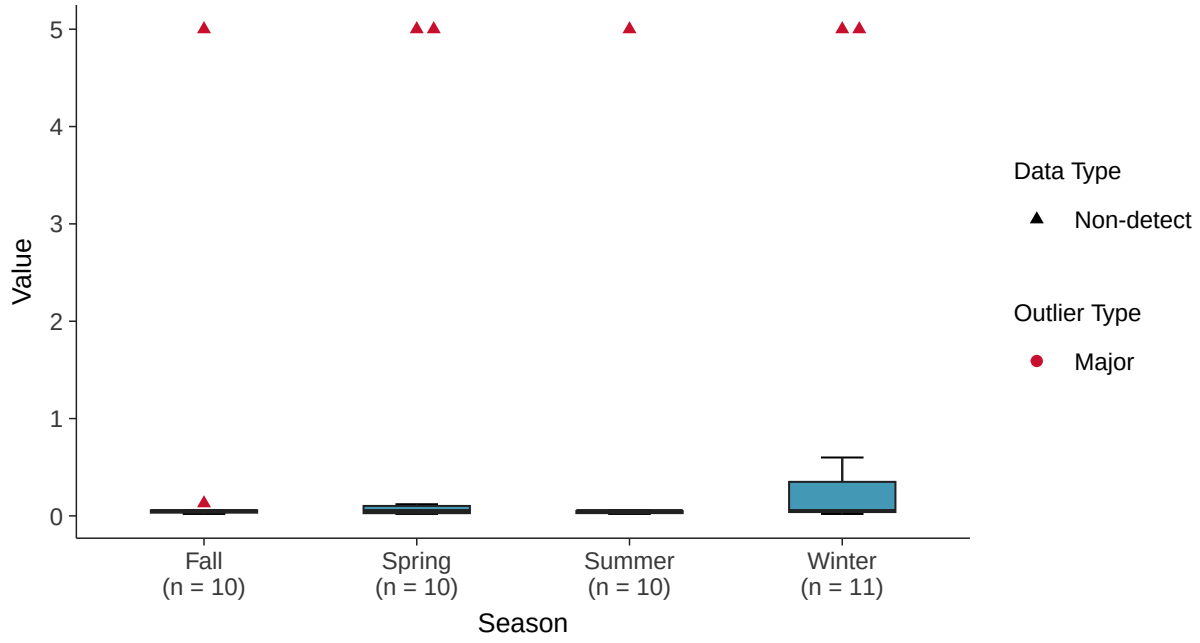
Boxplot

Thallium, MW-4 (ug/L)



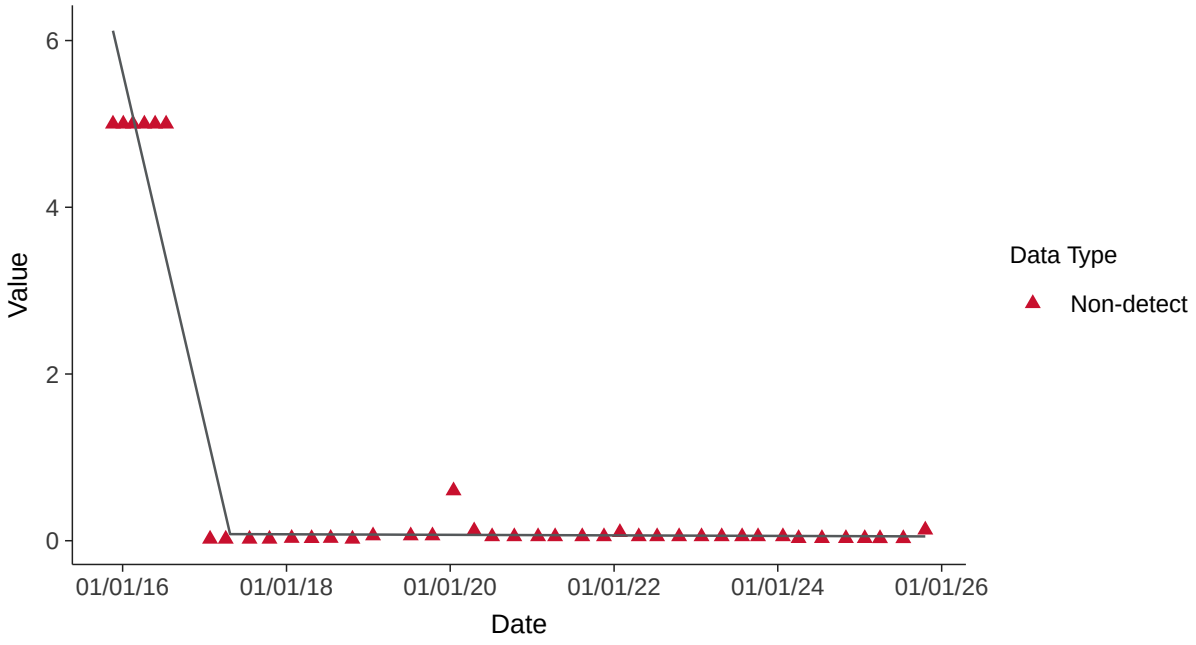
Boxplot by Season

Thallium, MW-4 (ug/L)



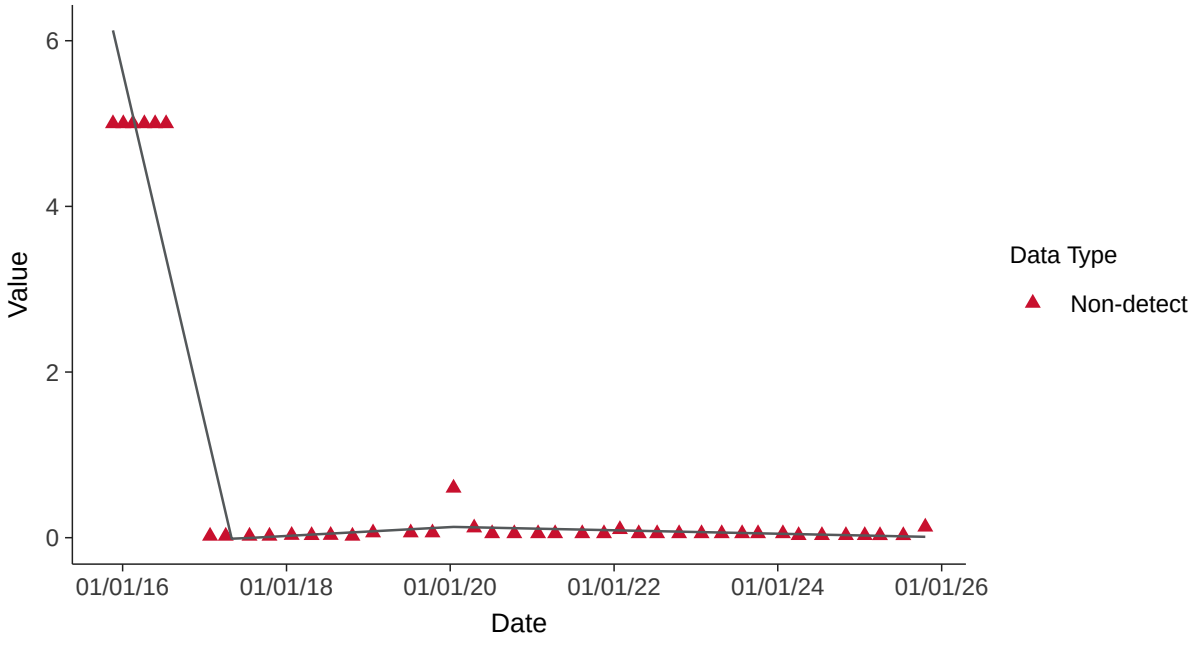
Trend Regression: Piecewise Linear-Linear

Thallium, MW-4 (ug/L)



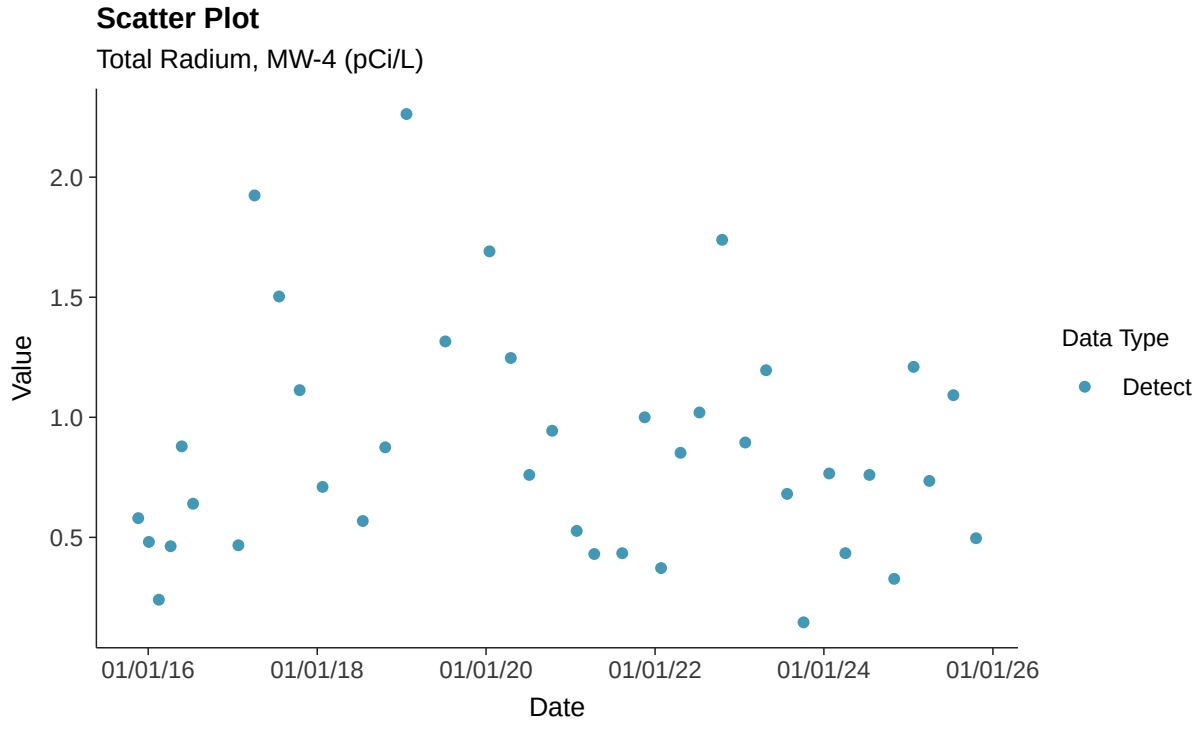
Trend Regression: Piecewise Linear-Linear-Linear

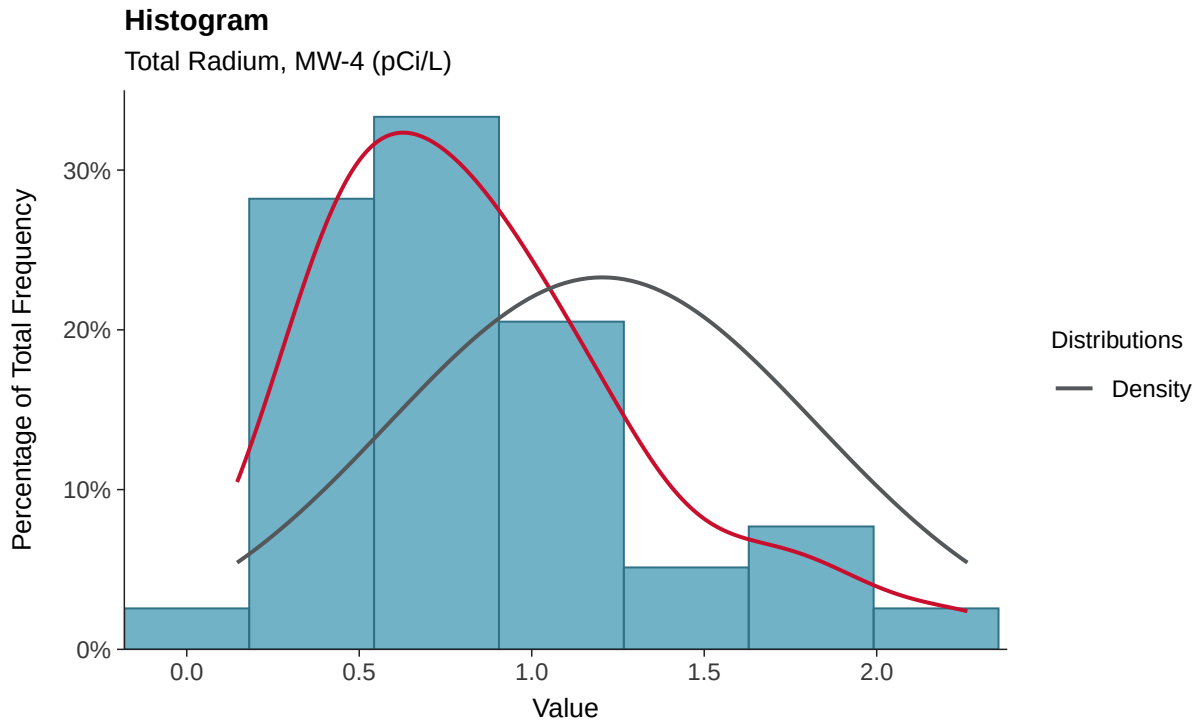
Thallium, MW-4 (ug/L)



App. IV: Total Radium, MW-4

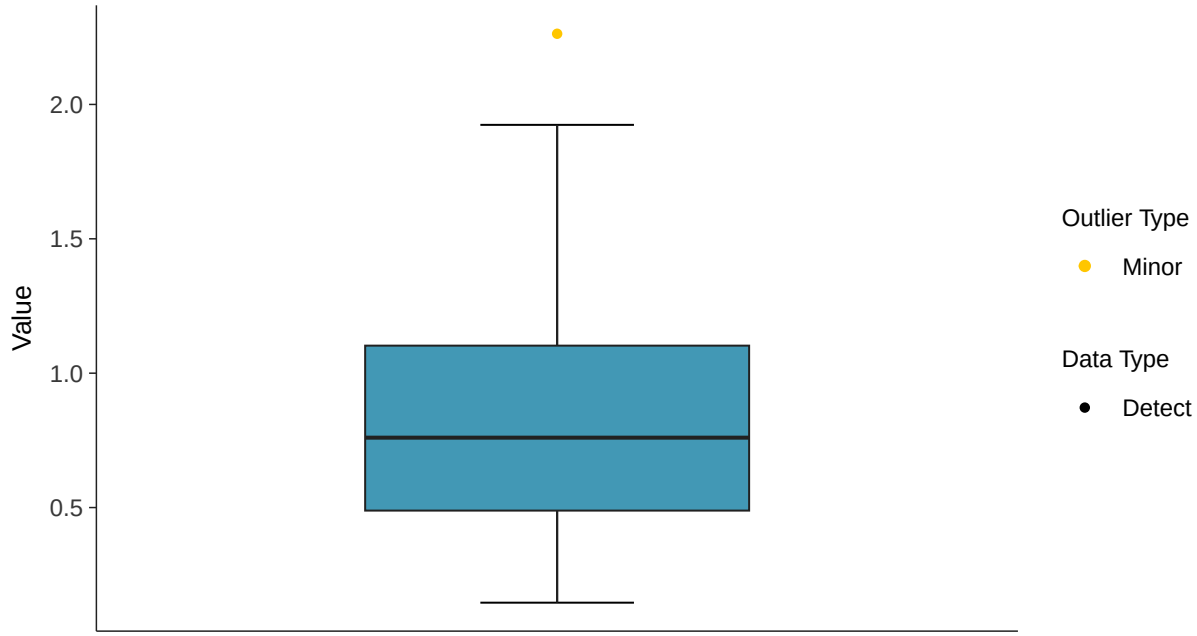
ID: 04_3_126





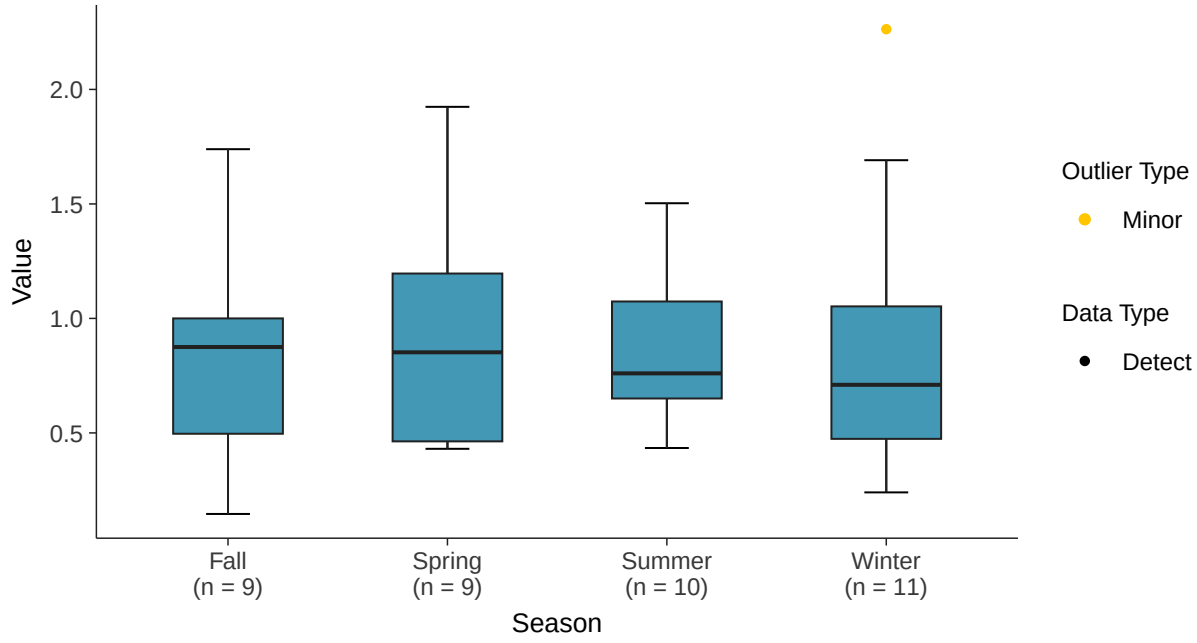
Boxplot

Total Radium, MW-4 (pCi/L)



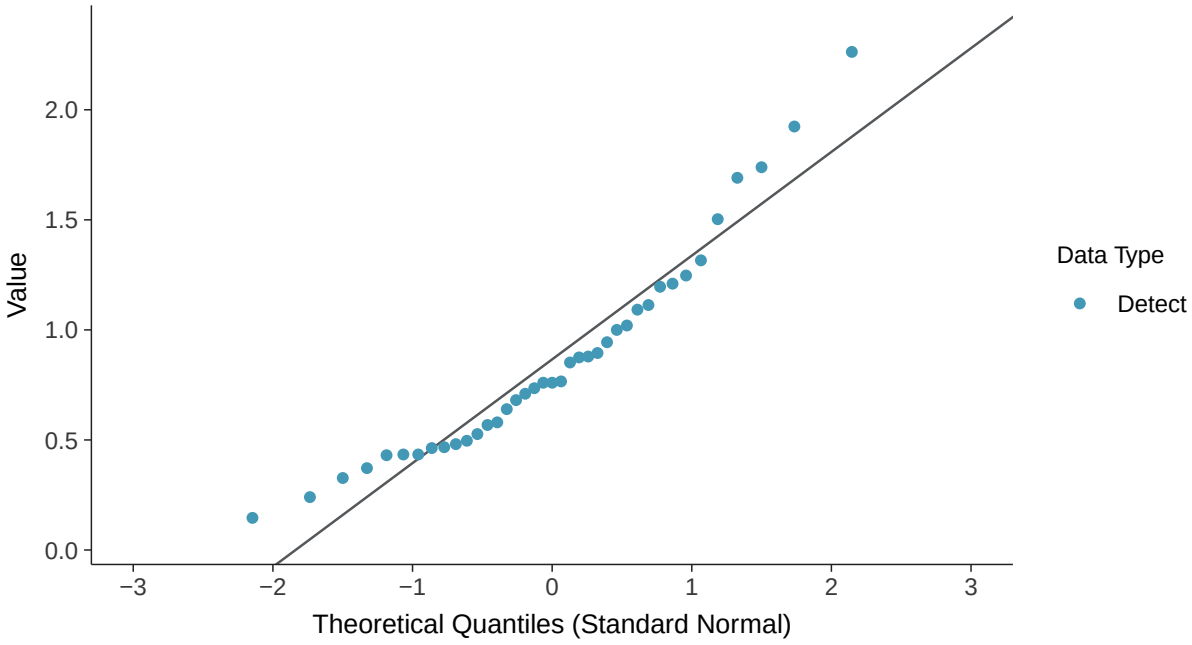
Boxplot by Season

Total Radium, MW-4 (pCi/L)



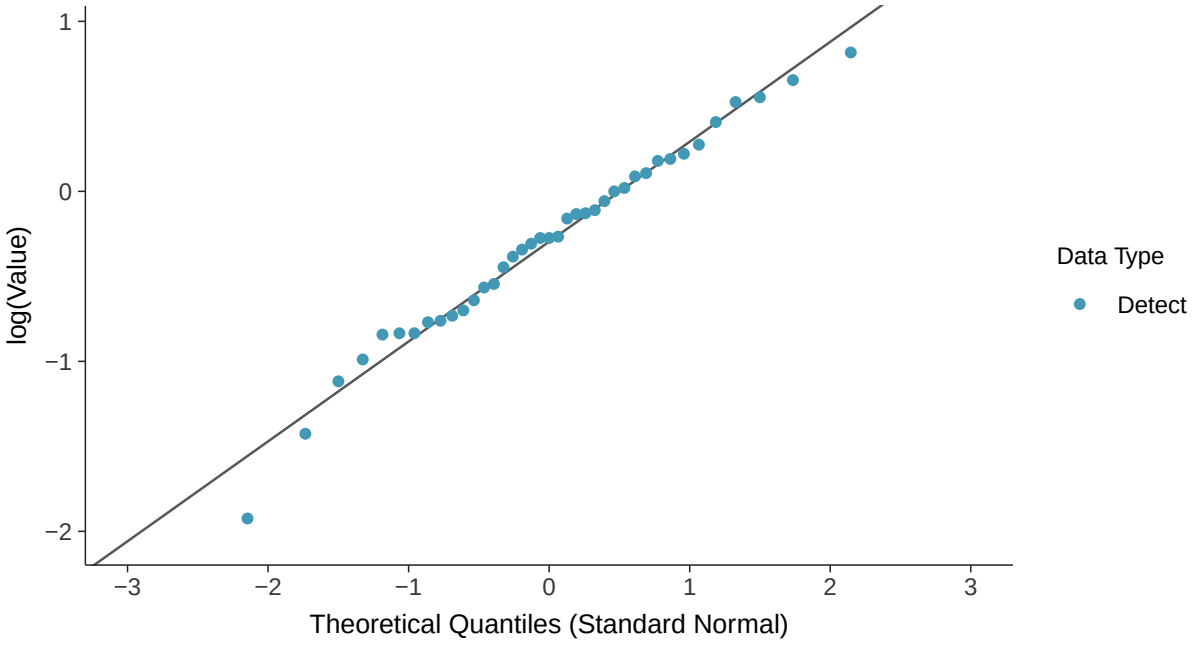
Normal Q-Q plot

Total Radium, MW-4 (pCi/L)



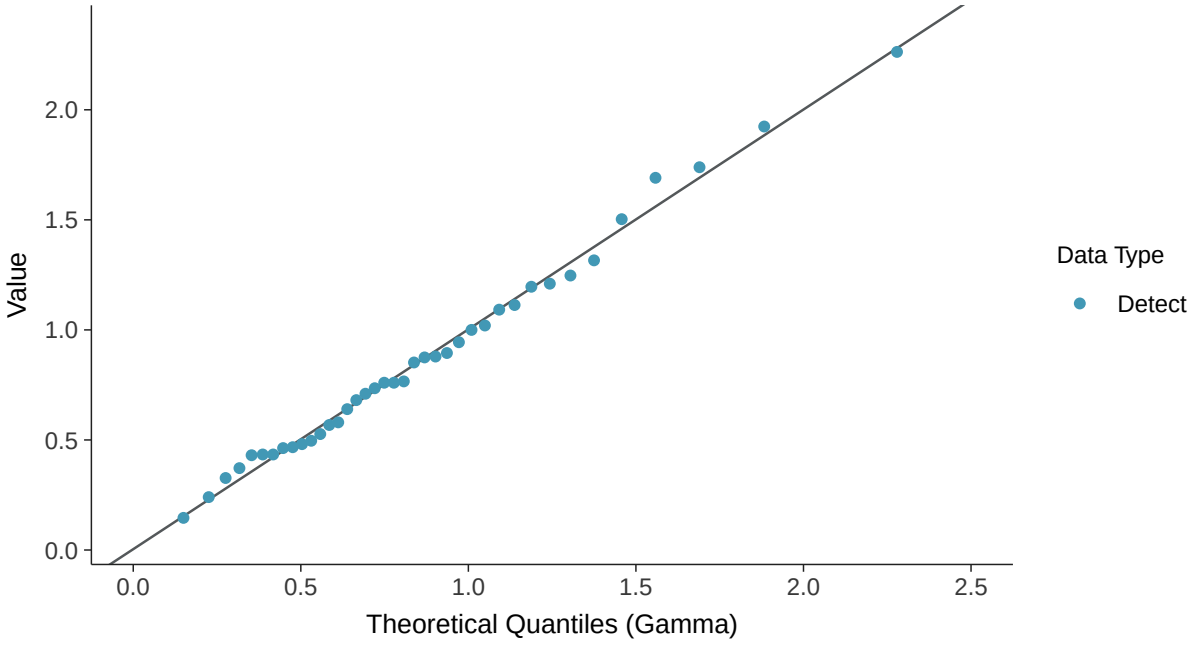
Lognormal Q-Q plot

Total Radium, MW-4 (pCi/L)



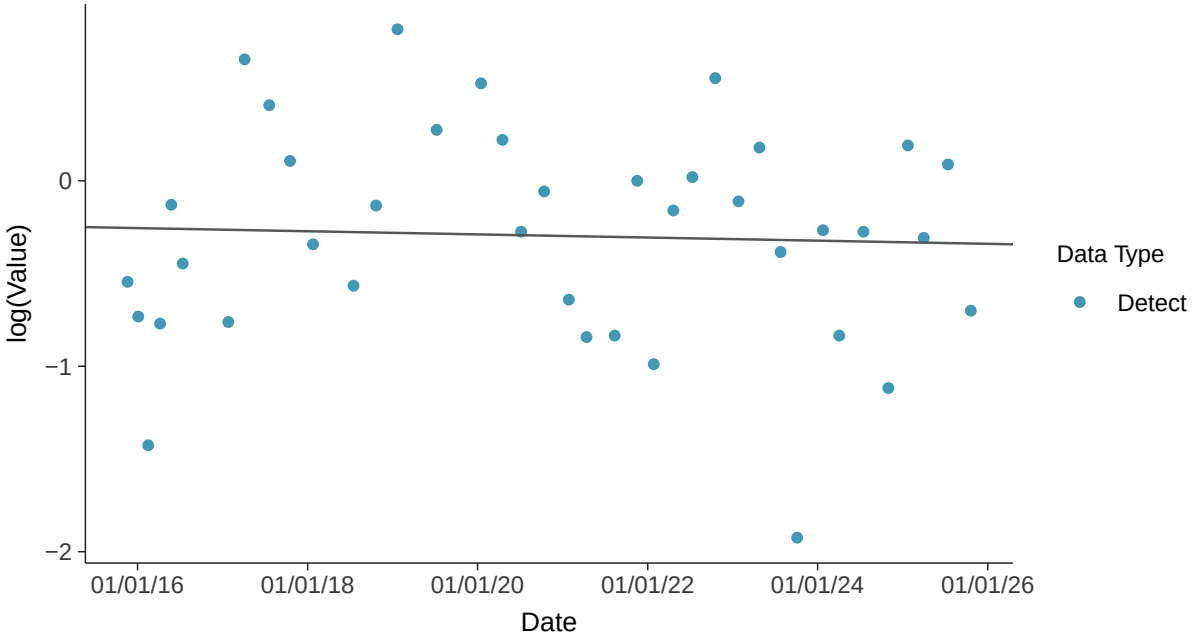
Gamma Q-Q plot

Total Radium, MW-4 (pCi/L)



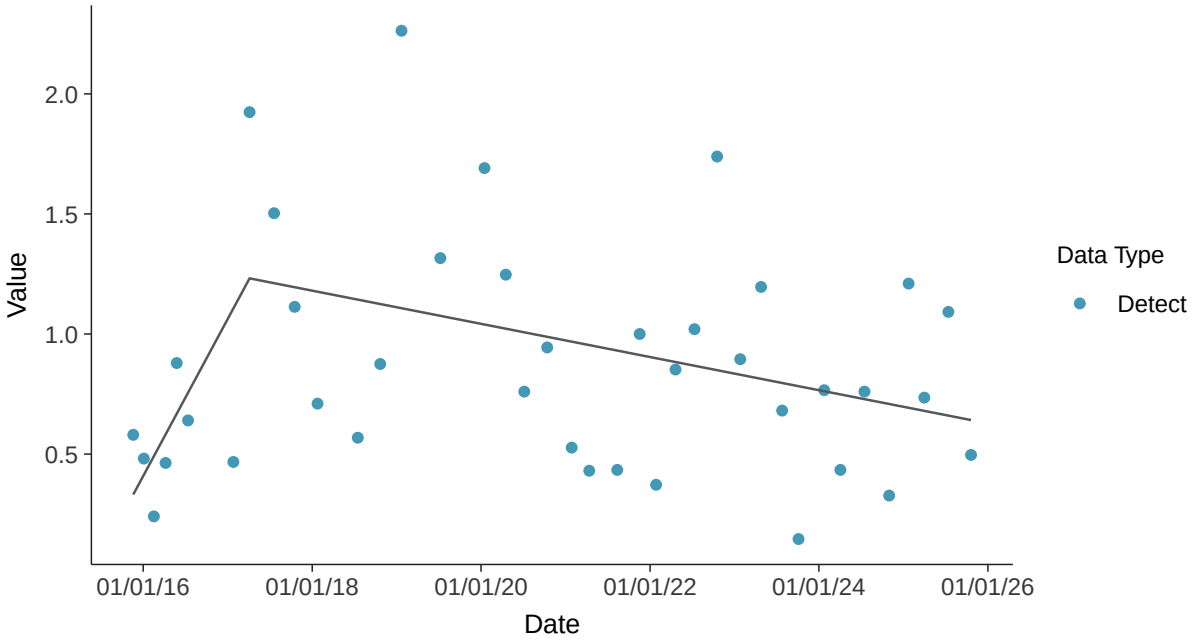
Trend Regression: Lognormal MLE

Total Radium, MW-4 (pCi/L)



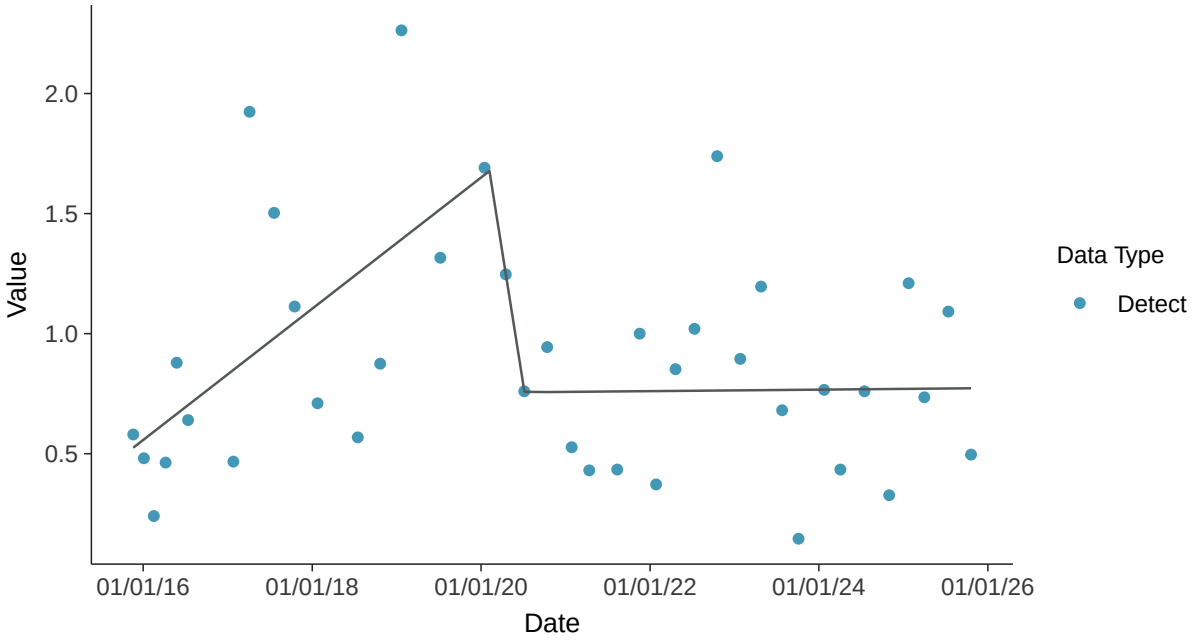
Trend Regression: Piecewise Linear-Linear

Total Radium, MW-4 (pCi/L)



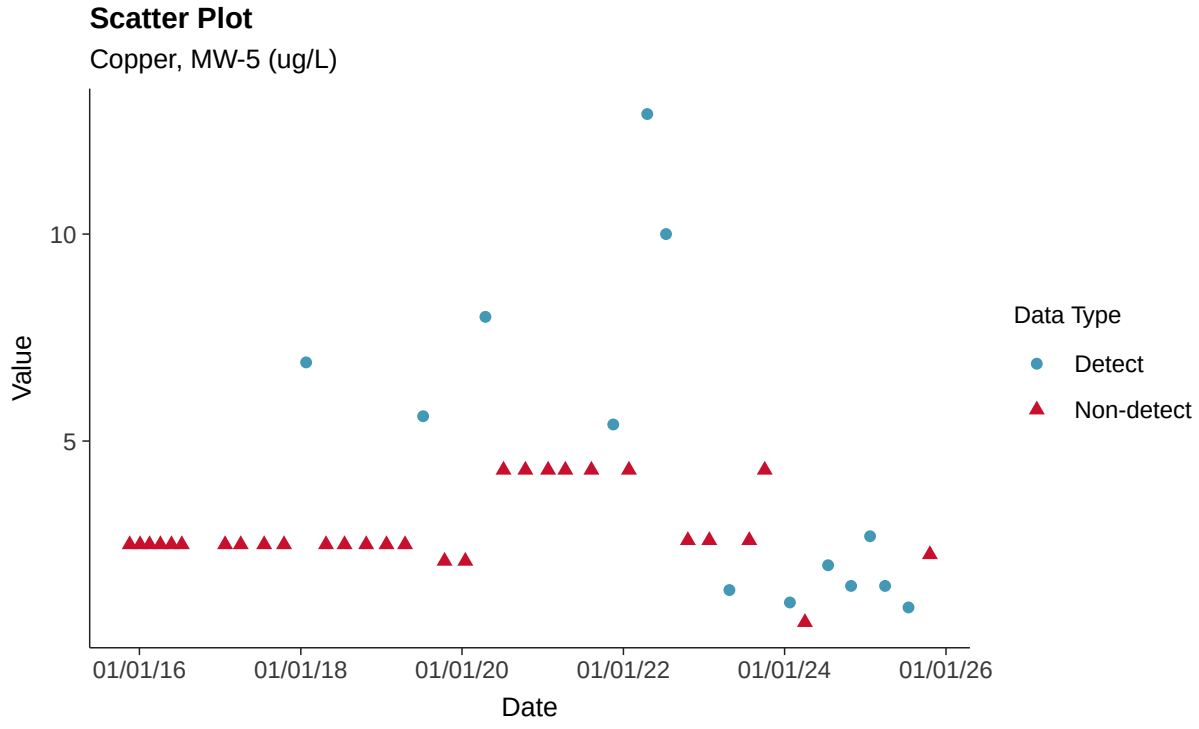
Trend Regression: Piecewise Linear-Linear-Linear

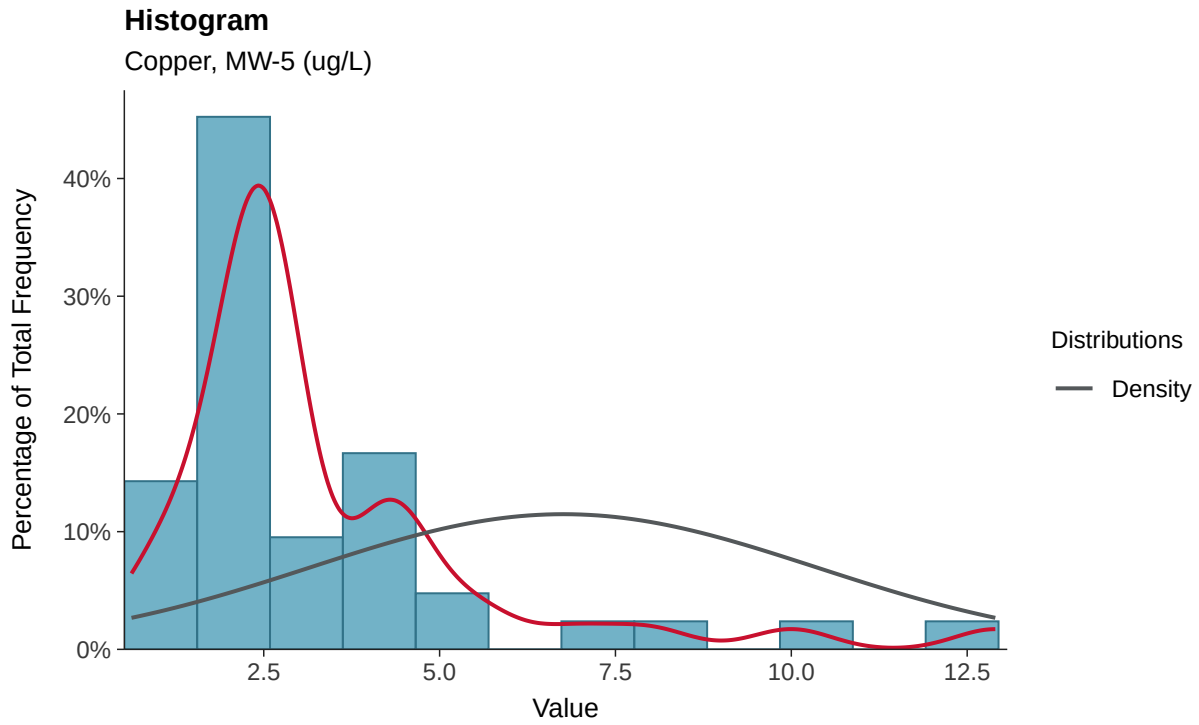
Total Radium, MW-4 (pCi/L)



App. I Metals: Copper, MW-5

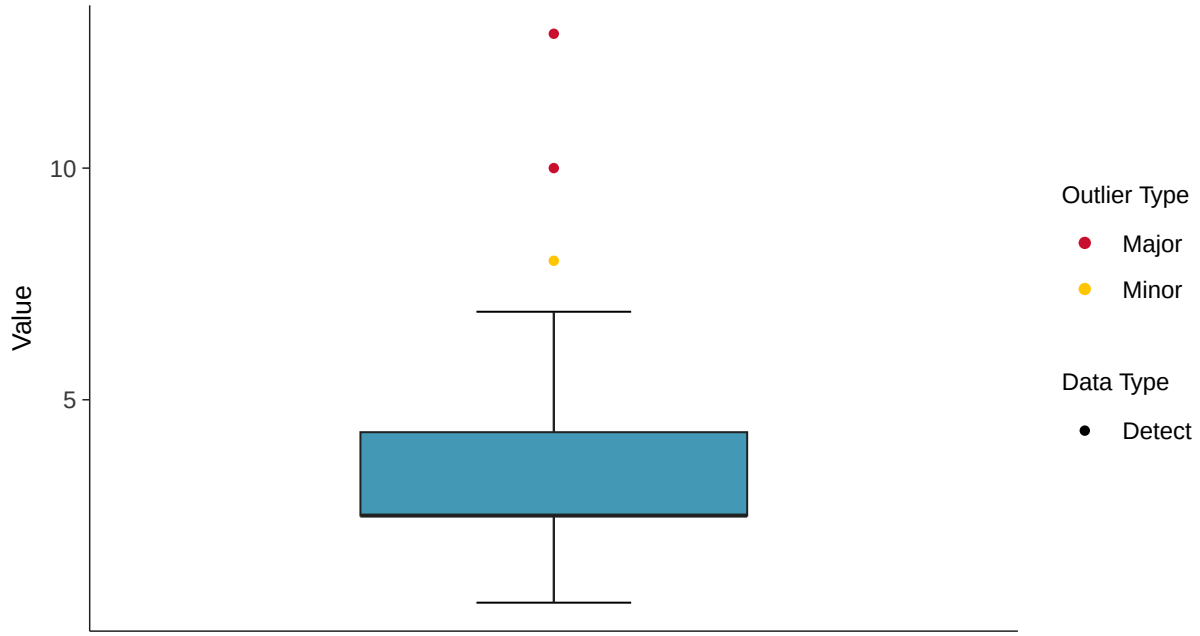
ID: 05_1_111





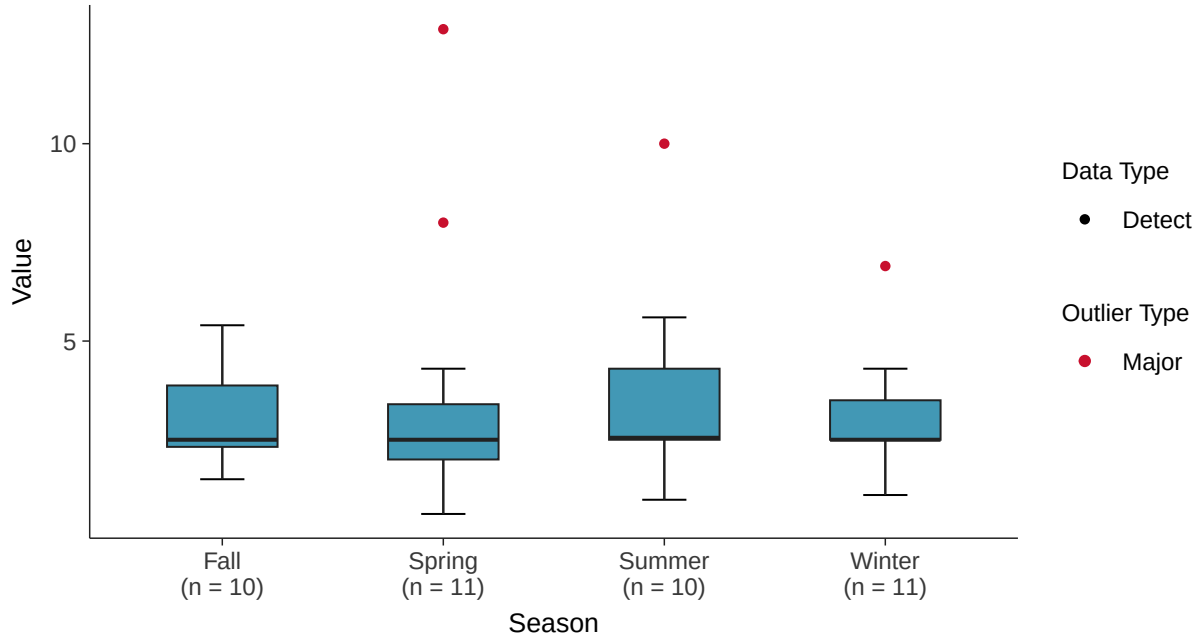
Boxplot

Copper, MW-5 (ug/L)



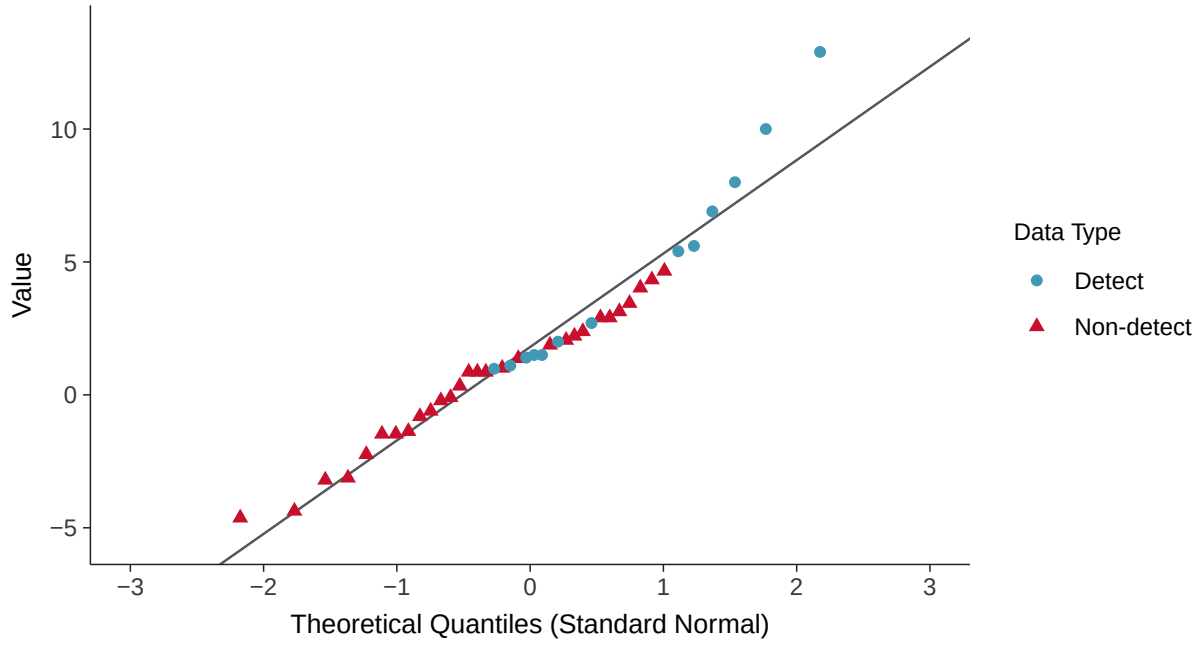
Boxplot by Season

Copper, MW-5 (ug/L)



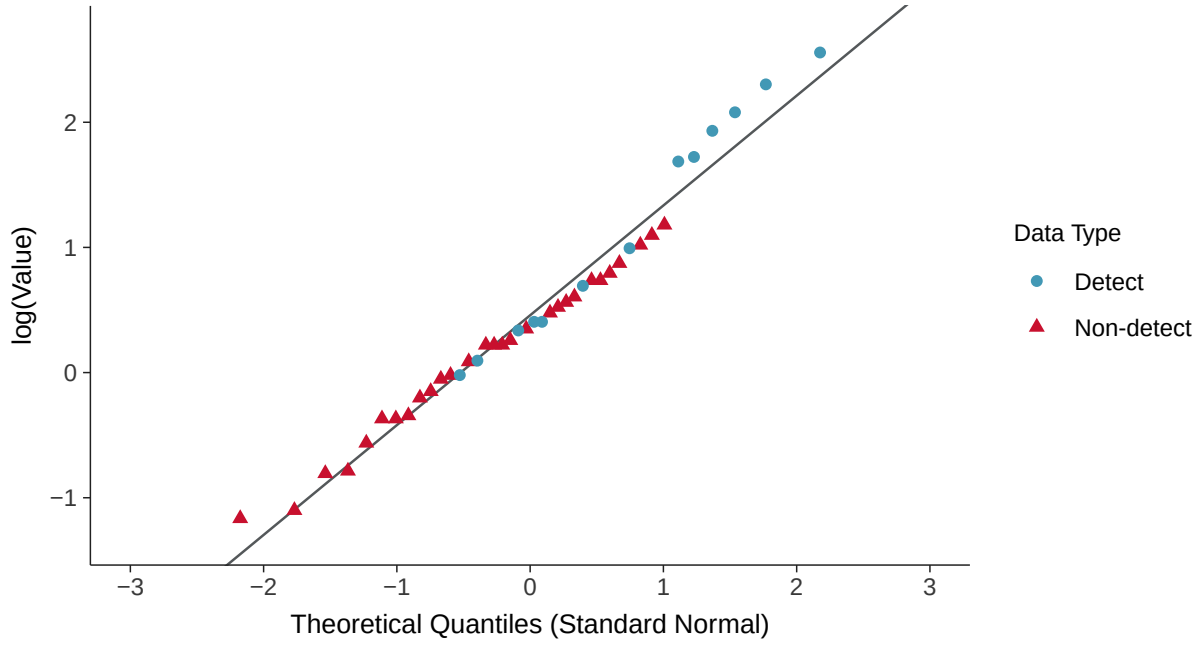
Normal Q-Q plot using ROS Imputed Estimates

Copper, MW-5 (ug/L)



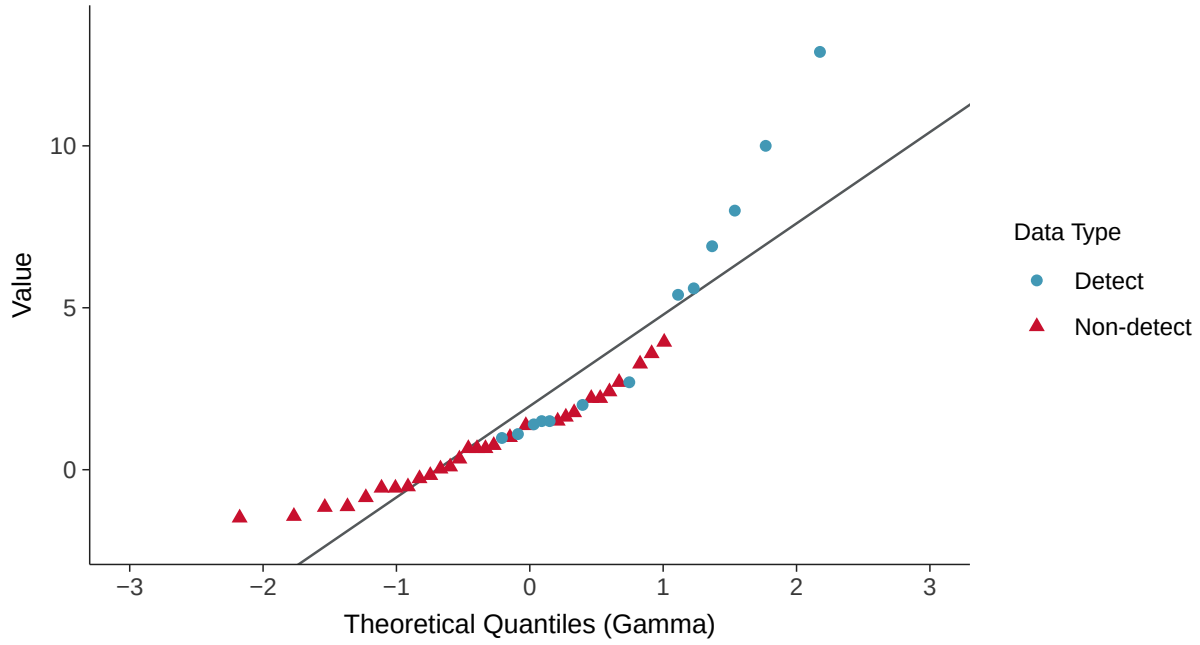
Lognormal Q-Q plot using ROS Imputed Estimates

Copper, MW-5 (ug/L)



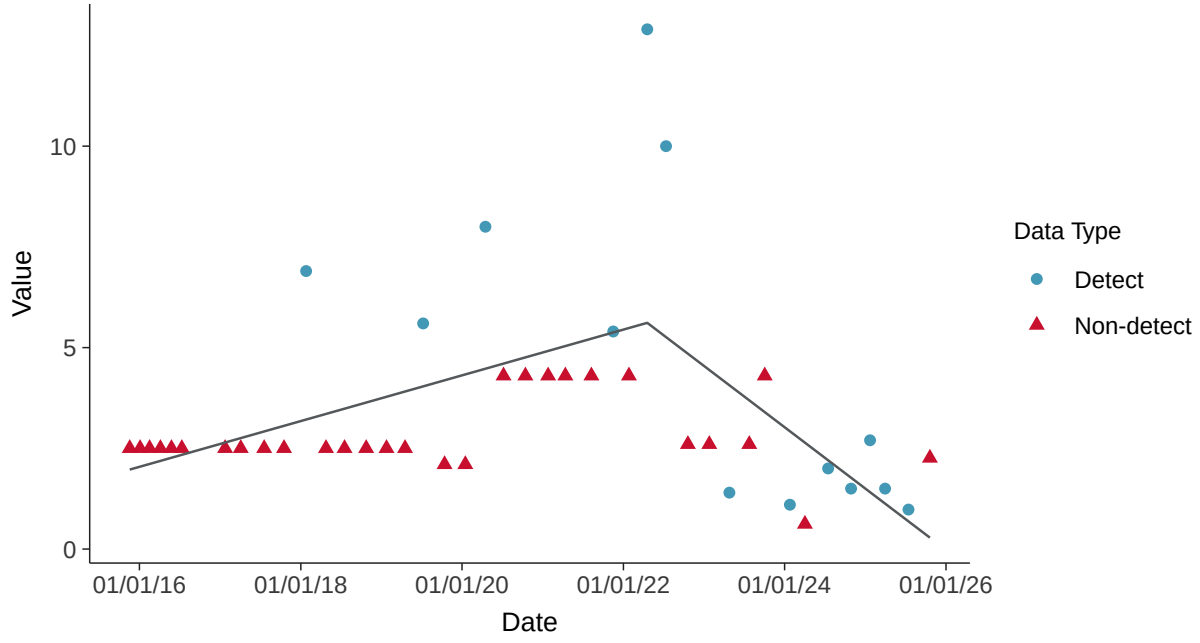
Gamma Q-Q plot using ROS Imputed Estimates

Copper, MW-5 (ug/L)



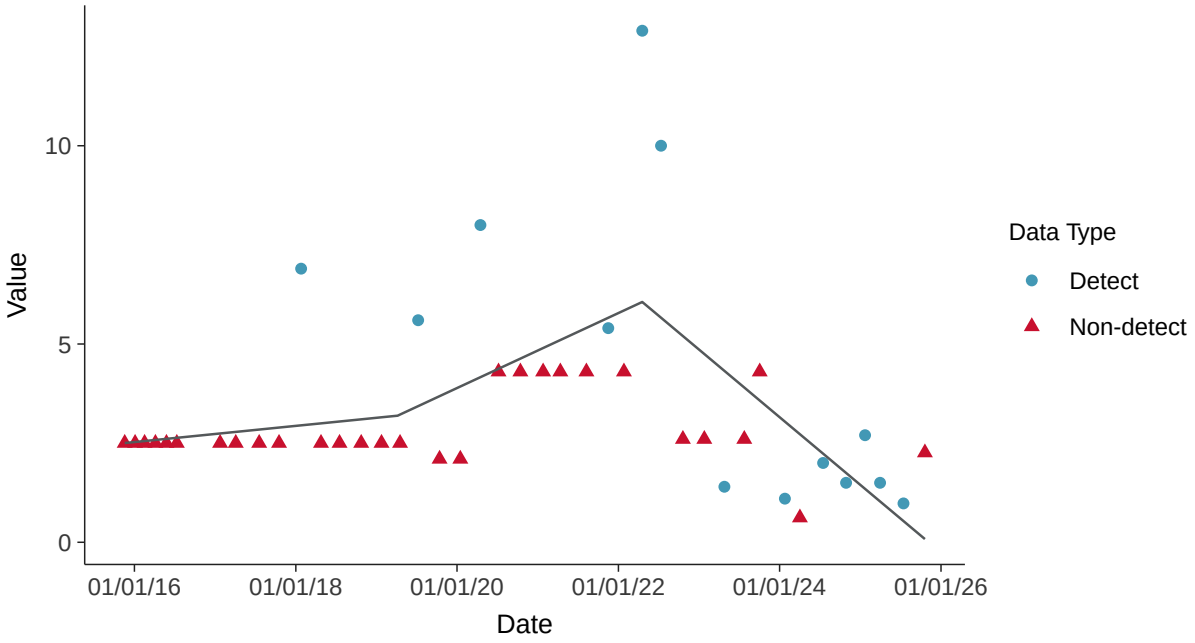
Trend Regression: Piecewise Linear-Linear

Copper, MW-5 (ug/L)



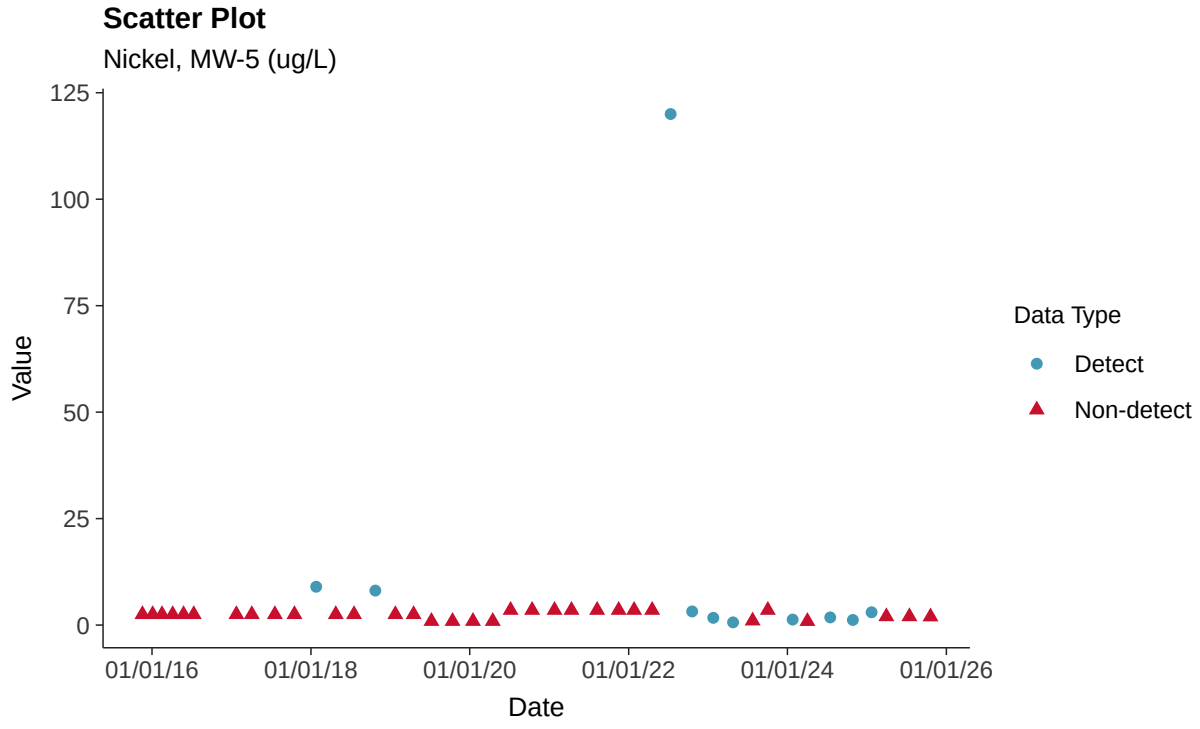
Trend Regression: Piecewise Linear-Linear-Linear

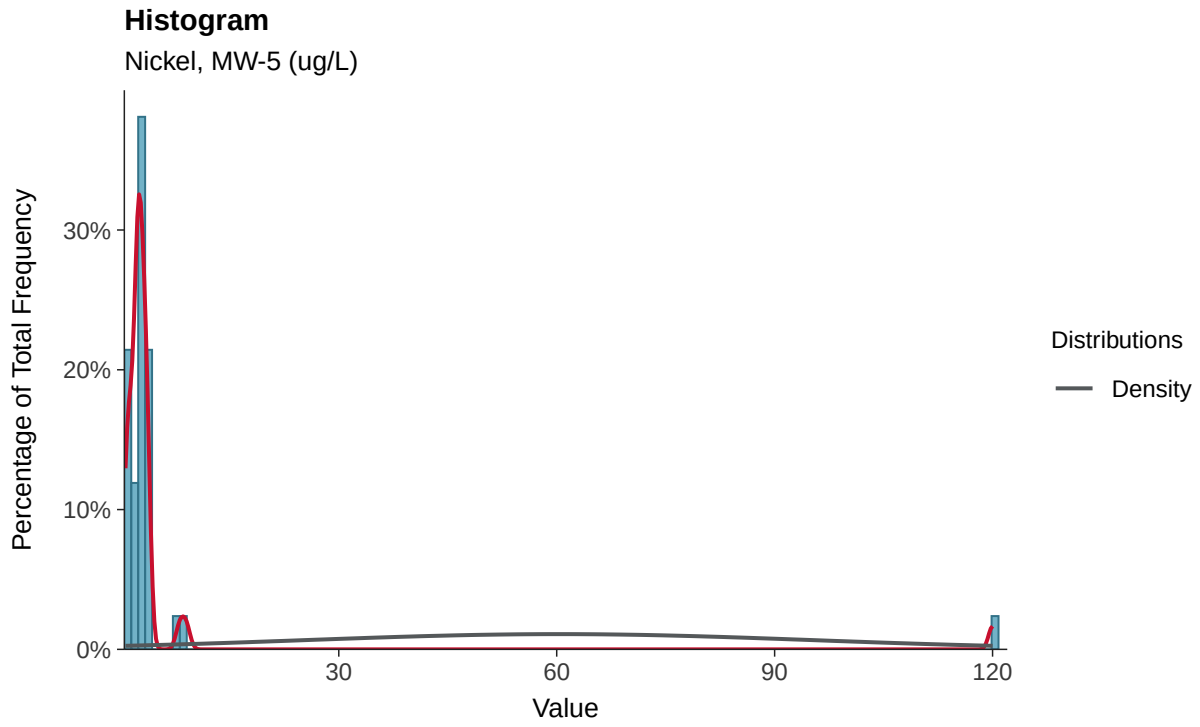
Copper, MW-5 (ug/L)



App. I Metals: Nickel, MW-5

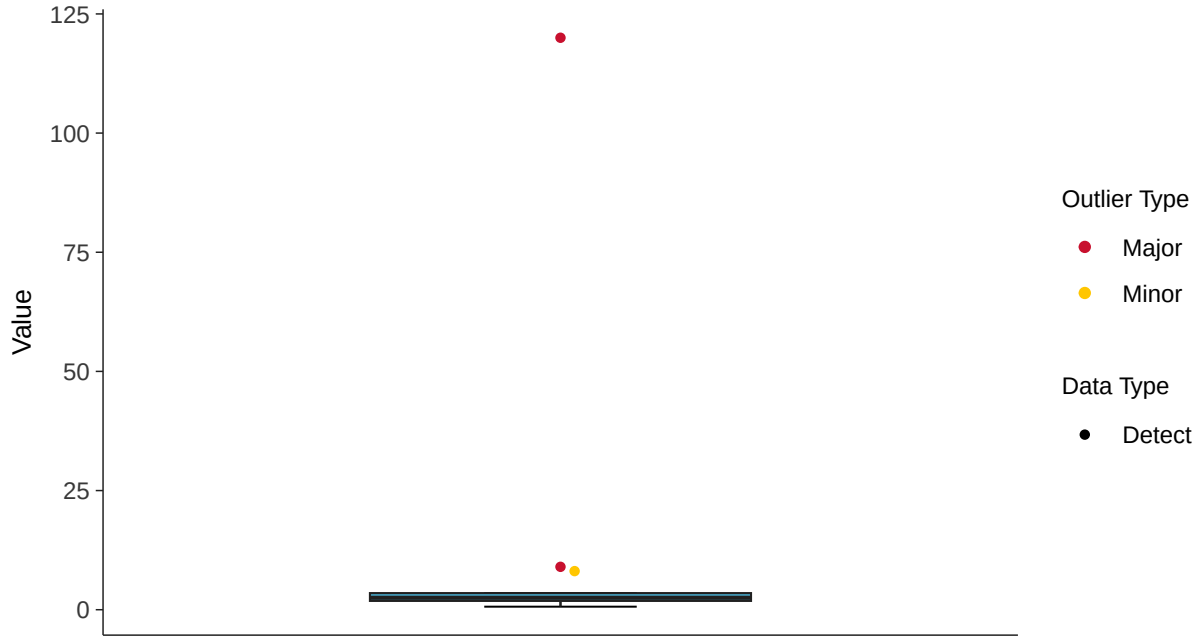
ID: 05_1_117





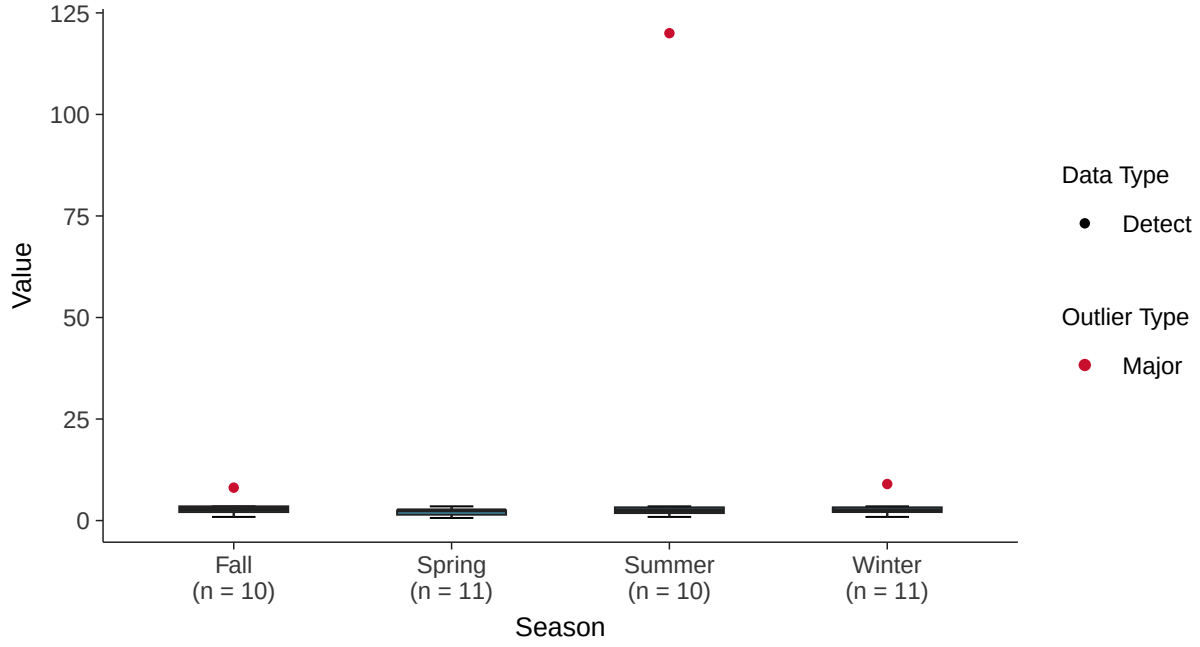
Boxplot

Nickel, MW-5 (ug/L)



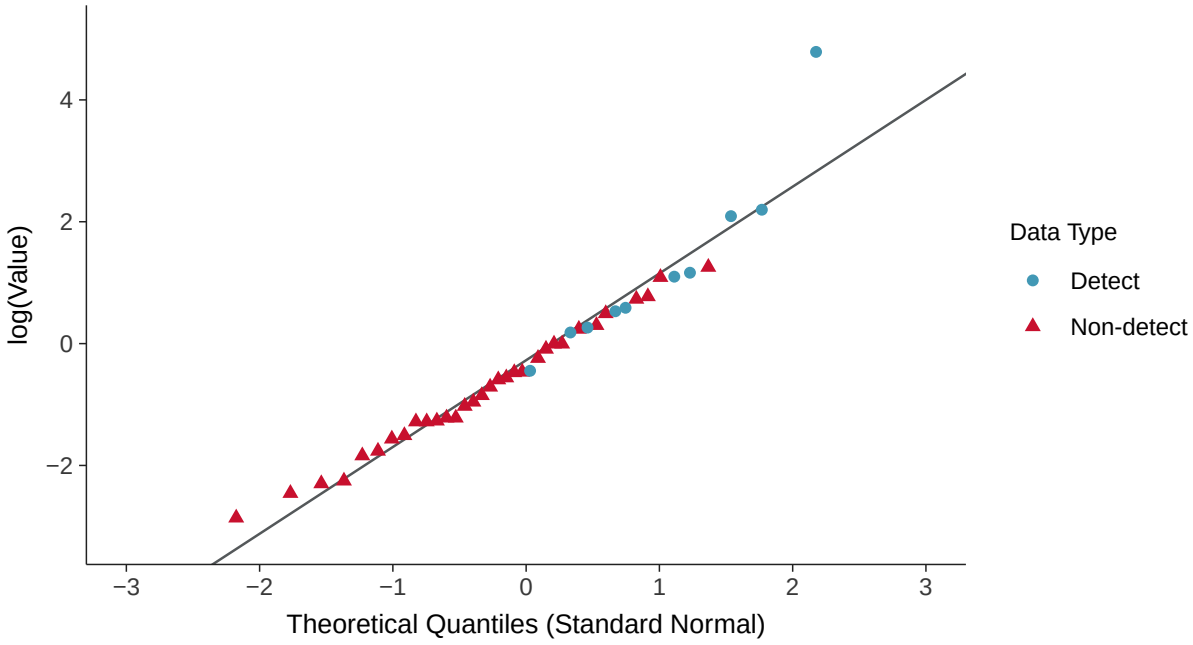
Boxplot by Season

Nickel, MW-5 (ug/L)



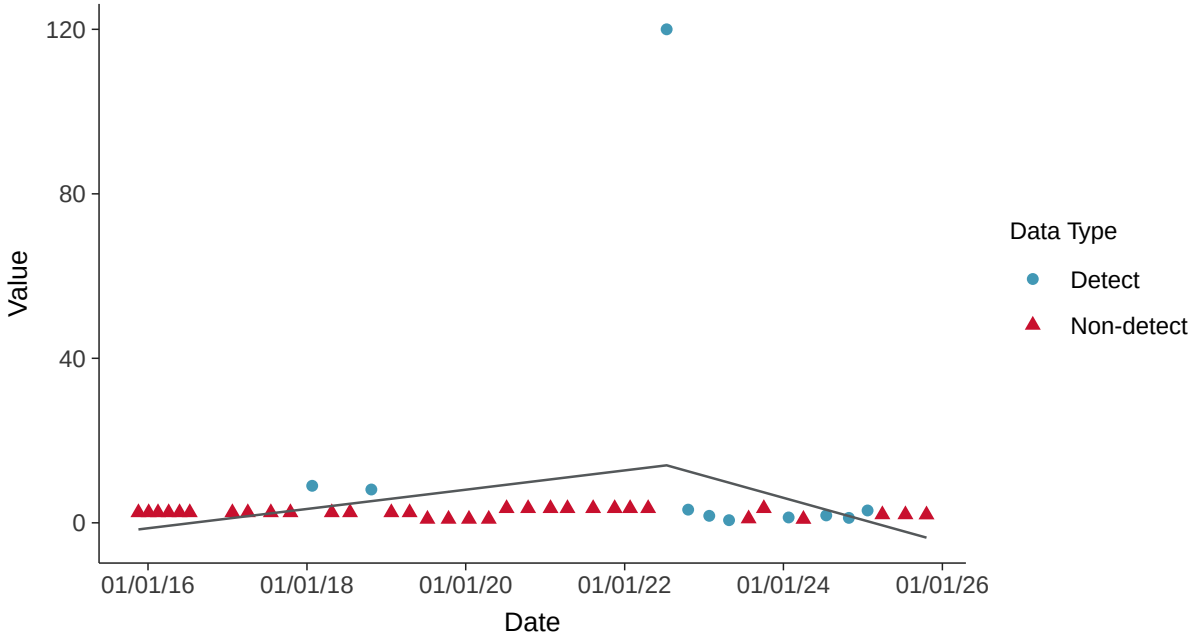
Lognormal Q-Q plot using ROS Imputed Estimates

Nickel, MW-5 (ug/L)



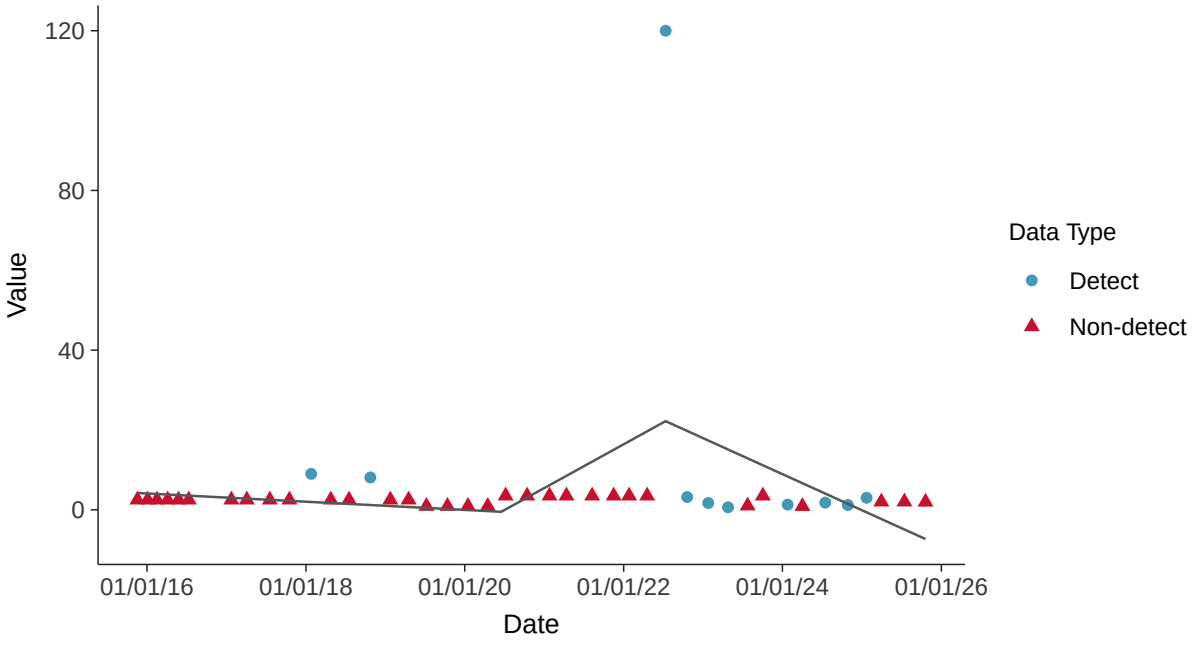
Trend Regression: Piecewise Linear-Linear

Nickel, MW-5 (ug/L)



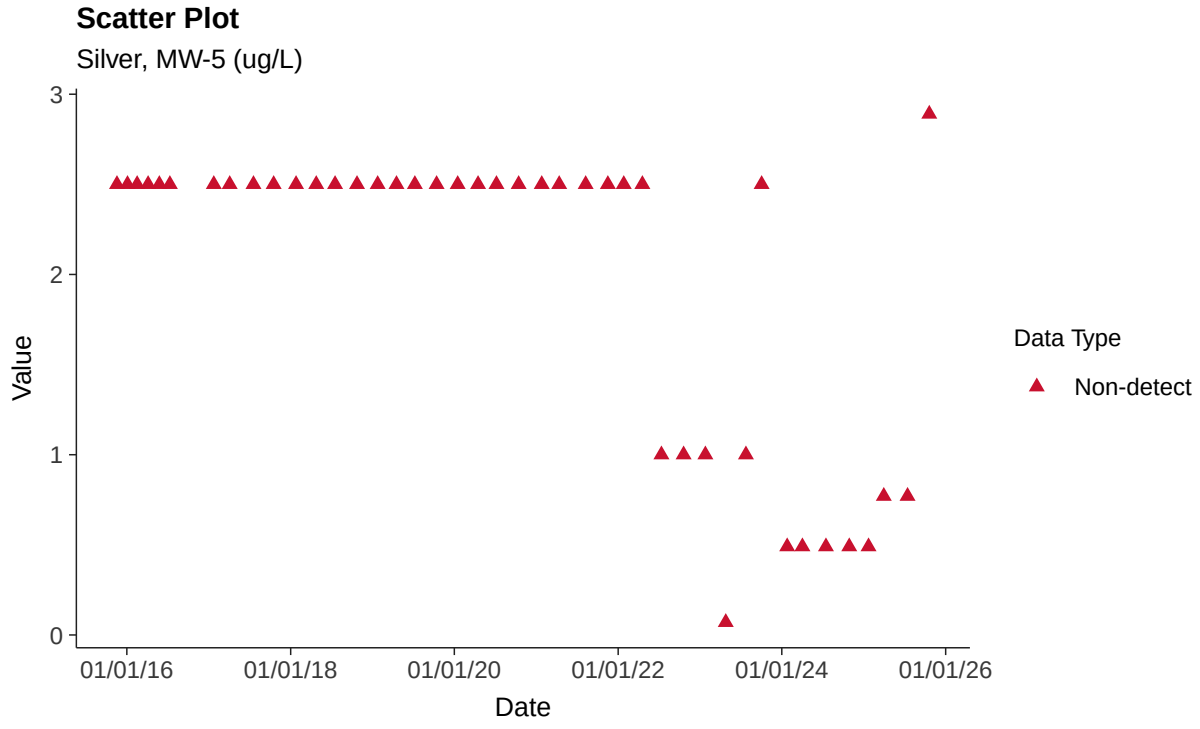
Trend Regression: Piecewise Linear-Linear-Linear

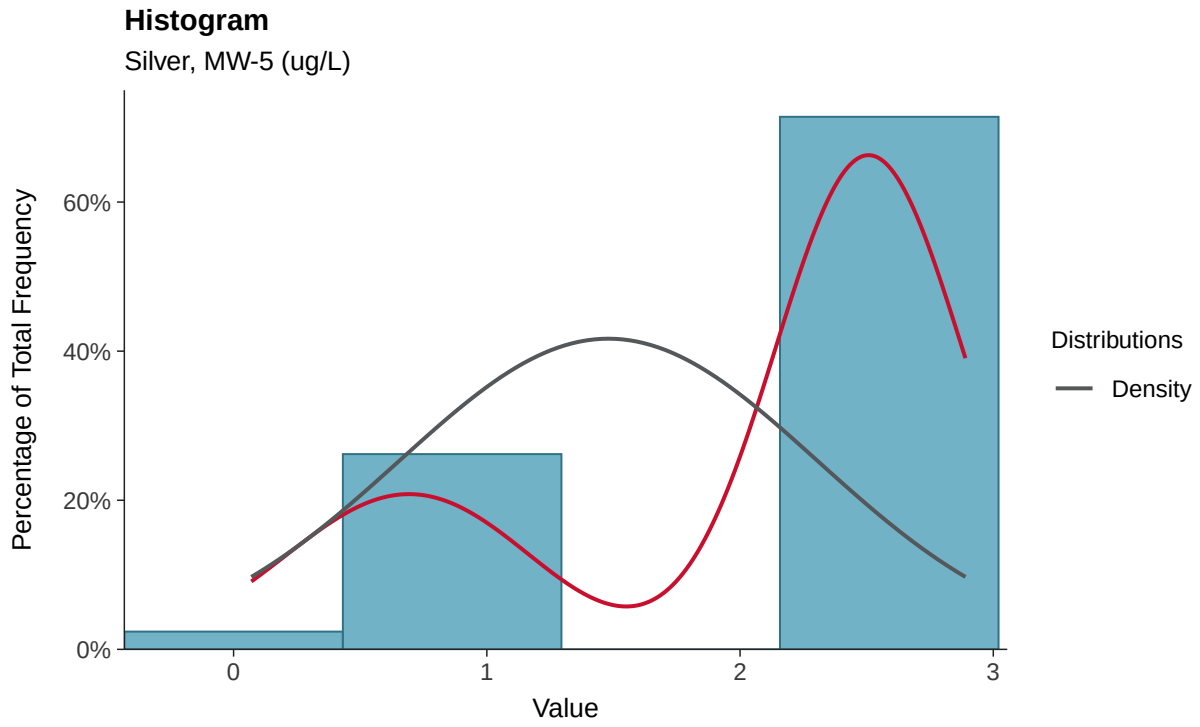
Nickel, MW-5 (ug/L)



App. I Metals: Silver, MW-5

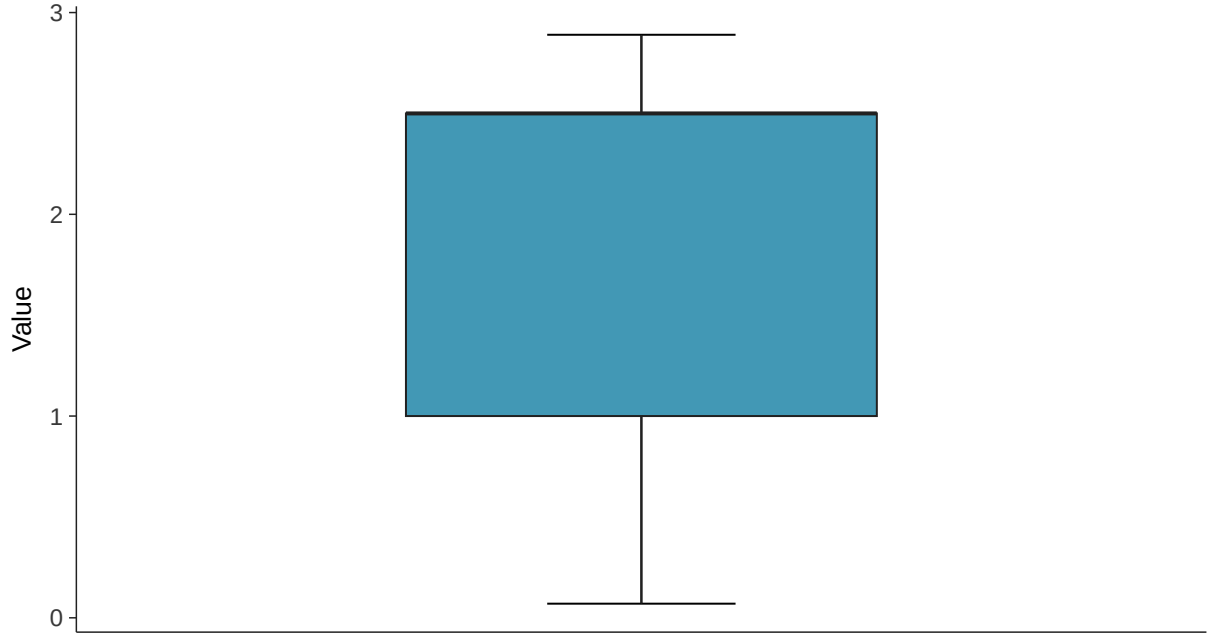
ID: 05_1_122





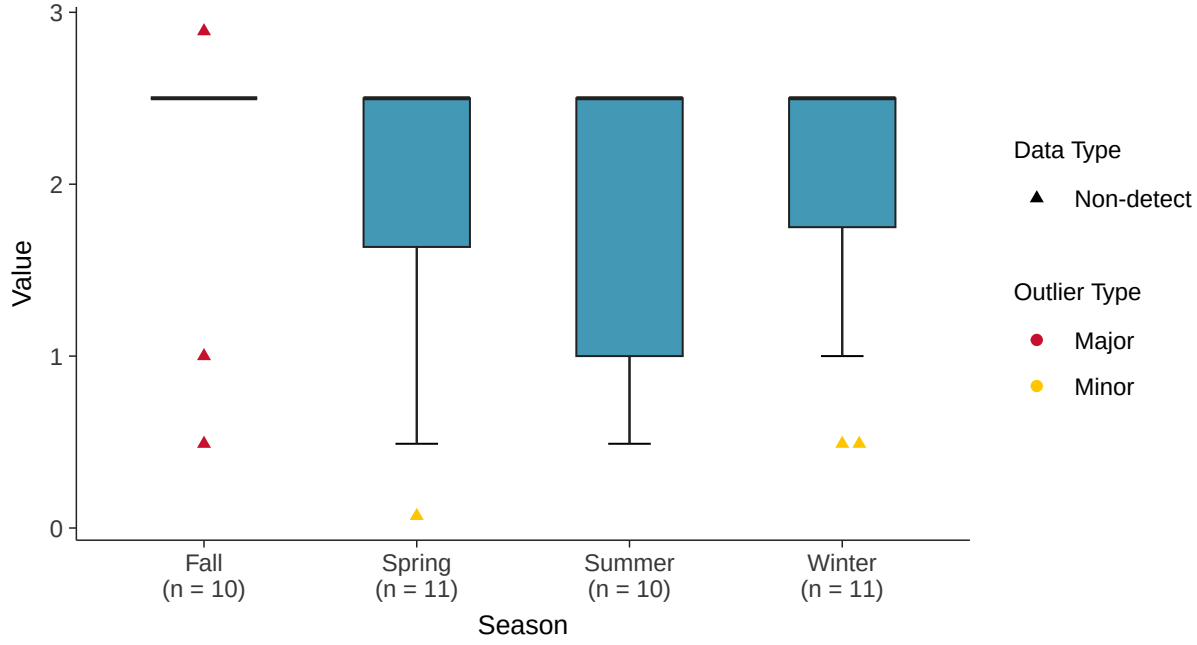
Boxplot

Silver, MW-5 (ug/L)



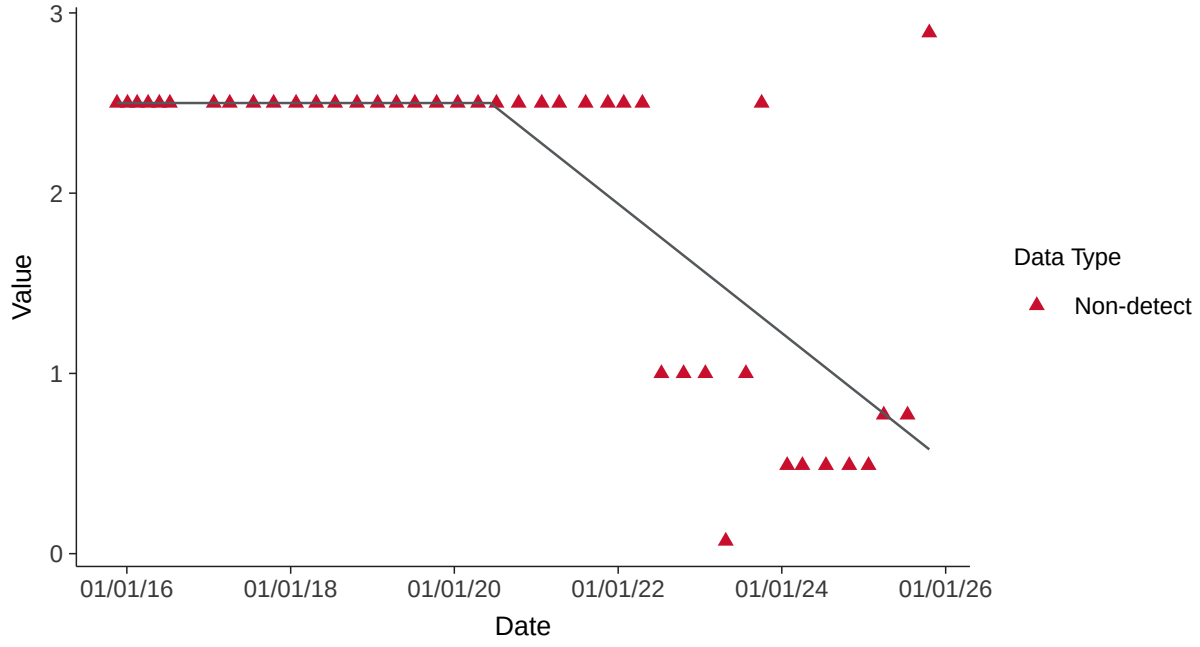
Boxplot by Season

Silver, MW-5 (ug/L)



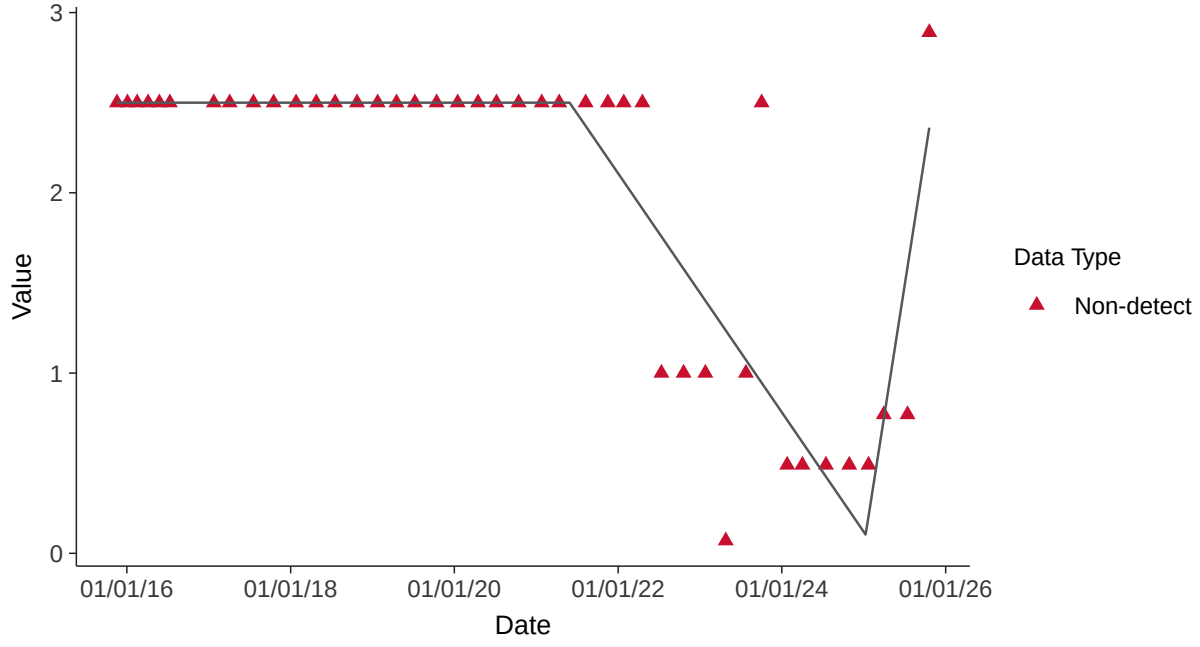
Trend Regression: Piecewise Linear-Linear

Silver, MW-5 (ug/L)



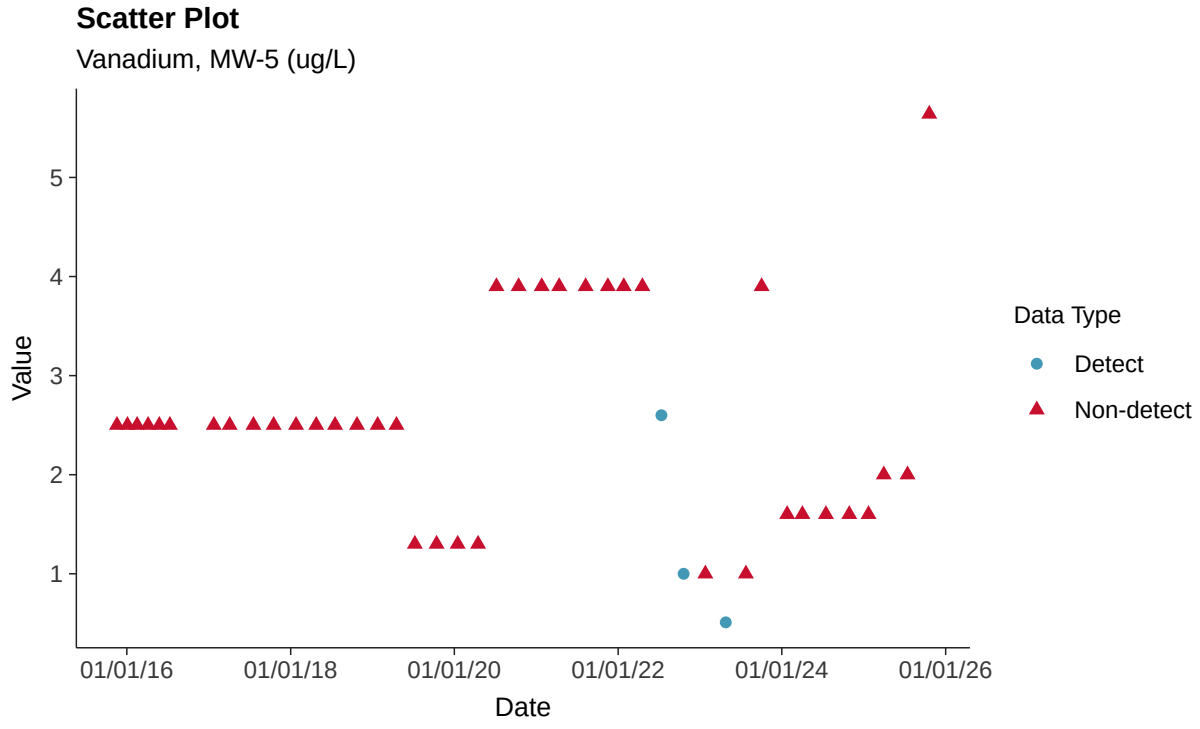
Trend Regression: Piecewise Linear-Linear-Linear

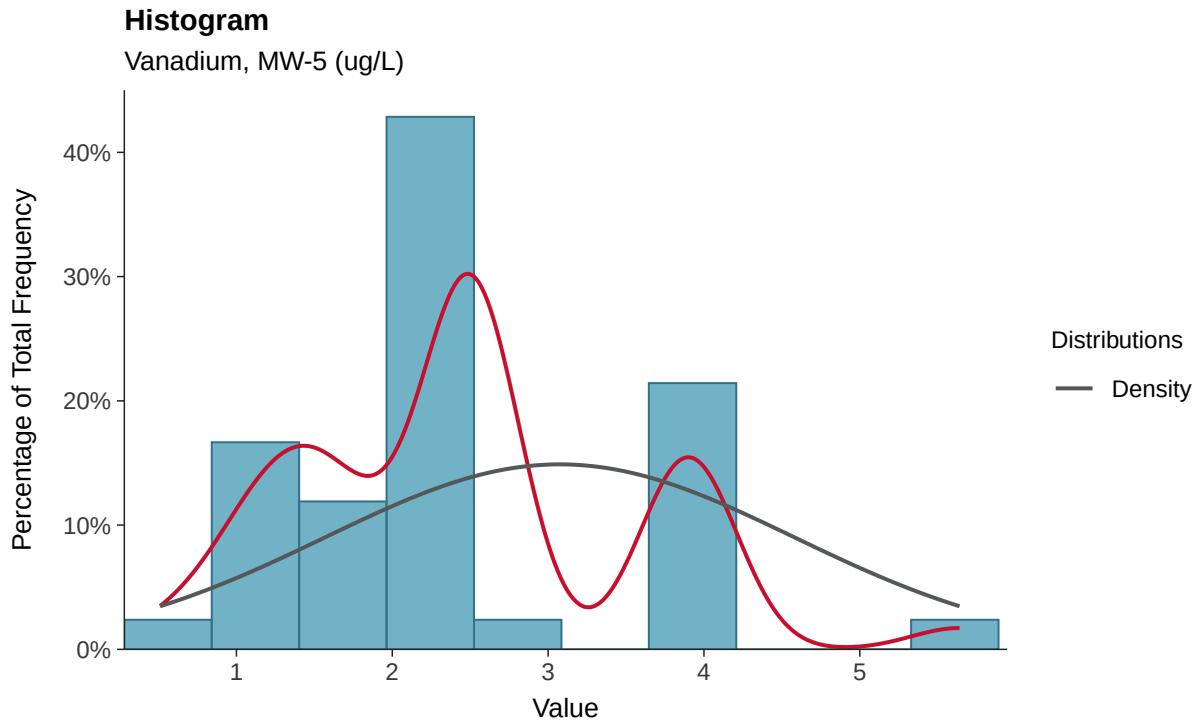
Silver, MW-5 (ug/L)



App. I Metals: Vanadium, MW-5

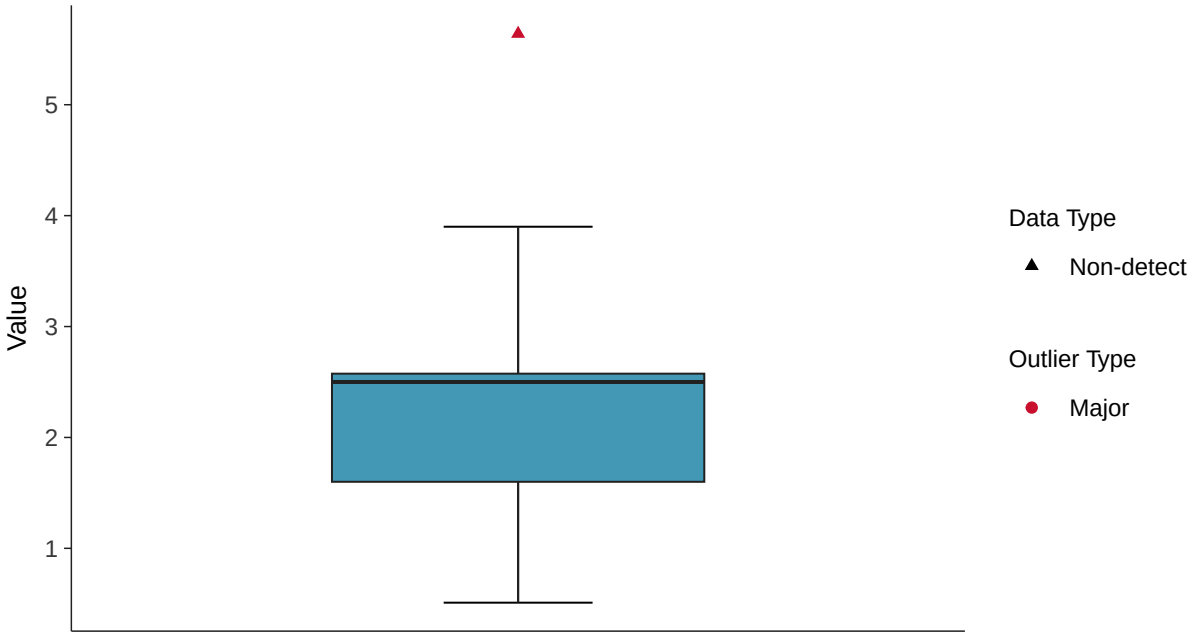
ID: 05_1_127





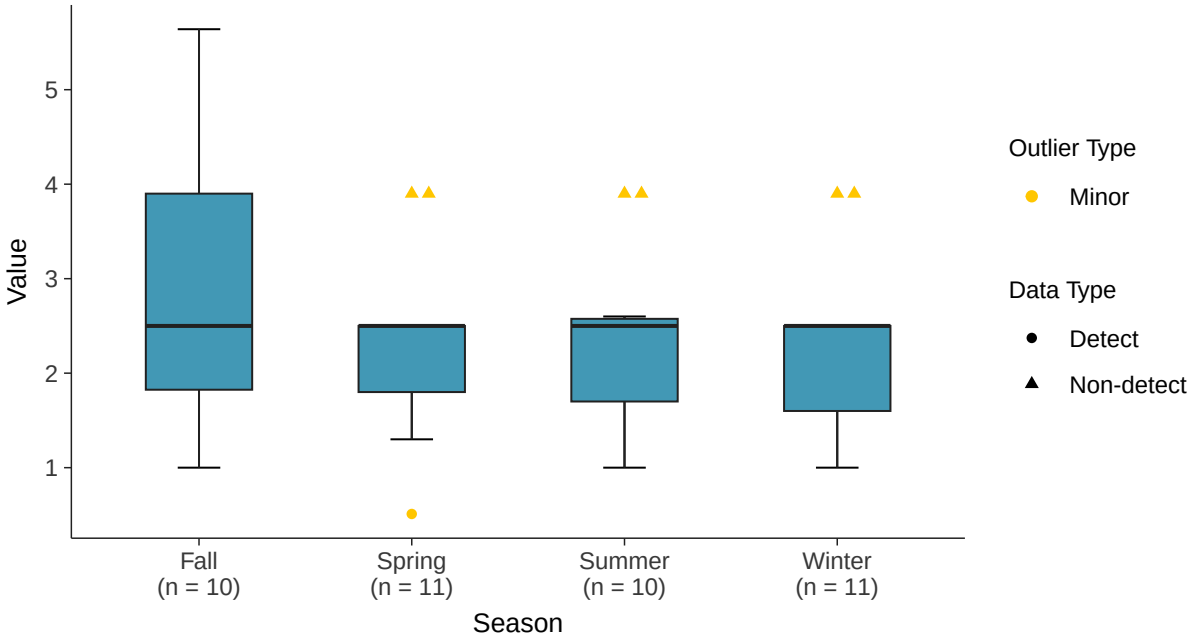
Boxplot

Vanadium, MW-5 (ug/L)



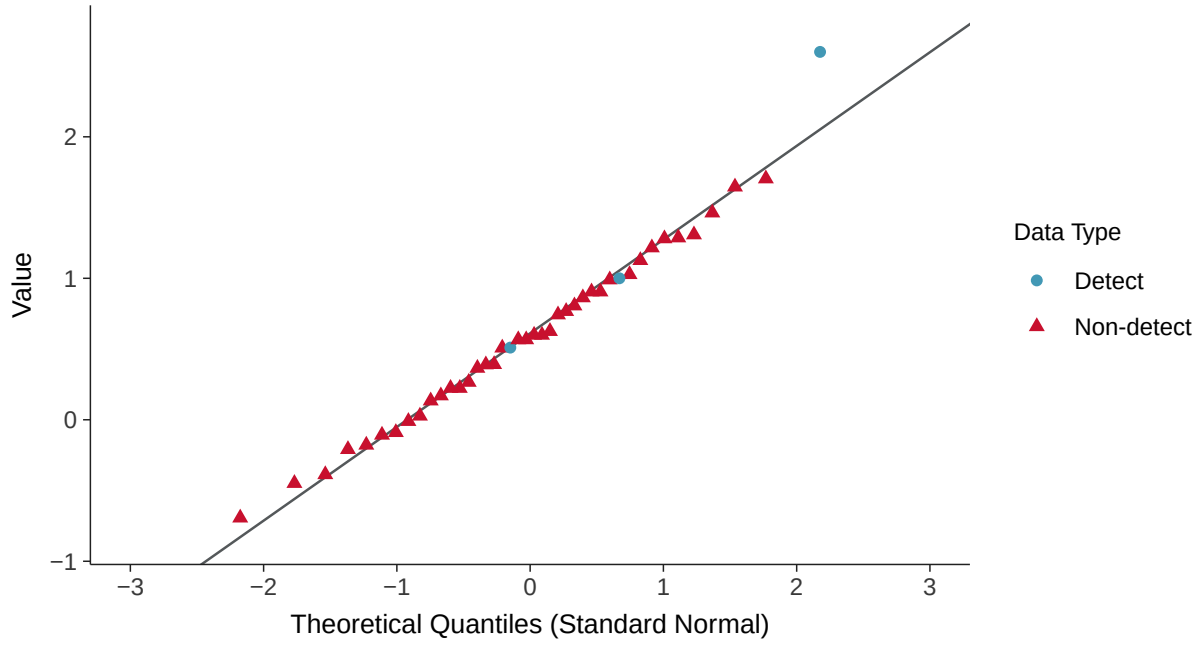
Boxplot by Season

Vanadium, MW-5 (ug/L)



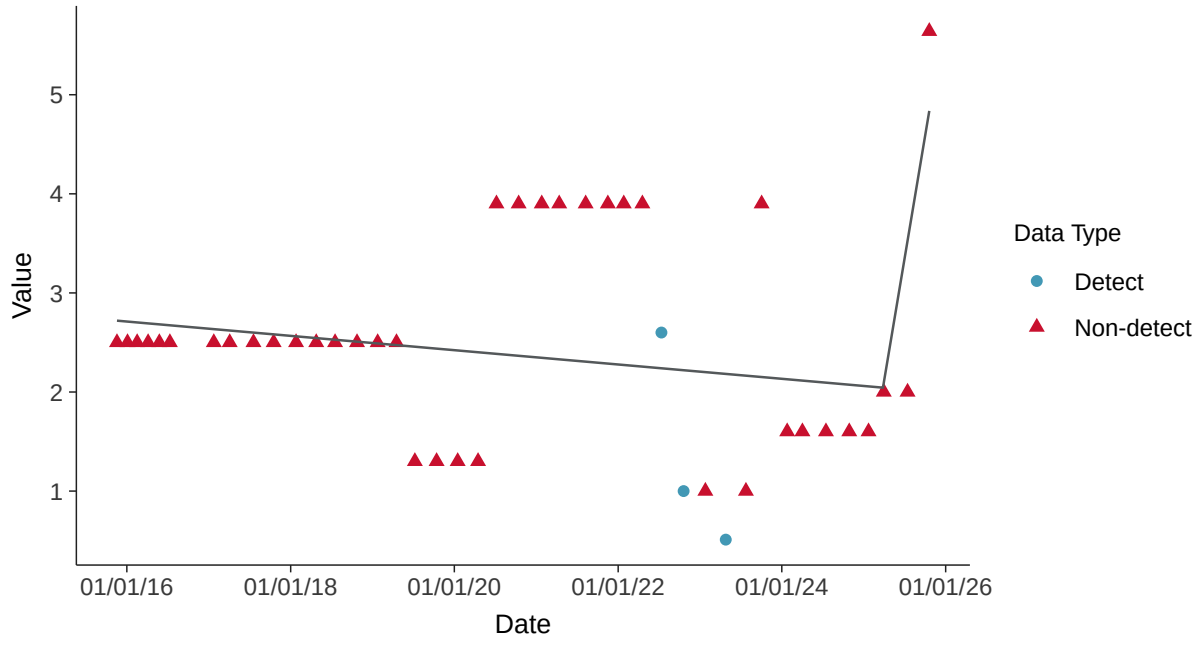
Normal Q-Q plot using ROS Imputed Estimates

Vanadium, MW-5 (ug/L)



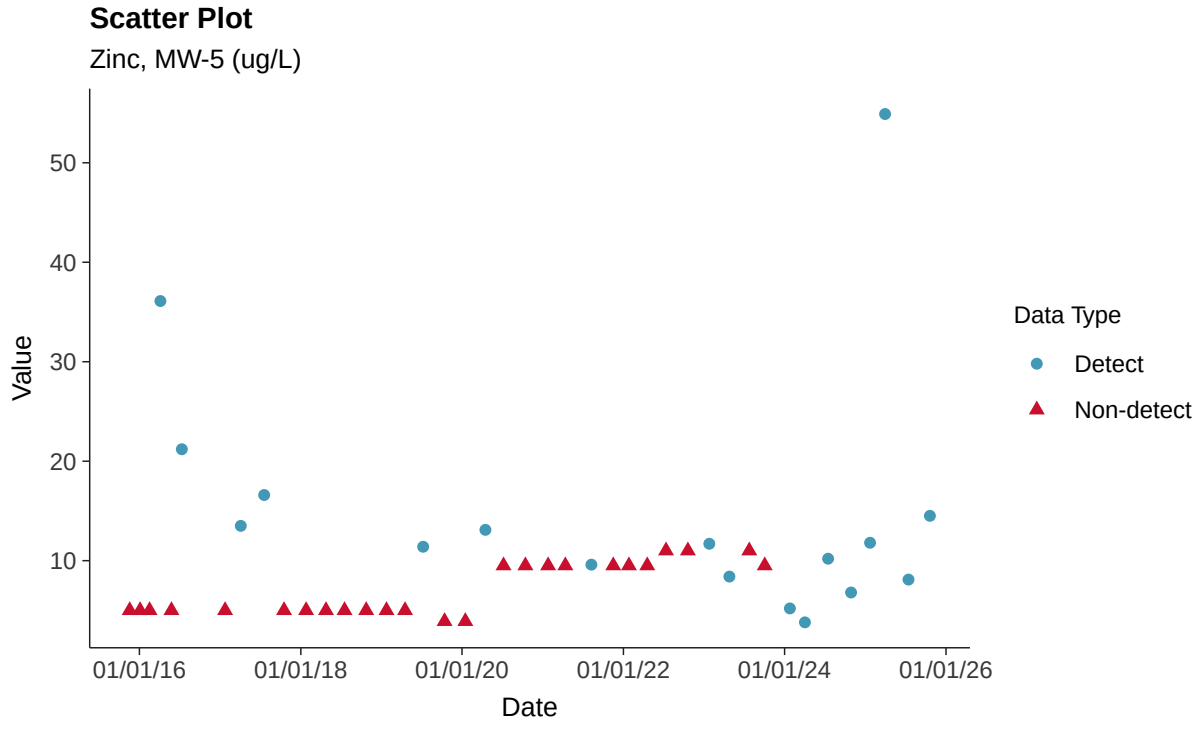
Trend Regression: Piecewise Linear-Linear

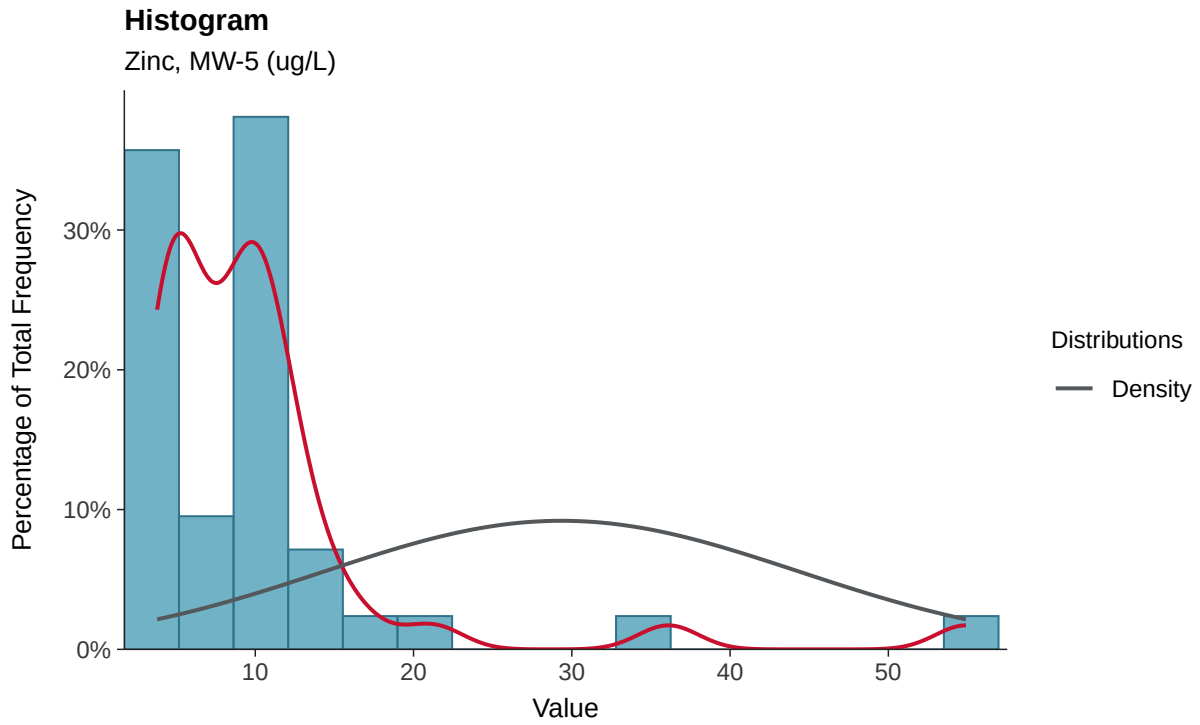
Vanadium, MW-5 (ug/L)



App. I Metals: Zinc, MW-5

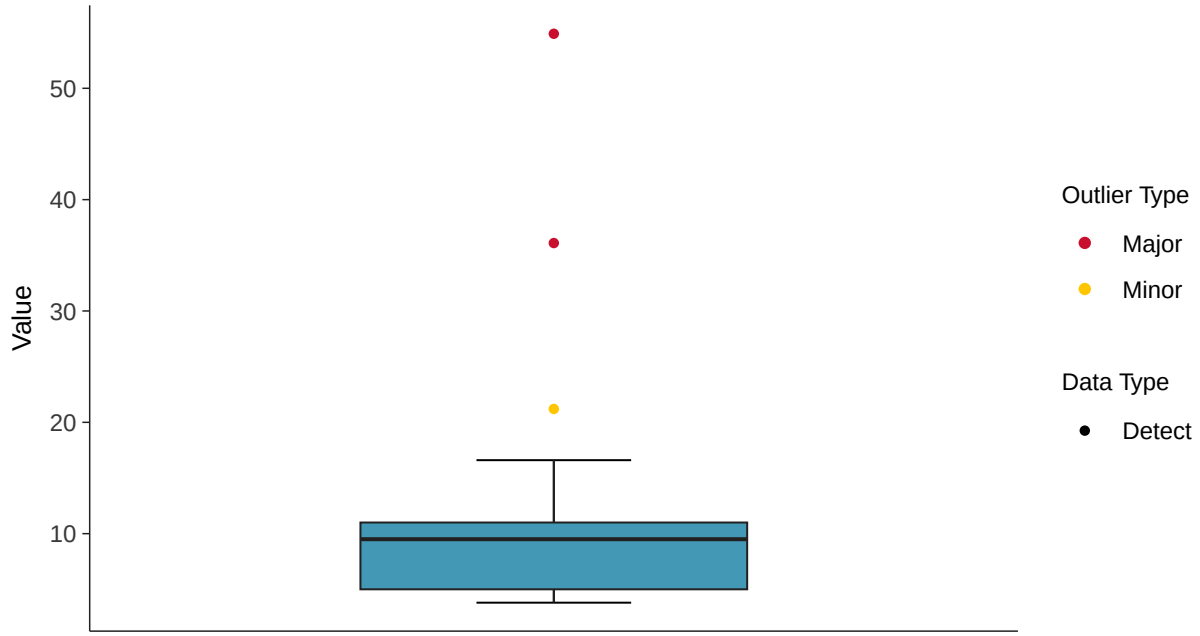
ID: 05_1_128





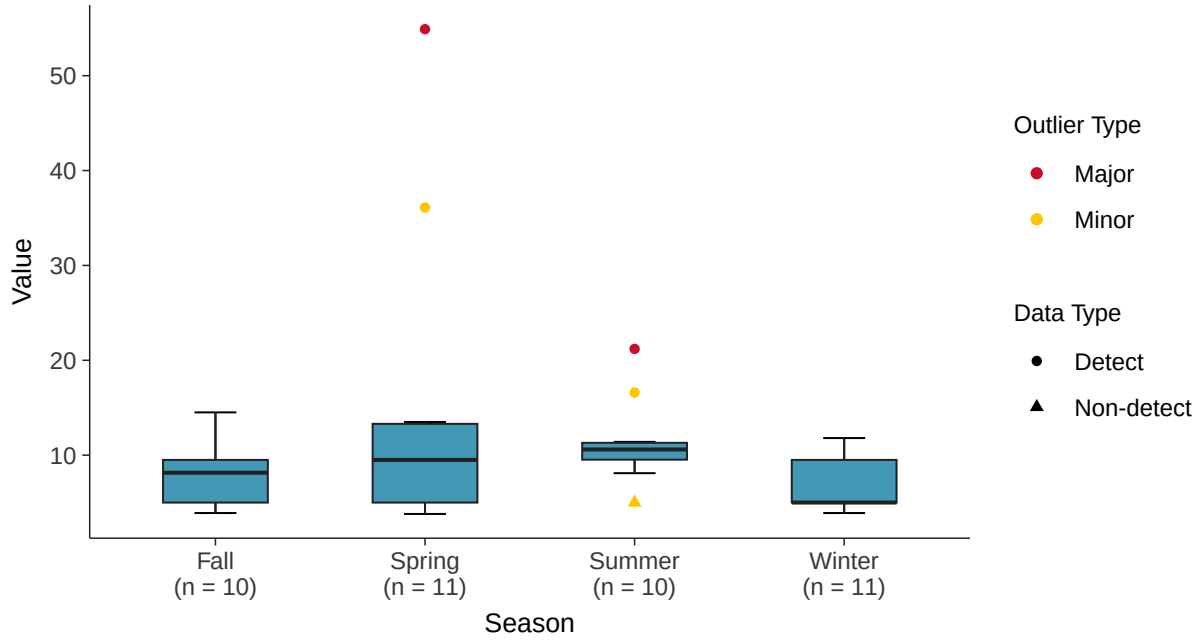
Boxplot

Zinc, MW-5 (ug/L)



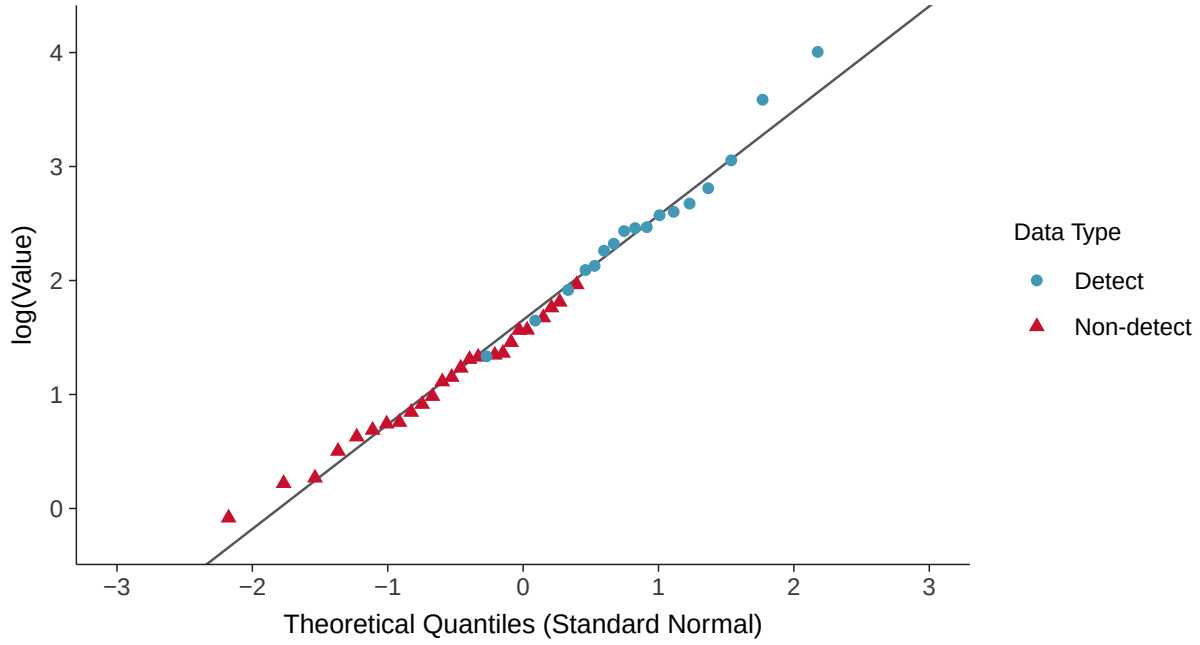
Boxplot by Season

Zinc, MW-5 (ug/L)



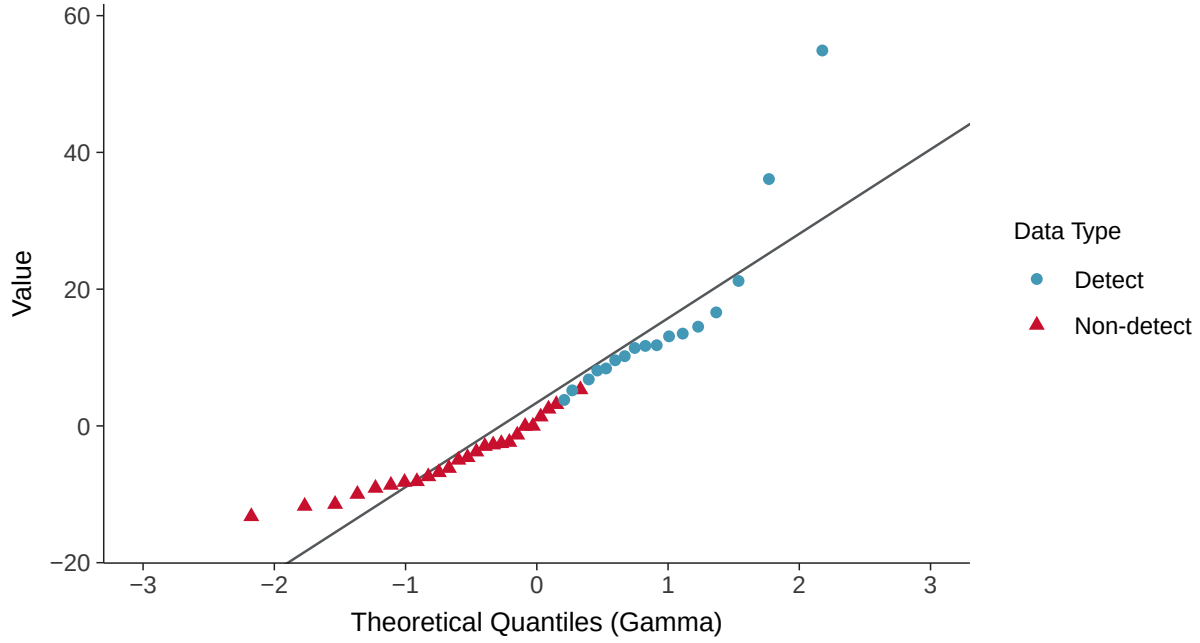
Lognormal Q-Q plot using ROS Imputed Estimates

Zinc, MW-5 (ug/L)



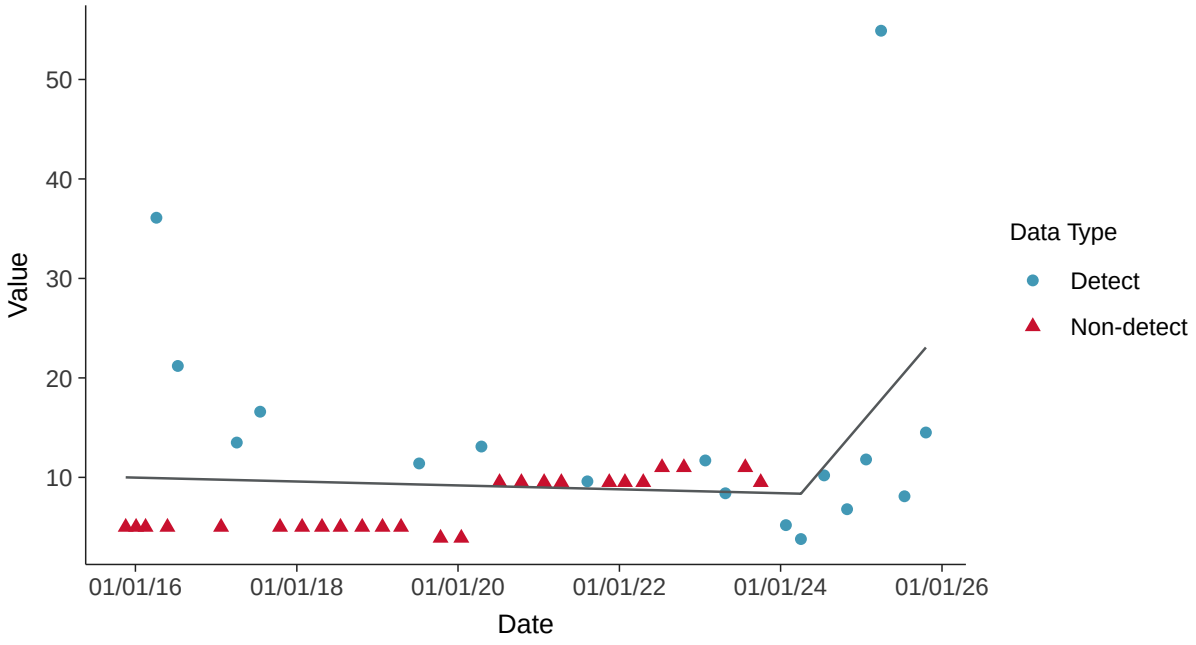
Gamma Q-Q plot using ROS Imputed Estimates

Zinc, MW-5 (ug/L)



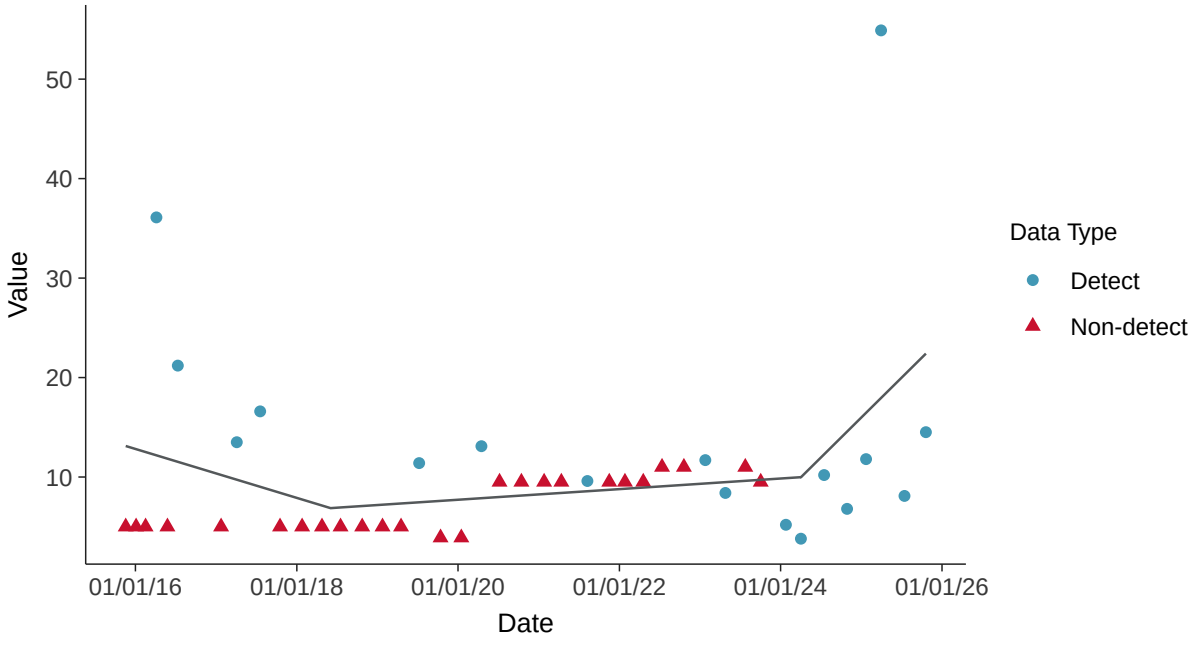
Trend Regression: Piecewise Linear-Linear

Zinc, MW-5 (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Zinc, MW-5 (ug/L)

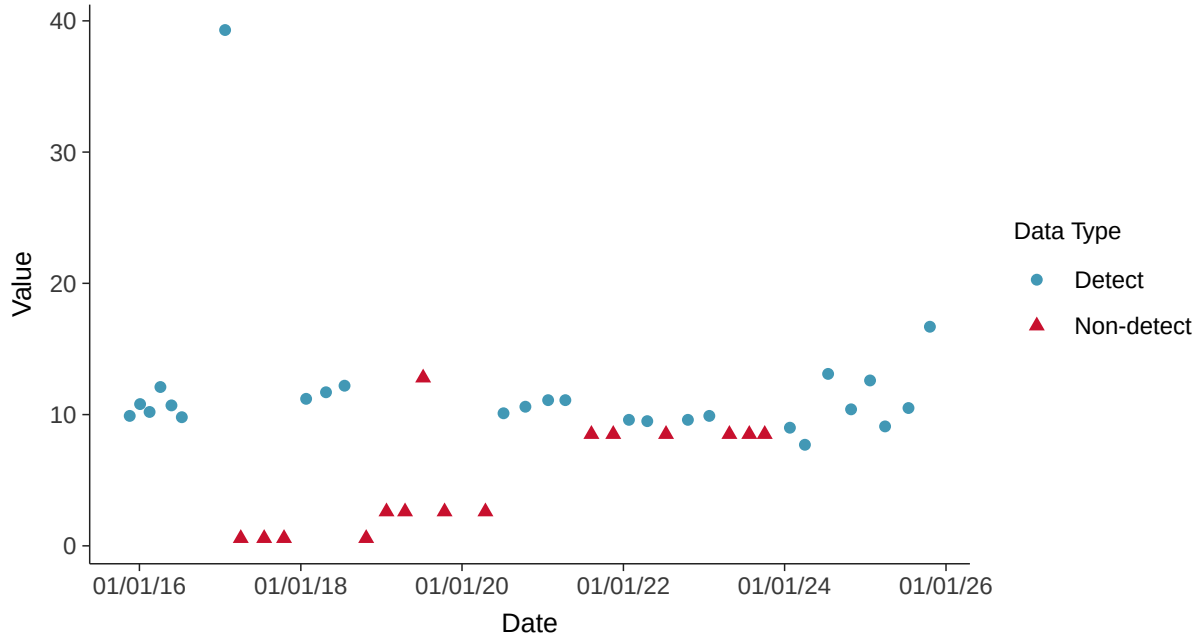


App. III: Boron, MW-5

ID: 05_2_105

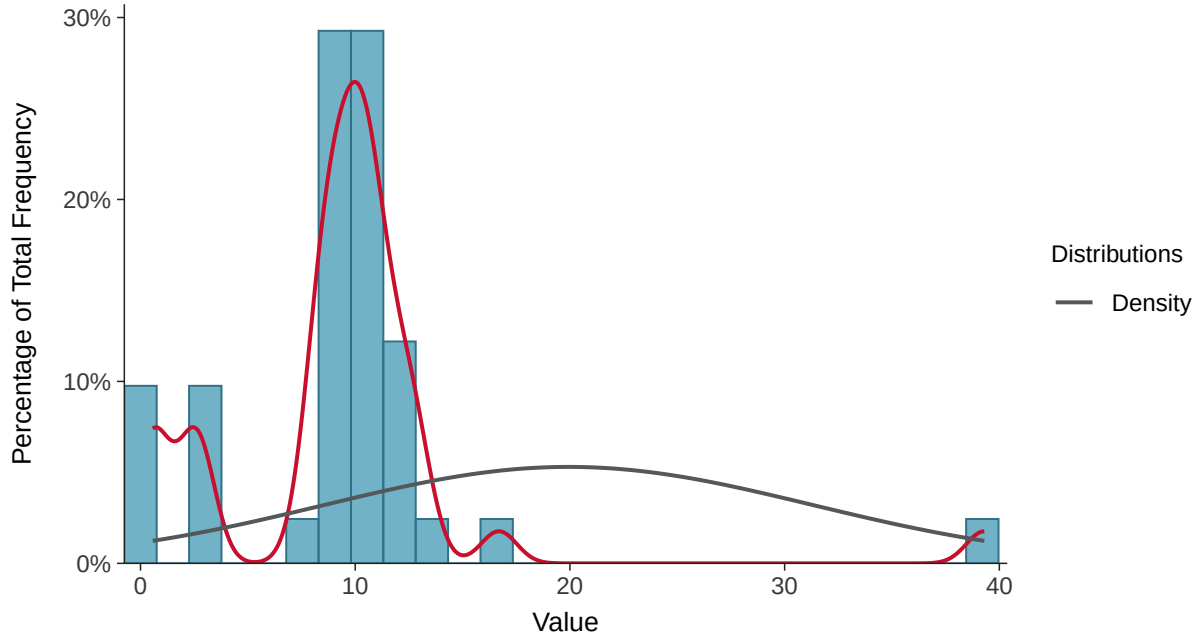
Scatter Plot

Boron, MW-5 (ug/L)



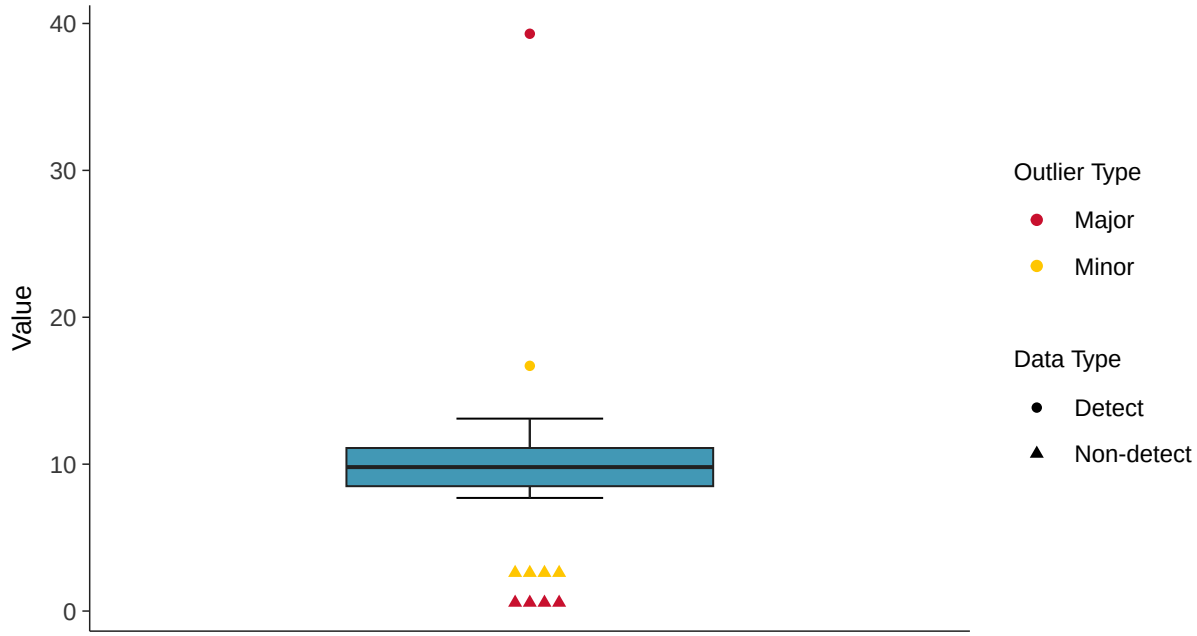
Histogram

Boron, MW-5 (ug/L)



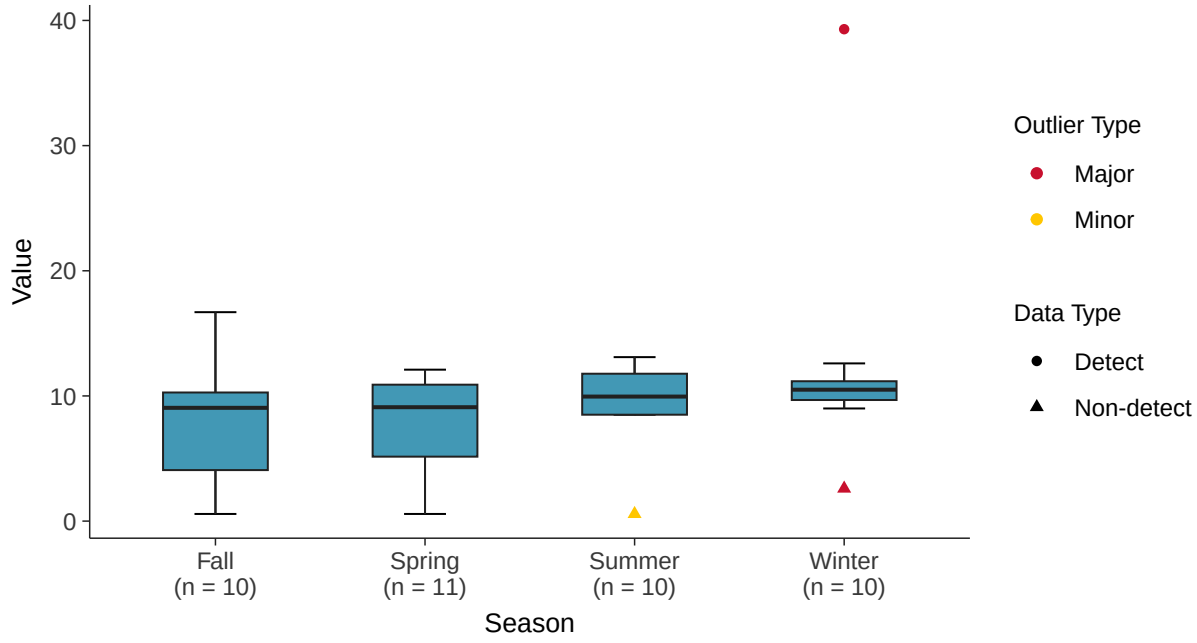
Boxplot

Boron, MW-5 (ug/L)



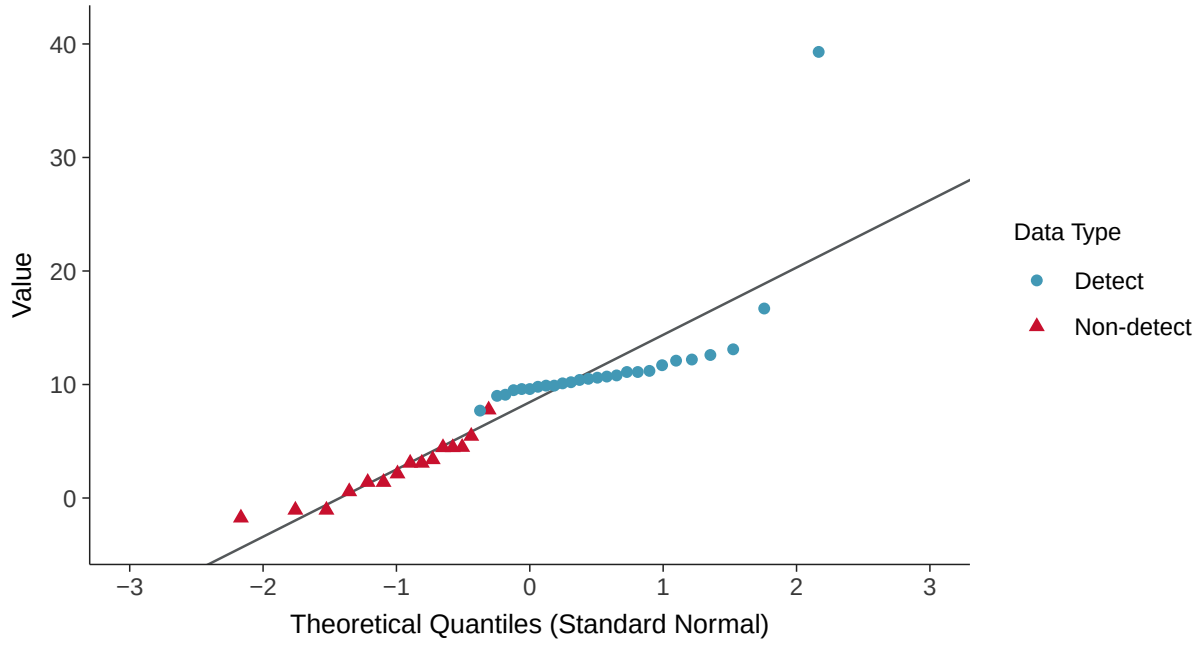
Boxplot by Season

Boron, MW-5 (ug/L)



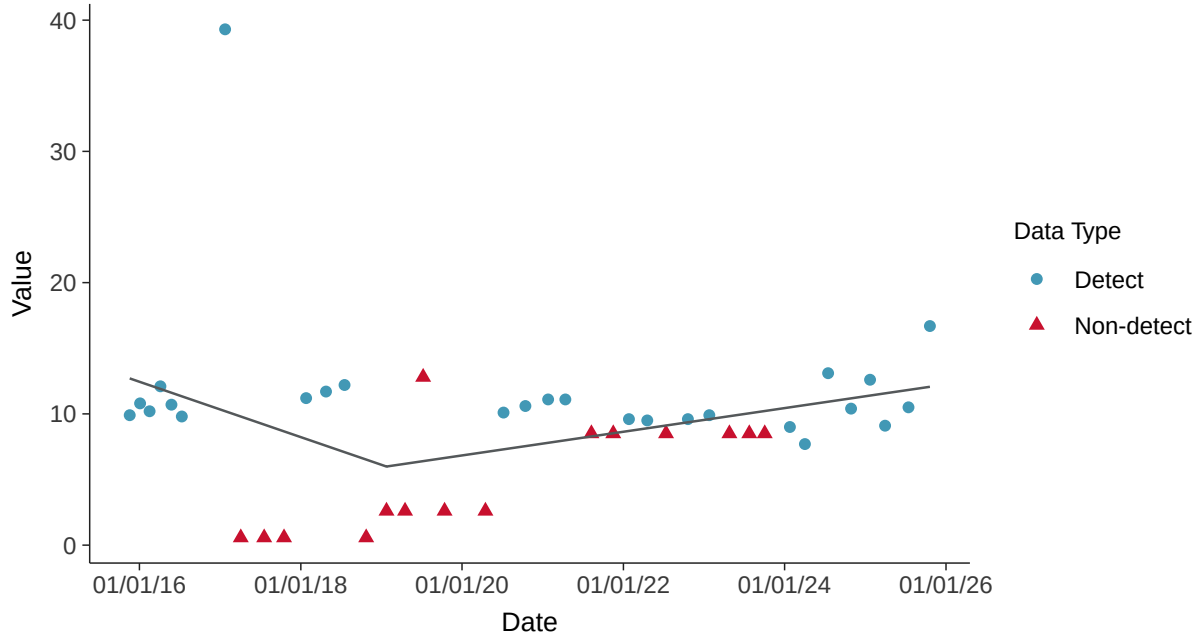
Normal Q-Q plot using ROS Imputed Estimates

Boron, MW-5 (ug/L)



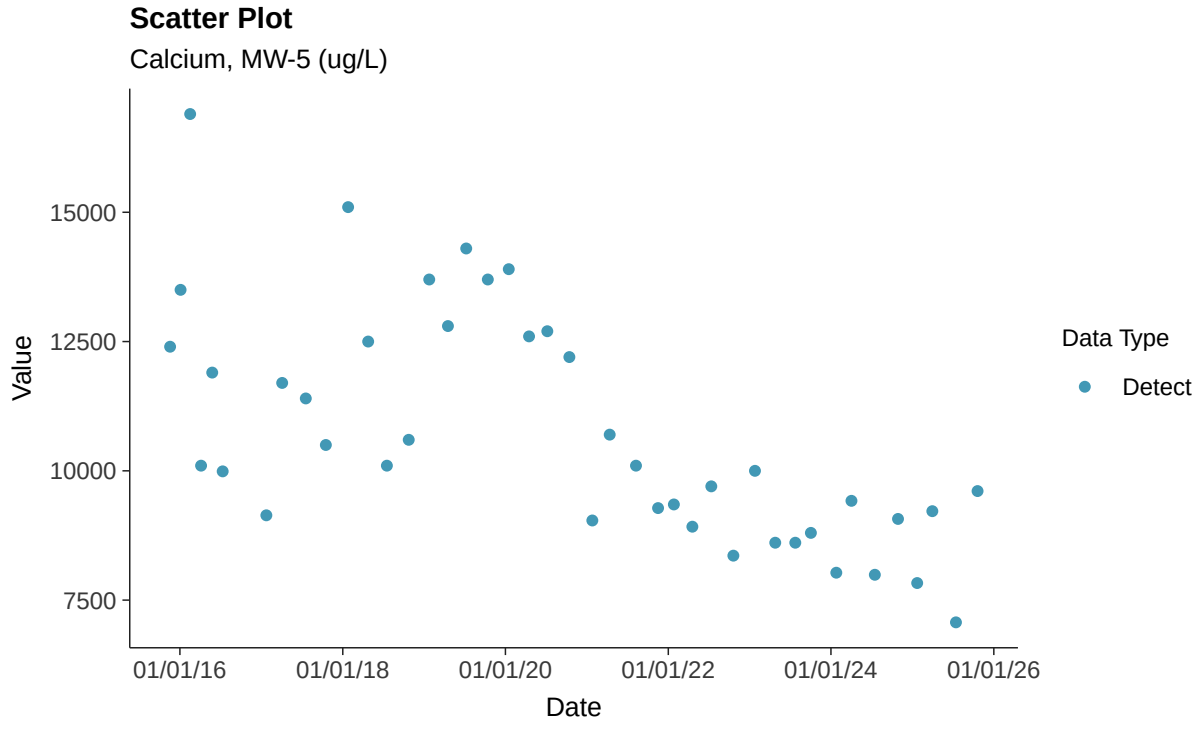
Trend Regression: Piecewise Linear-Linear

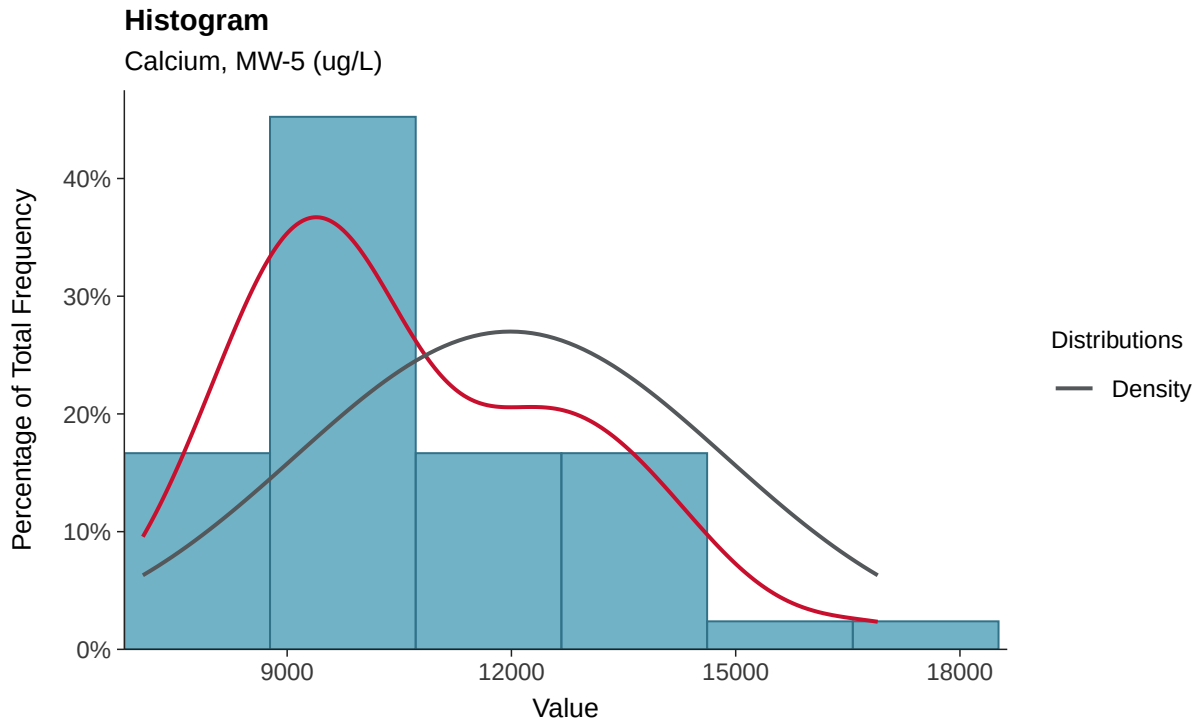
Boron, MW-5 (ug/L)



App. III: Calcium, MW-5

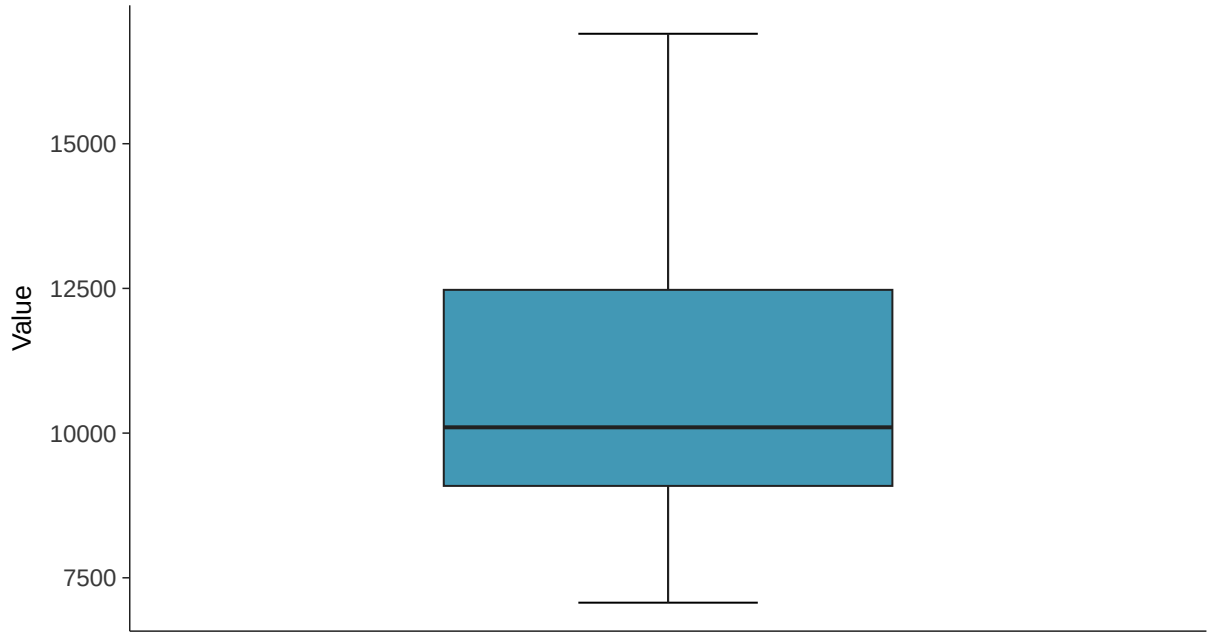
ID: 05_2_107





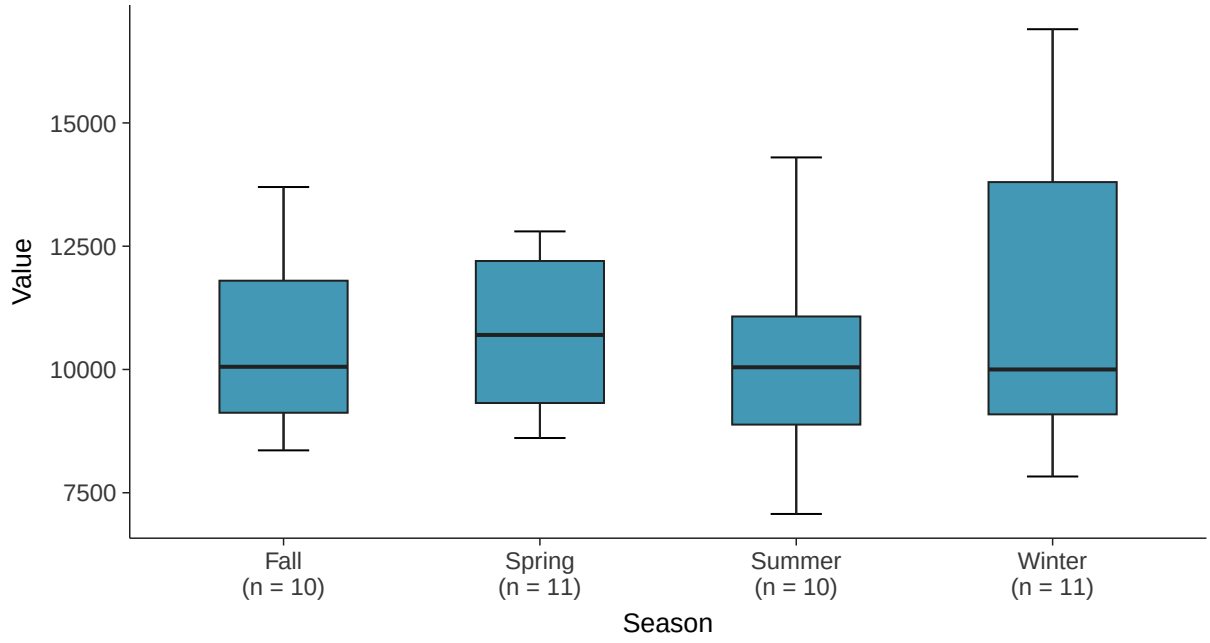
Boxplot

Calcium, MW-5 (ug/L)



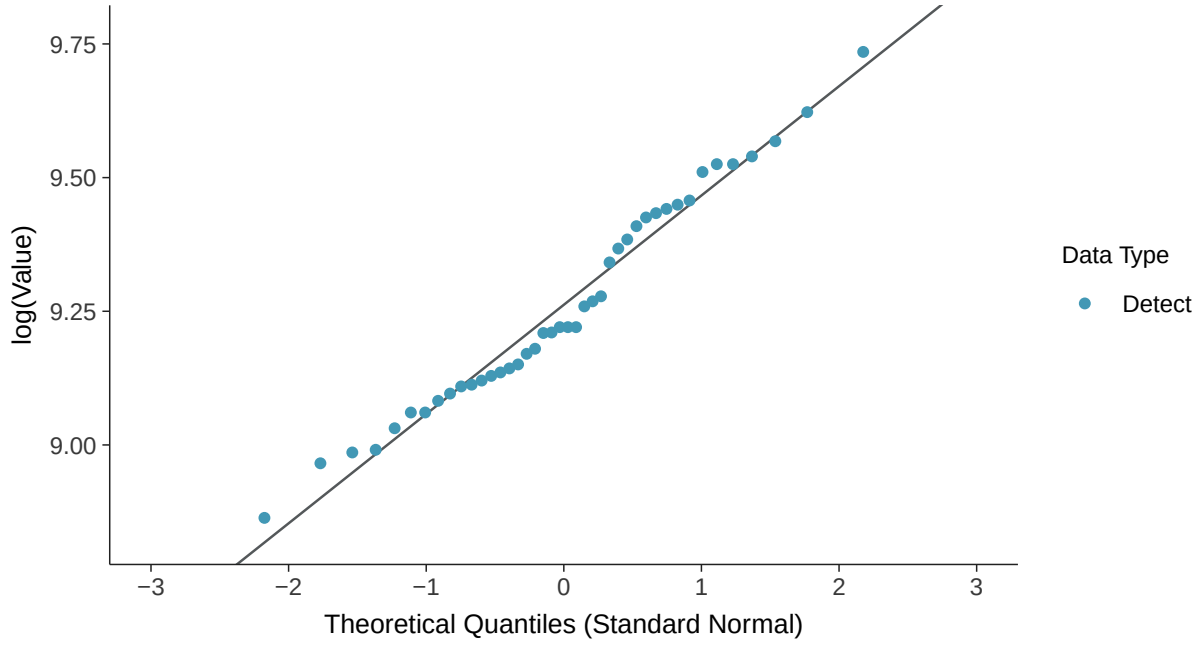
Boxplot by Season

Calcium, MW-5 (ug/L)



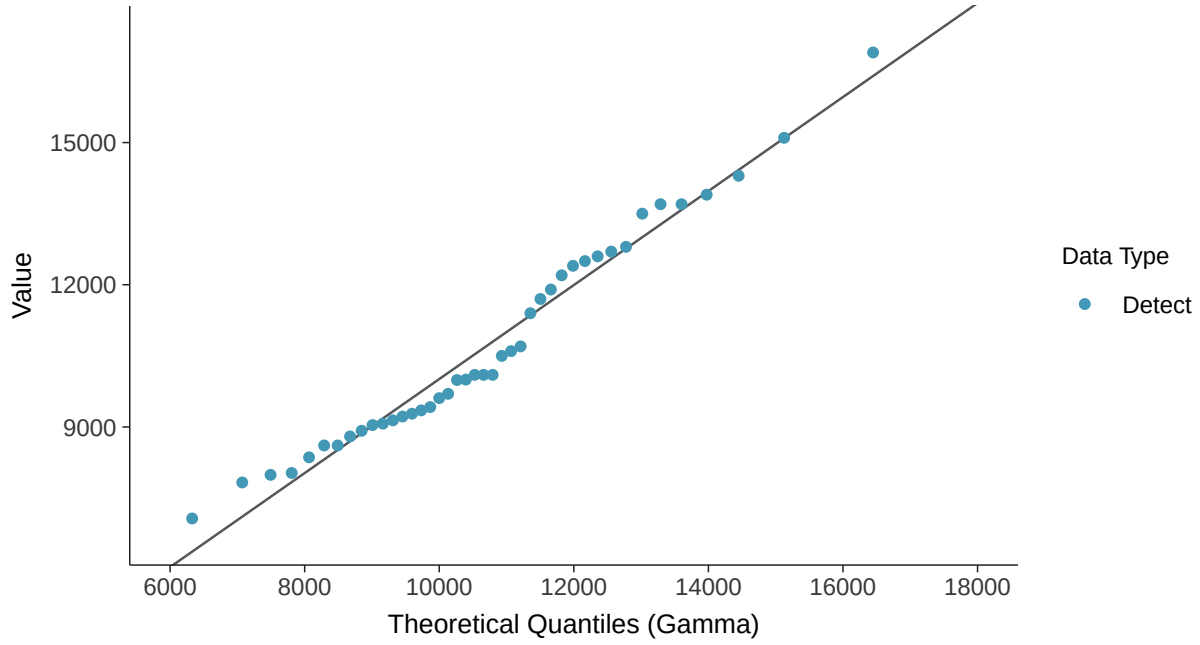
Lognormal Q-Q plot

Calcium, MW-5 (ug/L)



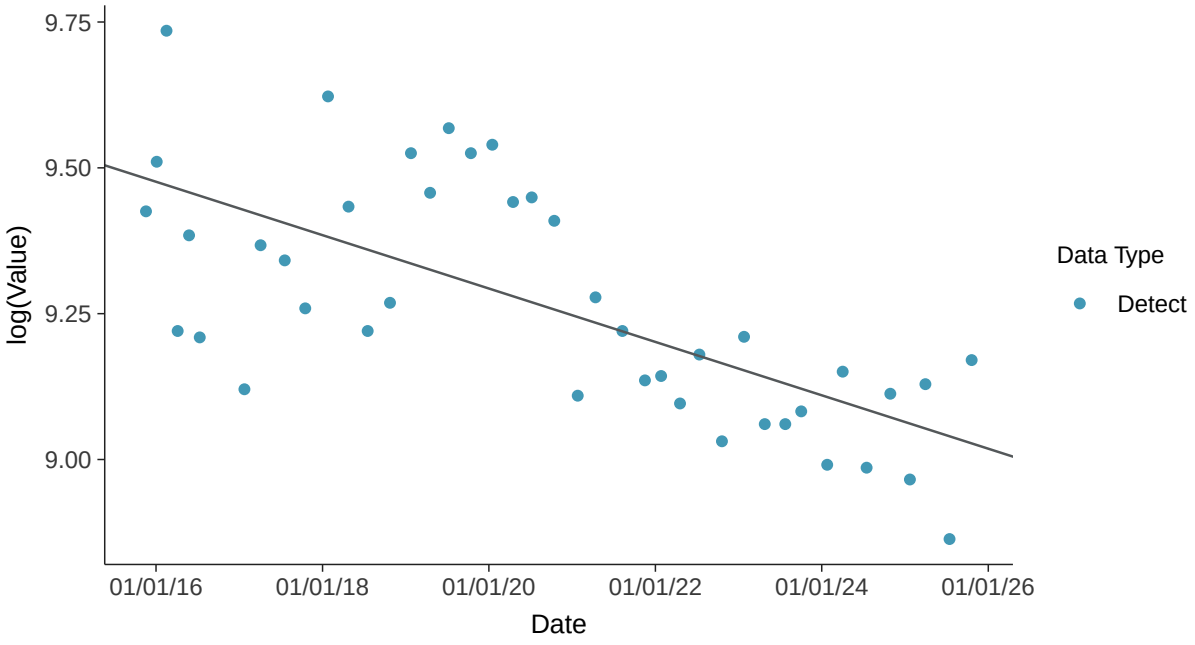
Gamma Q-Q plot

Calcium, MW-5 (ug/L)



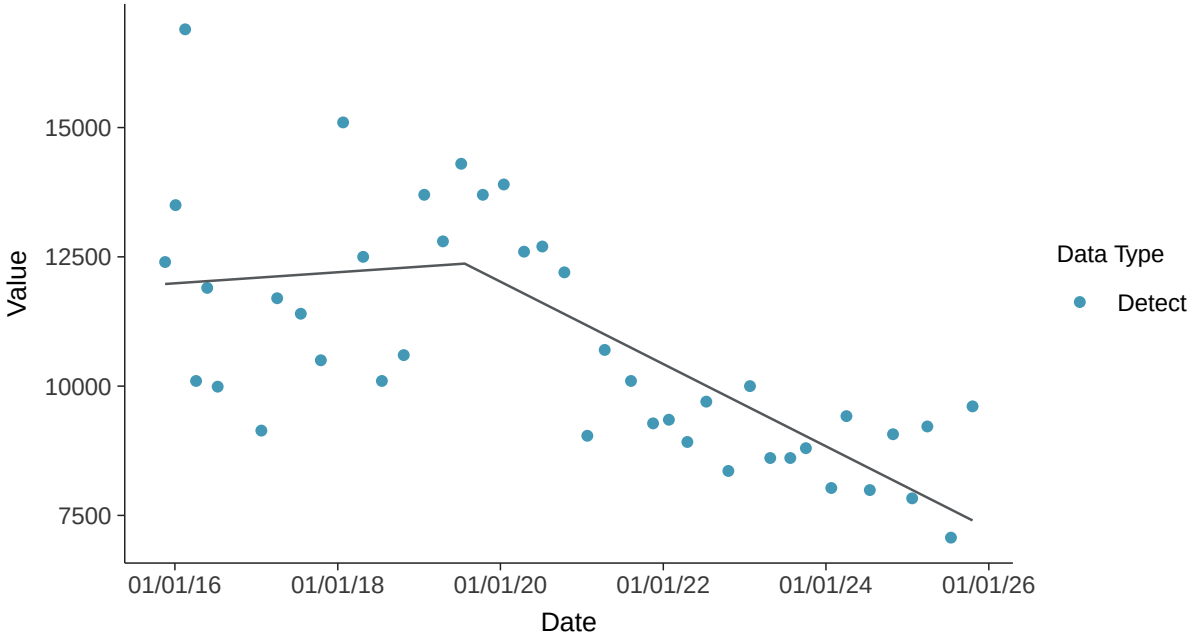
Trend Regression: Lognormal MLE

Calcium, MW-5 (ug/L)



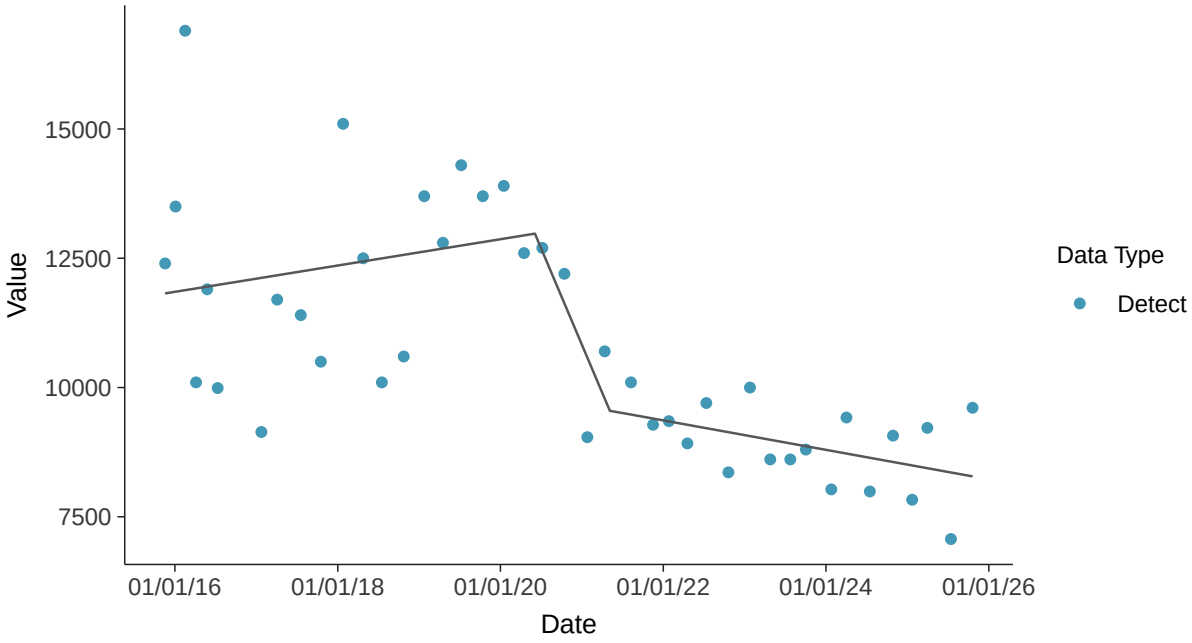
Trend Regression: Piecewise Linear-Linear

Calcium, MW-5 (ug/L)



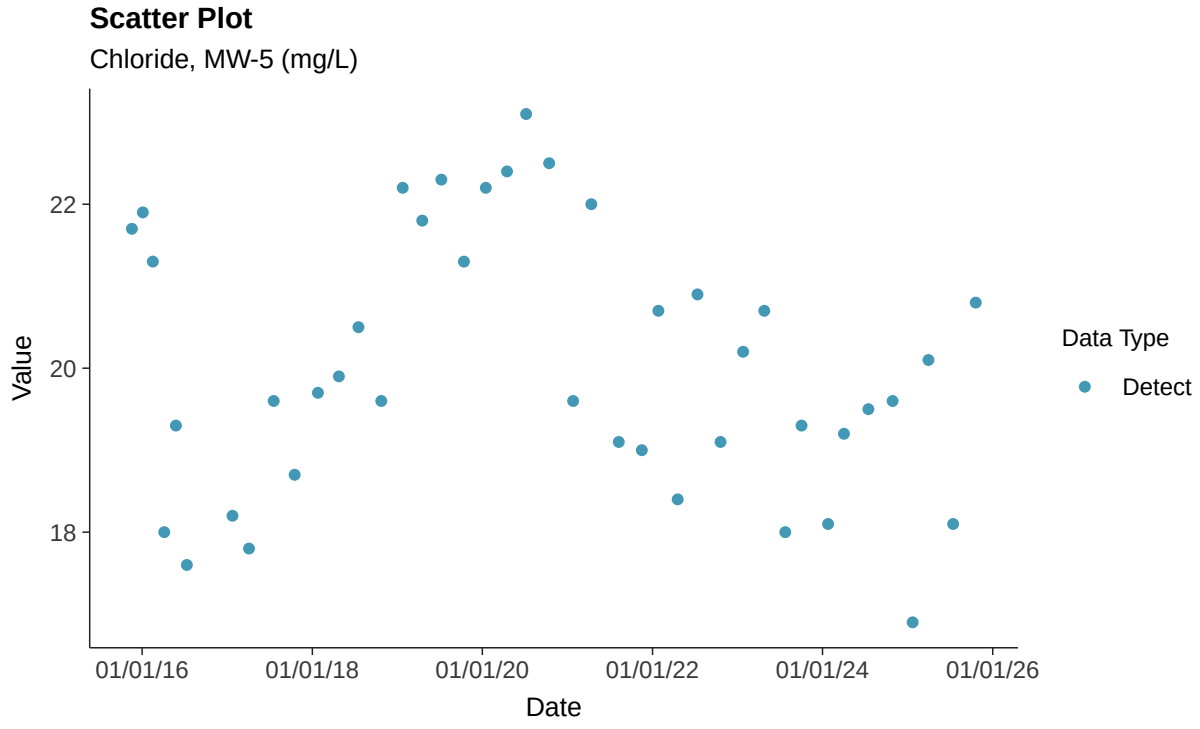
Trend Regression: Piecewise Linear-Linear-Linear

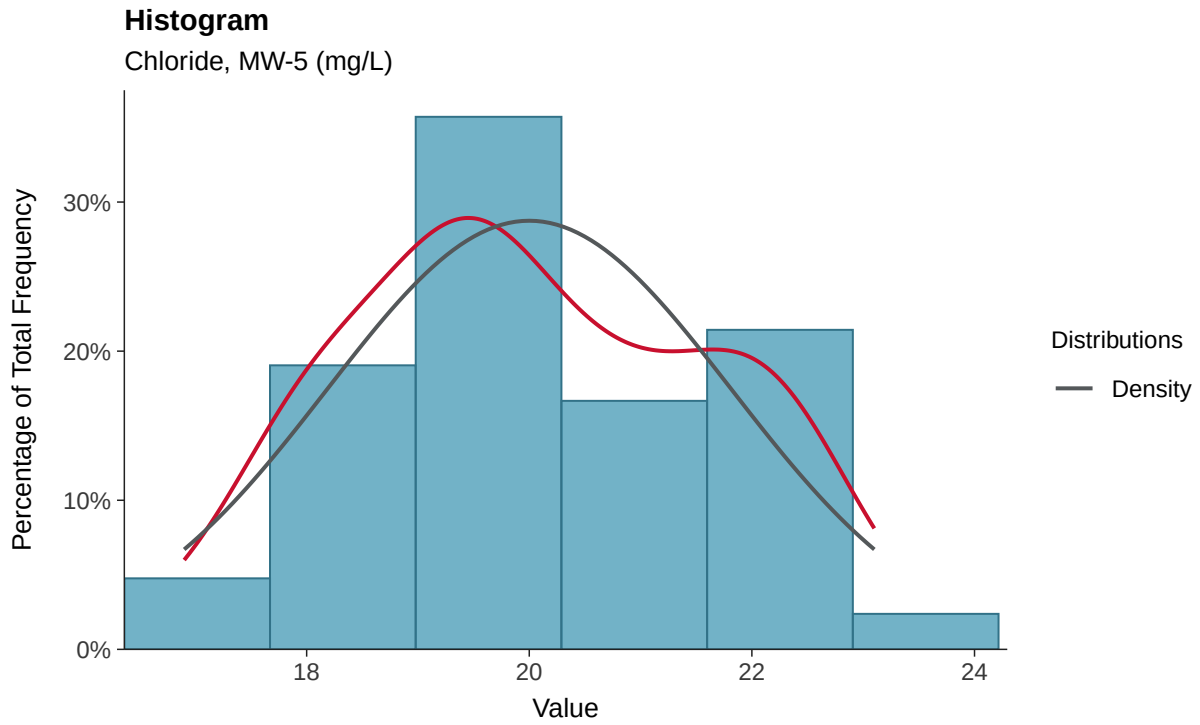
Calcium, MW-5 (ug/L)



App. III: Chloride, MW-5

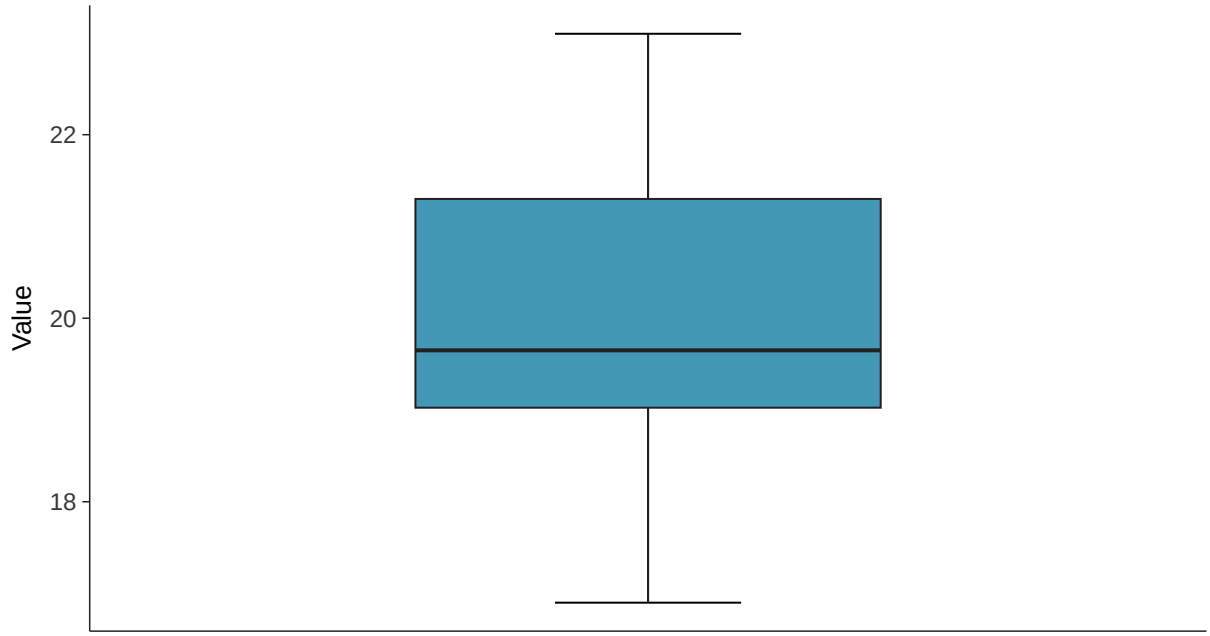
ID: 05_2_108





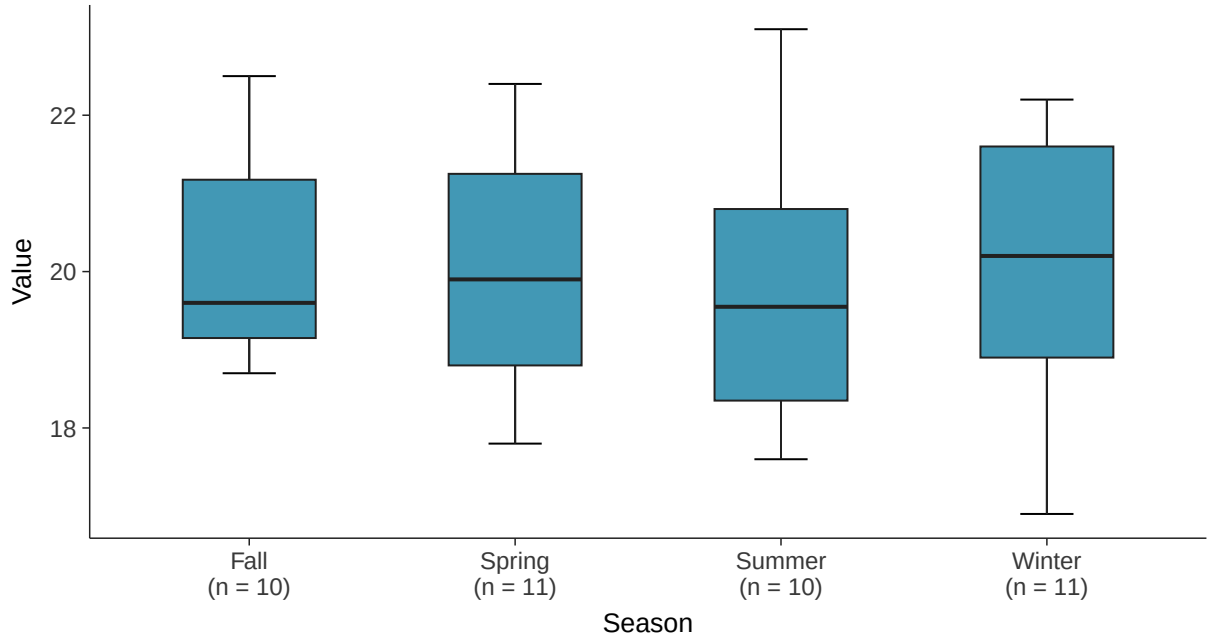
Boxplot

Chloride, MW-5 (mg/L)



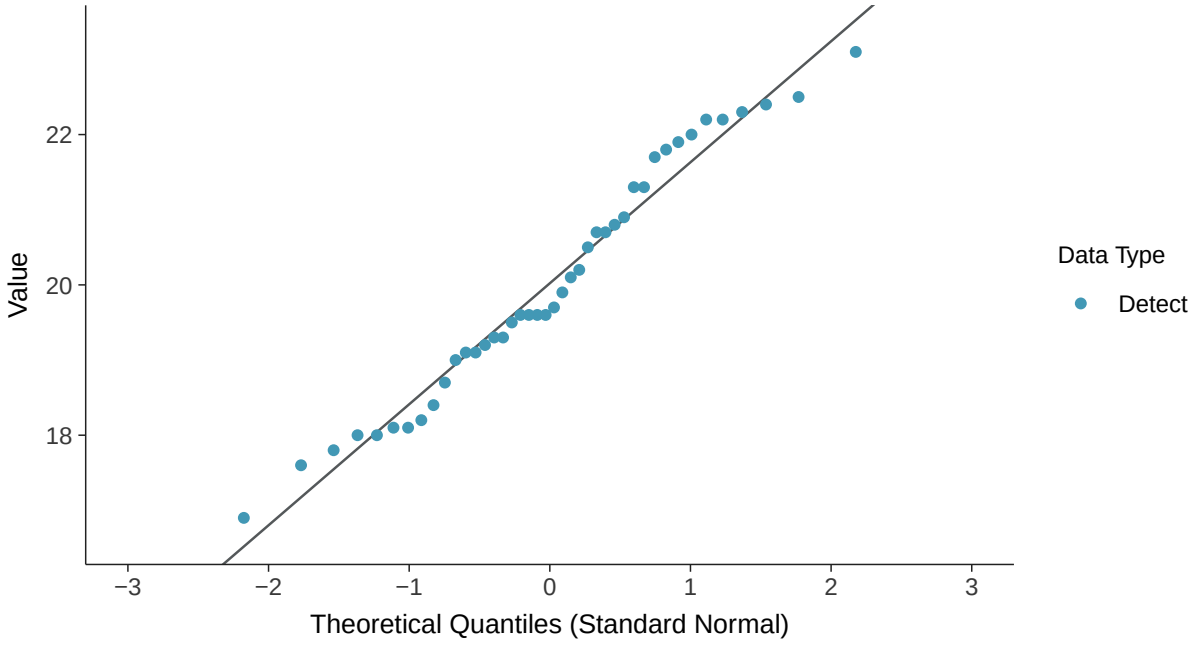
Boxplot by Season

Chloride, MW-5 (mg/L)



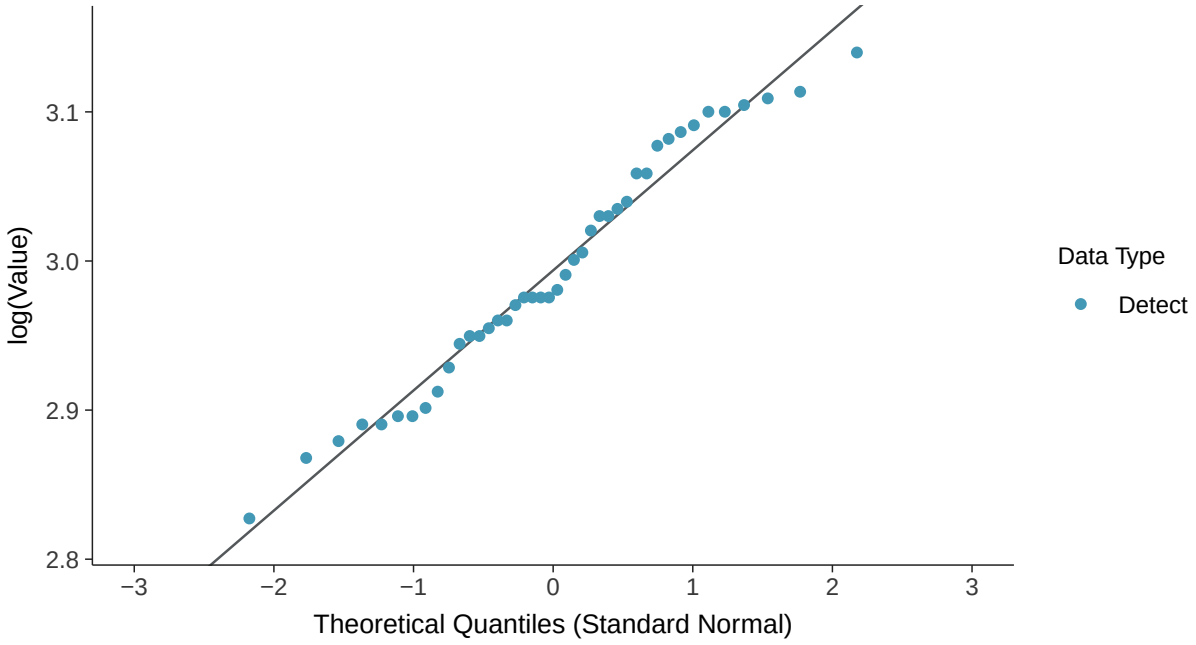
Normal Q-Q plot

Chloride, MW-5 (mg/L)



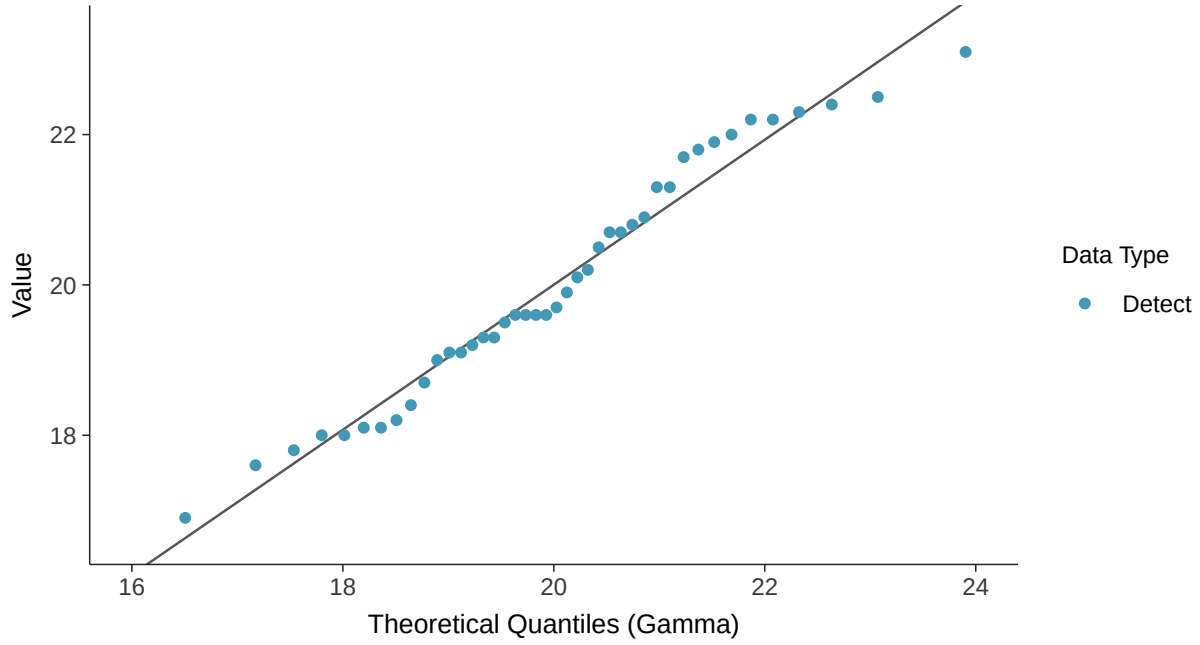
Lognormal Q-Q plot

Chloride, MW-5 (mg/L)



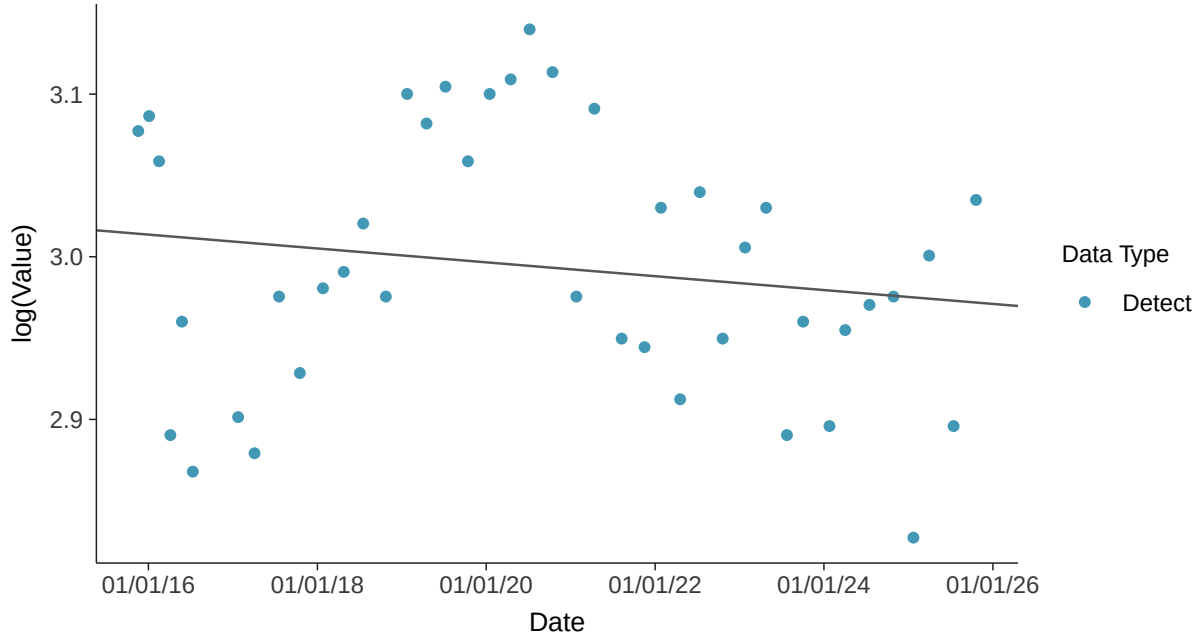
Gamma Q-Q plot

Chloride, MW-5 (mg/L)



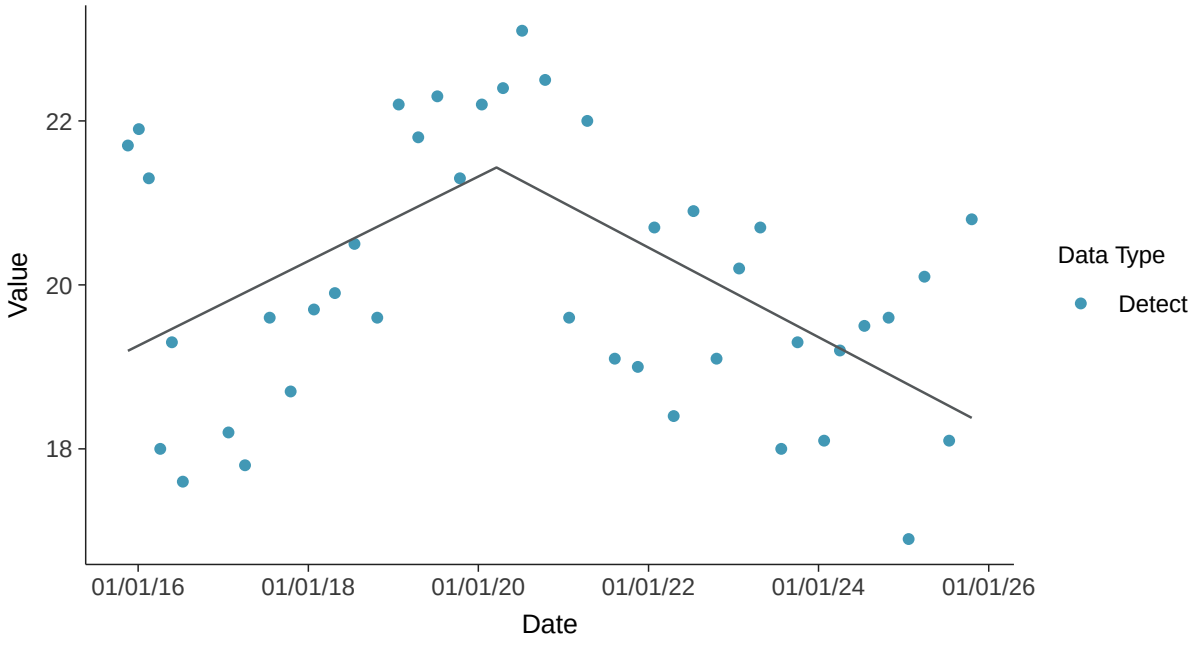
Trend Regression: Lognormal MLE

Chloride, MW-5 (mg/L)



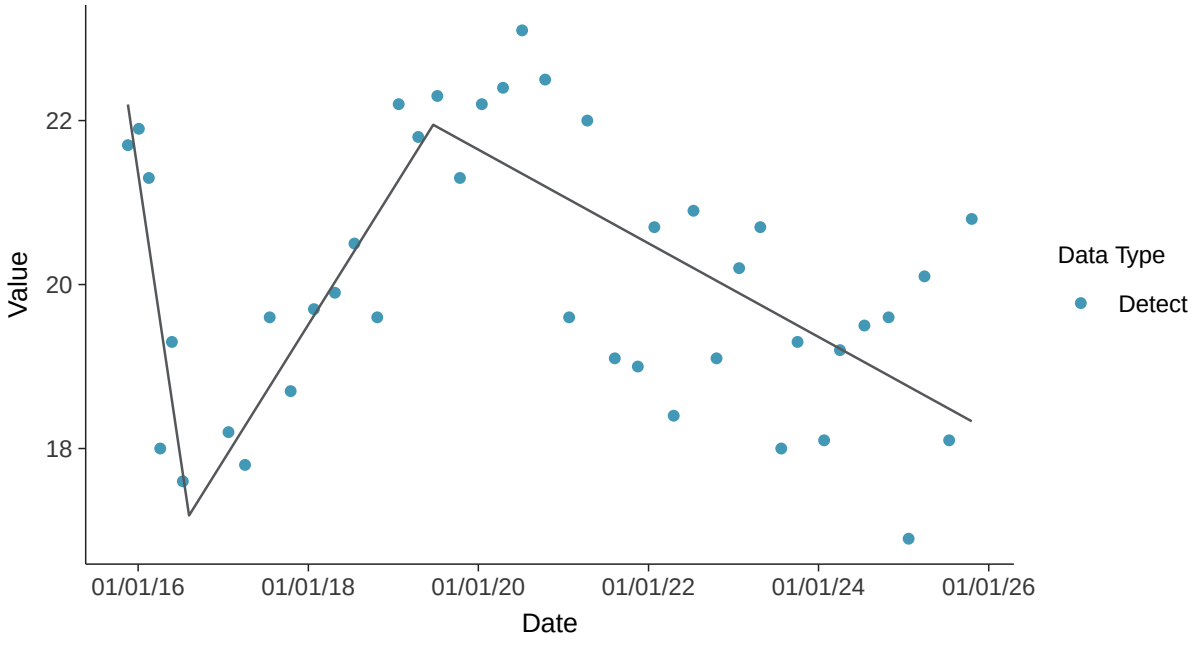
Trend Regression: Piecewise Linear-Linear

Chloride, MW-5 (mg/L)



Trend Regression: Piecewise Linear-Linear-Linear

Chloride, MW-5 (mg/L)

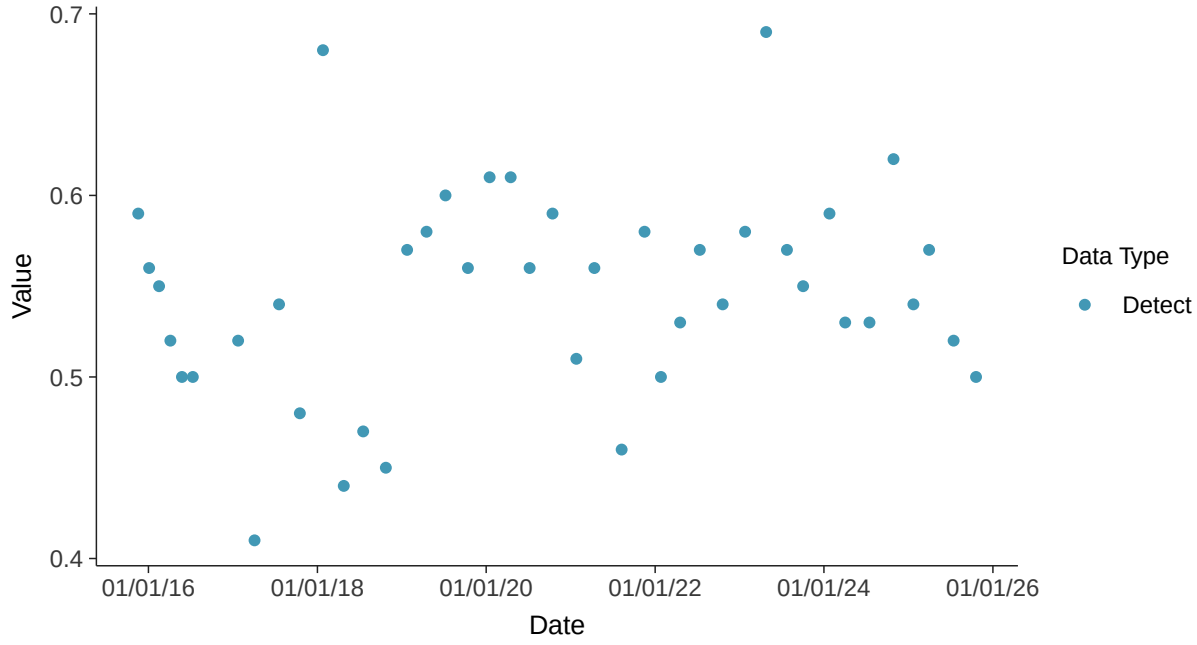


App. III: Fluoride, MW-5

ID: 05_2_112

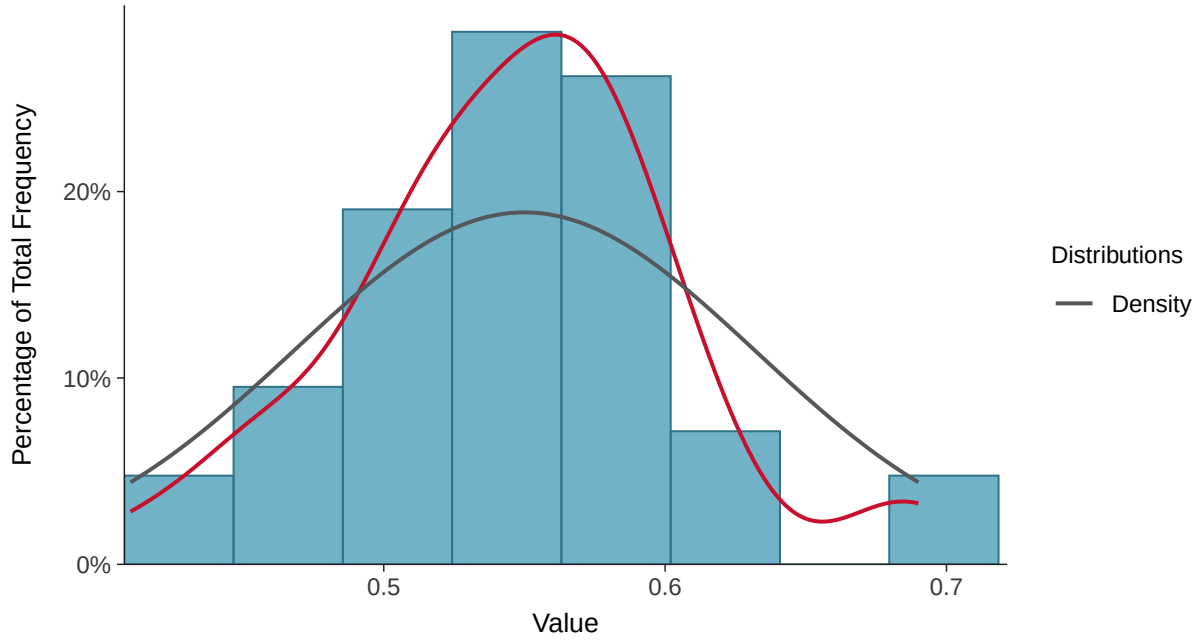
Scatter Plot

Fluoride, MW-5 (mg/L)



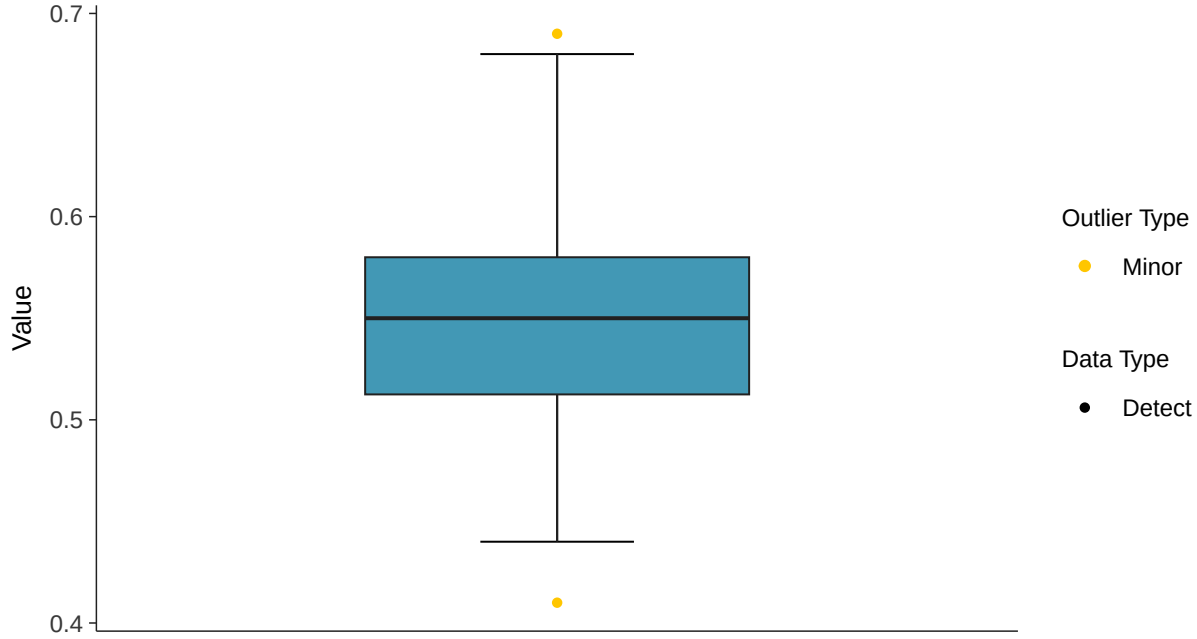
Histogram

Fluoride, MW-5 (mg/L)



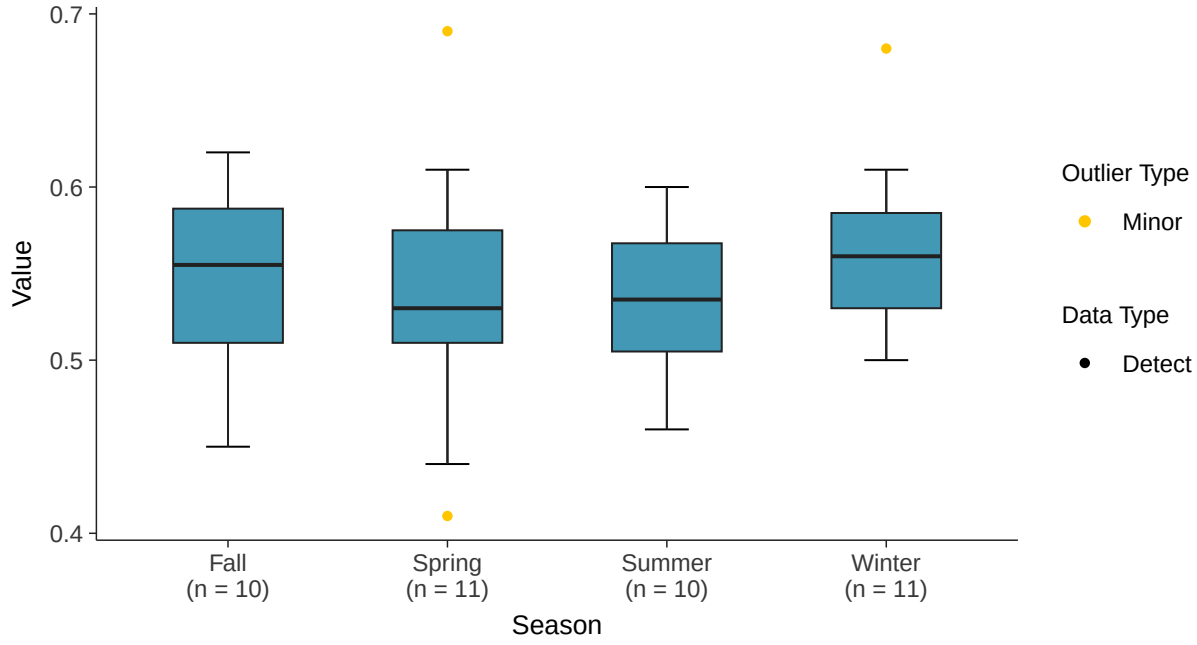
Boxplot

Fluoride, MW-5 (mg/L)



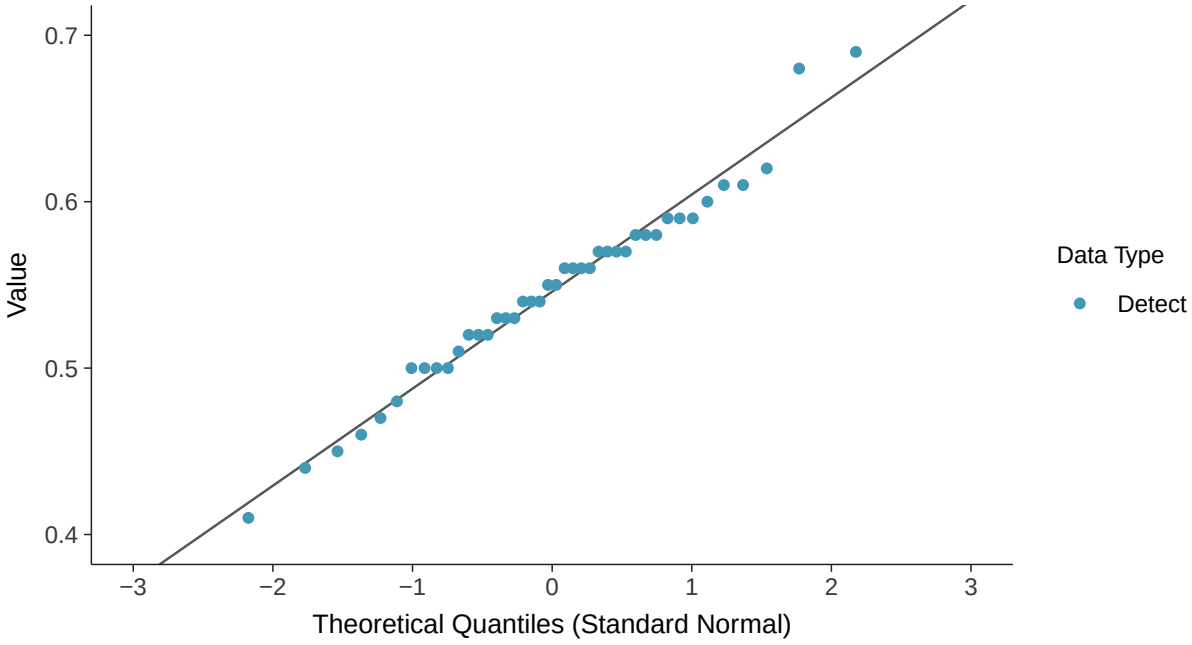
Boxplot by Season

Fluoride, MW-5 (mg/L)



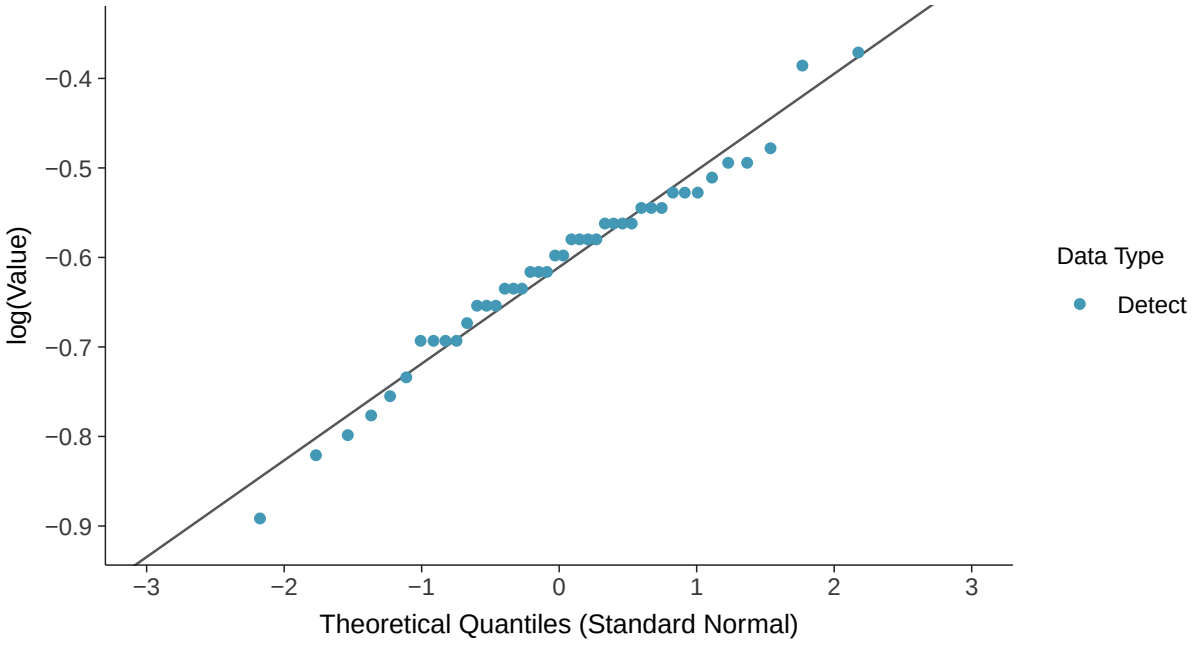
Normal Q-Q plot

Fluoride, MW-5 (mg/L)



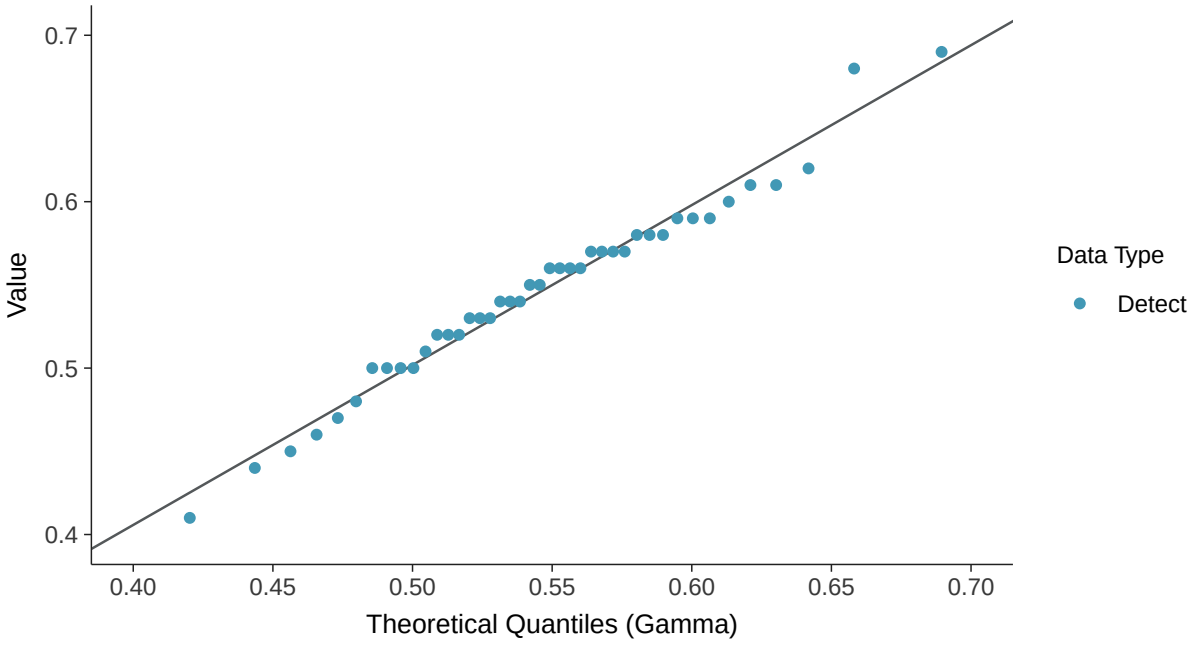
Lognormal Q-Q plot

Fluoride, MW-5 (mg/L)



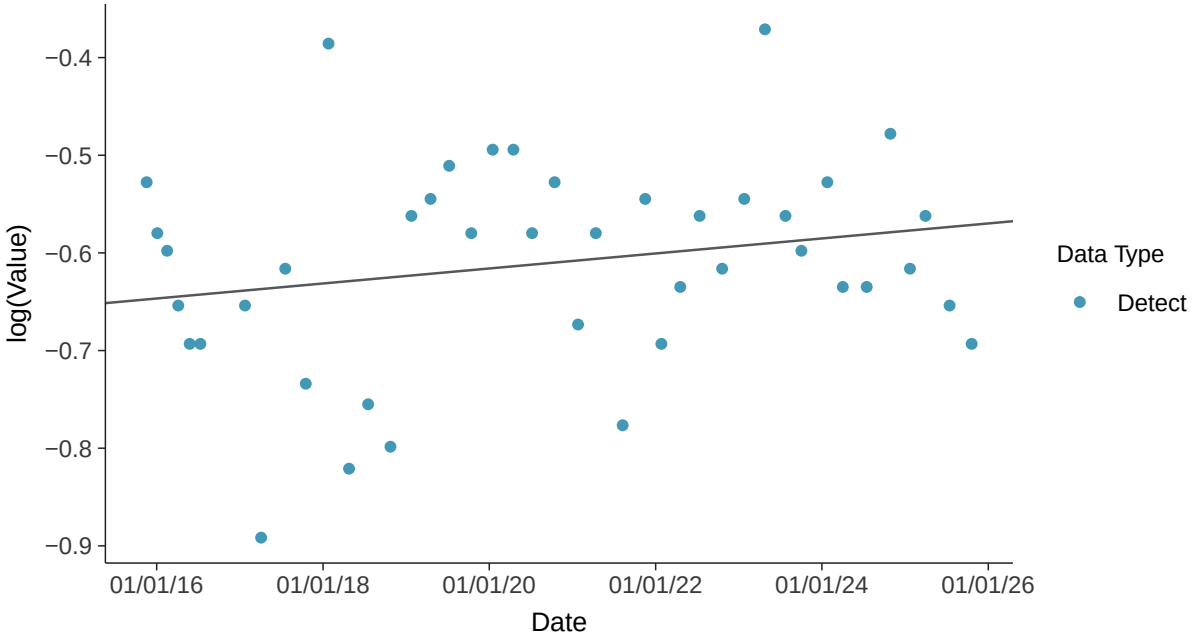
Gamma Q-Q plot

Fluoride, MW-5 (mg/L)



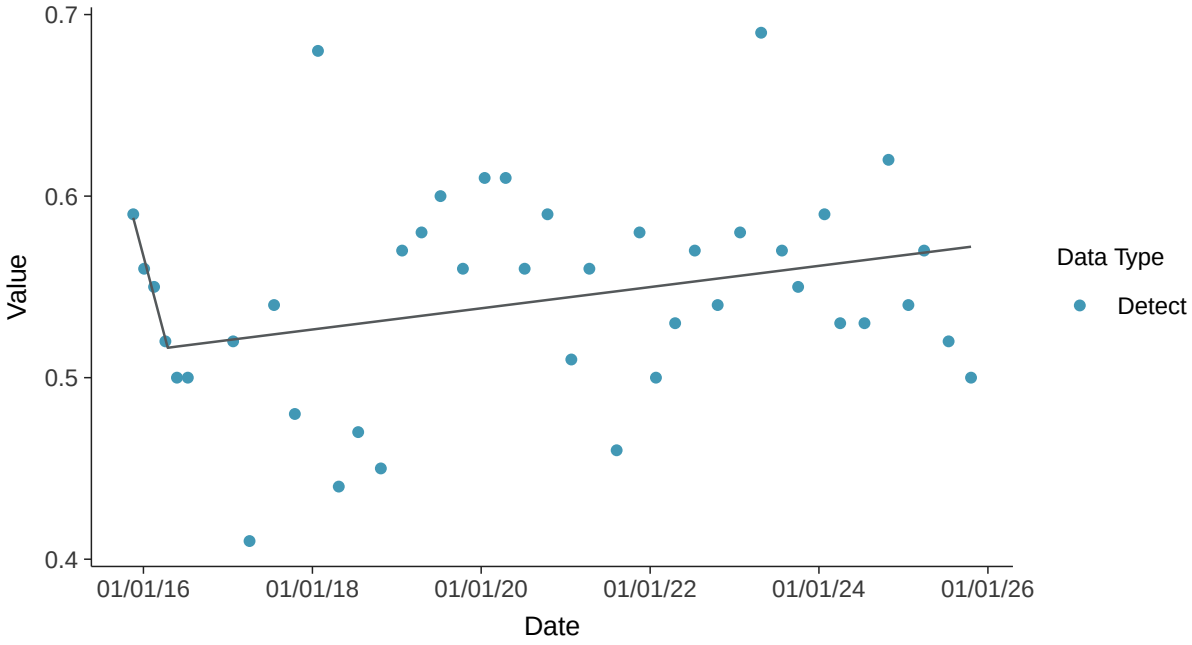
Trend Regression: Lognormal MLE

Fluoride, MW-5 (mg/L)



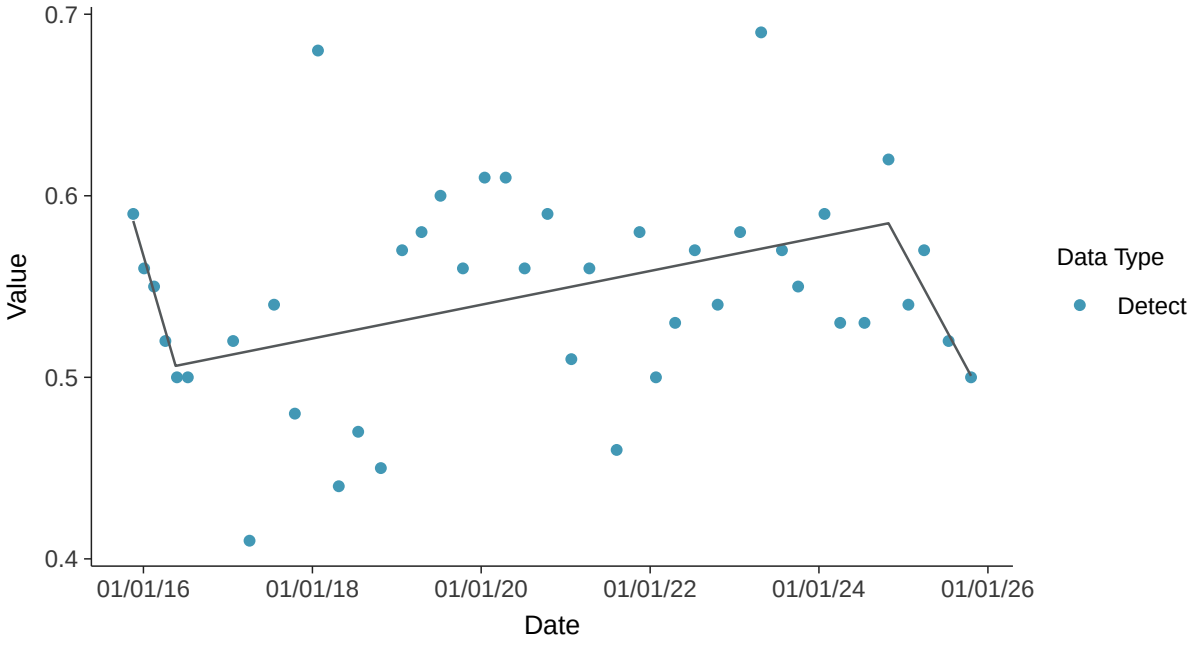
Trend Regression: Piecewise Linear-Linear

Fluoride, MW-5 (mg/L)



Trend Regression: Piecewise Linear-Linear-Linear

Fluoride, MW-5 (mg/L)

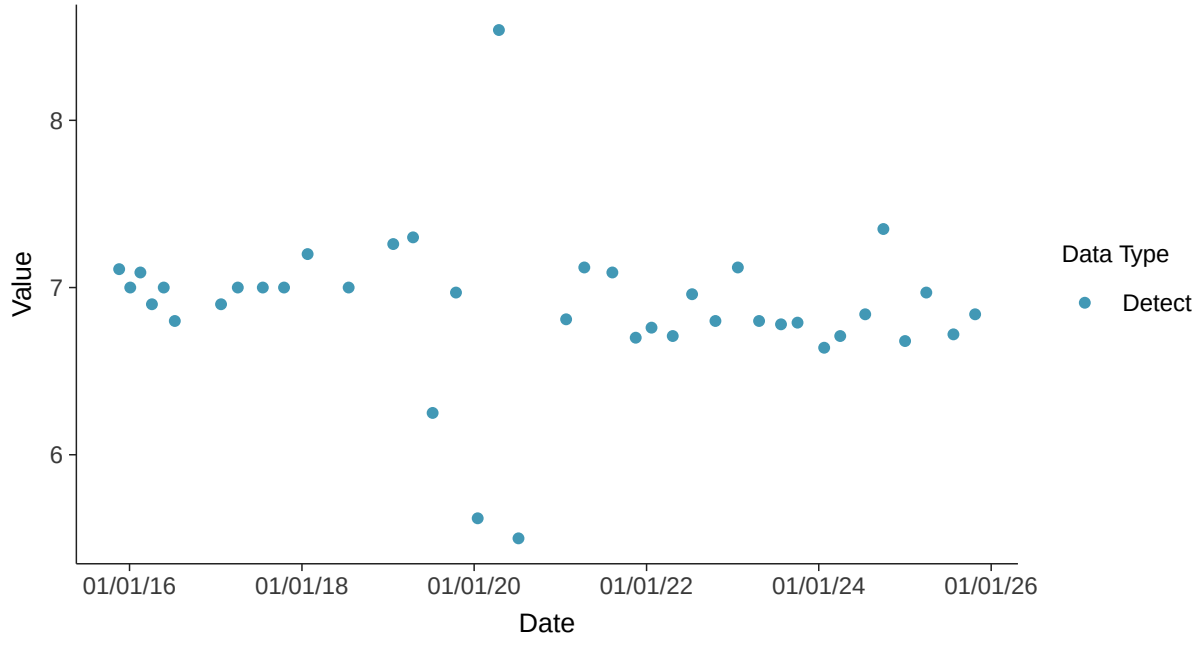


App. III: pH (Field), MW-5

ID: 05_2_118

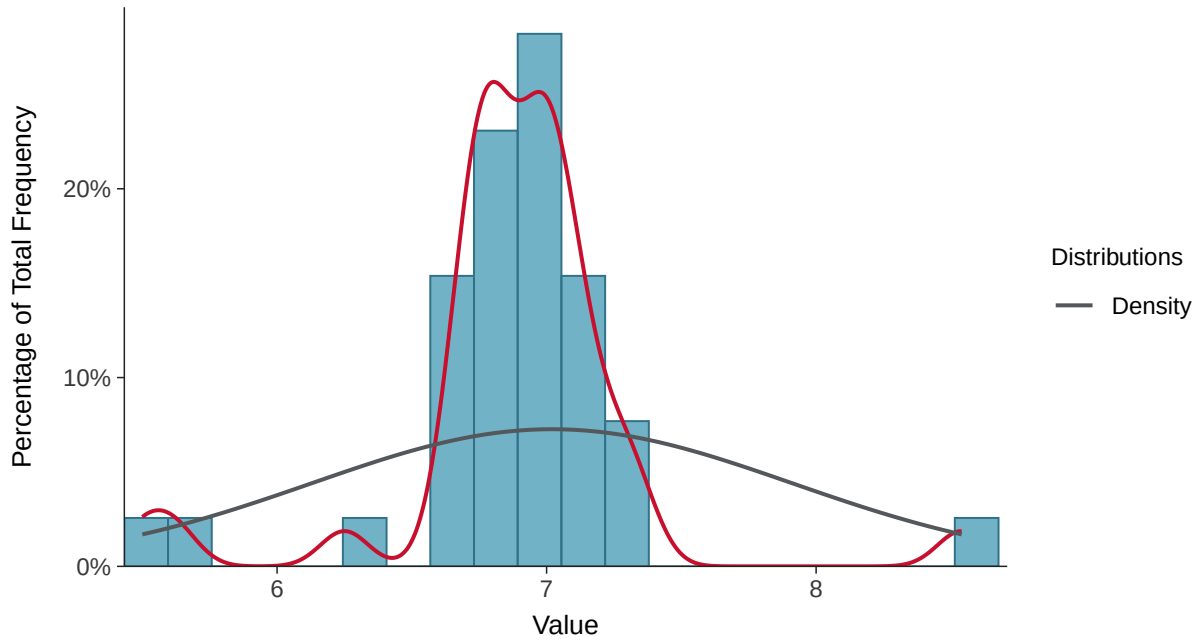
Scatter Plot

pH (Field), MW-5 (S.U.)



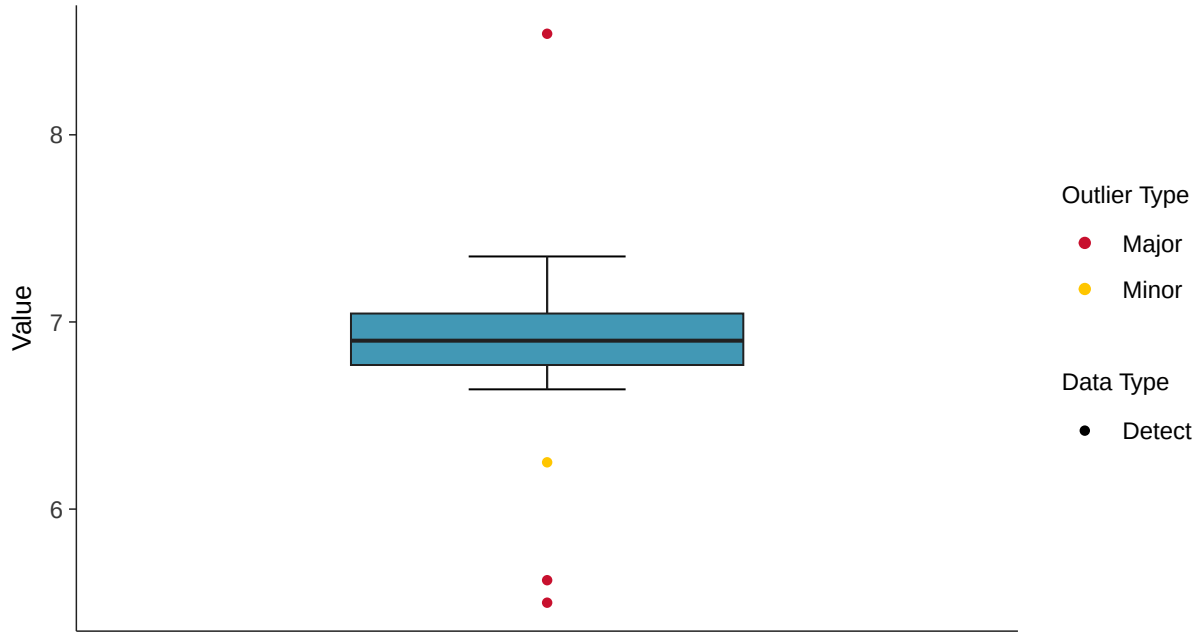
Histogram

pH (Field), MW-5 (S.U.)



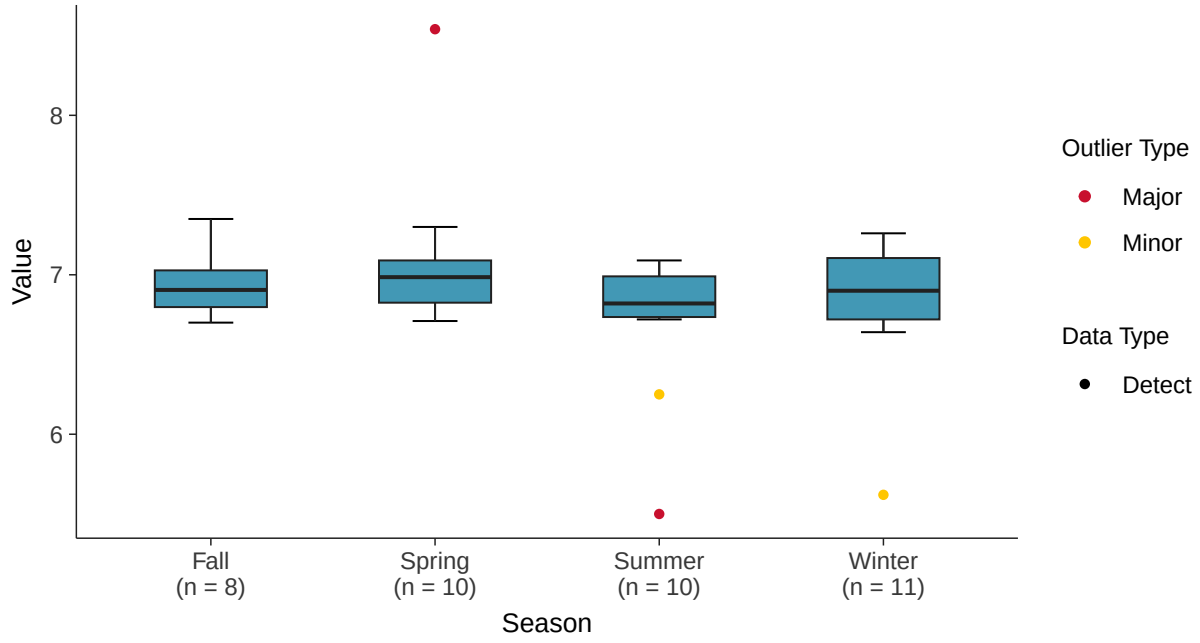
Boxplot

pH (Field), MW-5 (S.U.)



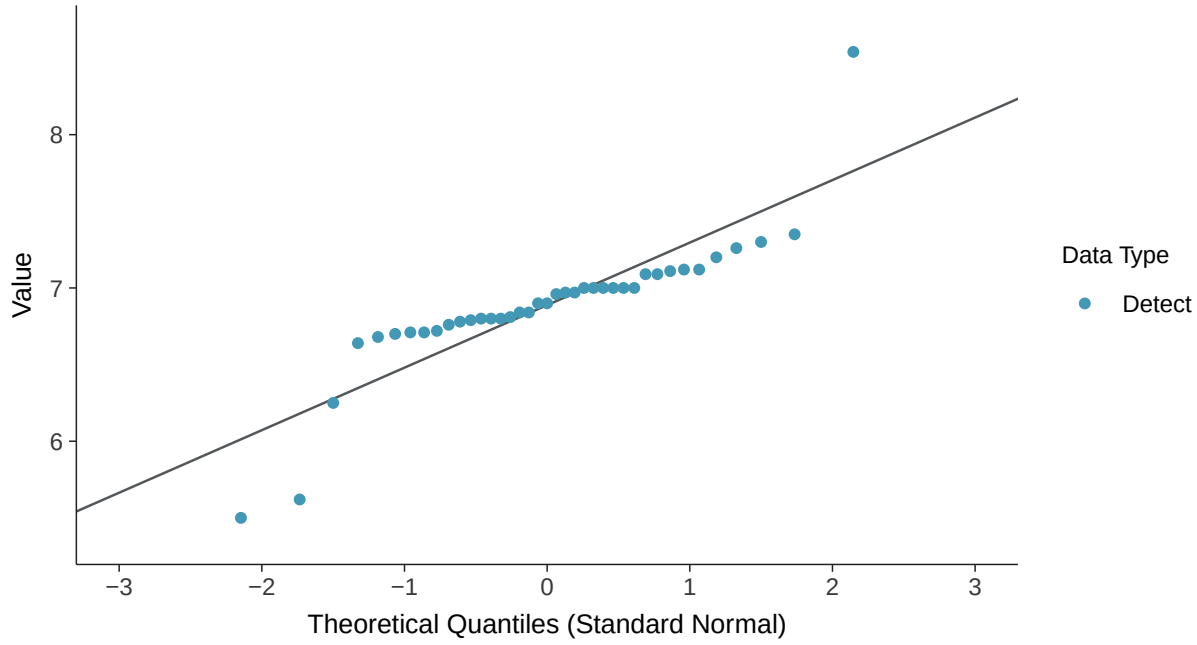
Boxplot by Season

pH (Field), MW-5 (S.U.)



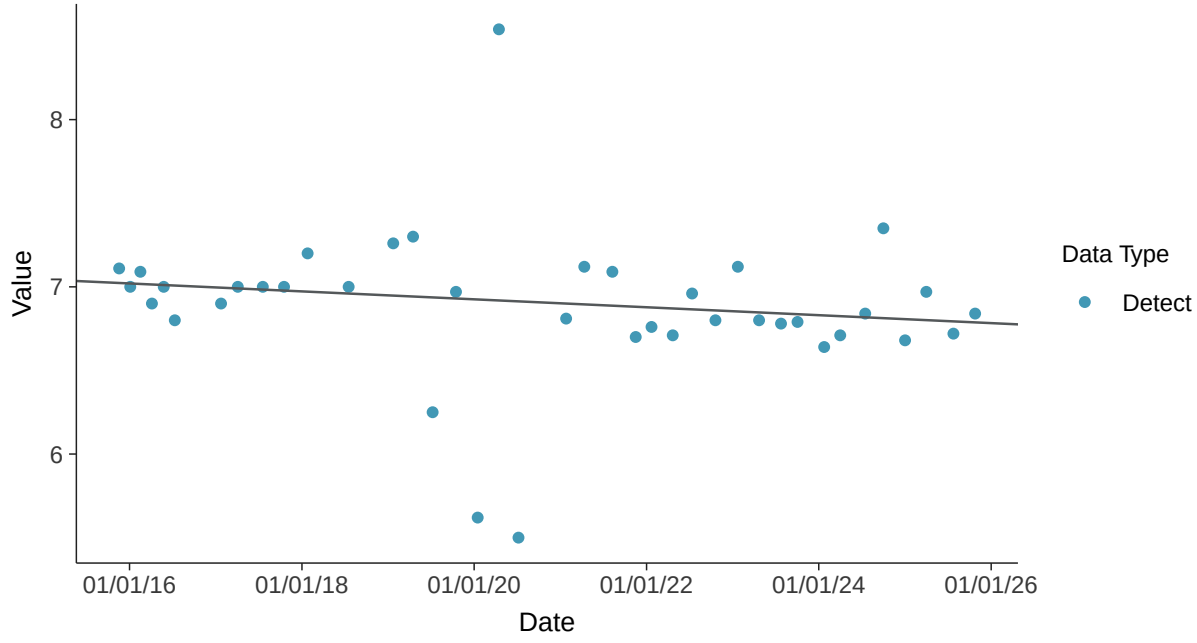
Normal Q-Q plot

pH (Field), MW-5 (S.U.)



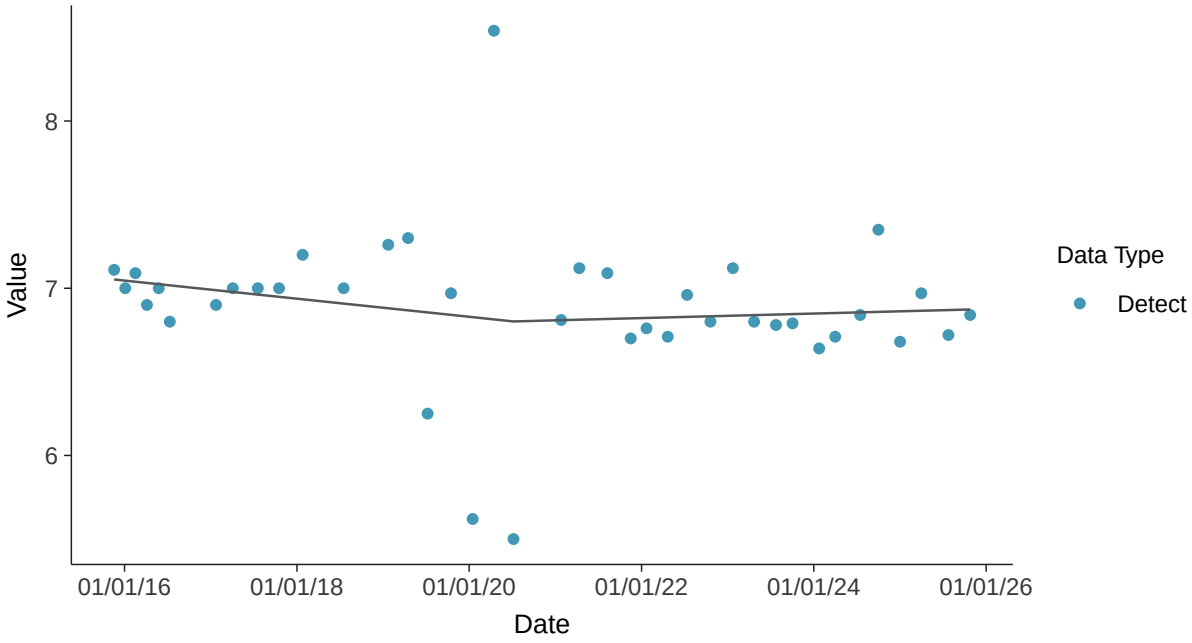
Trend Regression: Mann-Kendall/Theil-Sen Estimate

pH (Field), MW-5 (S.U.)



Trend Regression: Piecewise Linear-Linear

pH (Field), MW-5 (S.U.)

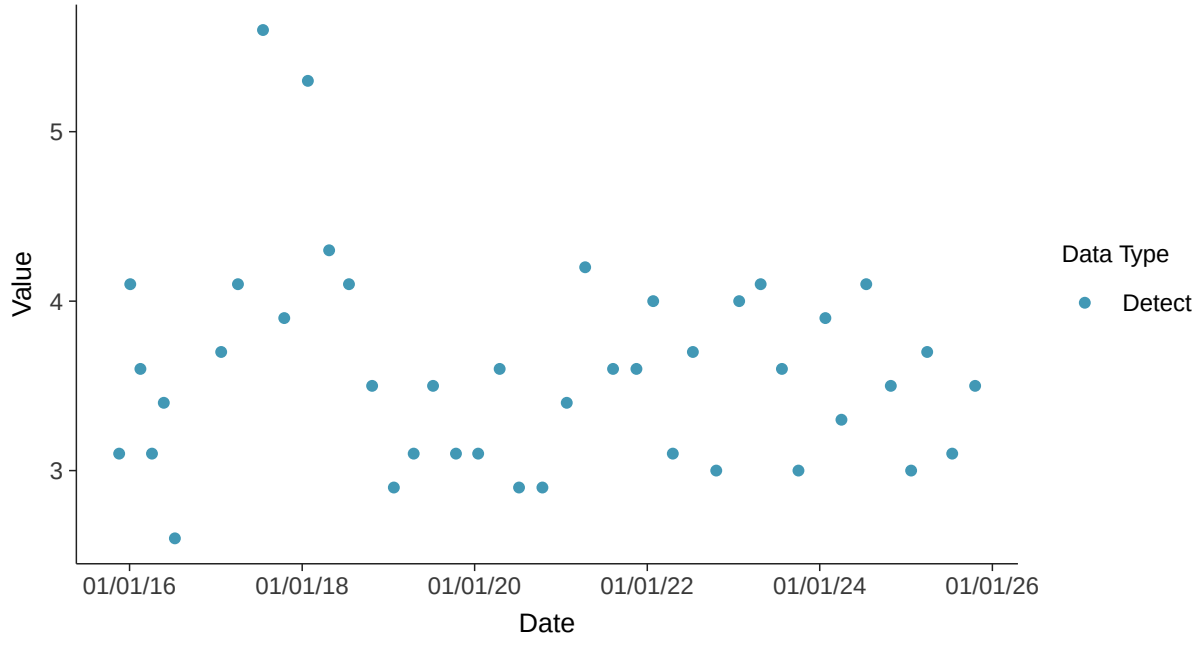


App. III: Sulfate, MW-5

ID: 05_2_123

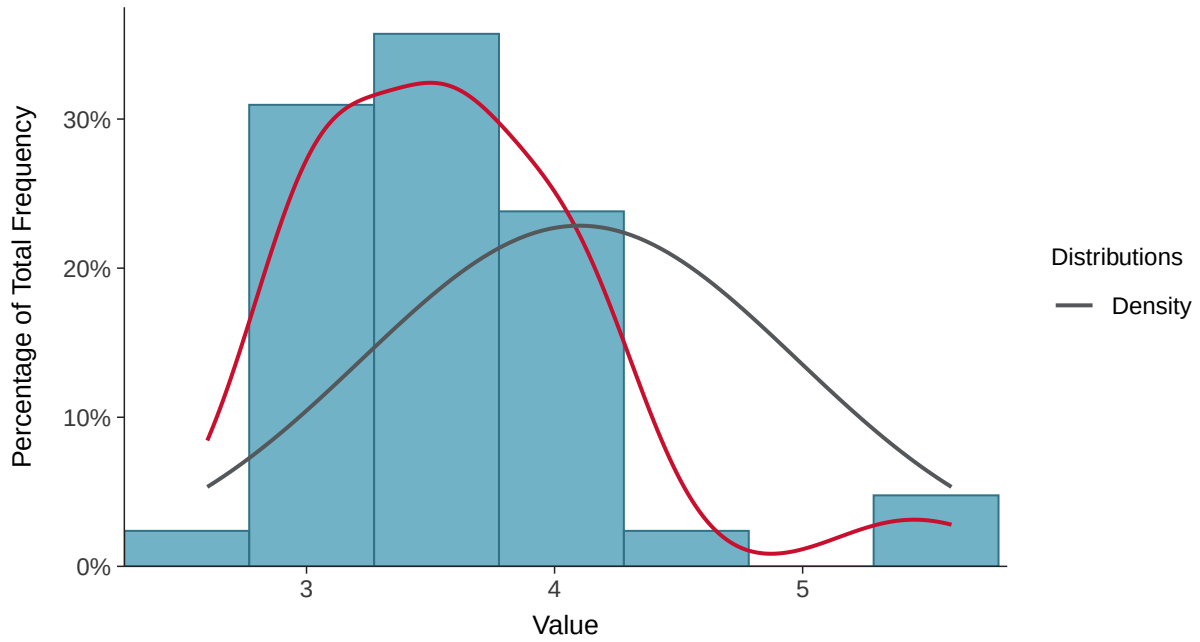
Scatter Plot

Sulfate, MW-5 (mg/L)



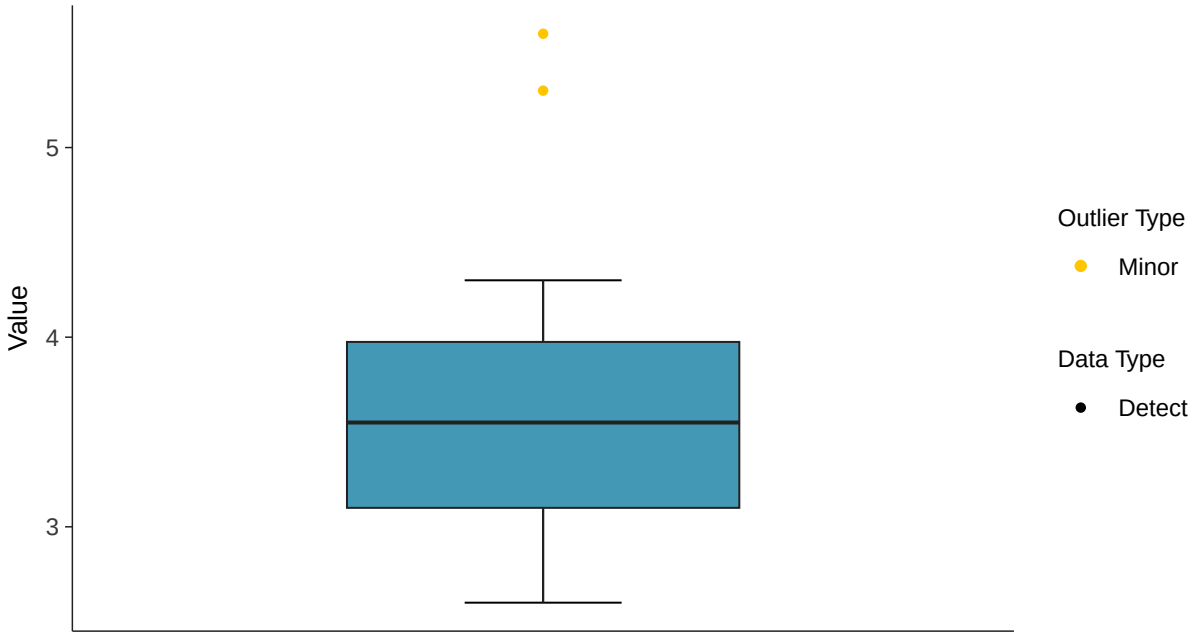
Histogram

Sulfate, MW-5 (mg/L)



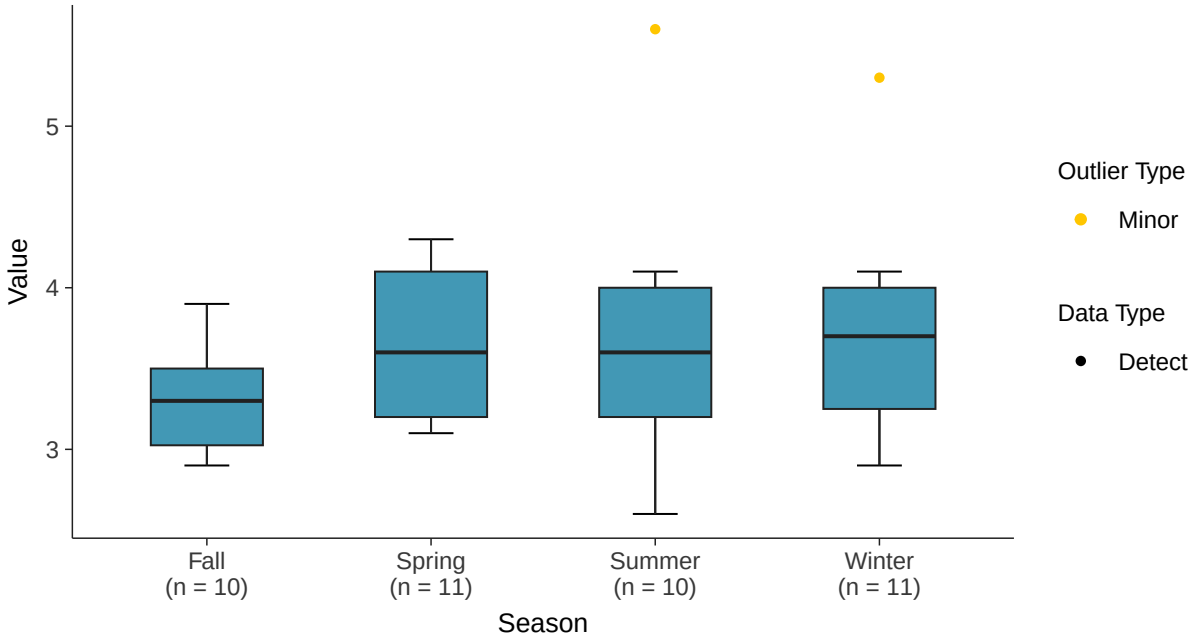
Boxplot

Sulfate, MW-5 (mg/L)



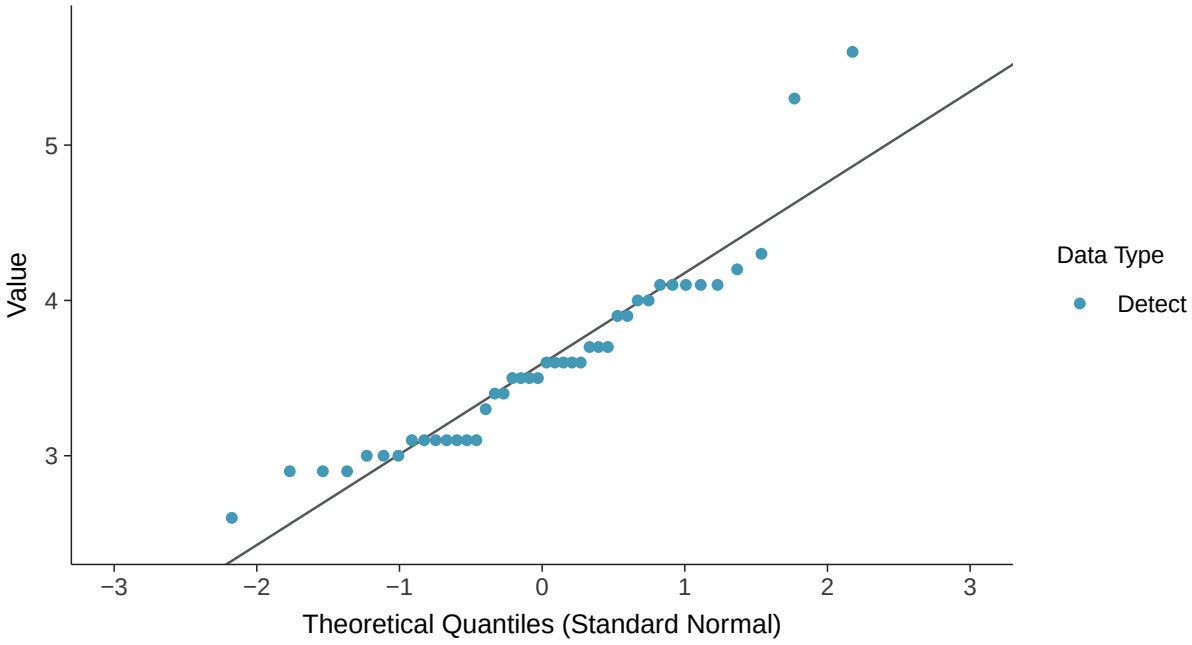
Boxplot by Season

Sulfate, MW-5 (mg/L)



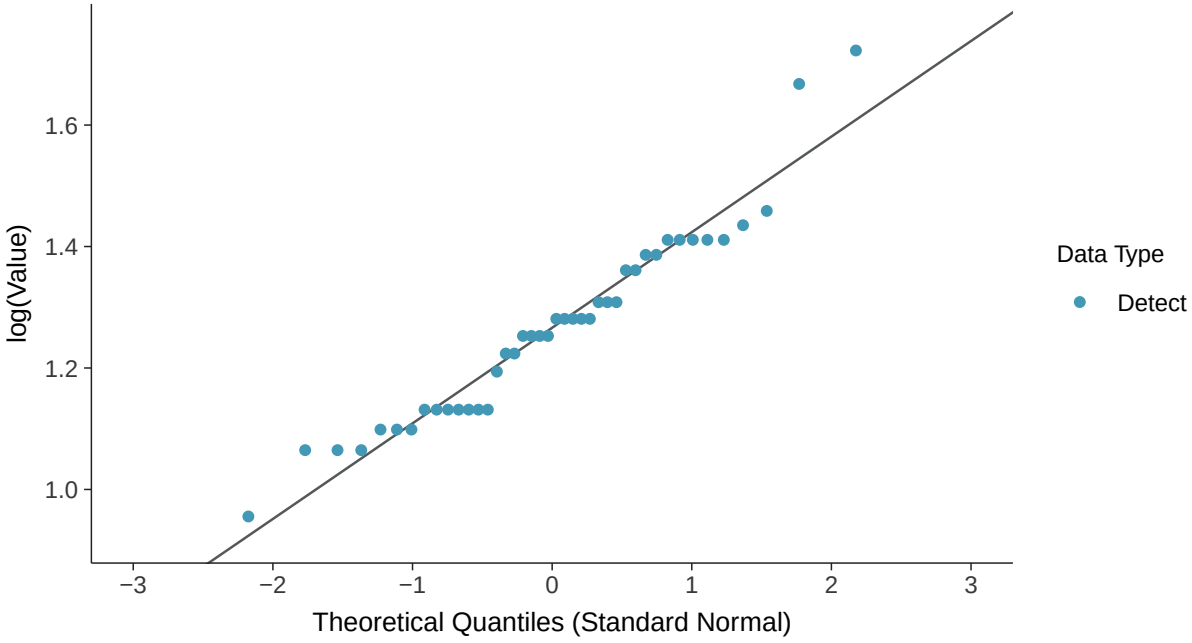
Normal Q-Q plot

Sulfate, MW-5 (mg/L)



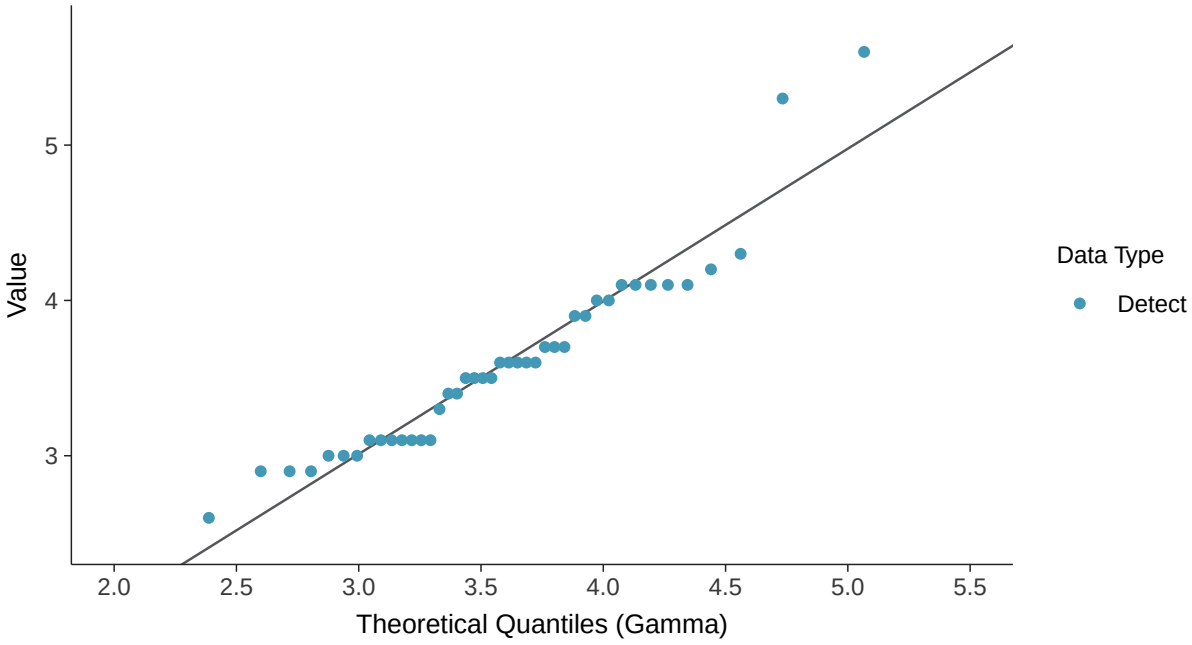
Lognormal Q-Q plot

Sulfate, MW-5 (mg/L)



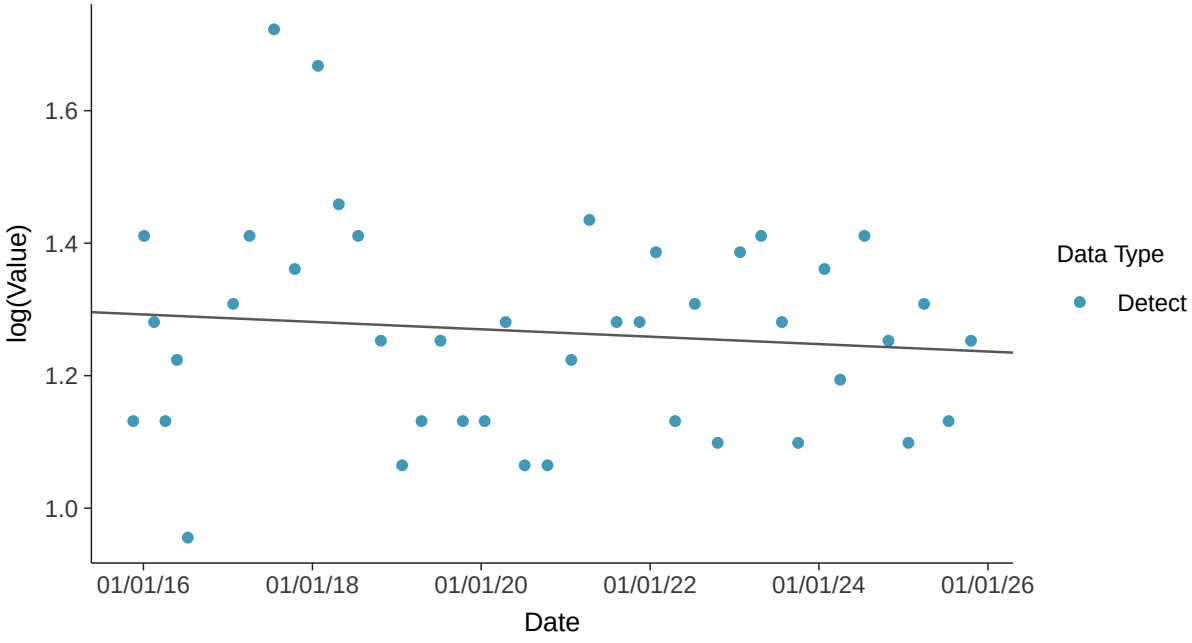
Gamma Q-Q plot

Sulfate, MW-5 (mg/L)



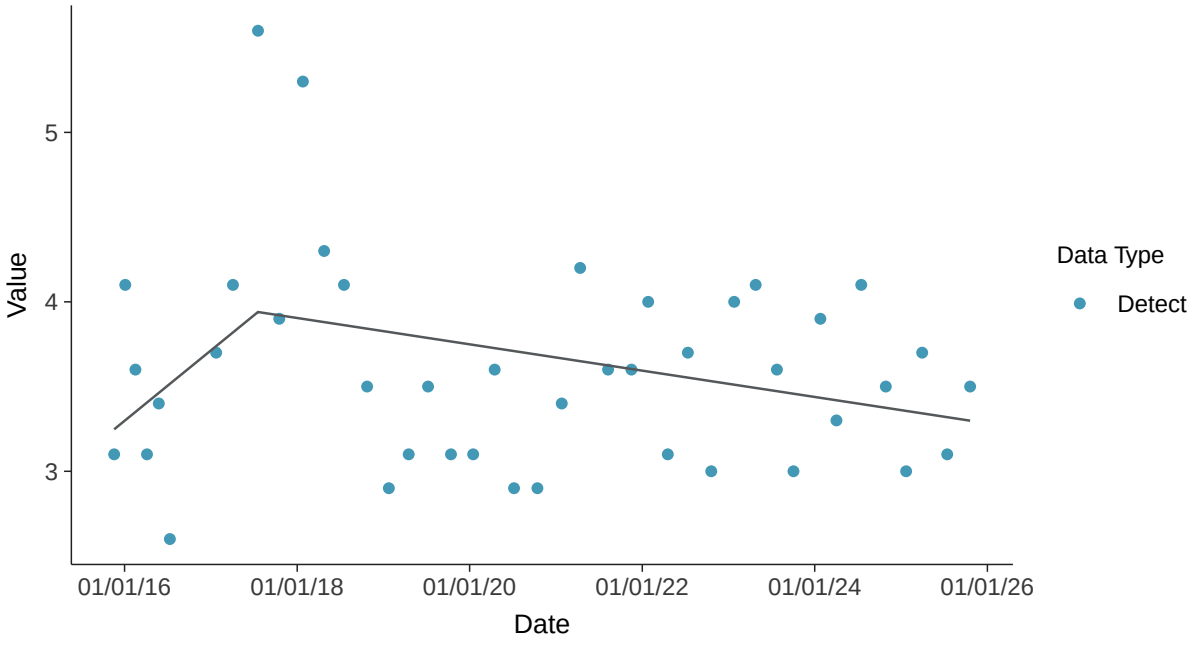
Trend Regression: Lognormal MLE

Sulfate, MW-5 (mg/L)



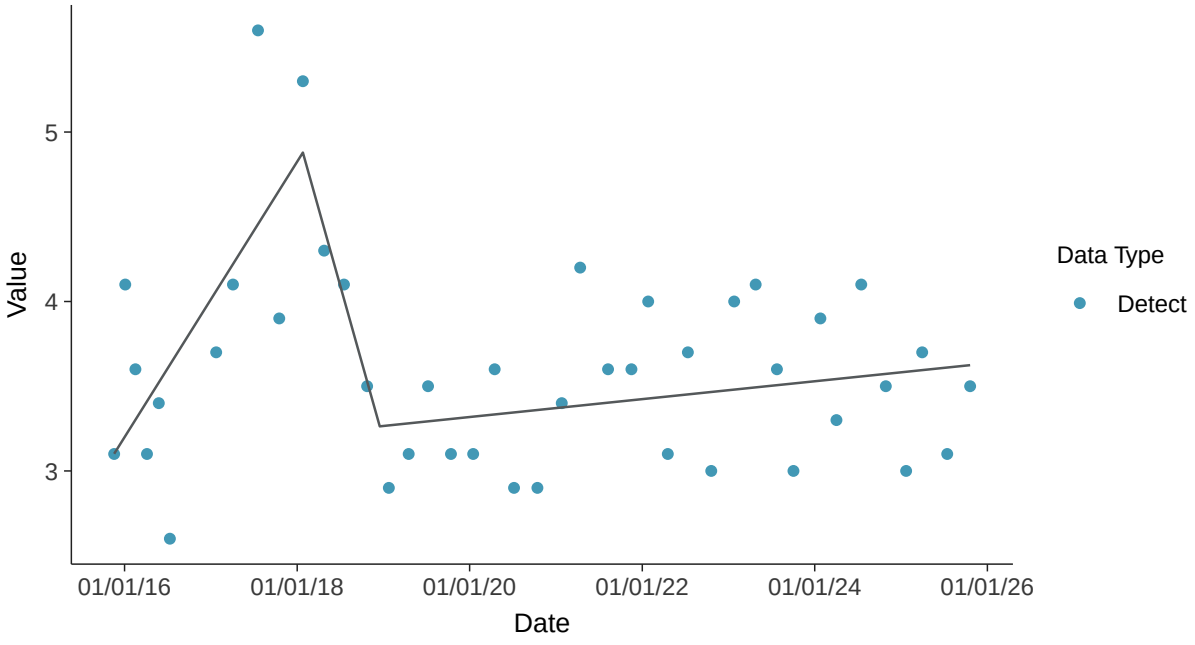
Trend Regression: Piecewise Linear-Linear

Sulfate, MW-5 (mg/L)



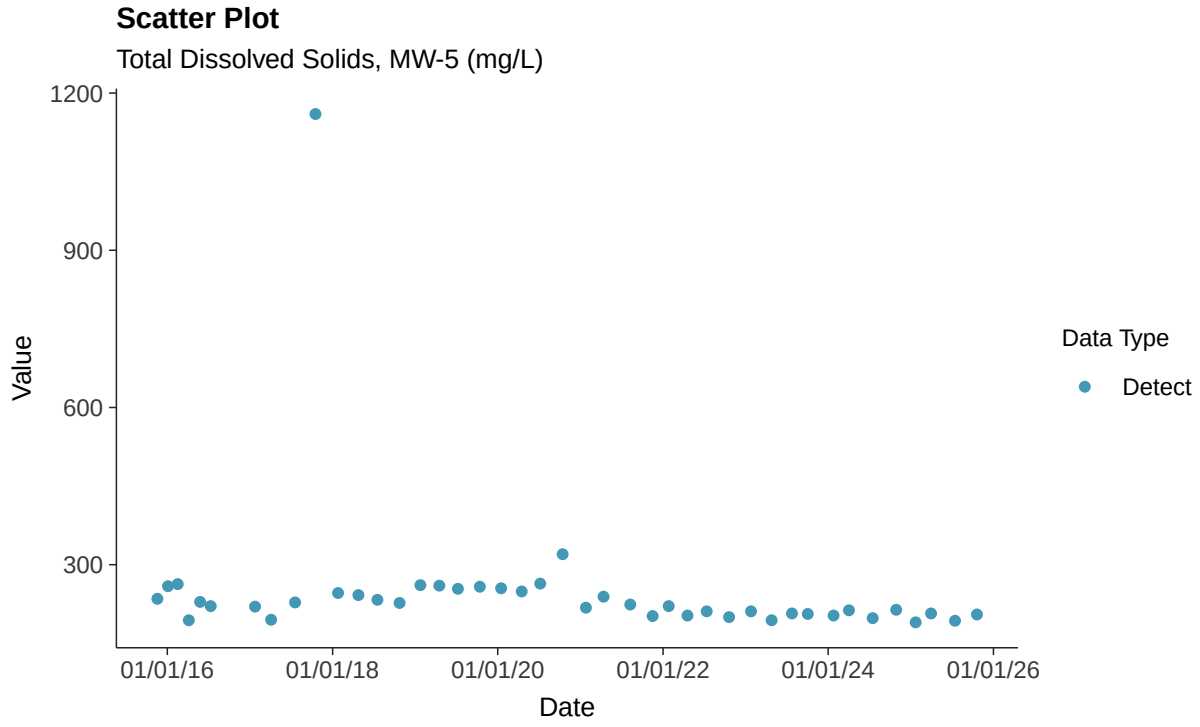
Trend Regression: Piecewise Linear-Linear-Linear

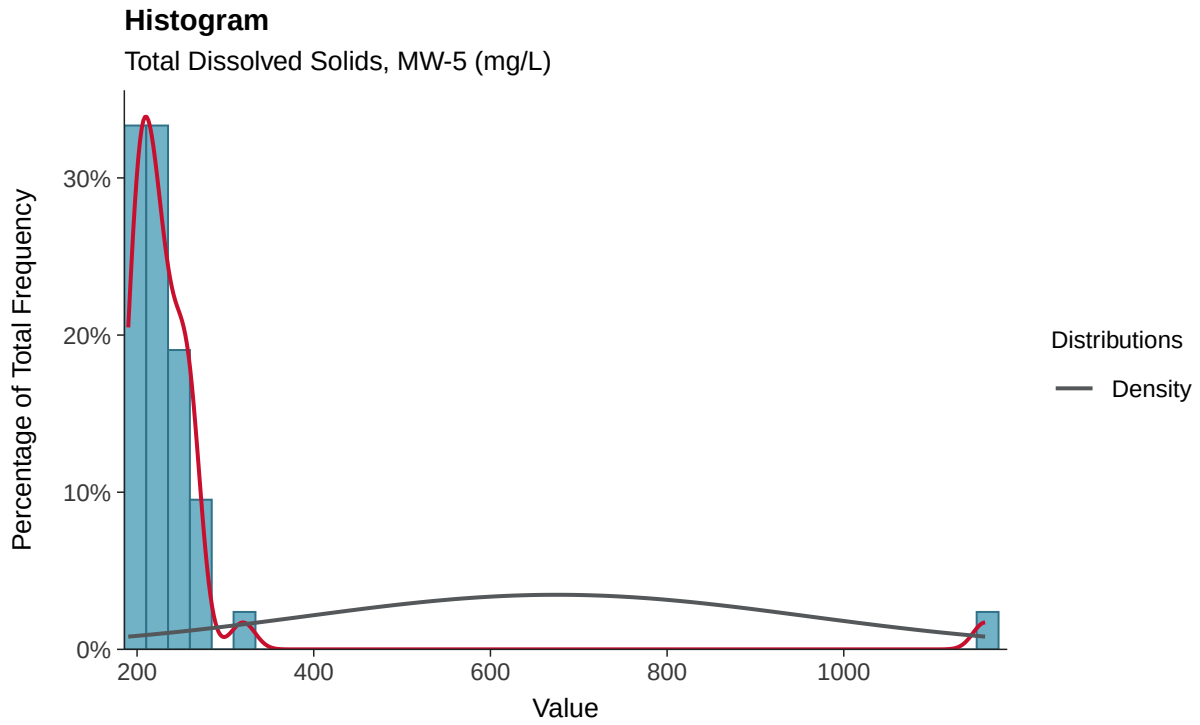
Sulfate, MW-5 (mg/L)



App. III: Total Dissolved Solids, MW-5

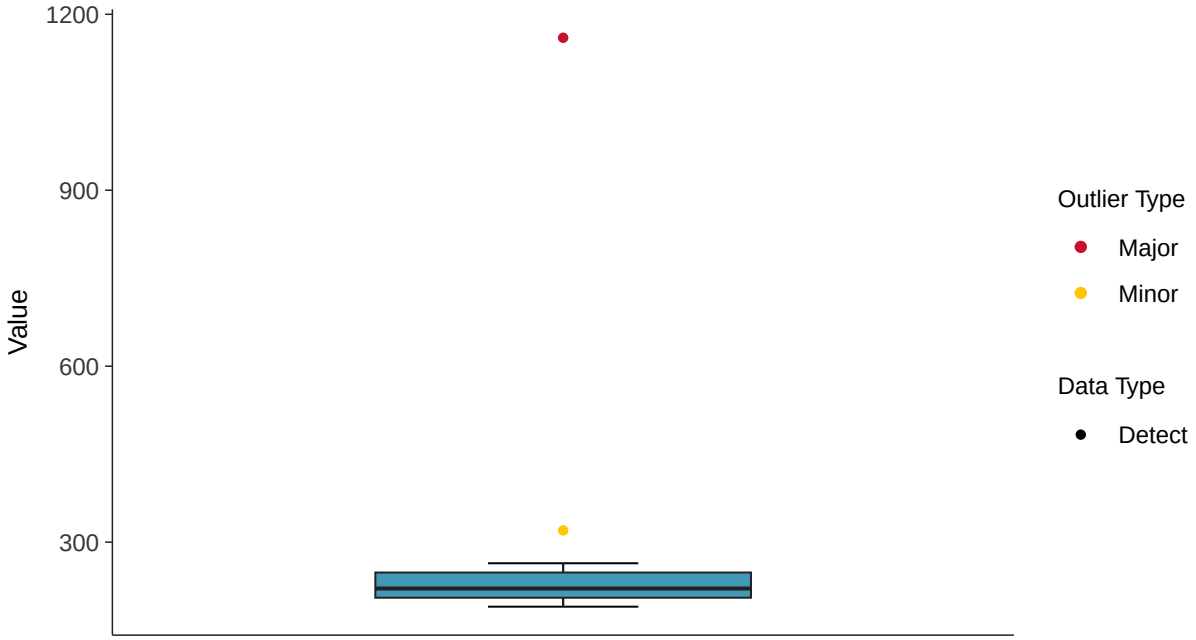
ID: 05_2_125





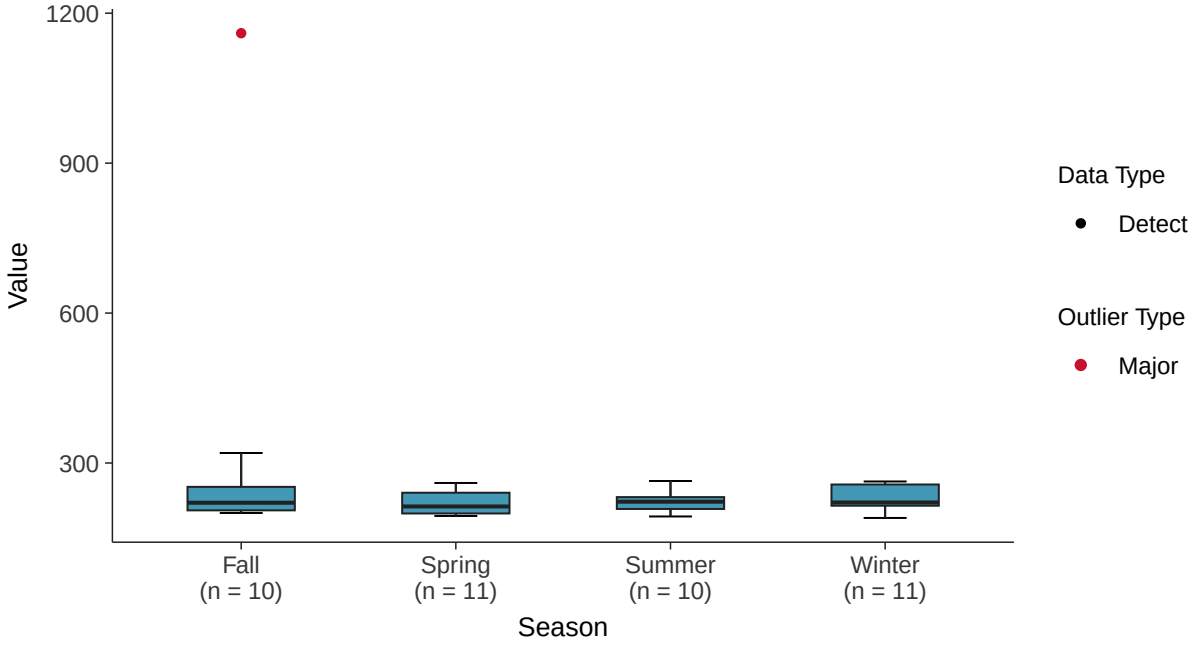
Boxplot

Total Dissolved Solids, MW-5 (mg/L)



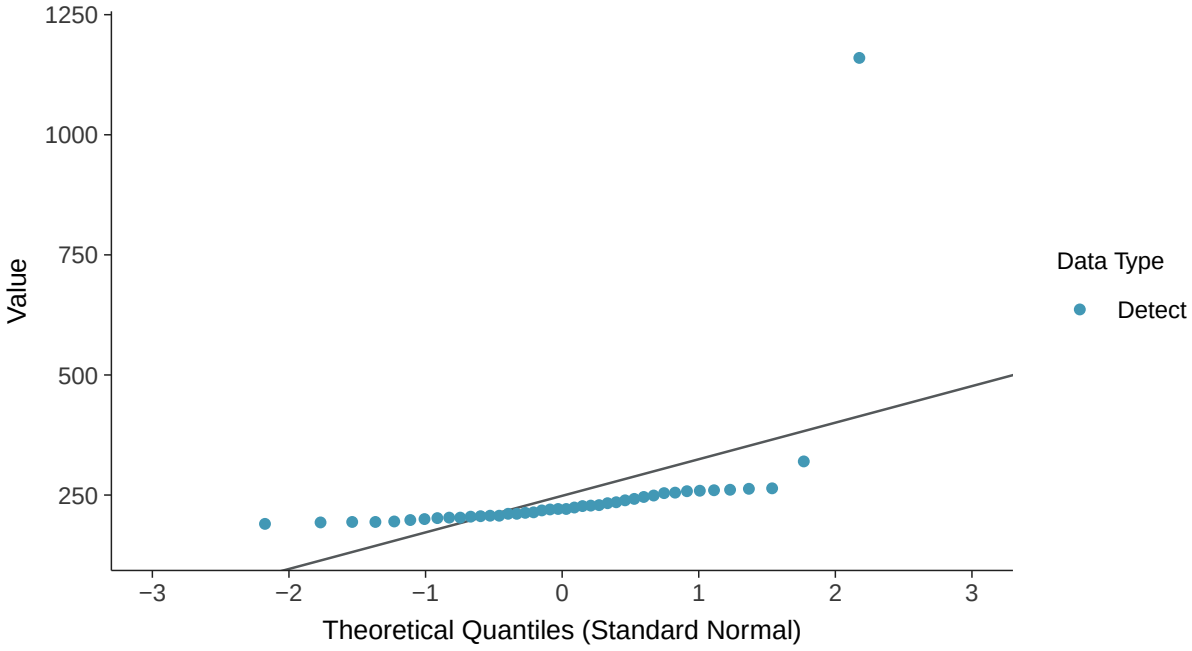
Boxplot by Season

Total Dissolved Solids, MW-5 (mg/L)



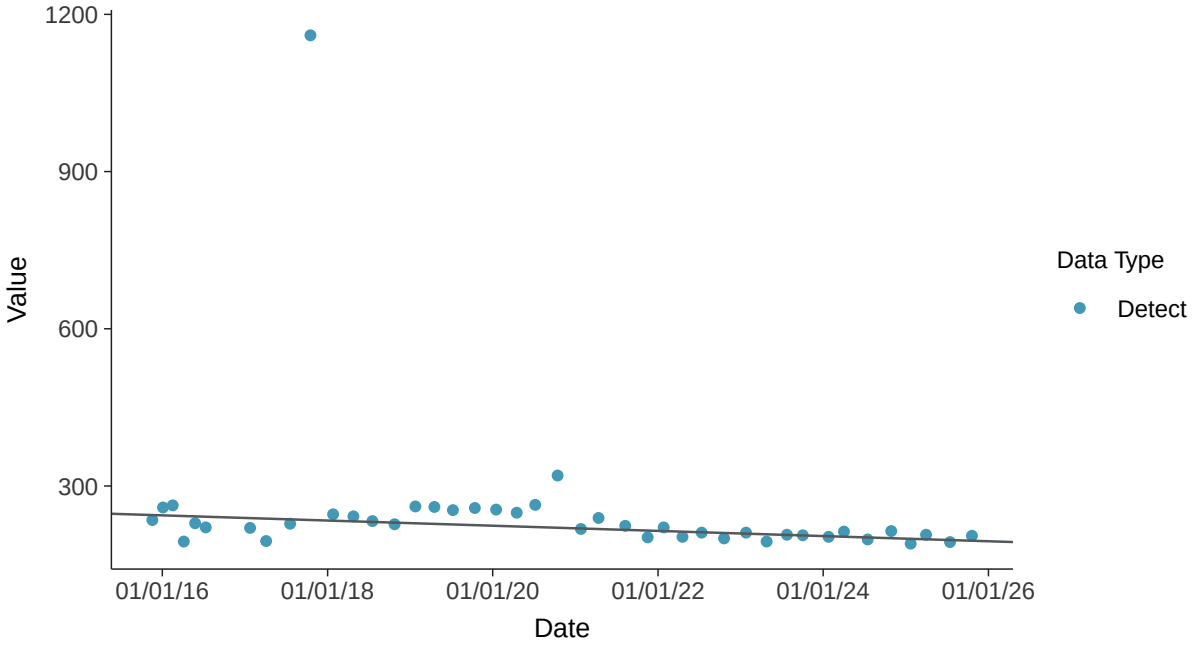
Normal Q-Q plot

Total Dissolved Solids, MW-5 (mg/L)



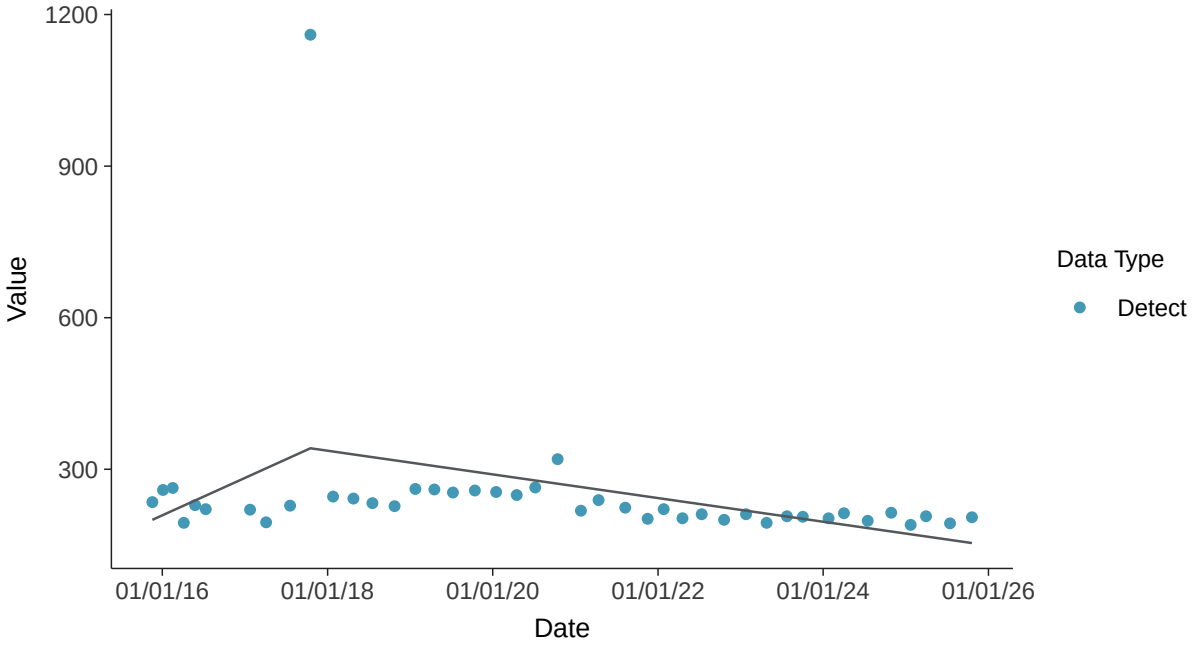
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Total Dissolved Solids, MW-5 (mg/L)



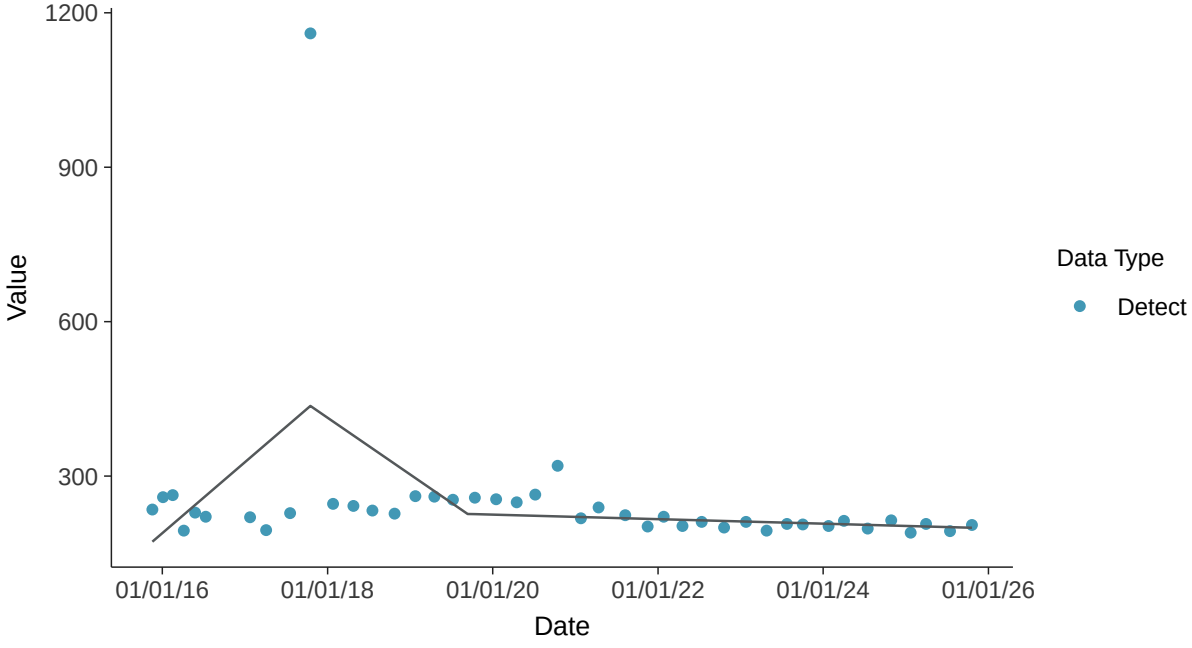
Trend Regression: Piecewise Linear-Linear

Total Dissolved Solids, MW-5 (mg/L)



Trend Regression: Piecewise Linear-Linear-Linear

Total Dissolved Solids, MW-5 (mg/L)

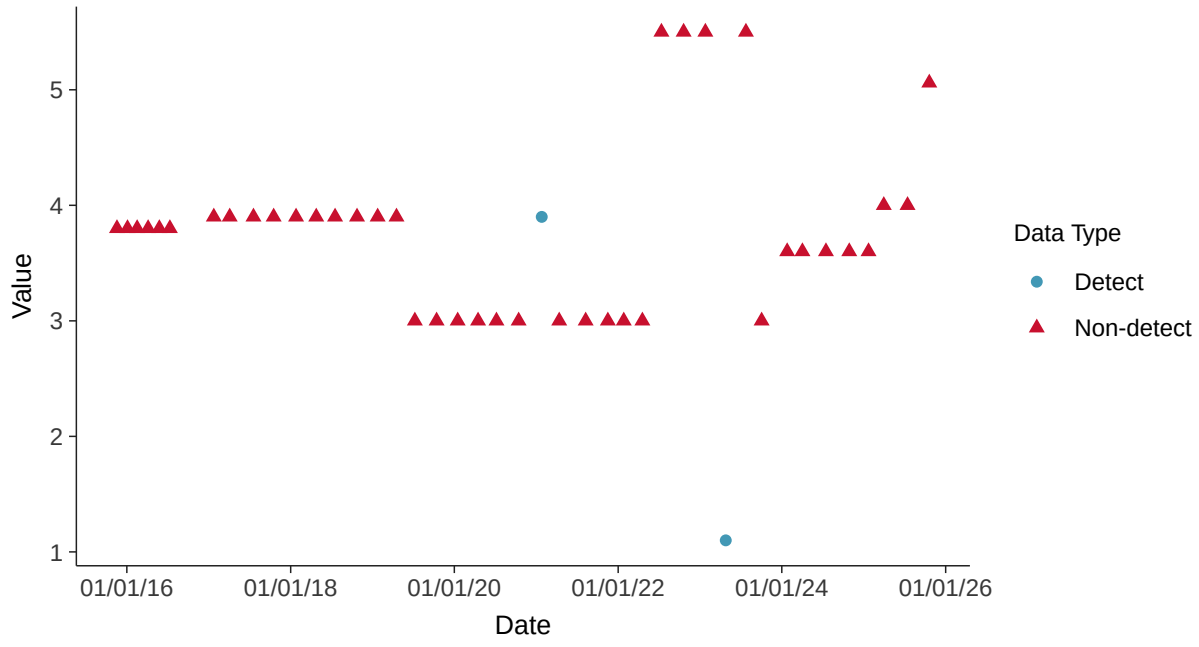


App. IV: Antimony, MW-5

ID: 05_3_101

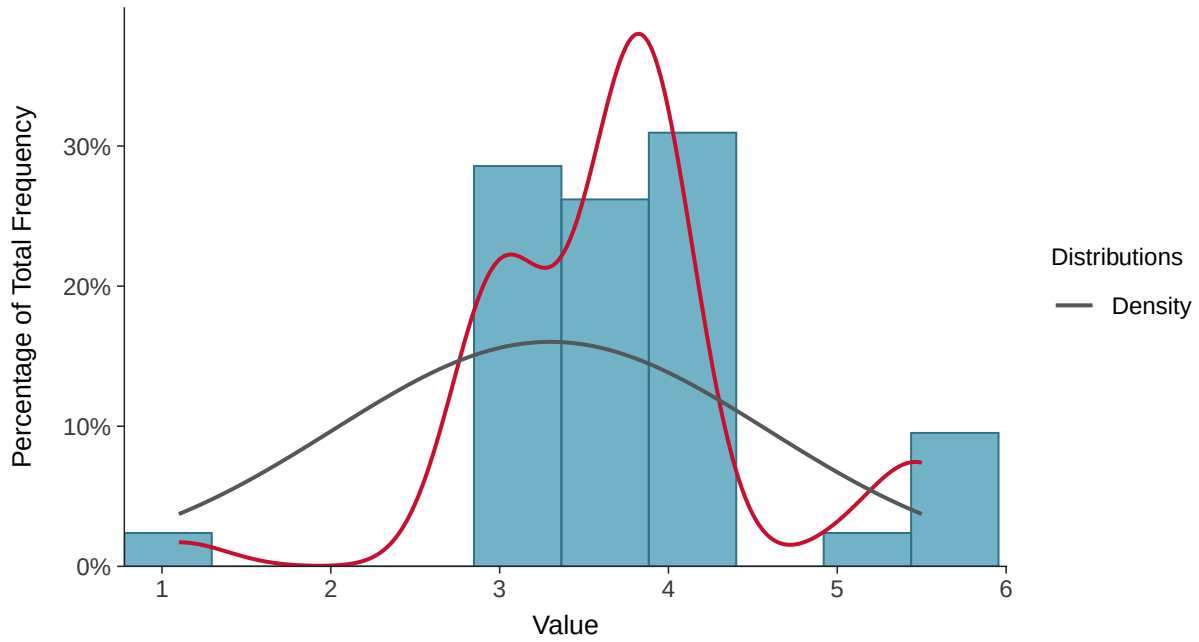
Scatter Plot

Antimony, MW-5 (ug/L)



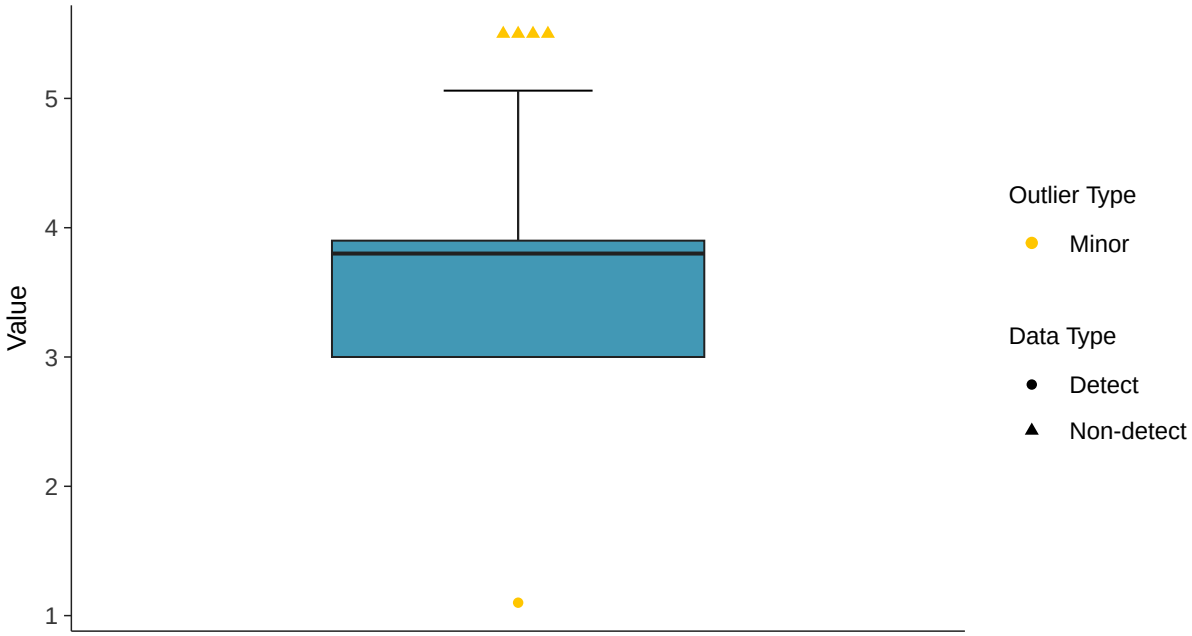
Histogram

Antimony, MW-5 (ug/L)



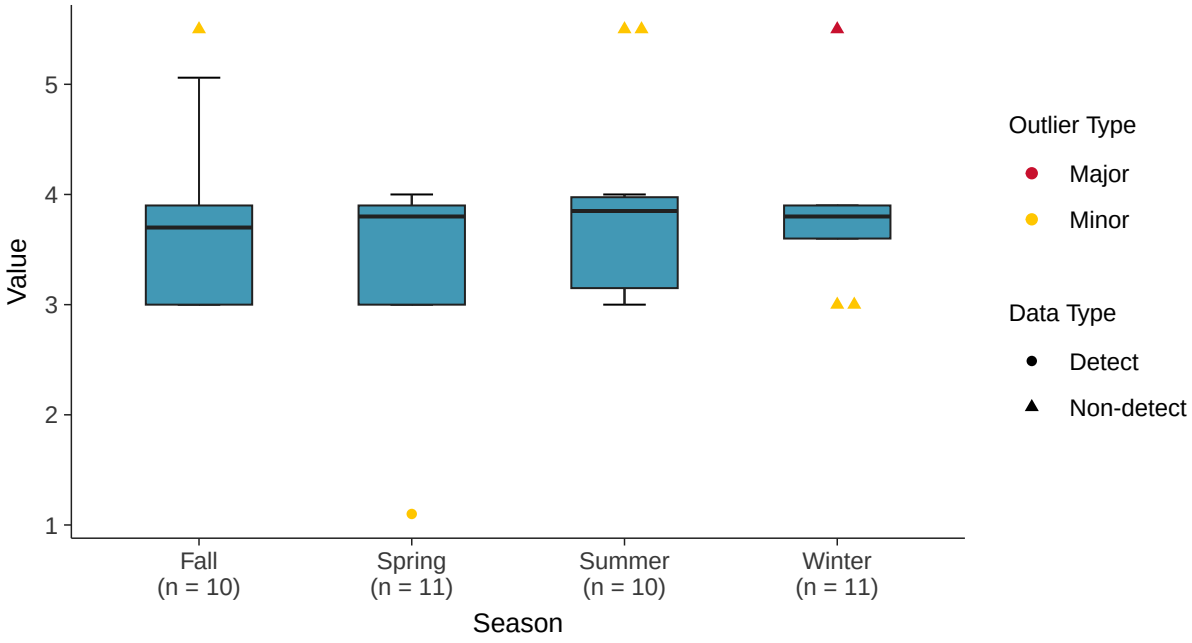
Boxplot

Antimony, MW-5 (ug/L)



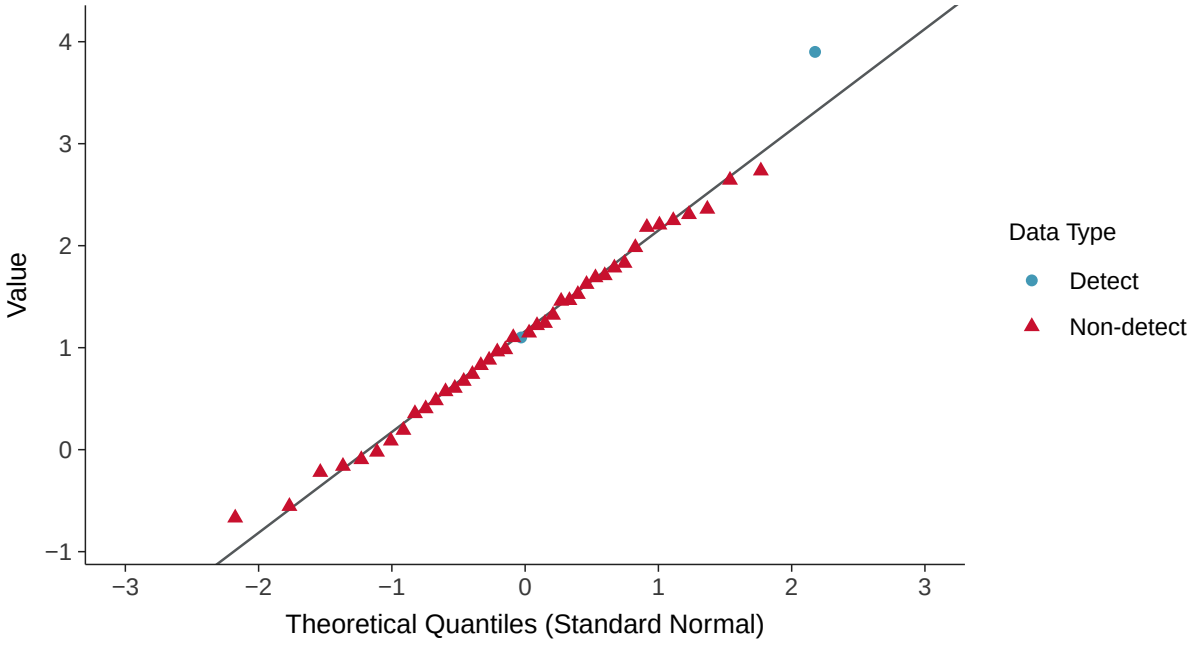
Boxplot by Season

Antimony, MW-5 (ug/L)



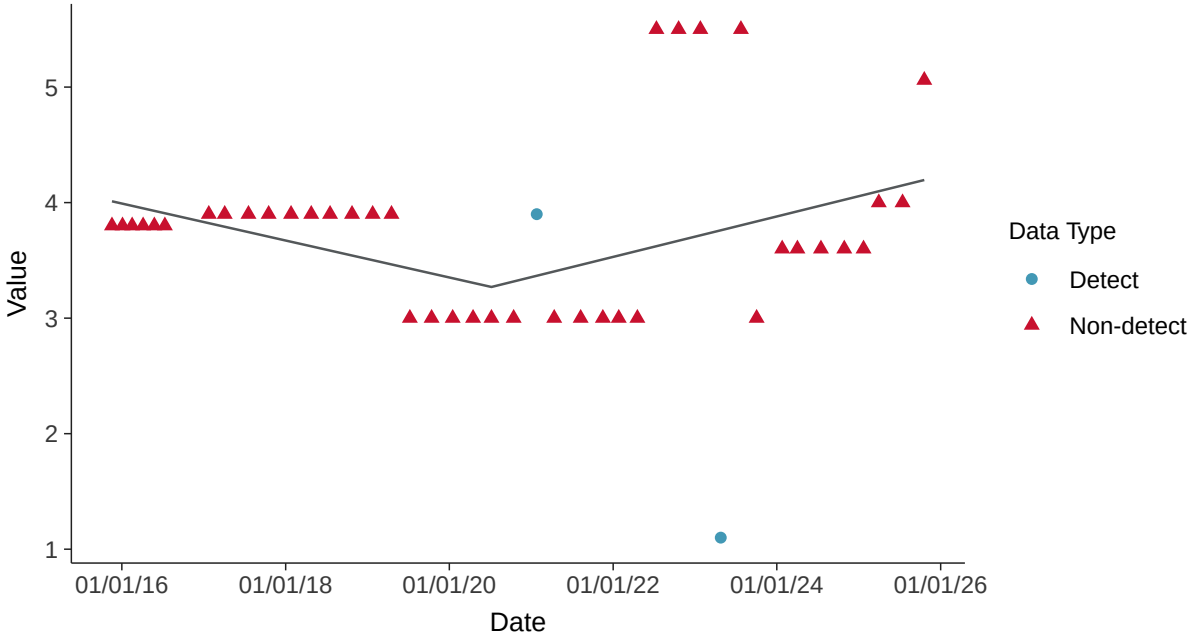
Normal Q-Q plot using ROS Imputed Estimates

Antimony, MW-5 (ug/L)



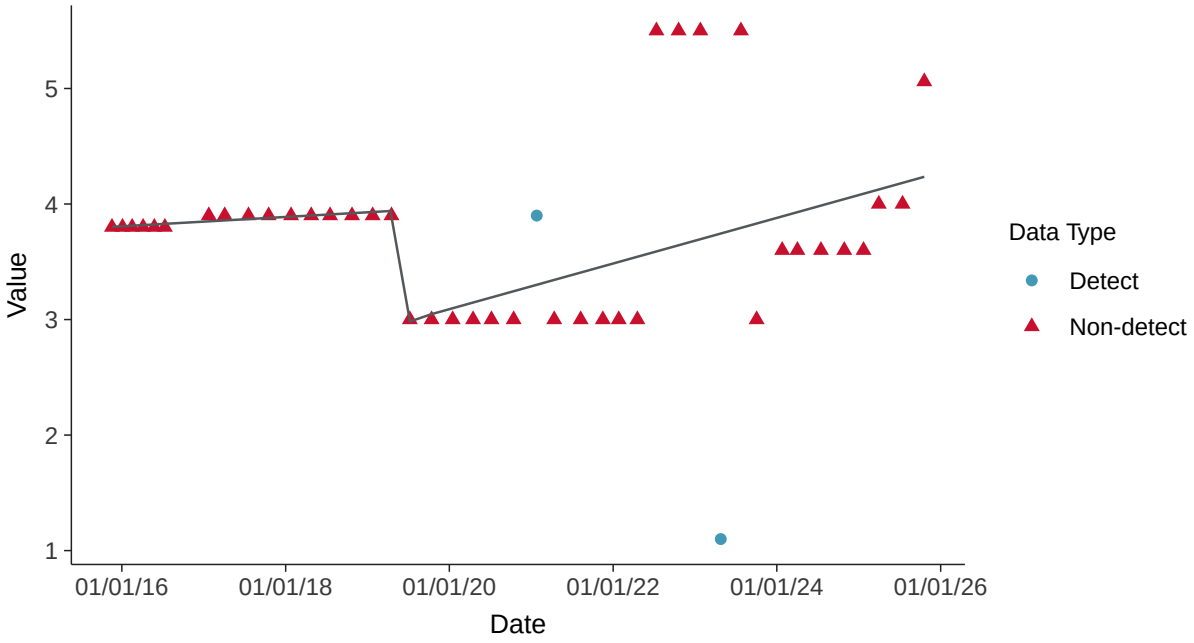
Trend Regression: Piecewise Linear-Linear

Antimony, MW-5 (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Antimony, MW-5 (ug/L)

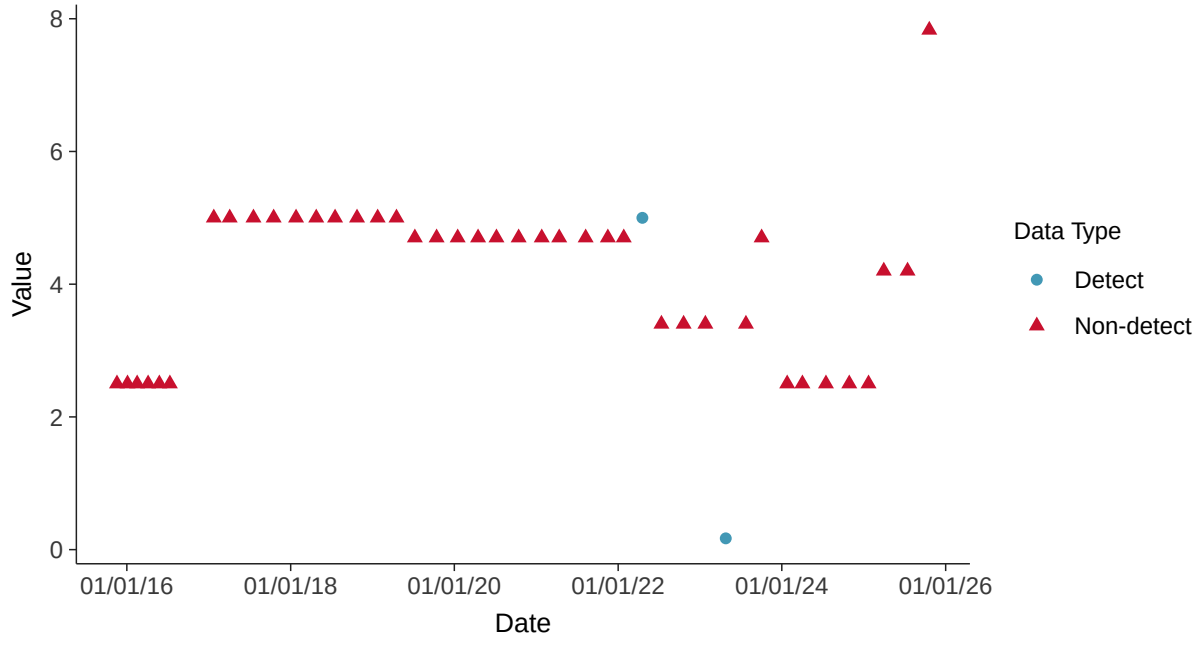


App. IV: Arsenic, MW-5

ID: 05_3_102

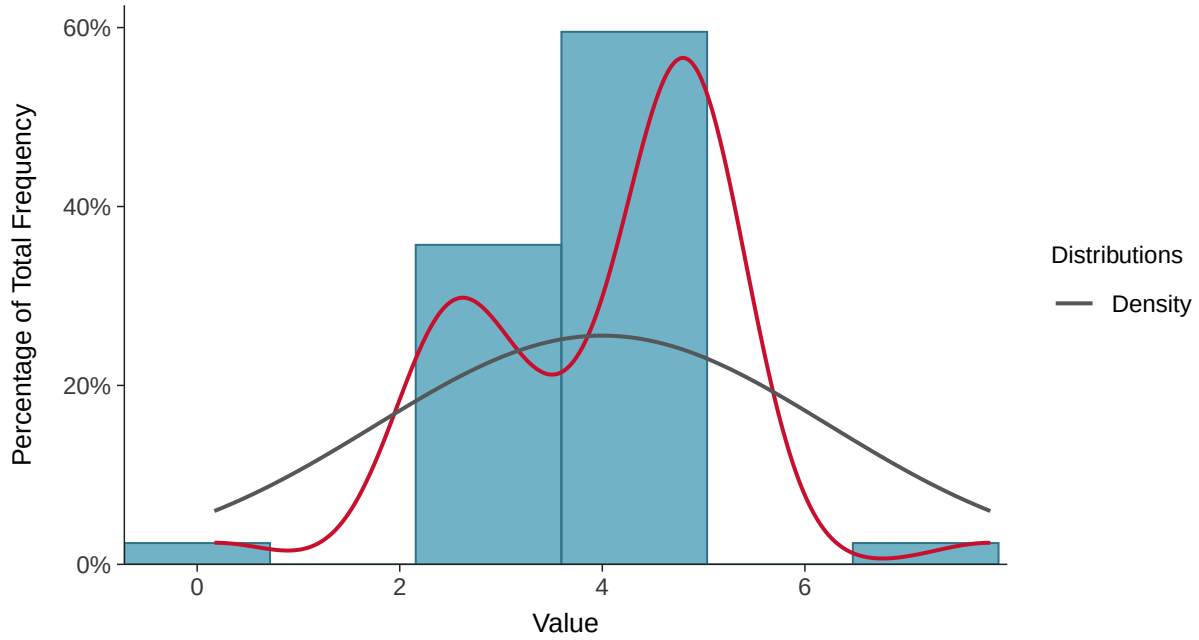
Scatter Plot

Arsenic, MW-5 (ug/L)



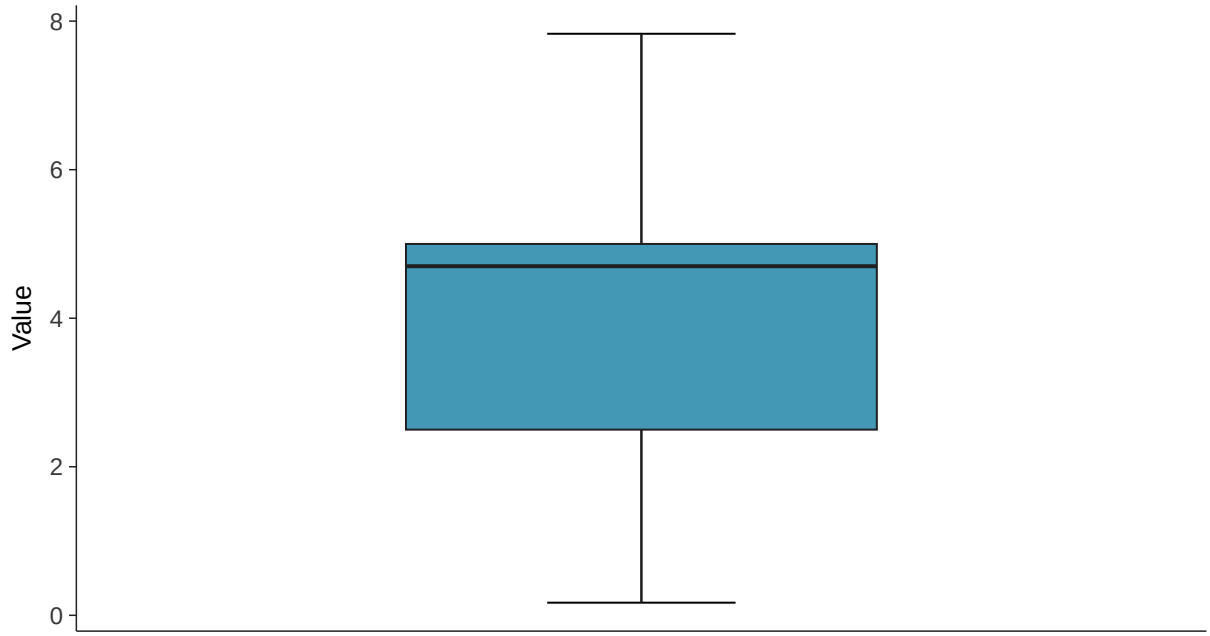
Histogram

Arsenic, MW-5 (ug/L)



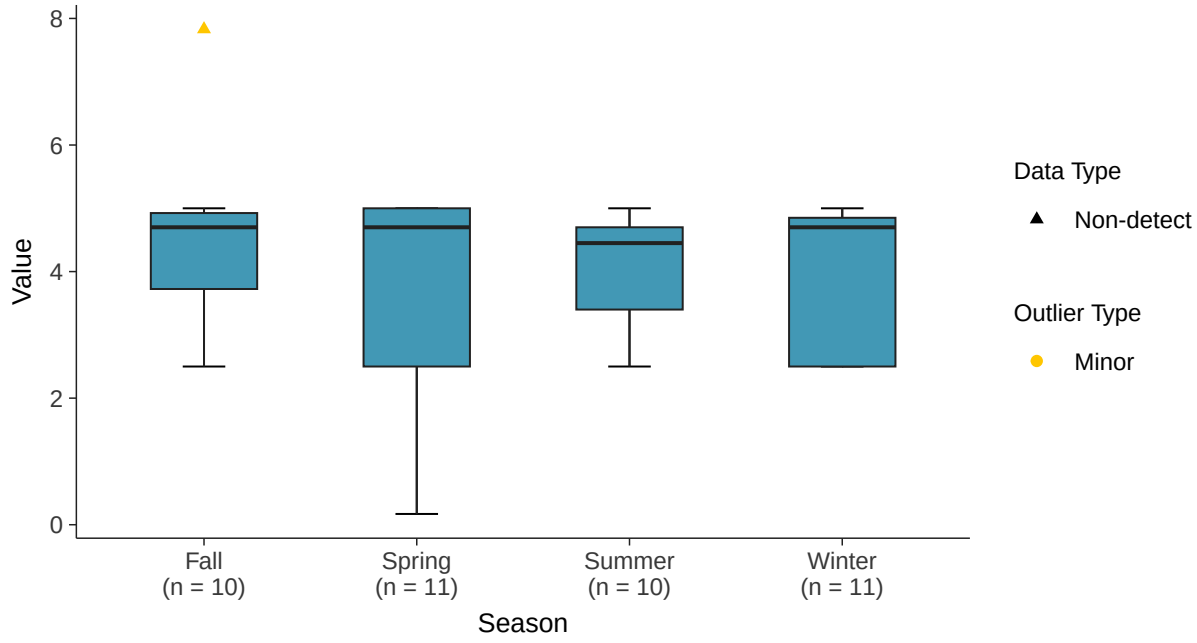
Boxplot

Arsenic, MW-5 (ug/L)



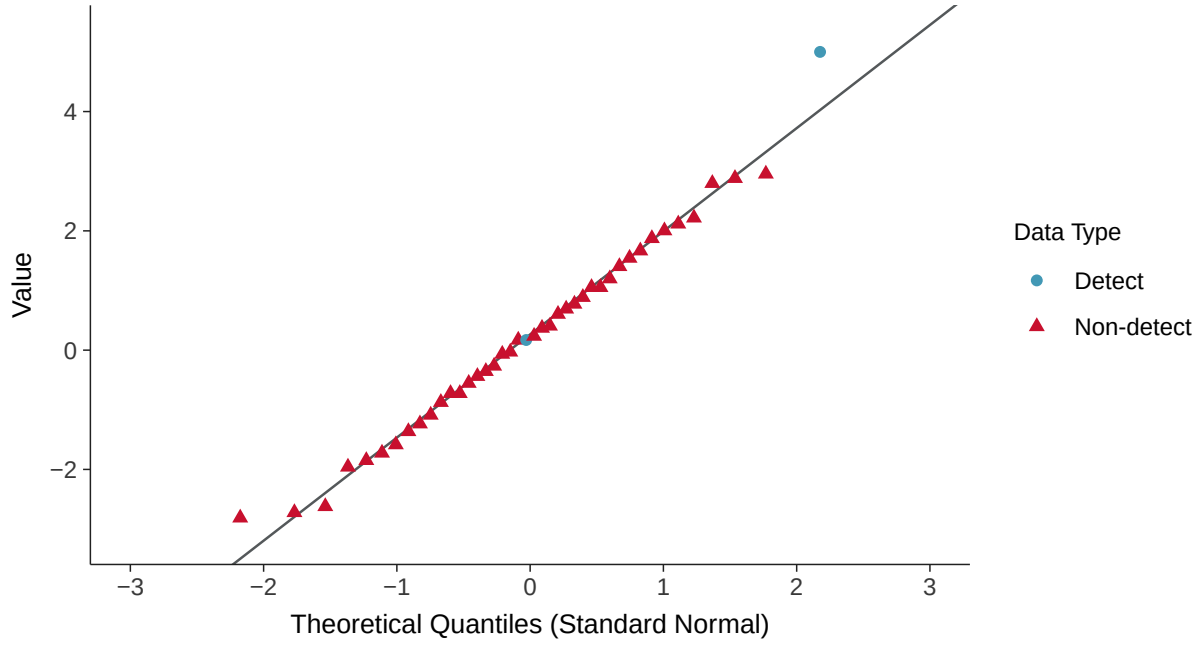
Boxplot by Season

Arsenic, MW-5 (ug/L)



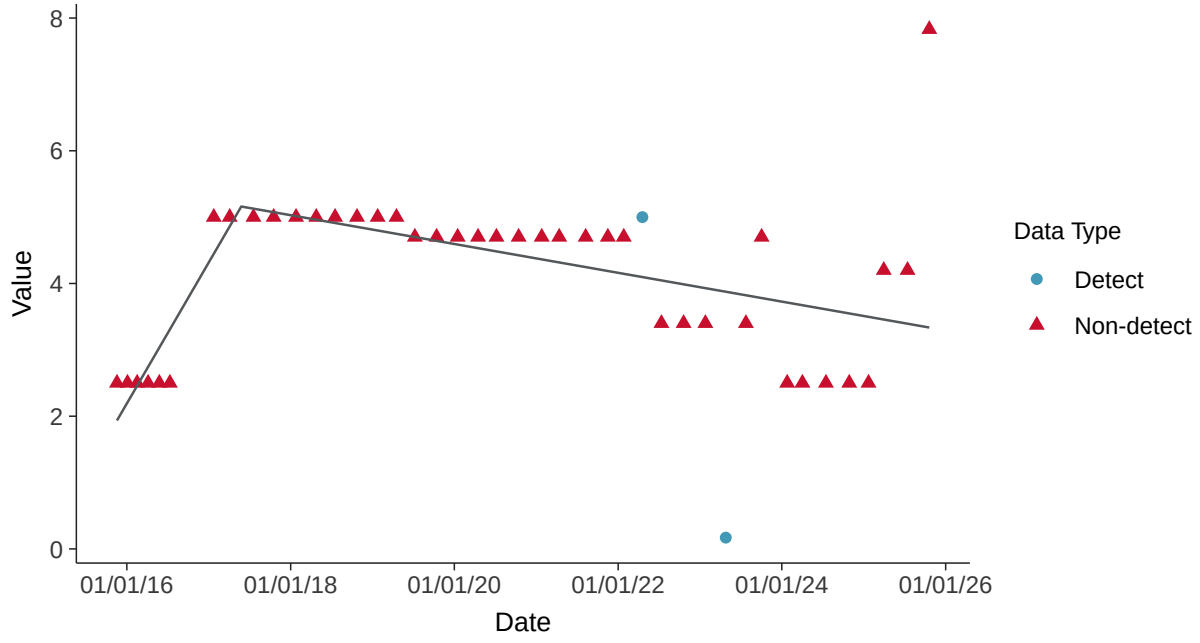
Normal Q-Q plot using ROS Imputed Estimates

Arsenic, MW-5 (ug/L)



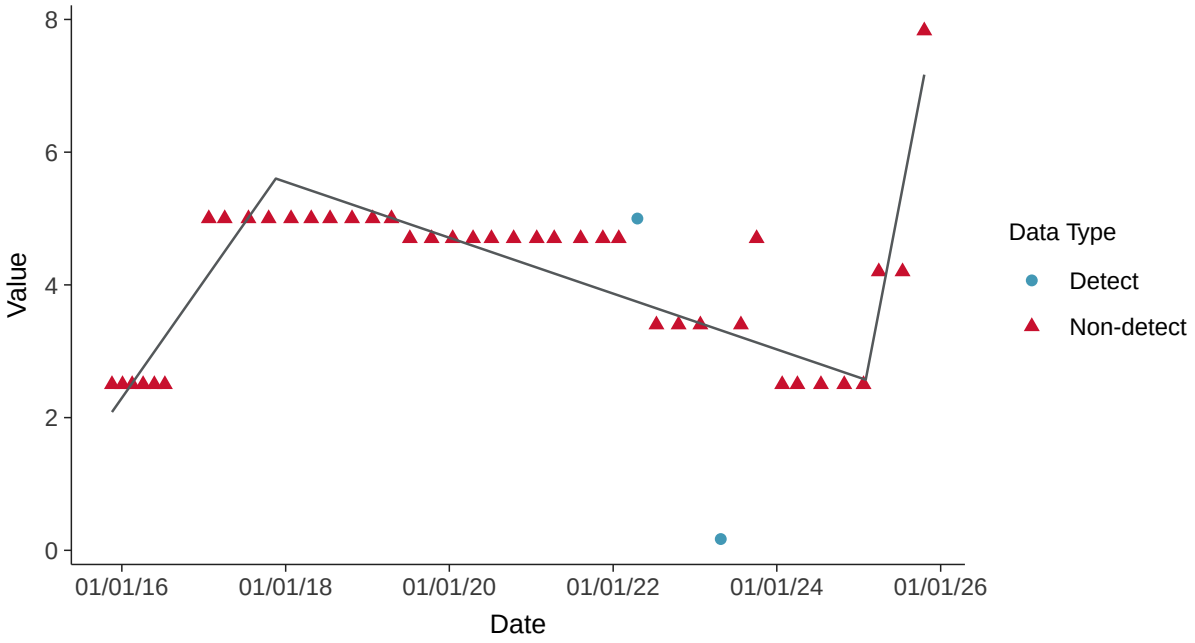
Trend Regression: Piecewise Linear-Linear

Arsenic, MW-5 (ug/L)



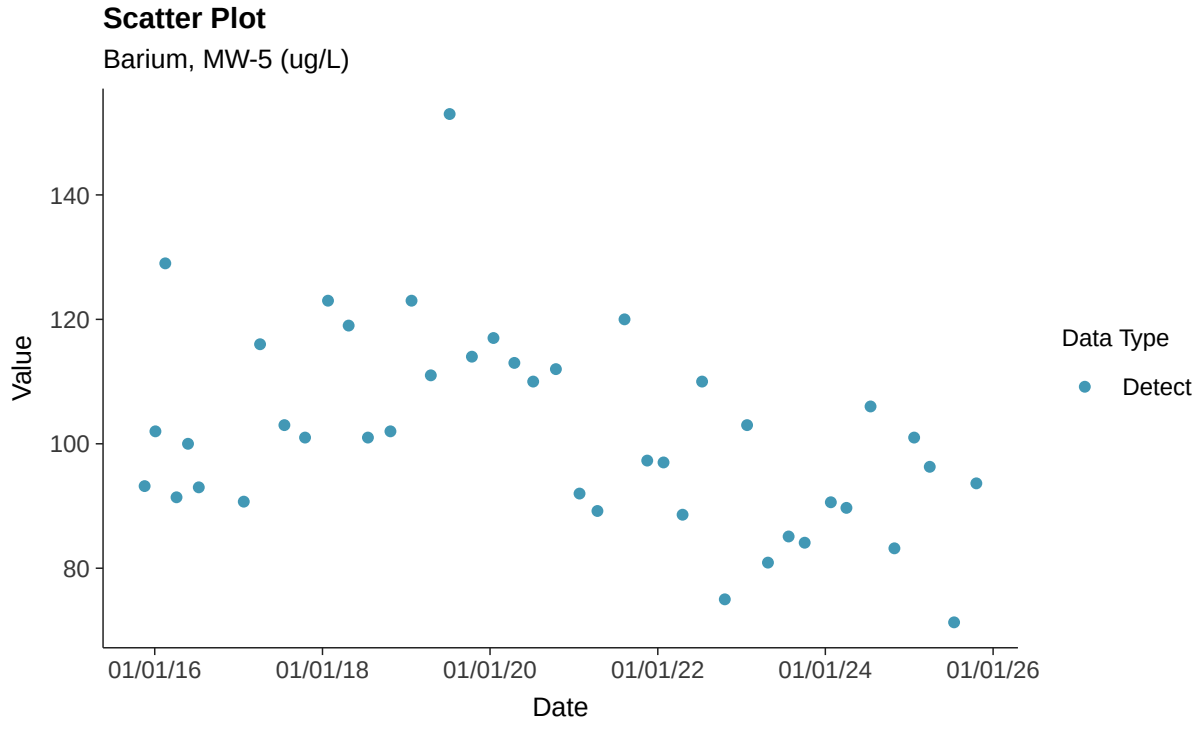
Trend Regression: Piecewise Linear-Linear-Linear

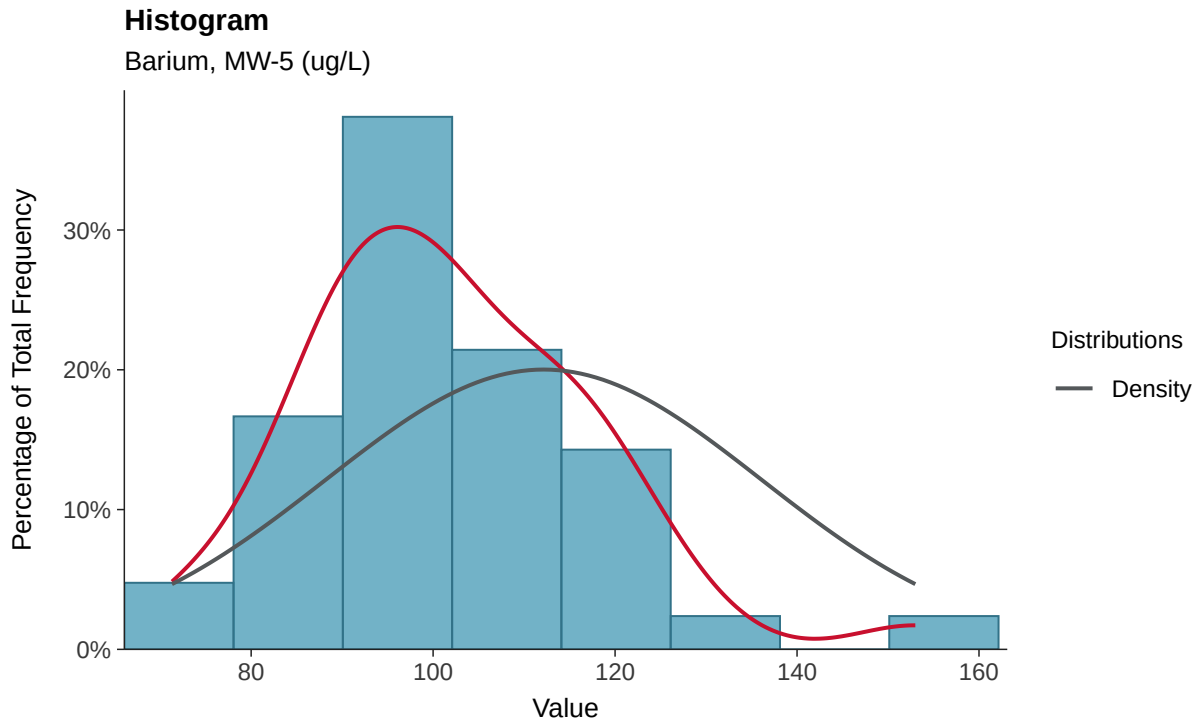
Arsenic, MW-5 (ug/L)



App. IV: Barium, MW-5

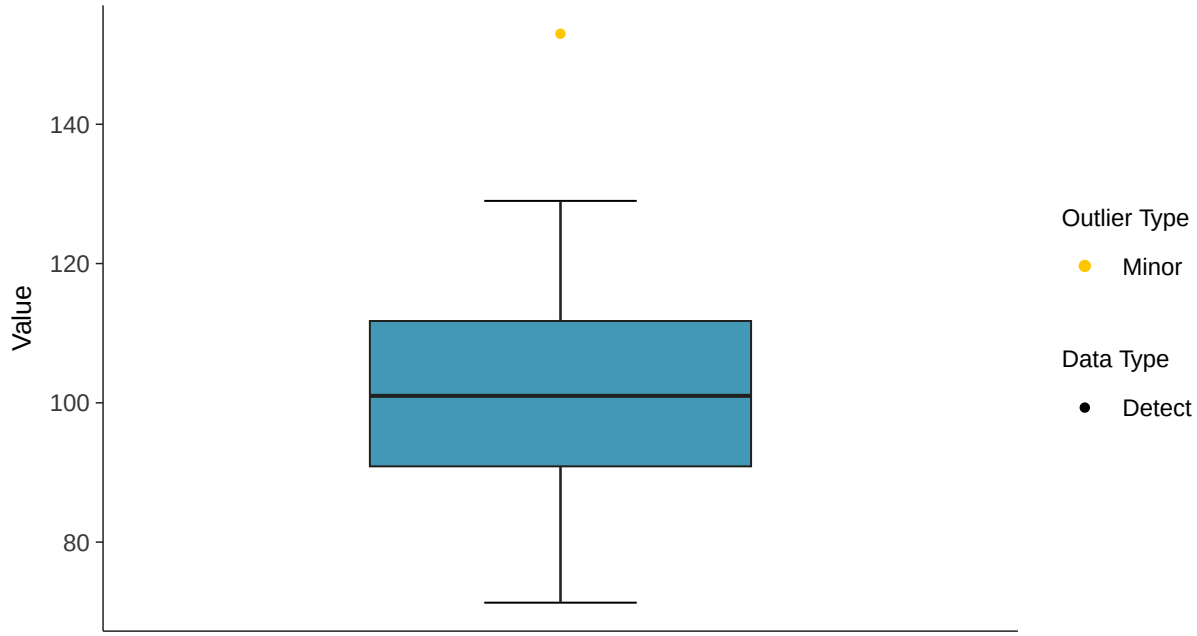
ID: 05_3_103





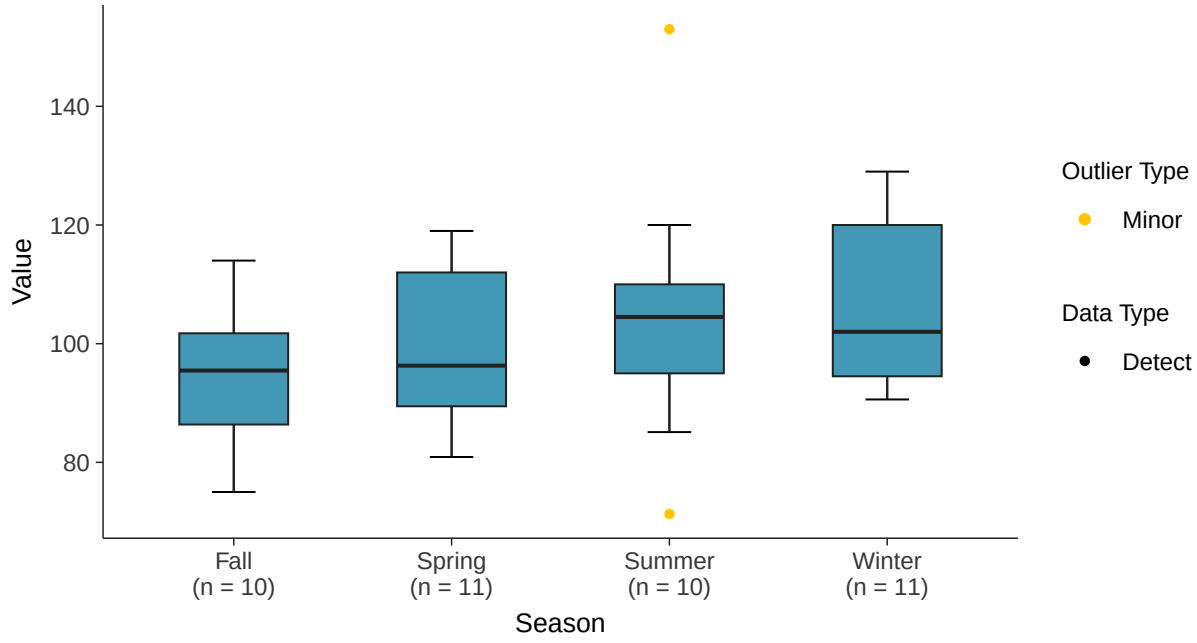
Boxplot

Barium, MW-5 (ug/L)



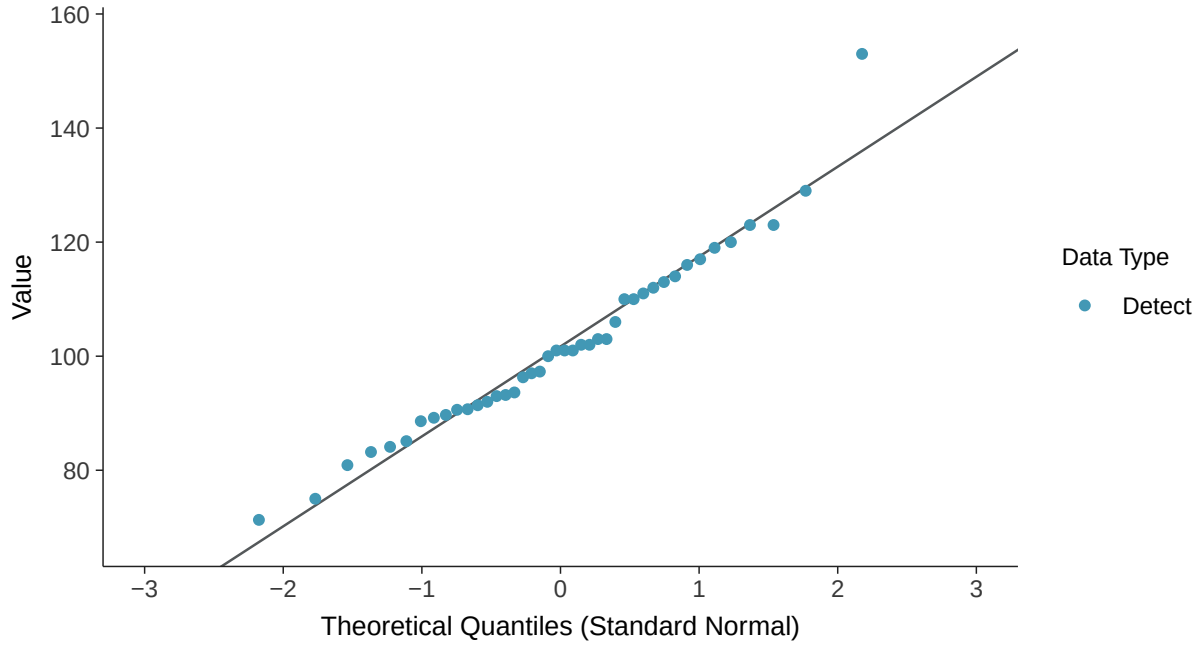
Boxplot by Season

Barium, MW-5 (ug/L)



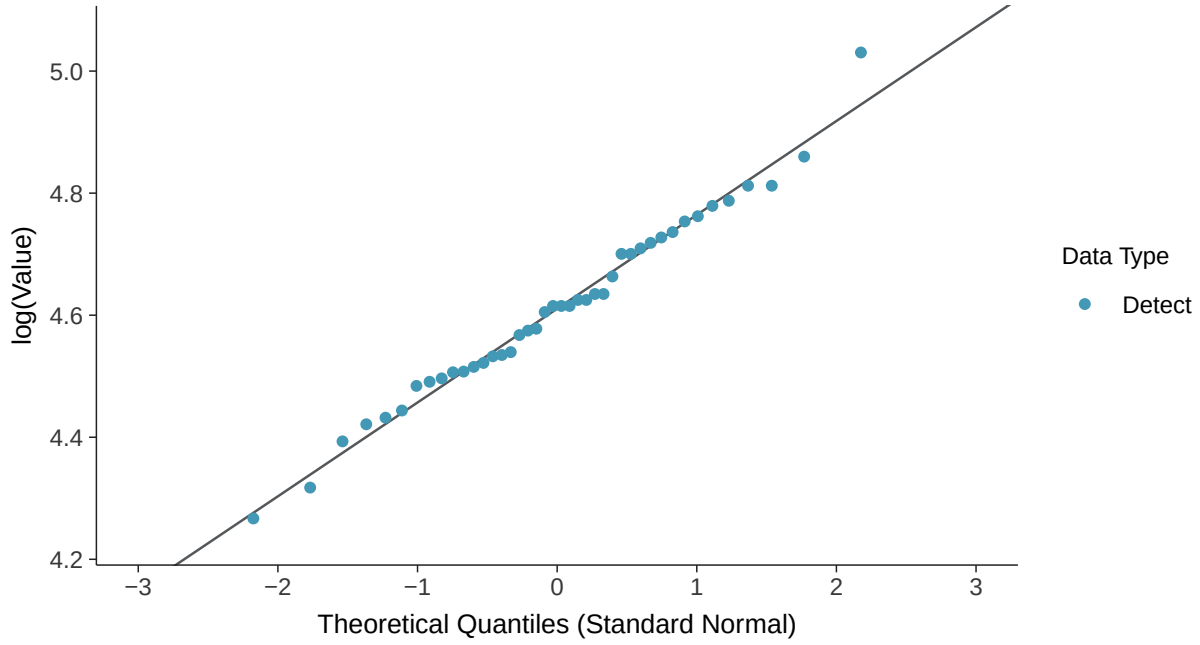
Normal Q-Q plot

Barium, MW-5 (ug/L)



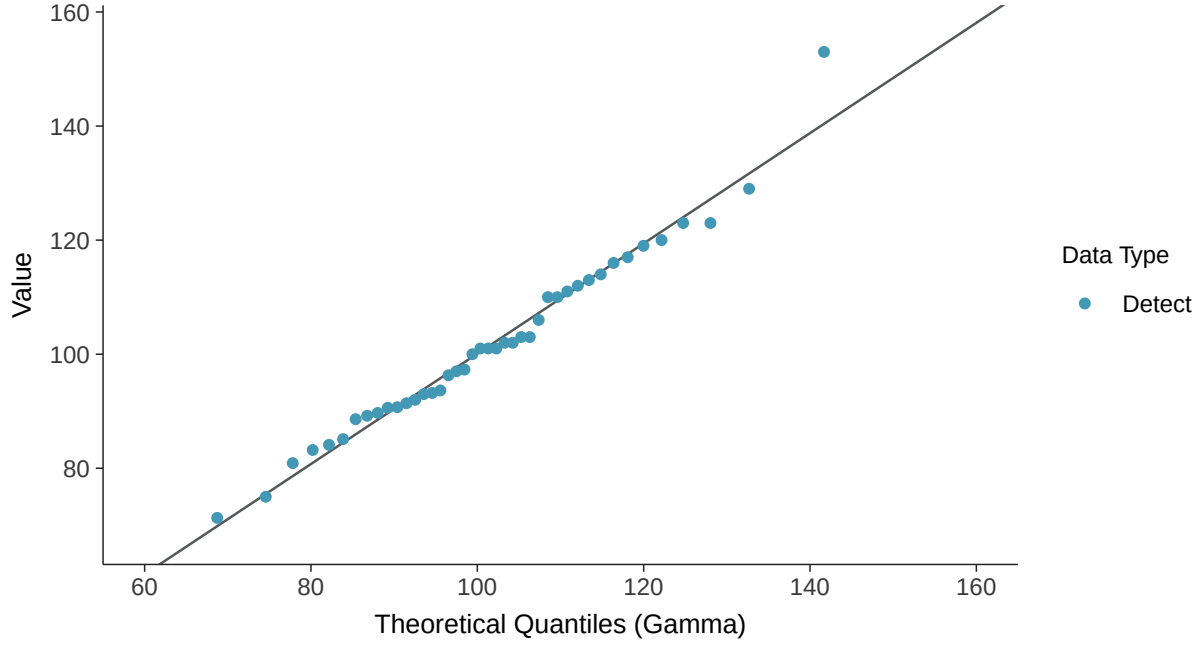
Lognormal Q-Q plot

Barium, MW-5 (ug/L)



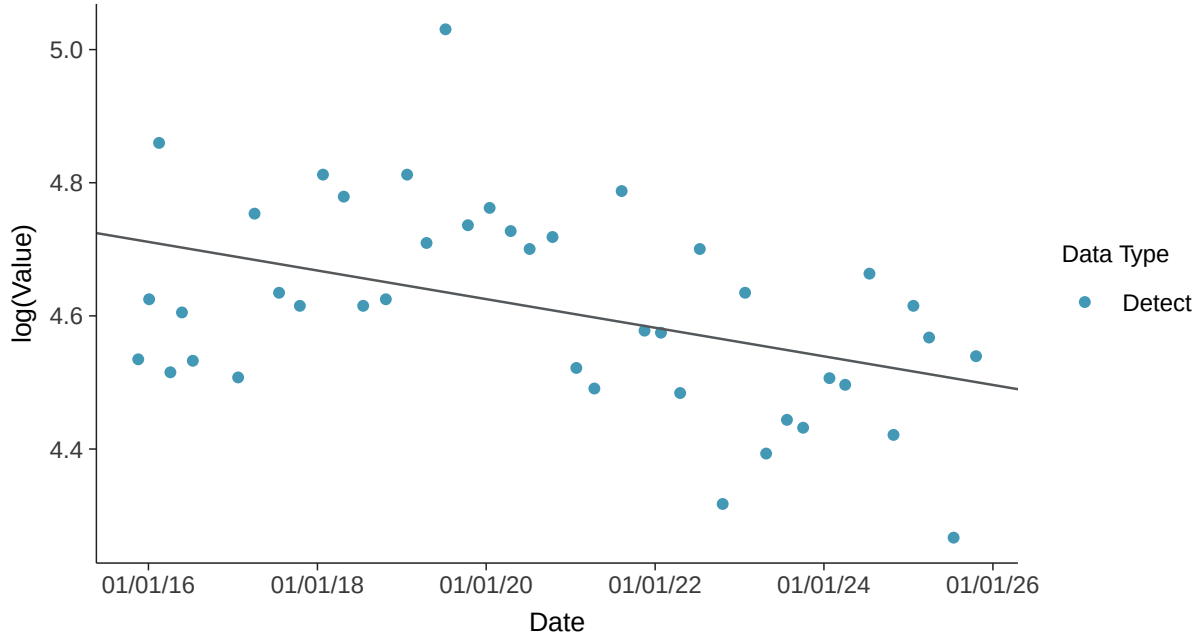
Gamma Q-Q plot

Barium, MW-5 (ug/L)



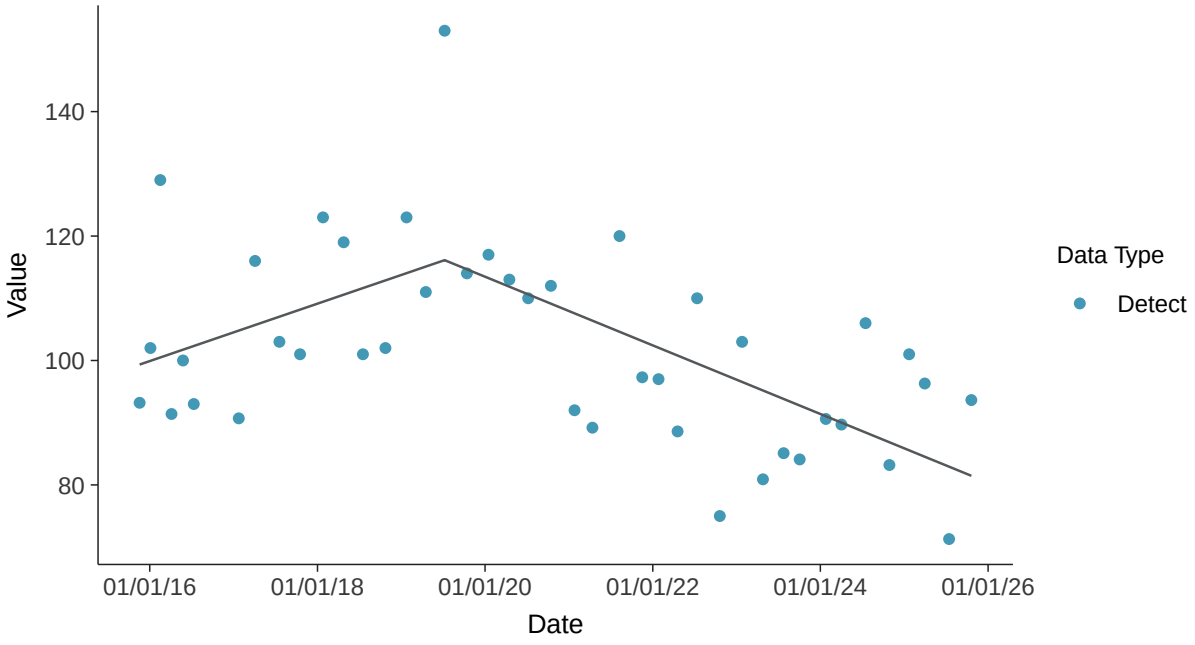
Trend Regression: Lognormal MLE

Barium, MW-5 (ug/L)



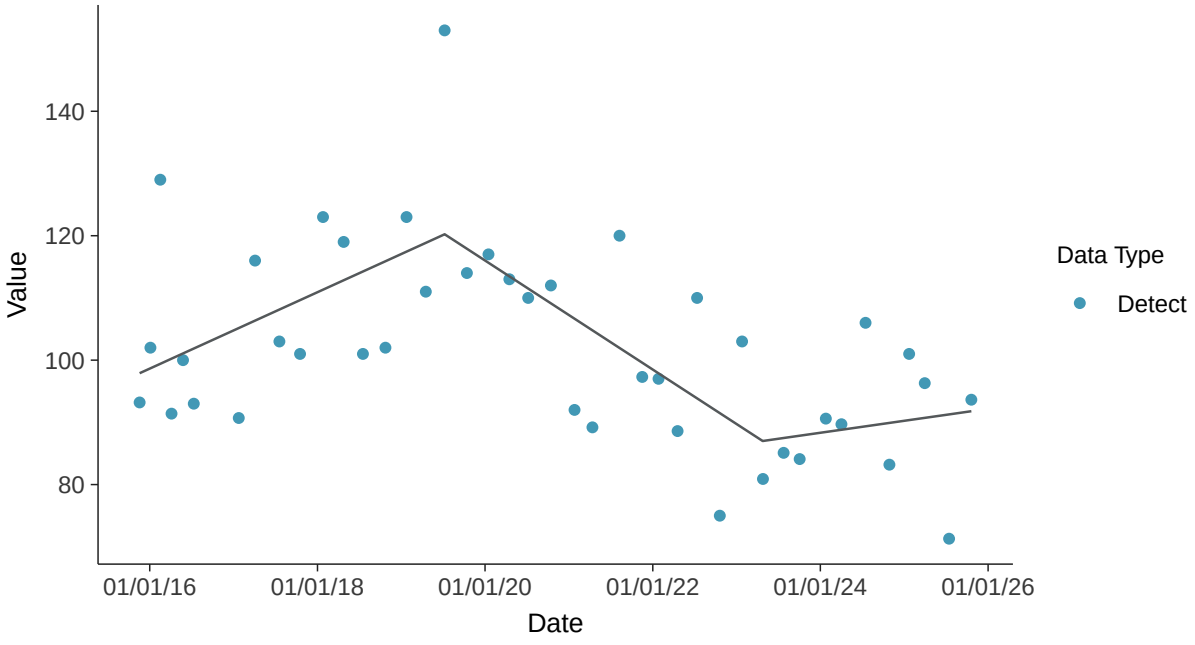
Trend Regression: Piecewise Linear-Linear

Barium, MW-5 (ug/L)



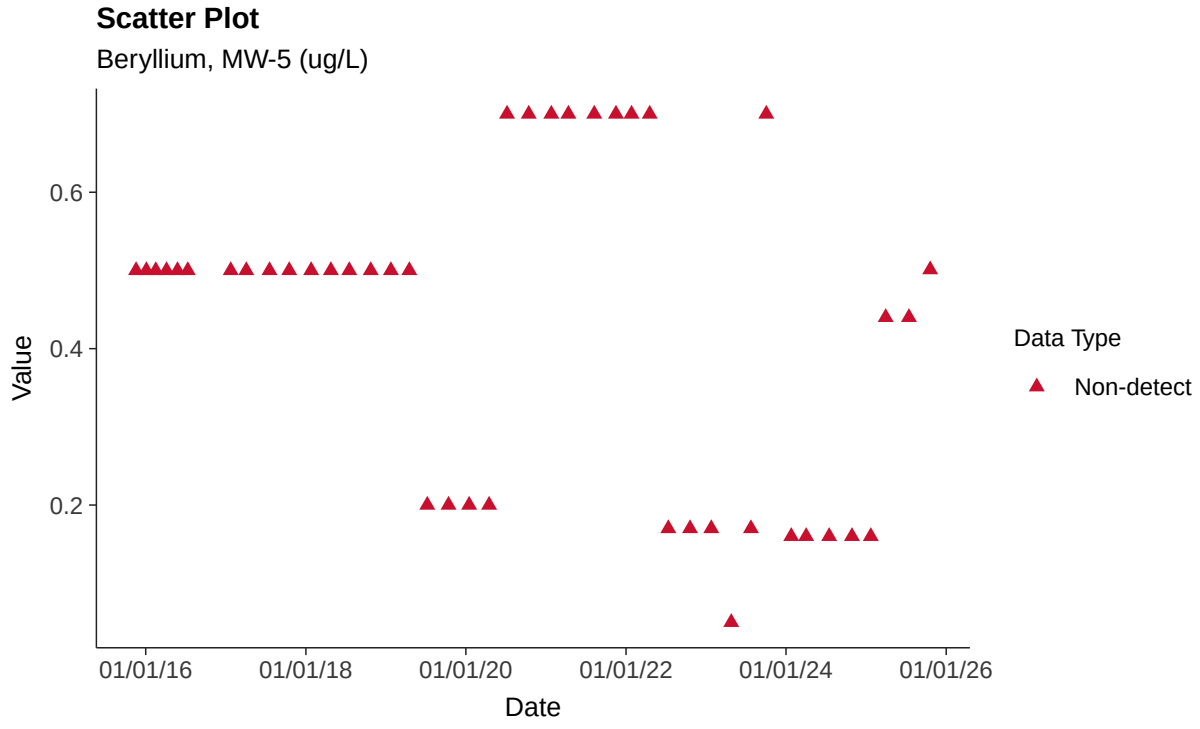
Trend Regression: Piecewise Linear-Linear-Linear

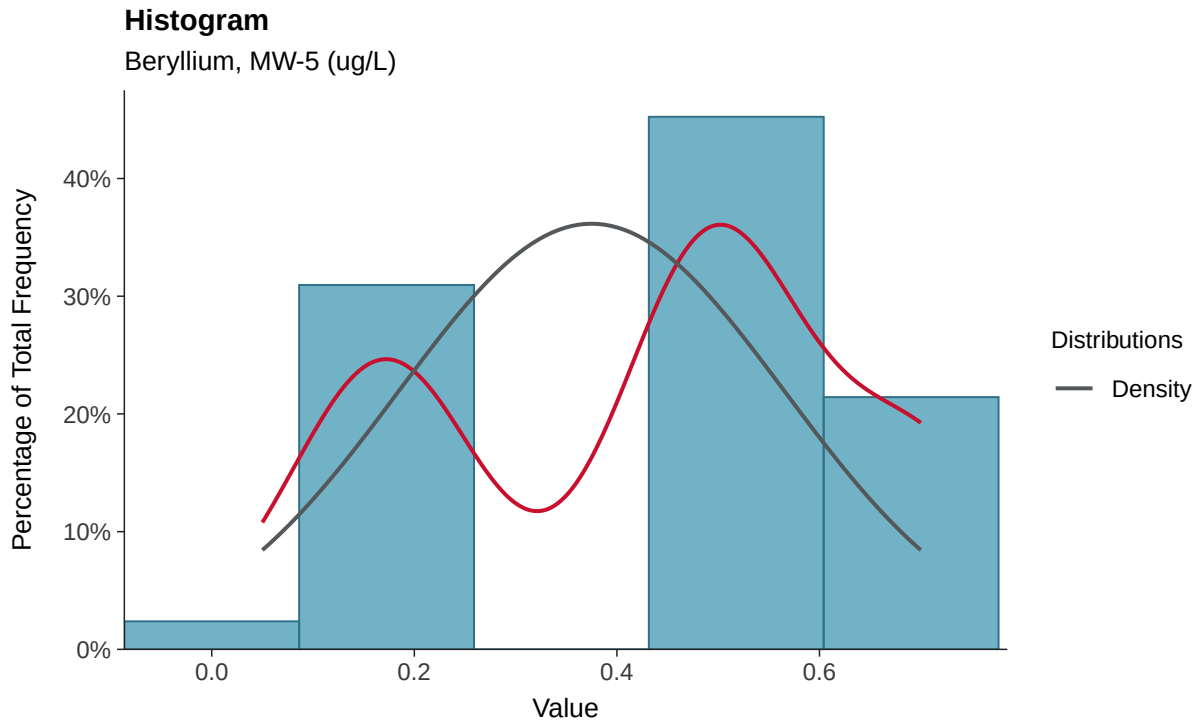
Barium, MW-5 (ug/L)



App. IV: Beryllium, MW-5

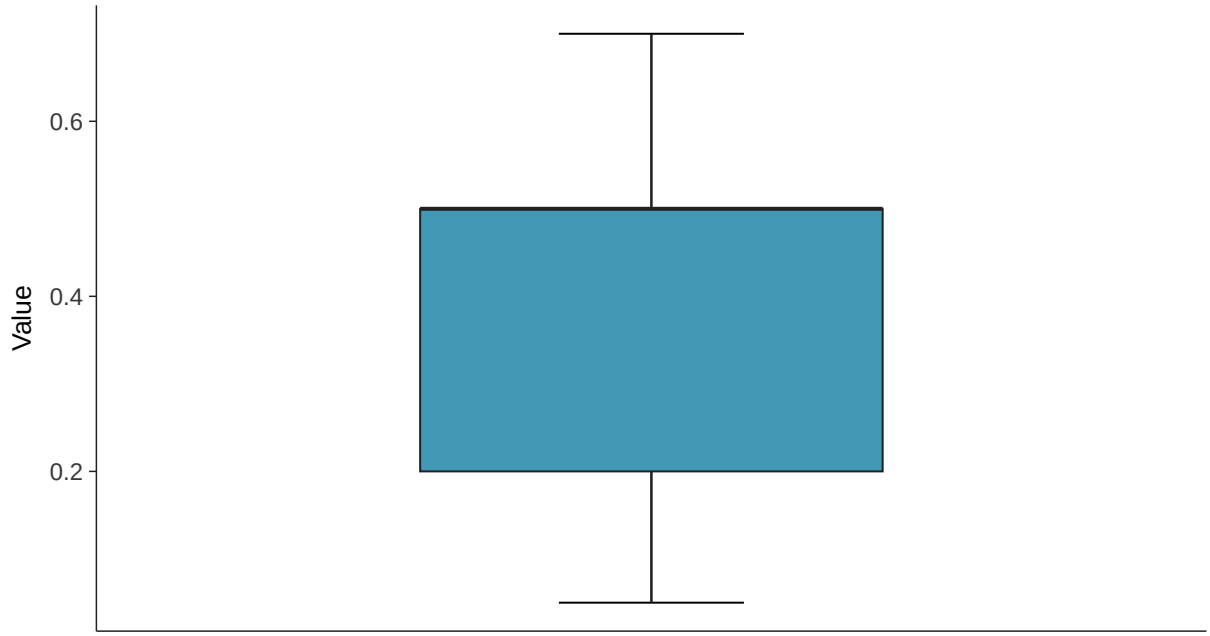
ID: 05_3_104





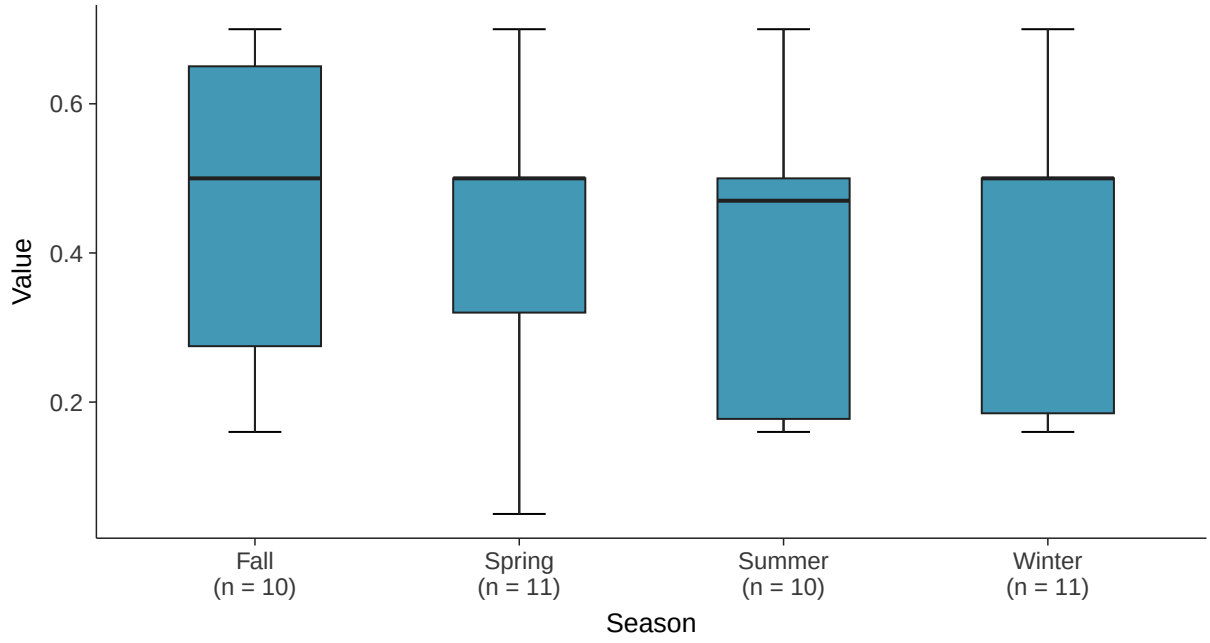
Boxplot

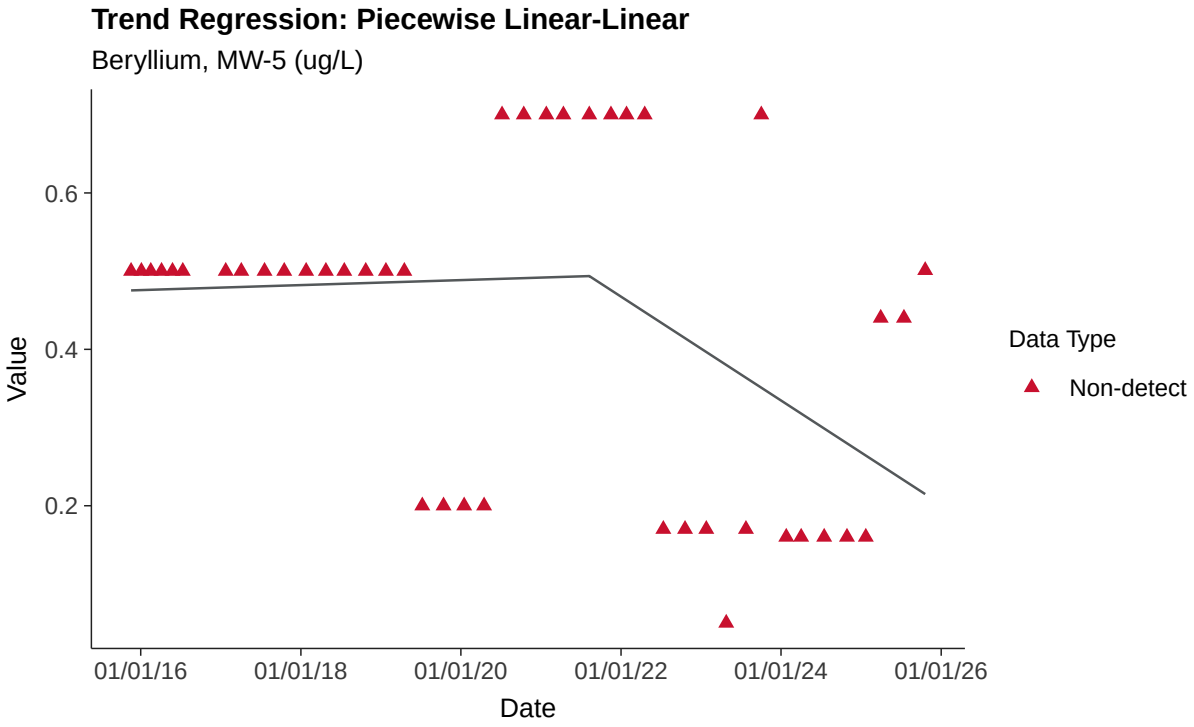
Beryllium, MW-5 (ug/L)



Boxplot by Season

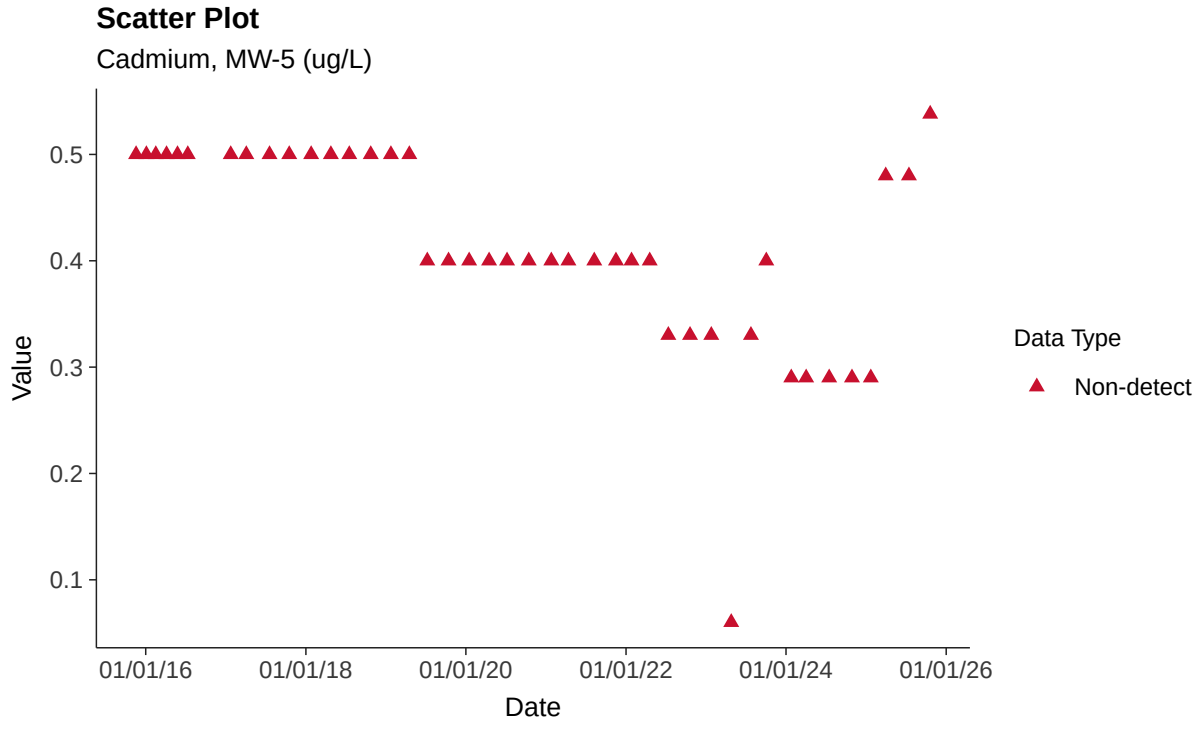
Beryllium, MW-5 (ug/L)

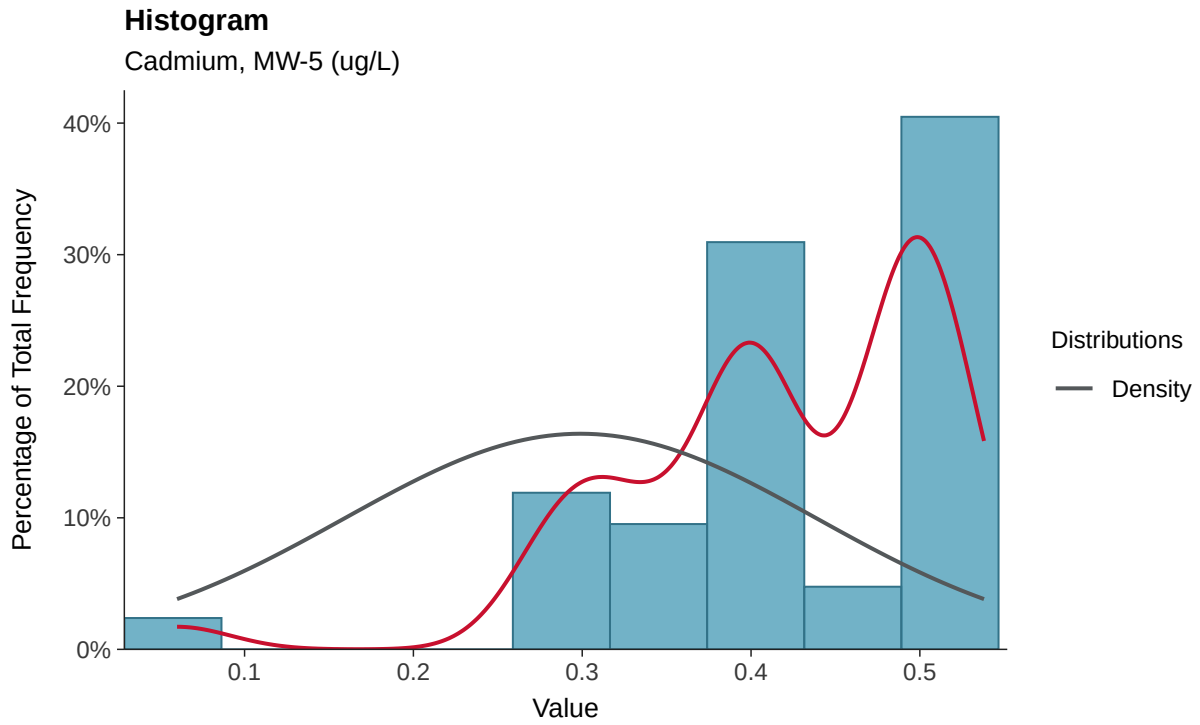



Trend Regression: Piecewise Linear-Linear
Beryllium, MW-5 (ug/L)
Value
0.6
0.4
0.2
01/01/16
01/01/18
01/01/20
01/01/22
01/01/24
01/01/26
Date
Data Type
Non-detect

App. IV: Cadmium, MW-5

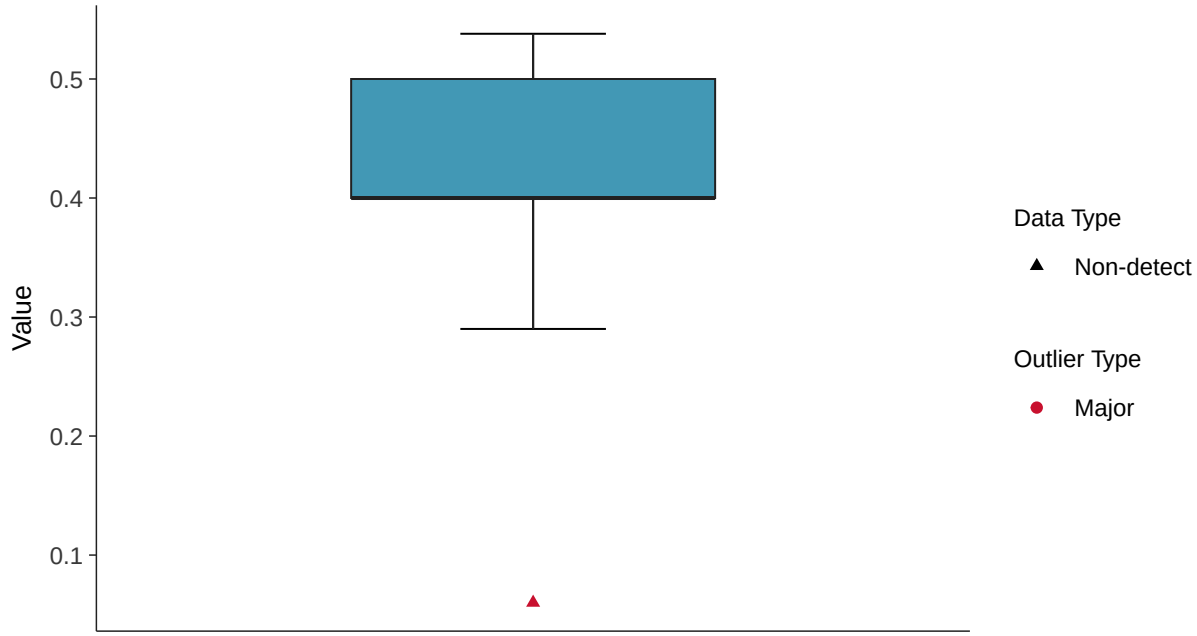
ID: 05_3_106





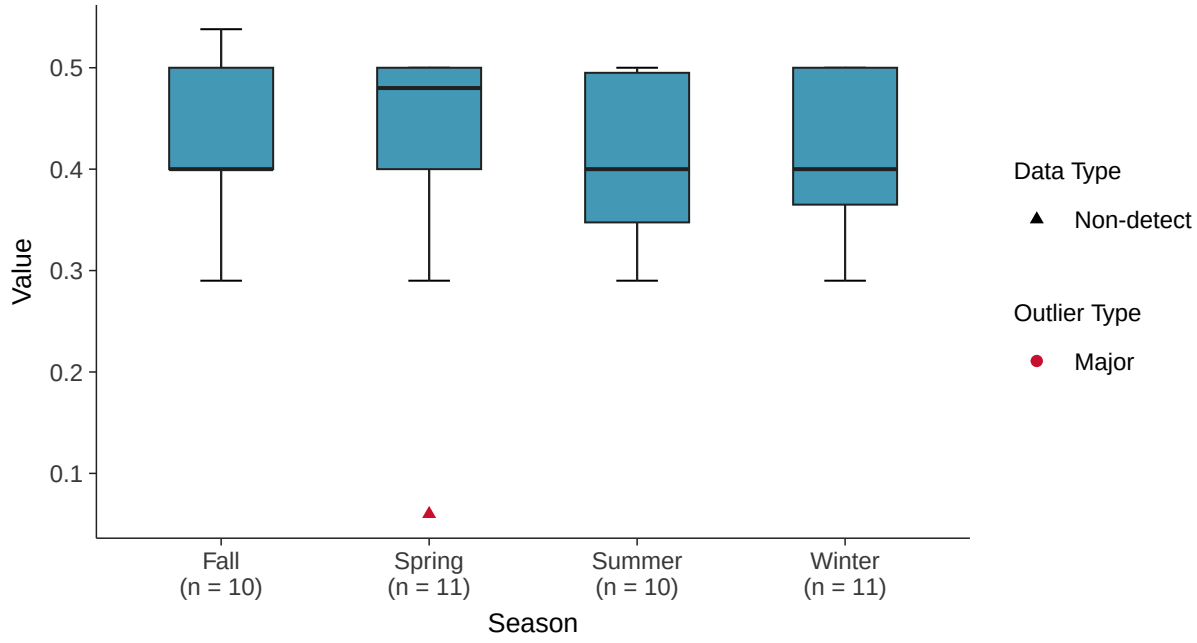
Boxplot

Cadmium, MW-5 (ug/L)



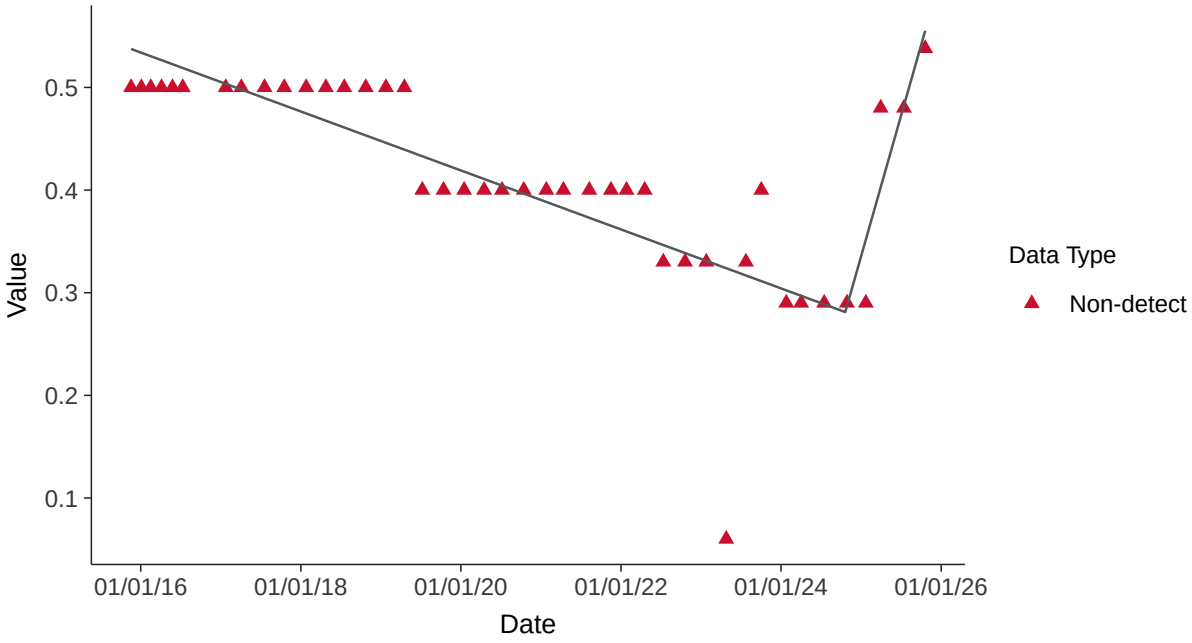
Boxplot by Season

Cadmium, MW-5 (ug/L)



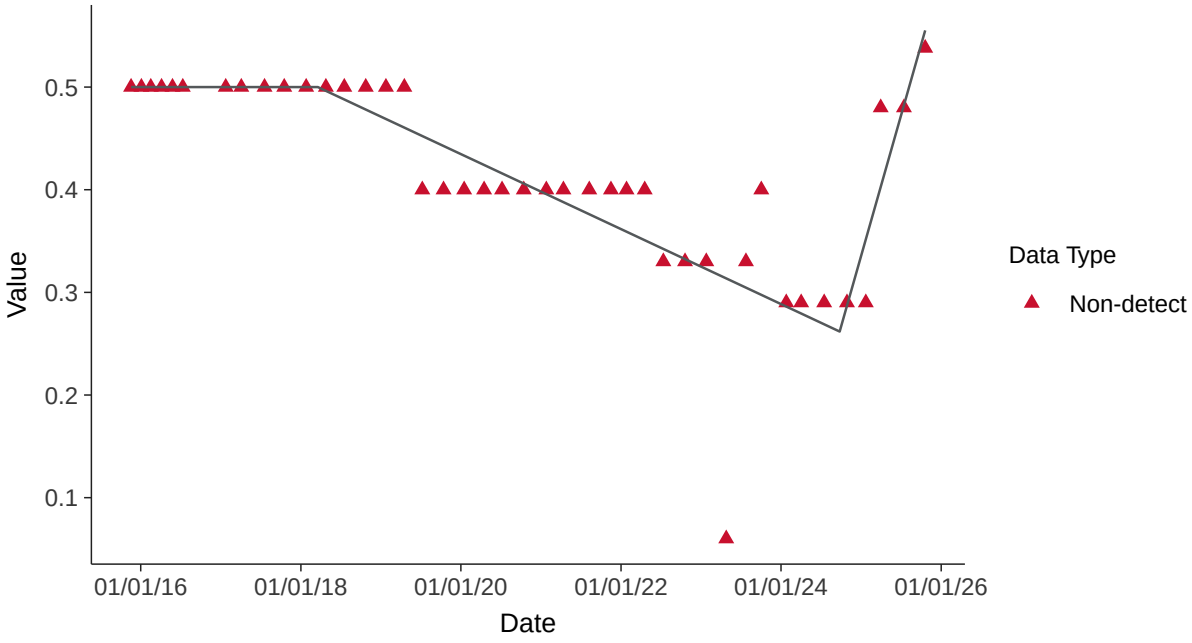
Trend Regression: Piecewise Linear-Linear

Cadmium, MW-5 (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Cadmium, MW-5 (ug/L)

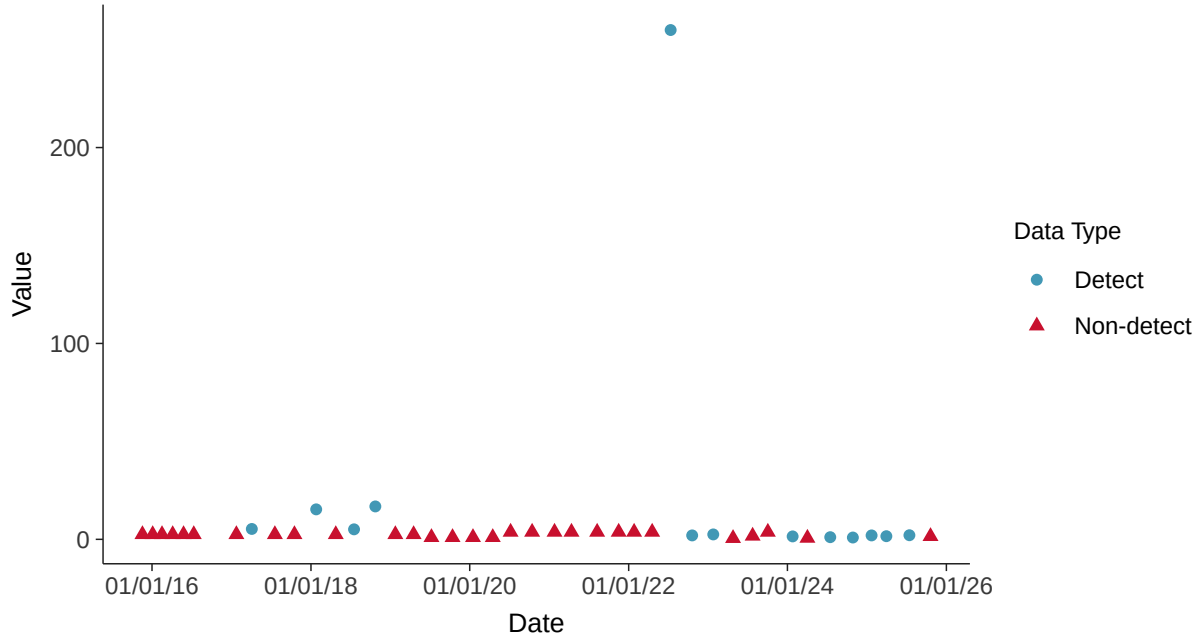


App. IV: Chromium, MW-5

ID: 05_3_109

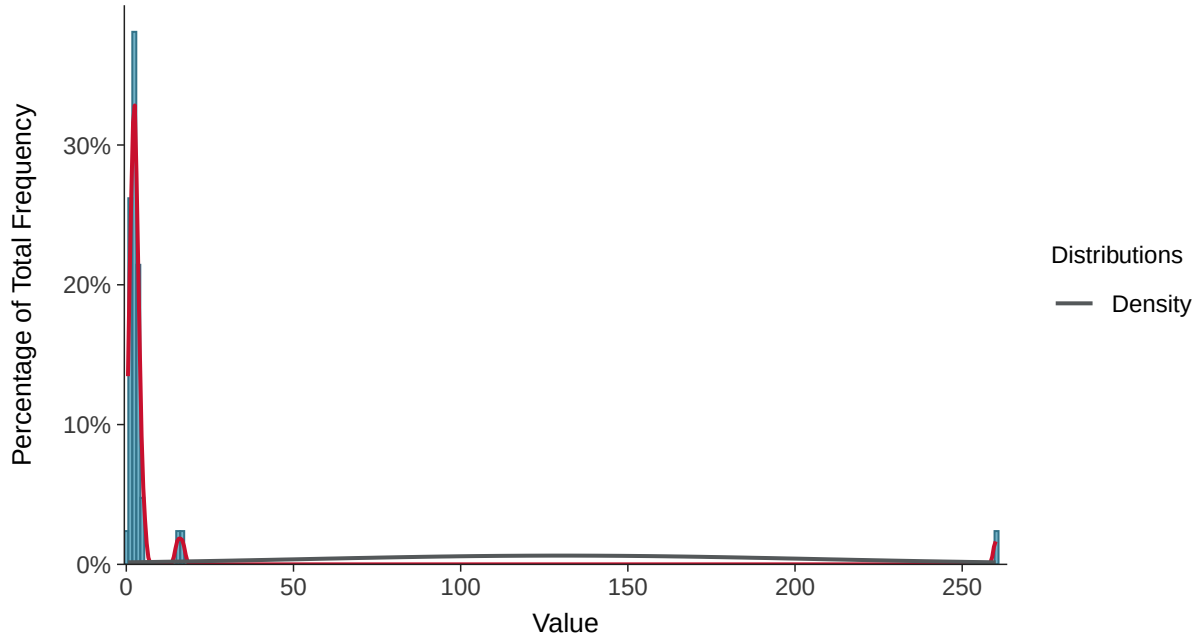
Scatter Plot

Chromium, MW-5 (ug/L)



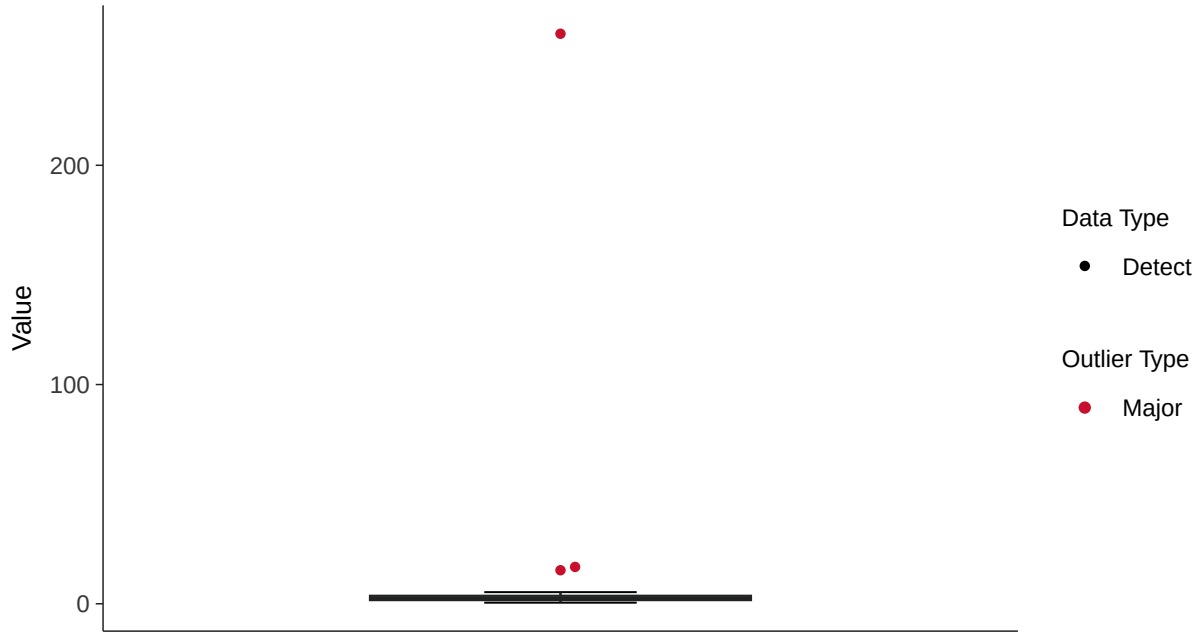
Histogram

Chromium, MW-5 (ug/L)



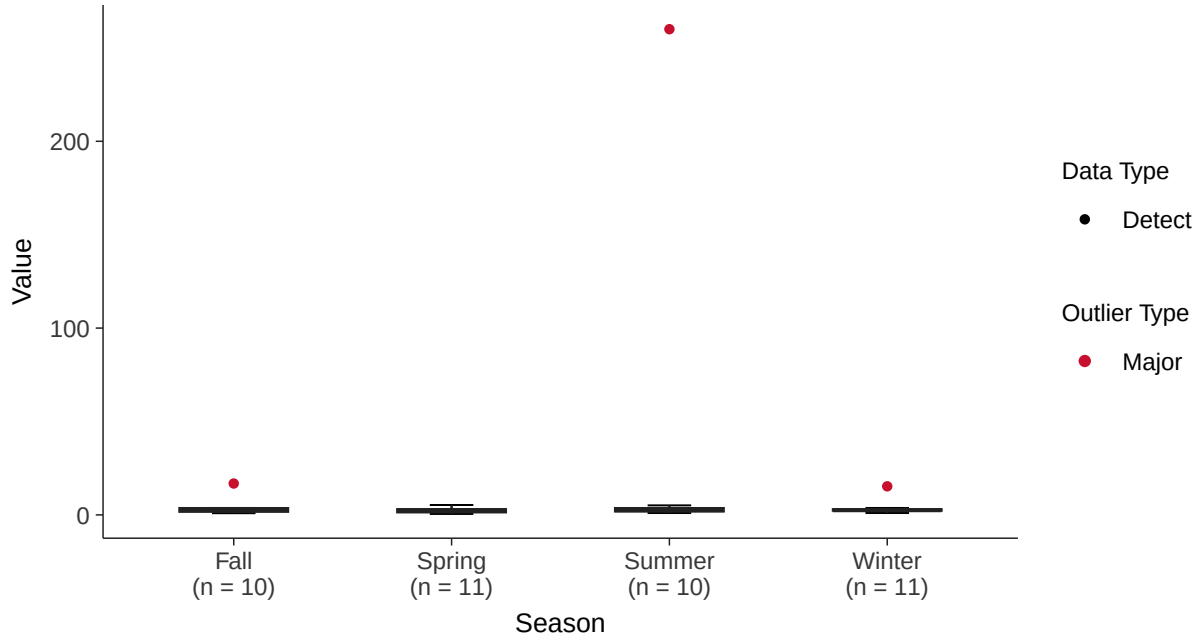
Boxplot

Chromium, MW-5 (ug/L)



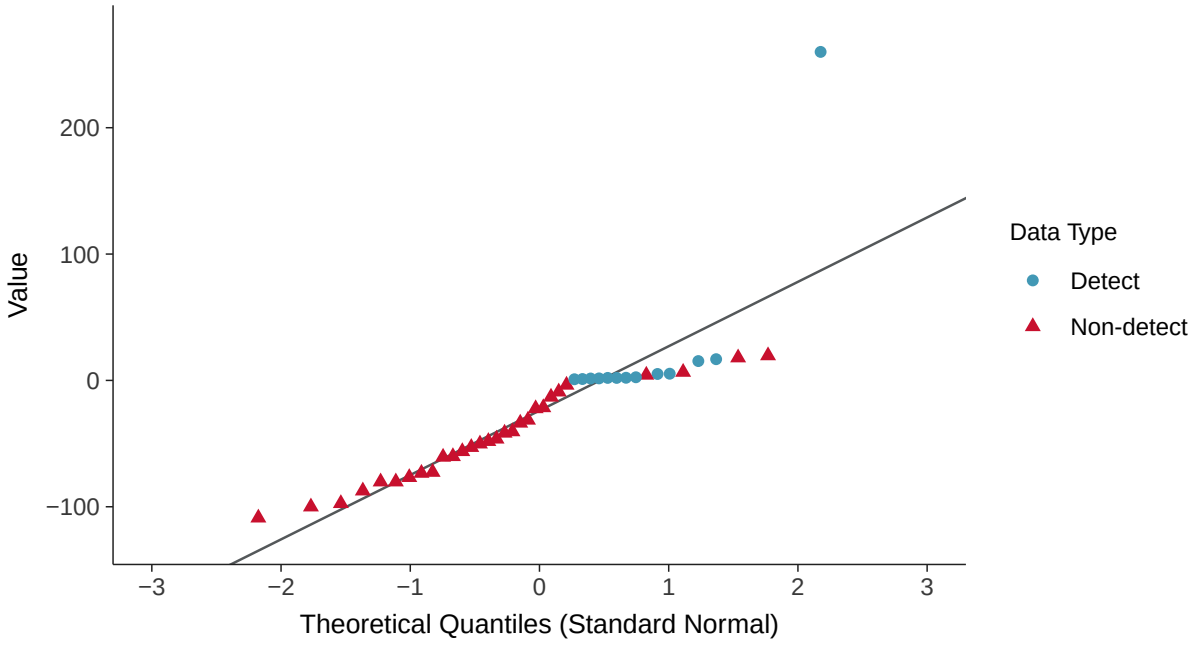
Boxplot by Season

Chromium, MW-5 (ug/L)



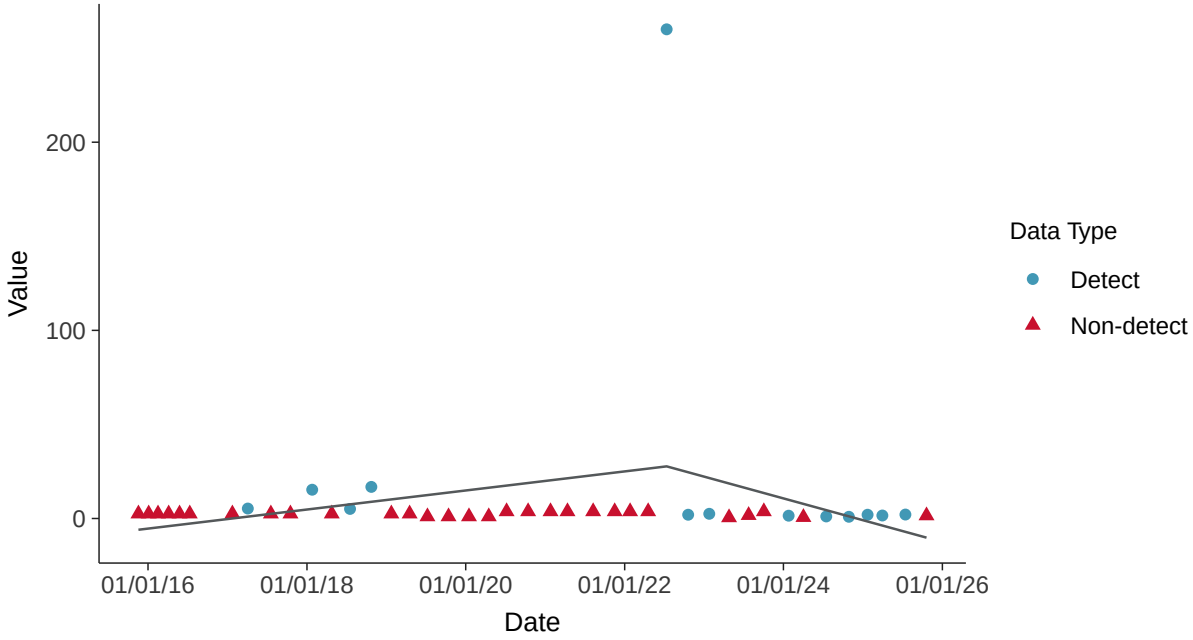
Normal Q-Q plot using ROS Imputed Estimates

Chromium, MW-5 (ug/L)



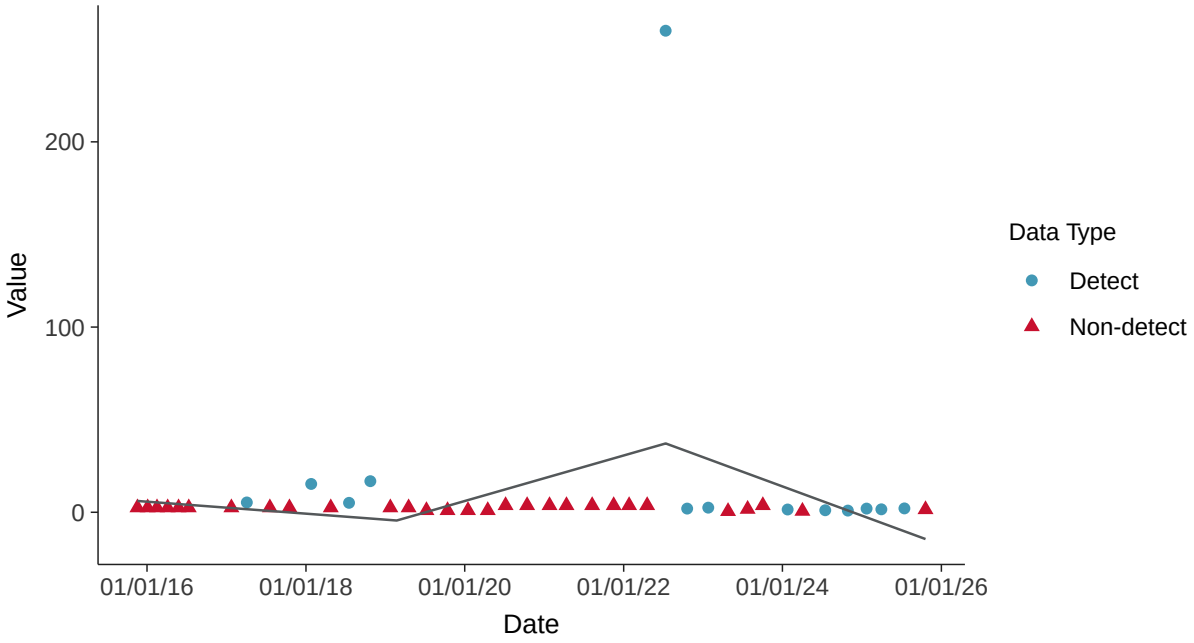
Trend Regression: Piecewise Linear-Linear

Chromium, MW-5 (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Chromium, MW-5 (ug/L)

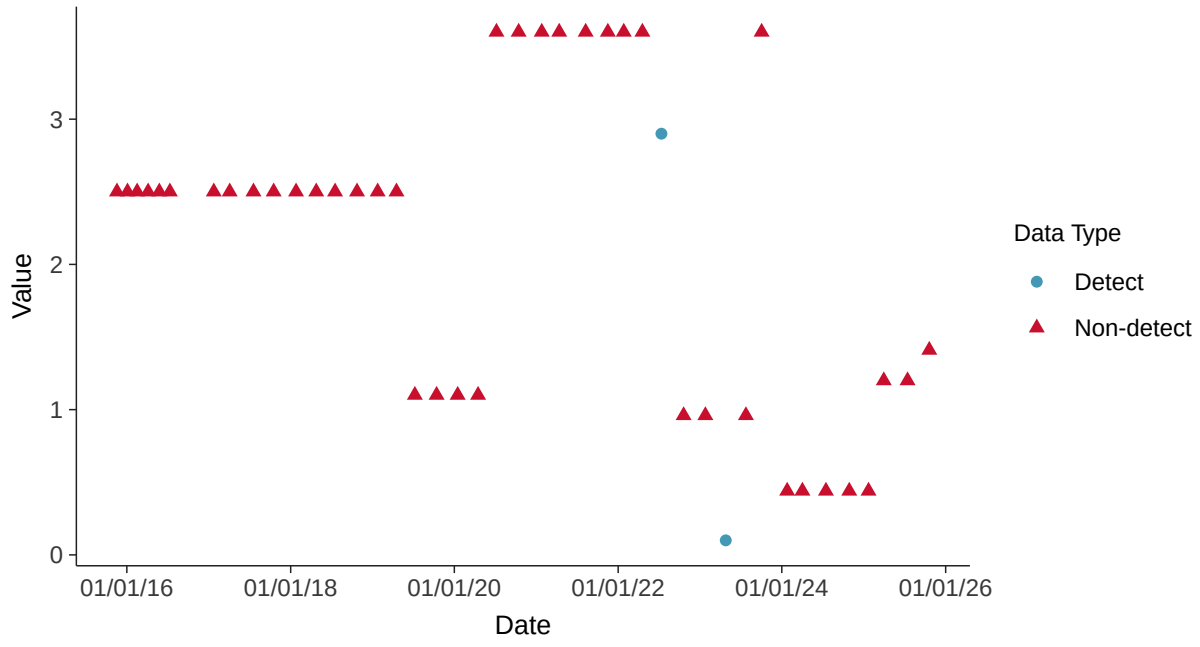


App. IV: Cobalt, MW-5

ID: 05_3_110

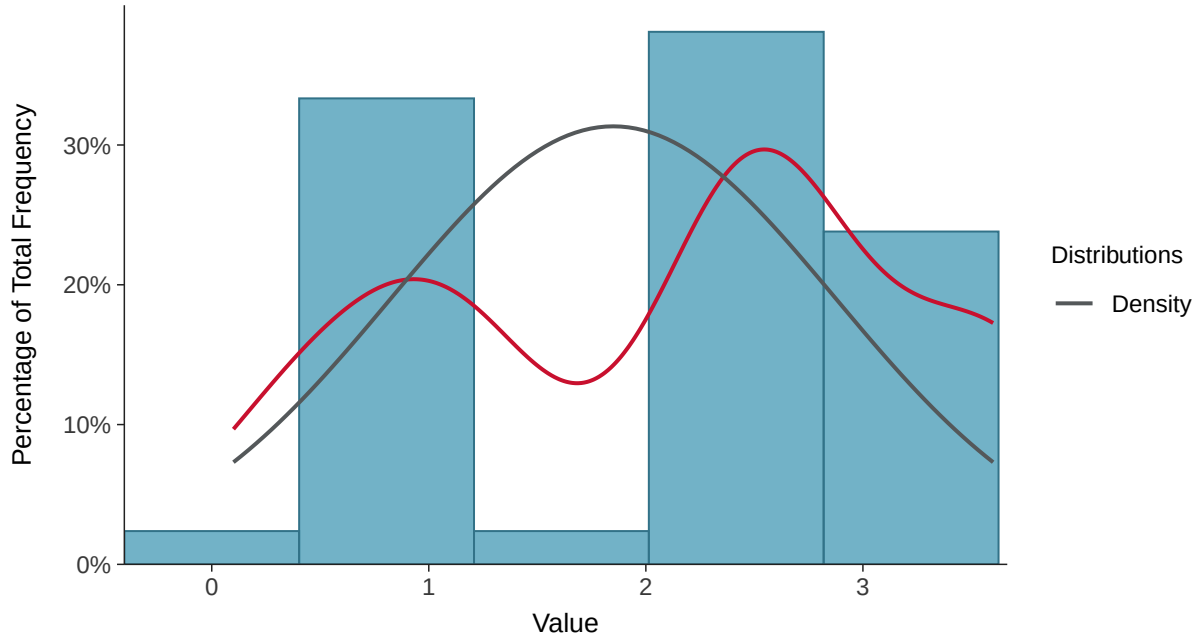
Scatter Plot

Cobalt, MW-5 (ug/L)



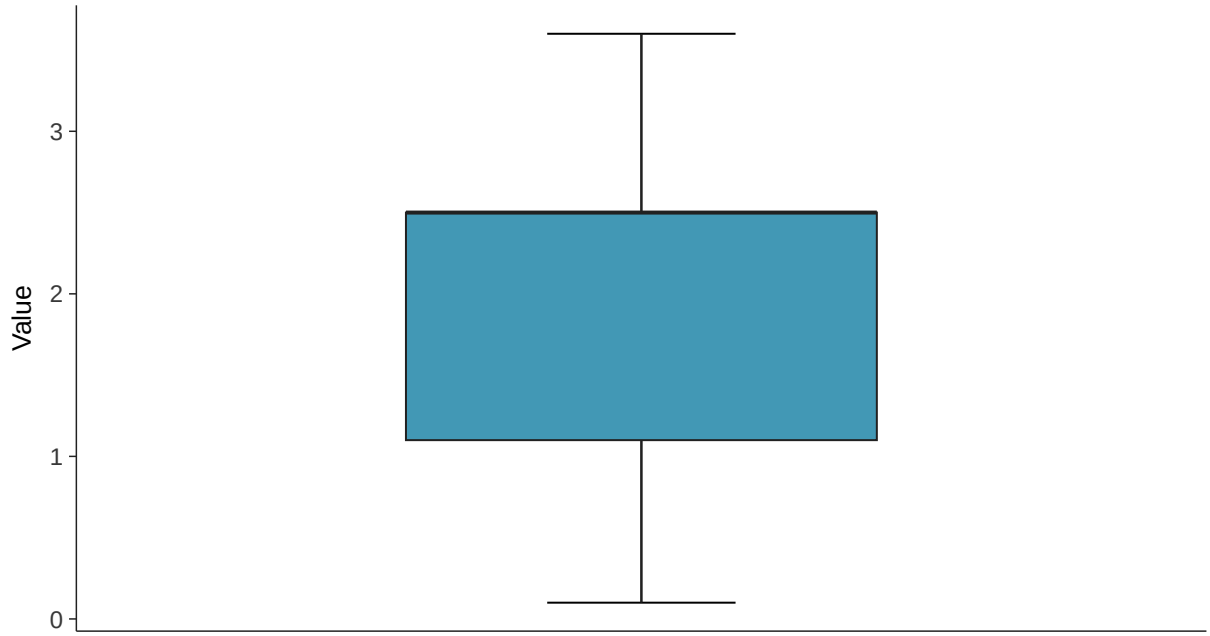
Histogram

Cobalt, MW-5 (ug/L)



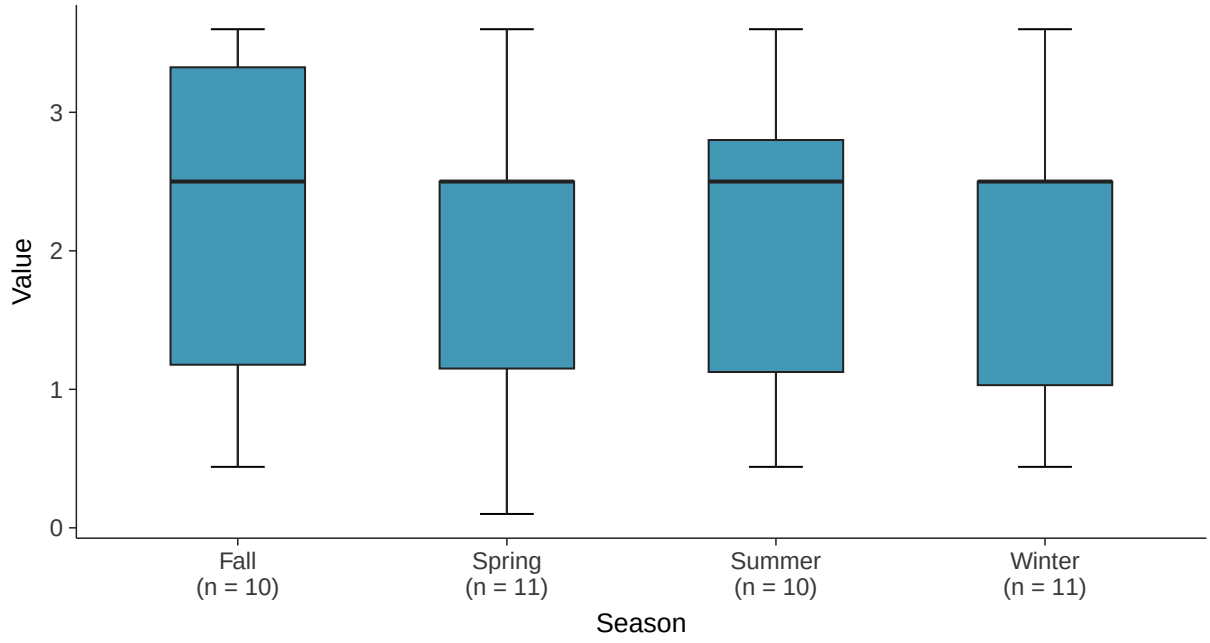
Boxplot

Cobalt, MW-5 (ug/L)



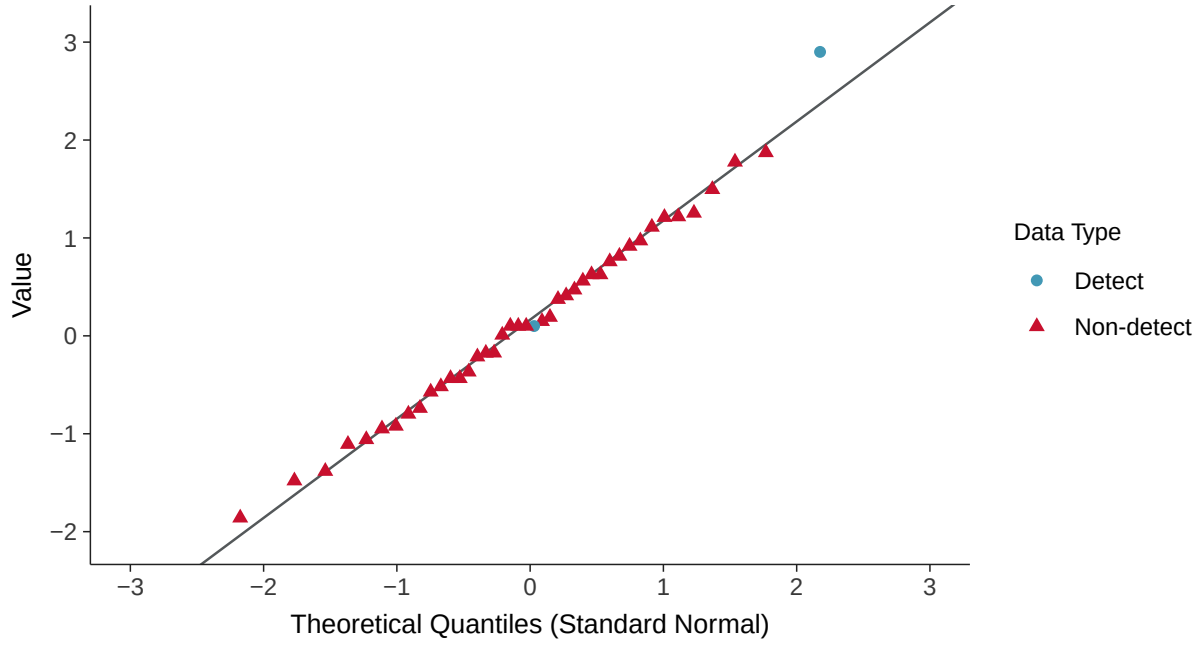
Boxplot by Season

Cobalt, MW-5 (ug/L)



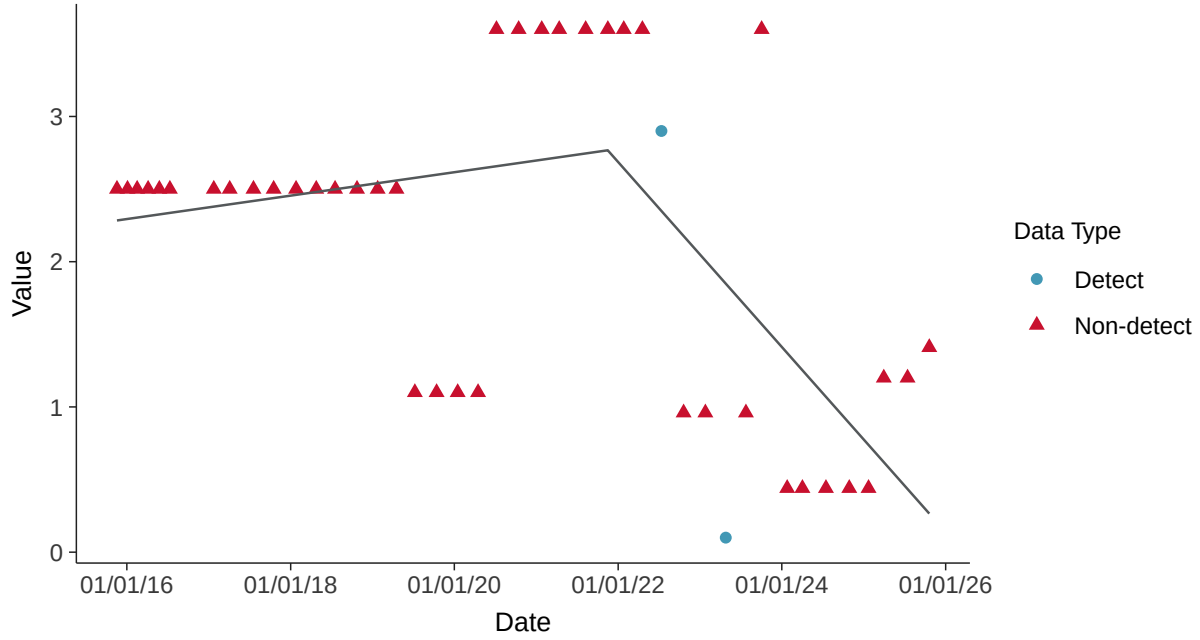
Normal Q-Q plot using ROS Imputed Estimates

Cobalt, MW-5 (ug/L)



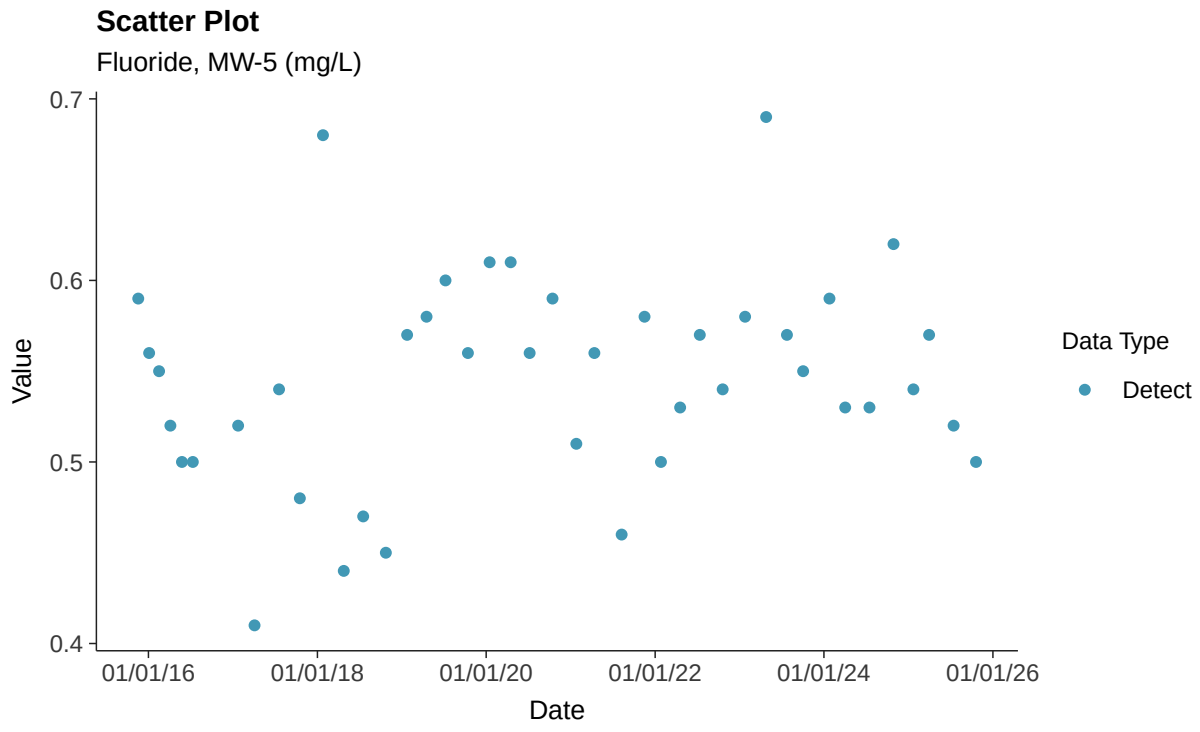
Trend Regression: Piecewise Linear-Linear

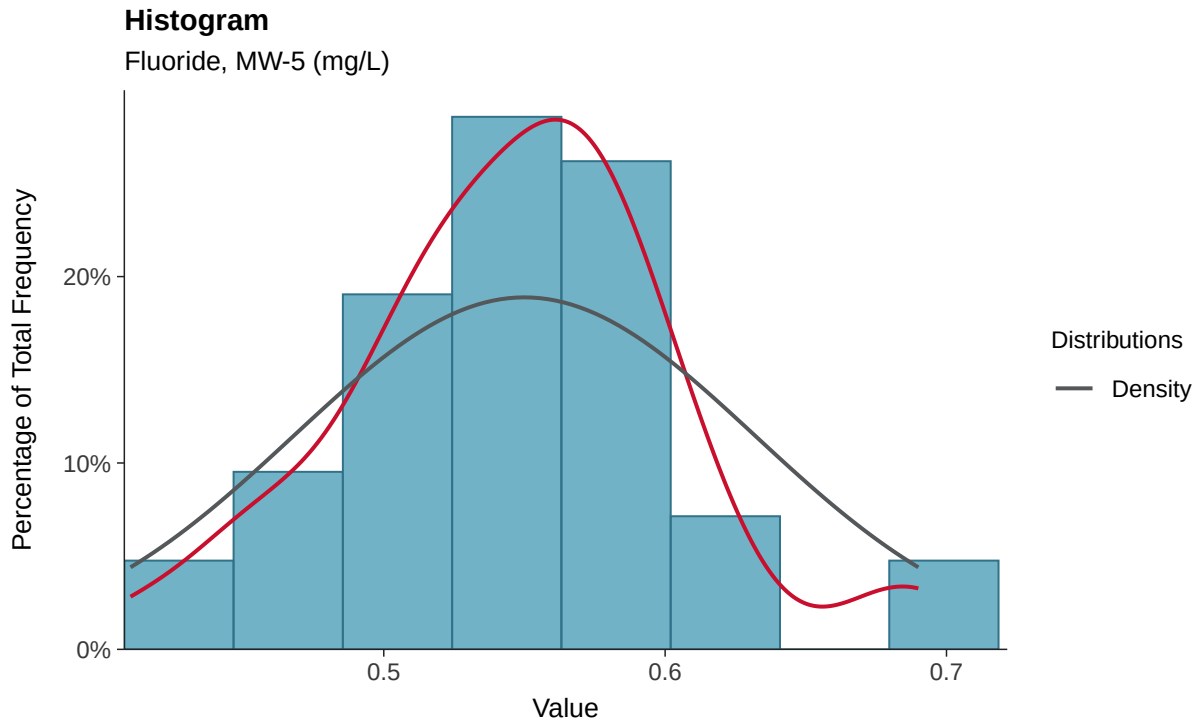
Cobalt, MW-5 (ug/L)



App. IV: Fluoride, MW-5

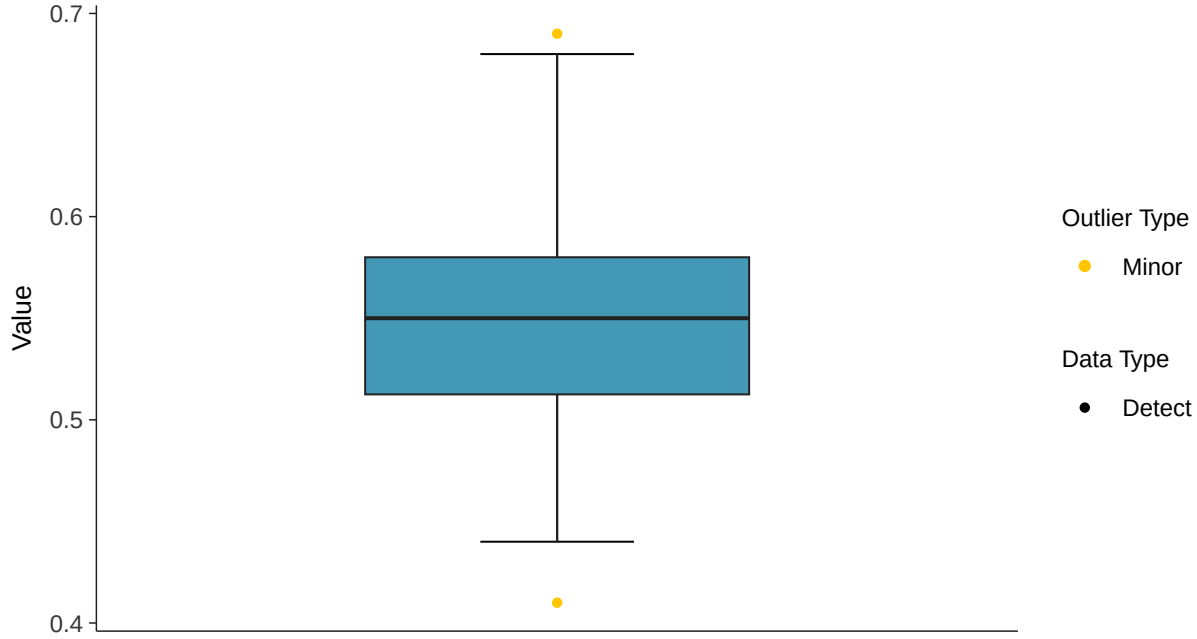
ID: 05_3_112





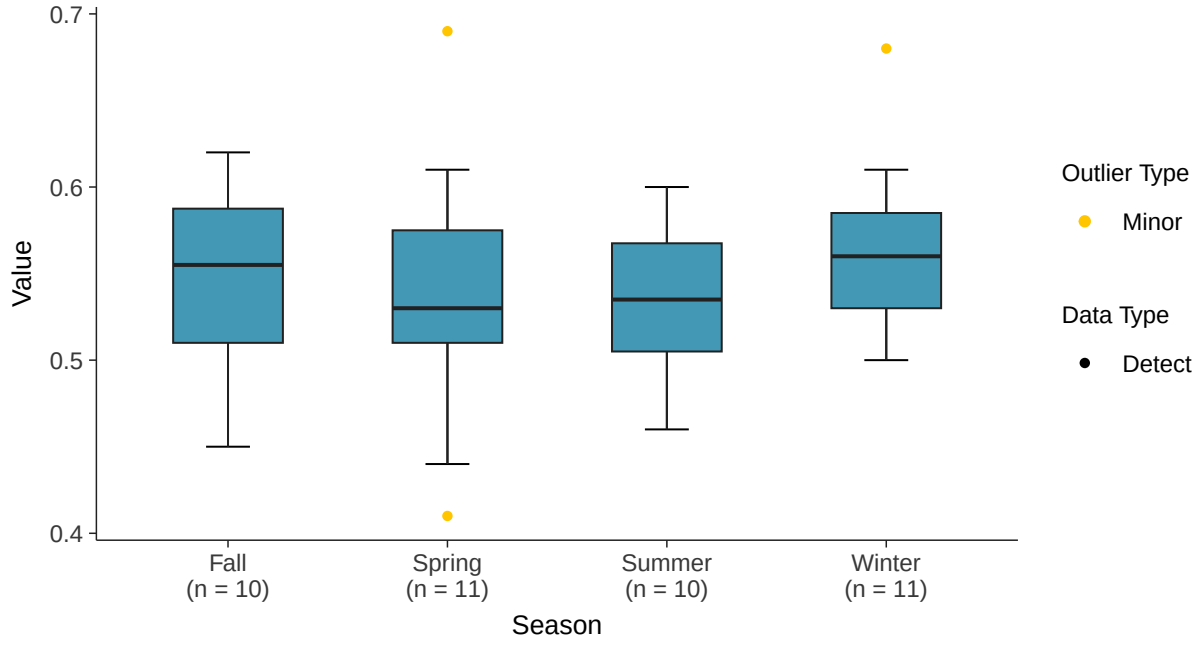
Boxplot

Fluoride, MW-5 (mg/L)



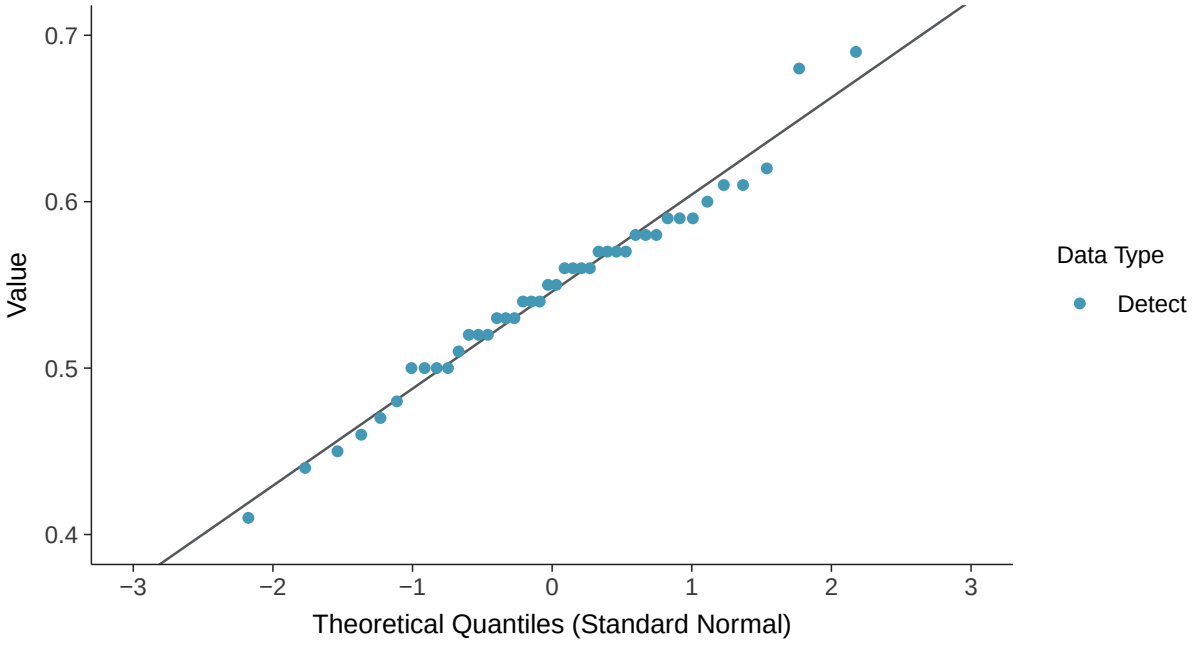
Boxplot by Season

Fluoride, MW-5 (mg/L)



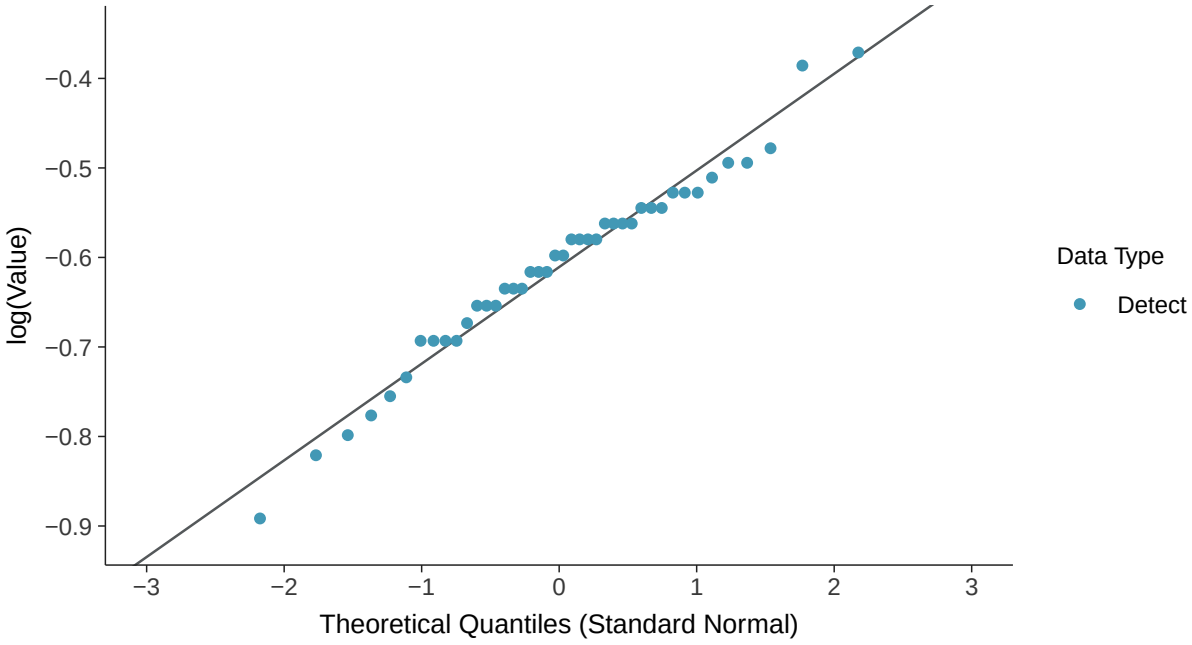
Normal Q-Q plot

Fluoride, MW-5 (mg/L)



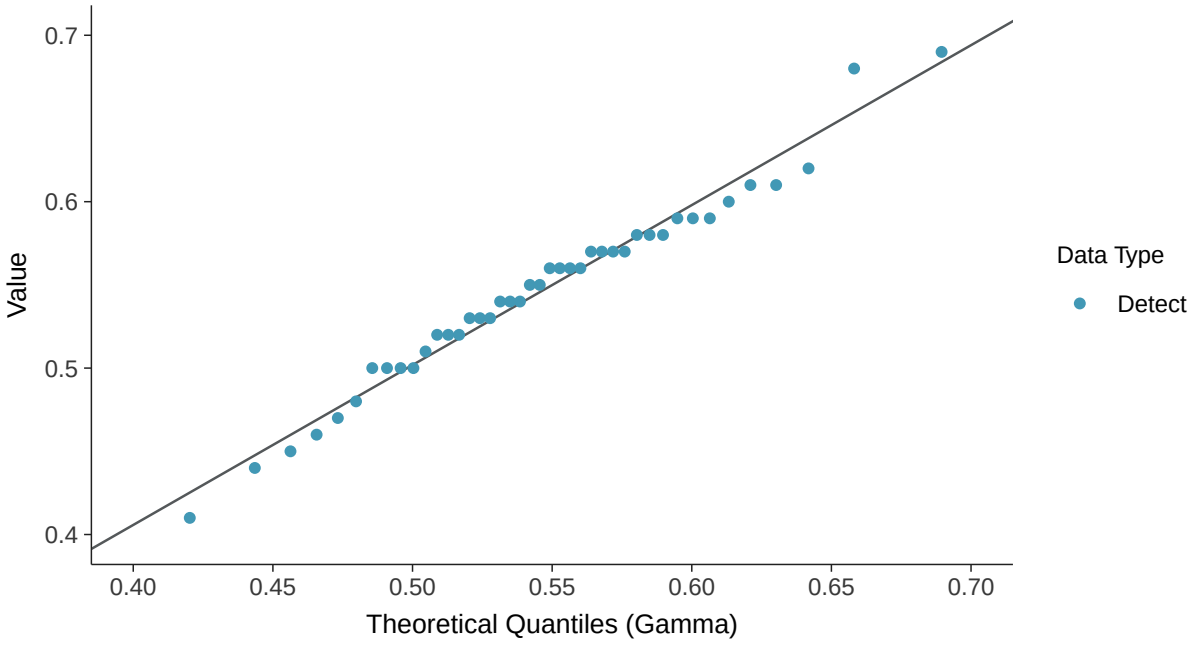
Lognormal Q-Q plot

Fluoride, MW-5 (mg/L)



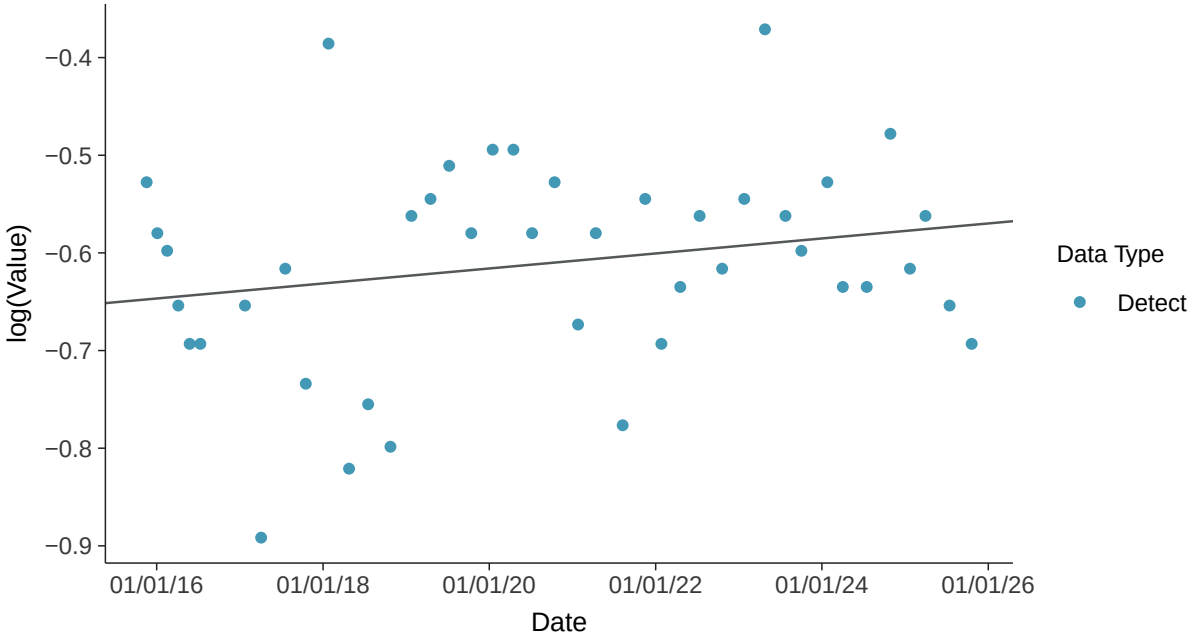
Gamma Q-Q plot

Fluoride, MW-5 (mg/L)



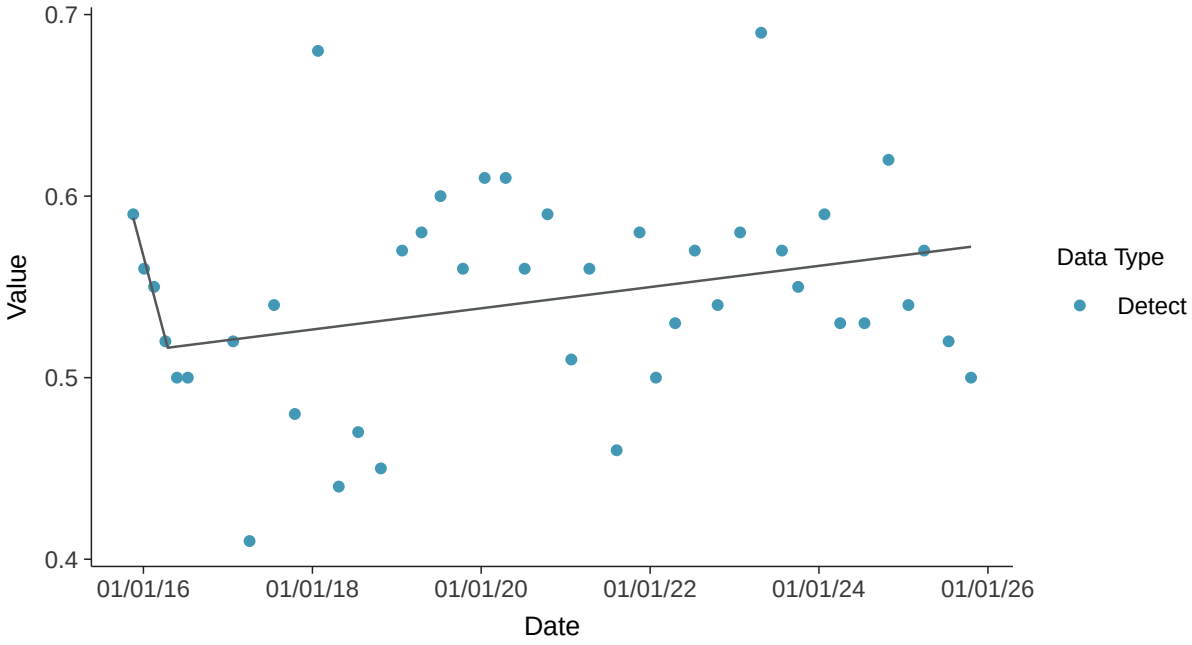
Trend Regression: Lognormal MLE

Fluoride, MW-5 (mg/L)



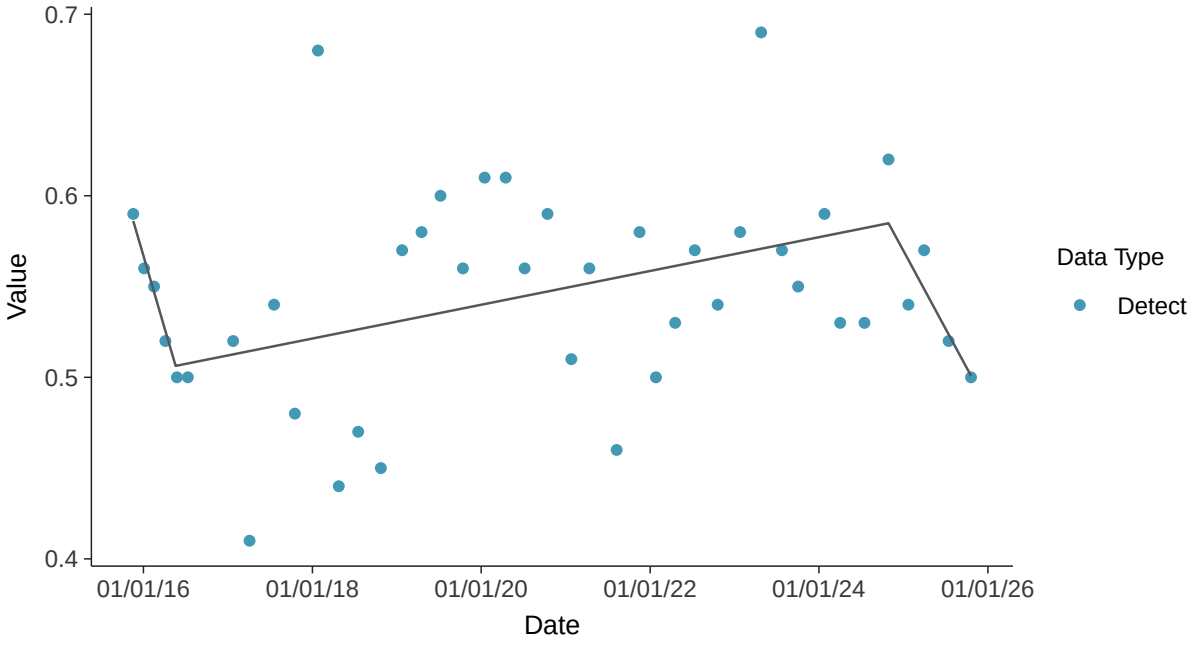
Trend Regression: Piecewise Linear-Linear

Fluoride, MW-5 (mg/L)



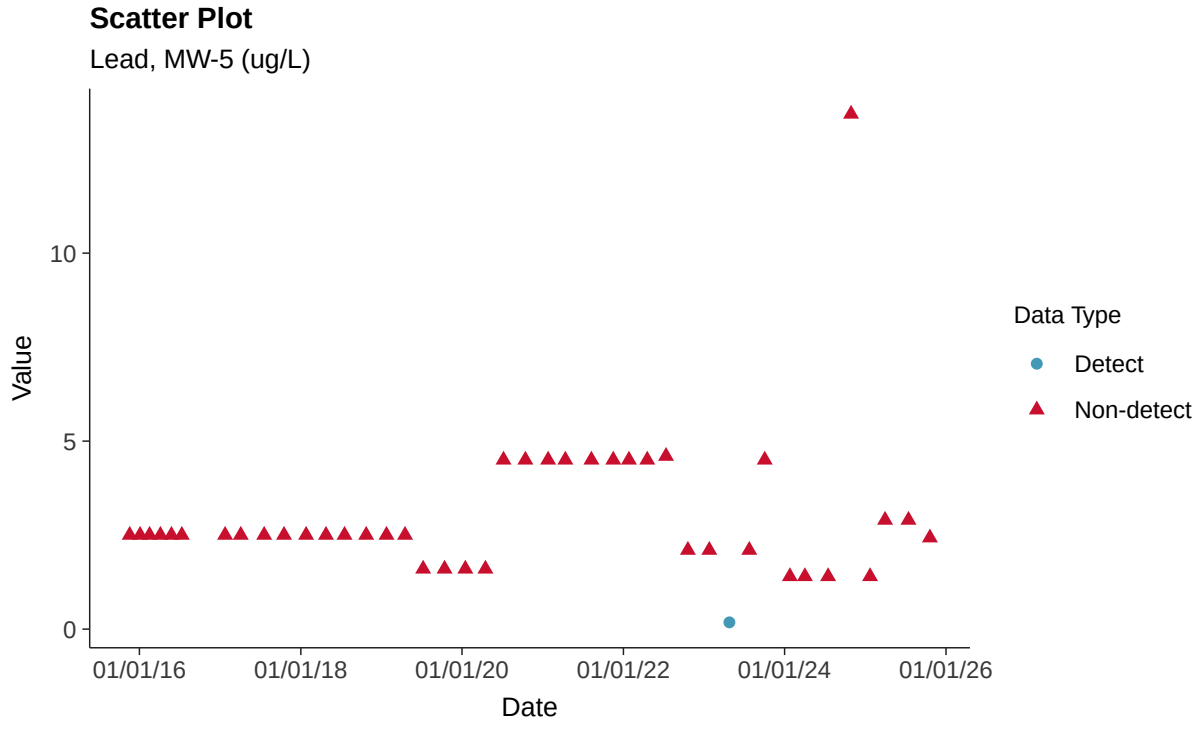
Trend Regression: Piecewise Linear-Linear-Linear

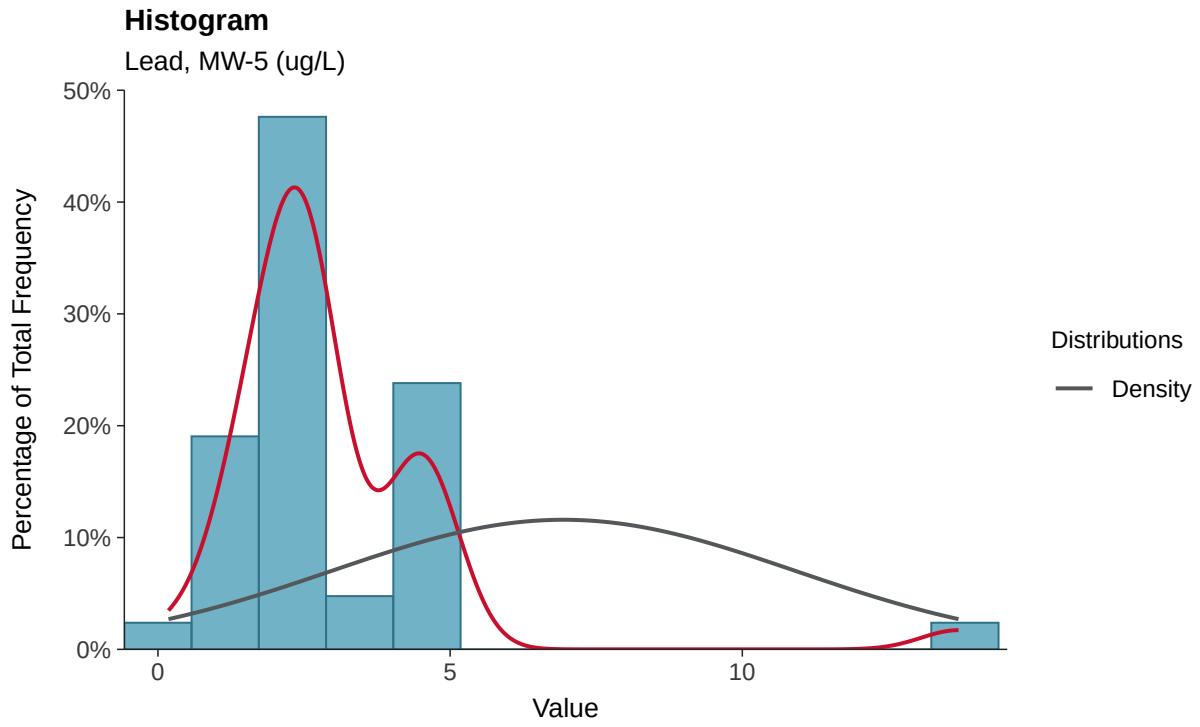
Fluoride, MW-5 (mg/L)



App. IV: Lead, MW-5

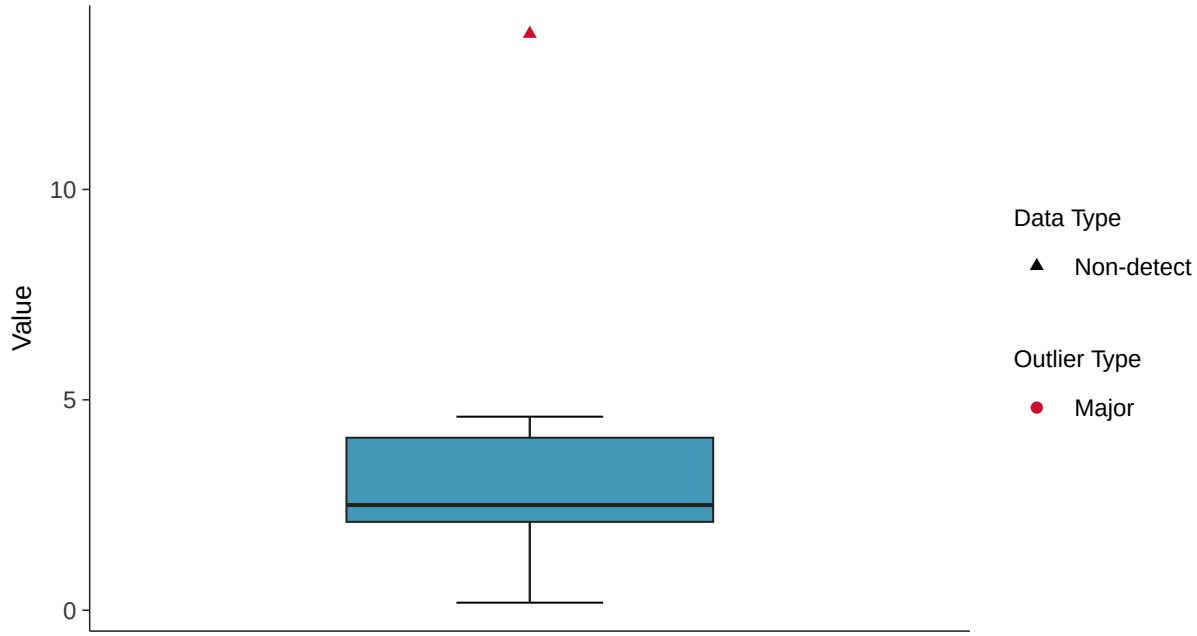
ID: 05_3_113





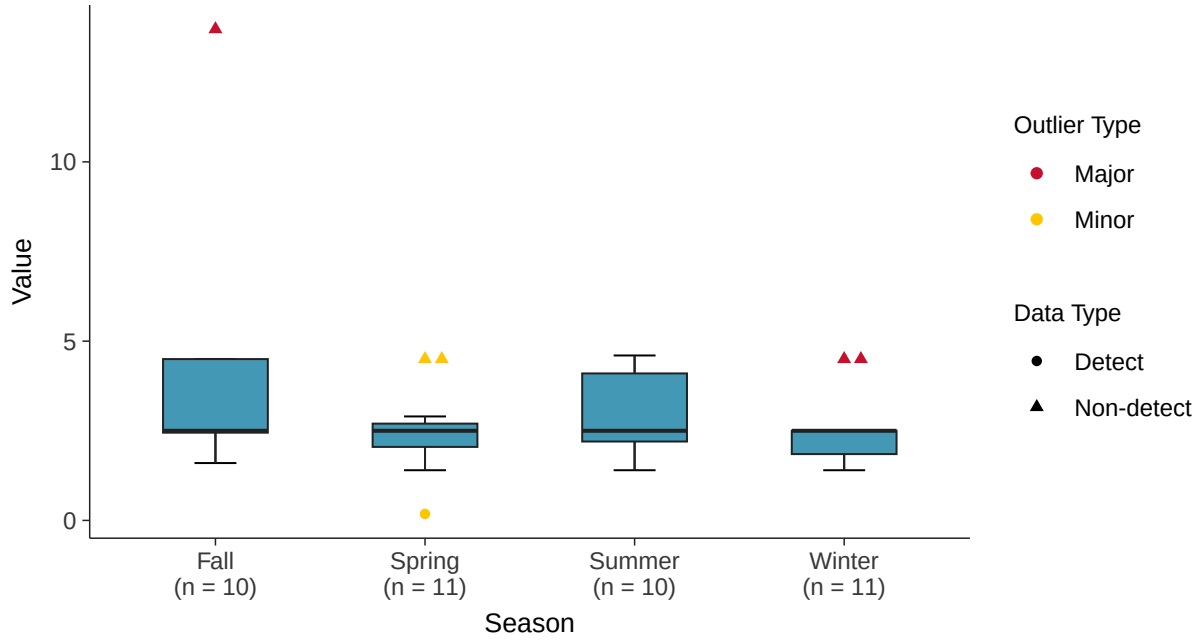
Boxplot

Lead, MW-5 (ug/L)



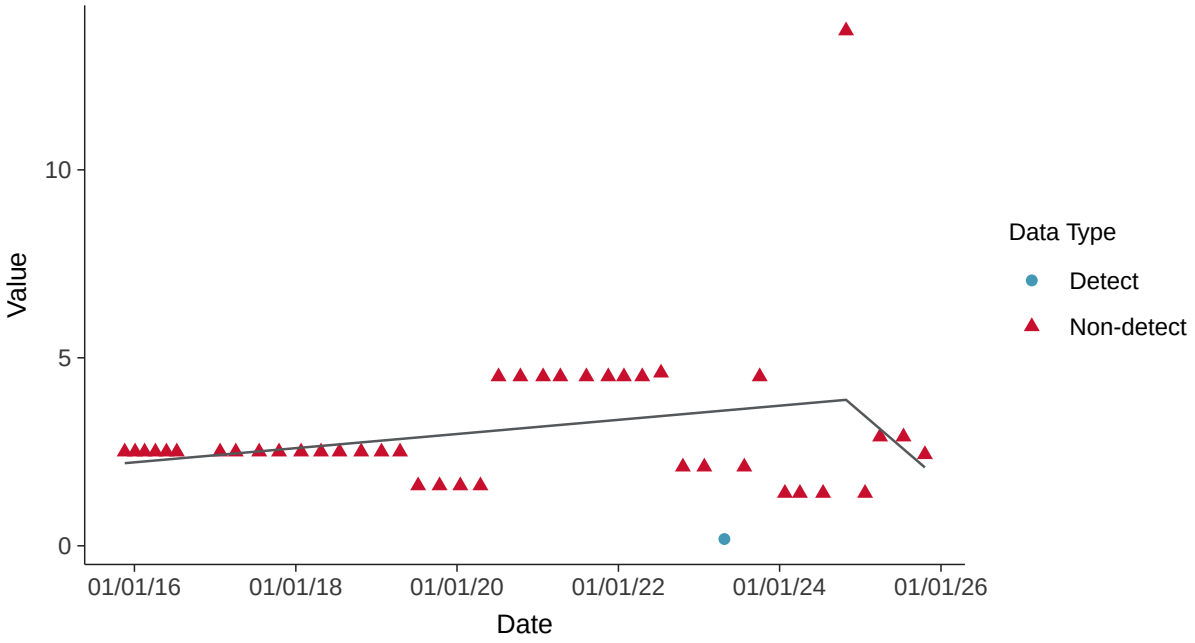
Boxplot by Season

Lead, MW-5 (ug/L)



Trend Regression: Piecewise Linear-Linear

Lead, MW-5 (ug/L)

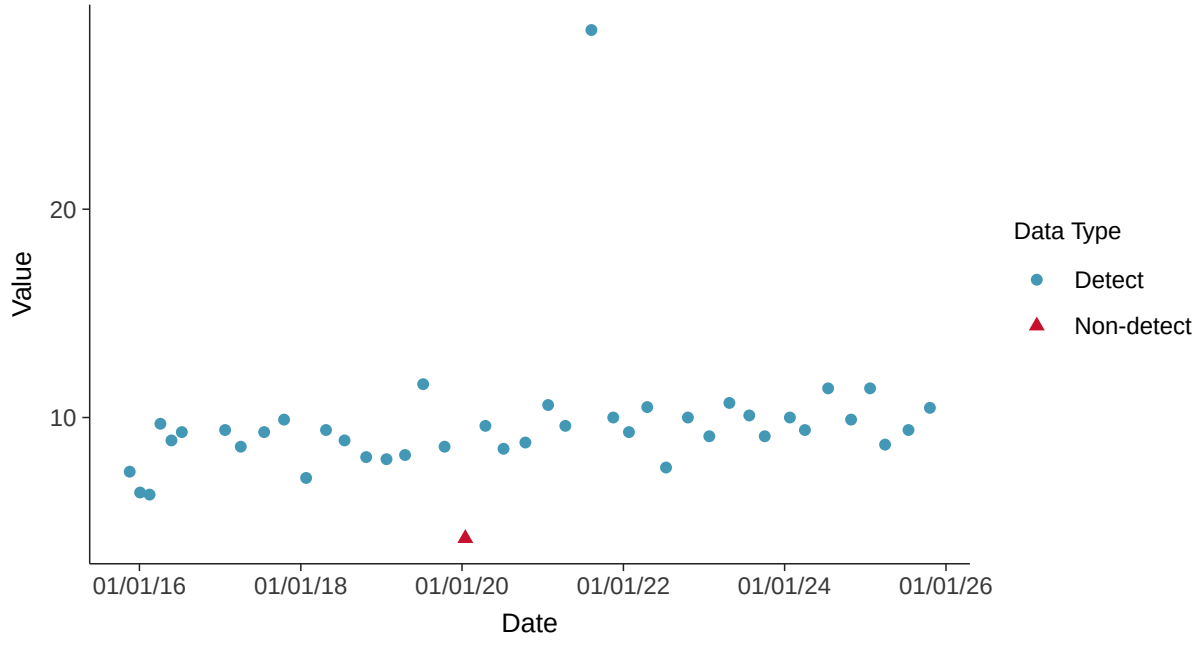


App. IV: Lithium, MW-5

ID: 05_3_114

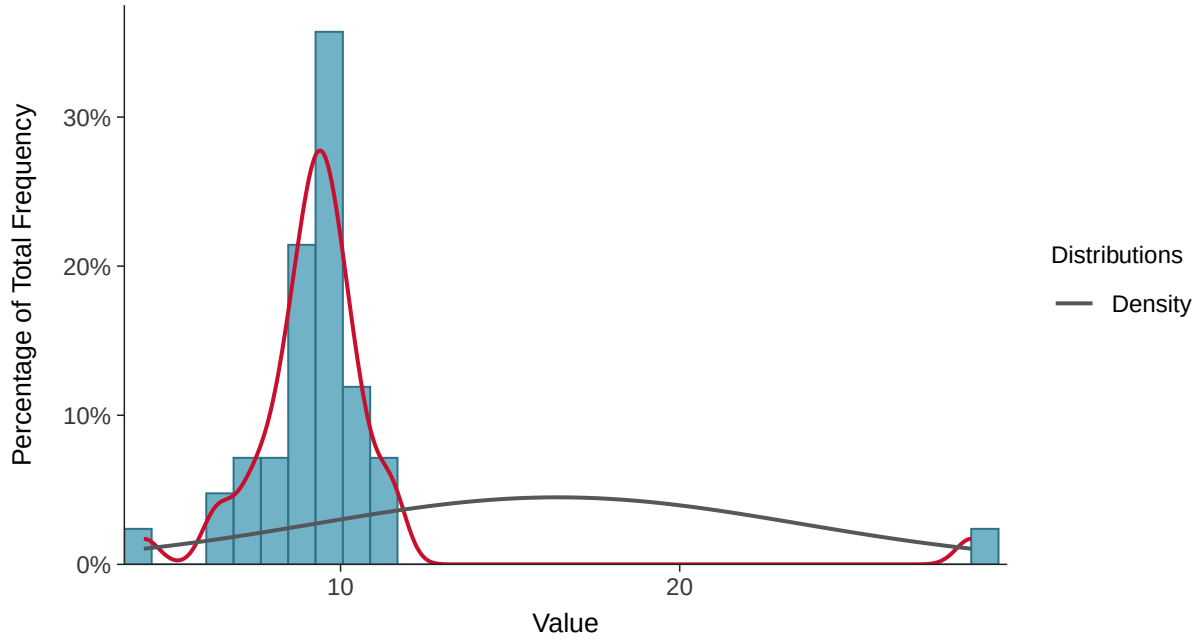
Scatter Plot

Lithium, MW-5 (ug/L)



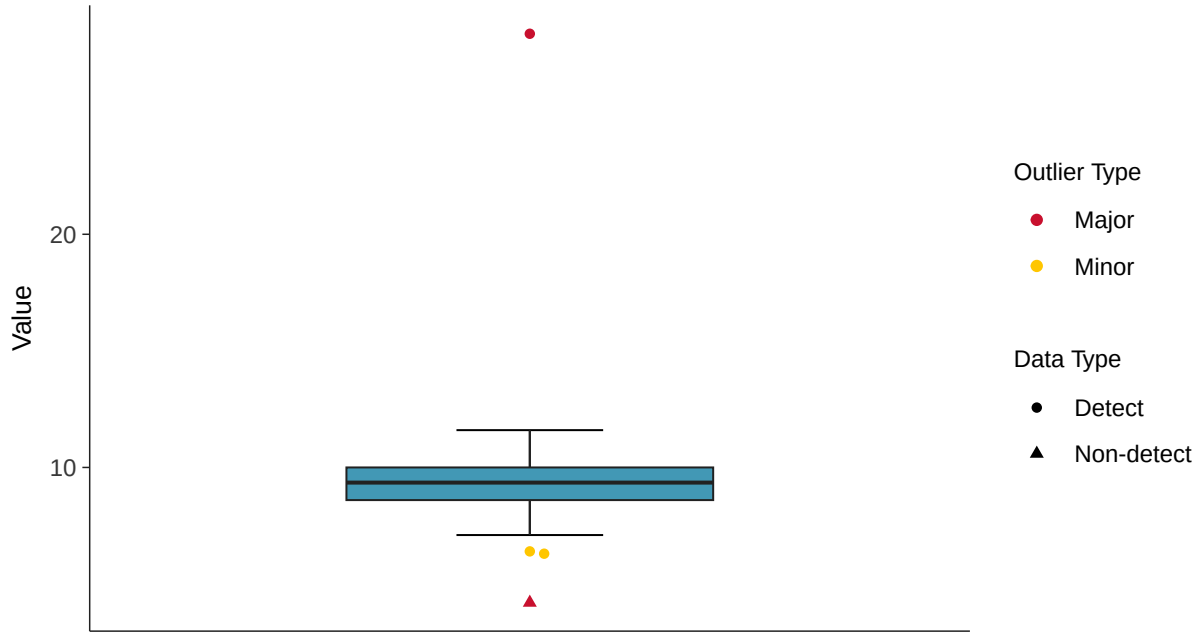
Histogram

Lithium, MW-5 (ug/L)



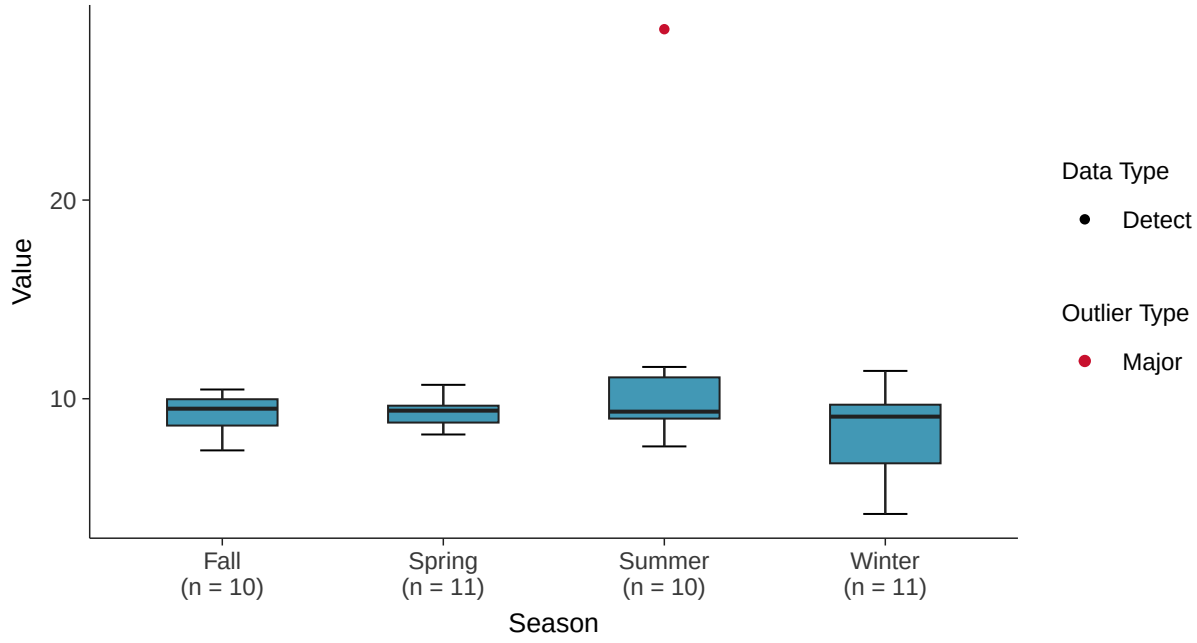
Boxplot

Lithium, MW-5 (ug/L)



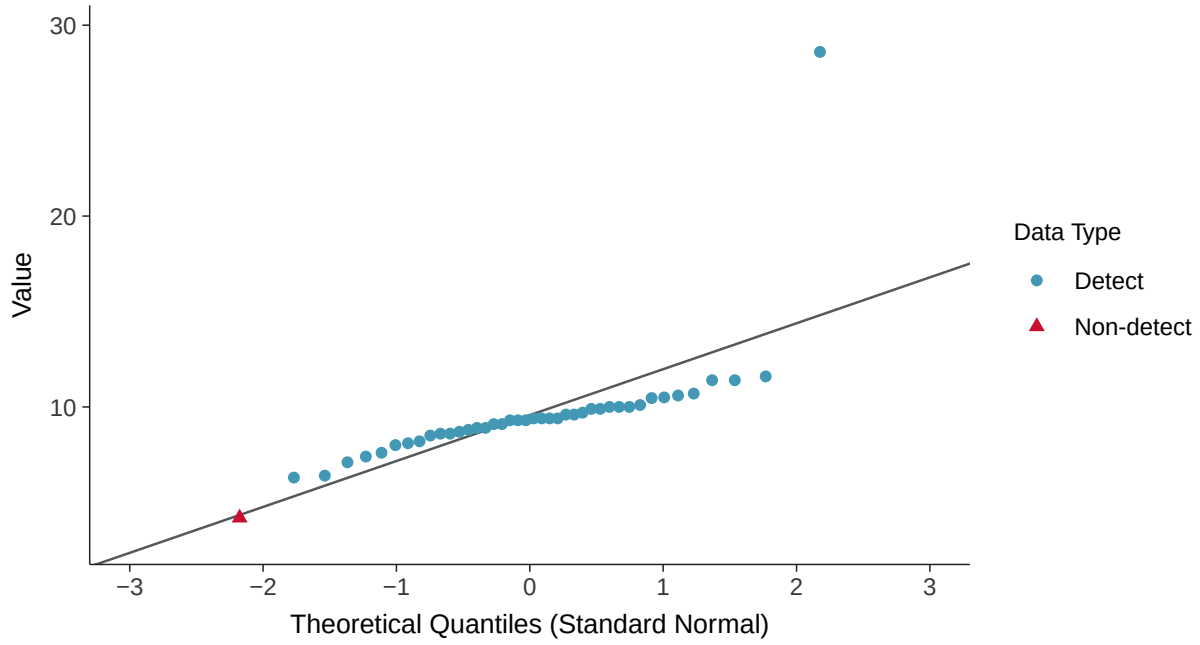
Boxplot by Season

Lithium, MW-5 (ug/L)



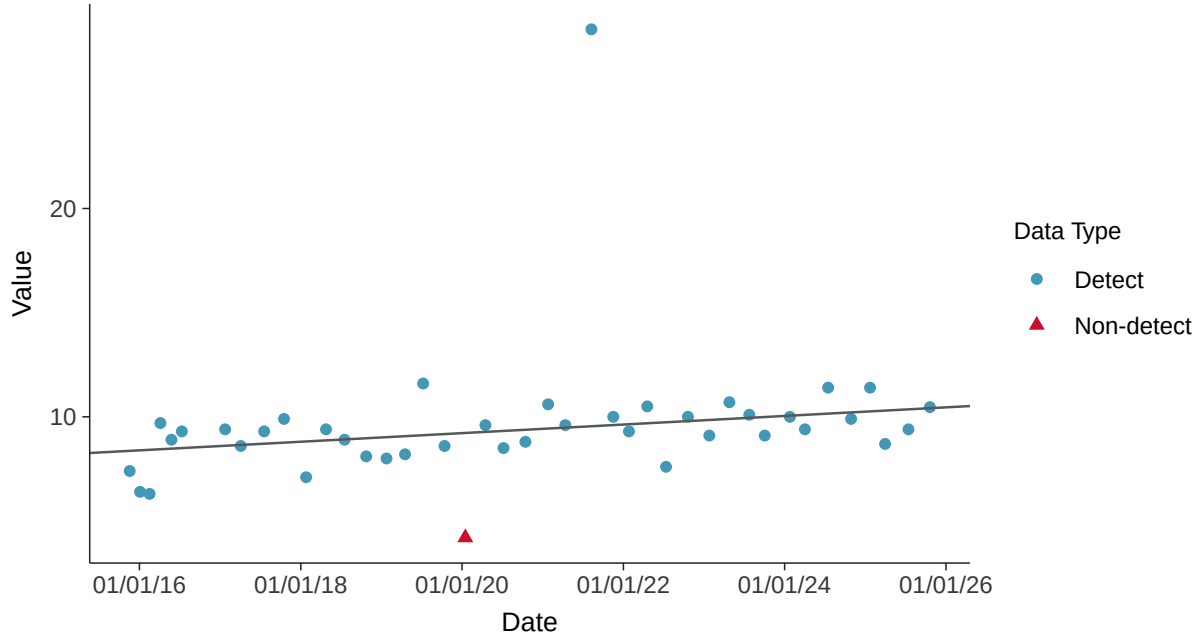
Normal Q-Q plot using ROS Imputed Estimates

Lithium, MW-5 (ug/L)



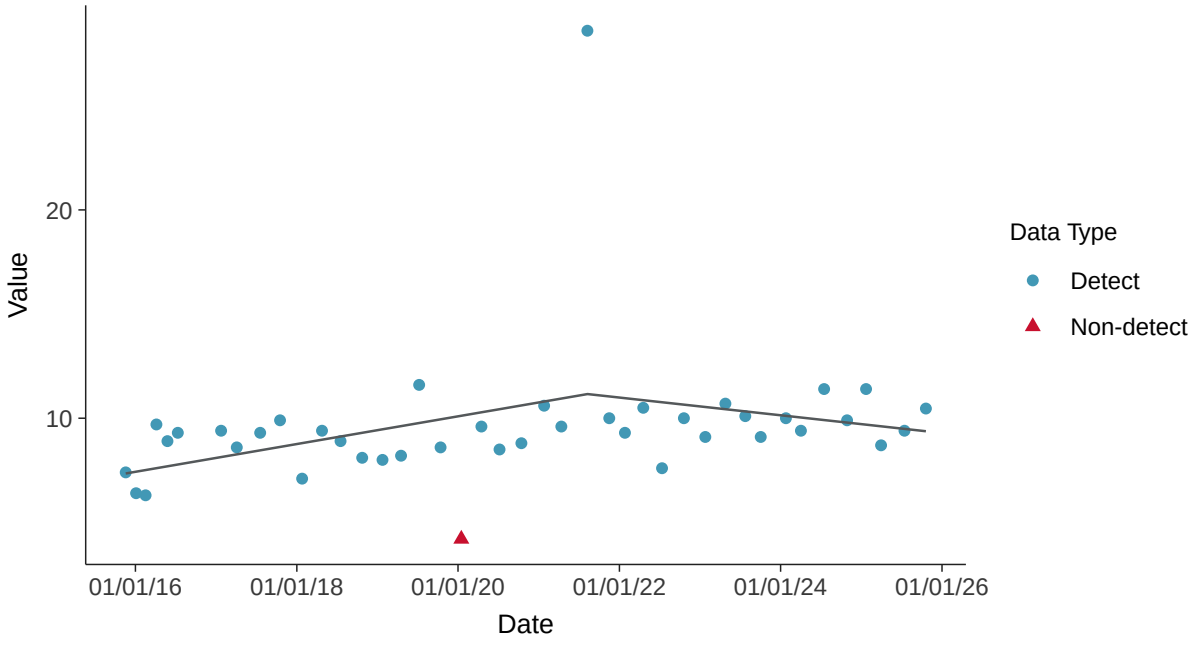
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Lithium, MW-5 (ug/L)



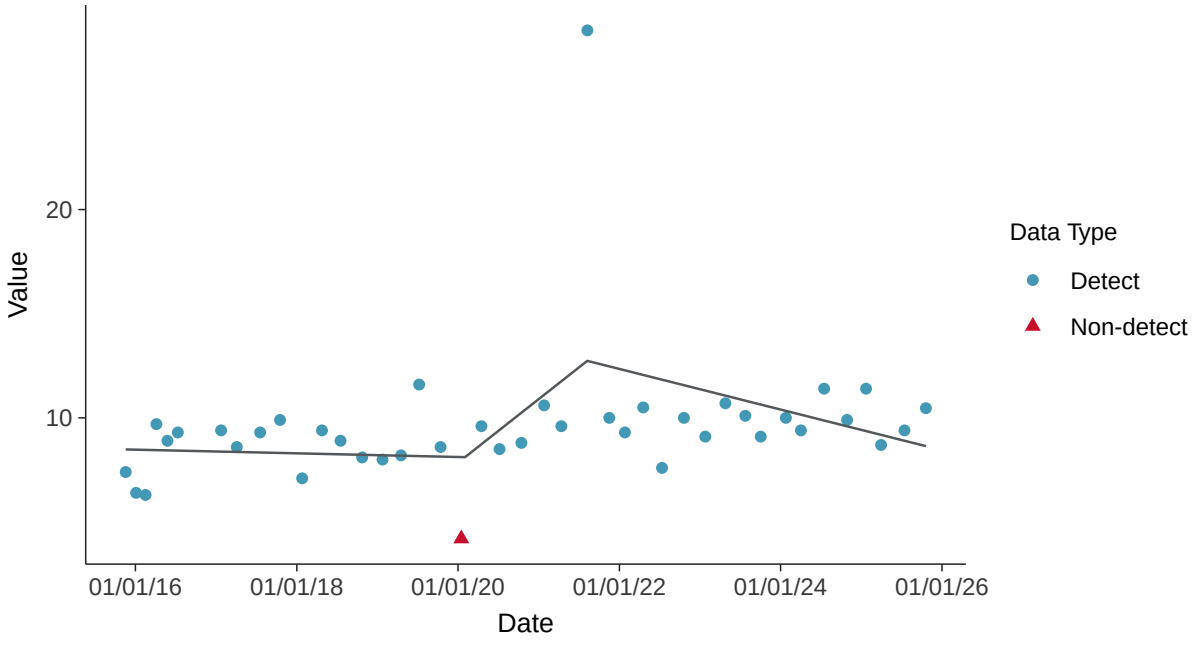
Trend Regression: Piecewise Linear-Linear

Lithium, MW-5 (ug/L)



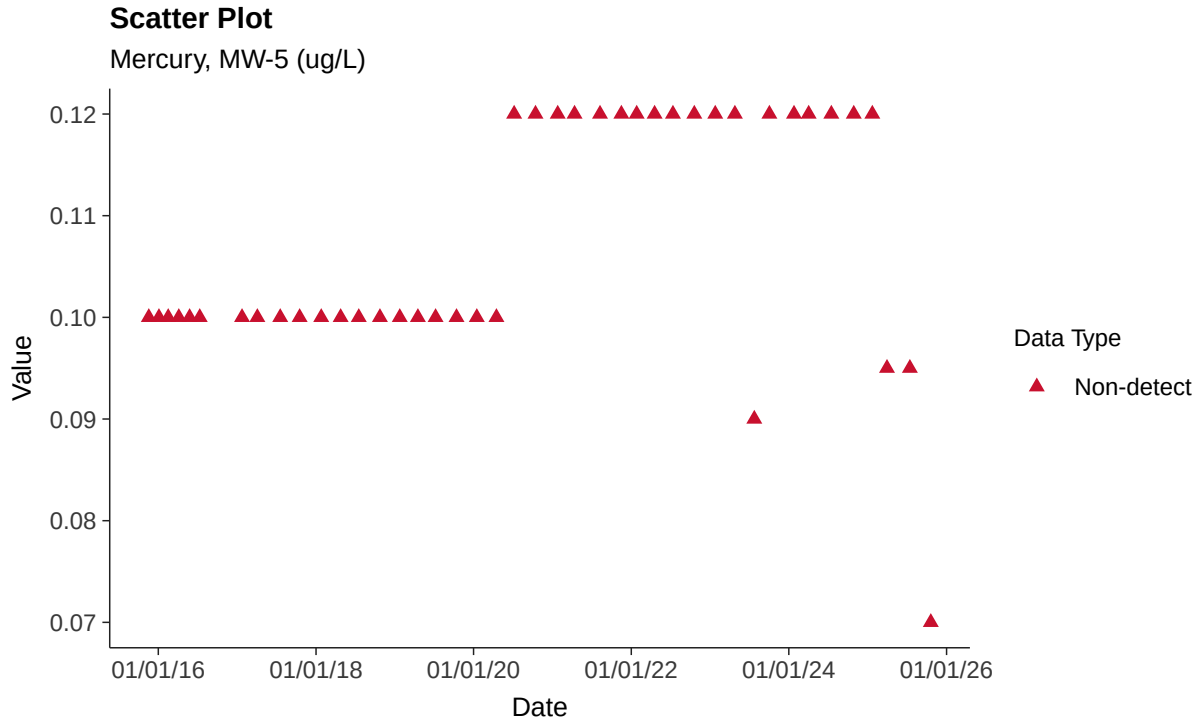
Trend Regression: Piecewise Linear-Linear-Linear

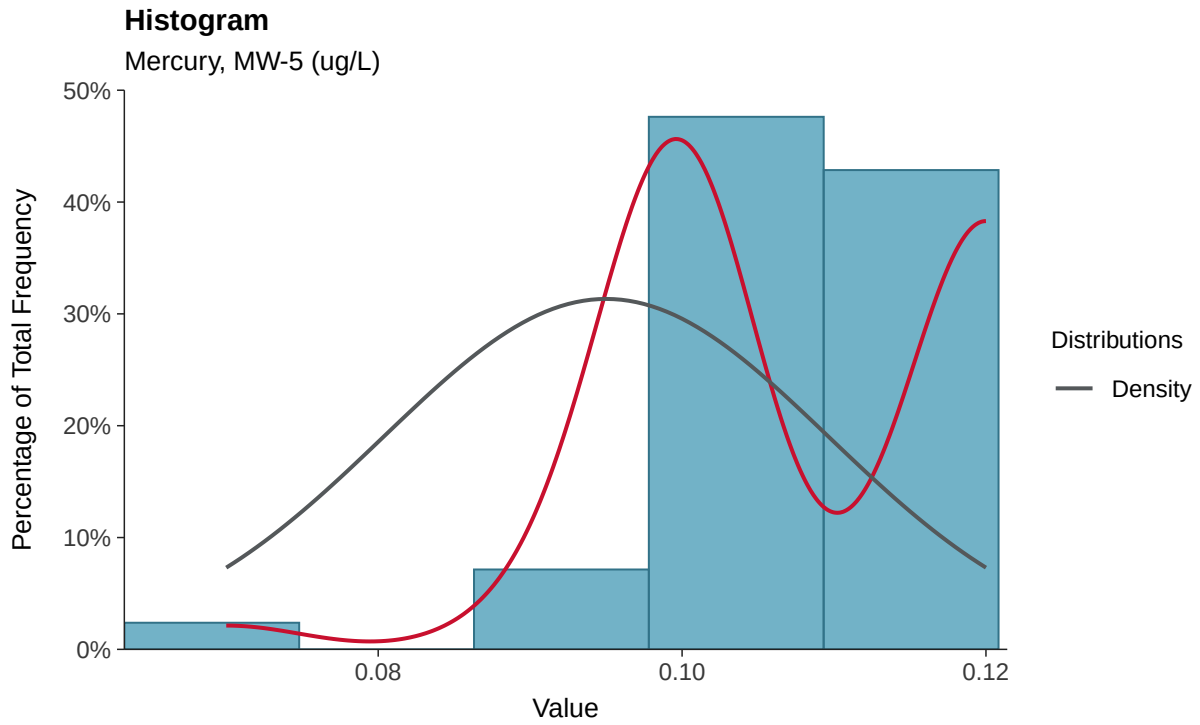
Lithium, MW-5 (ug/L)



App. IV: Mercury, MW-5

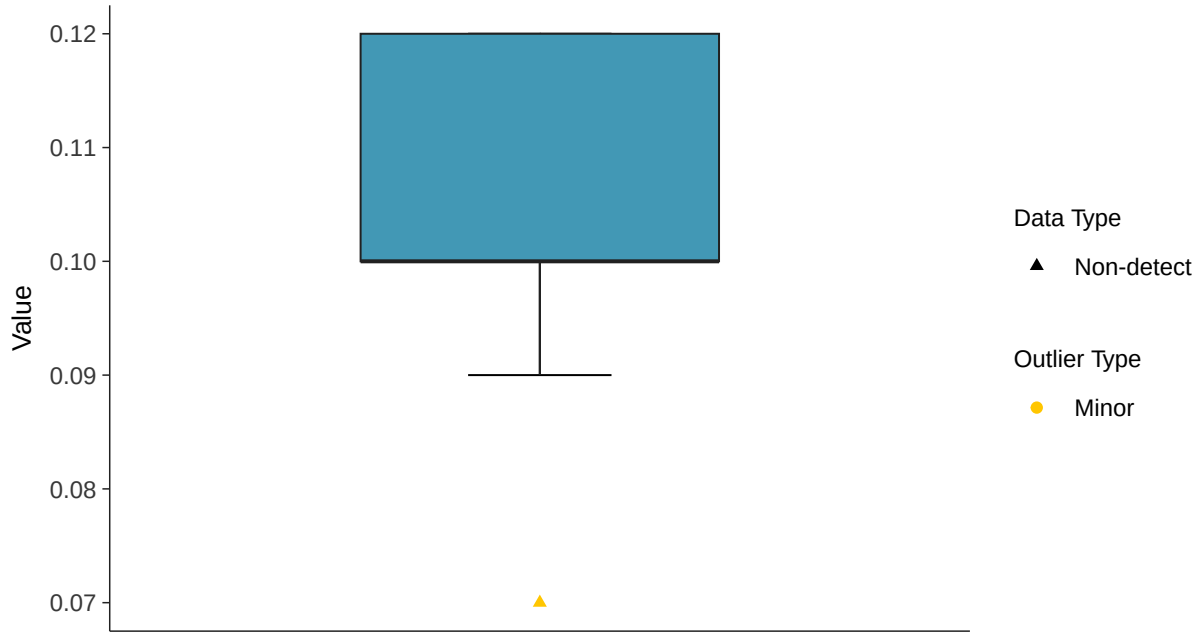
ID: 05_3_115





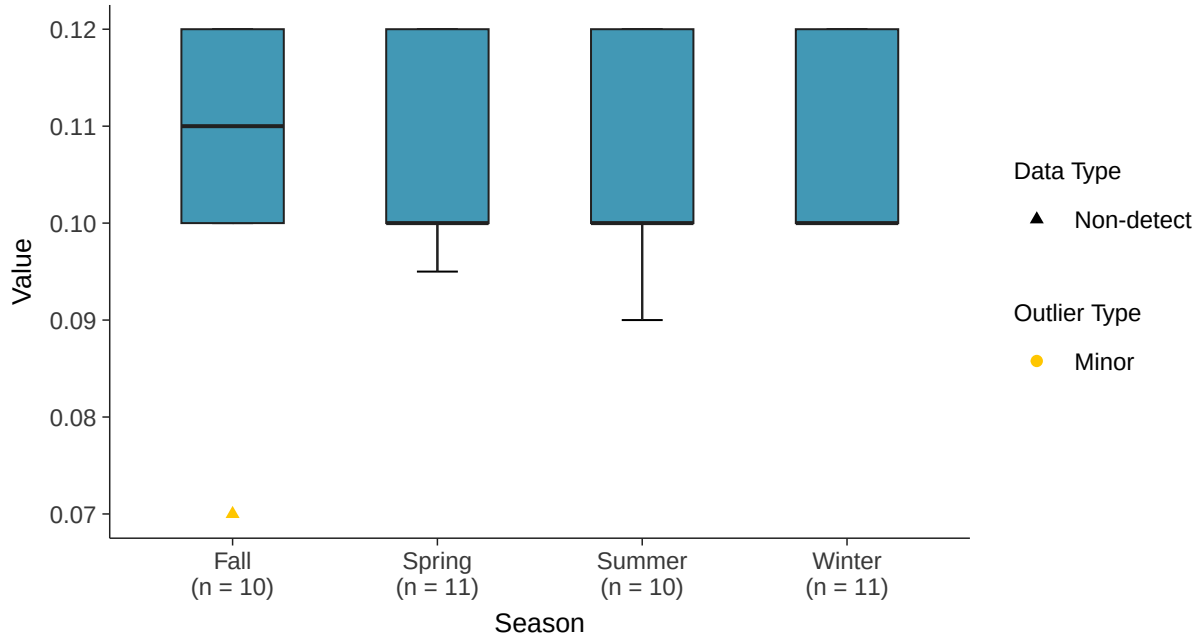
Boxplot

Mercury, MW-5 (ug/L)



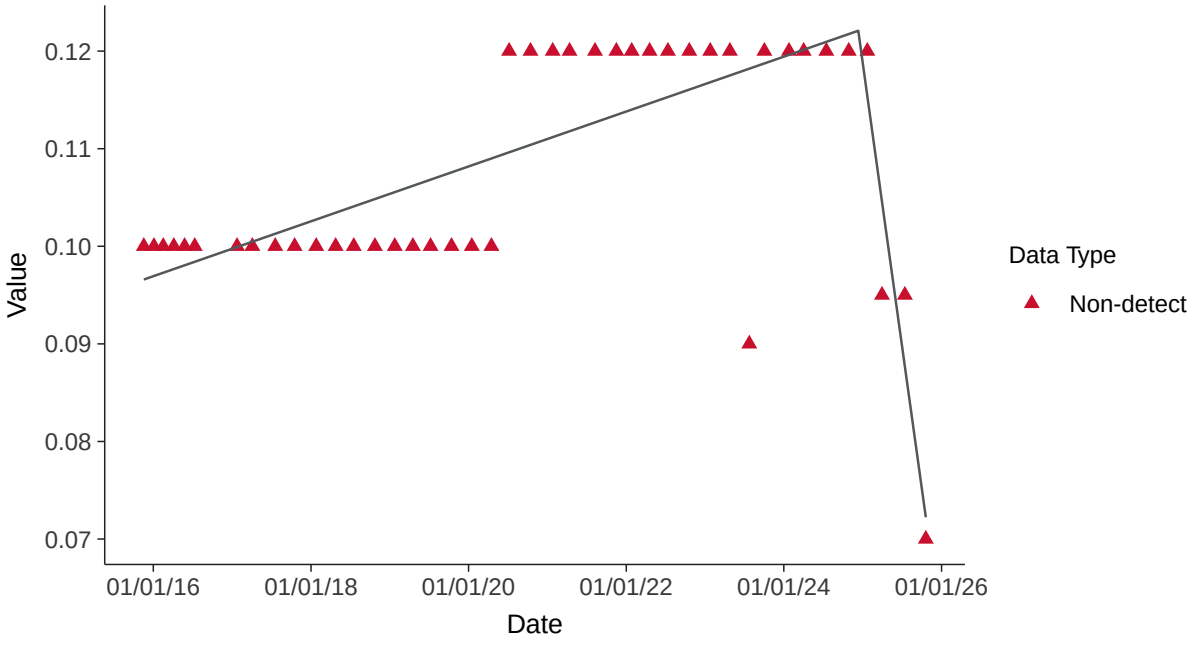
Boxplot by Season

Mercury, MW-5 (ug/L)



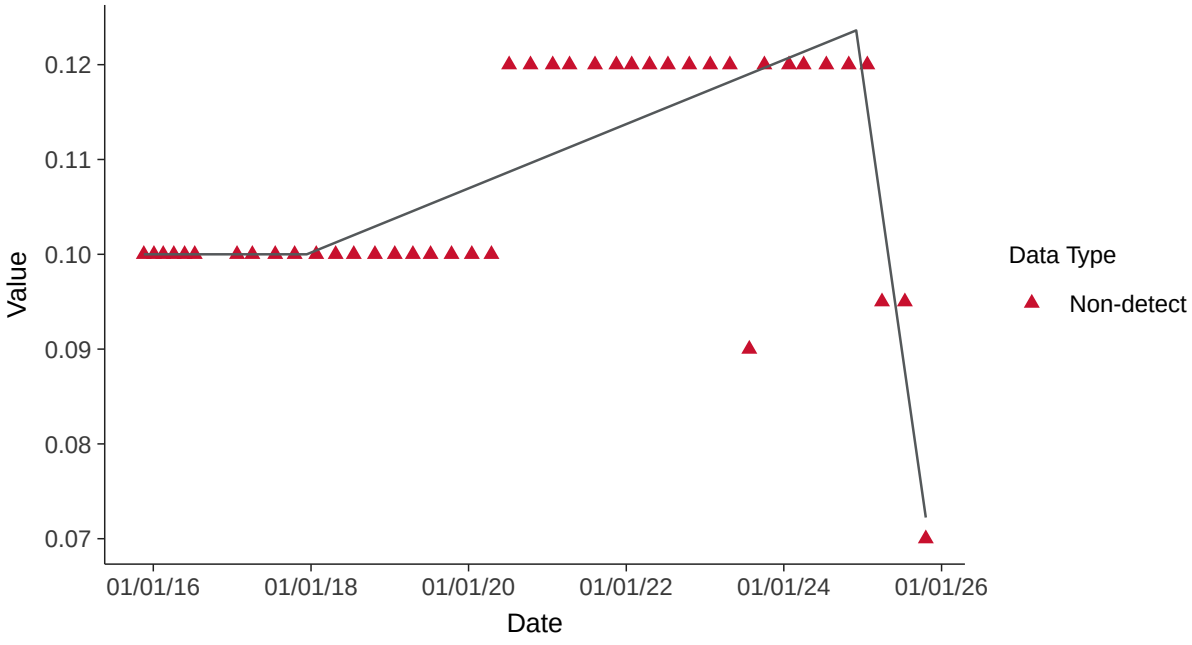
Trend Regression: Piecewise Linear-Linear

Mercury, MW-5 (ug/L)



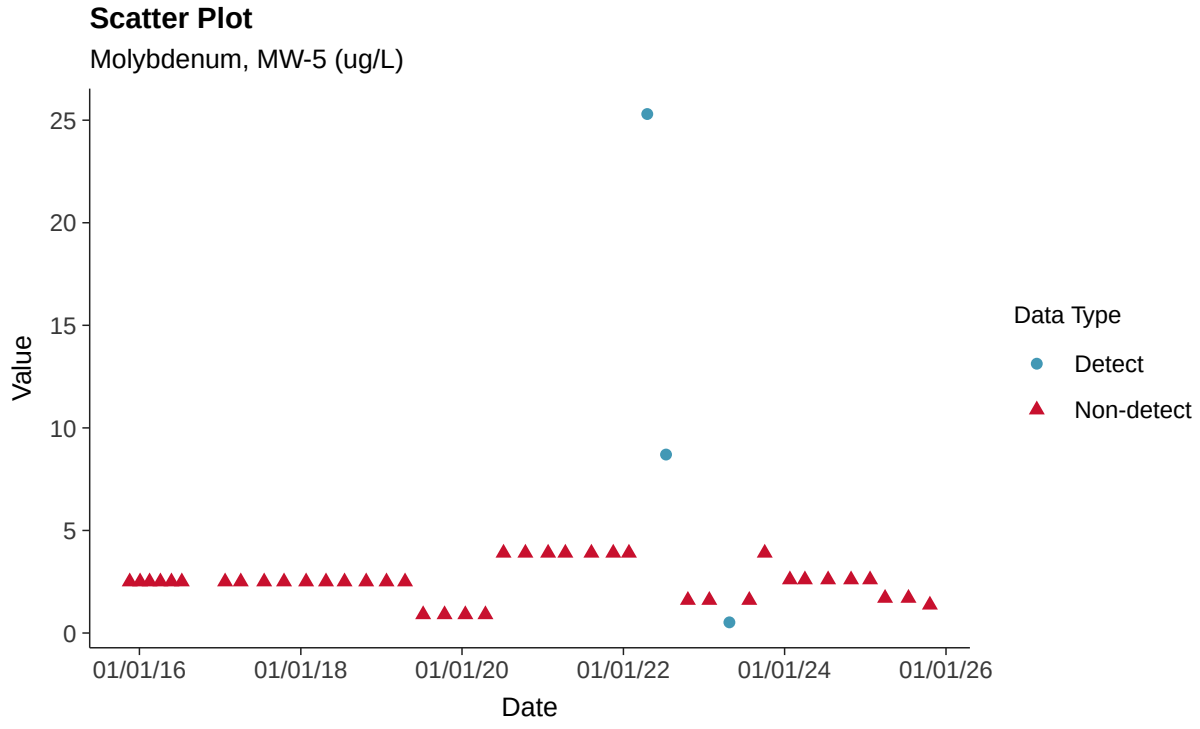
Trend Regression: Piecewise Linear-Linear-Linear

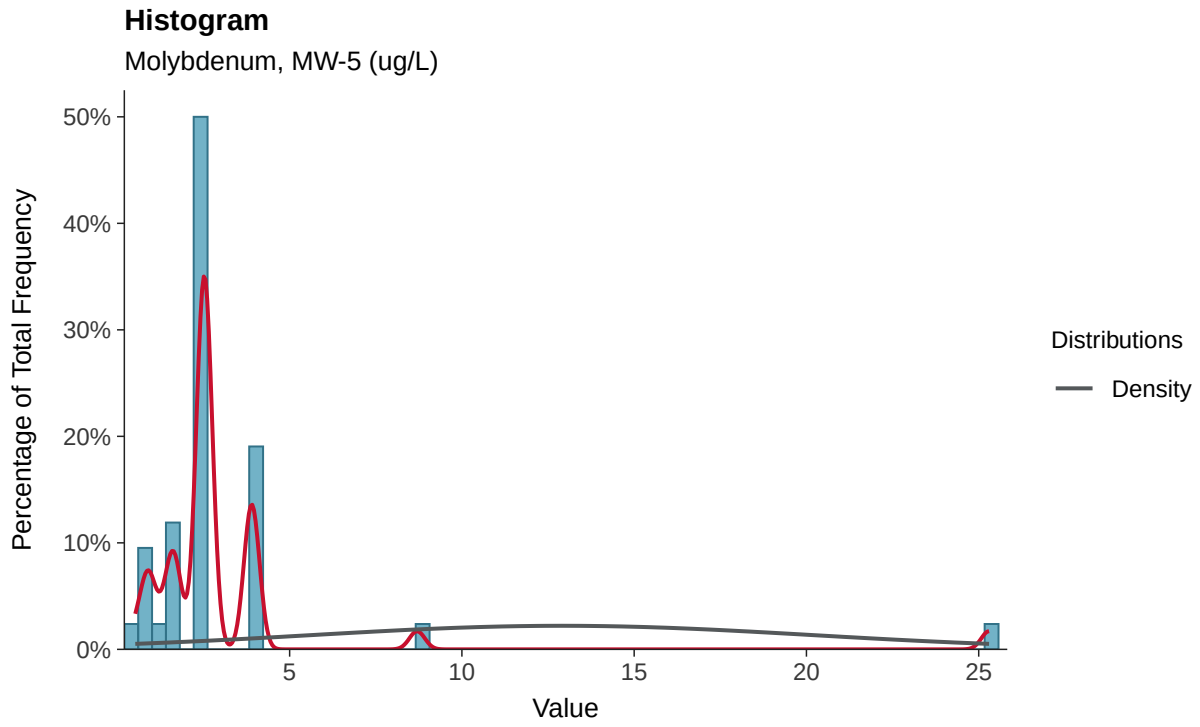
Mercury, MW-5 (ug/L)



App. IV: Molybdenum, MW-5

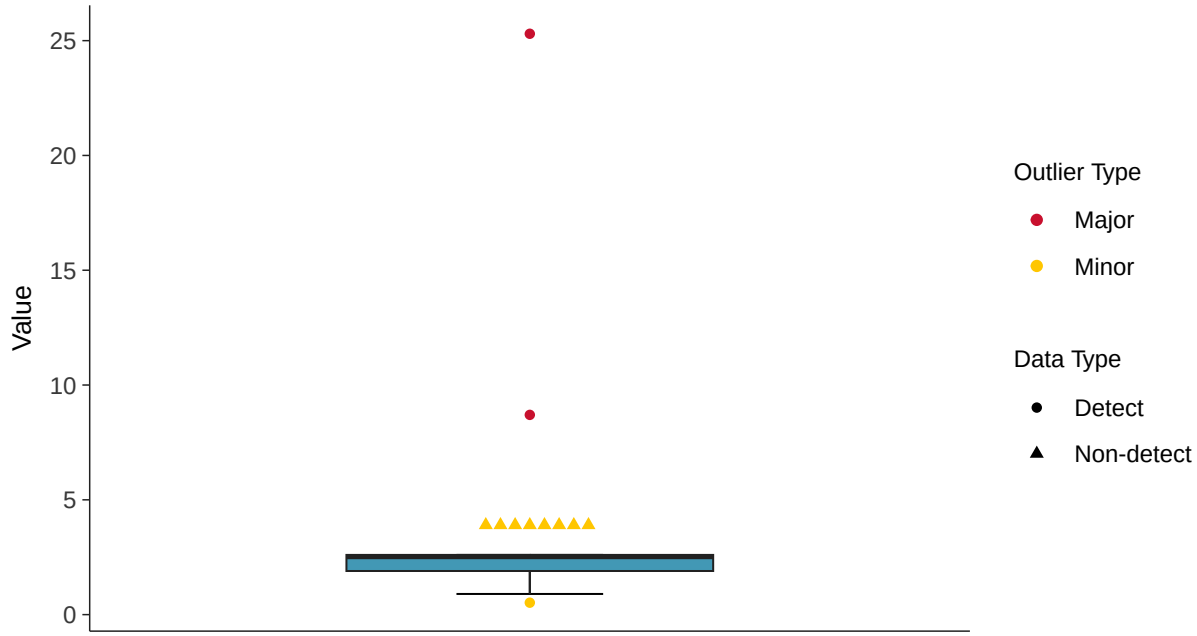
ID: 05_3_116





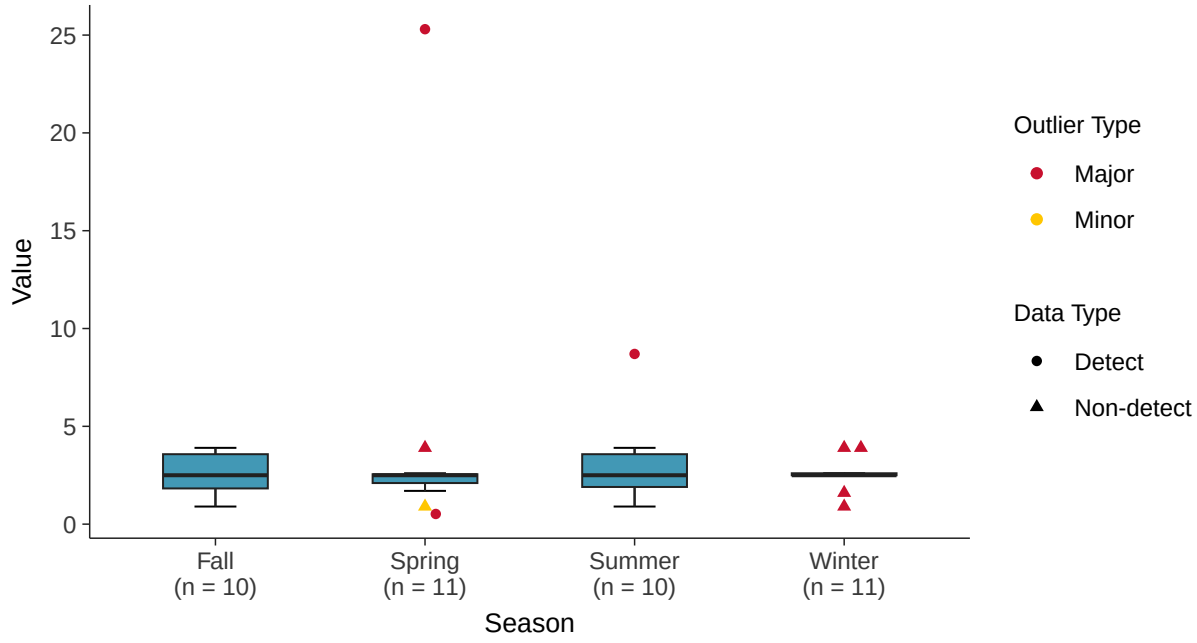
Boxplot

Molybdenum, MW-5 (ug/L)



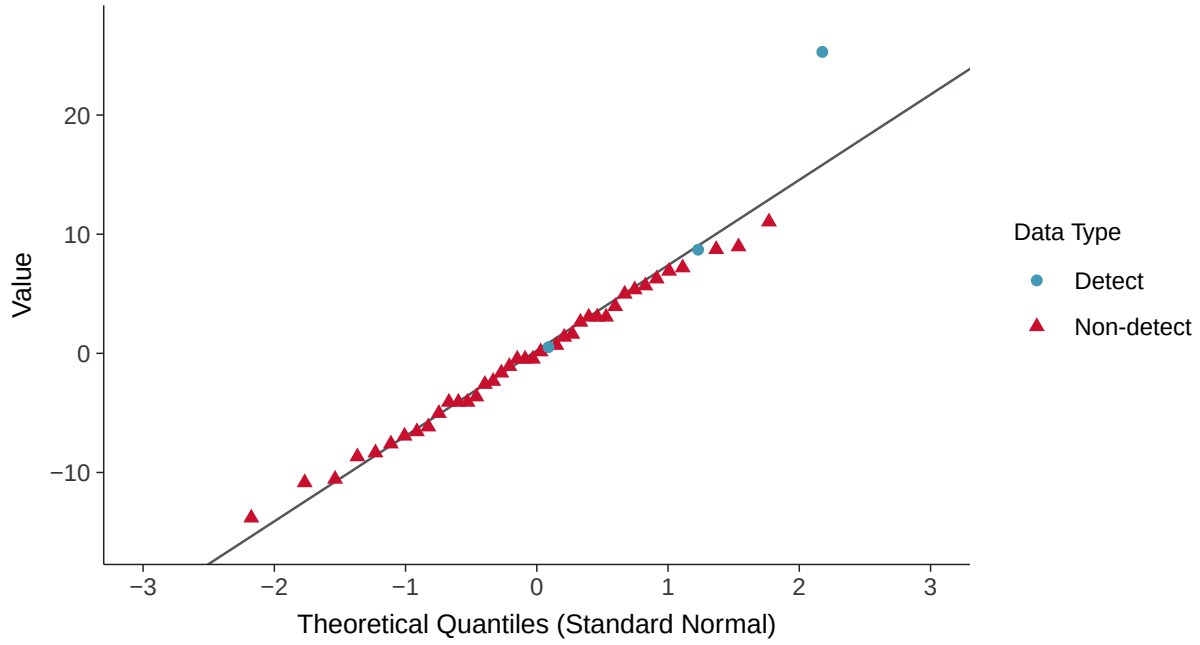
Boxplot by Season

Molybdenum, MW-5 (ug/L)



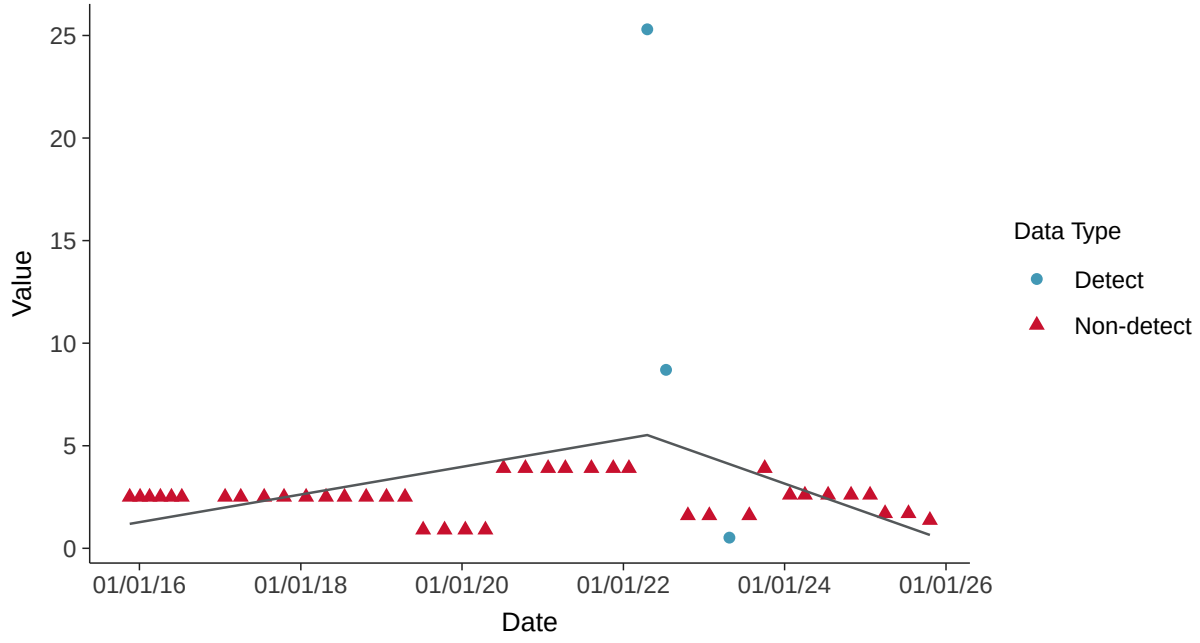
Normal Q-Q plot using ROS Imputed Estimates

Molybdenum, MW-5 (ug/L)



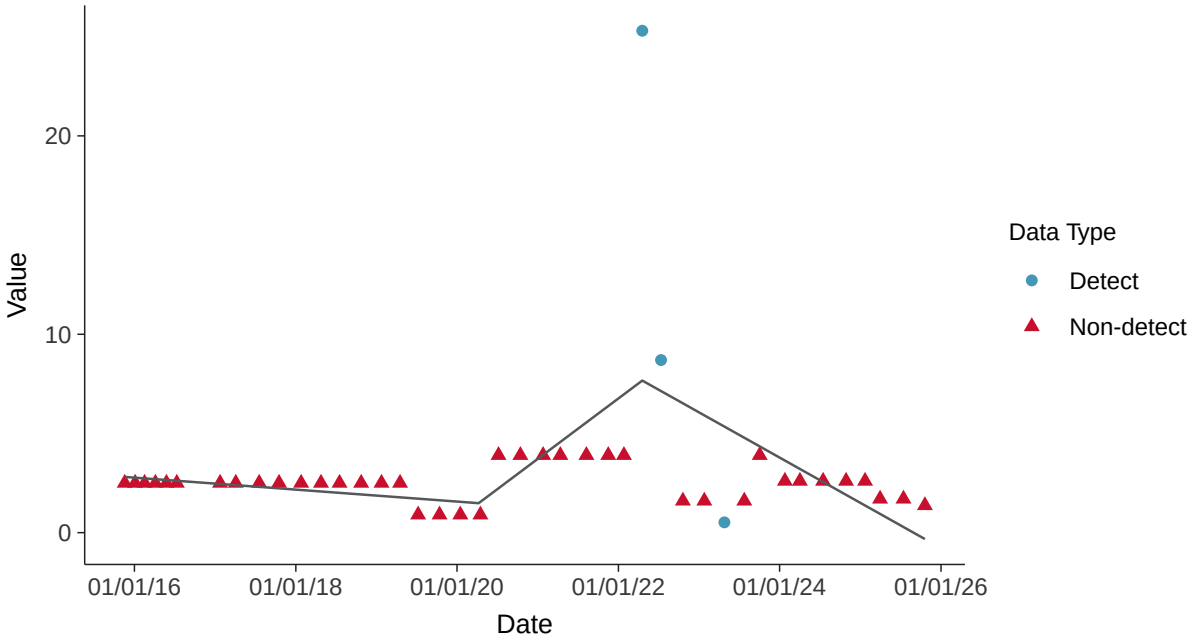
Trend Regression: Piecewise Linear-Linear

Molybdenum, MW-5 (ug/L)



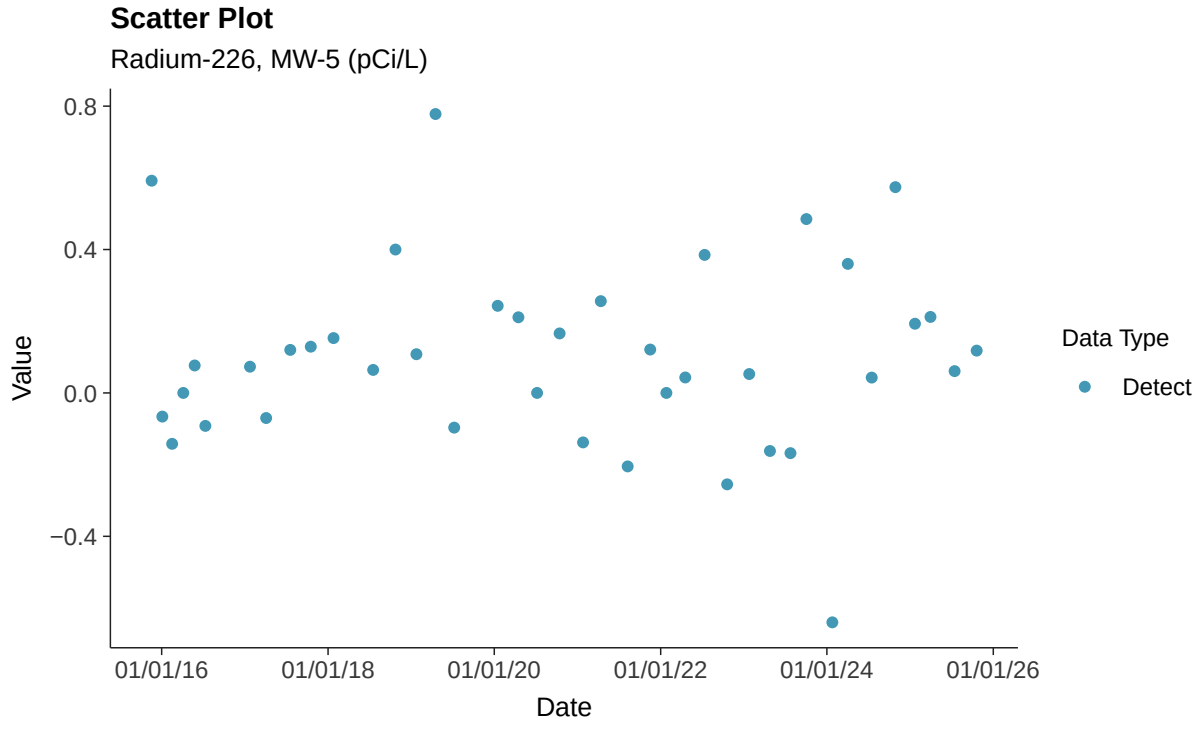
Trend Regression: Piecewise Linear-Linear-Linear

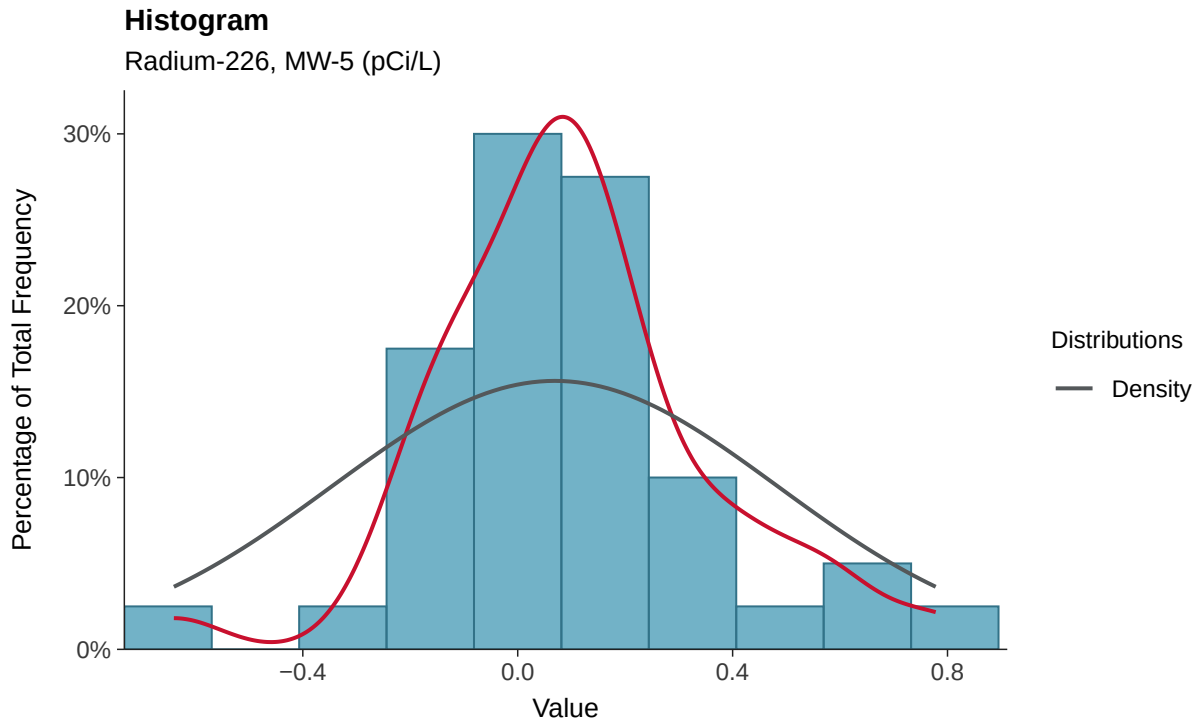
Molybdenum, MW-5 (ug/L)



App. IV: Radium-226, MW-5

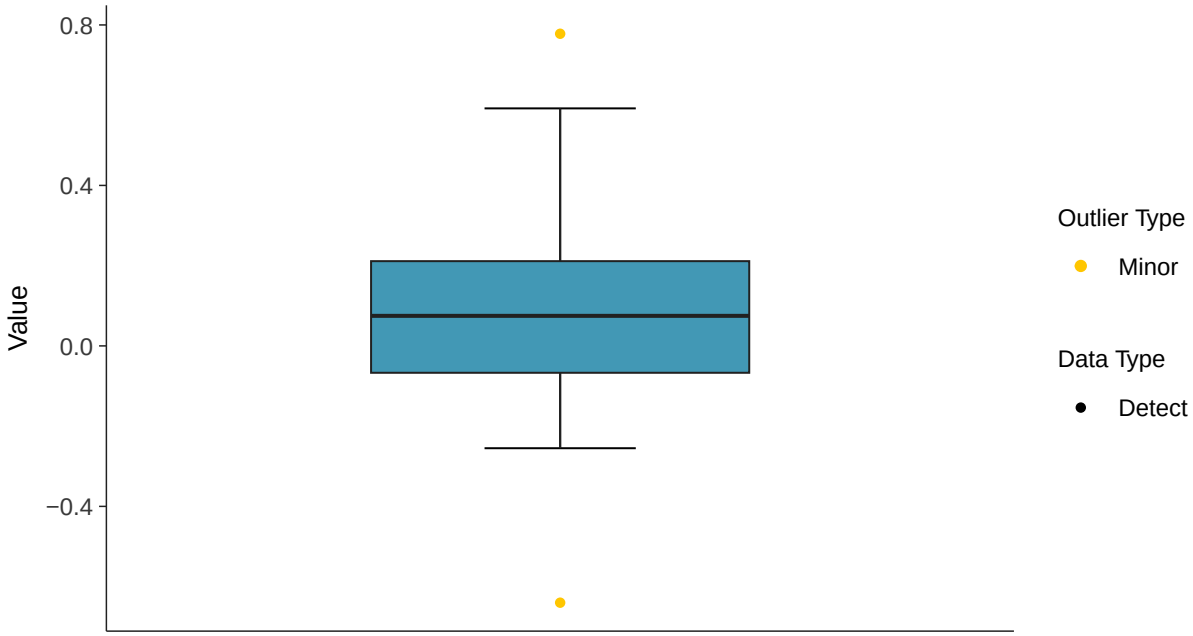
ID: 05_3_119





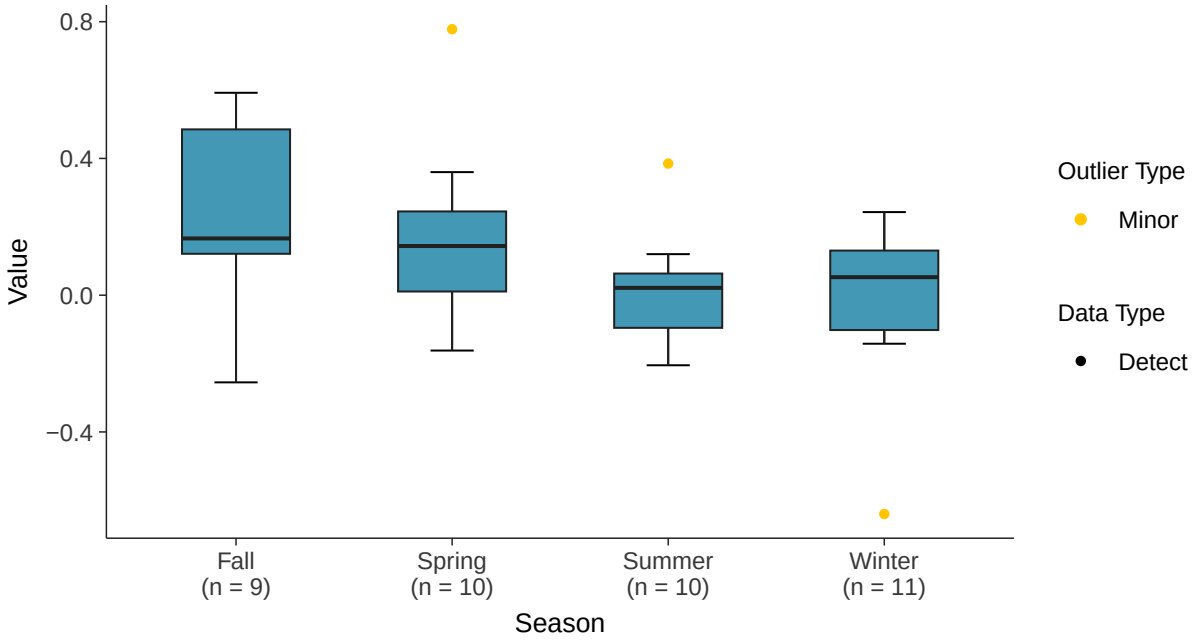
Boxplot

Radium-226, MW-5 (pCi/L)



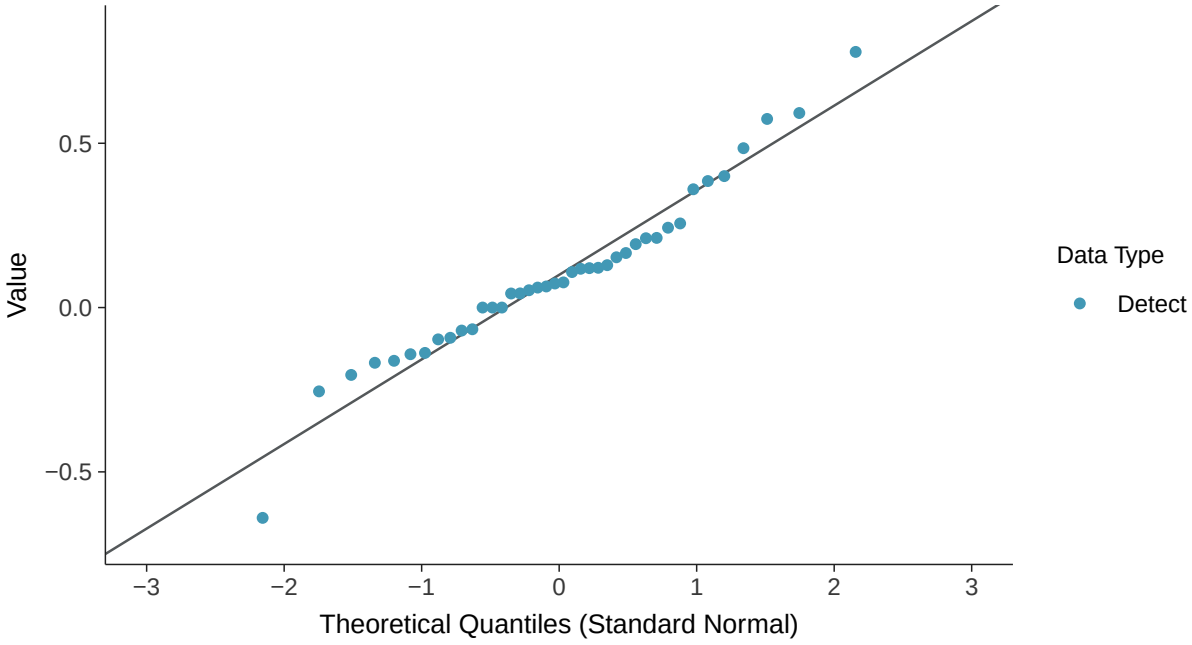
Boxplot by Season

Radium-226, MW-5 (pCi/L)



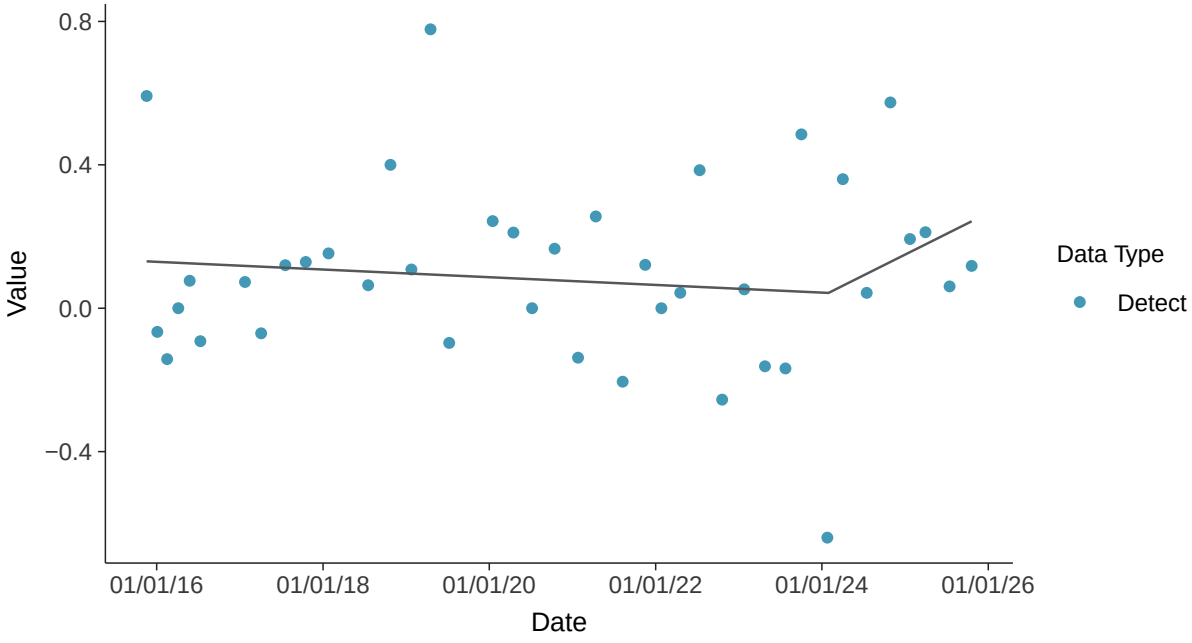
Normal Q-Q plot

Radium-226, MW-5 (pCi/L)



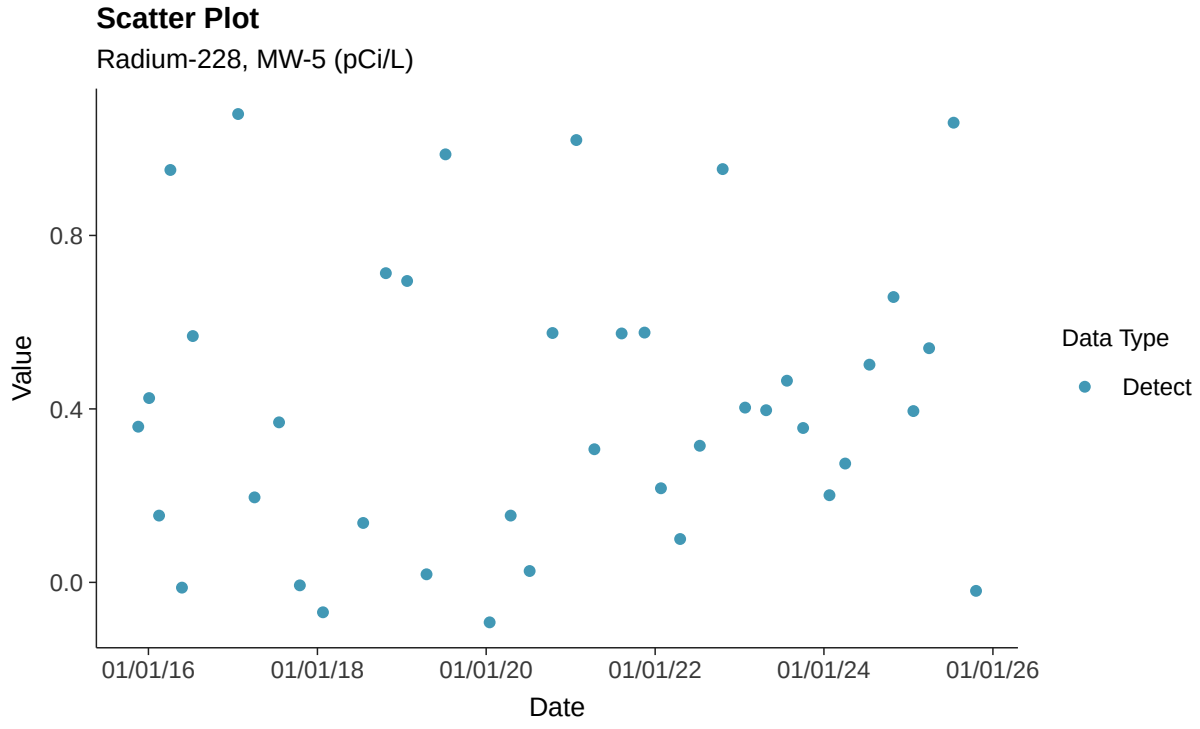
Trend Regression: Piecewise Linear-Linear

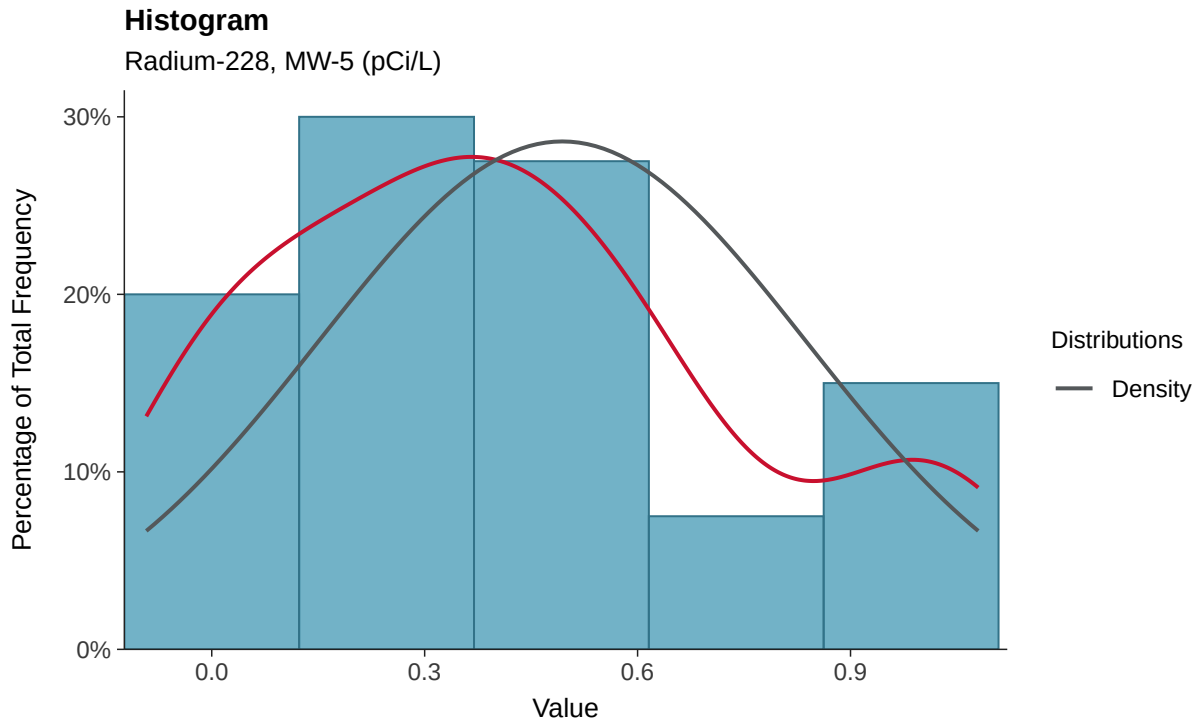
Radium-226, MW-5 (pCi/L)



App. IV: Radium-228, MW-5

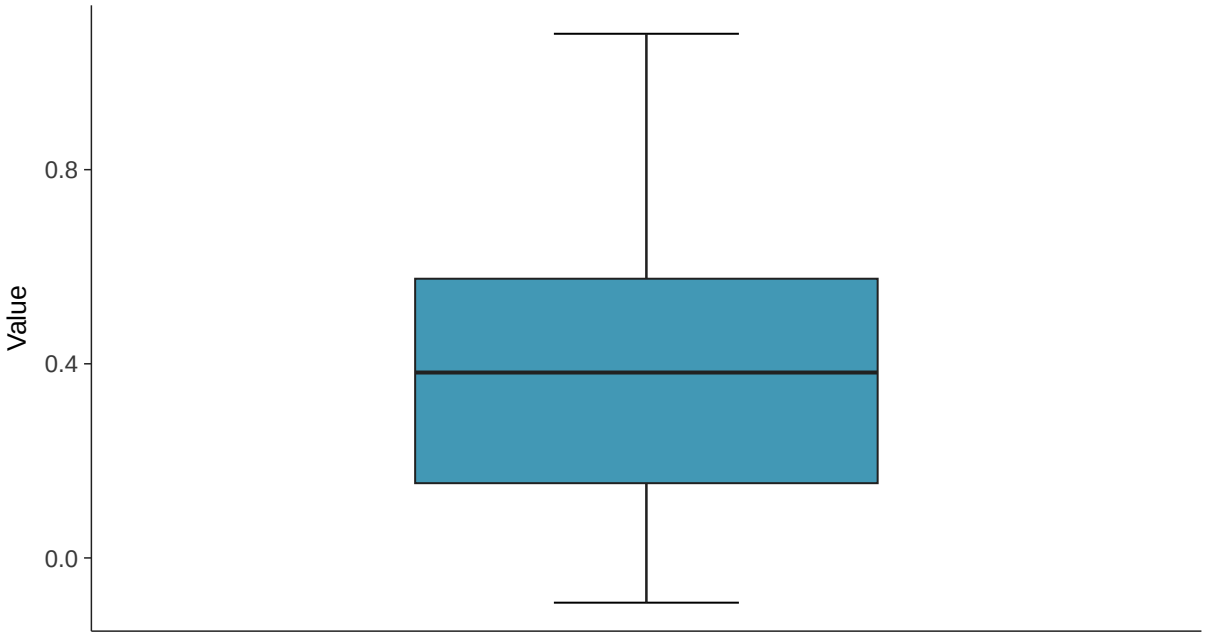
ID: 05_3_120





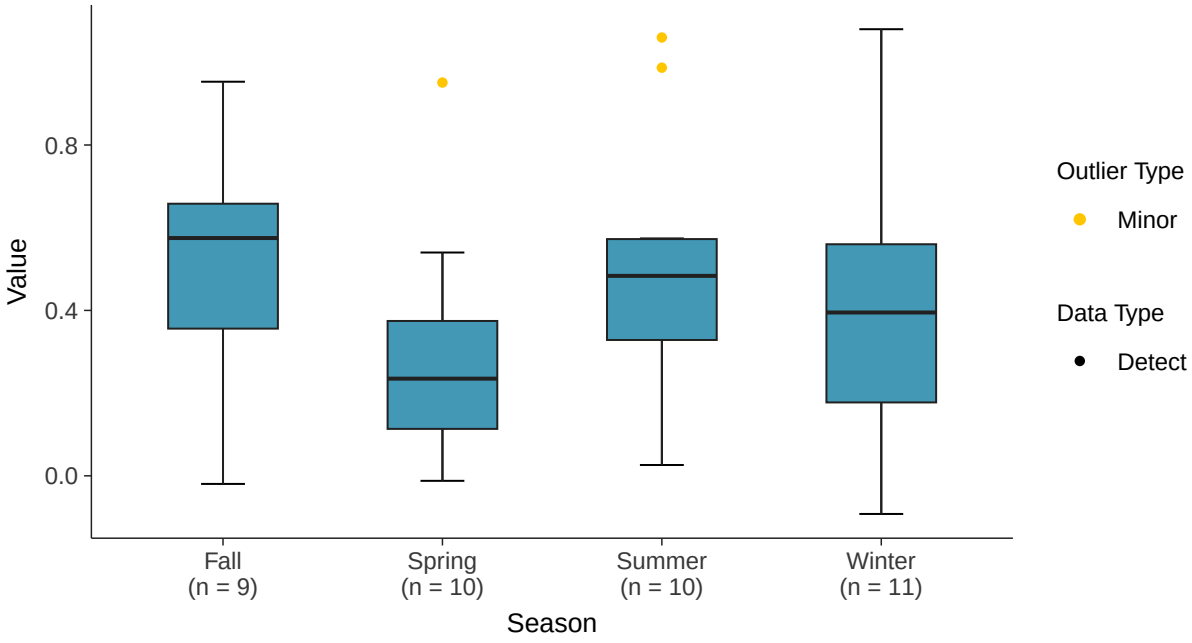
Boxplot

Radium-228, MW-5 (pCi/L)



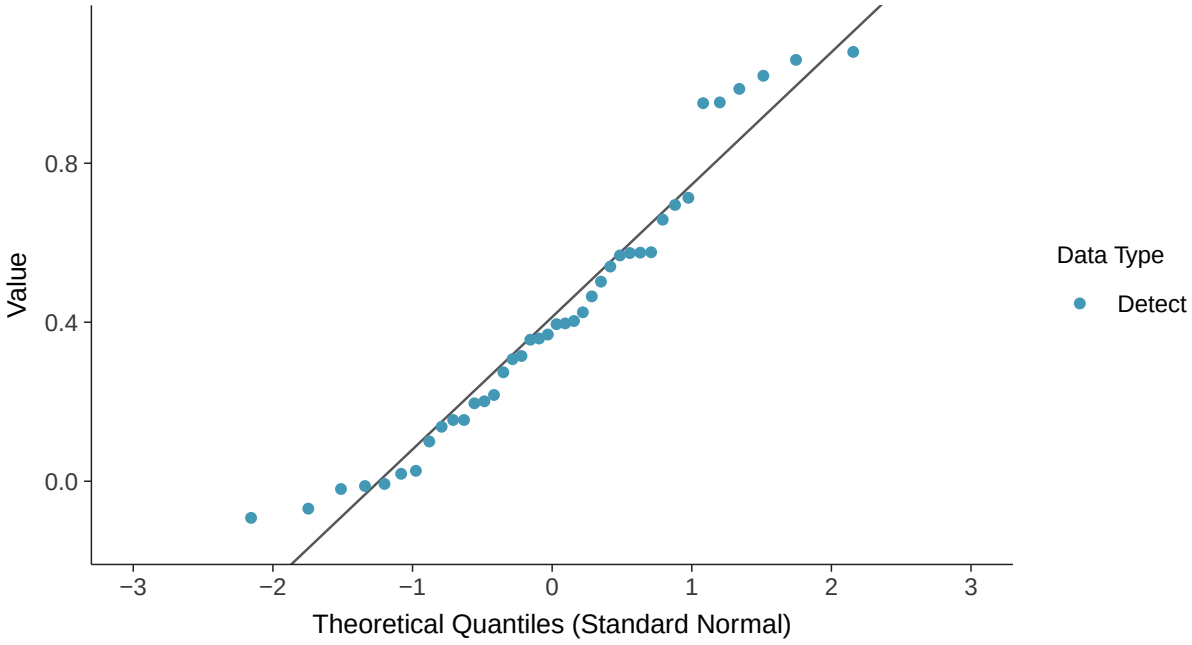
Boxplot by Season

Radium-228, MW-5 (pCi/L)



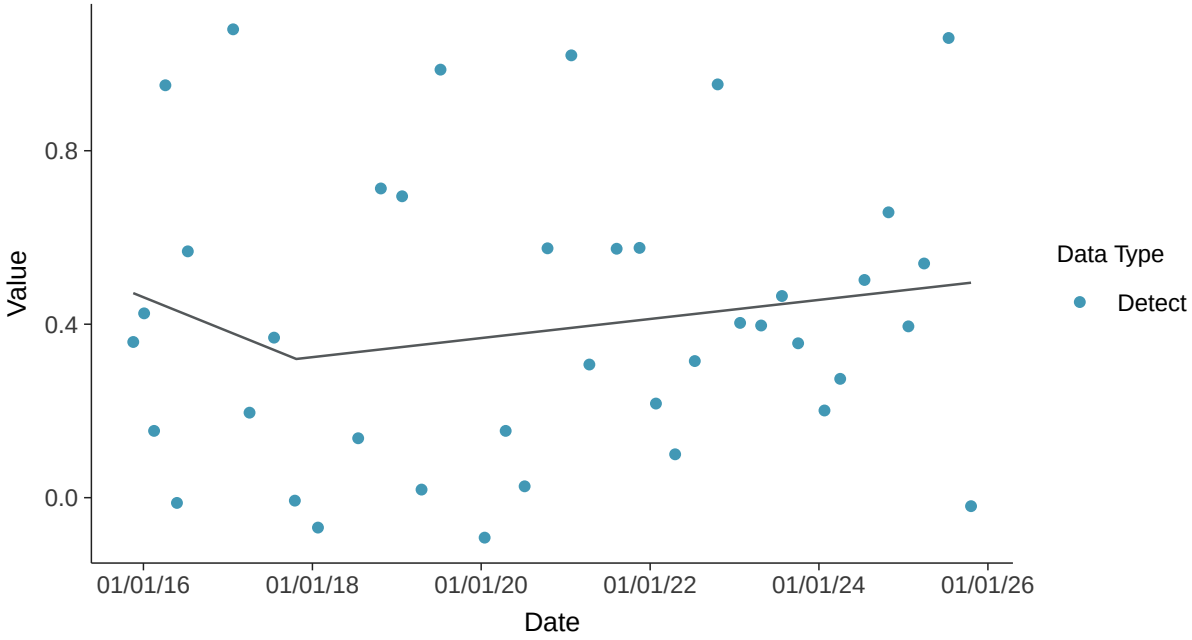
Normal Q-Q plot

Radium-228, MW-5 (pCi/L)



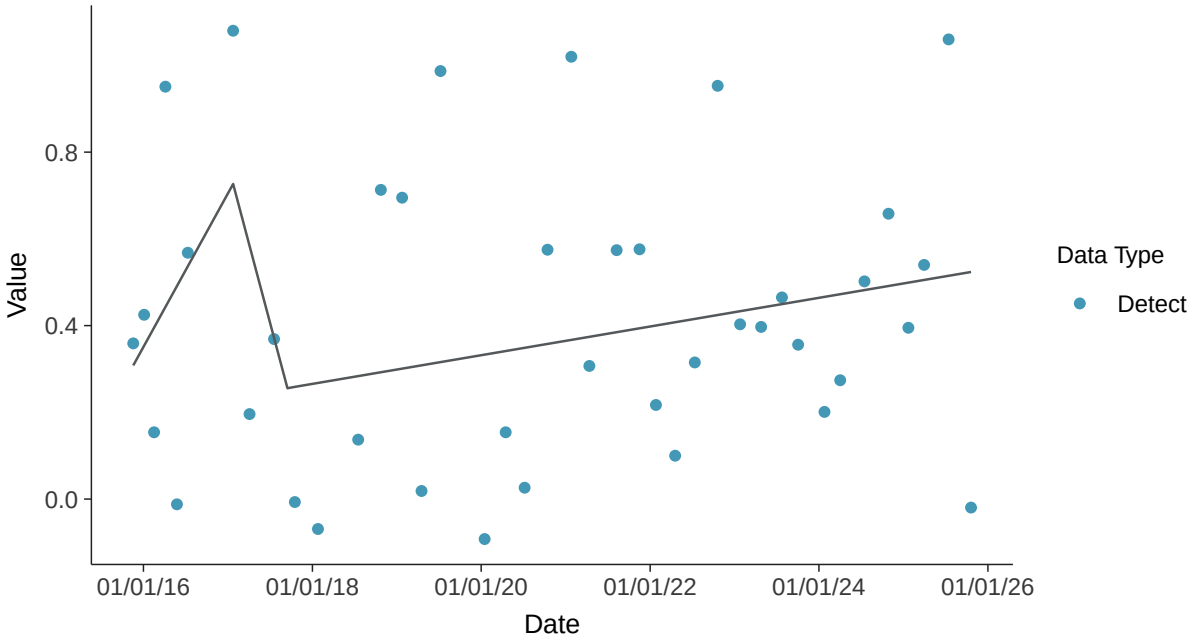
Trend Regression: Piecewise Linear-Linear

Radium-228, MW-5 (pCi/L)



Trend Regression: Piecewise Linear-Linear-Linear

Radium-228, MW-5 (pCi/L)

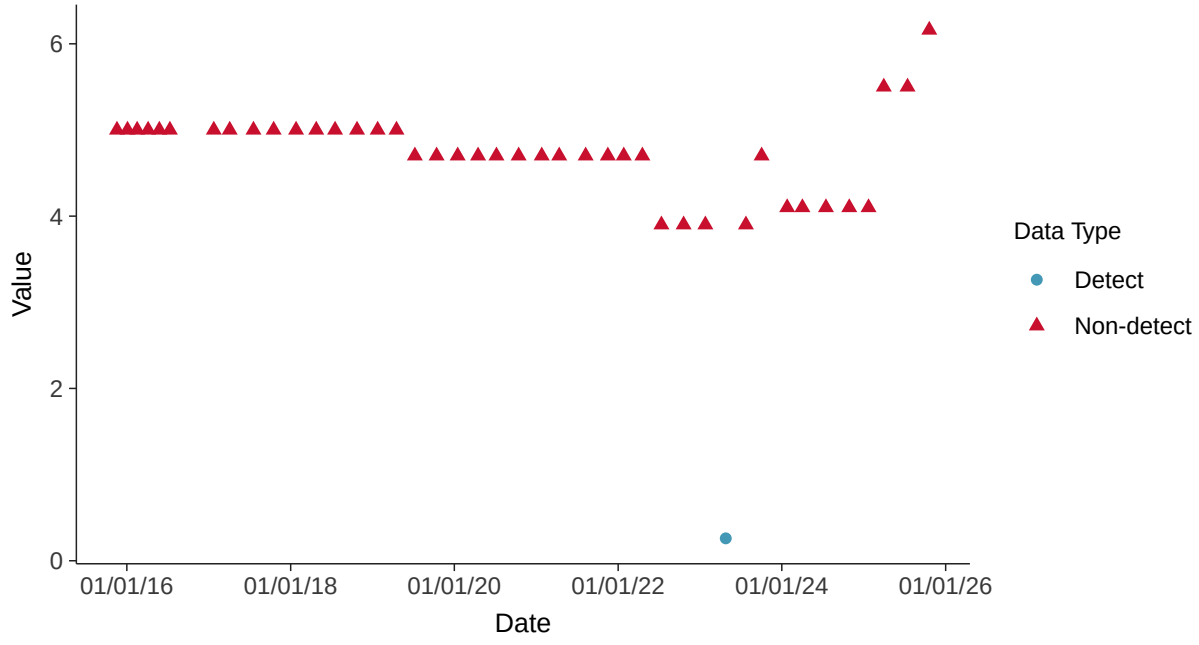


App. IV: Selenium, MW-5

ID: 05_3_121

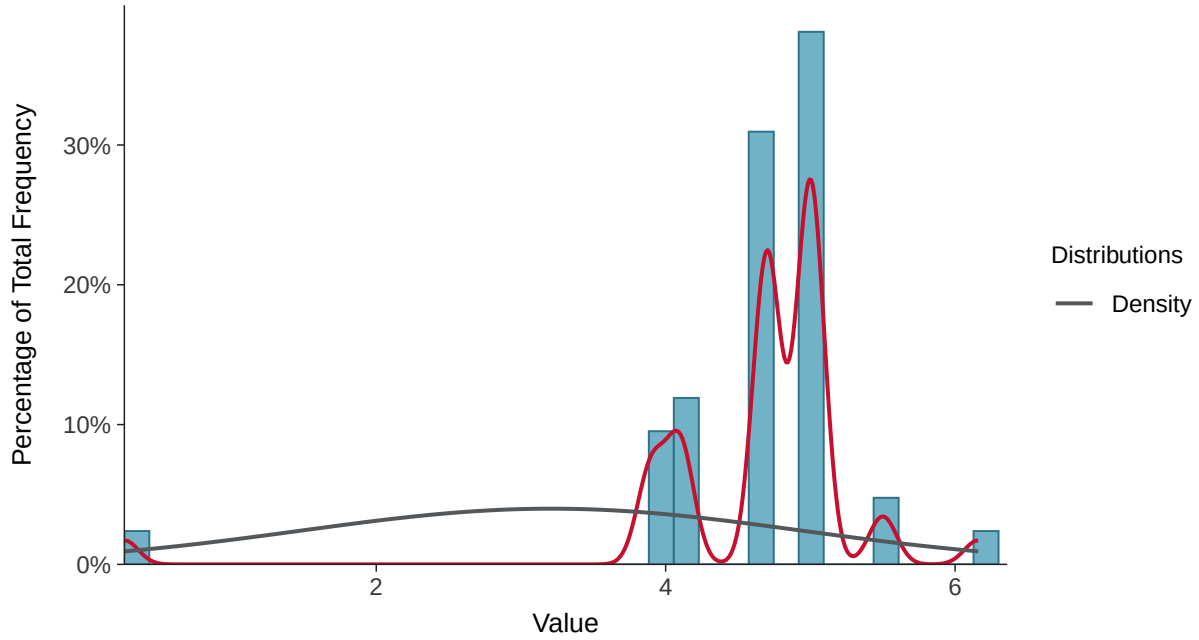
Scatter Plot

Selenium, MW-5 (ug/L)



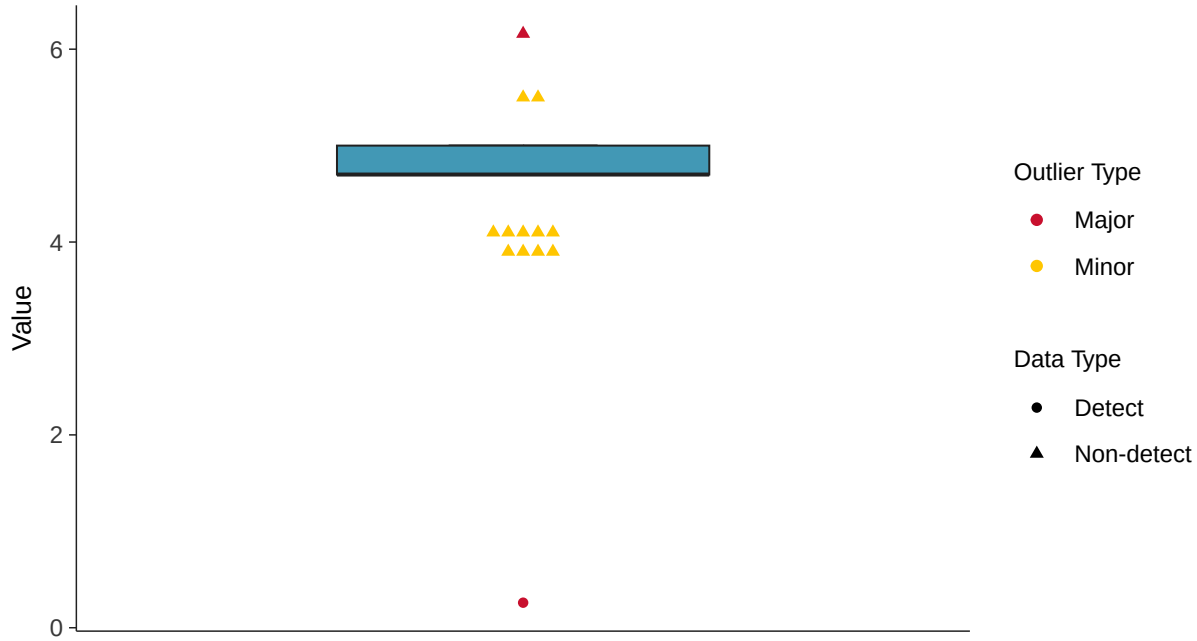
Histogram

Selenium, MW-5 (ug/L)



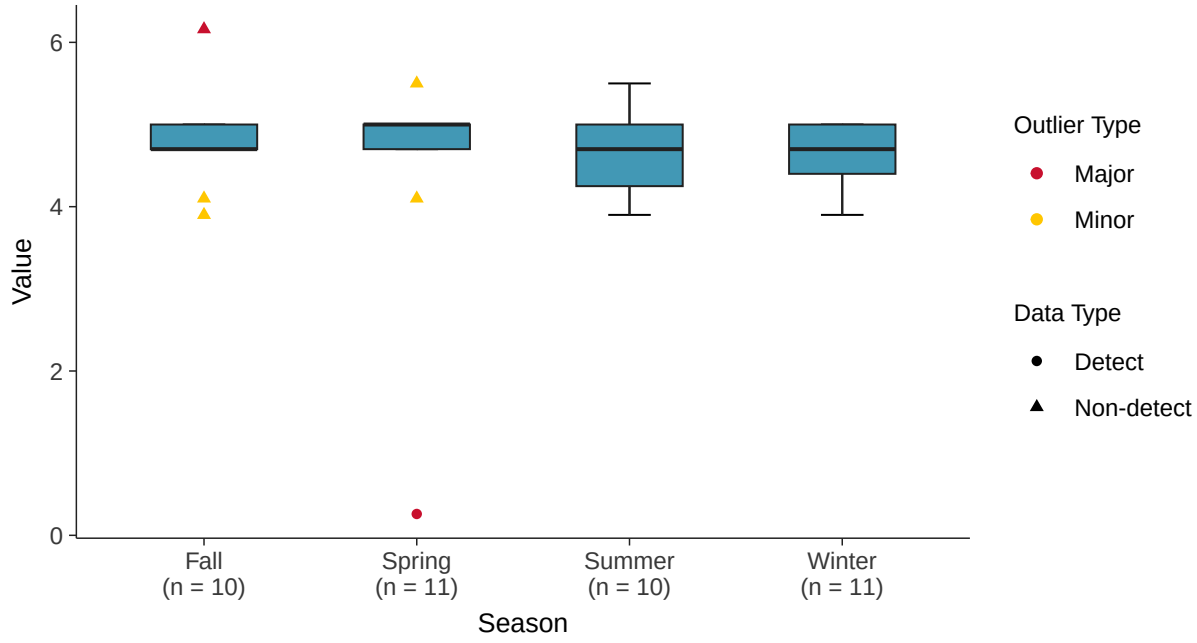
Boxplot

Selenium, MW-5 (ug/L)



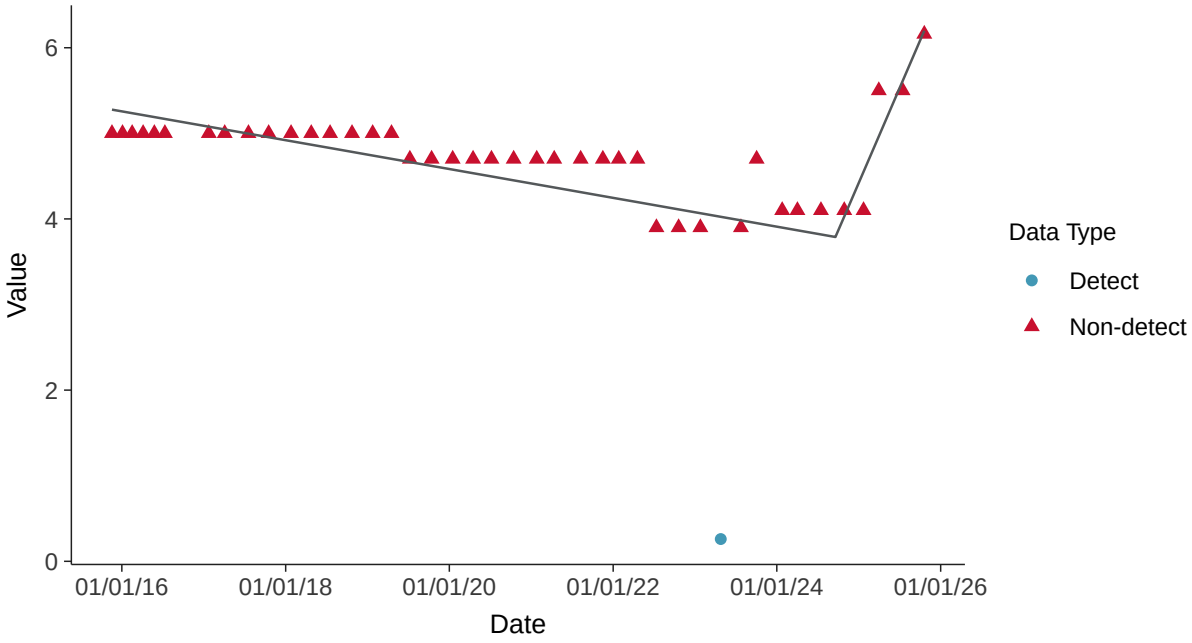
Boxplot by Season

Selenium, MW-5 (ug/L)



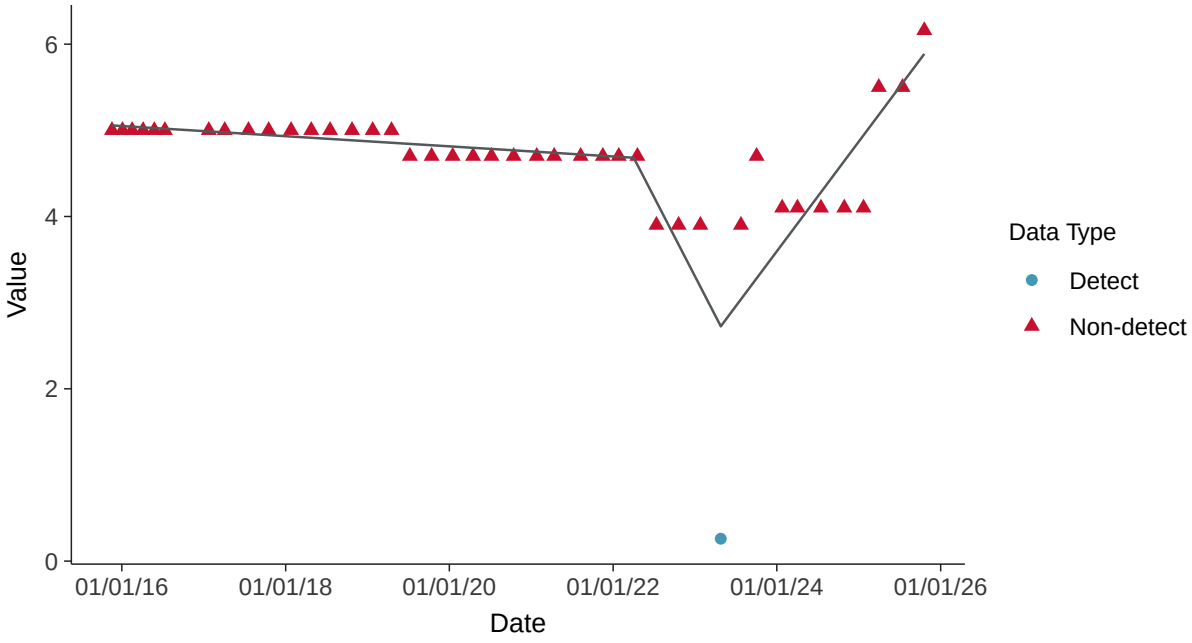
Trend Regression: Piecewise Linear-Linear

Selenium, MW-5 (ug/L)



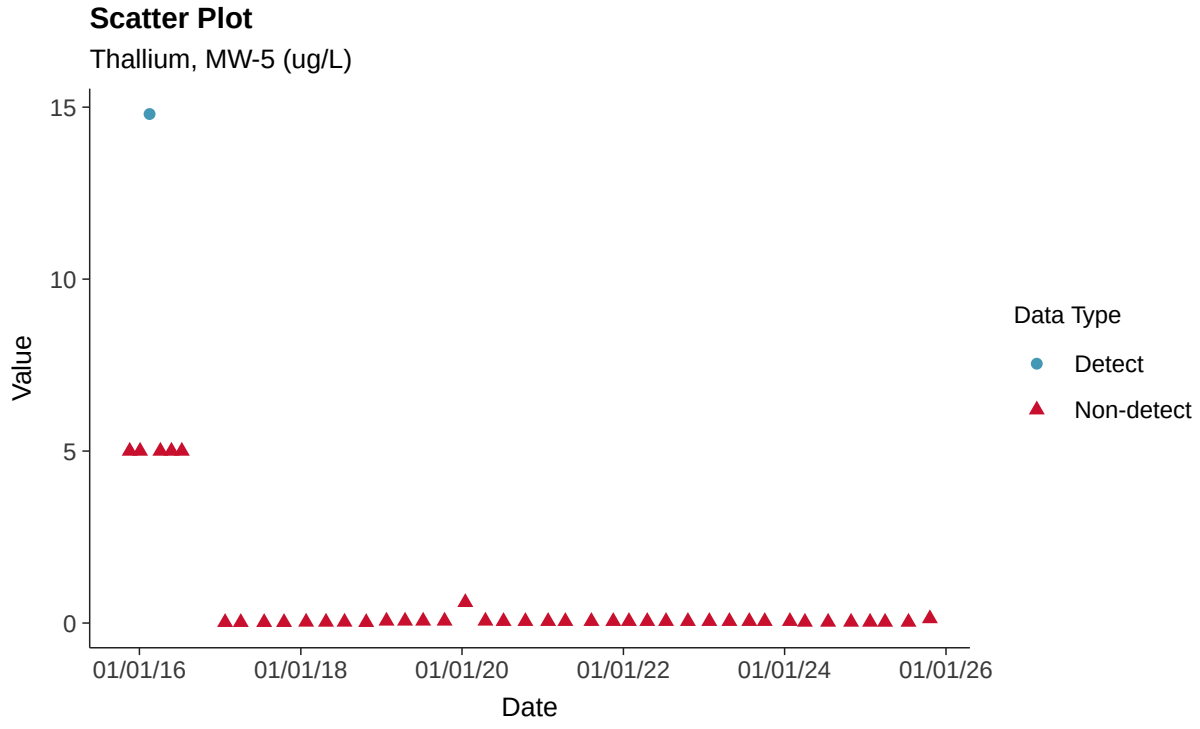
Trend Regression: Piecewise Linear-Linear-Linear

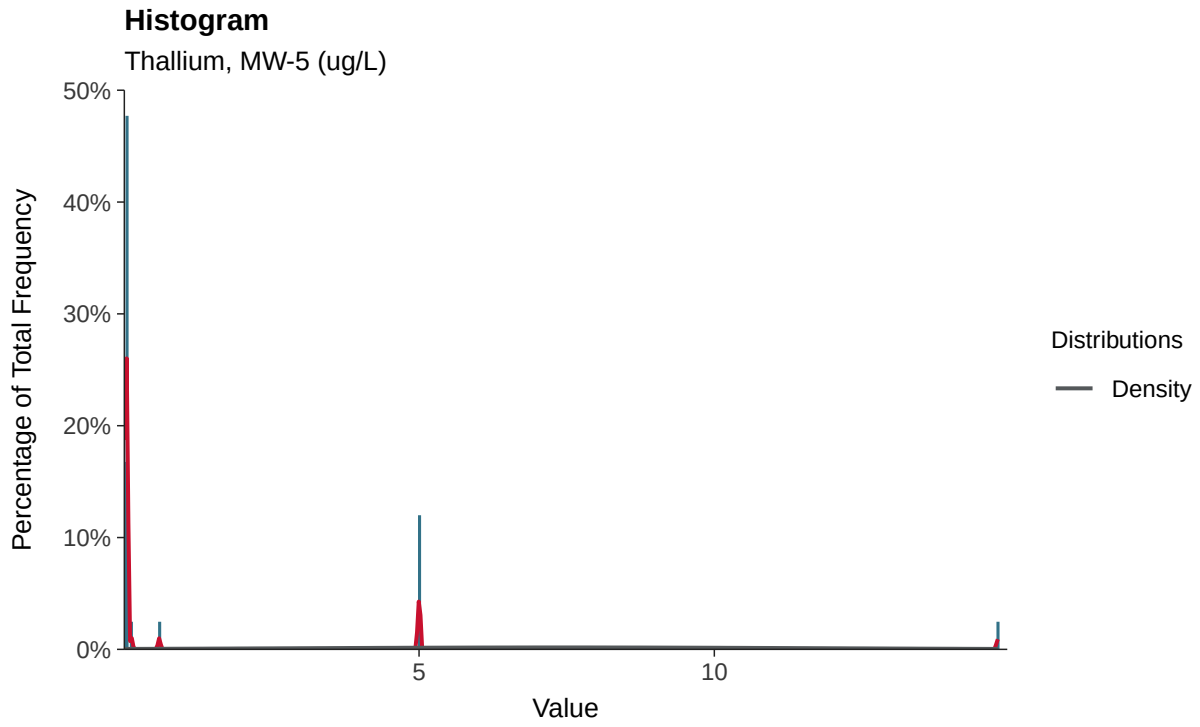
Selenium, MW-5 (ug/L)



App. IV: Thallium, MW-5

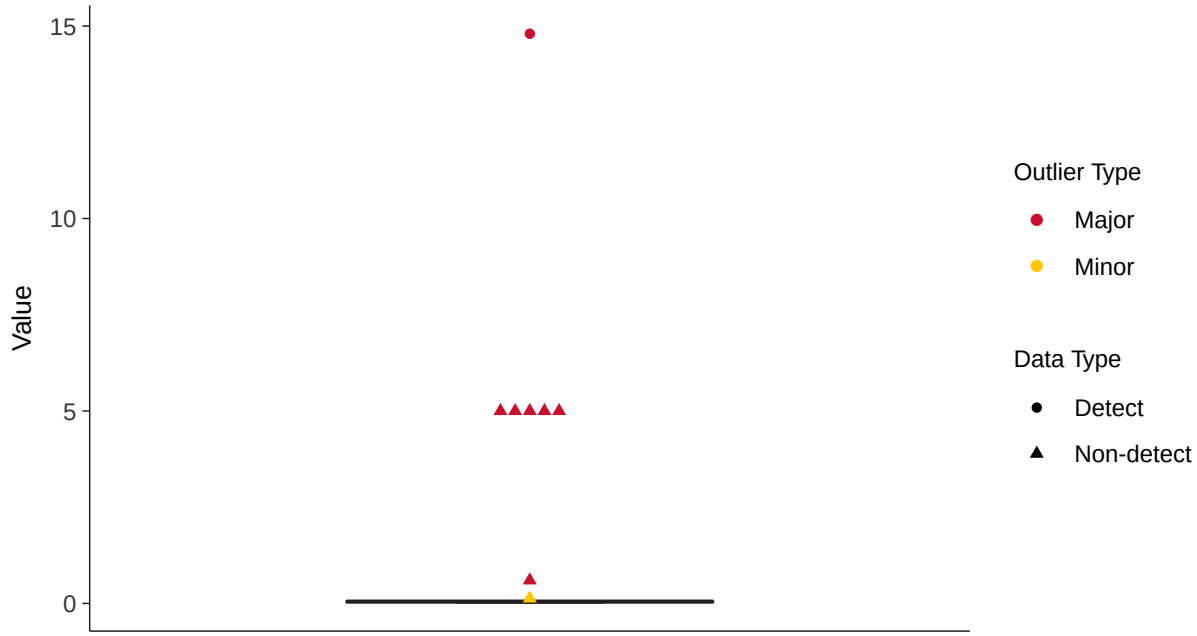
ID: 05_3_124





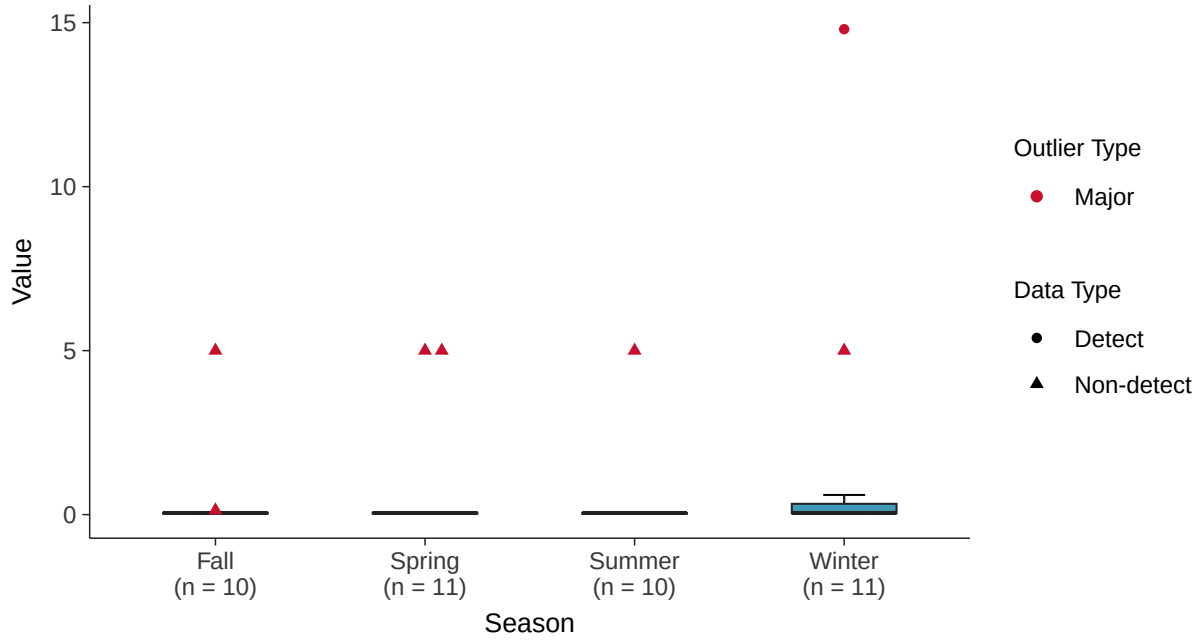
Boxplot

Thallium, MW-5 (ug/L)



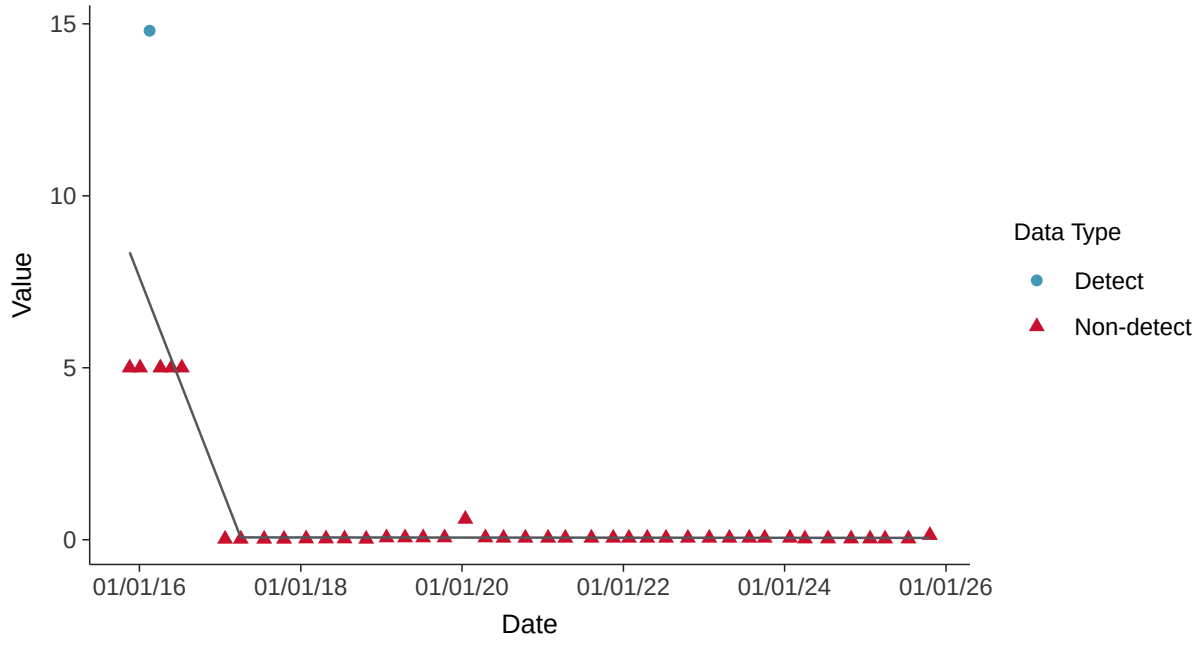
Boxplot by Season

Thallium, MW-5 (ug/L)



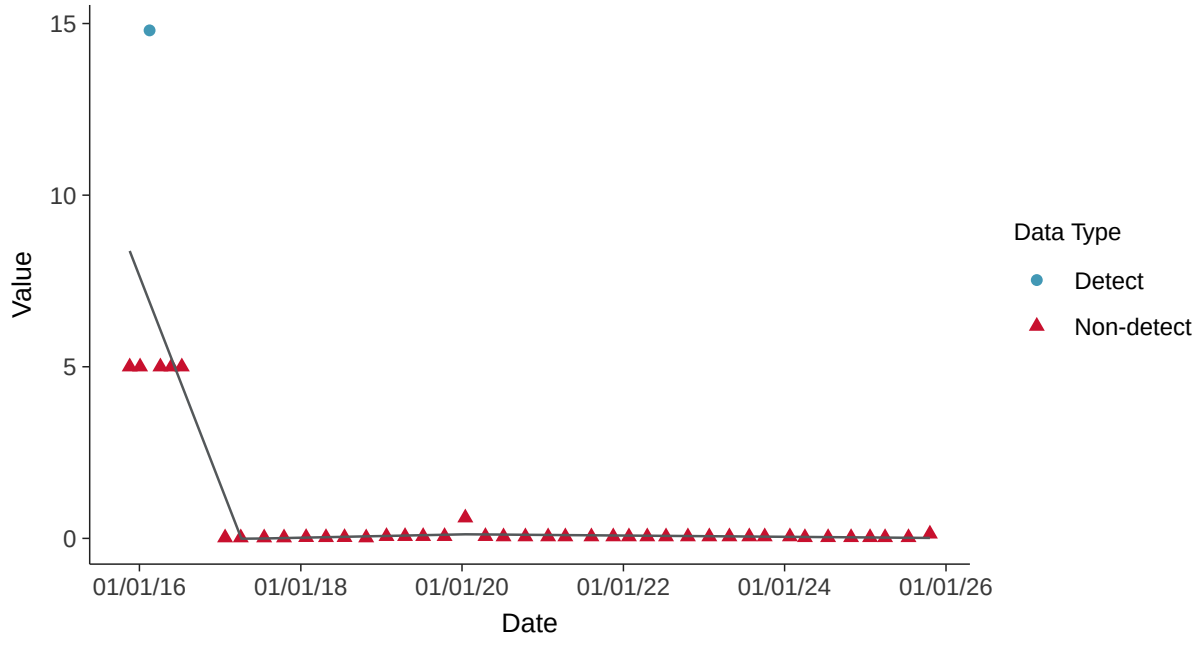
Trend Regression: Piecewise Linear-Linear

Thallium, MW-5 (ug/L)



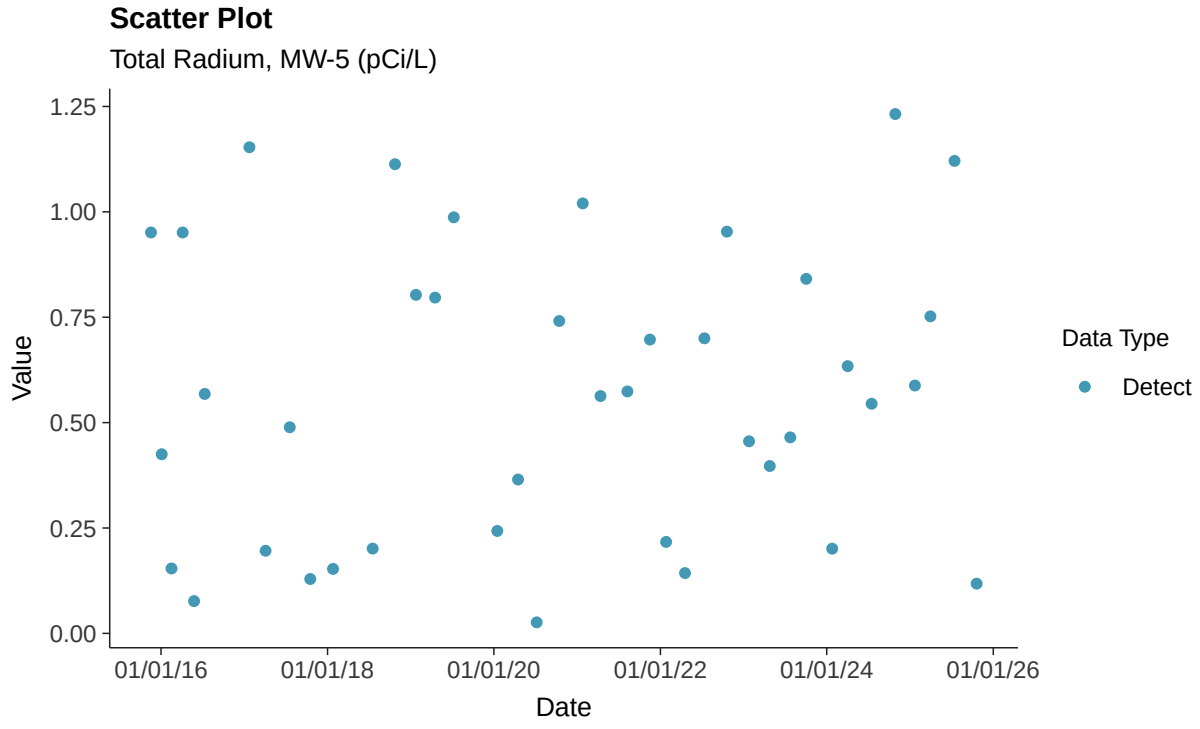
Trend Regression: Piecewise Linear-Linear-Linear

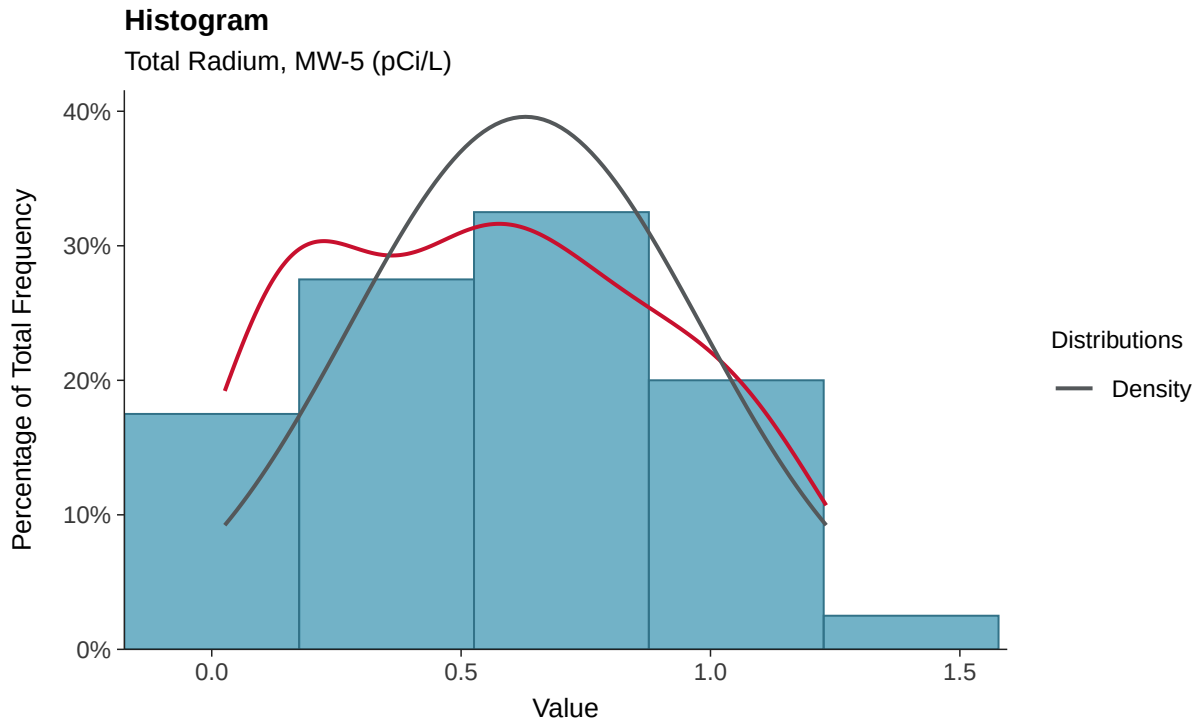
Thallium, MW-5 (ug/L)



App. IV: Total Radium, MW-5

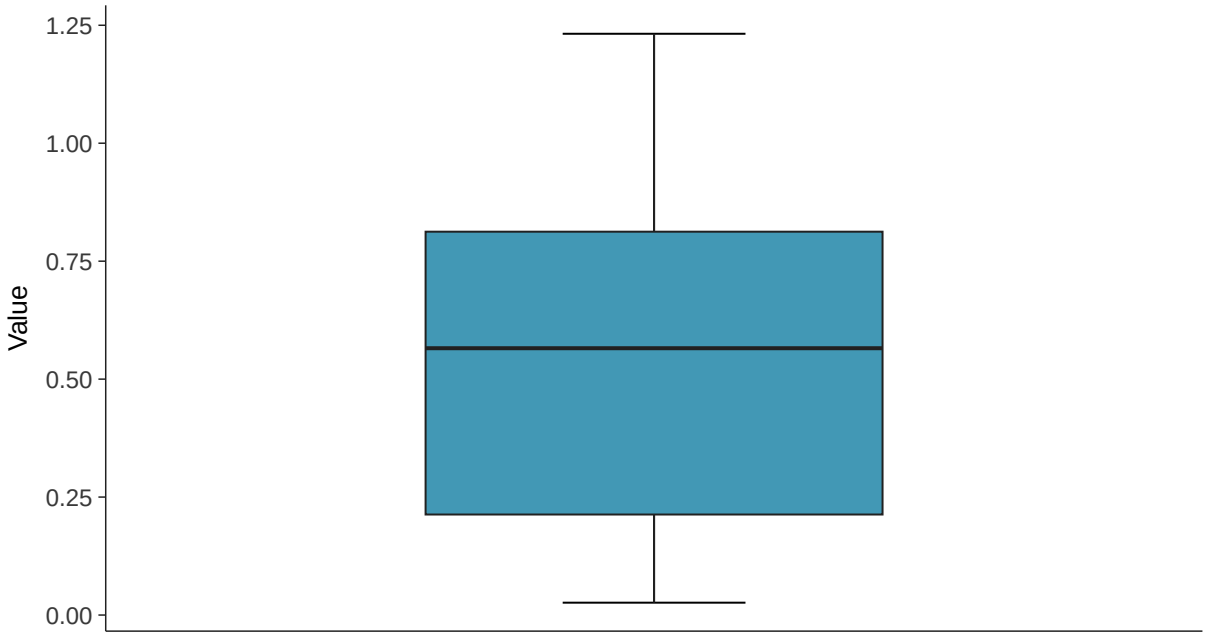
ID: 05_3_126





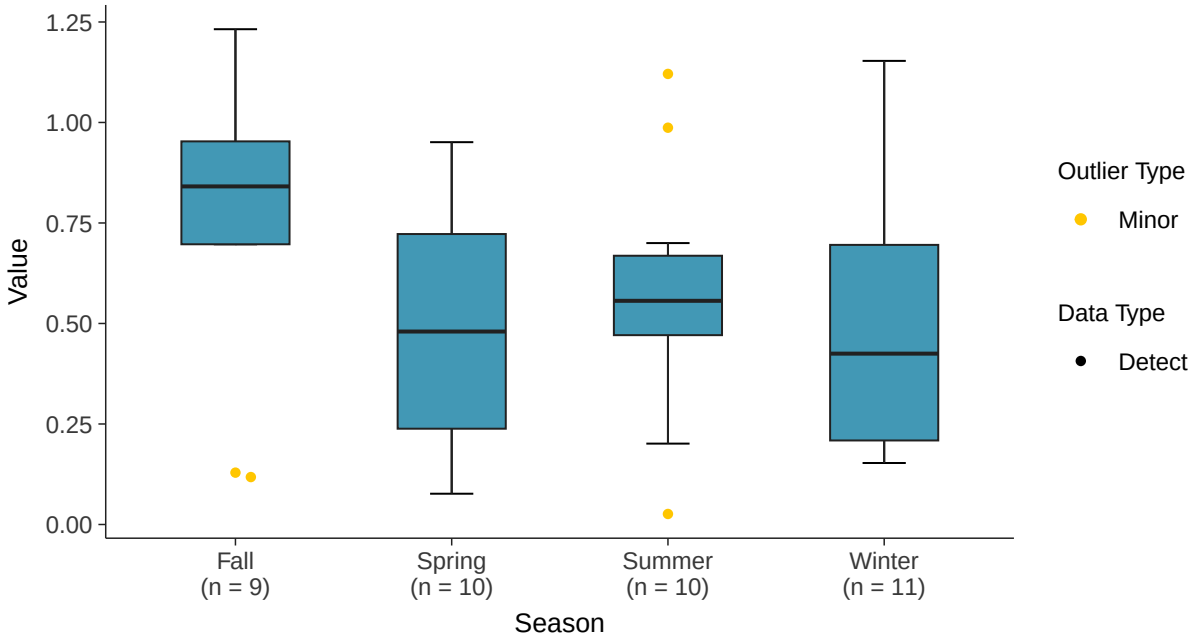
Boxplot

Total Radium, MW-5 (pCi/L)



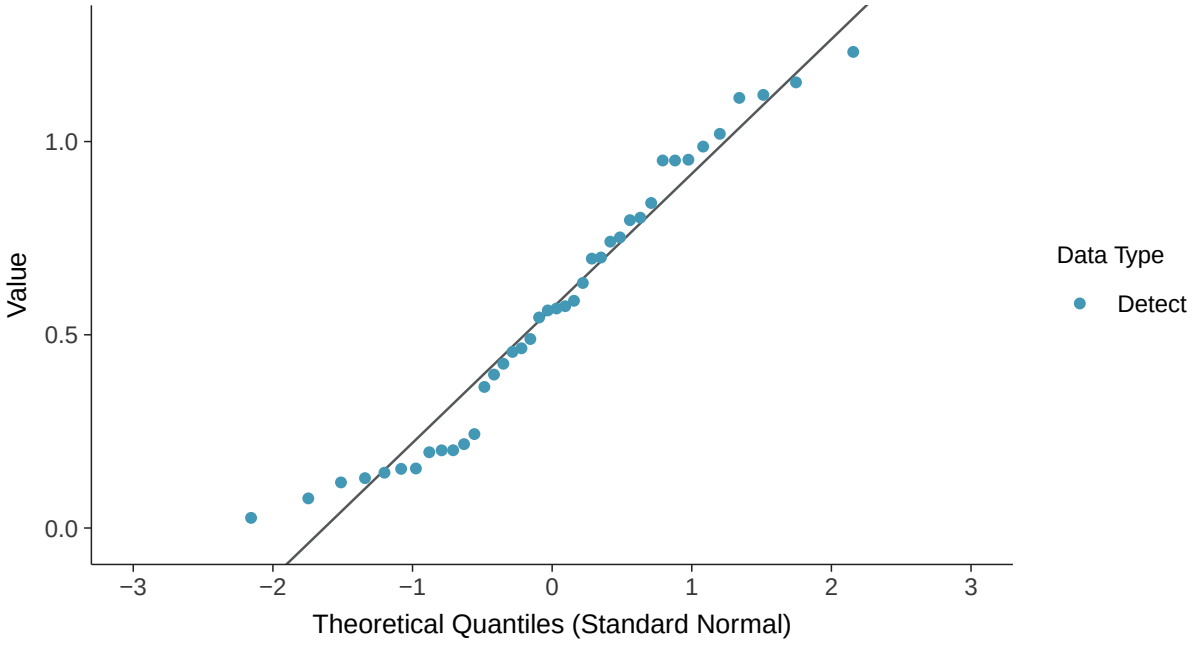
Boxplot by Season

Total Radium, MW-5 (pCi/L)



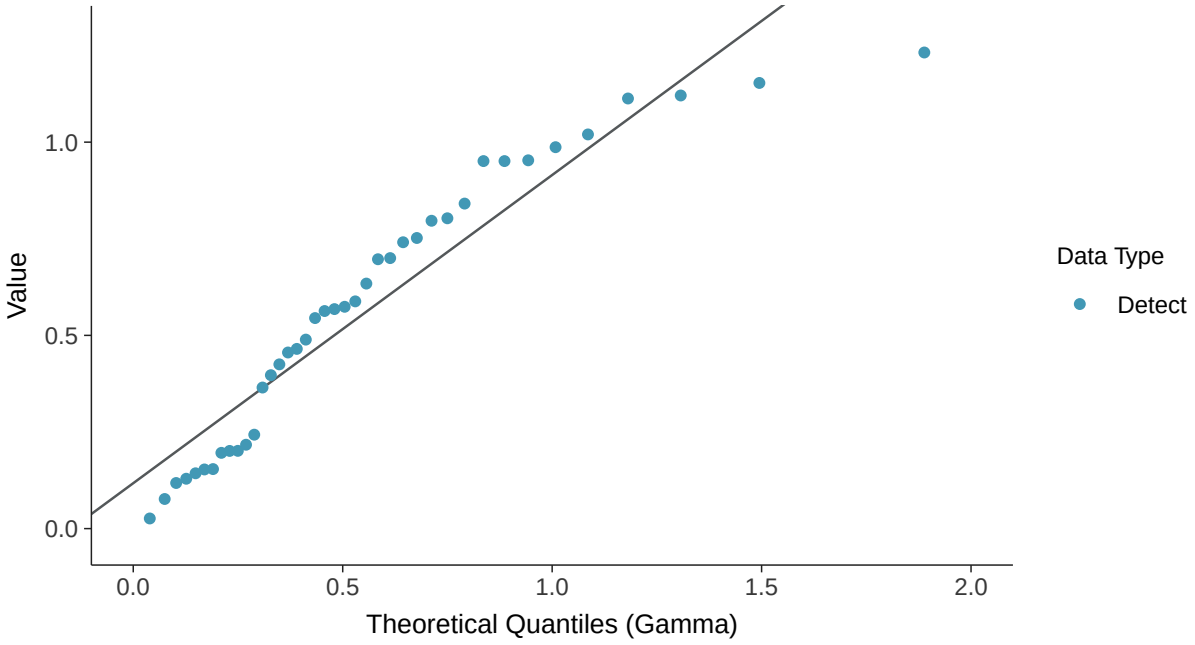
Normal Q-Q plot

Total Radium, MW-5 (pCi/L)



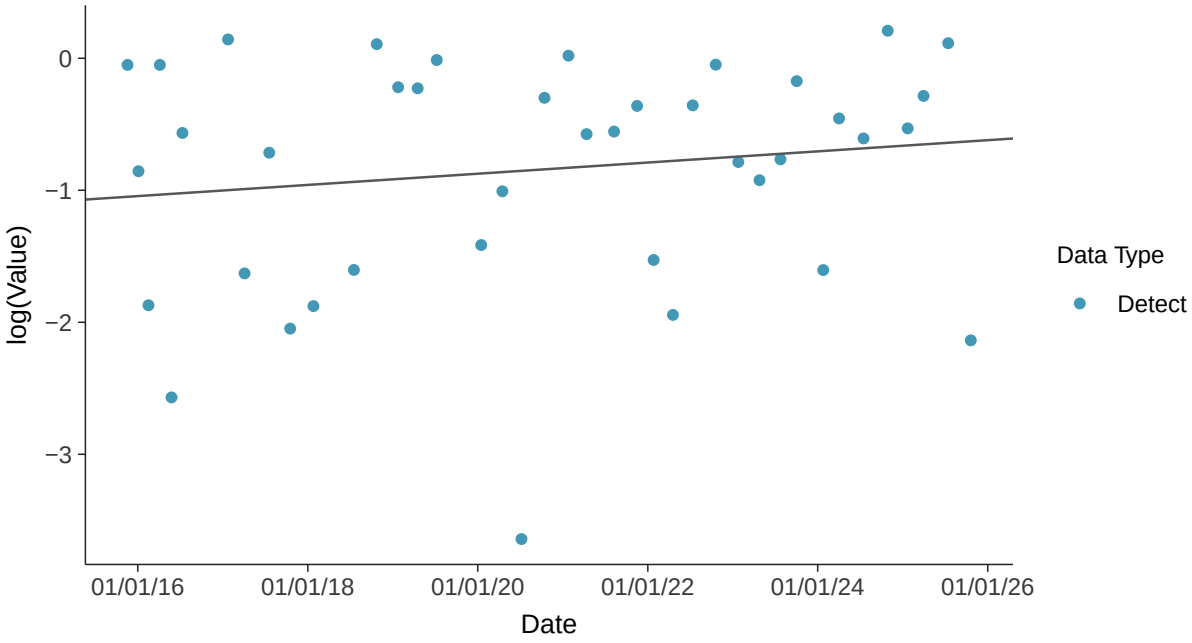
Gamma Q-Q plot

Total Radium, MW-5 (pCi/L)



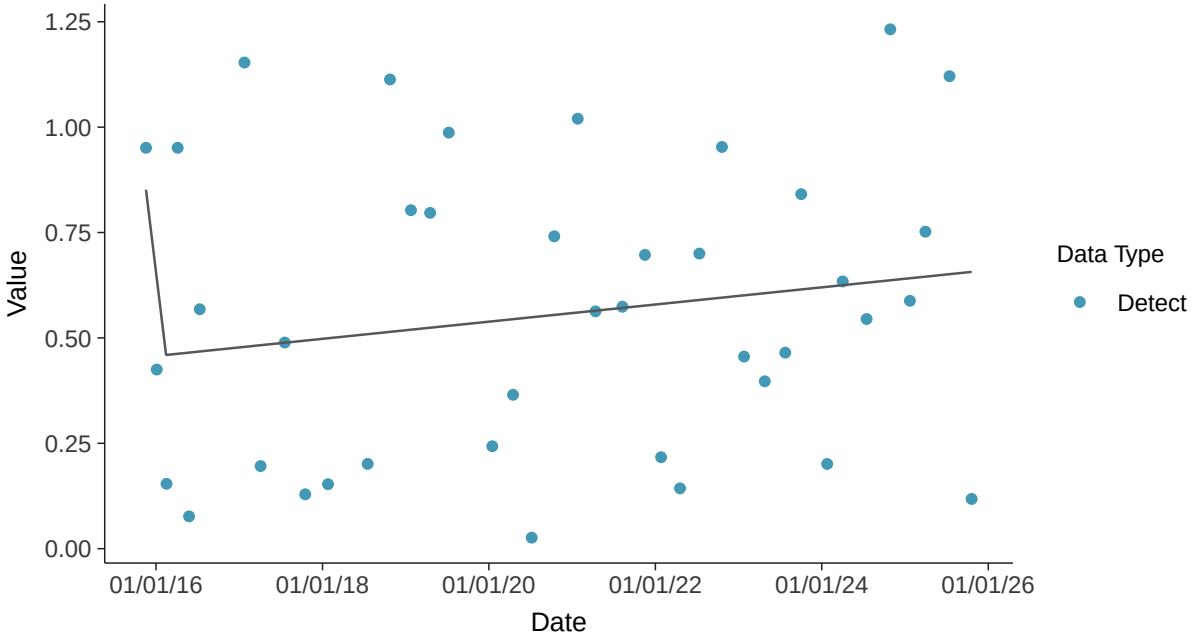
Trend Regression: Lognormal MLE

Total Radium, MW-5 (pCi/L)



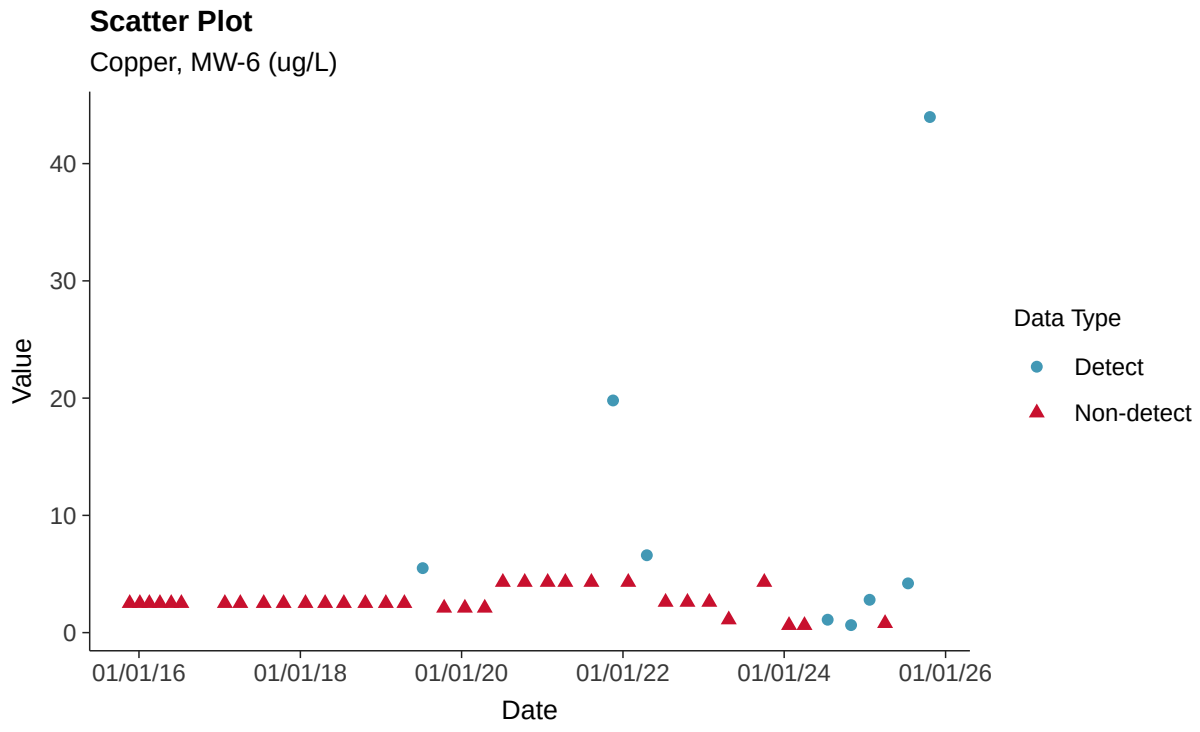
Trend Regression: Piecewise Linear-Linear

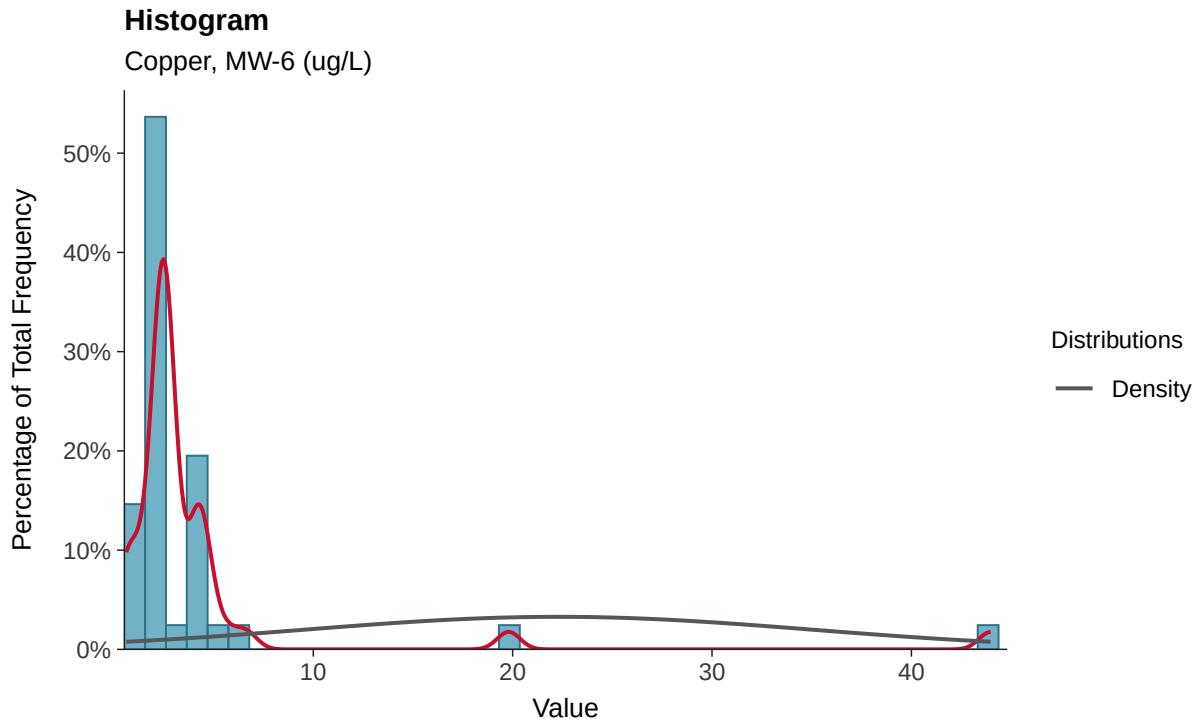
Total Radium, MW-5 (pCi/L)



App. I Metals: Copper, MW-6

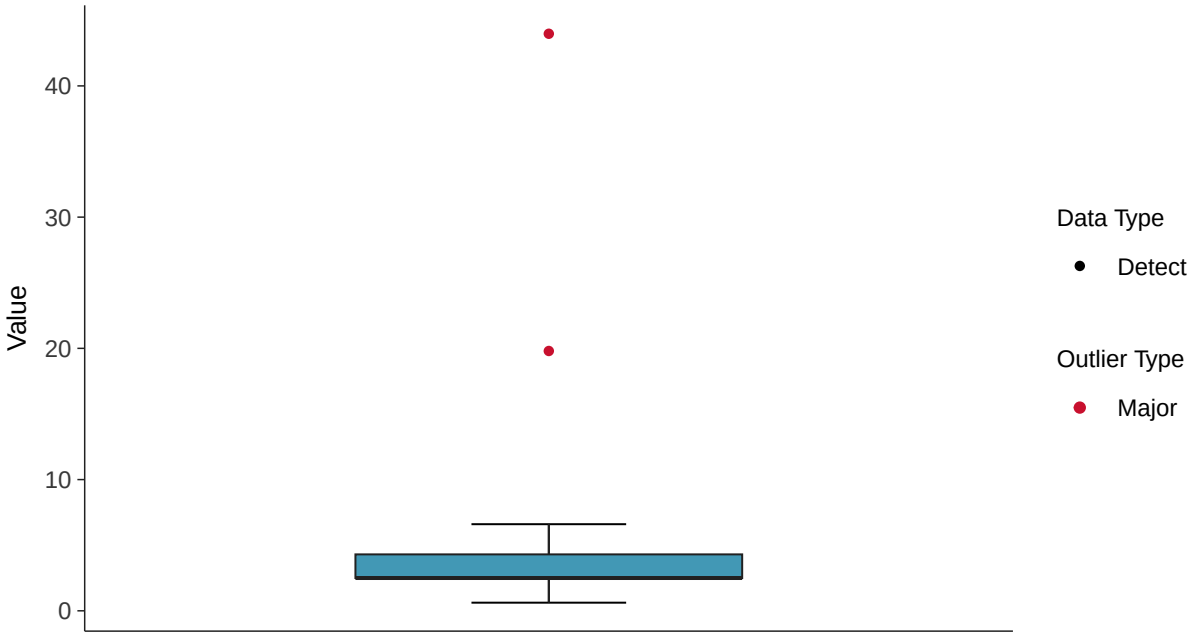
ID: 06_1_111





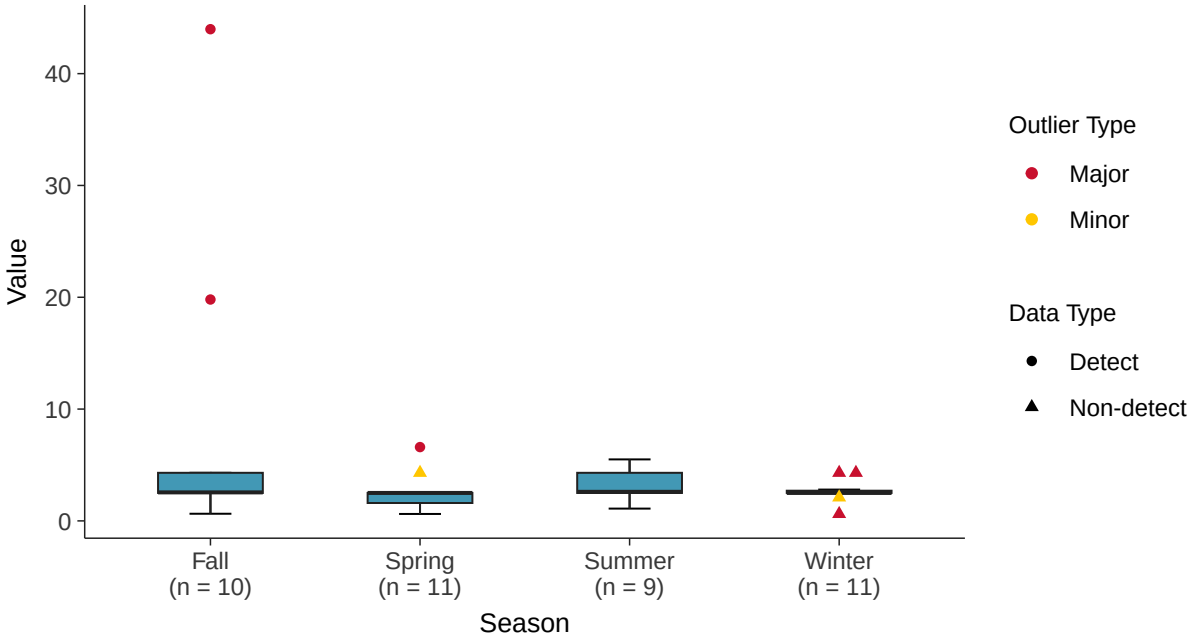
Boxplot

Copper, MW-6 (ug/L)



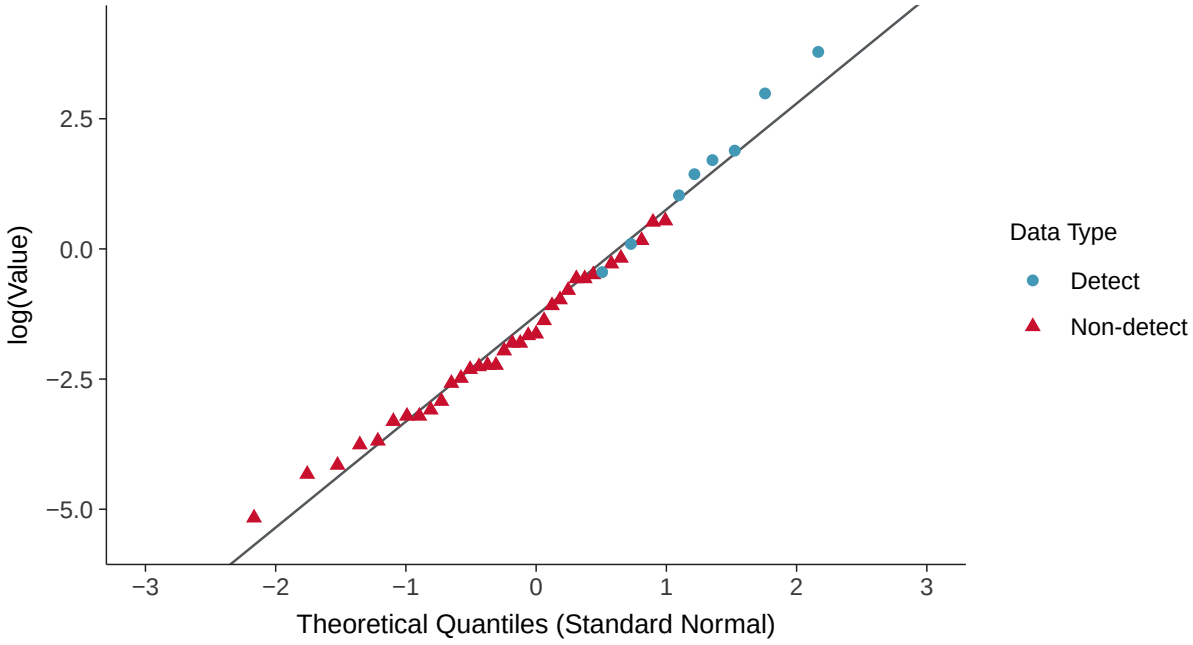
Boxplot by Season

Copper, MW-6 (ug/L)



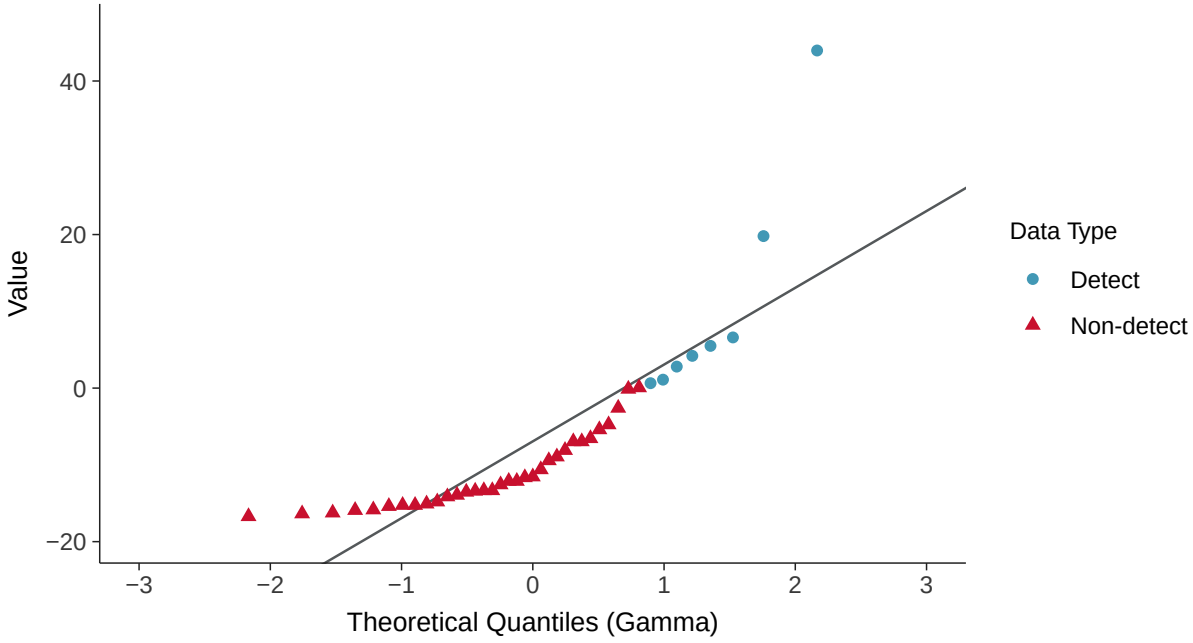
Lognormal Q-Q plot using ROS Imputed Estimates

Copper, MW-6 (ug/L)



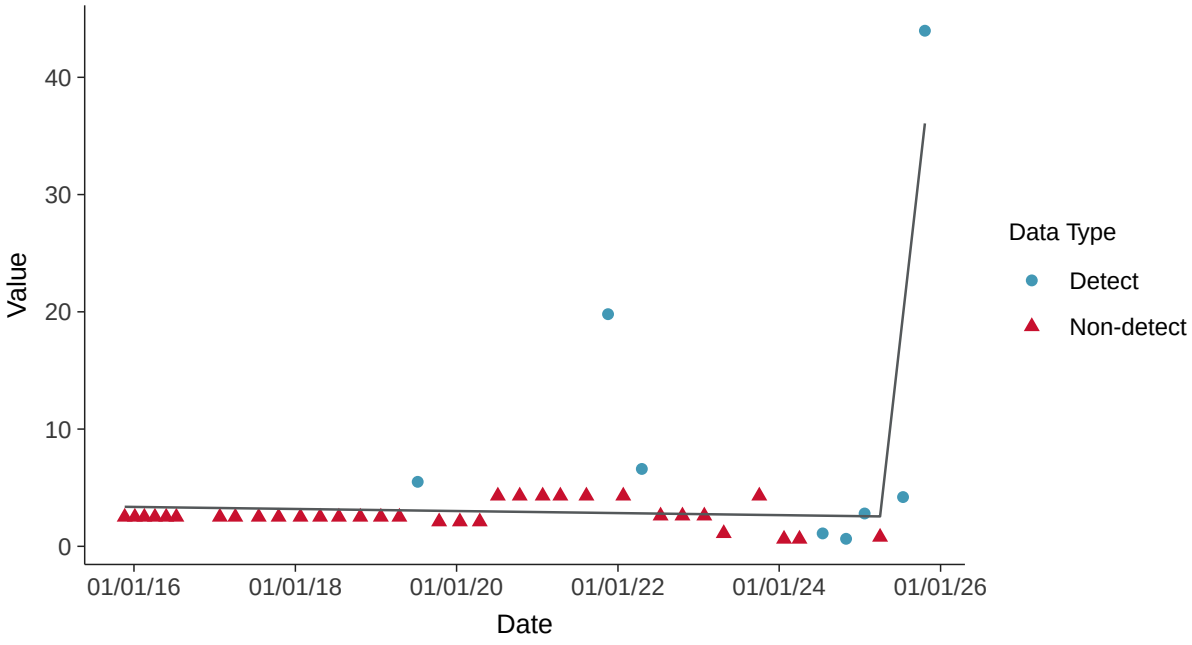
Gamma Q-Q plot using ROS Imputed Estimates

Copper, MW-6 (ug/L)



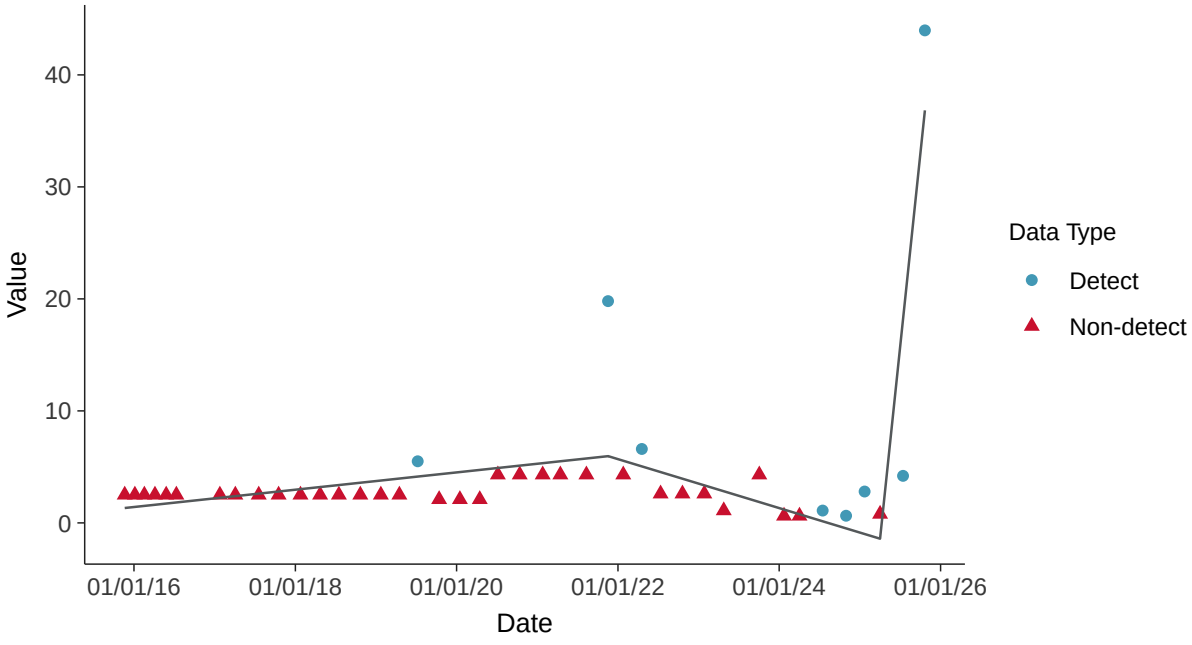
Trend Regression: Piecewise Linear-Linear

Copper, MW-6 (ug/L)



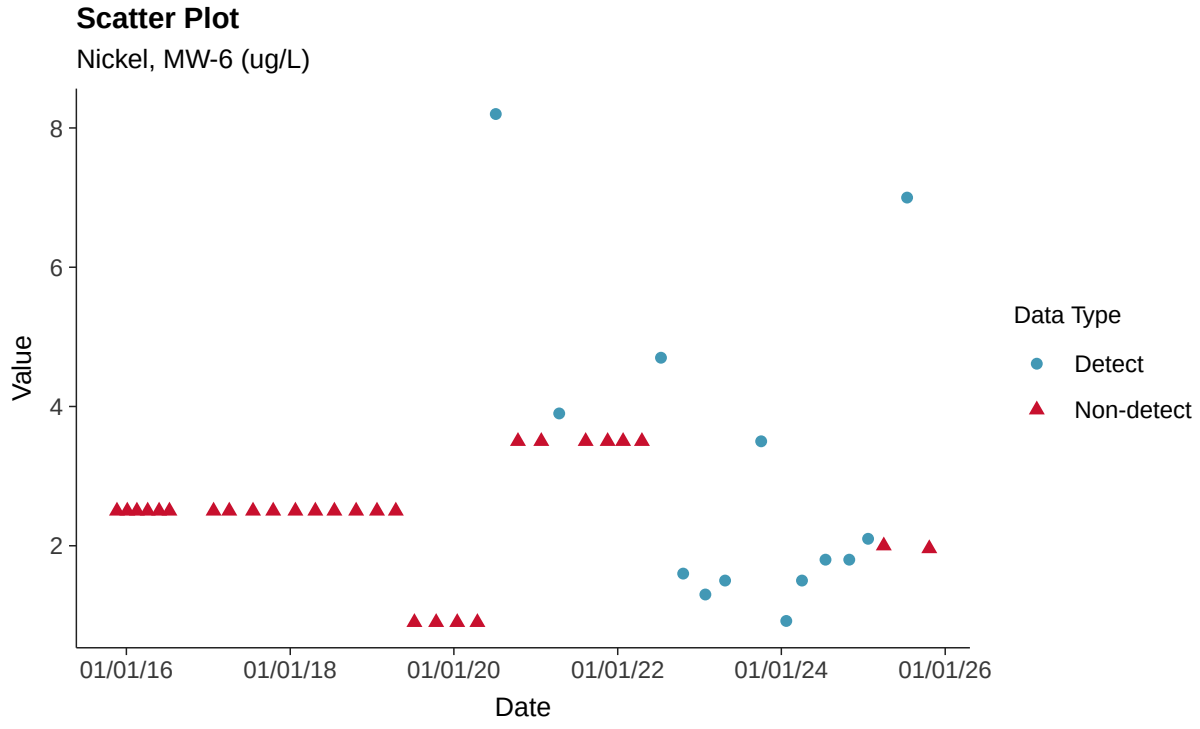
Trend Regression: Piecewise Linear-Linear-Linear

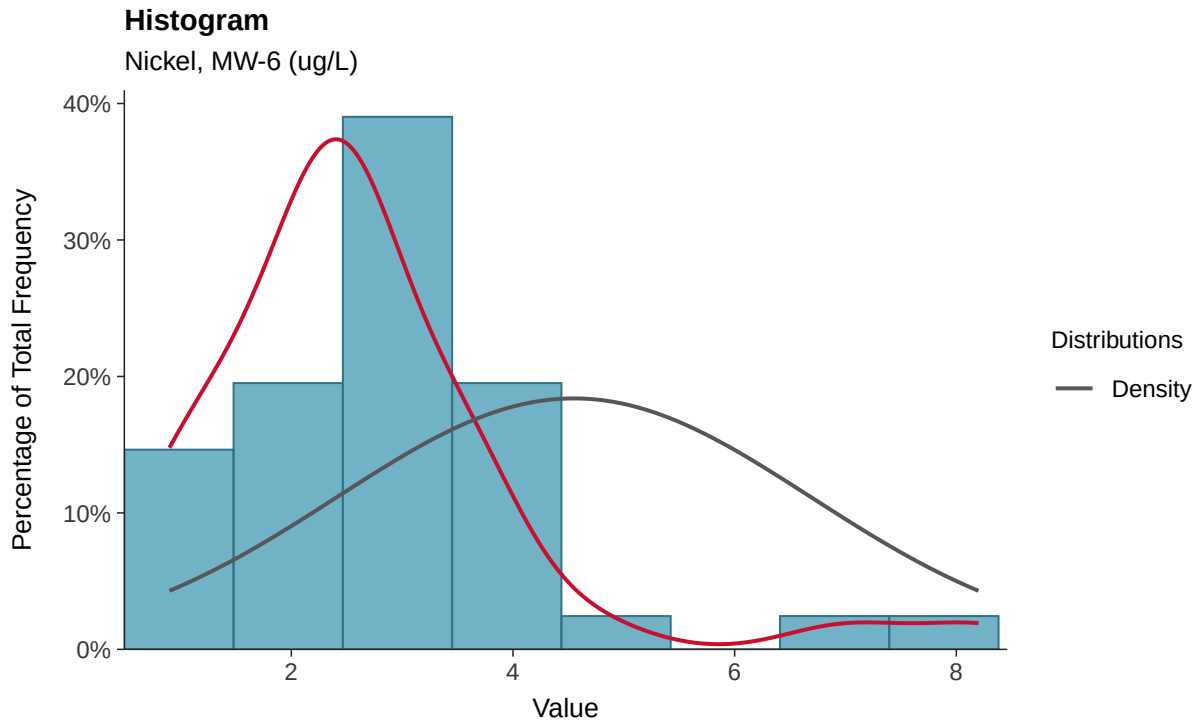
Copper, MW-6 (ug/L)



App. I Metals: Nickel, MW-6

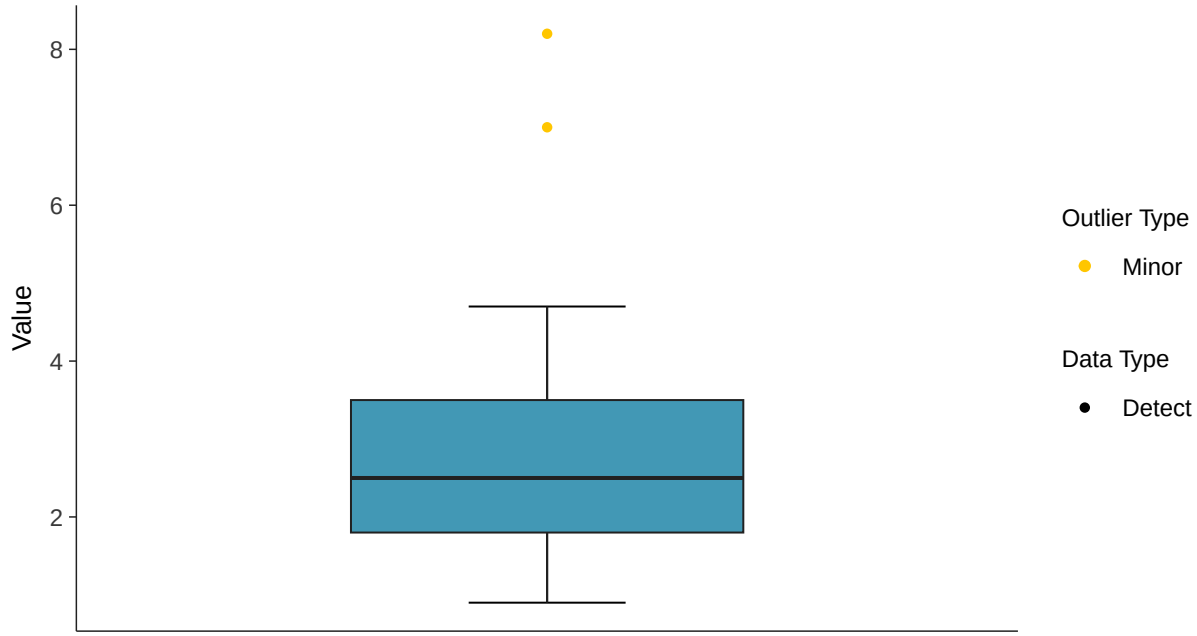
ID: 06_1_117





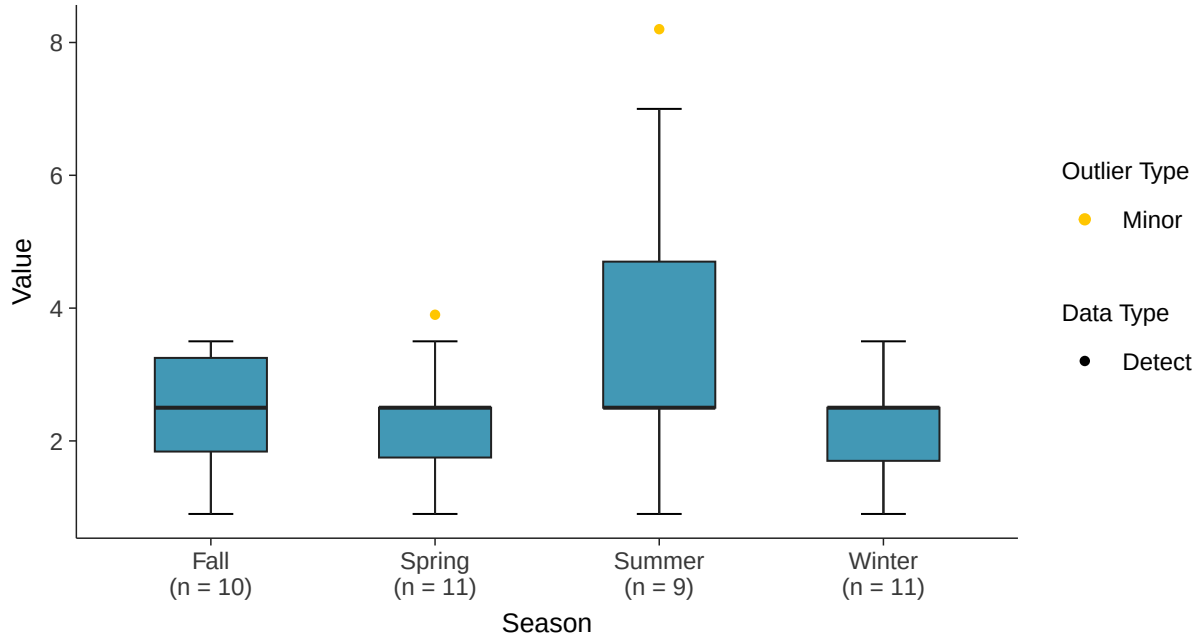
Boxplot

Nickel, MW-6 (ug/L)



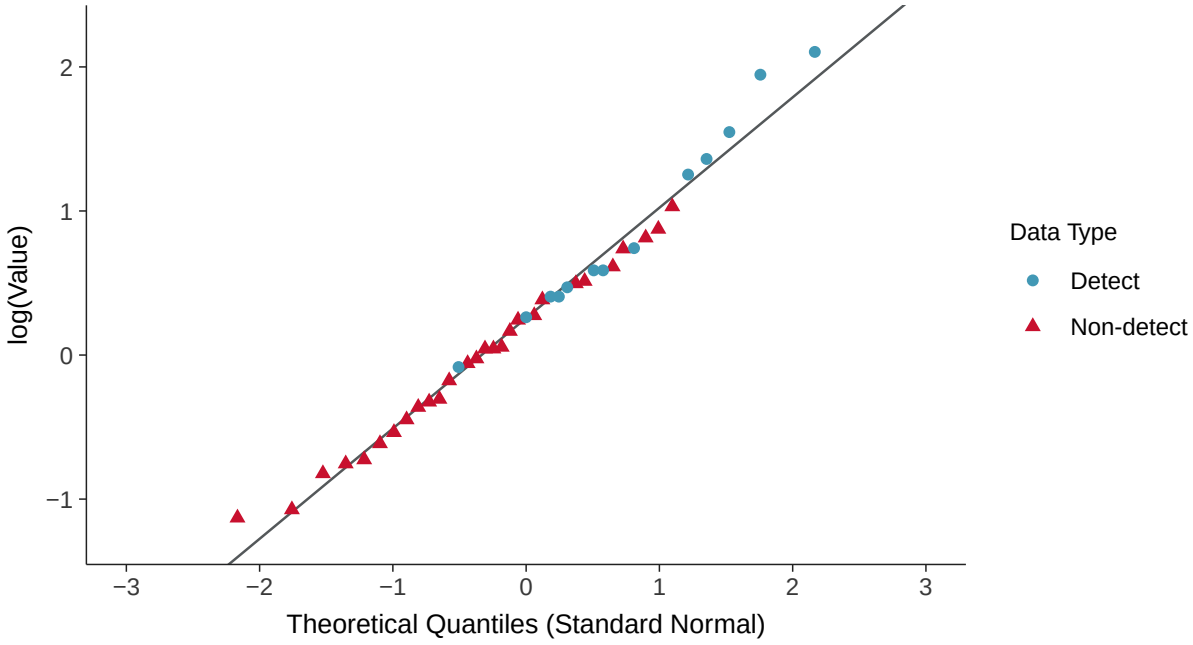
Boxplot by Season

Nickel, MW-6 (ug/L)



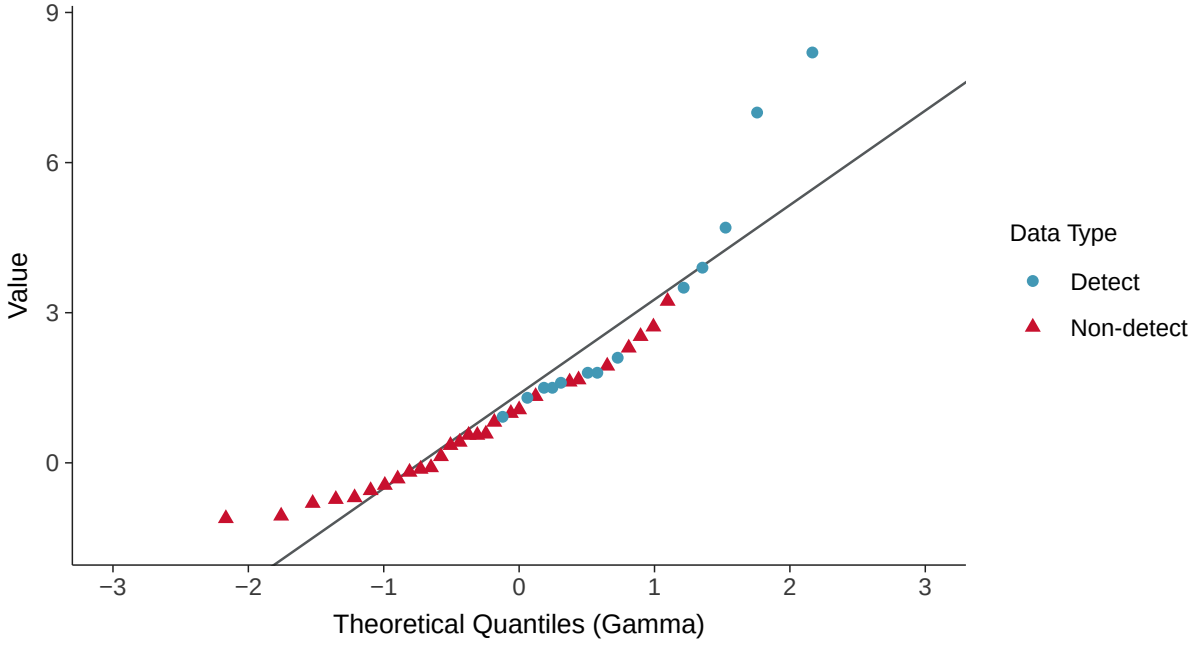
Lognormal Q-Q plot using ROS Imputed Estimates

Nickel, MW-6 (ug/L)



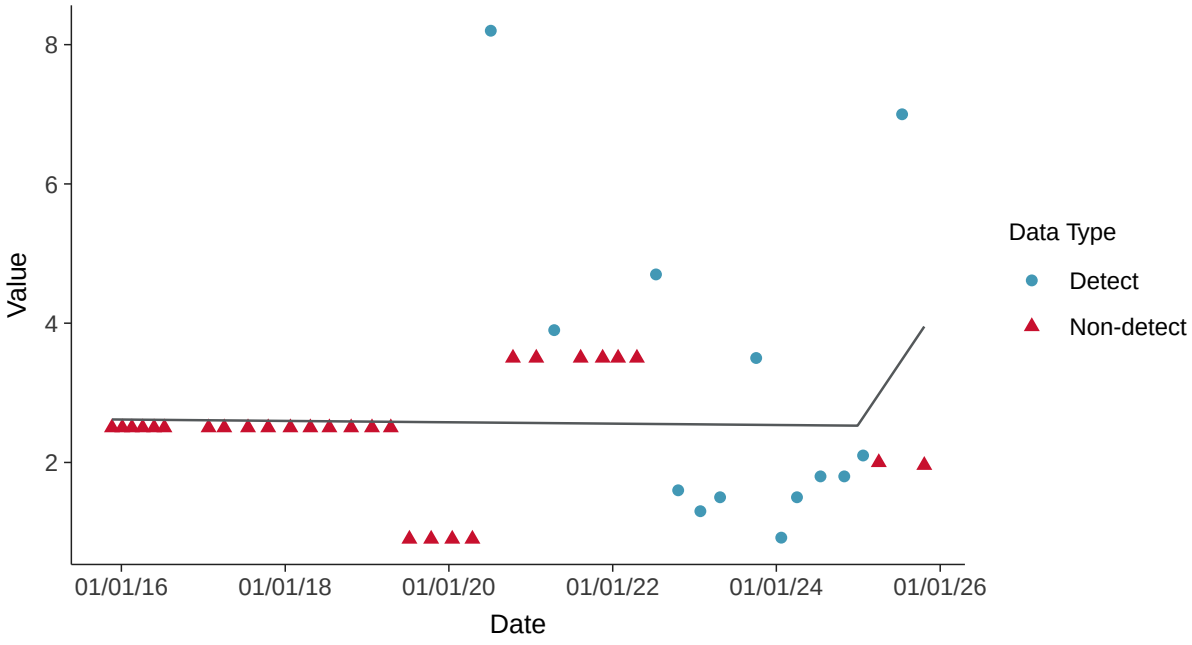
Gamma Q-Q plot using ROS Imputed Estimates

Nickel, MW-6 (ug/L)



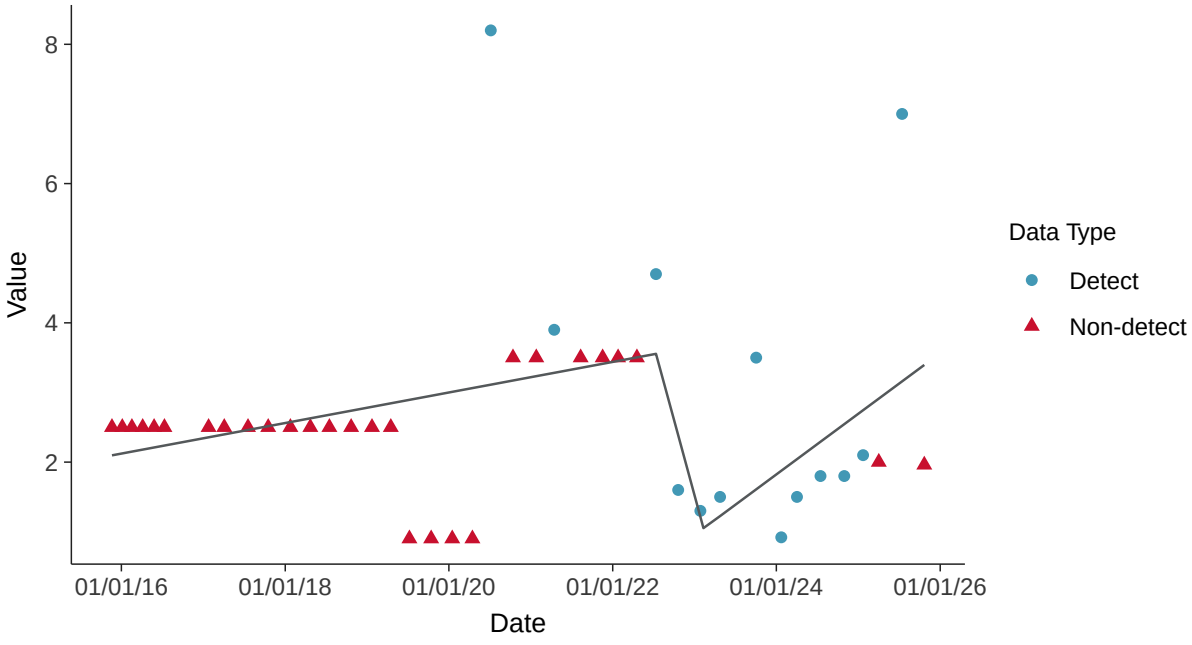
Trend Regression: Piecewise Linear-Linear

Nickel, MW-6 (ug/L)



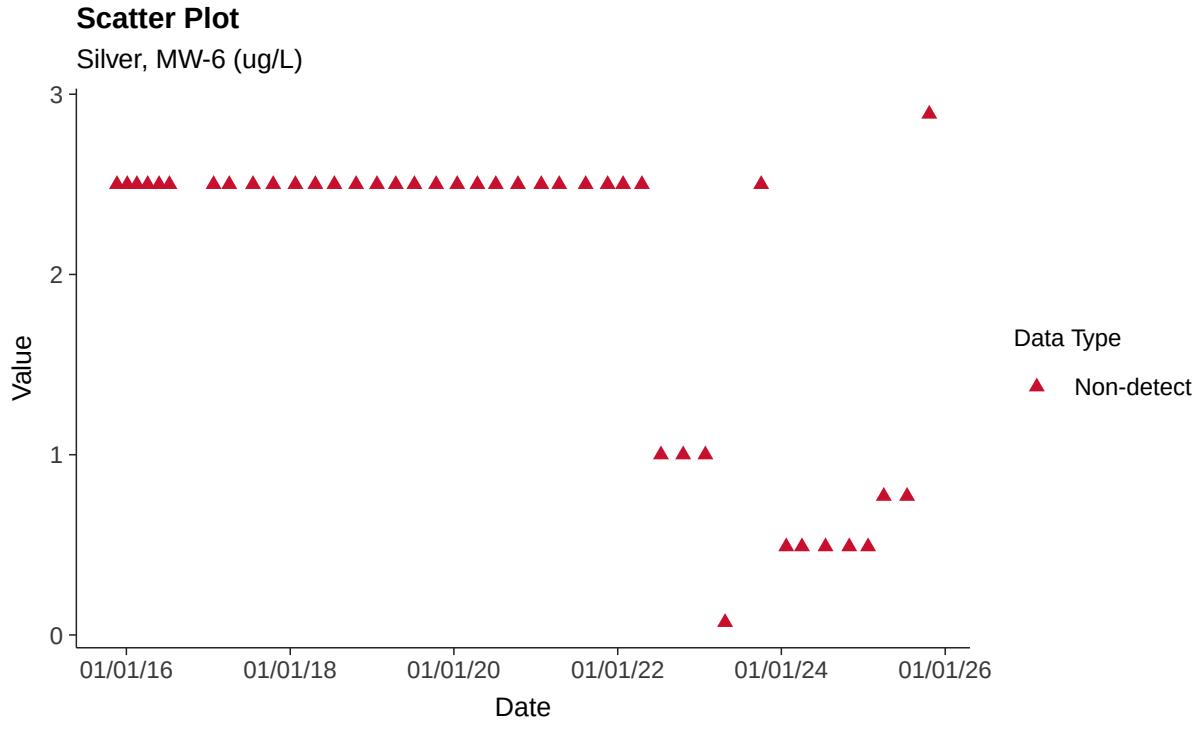
Trend Regression: Piecewise Linear-Linear-Linear

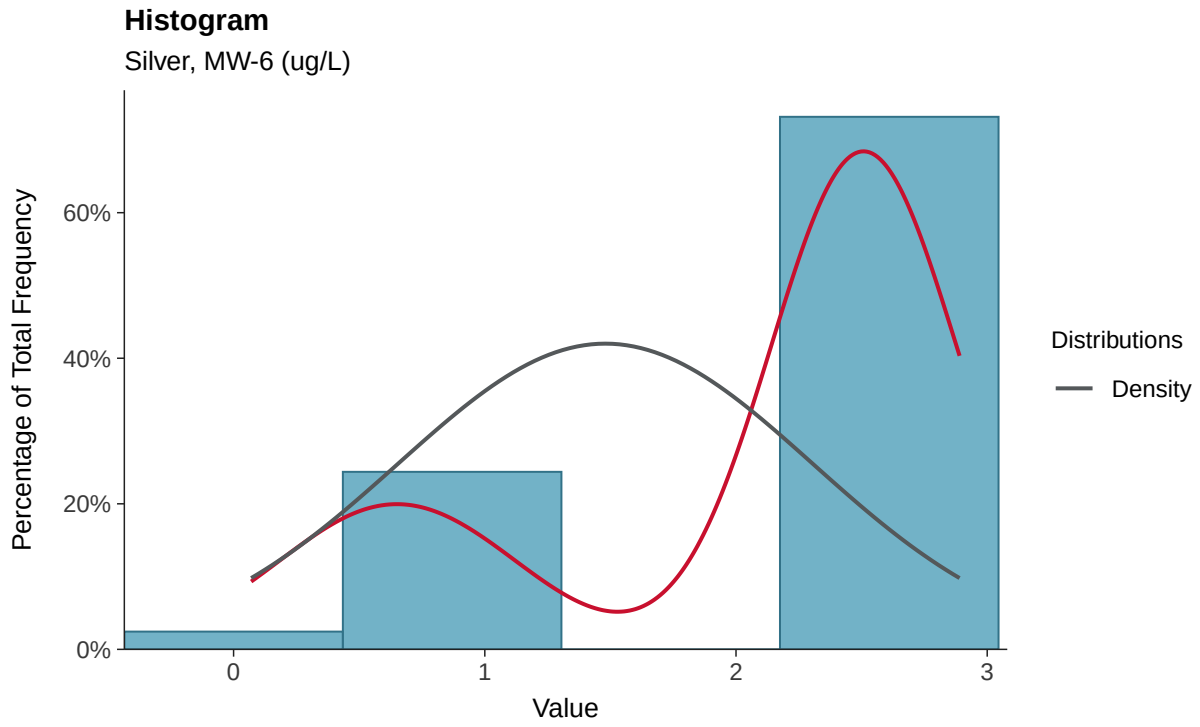
Nickel, MW-6 (ug/L)



App. I Metals: Silver, MW-6

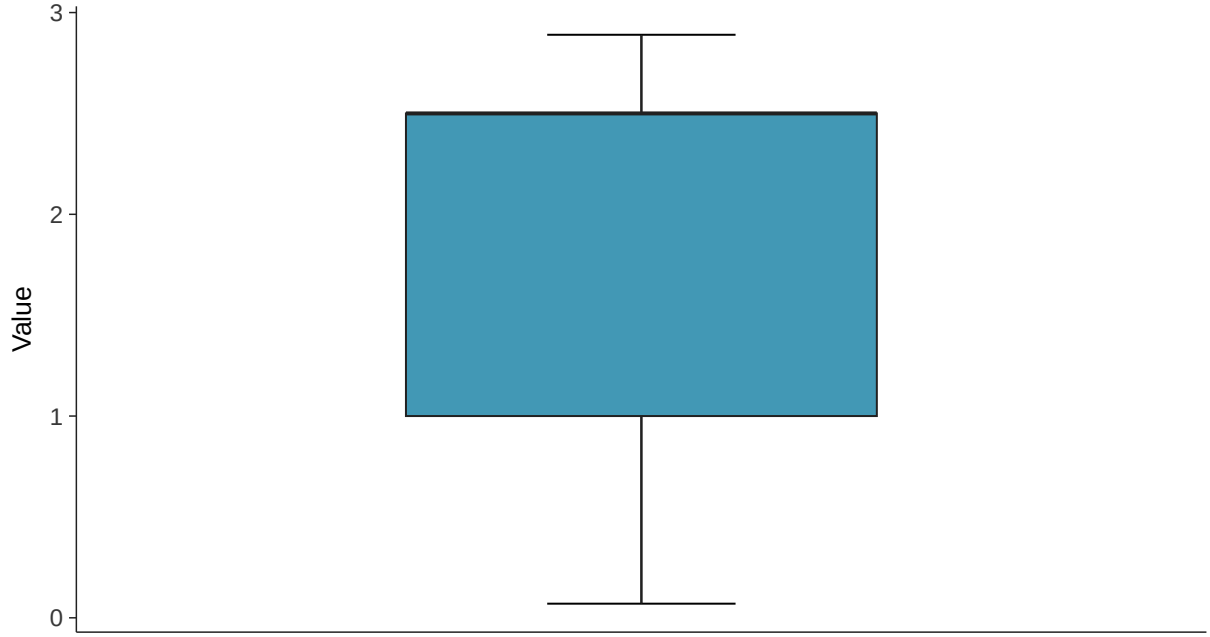
ID: 06_1_122





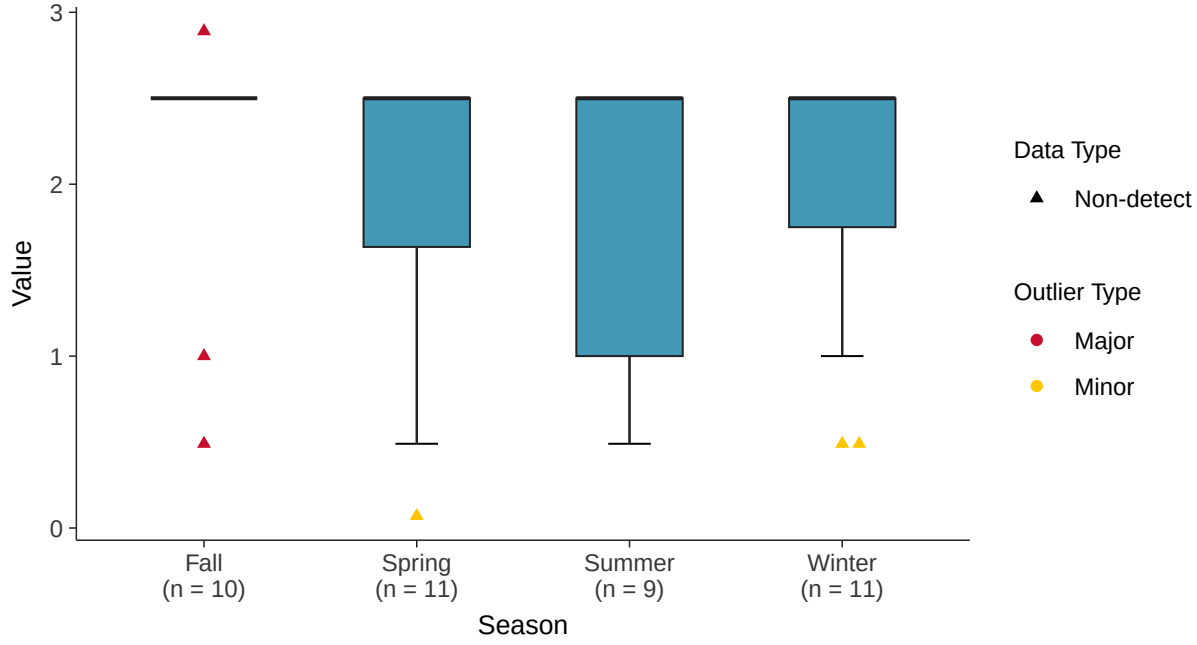
Boxplot

Silver, MW-6 (ug/L)



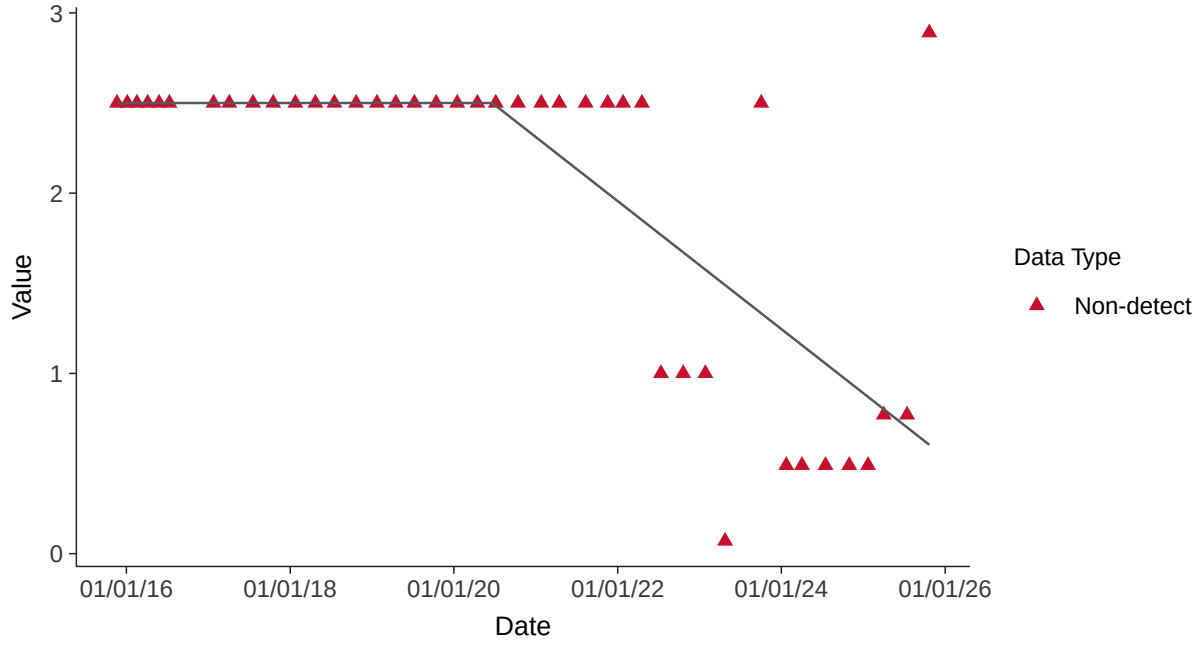
Boxplot by Season

Silver, MW-6 (ug/L)



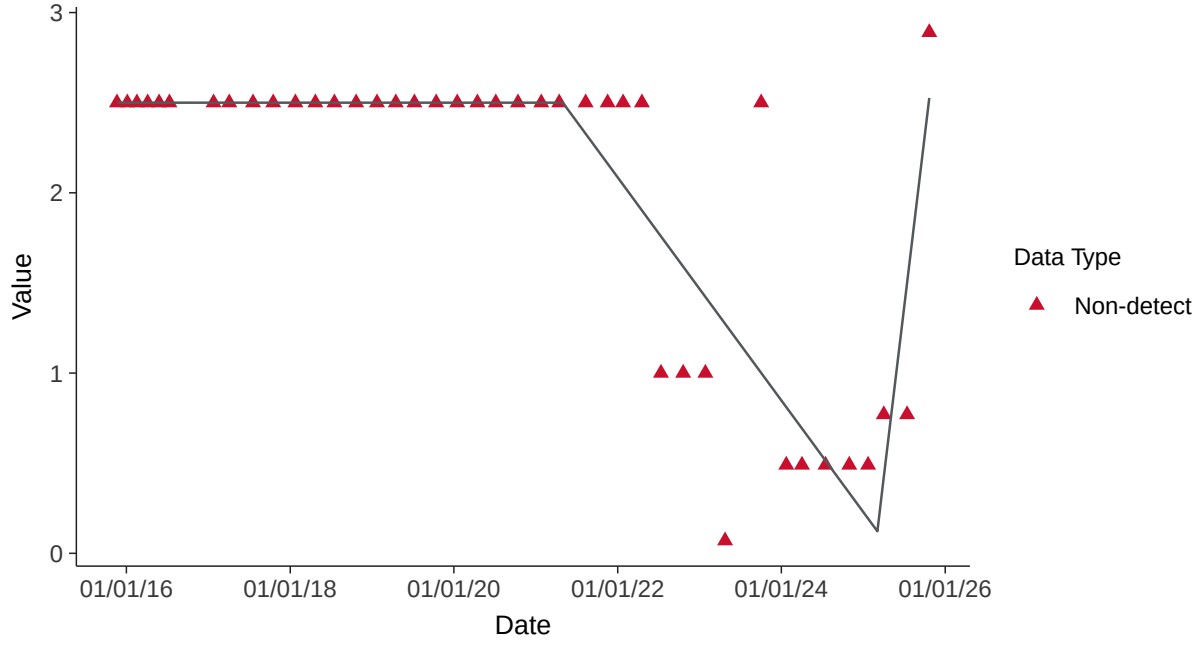
Trend Regression: Piecewise Linear-Linear

Silver, MW-6 (ug/L)



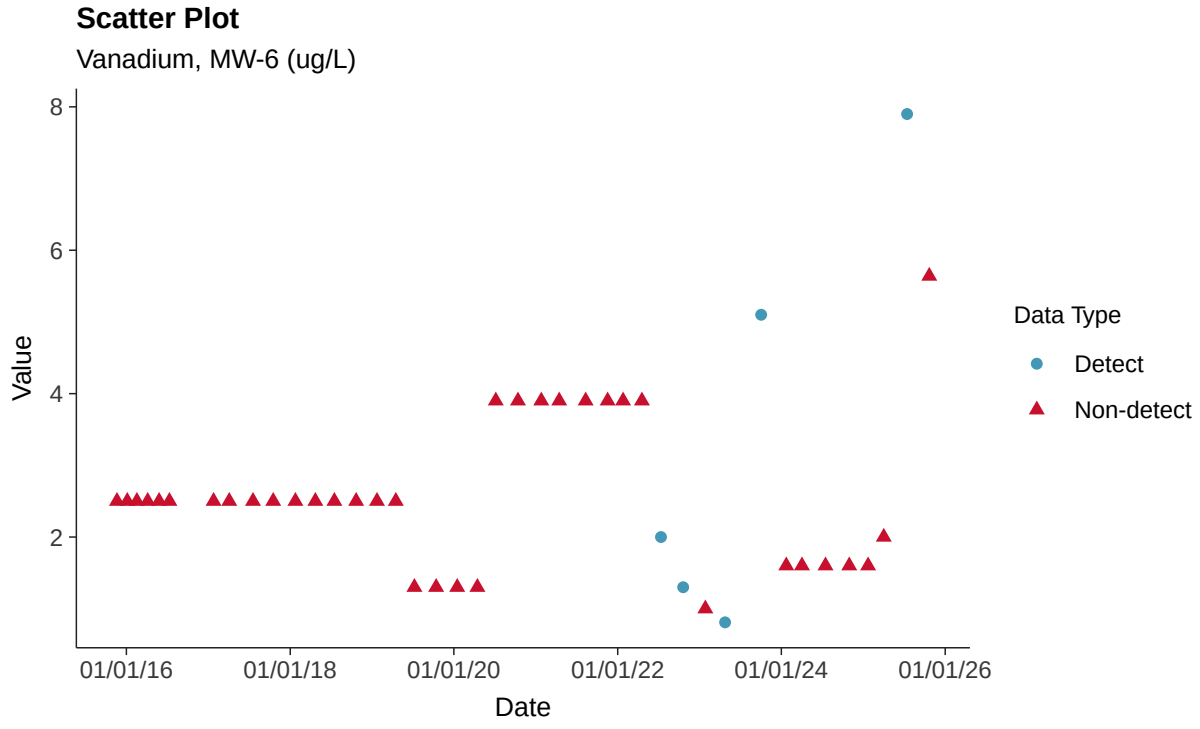
Trend Regression: Piecewise Linear-Linear-Linear

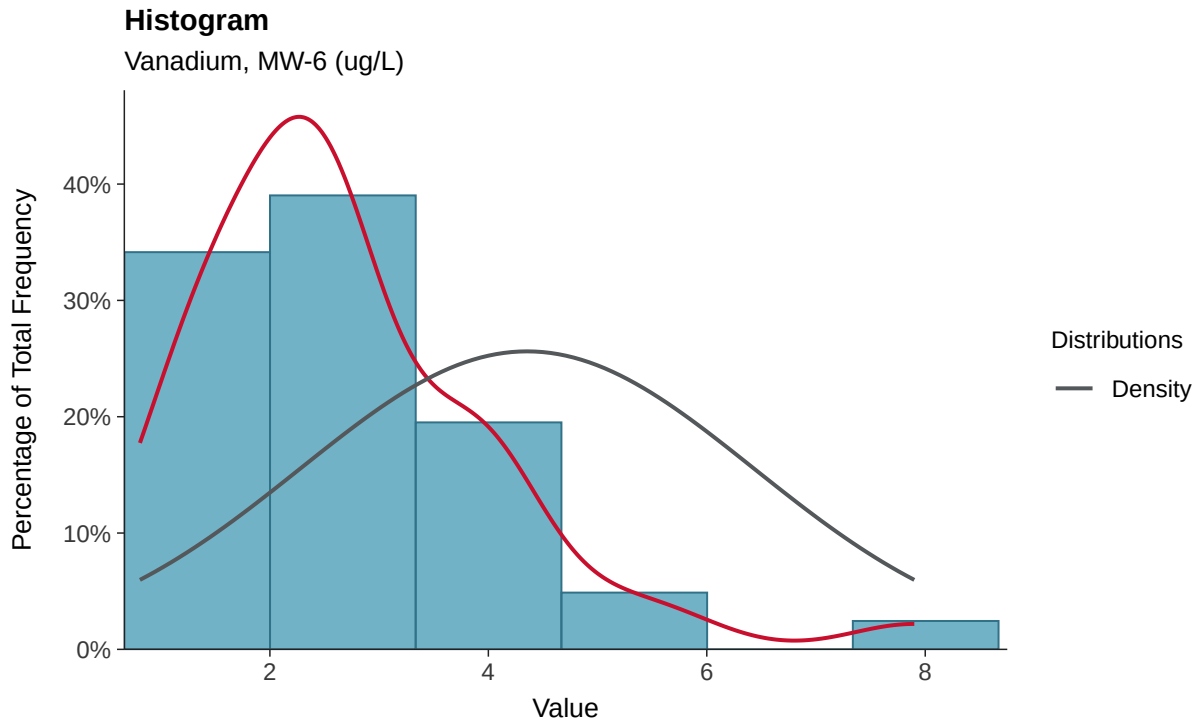
Silver, MW-6 (ug/L)



App. I Metals: Vanadium, MW-6

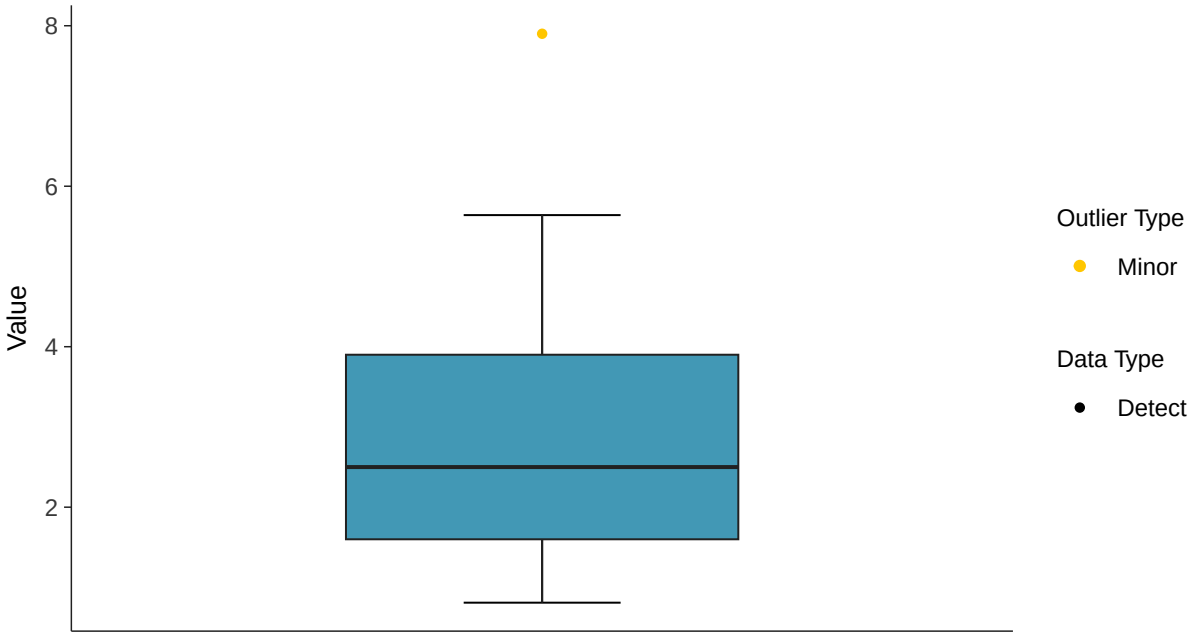
ID: 06_1_127





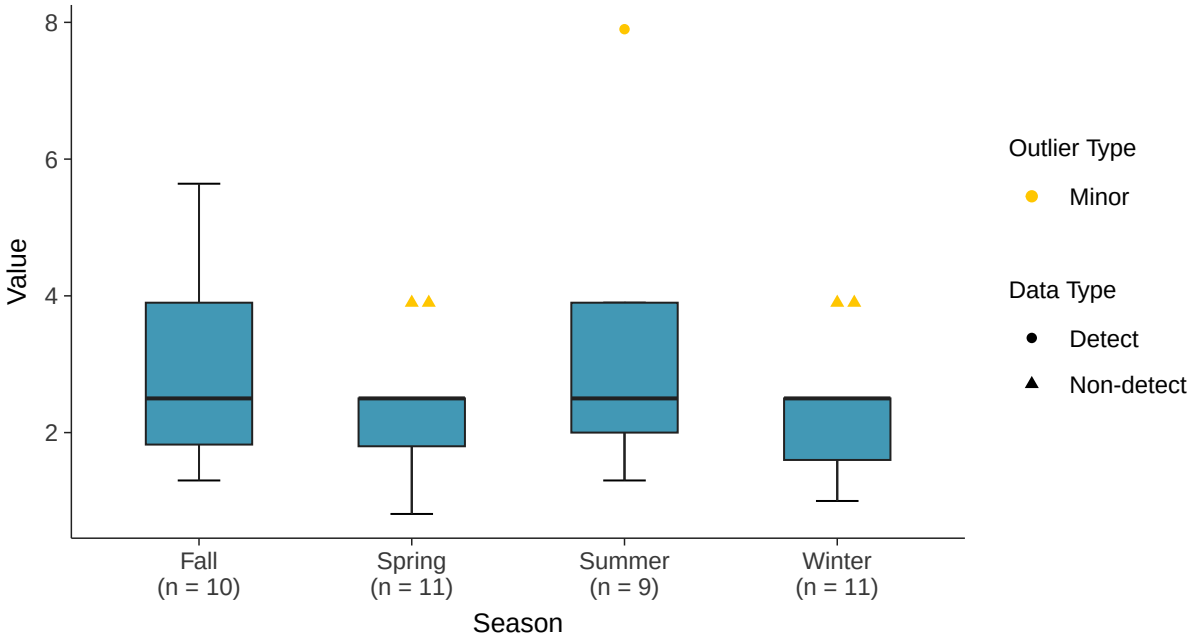
Boxplot

Vanadium, MW-6 (ug/L)



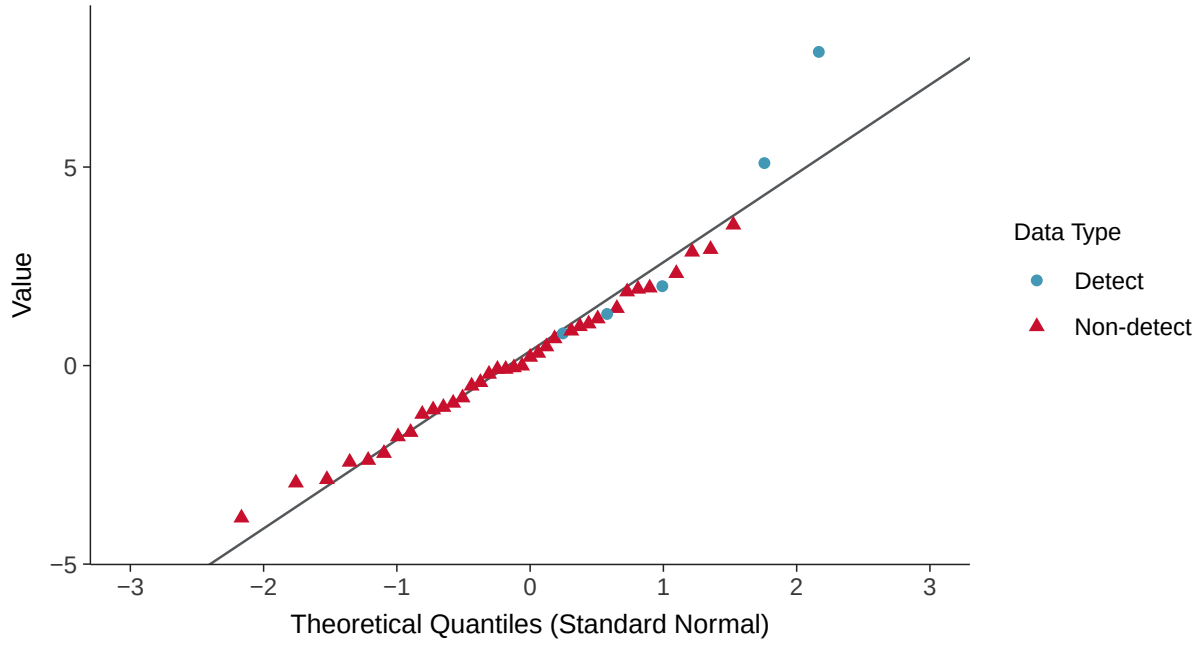
Boxplot by Season

Vanadium, MW-6 (ug/L)



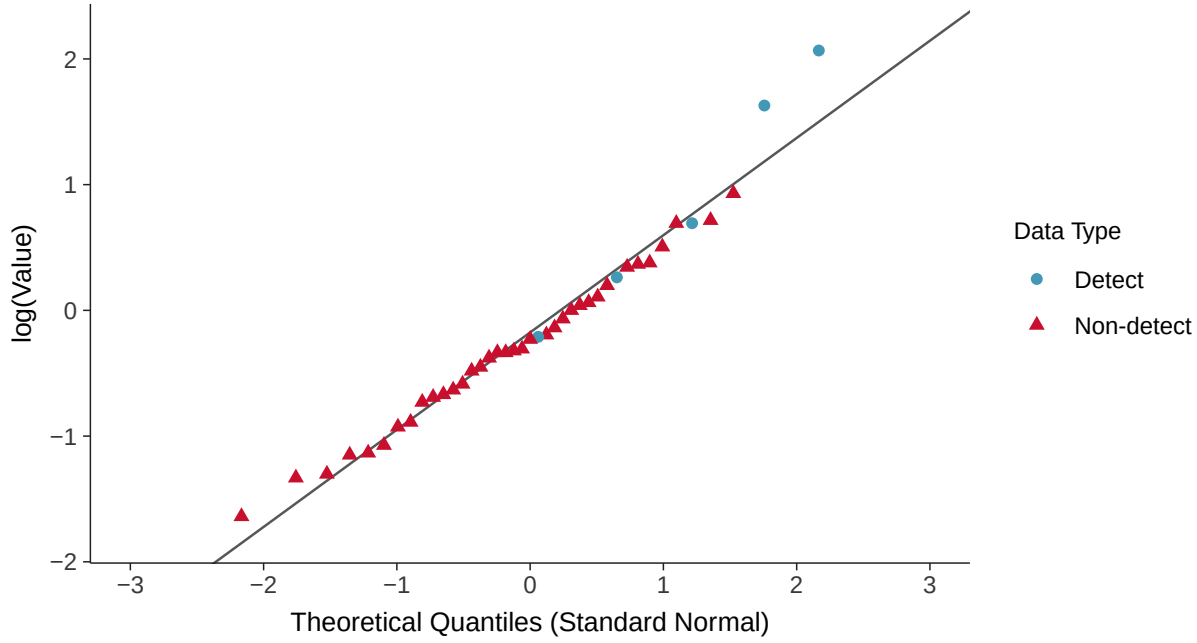
Normal Q-Q plot using ROS Imputed Estimates

Vanadium, MW-6 (ug/L)



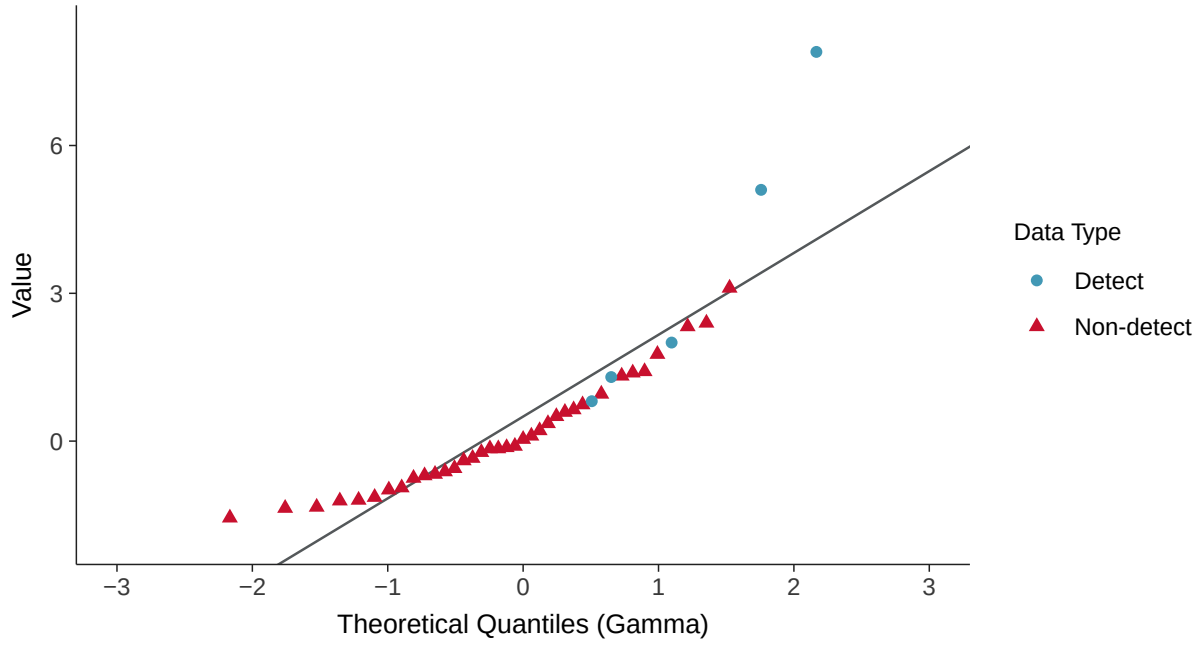
Lognormal Q-Q plot using ROS Imputed Estimates

Vanadium, MW-6 (ug/L)



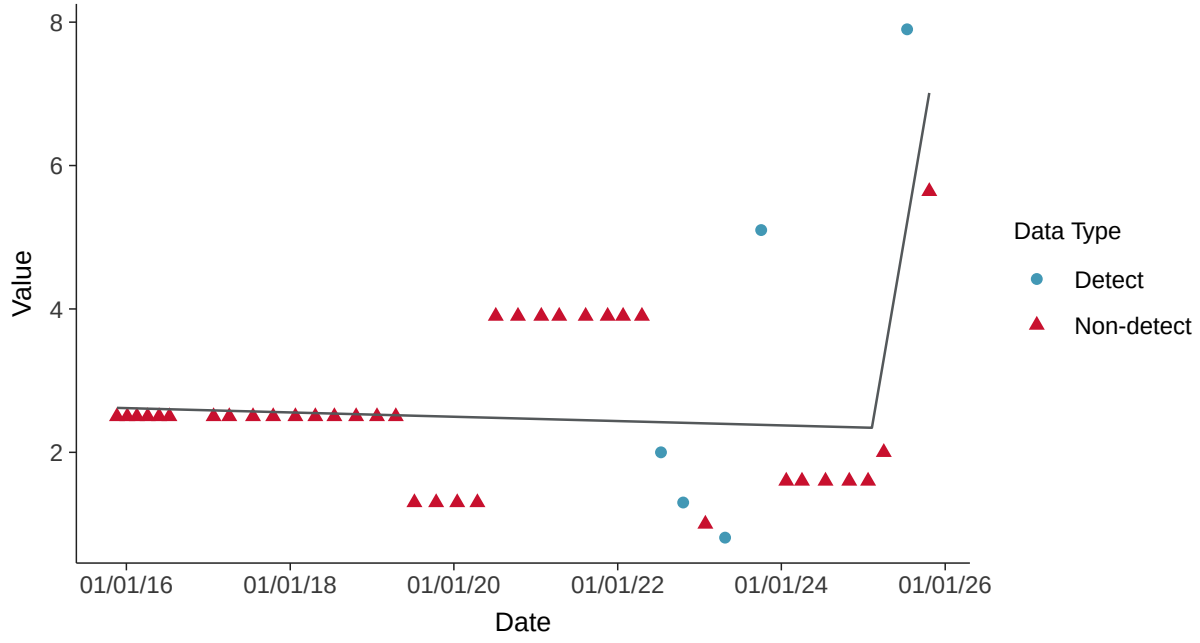
Gamma Q-Q plot using ROS Imputed Estimates

Vanadium, MW-6 (ug/L)



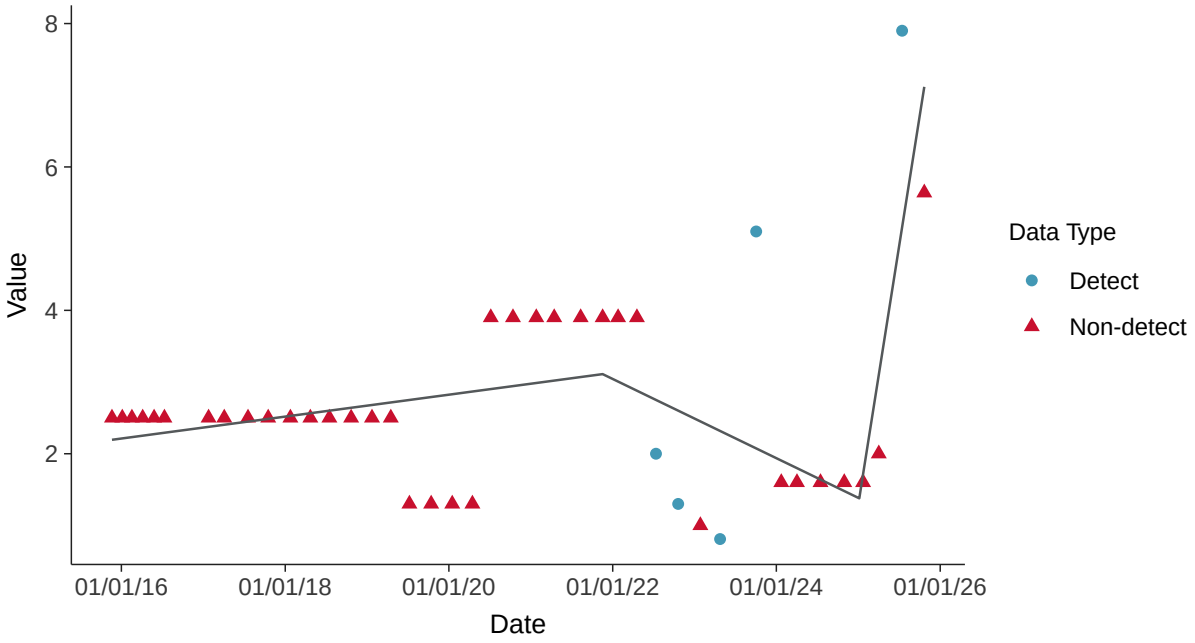
Trend Regression: Piecewise Linear-Linear

Vanadium, MW-6 (ug/L)



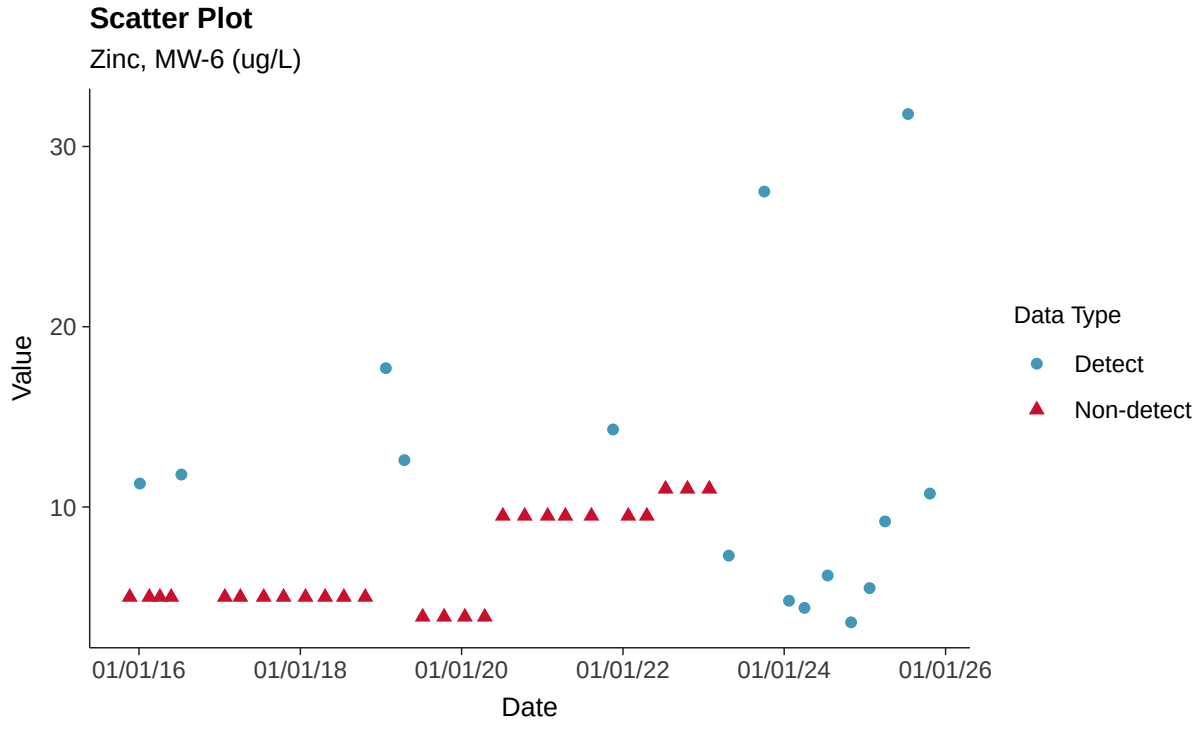
Trend Regression: Piecewise Linear-Linear-Linear

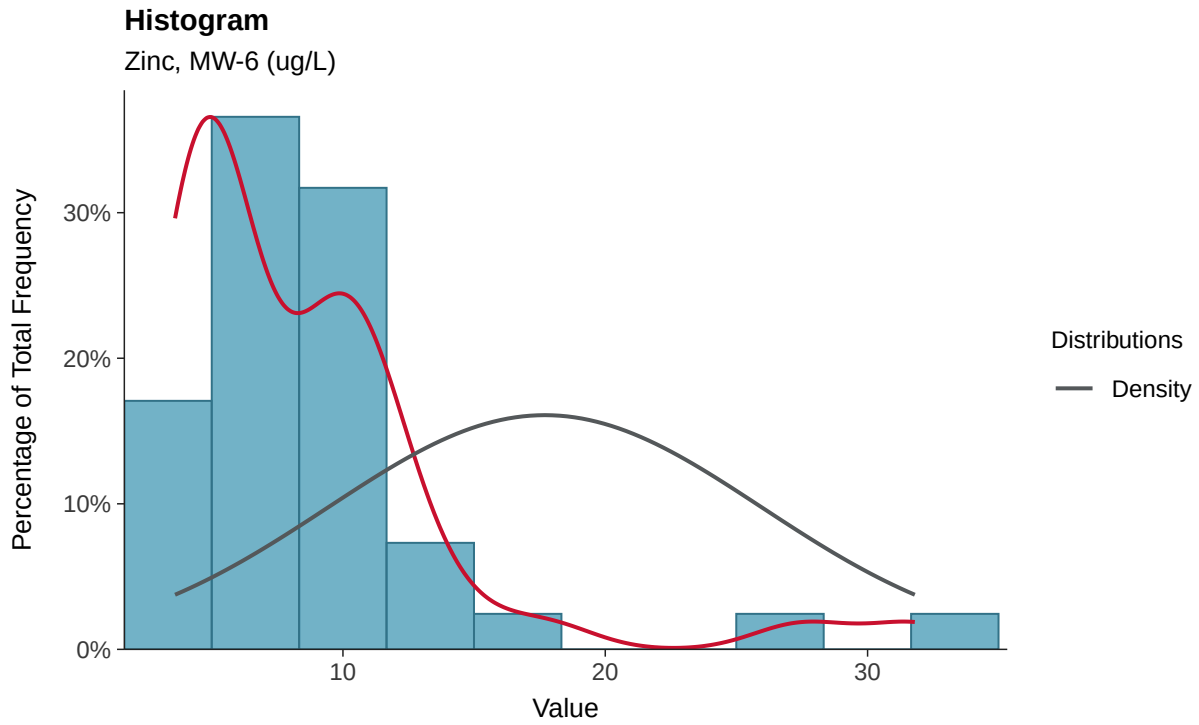
Vanadium, MW-6 (ug/L)



App. I Metals: Zinc, MW-6

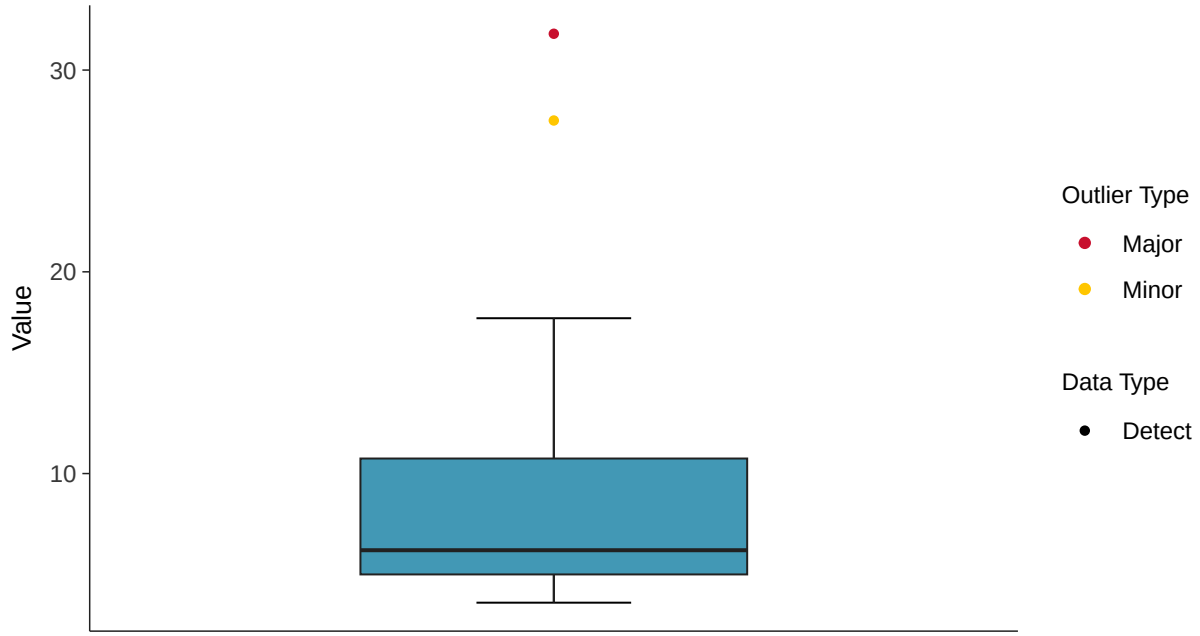
ID: 06_1_128





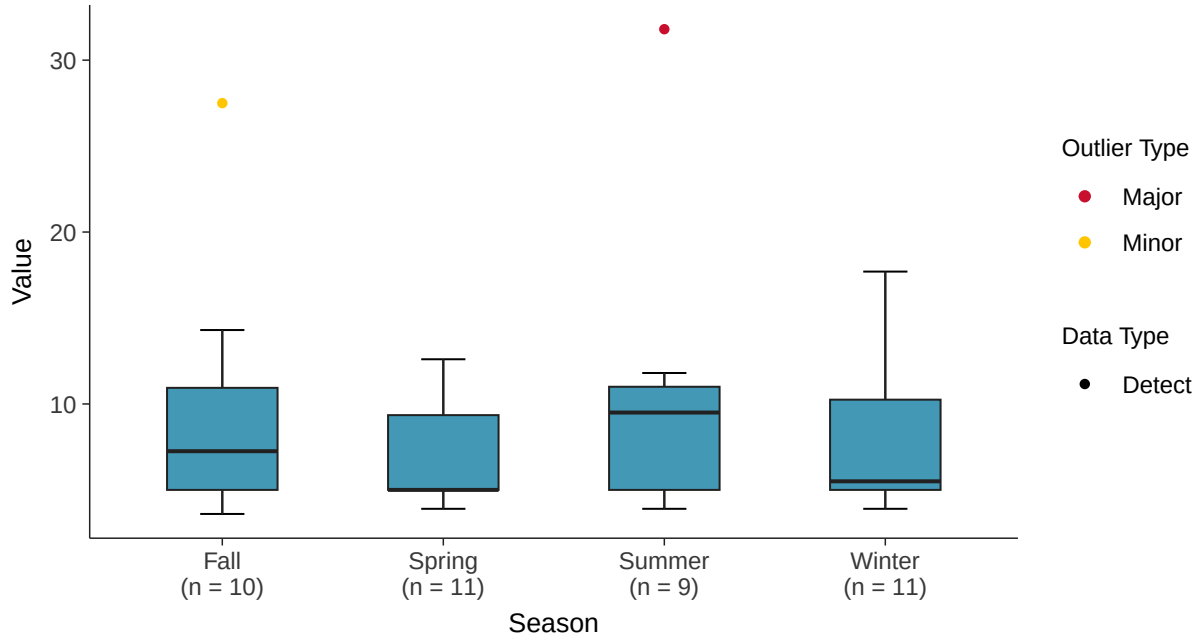
Boxplot

Zinc, MW-6 (ug/L)



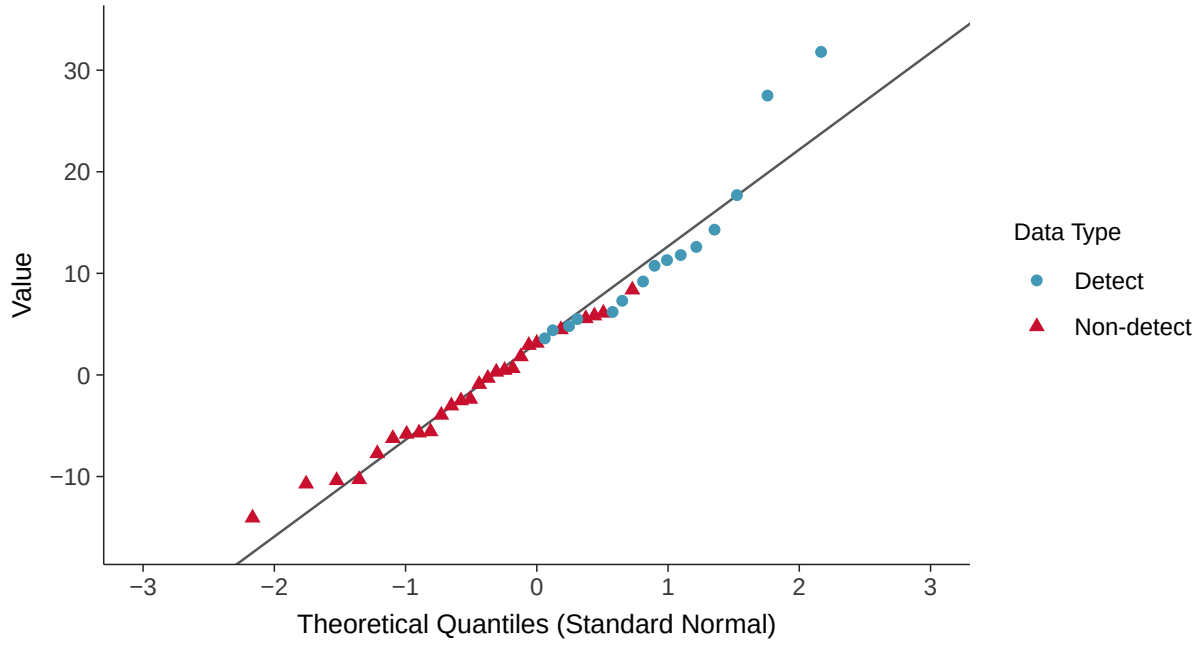
Boxplot by Season

Zinc, MW-6 (ug/L)



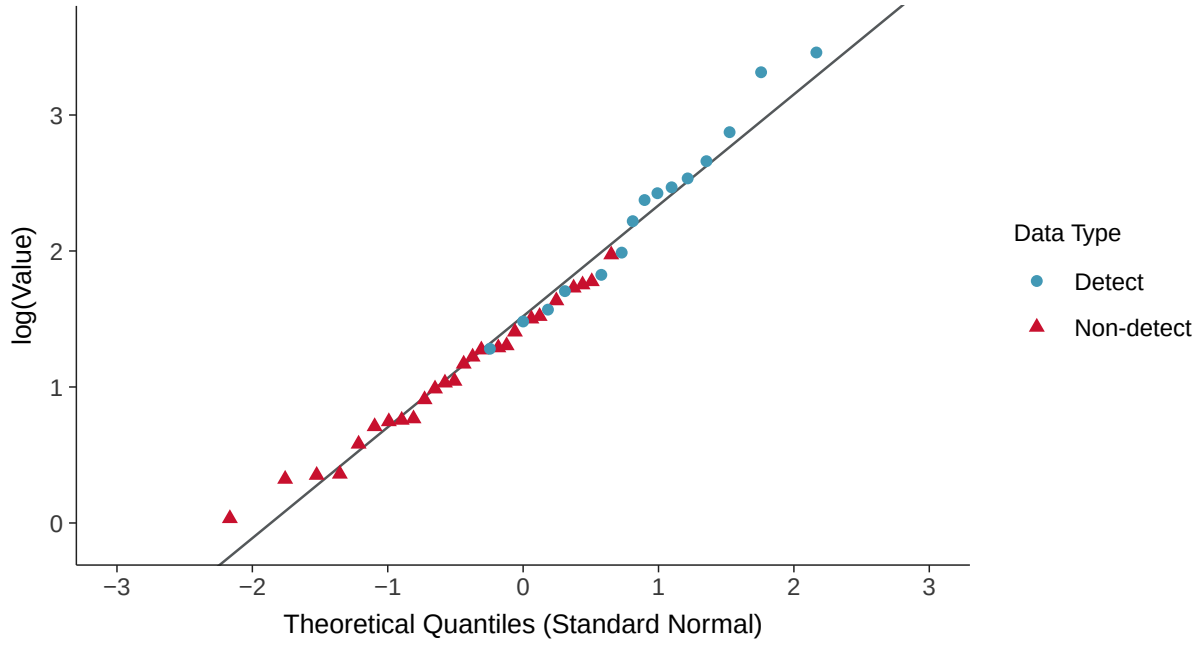
Normal Q-Q plot using ROS Imputed Estimates

Zinc, MW-6 (ug/L)



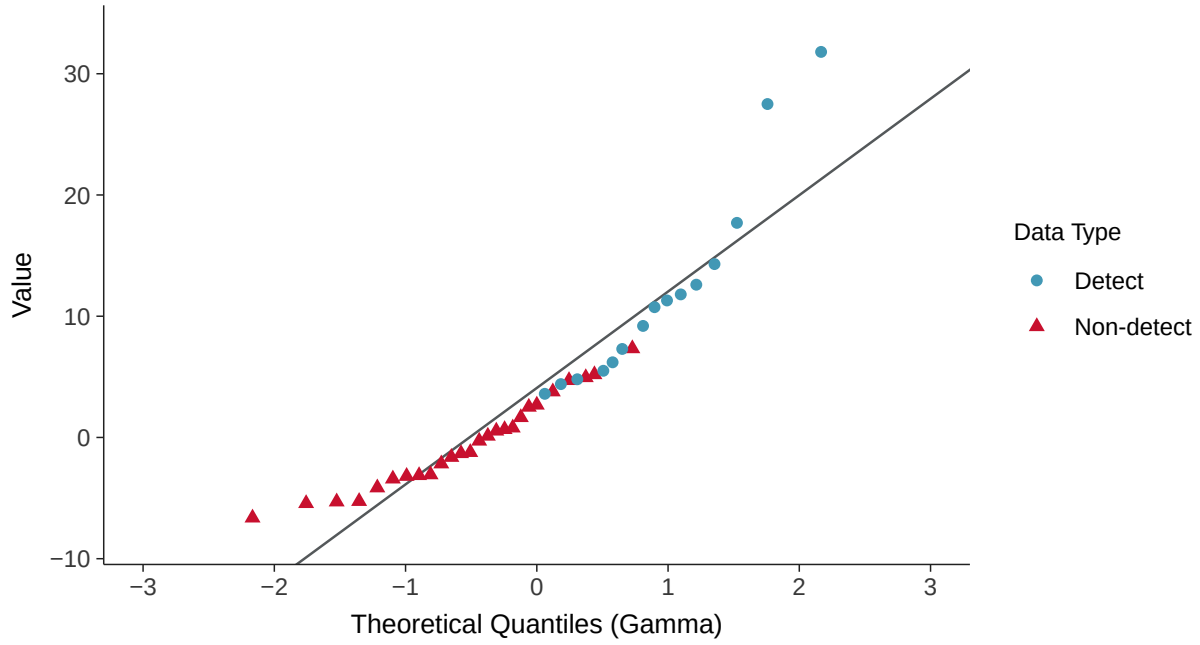
Lognormal Q-Q plot using ROS Imputed Estimates

Zinc, MW-6 (ug/L)



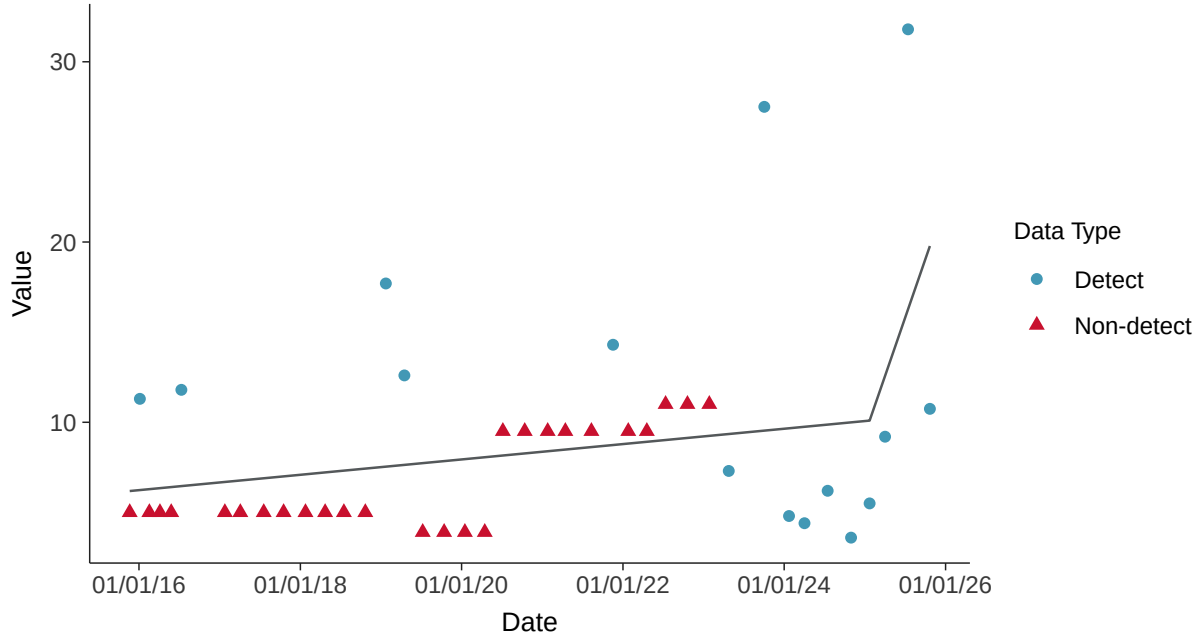
Gamma Q-Q plot using ROS Imputed Estimates

Zinc, MW-6 (ug/L)



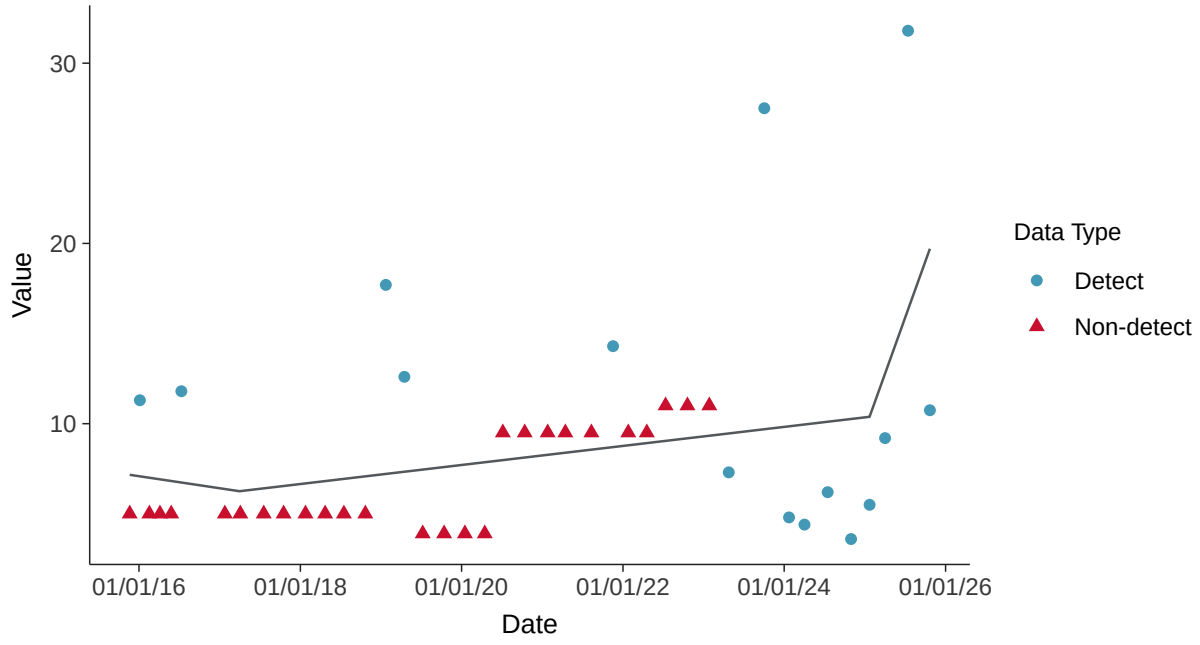
Trend Regression: Piecewise Linear-Linear

Zinc, MW-6 (ug/L)



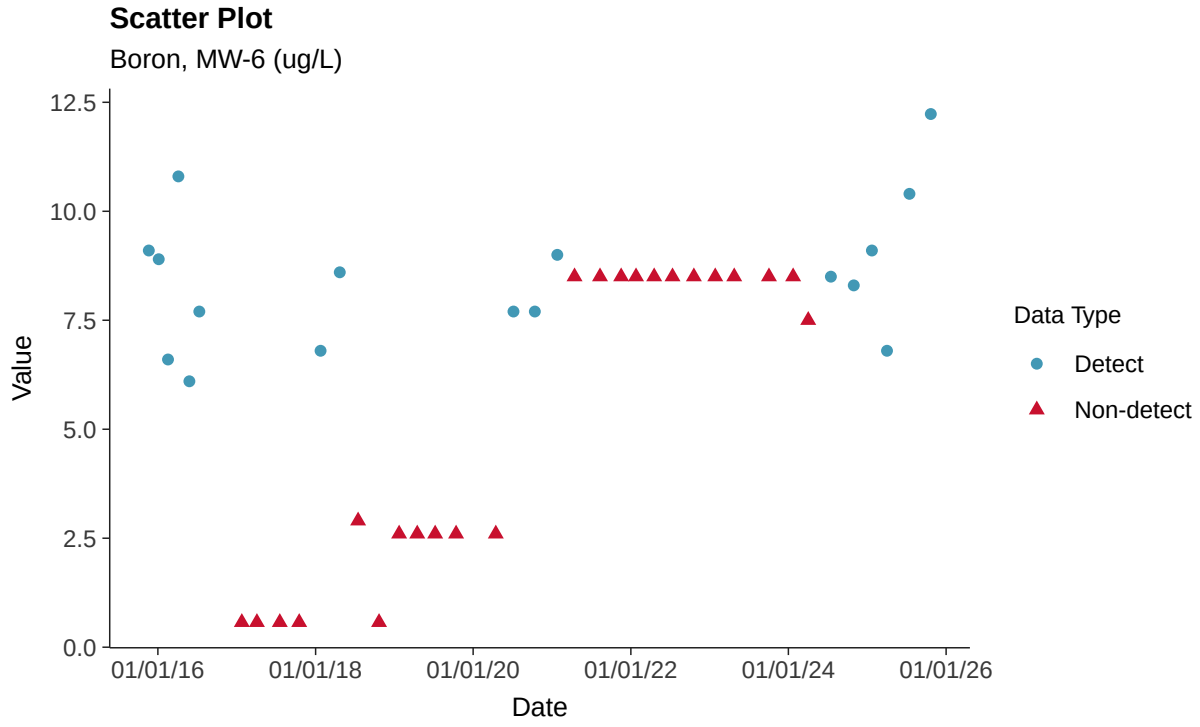
Trend Regression: Piecewise Linear-Linear-Linear

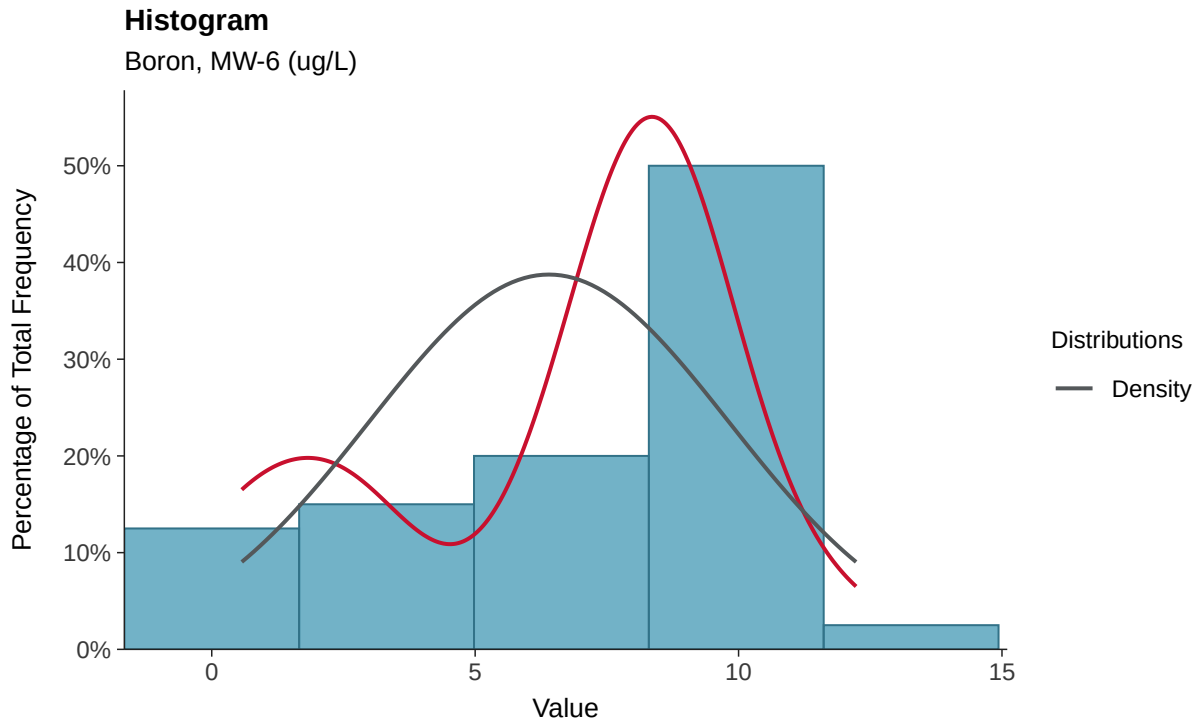
Zinc, MW-6 (ug/L)



App. III: Boron, MW-6

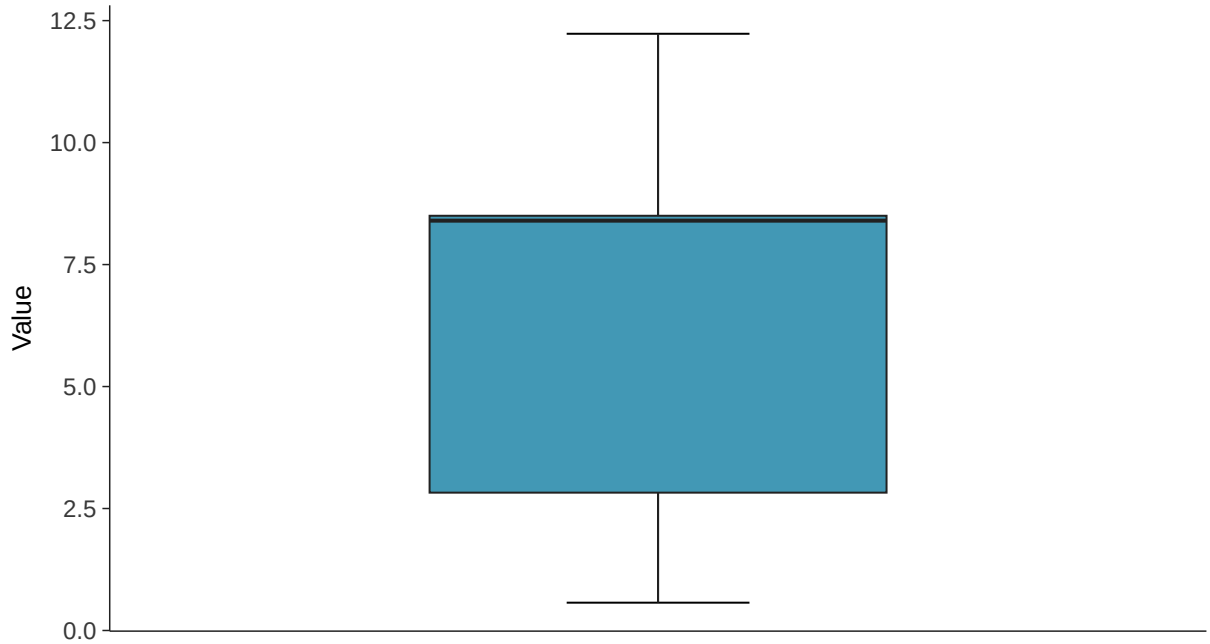
ID: 06_2_105





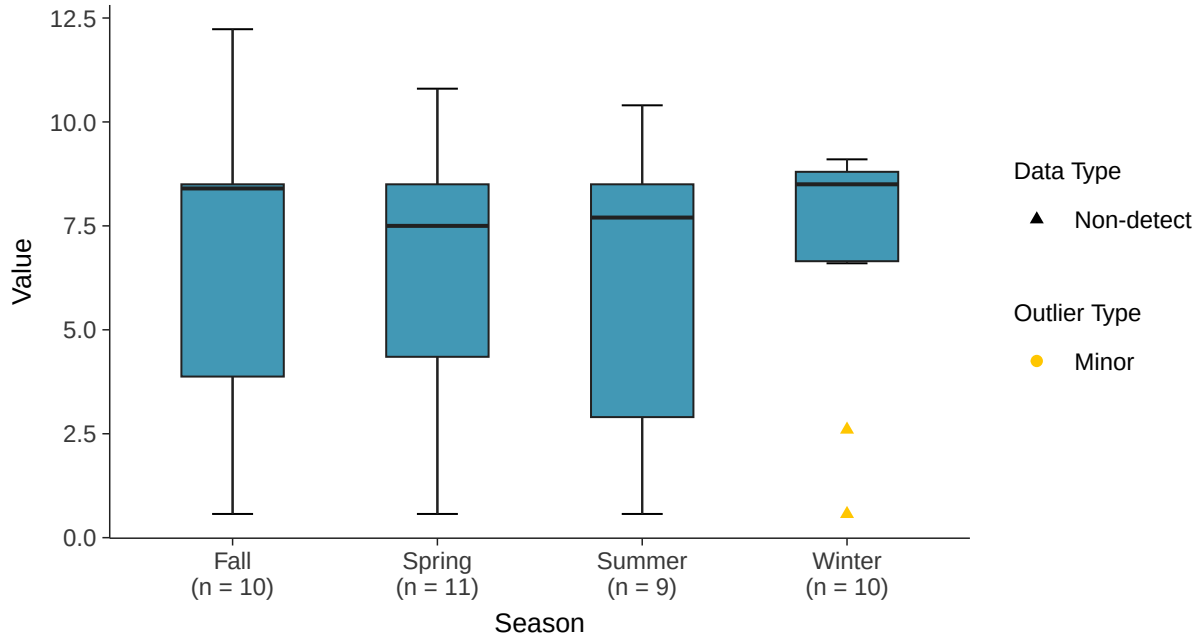
Boxplot

Boron, MW-6 (ug/L)



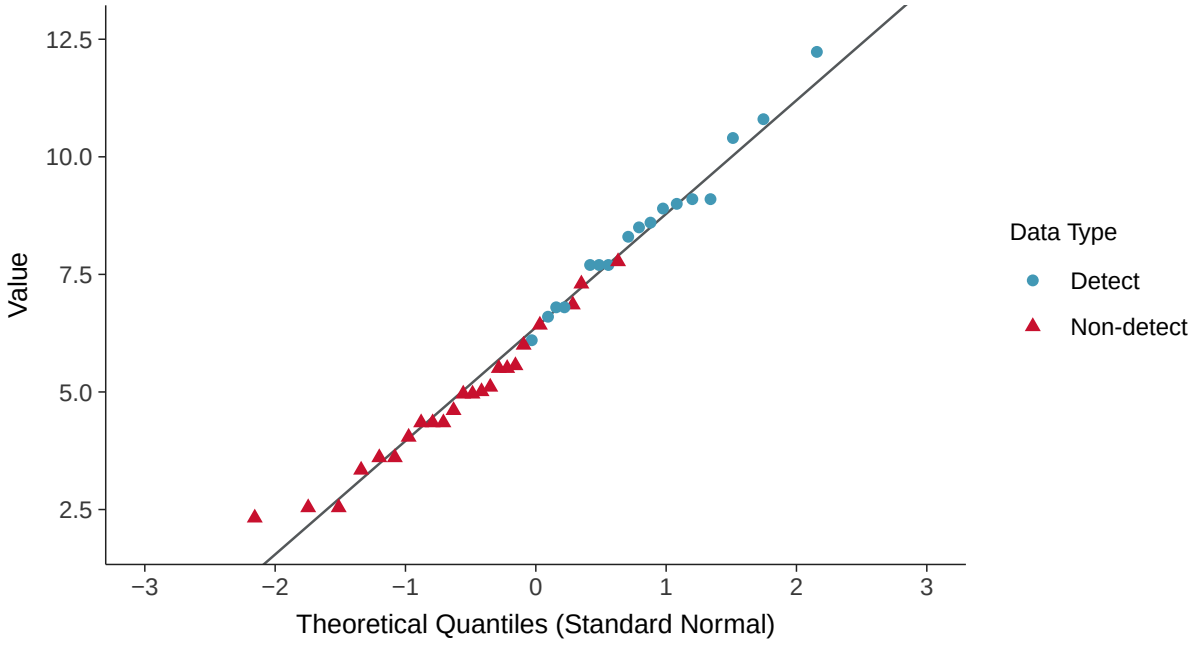
Boxplot by Season

Boron, MW-6 (ug/L)



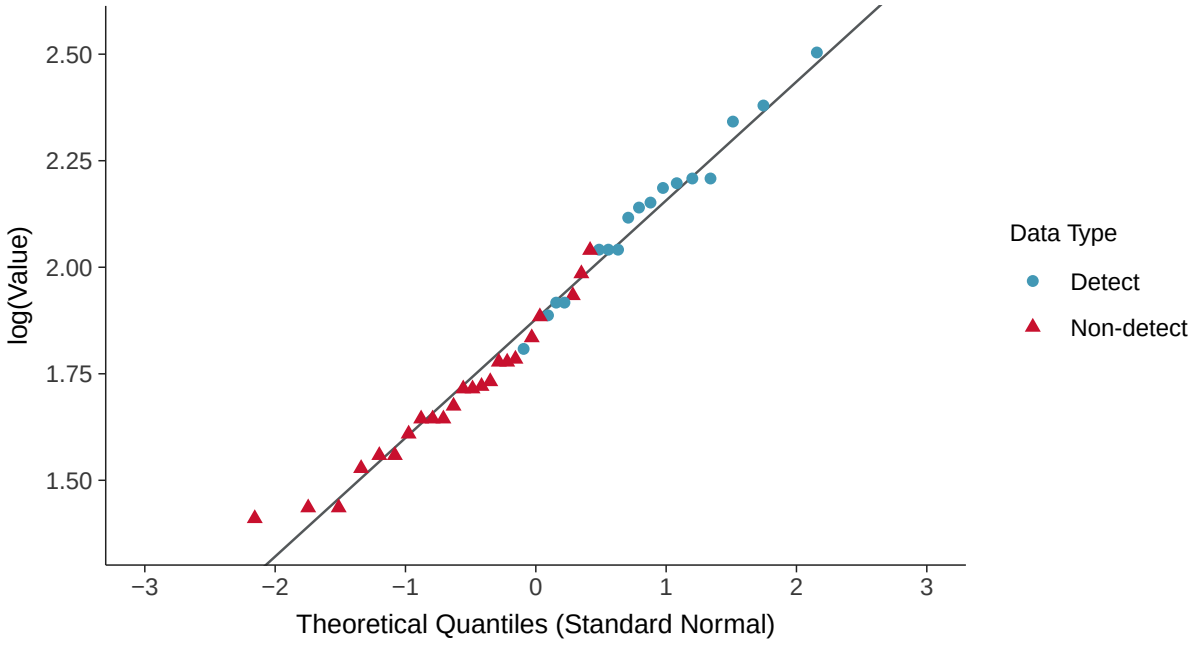
Normal Q-Q plot using ROS Imputed Estimates

Boron, MW-6 (ug/L)



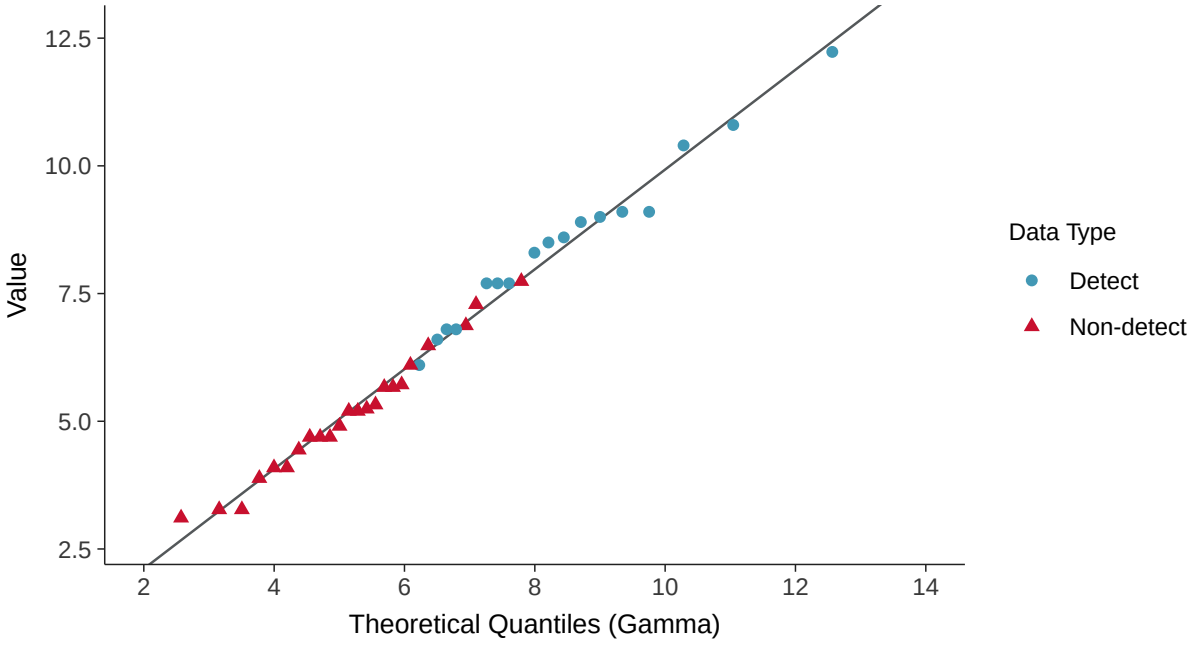
Lognormal Q-Q plot using ROS Imputed Estimates

Boron, MW-6 (ug/L)



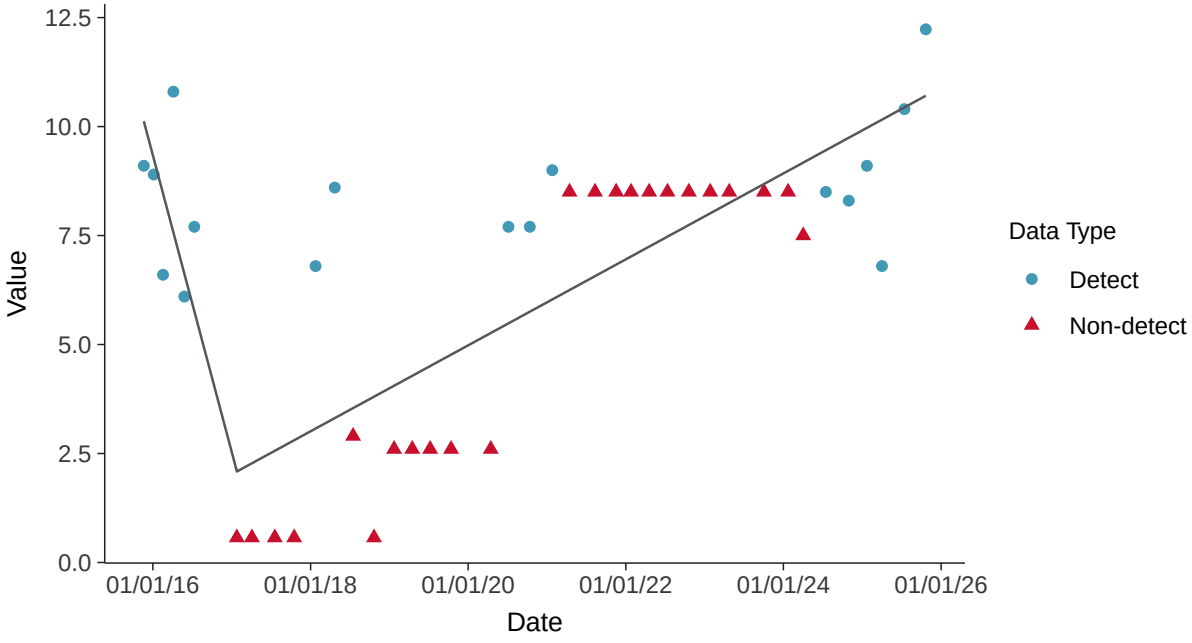
Gamma Q-Q plot using ROS Imputed Estimates

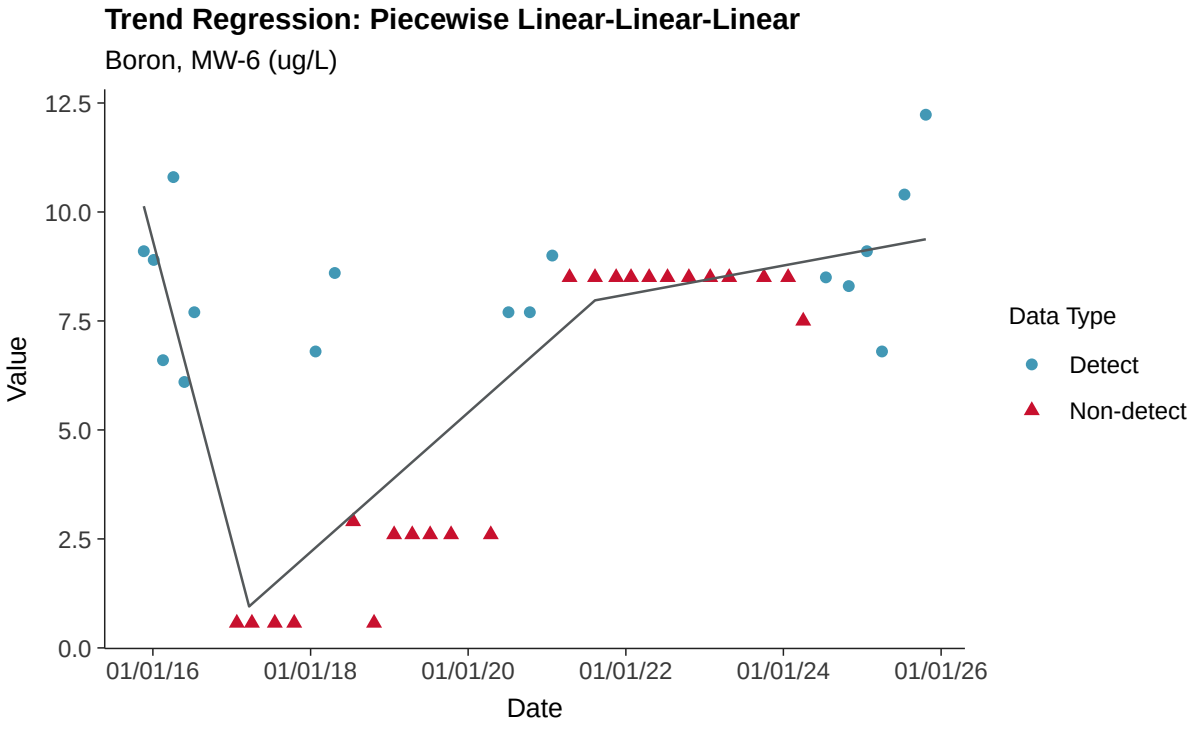
Boron, MW-6 (ug/L)



Trend Regression: Piecewise Linear-Linear

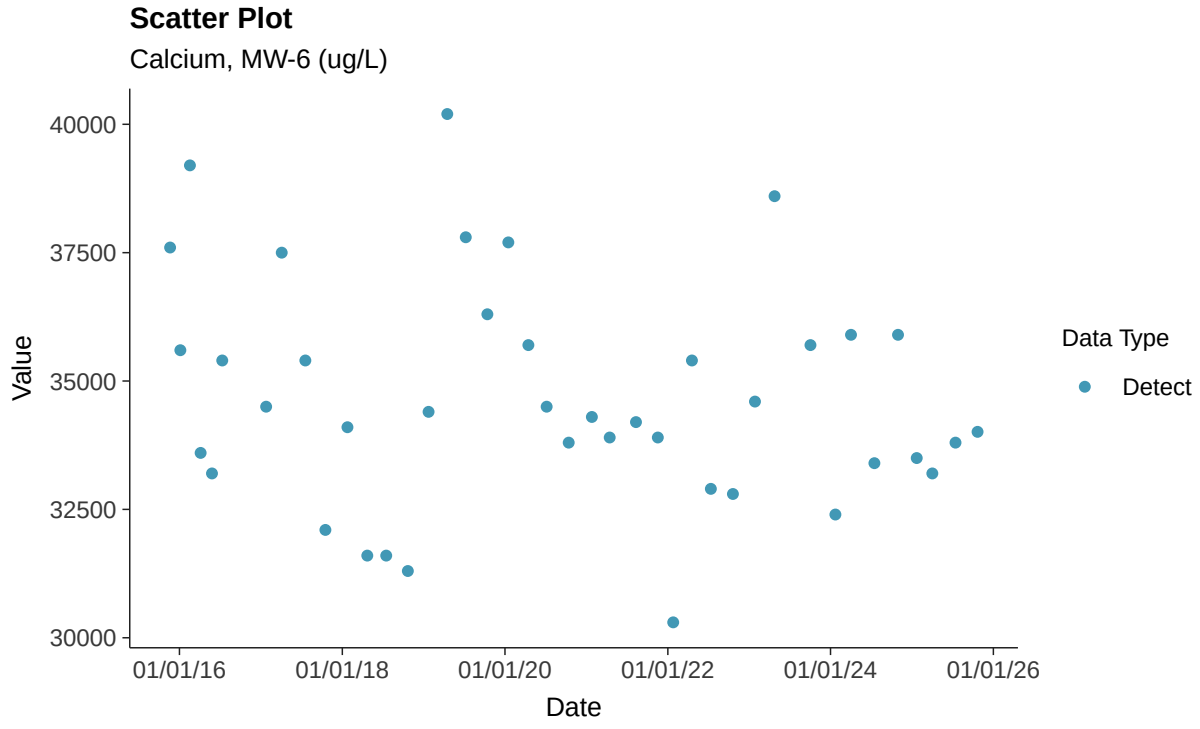
Boron, MW-6 (ug/L)

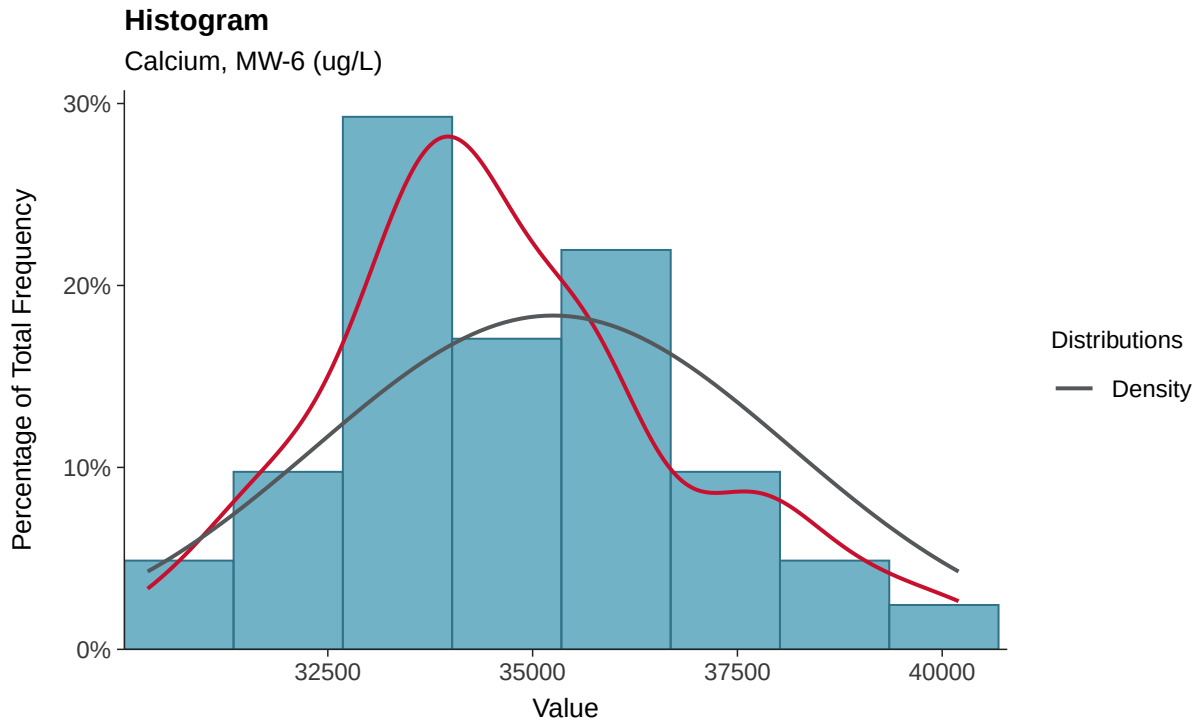



Trend Regression: Piecewise Linear-Linear-Linear
Boron, MW-6 (ug/L)
Value
12.5
10.0
7.5
5.0
2.5
0.0
01/01/16
01/01/18
01/01/20
01/01/22
01/01/24
01/01/26
Date
Data Type
Detect
Non-detect

App. III: Calcium, MW-6

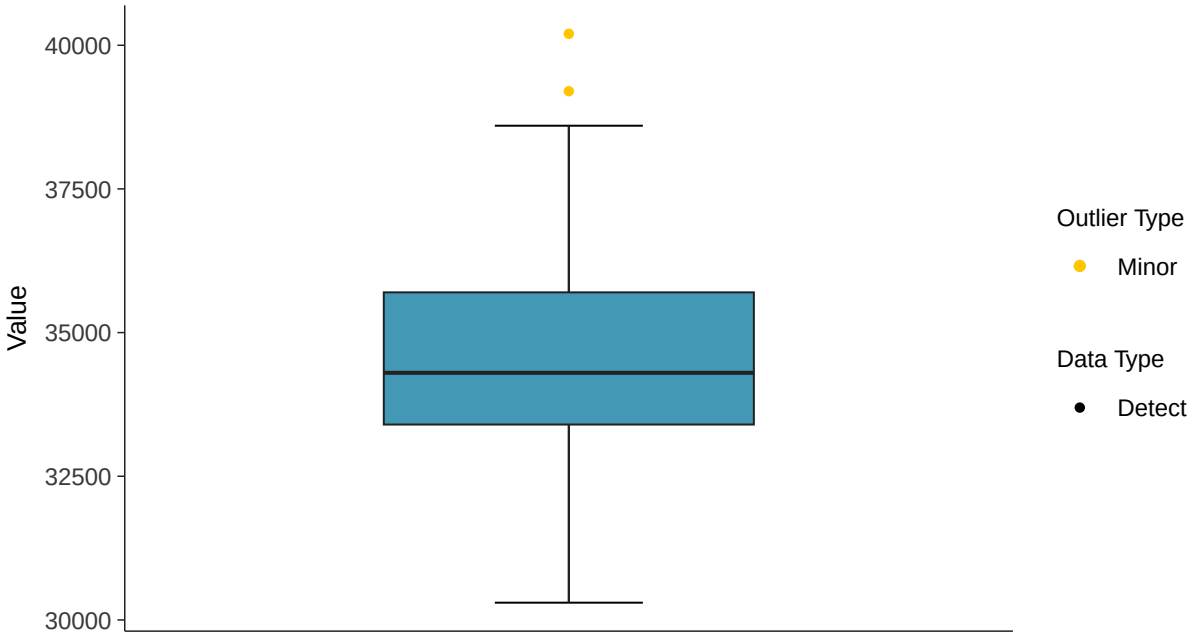
ID: 06_2_107





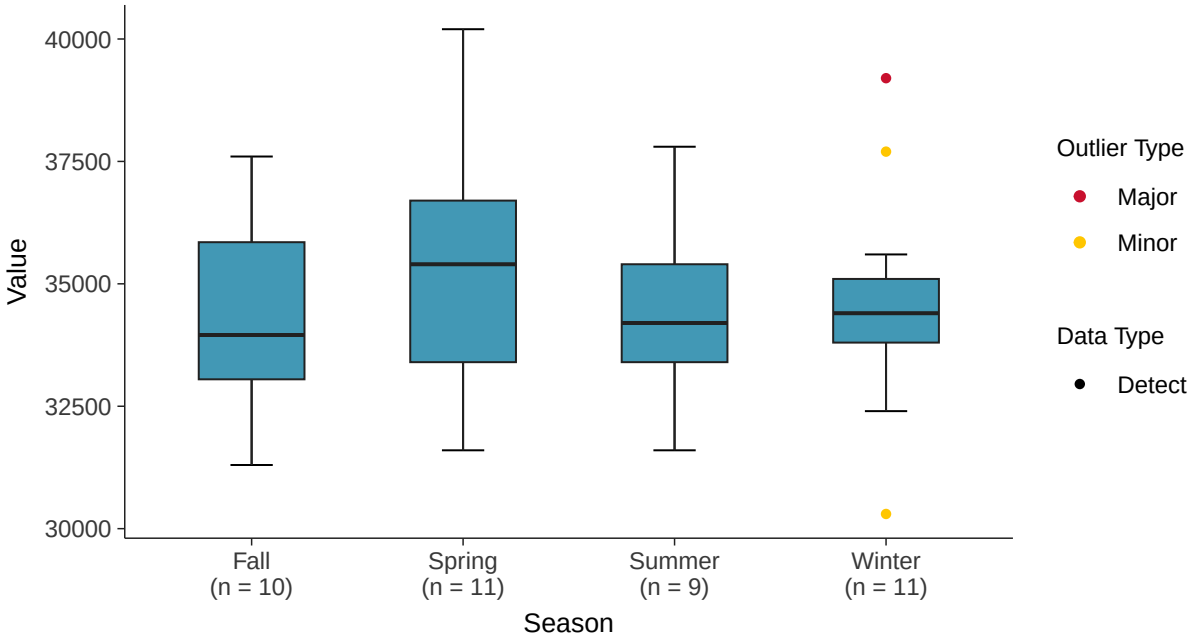
Boxplot

Calcium, MW-6 (ug/L)



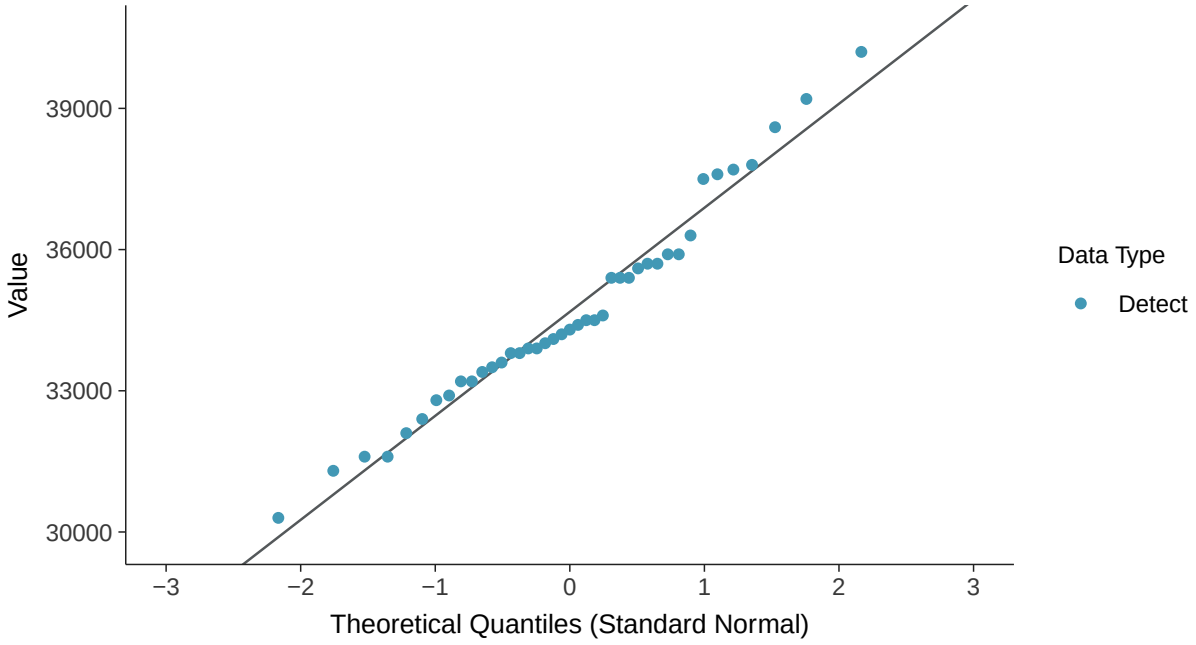
Boxplot by Season

Calcium, MW-6 (ug/L)



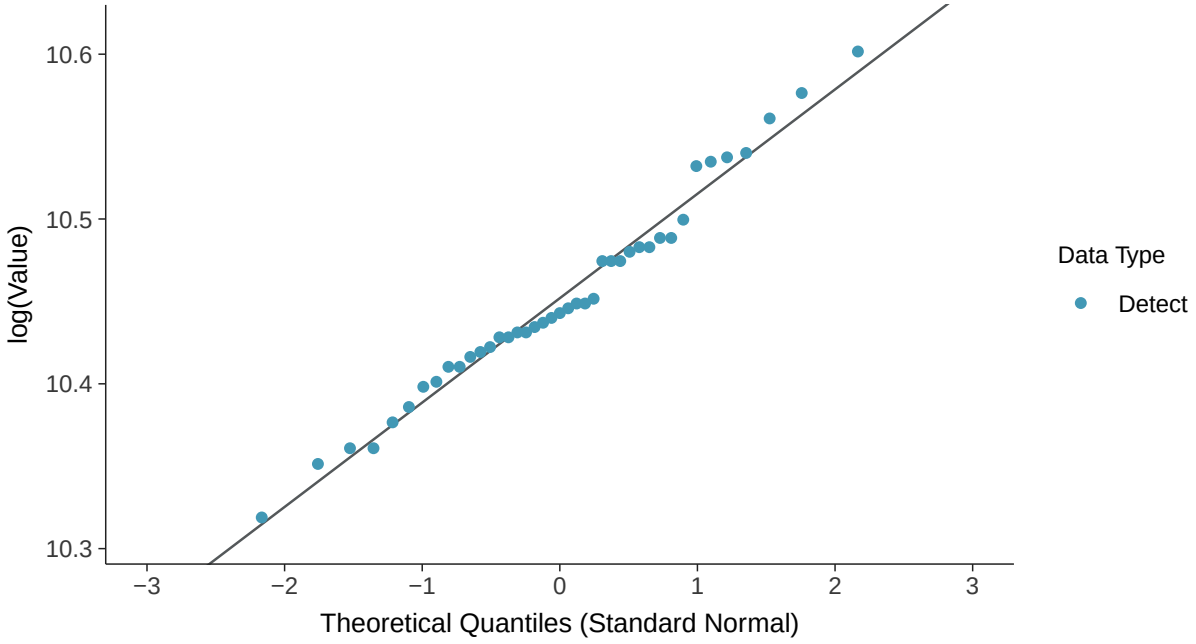
Normal Q-Q plot

Calcium, MW-6 (ug/L)



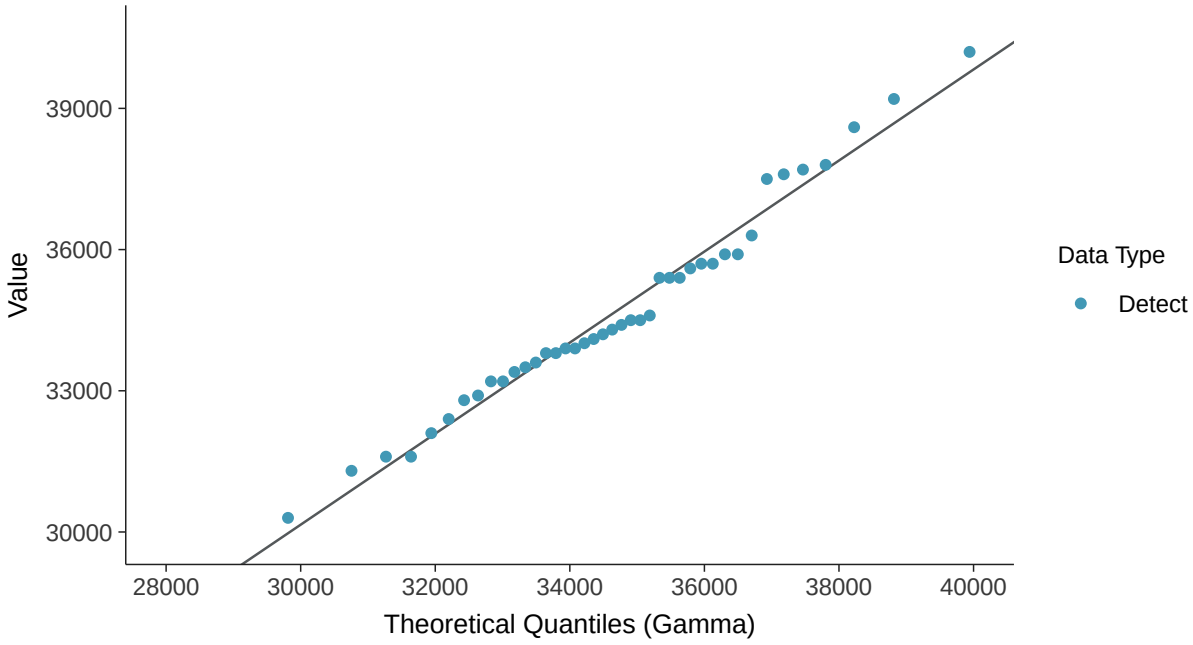
Lognormal Q-Q plot

Calcium, MW-6 (ug/L)



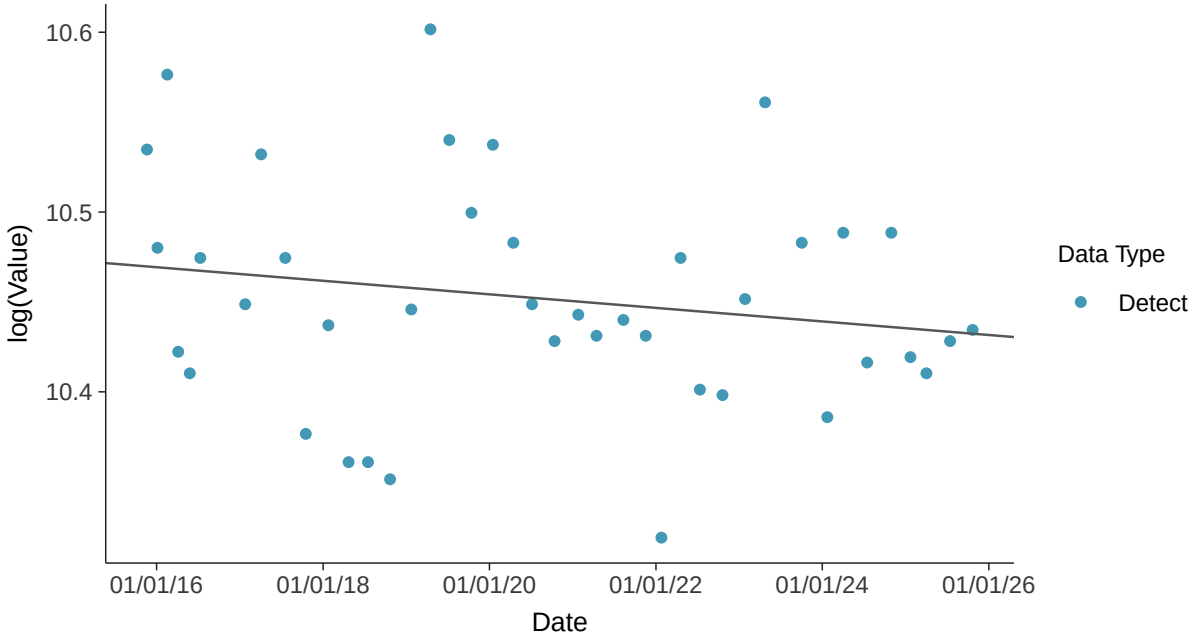
Gamma Q-Q plot

Calcium, MW-6 (ug/L)



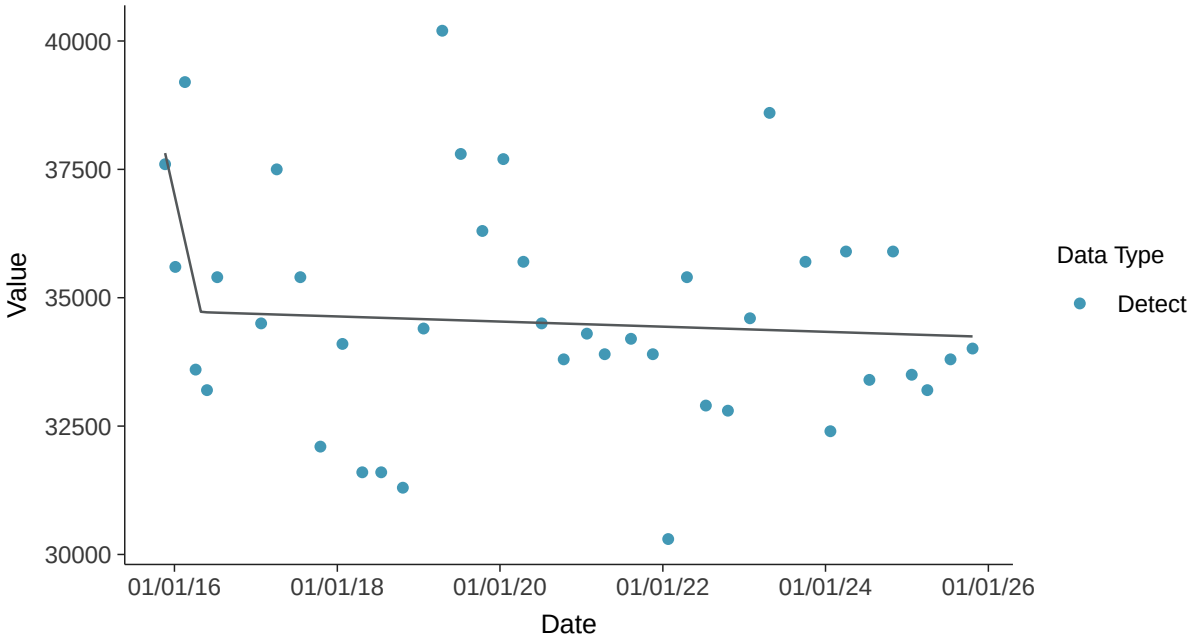
Trend Regression: Lognormal MLE

Calcium, MW-6 (ug/L)



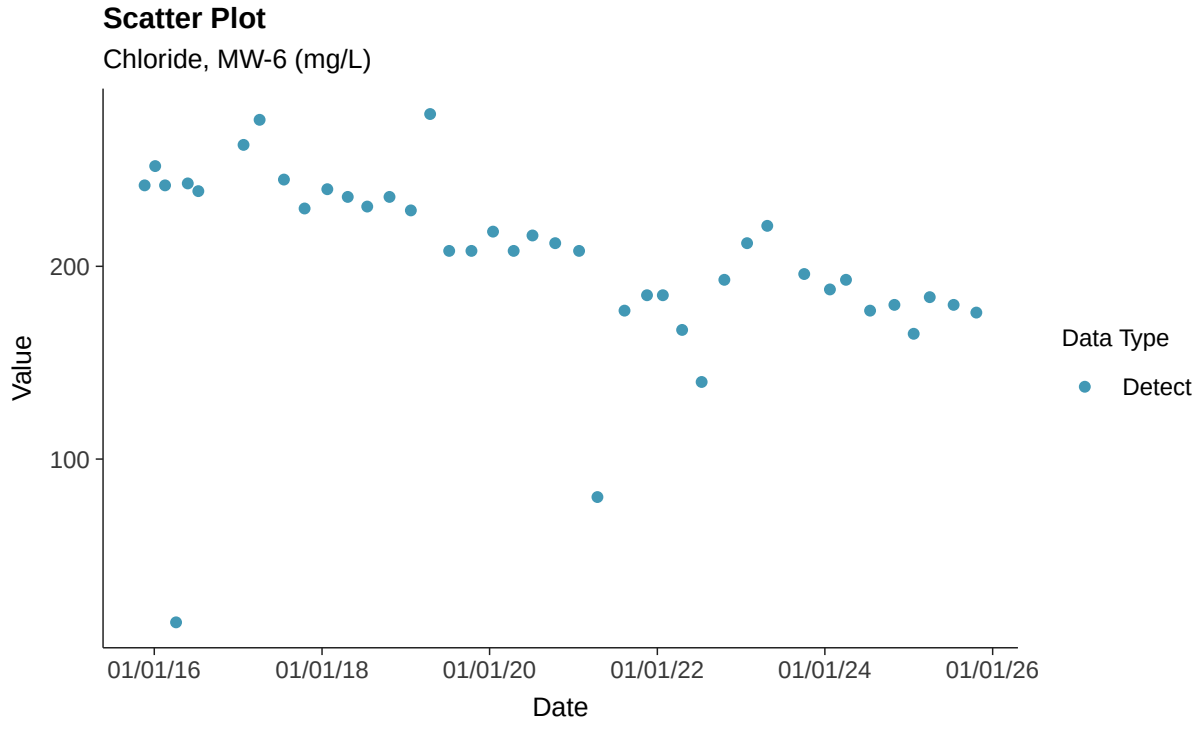
Trend Regression: Piecewise Linear-Linear

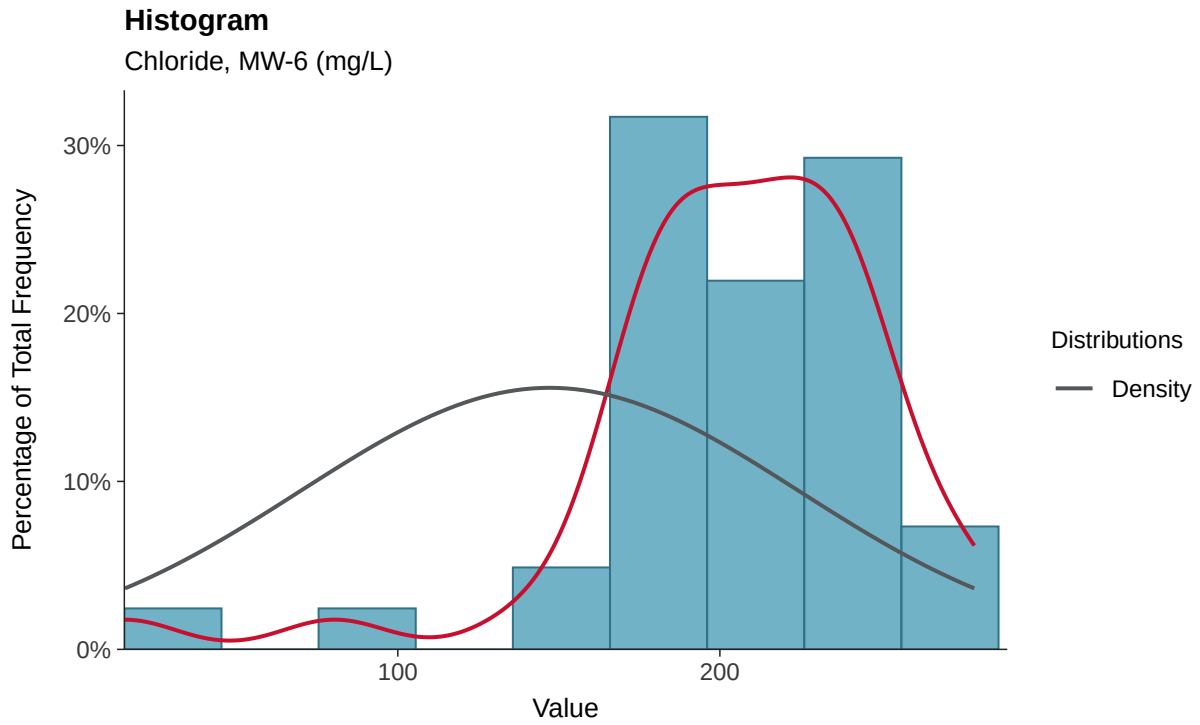
Calcium, MW-6 (ug/L)



App. III: Chloride, MW-6

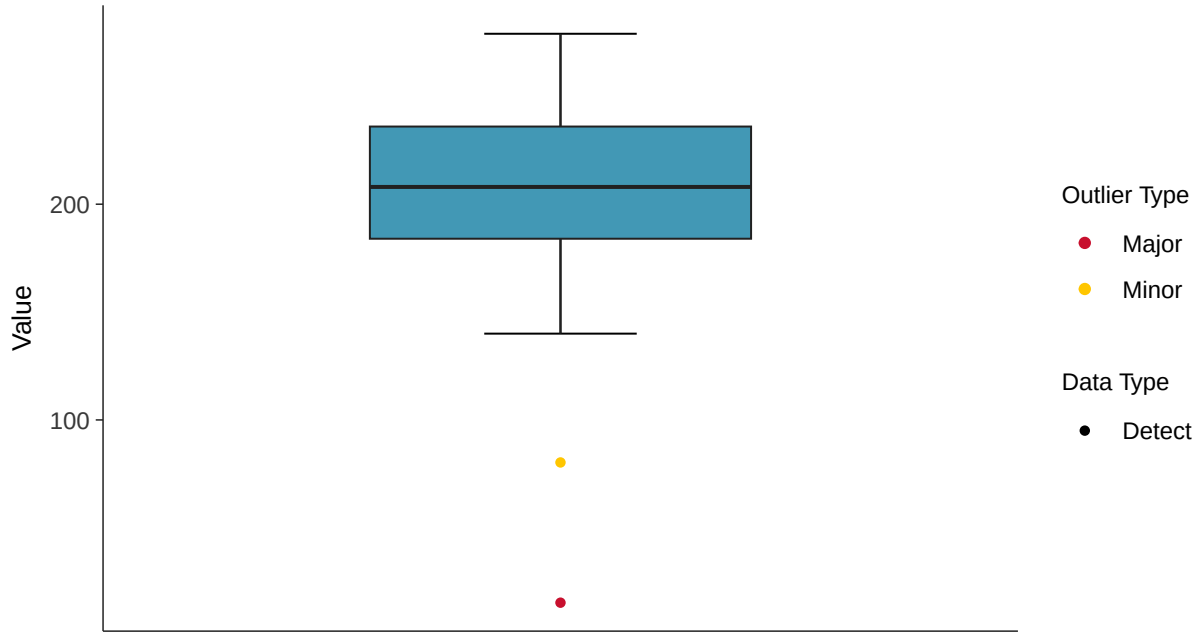
ID: 06_2_108





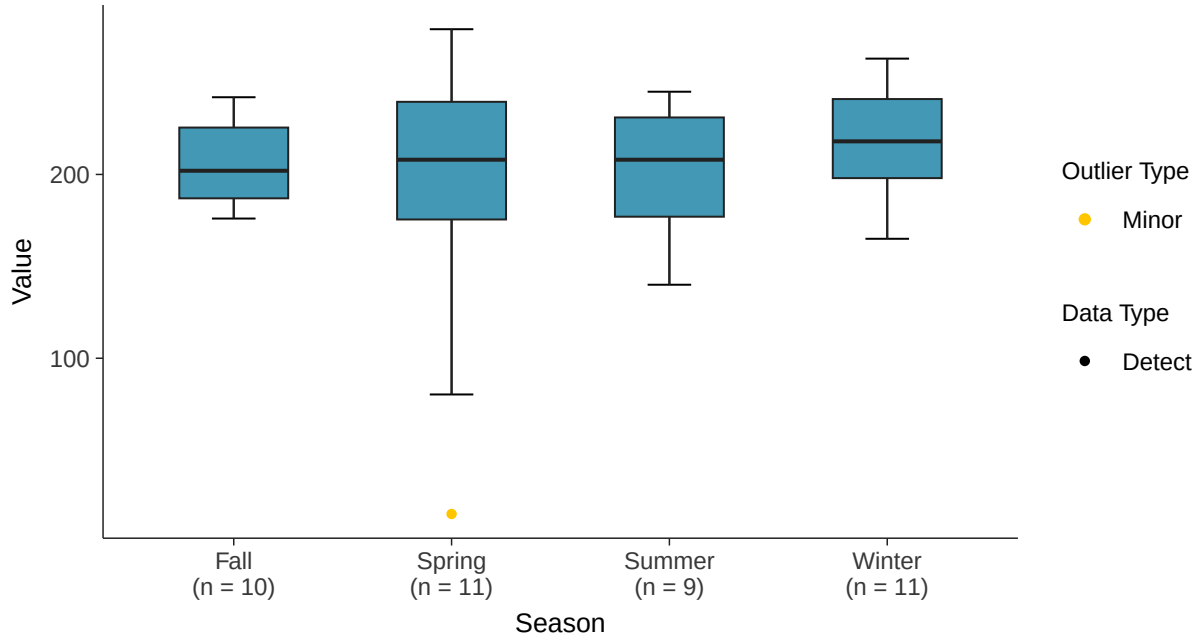
Boxplot

Chloride, MW-6 (mg/L)



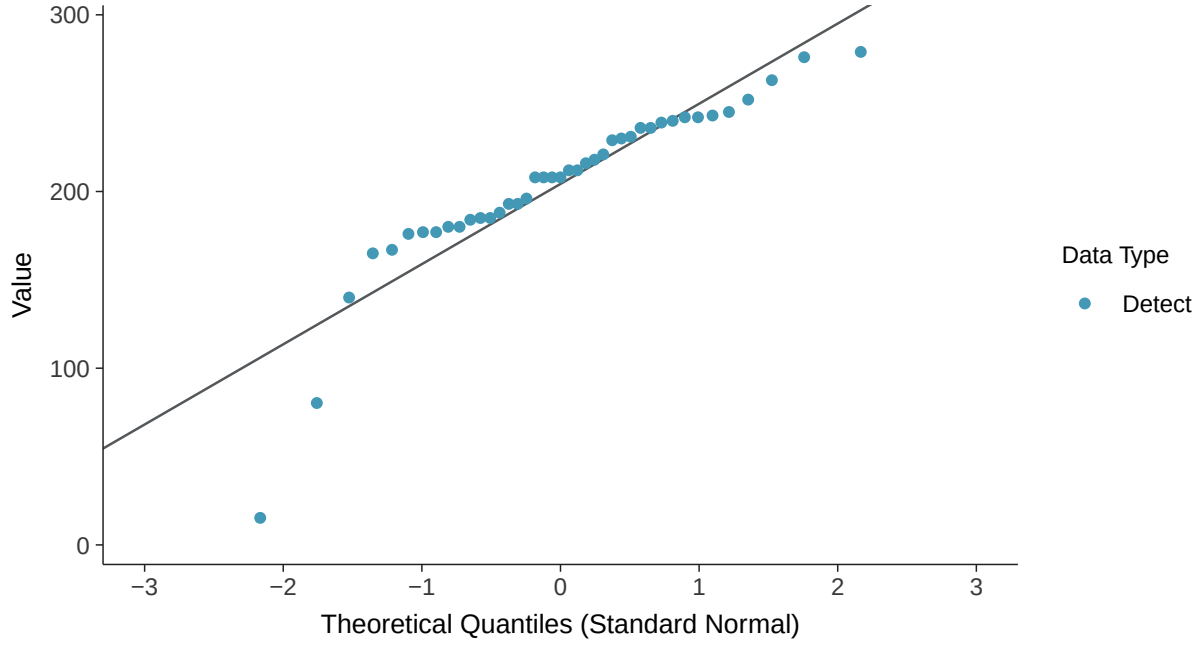
Boxplot by Season

Chloride, MW-6 (mg/L)



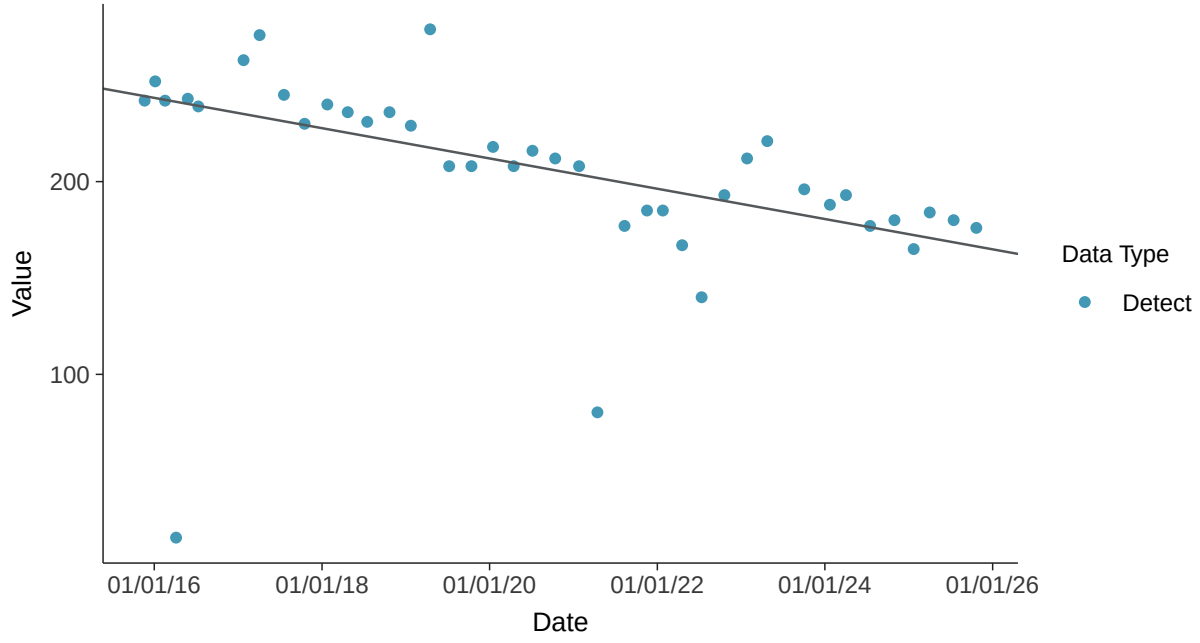
Normal Q-Q plot

Chloride, MW-6 (mg/L)



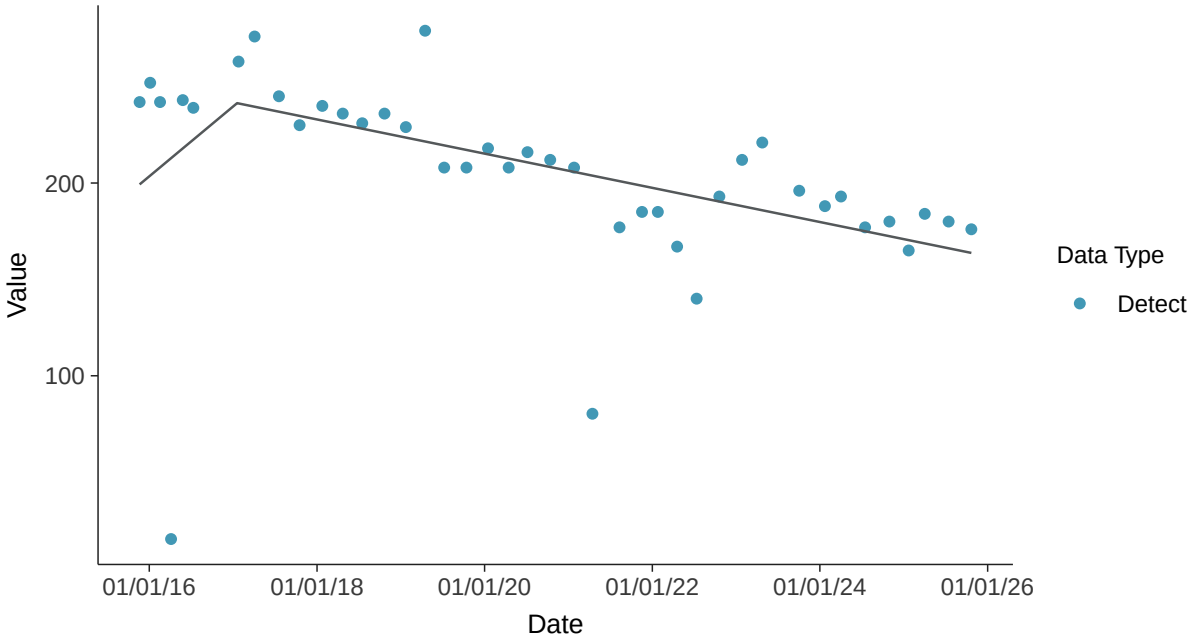
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Chloride, MW-6 (mg/L)



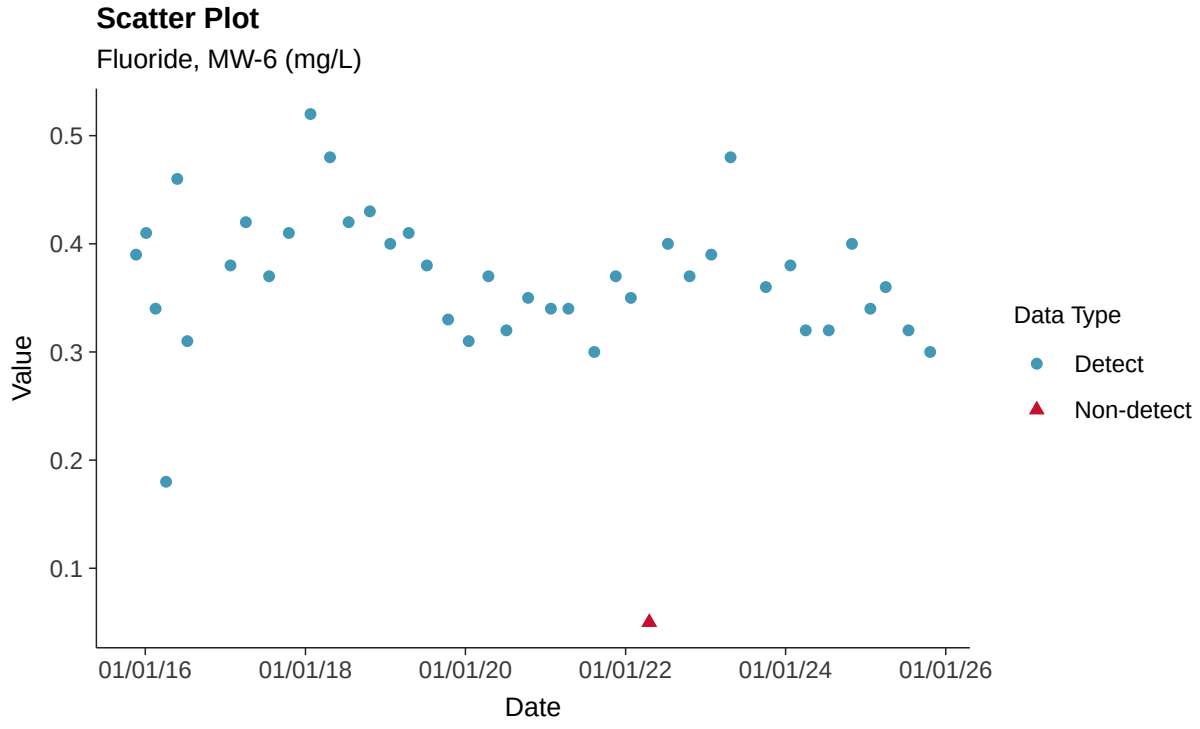
Trend Regression: Piecewise Linear-Linear

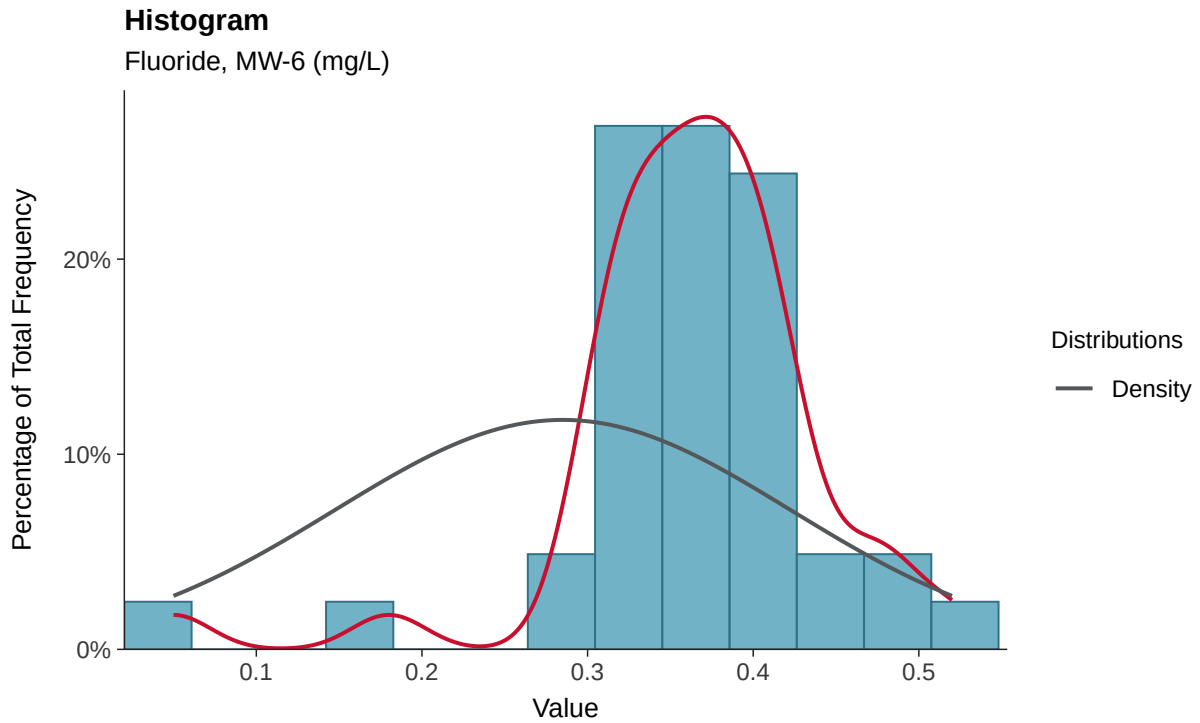
Chloride, MW-6 (mg/L)



App. III: Fluoride, MW-6

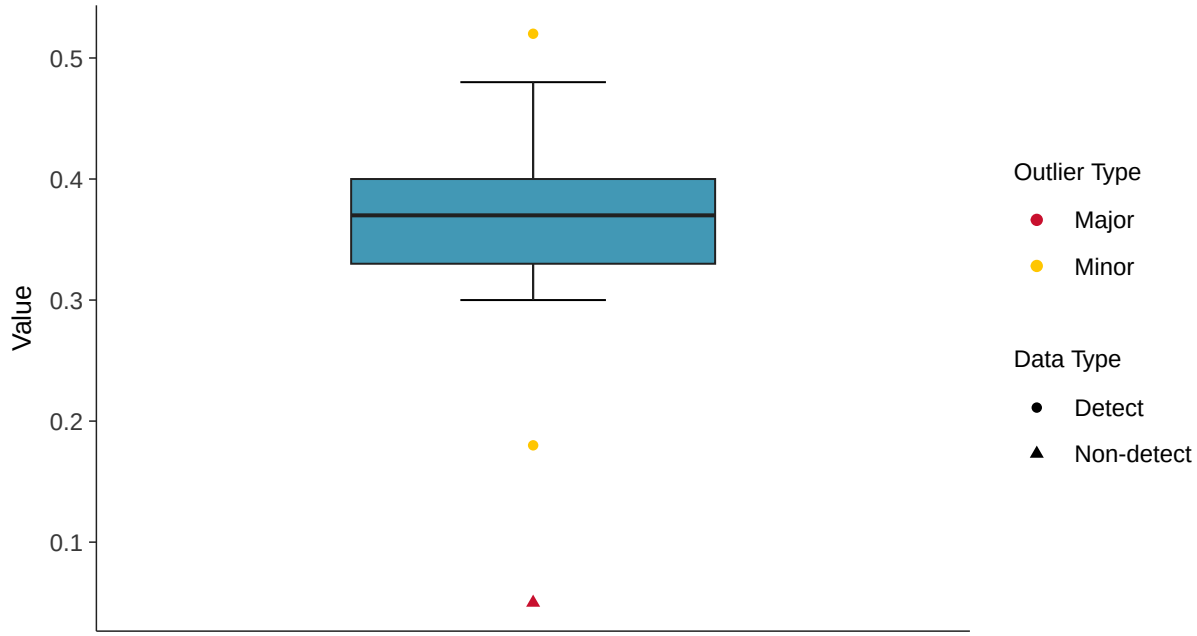
ID: 06_2_112





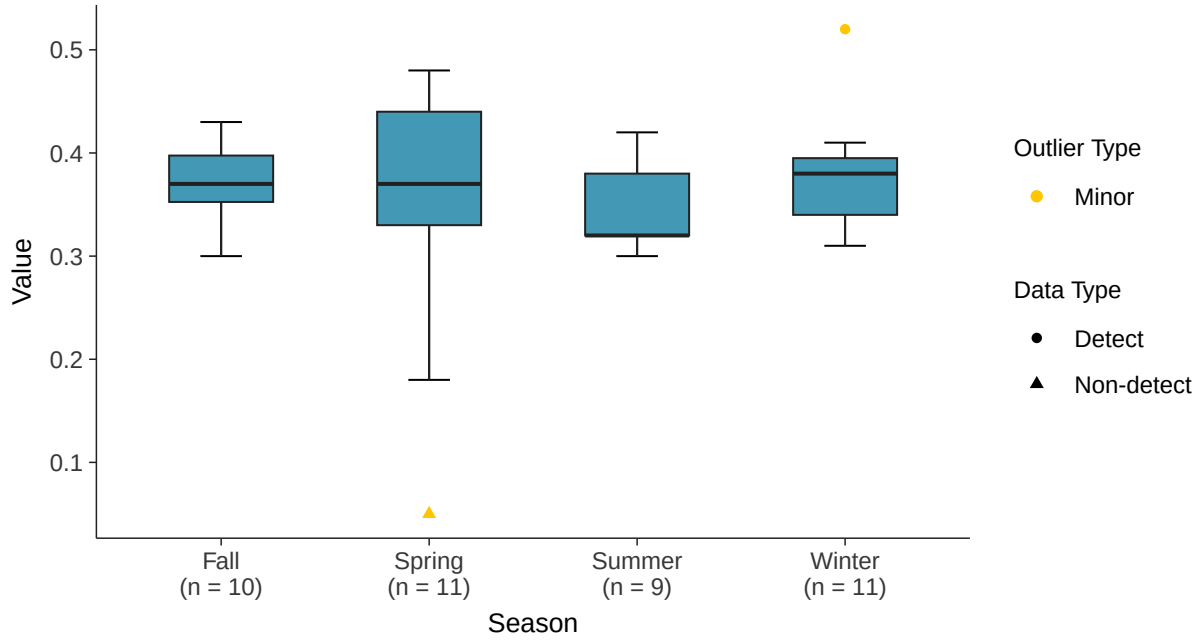
Boxplot

Fluoride, MW-6 (mg/L)



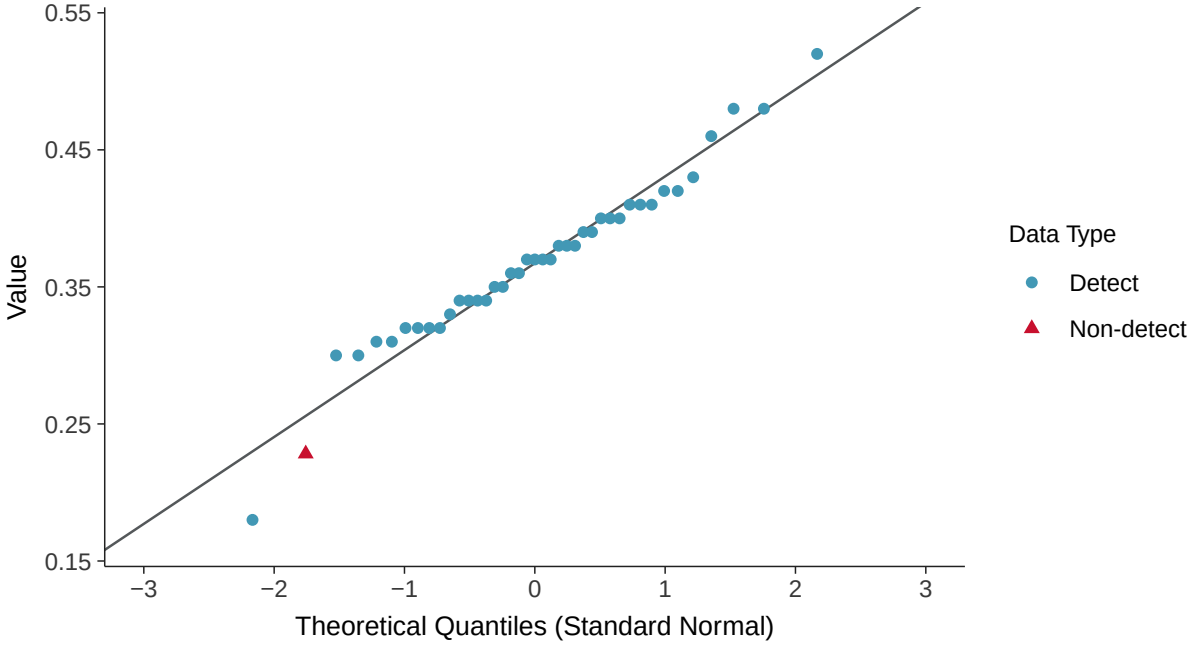
Boxplot by Season

Fluoride, MW-6 (mg/L)



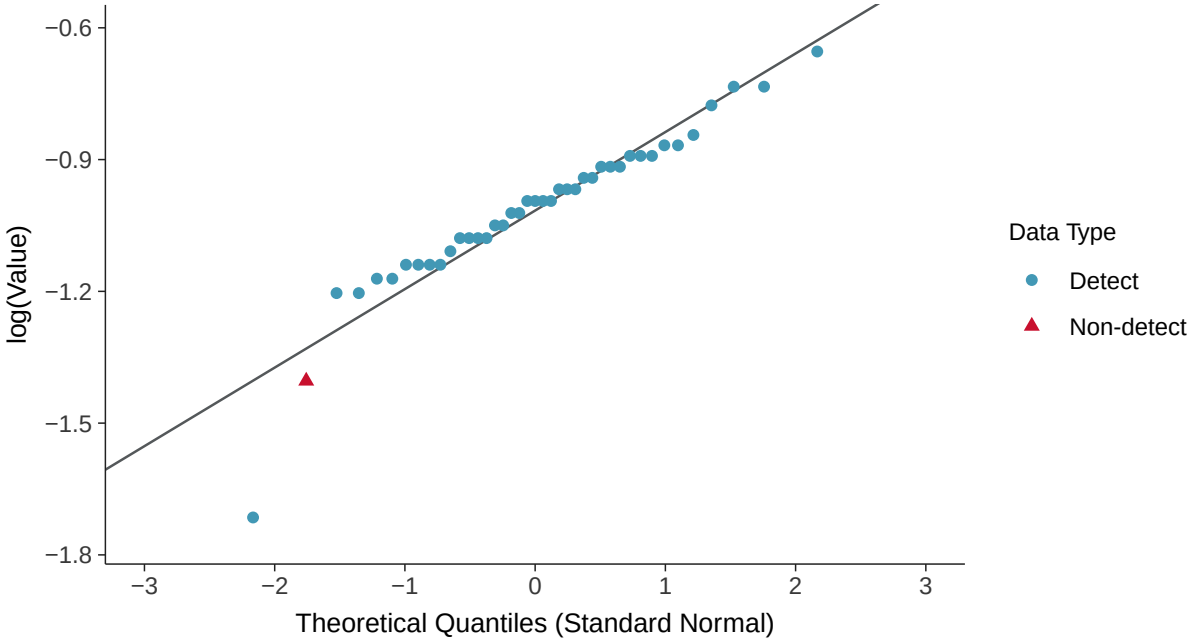
Normal Q-Q plot using ROS Imputed Estimates

Fluoride, MW-6 (mg/L)



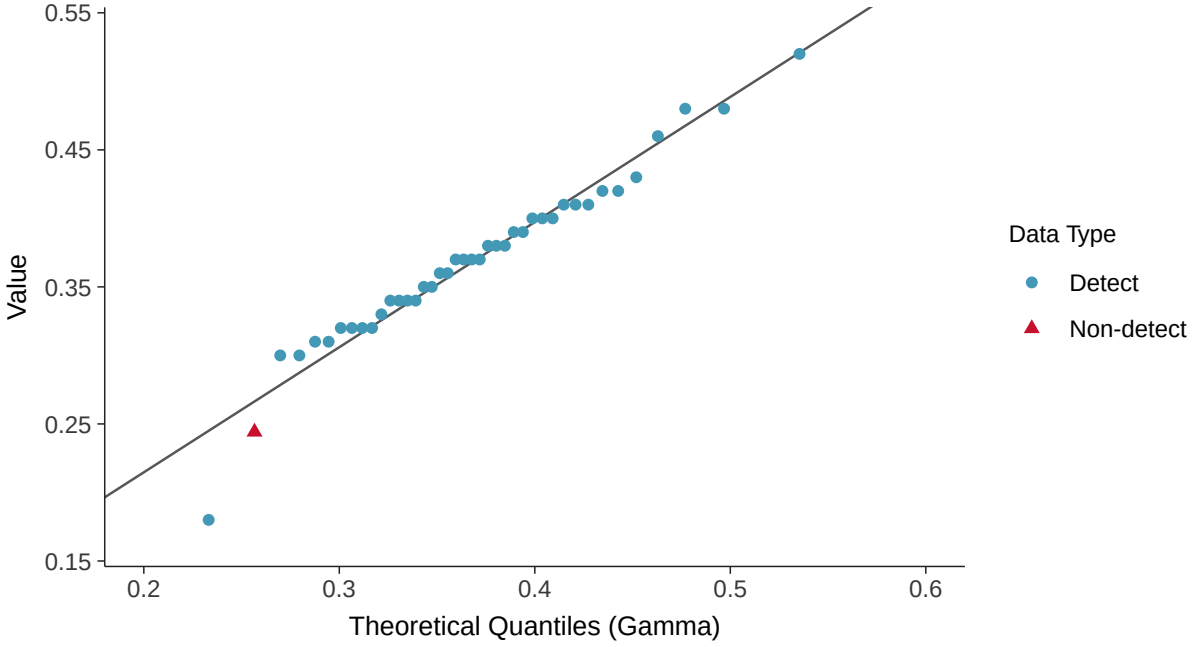
Lognormal Q-Q plot using ROS Imputed Estimates

Fluoride, MW-6 (mg/L)



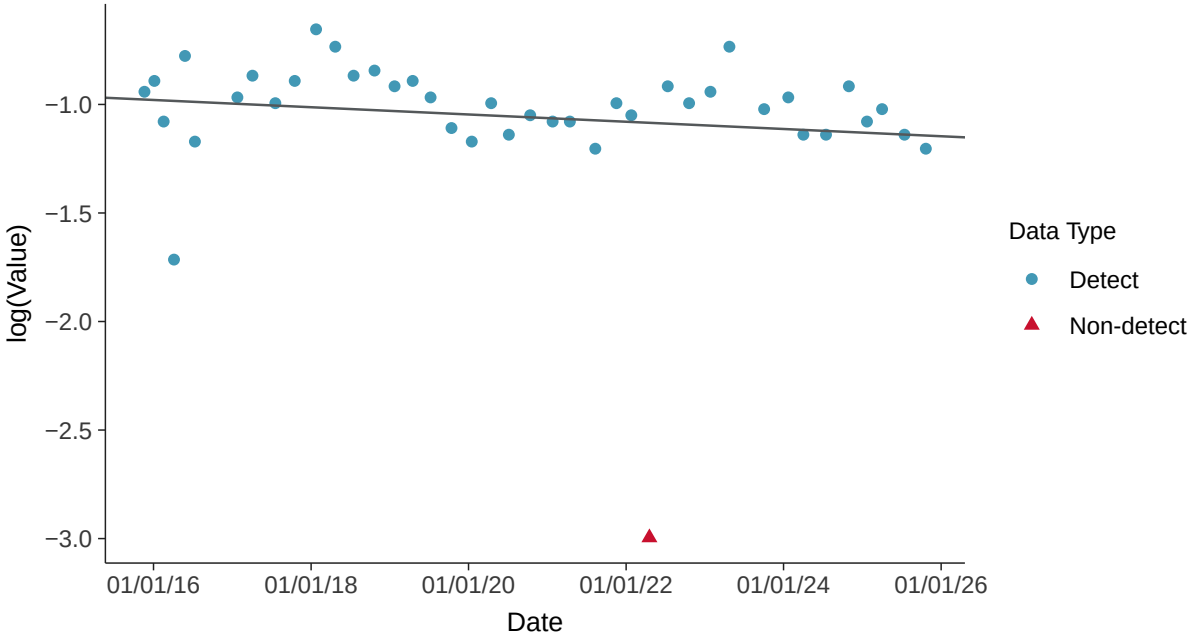
Gamma Q-Q plot using ROS Imputed Estimates

Fluoride, MW-6 (mg/L)



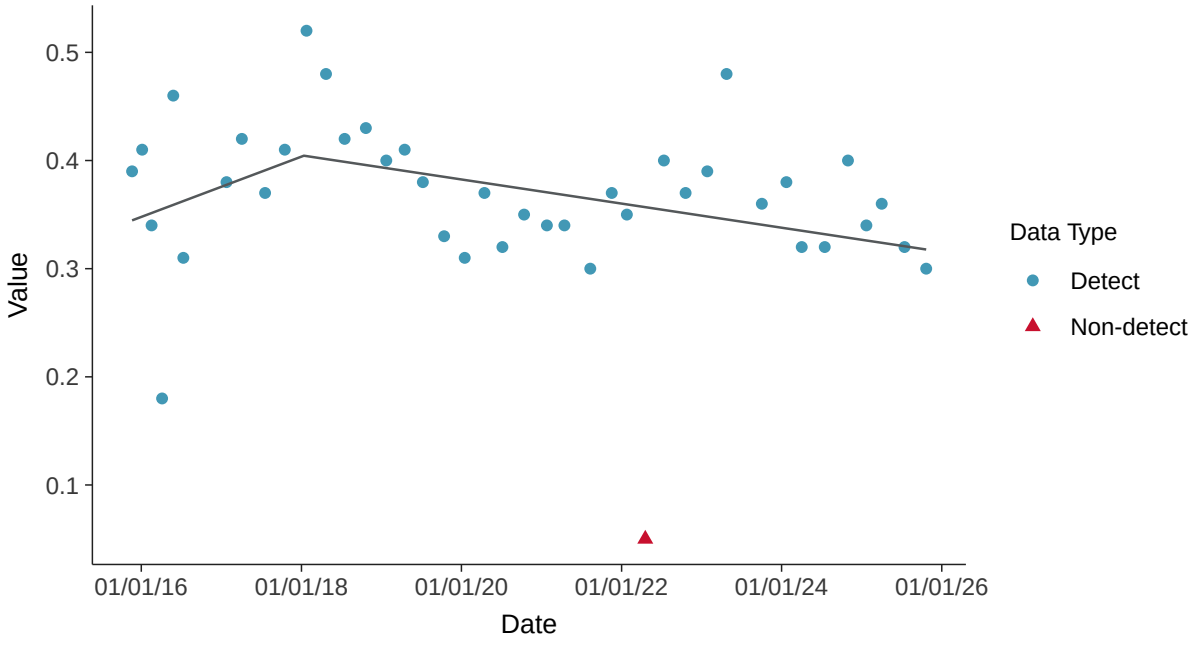
Trend Regression: Lognormal MLE

Fluoride, MW-6 (mg/L)



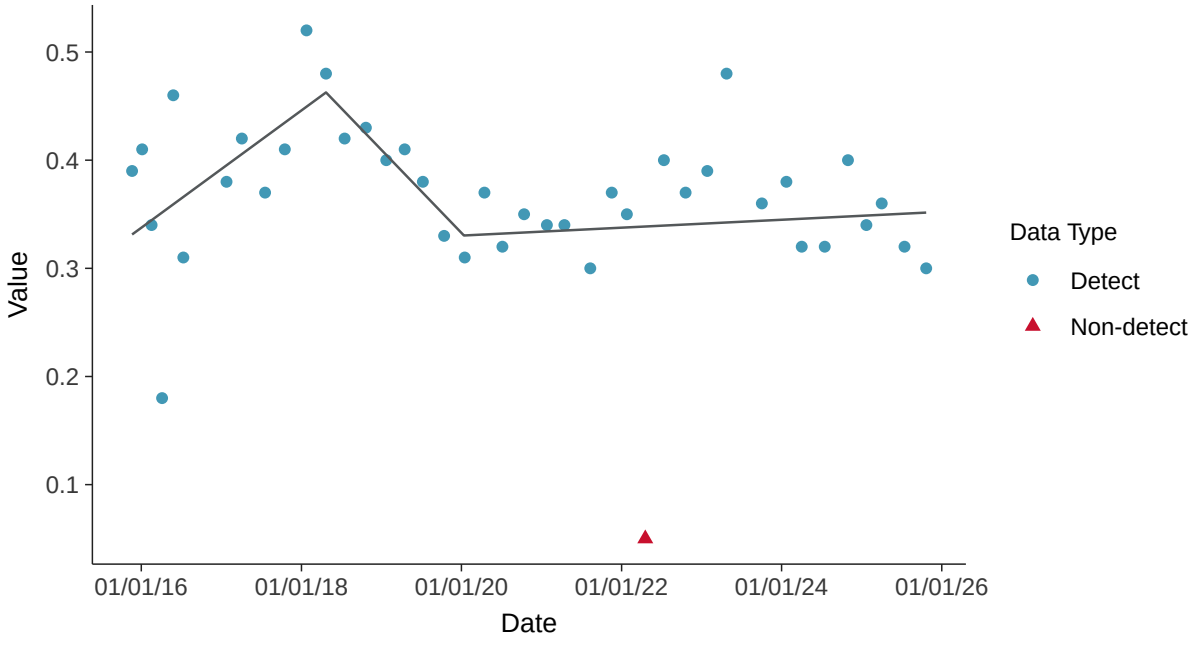
Trend Regression: Piecewise Linear-Linear

Fluoride, MW-6 (mg/L)



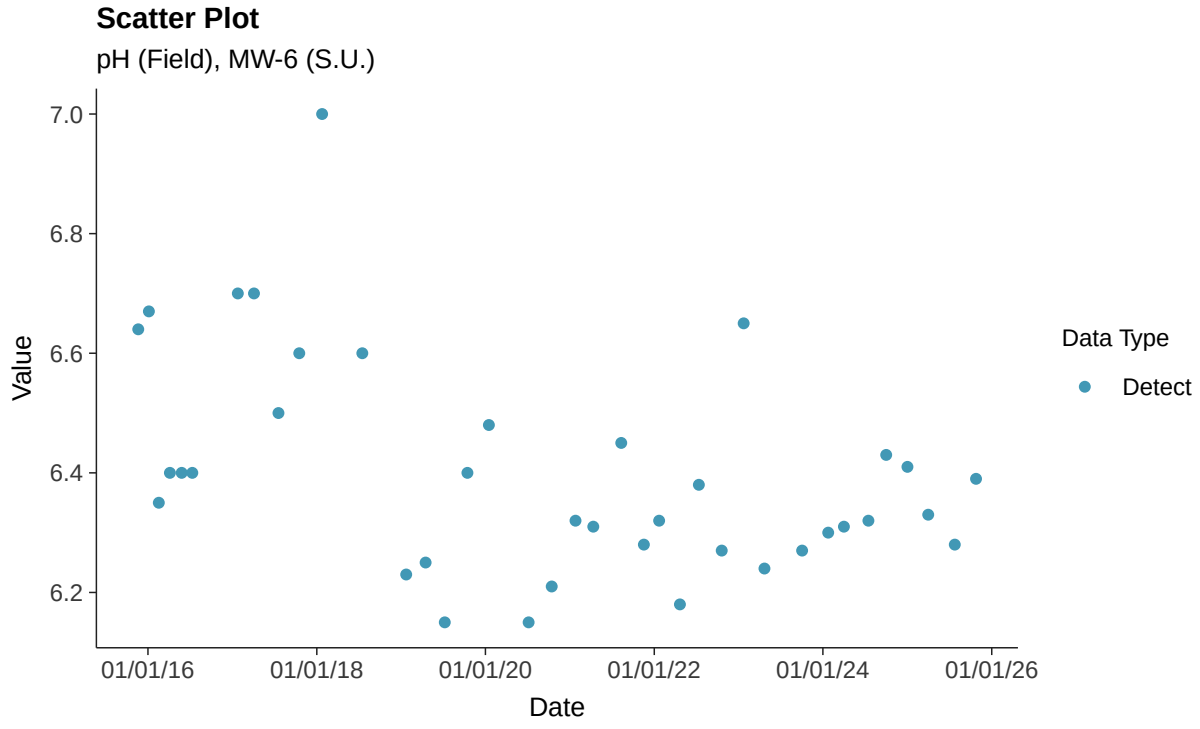
Trend Regression: Piecewise Linear-Linear-Linear

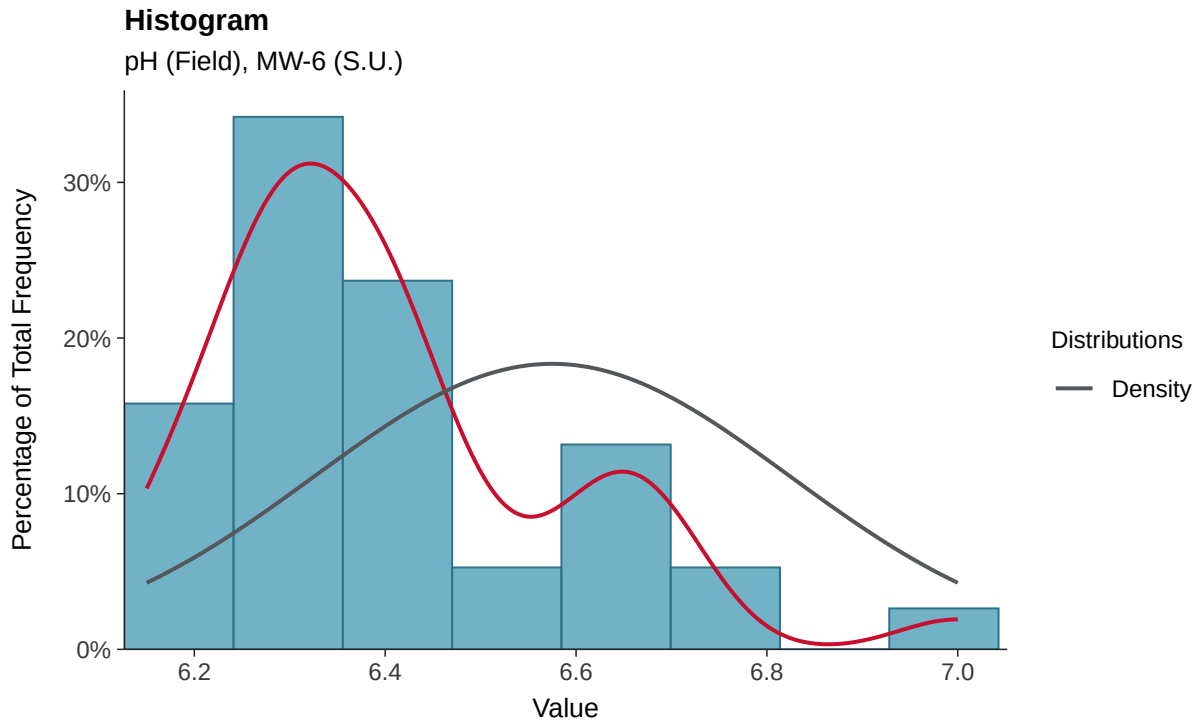
Fluoride, MW-6 (mg/L)



App. III: pH (Field), MW-6

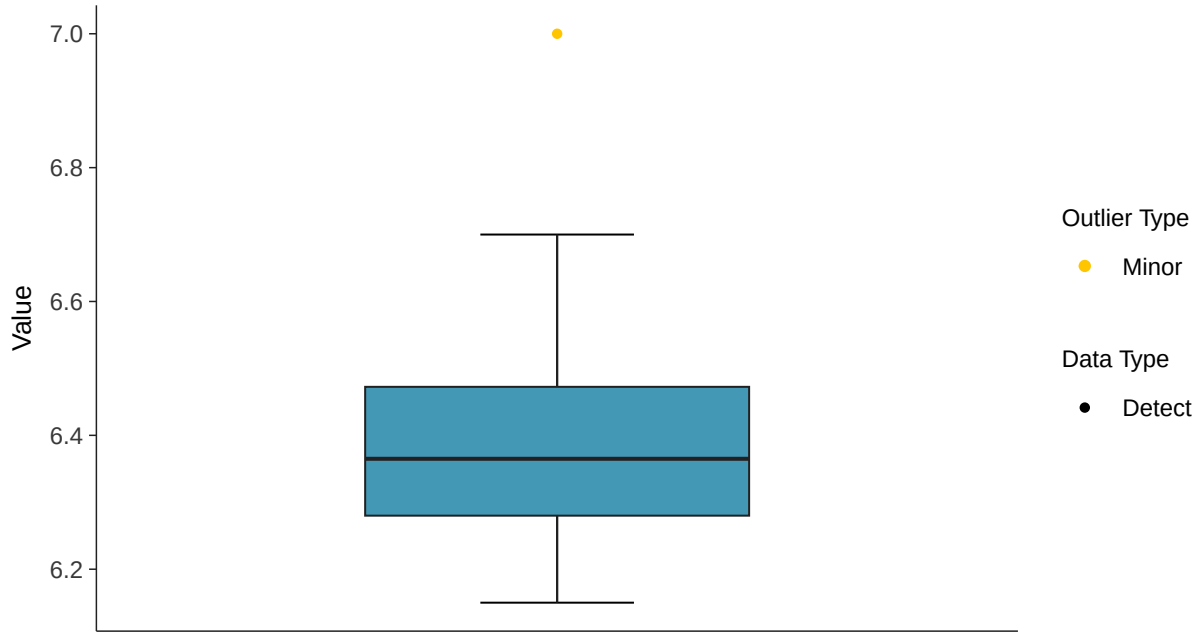
ID: 06_2_118





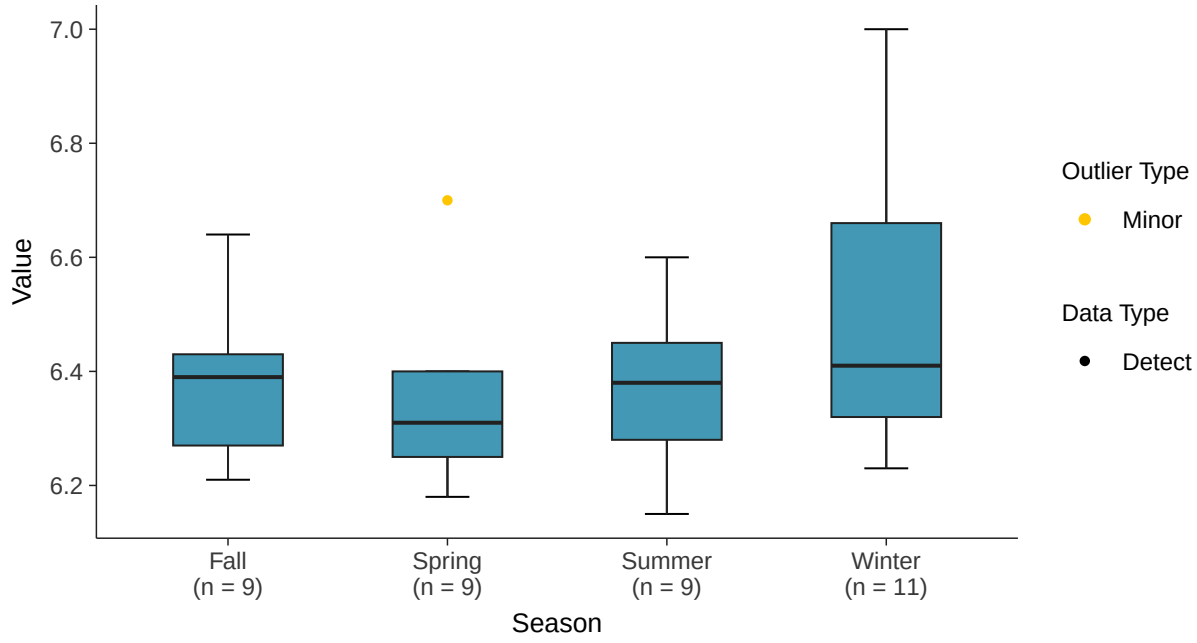
Boxplot

pH (Field), MW-6 (S.U.)



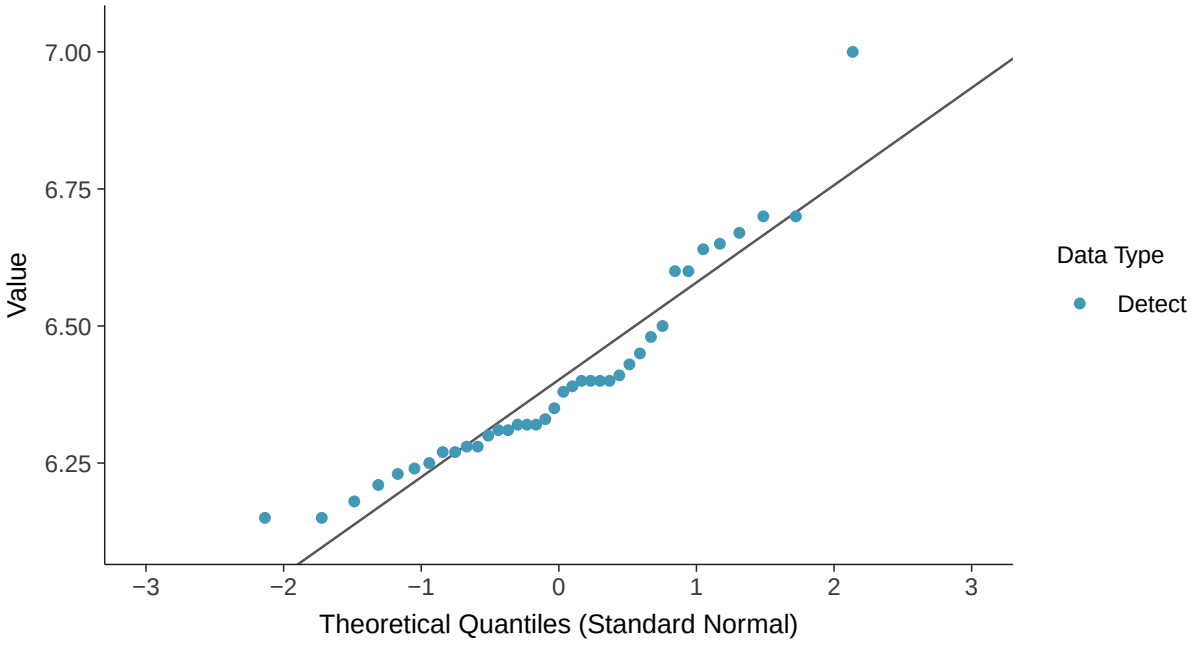
Boxplot by Season

pH (Field), MW-6 (S.U.)



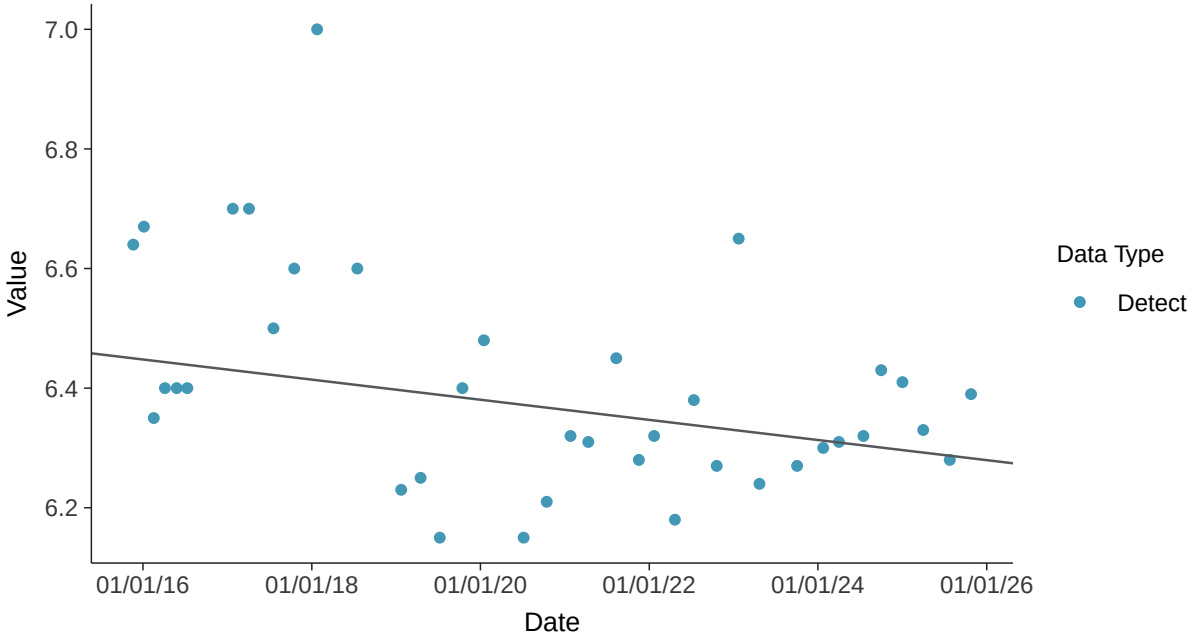
Normal Q-Q plot

pH (Field), MW-6 (S.U.)



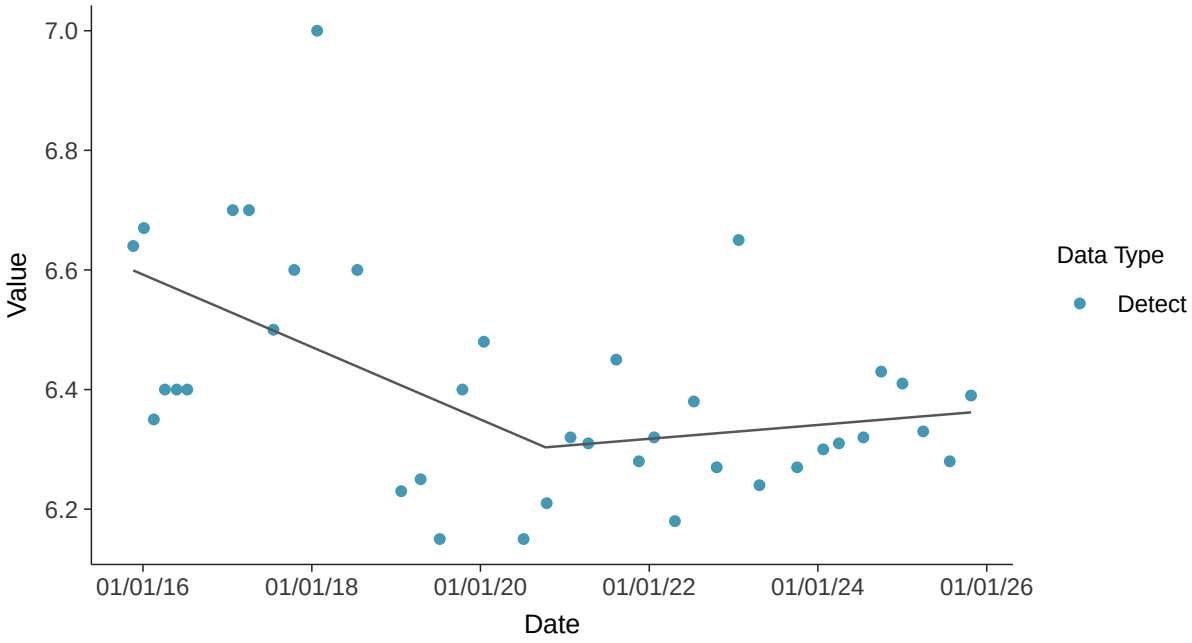
Trend Regression: Mann-Kendall/Theil-Sen Estimate

pH (Field), MW-6 (S.U.)



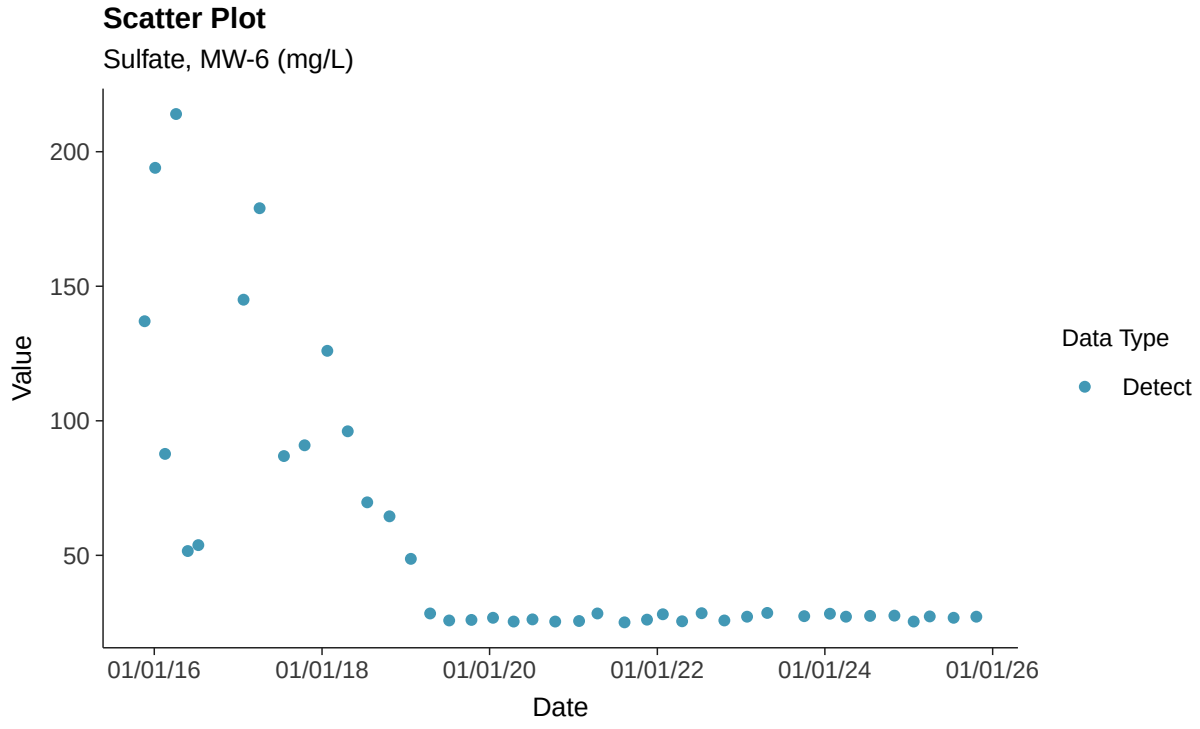
Trend Regression: Piecewise Linear-Linear

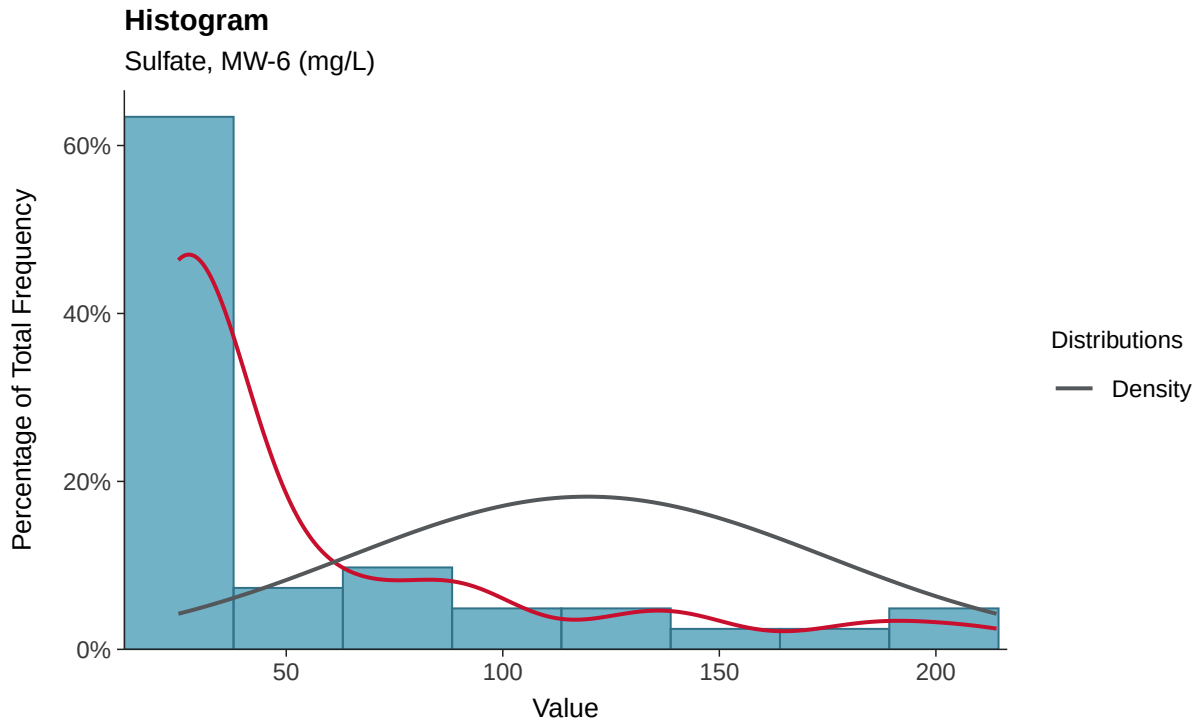
pH (Field), MW-6 (S.U.)



App. III: Sulfate, MW-6

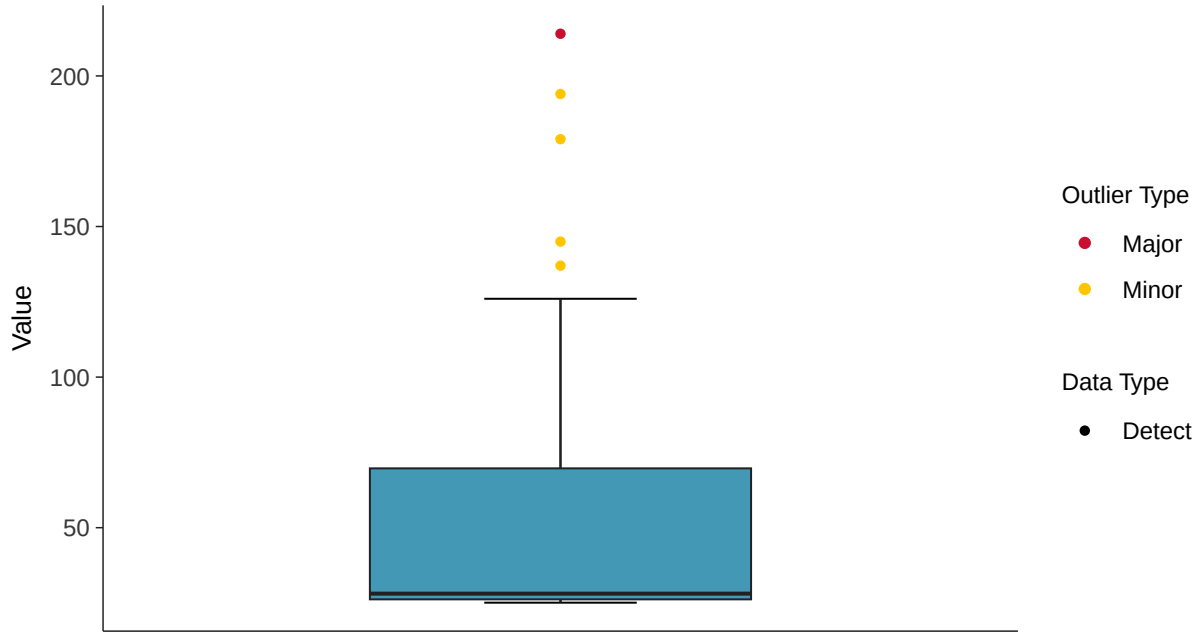
ID: 06_2_123





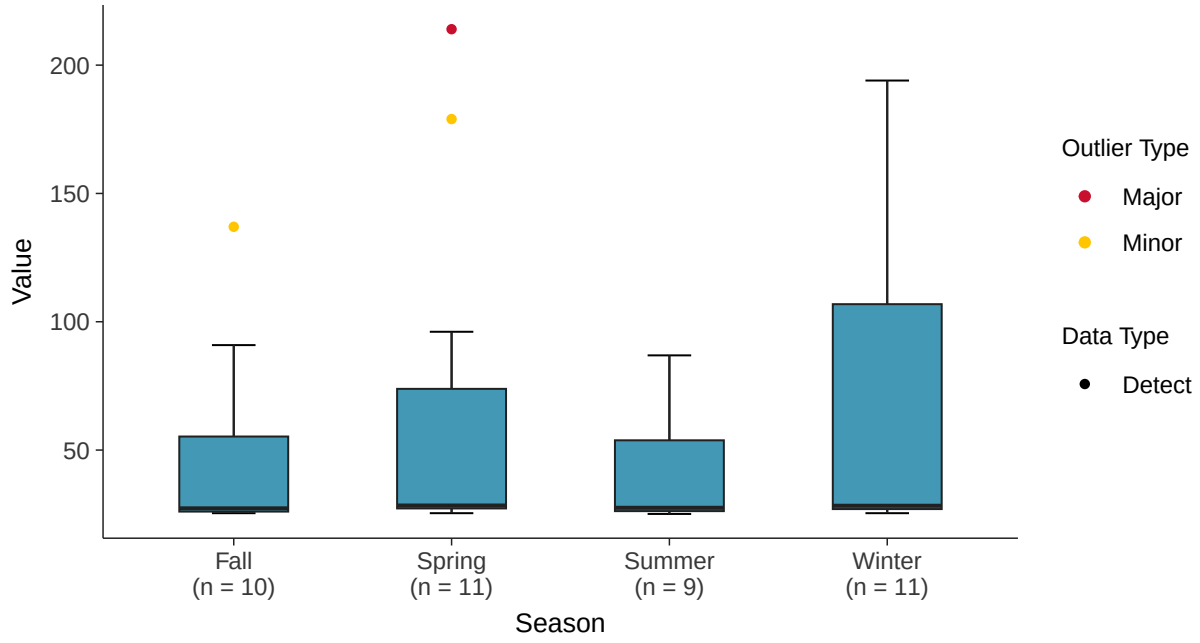
Boxplot

Sulfate, MW-6 (mg/L)



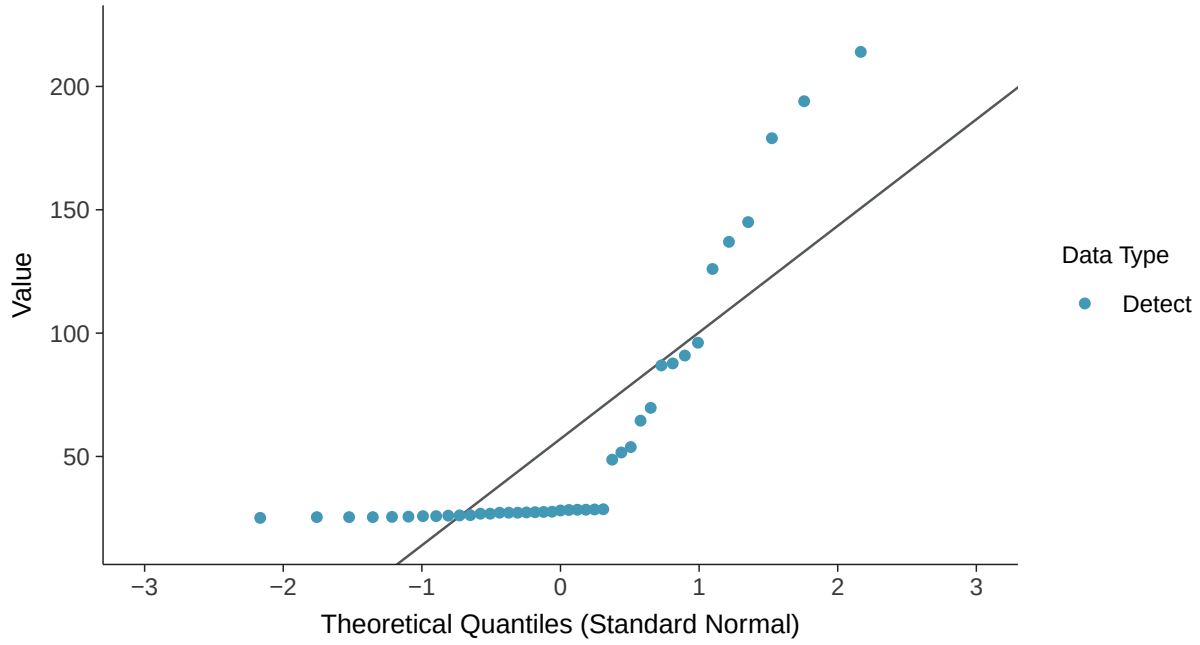
Boxplot by Season

Sulfate, MW-6 (mg/L)



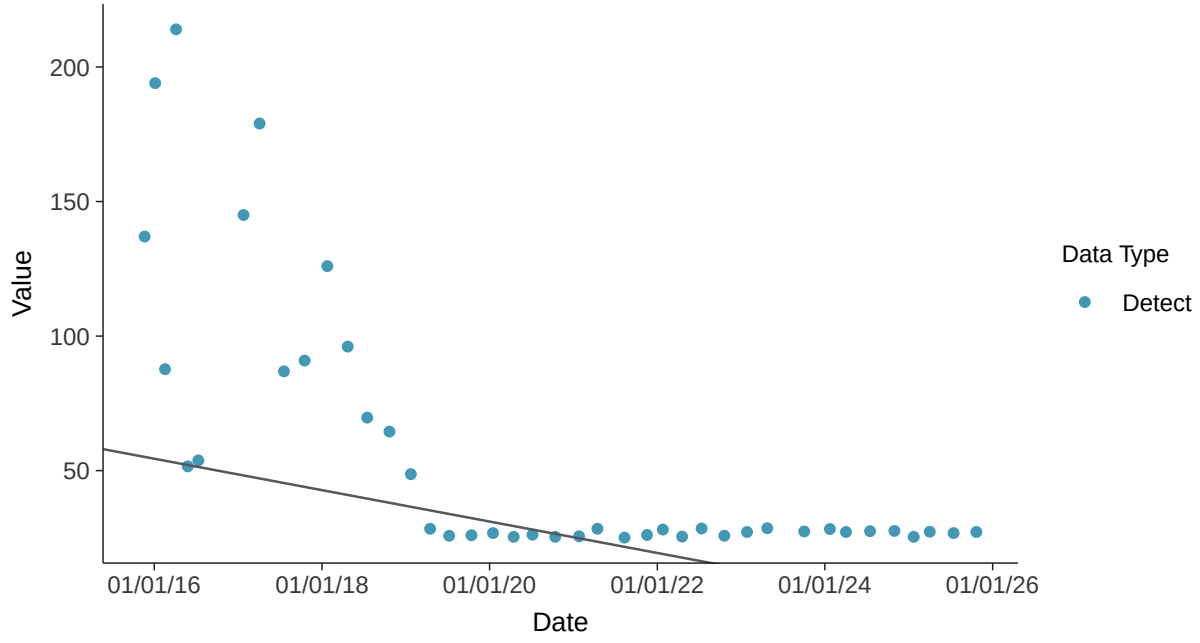
Normal Q-Q plot

Sulfate, MW-6 (mg/L)



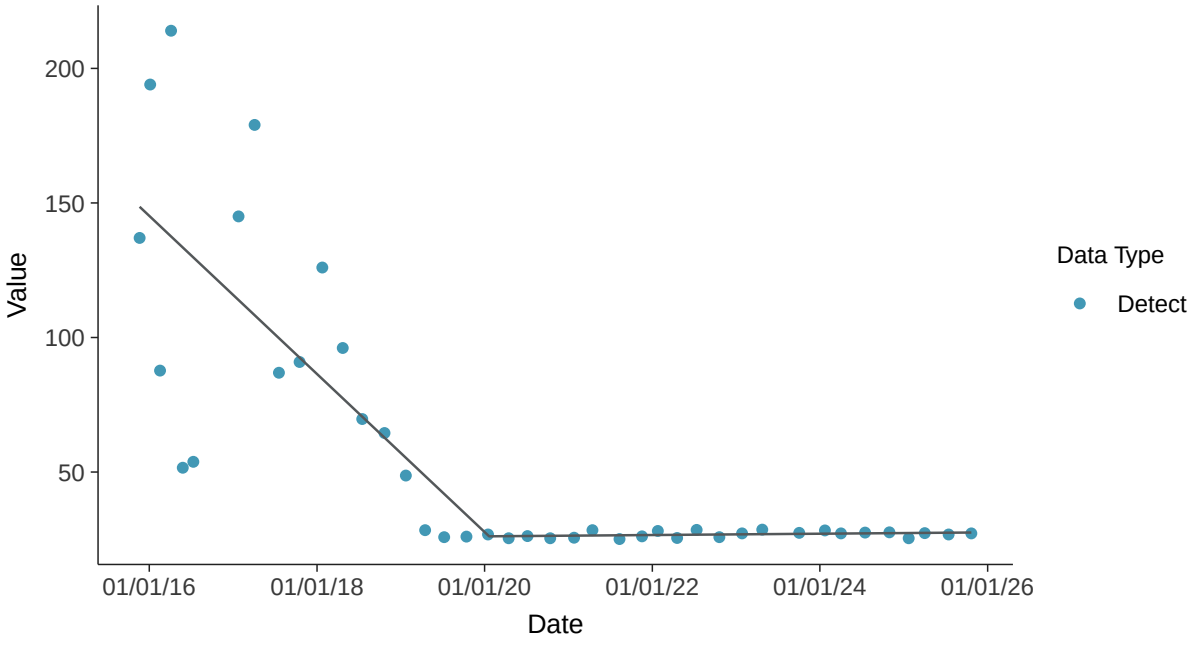
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Sulfate, MW-6 (mg/L)



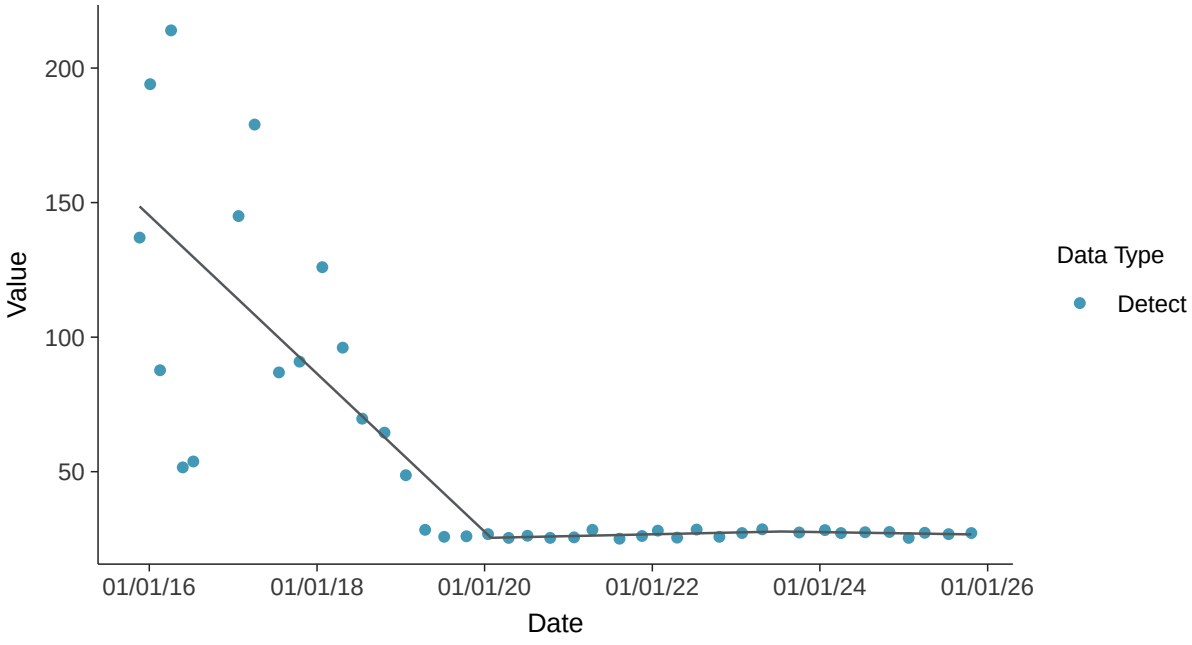
Trend Regression: Piecewise Linear-Linear

Sulfate, MW-6 (mg/L)



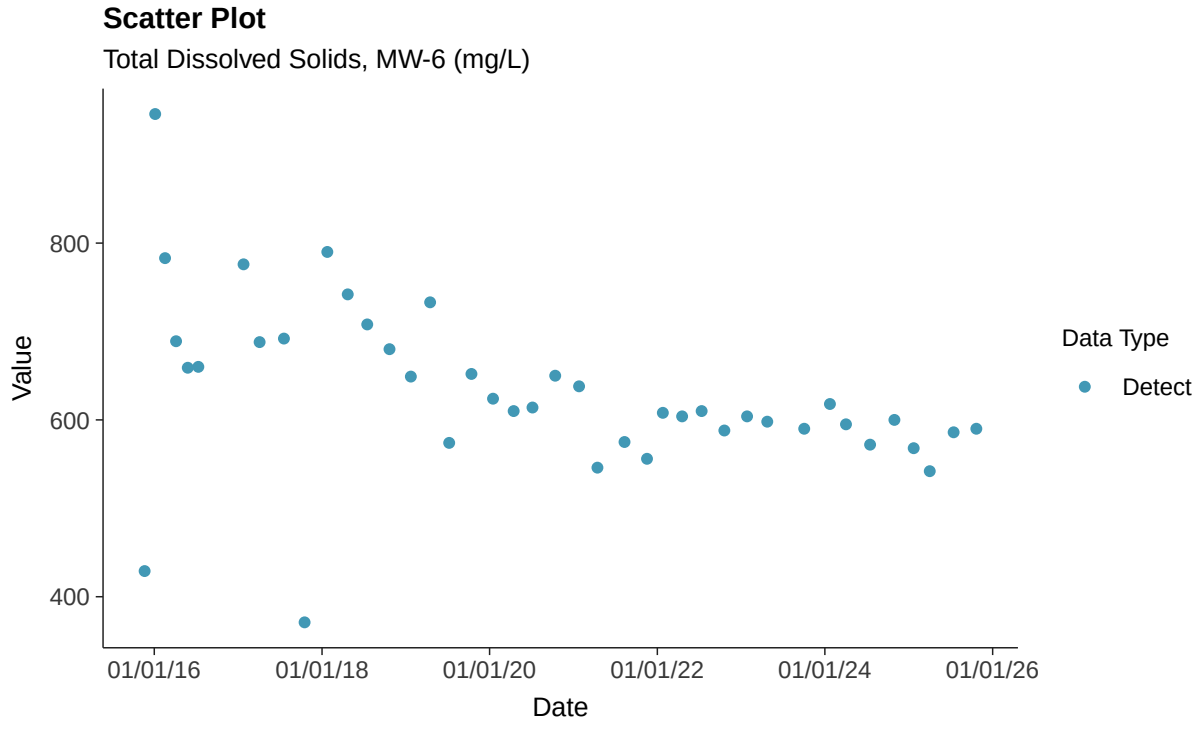
Trend Regression: Piecewise Linear-Linear-Linear

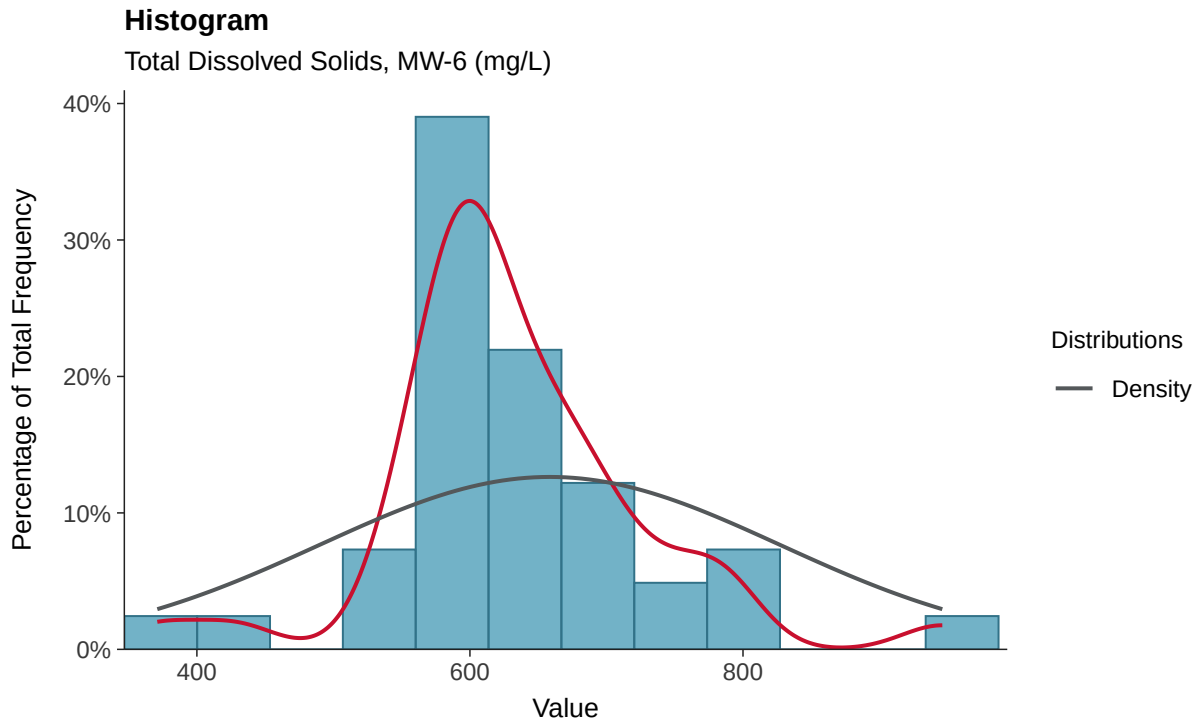
Sulfate, MW-6 (mg/L)



App. III: Total Dissolved Solids, MW-6

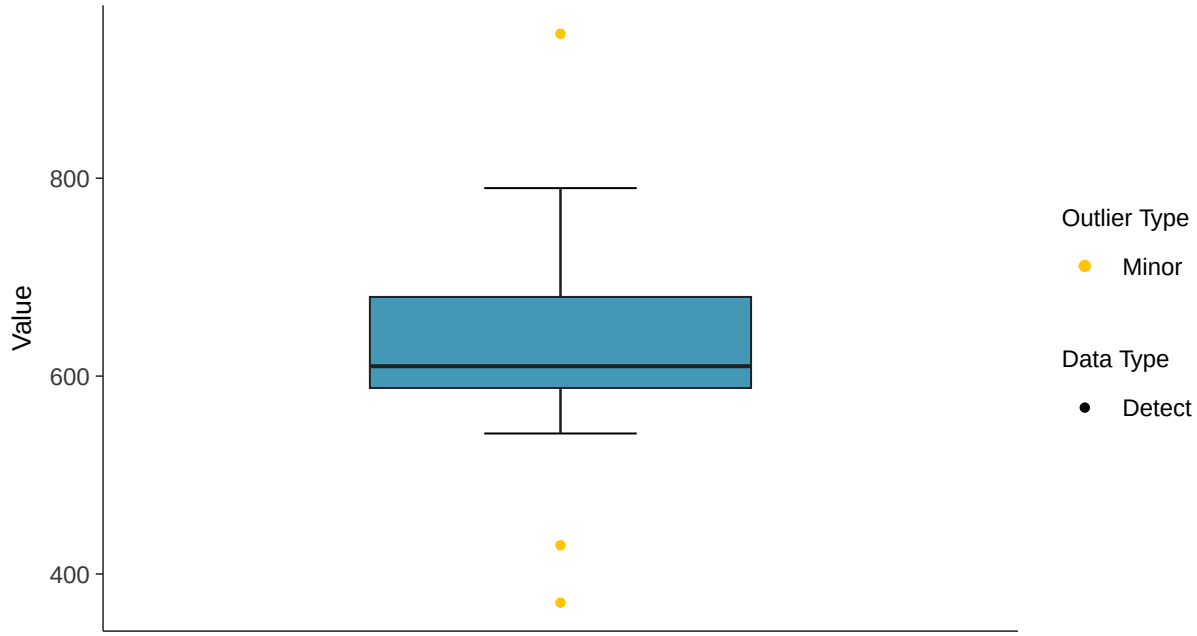
ID: 06_2_125





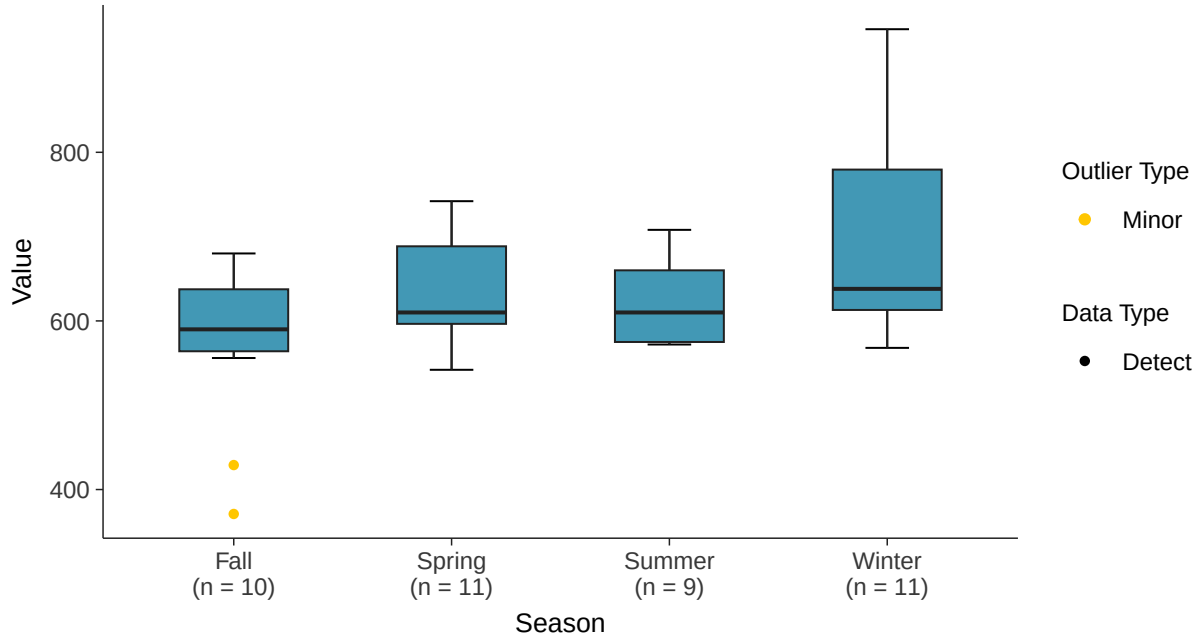
Boxplot

Total Dissolved Solids, MW-6 (mg/L)



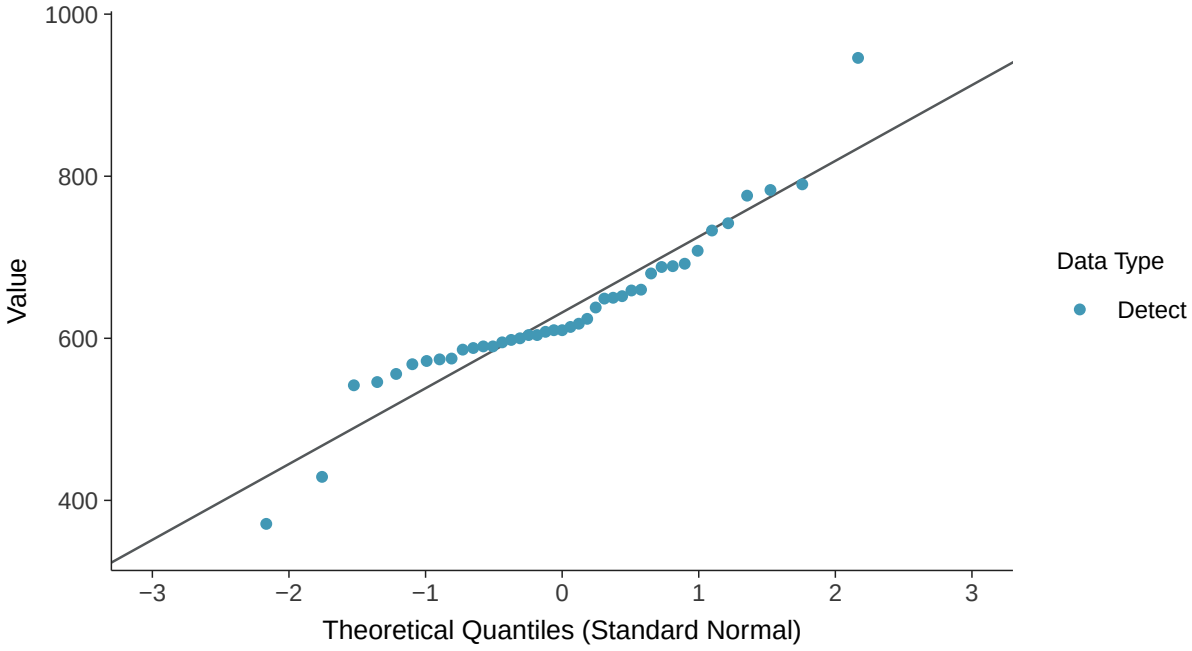
Boxplot by Season

Total Dissolved Solids, MW-6 (mg/L)



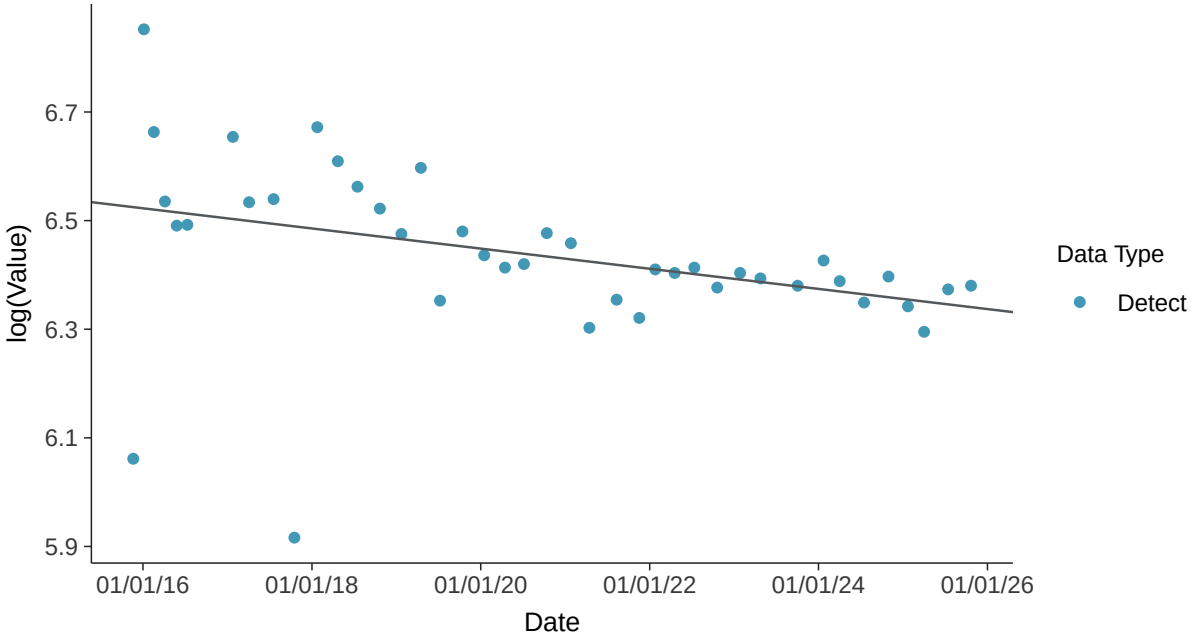
Normal Q-Q plot

Total Dissolved Solids, MW-6 (mg/L)



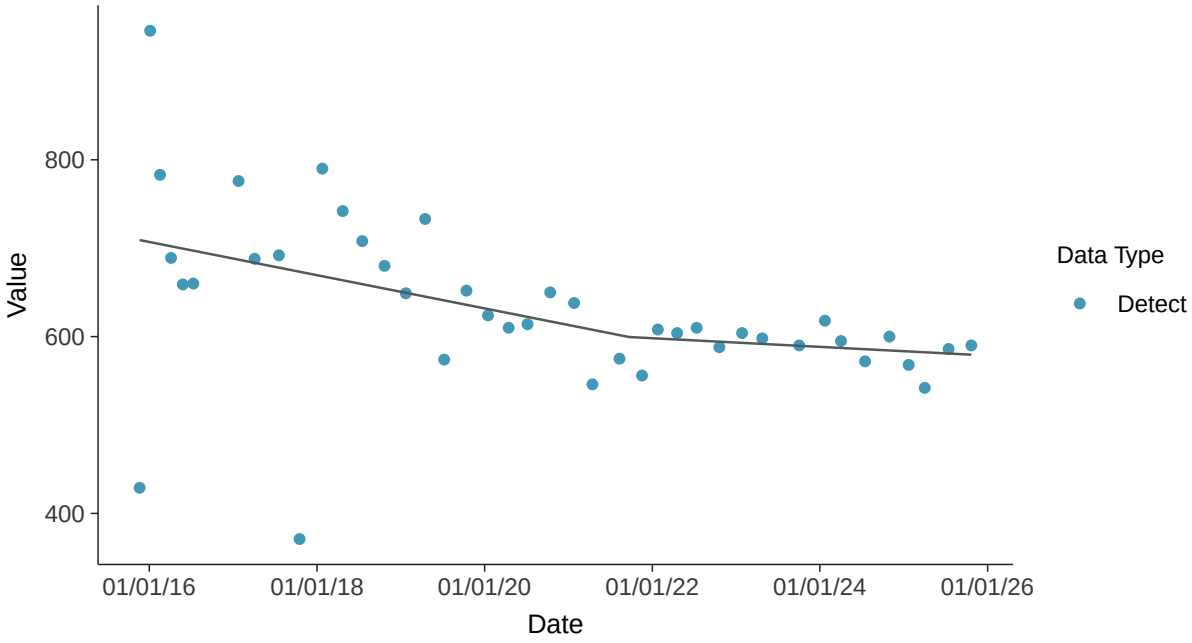
Trend Regression: Lognormal MLE

Total Dissolved Solids, MW-6 (mg/L)



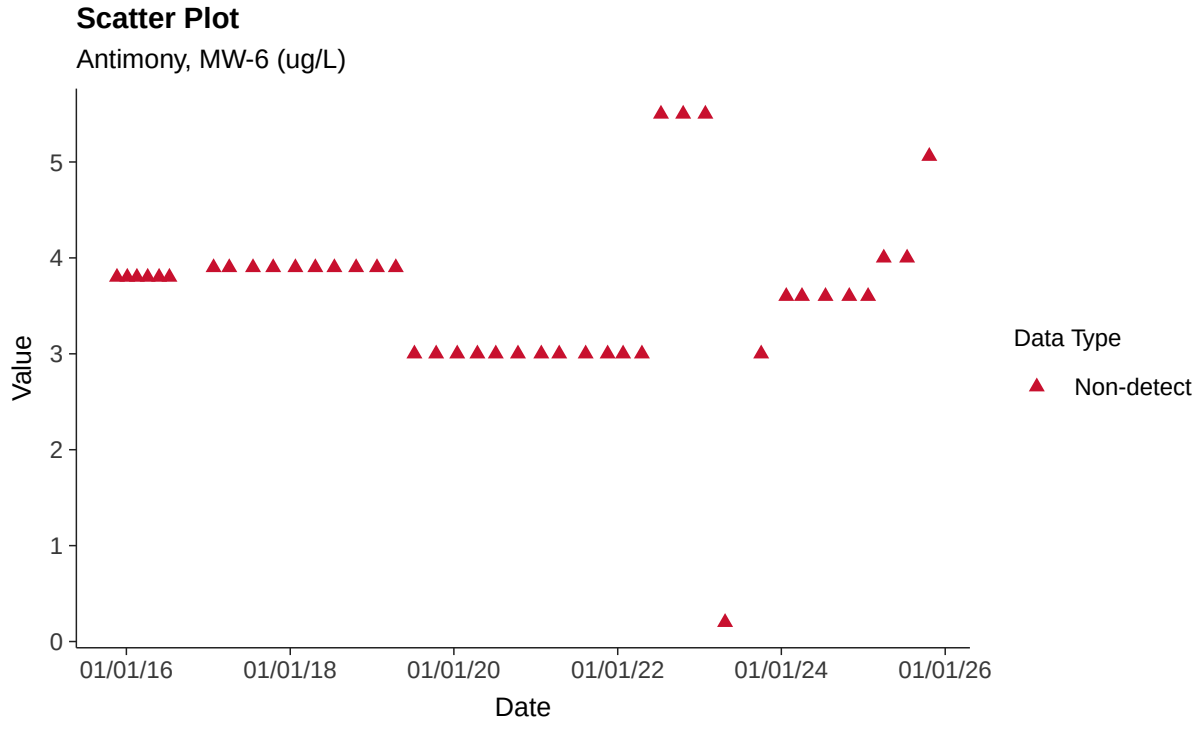
Trend Regression: Piecewise Linear-Linear

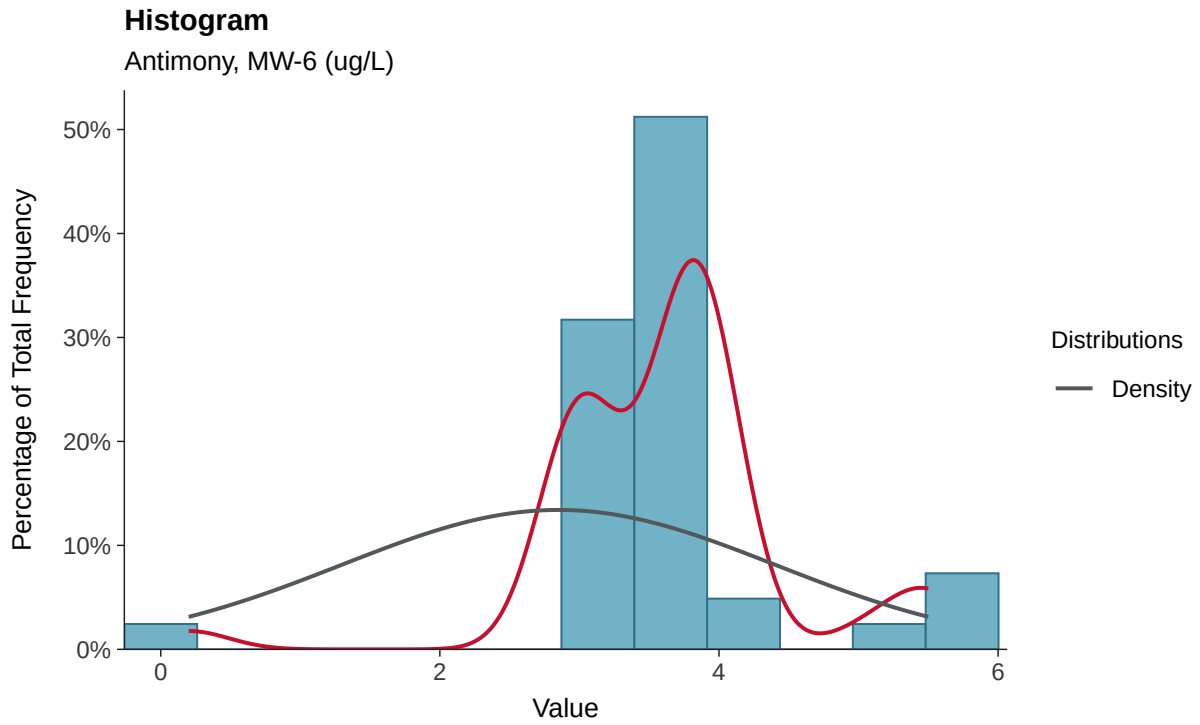
Total Dissolved Solids, MW-6 (mg/L)



App. IV: Antimony, MW-6

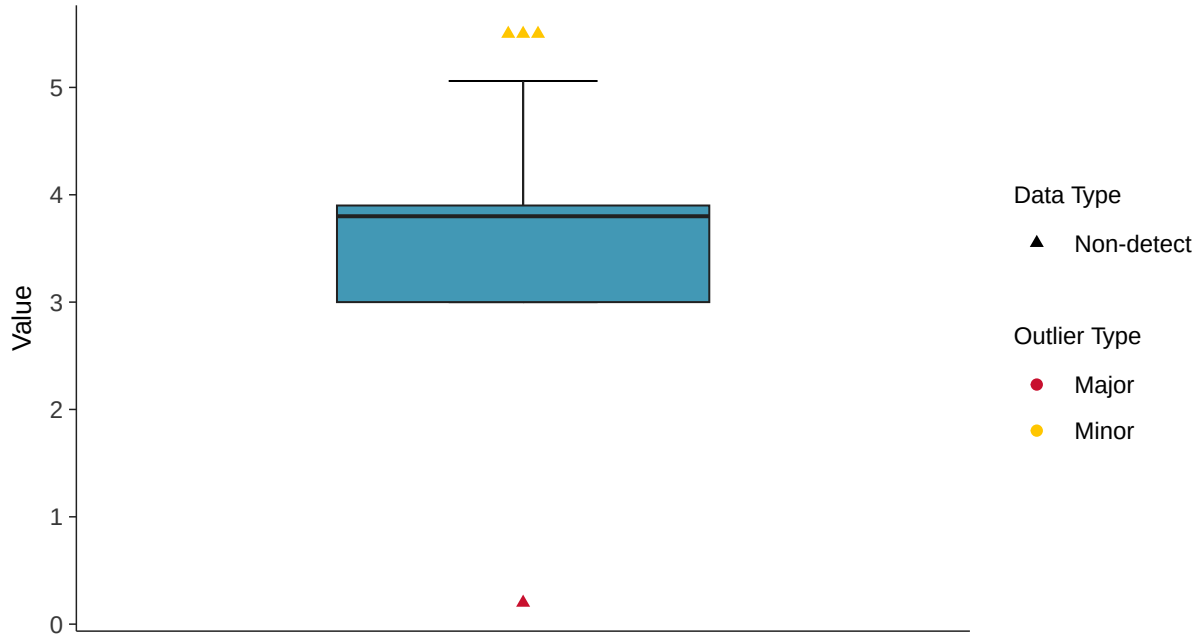
ID: 06_3_101





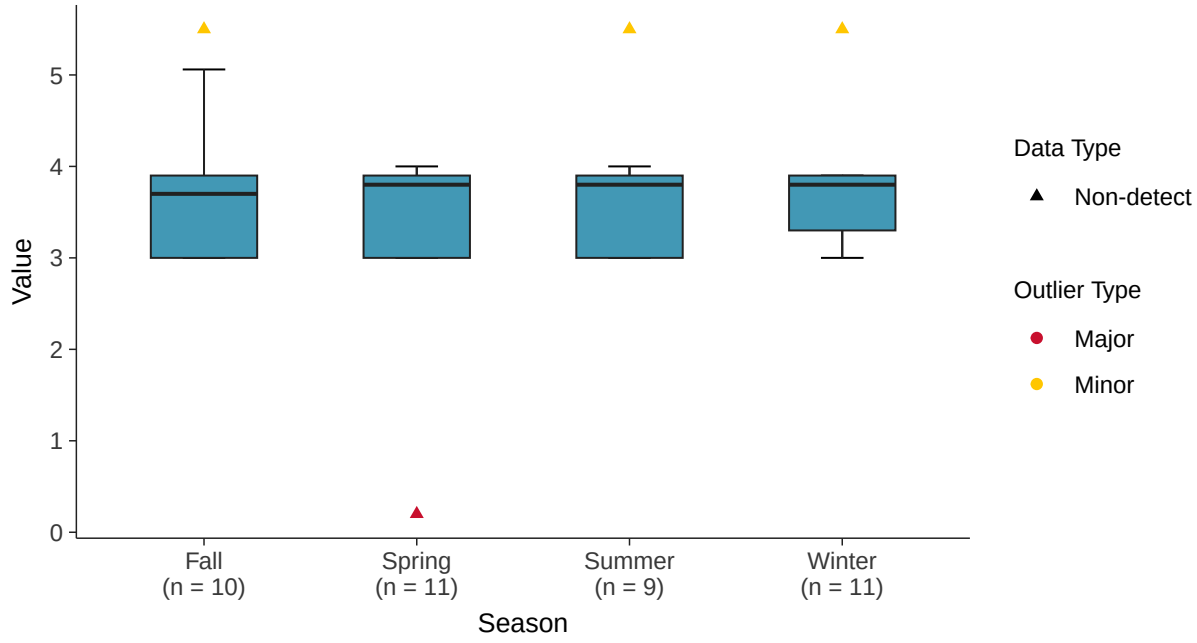
Boxplot

Antimony, MW-6 (ug/L)



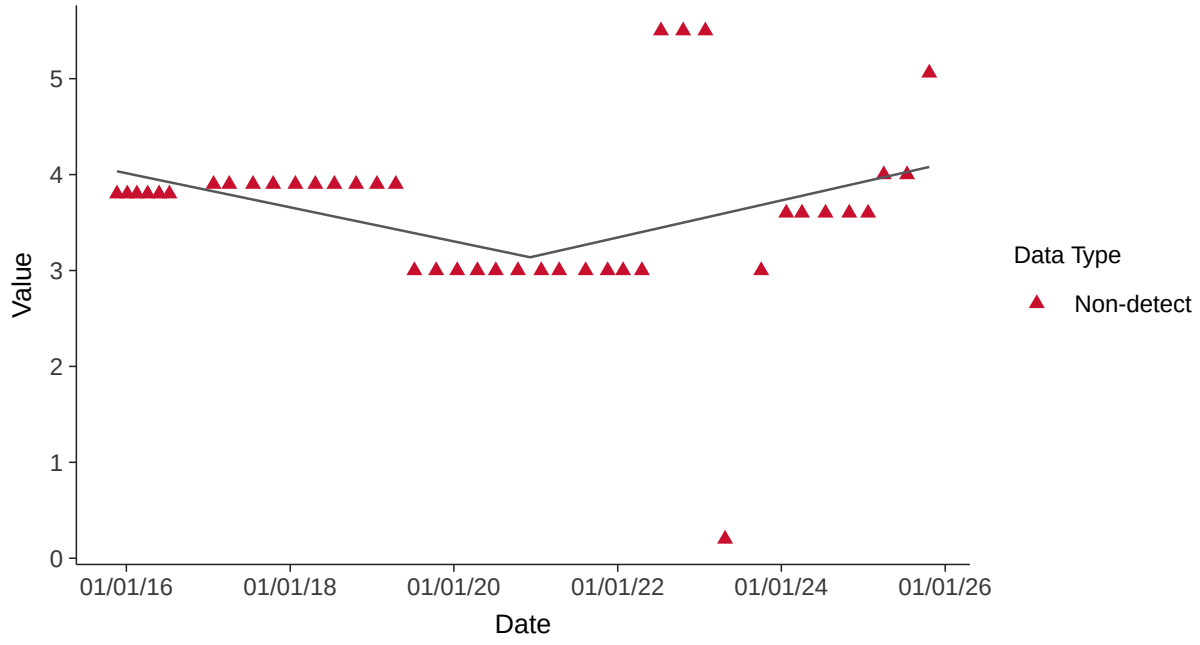
Boxplot by Season

Antimony, MW-6 (ug/L)



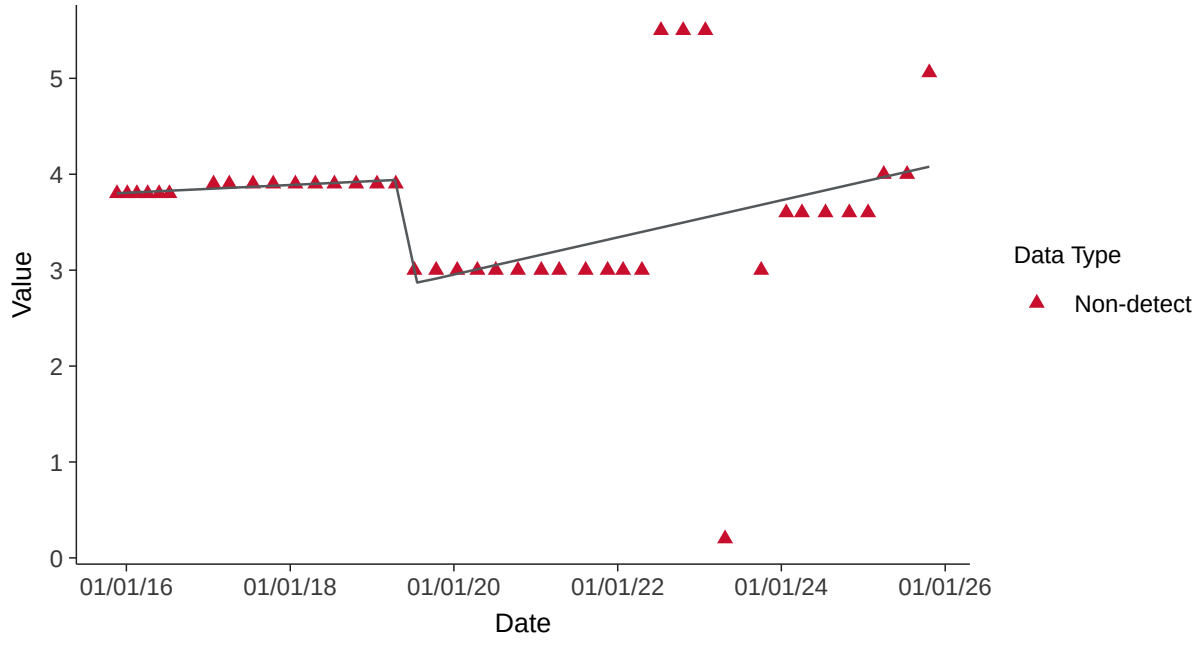
Trend Regression: Piecewise Linear-Linear

Antimony, MW-6 (ug/L)



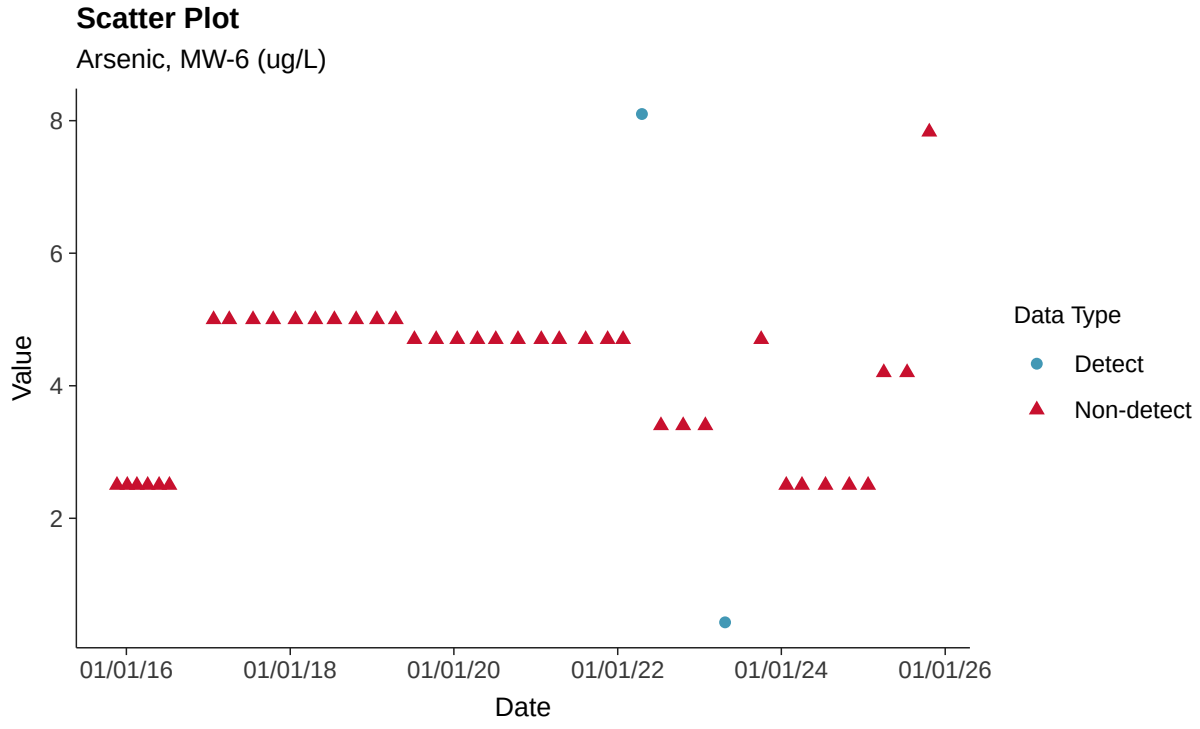
Trend Regression: Piecewise Linear-Linear-Linear

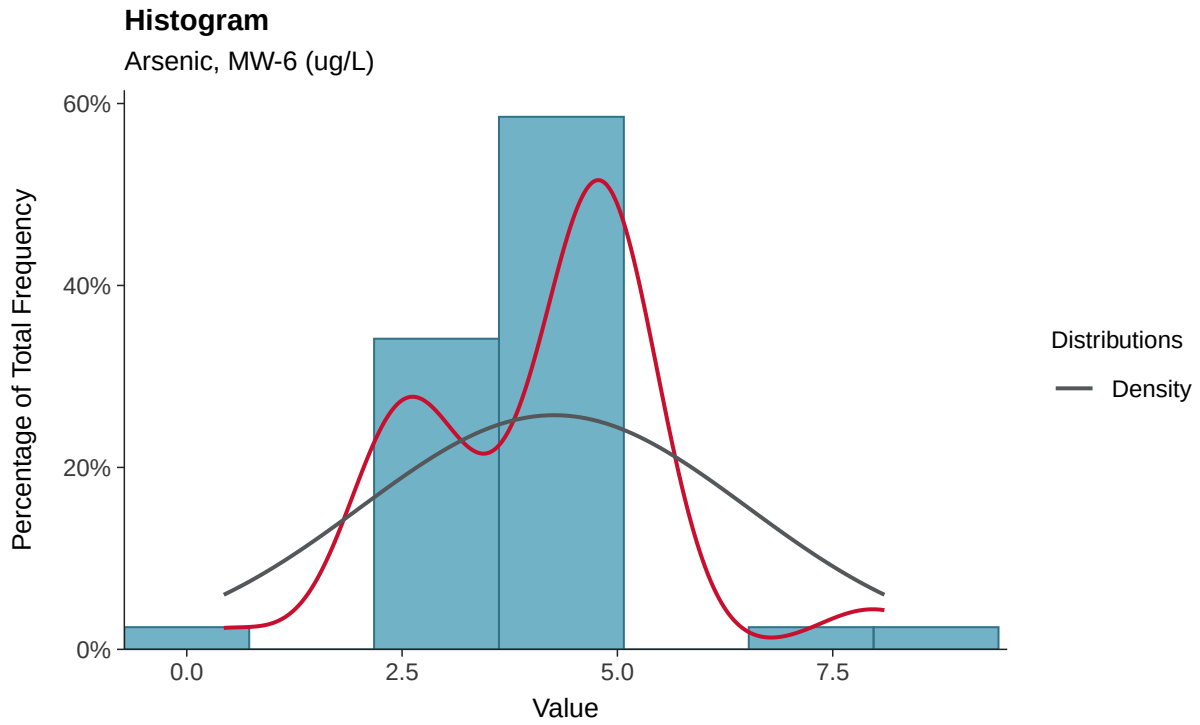
Antimony, MW-6 (ug/L)



App. IV: Arsenic, MW-6

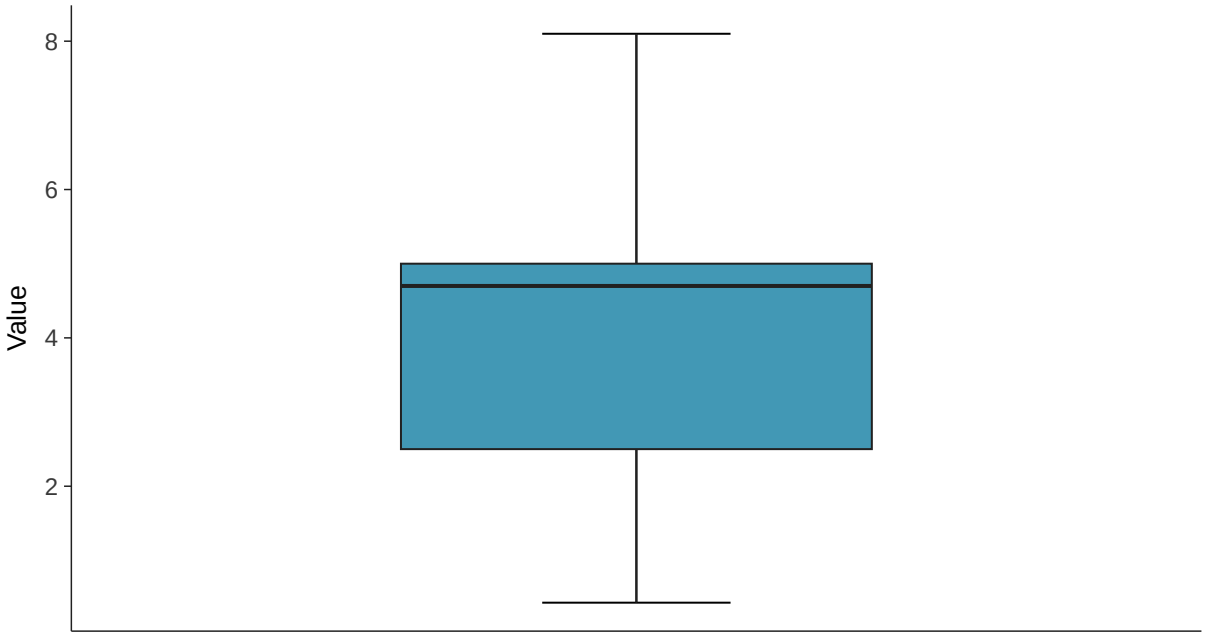
ID: 06_3_102





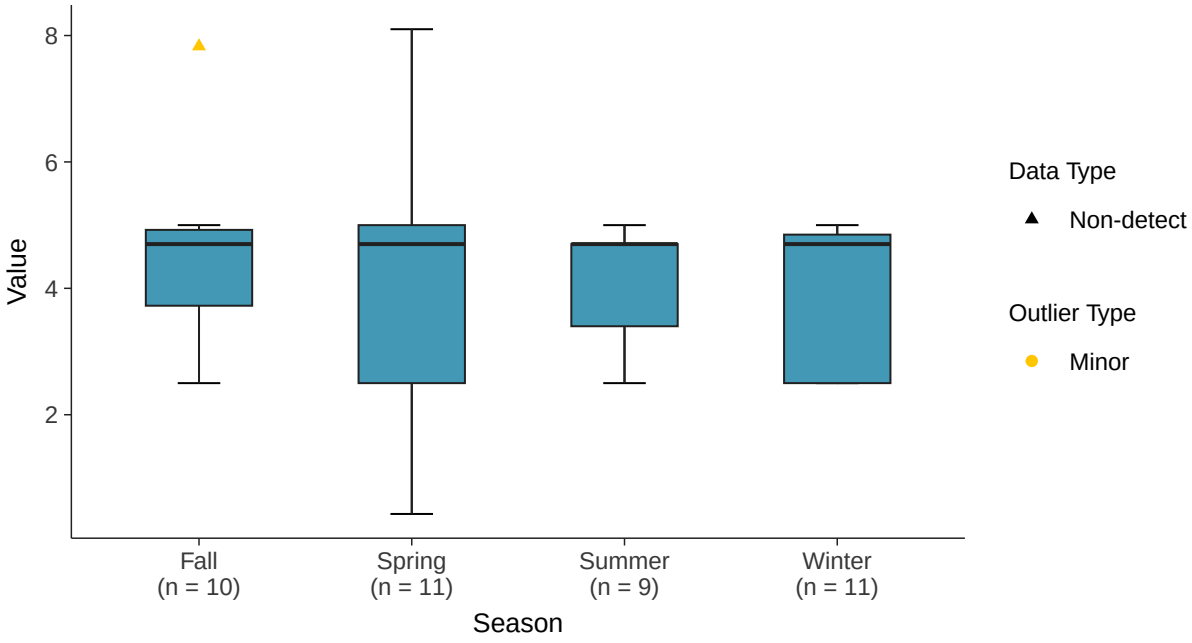
Boxplot

Arsenic, MW-6 (ug/L)



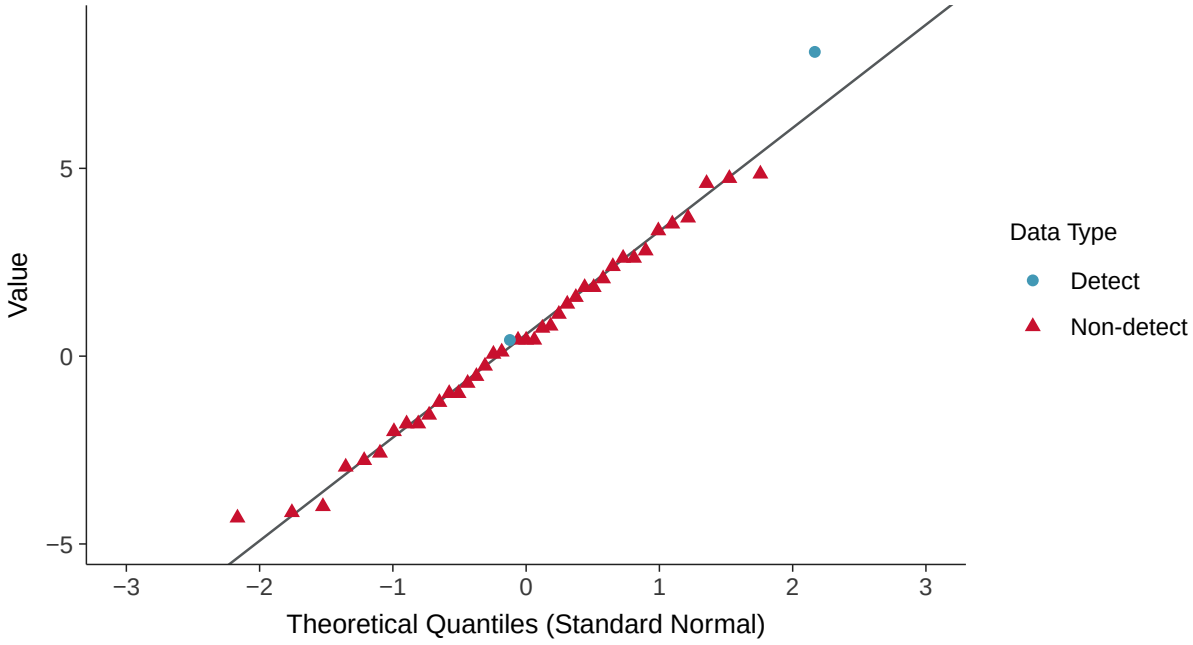
Boxplot by Season

Arsenic, MW-6 (ug/L)



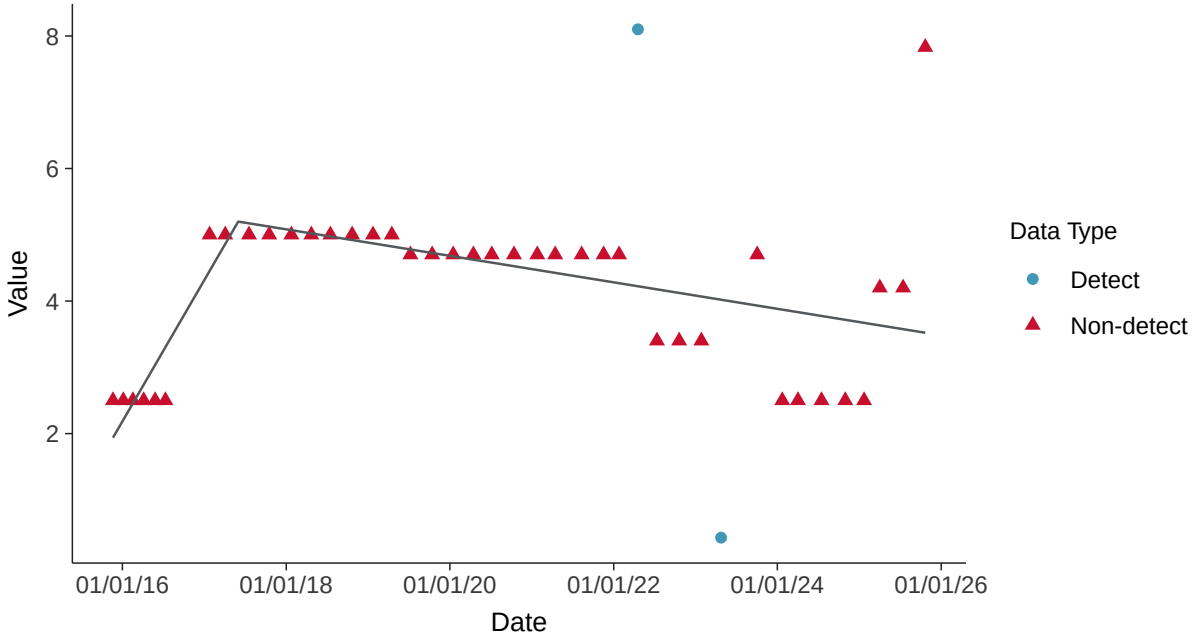
Normal Q-Q plot using ROS Imputed Estimates

Arsenic, MW-6 (ug/L)



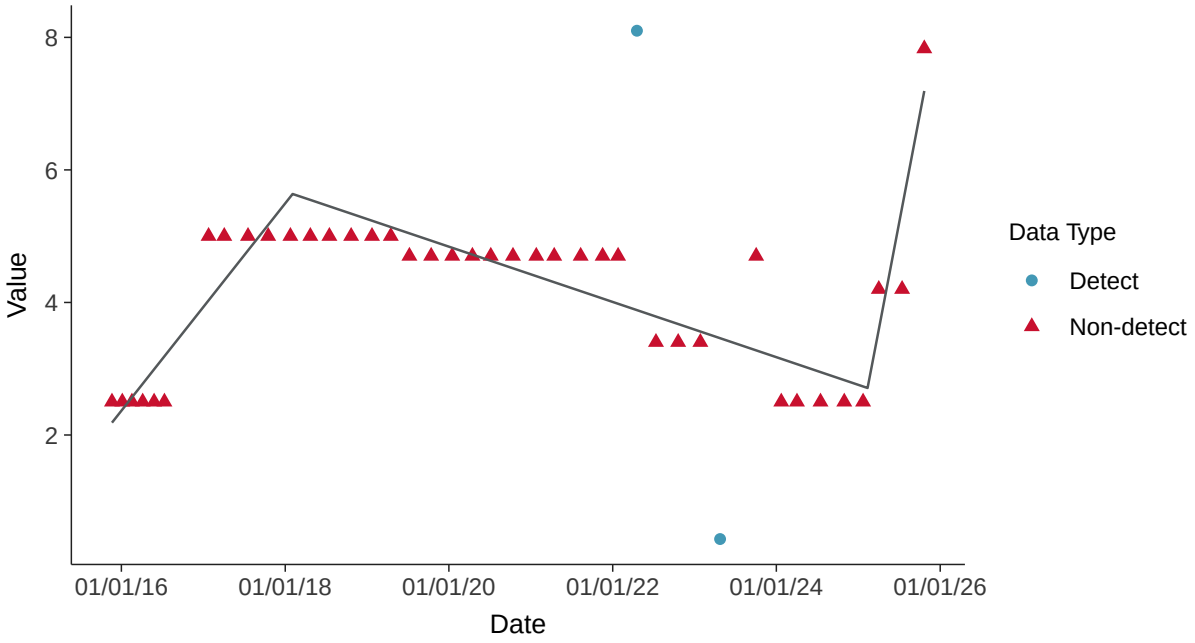
Trend Regression: Piecewise Linear-Linear

Arsenic, MW-6 (ug/L)



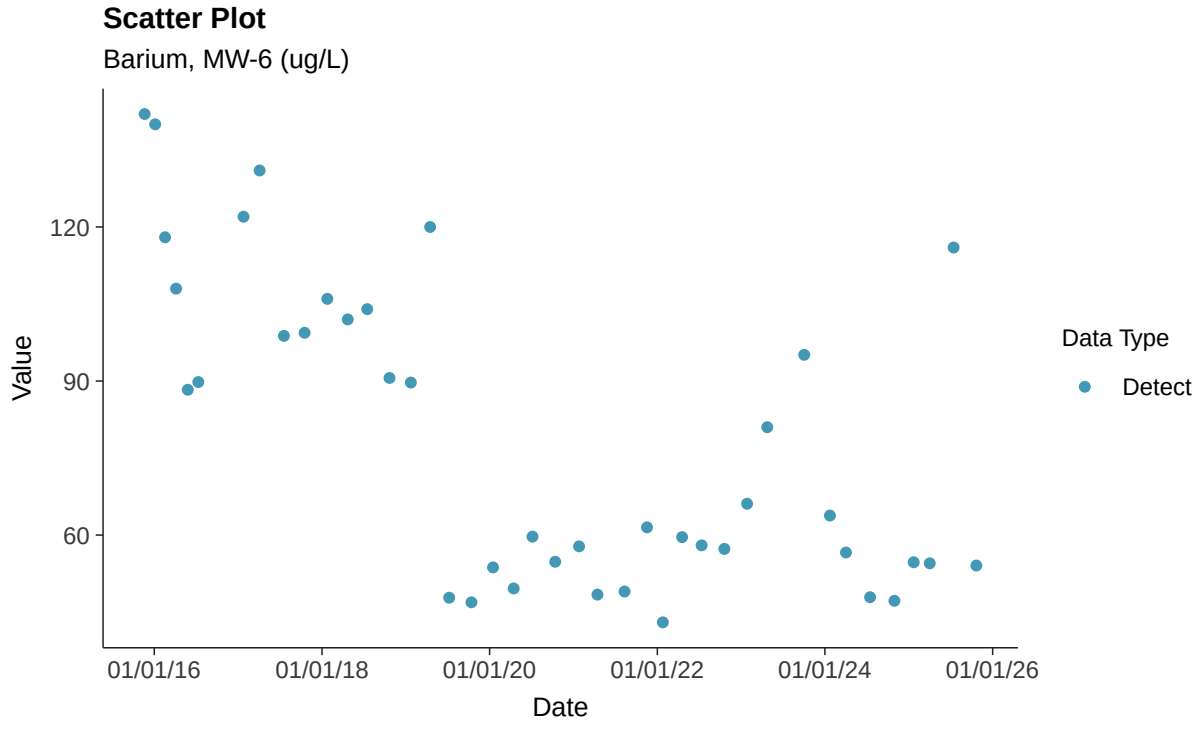
Trend Regression: Piecewise Linear-Linear-Linear

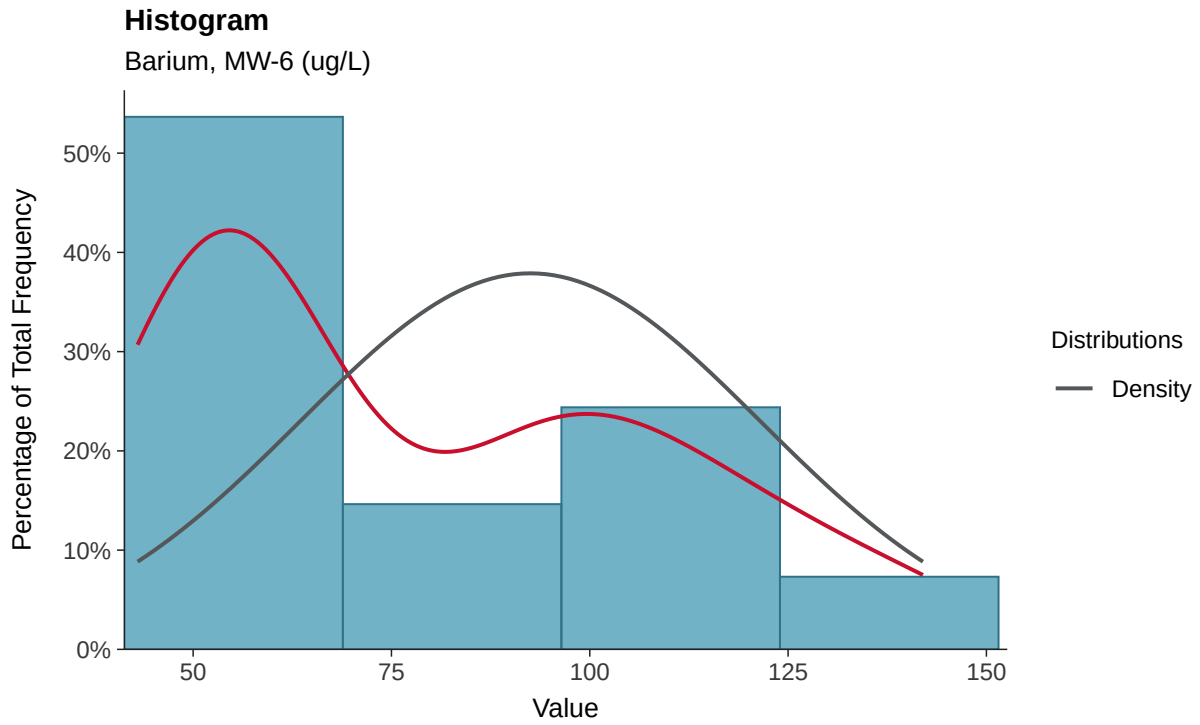
Arsenic, MW-6 (ug/L)



App. IV: Barium, MW-6

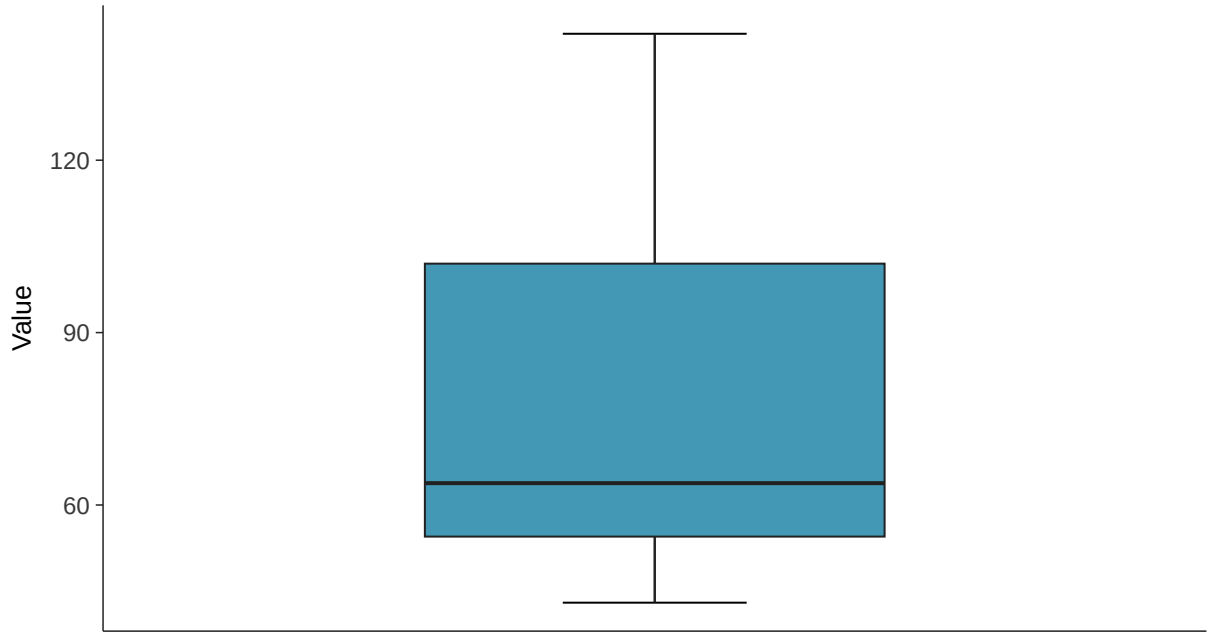
ID: 06_3_103





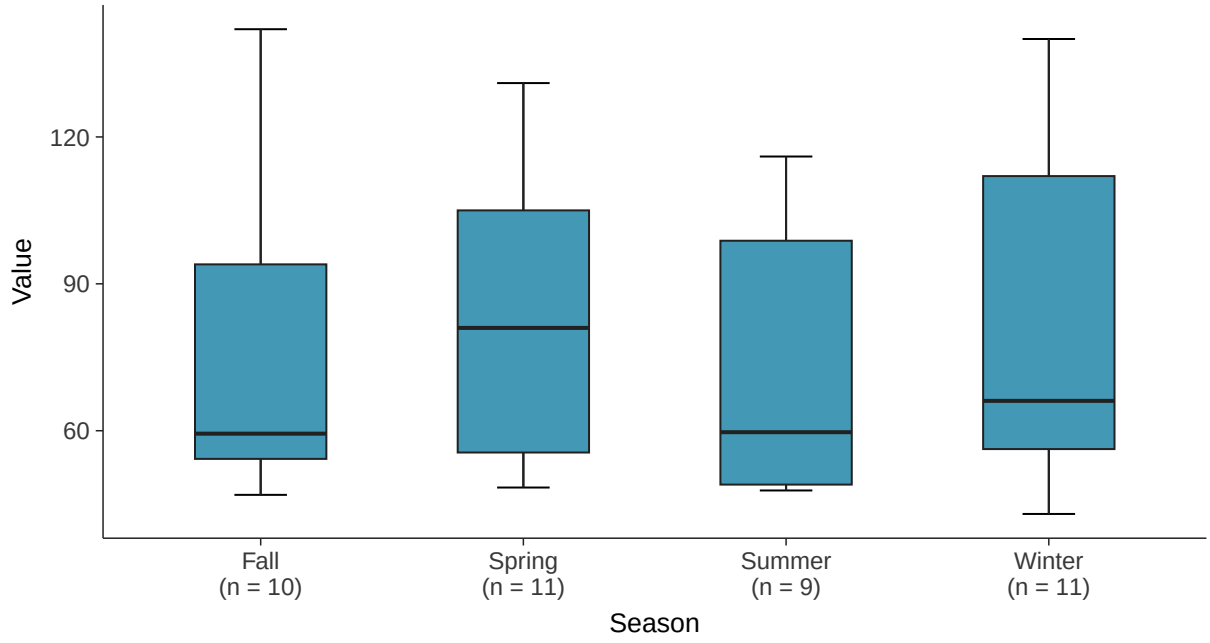
Boxplot

Barium, MW-6 (ug/L)



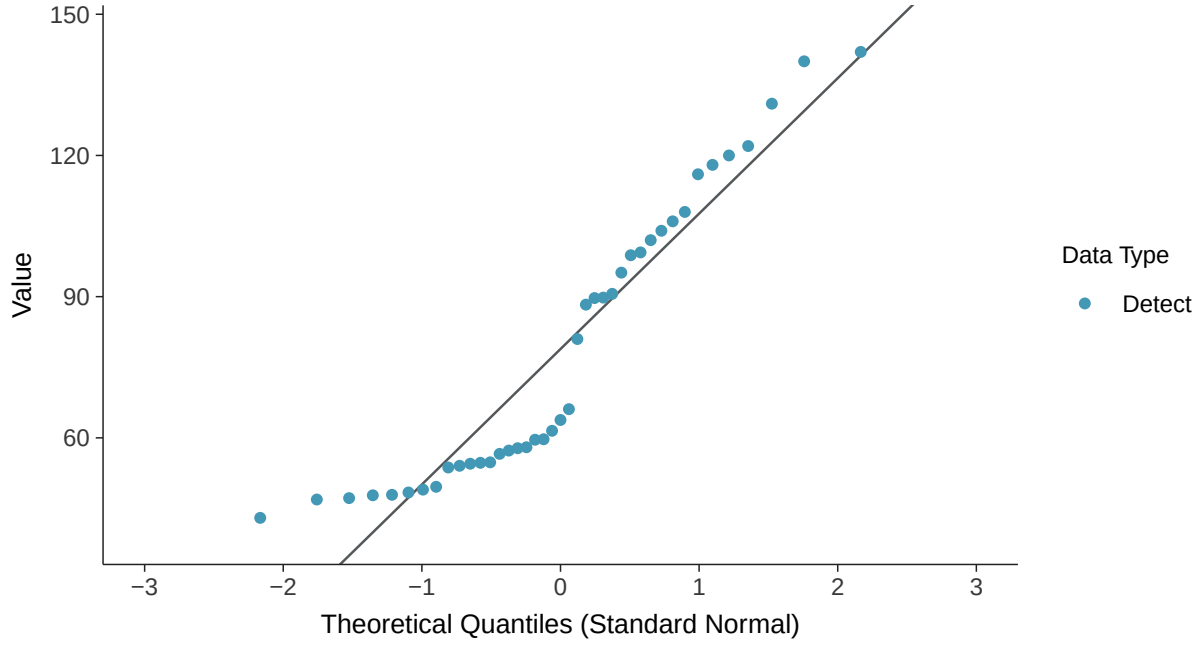
Boxplot by Season

Barium, MW-6 (ug/L)



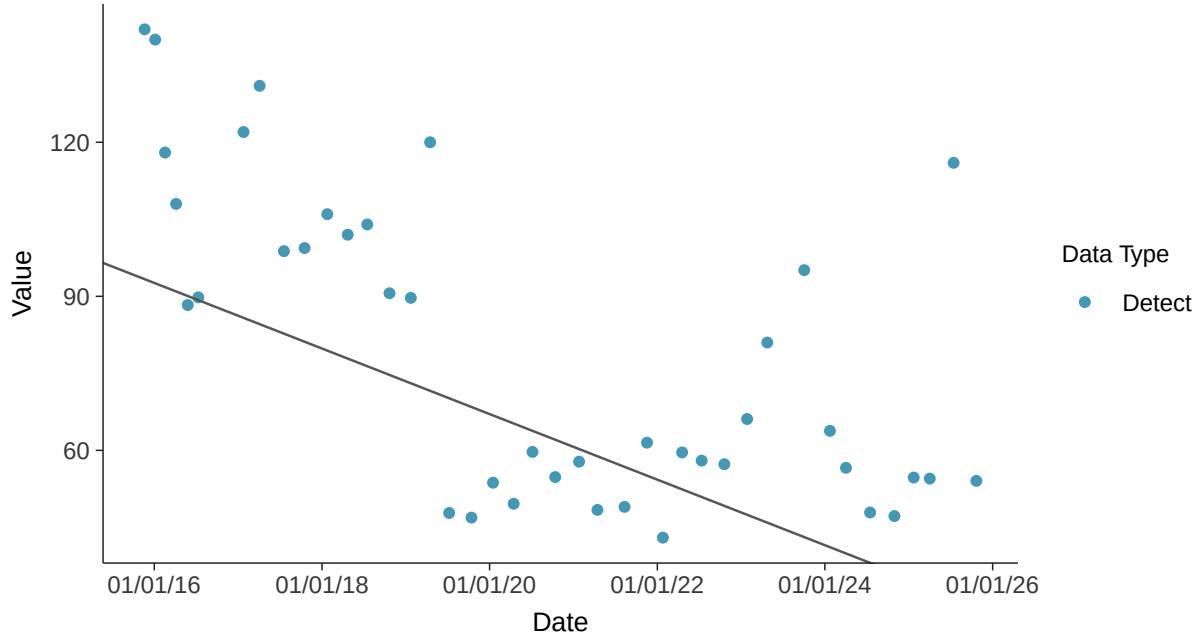
Normal Q-Q plot

Barium, MW-6 (ug/L)



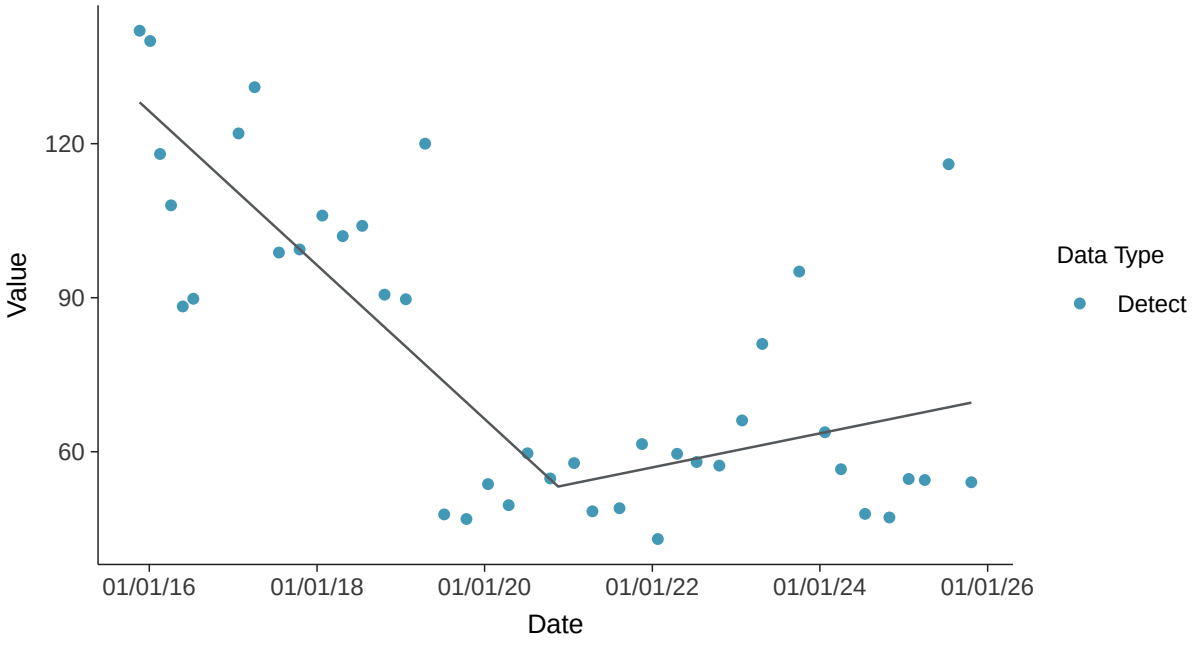
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Barium, MW-6 (ug/L)



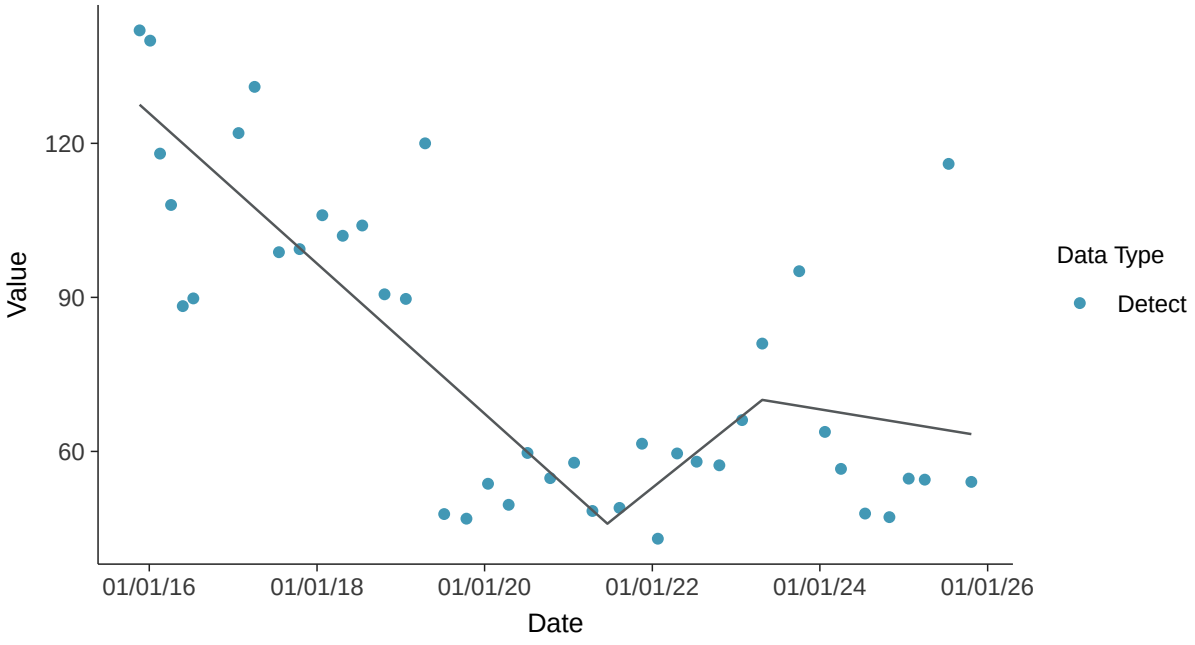
Trend Regression: Piecewise Linear-Linear

Barium, MW-6 (ug/L)



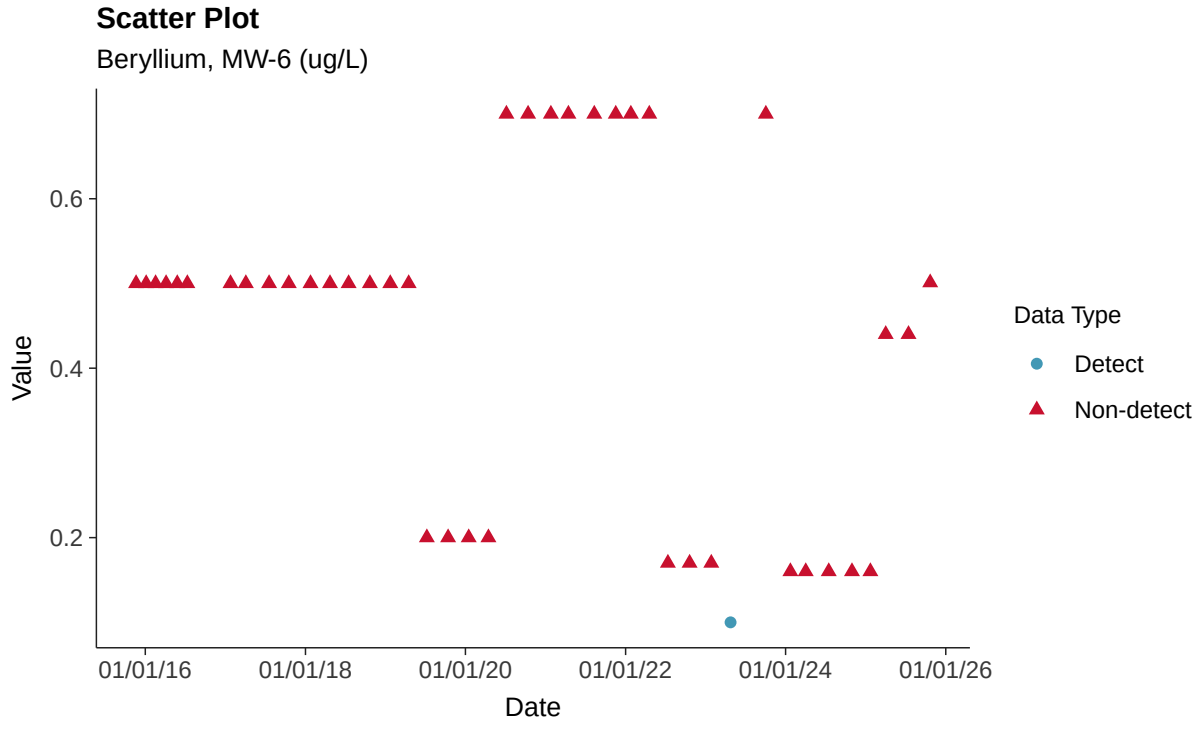
Trend Regression: Piecewise Linear-Linear-Linear

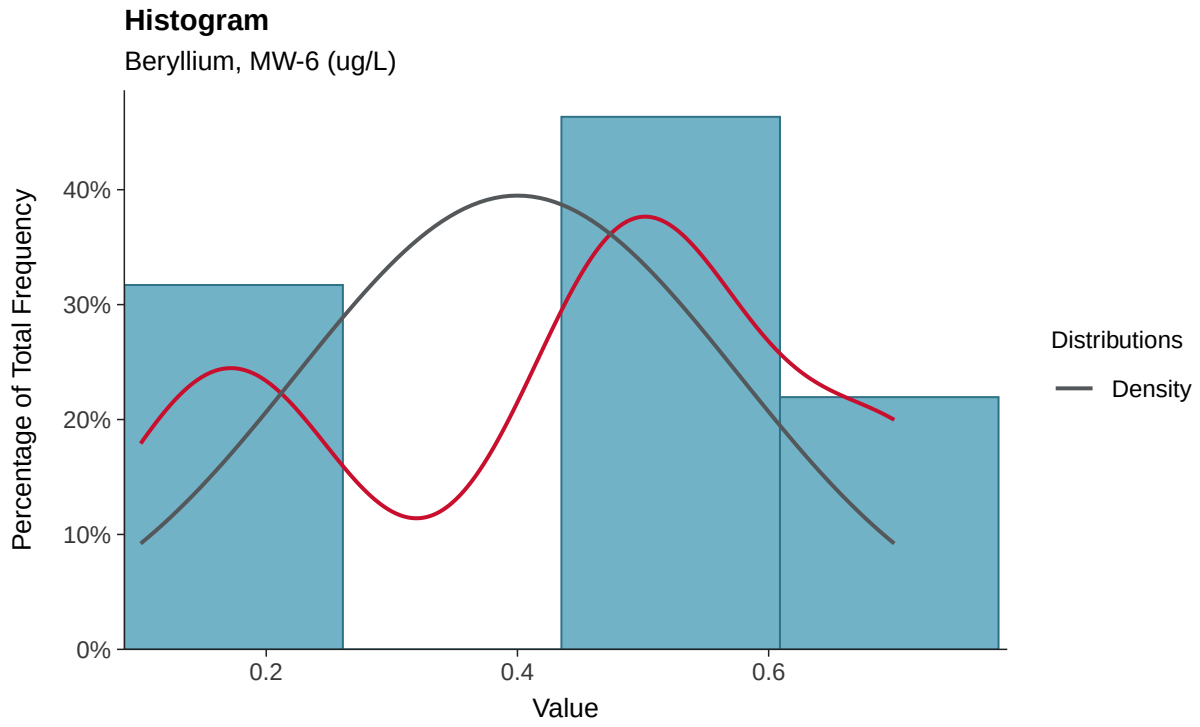
Barium, MW-6 (ug/L)



App. IV: Beryllium, MW-6

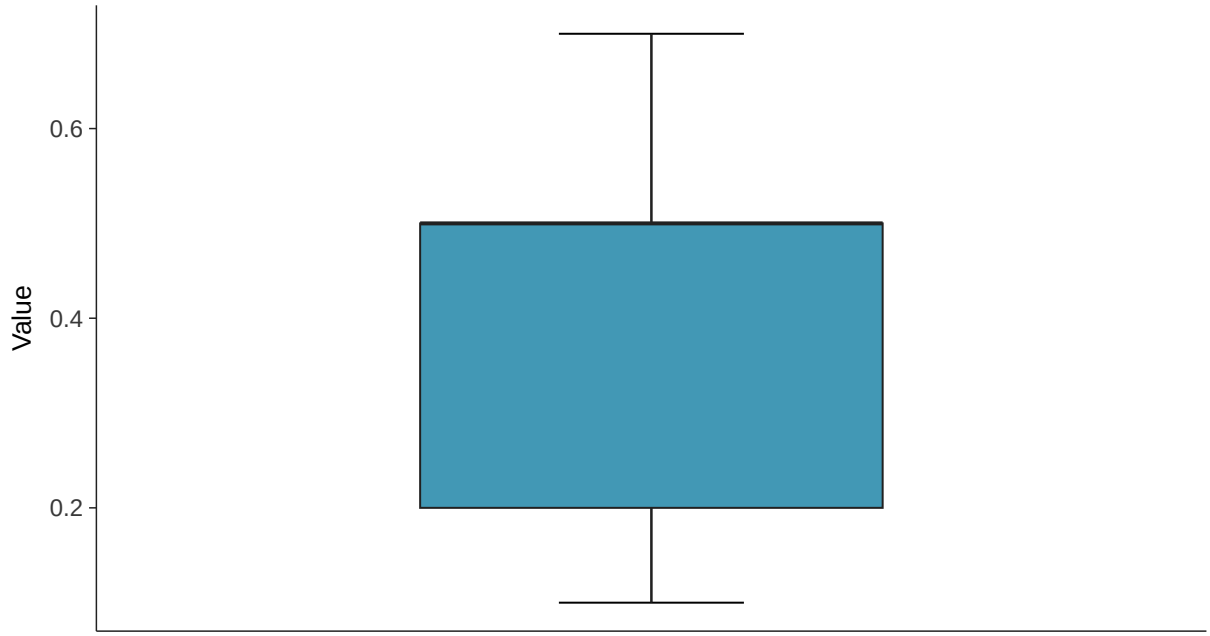
ID: 06_3_104





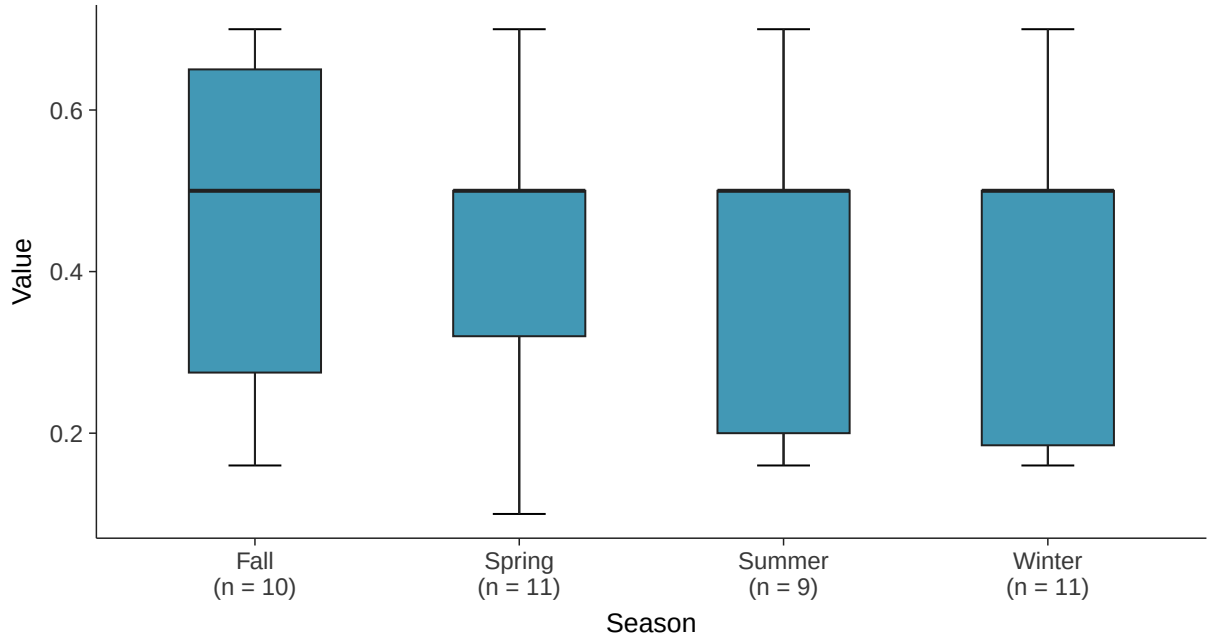
Boxplot

Beryllium, MW-6 (ug/L)



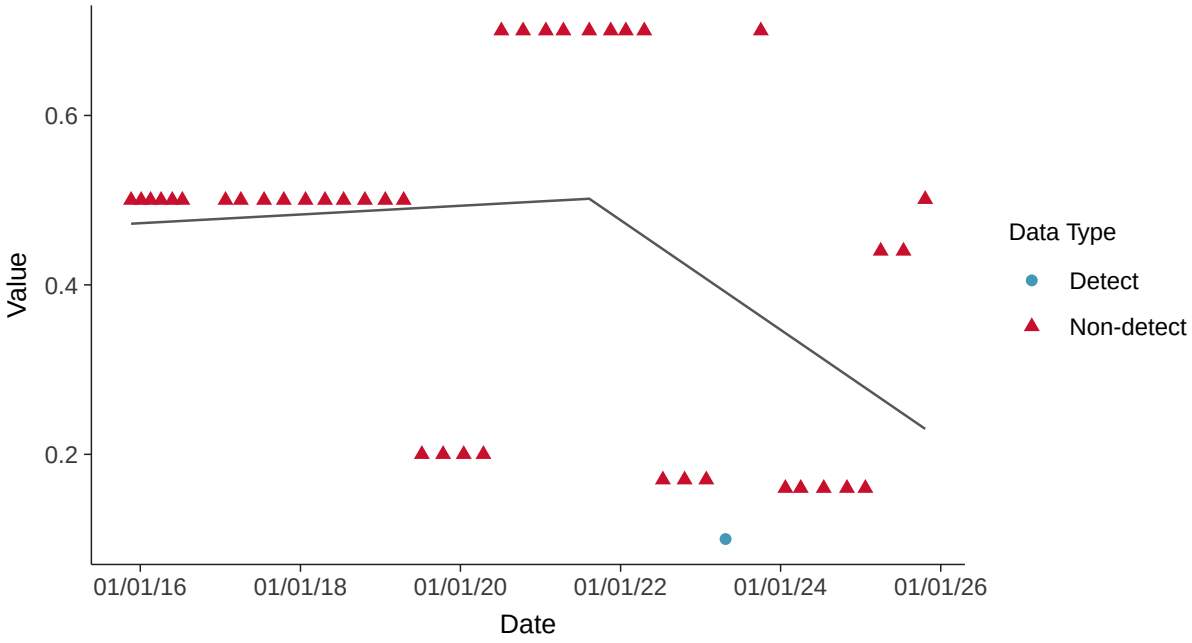
Boxplot by Season

Beryllium, MW-6 (ug/L)



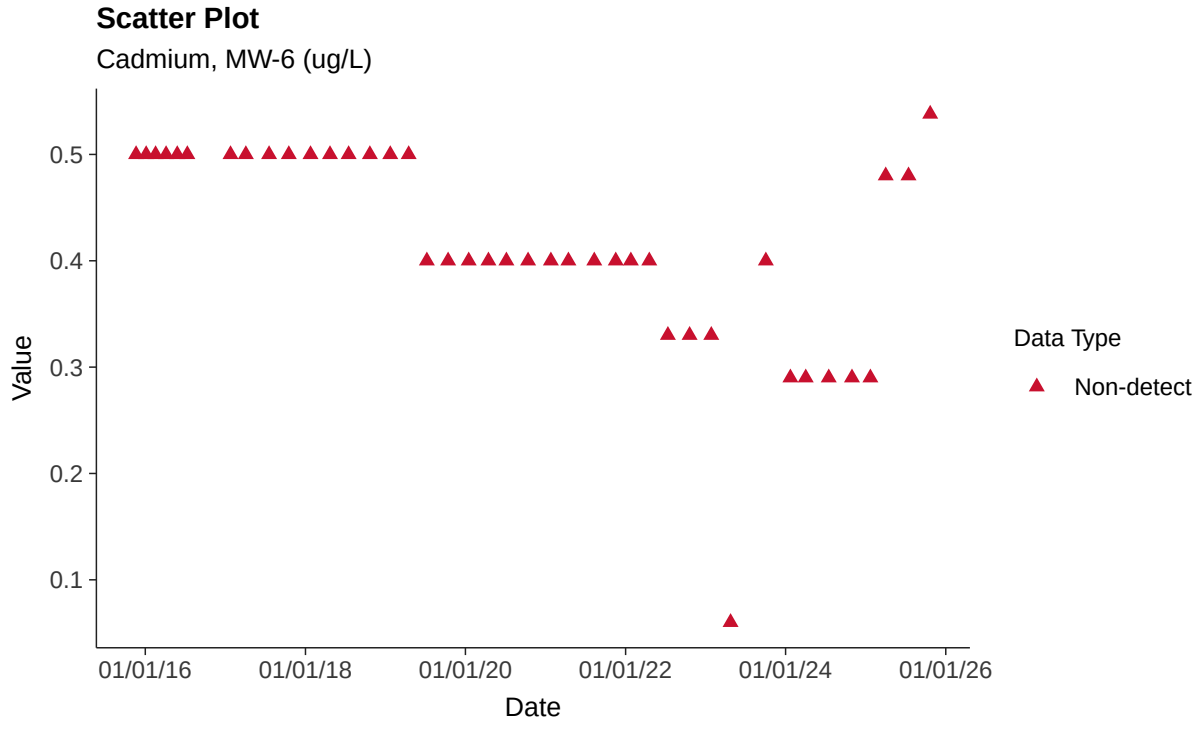
Trend Regression: Piecewise Linear-Linear

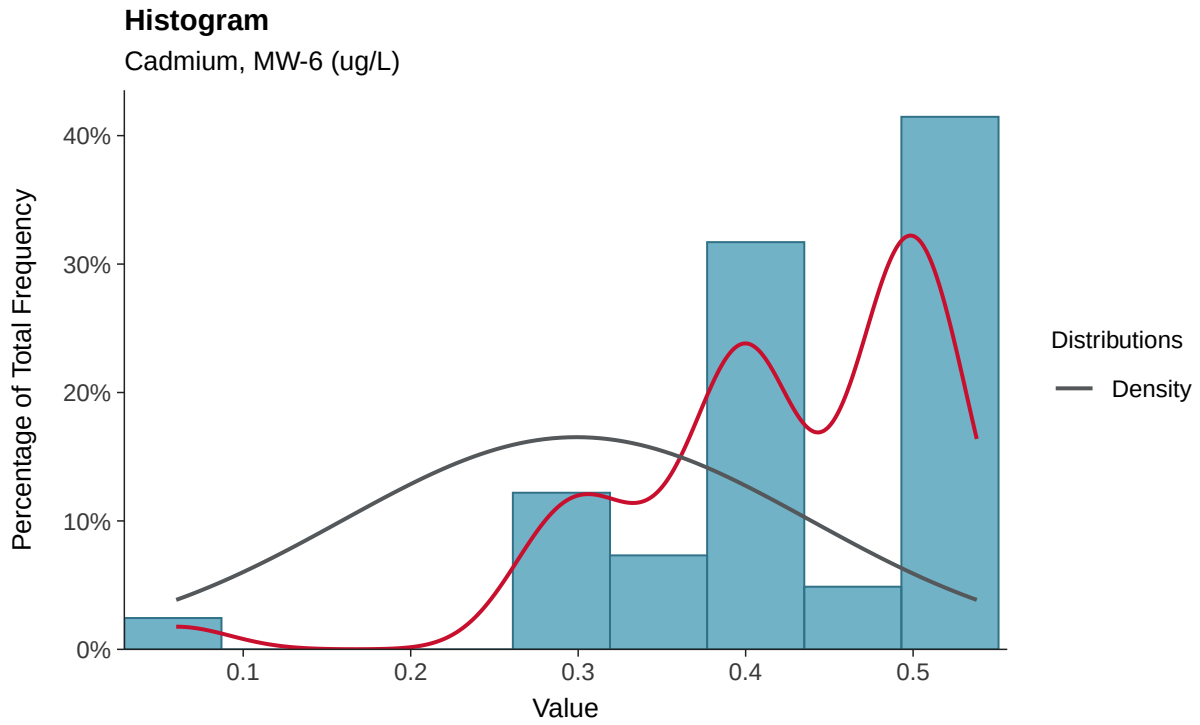
Beryllium, MW-6 (ug/L)



App. IV: Cadmium, MW-6

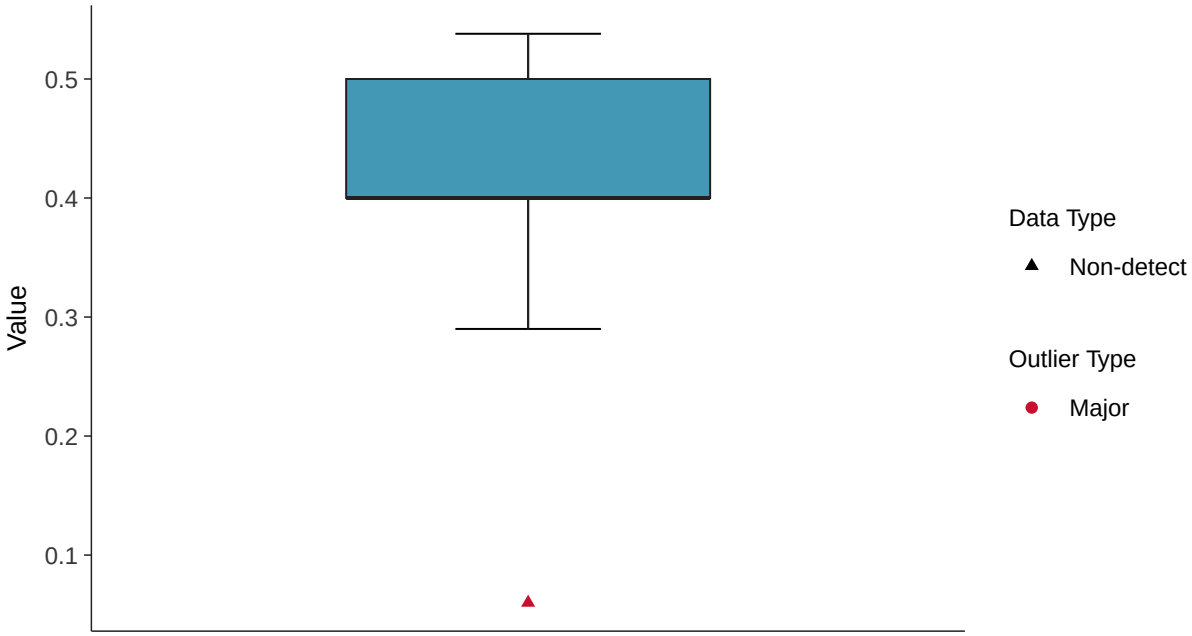
ID: 06_3_106





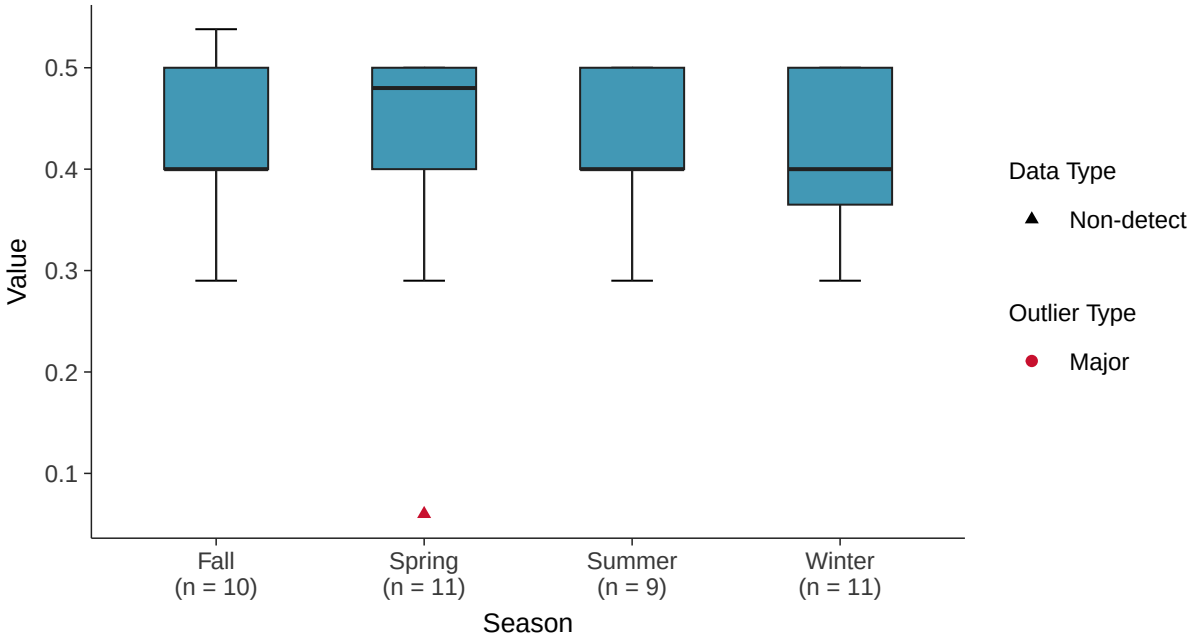
Boxplot

Cadmium, MW-6 (ug/L)



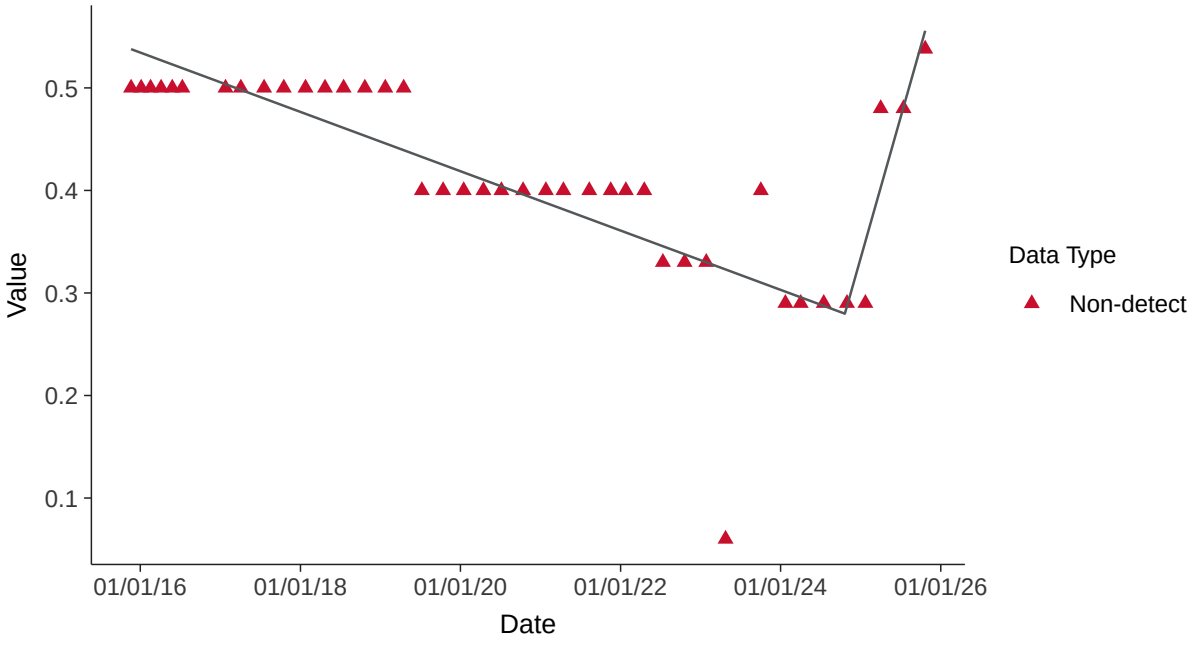
Boxplot by Season

Cadmium, MW-6 (ug/L)



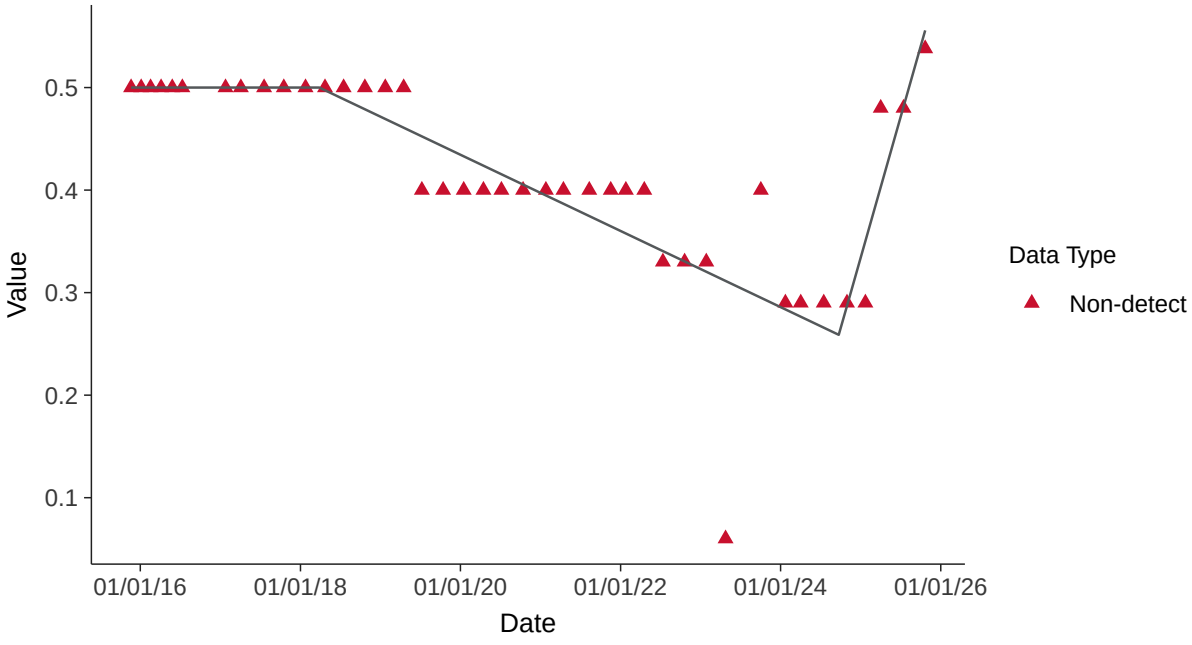
Trend Regression: Piecewise Linear-Linear

Cadmium, MW-6 (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Cadmium, MW-6 (ug/L)

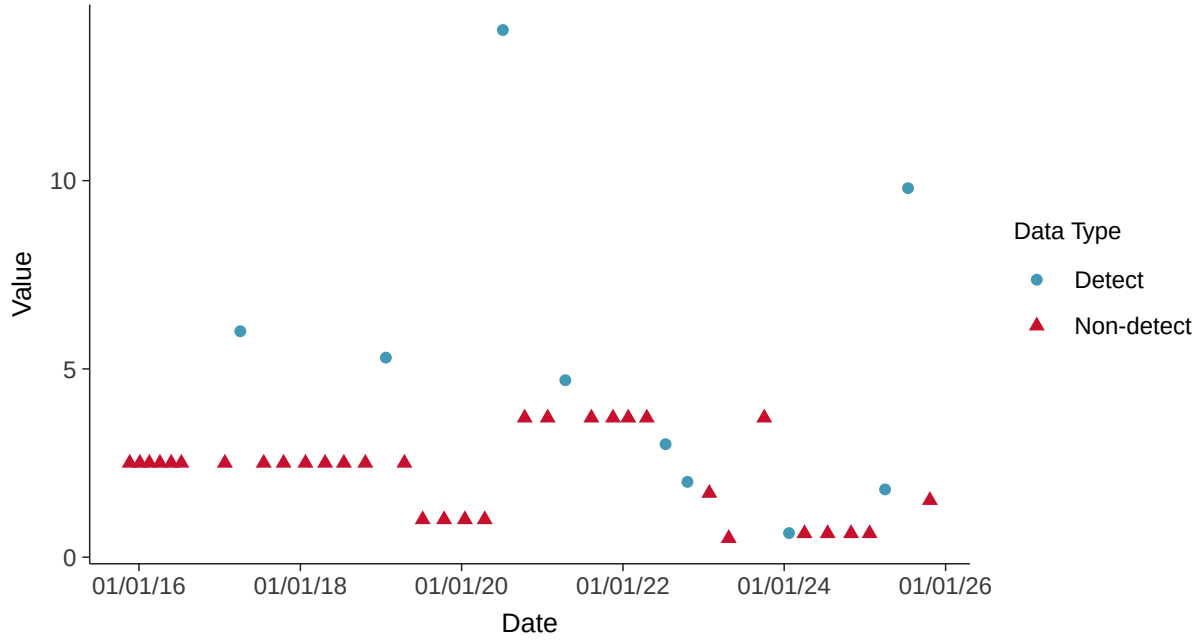


App. IV: Chromium, MW-6

ID: 06_3_109

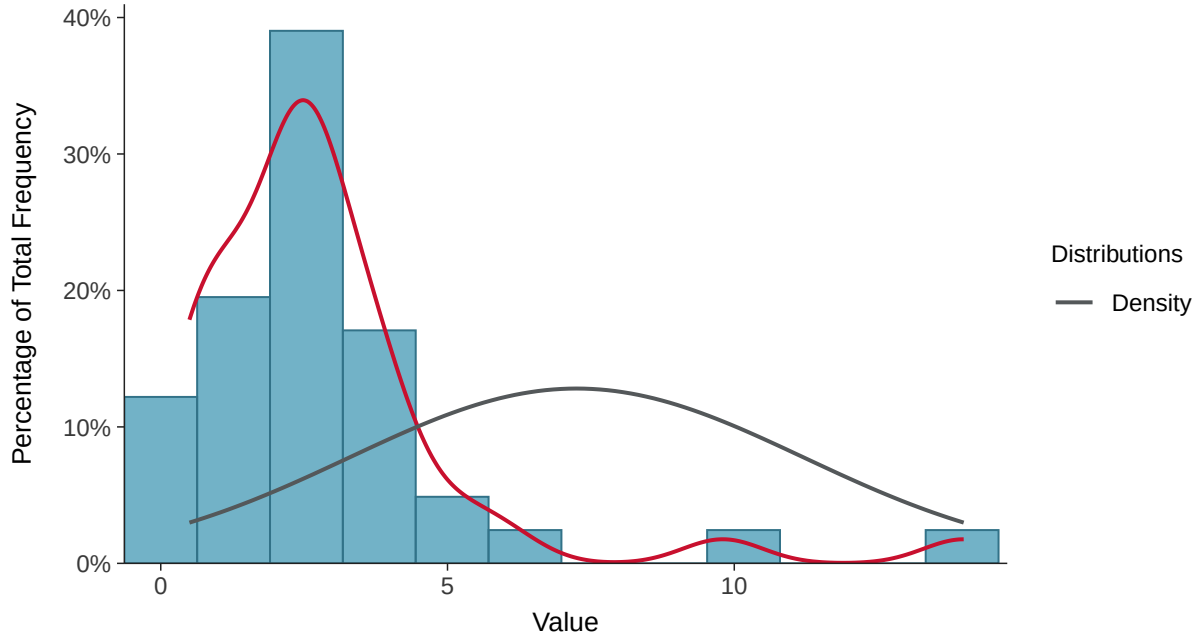
Scatter Plot

Chromium, MW-6 (ug/L)



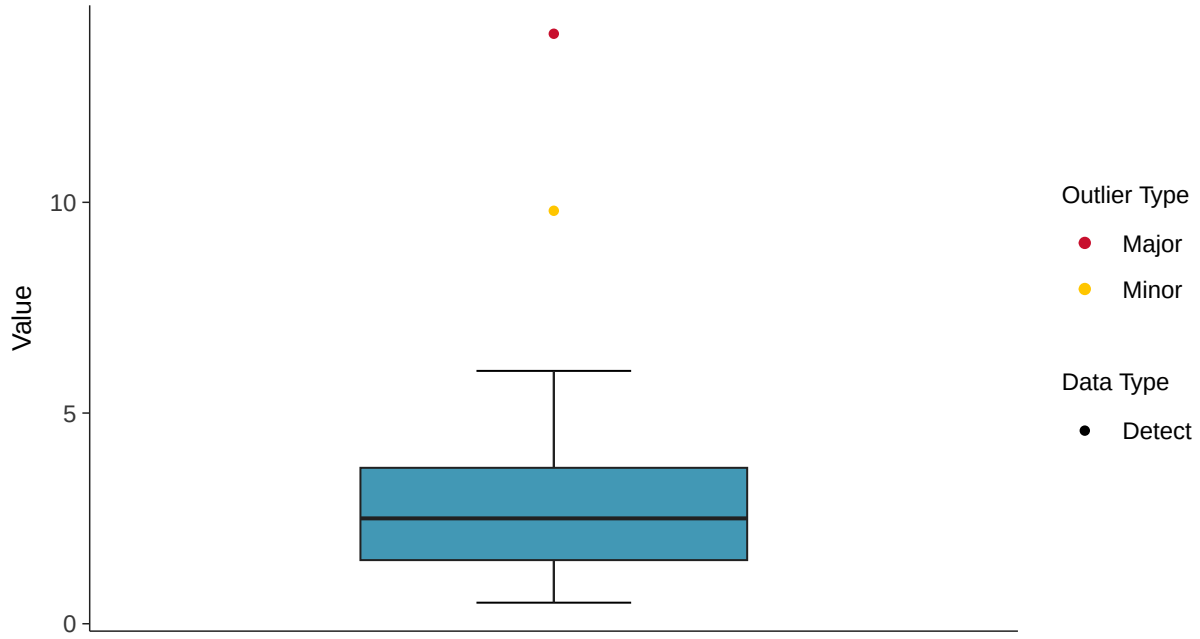
Histogram

Chromium, MW-6 (ug/L)



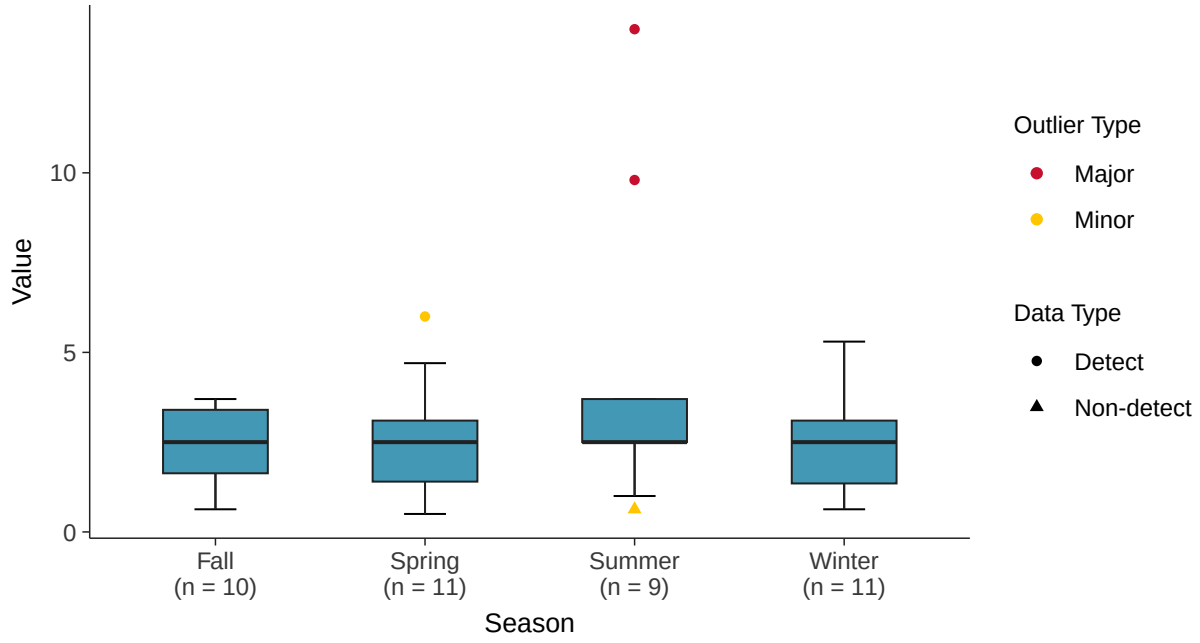
Boxplot

Chromium, MW-6 (ug/L)



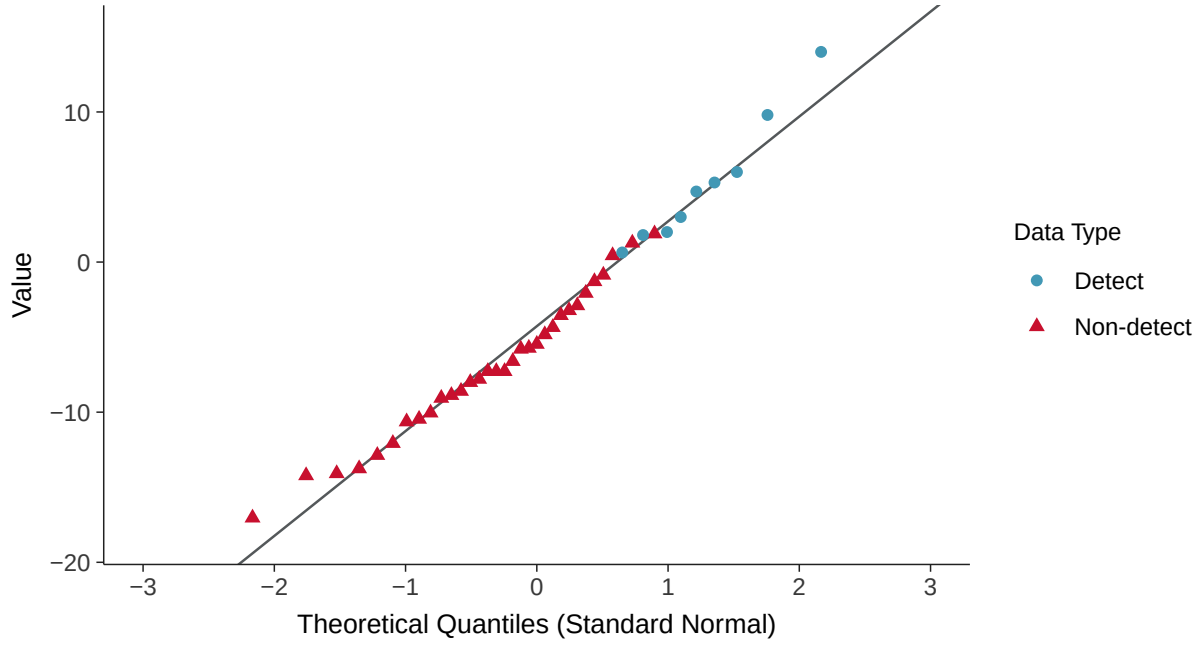
Boxplot by Season

Chromium, MW-6 (ug/L)



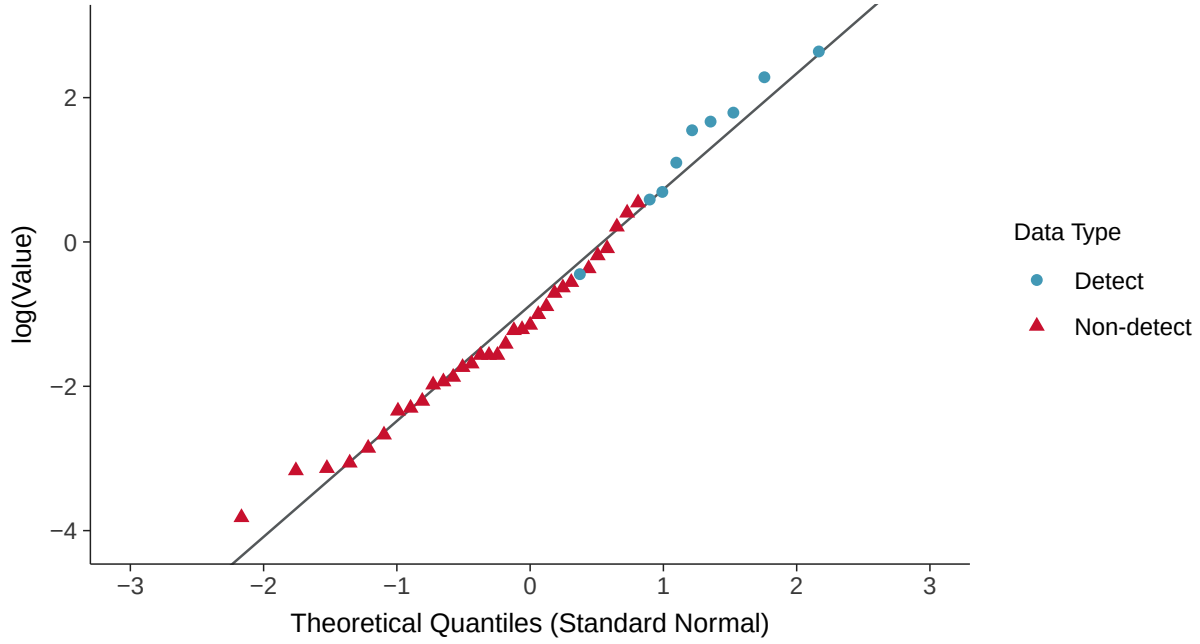
Normal Q-Q plot using ROS Imputed Estimates

Chromium, MW-6 (ug/L)



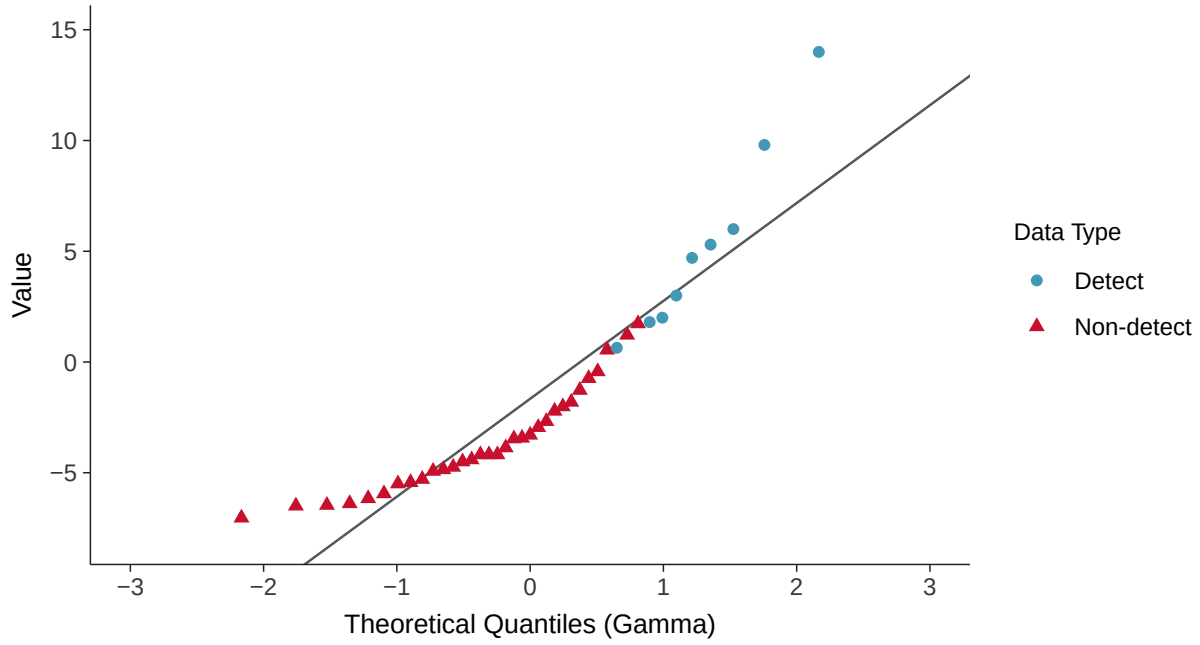
Lognormal Q-Q plot using ROS Imputed Estimates

Chromium, MW-6 (ug/L)



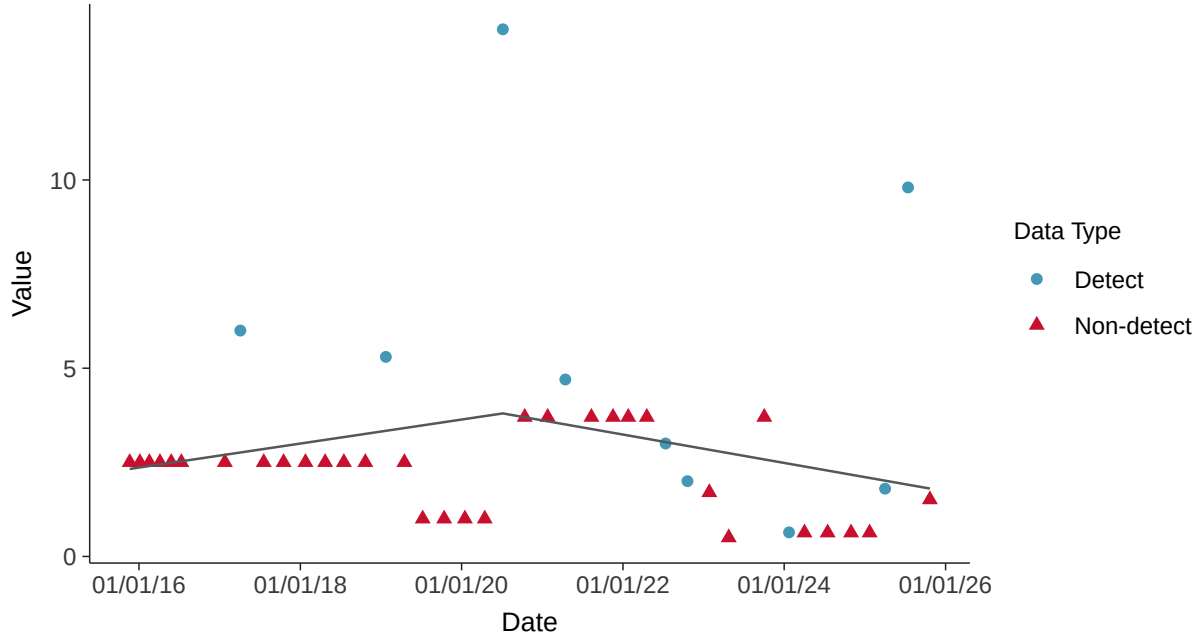
Gamma Q-Q plot using ROS Imputed Estimates

Chromium, MW-6 (ug/L)



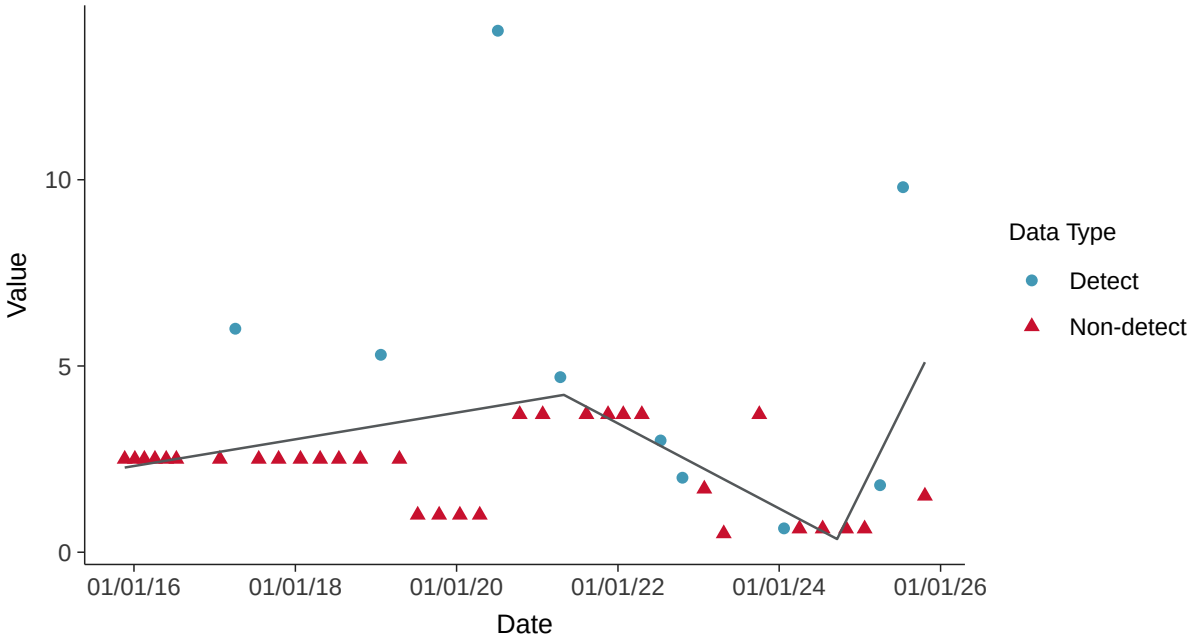
Trend Regression: Piecewise Linear-Linear

Chromium, MW-6 (ug/L)



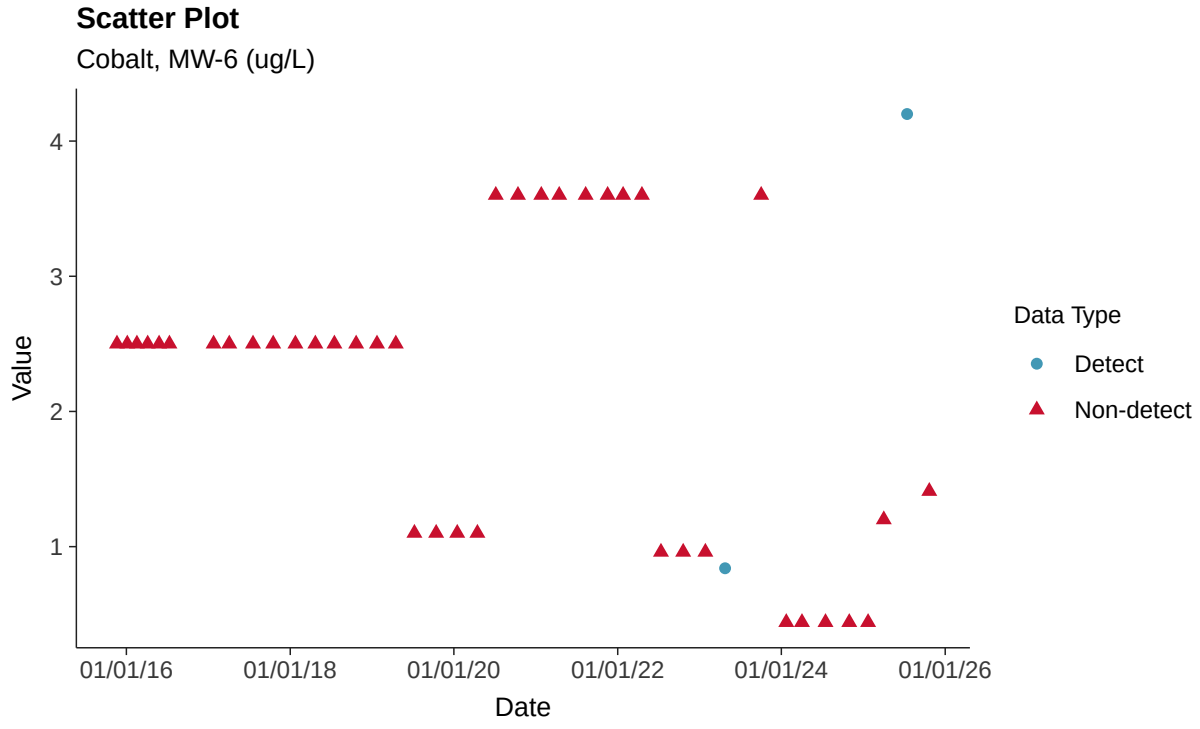
Trend Regression: Piecewise Linear-Linear-Linear

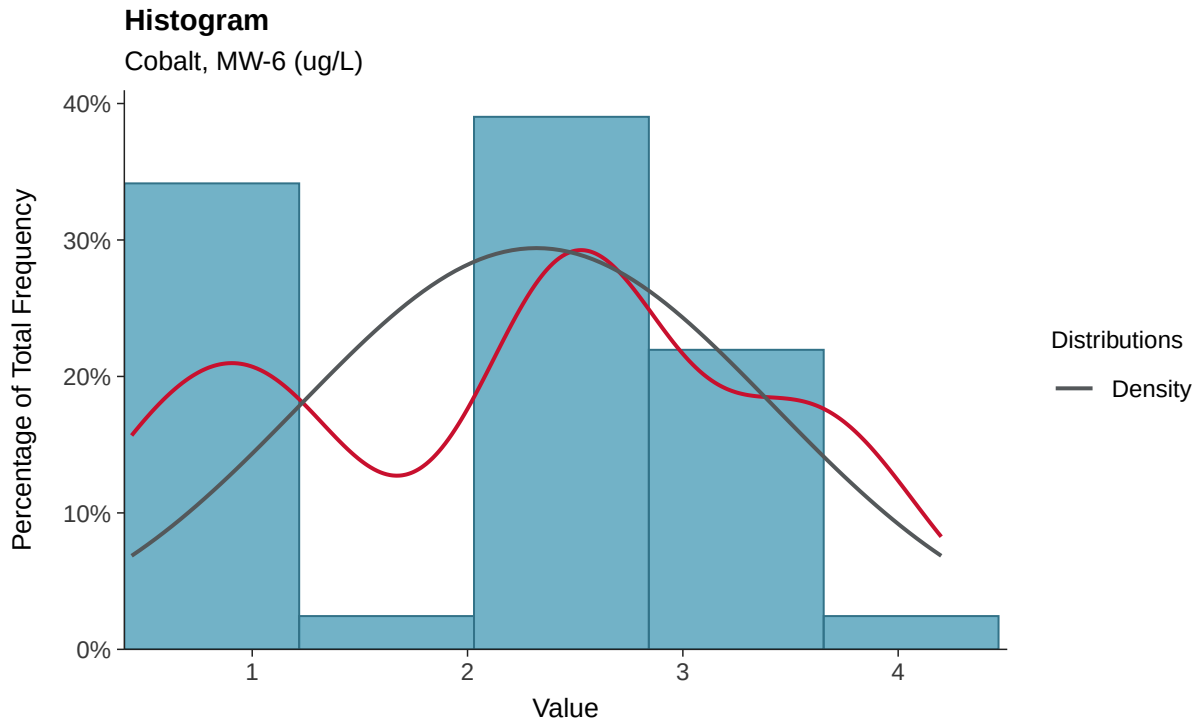
Chromium, MW-6 (ug/L)



App. IV: Cobalt, MW-6

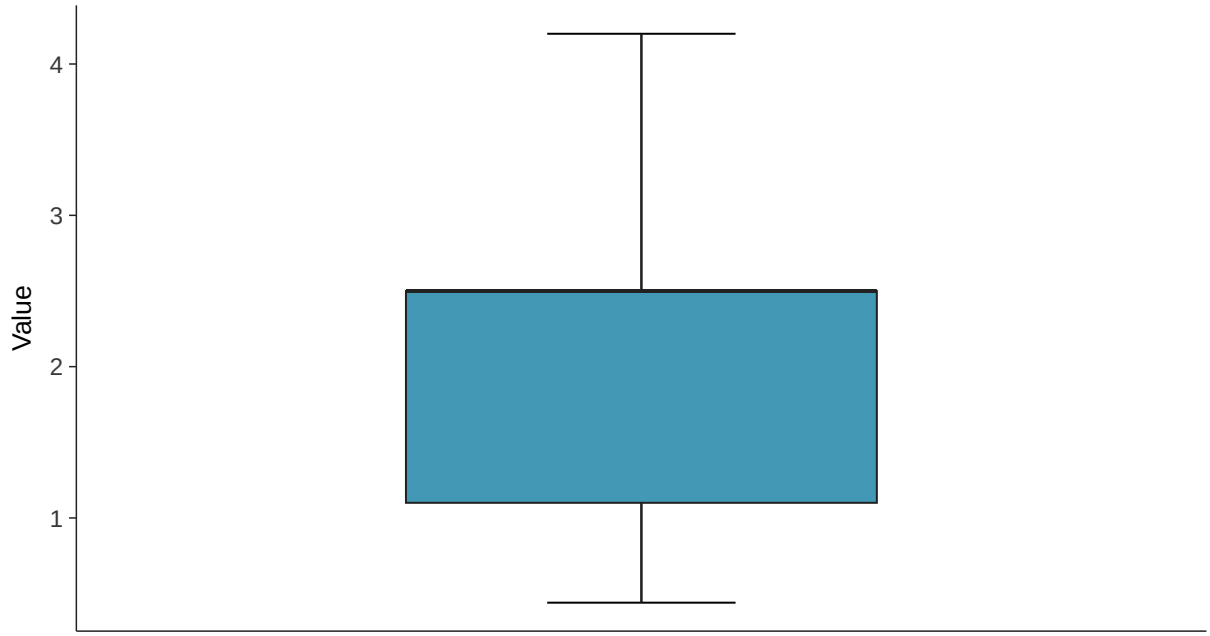
ID: 06_3_110





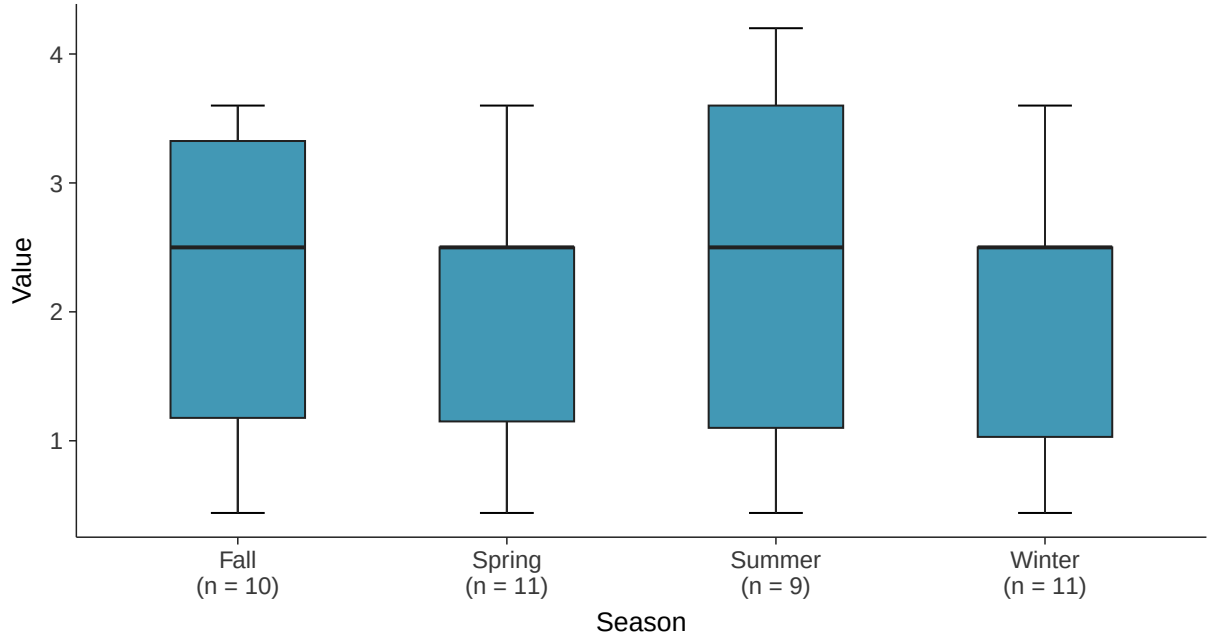
Boxplot

Cobalt, MW-6 (ug/L)



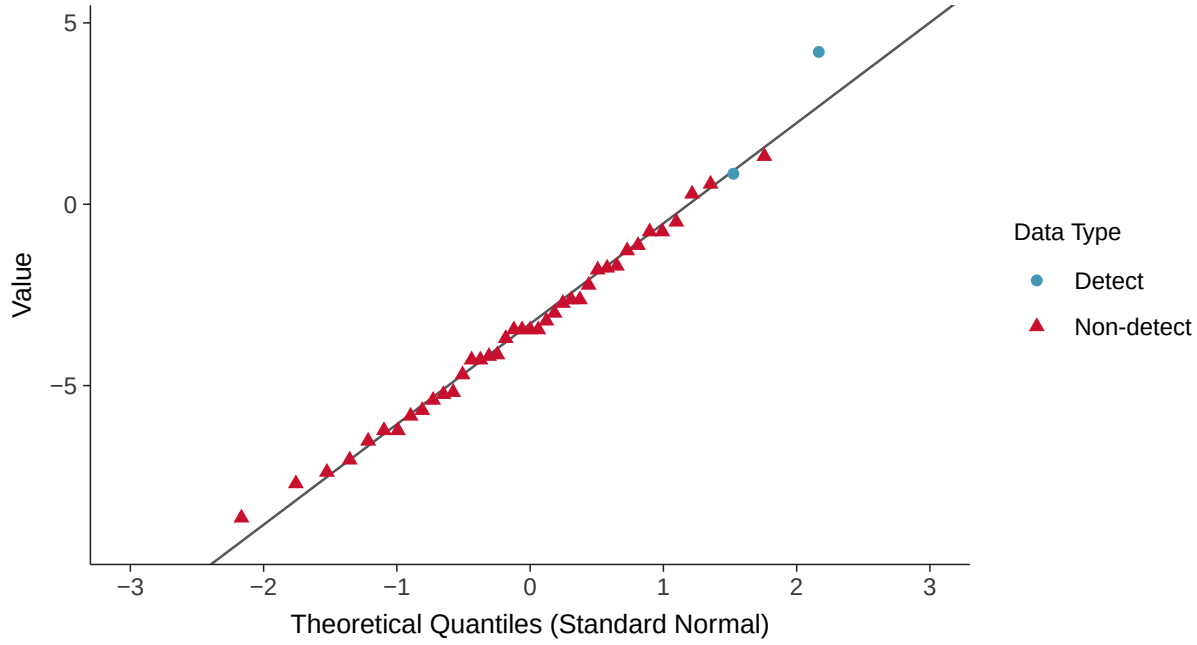
Boxplot by Season

Cobalt, MW-6 (ug/L)



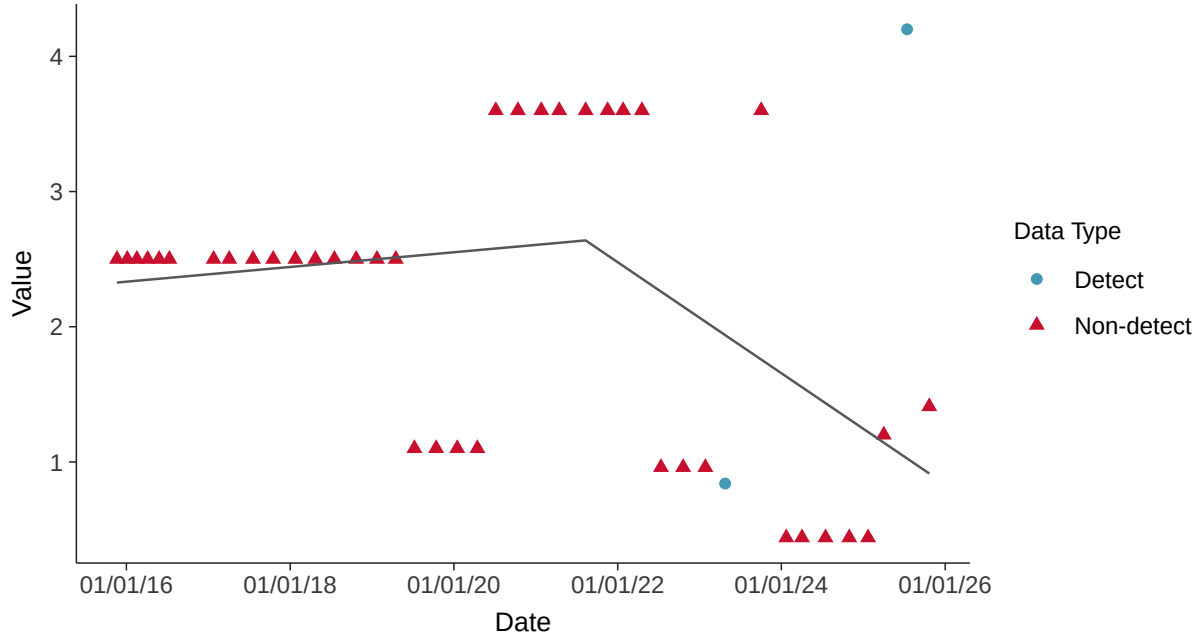
Normal Q-Q plot using ROS Imputed Estimates

Cobalt, MW-6 (ug/L)



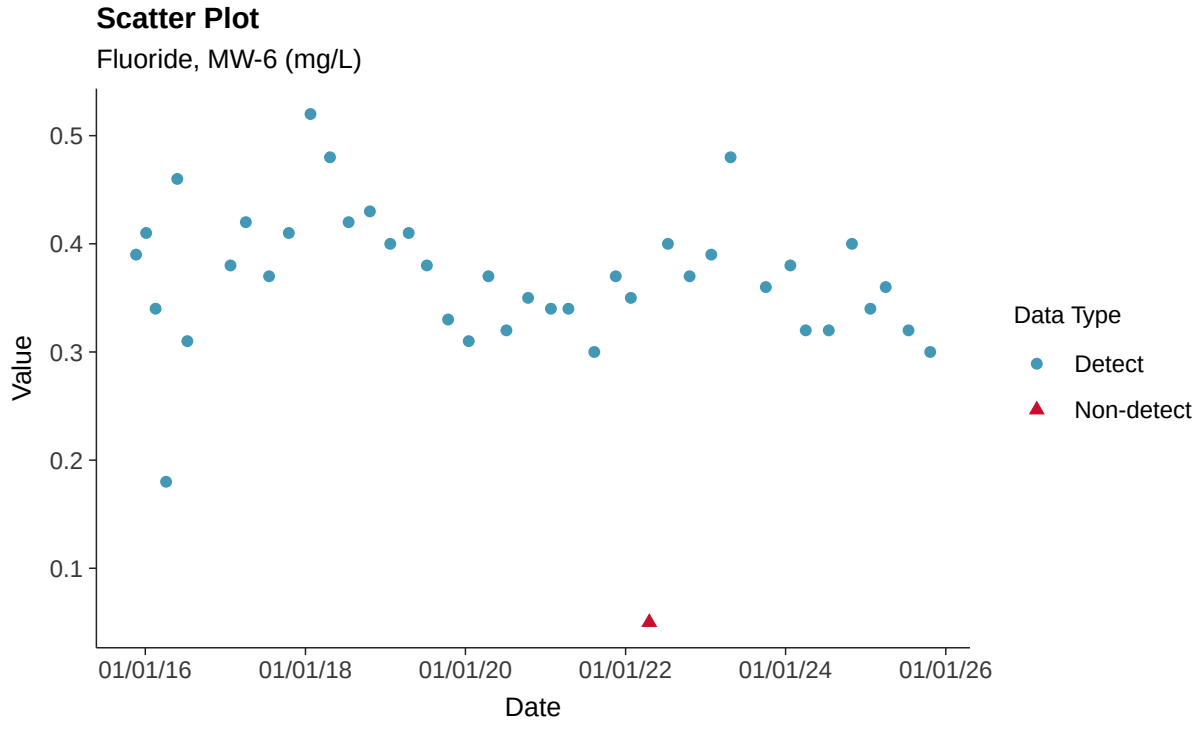
Trend Regression: Piecewise Linear-Linear

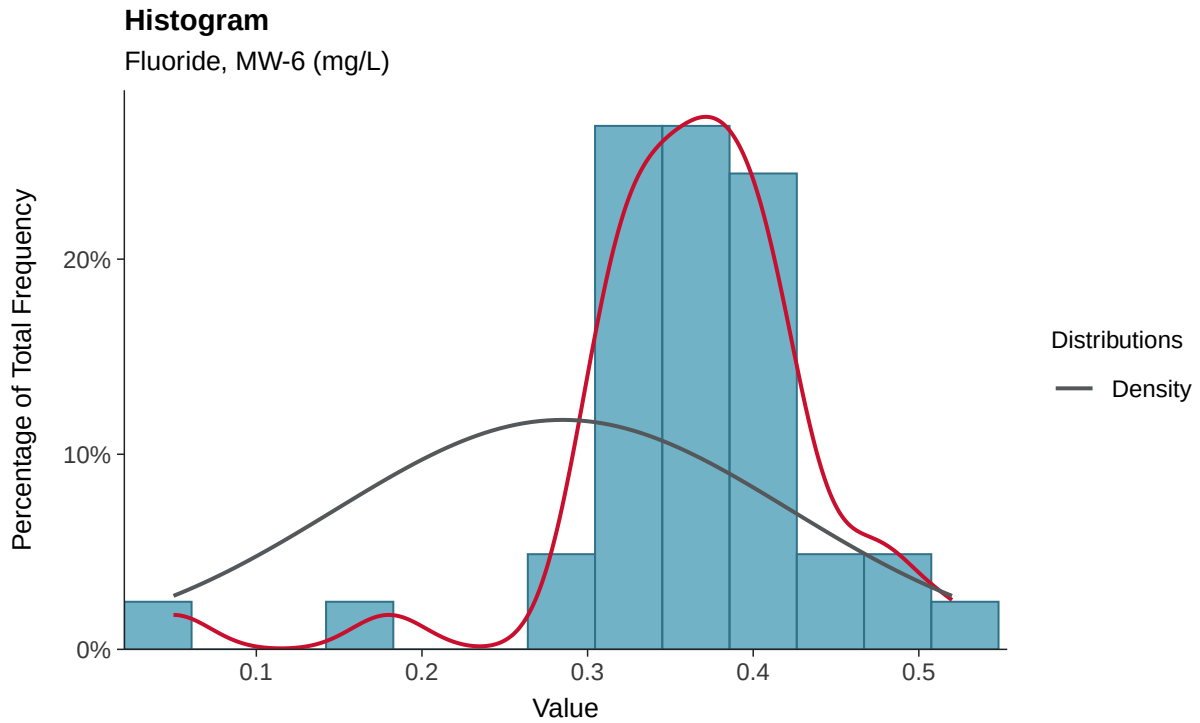
Cobalt, MW-6 (ug/L)



App. IV: Fluoride, MW-6

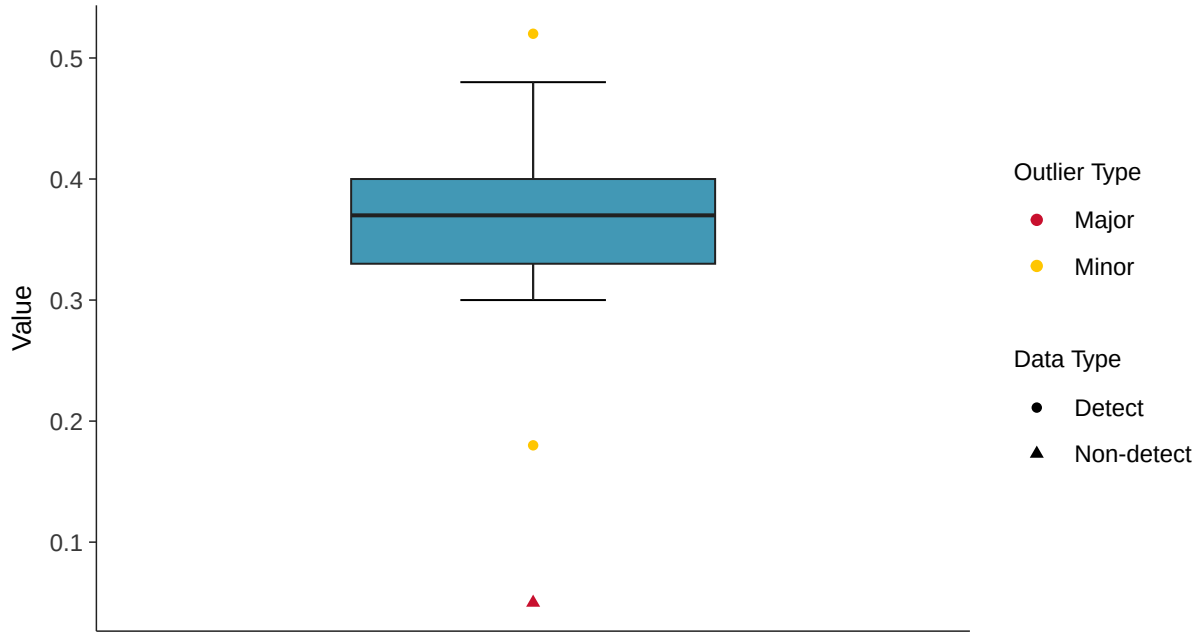
ID: 06_3_112





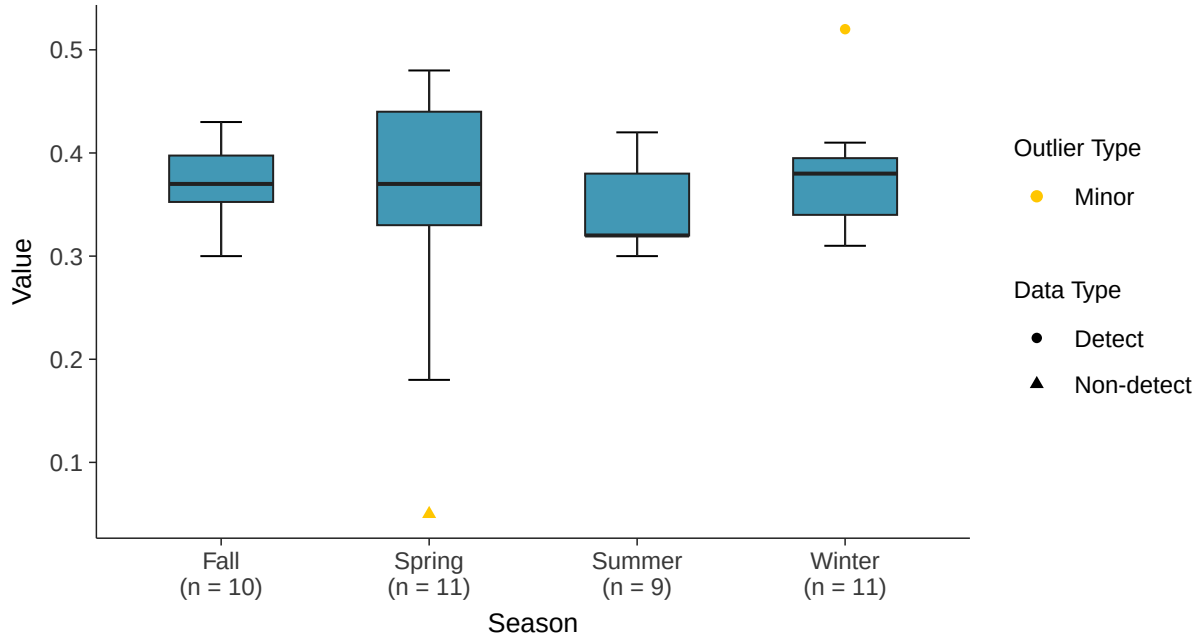
Boxplot

Fluoride, MW-6 (mg/L)



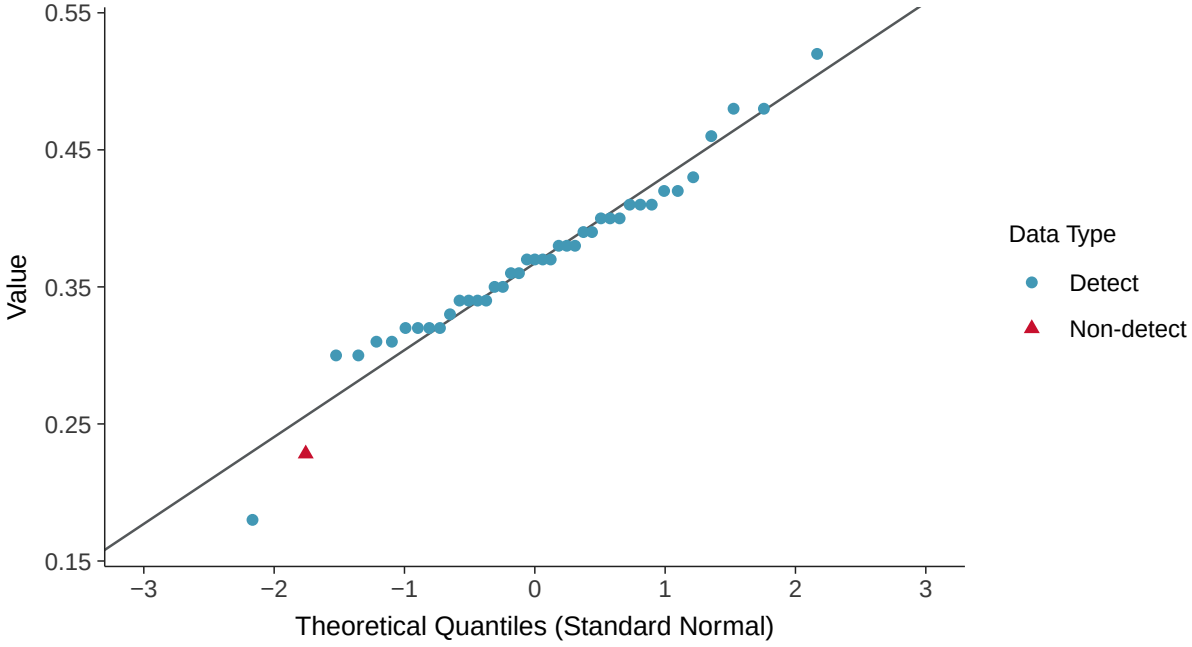
Boxplot by Season

Fluoride, MW-6 (mg/L)



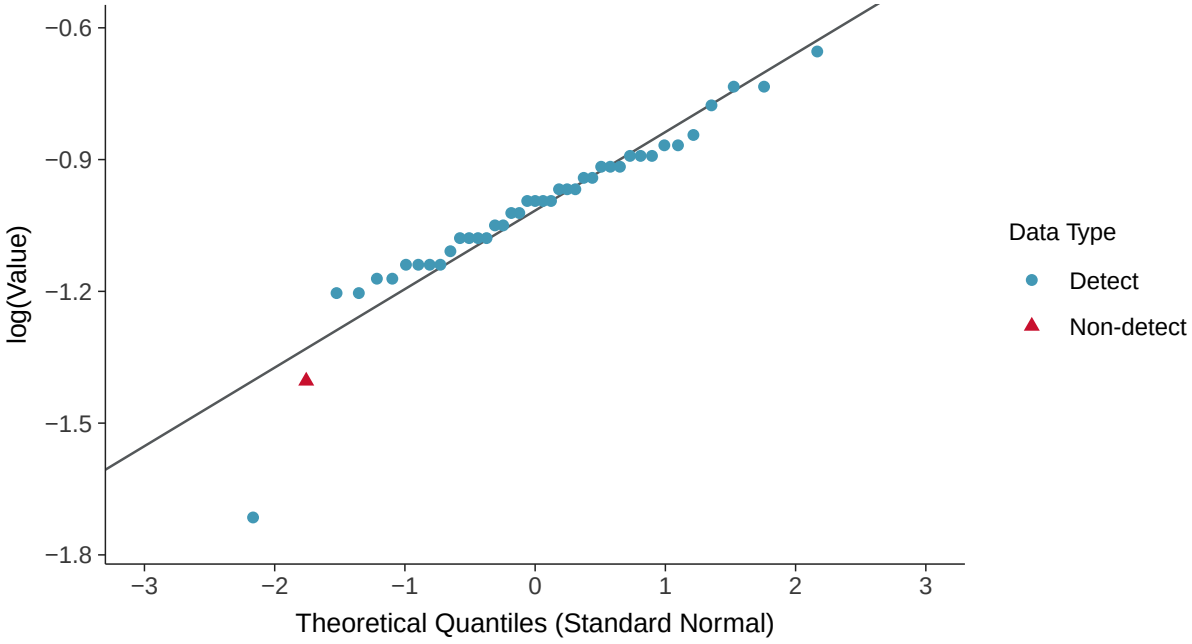
Normal Q-Q plot using ROS Imputed Estimates

Fluoride, MW-6 (mg/L)



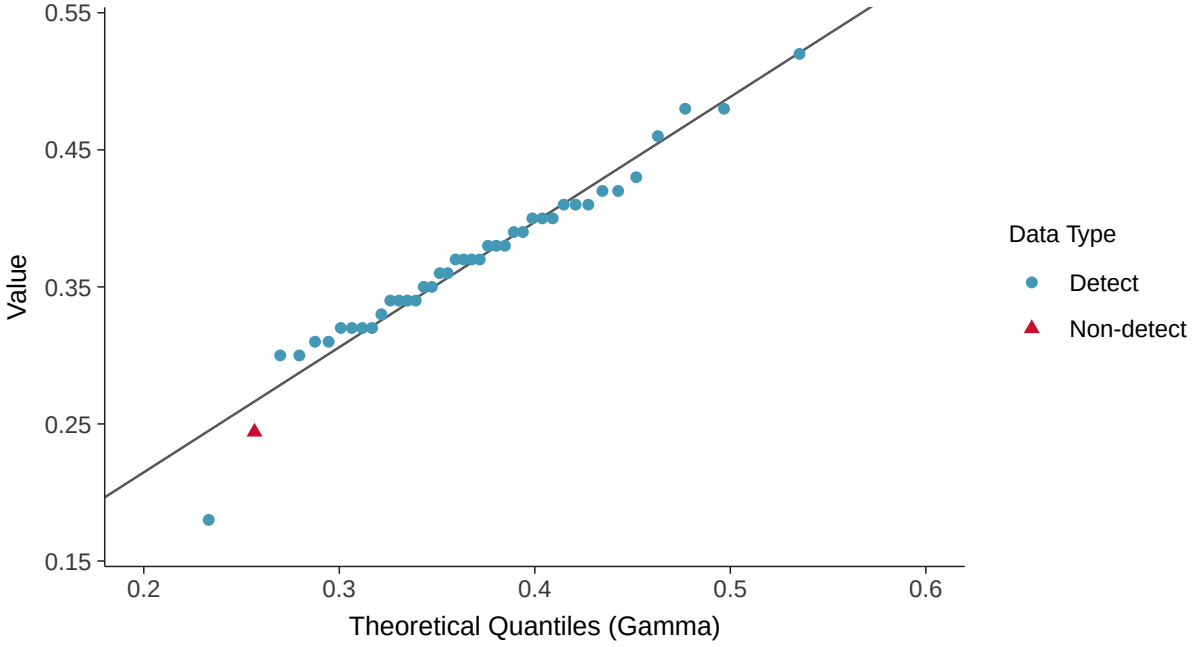
Lognormal Q-Q plot using ROS Imputed Estimates

Fluoride, MW-6 (mg/L)



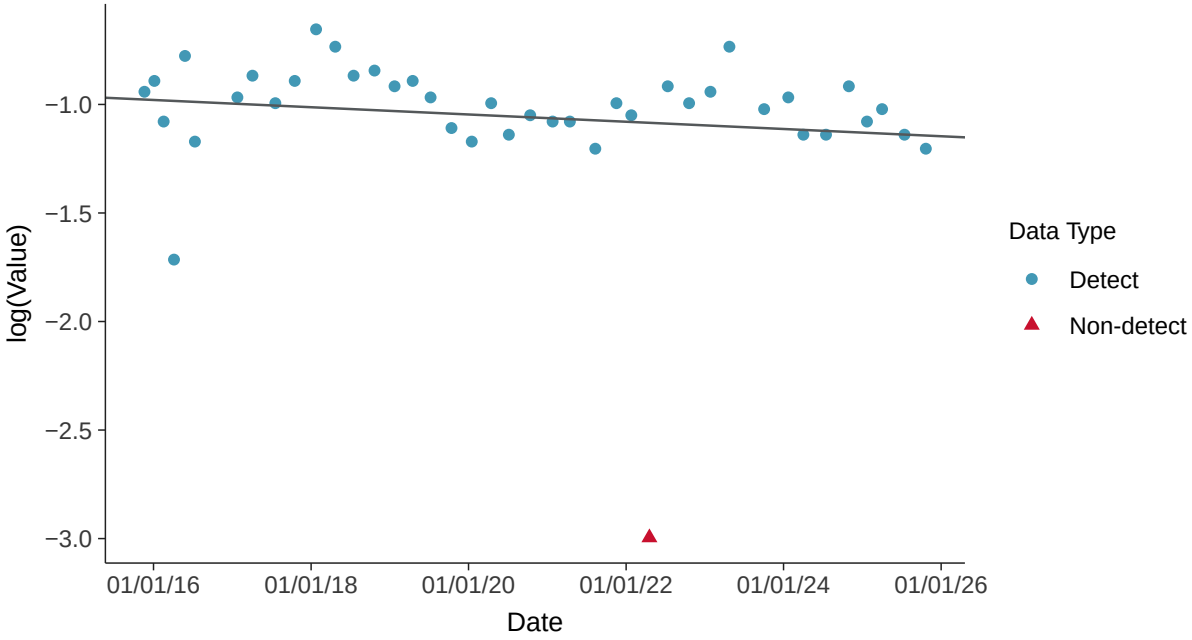
Gamma Q-Q plot using ROS Imputed Estimates

Fluoride, MW-6 (mg/L)



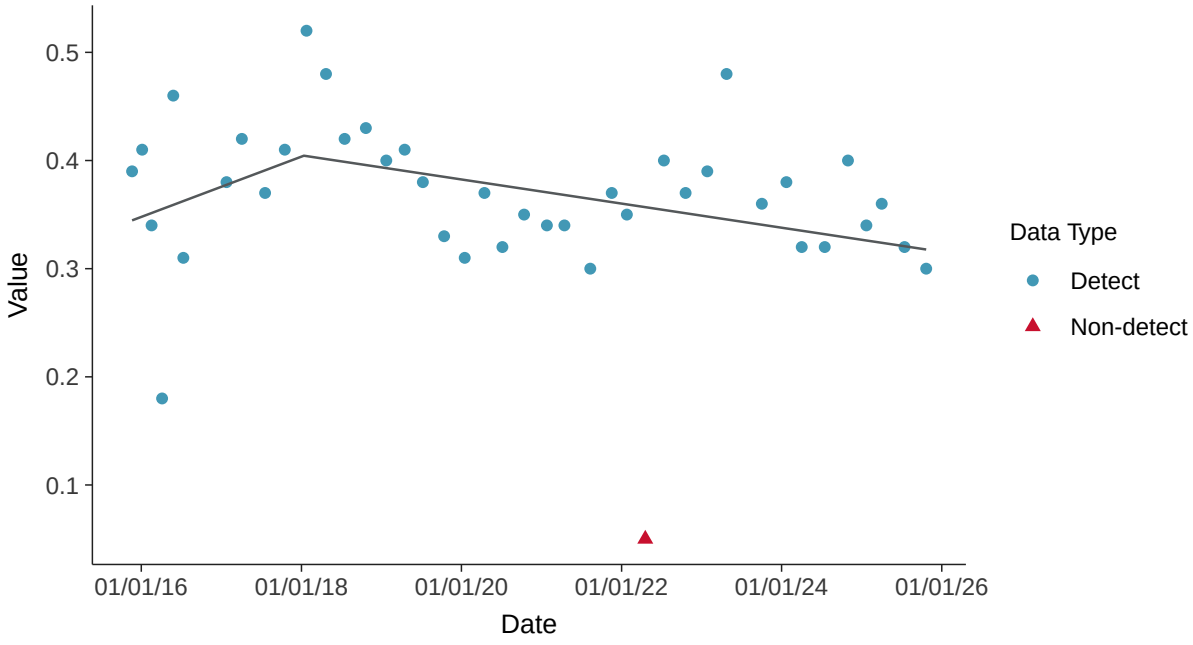
Trend Regression: Lognormal MLE

Fluoride, MW-6 (mg/L)



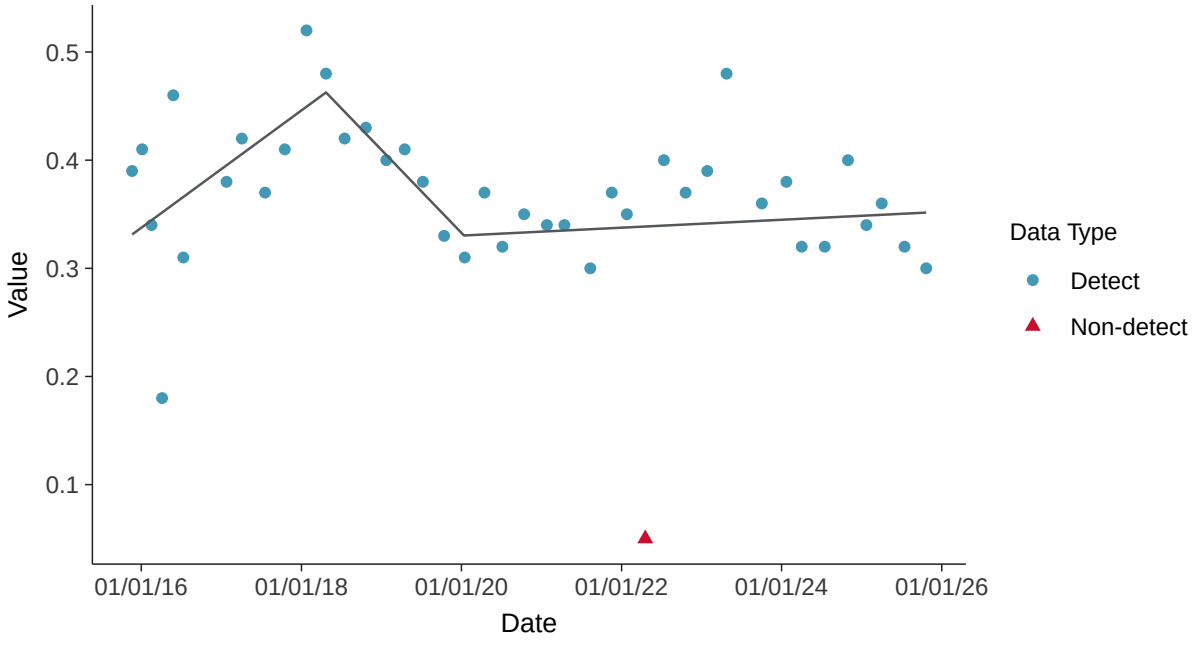
Trend Regression: Piecewise Linear-Linear

Fluoride, MW-6 (mg/L)



Trend Regression: Piecewise Linear-Linear-Linear

Fluoride, MW-6 (mg/L)

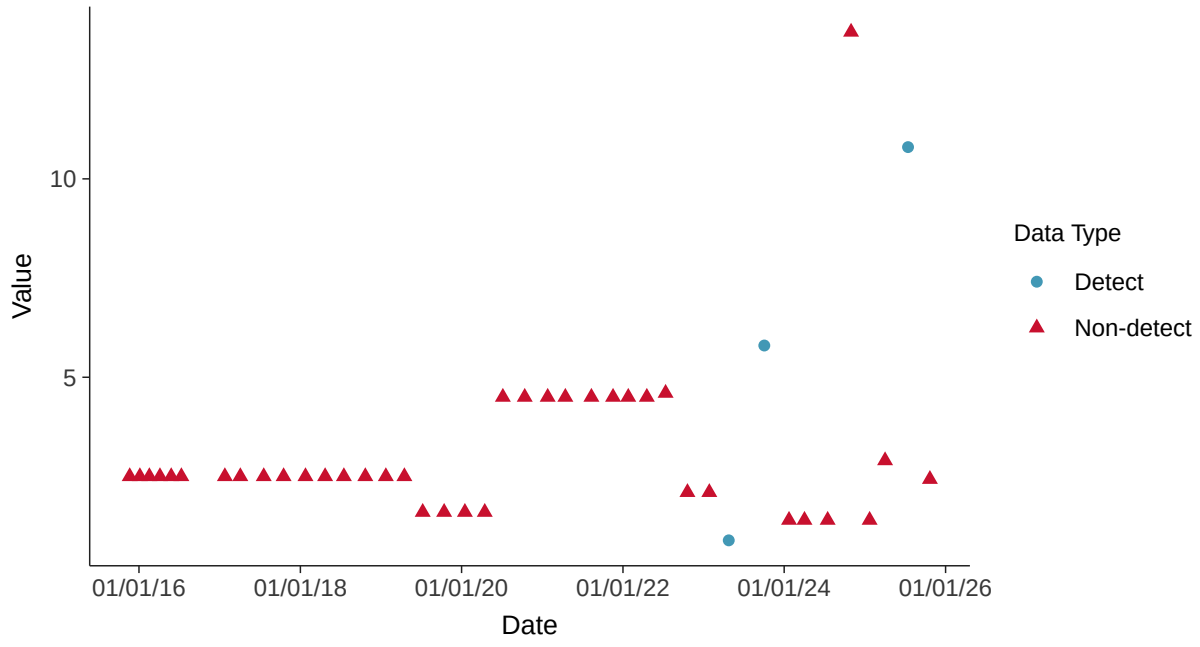


App. IV: Lead, MW-6

ID: 06_3_113

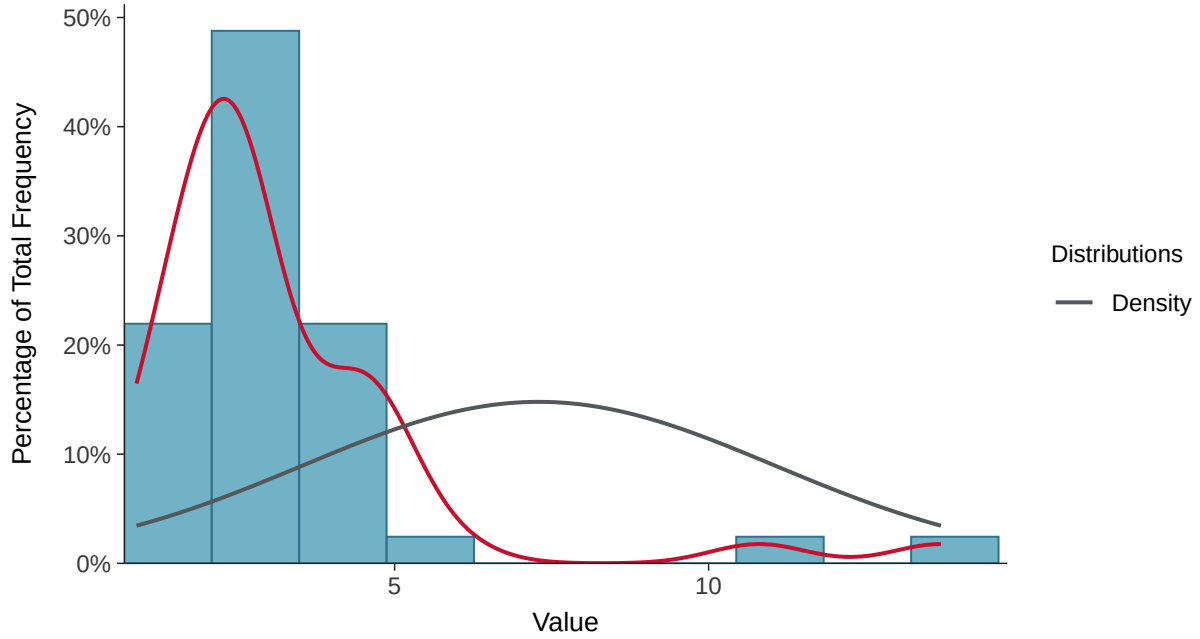
Scatter Plot

Lead, MW-6 (ug/L)



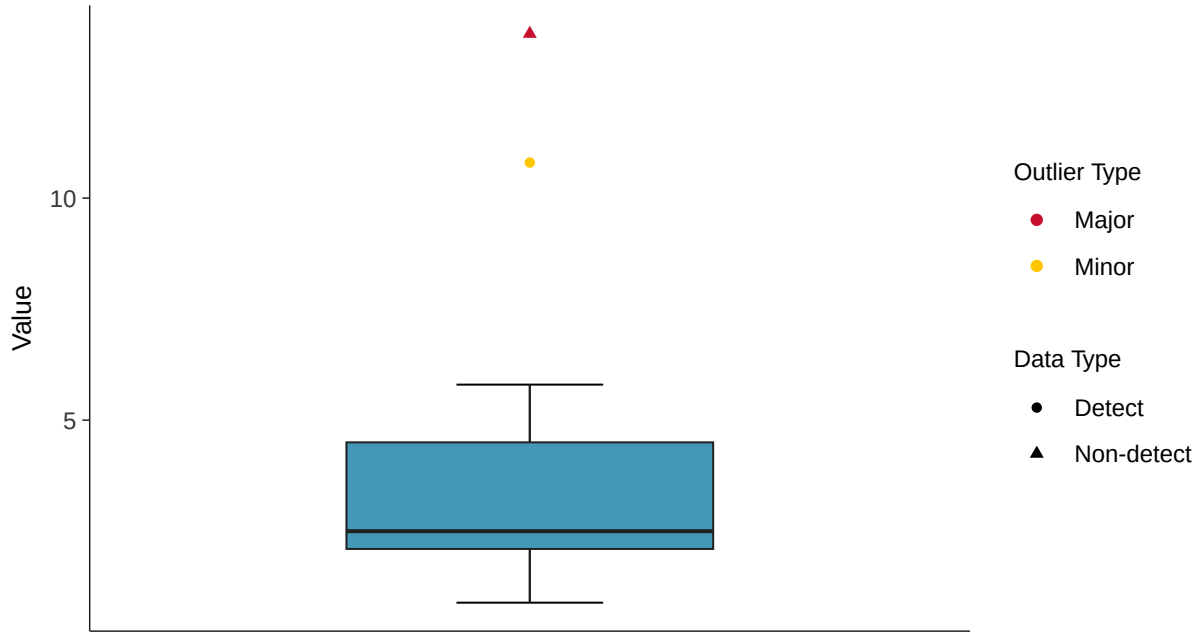
Histogram

Lead, MW-6 (ug/L)



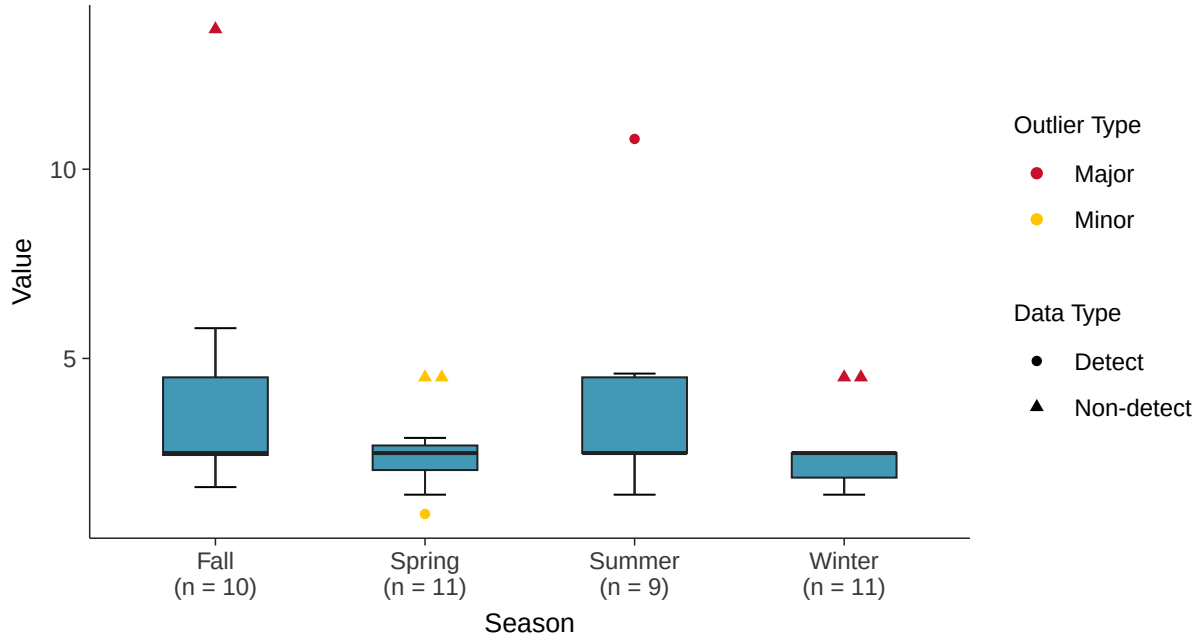
Boxplot

Lead, MW-6 (ug/L)



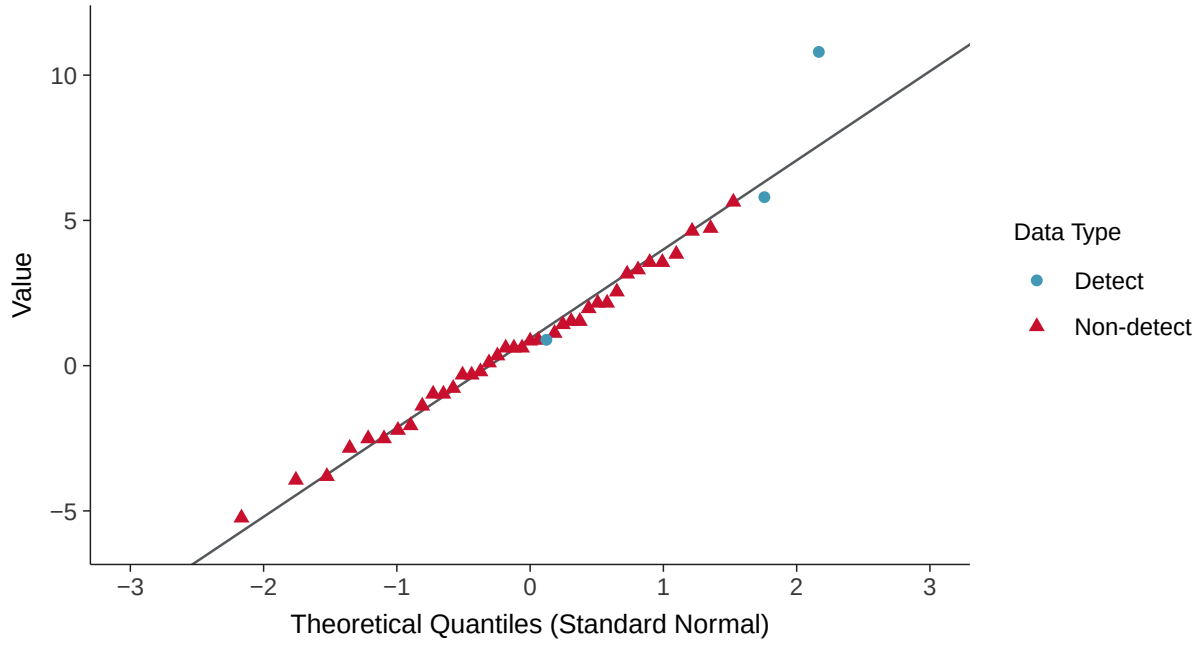
Boxplot by Season

Lead, MW-6 (ug/L)



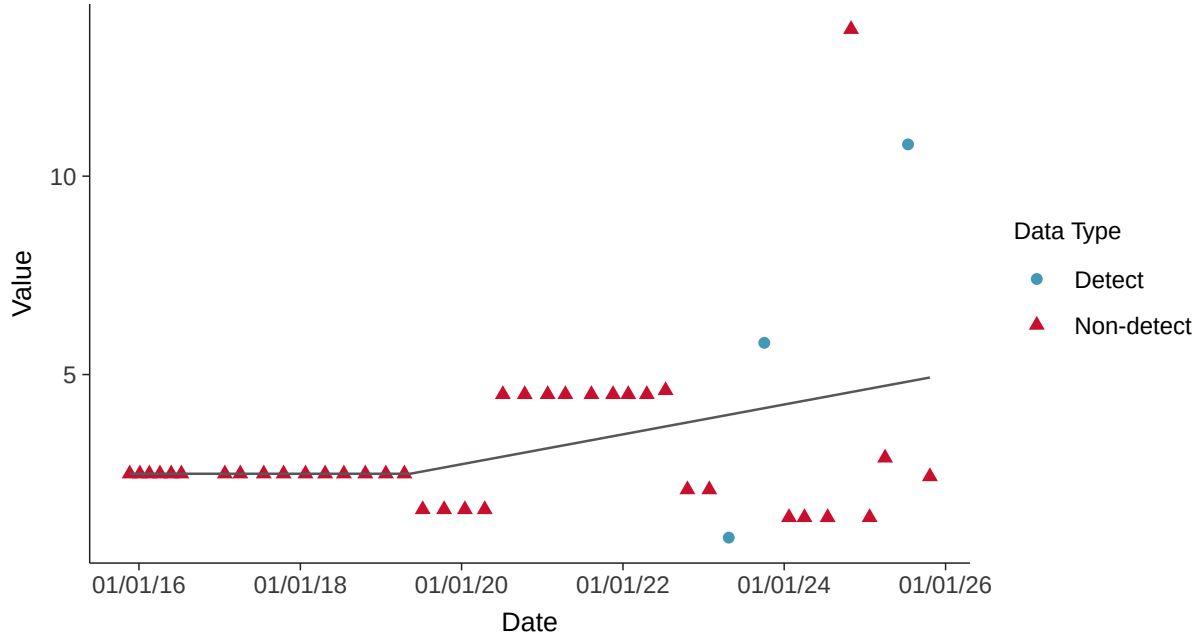
Normal Q-Q plot using ROS Imputed Estimates

Lead, MW-6 (ug/L)



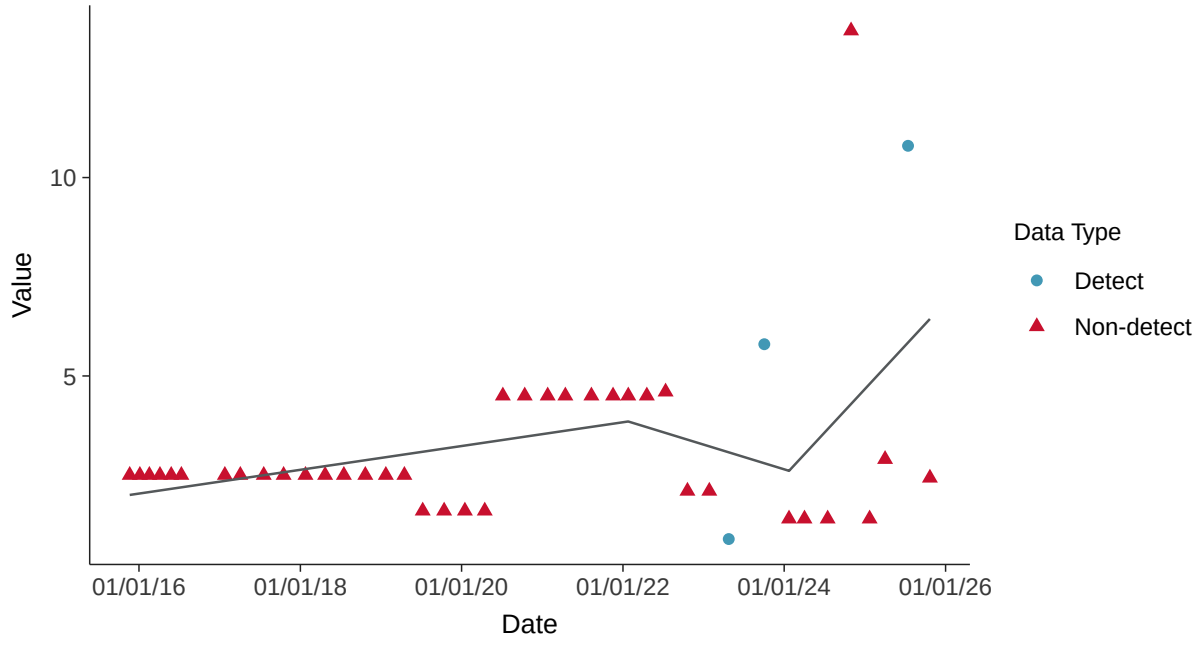
Trend Regression: Piecewise Linear-Linear

Lead, MW-6 (ug/L)



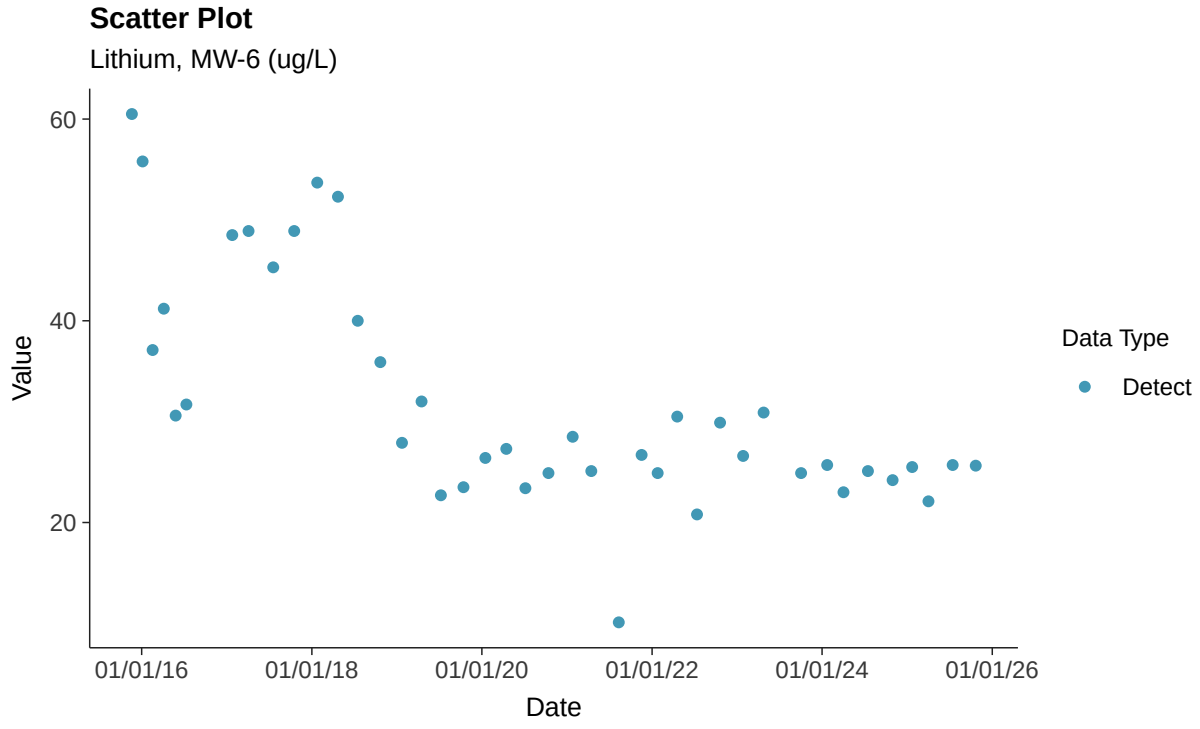
Trend Regression: Piecewise Linear-Linear-Linear

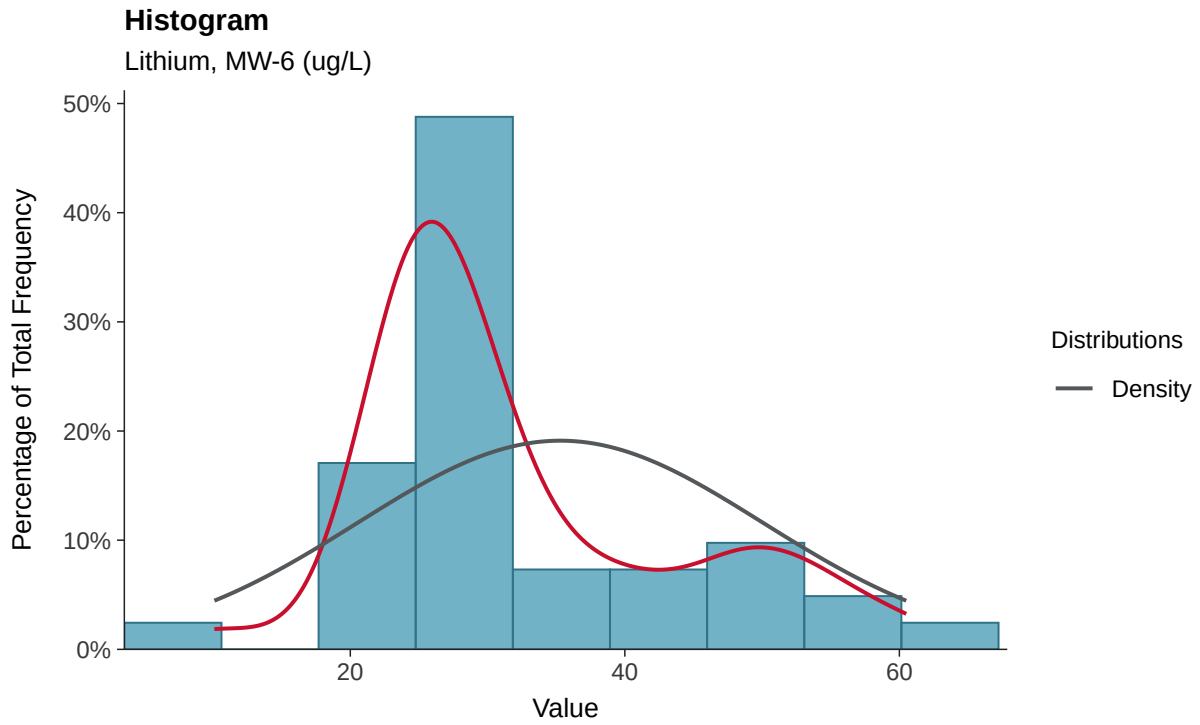
Lead, MW-6 (ug/L)



App. IV: Lithium, MW-6

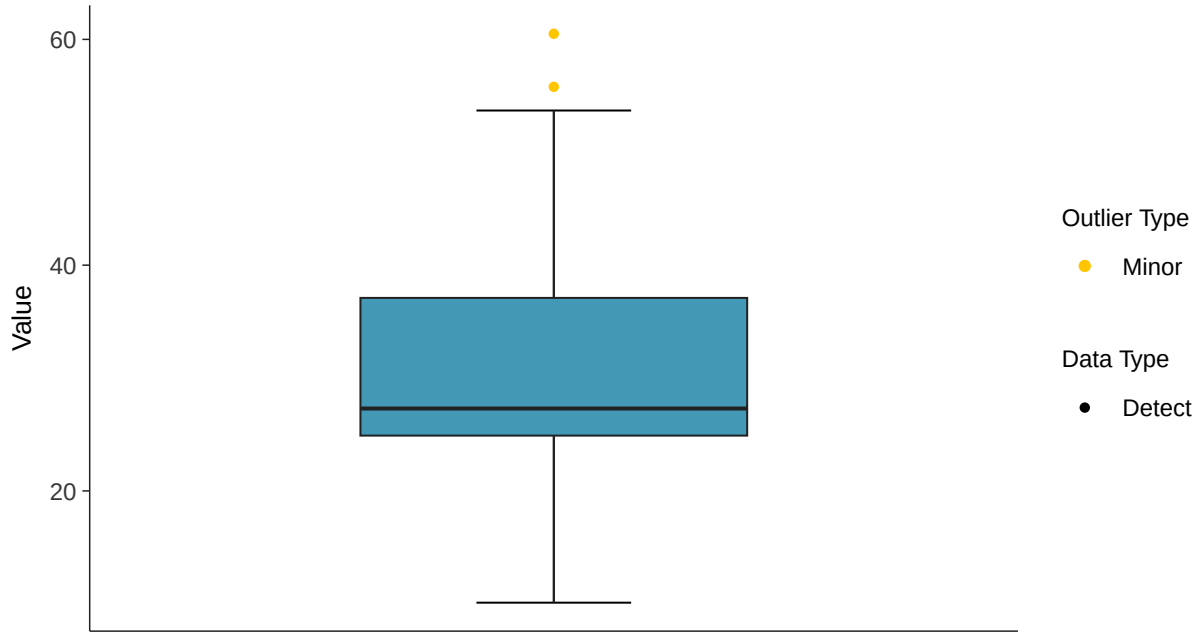
ID: 06_3_114





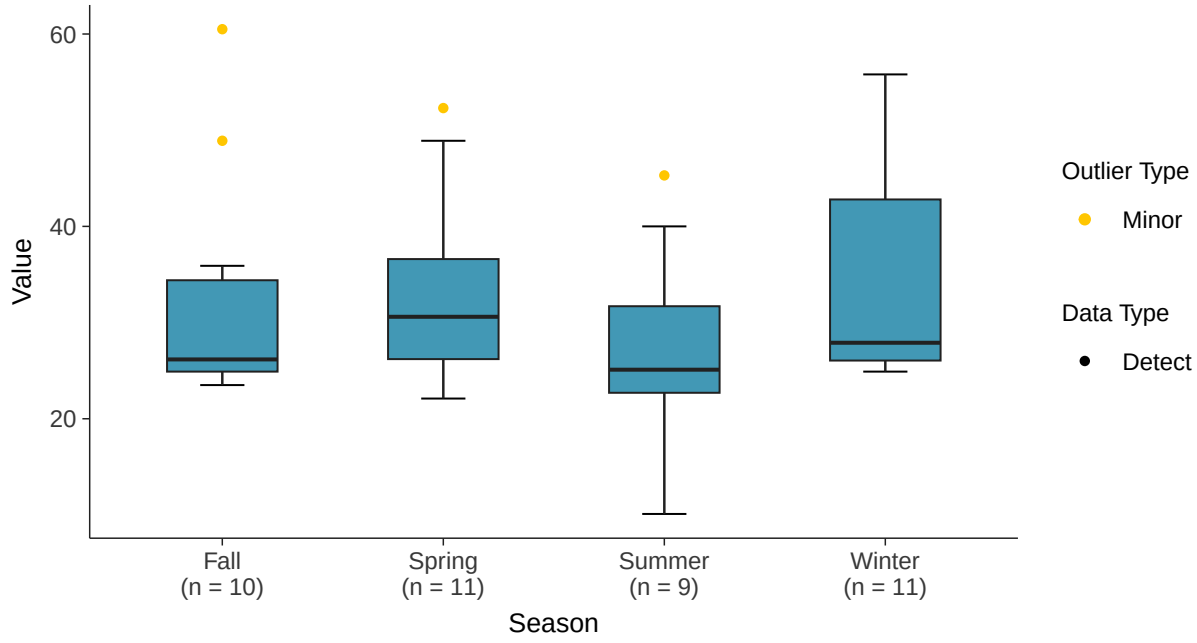
Boxplot

Lithium, MW-6 (ug/L)



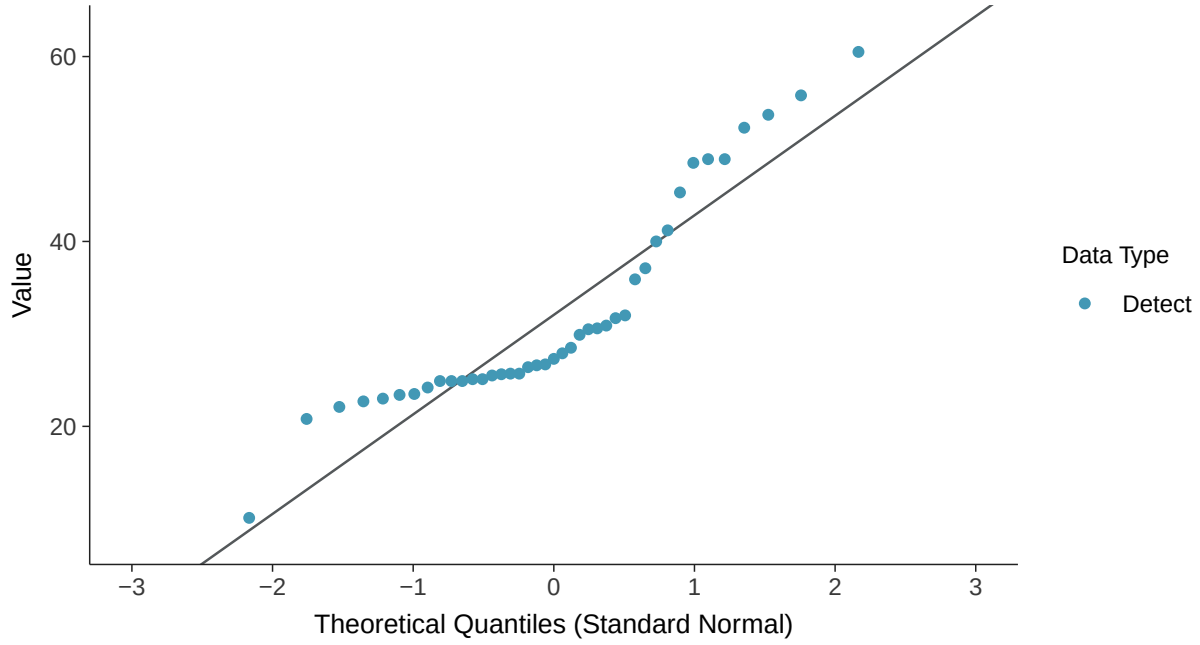
Boxplot by Season

Lithium, MW-6 (ug/L)



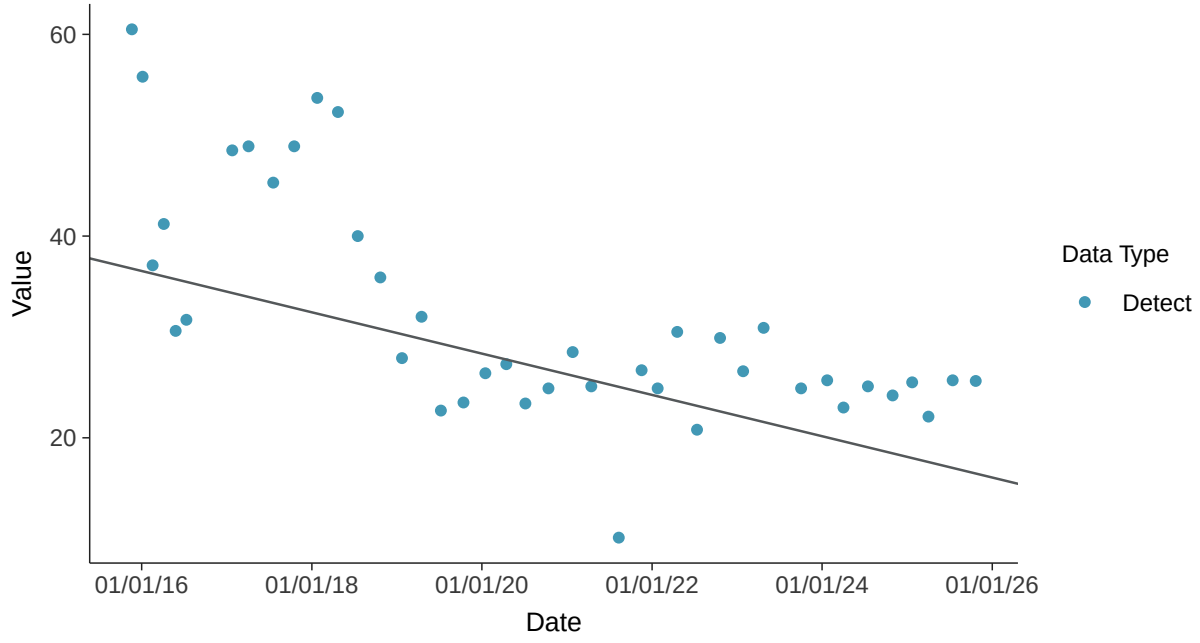
Normal Q-Q plot

Lithium, MW-6 (ug/L)



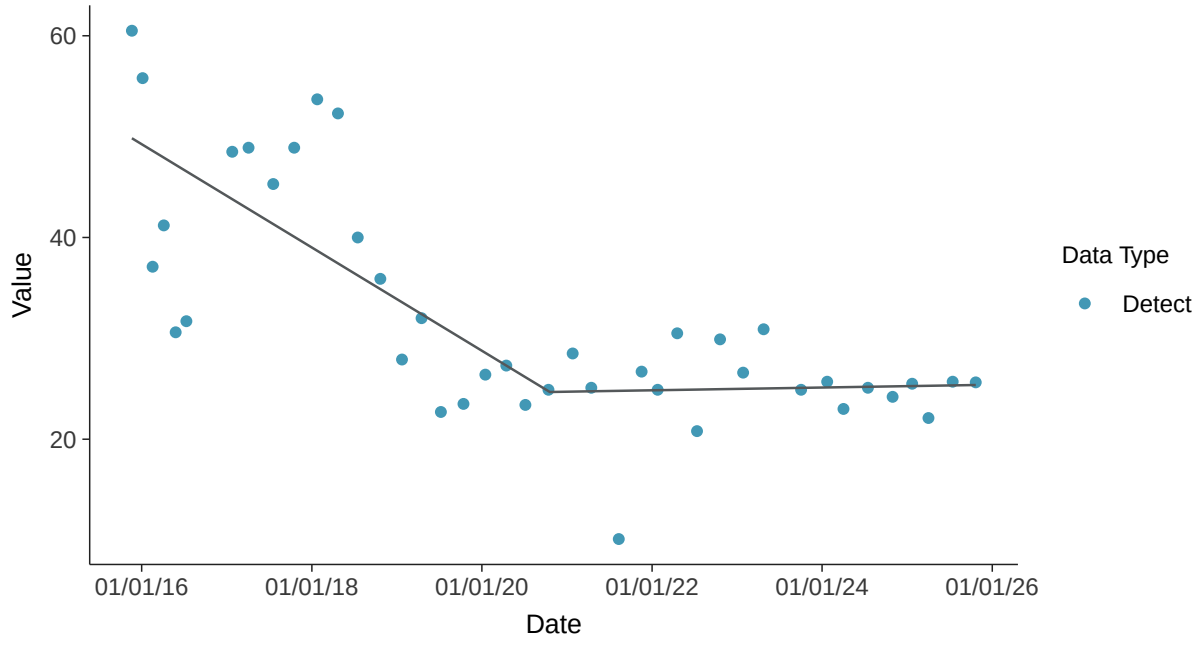
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Lithium, MW-6 (ug/L)



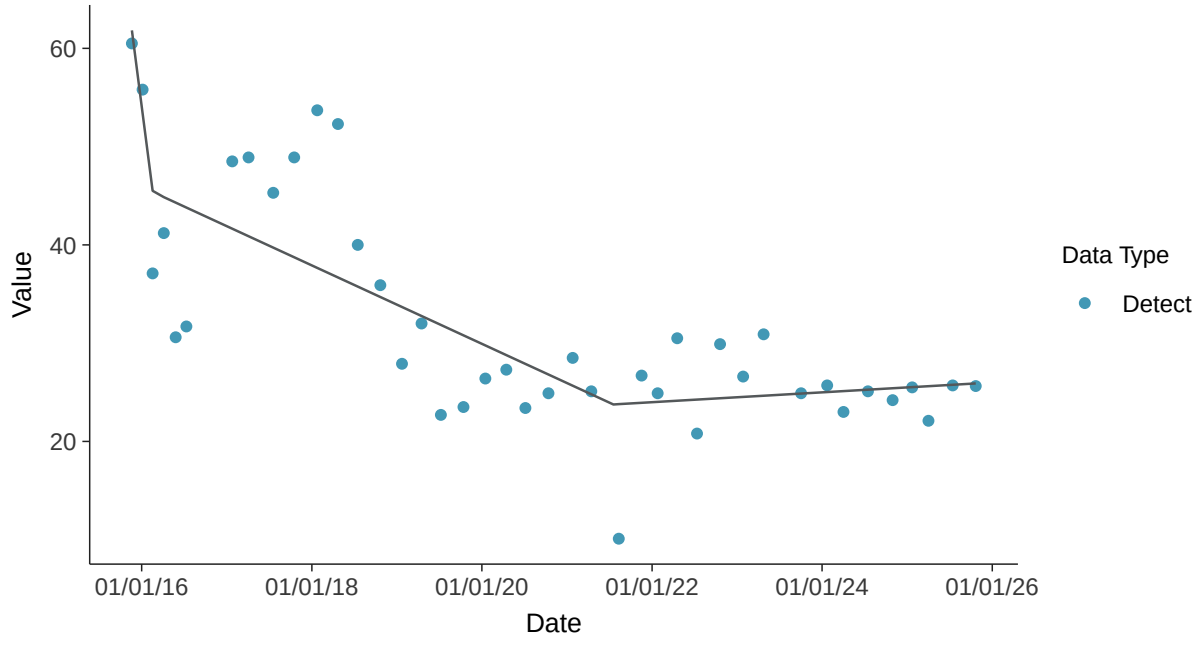
Trend Regression: Piecewise Linear-Linear

Lithium, MW-6 (ug/L)



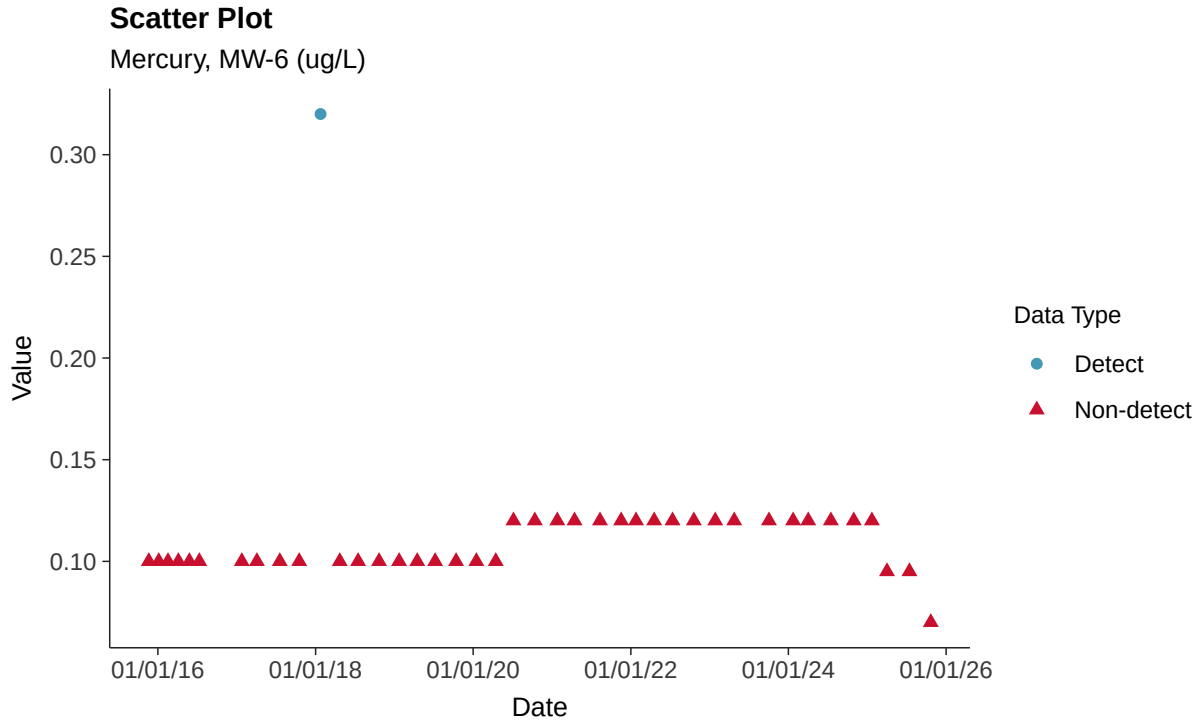
Trend Regression: Piecewise Linear-Linear-Linear

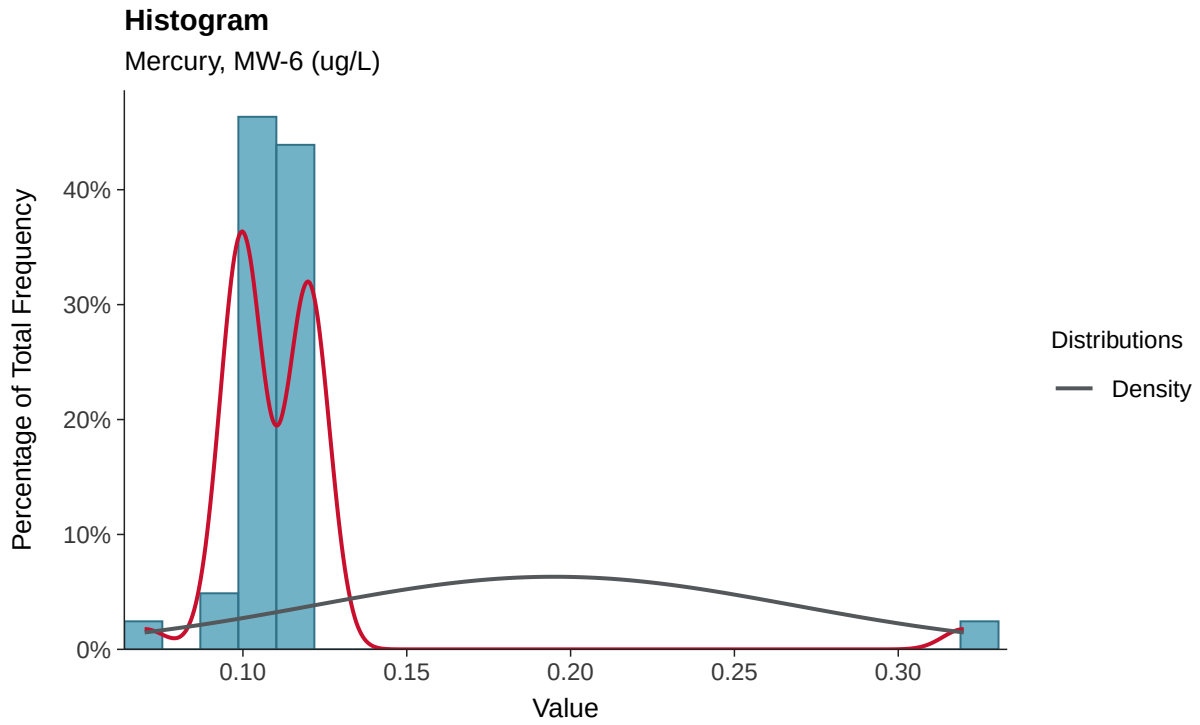
Lithium, MW-6 (ug/L)



App. IV: Mercury, MW-6

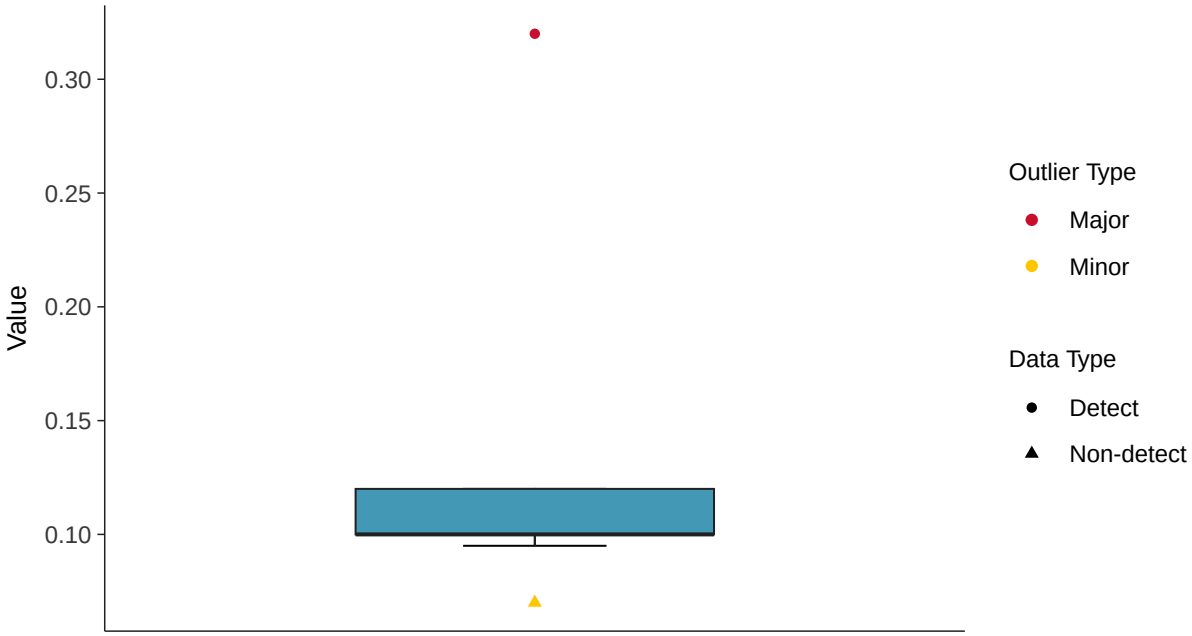
ID: 06_3_115





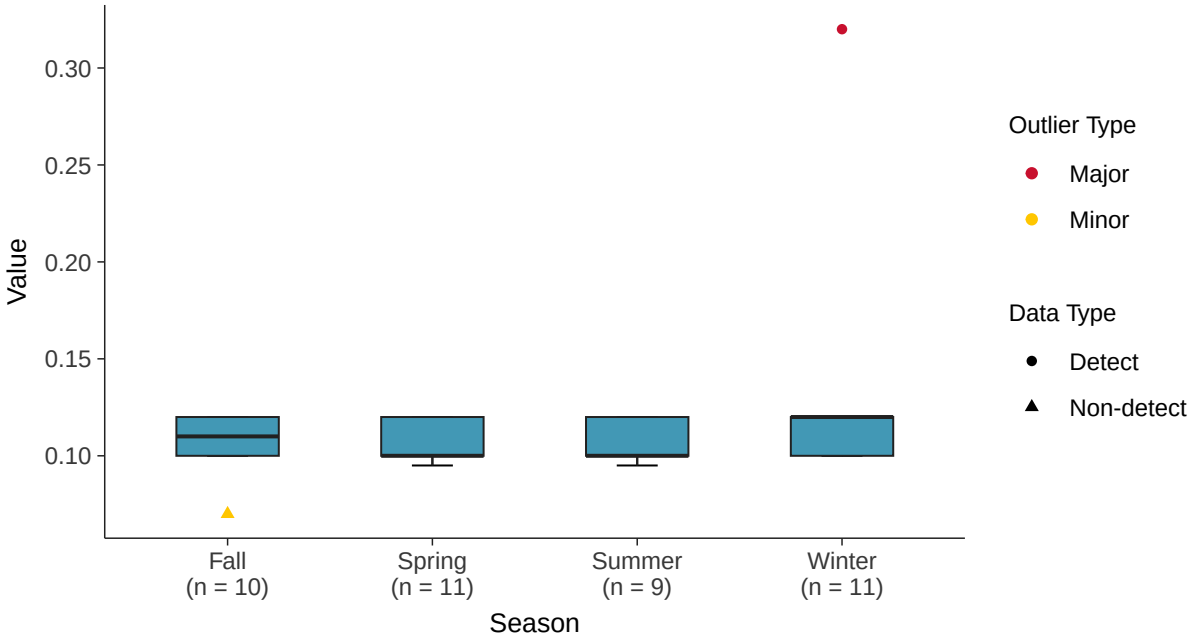
Boxplot

Mercury, MW-6 (ug/L)



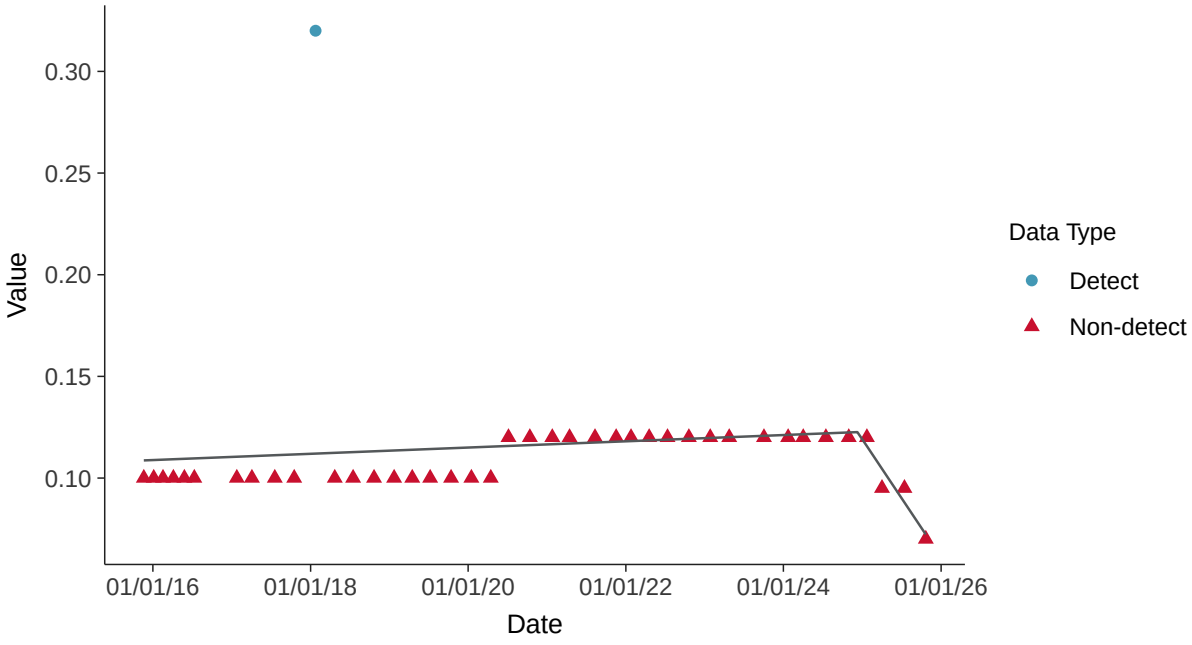
Boxplot by Season

Mercury, MW-6 (ug/L)



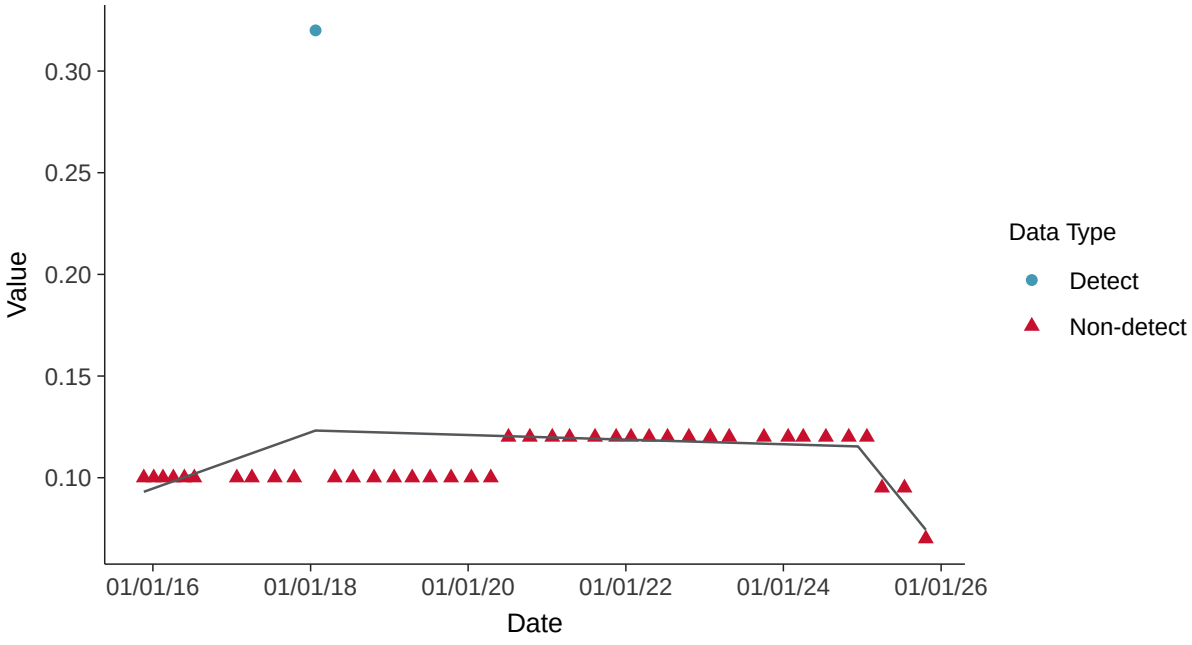
Trend Regression: Piecewise Linear-Linear

Mercury, MW-6 (ug/L)



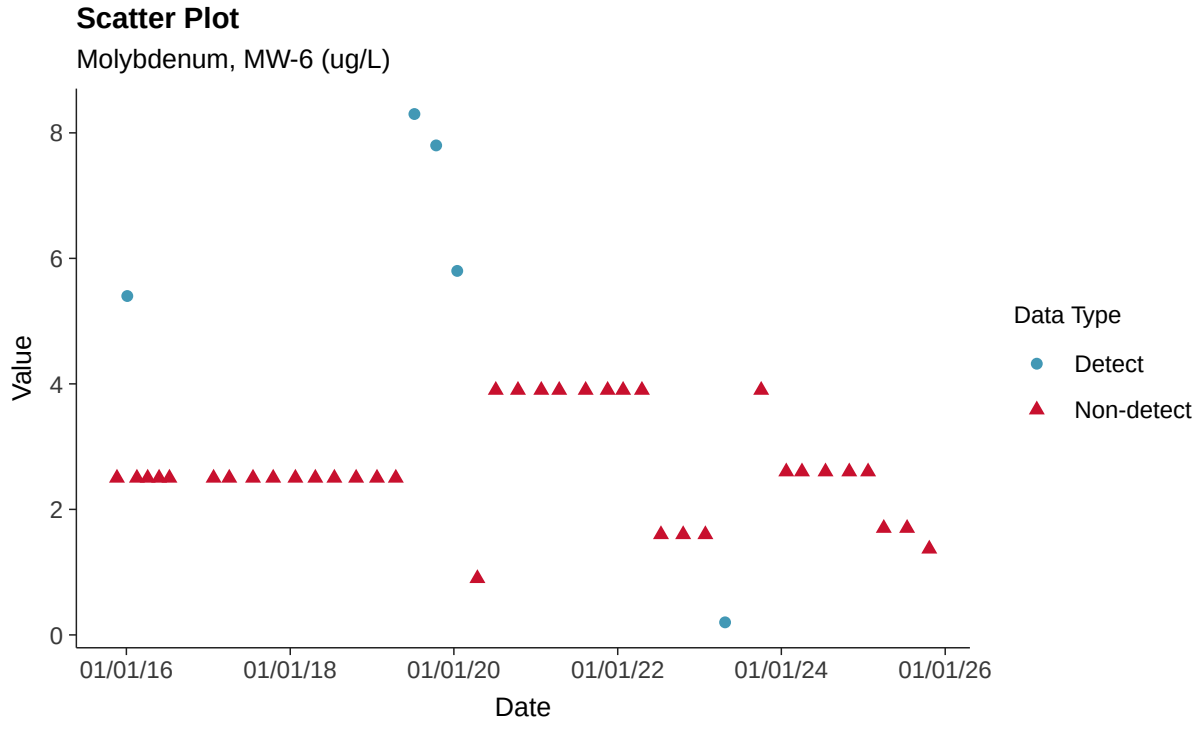
Trend Regression: Piecewise Linear-Linear-Linear

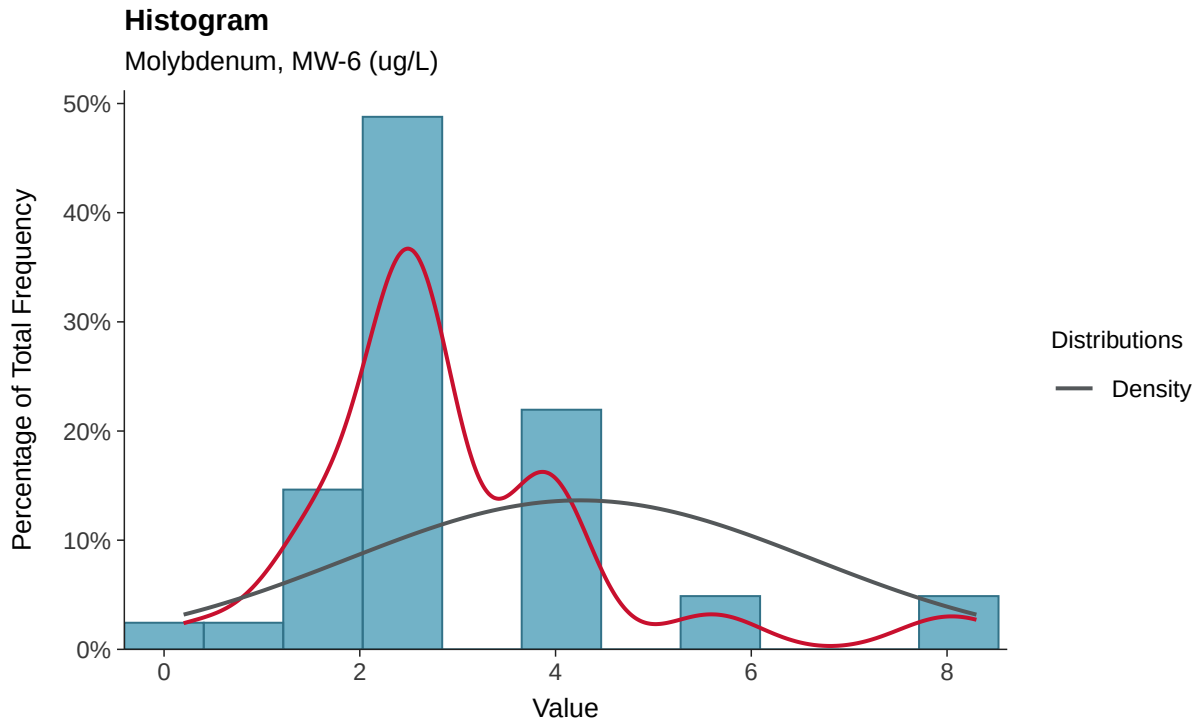
Mercury, MW-6 (ug/L)



App. IV: Molybdenum, MW-6

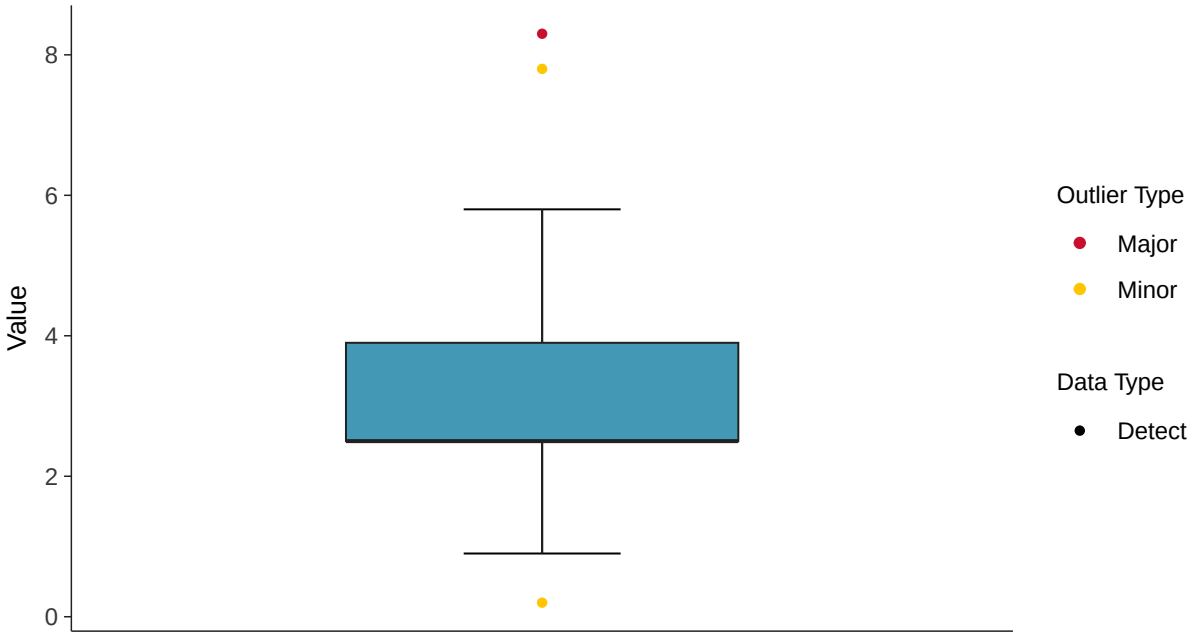
ID: 06_3_116





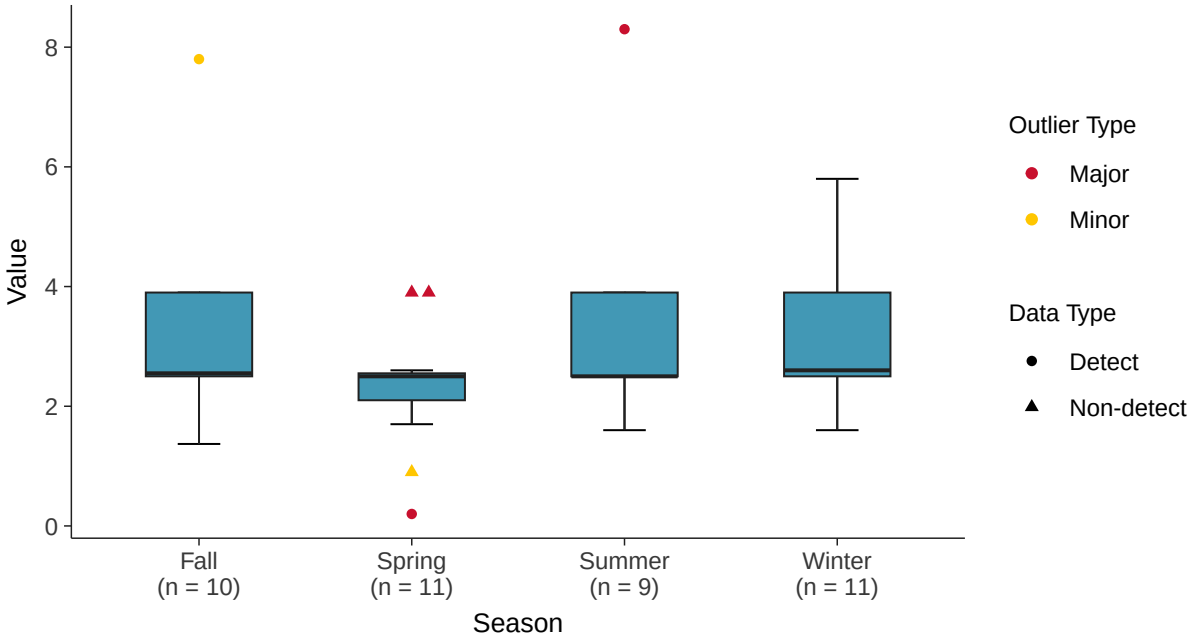
Boxplot

Molybdenum, MW-6 (ug/L)



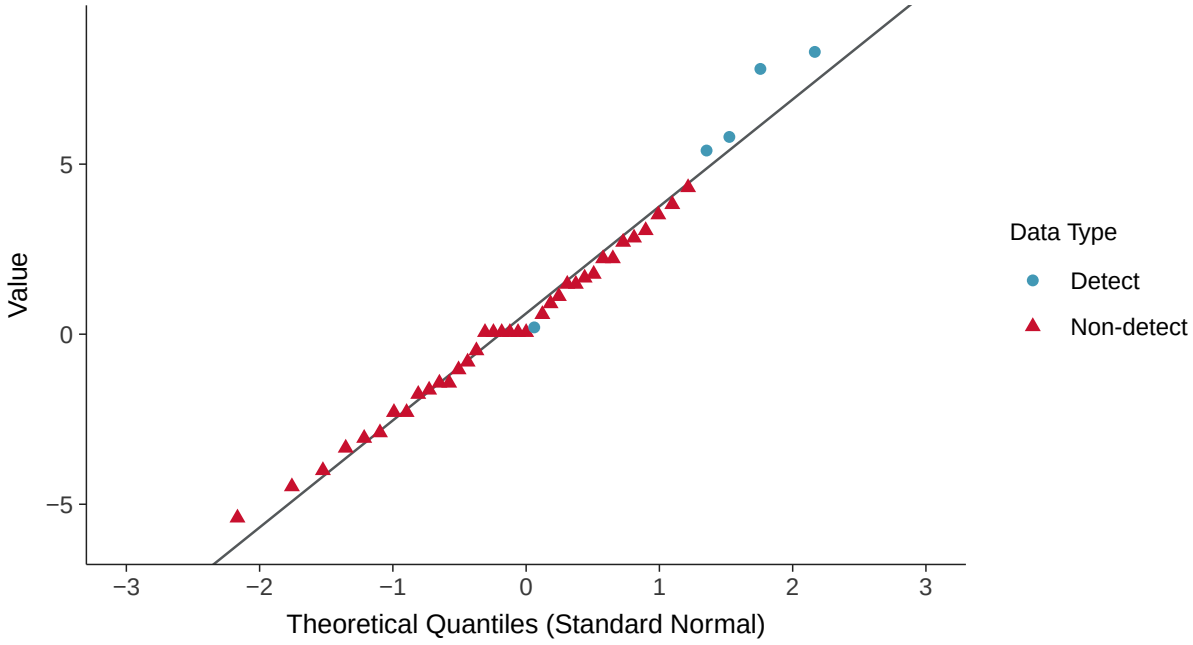
Boxplot by Season

Molybdenum, MW-6 (ug/L)



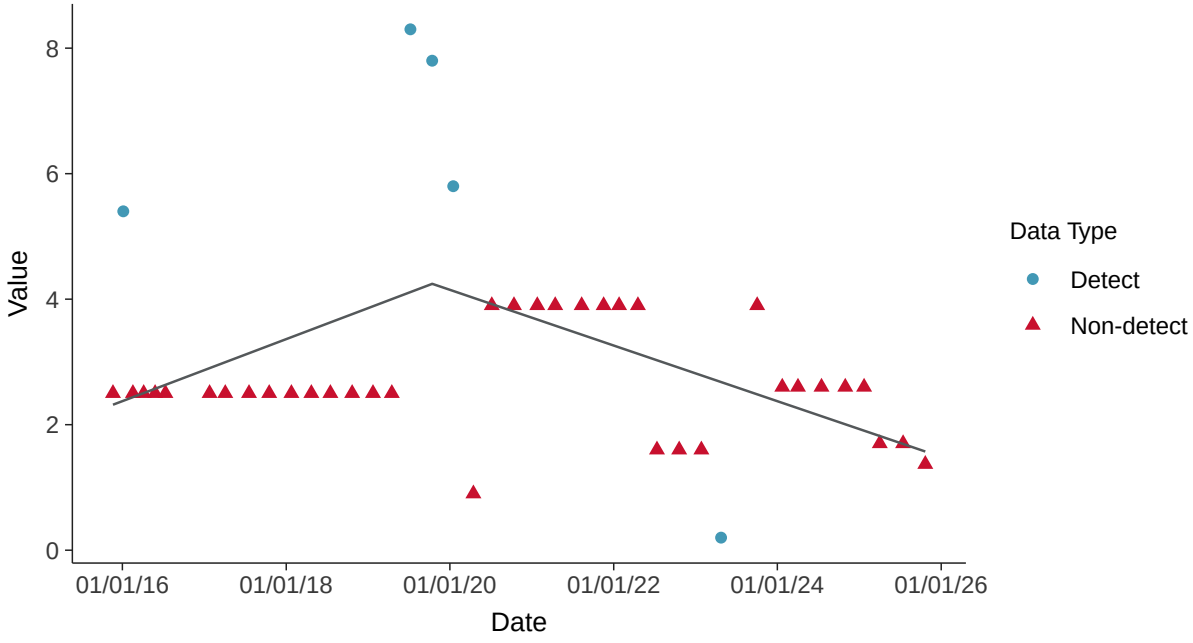
Normal Q-Q plot using ROS Imputed Estimates

Molybdenum, MW-6 (ug/L)



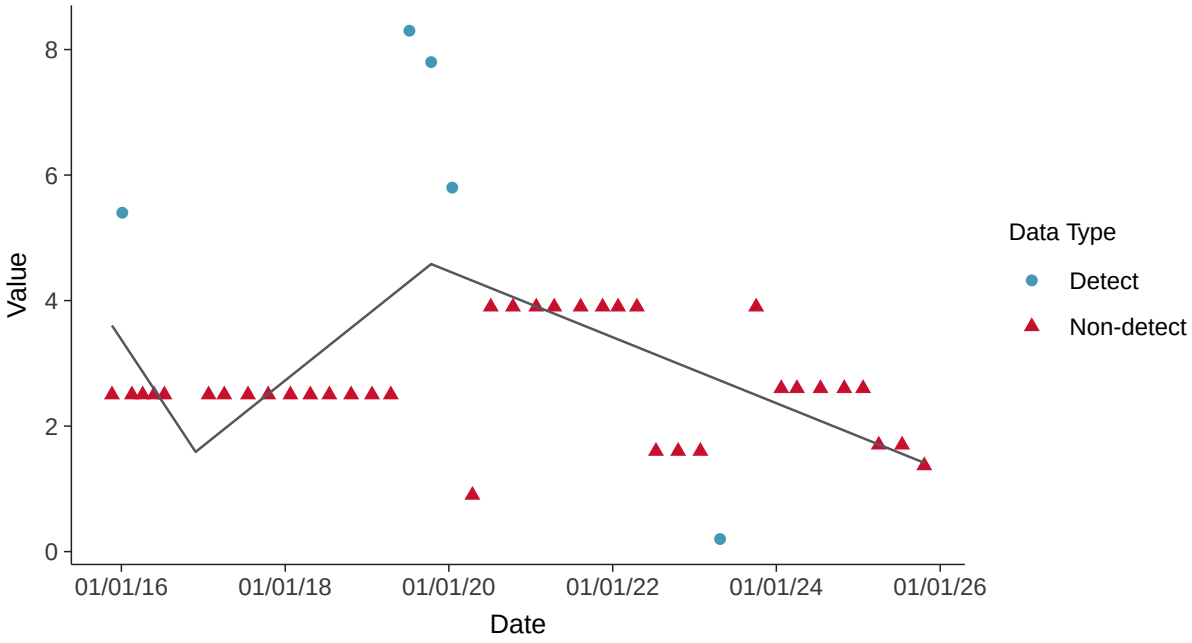
Trend Regression: Piecewise Linear-Linear

Molybdenum, MW-6 (ug/L)



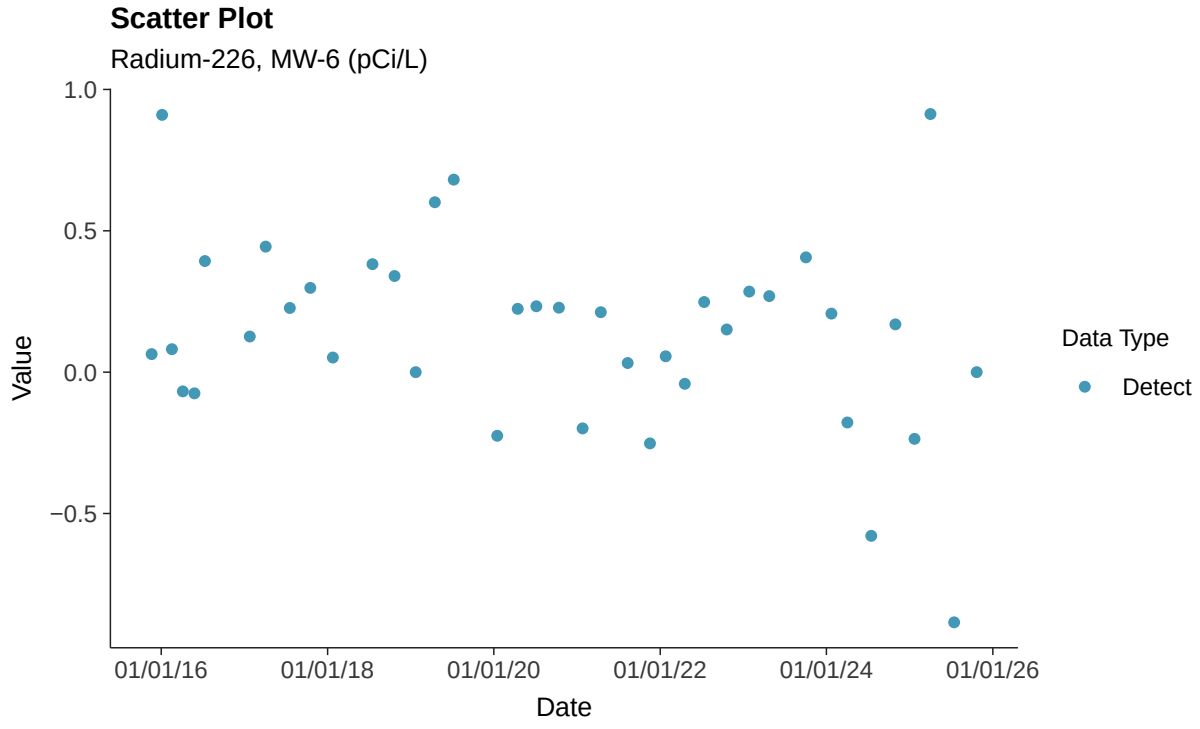
Trend Regression: Piecewise Linear-Linear-Linear

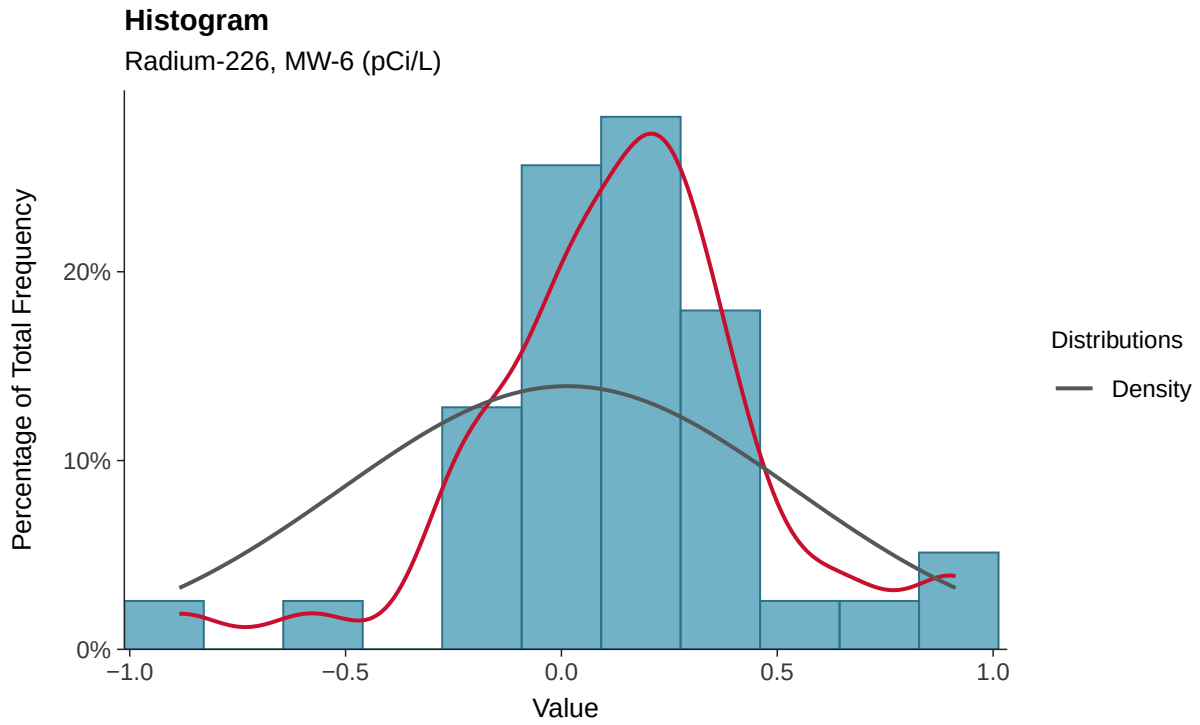
Molybdenum, MW-6 (ug/L)



App. IV: Radium-226, MW-6

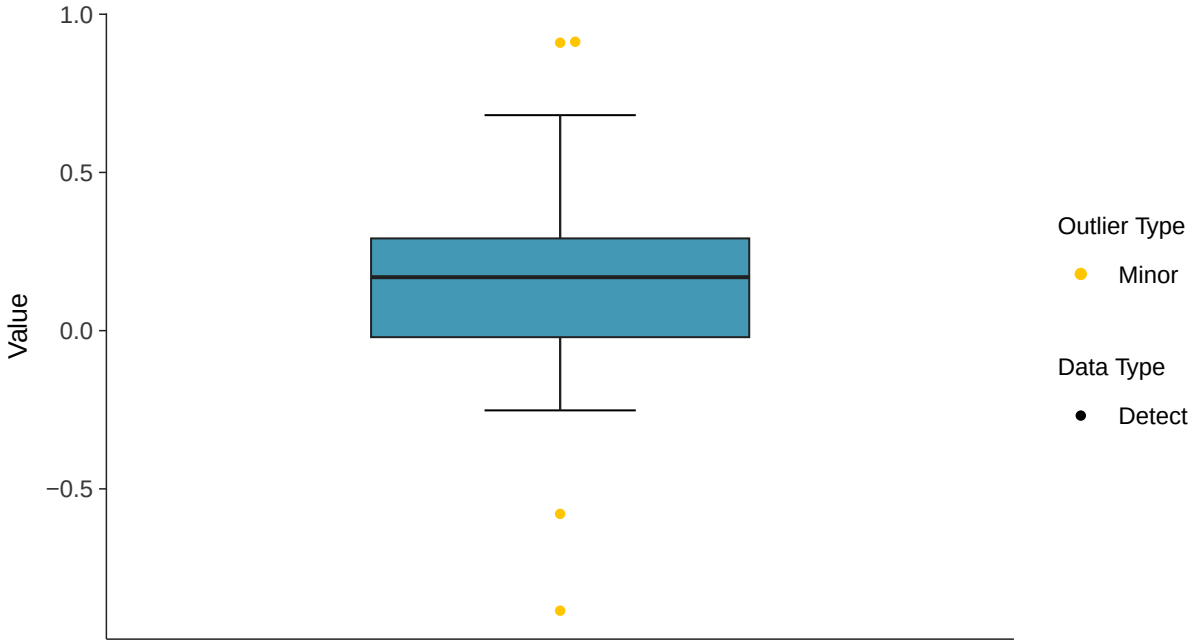
ID: 06_3_119





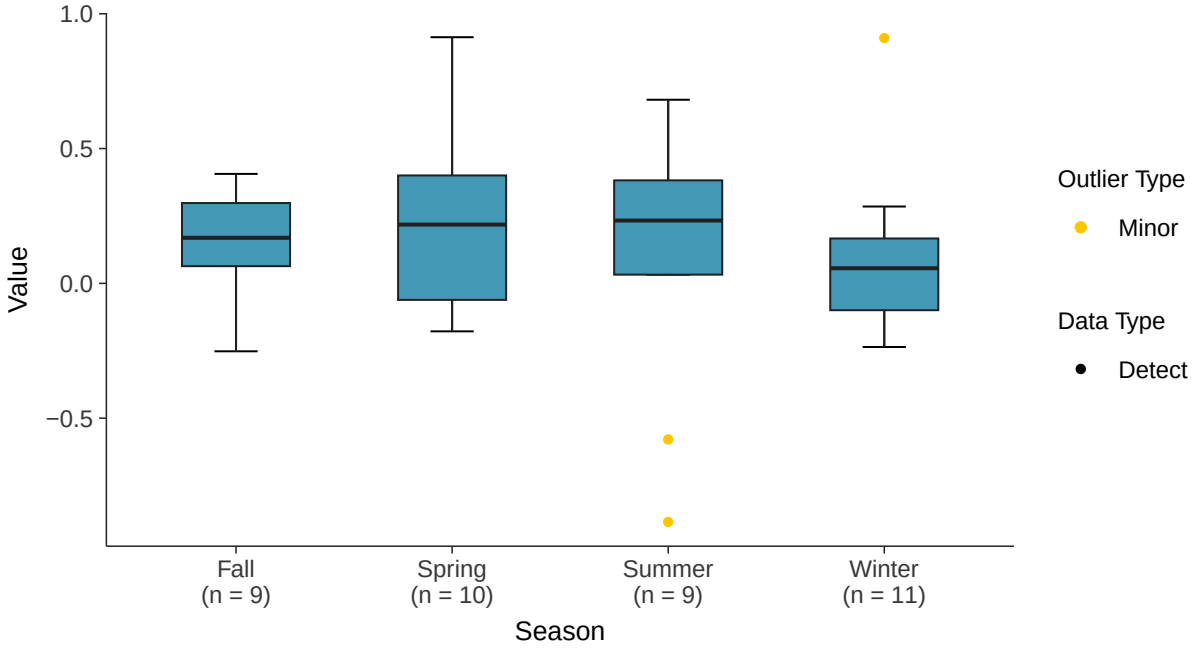
Boxplot

Radium-226, MW-6 (pCi/L)



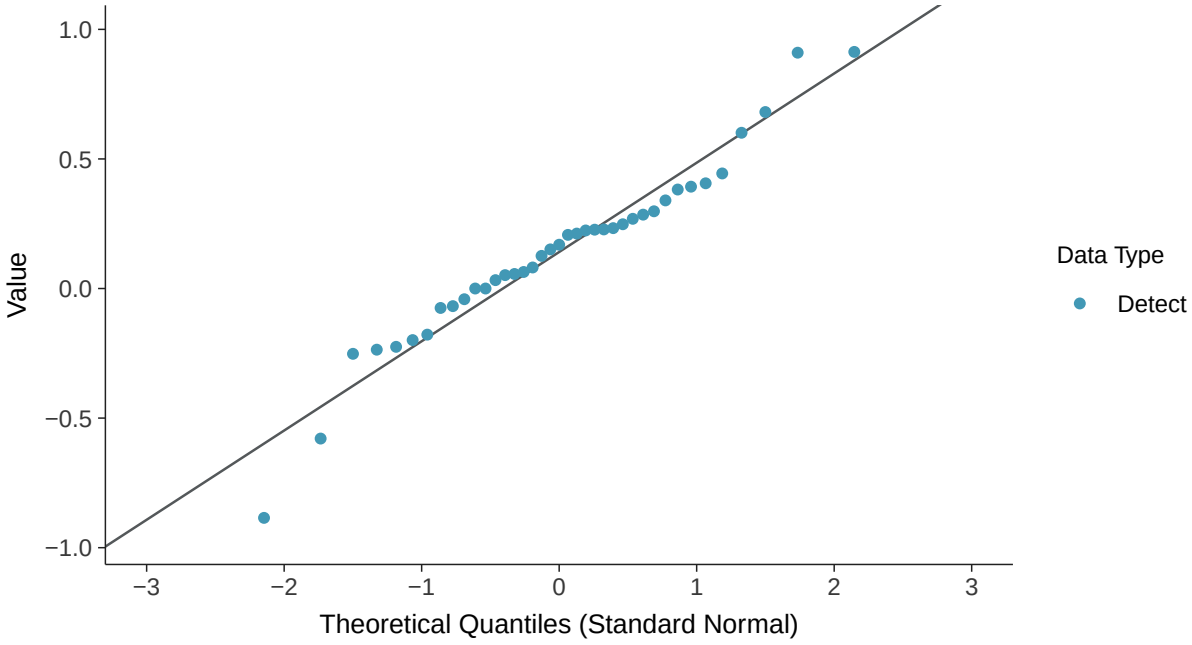
Boxplot by Season

Radium-226, MW-6 (pCi/L)



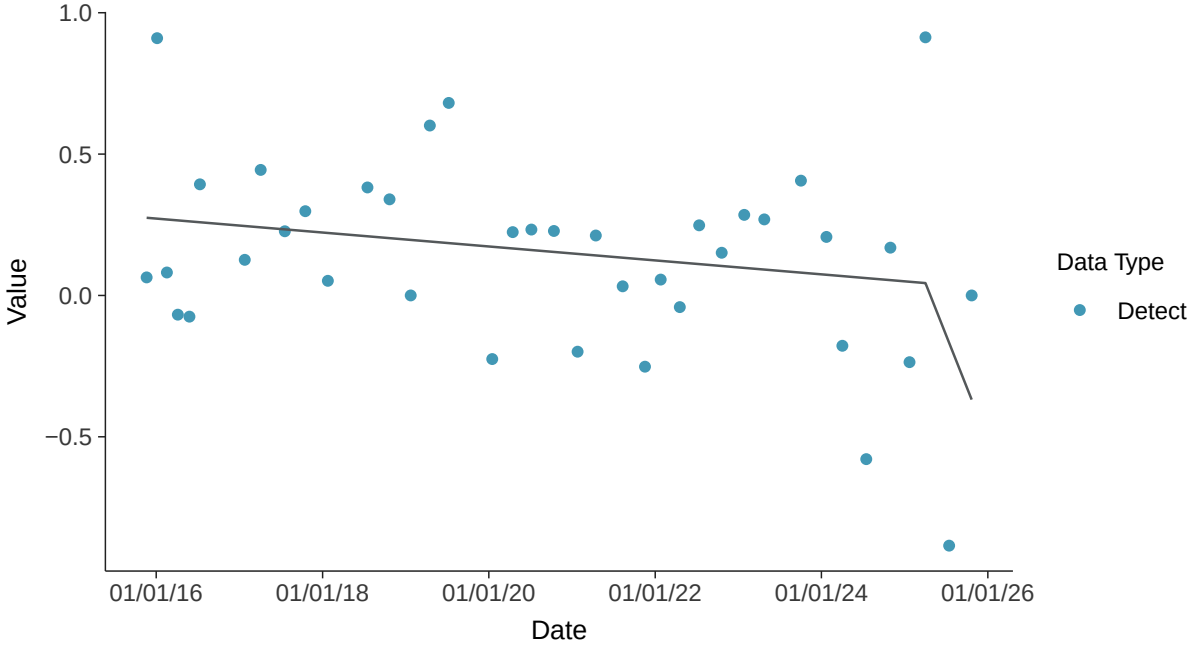
Normal Q-Q plot

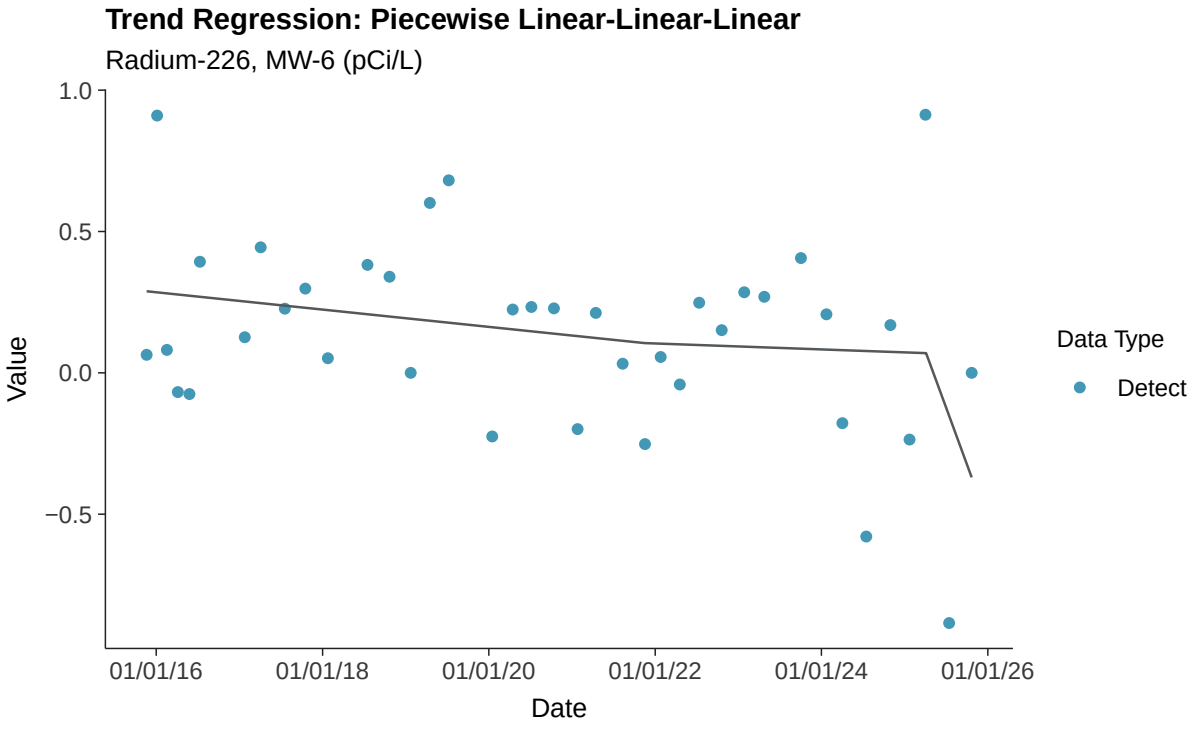
Radium-226, MW-6 (pCi/L)



Trend Regression: Piecewise Linear-Linear

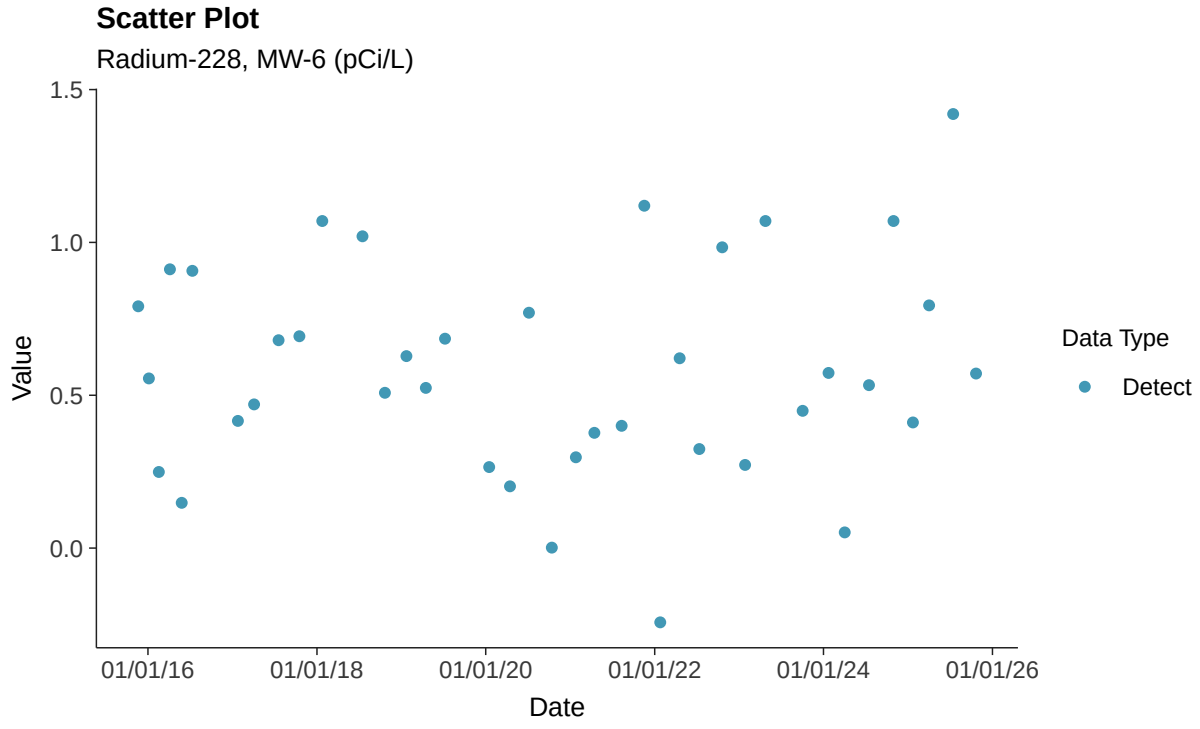
Radium-226, MW-6 (pCi/L)

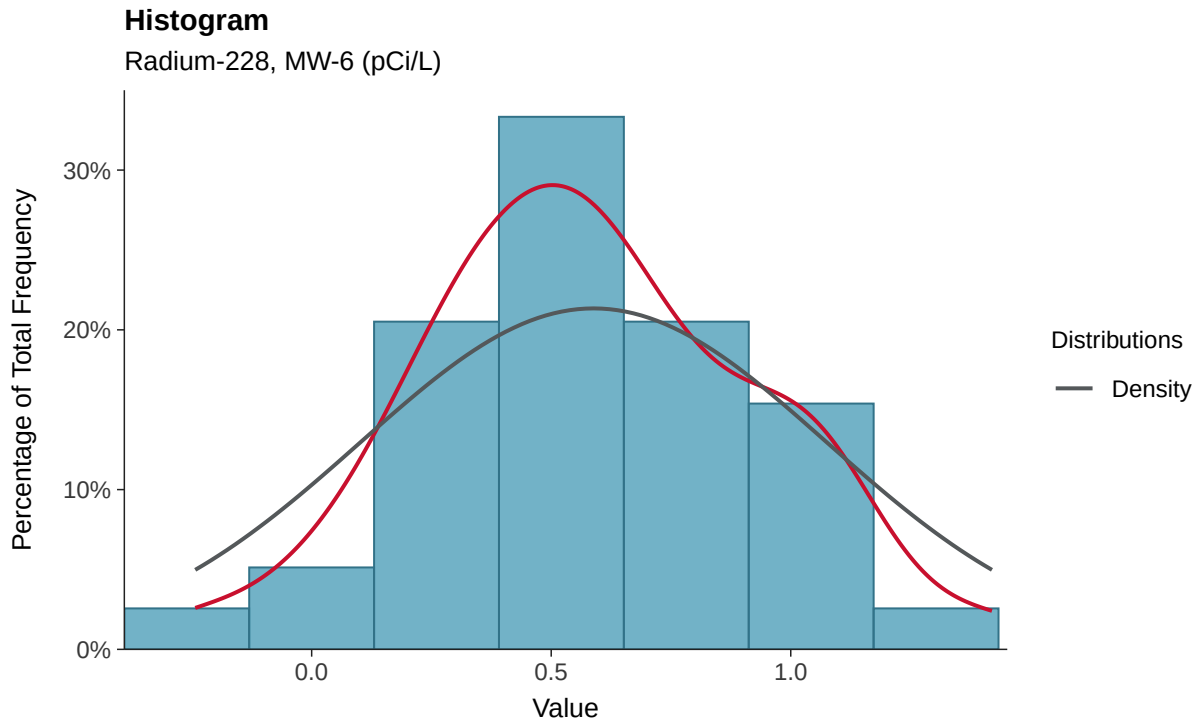



Trend Regression: Piecewise Linear-Linear-Linear
Radium-226, MW-6 (pCi/L)
1.0
0.5
0.0
−0.5
Value
01/01/16
01/01/18
01/01/20
01/01/22
01/01/24
01/01/26
Date
Data Type
Detect

App. IV: Radium-228, MW-6

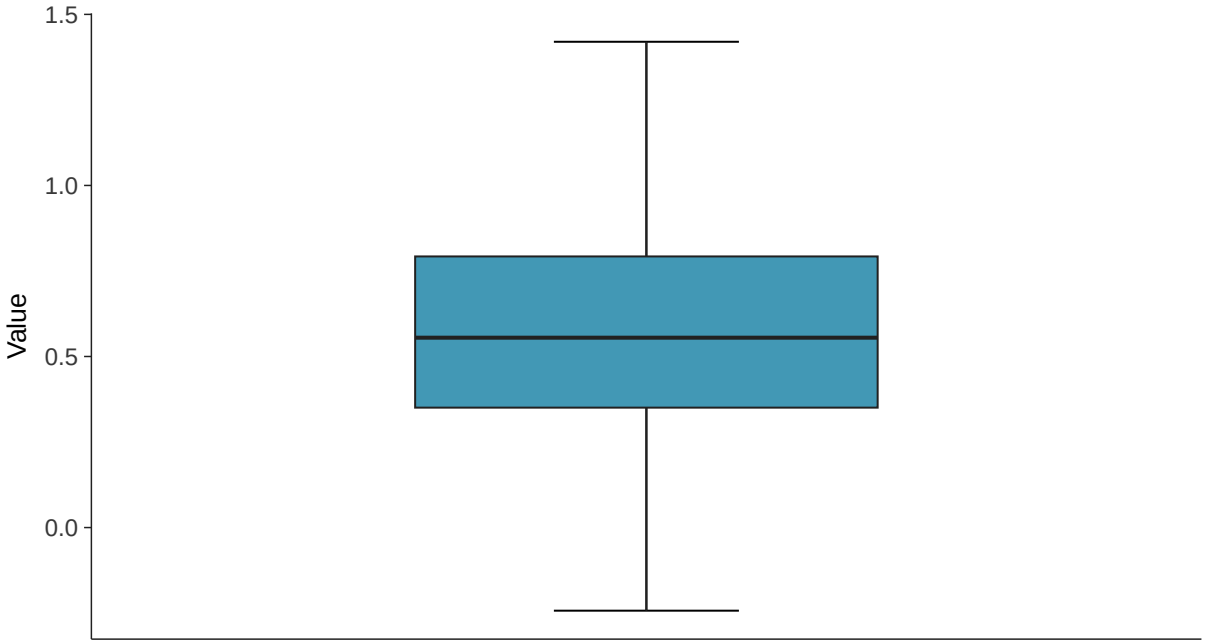
ID: 06_3_120





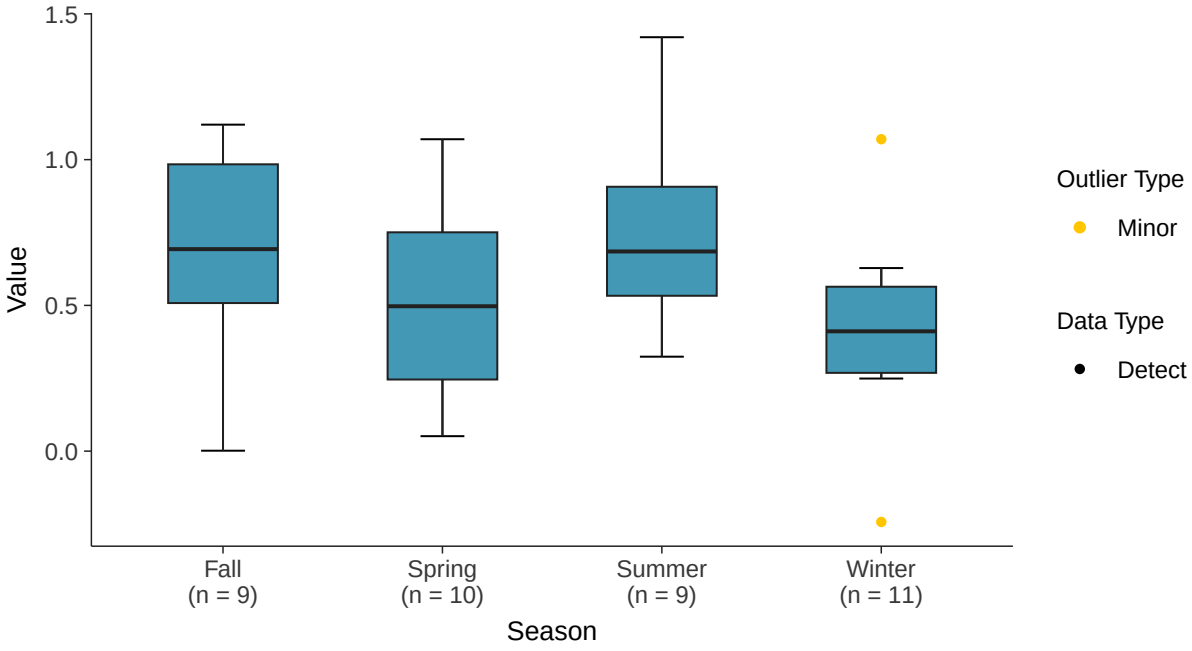
Boxplot

Radium-228, MW-6 (pCi/L)



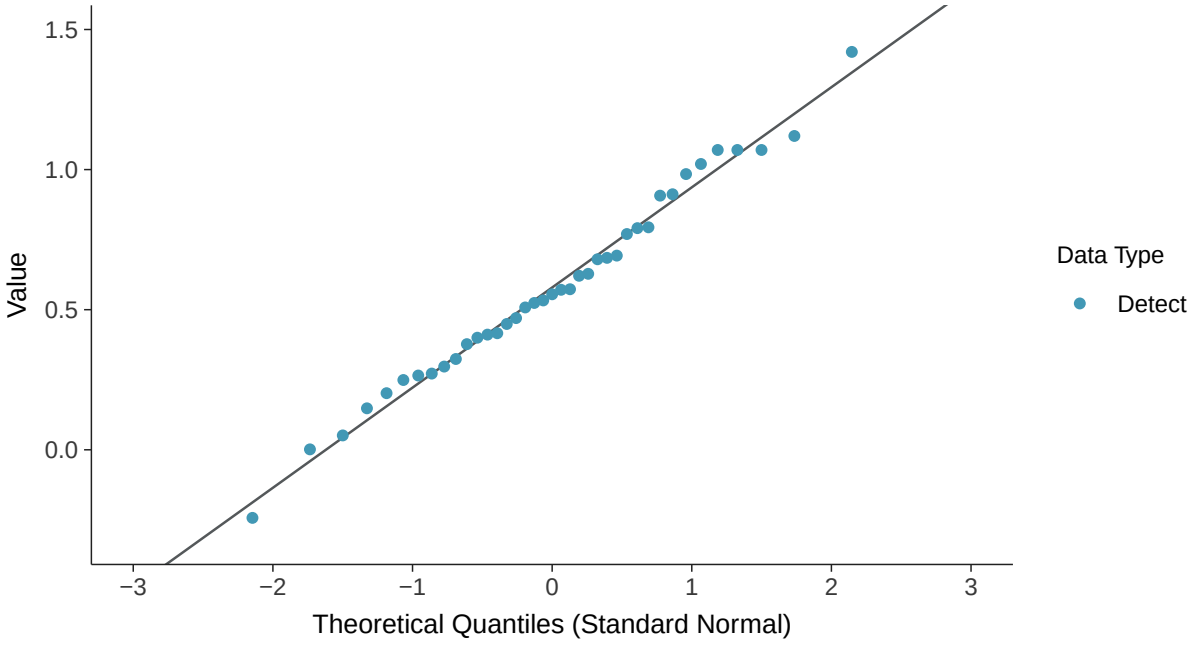
Boxplot by Season

Radium-228, MW-6 (pCi/L)



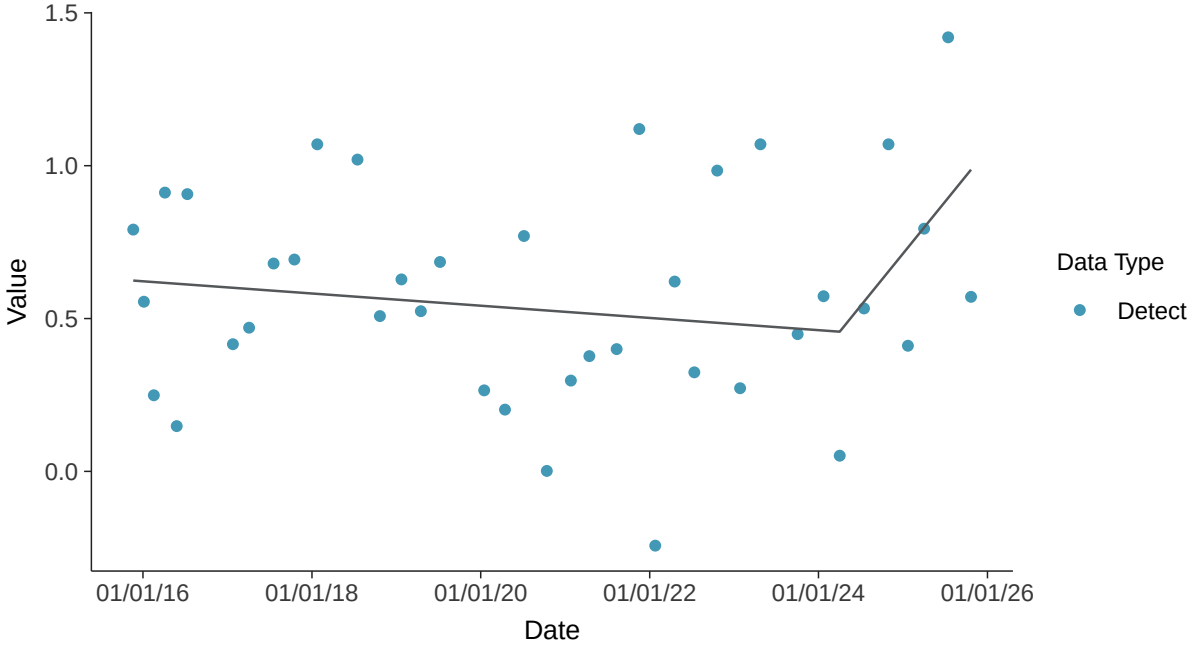
Normal Q-Q plot

Radium-228, MW-6 (pCi/L)



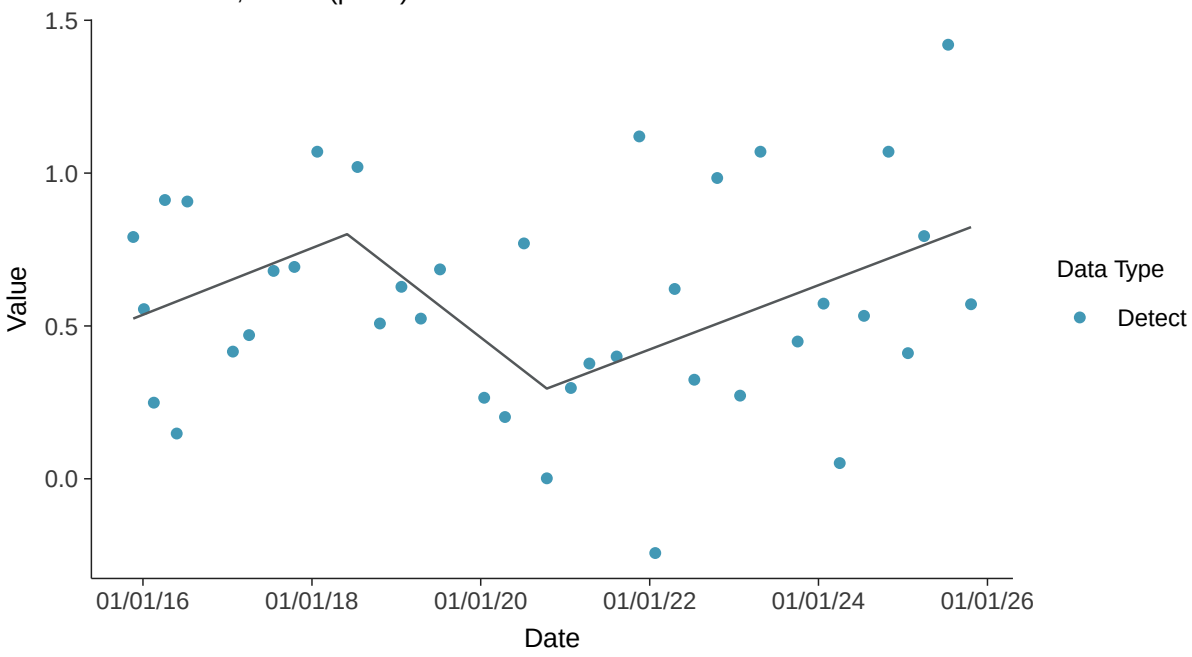
Trend Regression: Piecewise Linear-Linear

Radium-228, MW-6 (pCi/L)



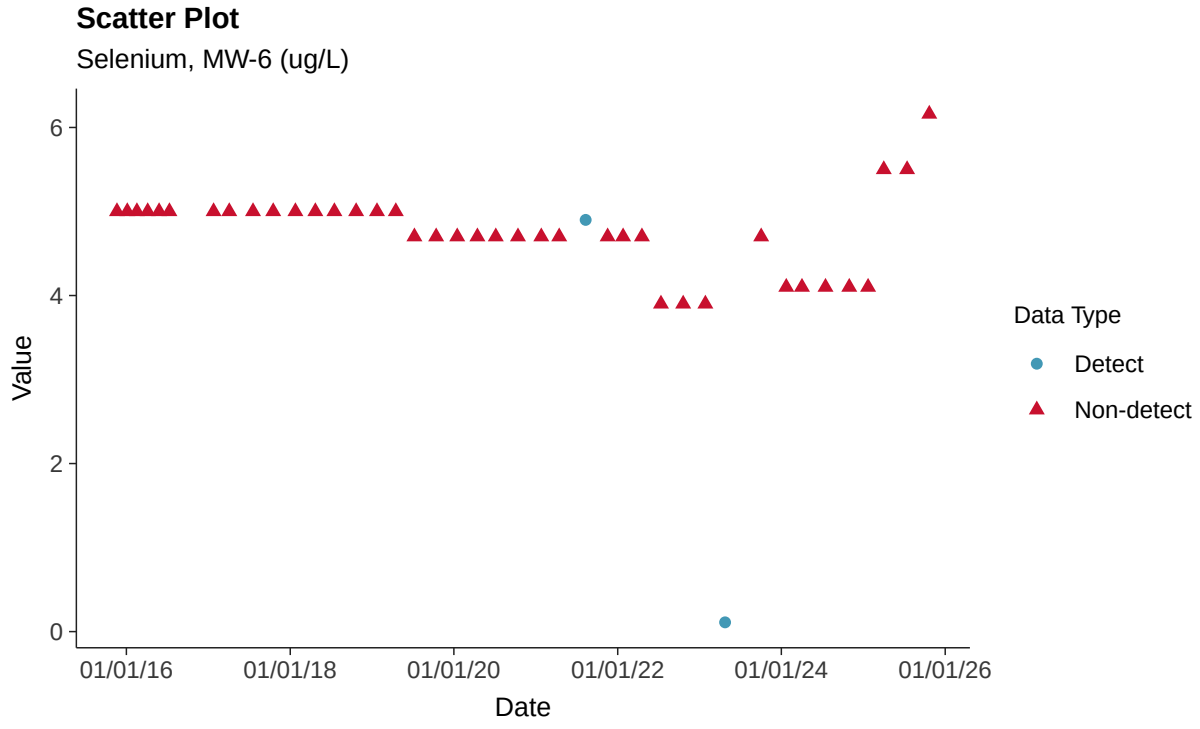
Trend Regression: Piecewise Linear-Linear-Linear

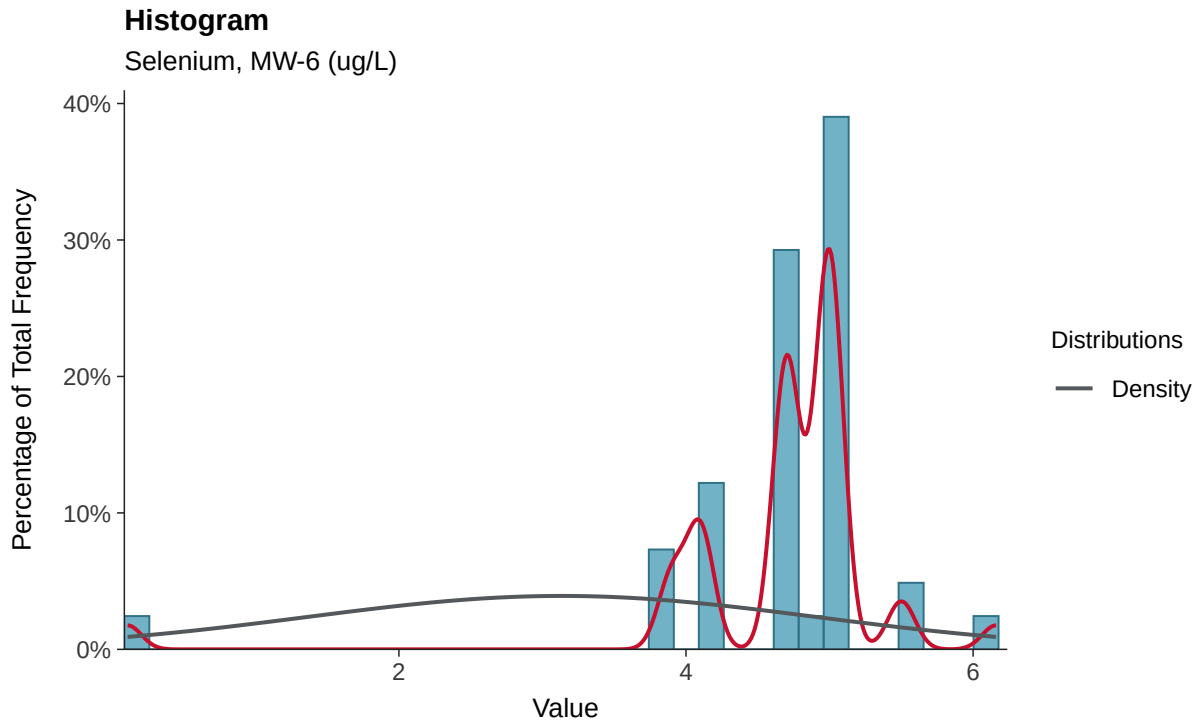
Radium-228, MW-6 (pCi/L)



App. IV: Selenium, MW-6

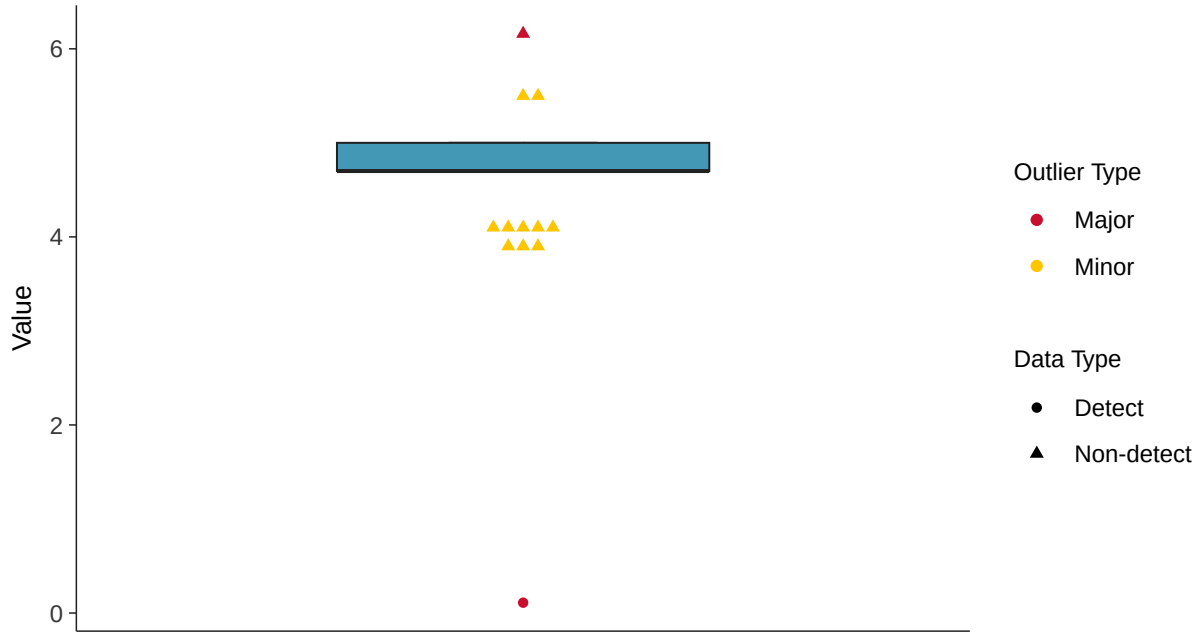
ID: 06_3_121





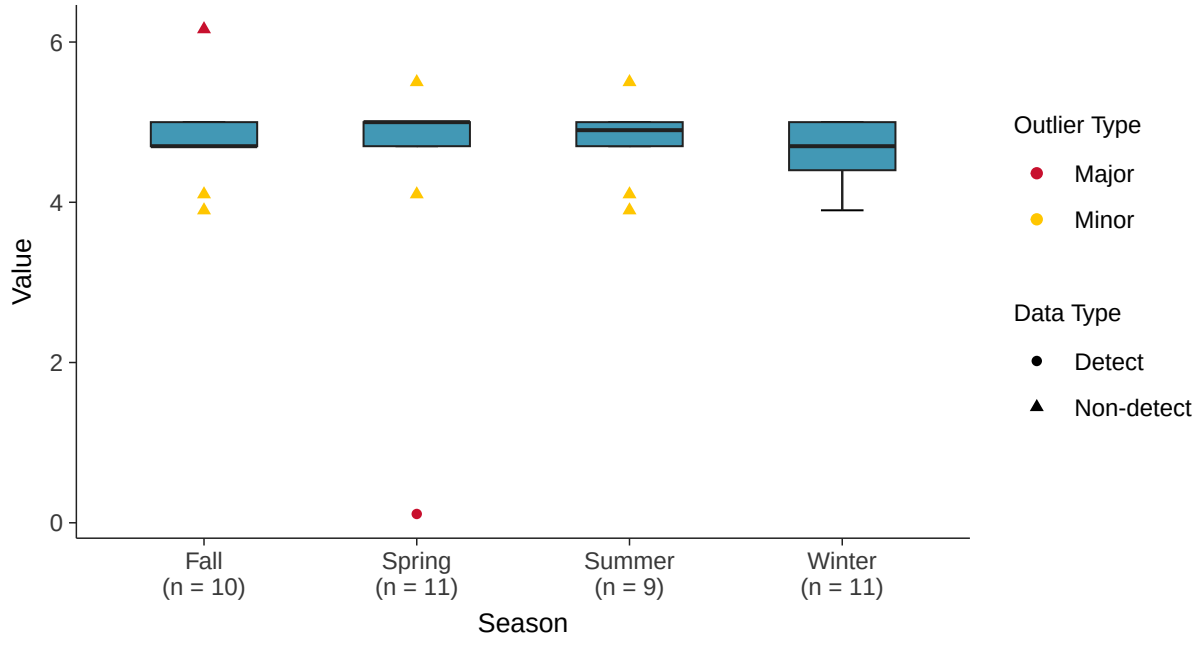
Boxplot

Selenium, MW-6 (ug/L)



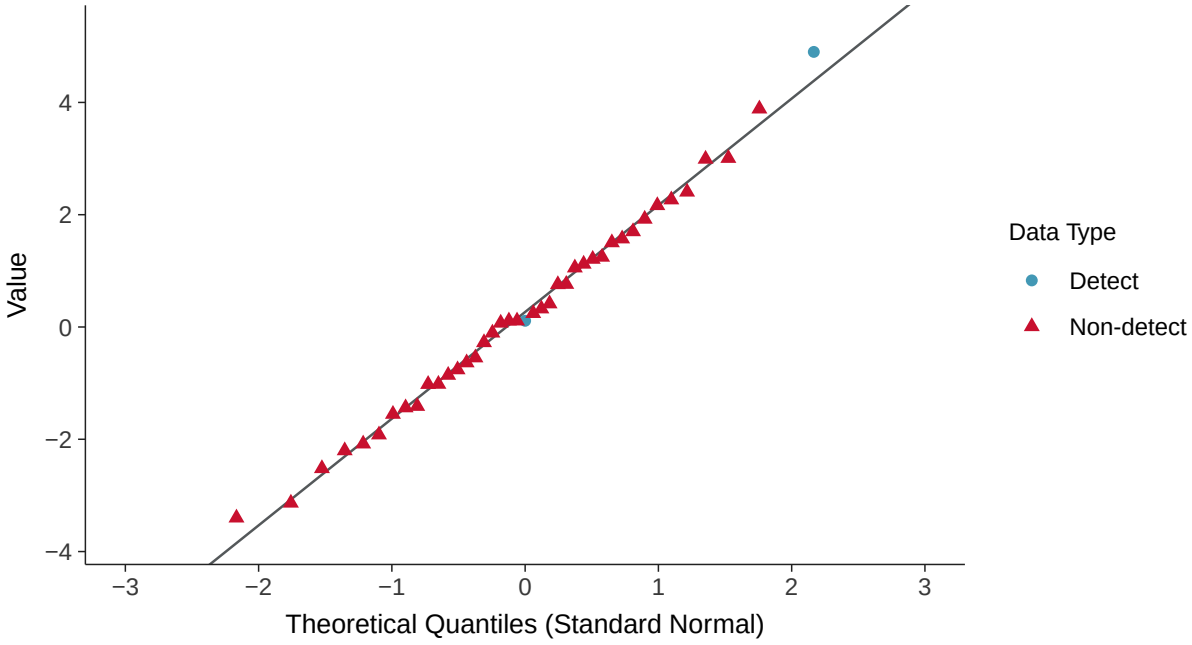
Boxplot by Season

Selenium, MW-6 (ug/L)



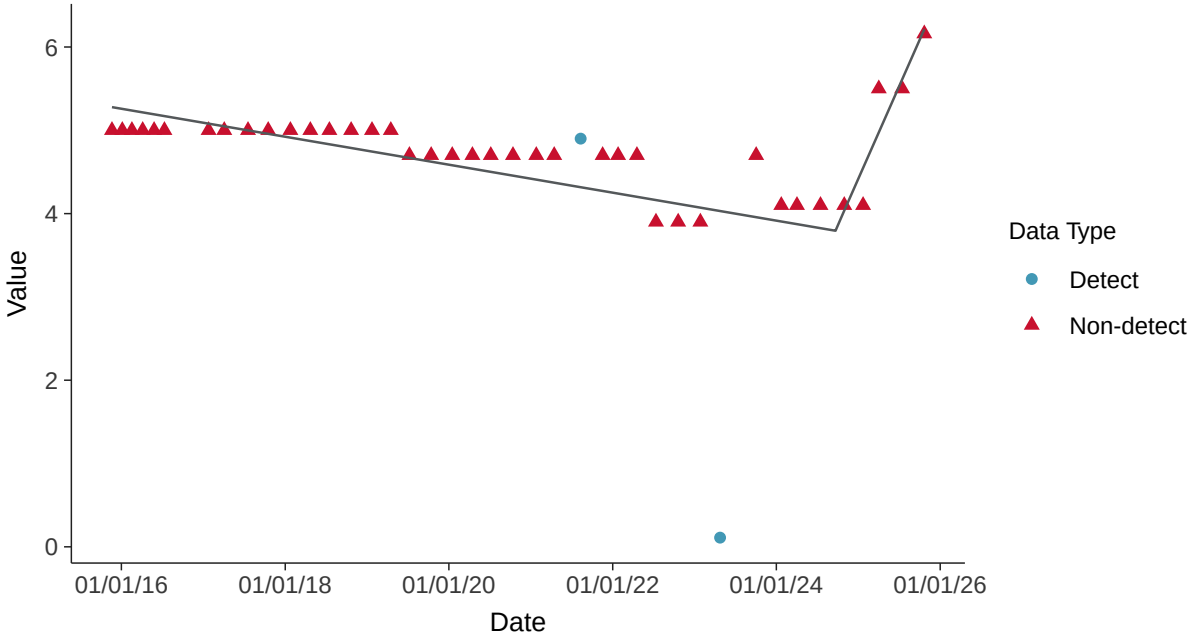
Normal Q-Q plot using ROS Imputed Estimates

Selenium, MW-6 (ug/L)



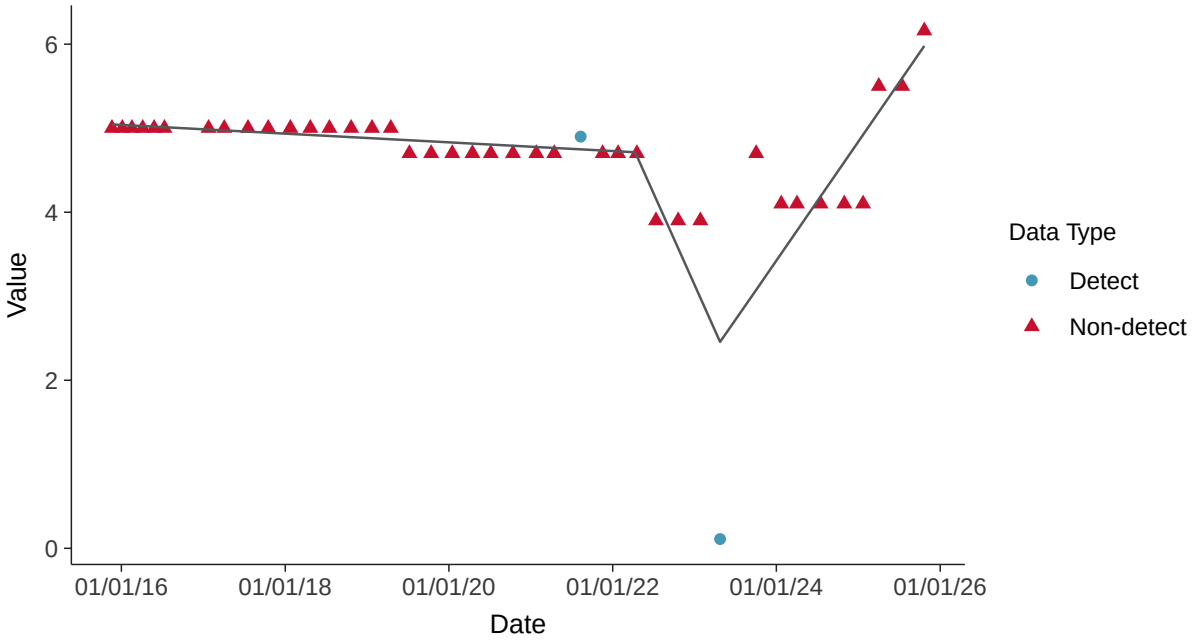
Trend Regression: Piecewise Linear-Linear

Selenium, MW-6 (ug/L)



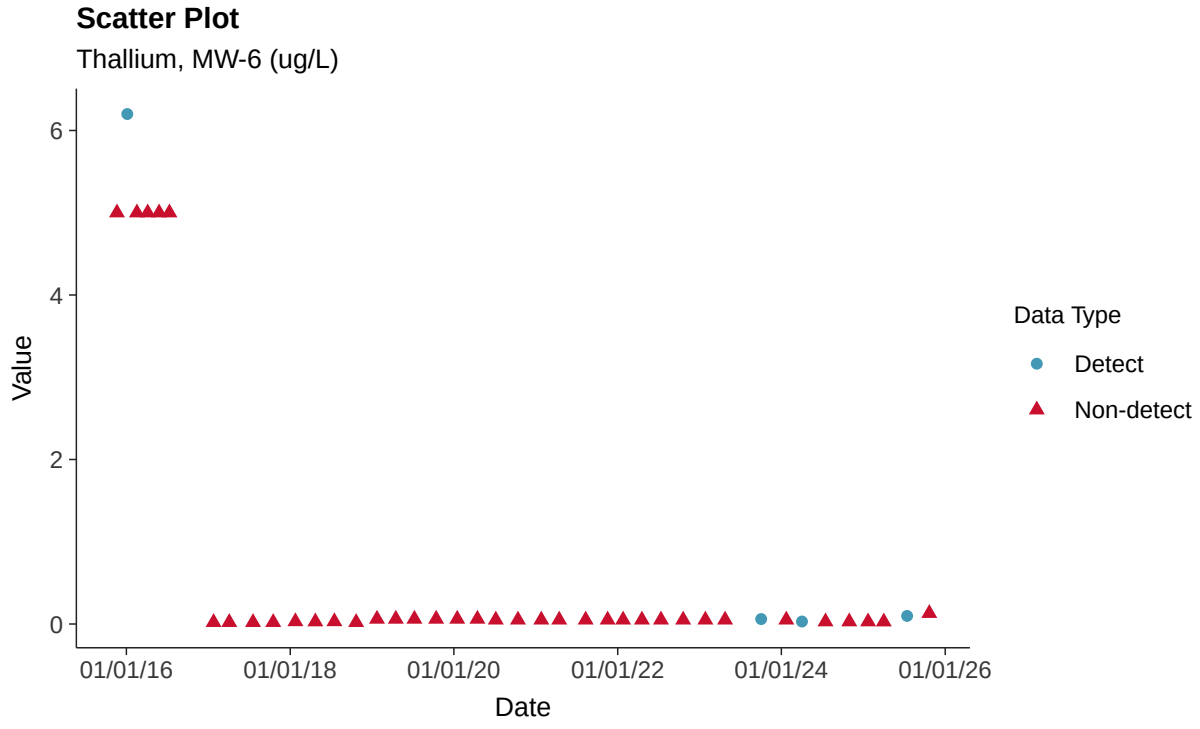
Trend Regression: Piecewise Linear-Linear-Linear

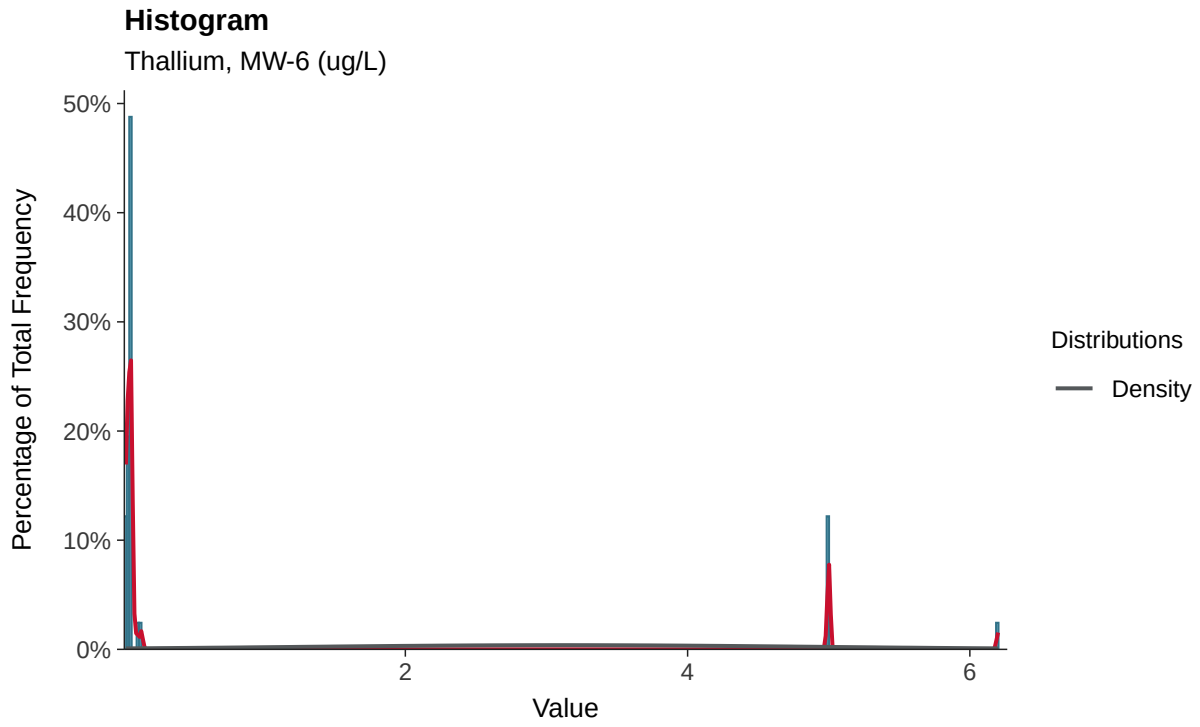
Selenium, MW-6 (ug/L)



App. IV: Thallium, MW-6

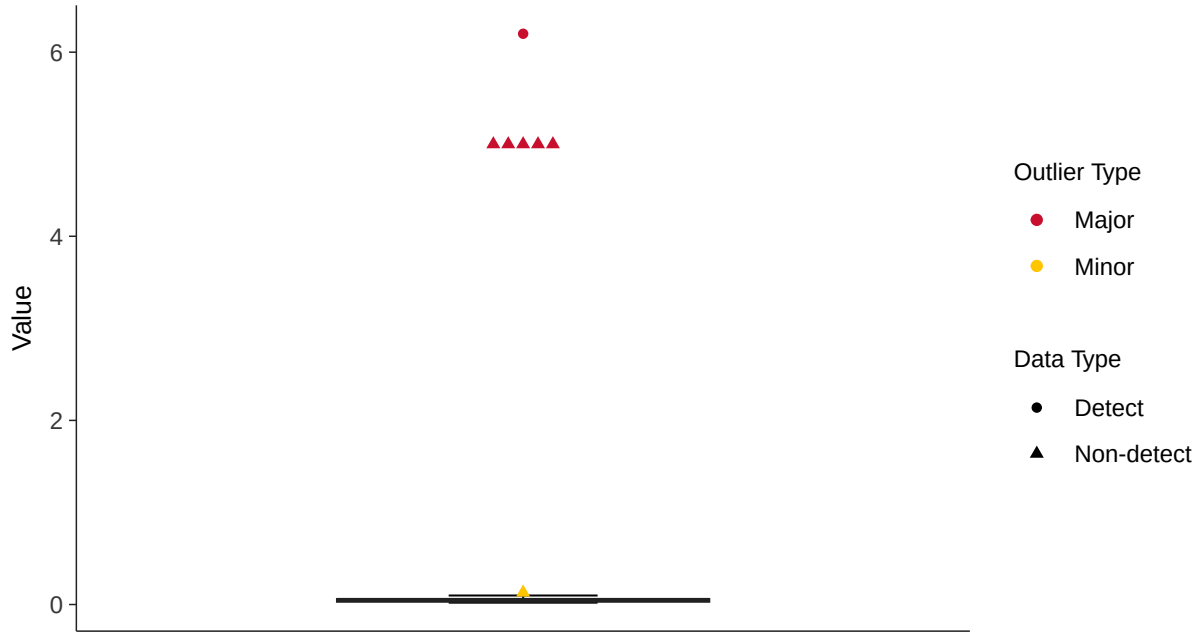
ID: 06_3_124





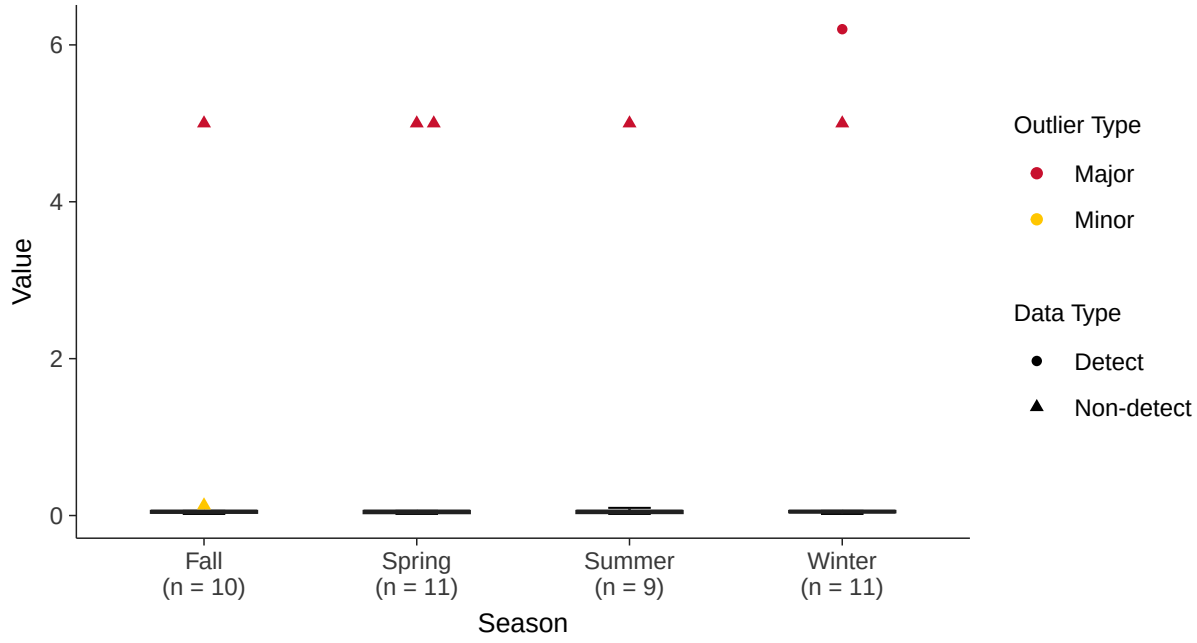
Boxplot

Thallium, MW-6 (ug/L)



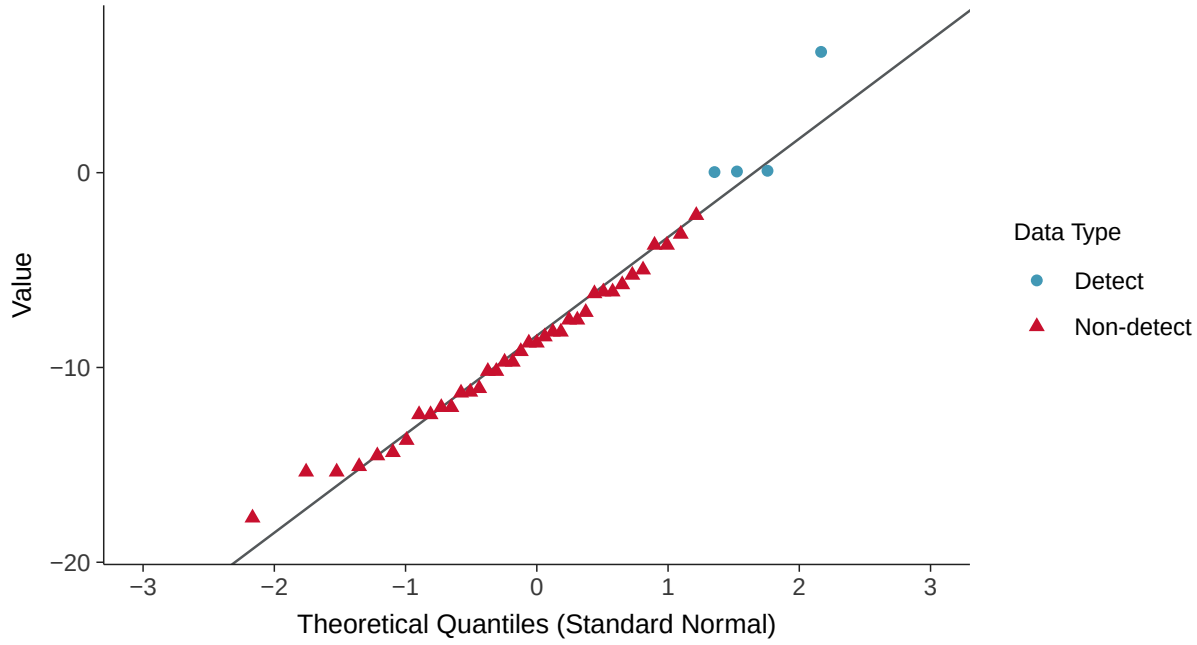
Boxplot by Season

Thallium, MW-6 (ug/L)



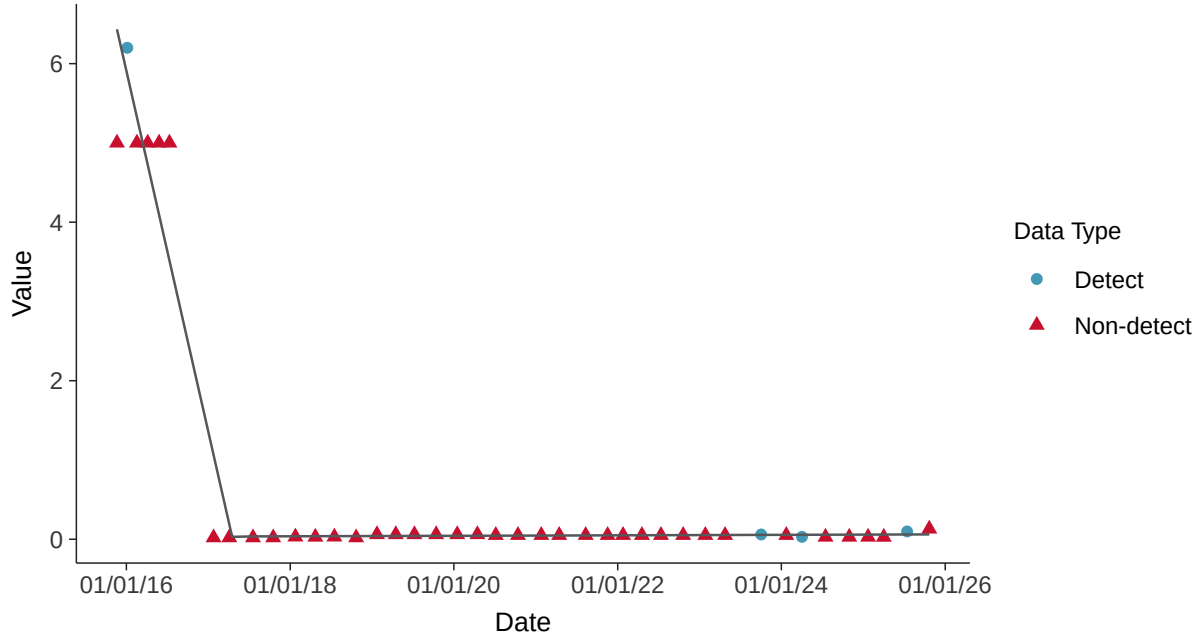
Normal Q-Q plot using ROS Imputed Estimates

Thallium, MW-6 (ug/L)



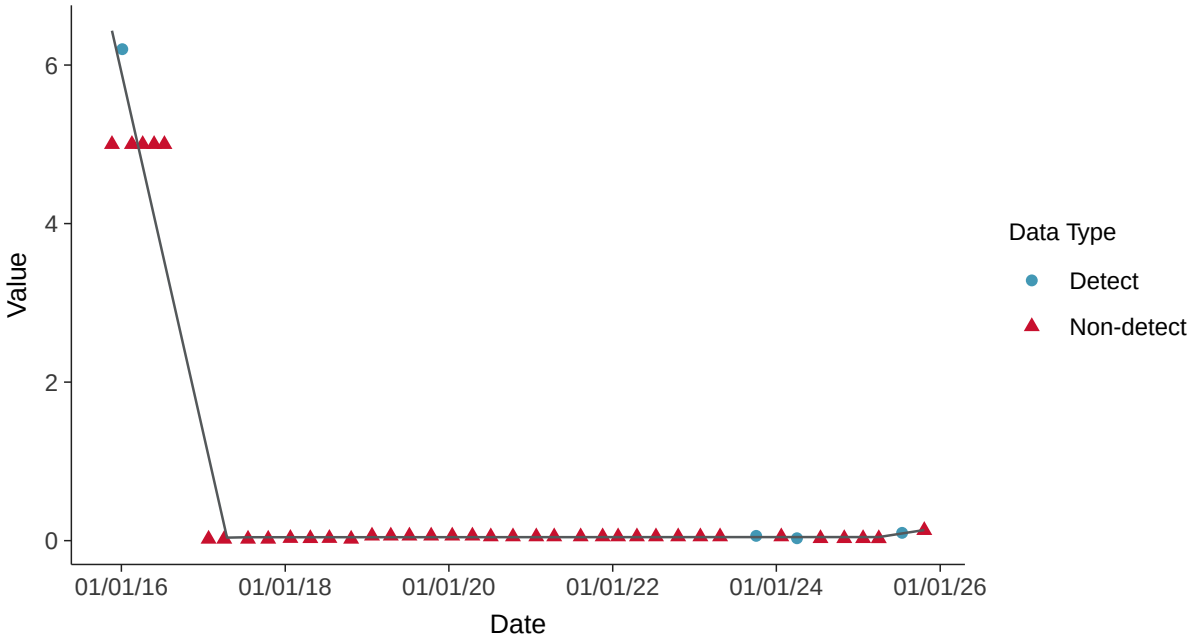
Trend Regression: Piecewise Linear-Linear

Thallium, MW-6 (ug/L)



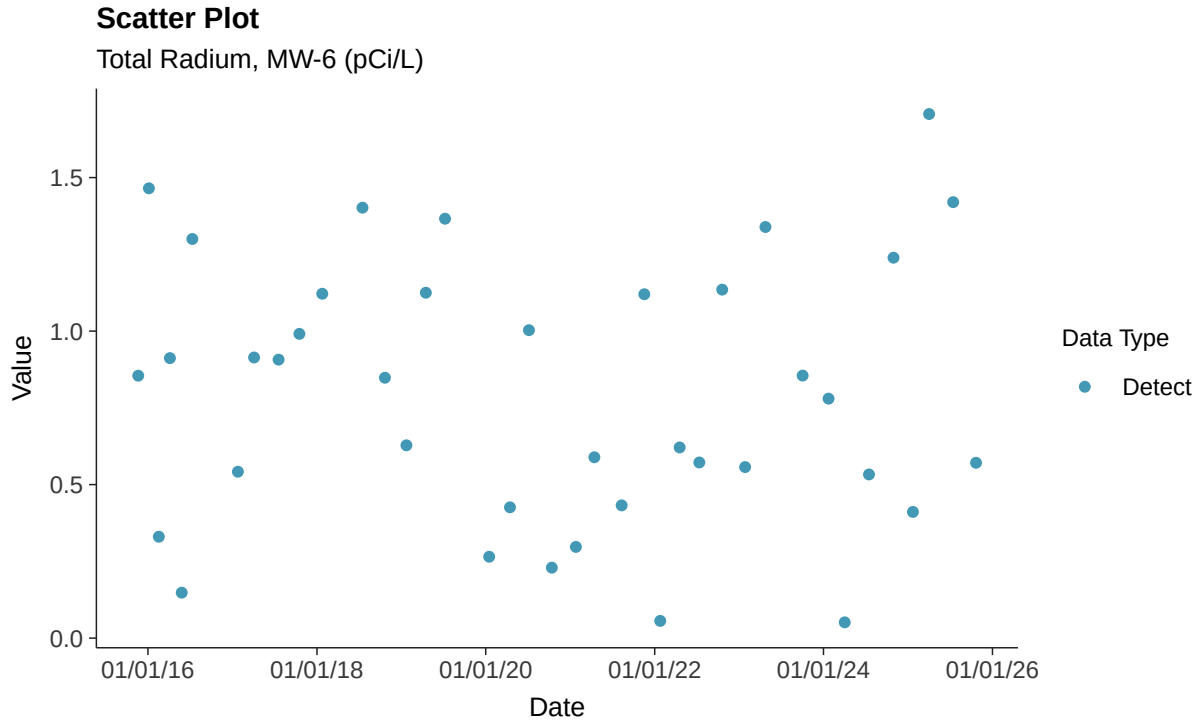
Trend Regression: Piecewise Linear-Linear-Linear

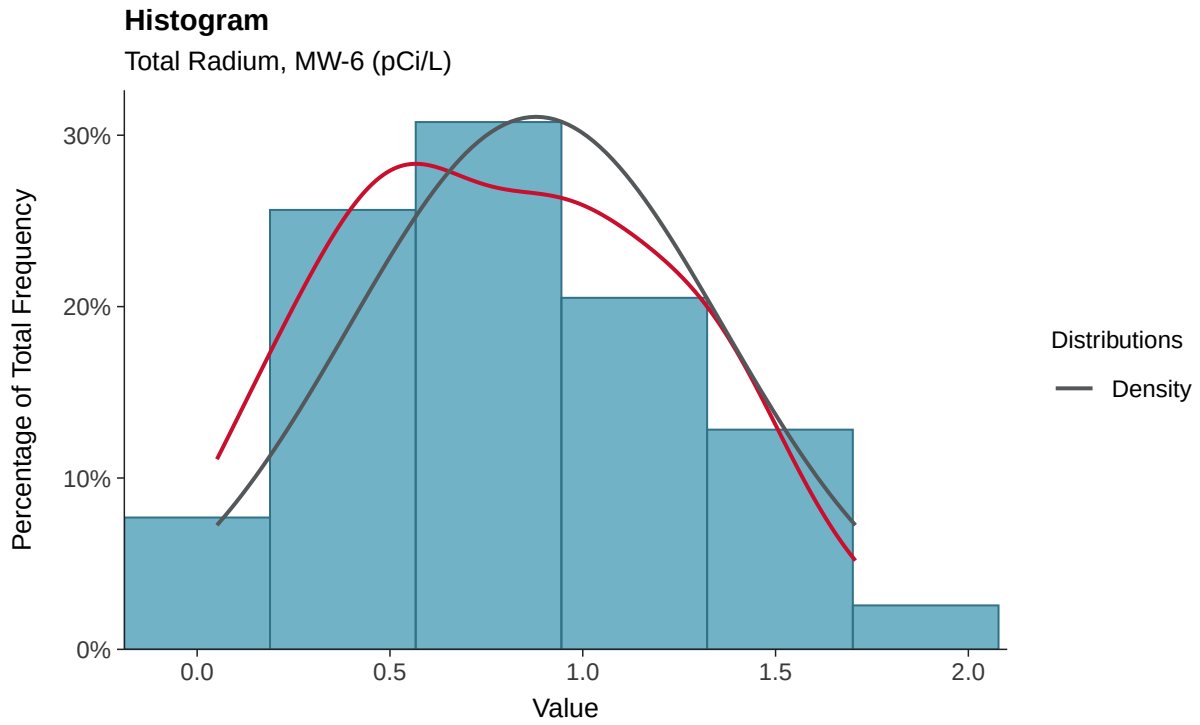
Thallium, MW-6 (ug/L)



App. IV: Total Radium, MW-6

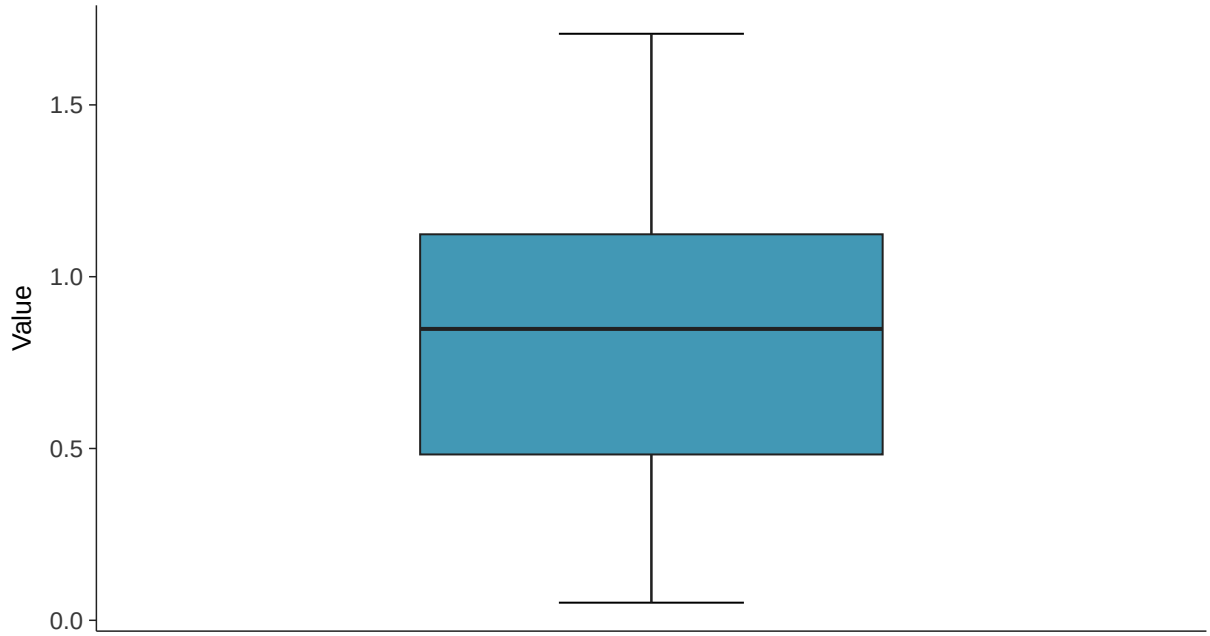
ID: 06_3_126





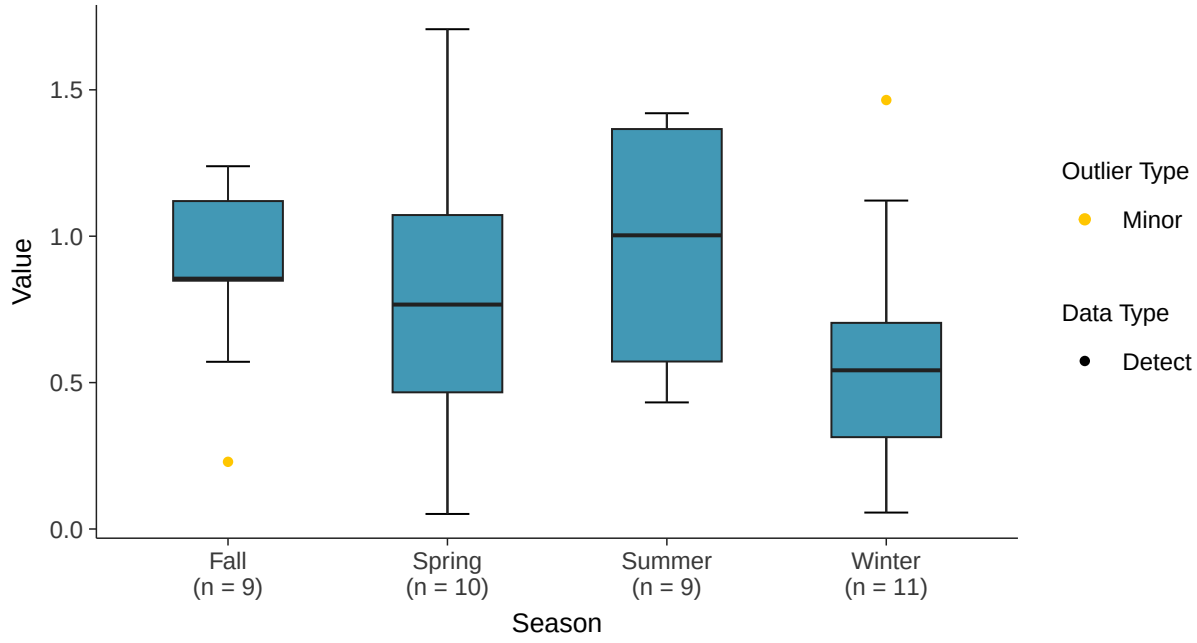
Boxplot

Total Radium, MW-6 (pCi/L)



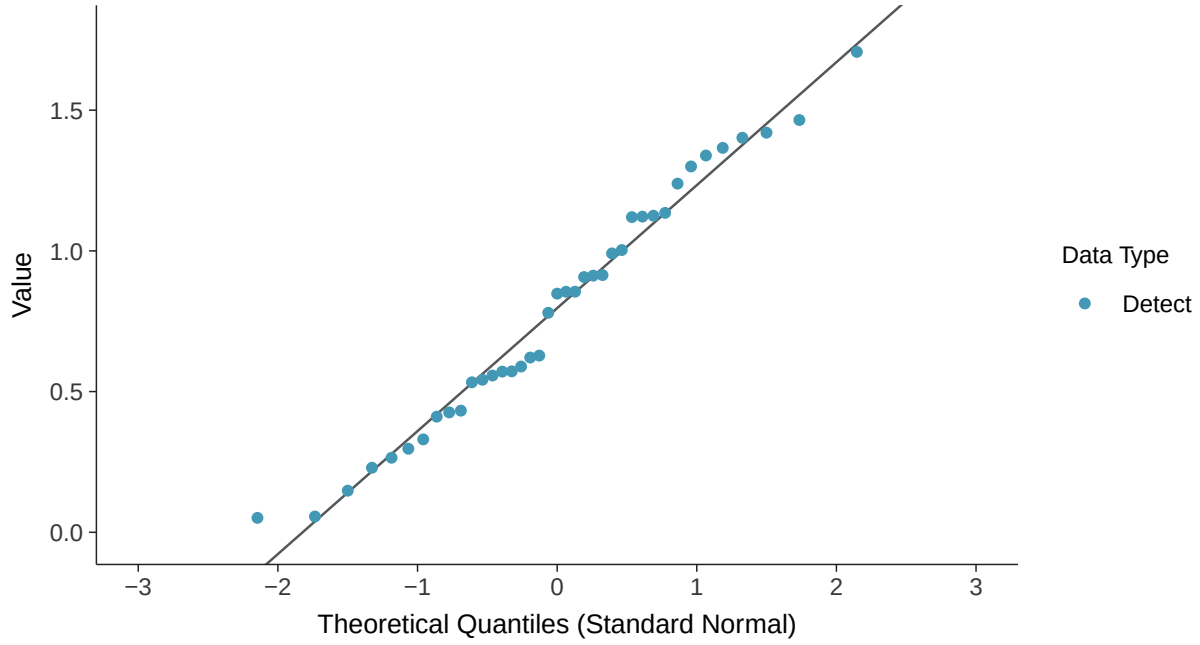
Boxplot by Season

Total Radium, MW-6 (pCi/L)



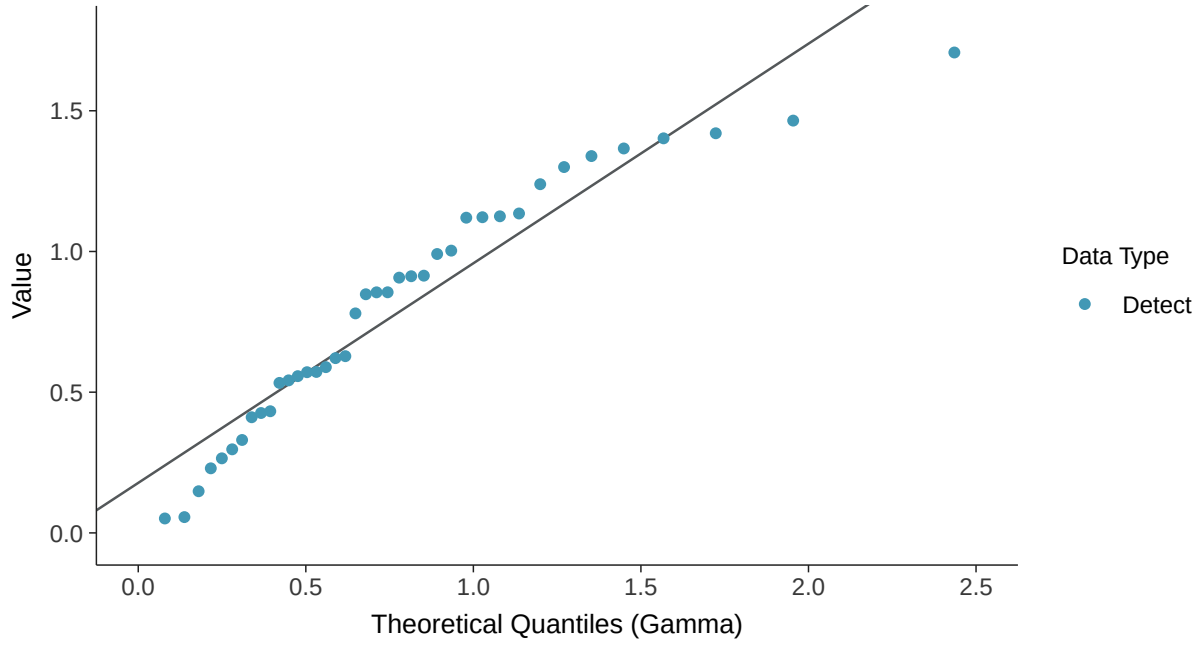
Normal Q-Q plot

Total Radium, MW-6 (pCi/L)



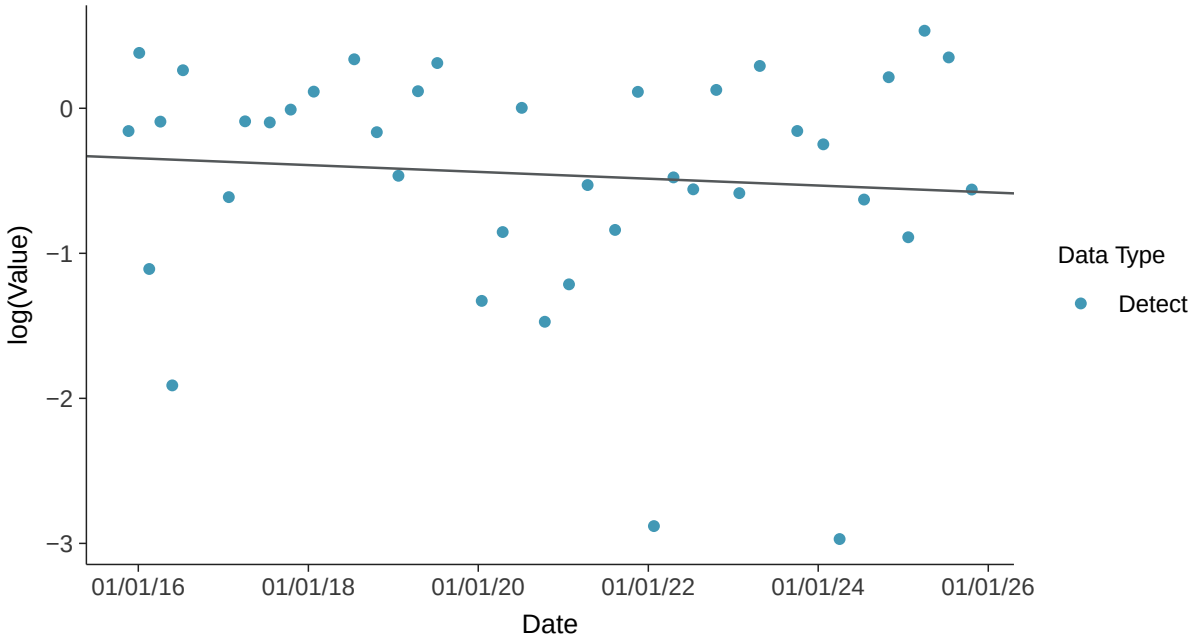
Gamma Q-Q plot

Total Radium, MW-6 (pCi/L)



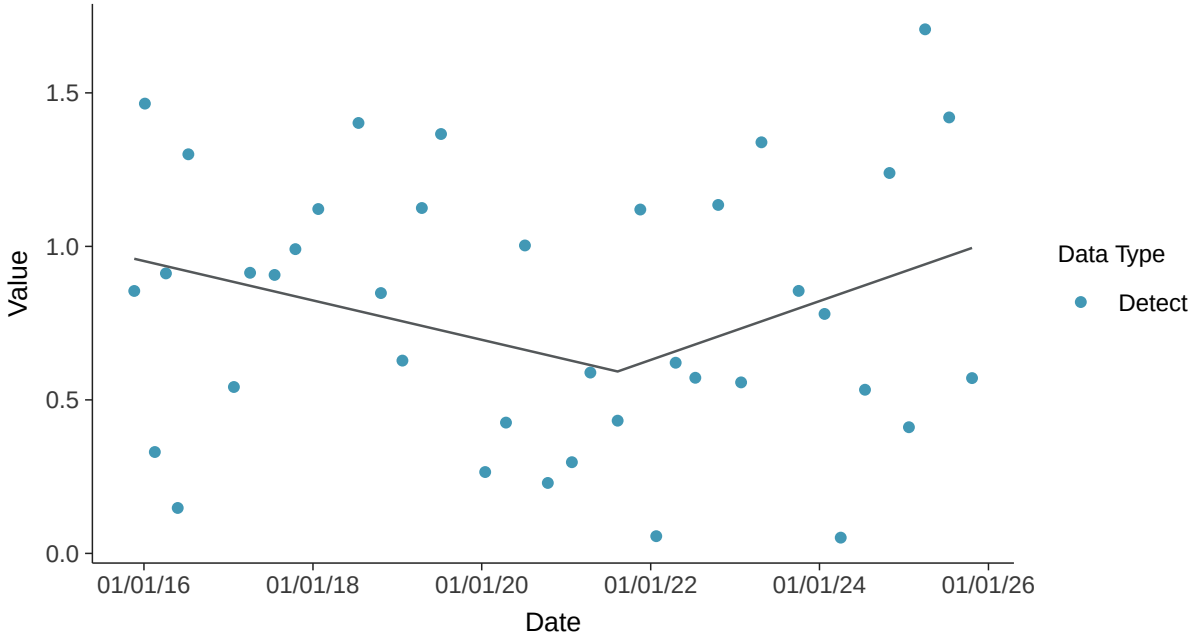
Trend Regression: Lognormal MLE

Total Radium, MW-6 (pCi/L)



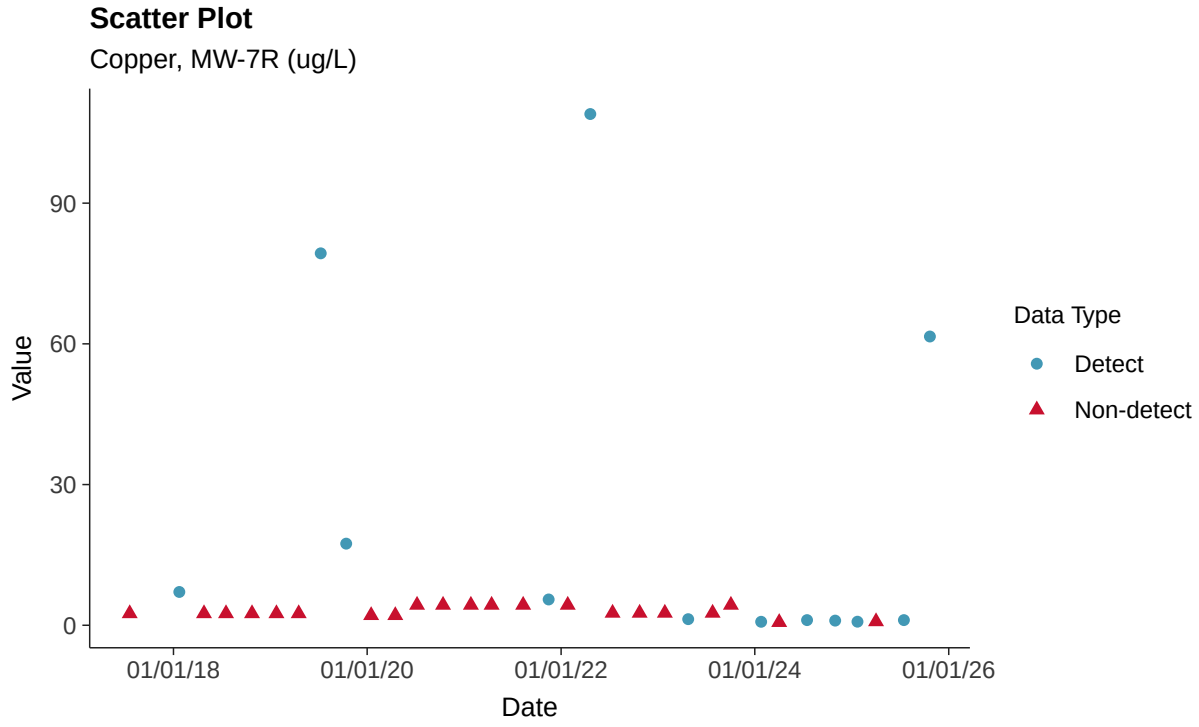
Trend Regression: Piecewise Linear-Linear

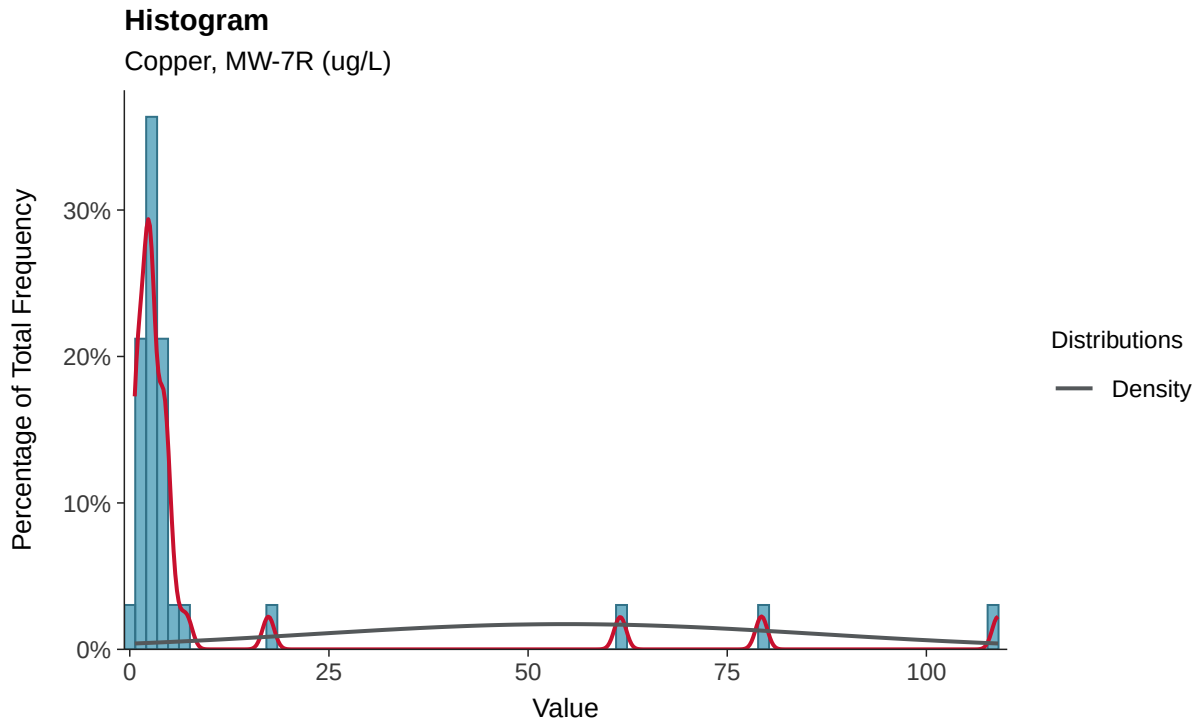
Total Radium, MW-6 (pCi/L)



App. I Metals: Copper, MW-7R

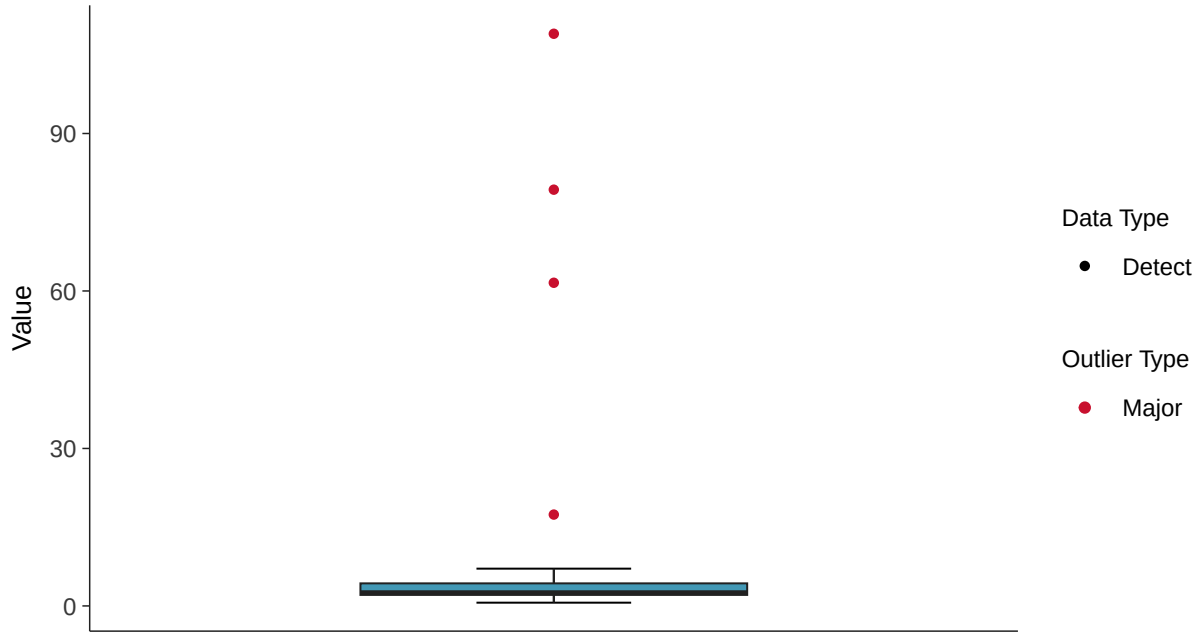
ID: 07_1_111





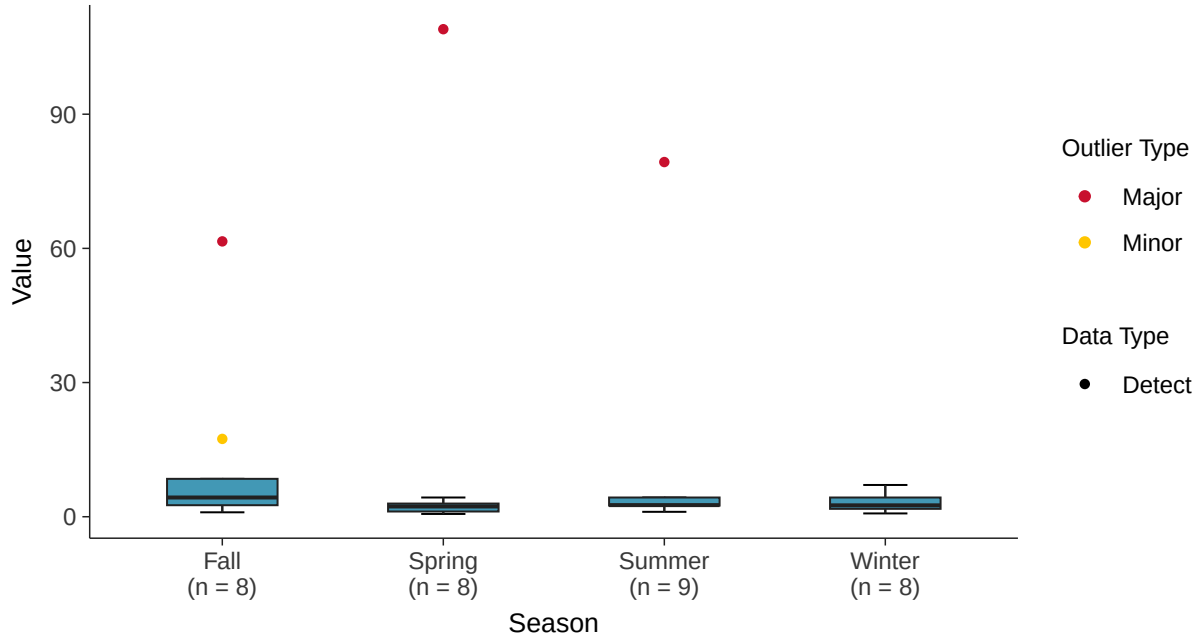
Boxplot

Copper, MW-7R (ug/L)



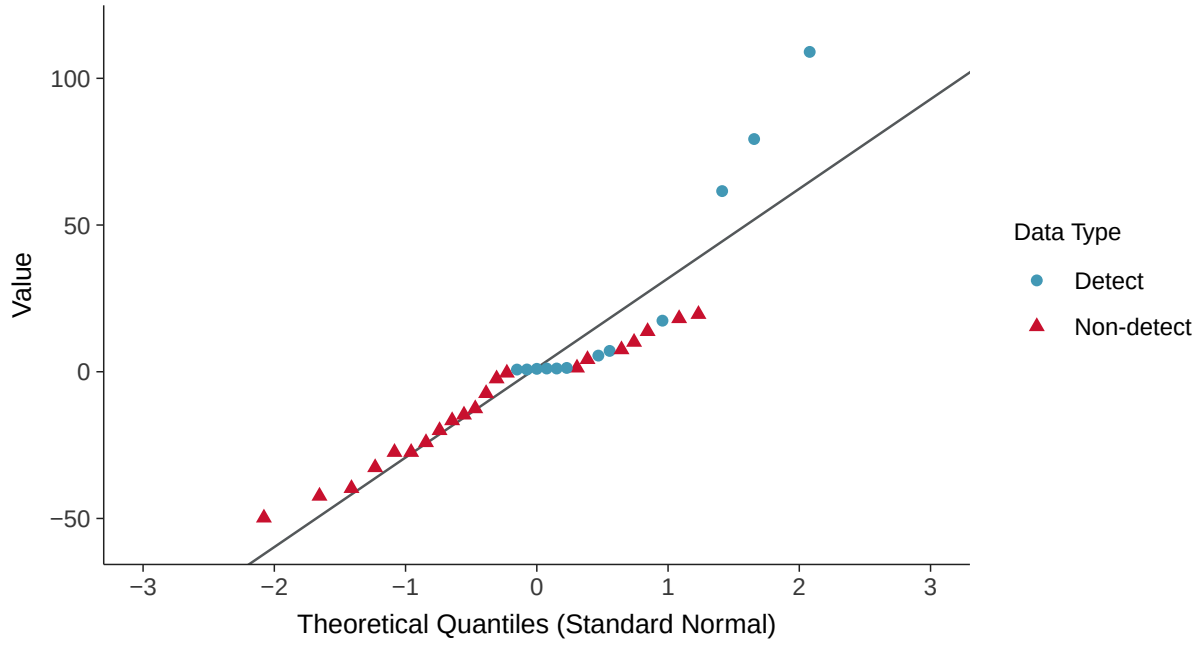
Boxplot by Season

Copper, MW-7R (ug/L)



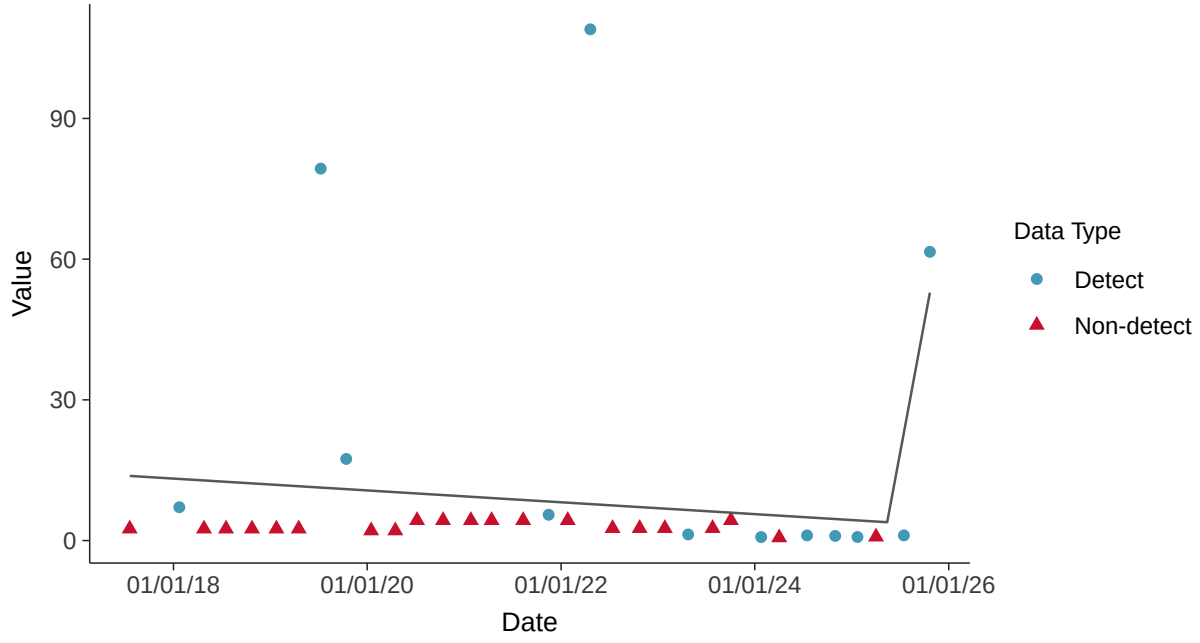
Normal Q-Q plot using ROS Imputed Estimates

Copper, MW-7R (ug/L)



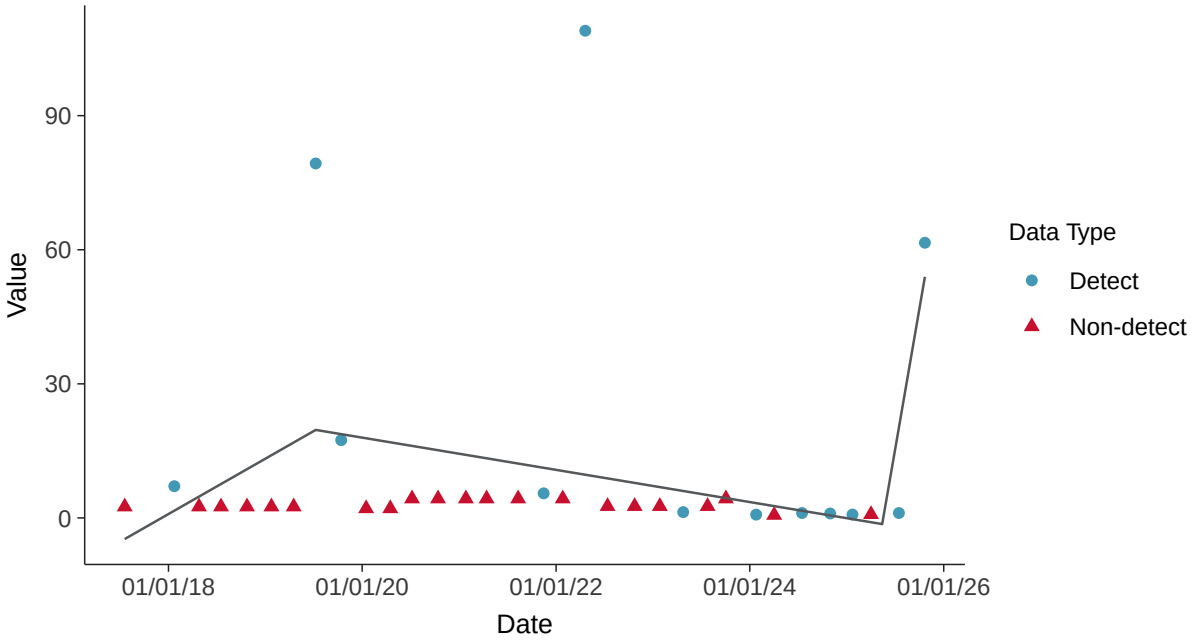
Trend Regression: Piecewise Linear-Linear

Copper, MW-7R (ug/L)



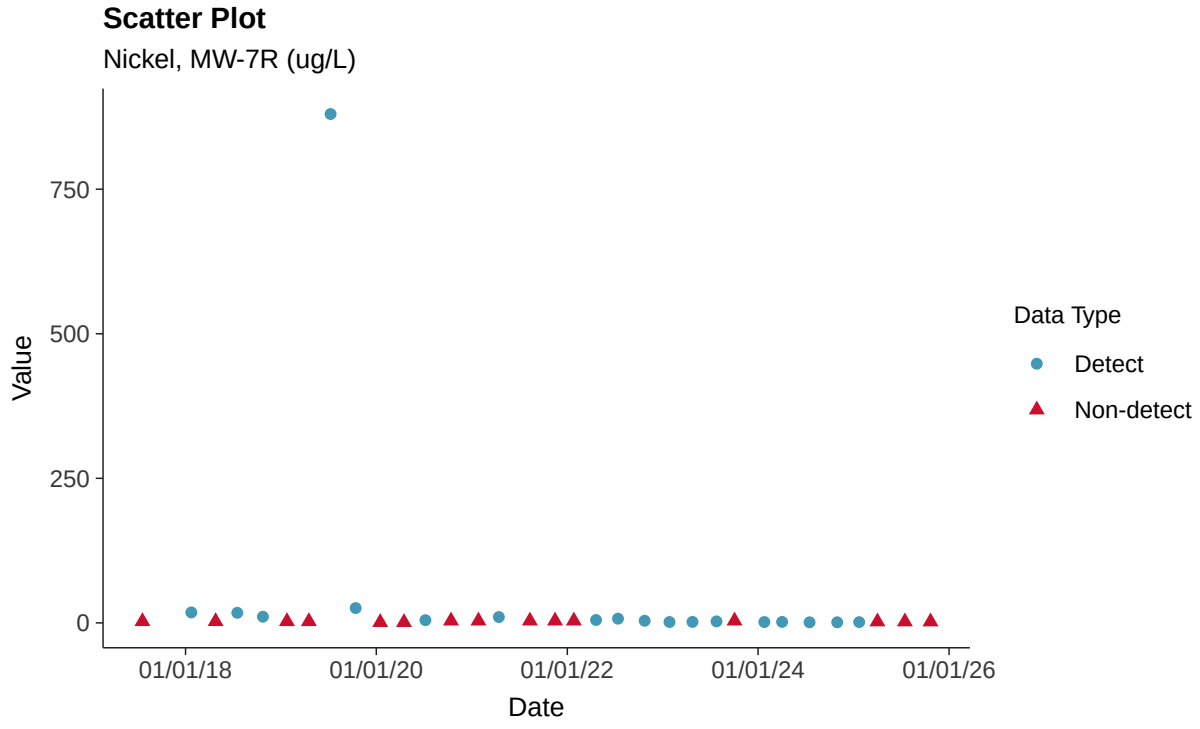
Trend Regression: Piecewise Linear-Linear-Linear

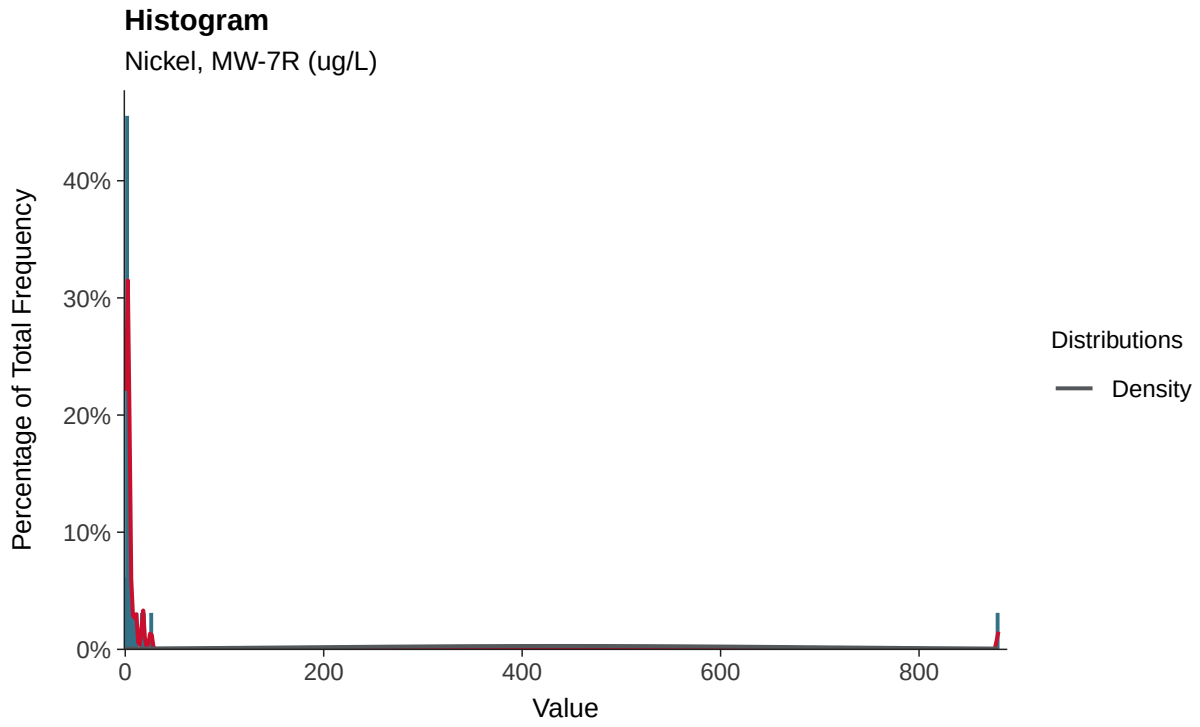
Copper, MW-7R (ug/L)



App. I Metals: Nickel, MW-7R

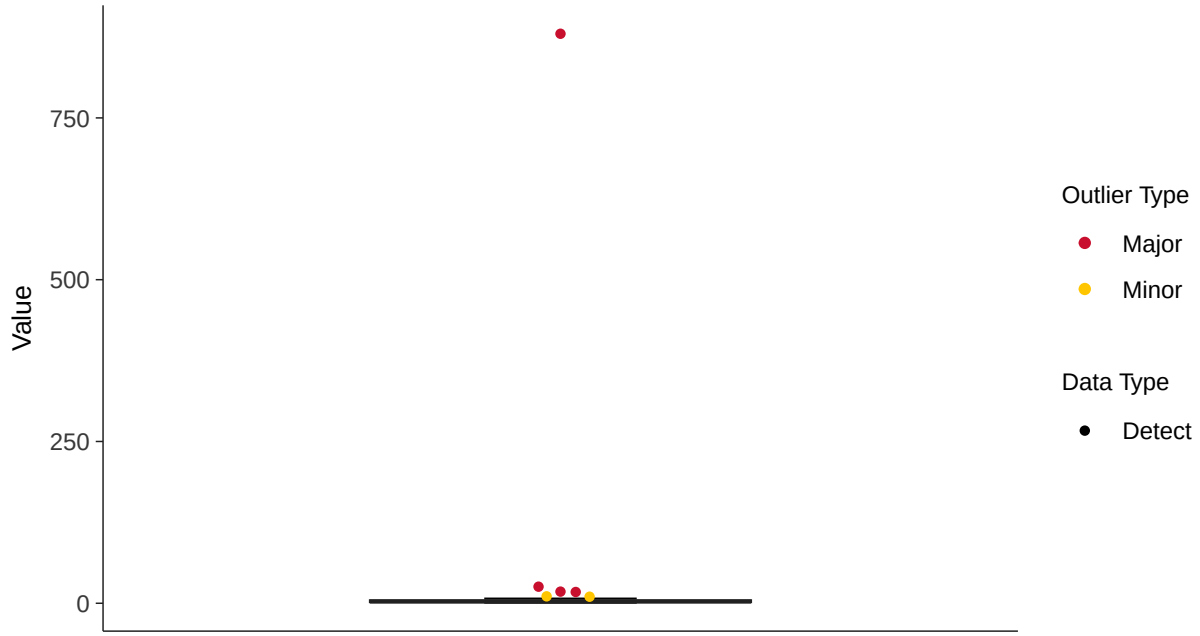
ID: 07_1_117





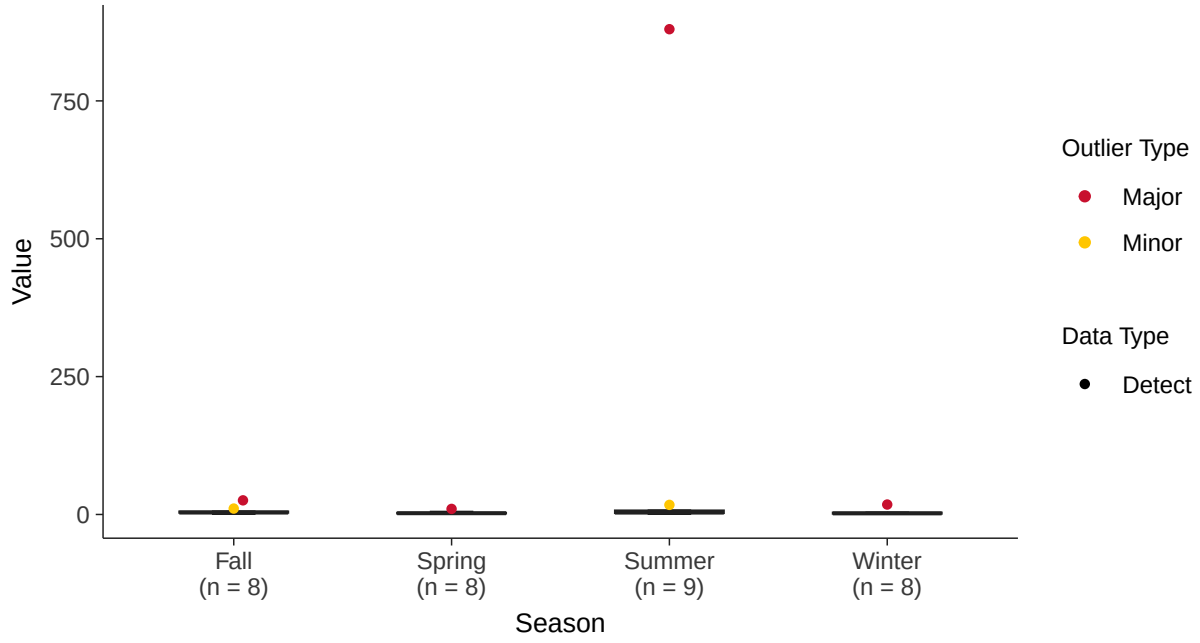
Boxplot

Nickel, MW-7R (ug/L)



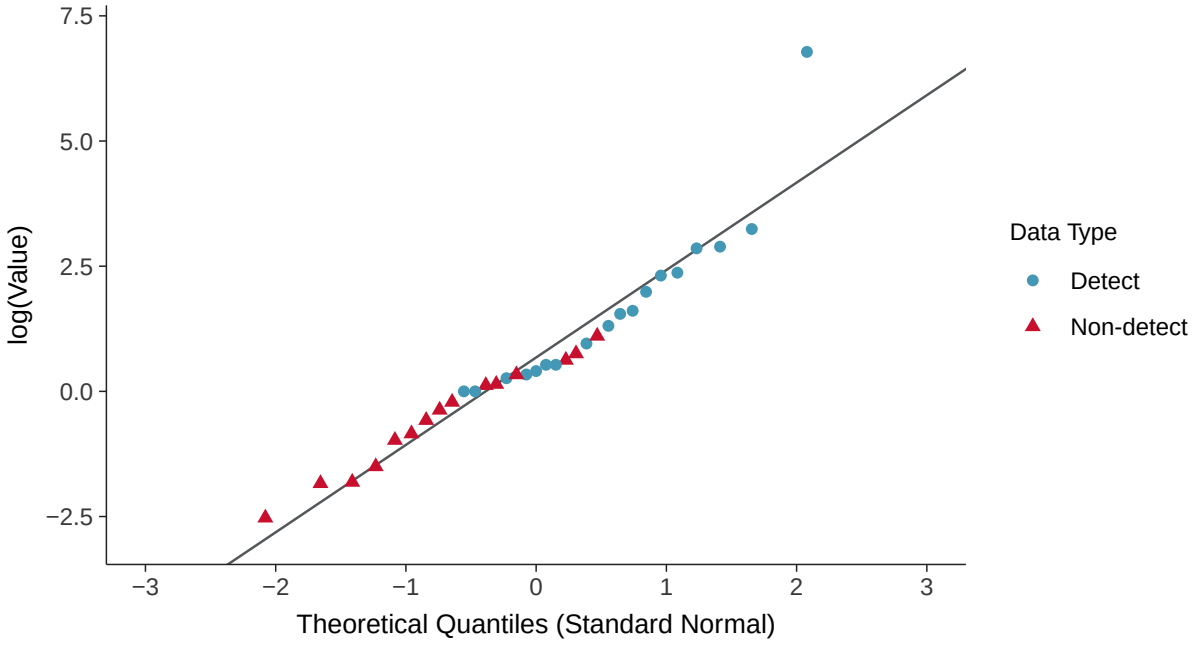
Boxplot by Season

Nickel, MW-7R (ug/L)



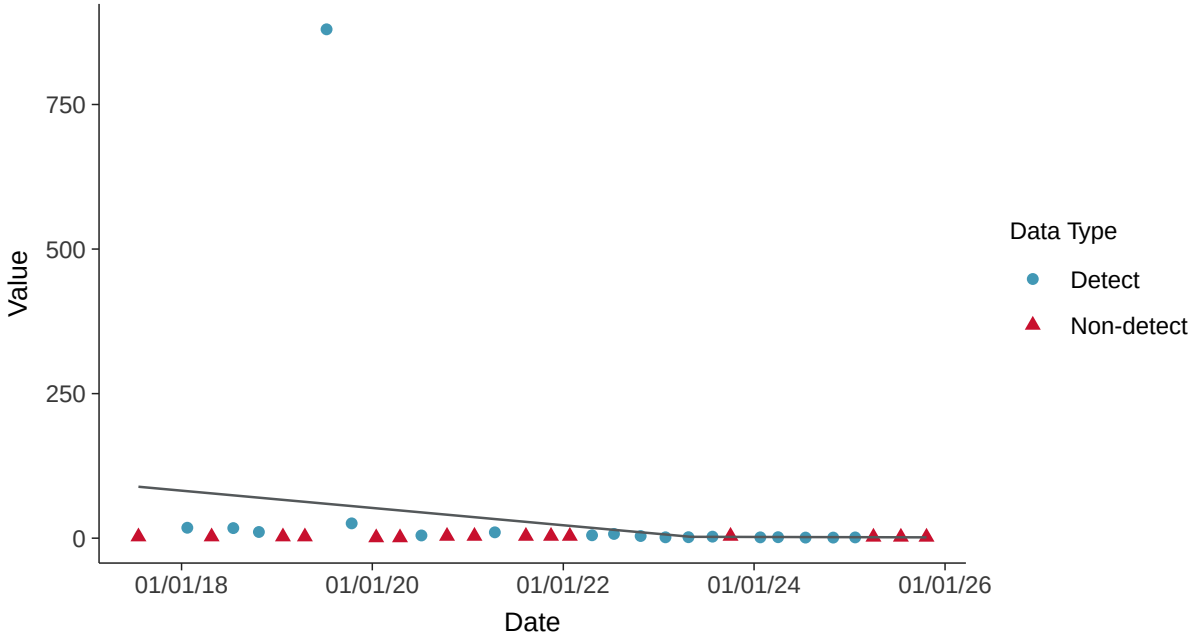
Lognormal Q-Q plot using ROS Imputed Estimates

Nickel, MW-7R (ug/L)



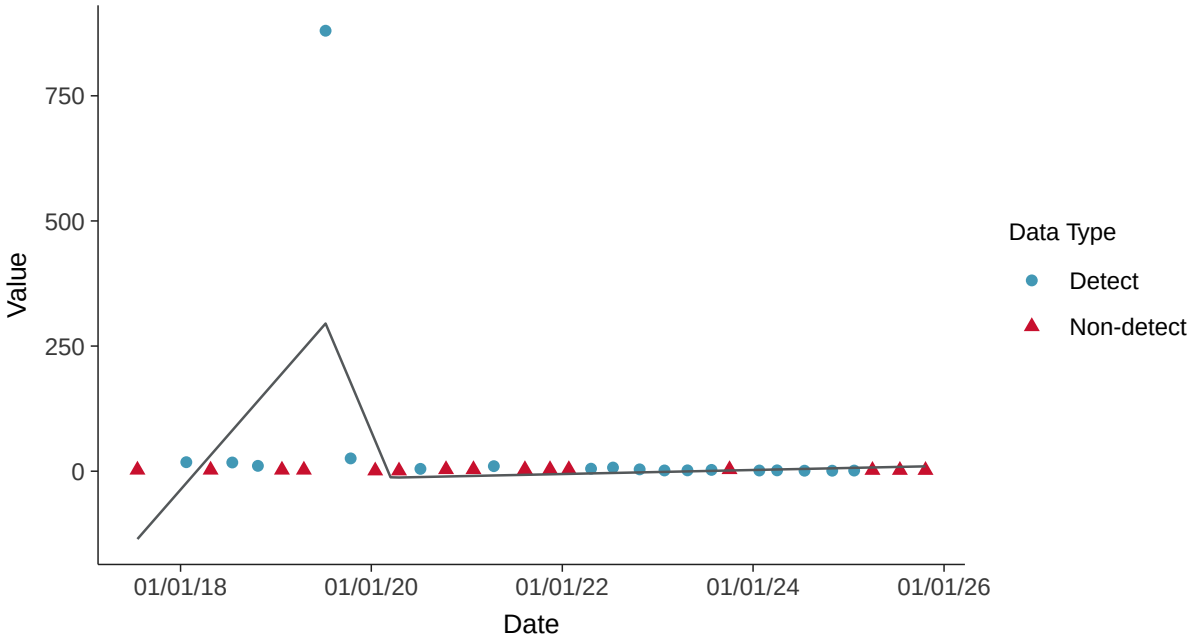
Trend Regression: Piecewise Linear-Linear

Nickel, MW-7R (ug/L)



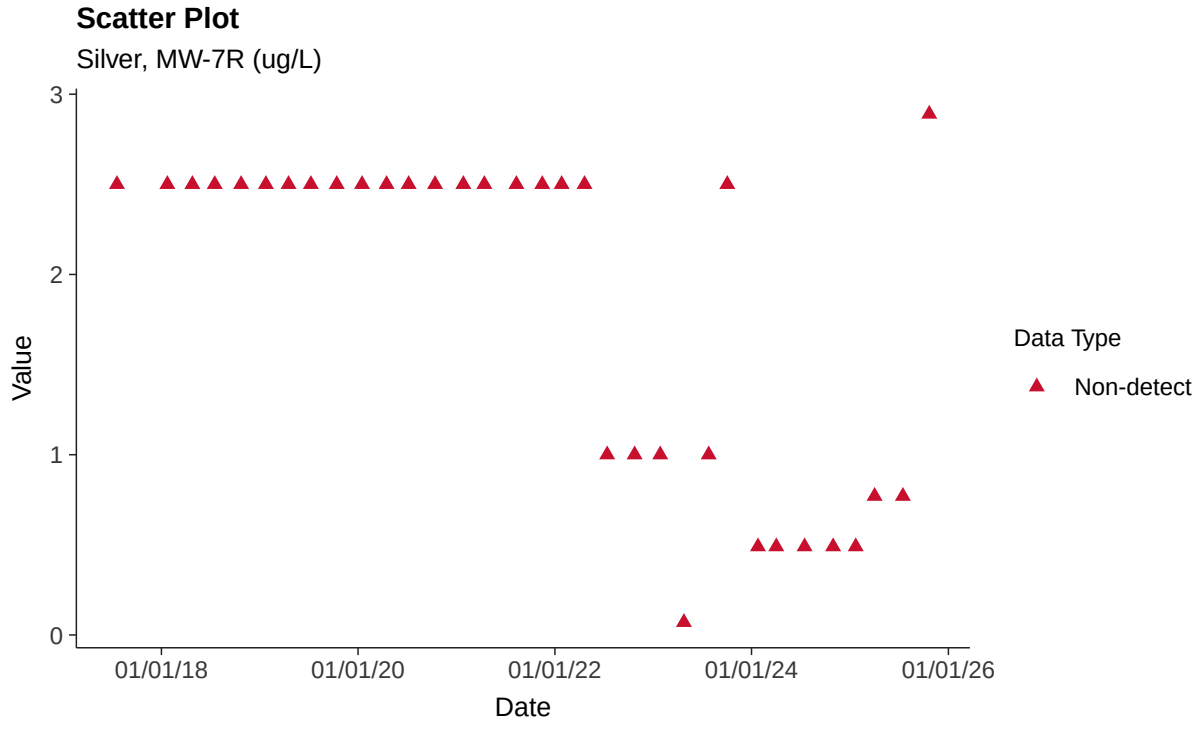
Trend Regression: Piecewise Linear-Linear-Linear

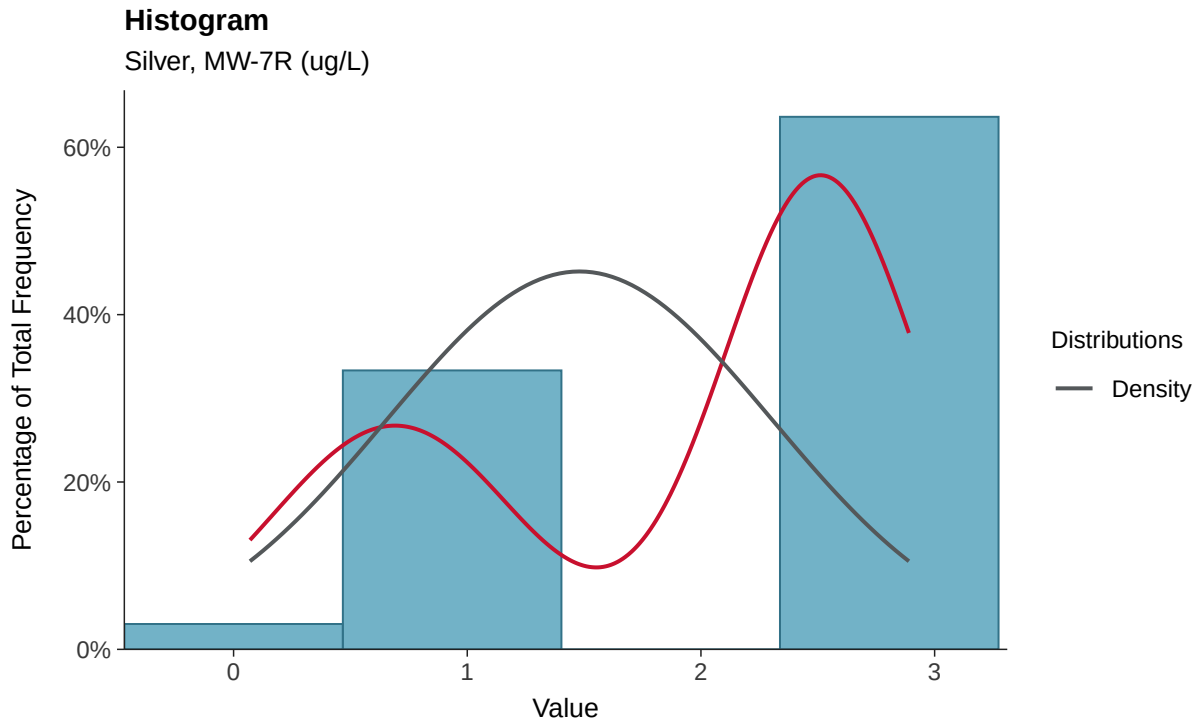
Nickel, MW-7R (ug/L)



App. I Metals: Silver, MW-7R

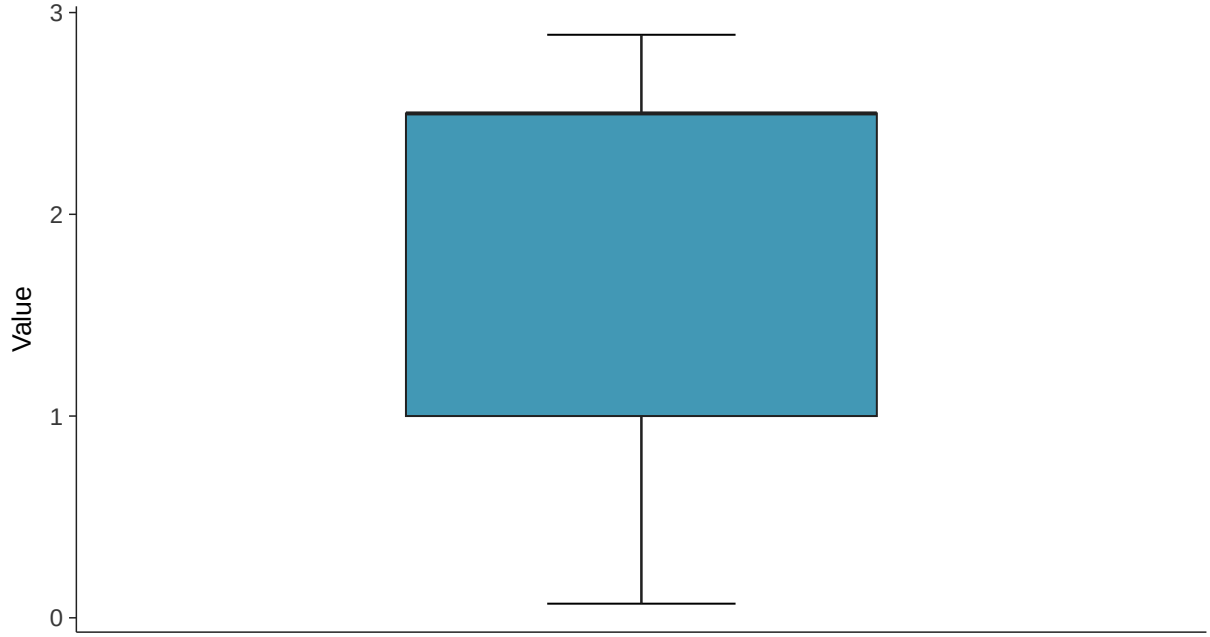
ID: 07_1_122





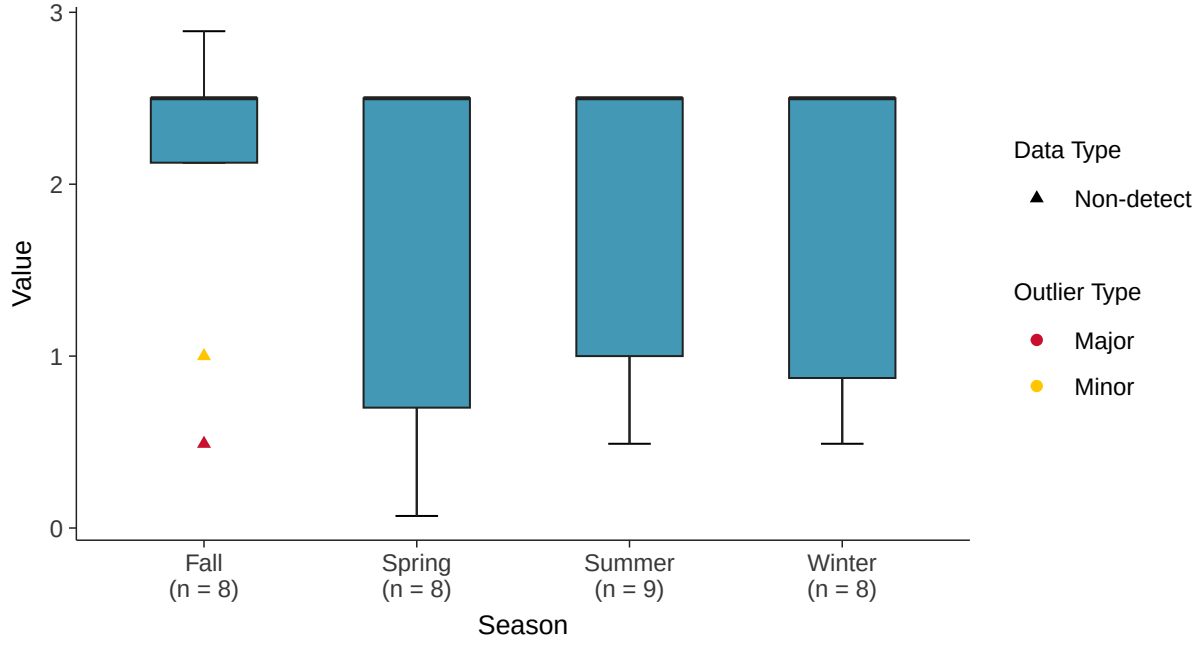
Boxplot

Silver, MW-7R (ug/L)



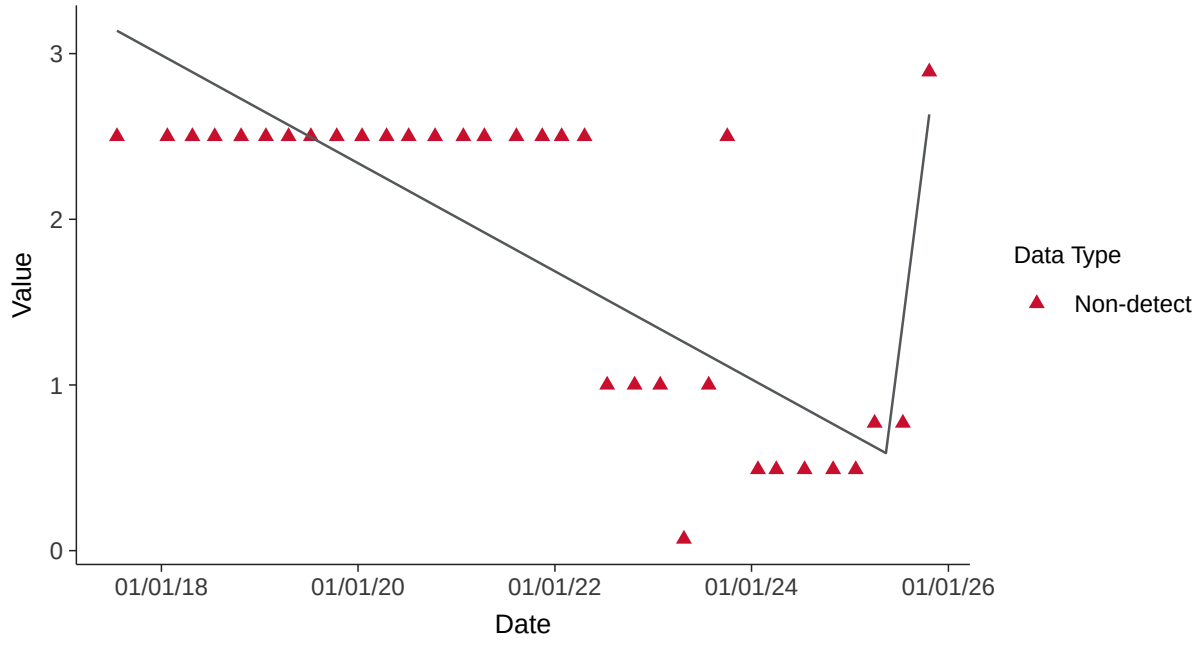
Boxplot by Season

Silver, MW-7R (ug/L)



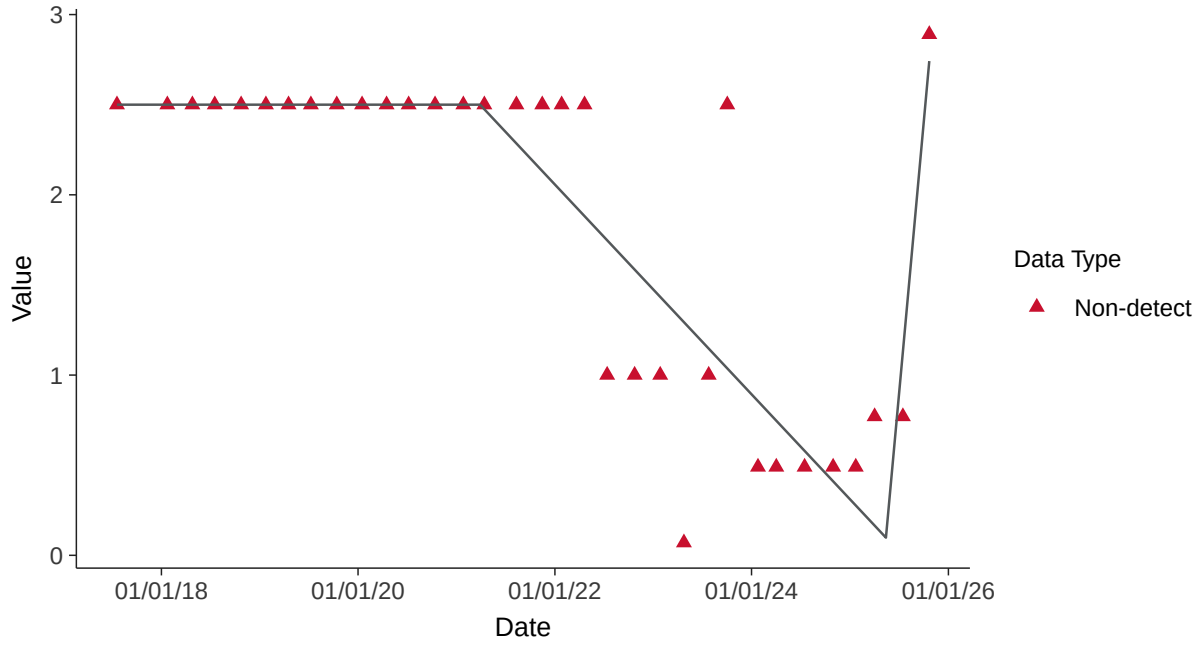
Trend Regression: Piecewise Linear-Linear

Silver, MW-7R (ug/L)



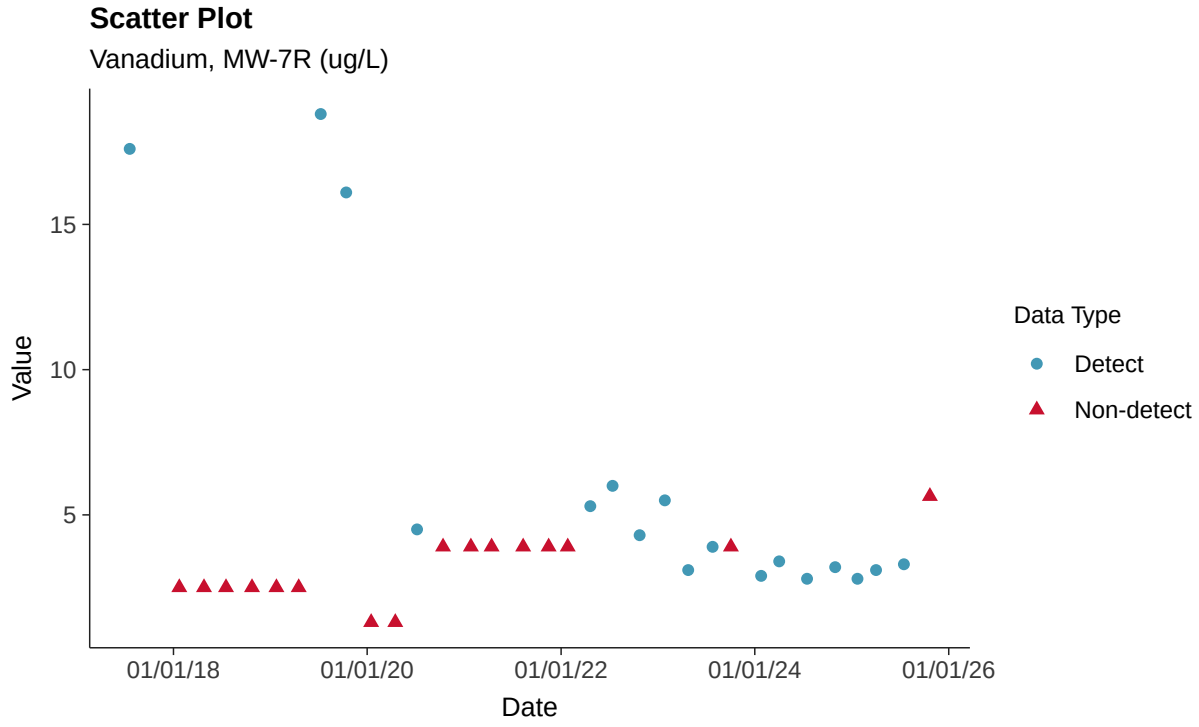
Trend Regression: Piecewise Linear-Linear-Linear

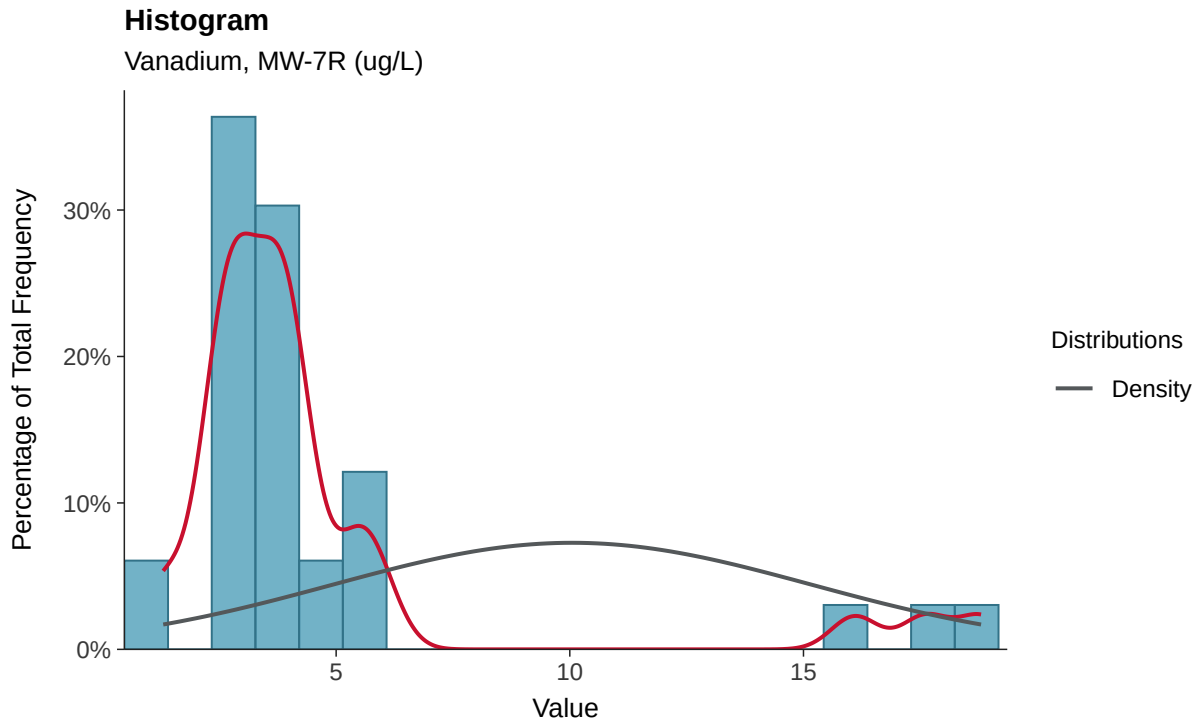
Silver, MW-7R (ug/L)



App. I Metals: Vanadium, MW-7R

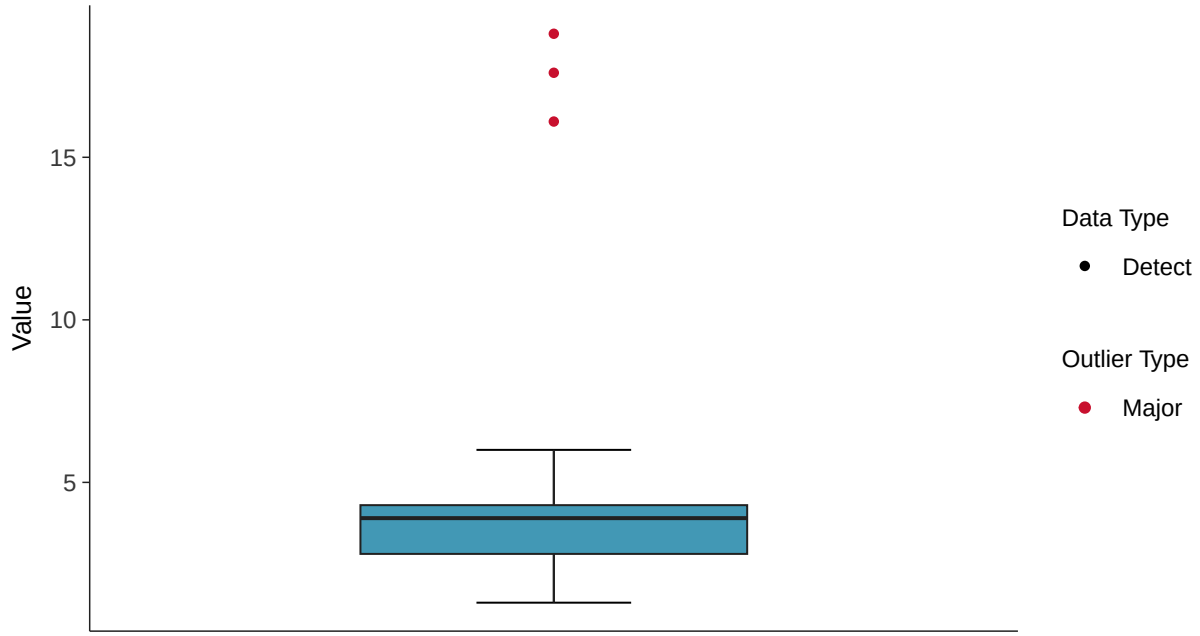
ID: 07_1_127





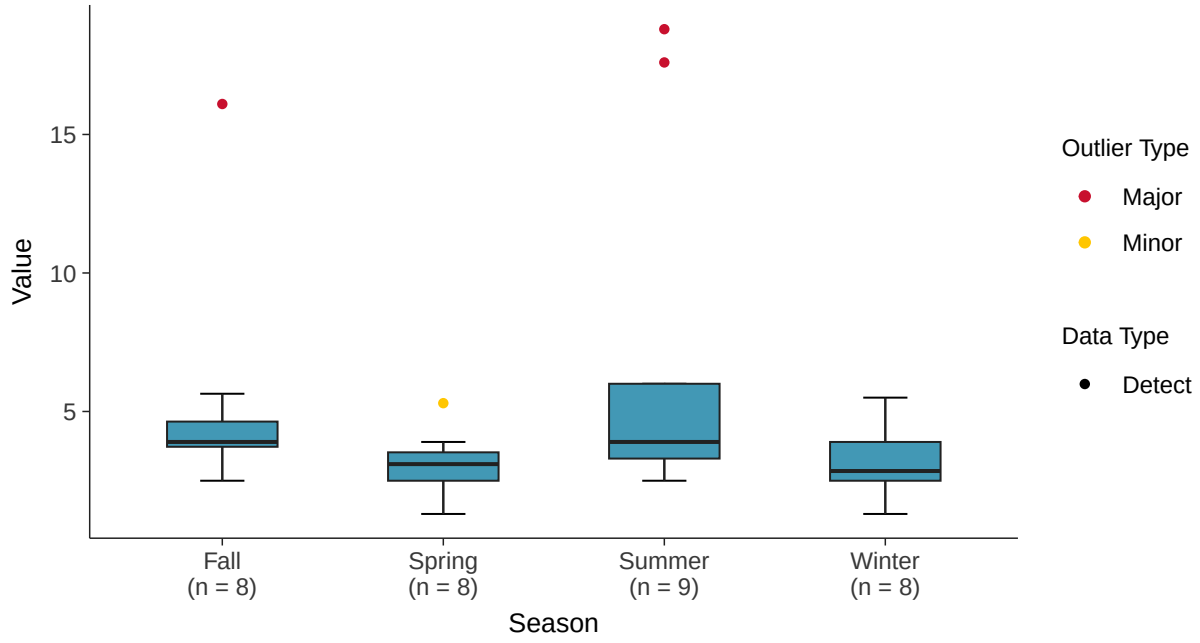
Boxplot

Vanadium, MW-7R (ug/L)



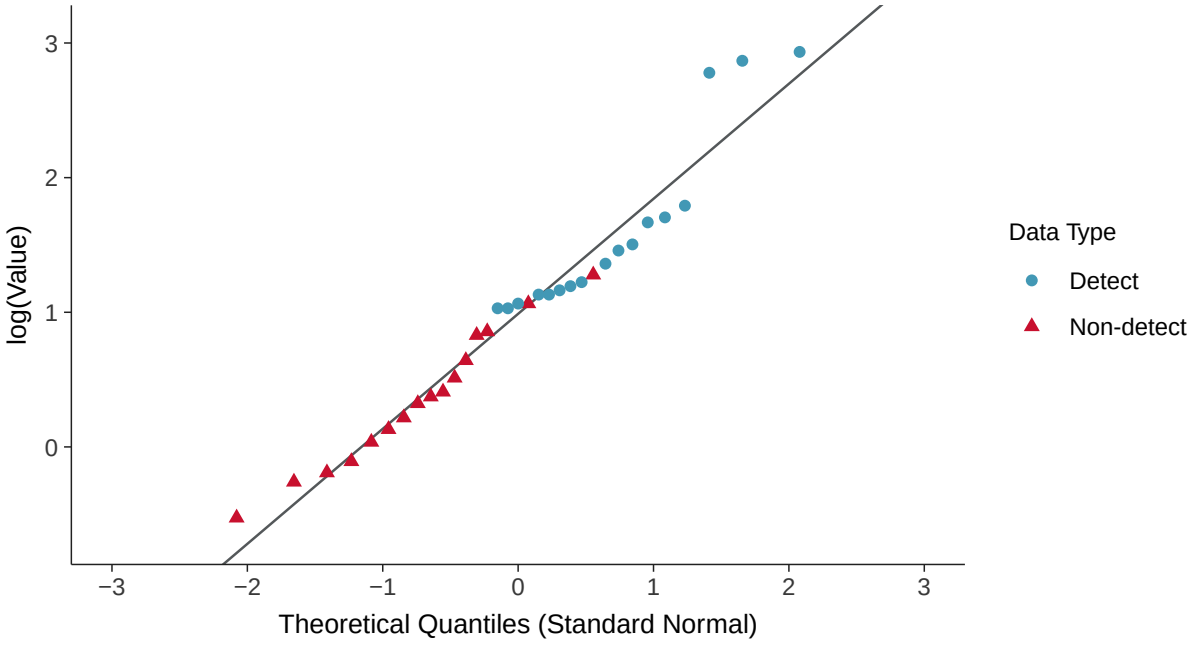
Boxplot by Season

Vanadium, MW-7R (ug/L)



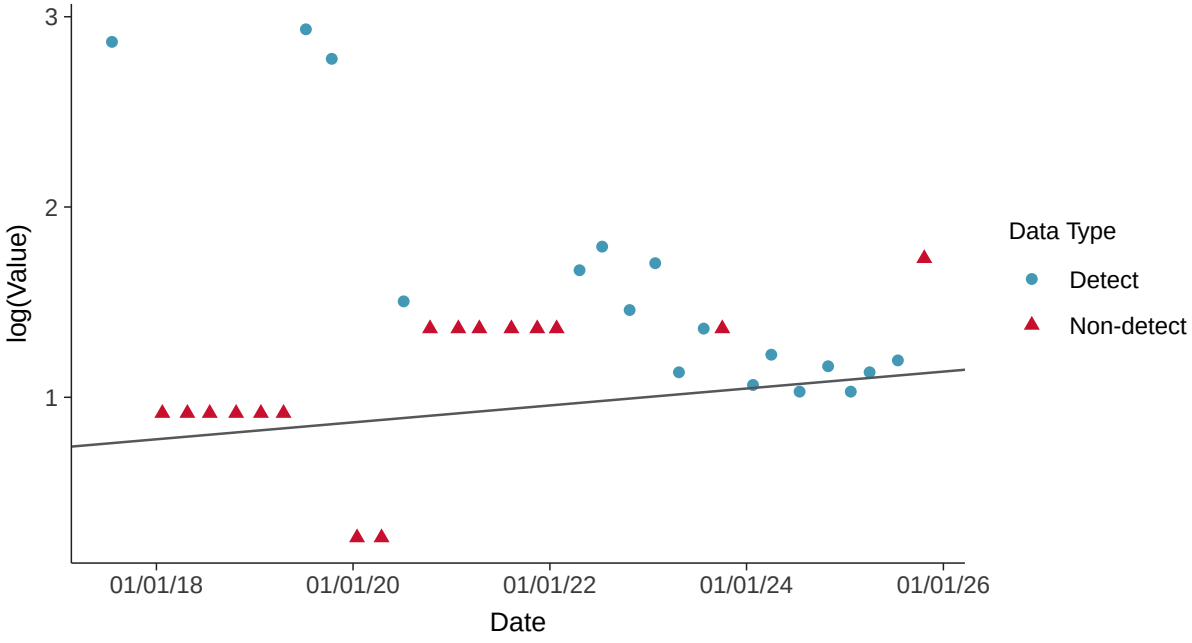
Lognormal Q-Q plot using ROS Imputed Estimates

Vanadium, MW-7R (ug/L)



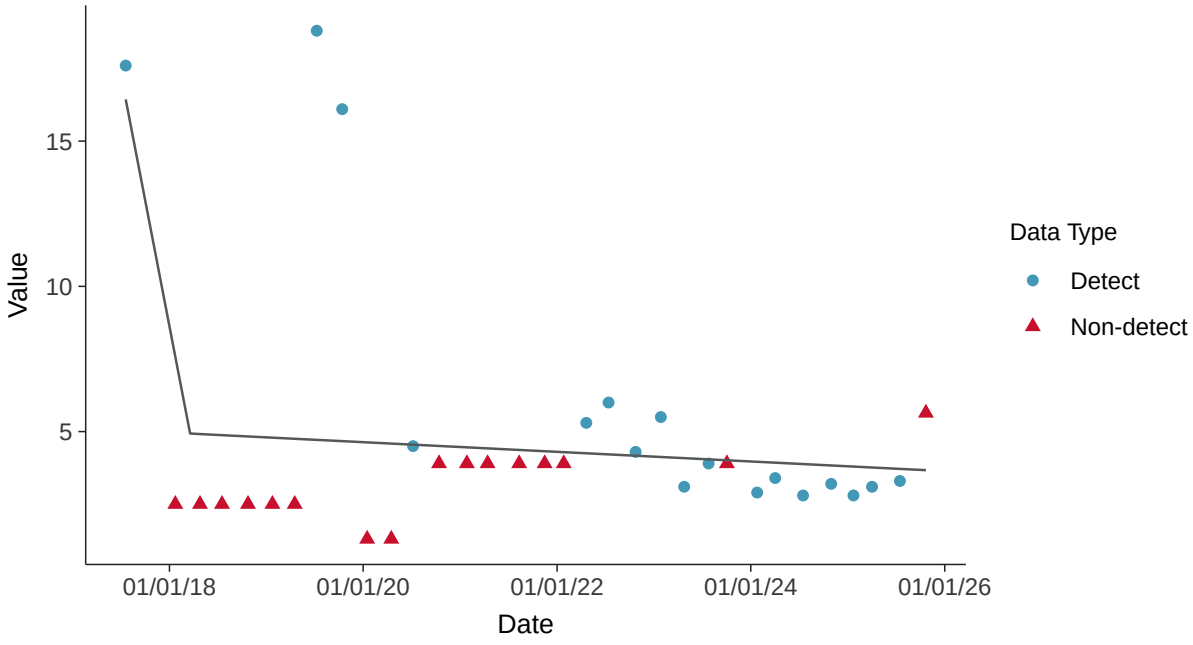
Trend Regression: Lognormal MLE

Vanadium, MW-7R (ug/L)



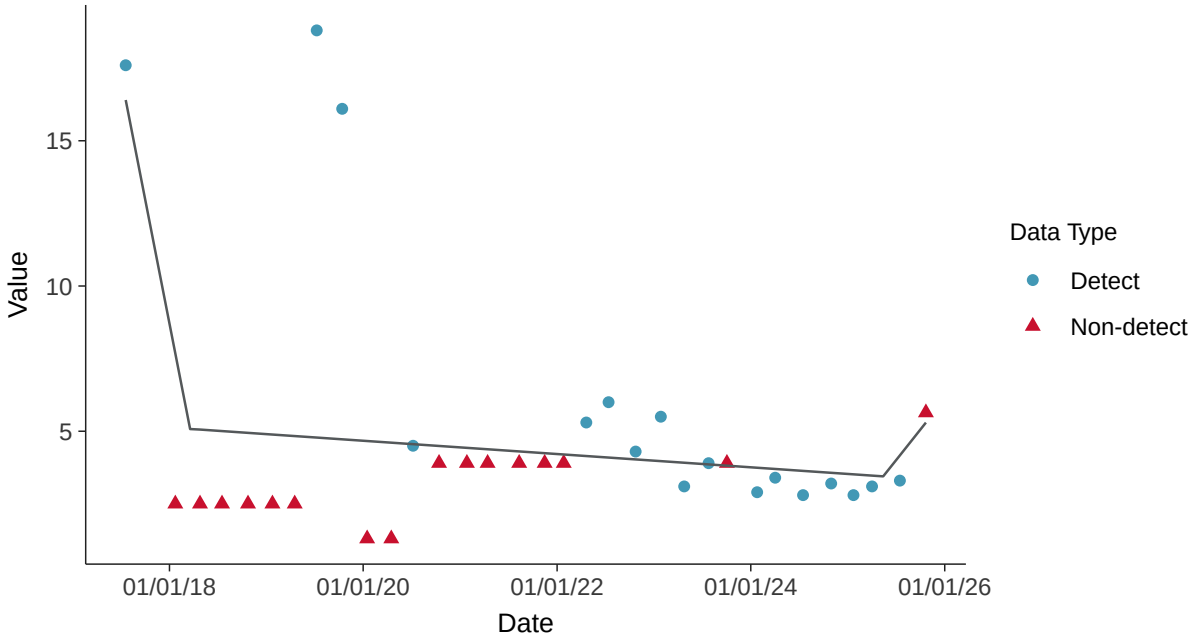
Trend Regression: Piecewise Linear-Linear

Vanadium, MW-7R (ug/L)



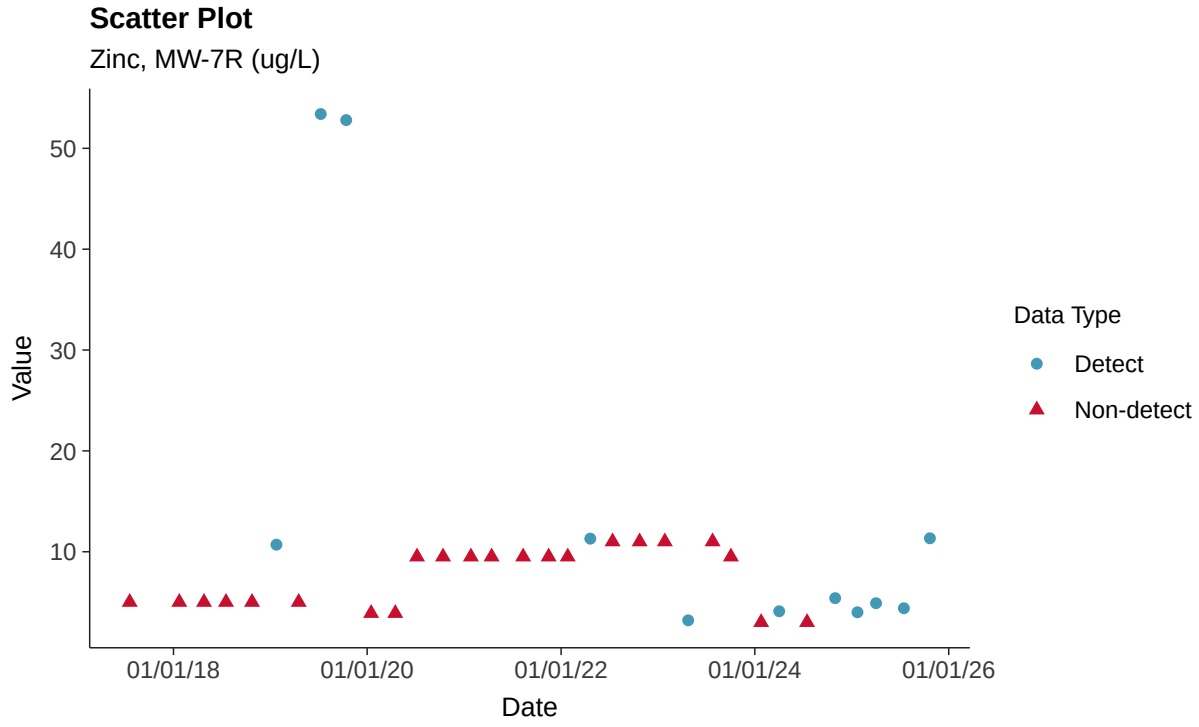
Trend Regression: Piecewise Linear-Linear-Linear

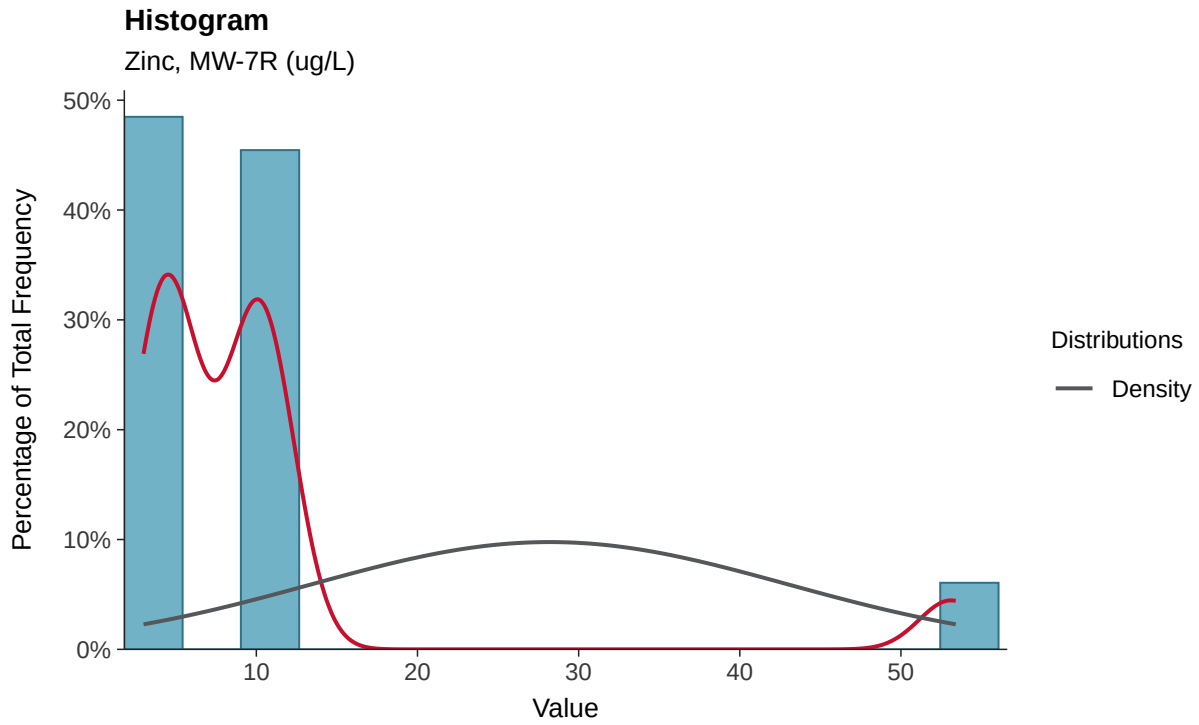
Vanadium, MW-7R (ug/L)



App. I Metals: Zinc, MW-7R

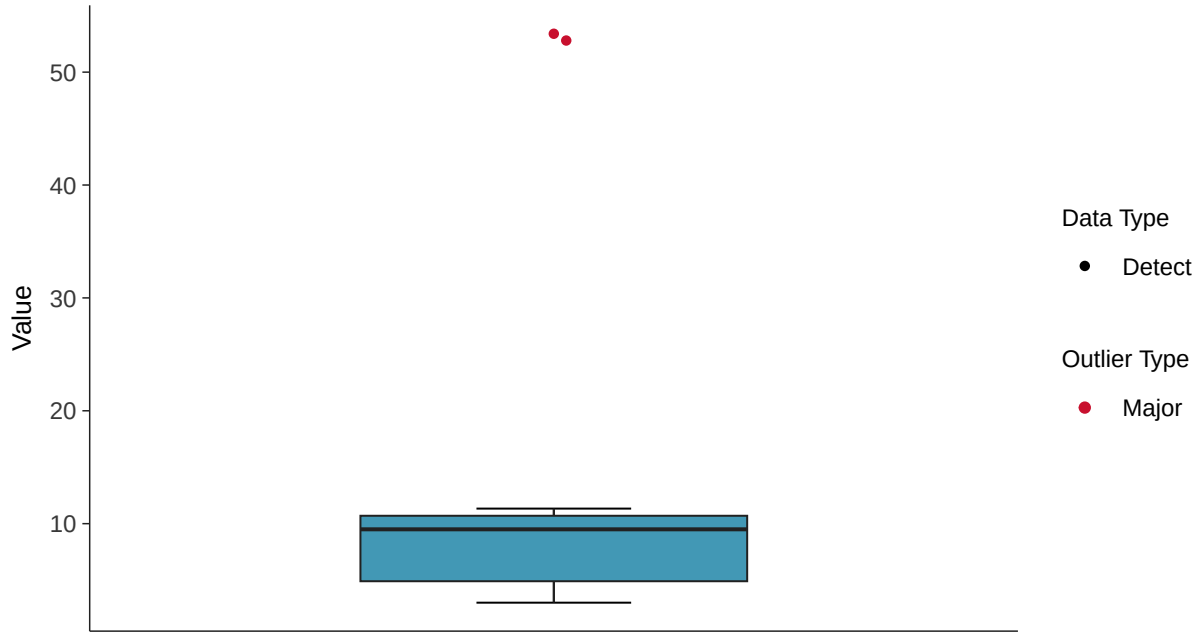
ID: 07_1_128





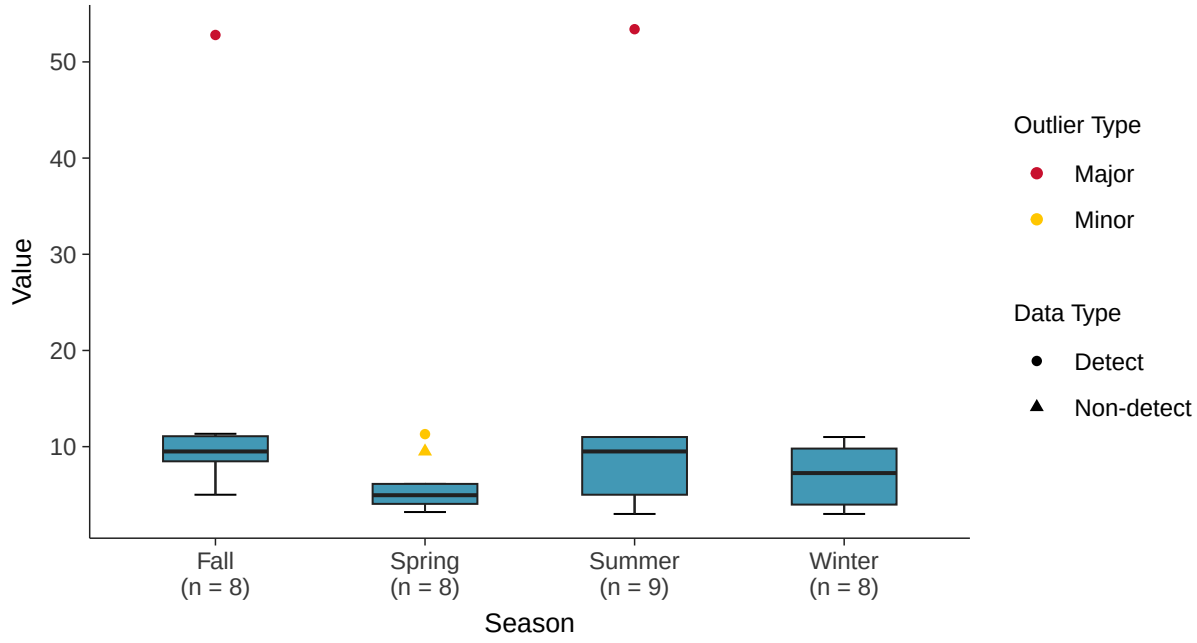
Boxplot

Zinc, MW-7R (ug/L)



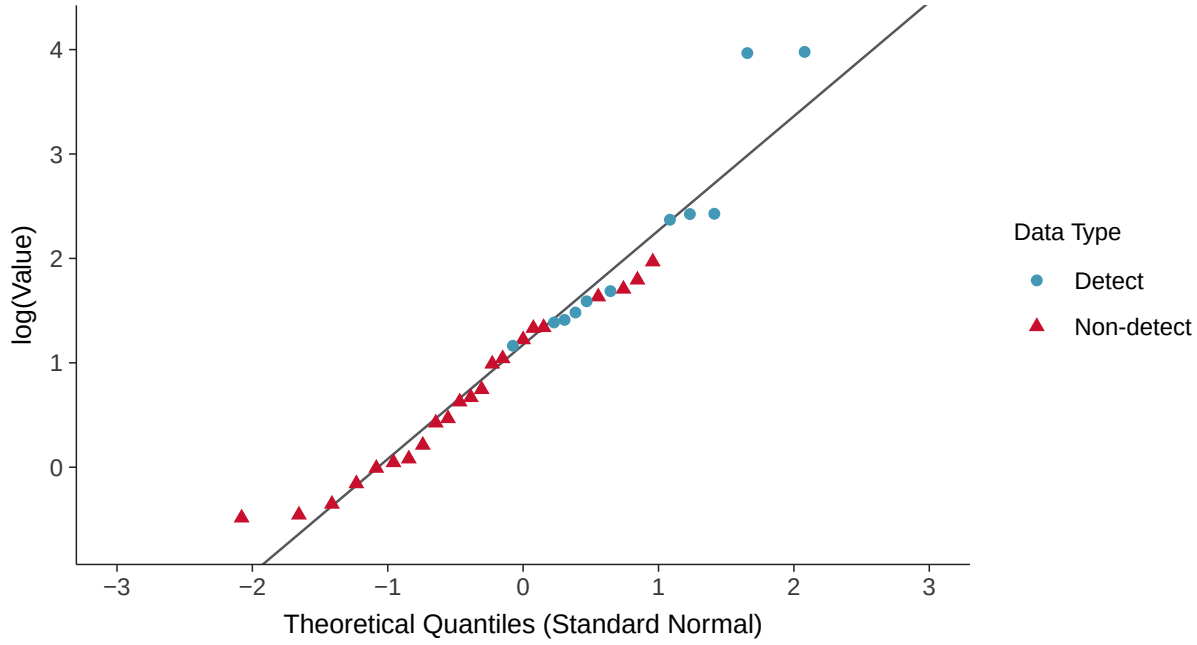
Boxplot by Season

Zinc, MW-7R (ug/L)



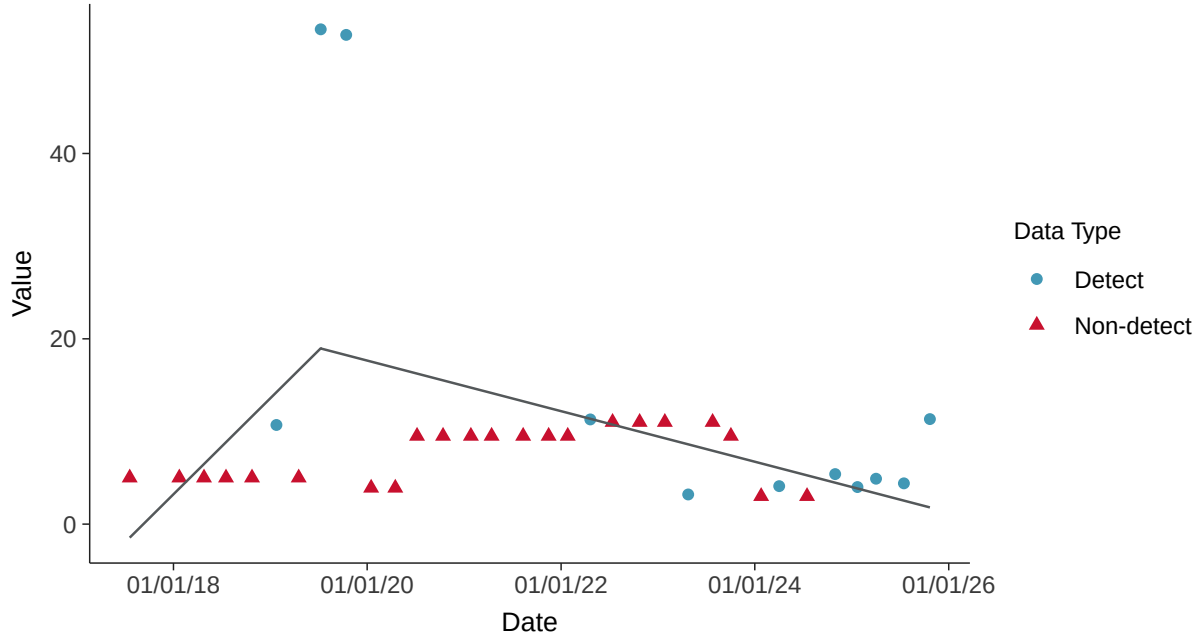
Lognormal Q-Q plot using ROS Imputed Estimates

Zinc, MW-7R (ug/L)



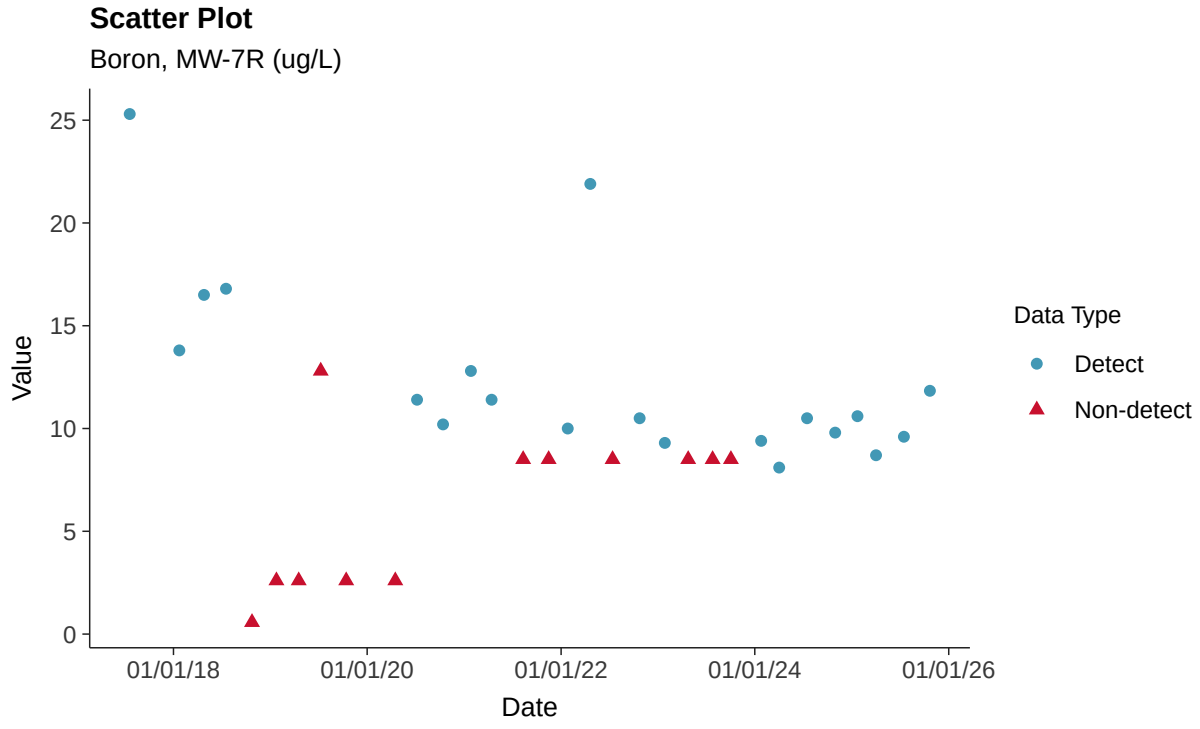
Trend Regression: Piecewise Linear-Linear

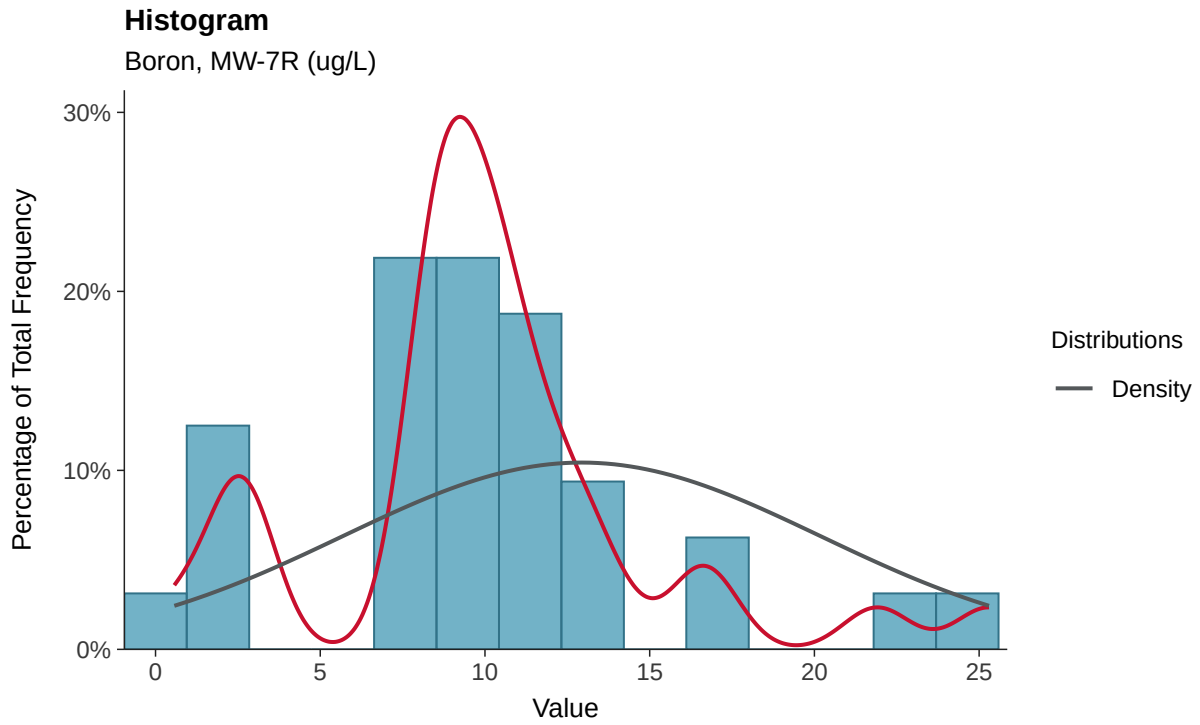
Zinc, MW-7R (ug/L)



App. III: Boron, MW-7R

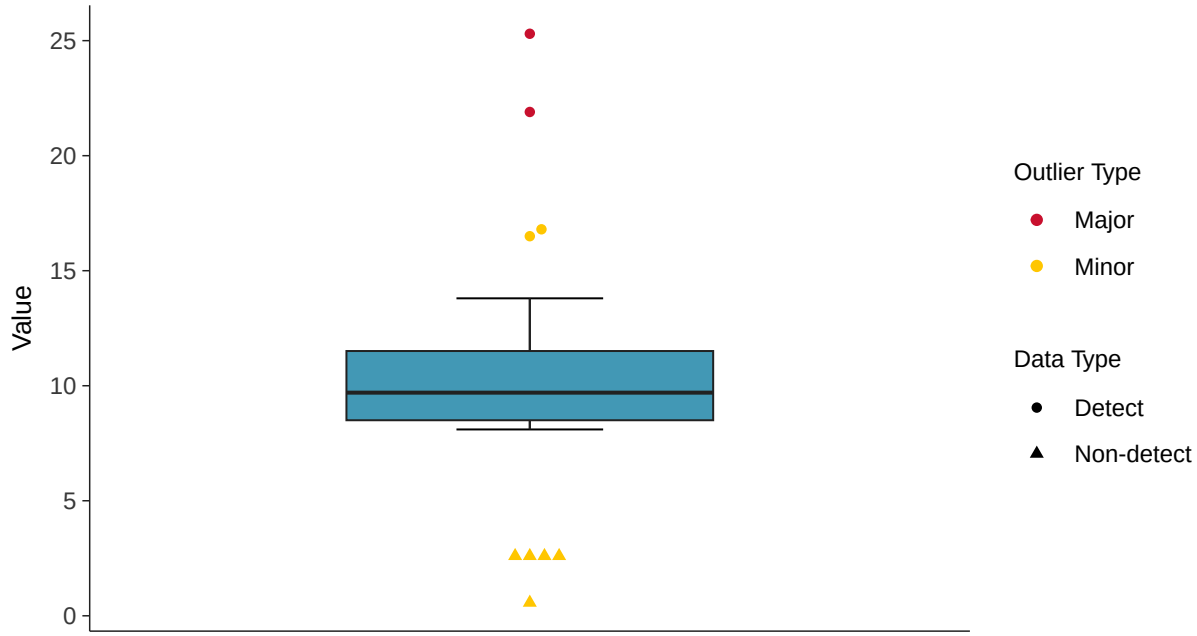
ID: 07_2_105





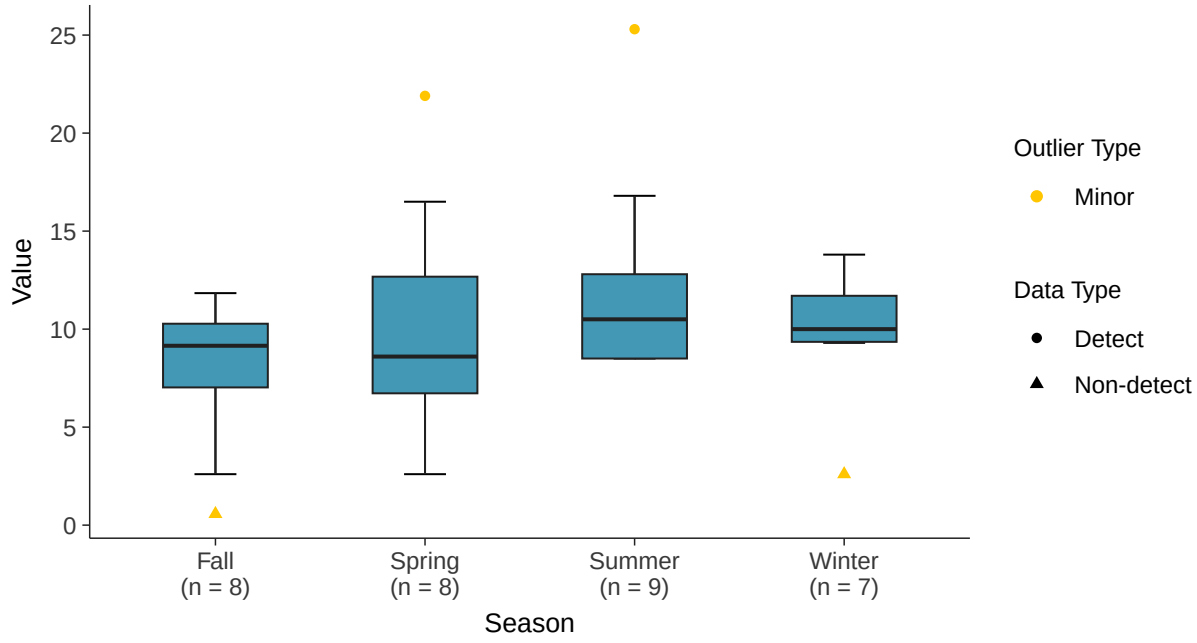
Boxplot

Boron, MW-7R (ug/L)



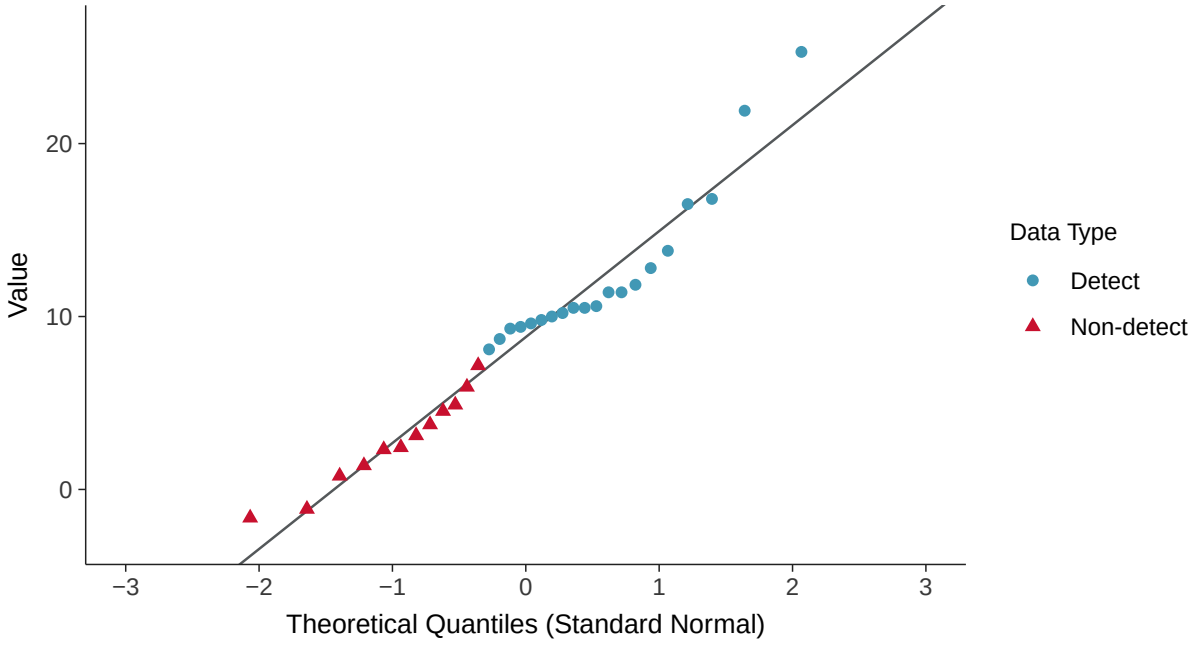
Boxplot by Season

Boron, MW-7R (ug/L)



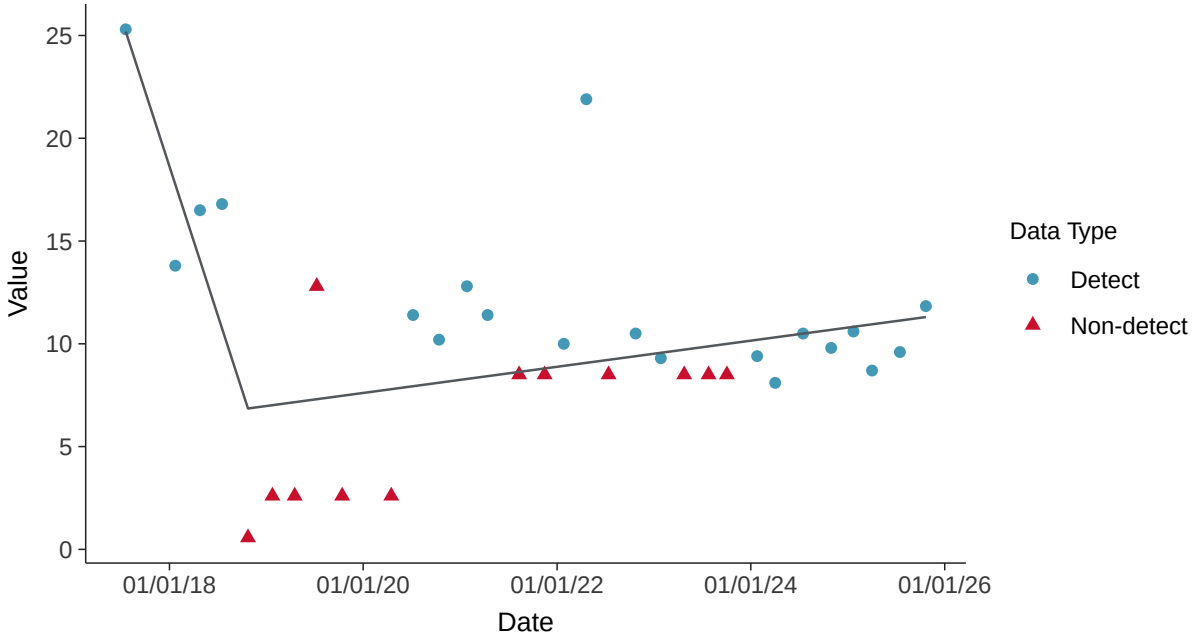
Normal Q-Q plot using ROS Imputed Estimates

Boron, MW-7R (ug/L)



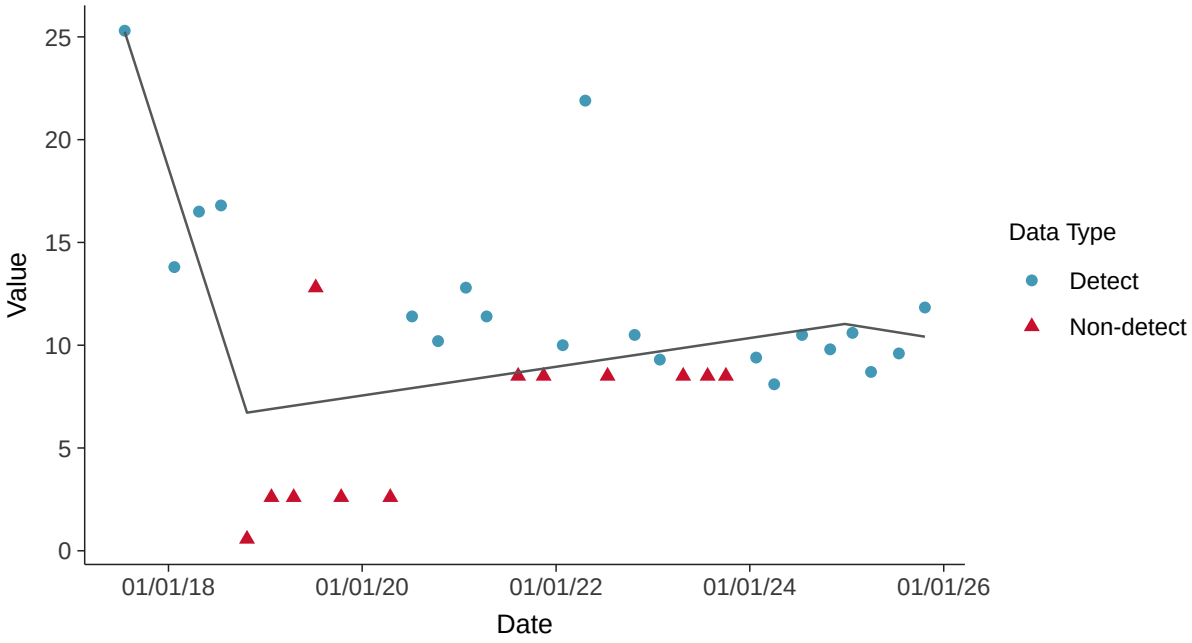
Trend Regression: Piecewise Linear-Linear

Boron, MW-7R (ug/L)



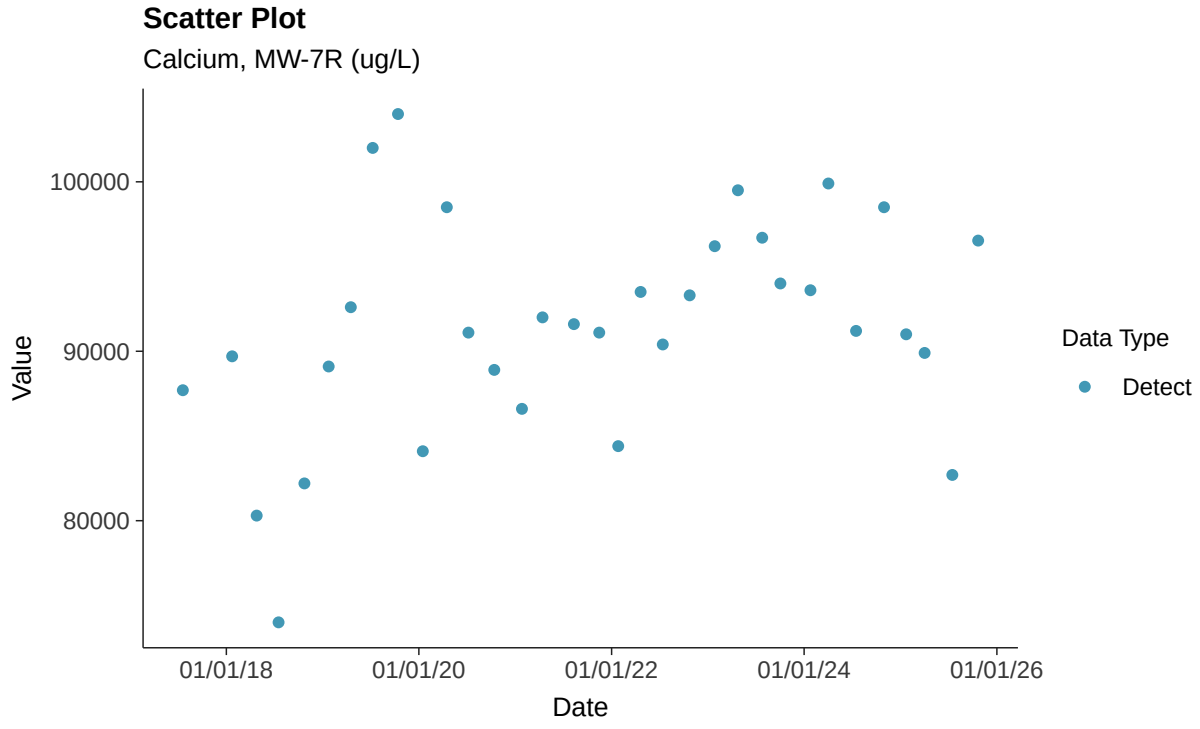
Trend Regression: Piecewise Linear-Linear-Linear

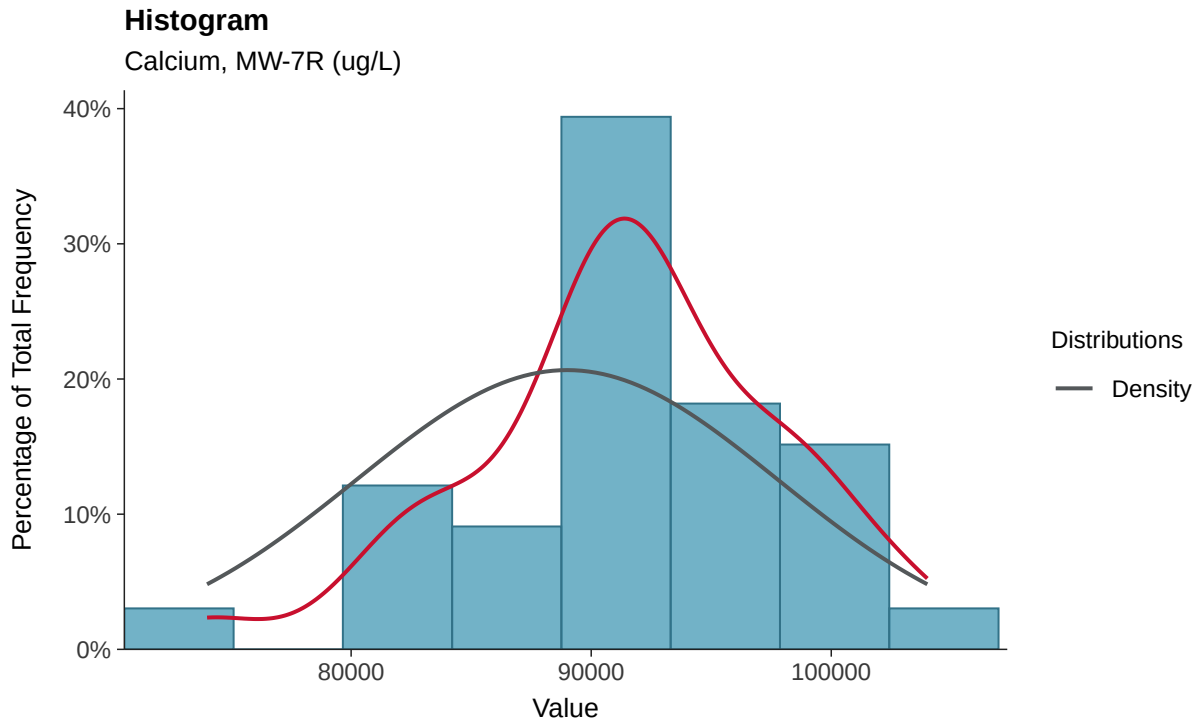
Boron, MW-7R (ug/L)



App. III: Calcium, MW-7R

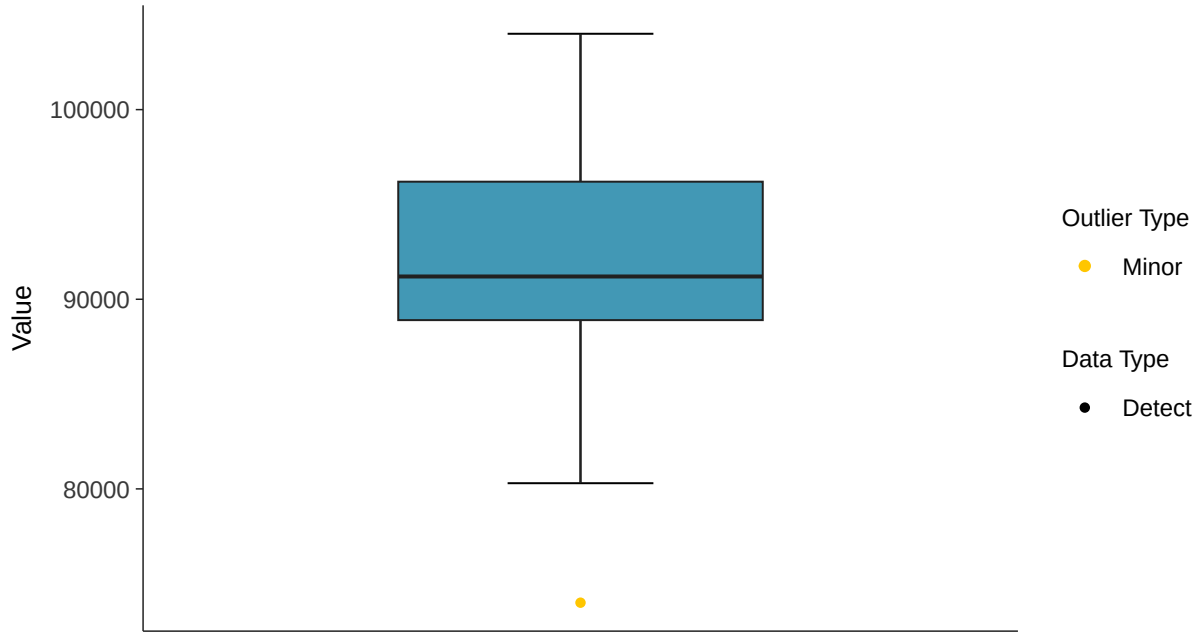
ID: 07_2_107





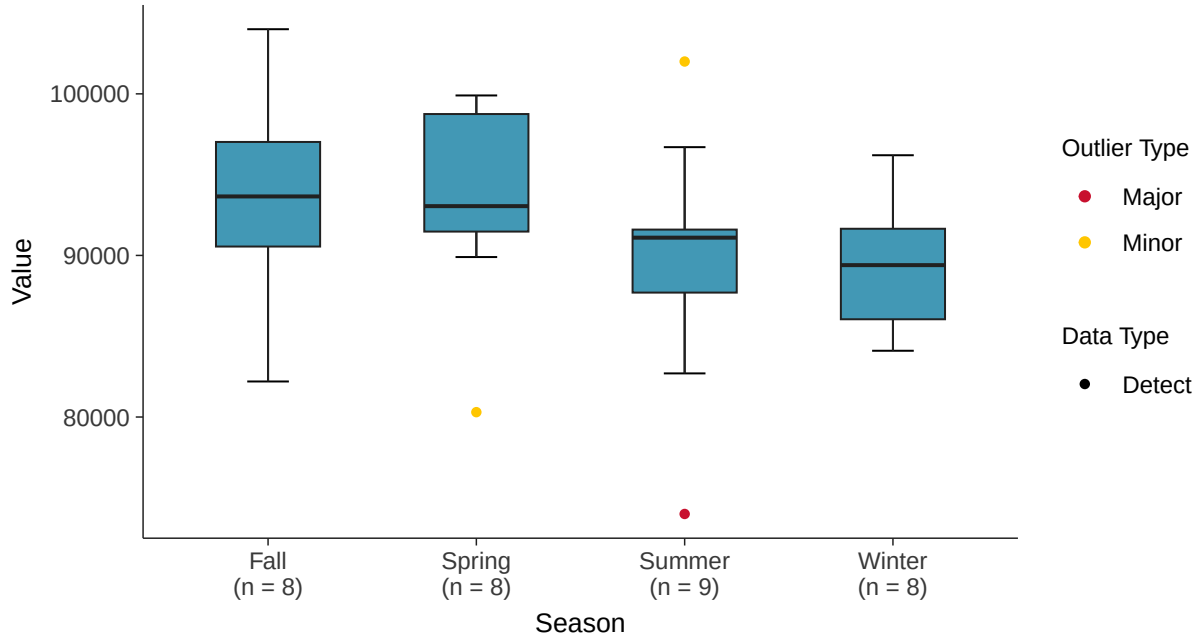
Boxplot

Calcium, MW-7R (ug/L)



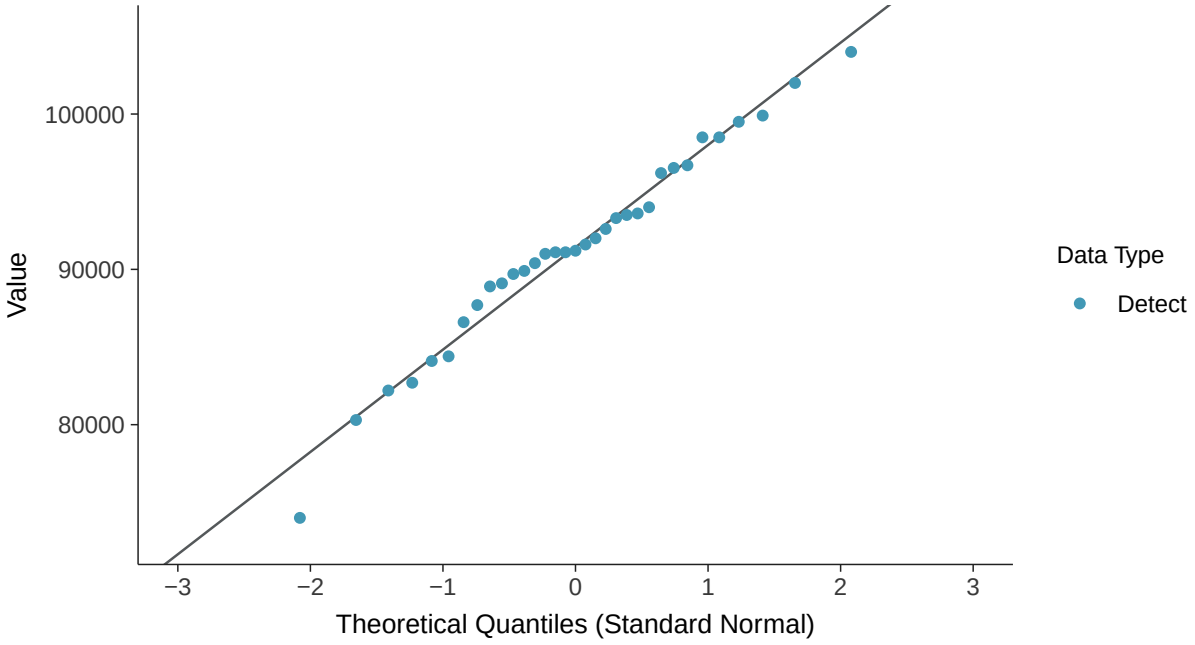
Boxplot by Season

Calcium, MW-7R (ug/L)



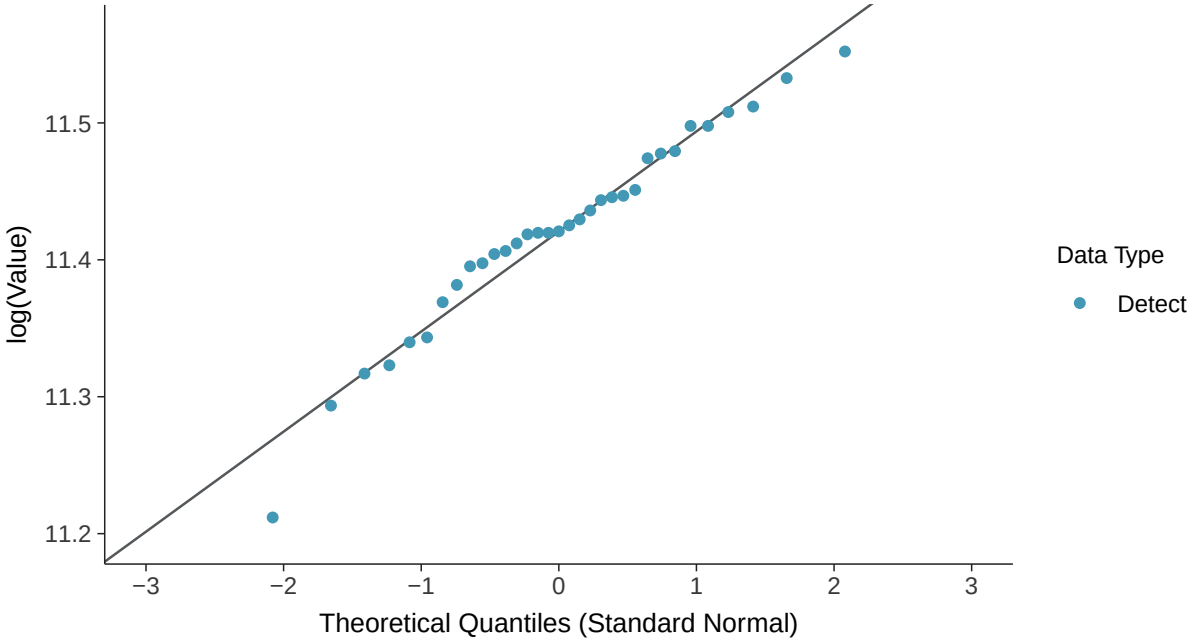
Normal Q-Q plot

Calcium, MW-7R (ug/L)



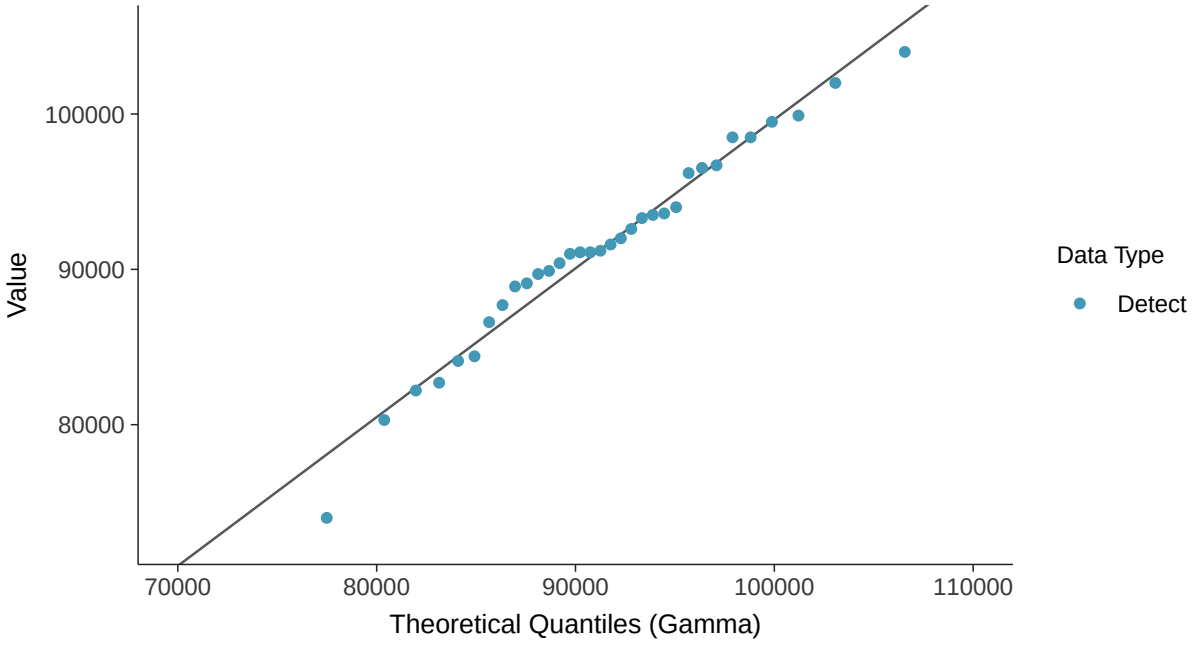
Lognormal Q-Q plot

Calcium, MW-7R (ug/L)



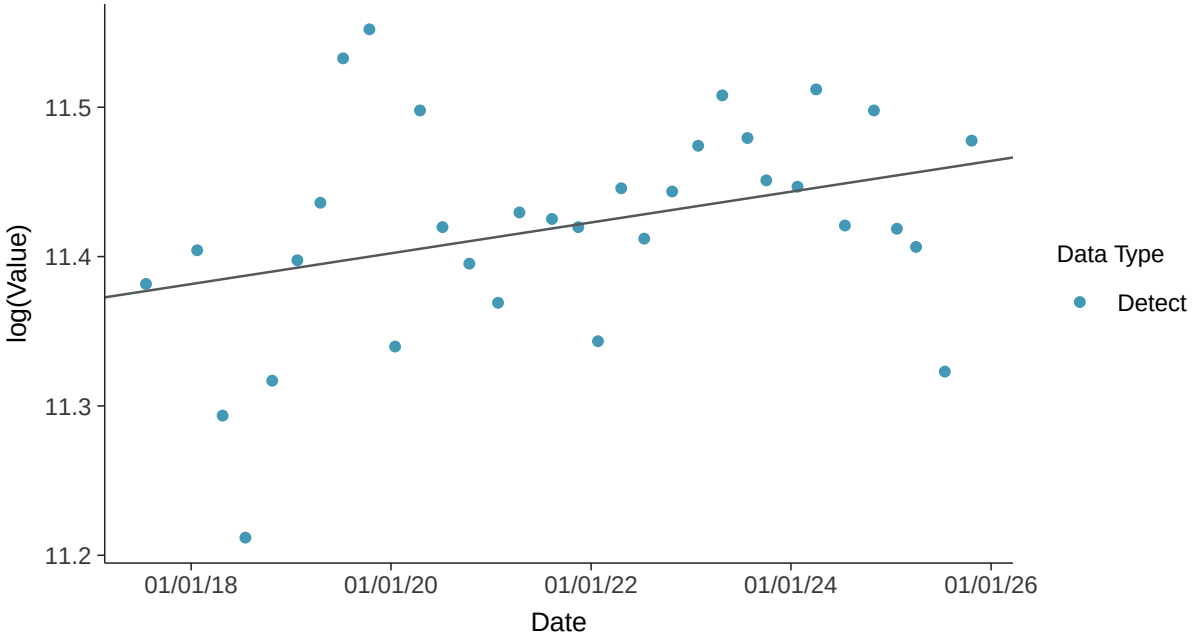
Gamma Q-Q plot

Calcium, MW-7R (ug/L)



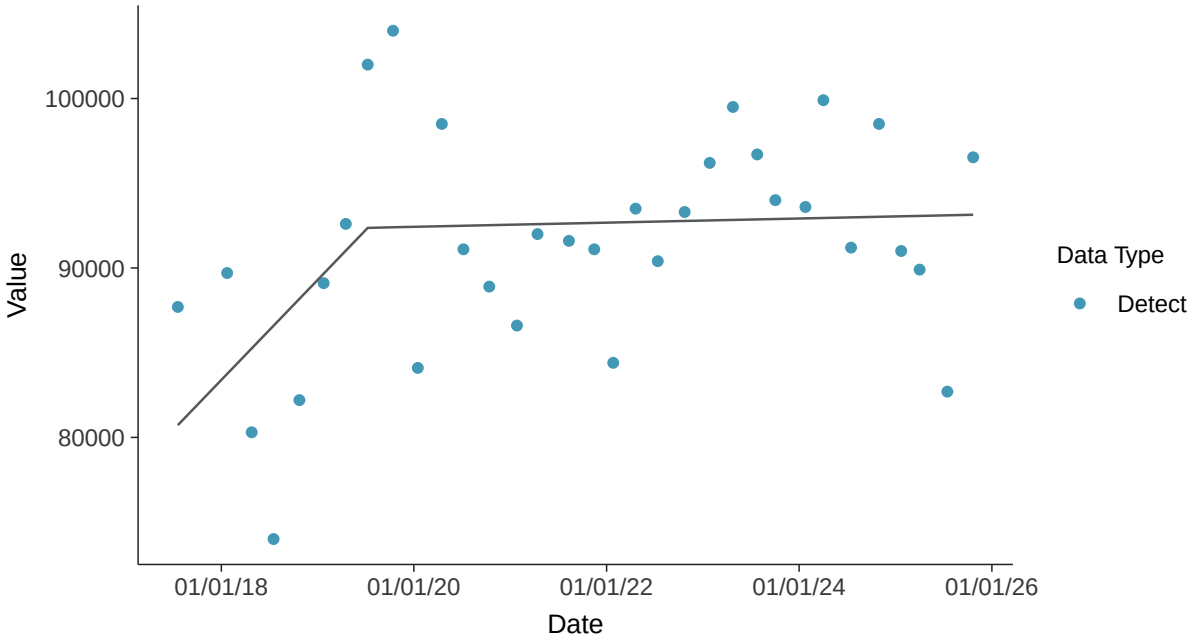
Trend Regression: Lognormal MLE

Calcium, MW-7R (ug/L)



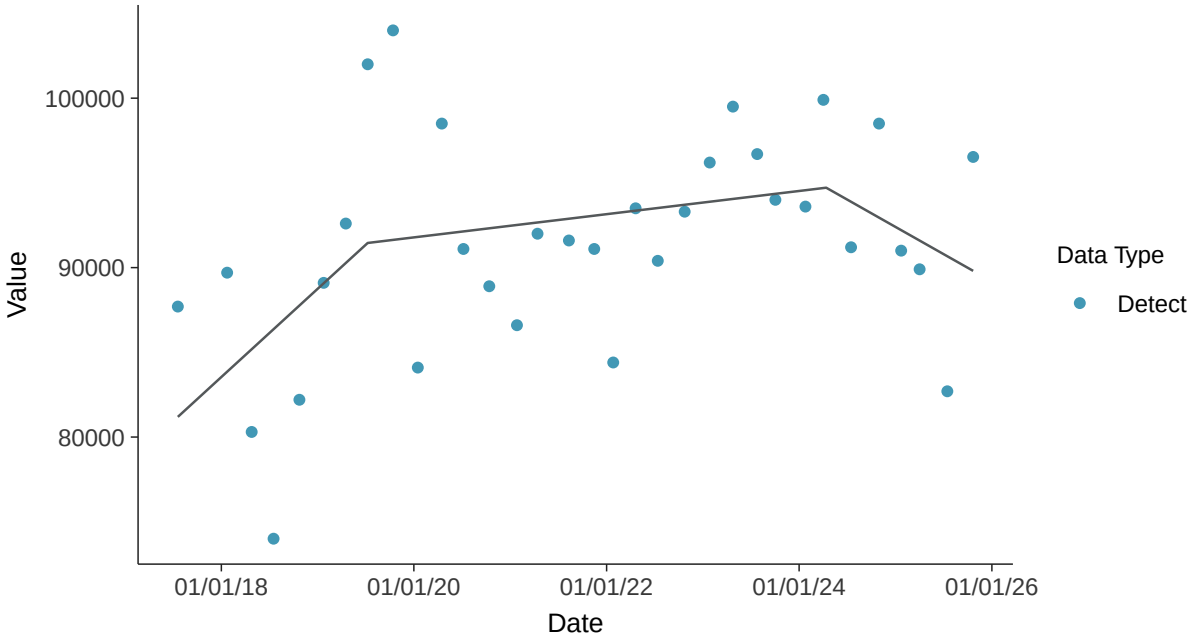
Trend Regression: Piecewise Linear-Linear

Calcium, MW-7R (ug/L)



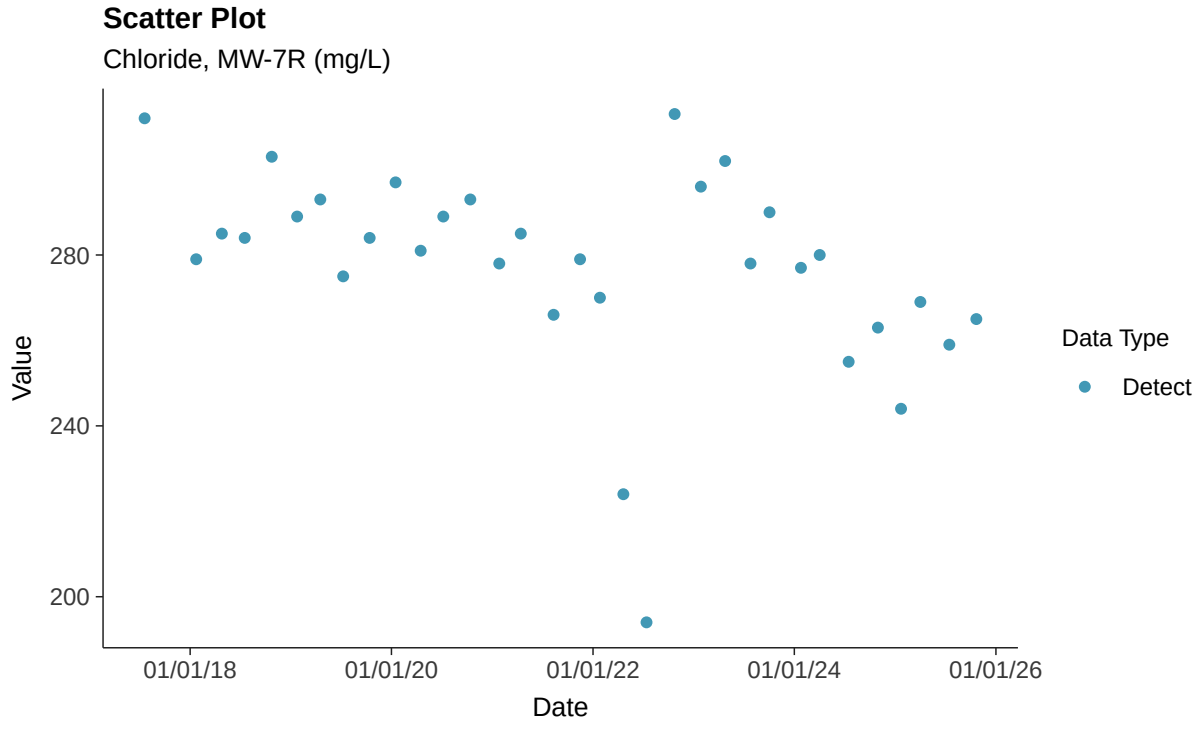
Trend Regression: Piecewise Linear-Linear-Linear

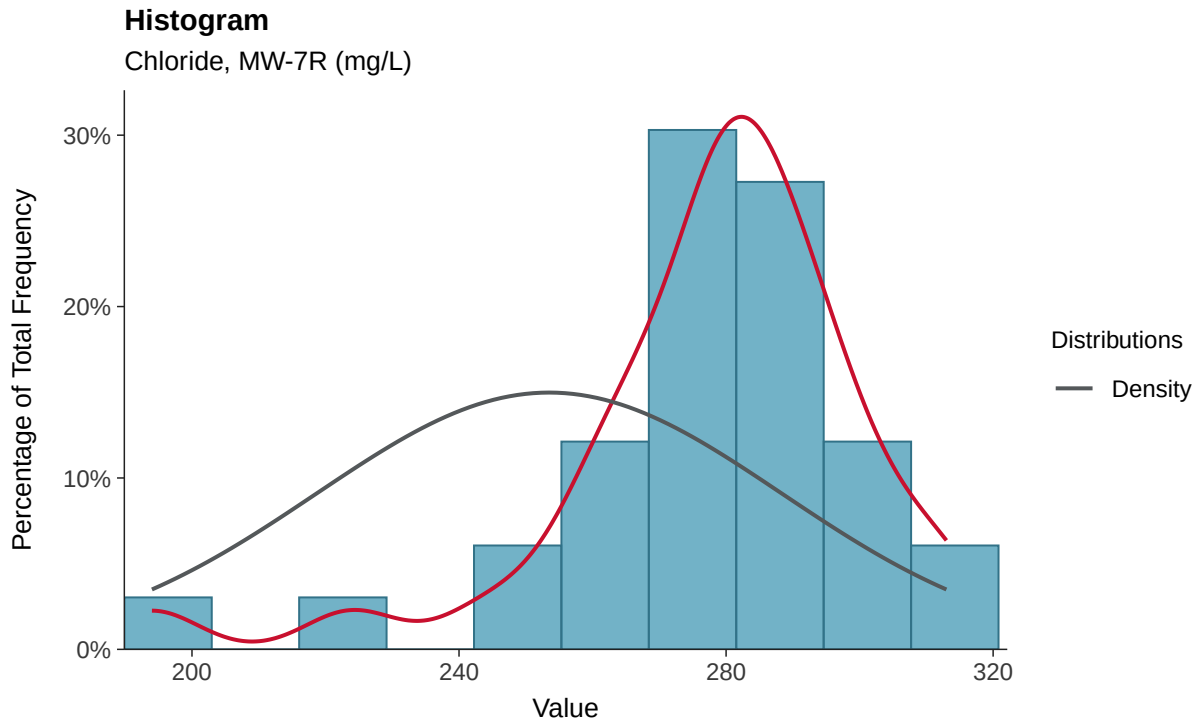
Calcium, MW-7R (ug/L)



App. III: Chloride, MW-7R

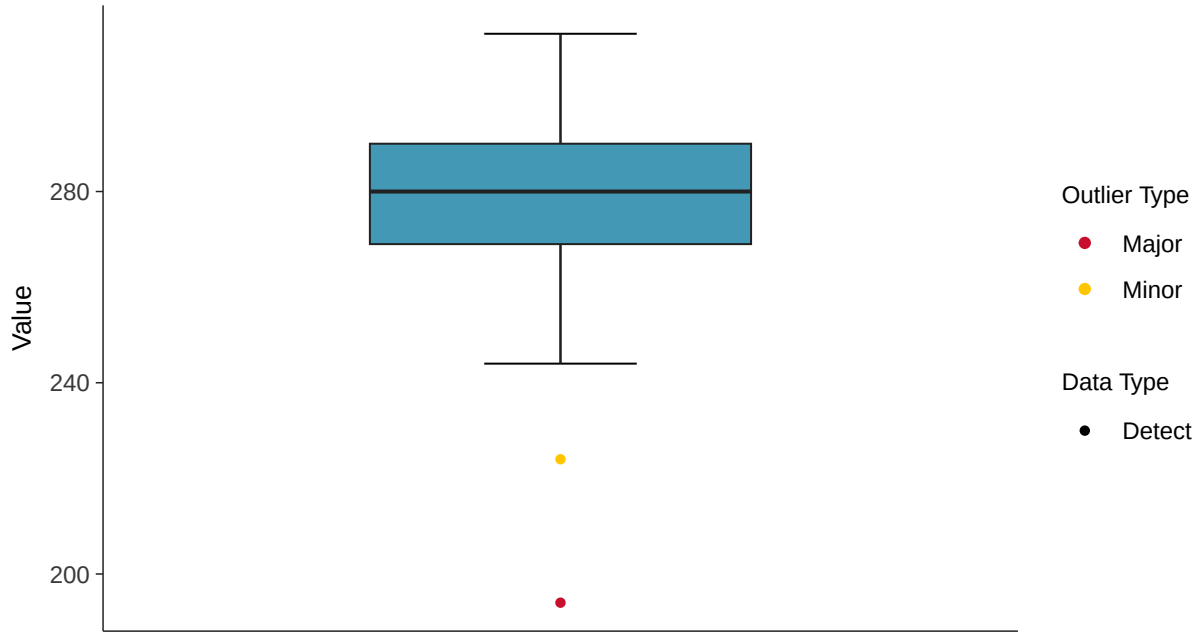
ID: 07_2_108





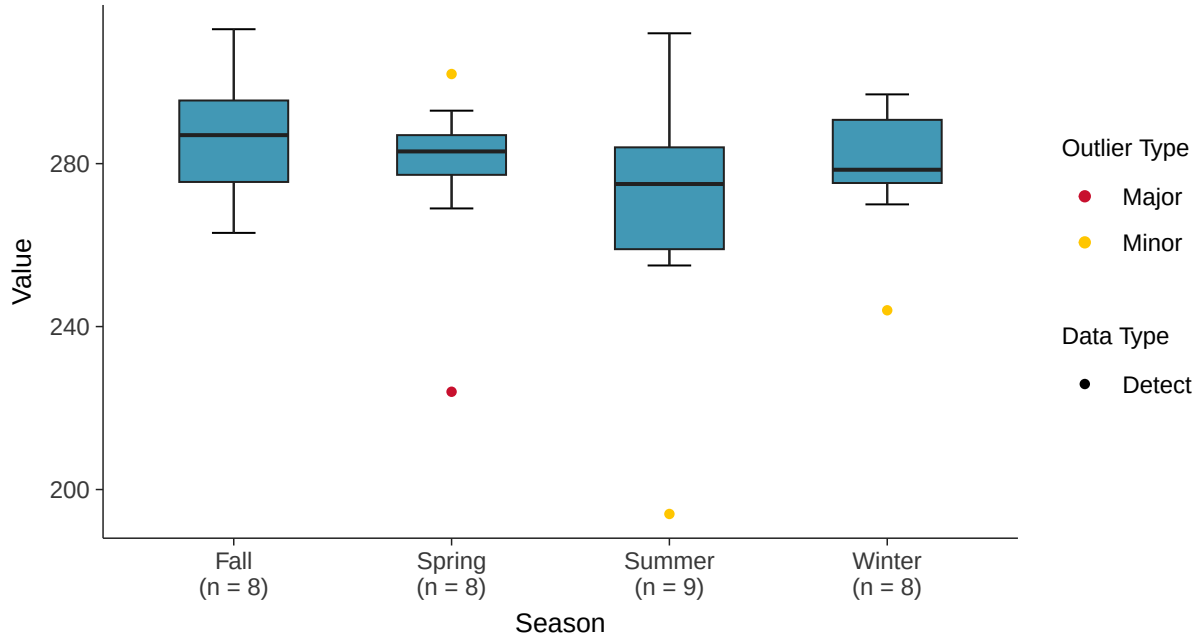
Boxplot

Chloride, MW-7R (mg/L)



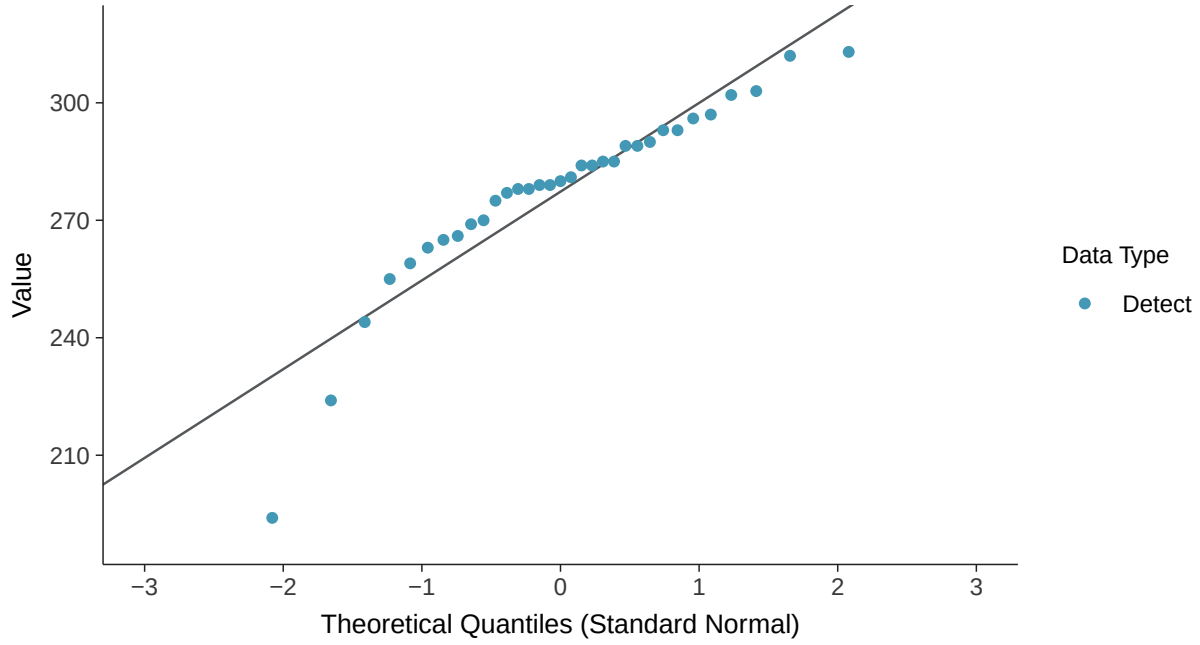
Boxplot by Season

Chloride, MW-7R (mg/L)



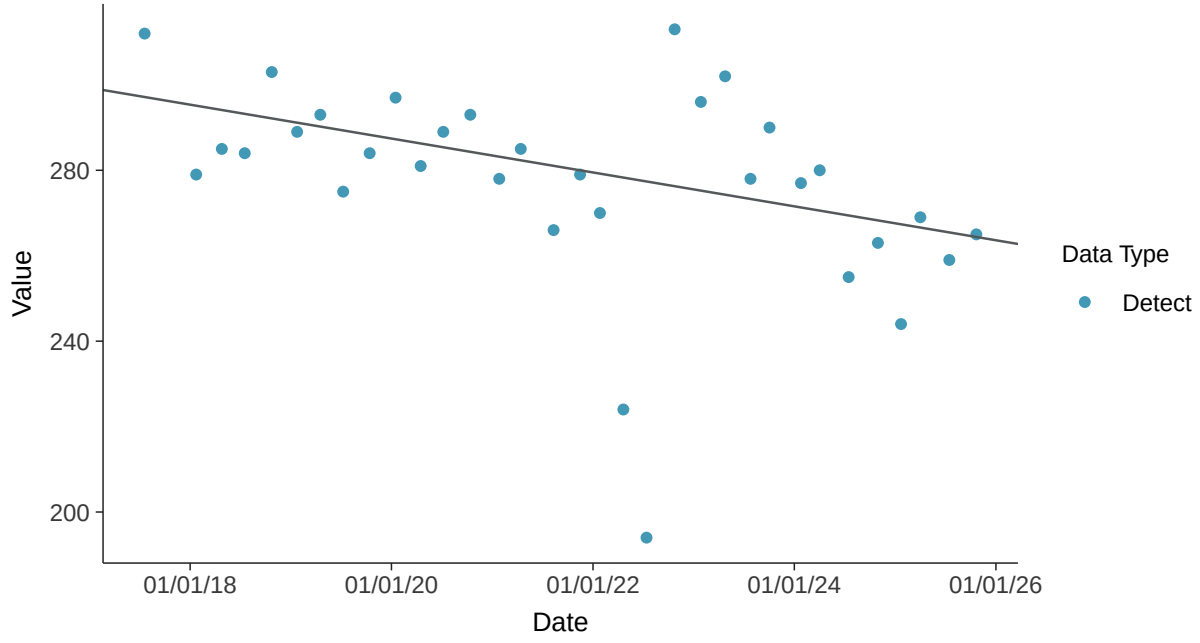
Normal Q-Q plot

Chloride, MW-7R (mg/L)



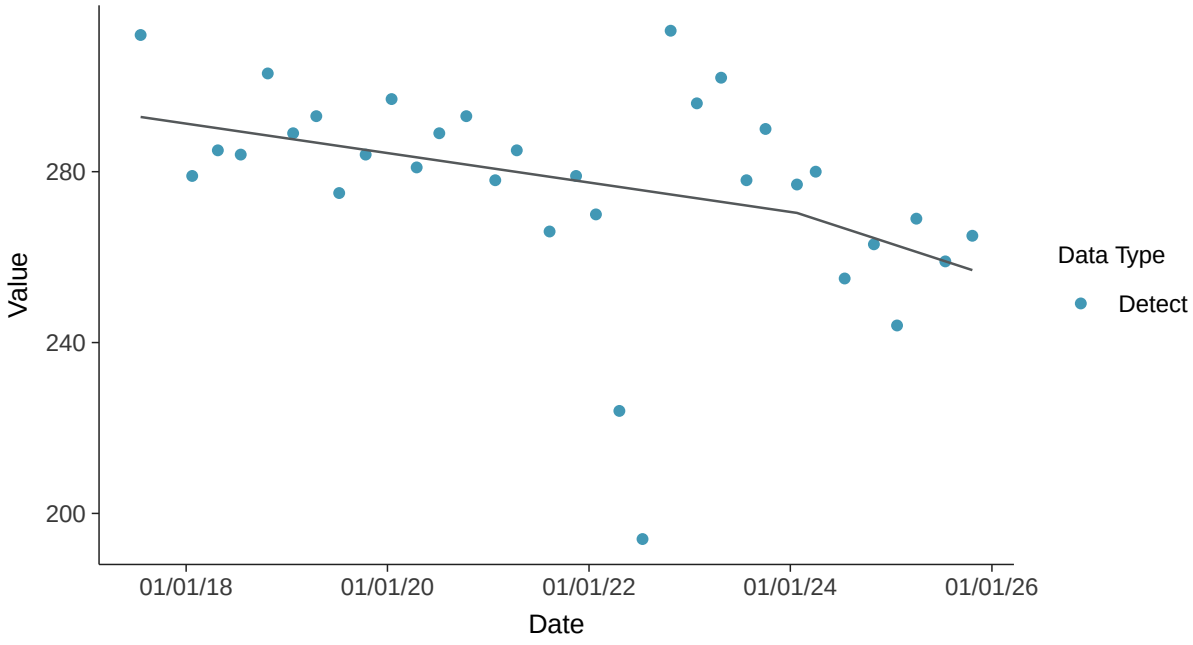
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Chloride, MW-7R (mg/L)



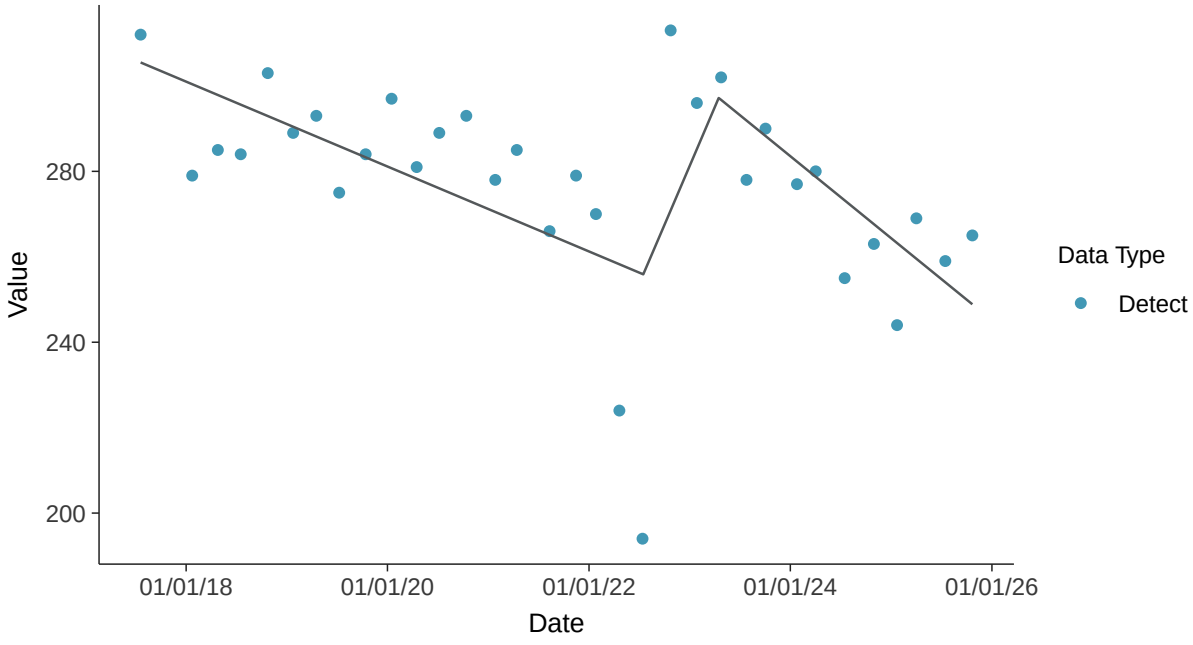
Trend Regression: Piecewise Linear-Linear

Chloride, MW-7R (mg/L)



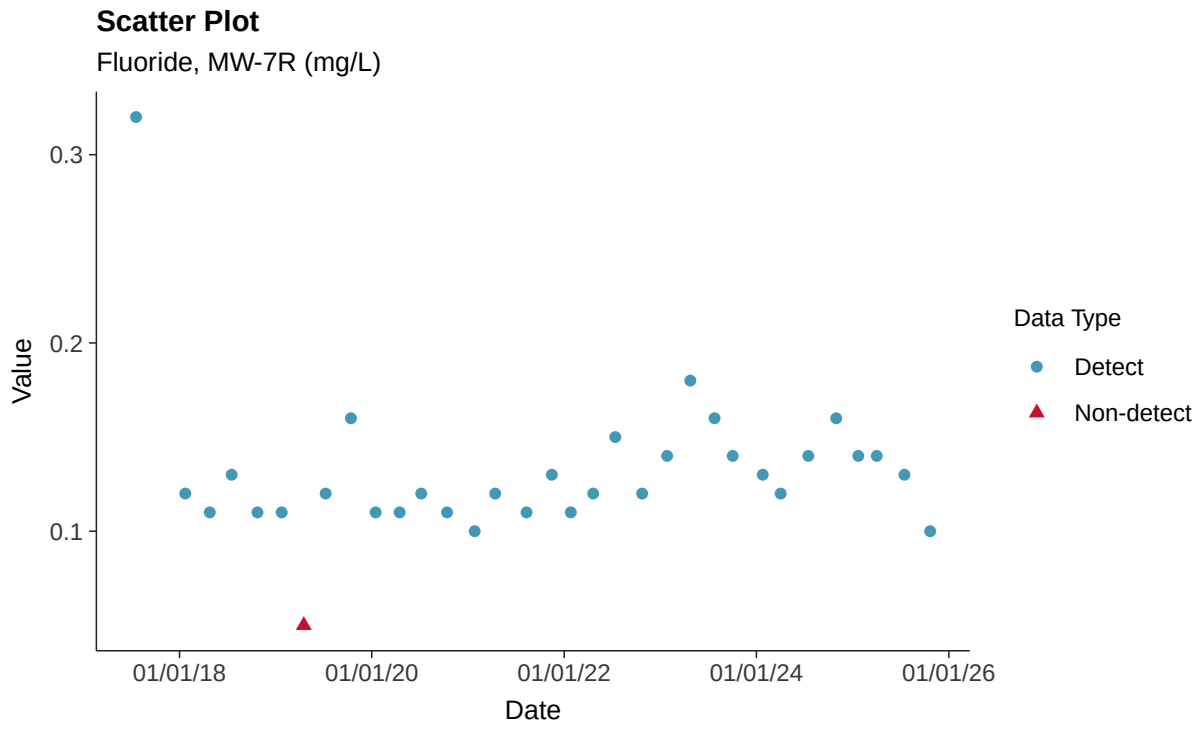
Trend Regression: Piecewise Linear-Linear-Linear

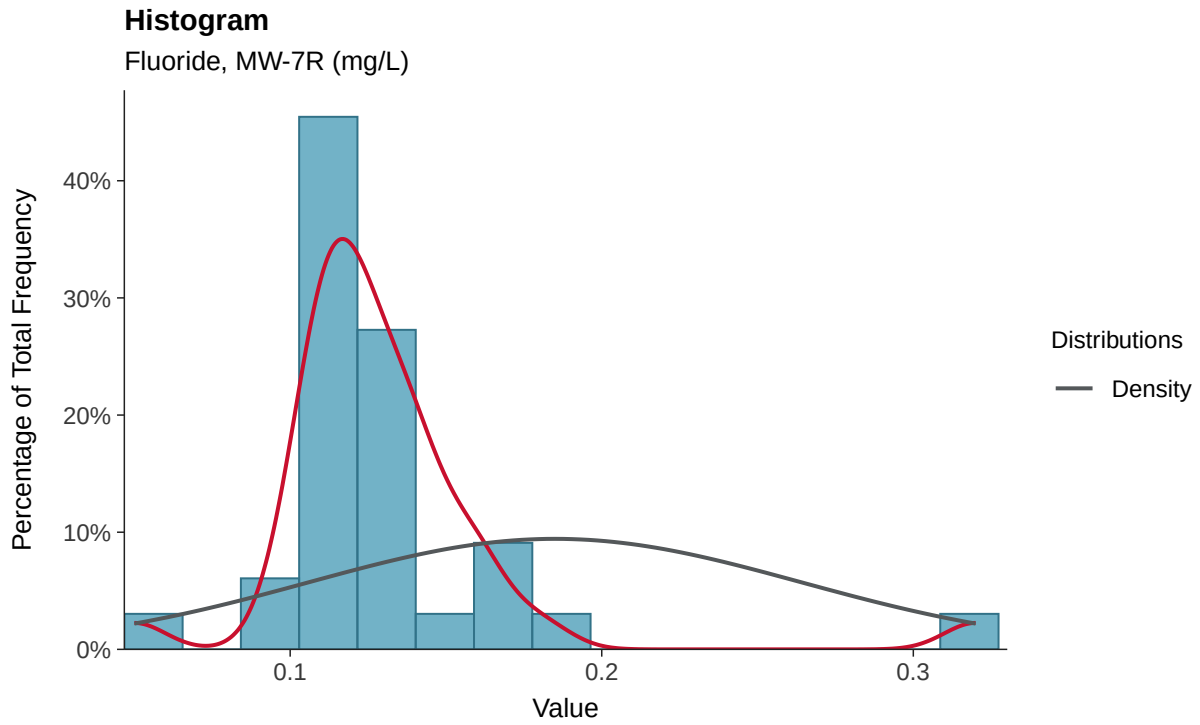
Chloride, MW-7R (mg/L)



App. III: Fluoride, MW-7R

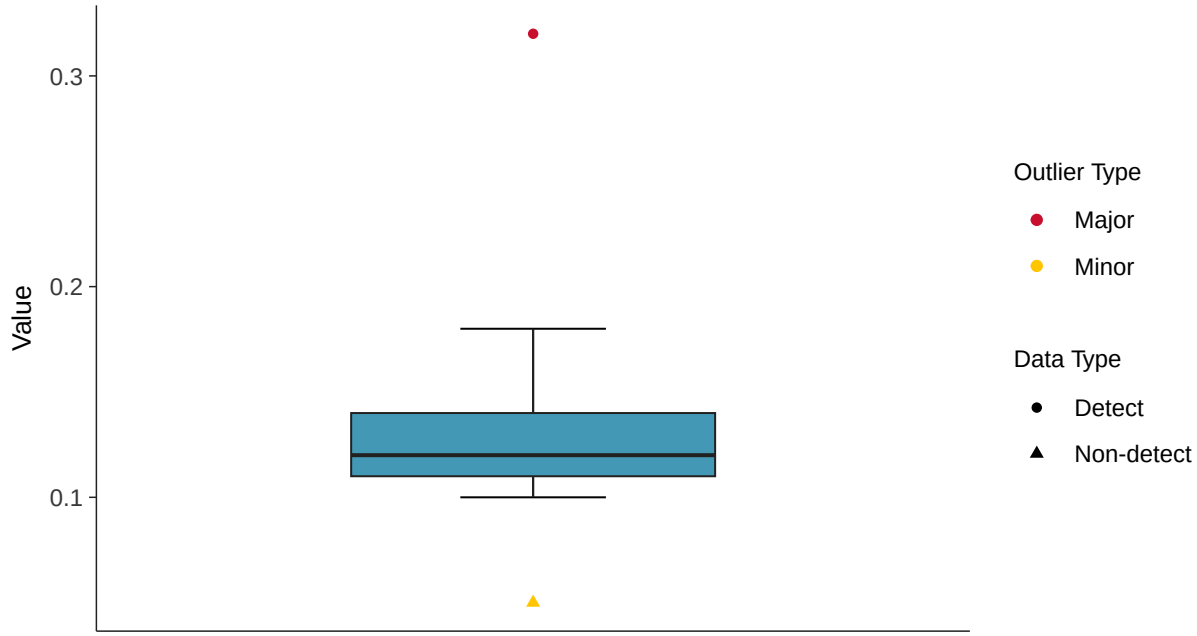
ID: 07_2_112





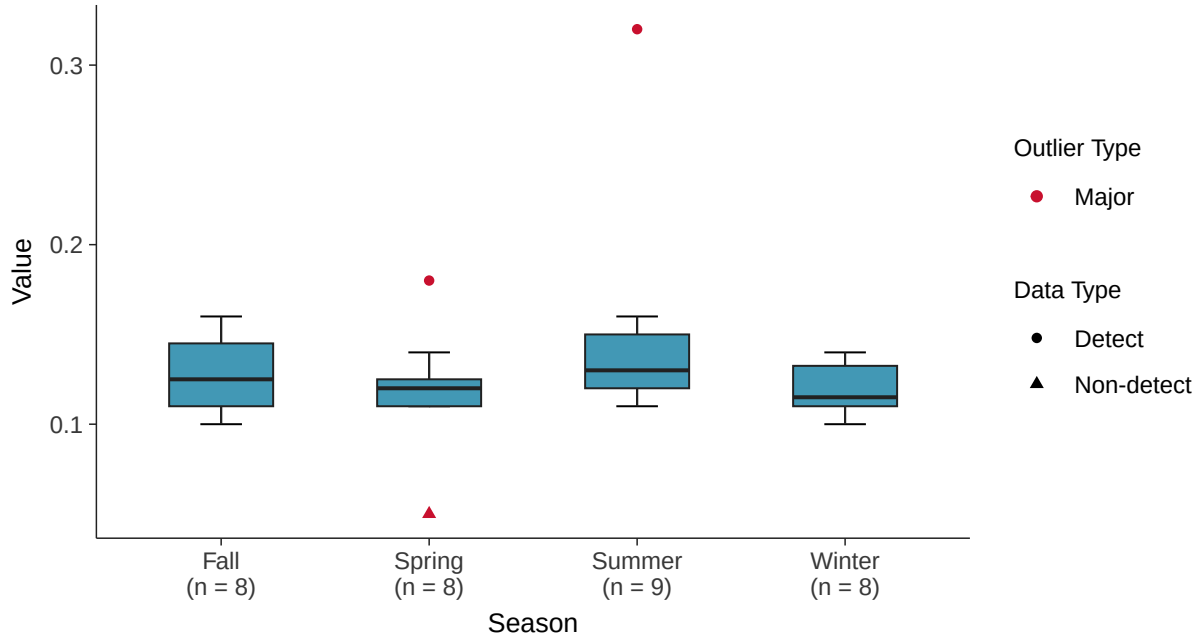
Boxplot

Fluoride, MW-7R (mg/L)



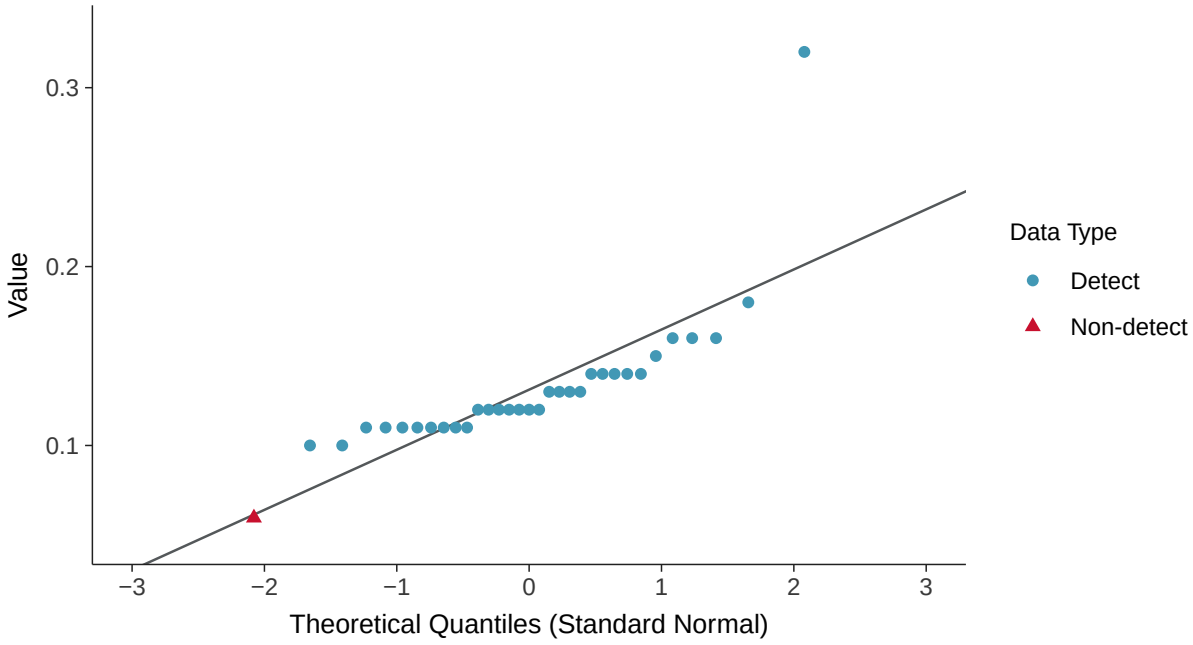
Boxplot by Season

Fluoride, MW-7R (mg/L)



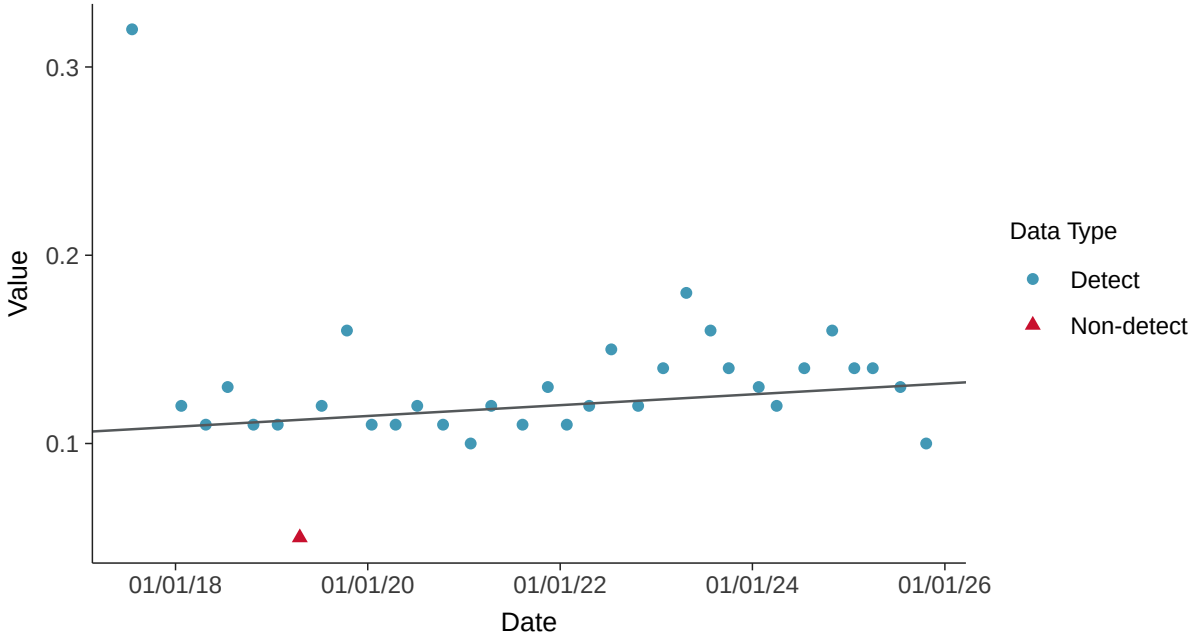
Normal Q-Q plot using ROS Imputed Estimates

Fluoride, MW-7R (mg/L)



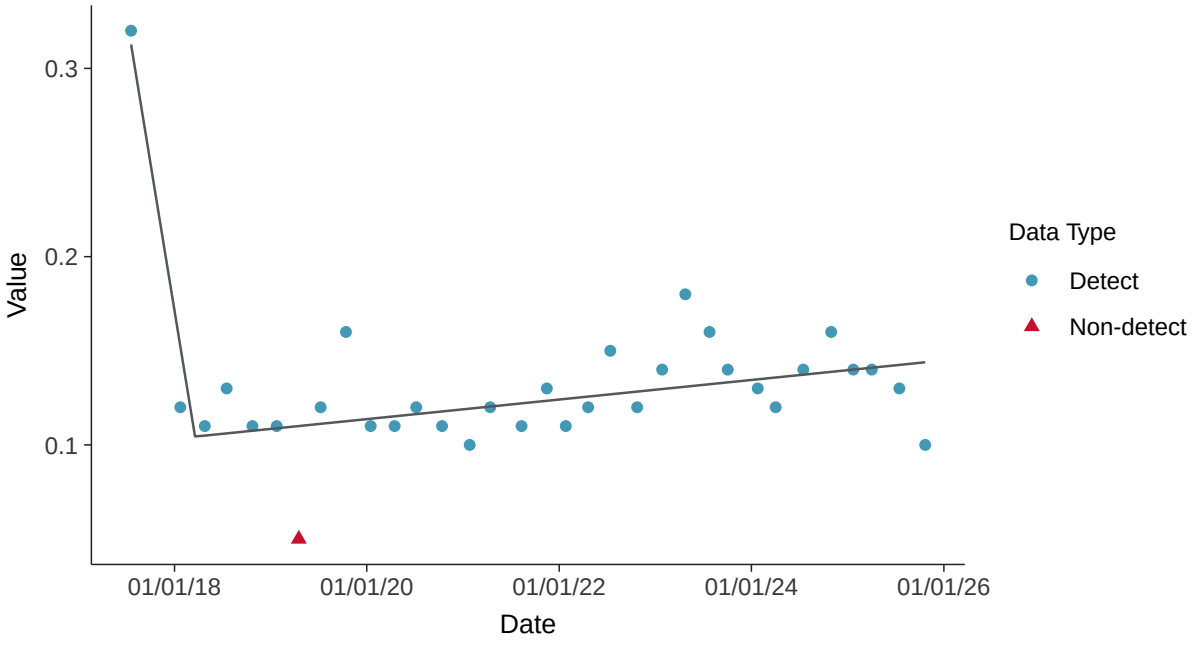
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Fluoride, MW-7R (mg/L)



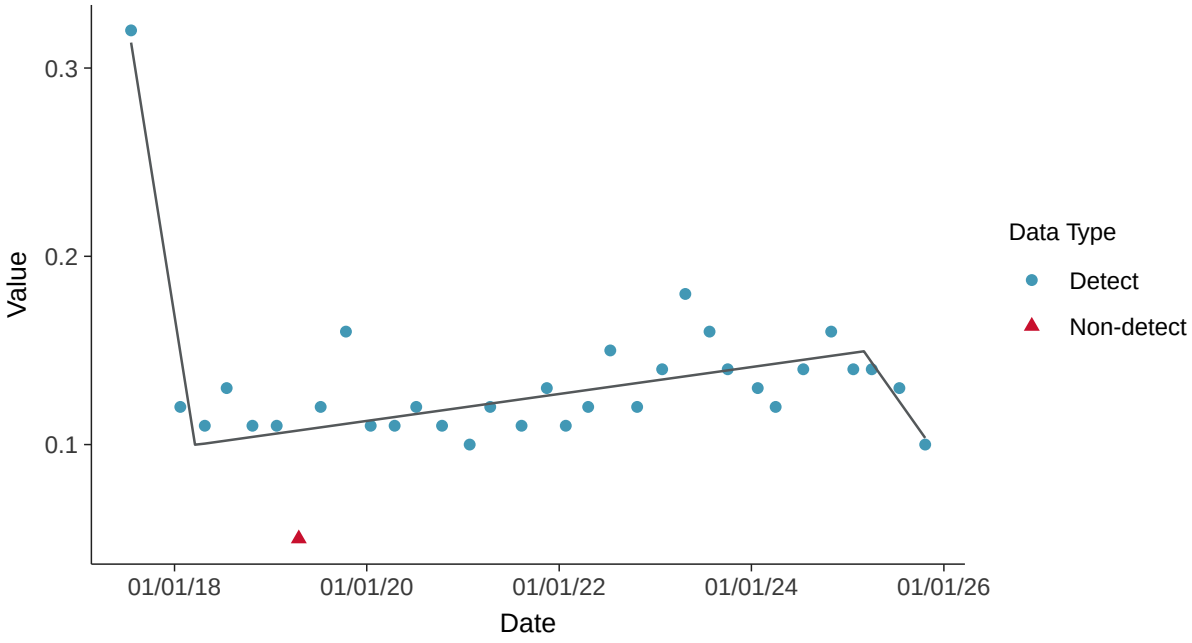
Trend Regression: Piecewise Linear-Linear

Fluoride, MW-7R (mg/L)



Trend Regression: Piecewise Linear-Linear-Linear

Fluoride, MW-7R (mg/L)

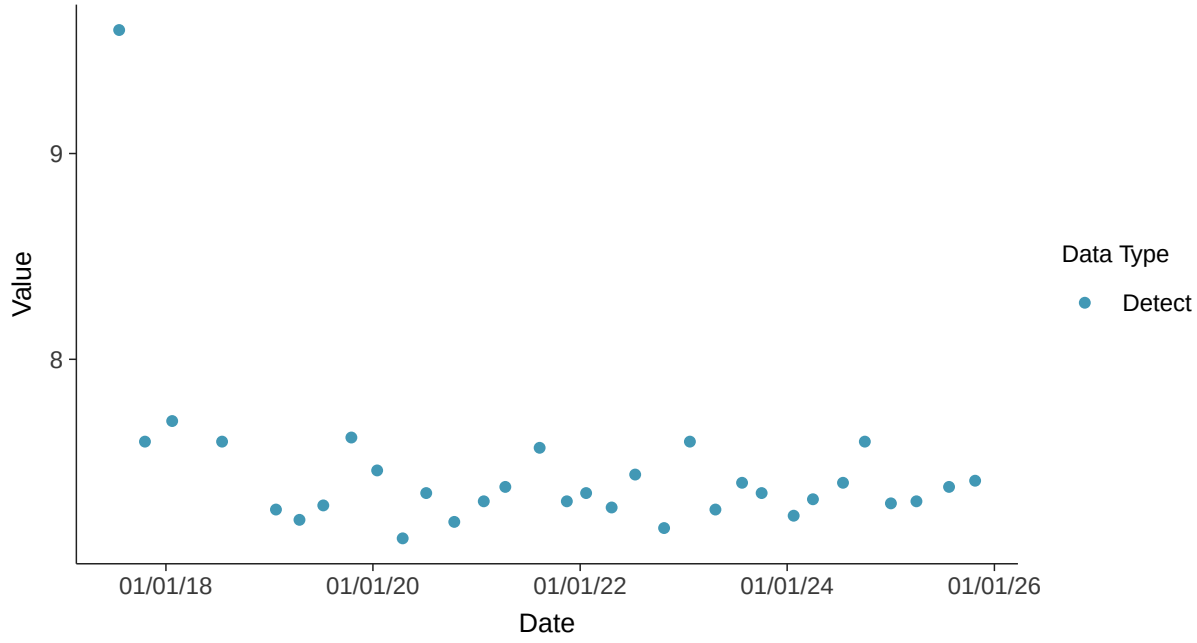


App. III: pH (Field), MW-7R

ID: 07_2_118

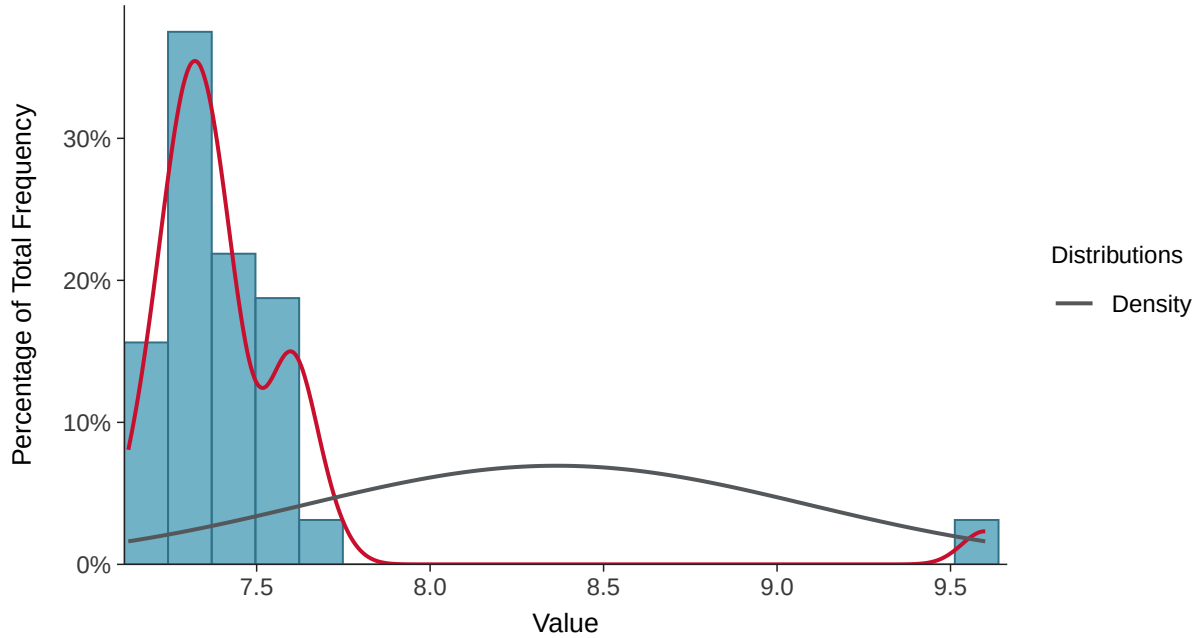
Scatter Plot

pH (Field), MW-7R (S.U.)



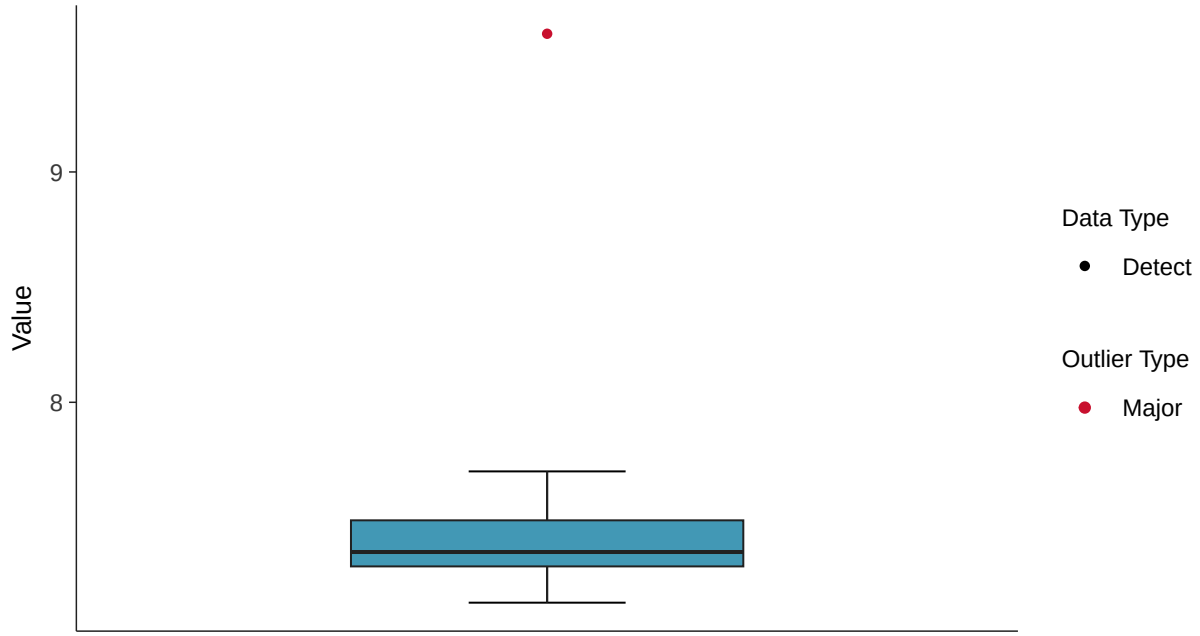
Histogram

pH (Field), MW-7R (S.U.)



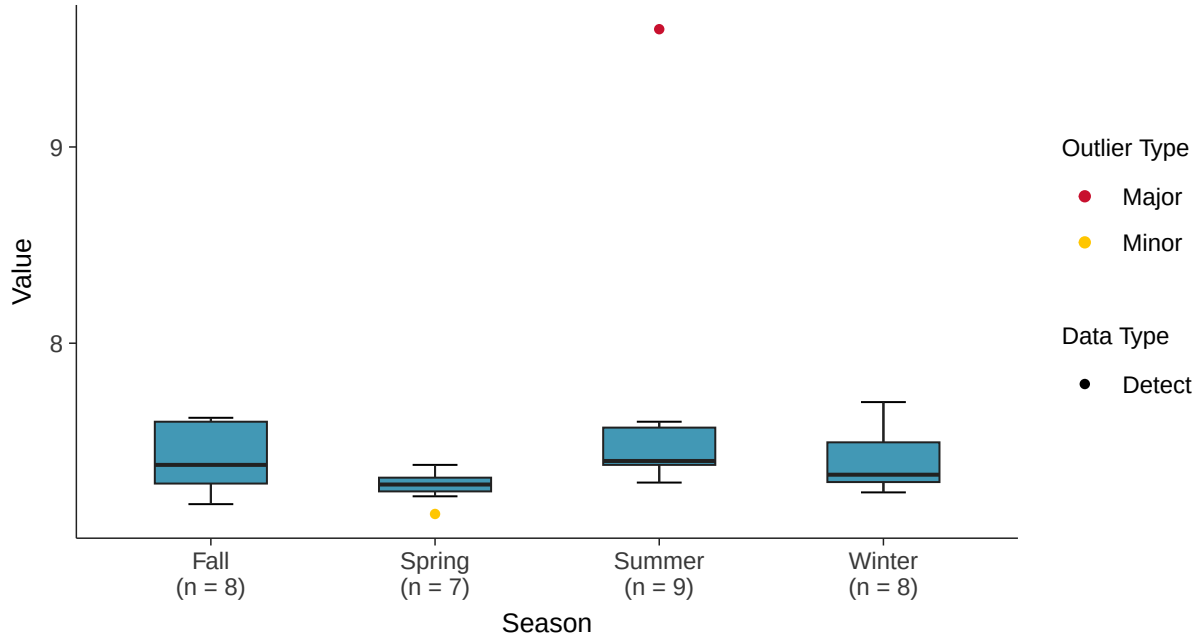
Boxplot

pH (Field), MW-7R (S.U.)



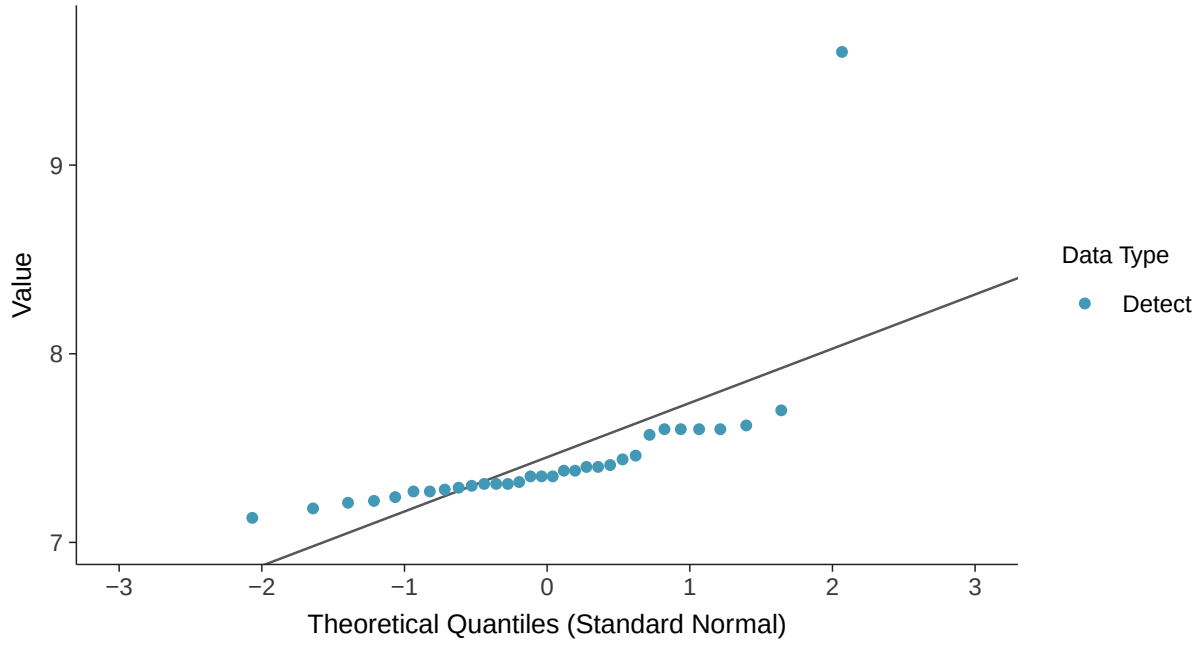
Boxplot by Season

pH (Field), MW-7R (S.U.)



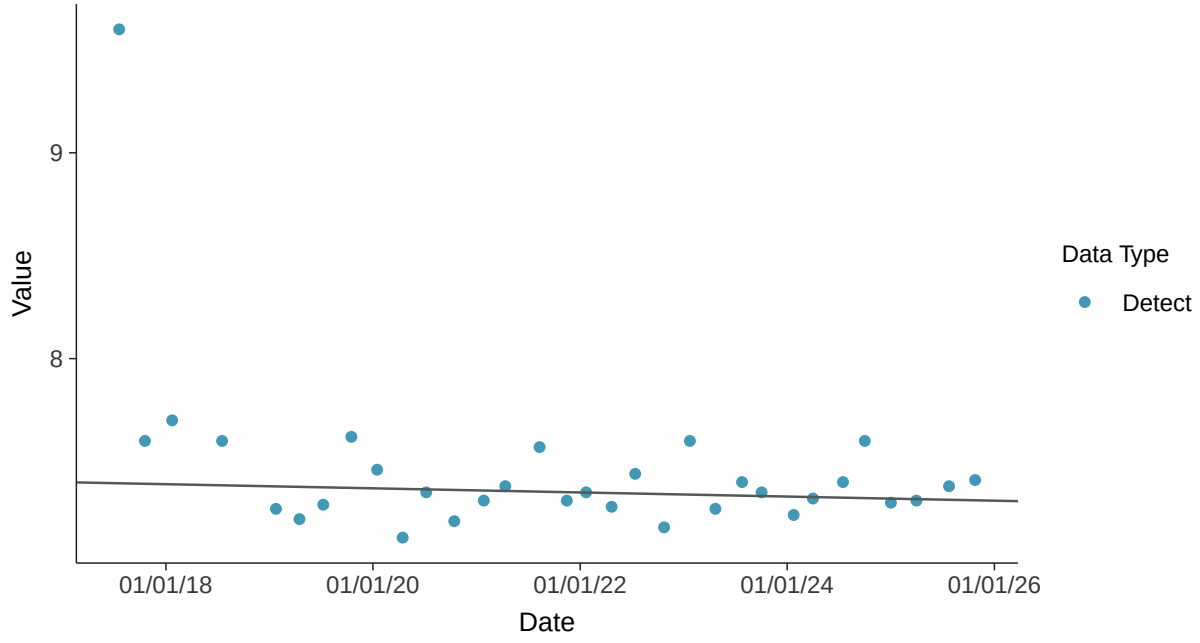
Normal Q-Q plot

pH (Field), MW-7R (S.U.)



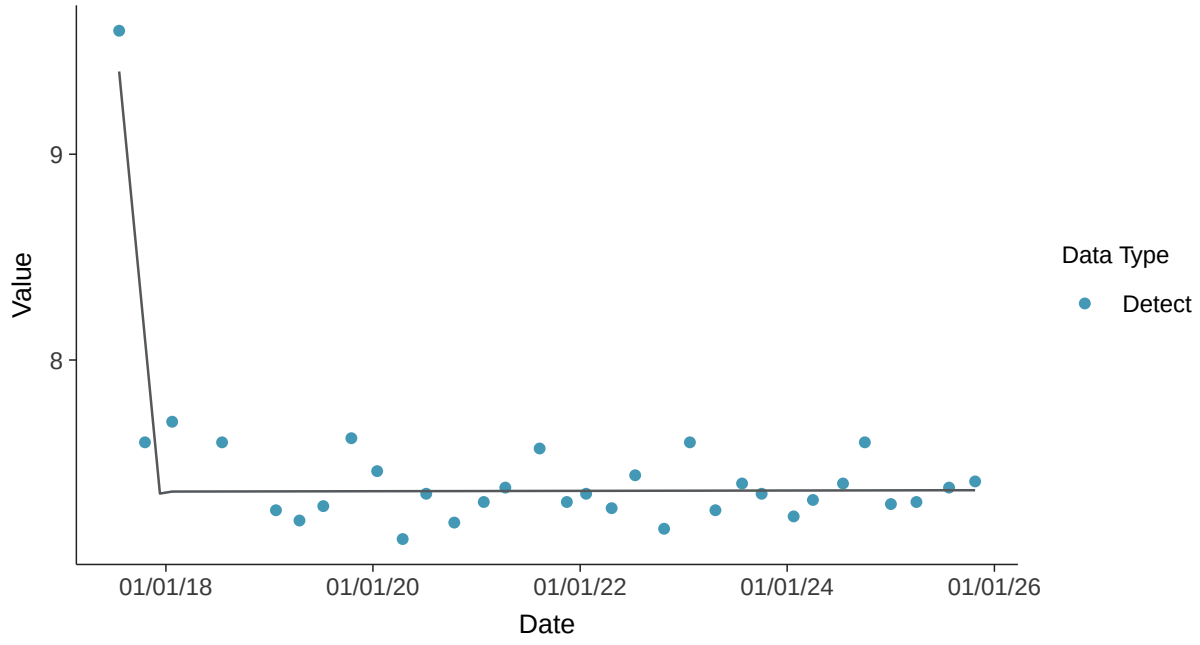
Trend Regression: Mann-Kendall/Theil-Sen Estimate

pH (Field), MW-7R (S.U.)



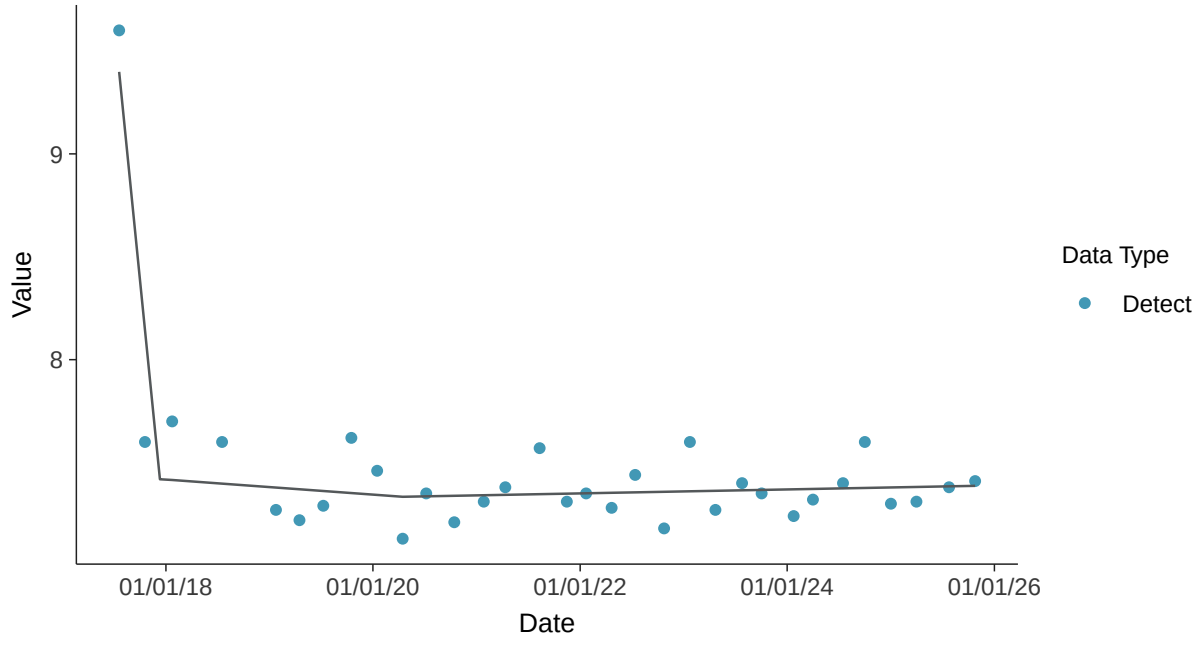
Trend Regression: Piecewise Linear-Linear

pH (Field), MW-7R (S.U.)



Trend Regression: Piecewise Linear-Linear-Linear

pH (Field), MW-7R (S.U.)

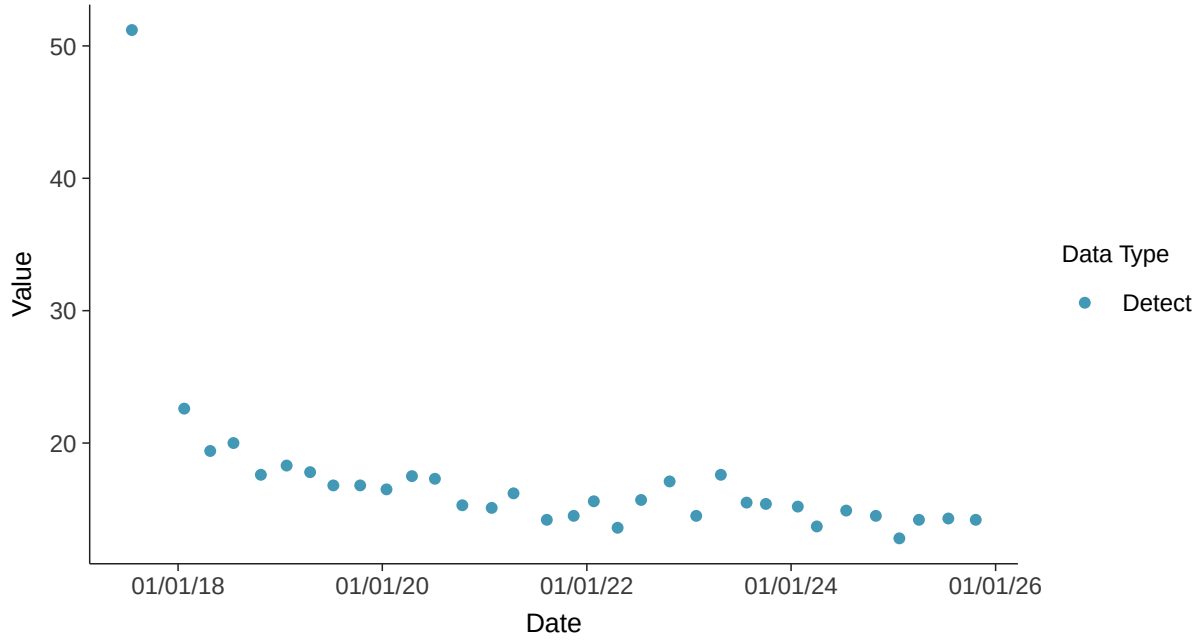


App. III: Sulfate, MW-7R

ID: 07_2_123

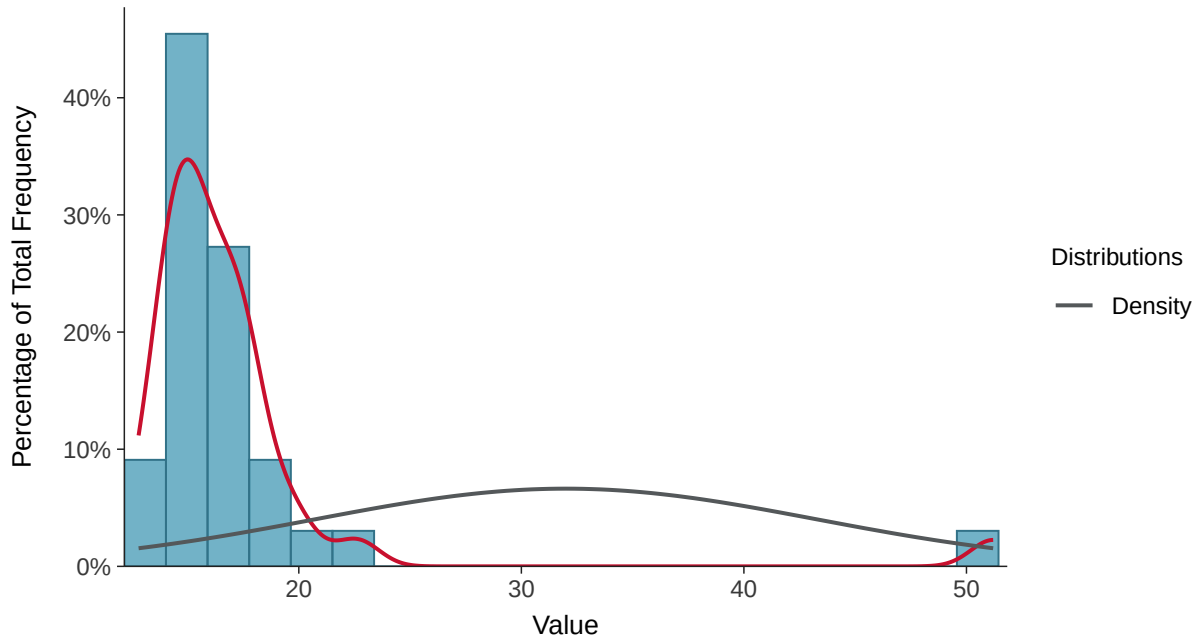
Scatter Plot

Sulfate, MW-7R (mg/L)



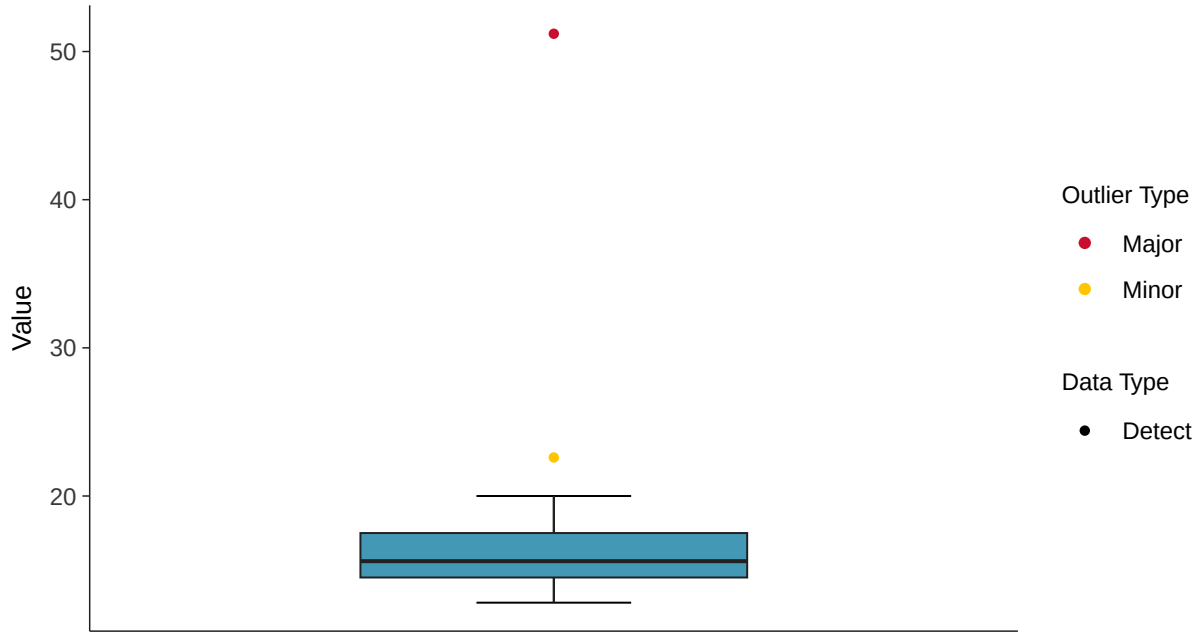
Histogram

Sulfate, MW-7R (mg/L)



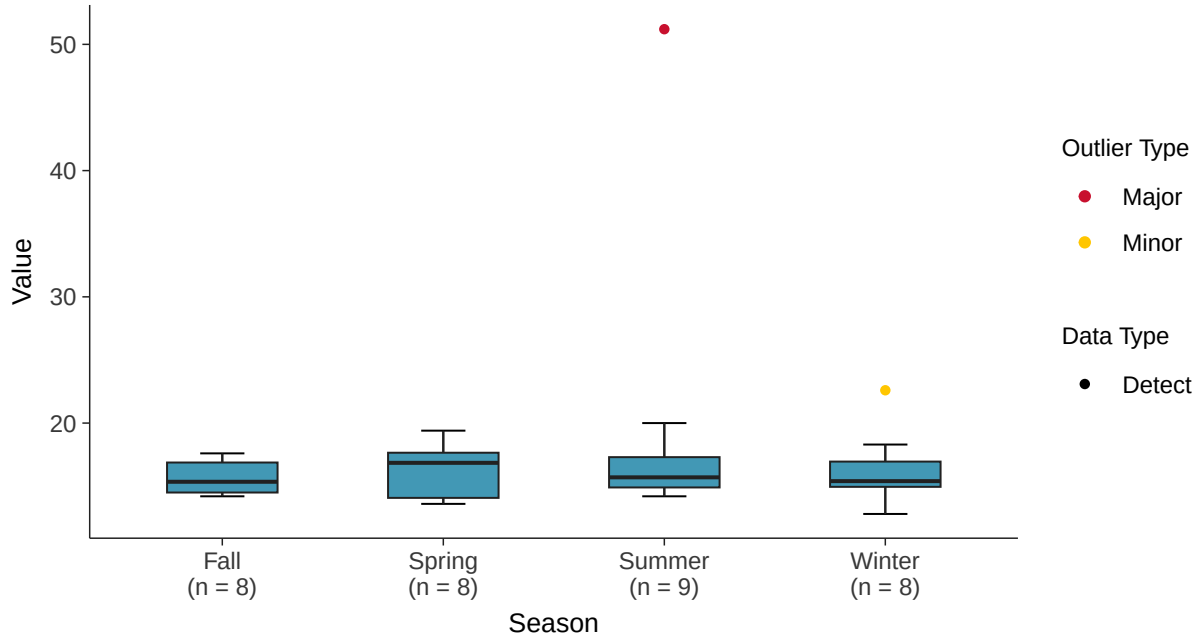
Boxplot

Sulfate, MW-7R (mg/L)



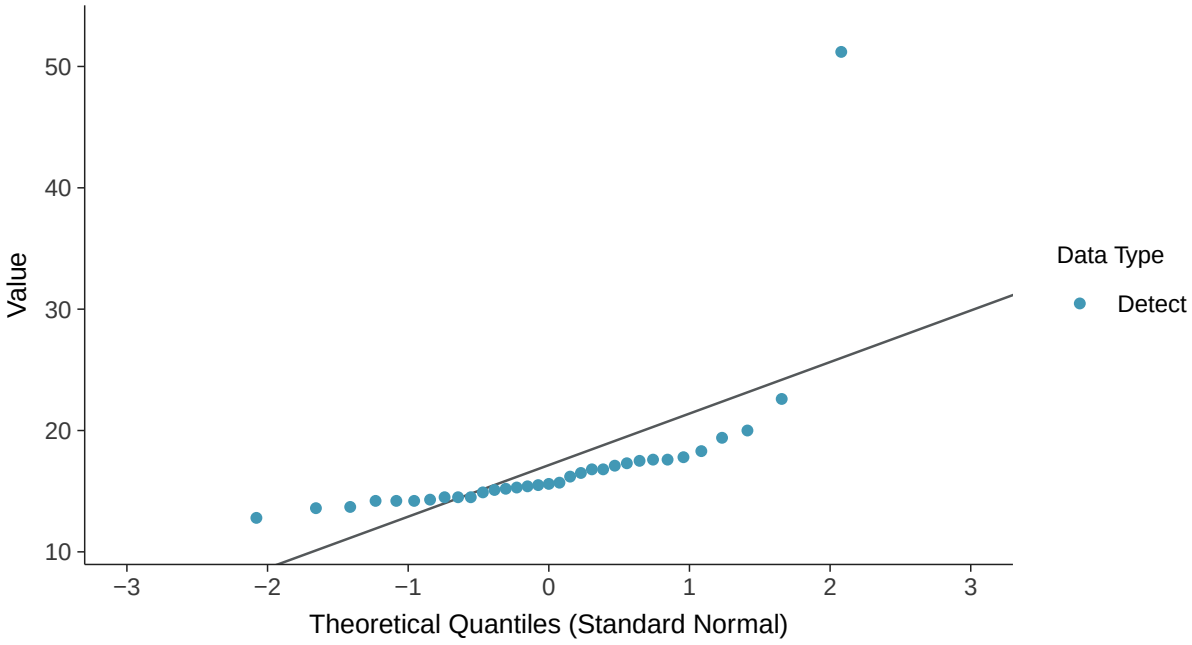
Boxplot by Season

Sulfate, MW-7R (mg/L)



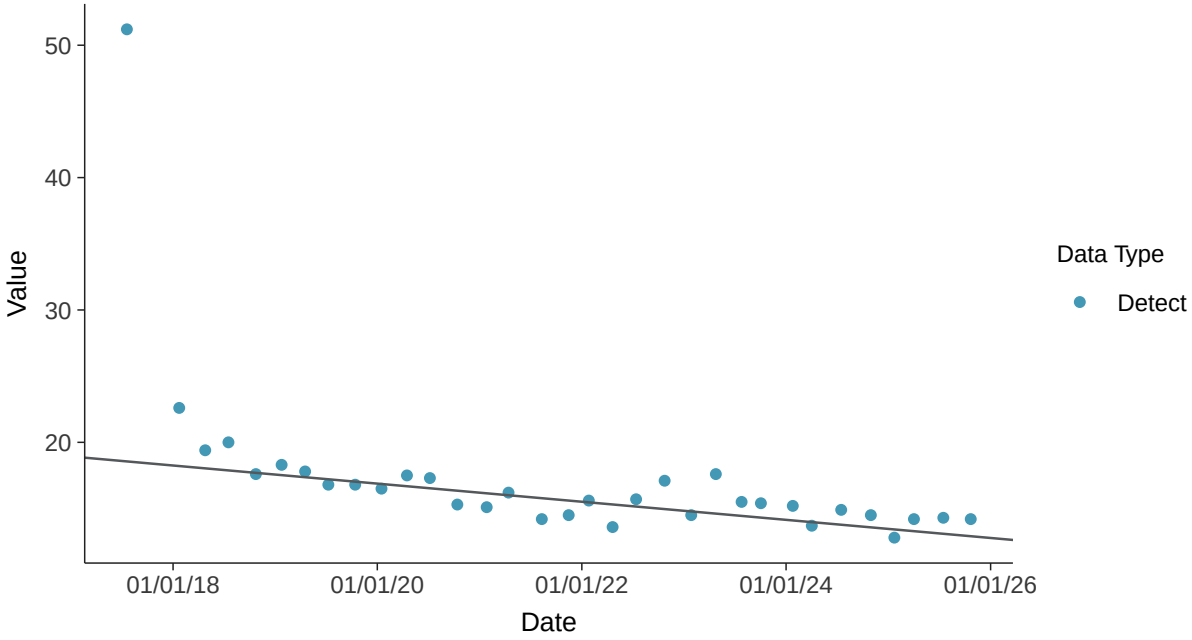
Normal Q-Q plot

Sulfate, MW-7R (mg/L)



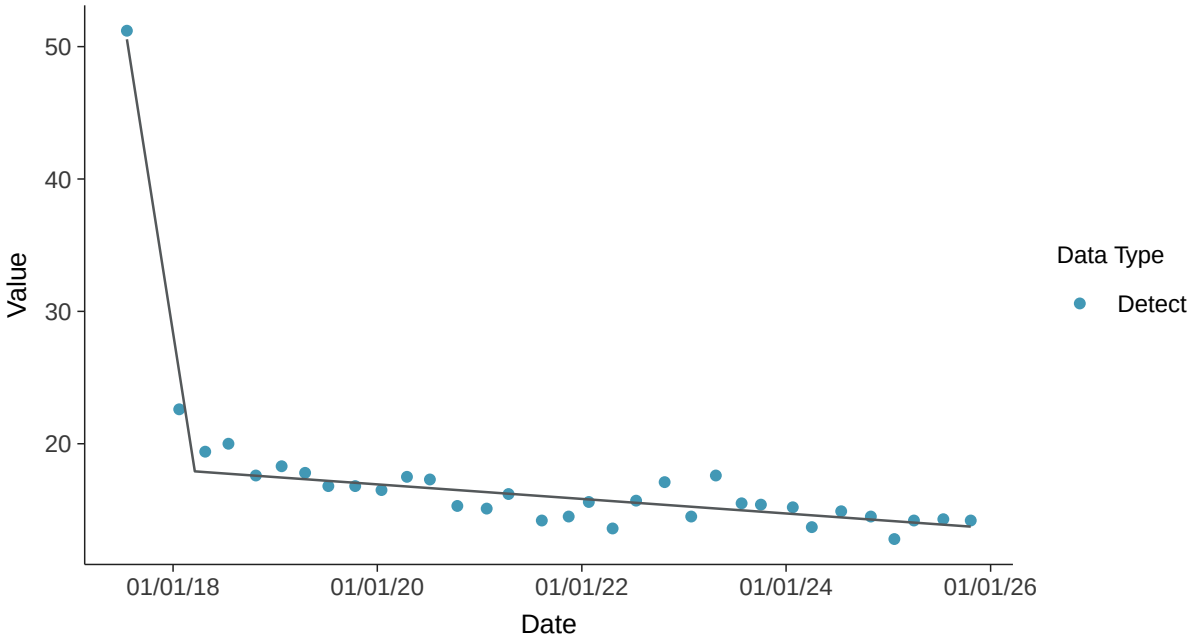
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Sulfate, MW-7R (mg/L)



Trend Regression: Piecewise Linear-Linear

Sulfate, MW-7R (mg/L)

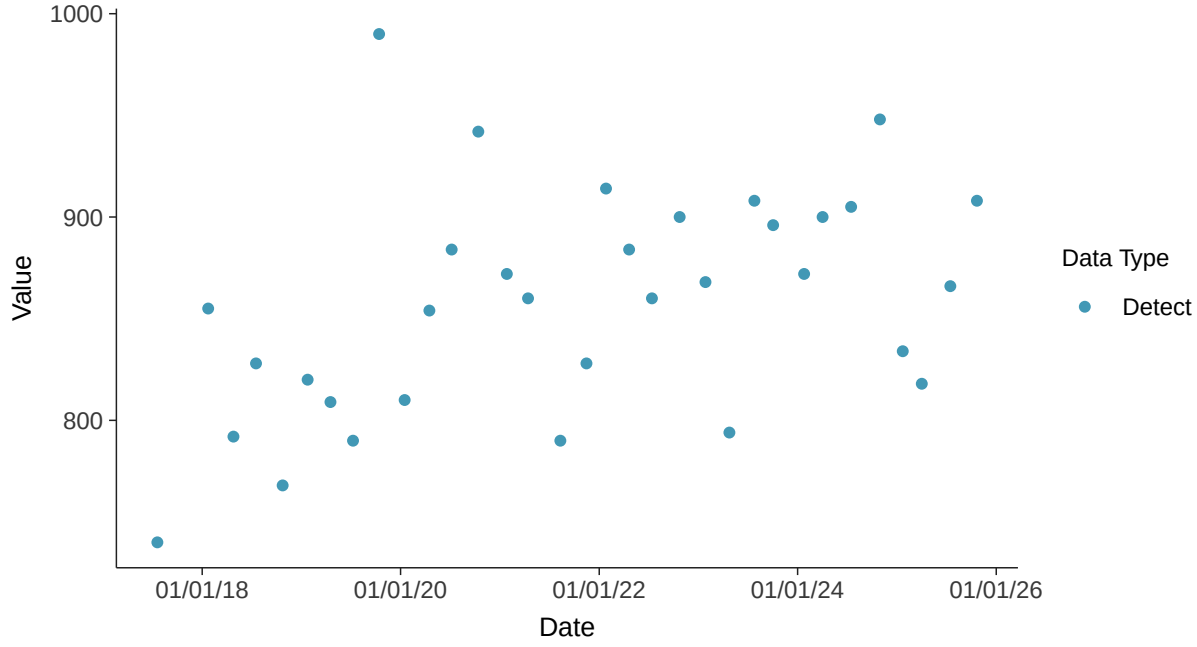


App. III: Total Dissolved Solids, MW-7R

ID: 07_2_125

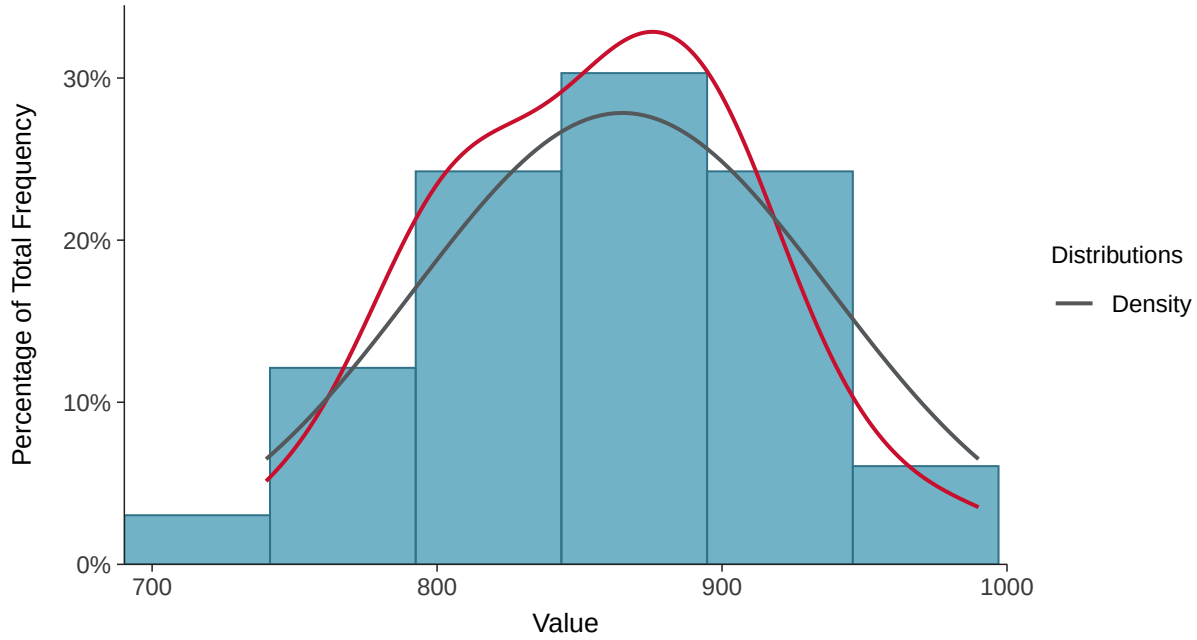
Scatter Plot

Total Dissolved Solids, MW-7R (mg/L)



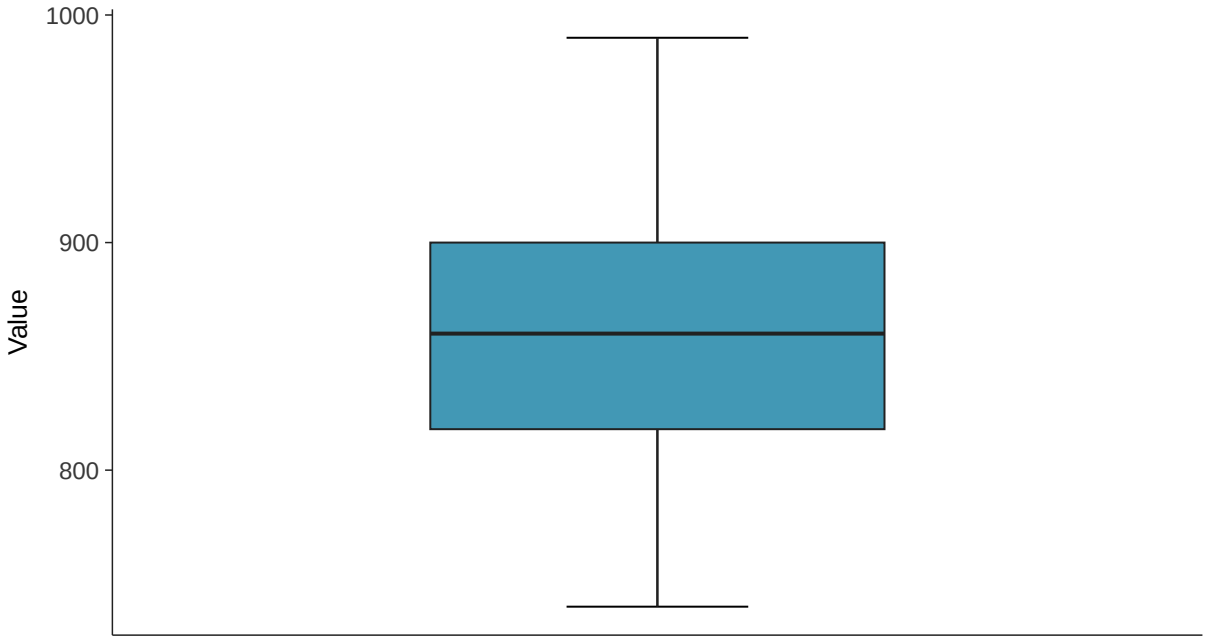
Histogram

Total Dissolved Solids, MW-7R (mg/L)



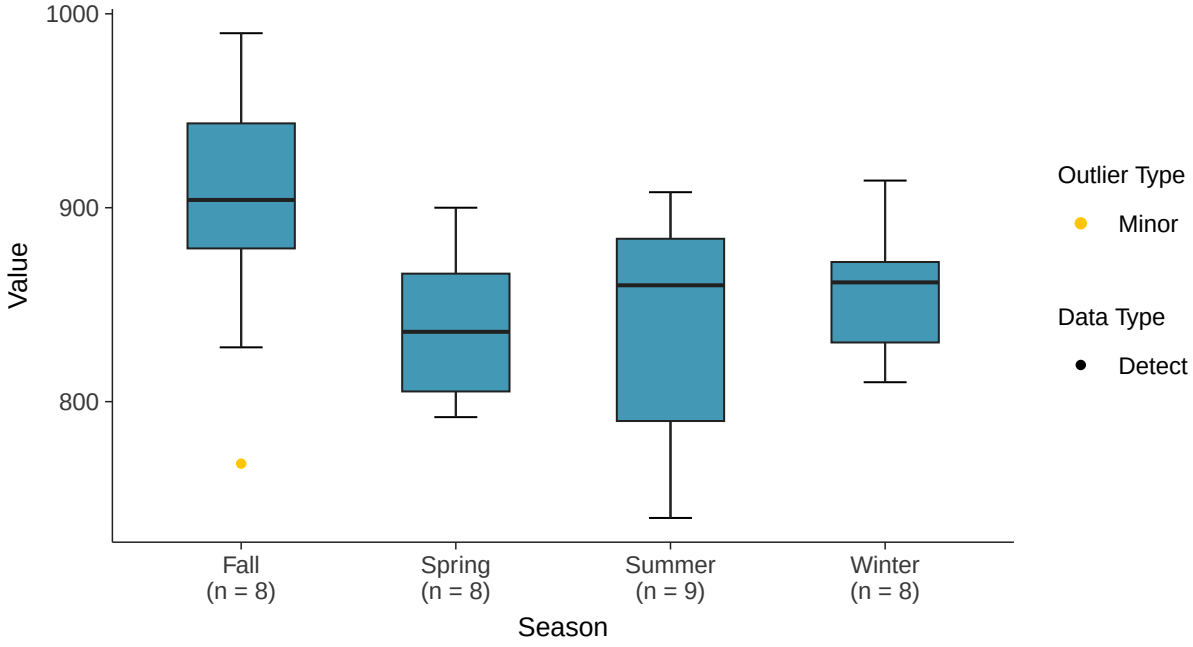
Boxplot

Total Dissolved Solids, MW-7R (mg/L)



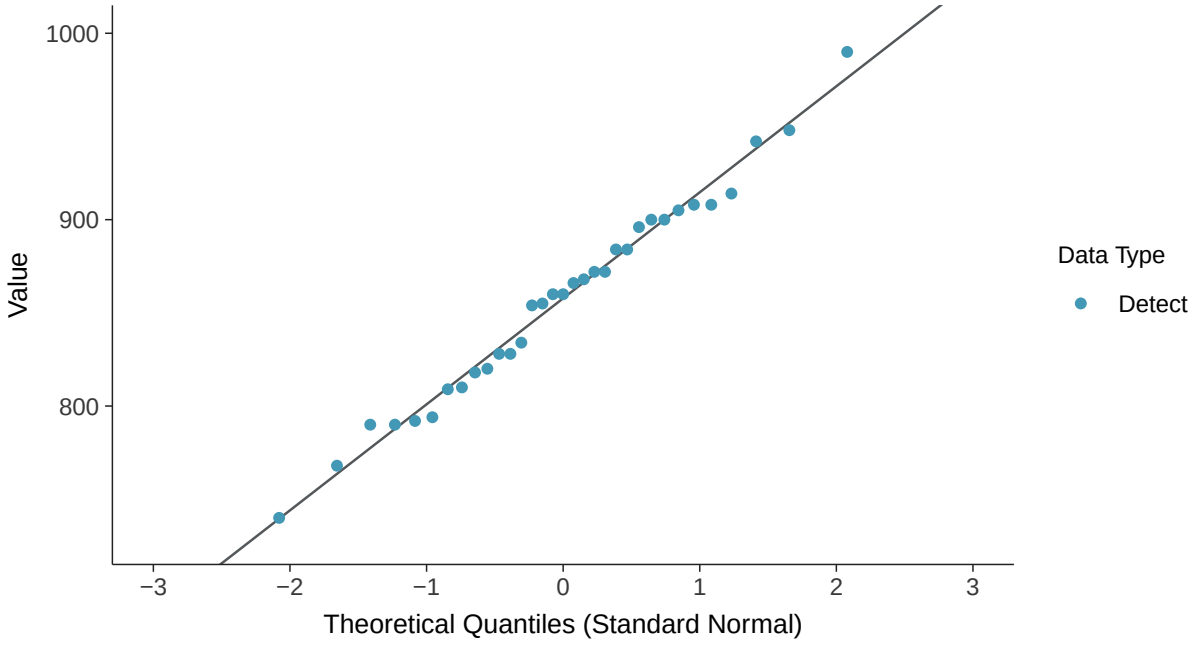
Boxplot by Season

Total Dissolved Solids, MW-7R (mg/L)



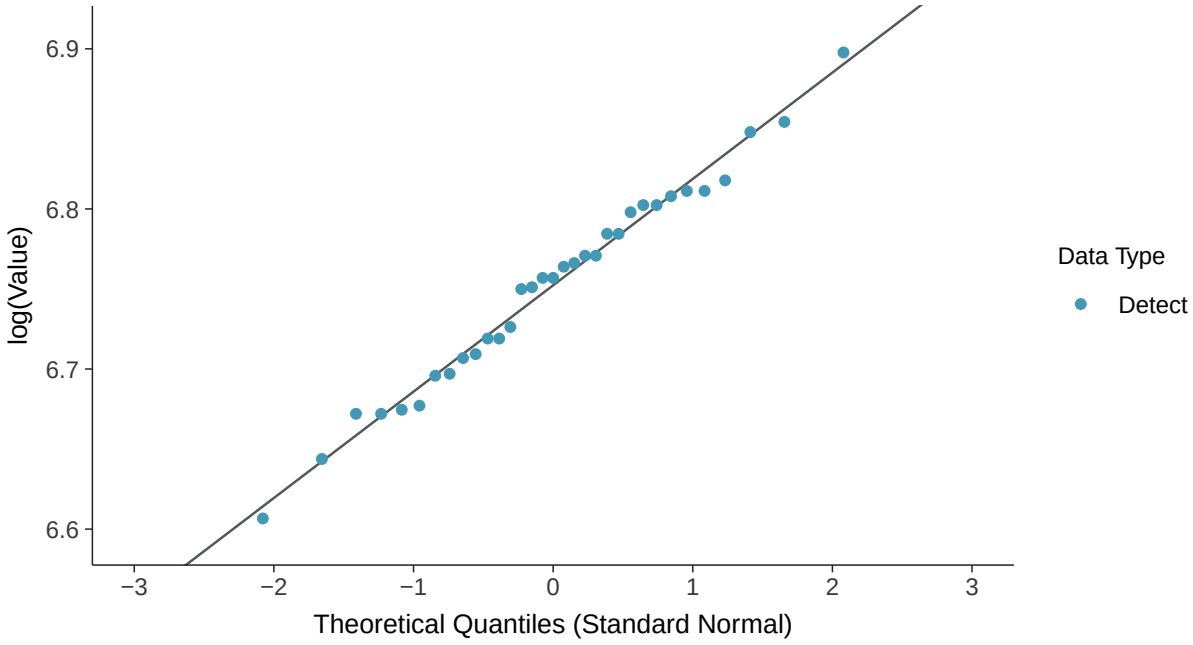
Normal Q-Q plot

Total Dissolved Solids, MW-7R (mg/L)



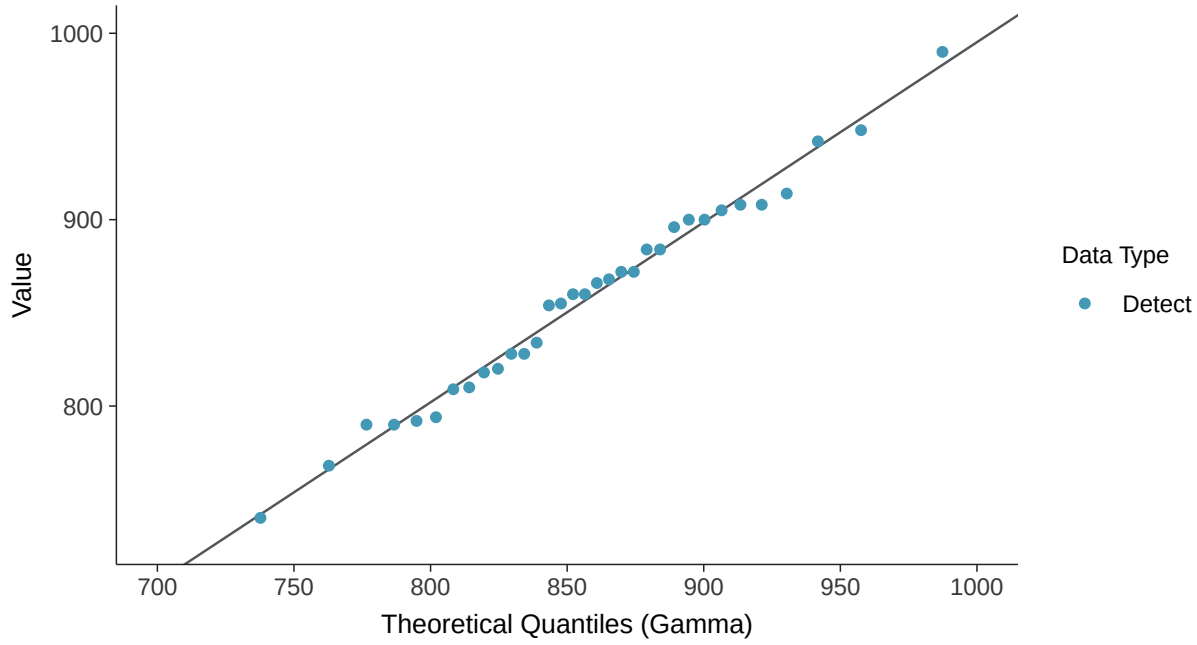
Lognormal Q-Q plot

Total Dissolved Solids, MW-7R (mg/L)



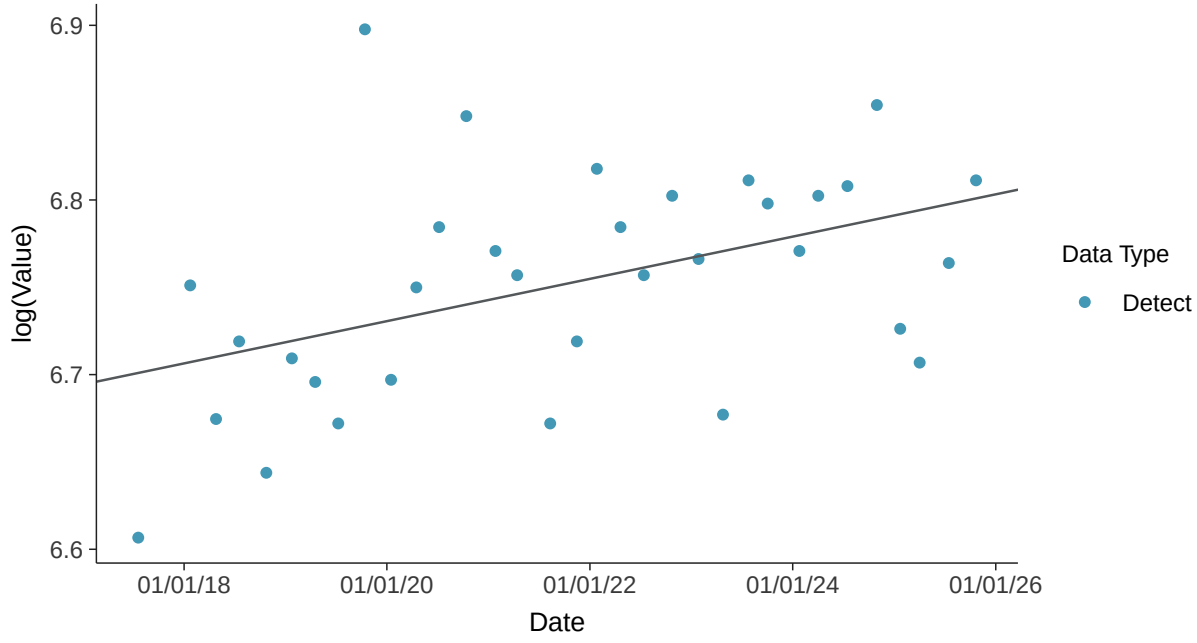
Gamma Q-Q plot

Total Dissolved Solids, MW-7R (mg/L)



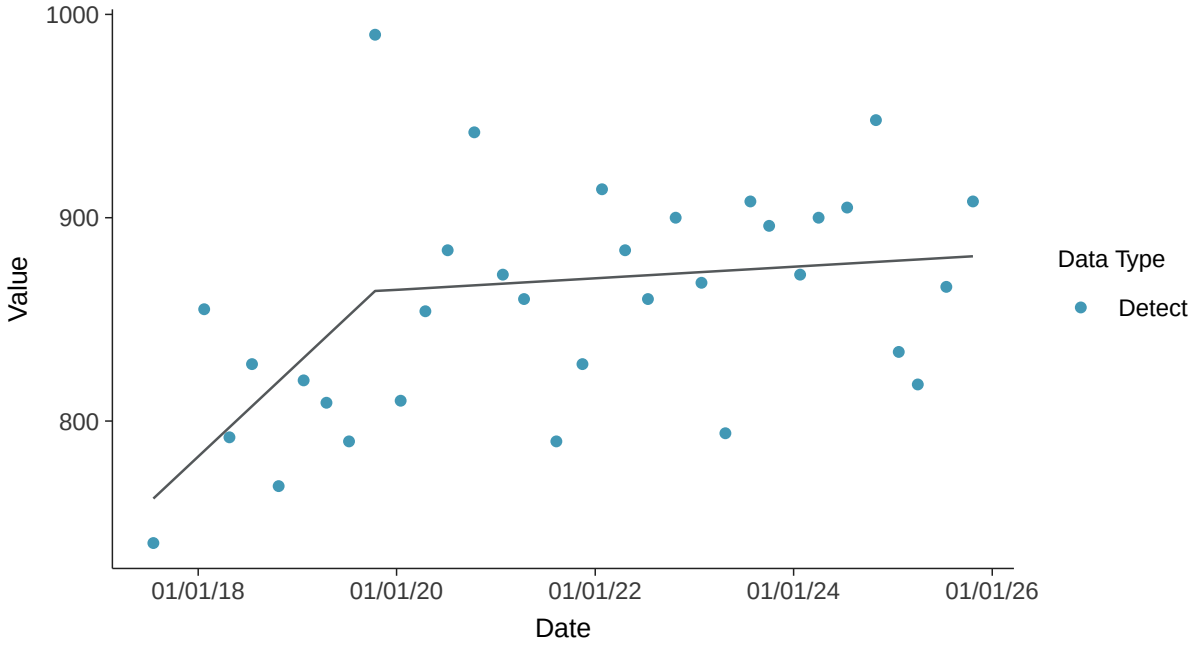
Trend Regression: Lognormal MLE

Total Dissolved Solids, MW-7R (mg/L)



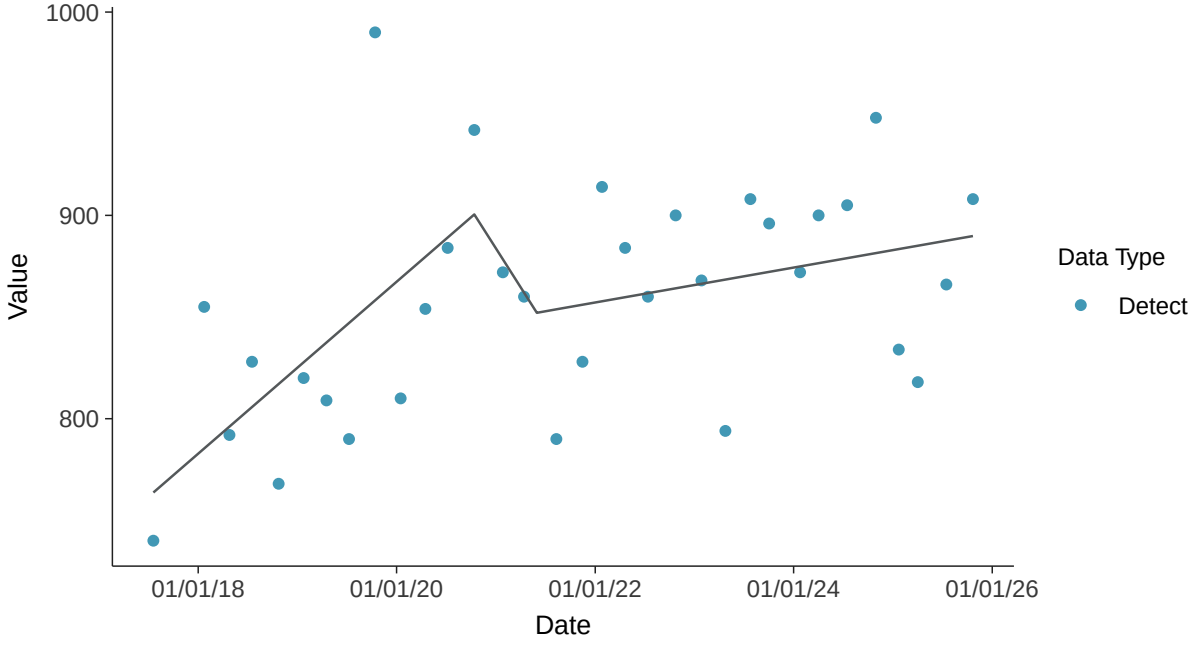
Trend Regression: Piecewise Linear-Linear

Total Dissolved Solids, MW-7R (mg/L)



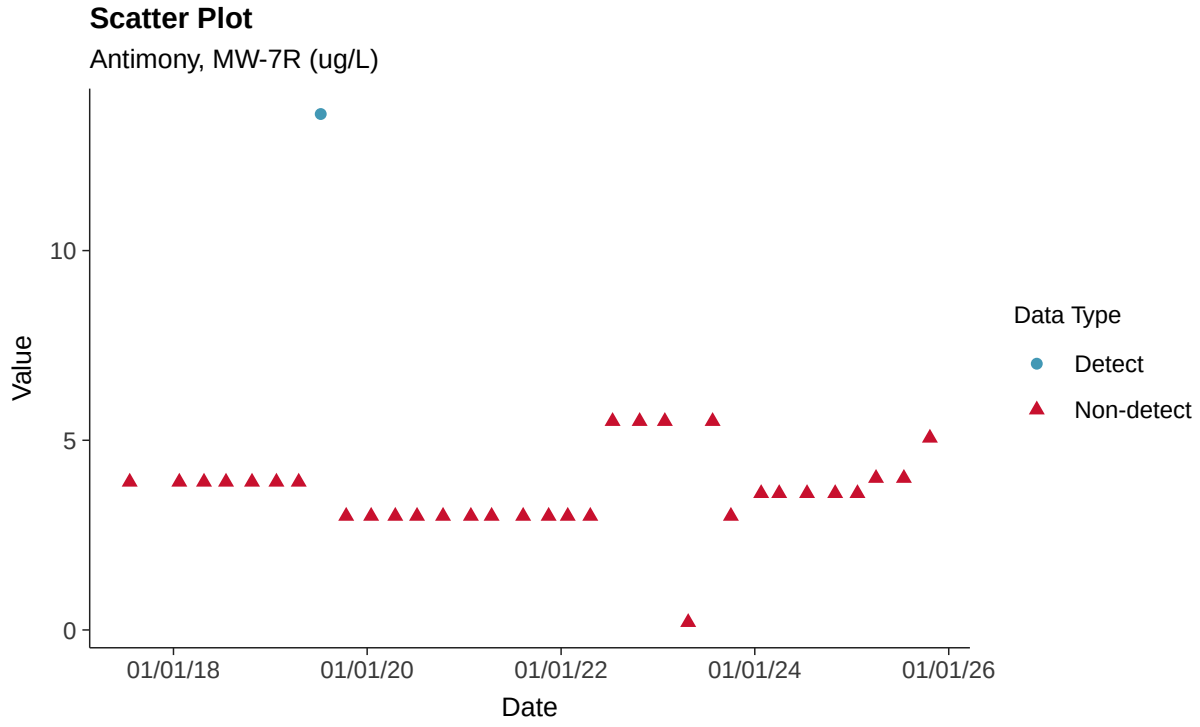
Trend Regression: Piecewise Linear-Linear-Linear

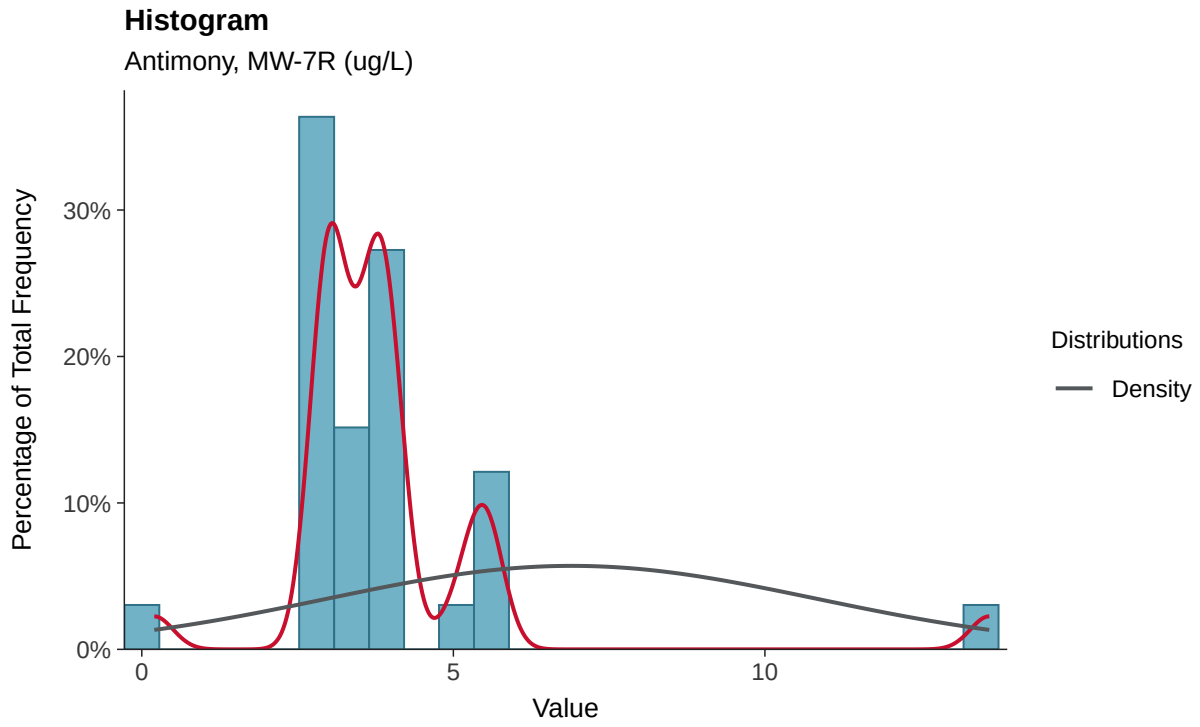
Total Dissolved Solids, MW-7R (mg/L)



App. IV: Antimony, MW-7R

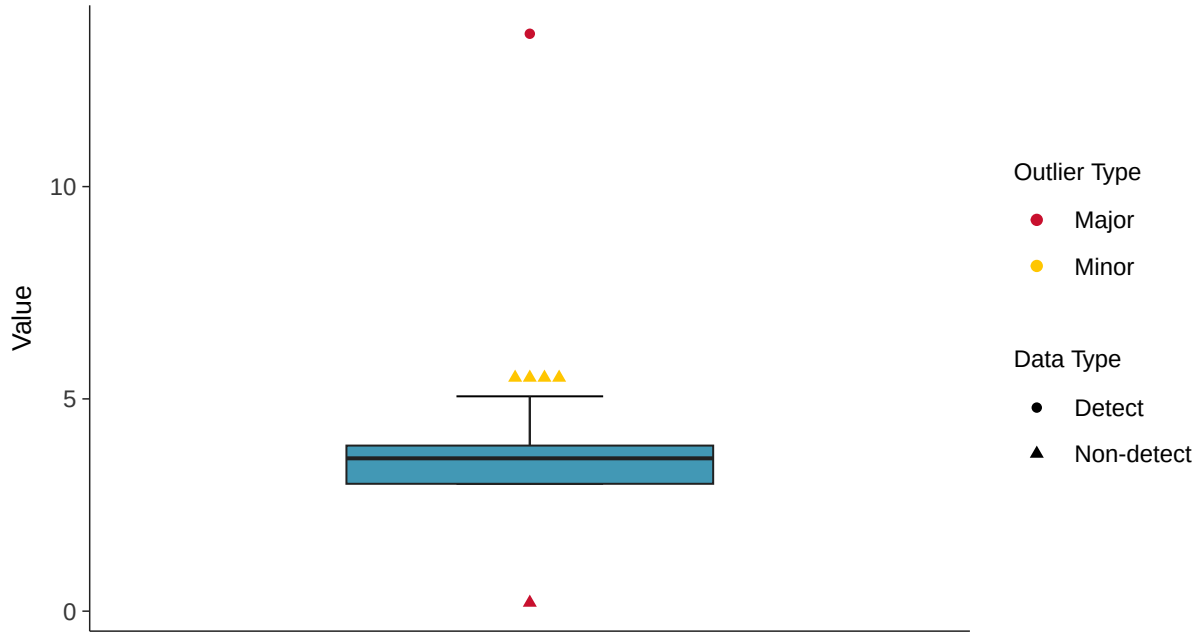
ID: 07_3_101





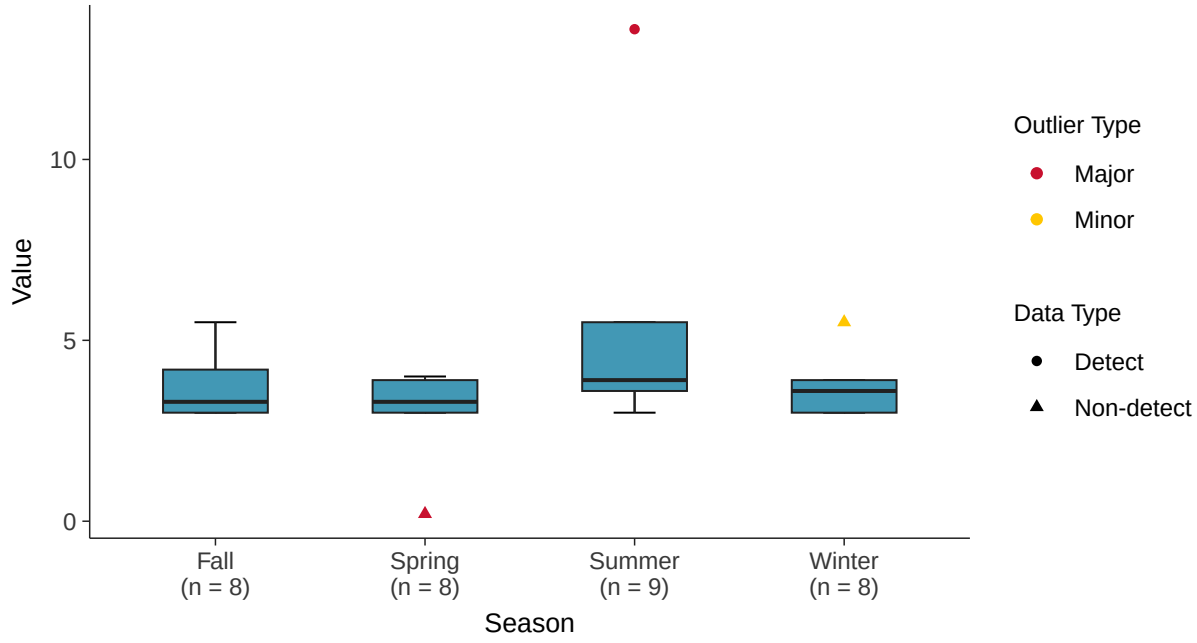
Boxplot

Antimony, MW-7R (ug/L)



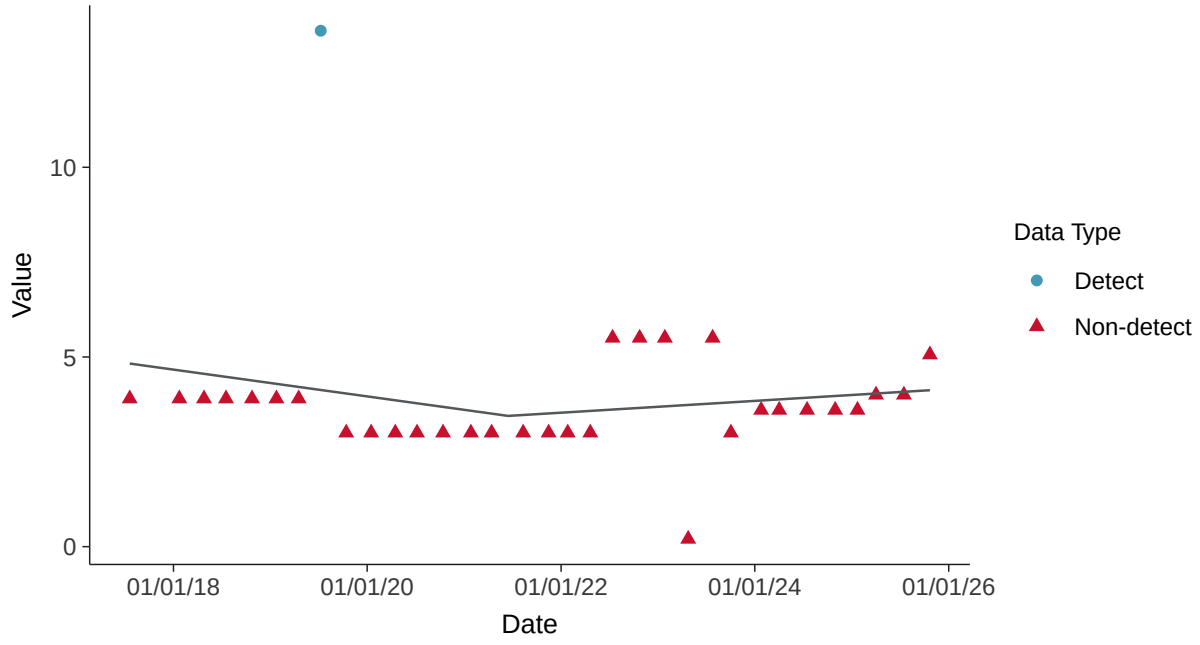
Boxplot by Season

Antimony, MW-7R (ug/L)



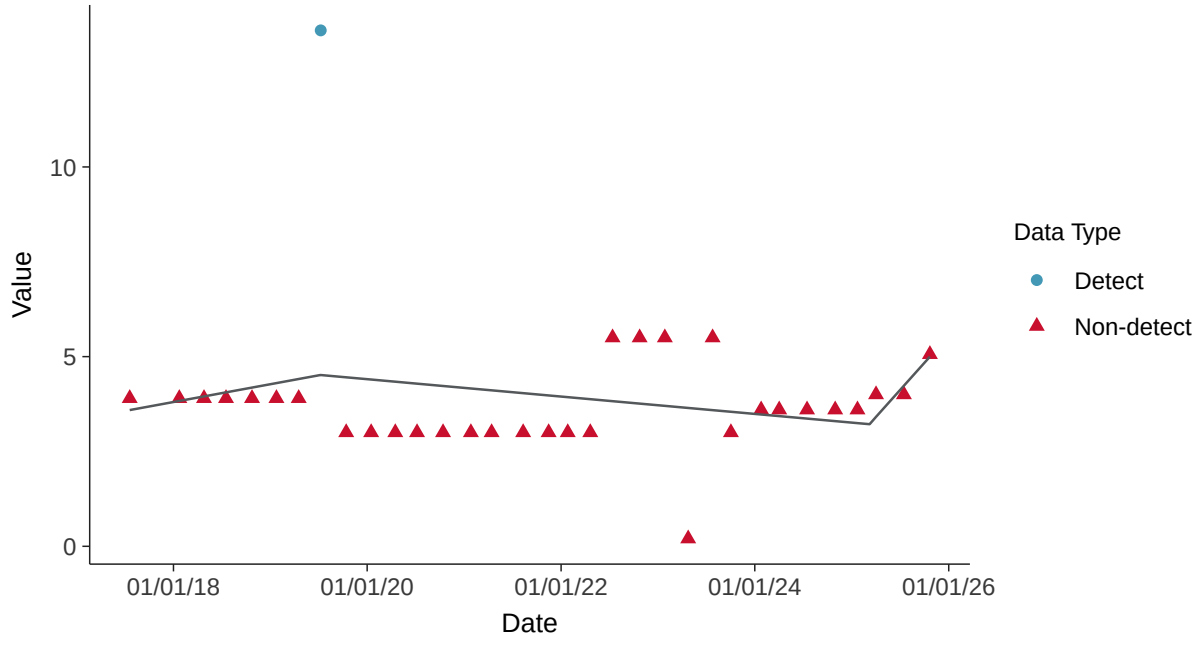
Trend Regression: Piecewise Linear-Linear

Antimony, MW-7R (ug/L)



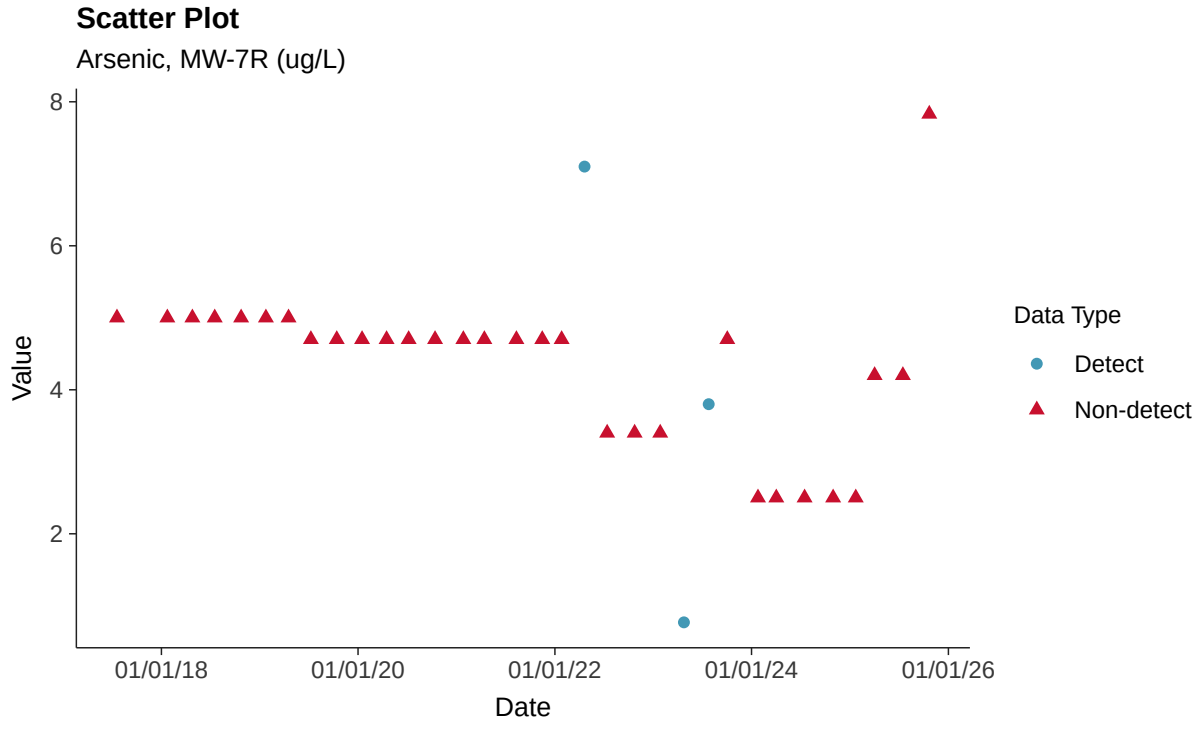
Trend Regression: Piecewise Linear-Linear-Linear

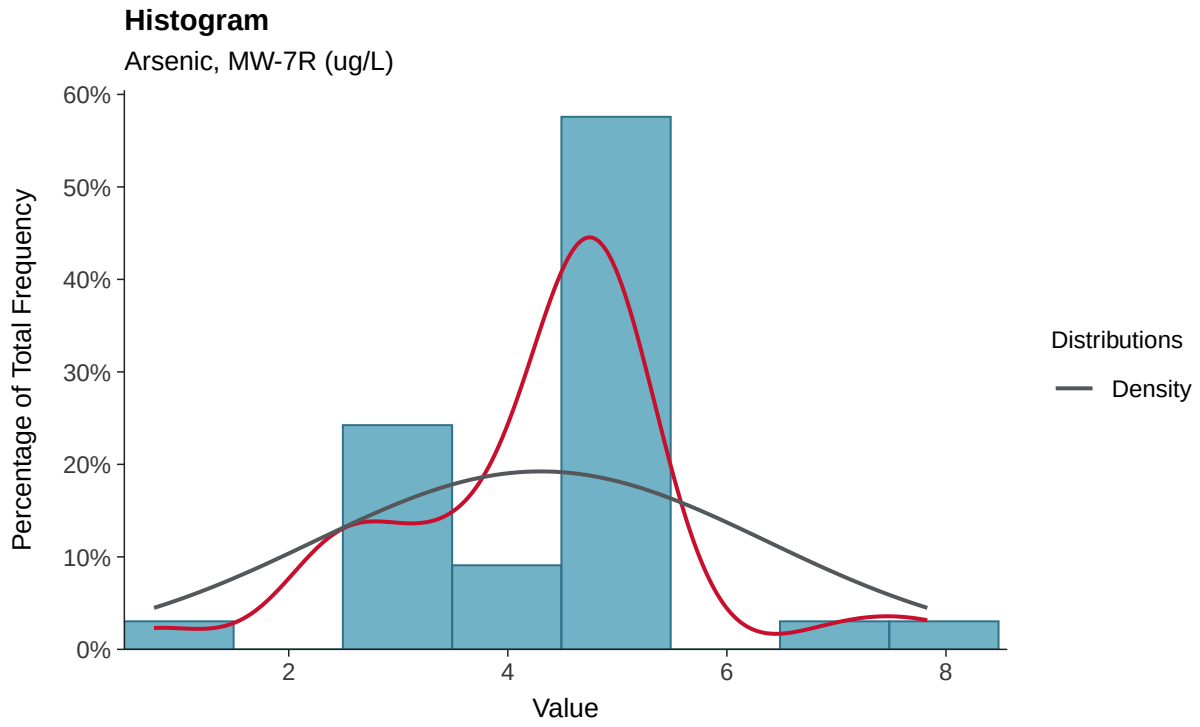
Antimony, MW-7R (ug/L)



App. IV: Arsenic, MW-7R

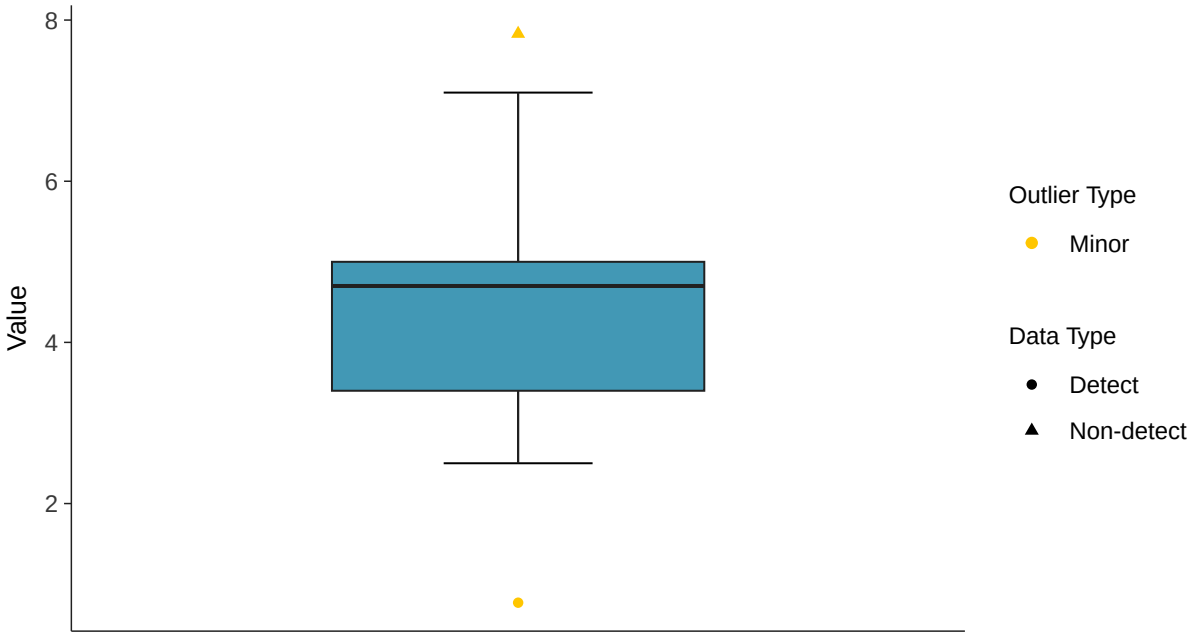
ID: 07_3_102





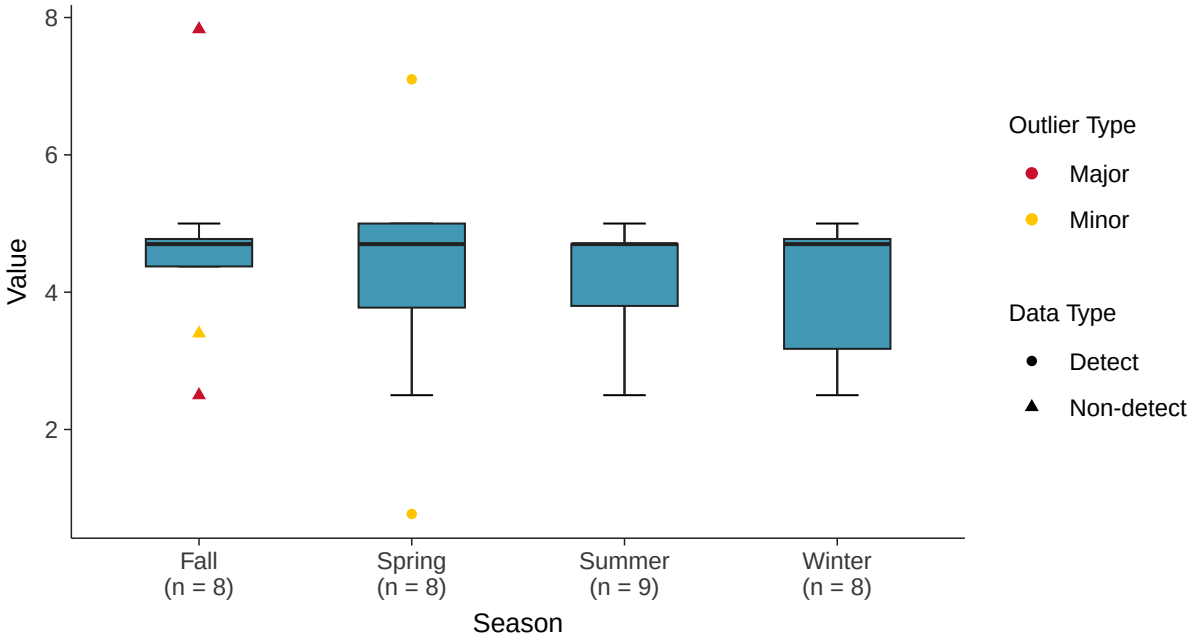
Boxplot

Arsenic, MW-7R (ug/L)



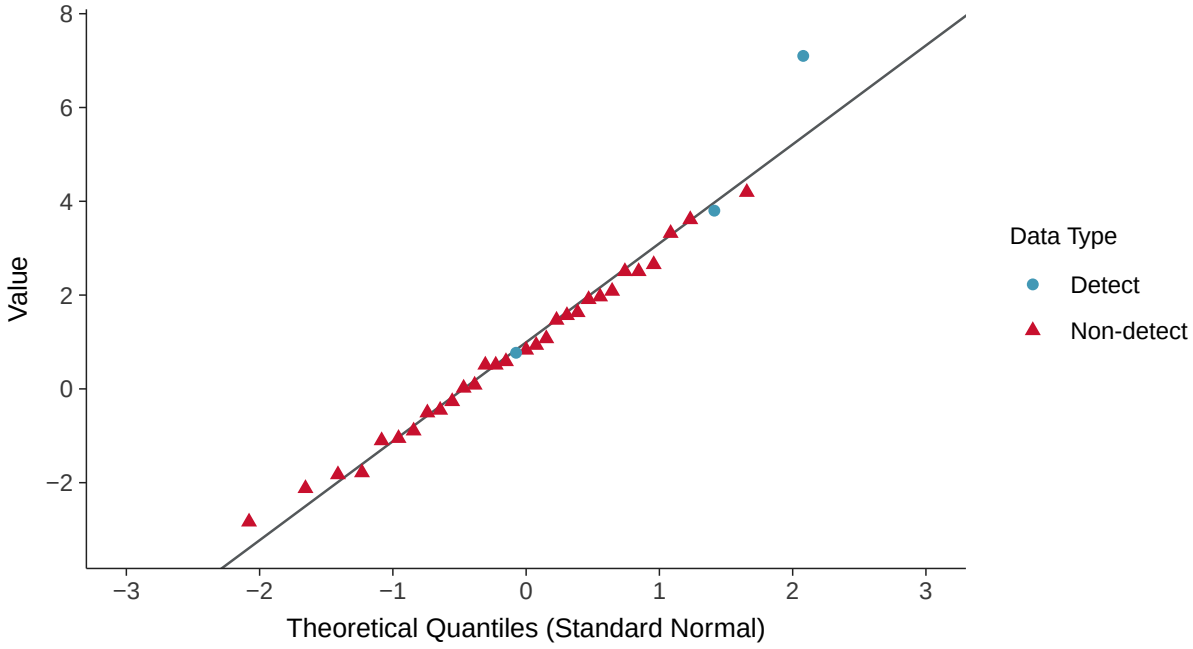
Boxplot by Season

Arsenic, MW-7R (ug/L)



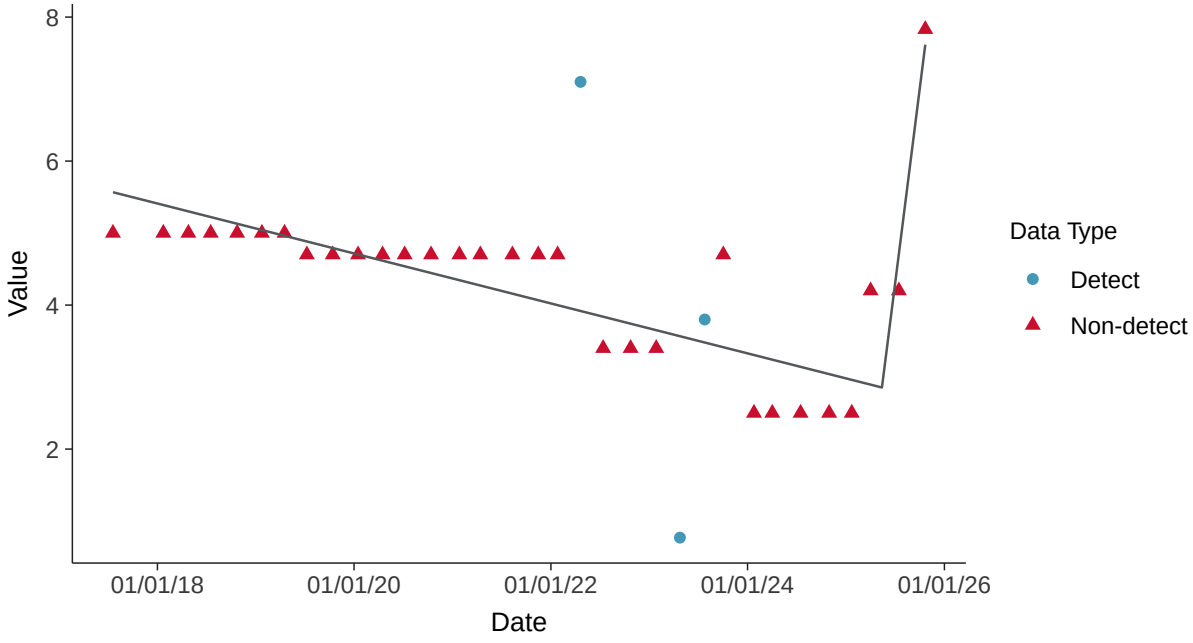
Normal Q-Q plot using ROS Imputed Estimates

Arsenic, MW-7R (ug/L)



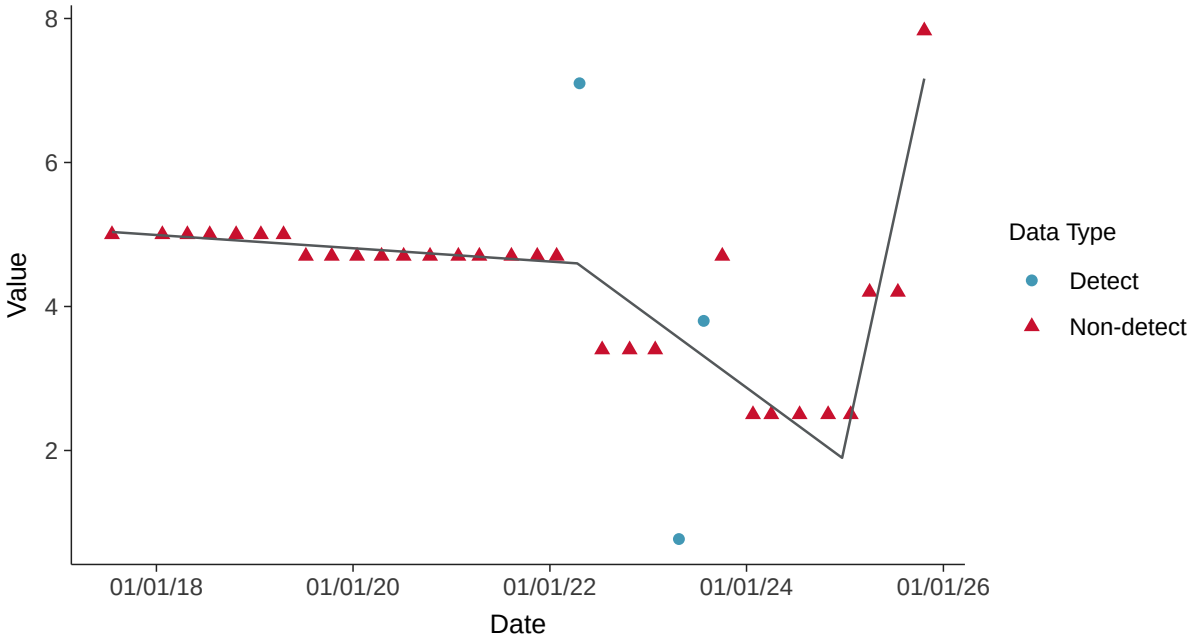
Trend Regression: Piecewise Linear-Linear

Arsenic, MW-7R (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Arsenic, MW-7R (ug/L)

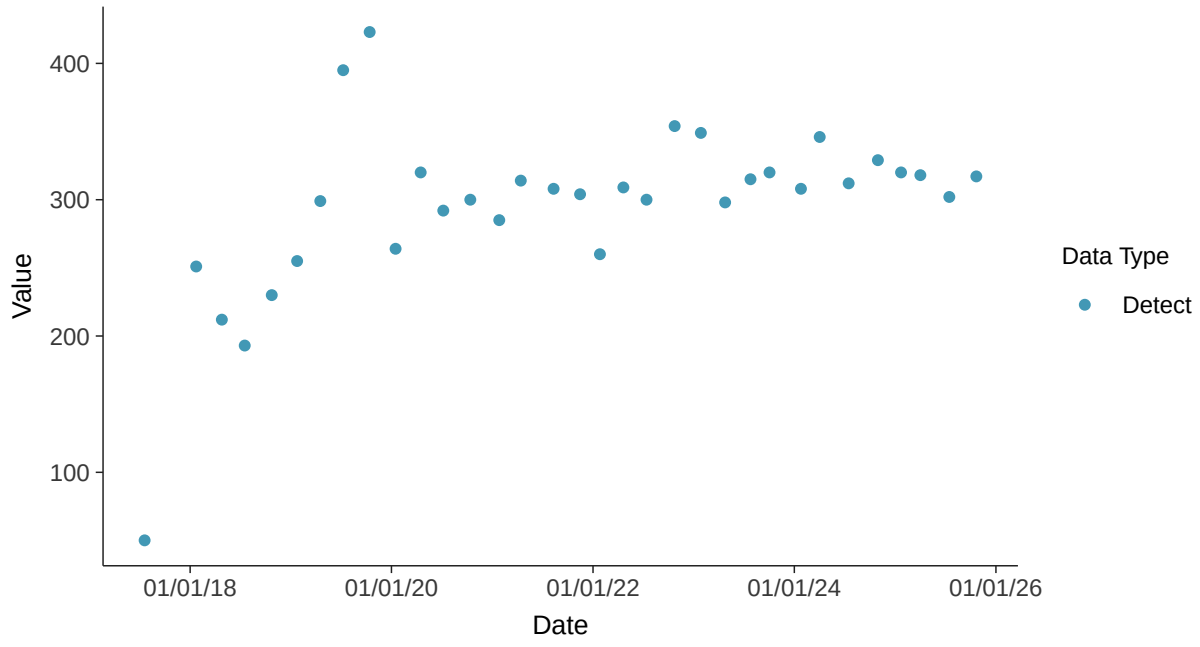


App. IV: Barium, MW-7R

ID: 07_3_103

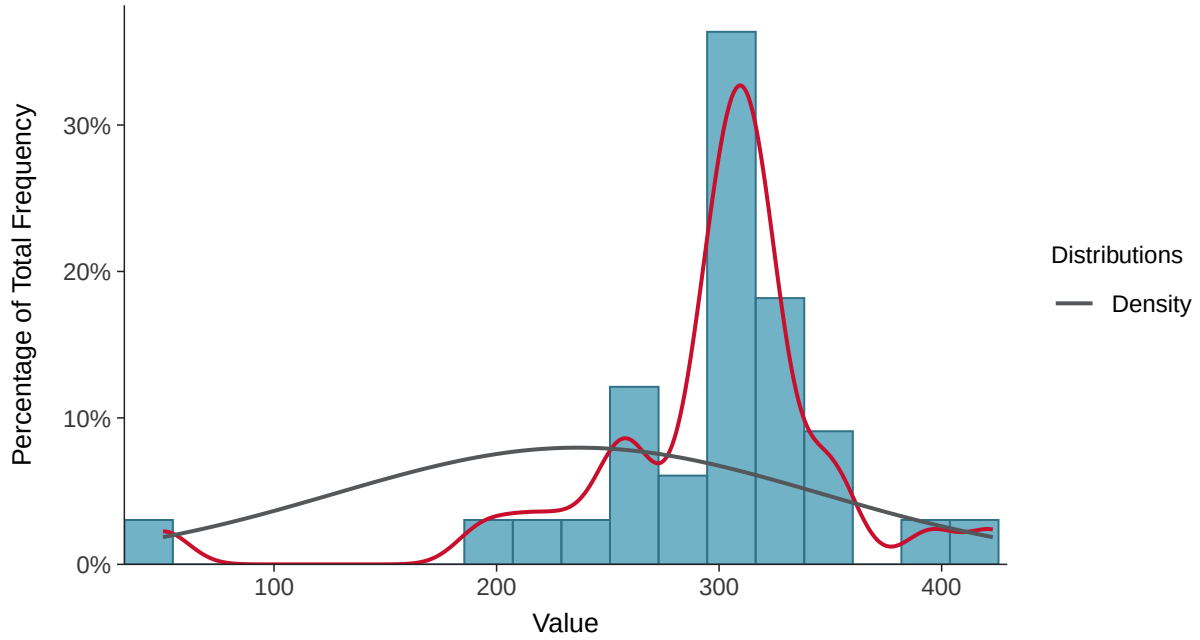
Scatter Plot

Barium, MW-7R (ug/L)



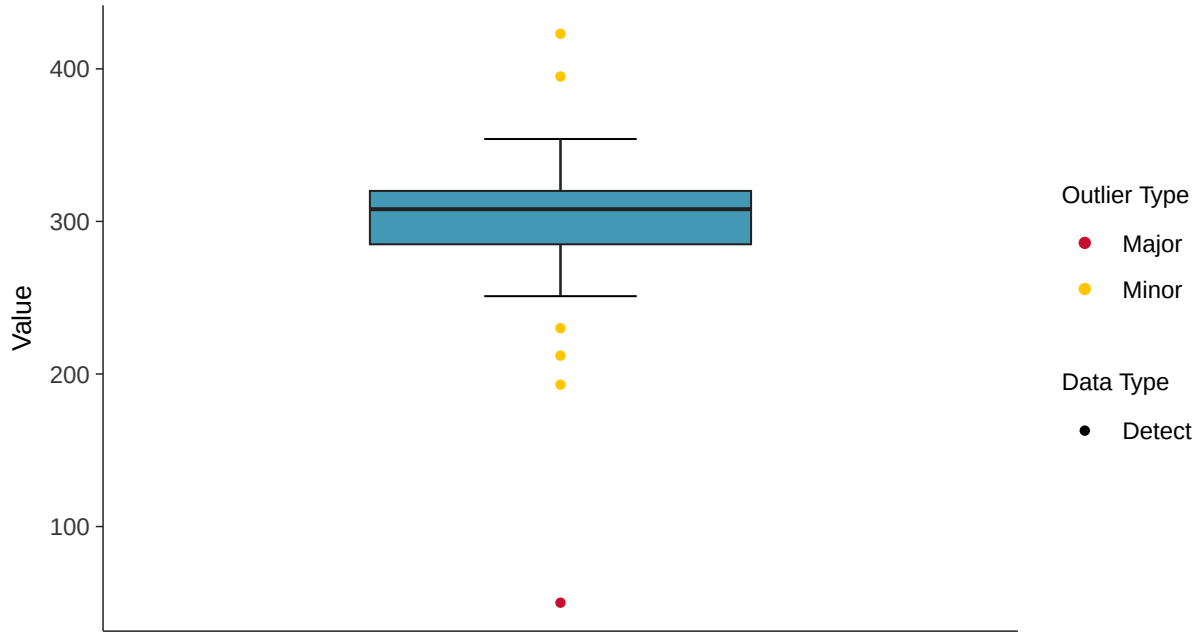
Histogram

Barium, MW-7R (ug/L)



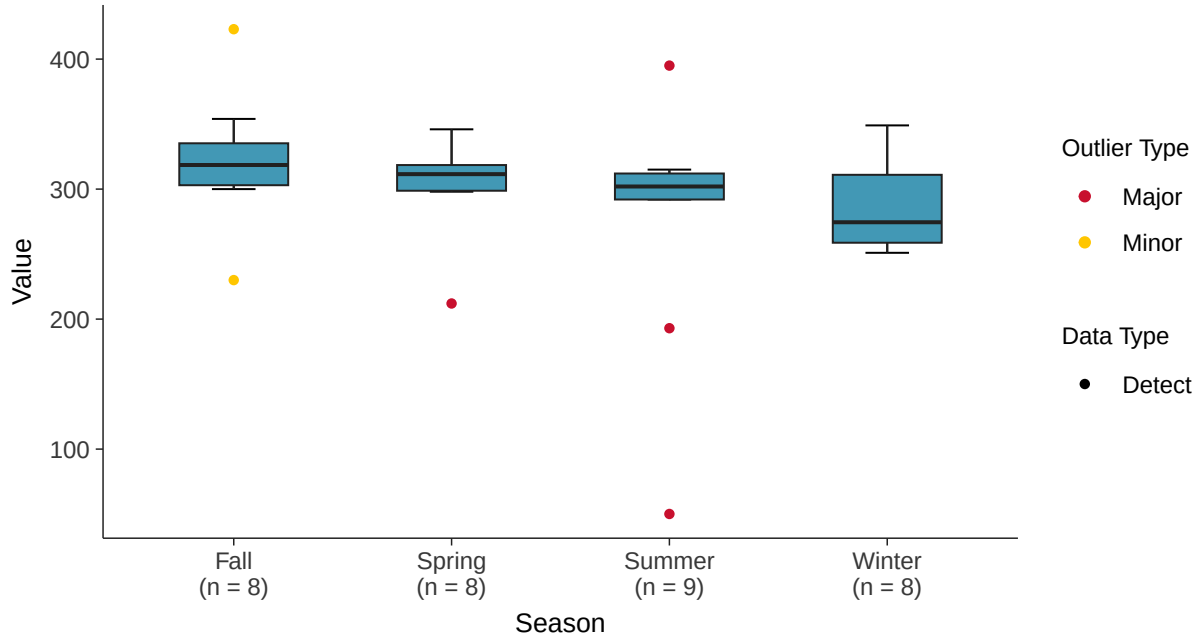
Boxplot

Barium, MW-7R (ug/L)



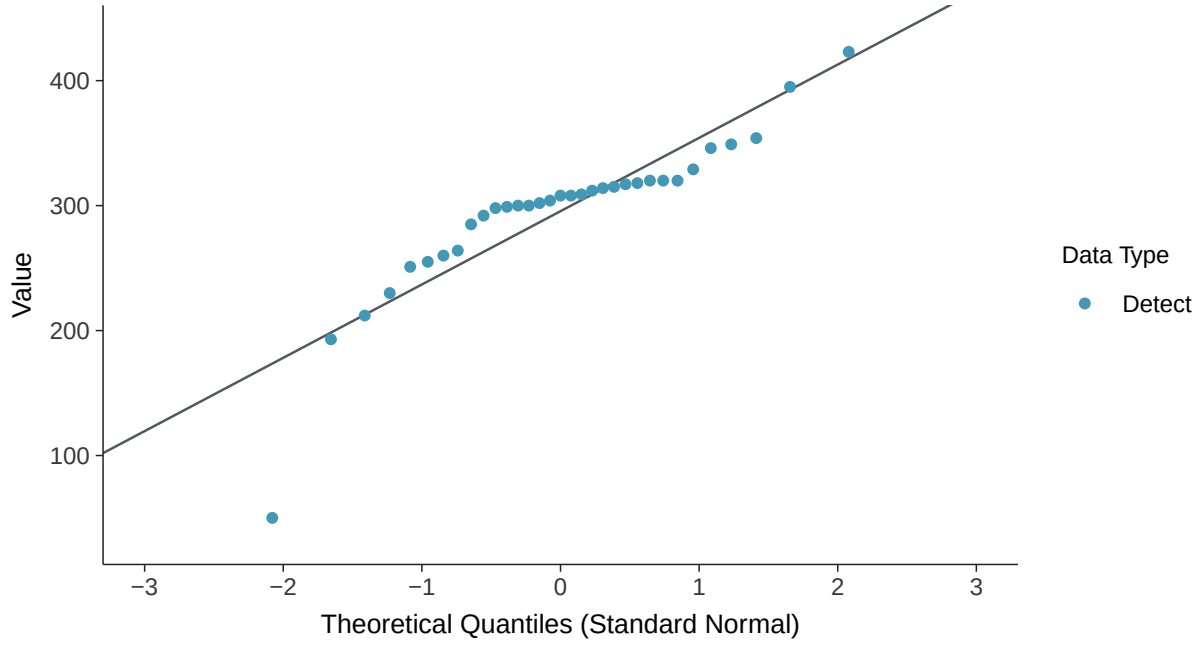
Boxplot by Season

Barium, MW-7R (ug/L)



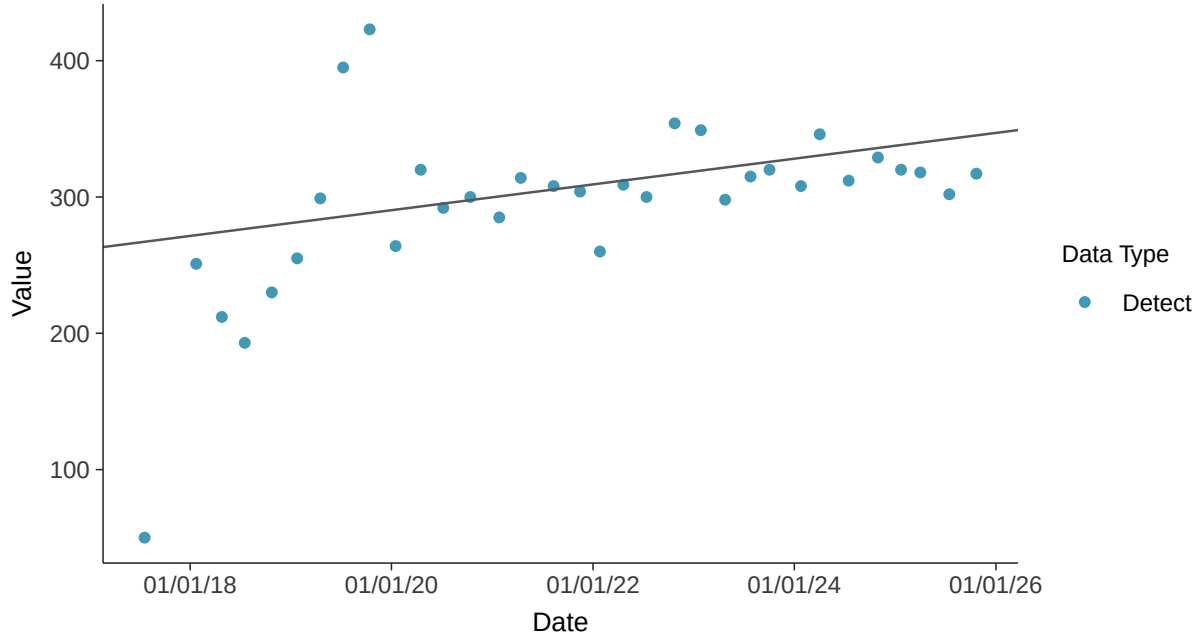
Normal Q-Q plot

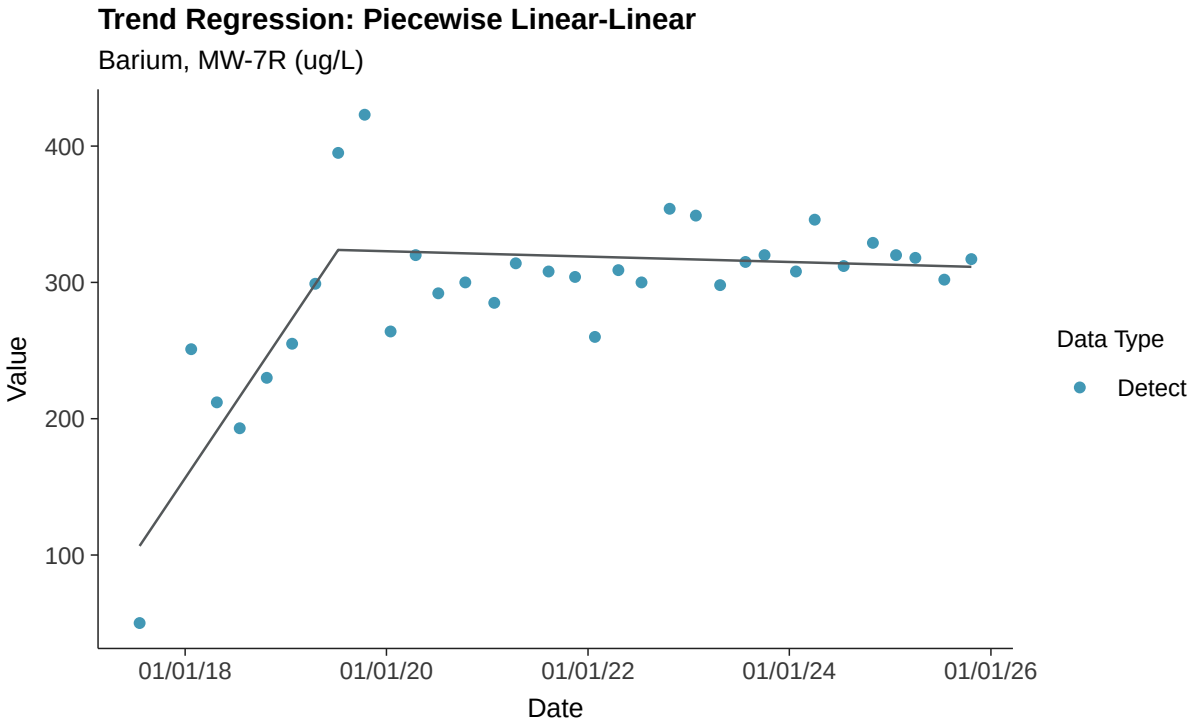
Barium, MW-7R (ug/L)



Trend Regression: Mann-Kendall/Theil-Sen Estimate

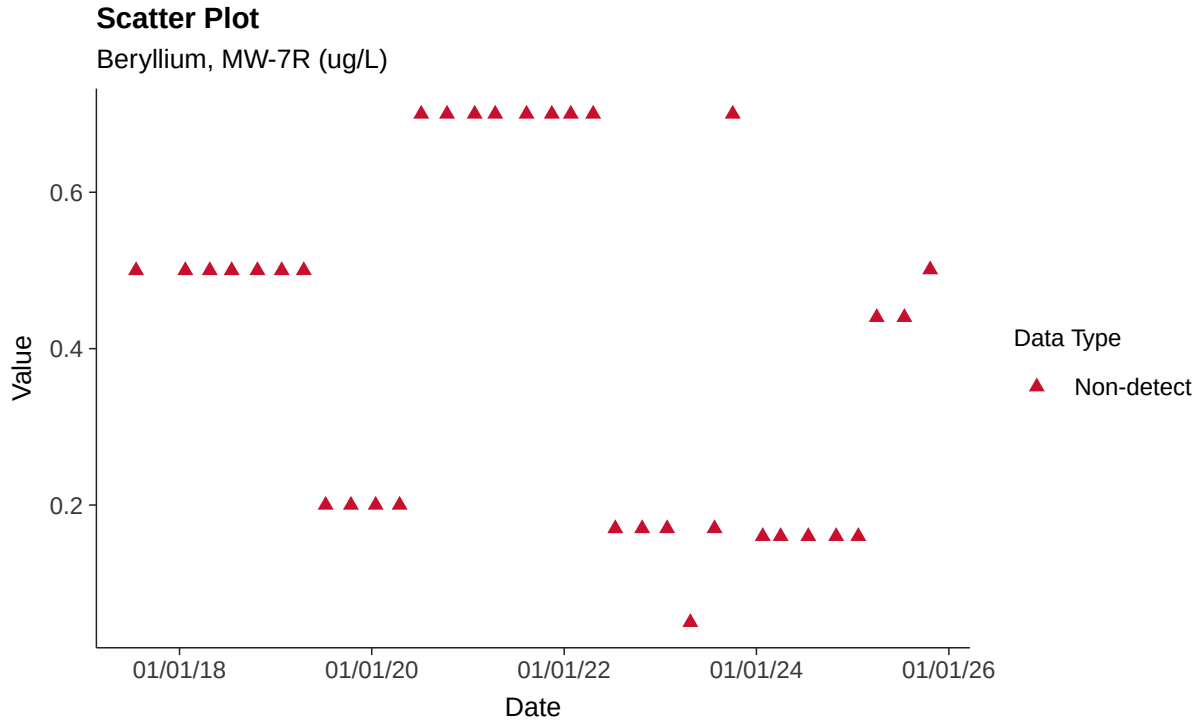
Barium, MW-7R (ug/L)

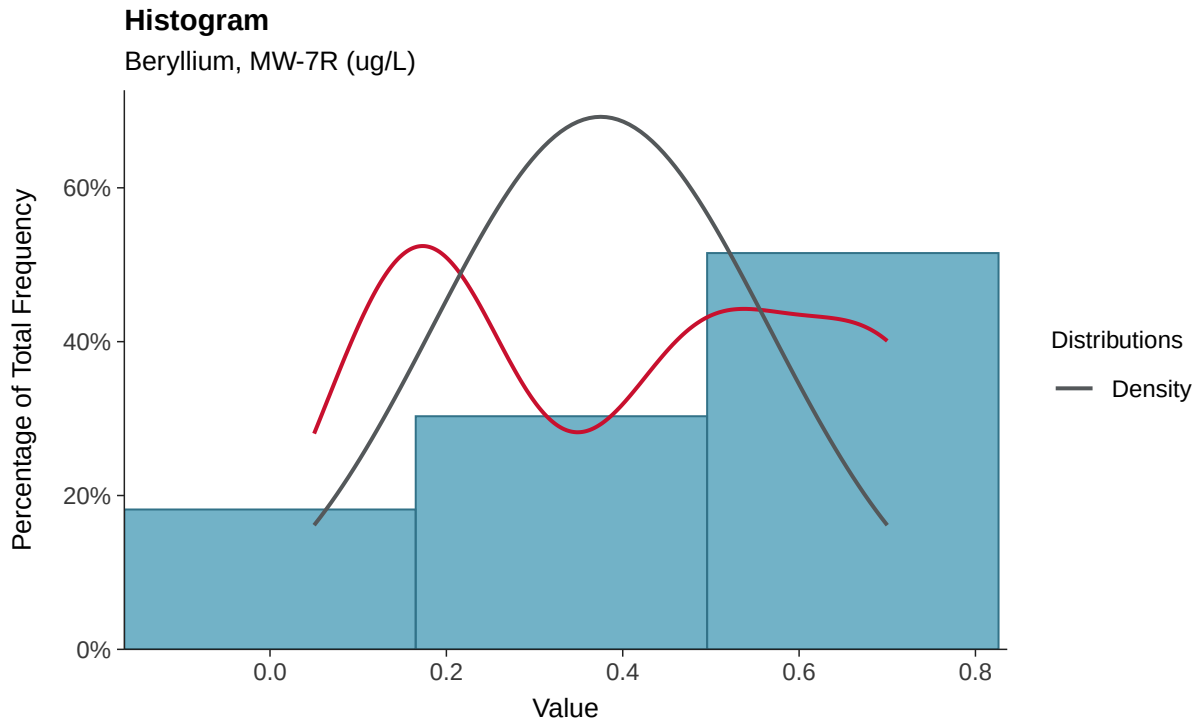



Trend Regression: Piecewise Linear-Linear
Barium, MW-7R (ug/L)
400
300
200
100
Value
01/01/18
01/01/20
01/01/22
01/01/24
01/01/26
Date
Data Type
Detect

App. IV: Beryllium, MW-7R

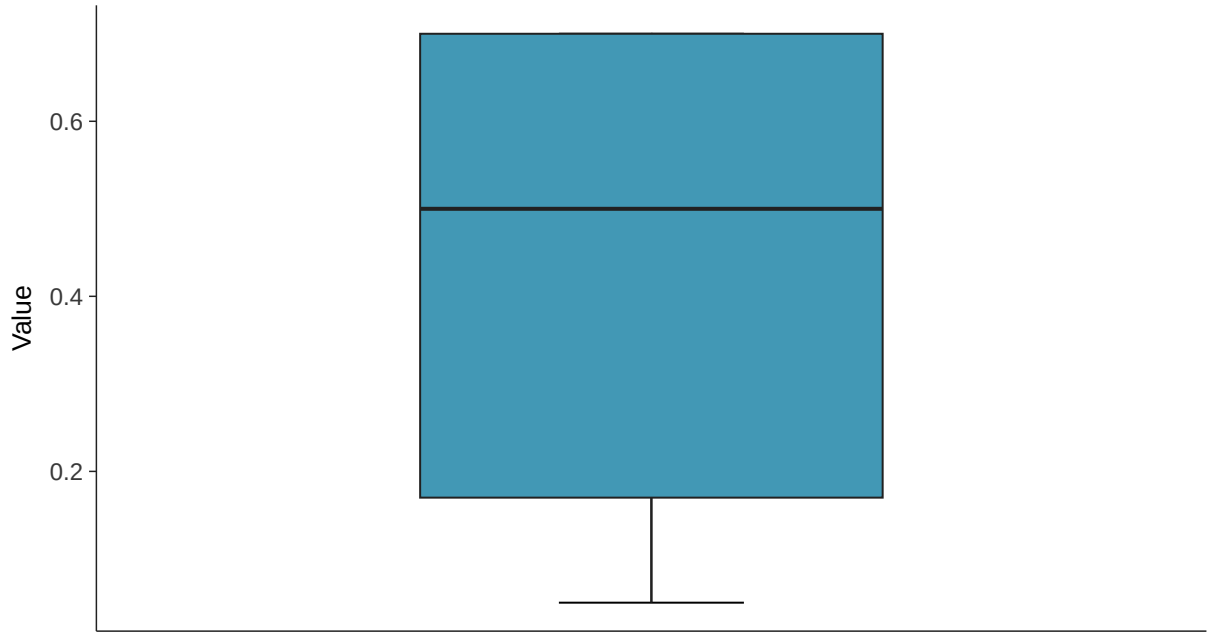
ID: 07_3_104





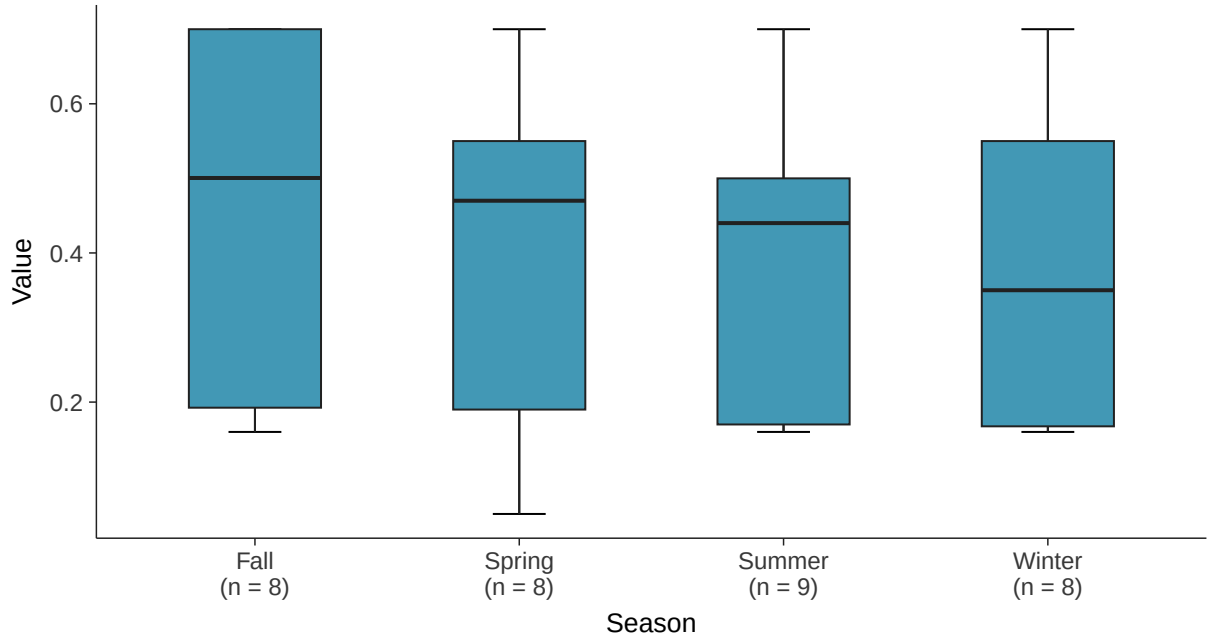
Boxplot

Beryllium, MW-7R (ug/L)



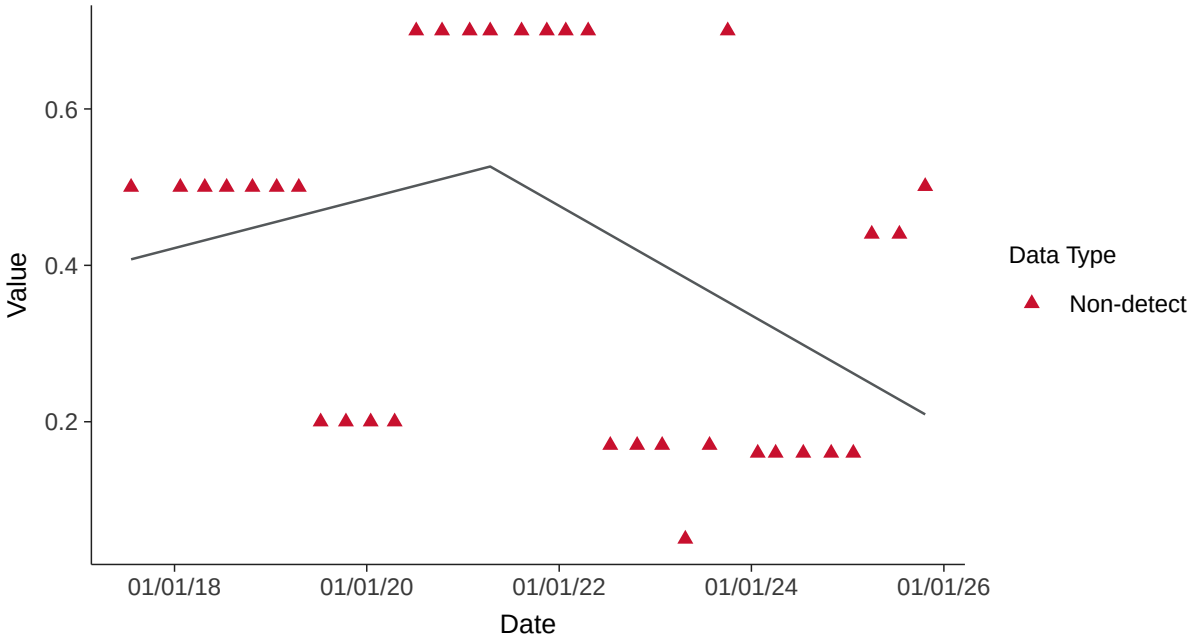
Boxplot by Season

Beryllium, MW-7R (ug/L)



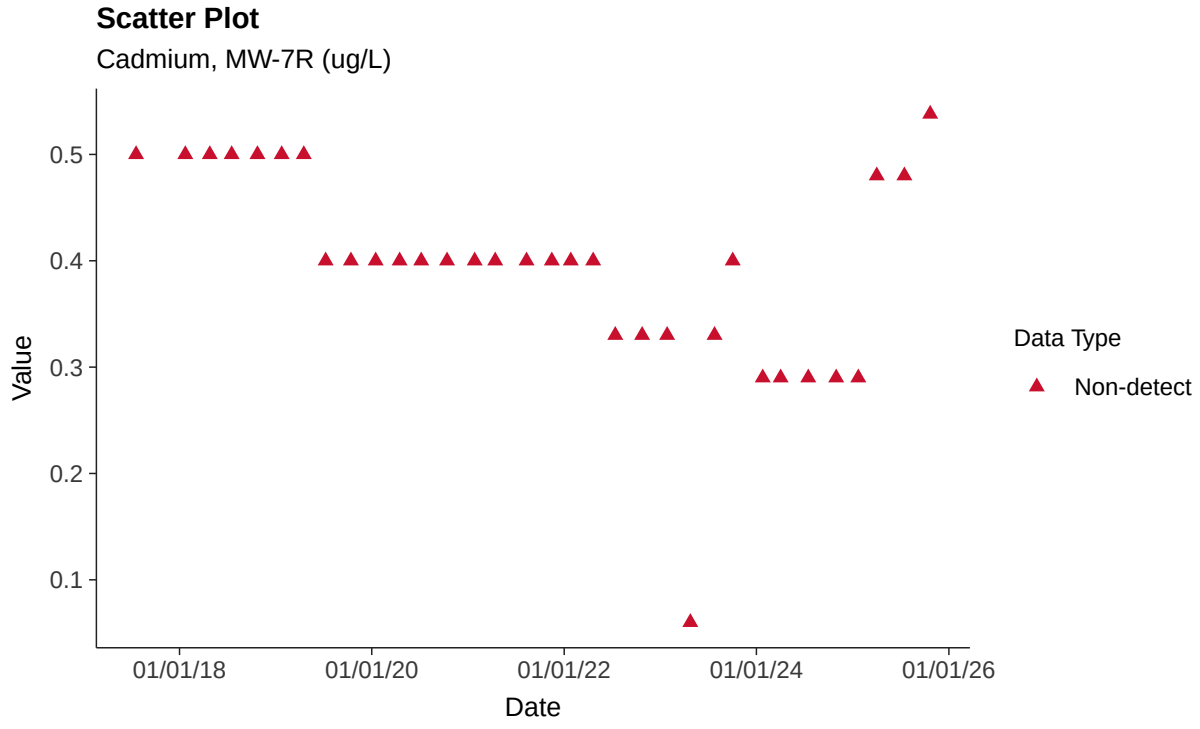
Trend Regression: Piecewise Linear-Linear

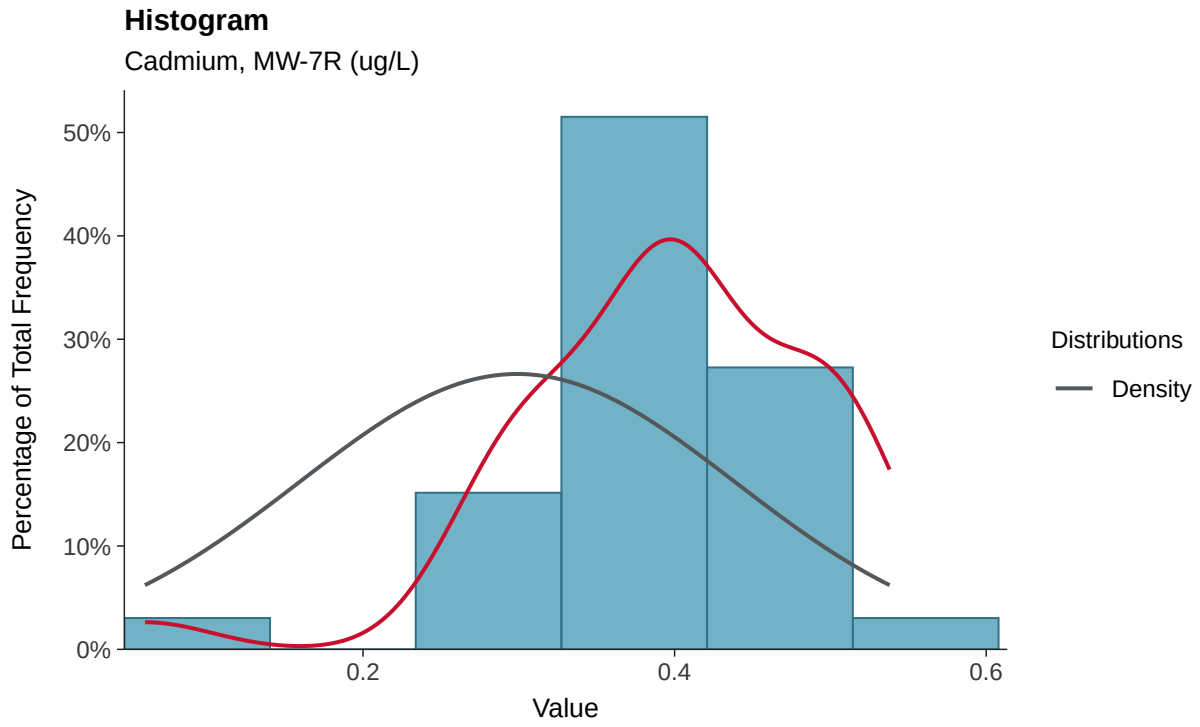
Beryllium, MW-7R (ug/L)



App. IV: Cadmium, MW-7R

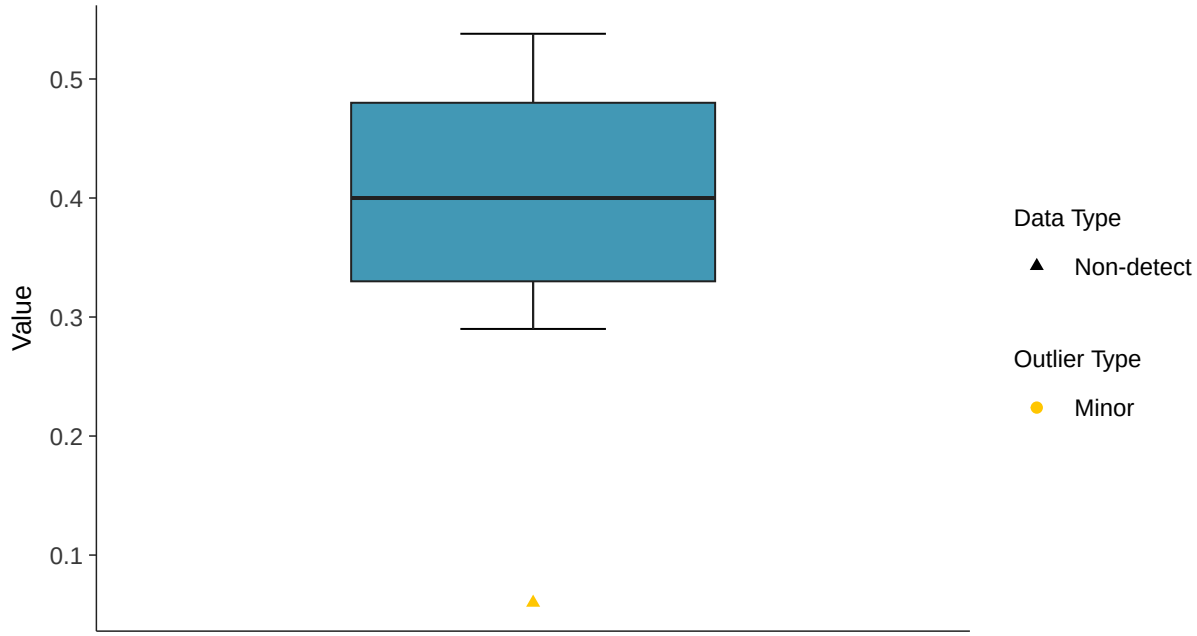
ID: 07_3_106





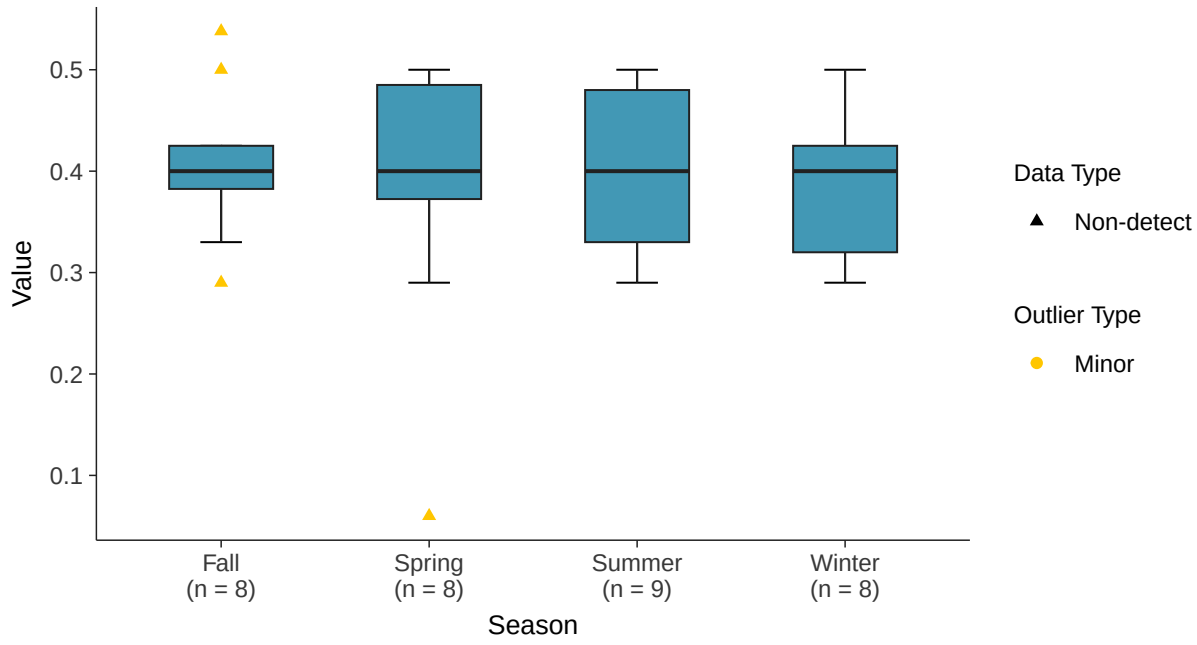
Boxplot

Cadmium, MW-7R (ug/L)



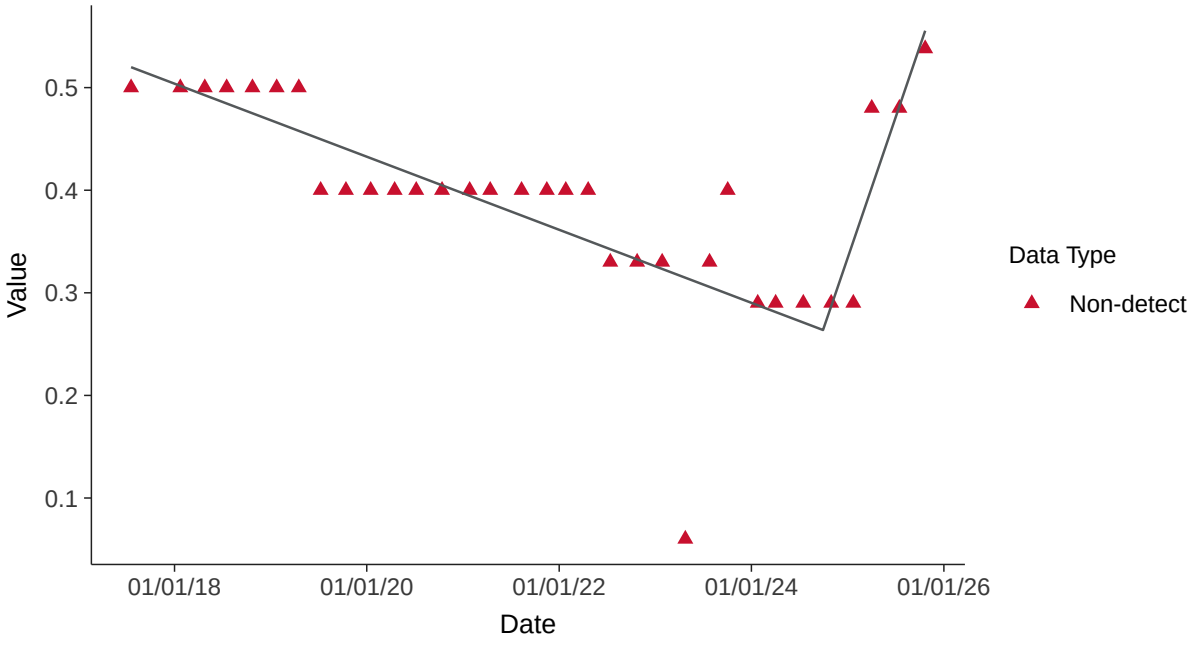
Boxplot by Season

Cadmium, MW-7R (ug/L)



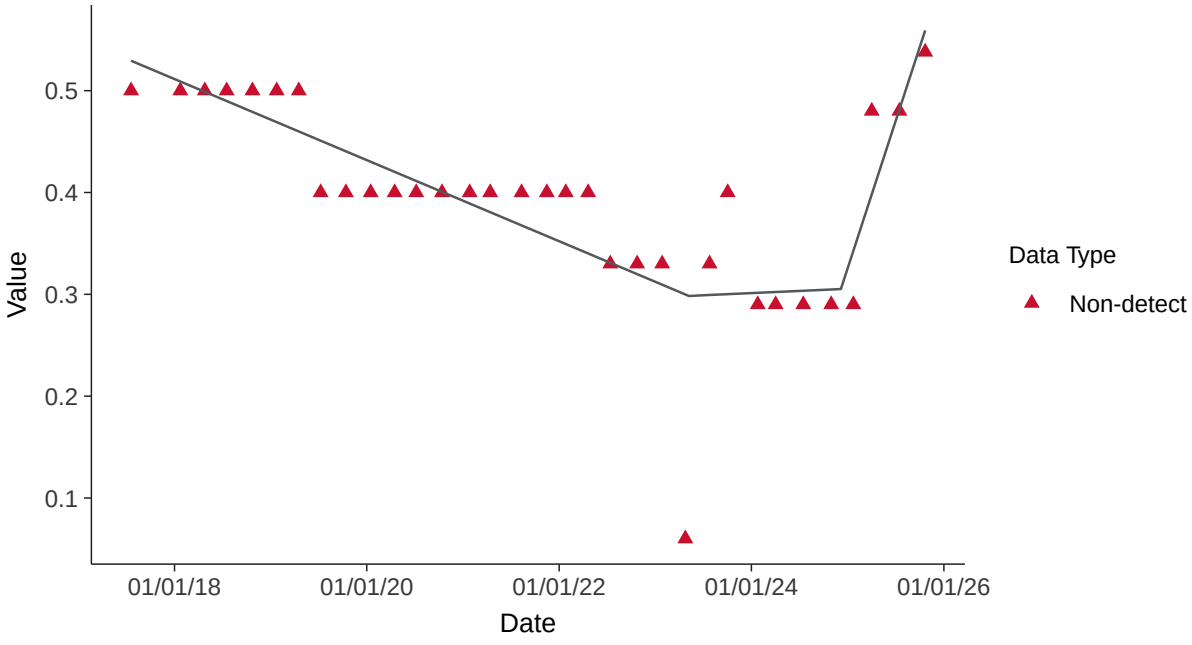
Trend Regression: Piecewise Linear-Linear

Cadmium, MW-7R (ug/L)



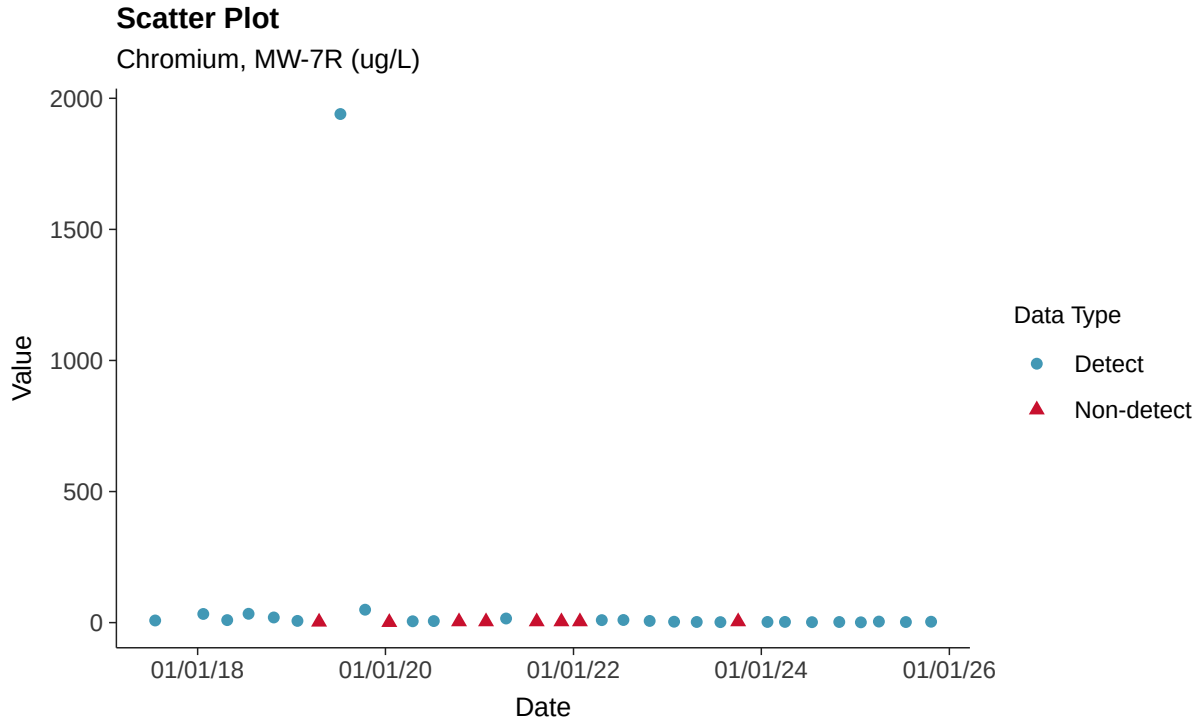
Trend Regression: Piecewise Linear-Linear-Linear

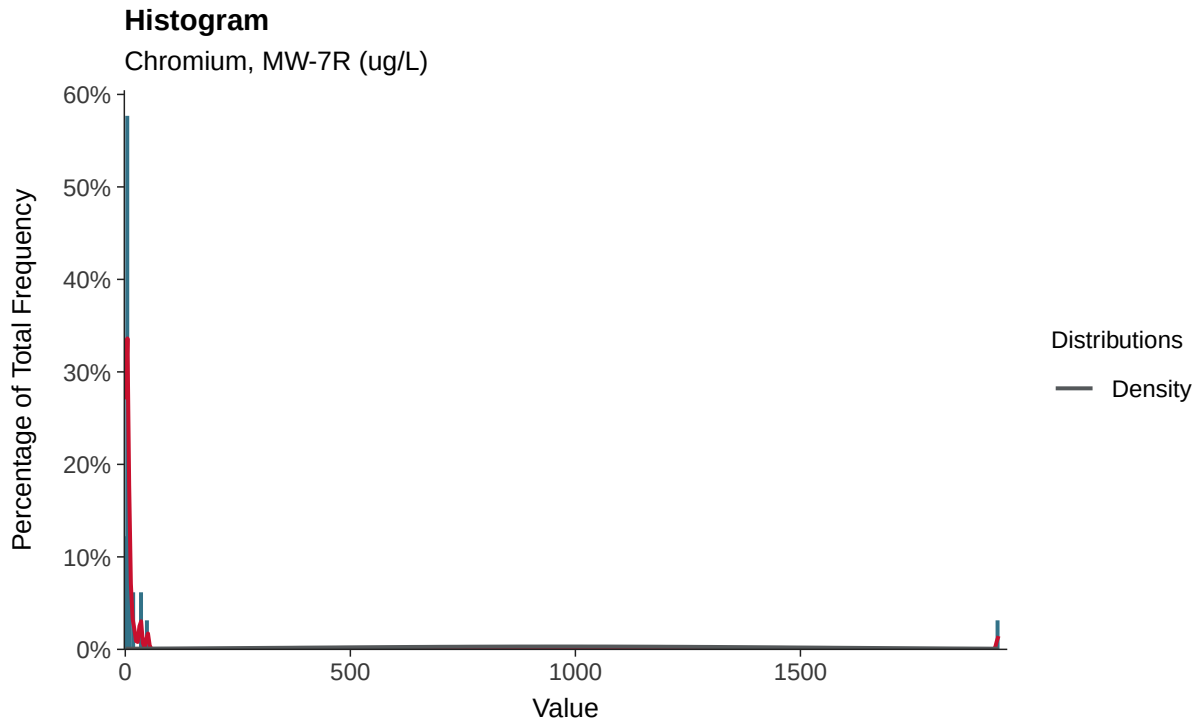
Cadmium, MW-7R (ug/L)



App. IV: Chromium, MW-7R

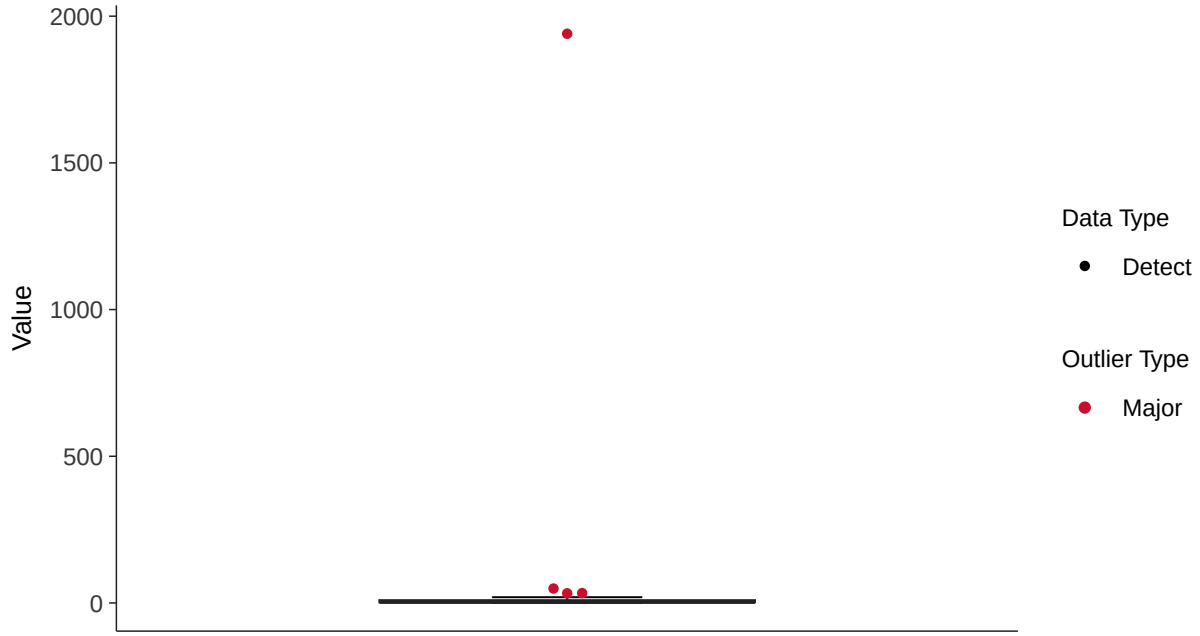
ID: 07_3_109





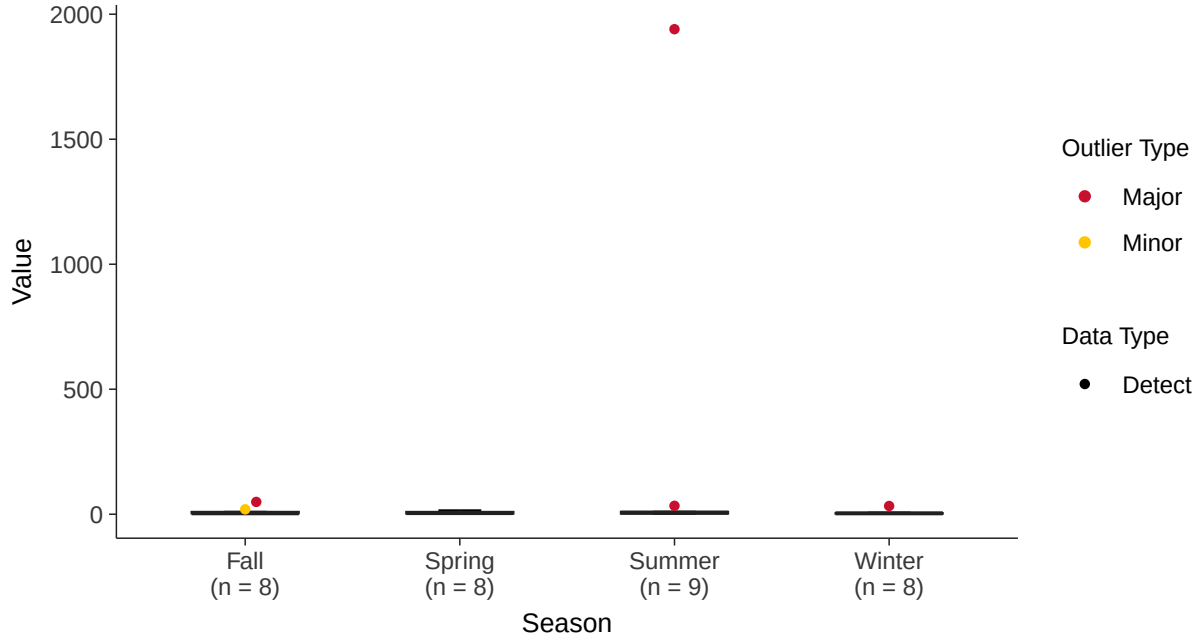
Boxplot

Chromium, MW-7R (ug/L)



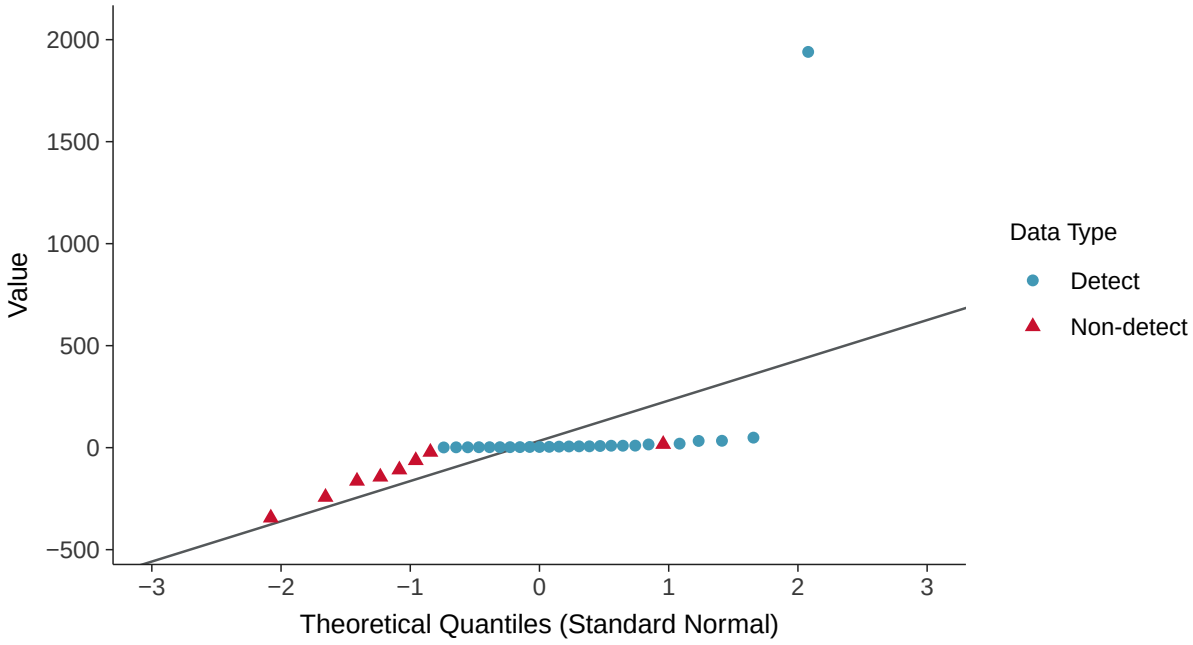
Boxplot by Season

Chromium, MW-7R (ug/L)



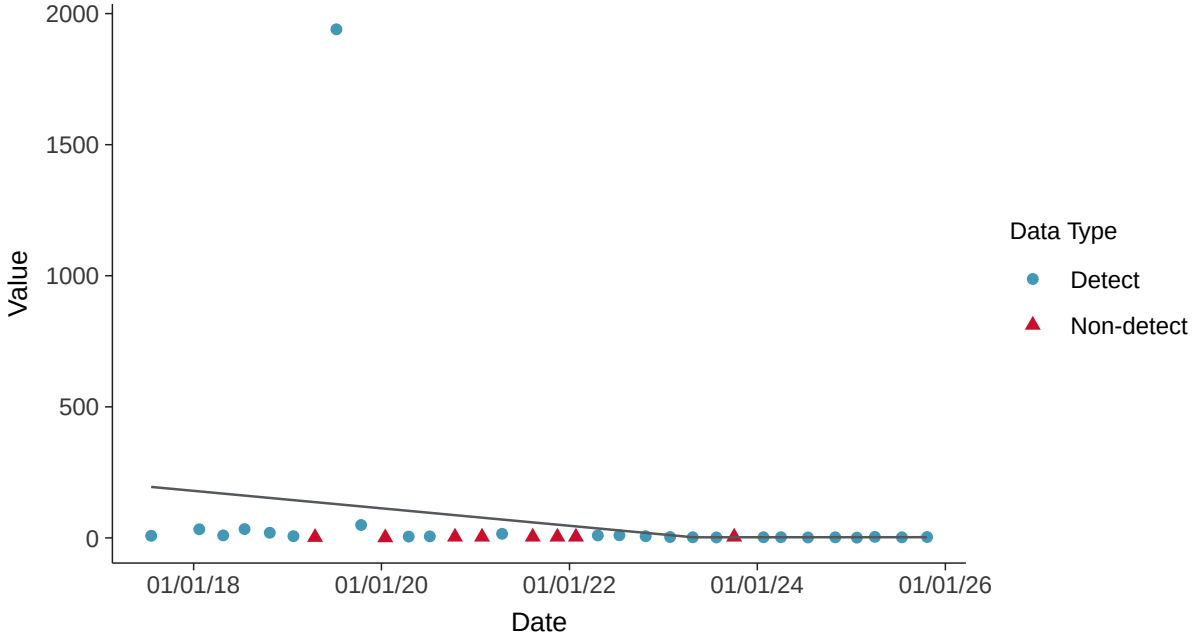
Normal Q-Q plot using ROS Imputed Estimates

Chromium, MW-7R (ug/L)



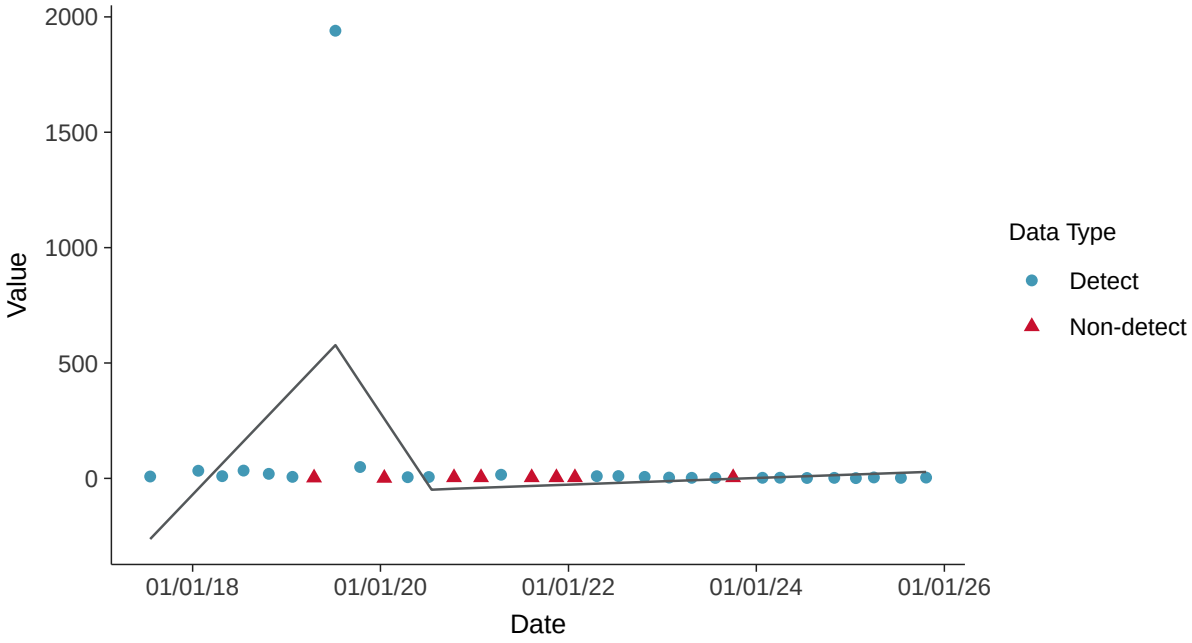
Trend Regression: Piecewise Linear-Linear

Chromium, MW-7R (ug/L)



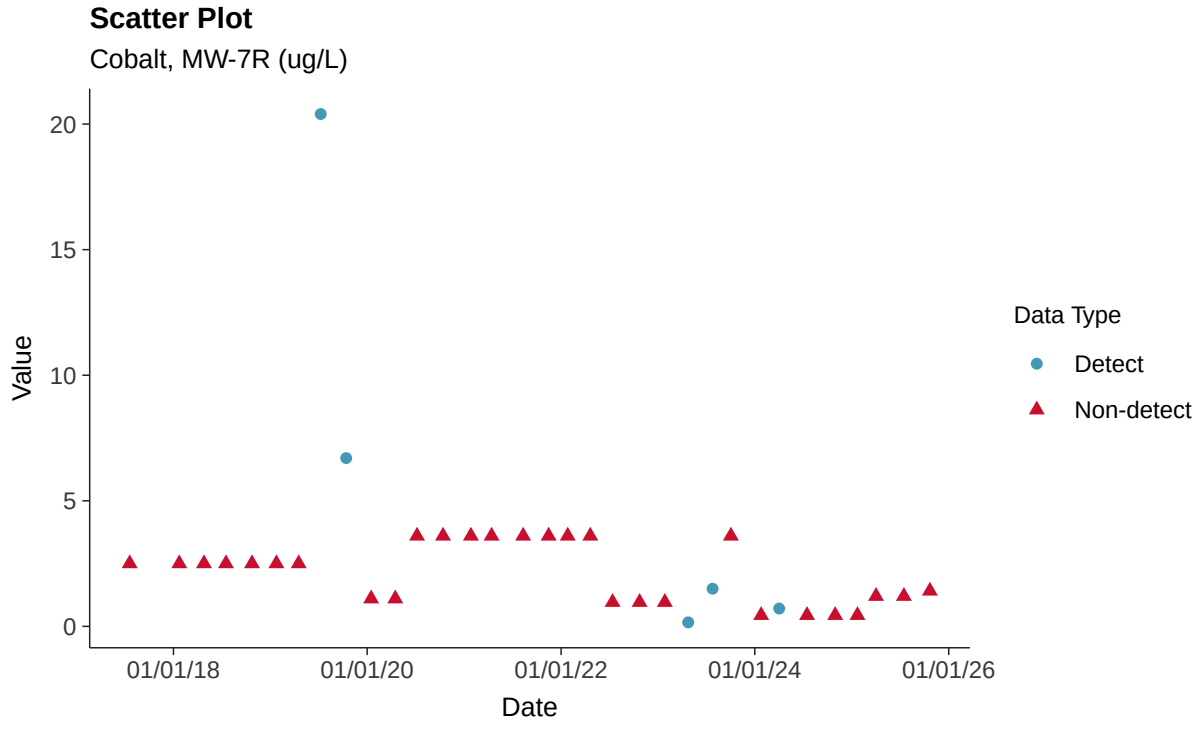
Trend Regression: Piecewise Linear-Linear-Linear

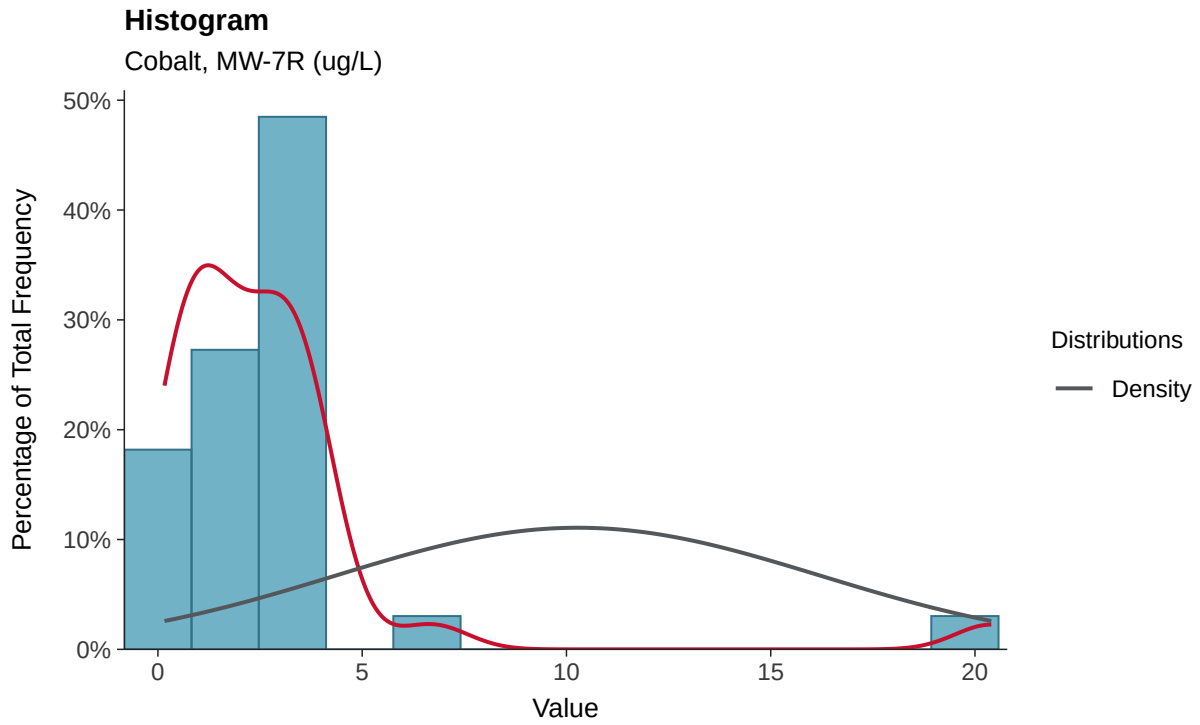
Chromium, MW-7R (ug/L)



App. IV: Cobalt, MW-7R

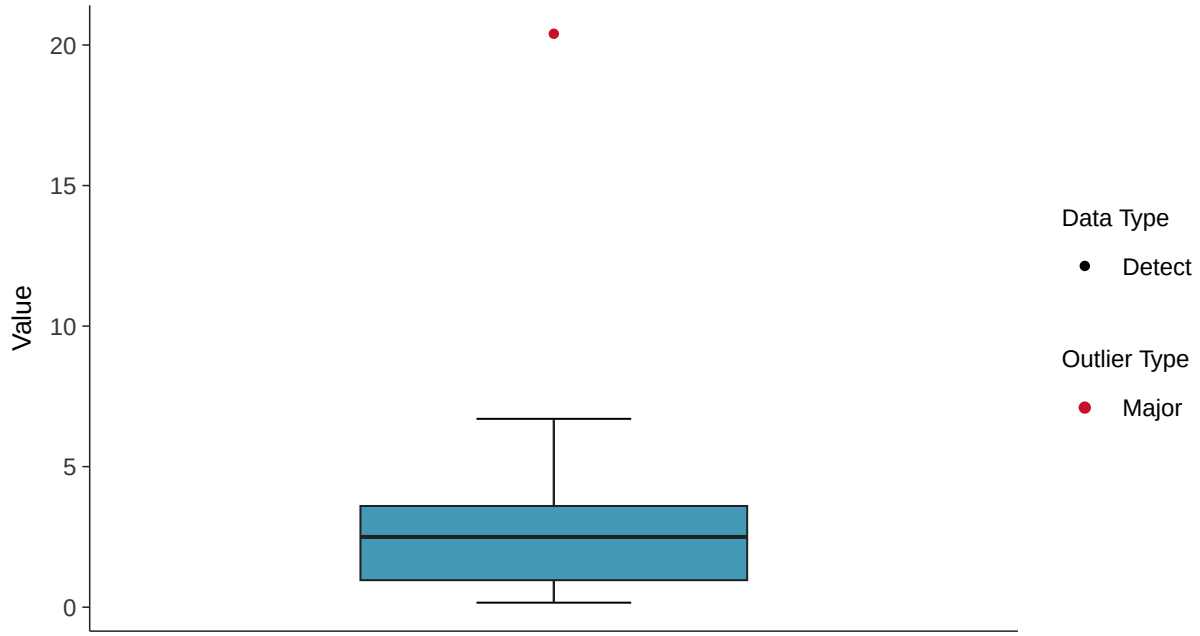
ID: 07_3_110





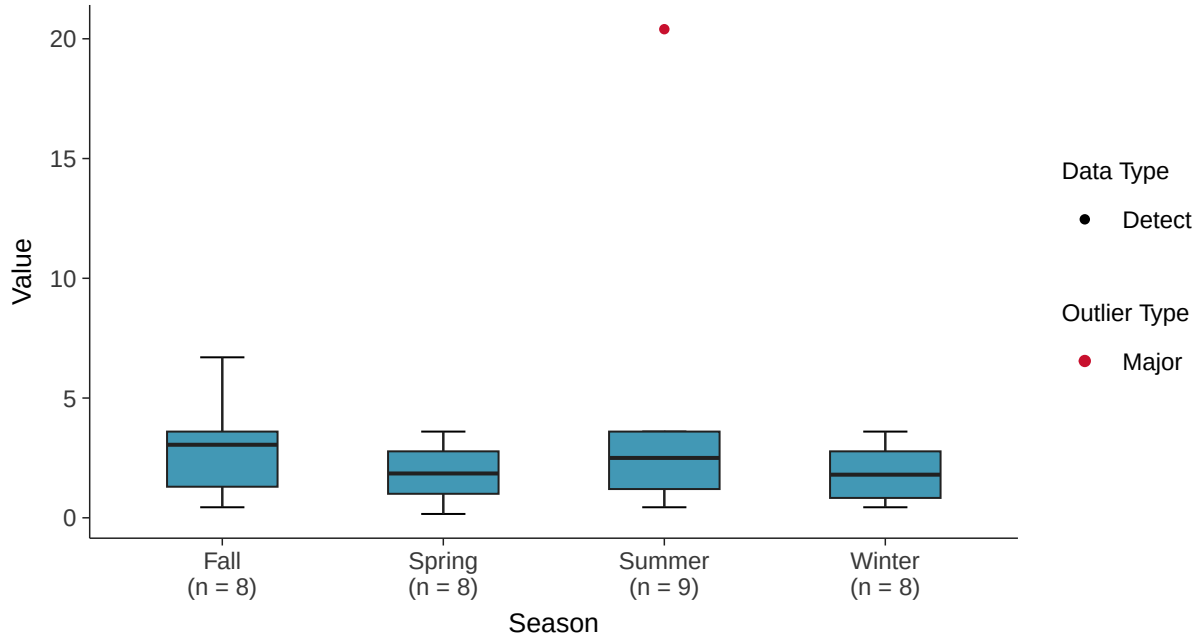
Boxplot

Cobalt, MW-7R (ug/L)



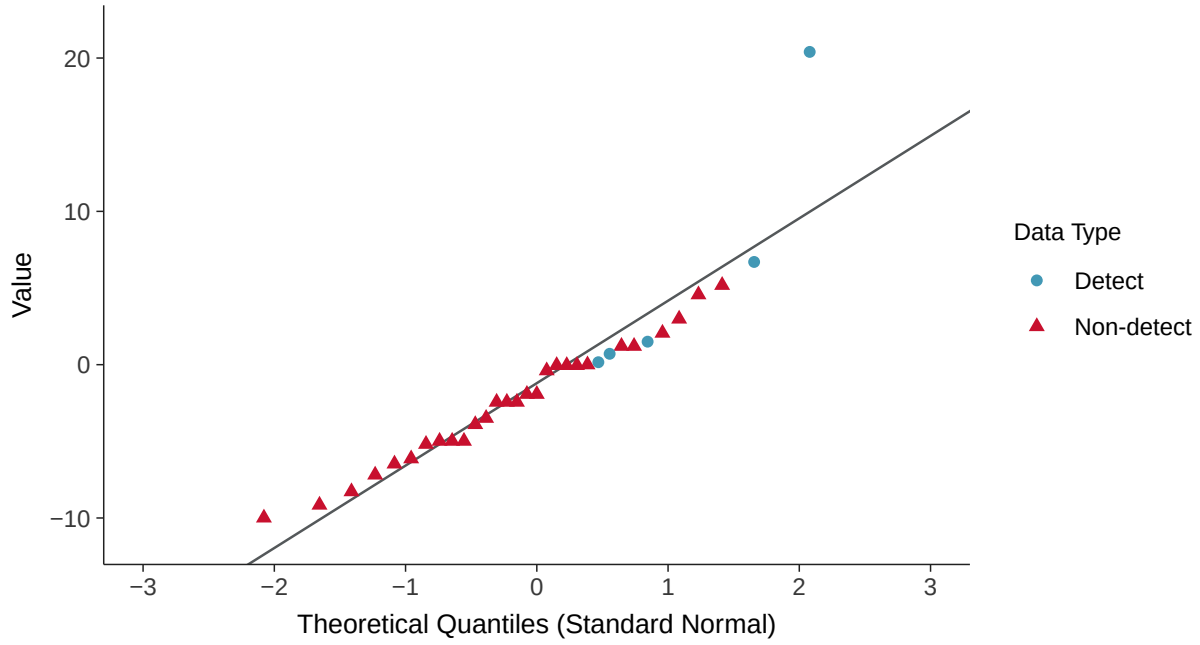
Boxplot by Season

Cobalt, MW-7R (ug/L)



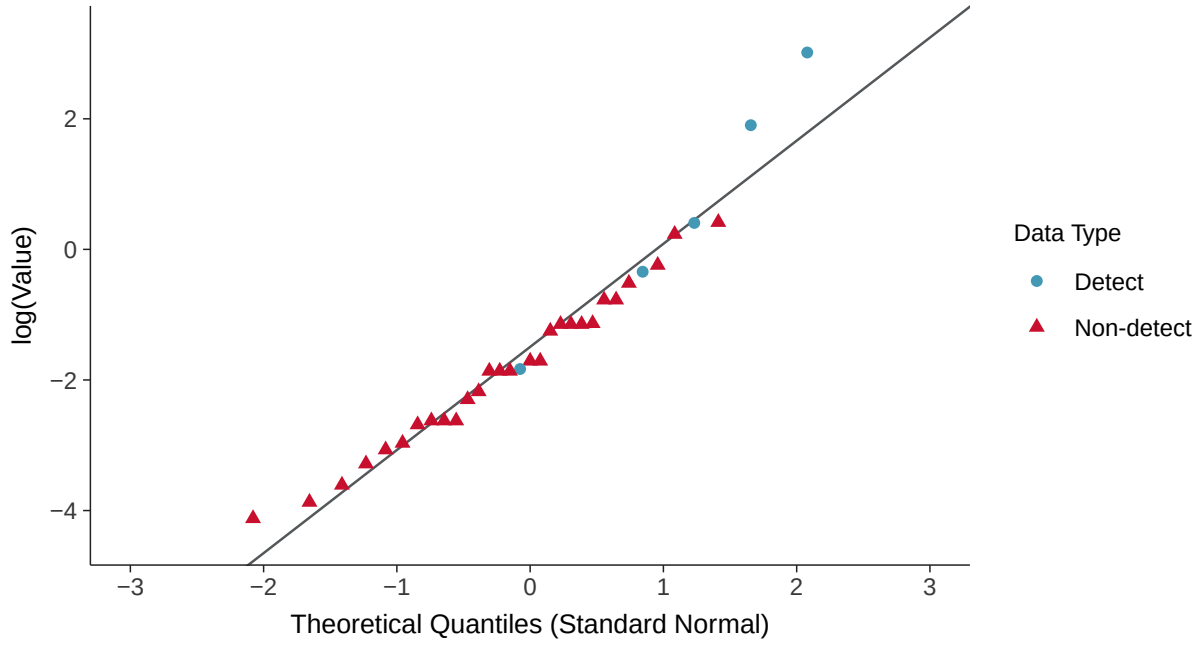
Normal Q-Q plot using ROS Imputed Estimates

Cobalt, MW-7R (ug/L)



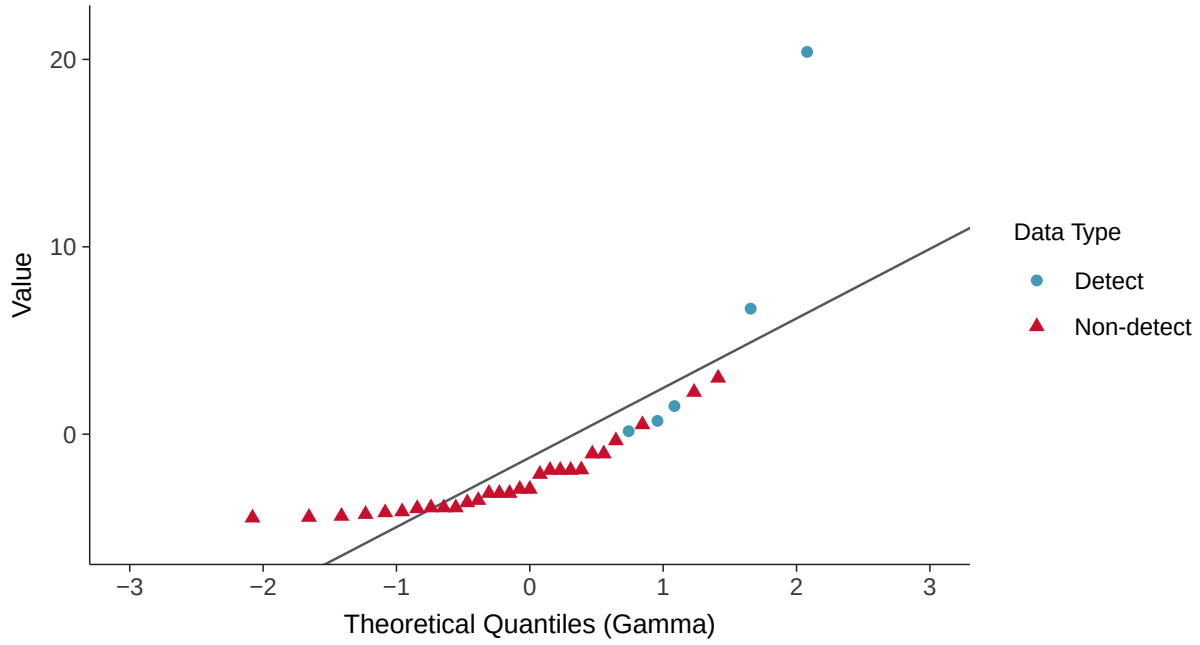
Lognormal Q-Q plot using ROS Imputed Estimates

Cobalt, MW-7R (ug/L)



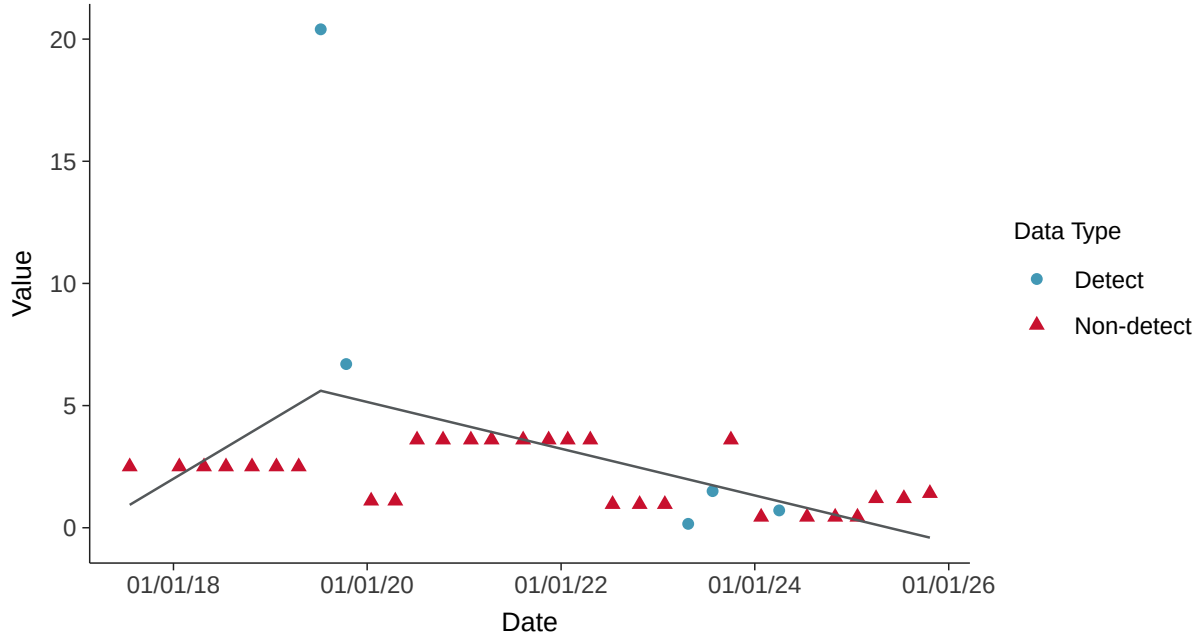
Gamma Q-Q plot using ROS Imputed Estimates

Cobalt, MW-7R (ug/L)



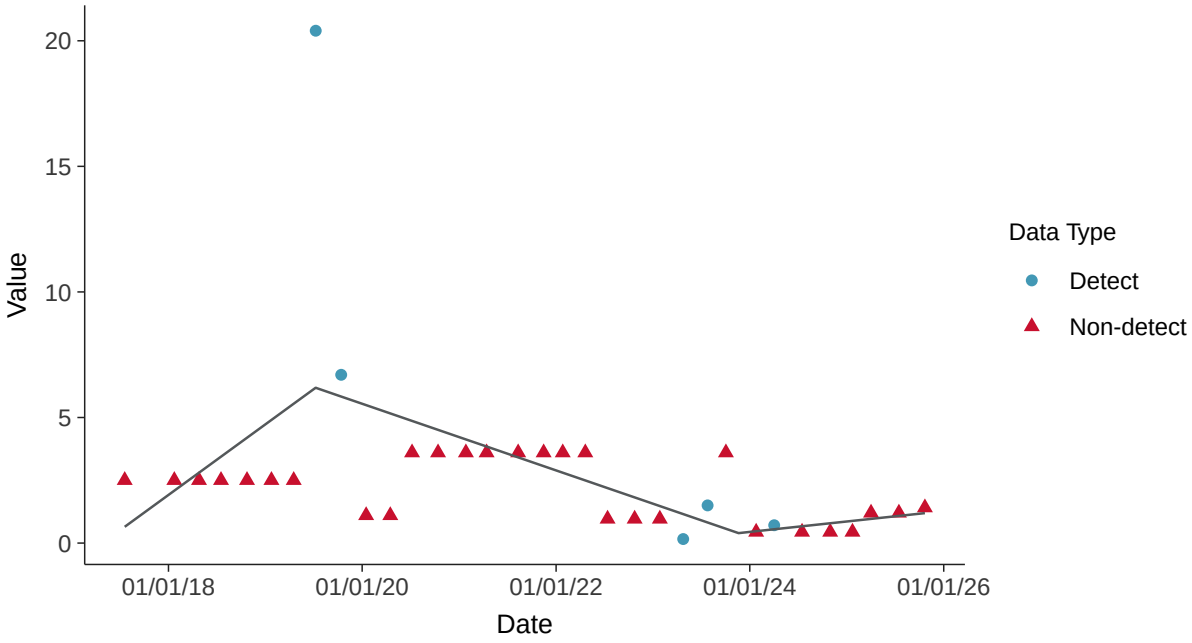
Trend Regression: Piecewise Linear-Linear

Cobalt, MW-7R (ug/L)



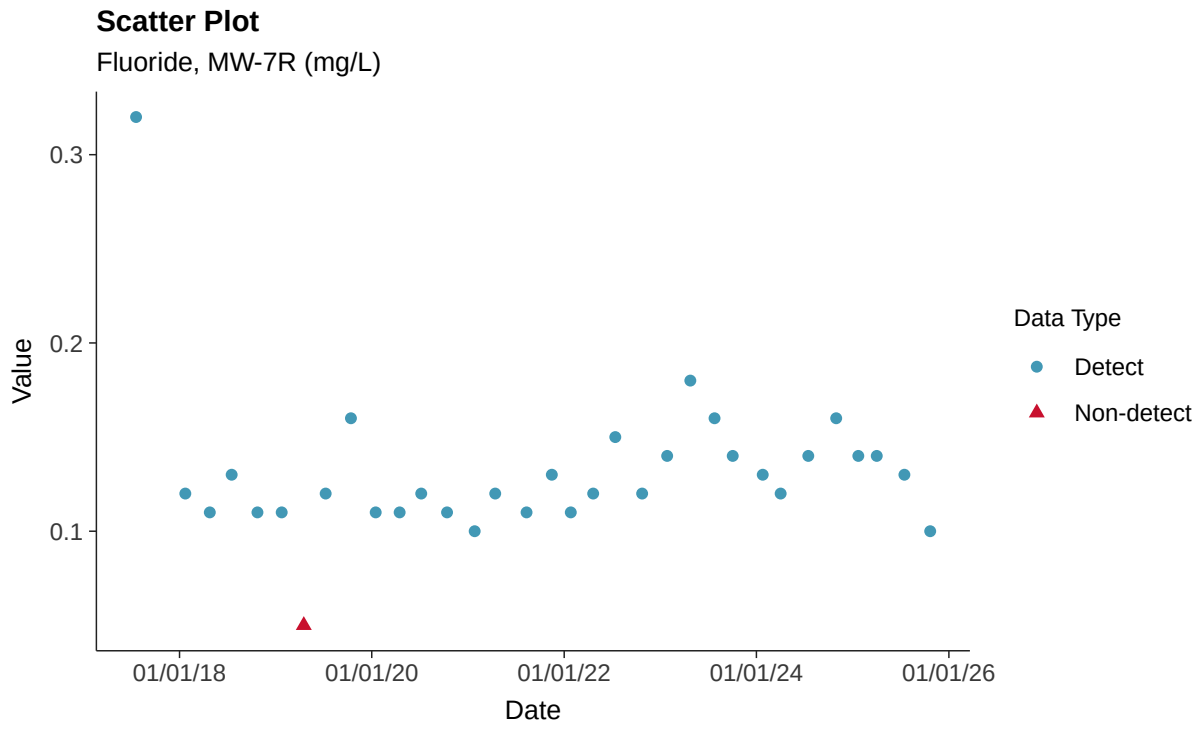
Trend Regression: Piecewise Linear-Linear-Linear

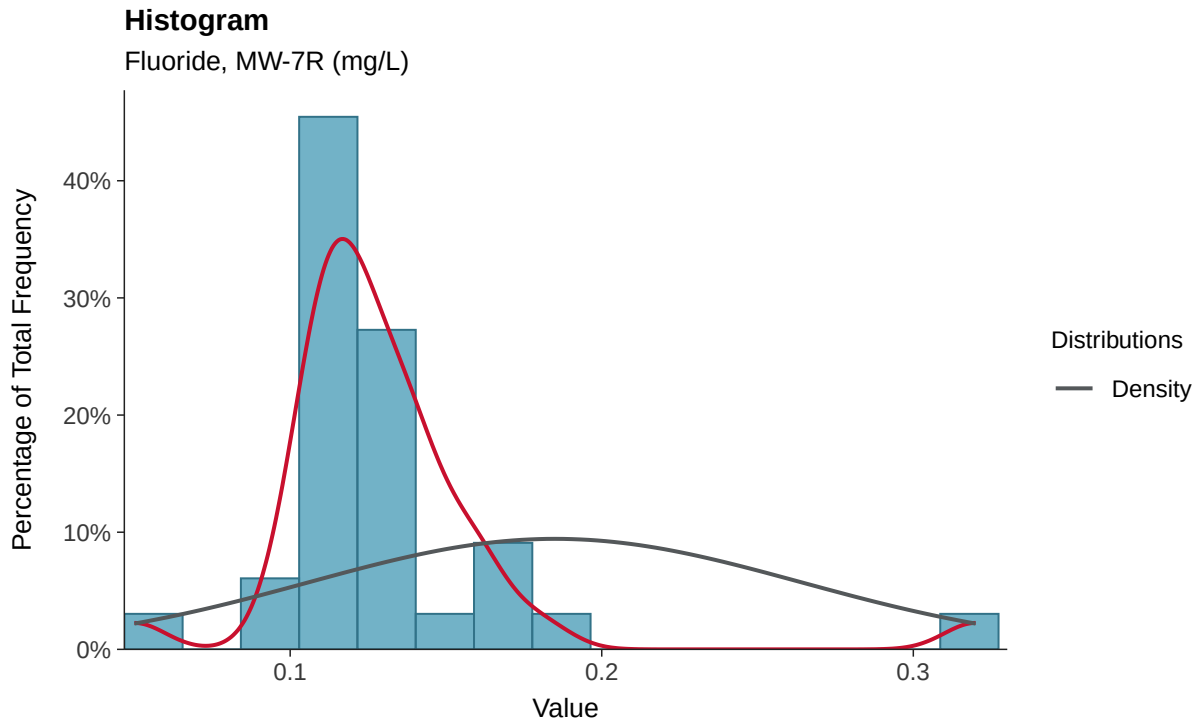
Cobalt, MW-7R (ug/L)



App. IV: Fluoride, MW-7R

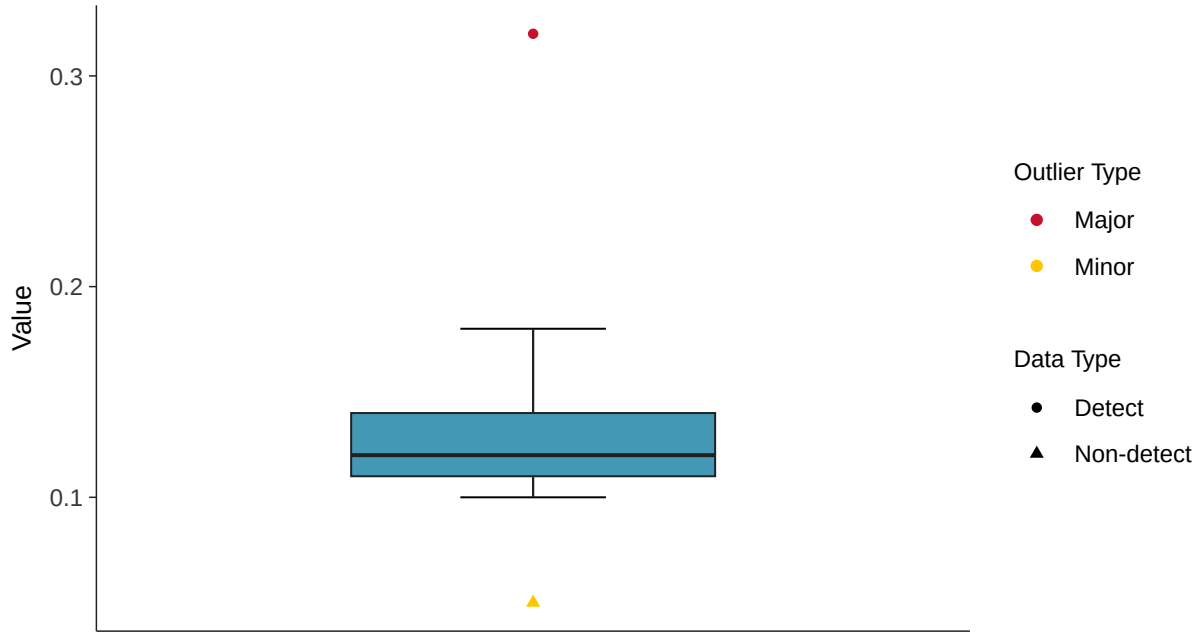
ID: 07_3_112





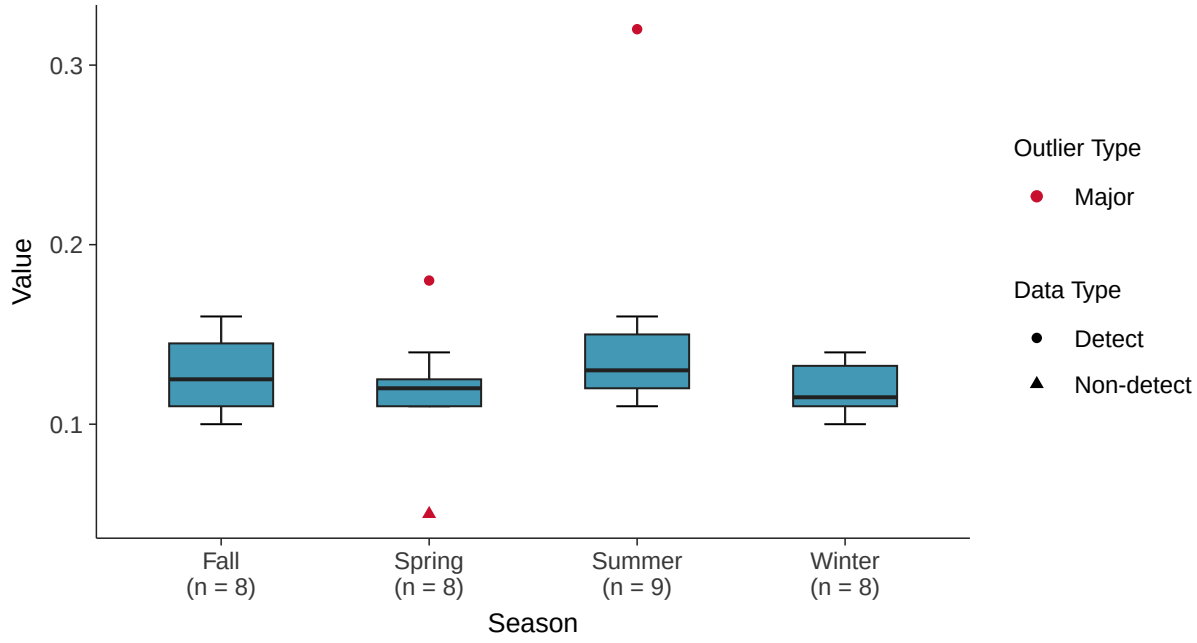
Boxplot

Fluoride, MW-7R (mg/L)



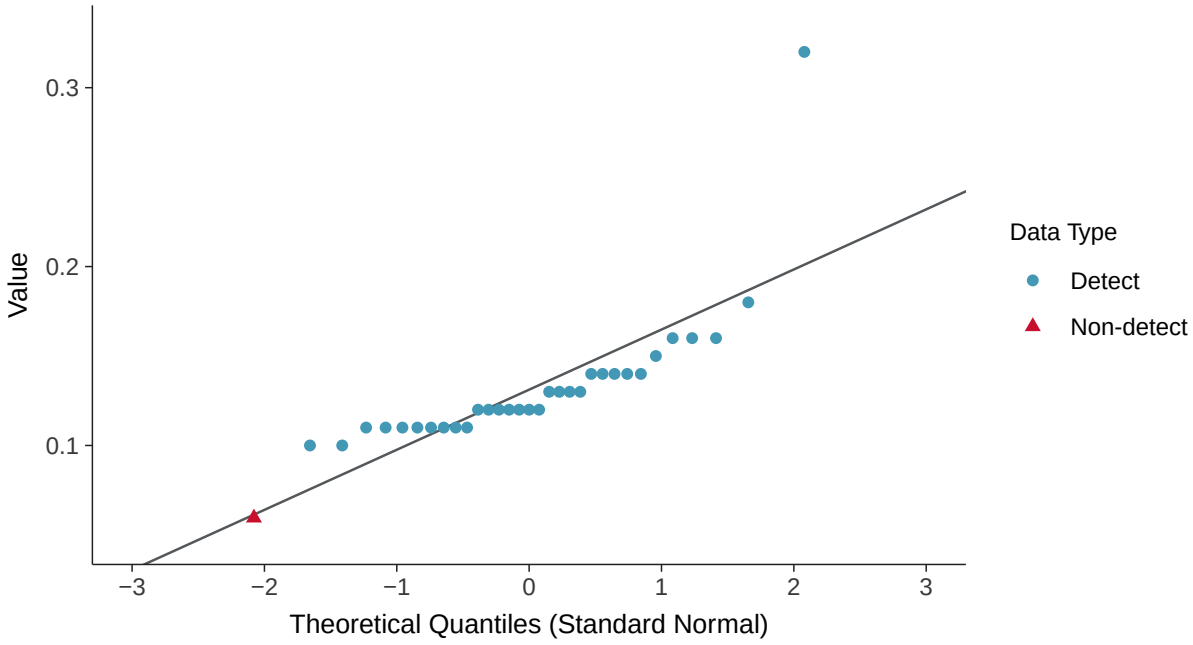
Boxplot by Season

Fluoride, MW-7R (mg/L)



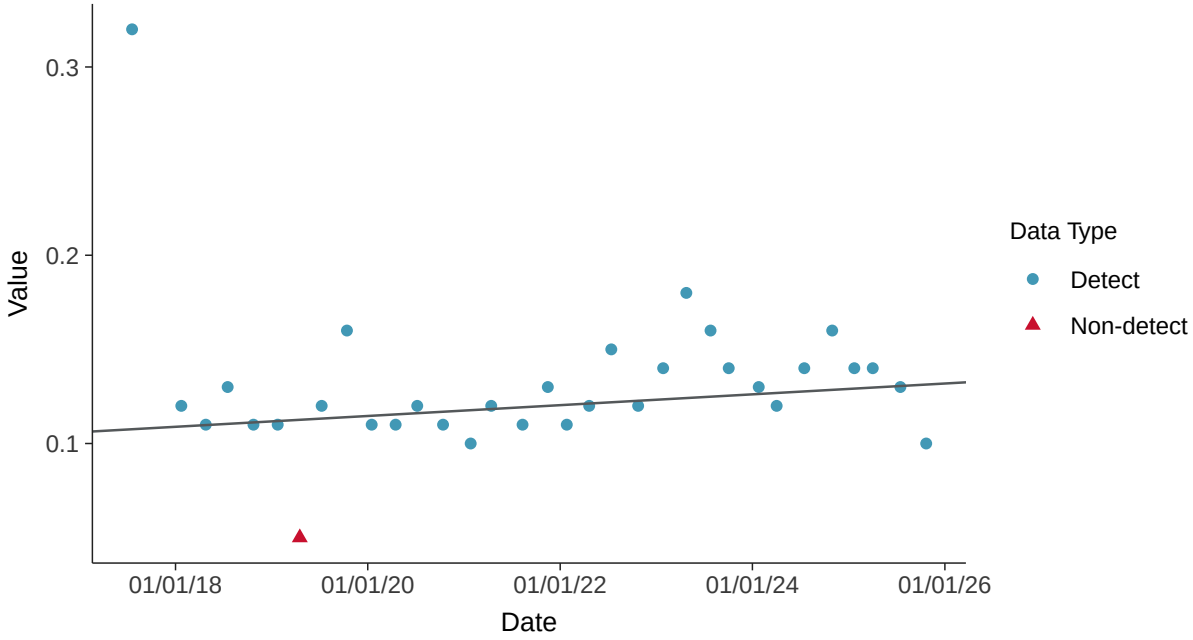
Normal Q-Q plot using ROS Imputed Estimates

Fluoride, MW-7R (mg/L)



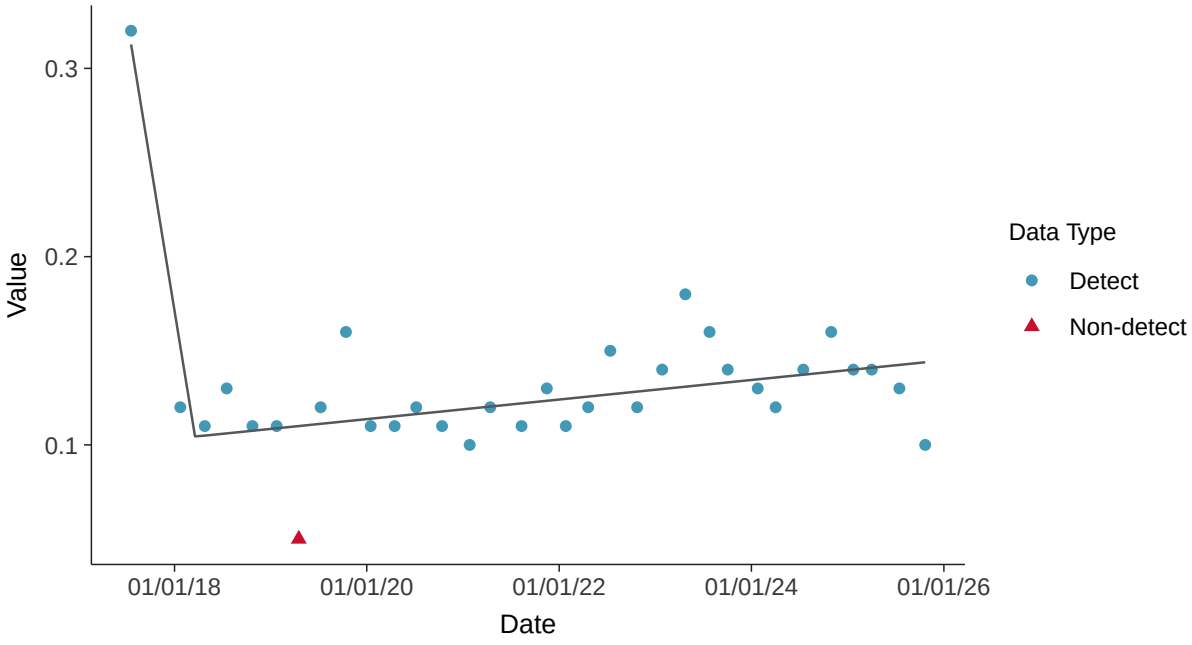
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Fluoride, MW-7R (mg/L)



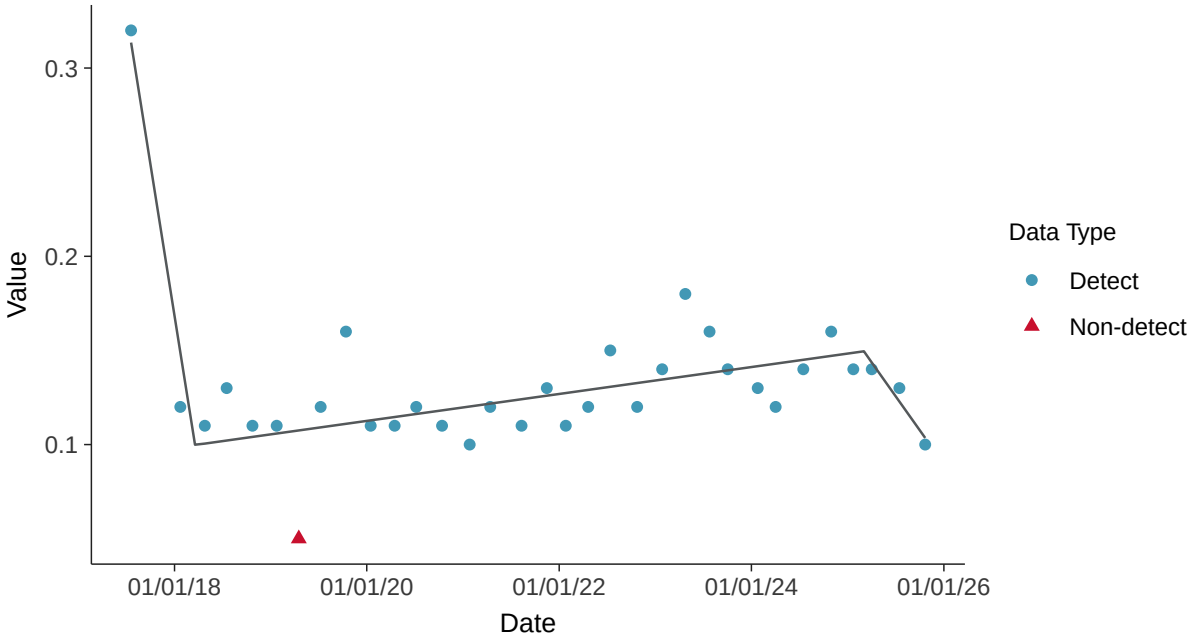
Trend Regression: Piecewise Linear-Linear

Fluoride, MW-7R (mg/L)



Trend Regression: Piecewise Linear-Linear-Linear

Fluoride, MW-7R (mg/L)

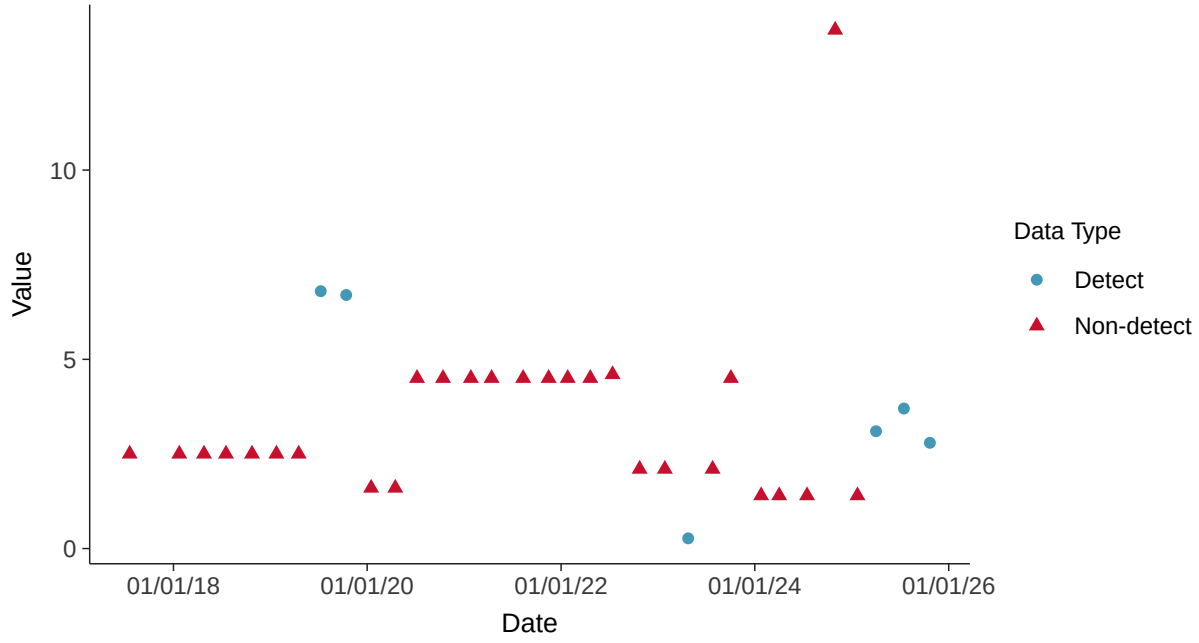


App. IV: Lead, MW-7R

ID: 07_3_113

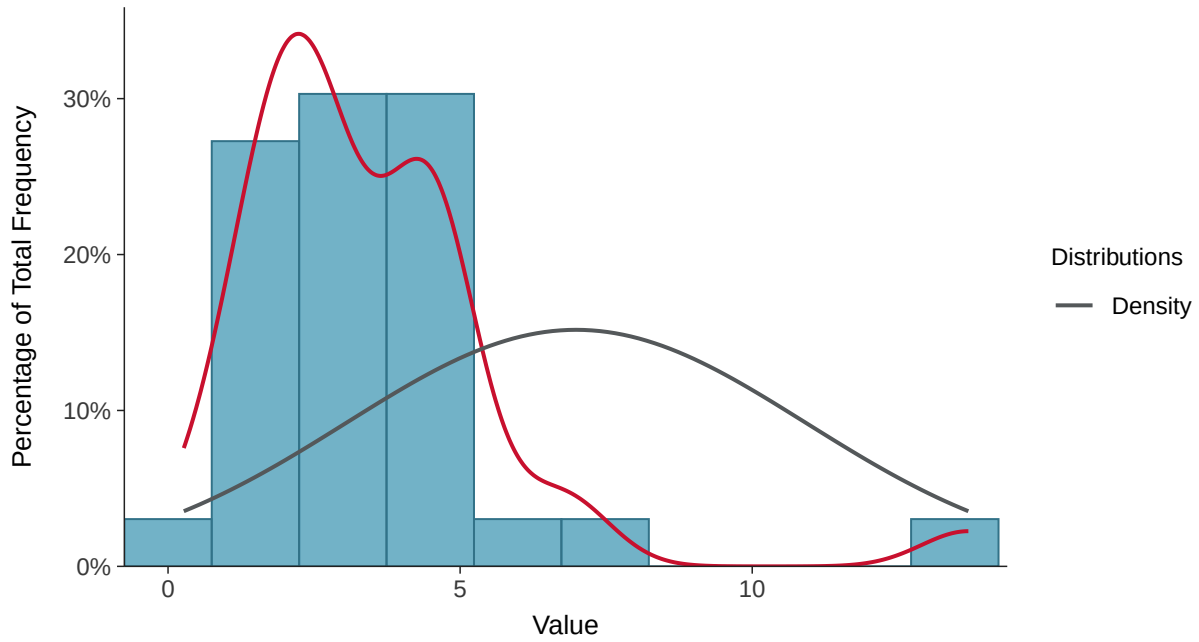
Scatter Plot

Lead, MW-7R (ug/L)



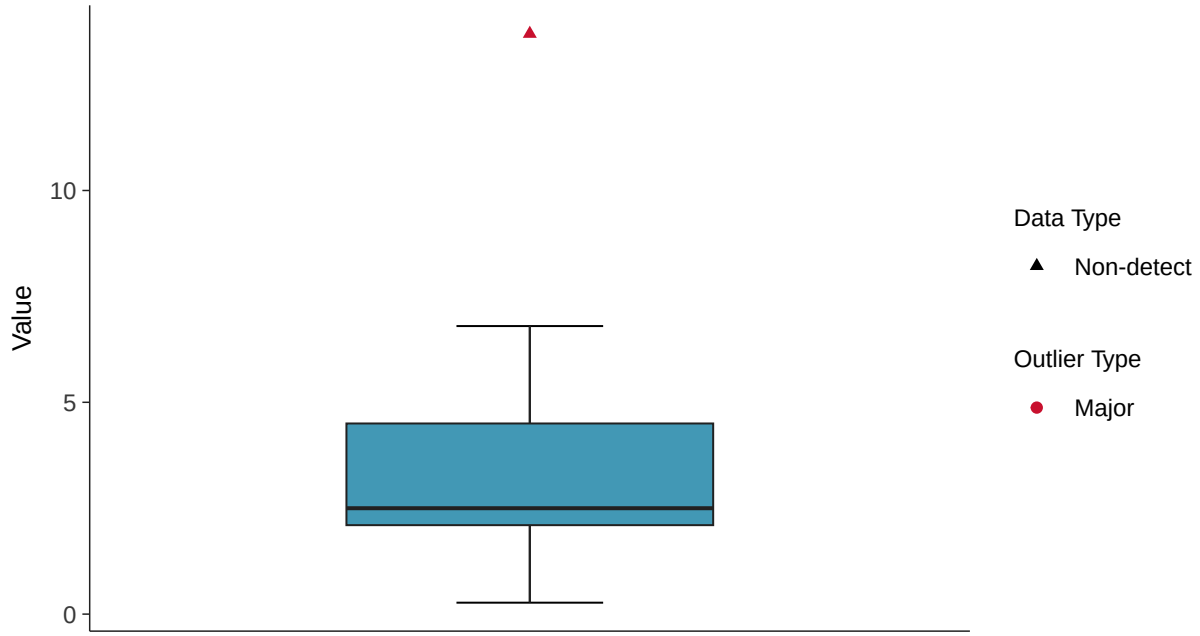
Histogram

Lead, MW-7R (ug/L)



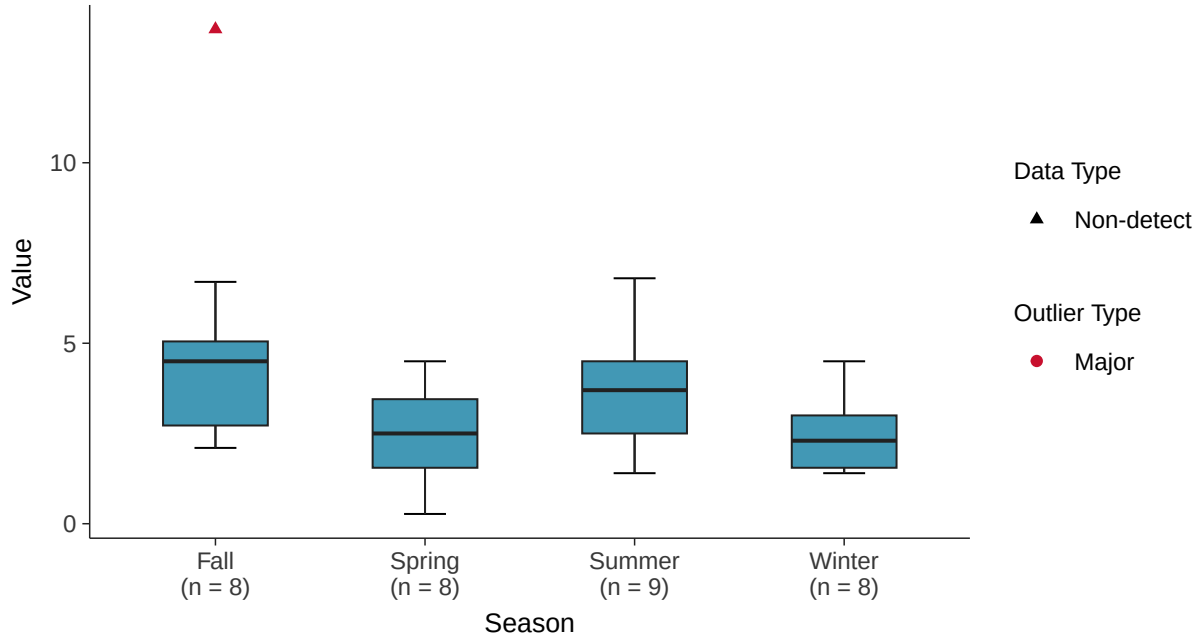
Boxplot

Lead, MW-7R (ug/L)



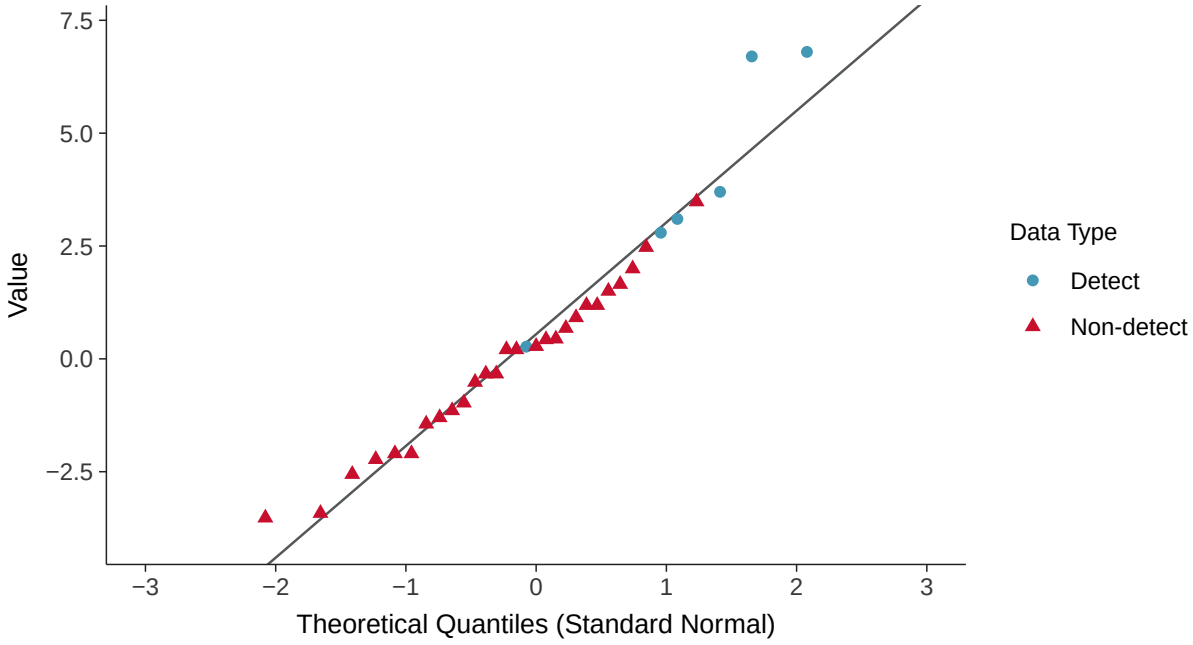
Boxplot by Season

Lead, MW-7R (ug/L)



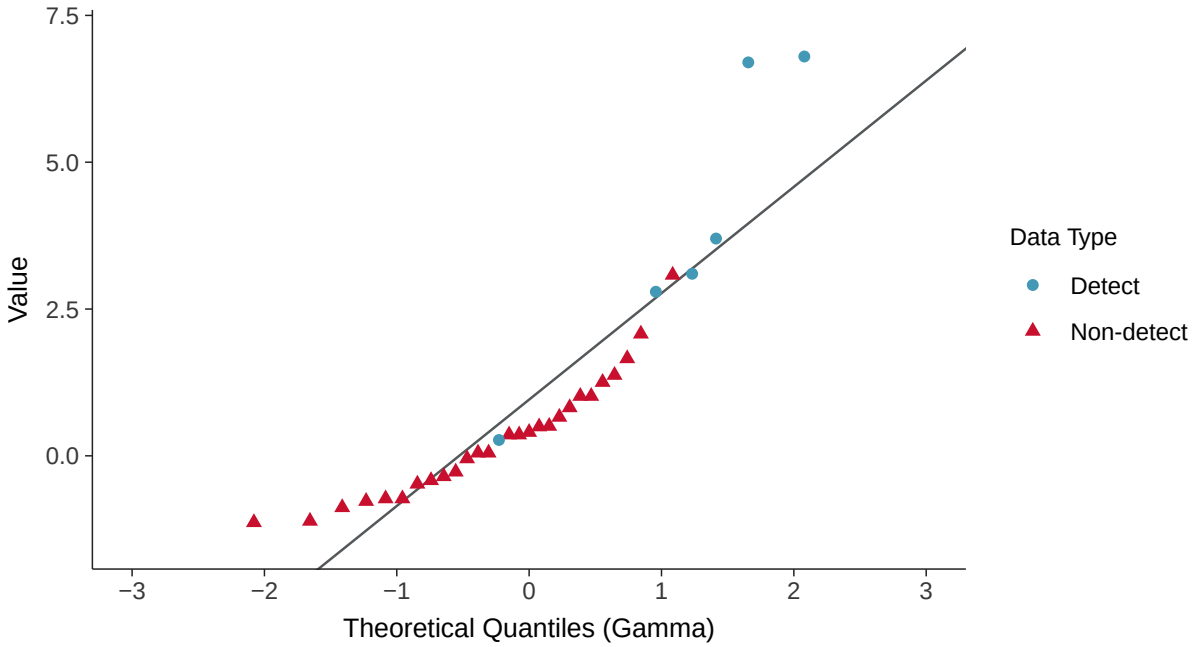
Normal Q-Q plot using ROS Imputed Estimates

Lead, MW-7R (ug/L)



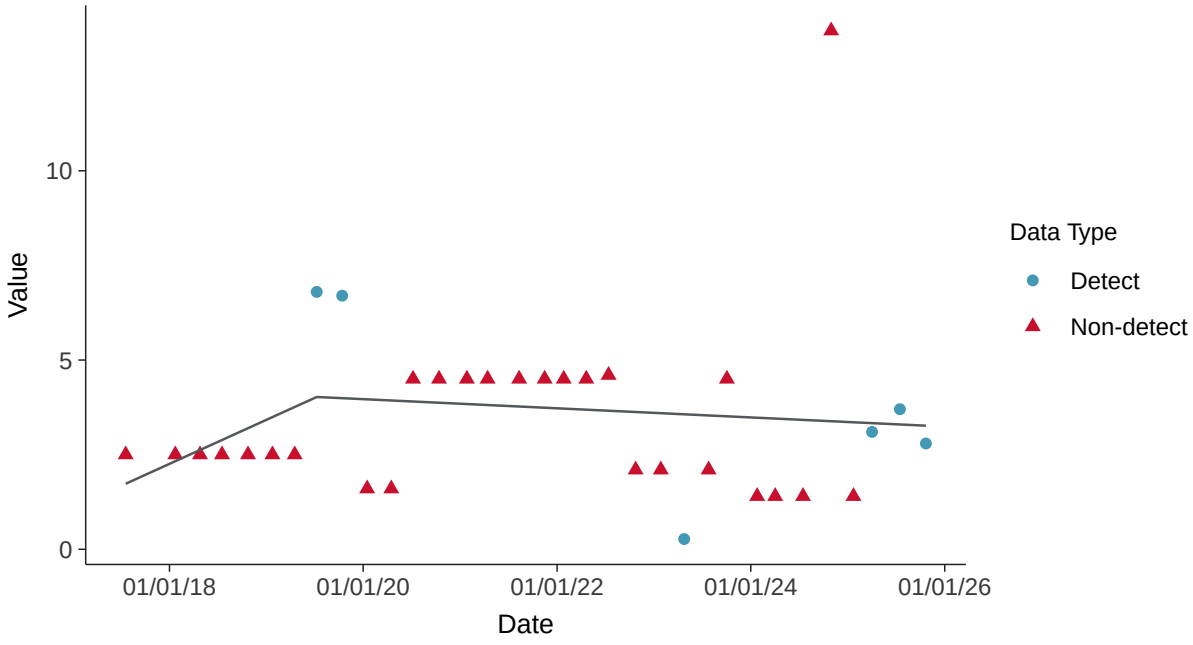
Gamma Q-Q plot using ROS Imputed Estimates

Lead, MW-7R (ug/L)



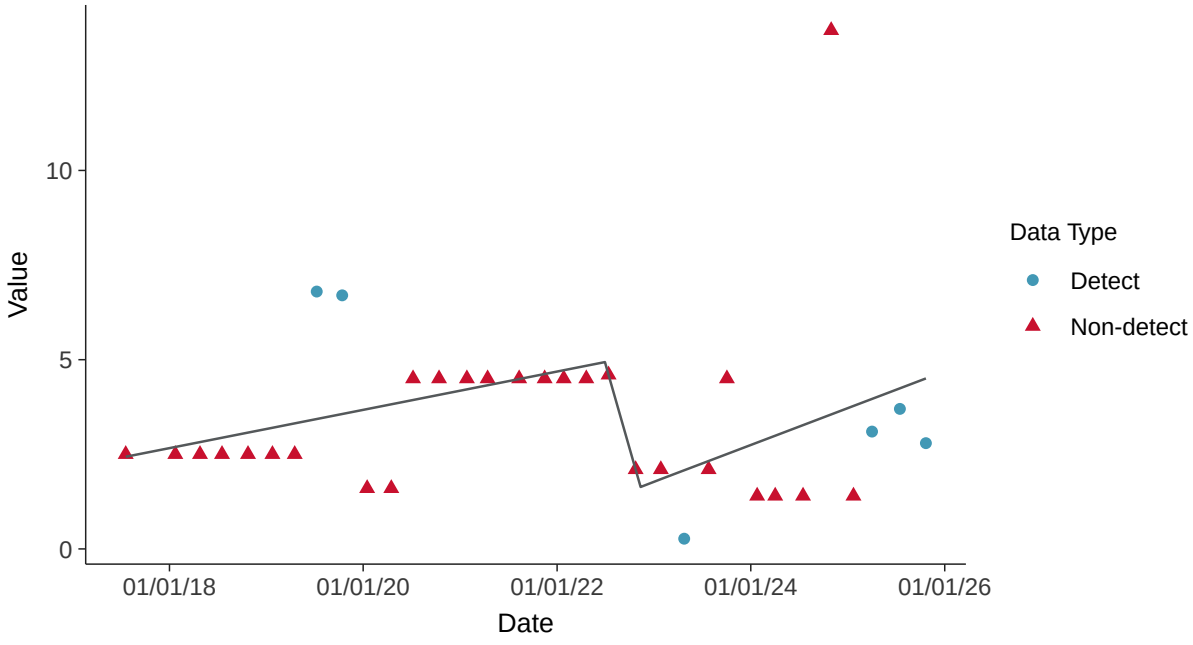
Trend Regression: Piecewise Linear-Linear

Lead, MW-7R (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Lead, MW-7R (ug/L)

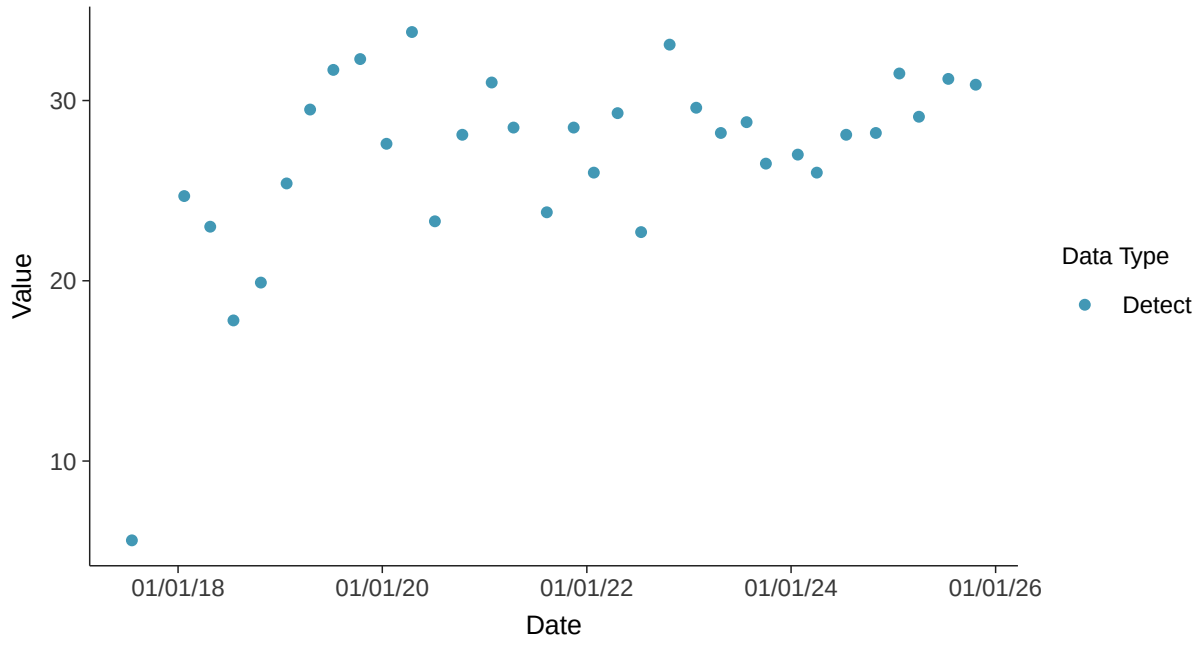


App. IV: Lithium, MW-7R

ID: 07_3_114

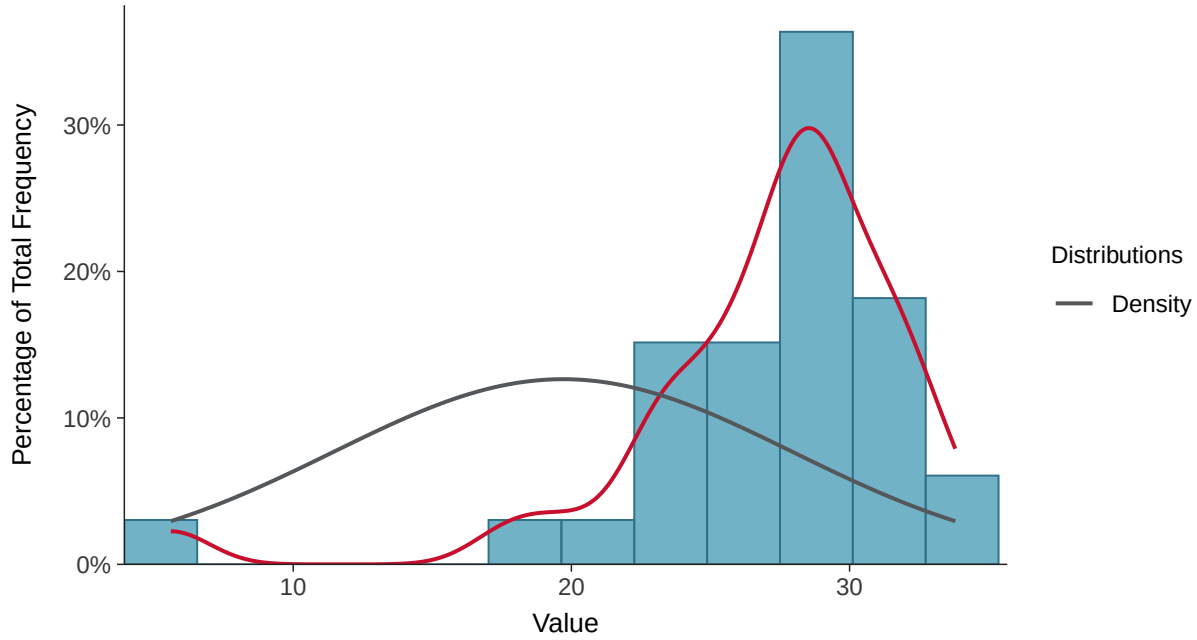
Scatter Plot

Lithium, MW-7R (ug/L)



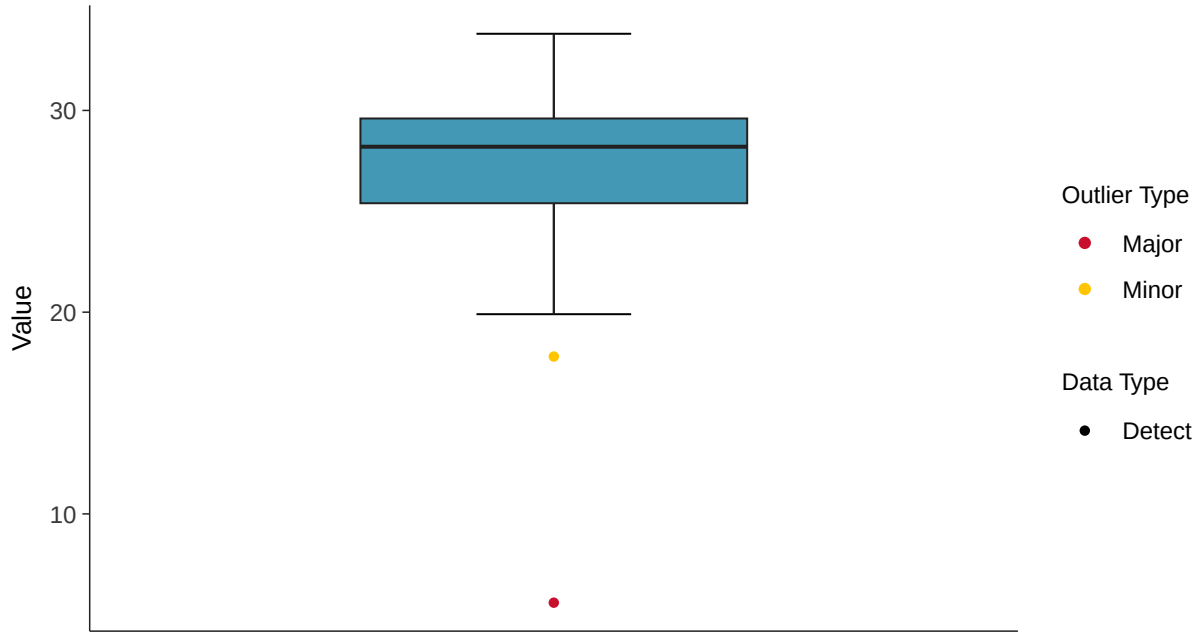
Histogram

Lithium, MW-7R (ug/L)



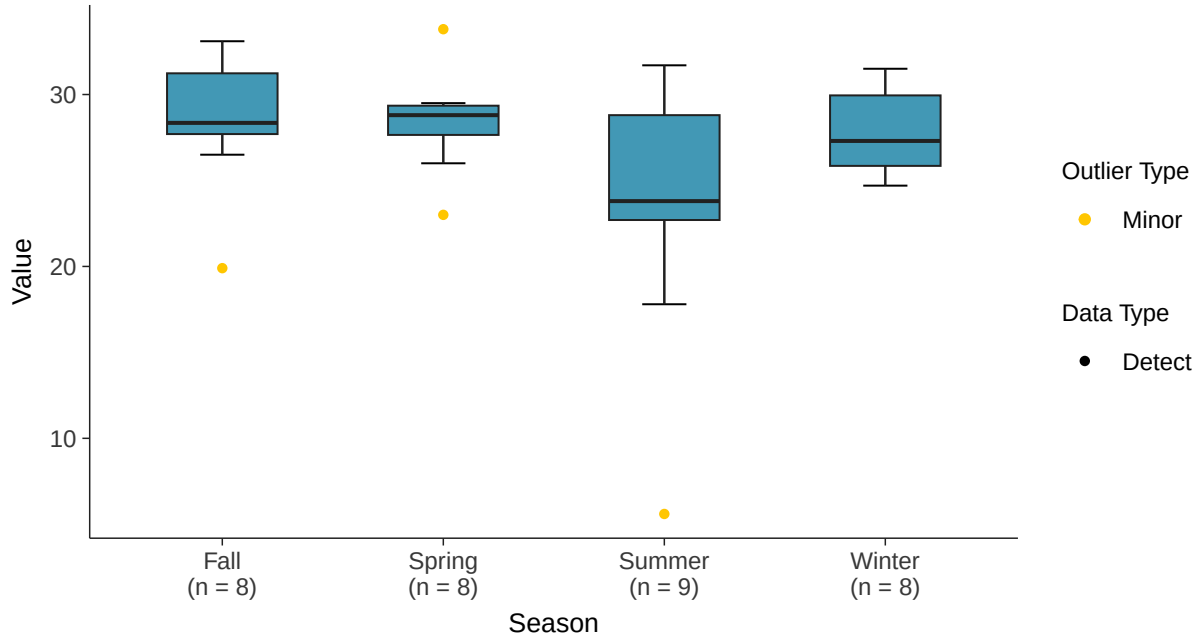
Boxplot

Lithium, MW-7R (ug/L)



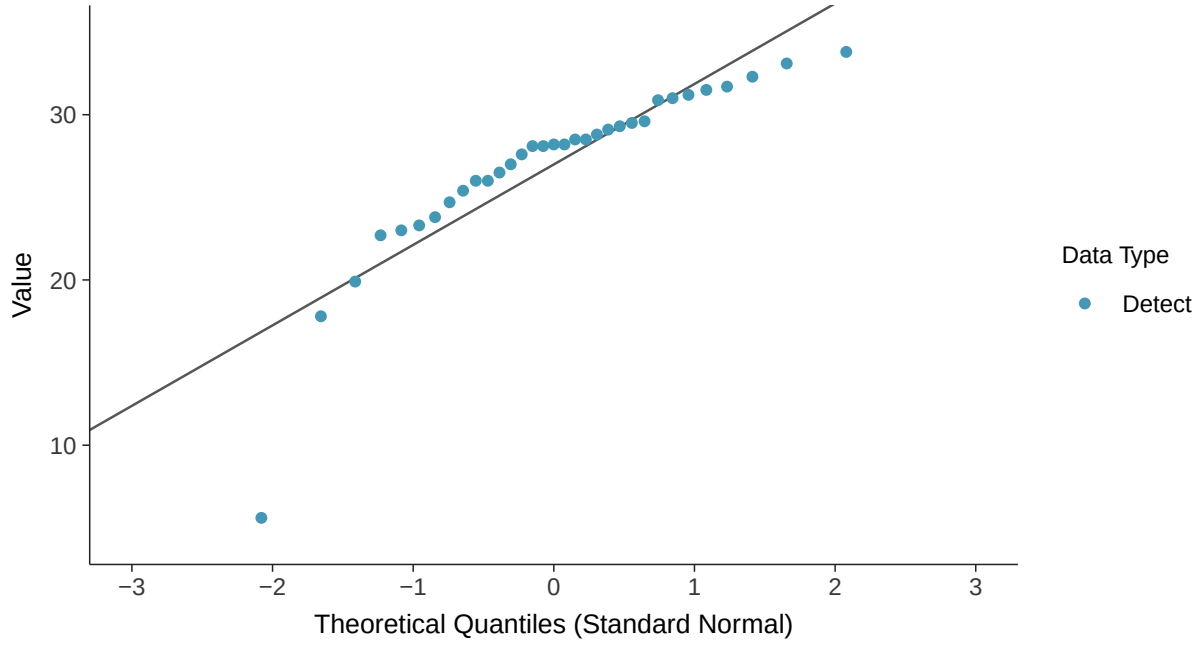
Boxplot by Season

Lithium, MW-7R (ug/L)



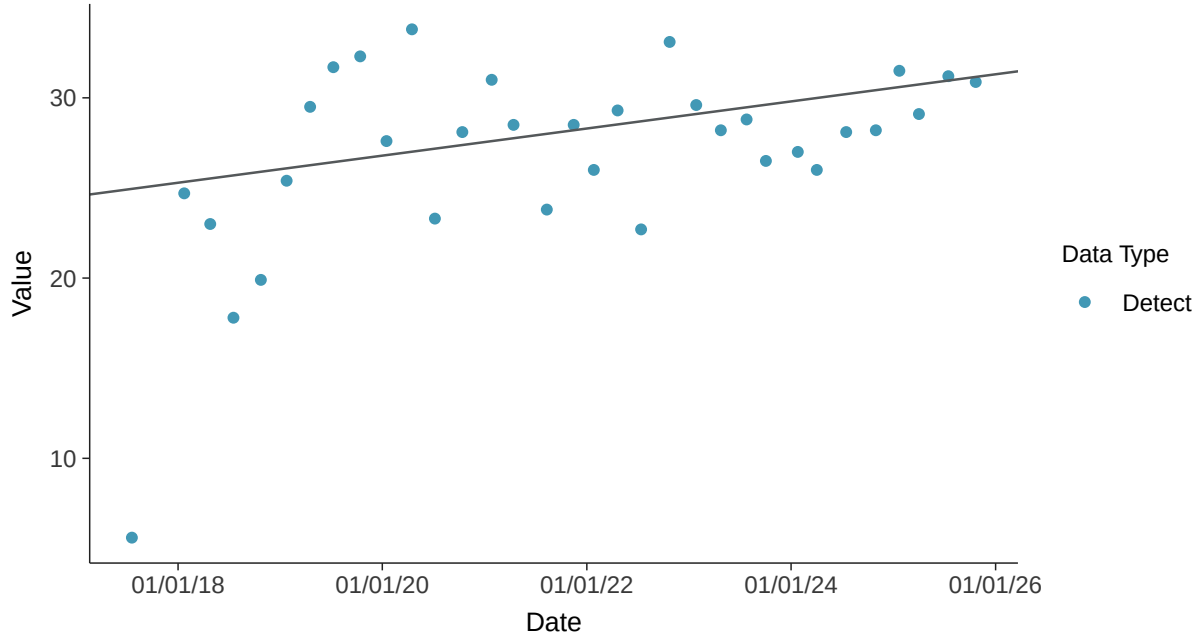
Normal Q-Q plot

Lithium, MW-7R (ug/L)



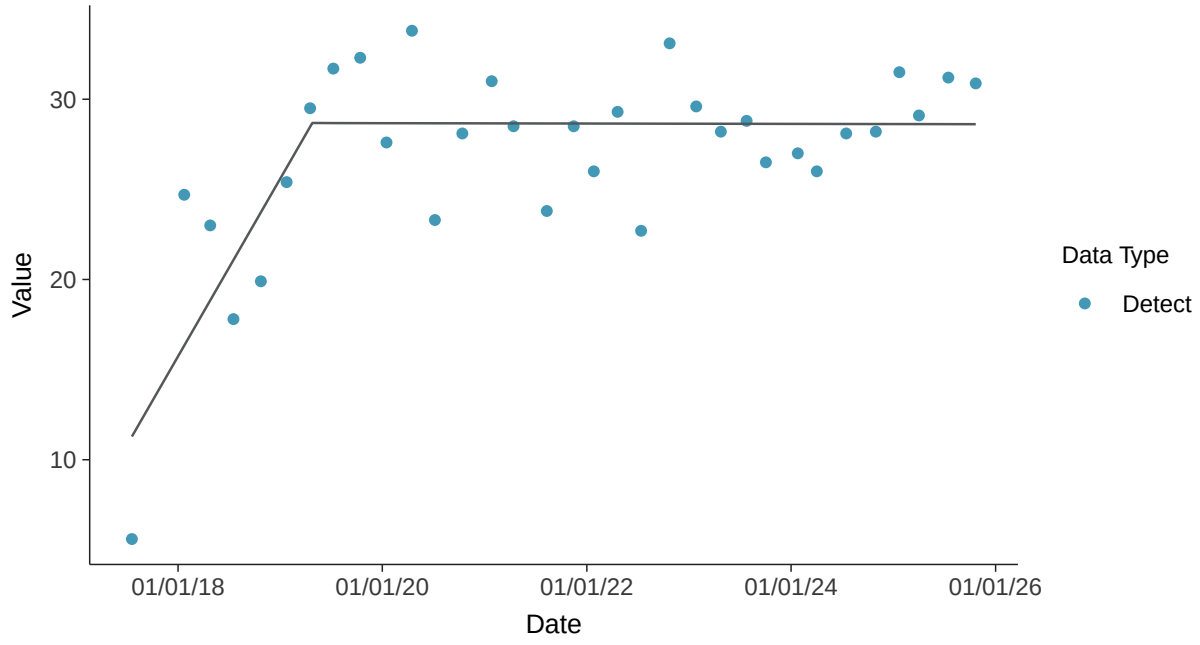
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Lithium, MW-7R (ug/L)



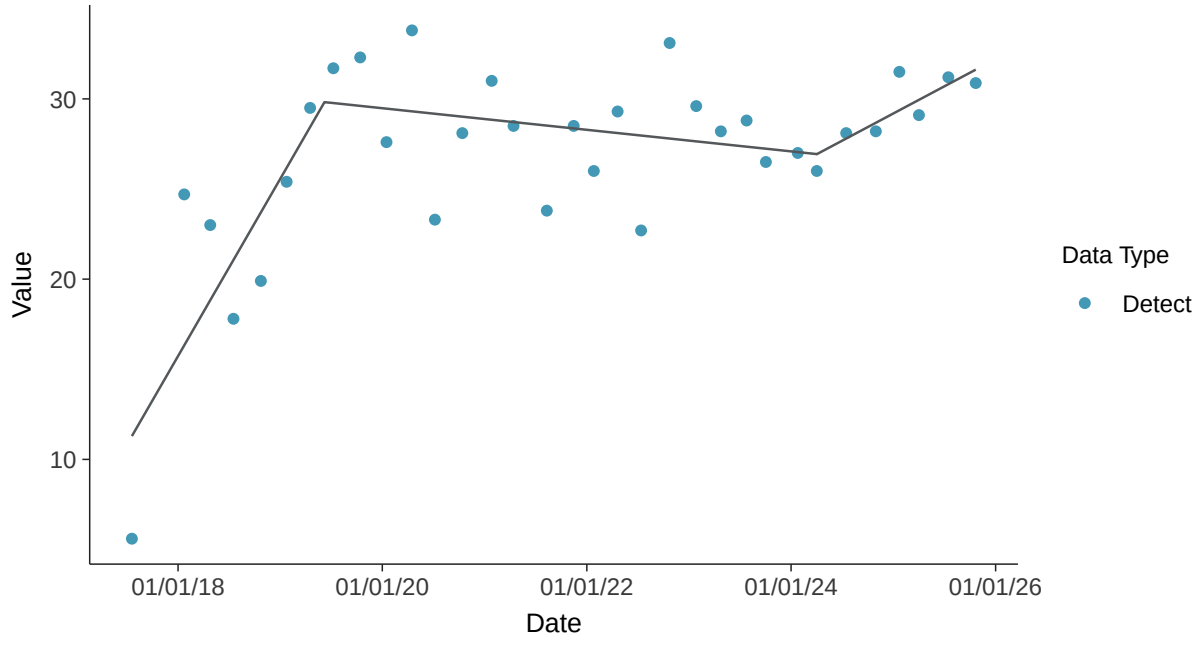
Trend Regression: Piecewise Linear-Linear

Lithium, MW-7R (ug/L)



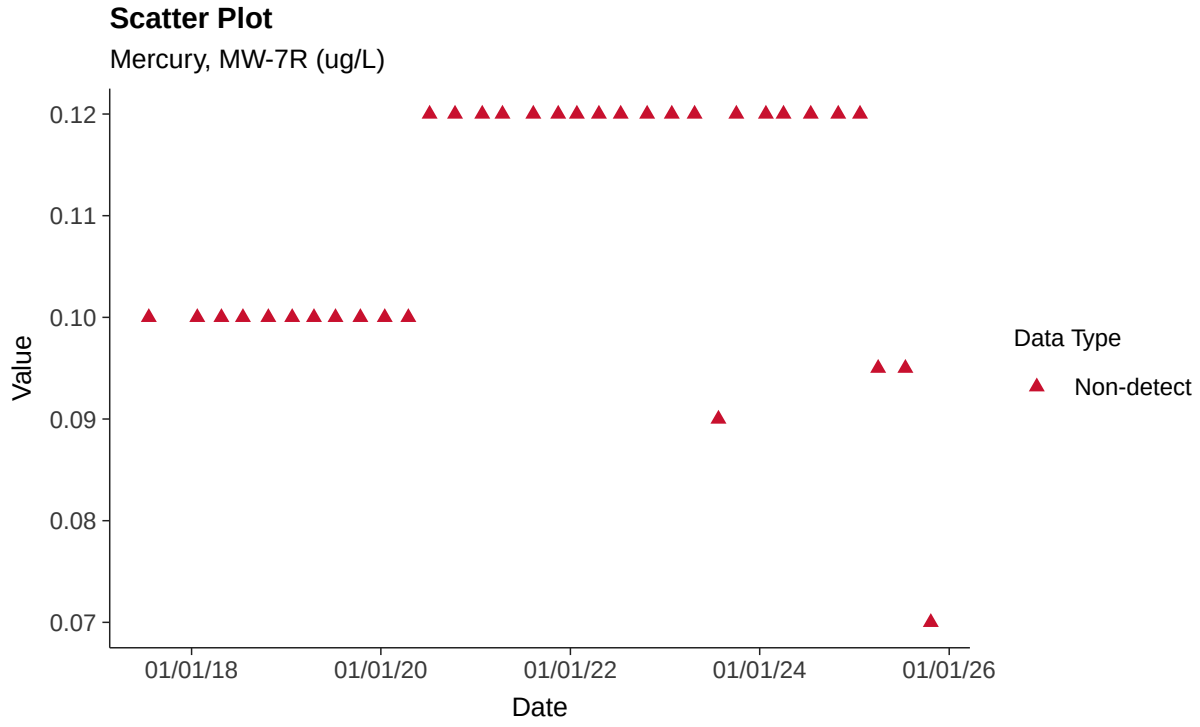
Trend Regression: Piecewise Linear-Linear-Linear

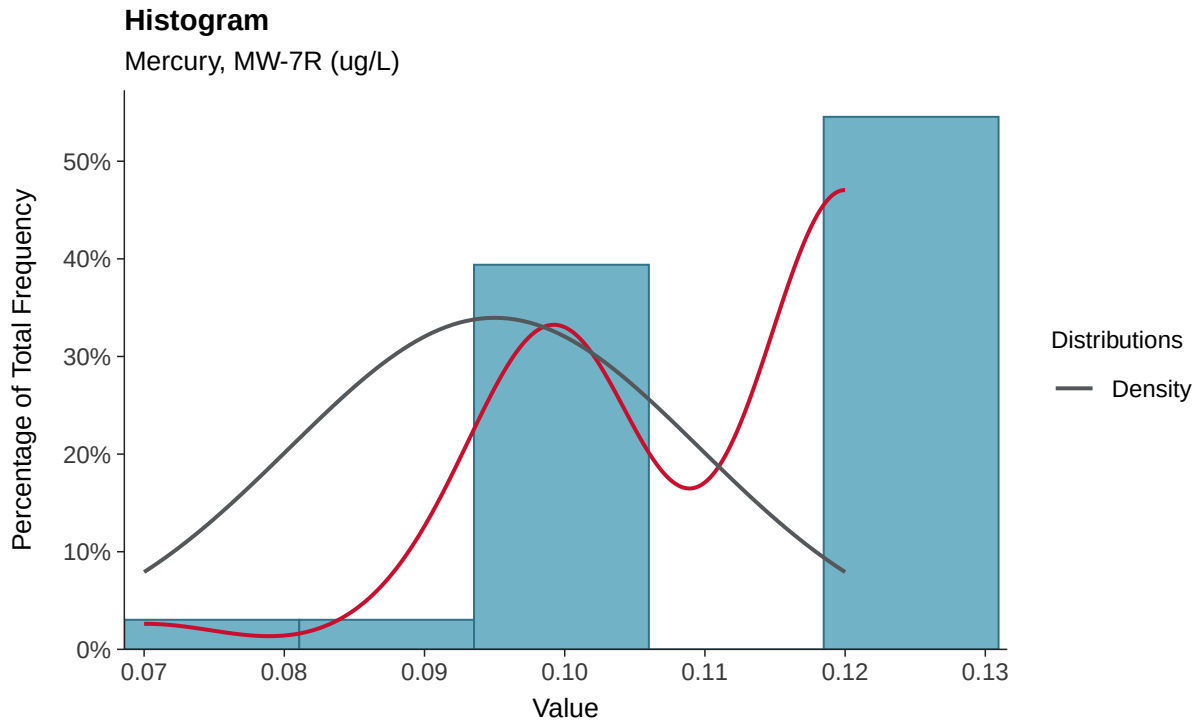
Lithium, MW-7R (ug/L)



App. IV: Mercury, MW-7R

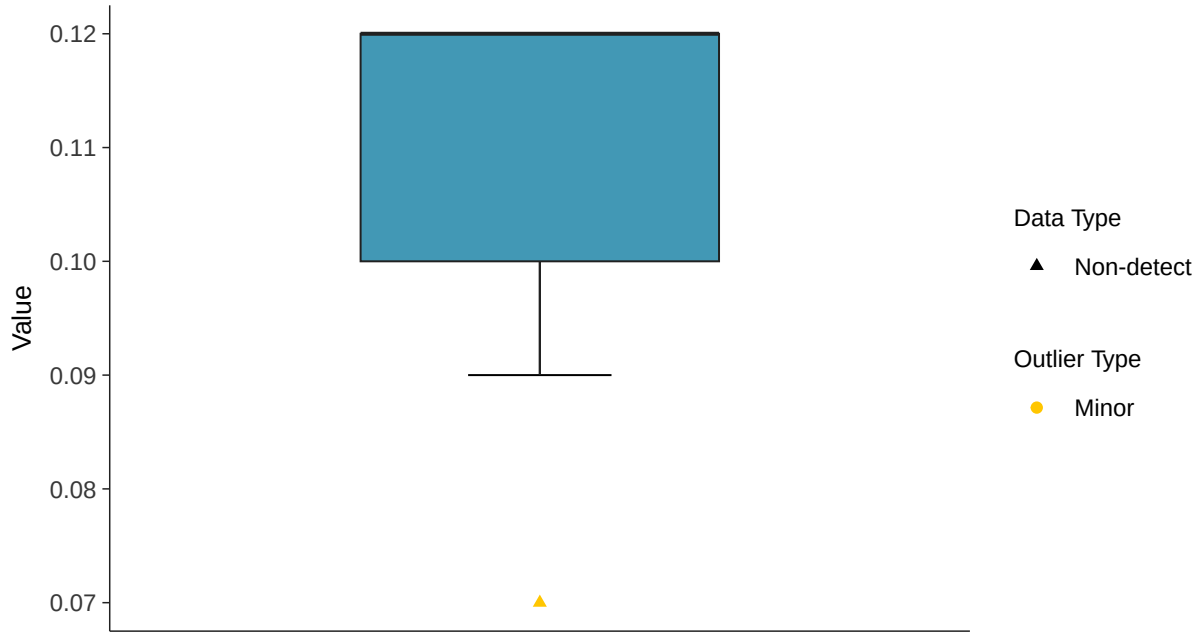
ID: 07_3_115





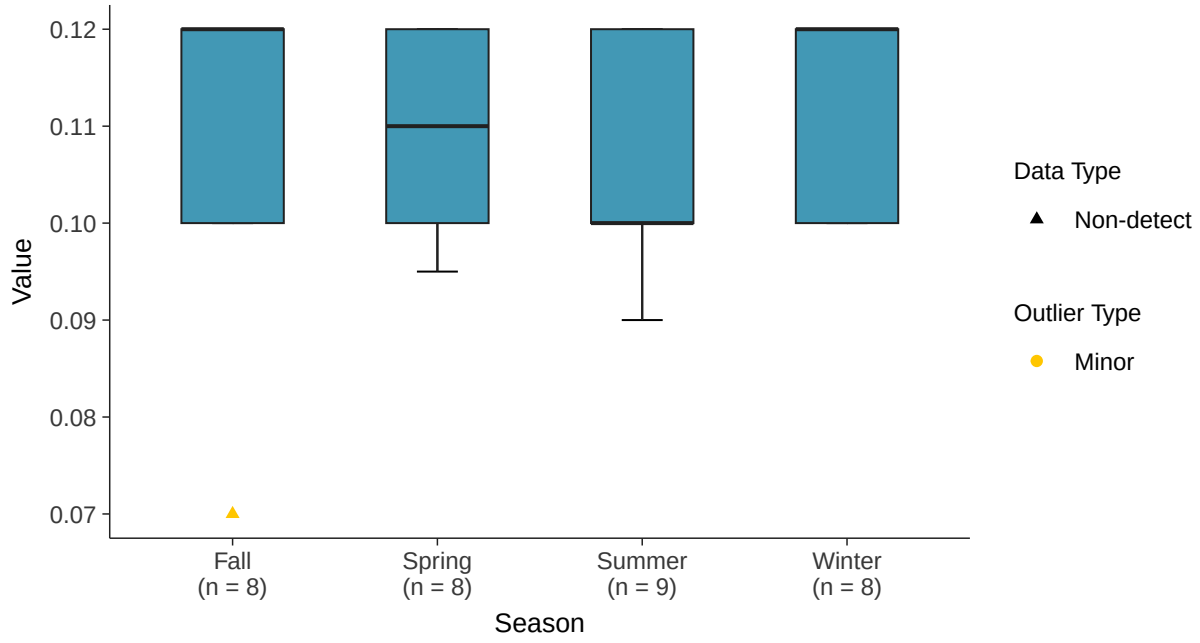
Boxplot

Mercury, MW-7R (ug/L)



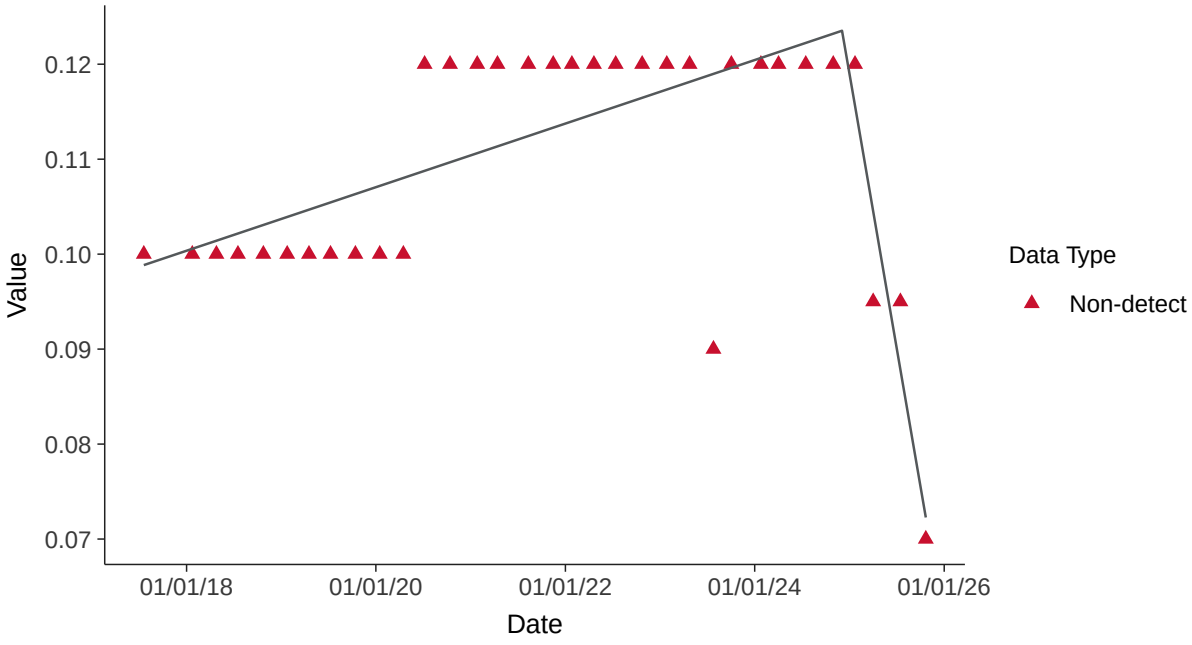
Boxplot by Season

Mercury, MW-7R (ug/L)



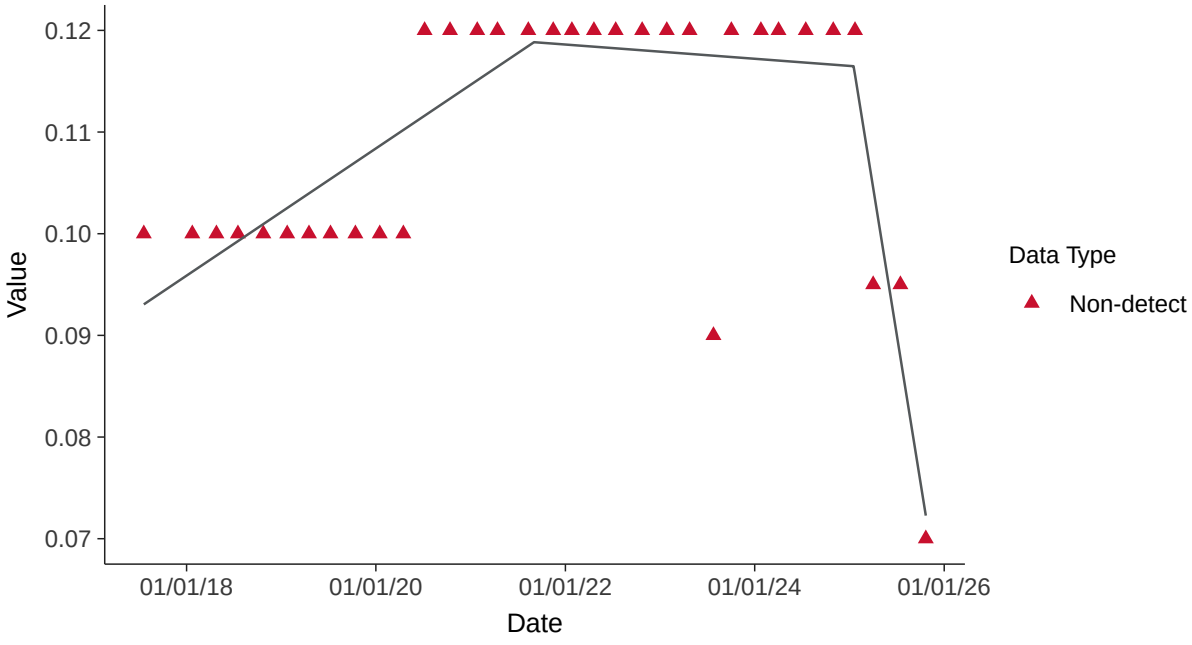
Trend Regression: Piecewise Linear-Linear

Mercury, MW-7R (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Mercury, MW-7R (ug/L)

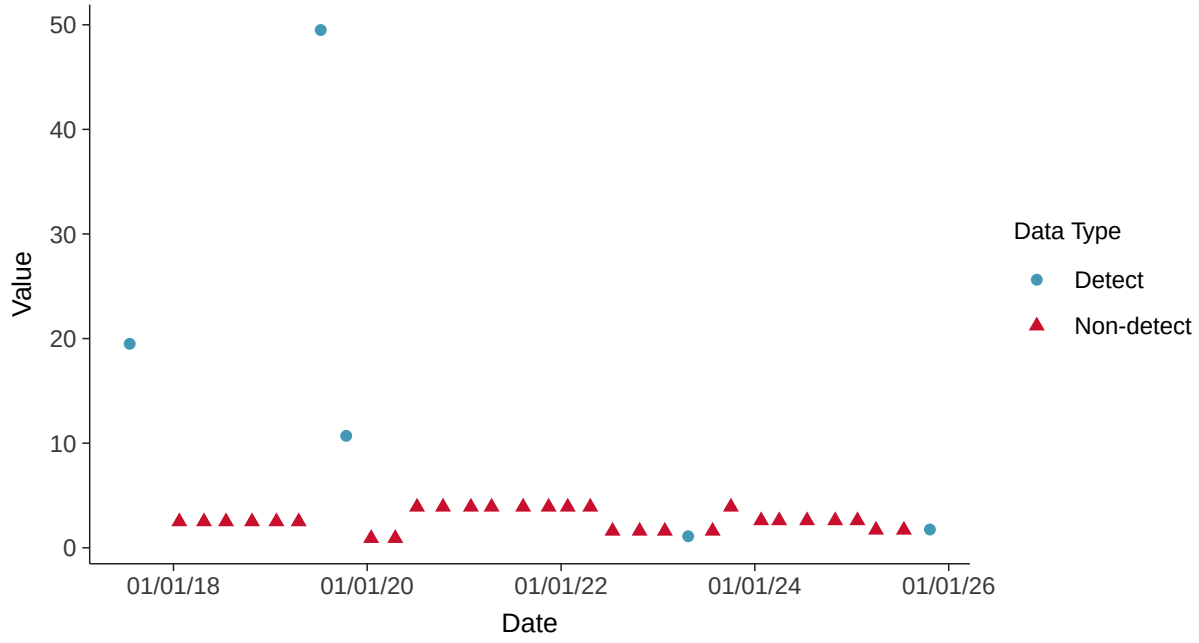


App. IV: Molybdenum, MW-7R

ID: 07_3_116

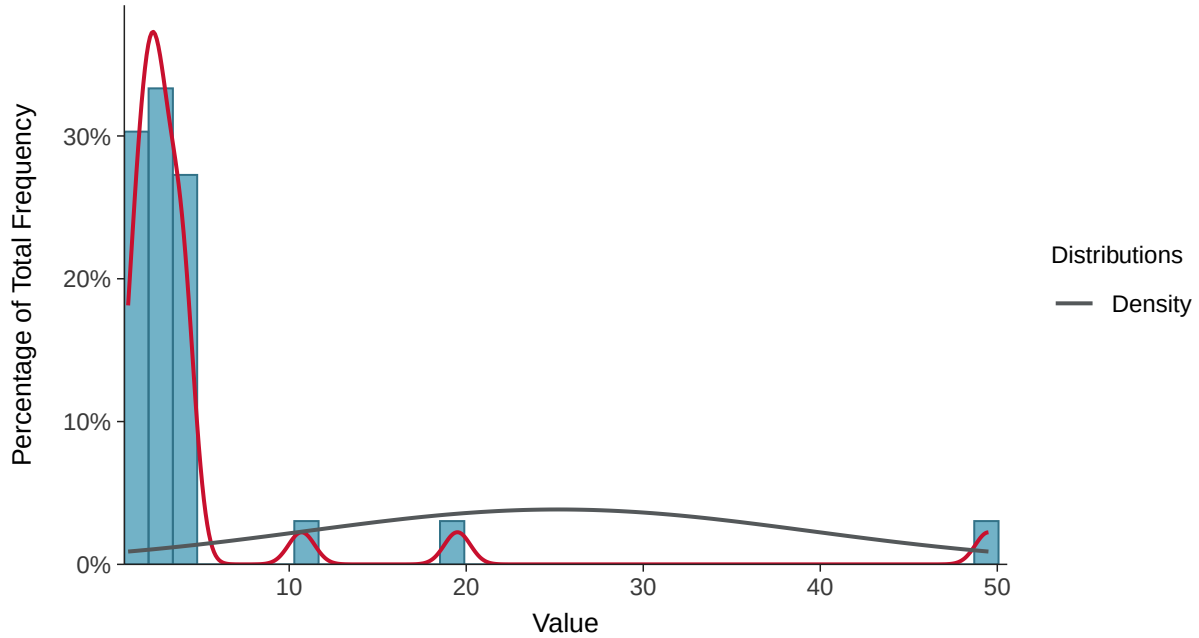
Scatter Plot

Molybdenum, MW-7R (ug/L)



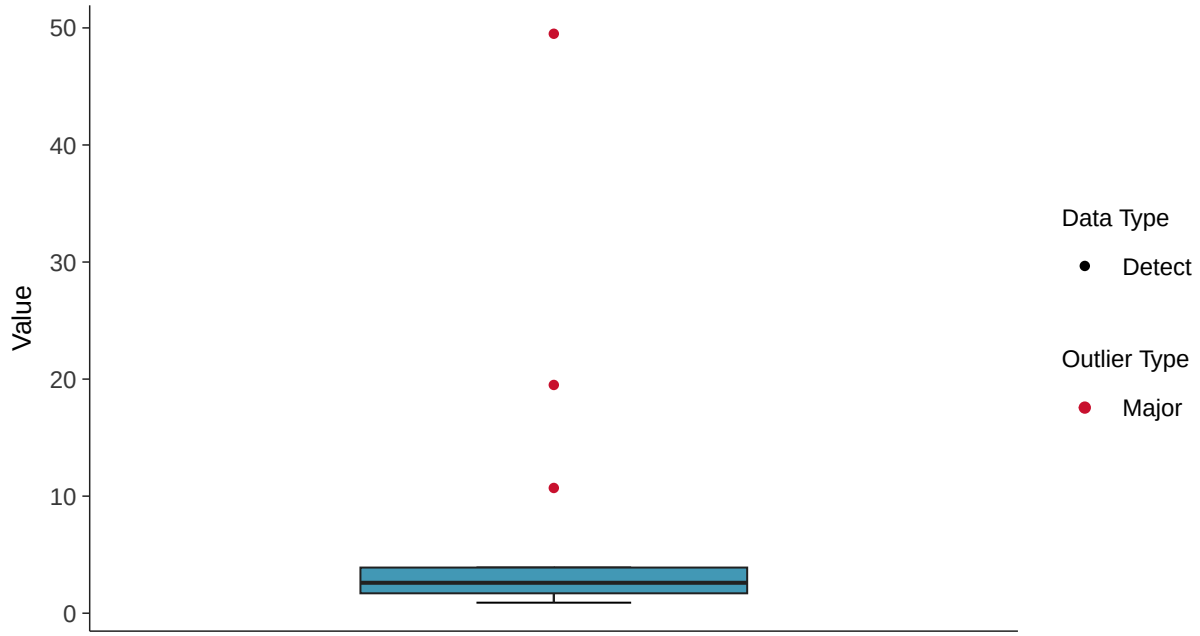
Histogram

Molybdenum, MW-7R (ug/L)



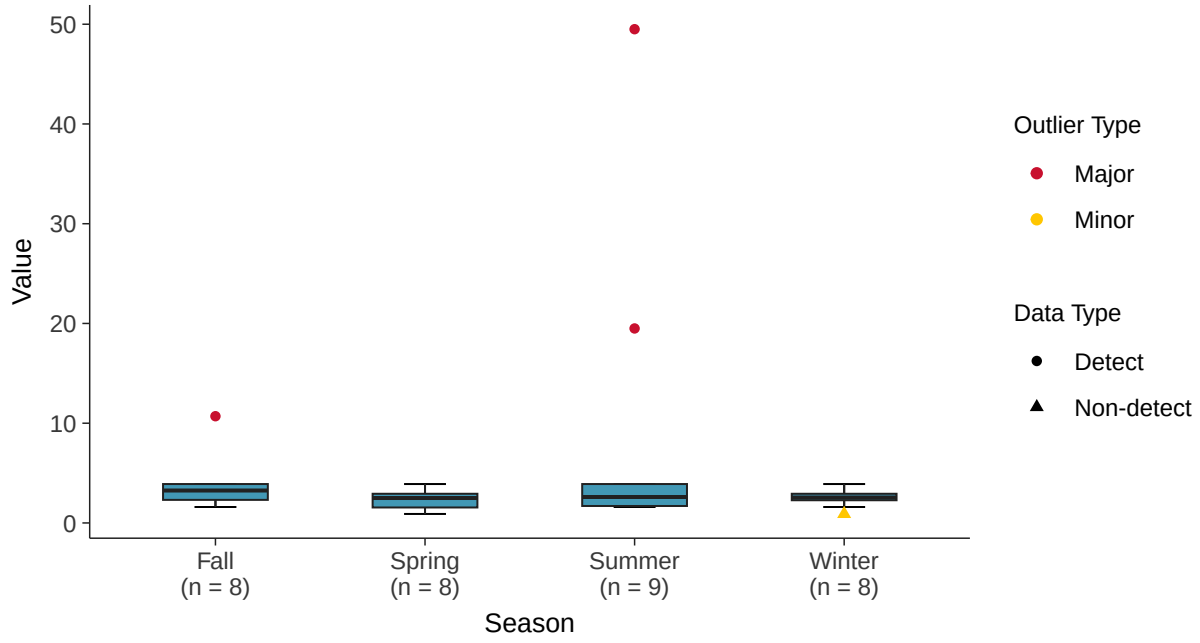
Boxplot

Molybdenum, MW-7R (ug/L)



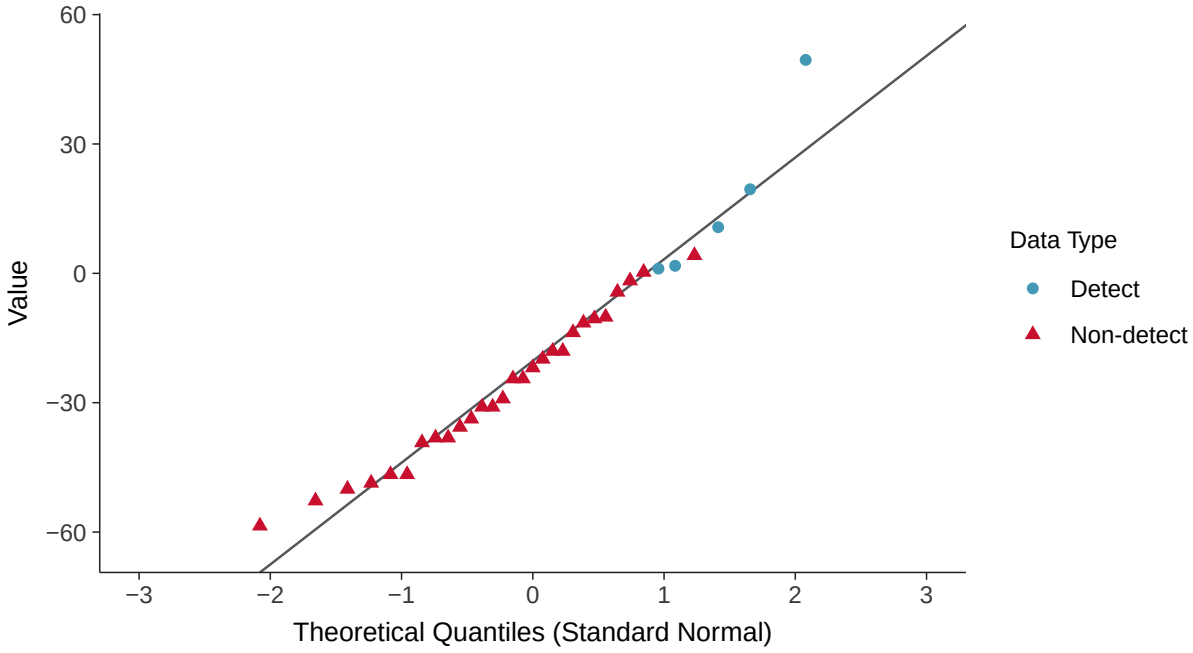
Boxplot by Season

Molybdenum, MW-7R (ug/L)



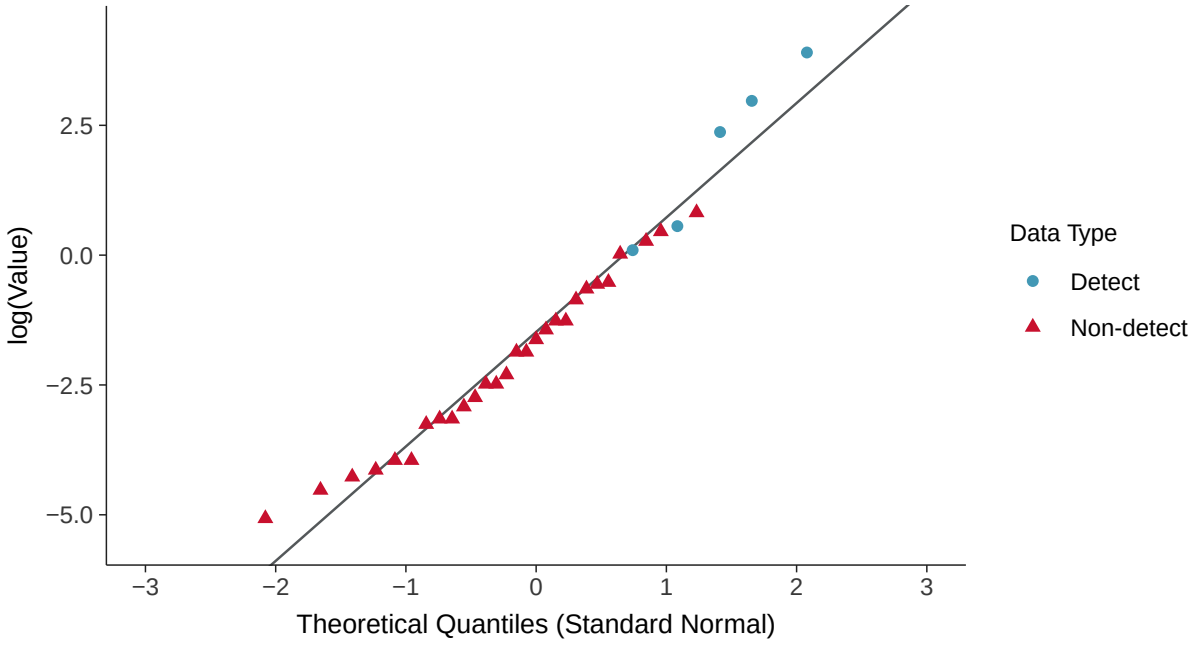
Normal Q-Q plot using ROS Imputed Estimates

Molybdenum, MW-7R (ug/L)



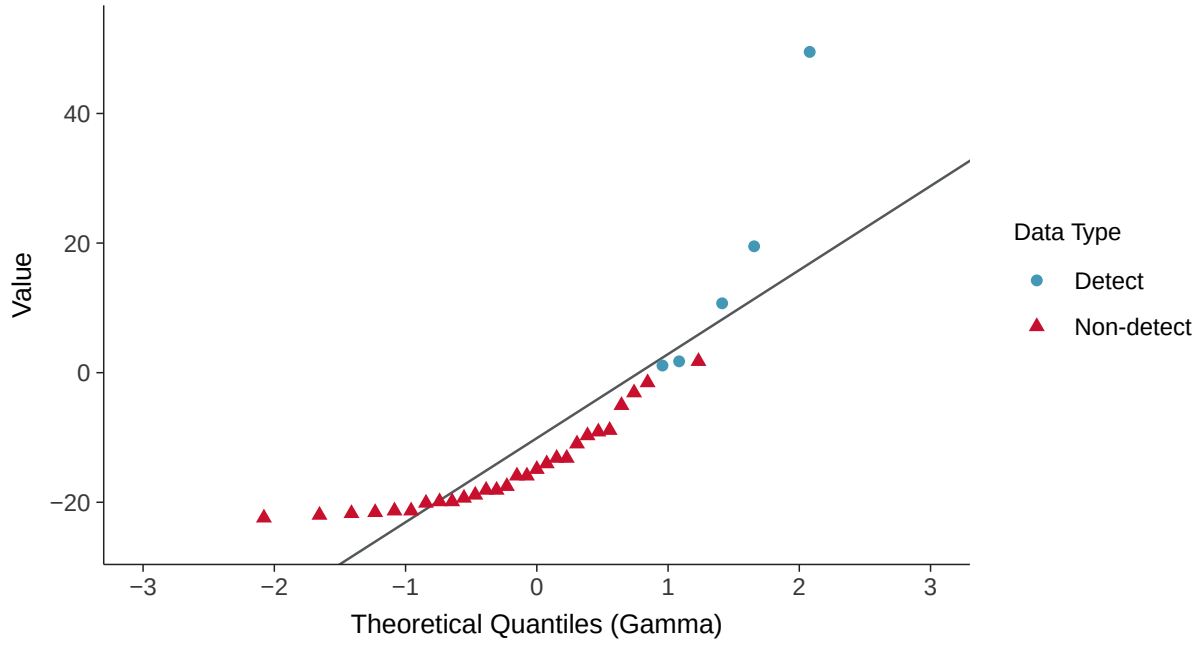
Lognormal Q-Q plot using ROS Imputed Estimates

Molybdenum, MW-7R (ug/L)



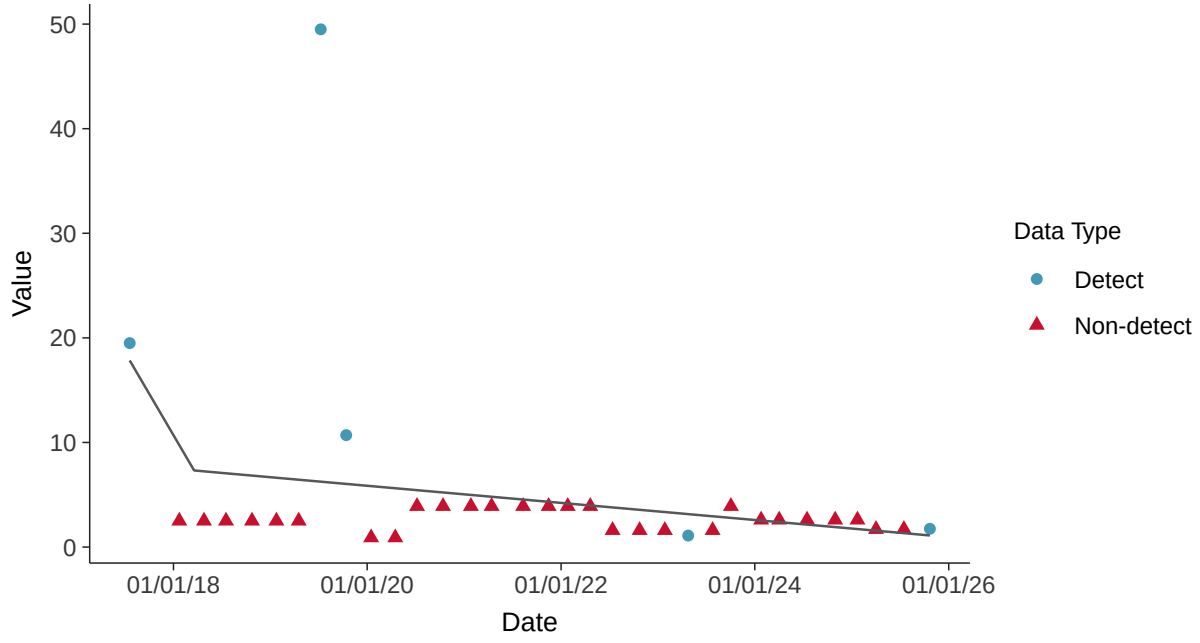
Gamma Q-Q plot using ROS Imputed Estimates

Molybdenum, MW-7R (ug/L)



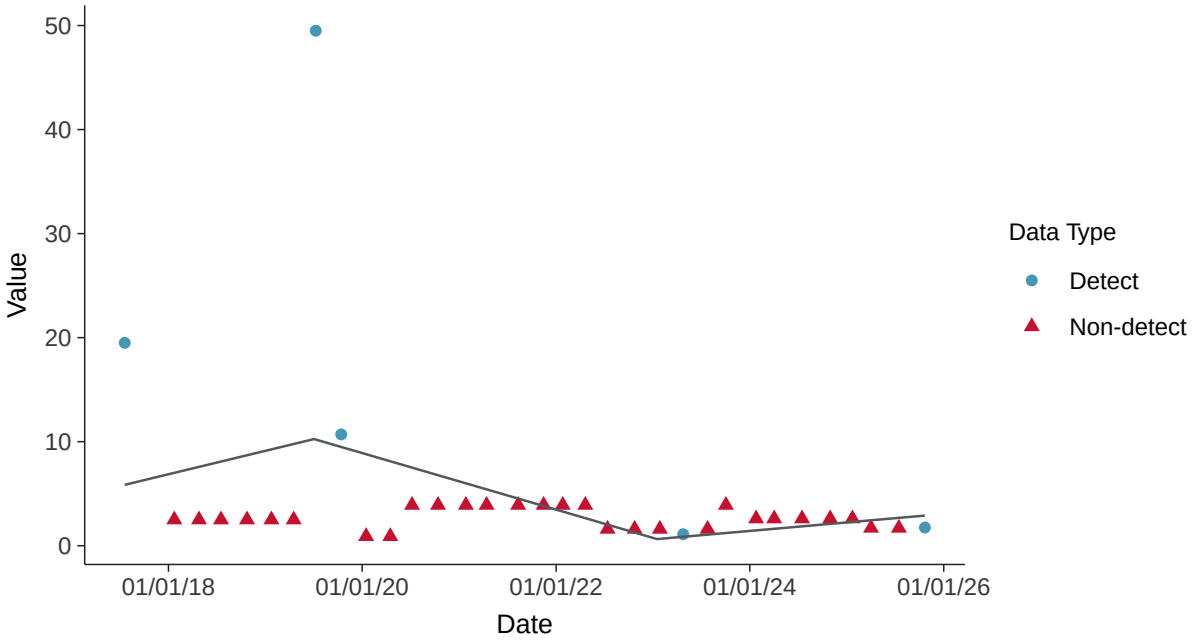
Trend Regression: Piecewise Linear-Linear

Molybdenum, MW-7R (ug/L)



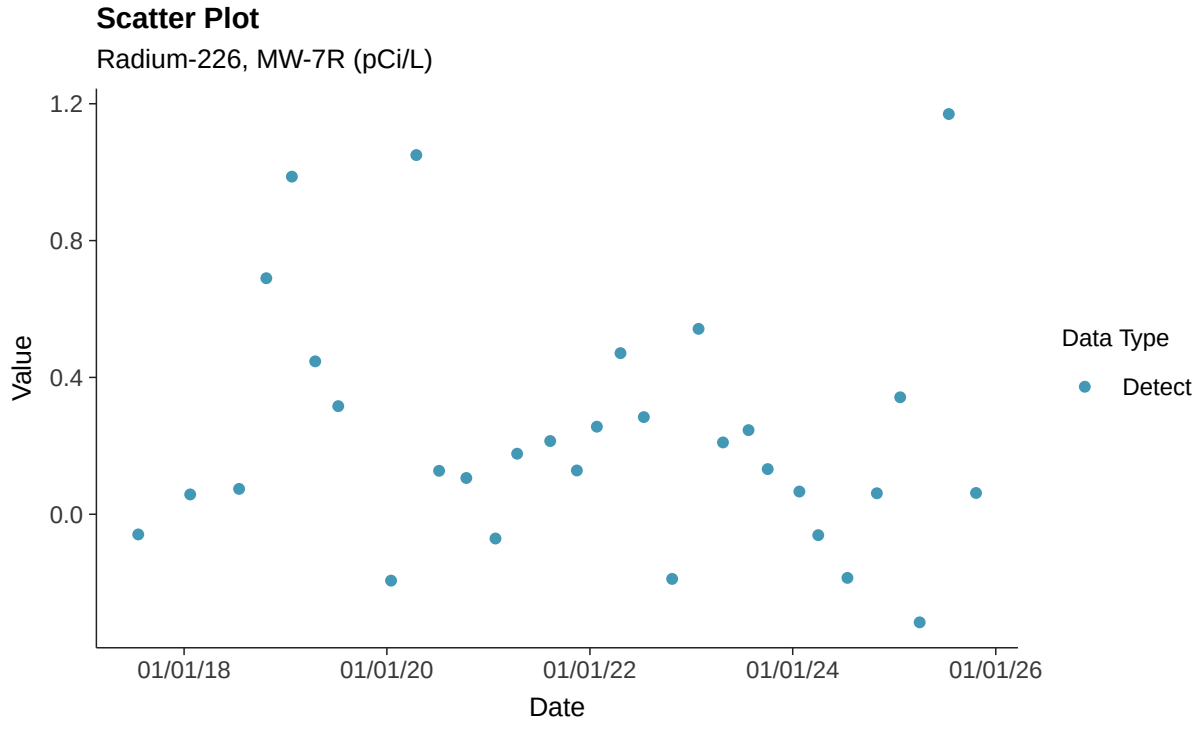
Trend Regression: Piecewise Linear-Linear-Linear

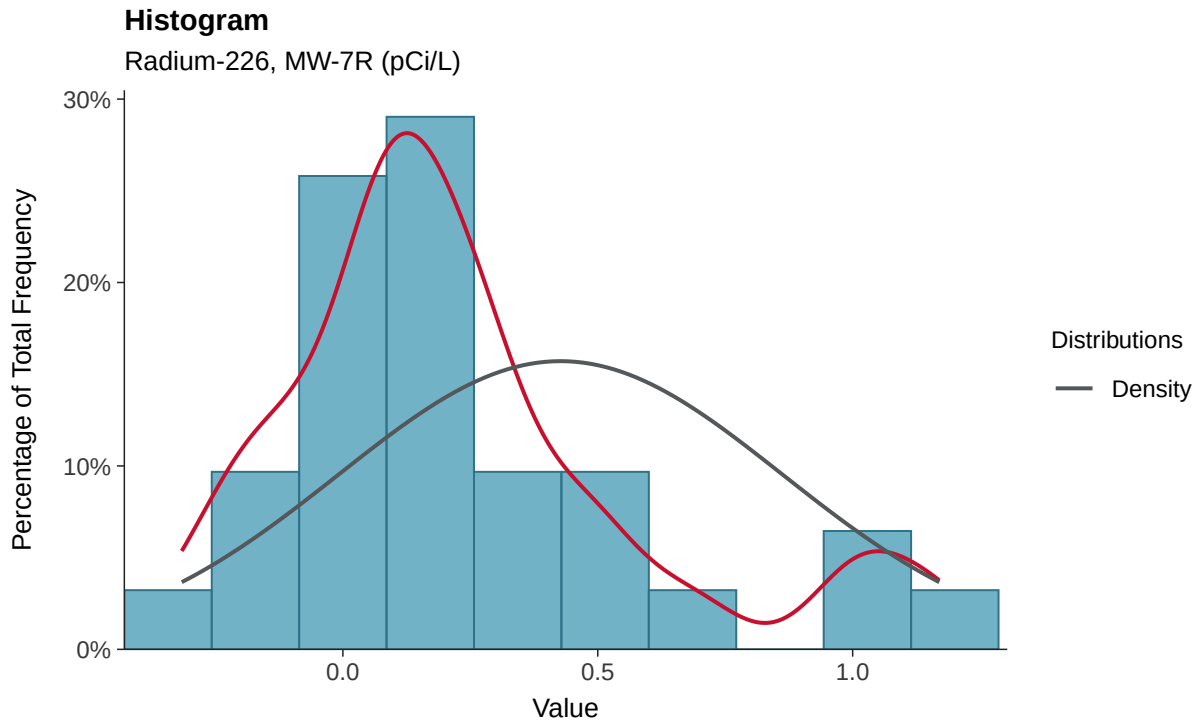
Molybdenum, MW-7R (ug/L)



App. IV: Radium-226, MW-7R

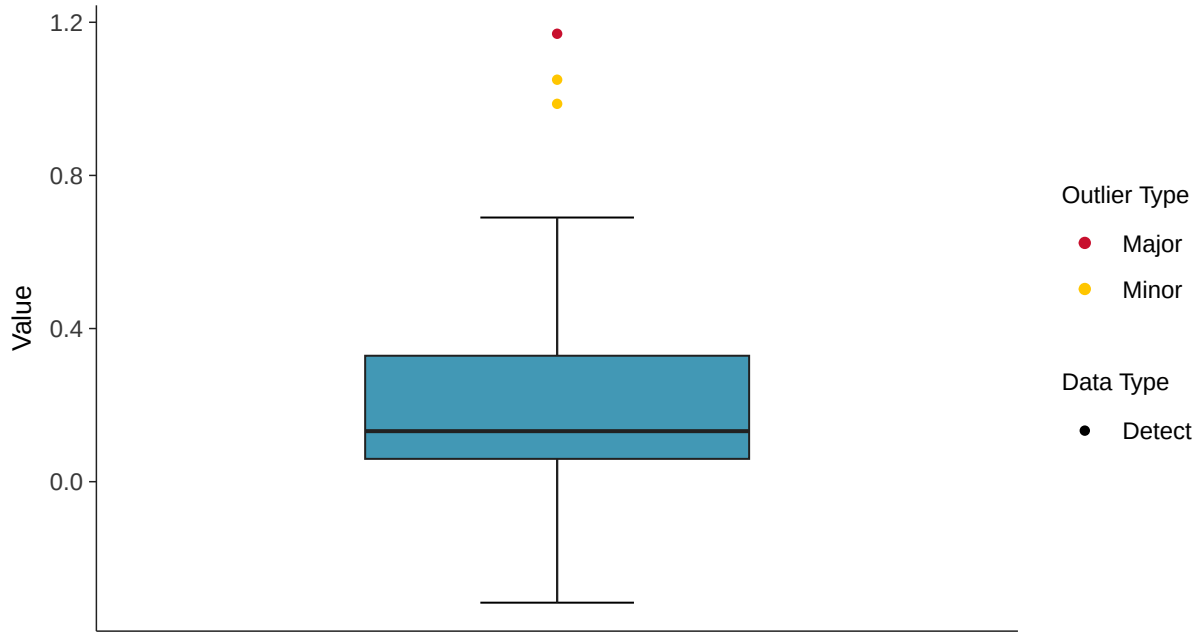
ID: 07_3_119





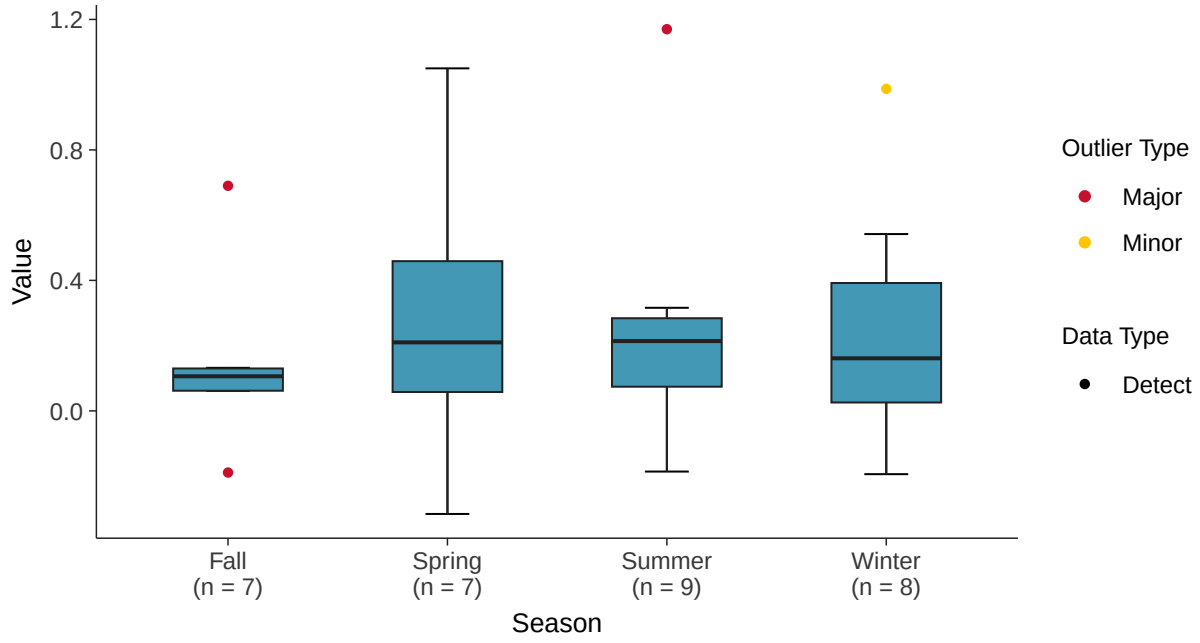
Boxplot

Radium-226, MW-7R (pCi/L)



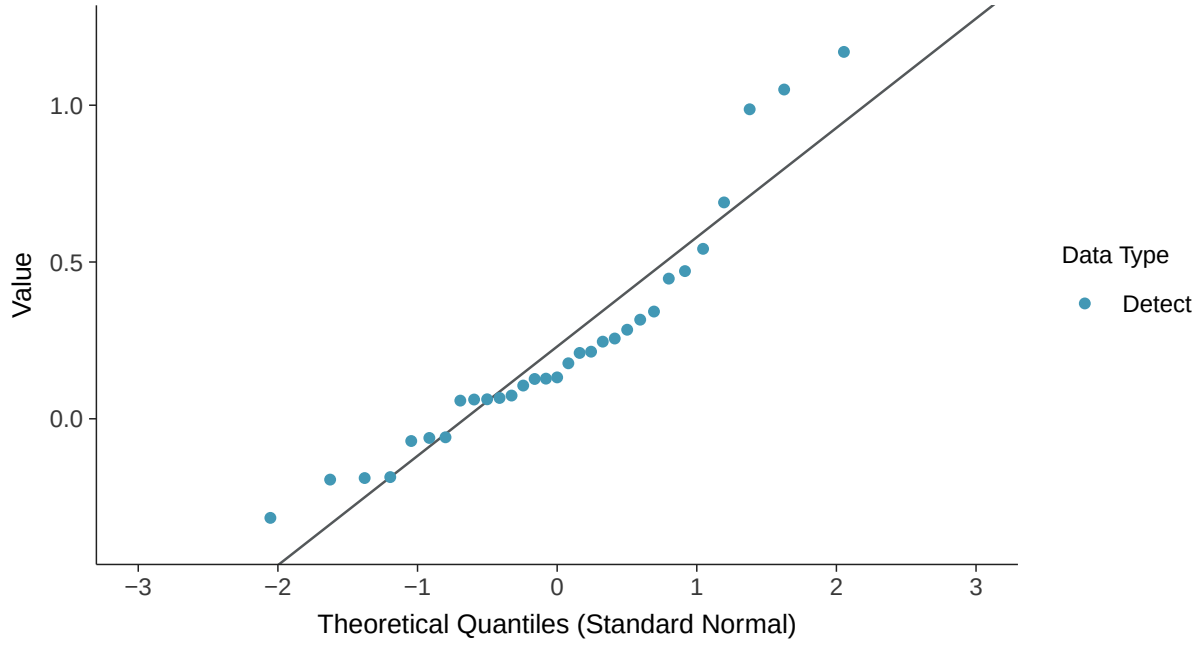
Boxplot by Season

Radium-226, MW-7R (pCi/L)



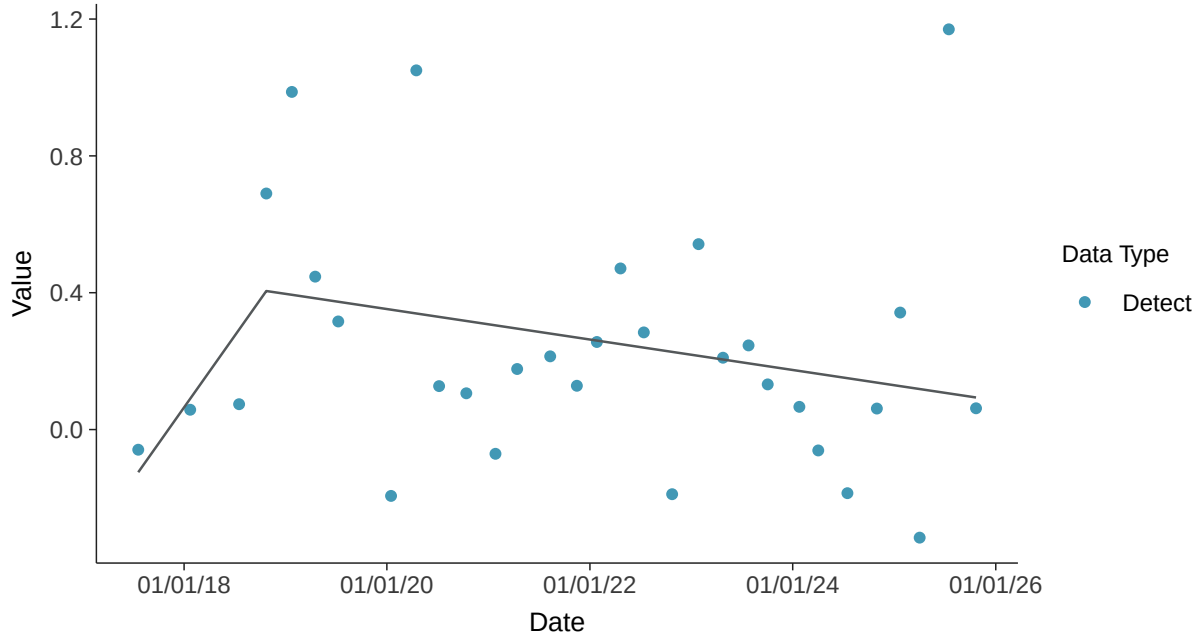
Normal Q-Q plot

Radium-226, MW-7R (pCi/L)



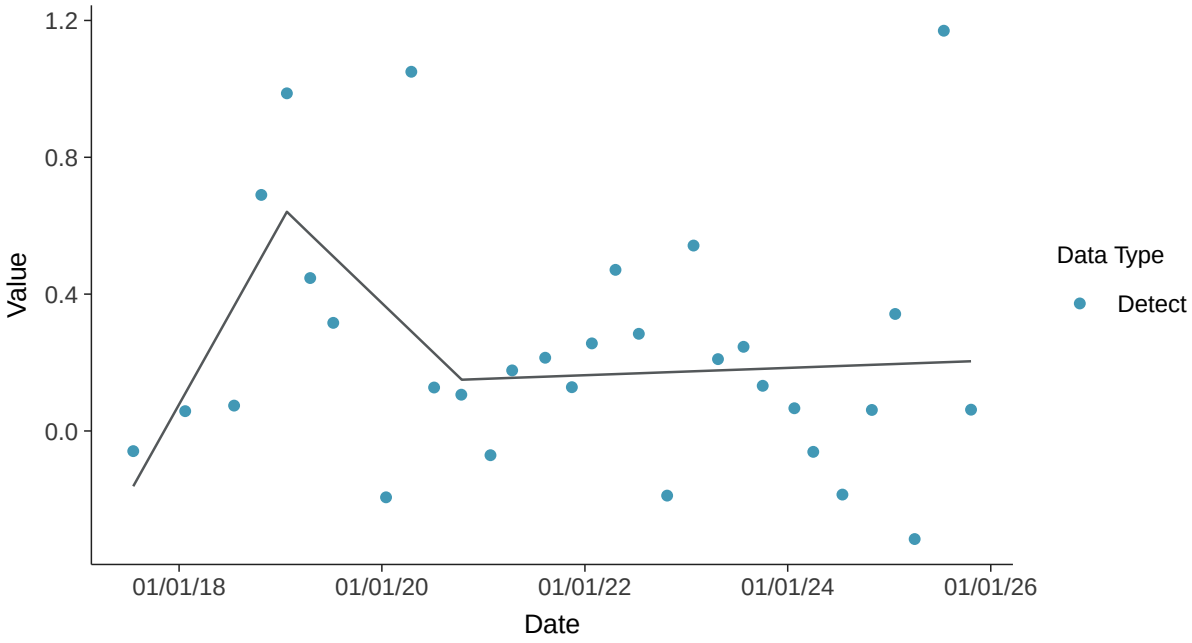
Trend Regression: Piecewise Linear-Linear

Radium-226, MW-7R (pCi/L)



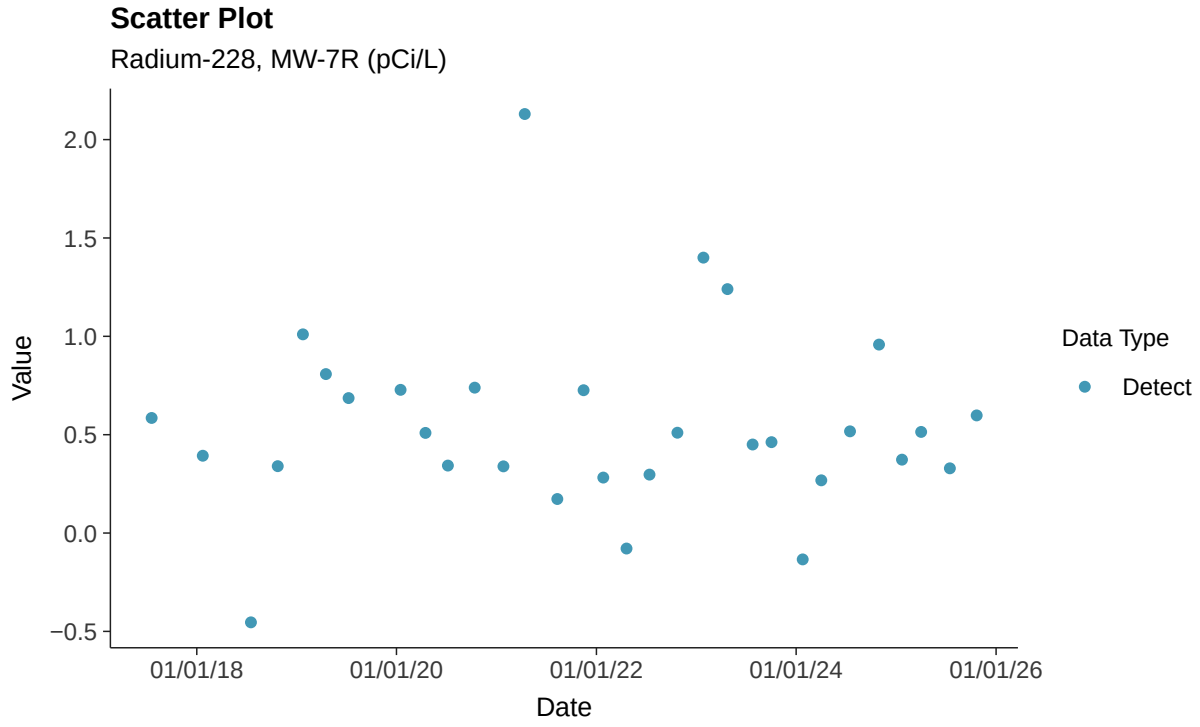
Trend Regression: Piecewise Linear-Linear-Linear

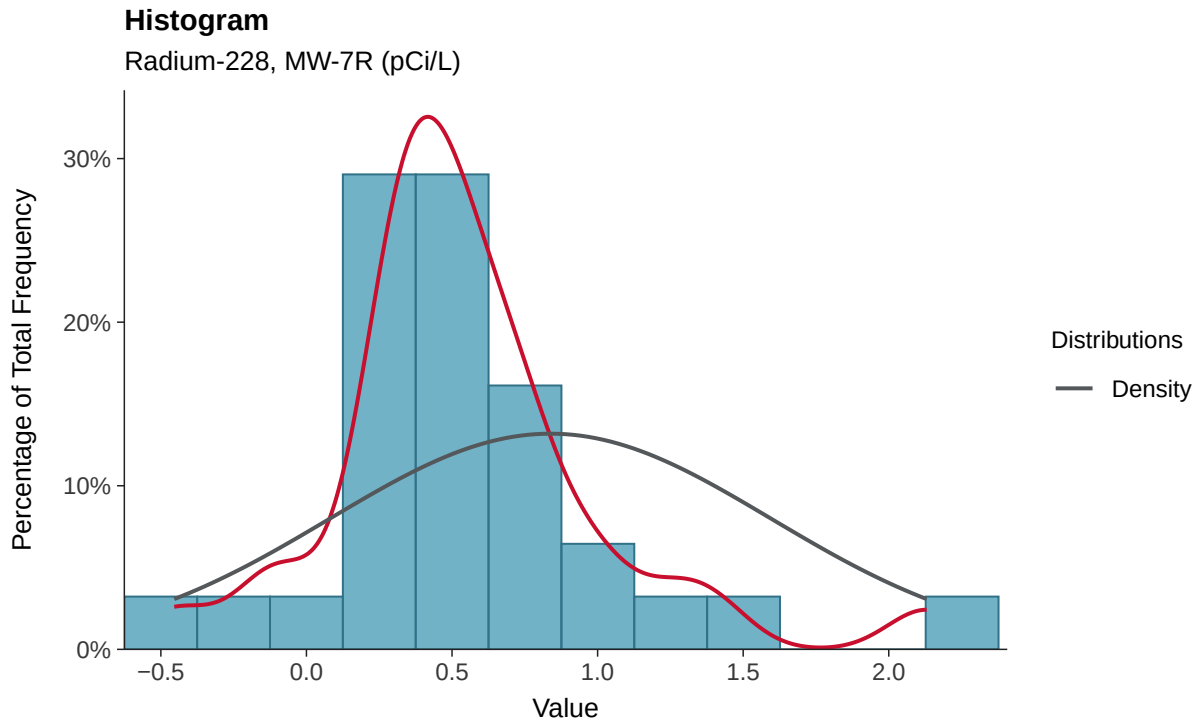
Radium-226, MW-7R (pCi/L)



App. IV: Radium-228, MW-7R

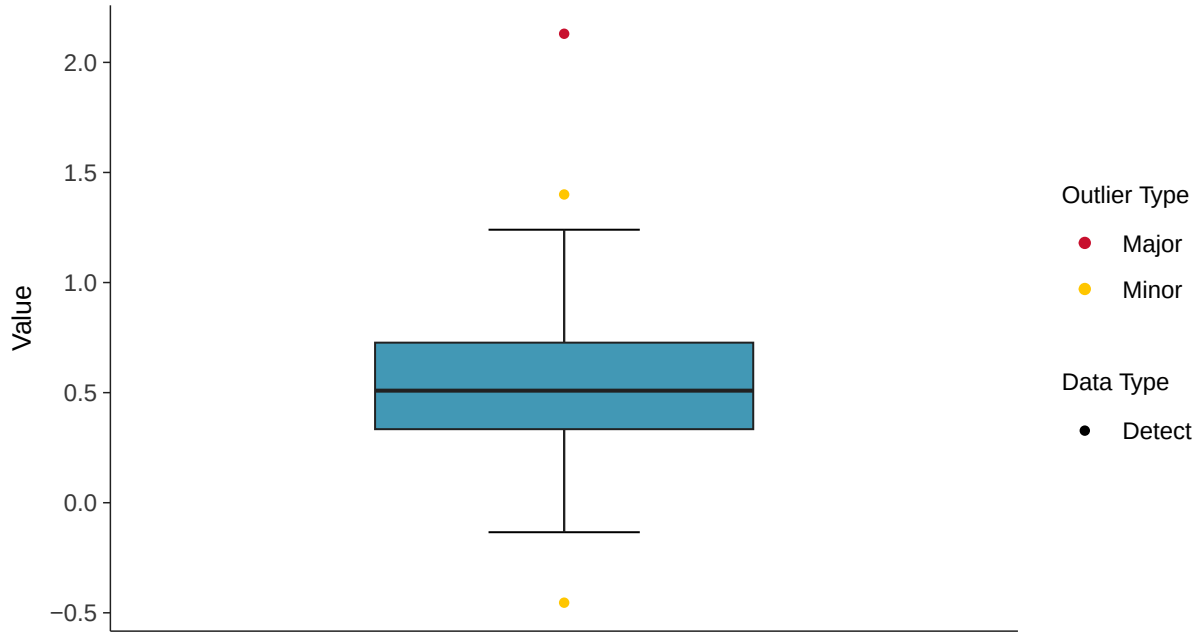
ID: 07_3_120





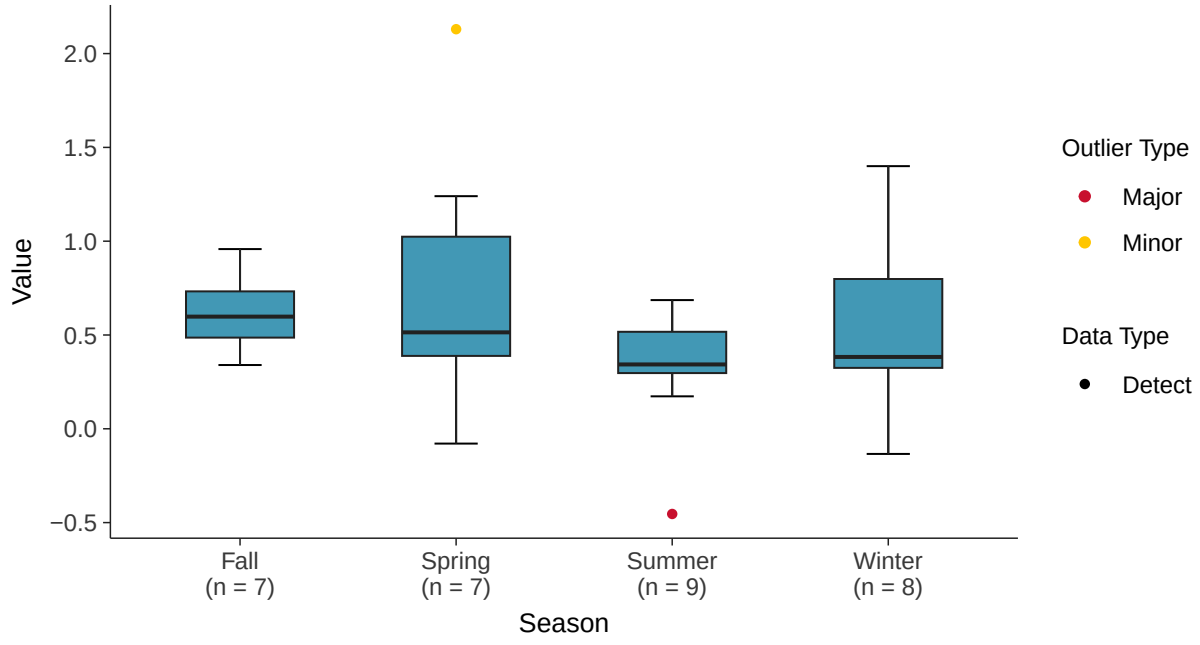
Boxplot

Radium-228, MW-7R (pCi/L)



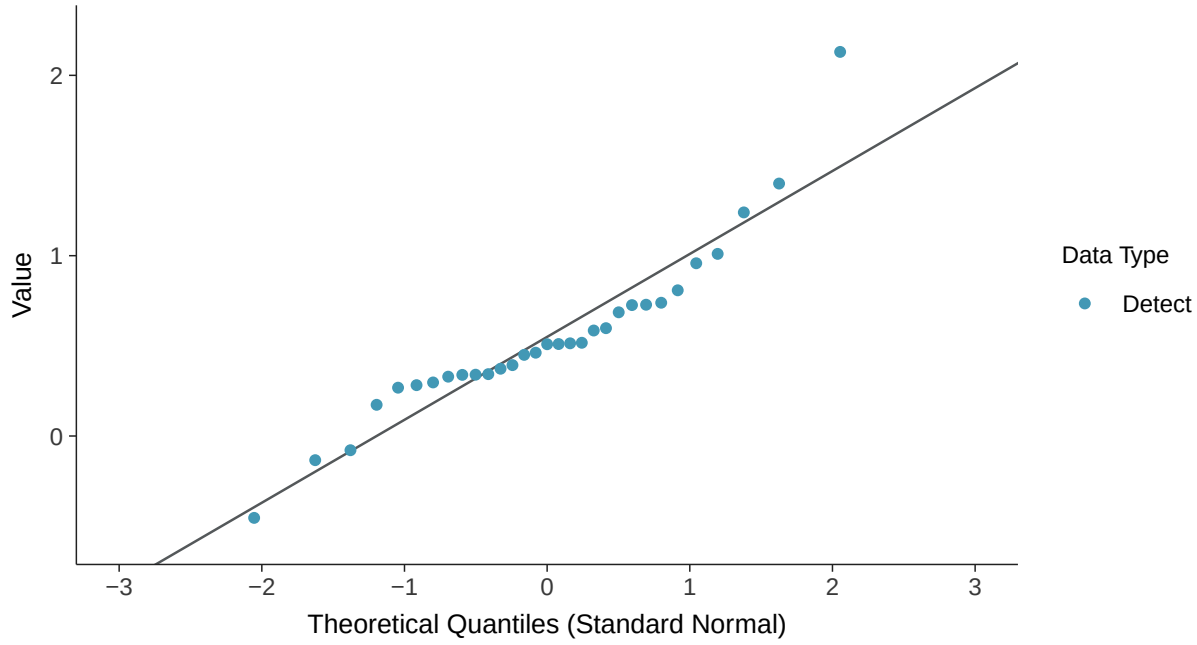
Boxplot by Season

Radium-228, MW-7R (pCi/L)



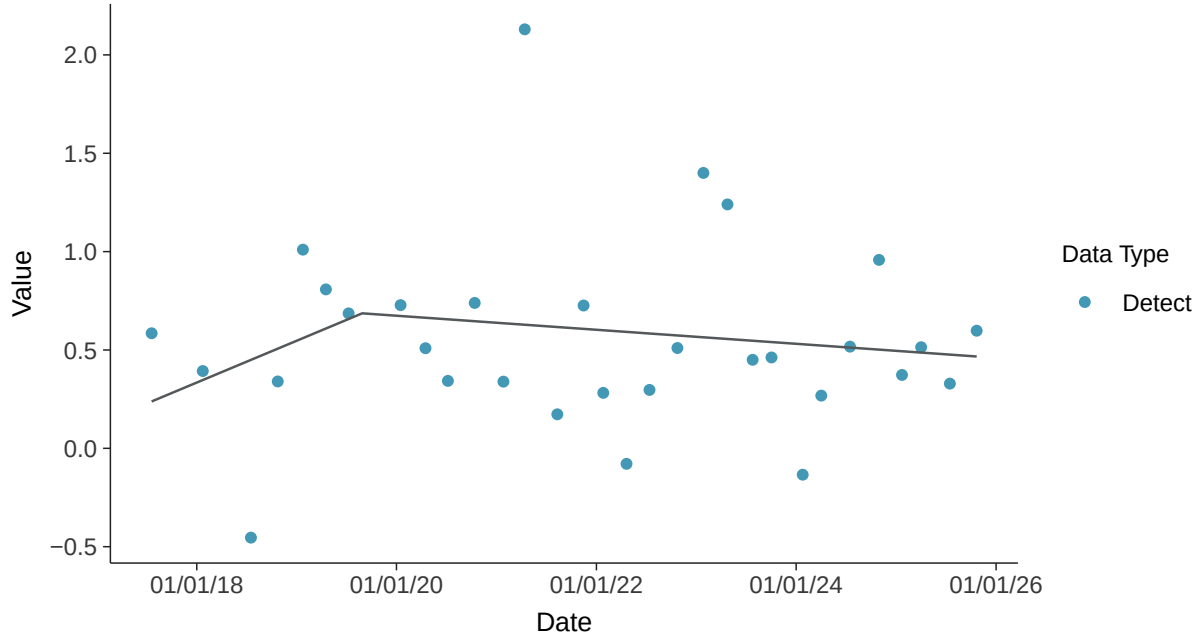
Normal Q-Q plot

Radium-228, MW-7R (pCi/L)



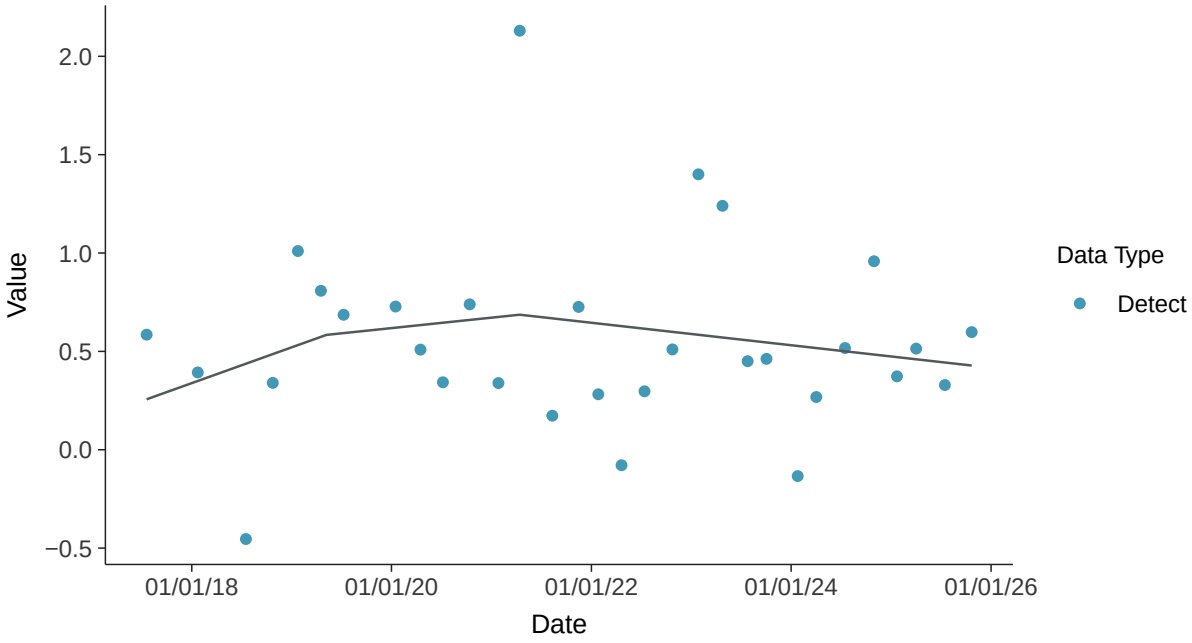
Trend Regression: Piecewise Linear-Linear

Radium-228, MW-7R (pCi/L)



Trend Regression: Piecewise Linear-Linear-Linear

Radium-228, MW-7R (pCi/L)

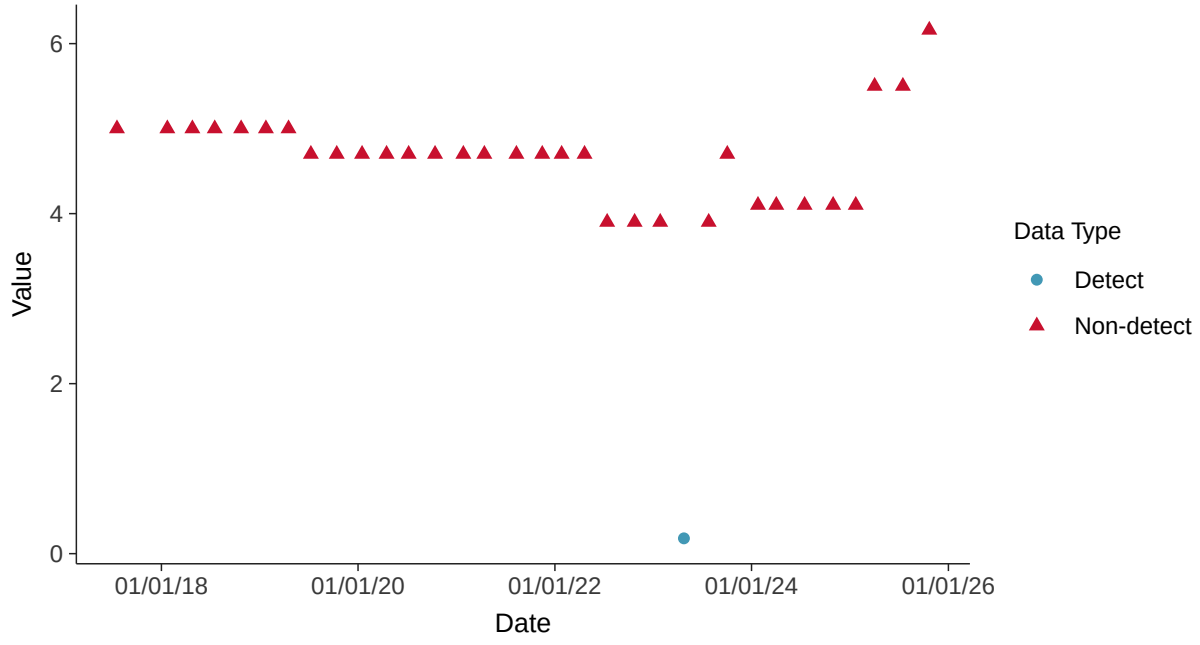


App. IV: Selenium, MW-7R

ID: 07_3_121

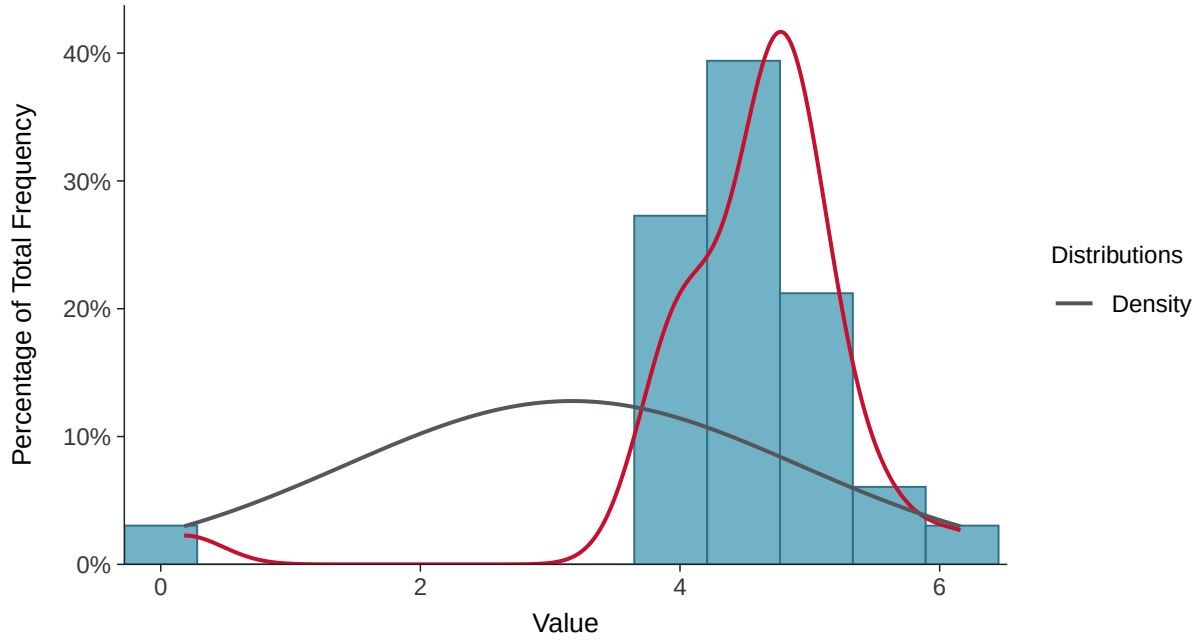
Scatter Plot

Selenium, MW-7R (ug/L)



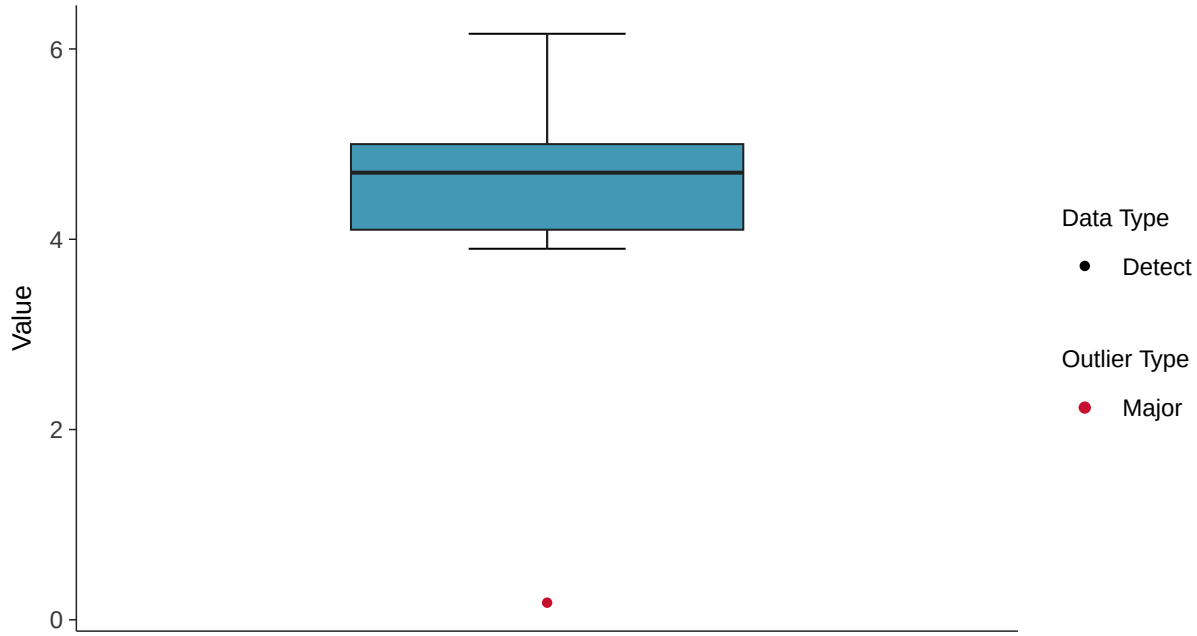
Histogram

Selenium, MW-7R (ug/L)



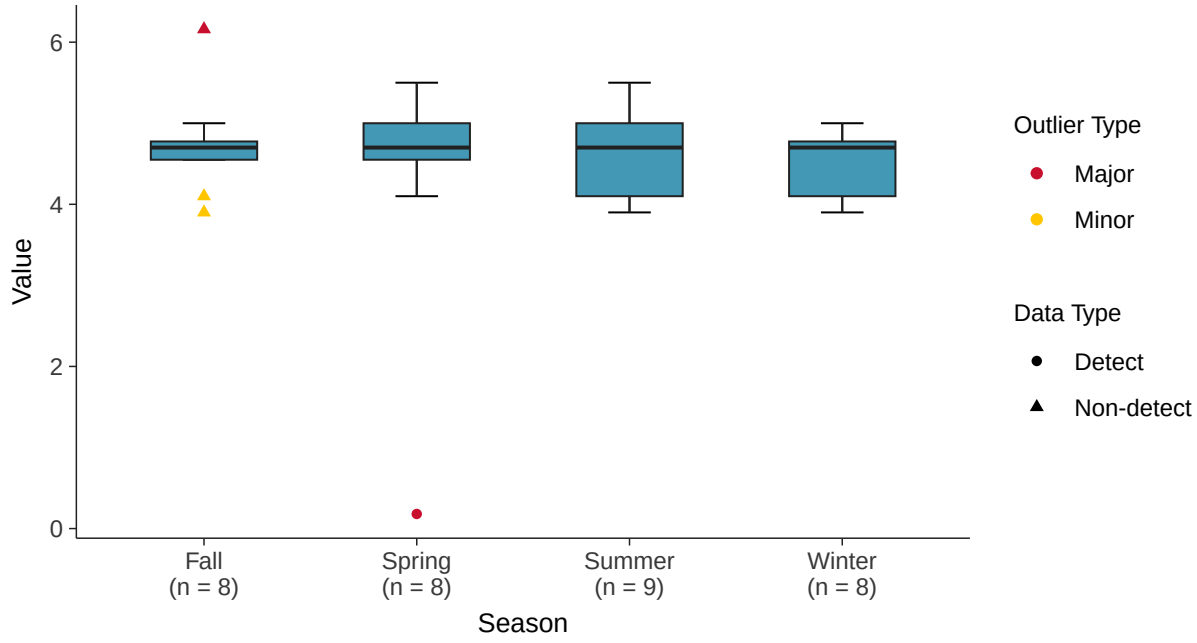
Boxplot

Selenium, MW-7R (ug/L)



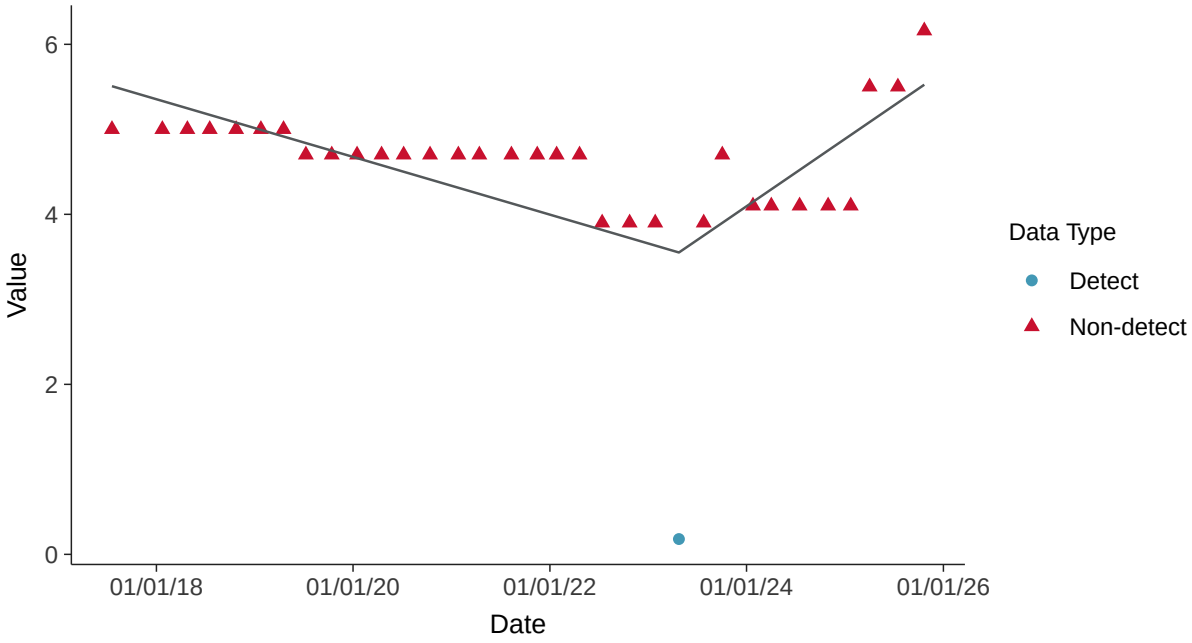
Boxplot by Season

Selenium, MW-7R (ug/L)



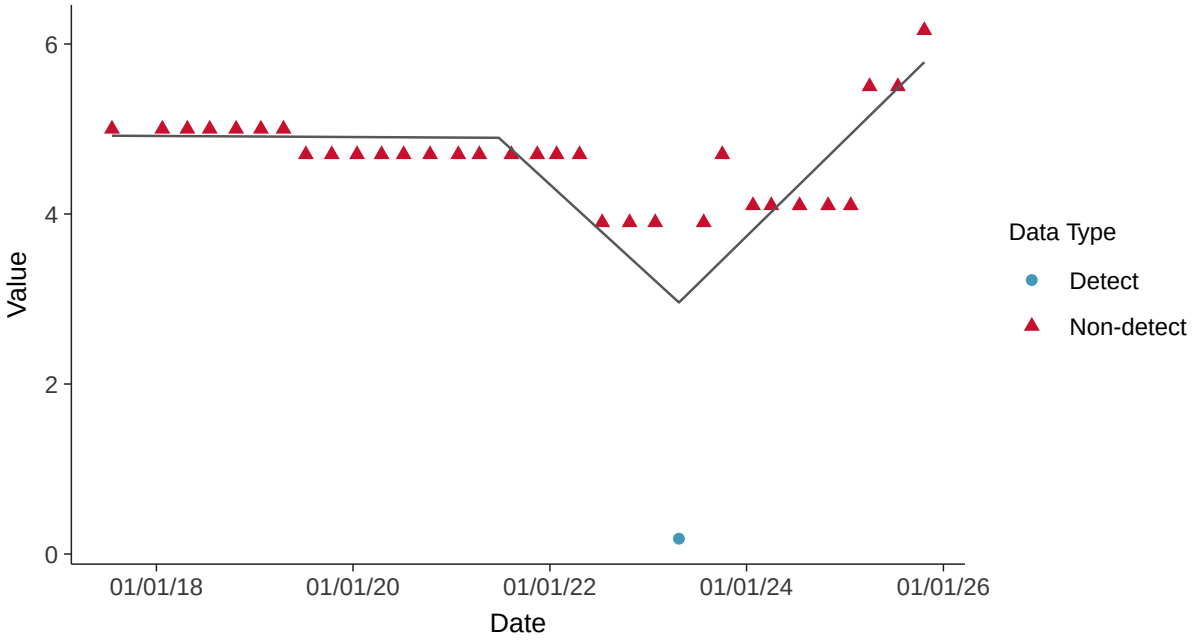
Trend Regression: Piecewise Linear-Linear

Selenium, MW-7R (ug/L)



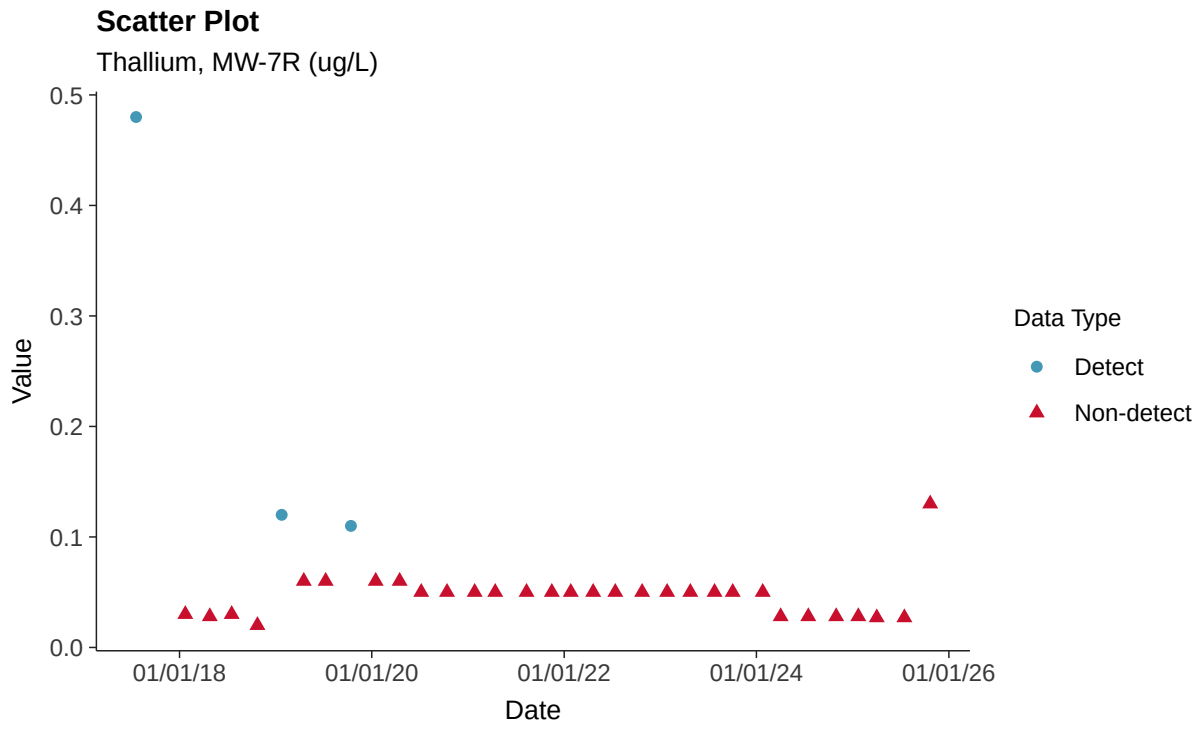
Trend Regression: Piecewise Linear-Linear-Linear

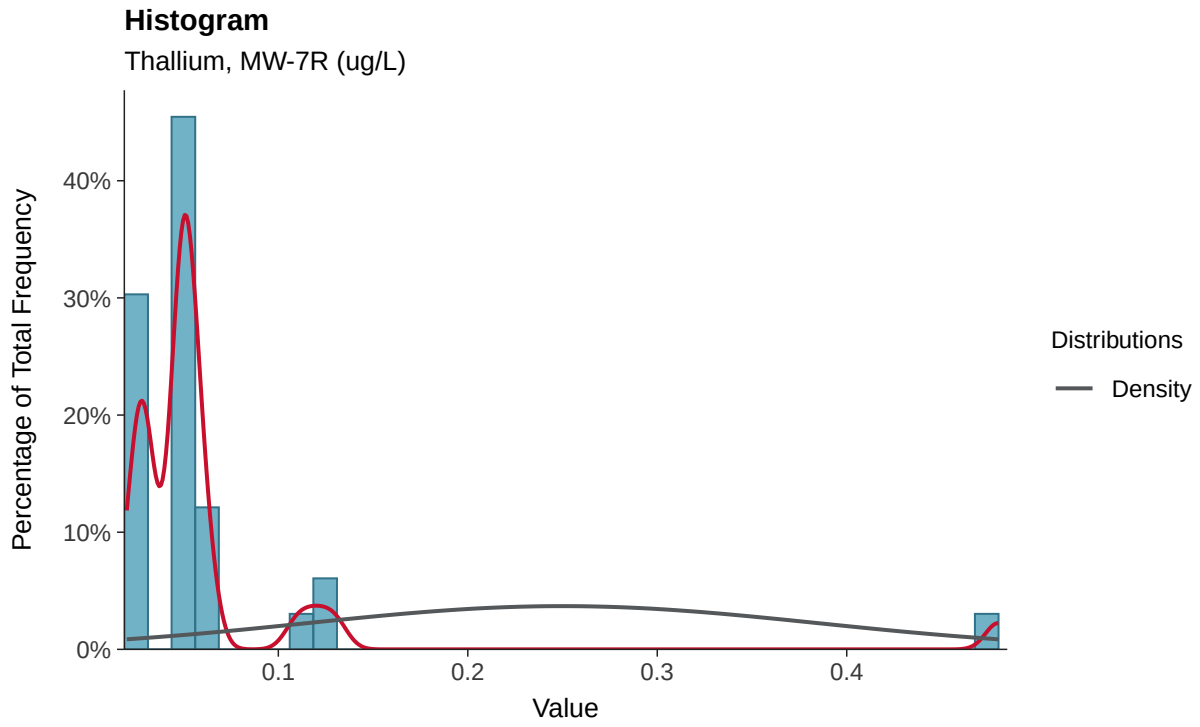
Selenium, MW-7R (ug/L)



App. IV: Thallium, MW-7R

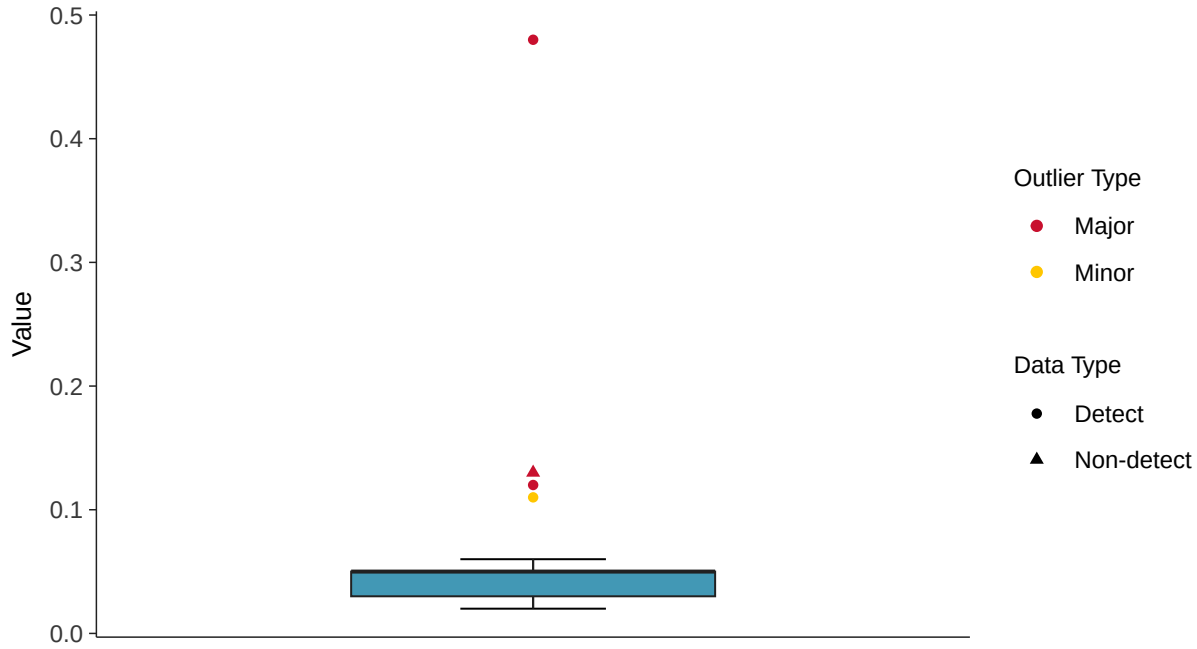
ID: 07_3_124





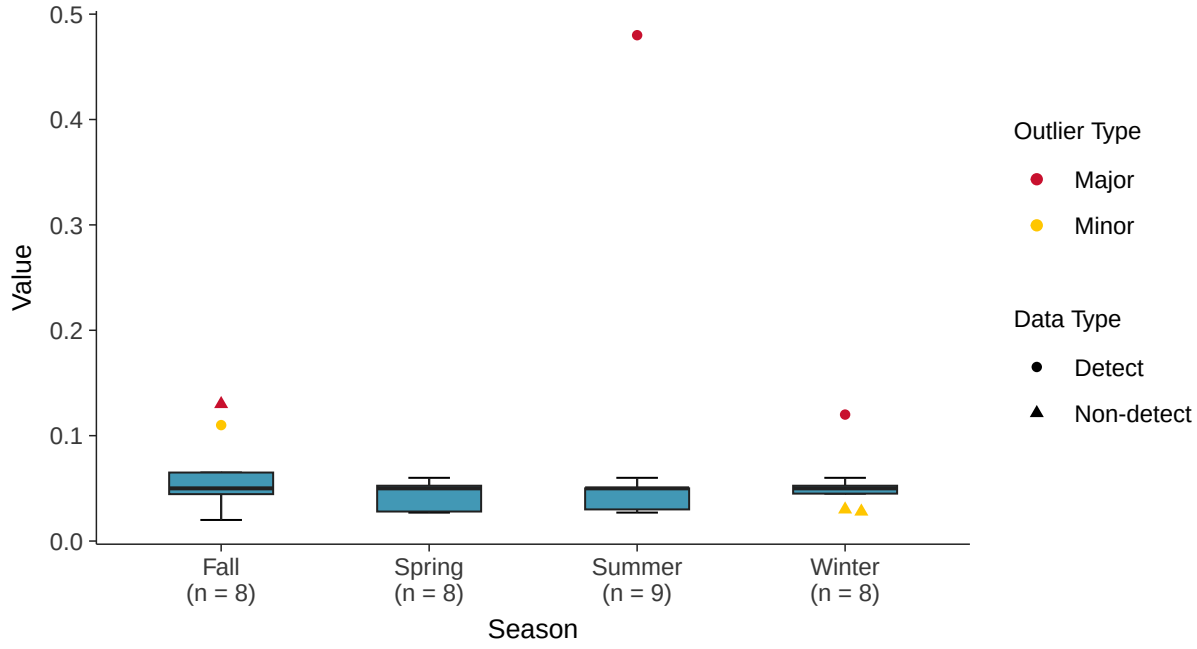
Boxplot

Thallium, MW-7R (ug/L)



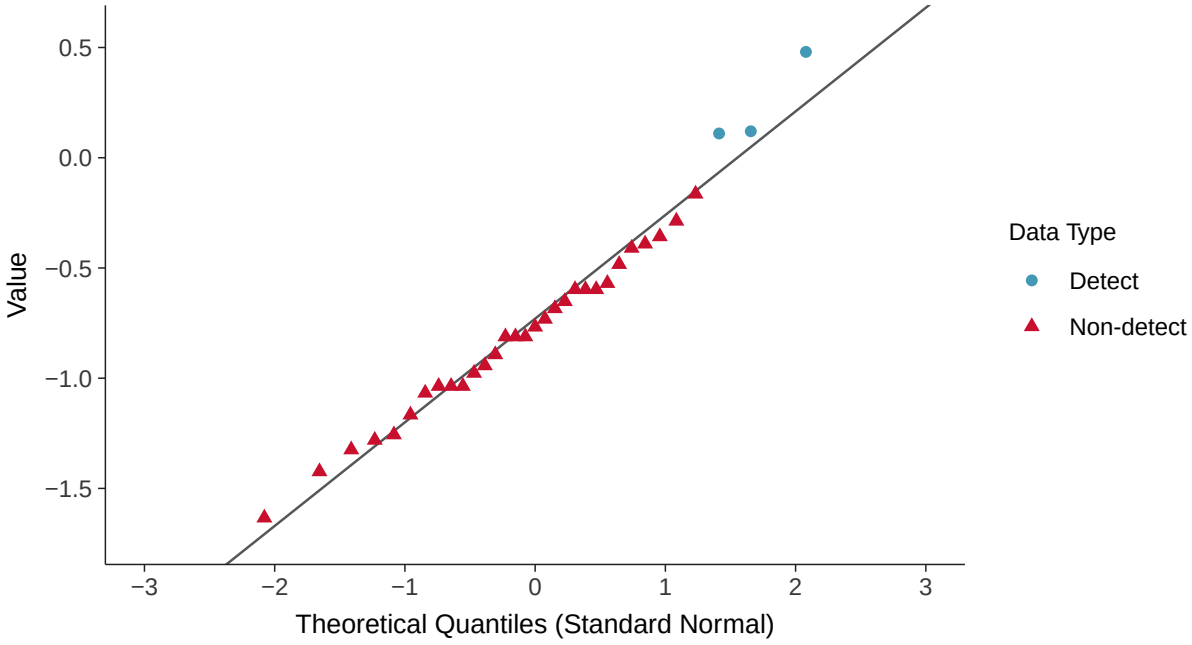
Boxplot by Season

Thallium, MW-7R (ug/L)



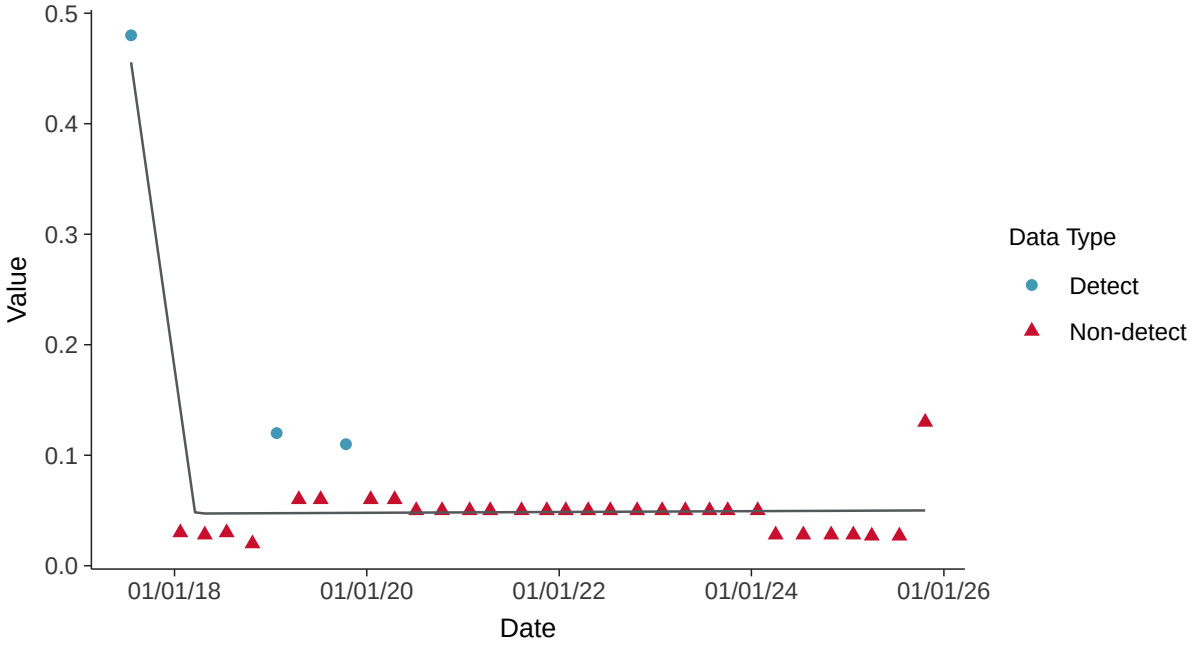
Normal Q-Q plot using ROS Imputed Estimates

Thallium, MW-7R (ug/L)



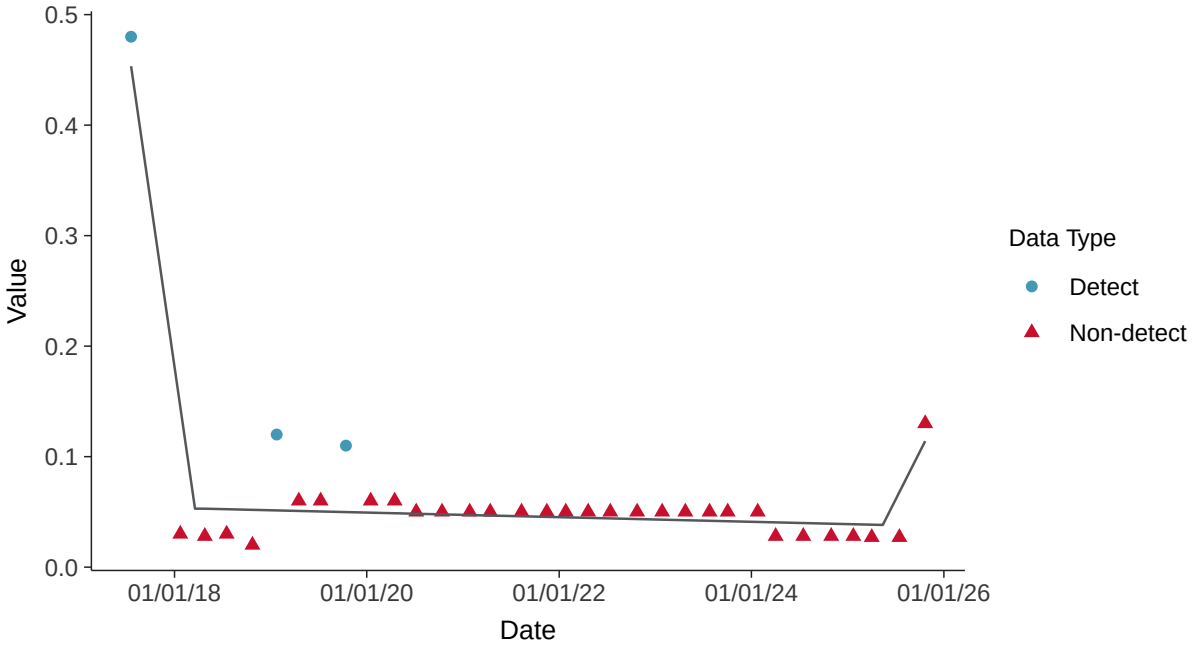
Trend Regression: Piecewise Linear-Linear

Thallium, MW-7R (ug/L)



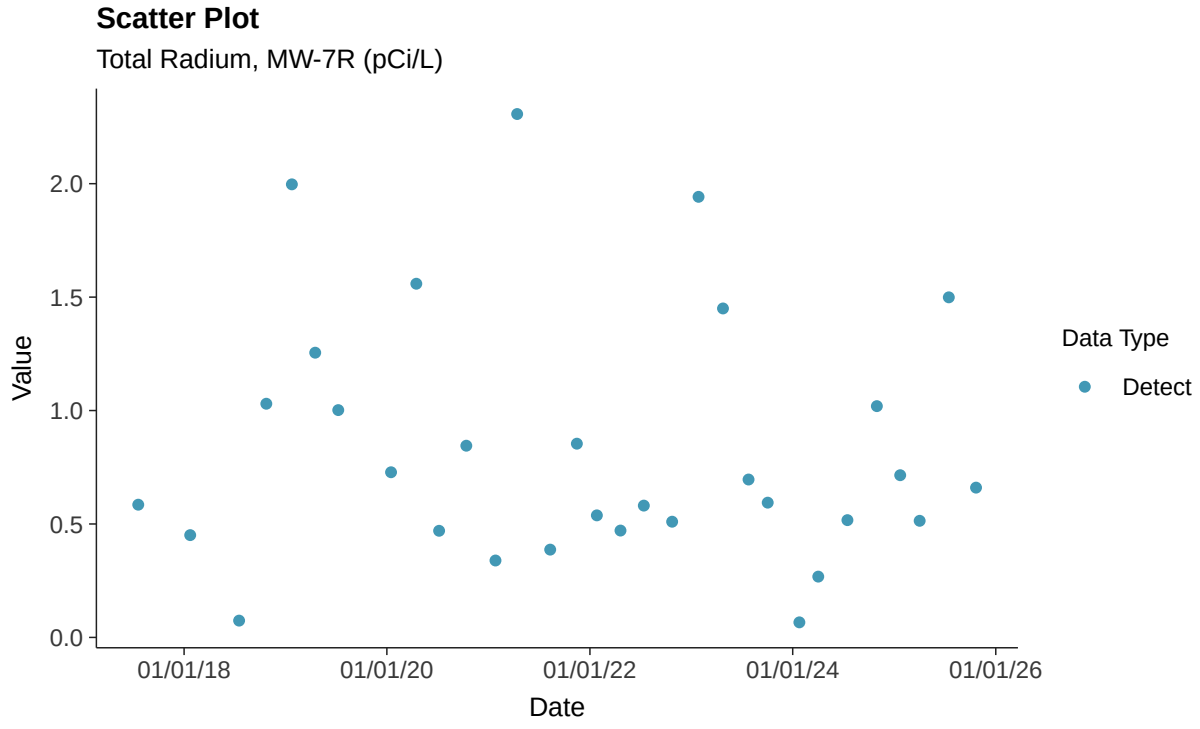
Trend Regression: Piecewise Linear-Linear-Linear

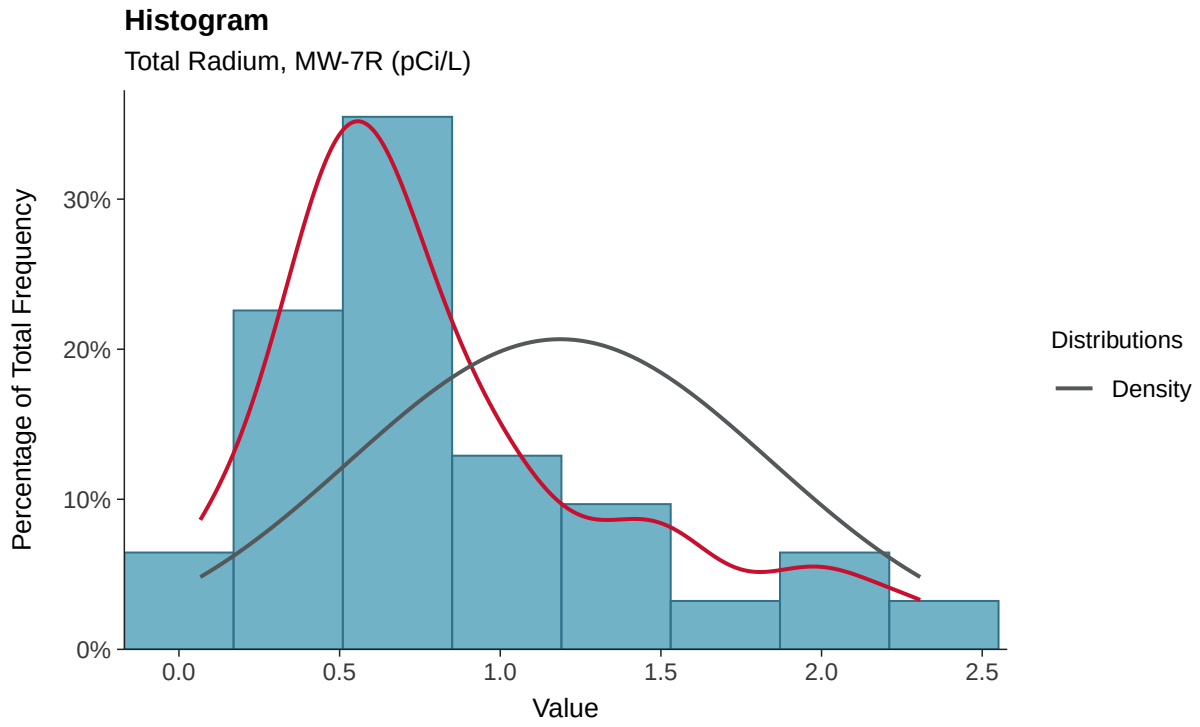
Thallium, MW-7R (ug/L)



App. IV: Total Radium, MW-7R

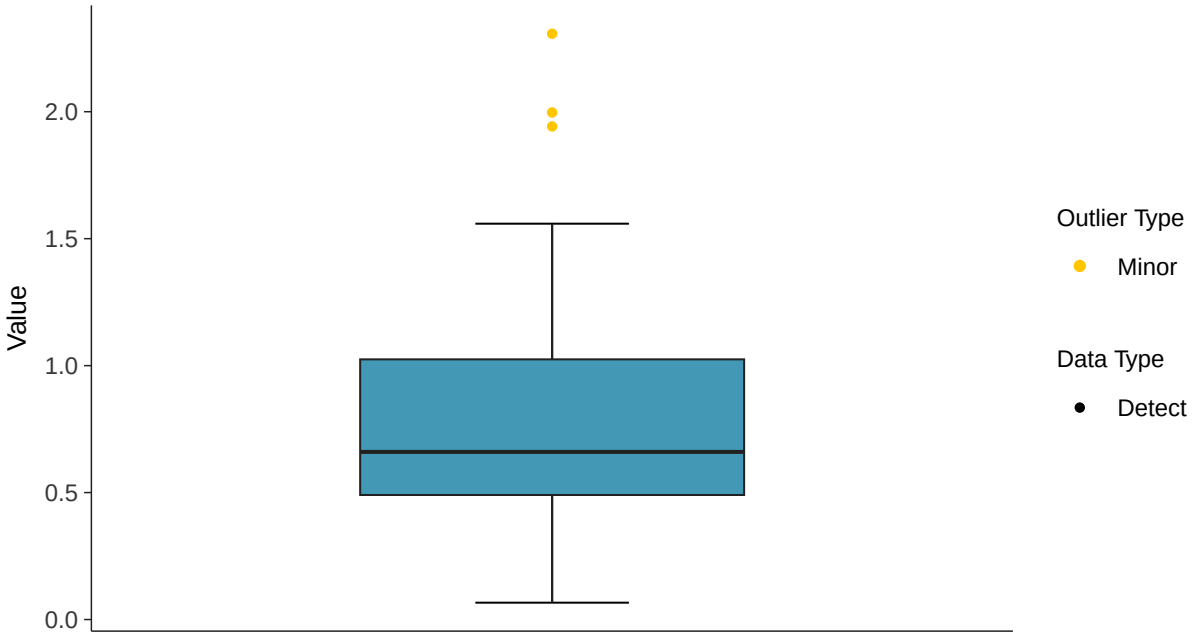
ID: 07_3_126





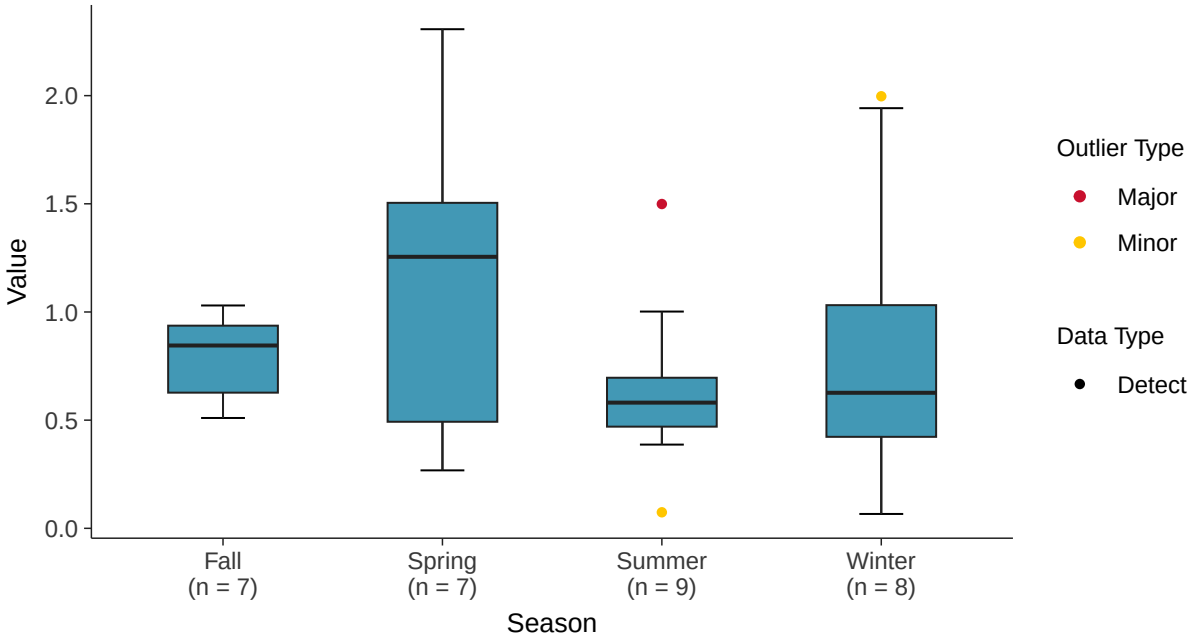
Boxplot

Total Radium, MW-7R (pCi/L)



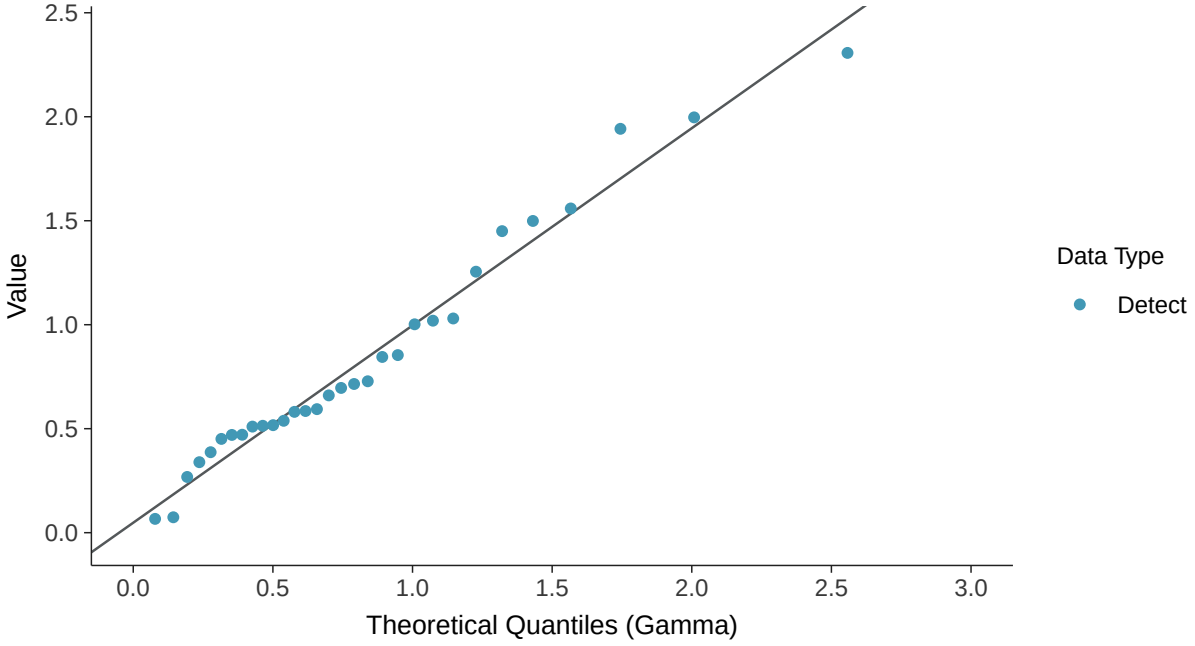
Boxplot by Season

Total Radium, MW-7R (pCi/L)



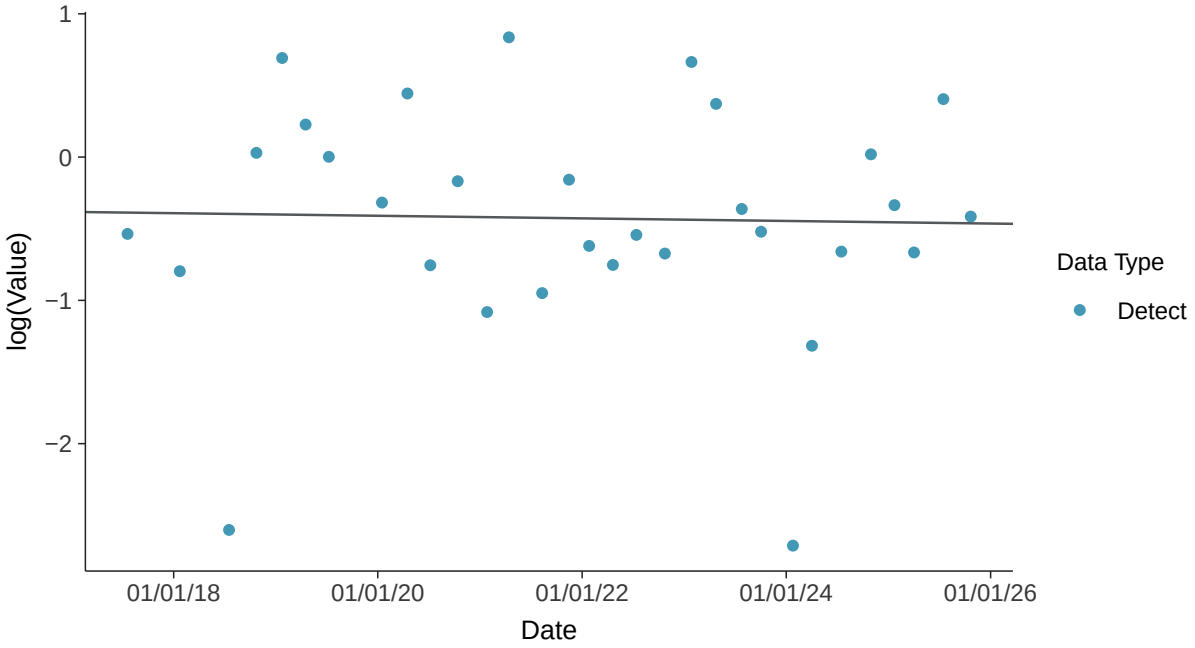
Gamma Q-Q plot

Total Radium, MW-7R (pCi/L)



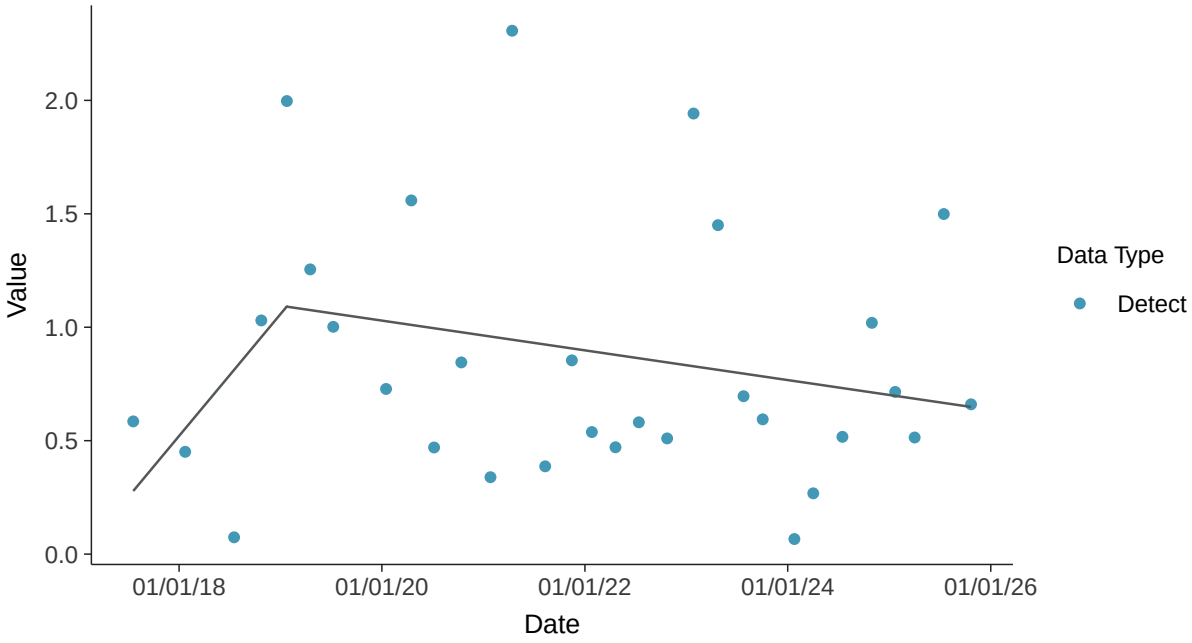
Trend Regression: Lognormal MLE

Total Radium, MW-7R (pCi/L)



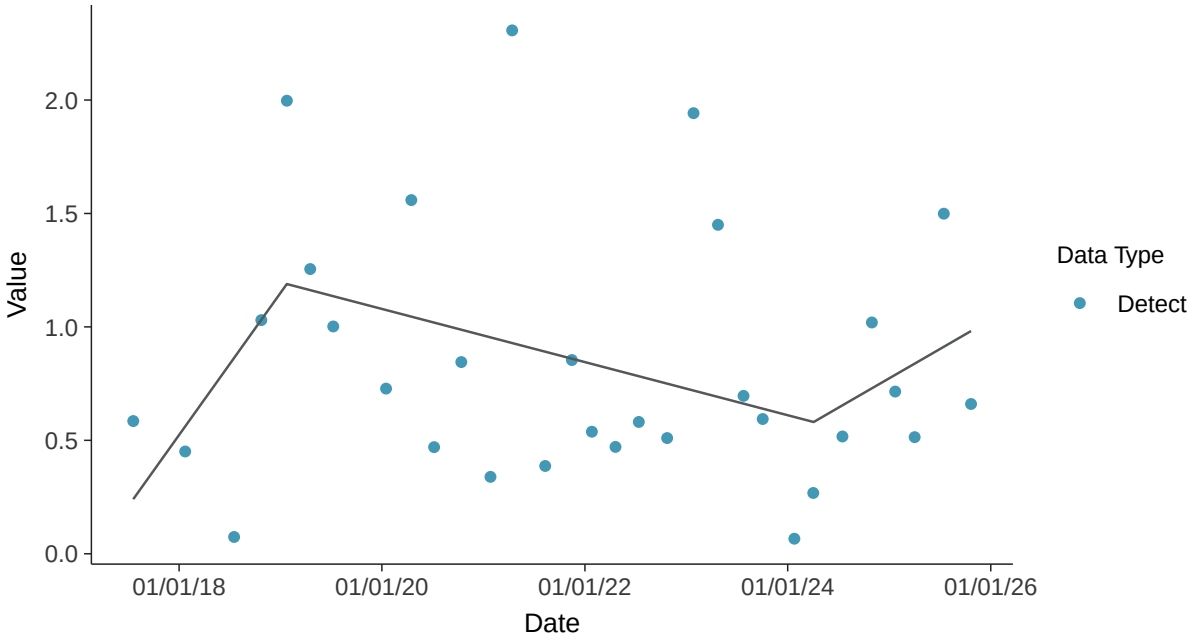
Trend Regression: Piecewise Linear-Linear

Total Radium, MW-7R (pCi/L)



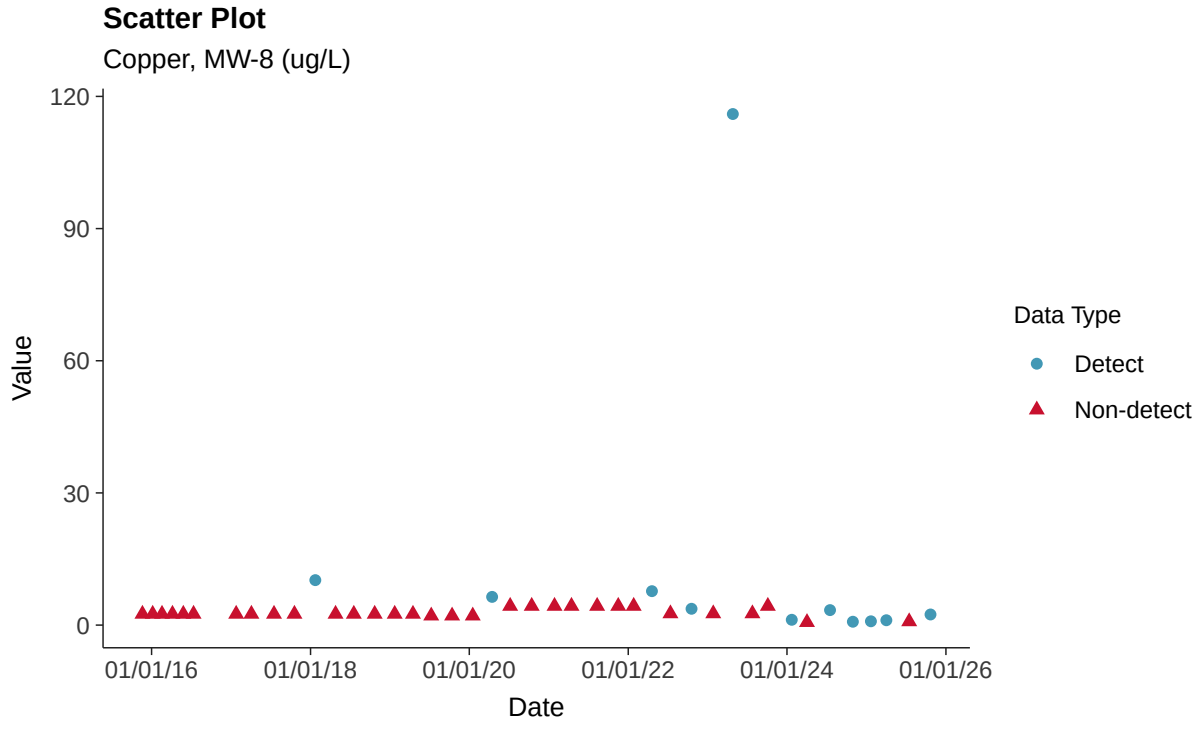
Trend Regression: Piecewise Linear-Linear-Linear

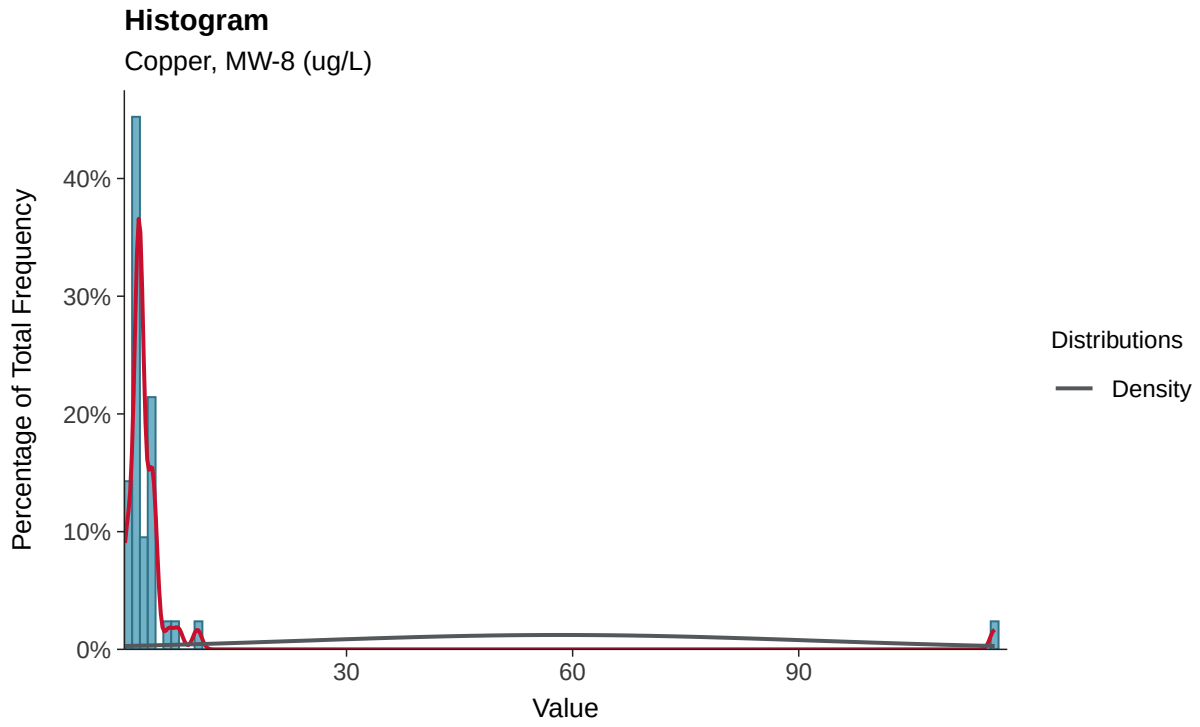
Total Radium, MW-7R (pCi/L)



App. I Metals: Copper, MW-8

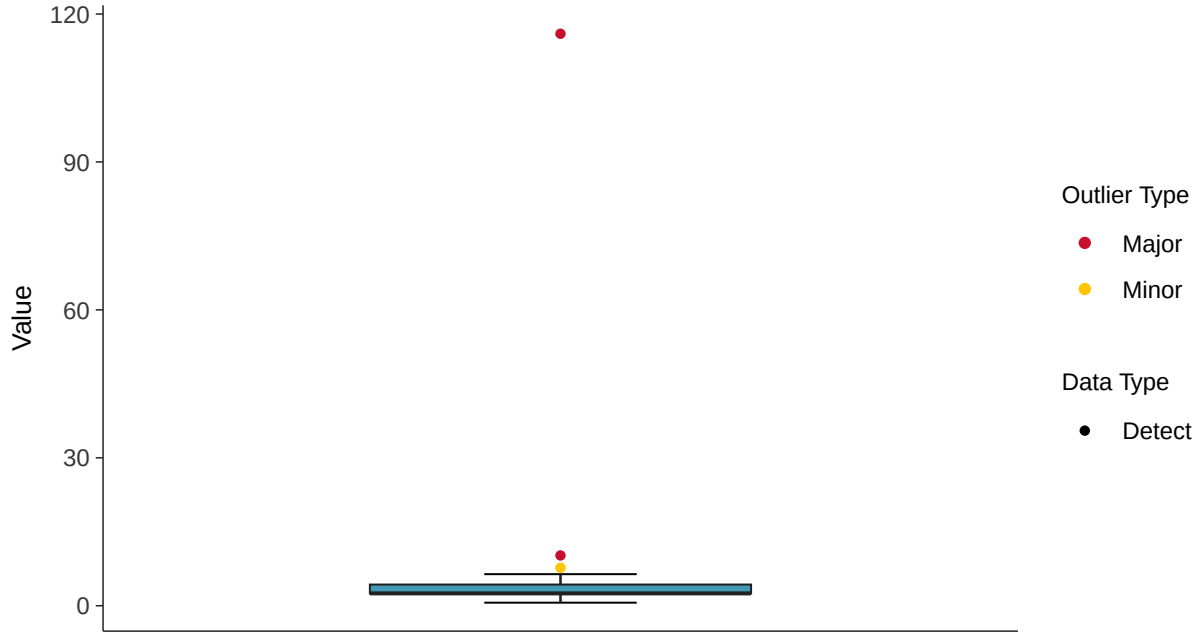
ID: 08_1_111





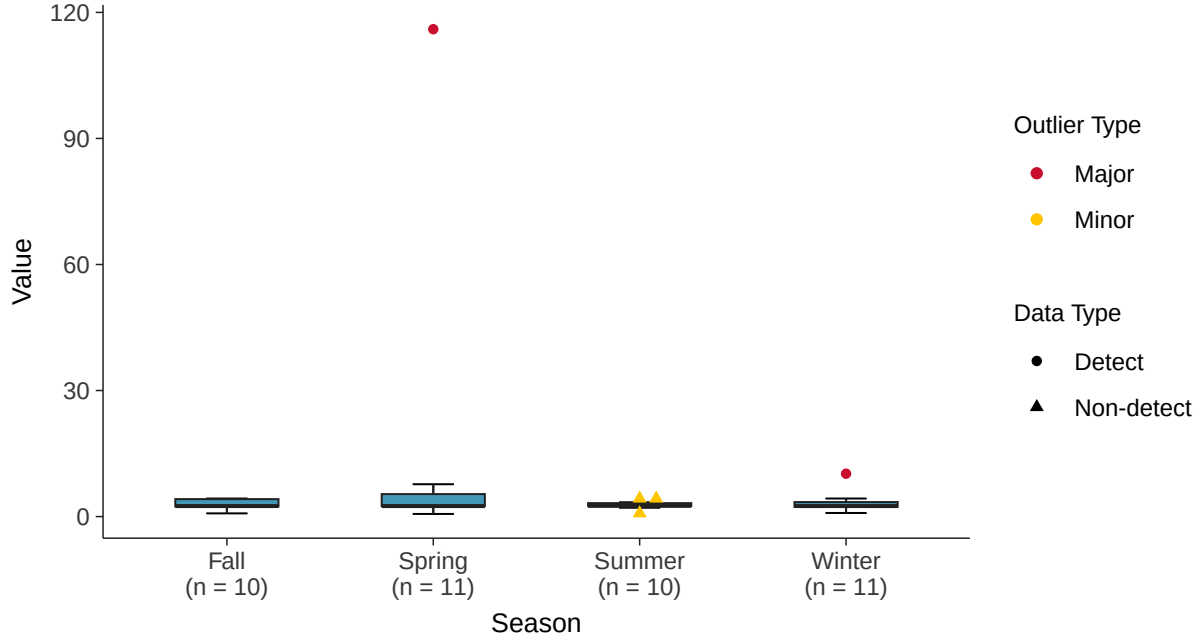
Boxplot

Copper, MW-8 (ug/L)



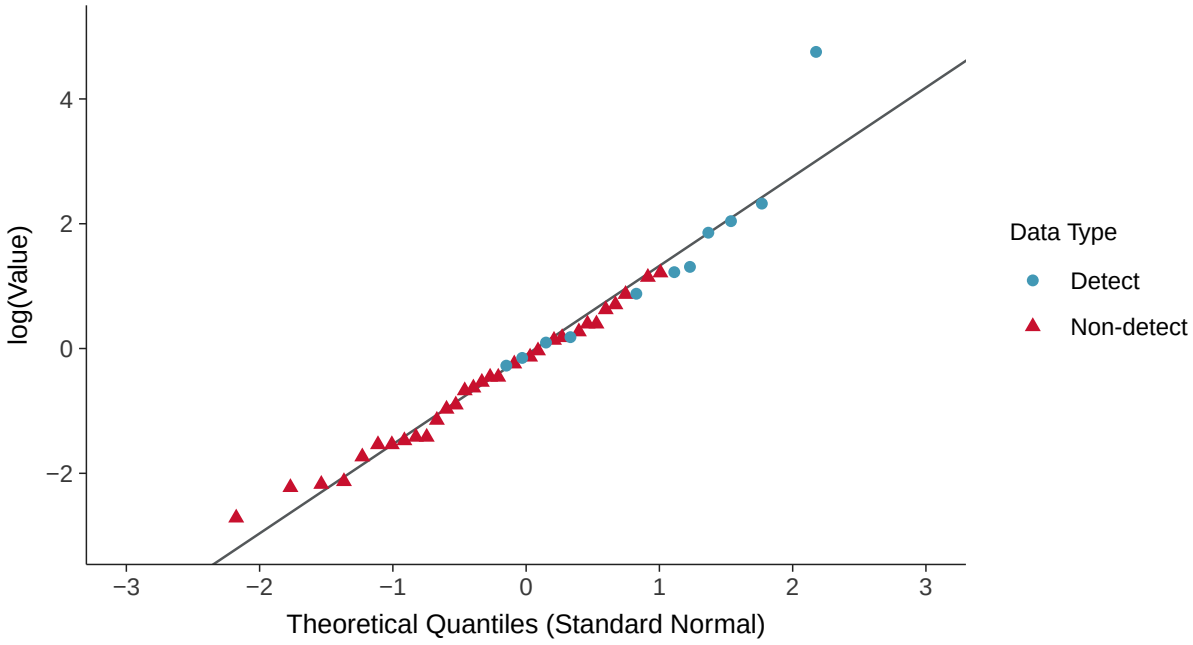
Boxplot by Season

Copper, MW-8 (ug/L)



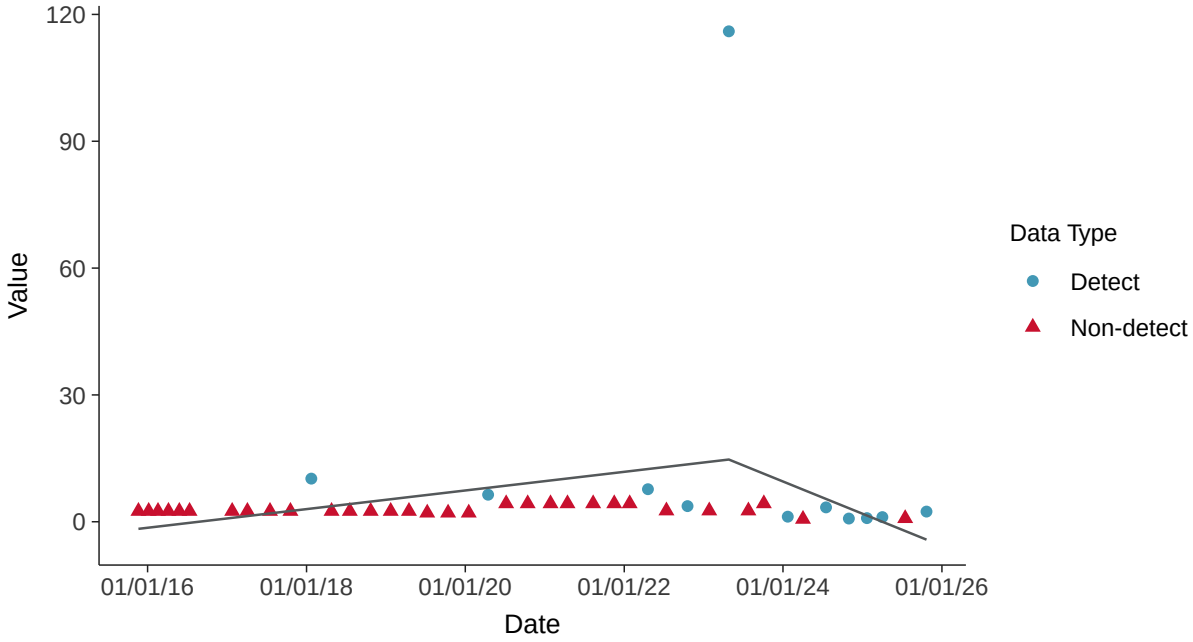
Lognormal Q-Q plot using ROS Imputed Estimates

Copper, MW-8 (ug/L)



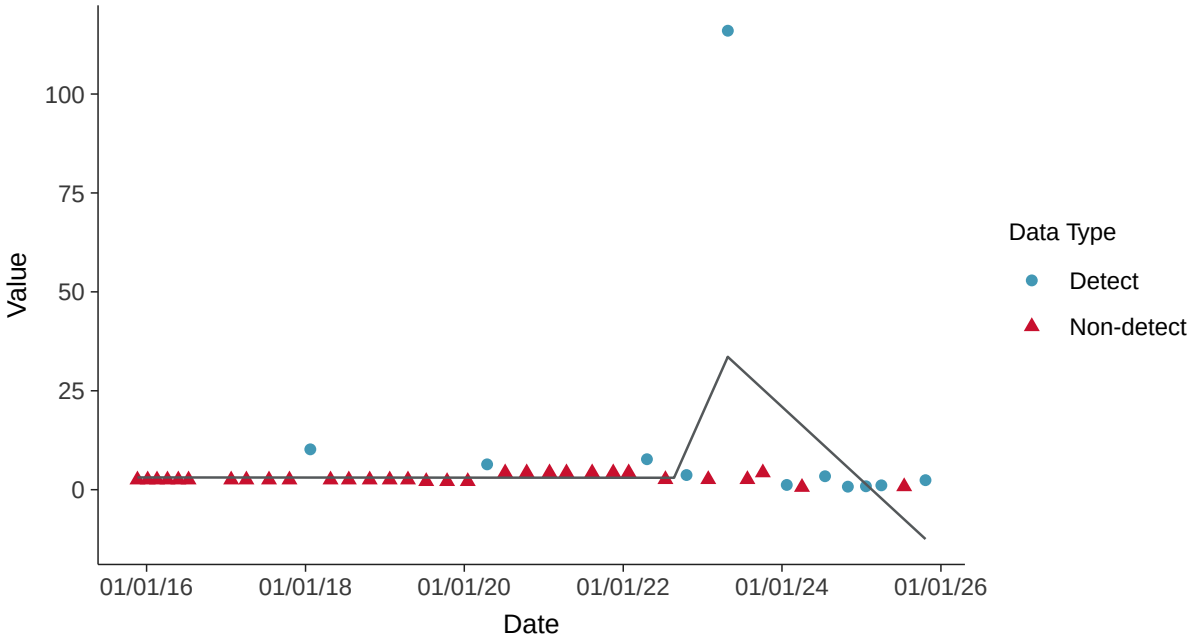
Trend Regression: Piecewise Linear-Linear

Copper, MW-8 (ug/L)



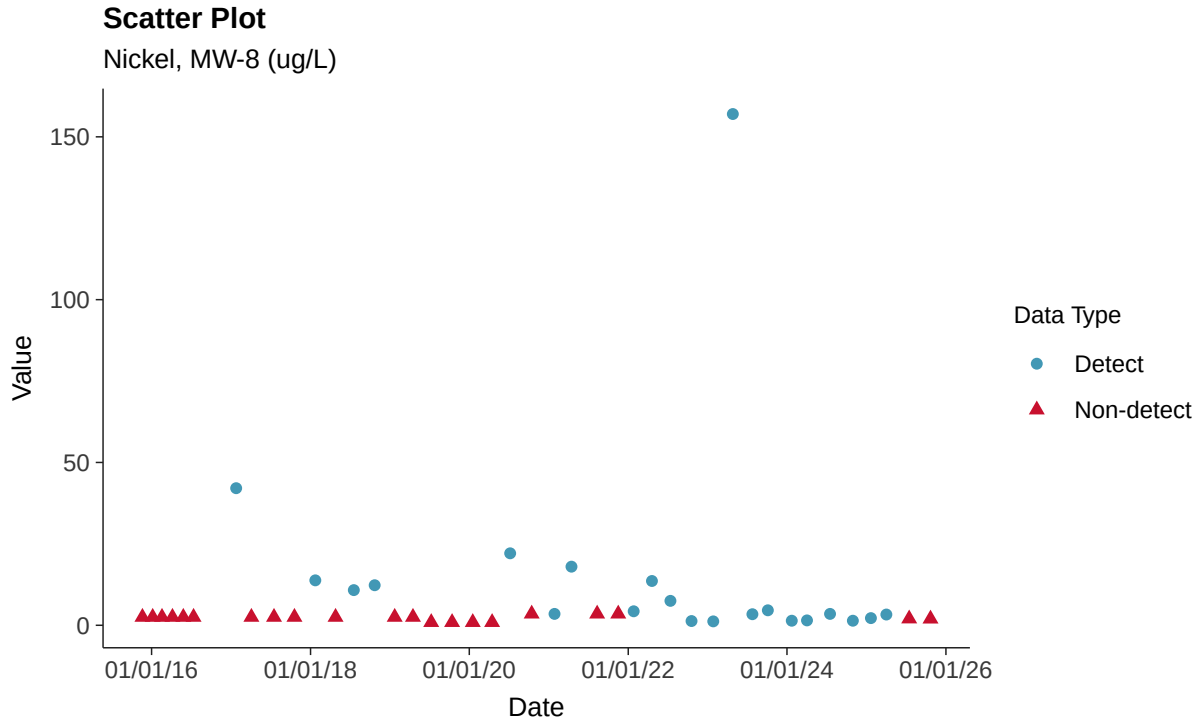
Trend Regression: Piecewise Linear-Linear-Linear

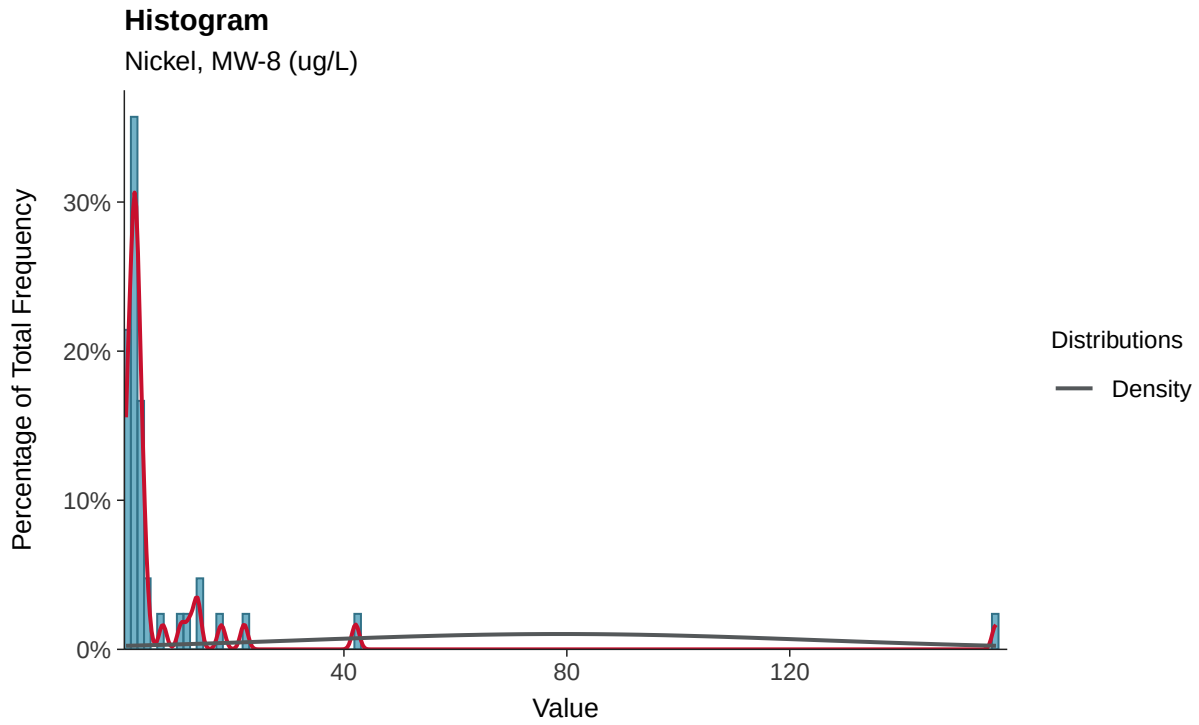
Copper, MW-8 (ug/L)



App. I Metals: Nickel, MW-8

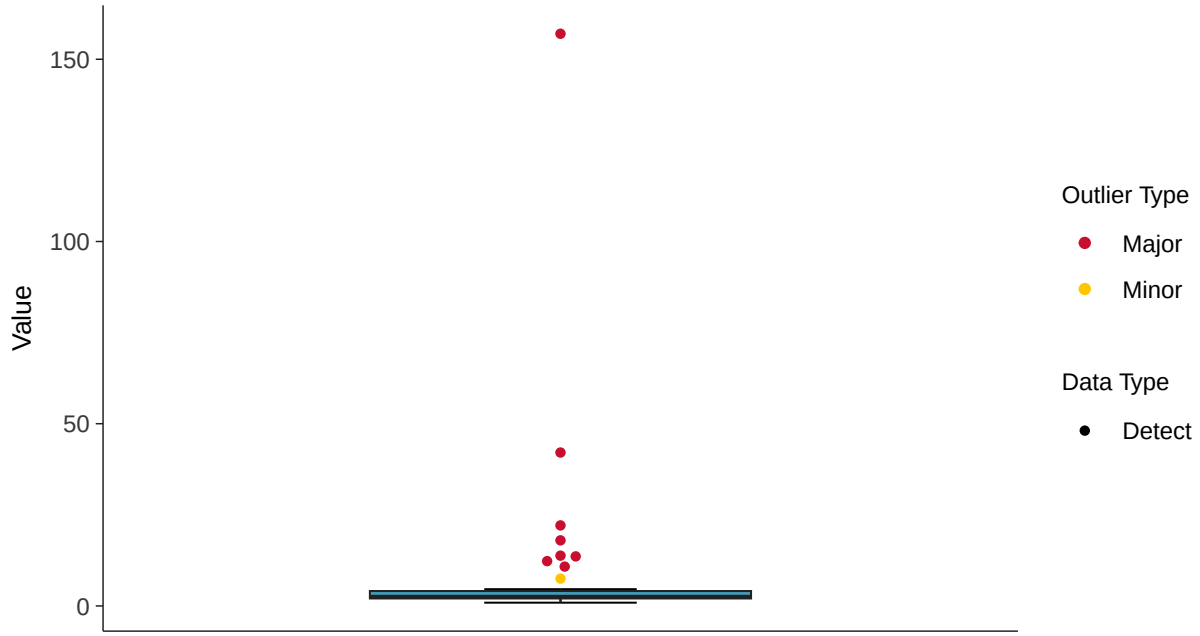
ID: 08_1_117





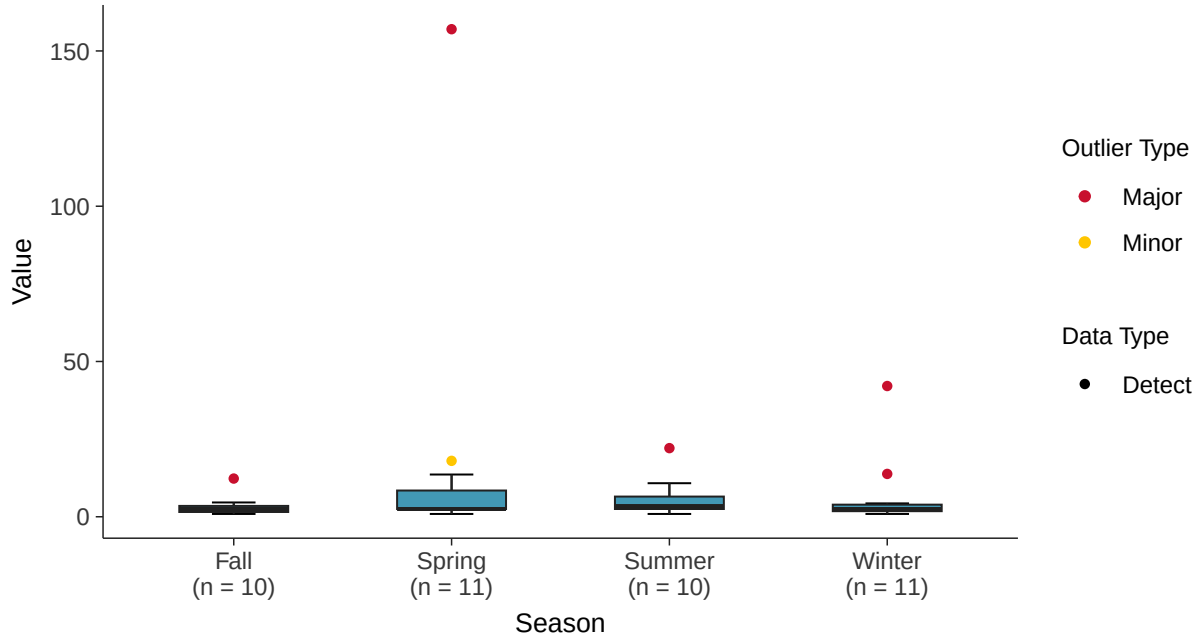
Boxplot

Nickel, MW-8 (ug/L)



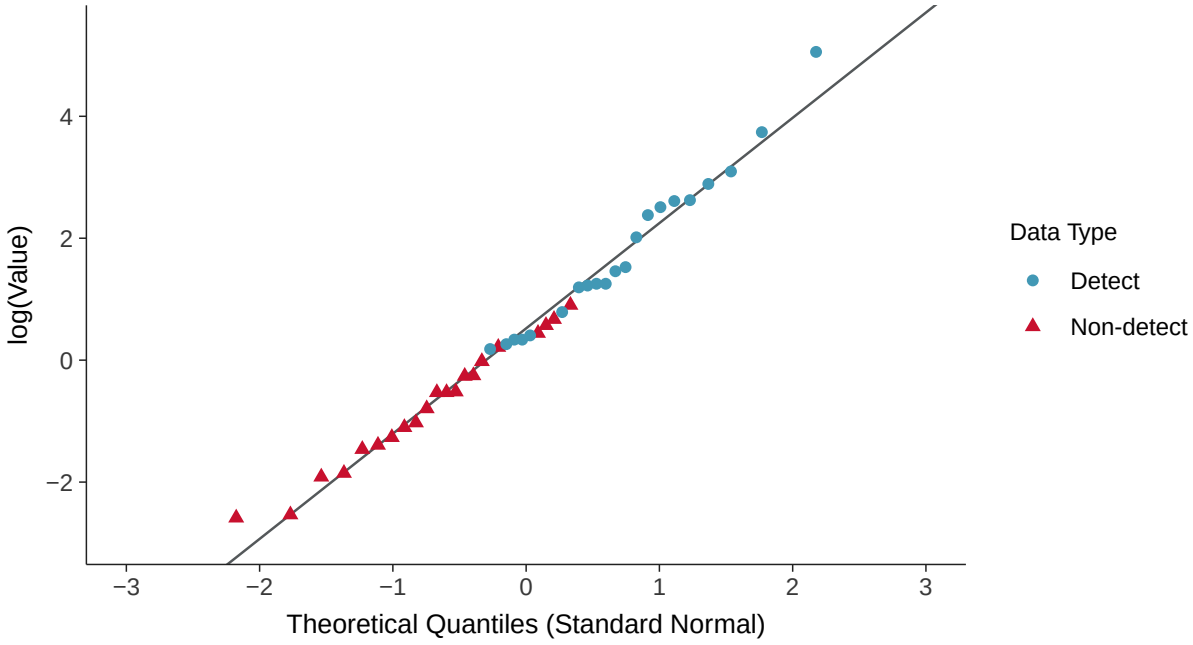
Boxplot by Season

Nickel, MW-8 (ug/L)



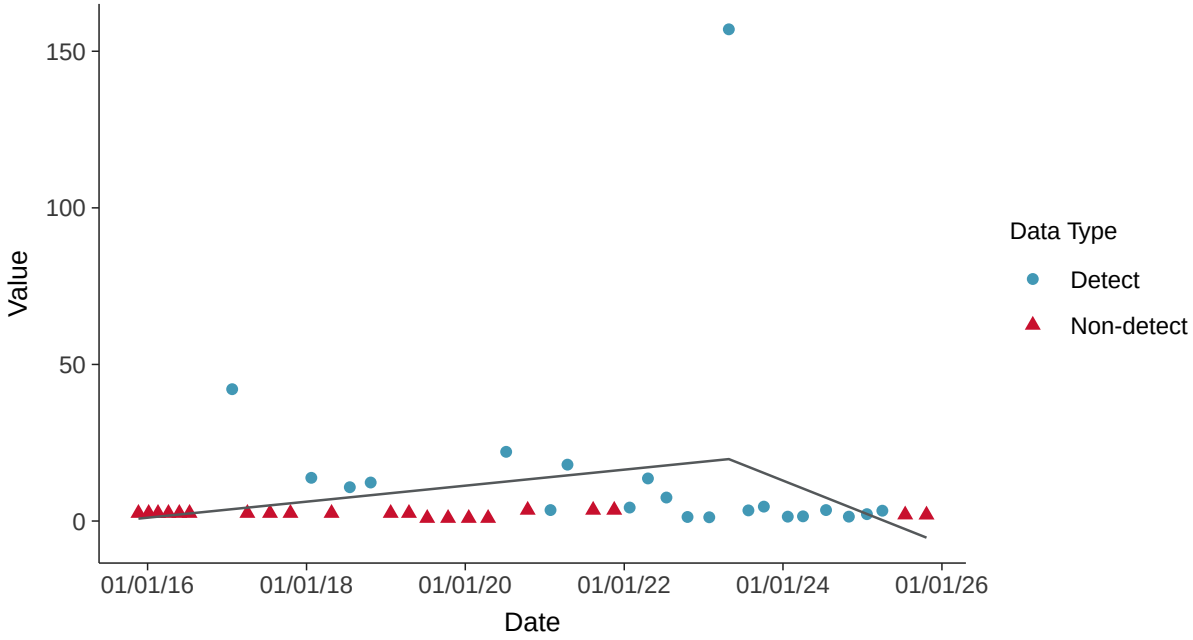
Lognormal Q-Q plot using ROS Imputed Estimates

Nickel, MW-8 (ug/L)



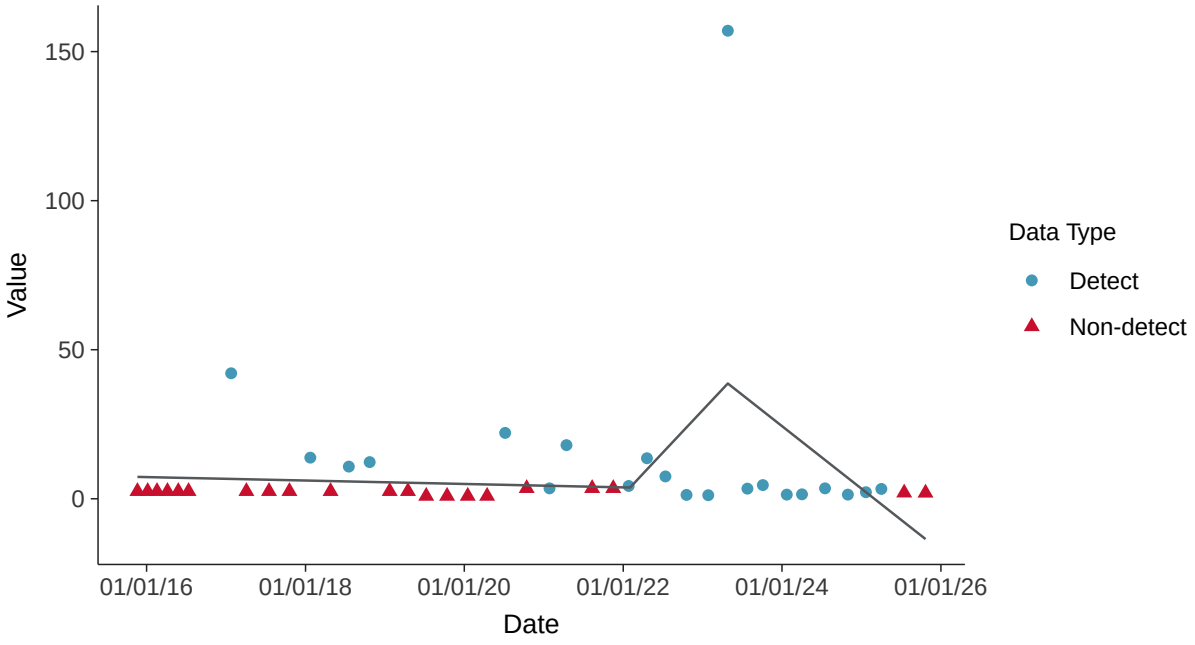
Trend Regression: Piecewise Linear-Linear

Nickel, MW-8 (ug/L)



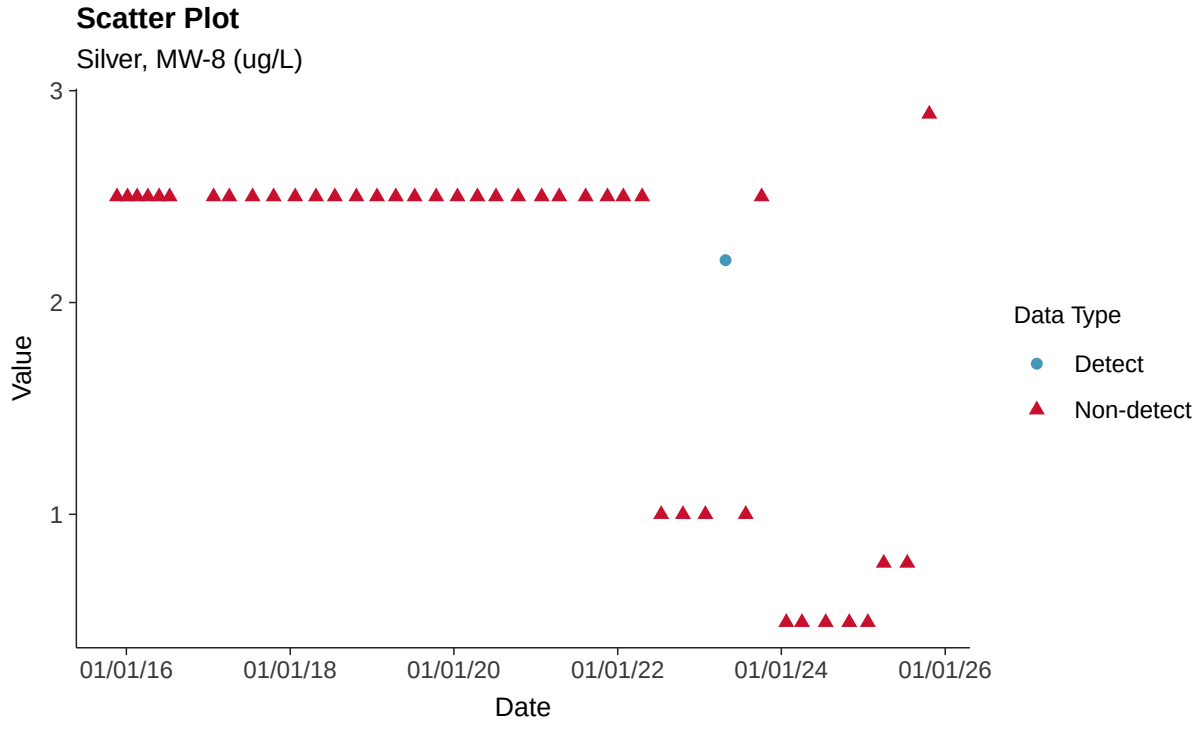
Trend Regression: Piecewise Linear-Linear-Linear

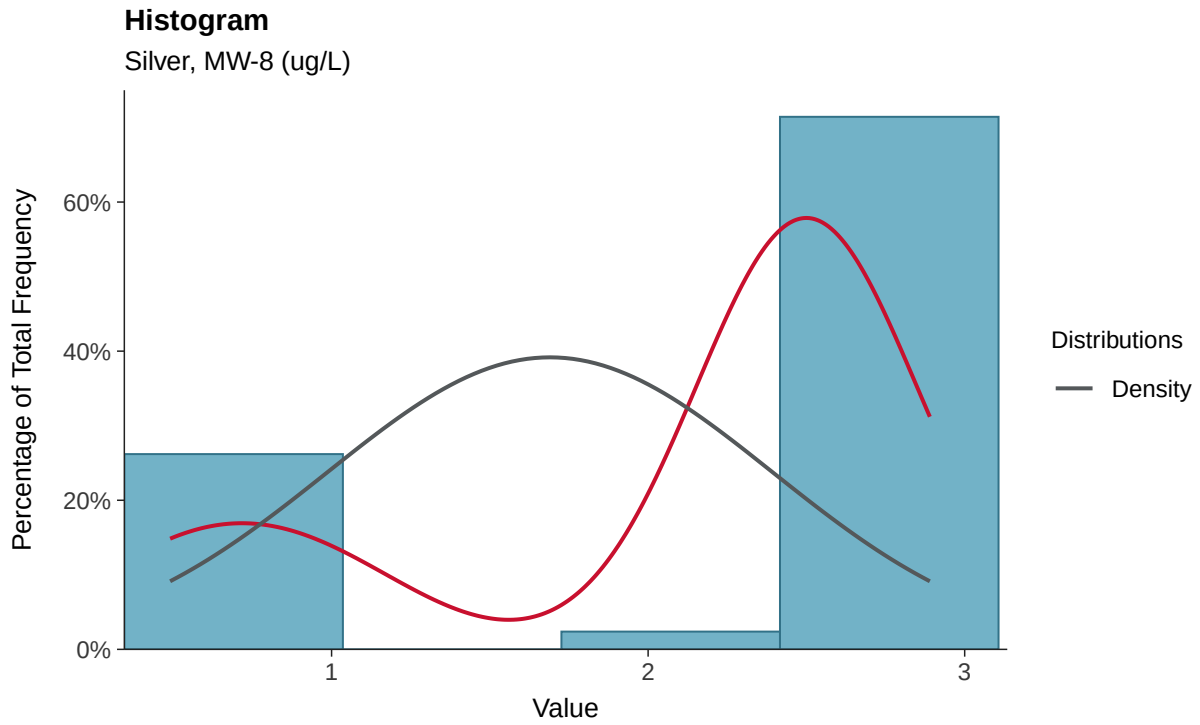
Nickel, MW-8 (ug/L)



App. I Metals: Silver, MW-8

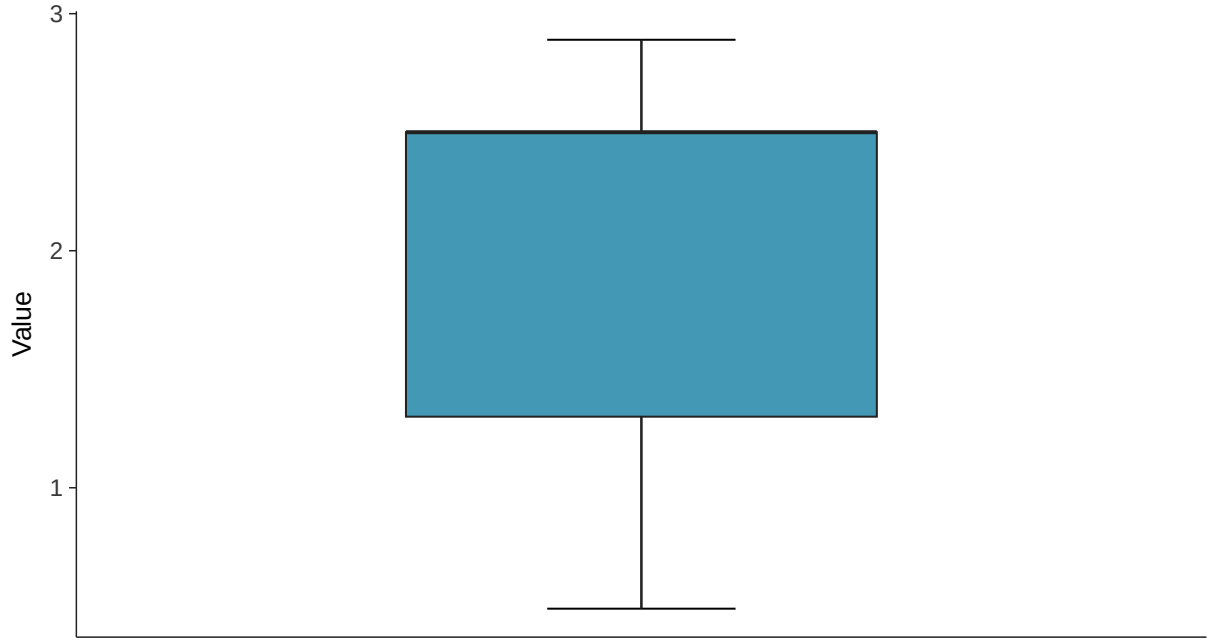
ID: 08_1_122





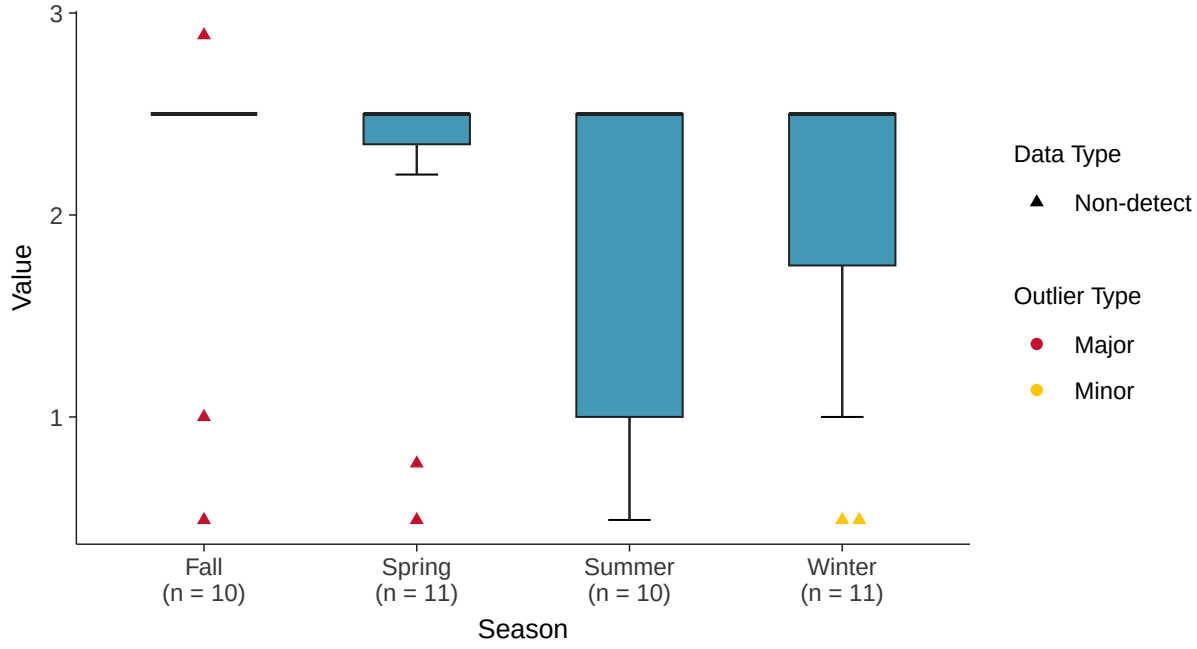
Boxplot

Silver, MW-8 (ug/L)



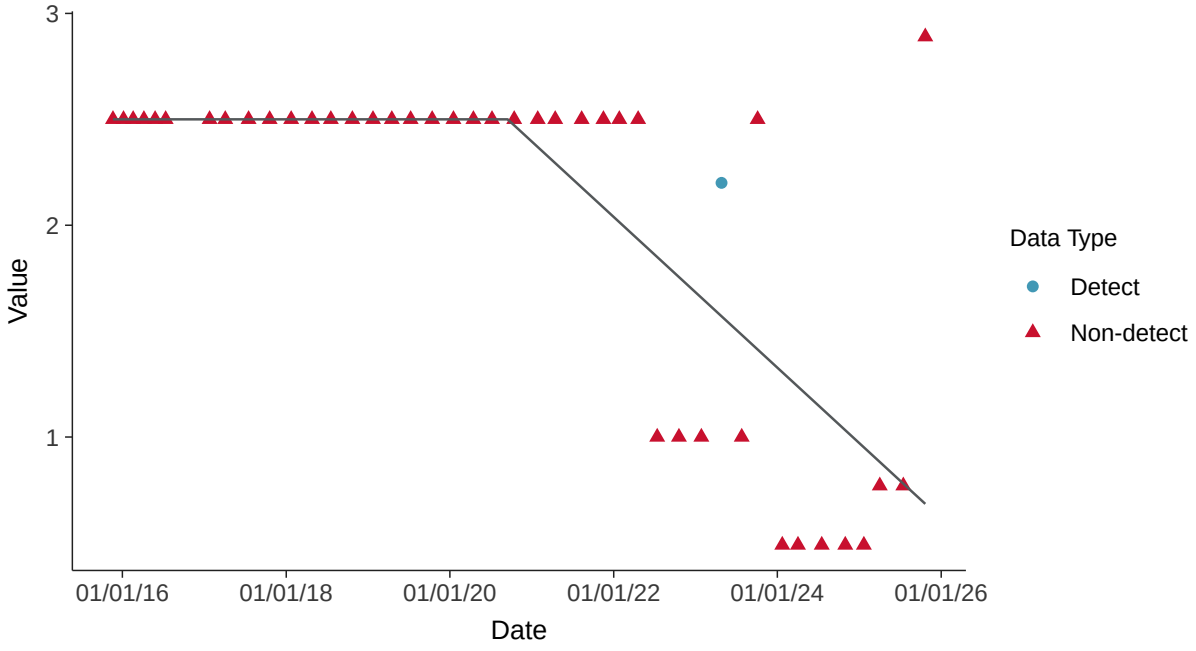
Boxplot by Season

Silver, MW-8 (ug/L)



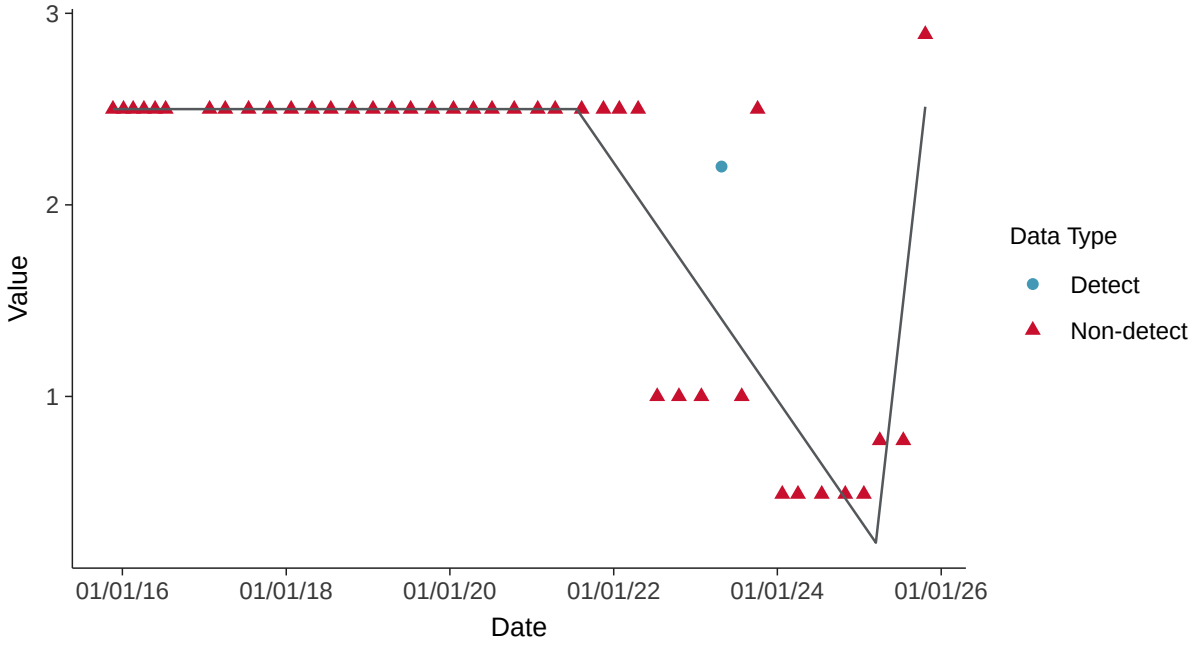
Trend Regression: Piecewise Linear-Linear

Silver, MW-8 (ug/L)



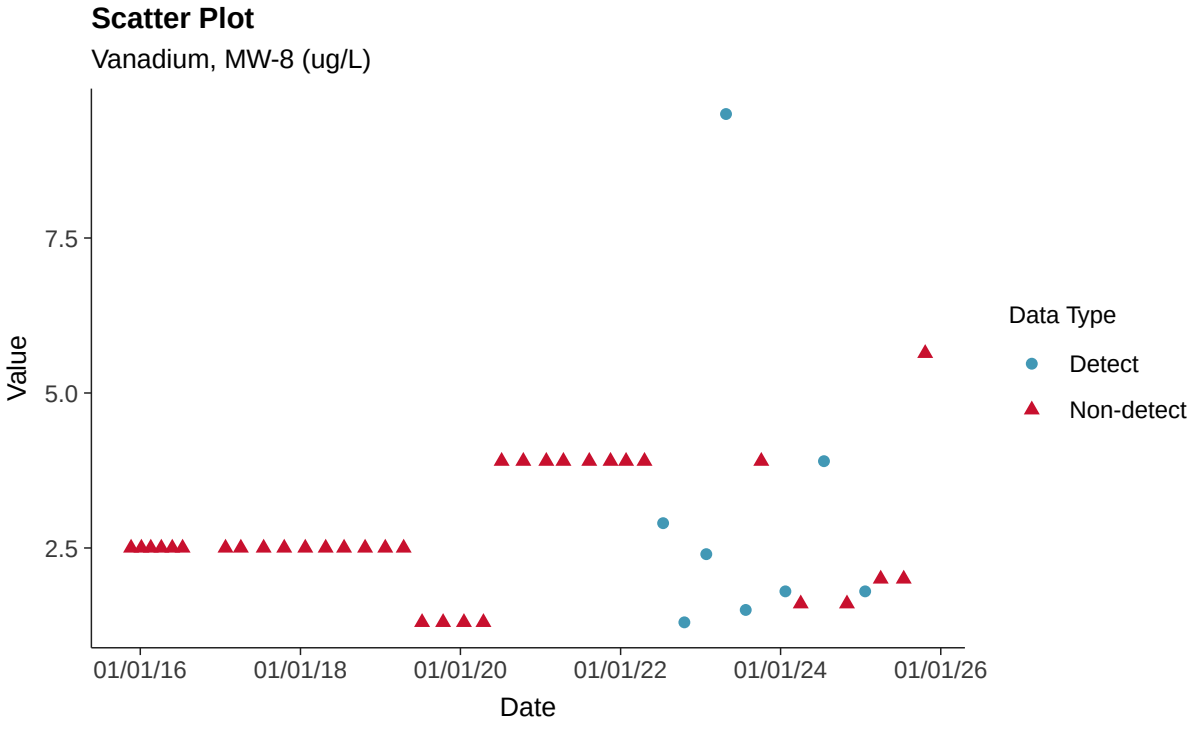
Trend Regression: Piecewise Linear-Linear-Linear

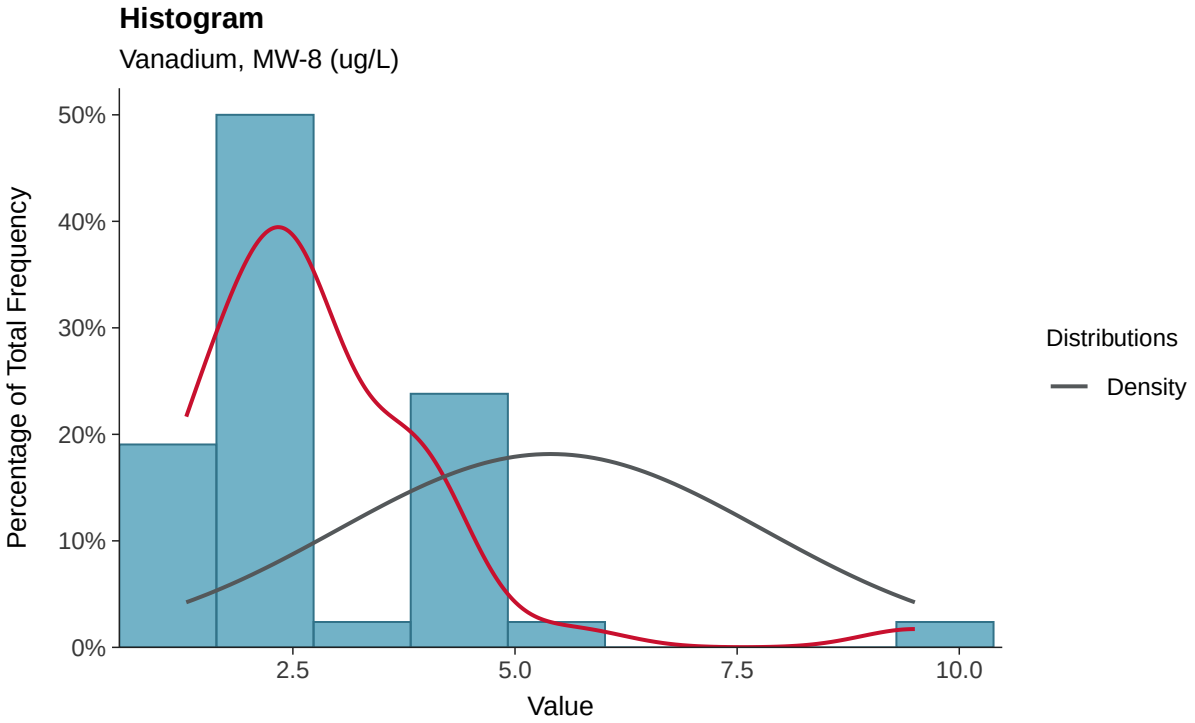
Silver, MW-8 (ug/L)



App. I Metals: Vanadium, MW-8

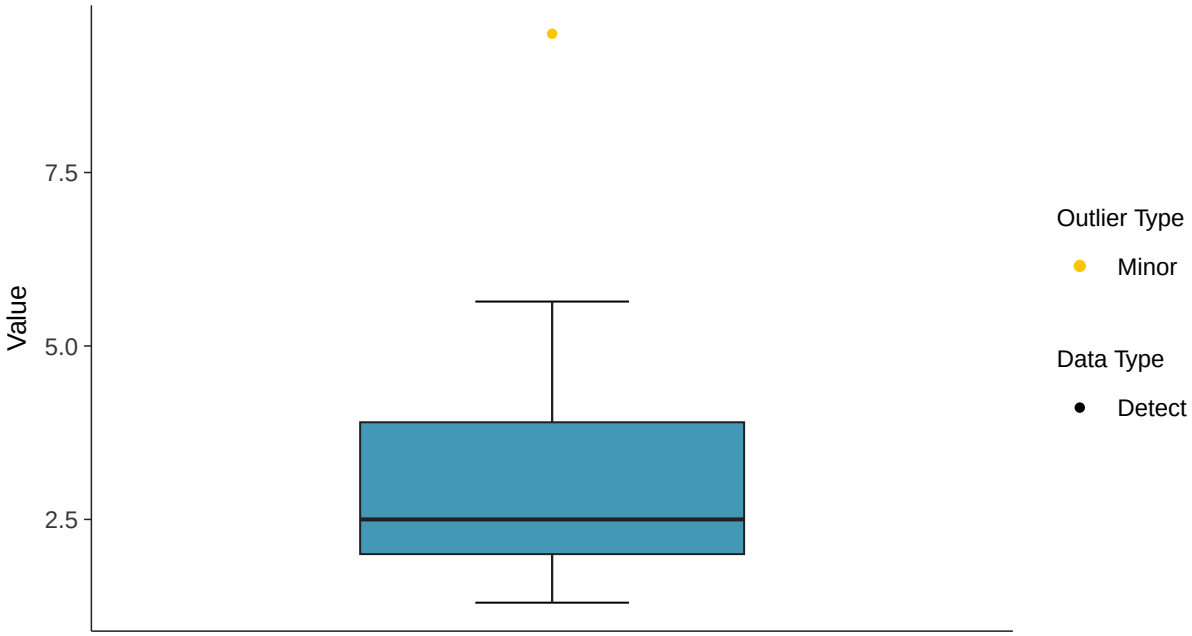
ID: 08_1_127





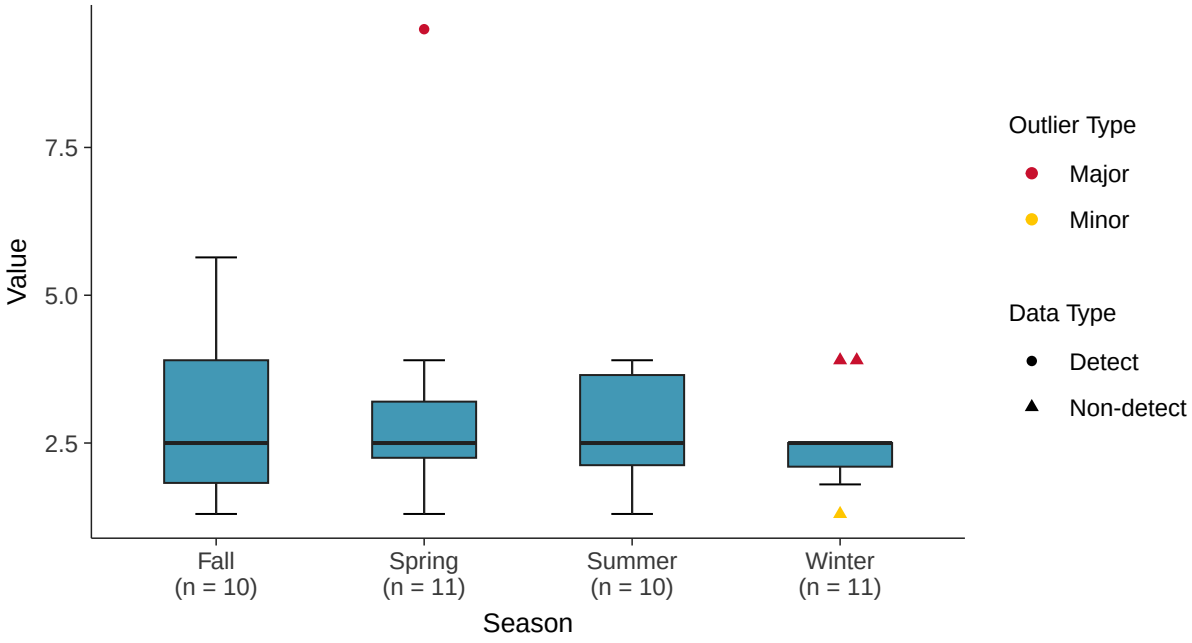
Boxplot

Vanadium, MW-8 (ug/L)



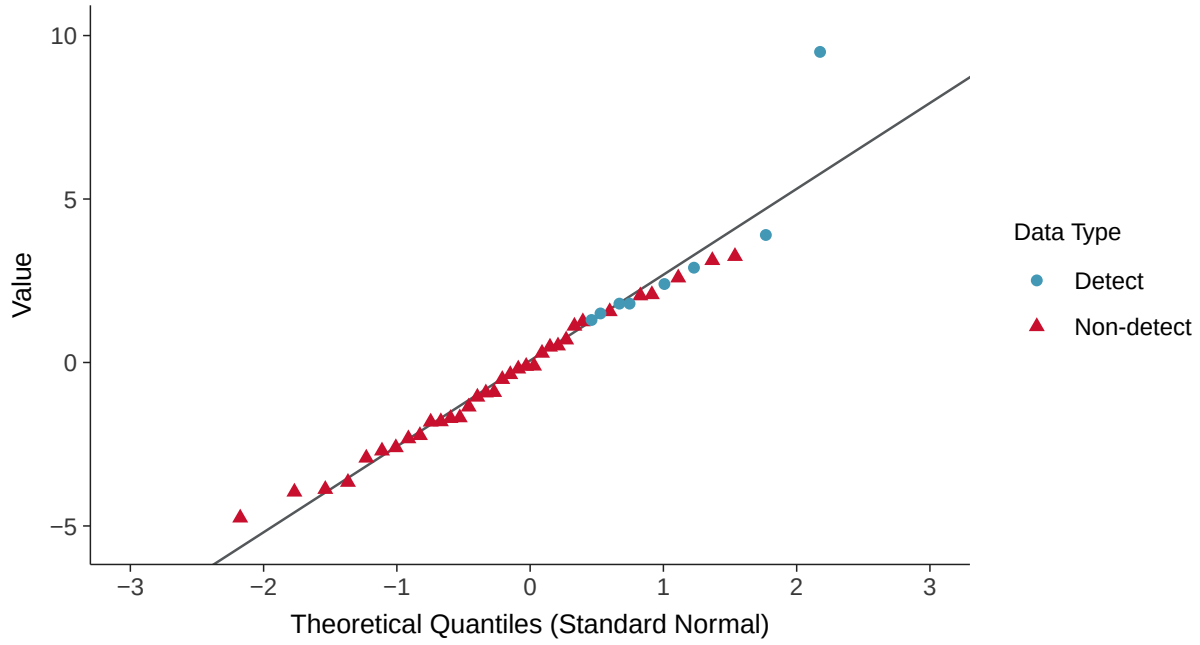
Boxplot by Season

Vanadium, MW-8 (ug/L)



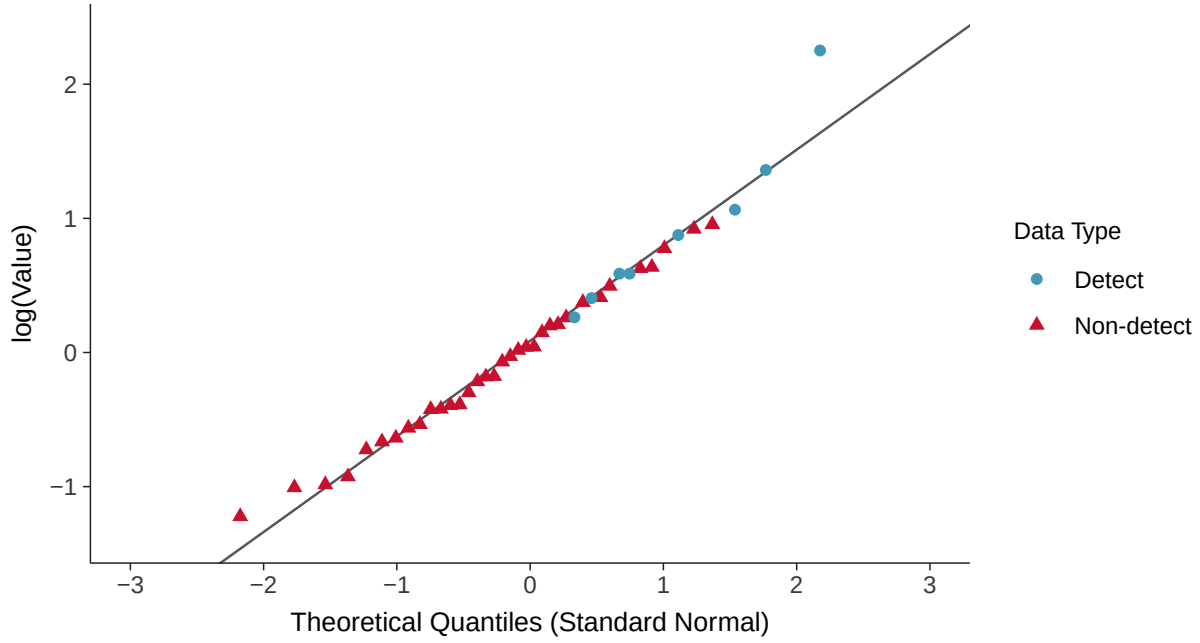
Normal Q-Q plot using ROS Imputed Estimates

Vanadium, MW-8 (ug/L)



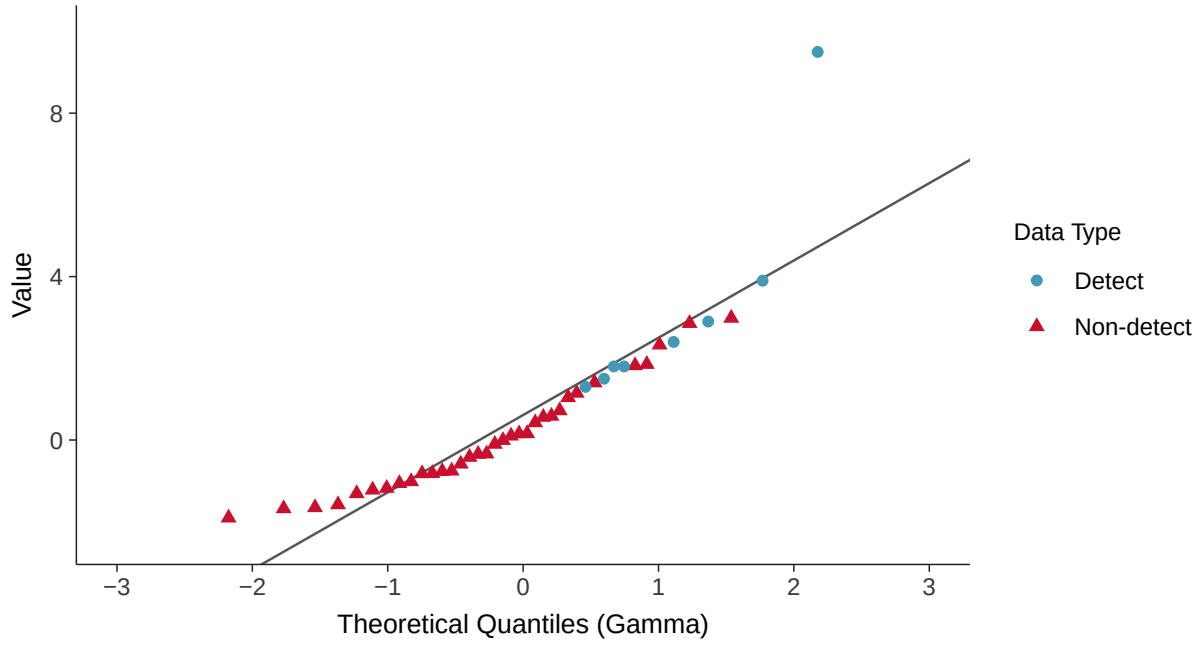
Lognormal Q-Q plot using ROS Imputed Estimates

Vanadium, MW-8 (ug/L)



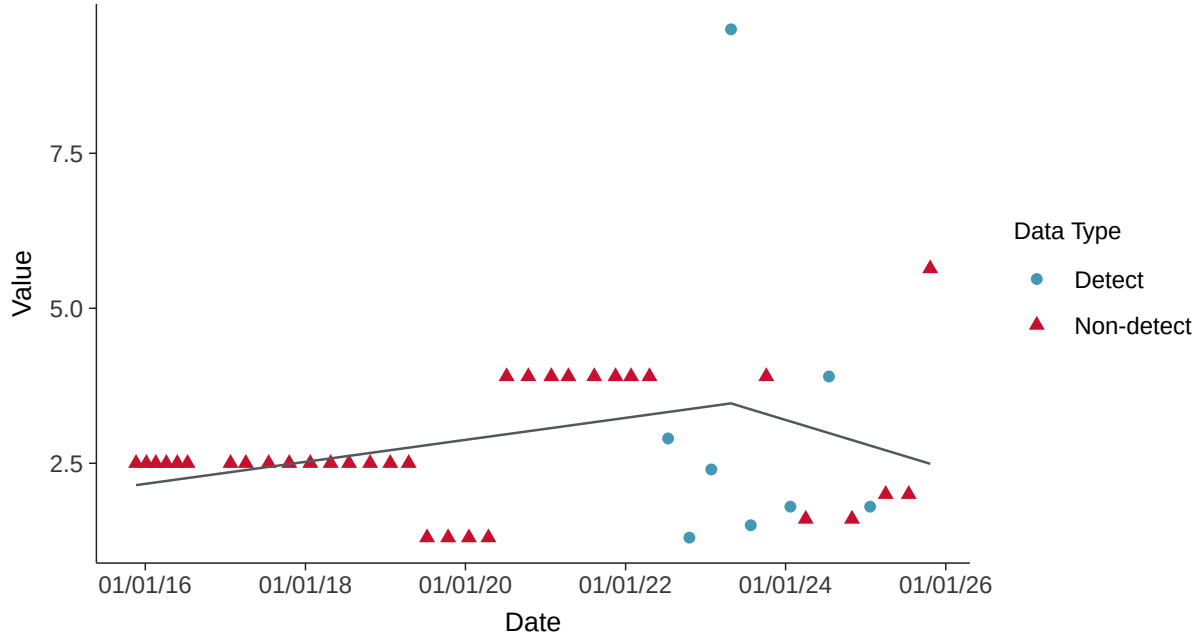
Gamma Q-Q plot using ROS Imputed Estimates

Vanadium, MW-8 (ug/L)



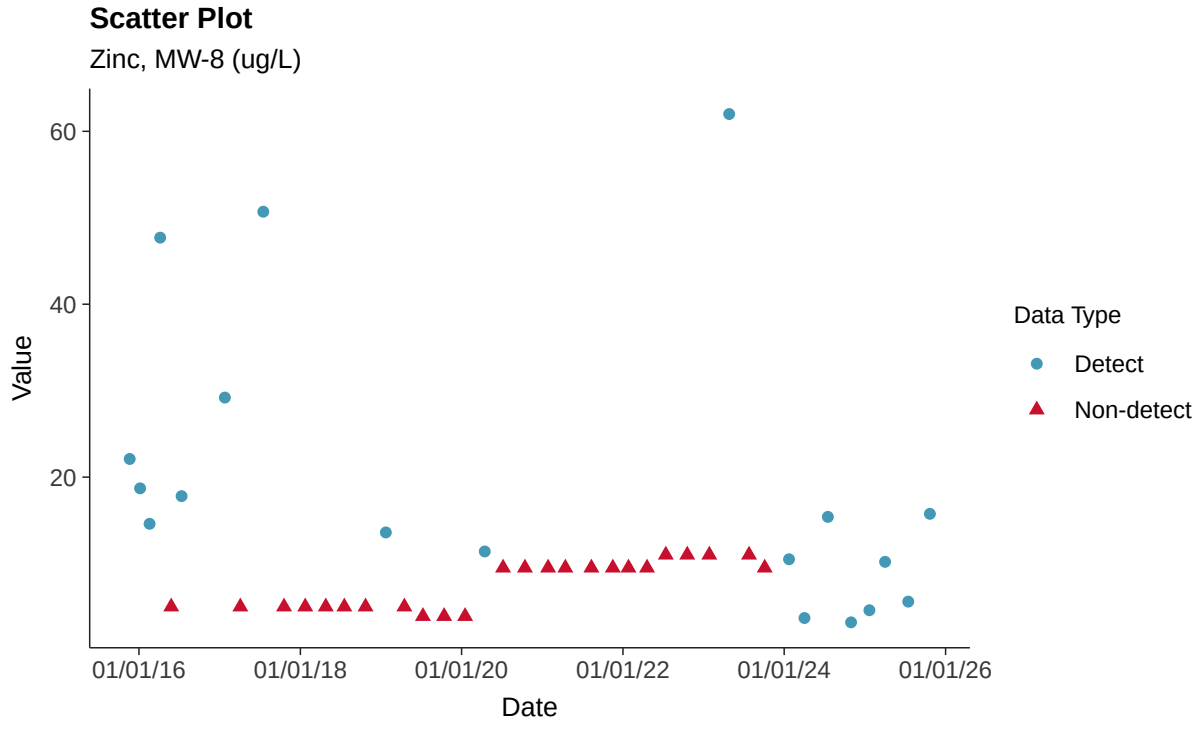
Trend Regression: Piecewise Linear-Linear

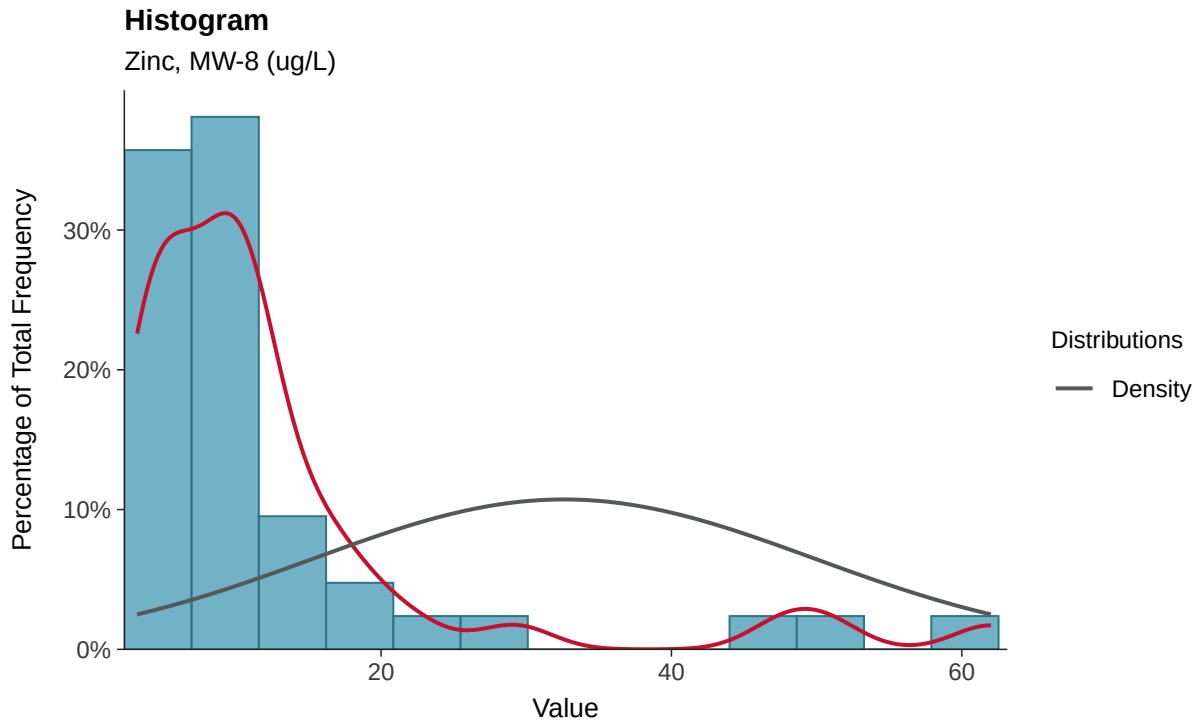
Vanadium, MW-8 (ug/L)



App. I Metals: Zinc, MW-8

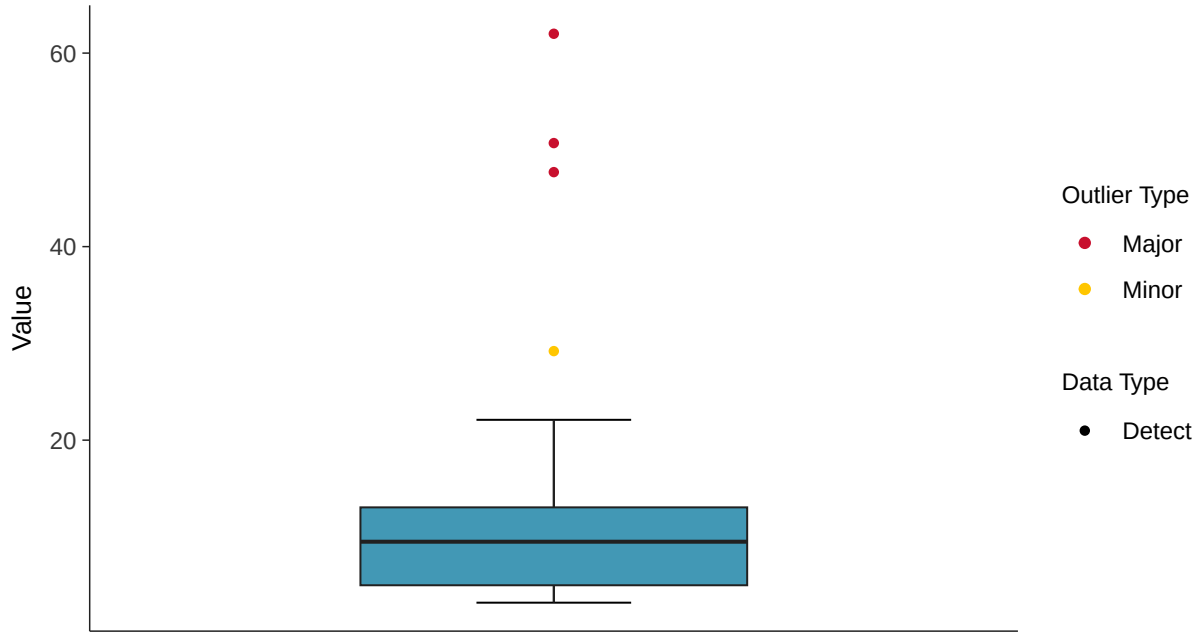
ID: 08_1_128





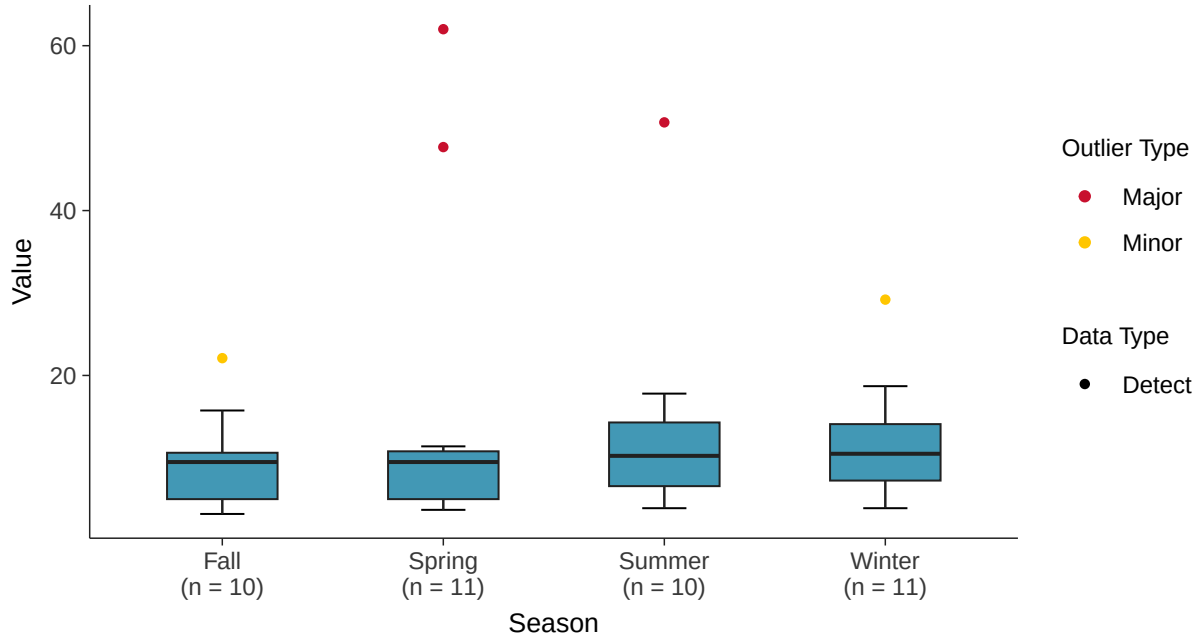
Boxplot

Zinc, MW-8 (ug/L)



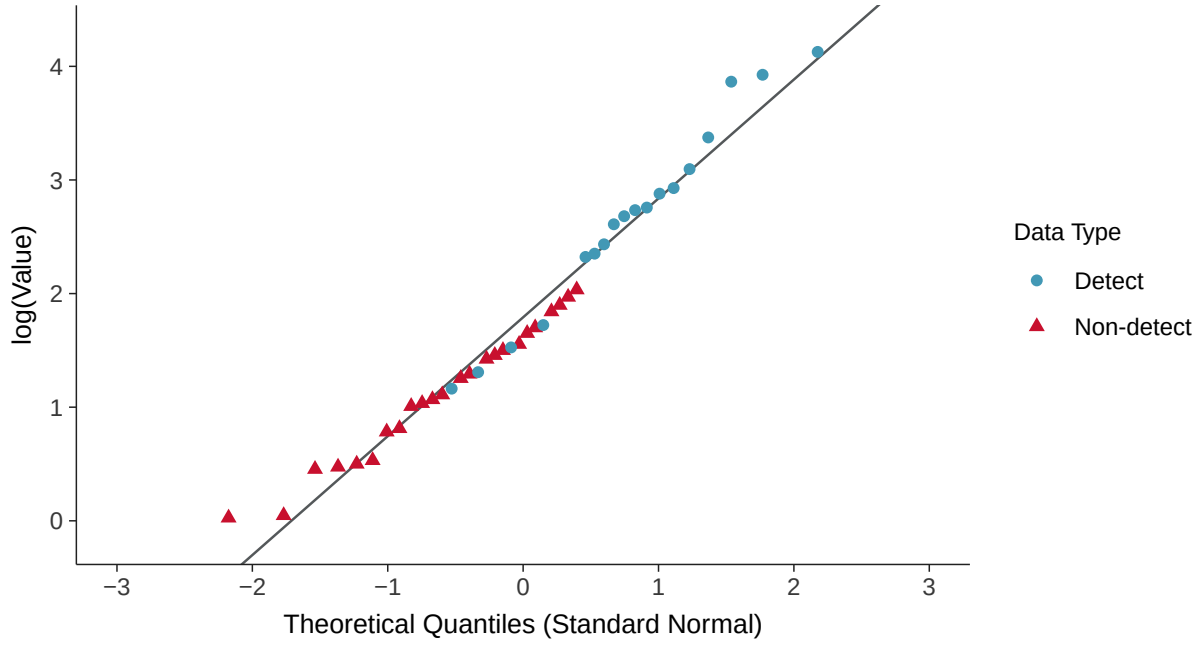
Boxplot by Season

Zinc, MW-8 (ug/L)



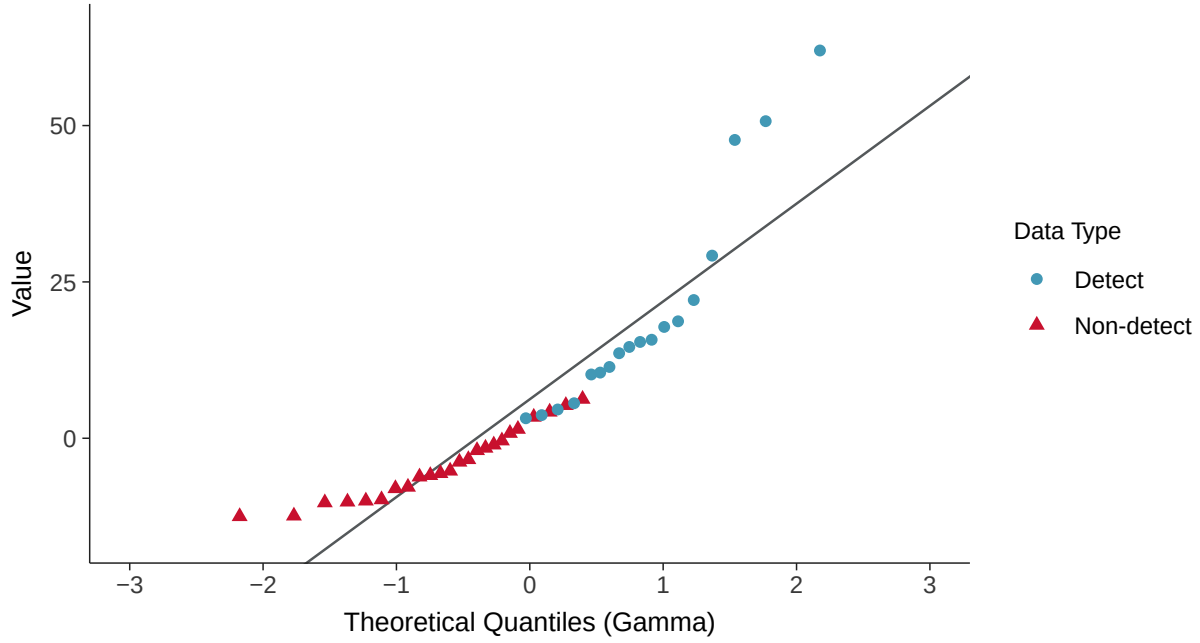
Lognormal Q-Q plot using ROS Imputed Estimates

Zinc, MW-8 (ug/L)



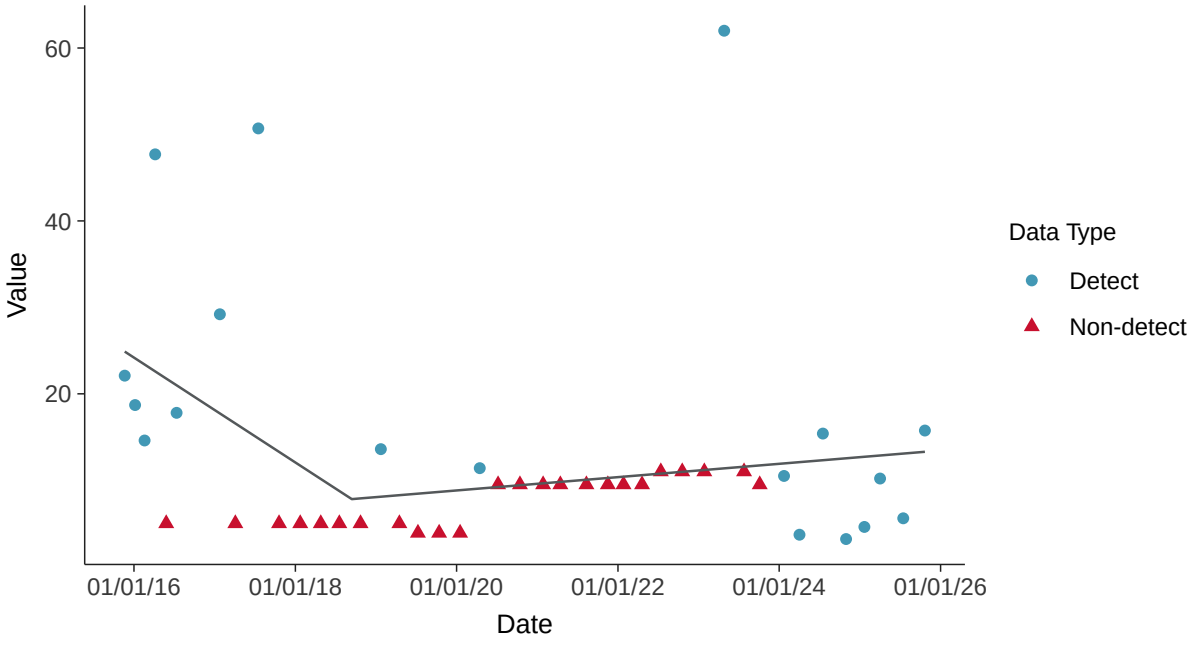
Gamma Q-Q plot using ROS Imputed Estimates

Zinc, MW-8 (ug/L)



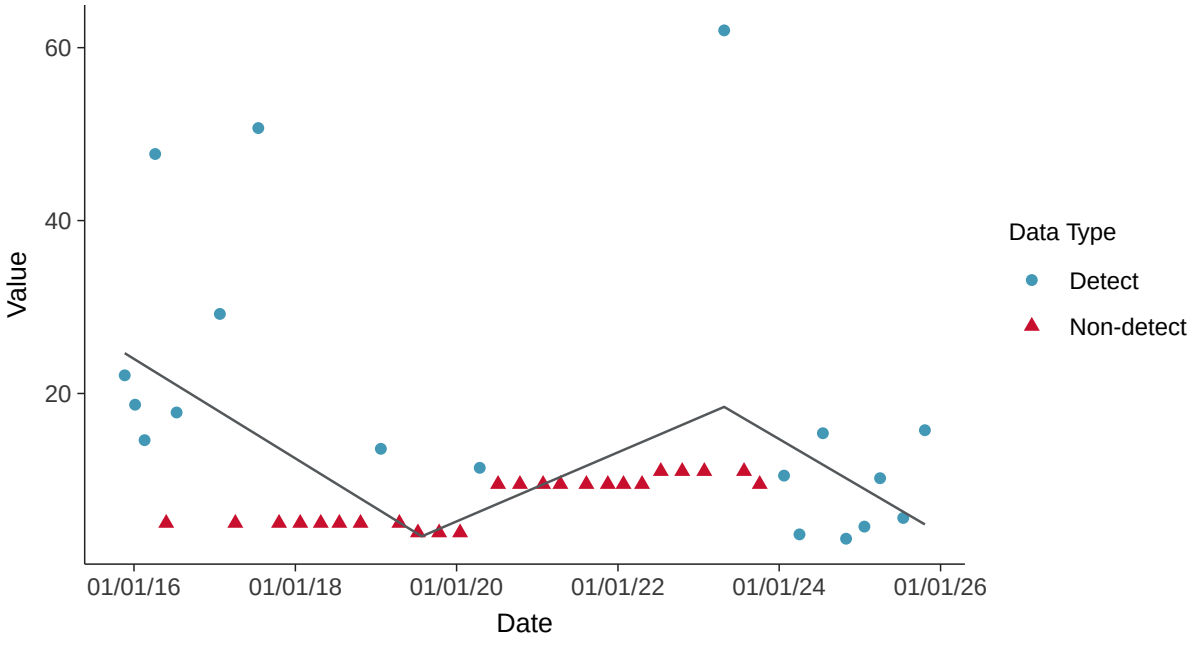
Trend Regression: Piecewise Linear-Linear

Zinc, MW-8 (ug/L)



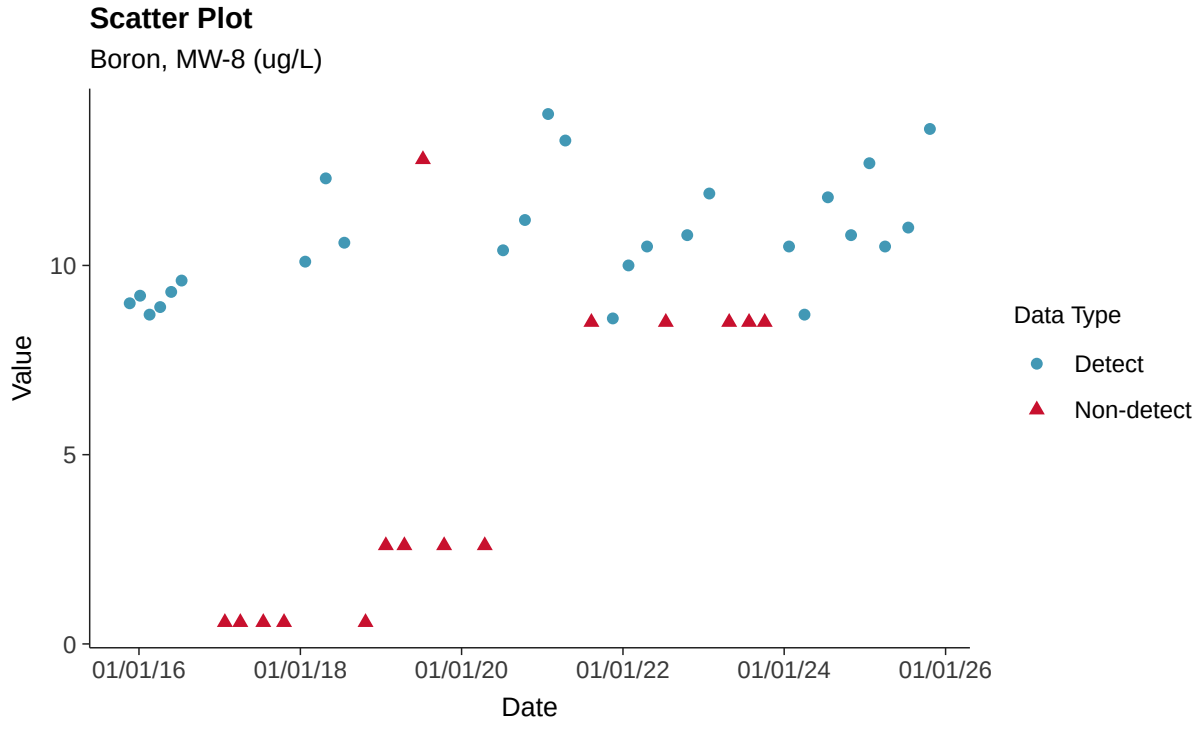
Trend Regression: Piecewise Linear-Linear-Linear

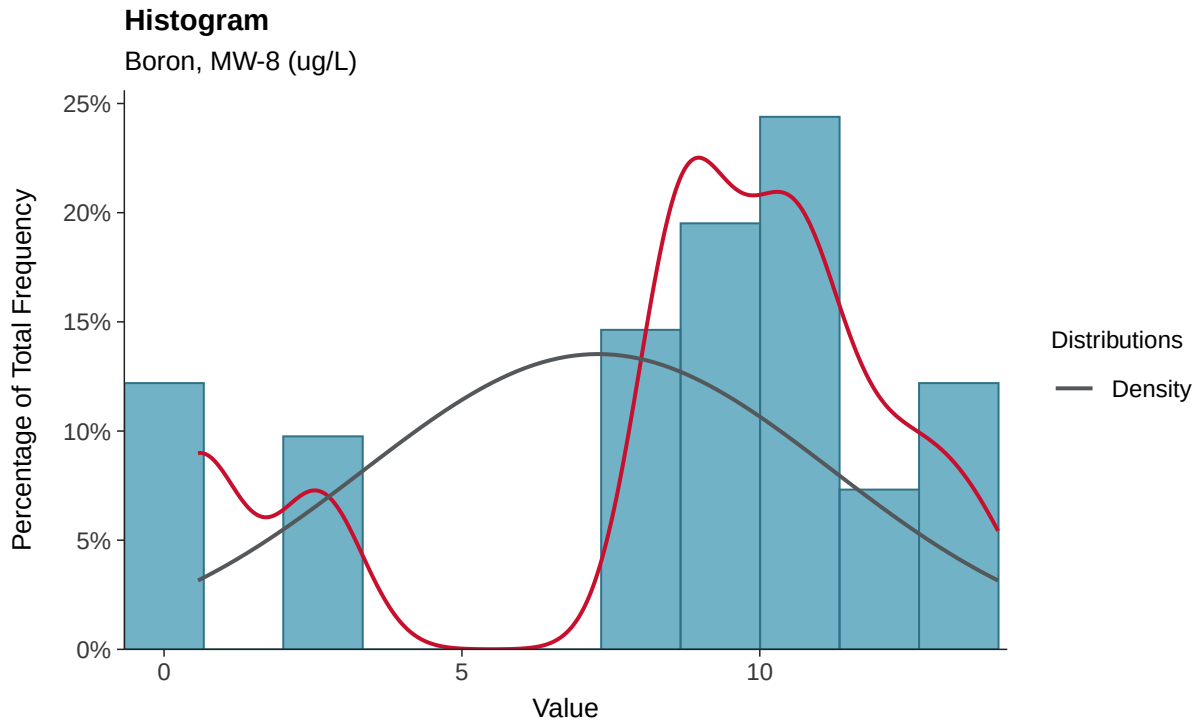
Zinc, MW-8 (ug/L)



App. III: Boron, MW-8

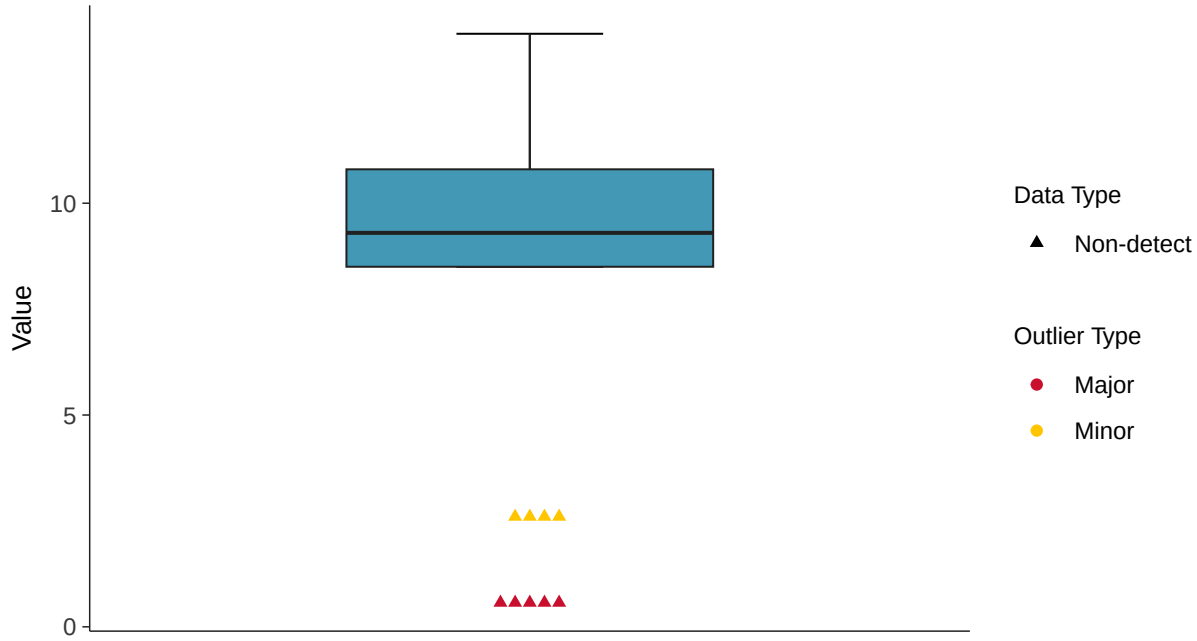
ID: 08_2_105





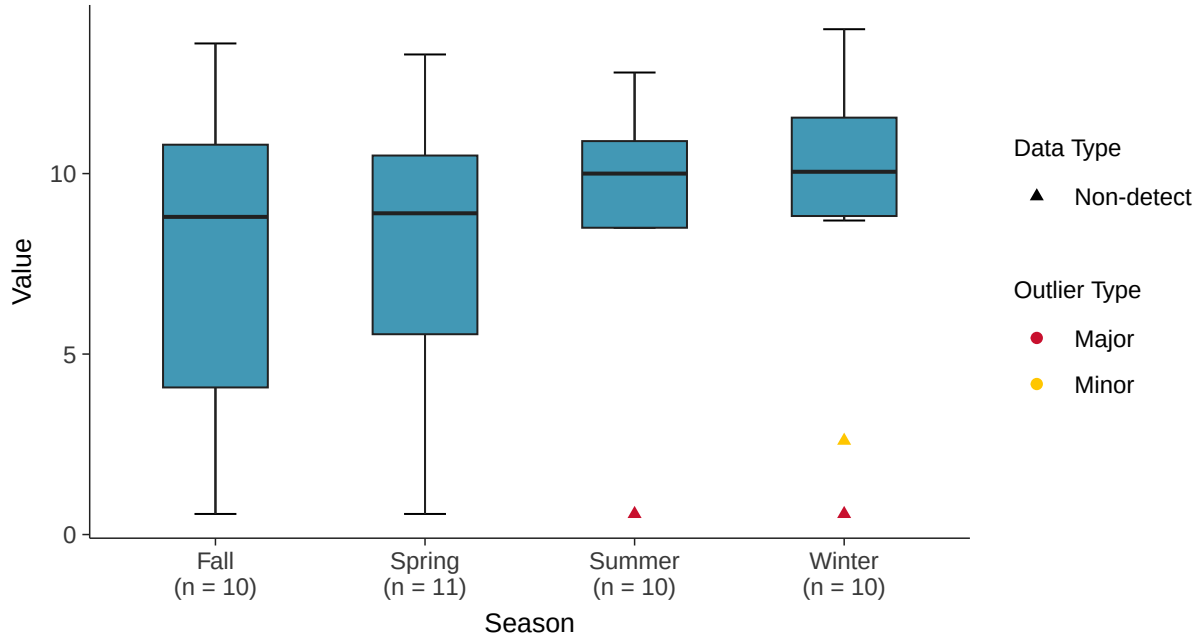
Boxplot

Boron, MW-8 (ug/L)



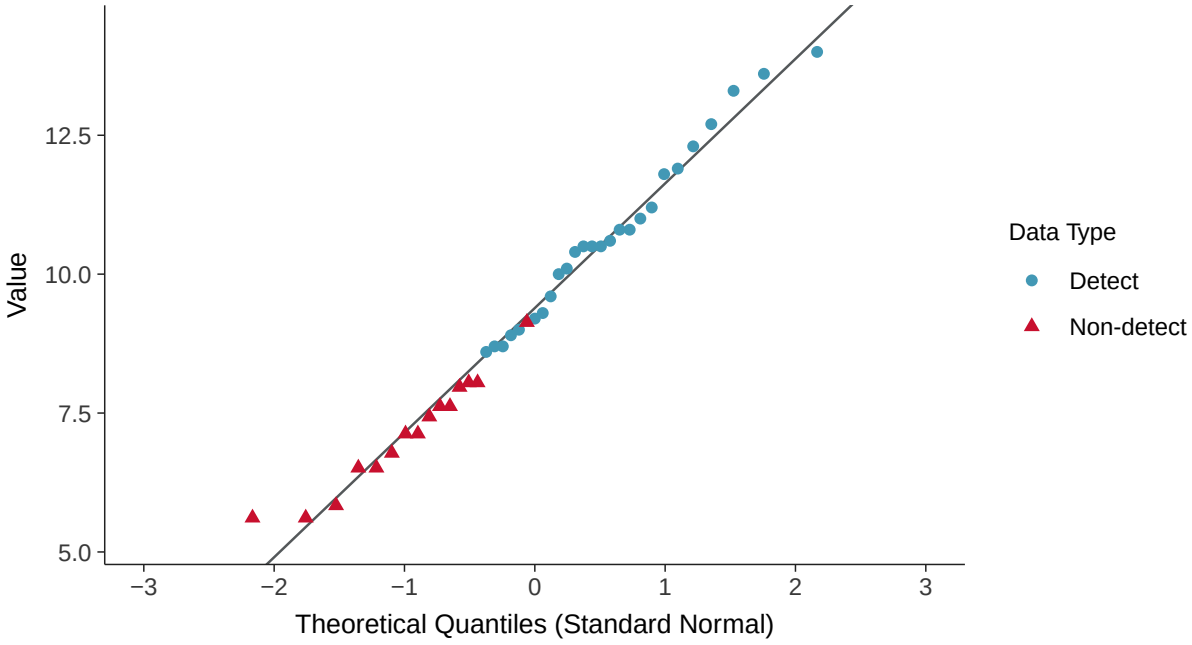
Boxplot by Season

Boron, MW-8 (ug/L)



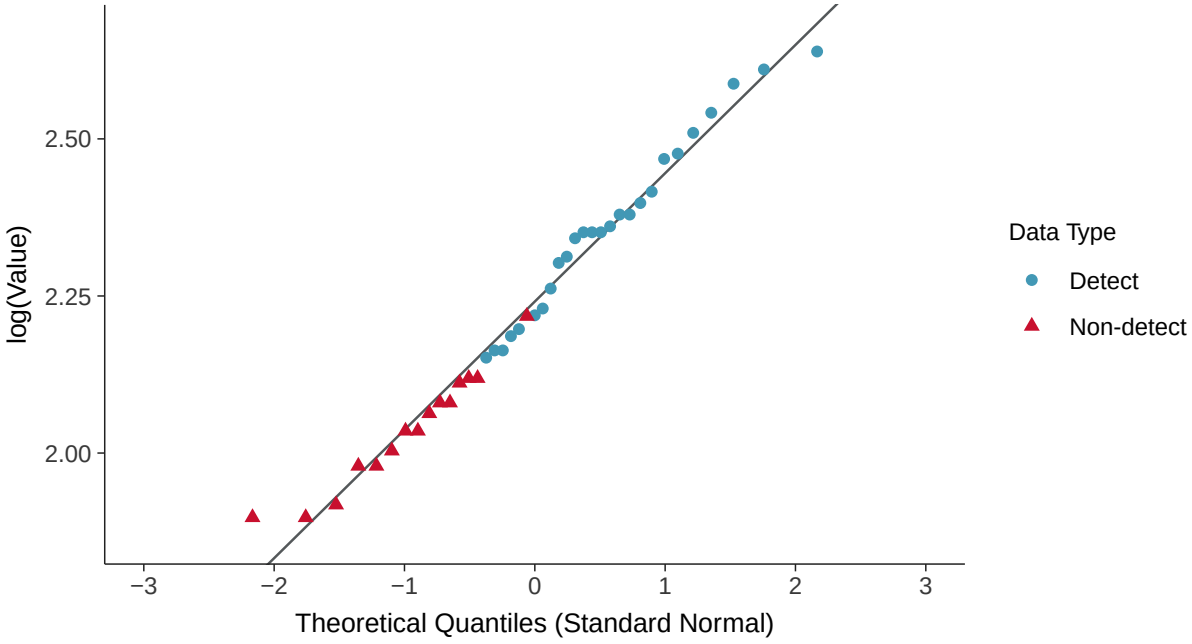
Normal Q-Q plot using ROS Imputed Estimates

Boron, MW-8 (ug/L)



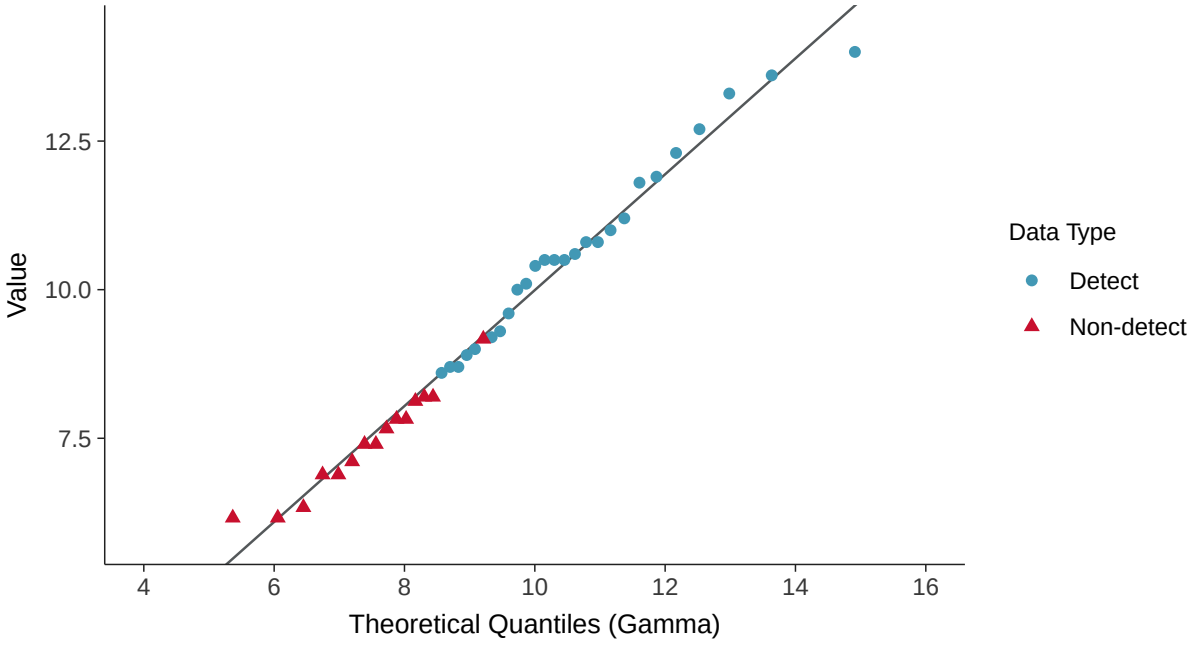
Lognormal Q-Q plot using ROS Imputed Estimates

Boron, MW-8 (ug/L)



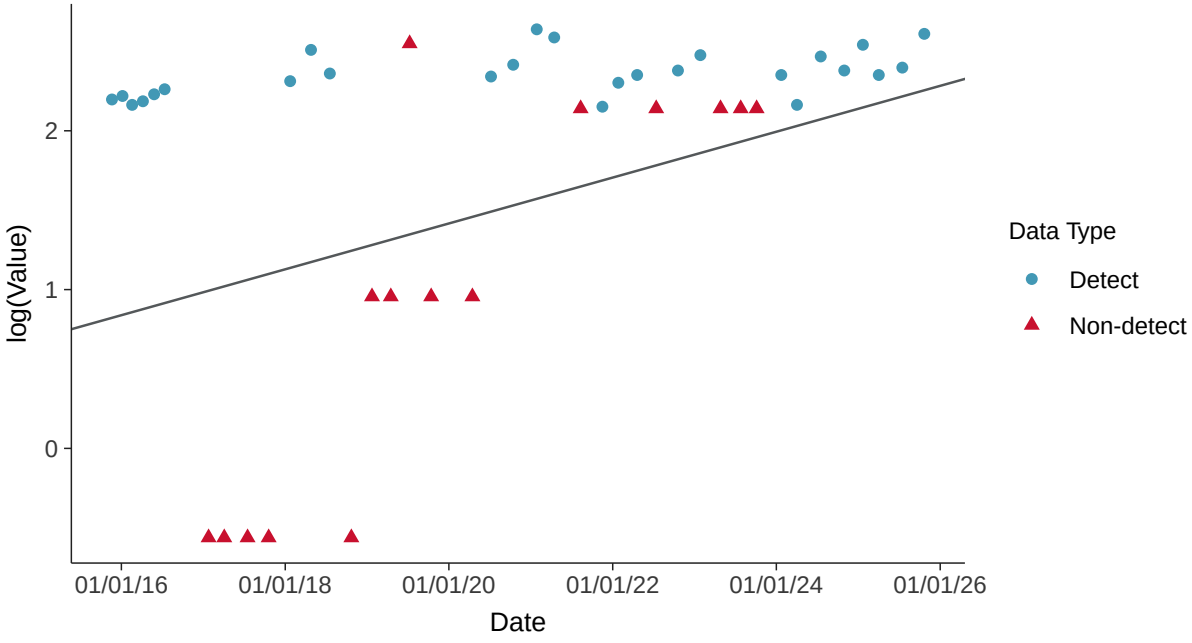
Gamma Q-Q plot using ROS Imputed Estimates

Boron, MW-8 (ug/L)



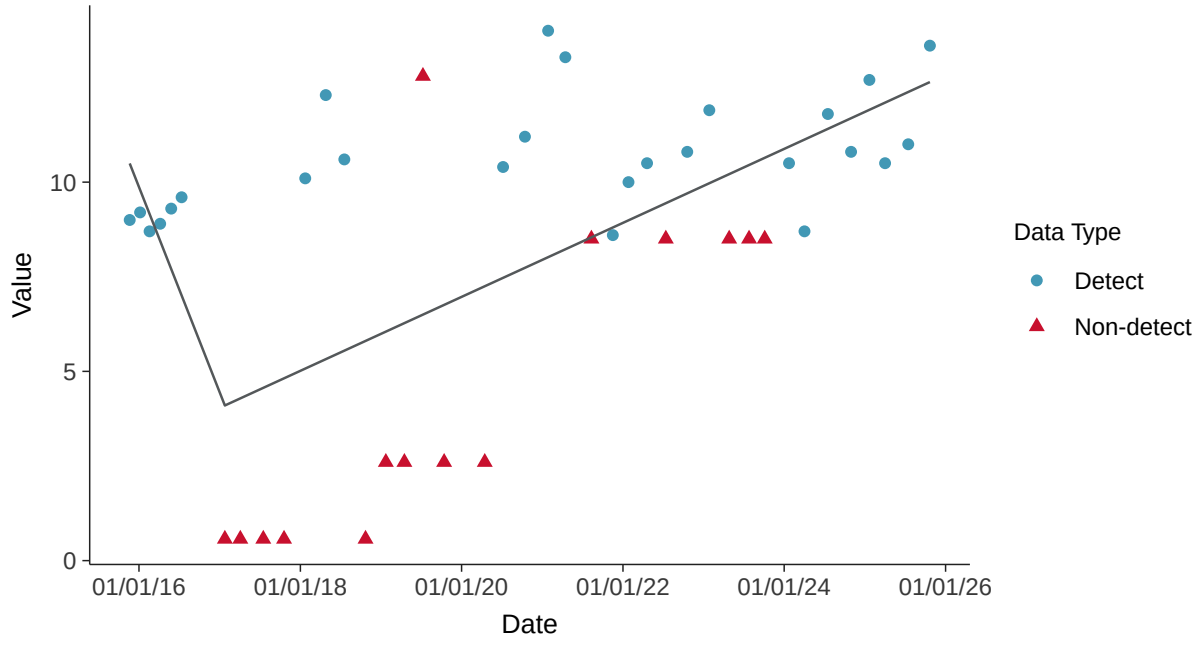
Trend Regression: Lognormal MLE

Boron, MW-8 (ug/L)



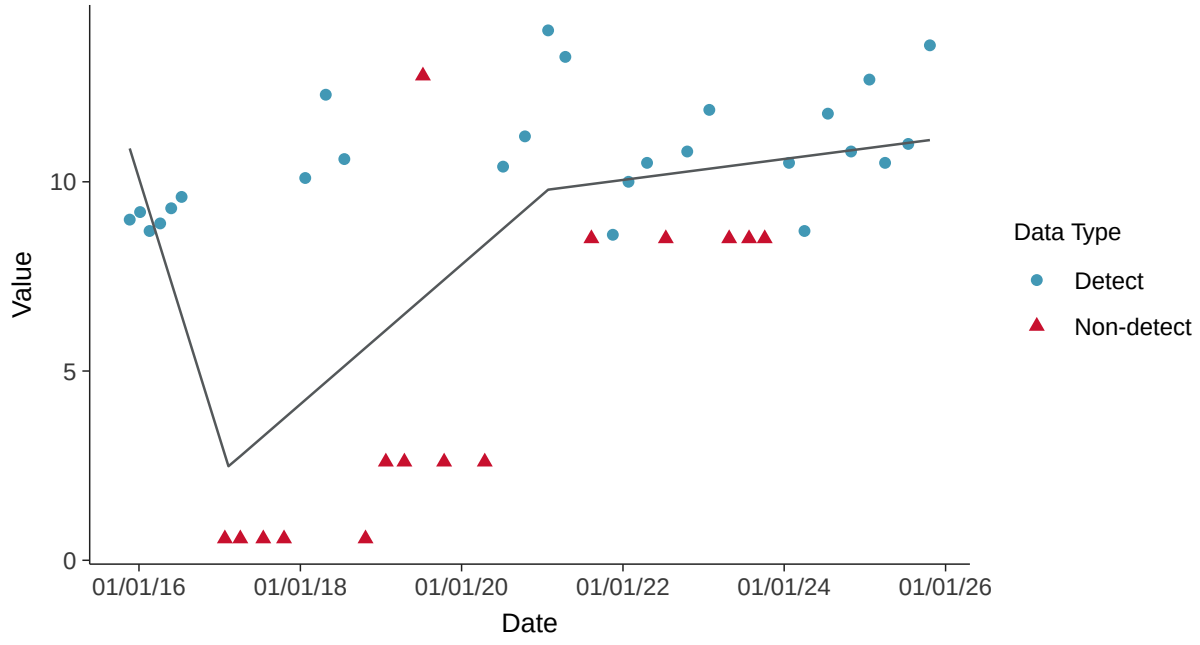
Trend Regression: Piecewise Linear-Linear

Boron, MW-8 (ug/L)



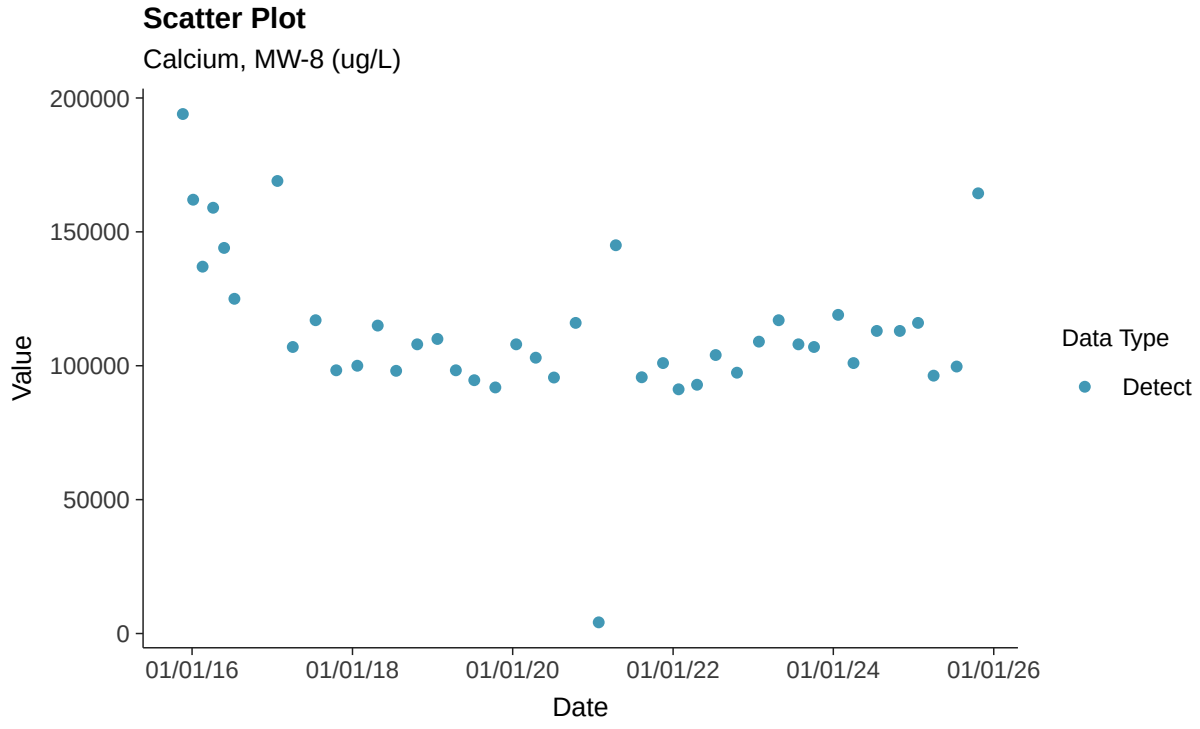
Trend Regression: Piecewise Linear-Linear-Linear

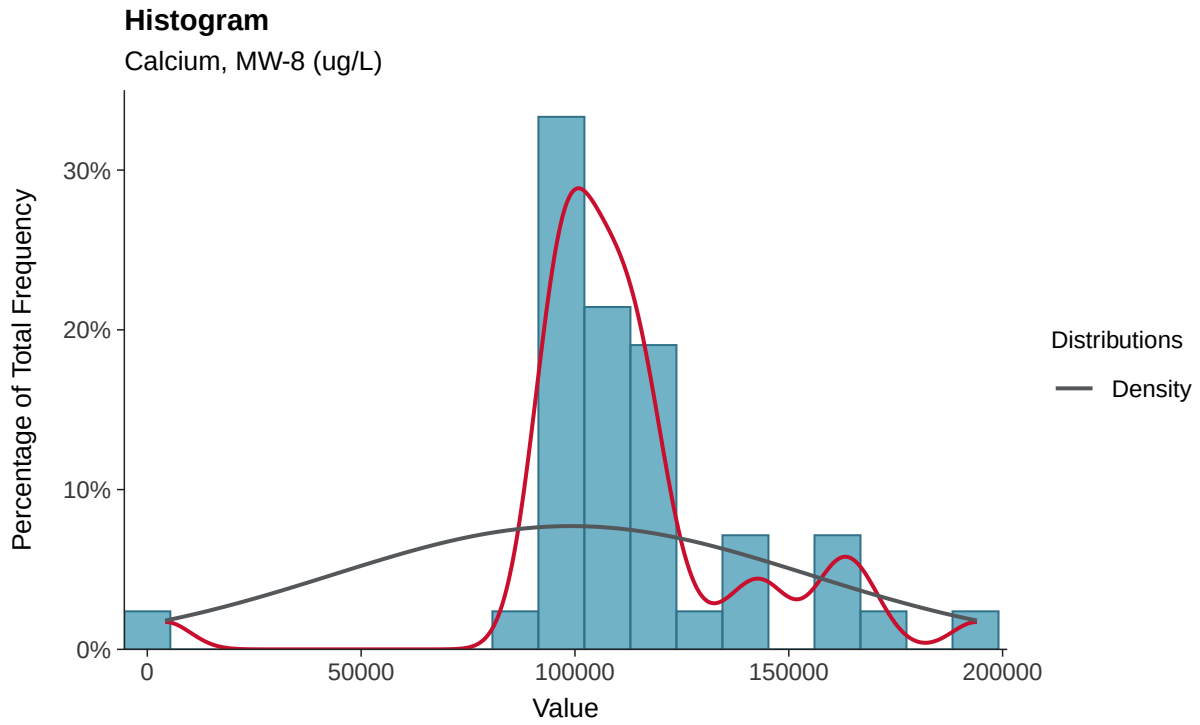
Boron, MW-8 (ug/L)



App. III: Calcium, MW-8

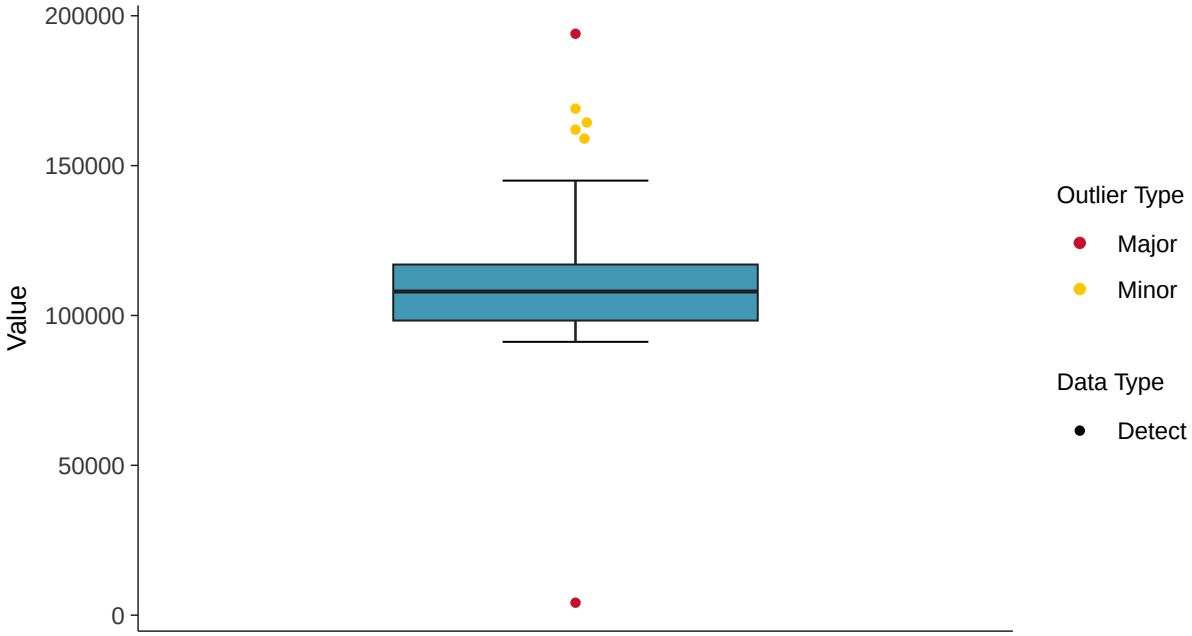
ID: 08_2_107





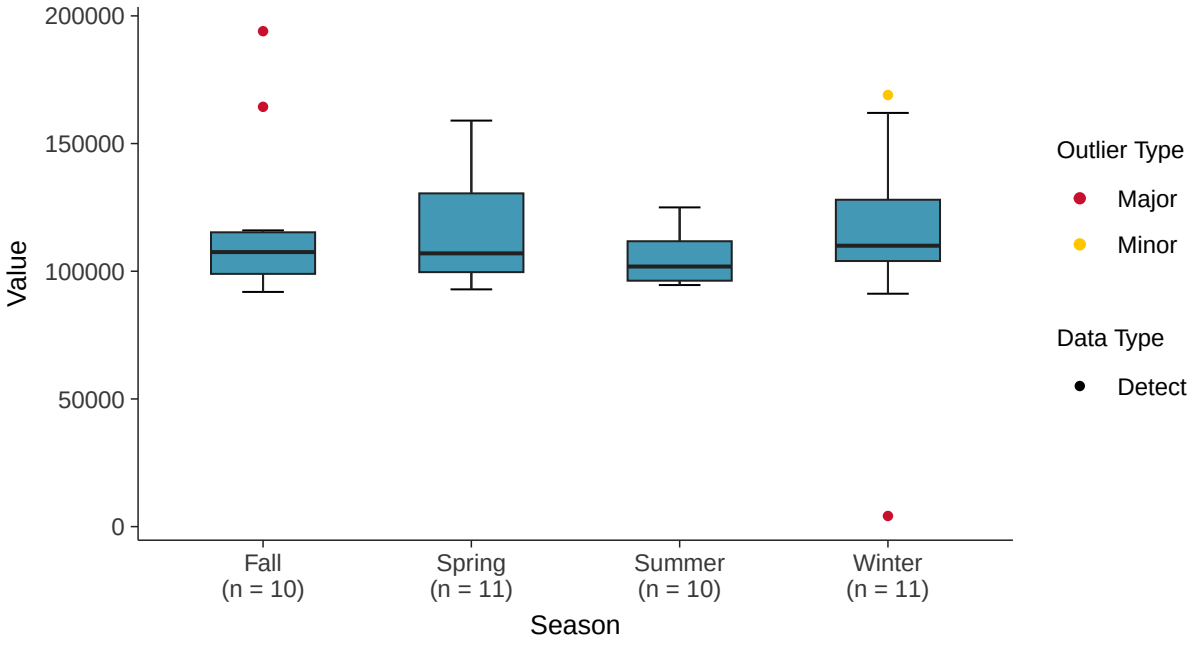
Boxplot

Calcium, MW-8 (ug/L)



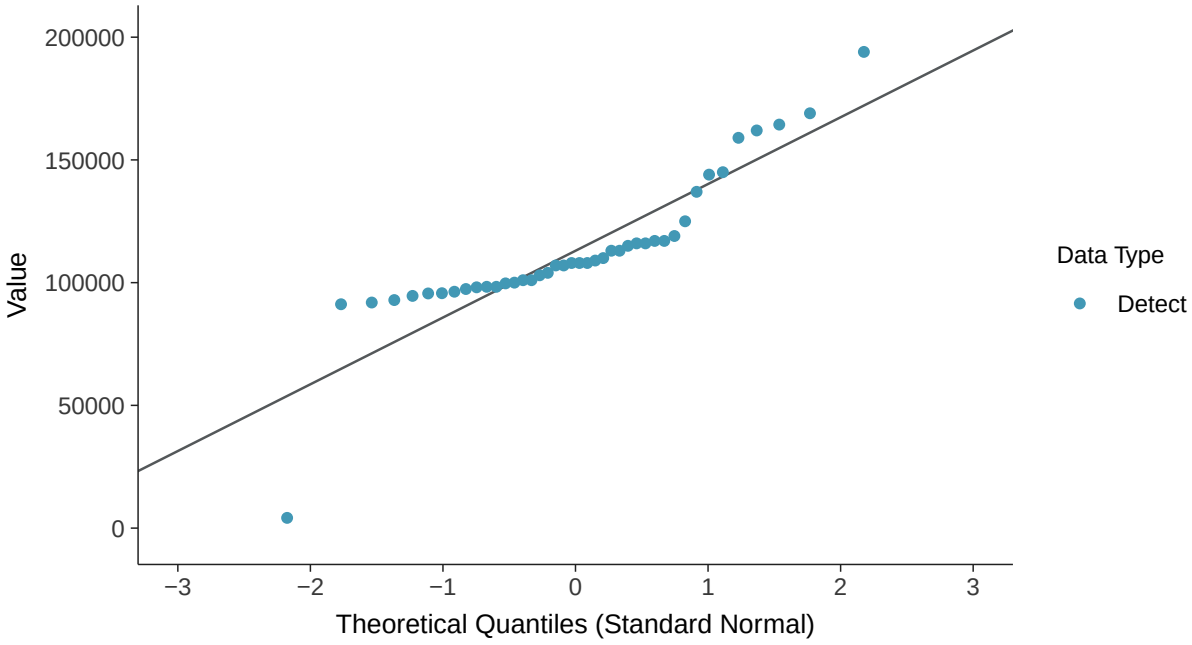
Boxplot by Season

Calcium, MW-8 (ug/L)



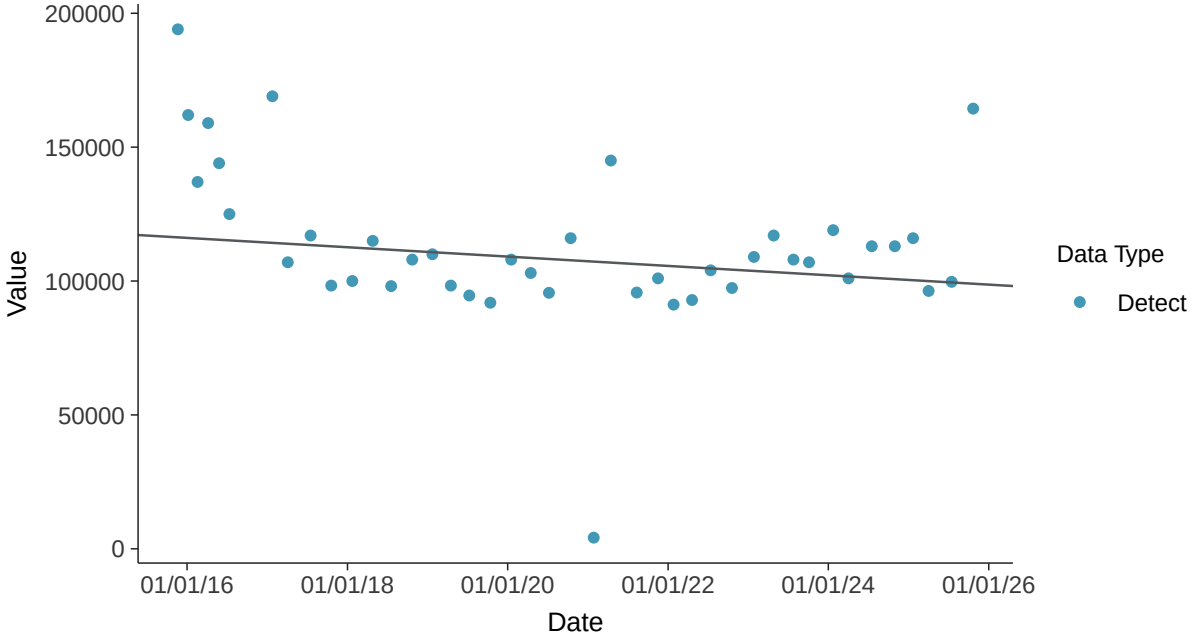
Normal Q-Q plot

Calcium, MW-8 (ug/L)



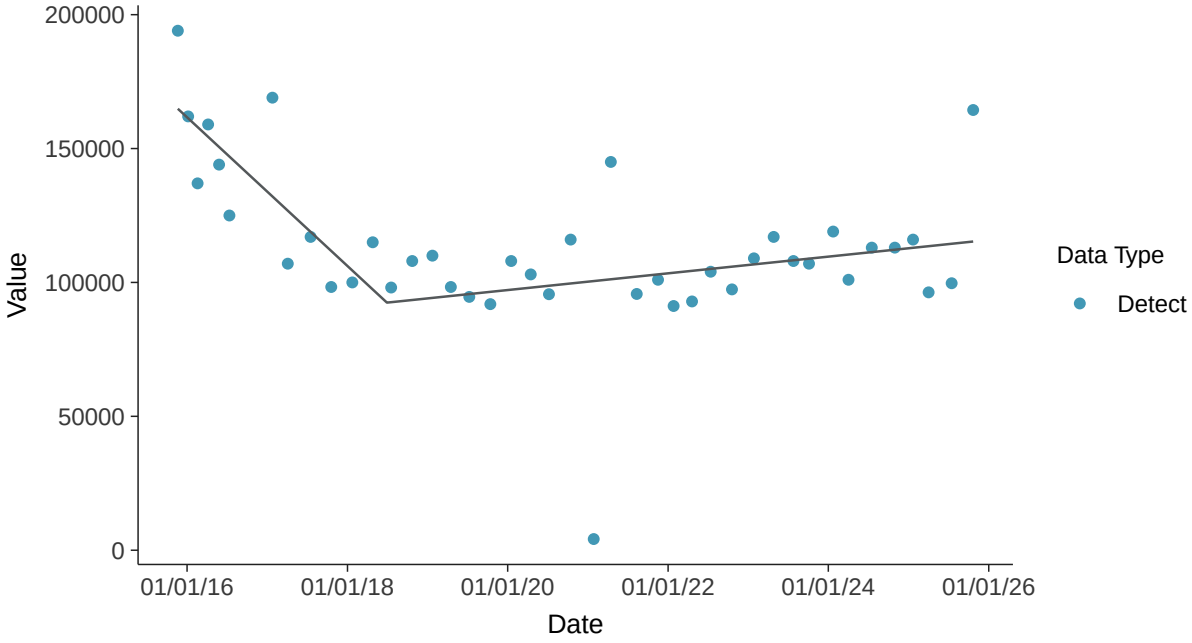
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Calcium, MW-8 (ug/L)



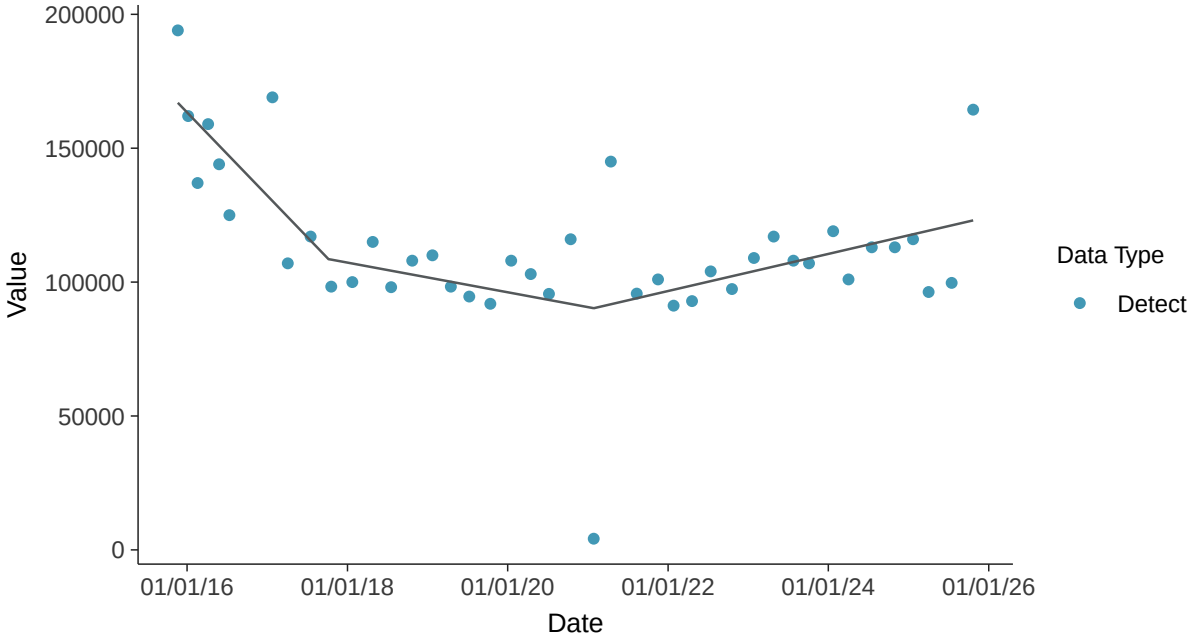
Trend Regression: Piecewise Linear-Linear

Calcium, MW-8 (ug/L)



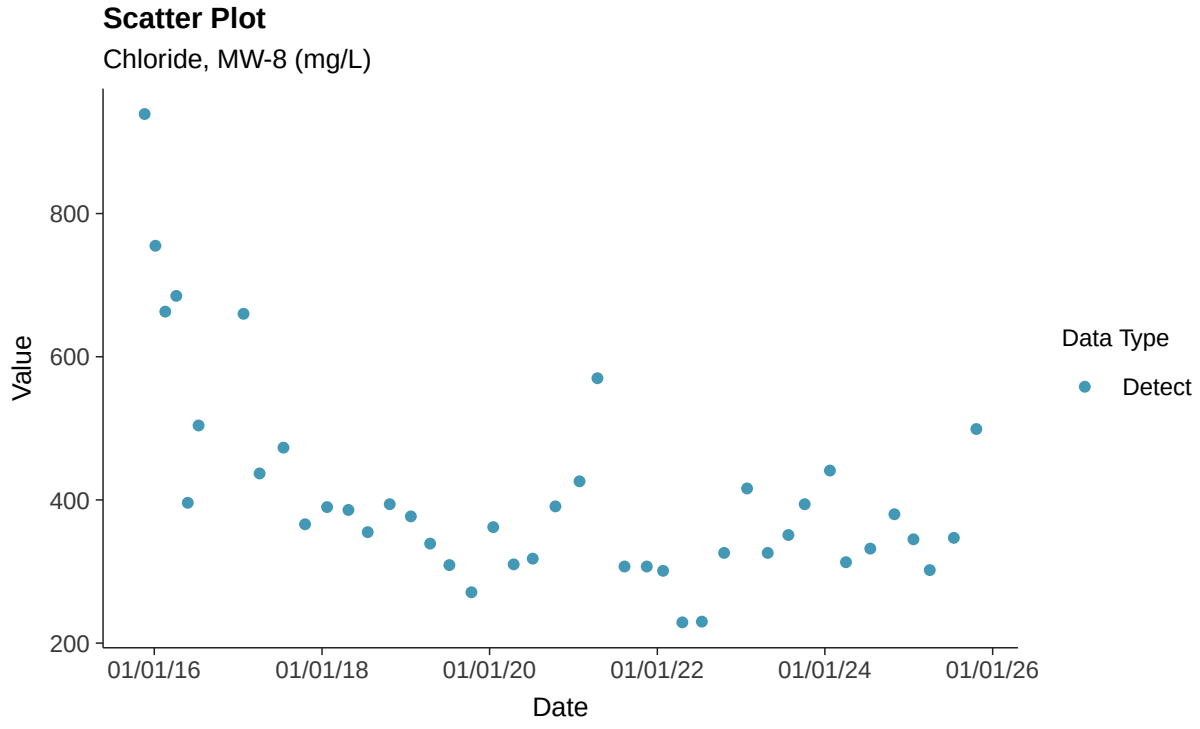
Trend Regression: Piecewise Linear-Linear-Linear

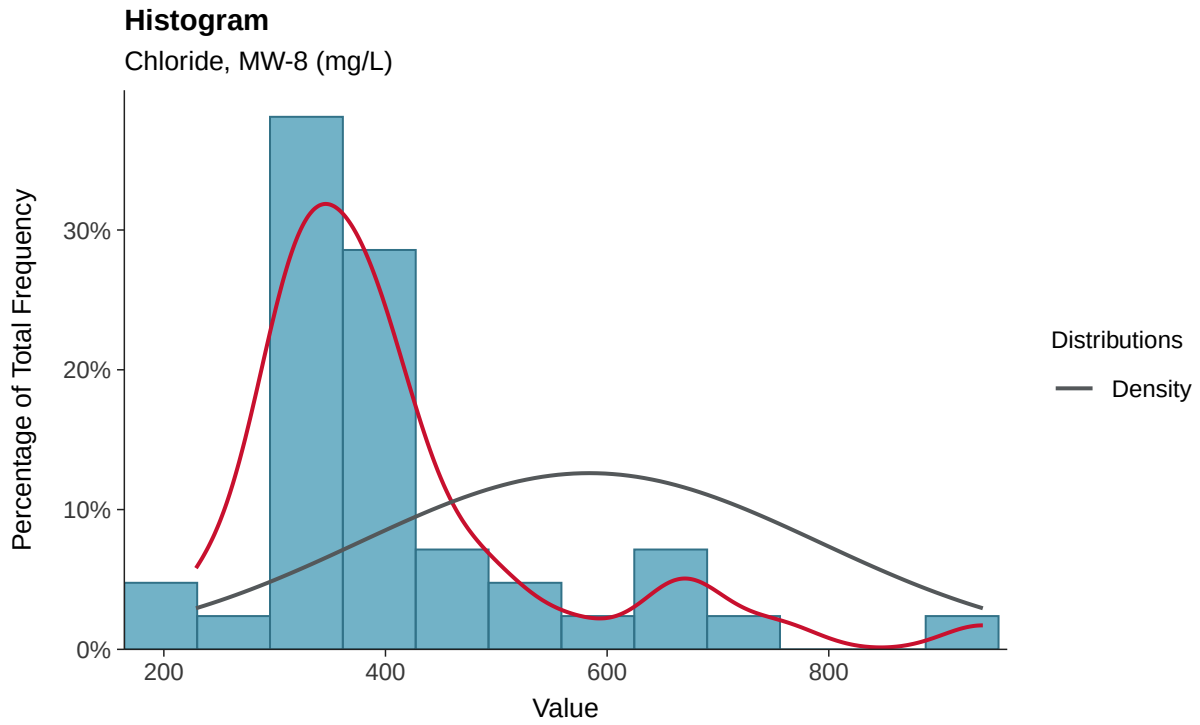
Calcium, MW-8 (ug/L)



App. III: Chloride, MW-8

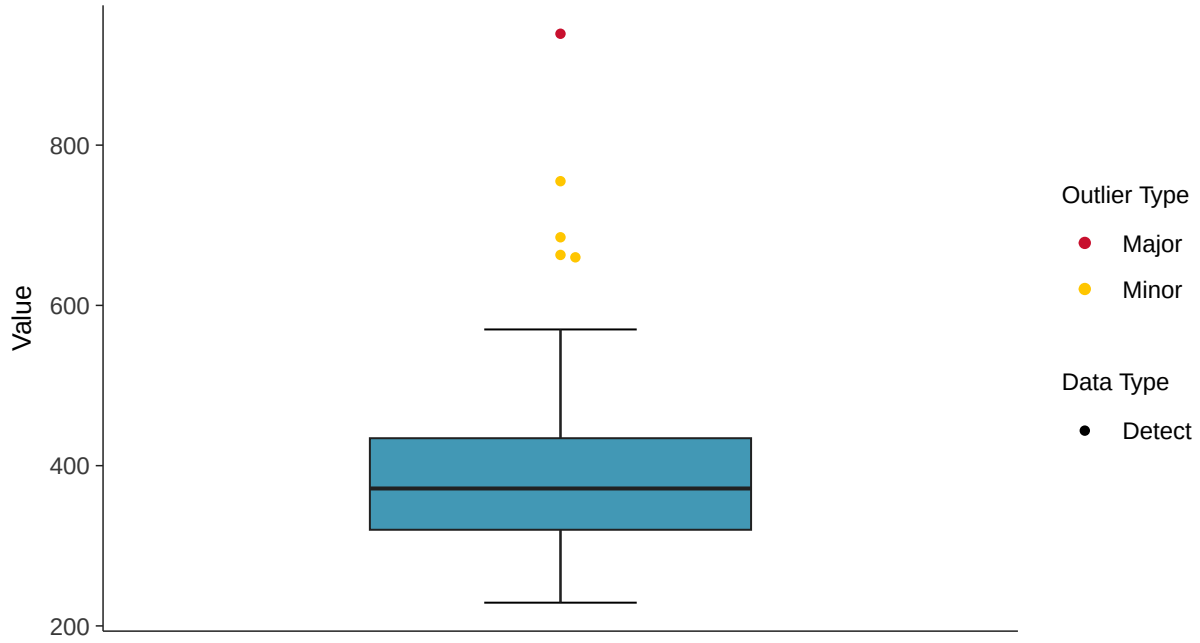
ID: 08_2_108





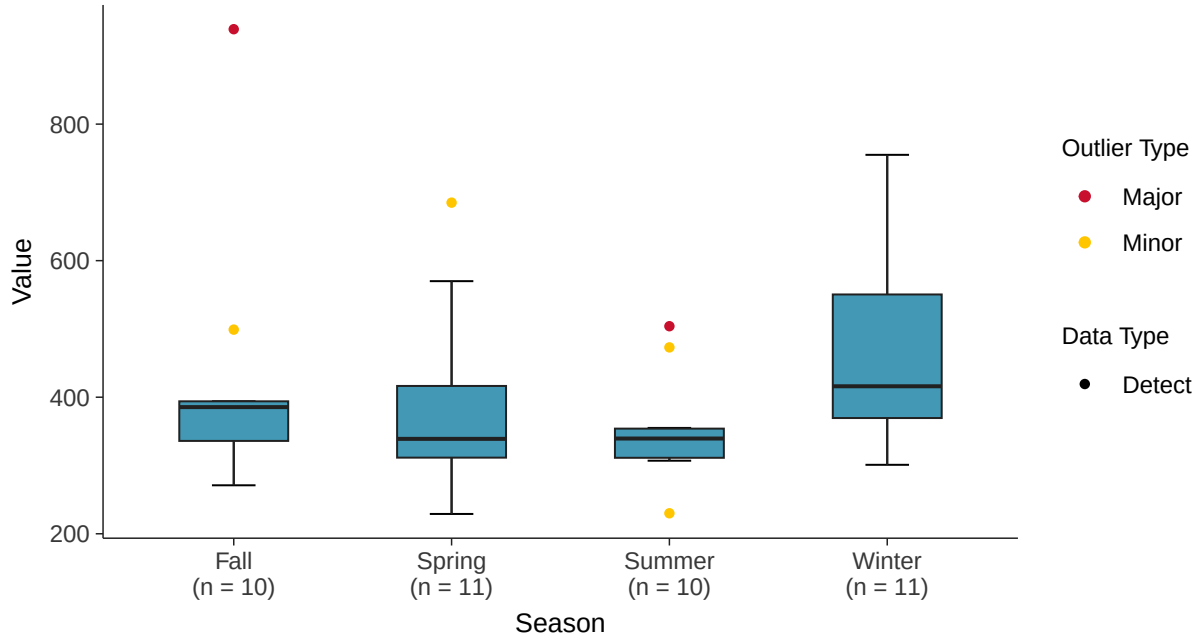
Boxplot

Chloride, MW-8 (mg/L)



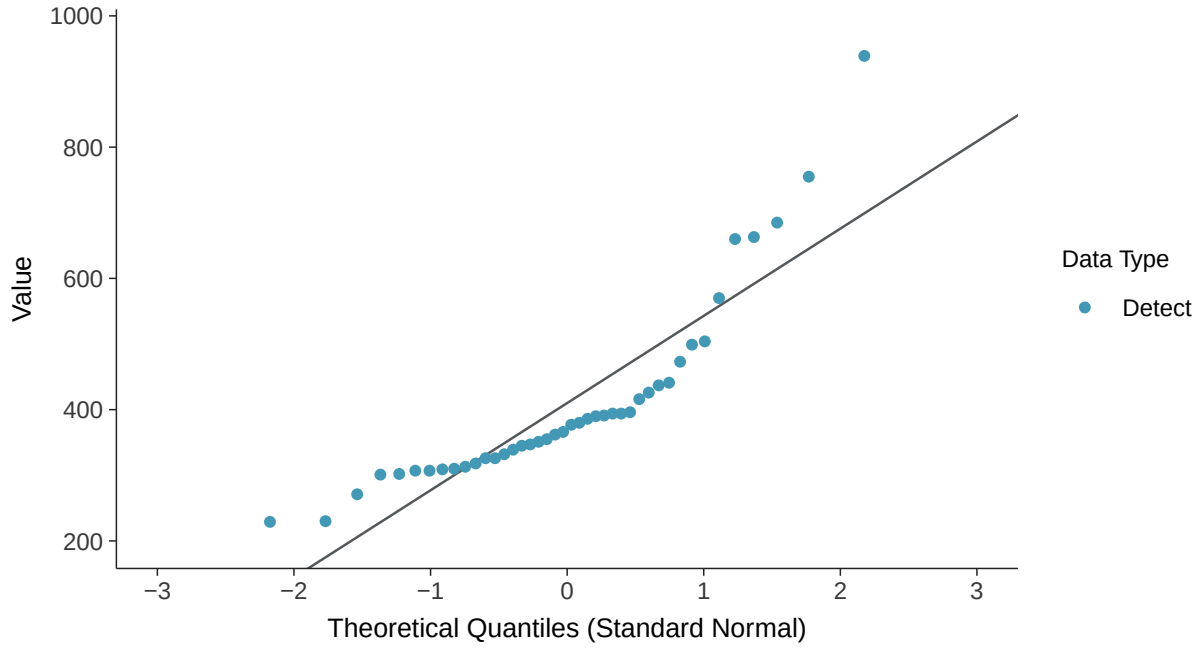
Boxplot by Season

Chloride, MW-8 (mg/L)



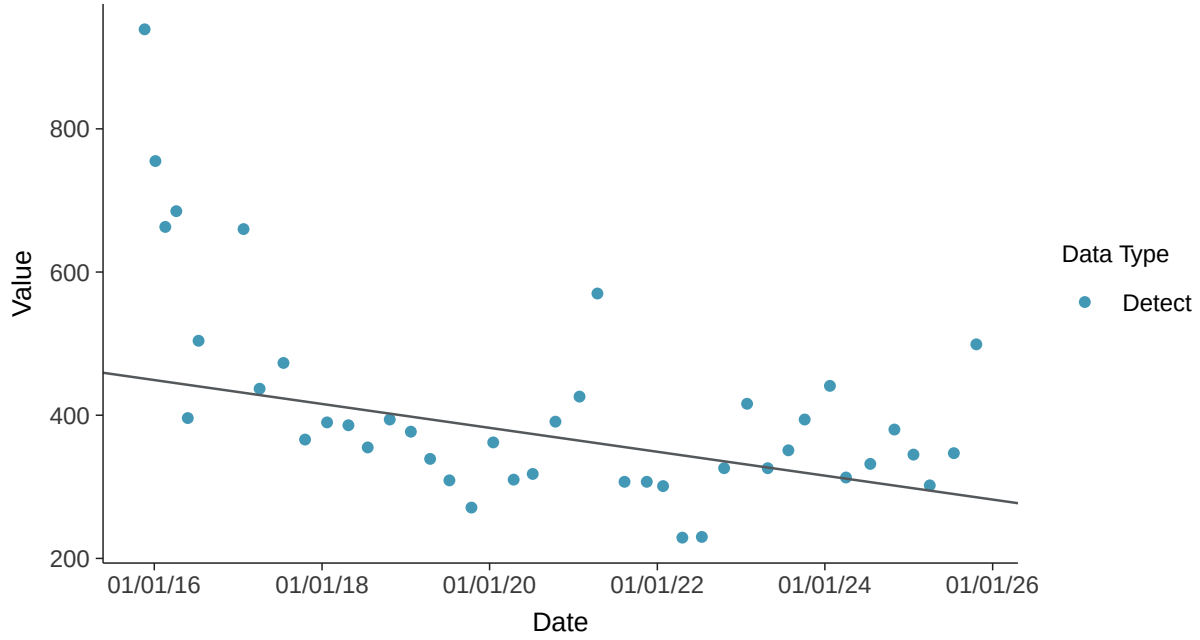
Normal Q-Q plot

Chloride, MW-8 (mg/L)



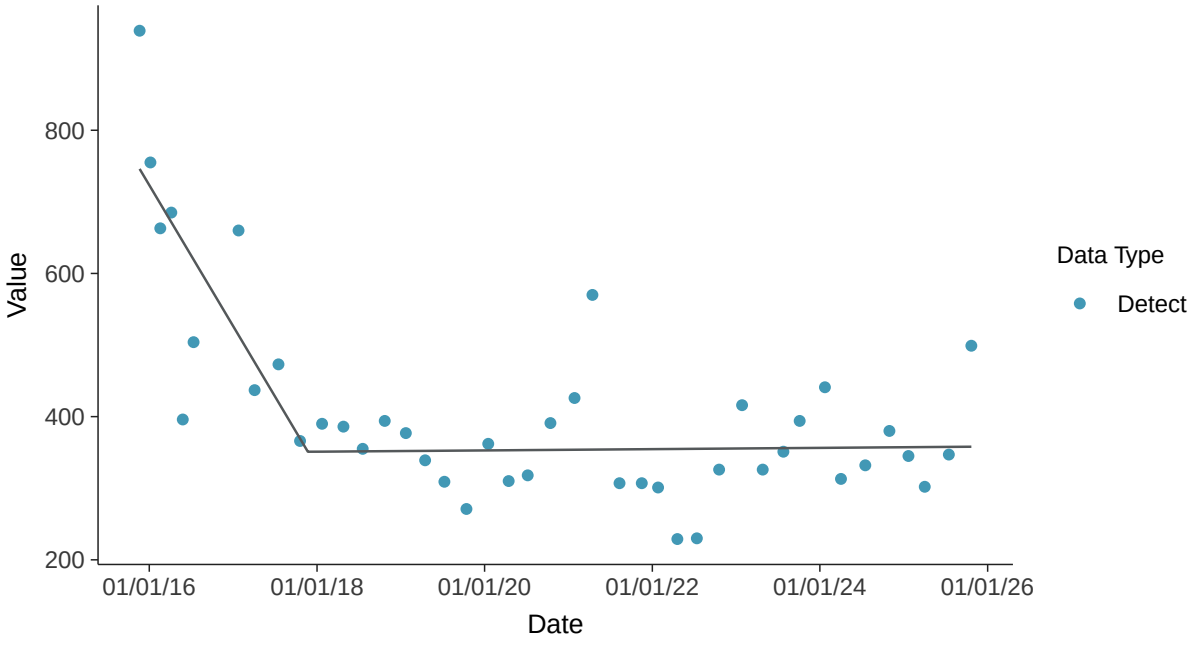
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Chloride, MW-8 (mg/L)



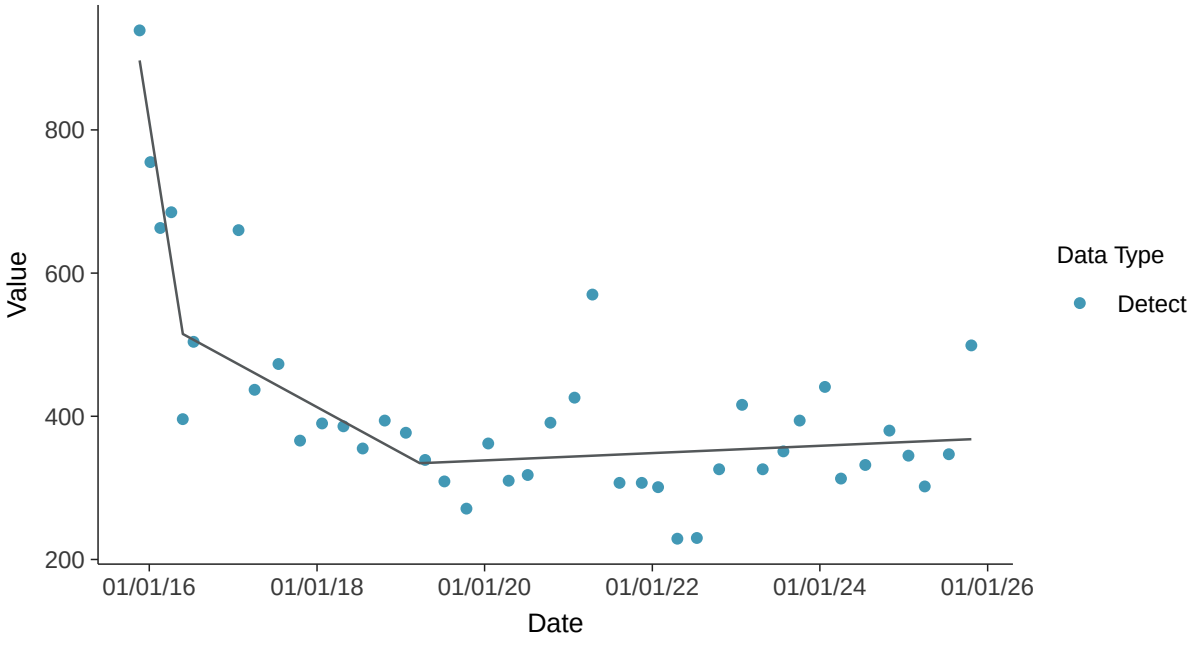
Trend Regression: Piecewise Linear-Linear

Chloride, MW-8 (mg/L)



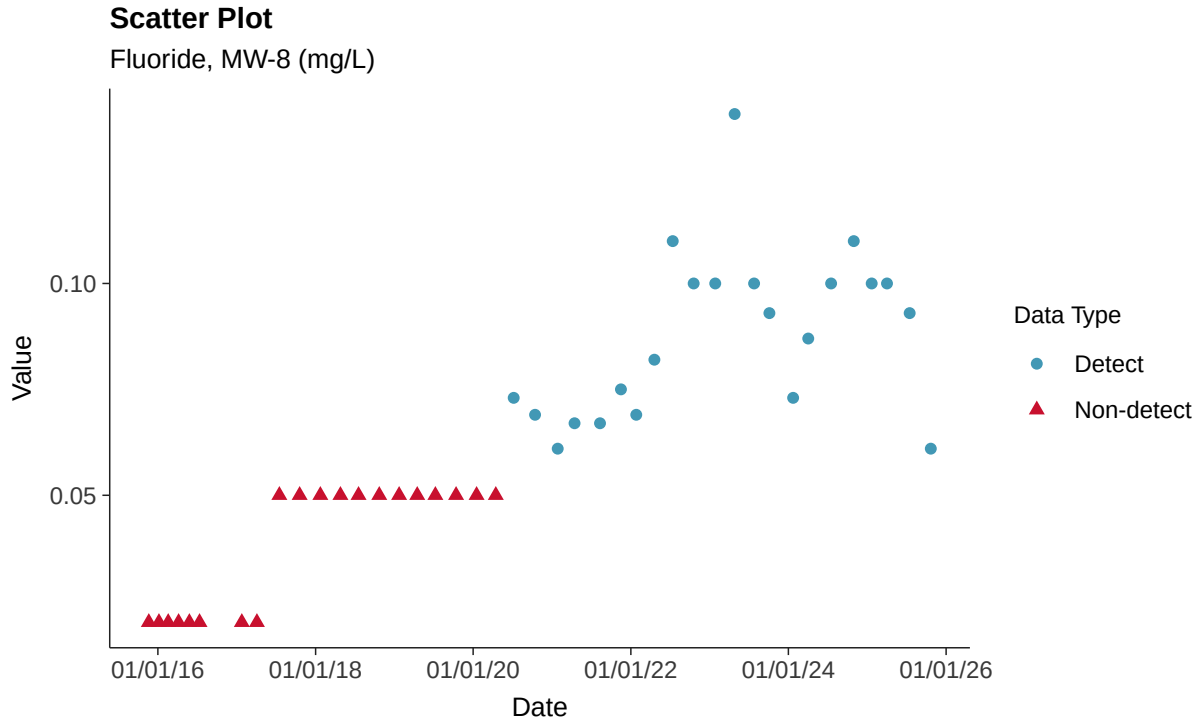
Trend Regression: Piecewise Linear-Linear-Linear

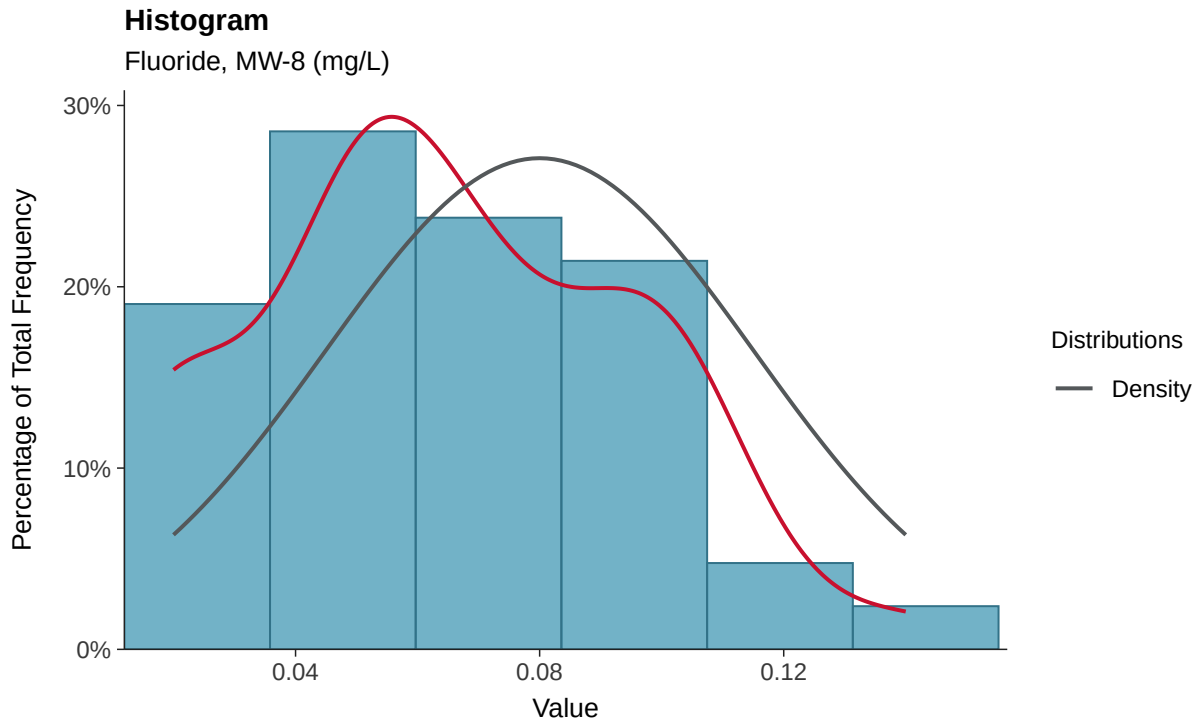
Chloride, MW-8 (mg/L)



App. III: Fluoride, MW-8

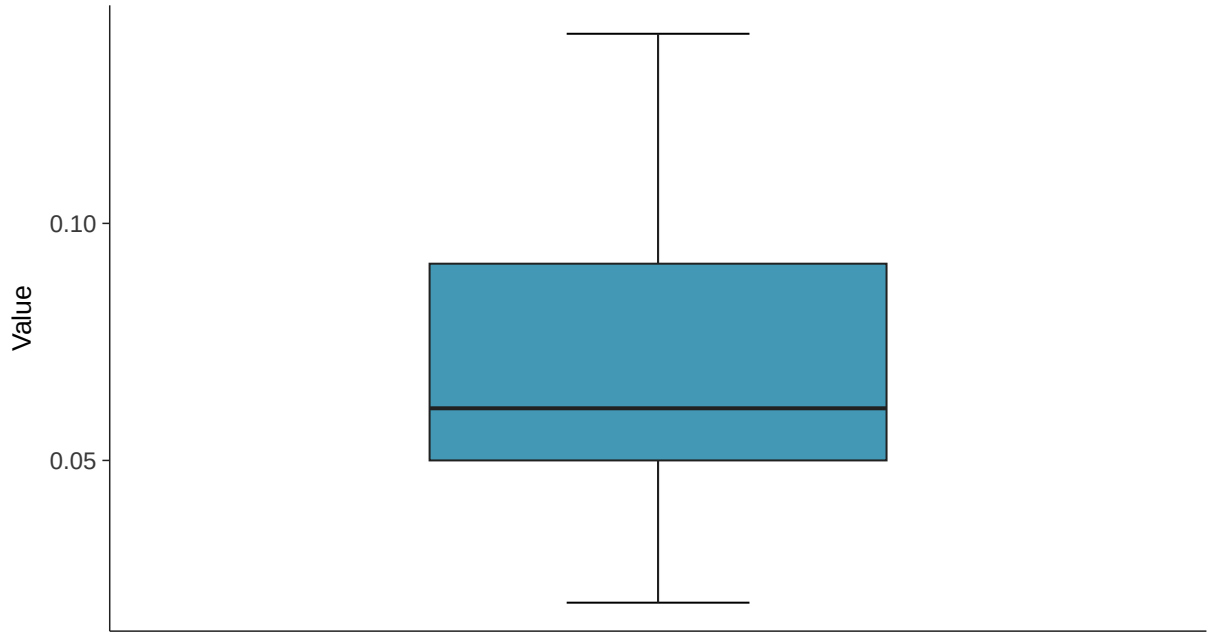
ID: 08_2_112





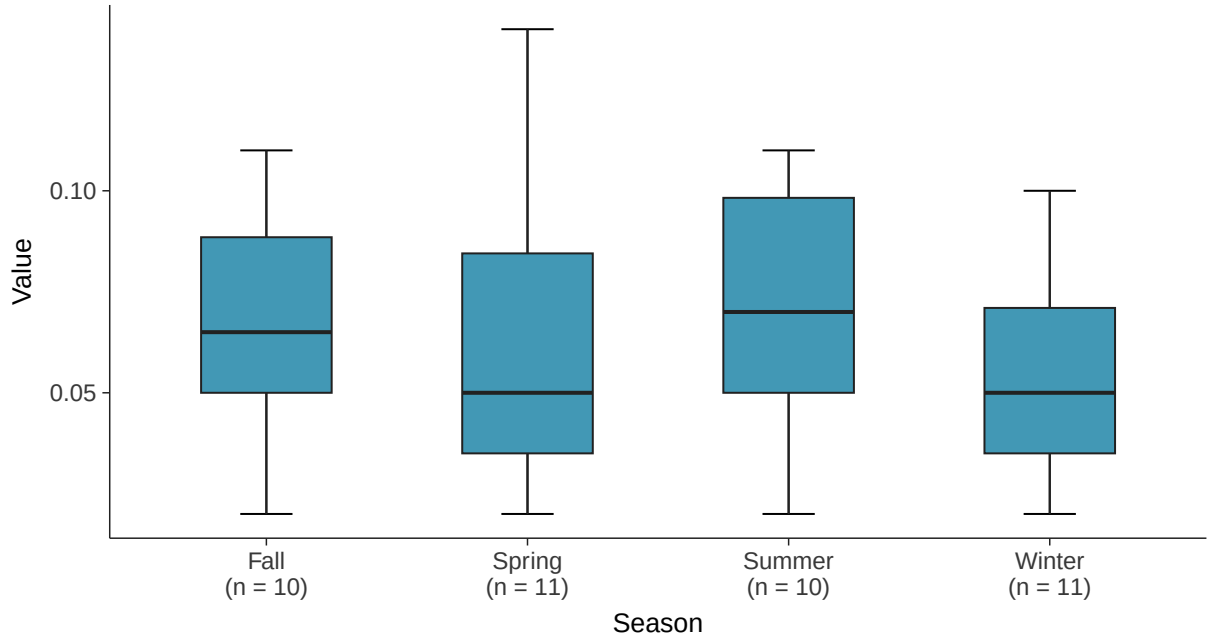
Boxplot

Fluoride, MW-8 (mg/L)



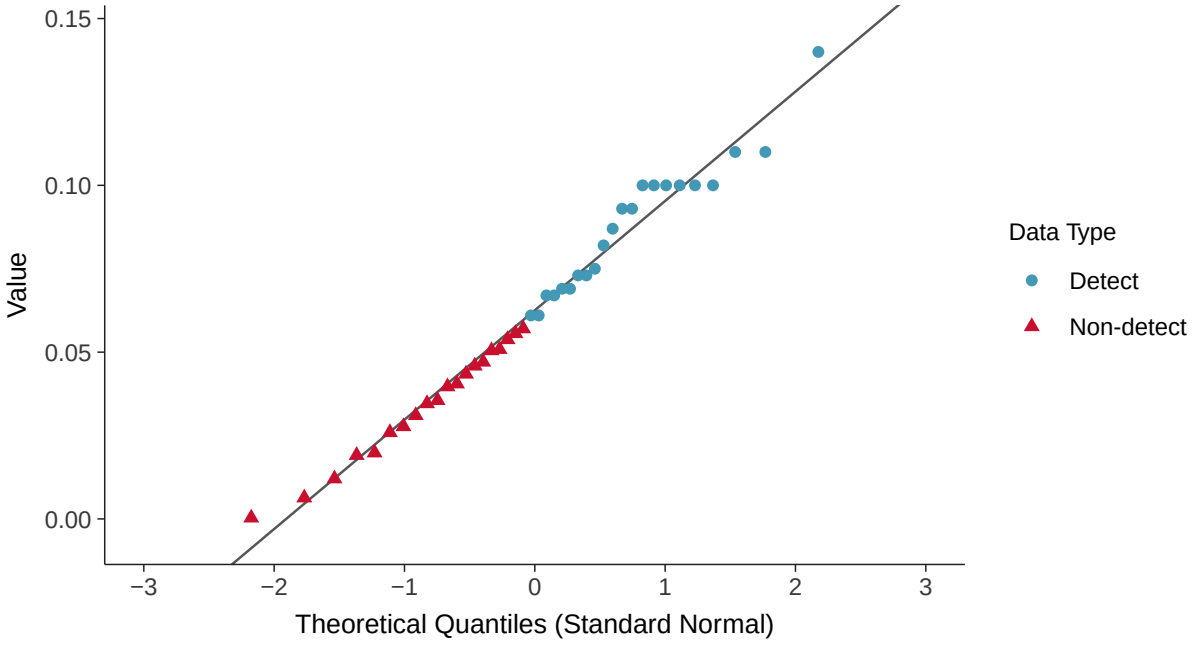
Boxplot by Season

Fluoride, MW-8 (mg/L)



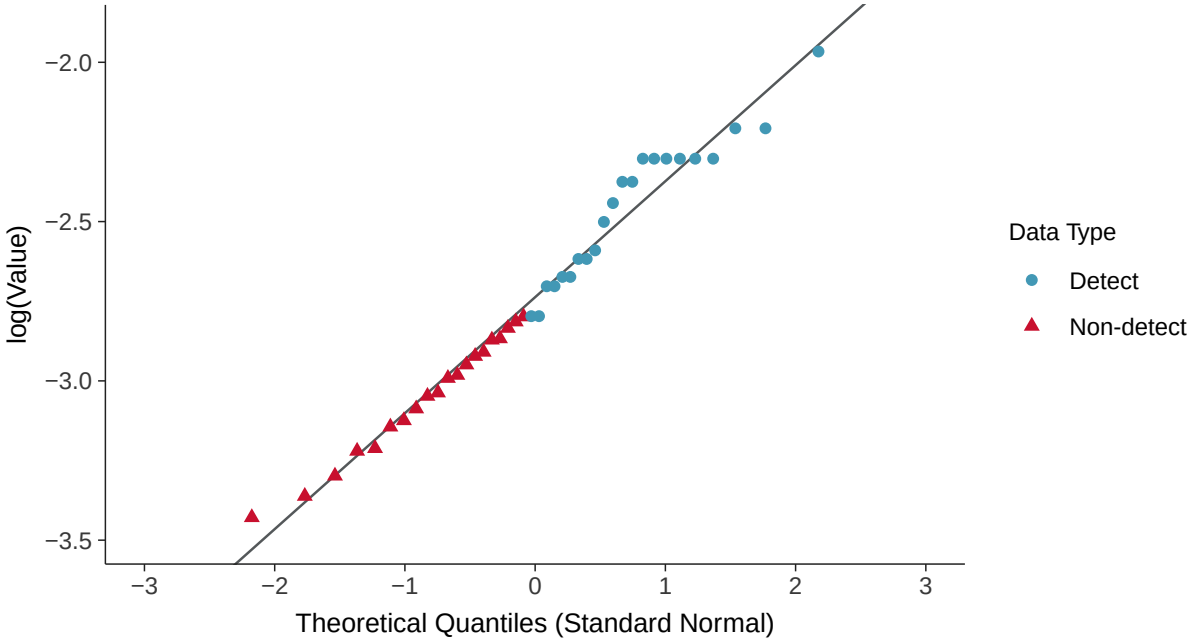
Normal Q-Q plot using ROS Imputed Estimates

Fluoride, MW-8 (mg/L)



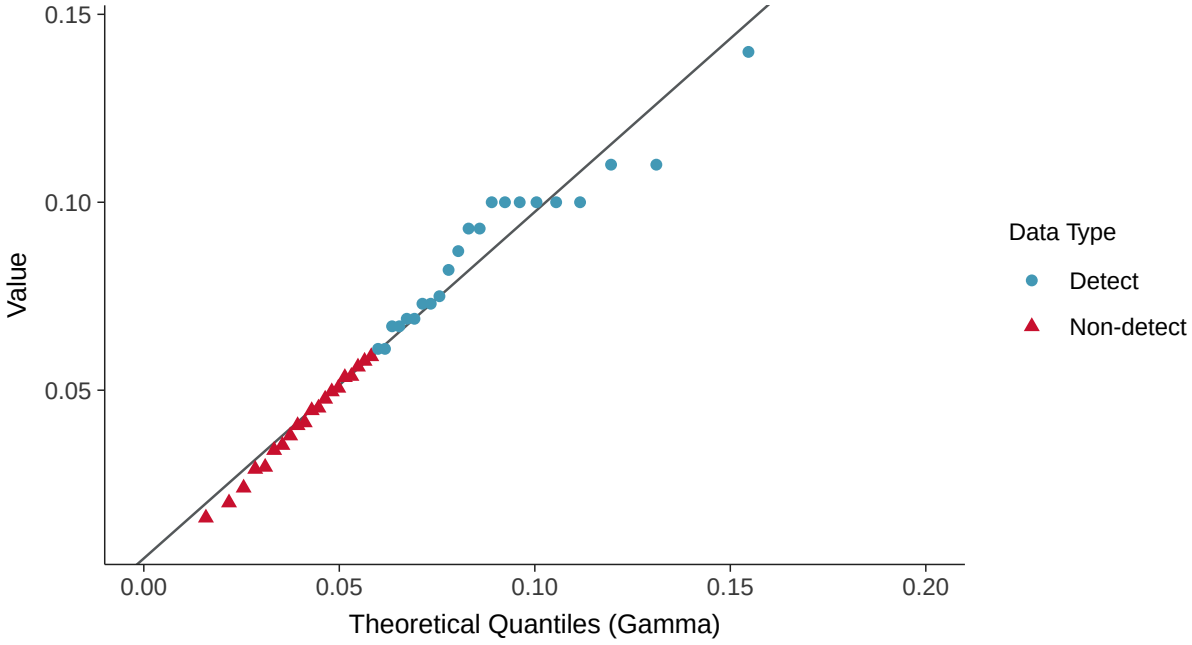
Lognormal Q-Q plot using ROS Imputed Estimates

Fluoride, MW-8 (mg/L)



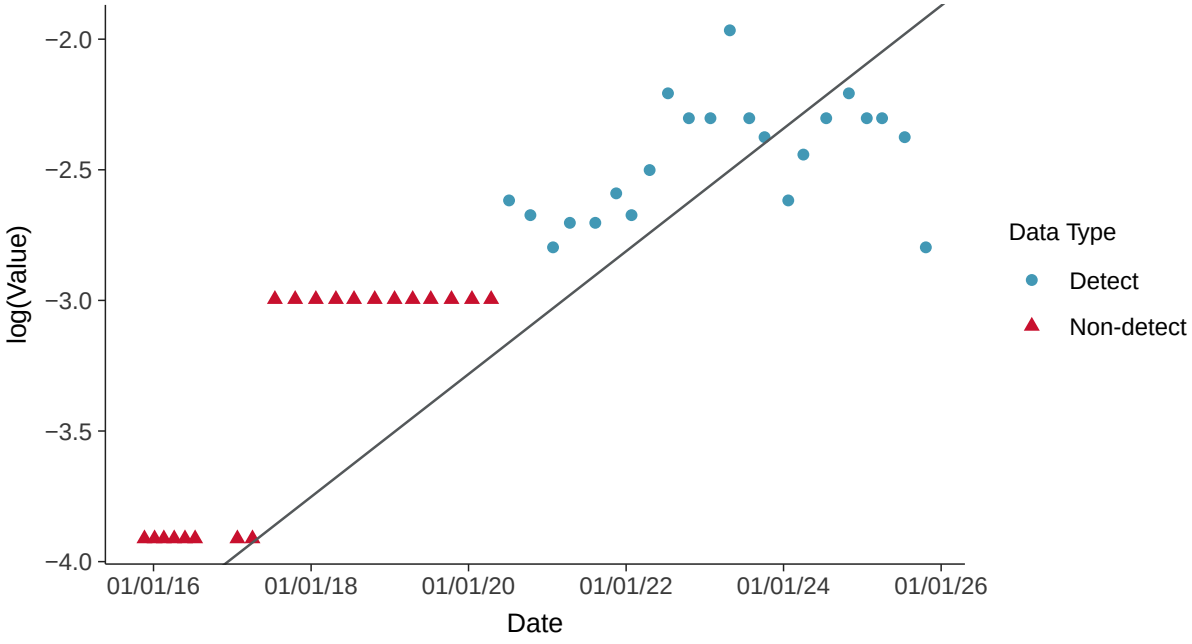
Gamma Q-Q plot using ROS Imputed Estimates

Fluoride, MW-8 (mg/L)



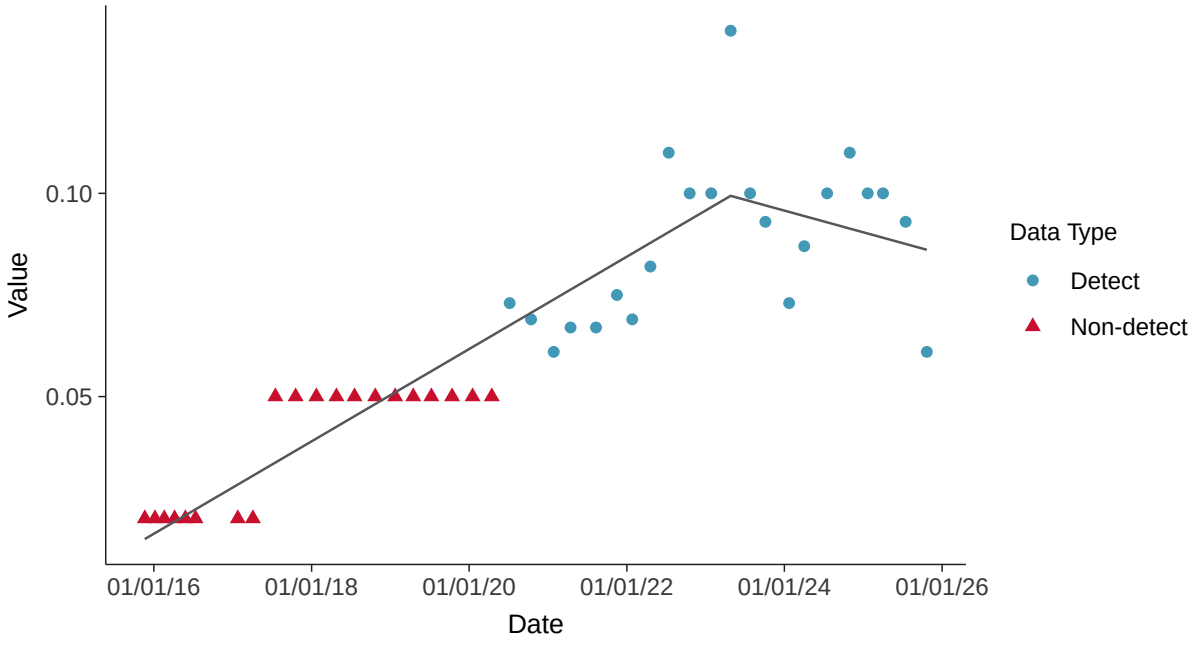
Trend Regression: Lognormal MLE

Fluoride, MW-8 (mg/L)



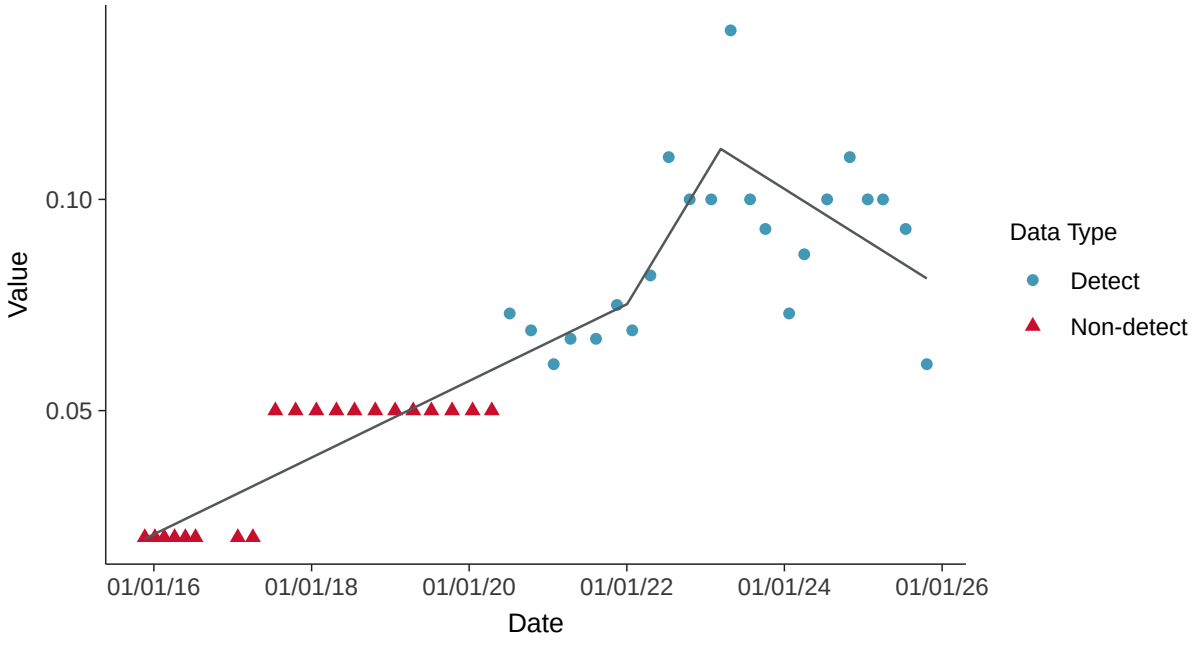
Trend Regression: Piecewise Linear-Linear

Fluoride, MW-8 (mg/L)



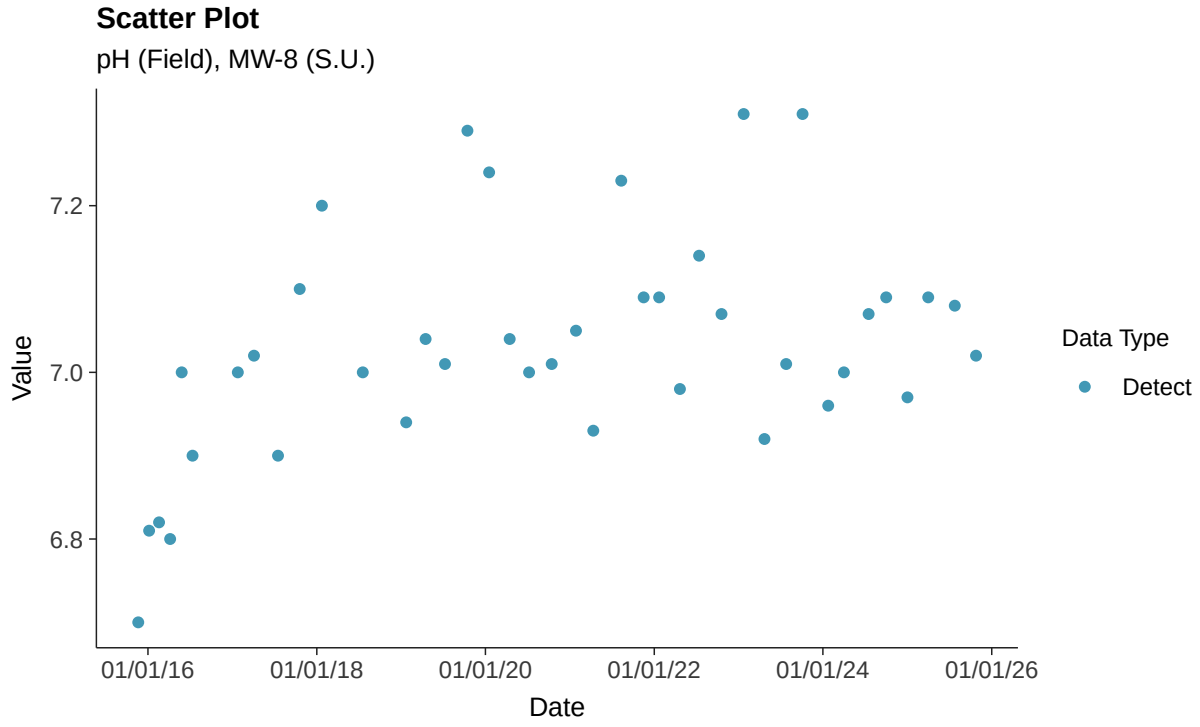
Trend Regression: Piecewise Linear-Linear-Linear

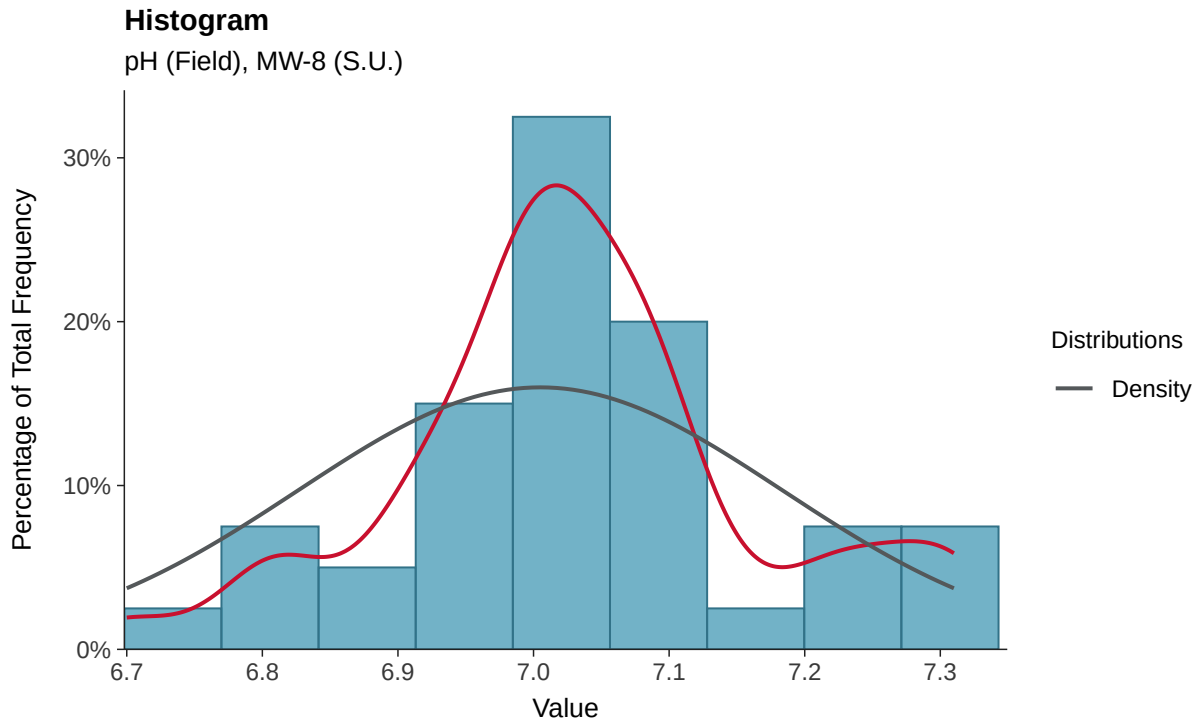
Fluoride, MW-8 (mg/L)



App. III: pH (Field), MW-8

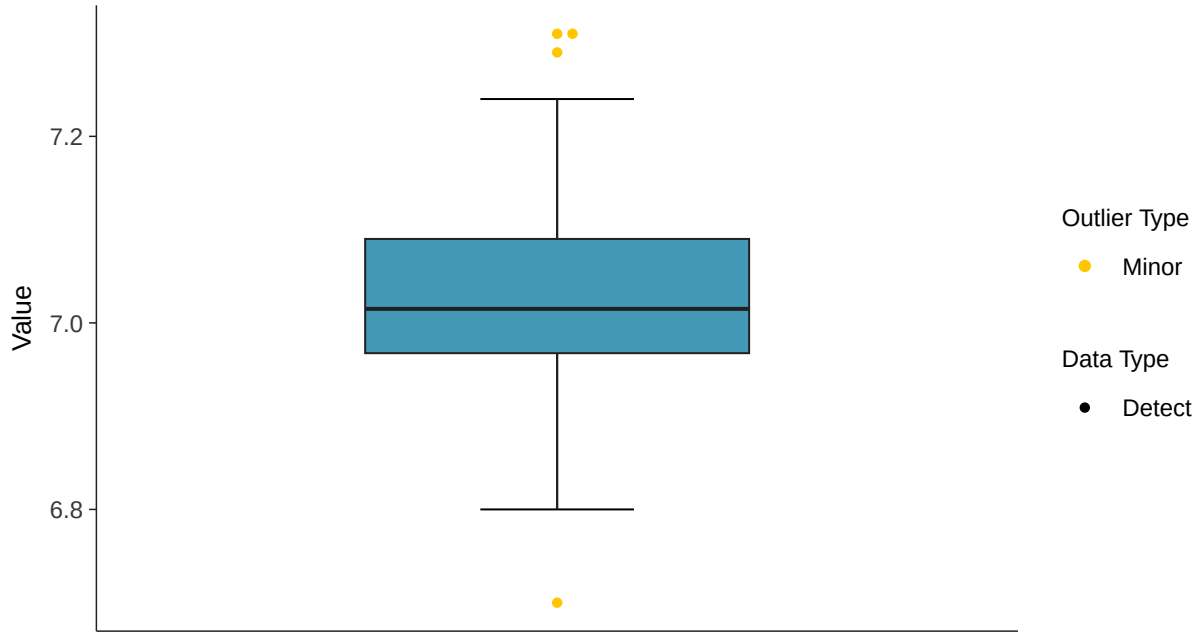
ID: 08_2_118





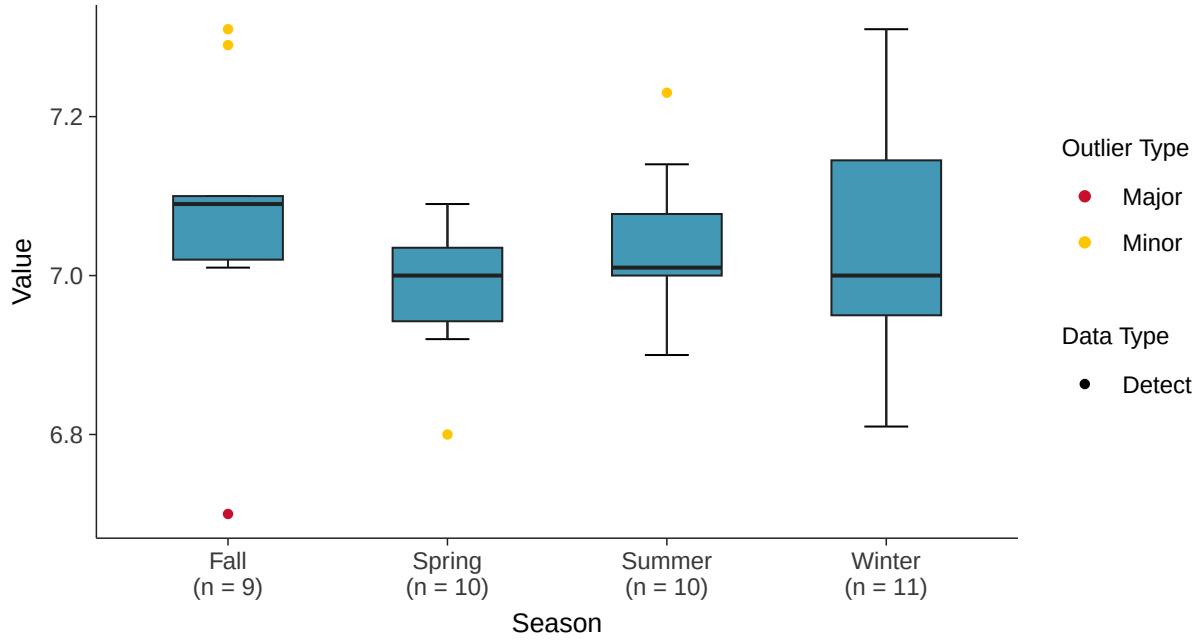
Boxplot

pH (Field), MW-8 (S.U.)



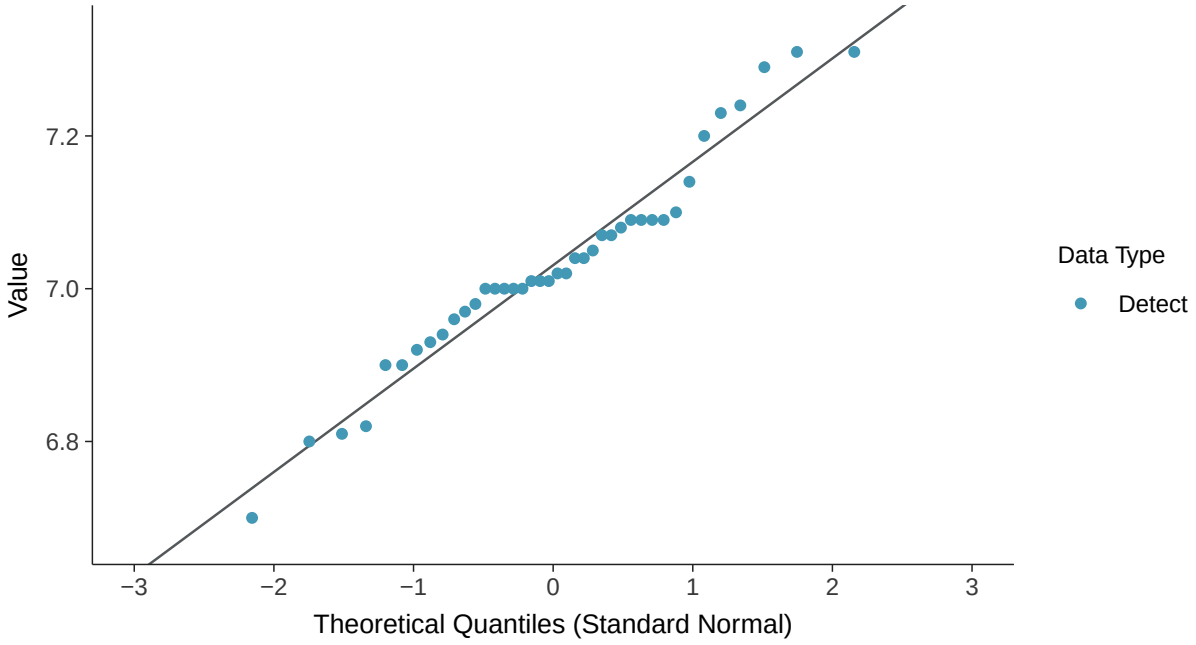
Boxplot by Season

pH (Field), MW-8 (S.U.)



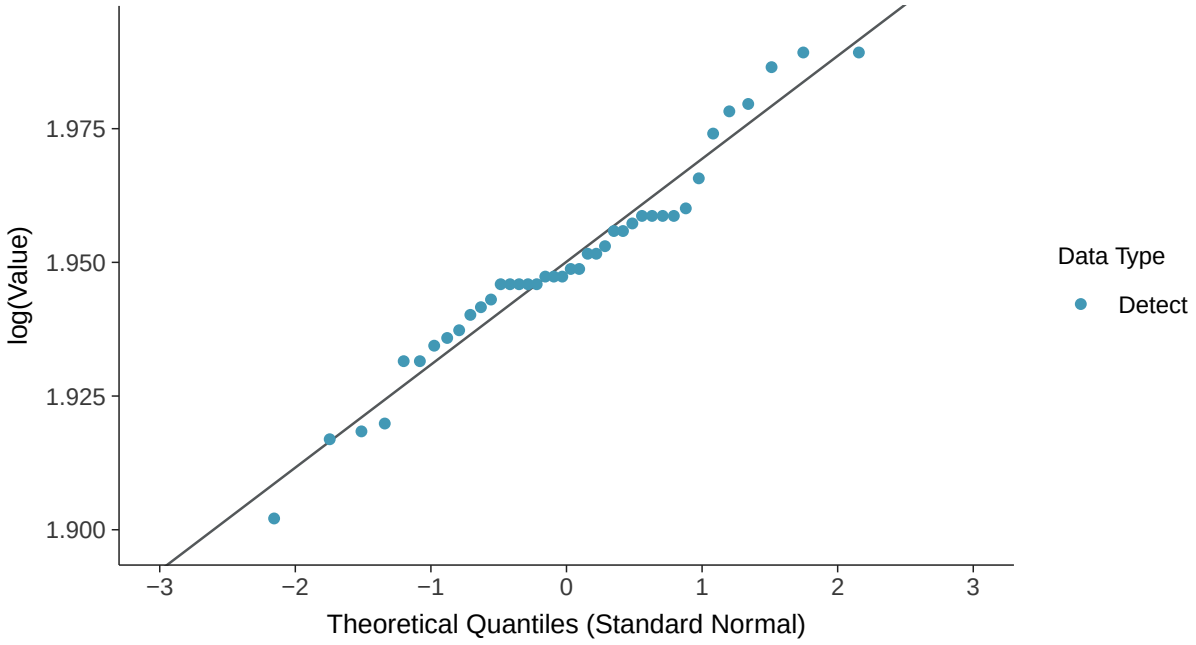
Normal Q-Q plot

pH (Field), MW-8 (S.U.)



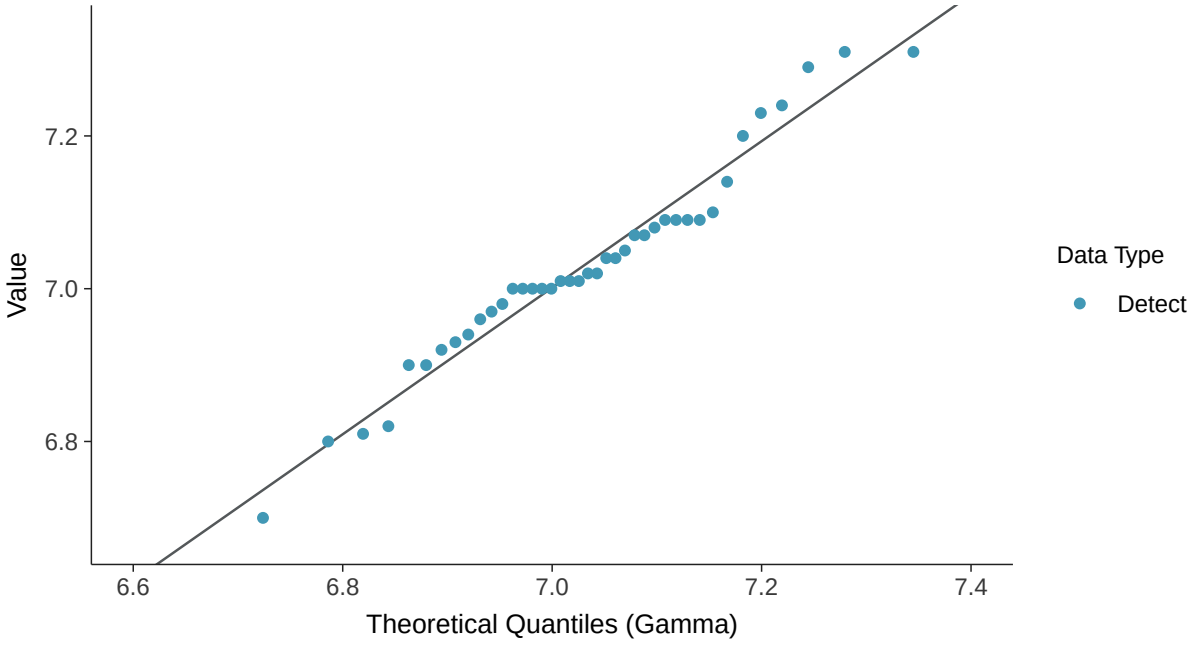
Lognormal Q-Q plot

pH (Field), MW-8 (S.U.)



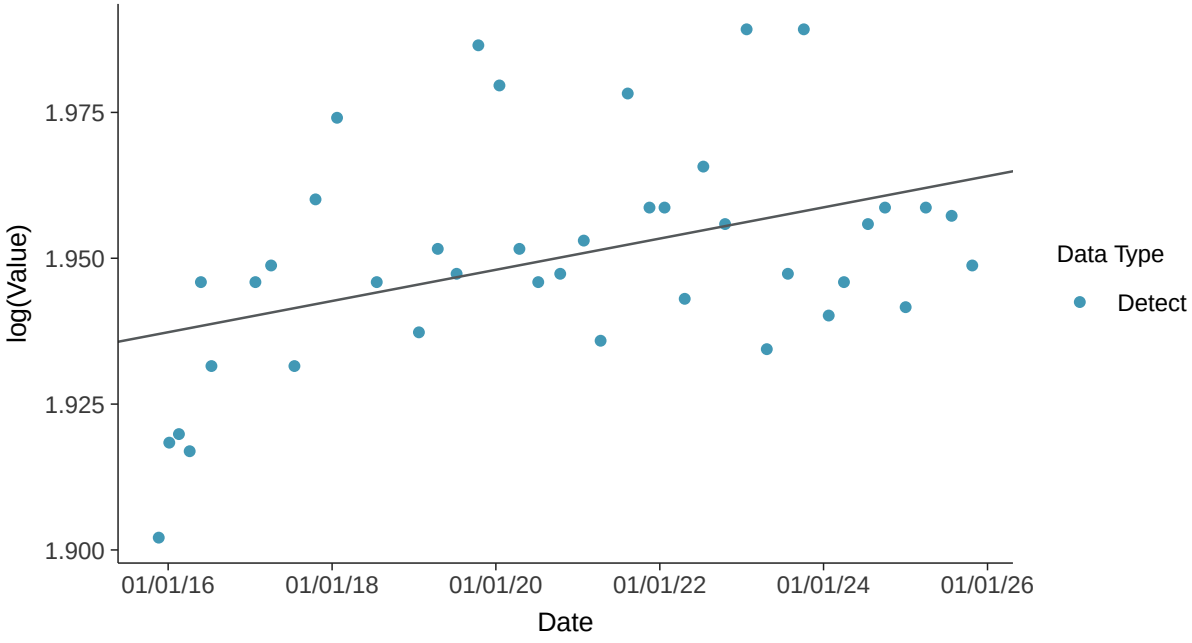
Gamma Q-Q plot

pH (Field), MW-8 (S.U.)



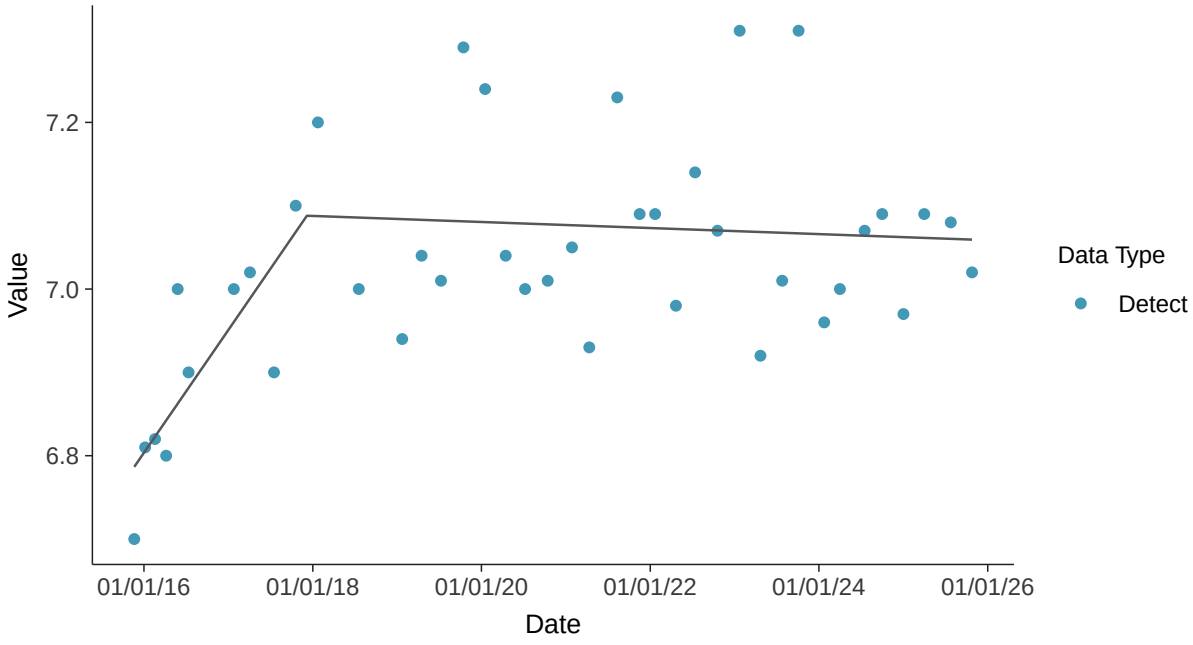
Trend Regression: Lognormal MLE

pH (Field), MW-8 (S.U.)



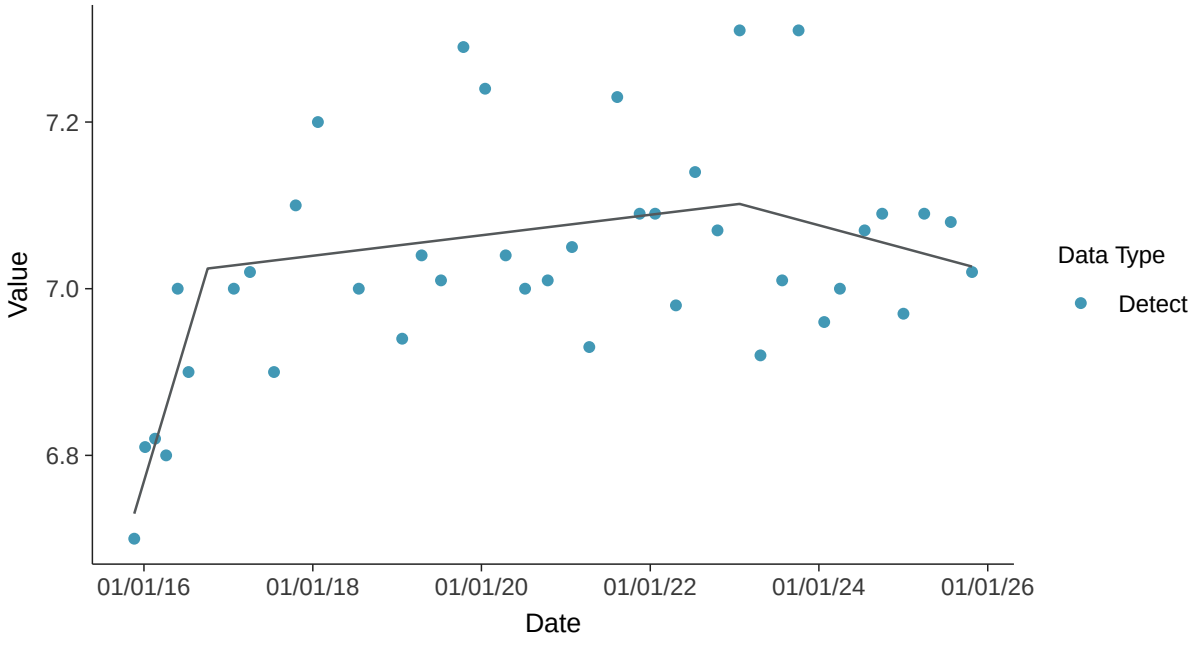
Trend Regression: Piecewise Linear-Linear

pH (Field), MW-8 (S.U.)



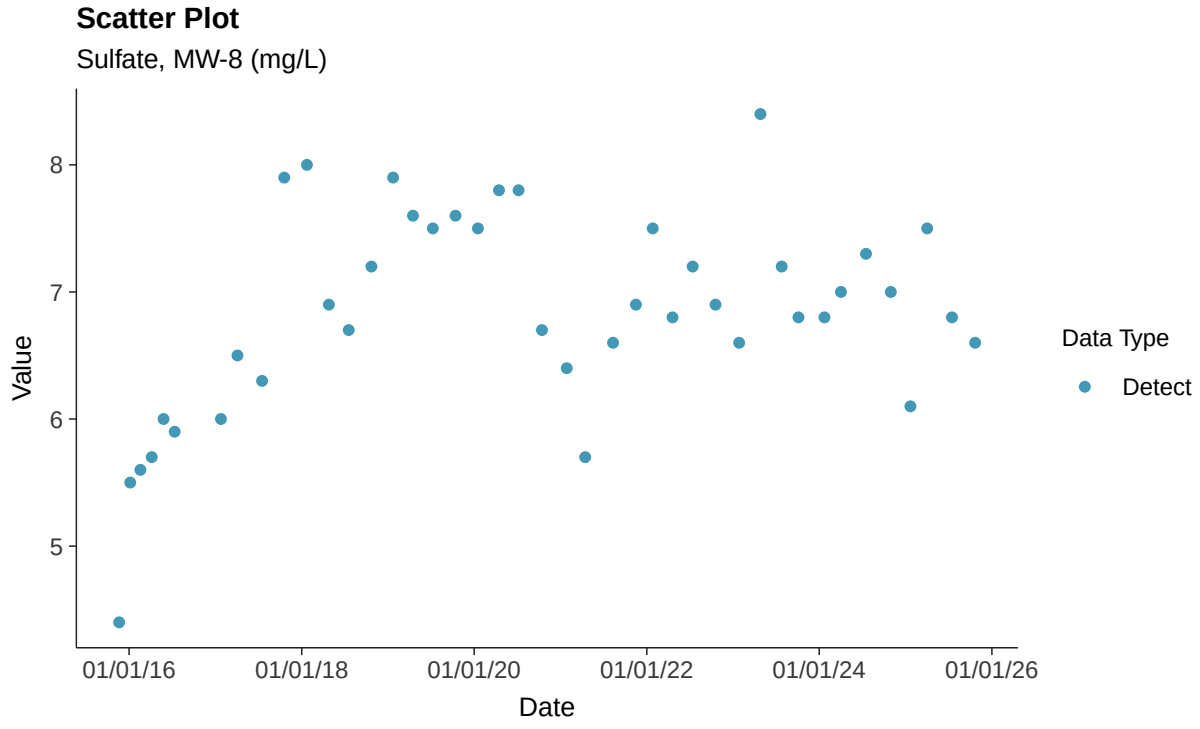
Trend Regression: Piecewise Linear-Linear-Linear

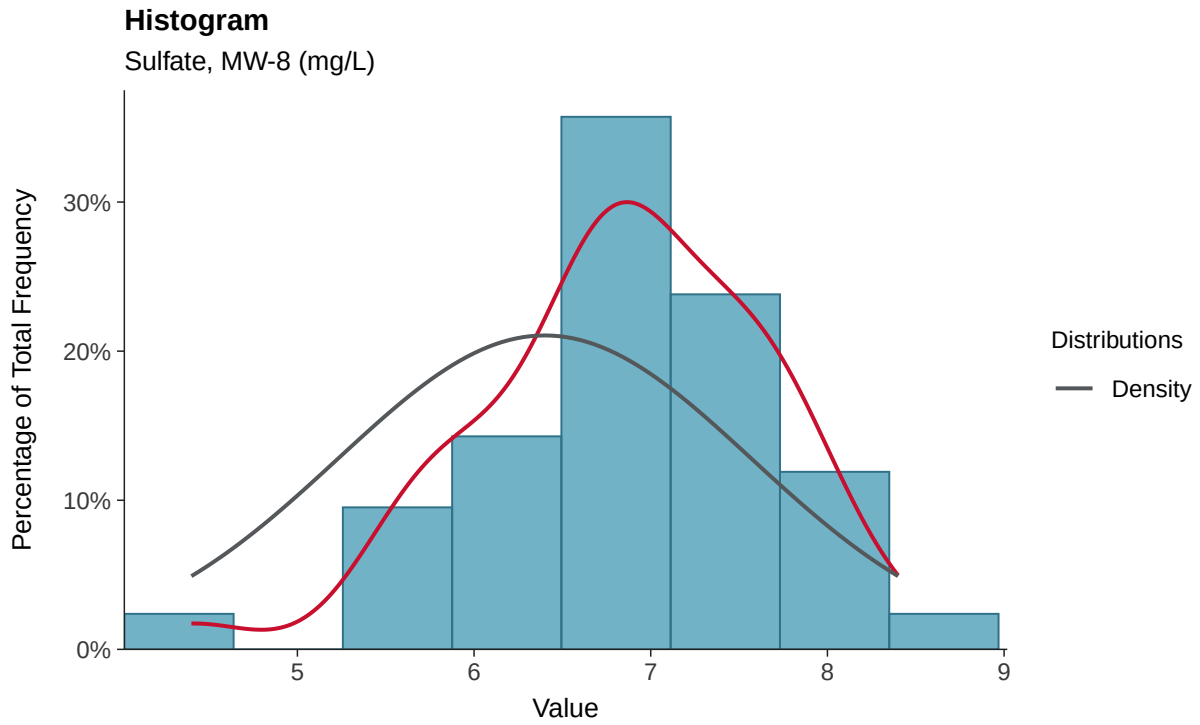
pH (Field), MW-8 (S.U.)



App. III: Sulfate, MW-8

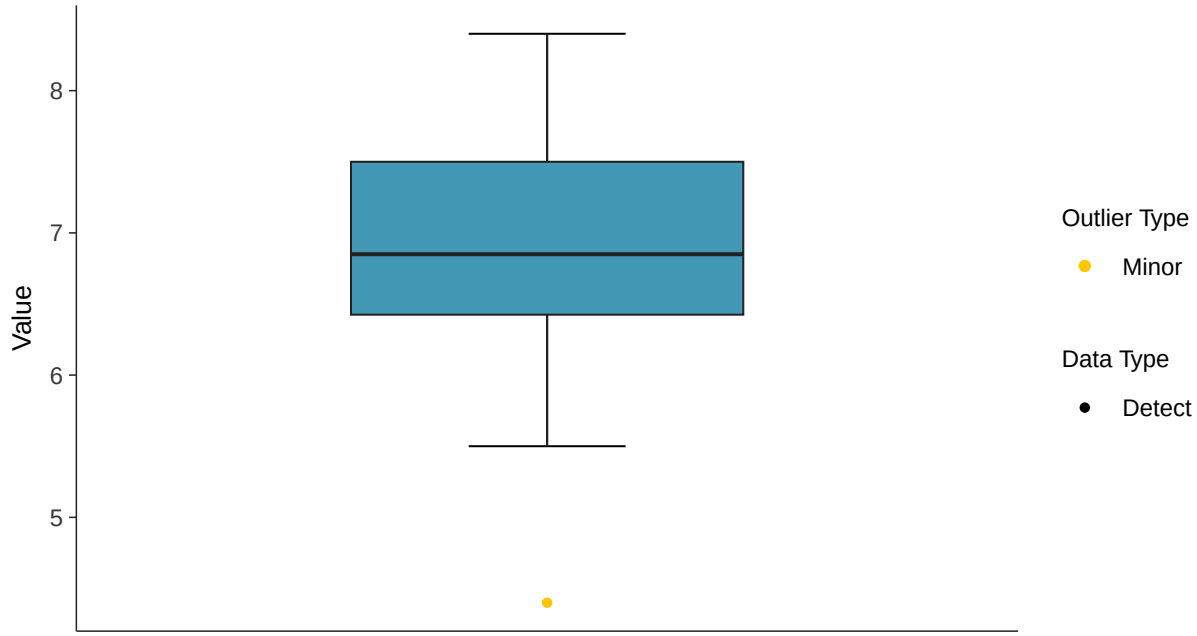
ID: 08_2_123





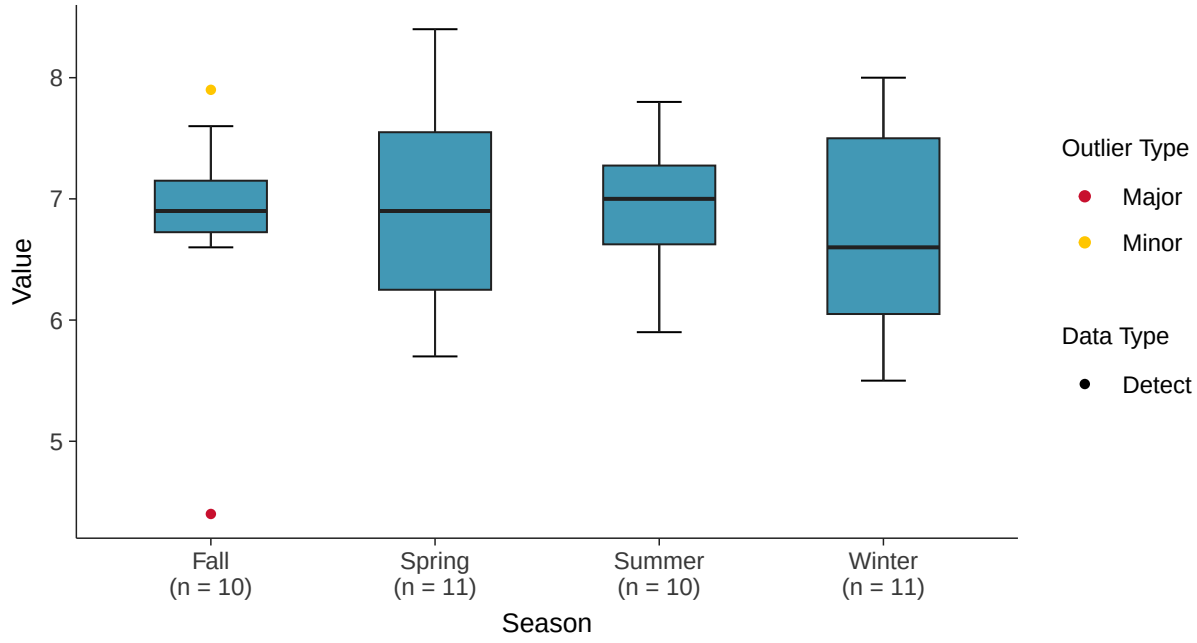
Boxplot

Sulfate, MW-8 (mg/L)



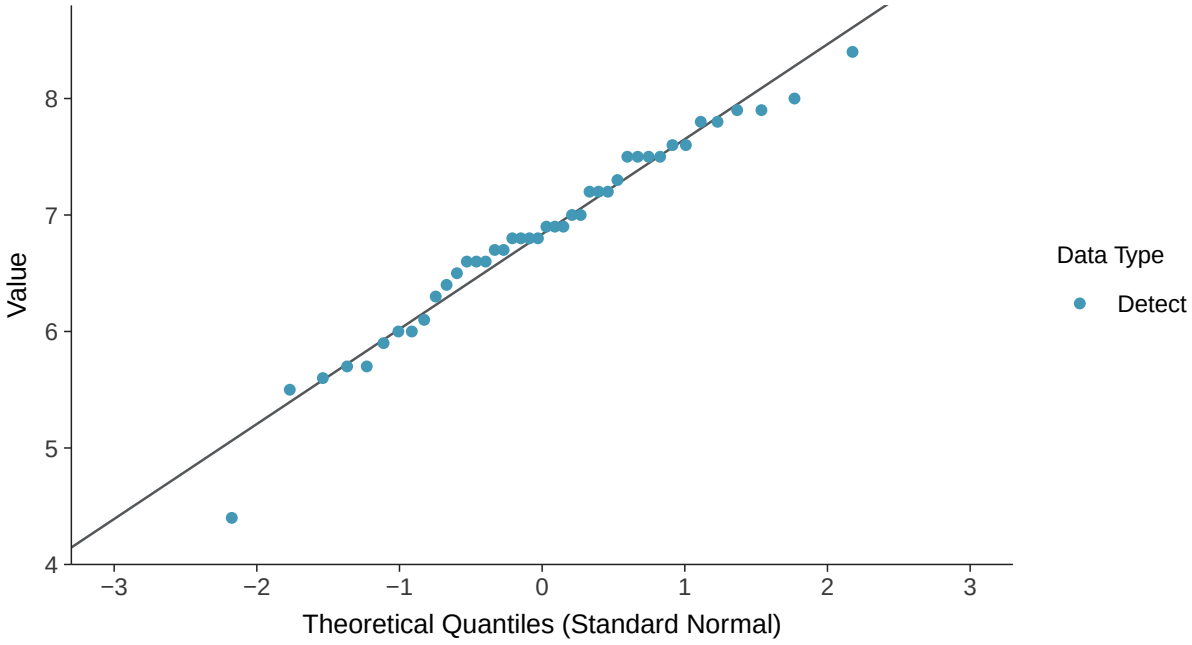
Boxplot by Season

Sulfate, MW-8 (mg/L)



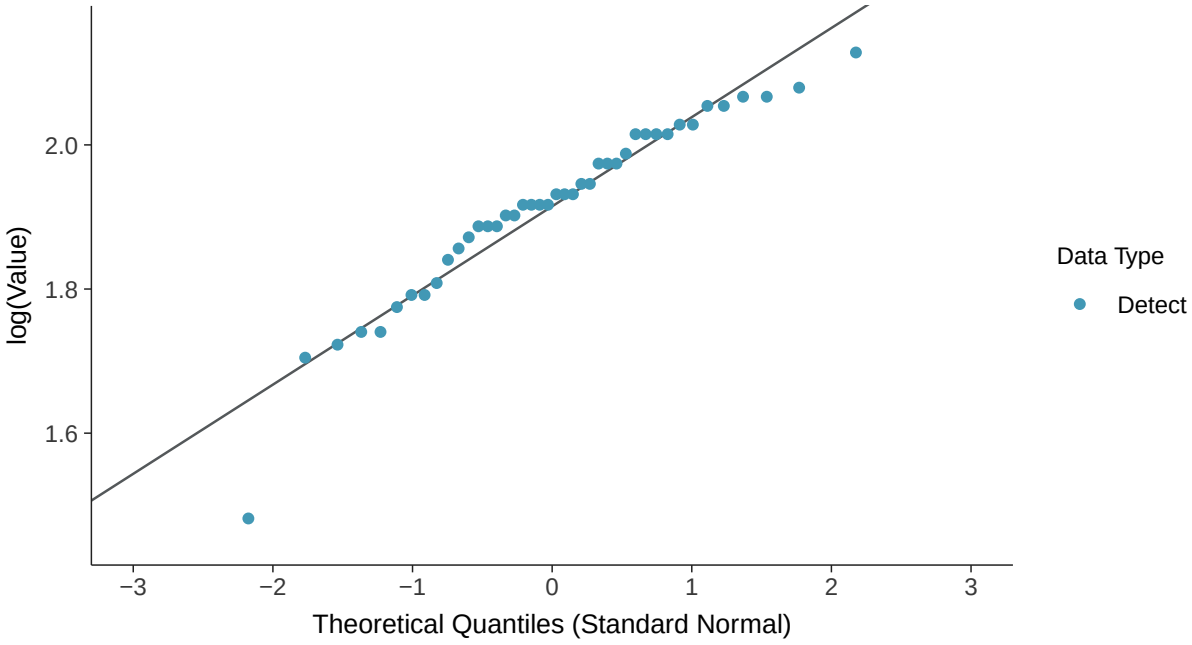
Normal Q-Q plot

Sulfate, MW-8 (mg/L)



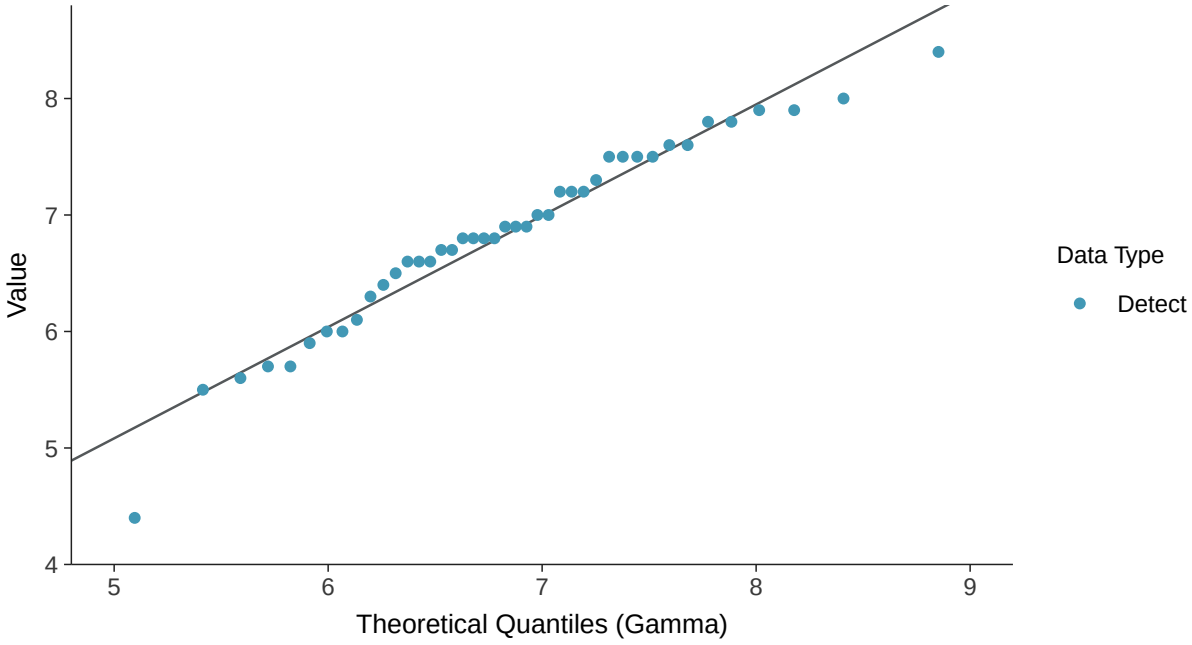
Lognormal Q-Q plot

Sulfate, MW-8 (mg/L)



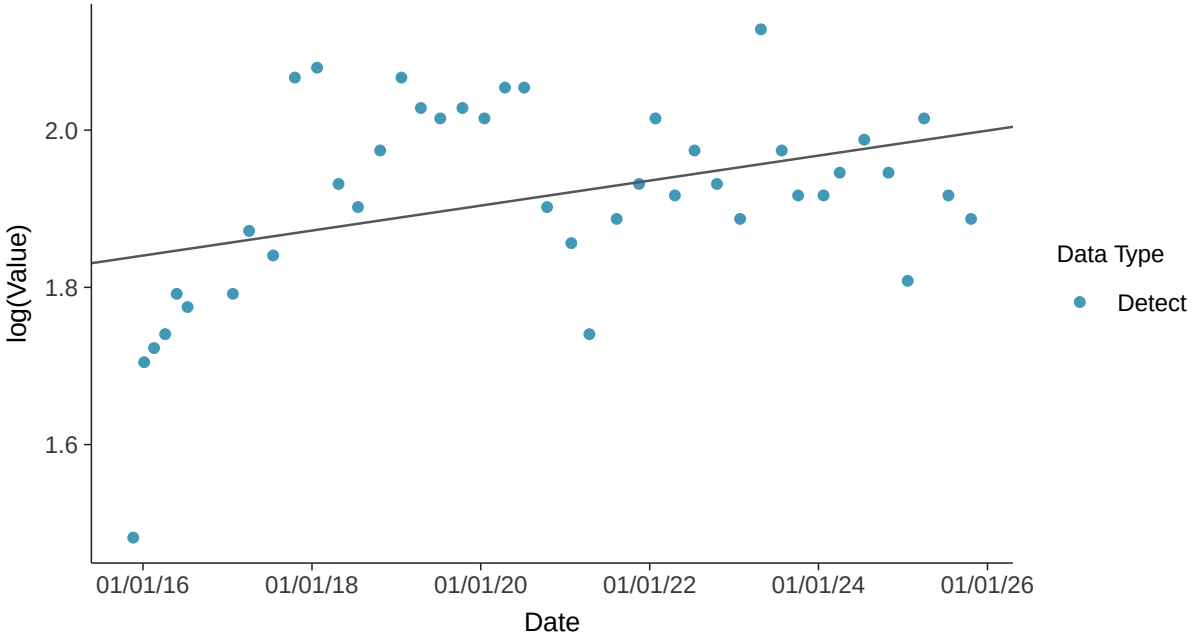
Gamma Q-Q plot

Sulfate, MW-8 (mg/L)



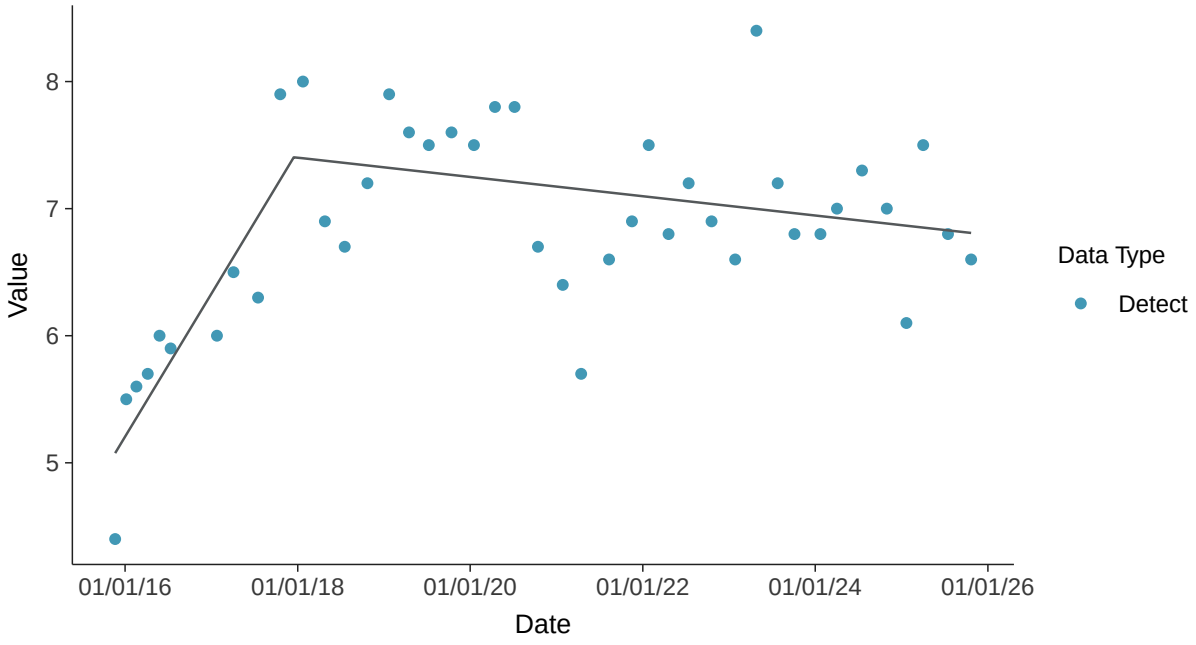
Trend Regression: Lognormal MLE

Sulfate, MW-8 (mg/L)



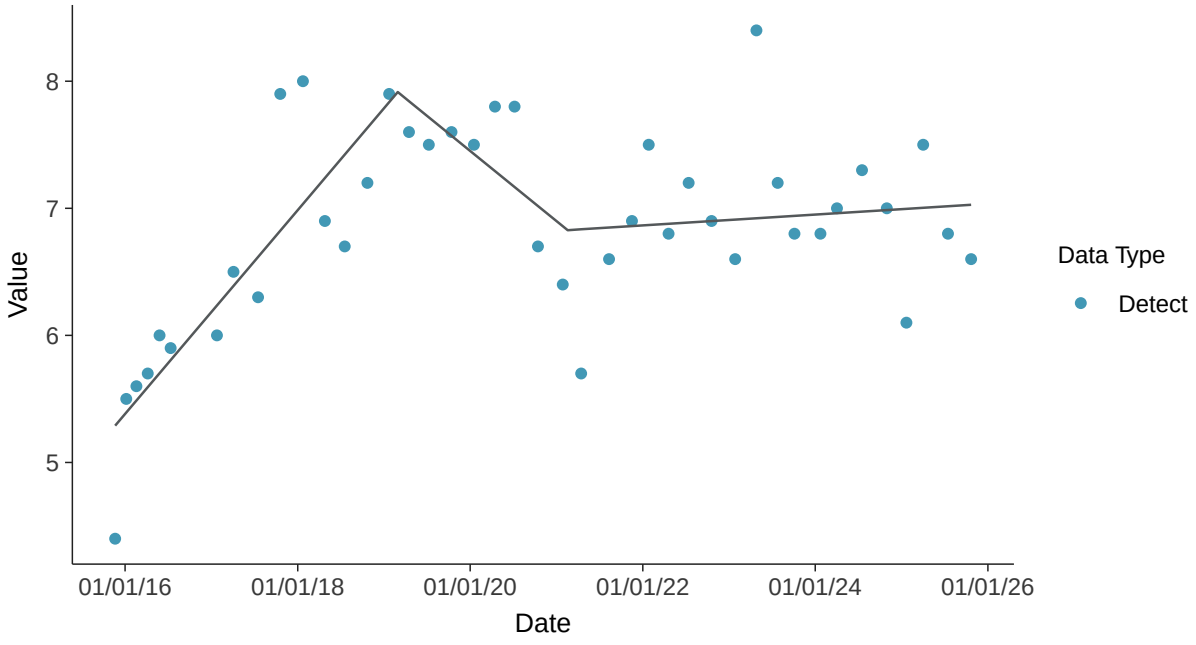
Trend Regression: Piecewise Linear-Linear

Sulfate, MW-8 (mg/L)



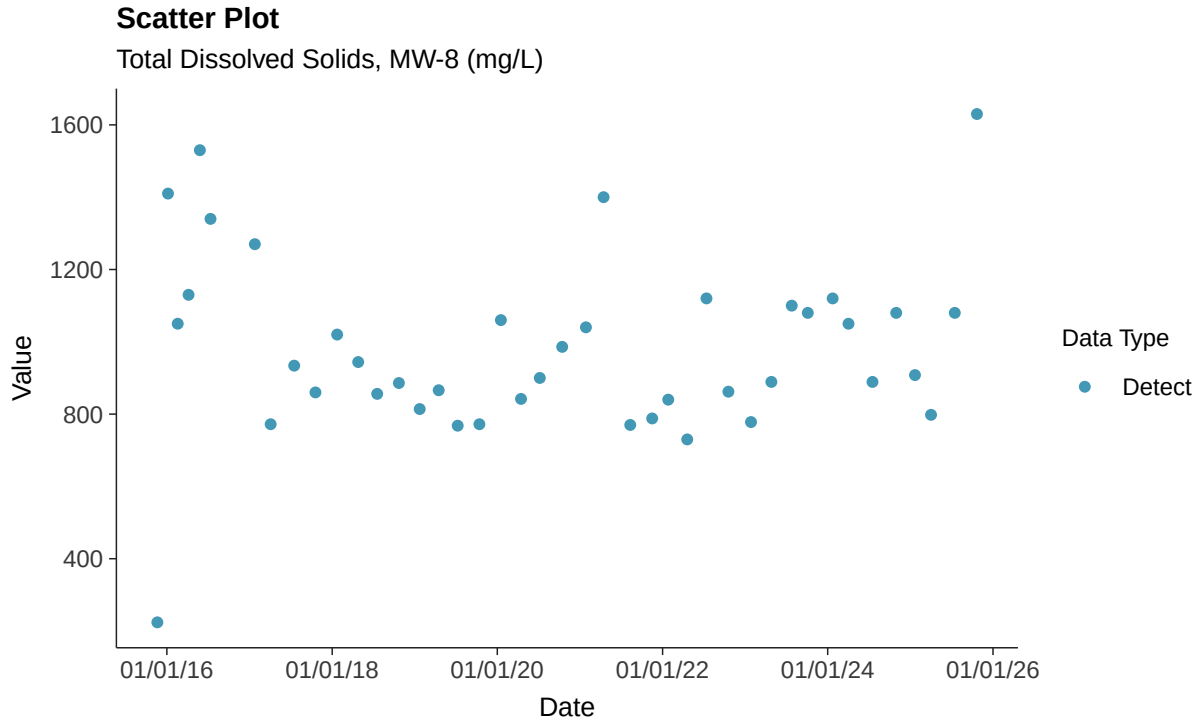
Trend Regression: Piecewise Linear-Linear-Linear

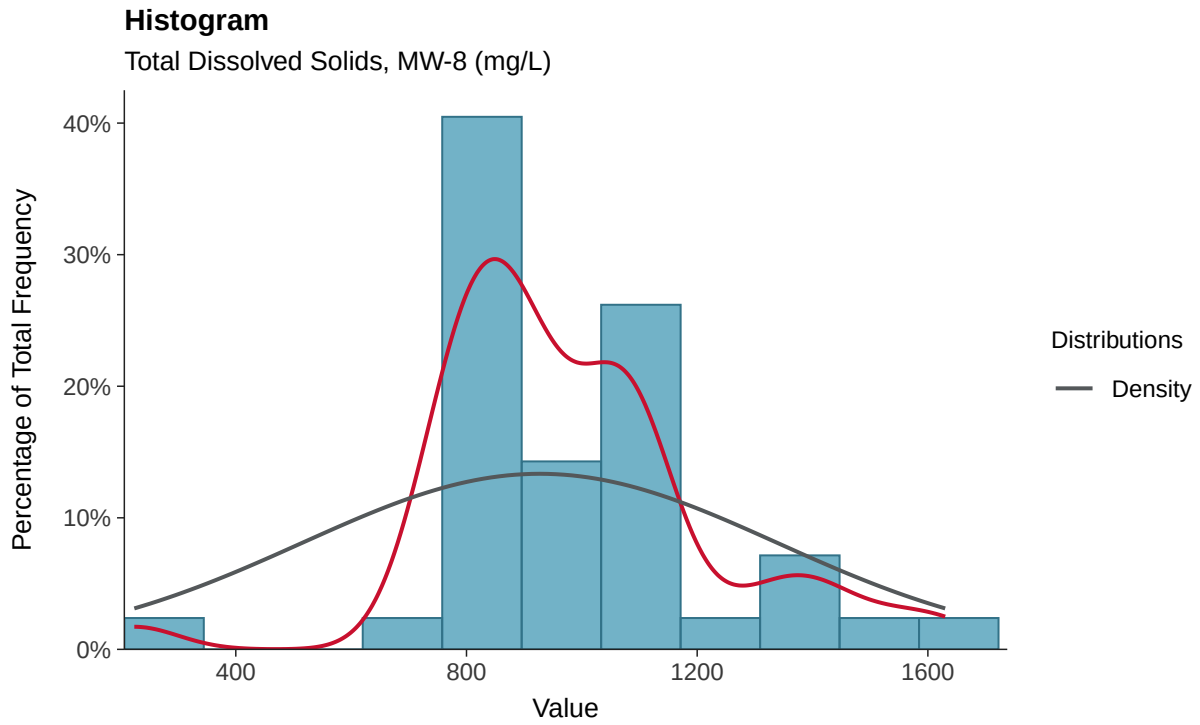
Sulfate, MW-8 (mg/L)



App. III: Total Dissolved Solids, MW-8

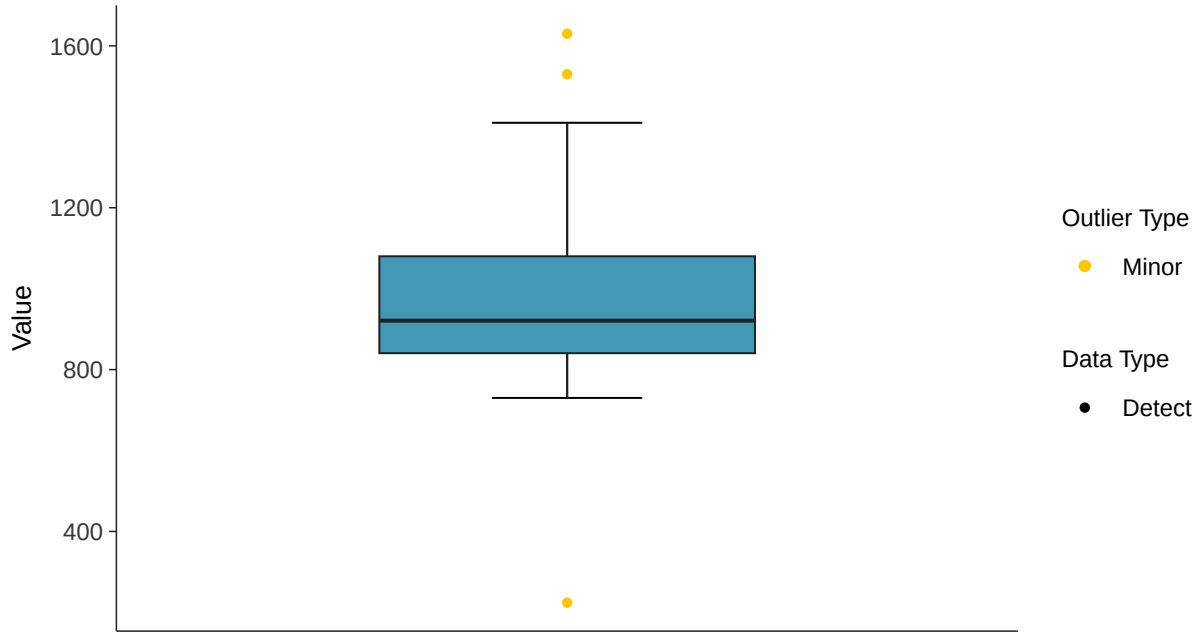
ID: 08_2_125





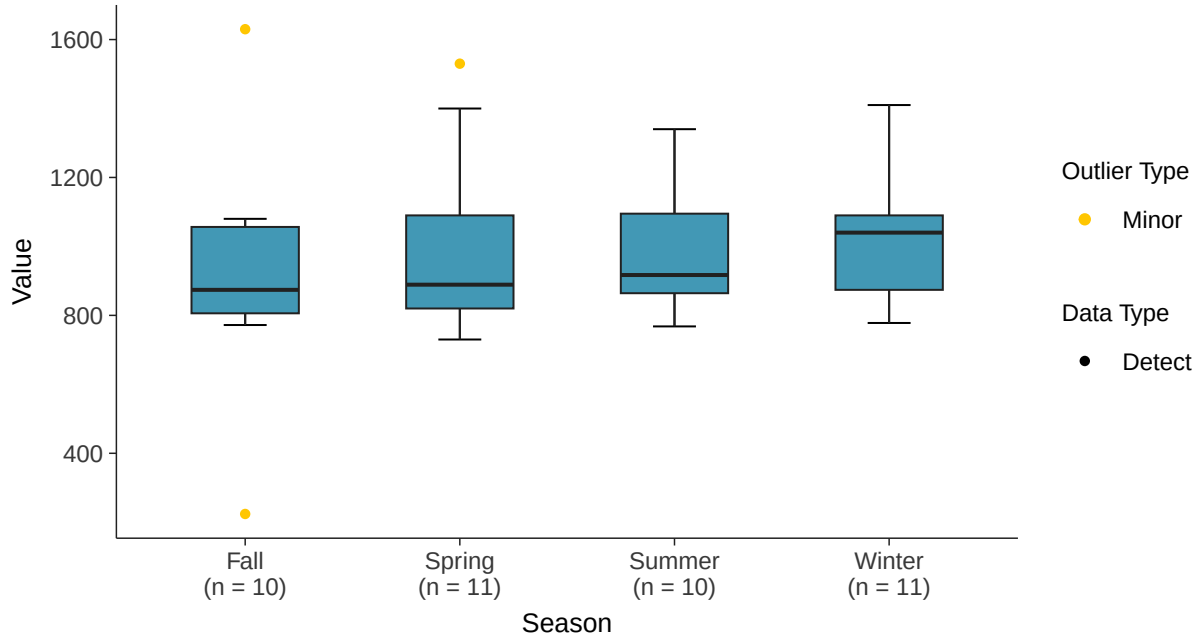
Boxplot

Total Dissolved Solids, MW-8 (mg/L)



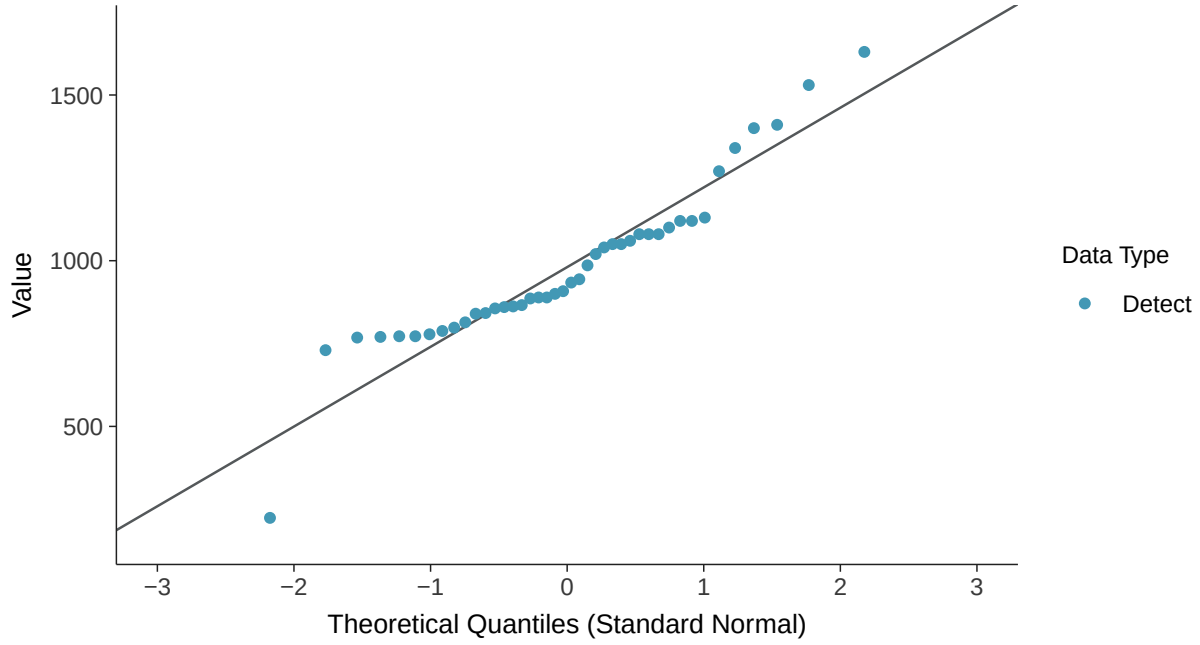
Boxplot by Season

Total Dissolved Solids, MW-8 (mg/L)



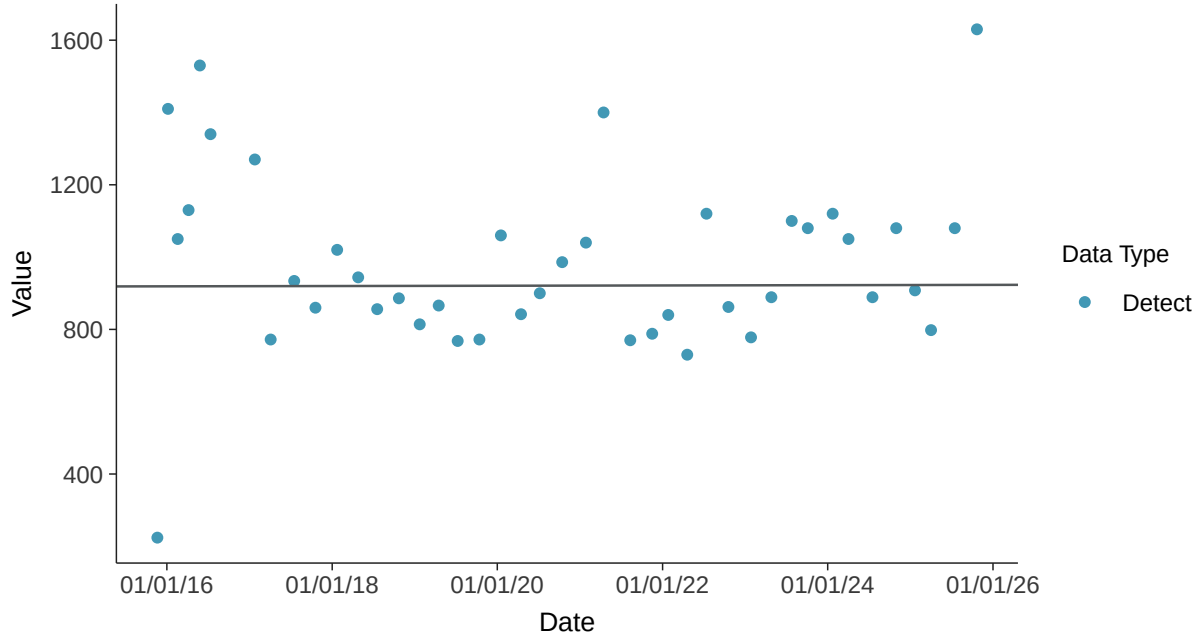
Normal Q-Q plot

Total Dissolved Solids, MW-8 (mg/L)



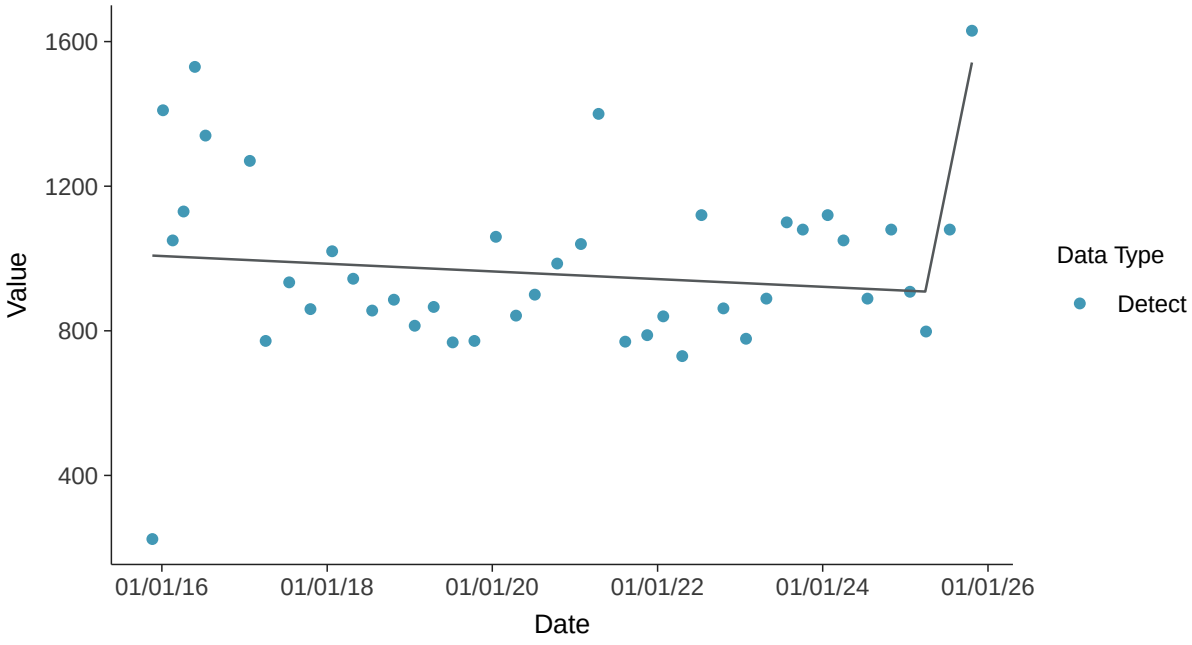
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Total Dissolved Solids, MW-8 (mg/L)



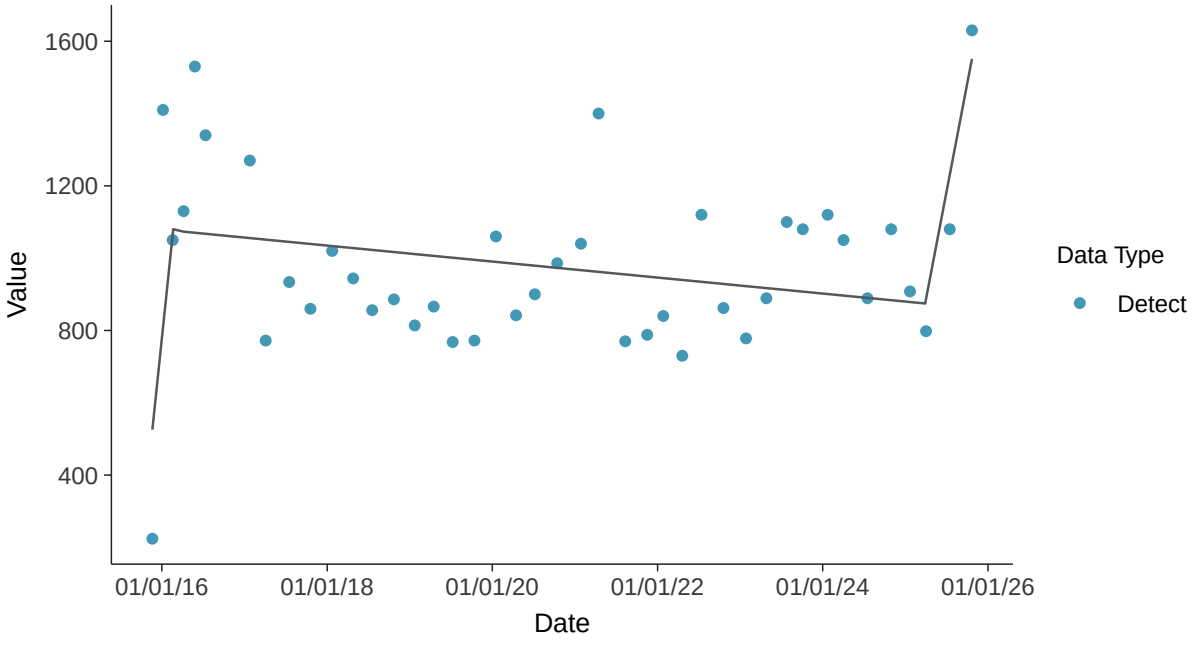
Trend Regression: Piecewise Linear-Linear

Total Dissolved Solids, MW-8 (mg/L)



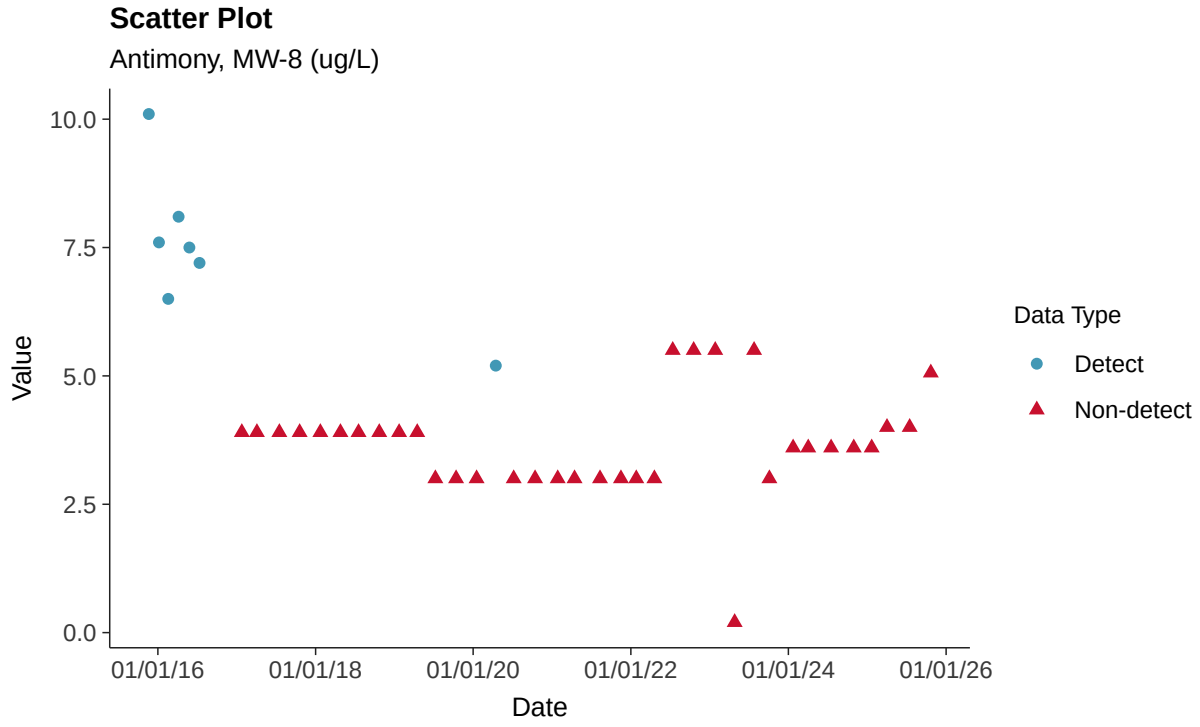
Trend Regression: Piecewise Linear-Linear-Linear

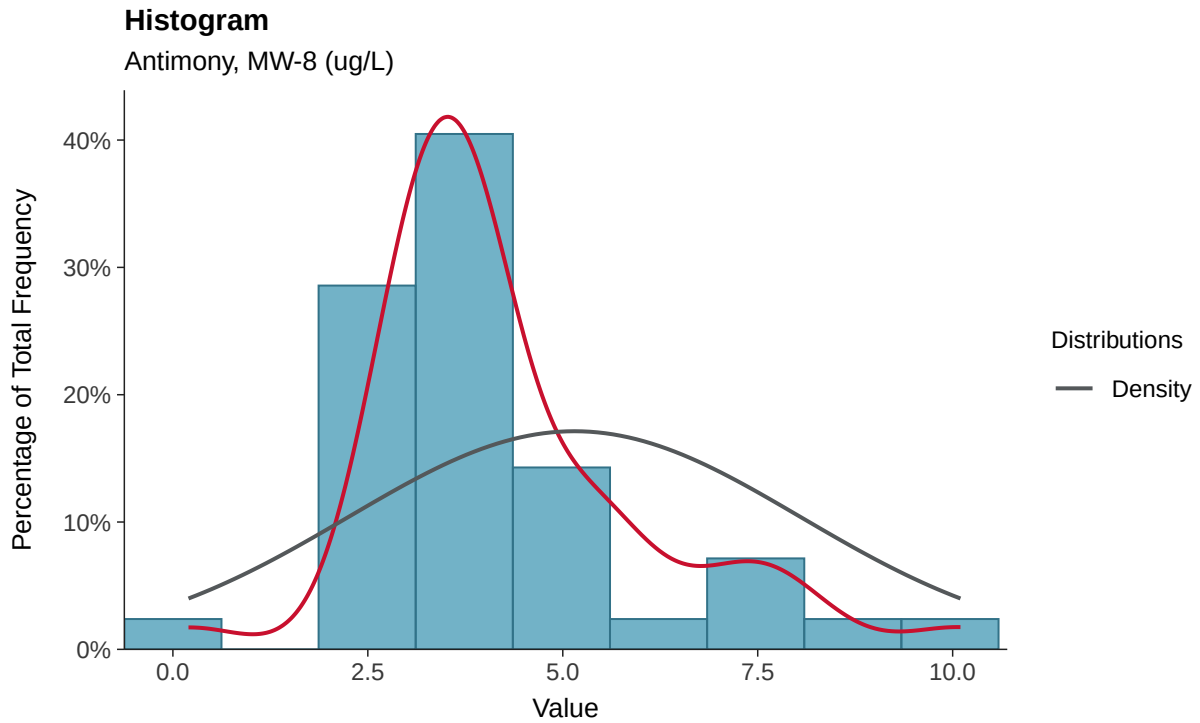
Total Dissolved Solids, MW-8 (mg/L)



App. IV: Antimony, MW-8

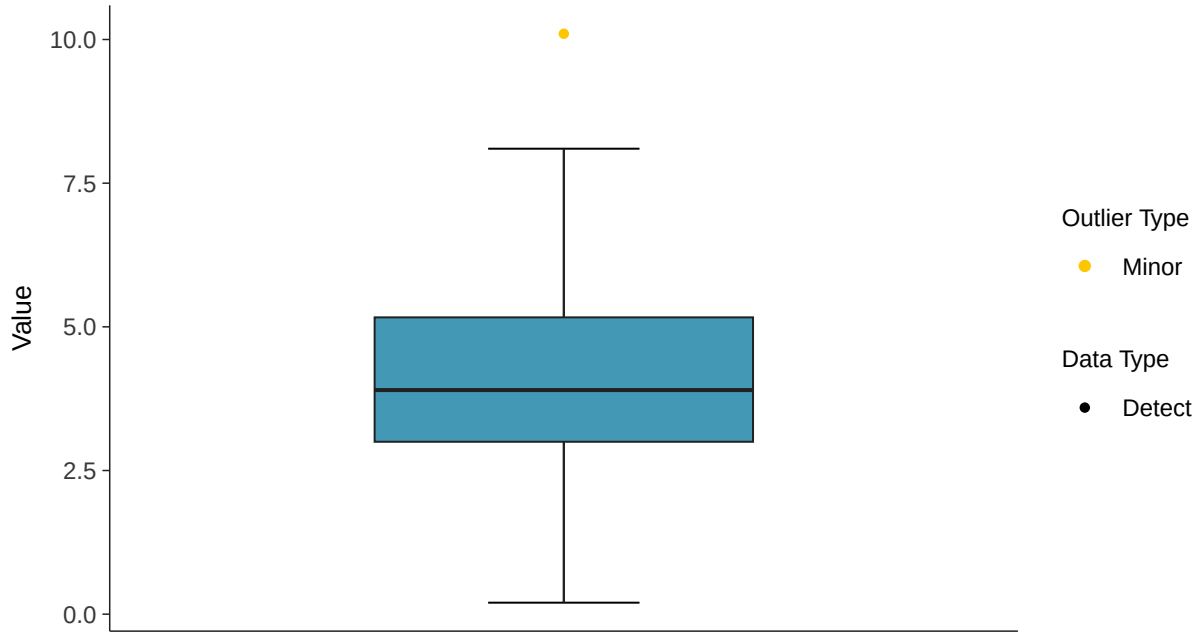
ID: 08_3_101





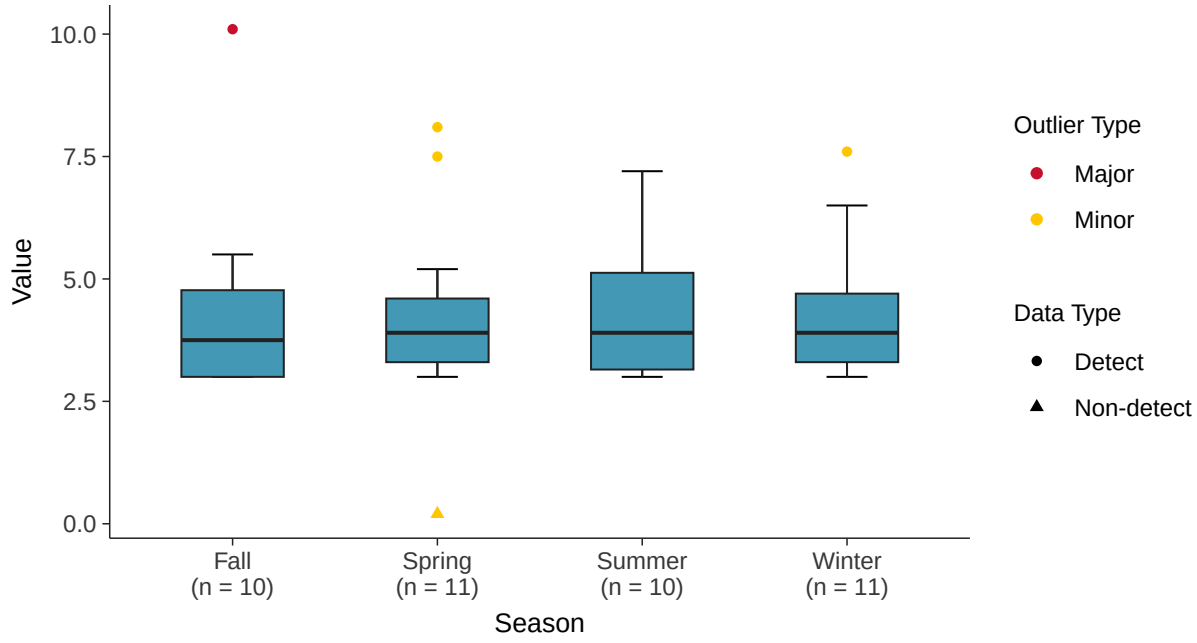
Boxplot

Antimony, MW-8 (ug/L)



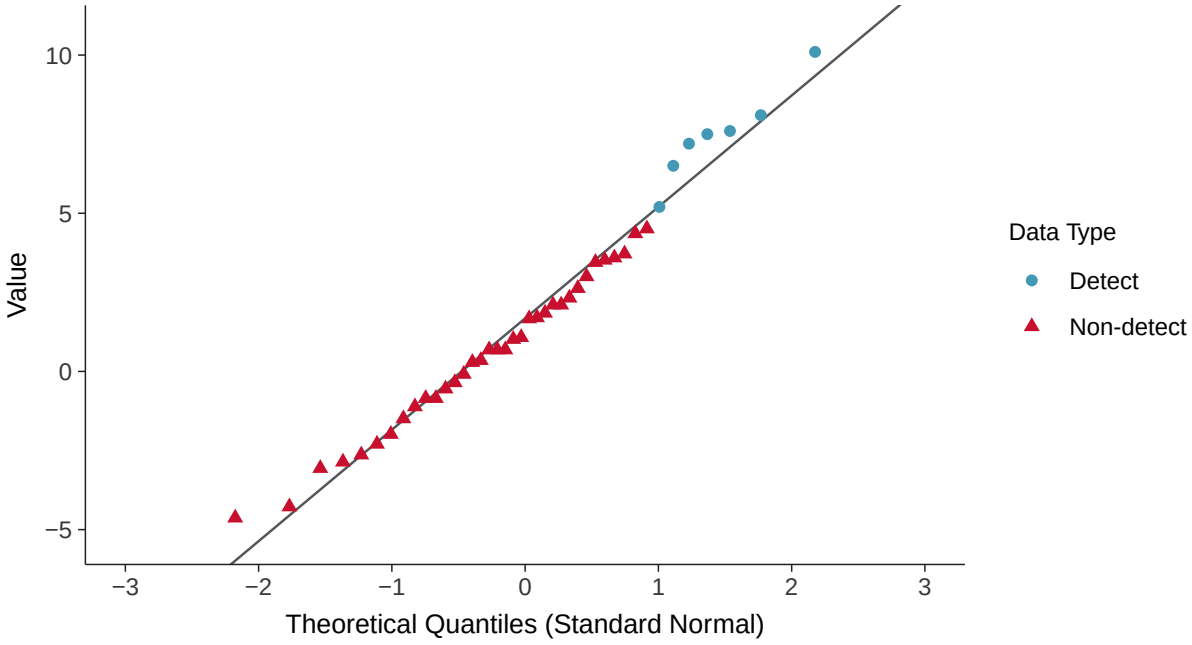
Boxplot by Season

Antimony, MW-8 (ug/L)



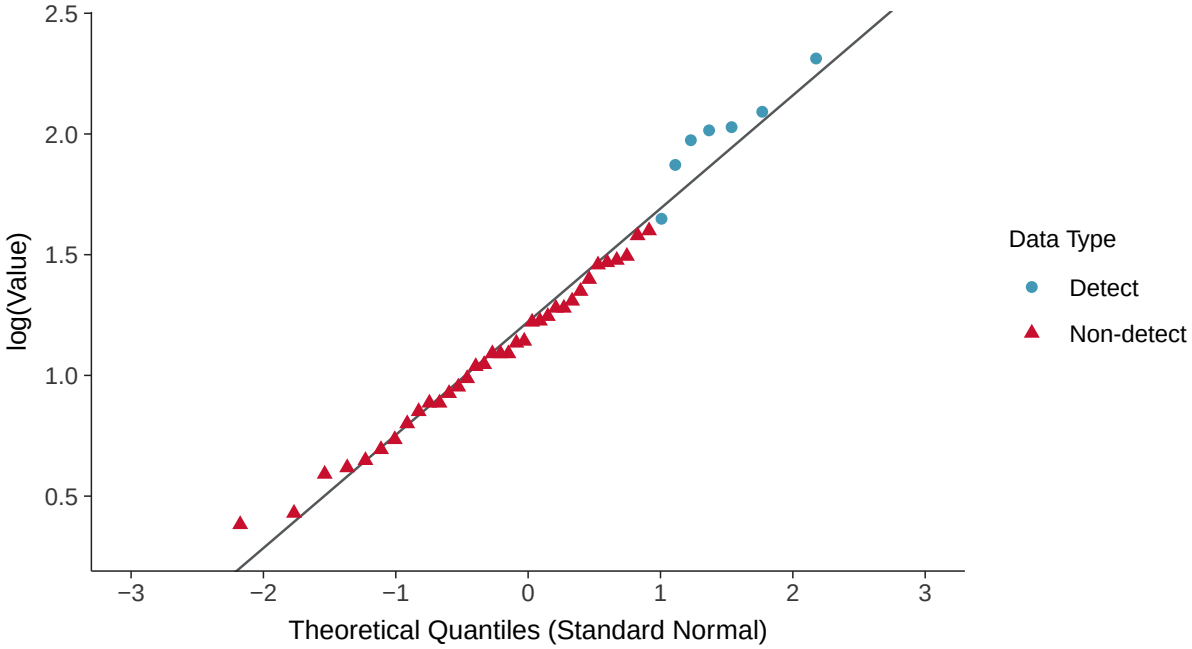
Normal Q-Q plot using ROS Imputed Estimates

Antimony, MW-8 (ug/L)



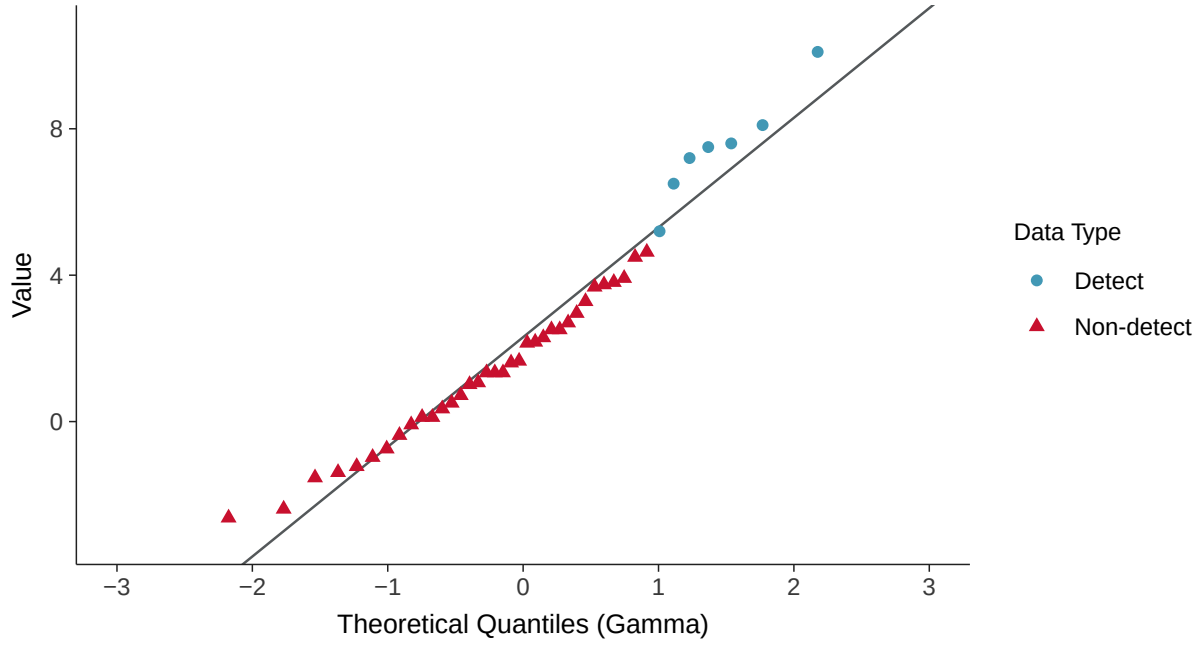
Lognormal Q-Q plot using ROS Imputed Estimates

Antimony, MW-8 (ug/L)



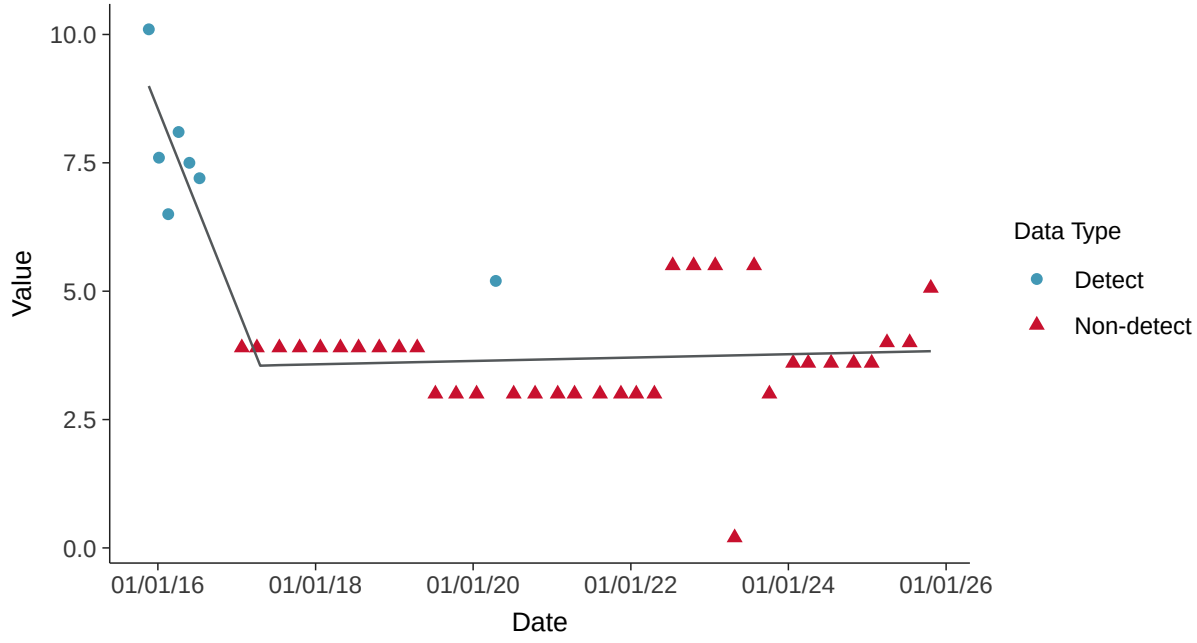
Gamma Q-Q plot using ROS Imputed Estimates

Antimony, MW-8 (ug/L)



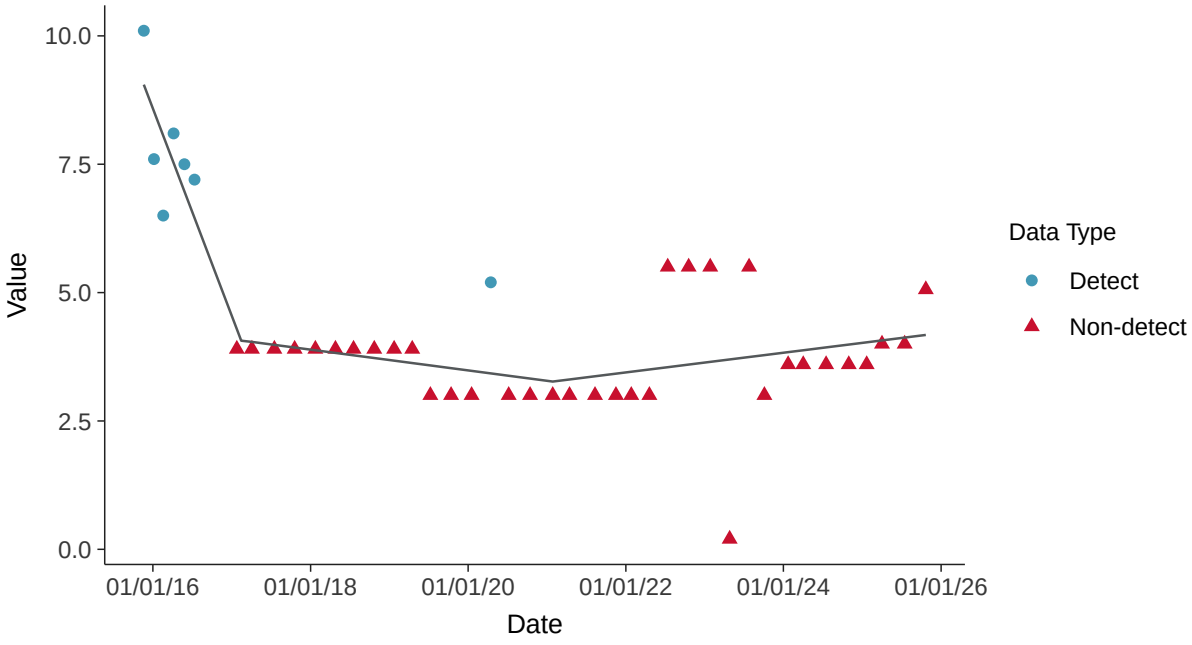
Trend Regression: Piecewise Linear-Linear

Antimony, MW-8 (ug/L)



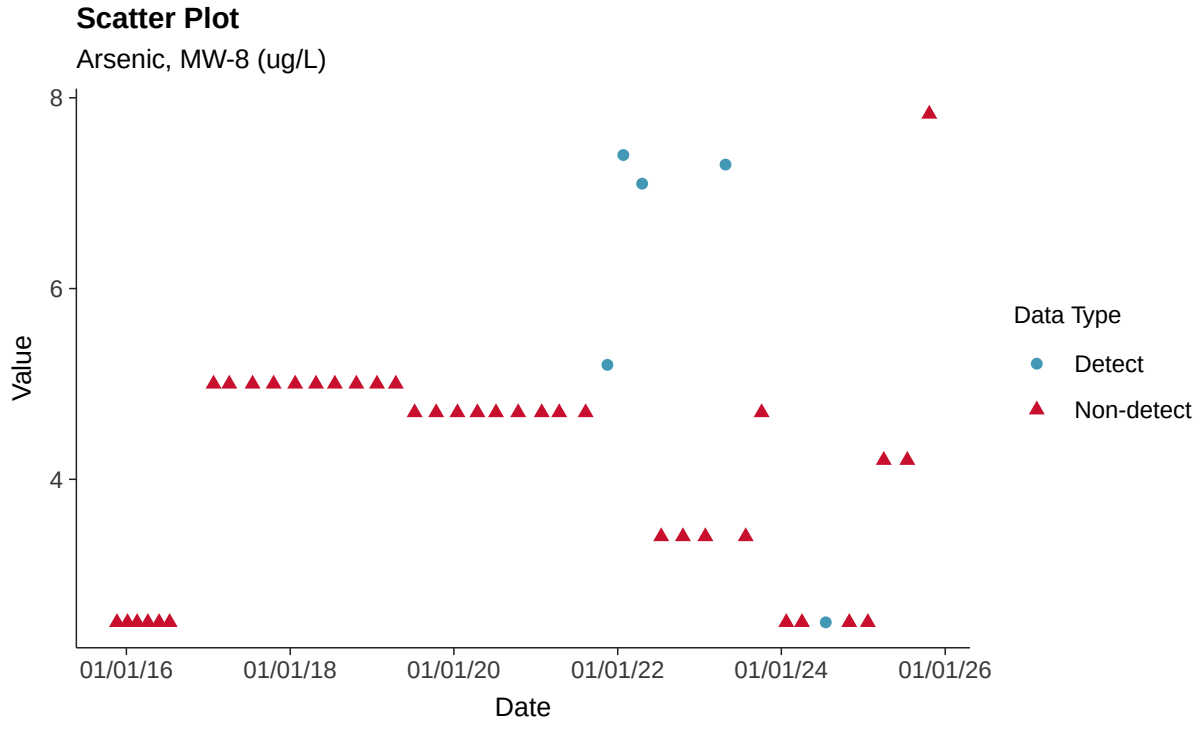
Trend Regression: Piecewise Linear-Linear-Linear

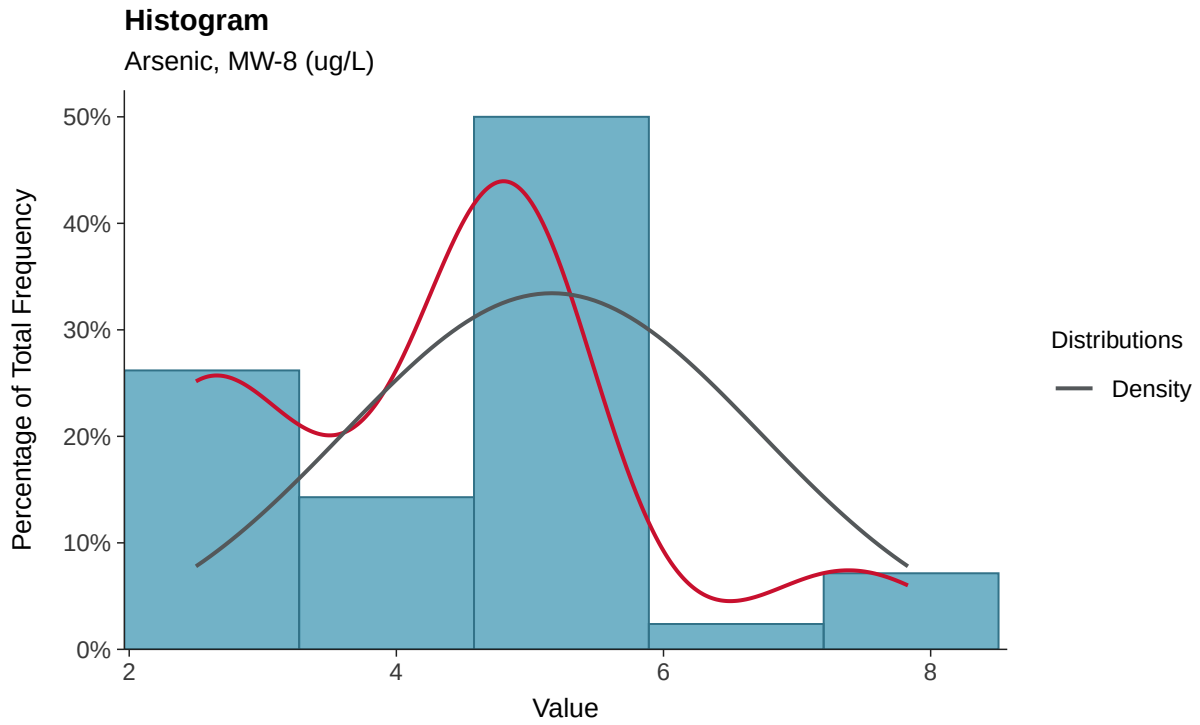
Antimony, MW-8 (ug/L)



App. IV: Arsenic, MW-8

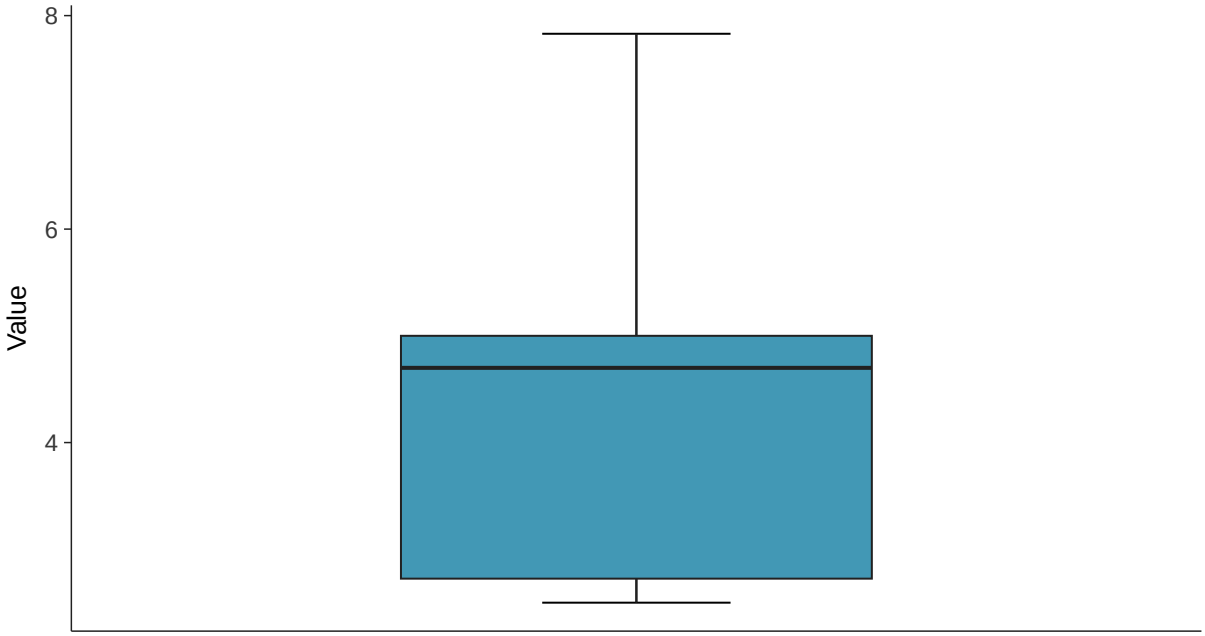
ID: 08_3_102





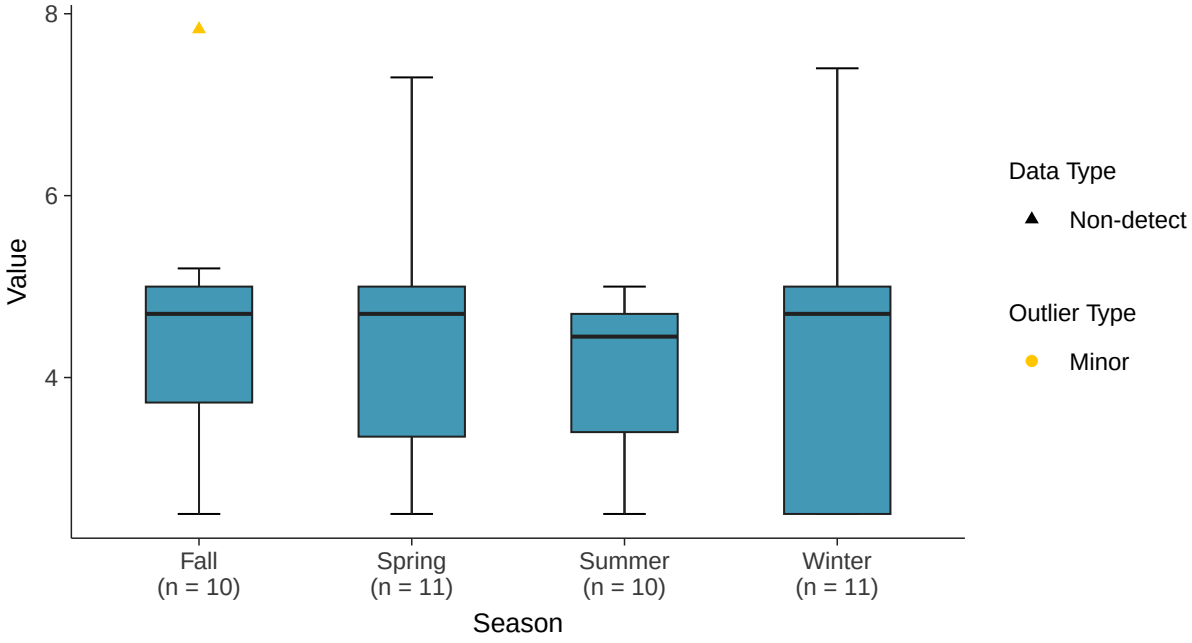
Boxplot

Arsenic, MW-8 (ug/L)



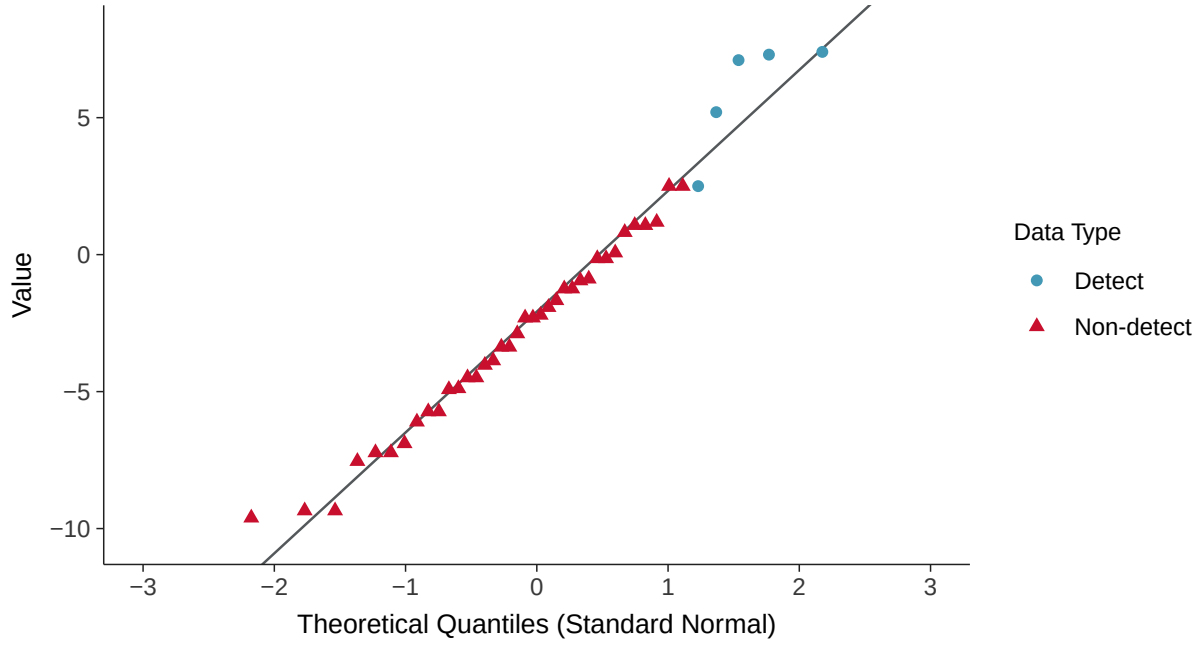
Boxplot by Season

Arsenic, MW-8 (ug/L)



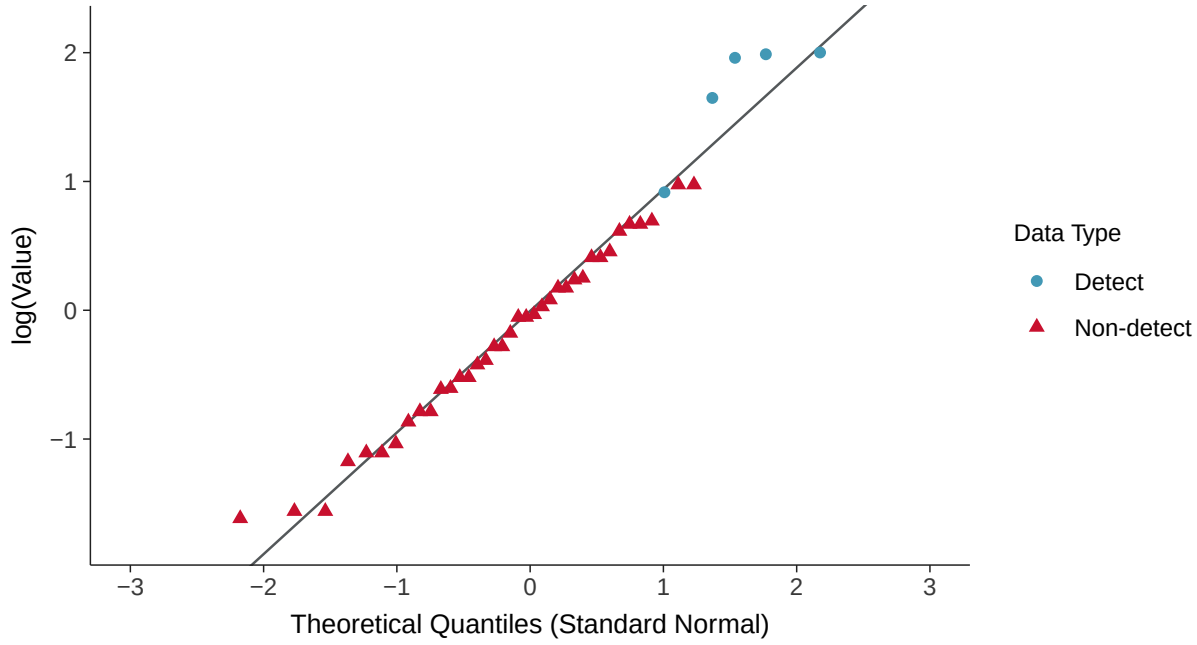
Normal Q-Q plot using ROS Imputed Estimates

Arsenic, MW-8 (ug/L)



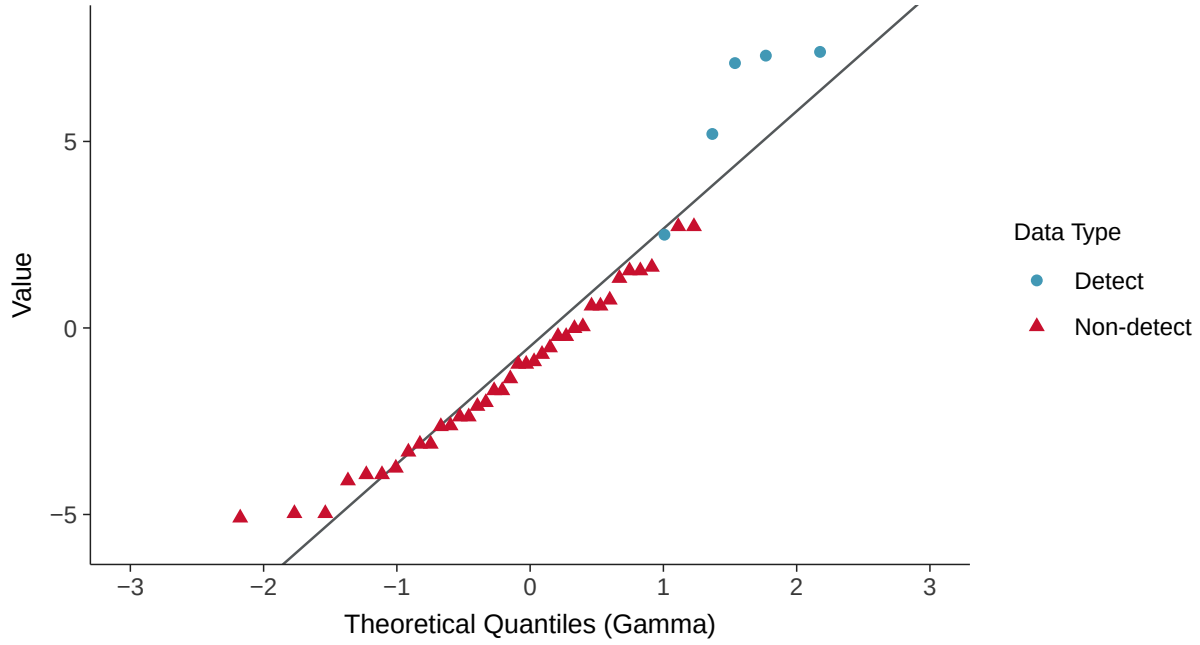
Lognormal Q-Q plot using ROS Imputed Estimates

Arsenic, MW-8 (ug/L)



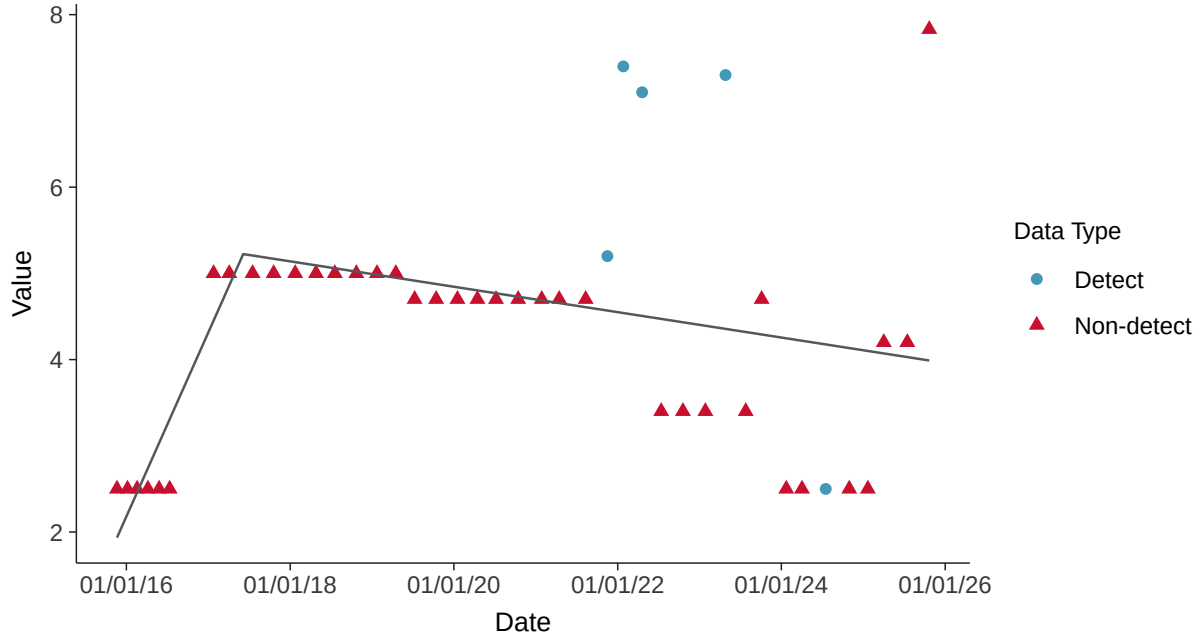
Gamma Q-Q plot using ROS Imputed Estimates

Arsenic, MW-8 (ug/L)



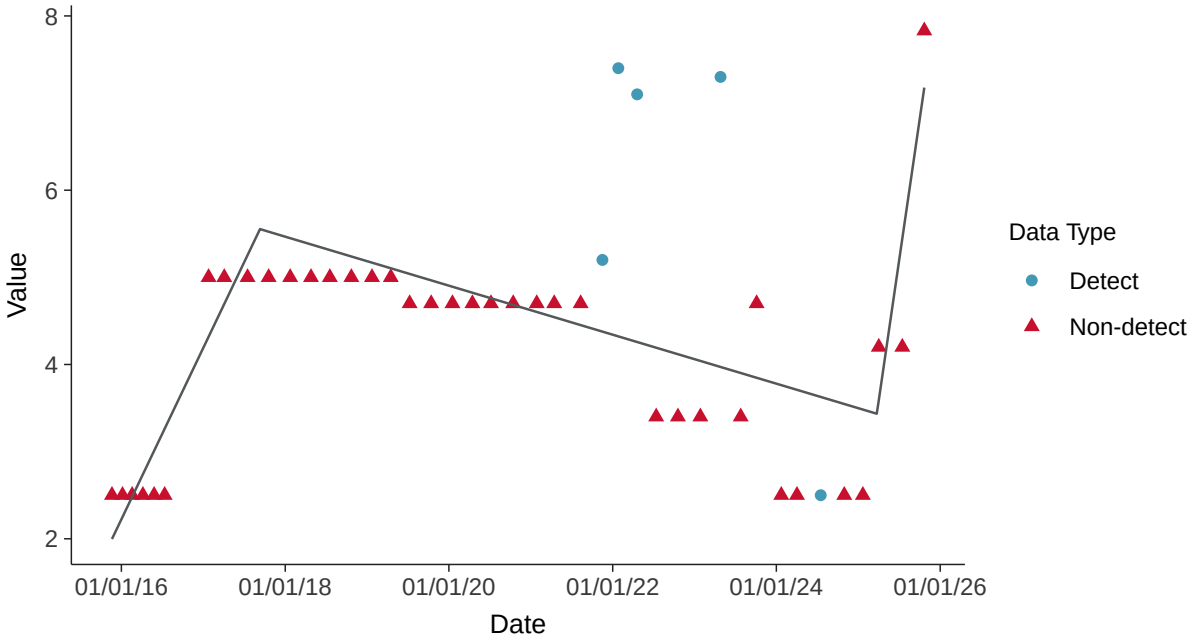
Trend Regression: Piecewise Linear-Linear

Arsenic, MW-8 (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Arsenic, MW-8 (ug/L)

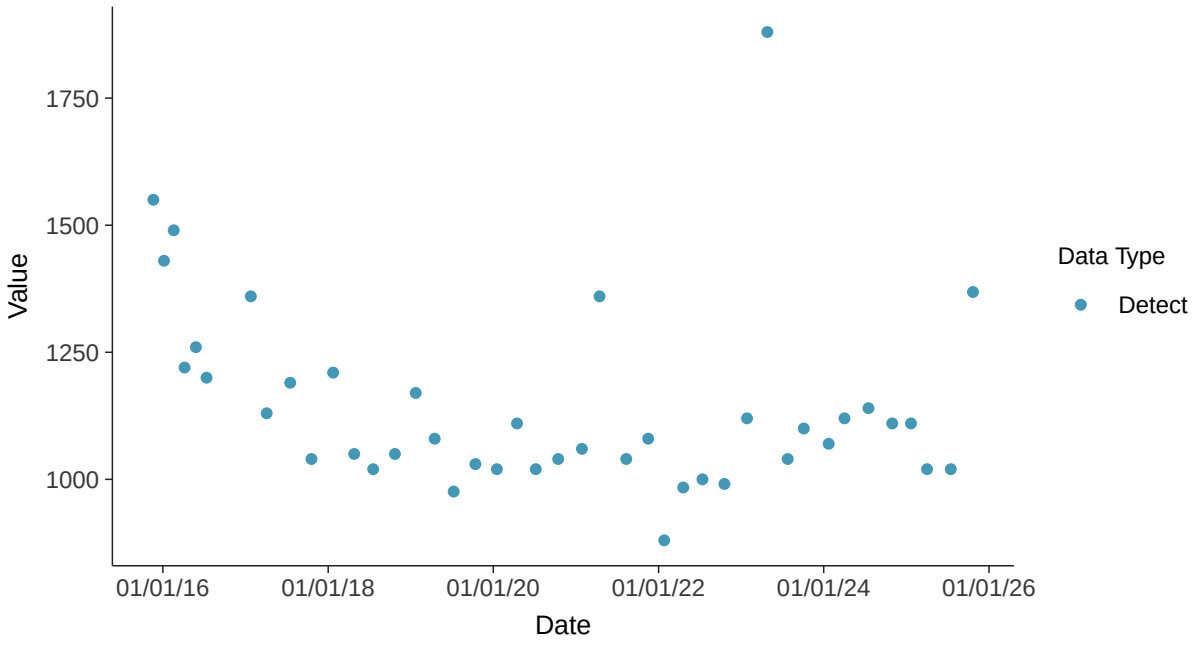


App. IV: Barium, MW-8

ID: 08_3_103

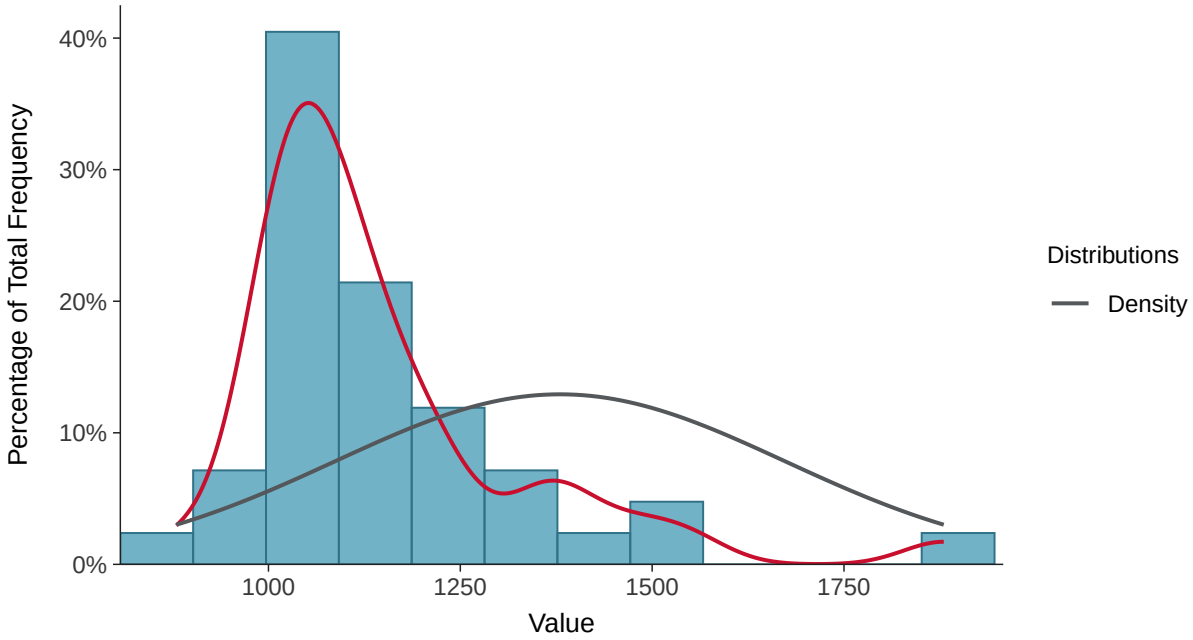
Scatter Plot

Barium, MW-8 (ug/L)



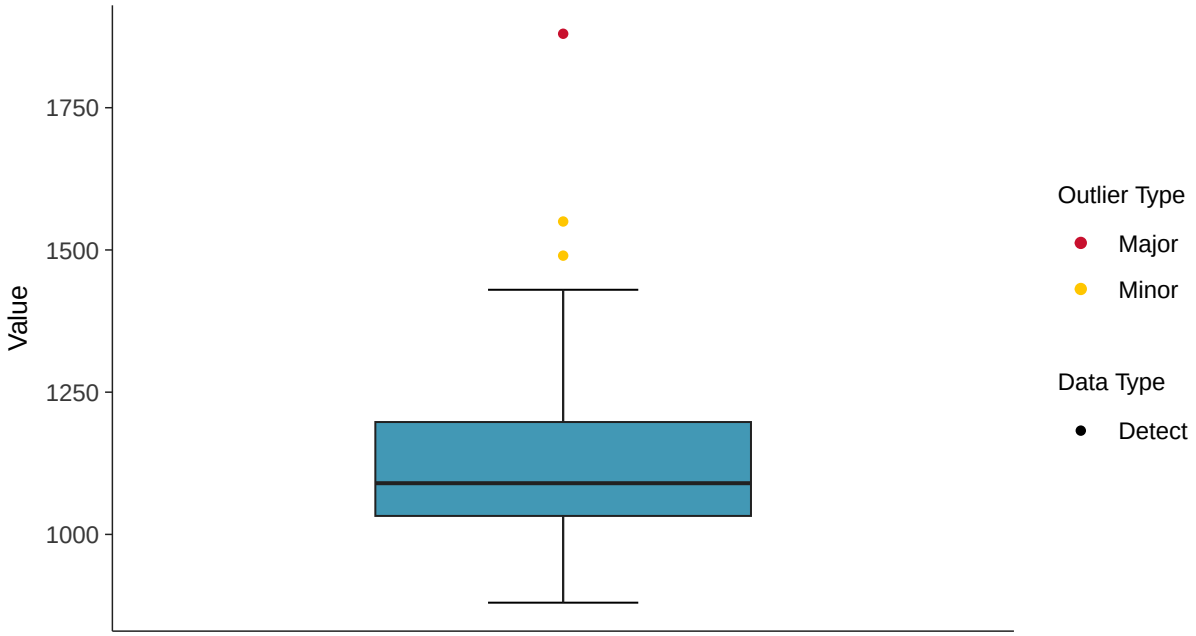
Histogram

Barium, MW-8 (ug/L)



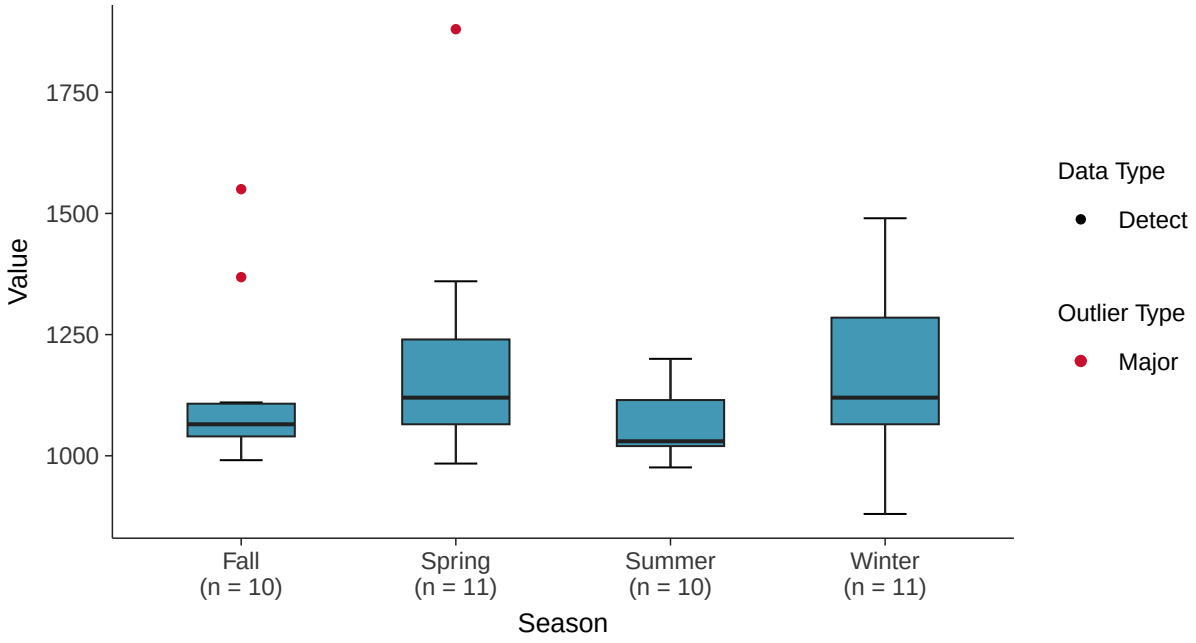
Boxplot

Barium, MW-8 (ug/L)



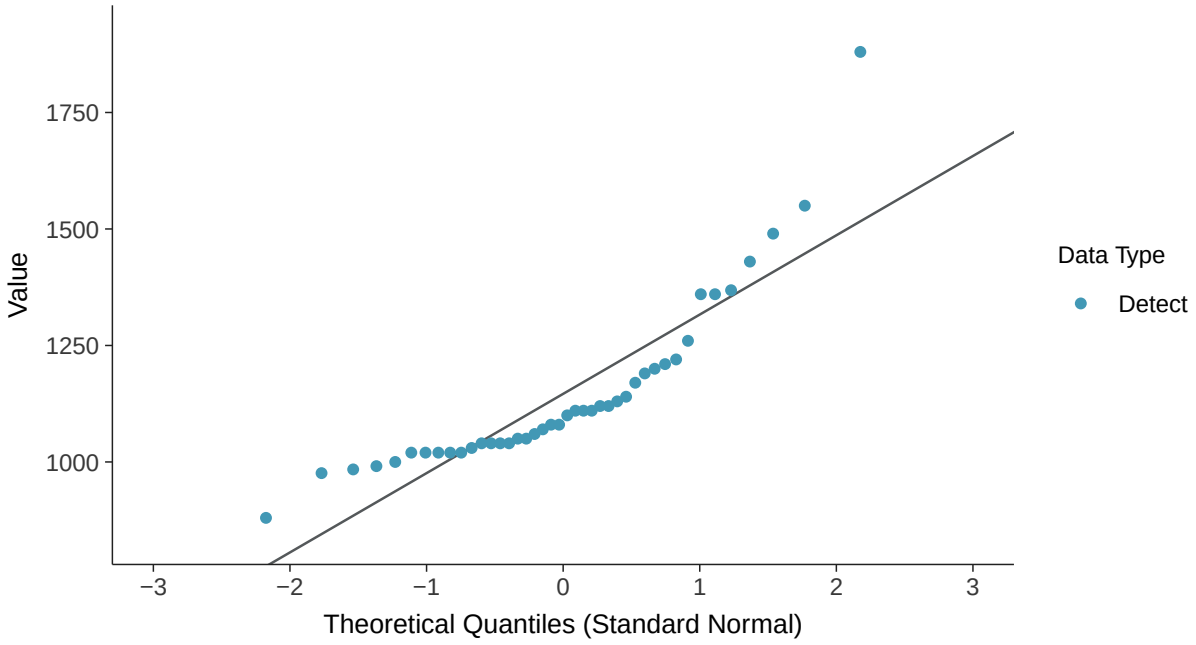
Boxplot by Season

Barium, MW-8 (ug/L)



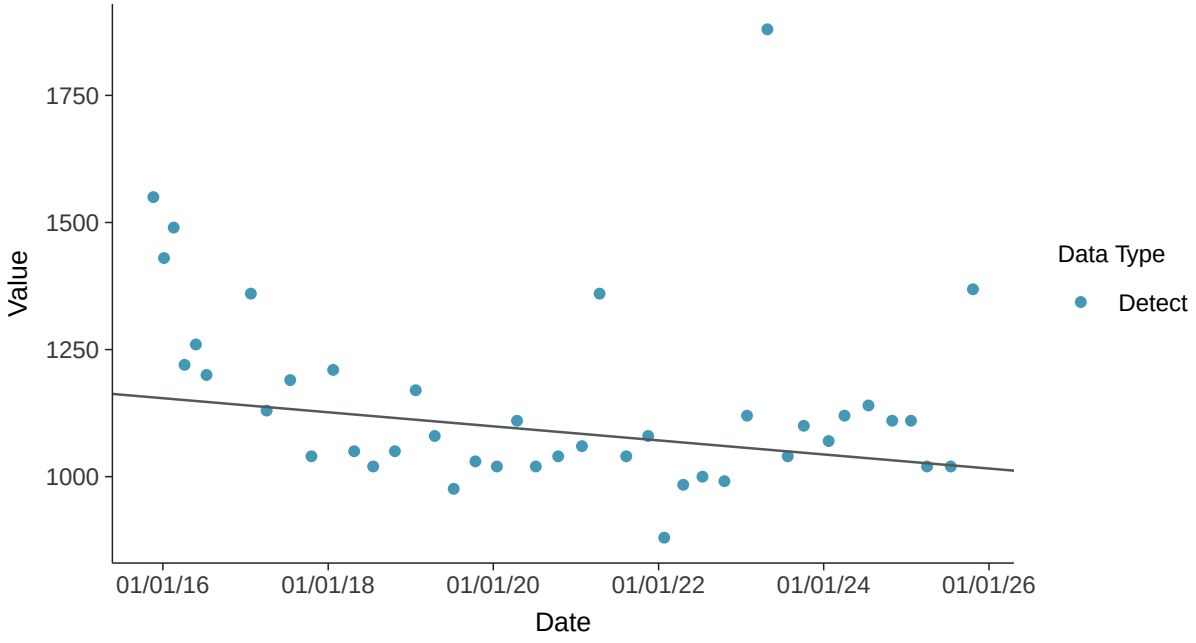
Normal Q-Q plot

Barium, MW-8 (ug/L)



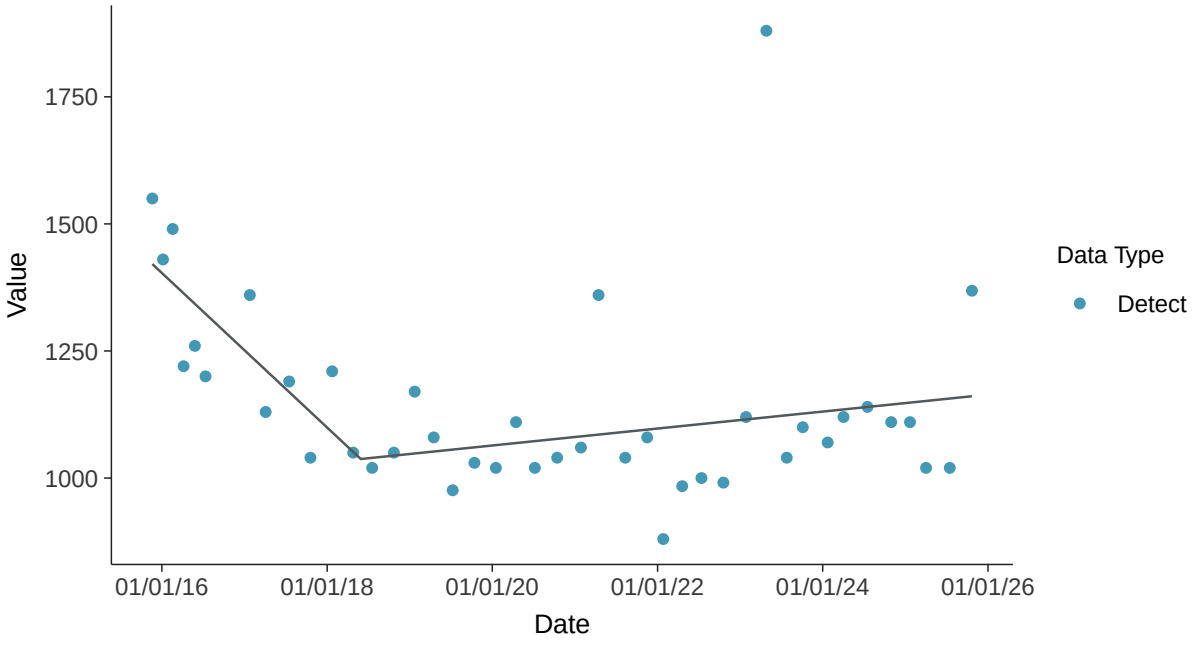
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Barium, MW-8 (ug/L)



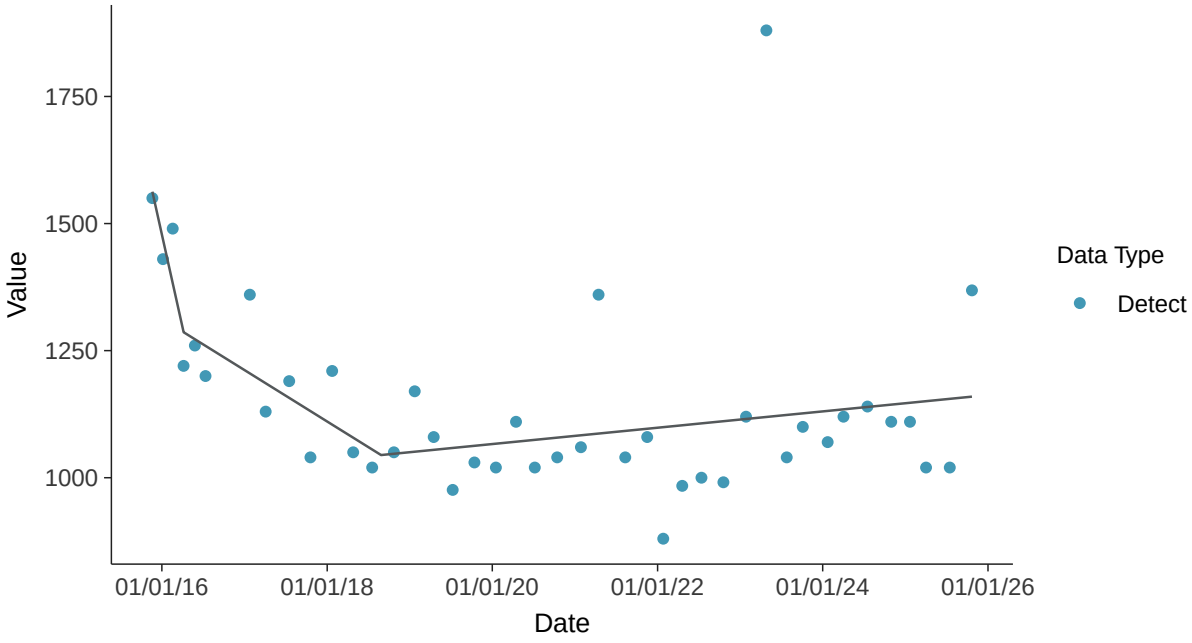
Trend Regression: Piecewise Linear-Linear

Barium, MW-8 (ug/L)



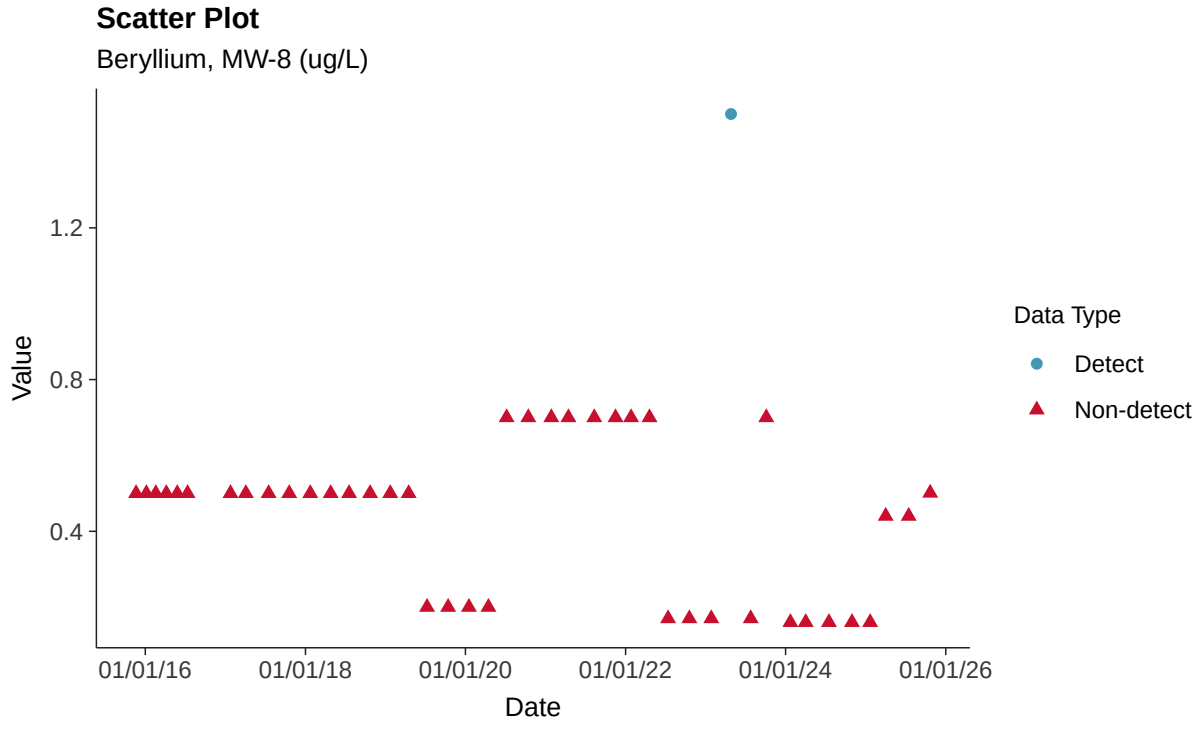
Trend Regression: Piecewise Linear-Linear-Linear

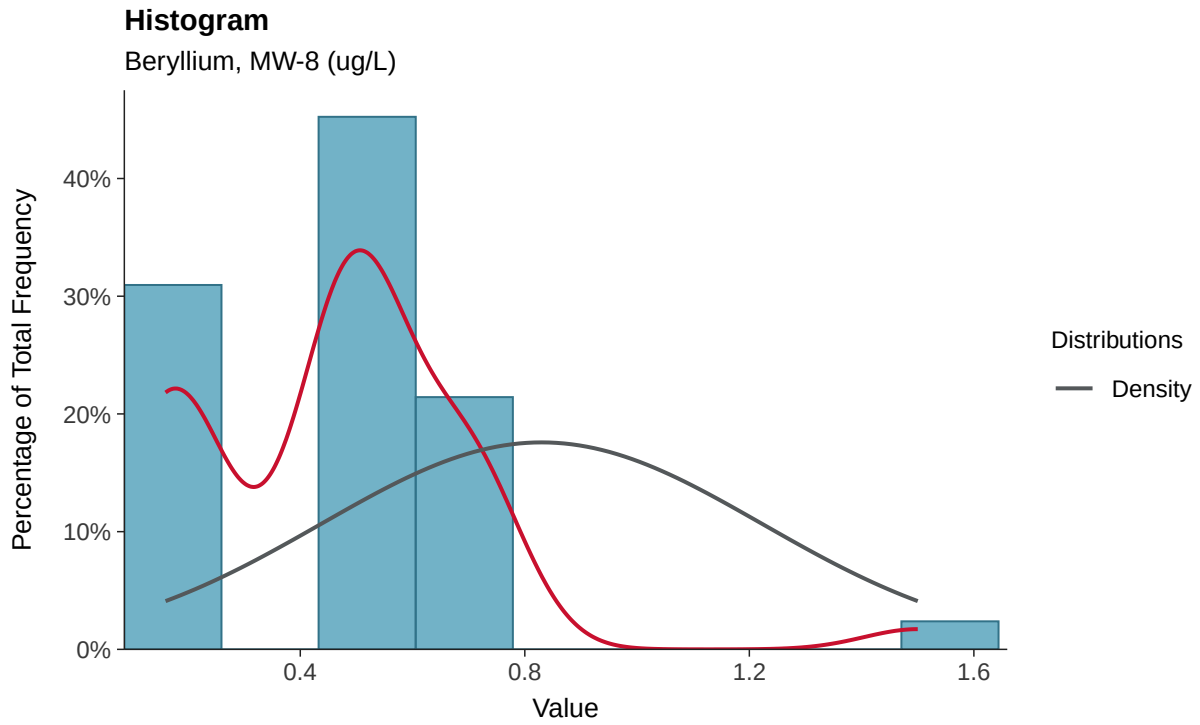
Barium, MW-8 (ug/L)



App. IV: Beryllium, MW-8

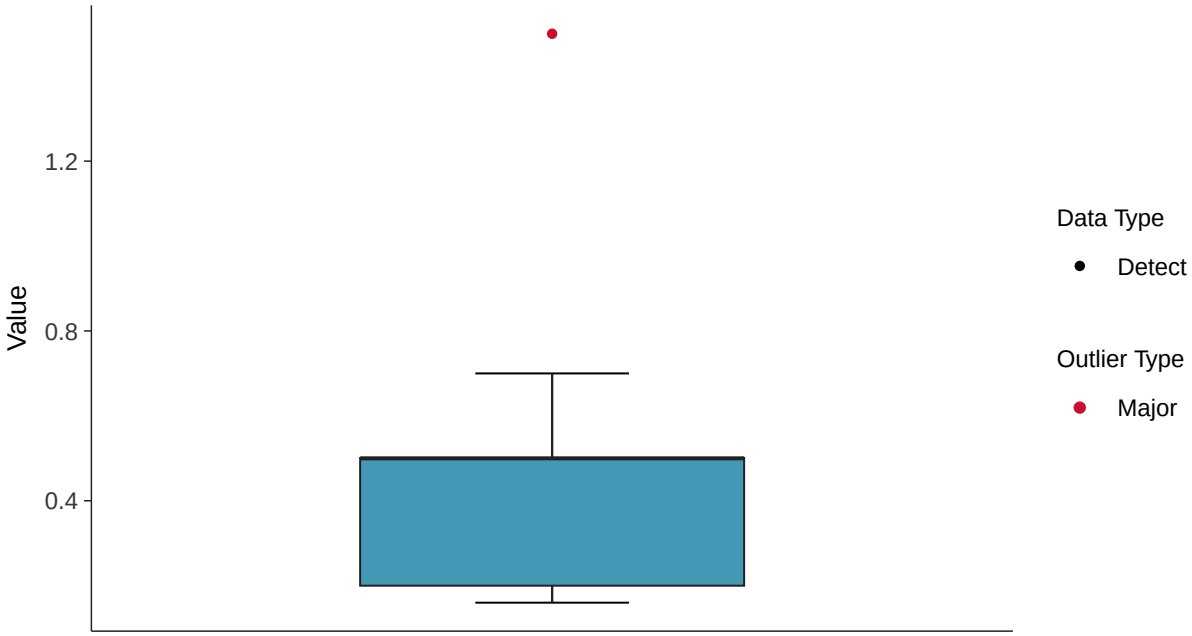
ID: 08_3_104





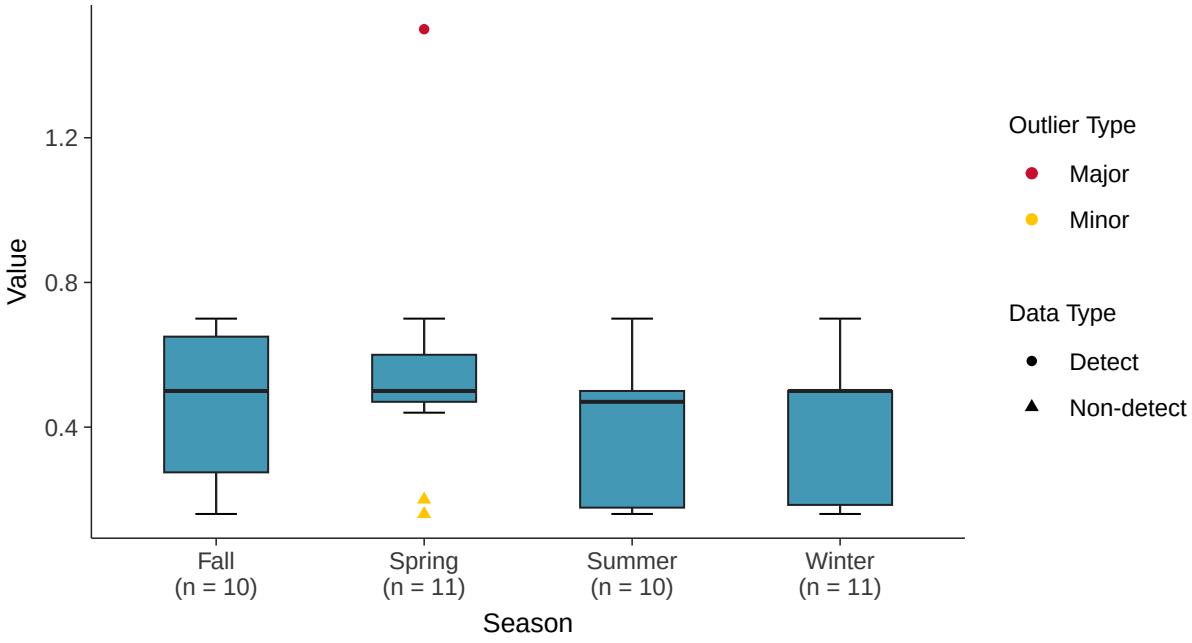
Boxplot

Beryllium, MW-8 (ug/L)



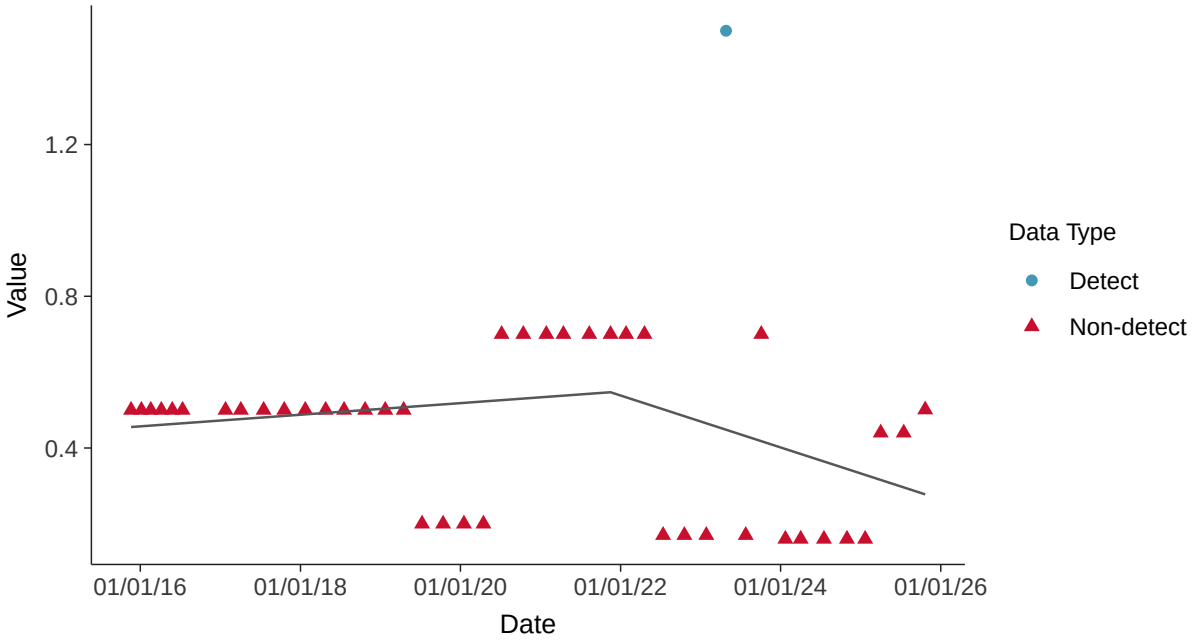
Boxplot by Season

Beryllium, MW-8 (ug/L)



Trend Regression: Piecewise Linear-Linear

Beryllium, MW-8 (ug/L)

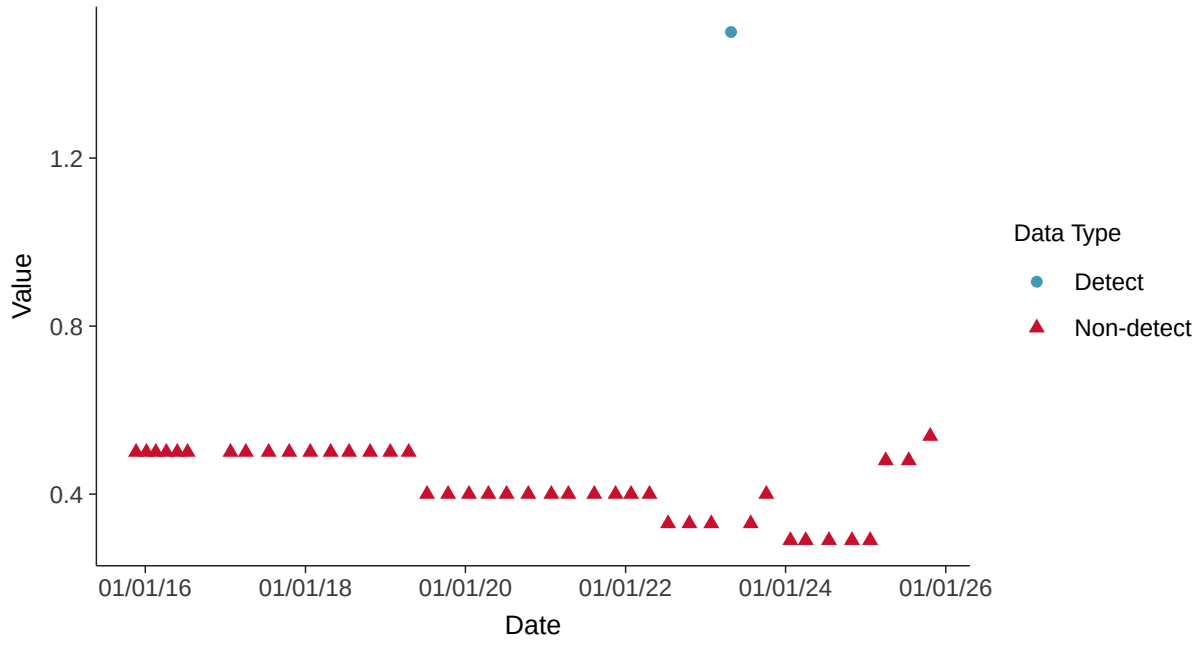


App. IV: Cadmium, MW-8

ID: 08_3_106

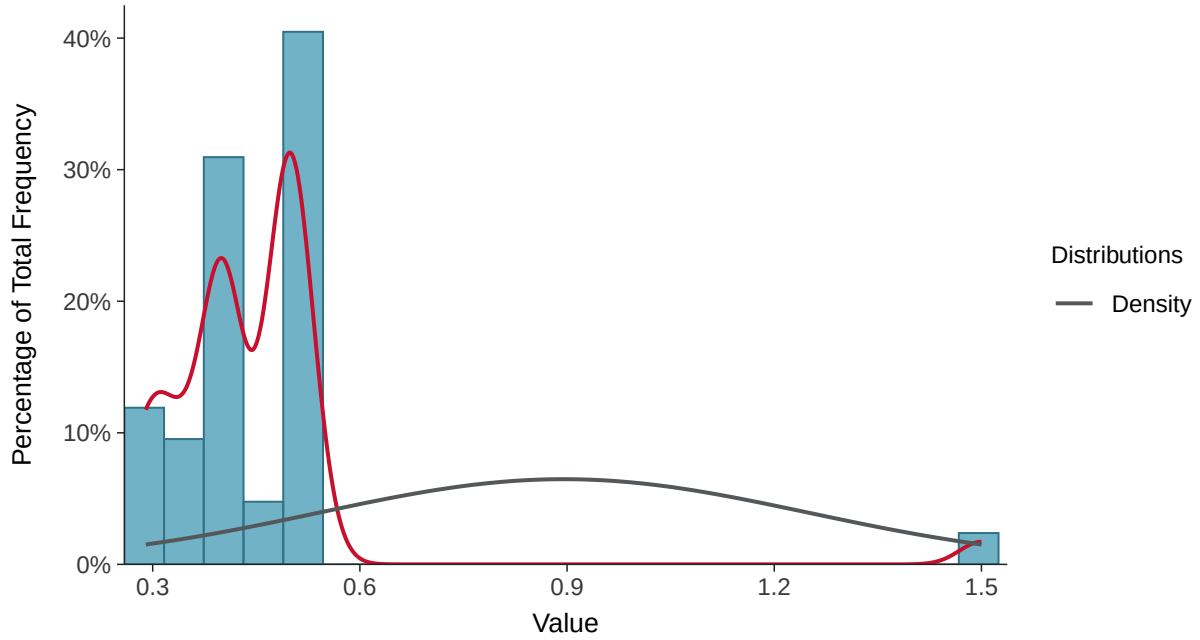
Scatter Plot

Cadmium, MW-8 (ug/L)



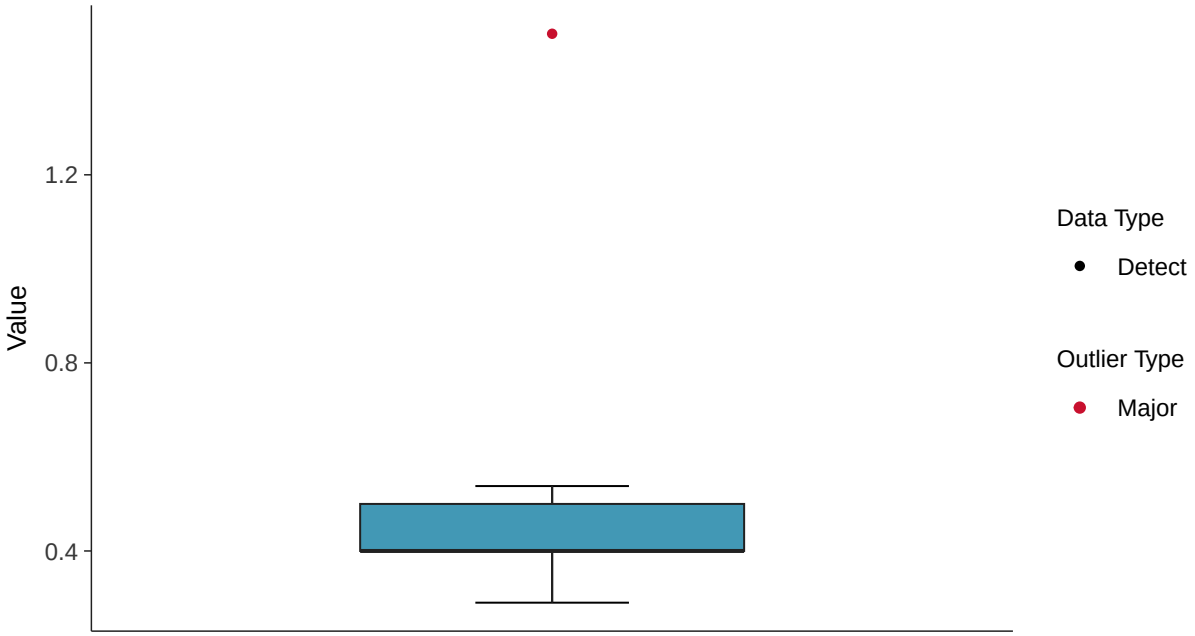
Histogram

Cadmium, MW-8 (ug/L)



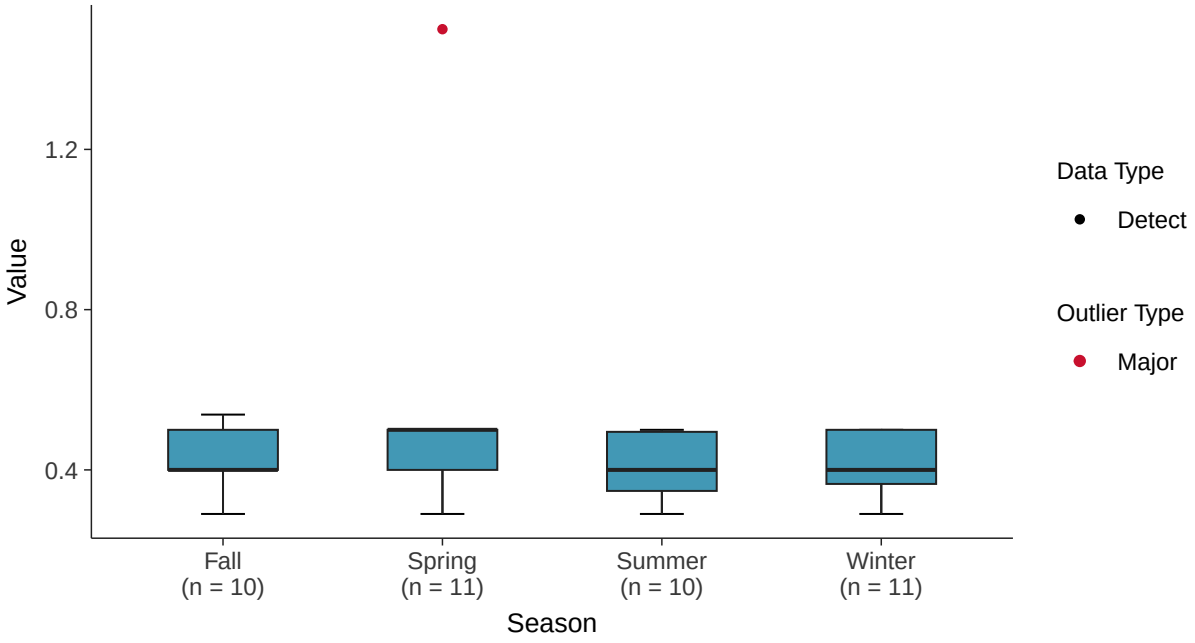
Boxplot

Cadmium, MW-8 (ug/L)



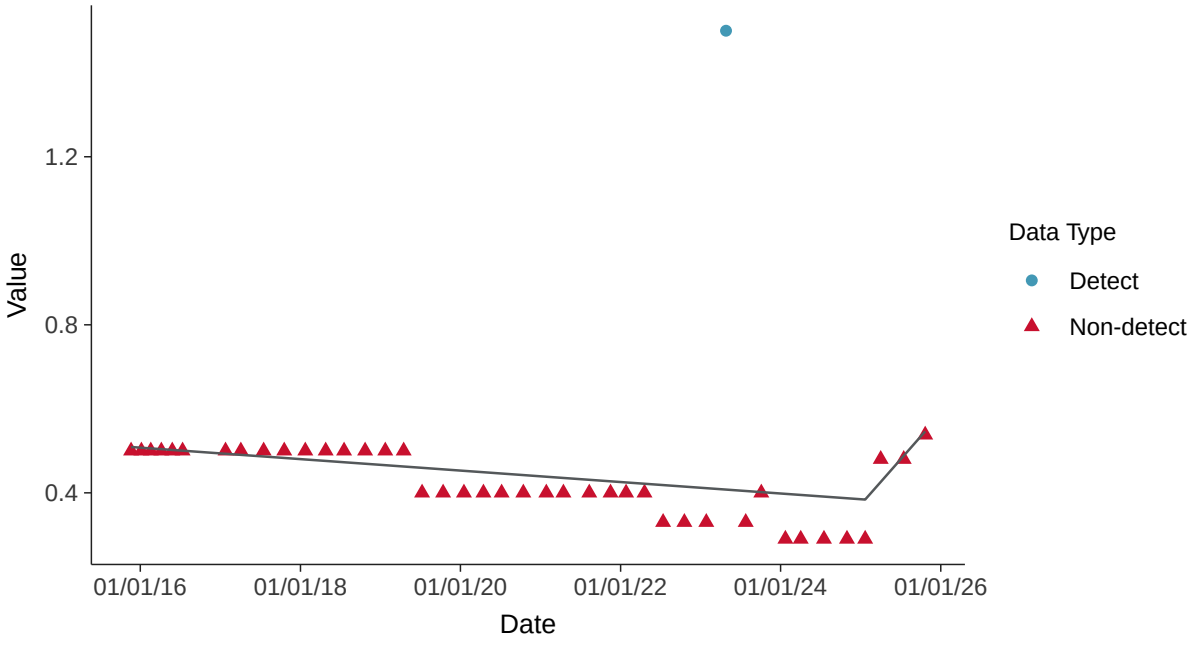
Boxplot by Season

Cadmium, MW-8 (ug/L)



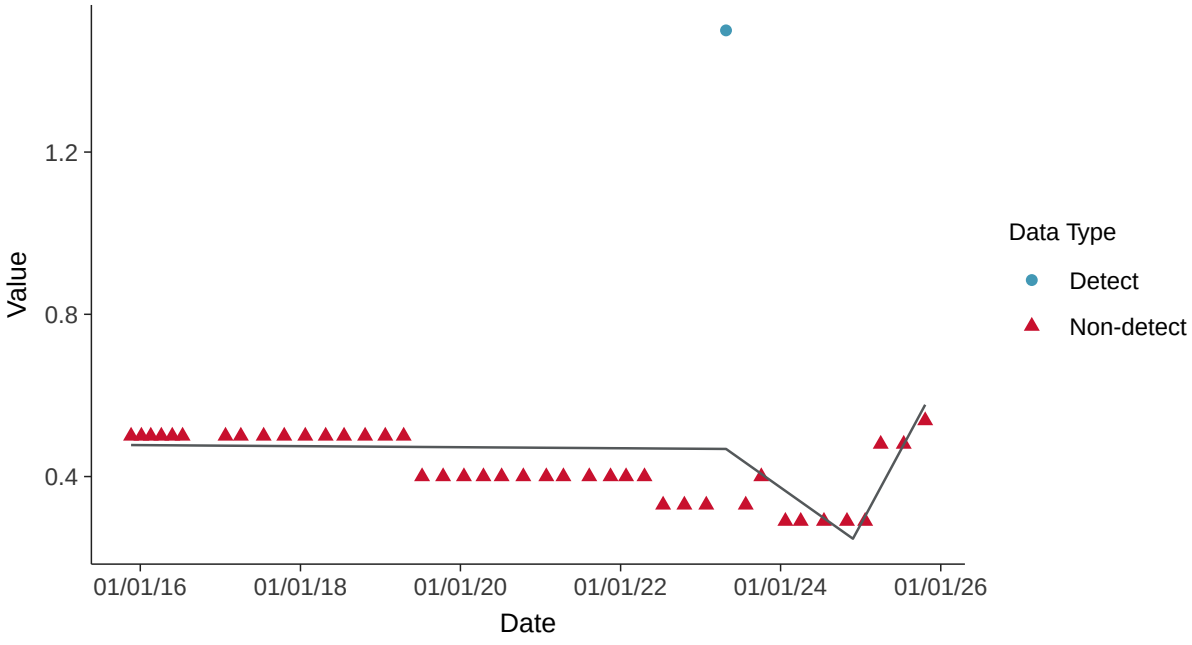
Trend Regression: Piecewise Linear-Linear

Cadmium, MW-8 (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Cadmium, MW-8 (ug/L)

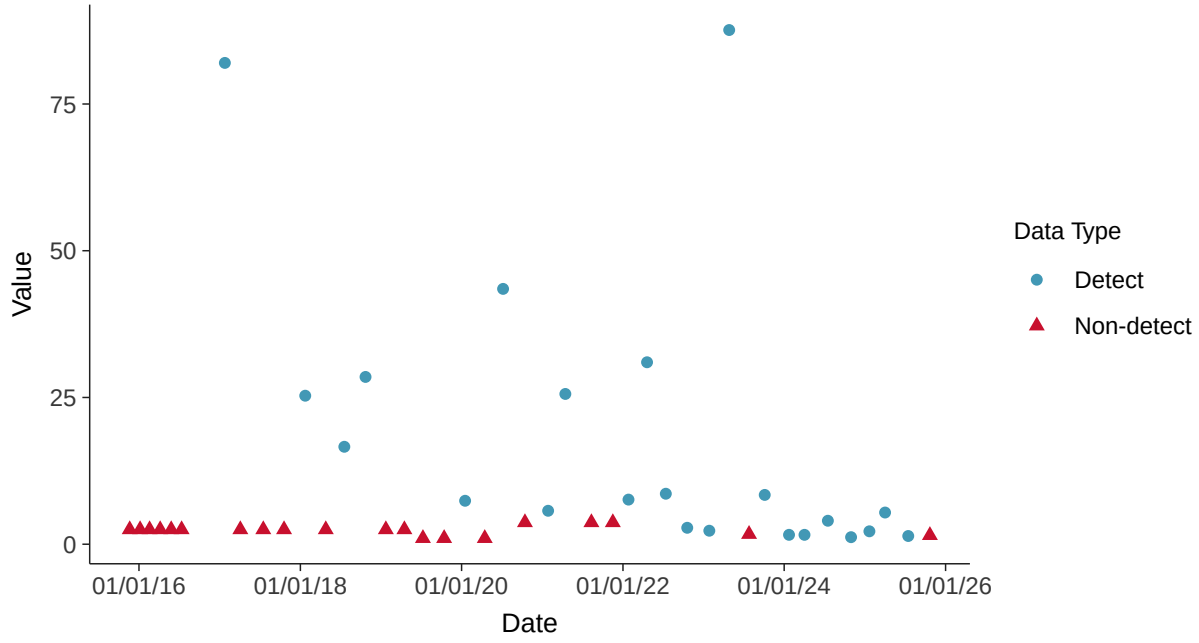


App. IV: Chromium, MW-8

ID: 08_3_109

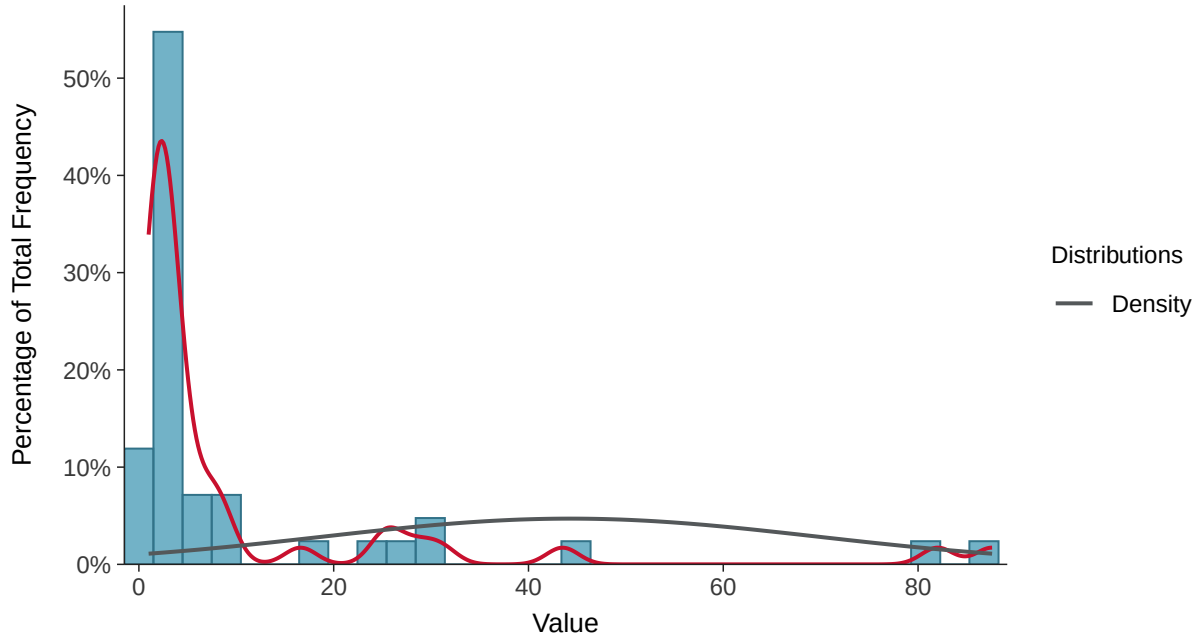
Scatter Plot

Chromium, MW-8 (ug/L)



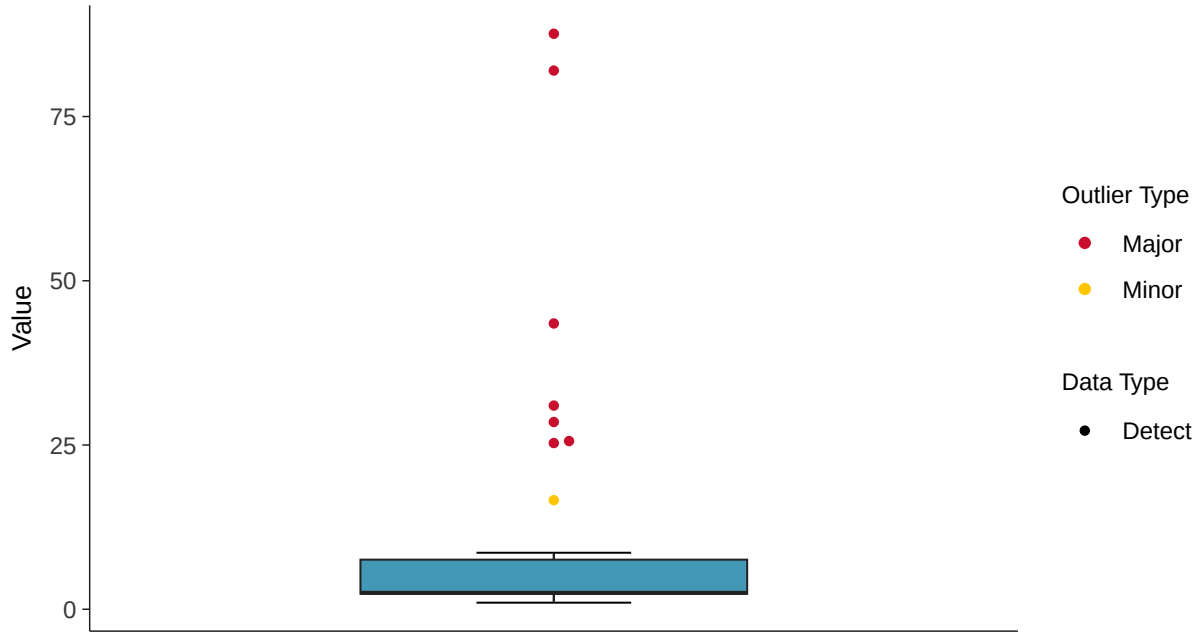
Histogram

Chromium, MW-8 (ug/L)



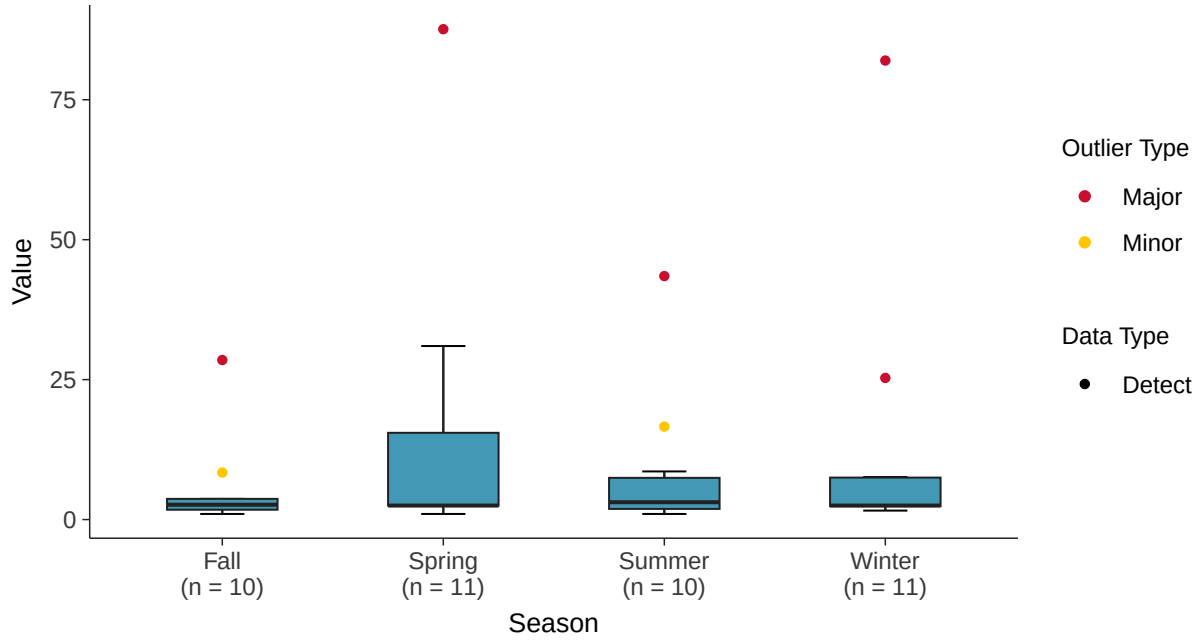
Boxplot

Chromium, MW-8 (ug/L)



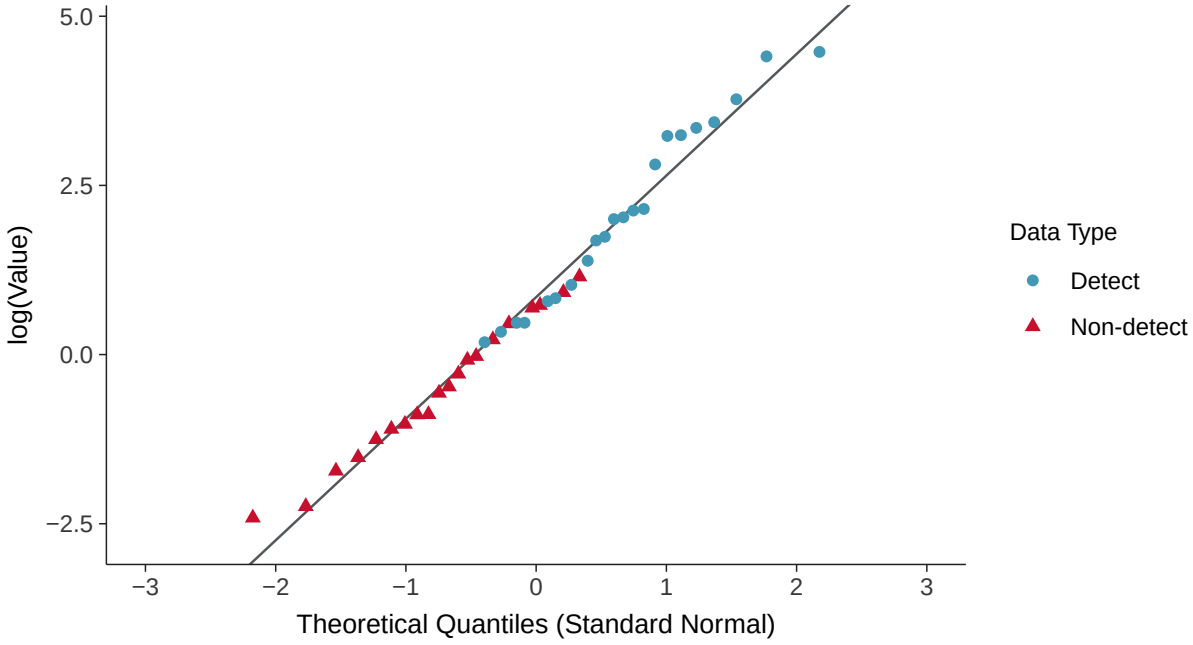
Boxplot by Season

Chromium, MW-8 (ug/L)



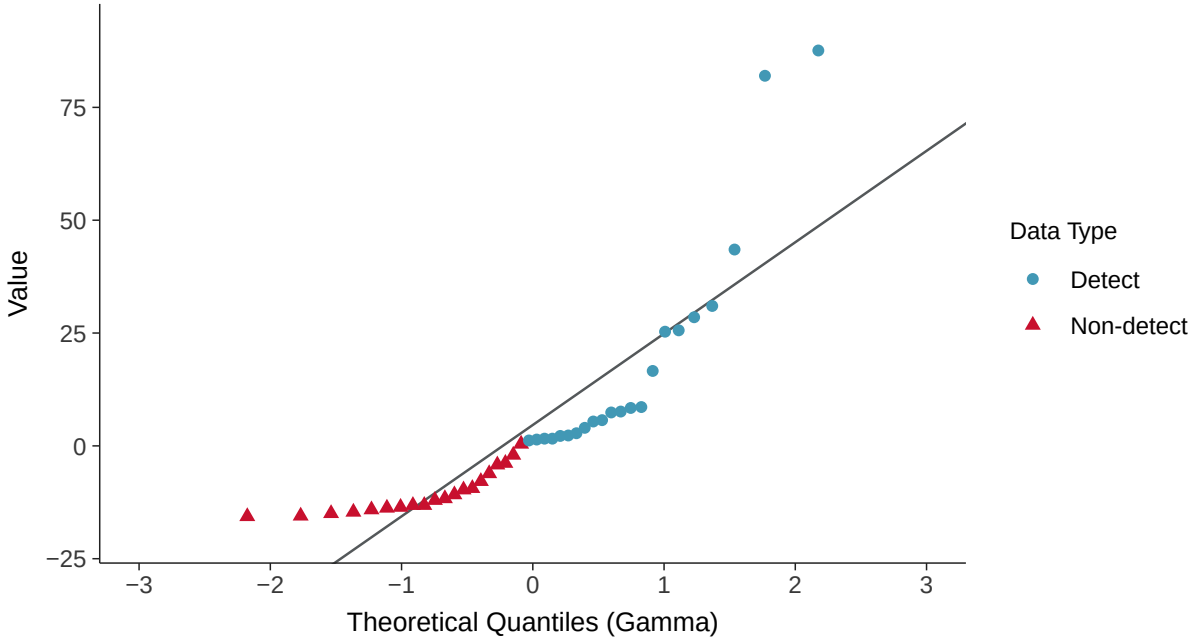
Lognormal Q-Q plot using ROS Imputed Estimates

Chromium, MW-8 (ug/L)



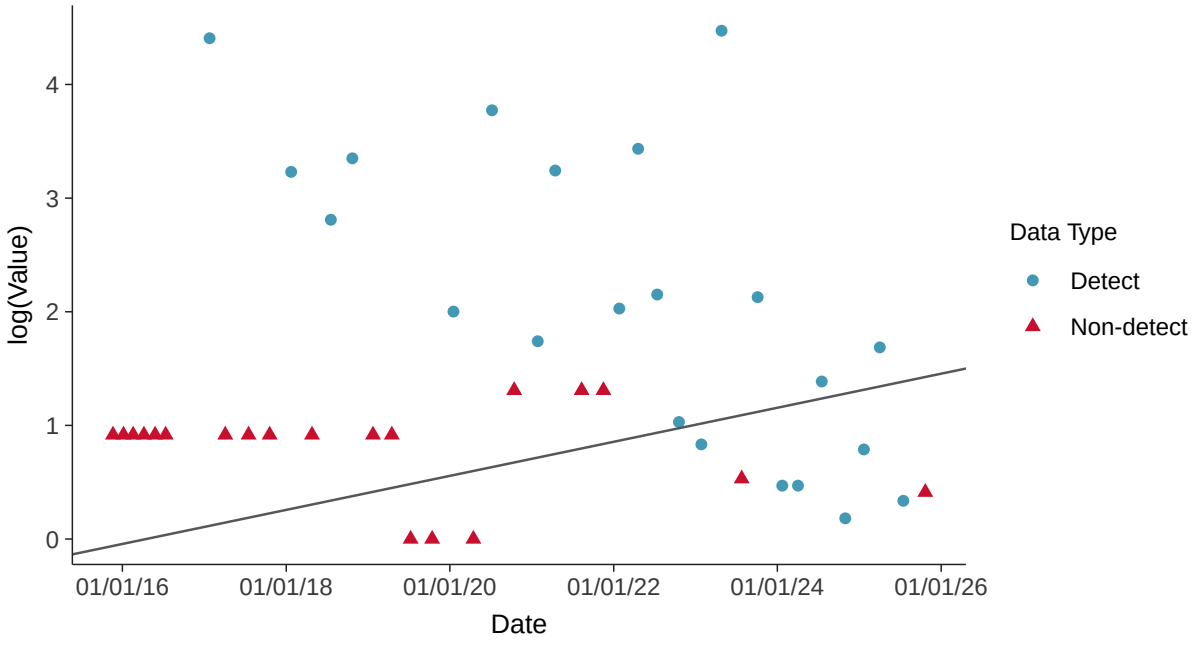
Gamma Q-Q plot using ROS Imputed Estimates

Chromium, MW-8 (ug/L)



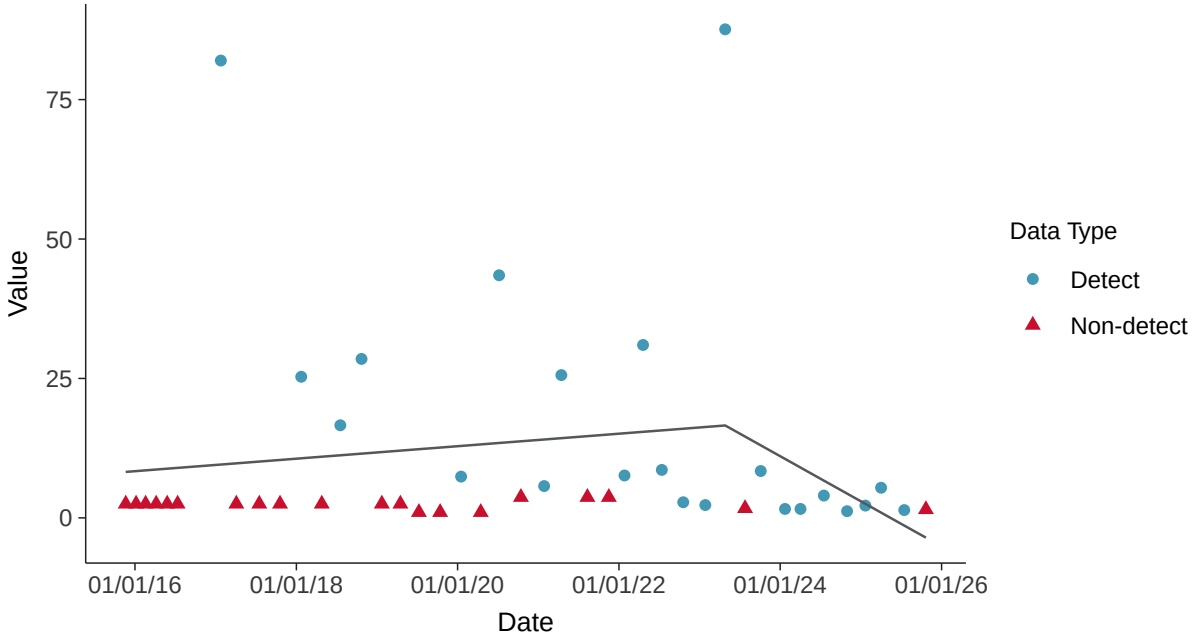
Trend Regression: Lognormal MLE

Chromium, MW-8 (ug/L)



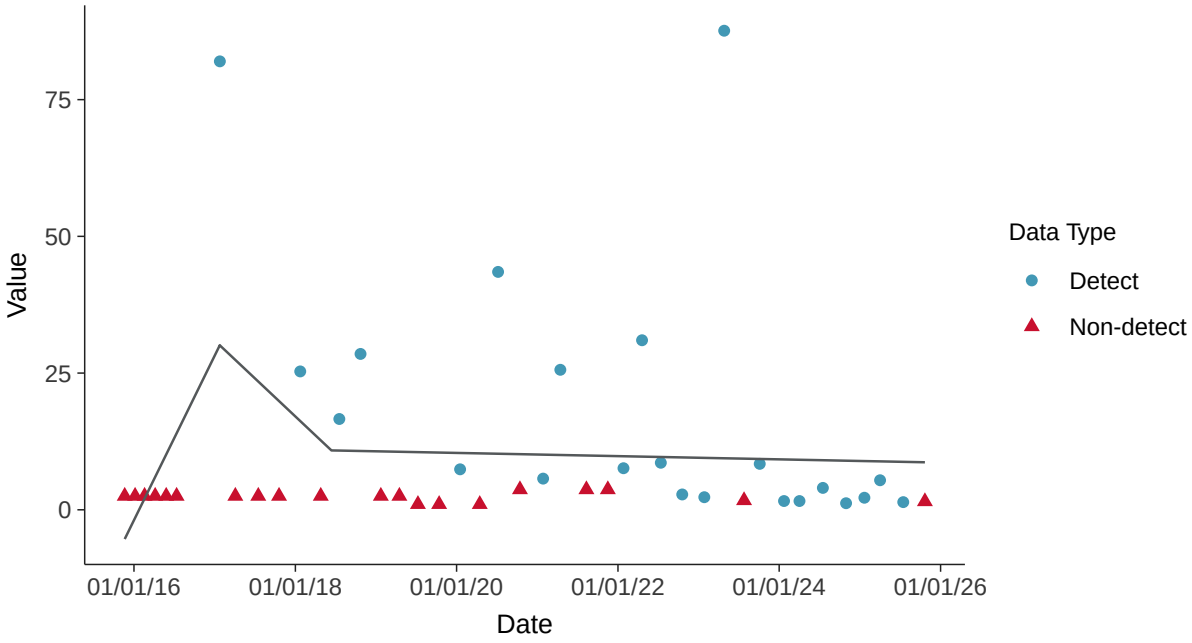
Trend Regression: Piecewise Linear-Linear

Chromium, MW-8 (ug/L)



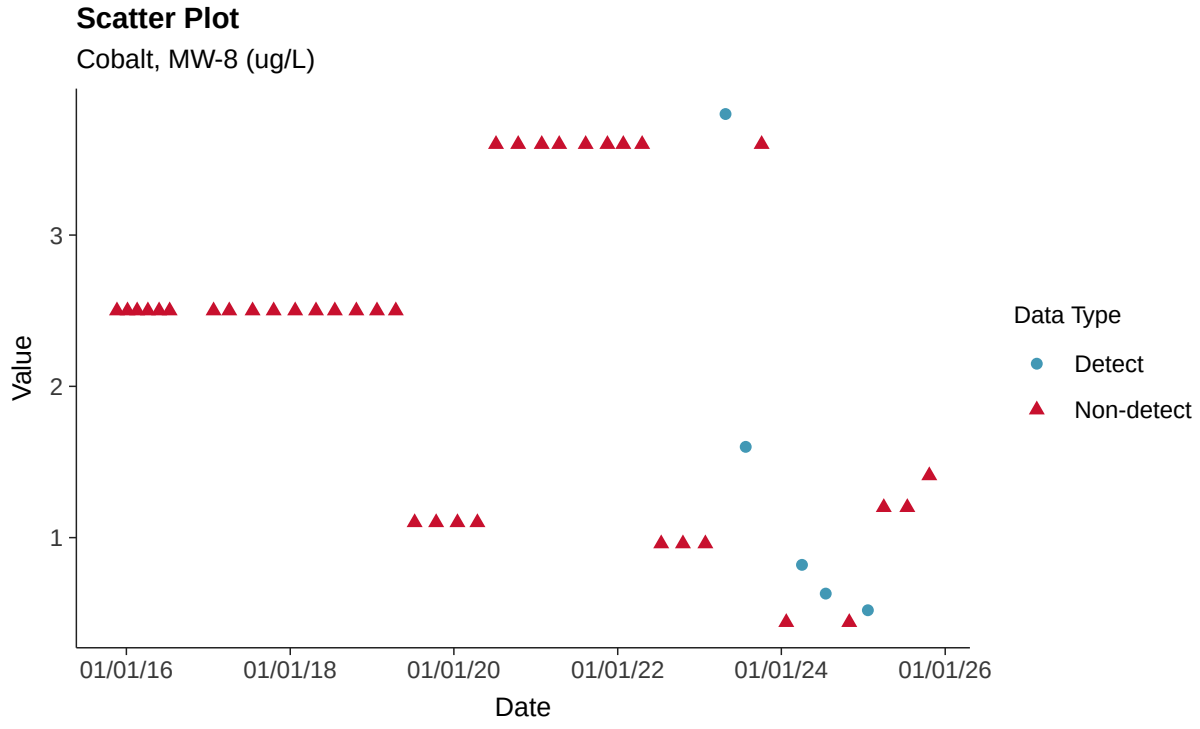
Trend Regression: Piecewise Linear-Linear-Linear

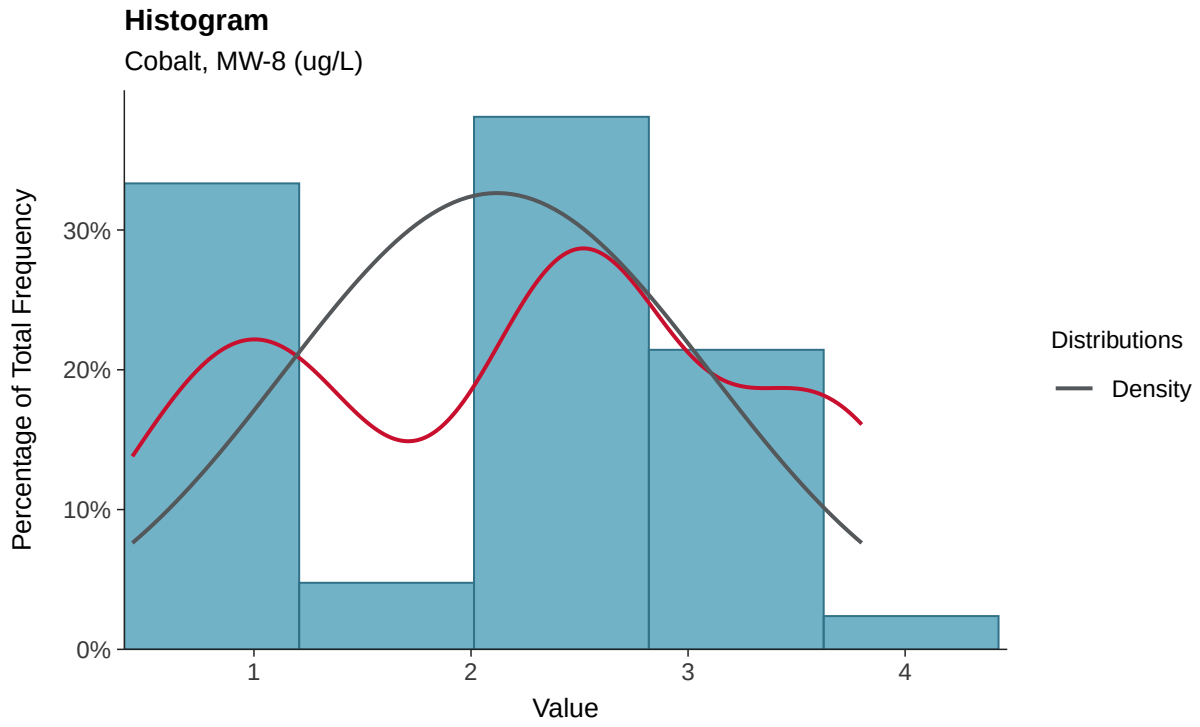
Chromium, MW-8 (ug/L)



App. IV: Cobalt, MW-8

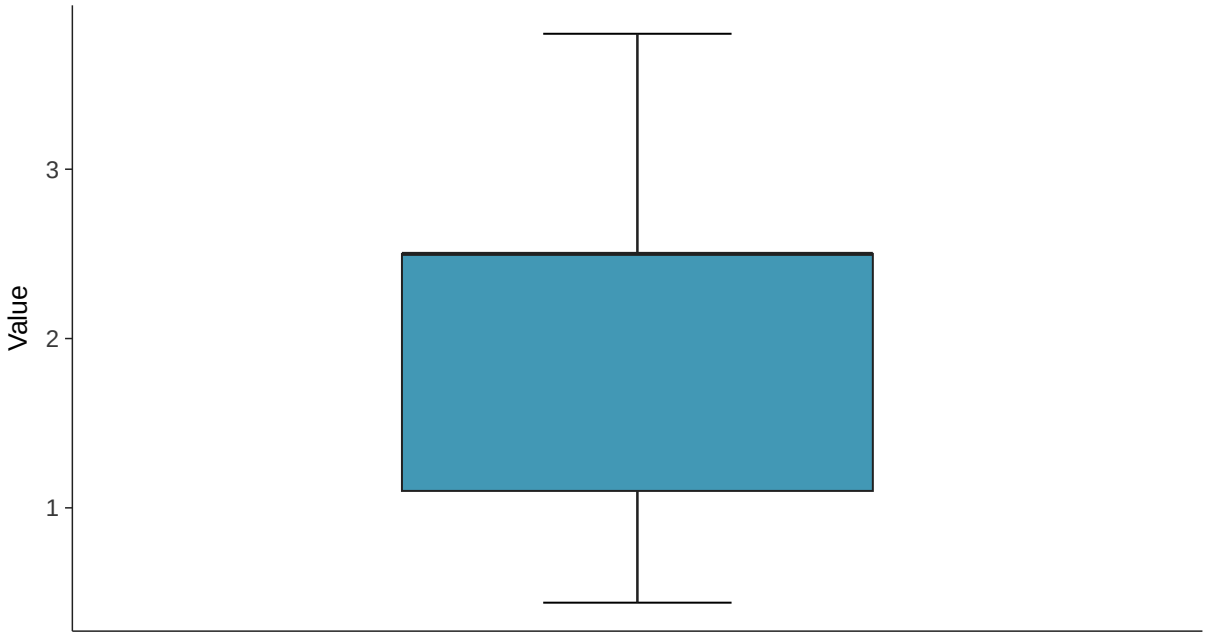
ID: 08_3_110





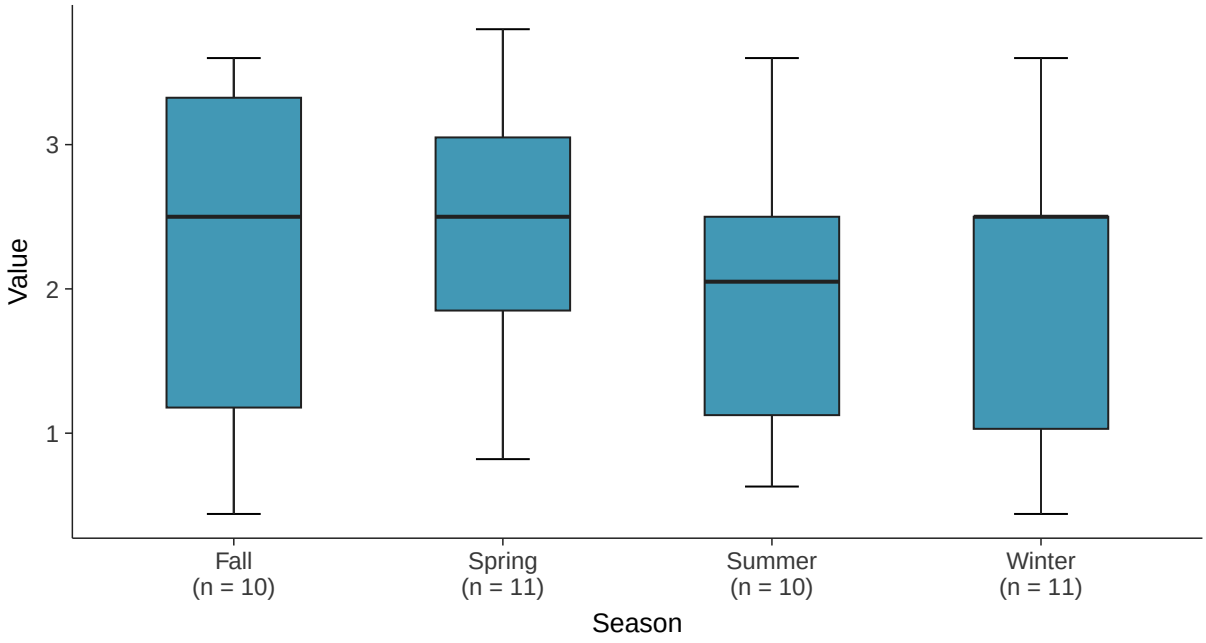
Boxplot

Cobalt, MW-8 (ug/L)



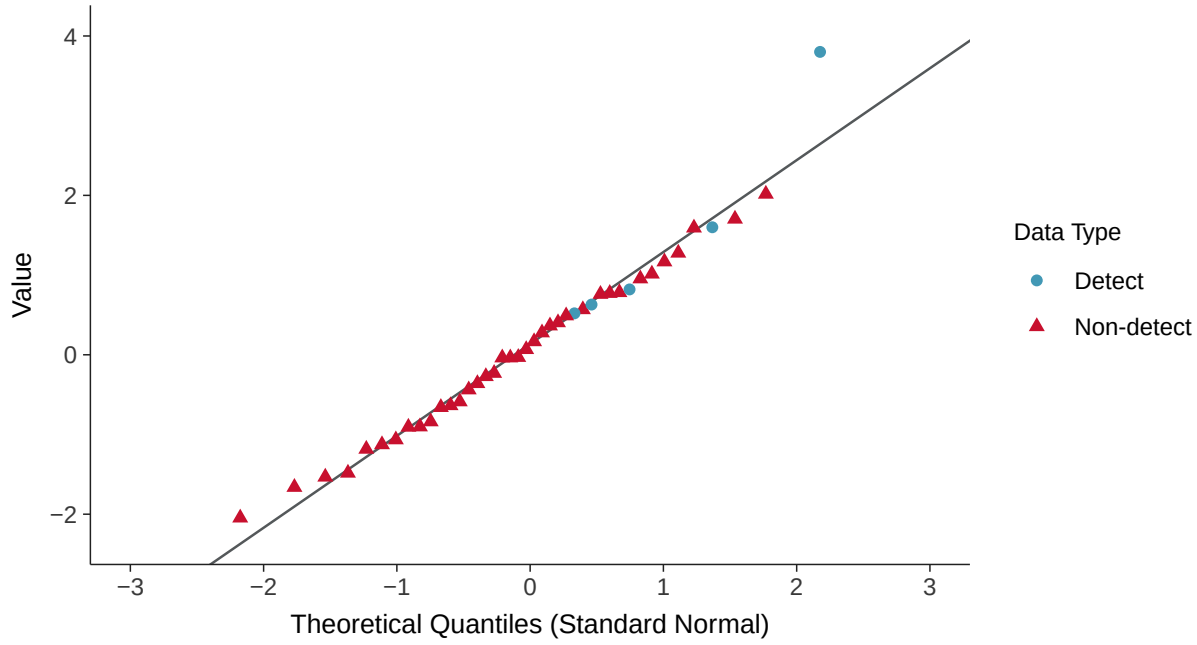
Boxplot by Season

Cobalt, MW-8 (ug/L)



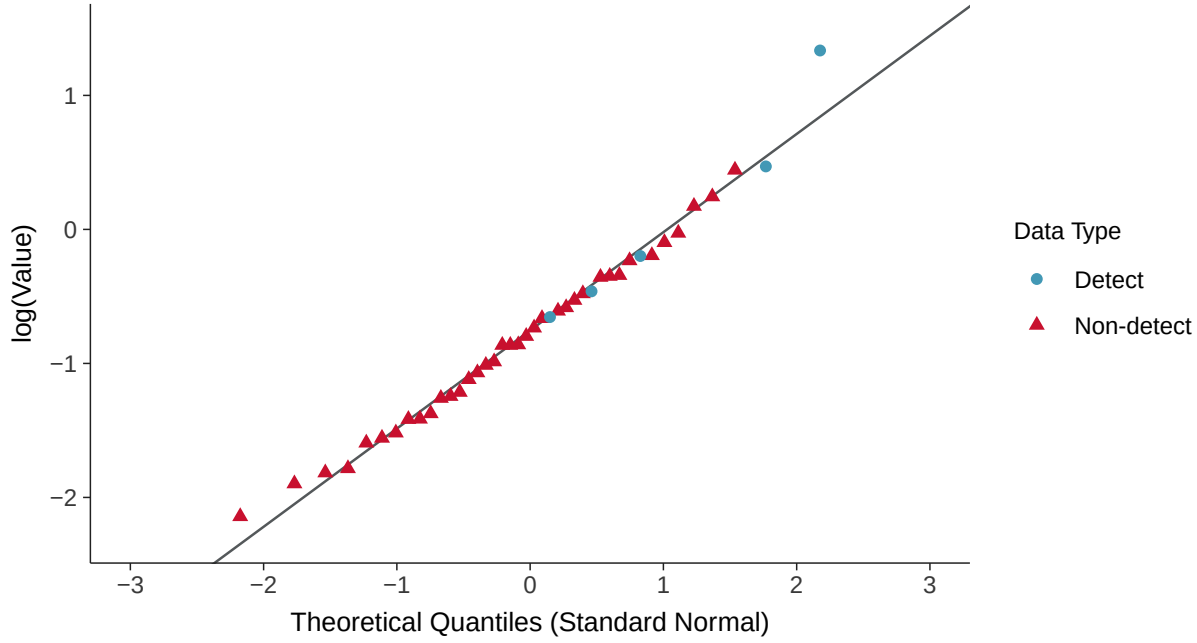
Normal Q-Q plot using ROS Imputed Estimates

Cobalt, MW-8 (ug/L)



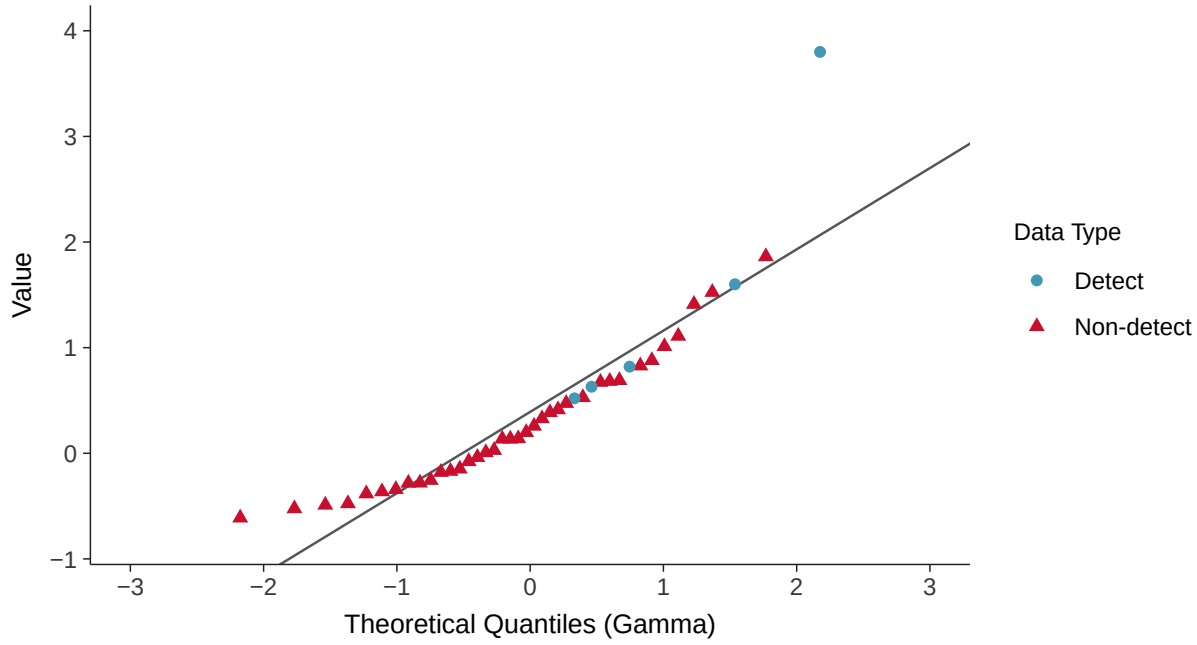
Lognormal Q-Q plot using ROS Imputed Estimates

Cobalt, MW-8 (ug/L)



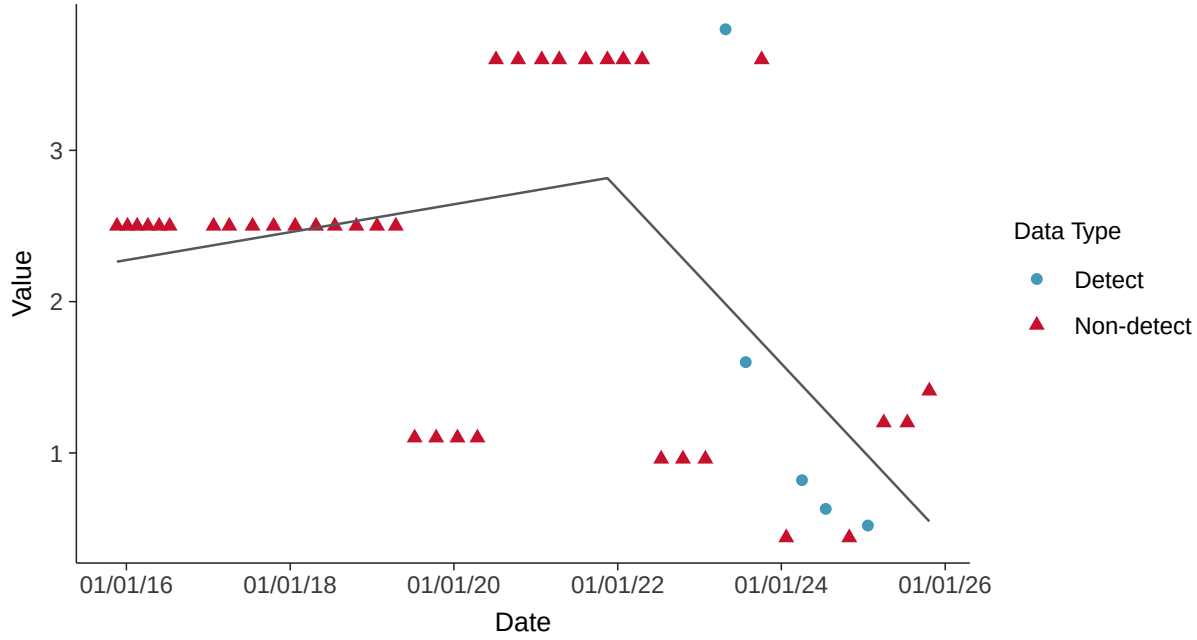
Gamma Q-Q plot using ROS Imputed Estimates

Cobalt, MW-8 (ug/L)



Trend Regression: Piecewise Linear-Linear

Cobalt, MW-8 (ug/L)

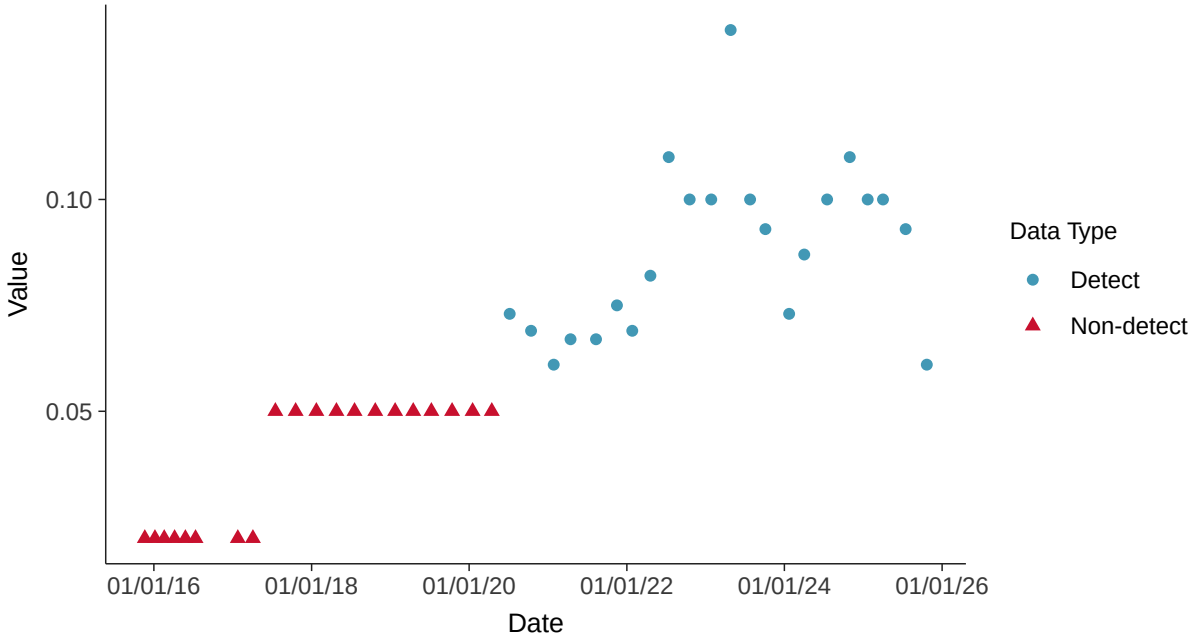


App. IV: Fluoride, MW-8

ID: 08_3_112

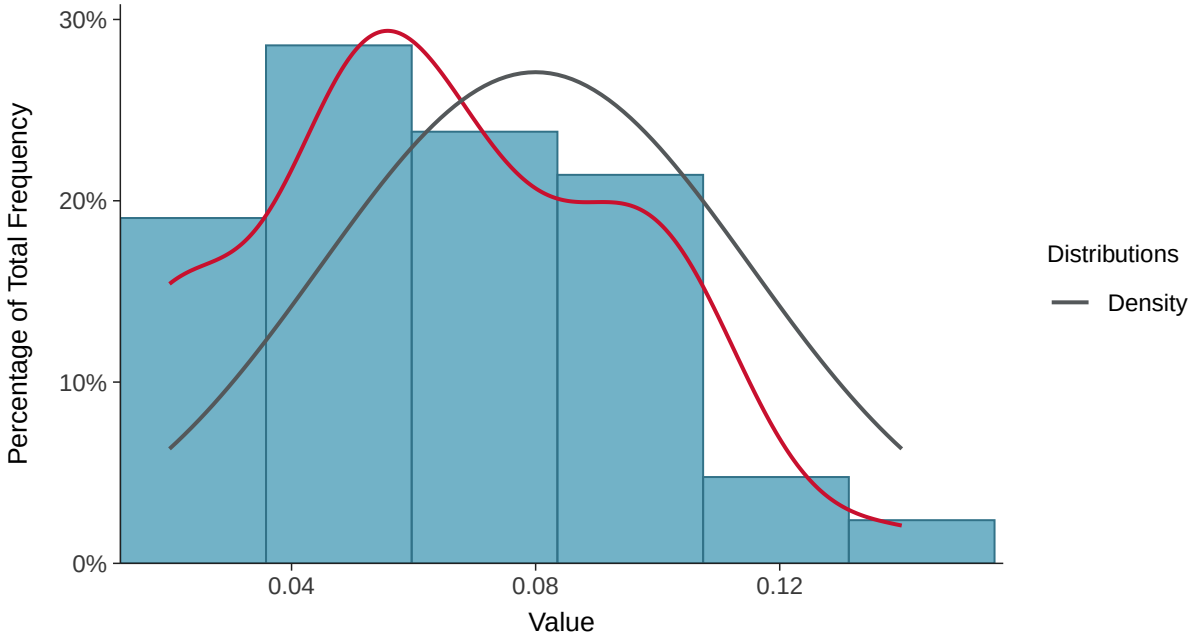
Scatter Plot

Fluoride, MW-8 (mg/L)



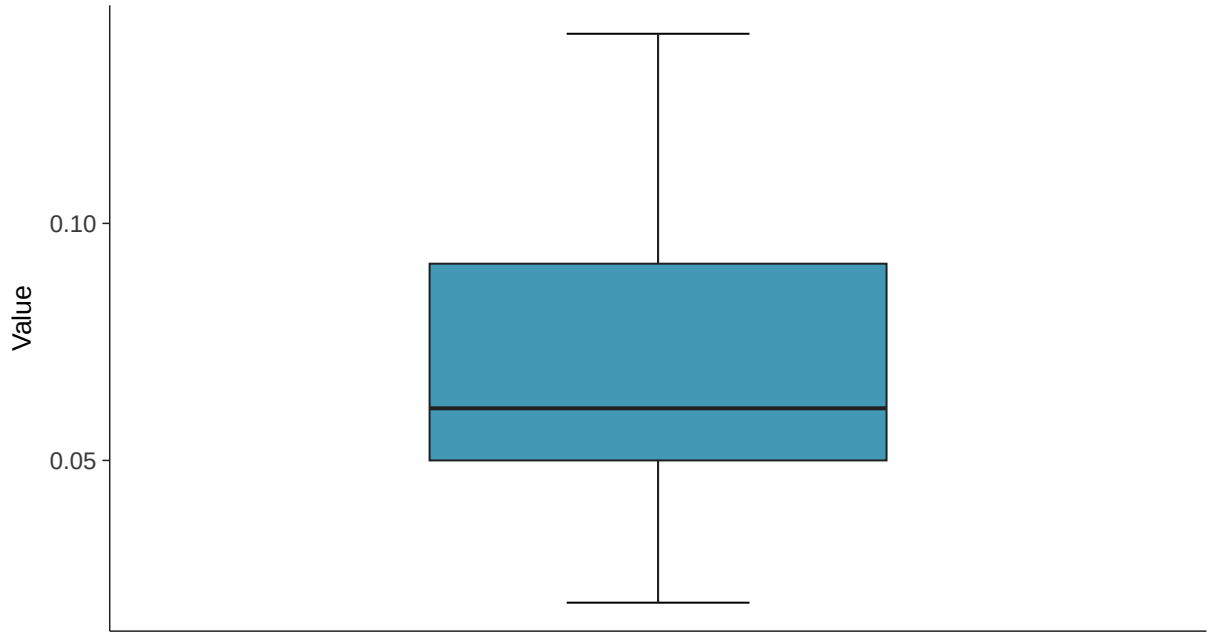
Histogram

Fluoride, MW-8 (mg/L)



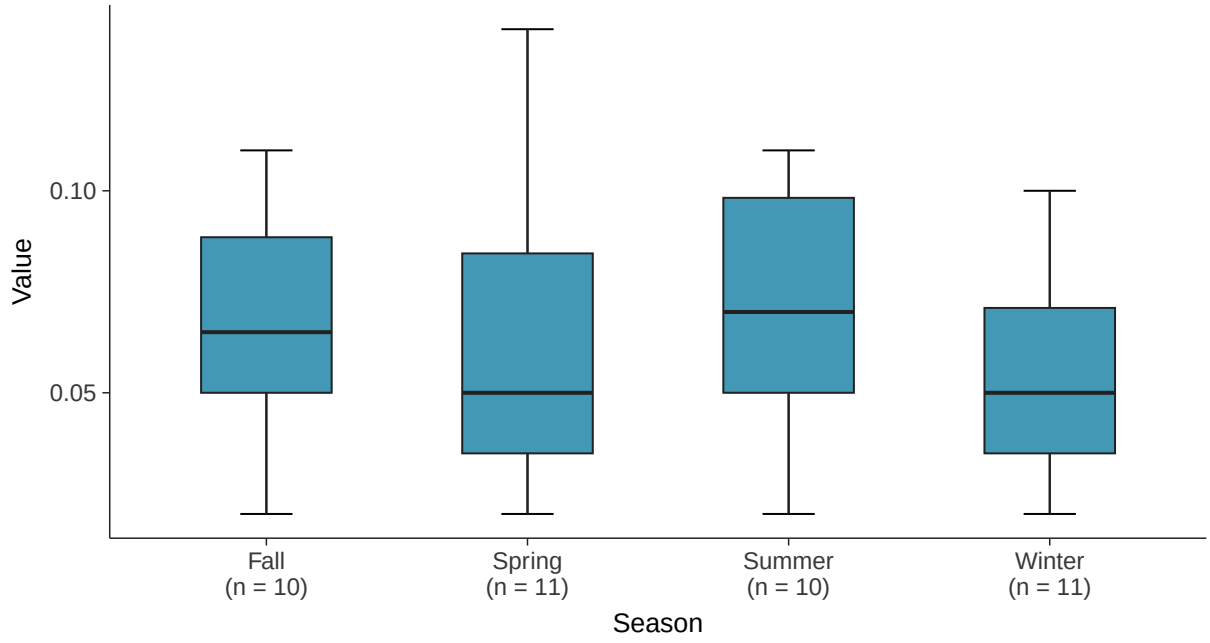
Boxplot

Fluoride, MW-8 (mg/L)



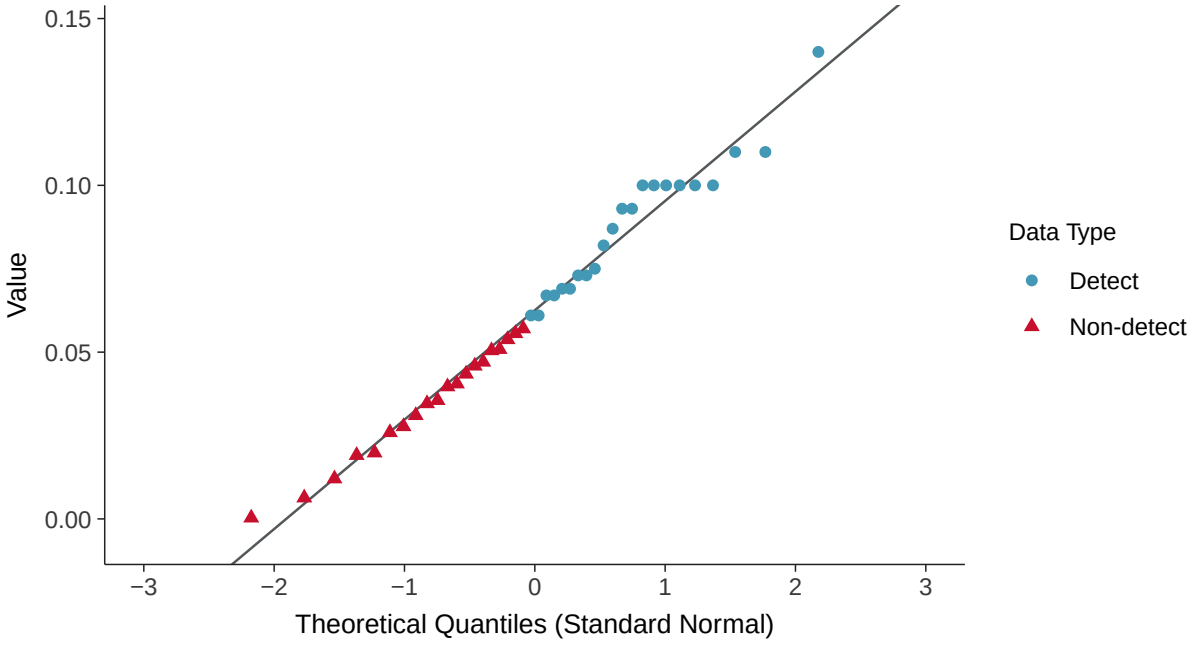
Boxplot by Season

Fluoride, MW-8 (mg/L)



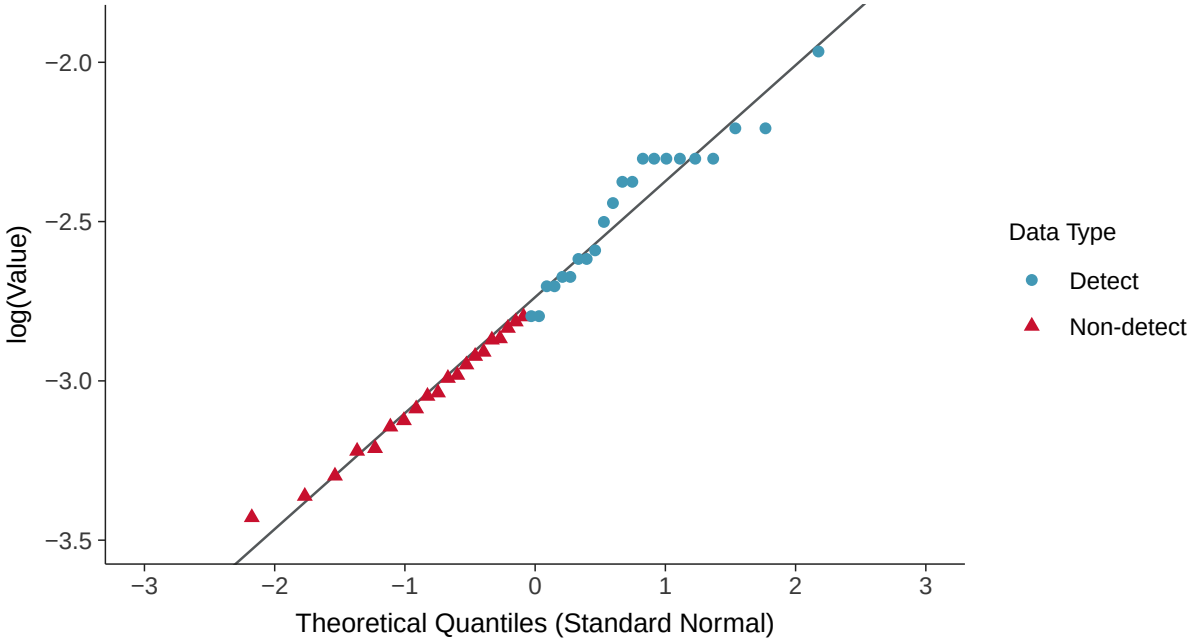
Normal Q-Q plot using ROS Imputed Estimates

Fluoride, MW-8 (mg/L)



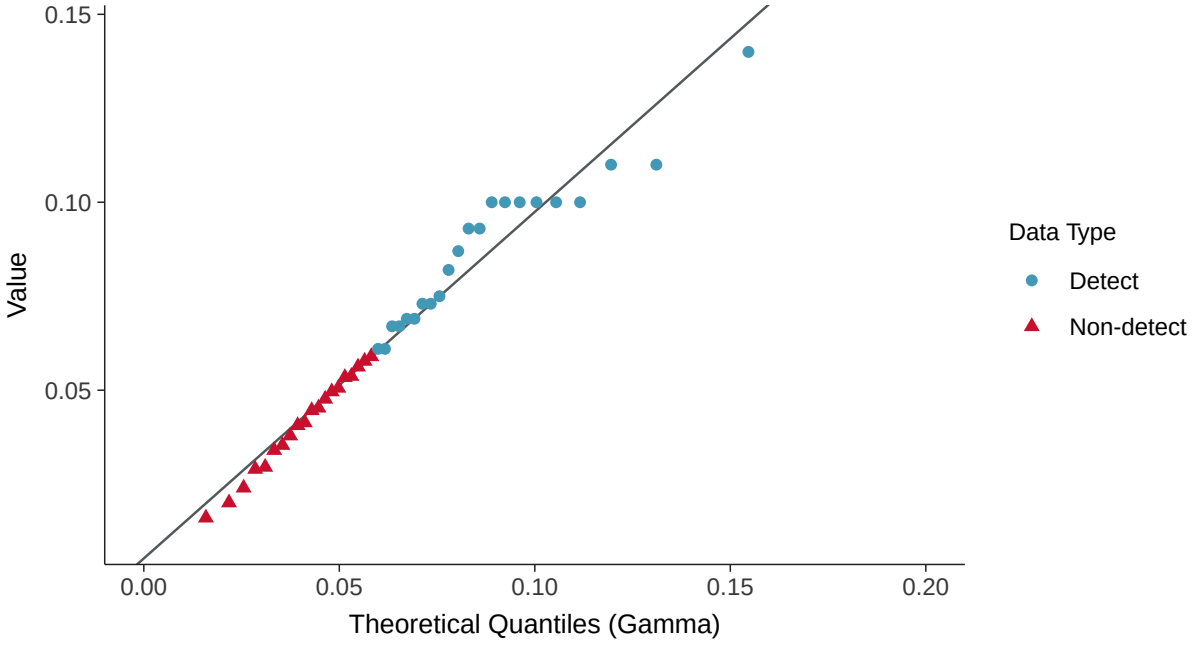
Lognormal Q-Q plot using ROS Imputed Estimates

Fluoride, MW-8 (mg/L)



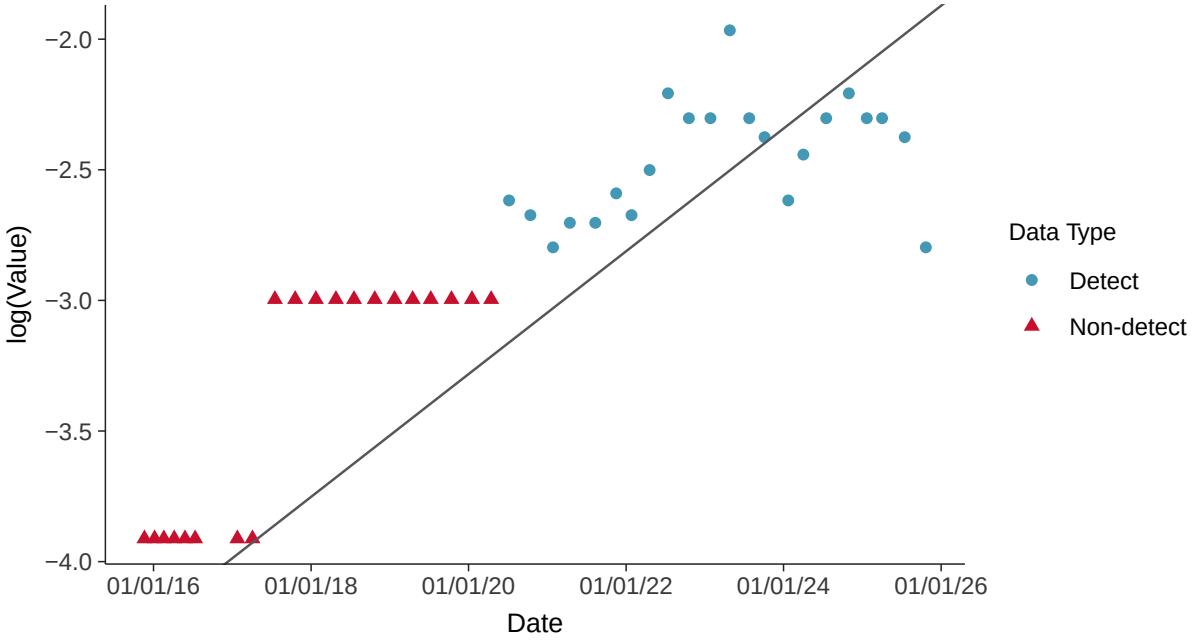
Gamma Q-Q plot using ROS Imputed Estimates

Fluoride, MW-8 (mg/L)



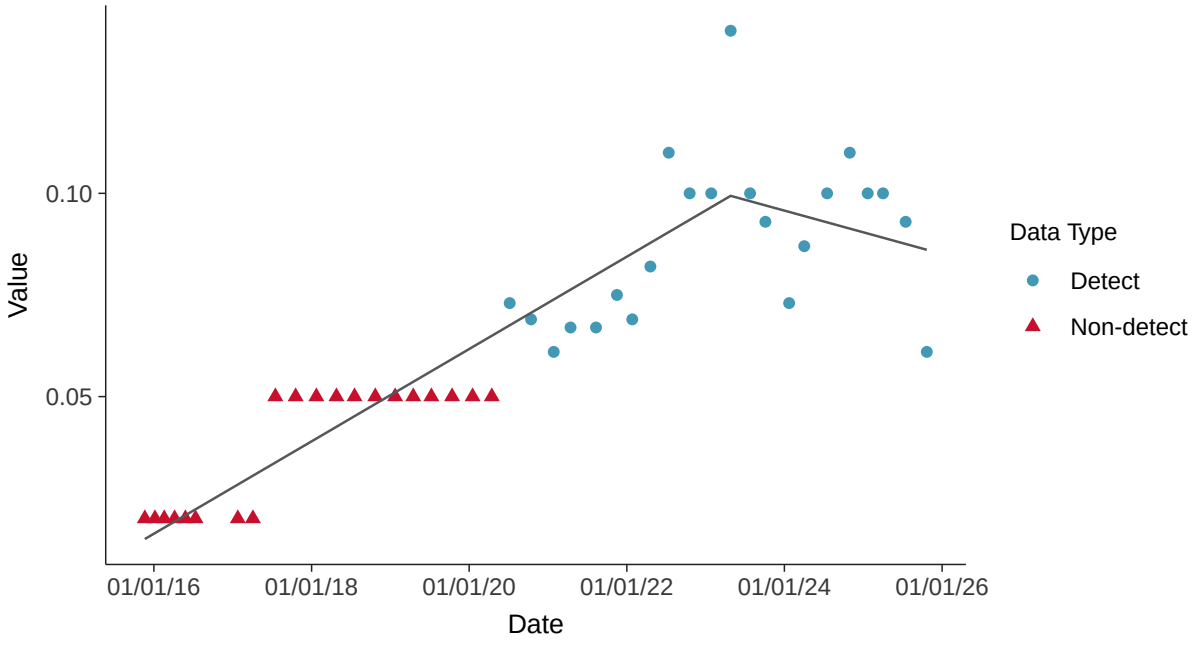
Trend Regression: Lognormal MLE

Fluoride, MW-8 (mg/L)



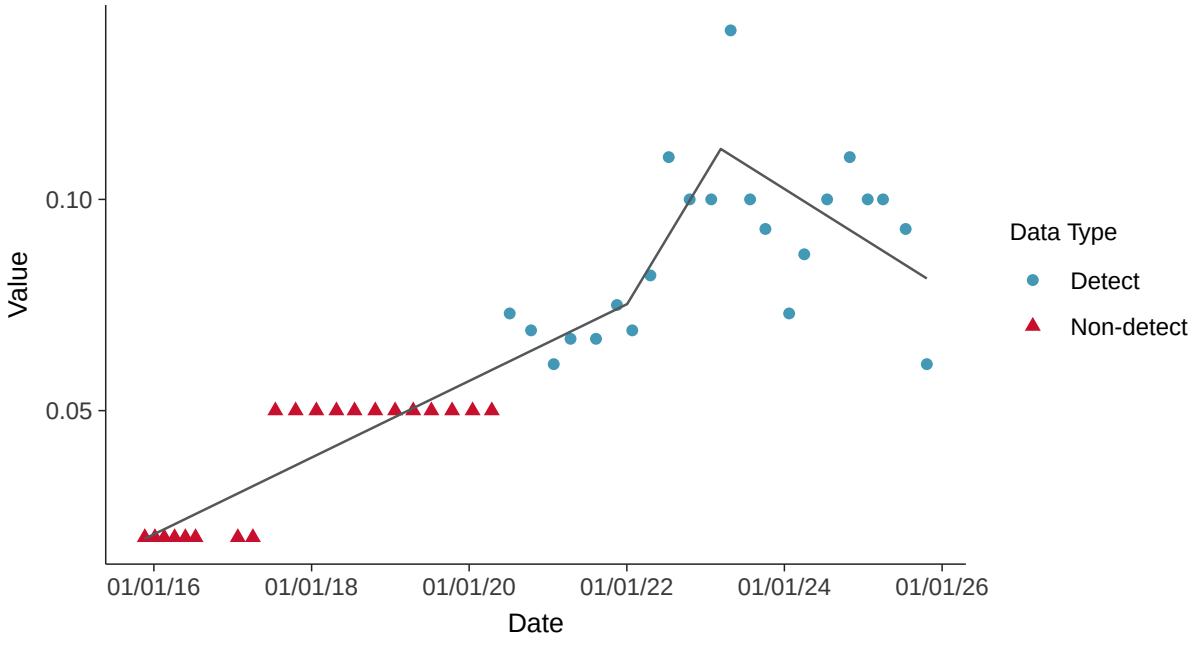
Trend Regression: Piecewise Linear-Linear

Fluoride, MW-8 (mg/L)



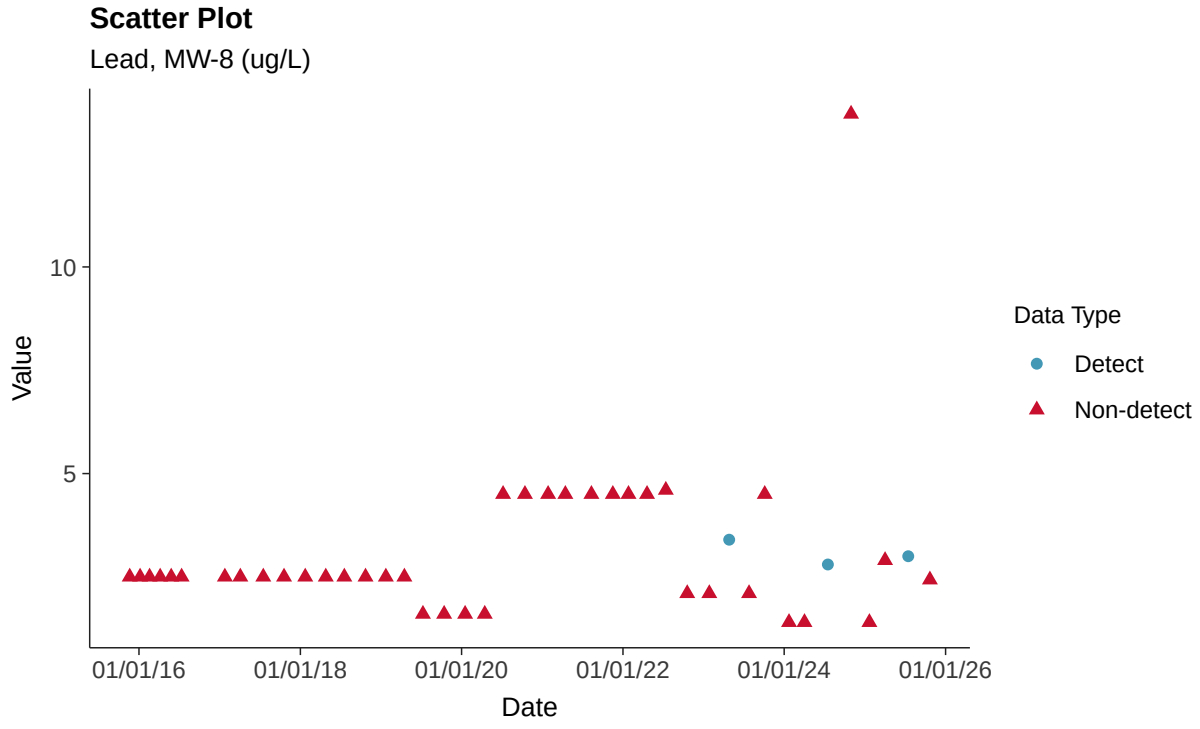
Trend Regression: Piecewise Linear-Linear-Linear

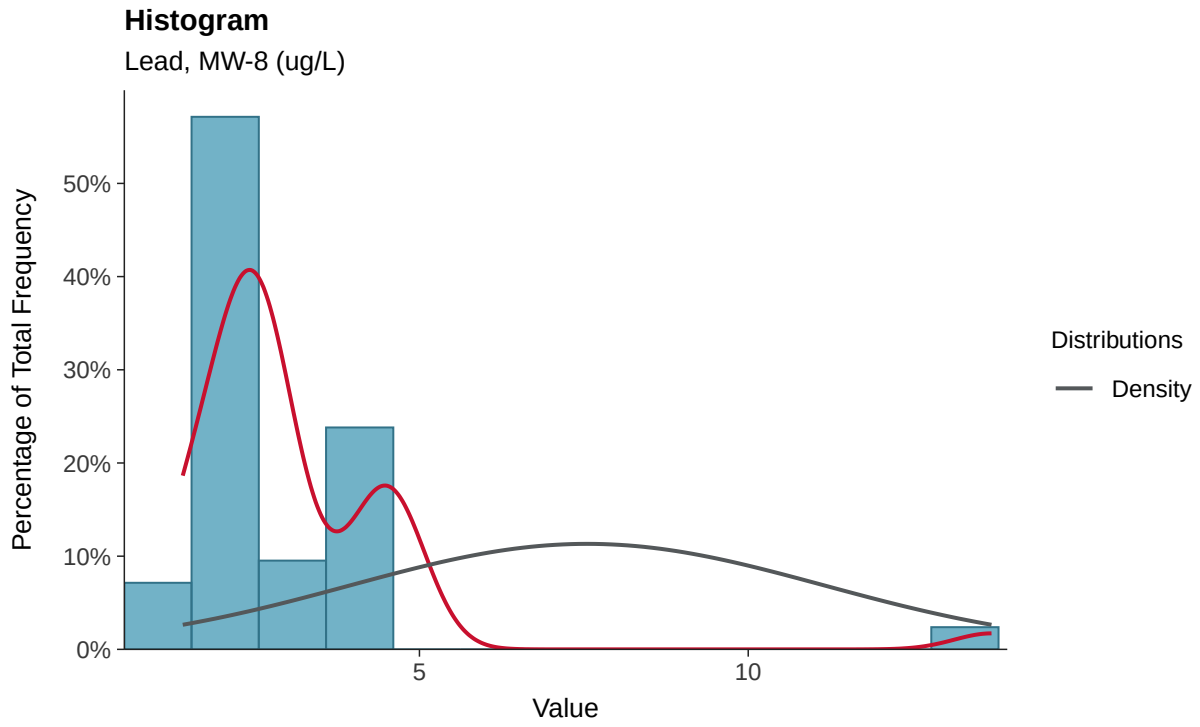
Fluoride, MW-8 (mg/L)



App. IV: Lead, MW-8

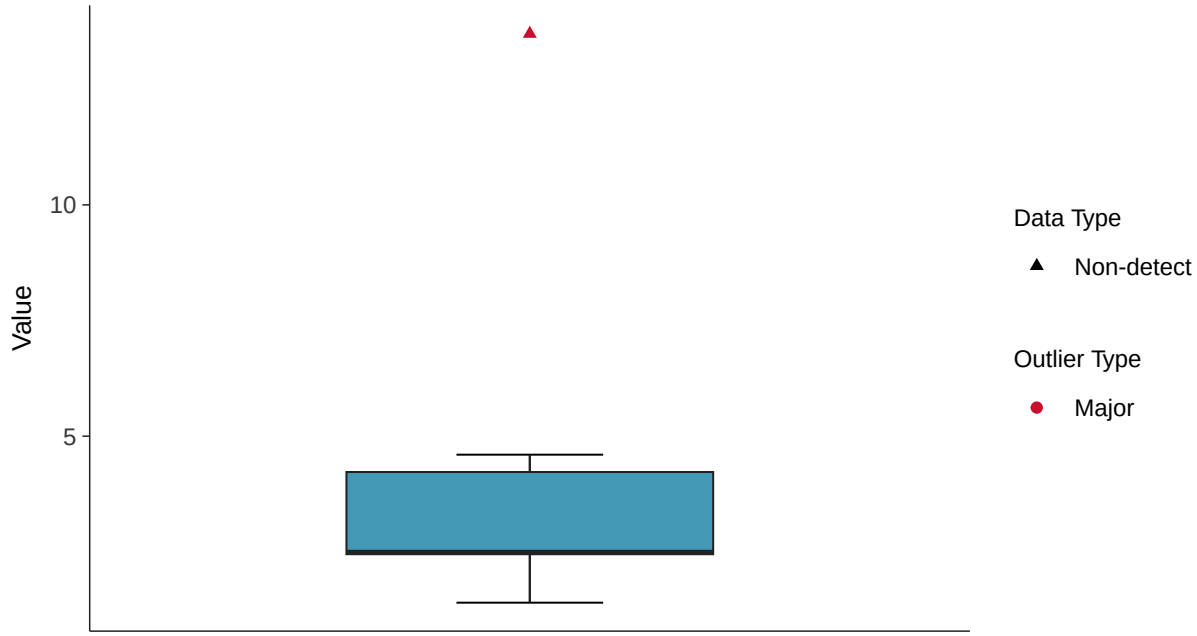
ID: 08_3_113





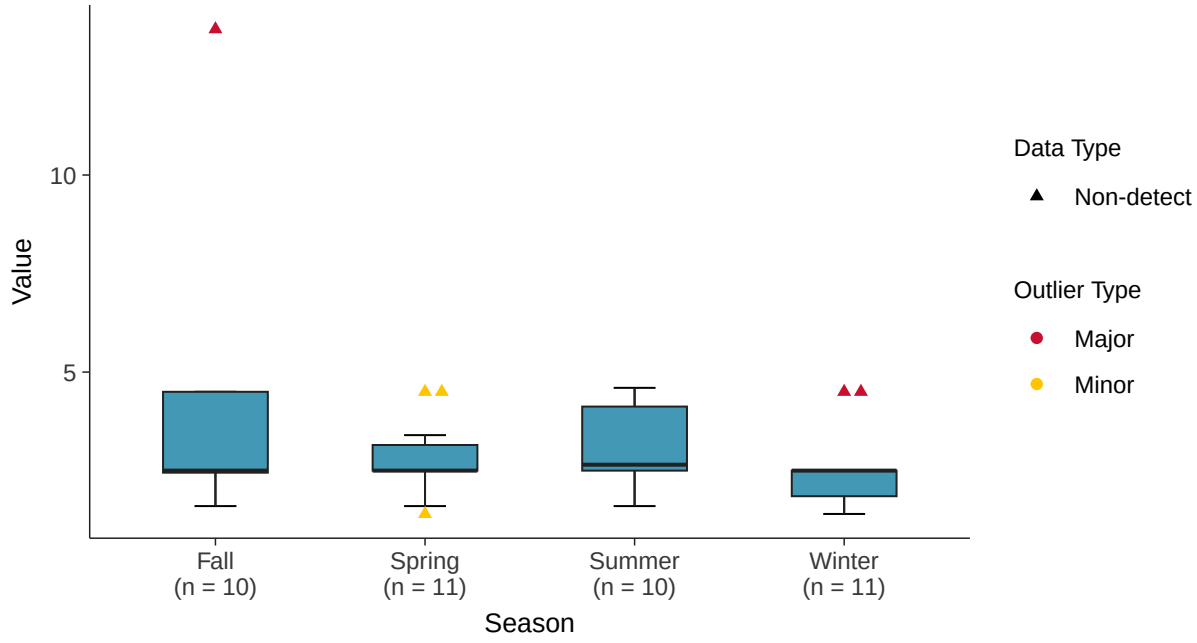
Boxplot

Lead, MW-8 (ug/L)



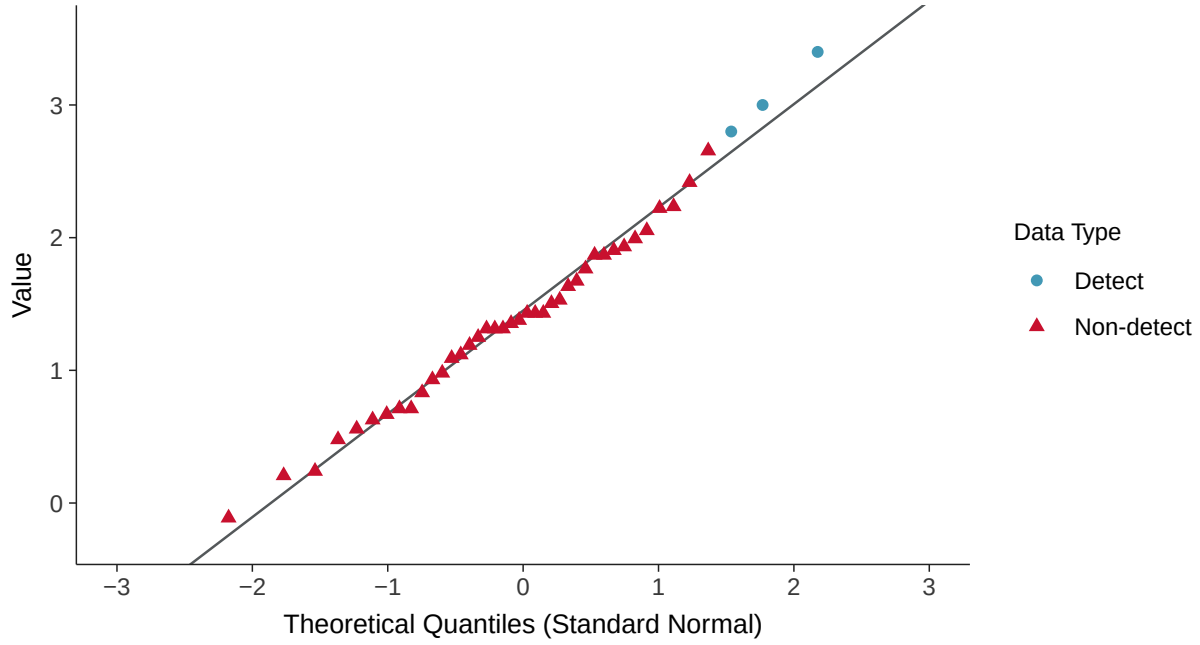
Boxplot by Season

Lead, MW-8 (ug/L)



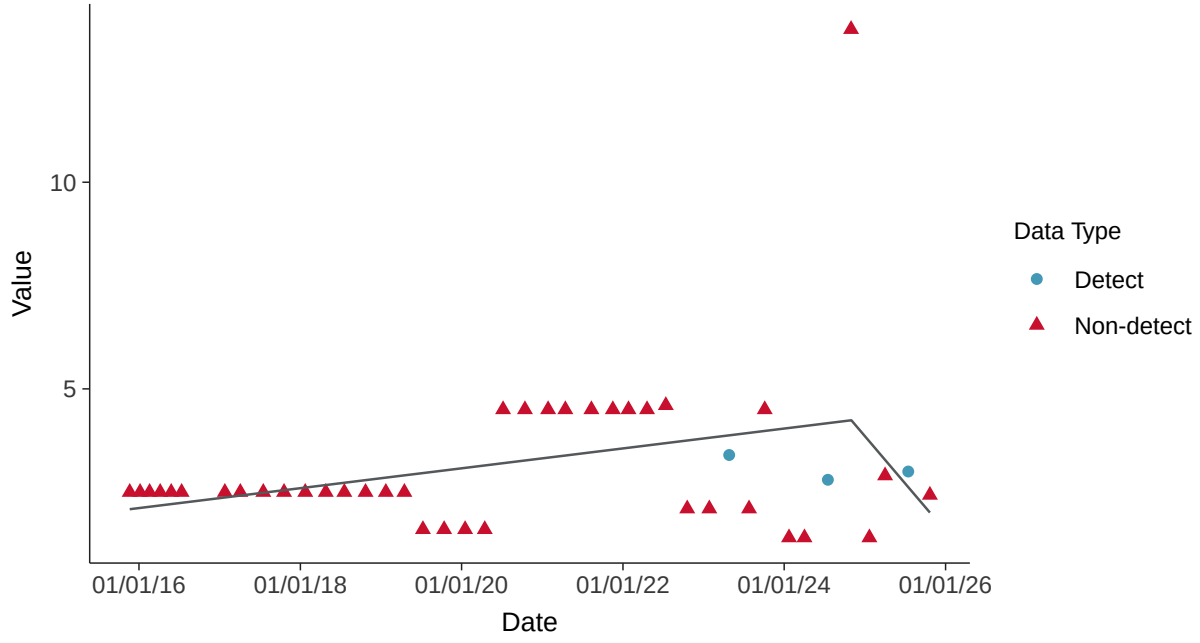
Normal Q-Q plot using ROS Imputed Estimates

Lead, MW-8 (ug/L)



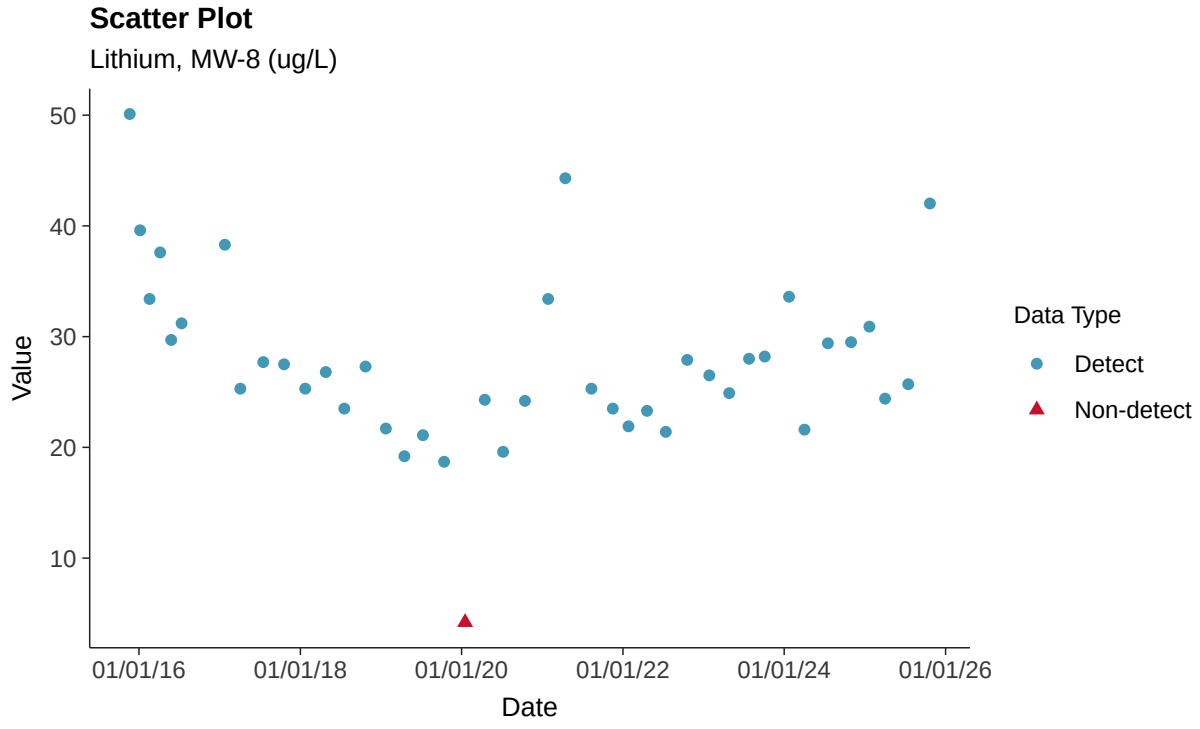
Trend Regression: Piecewise Linear-Linear

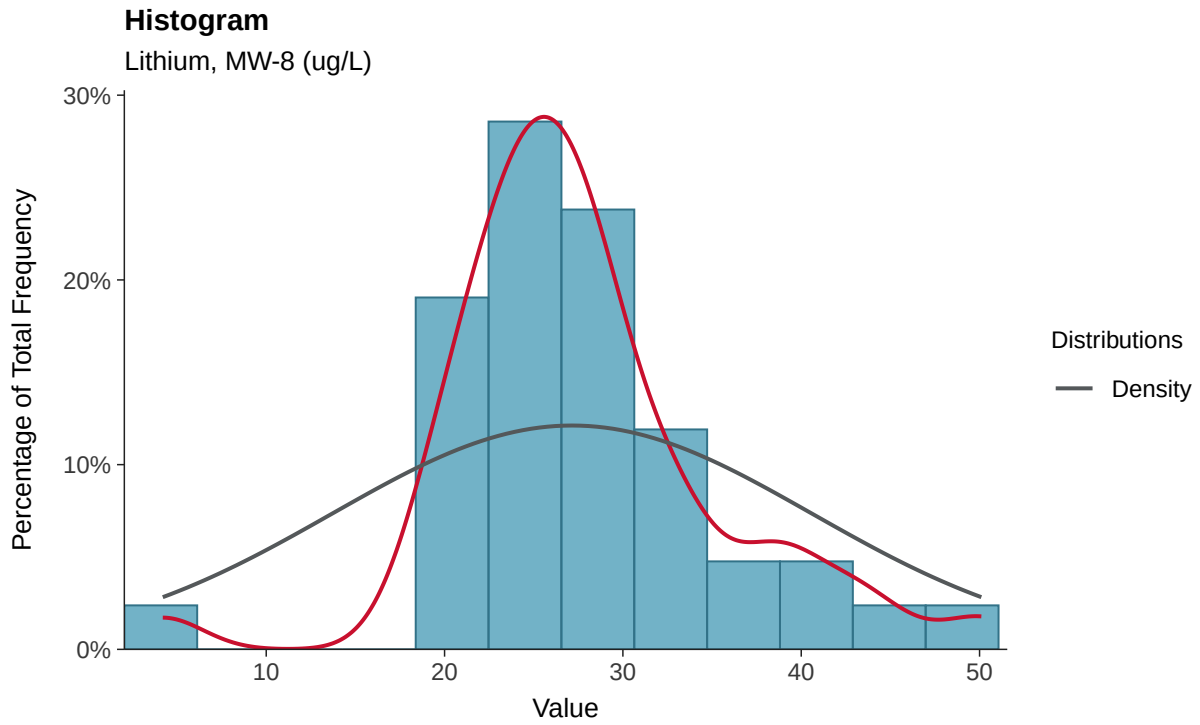
Lead, MW-8 (ug/L)



App. IV: Lithium, MW-8

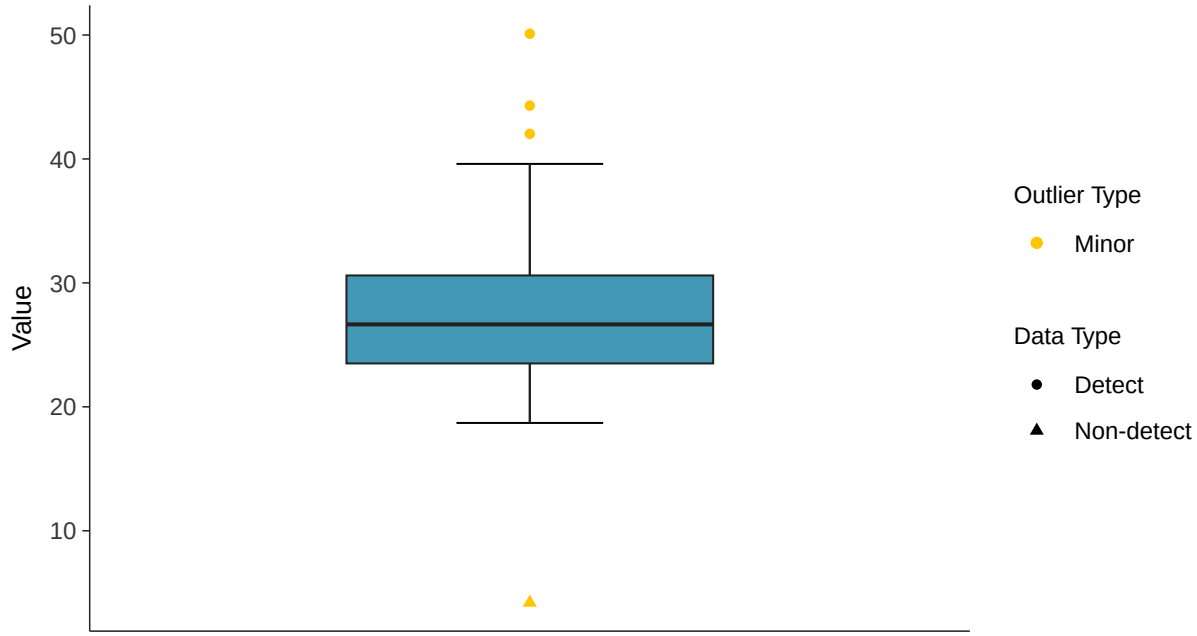
ID: 08_3_114





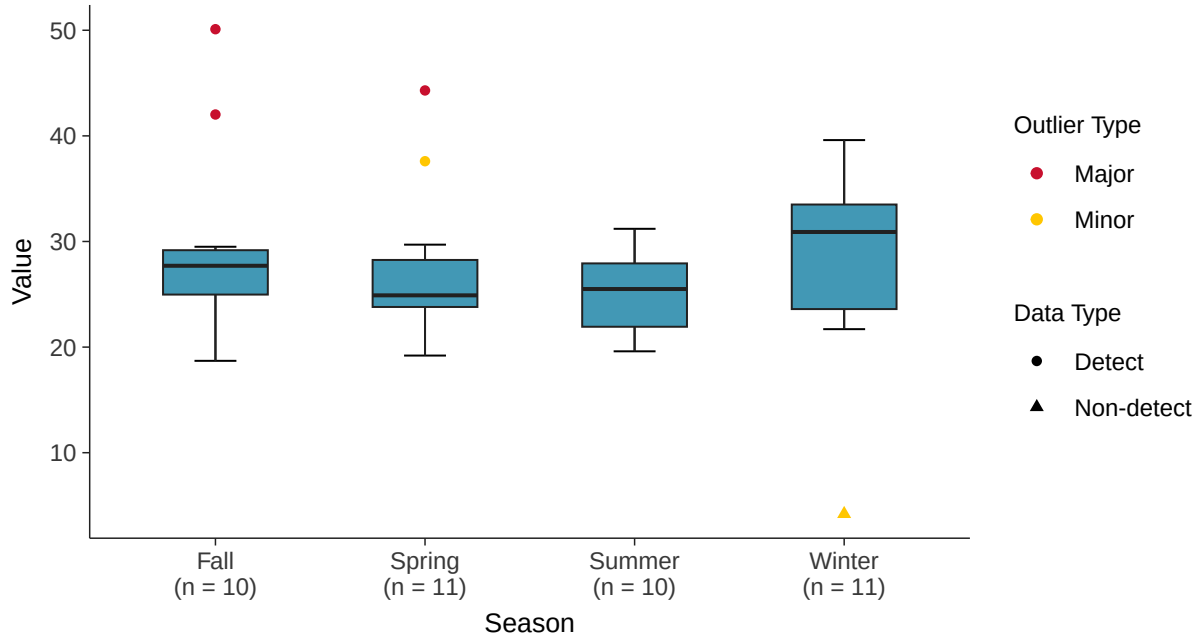
Boxplot

Lithium, MW-8 (ug/L)



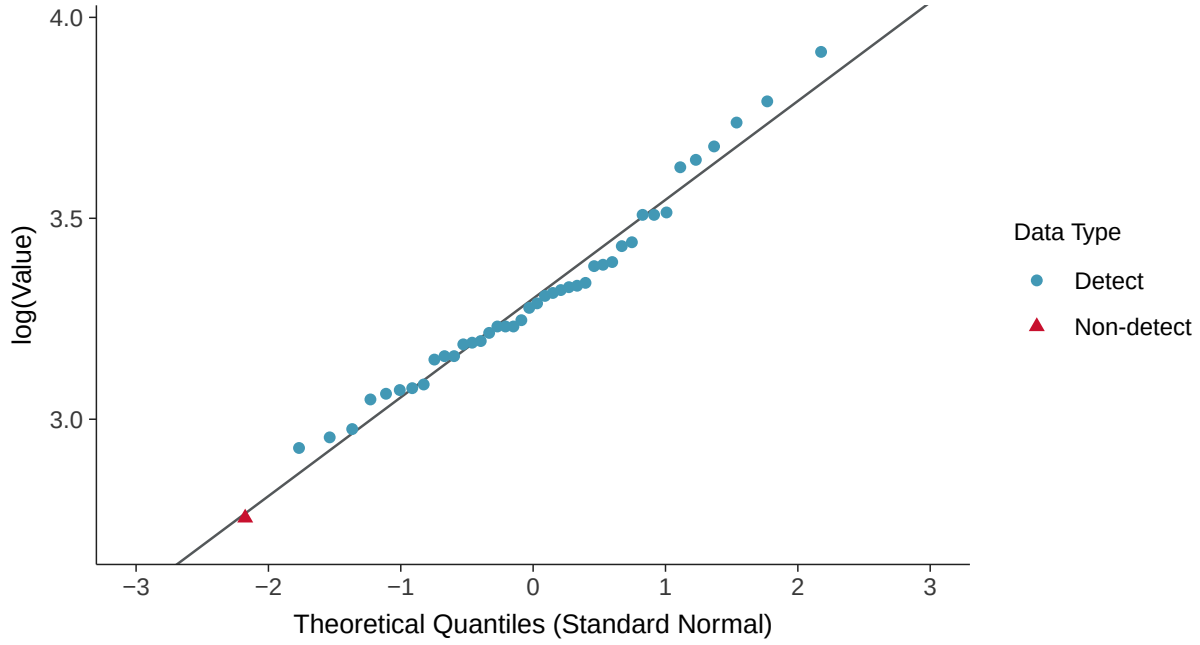
Boxplot by Season

Lithium, MW-8 (ug/L)



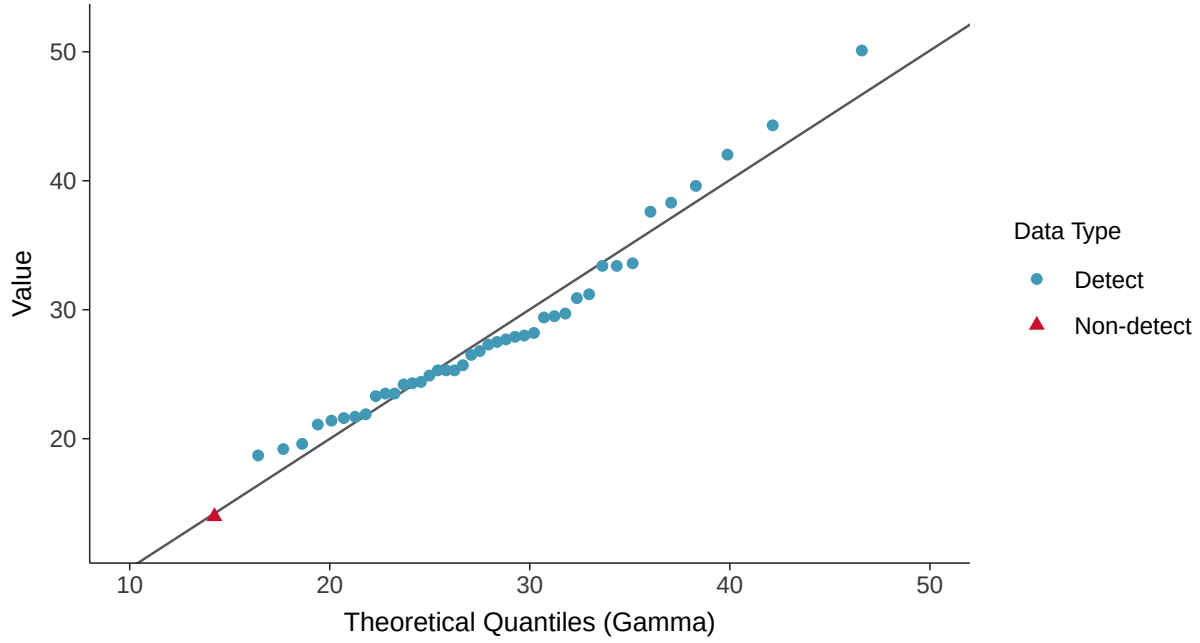
Lognormal Q-Q plot using ROS Imputed Estimates

Lithium, MW-8 (ug/L)



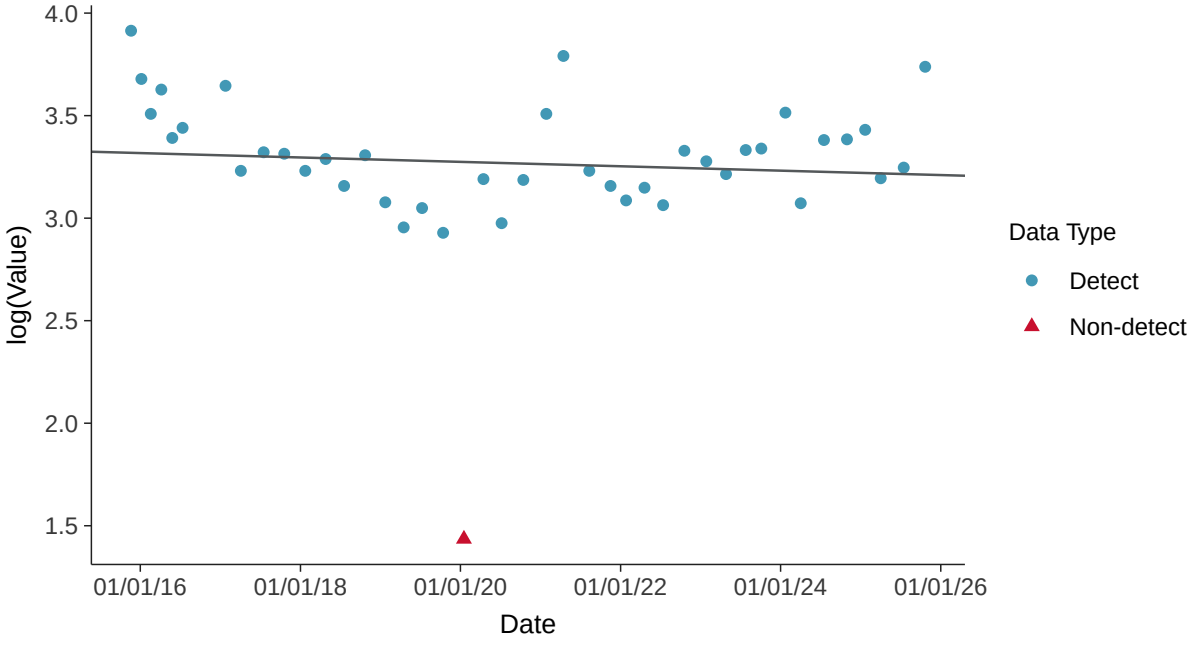
Gamma Q-Q plot using ROS Imputed Estimates

Lithium, MW-8 (ug/L)



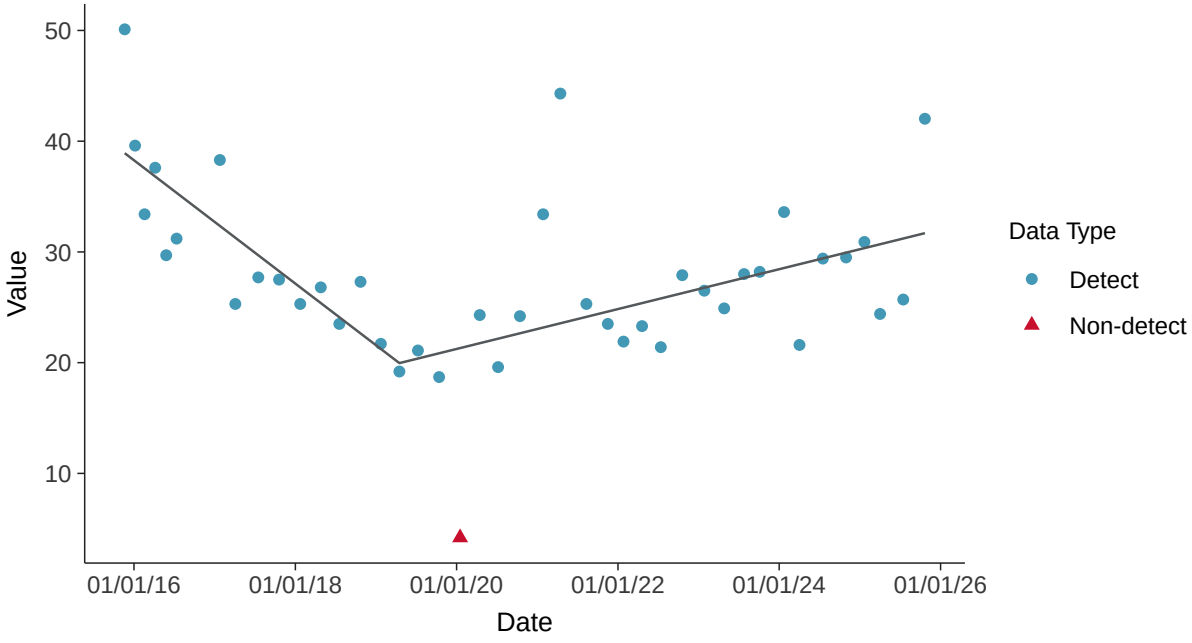
Trend Regression: Lognormal MLE

Lithium, MW-8 (ug/L)



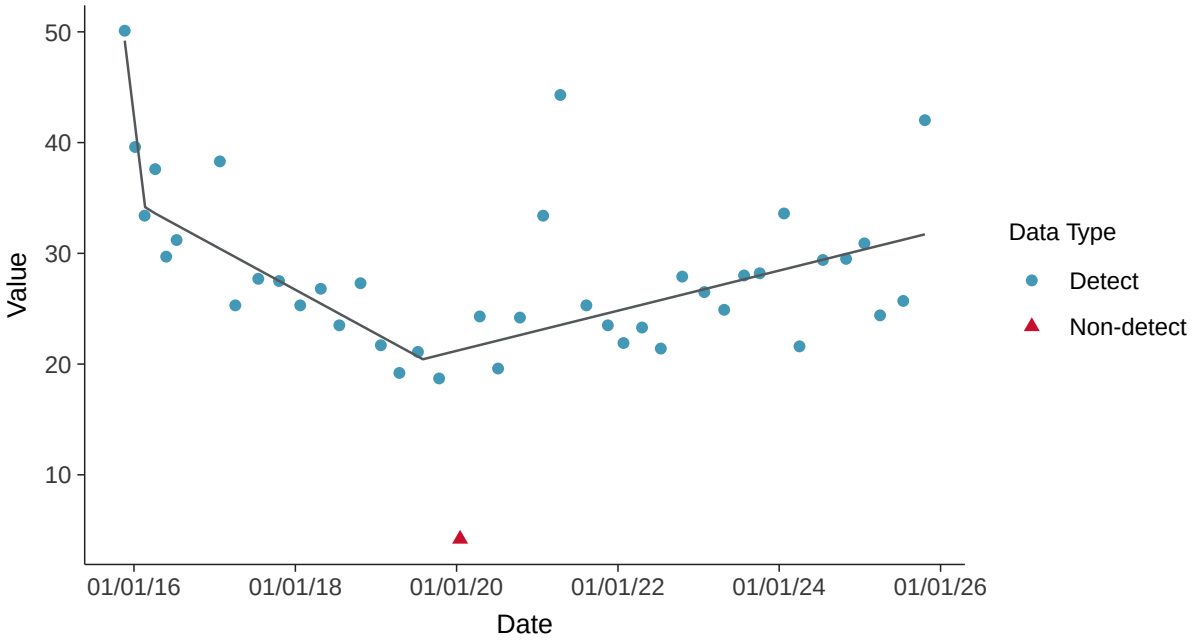
Trend Regression: Piecewise Linear-Linear

Lithium, MW-8 (ug/L)



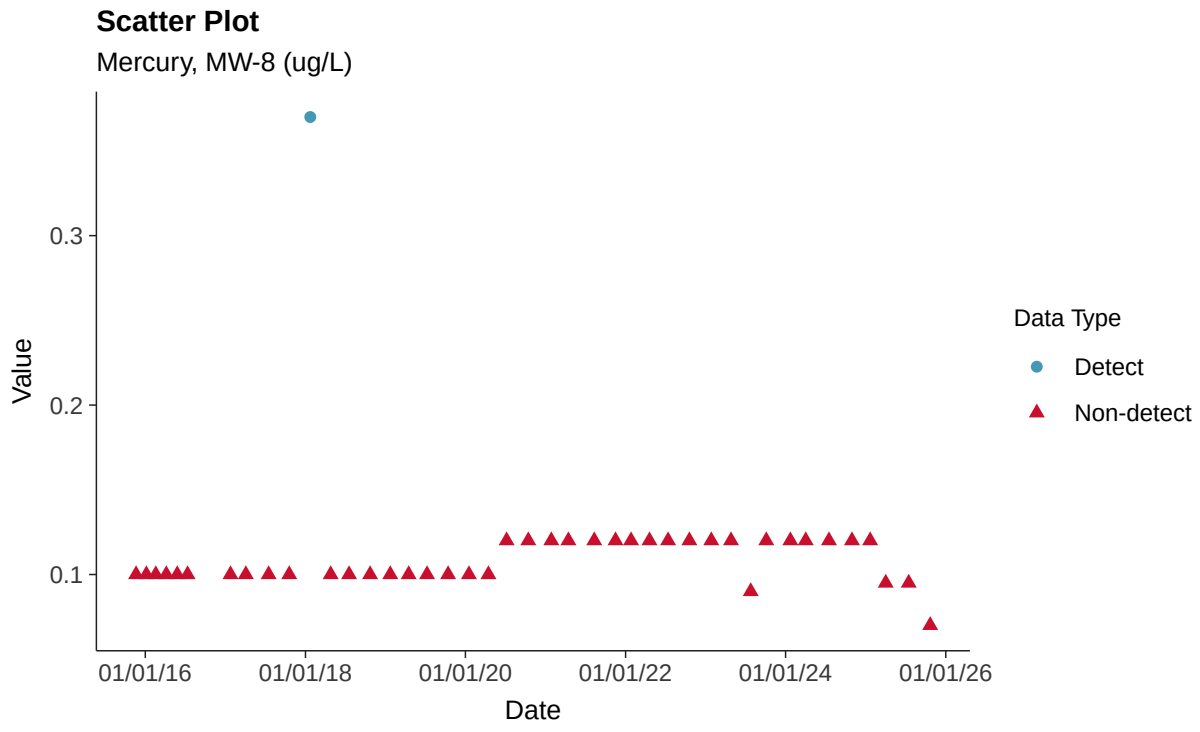
Trend Regression: Piecewise Linear-Linear-Linear

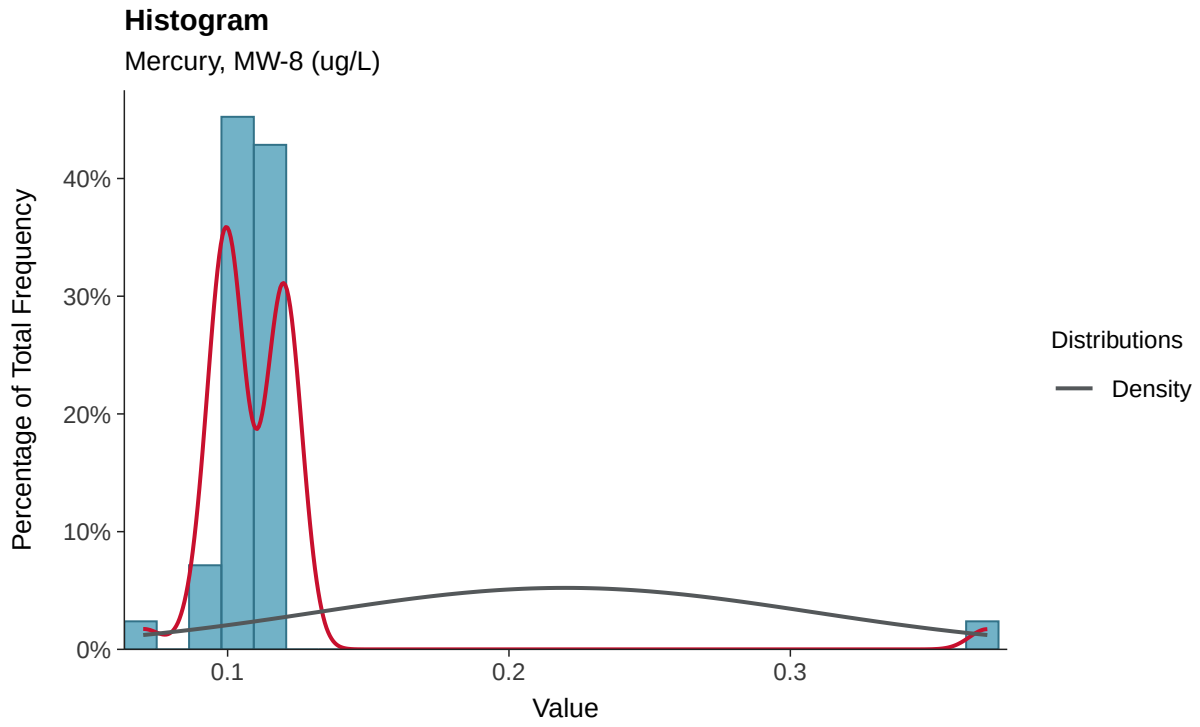
Lithium, MW-8 (ug/L)



App. IV: Mercury, MW-8

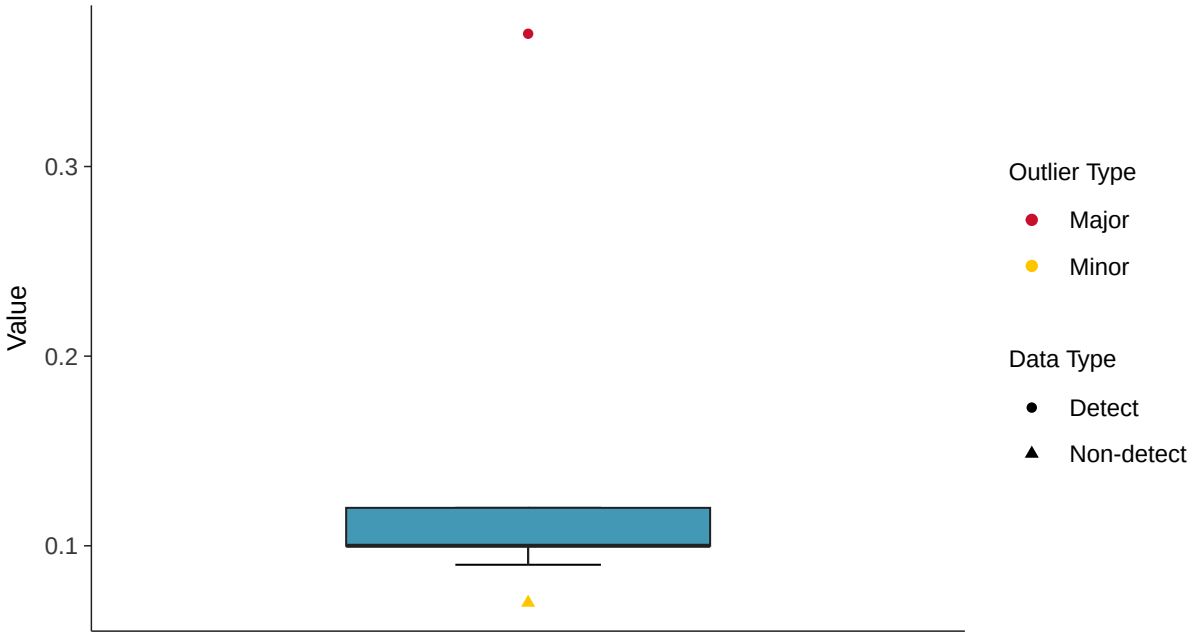
ID: 08_3_115





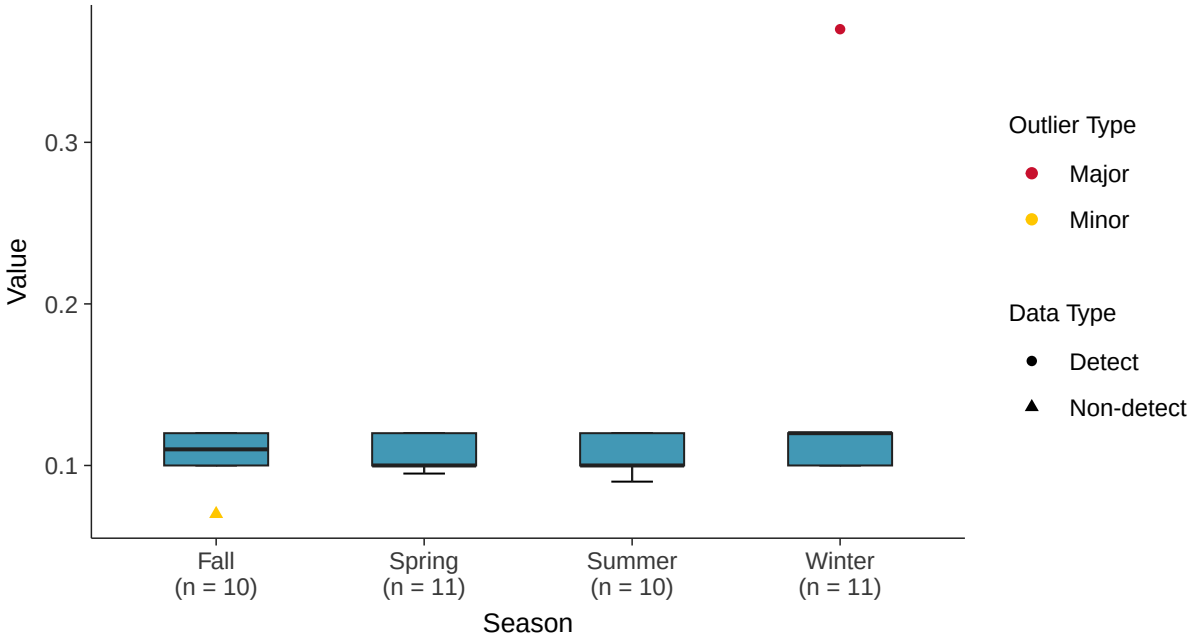
Boxplot

Mercury, MW-8 (ug/L)



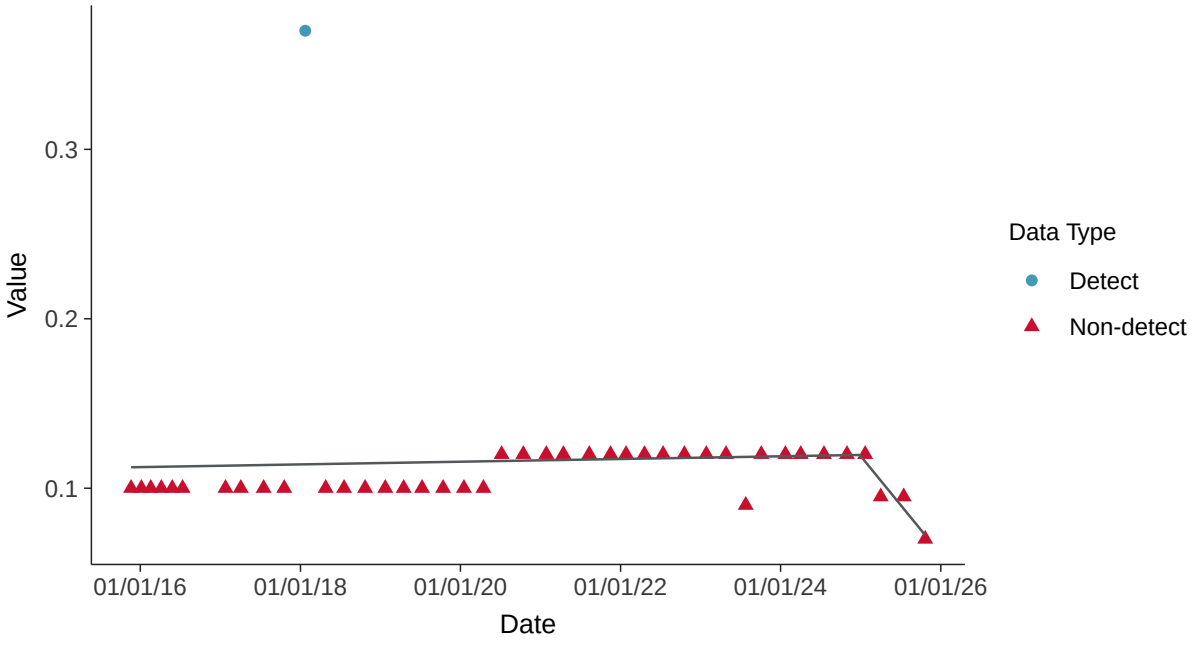
Boxplot by Season

Mercury, MW-8 (ug/L)



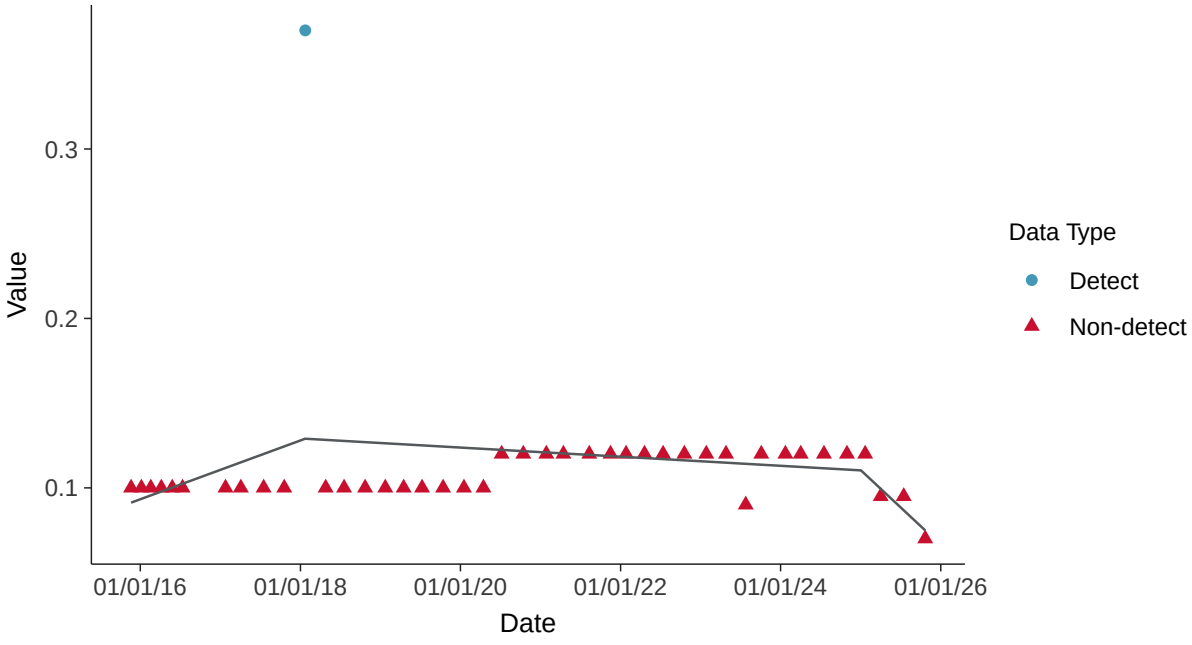
Trend Regression: Piecewise Linear-Linear

Mercury, MW-8 (ug/L)



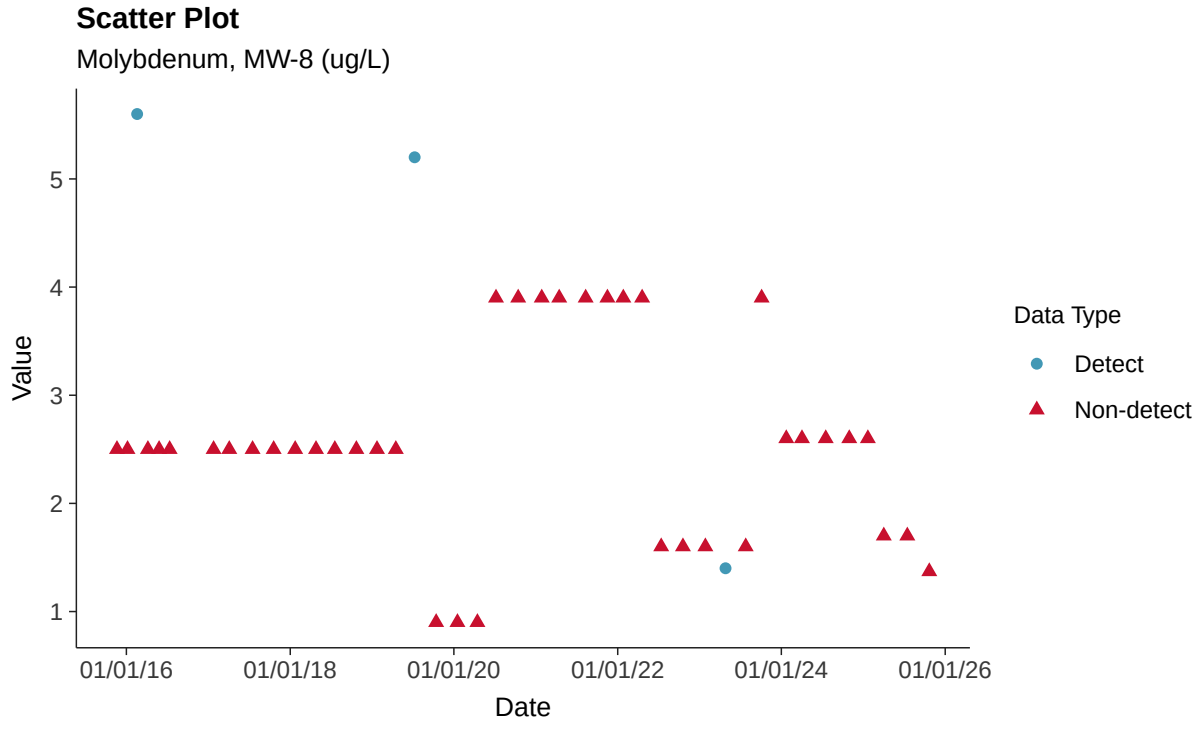
Trend Regression: Piecewise Linear-Linear-Linear

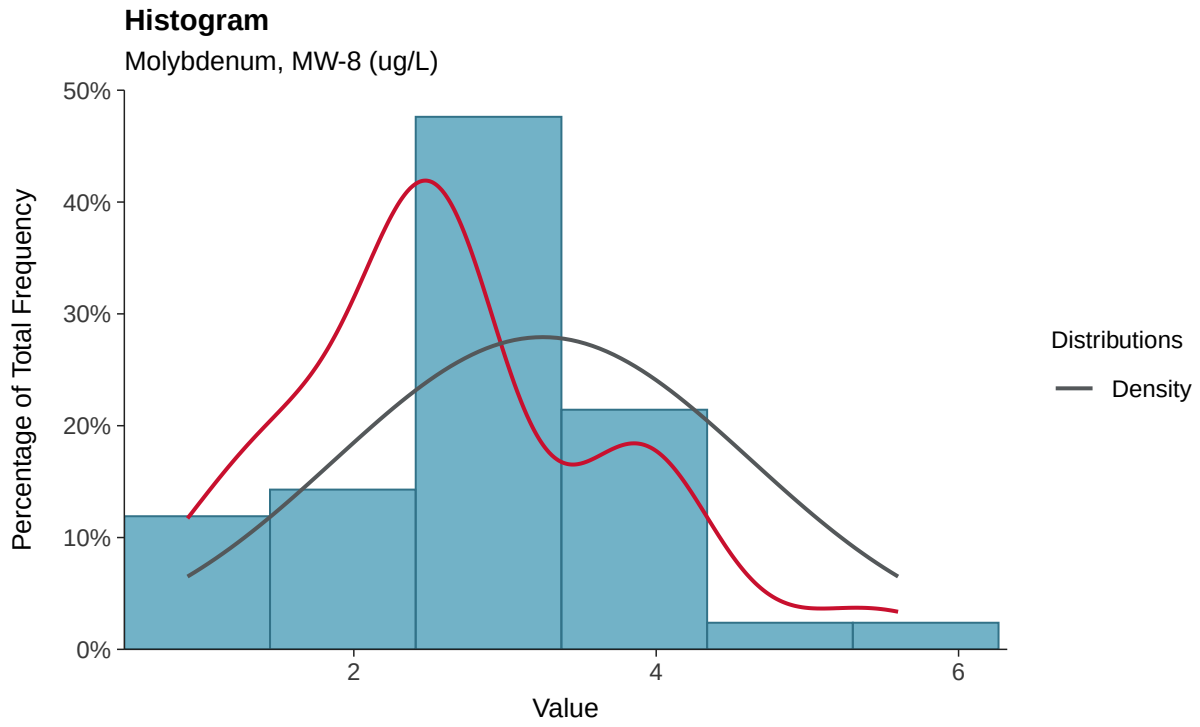
Mercury, MW-8 (ug/L)



App. IV: Molybdenum, MW-8

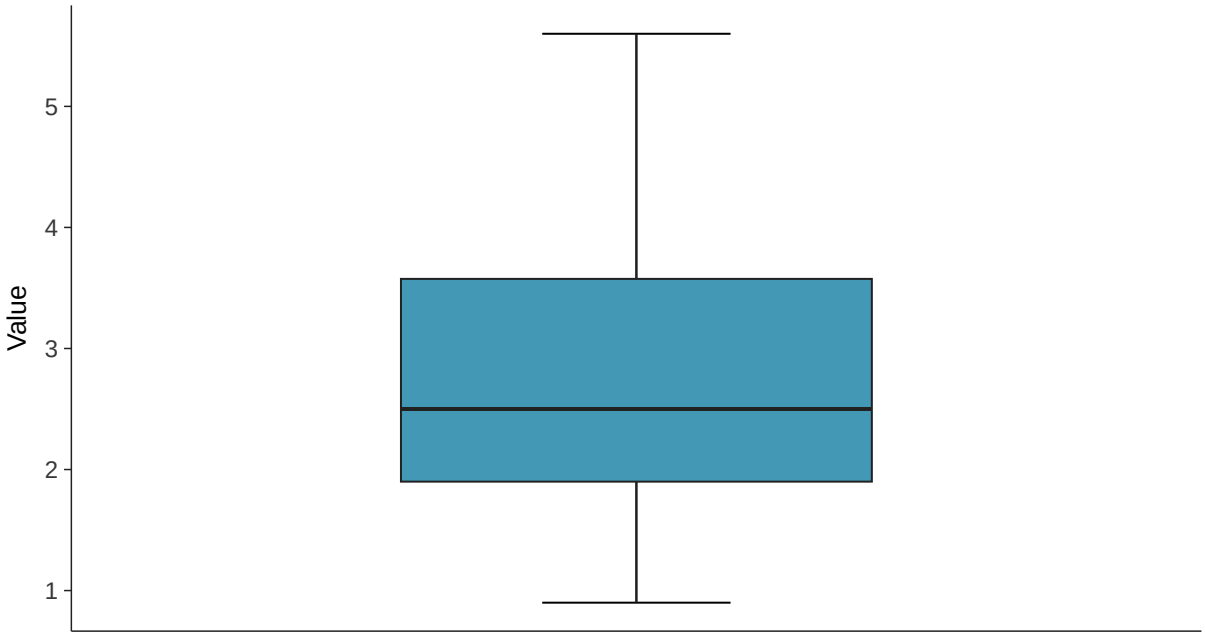
ID: 08_3_116





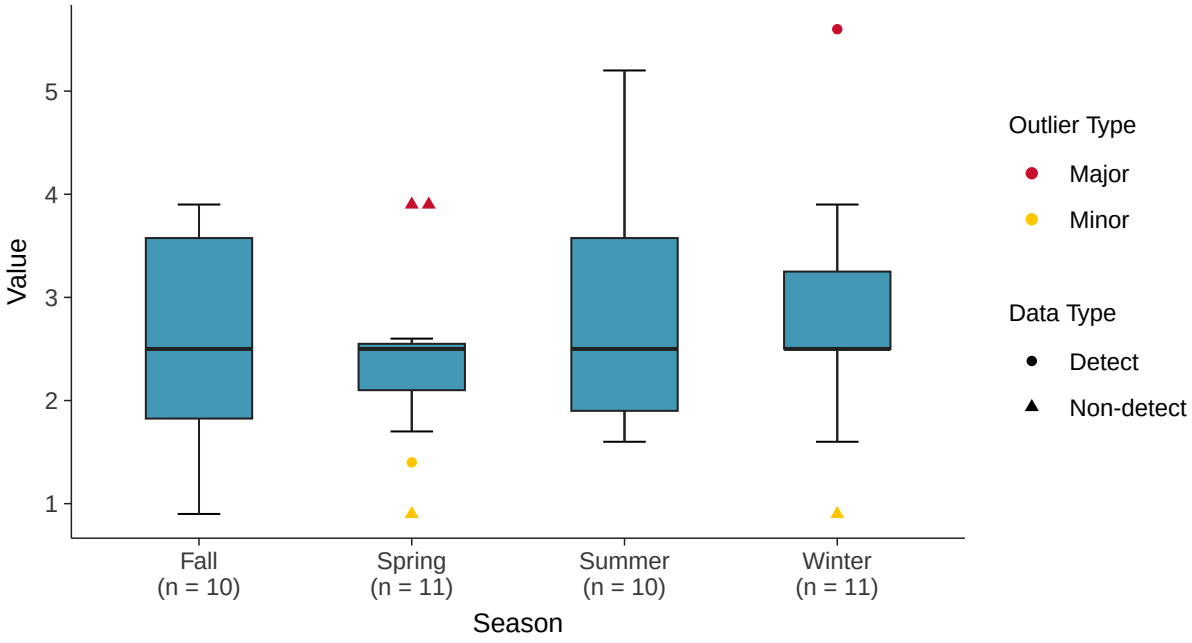
Boxplot

Molybdenum, MW-8 (ug/L)



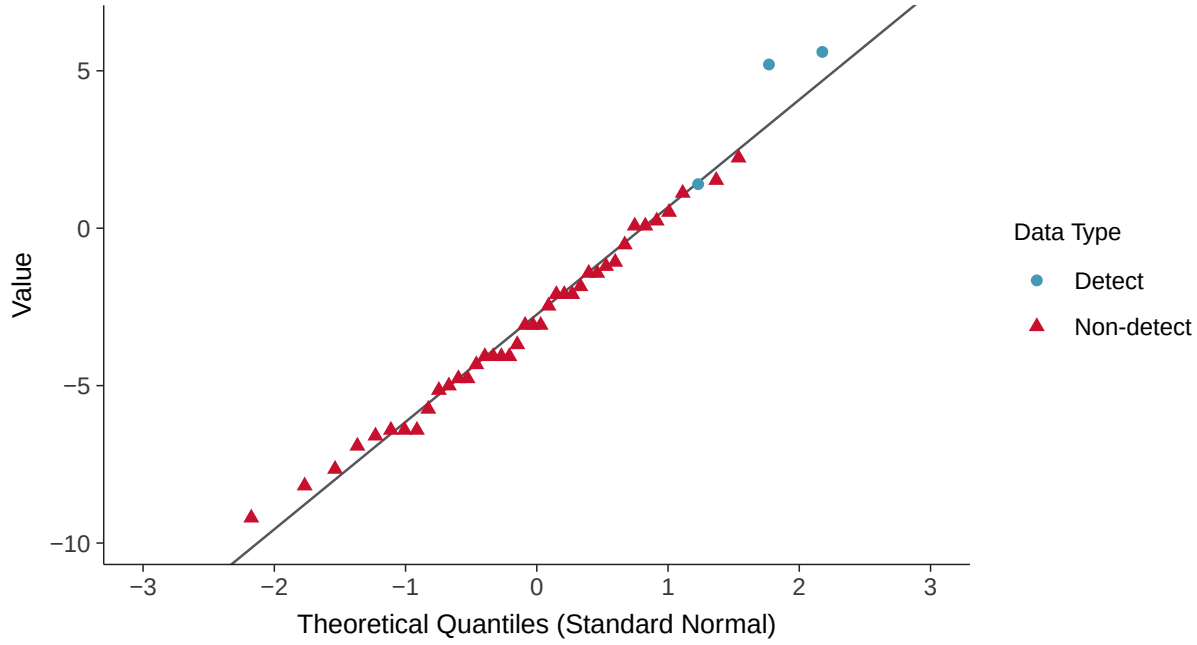
Boxplot by Season

Molybdenum, MW-8 (ug/L)



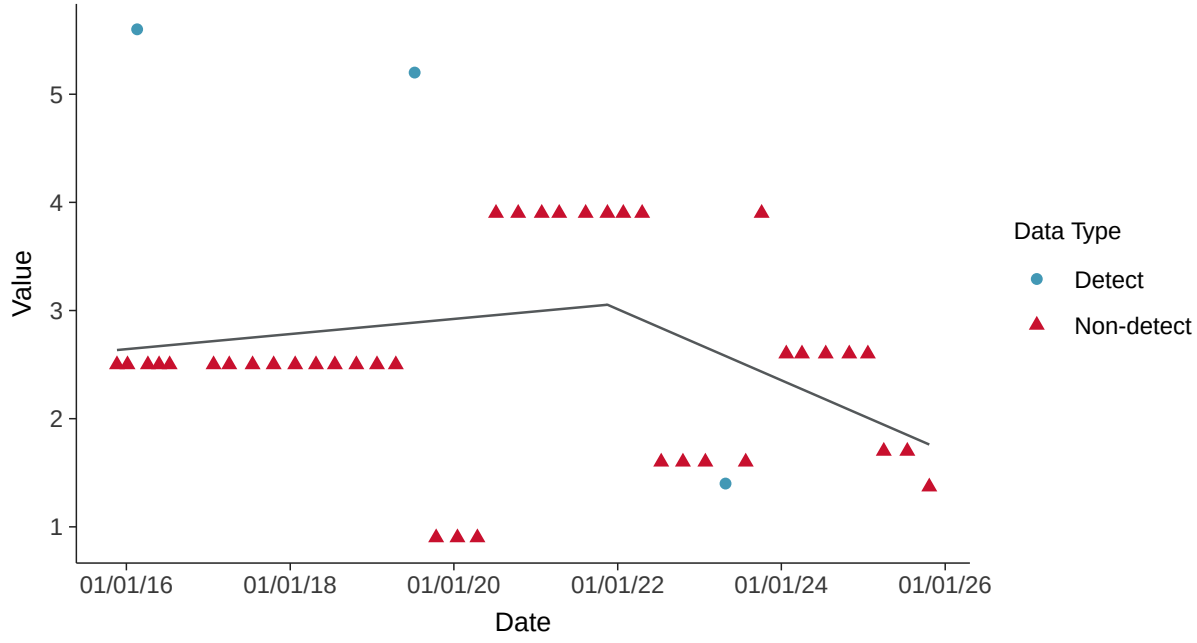
Normal Q-Q plot using ROS Imputed Estimates

Molybdenum, MW-8 (ug/L)



Trend Regression: Piecewise Linear-Linear

Molybdenum, MW-8 (ug/L)

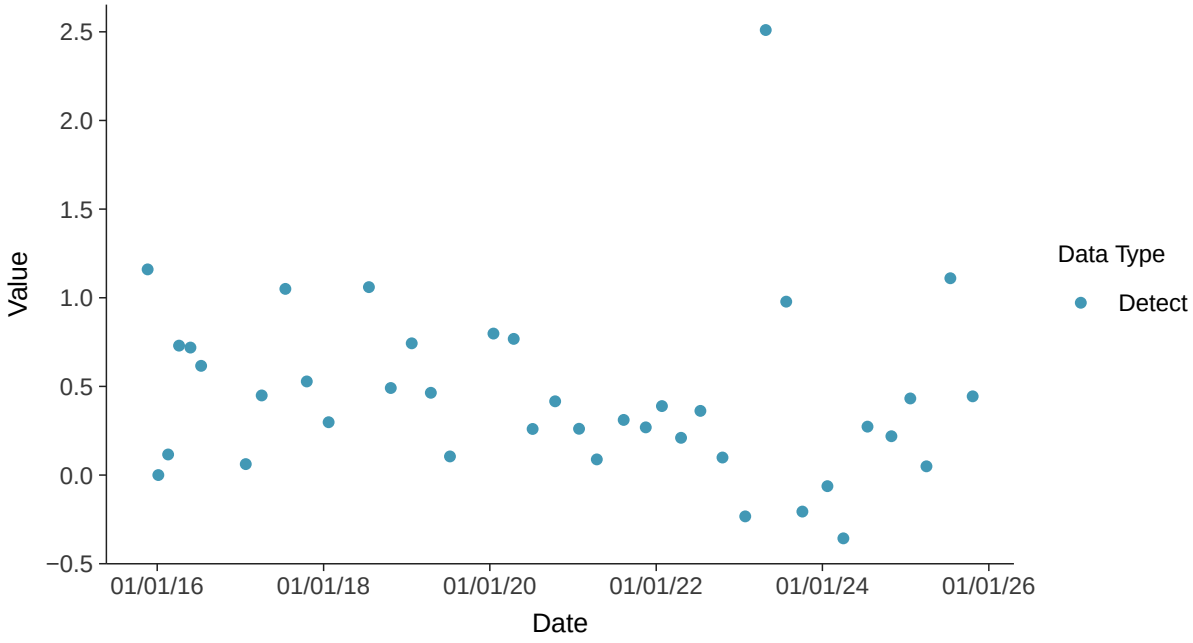


App. IV: Radium-226, MW-8

ID: 08_3_119

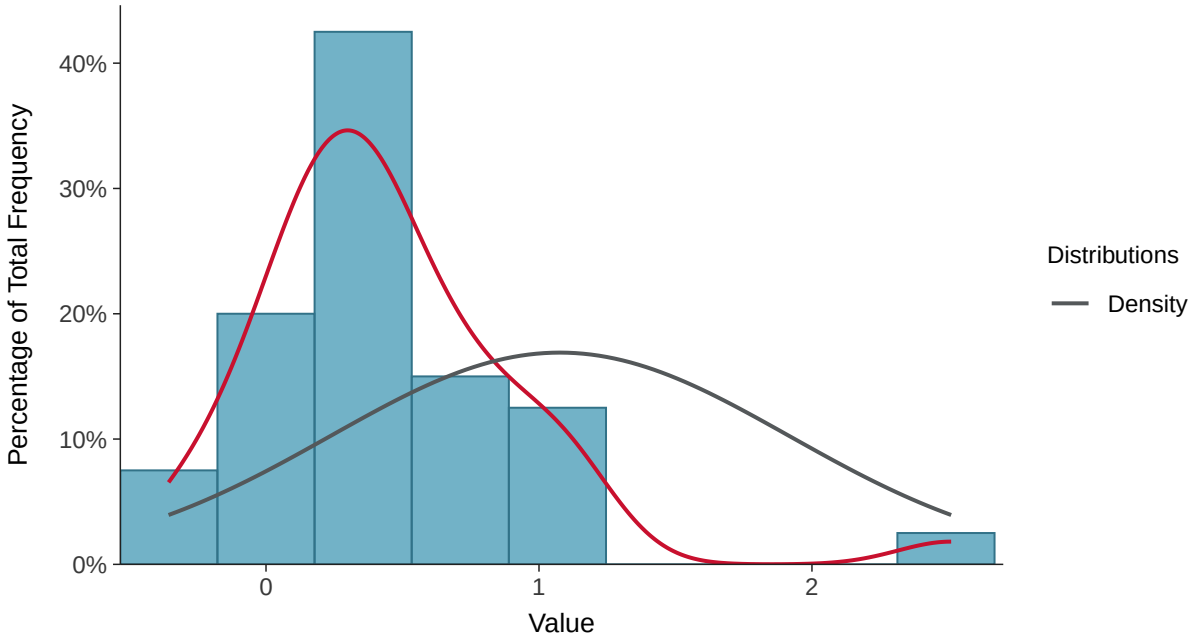
Scatter Plot

Radium-226, MW-8 (pCi/L)



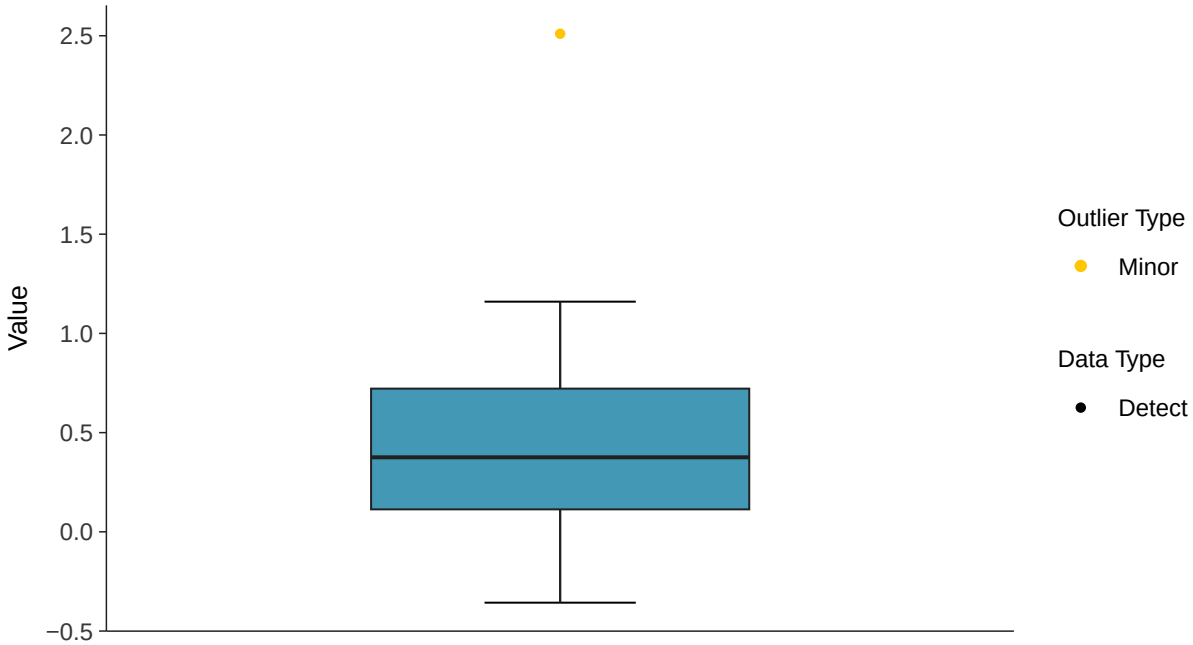
Histogram

Radium-226, MW-8 (pCi/L)



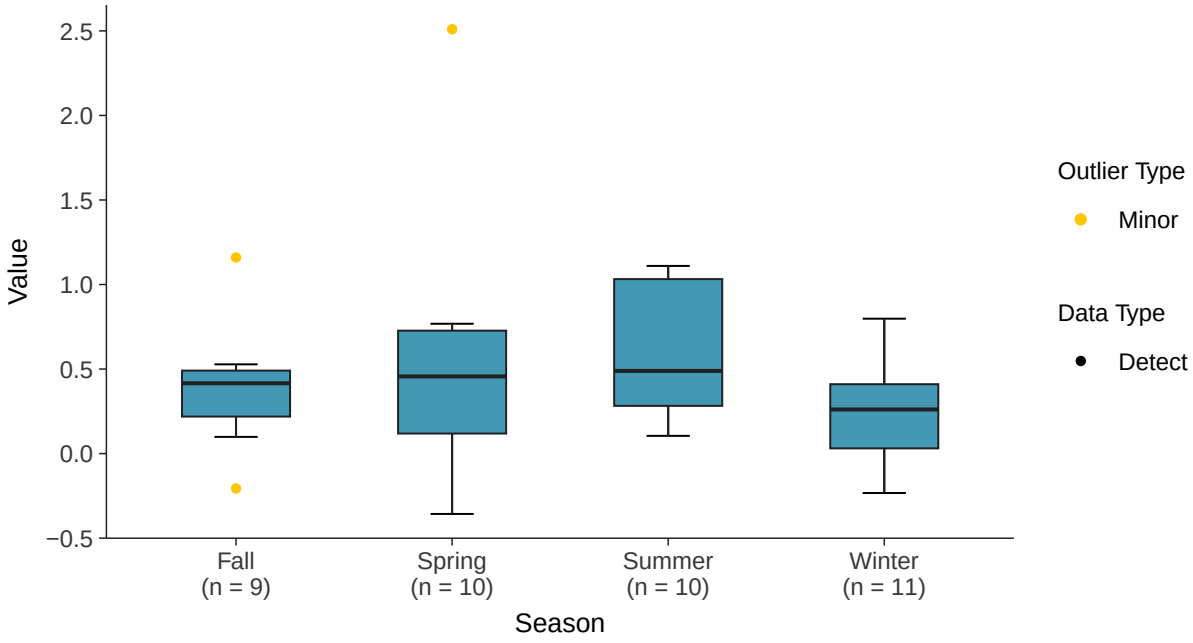
Boxplot

Radium-226, MW-8 (pCi/L)



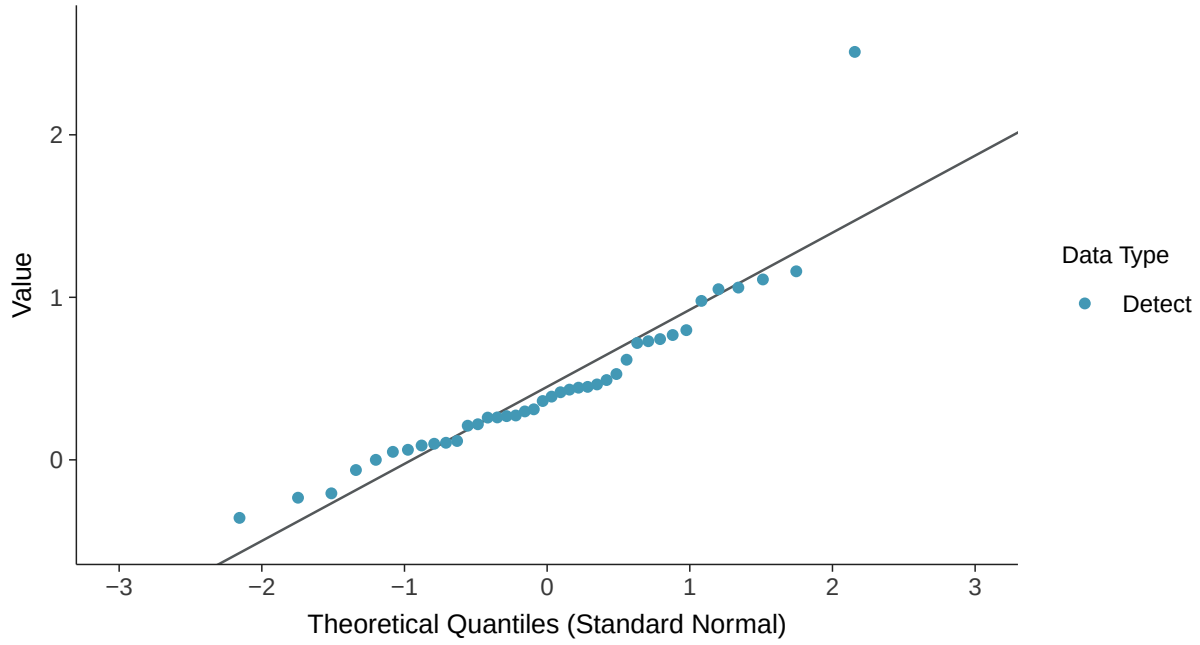
Boxplot by Season

Radium-226, MW-8 (pCi/L)



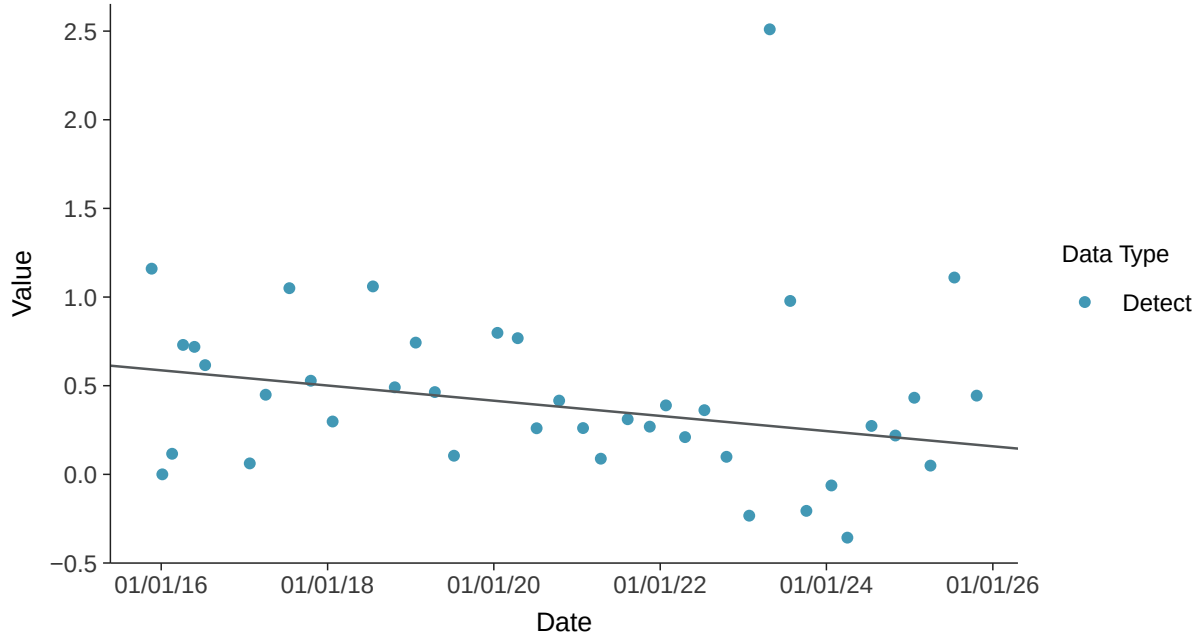
Normal Q-Q plot

Radium-226, MW-8 (pCi/L)



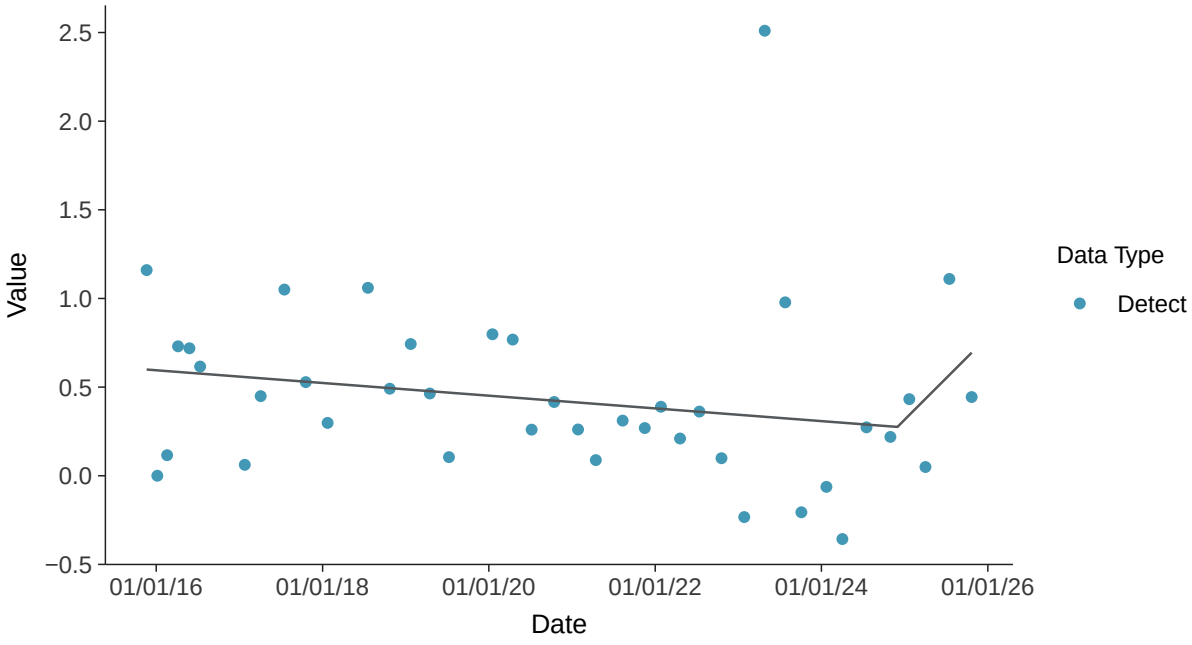
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Radium-226, MW-8 (pCi/L)



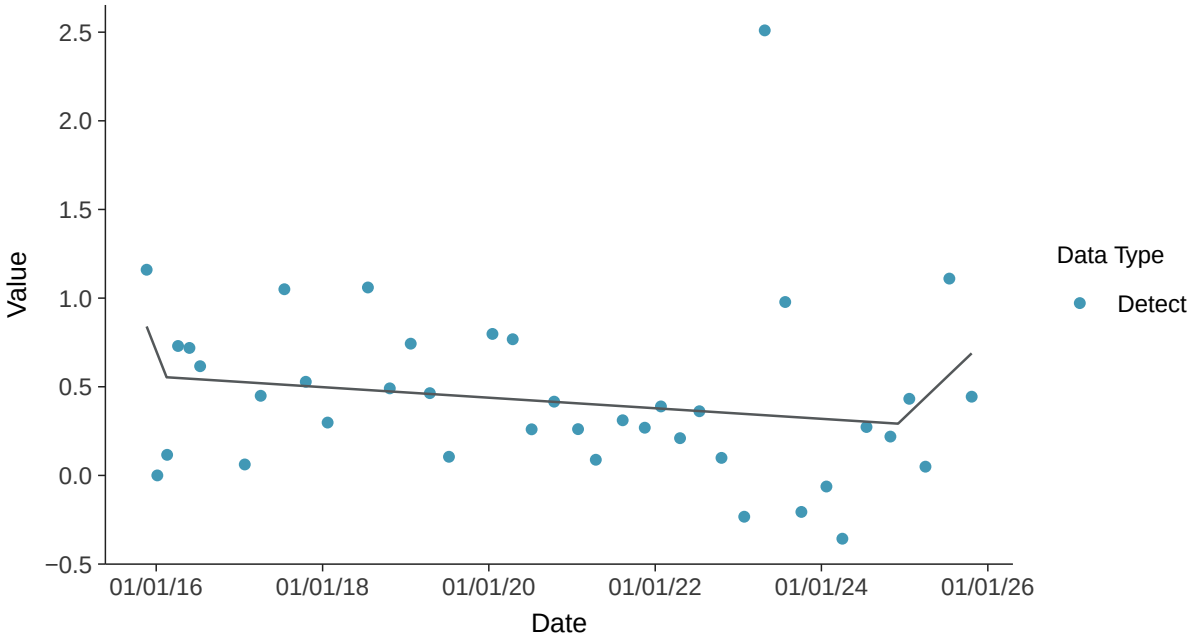
Trend Regression: Piecewise Linear-Linear

Radium-226, MW-8 (pCi/L)



Trend Regression: Piecewise Linear-Linear-Linear

Radium-226, MW-8 (pCi/L)

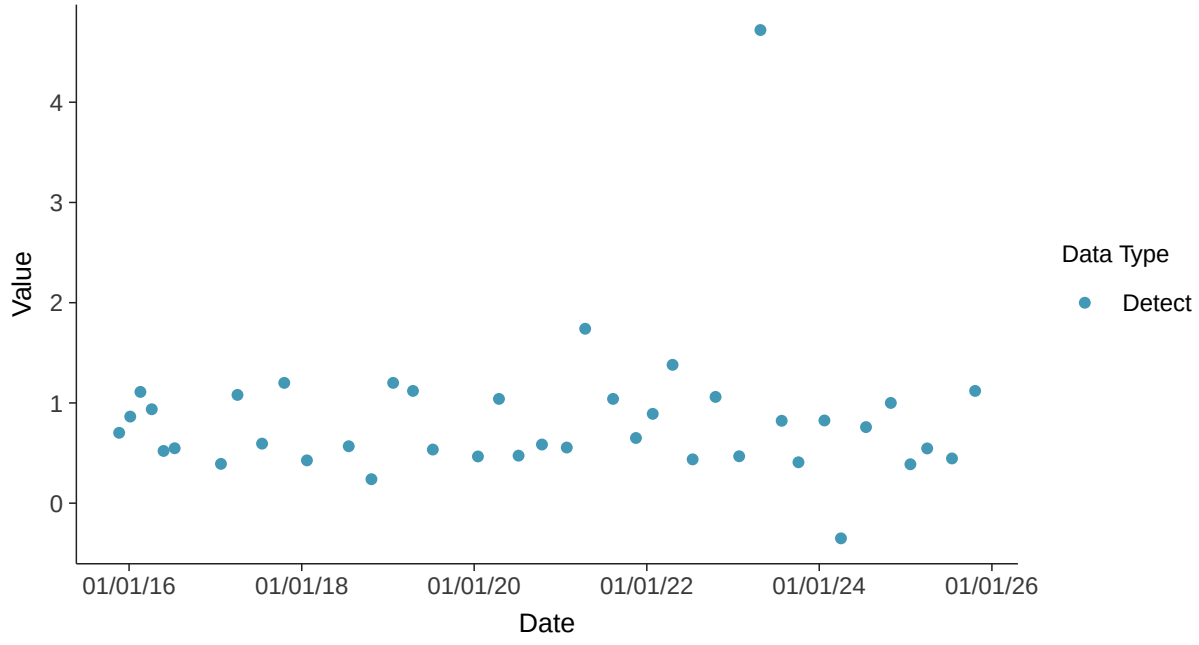


App. IV: Radium-228, MW-8

ID: 08_3_120

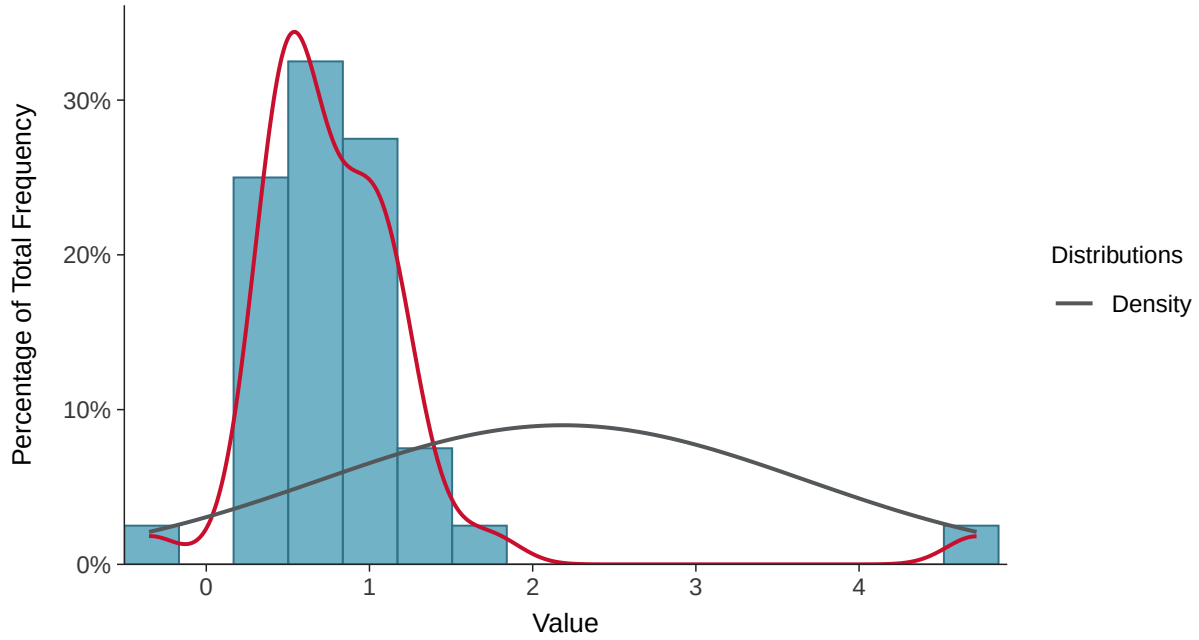
Scatter Plot

Radium-228, MW-8 (pCi/L)



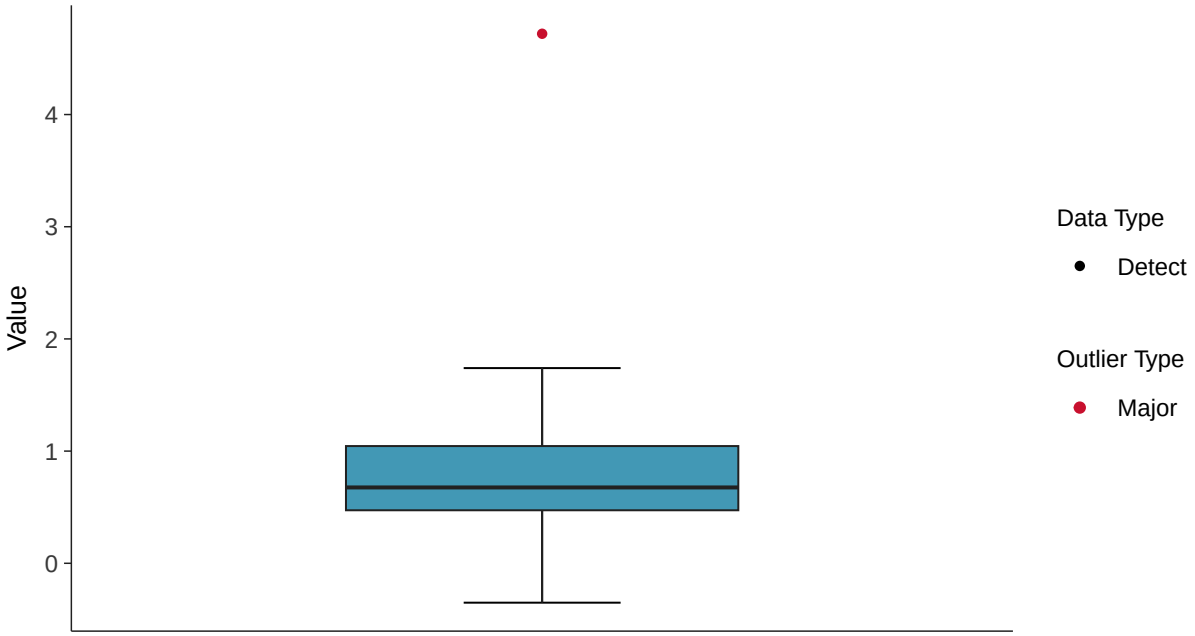
Histogram

Radium-228, MW-8 (pCi/L)



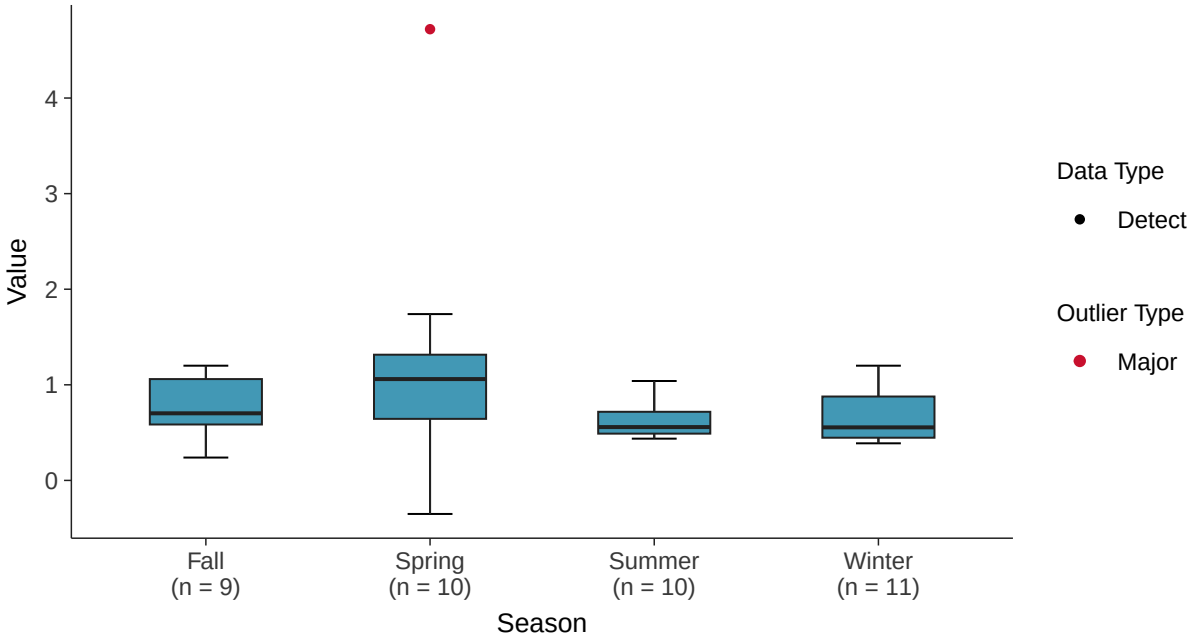
Boxplot

Radium-228, MW-8 (pCi/L)



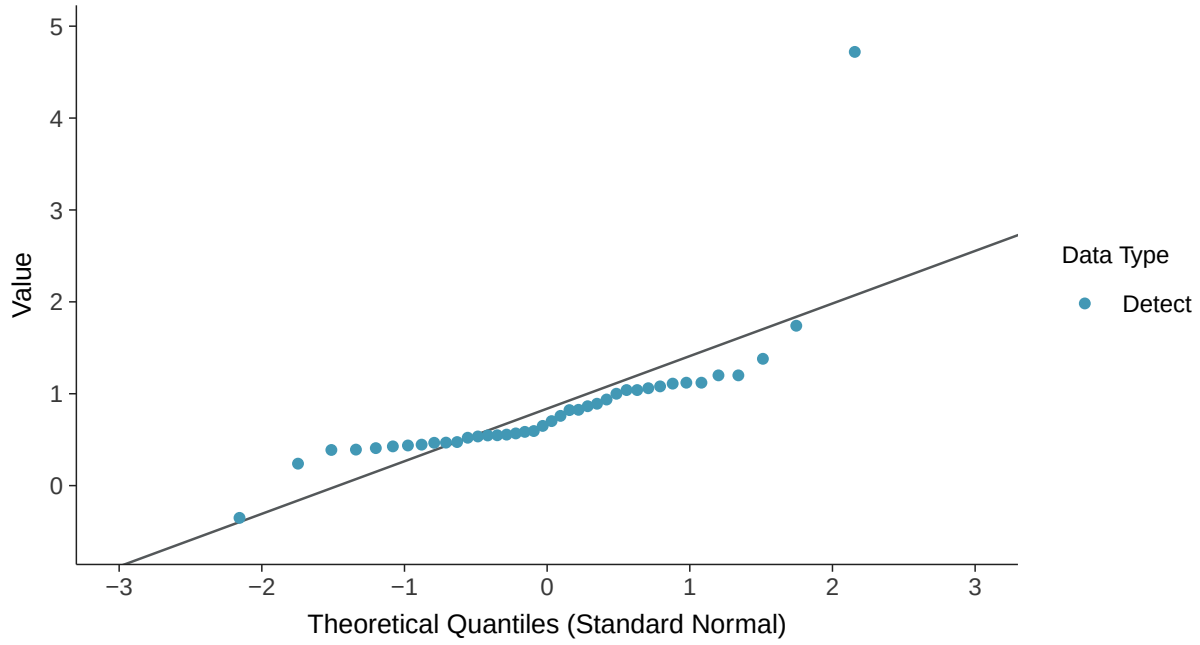
Boxplot by Season

Radium-228, MW-8 (pCi/L)



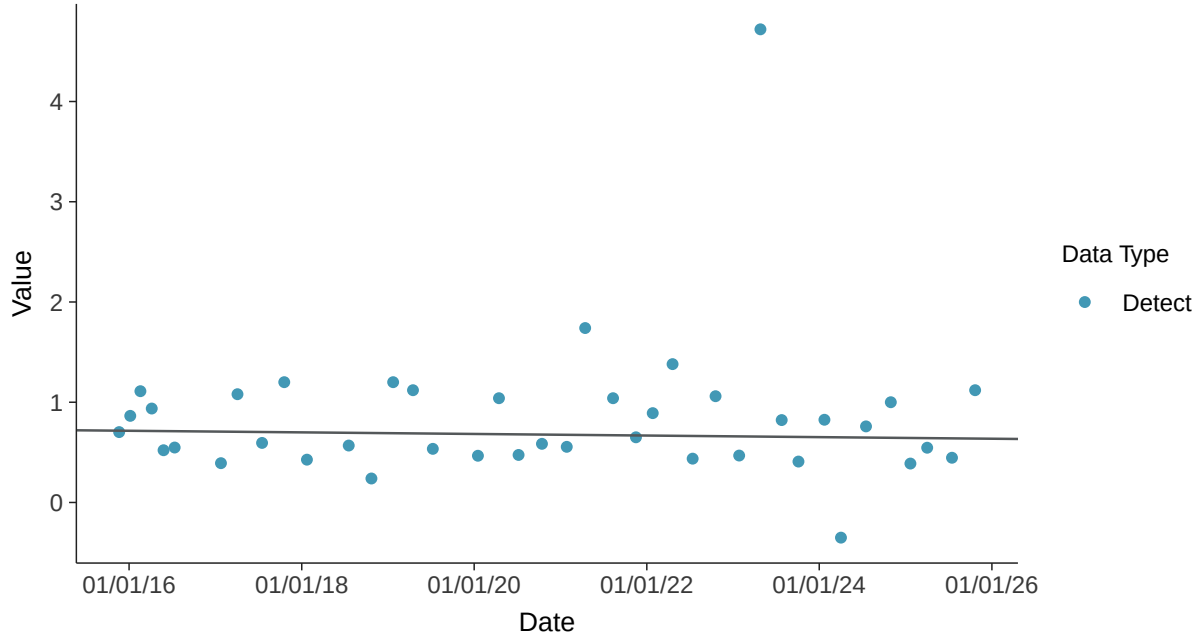
Normal Q-Q plot

Radium-228, MW-8 (pCi/L)



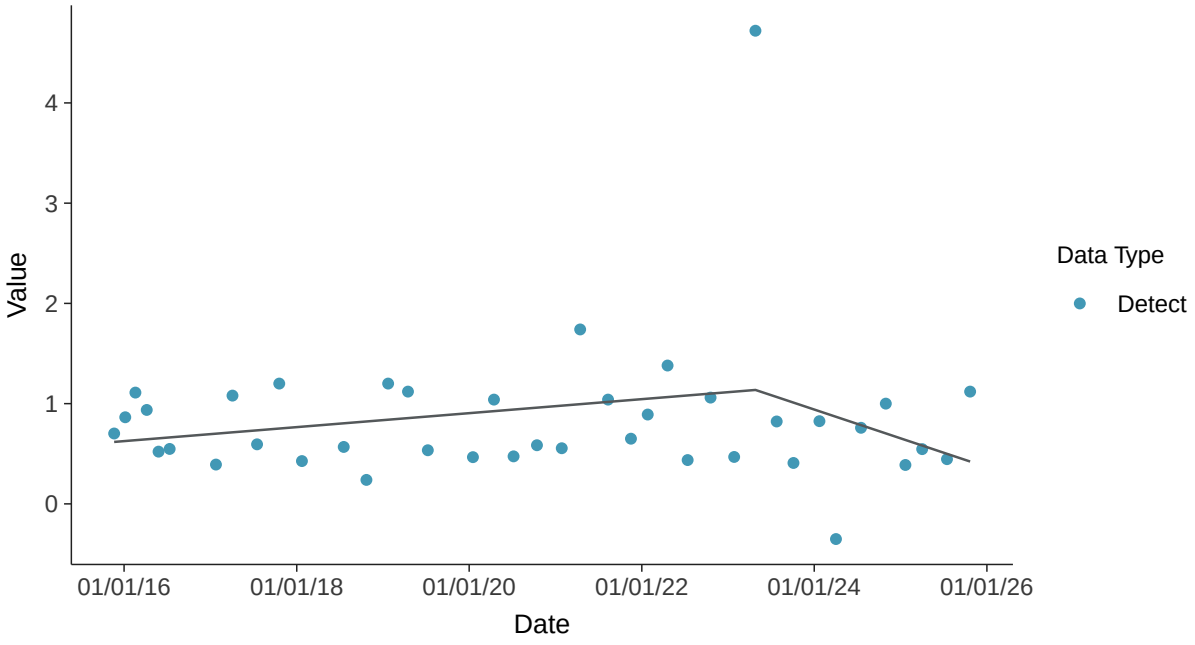
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Radium-228, MW-8 (pCi/L)



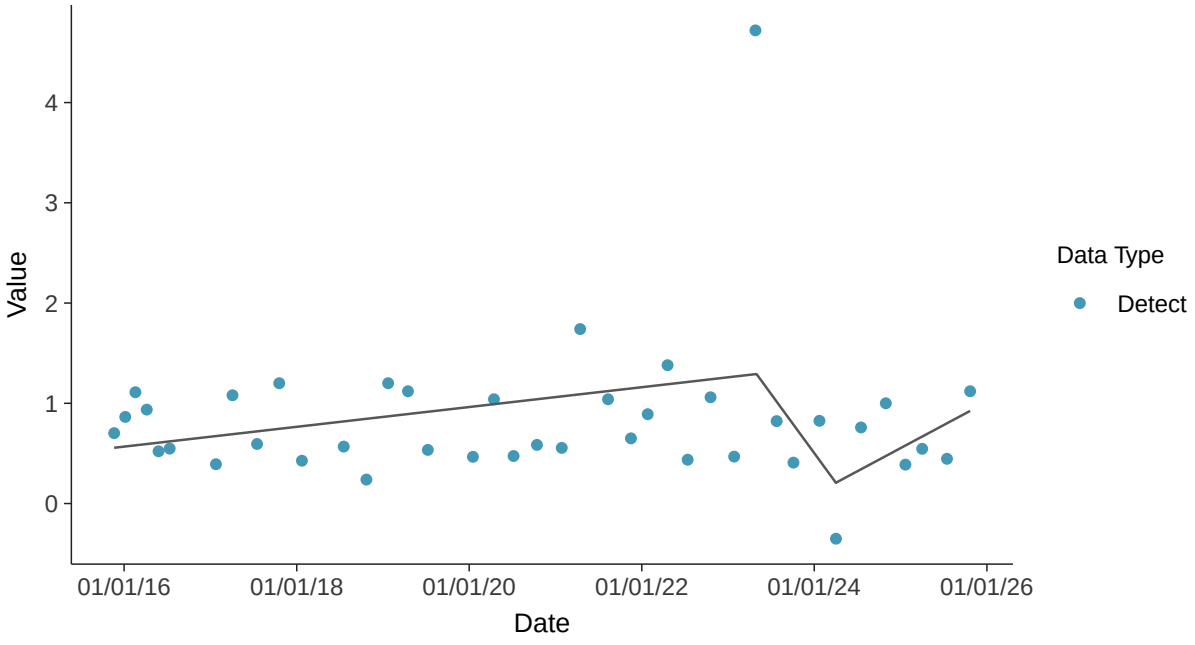
Trend Regression: Piecewise Linear-Linear

Radium-228, MW-8 (pCi/L)



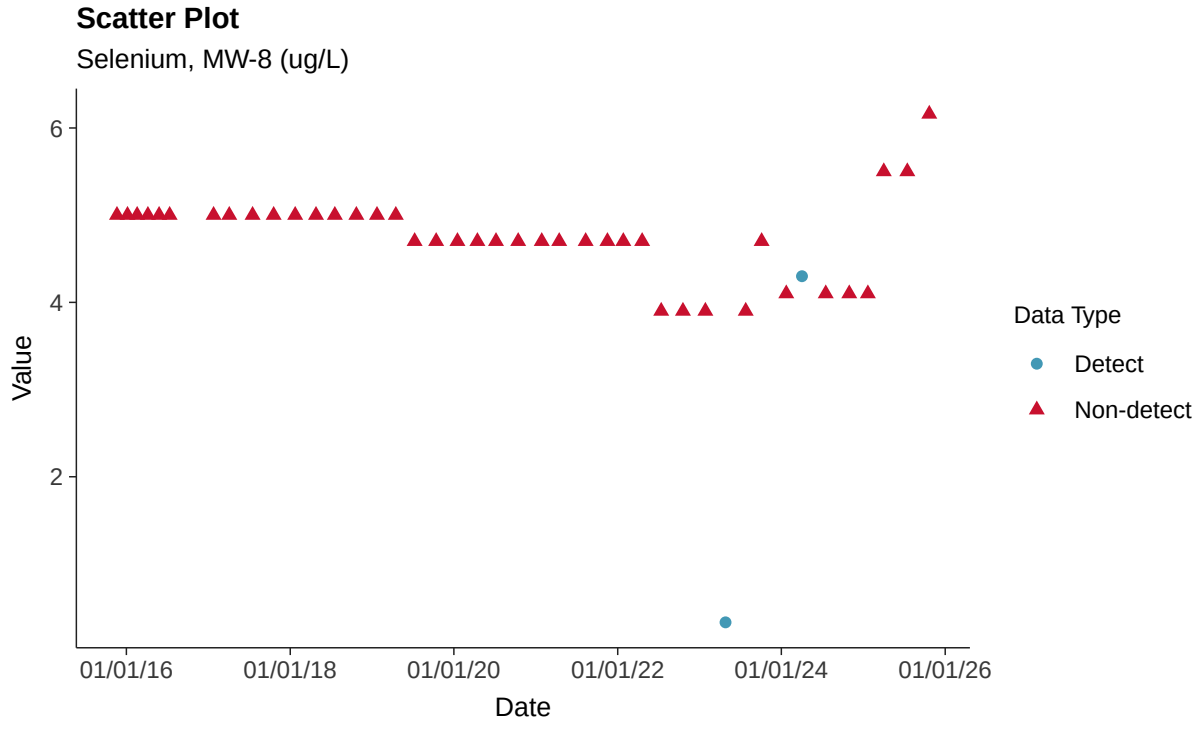
Trend Regression: Piecewise Linear-Linear-Linear

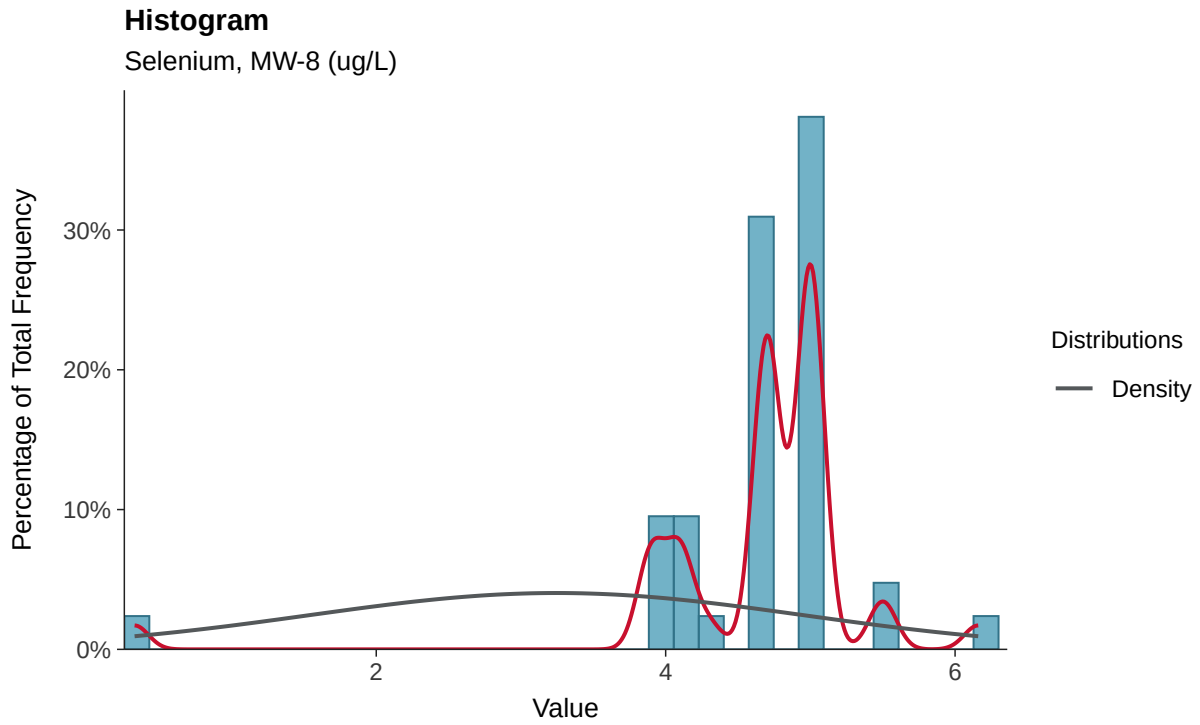
Radium-228, MW-8 (pCi/L)



App. IV: Selenium, MW-8

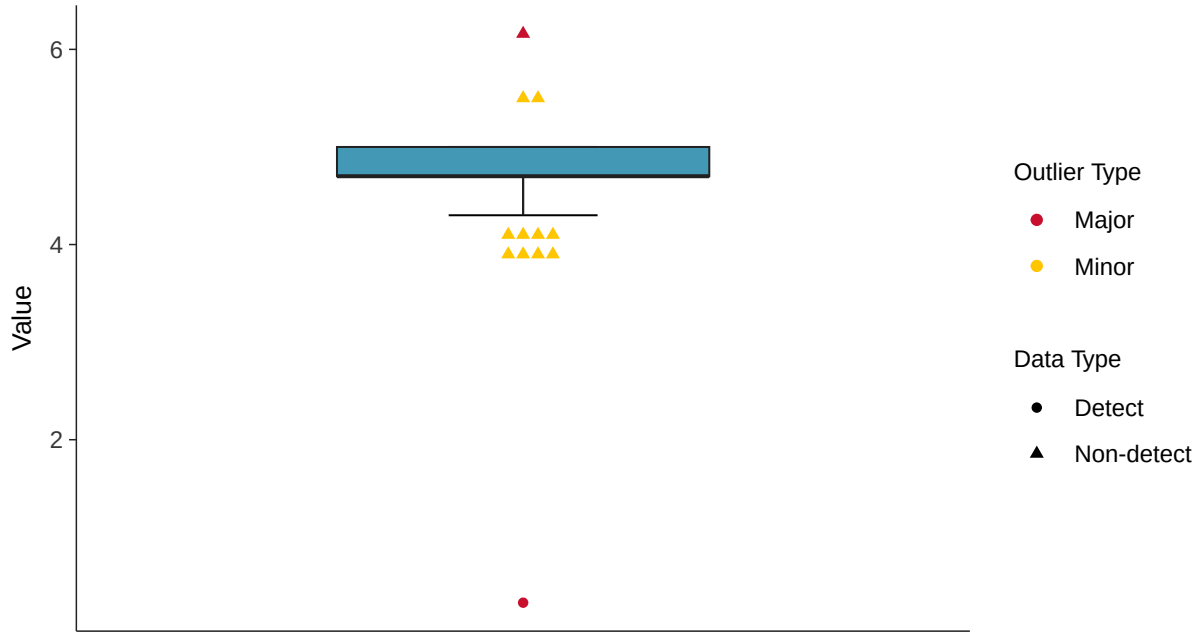
ID: 08_3_121





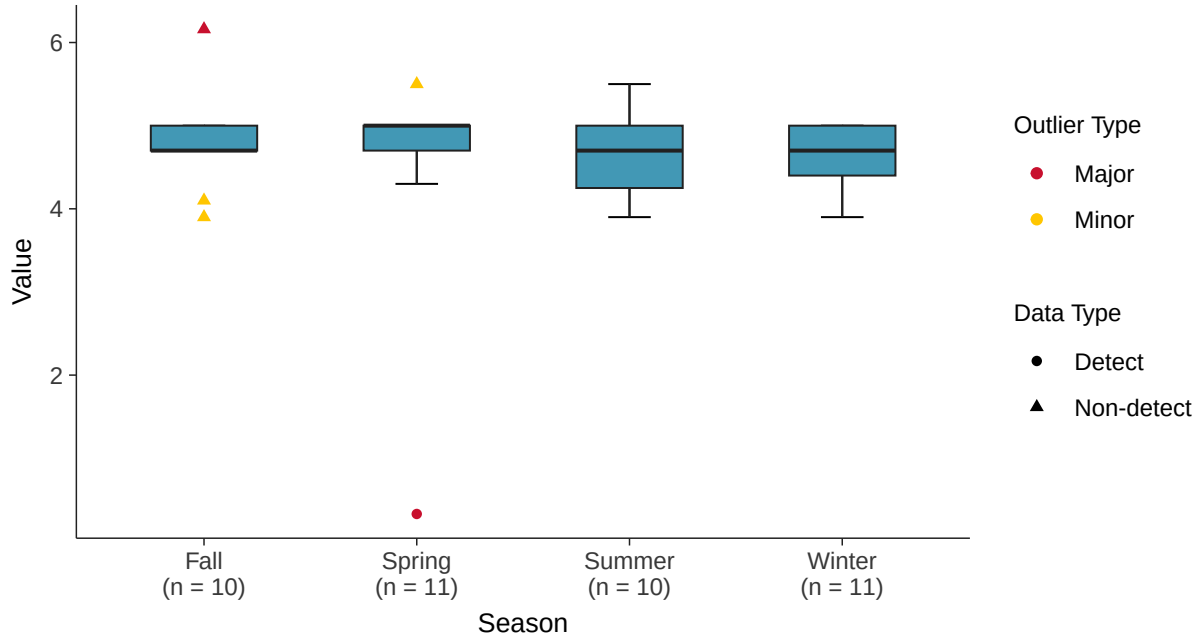
Boxplot

Selenium, MW-8 (ug/L)



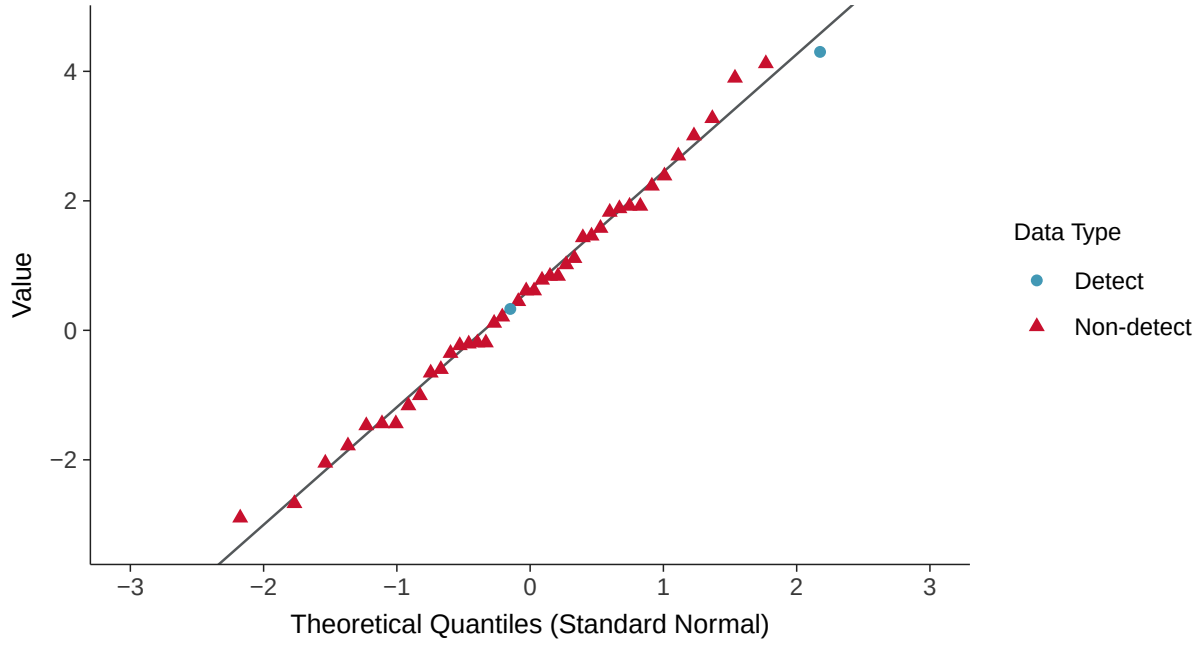
Boxplot by Season

Selenium, MW-8 (ug/L)



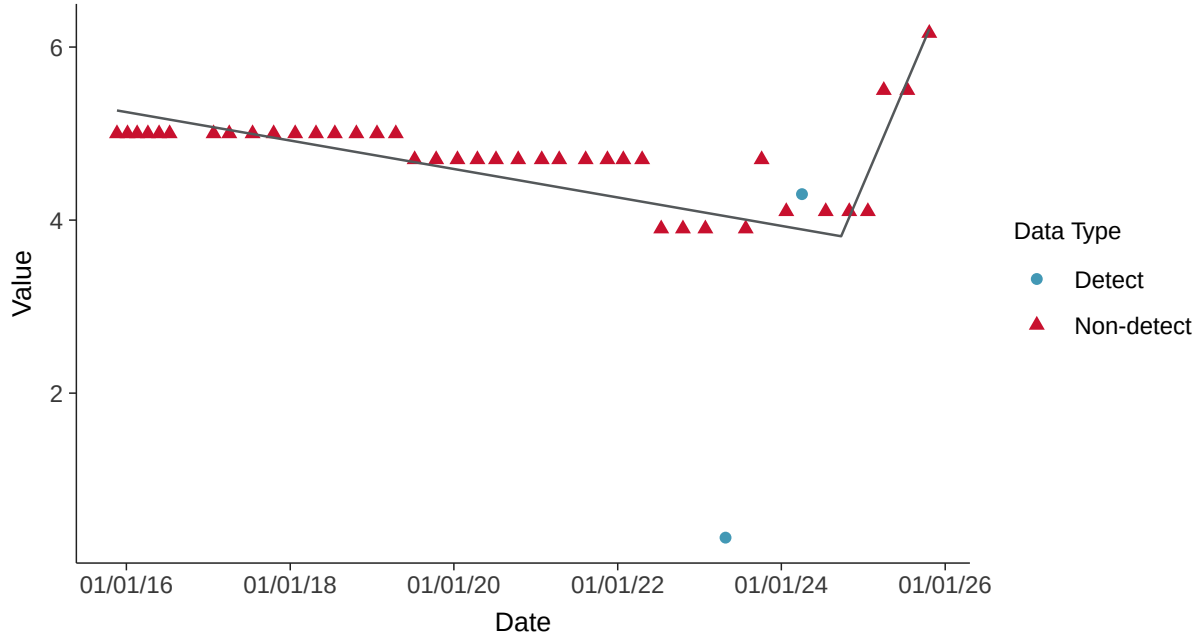
Normal Q-Q plot using ROS Imputed Estimates

Selenium, MW-8 (ug/L)



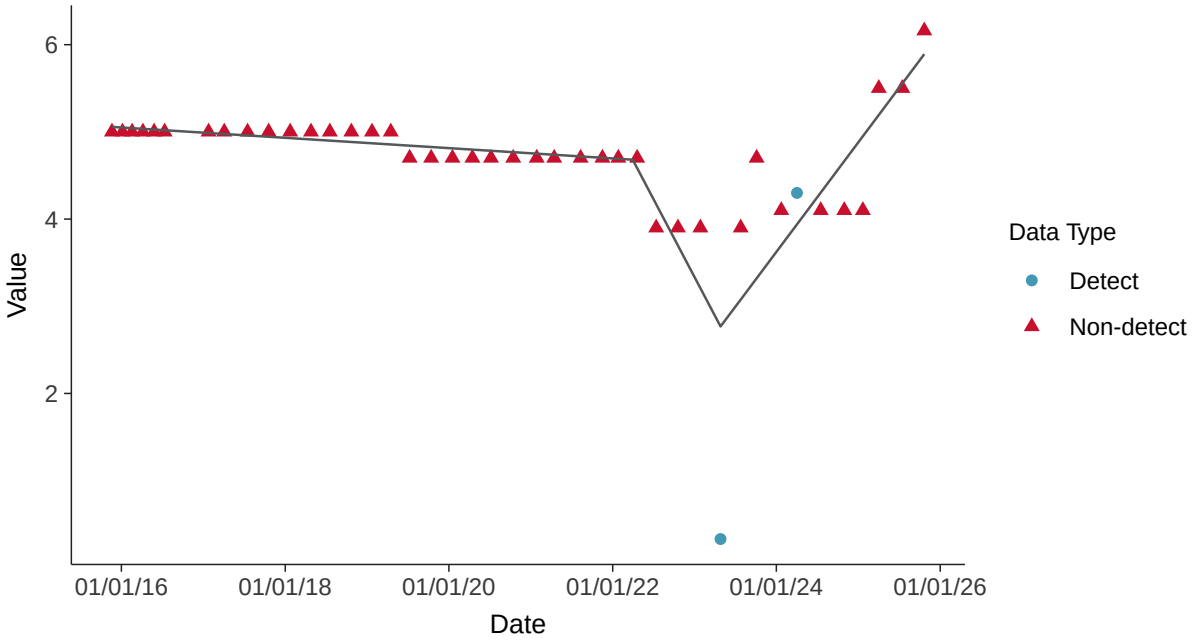
Trend Regression: Piecewise Linear-Linear

Selenium, MW-8 (ug/L)



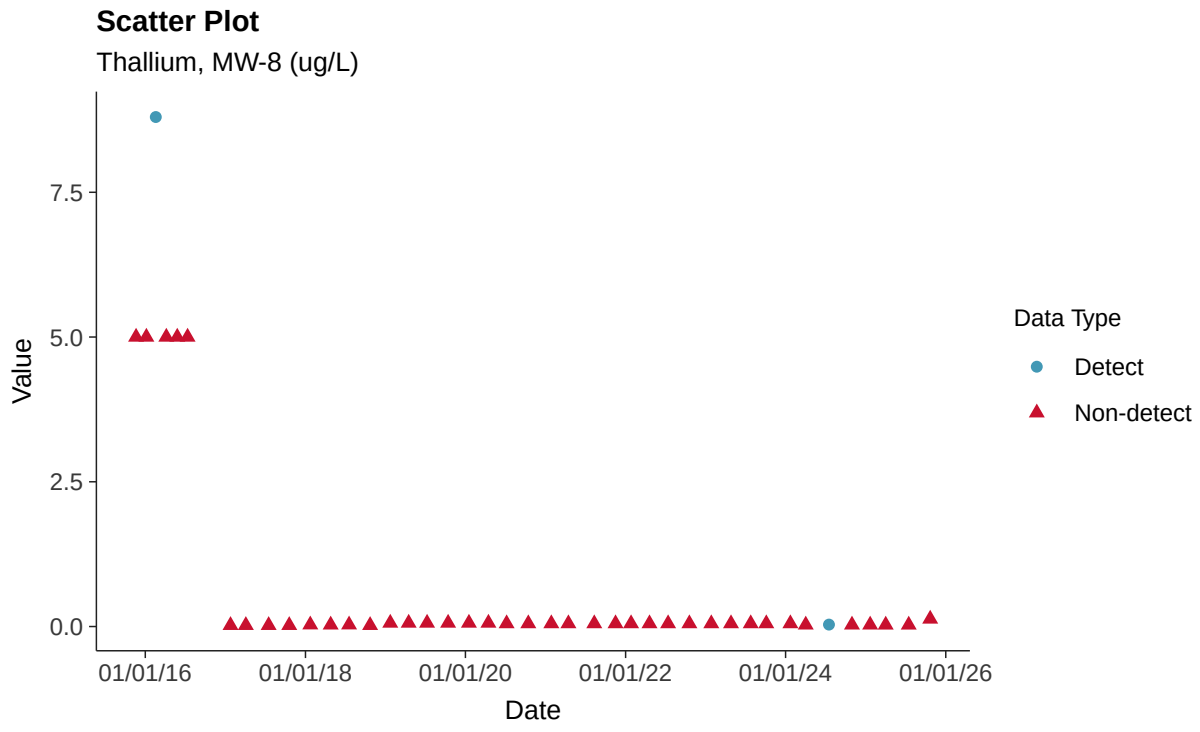
Trend Regression: Piecewise Linear-Linear-Linear

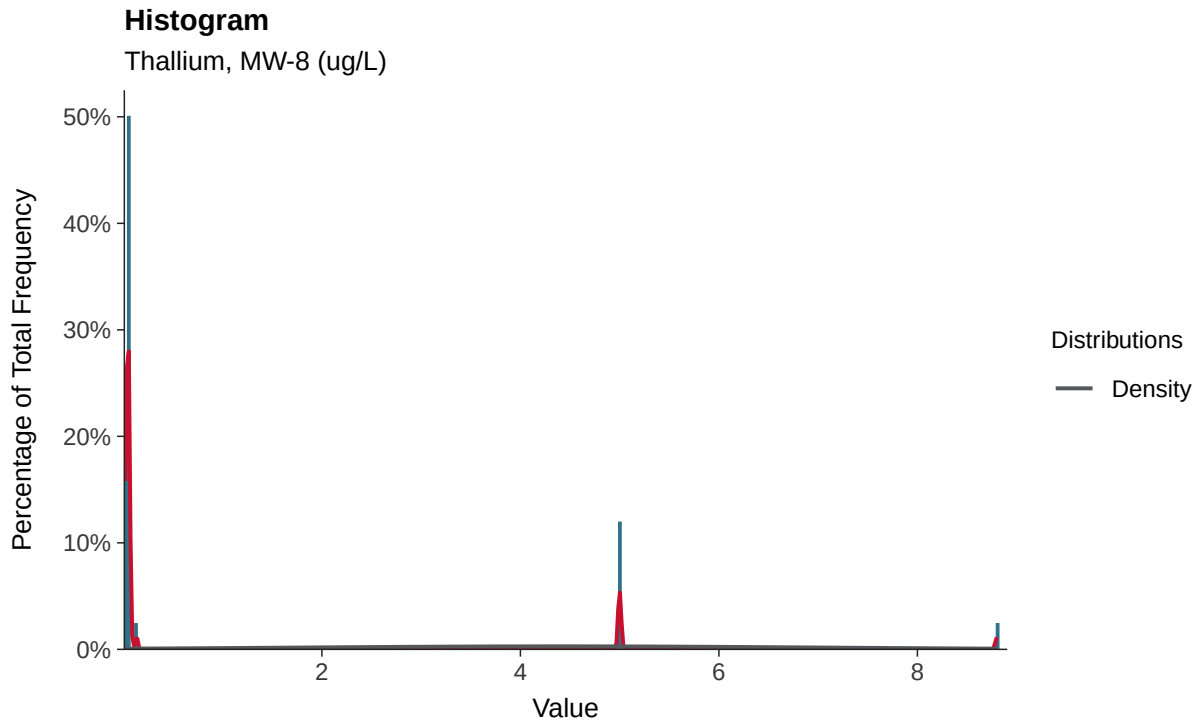
Selenium, MW-8 (ug/L)



App. IV: Thallium, MW-8

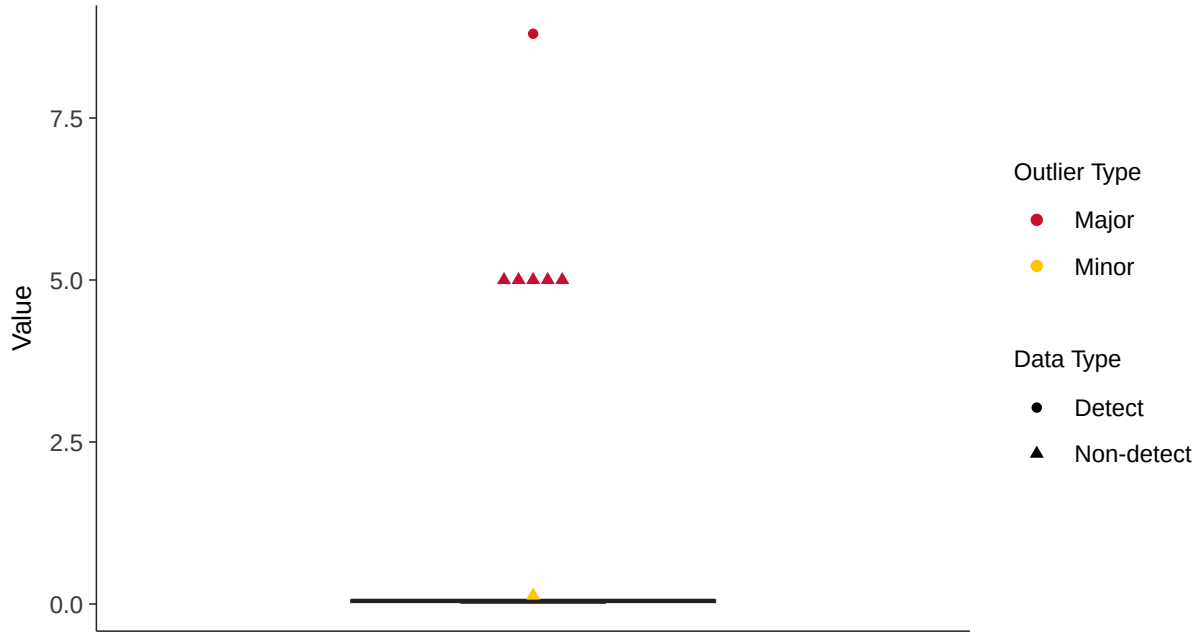
ID: 08_3_124





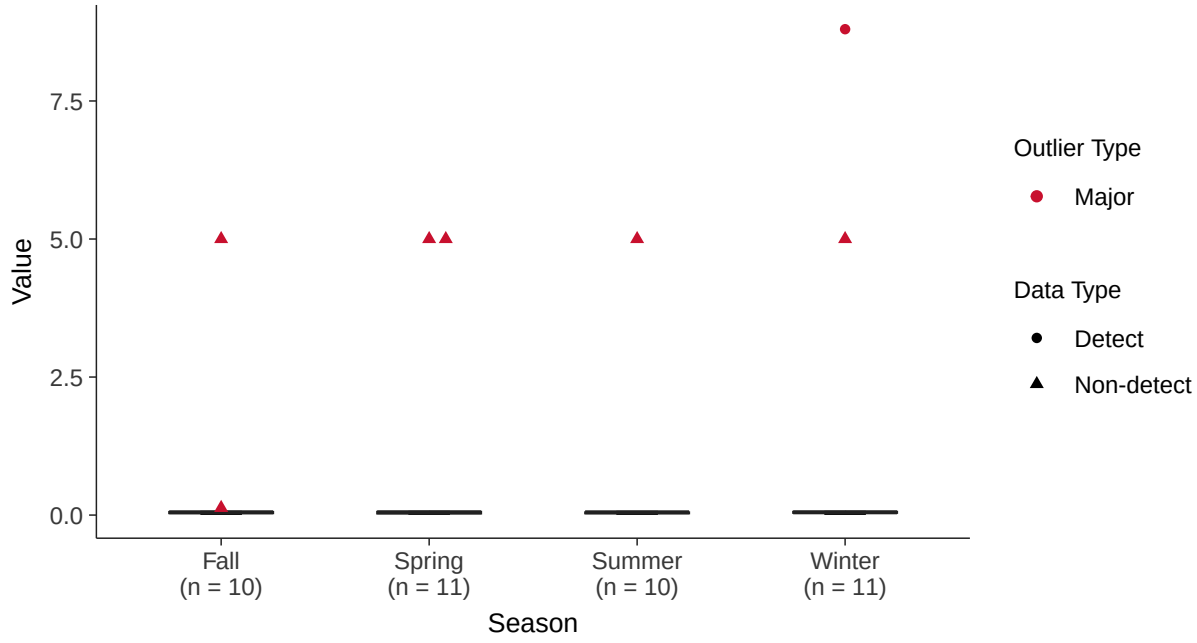
Boxplot

Thallium, MW-8 (ug/L)



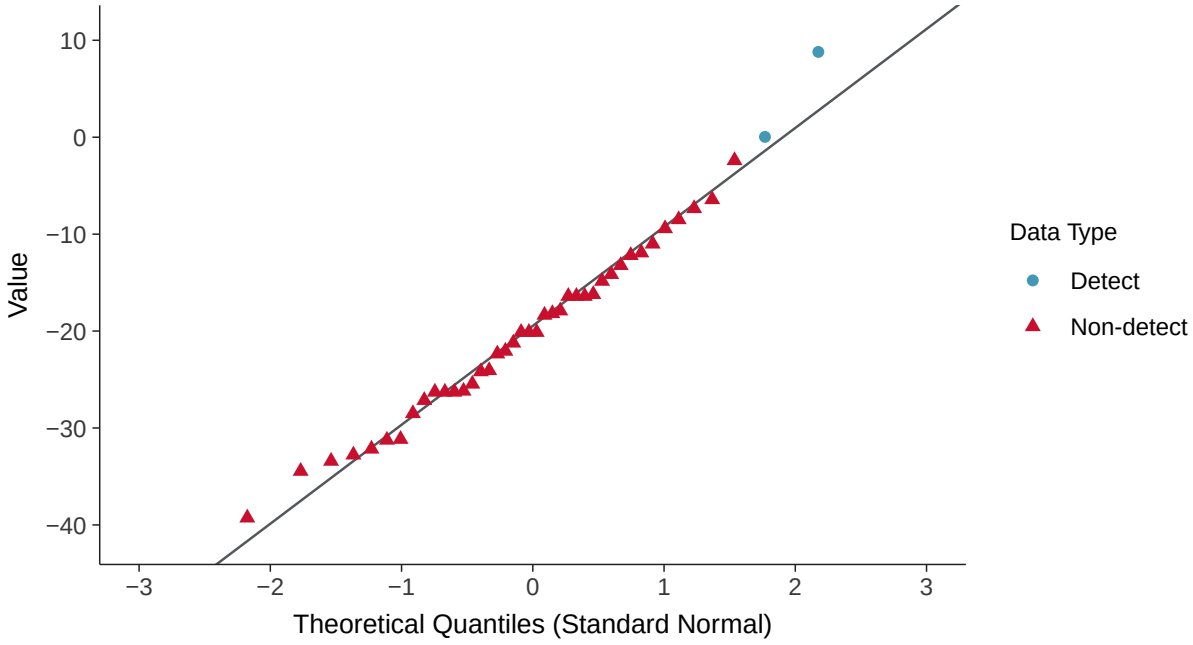
Boxplot by Season

Thallium, MW-8 (ug/L)



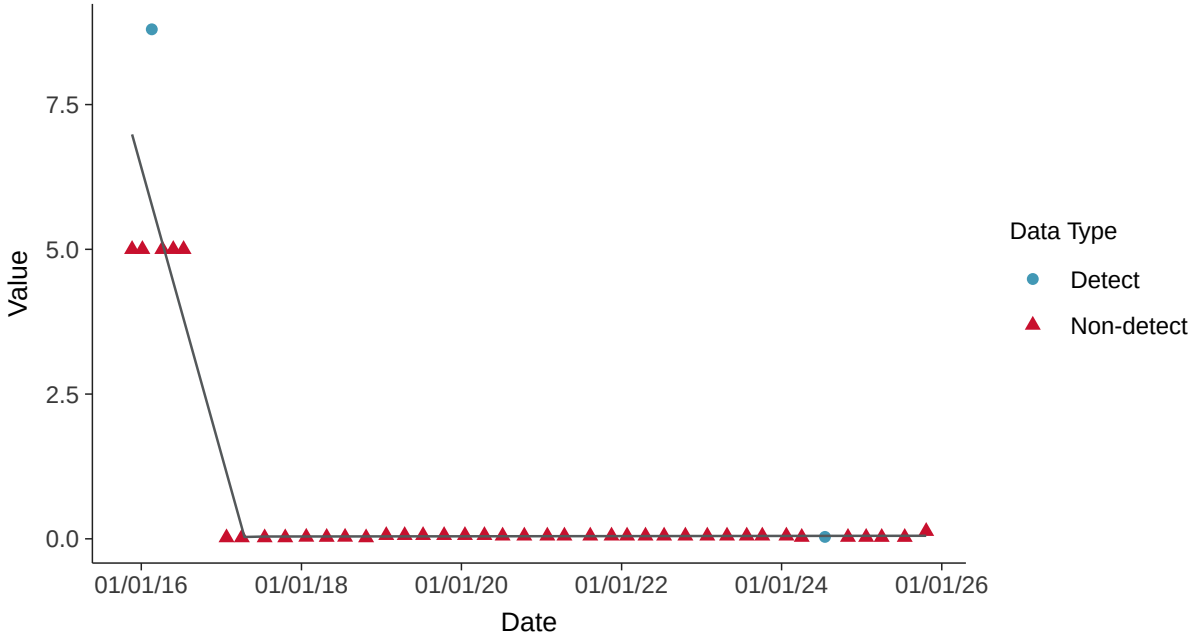
Normal Q-Q plot using ROS Imputed Estimates

Thallium, MW-8 (ug/L)



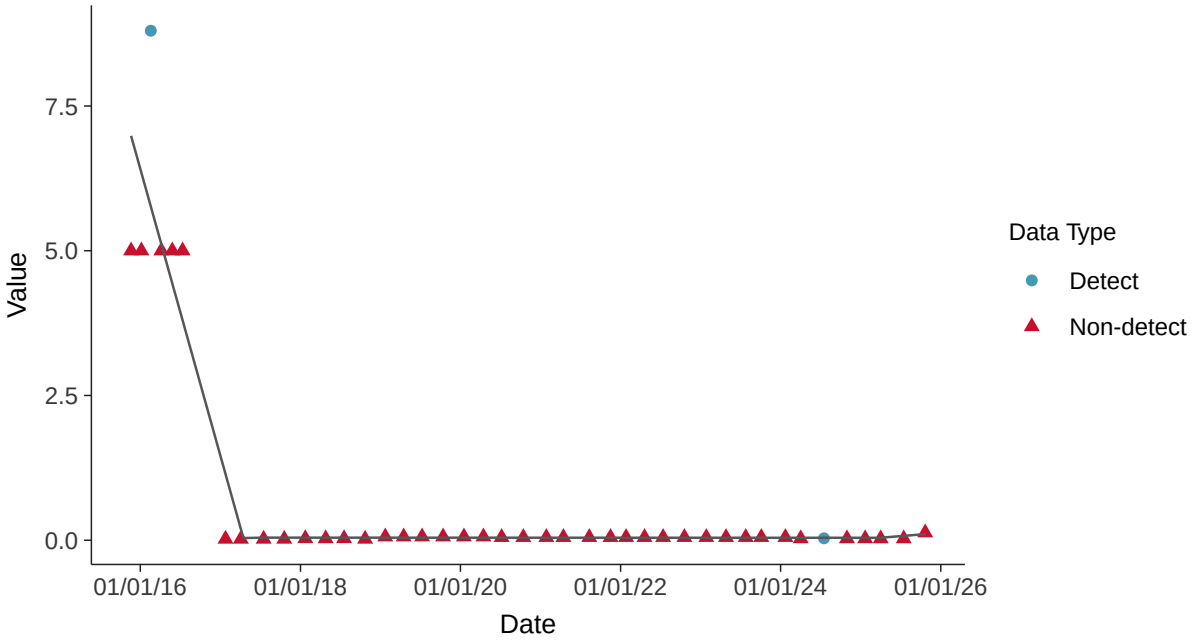
Trend Regression: Piecewise Linear-Linear

Thallium, MW-8 (ug/L)



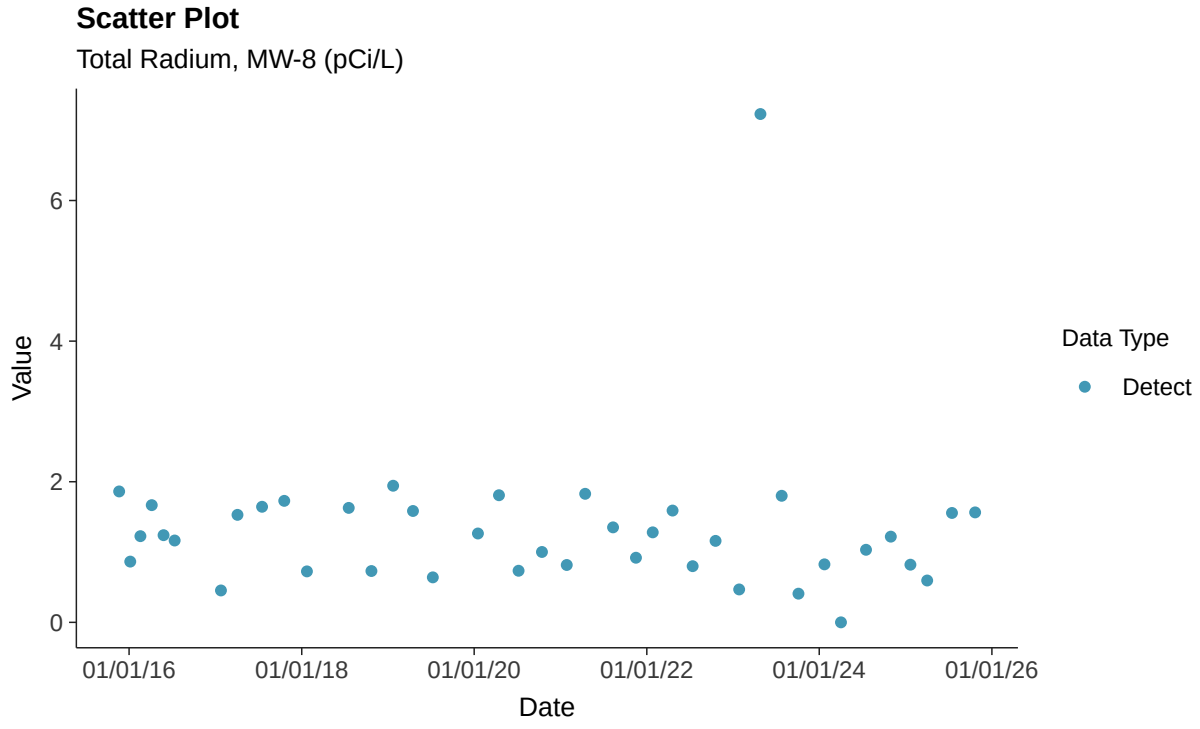
Trend Regression: Piecewise Linear-Linear-Linear

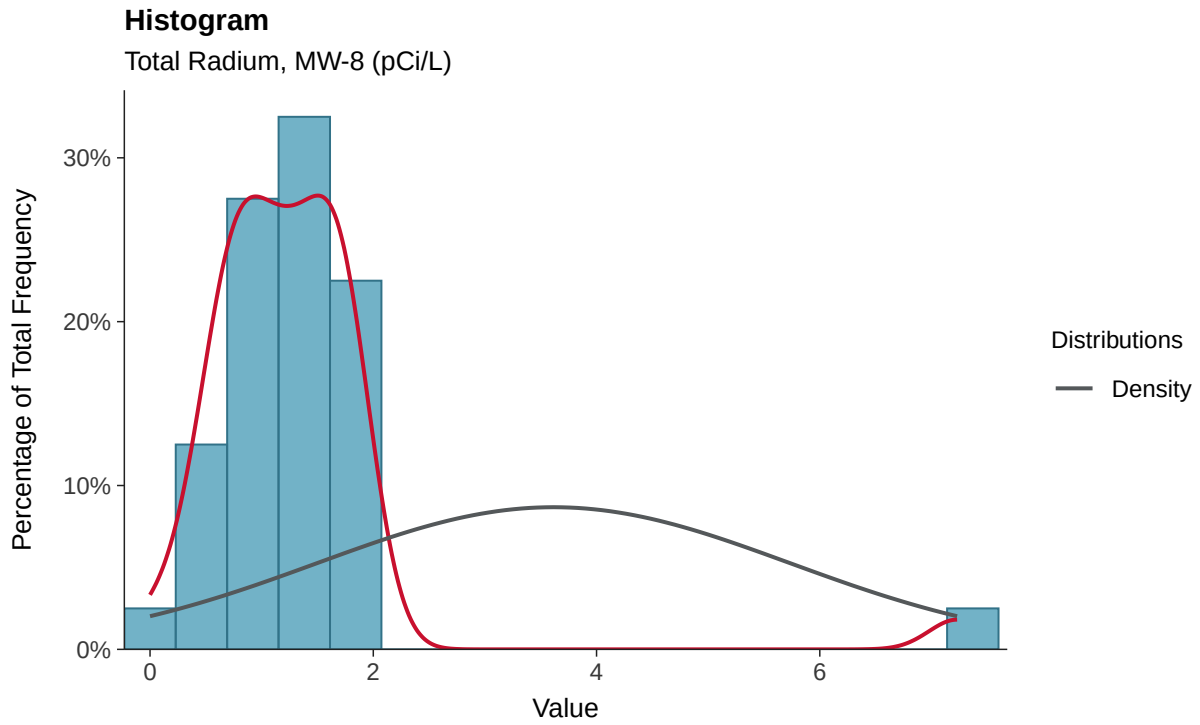
Thallium, MW-8 (ug/L)



App. IV: Total Radium, MW-8

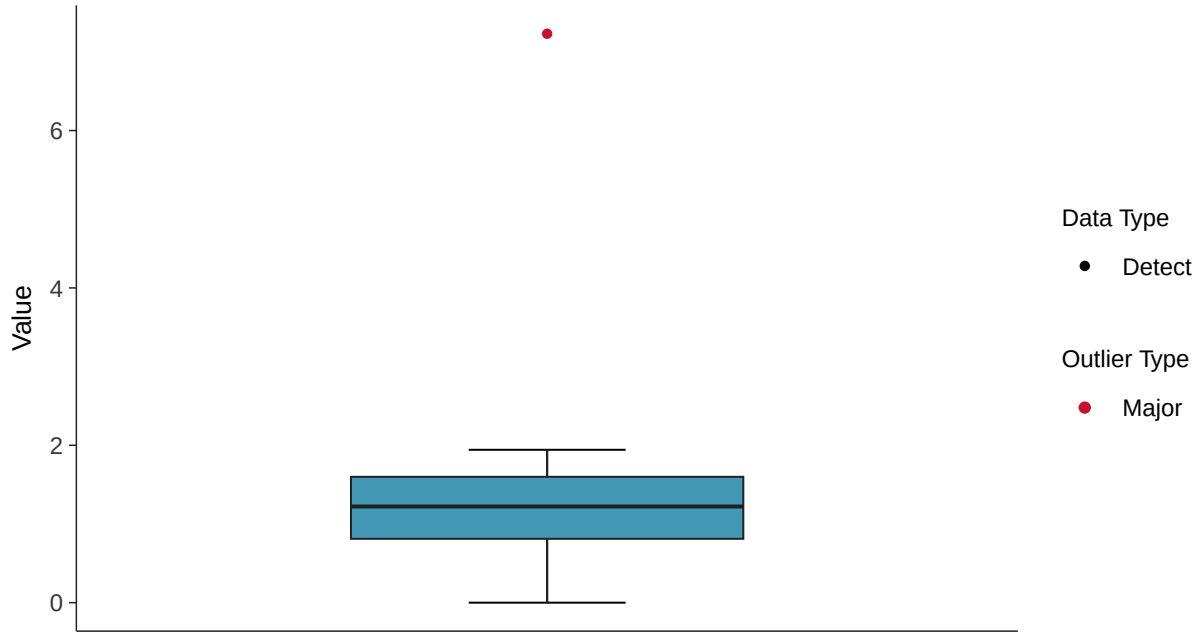
ID: 08_3_126





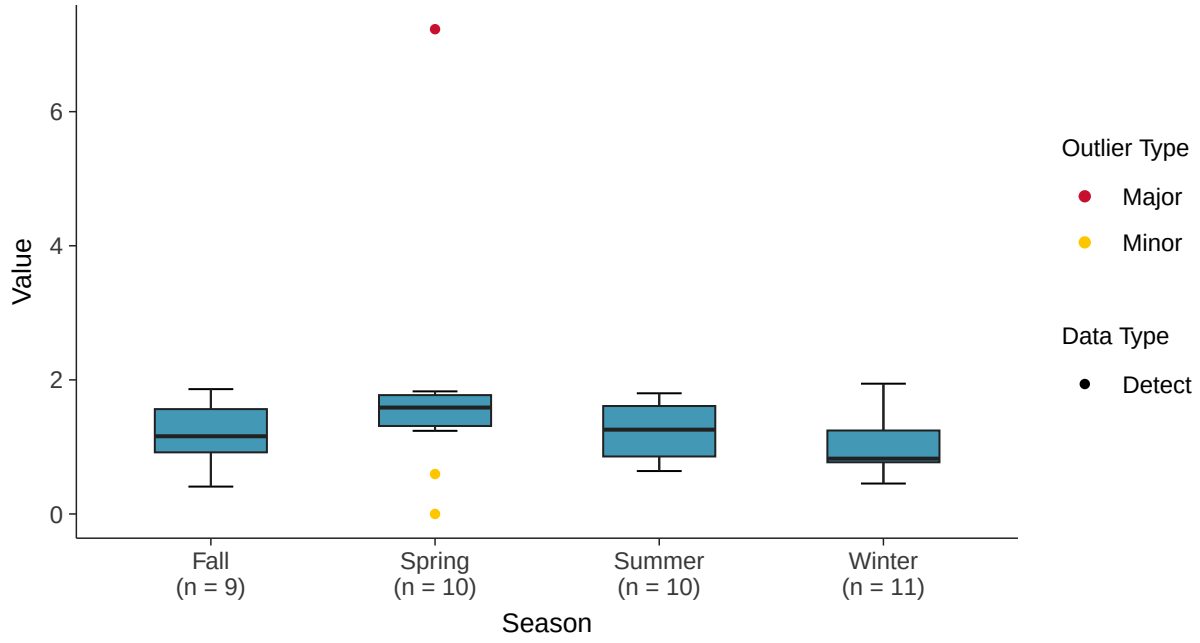
Boxplot

Total Radium, MW-8 (pCi/L)



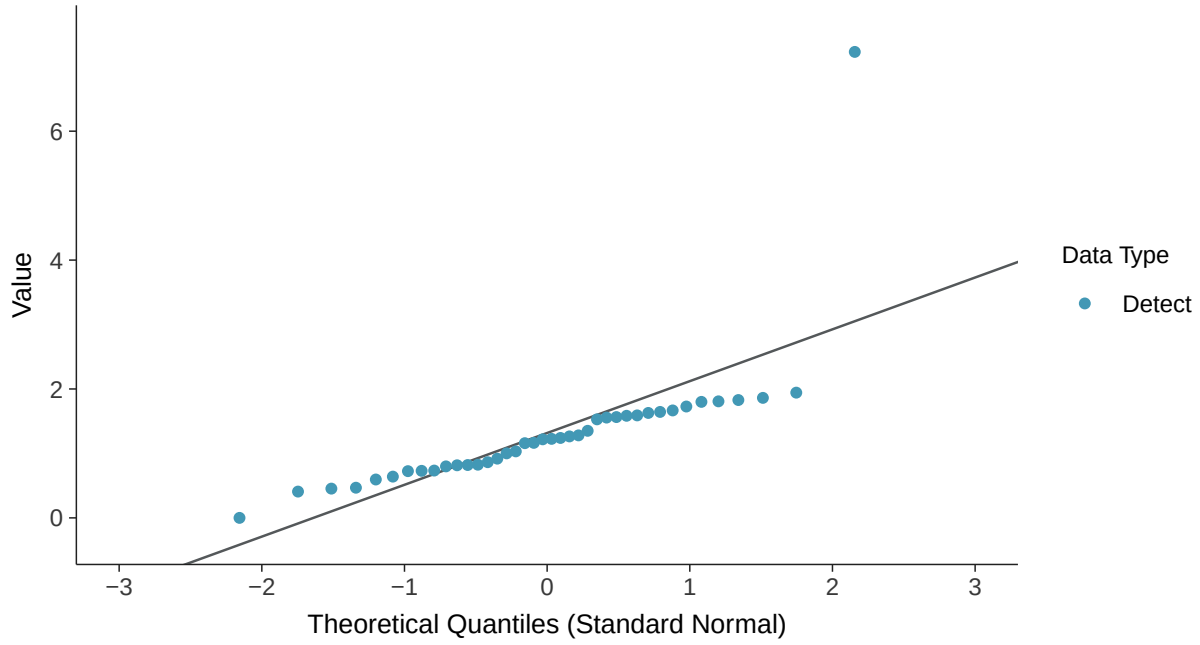
Boxplot by Season

Total Radium, MW-8 (pCi/L)



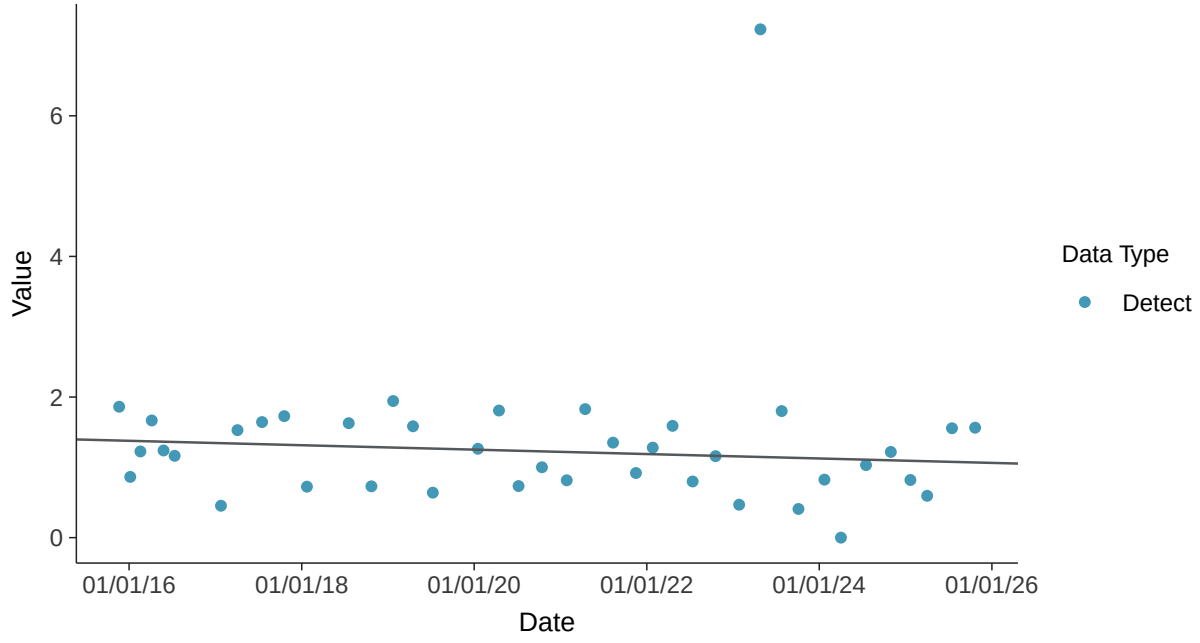
Normal Q-Q plot

Total Radium, MW-8 (pCi/L)



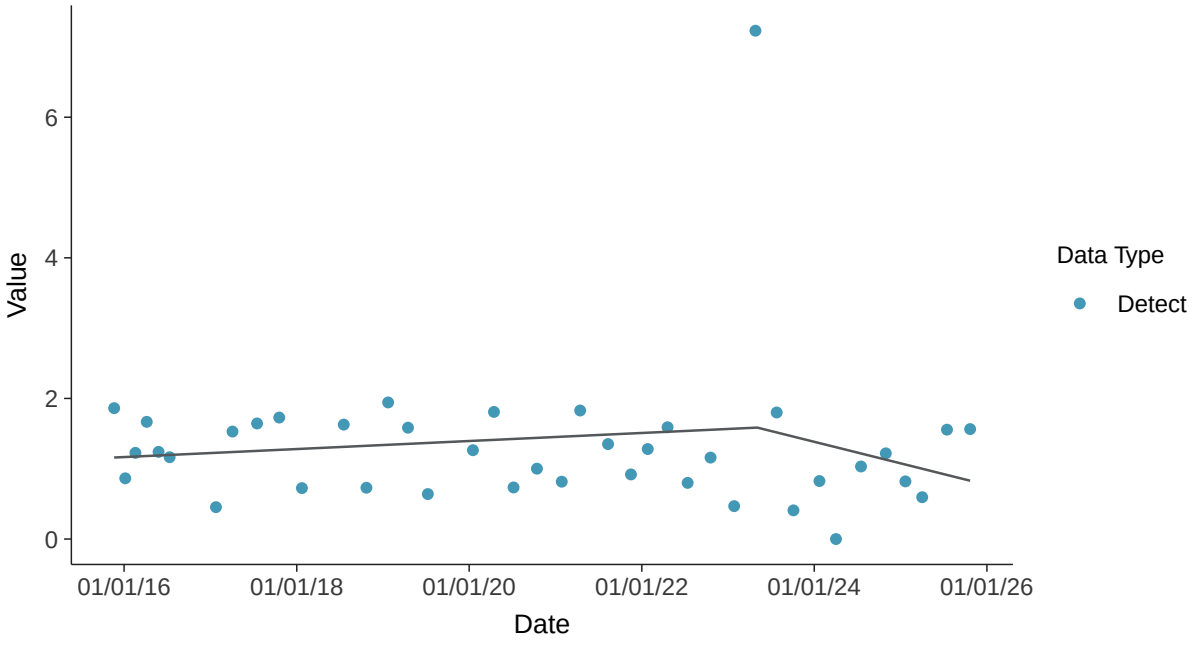
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Total Radium, MW-8 (pCi/L)



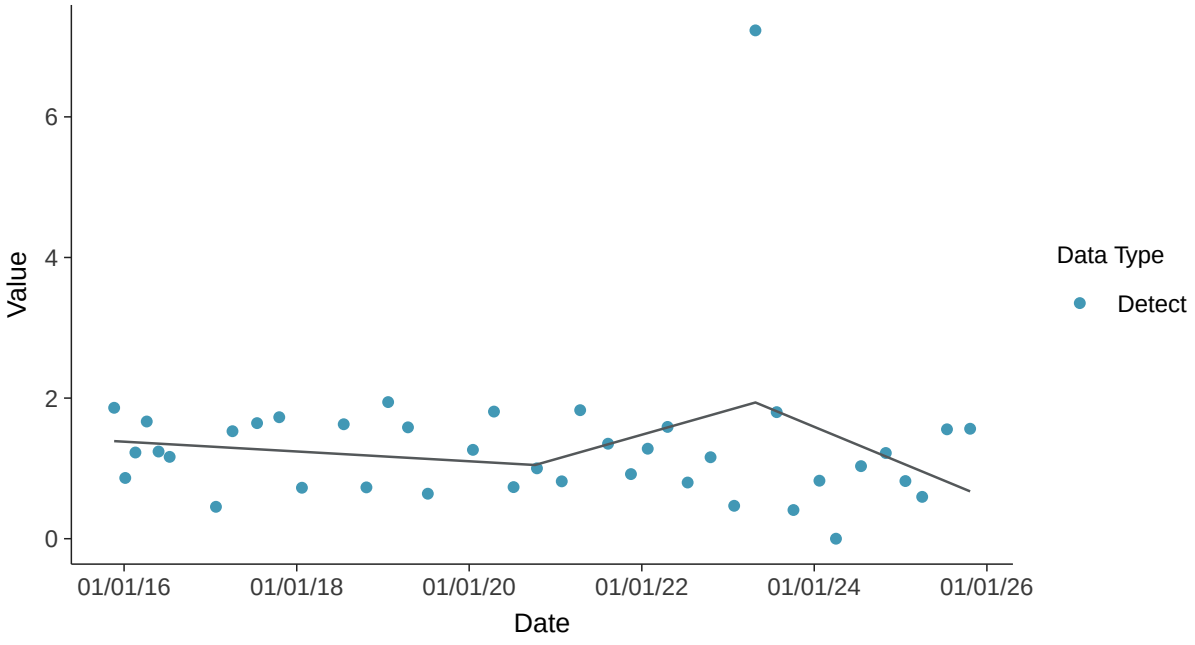
Trend Regression: Piecewise Linear-Linear

Total Radium, MW-8 (pCi/L)



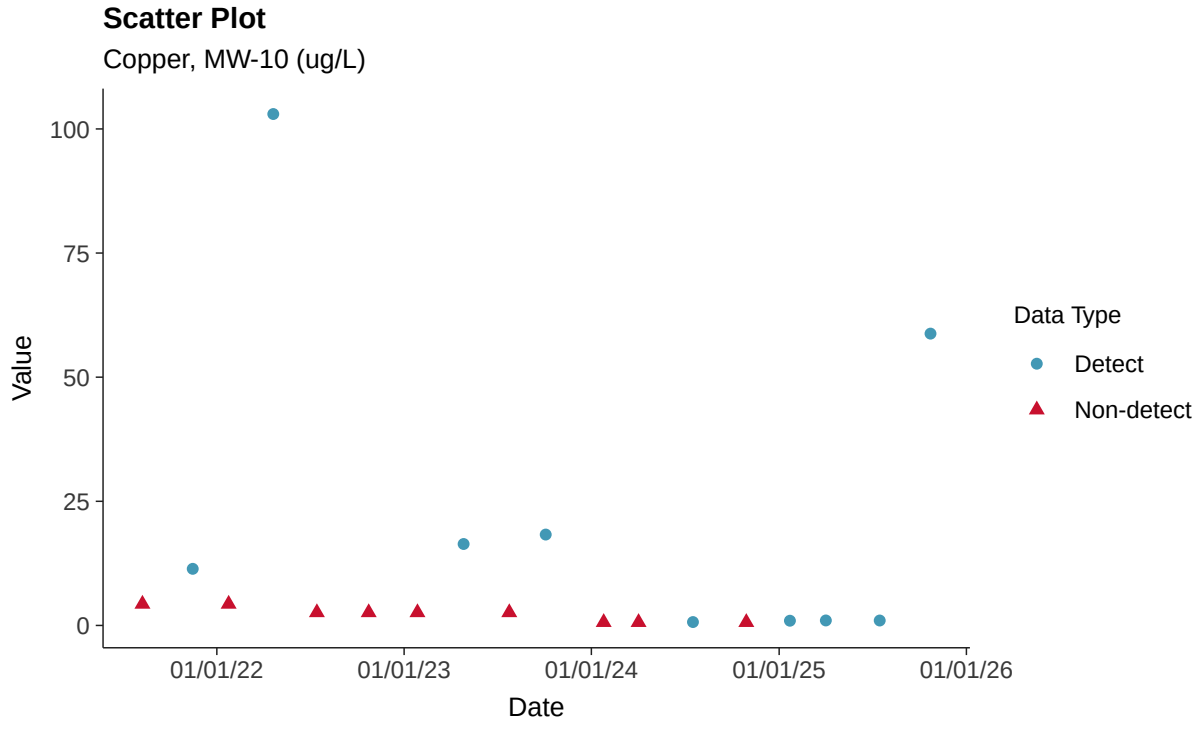
Trend Regression: Piecewise Linear-Linear-Linear

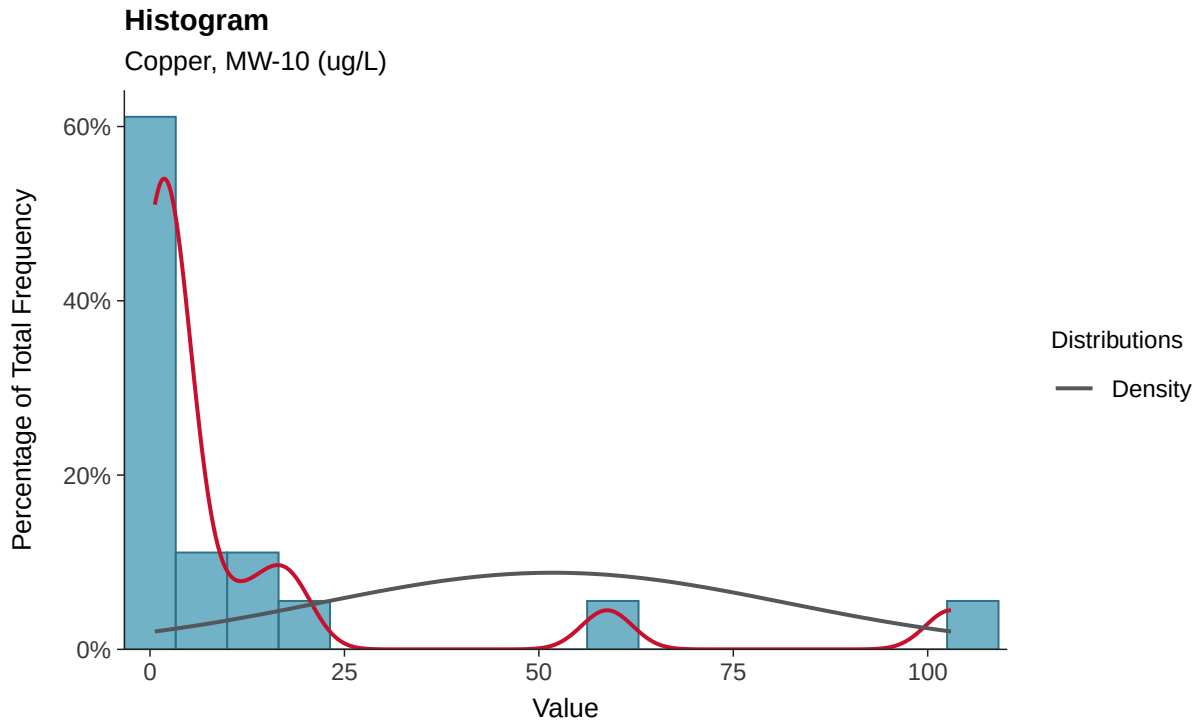
Total Radium, MW-8 (pCi/L)



App. I Metals: Copper, MW-10

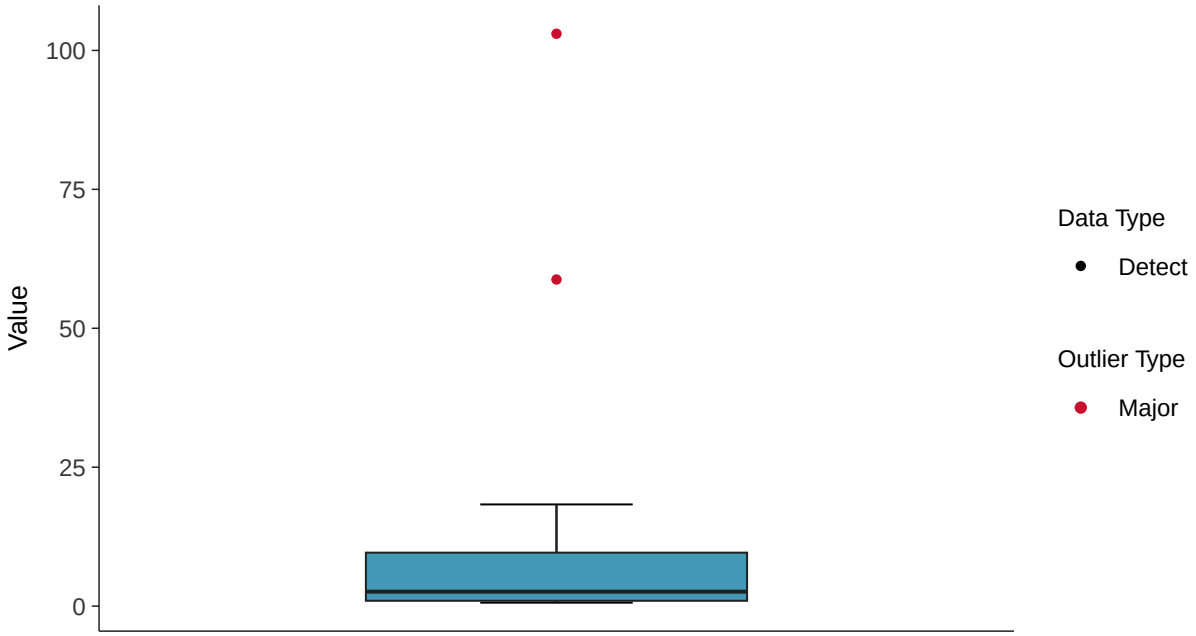
ID: 09_1_111





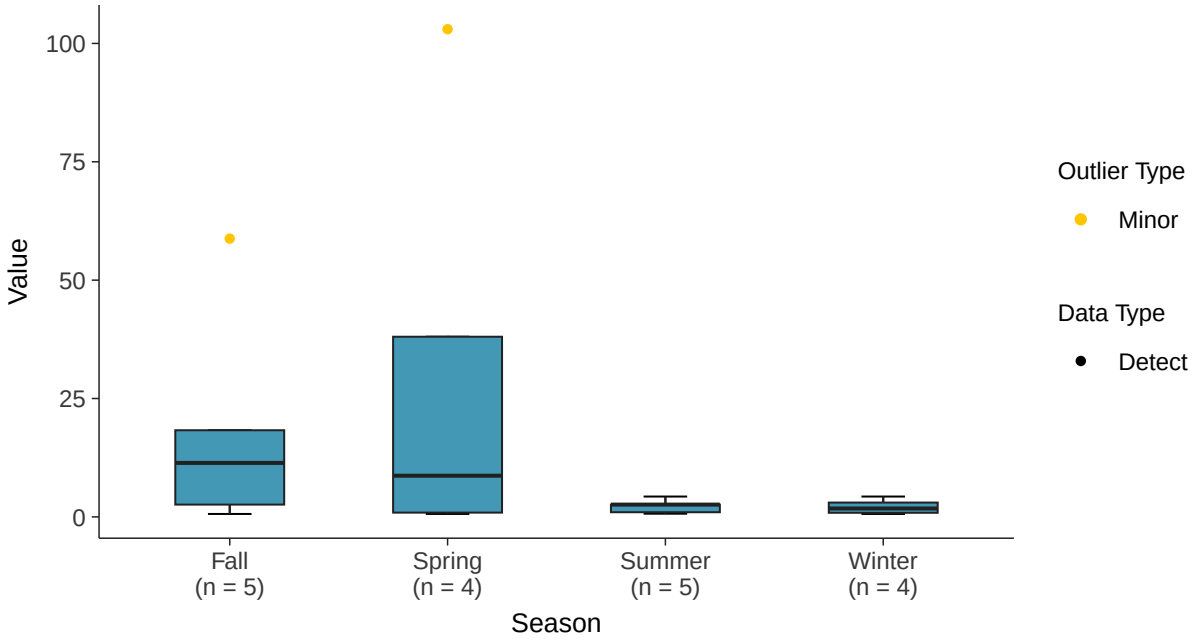
Boxplot

Copper, MW-10 (ug/L)



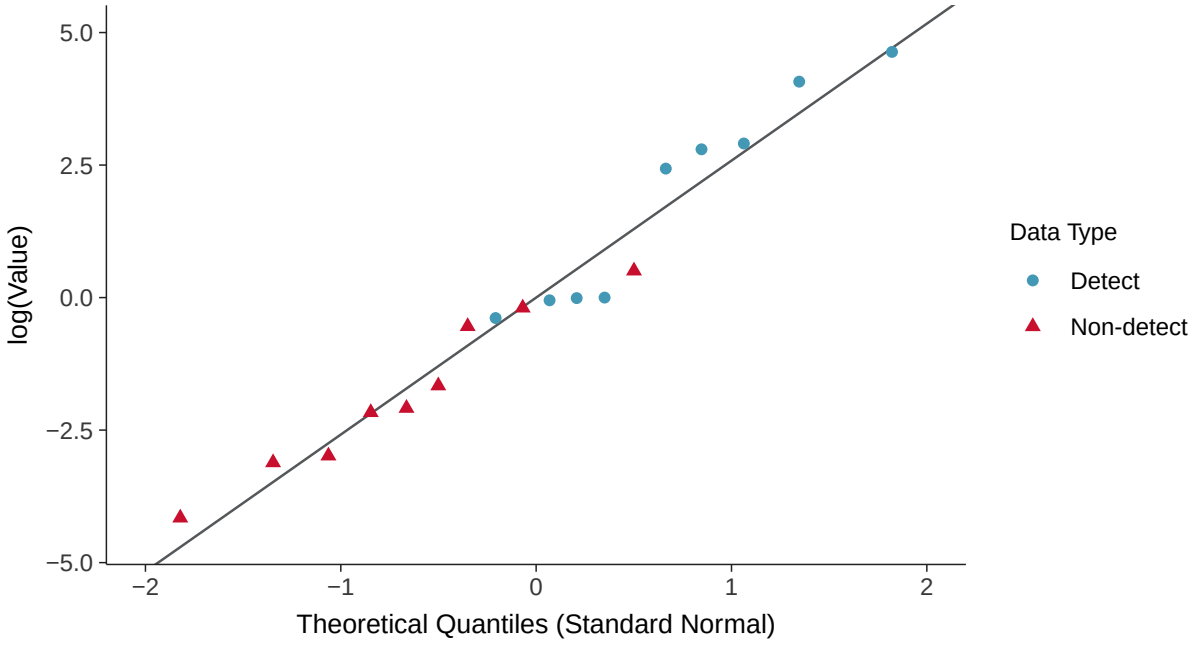
Boxplot by Season

Copper, MW-10 (ug/L)



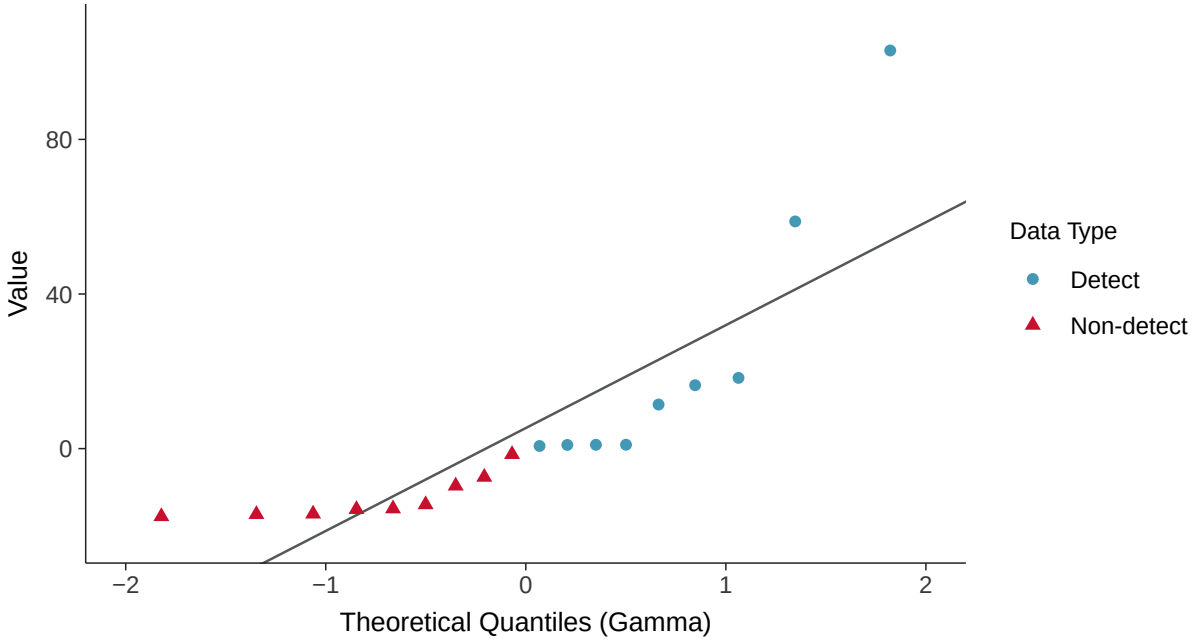
Lognormal Q-Q plot using ROS Imputed Estimates

Copper, MW-10 (ug/L)



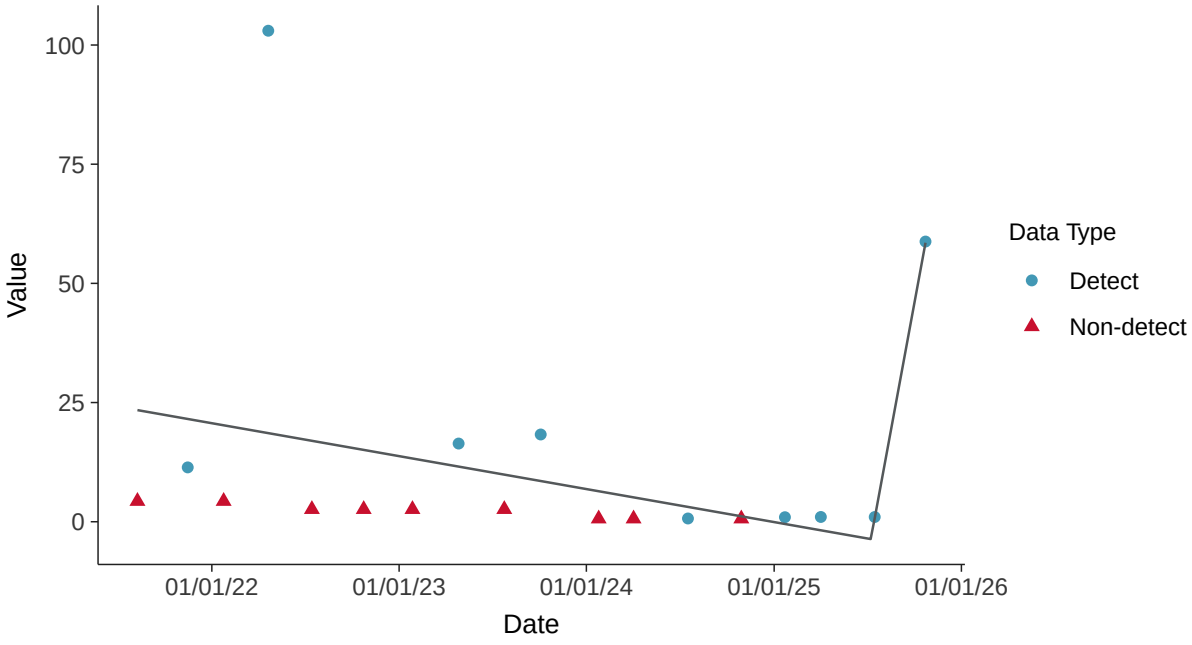
Gamma Q-Q plot using ROS Imputed Estimates

Copper, MW-10 (ug/L)



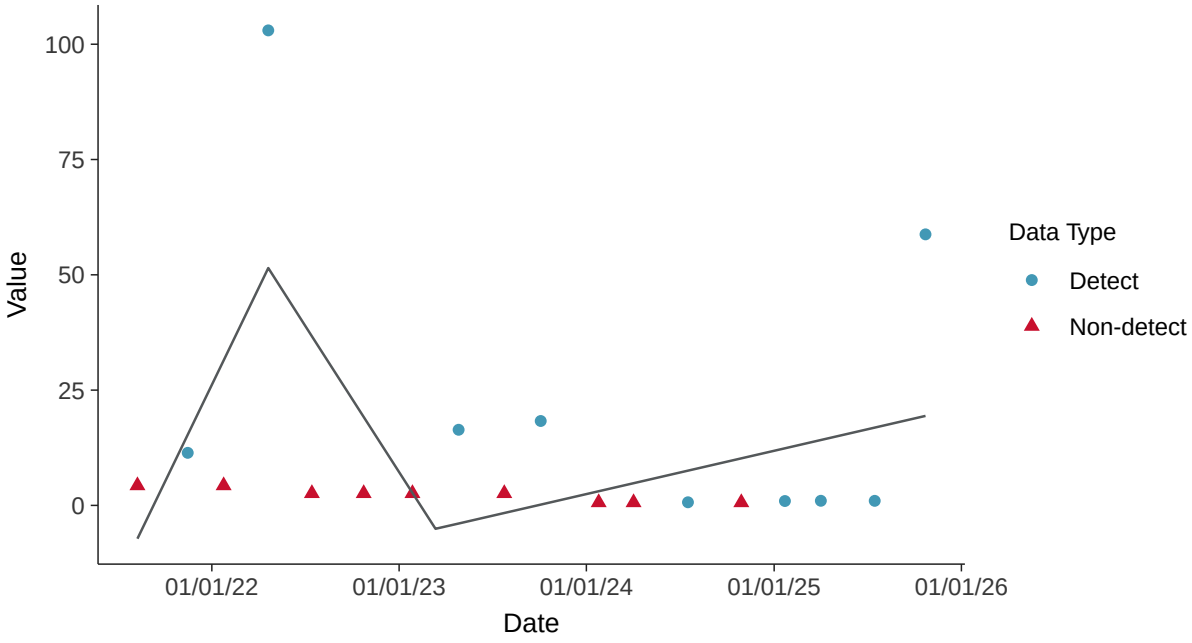
Trend Regression: Piecewise Linear-Linear

Copper, MW-10 (ug/L)



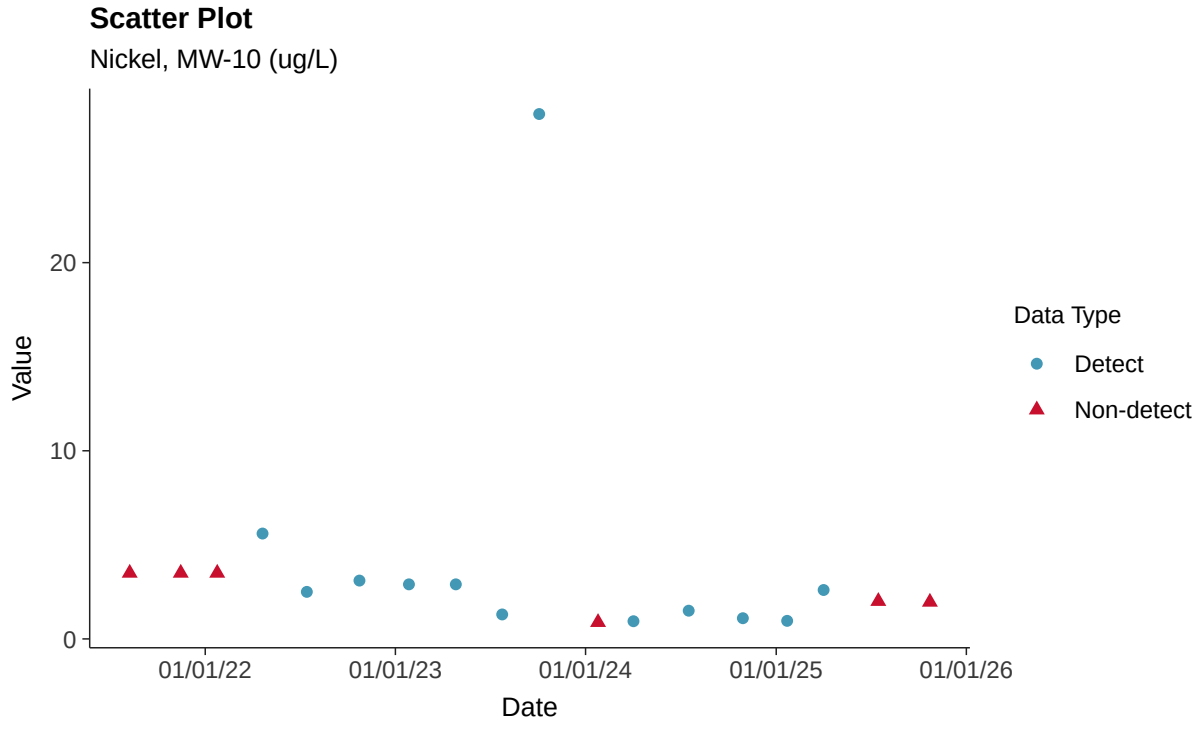
Trend Regression: Piecewise Linear-Linear-Linear

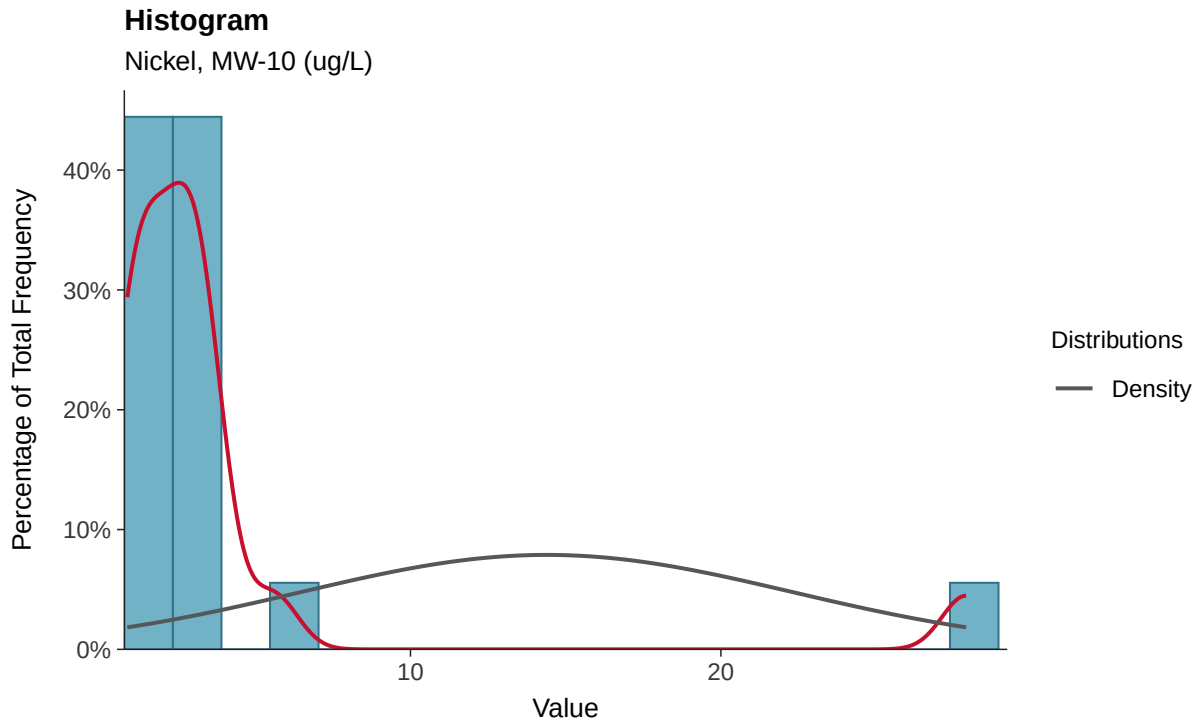
Copper, MW-10 (ug/L)



App. I Metals: Nickel, MW-10

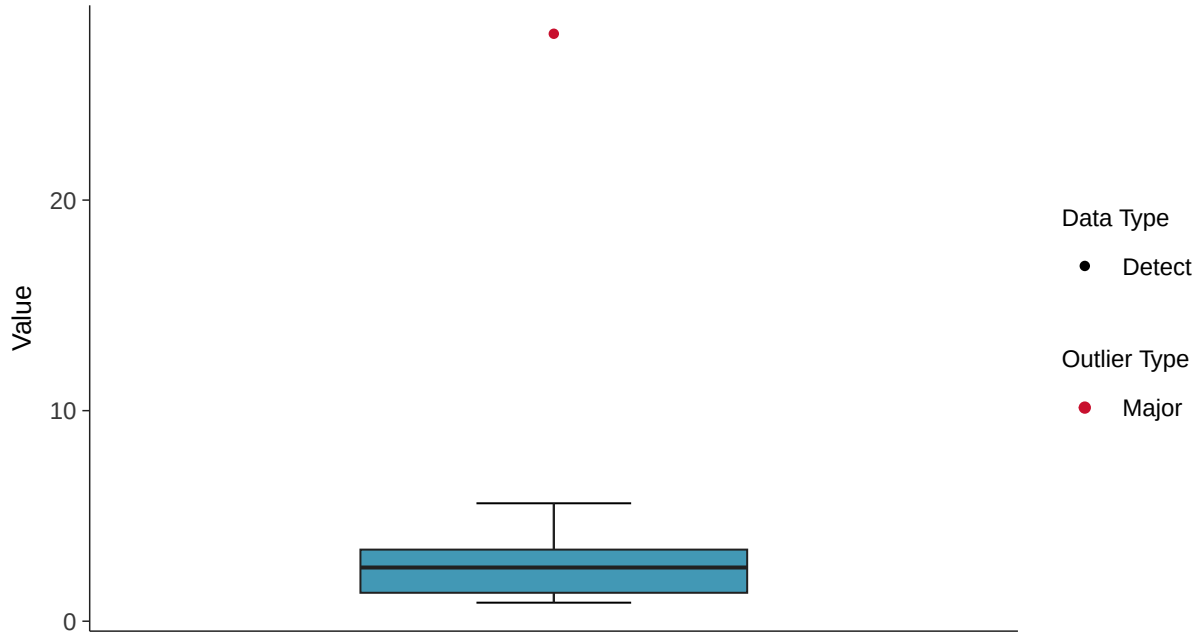
ID: 09_1_117





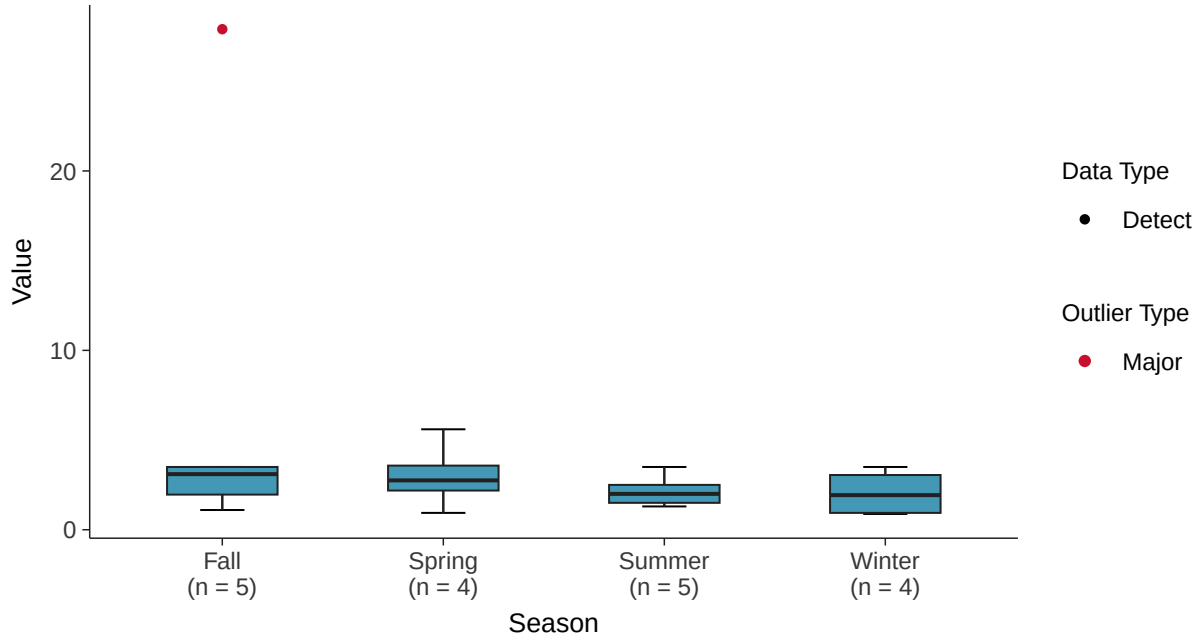
Boxplot

Nickel, MW-10 (ug/L)



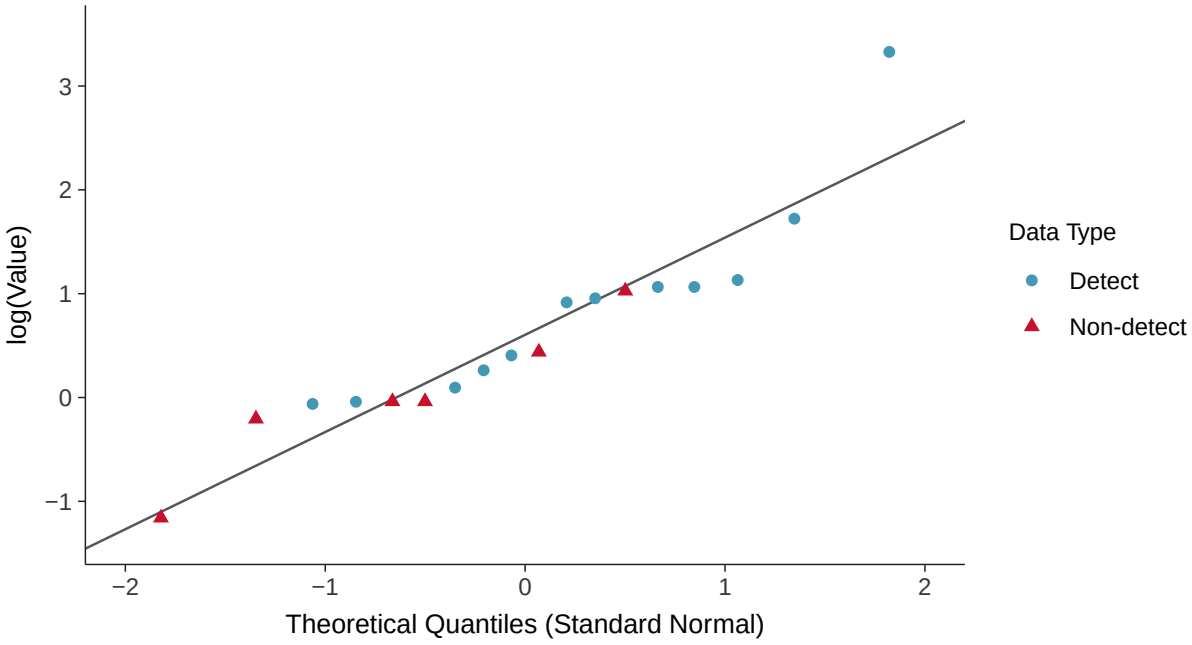
Boxplot by Season

Nickel, MW-10 (ug/L)



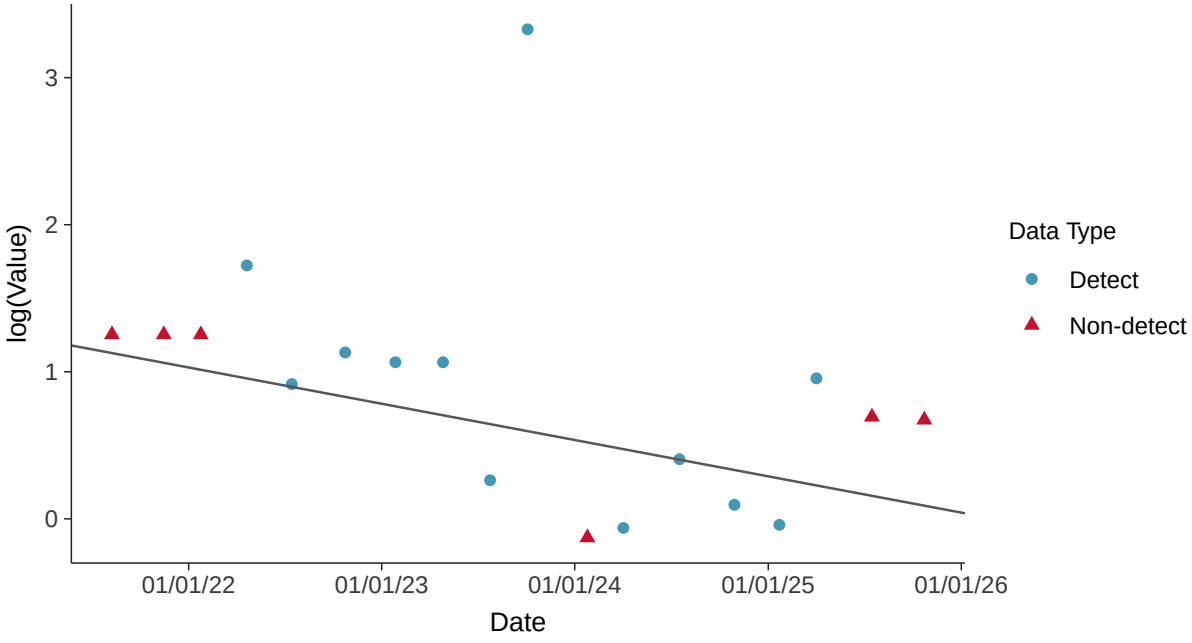
Lognormal Q-Q plot using ROS Imputed Estimates

Nickel, MW-10 (ug/L)



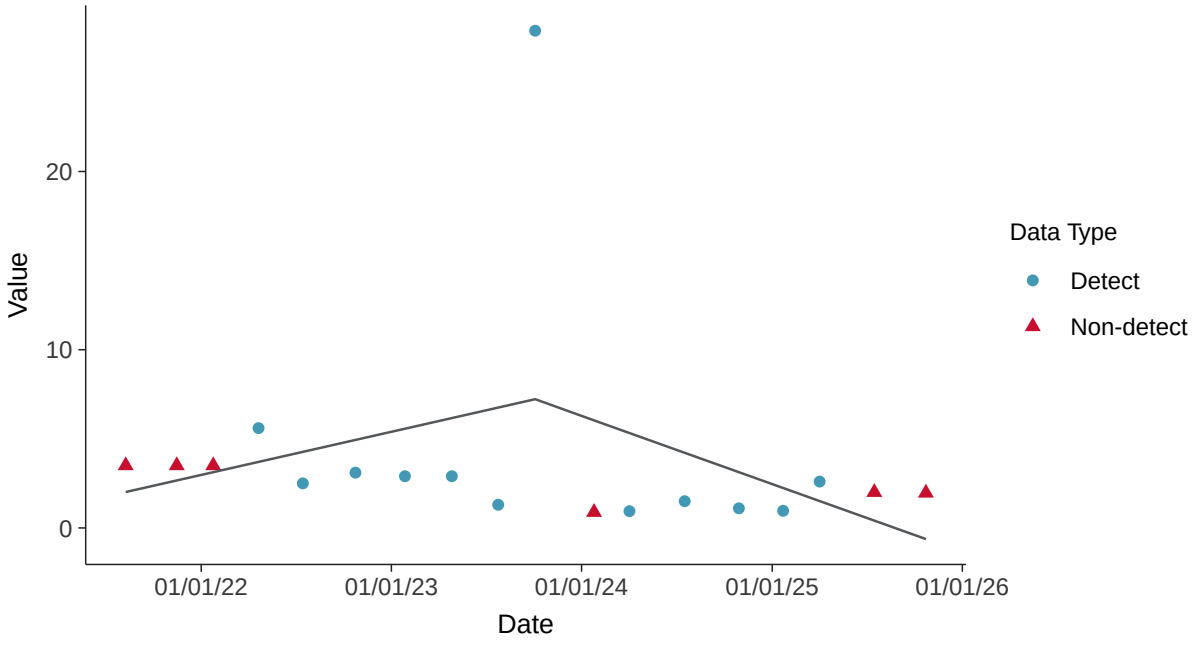
Trend Regression: Lognormal MLE

Nickel, MW-10 (ug/L)



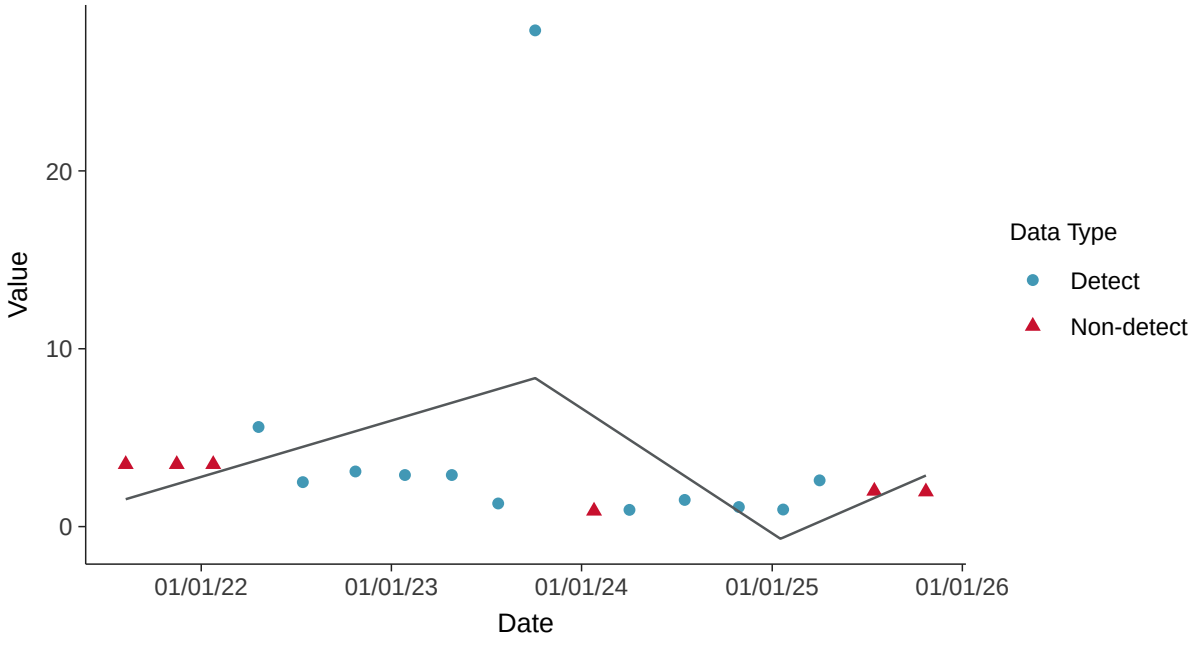
Trend Regression: Piecewise Linear-Linear

Nickel, MW-10 (ug/L)



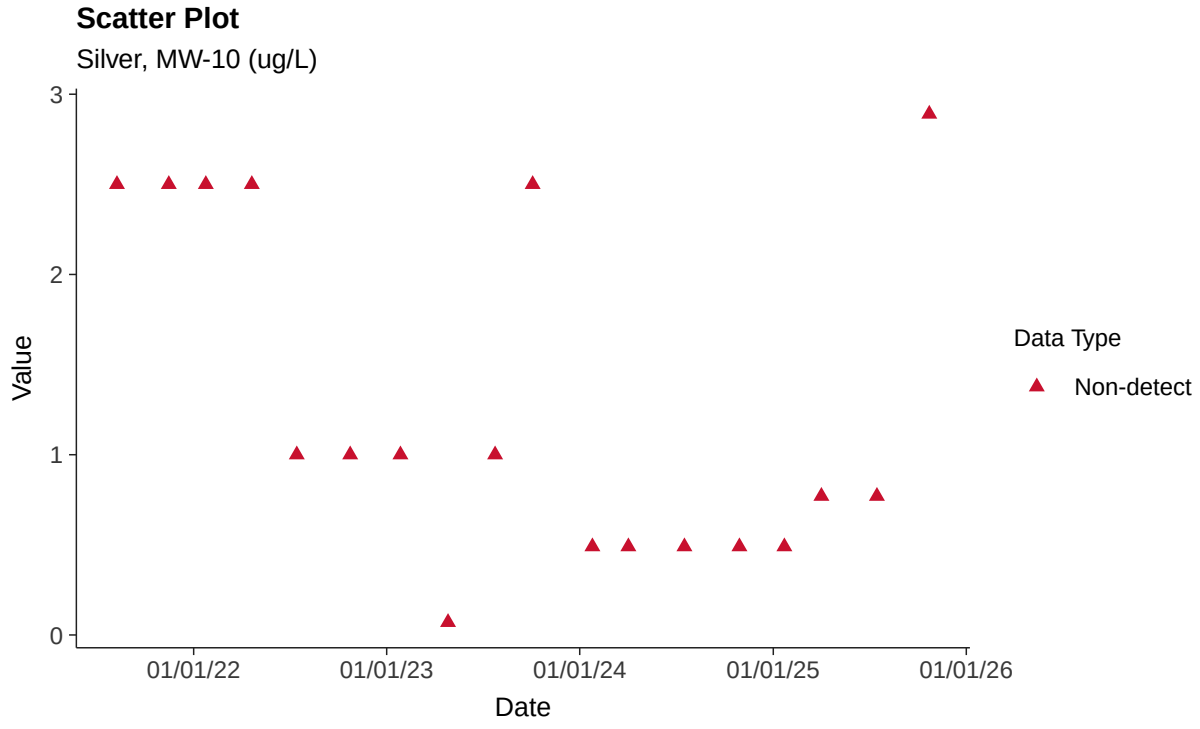
Trend Regression: Piecewise Linear-Linear-Linear

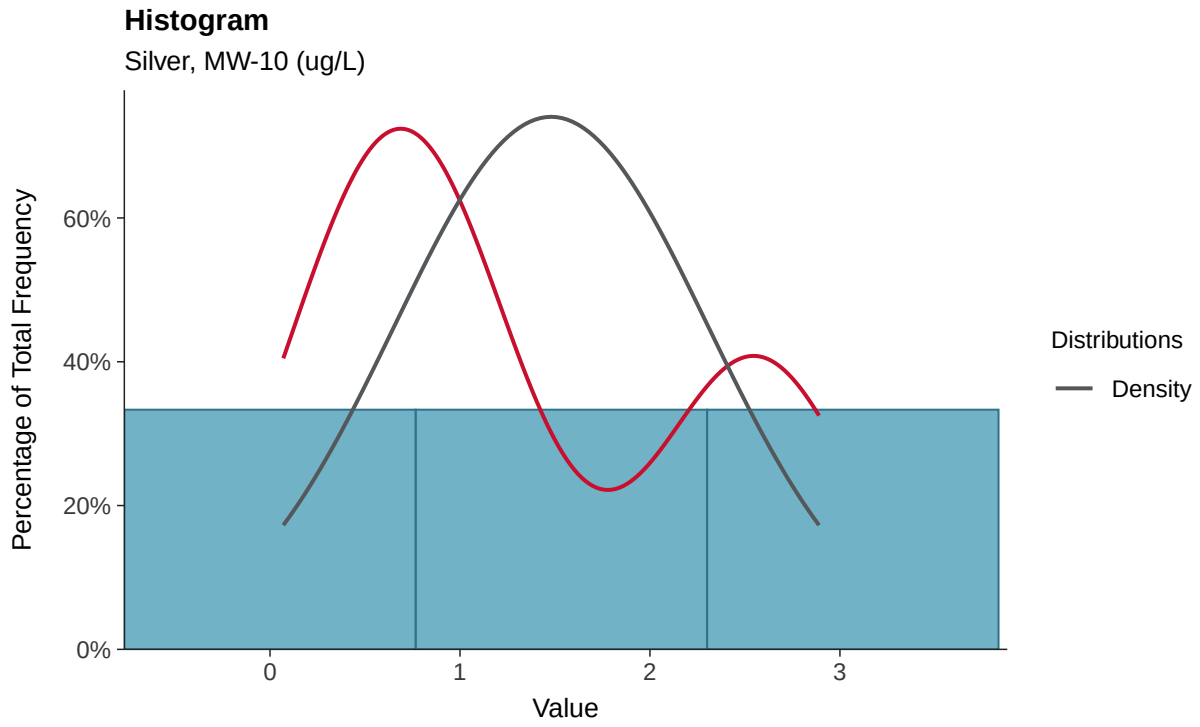
Nickel, MW-10 (ug/L)



App. I Metals: Silver, MW-10

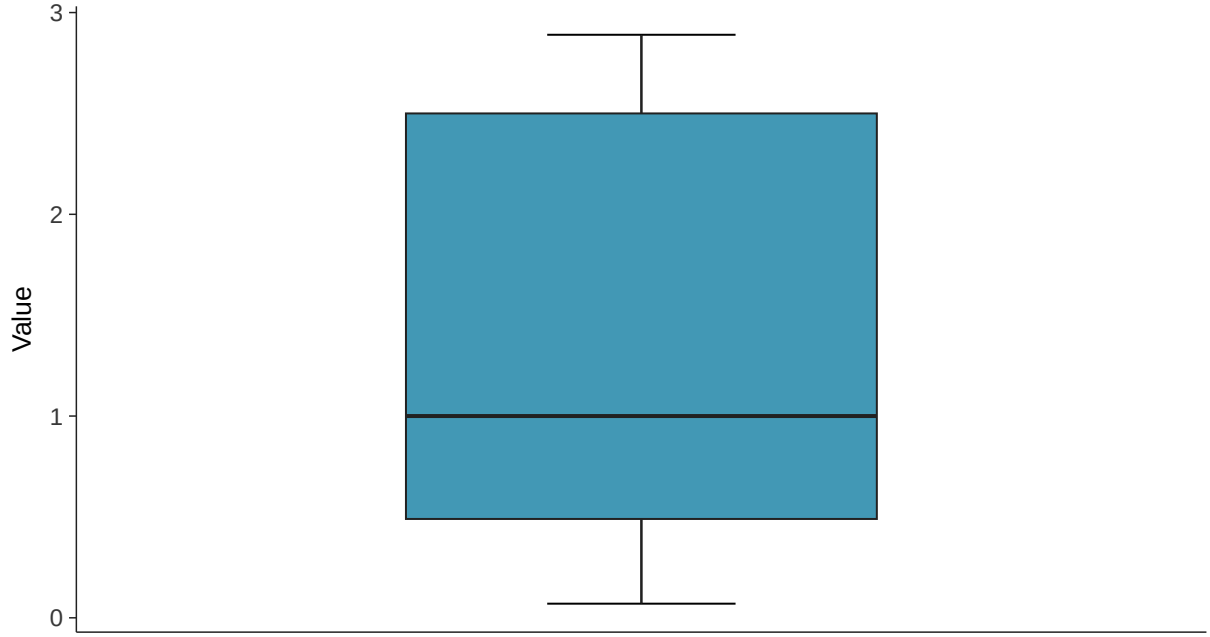
ID: 09_1_122





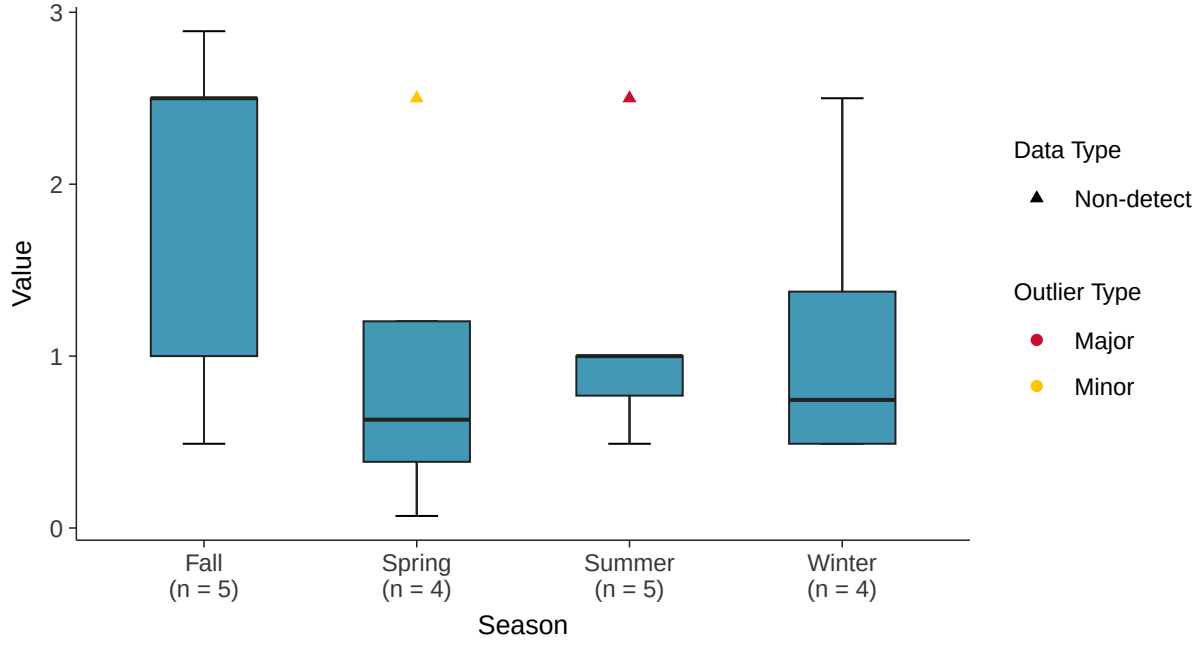
Boxplot

Silver, MW-10 (ug/L)



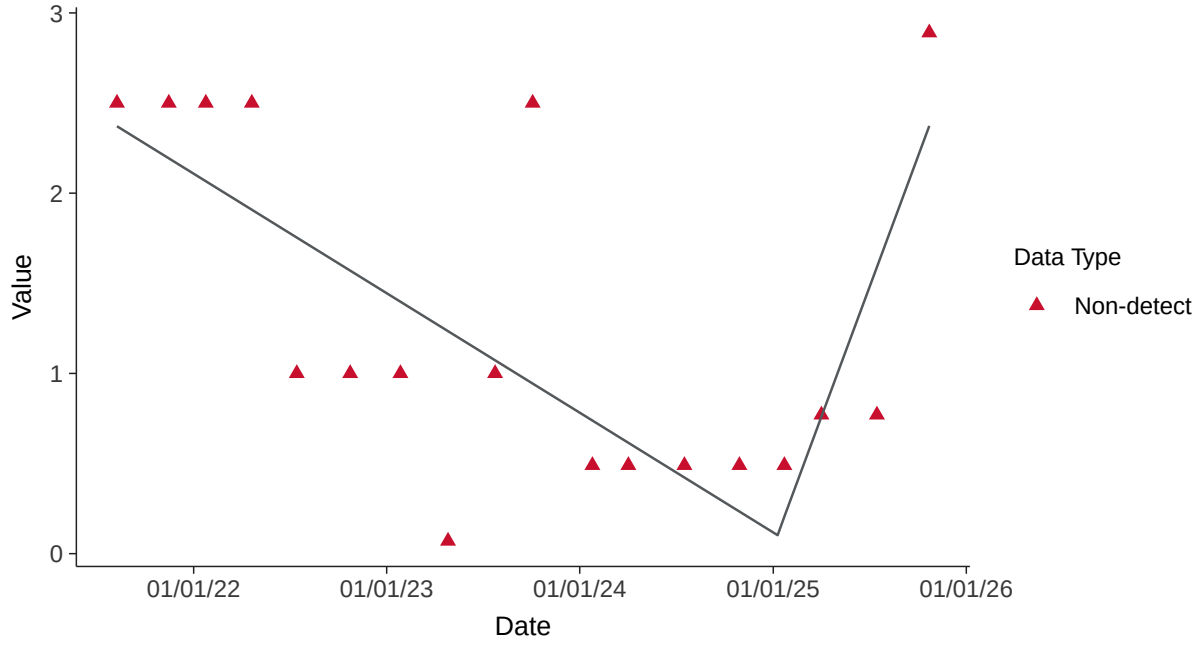
Boxplot by Season

Silver, MW-10 (ug/L)



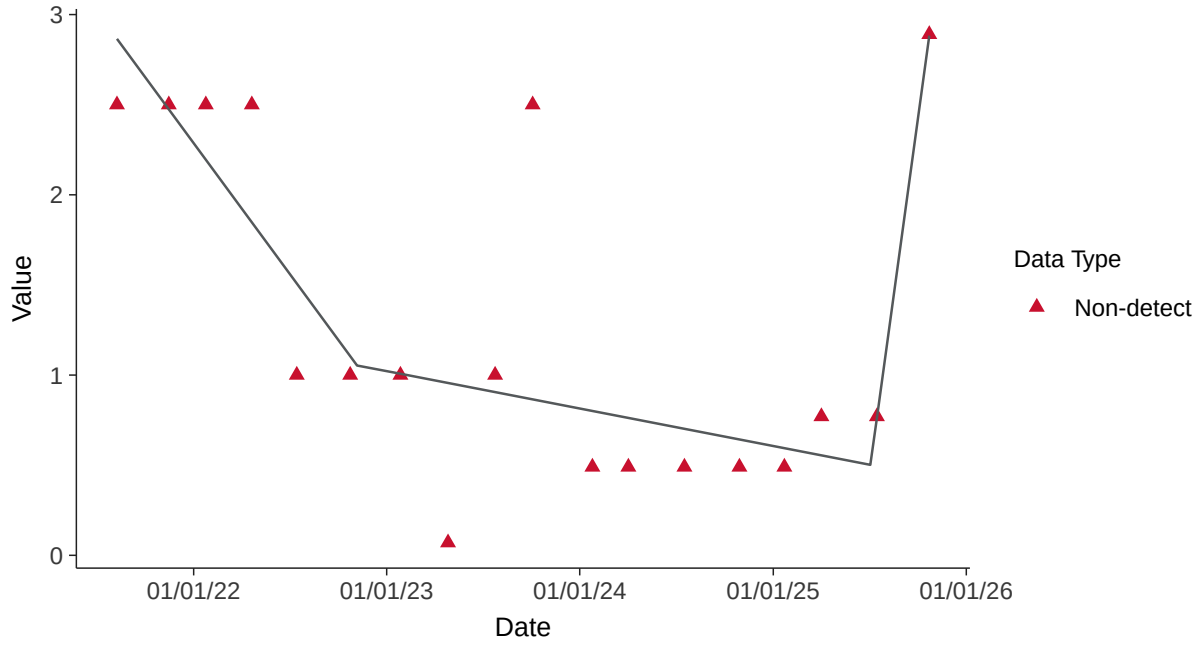
Trend Regression: Piecewise Linear-Linear

Silver, MW-10 (ug/L)



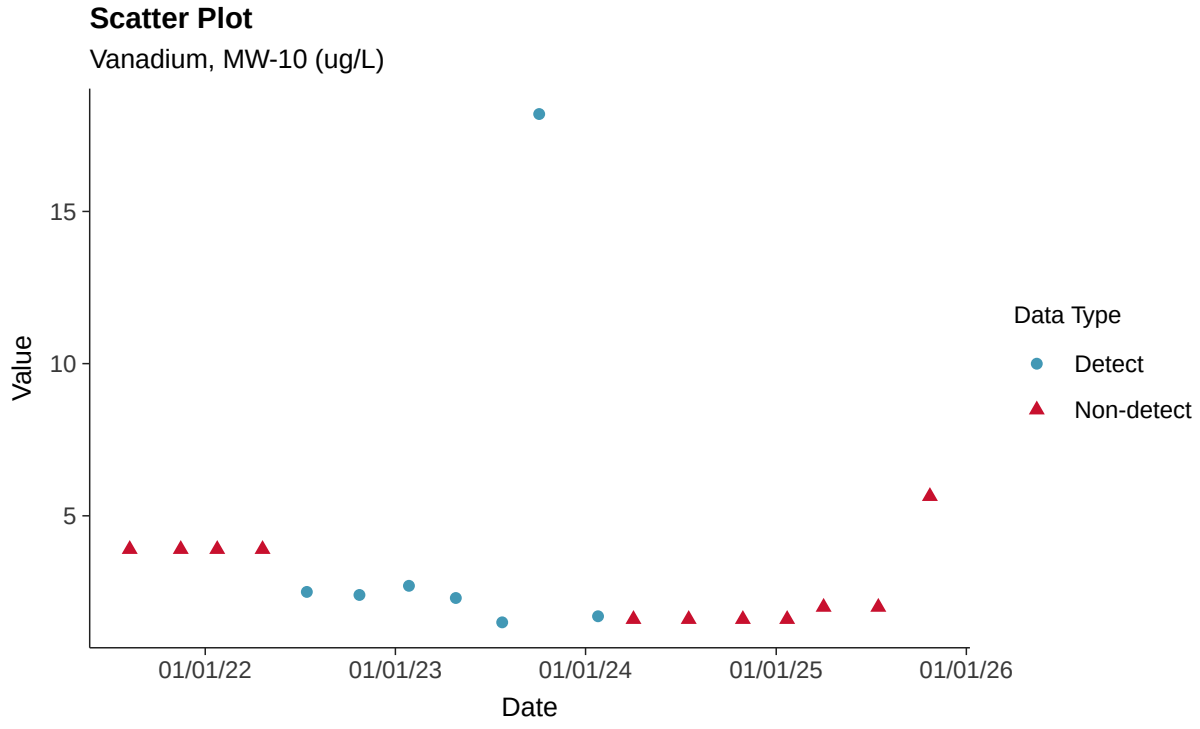
Trend Regression: Piecewise Linear-Linear-Linear

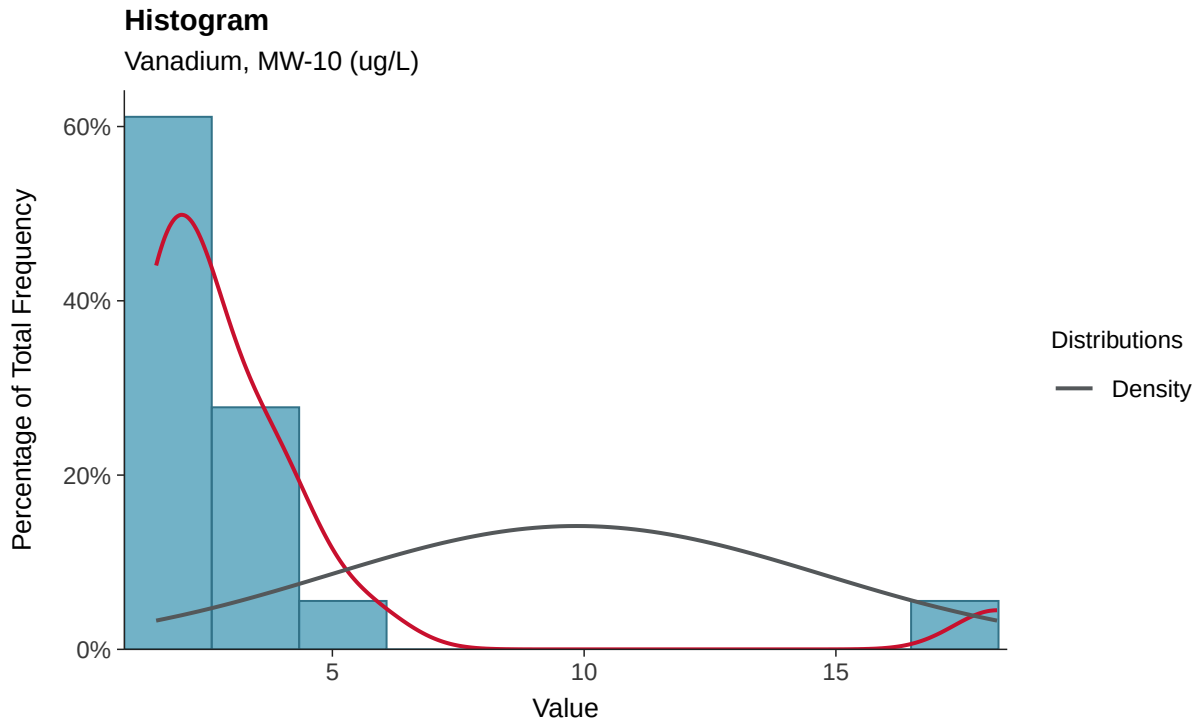
Silver, MW-10 (ug/L)



App. I Metals: Vanadium, MW-10

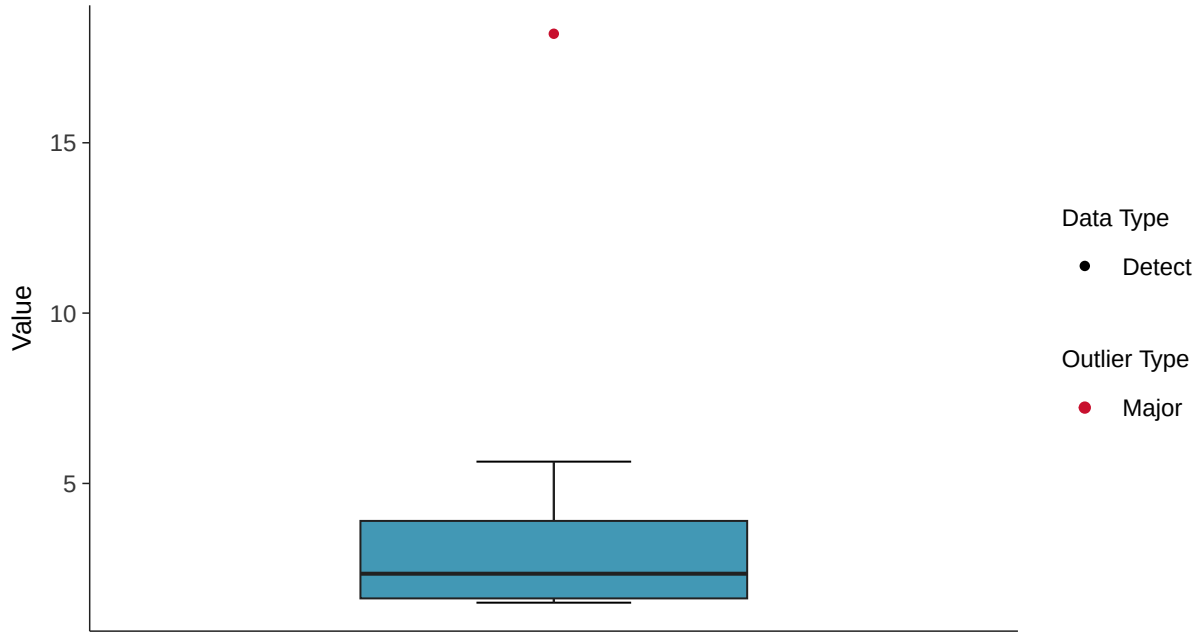
ID: 09_1_127





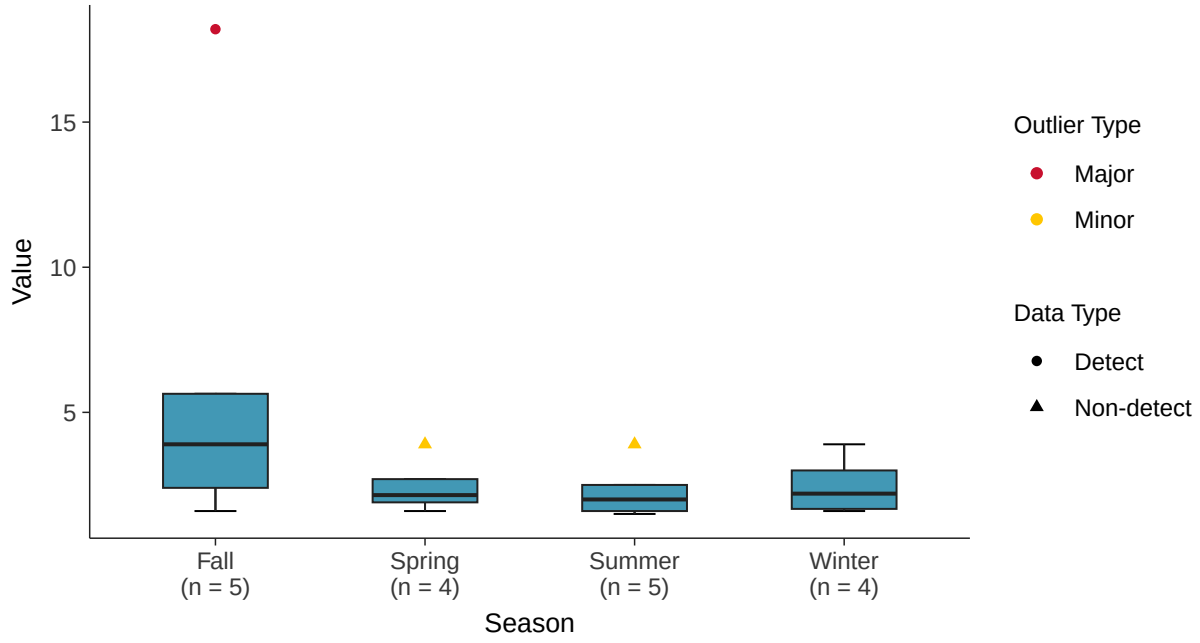
Boxplot

Vanadium, MW-10 (ug/L)



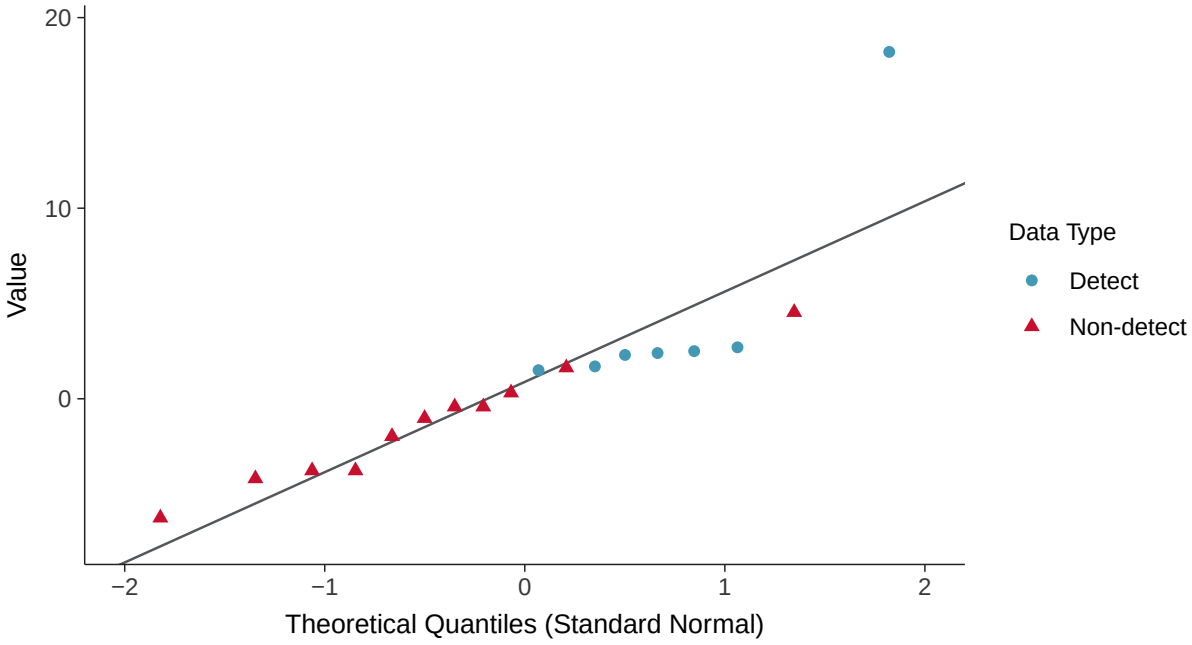
Boxplot by Season

Vanadium, MW-10 (ug/L)



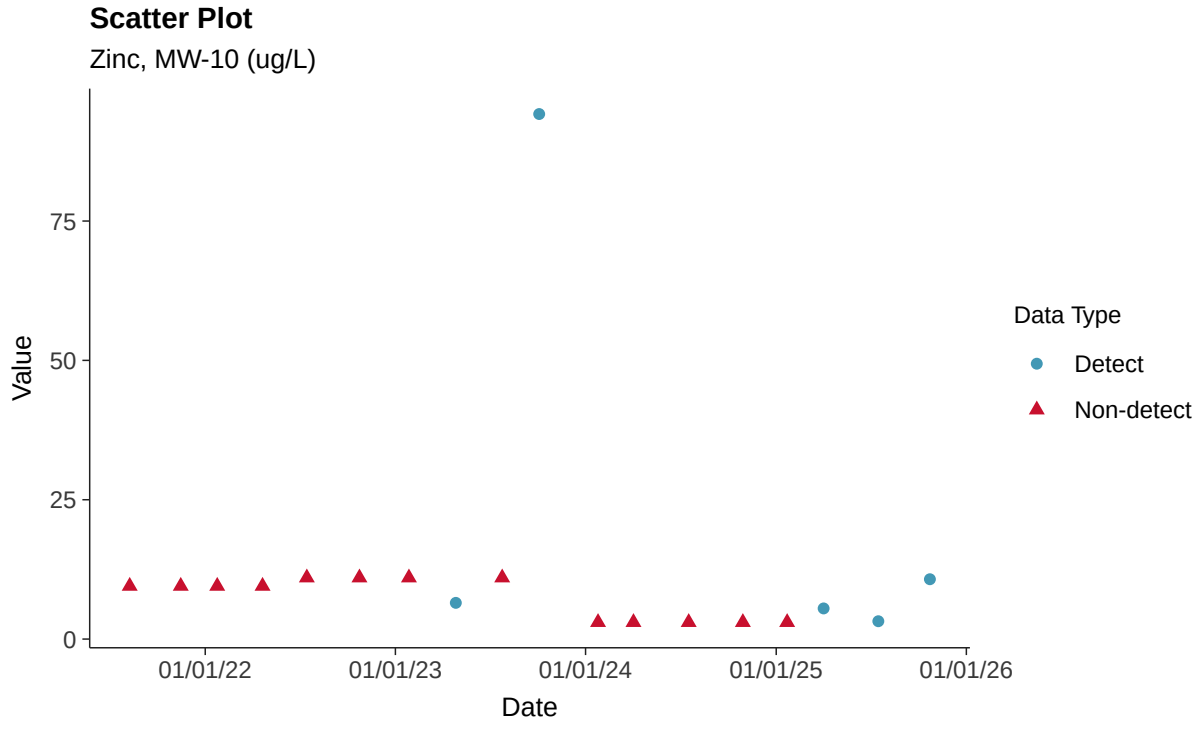
Normal Q-Q plot using ROS Imputed Estimates

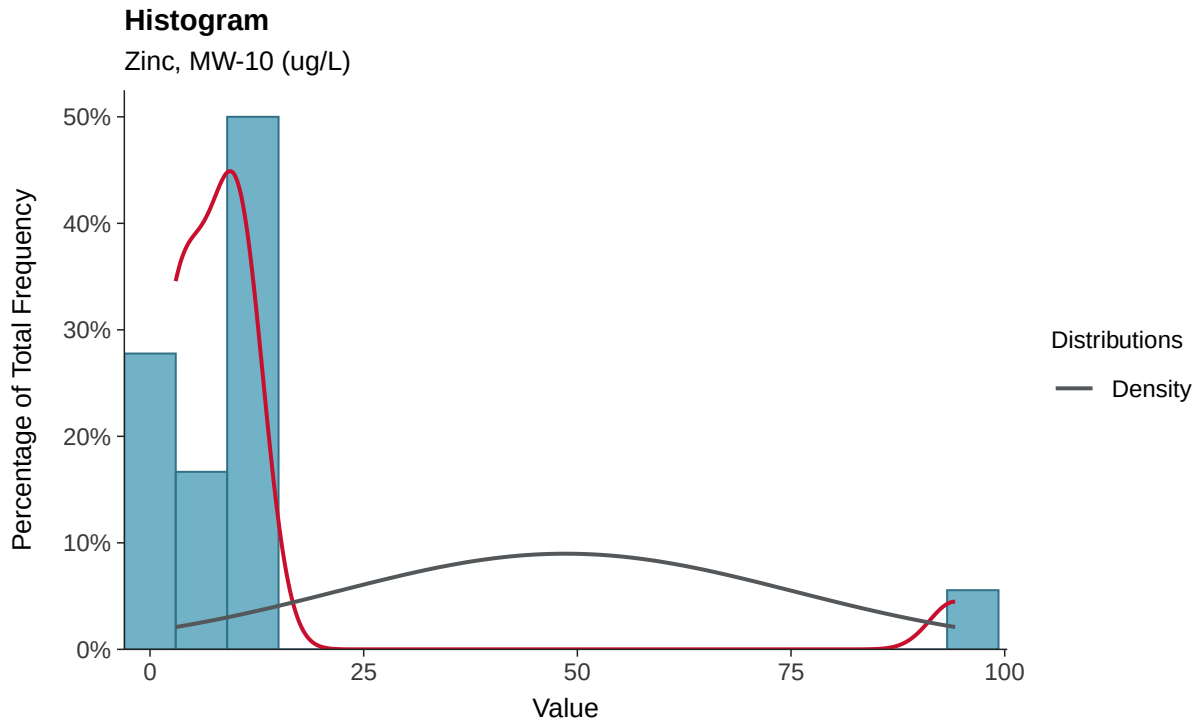
Vanadium, MW-10 (ug/L)



App. I Metals: Zinc, MW-10

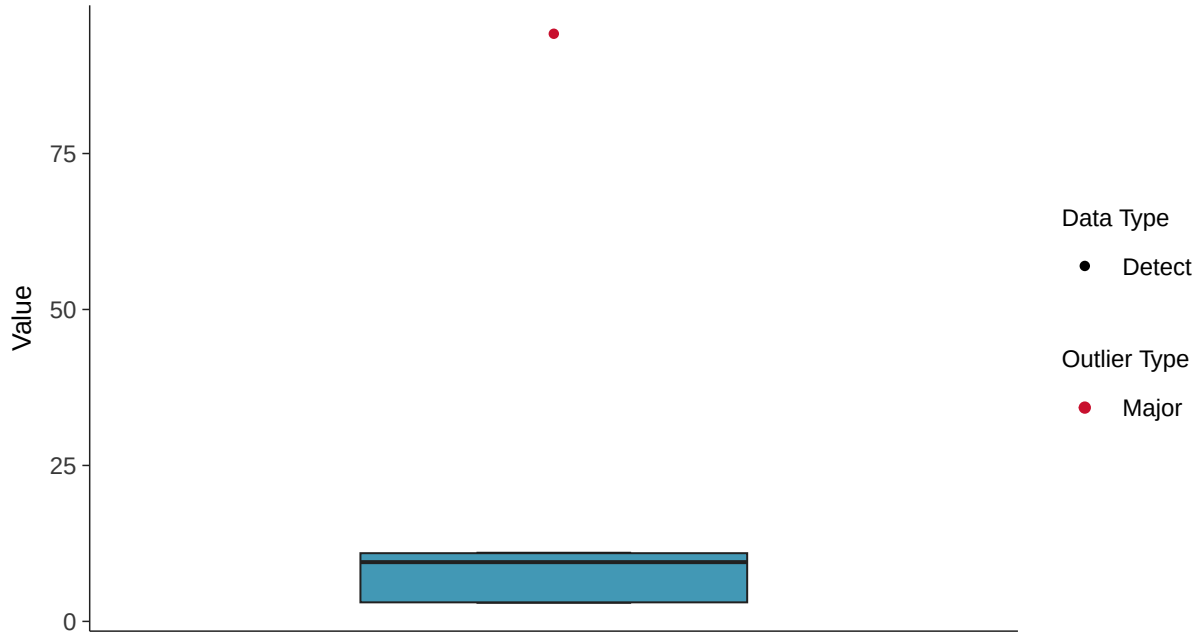
ID: 09_1_128





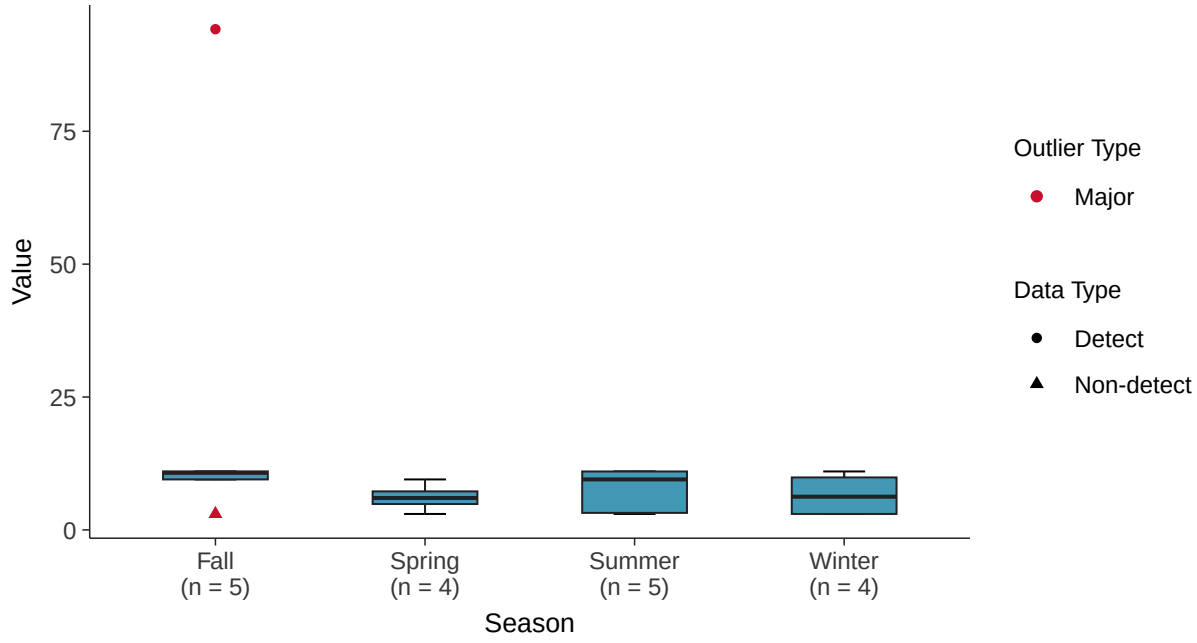
Boxplot

Zinc, MW-10 (ug/L)



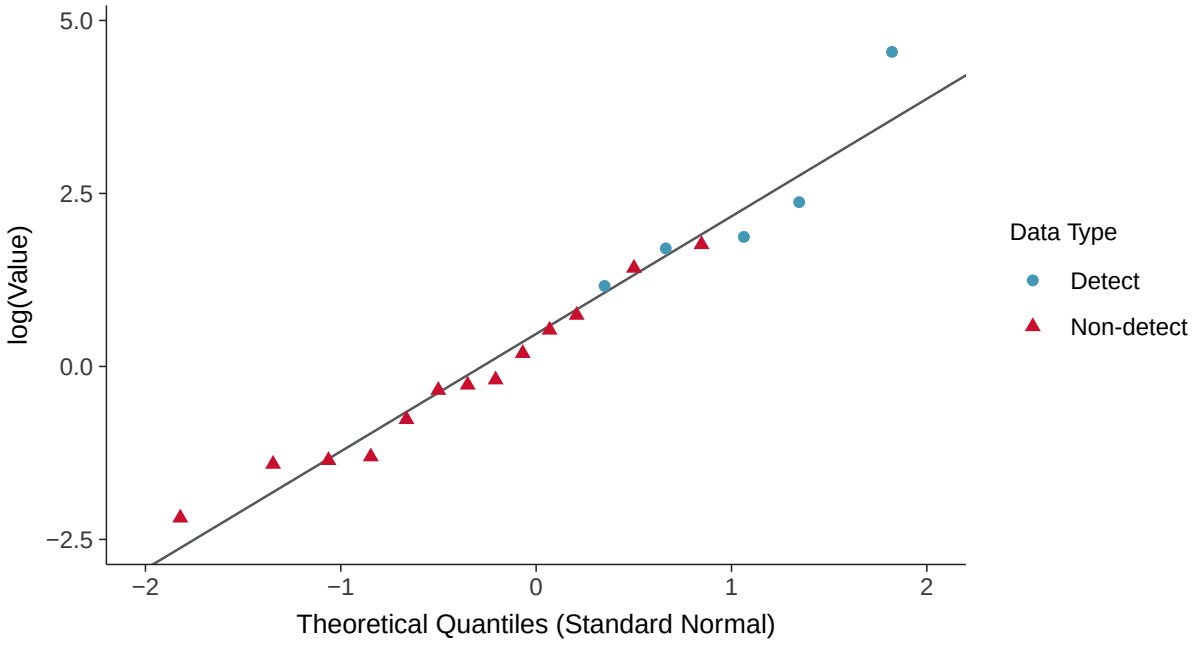
Boxplot by Season

Zinc, MW-10 (ug/L)



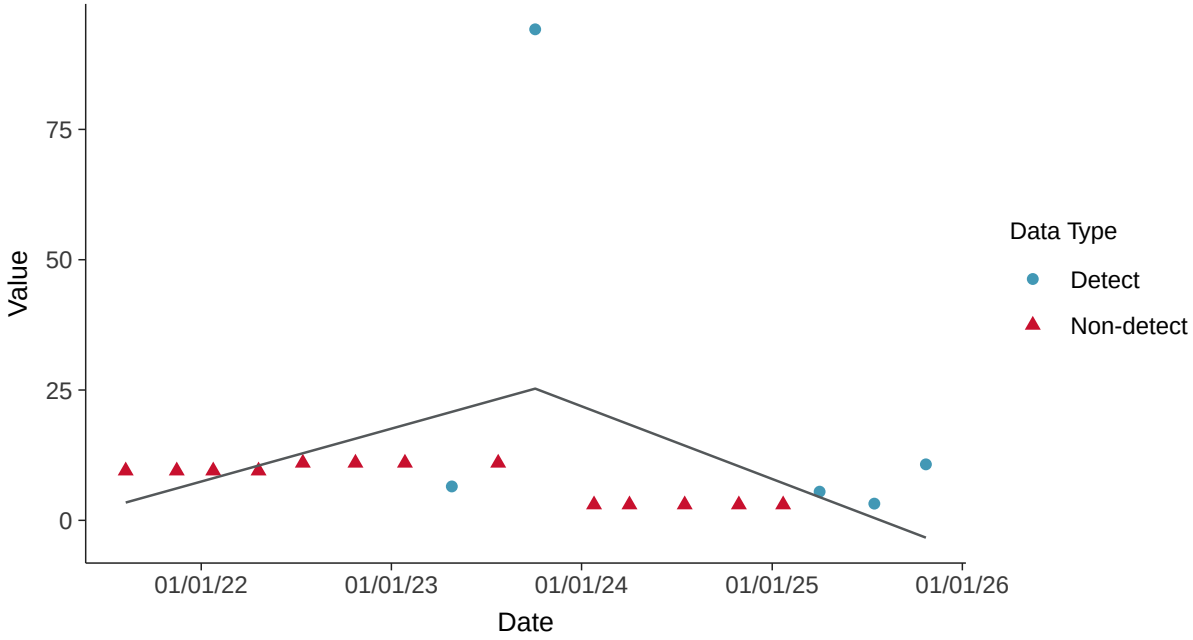
Lognormal Q-Q plot using ROS Imputed Estimates

Zinc, MW-10 (ug/L)



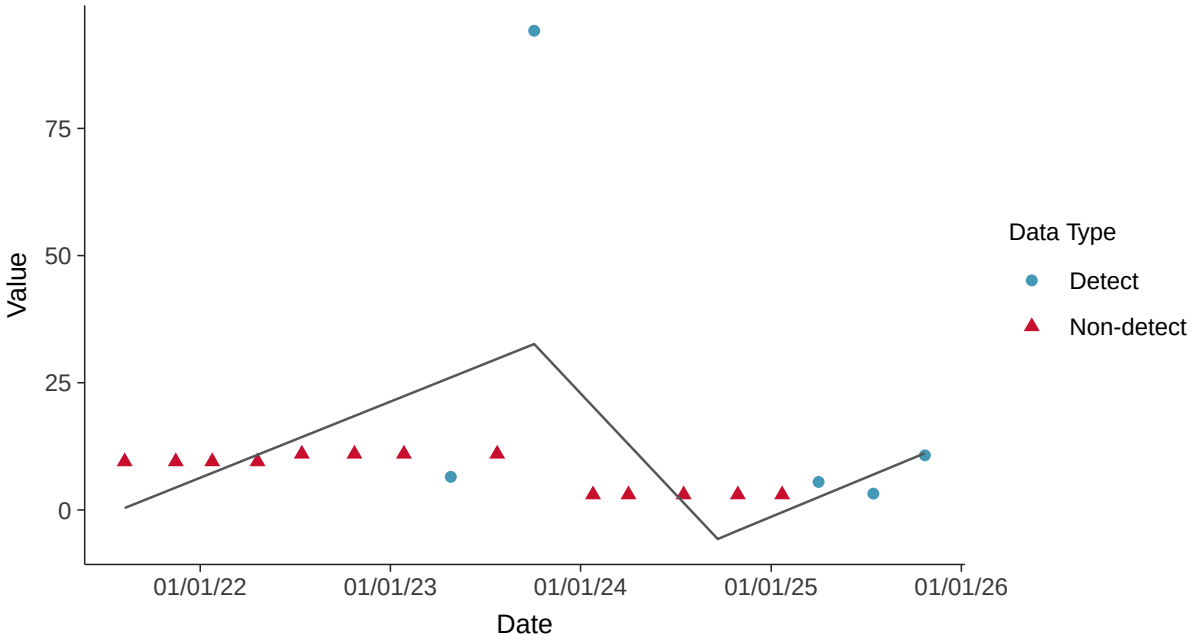
Trend Regression: Piecewise Linear-Linear

Zinc, MW-10 (ug/L)



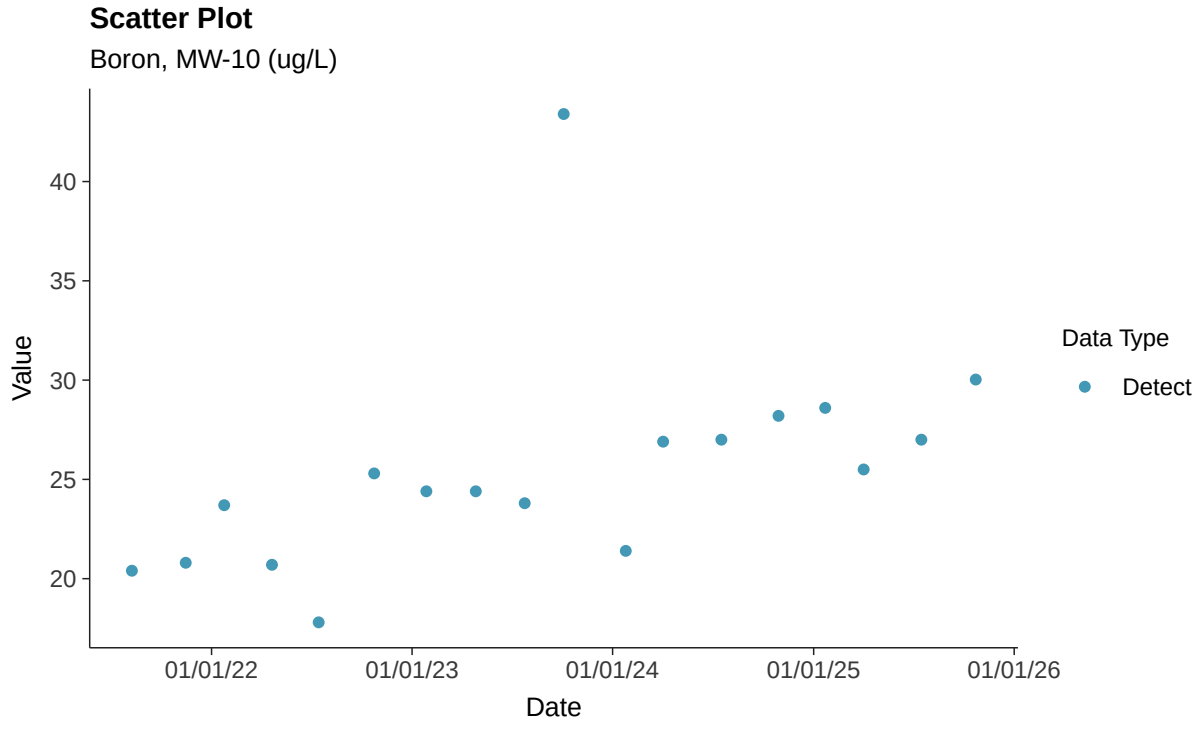
Trend Regression: Piecewise Linear-Linear-Linear

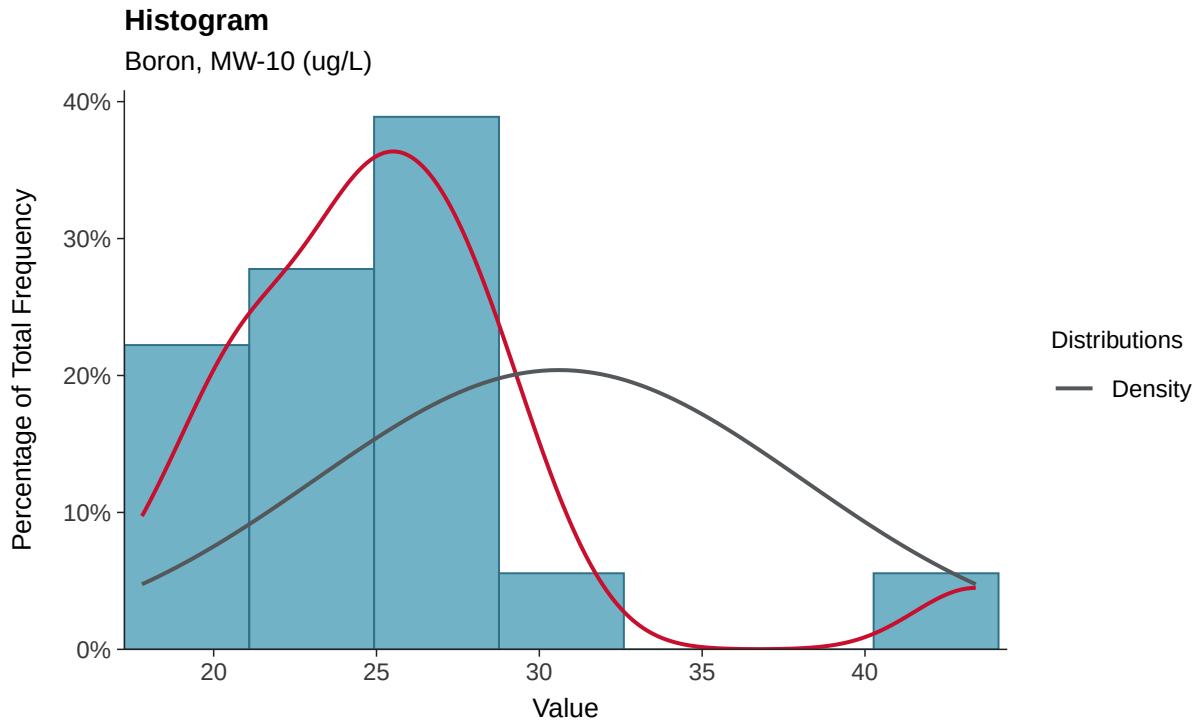
Zinc, MW-10 (ug/L)



App. III: Boron, MW-10

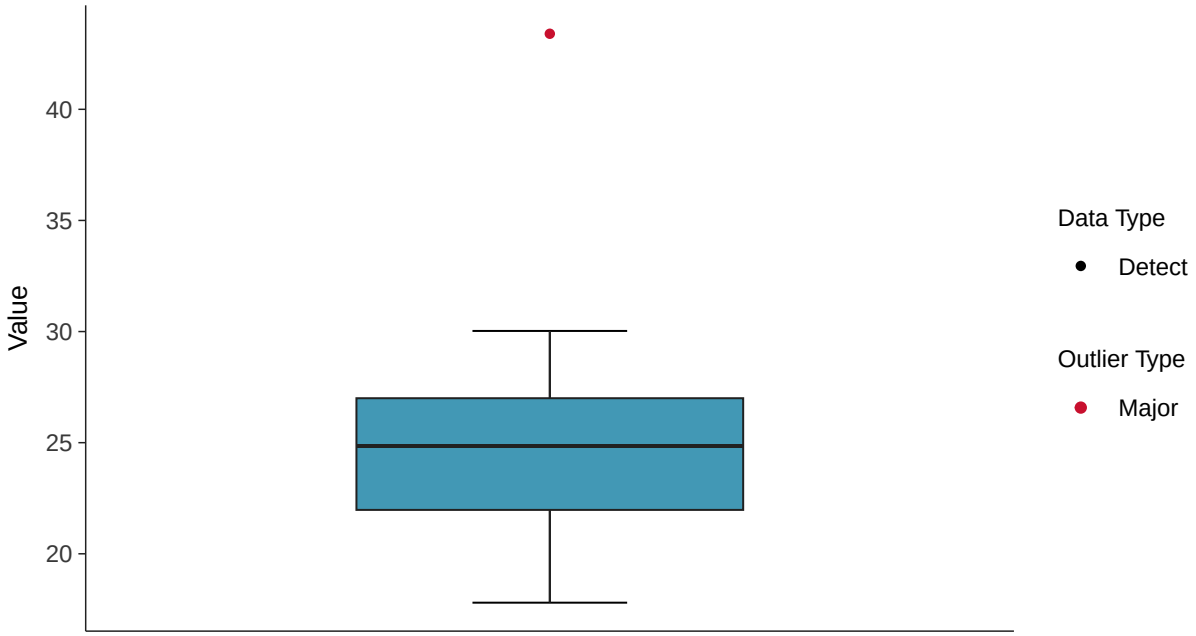
ID: 09_2_105





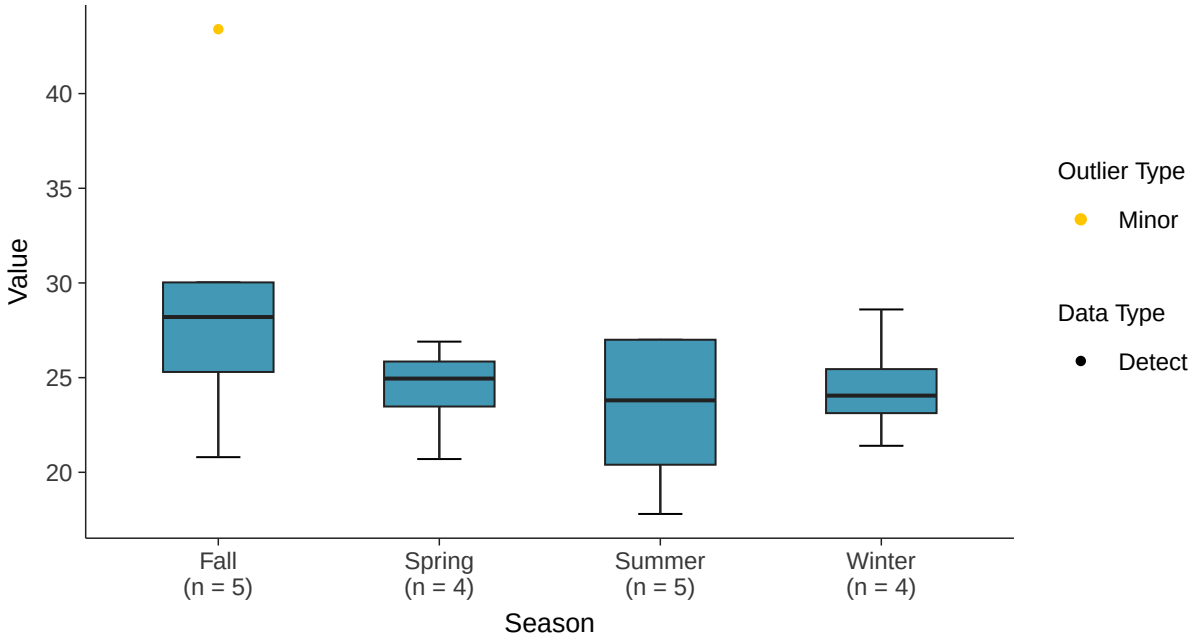
Boxplot

Boron, MW-10 (ug/L)



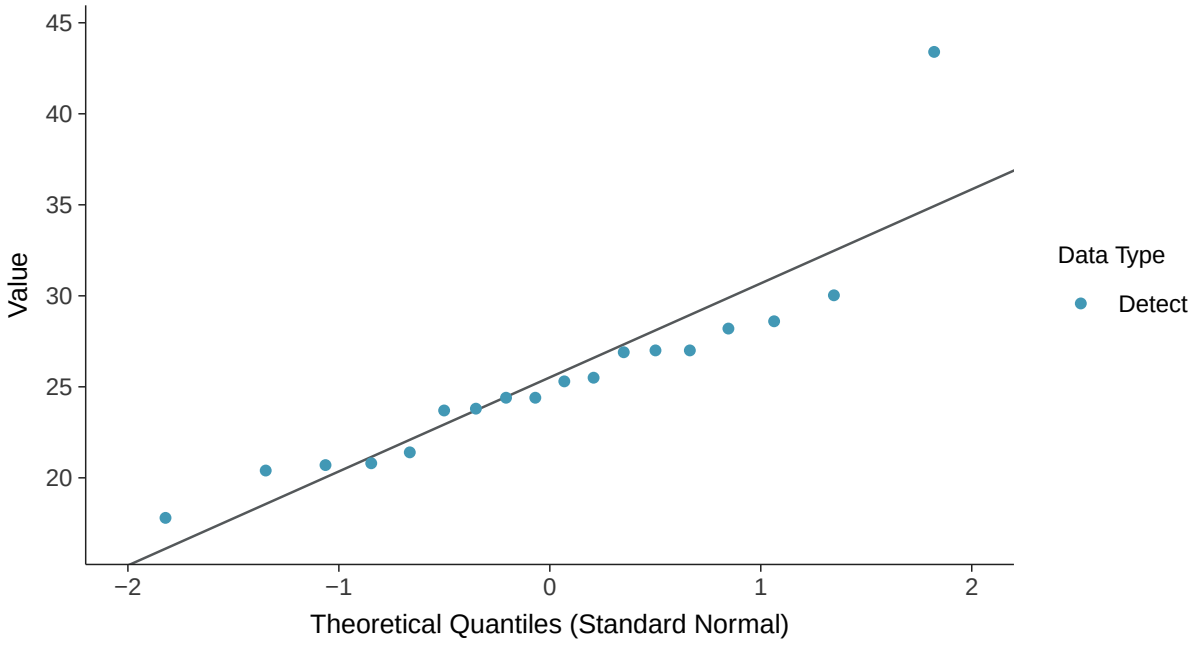
Boxplot by Season

Boron, MW-10 (ug/L)



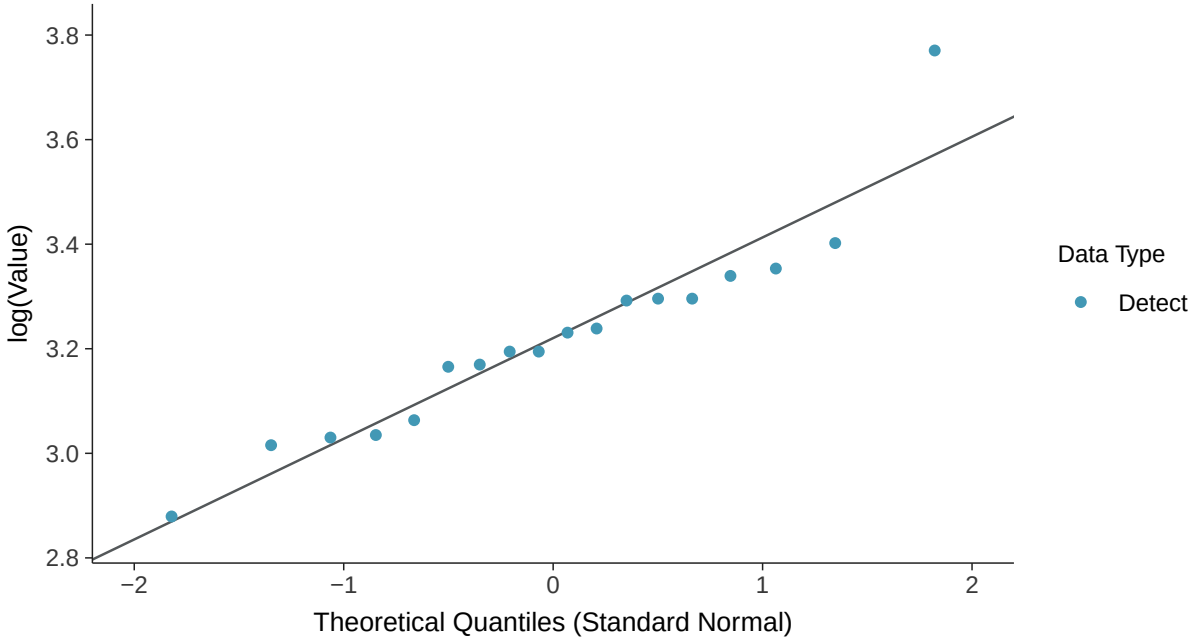
Normal Q-Q plot

Boron, MW-10 (ug/L)



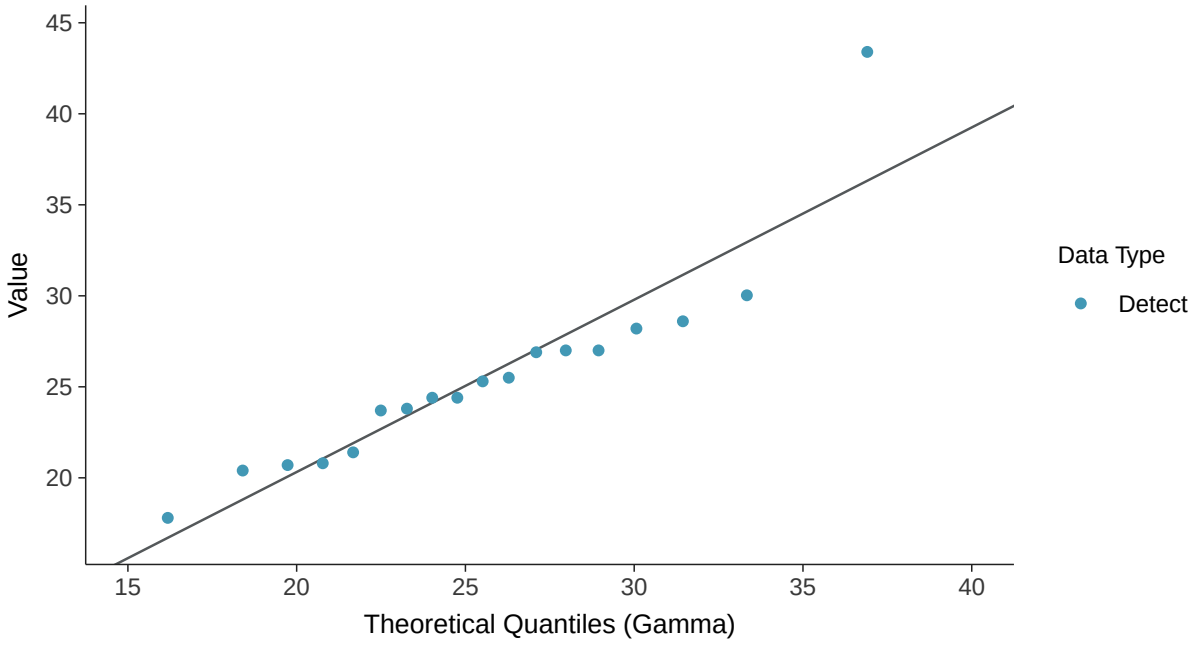
Lognormal Q-Q plot

Boron, MW-10 (ug/L)



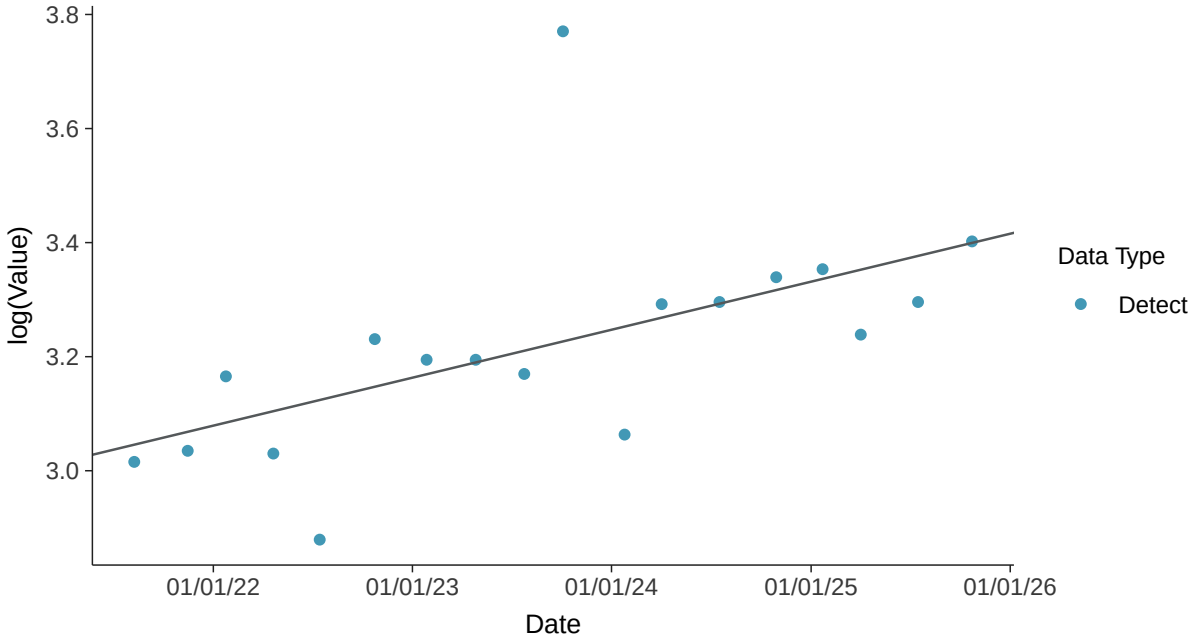
Gamma Q-Q plot

Boron, MW-10 (ug/L)



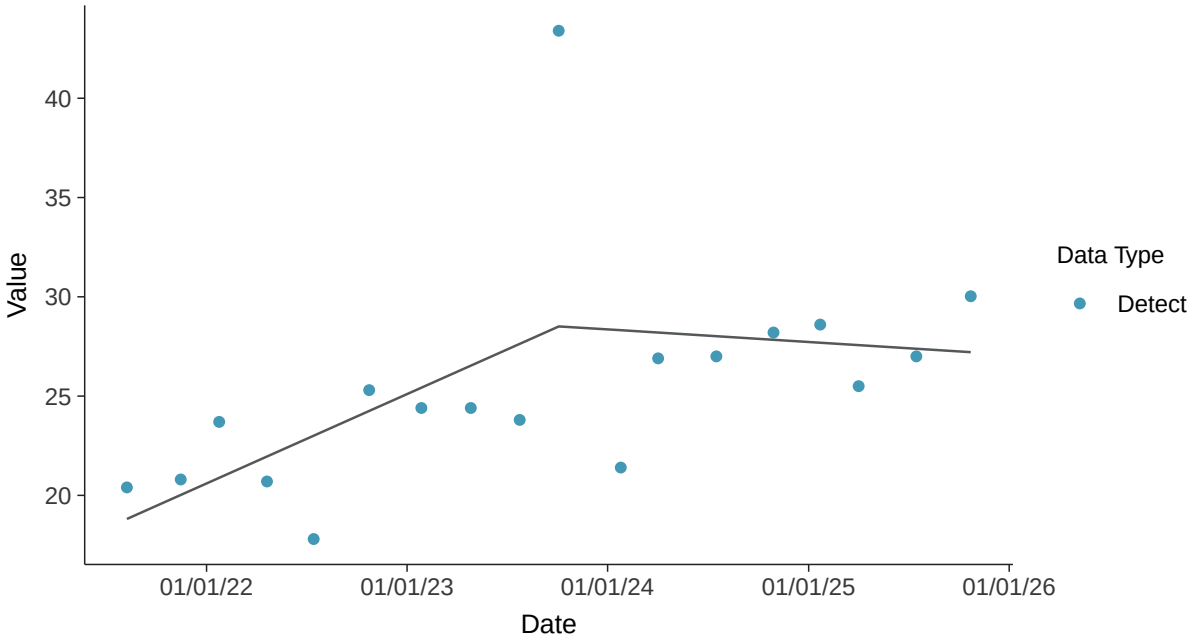
Trend Regression: Lognormal MLE

Boron, MW-10 (ug/L)



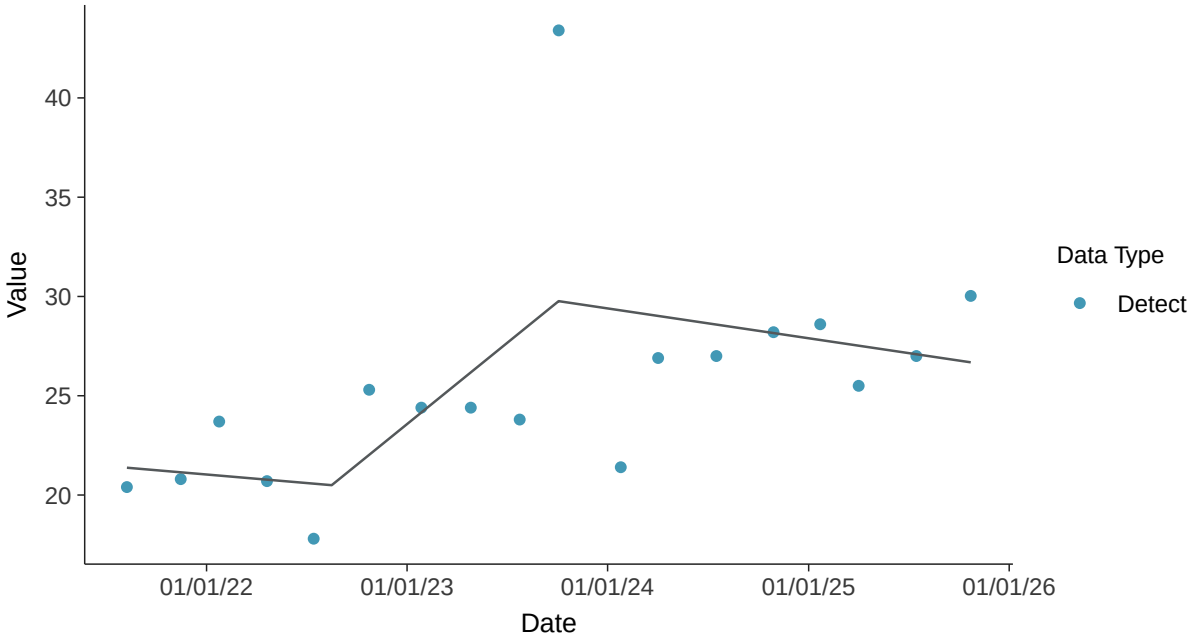
Trend Regression: Piecewise Linear-Linear

Boron, MW-10 (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Boron, MW-10 (ug/L)

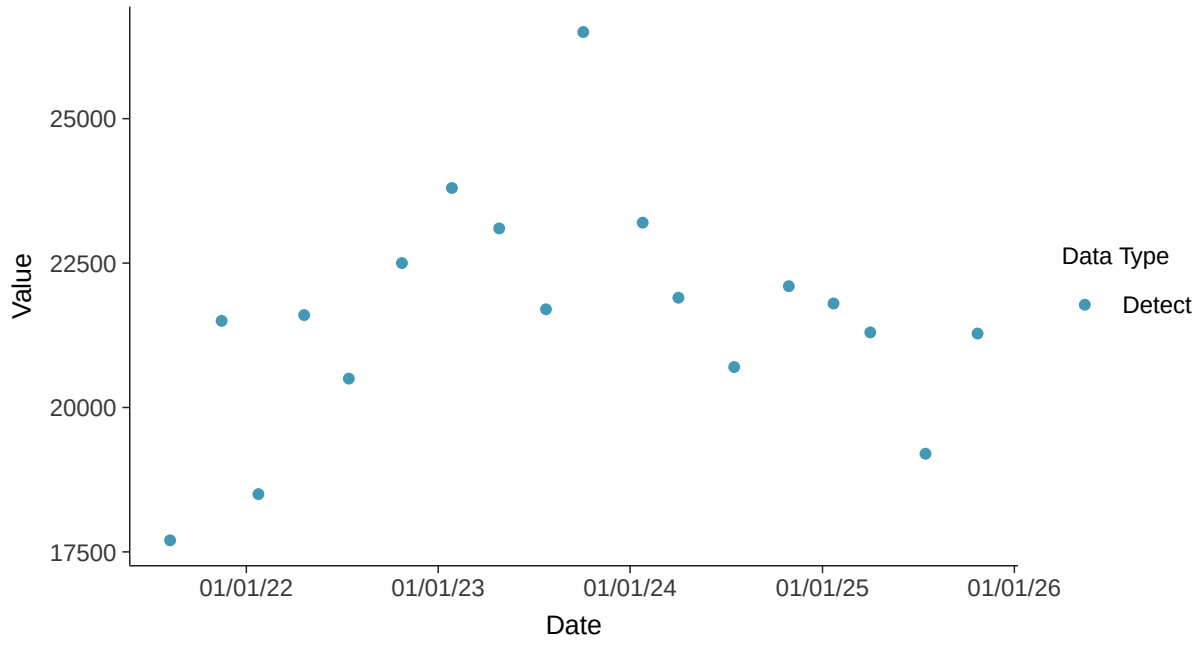


App. III: Calcium, MW-10

ID: 09_2_107

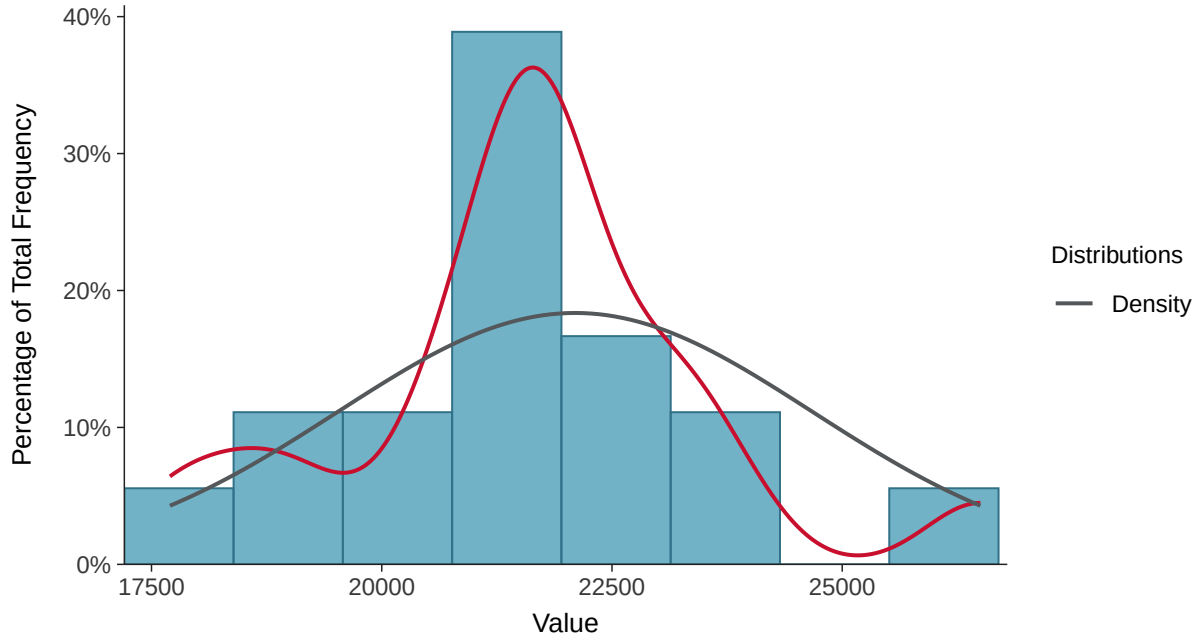
Scatter Plot

Calcium, MW-10 (ug/L)



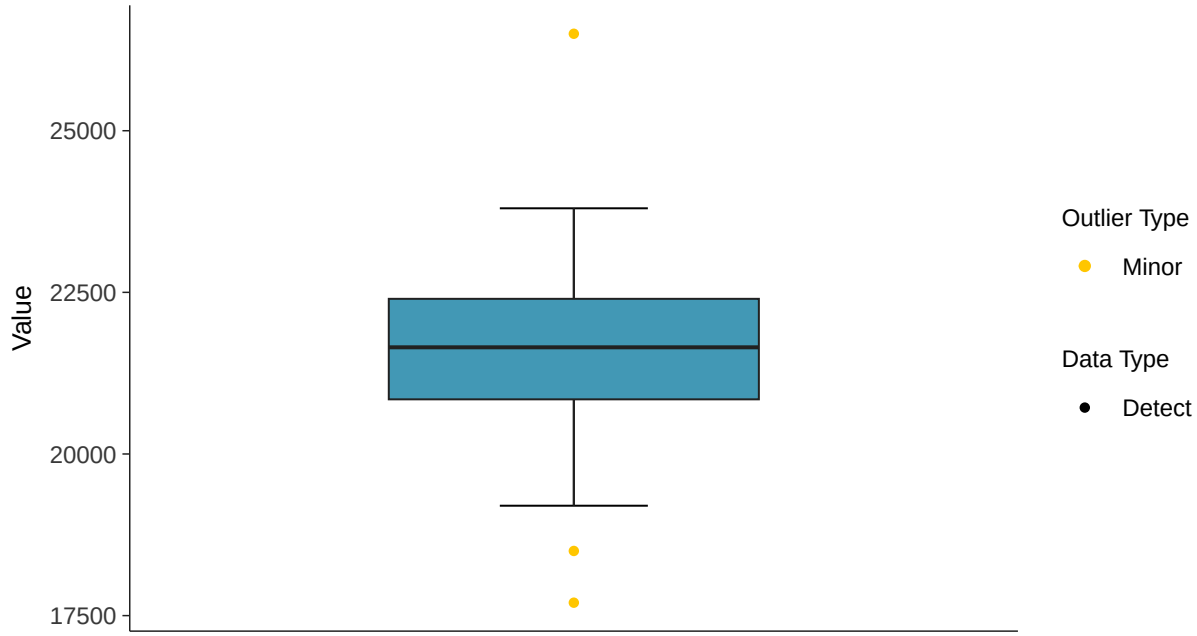
Histogram

Calcium, MW-10 (ug/L)



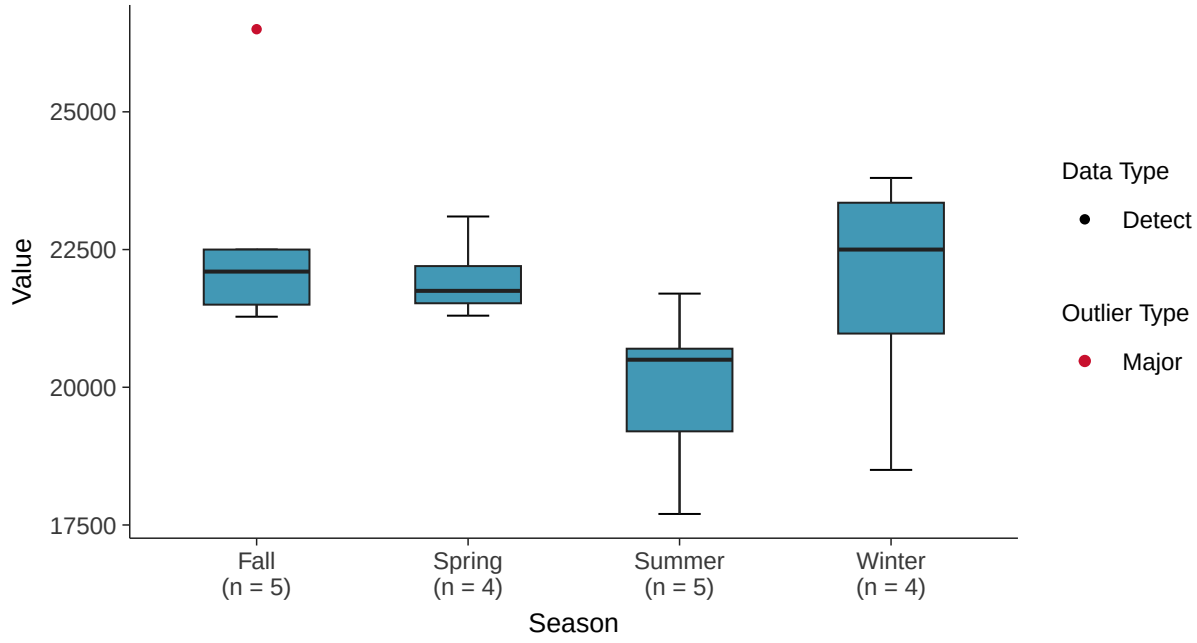
Boxplot

Calcium, MW-10 (ug/L)



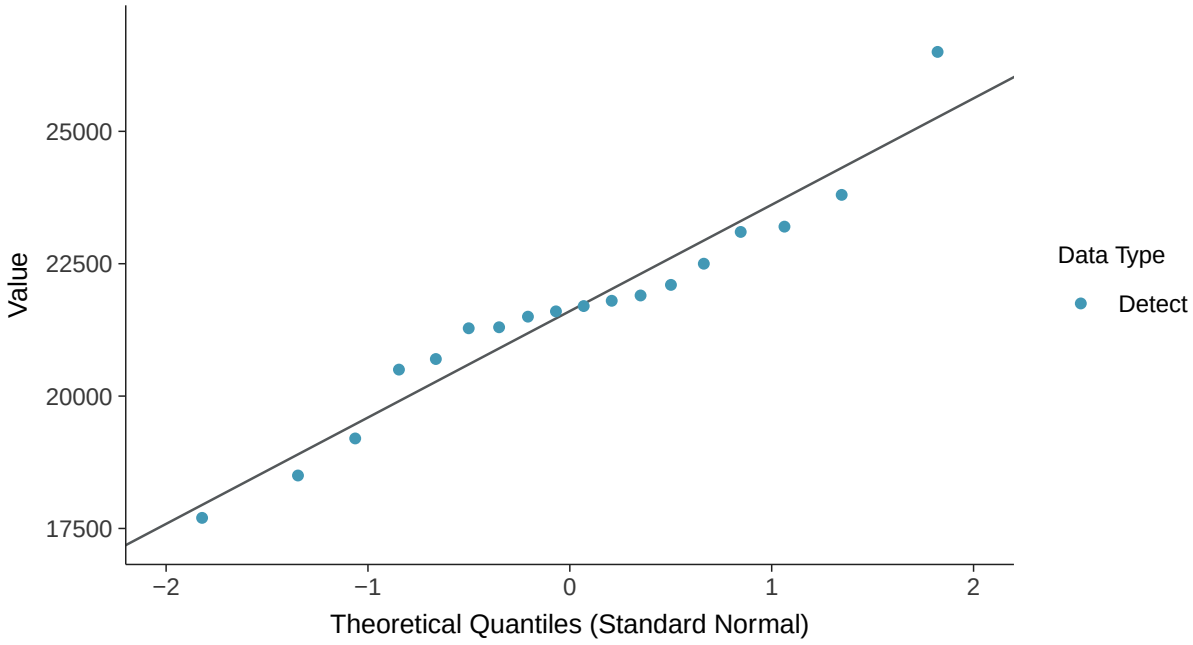
Boxplot by Season

Calcium, MW-10 (ug/L)



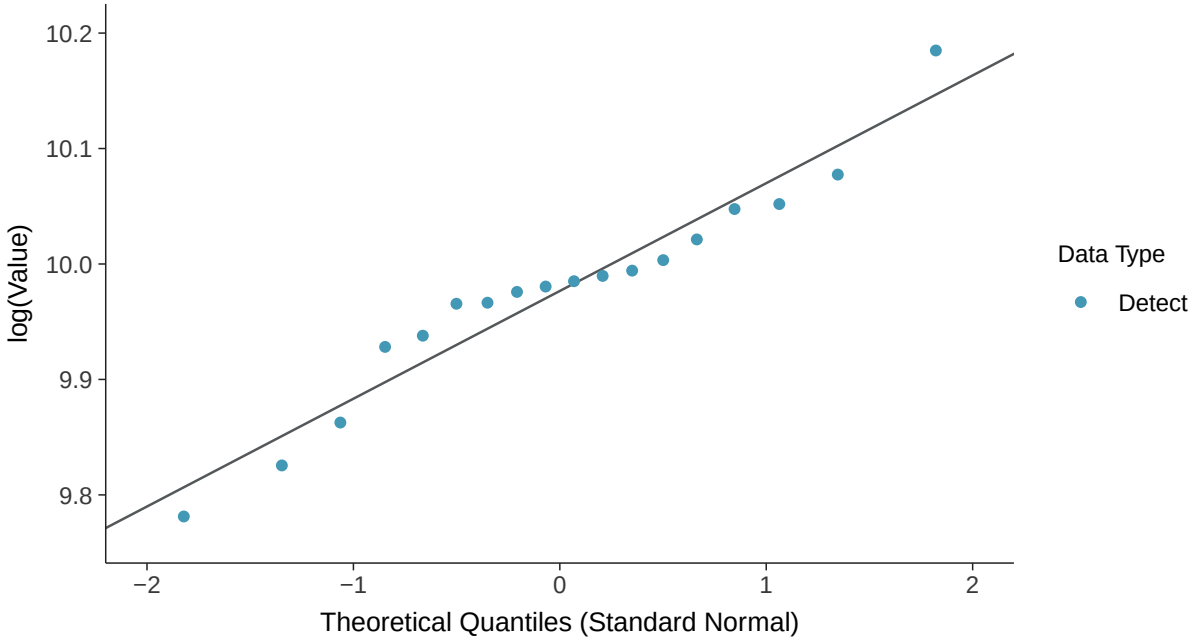
Normal Q-Q plot

Calcium, MW-10 (ug/L)



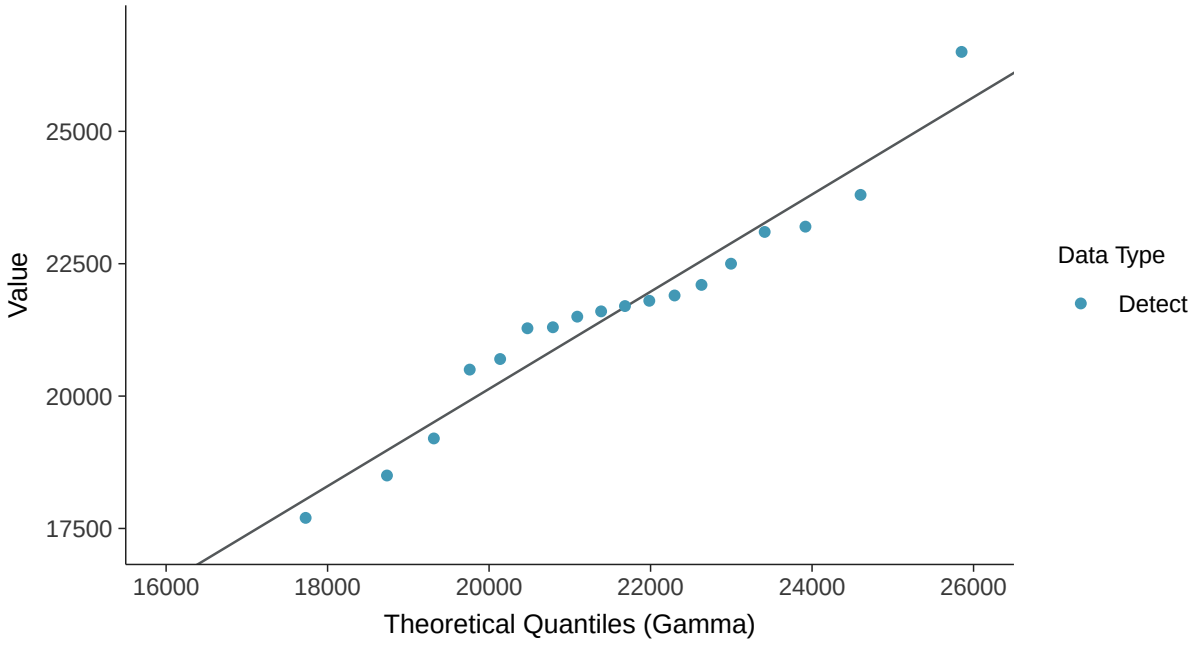
Lognormal Q-Q plot

Calcium, MW-10 (ug/L)



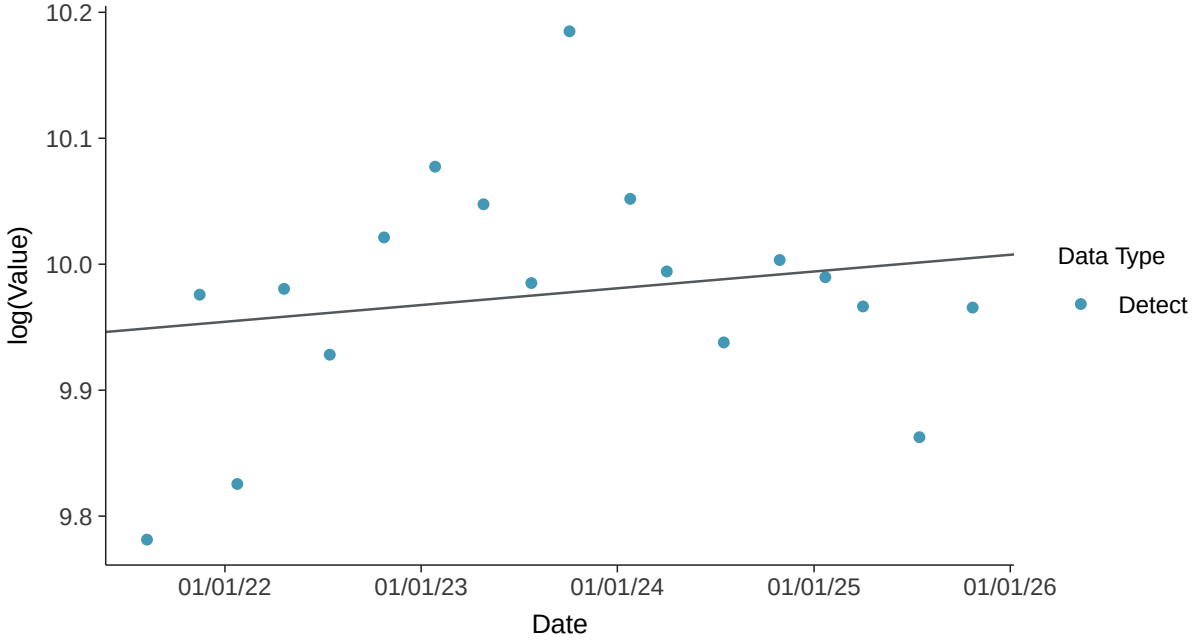
Gamma Q-Q plot

Calcium, MW-10 (ug/L)



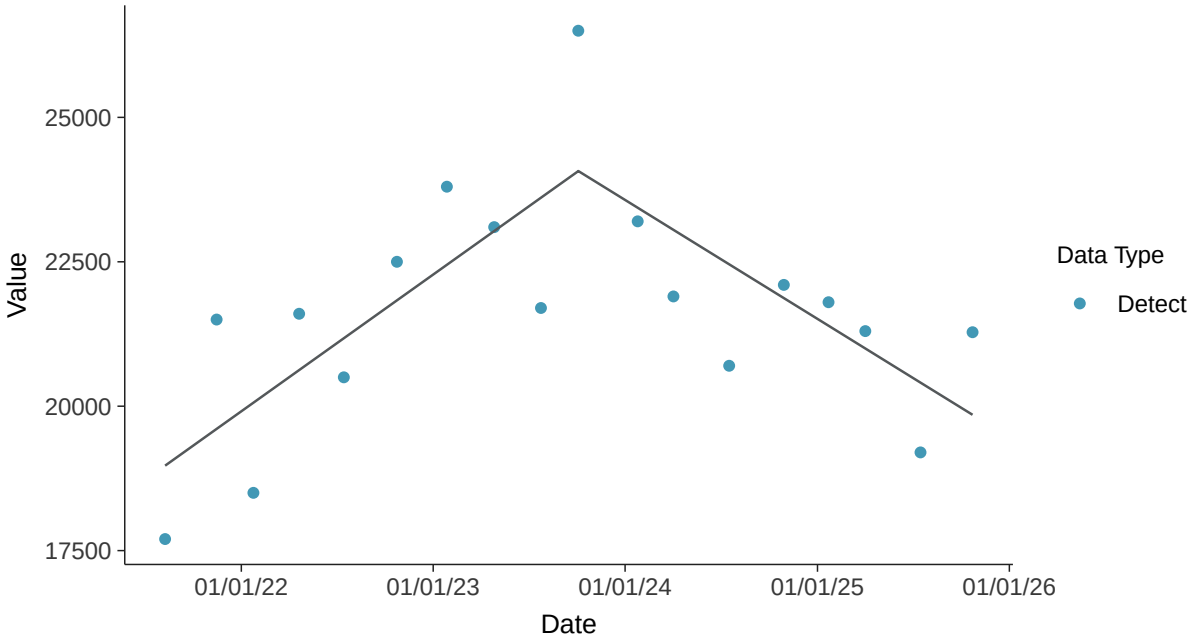
Trend Regression: Lognormal MLE

Calcium, MW-10 (ug/L)



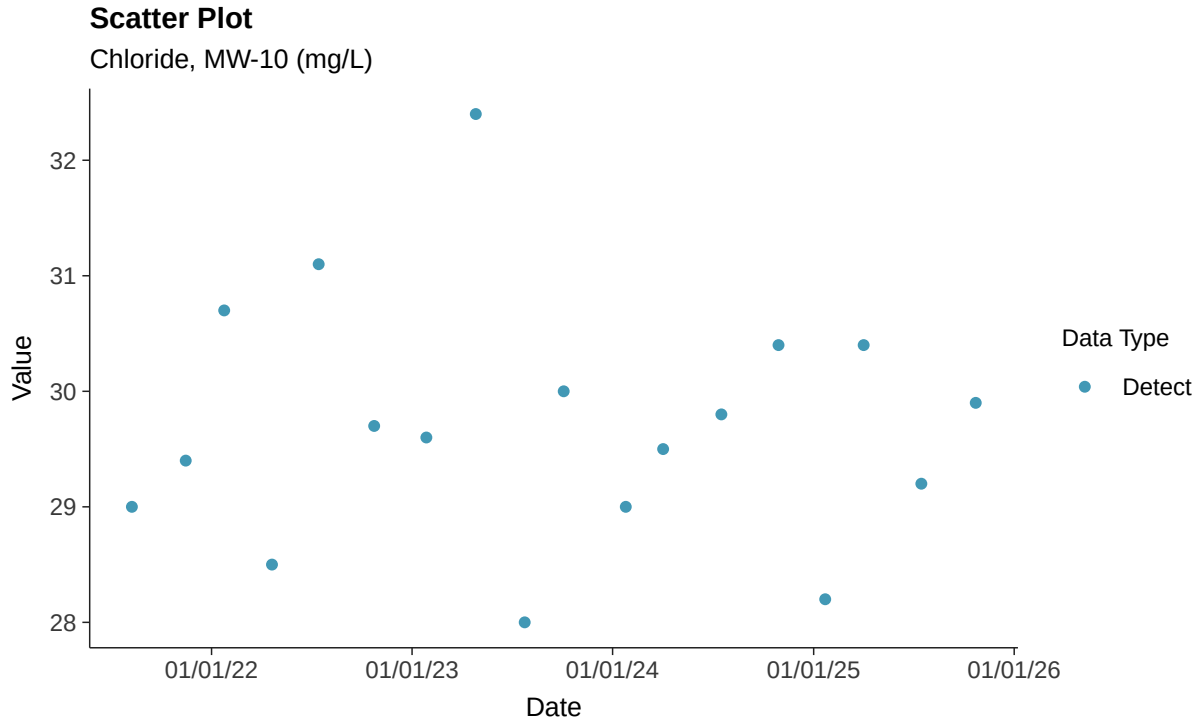
Trend Regression: Piecewise Linear-Linear

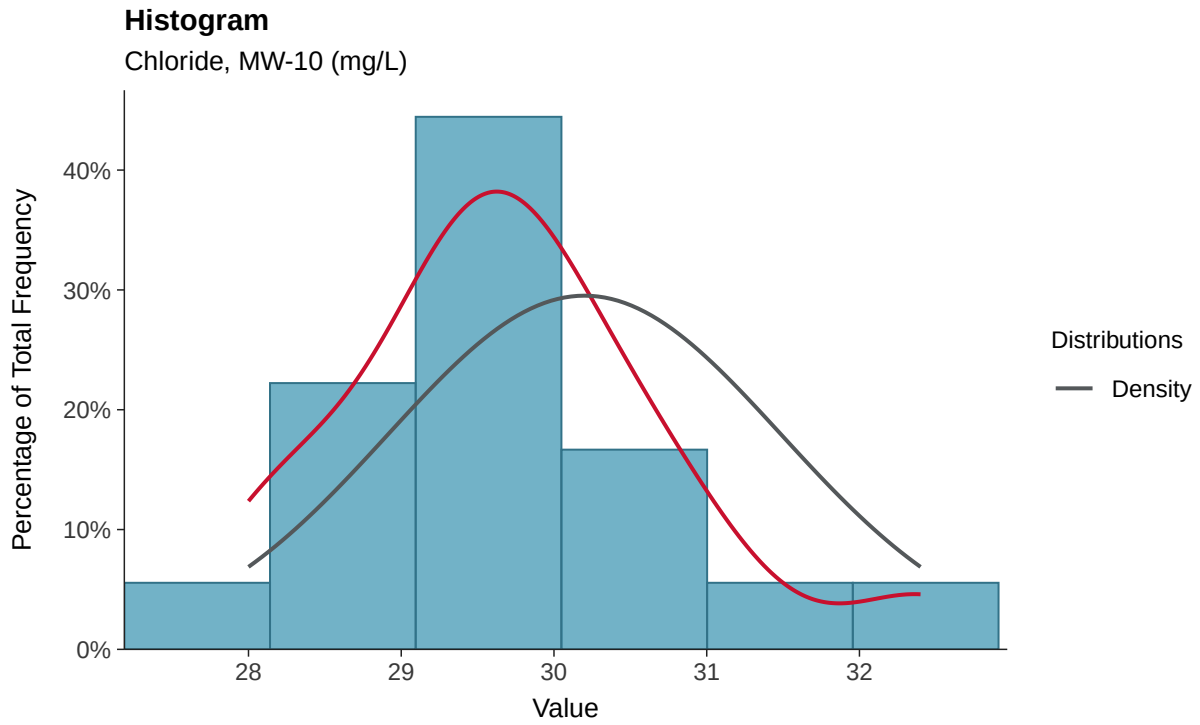
Calcium, MW-10 (ug/L)



App. III: Chloride, MW-10

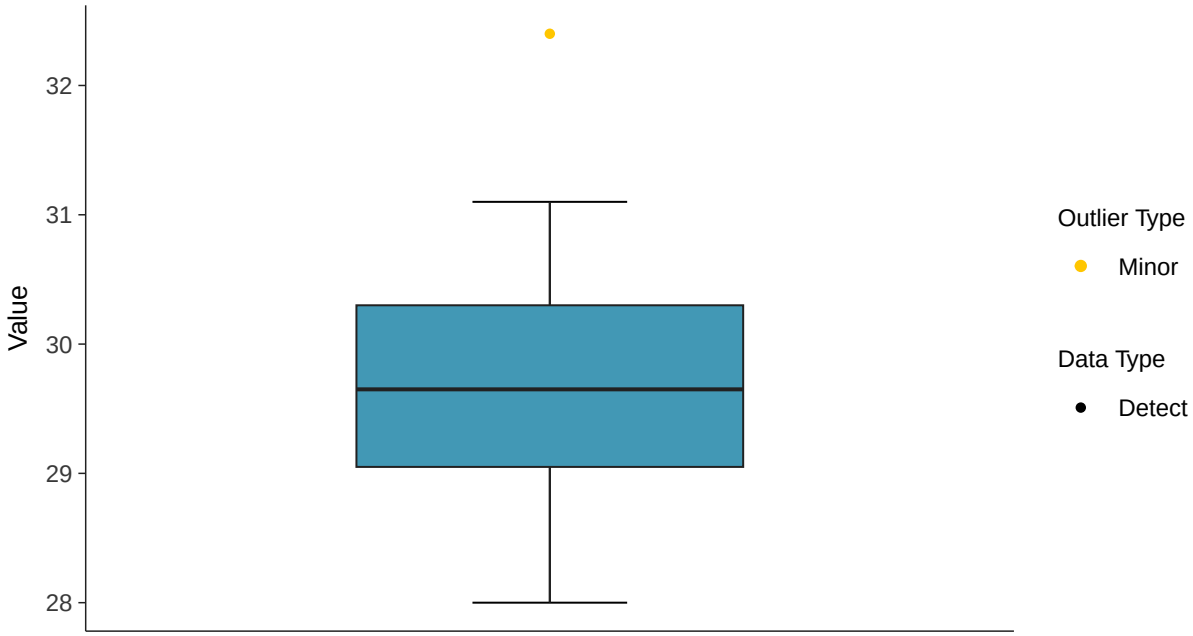
ID: 09_2_108





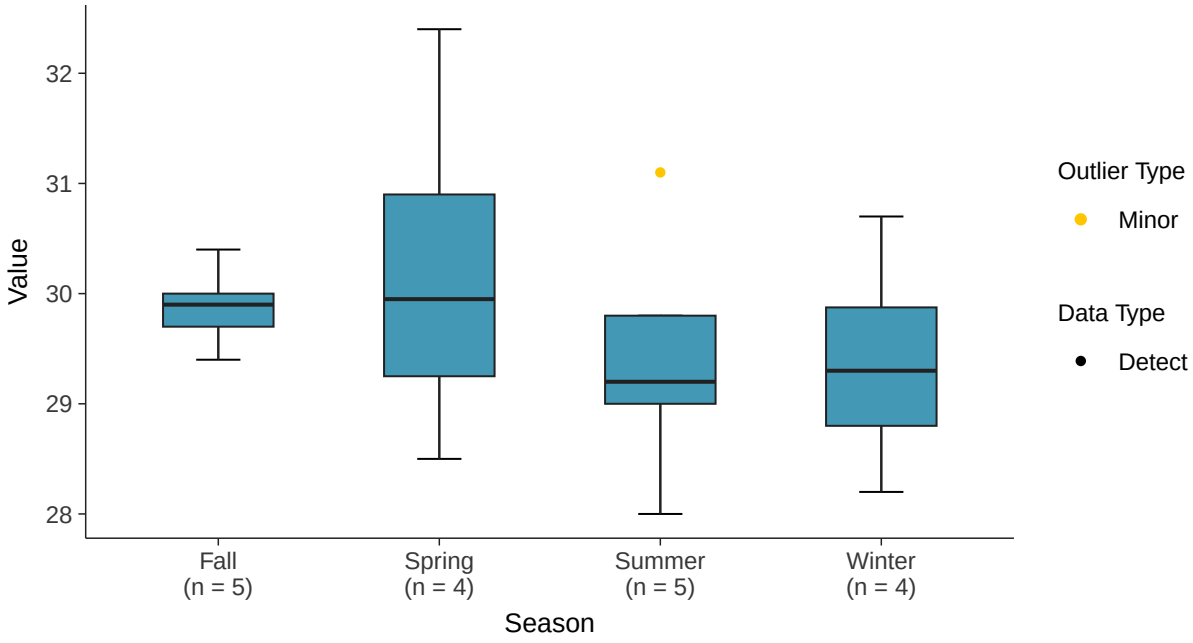
Boxplot

Chloride, MW-10 (mg/L)



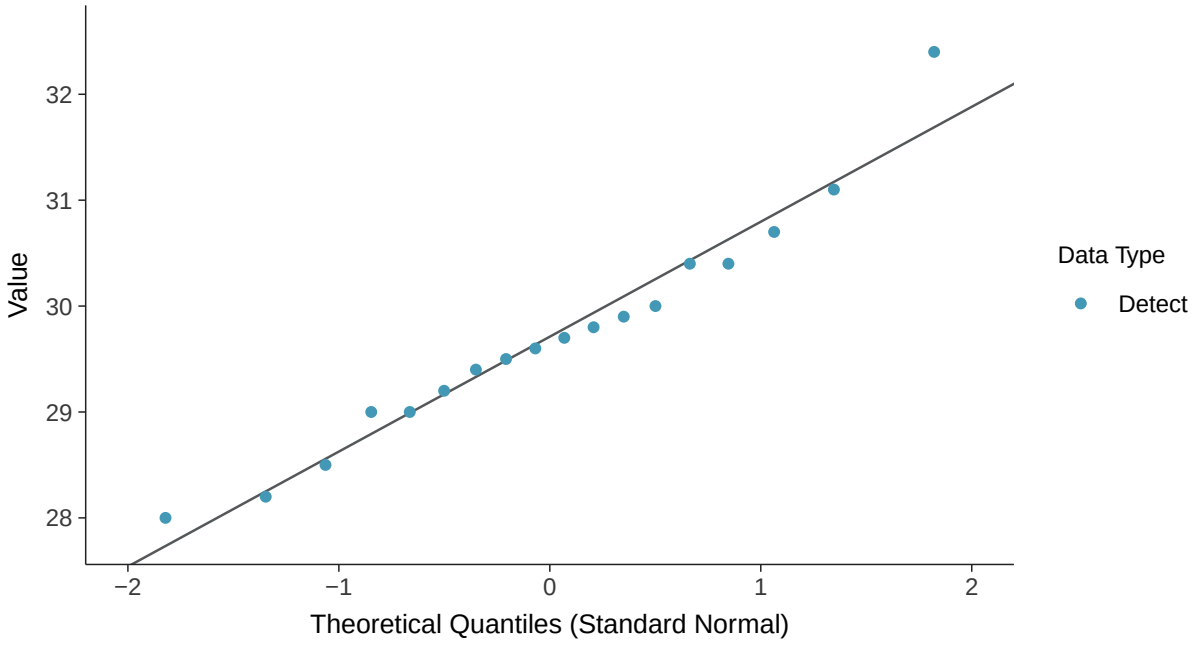
Boxplot by Season

Chloride, MW-10 (mg/L)



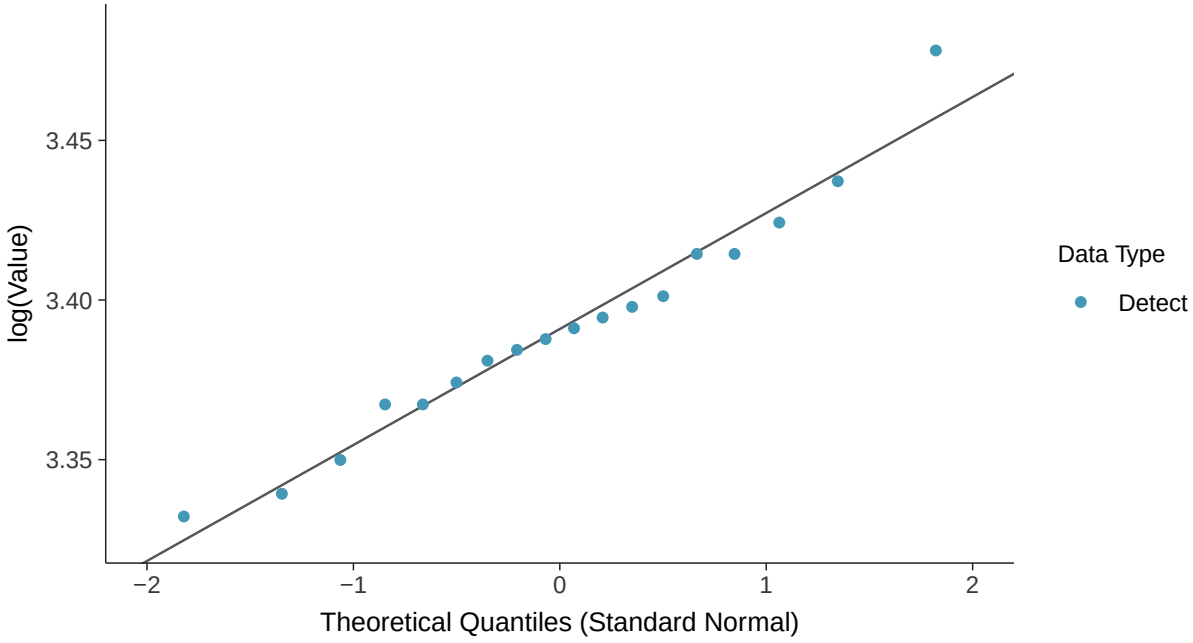
Normal Q-Q plot

Chloride, MW-10 (mg/L)



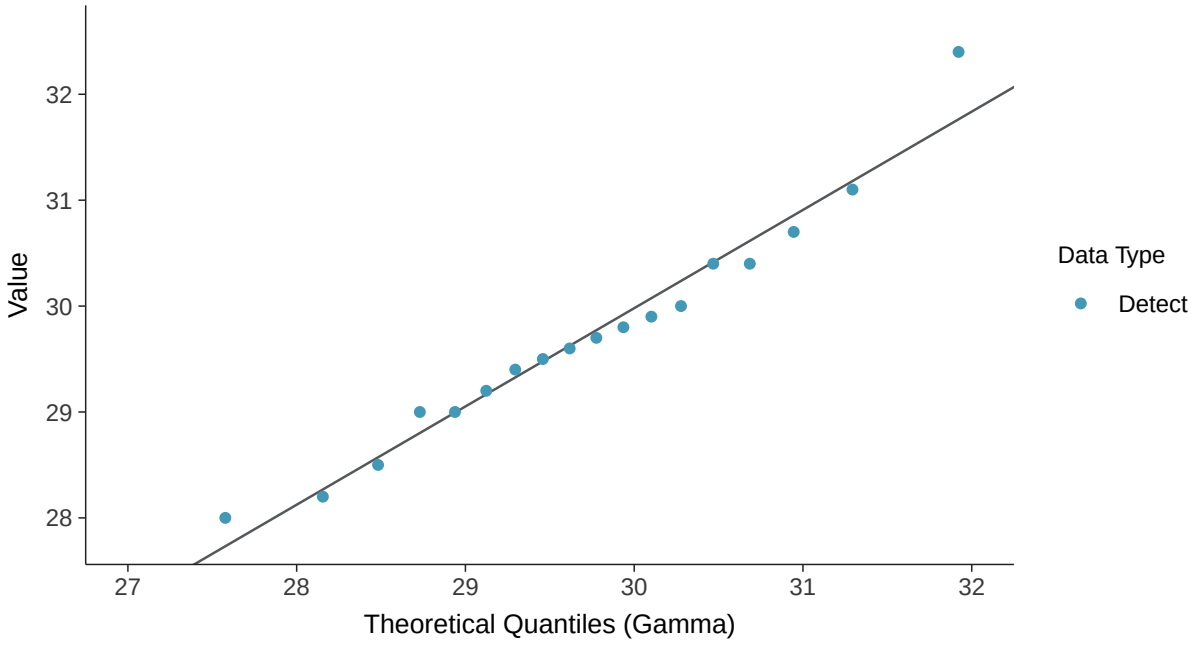
Lognormal Q-Q plot

Chloride, MW-10 (mg/L)



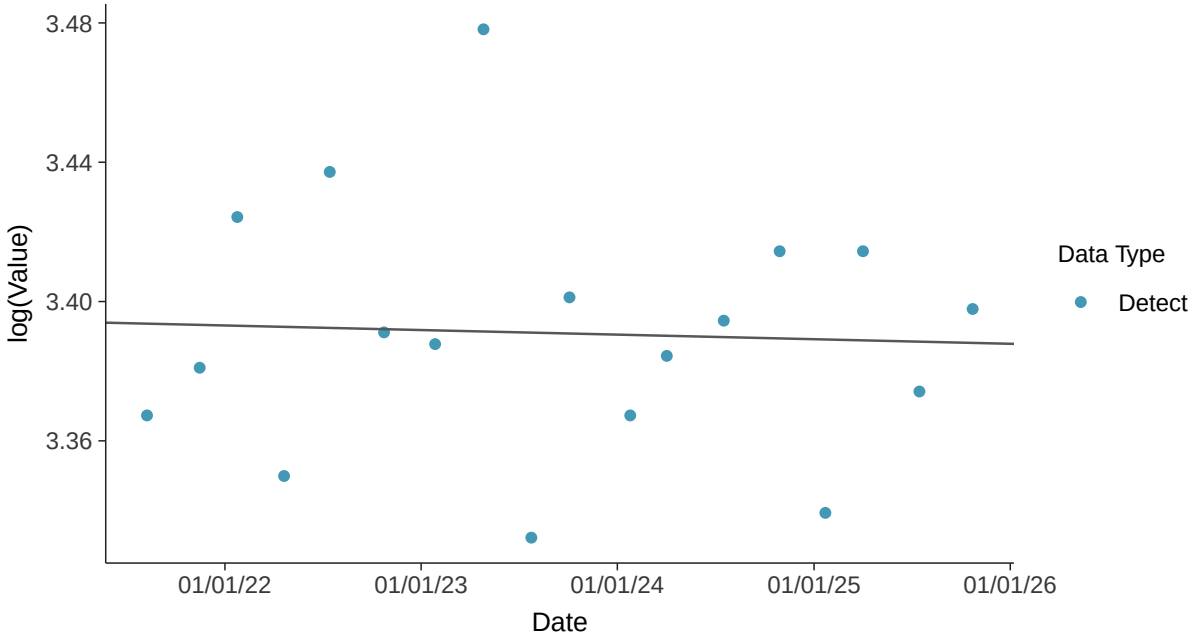
Gamma Q-Q plot

Chloride, MW-10 (mg/L)



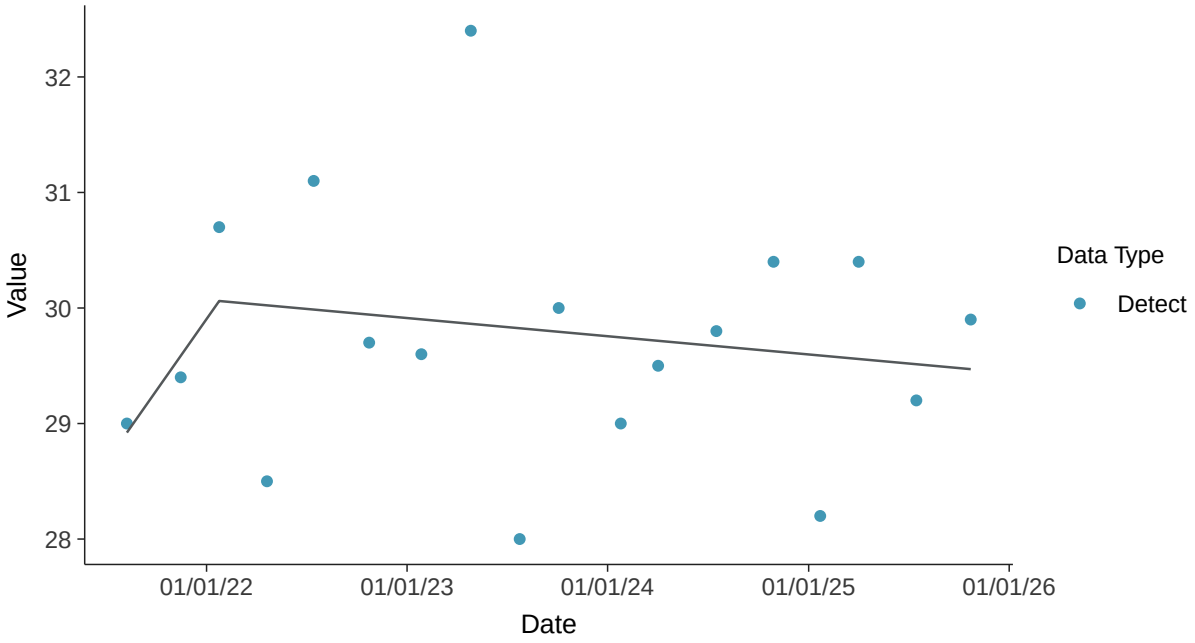
Trend Regression: Lognormal MLE

Chloride, MW-10 (mg/L)



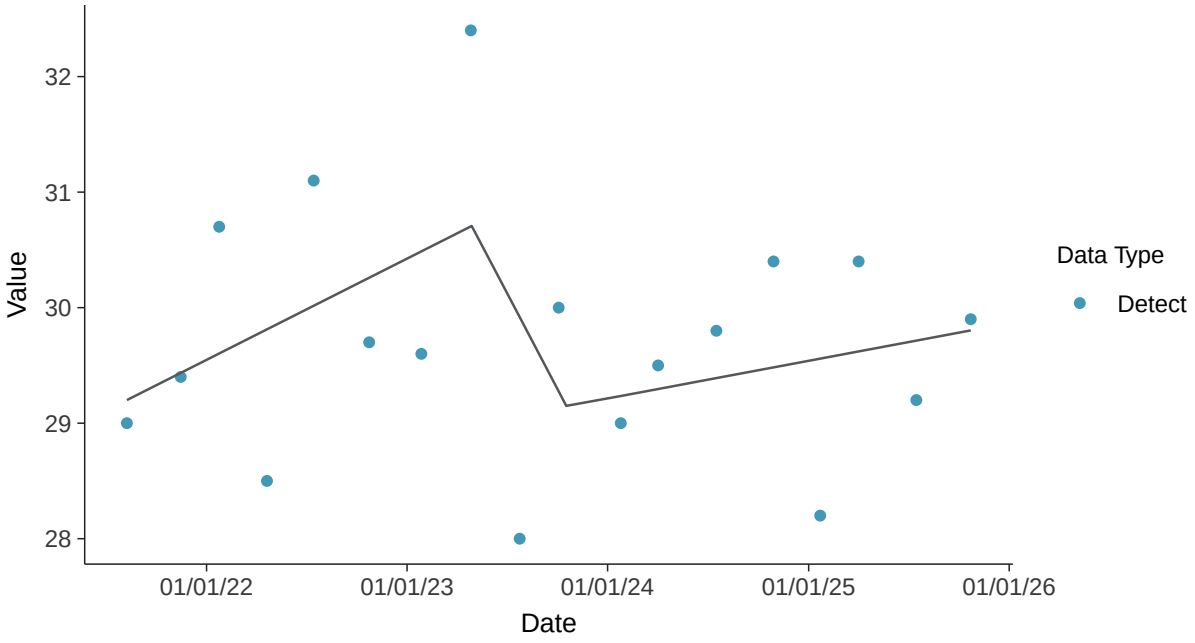
Trend Regression: Piecewise Linear-Linear

Chloride, MW-10 (mg/L)



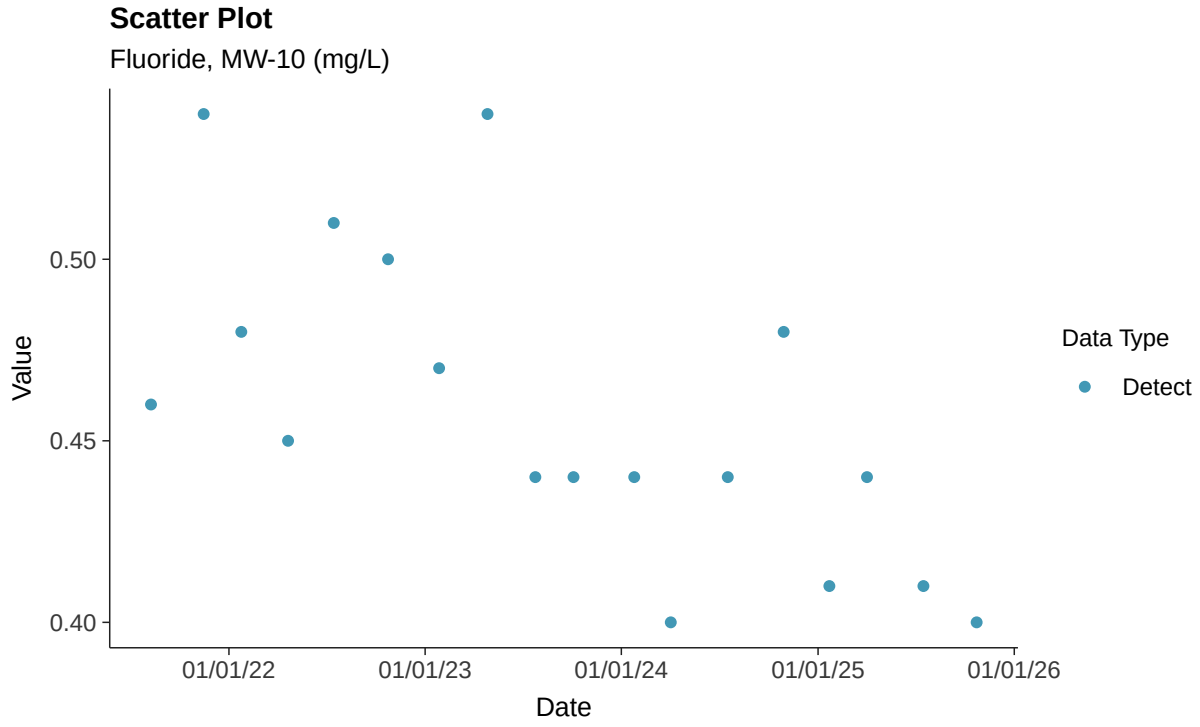
Trend Regression: Piecewise Linear-Linear-Linear

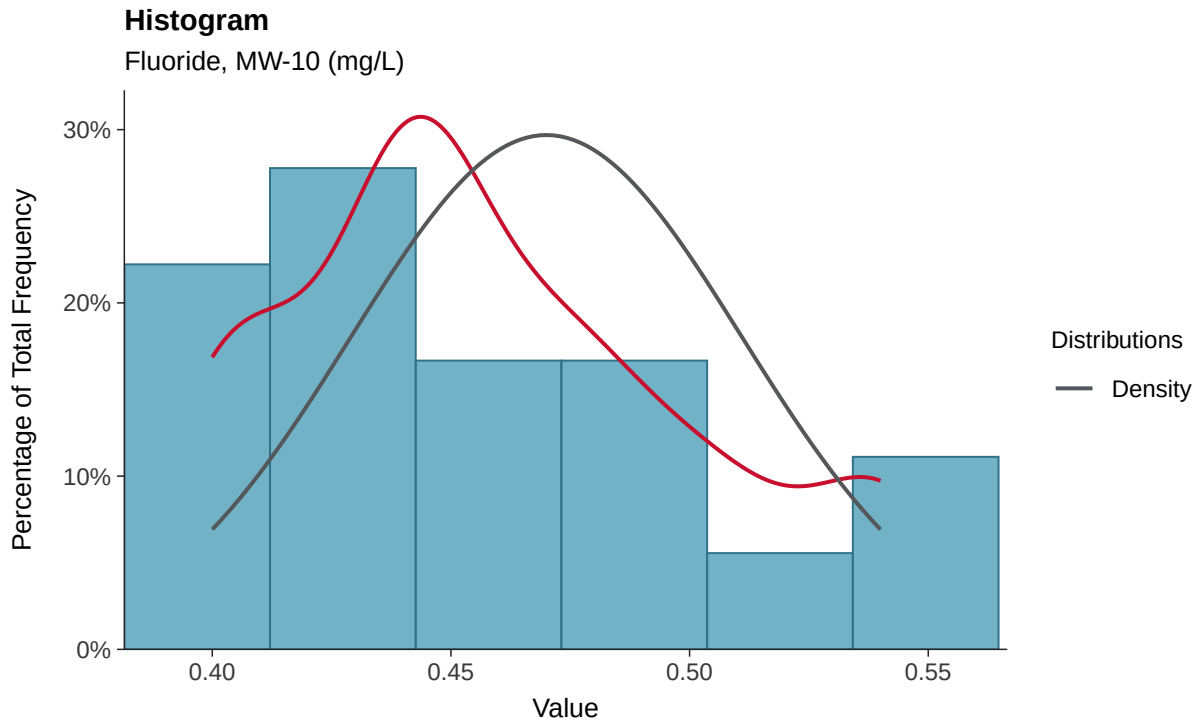
Chloride, MW-10 (mg/L)



App. III: Fluoride, MW-10

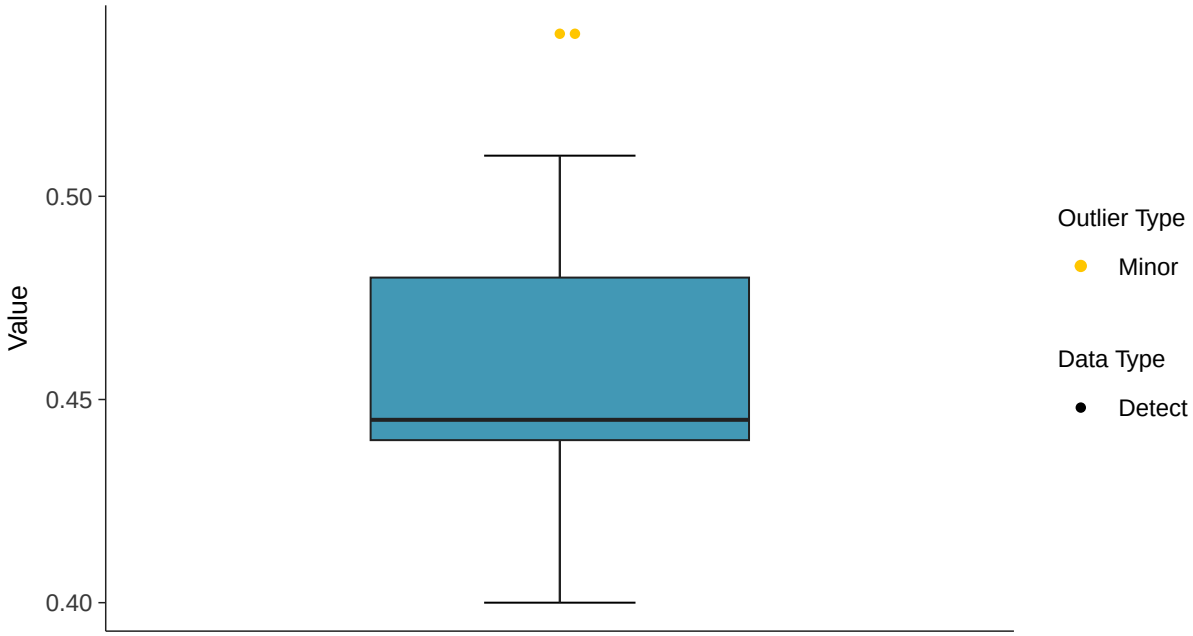
ID: 09_2_112





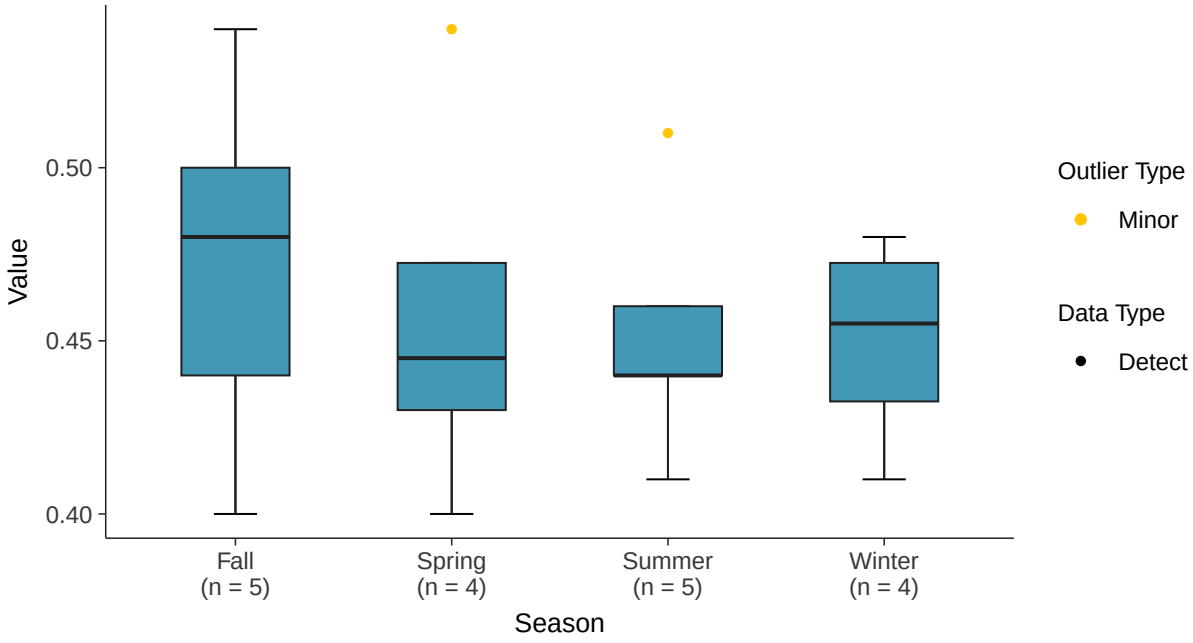
Boxplot

Fluoride, MW-10 (mg/L)



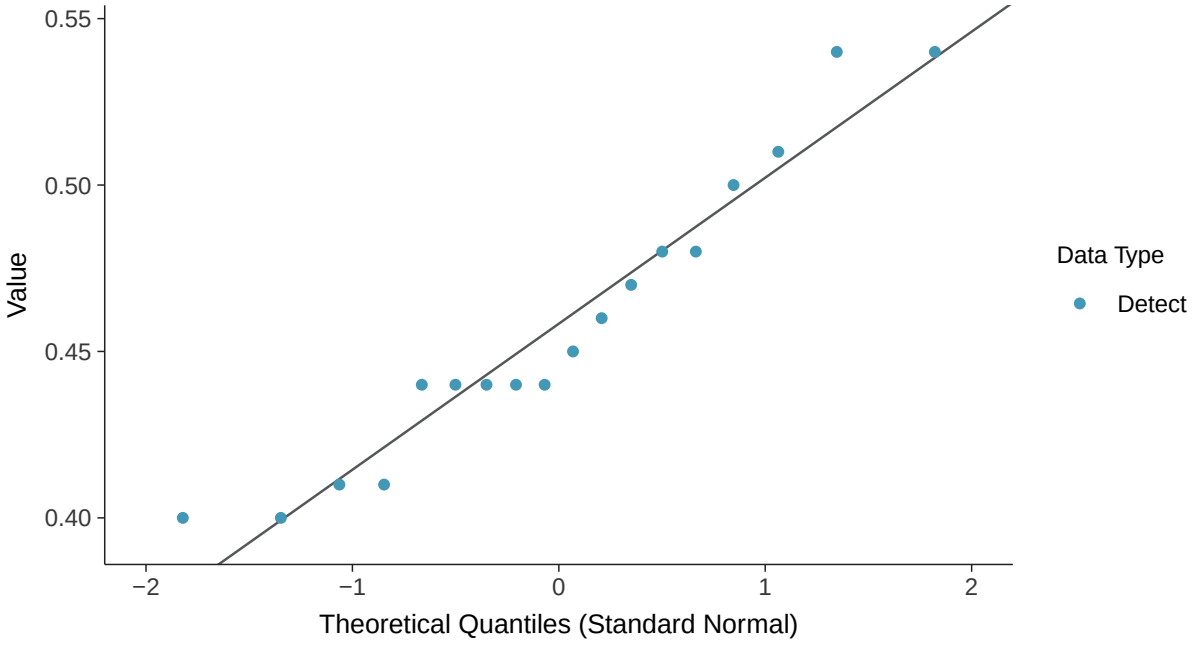
Boxplot by Season

Fluoride, MW-10 (mg/L)



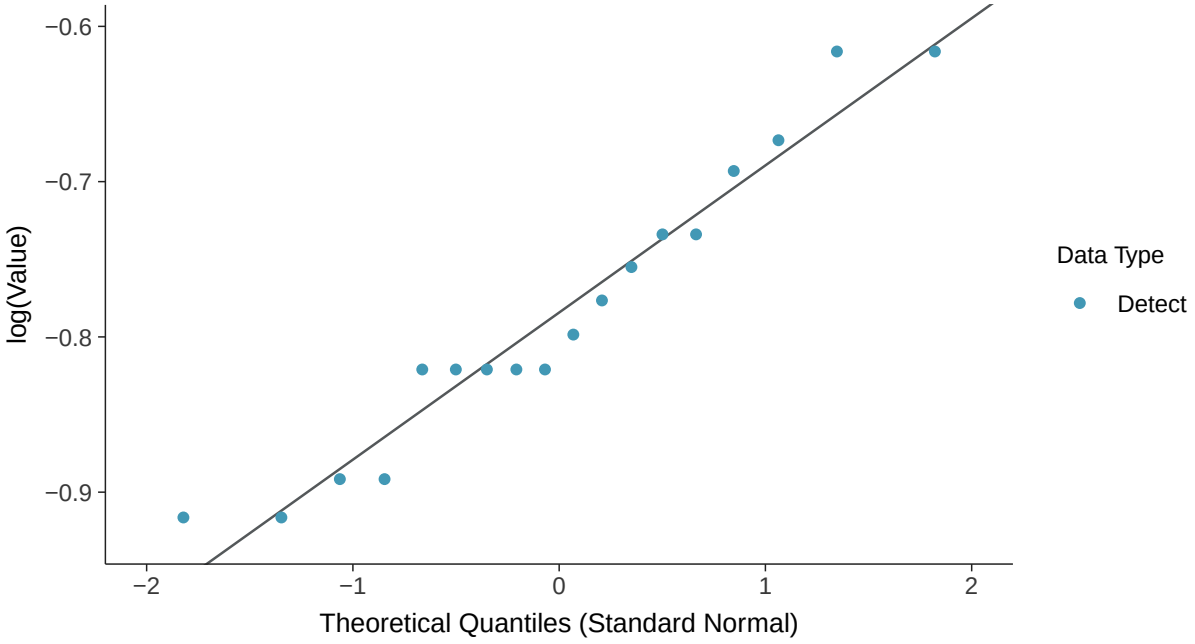
Normal Q-Q plot

Fluoride, MW-10 (mg/L)



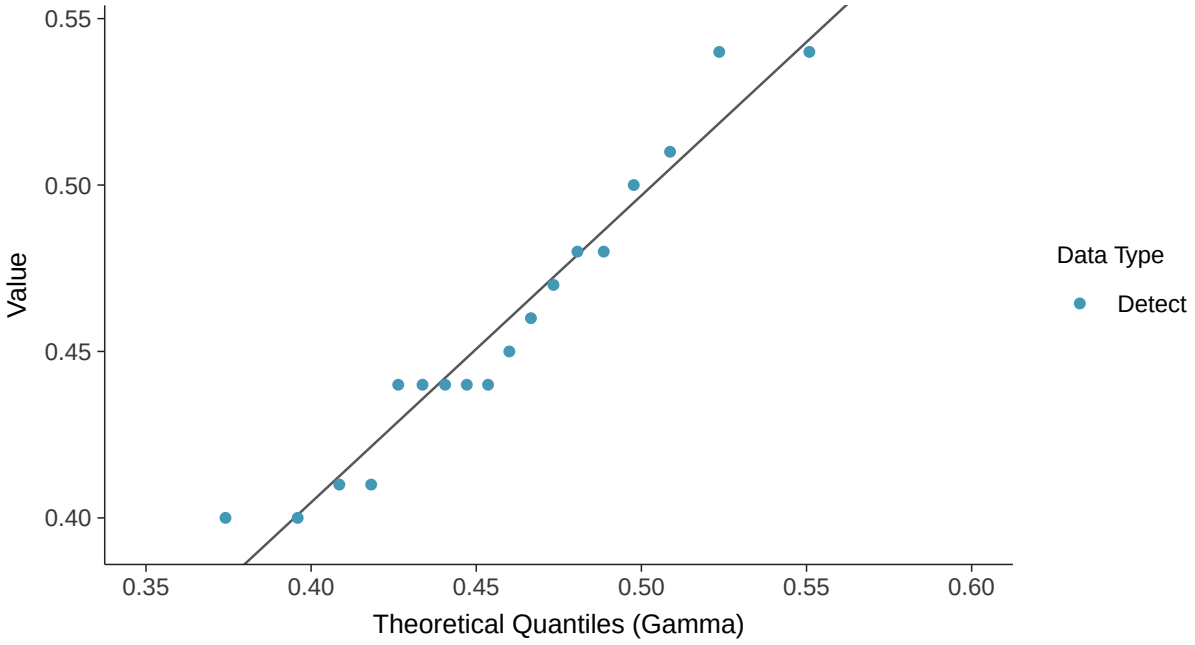
Lognormal Q-Q plot

Fluoride, MW-10 (mg/L)



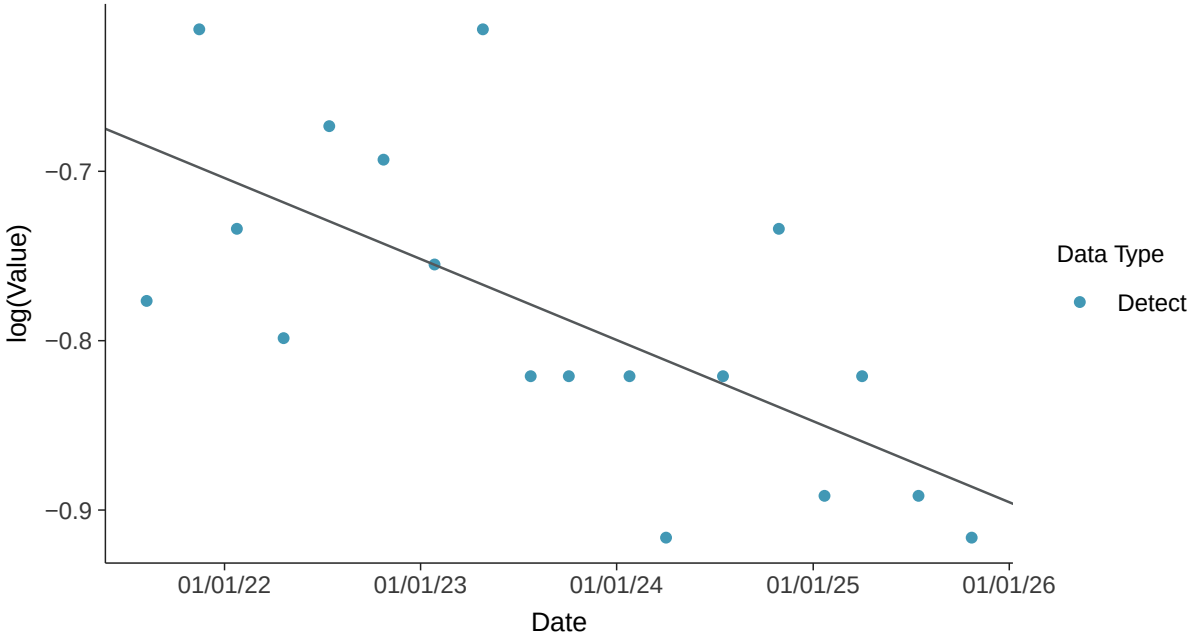
Gamma Q-Q plot

Fluoride, MW-10 (mg/L)



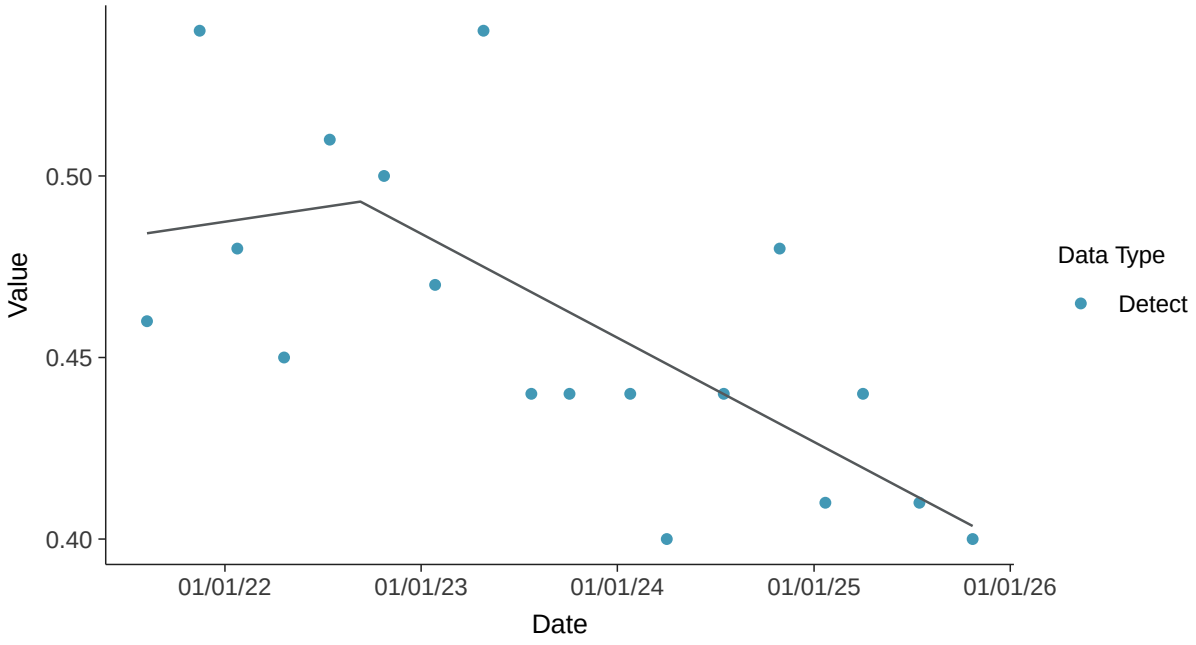
Trend Regression: Lognormal MLE

Fluoride, MW-10 (mg/L)



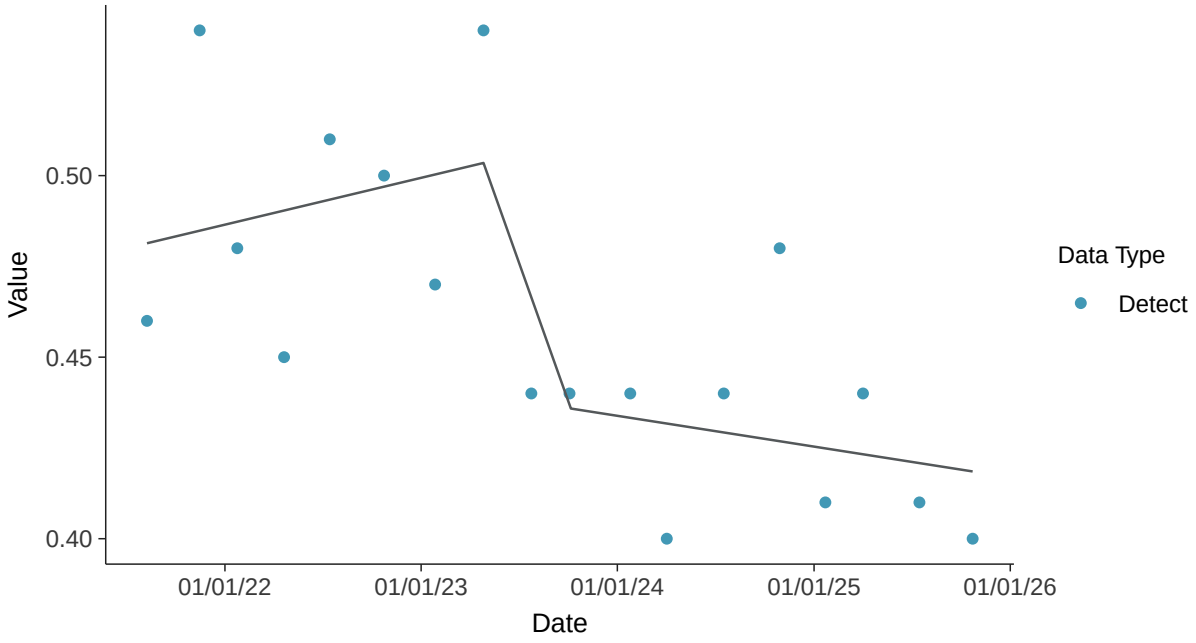
Trend Regression: Piecewise Linear-Linear

Fluoride, MW-10 (mg/L)



Trend Regression: Piecewise Linear-Linear-Linear

Fluoride, MW-10 (mg/L)

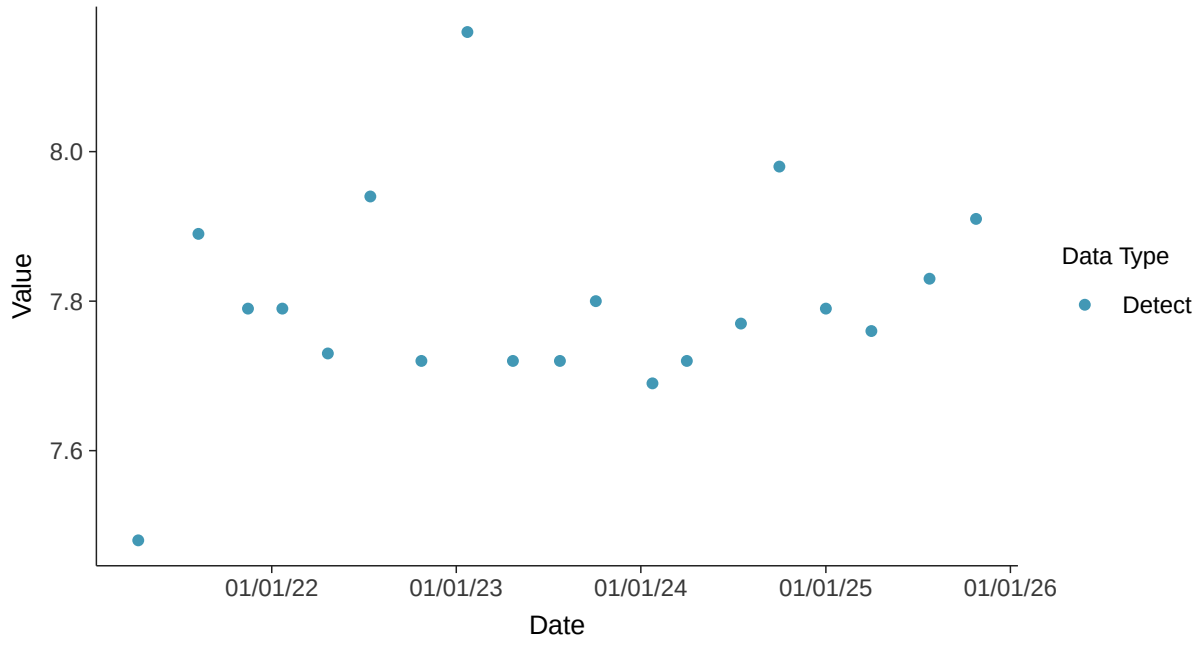


App. III: pH (Field), MW-10

ID: 09_2_118

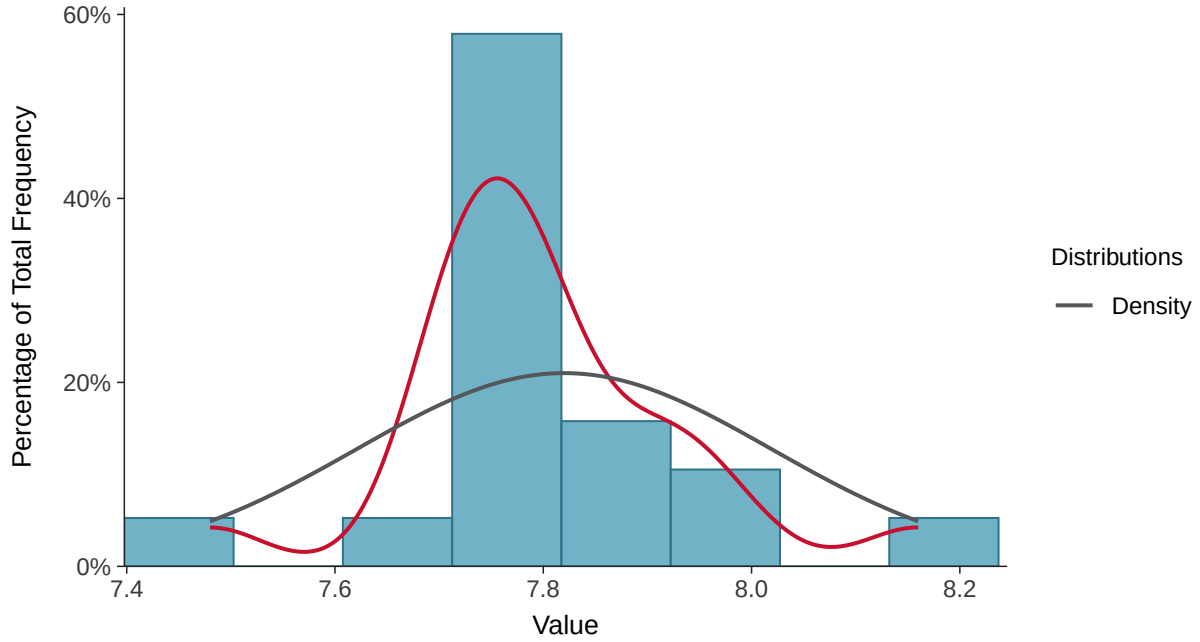
Scatter Plot

pH (Field), MW-10 (S.U.)



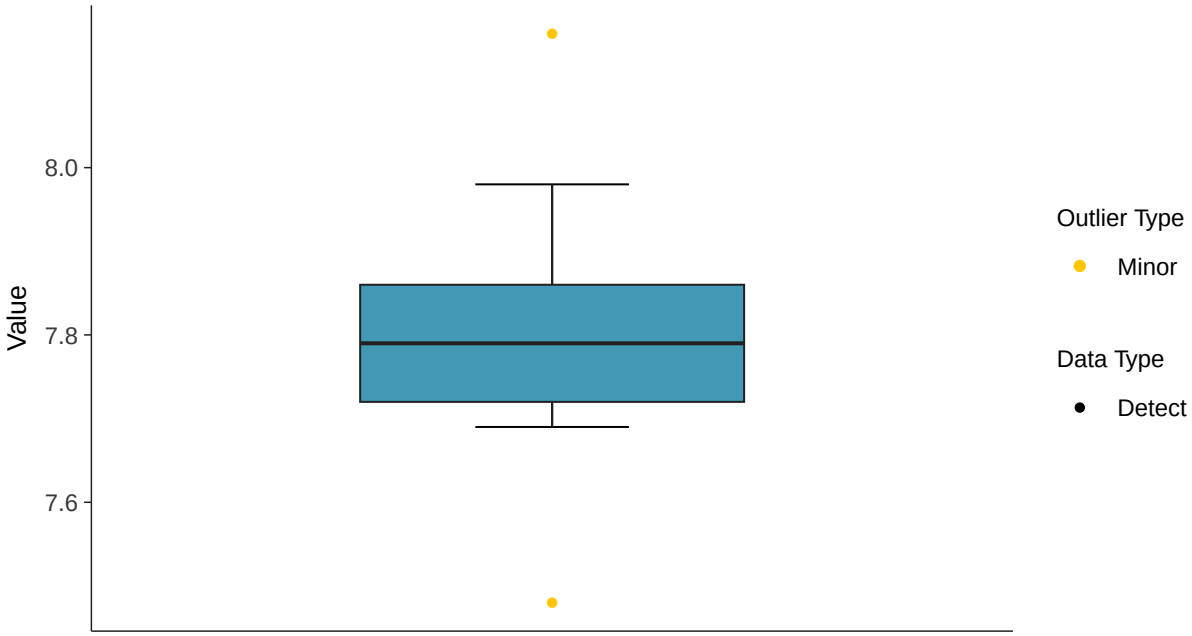
Histogram

pH (Field), MW-10 (S.U.)



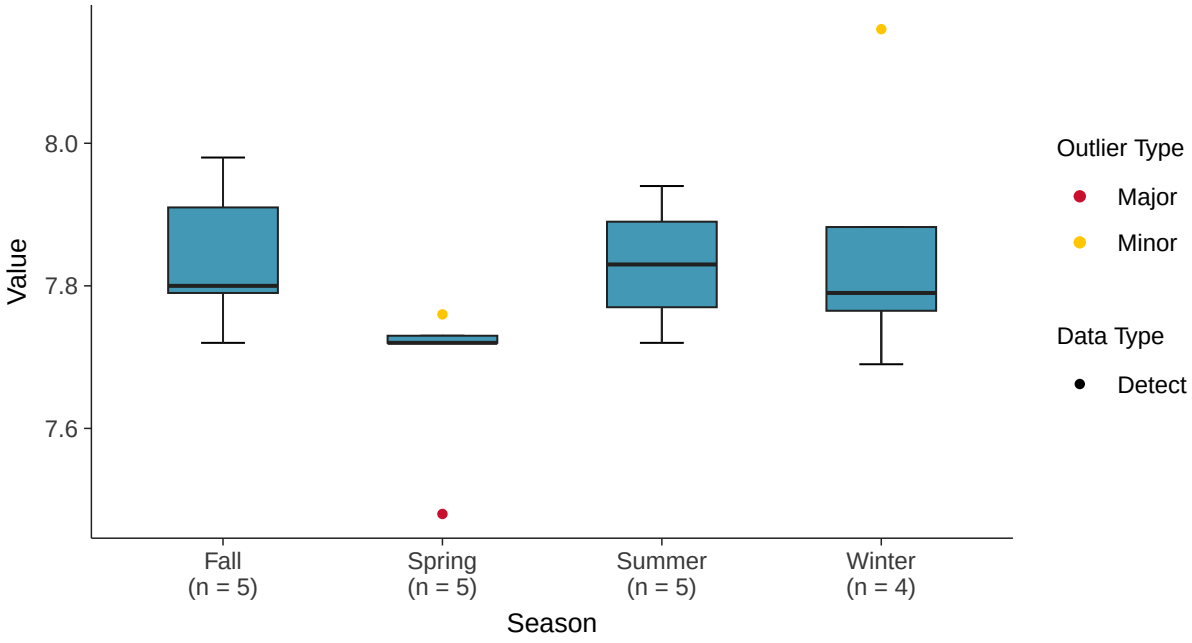
Boxplot

pH (Field), MW-10 (S.U.)



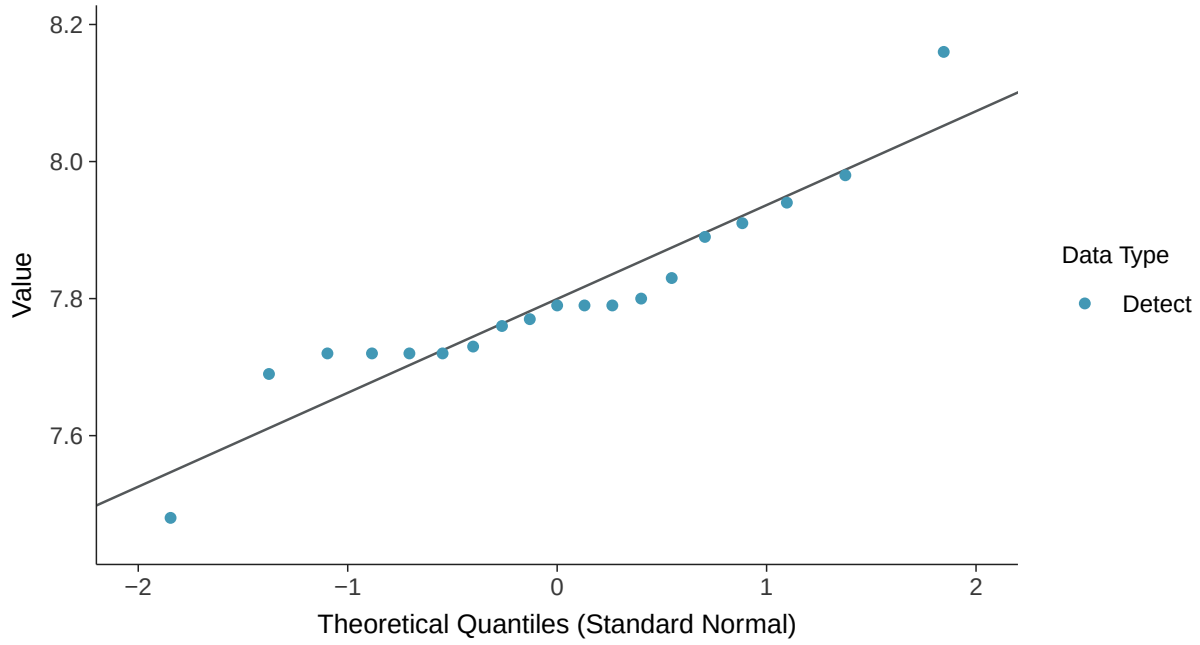
Boxplot by Season

pH (Field), MW-10 (S.U.)



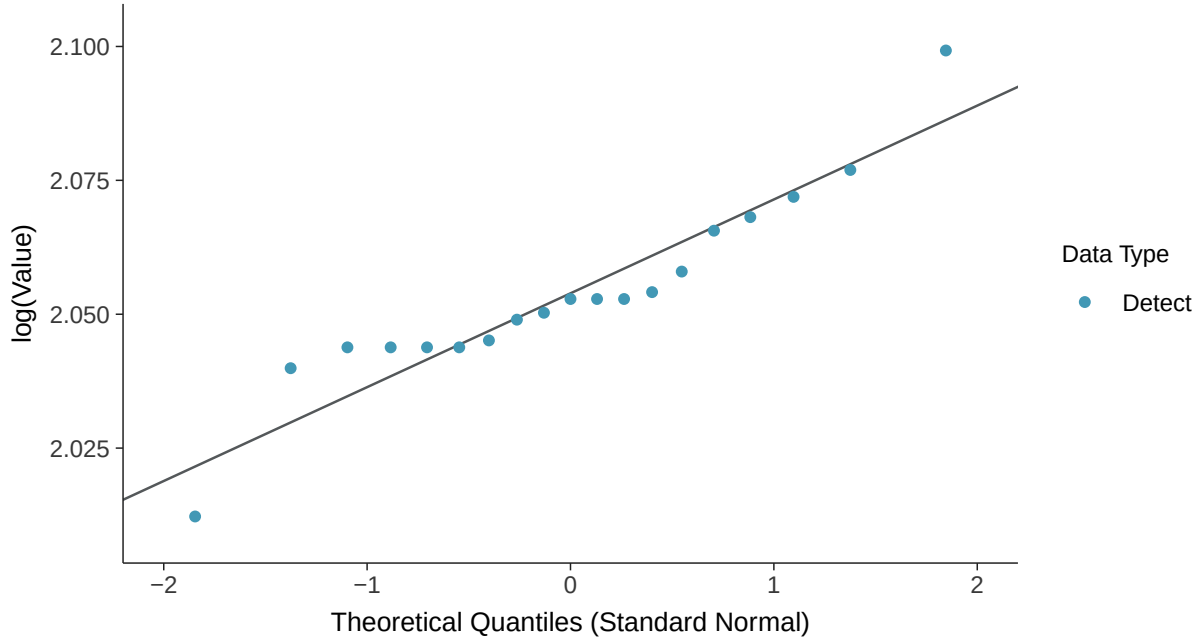
Normal Q-Q plot

pH (Field), MW-10 (S.U.)



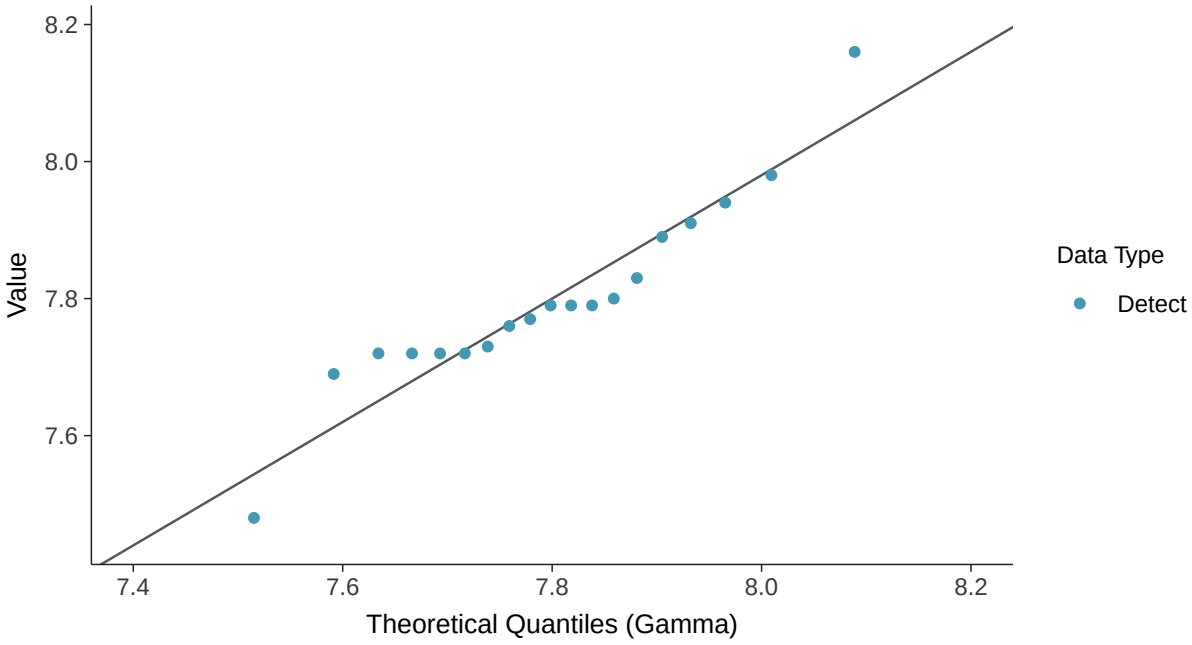
Lognormal Q-Q plot

pH (Field), MW-10 (S.U.)



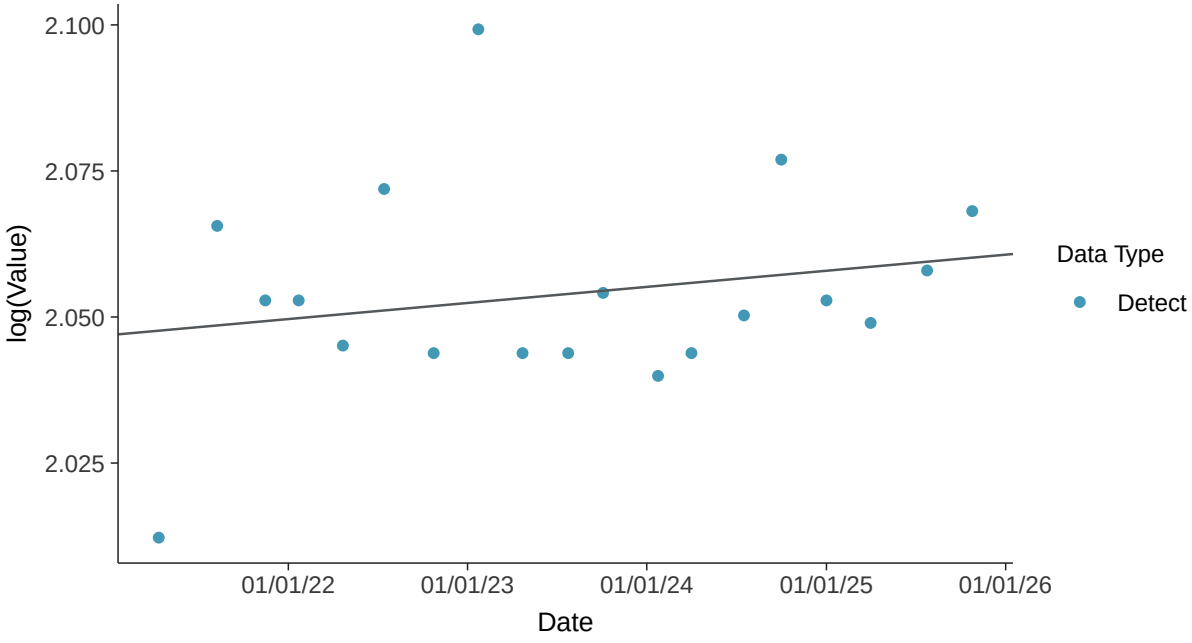
Gamma Q-Q plot

pH (Field), MW-10 (S.U.)



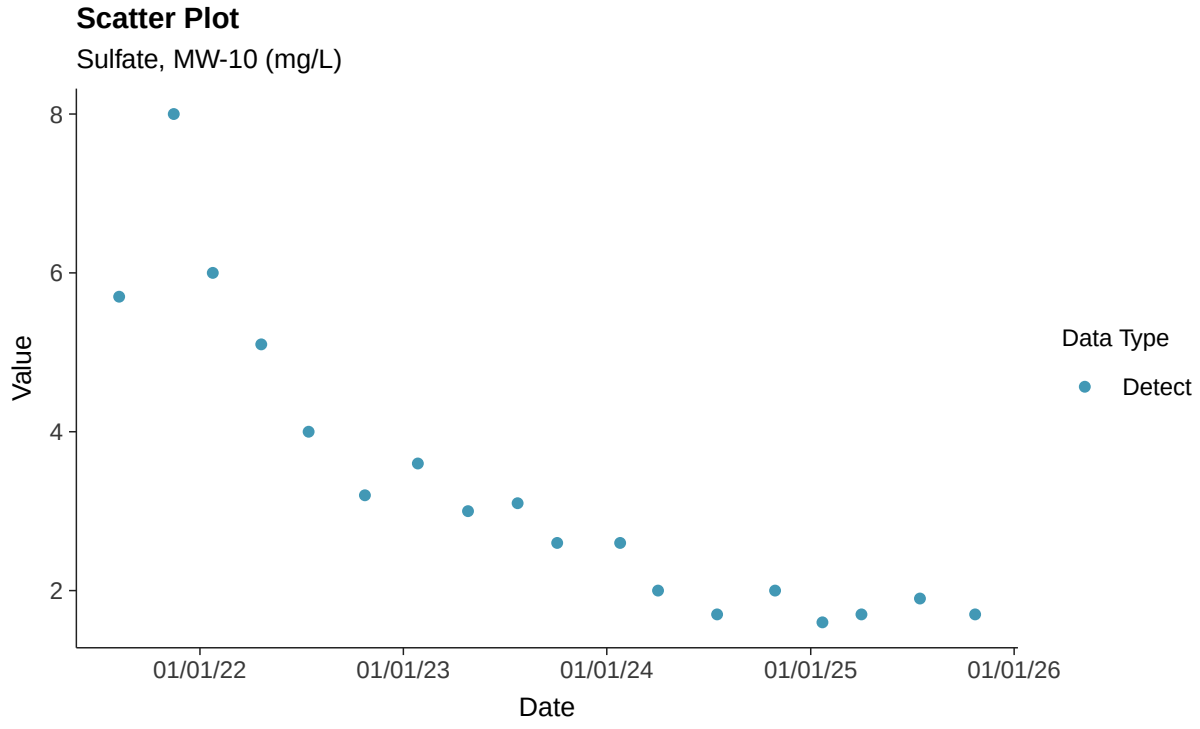
Trend Regression: Lognormal MLE

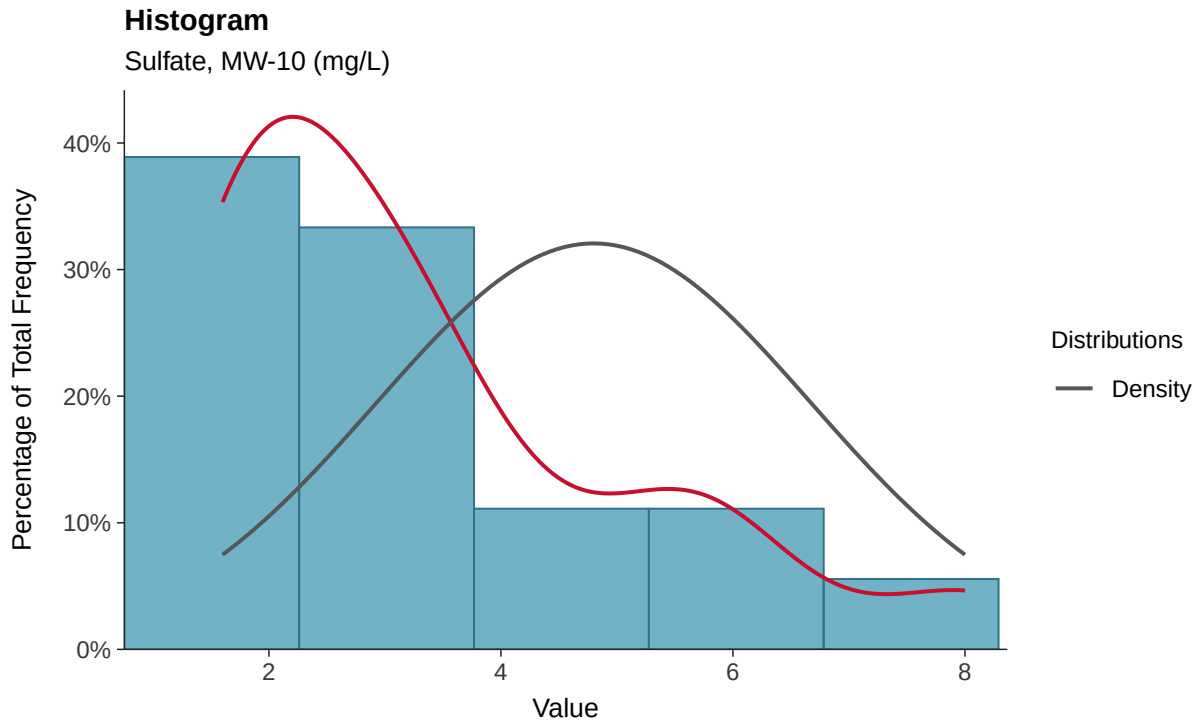
pH (Field), MW-10 (S.U.)



App. III: Sulfate, MW-10

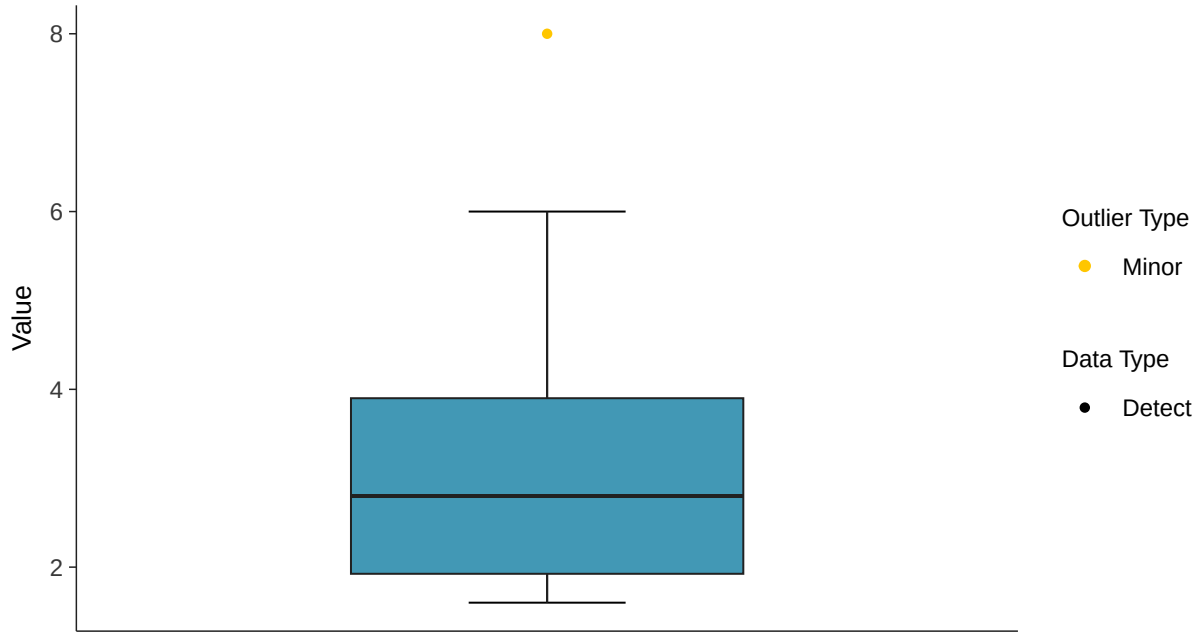
ID: 09_2_123





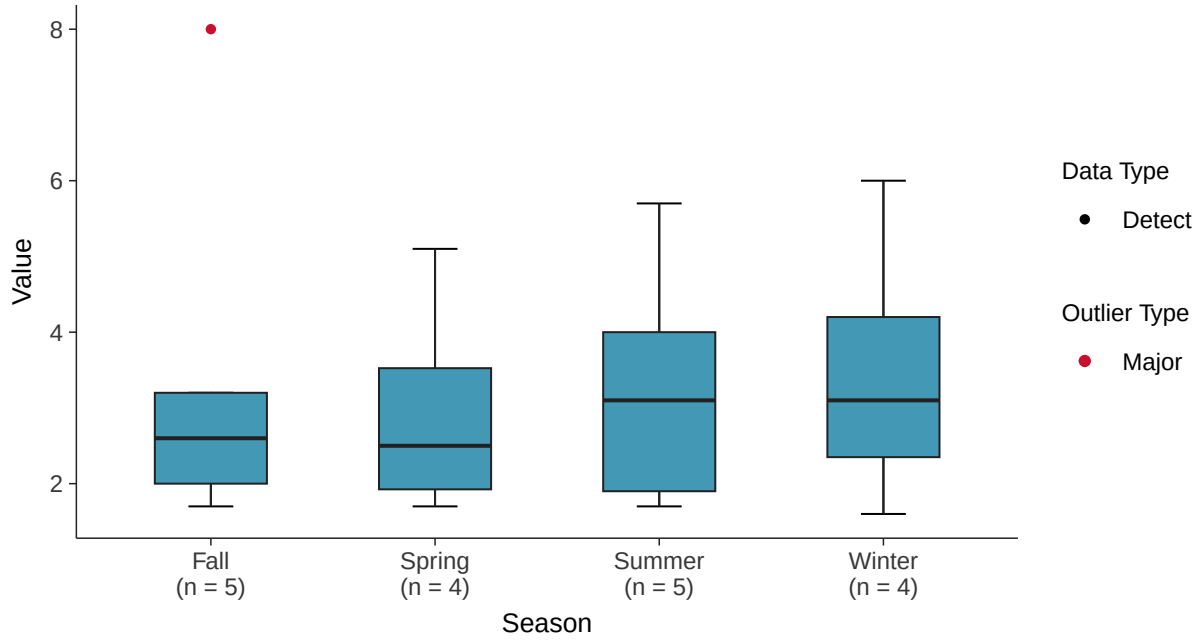
Boxplot

Sulfate, MW-10 (mg/L)



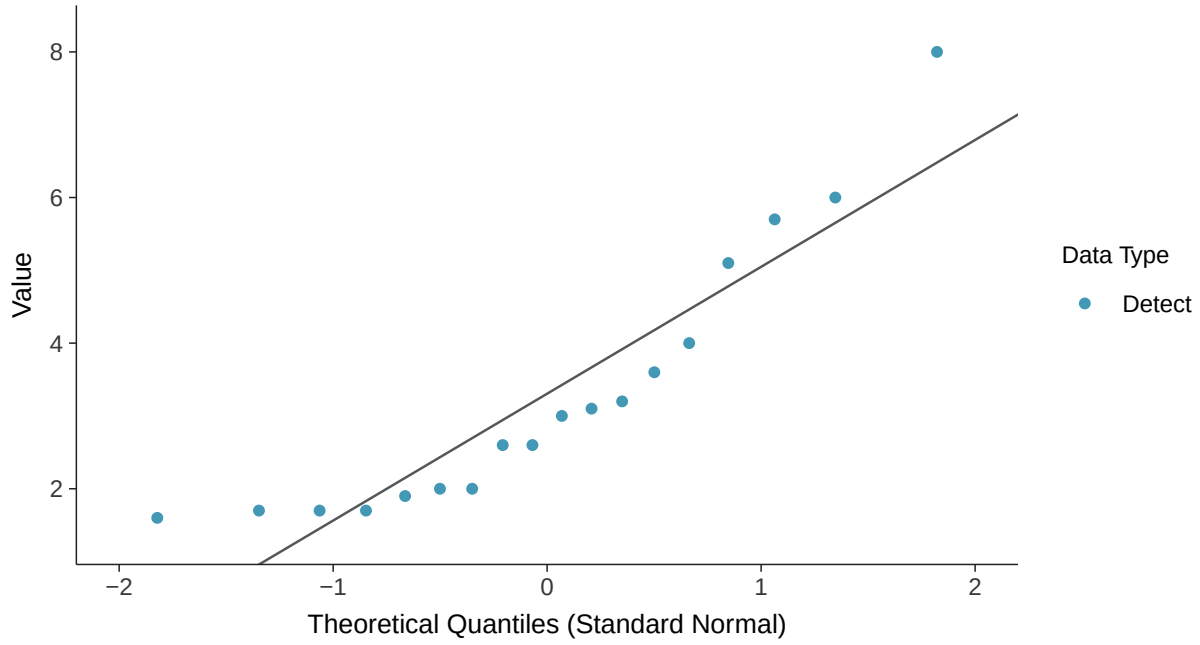
Boxplot by Season

Sulfate, MW-10 (mg/L)



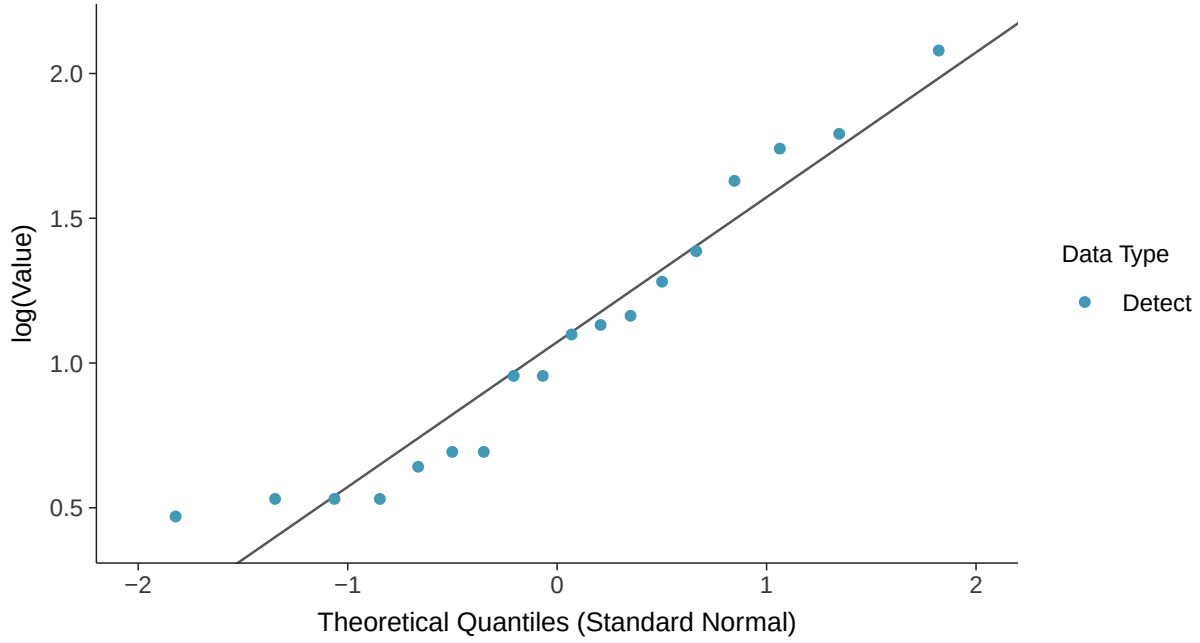
Normal Q-Q plot

Sulfate, MW-10 (mg/L)



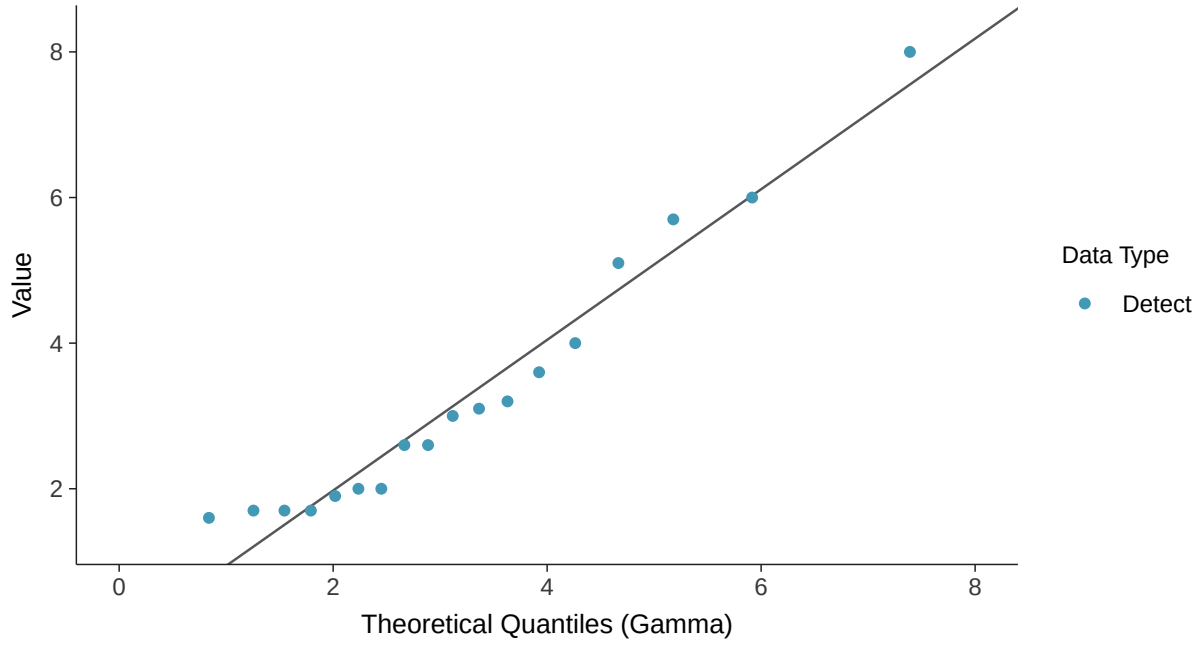
Lognormal Q-Q plot

Sulfate, MW-10 (mg/L)



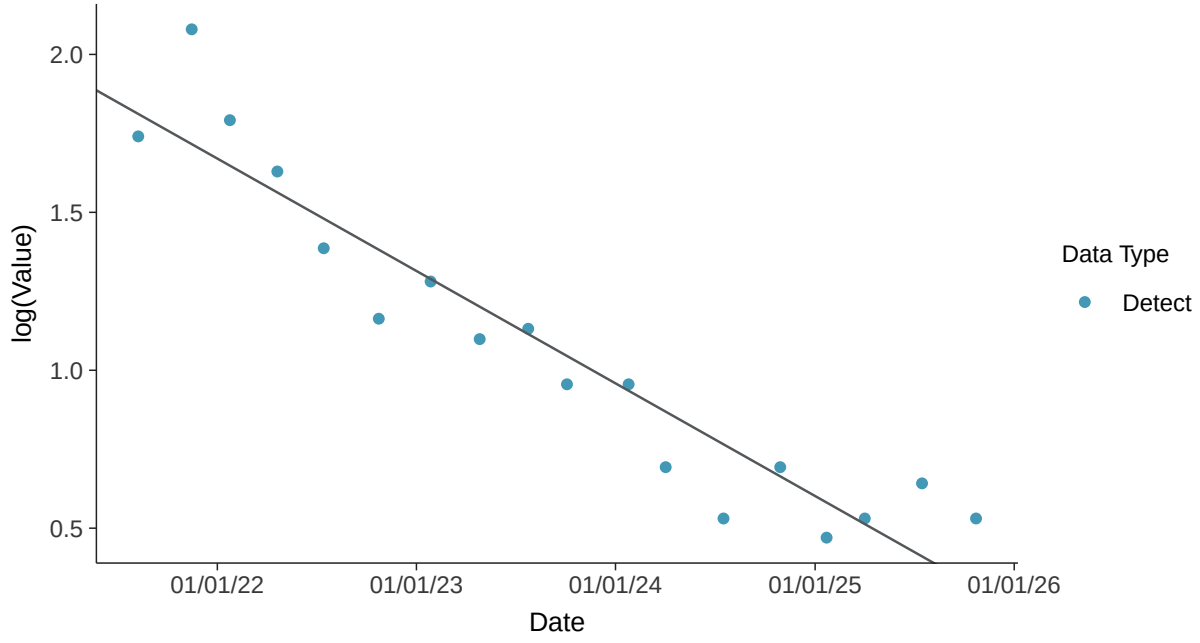
Gamma Q-Q plot

Sulfate, MW-10 (mg/L)



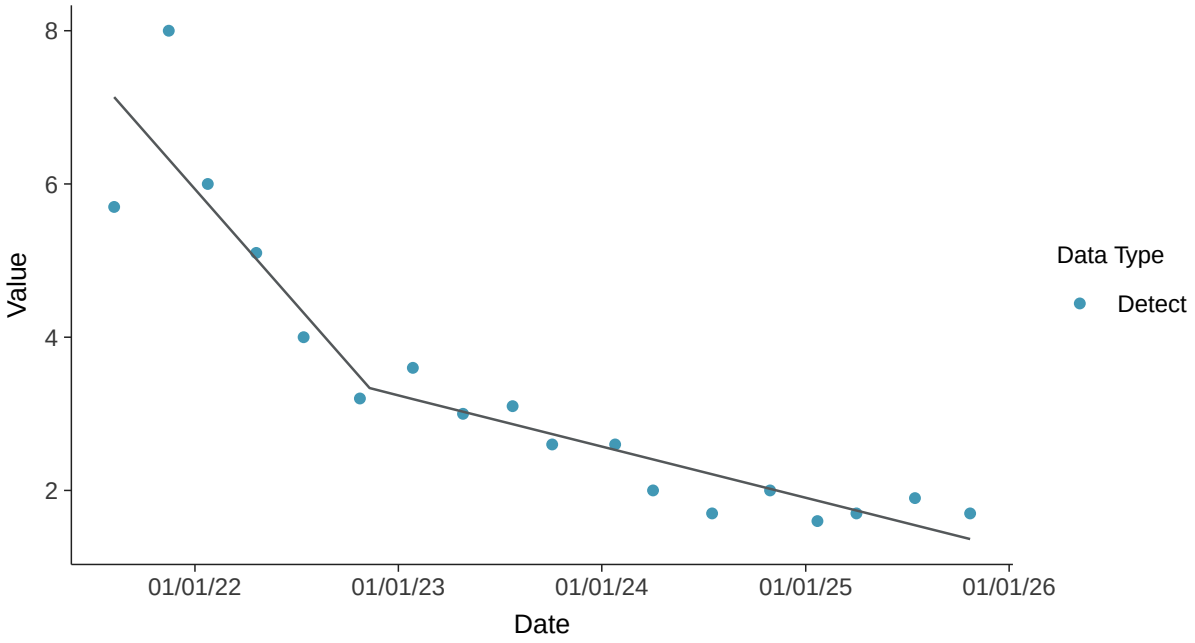
Trend Regression: Lognormal MLE

Sulfate, MW-10 (mg/L)



Trend Regression: Piecewise Linear-Linear

Sulfate, MW-10 (mg/L)

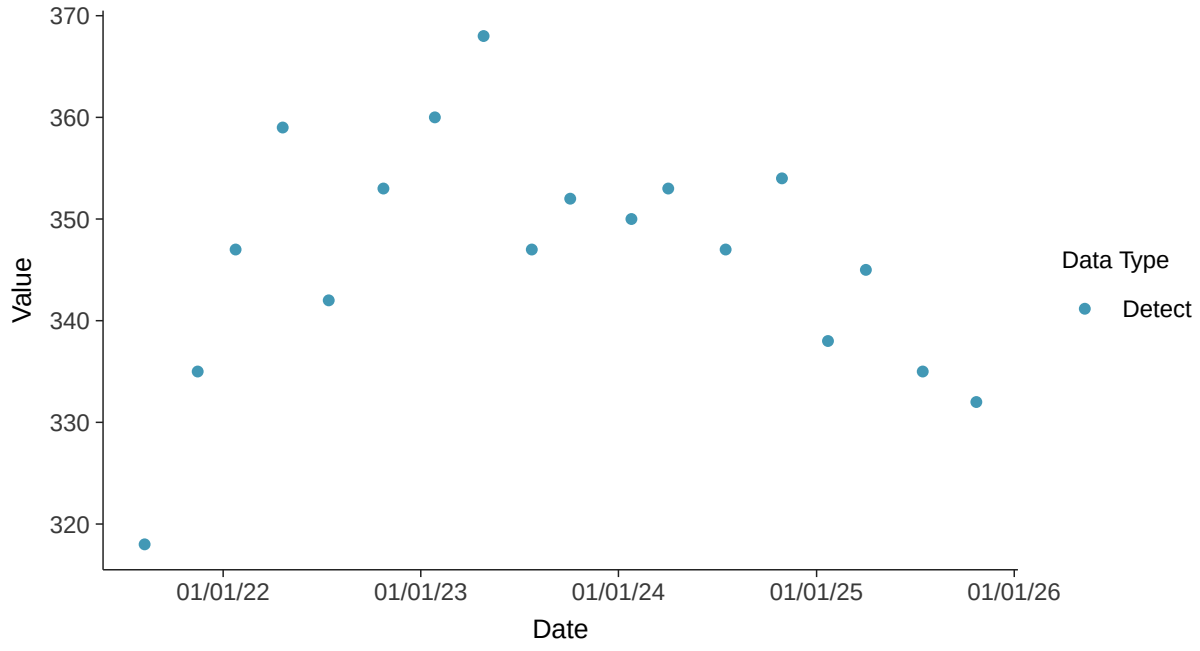


App. III: Total Dissolved Solids, MW-10

ID: 09_2_125

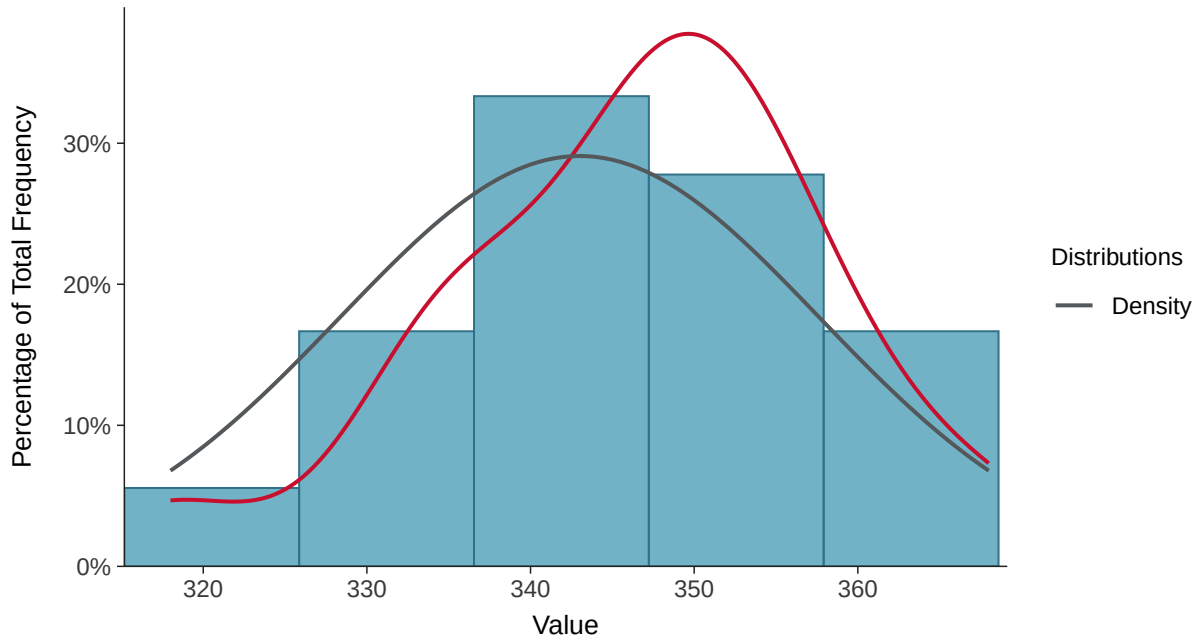
Scatter Plot

Total Dissolved Solids, MW-10 (mg/L)



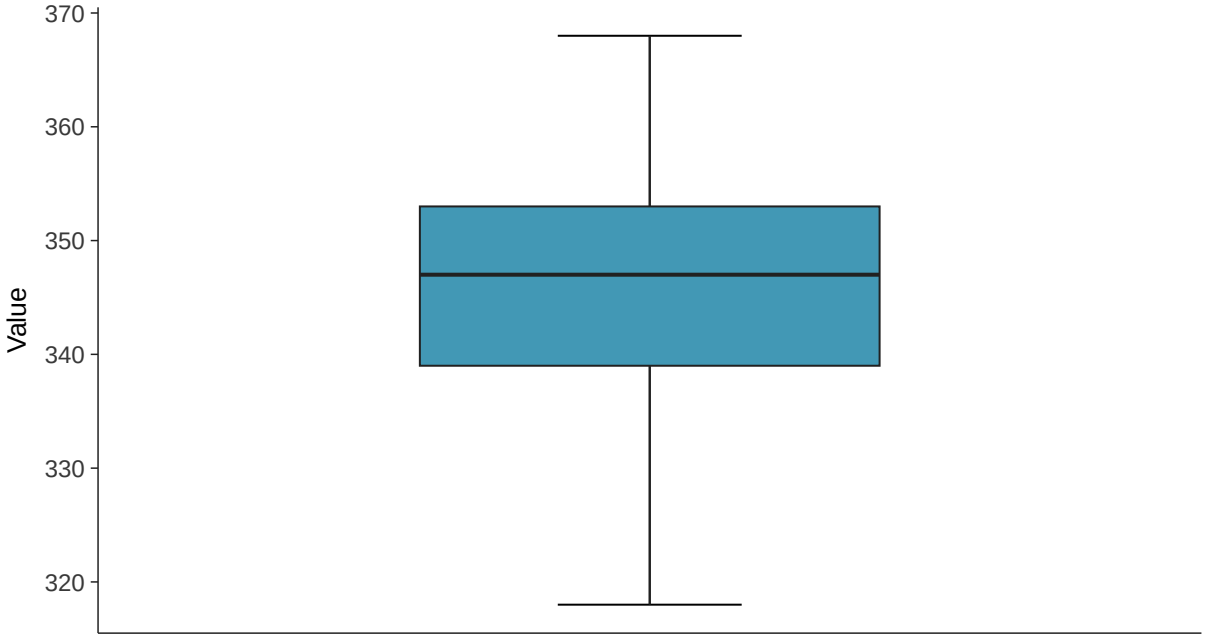
Histogram

Total Dissolved Solids, MW-10 (mg/L)



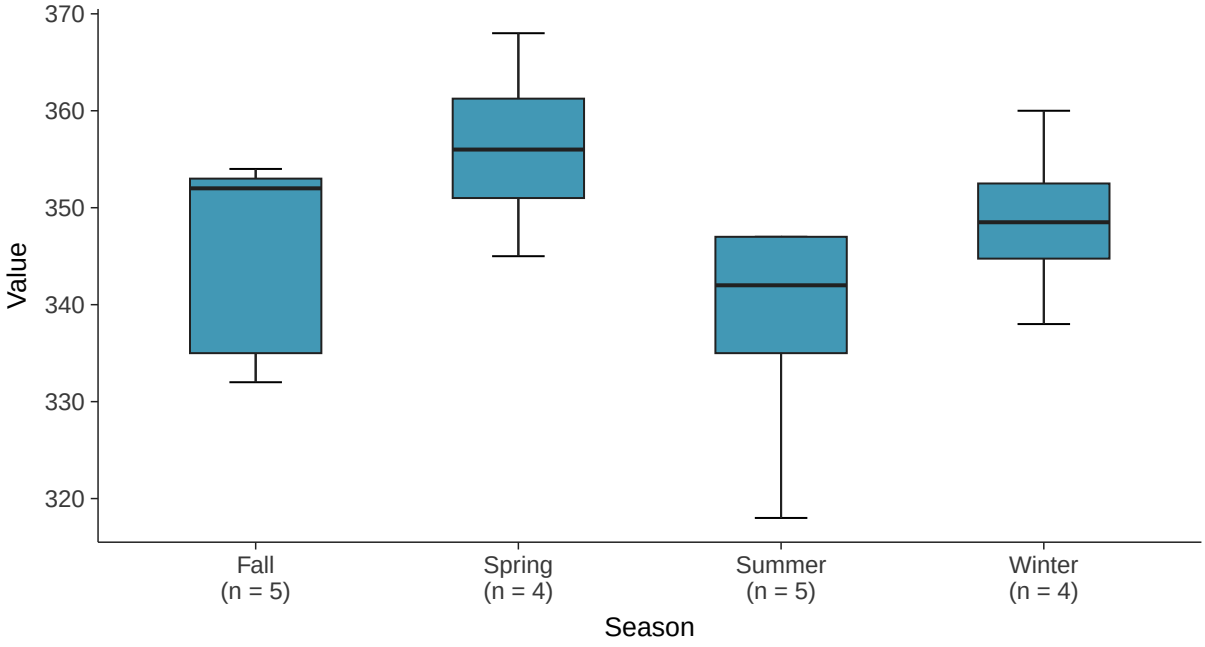
Boxplot

Total Dissolved Solids, MW-10 (mg/L)



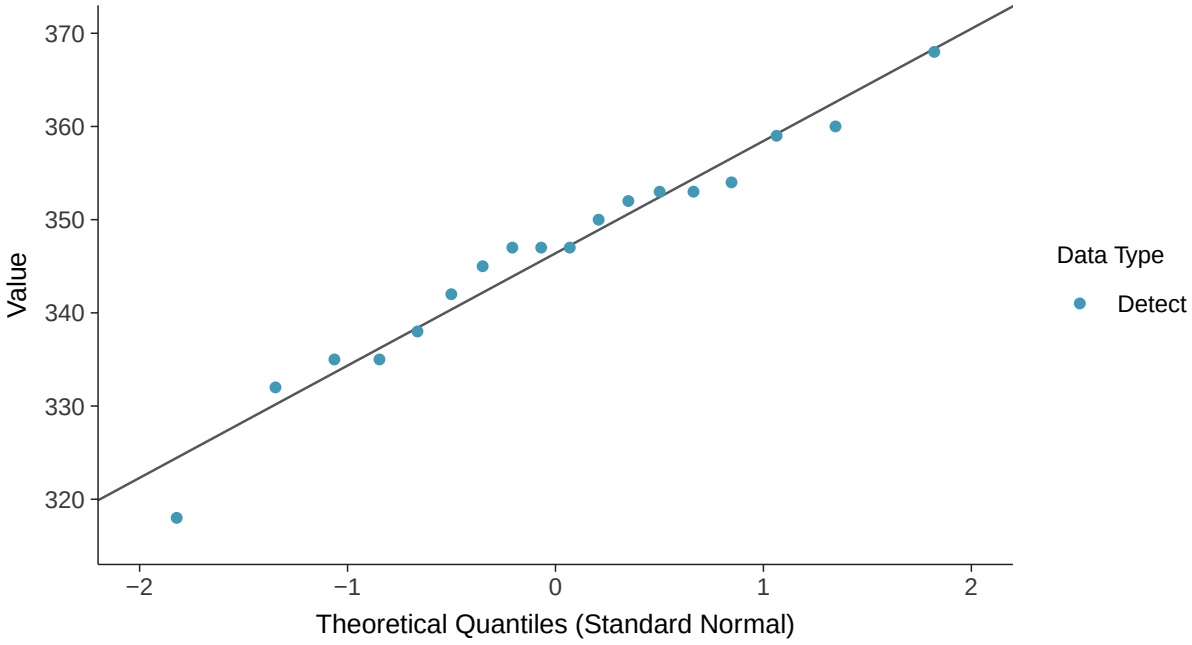
Boxplot by Season

Total Dissolved Solids, MW-10 (mg/L)



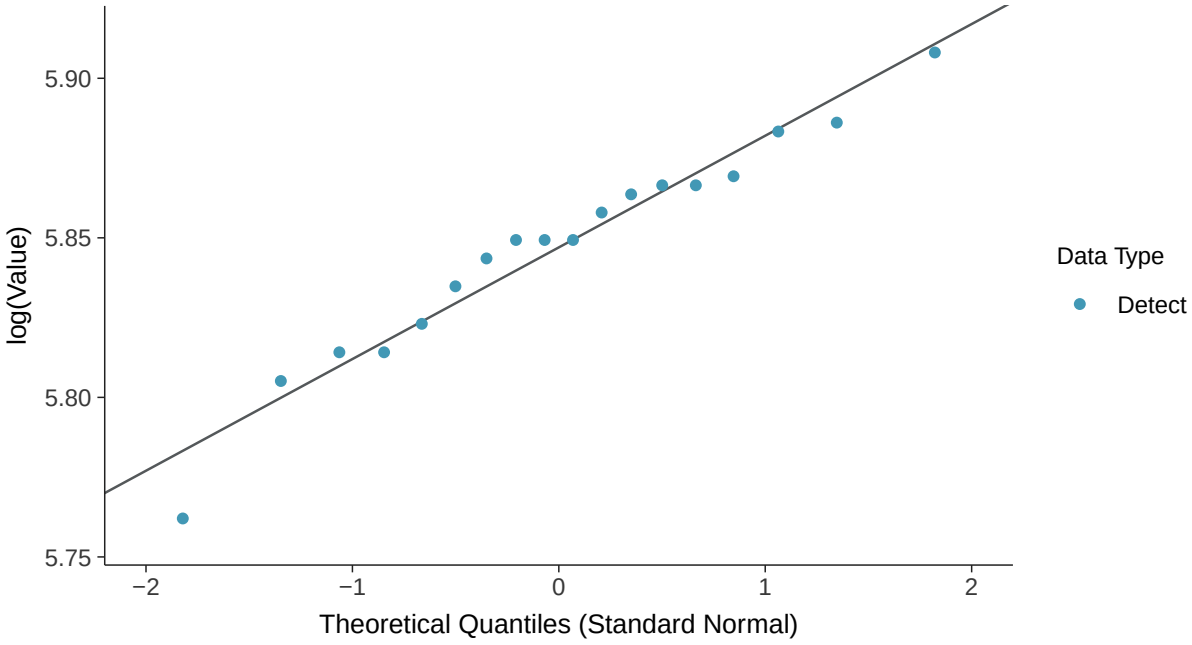
Normal Q-Q plot

Total Dissolved Solids, MW-10 (mg/L)



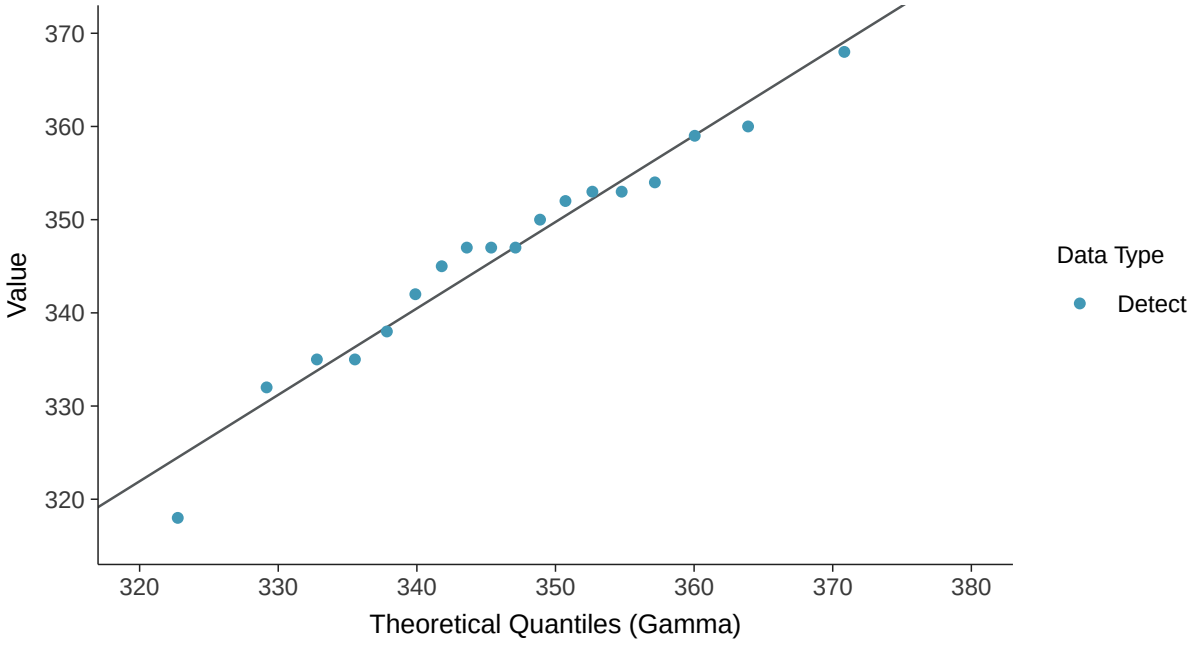
Lognormal Q-Q plot

Total Dissolved Solids, MW-10 (mg/L)



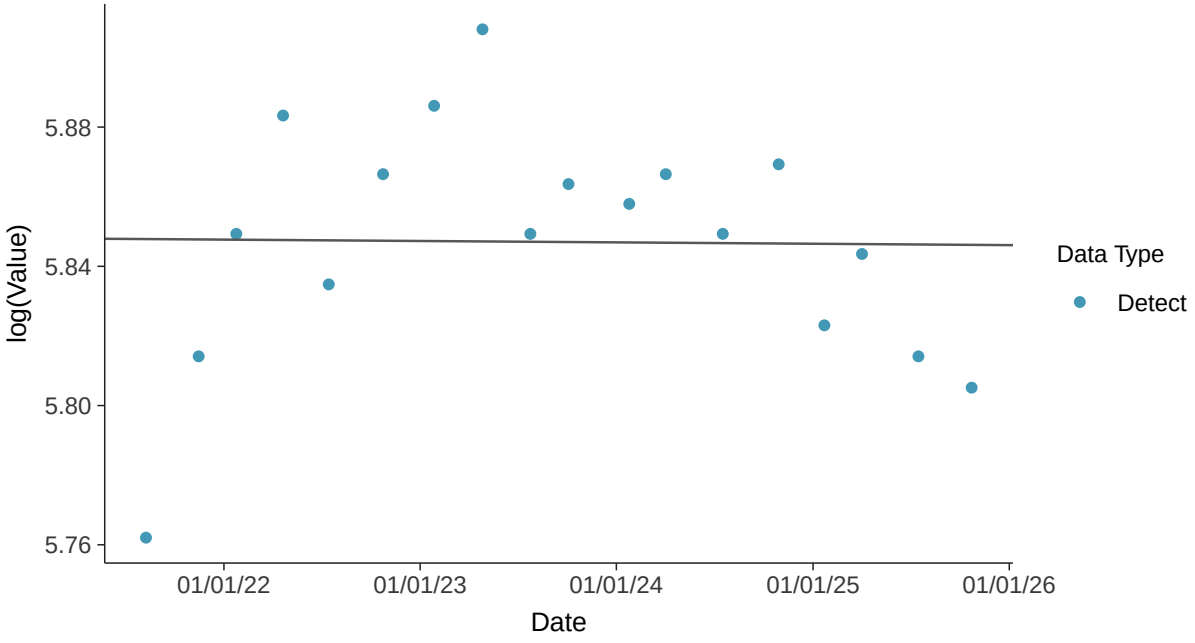
Gamma Q-Q plot

Total Dissolved Solids, MW-10 (mg/L)



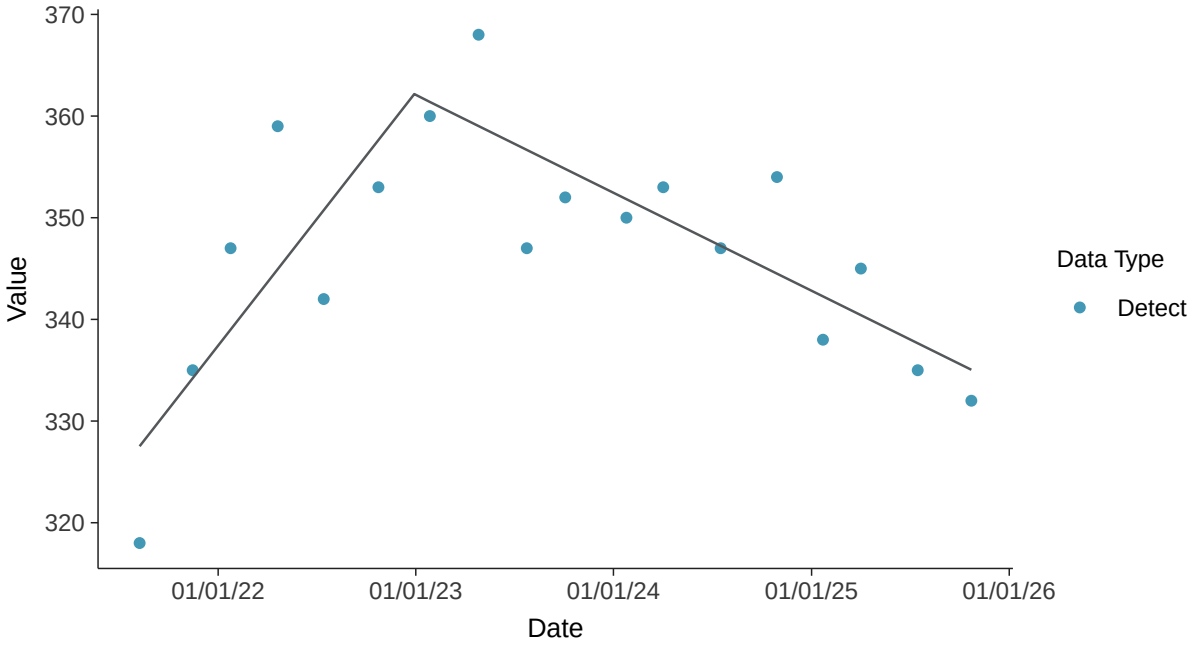
Trend Regression: Lognormal MLE

Total Dissolved Solids, MW-10 (mg/L)



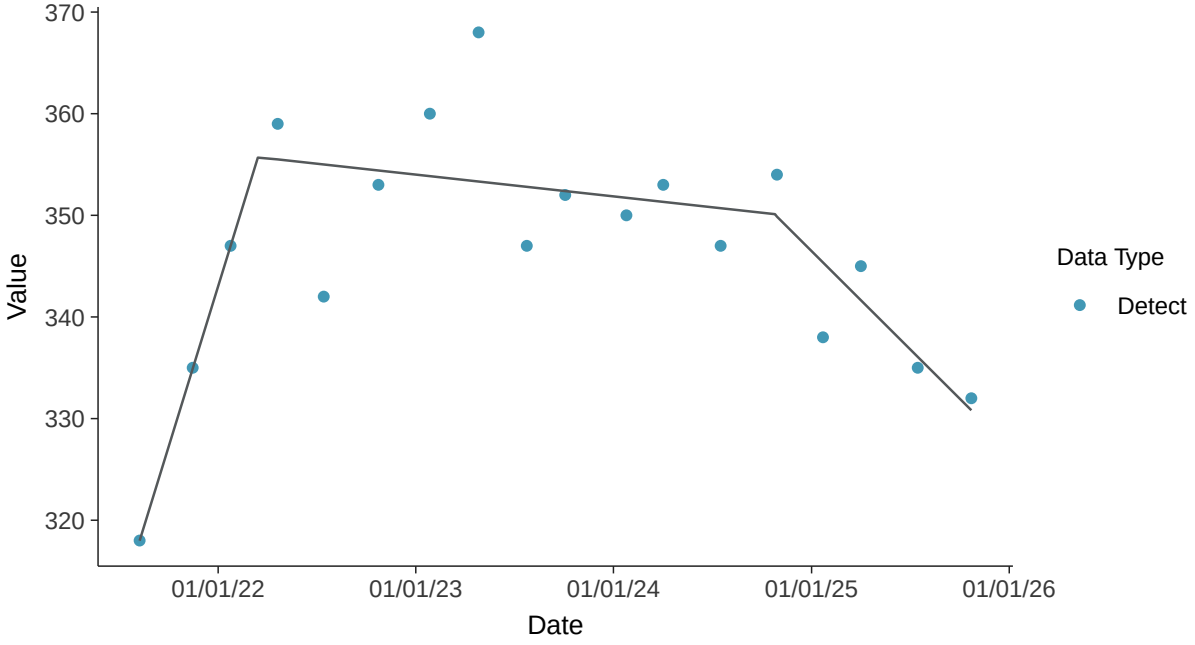
Trend Regression: Piecewise Linear-Linear

Total Dissolved Solids, MW-10 (mg/L)



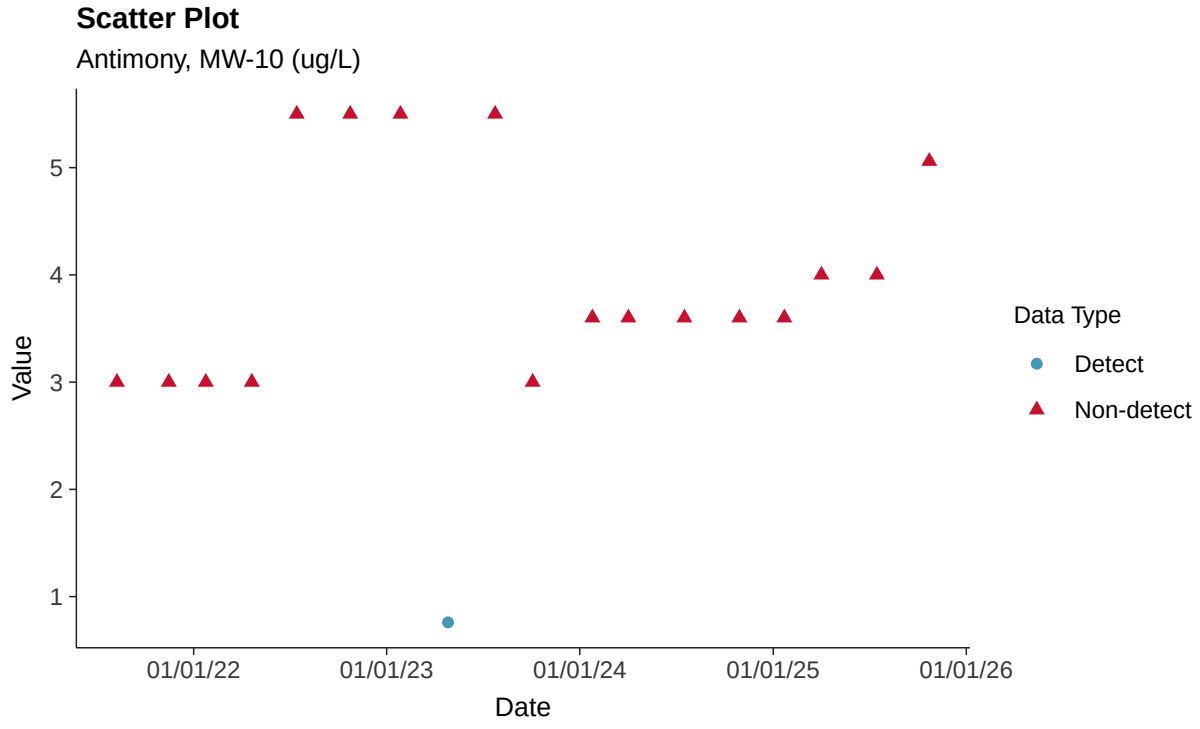
Trend Regression: Piecewise Linear-Linear-Linear

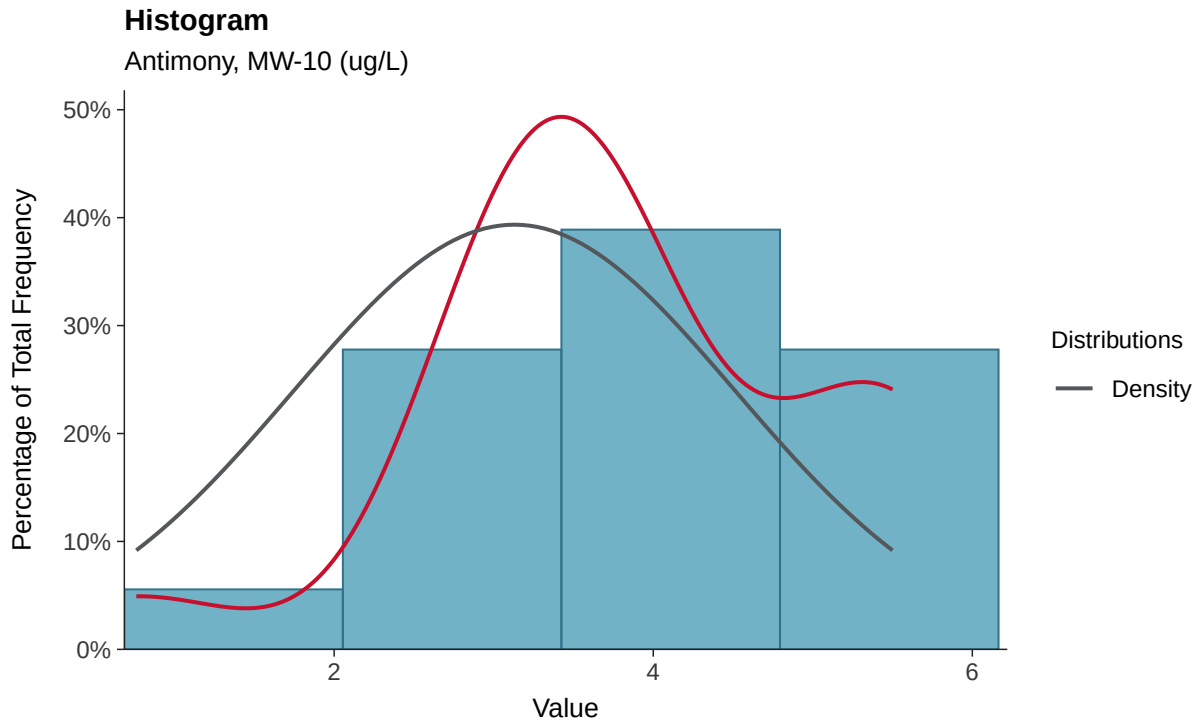
Total Dissolved Solids, MW-10 (mg/L)



App. IV: Antimony, MW-10

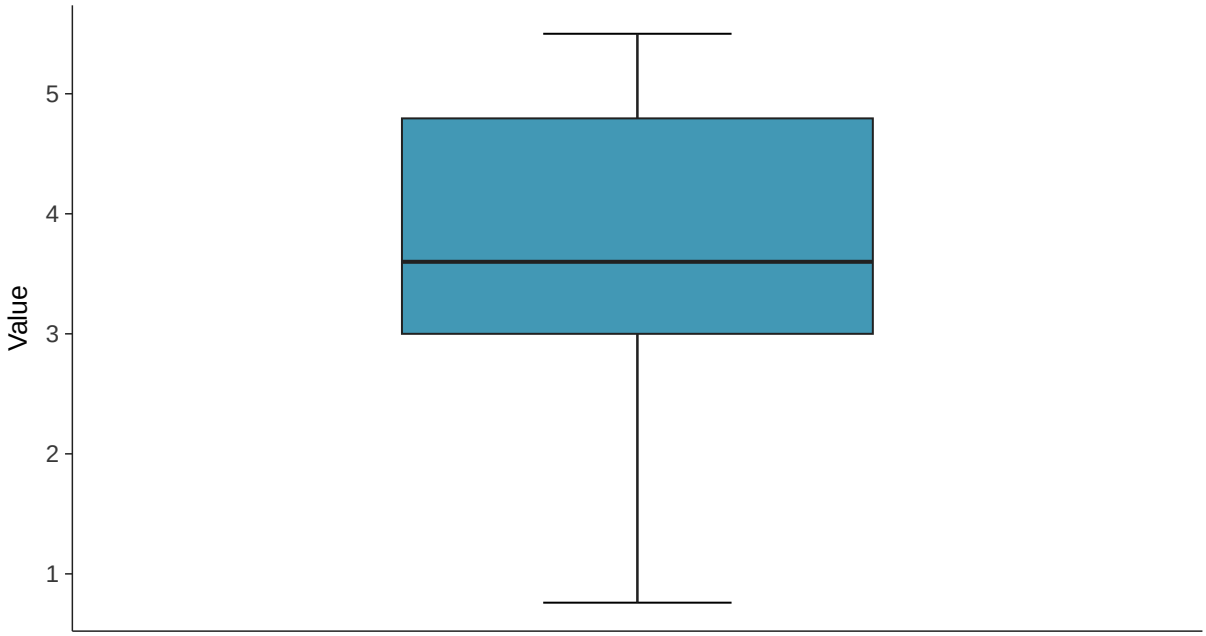
ID: 09_3_101





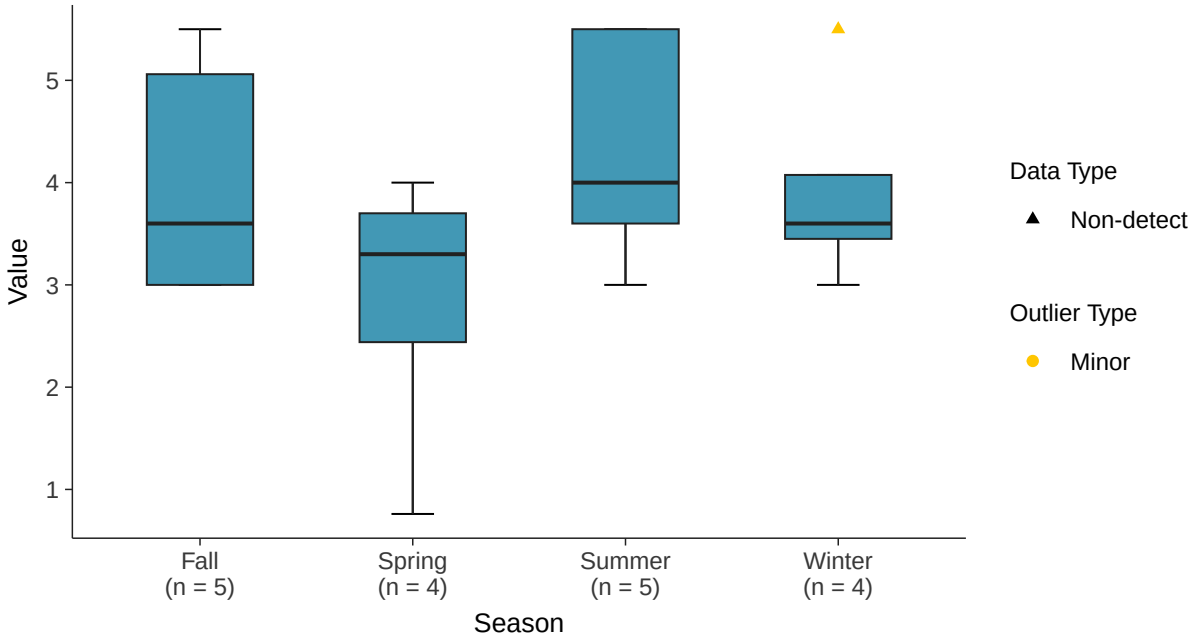
Boxplot

Antimony, MW-10 (ug/L)



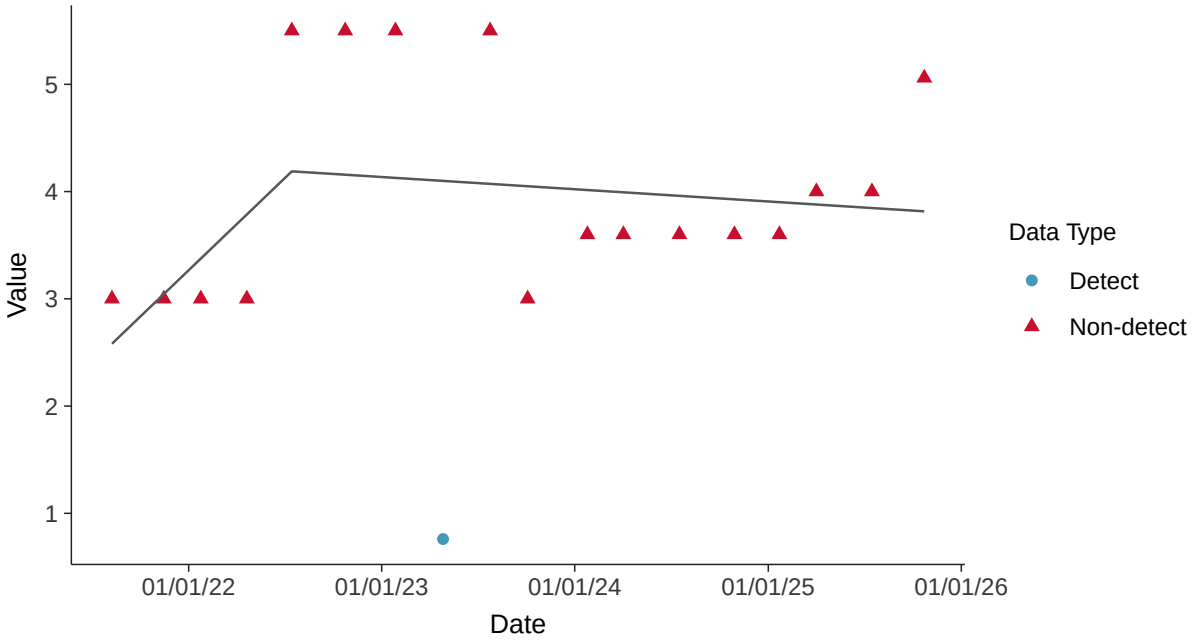
Boxplot by Season

Antimony, MW-10 (ug/L)



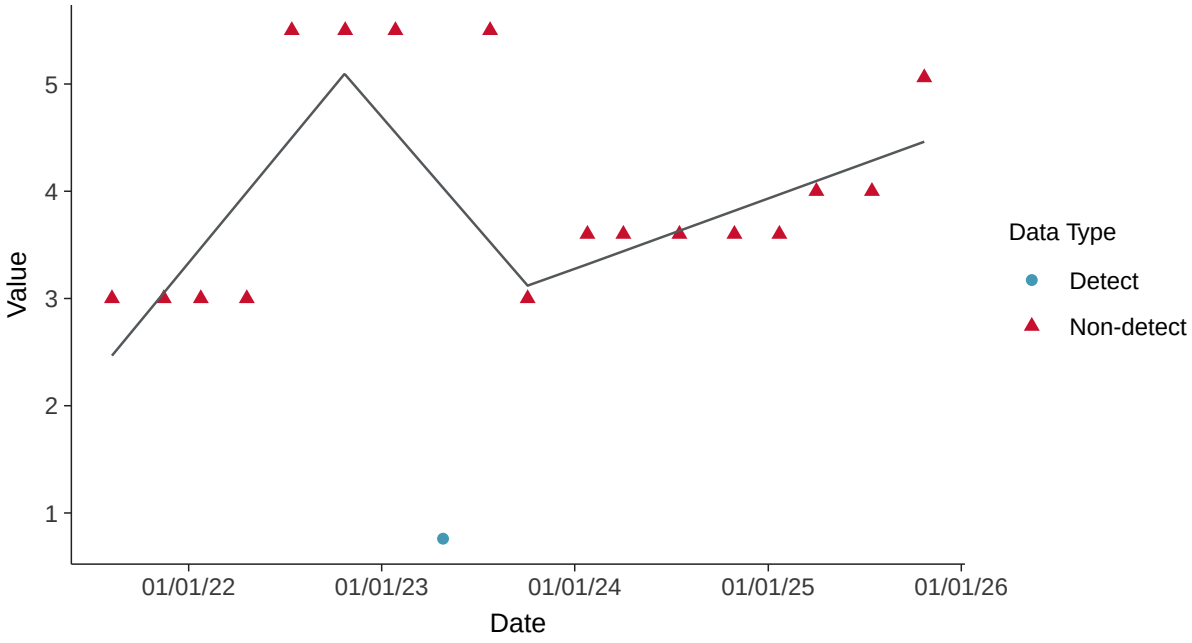
Trend Regression: Piecewise Linear-Linear

Antimony, MW-10 (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Antimony, MW-10 (ug/L)

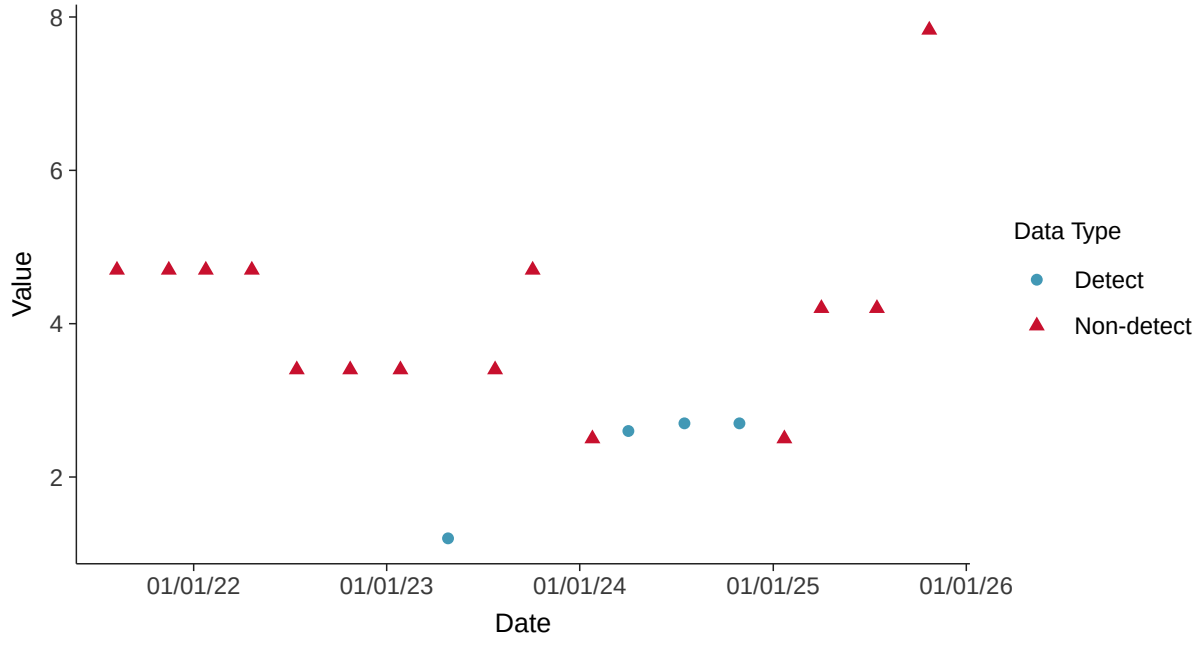


App. IV: Arsenic, MW-10

ID: 09_3_102

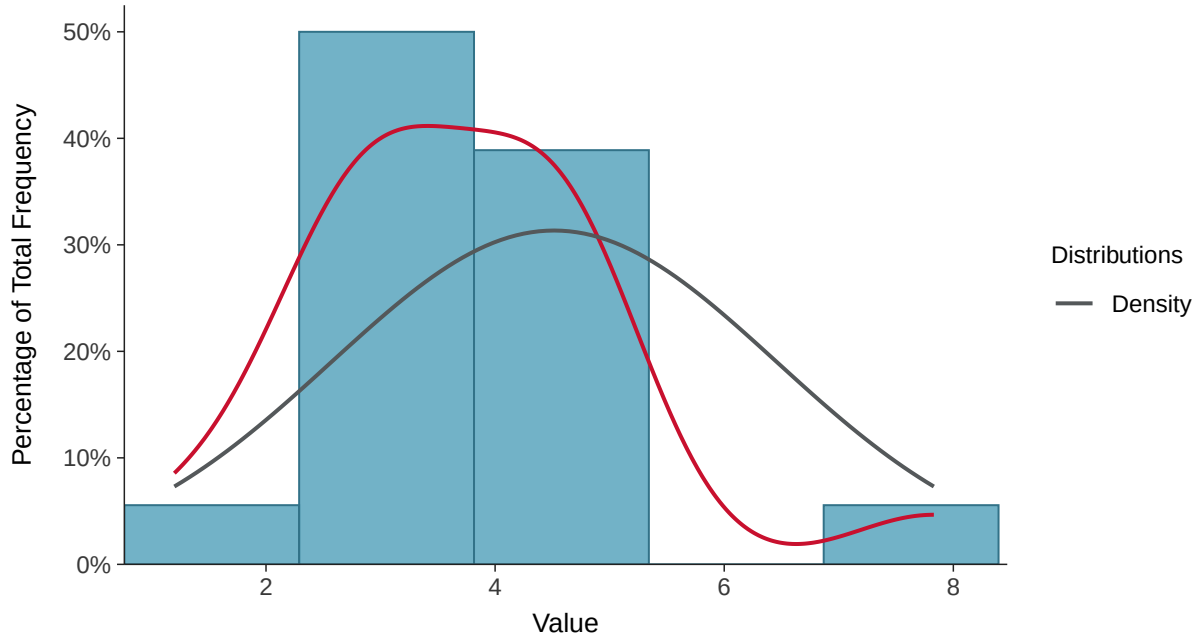
Scatter Plot

Arsenic, MW-10 (ug/L)



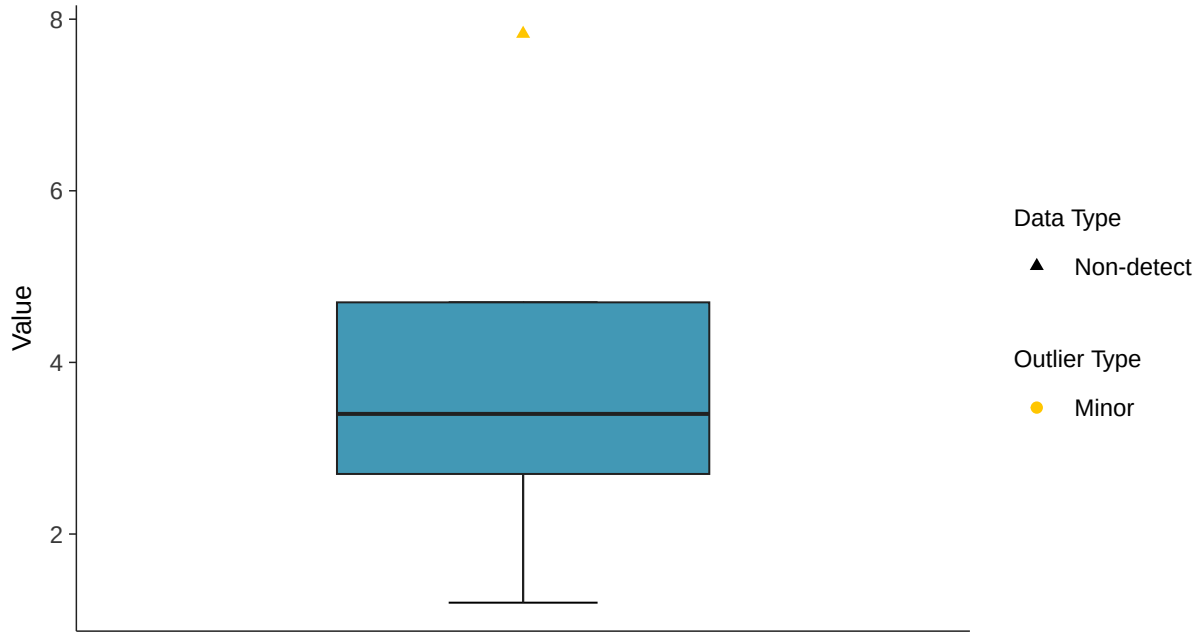
Histogram

Arsenic, MW-10 (ug/L)



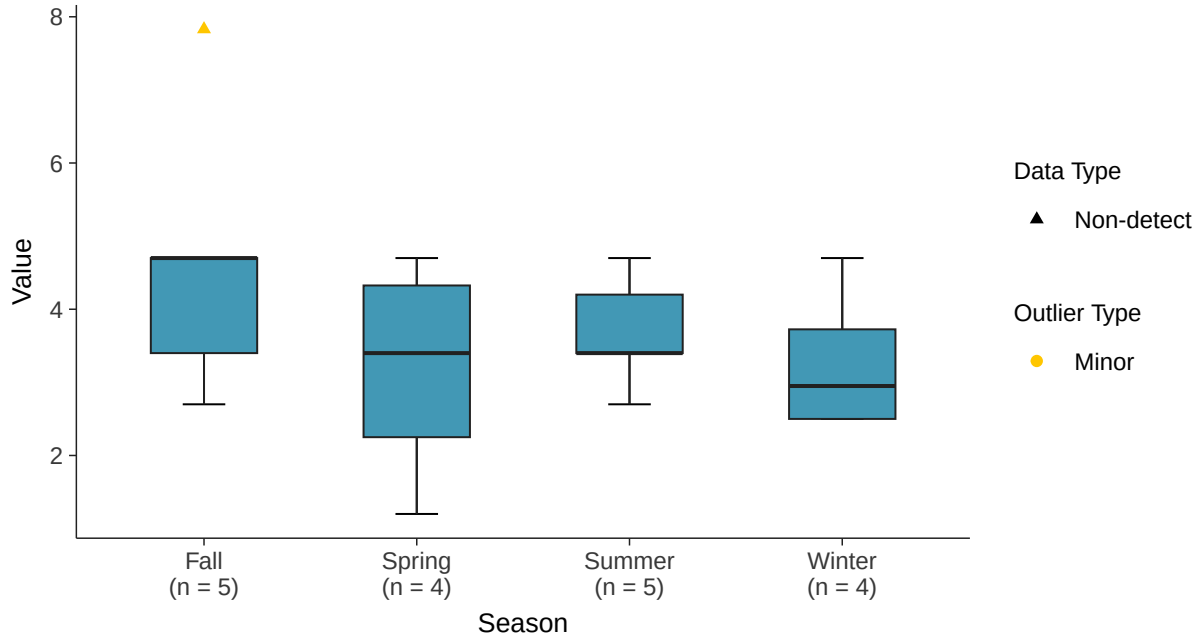
Boxplot

Arsenic, MW-10 (ug/L)



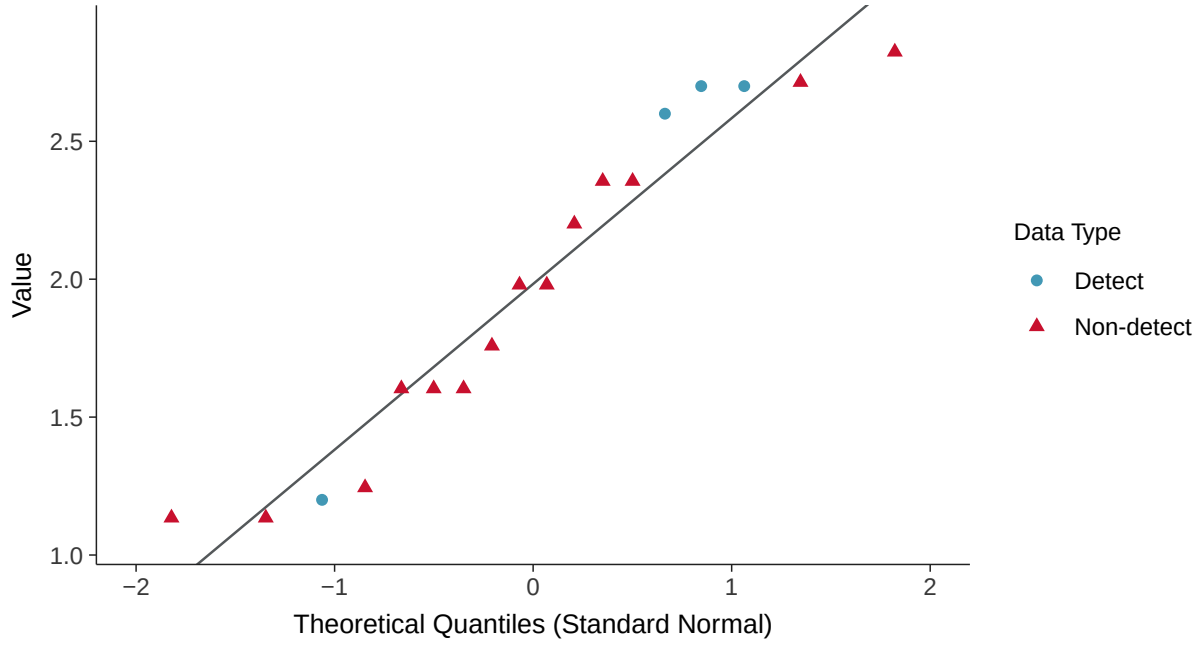
Boxplot by Season

Arsenic, MW-10 (ug/L)



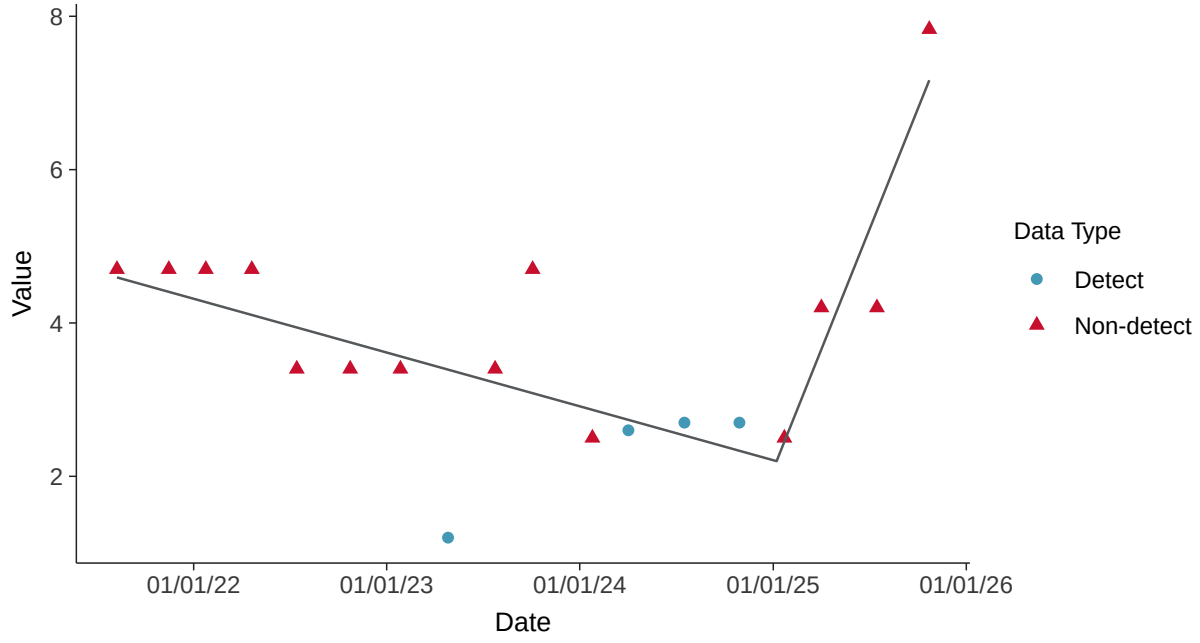
Normal Q-Q plot using ROS Imputed Estimates

Arsenic, MW-10 (ug/L)



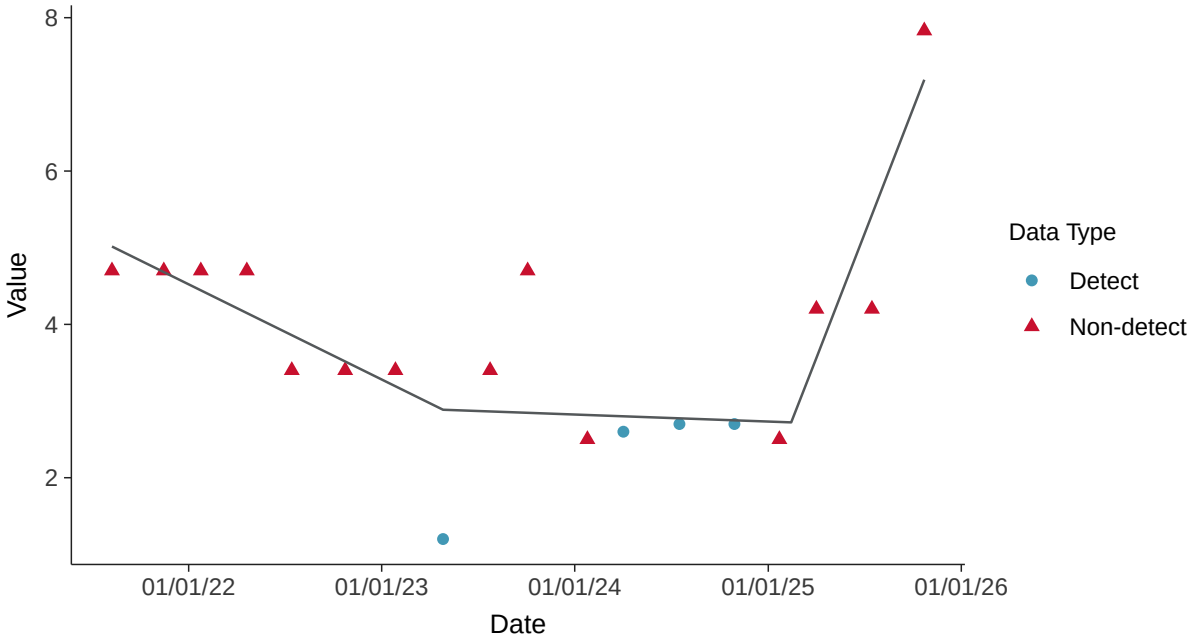
Trend Regression: Piecewise Linear-Linear

Arsenic, MW-10 (ug/L)



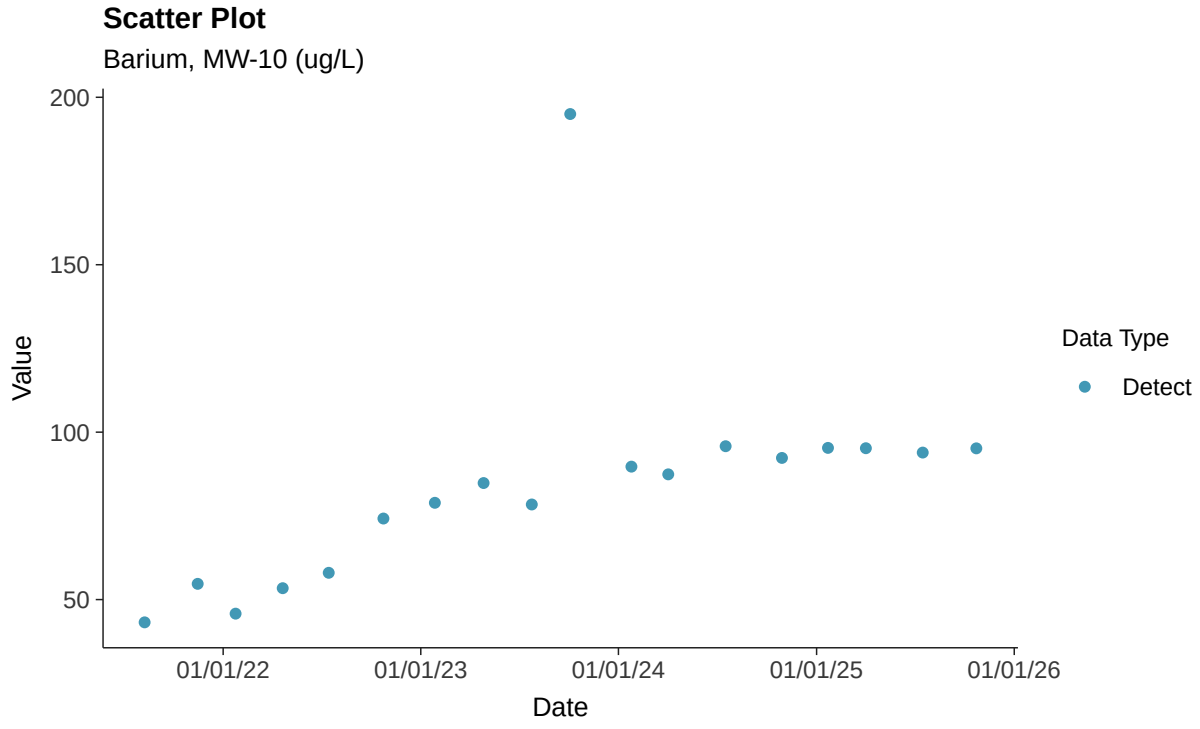
Trend Regression: Piecewise Linear-Linear-Linear

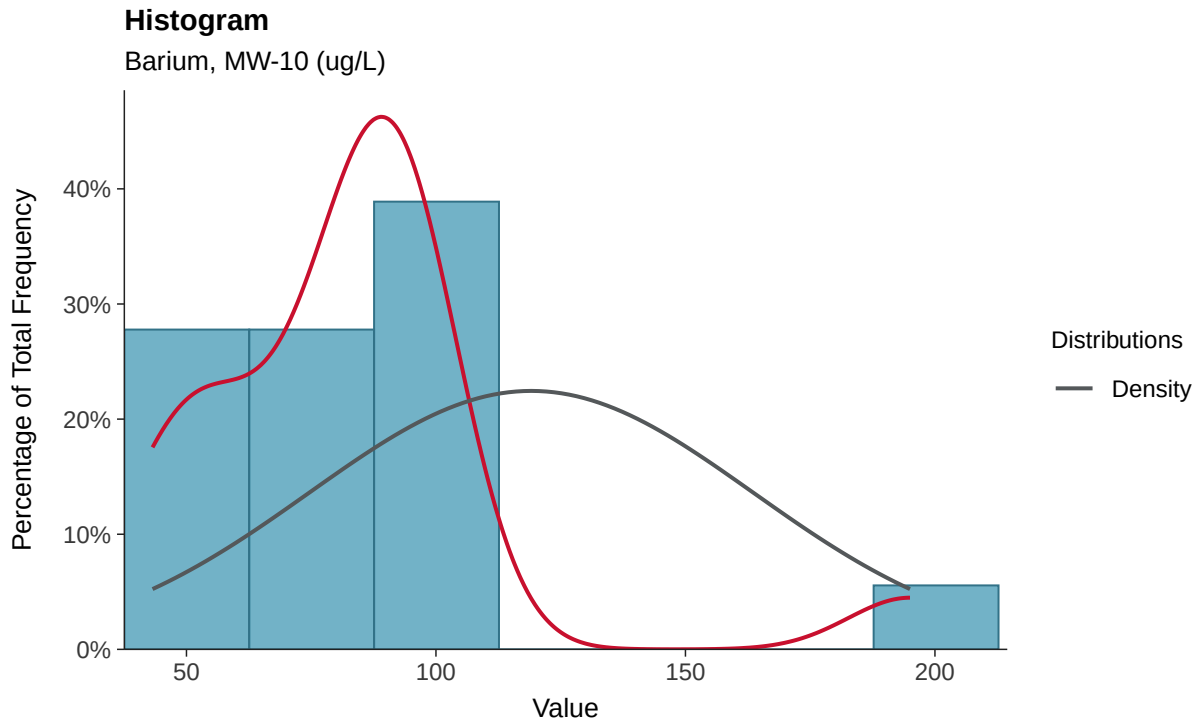
Arsenic, MW-10 (ug/L)



App. IV: Barium, MW-10

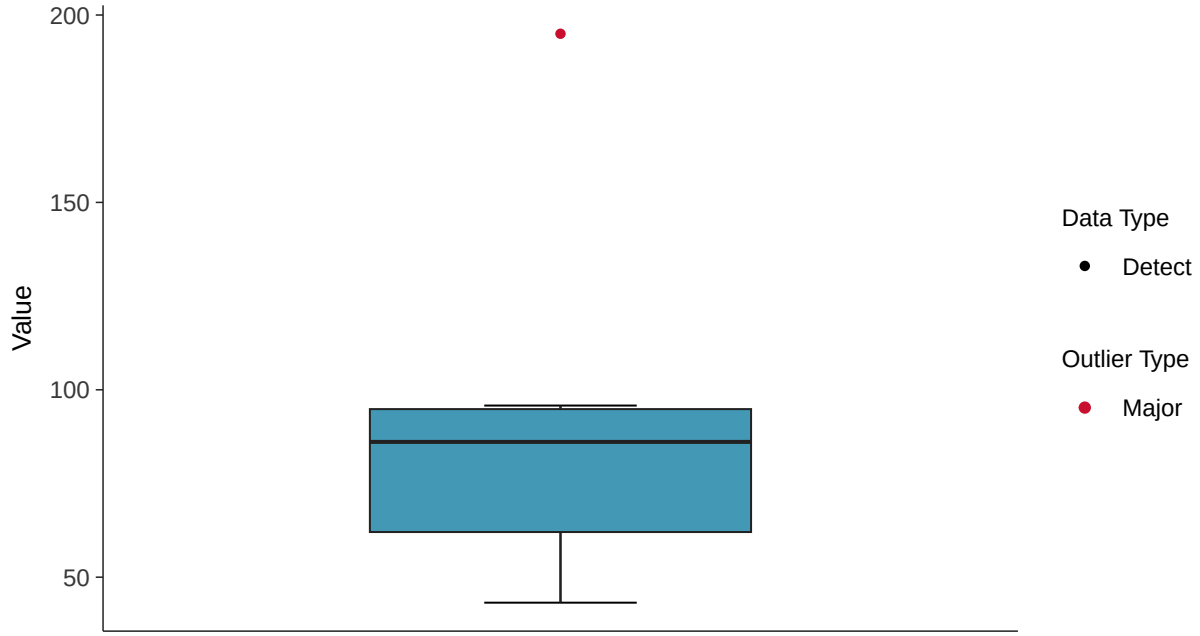
ID: 09_3_103





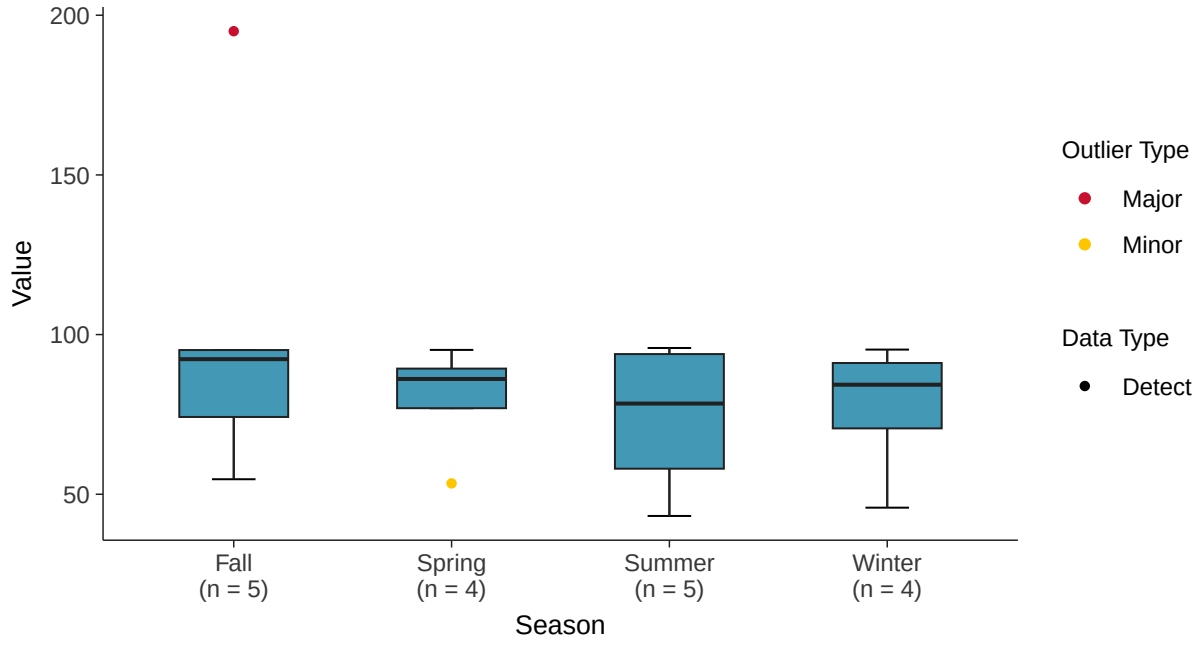
Boxplot

Barium, MW-10 (ug/L)



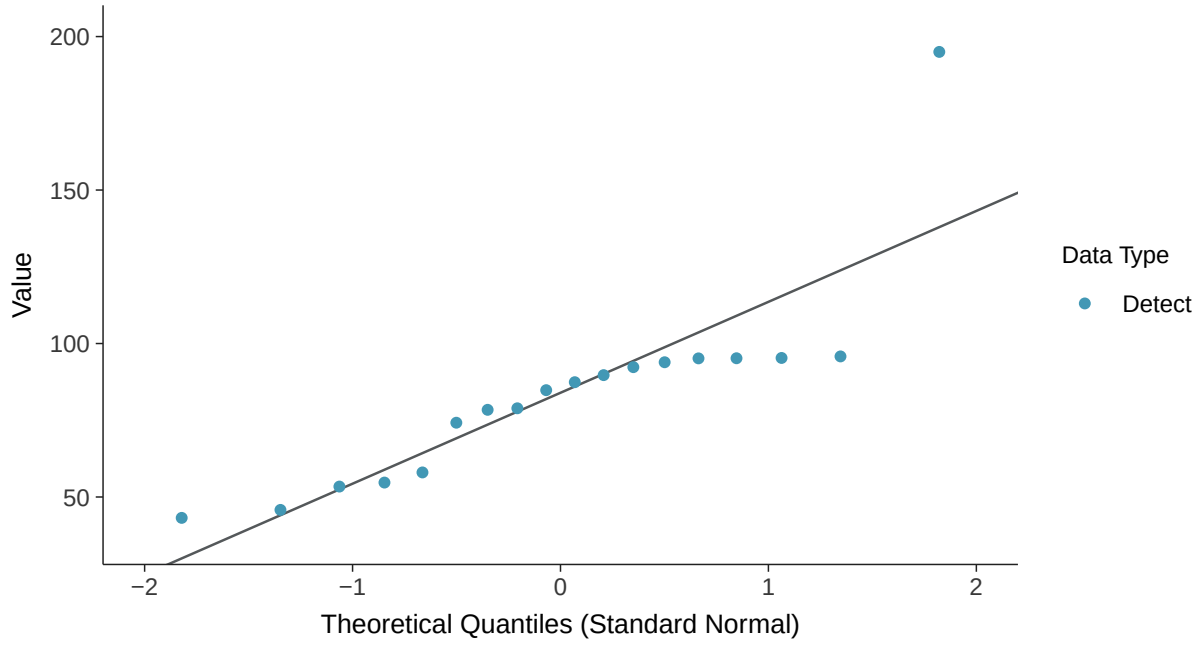
Boxplot by Season

Barium, MW-10 (ug/L)



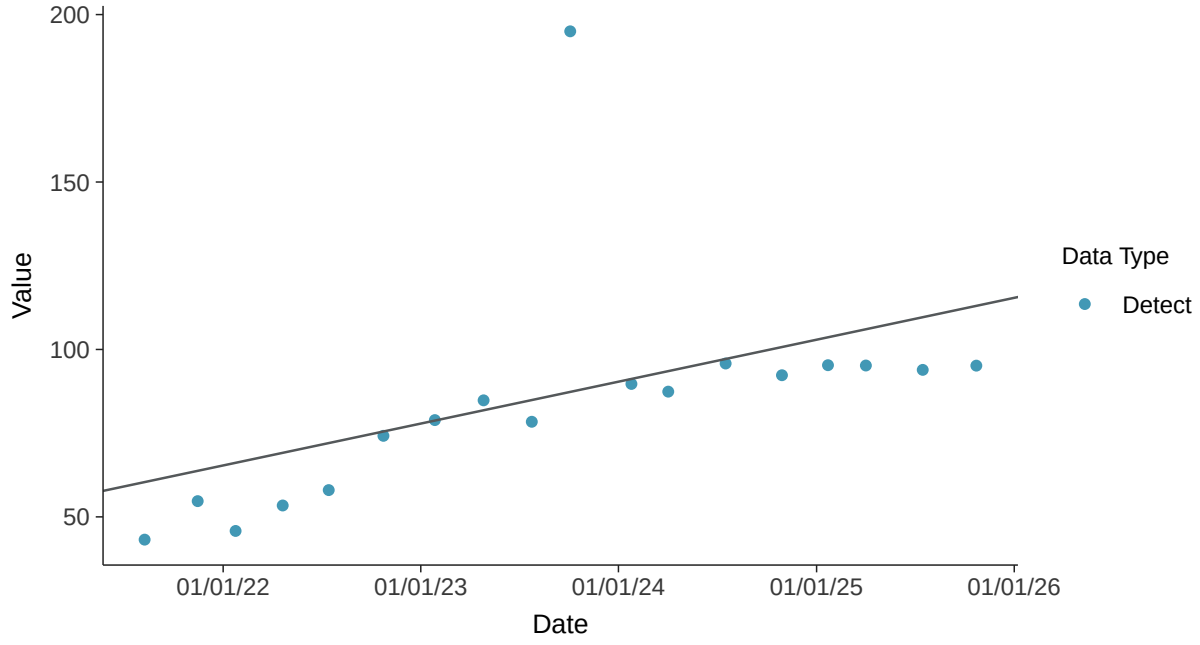
Normal Q-Q plot

Barium, MW-10 (ug/L)



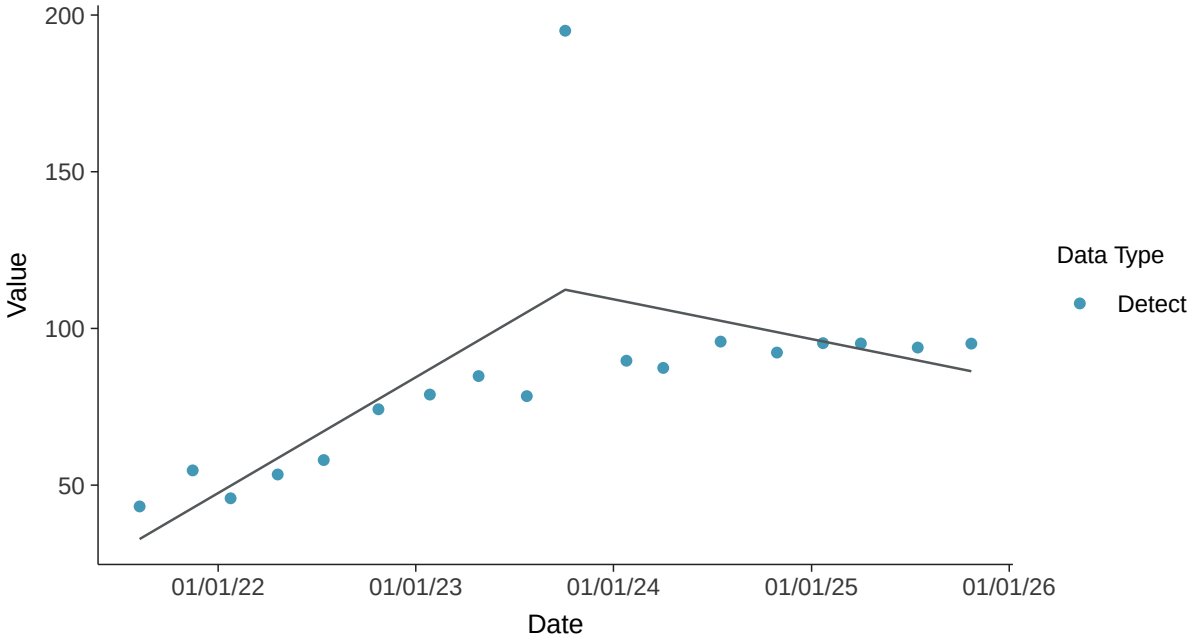
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Barium, MW-10 (ug/L)



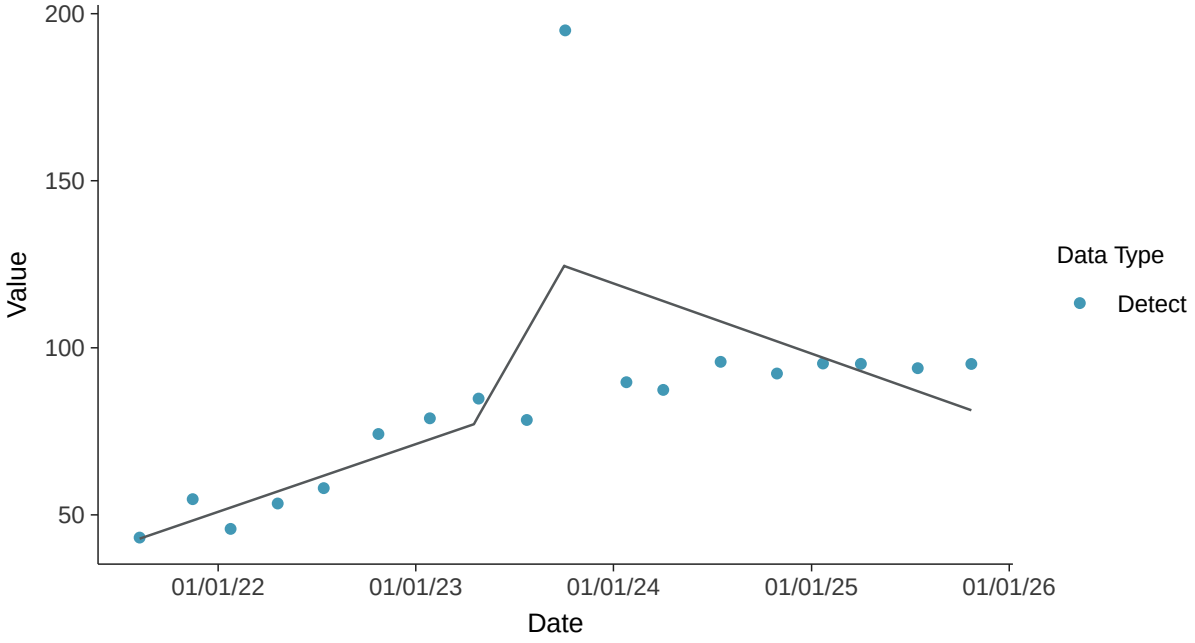
Trend Regression: Piecewise Linear-Linear

Barium, MW-10 (ug/L)



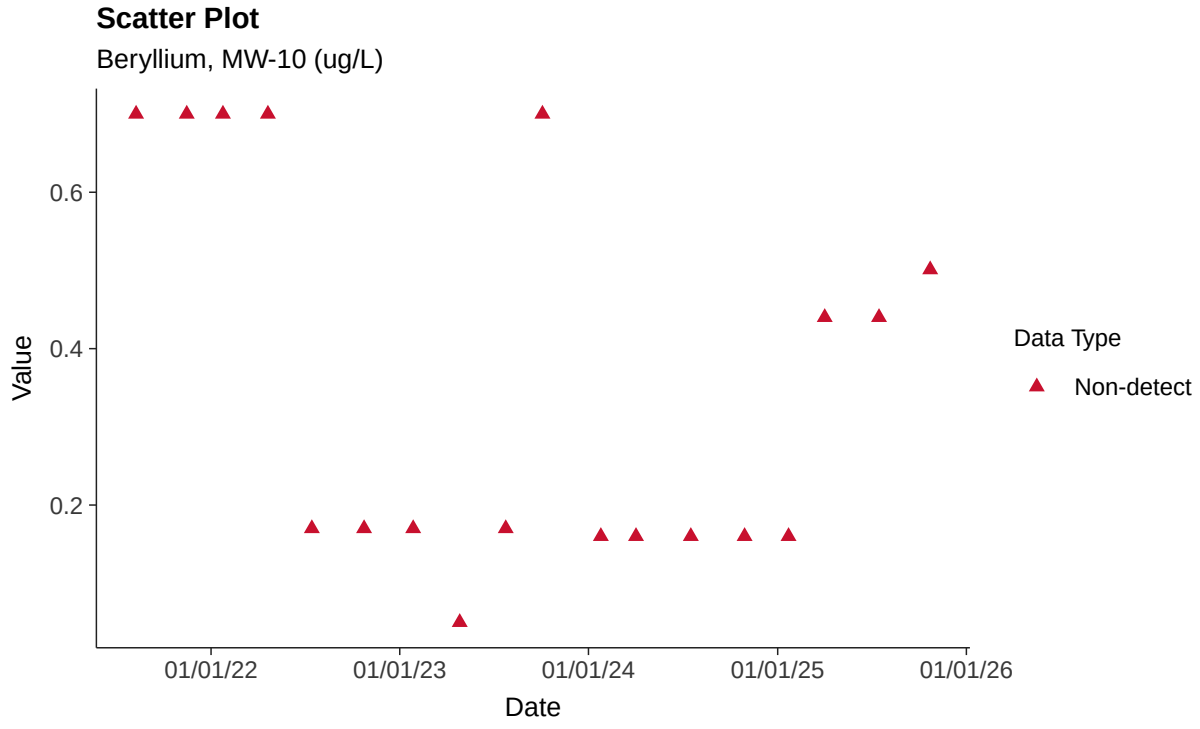
Trend Regression: Piecewise Linear-Linear-Linear

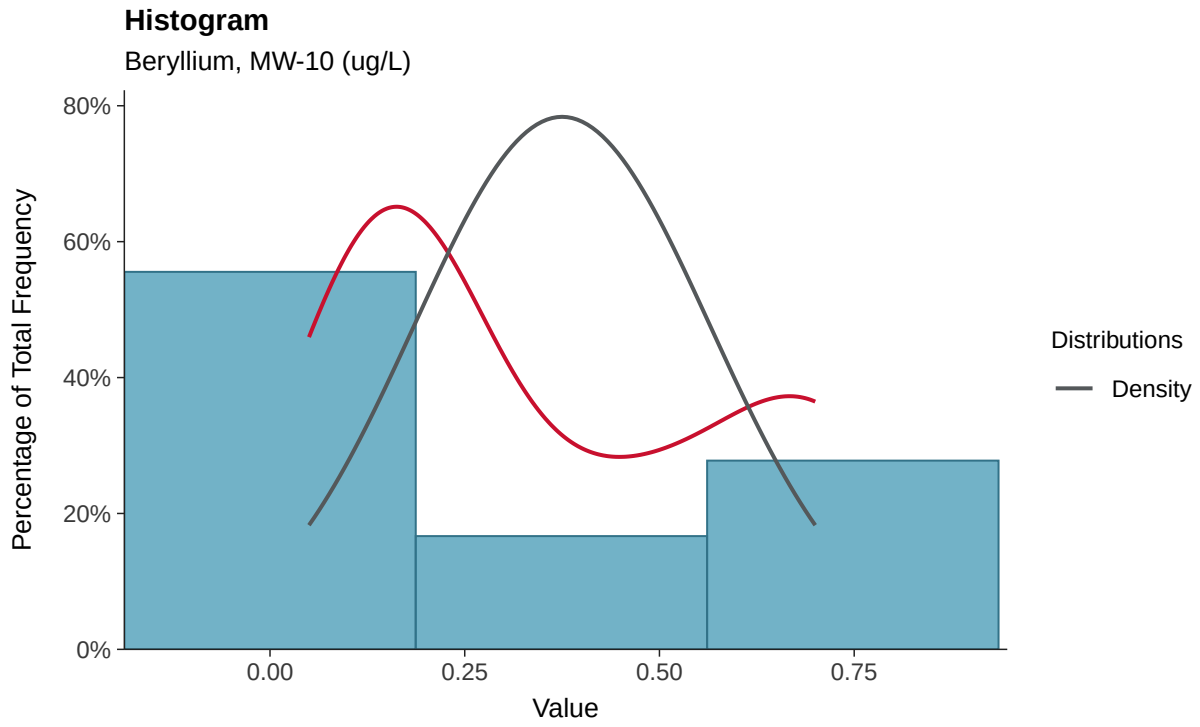
Barium, MW-10 (ug/L)



App. IV: Beryllium, MW-10

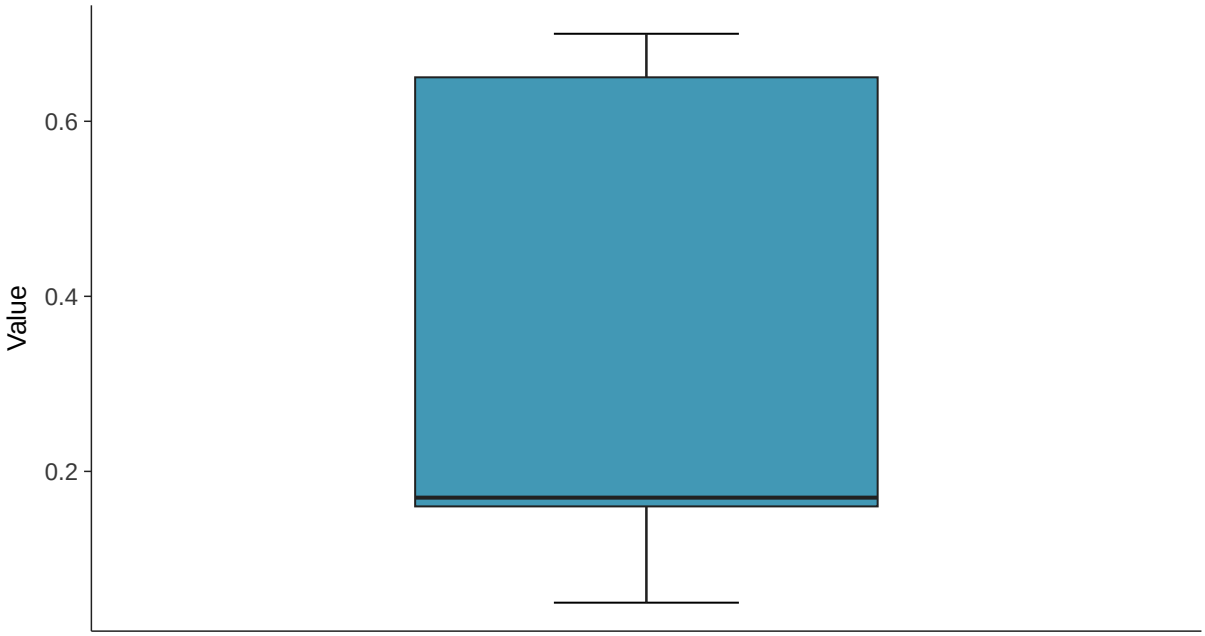
ID: 09_3_104





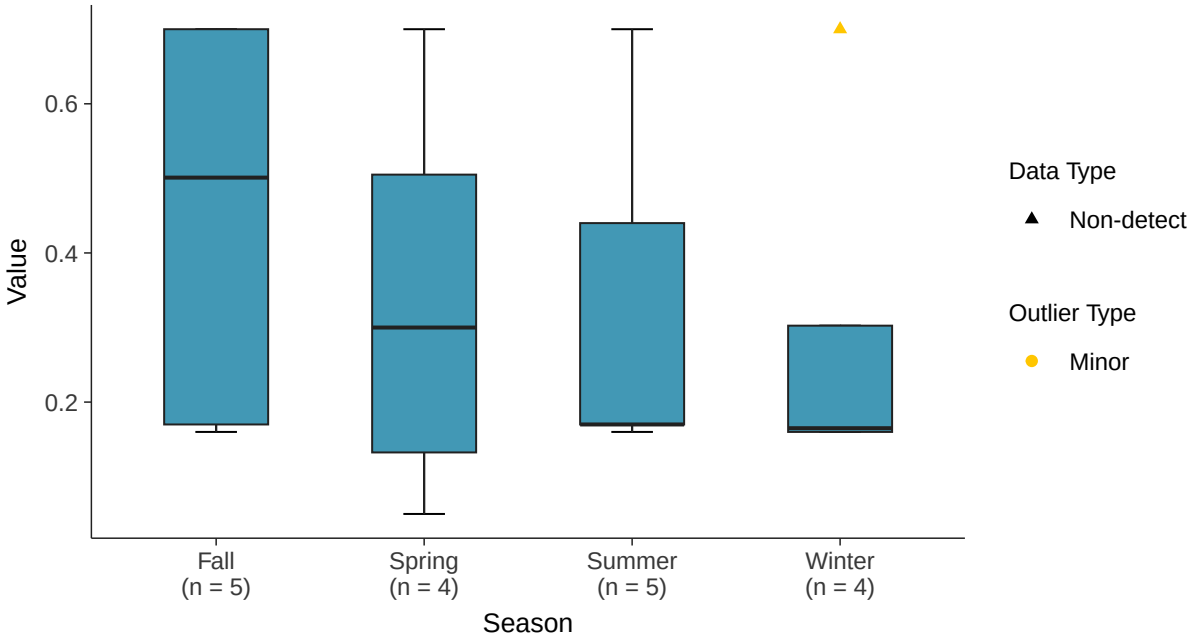
Boxplot

Beryllium, MW-10 (ug/L)



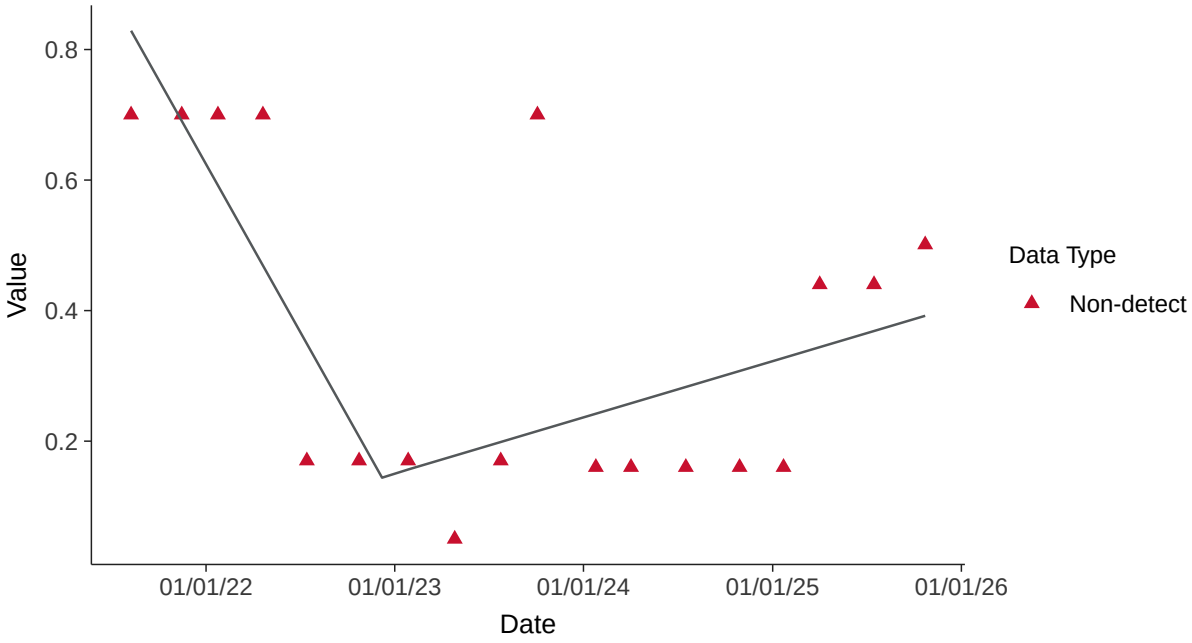
Boxplot by Season

Beryllium, MW-10 (ug/L)



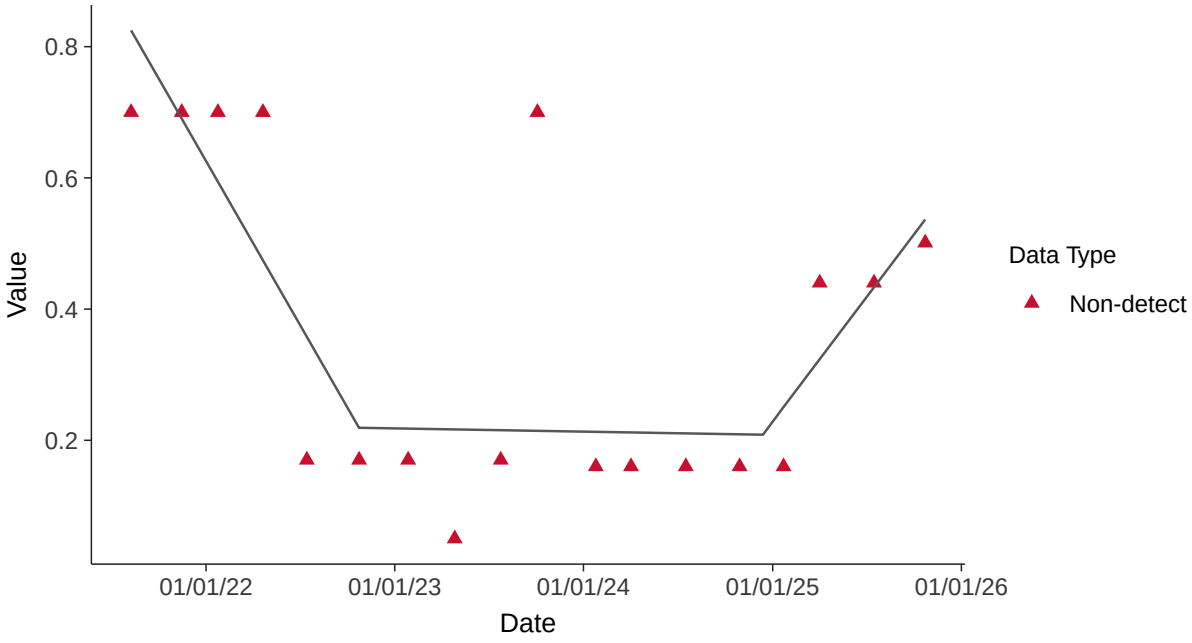
Trend Regression: Piecewise Linear-Linear

Beryllium, MW-10 (ug/L)



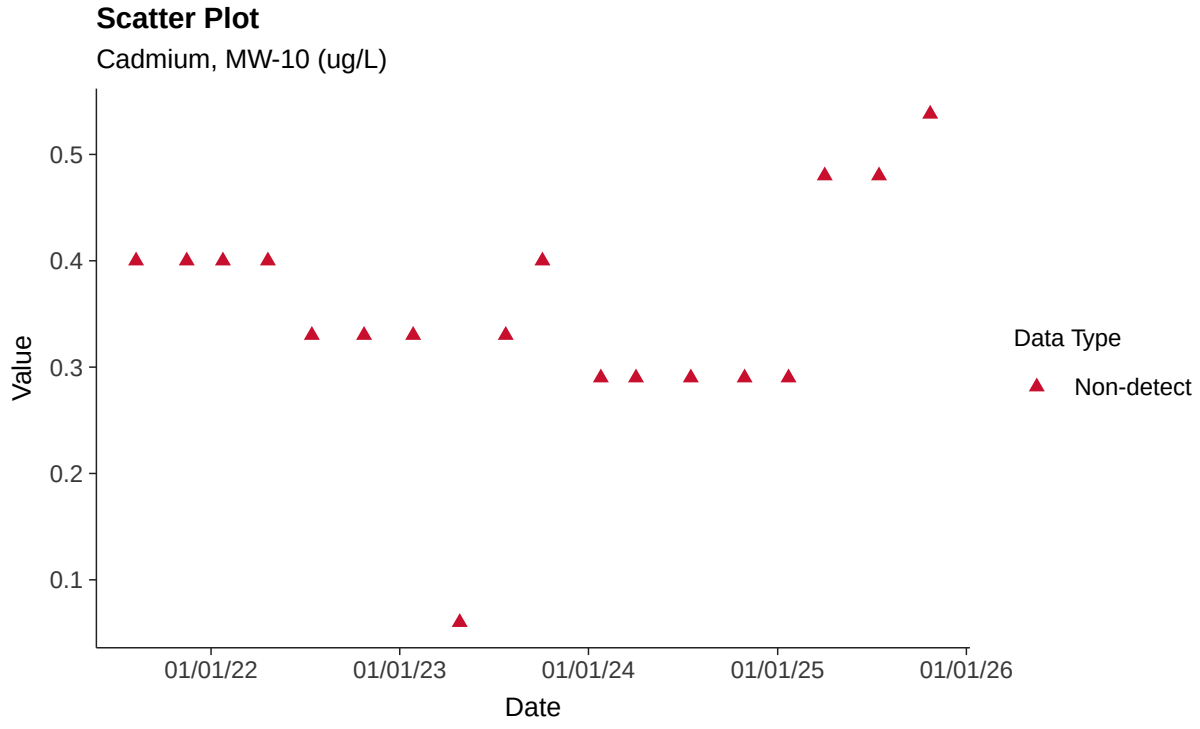
Trend Regression: Piecewise Linear-Linear-Linear

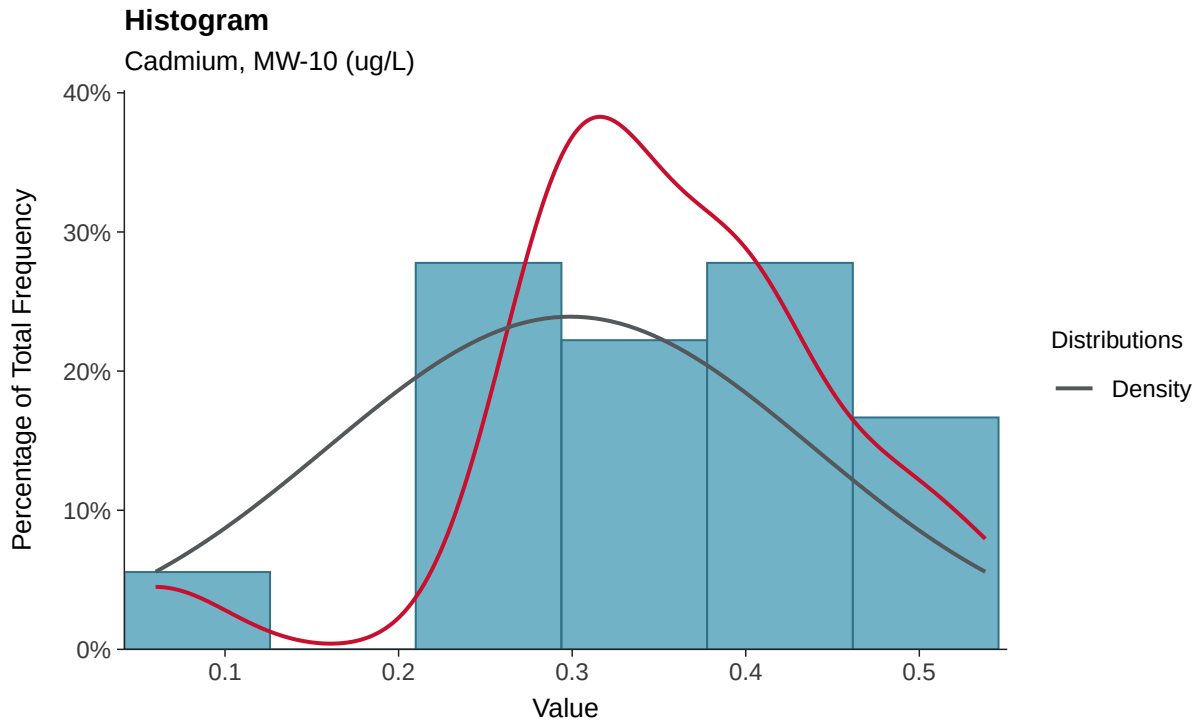
Beryllium, MW-10 (ug/L)



App. IV: Cadmium, MW-10

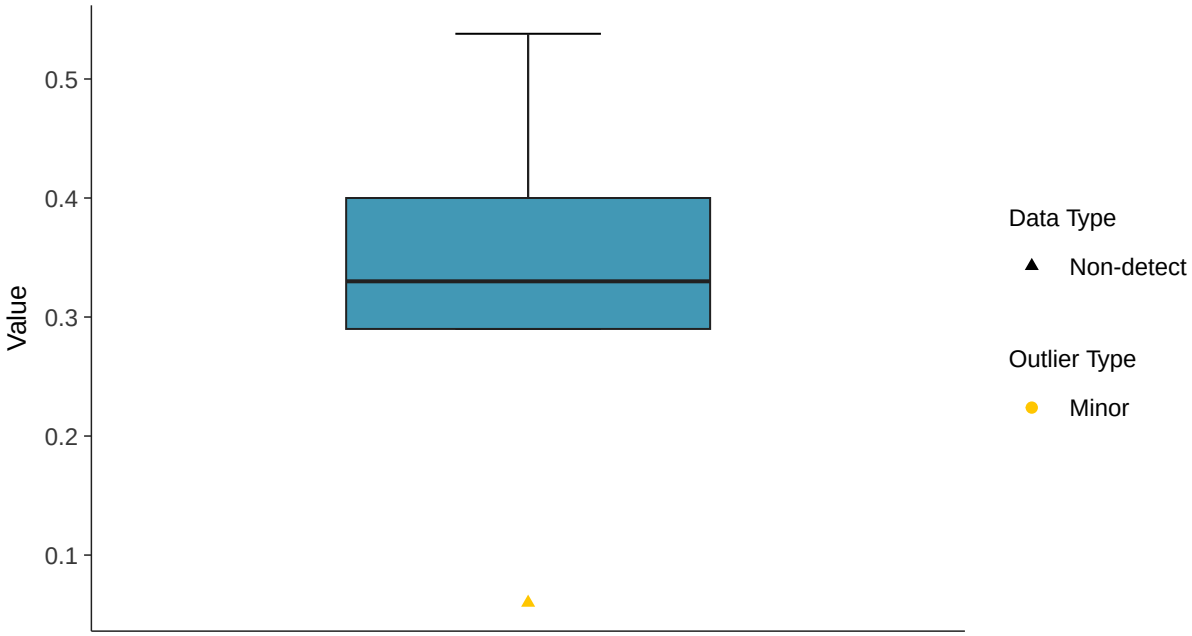
ID: 09_3_106





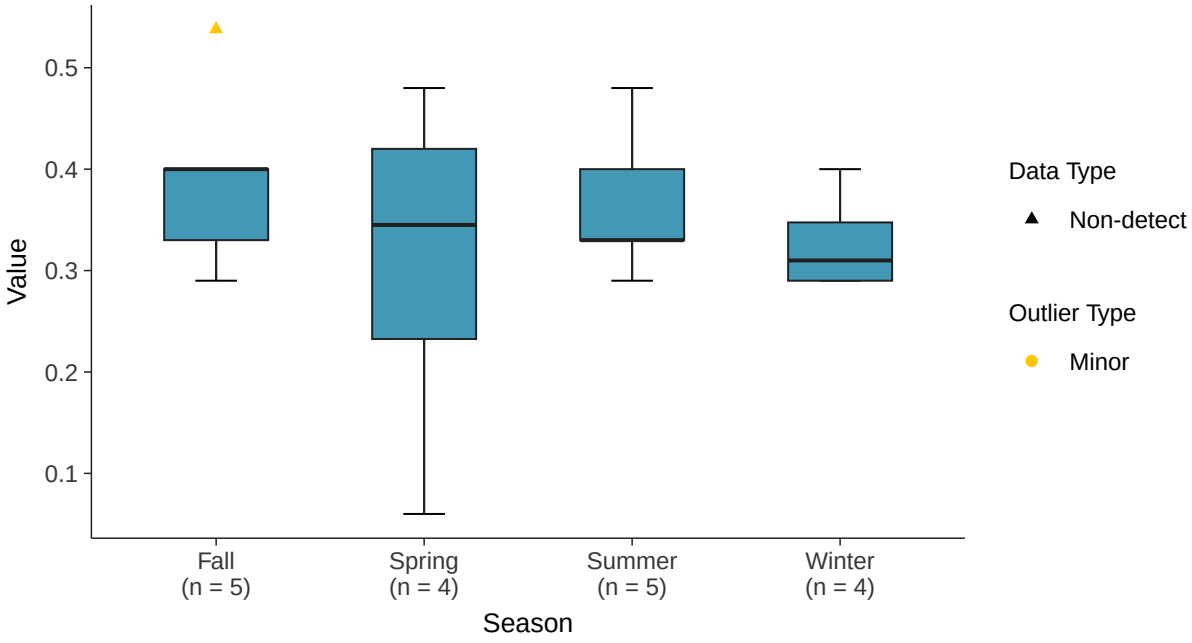
Boxplot

Cadmium, MW-10 (ug/L)



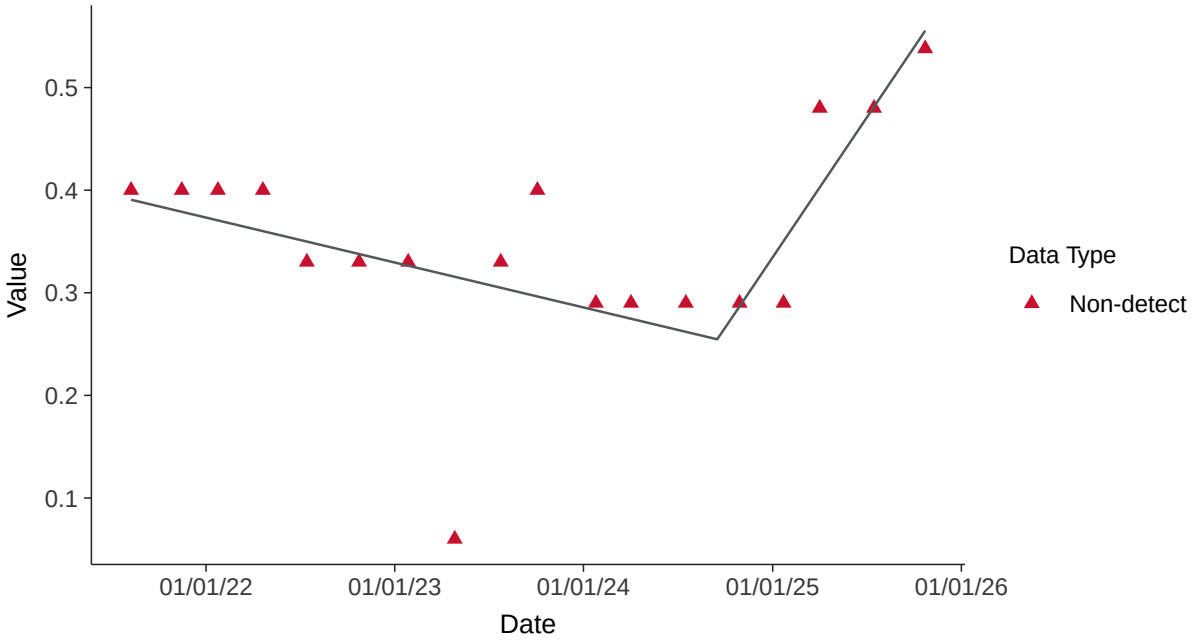
Boxplot by Season

Cadmium, MW-10 (ug/L)



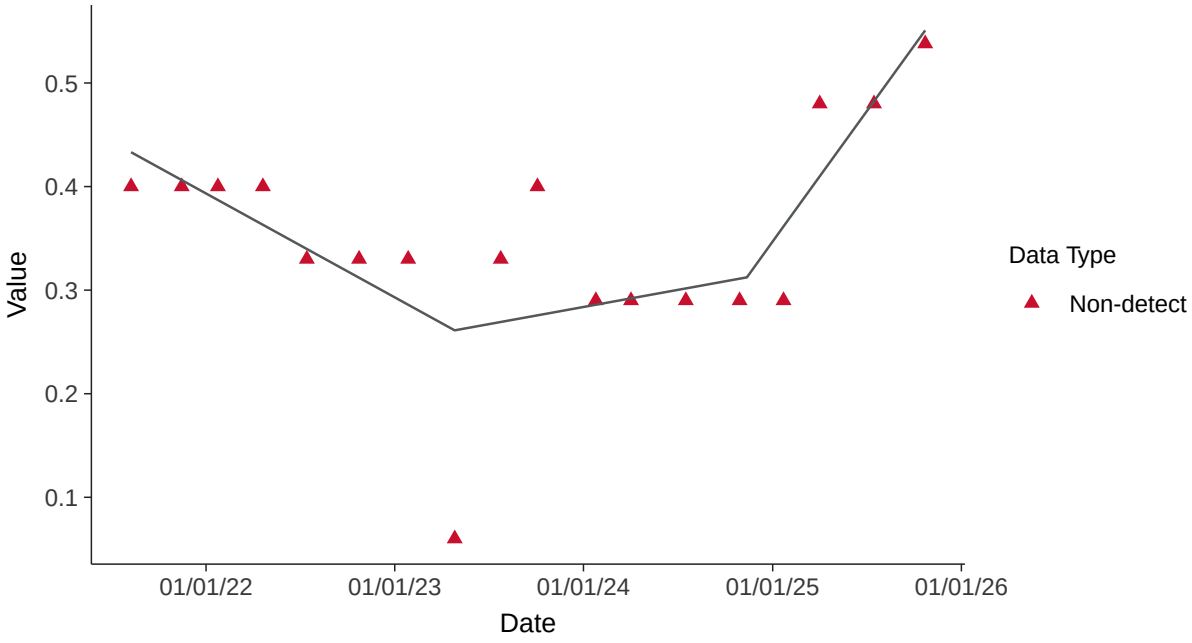
Trend Regression: Piecewise Linear-Linear

Cadmium, MW-10 (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Cadmium, MW-10 (ug/L)

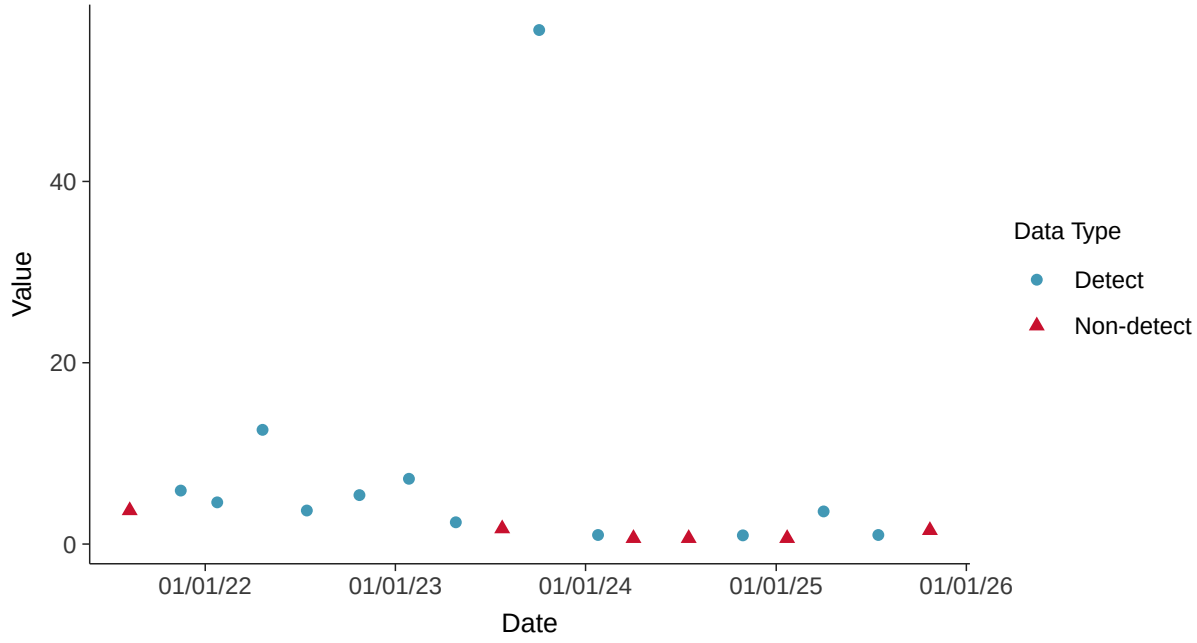


App. IV: Chromium, MW-10

ID: 09_3_109

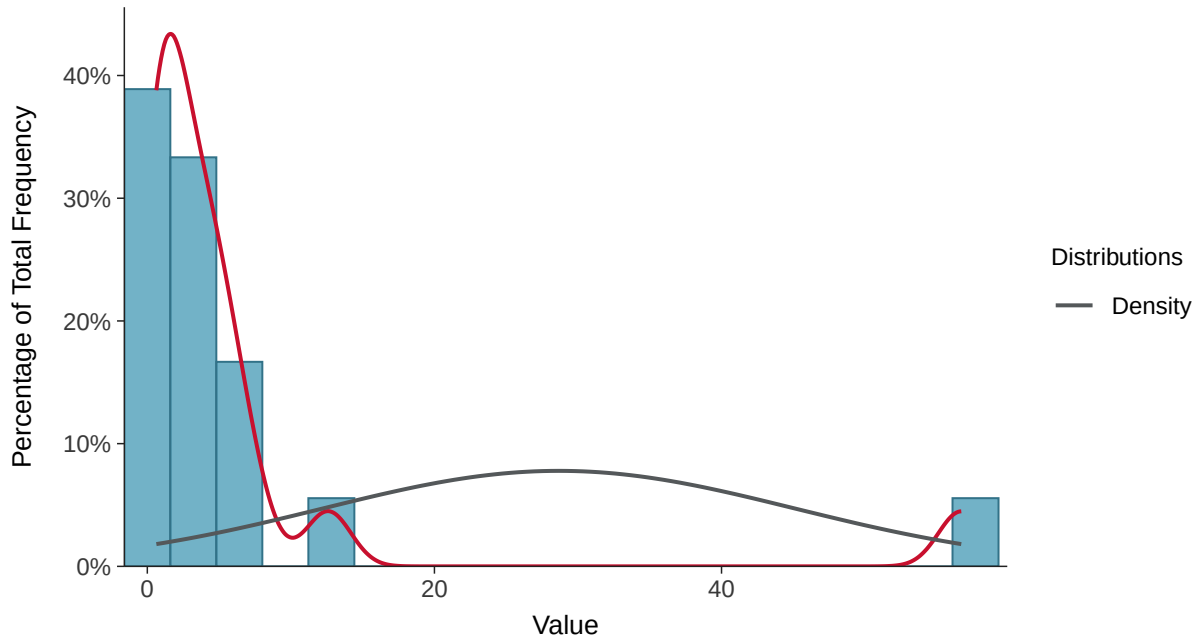
Scatter Plot

Chromium, MW-10 (ug/L)



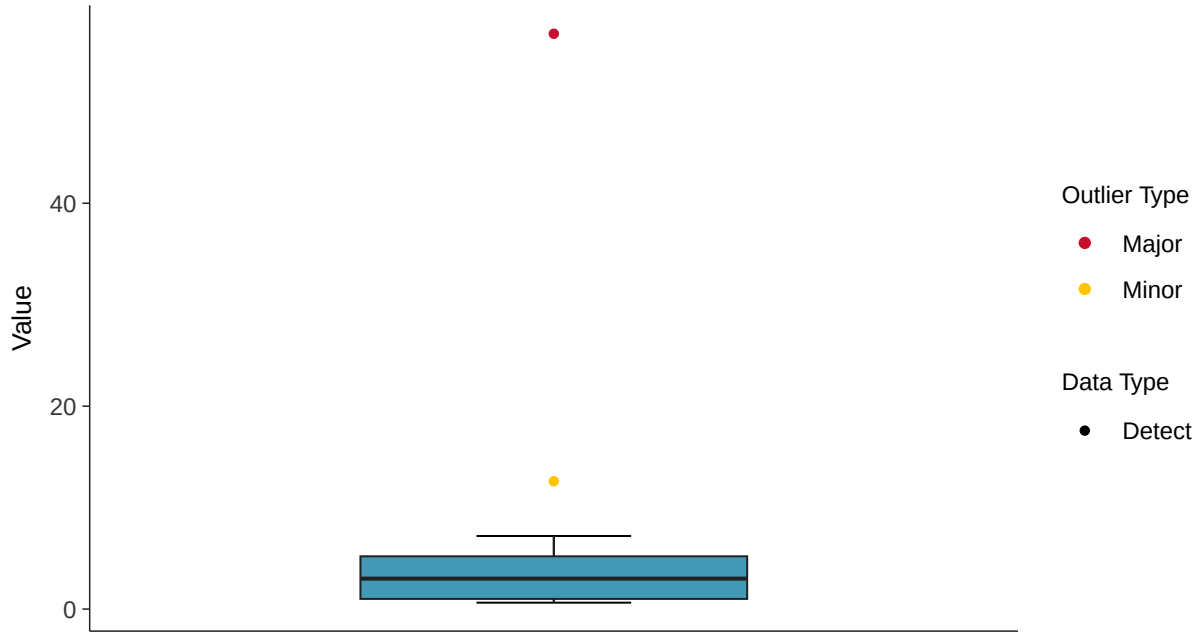
Histogram

Chromium, MW-10 (ug/L)



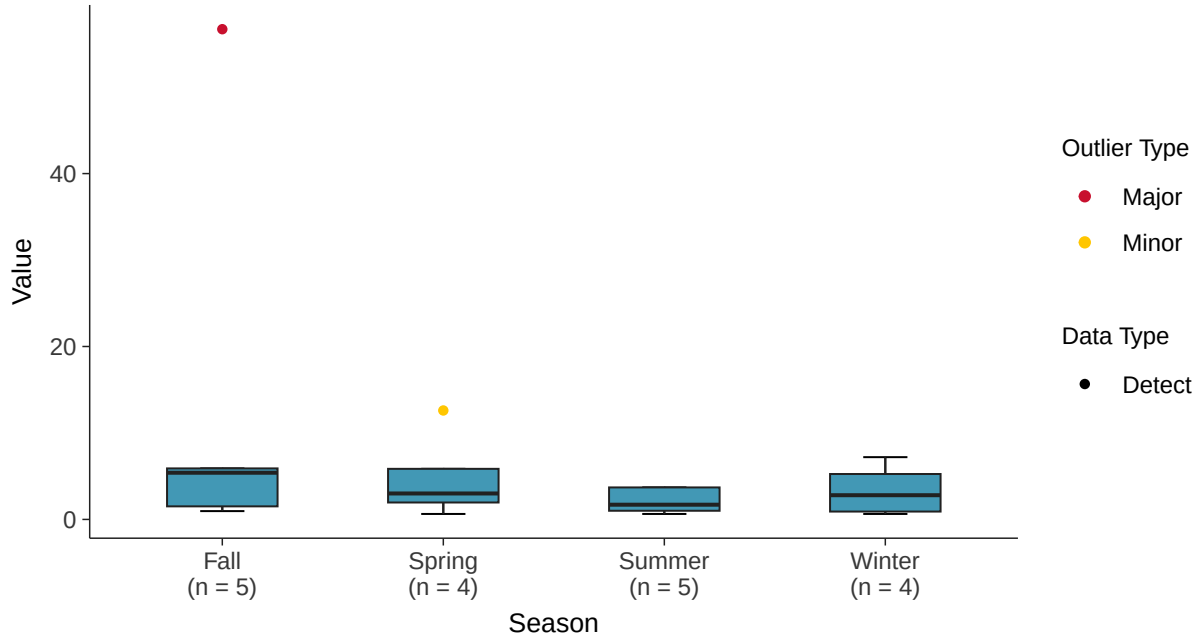
Boxplot

Chromium, MW-10 (ug/L)



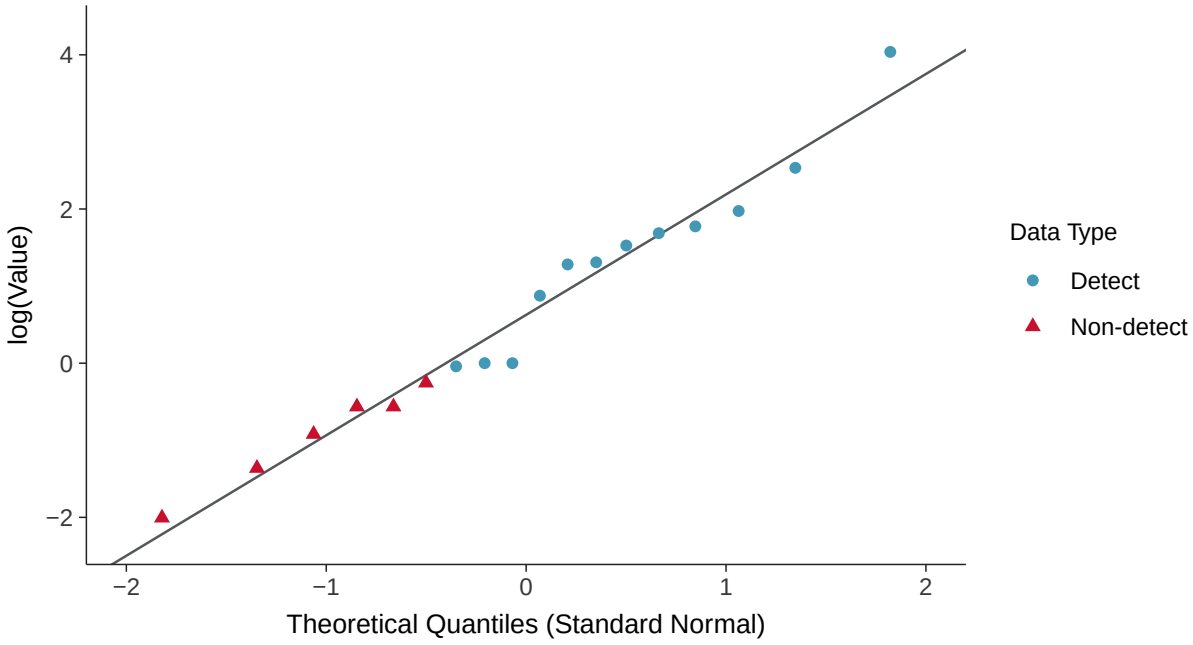
Boxplot by Season

Chromium, MW-10 (ug/L)



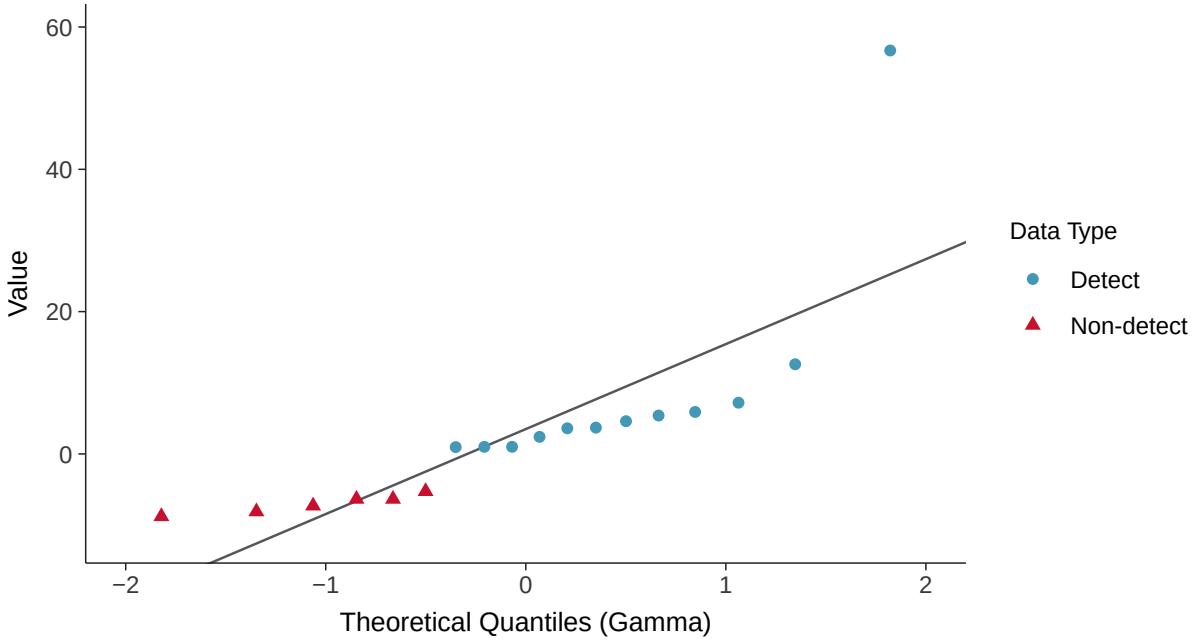
Lognormal Q-Q plot using ROS Imputed Estimates

Chromium, MW-10 (ug/L)



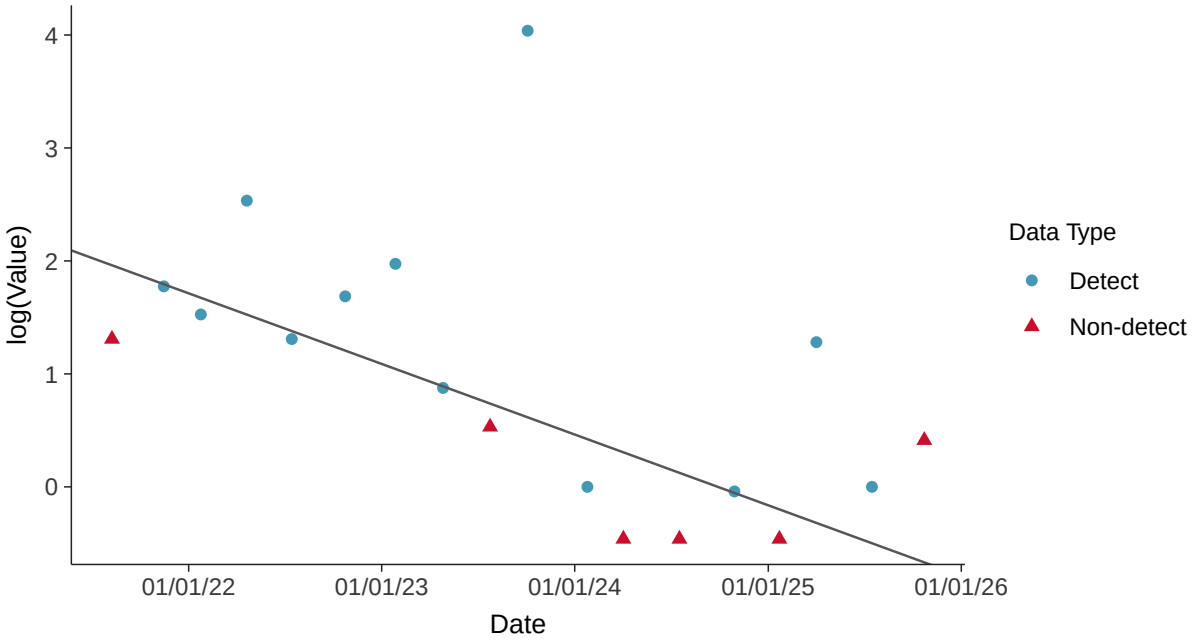
Gamma Q-Q plot using ROS Imputed Estimates

Chromium, MW-10 (ug/L)



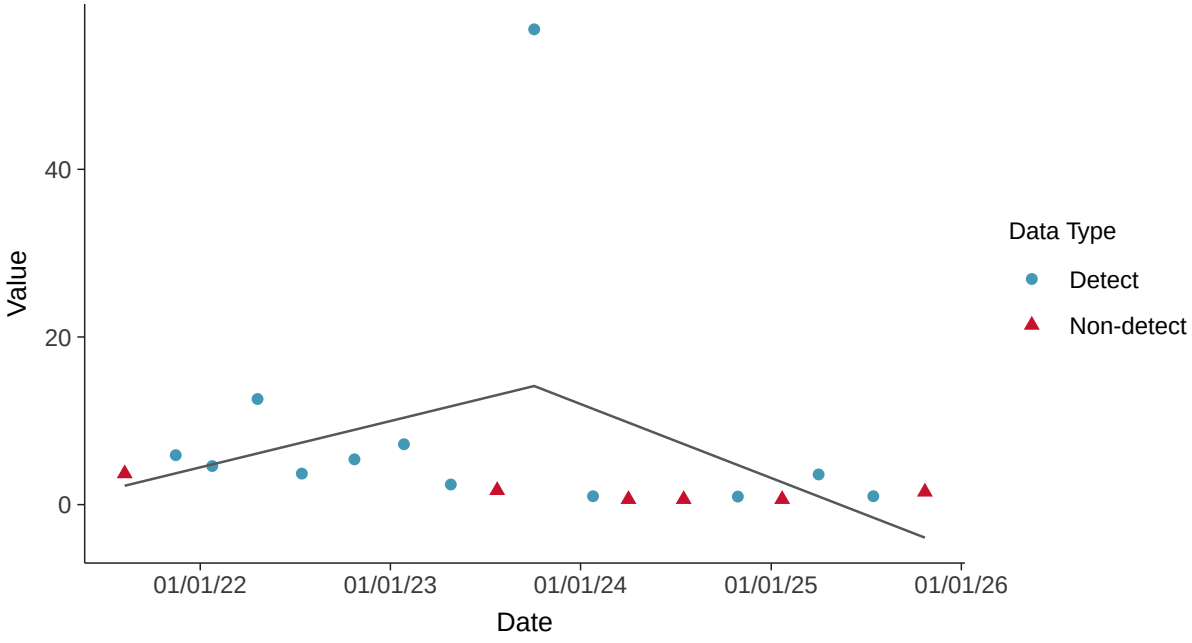
Trend Regression: Lognormal MLE

Chromium, MW-10 (ug/L)



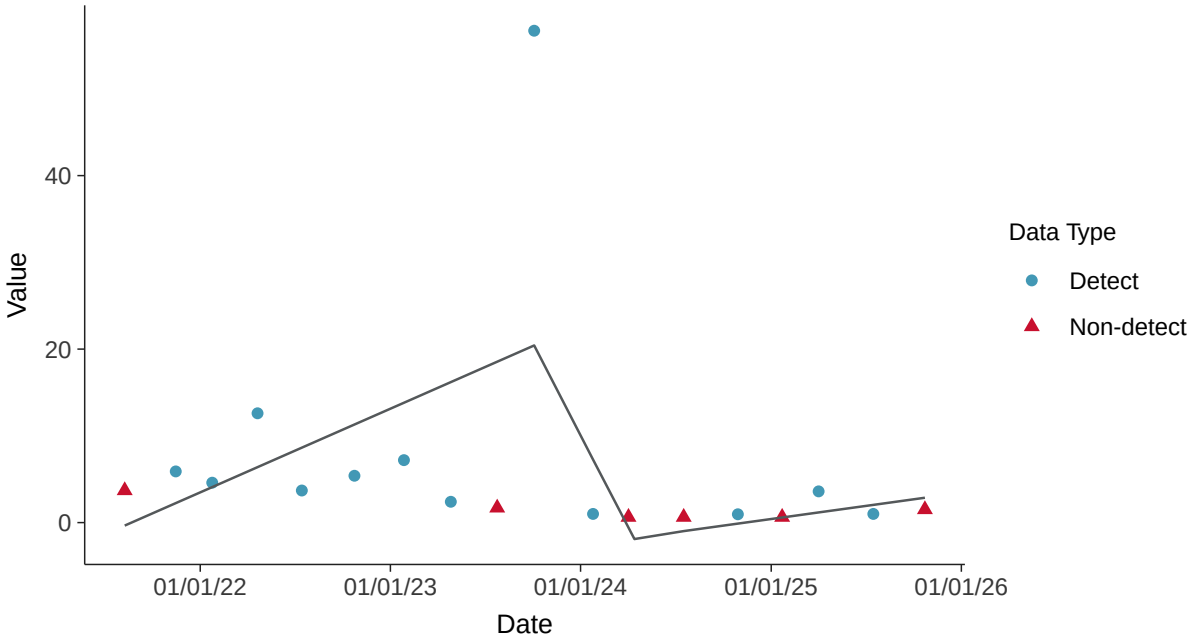
Trend Regression: Piecewise Linear-Linear

Chromium, MW-10 (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Chromium, MW-10 (ug/L)

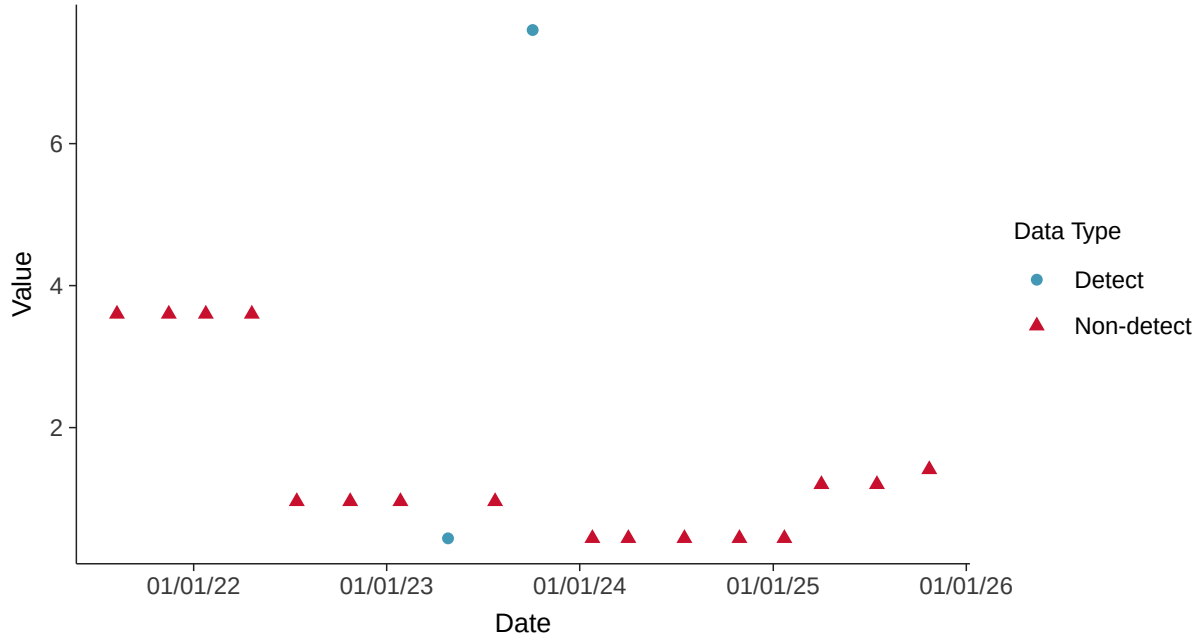


App. IV: Cobalt, MW-10

ID: 09_3_110

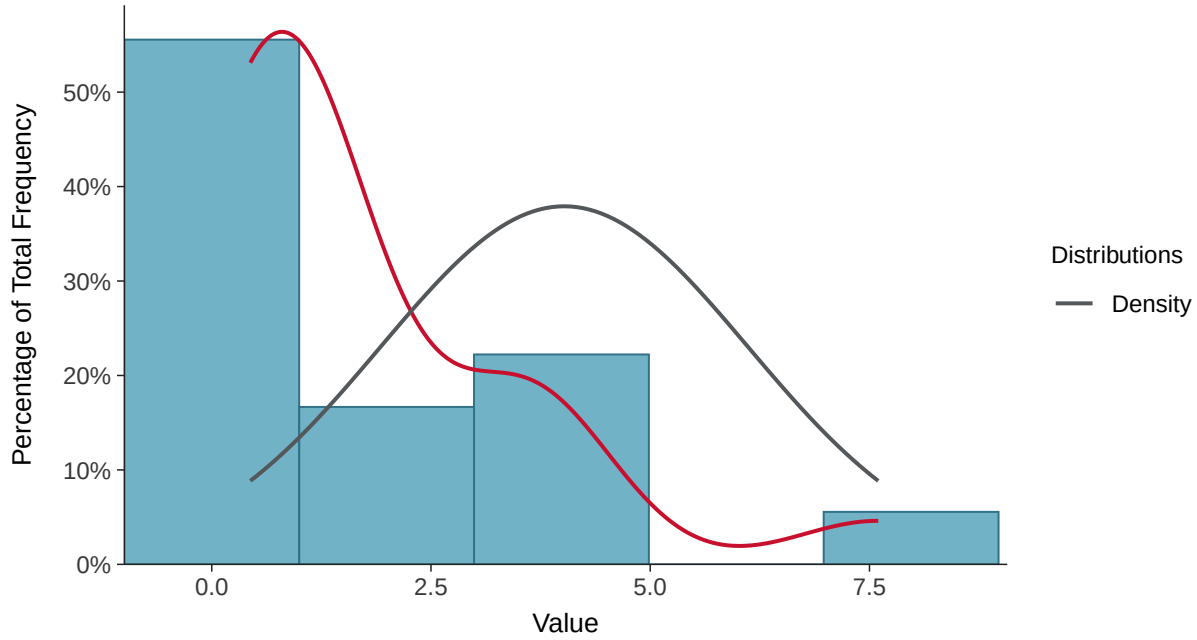
Scatter Plot

Cobalt, MW-10 (ug/L)



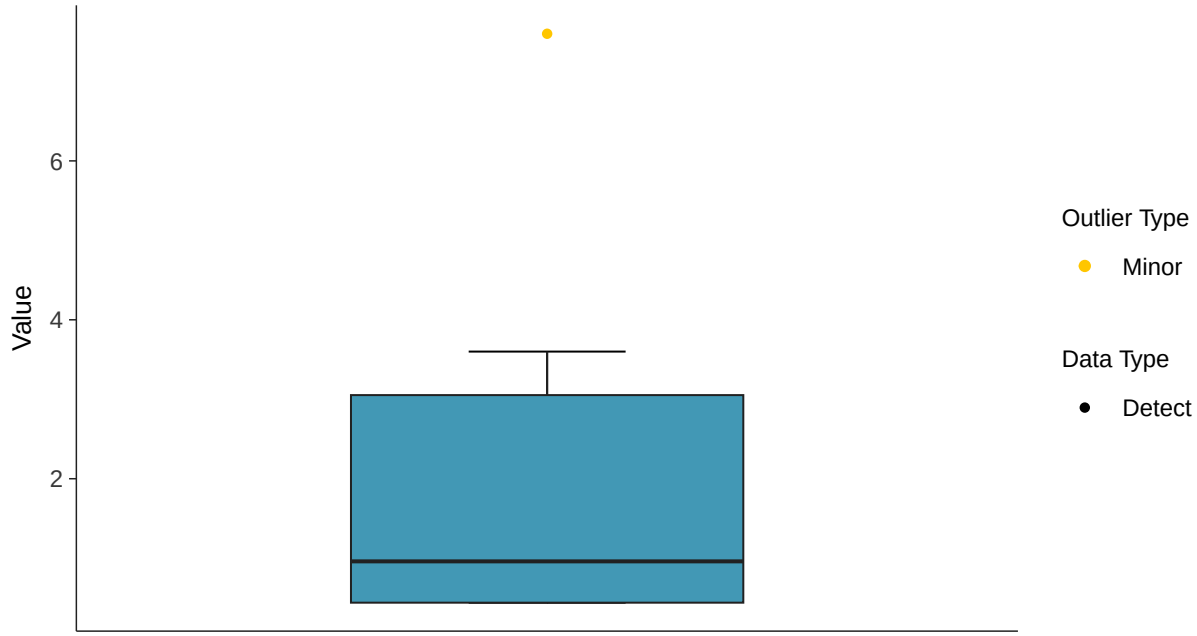
Histogram

Cobalt, MW-10 (ug/L)



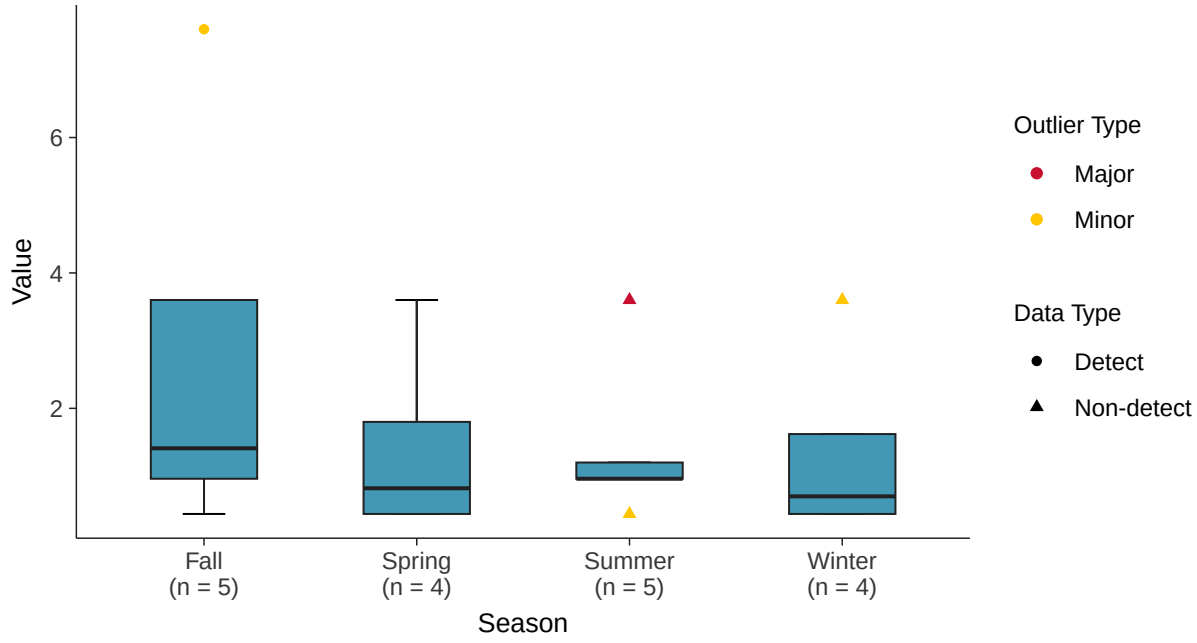
Boxplot

Cobalt, MW-10 (ug/L)



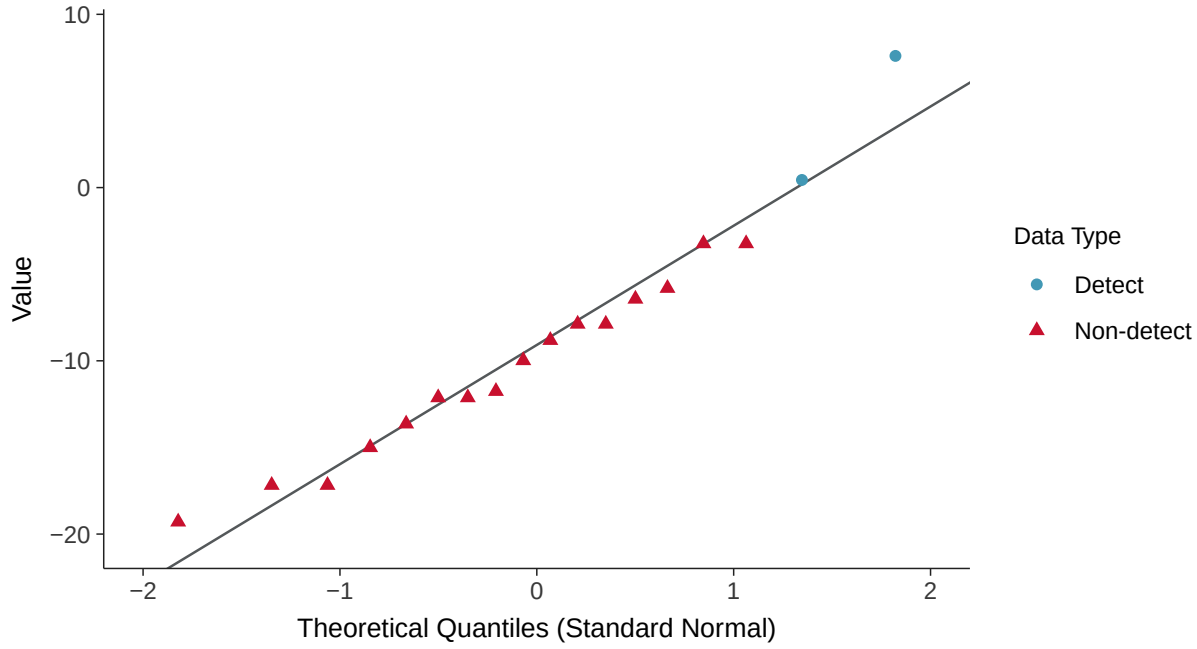
Boxplot by Season

Cobalt, MW-10 (ug/L)



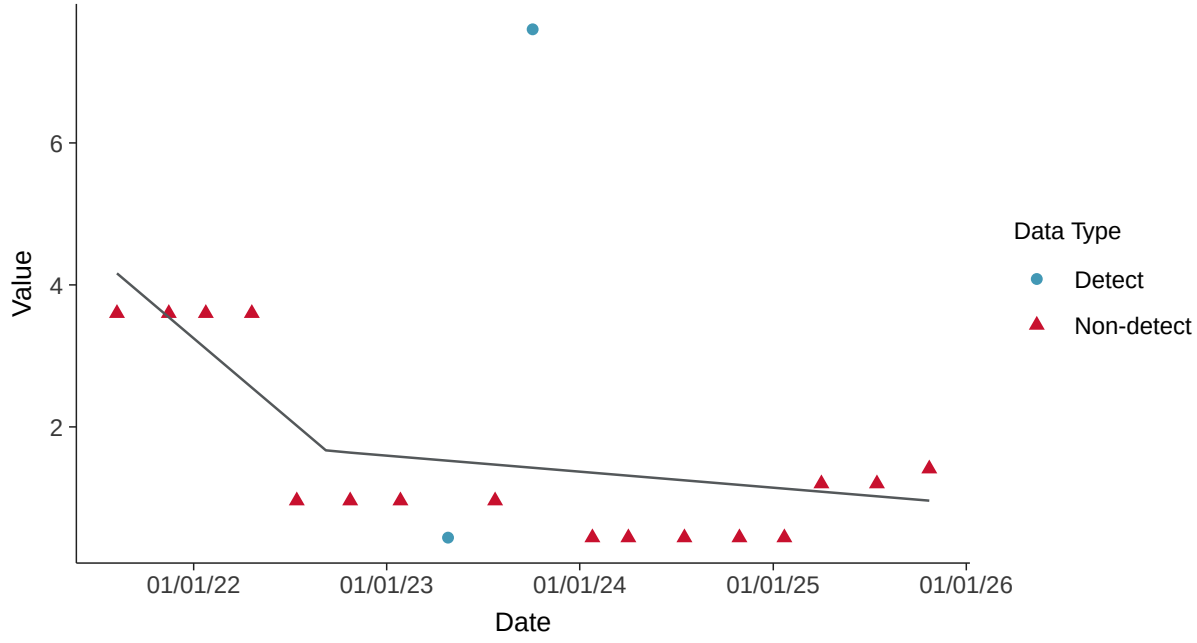
Normal Q-Q plot using ROS Imputed Estimates

Cobalt, MW-10 (ug/L)



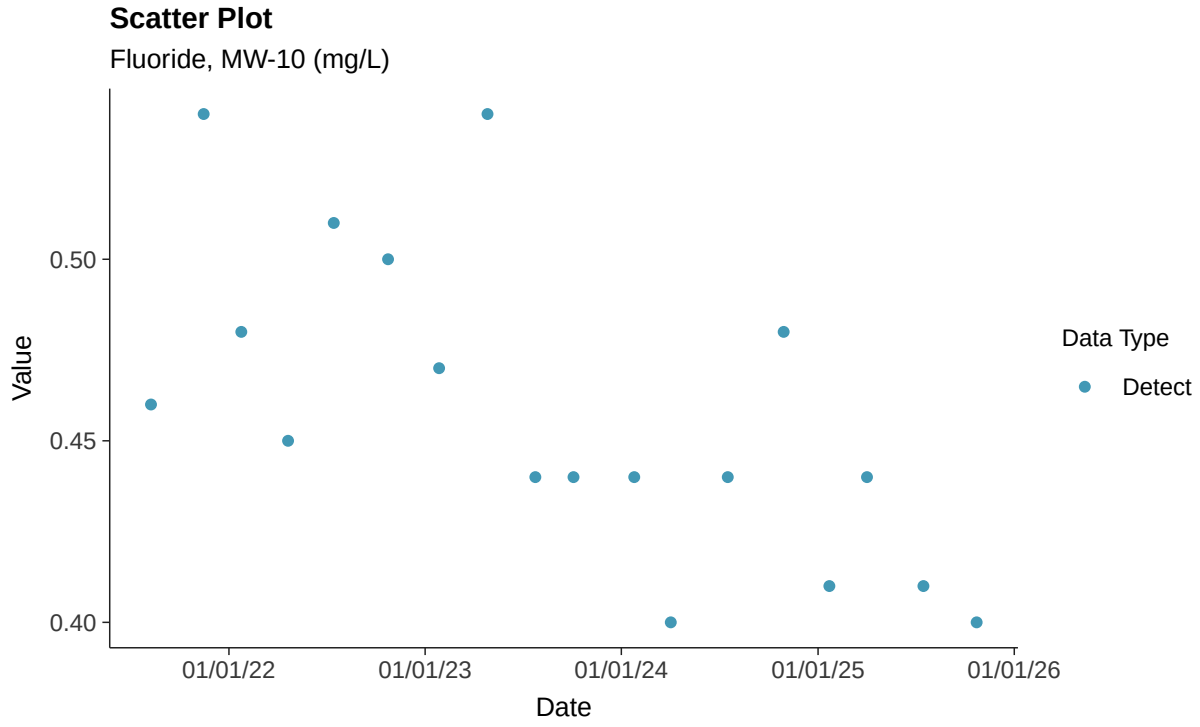
Trend Regression: Piecewise Linear-Linear

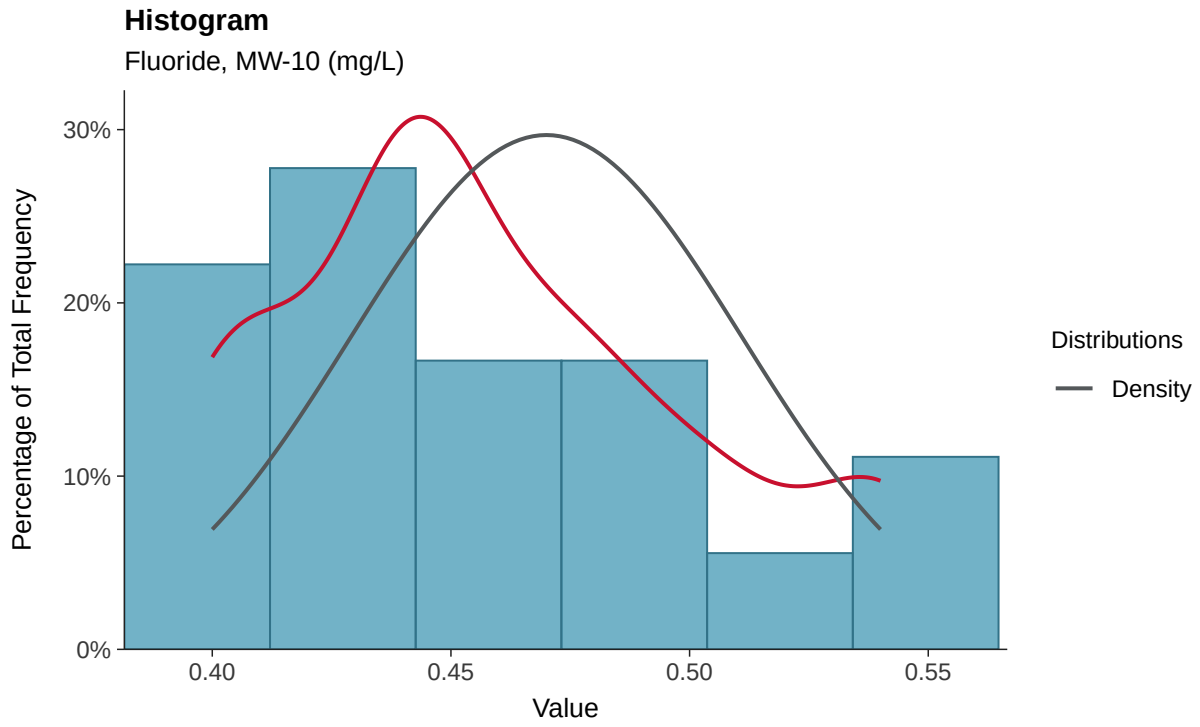
Cobalt, MW-10 (ug/L)



App. IV: Fluoride, MW-10

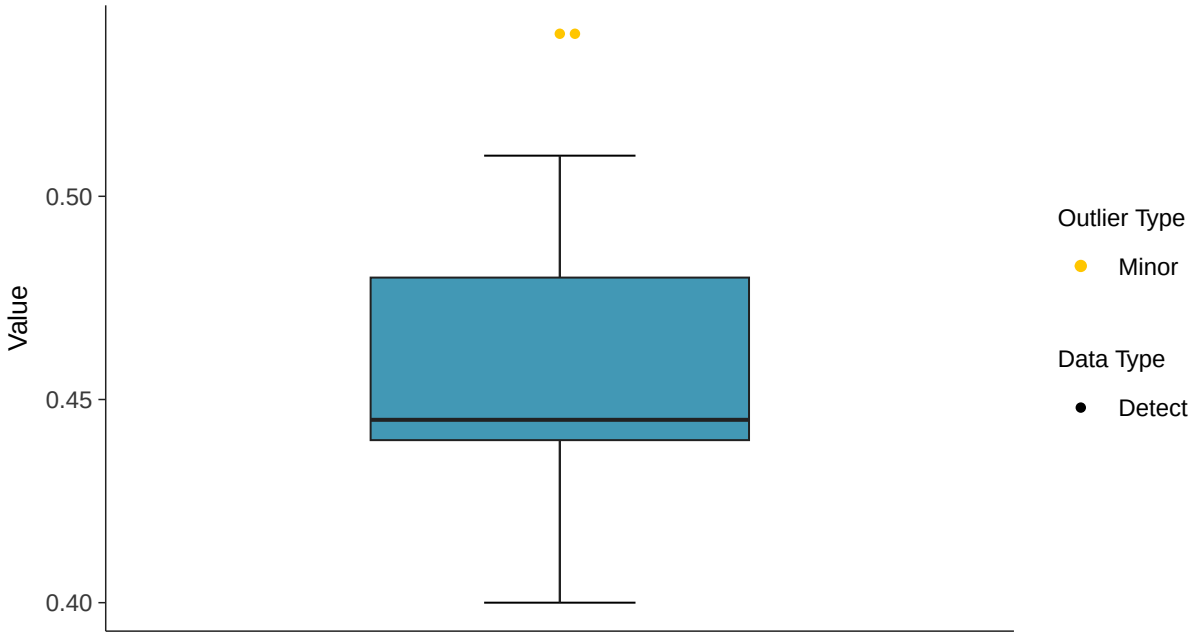
ID: 09_3_112





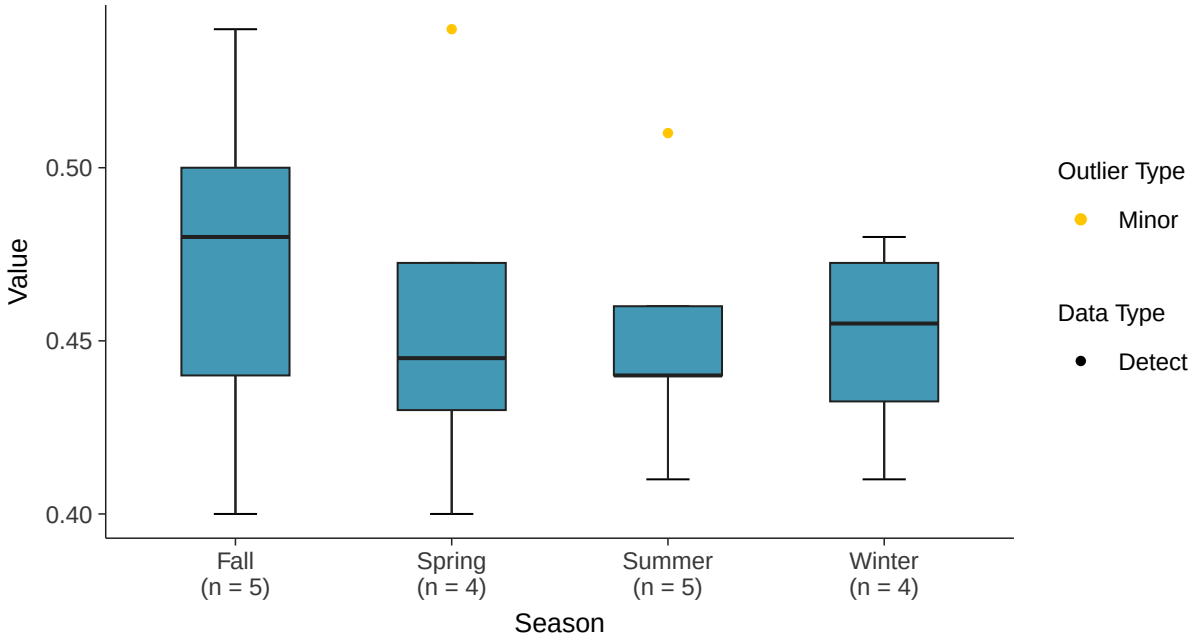
Boxplot

Fluoride, MW-10 (mg/L)



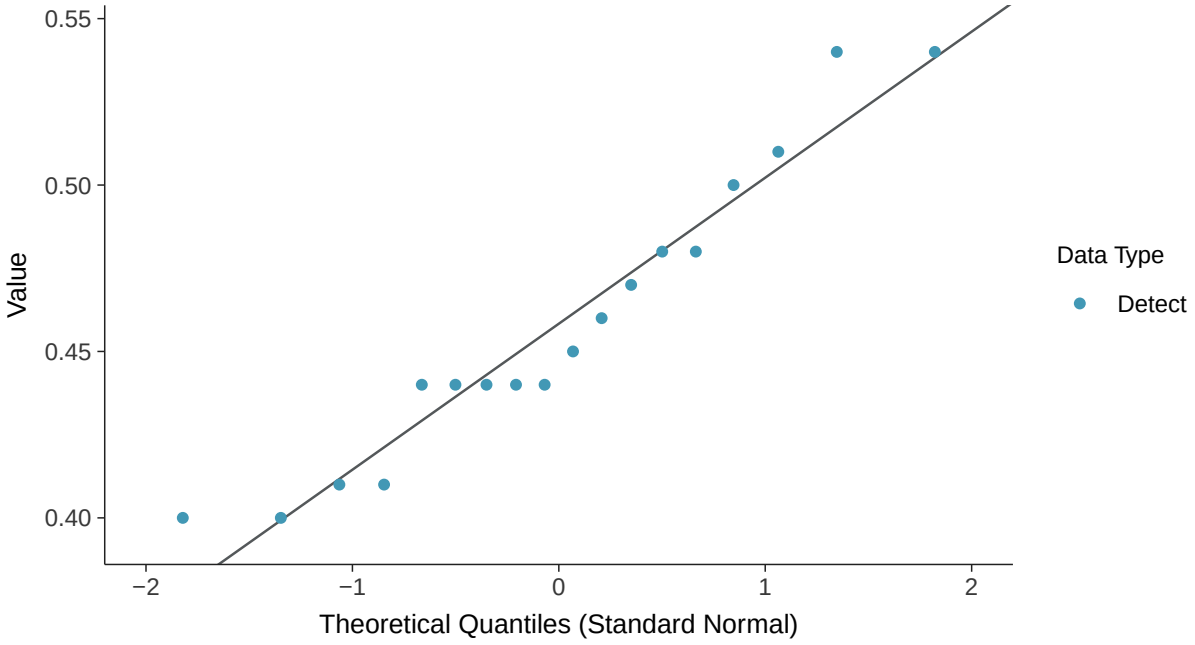
Boxplot by Season

Fluoride, MW-10 (mg/L)



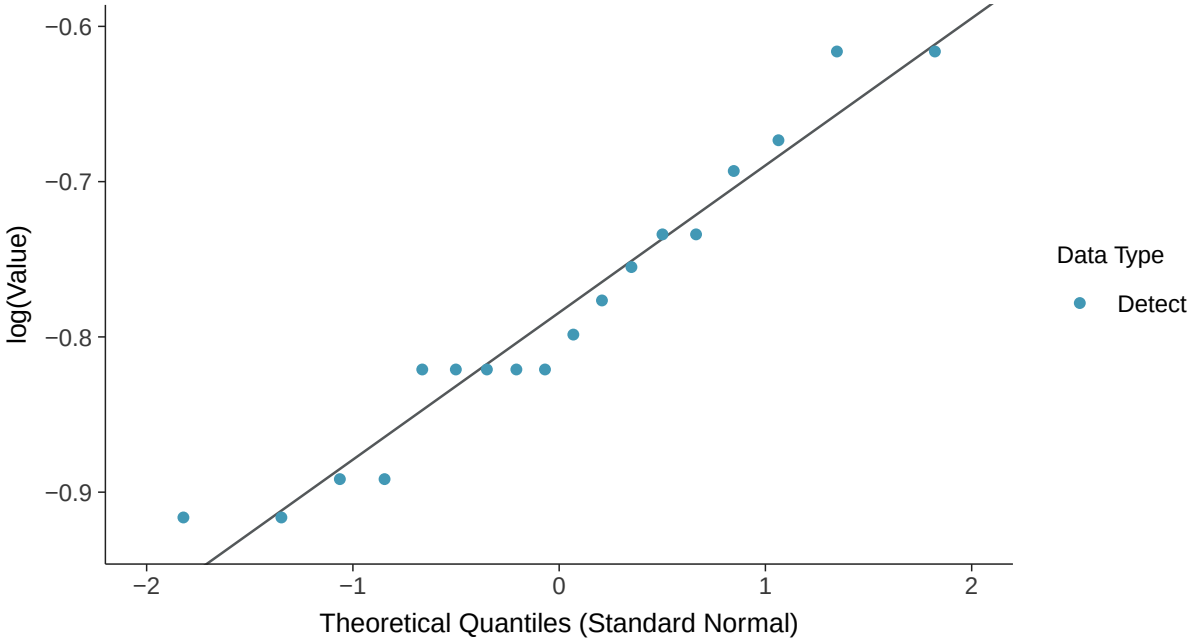
Normal Q-Q plot

Fluoride, MW-10 (mg/L)



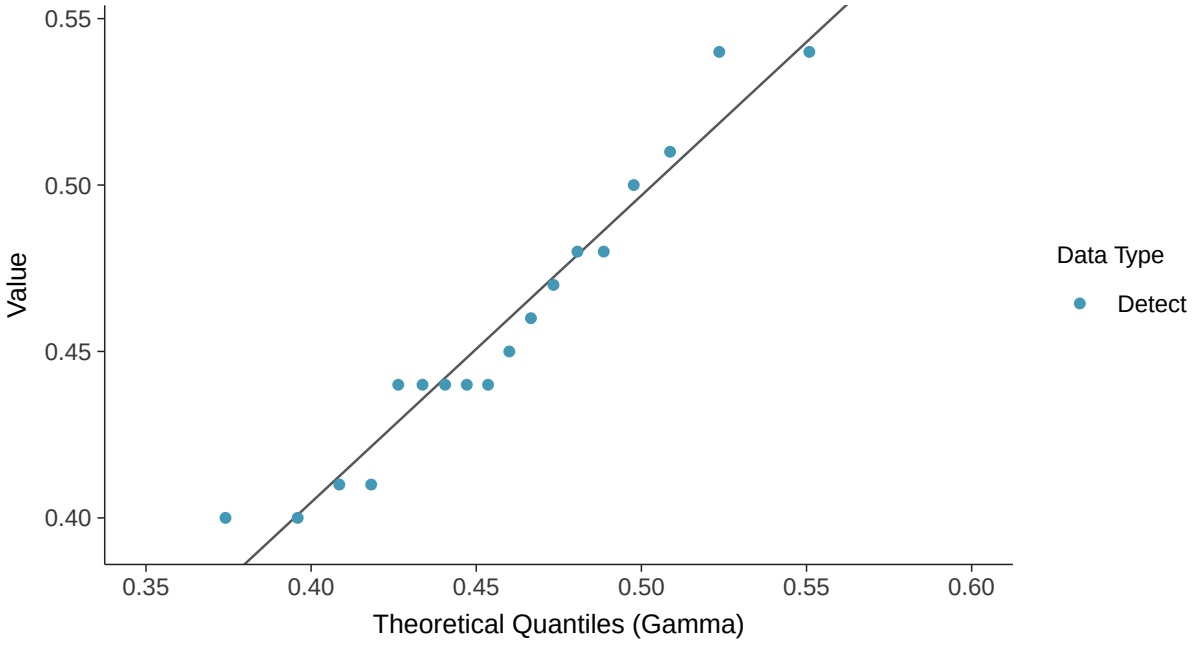
Lognormal Q-Q plot

Fluoride, MW-10 (mg/L)



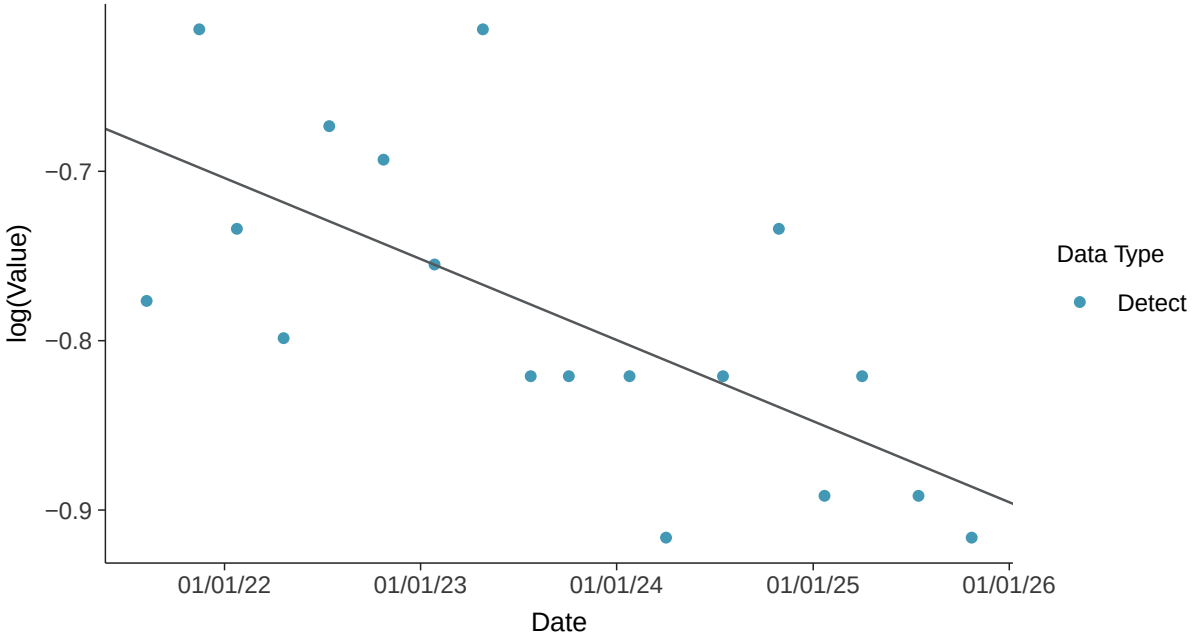
Gamma Q-Q plot

Fluoride, MW-10 (mg/L)



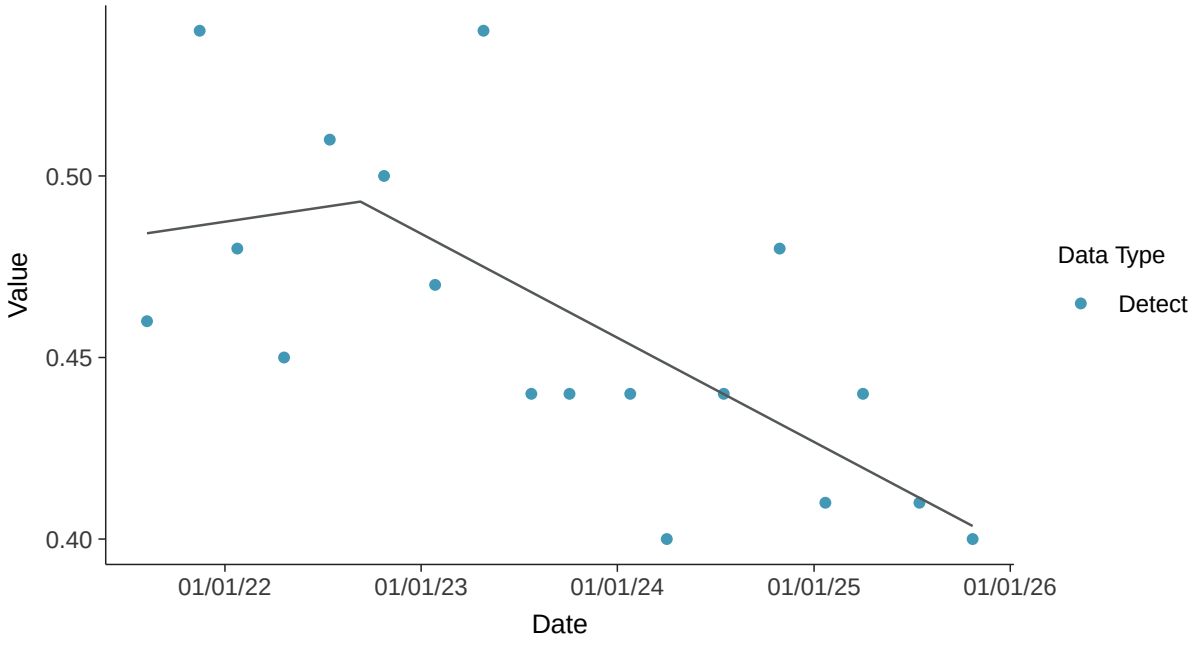
Trend Regression: Lognormal MLE

Fluoride, MW-10 (mg/L)



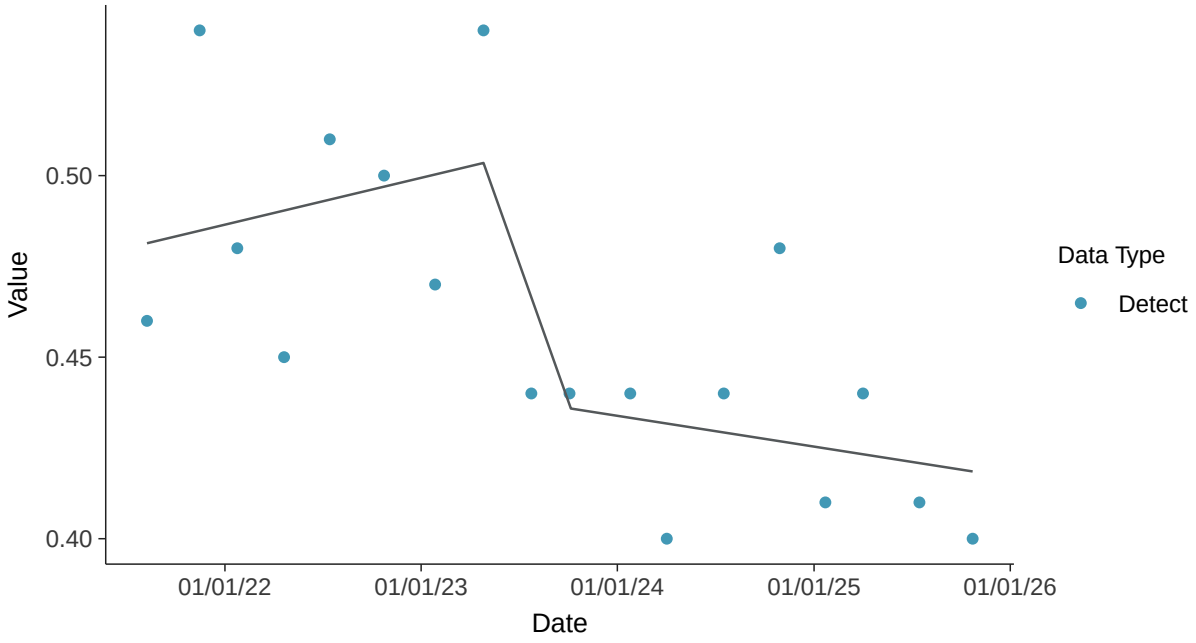
Trend Regression: Piecewise Linear-Linear

Fluoride, MW-10 (mg/L)



Trend Regression: Piecewise Linear-Linear-Linear

Fluoride, MW-10 (mg/L)

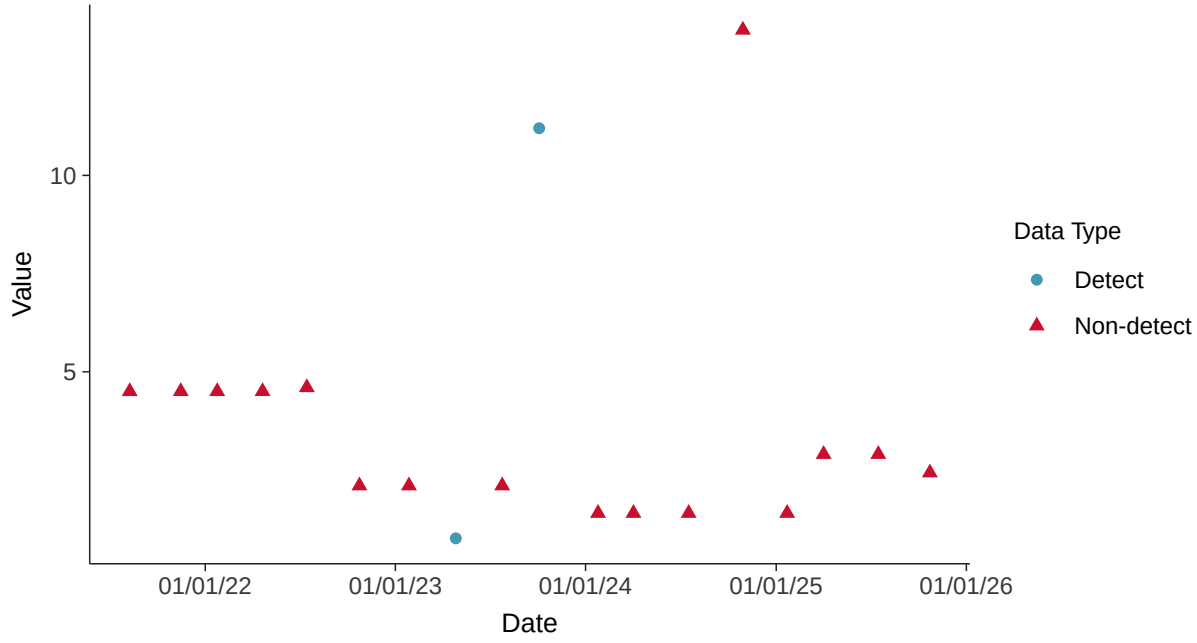


App. IV: Lead, MW-10

ID: 09_3_113

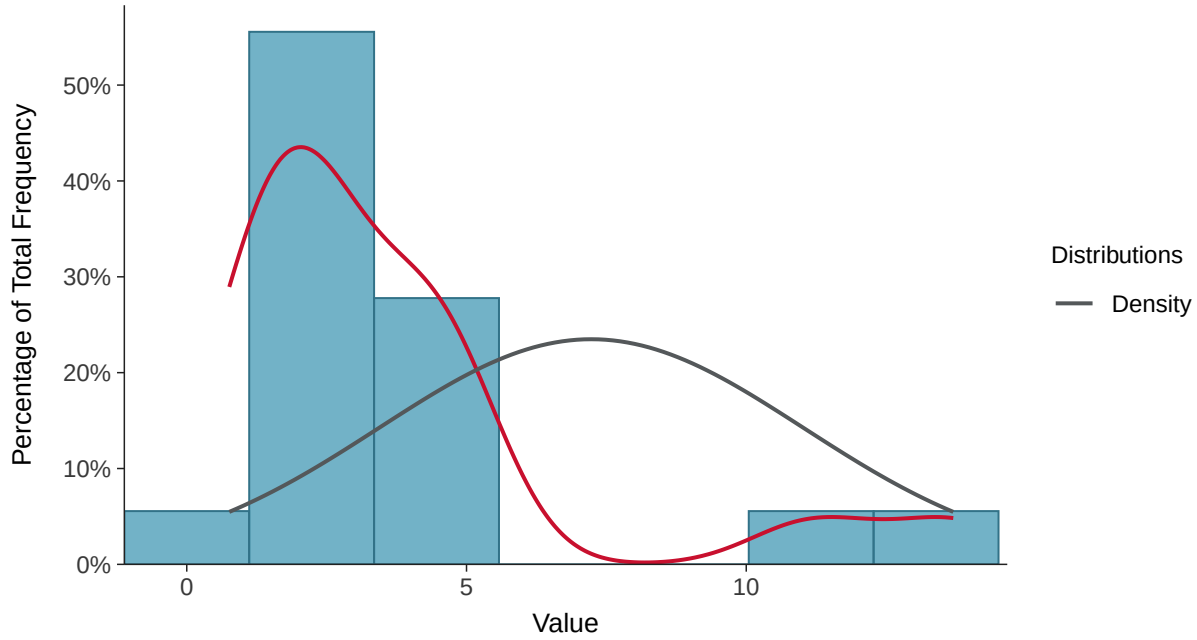
Scatter Plot

Lead, MW-10 (ug/L)



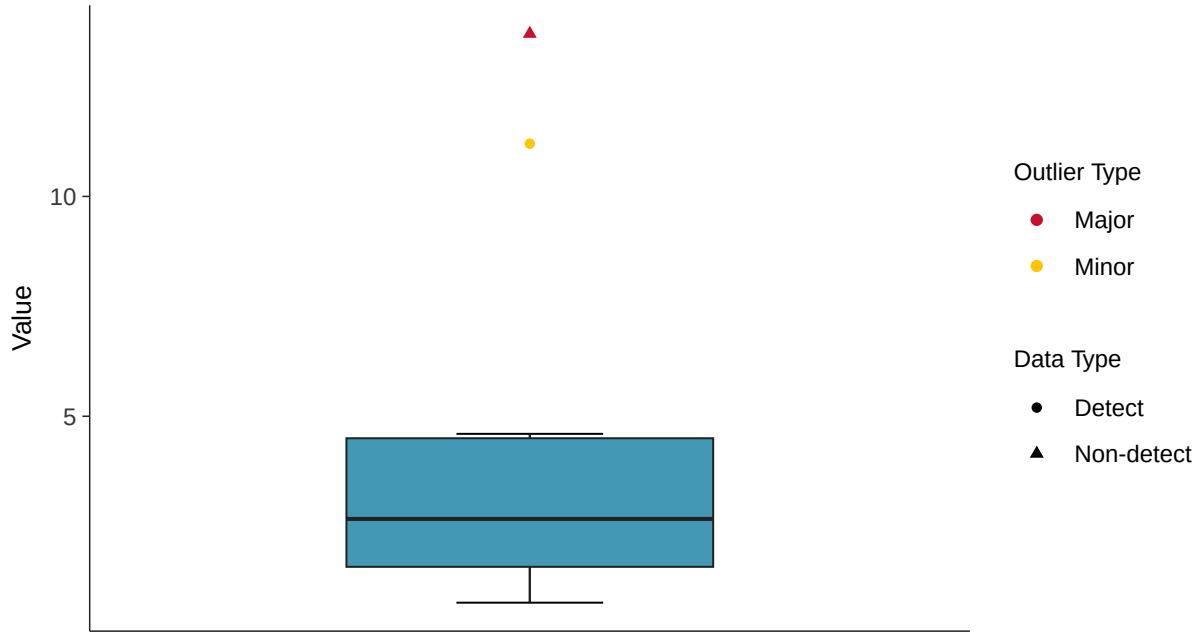
Histogram

Lead, MW-10 (ug/L)



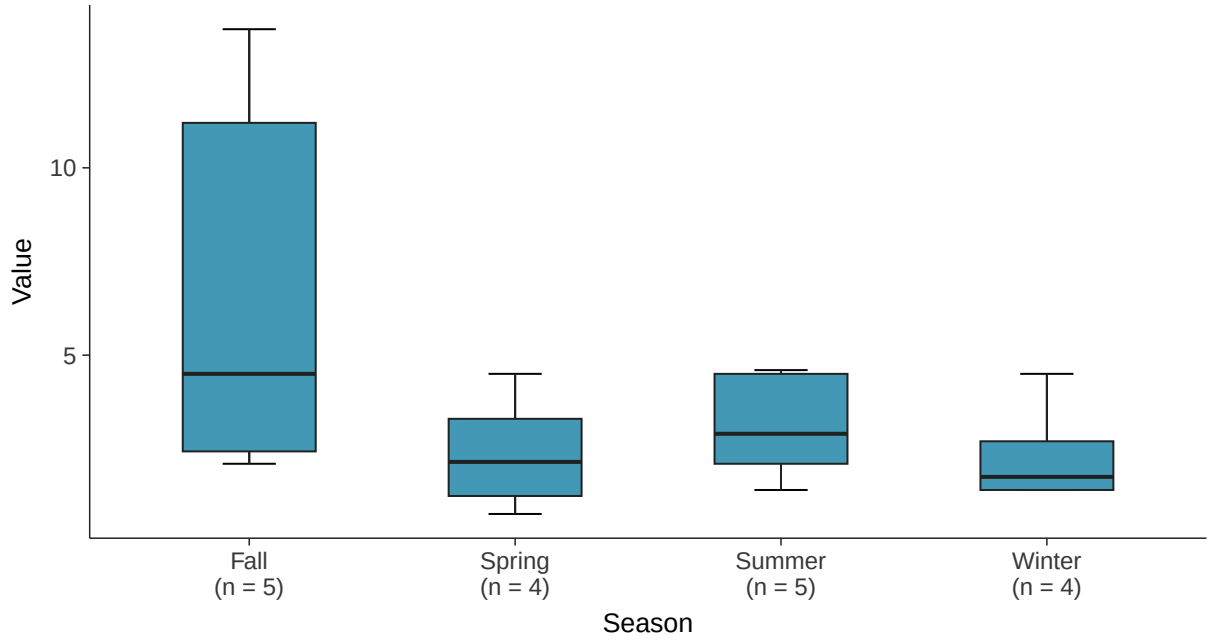
Boxplot

Lead, MW-10 (ug/L)



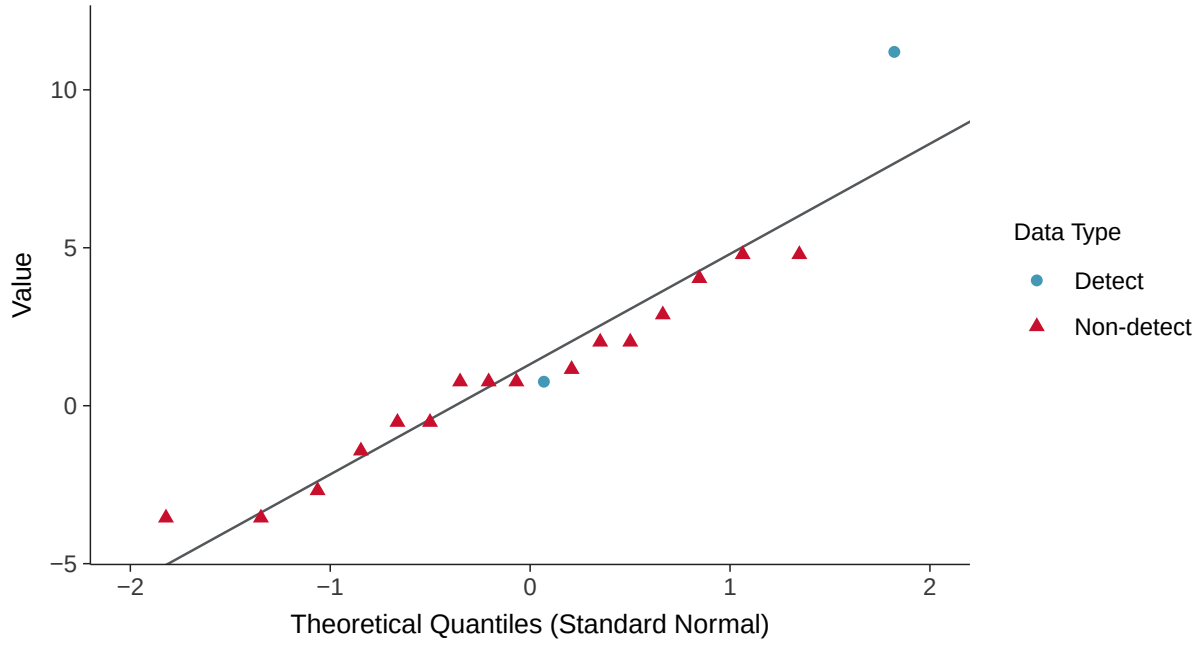
Boxplot by Season

Lead, MW-10 (ug/L)



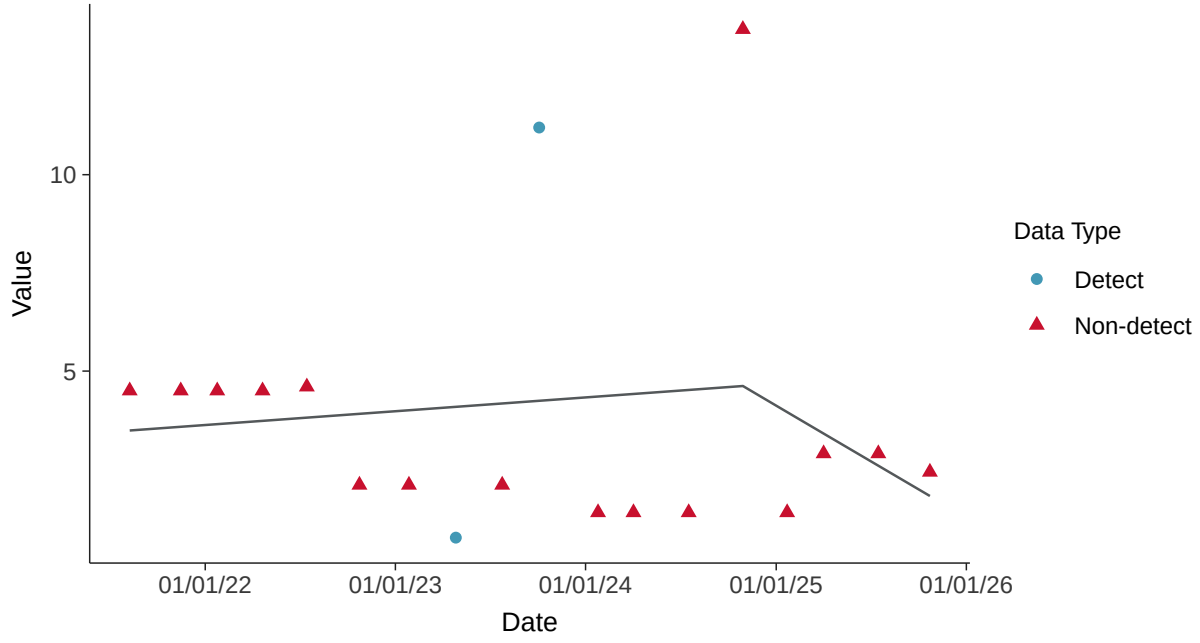
Normal Q-Q plot using ROS Imputed Estimates

Lead, MW-10 (ug/L)



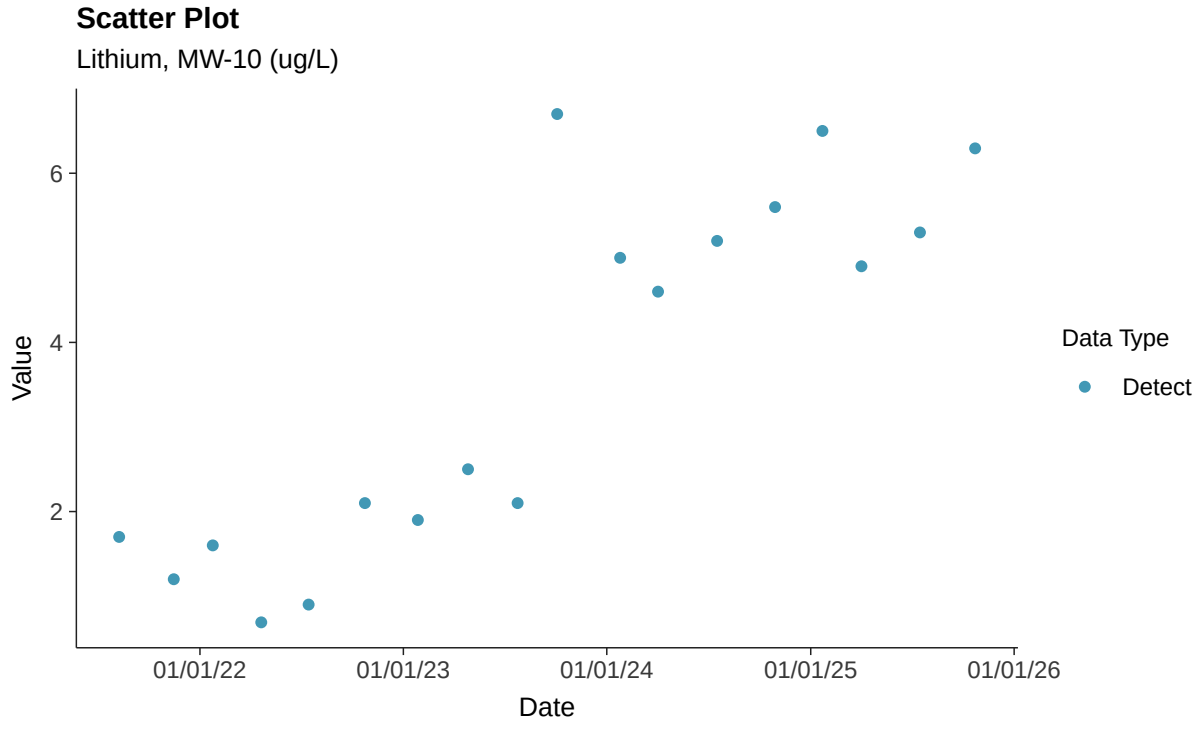
Trend Regression: Piecewise Linear-Linear

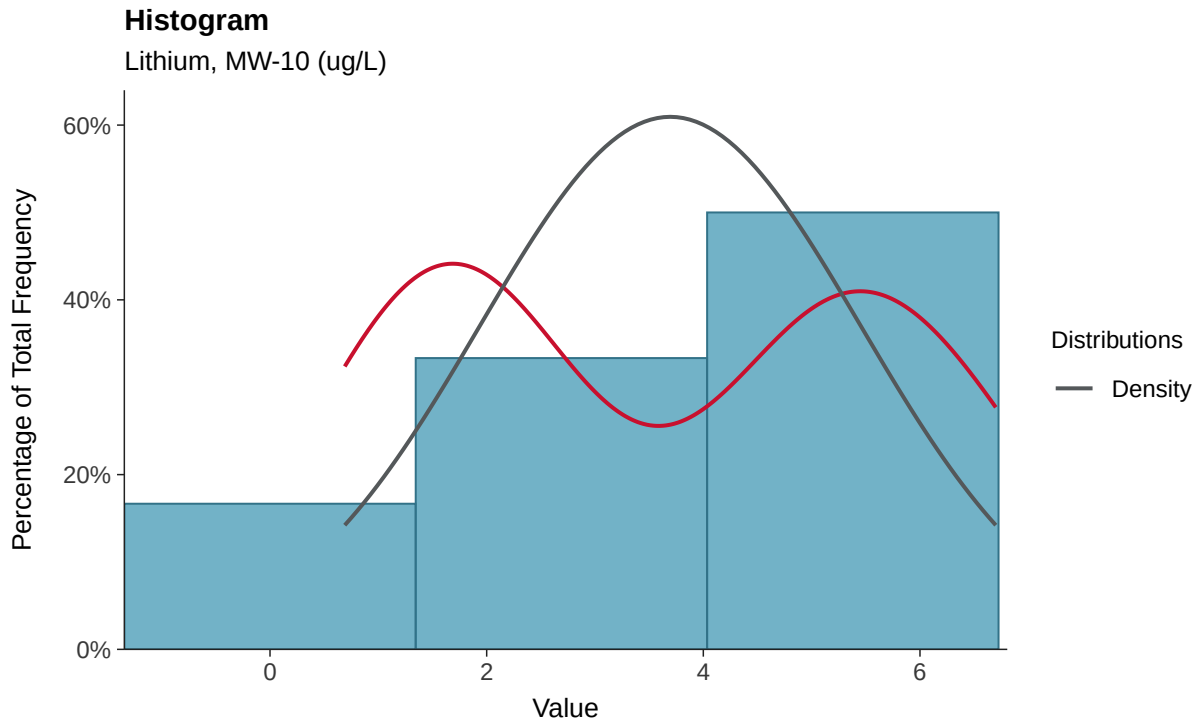
Lead, MW-10 (ug/L)



App. IV: Lithium, MW-10

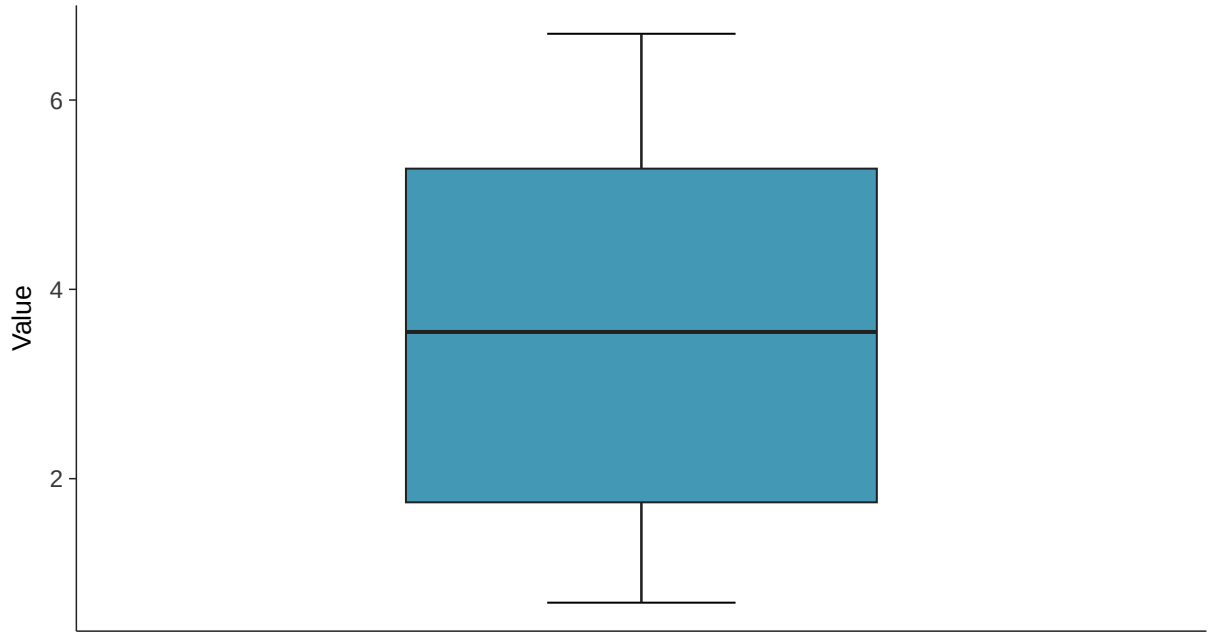
ID: 09_3_114





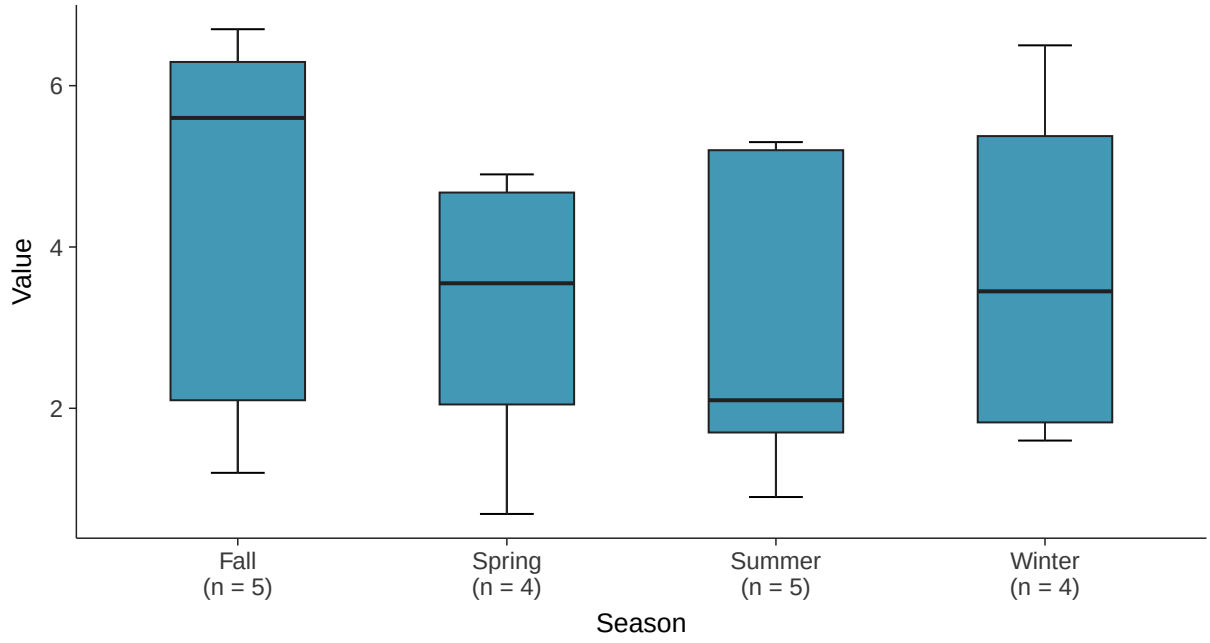
Boxplot

Lithium, MW-10 (ug/L)



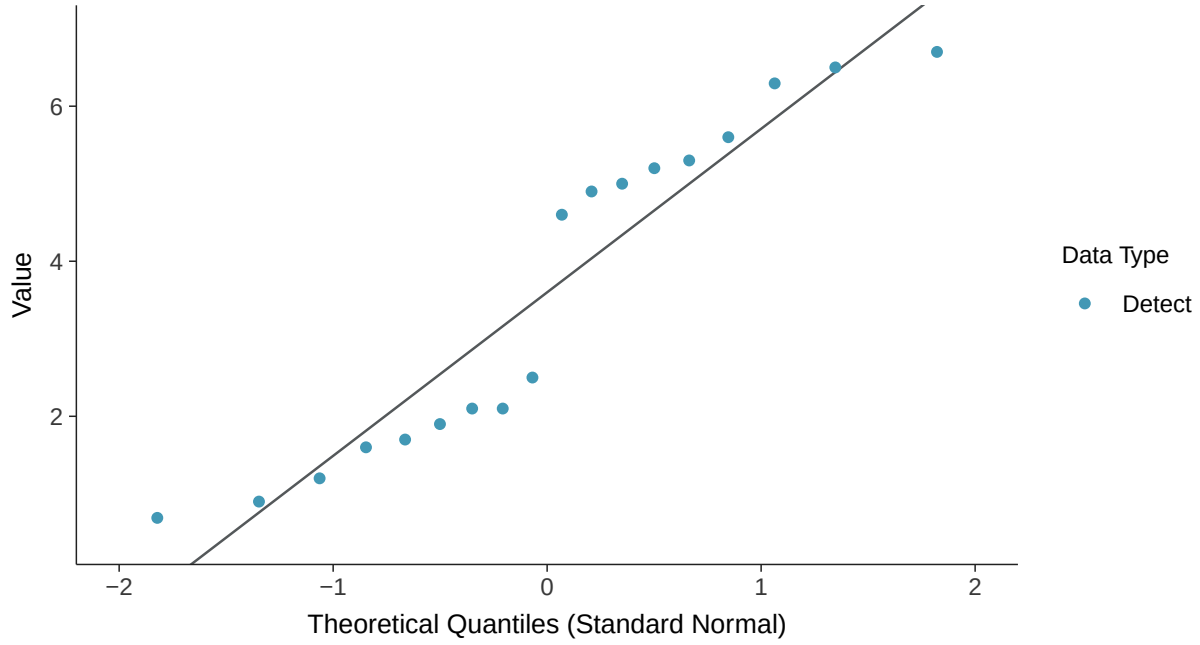
Boxplot by Season

Lithium, MW-10 (ug/L)



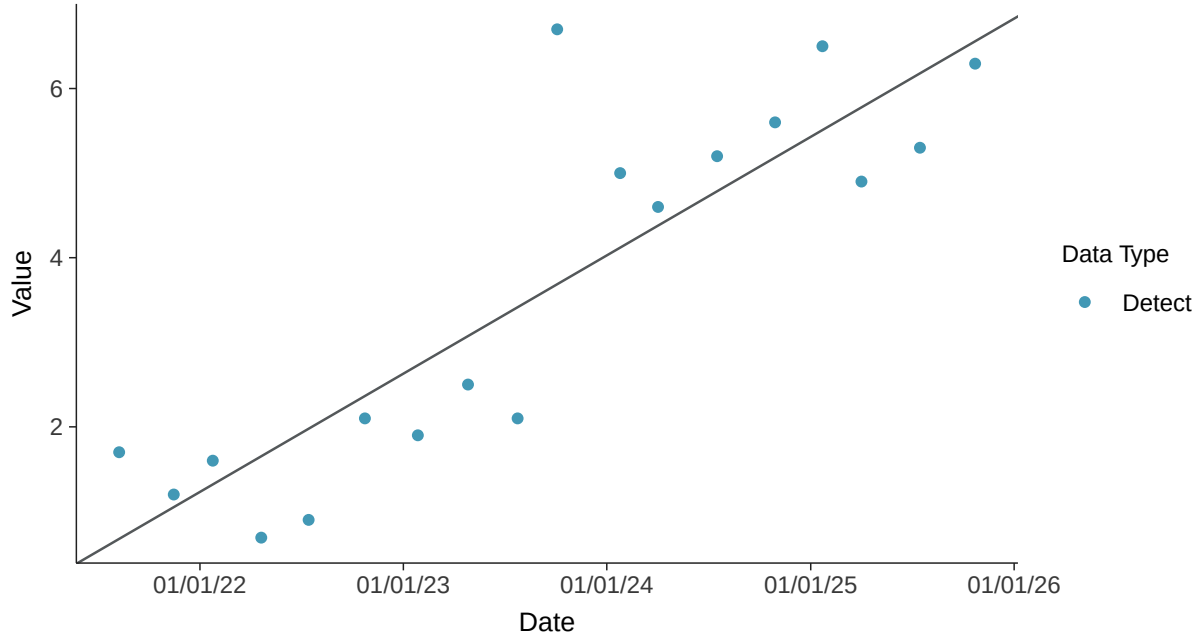
Normal Q-Q plot

Lithium, MW-10 (ug/L)



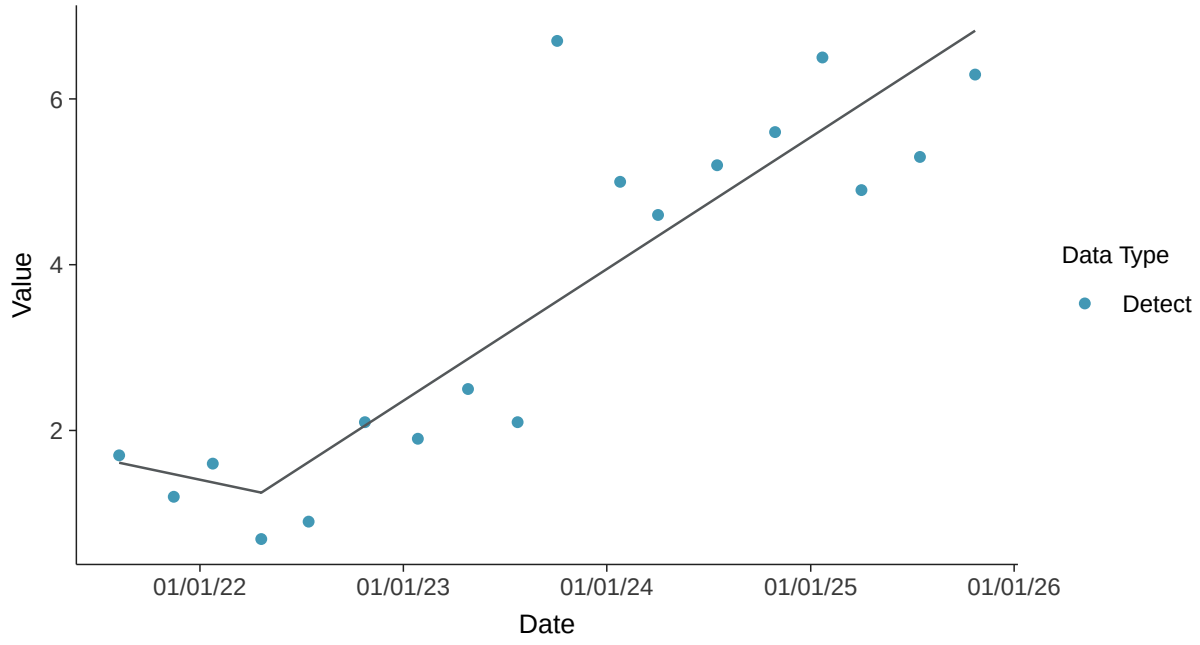
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Lithium, MW-10 (ug/L)



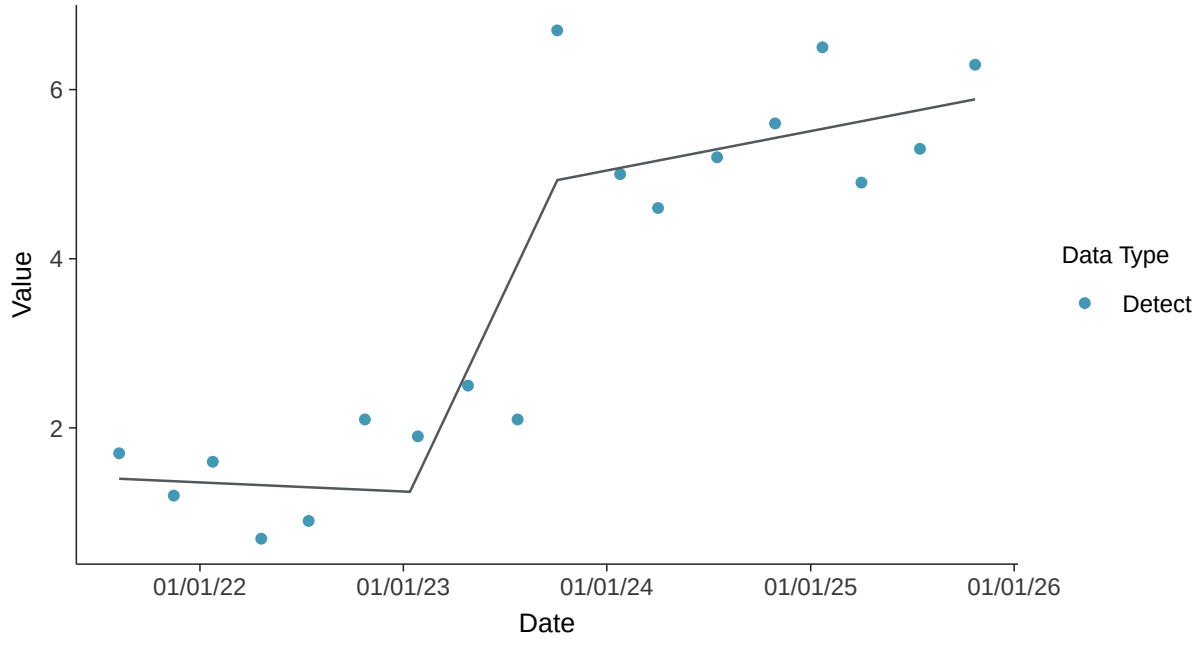
Trend Regression: Piecewise Linear-Linear

Lithium, MW-10 (ug/L)



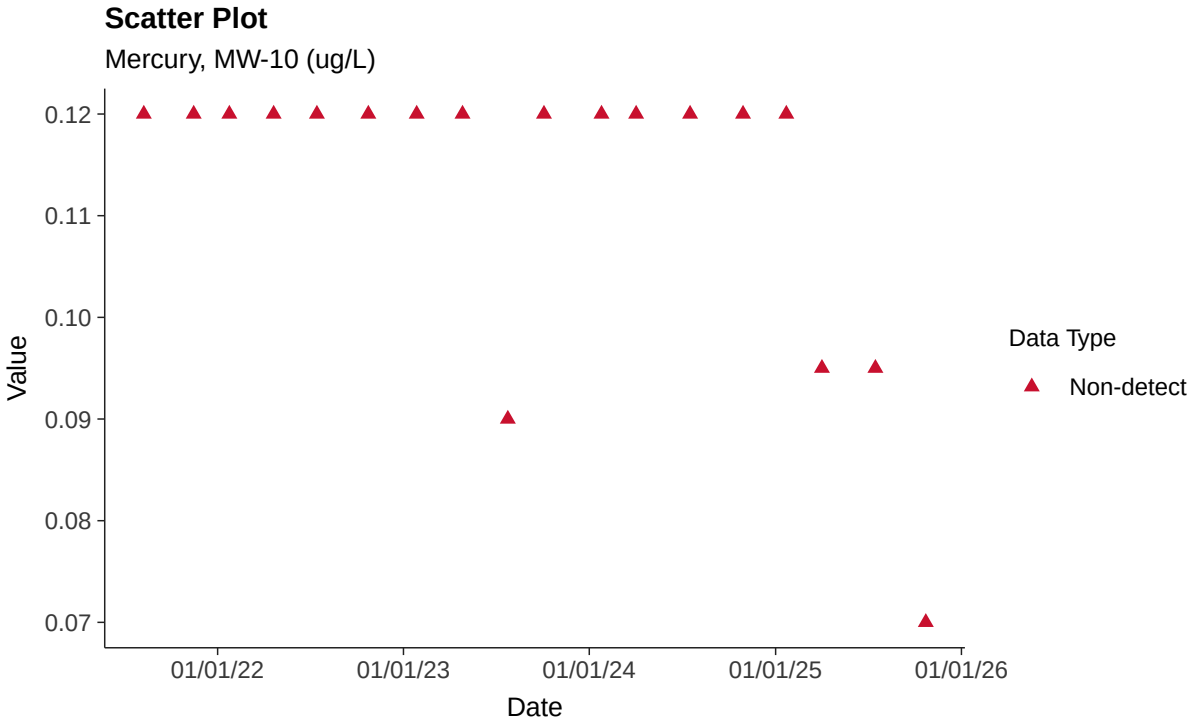
Trend Regression: Piecewise Linear-Linear-Linear

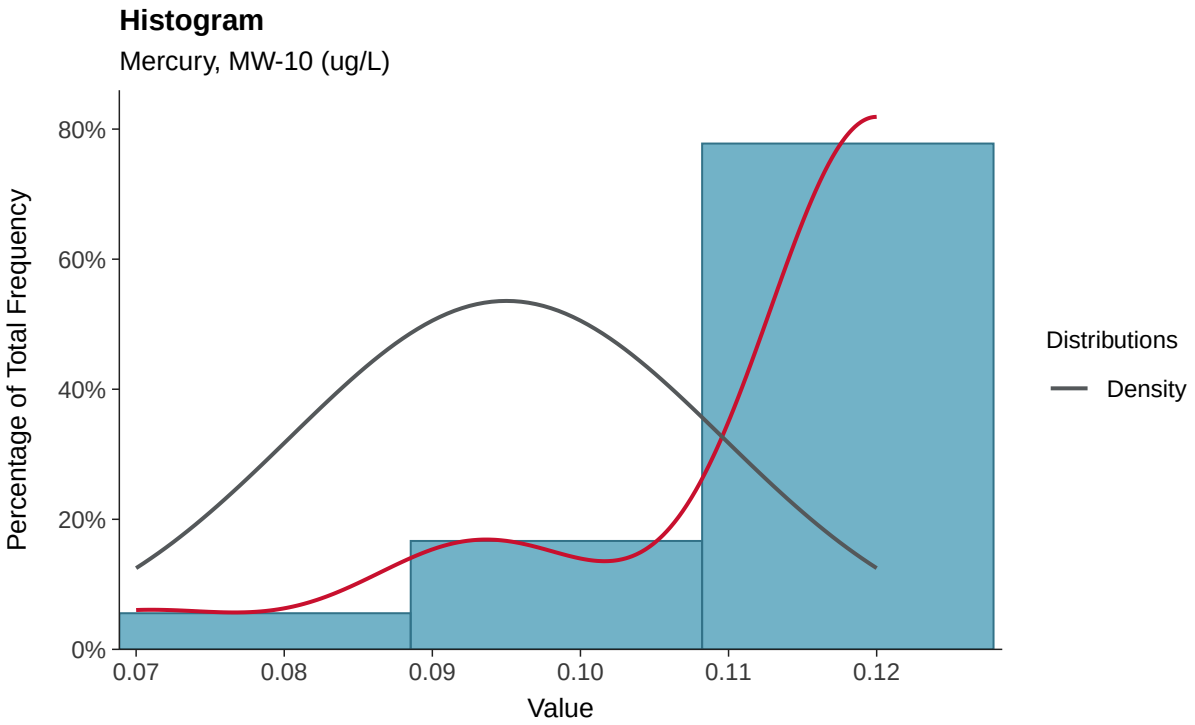
Lithium, MW-10 (ug/L)



App. IV: Mercury, MW-10

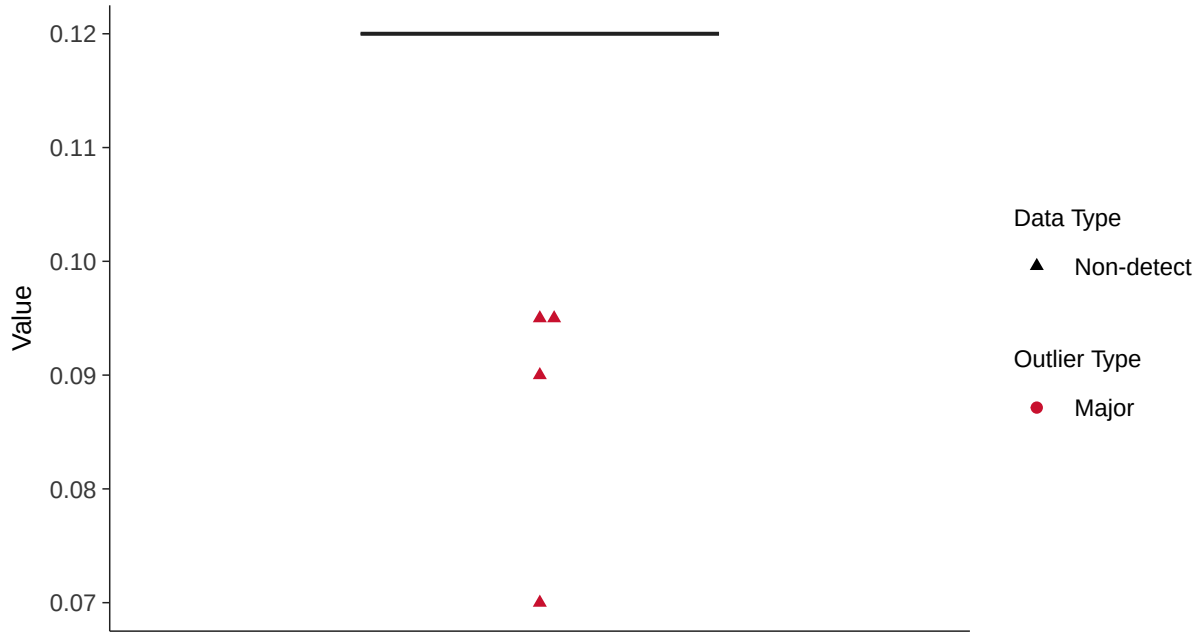
ID: 09_3_115





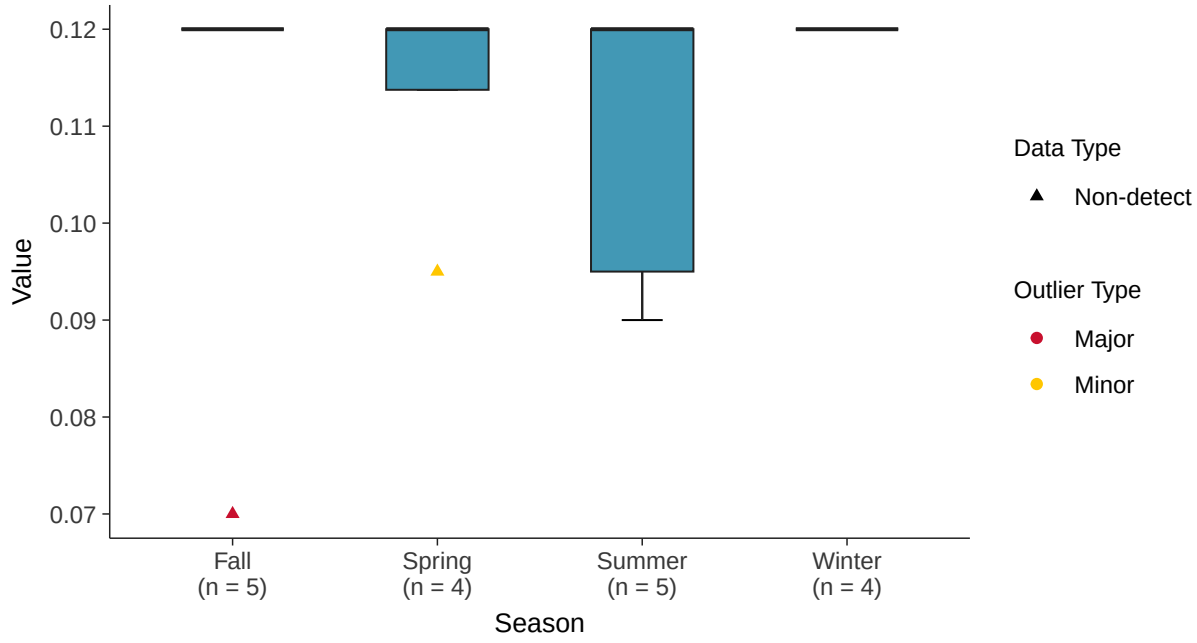
Boxplot

Mercury, MW-10 (ug/L)



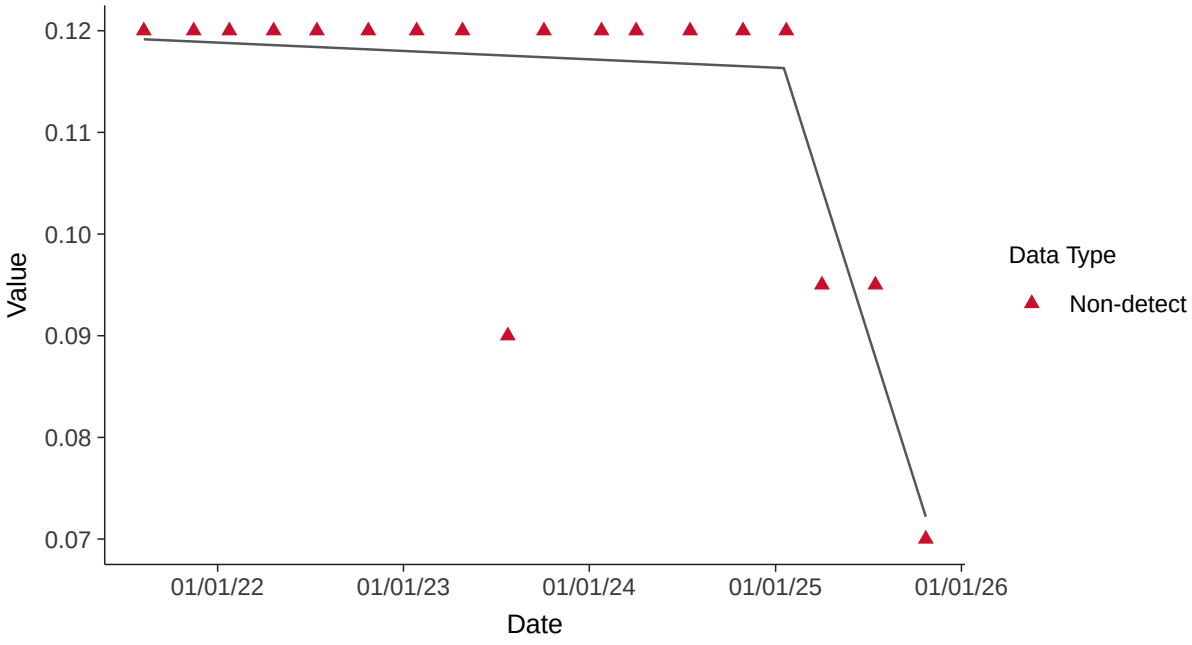
Boxplot by Season

Mercury, MW-10 (ug/L)



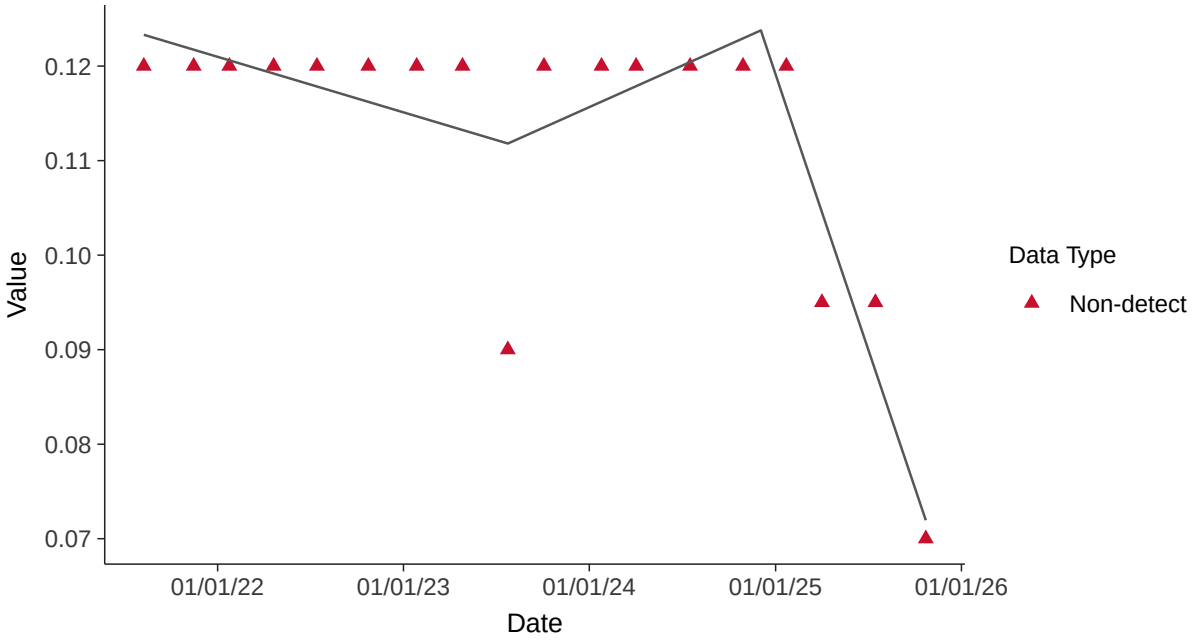
Trend Regression: Piecewise Linear-Linear

Mercury, MW-10 (ug/L)



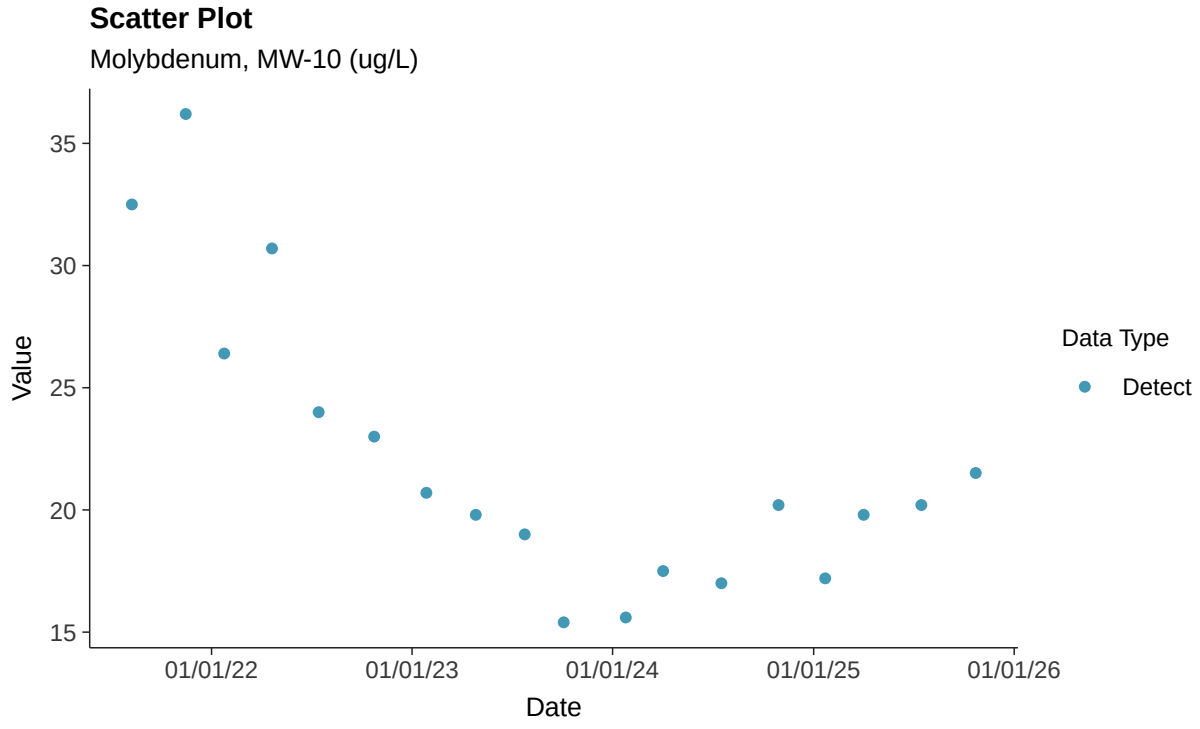
Trend Regression: Piecewise Linear-Linear-Linear

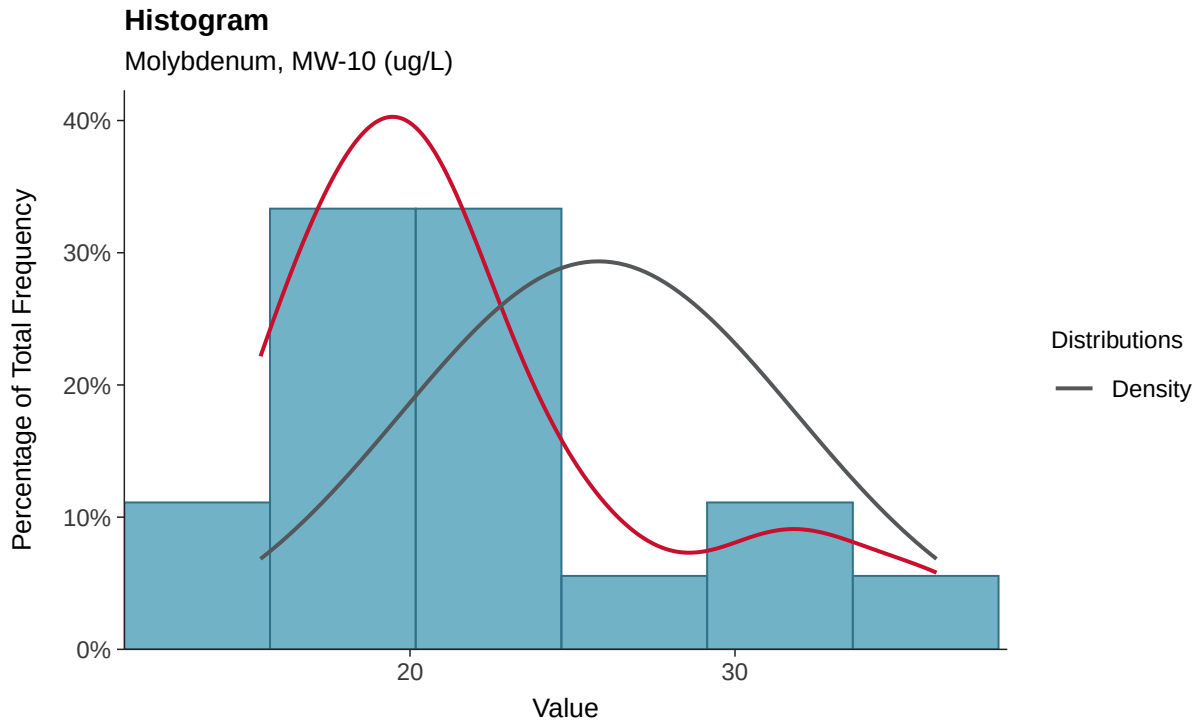
Mercury, MW-10 (ug/L)



App. IV: Molybdenum, MW-10

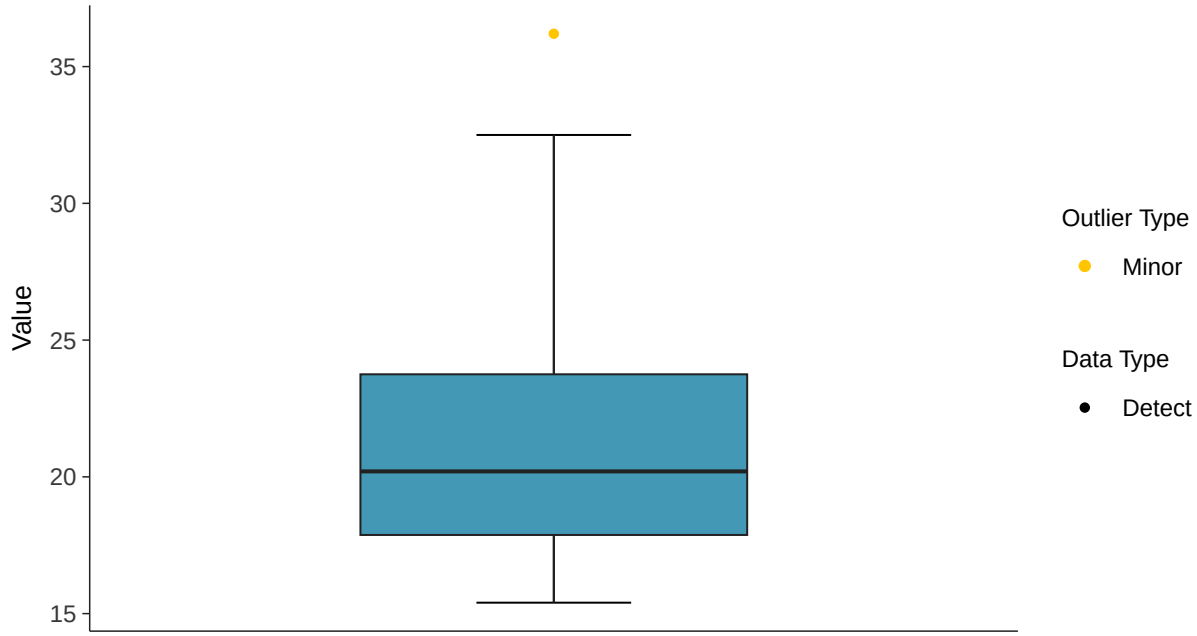
ID: 09_3_116





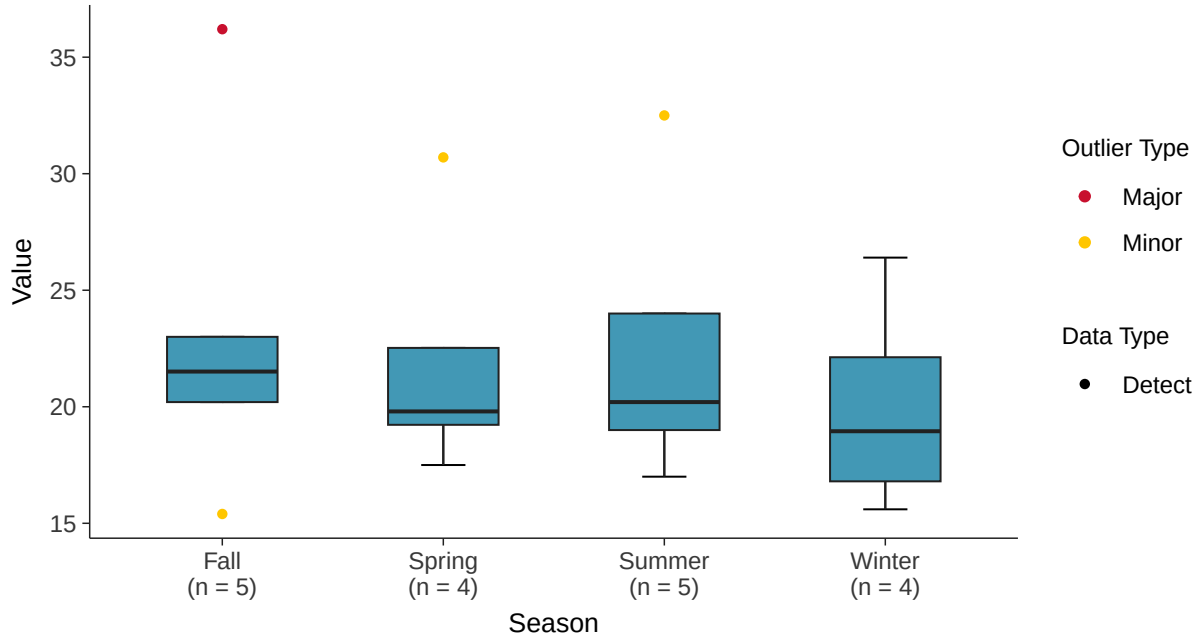
Boxplot

Molybdenum, MW-10 (ug/L)



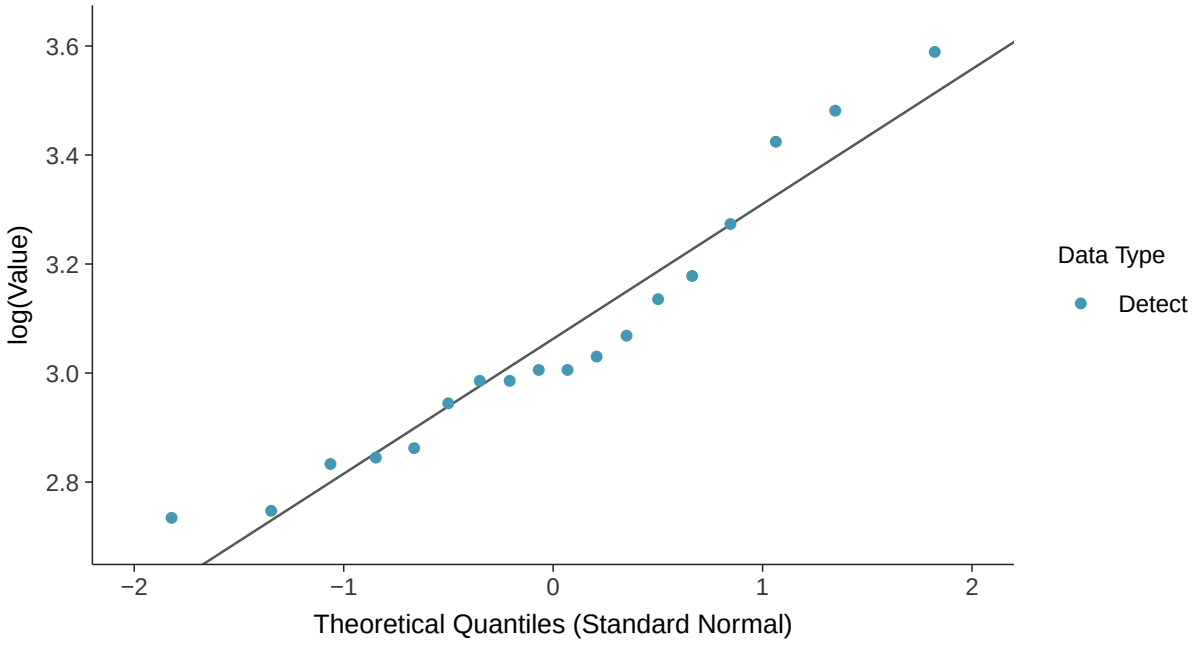
Boxplot by Season

Molybdenum, MW-10 (ug/L)



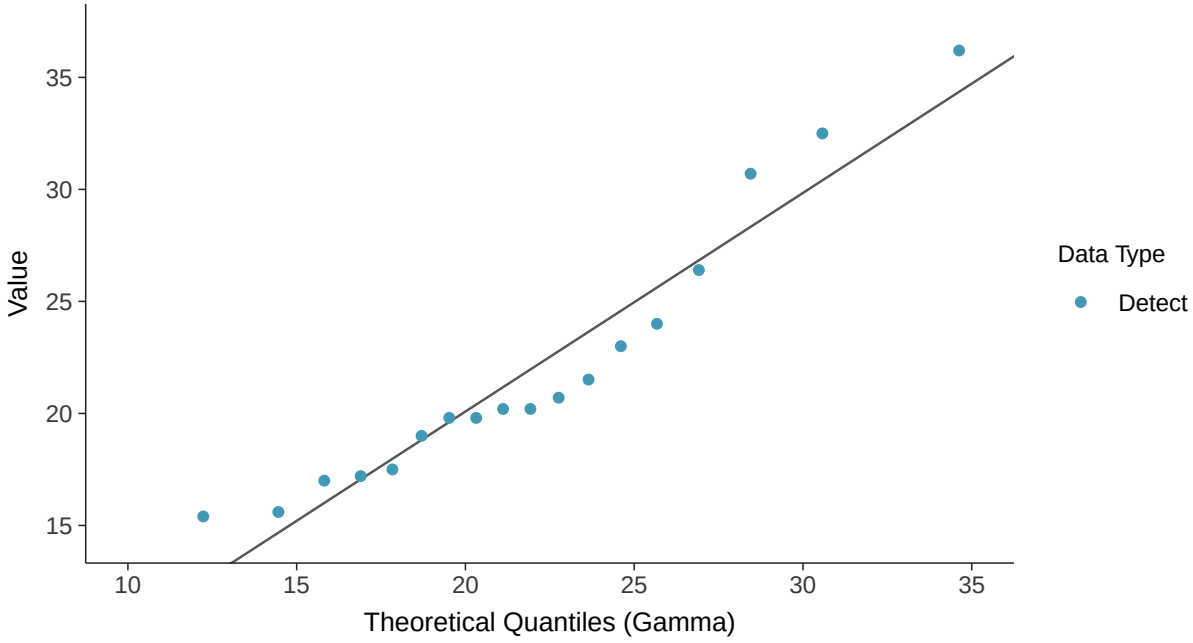
Lognormal Q-Q plot

Molybdenum, MW-10 (ug/L)



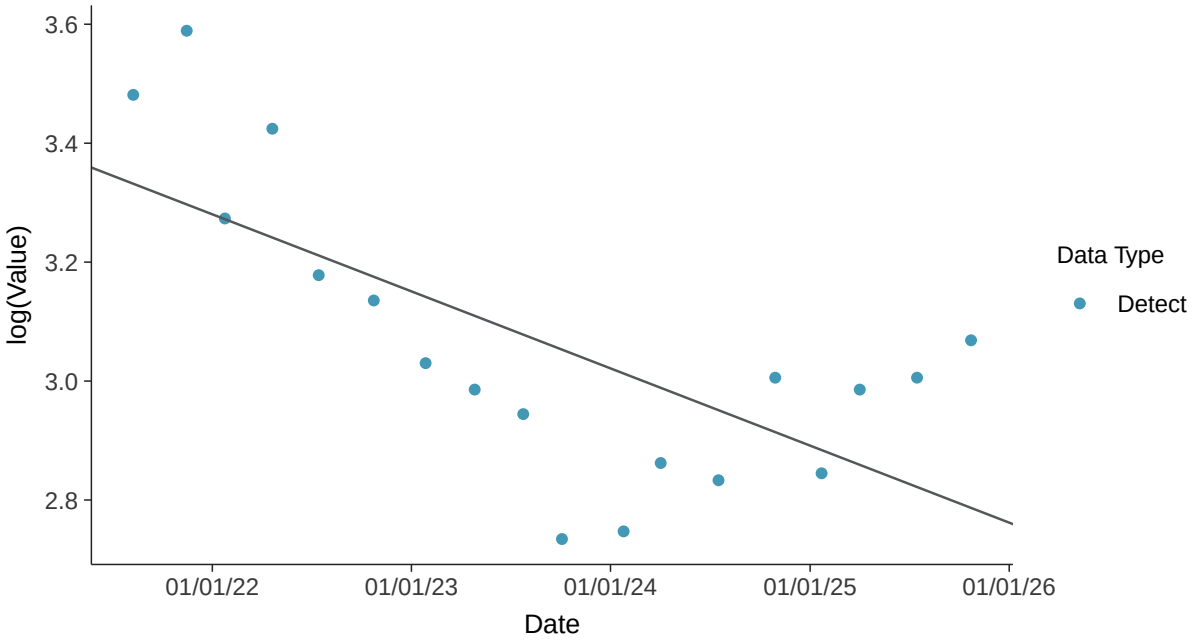
Gamma Q-Q plot

Molybdenum, MW-10 (ug/L)



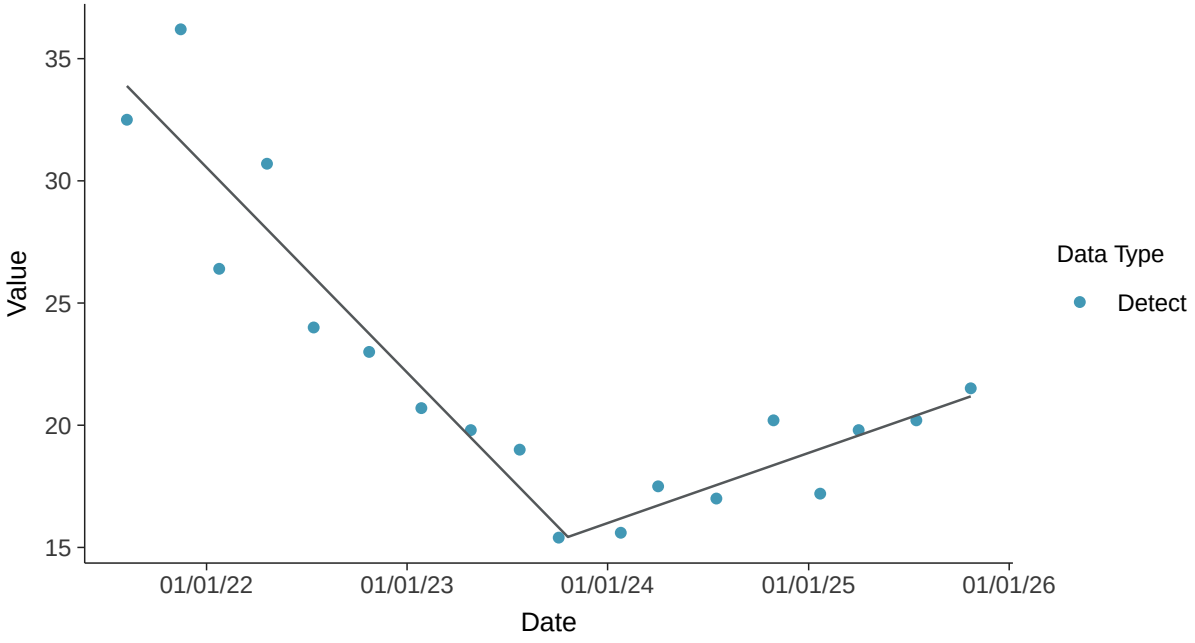
Trend Regression: Lognormal MLE

Molybdenum, MW-10 (ug/L)



Trend Regression: Piecewise Linear-Linear

Molybdenum, MW-10 (ug/L)

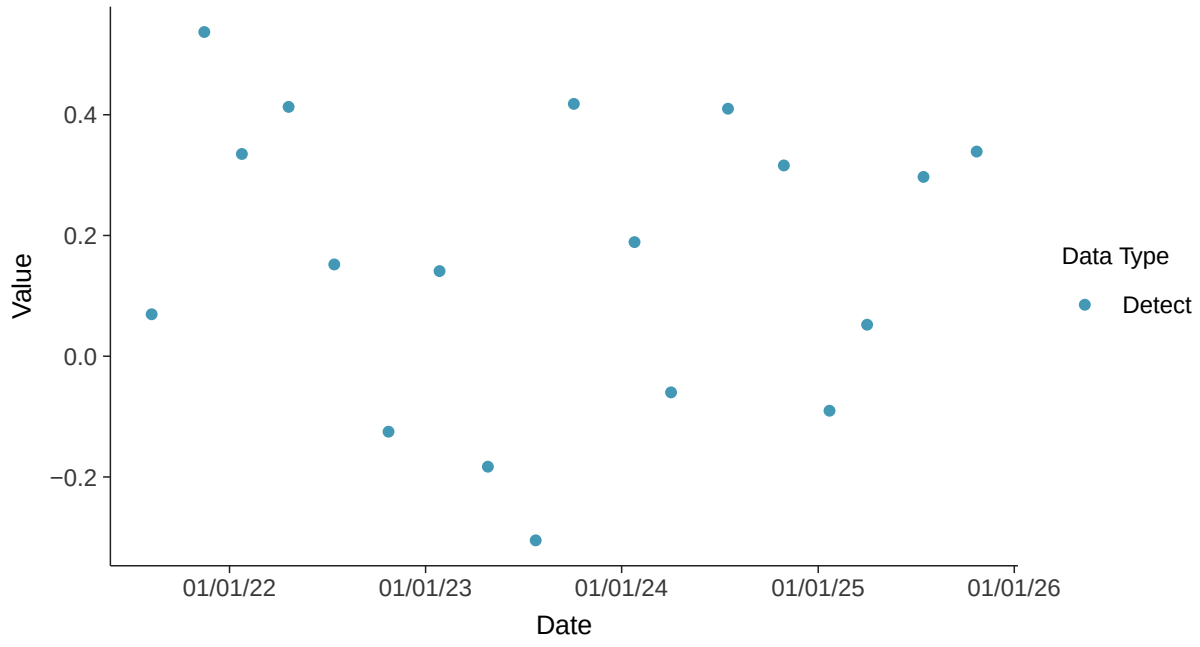


App. IV: Radium-226, MW-10

ID: 09_3_119

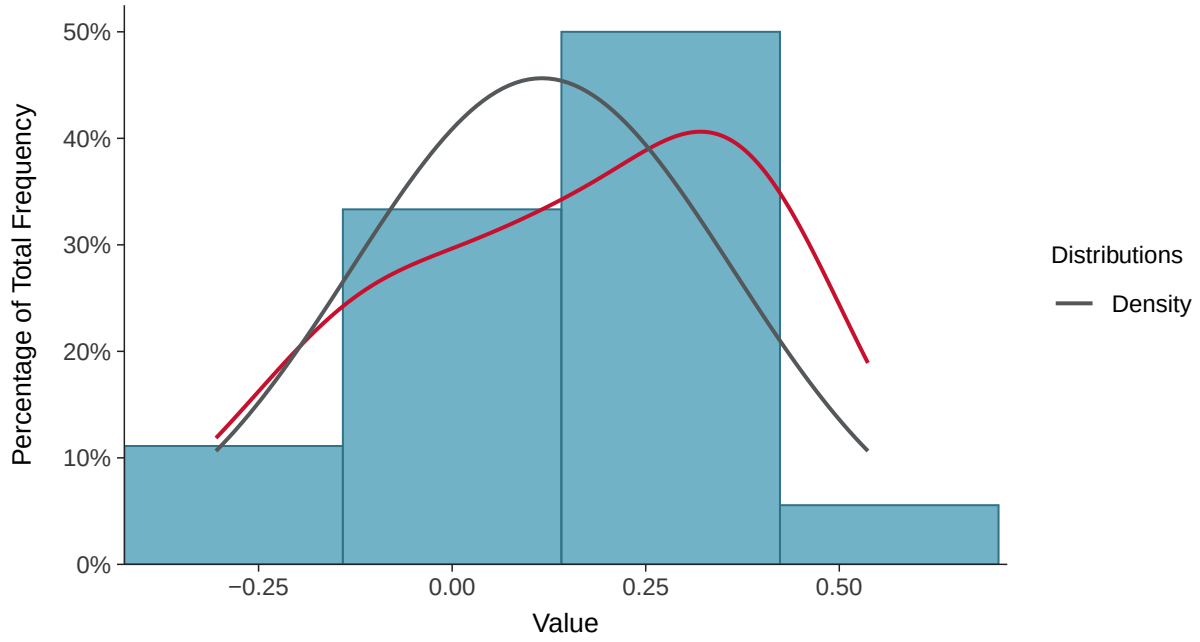
Scatter Plot

Radium-226, MW-10 (pCi/L)



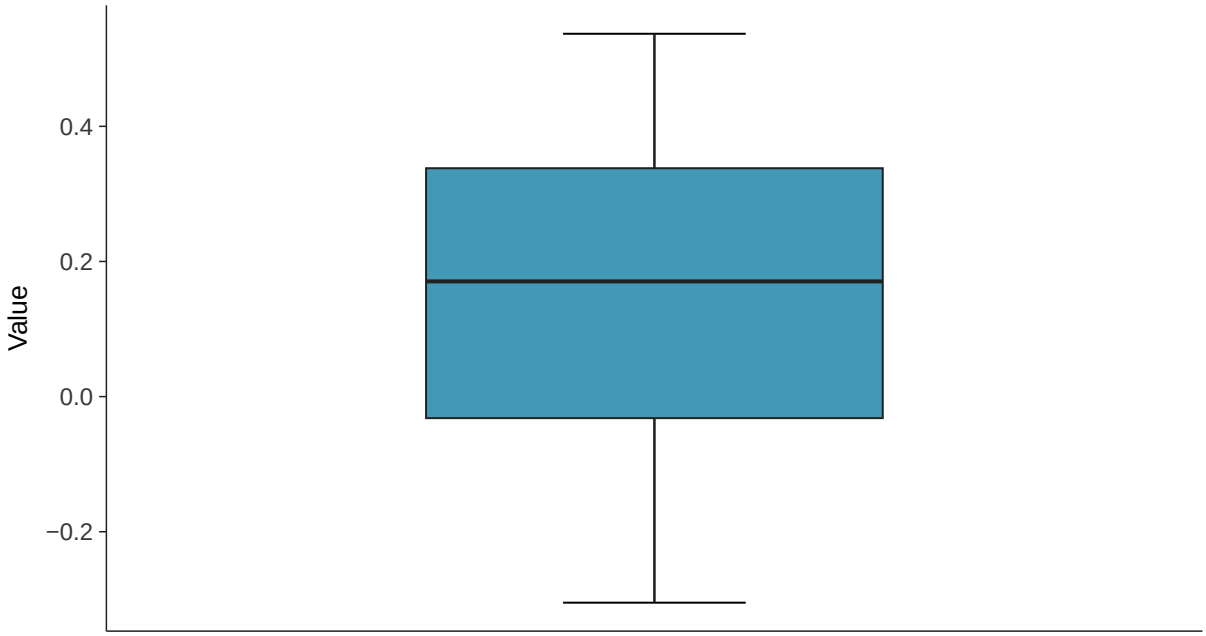
Histogram

Radium-226, MW-10 (pCi/L)



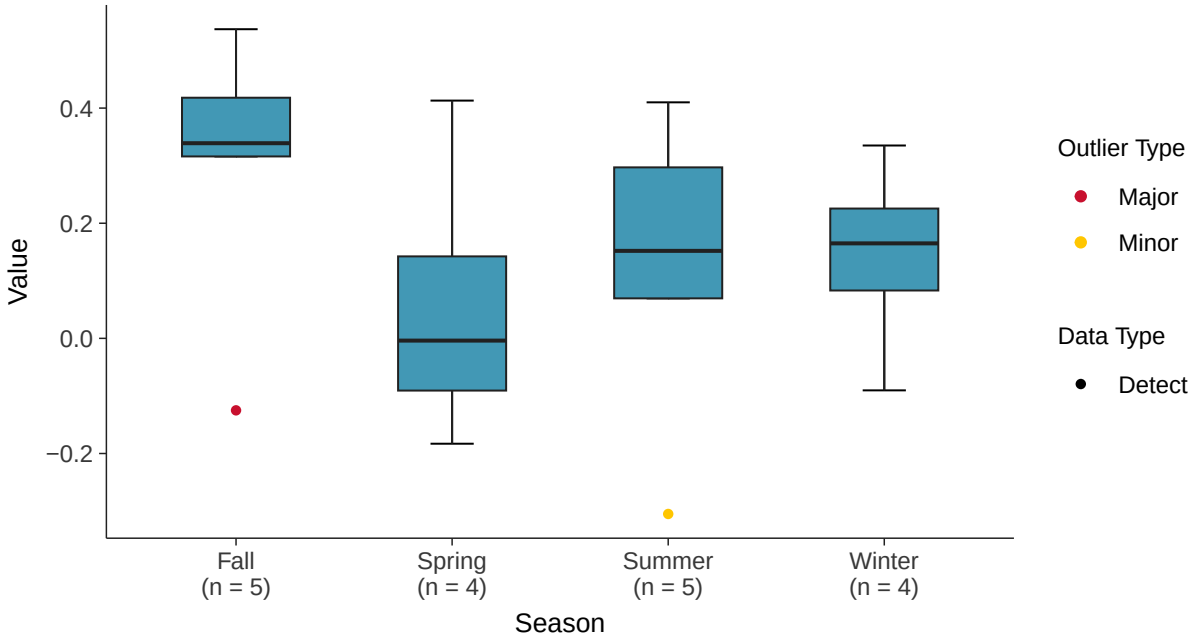
Boxplot

Radium-226, MW-10 (pCi/L)



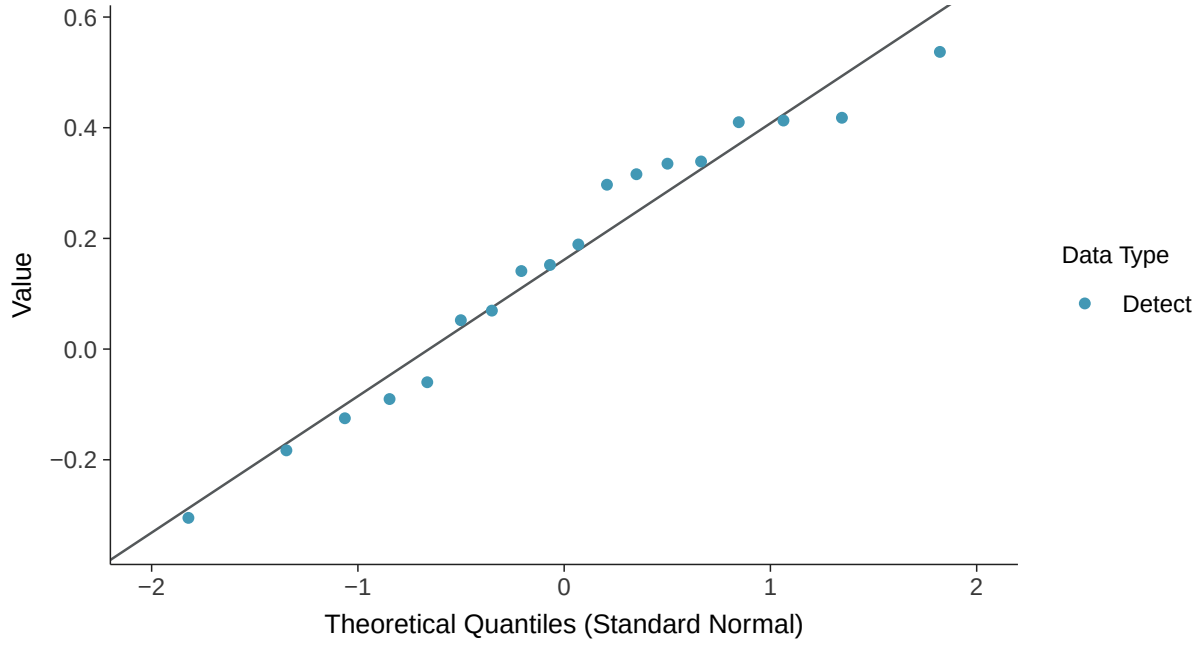
Boxplot by Season

Radium-226, MW-10 (pCi/L)



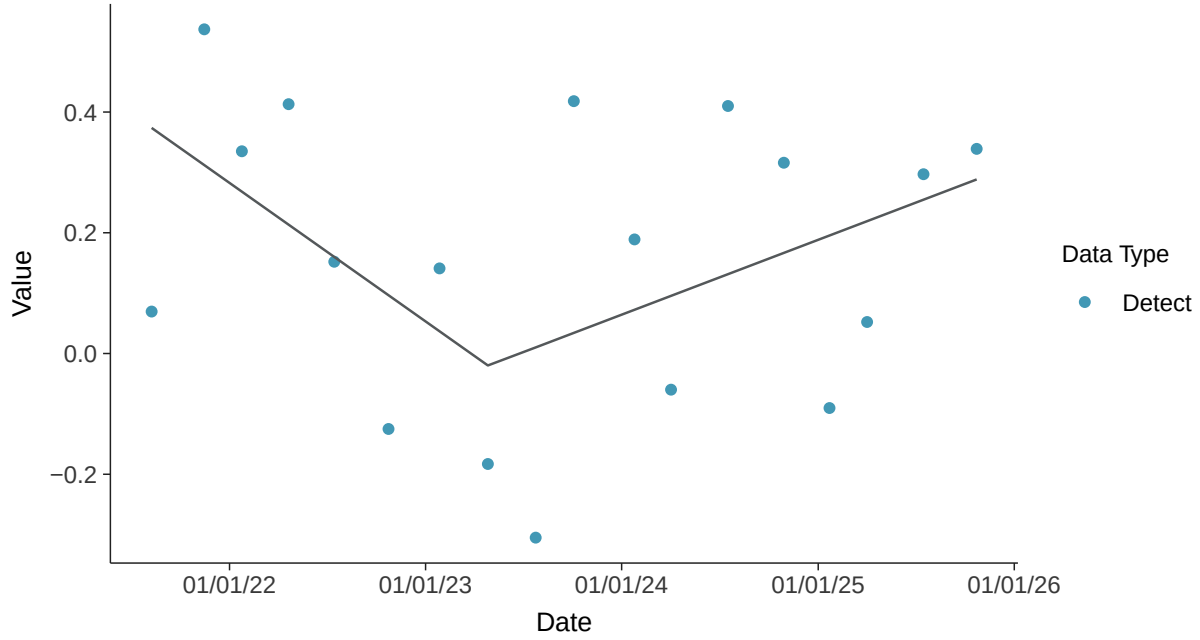
Normal Q-Q plot

Radium-226, MW-10 (pCi/L)



Trend Regression: Piecewise Linear-Linear

Radium-226, MW-10 (pCi/L)

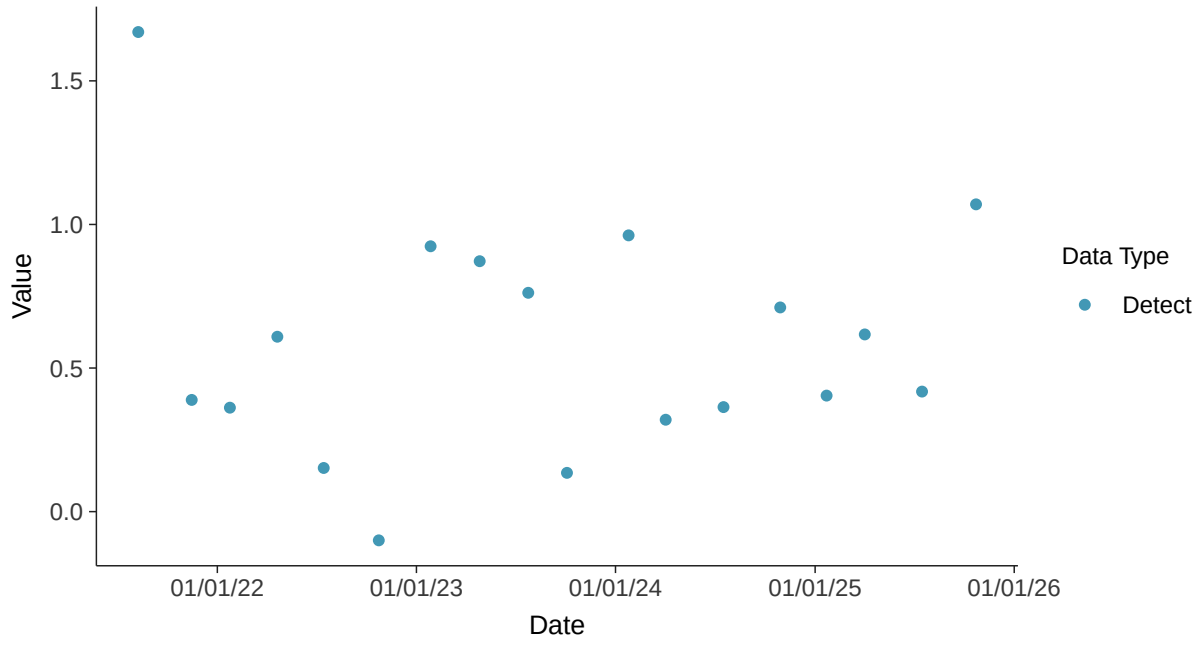


App. IV: Radium-228, MW-10

ID: 09_3_120

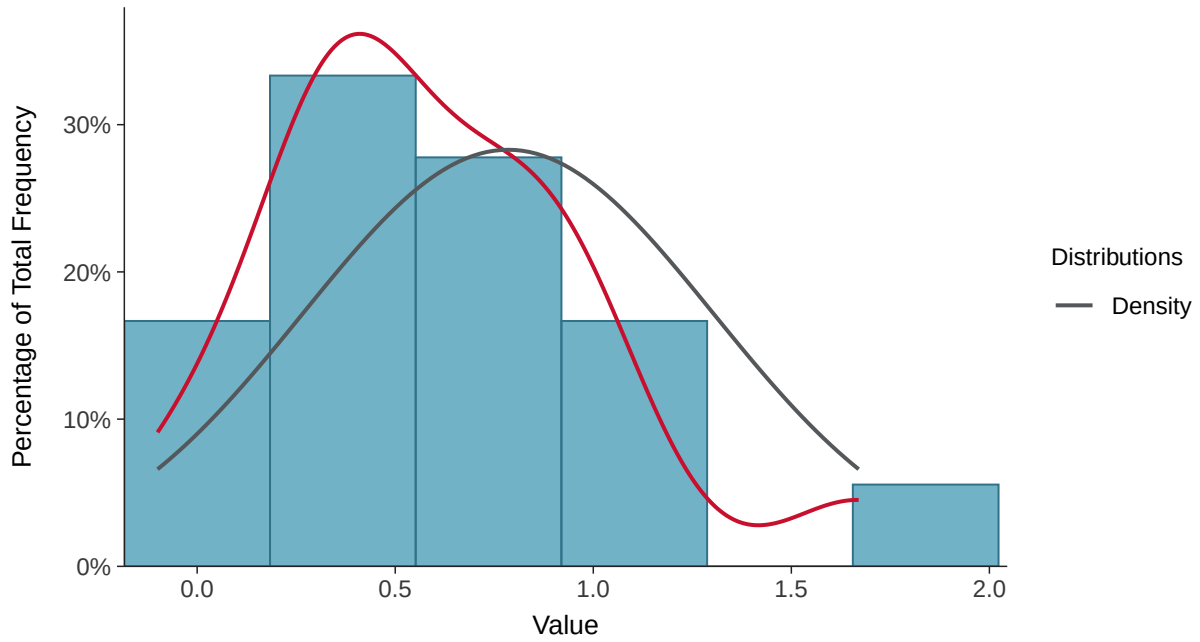
Scatter Plot

Radium-228, MW-10 (pCi/L)



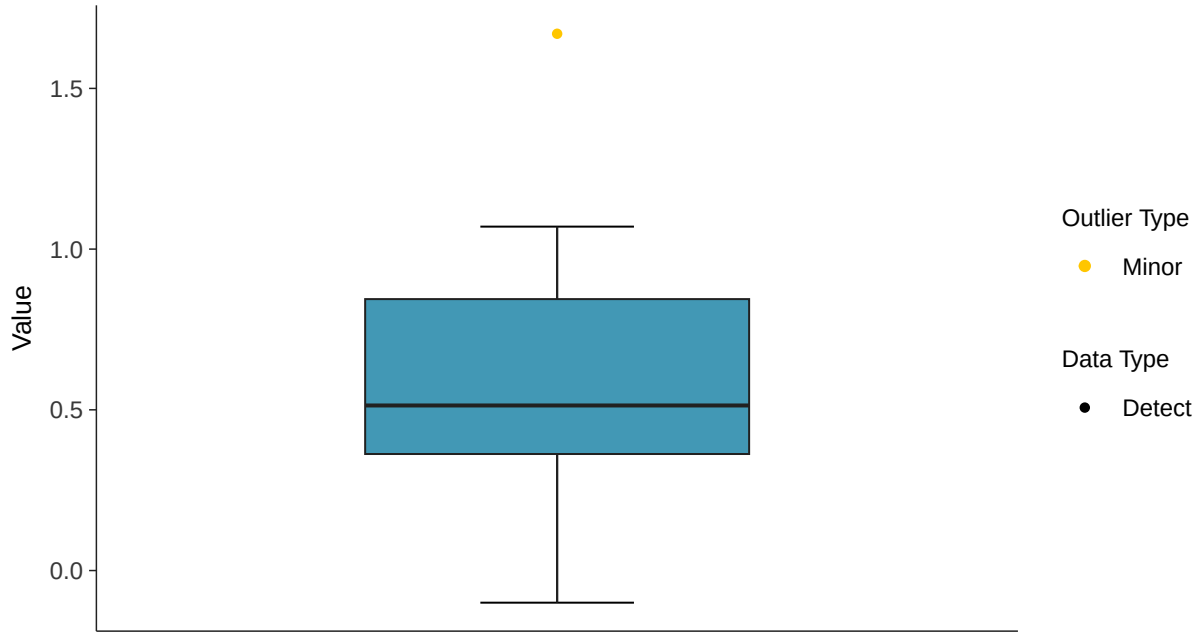
Histogram

Radium-228, MW-10 (pCi/L)



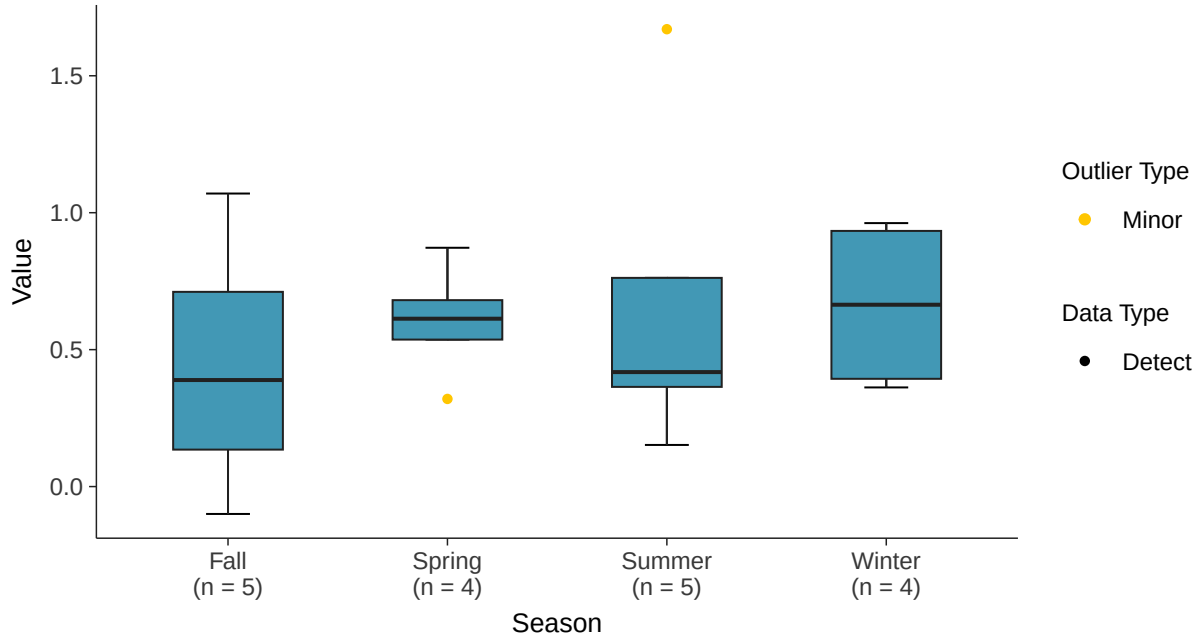
Boxplot

Radium-228, MW-10 (pCi/L)



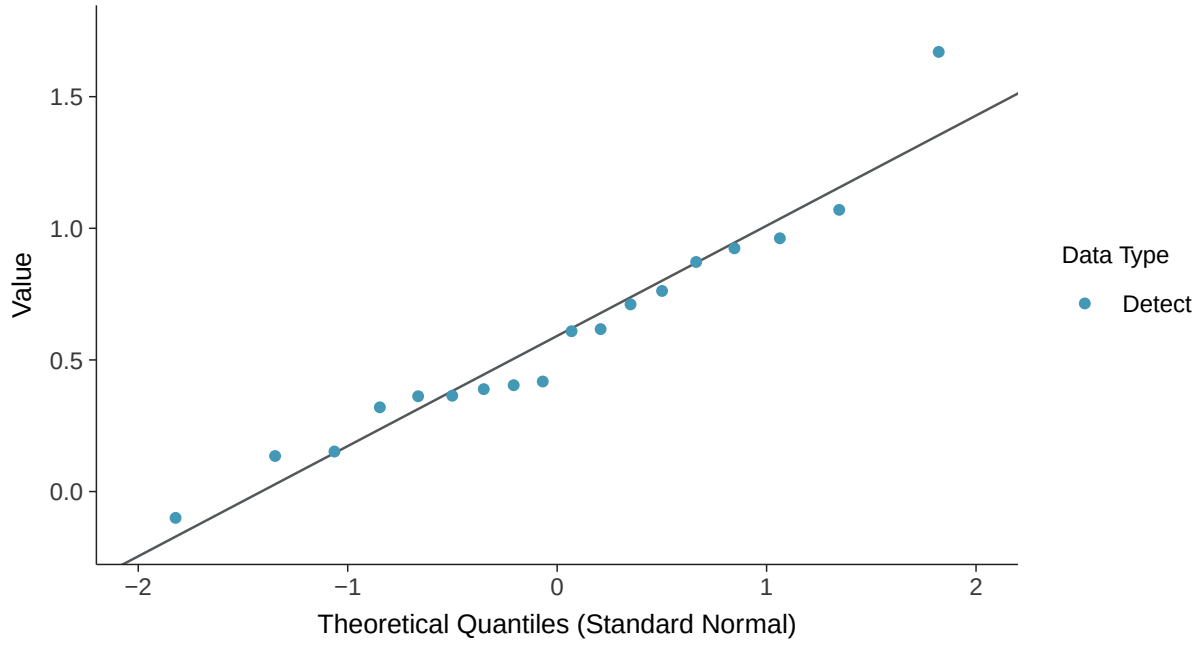
Boxplot by Season

Radium-228, MW-10 (pCi/L)



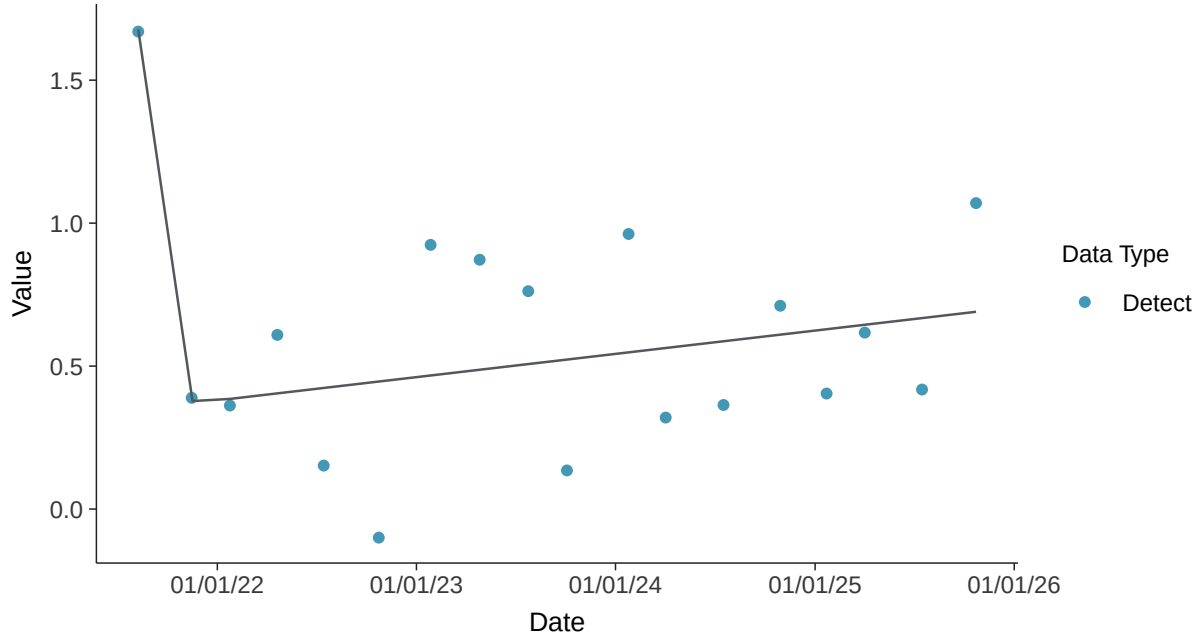
Normal Q-Q plot

Radium-228, MW-10 (pCi/L)



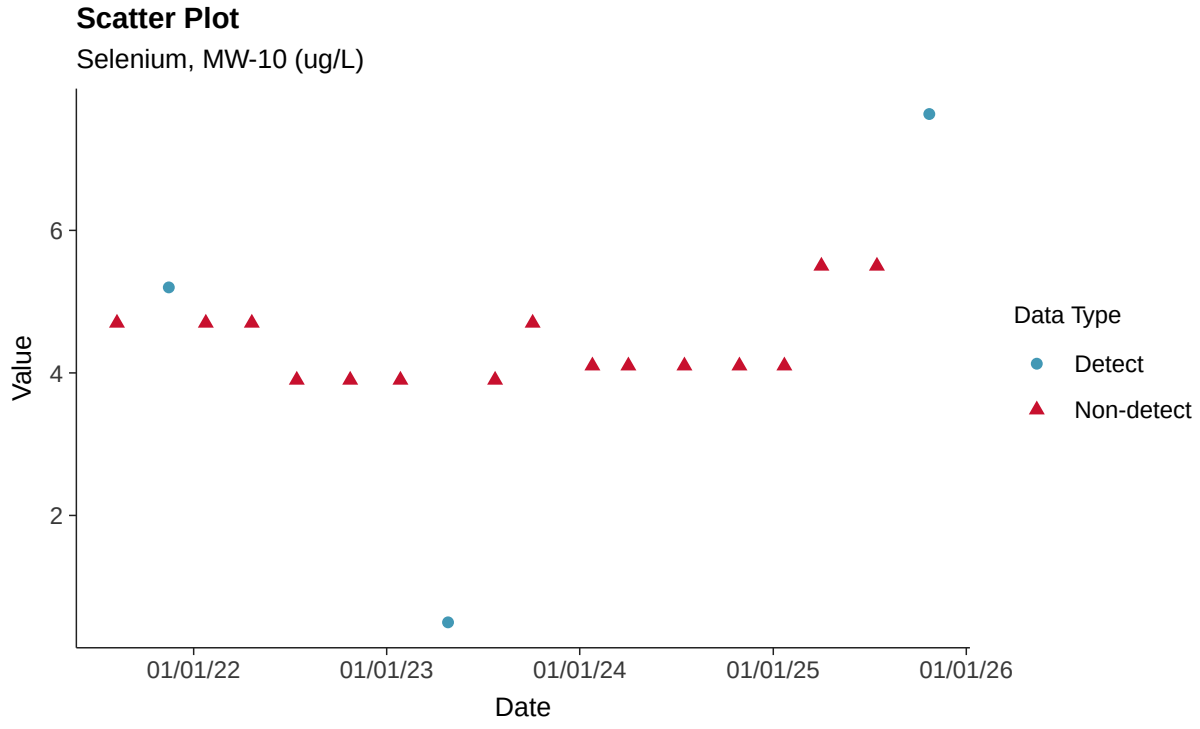
Trend Regression: Piecewise Linear-Linear

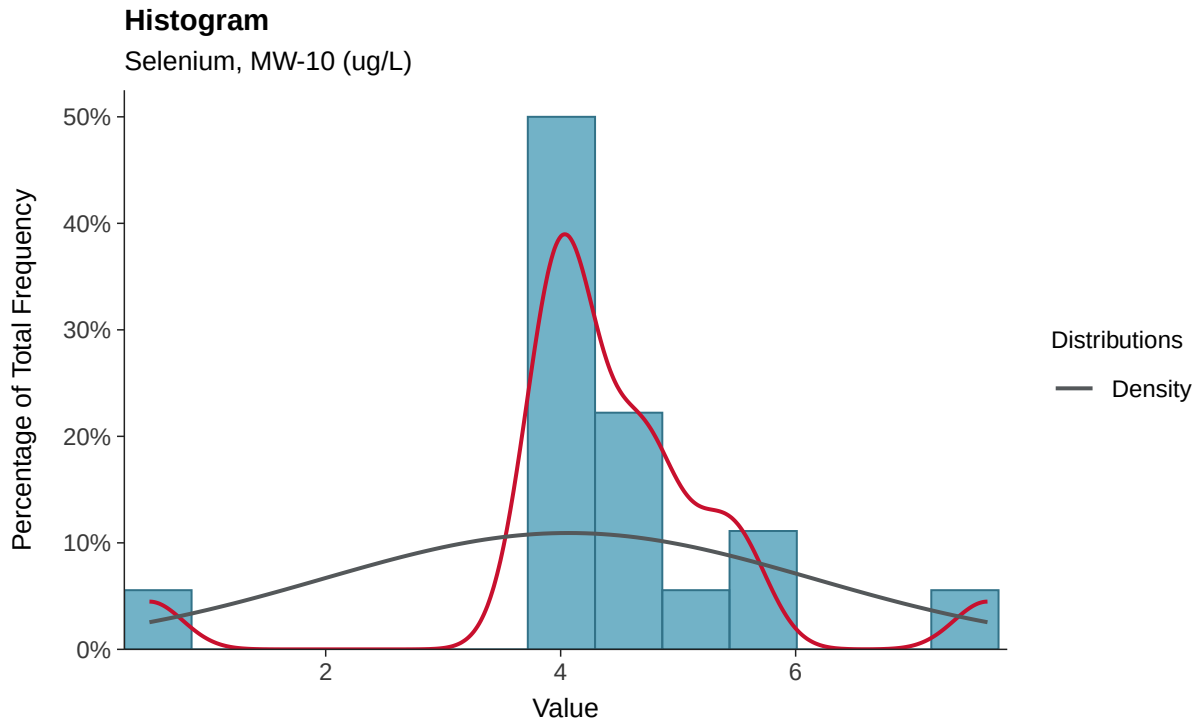
Radium-228, MW-10 (pCi/L)



App. IV: Selenium, MW-10

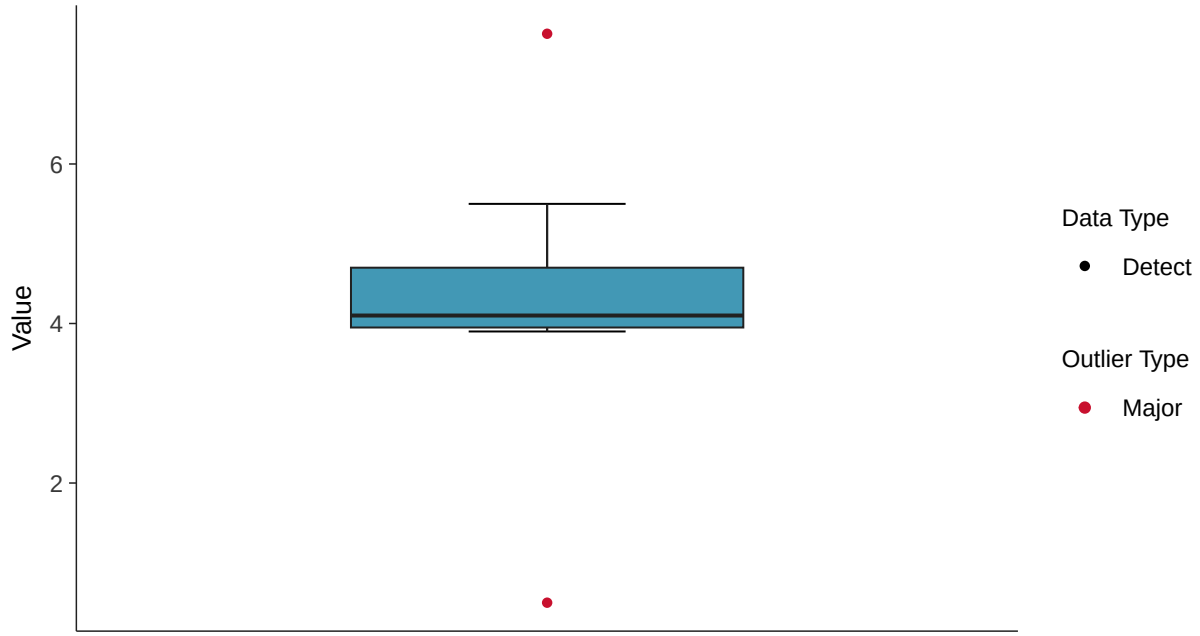
ID: 09_3_121





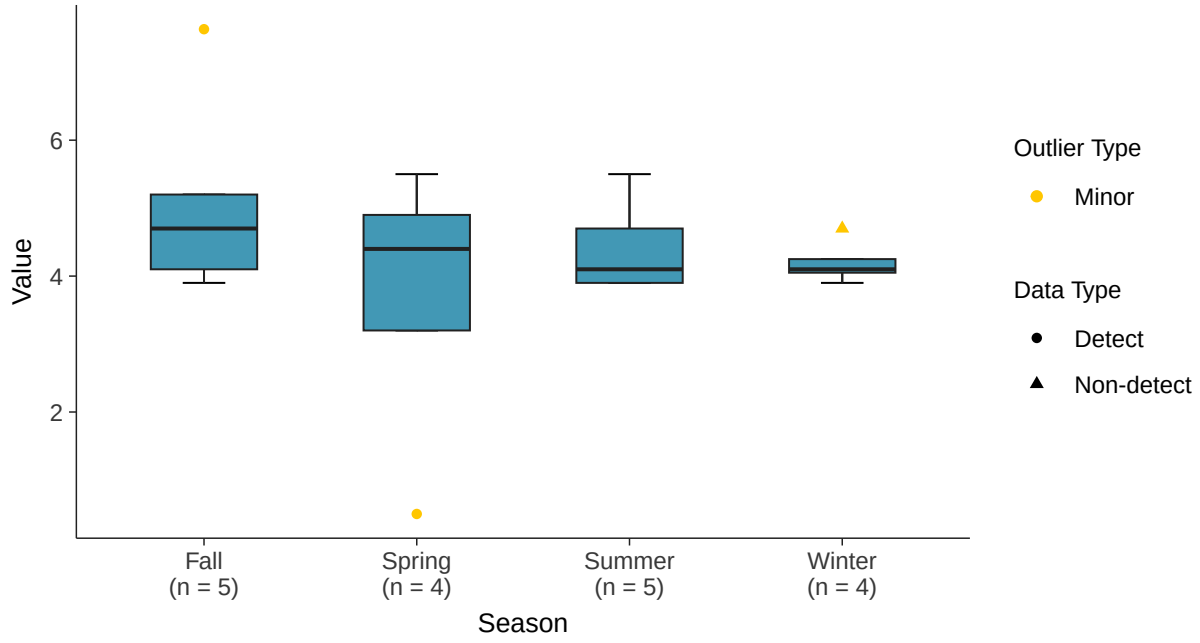
Boxplot

Selenium, MW-10 (ug/L)



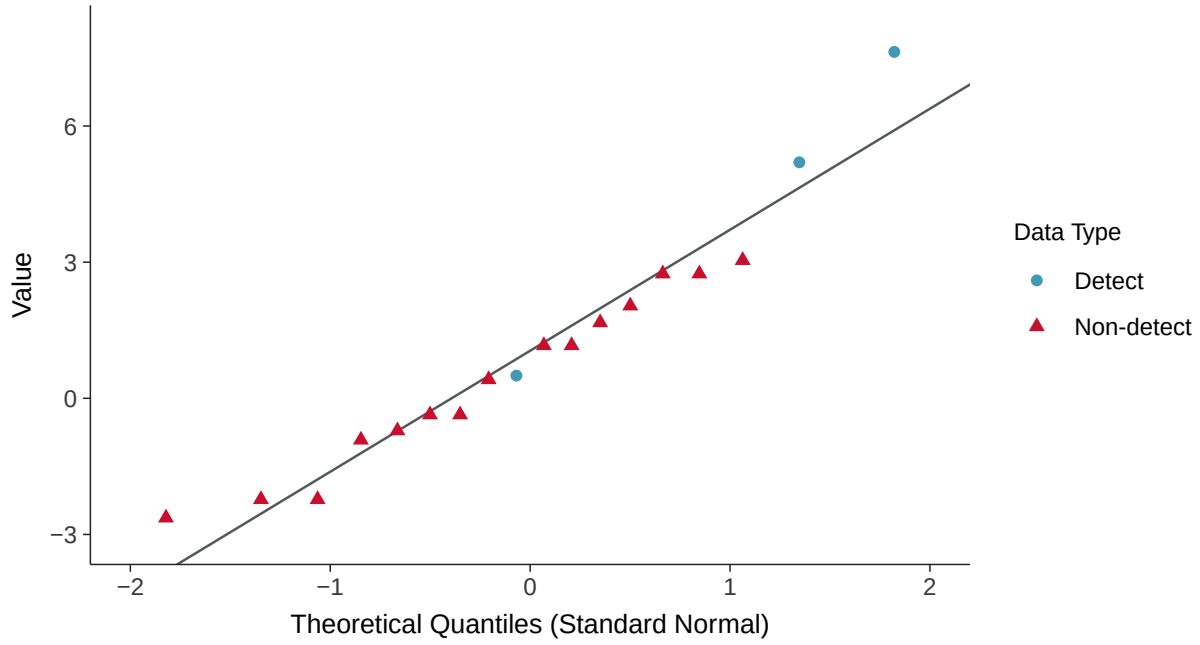
Boxplot by Season

Selenium, MW-10 (ug/L)



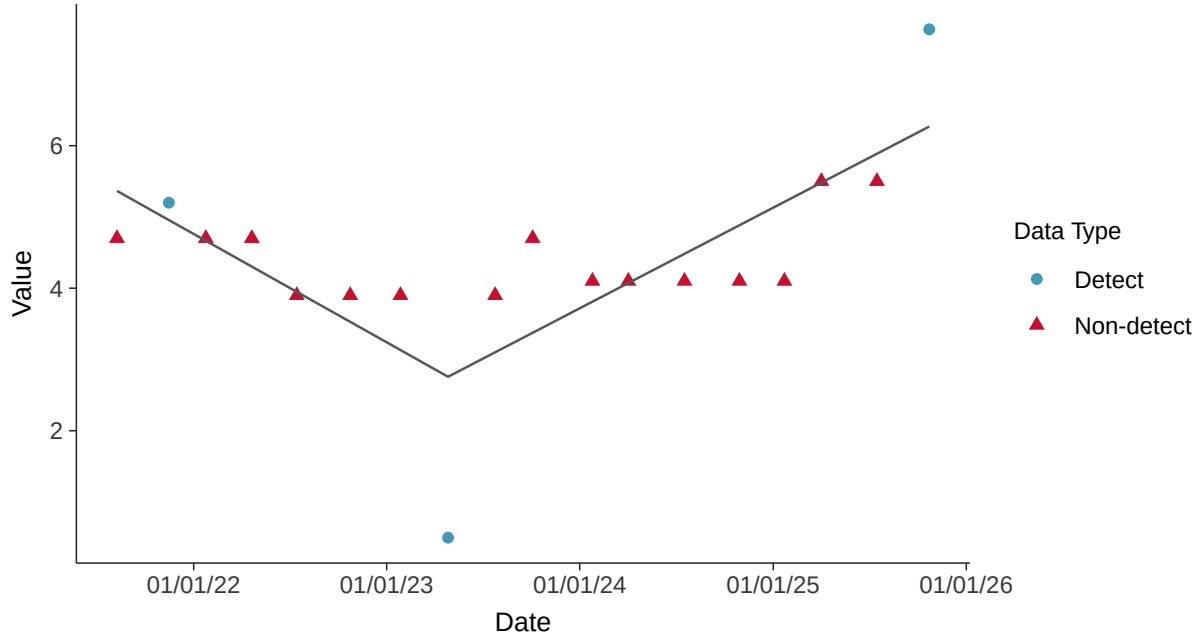
Normal Q-Q plot using ROS Imputed Estimates

Selenium, MW-10 (ug/L)



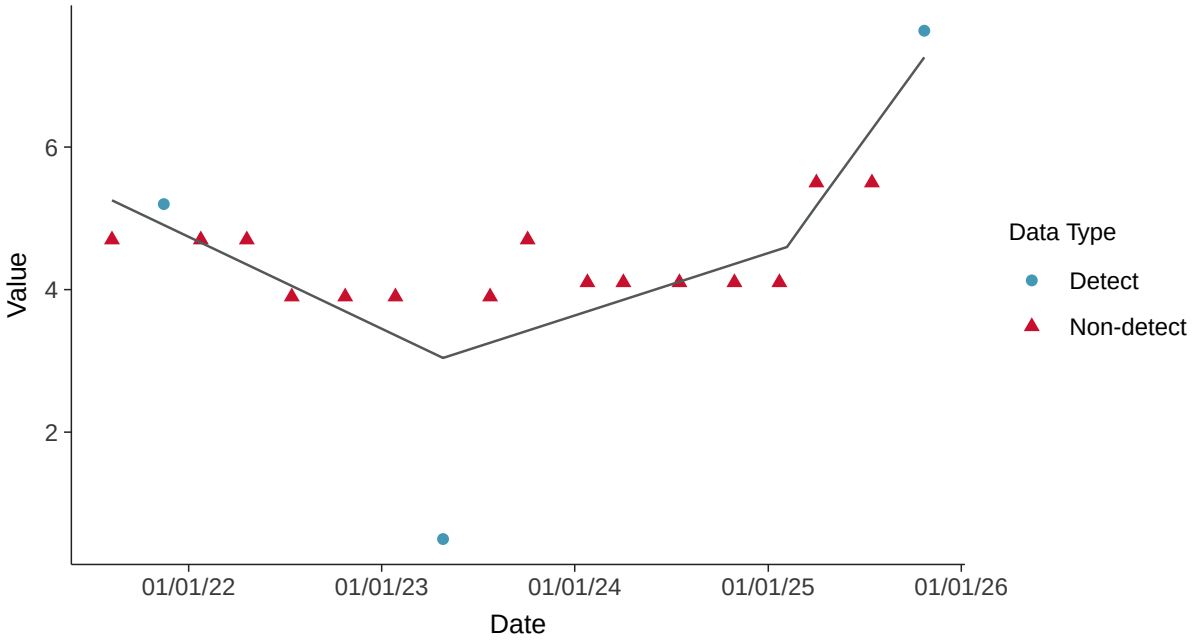
Trend Regression: Piecewise Linear-Linear

Selenium, MW-10 (ug/L)



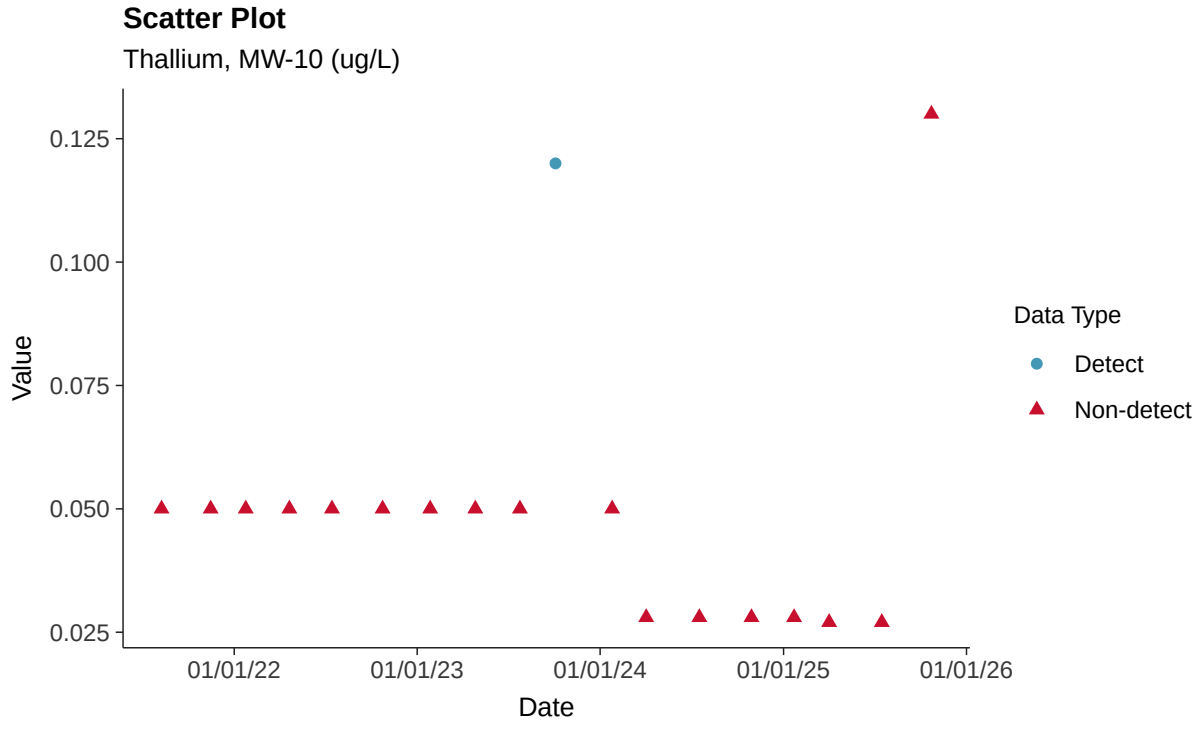
Trend Regression: Piecewise Linear-Linear-Linear

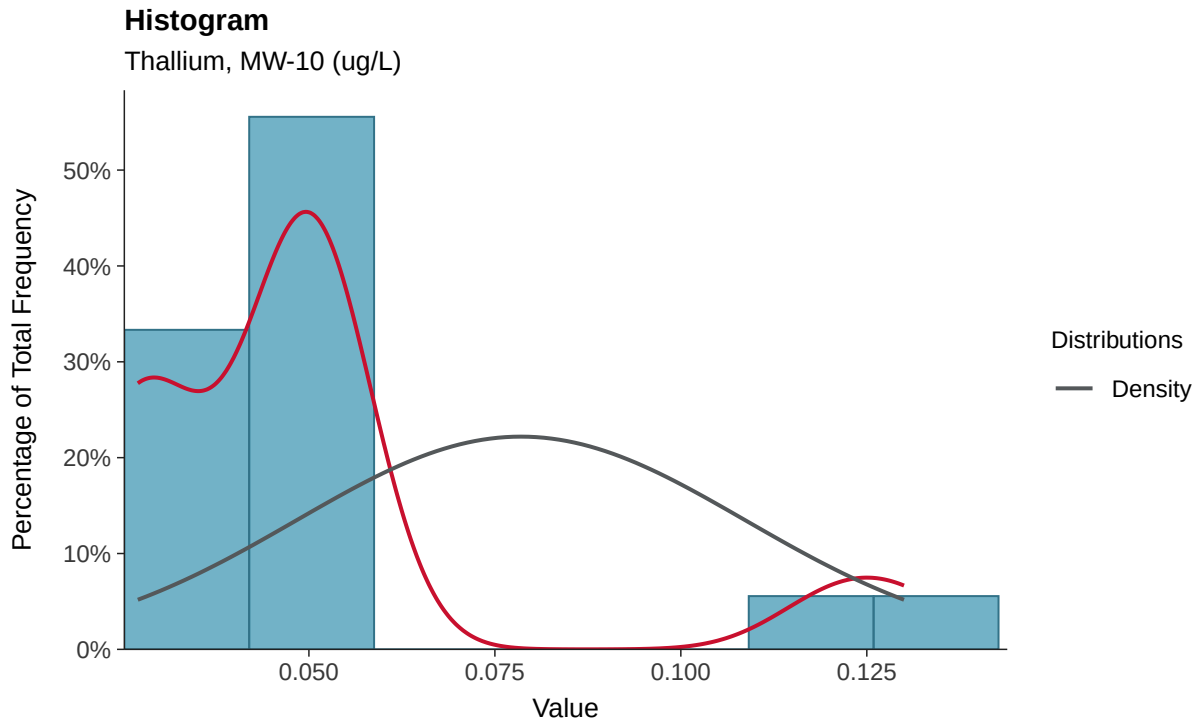
Selenium, MW-10 (ug/L)



App. IV: Thallium, MW-10

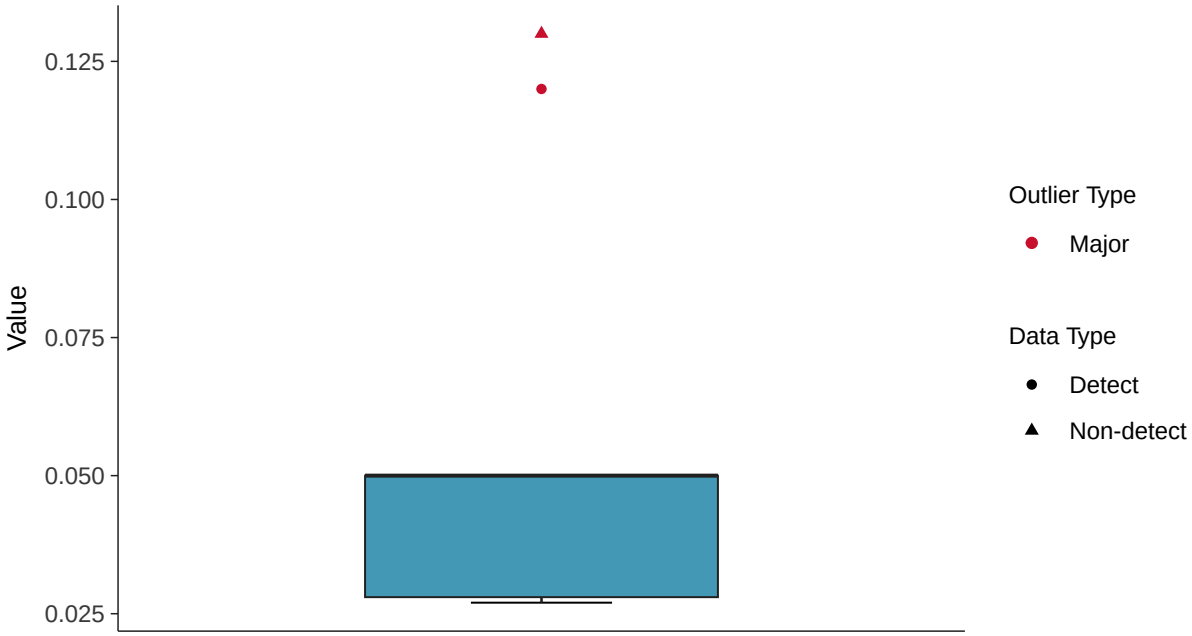
ID: 09_3_124





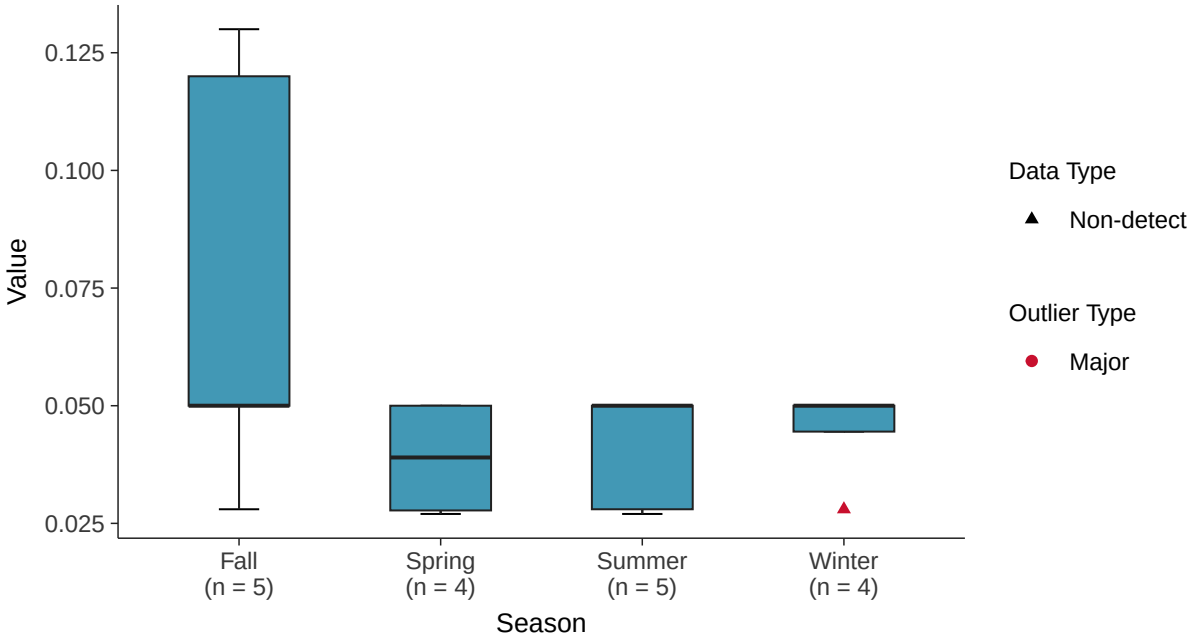
Boxplot

Thallium, MW-10 (ug/L)



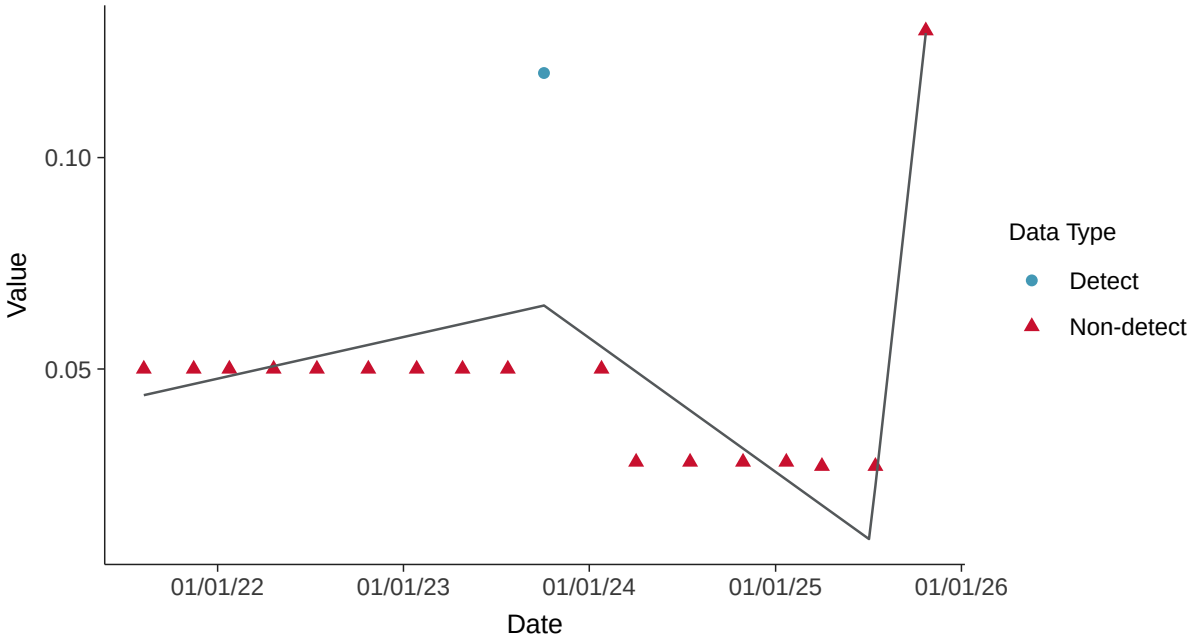
Boxplot by Season

Thallium, MW-10 (ug/L)



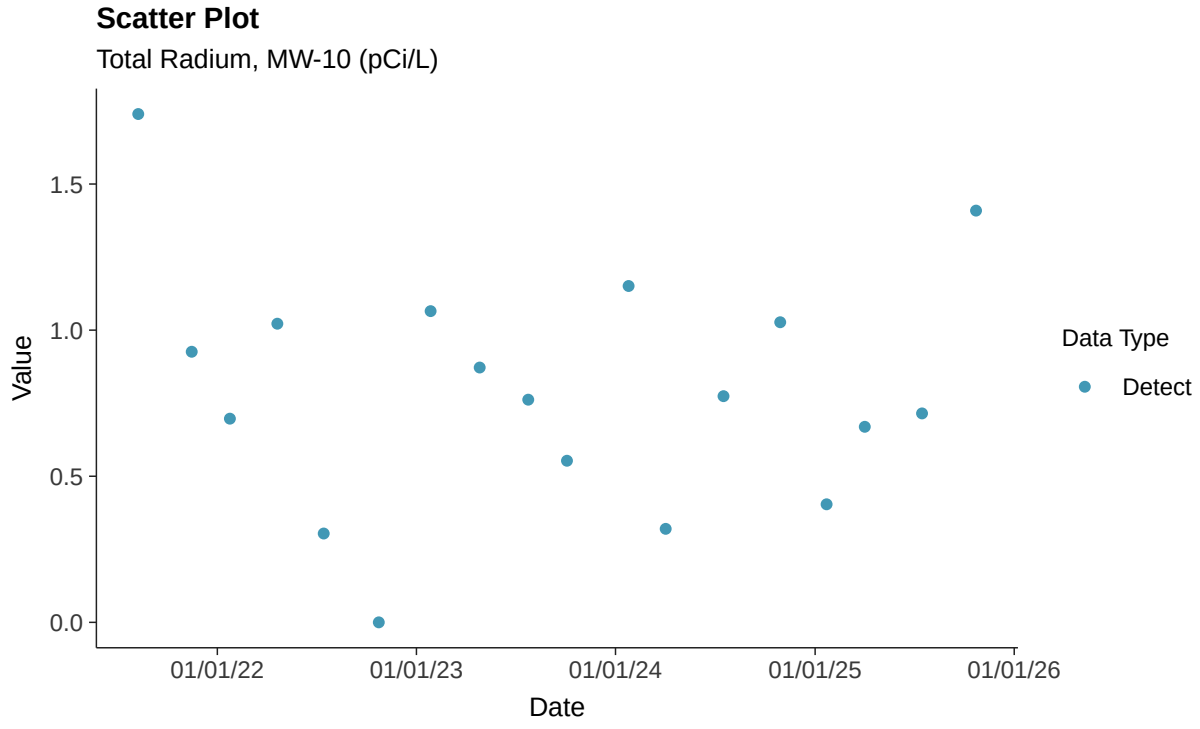
Trend Regression: Piecewise Linear-Linear-Linear

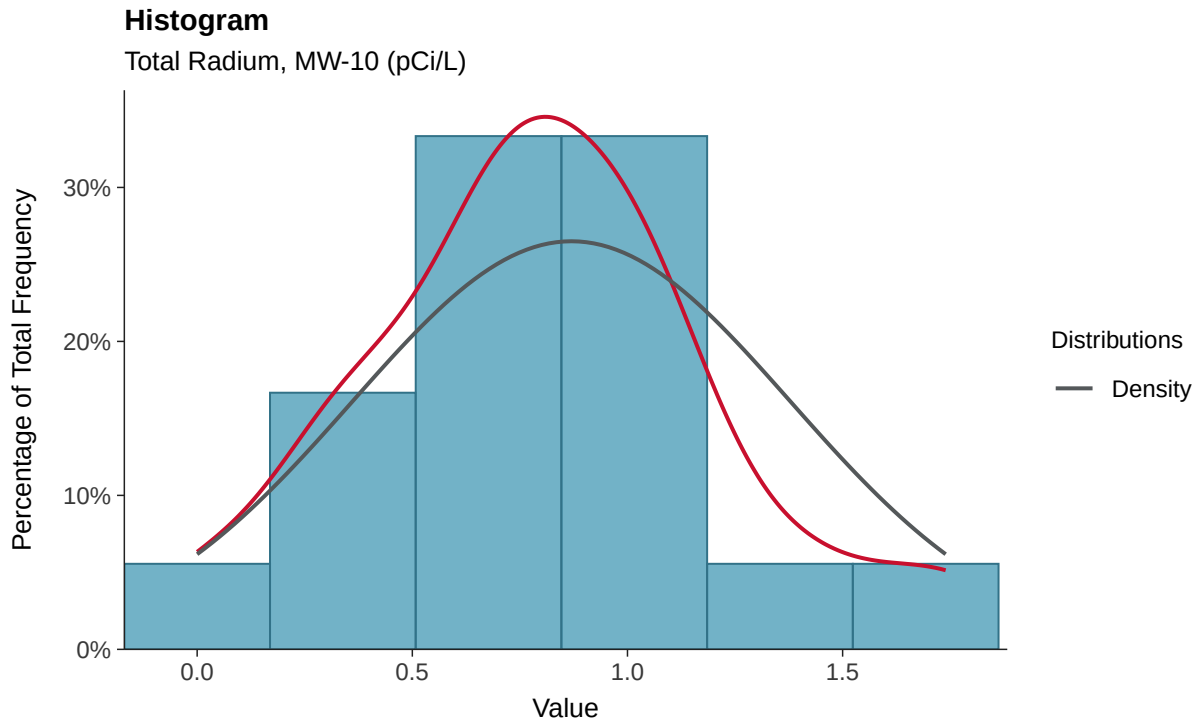
Thallium, MW-10 (ug/L)



App. IV: Total Radium, MW-10

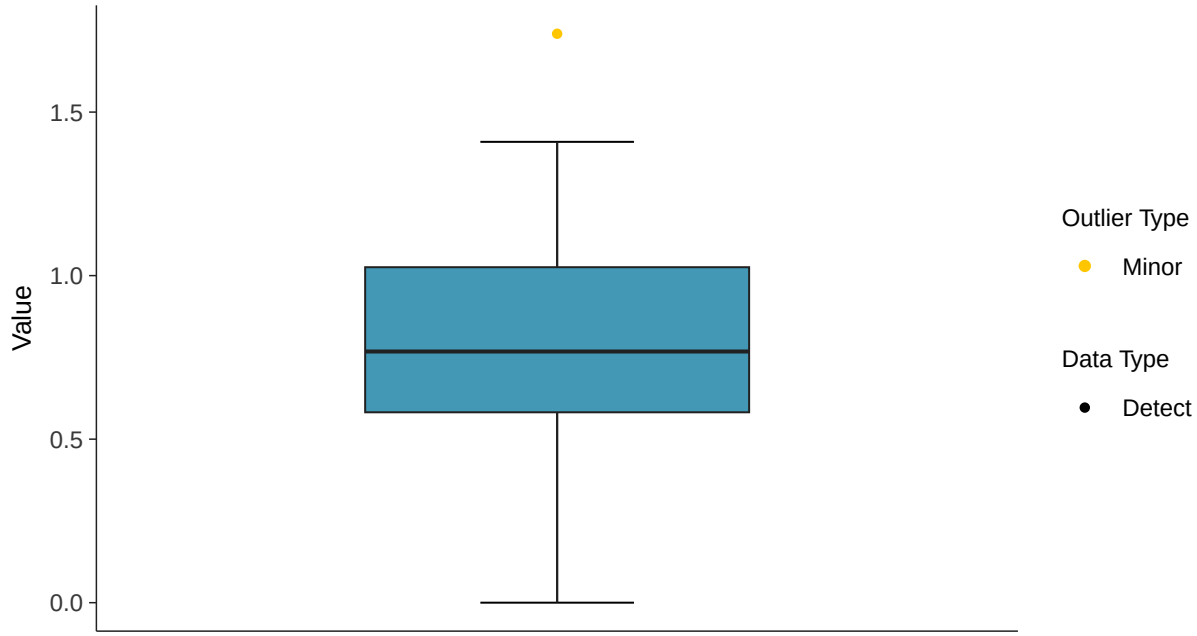
ID: 09_3_126





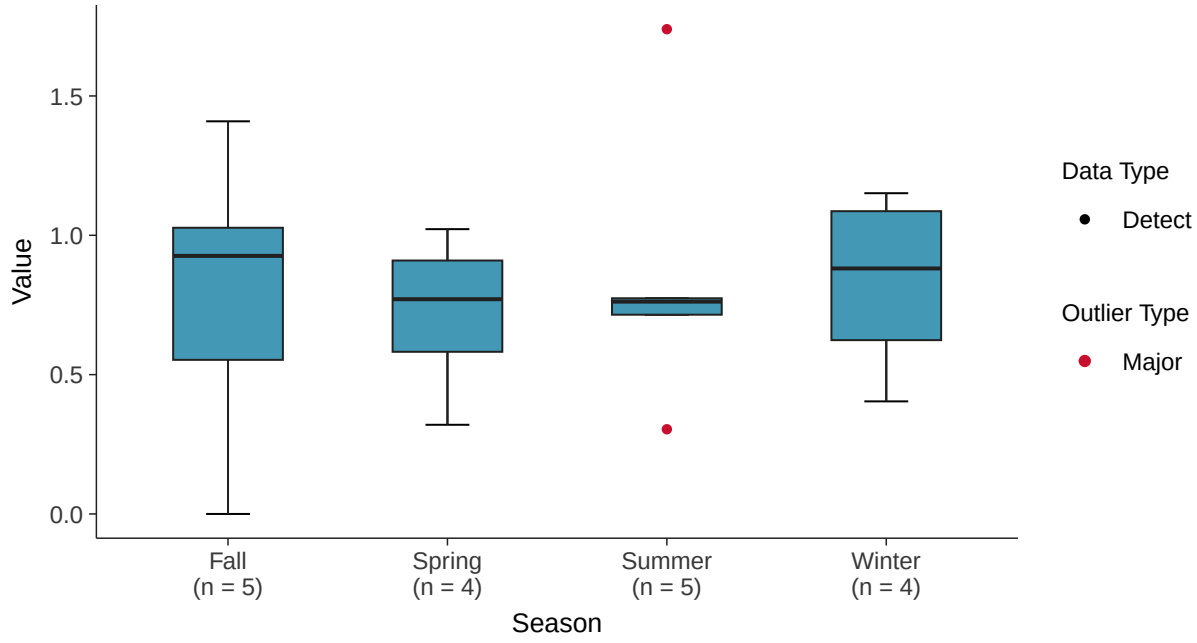
Boxplot

Total Radium, MW-10 (pCi/L)



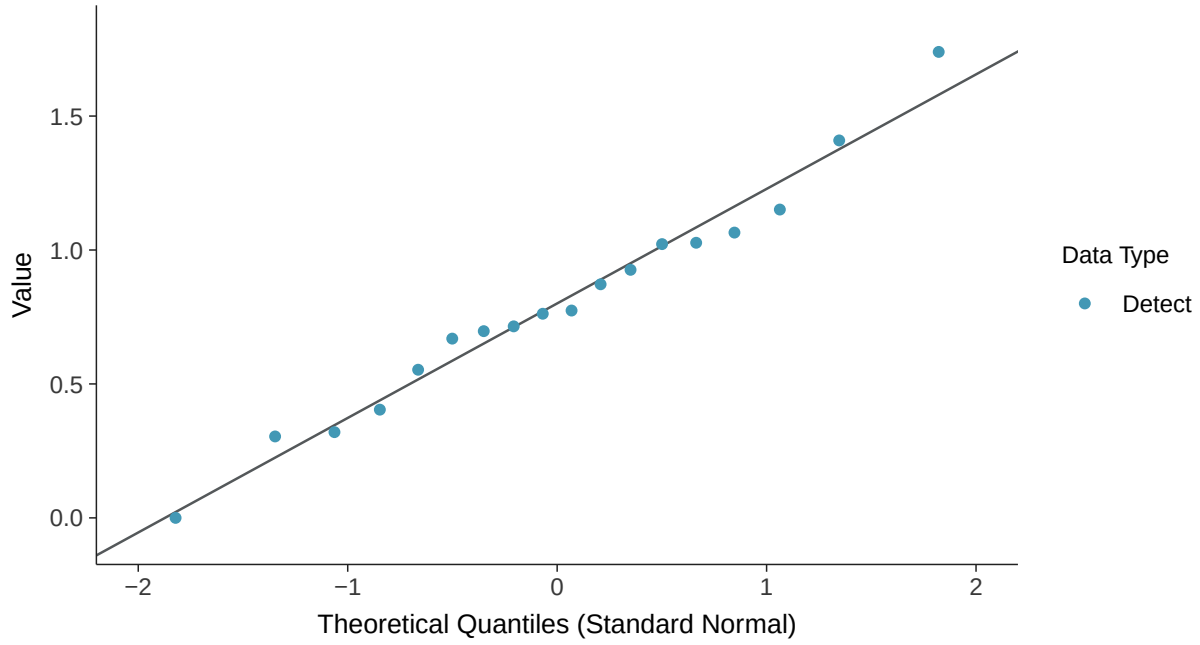
Boxplot by Season

Total Radium, MW-10 (pCi/L)



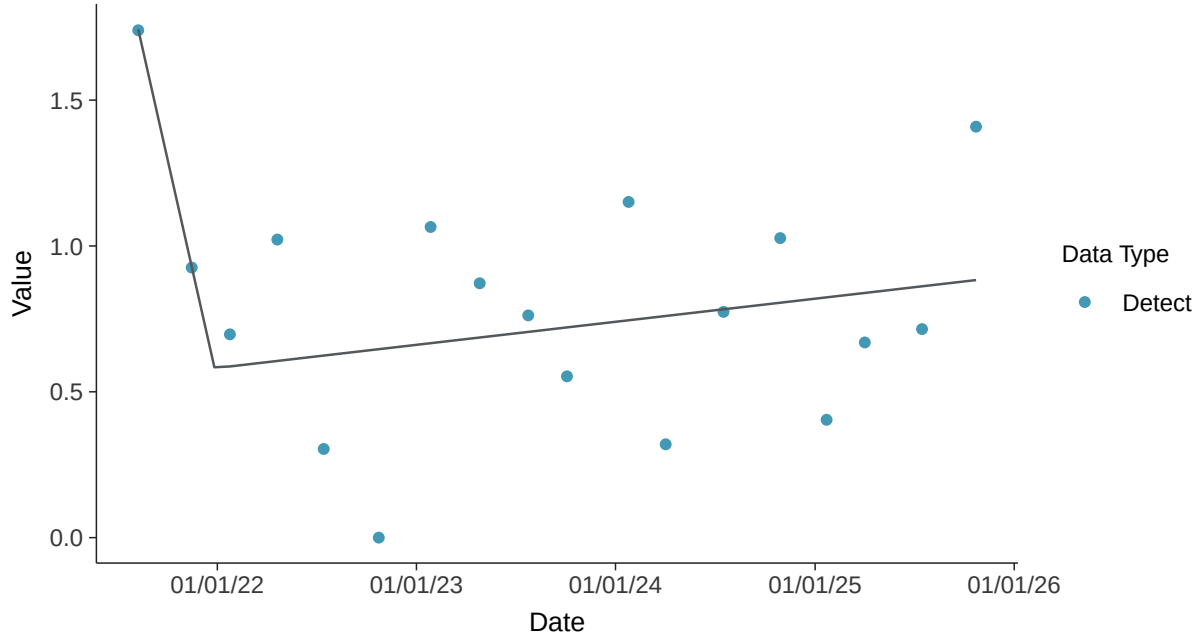
Normal Q-Q plot

Total Radium, MW-10 (pCi/L)



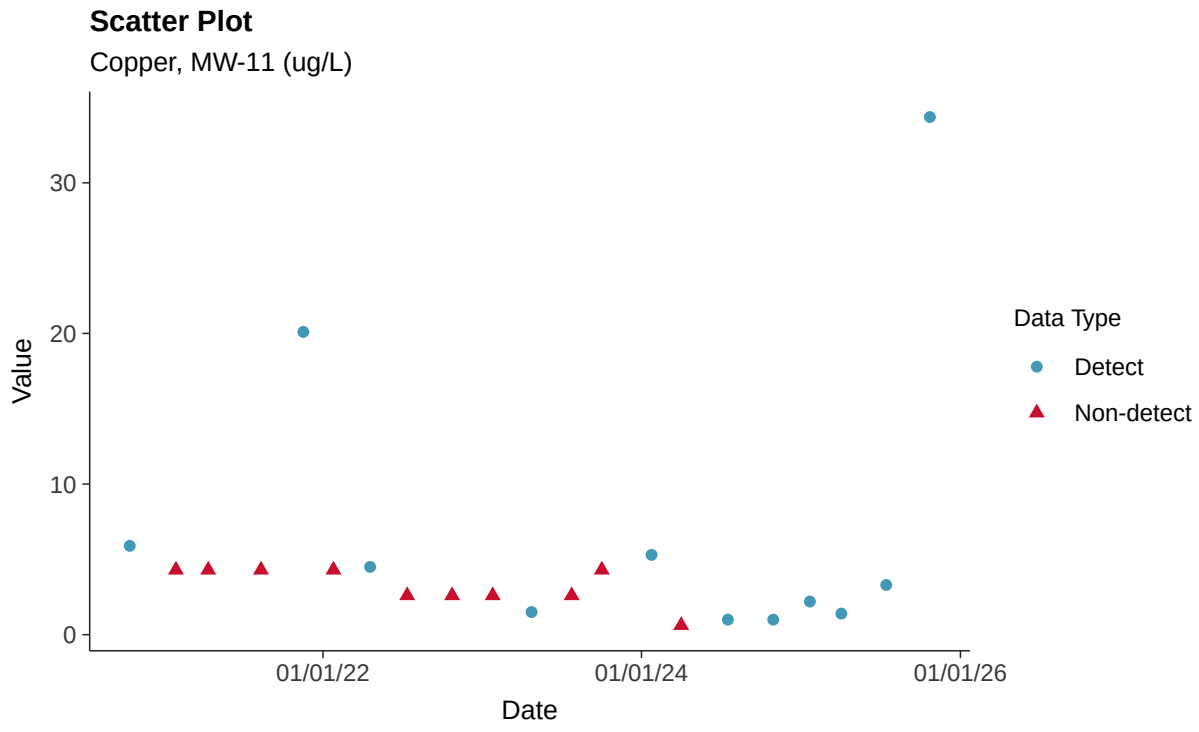
Trend Regression: Piecewise Linear-Linear

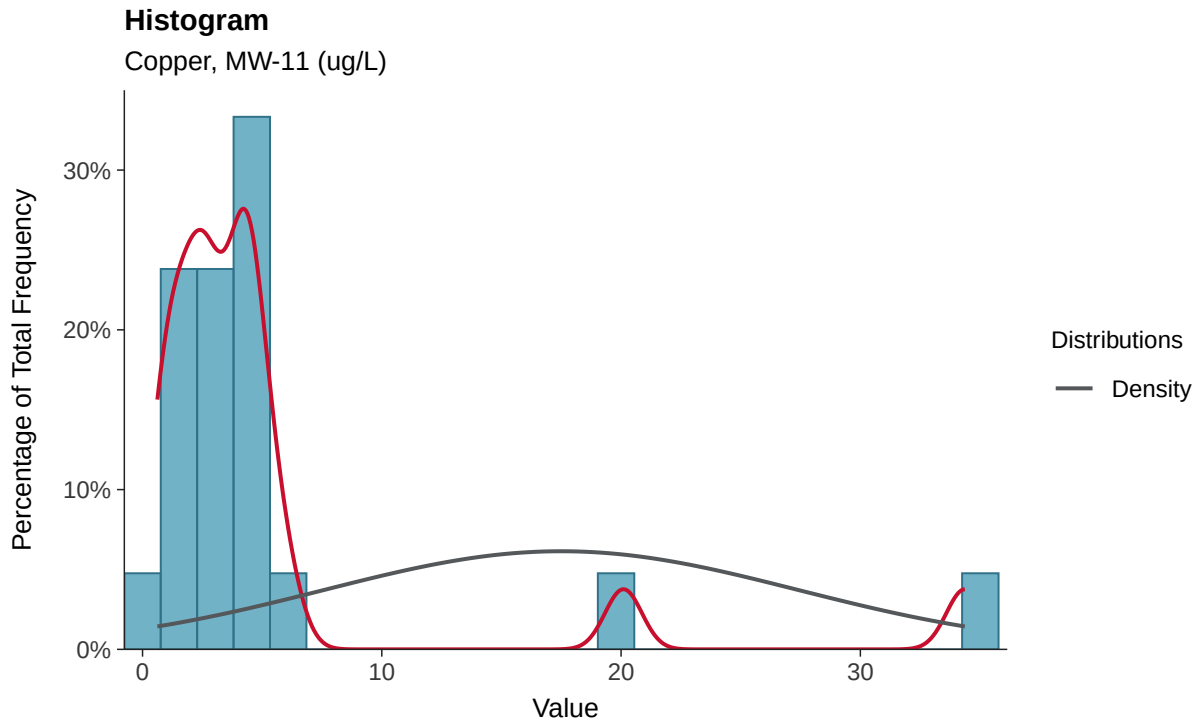
Total Radium, MW-10 (pCi/L)



App. I Metals: Copper, MW-11

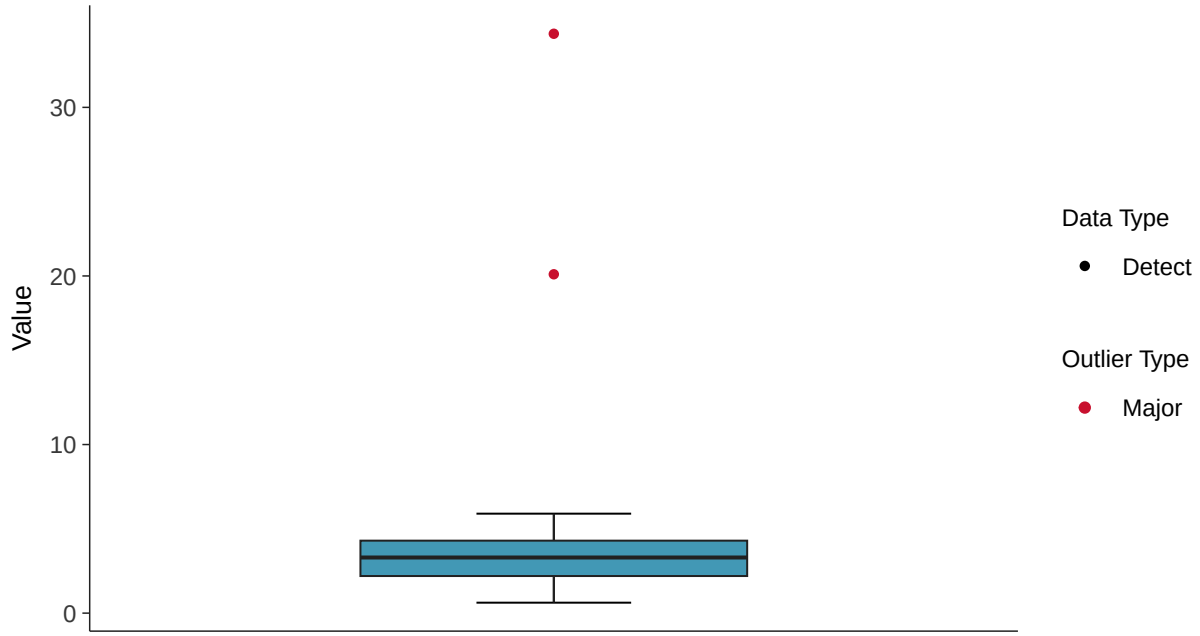
ID: 10_1_111





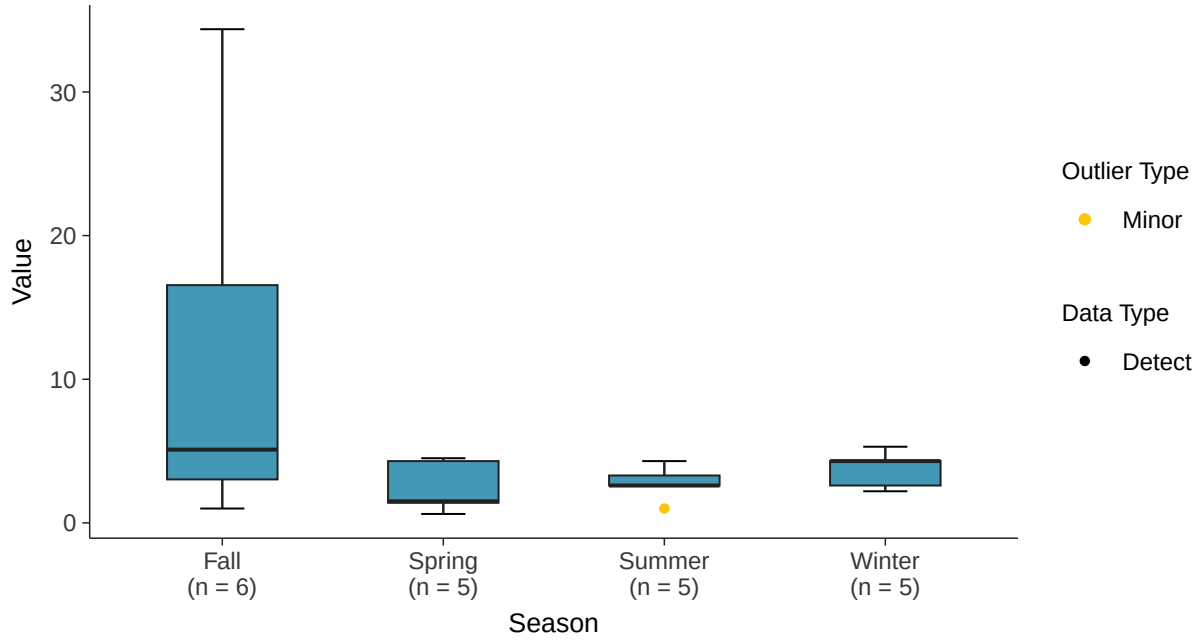
Boxplot

Copper, MW-11 (ug/L)



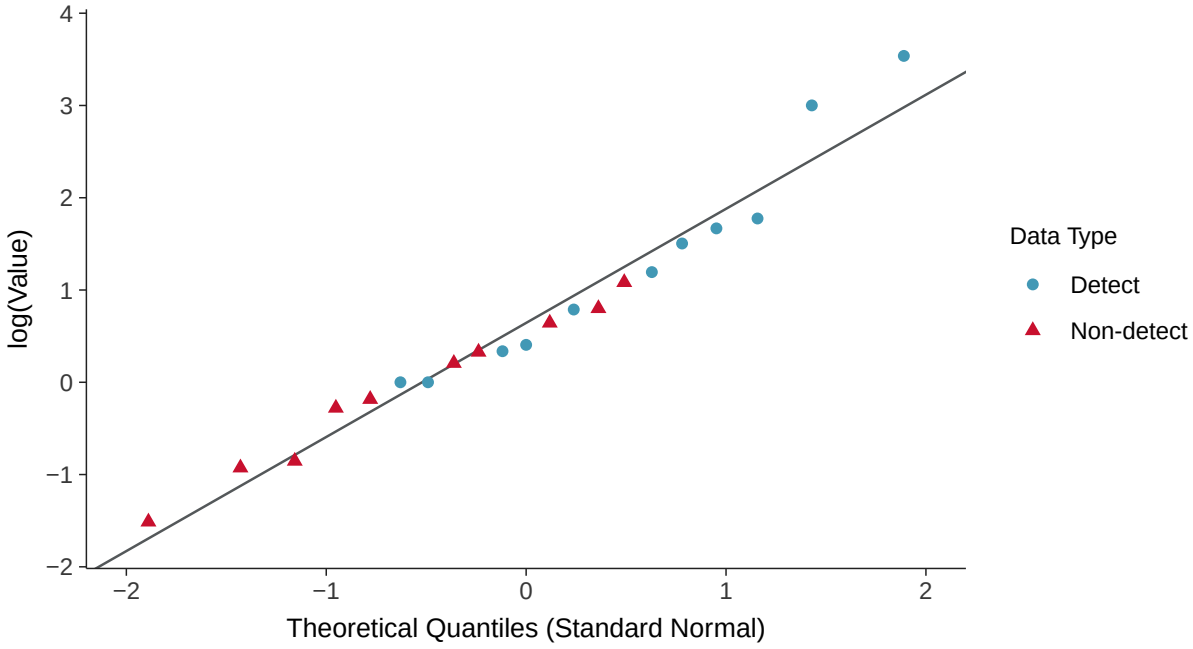
Boxplot by Season

Copper, MW-11 (ug/L)



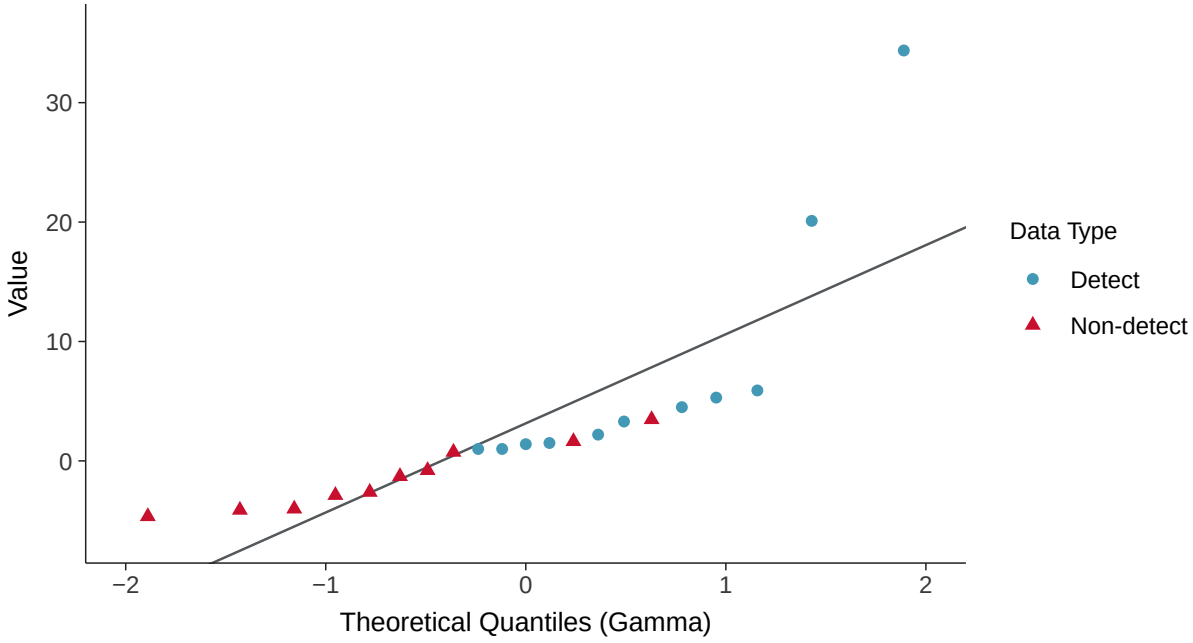
Lognormal Q-Q plot using ROS Imputed Estimates

Copper, MW-11 (ug/L)



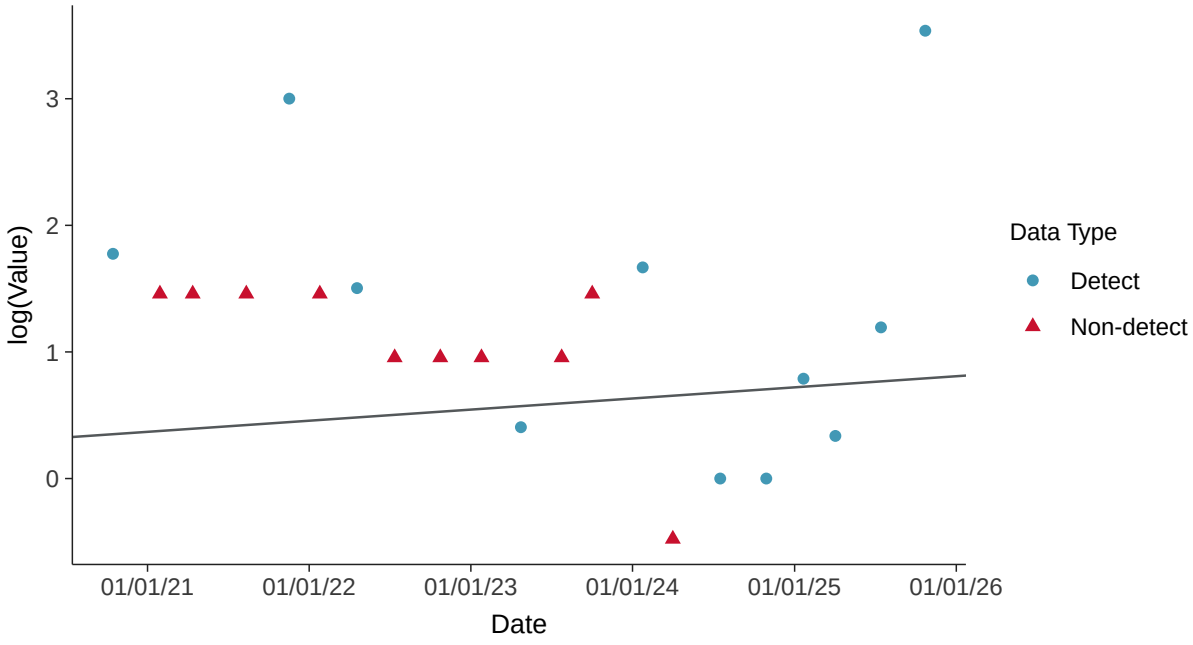
Gamma Q-Q plot using ROS Imputed Estimates

Copper, MW-11 (ug/L)



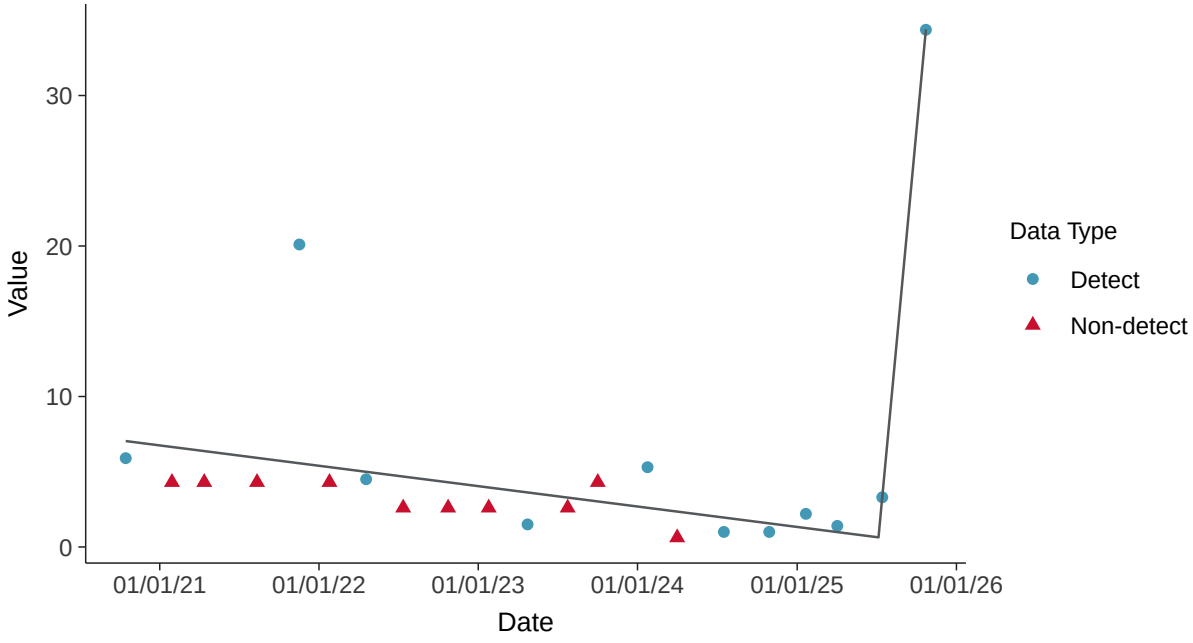
Trend Regression: Lognormal MLE

Copper, MW-11 (ug/L)



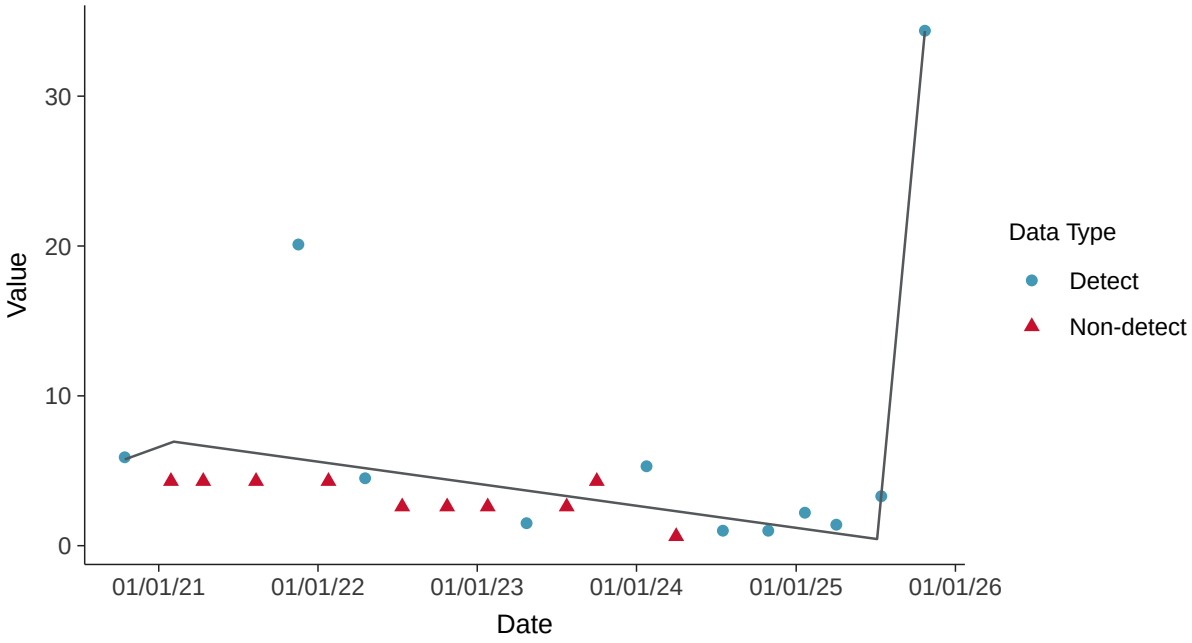
Trend Regression: Piecewise Linear-Linear

Copper, MW-11 (ug/L)



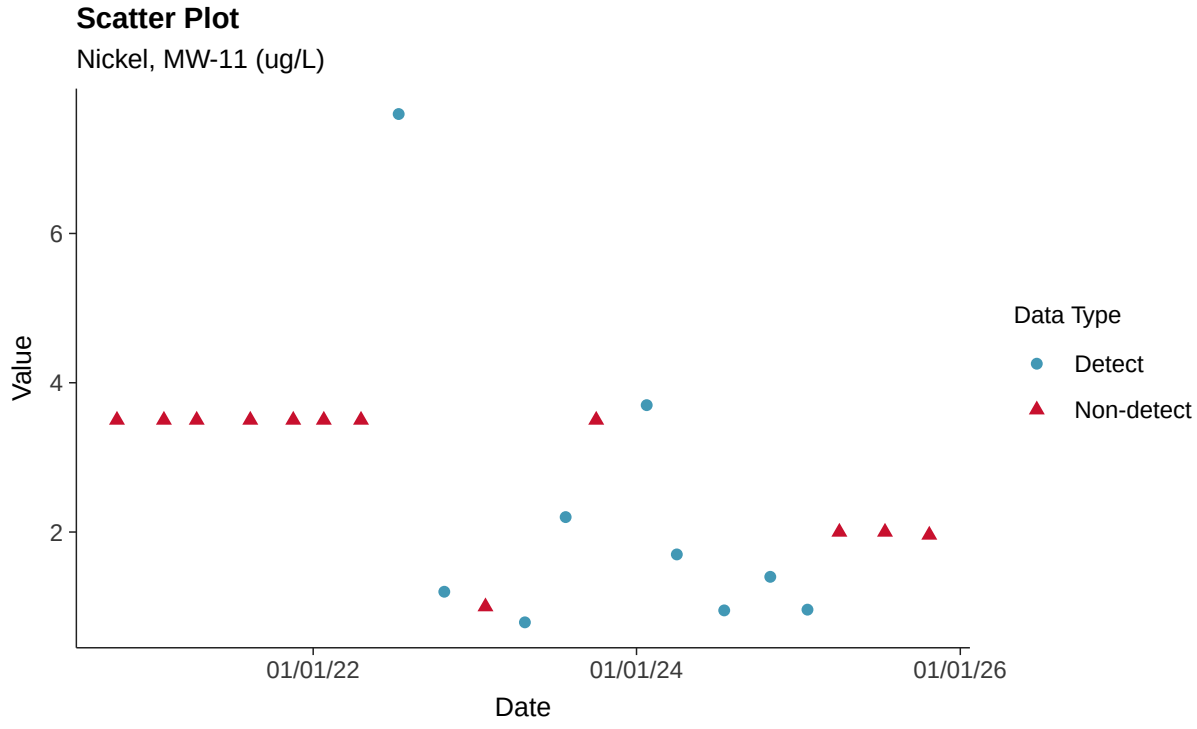
Trend Regression: Piecewise Linear-Linear-Linear

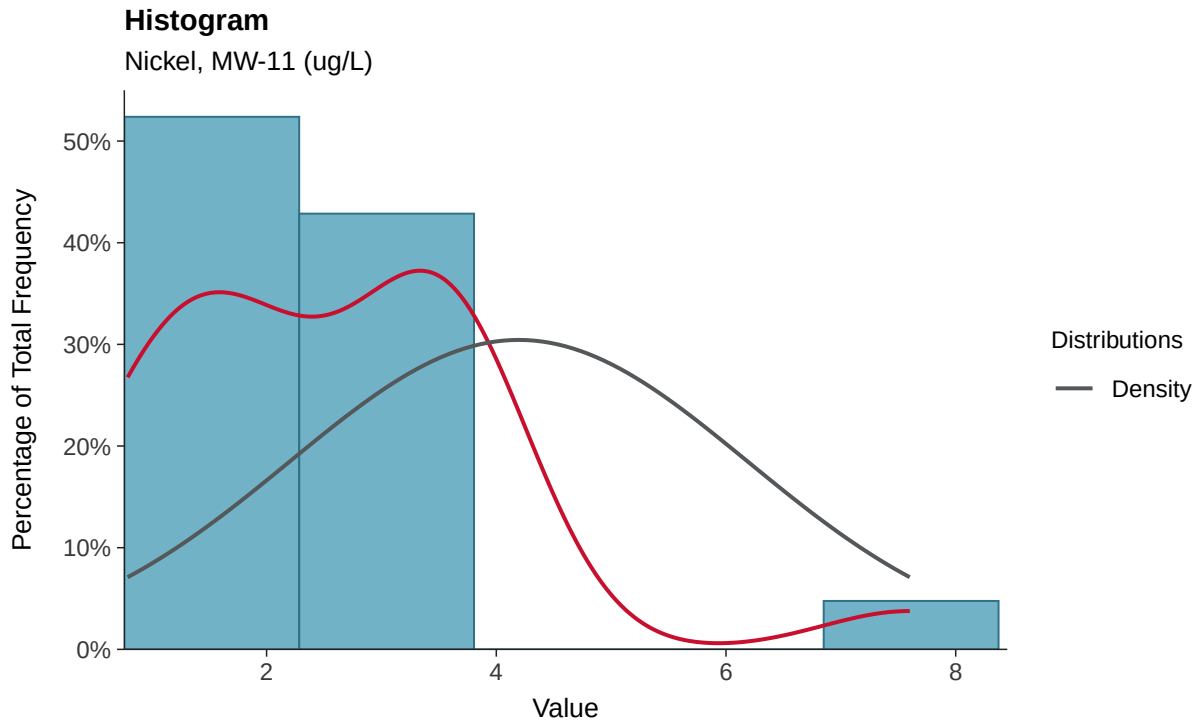
Copper, MW-11 (ug/L)



App. I Metals: Nickel, MW-11

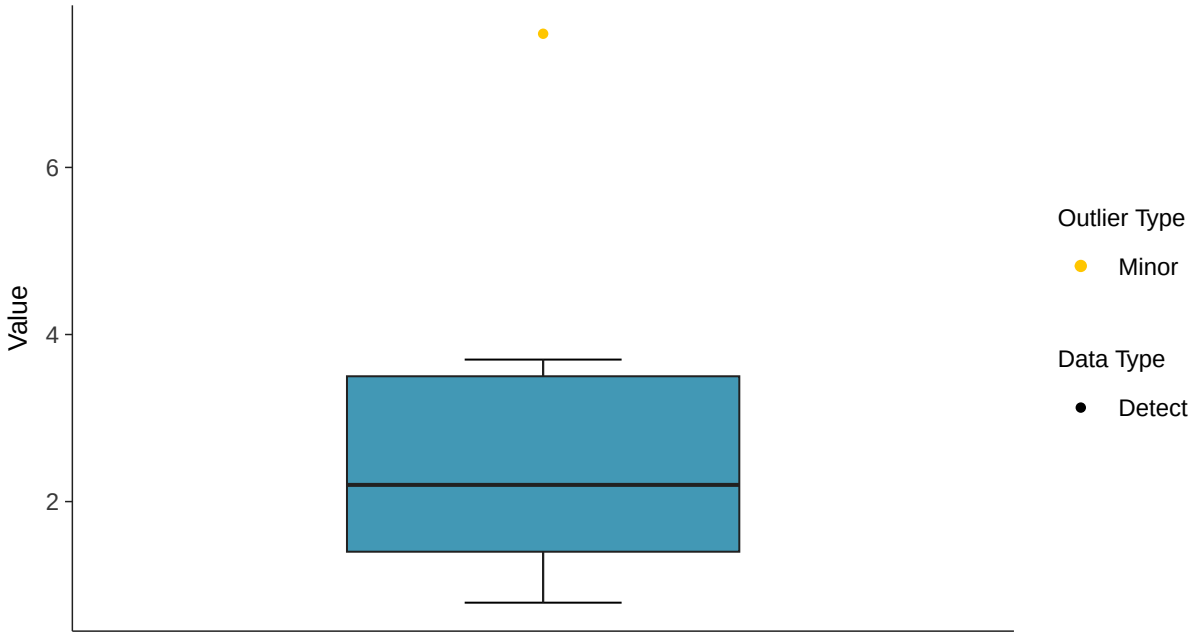
ID: 10_1_117





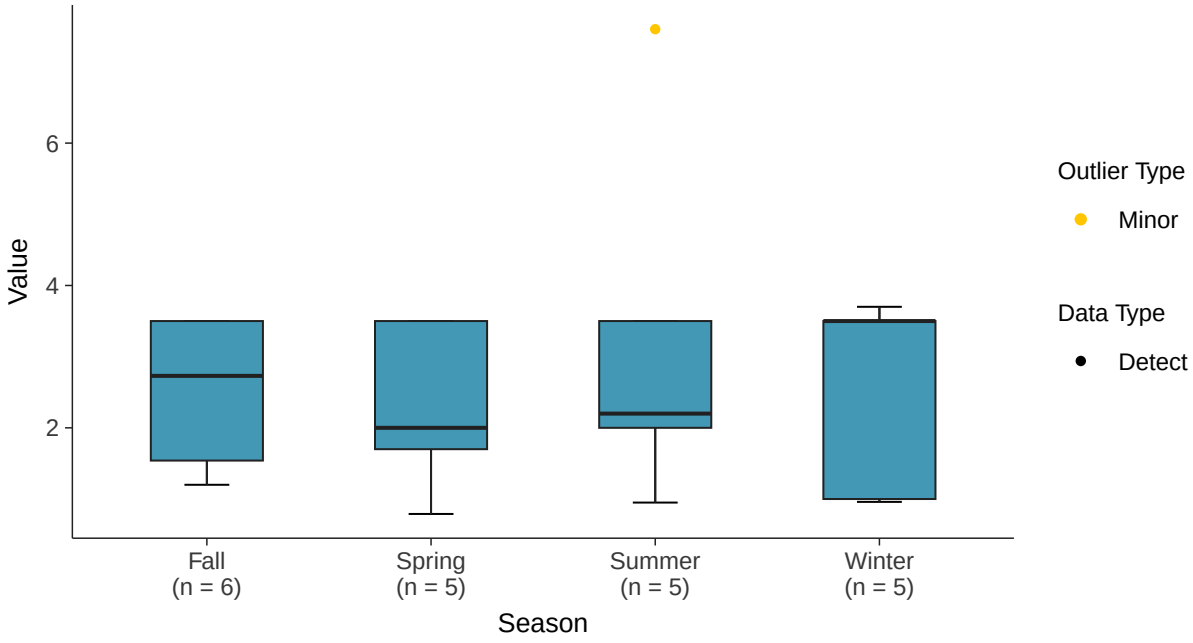
Boxplot

Nickel, MW-11 (ug/L)



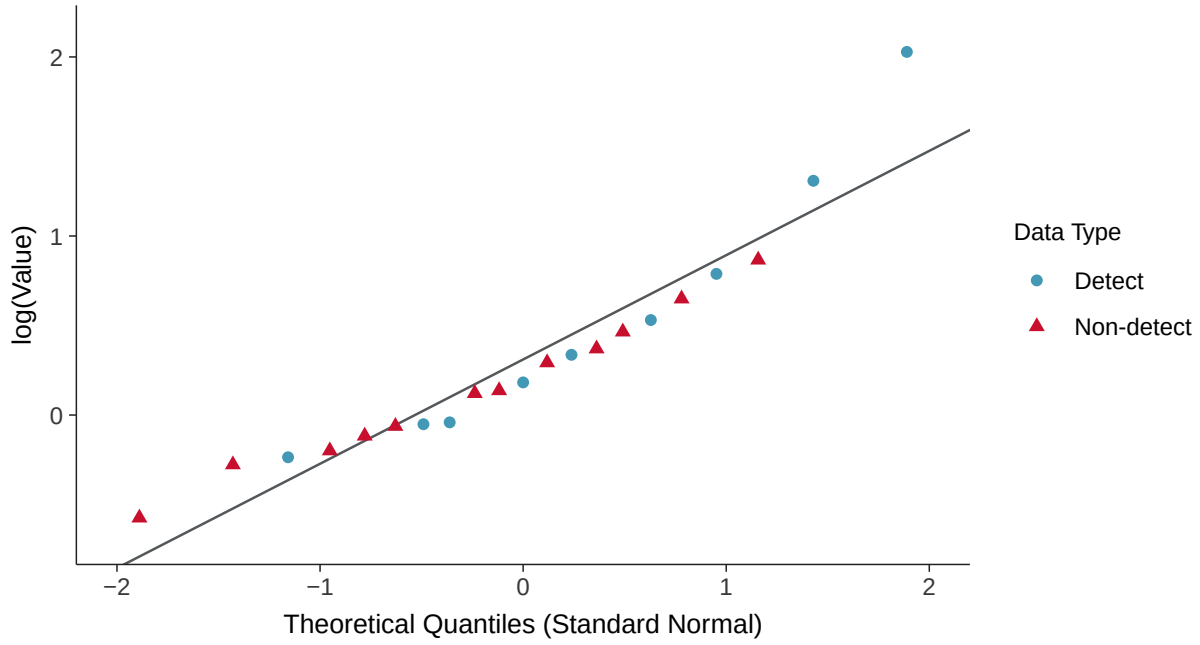
Boxplot by Season

Nickel, MW-11 (ug/L)



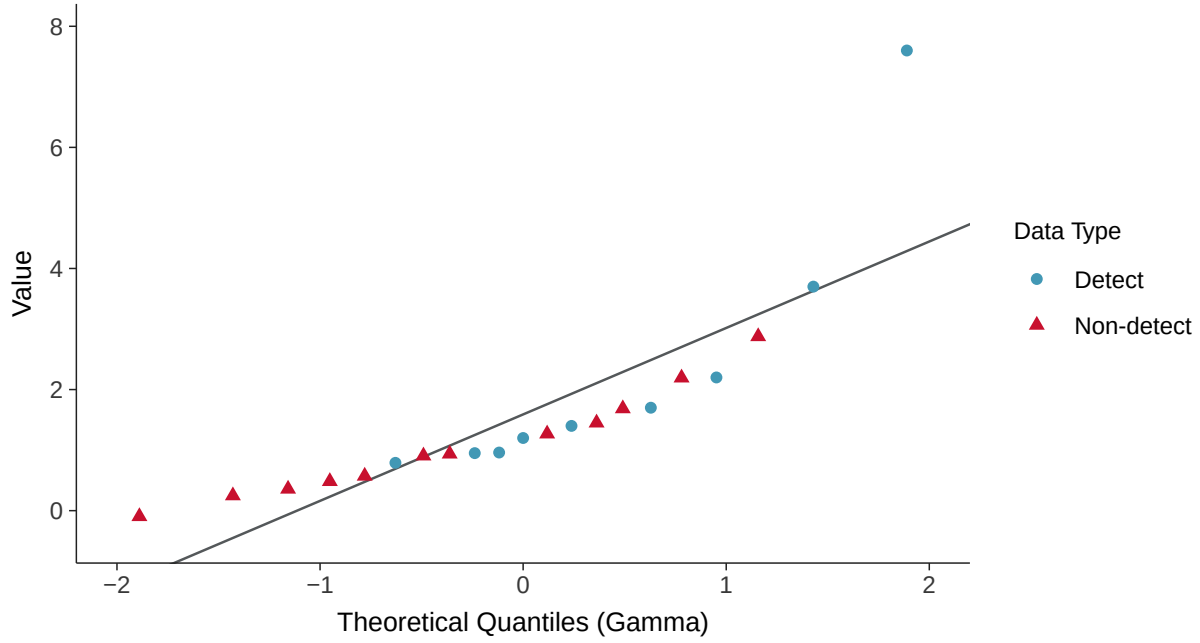
Lognormal Q-Q plot using ROS Imputed Estimates

Nickel, MW-11 (ug/L)



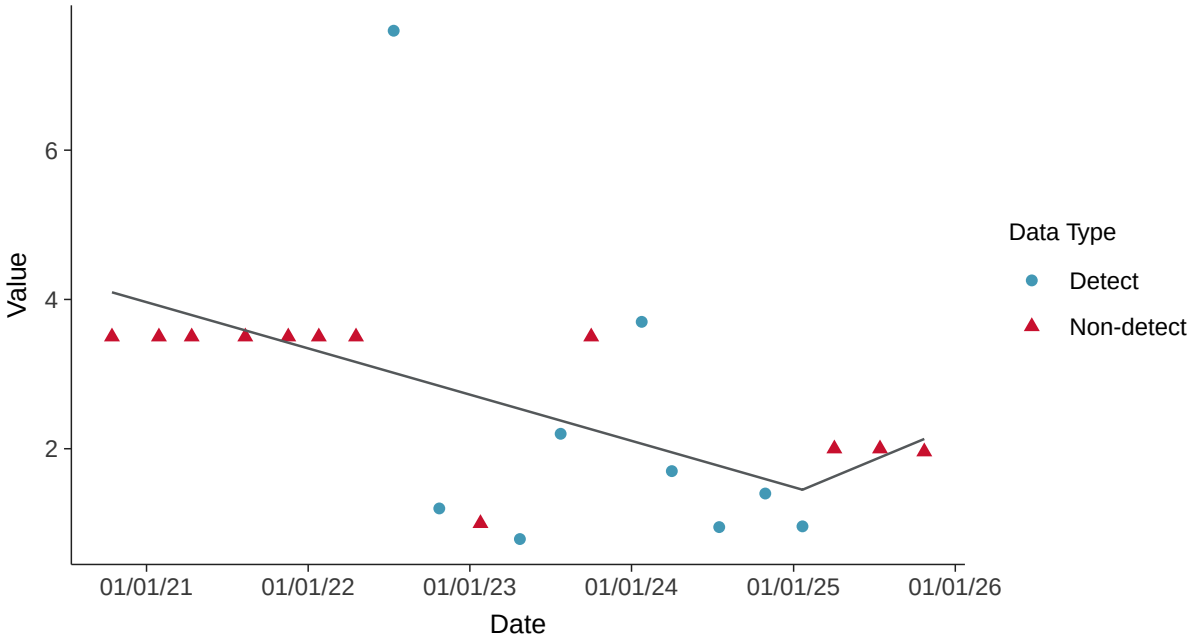
Gamma Q-Q plot using ROS Imputed Estimates

Nickel, MW-11 (ug/L)



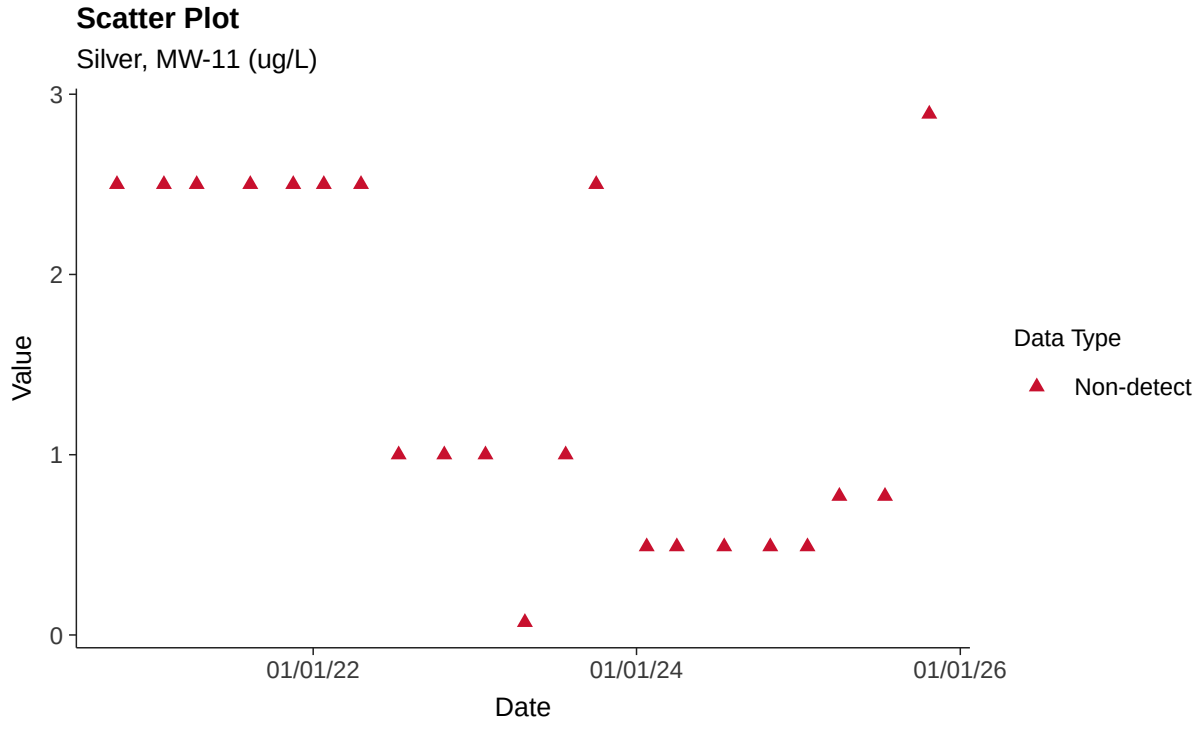
Trend Regression: Piecewise Linear-Linear

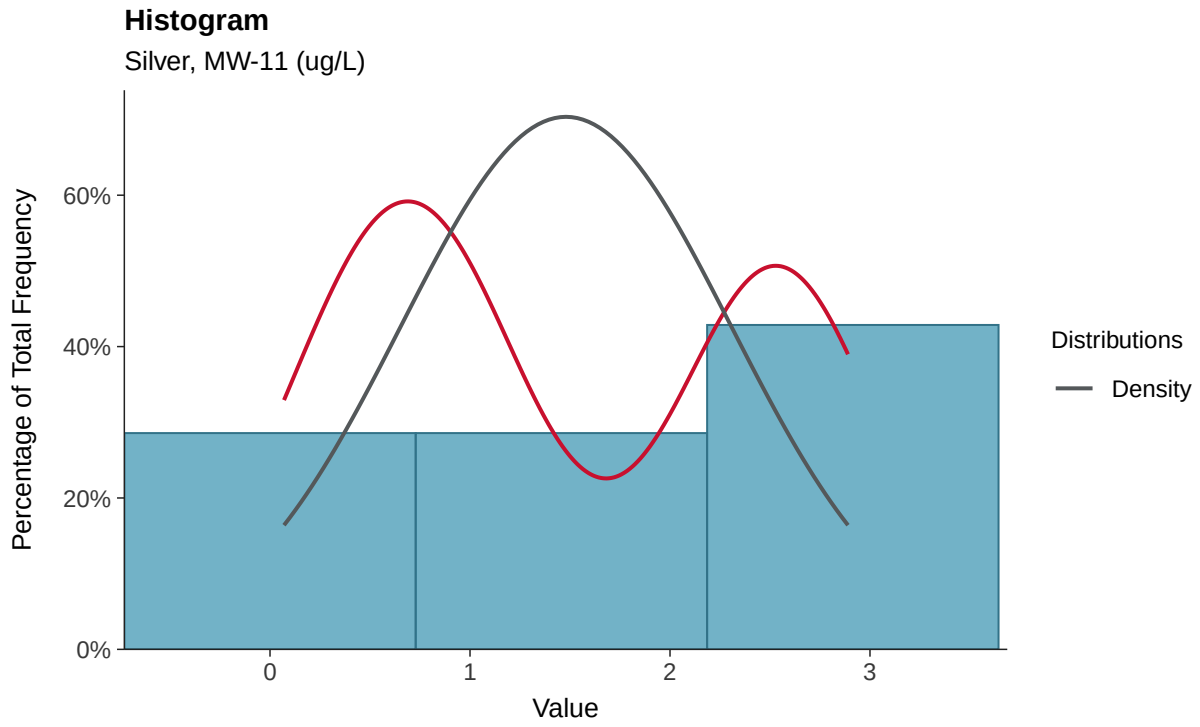
Nickel, MW-11 (ug/L)



App. I Metals: Silver, MW-11

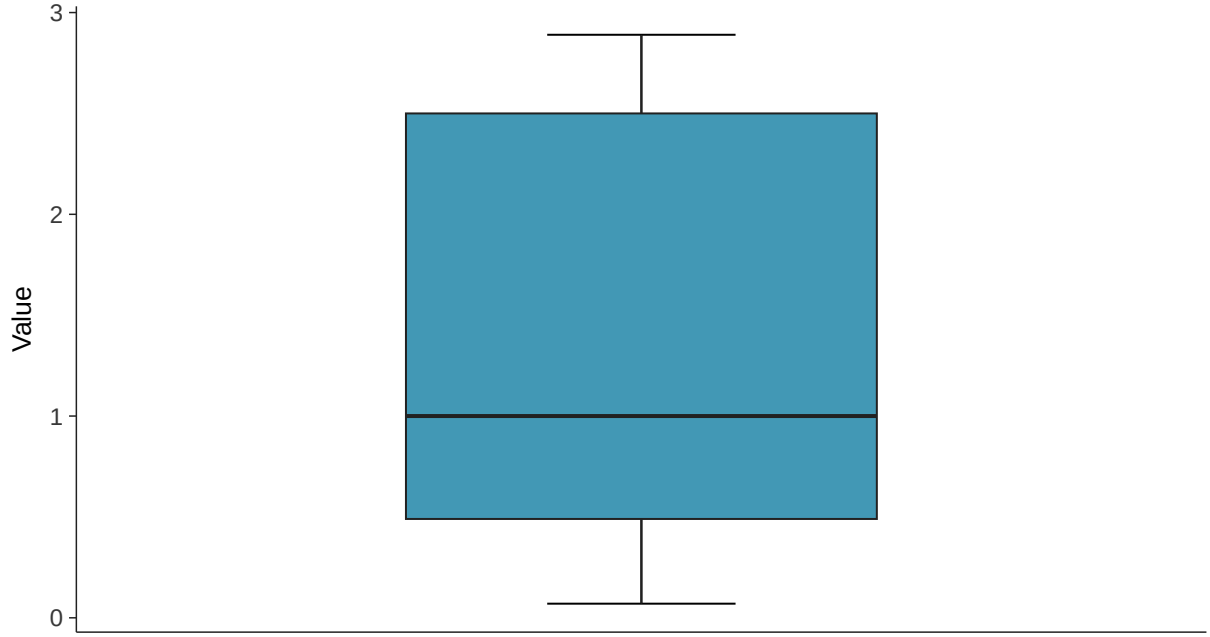
ID: 10_1_122





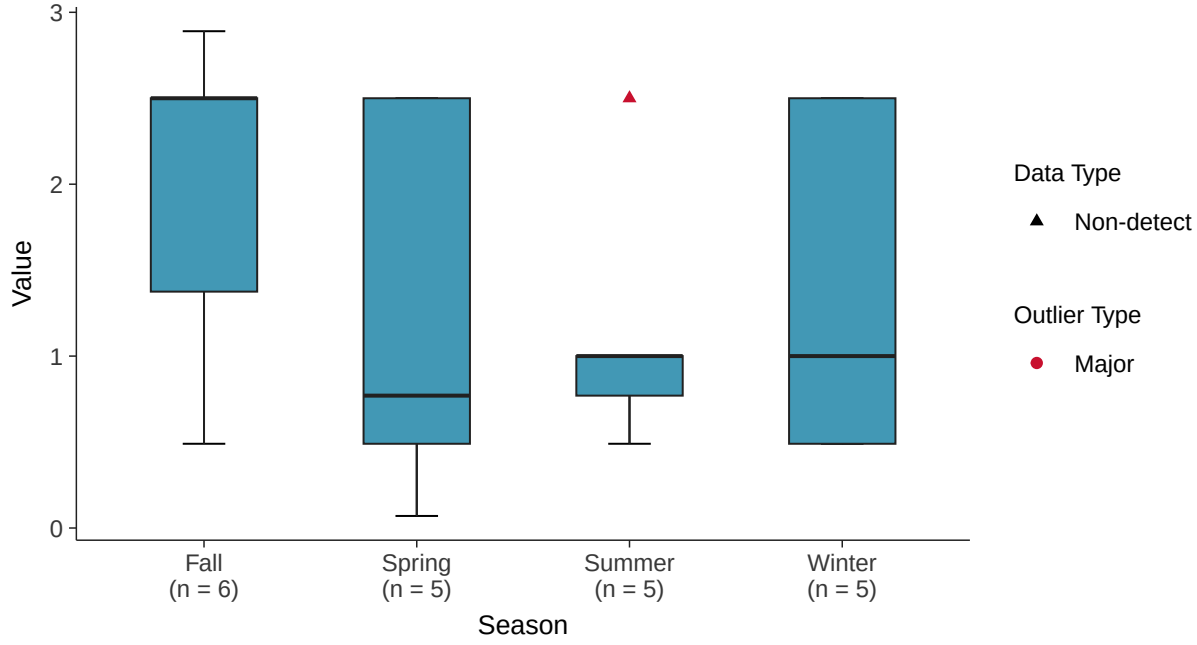
Boxplot

Silver, MW-11 (ug/L)



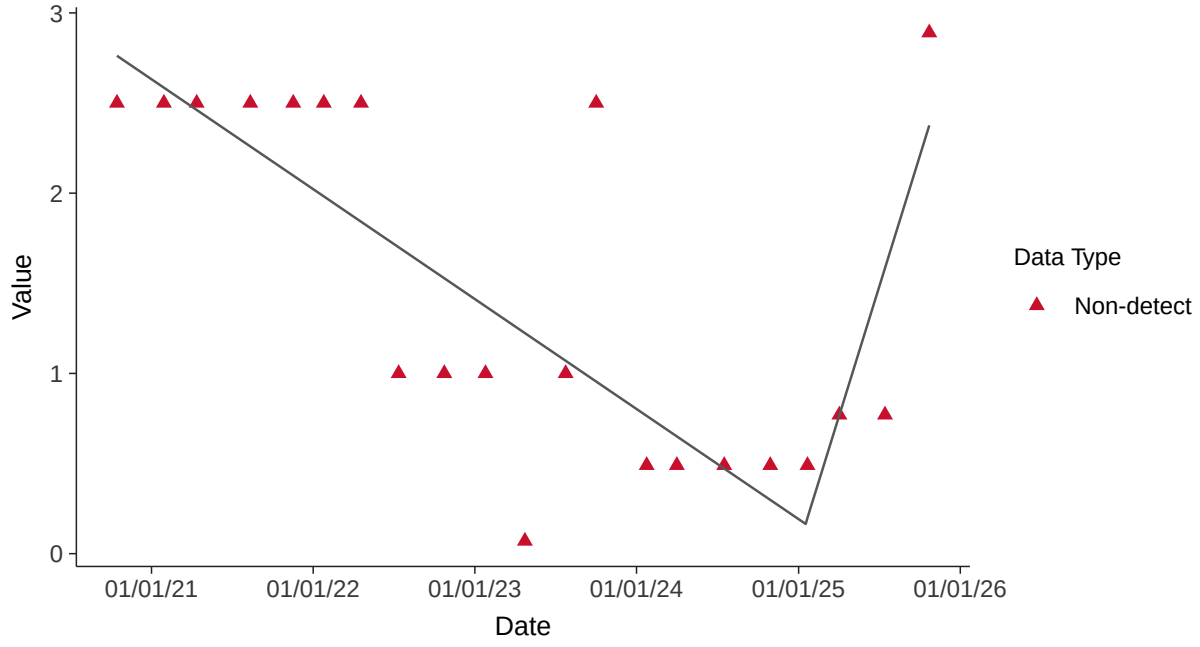
Boxplot by Season

Silver, MW-11 (ug/L)



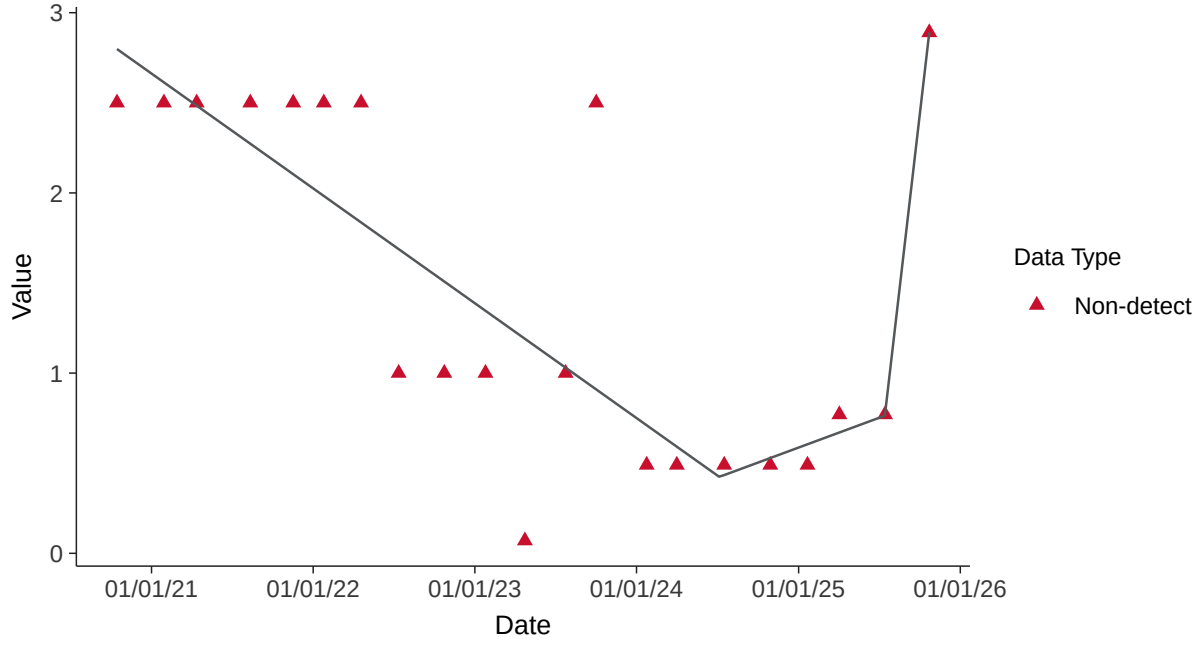
Trend Regression: Piecewise Linear-Linear

Silver, MW-11 (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Silver, MW-11 (ug/L)

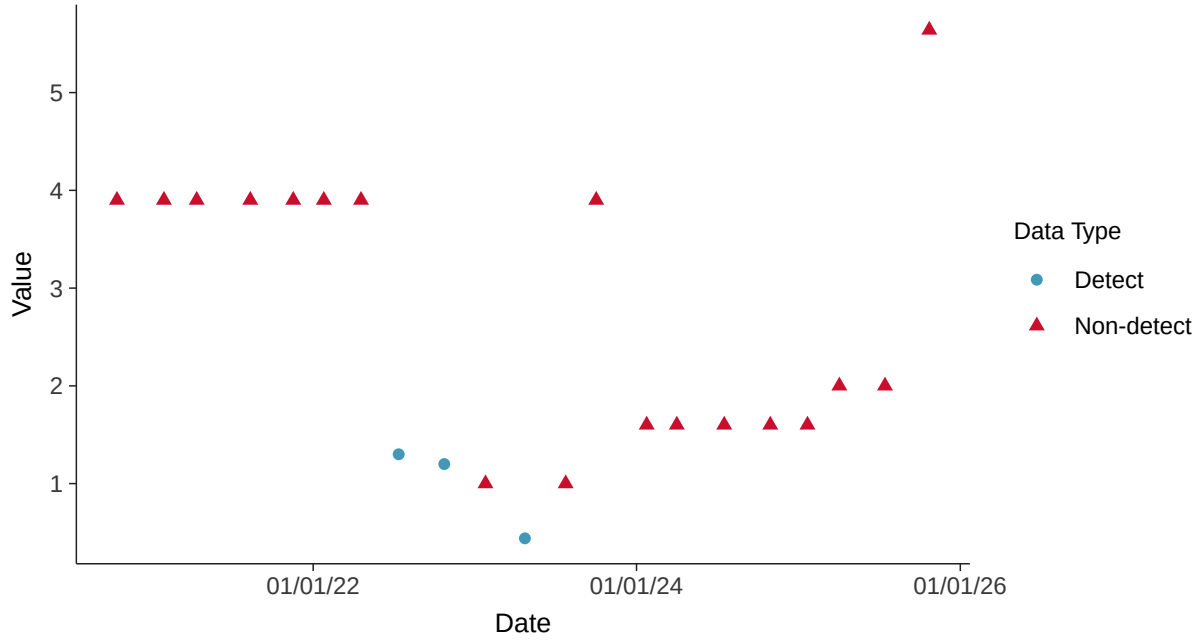


App. I Metals: Vanadium, MW-11

ID: 10_1_127

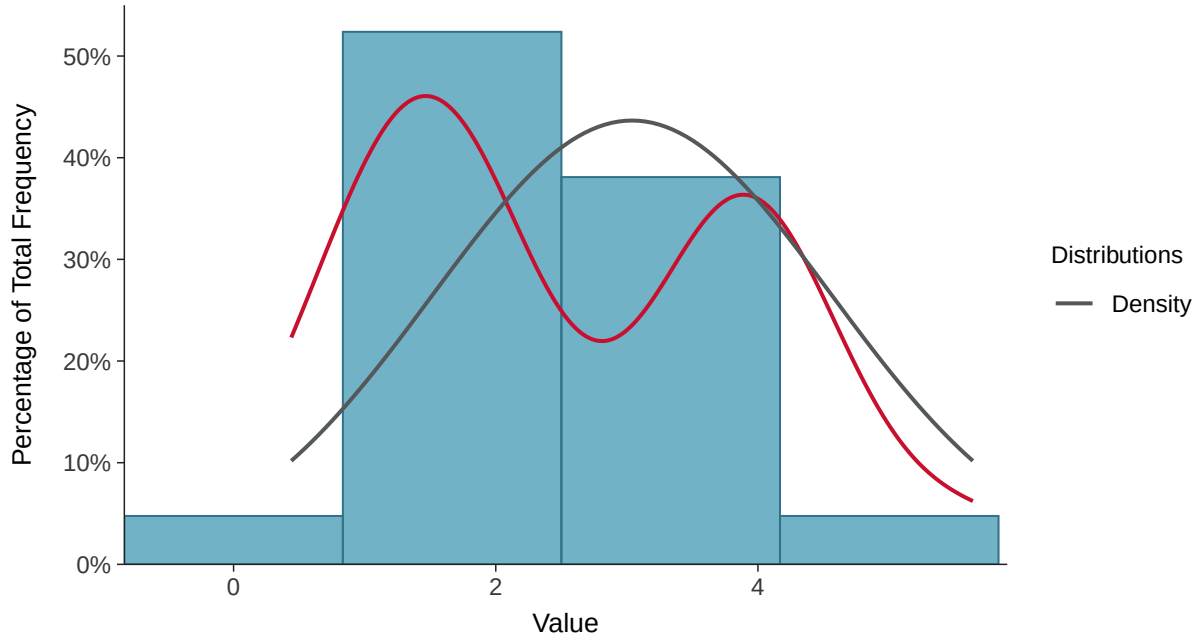
Scatter Plot

Vanadium, MW-11 (ug/L)



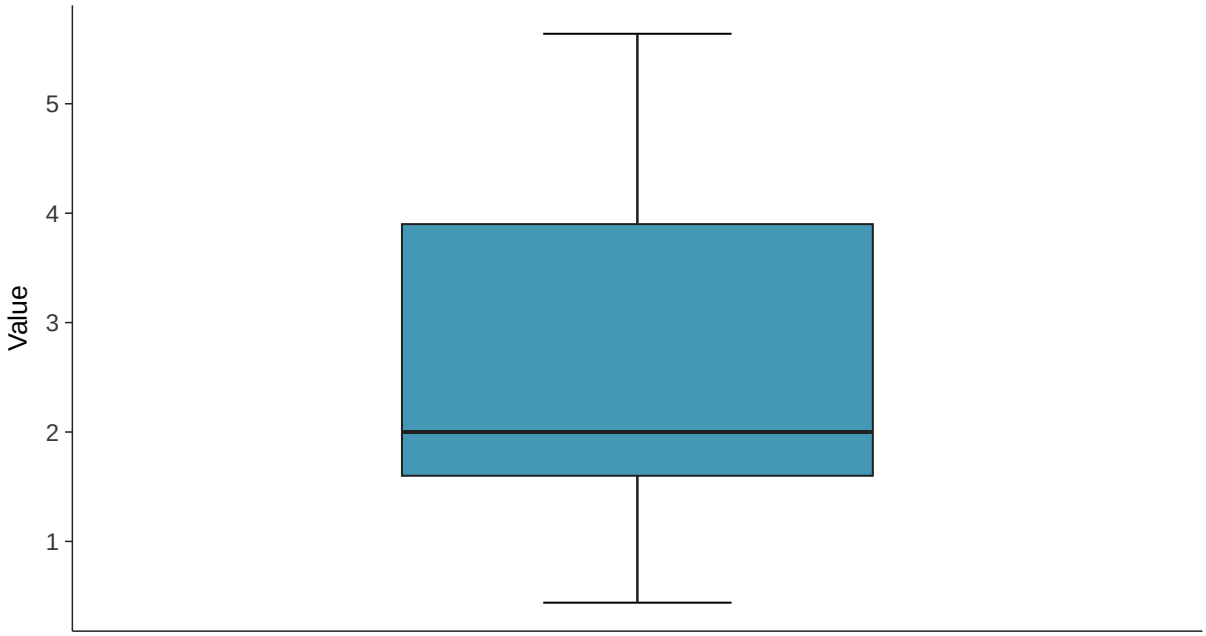
Histogram

Vanadium, MW-11 (ug/L)



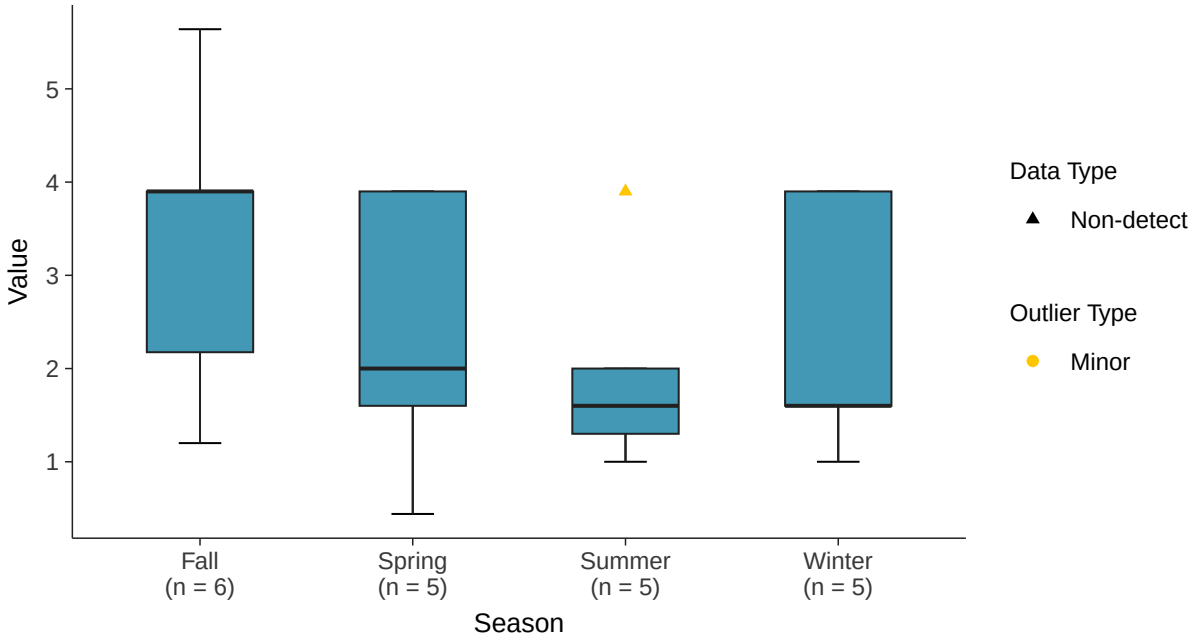
Boxplot

Vanadium, MW-11 (ug/L)



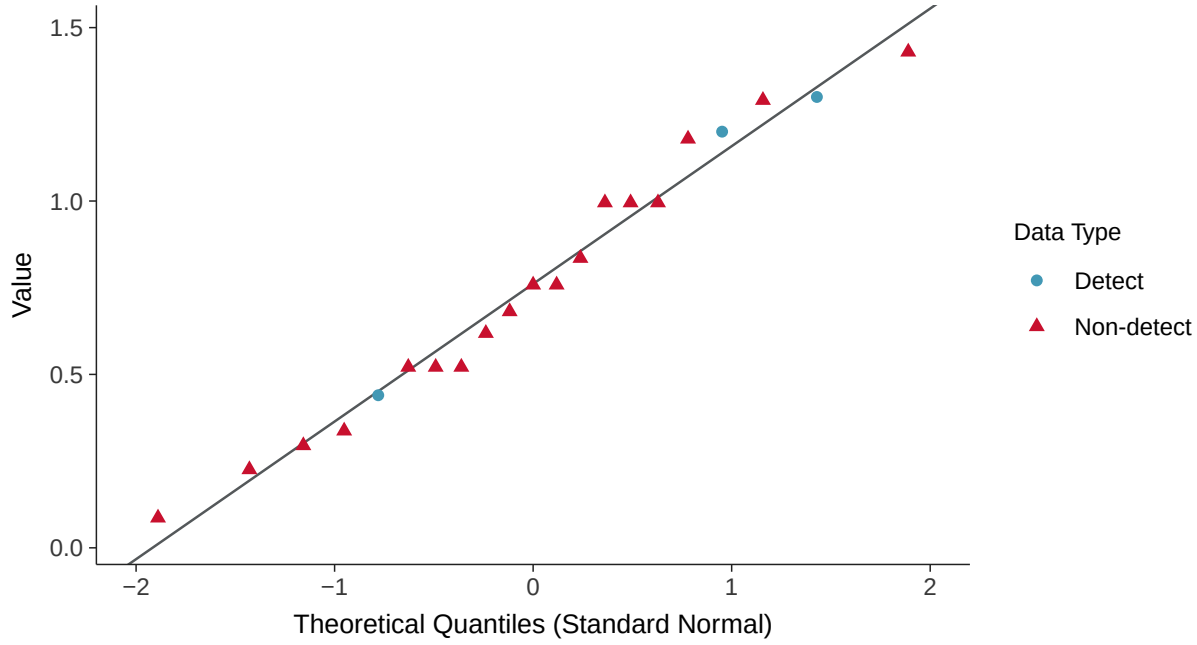
Boxplot by Season

Vanadium, MW-11 (ug/L)



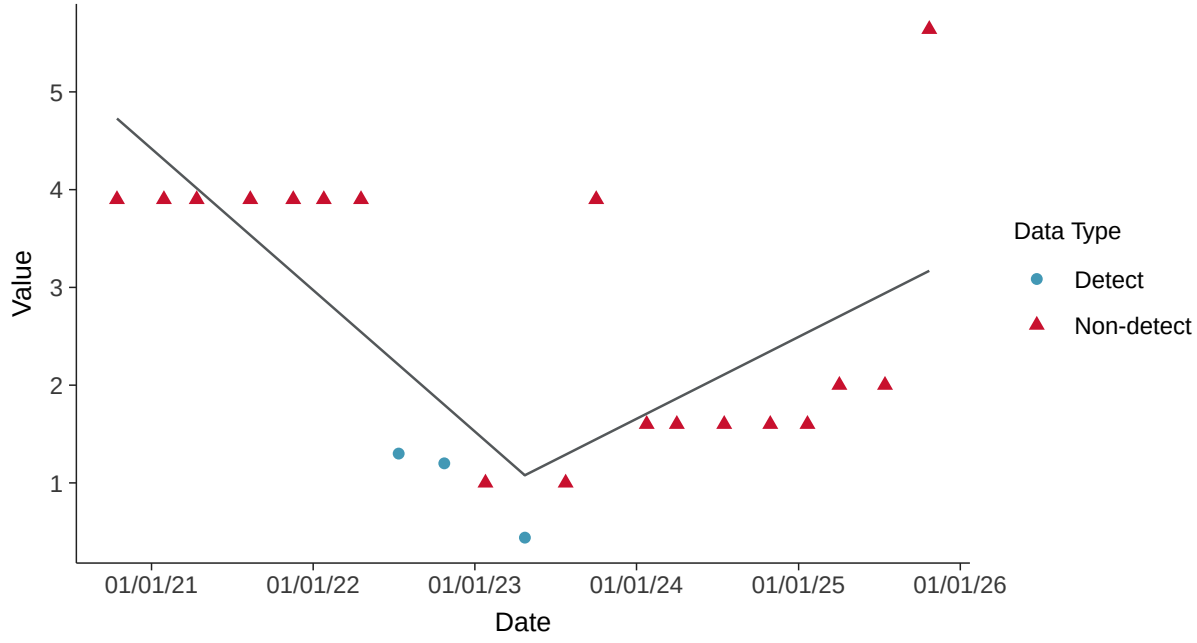
Normal Q-Q plot using ROS Imputed Estimates

Vanadium, MW-11 (ug/L)



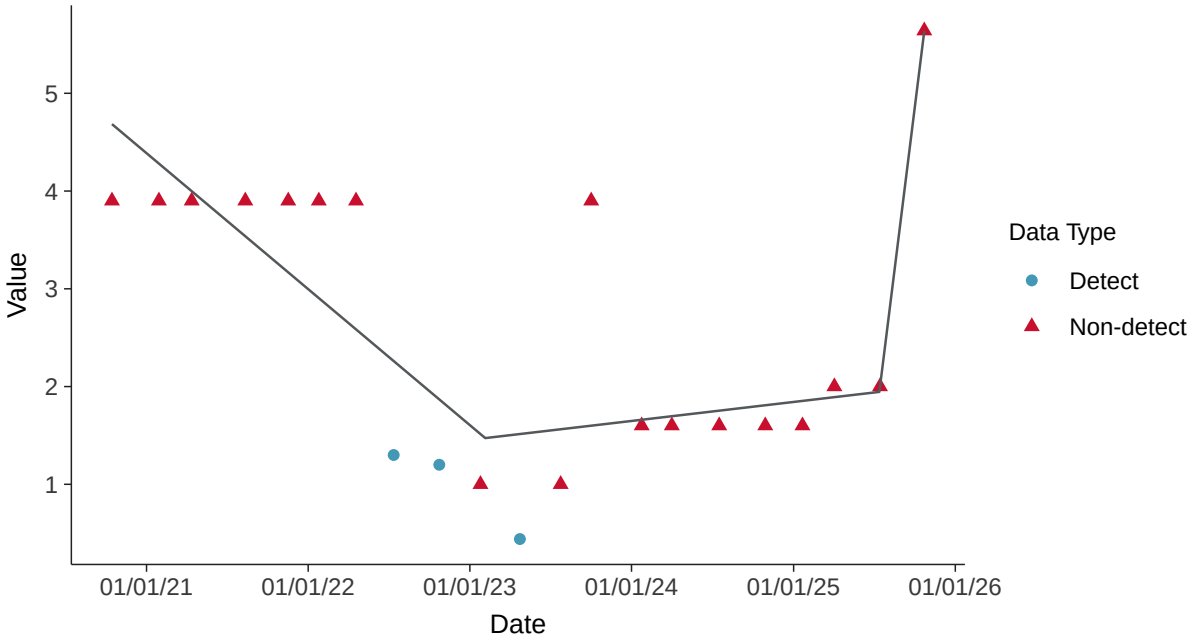
Trend Regression: Piecewise Linear-Linear

Vanadium, MW-11 (ug/L)



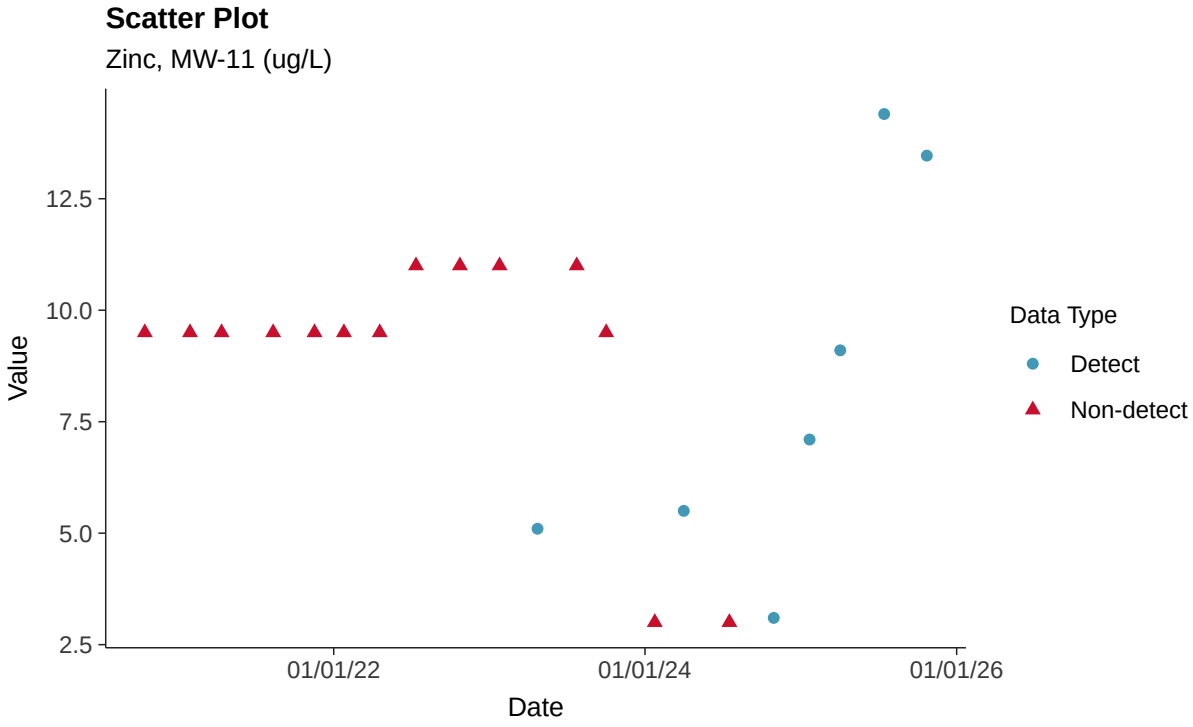
Trend Regression: Piecewise Linear-Linear-Linear

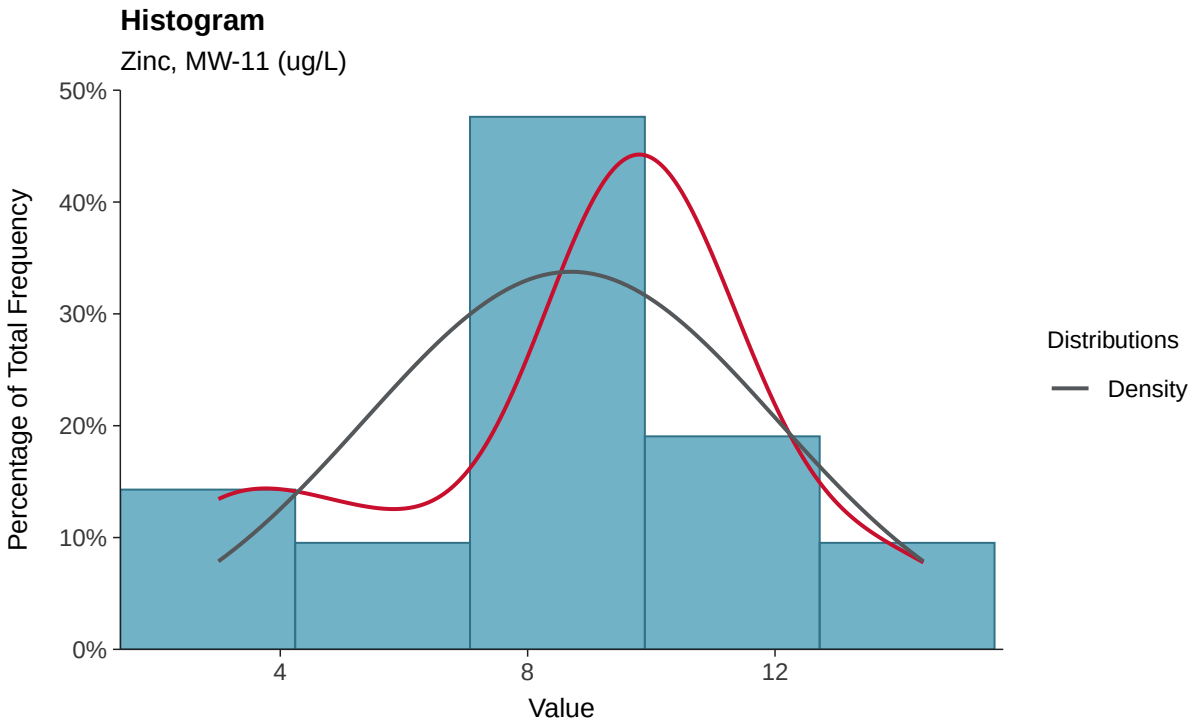
Vanadium, MW-11 (ug/L)



App. I Metals: Zinc, MW-11

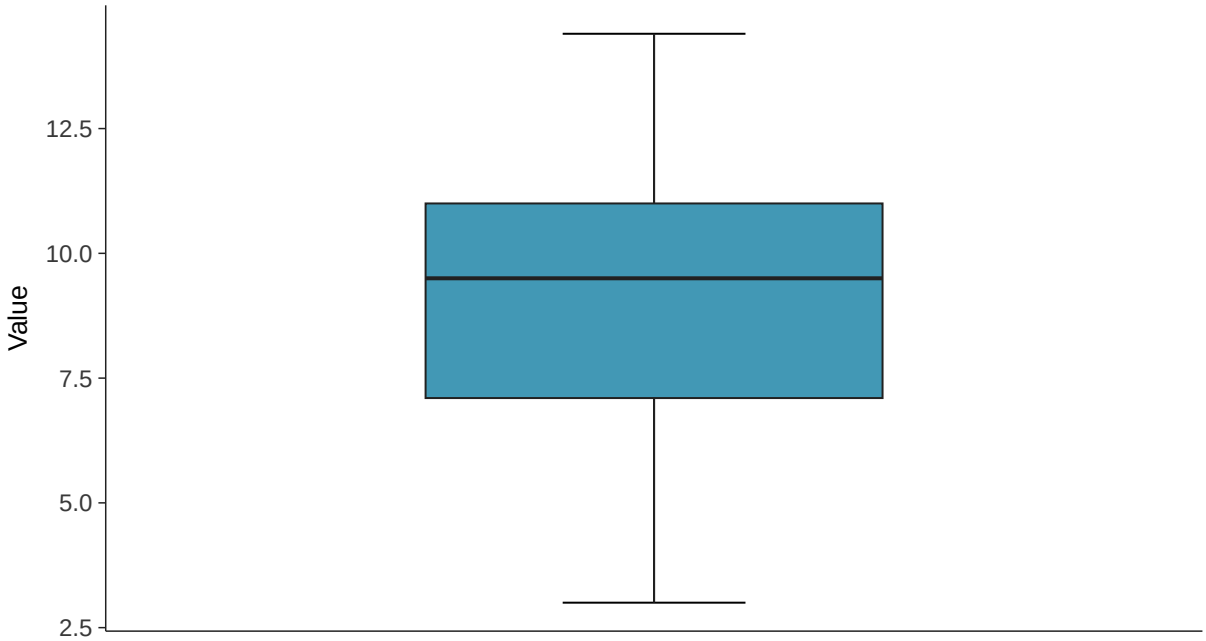
ID: 10_1_128





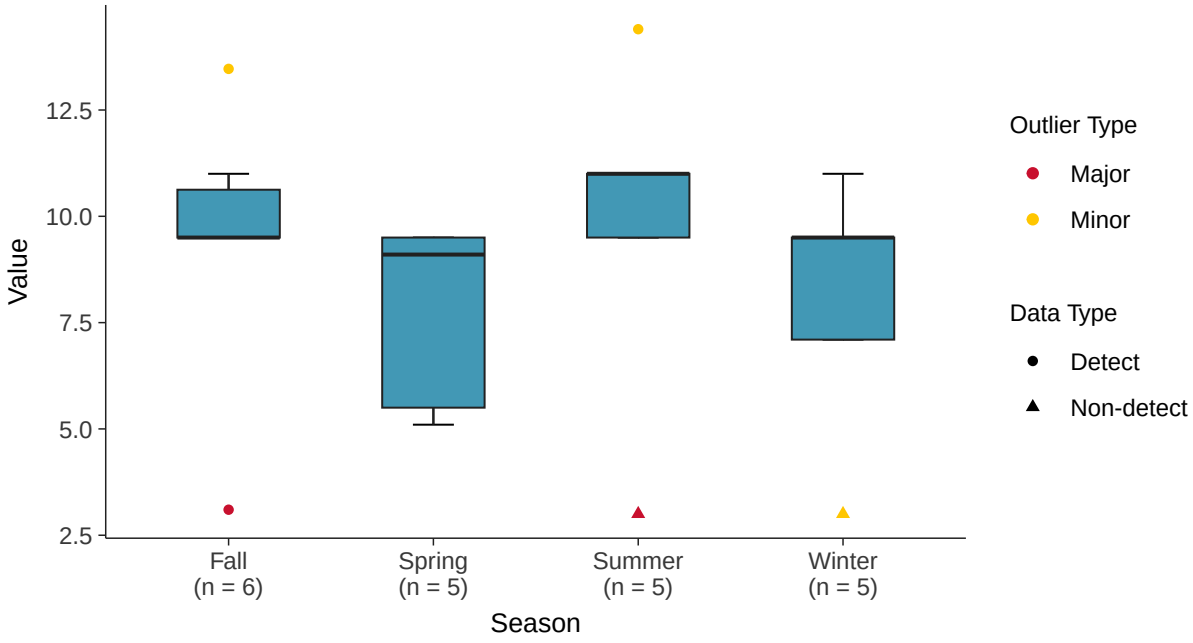
Boxplot

Zinc, MW-11 (ug/L)



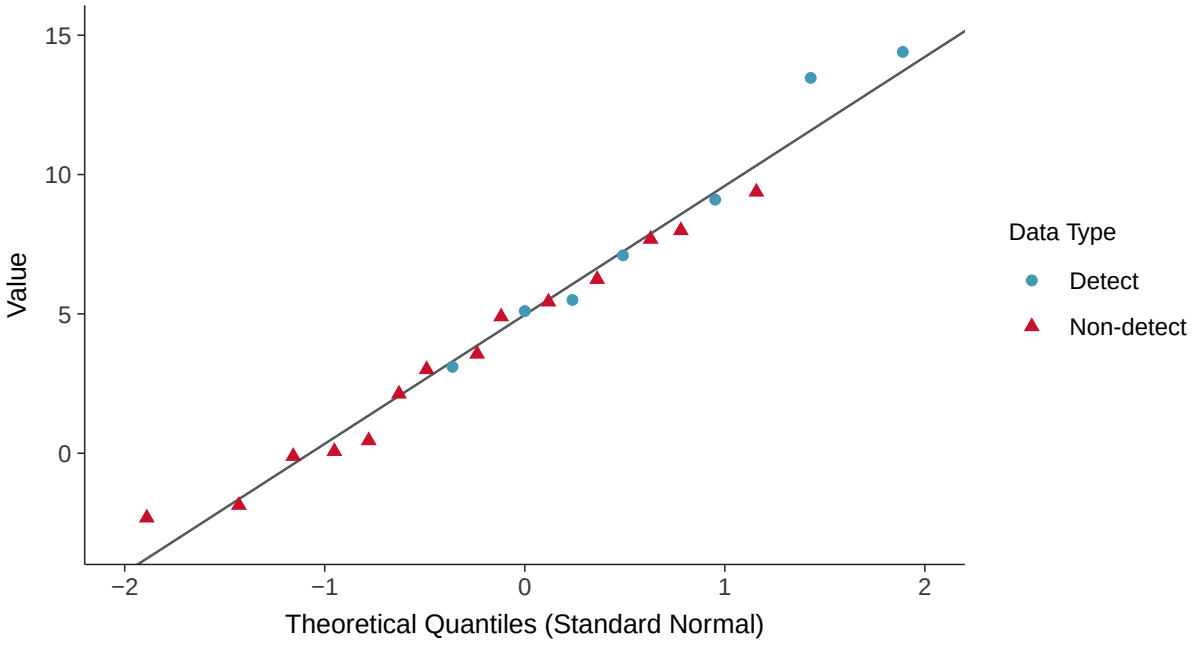
Boxplot by Season

Zinc, MW-11 (ug/L)



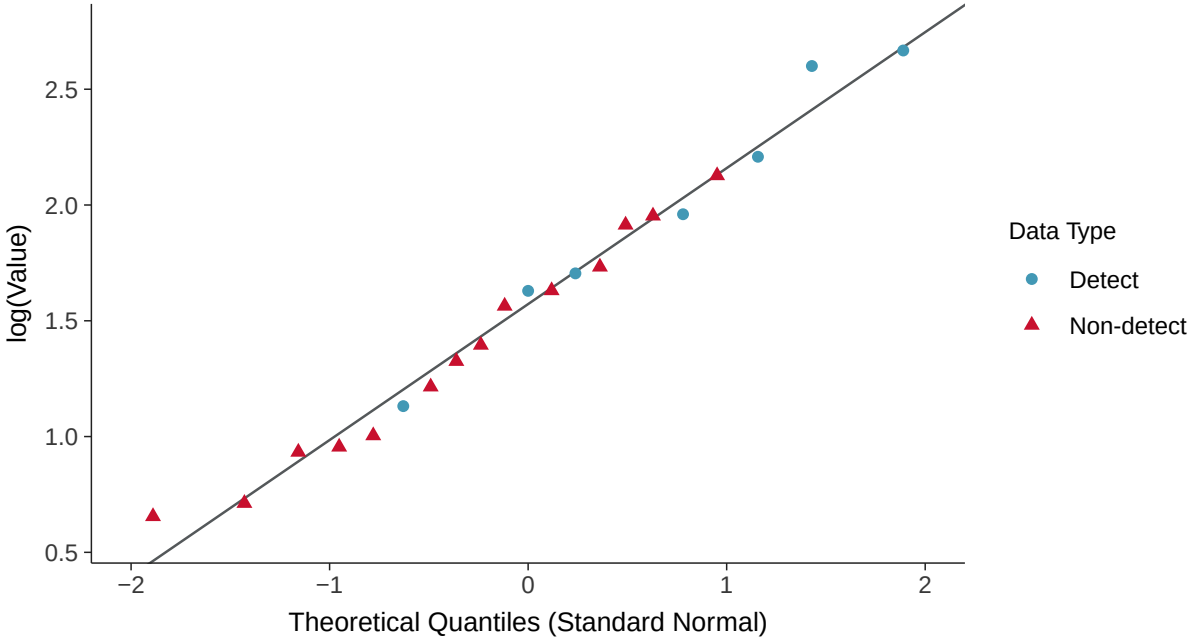
Normal Q-Q plot using ROS Imputed Estimates

Zinc, MW-11 (ug/L)



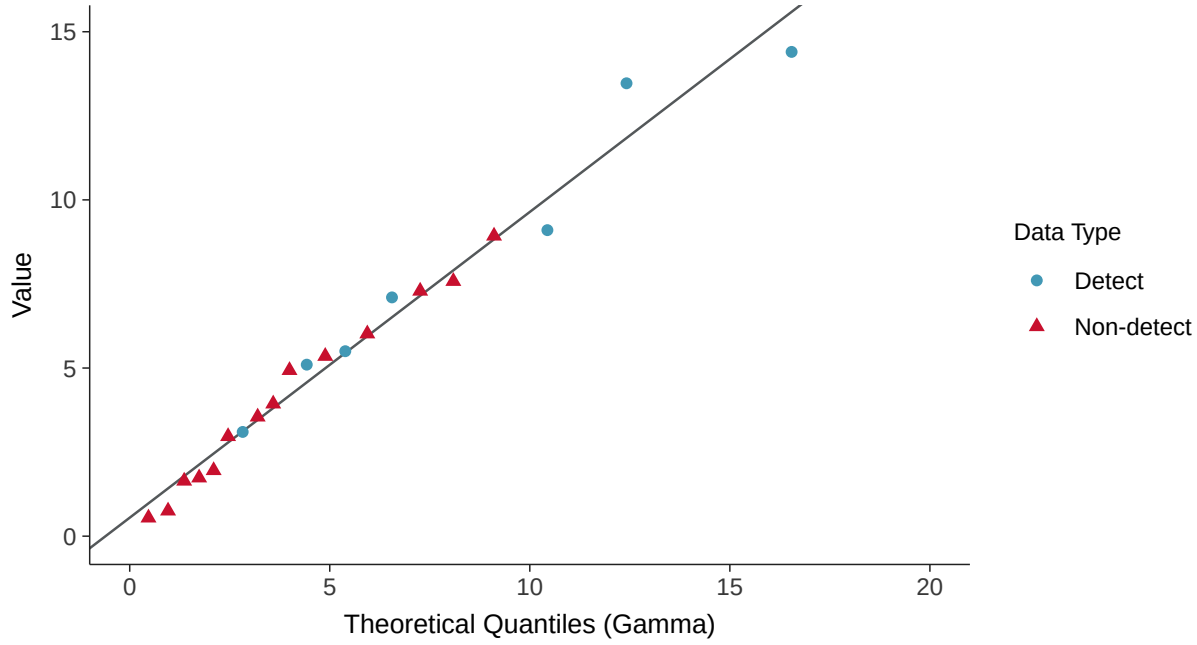
Lognormal Q-Q plot using ROS Imputed Estimates

Zinc, MW-11 (ug/L)



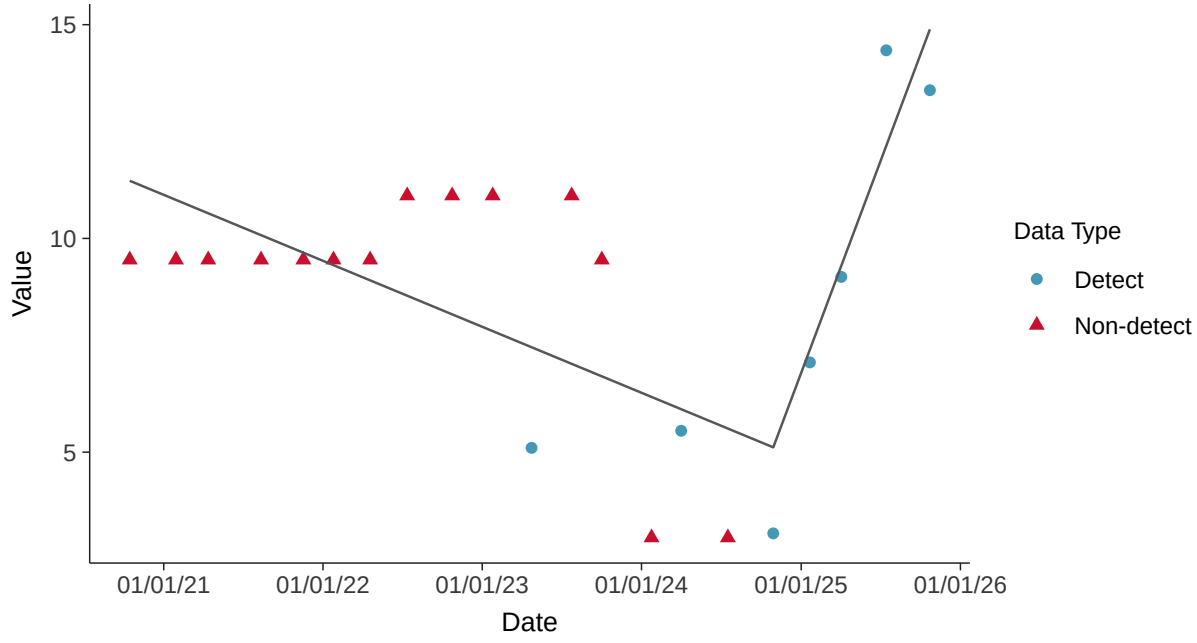
Gamma Q-Q plot using ROS Imputed Estimates

Zinc, MW-11 (ug/L)



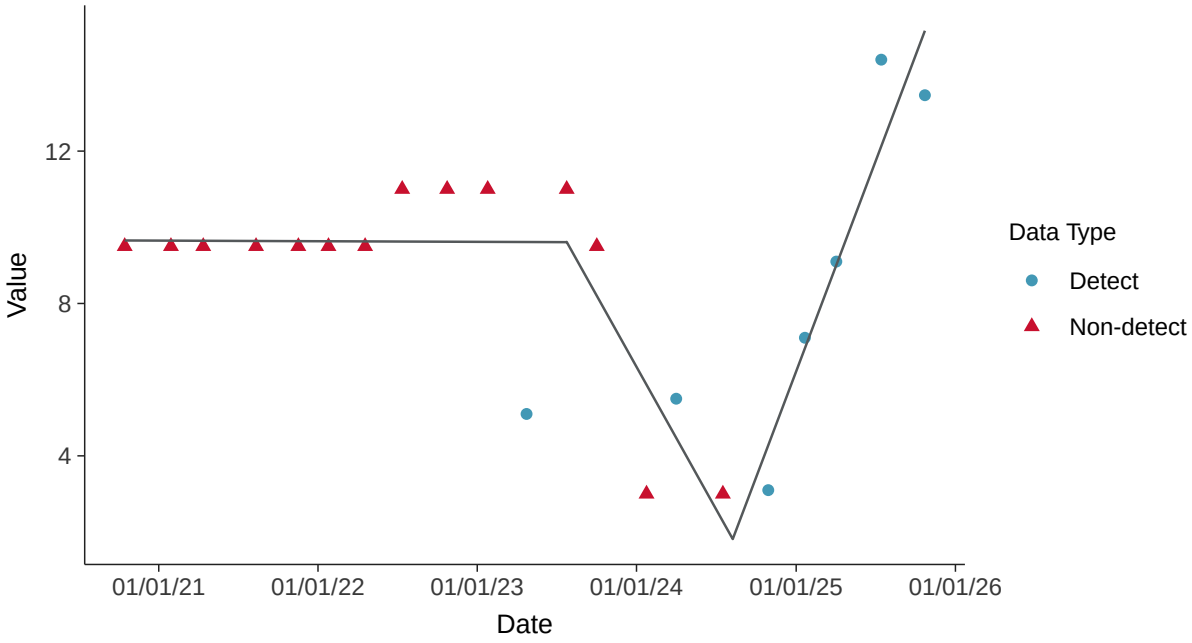
Trend Regression: Piecewise Linear-Linear

Zinc, MW-11 (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Zinc, MW-11 (ug/L)

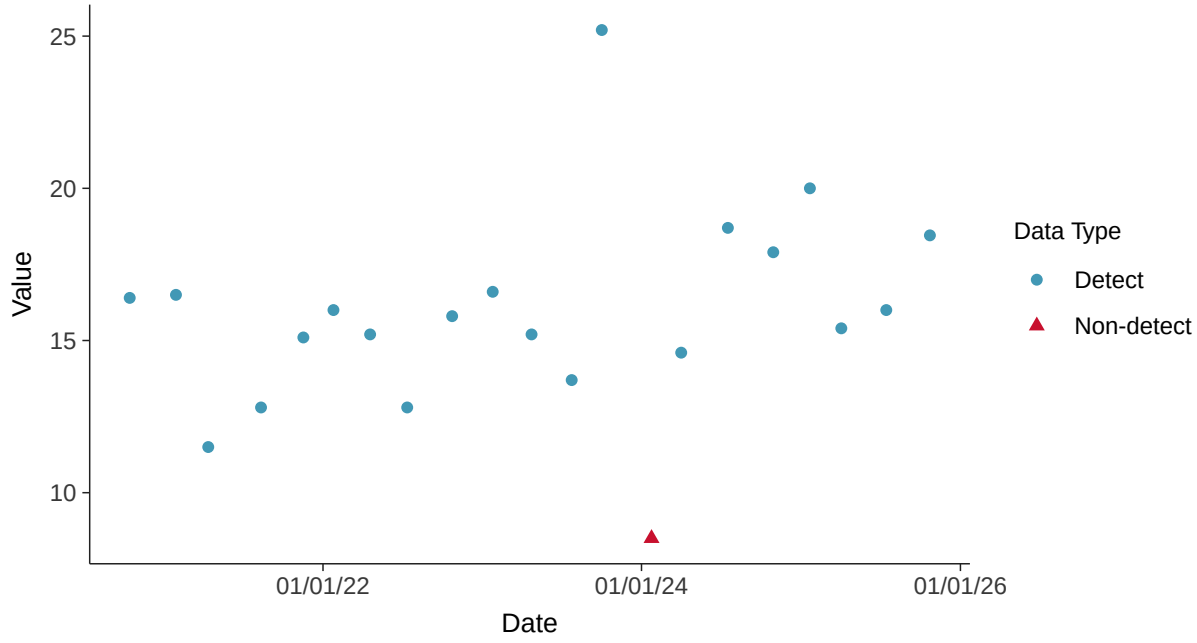


App. III: Boron, MW-11

ID: 10_2_105

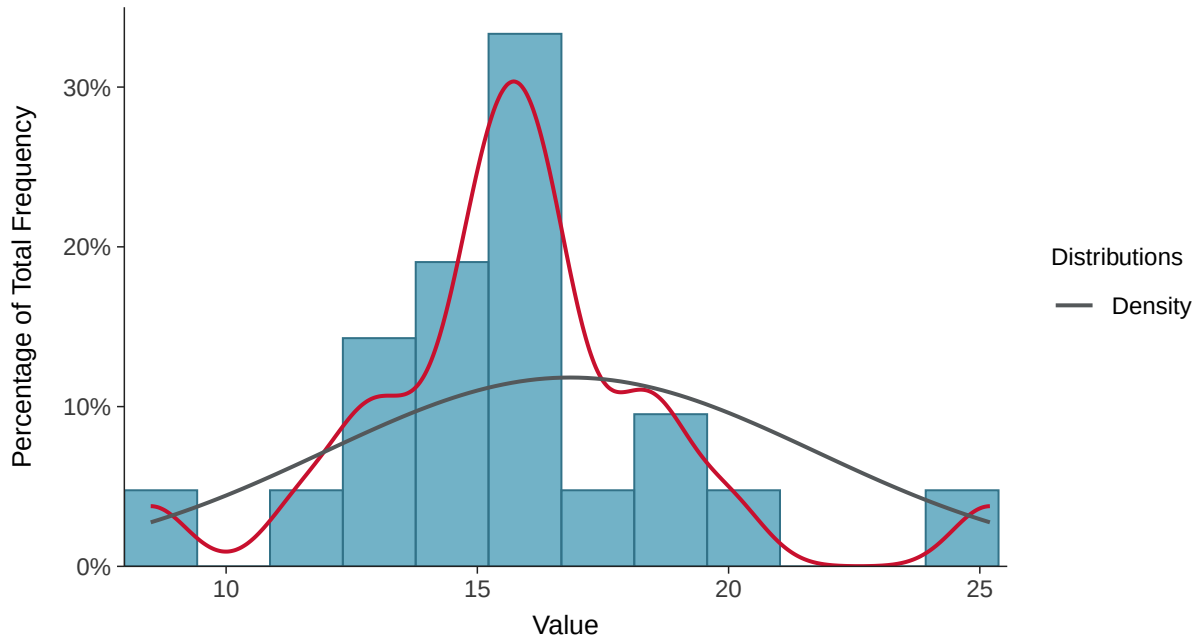
Scatter Plot

Boron, MW-11 (ug/L)



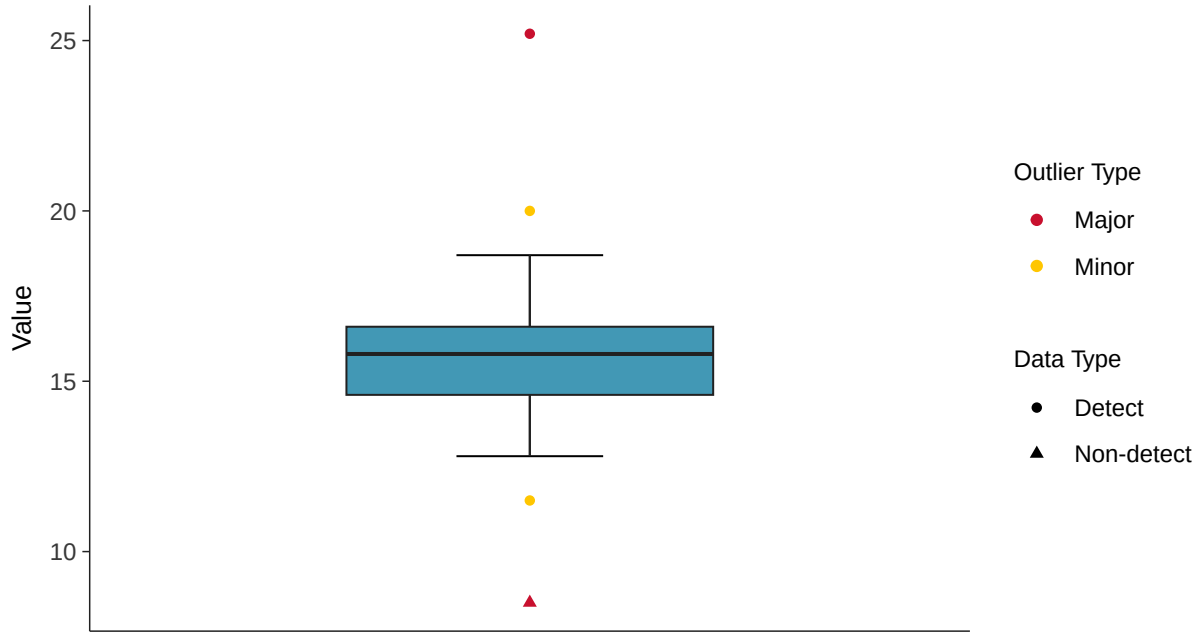
Histogram

Boron, MW-11 (ug/L)



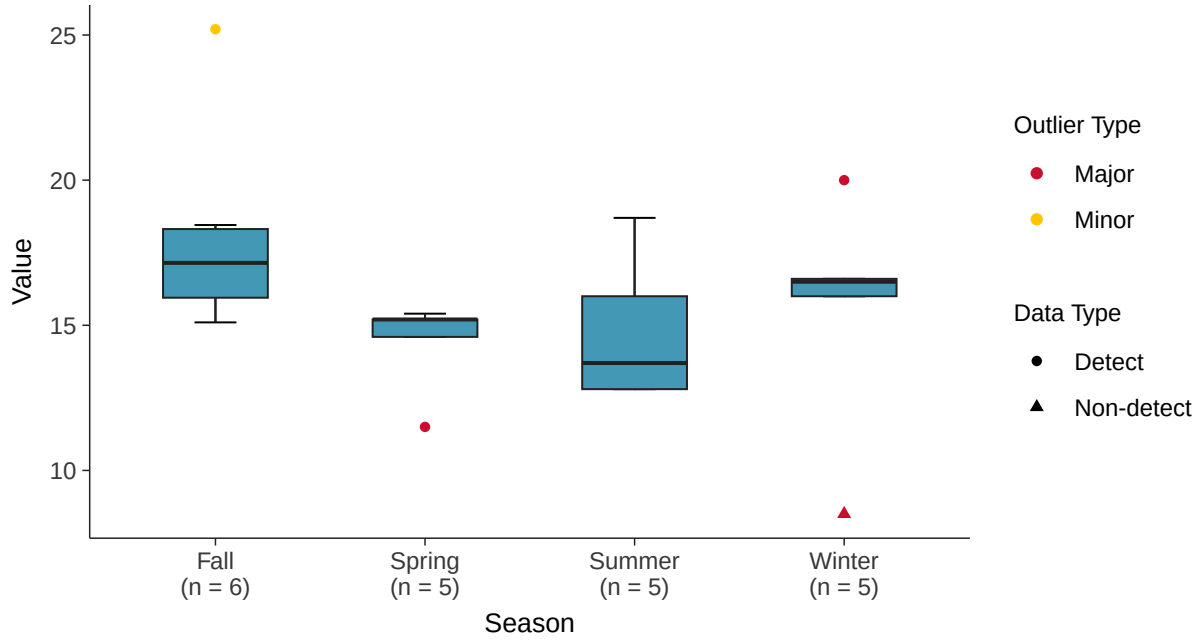
Boxplot

Boron, MW-11 (ug/L)



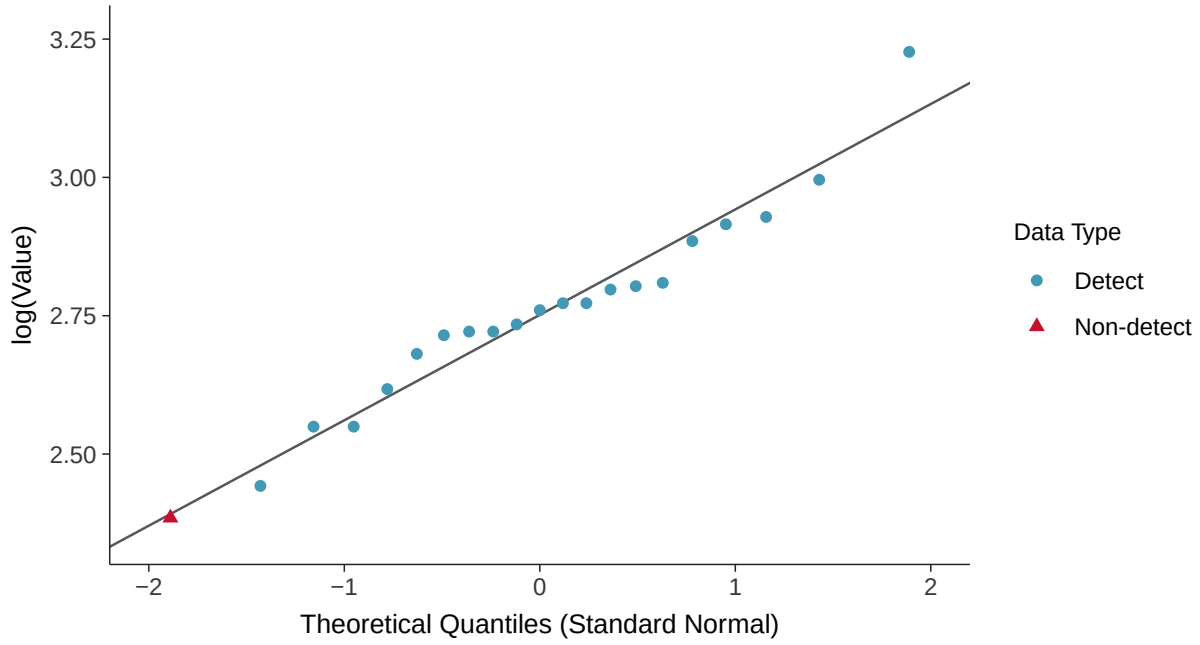
Boxplot by Season

Boron, MW-11 (ug/L)



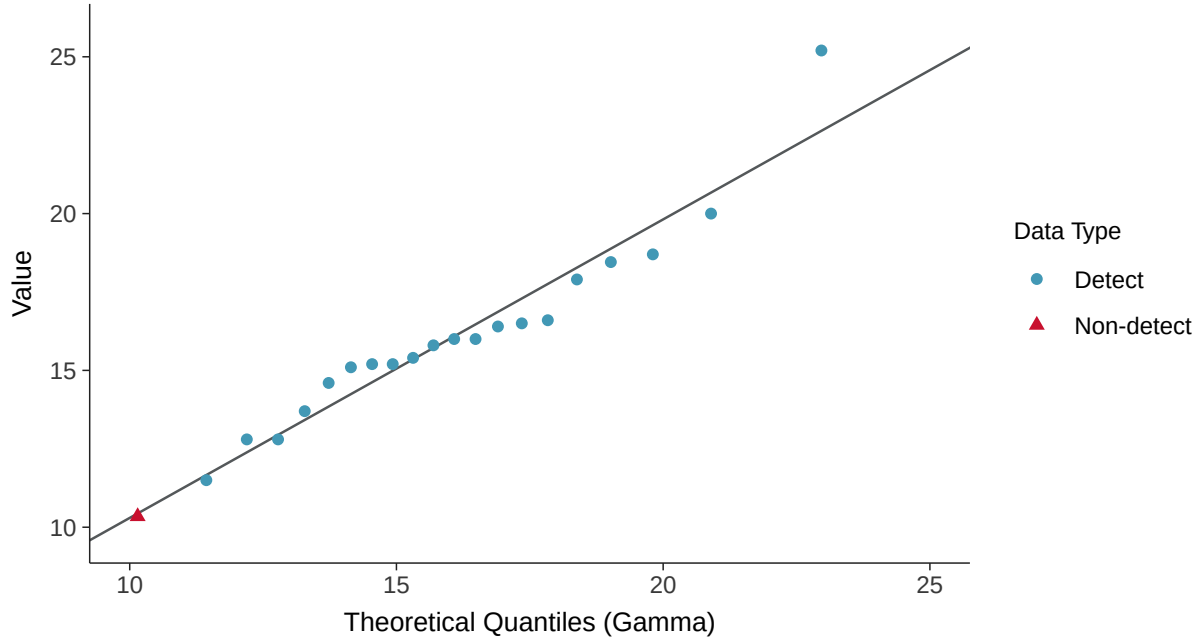
Lognormal Q-Q plot using ROS Imputed Estimates

Boron, MW-11 (ug/L)



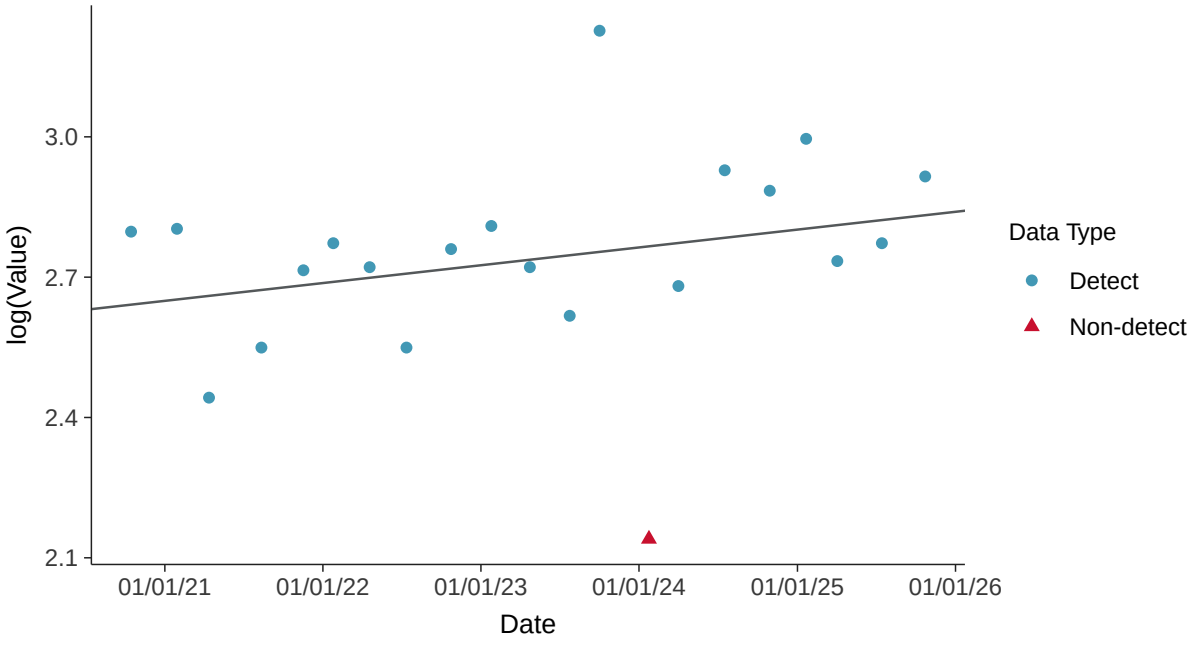
Gamma Q-Q plot using ROS Imputed Estimates

Boron, MW-11 (ug/L)



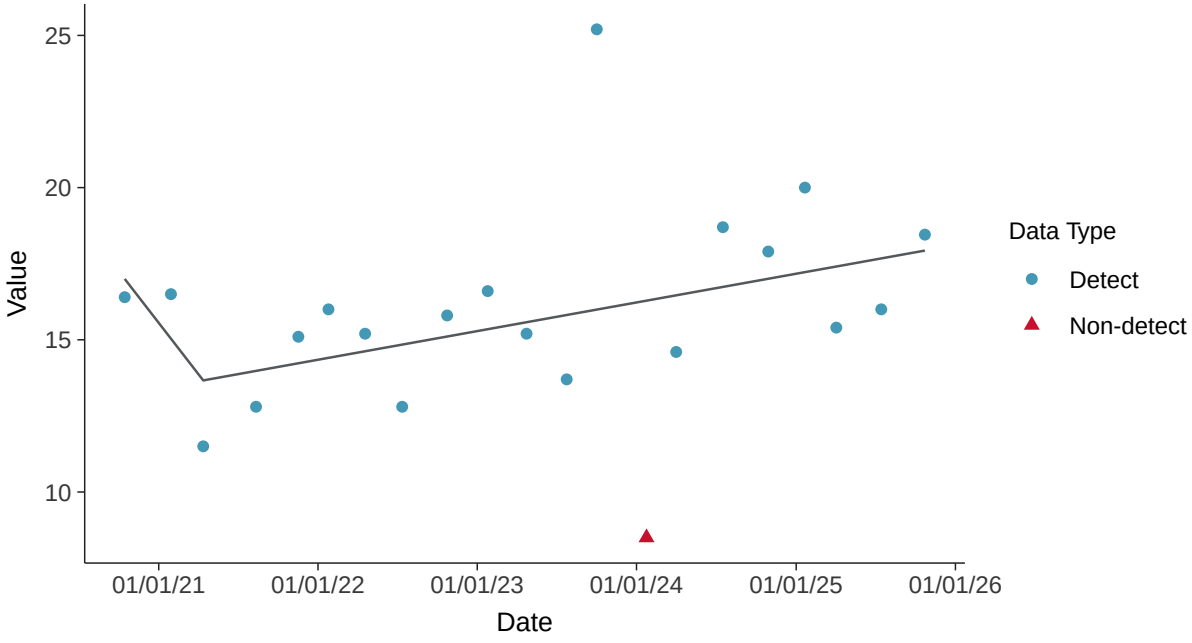
Trend Regression: Lognormal MLE

Boron, MW-11 (ug/L)



Trend Regression: Piecewise Linear-Linear

Boron, MW-11 (ug/L)

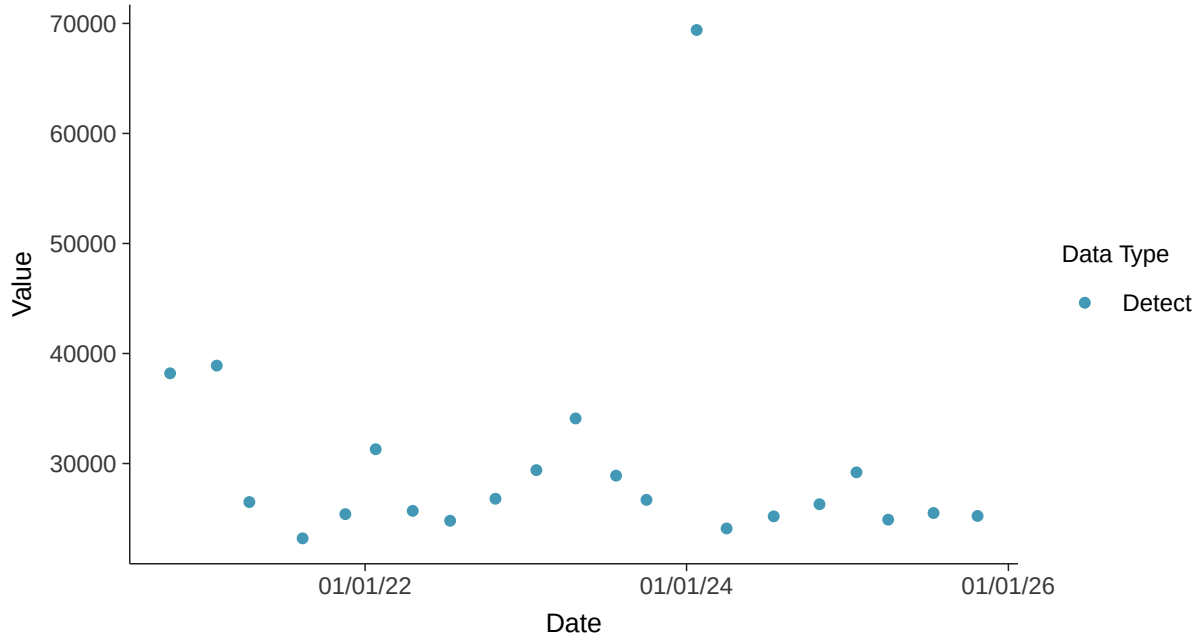


App. III: Calcium, MW-11

ID: 10_2_107

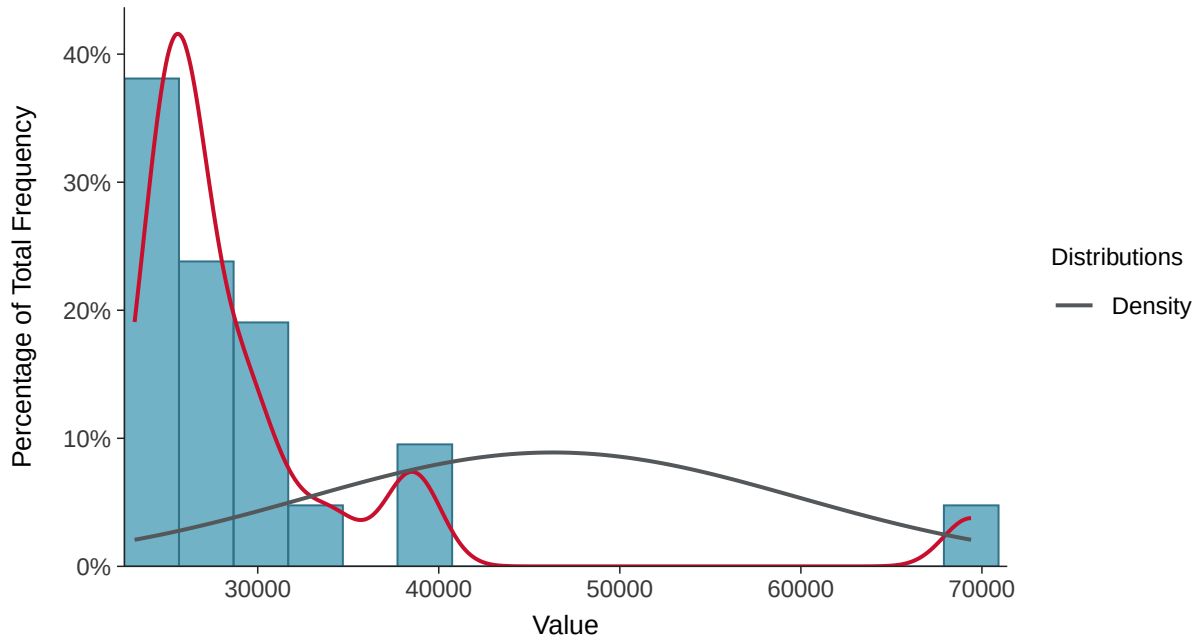
Scatter Plot

Calcium, MW-11 (ug/L)



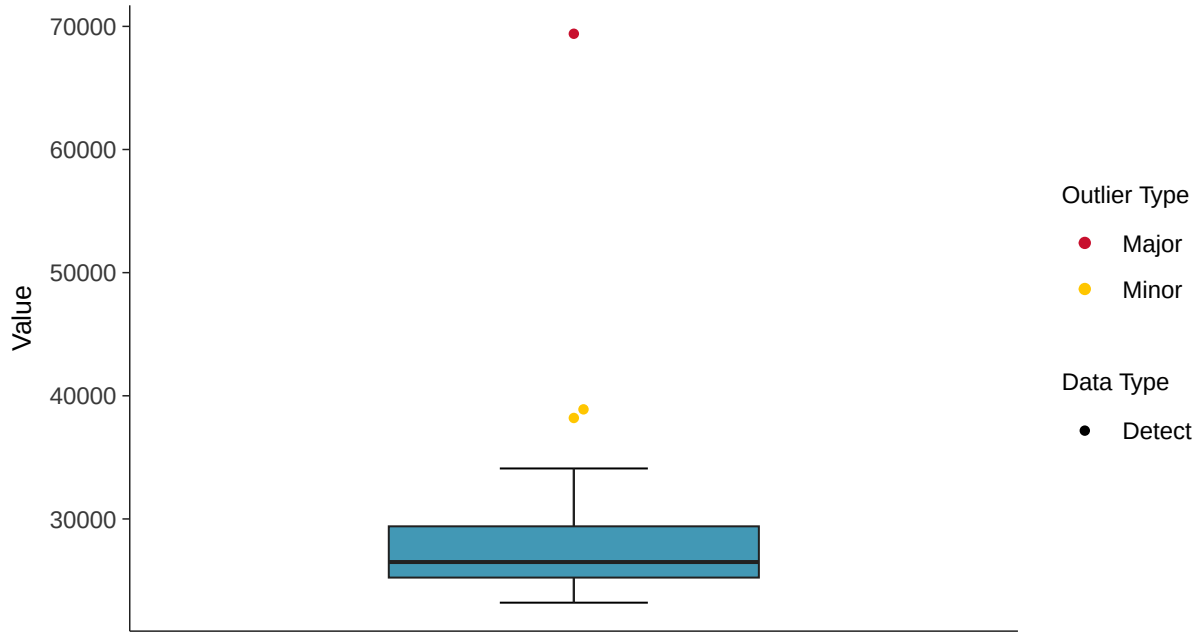
Histogram

Calcium, MW-11 (ug/L)



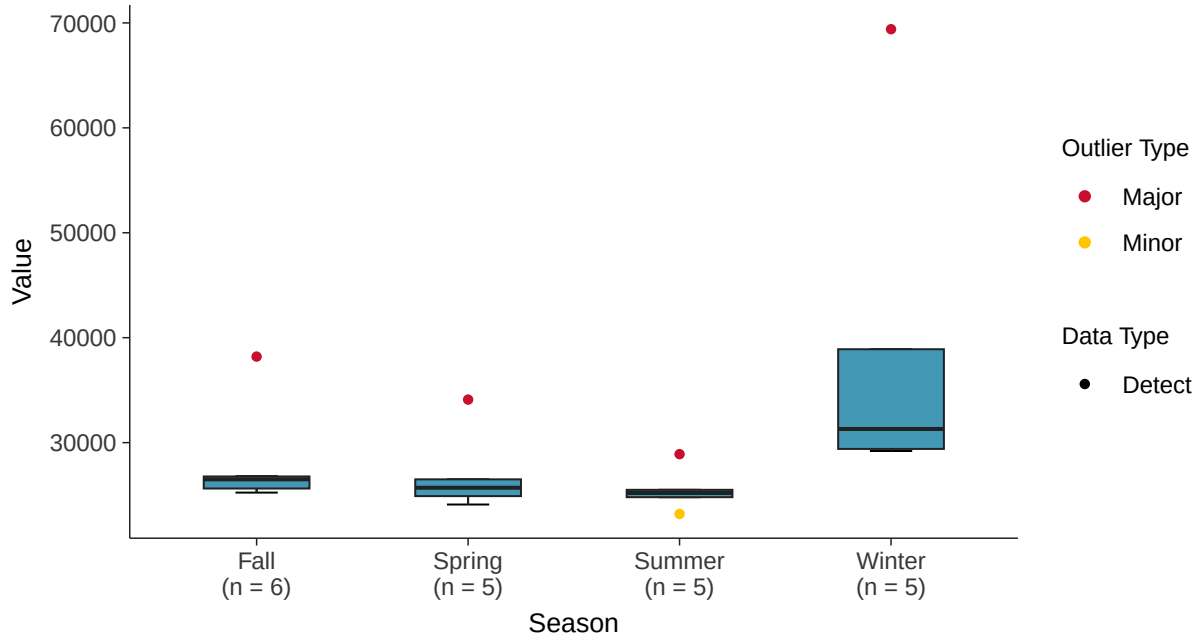
Boxplot

Calcium, MW-11 (ug/L)



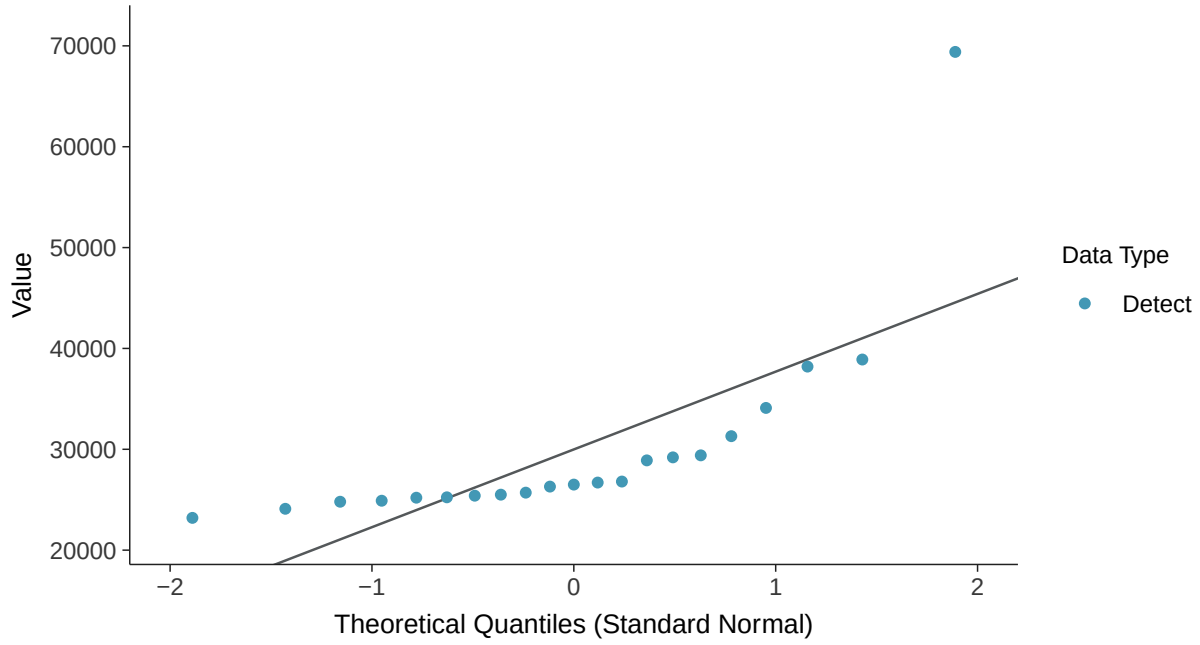
Boxplot by Season

Calcium, MW-11 (ug/L)



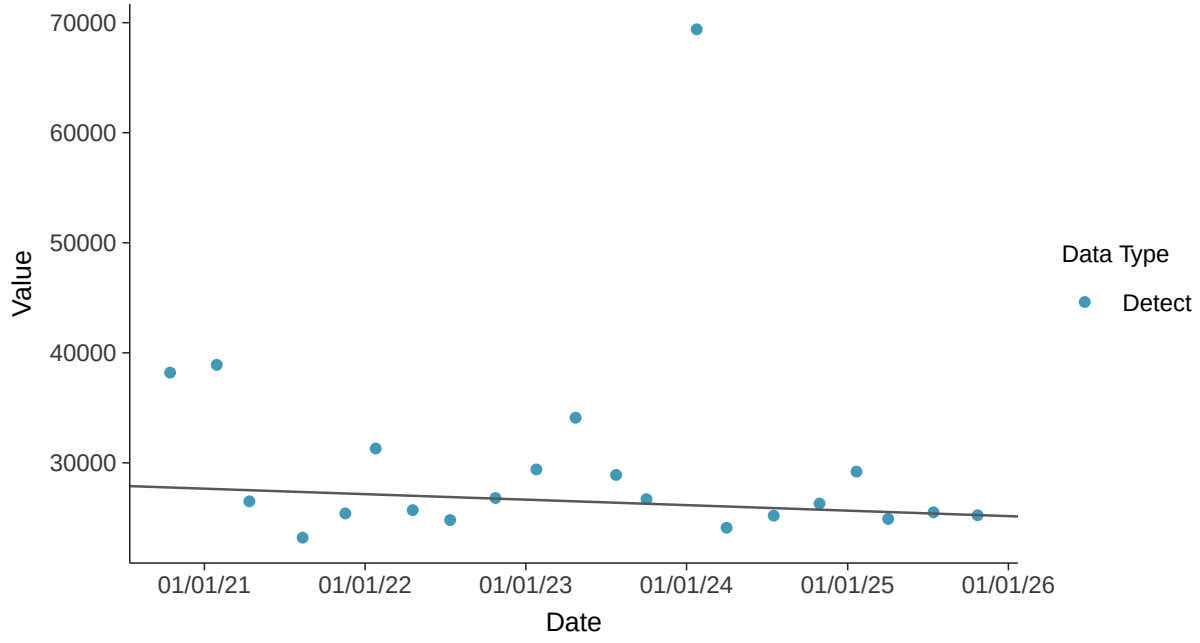
Normal Q-Q plot

Calcium, MW-11 (ug/L)



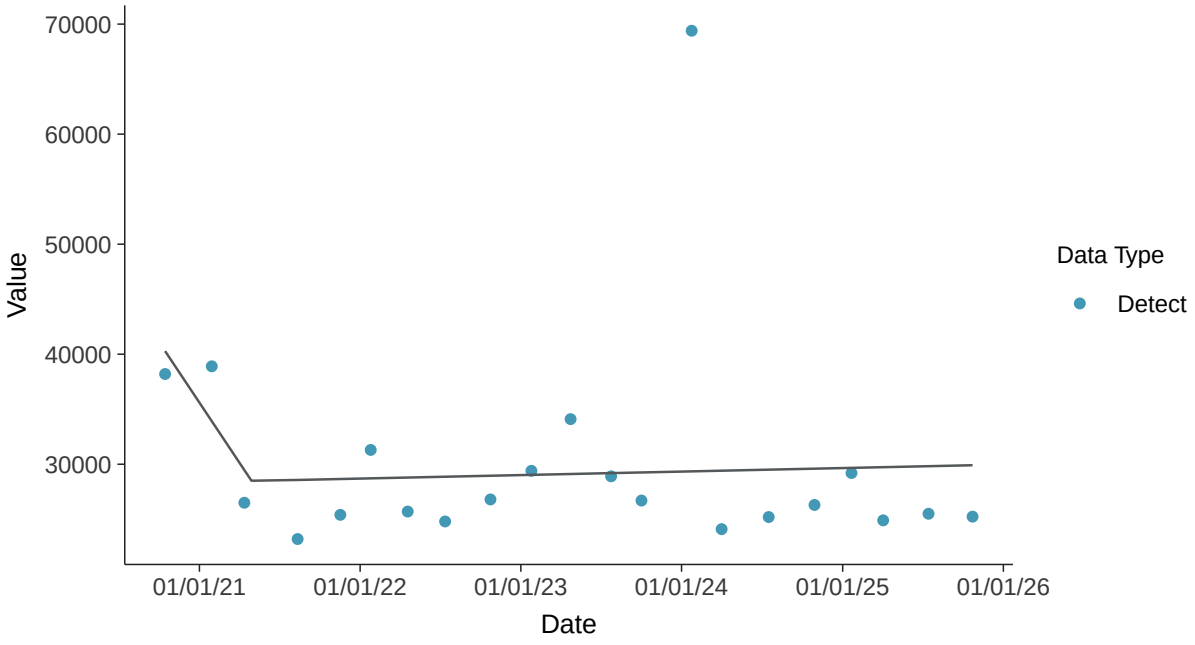
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Calcium, MW-11 (ug/L)



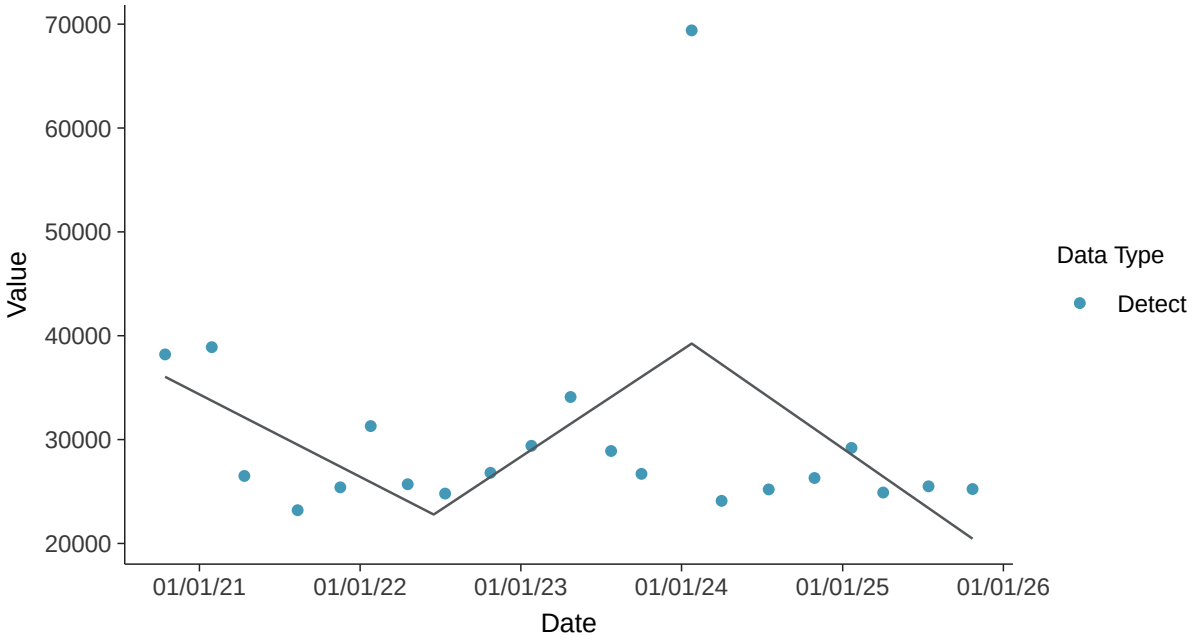
Trend Regression: Piecewise Linear-Linear

Calcium, MW-11 (ug/L)



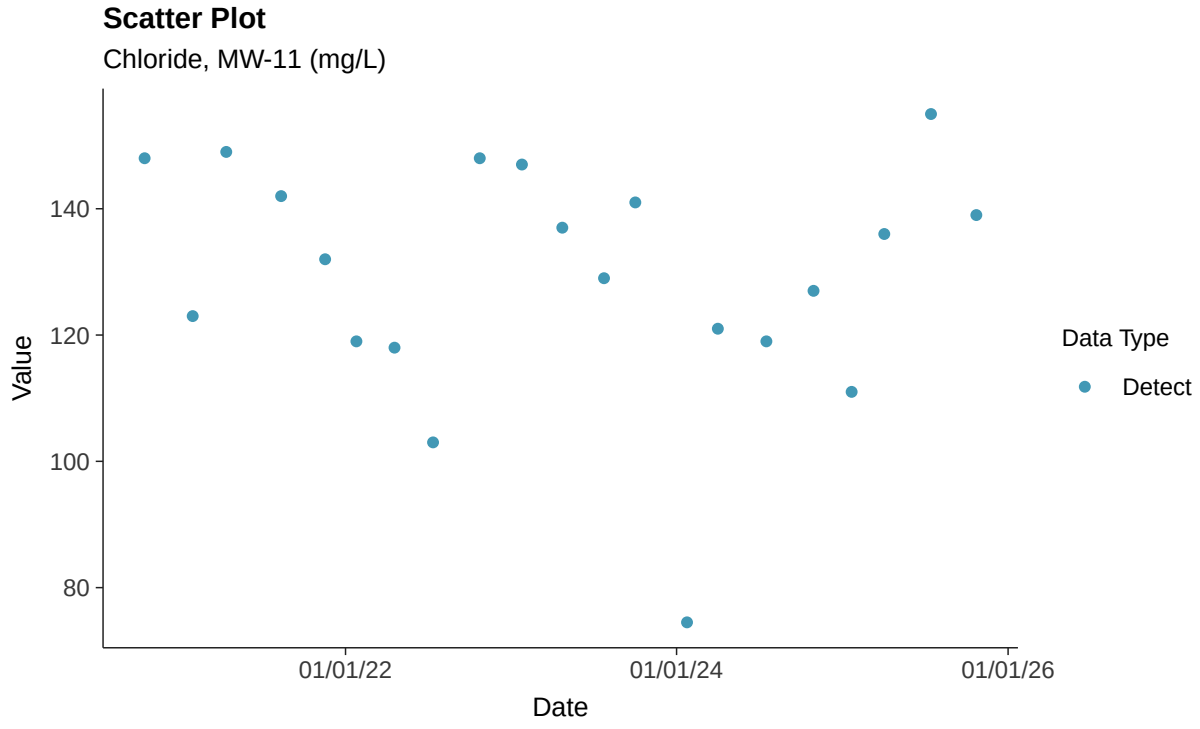
Trend Regression: Piecewise Linear-Linear-Linear

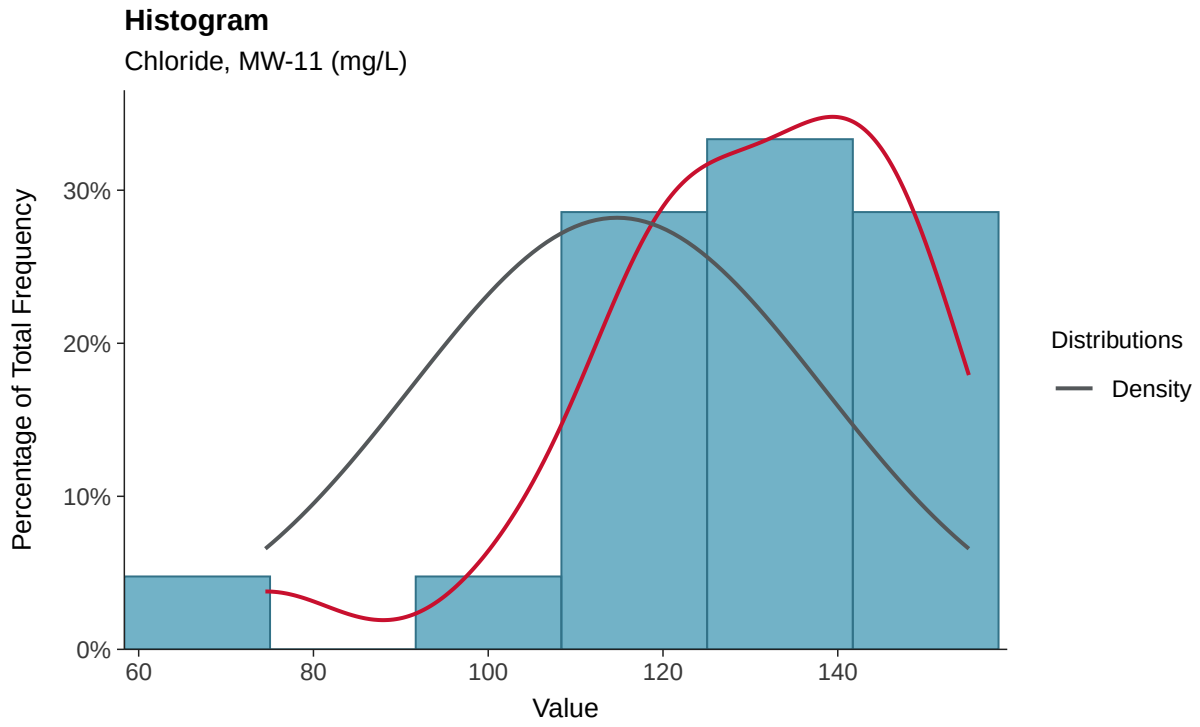
Calcium, MW-11 (ug/L)



App. III: Chloride, MW-11

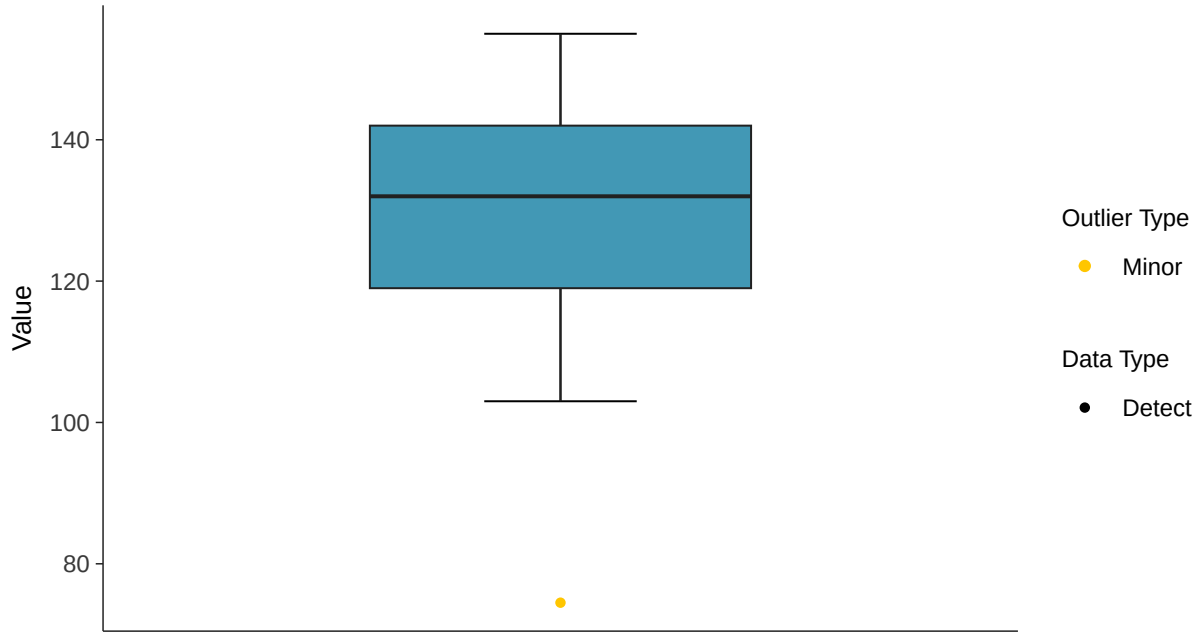
ID: 10_2_108





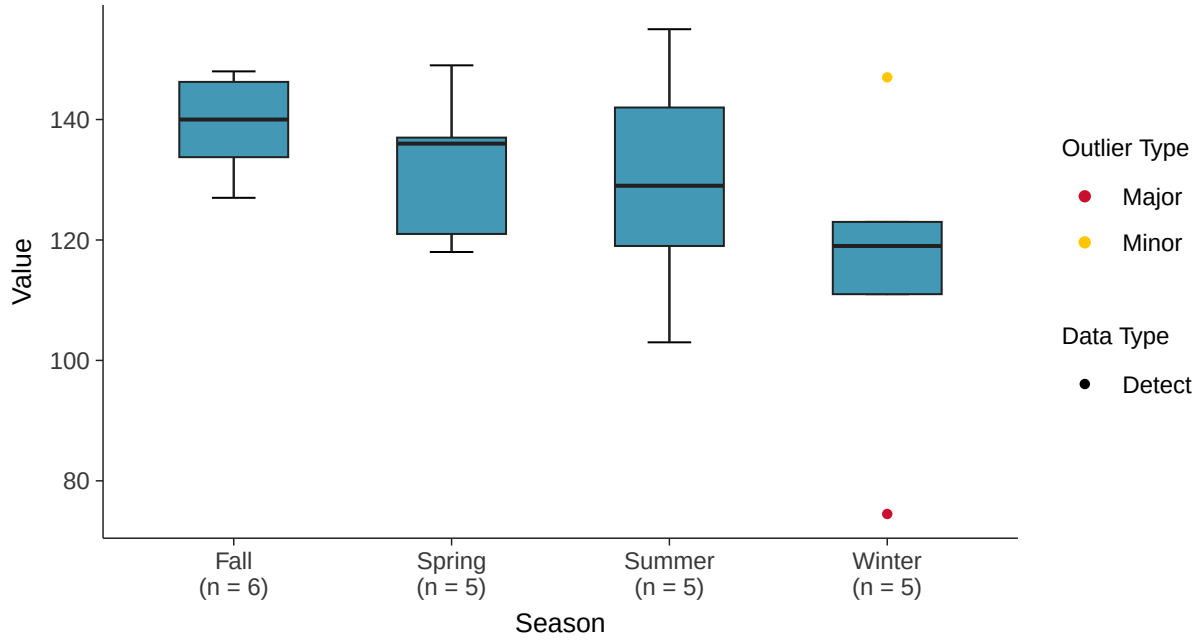
Boxplot

Chloride, MW-11 (mg/L)



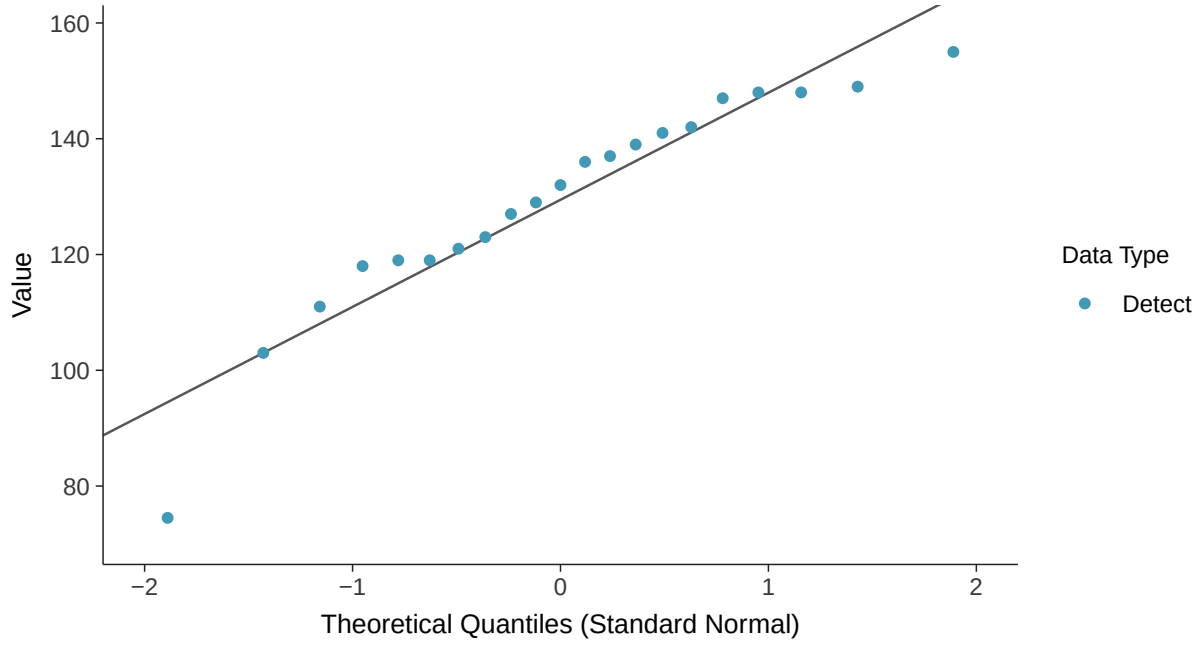
Boxplot by Season

Chloride, MW-11 (mg/L)



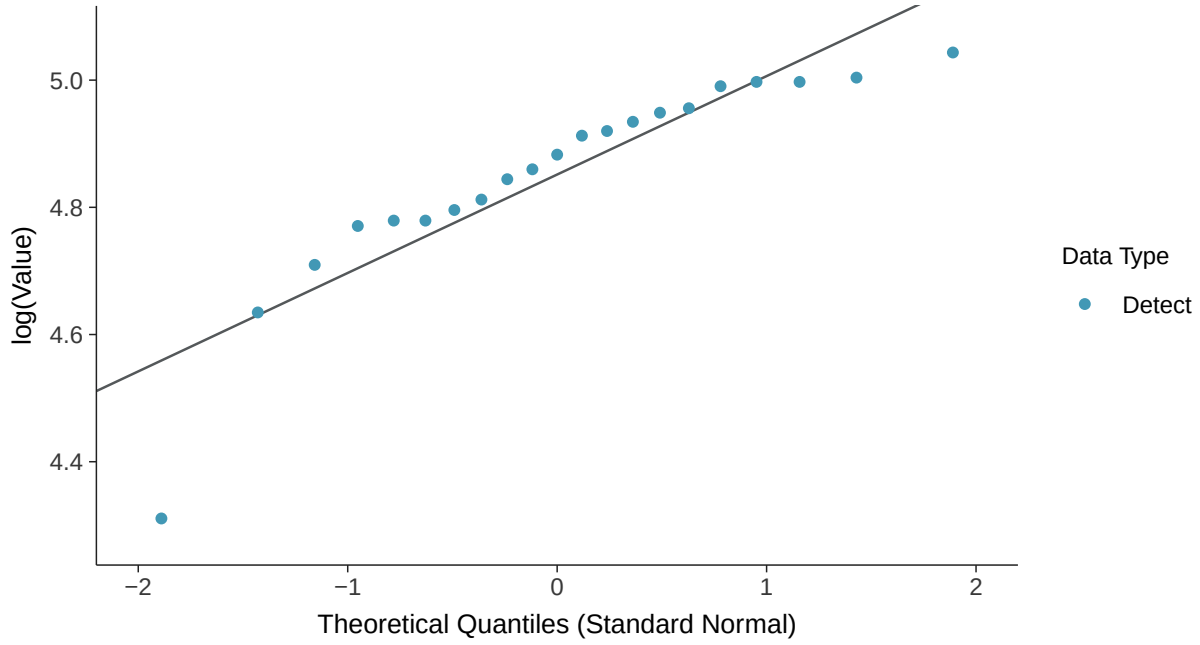
Normal Q-Q plot

Chloride, MW-11 (mg/L)



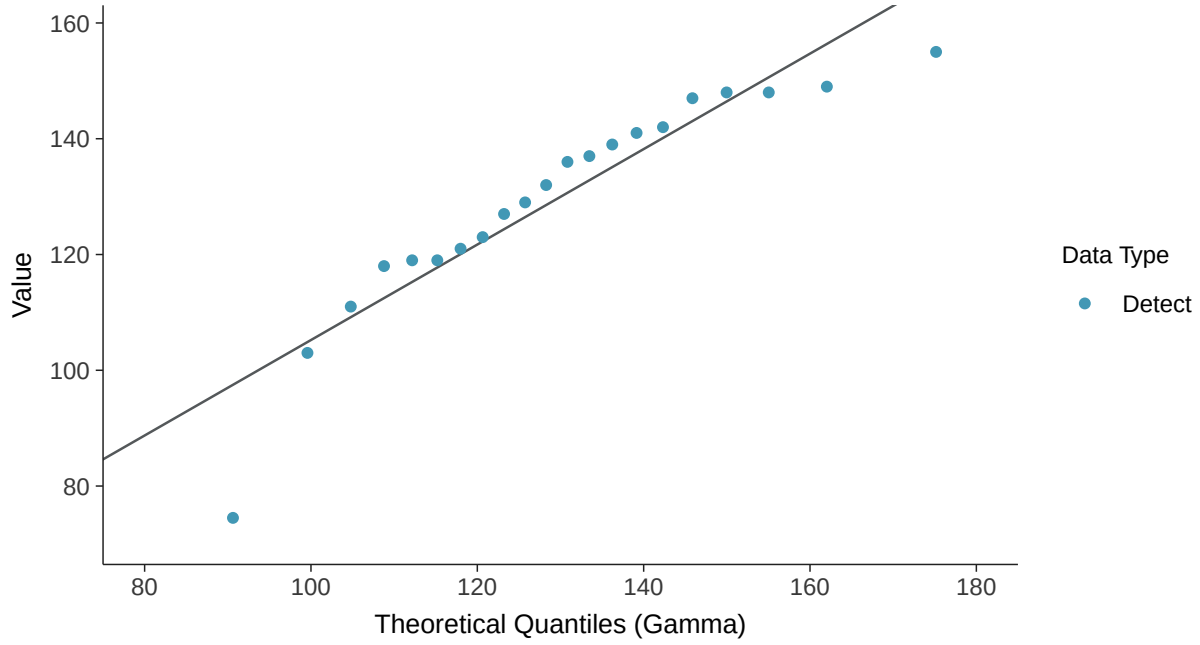
Lognormal Q-Q plot

Chloride, MW-11 (mg/L)



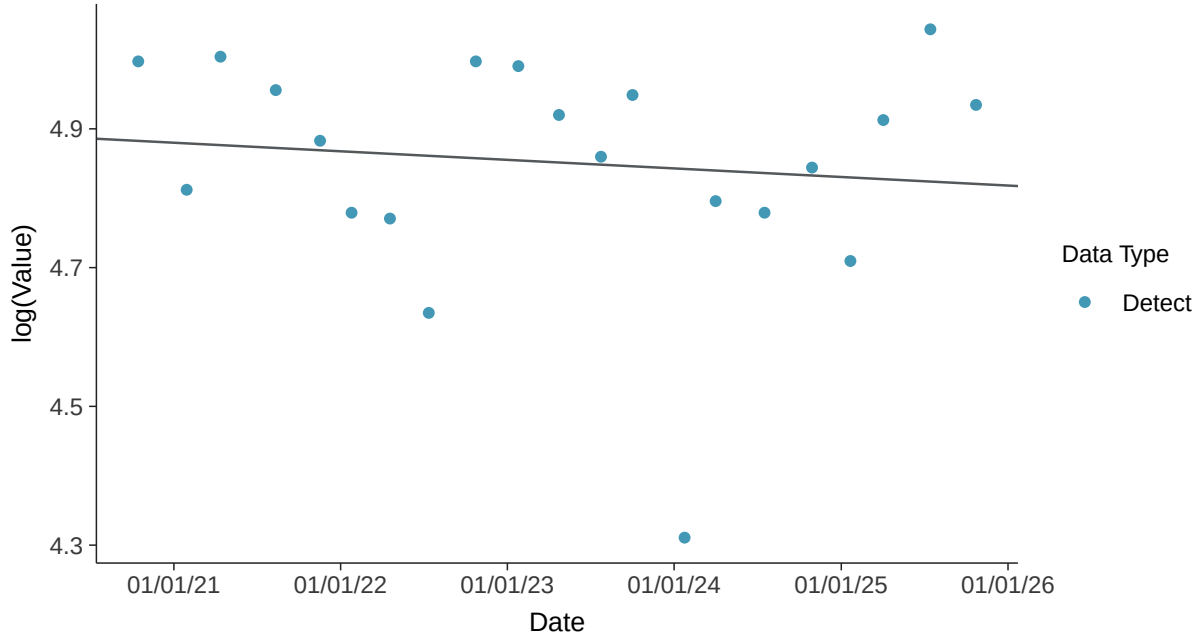
Gamma Q-Q plot

Chloride, MW-11 (mg/L)



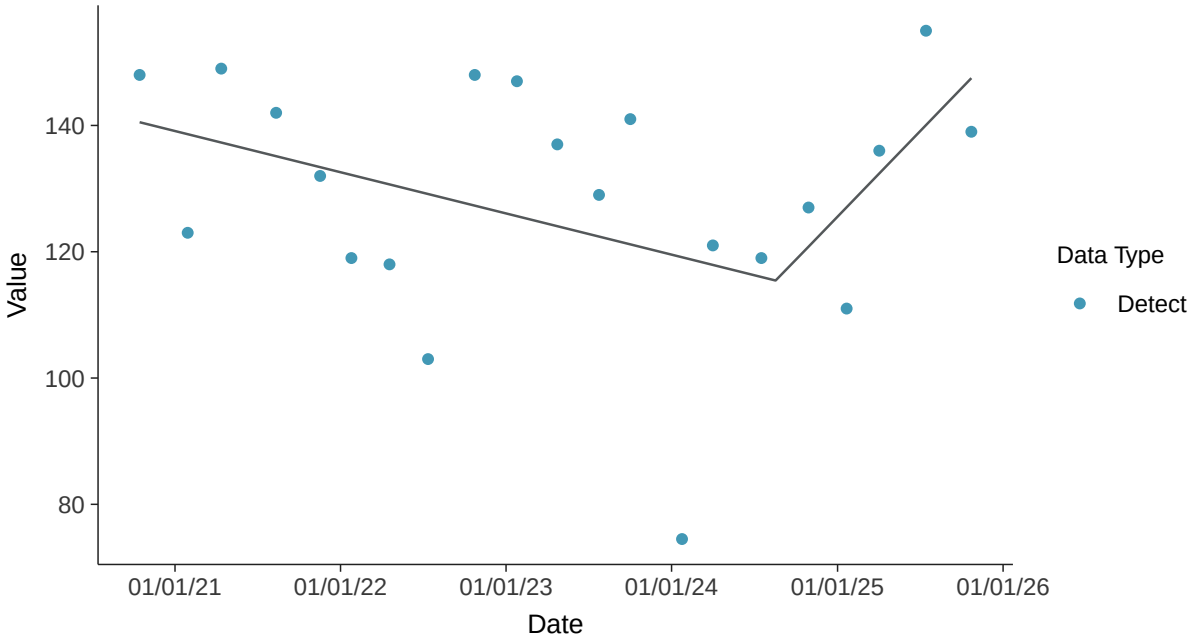
Trend Regression: Lognormal MLE

Chloride, MW-11 (mg/L)



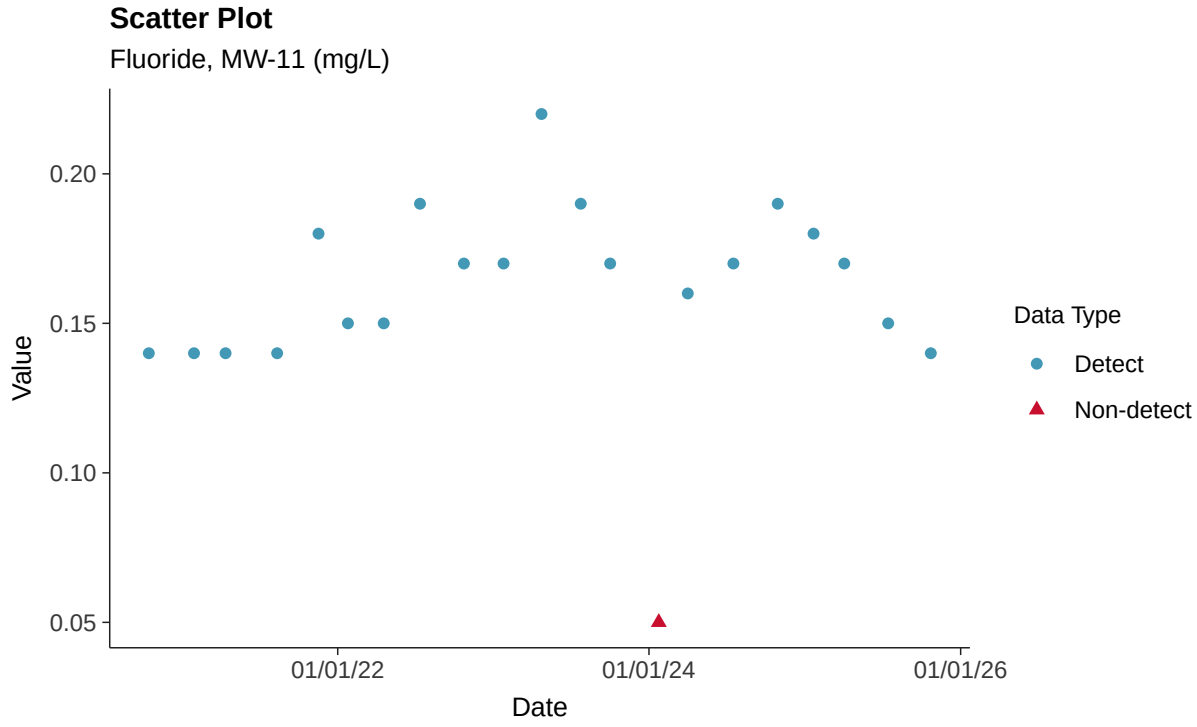
Trend Regression: Piecewise Linear-Linear

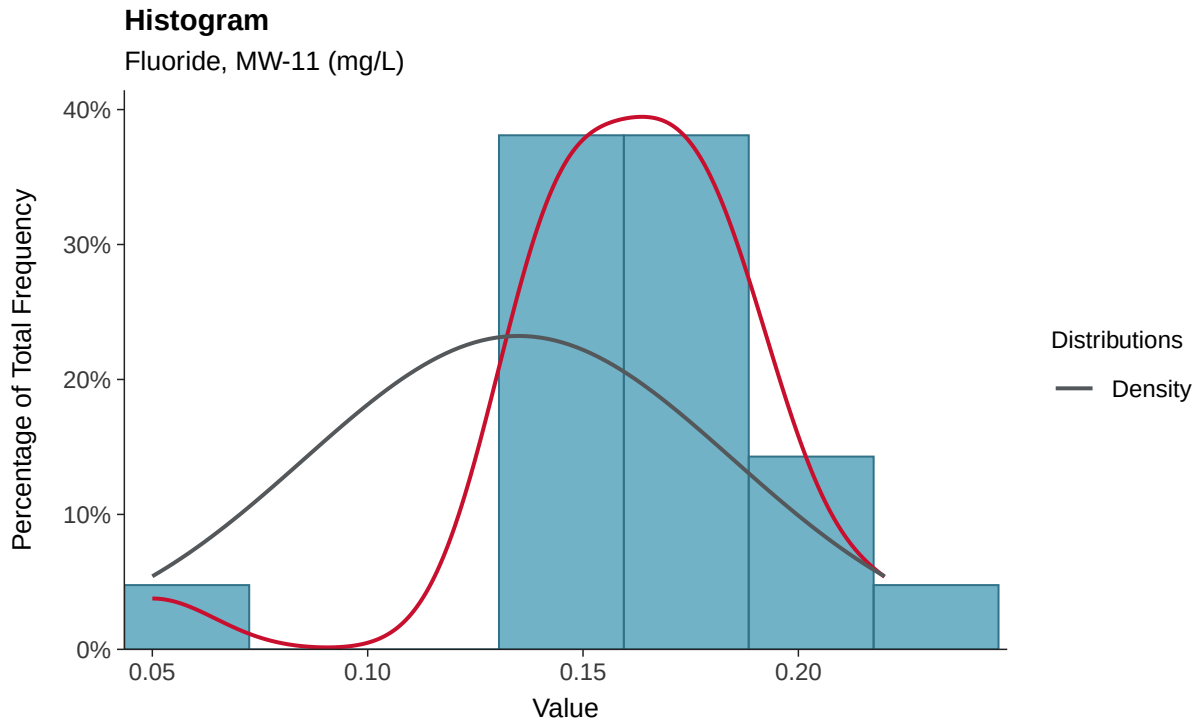
Chloride, MW-11 (mg/L)



App. III: Fluoride, MW-11

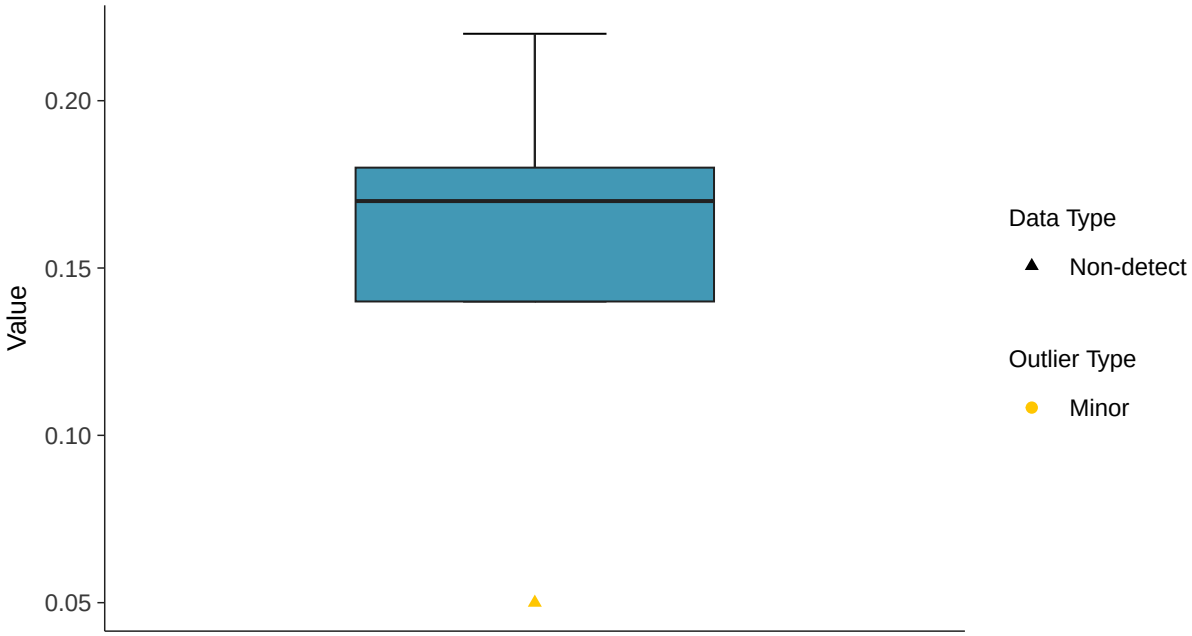
ID: 10_2_112





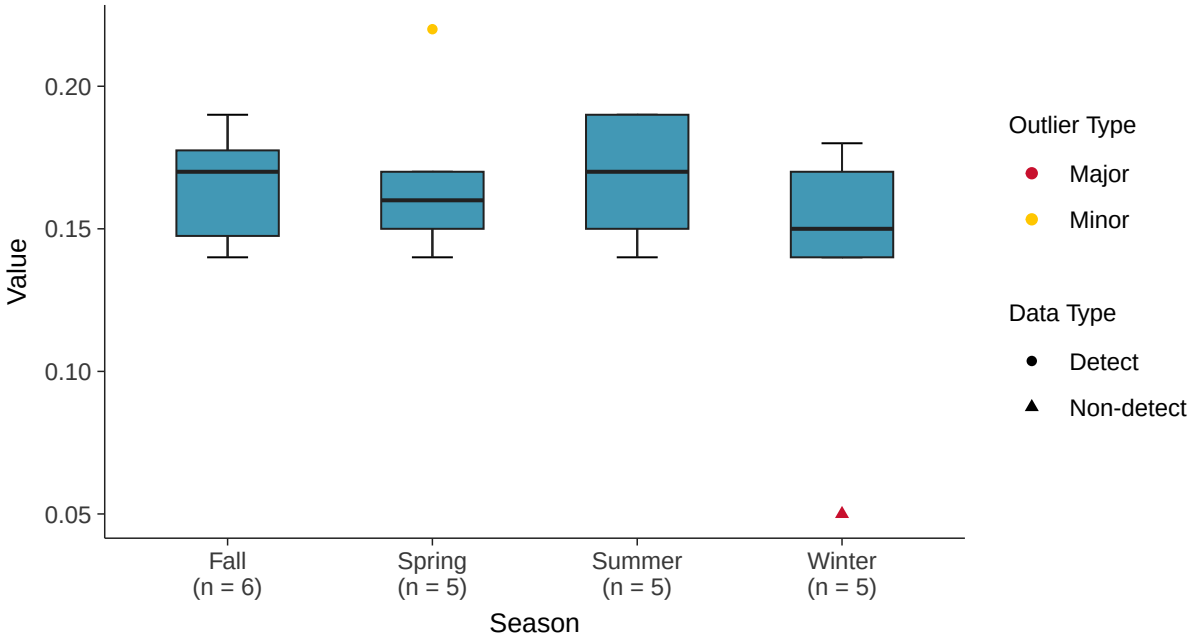
Boxplot

Fluoride, MW-11 (mg/L)



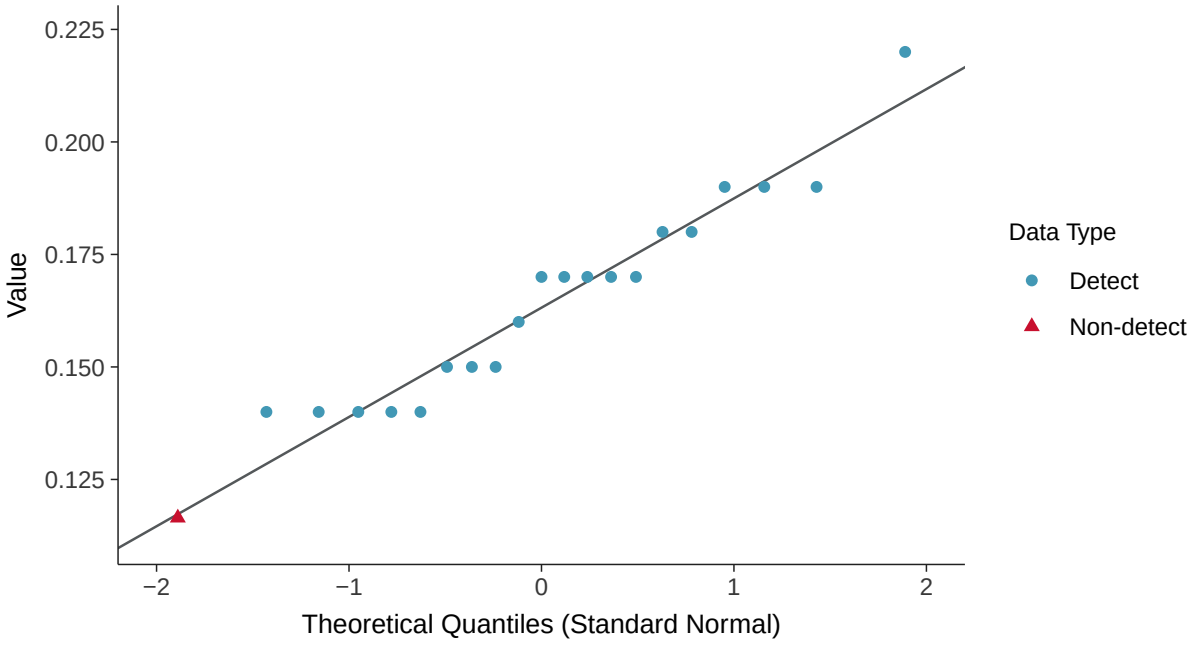
Boxplot by Season

Fluoride, MW-11 (mg/L)



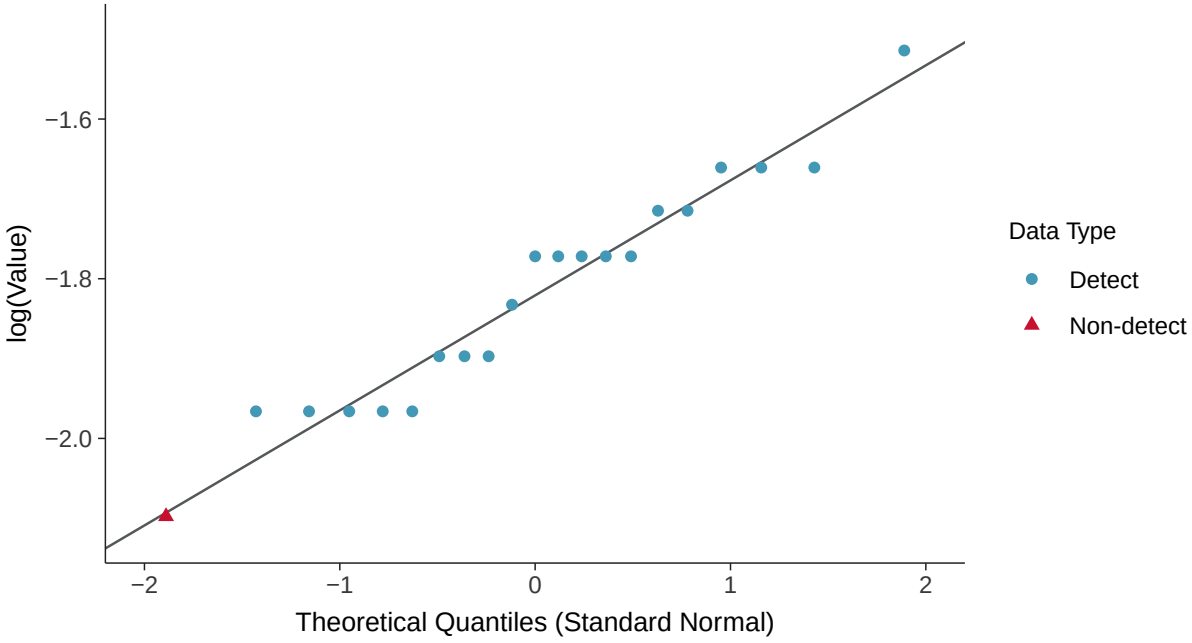
Normal Q-Q plot using ROS Imputed Estimates

Fluoride, MW-11 (mg/L)



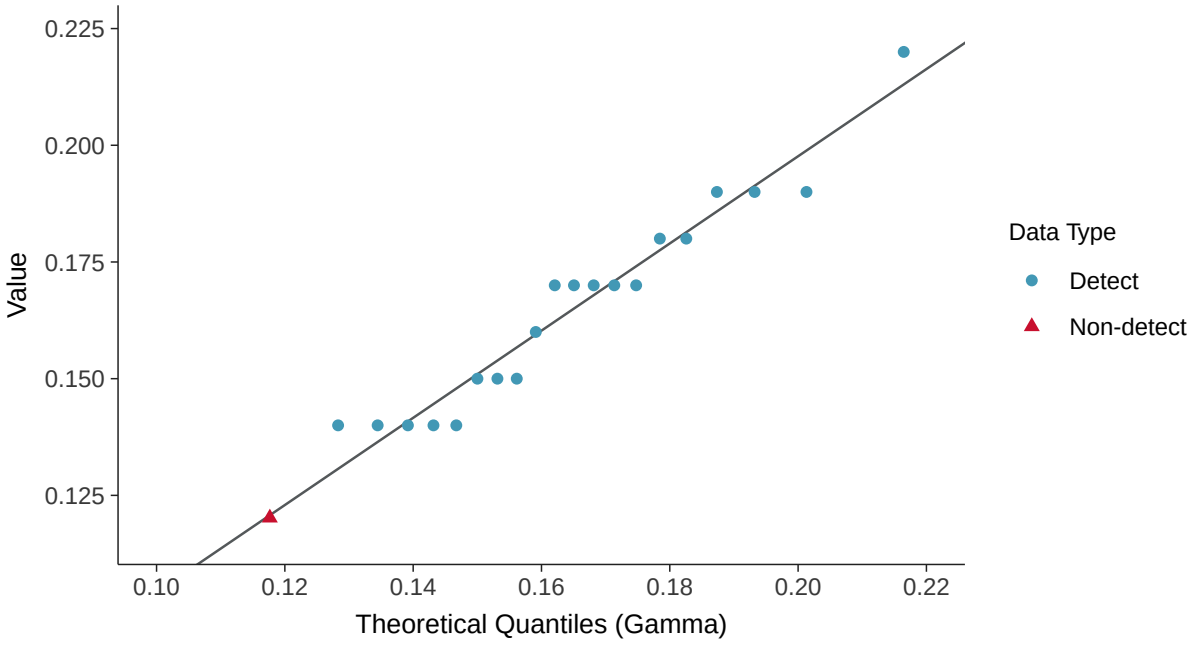
Lognormal Q-Q plot using ROS Imputed Estimates

Fluoride, MW-11 (mg/L)



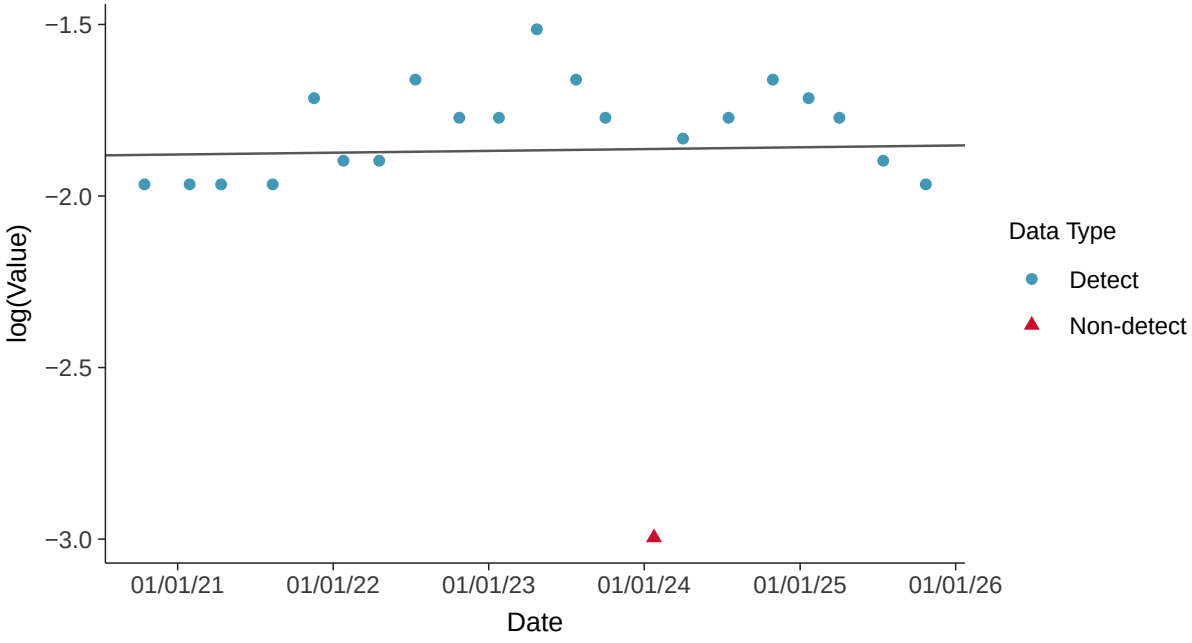
Gamma Q-Q plot using ROS Imputed Estimates

Fluoride, MW-11 (mg/L)



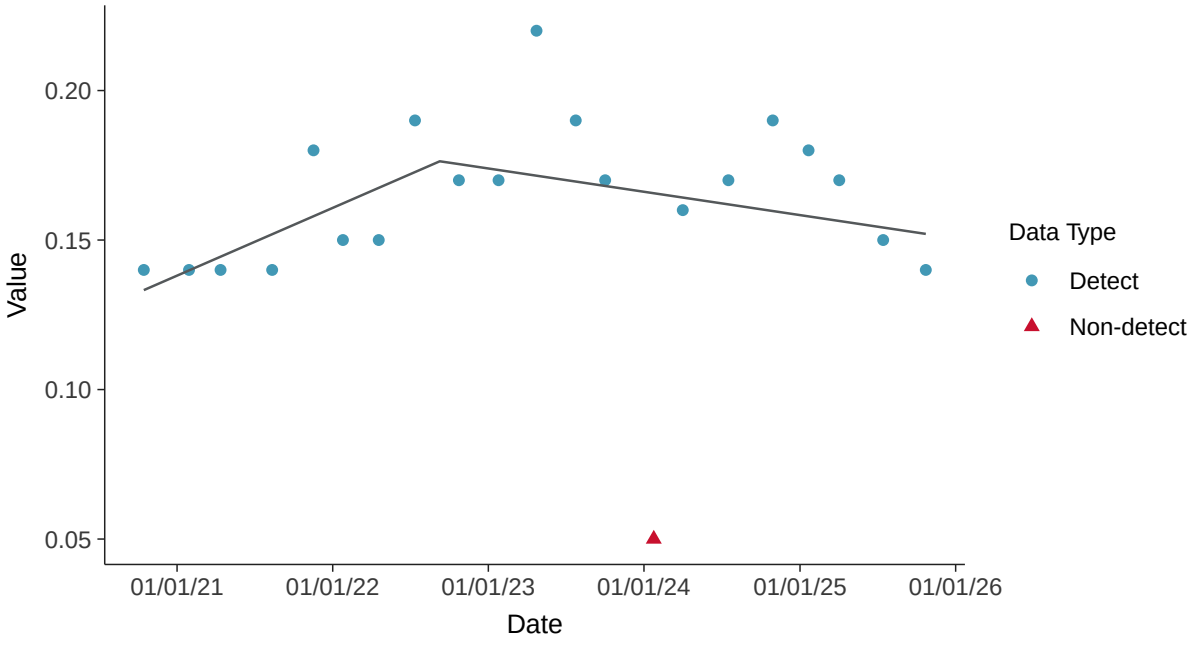
Trend Regression: Lognormal MLE

Fluoride, MW-11 (mg/L)



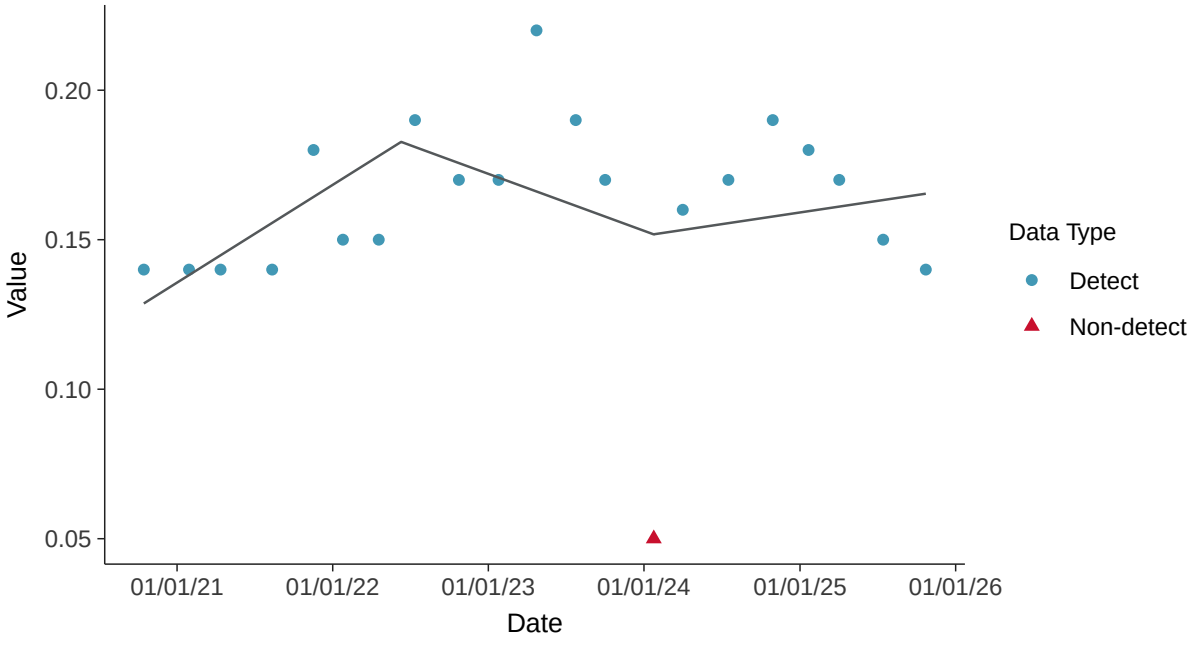
Trend Regression: Piecewise Linear-Linear

Fluoride, MW-11 (mg/L)



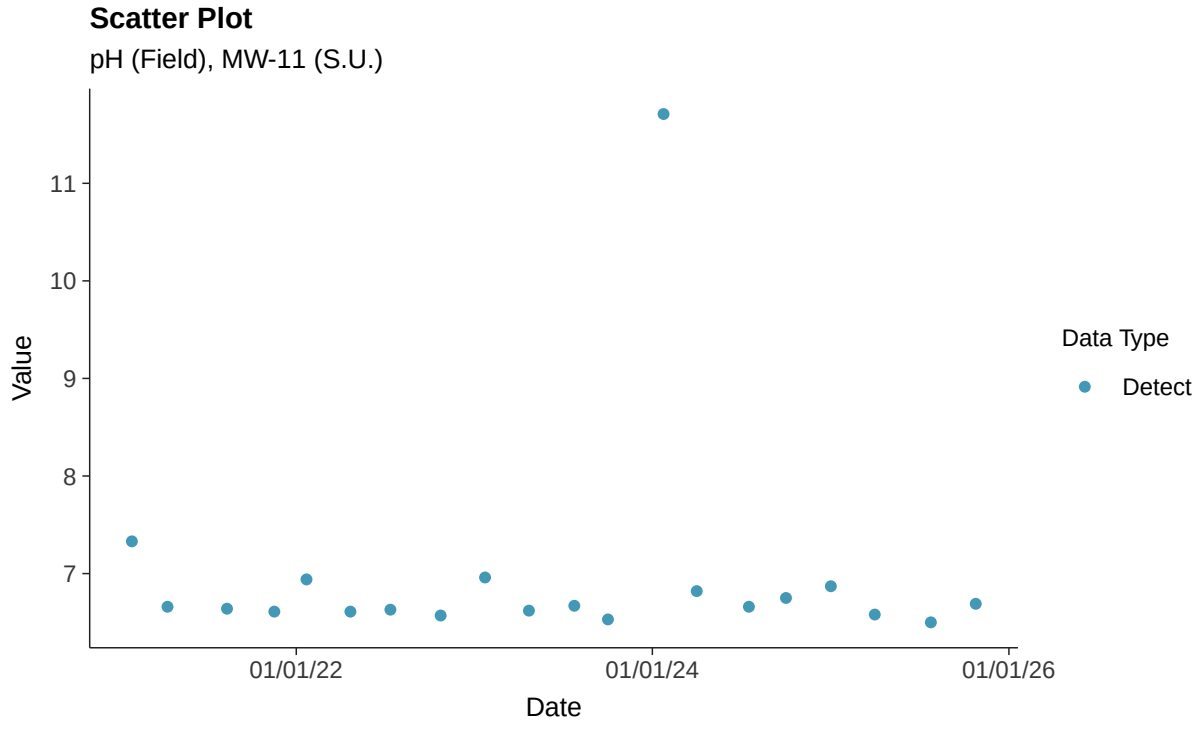
Trend Regression: Piecewise Linear-Linear-Linear

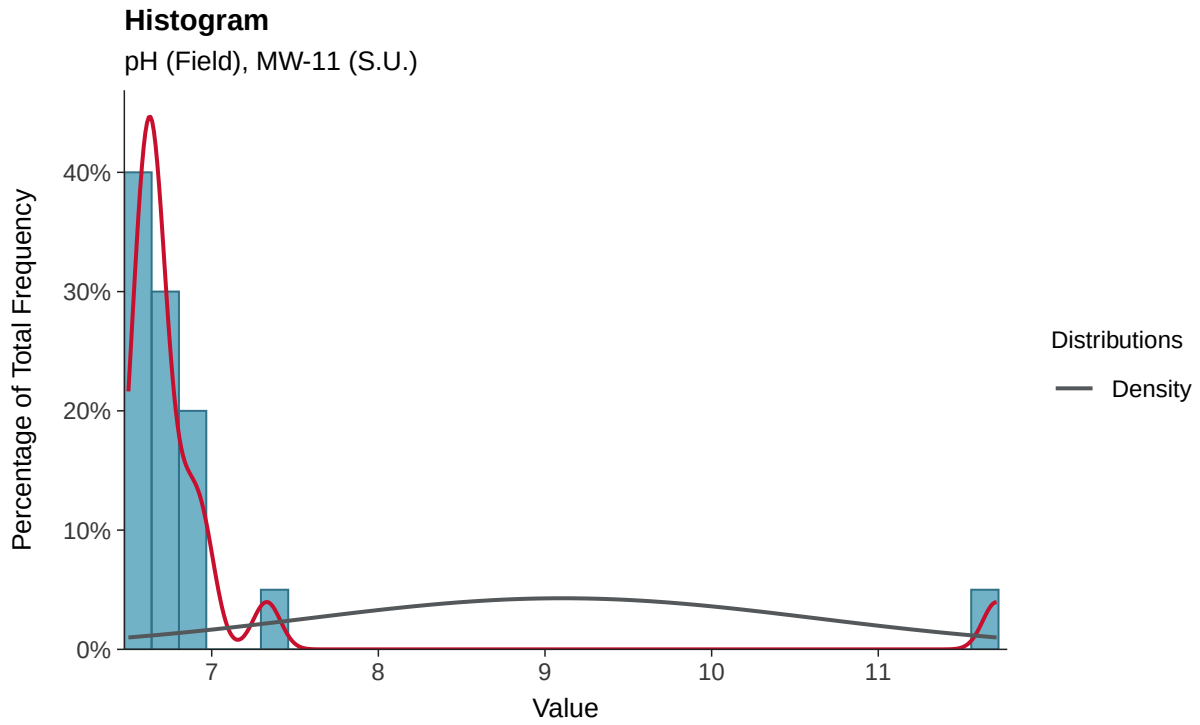
Fluoride, MW-11 (mg/L)



App. III: pH (Field), MW-11

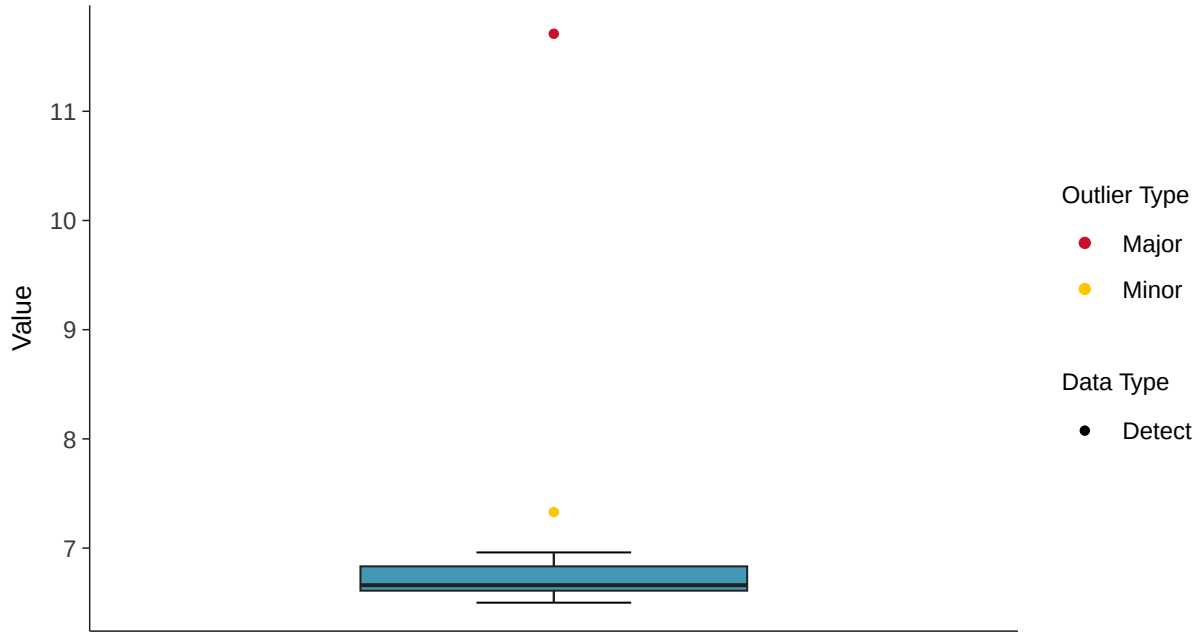
ID: 10_2_118





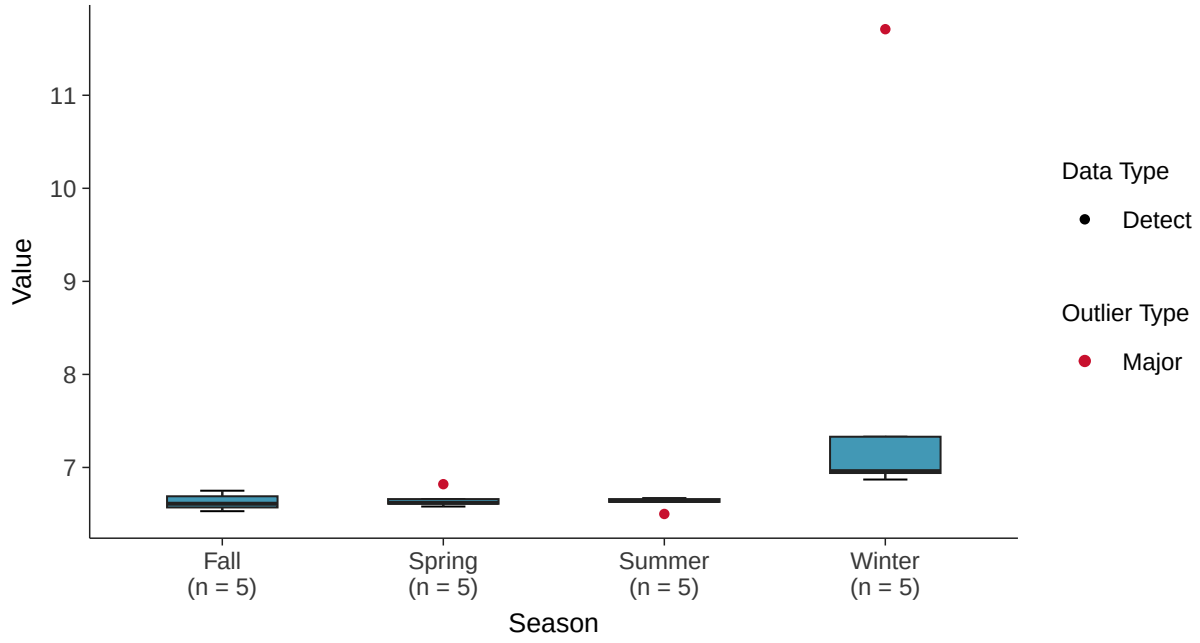
Boxplot

pH (Field), MW-11 (S.U.)



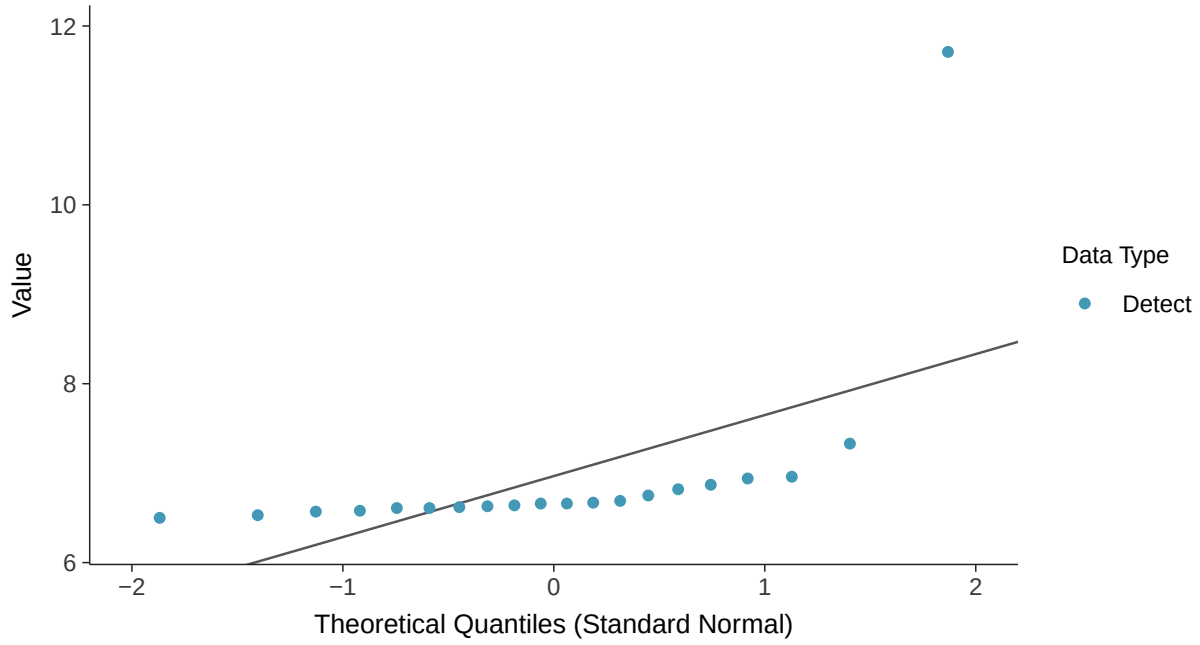
Boxplot by Season

pH (Field), MW-11 (S.U.)



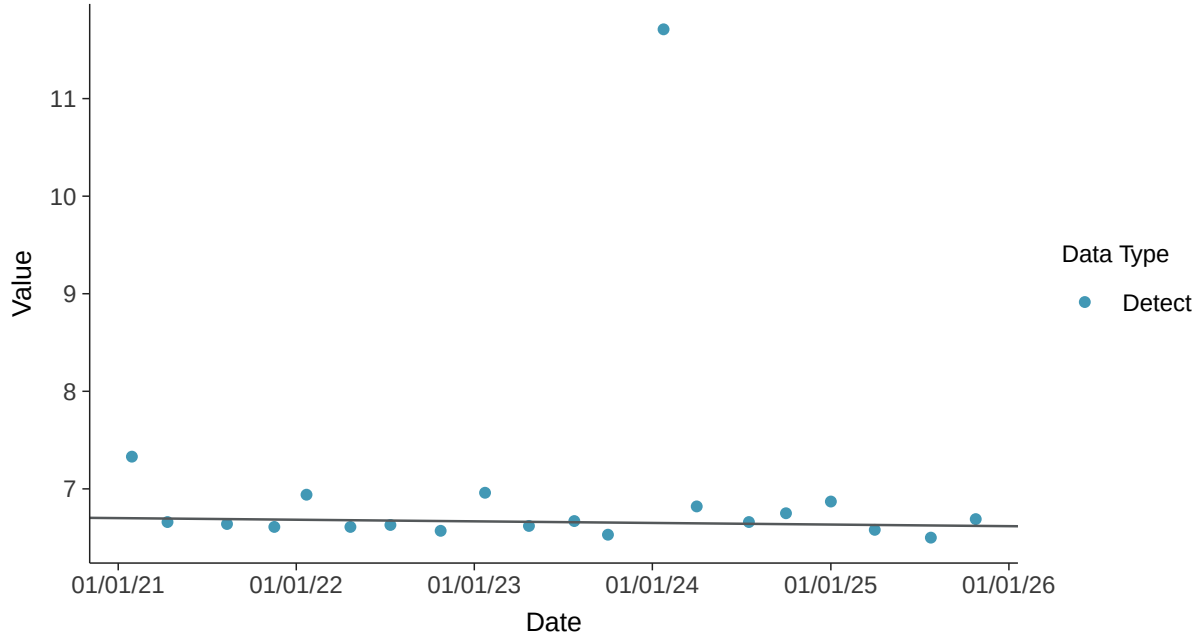
Normal Q-Q plot

pH (Field), MW-11 (S.U.)



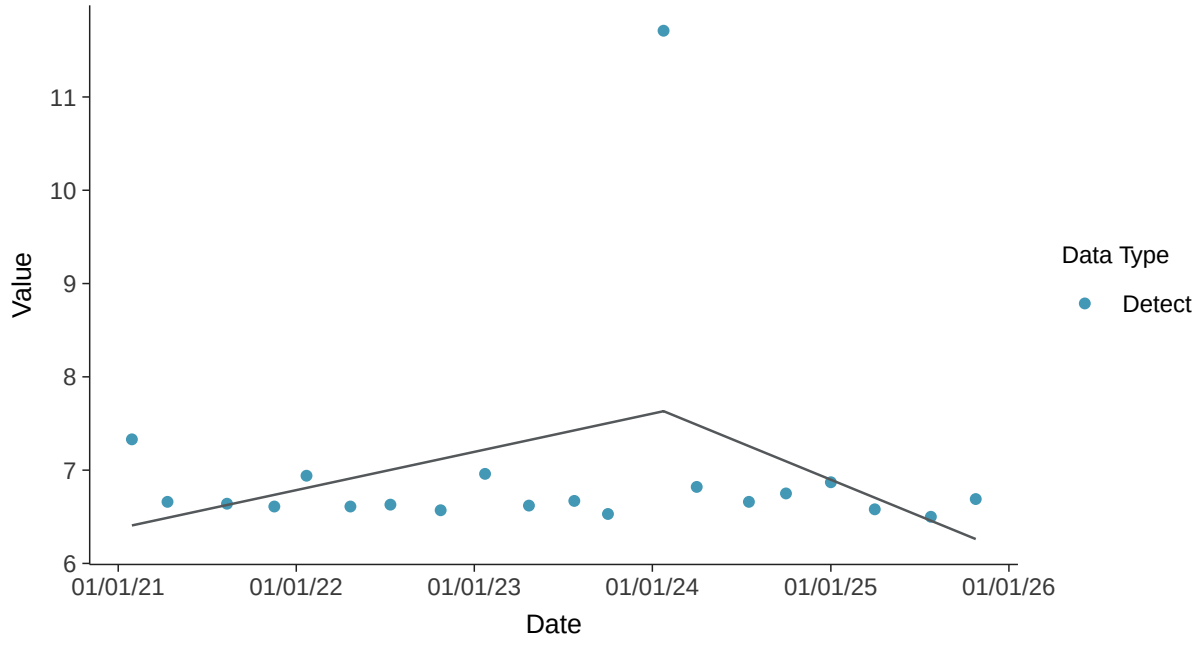
Trend Regression: Mann-Kendall/Theil-Sen Estimate

pH (Field), MW-11 (S.U.)



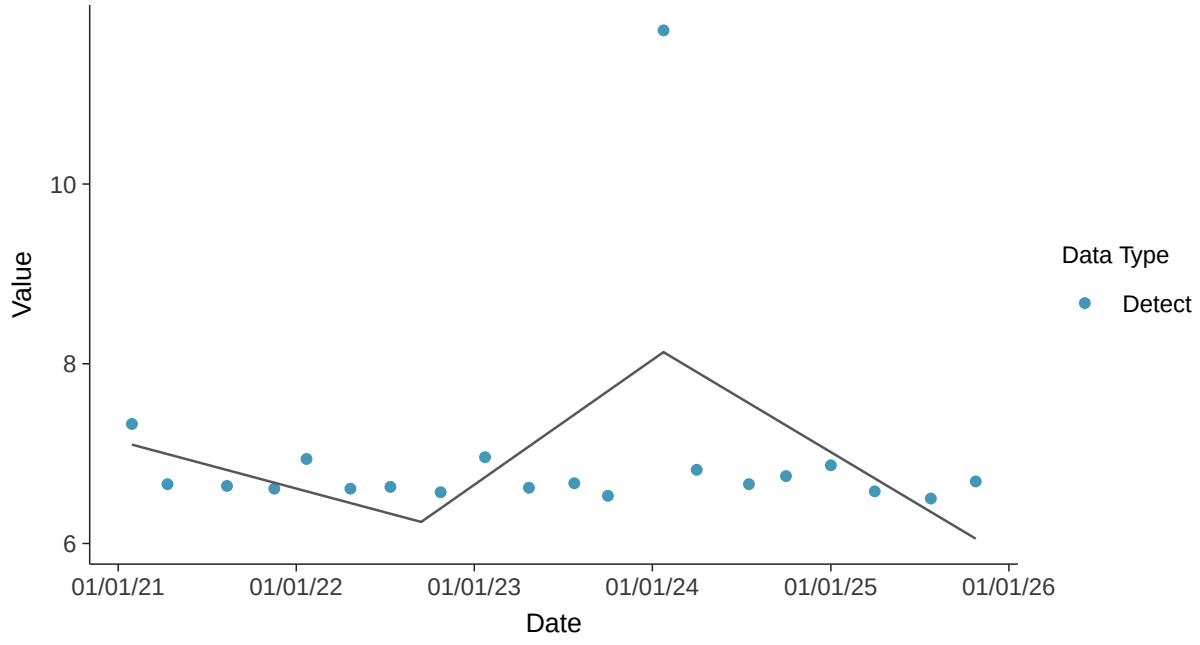
Trend Regression: Piecewise Linear-Linear

pH (Field), MW-11 (S.U.)



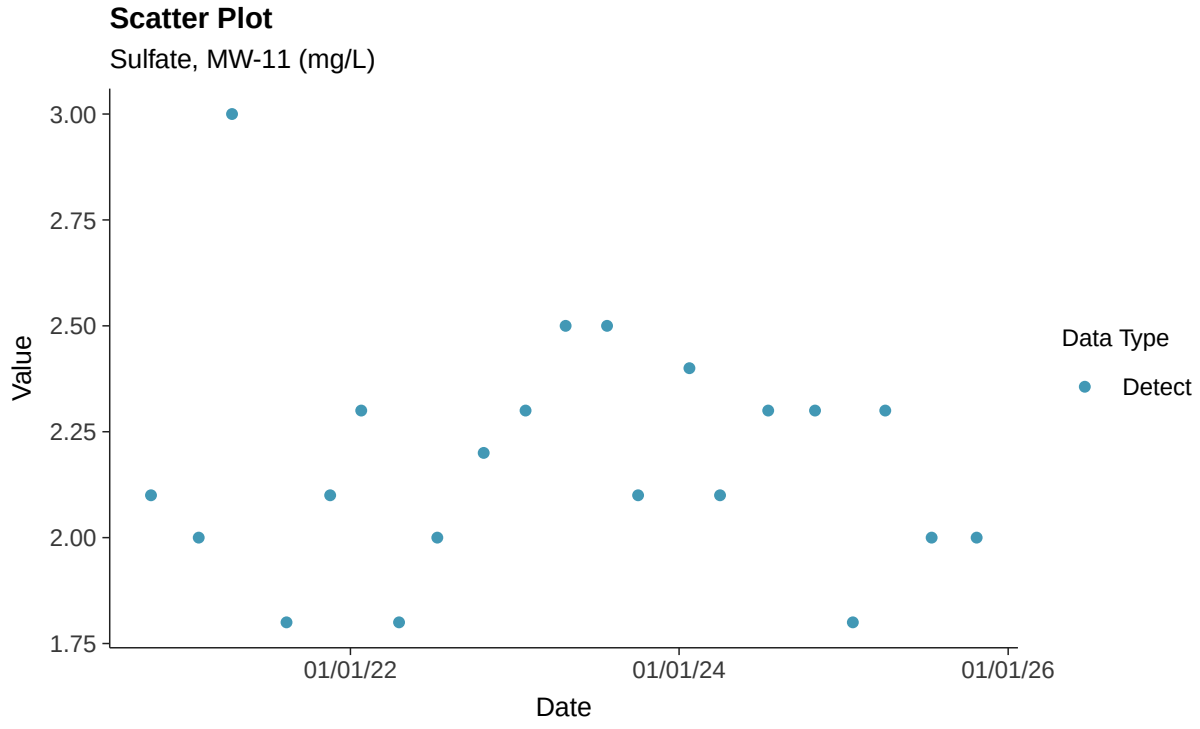
Trend Regression: Piecewise Linear-Linear-Linear

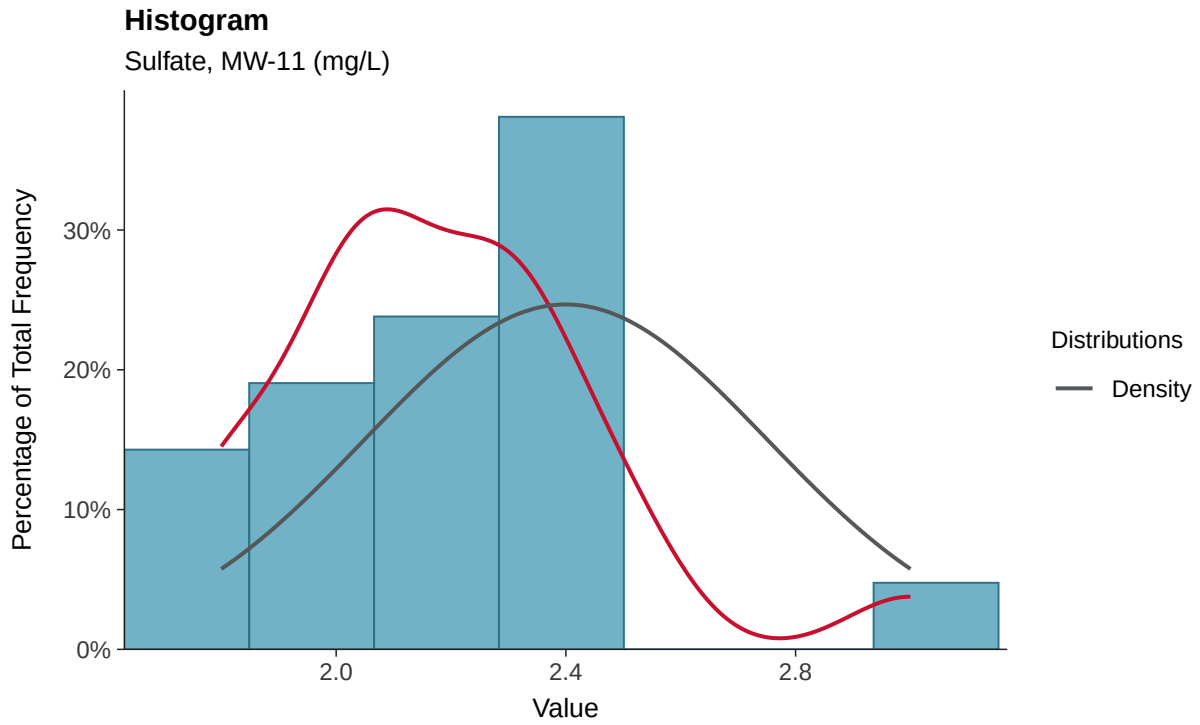
pH (Field), MW-11 (S.U.)



App. III: Sulfate, MW-11

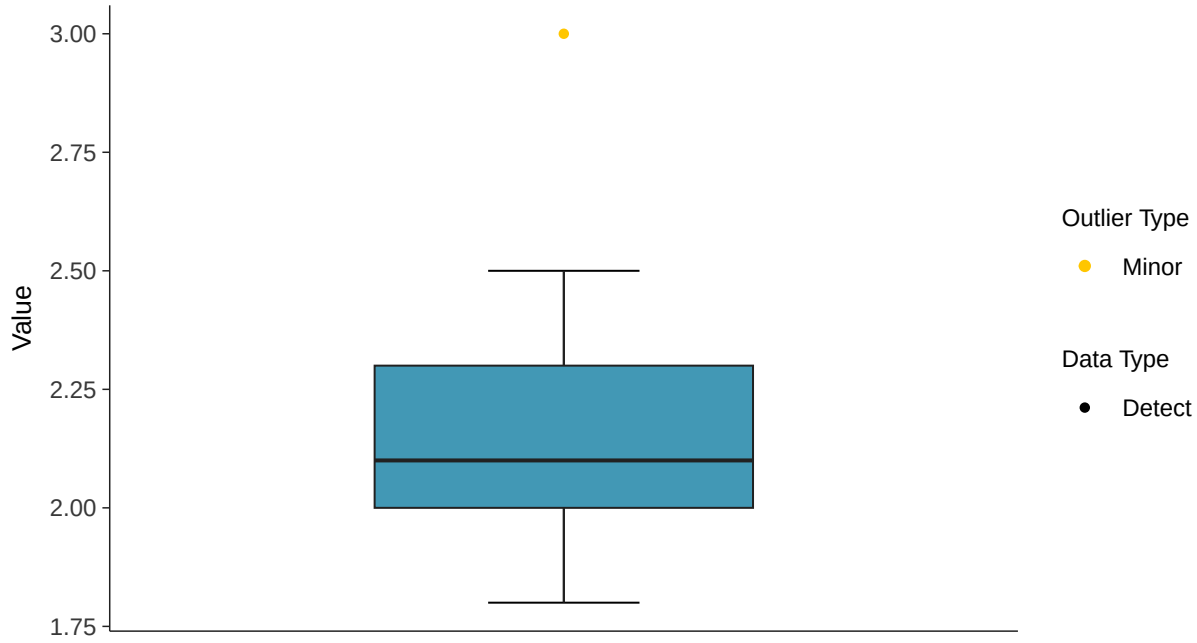
ID: 10_2_123





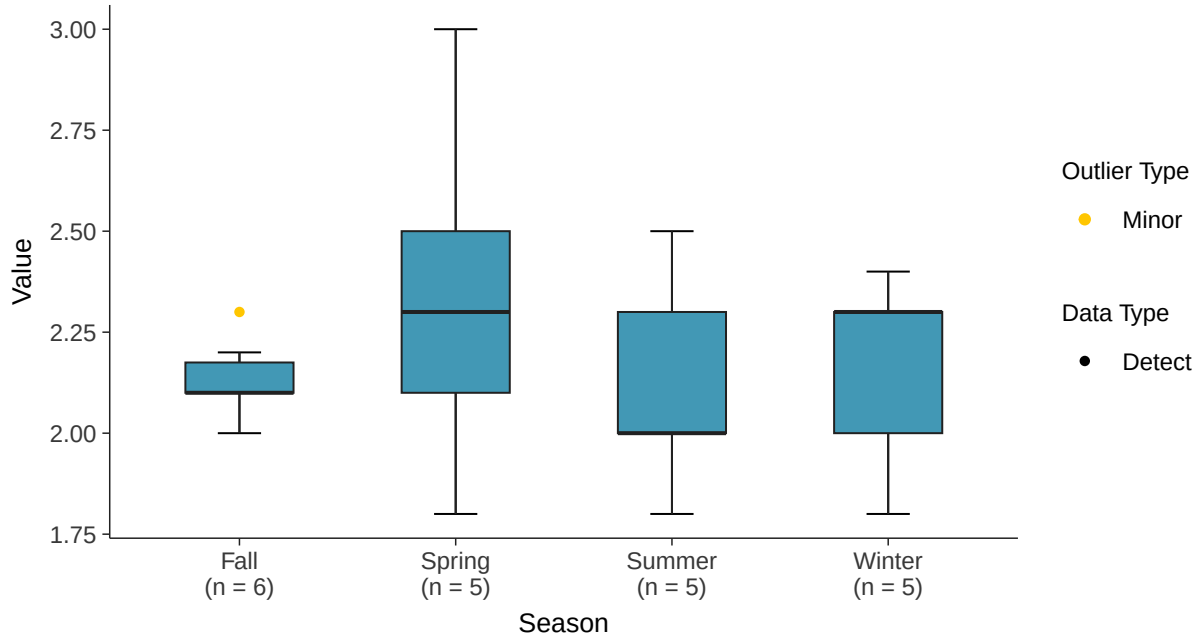
Boxplot

Sulfate, MW-11 (mg/L)



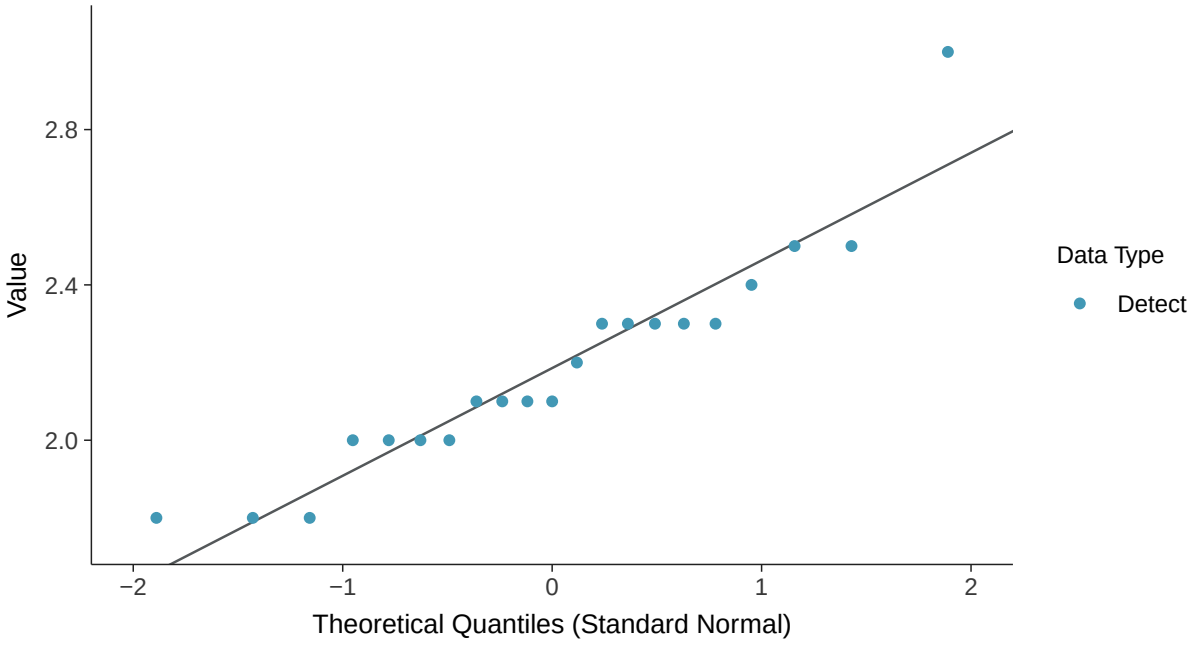
Boxplot by Season

Sulfate, MW-11 (mg/L)



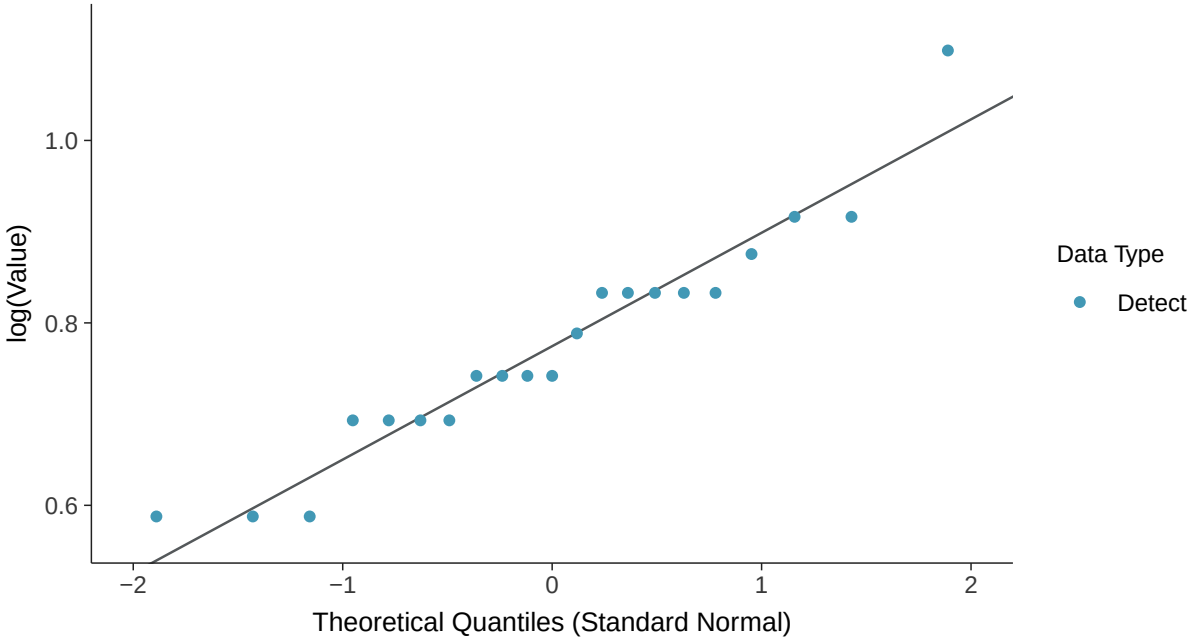
Normal Q-Q plot

Sulfate, MW-11 (mg/L)



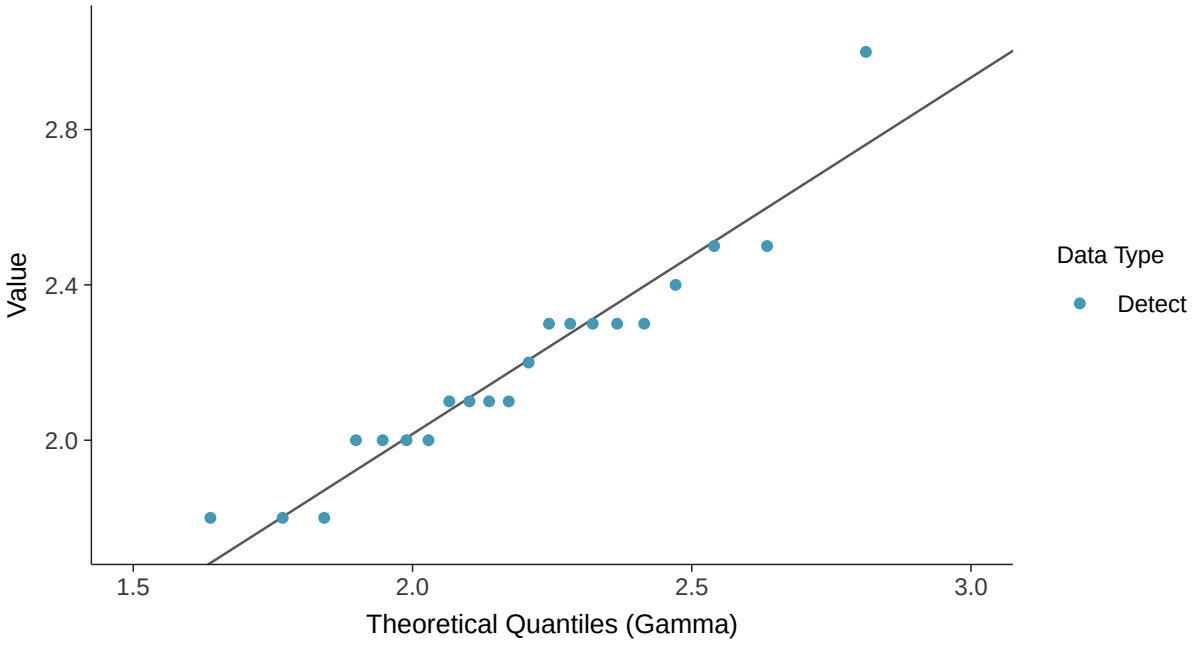
Lognormal Q-Q plot

Sulfate, MW-11 (mg/L)



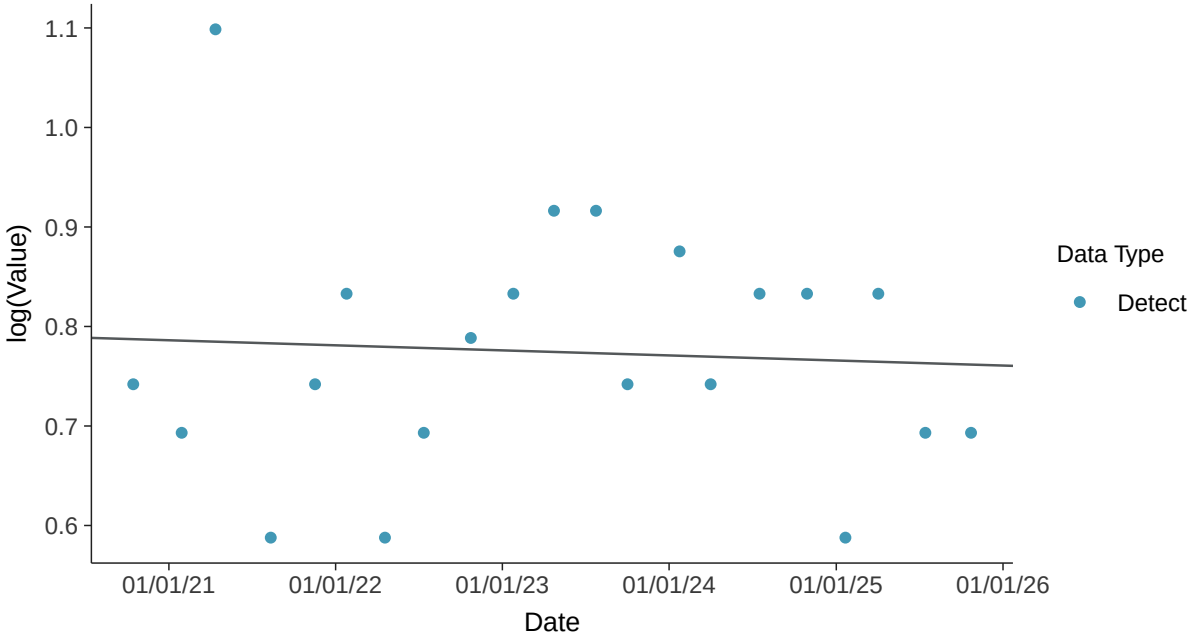
Gamma Q-Q plot

Sulfate, MW-11 (mg/L)



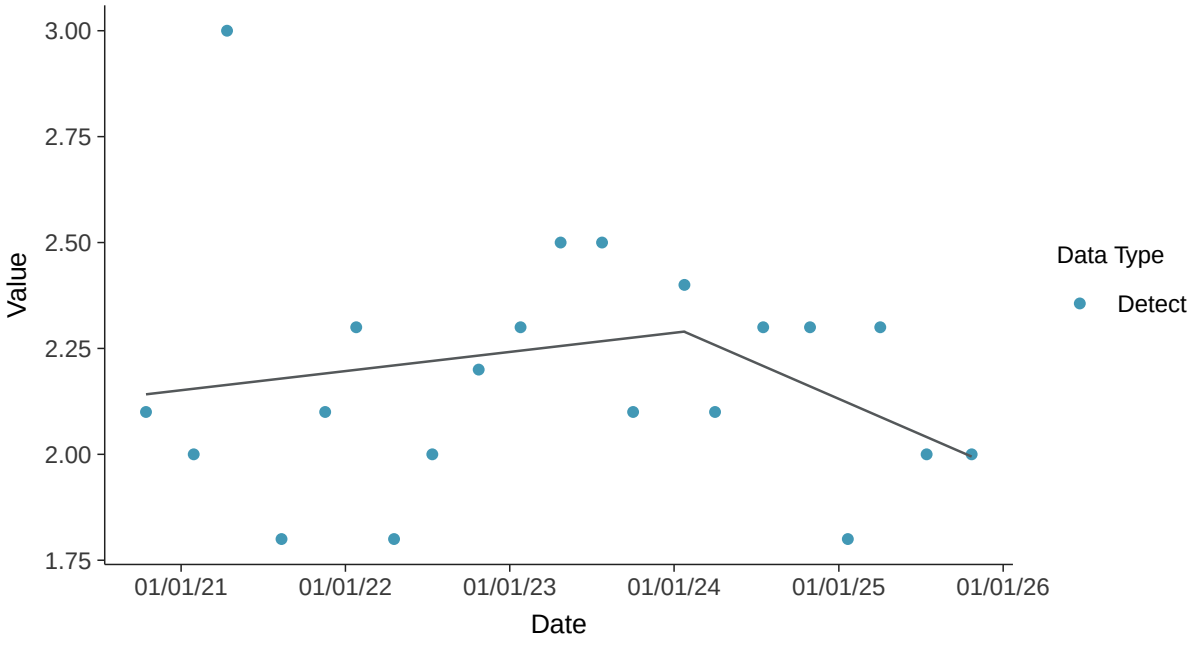
Trend Regression: Lognormal MLE

Sulfate, MW-11 (mg/L)



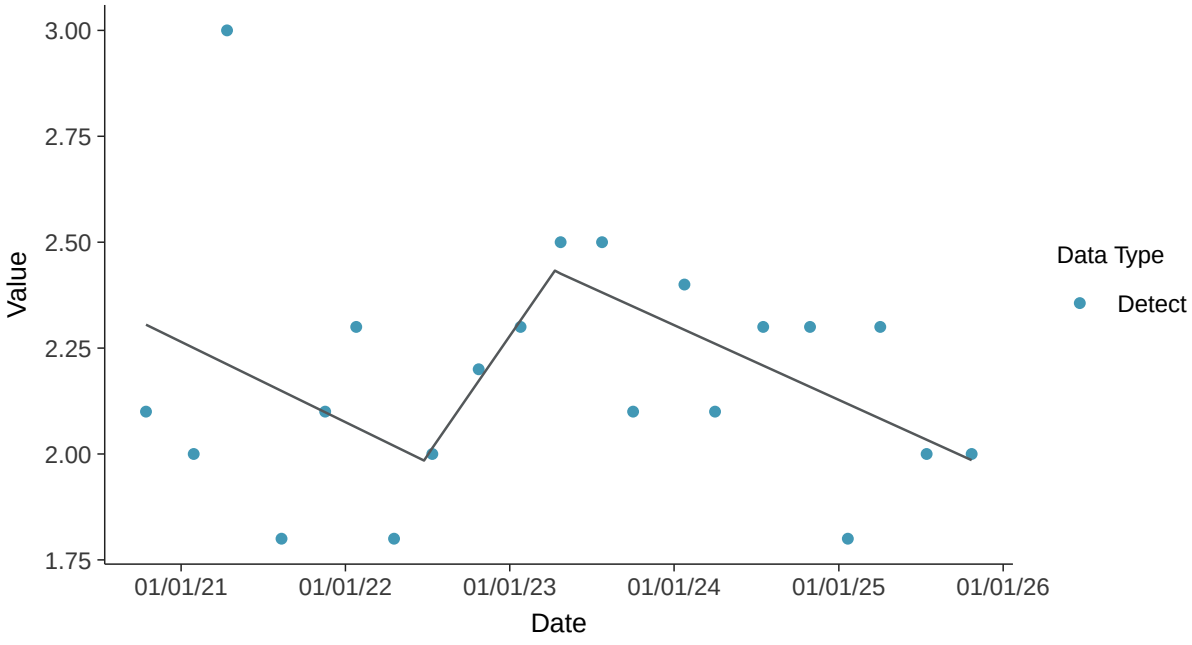
Trend Regression: Piecewise Linear-Linear

Sulfate, MW-11 (mg/L)



Trend Regression: Piecewise Linear-Linear-Linear

Sulfate, MW-11 (mg/L)

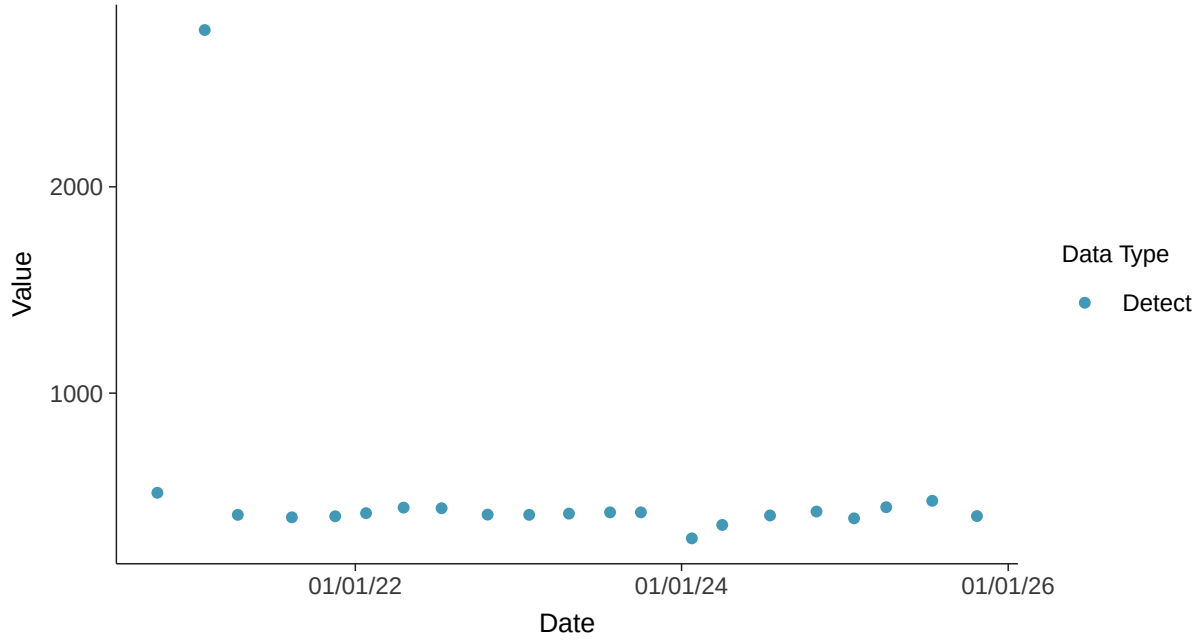


App. III: Total Dissolved Solids, MW-11

ID: 10_2_125

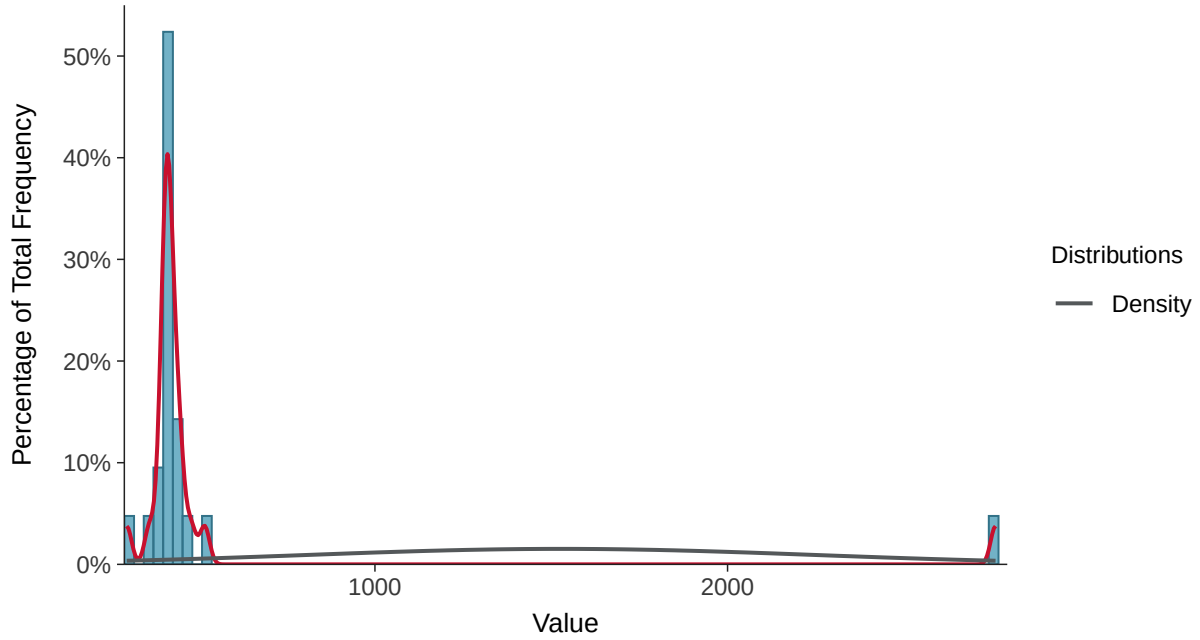
Scatter Plot

Total Dissolved Solids, MW-11 (mg/L)



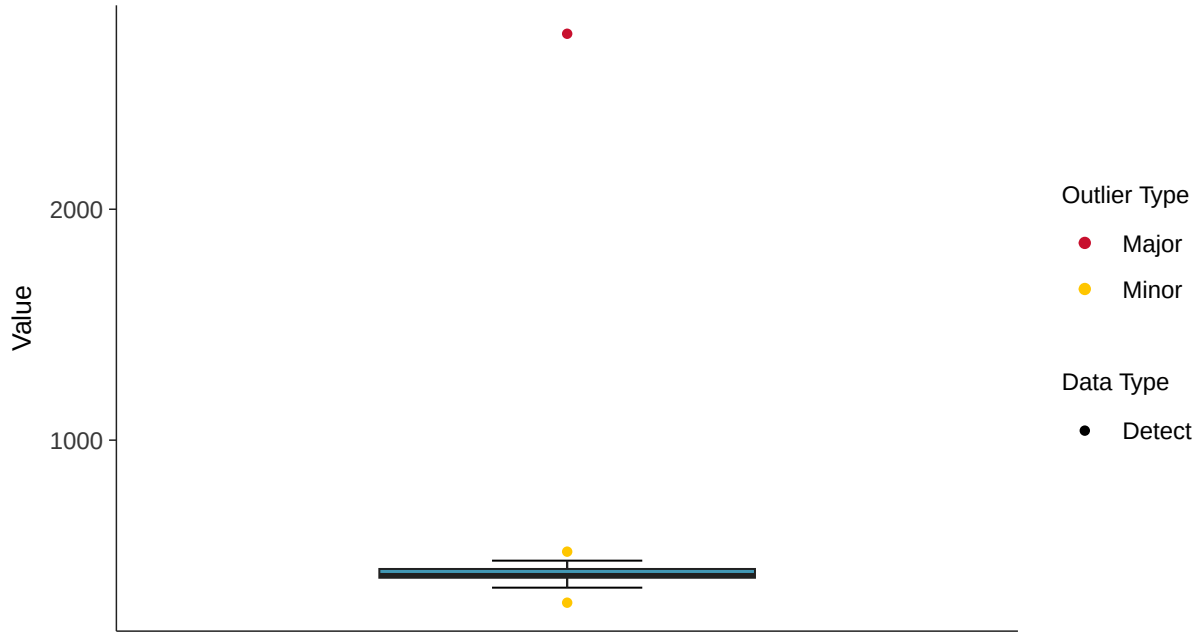
Histogram

Total Dissolved Solids, MW-11 (mg/L)



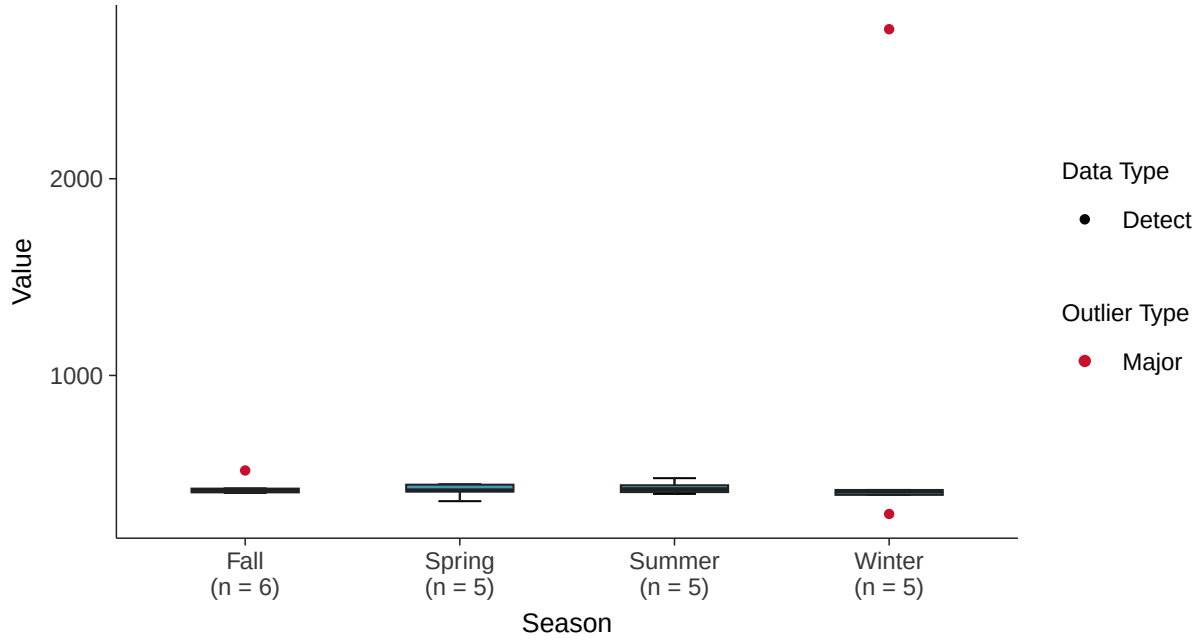
Boxplot

Total Dissolved Solids, MW-11 (mg/L)



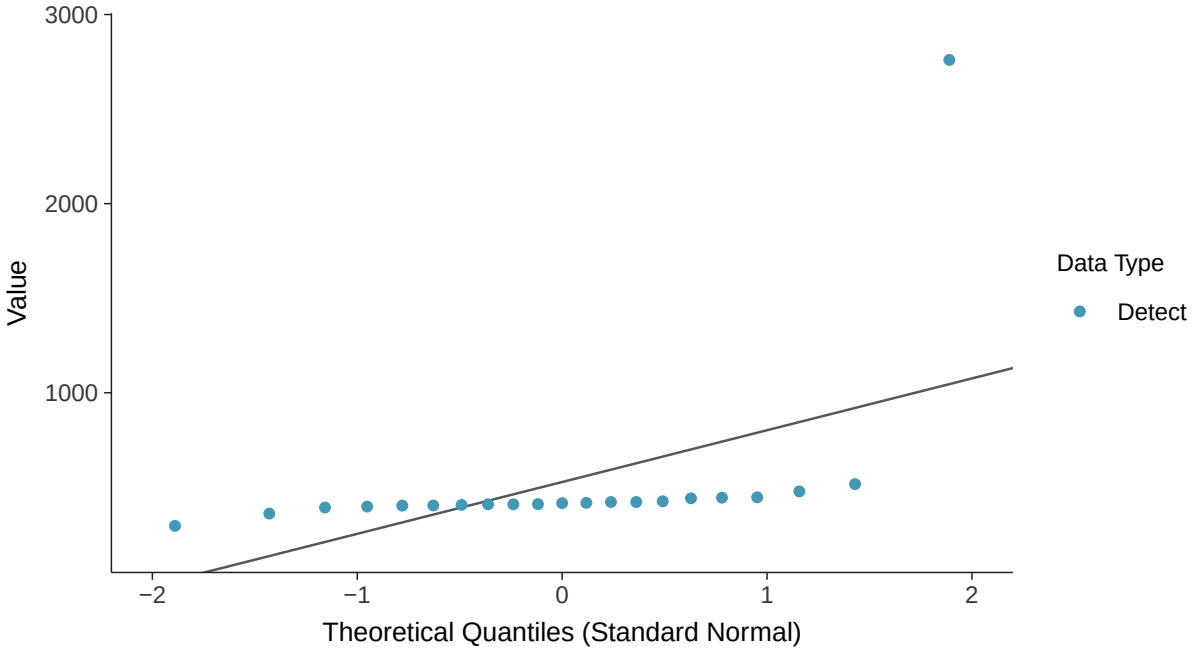
Boxplot by Season

Total Dissolved Solids, MW-11 (mg/L)



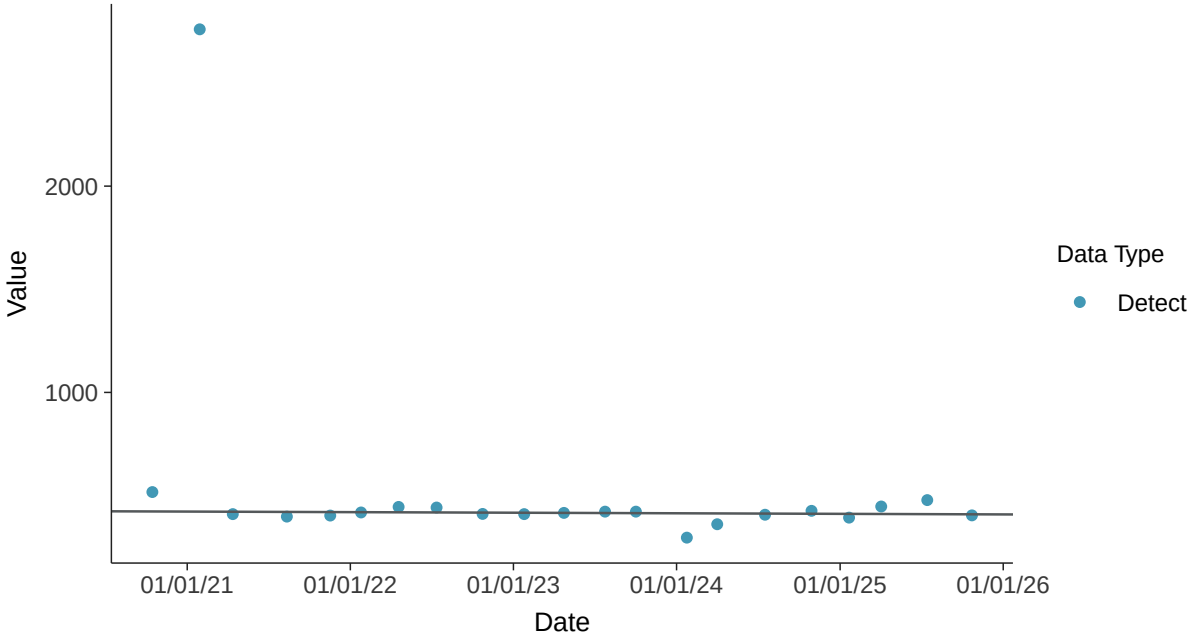
Normal Q-Q plot

Total Dissolved Solids, MW-11 (mg/L)



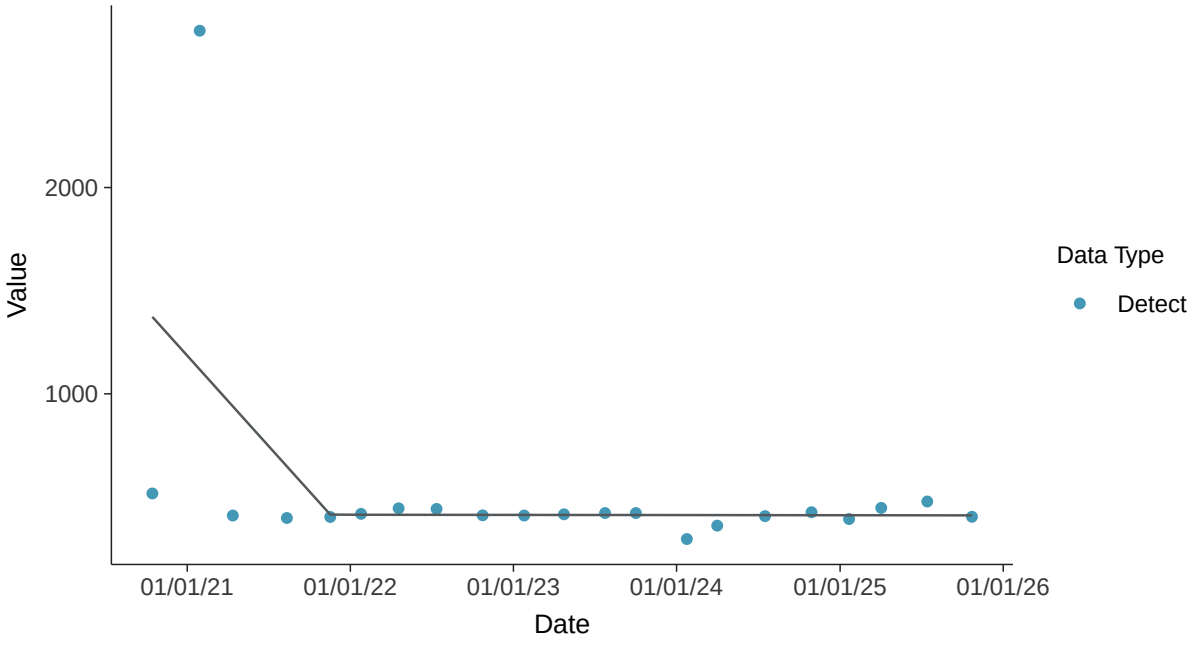
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Total Dissolved Solids, MW-11 (mg/L)



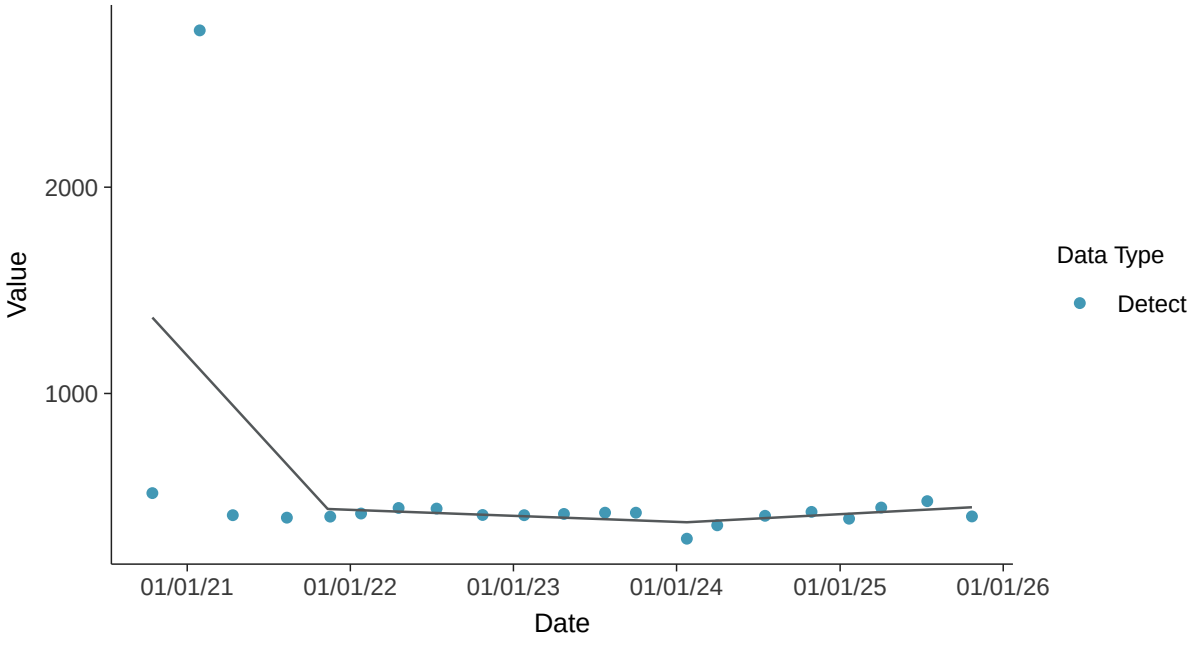
Trend Regression: Piecewise Linear-Linear

Total Dissolved Solids, MW-11 (mg/L)



Trend Regression: Piecewise Linear-Linear-Linear

Total Dissolved Solids, MW-11 (mg/L)

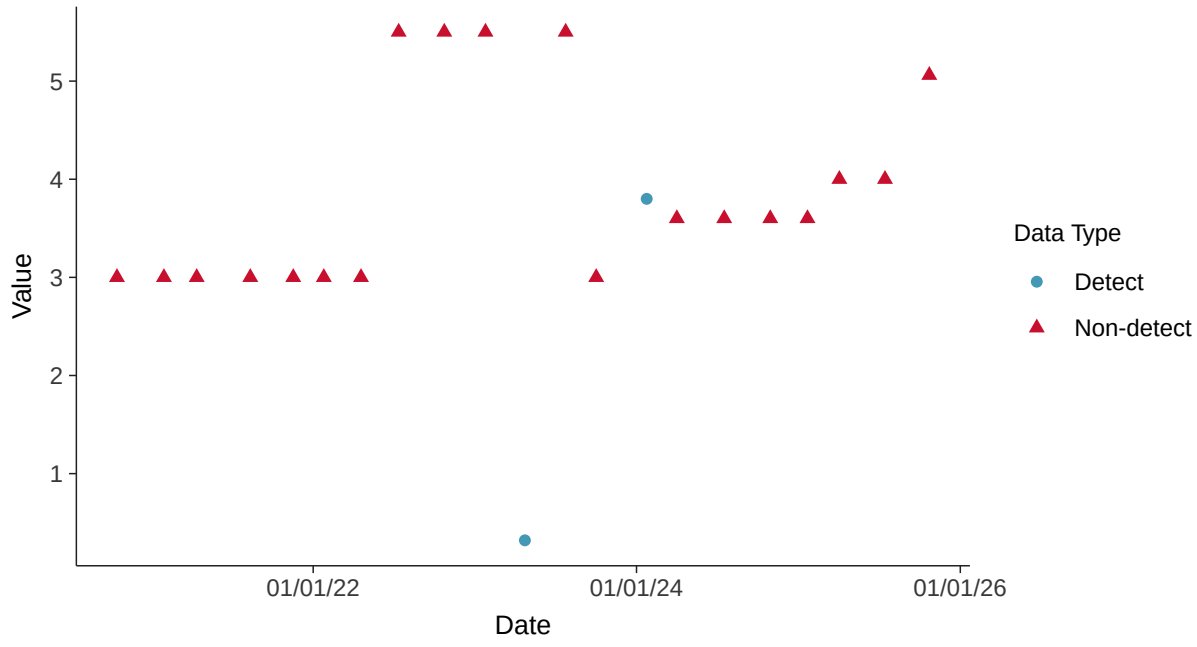


App. IV: Antimony, MW-11

ID: 10_3_101

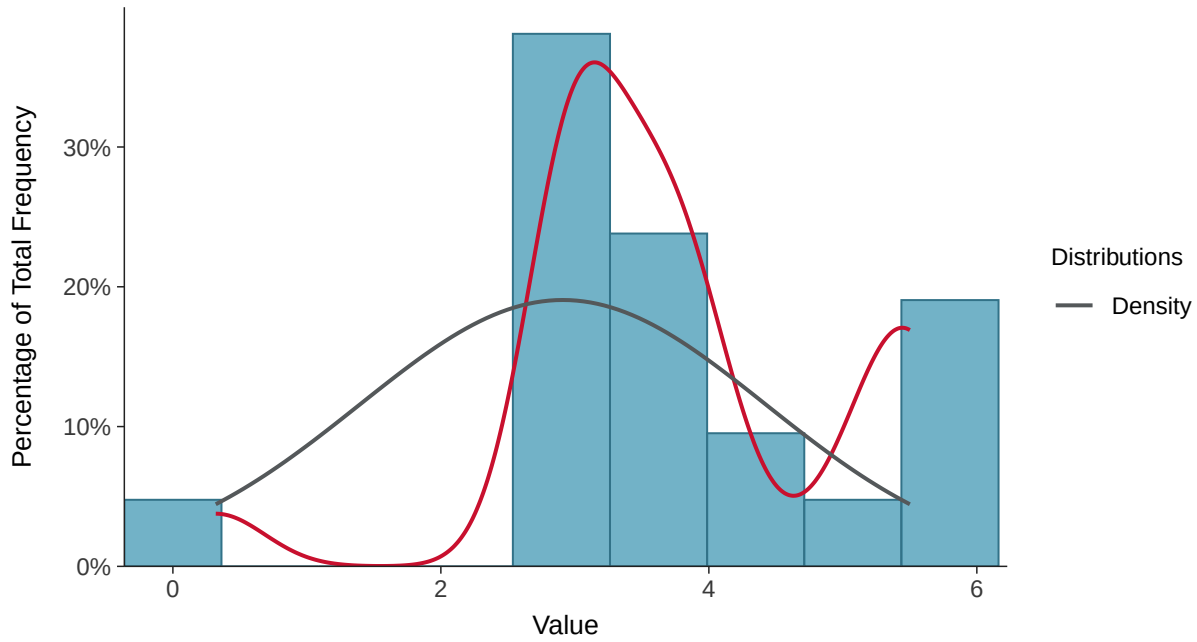
Scatter Plot

Antimony, MW-11 (ug/L)



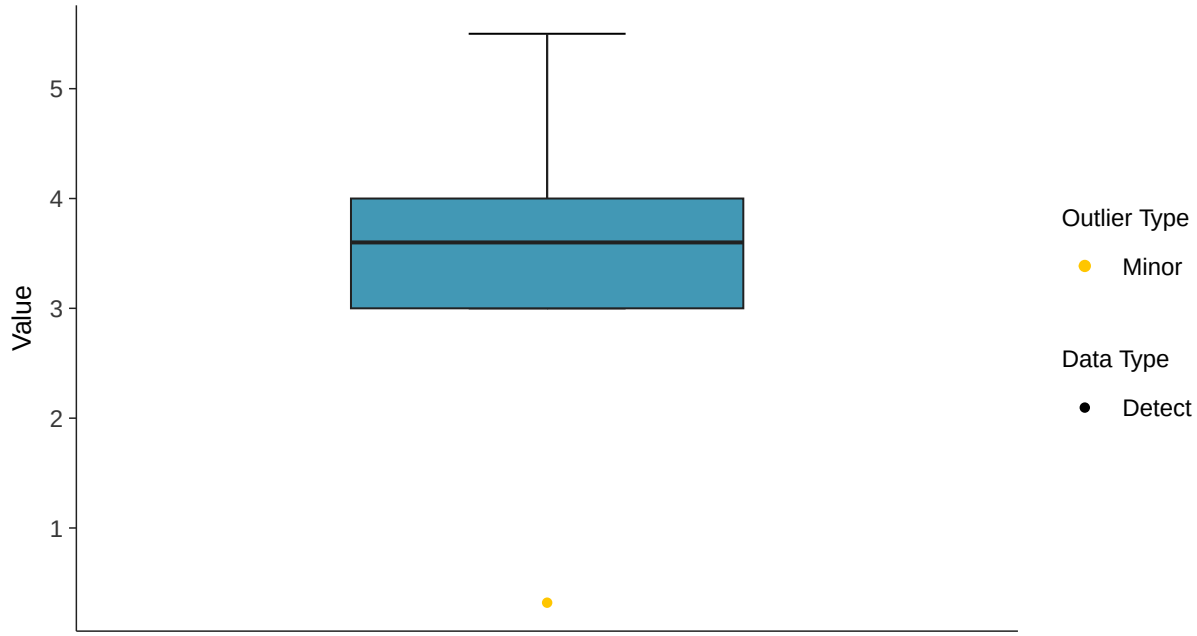
Histogram

Antimony, MW-11 (ug/L)



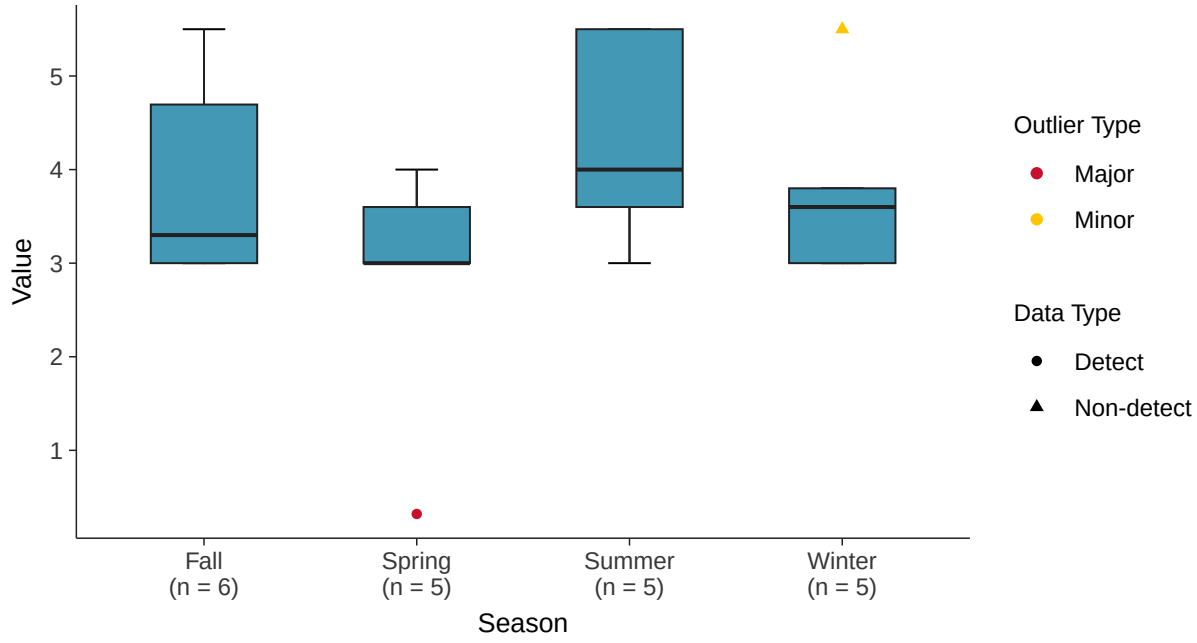
Boxplot

Antimony, MW-11 (ug/L)



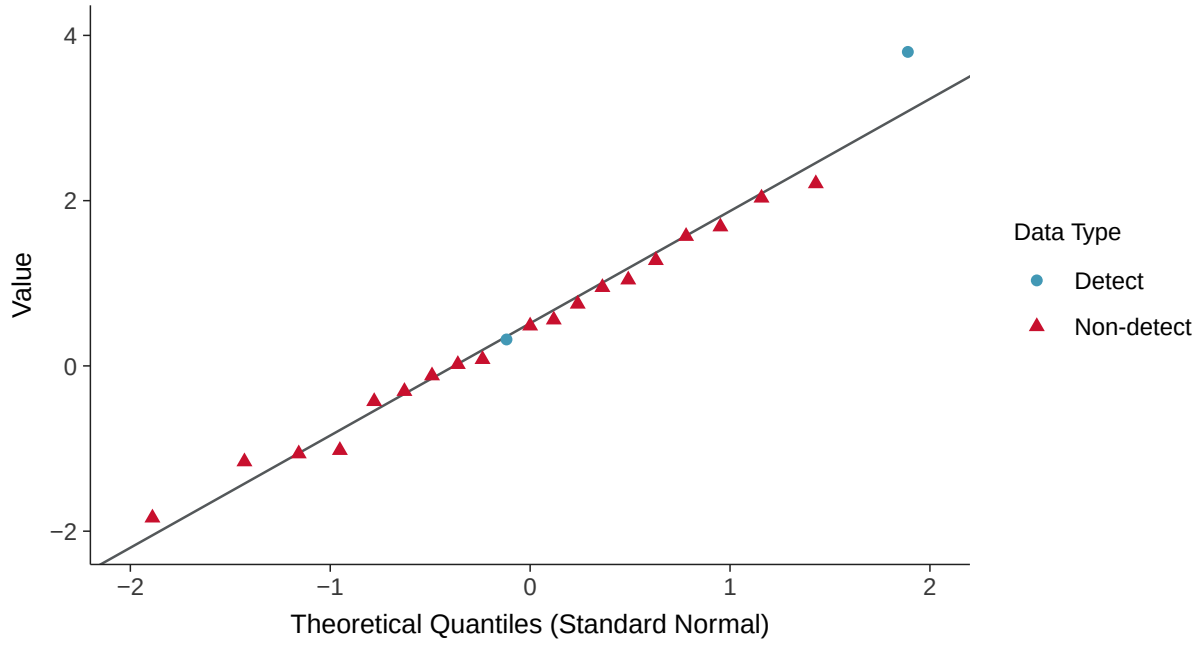
Boxplot by Season

Antimony, MW-11 (ug/L)



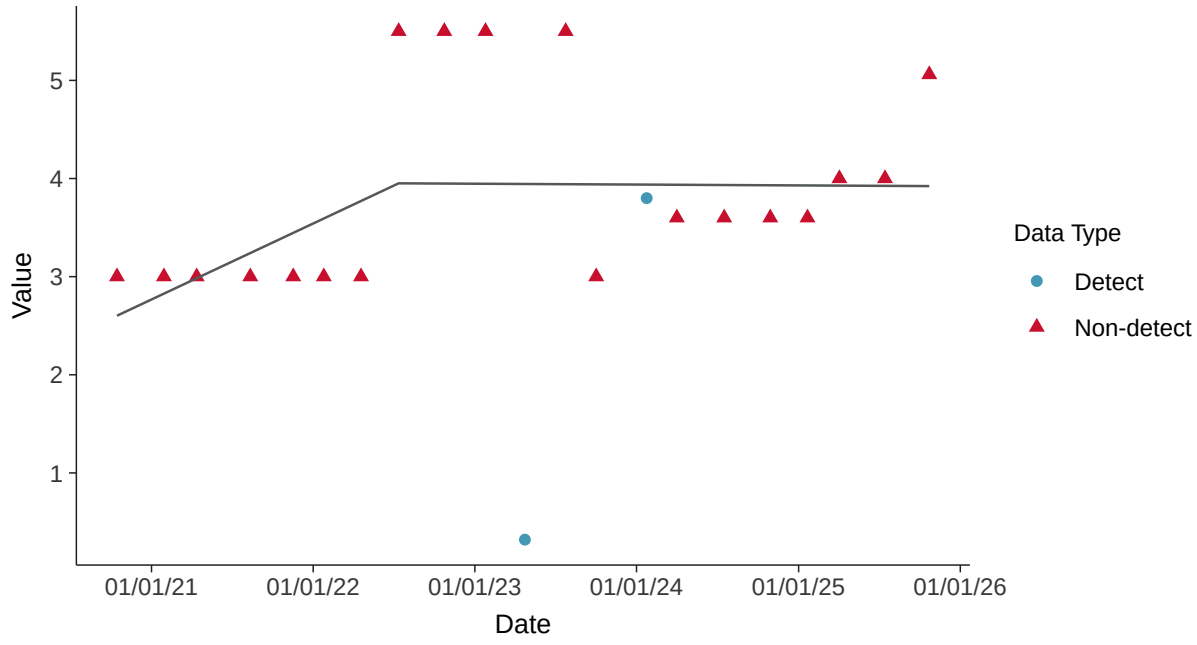
Normal Q-Q plot using ROS Imputed Estimates

Antimony, MW-11 (ug/L)



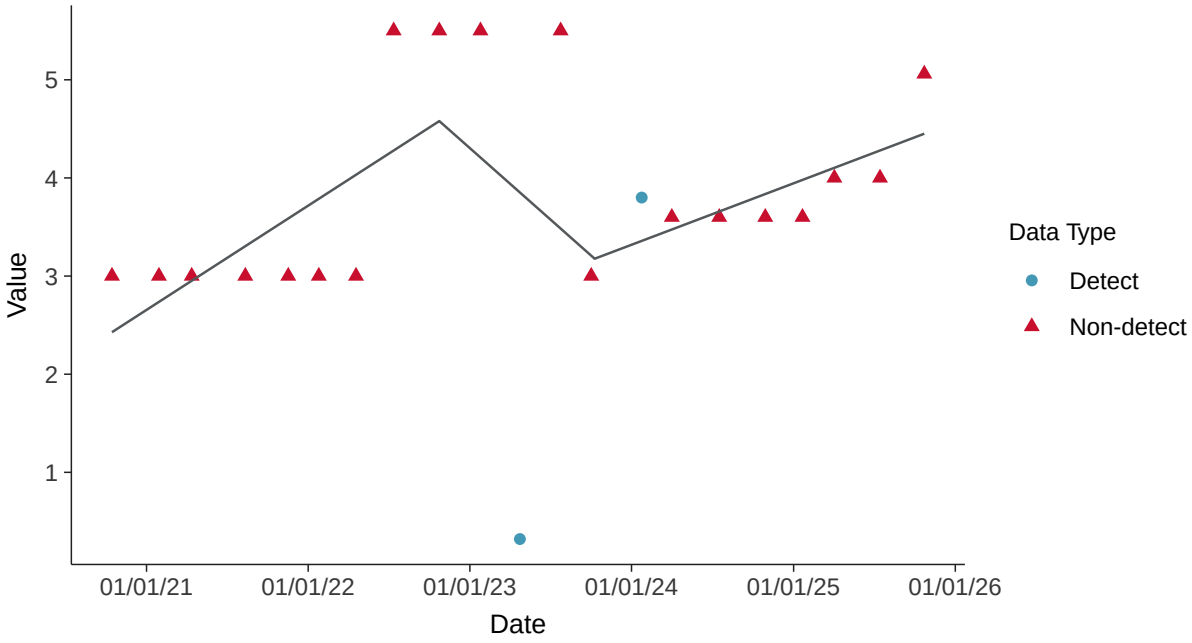
Trend Regression: Piecewise Linear-Linear

Antimony, MW-11 (ug/L)



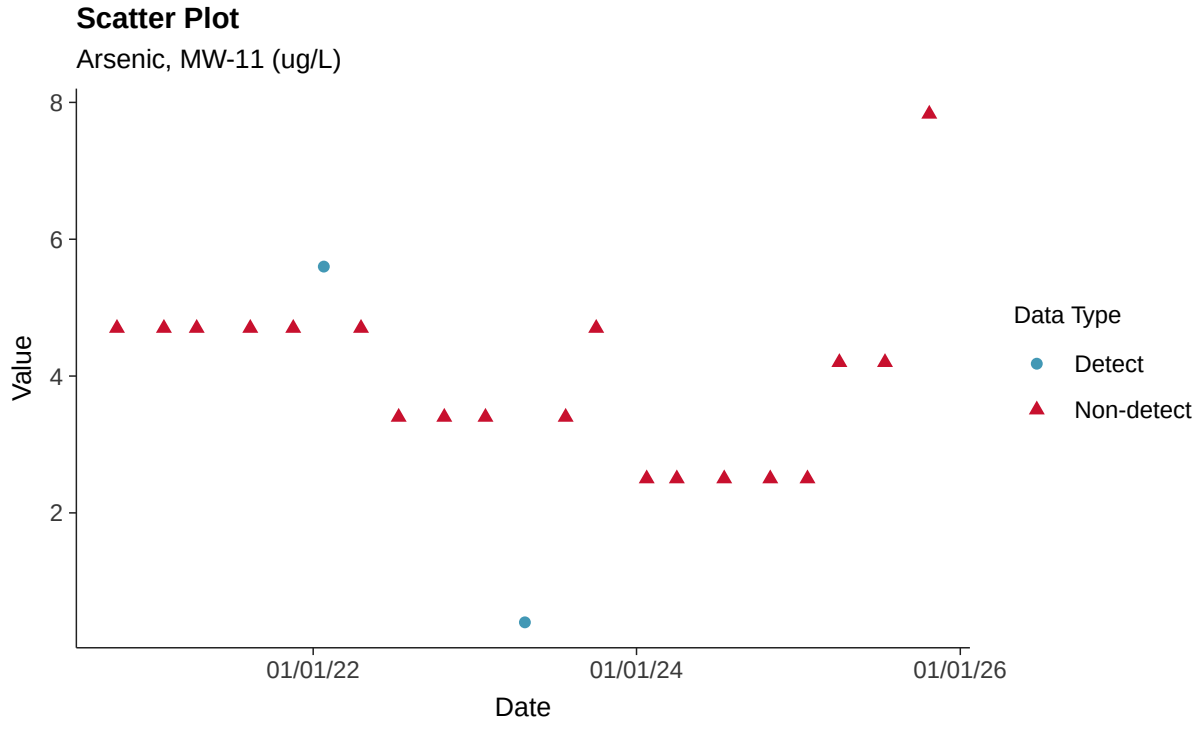
Trend Regression: Piecewise Linear-Linear-Linear

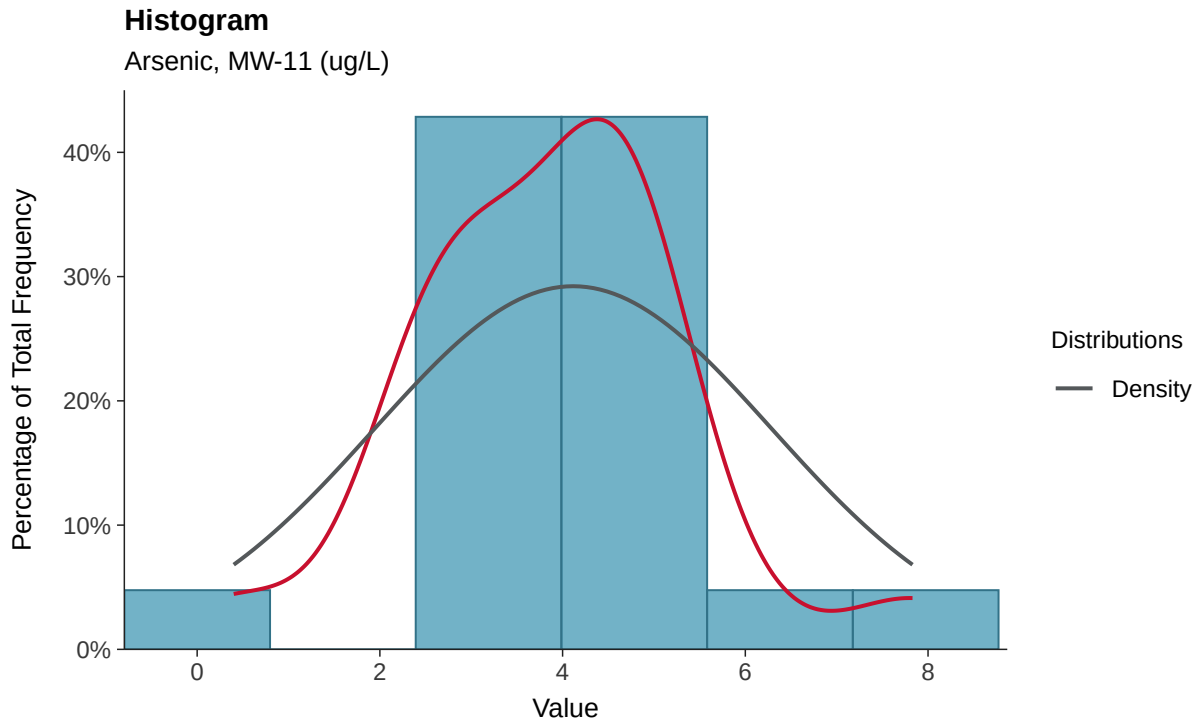
Antimony, MW-11 (ug/L)



App. IV: Arsenic, MW-11

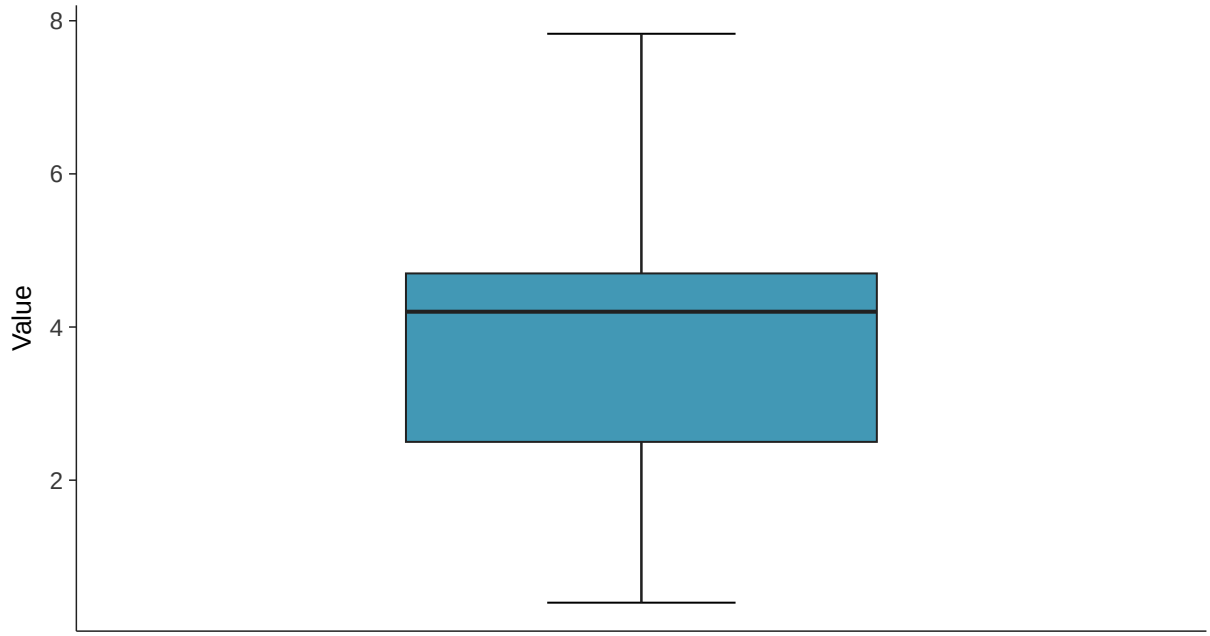
ID: 10_3_102





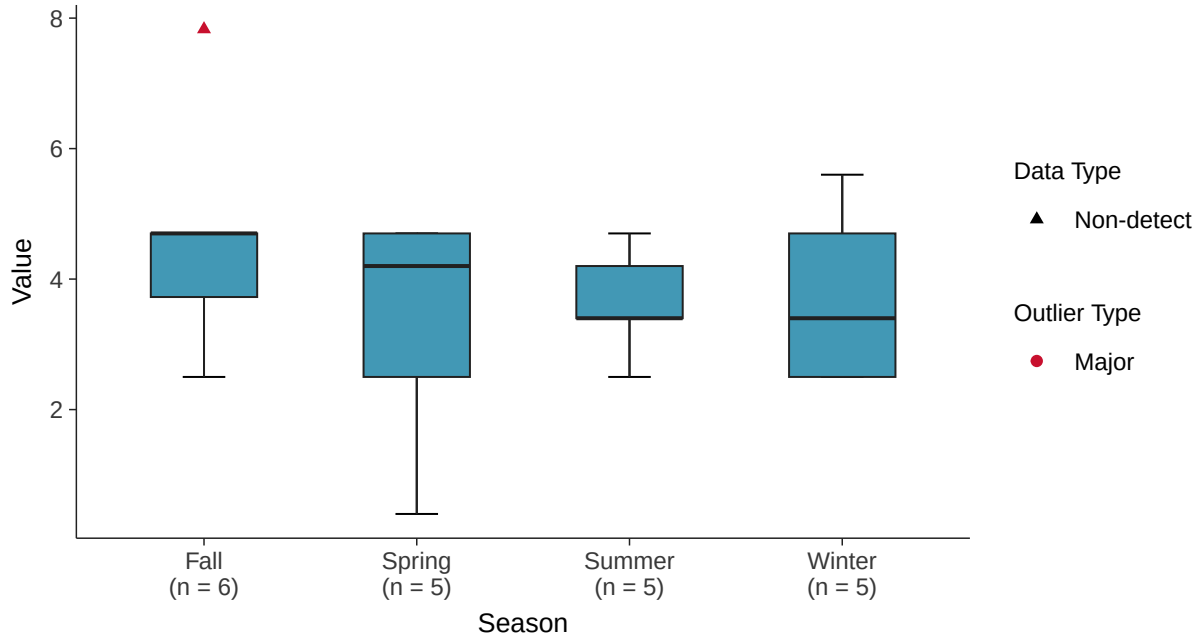
Boxplot

Arsenic, MW-11 (ug/L)



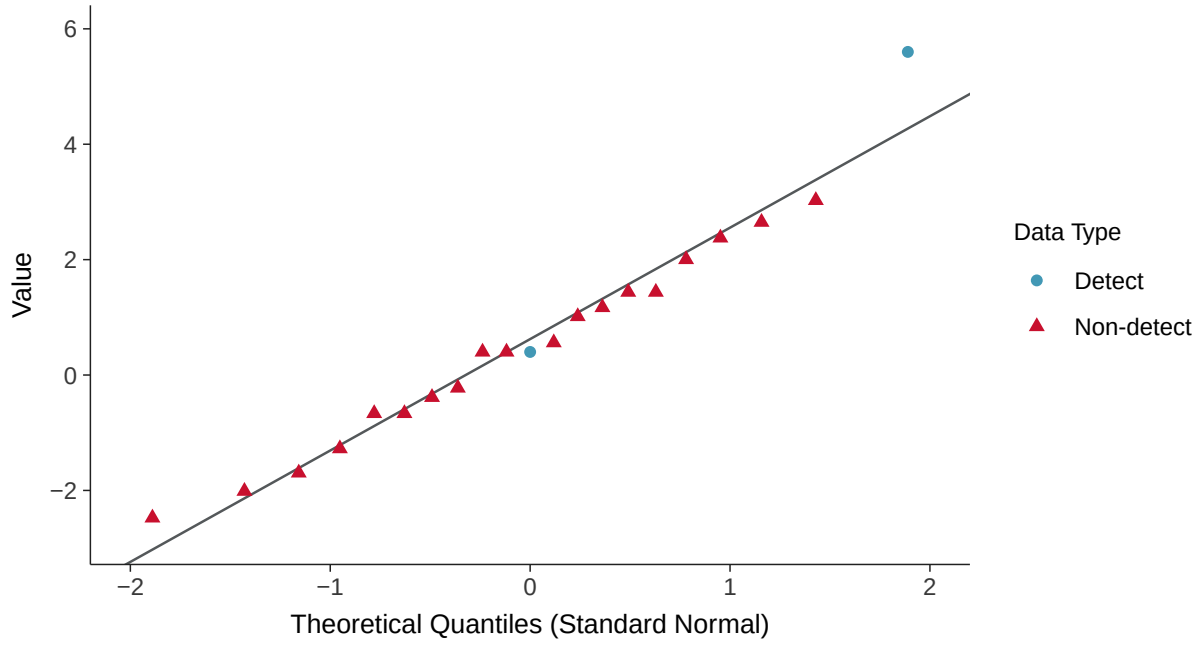
Boxplot by Season

Arsenic, MW-11 (ug/L)



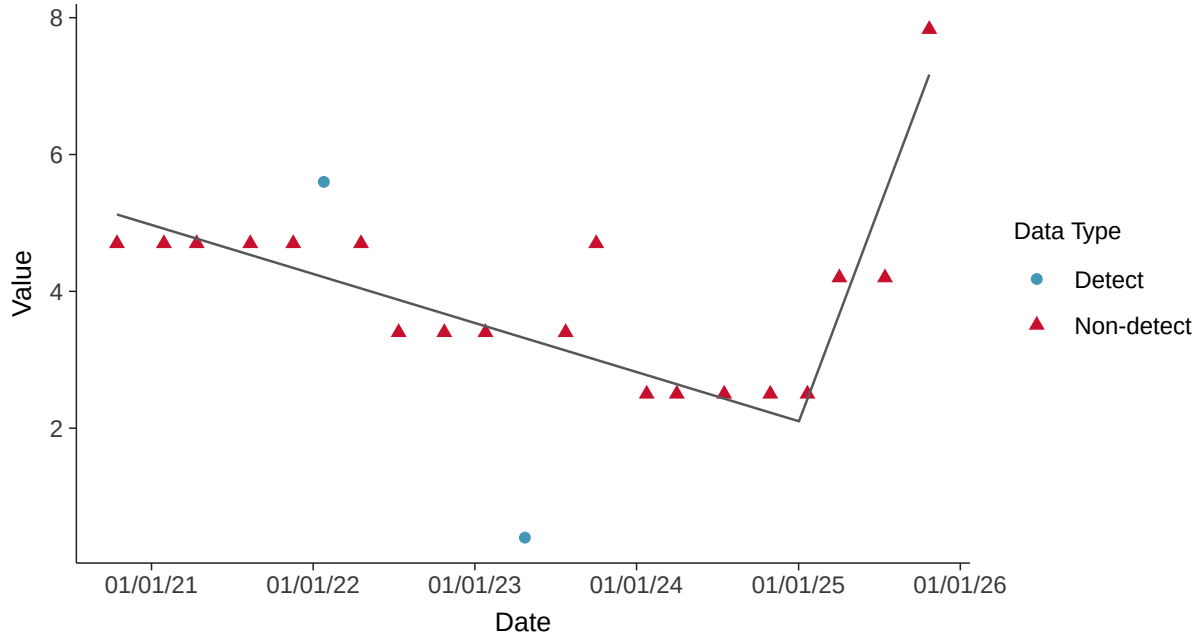
Normal Q-Q plot using ROS Imputed Estimates

Arsenic, MW-11 (ug/L)



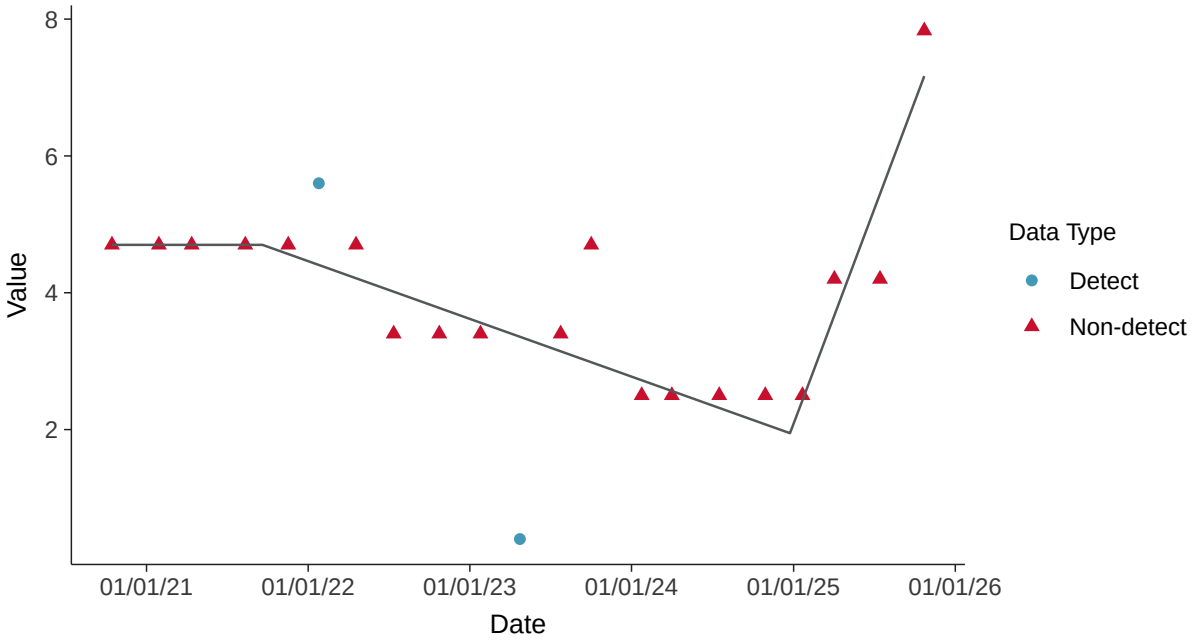
Trend Regression: Piecewise Linear-Linear

Arsenic, MW-11 (ug/L)



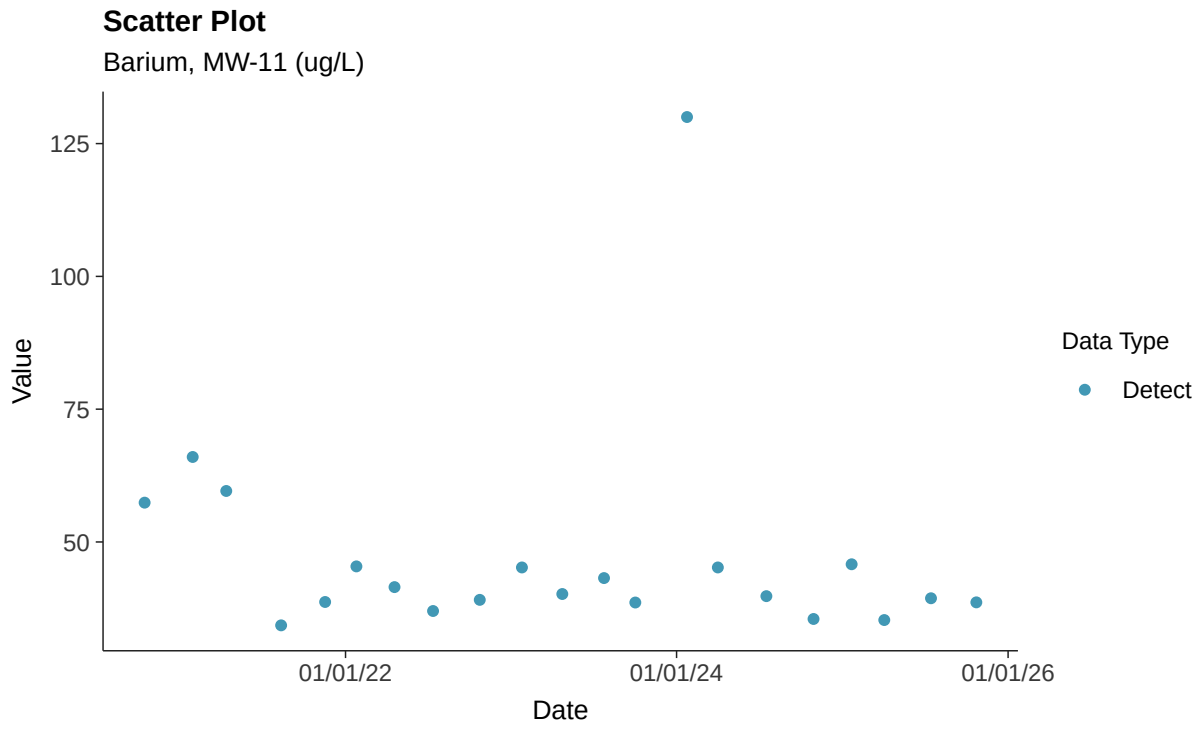
Trend Regression: Piecewise Linear-Linear-Linear

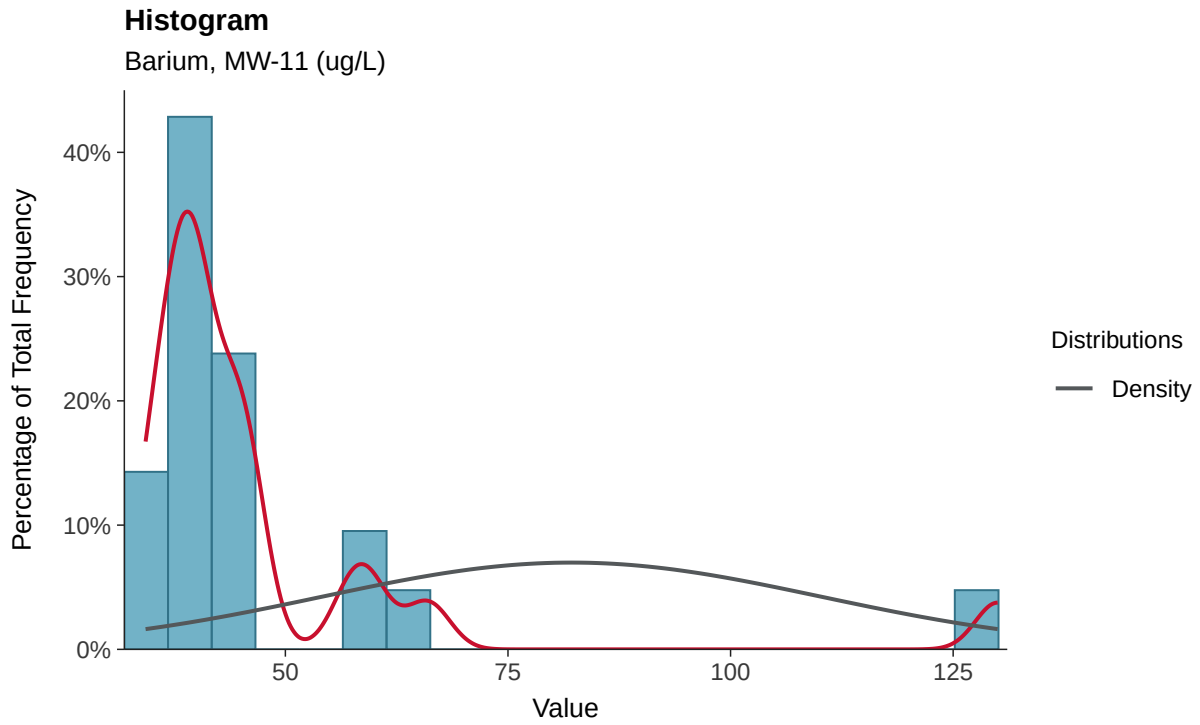
Arsenic, MW-11 (ug/L)



App. IV: Barium, MW-11

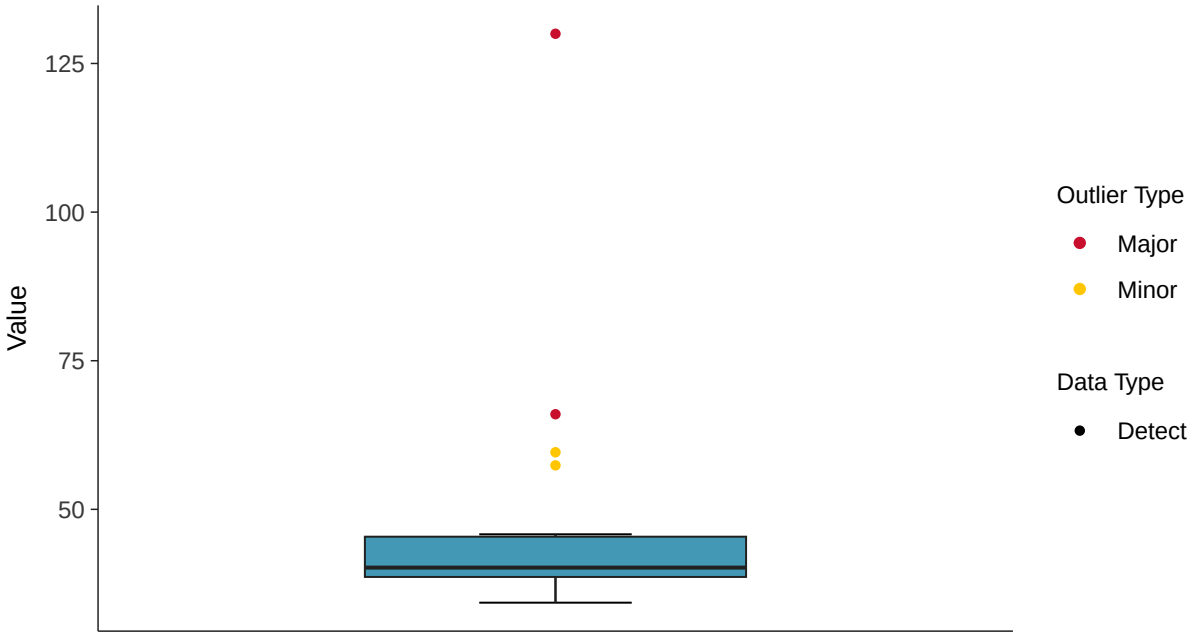
ID: 10_3_103





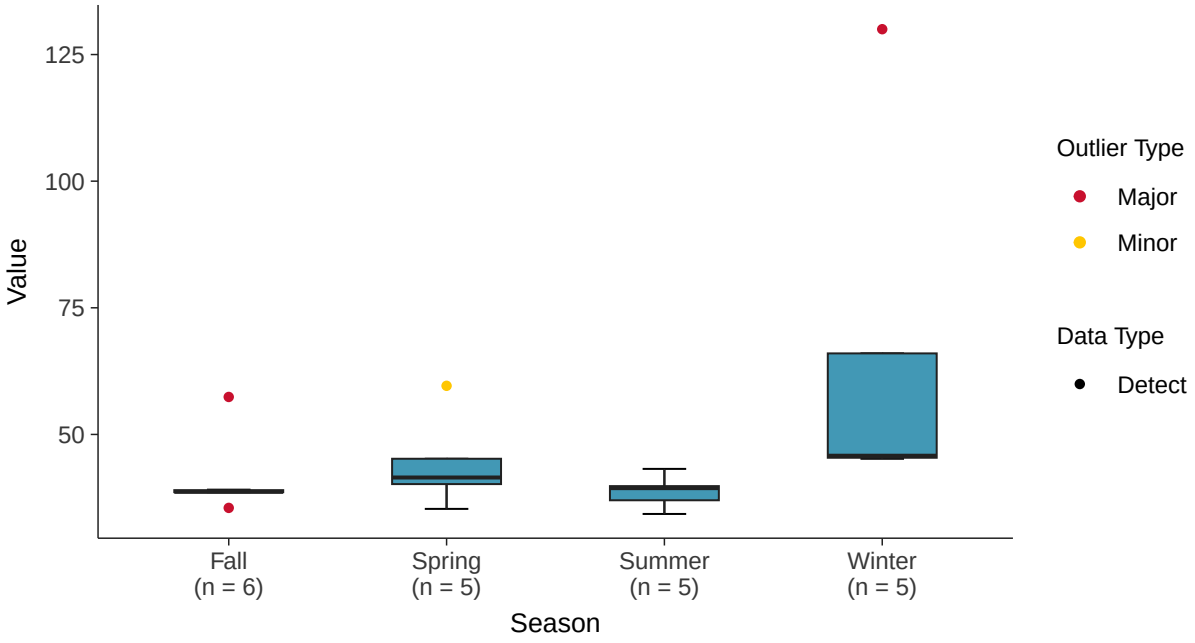
Boxplot

Barium, MW-11 (ug/L)



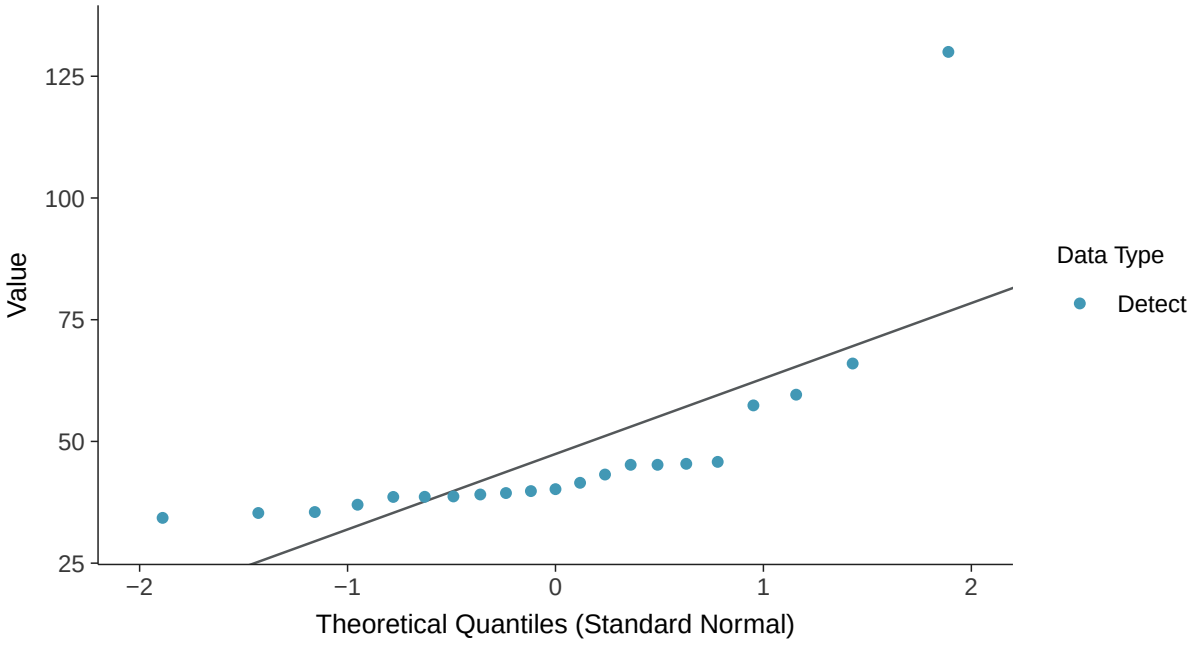
Boxplot by Season

Barium, MW-11 (ug/L)



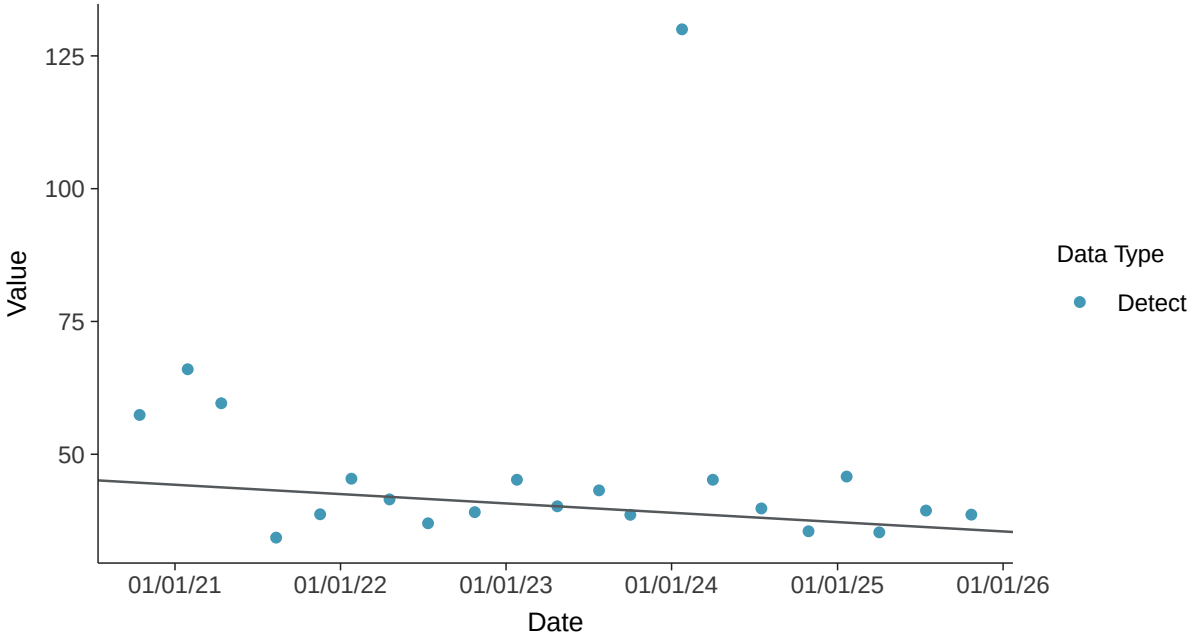
Normal Q-Q plot

Barium, MW-11 (ug/L)



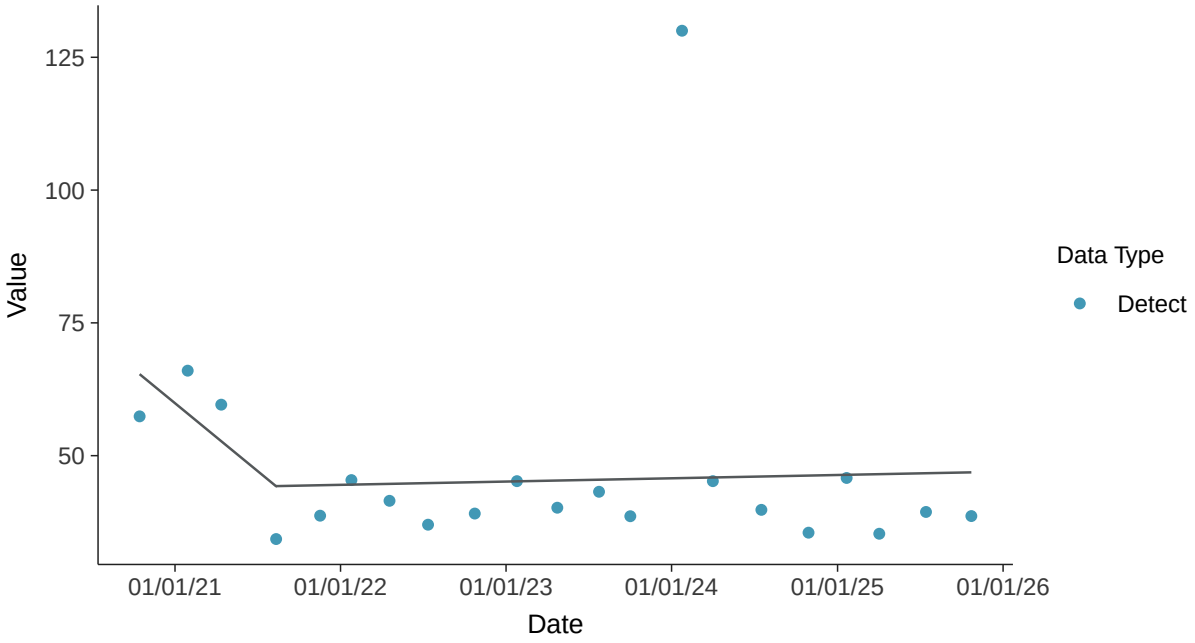
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Barium, MW-11 (ug/L)



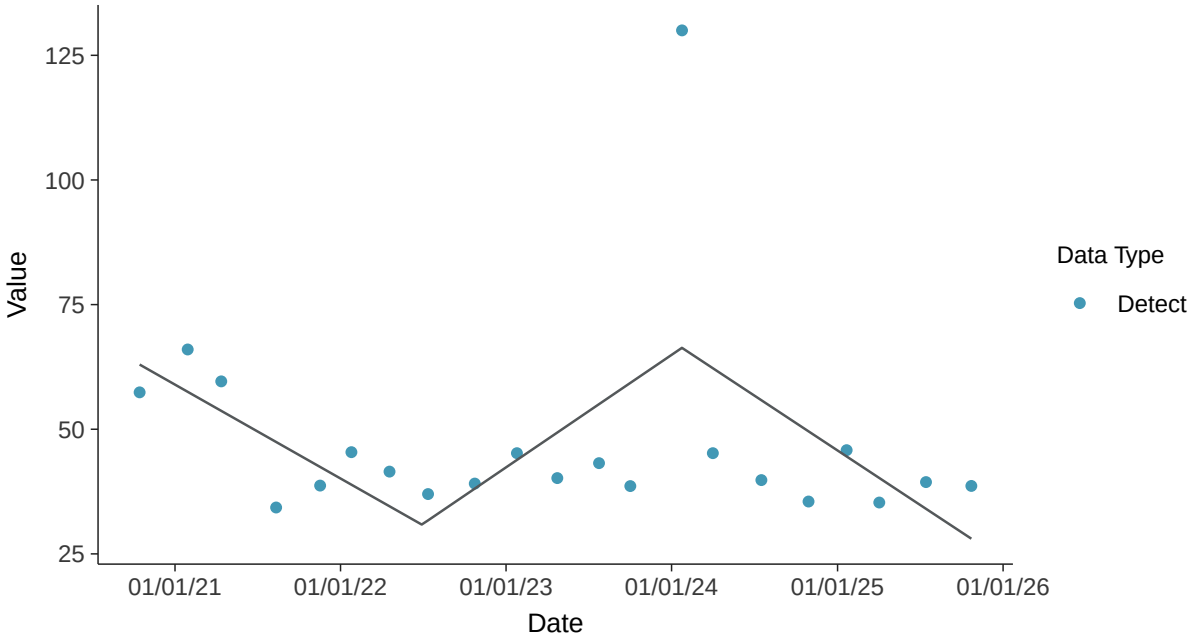
Trend Regression: Piecewise Linear-Linear

Barium, MW-11 (ug/L)



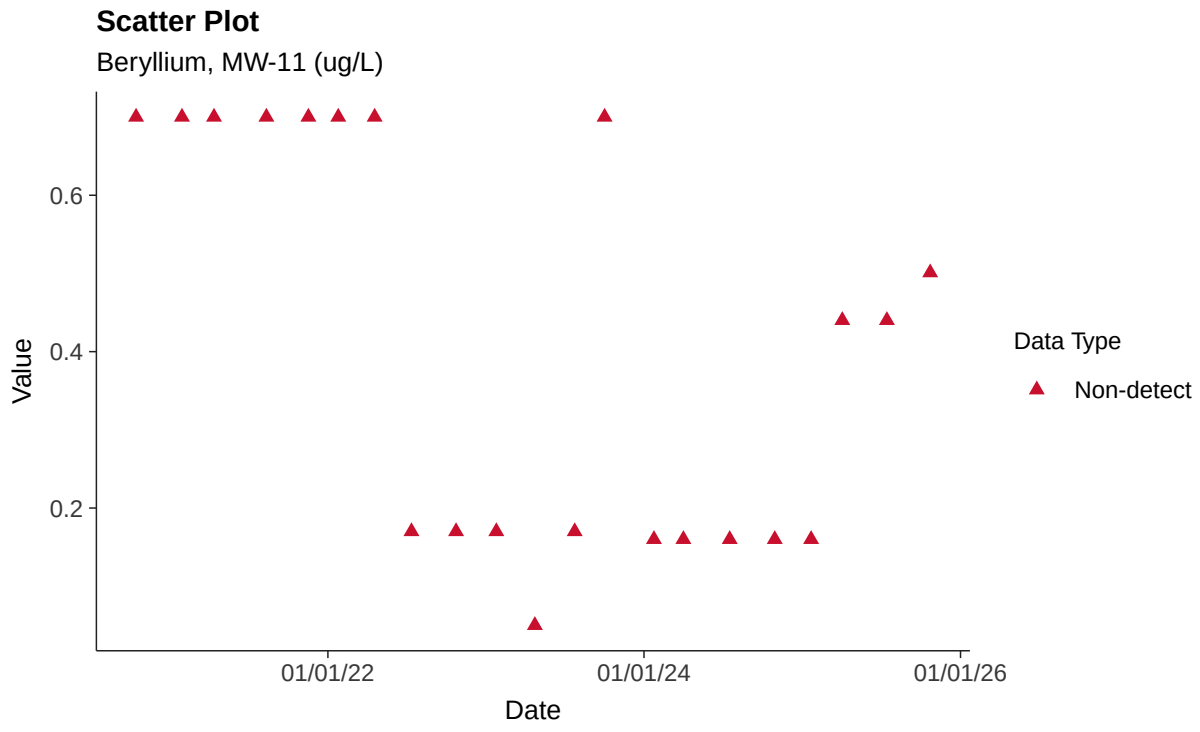
Trend Regression: Piecewise Linear-Linear-Linear

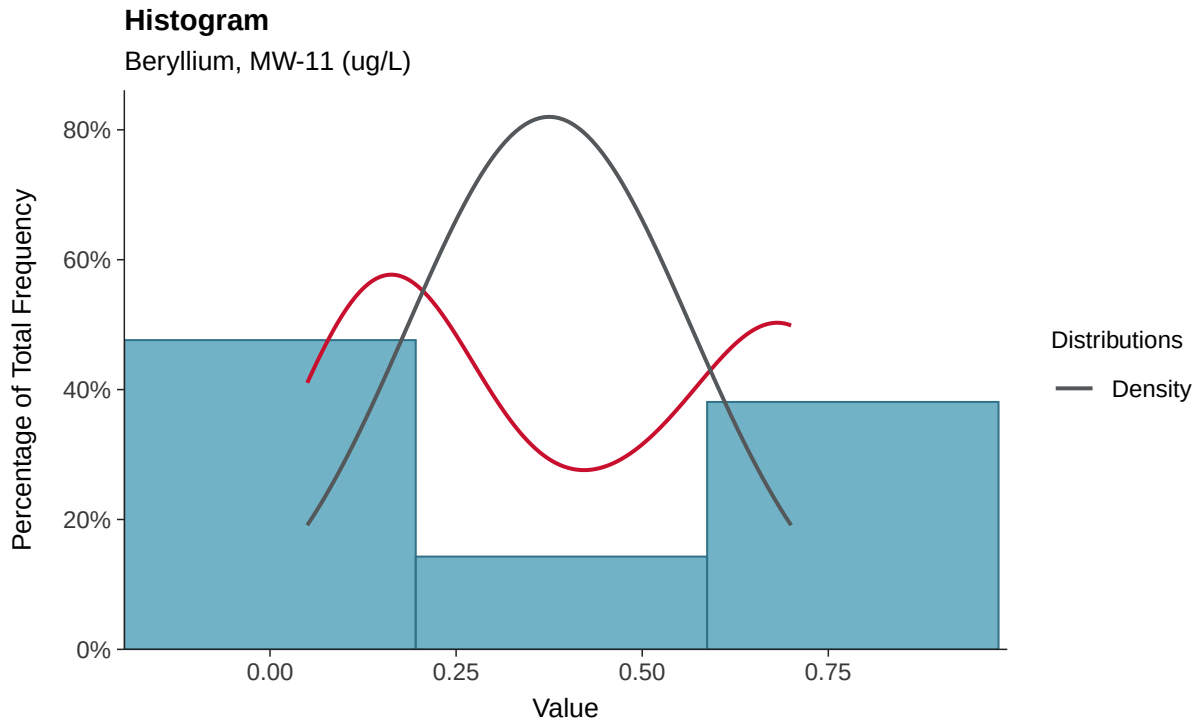
Barium, MW-11 (ug/L)



App. IV: Beryllium, MW-11

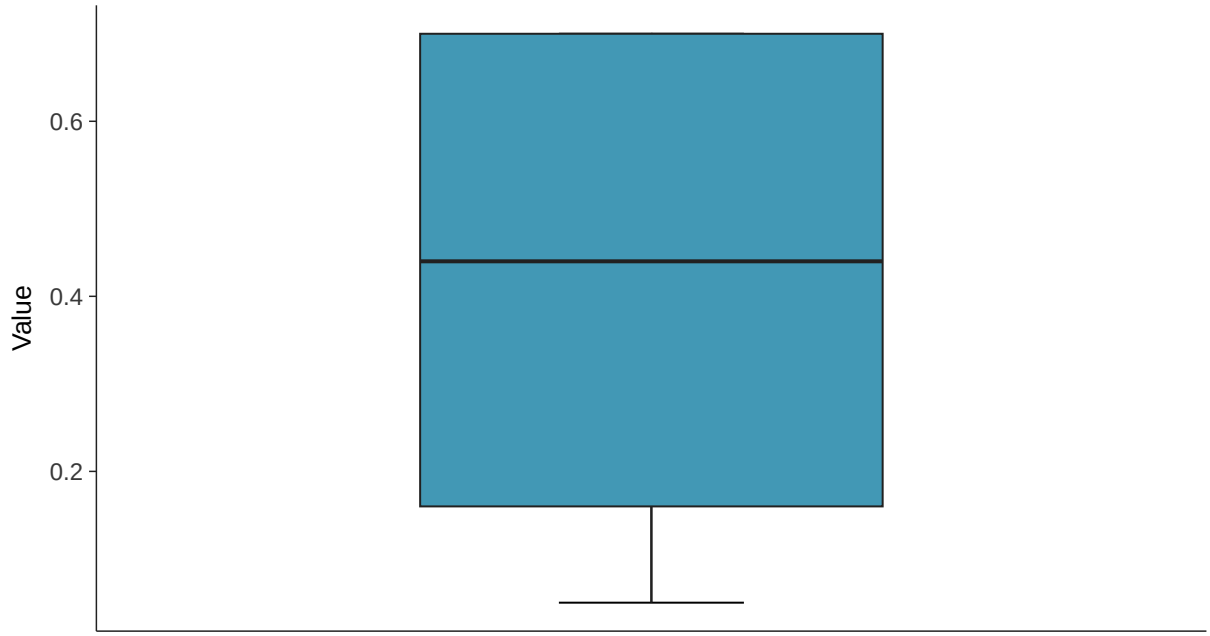
ID: 10_3_104





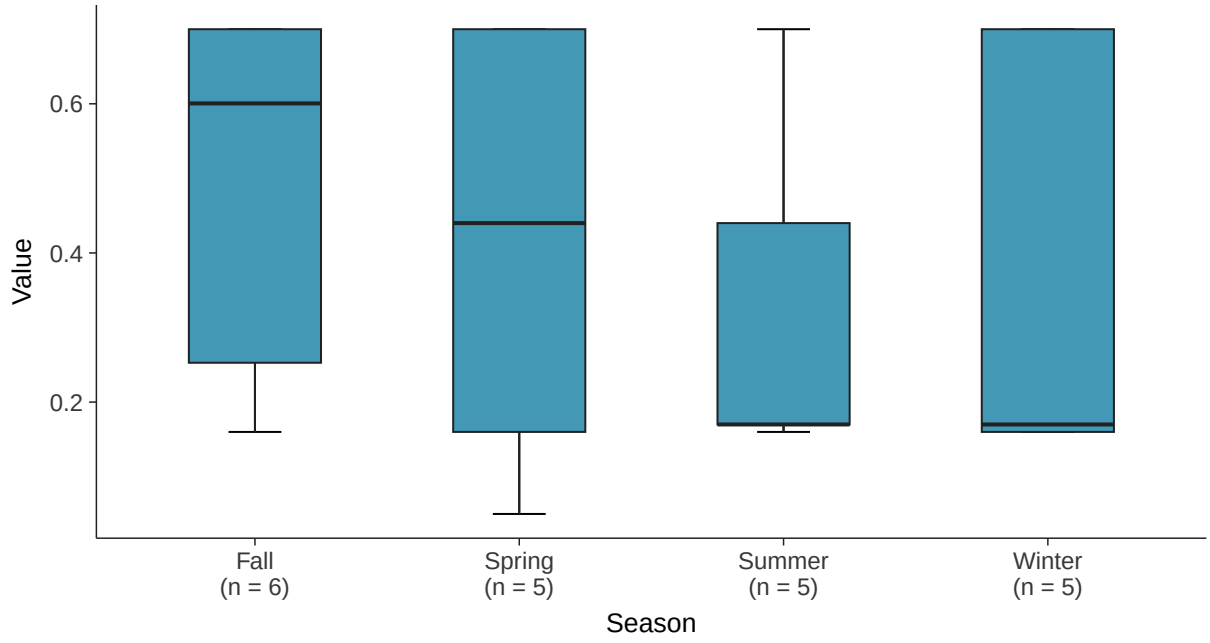
Boxplot

Beryllium, MW-11 (ug/L)



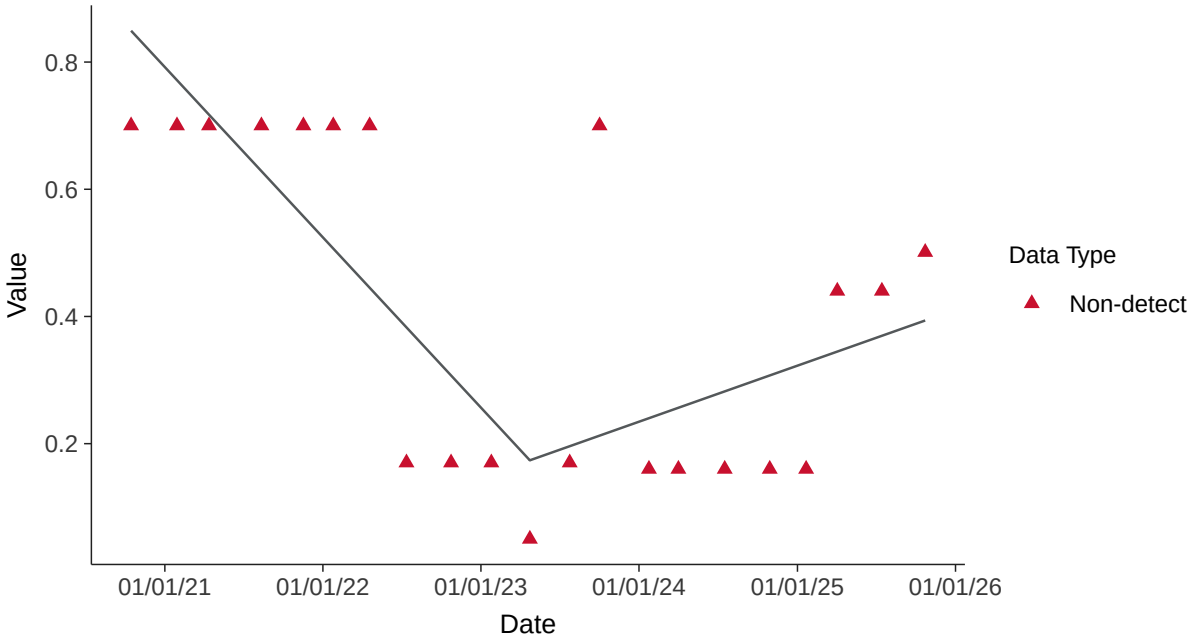
Boxplot by Season

Beryllium, MW-11 (ug/L)



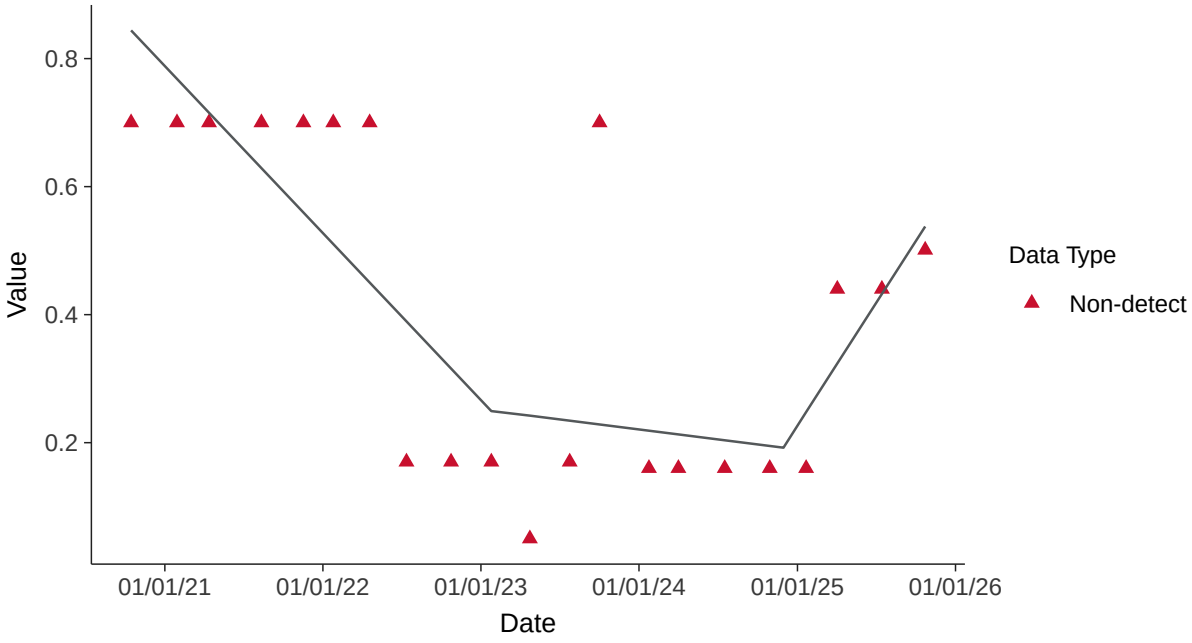
Trend Regression: Piecewise Linear-Linear

Beryllium, MW-11 (ug/L)



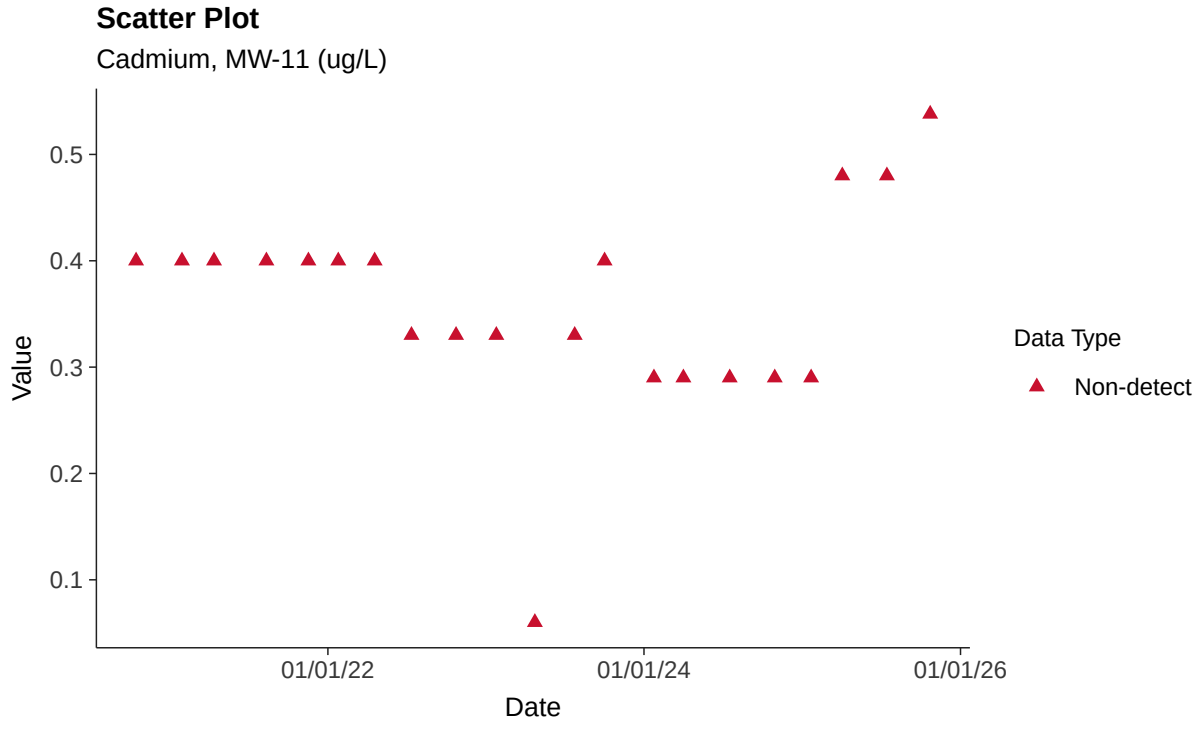
Trend Regression: Piecewise Linear-Linear-Linear

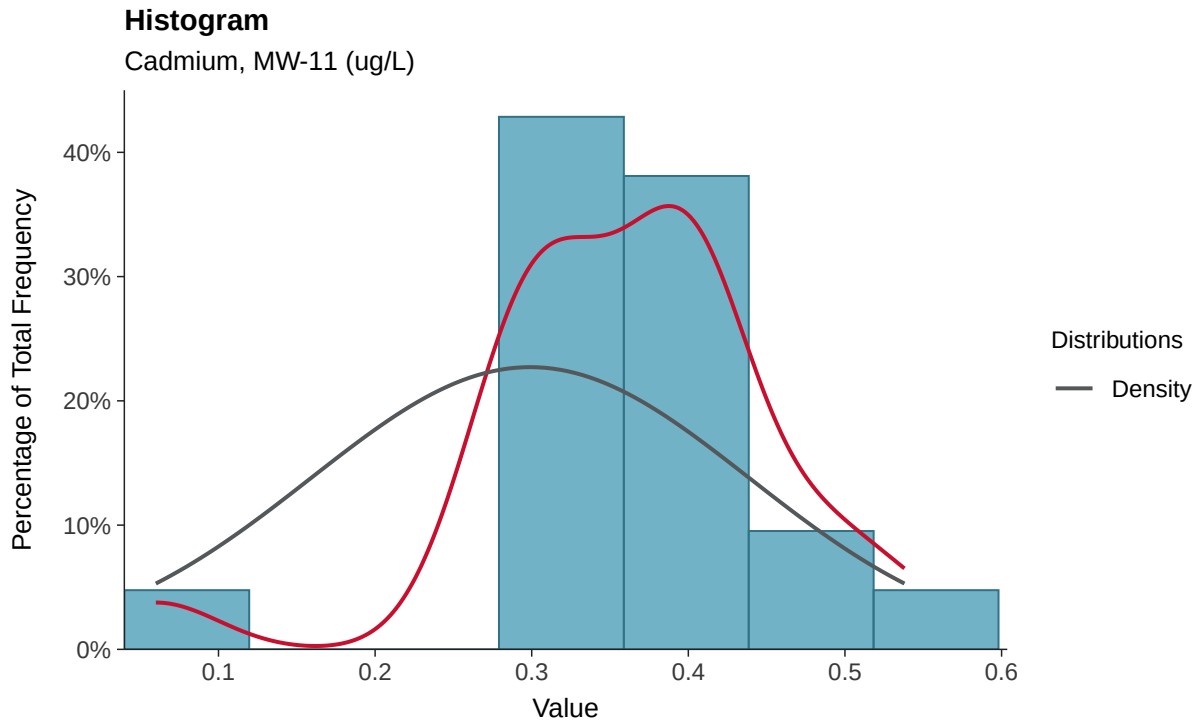
Beryllium, MW-11 (ug/L)



App. IV: Cadmium, MW-11

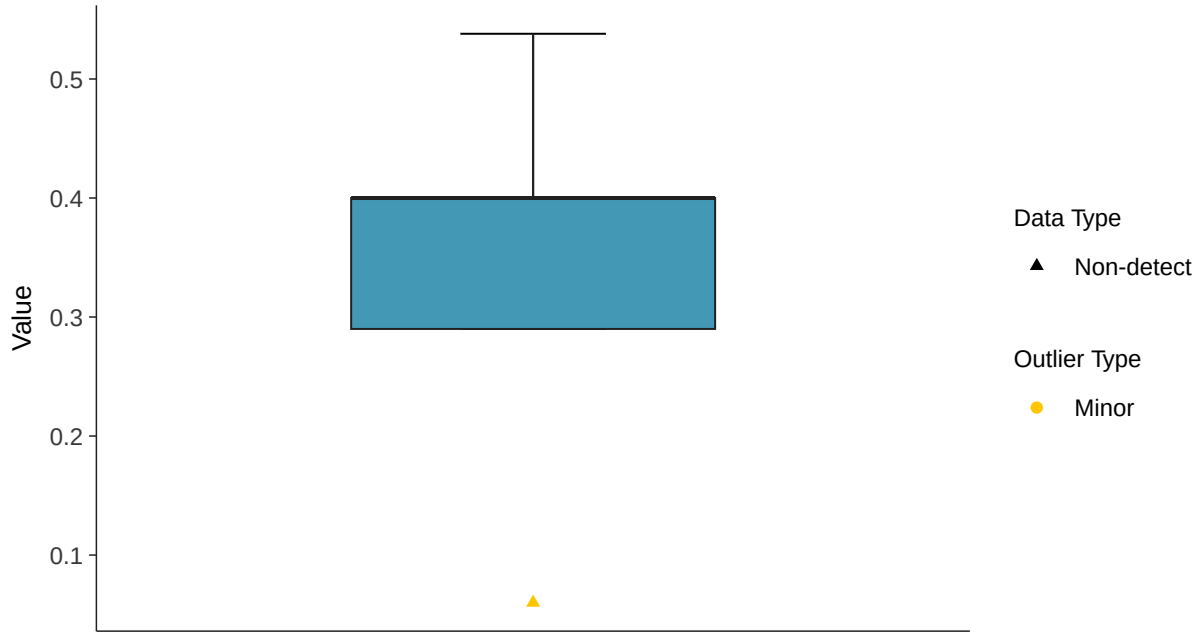
ID: 10_3_106





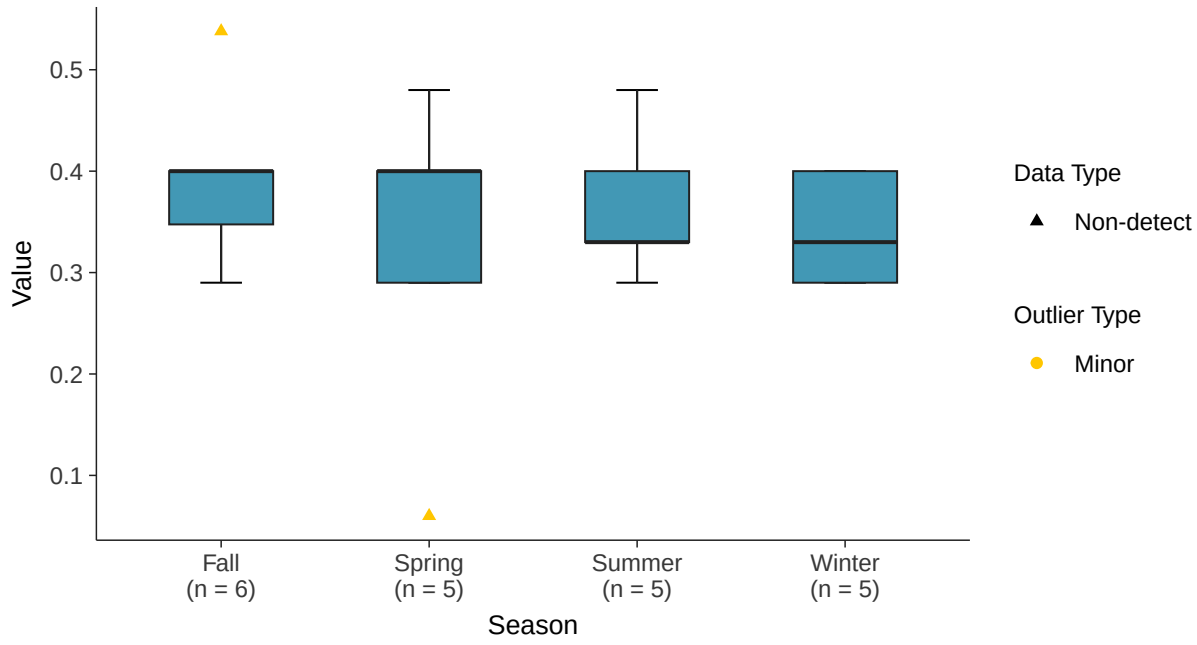
Boxplot

Cadmium, MW-11 (ug/L)



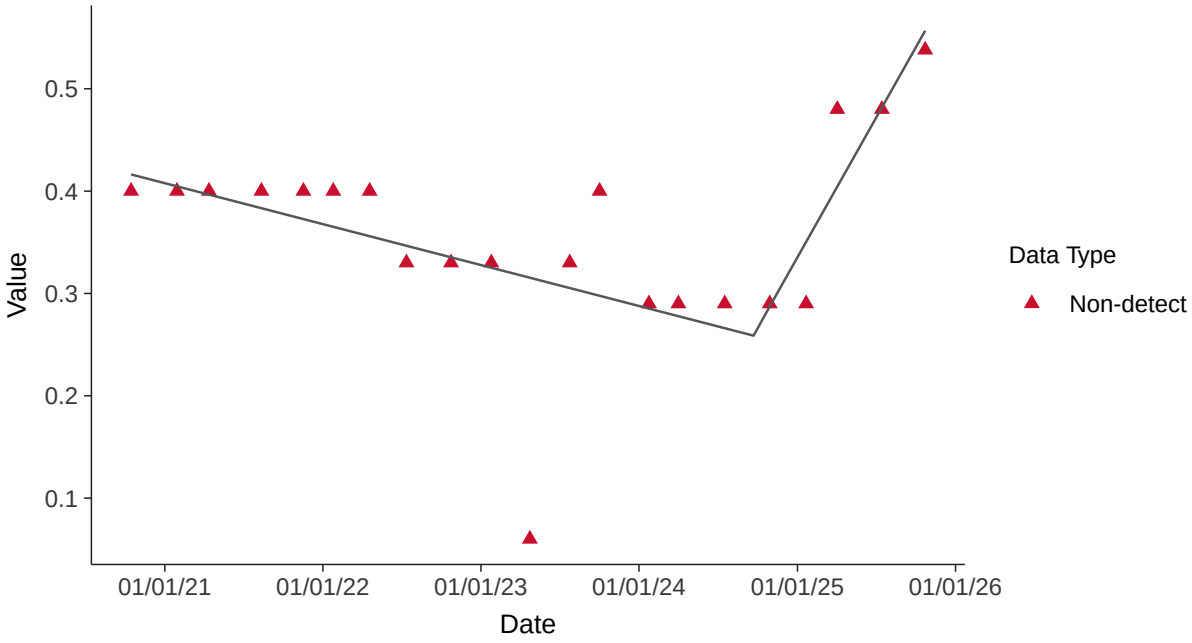
Boxplot by Season

Cadmium, MW-11 (ug/L)



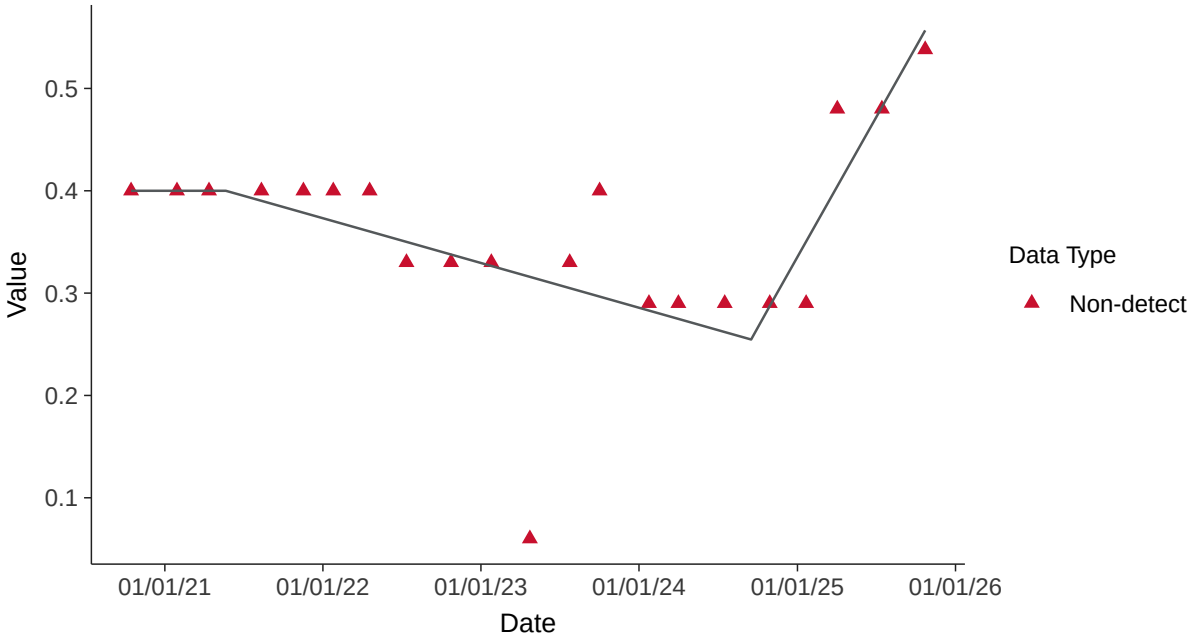
Trend Regression: Piecewise Linear-Linear

Cadmium, MW-11 (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Cadmium, MW-11 (ug/L)

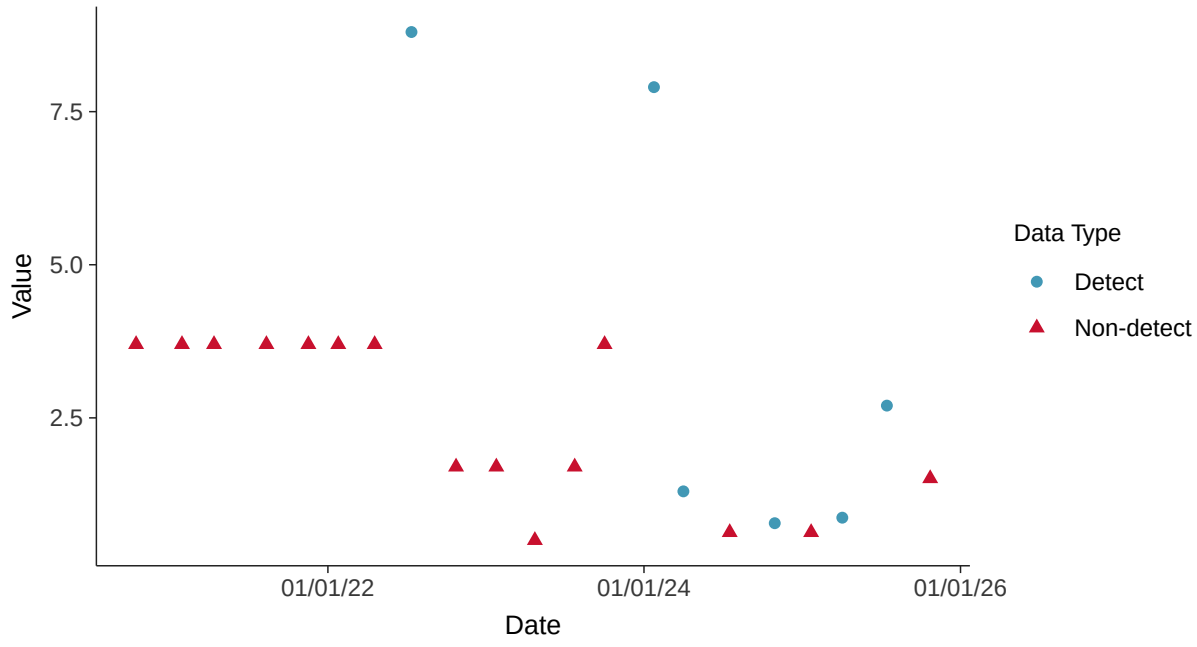


App. IV: Chromium, MW-11

ID: 10_3_109

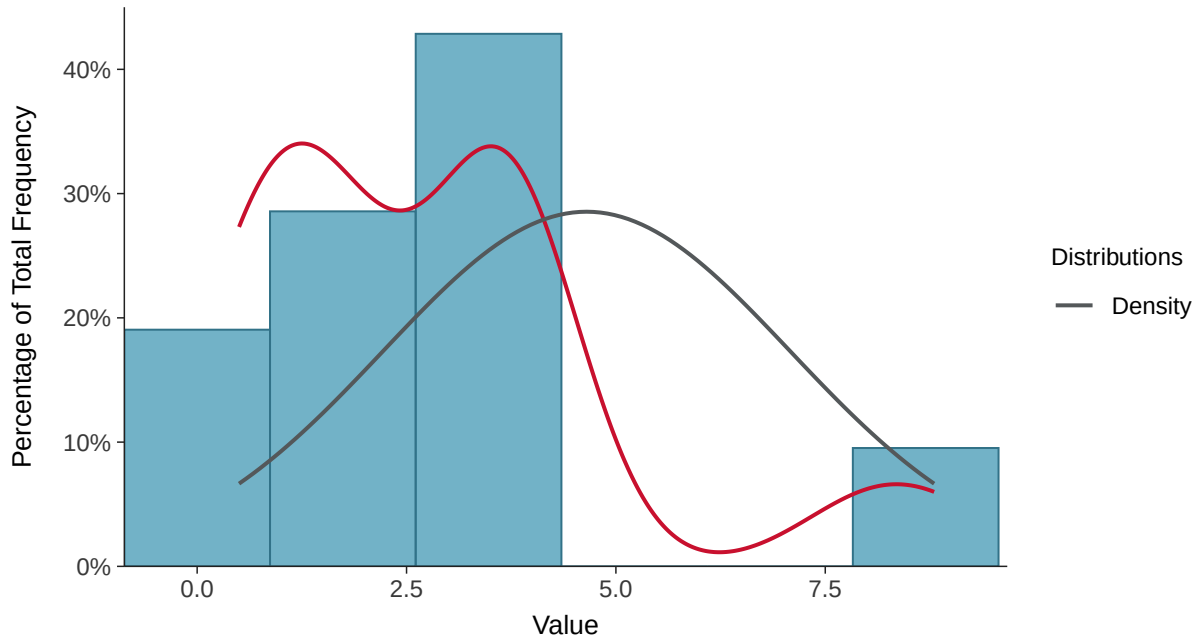
Scatter Plot

Chromium, MW-11 (ug/L)



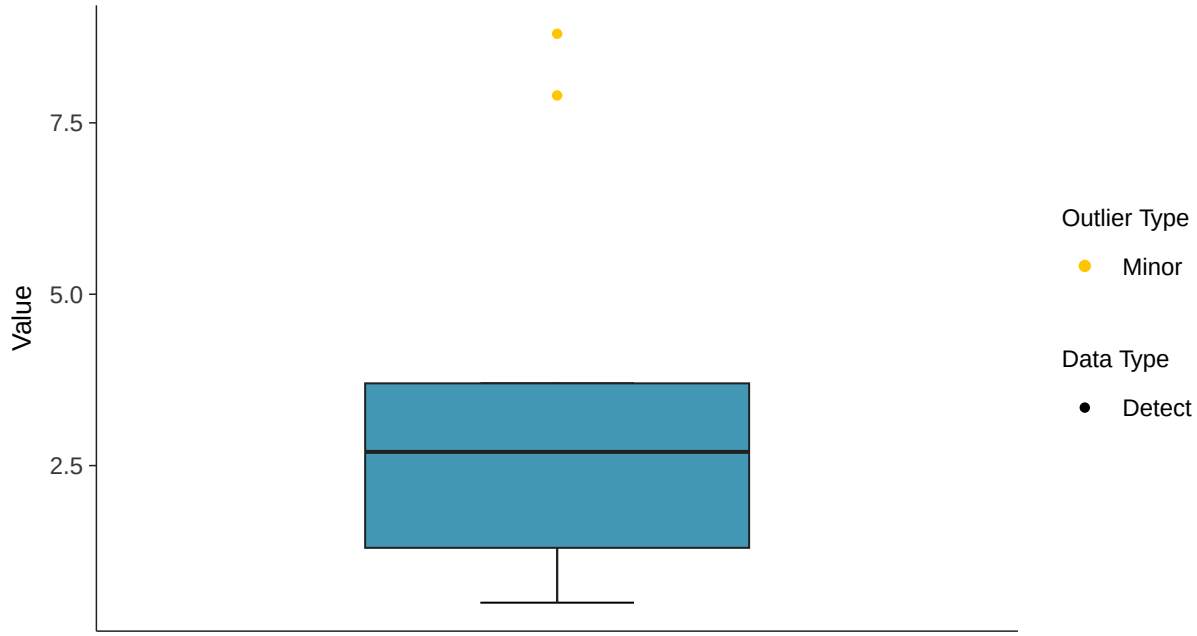
Histogram

Chromium, MW-11 (ug/L)



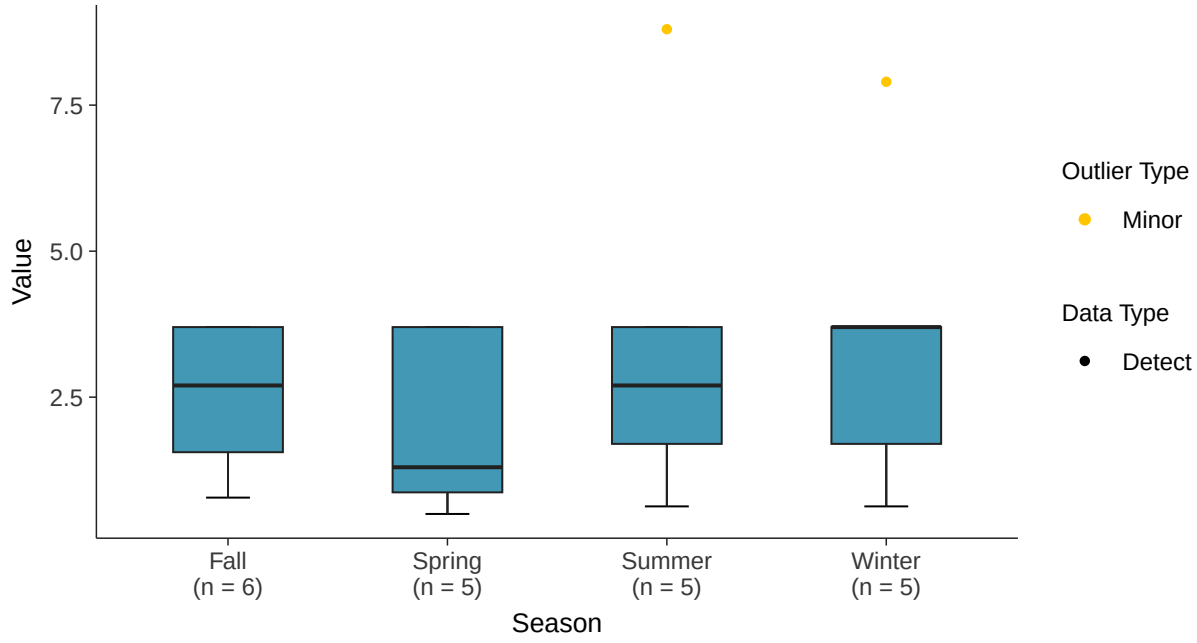
Boxplot

Chromium, MW-11 (ug/L)



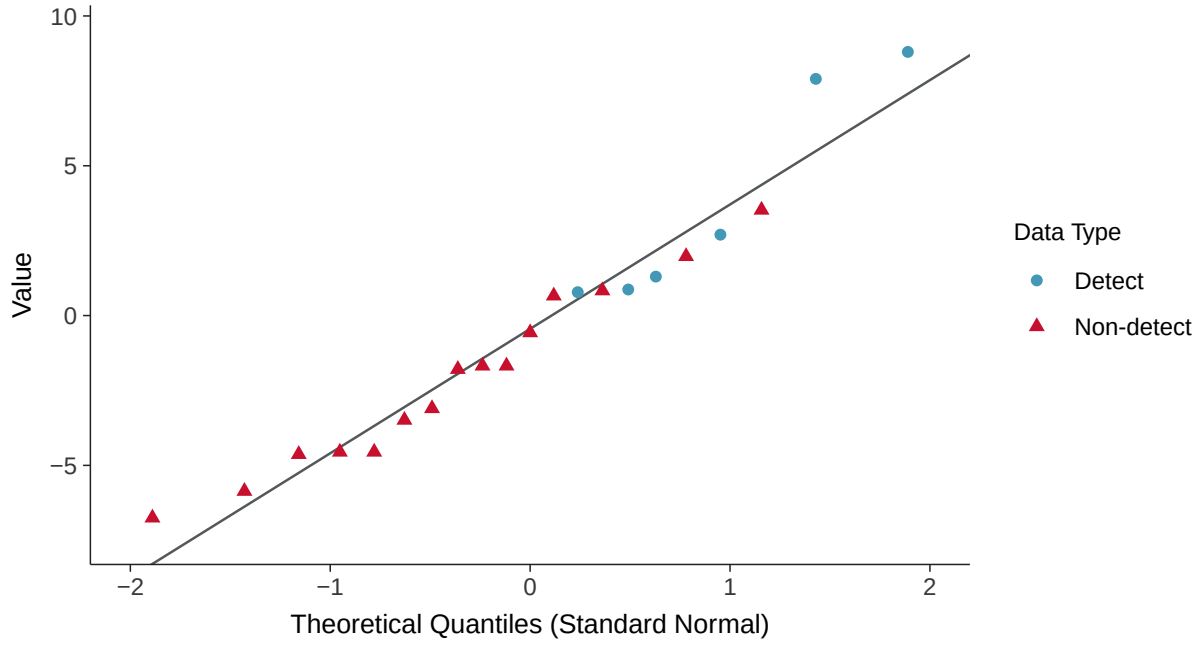
Boxplot by Season

Chromium, MW-11 (ug/L)



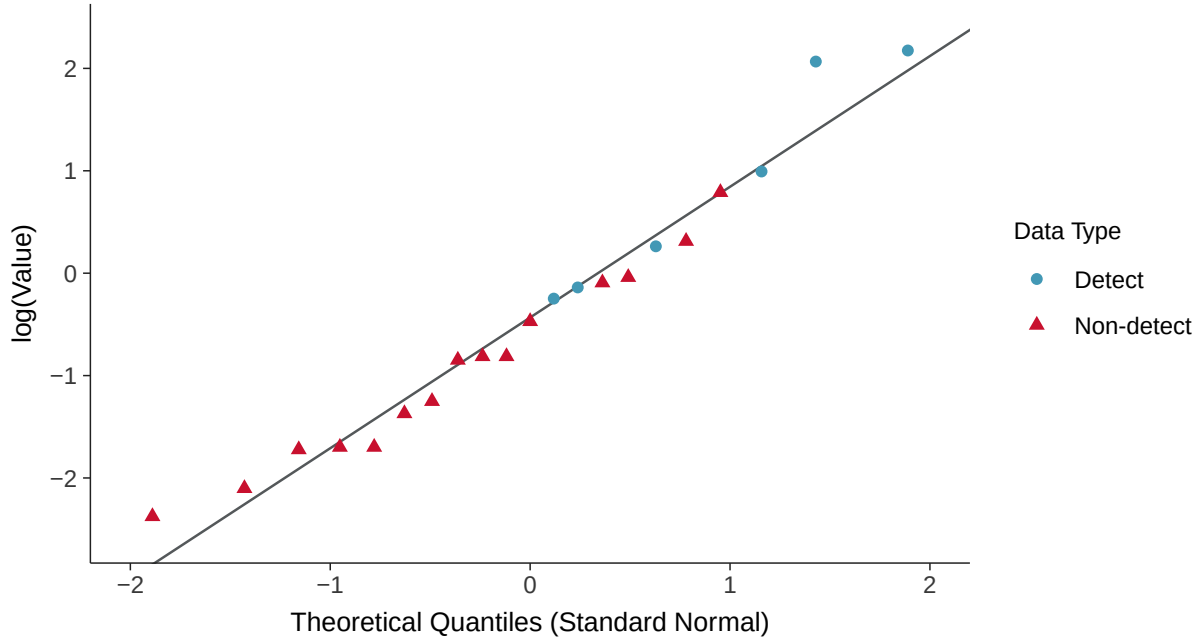
Normal Q-Q plot using ROS Imputed Estimates

Chromium, MW-11 (ug/L)



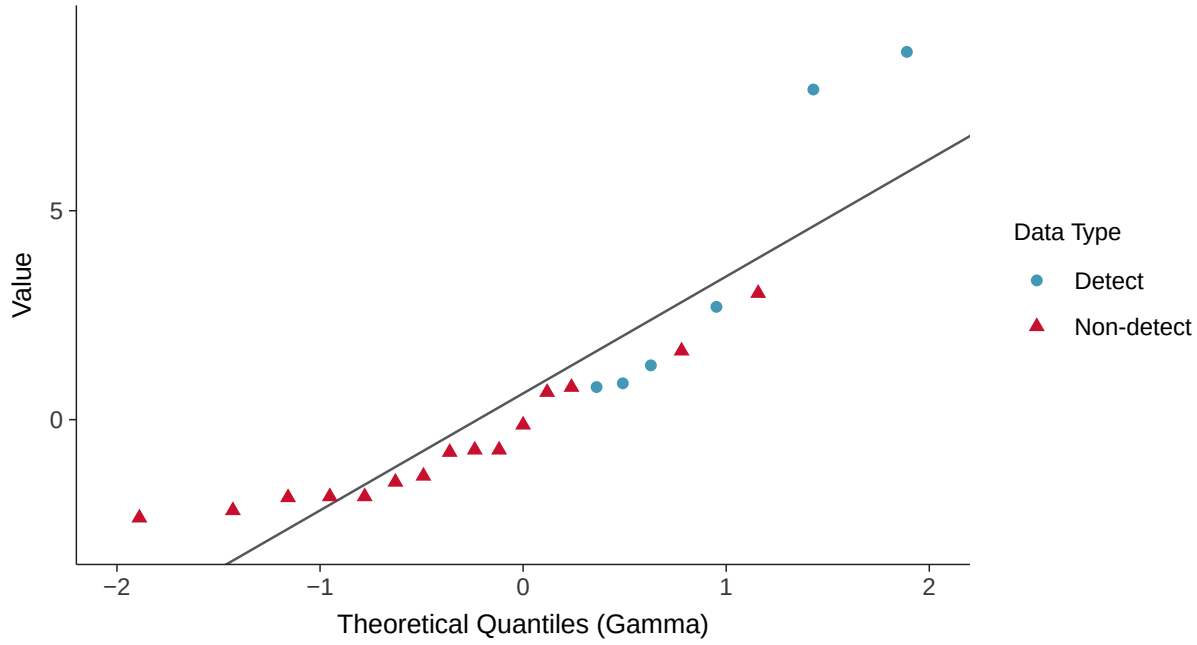
Lognormal Q-Q plot using ROS Imputed Estimates

Chromium, MW-11 (ug/L)



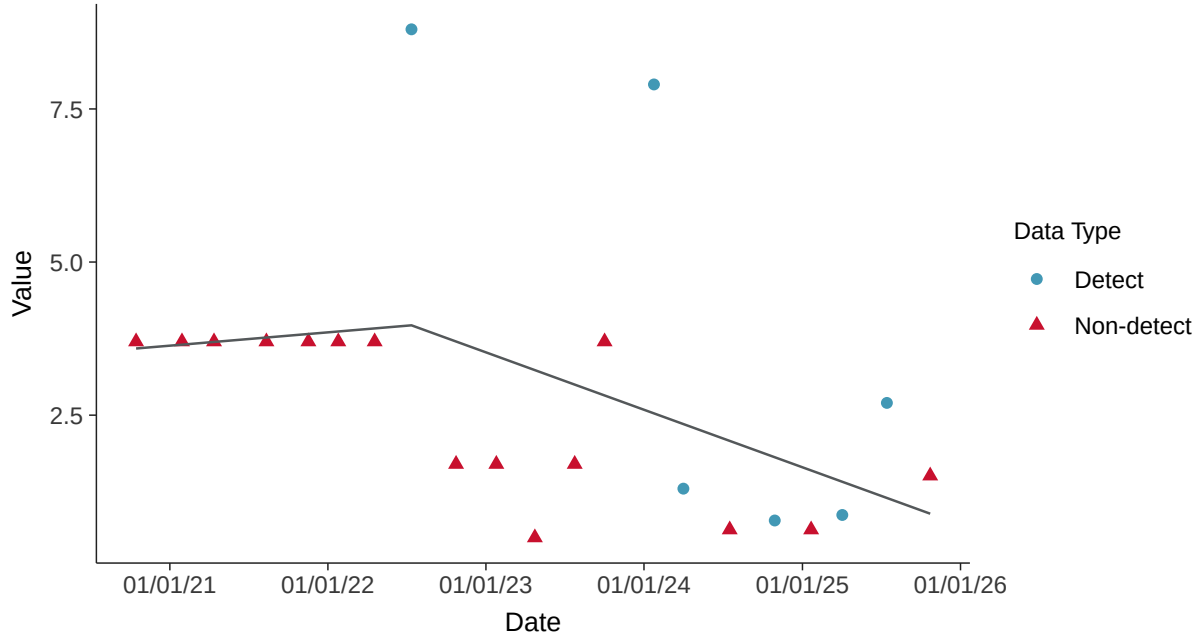
Gamma Q-Q plot using ROS Imputed Estimates

Chromium, MW-11 (ug/L)



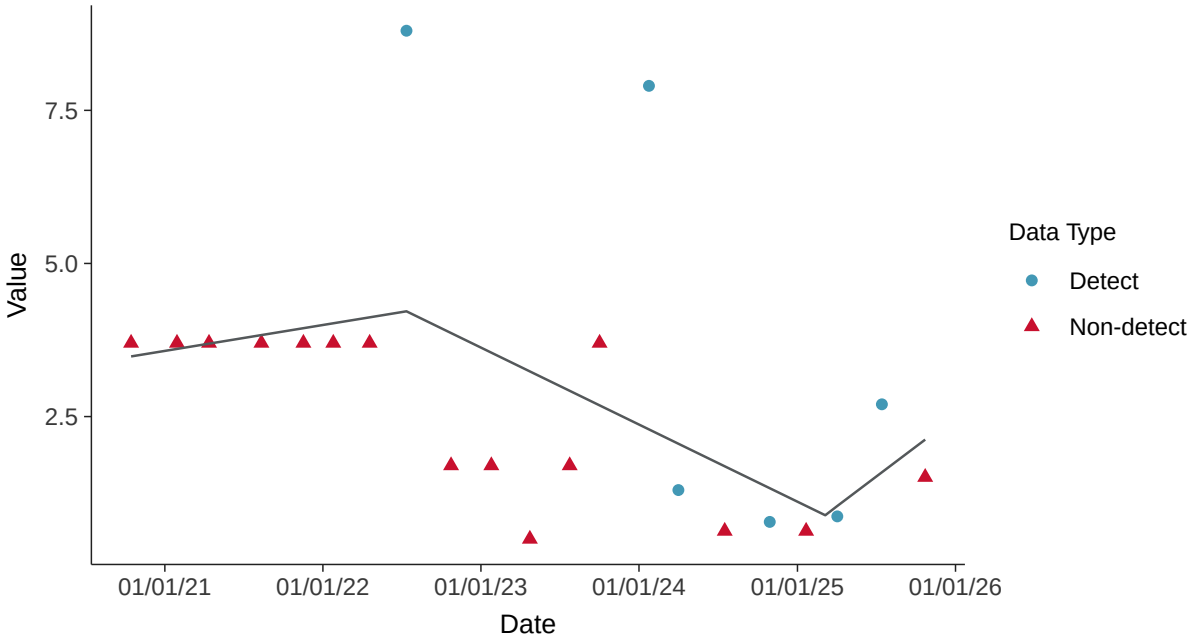
Trend Regression: Piecewise Linear-Linear

Chromium, MW-11 (ug/L)



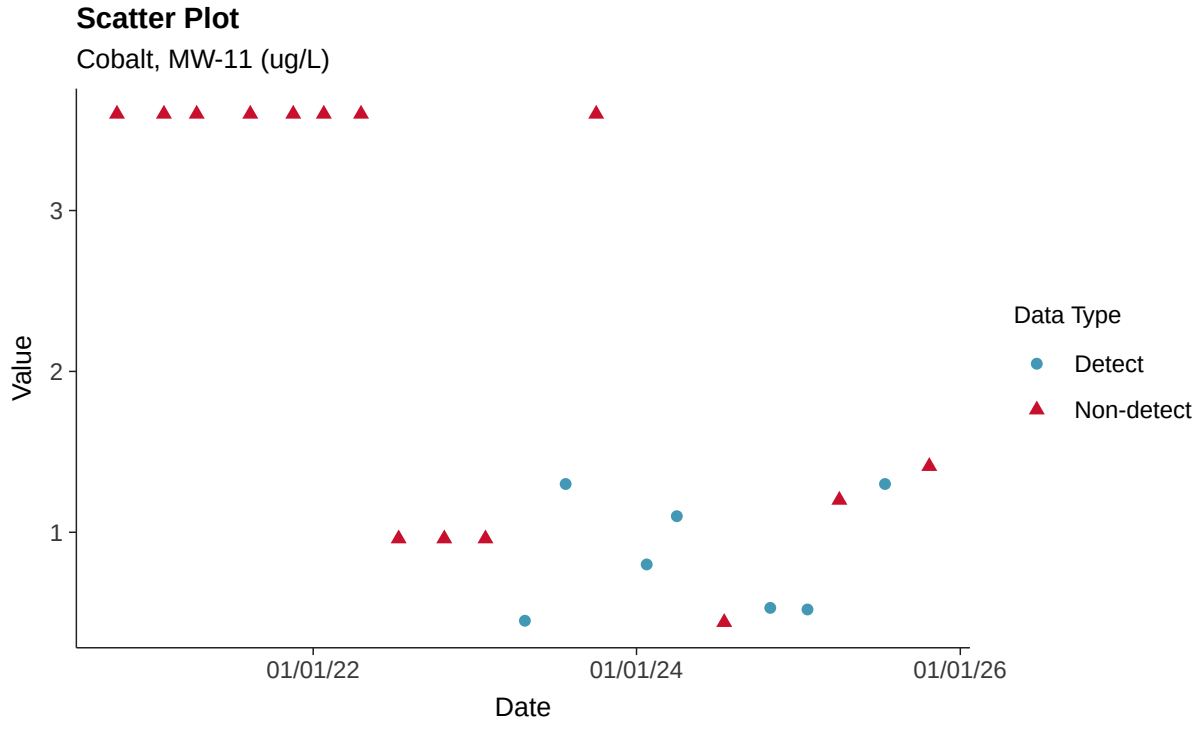
Trend Regression: Piecewise Linear-Linear-Linear

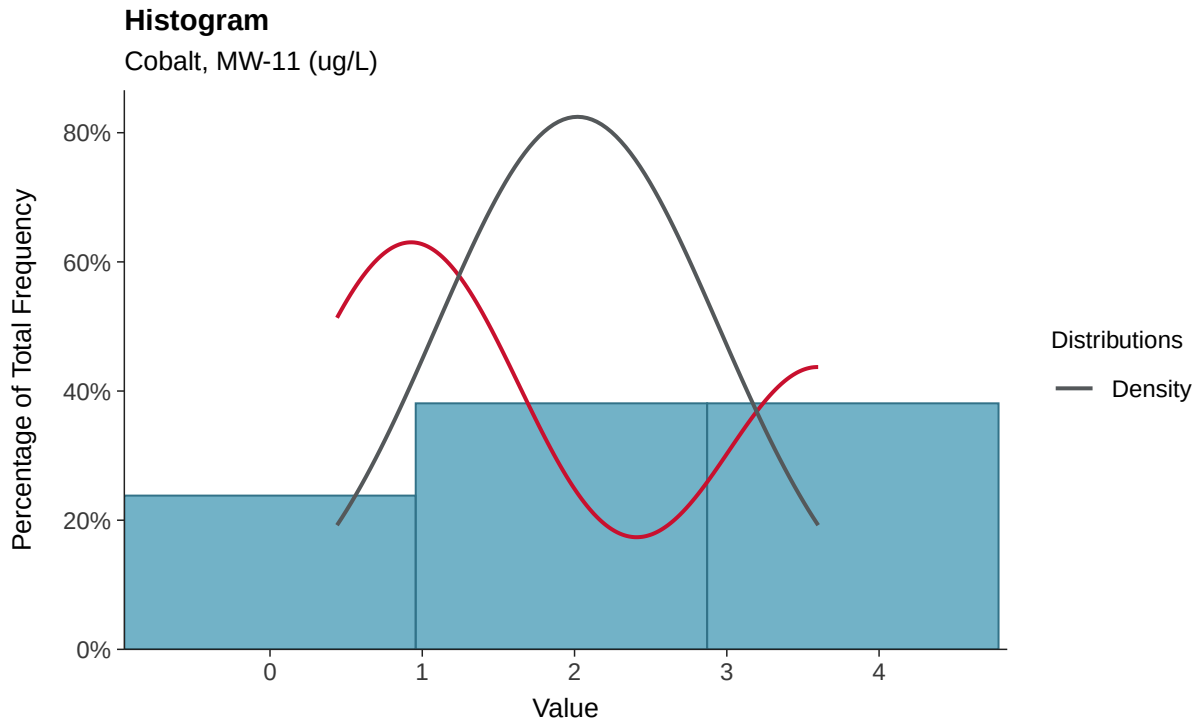
Chromium, MW-11 (ug/L)



App. IV: Cobalt, MW-11

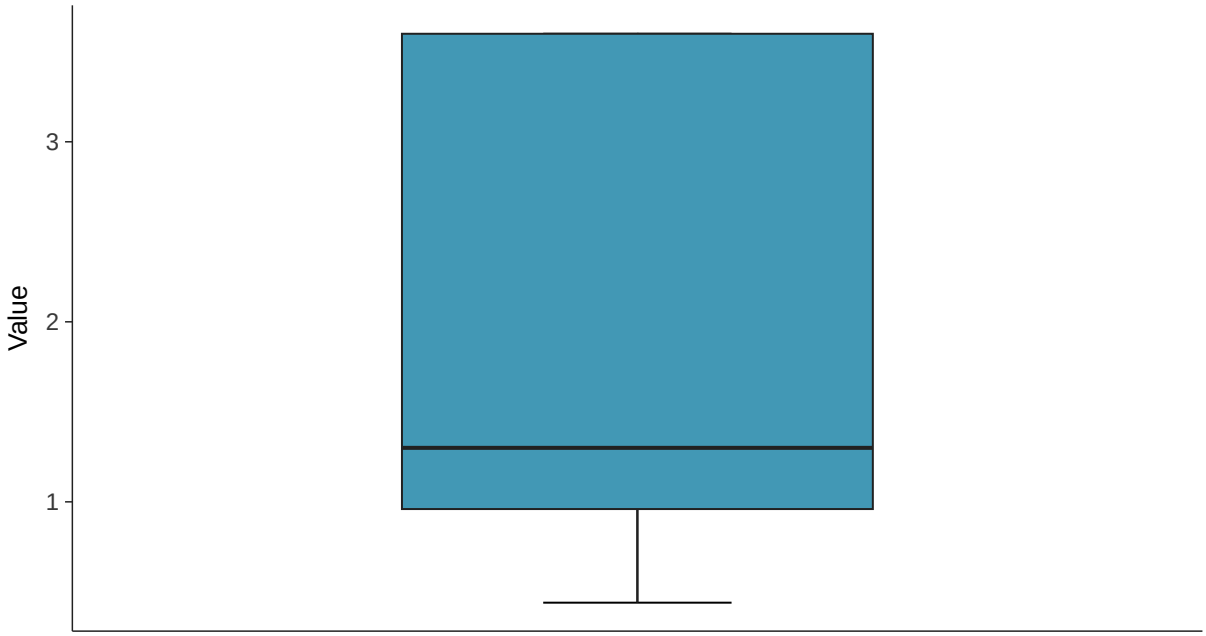
ID: 10_3_110





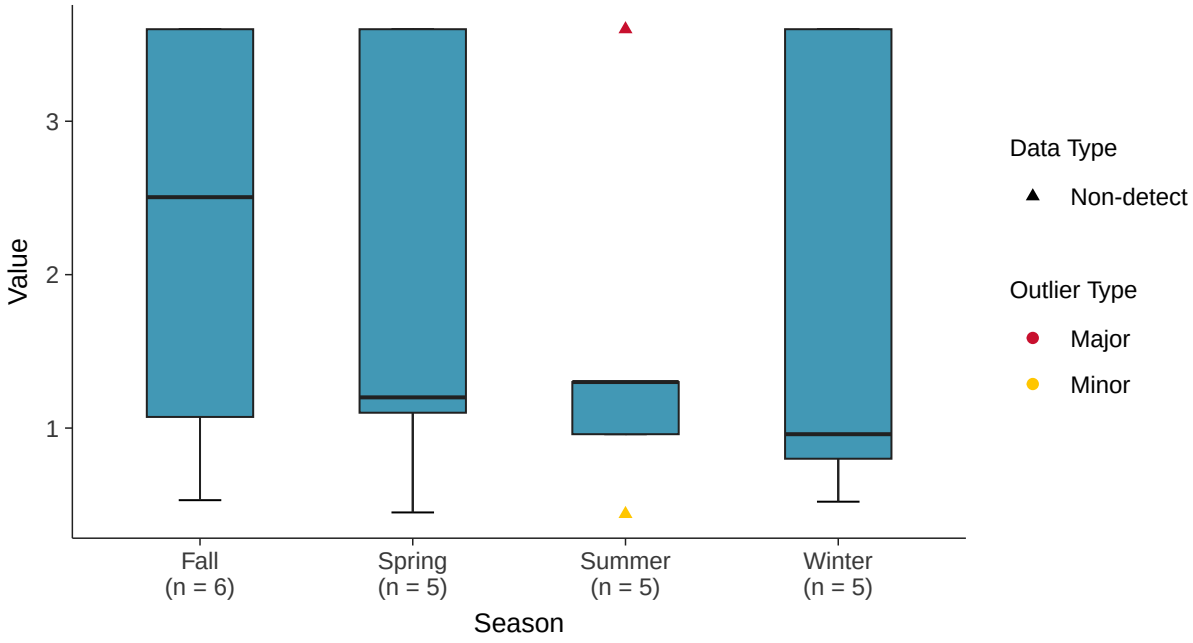
Boxplot

Cobalt, MW-11 (ug/L)



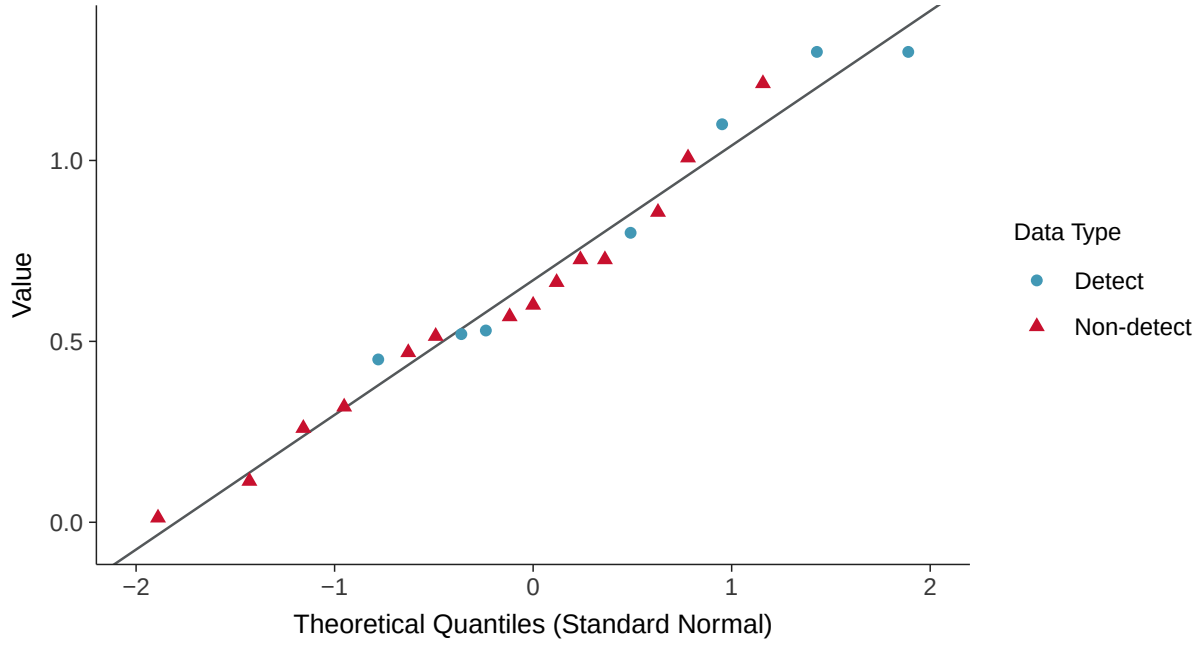
Boxplot by Season

Cobalt, MW-11 (ug/L)



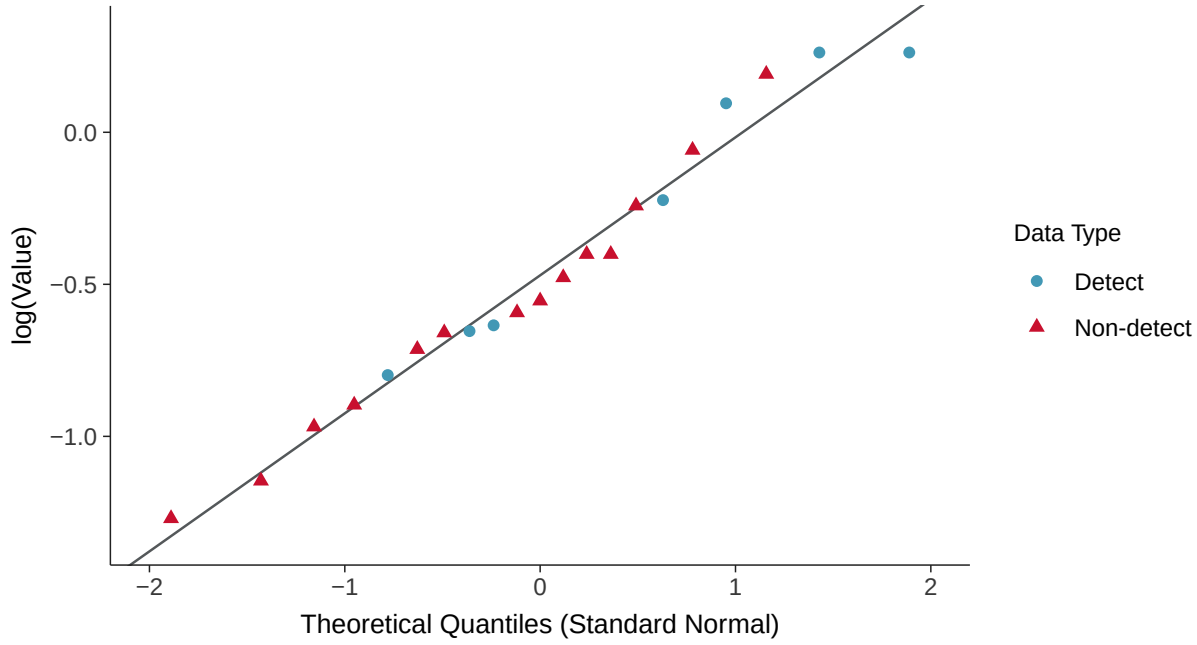
Normal Q-Q plot using ROS Imputed Estimates

Cobalt, MW-11 (ug/L)



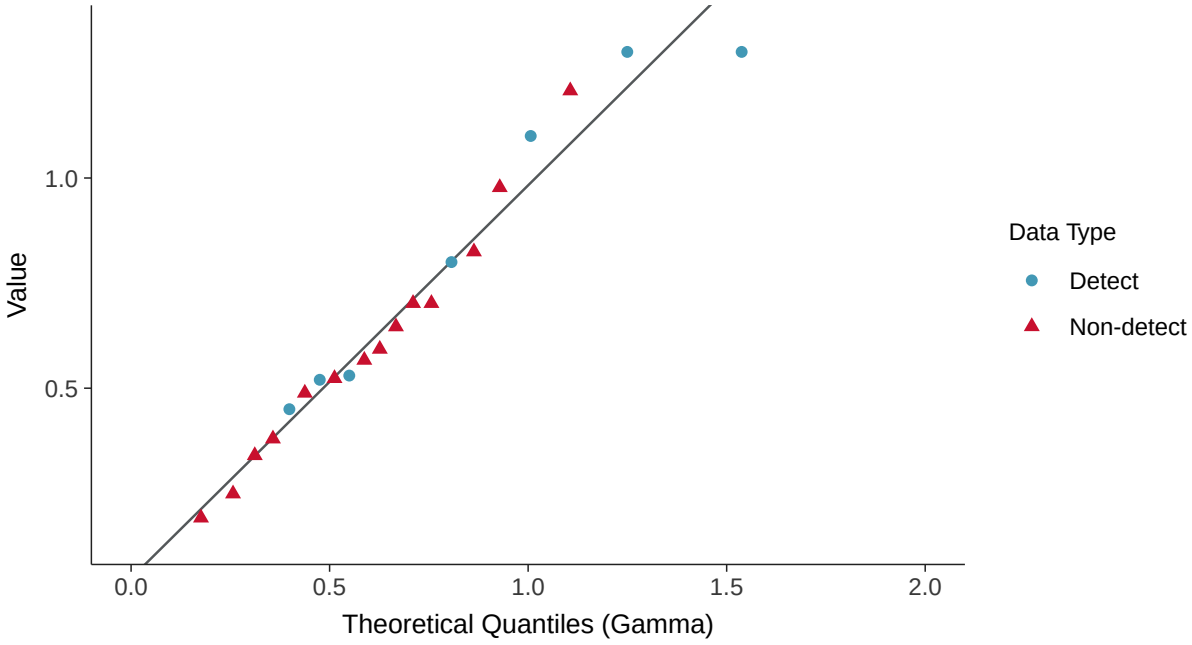
Lognormal Q-Q plot using ROS Imputed Estimates

Cobalt, MW-11 (ug/L)



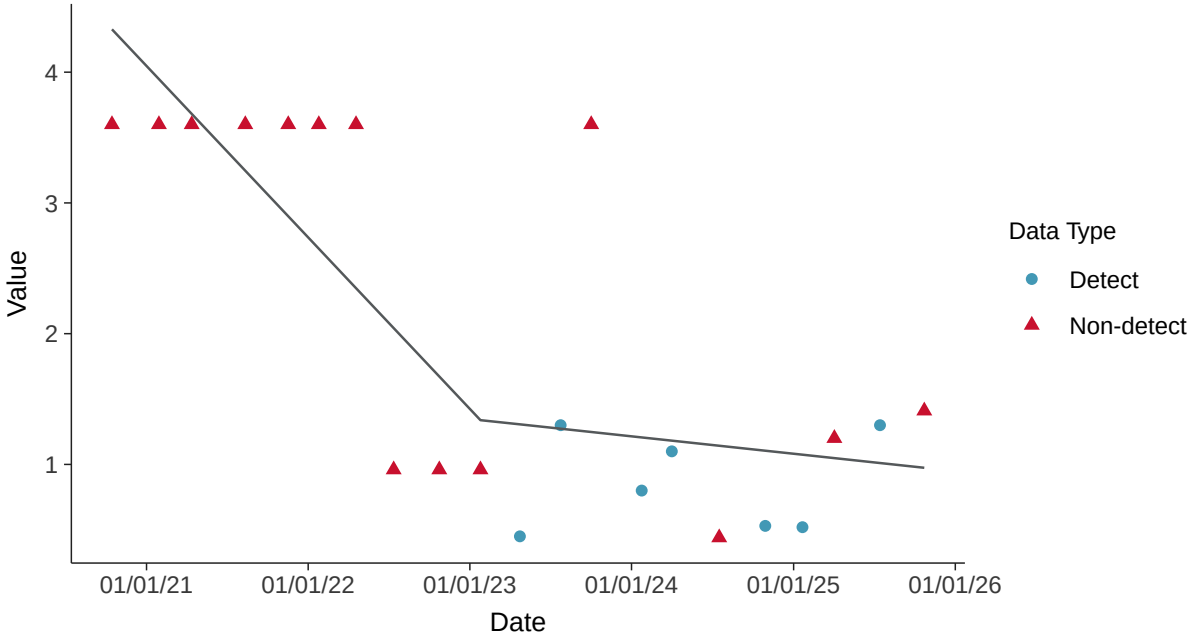
Gamma Q-Q plot using ROS Imputed Estimates

Cobalt, MW-11 (ug/L)



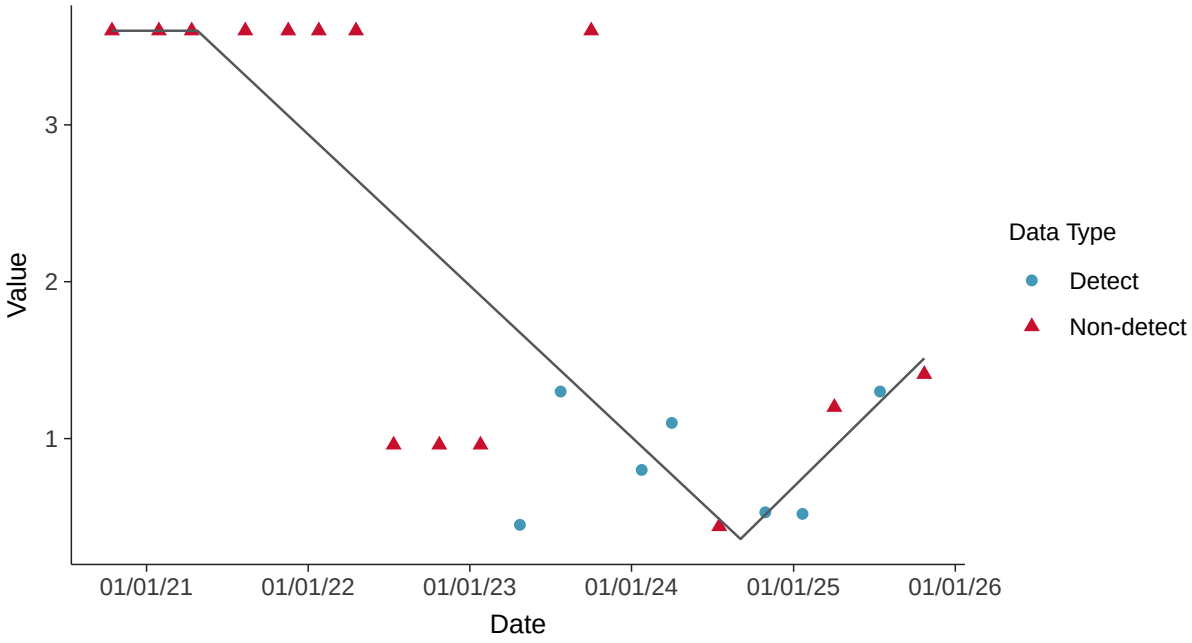
Trend Regression: Piecewise Linear-Linear

Cobalt, MW-11 (ug/L)



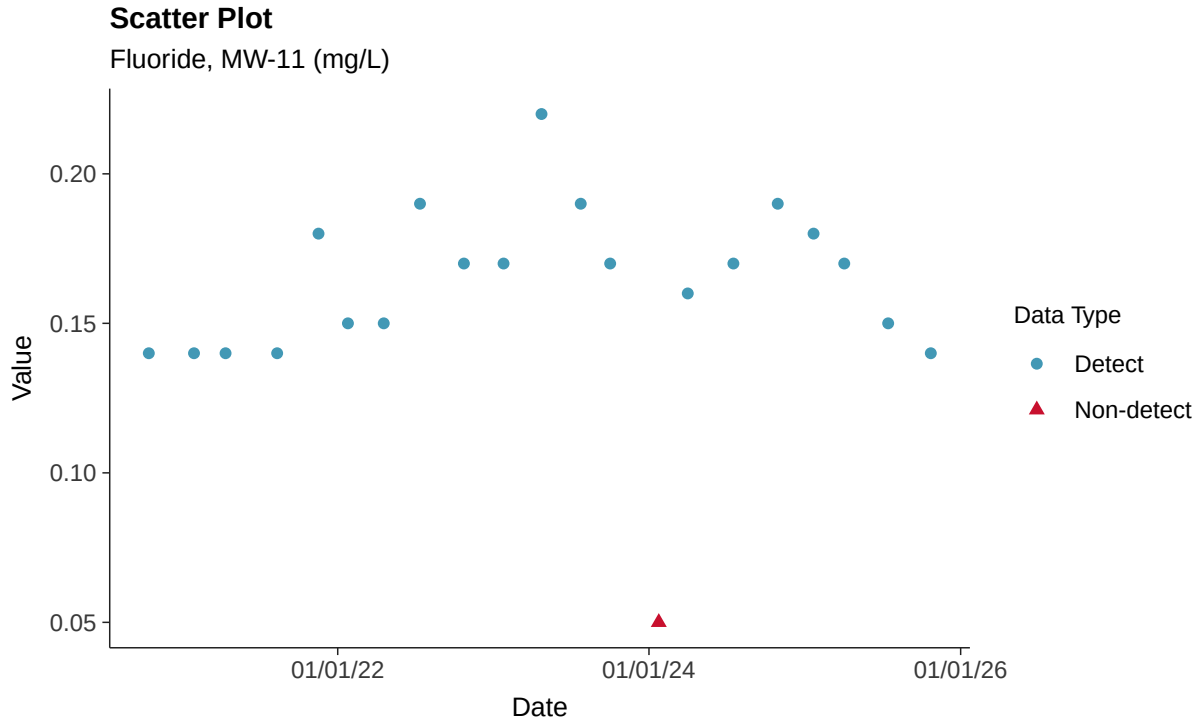
Trend Regression: Piecewise Linear-Linear-Linear

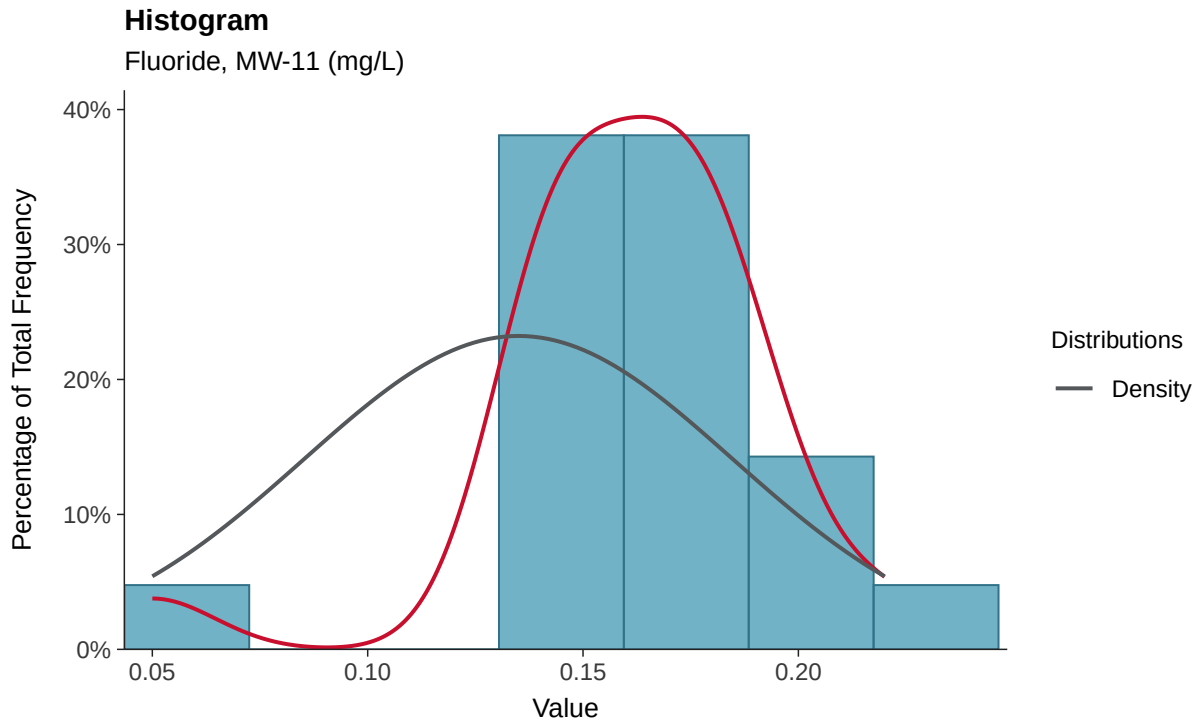
Cobalt, MW-11 (ug/L)



App. IV: Fluoride, MW-11

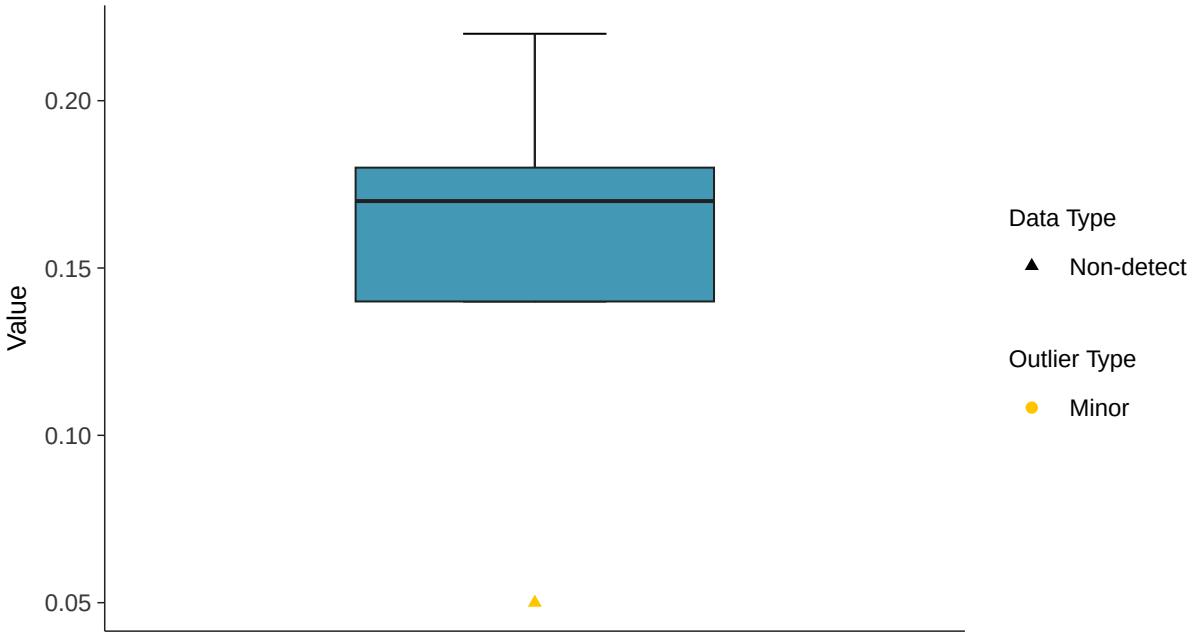
ID: 10_3_112





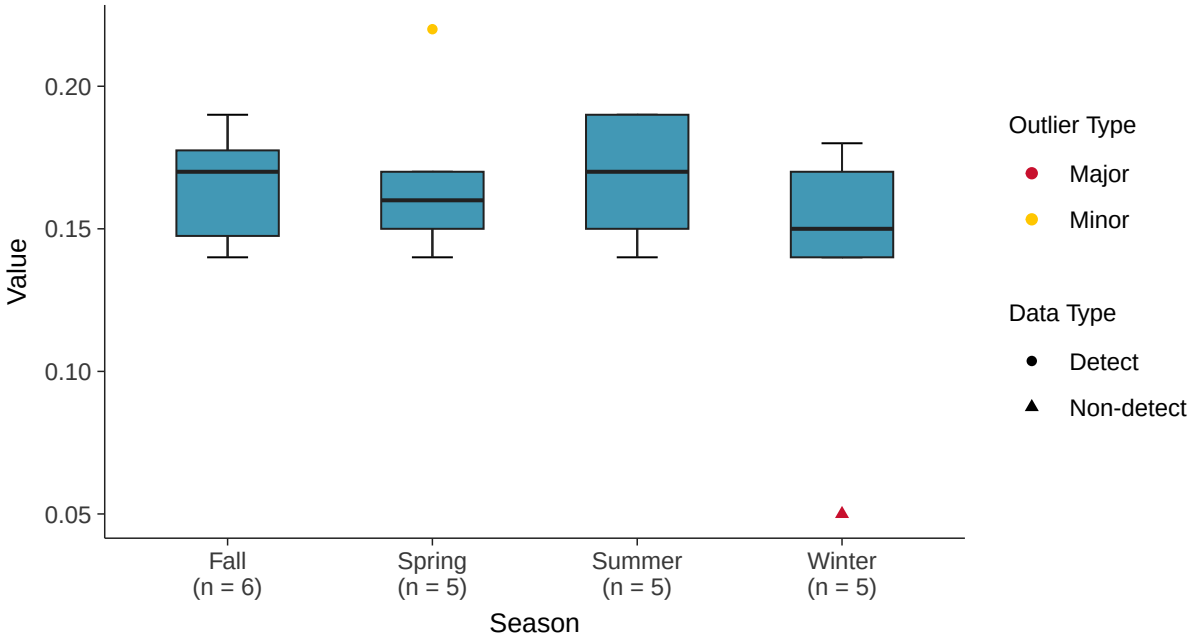
Boxplot

Fluoride, MW-11 (mg/L)



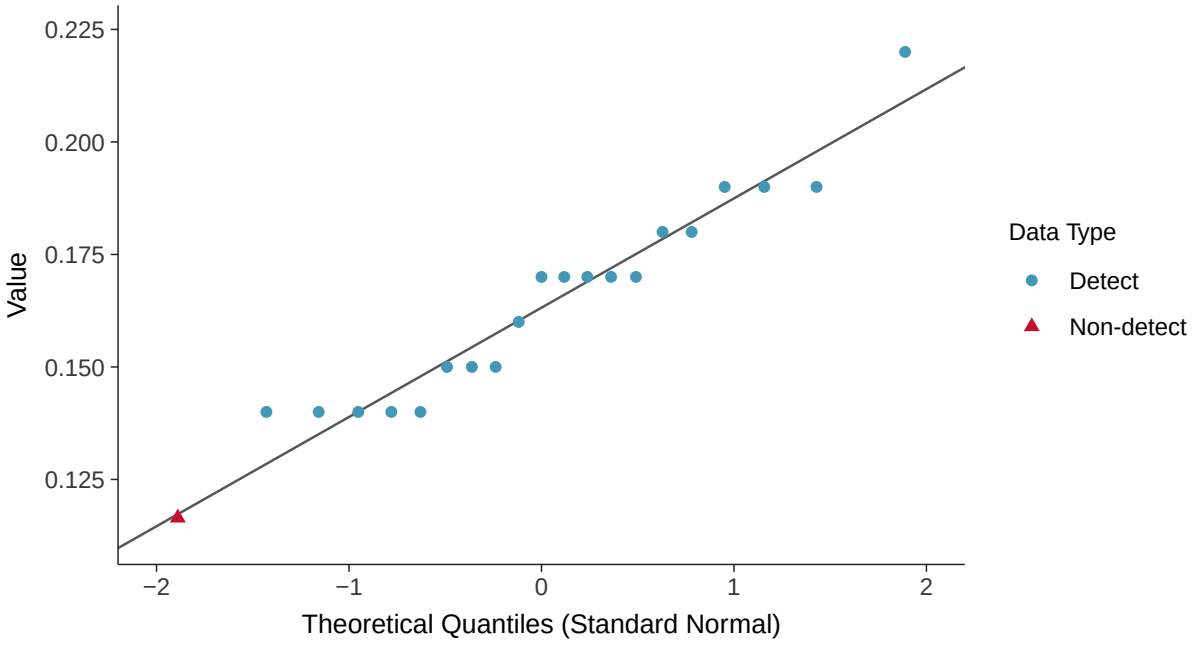
Boxplot by Season

Fluoride, MW-11 (mg/L)



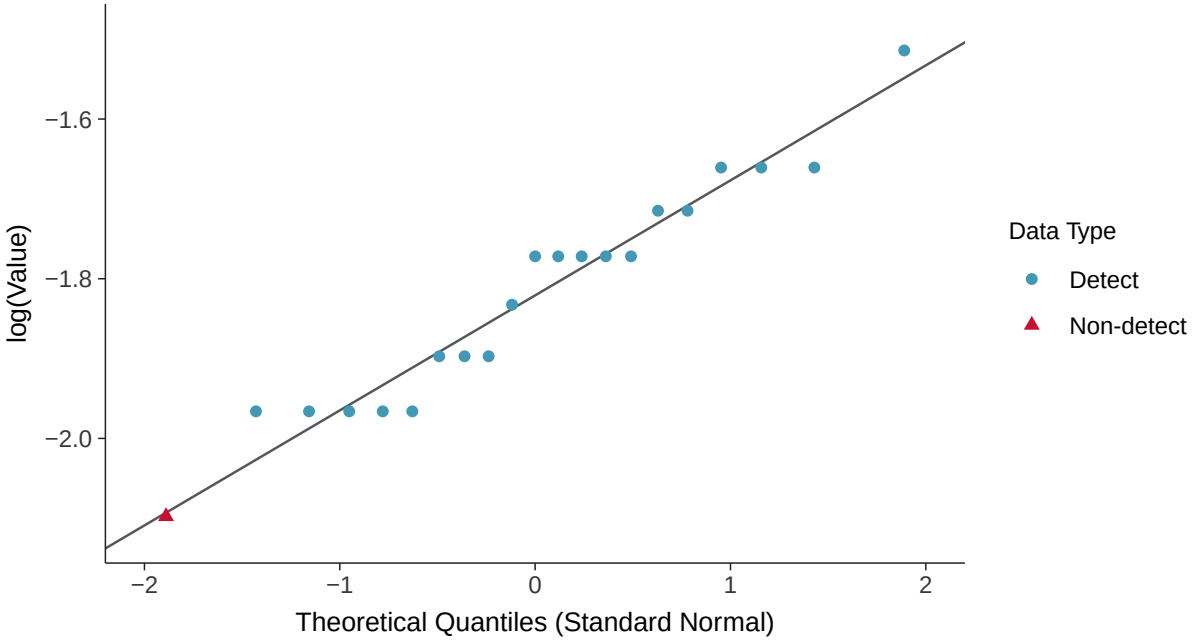
Normal Q-Q plot using ROS Imputed Estimates

Fluoride, MW-11 (mg/L)



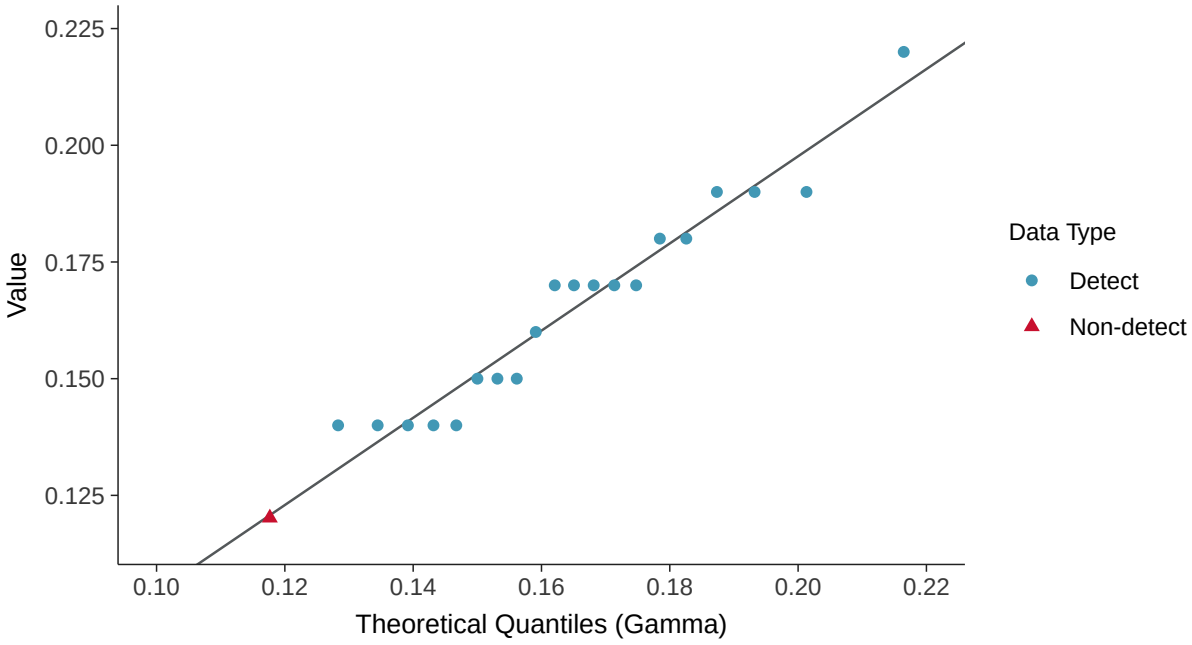
Lognormal Q-Q plot using ROS Imputed Estimates

Fluoride, MW-11 (mg/L)



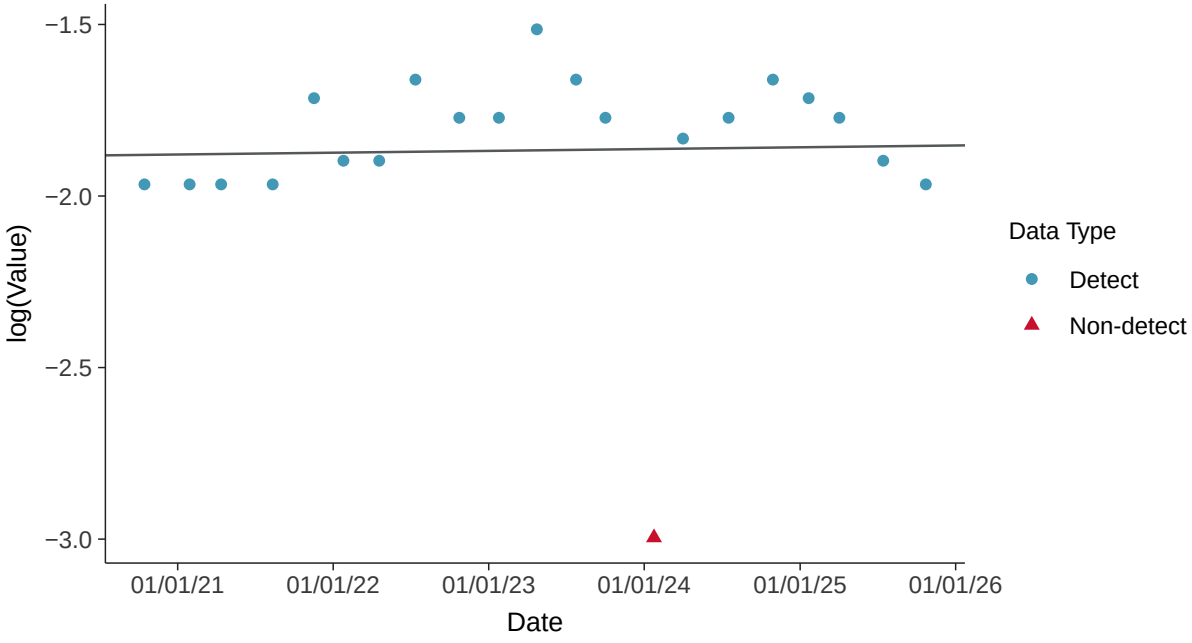
Gamma Q-Q plot using ROS Imputed Estimates

Fluoride, MW-11 (mg/L)



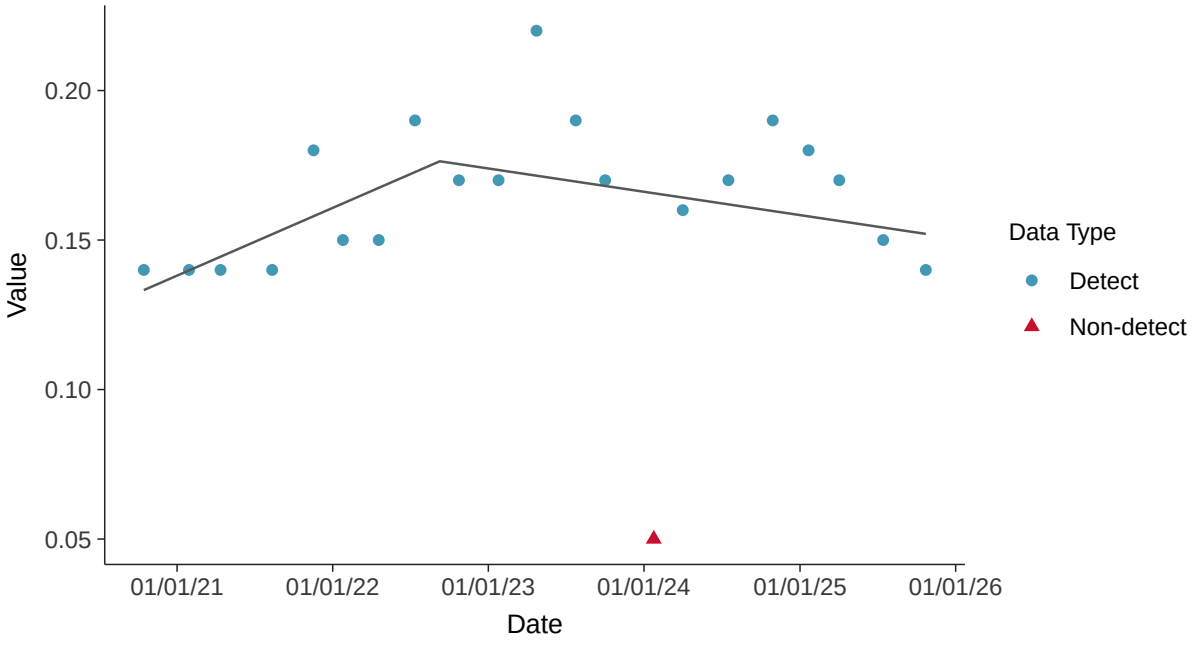
Trend Regression: Lognormal MLE

Fluoride, MW-11 (mg/L)



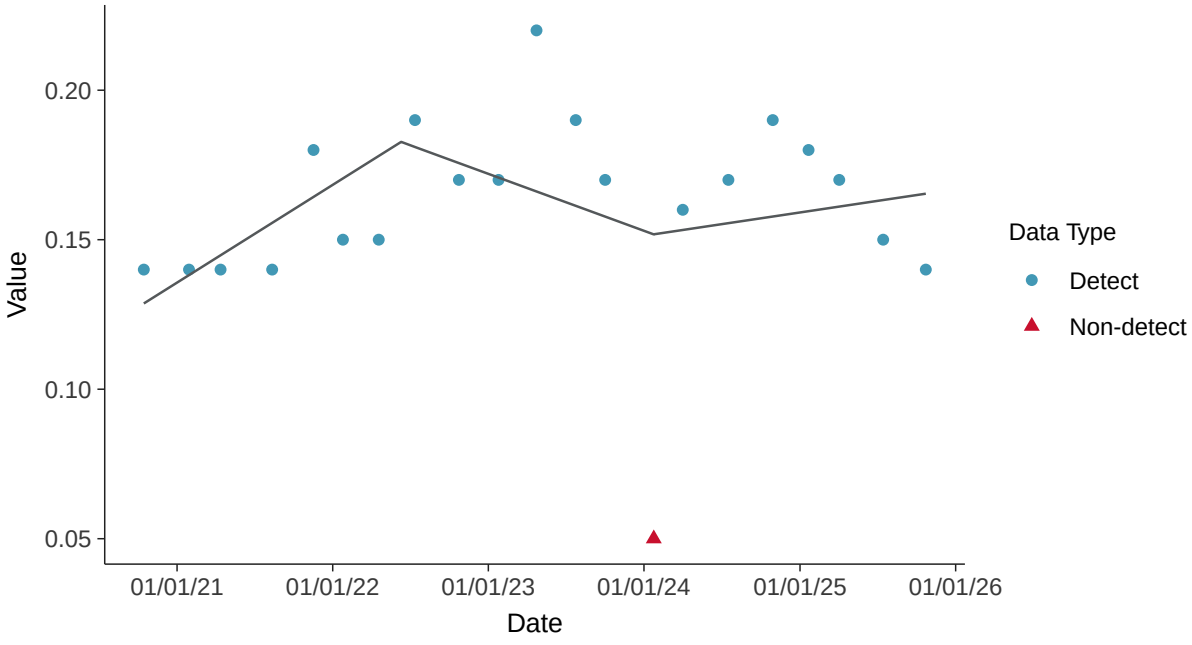
Trend Regression: Piecewise Linear-Linear

Fluoride, MW-11 (mg/L)



Trend Regression: Piecewise Linear-Linear-Linear

Fluoride, MW-11 (mg/L)

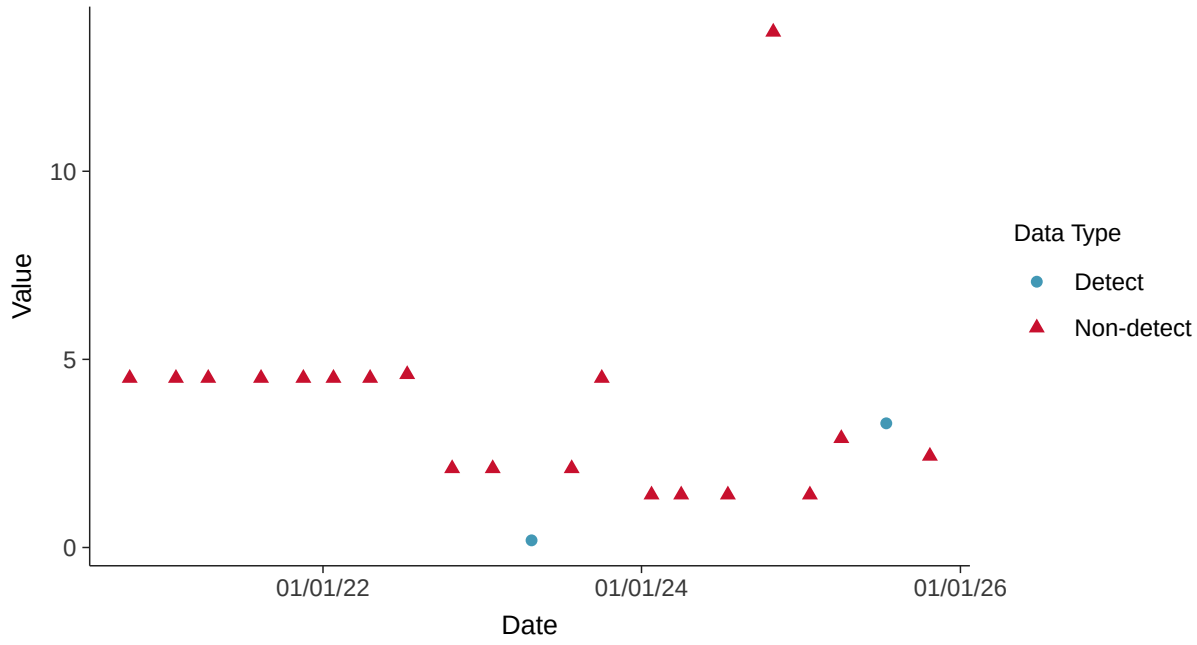


App. IV: Lead, MW-11

ID: 10_3_113

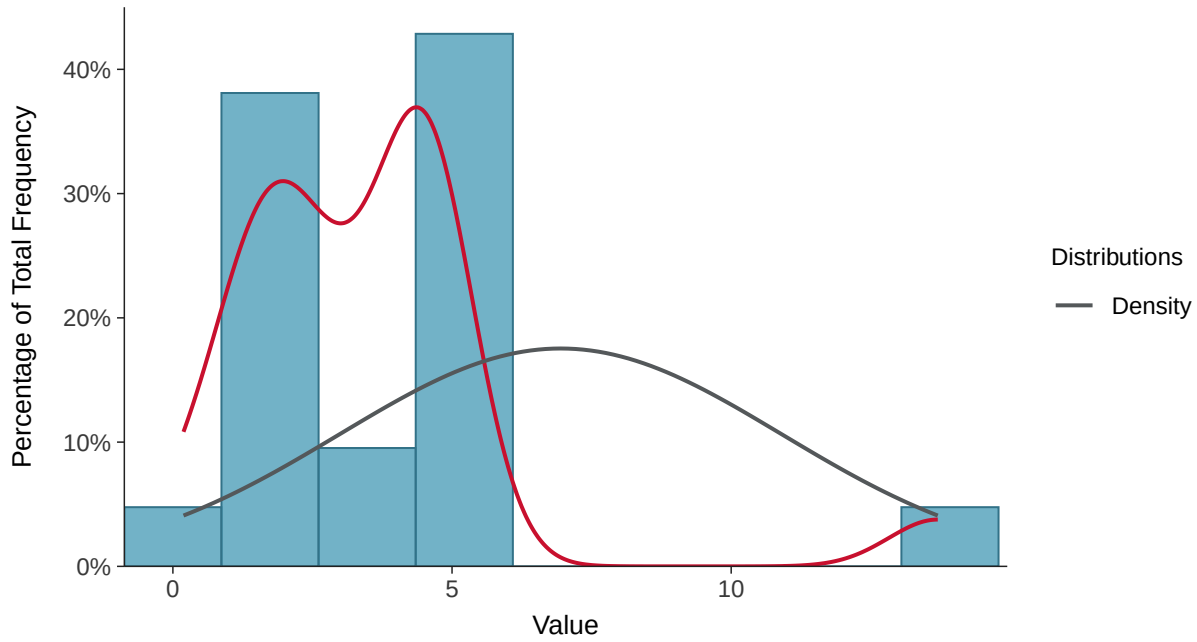
Scatter Plot

Lead, MW-11 (ug/L)



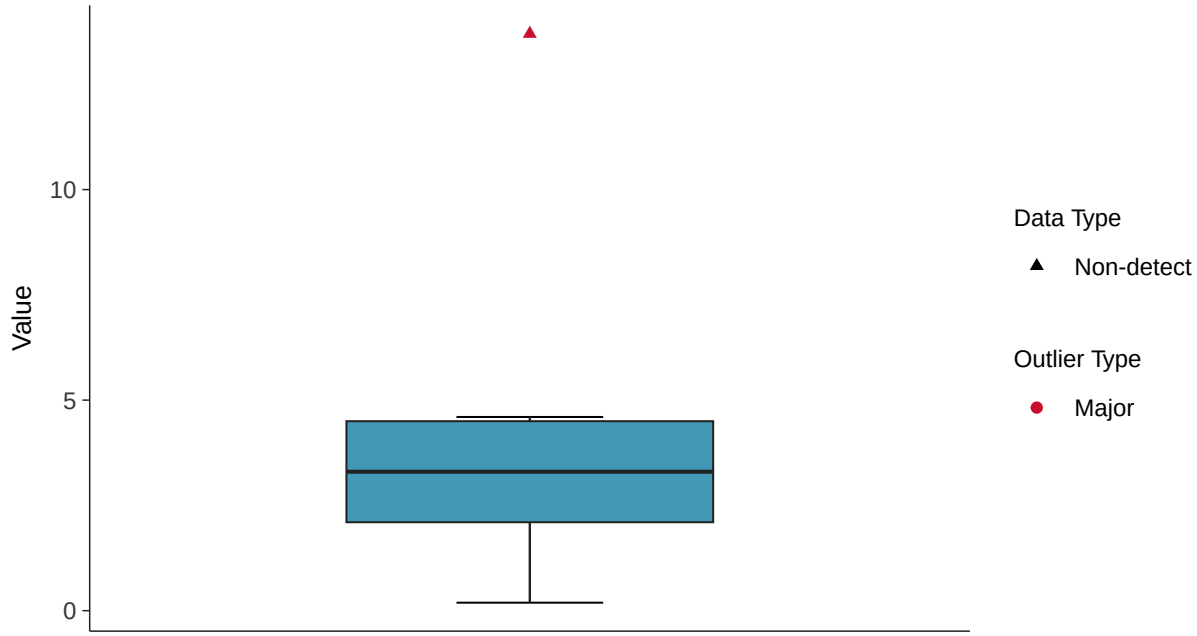
Histogram

Lead, MW-11 (ug/L)



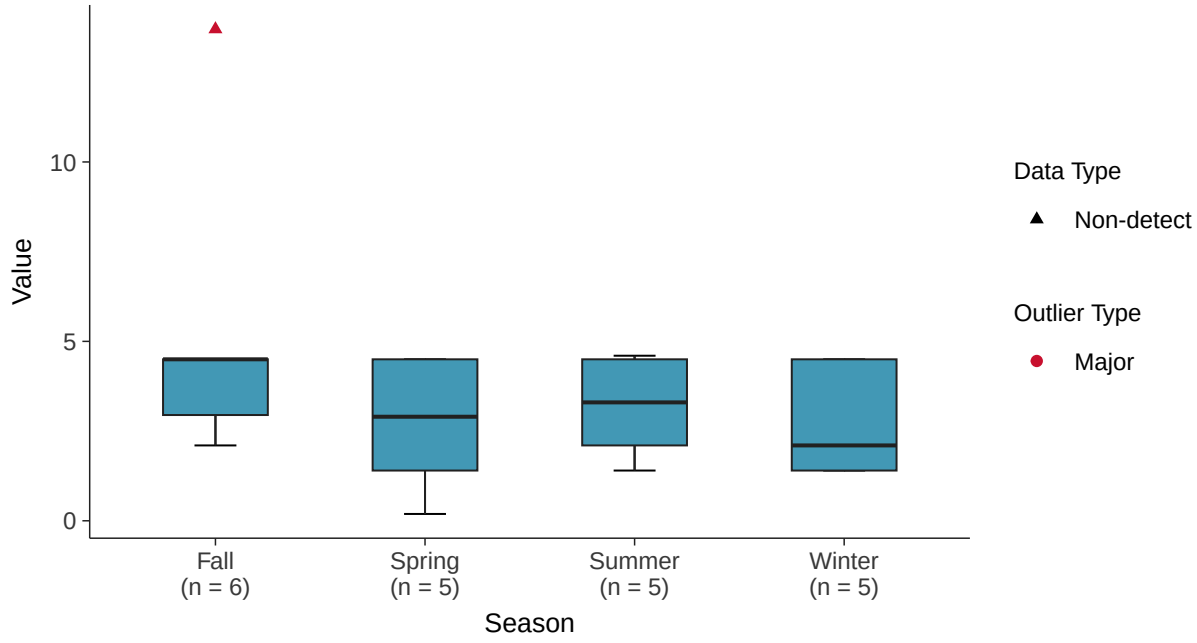
Boxplot

Lead, MW-11 (ug/L)



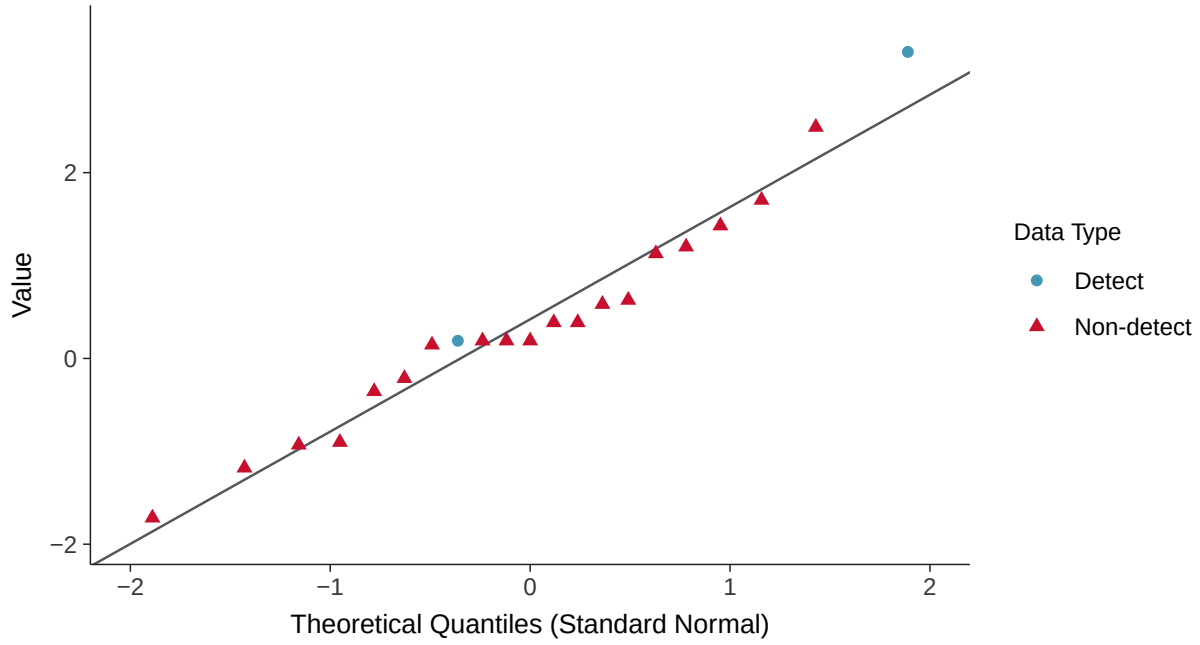
Boxplot by Season

Lead, MW-11 (ug/L)



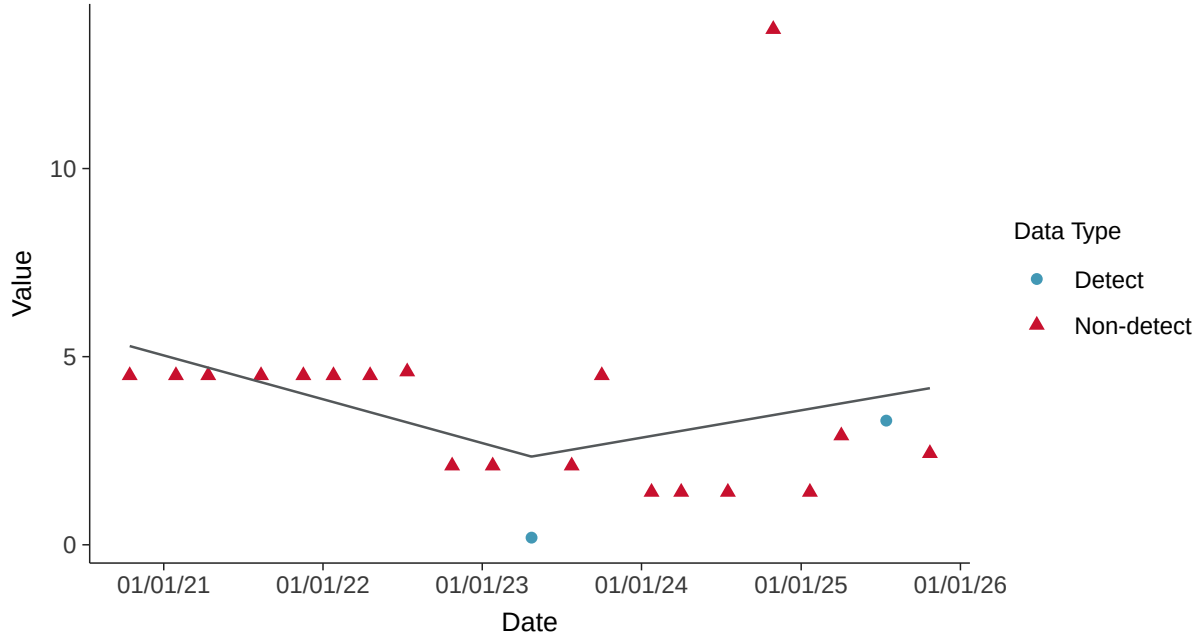
Normal Q-Q plot using ROS Imputed Estimates

Lead, MW-11 (ug/L)



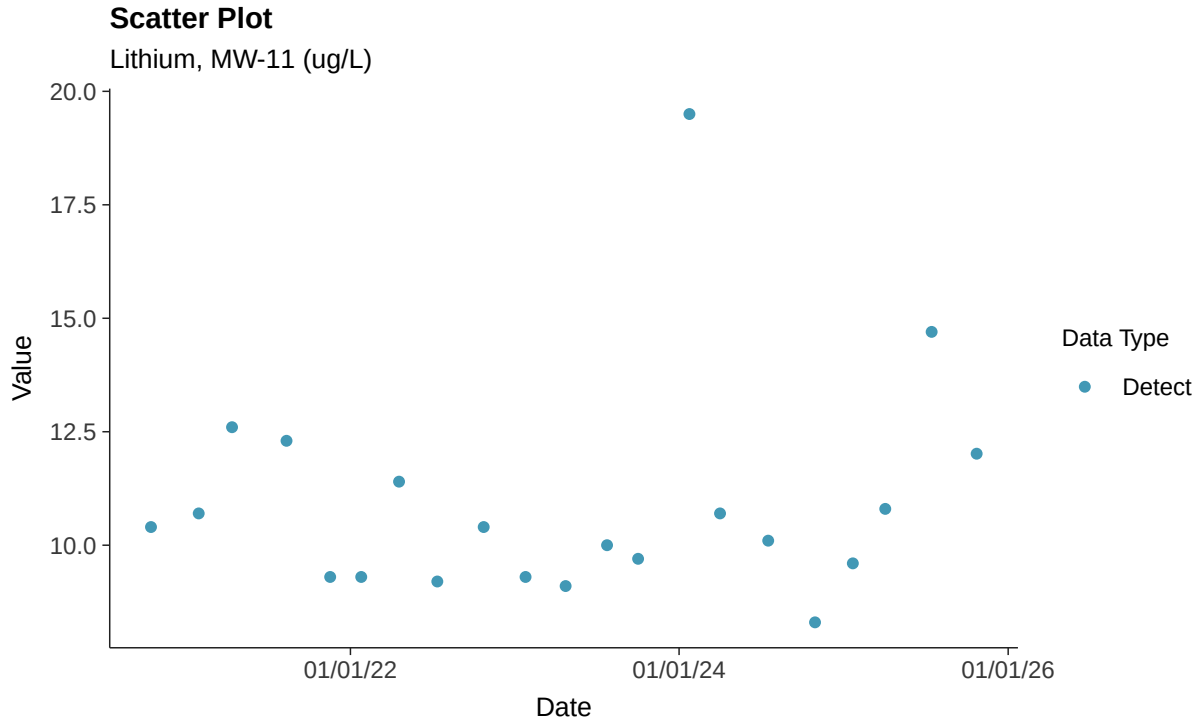
Trend Regression: Piecewise Linear-Linear

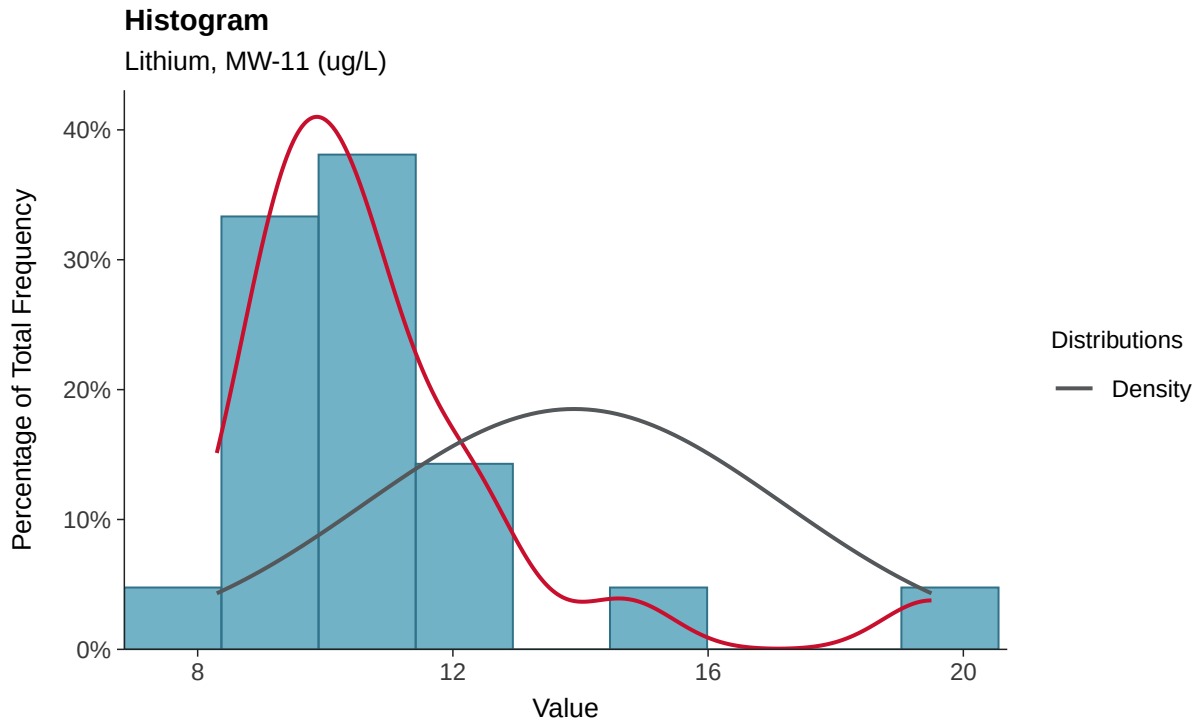
Lead, MW-11 (ug/L)



App. IV: Lithium, MW-11

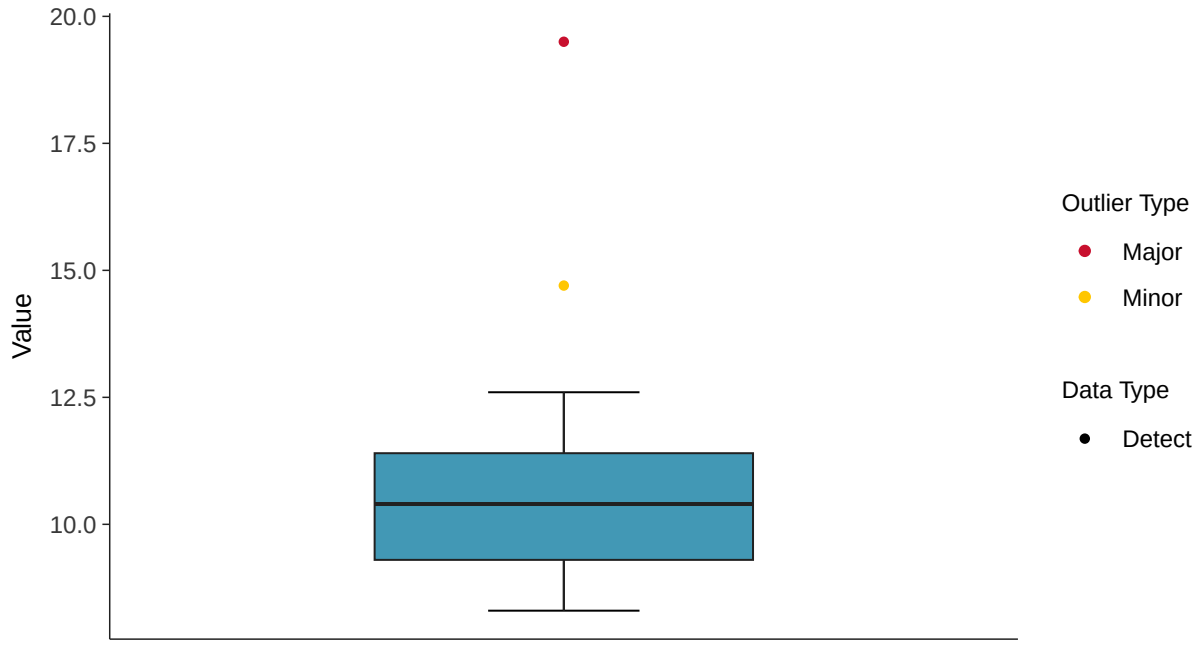
ID: 10_3_114





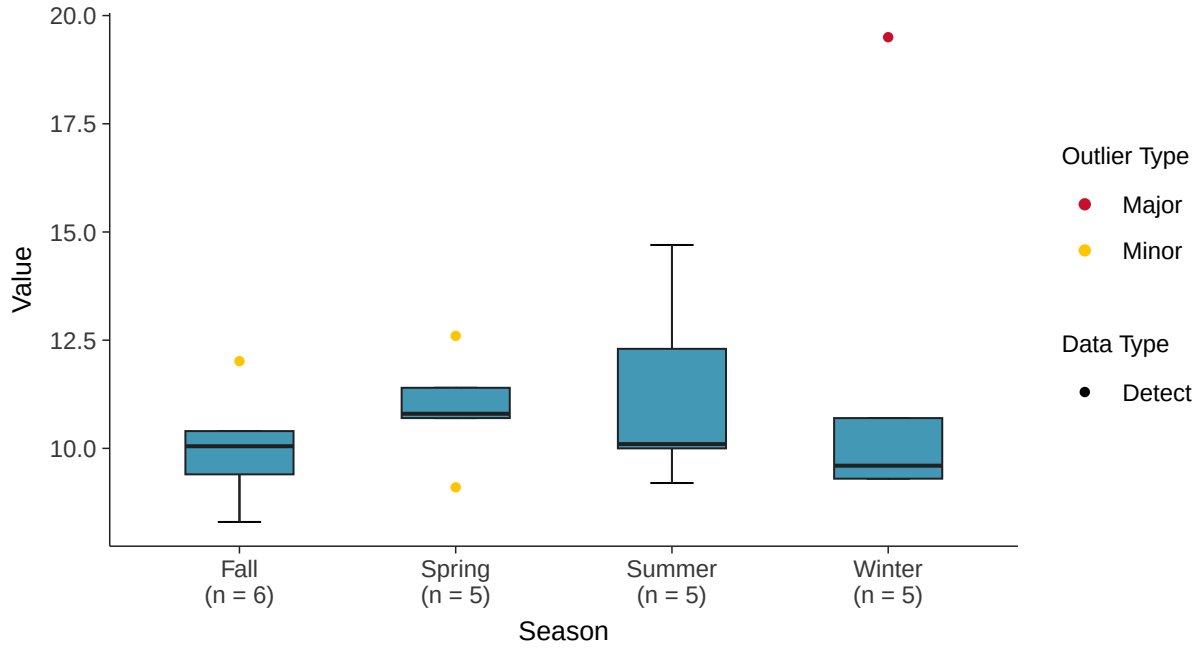
Boxplot

Lithium, MW-11 (ug/L)



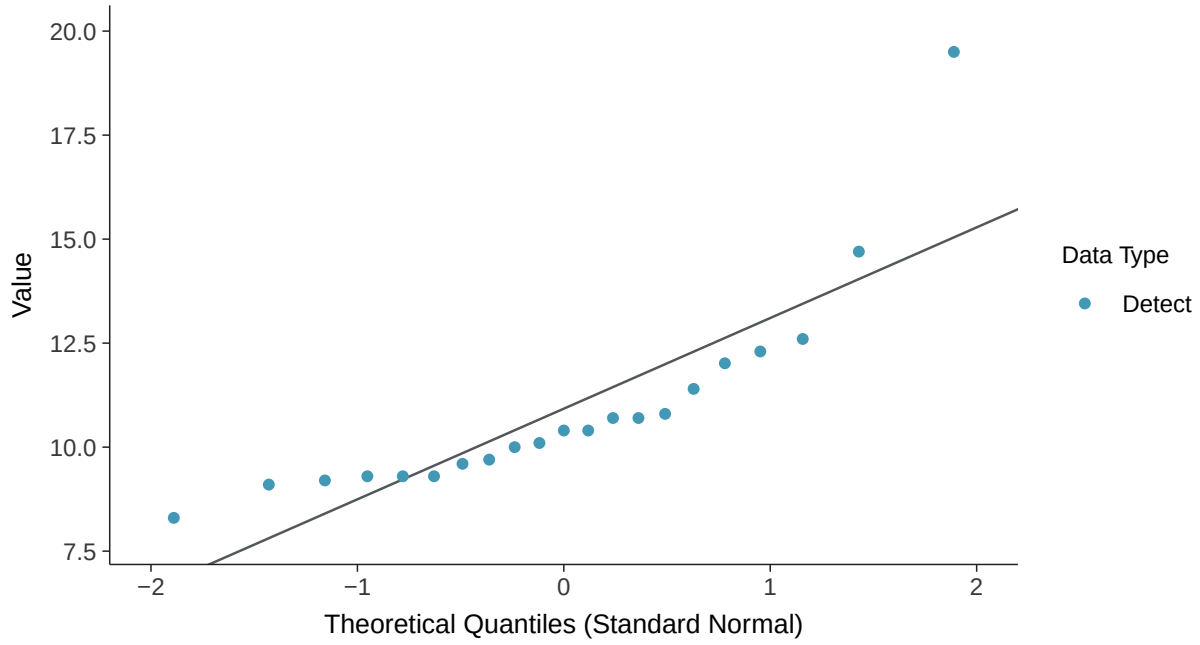
Boxplot by Season

Lithium, MW-11 (ug/L)



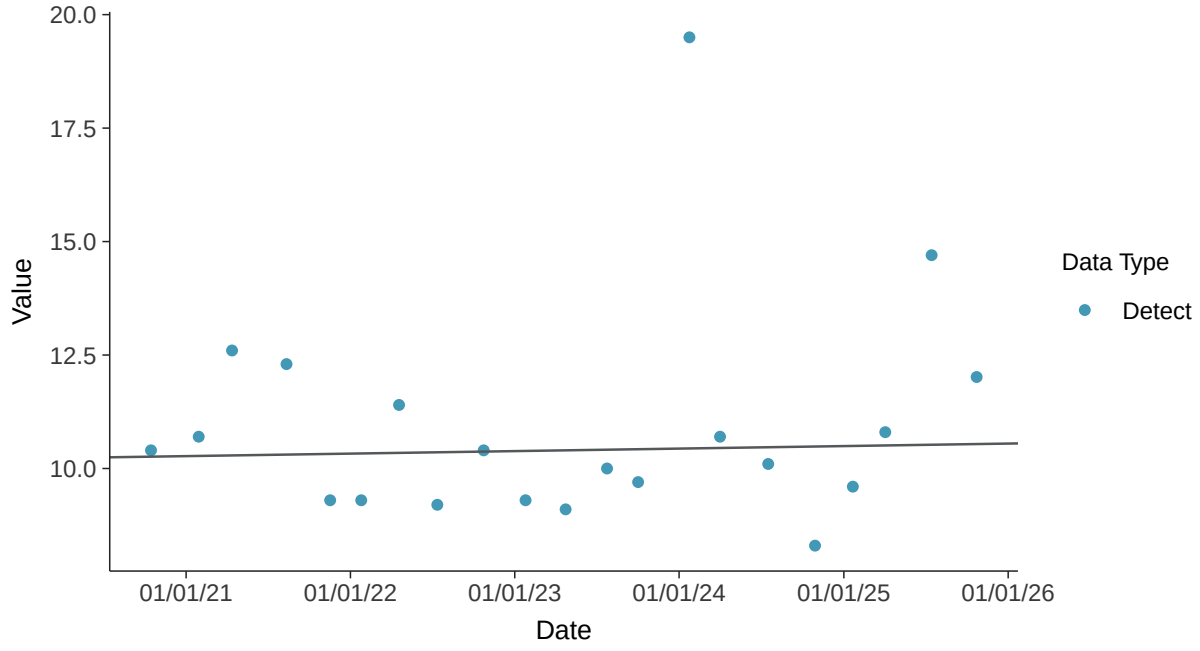
Normal Q-Q plot

Lithium, MW-11 (ug/L)



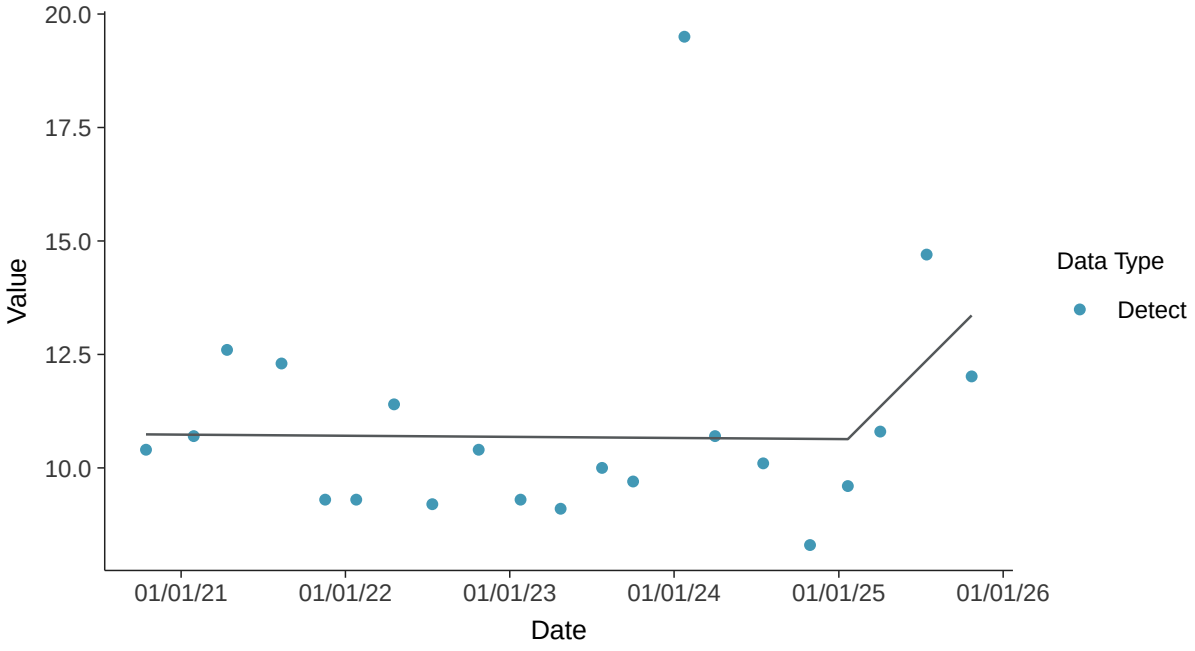
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Lithium, MW-11 (ug/L)



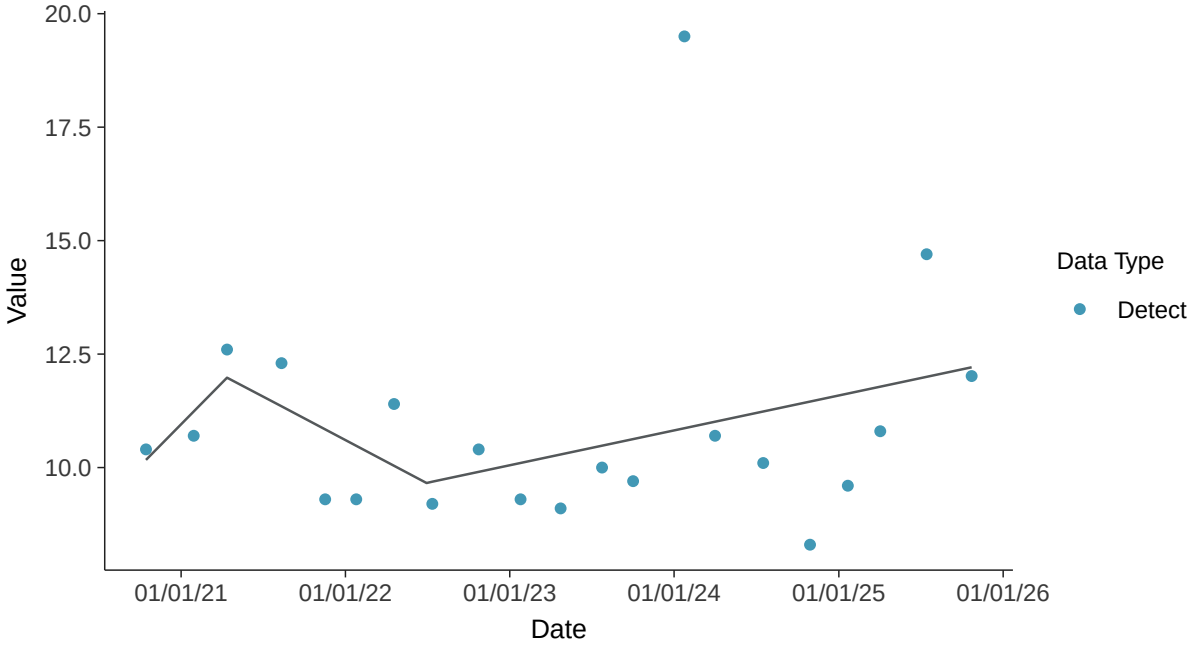
Trend Regression: Piecewise Linear-Linear

Lithium, MW-11 (ug/L)



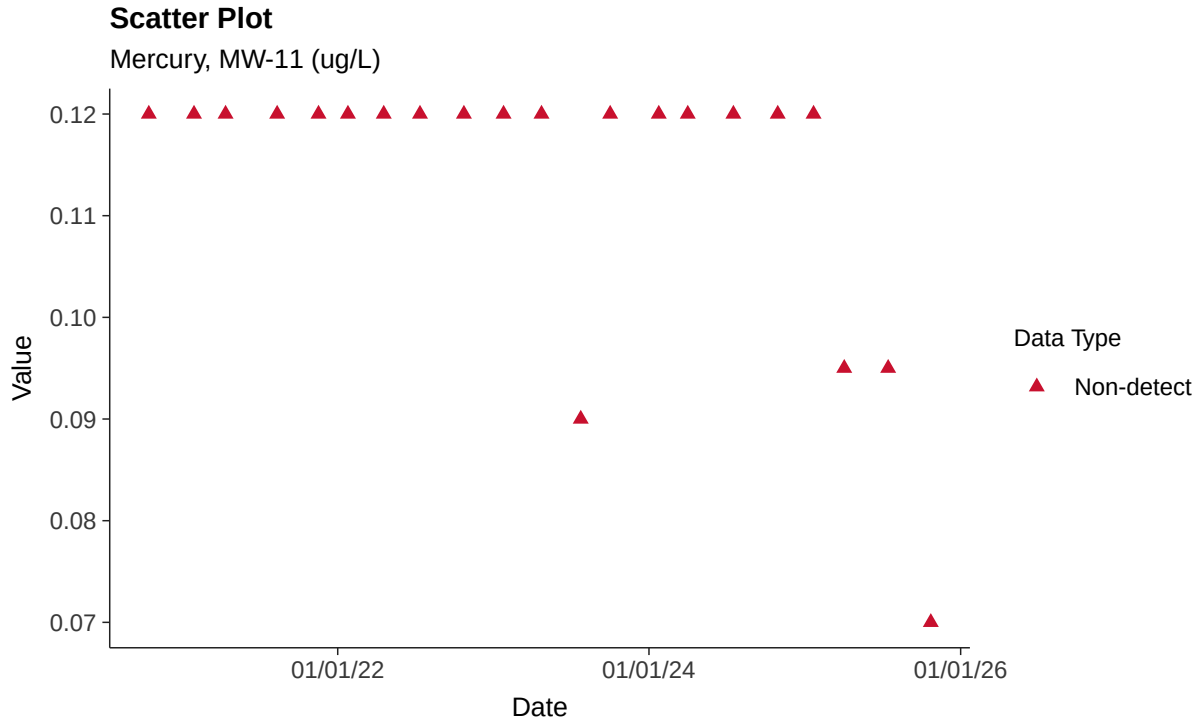
Trend Regression: Piecewise Linear-Linear-Linear

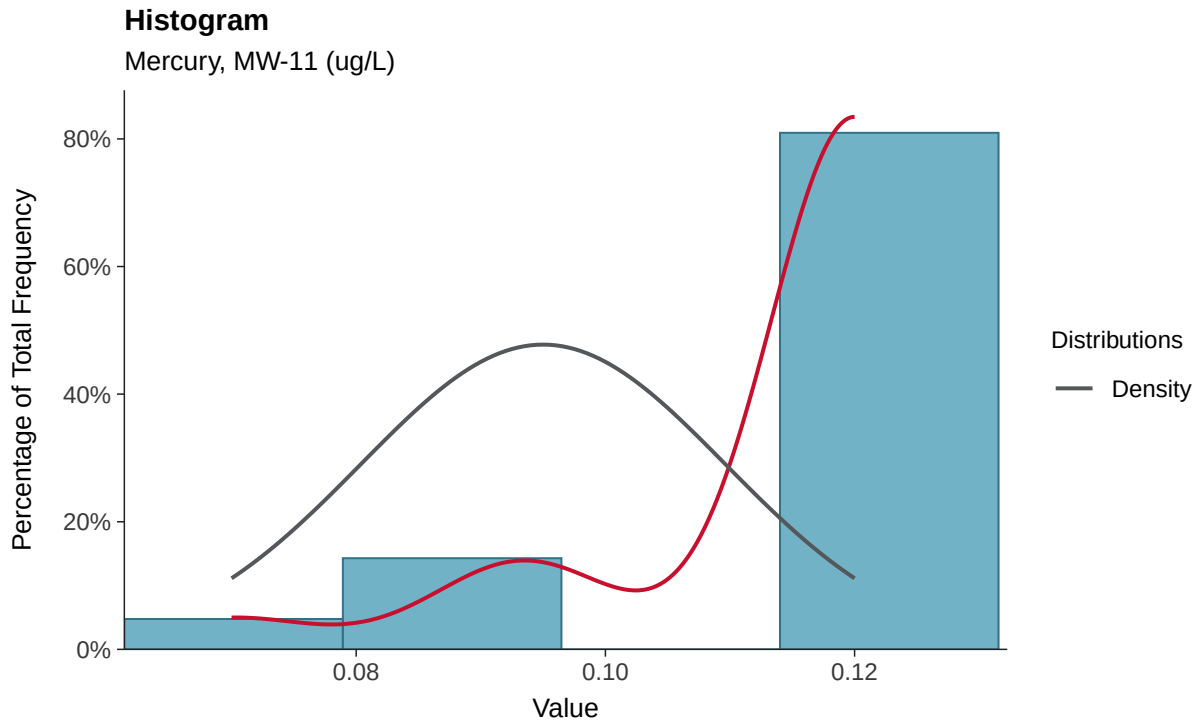
Lithium, MW-11 (ug/L)



App. IV: Mercury, MW-11

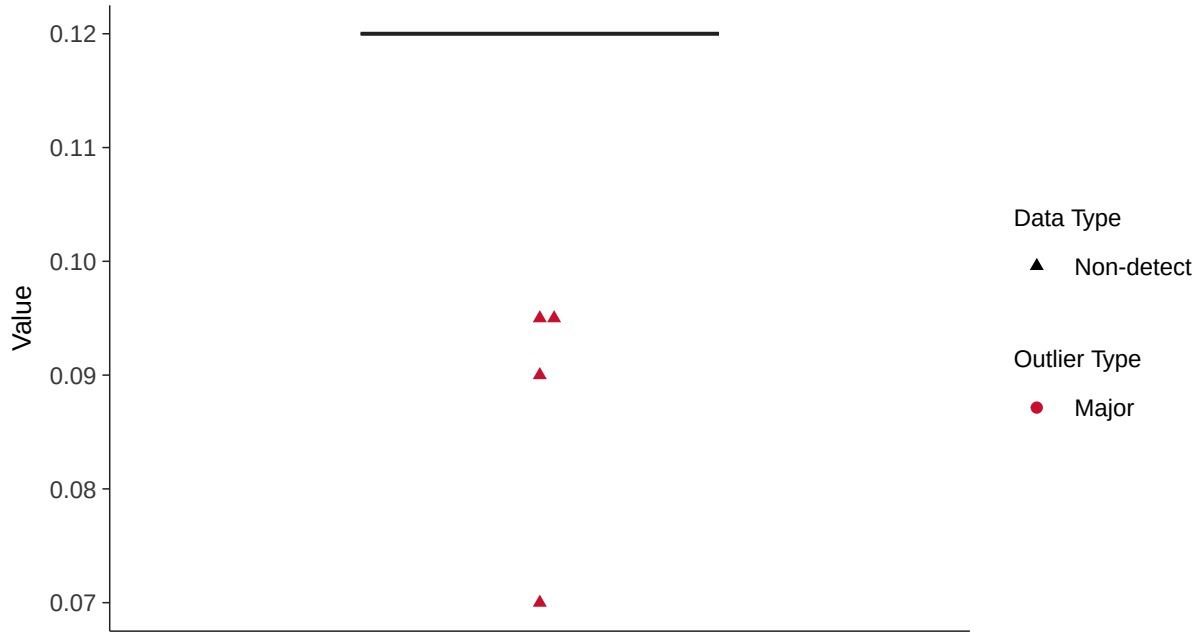
ID: 10_3_115





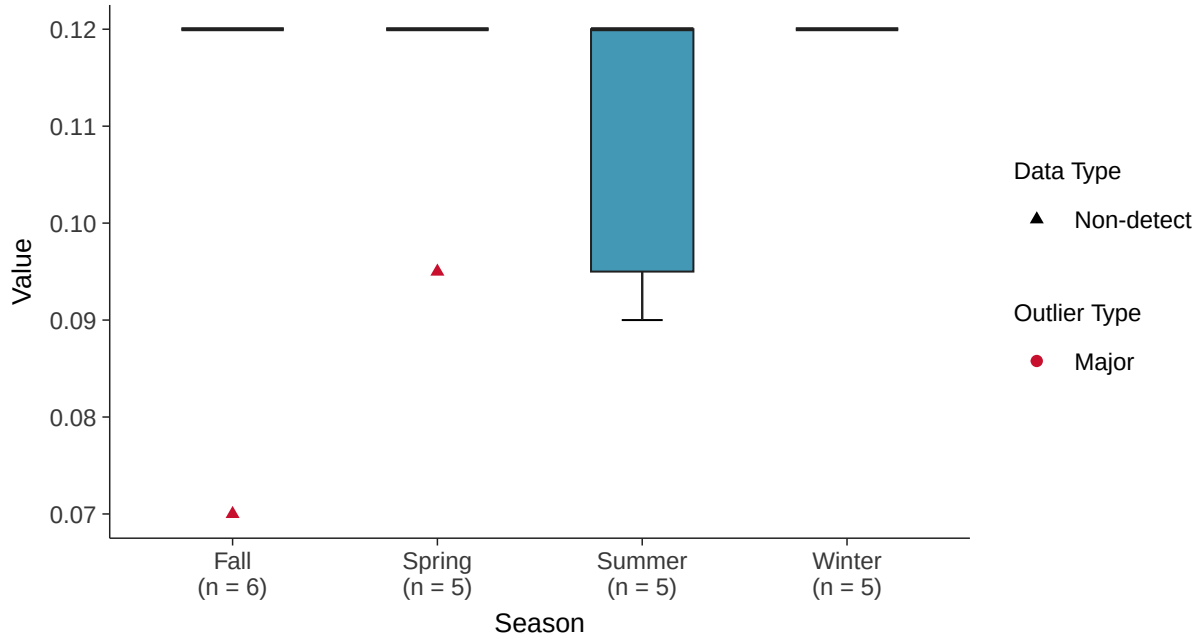
Boxplot

Mercury, MW-11 (ug/L)



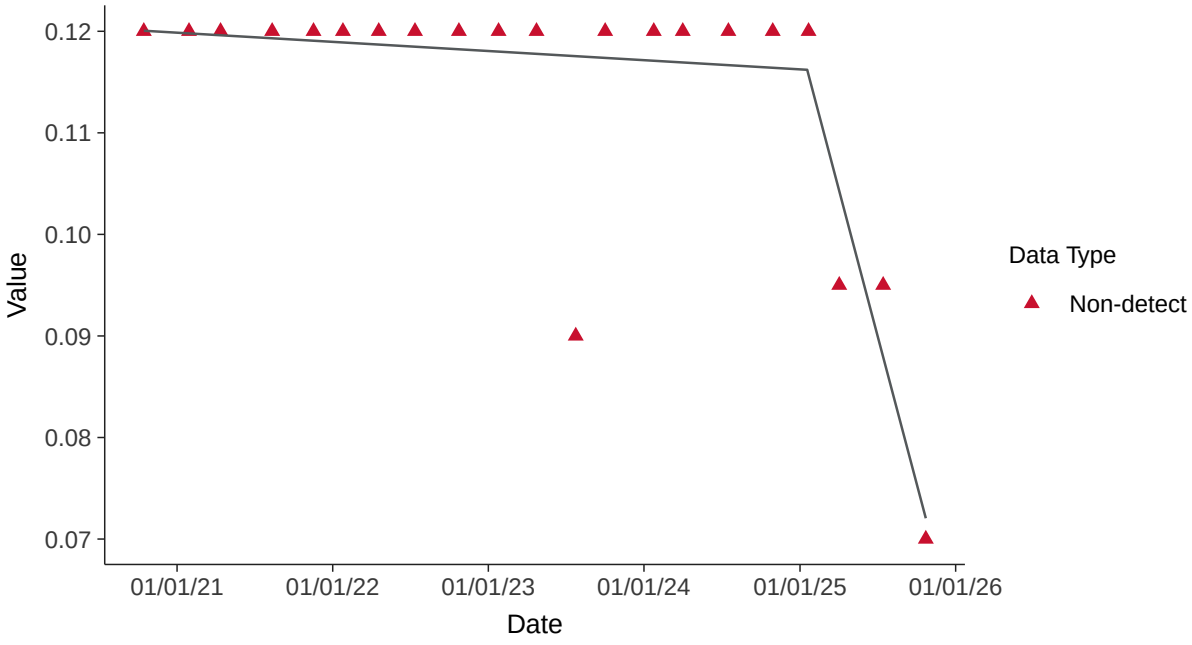
Boxplot by Season

Mercury, MW-11 (ug/L)



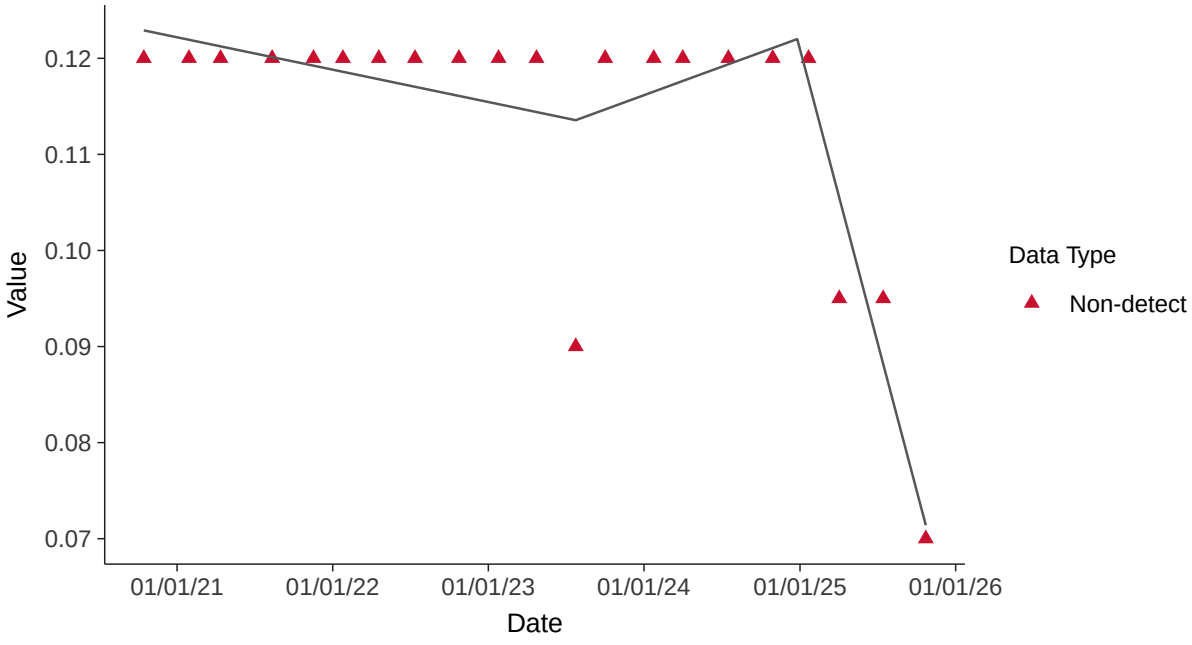
Trend Regression: Piecewise Linear-Linear

Mercury, MW-11 (ug/L)



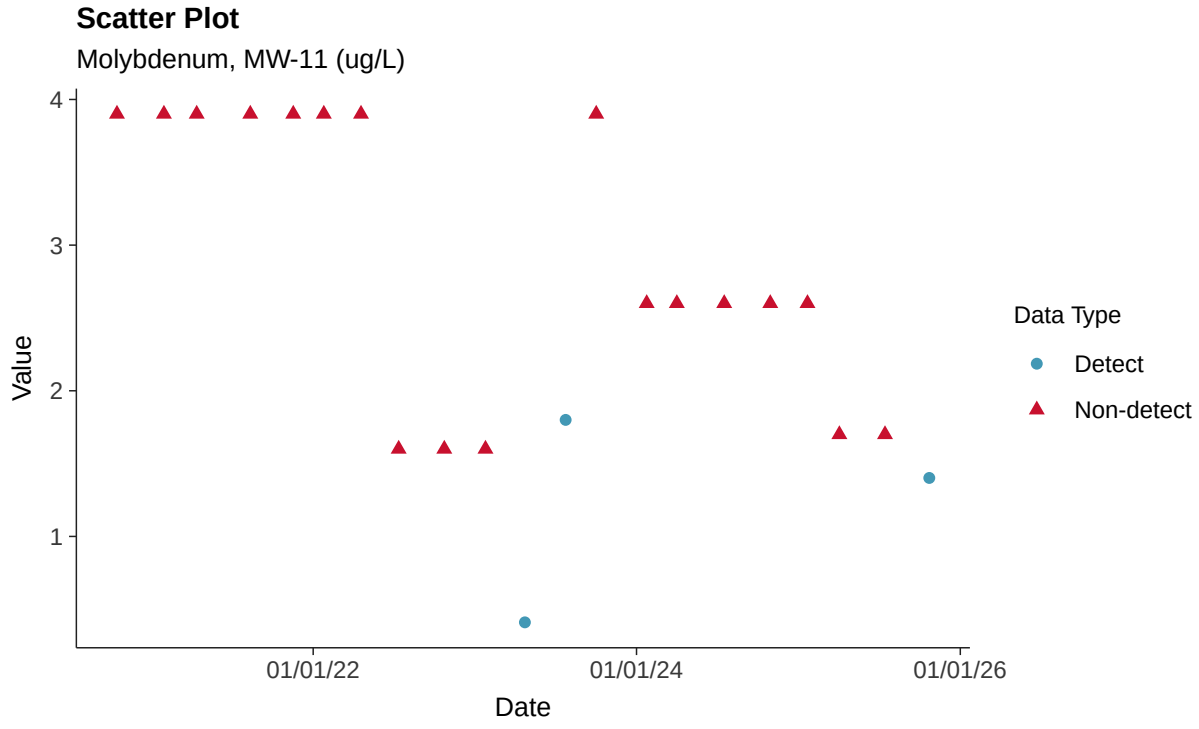
Trend Regression: Piecewise Linear-Linear-Linear

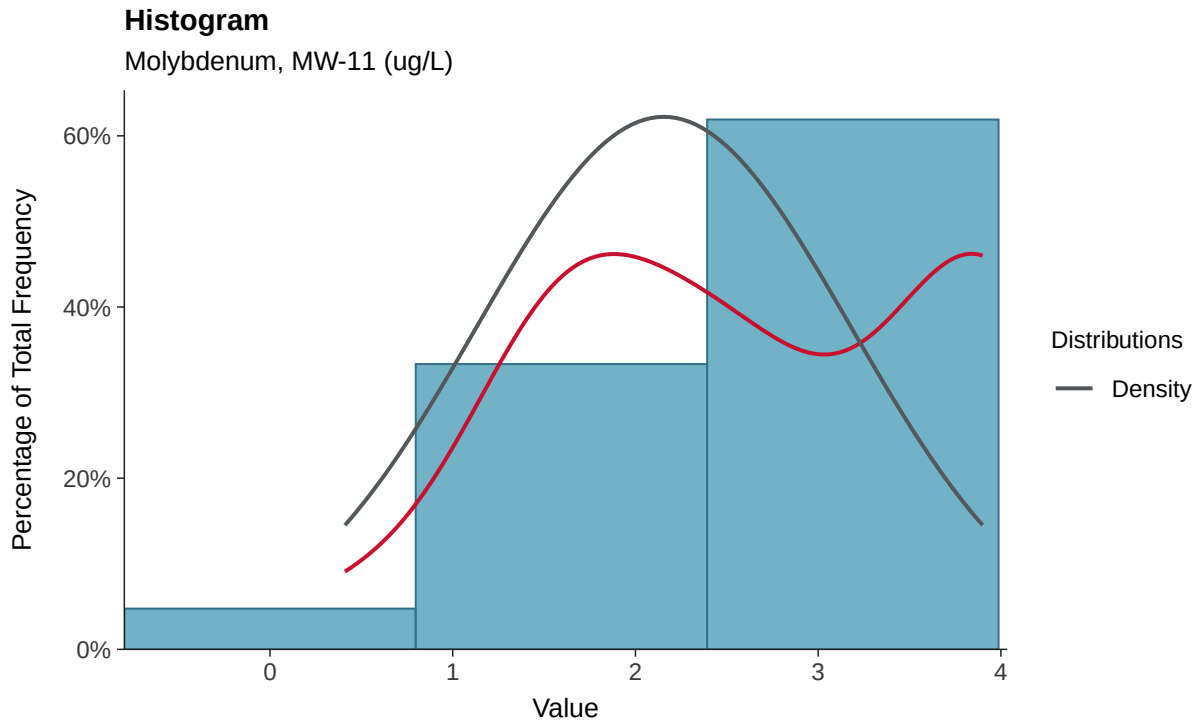
Mercury, MW-11 (ug/L)



App. IV: Molybdenum, MW-11

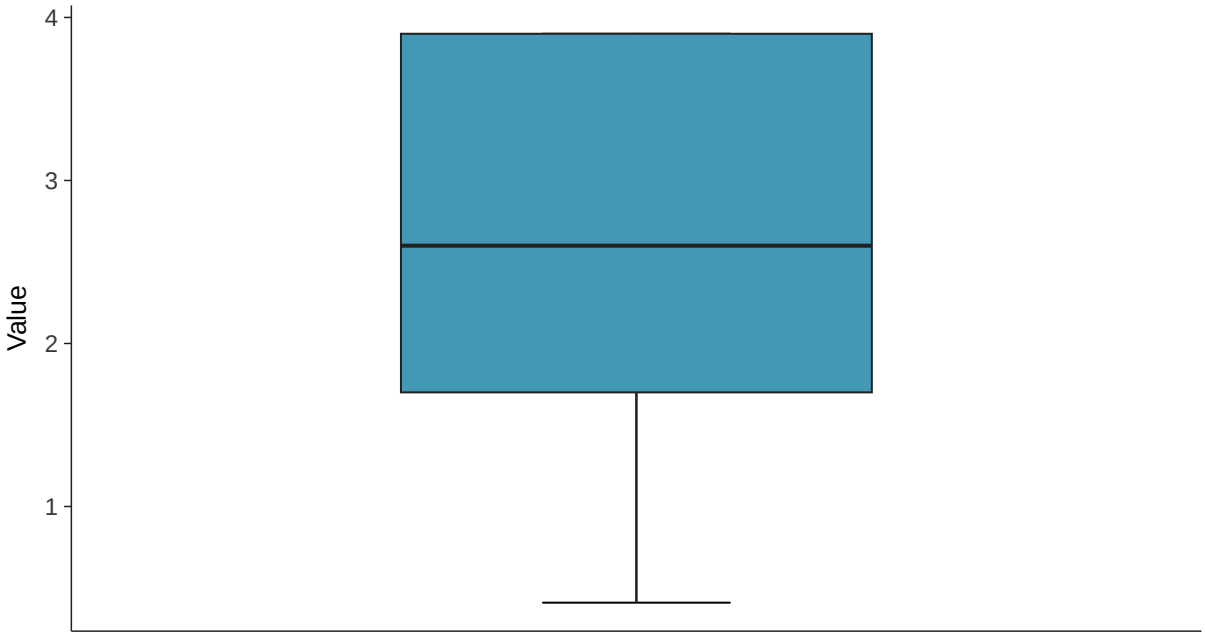
ID: 10_3_116





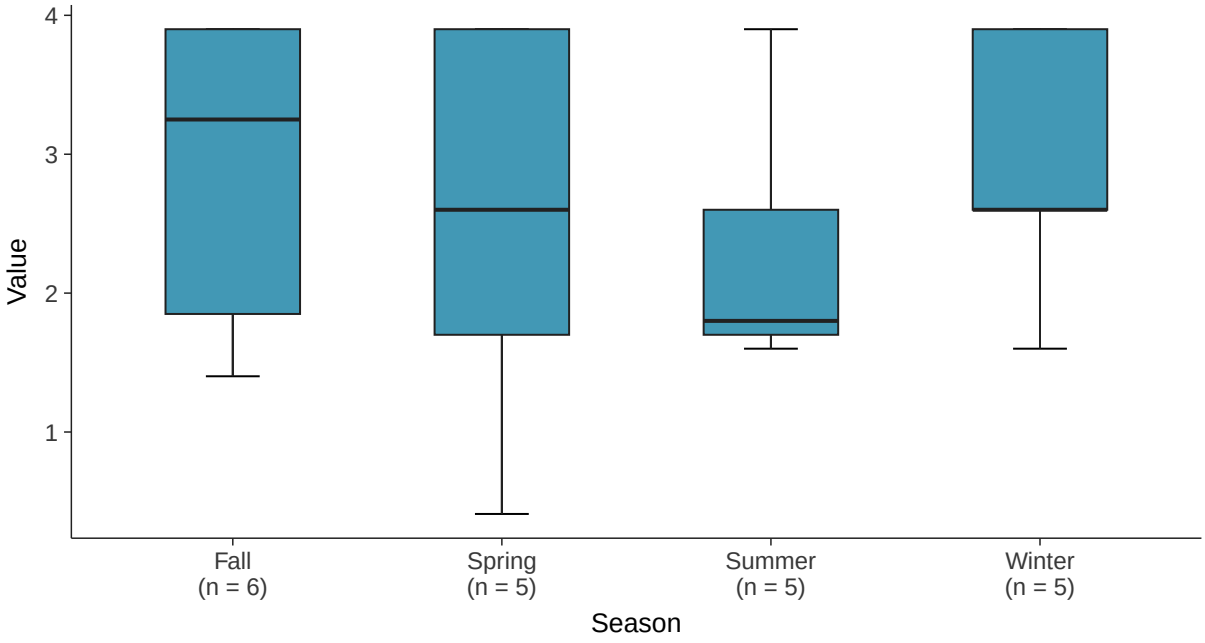
Boxplot

Molybdenum, MW-11 (ug/L)



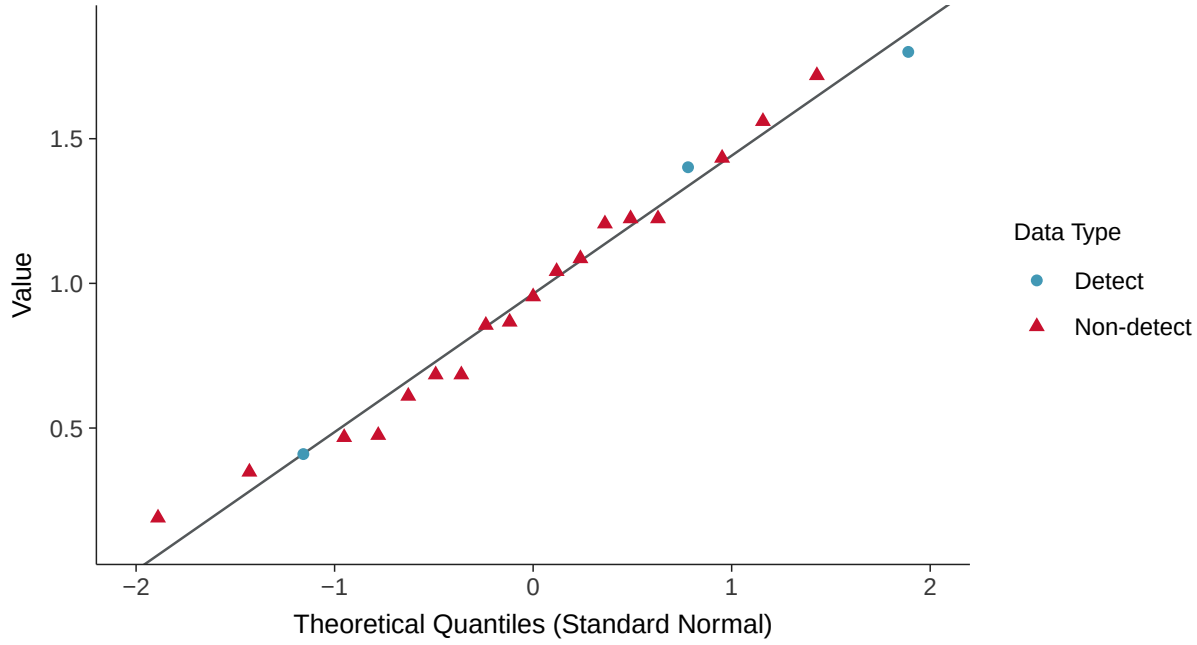
Boxplot by Season

Molybdenum, MW-11 (ug/L)



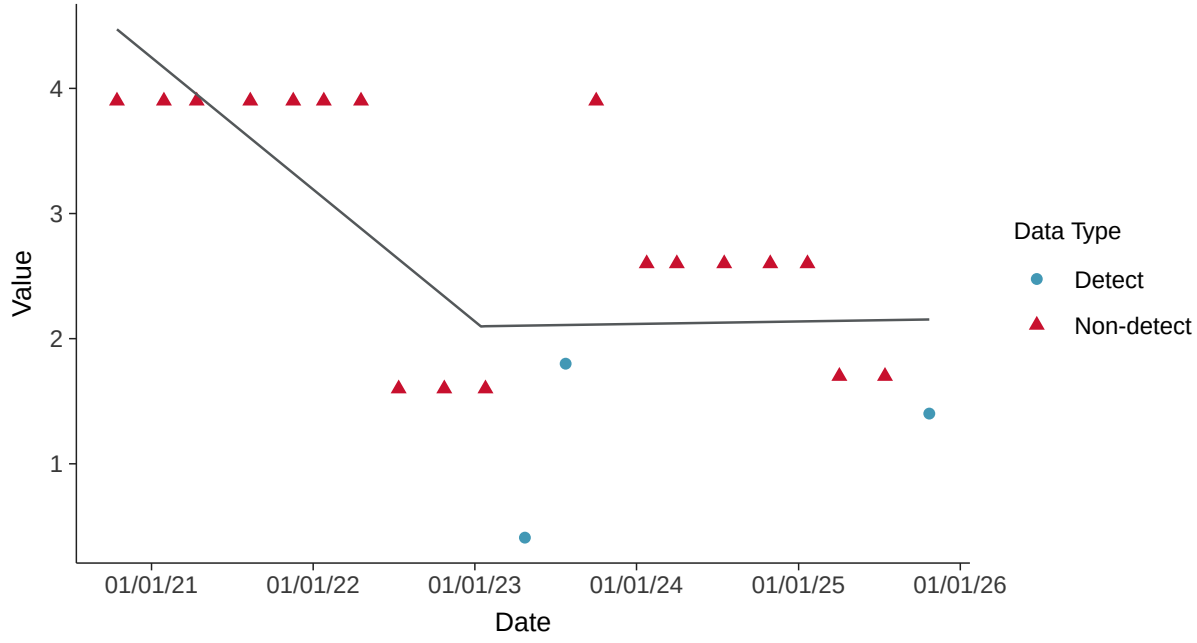
Normal Q-Q plot using ROS Imputed Estimates

Molybdenum, MW-11 (ug/L)



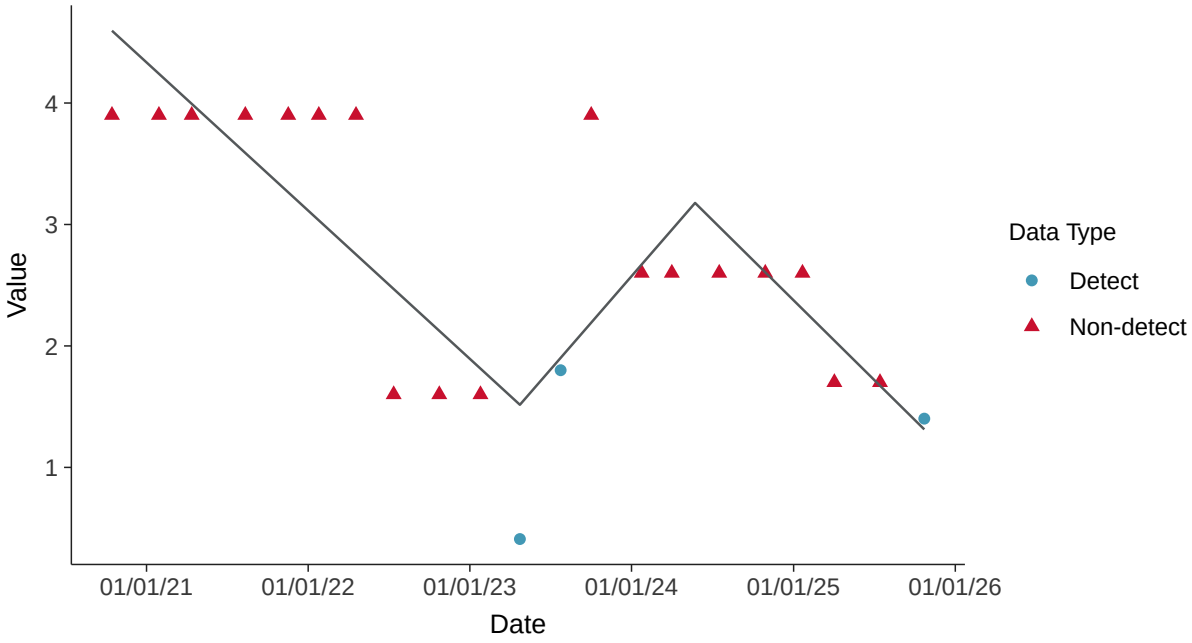
Trend Regression: Piecewise Linear-Linear

Molybdenum, MW-11 (ug/L)



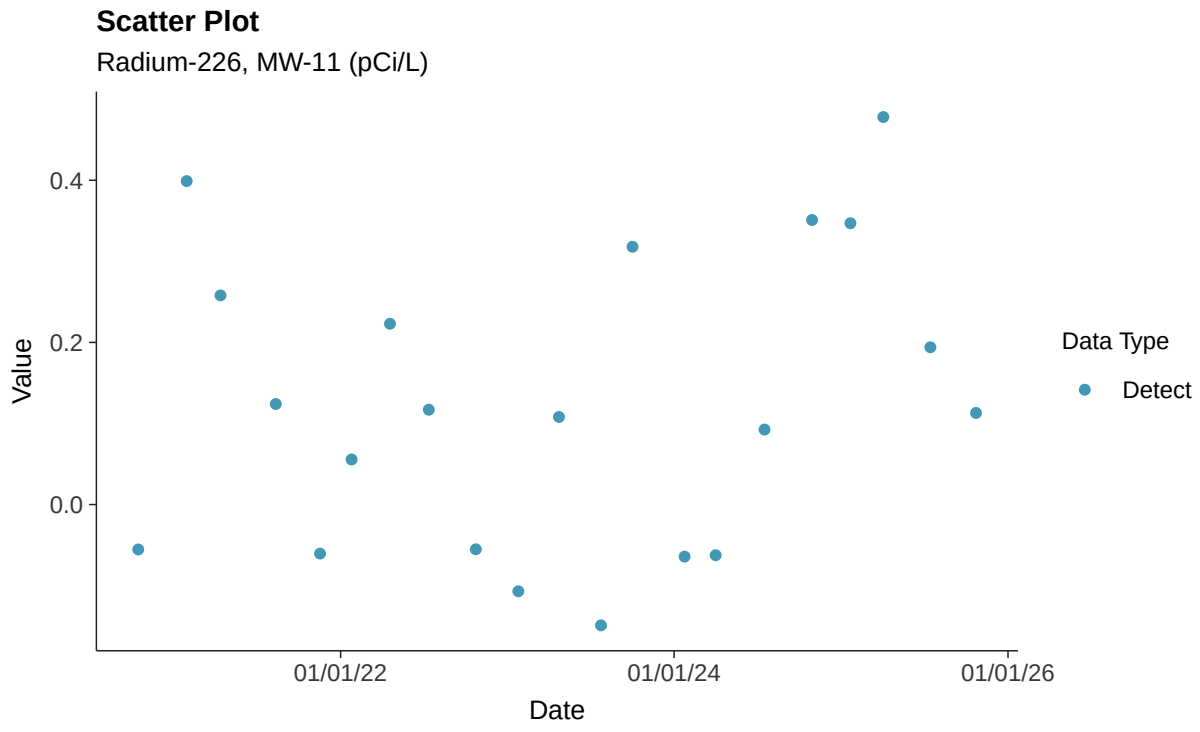
Trend Regression: Piecewise Linear-Linear-Linear

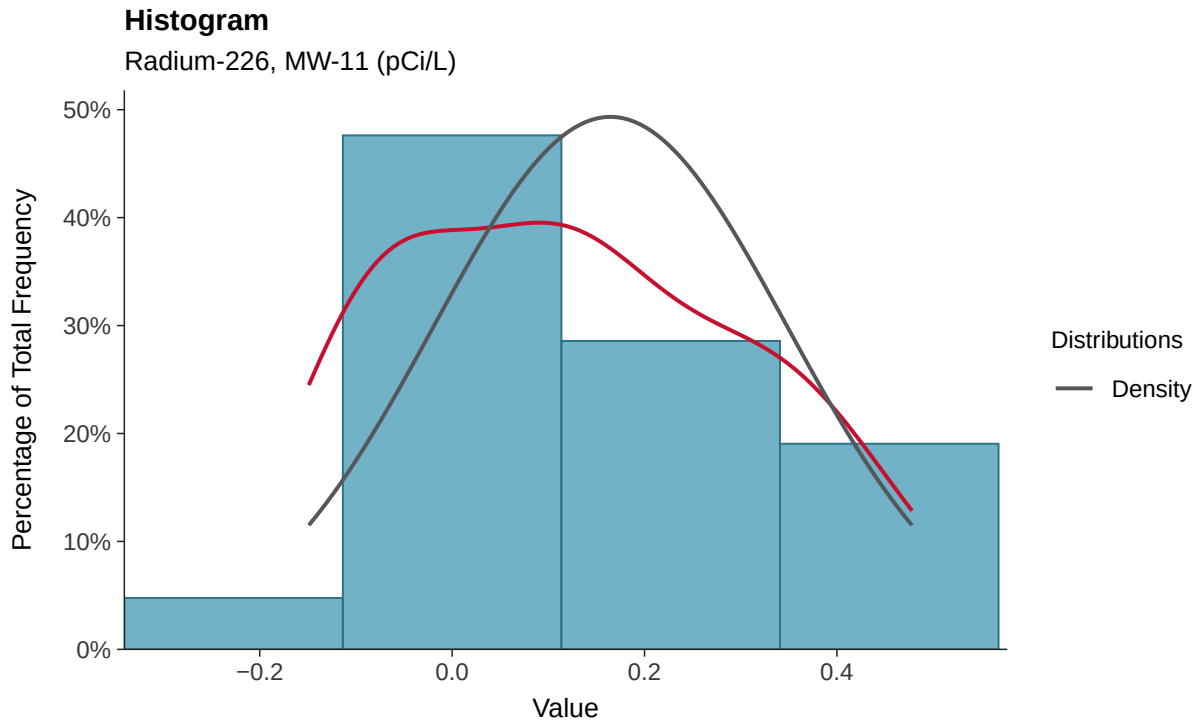
Molybdenum, MW-11 (ug/L)



App. IV: Radium-226, MW-11

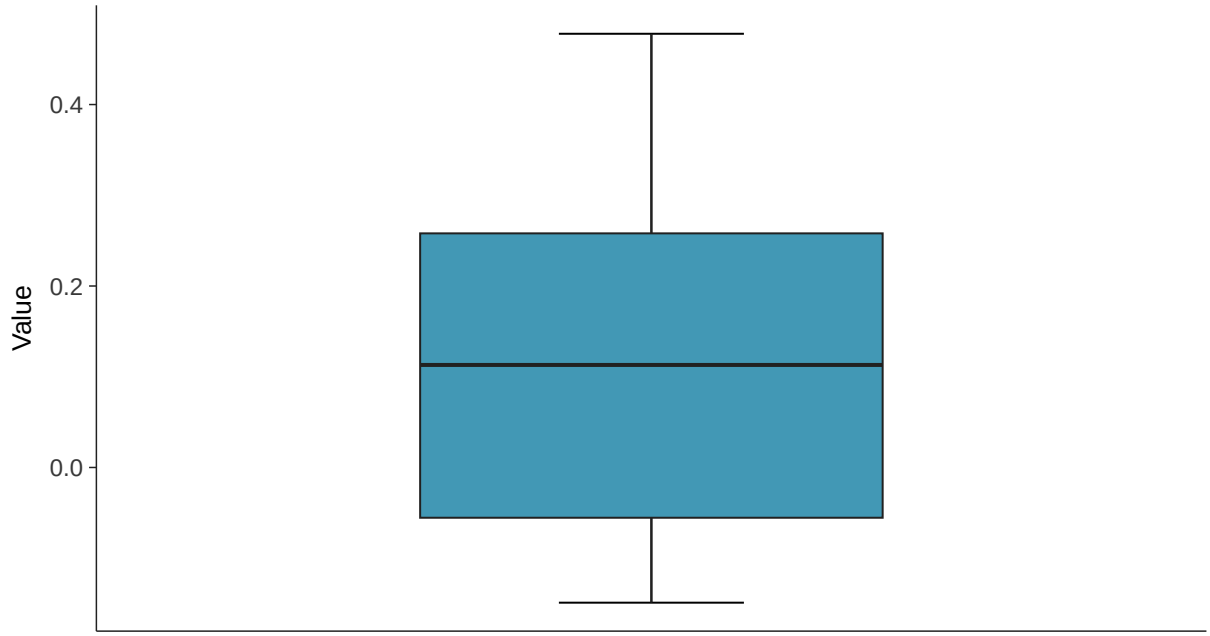
ID: 10_3_119





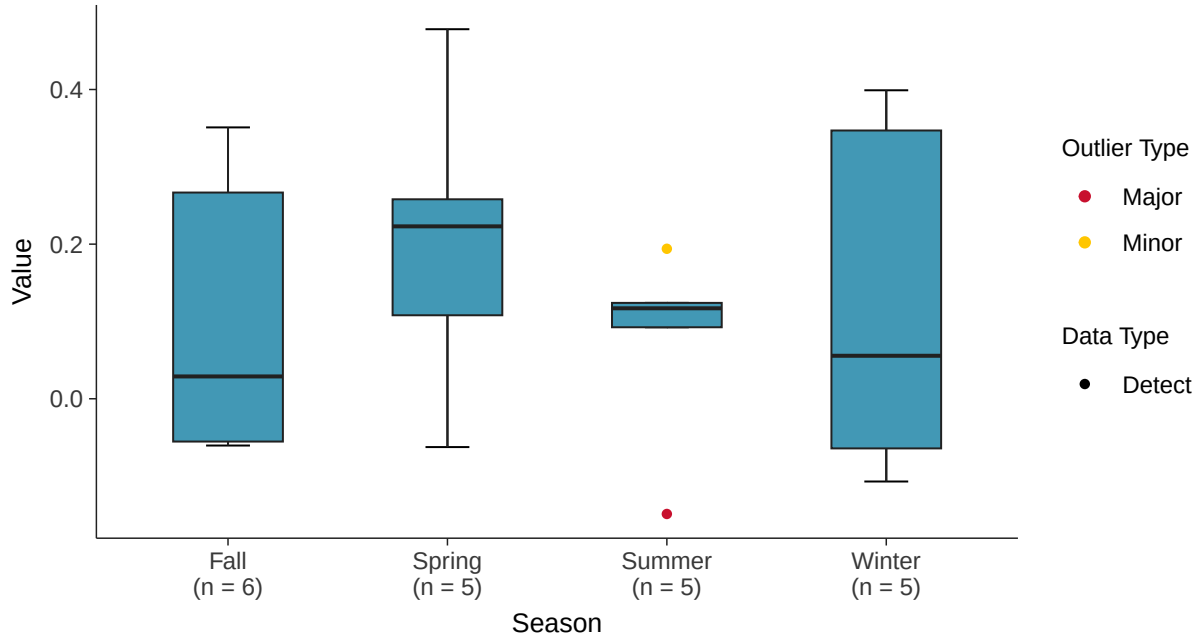
Boxplot

Radium-226, MW-11 (pCi/L)



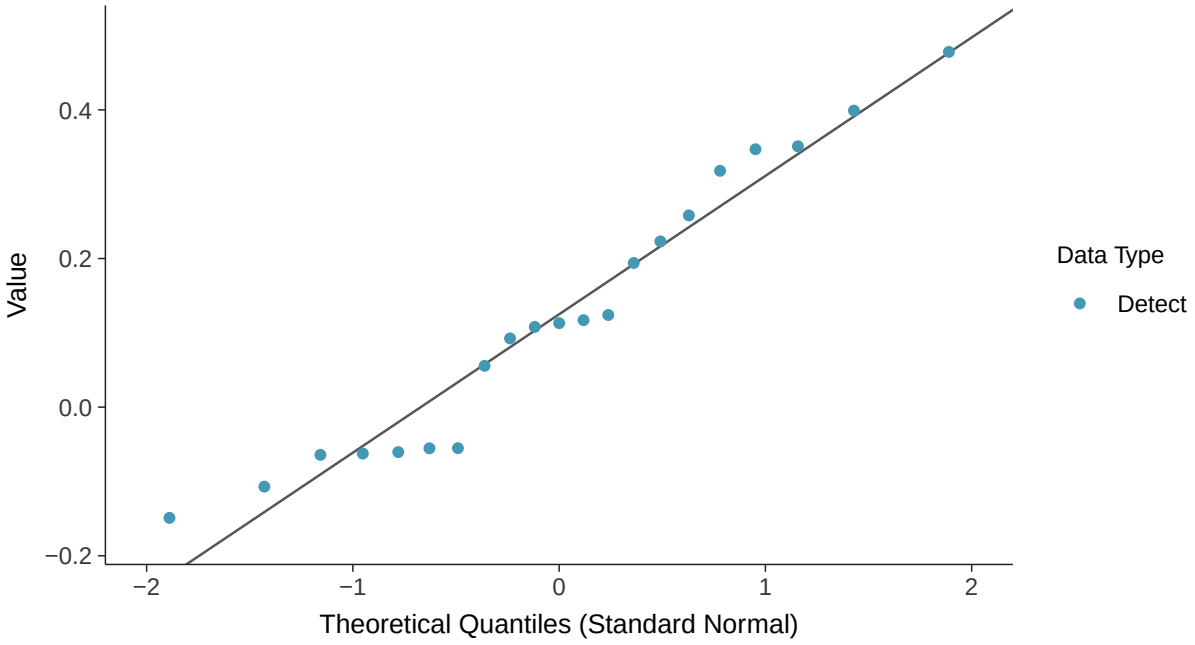
Boxplot by Season

Radium-226, MW-11 (pCi/L)



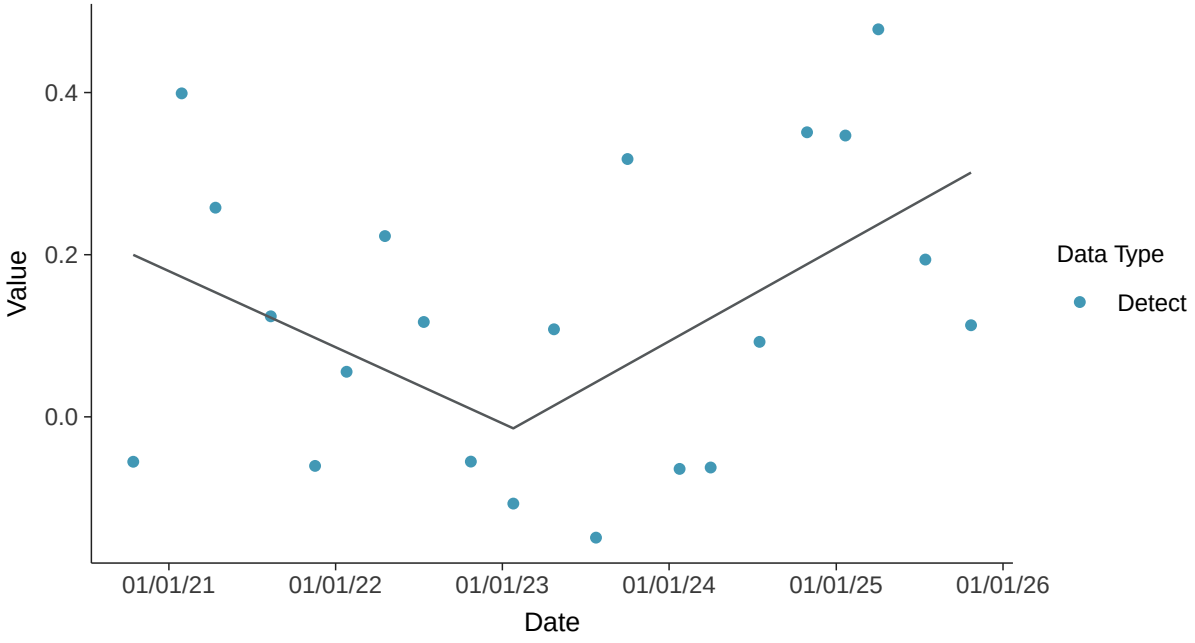
Normal Q-Q plot

Radium-226, MW-11 (pCi/L)



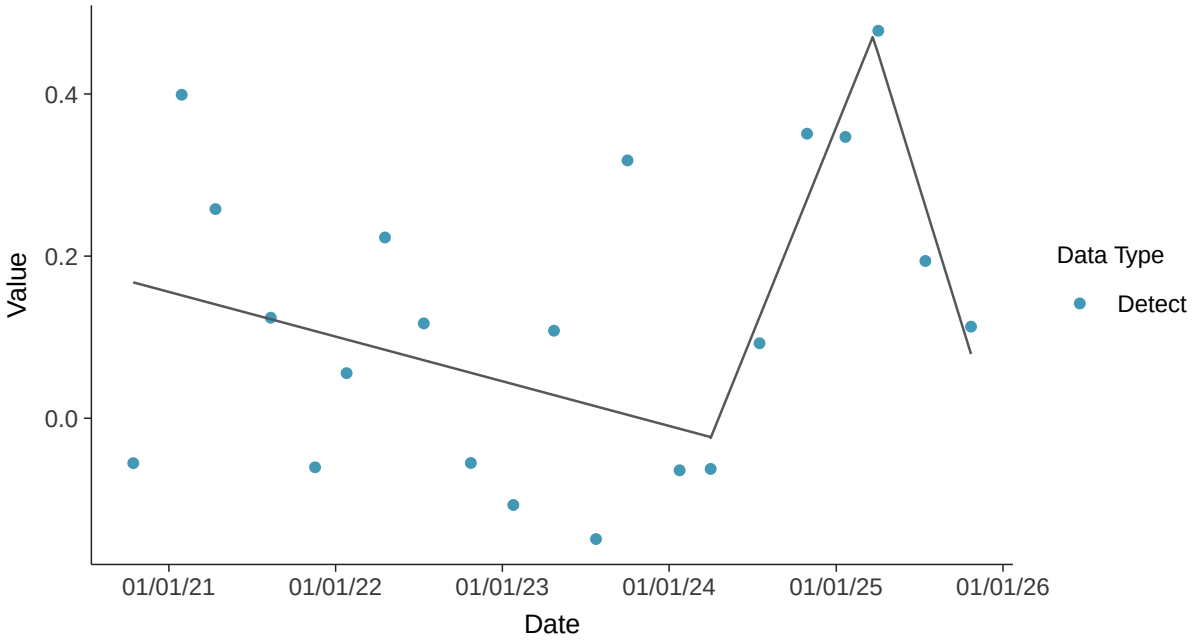
Trend Regression: Piecewise Linear-Linear

Radium-226, MW-11 (pCi/L)



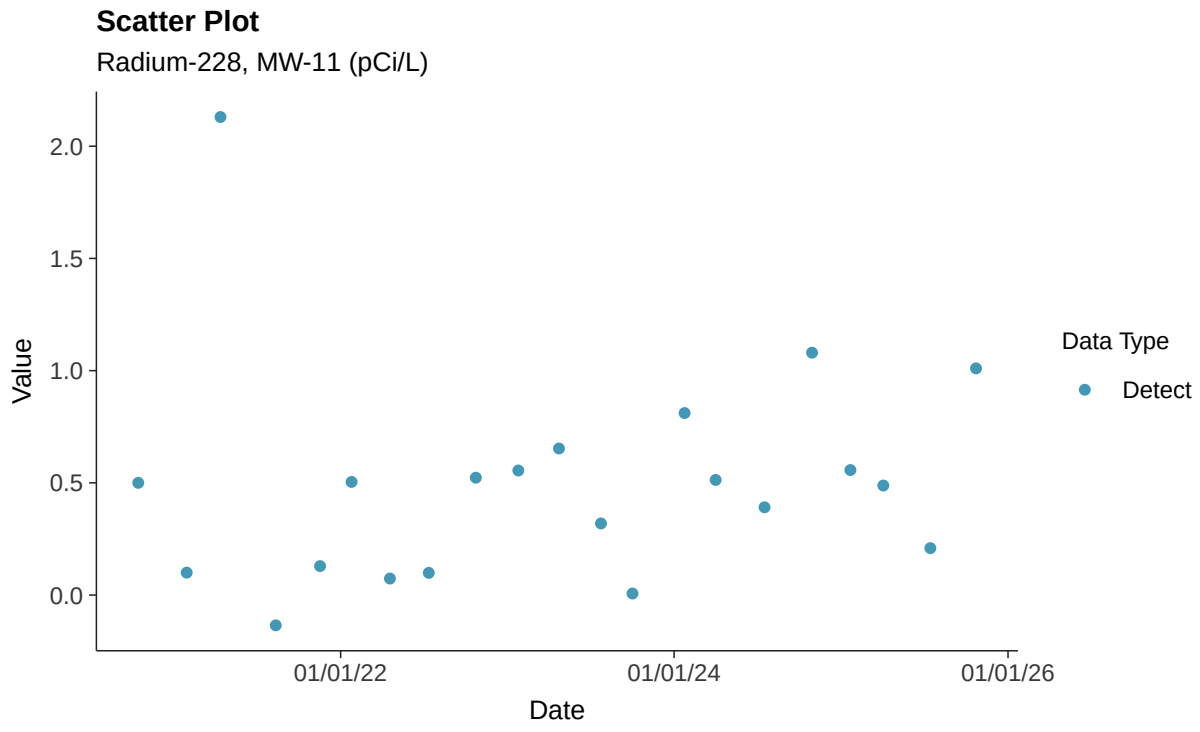
Trend Regression: Piecewise Linear-Linear-Linear

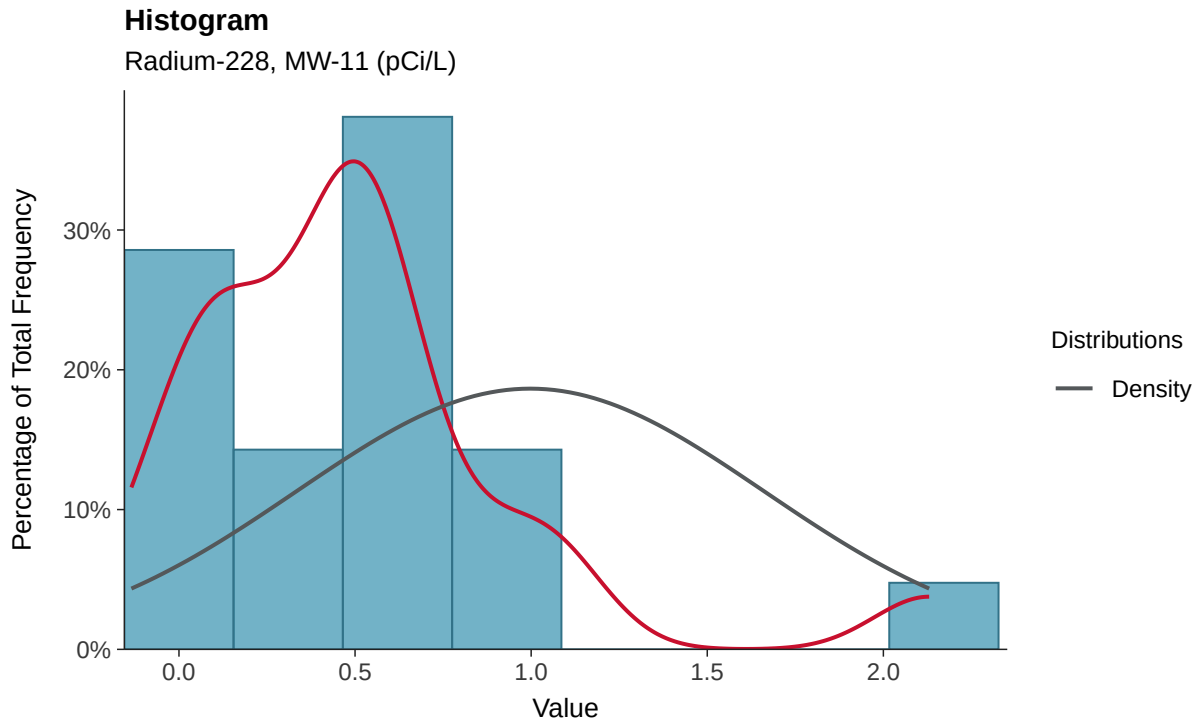
Radium-226, MW-11 (pCi/L)



App. IV: Radium-228, MW-11

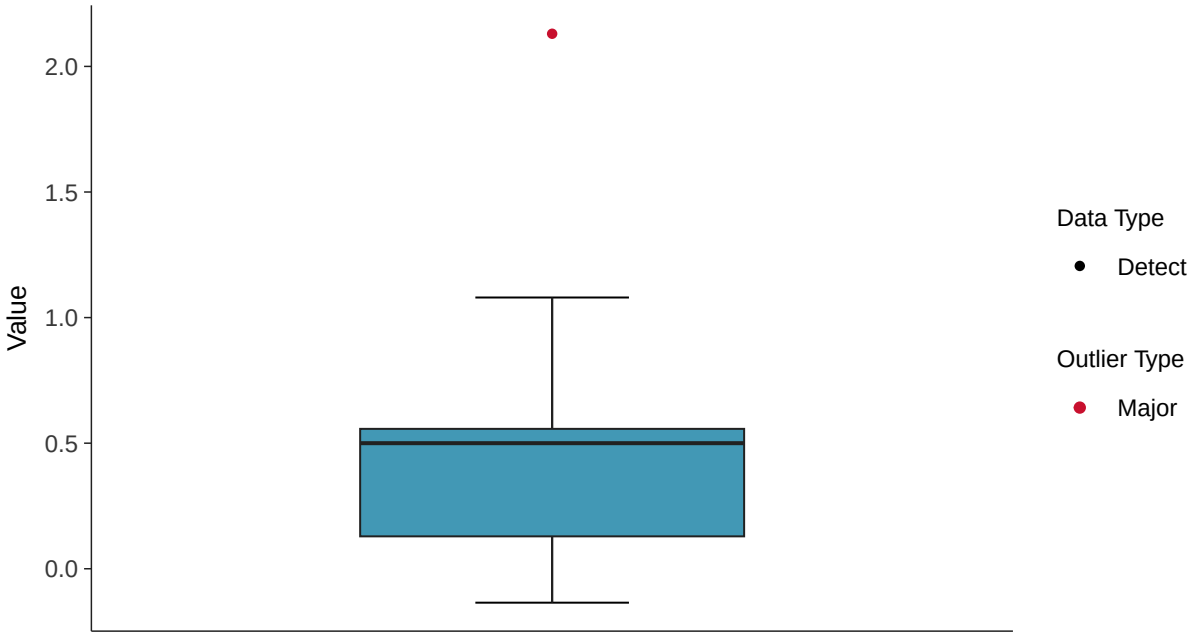
ID: 10_3_120





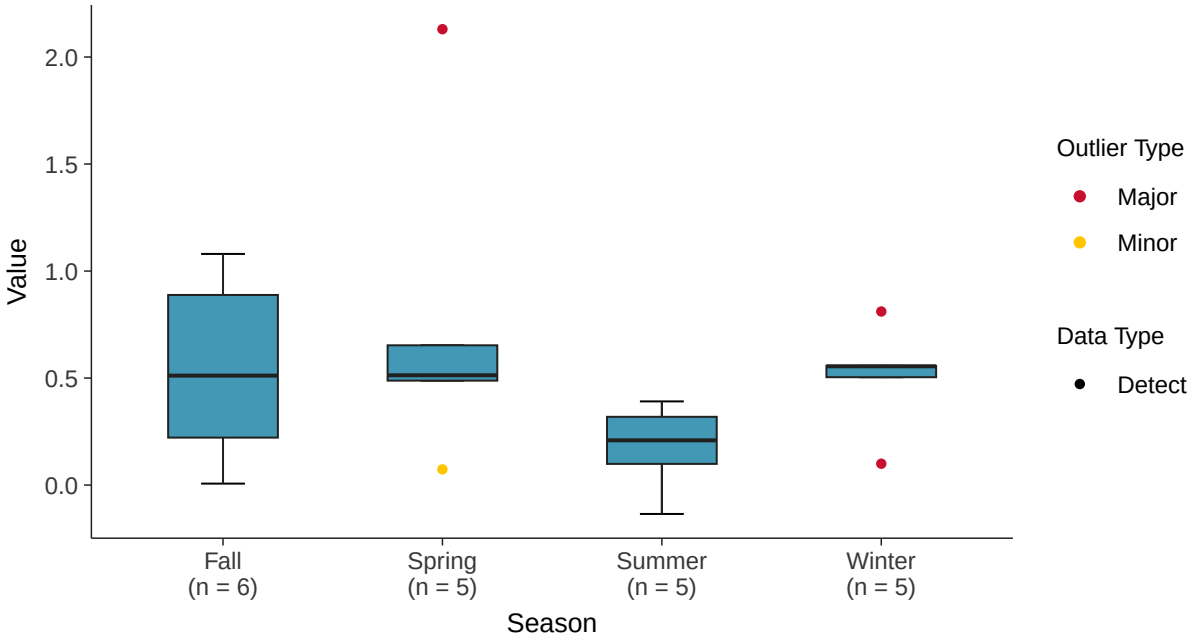
Boxplot

Radium-228, MW-11 (pCi/L)



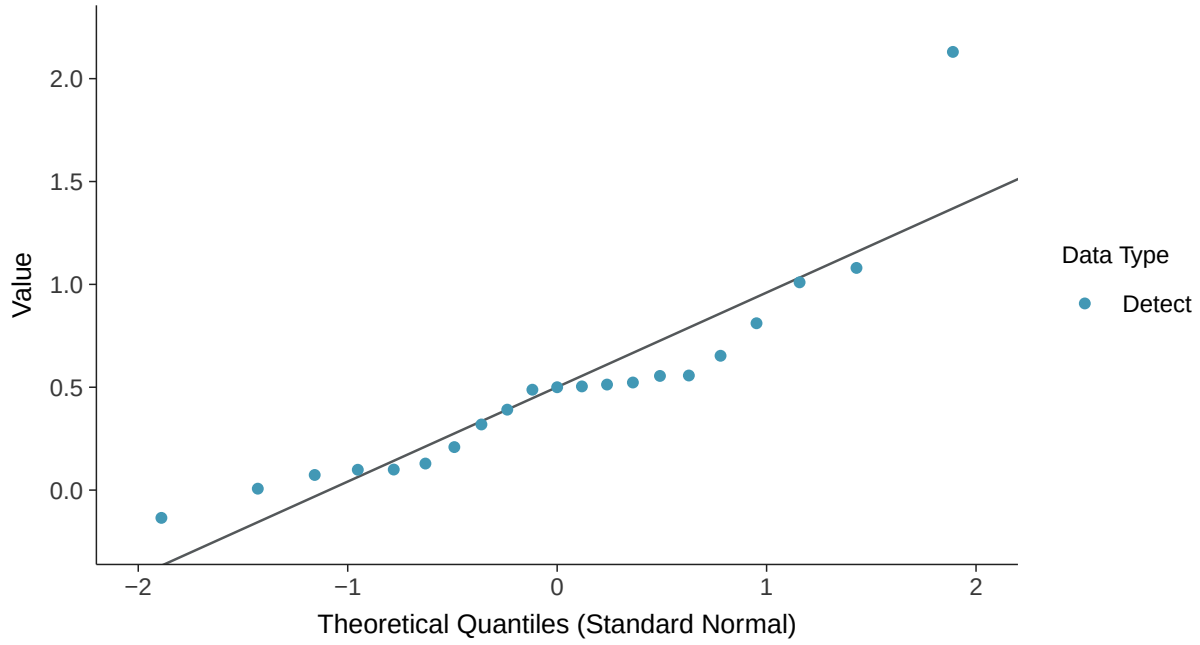
Boxplot by Season

Radium-228, MW-11 (pCi/L)



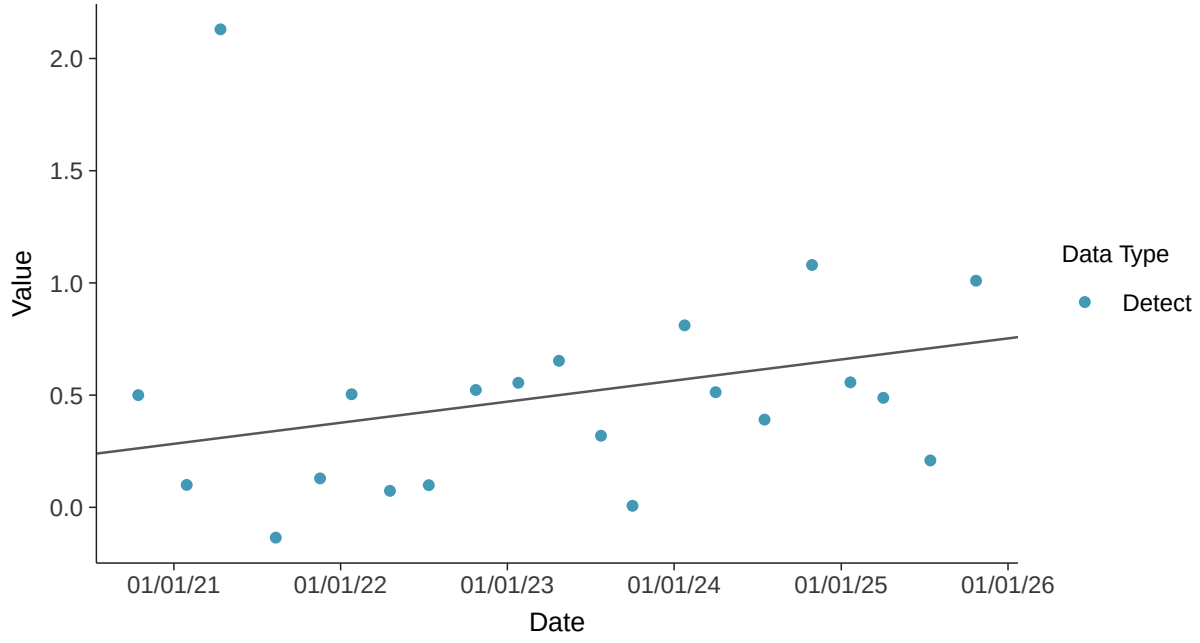
Normal Q-Q plot

Radium-228, MW-11 (pCi/L)



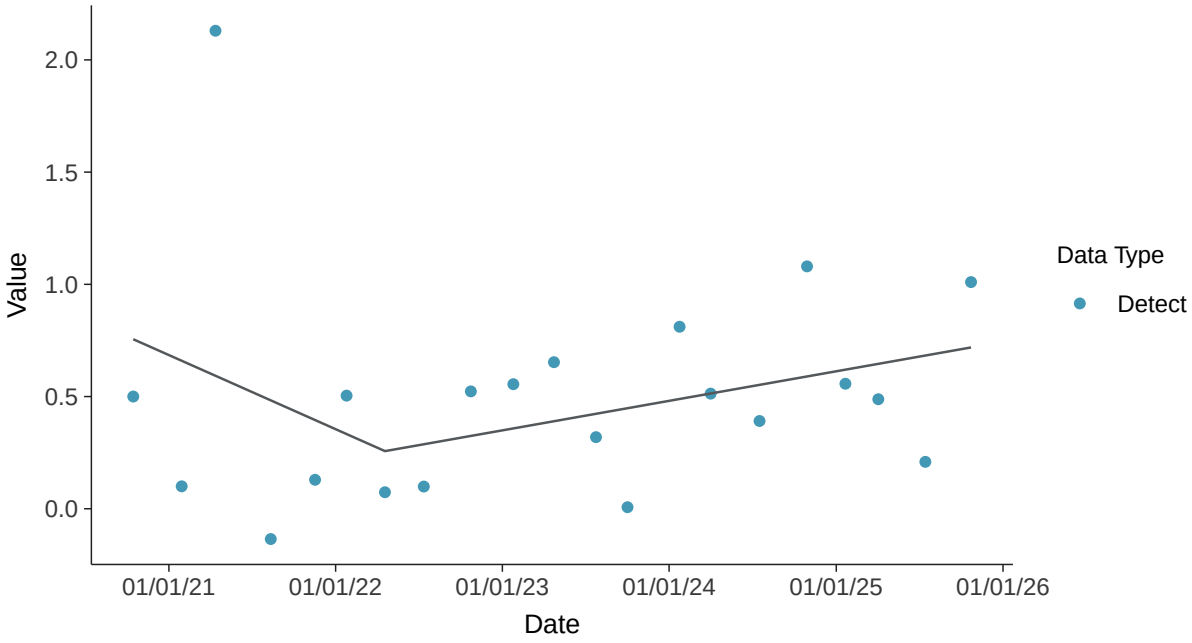
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Radium-228, MW-11 (pCi/L)



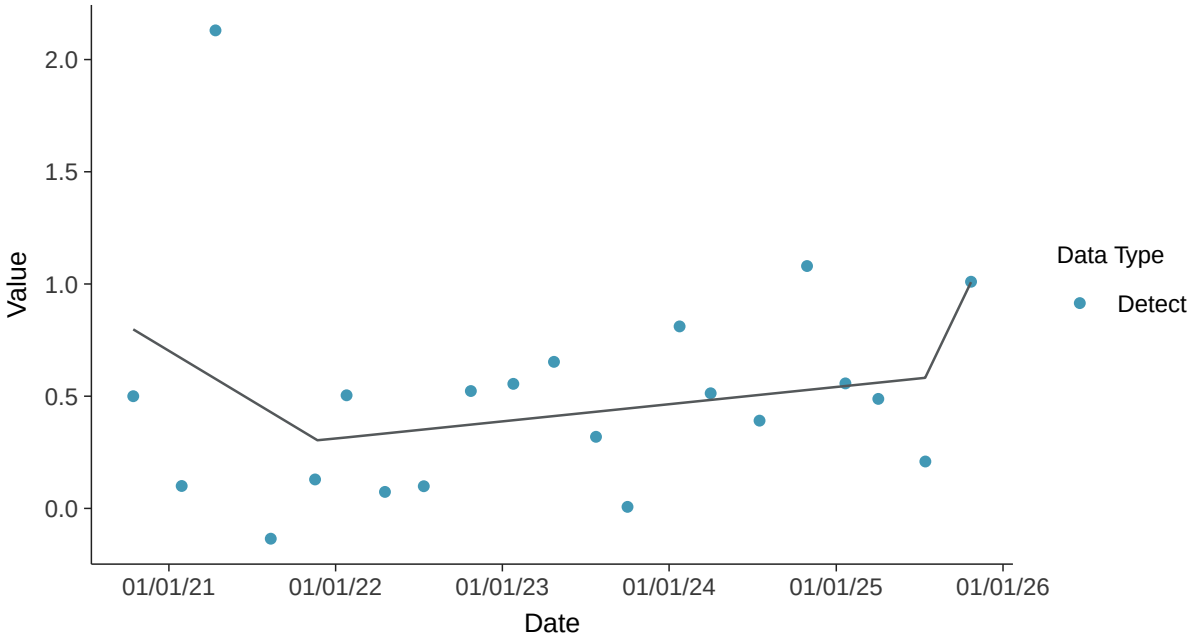
Trend Regression: Piecewise Linear-Linear

Radium-228, MW-11 (pCi/L)



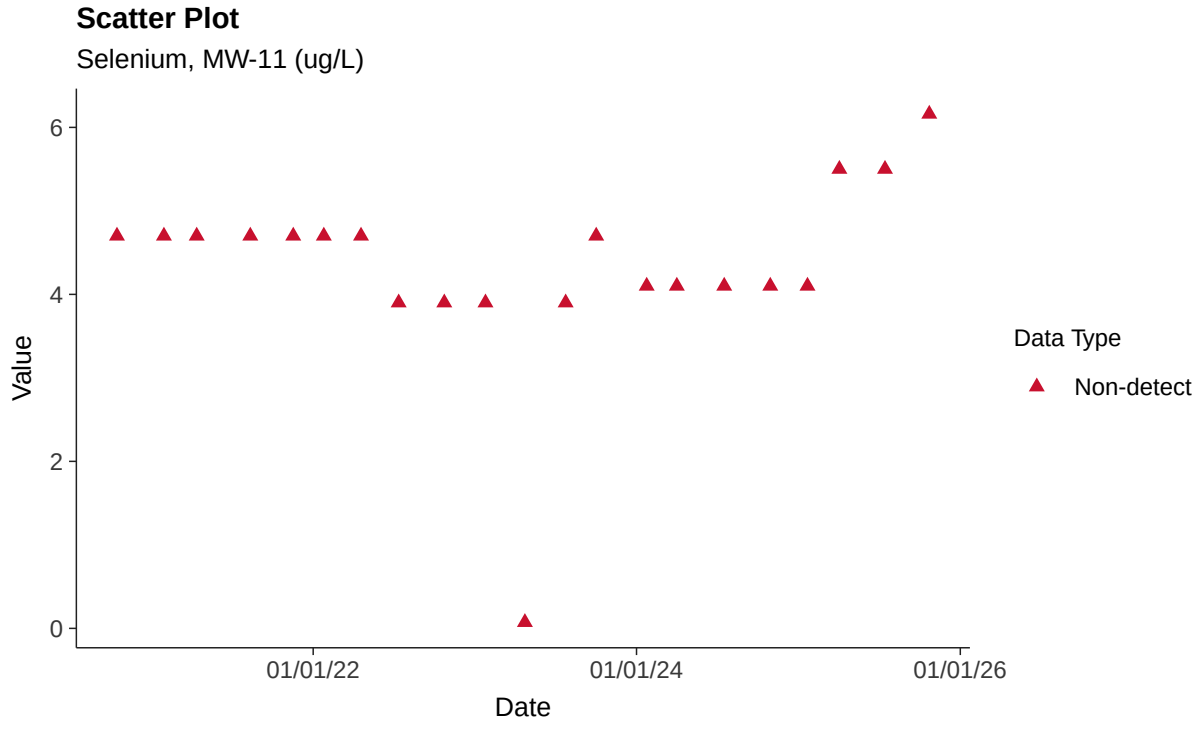
Trend Regression: Piecewise Linear-Linear-Linear

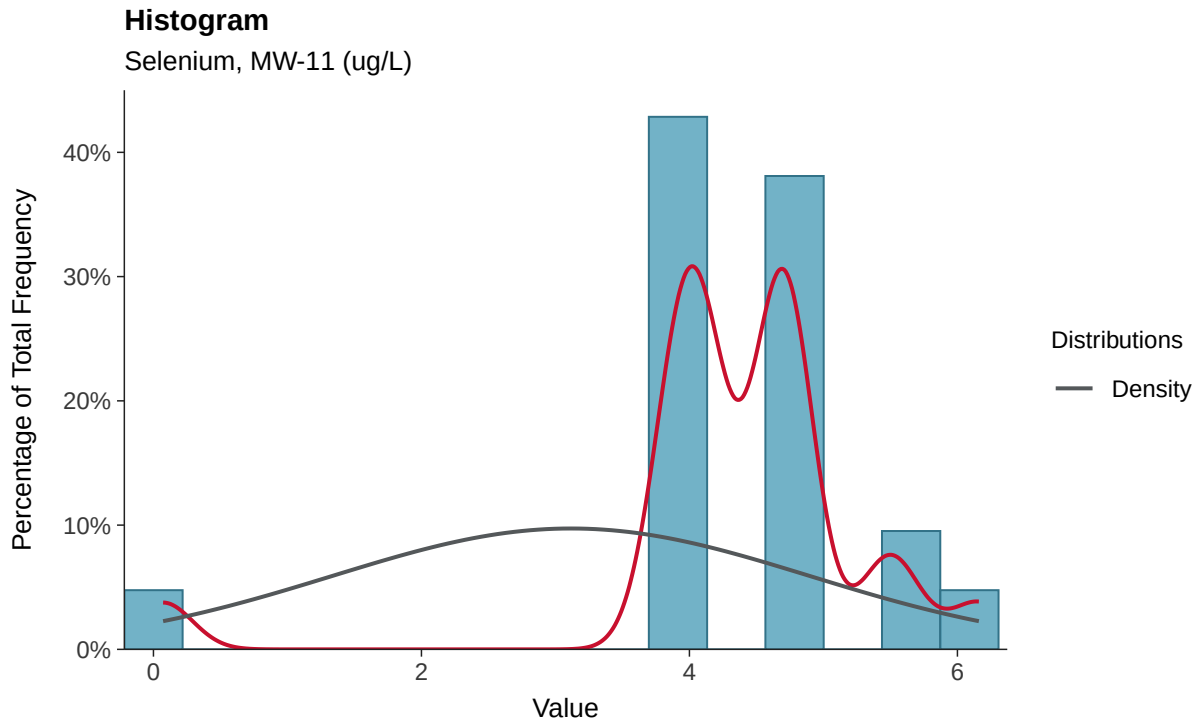
Radium-228, MW-11 (pCi/L)



App. IV: Selenium, MW-11

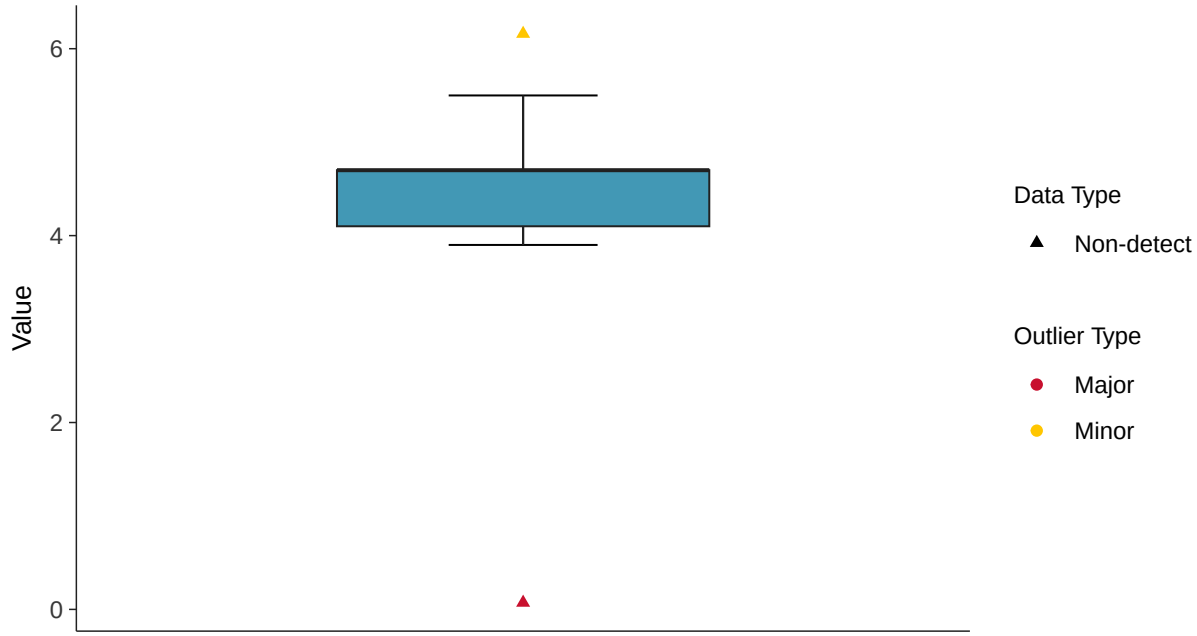
ID: 10_3_121





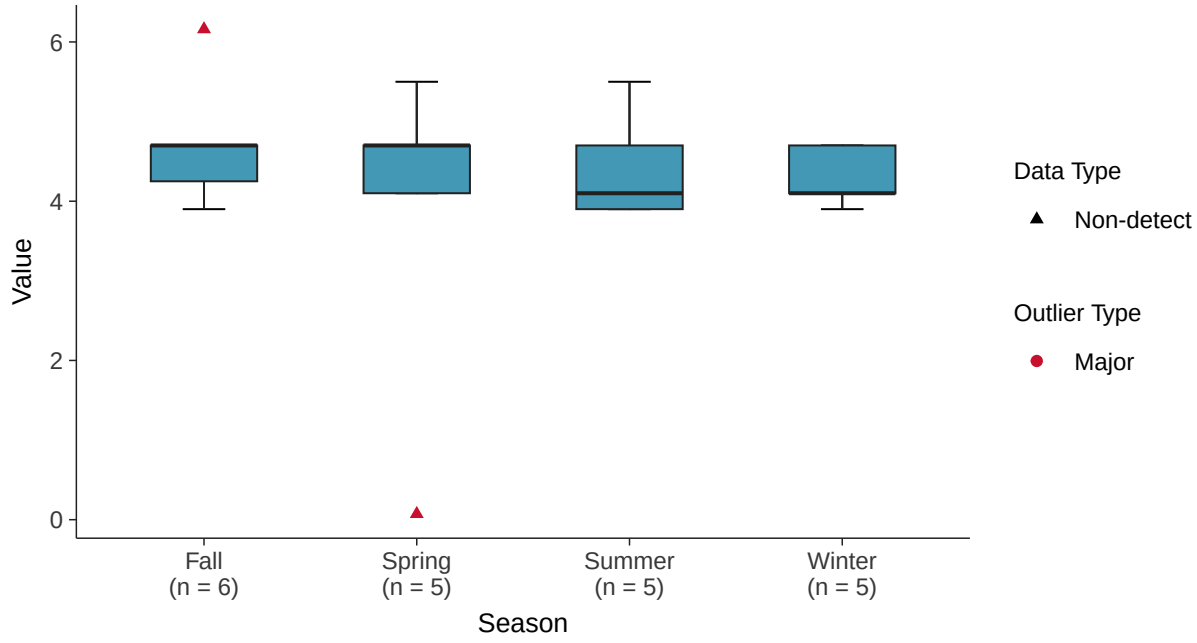
Boxplot

Selenium, MW-11 (ug/L)



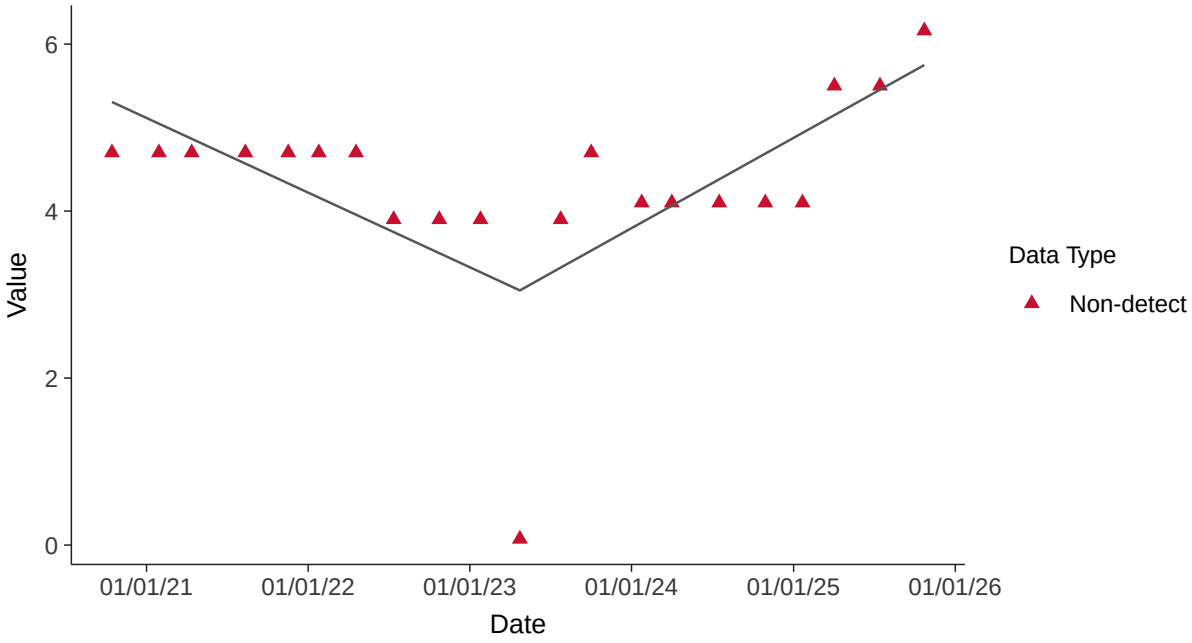
Boxplot by Season

Selenium, MW-11 (ug/L)



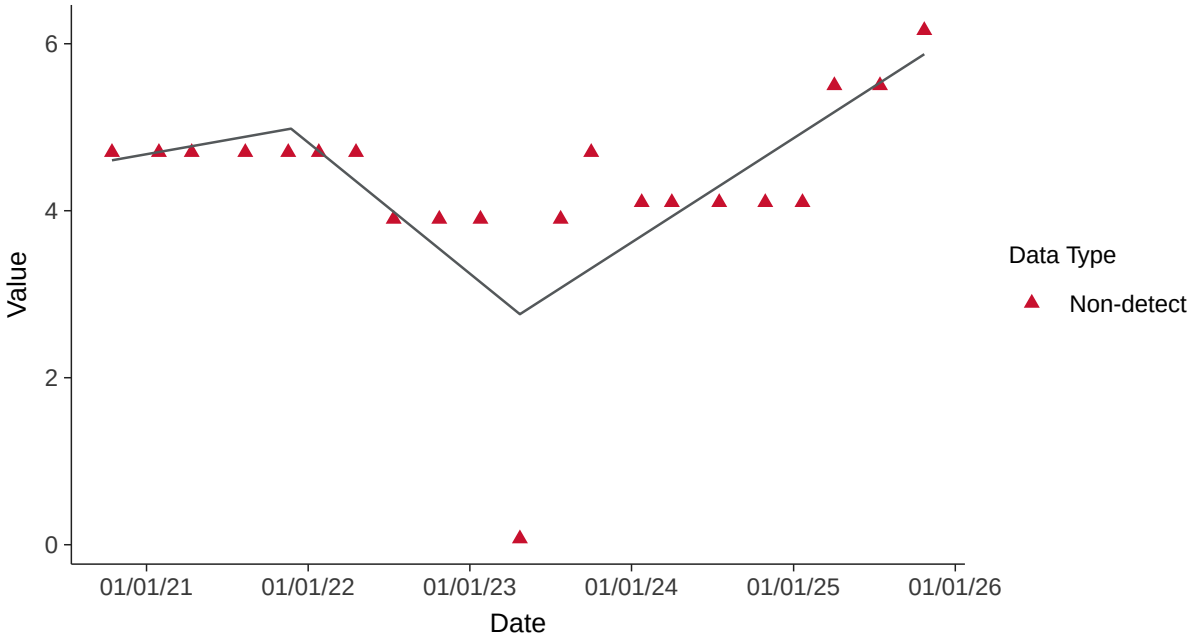
Trend Regression: Piecewise Linear-Linear

Selenium, MW-11 (ug/L)



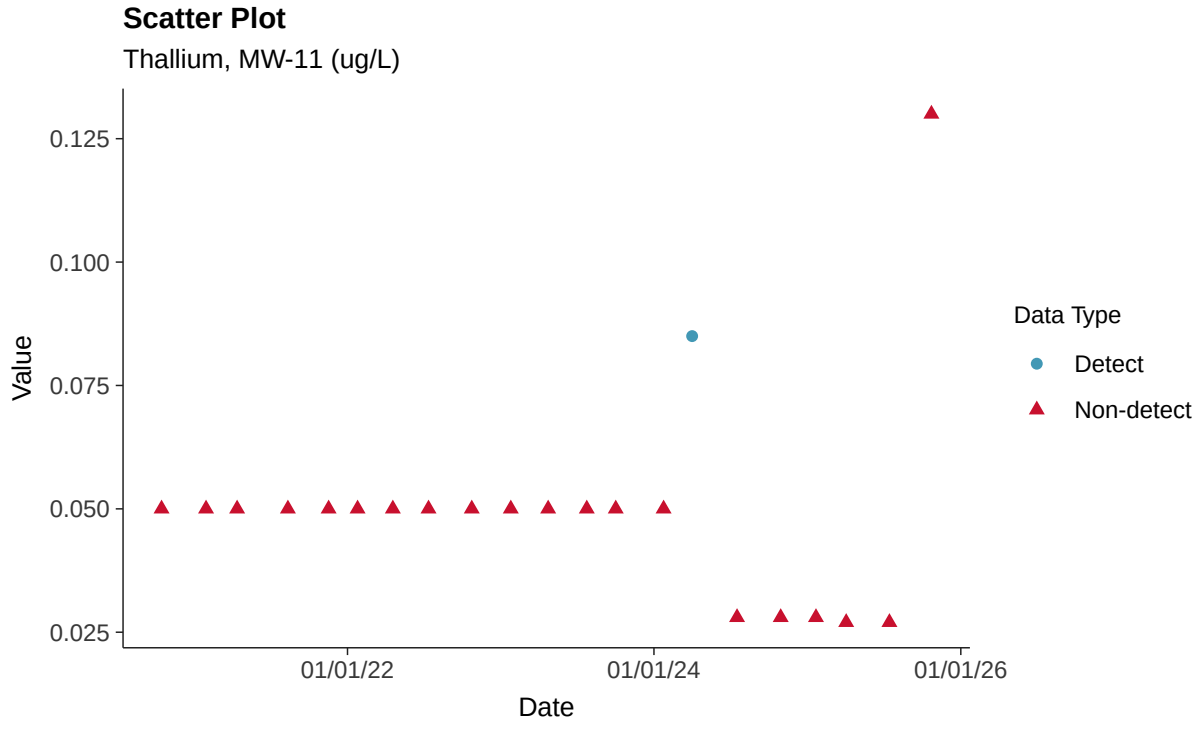
Trend Regression: Piecewise Linear-Linear-Linear

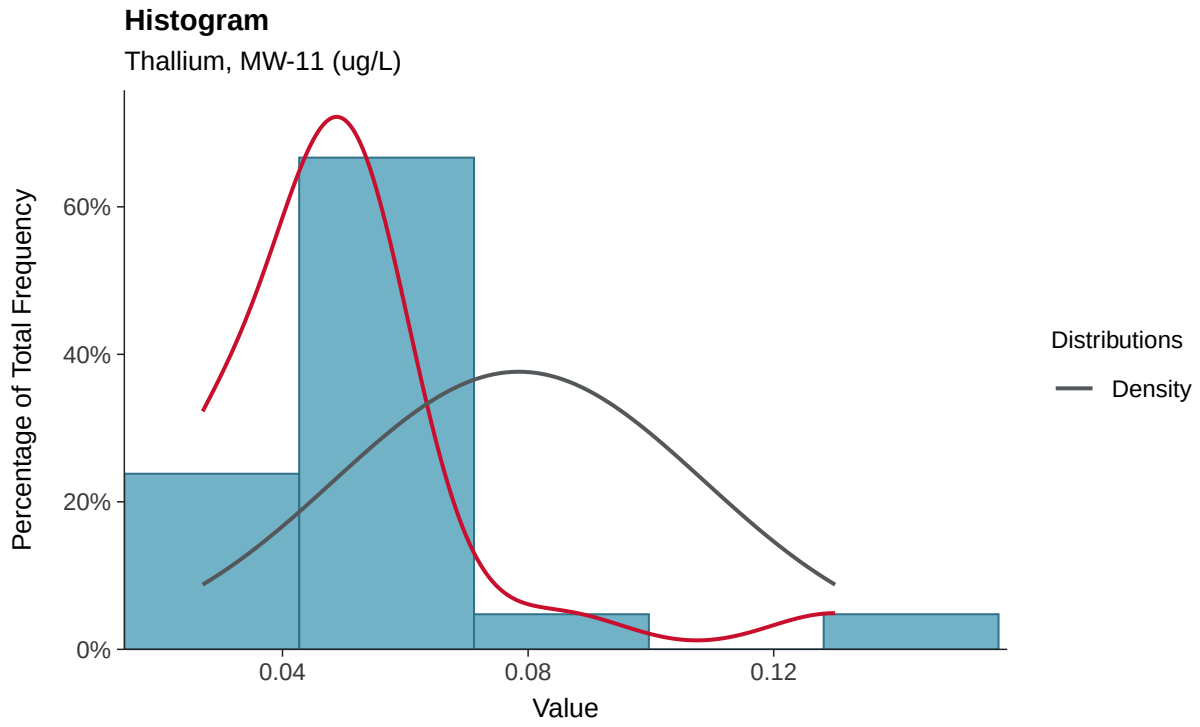
Selenium, MW-11 (ug/L)



App. IV: Thallium, MW-11

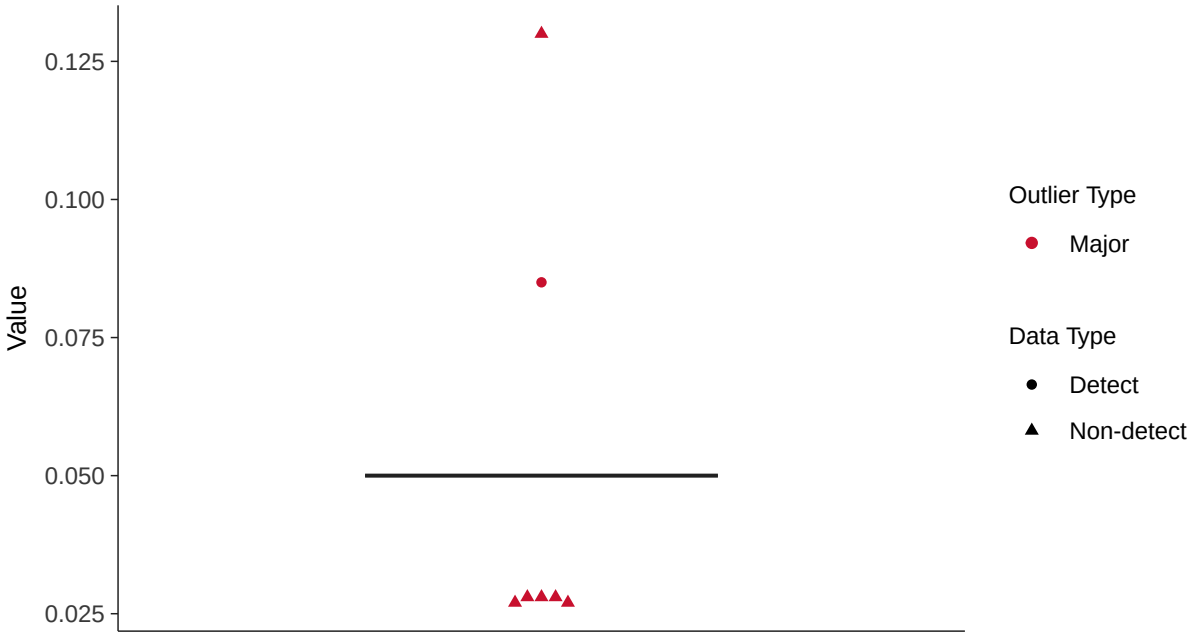
ID: 10_3_124





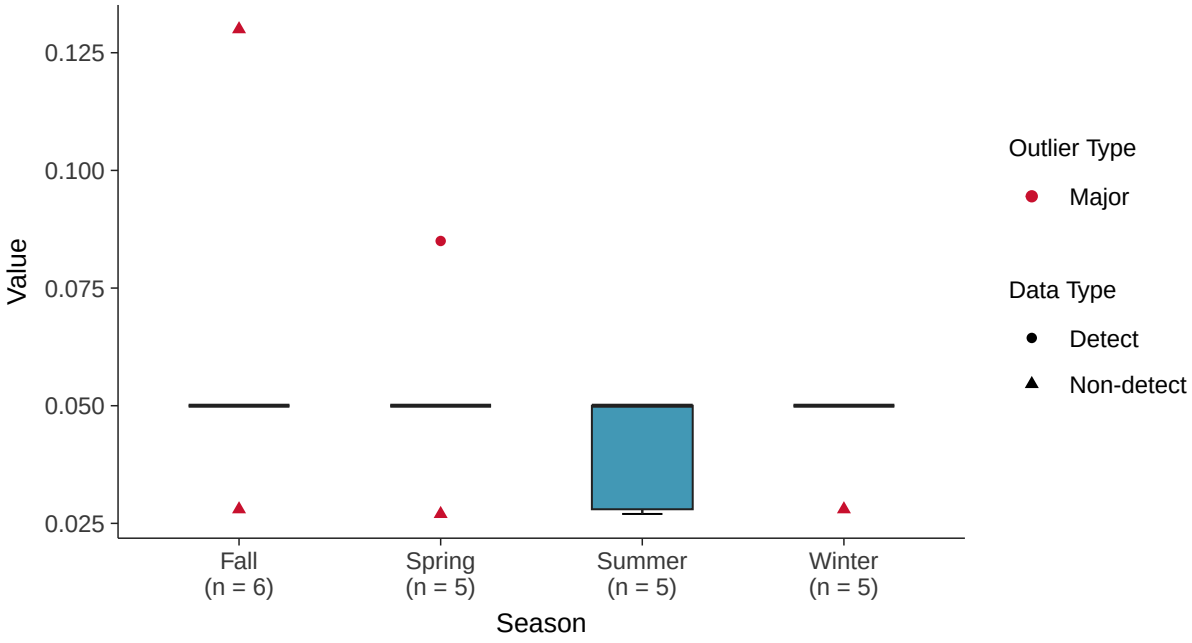
Boxplot

Thallium, MW-11 (ug/L)



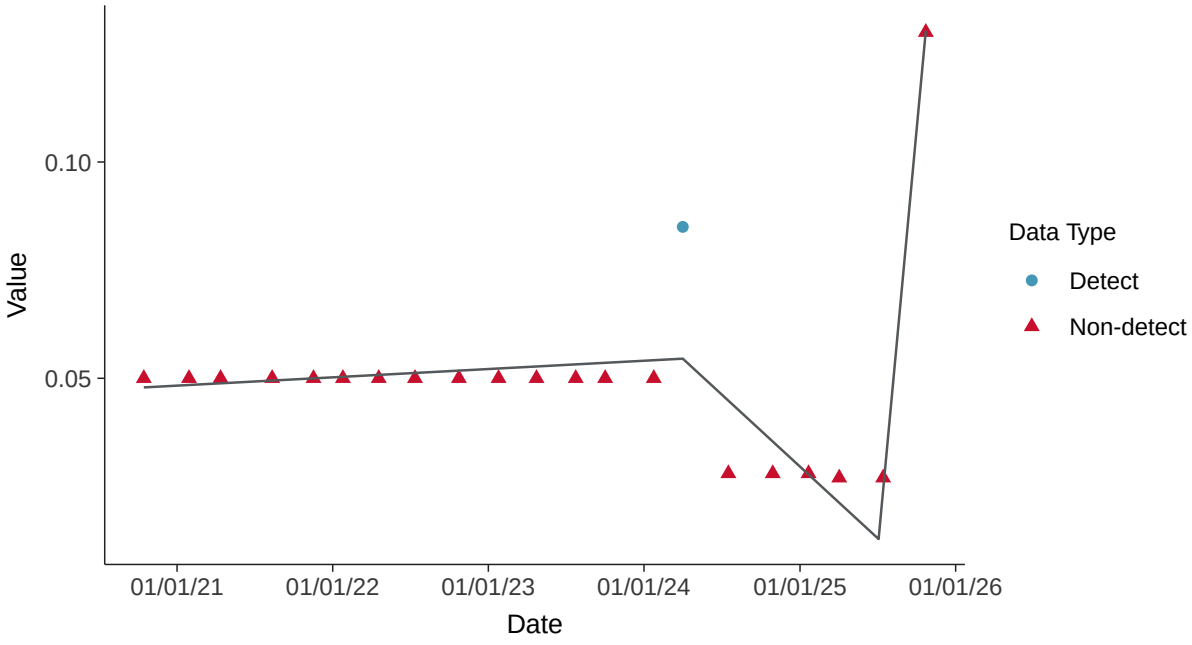
Boxplot by Season

Thallium, MW-11 (ug/L)



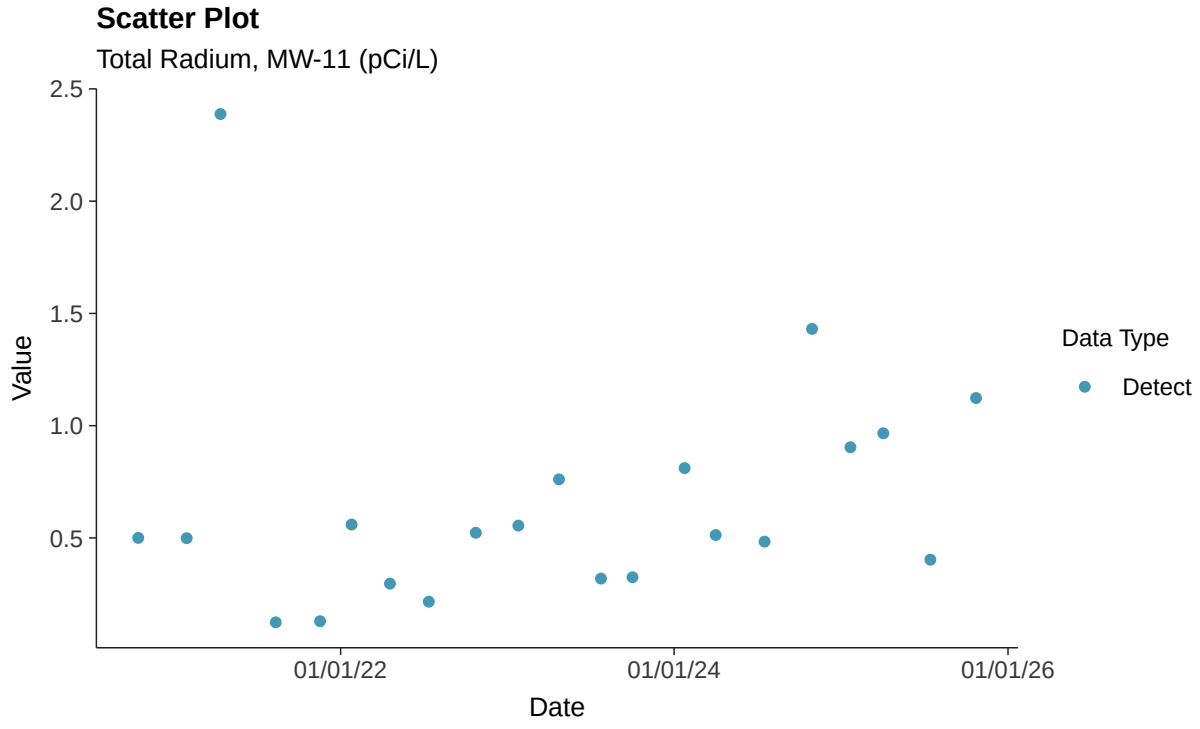
Trend Regression: Piecewise Linear-Linear-Linear

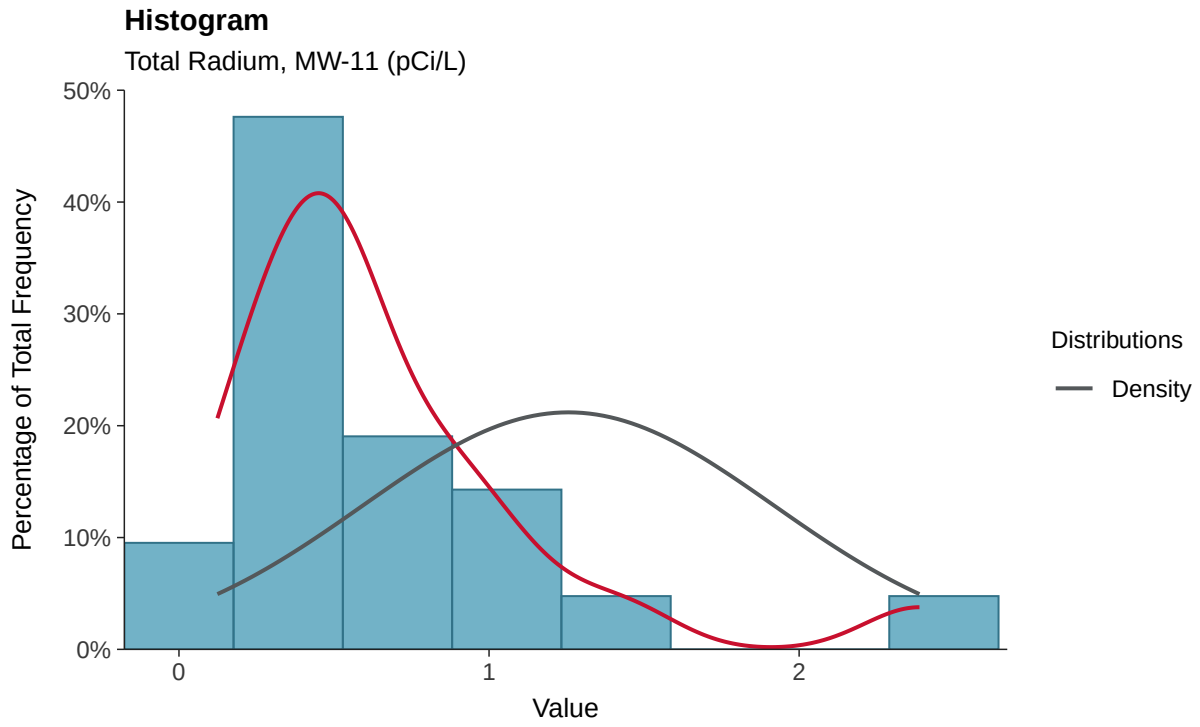
Thallium, MW-11 (ug/L)



App. IV: Total Radium, MW-11

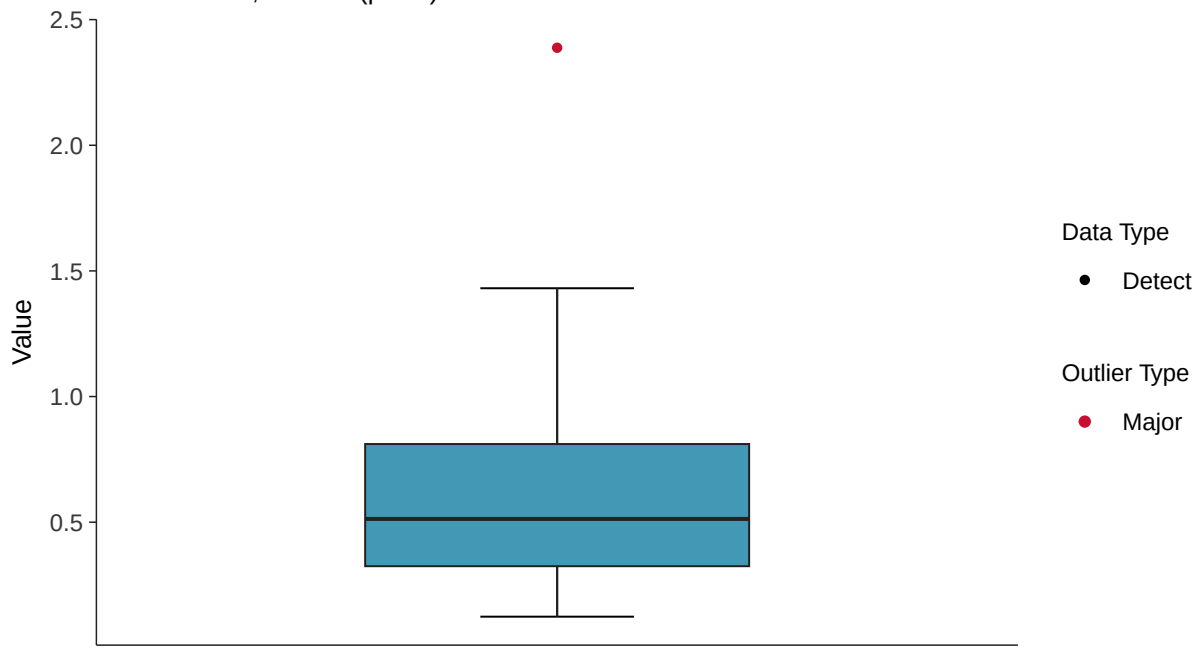
ID: 10_3_126





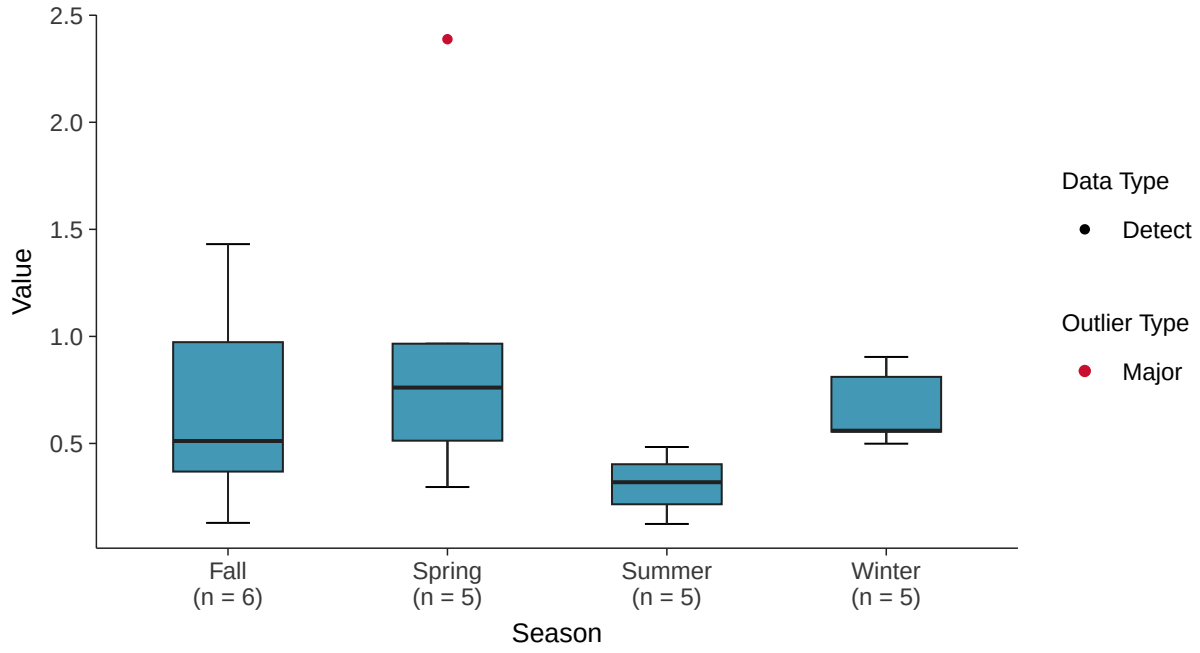
Boxplot

Total Radium, MW-11 (pCi/L)



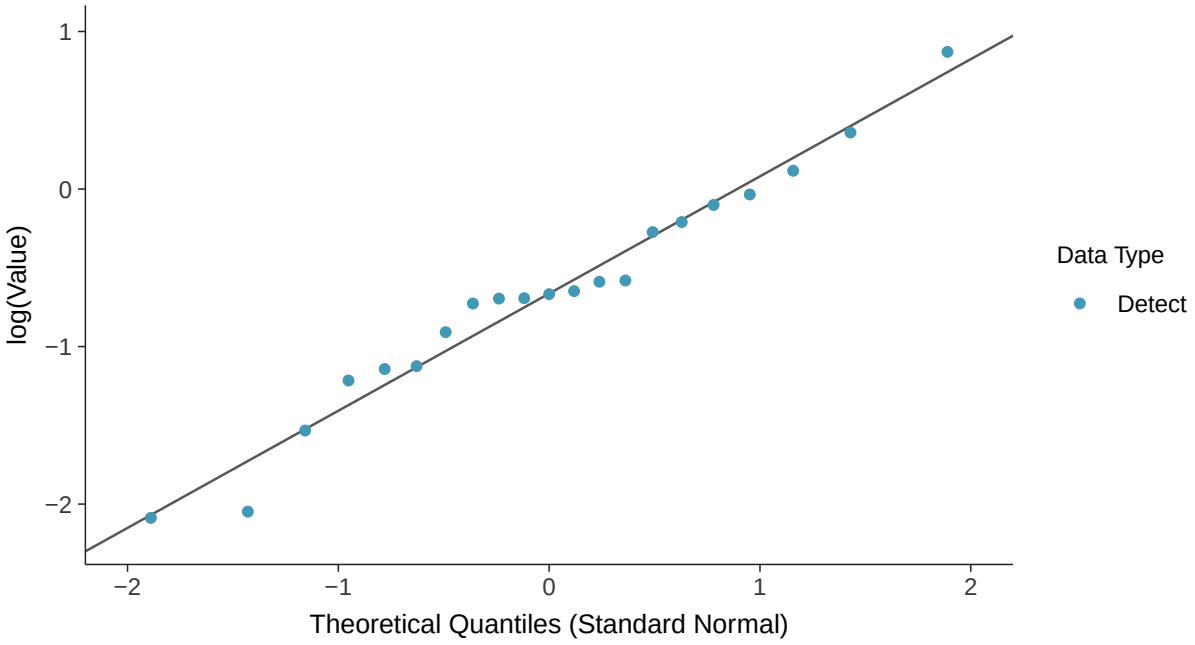
Boxplot by Season

Total Radium, MW-11 (pCi/L)



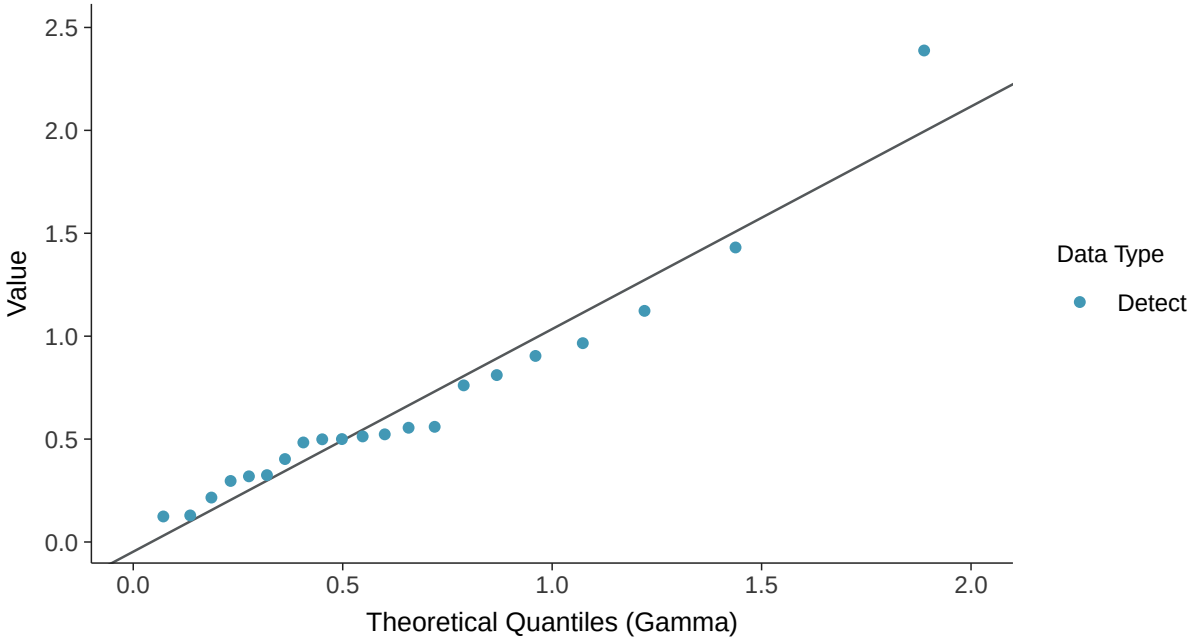
Lognormal Q-Q plot

Total Radium, MW-11 (pCi/L)



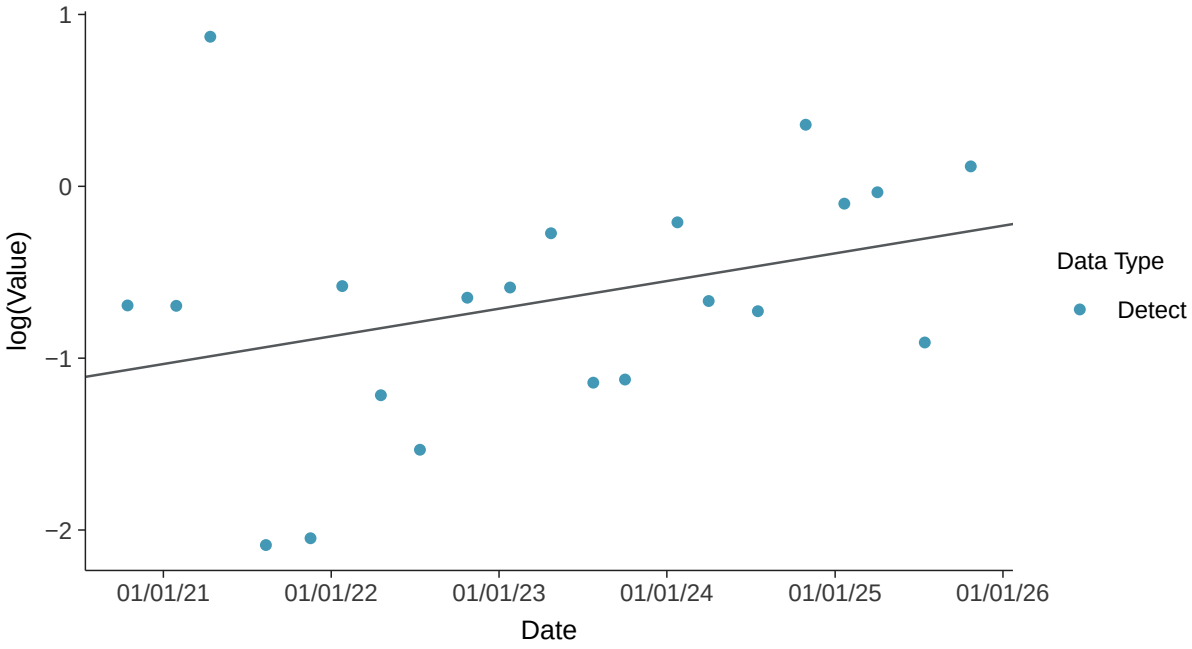
Gamma Q-Q plot

Total Radium, MW-11 (pCi/L)



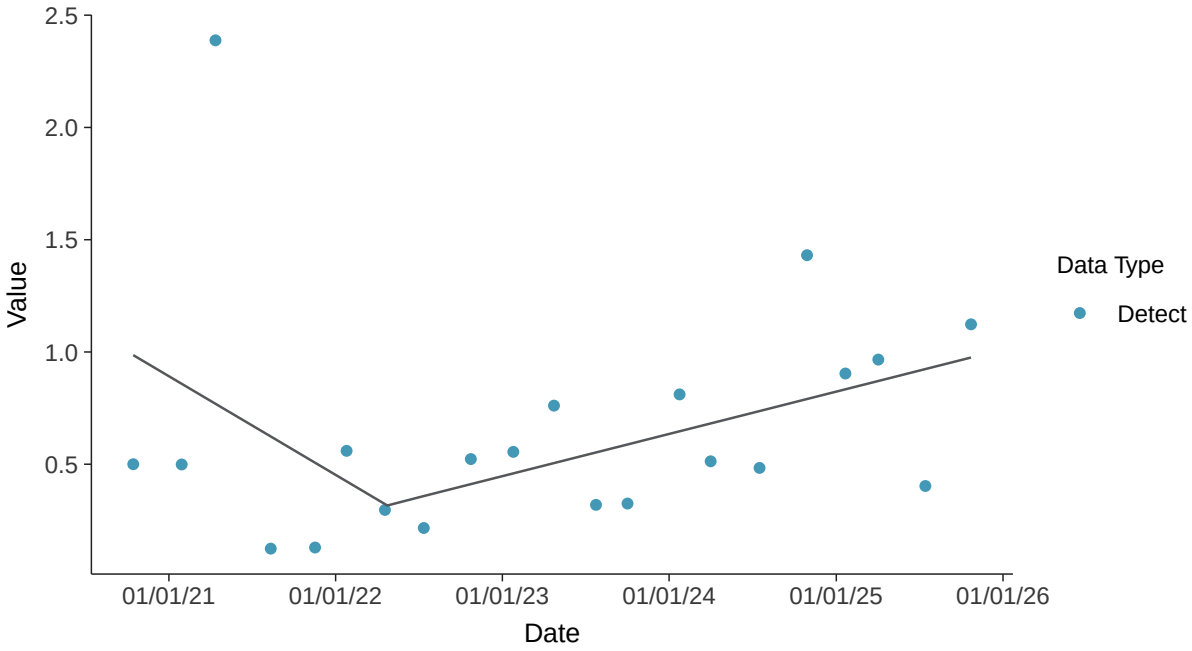
Trend Regression: Lognormal MLE

Total Radium, MW-11 (pCi/L)



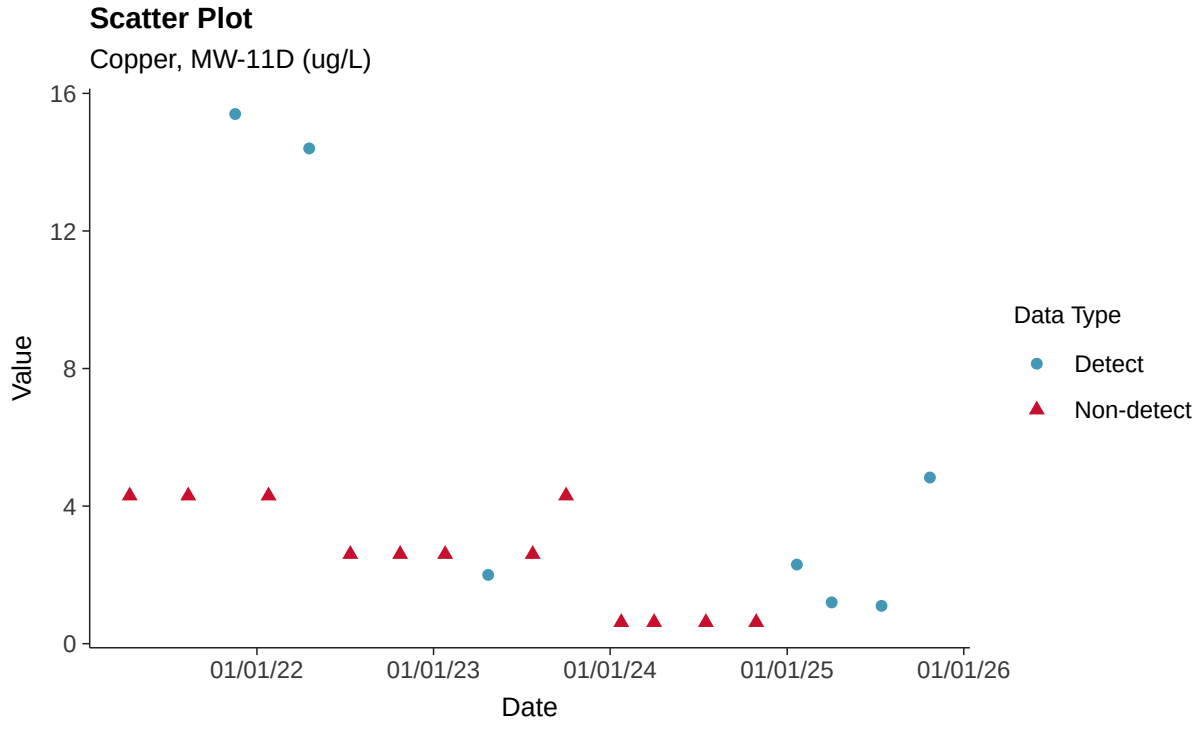
Trend Regression: Piecewise Linear-Linear

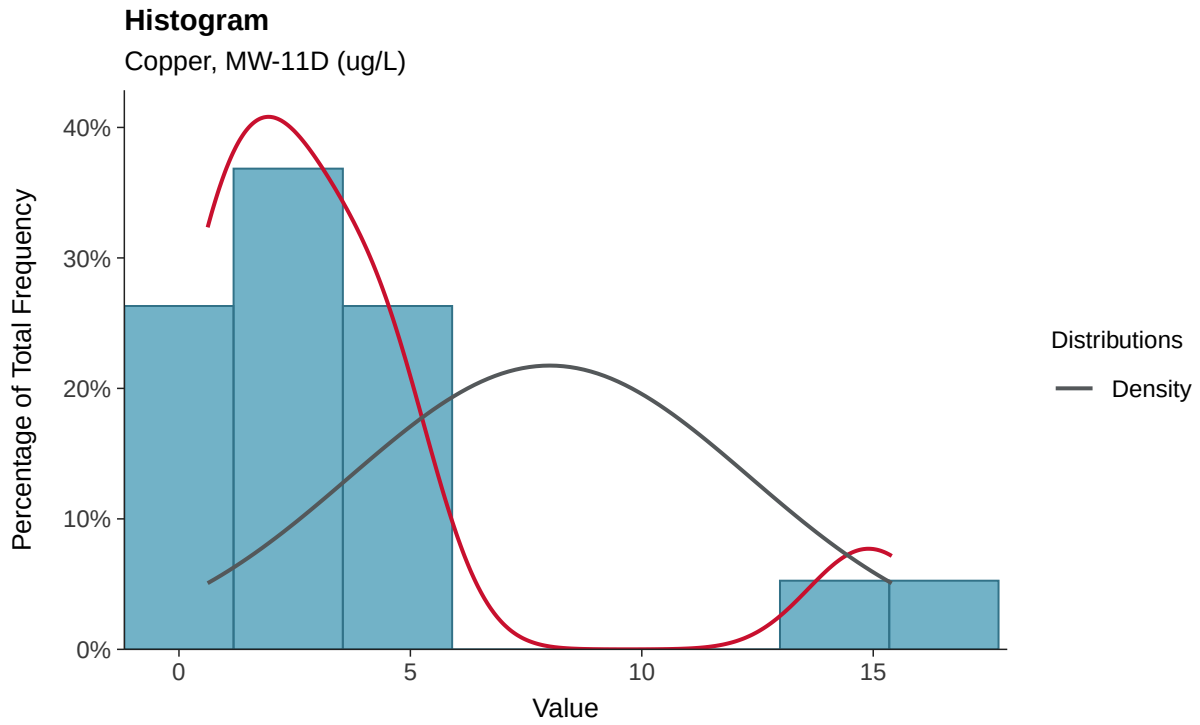
Total Radium, MW-11 (pCi/L)



App. I Metals: Copper, MW-11D

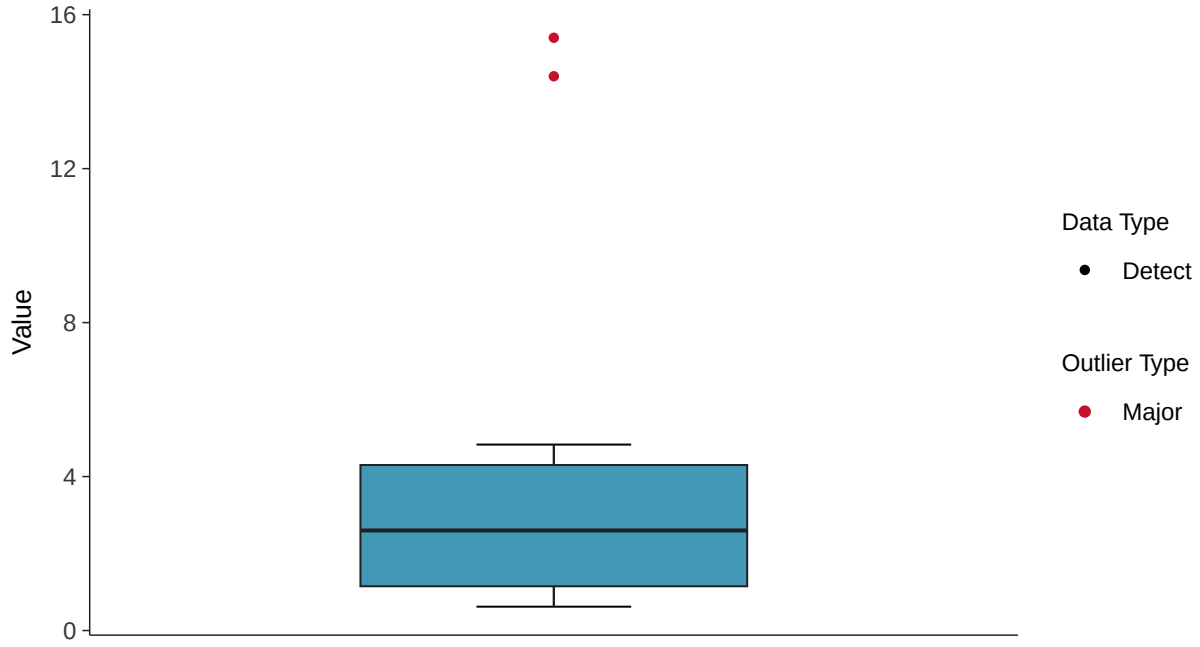
ID: 11_1_111





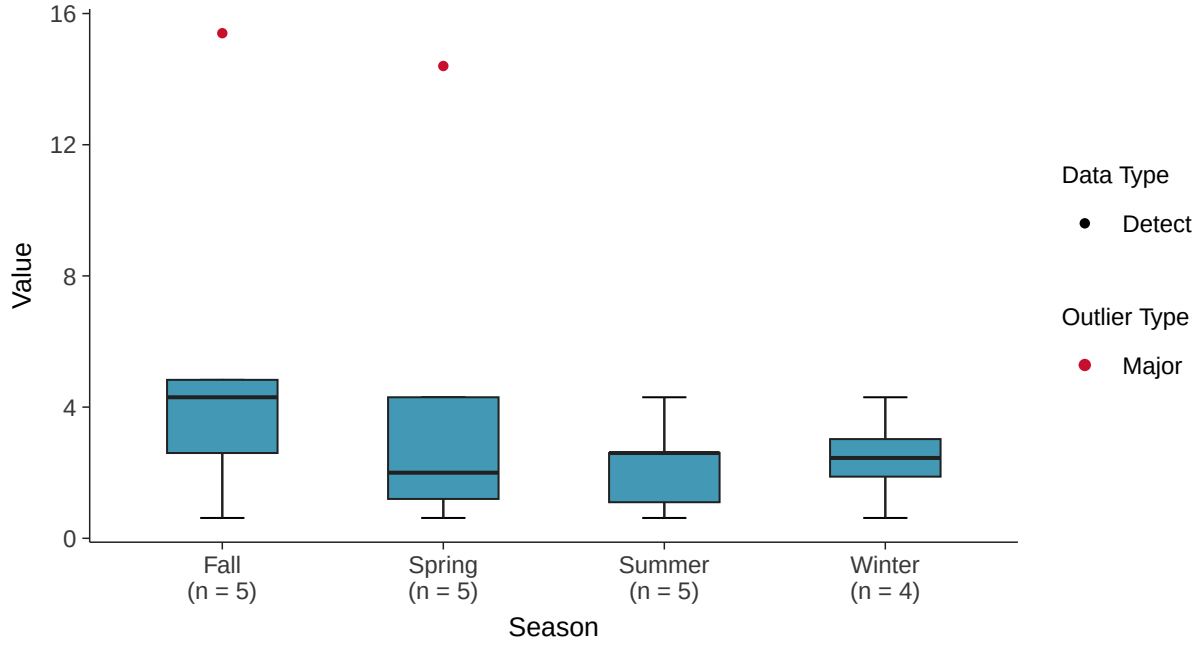
Boxplot

Copper, MW-11D (ug/L)



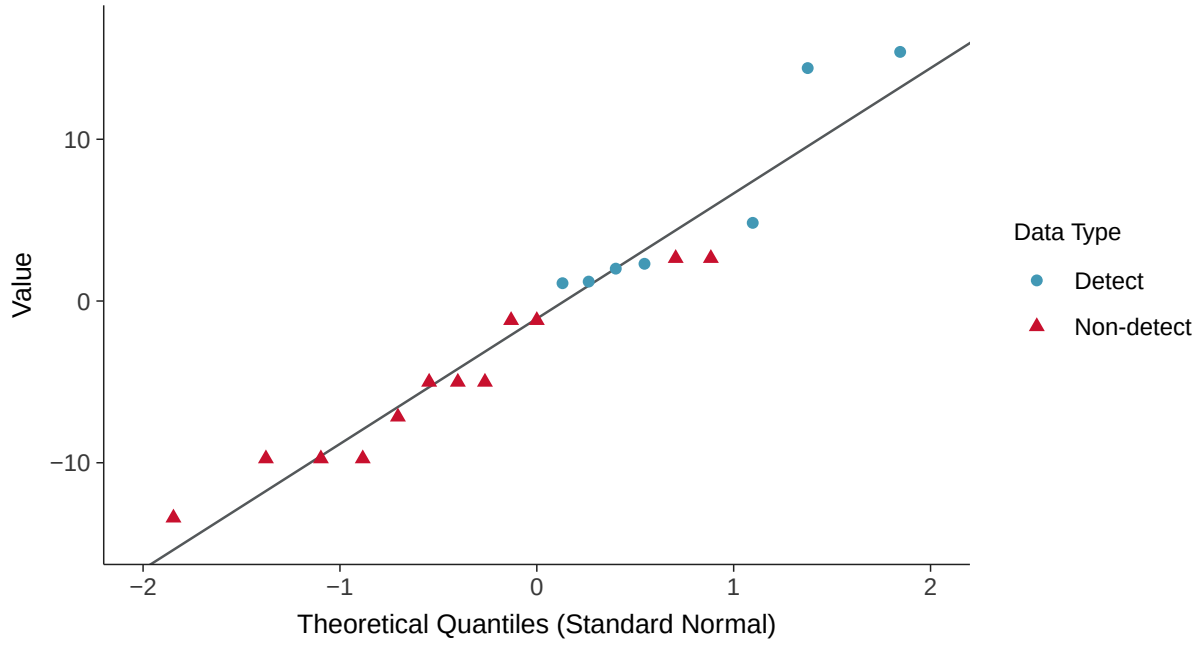
Boxplot by Season

Copper, MW-11D (ug/L)



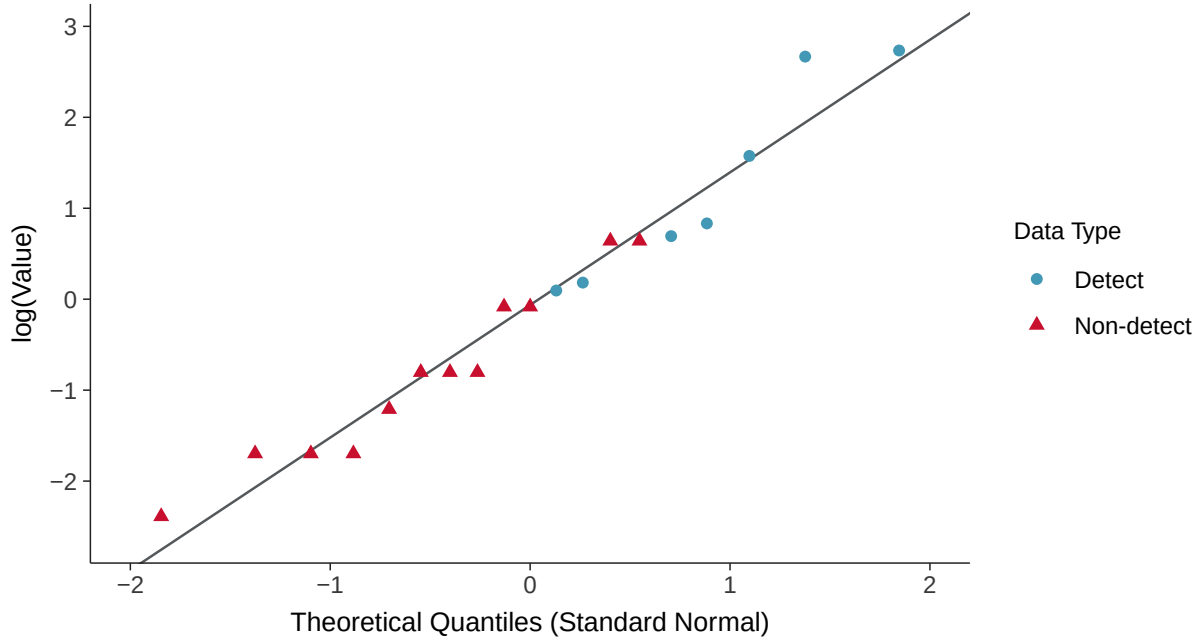
Normal Q-Q plot using ROS Imputed Estimates

Copper, MW-11D (ug/L)



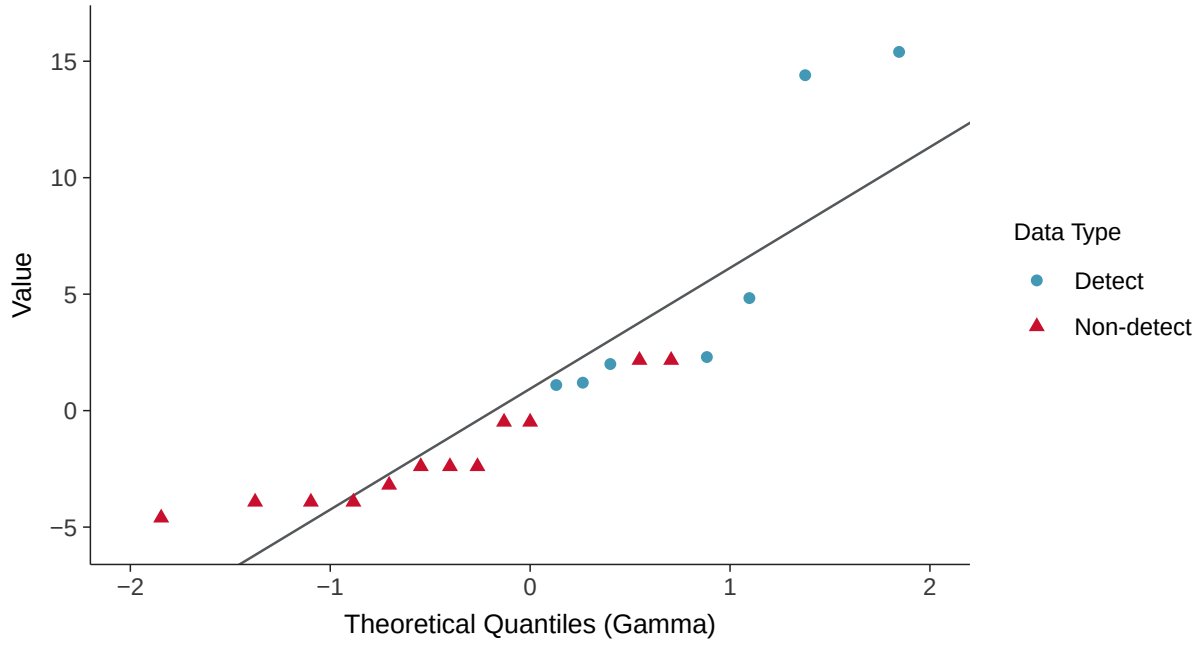
Lognormal Q-Q plot using ROS Imputed Estimates

Copper, MW-11D (ug/L)



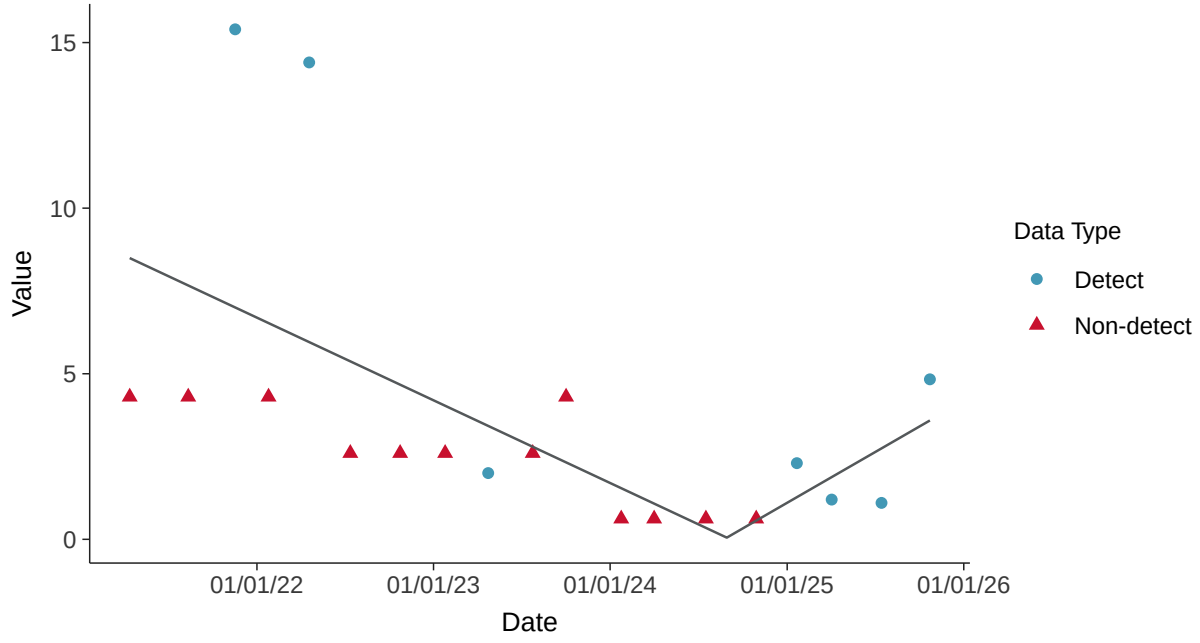
Gamma Q-Q plot using ROS Imputed Estimates

Copper, MW-11D (ug/L)



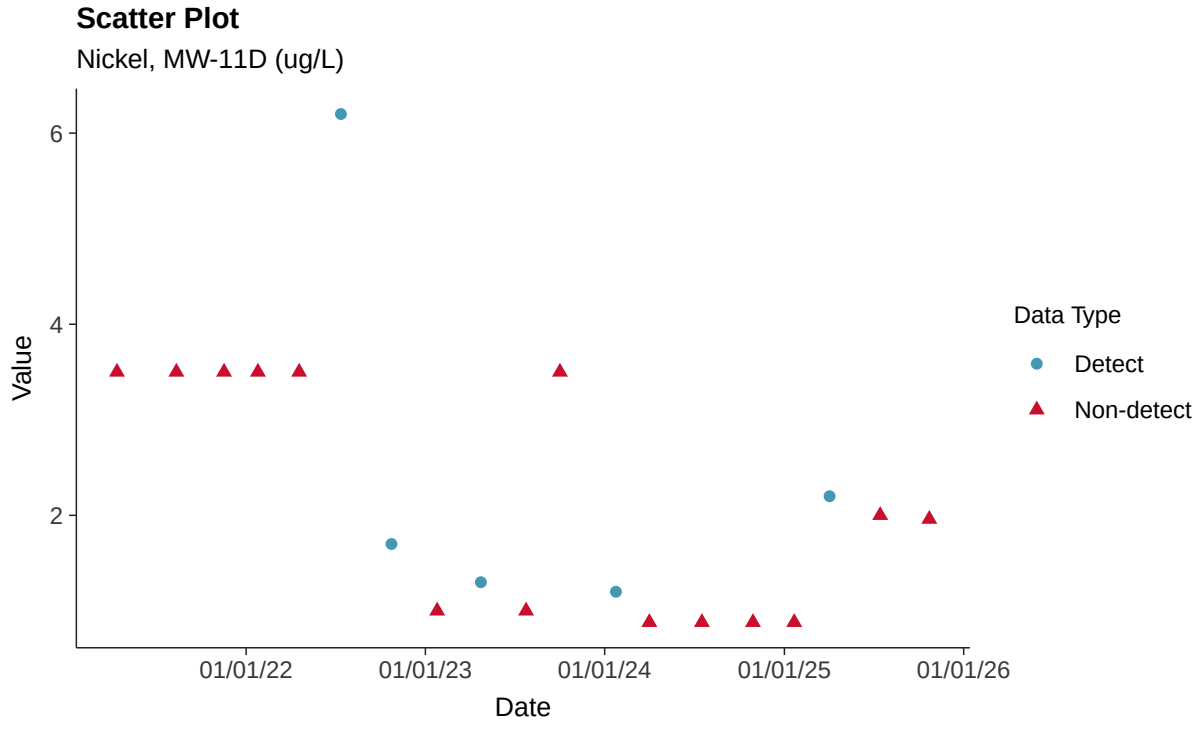
Trend Regression: Piecewise Linear-Linear

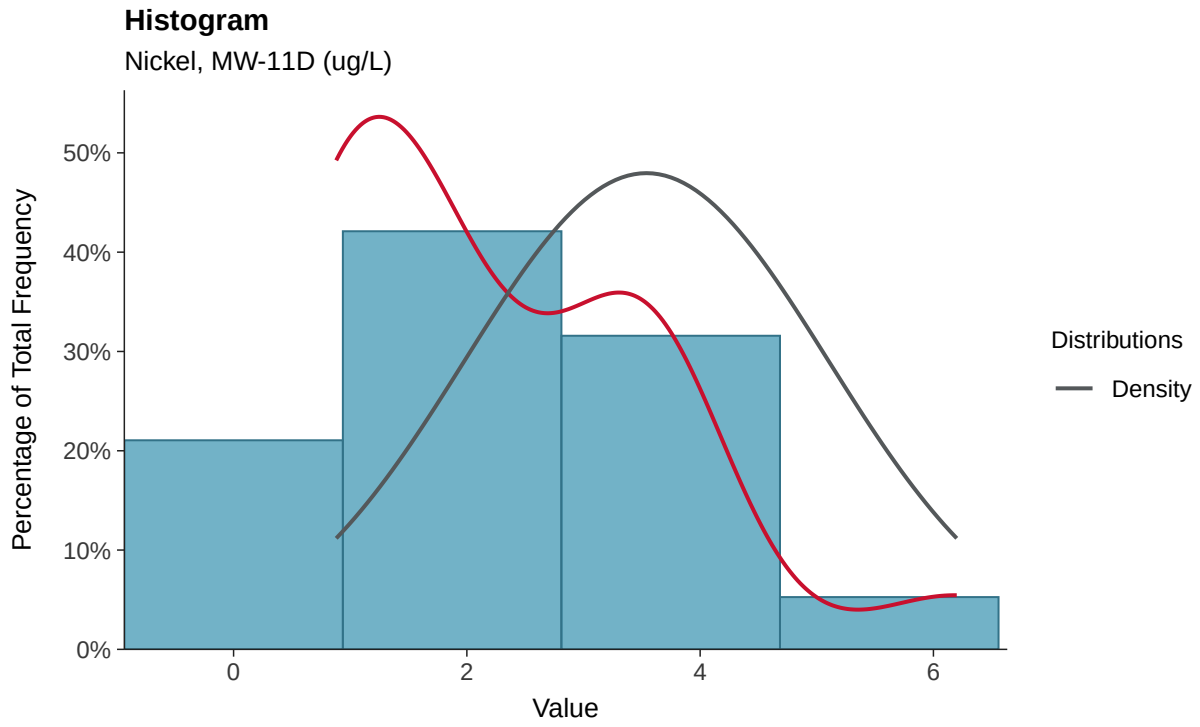
Copper, MW-11D (ug/L)



App. I Metals: Nickel, MW-11D

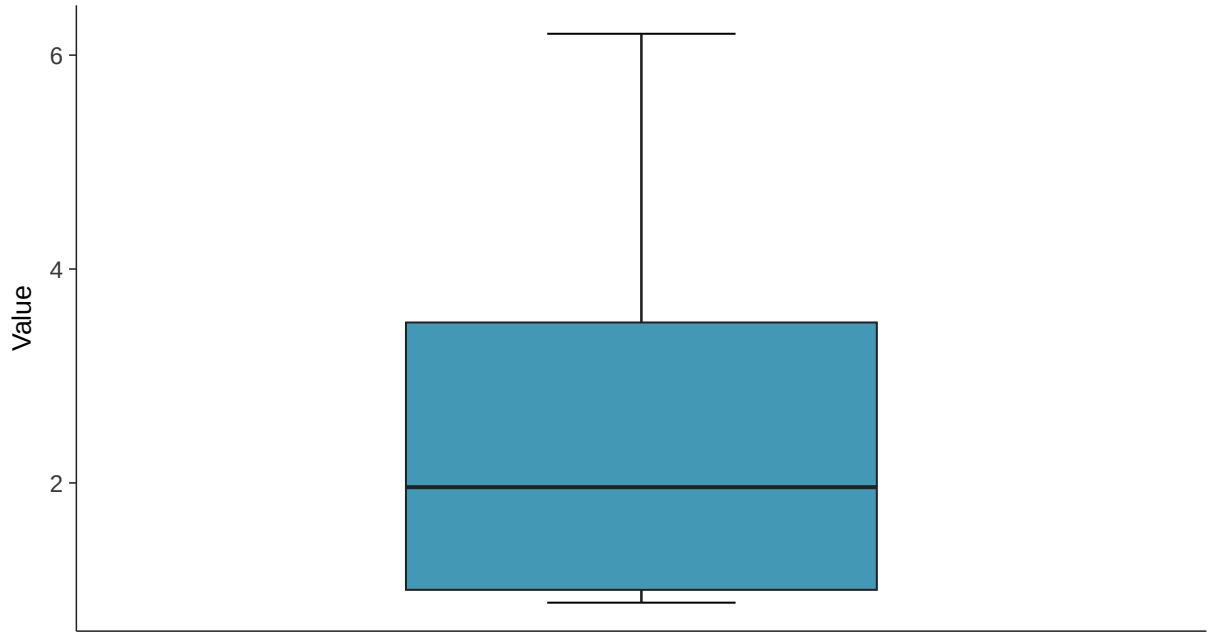
ID: 11_1_117





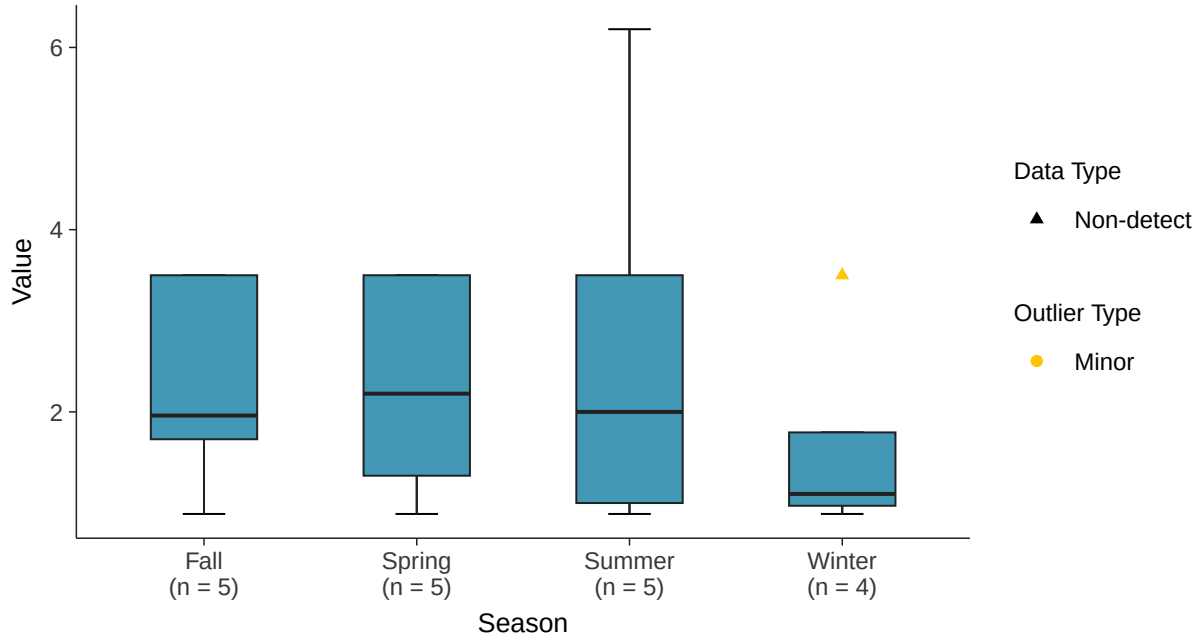
Boxplot

Nickel, MW-11D (ug/L)



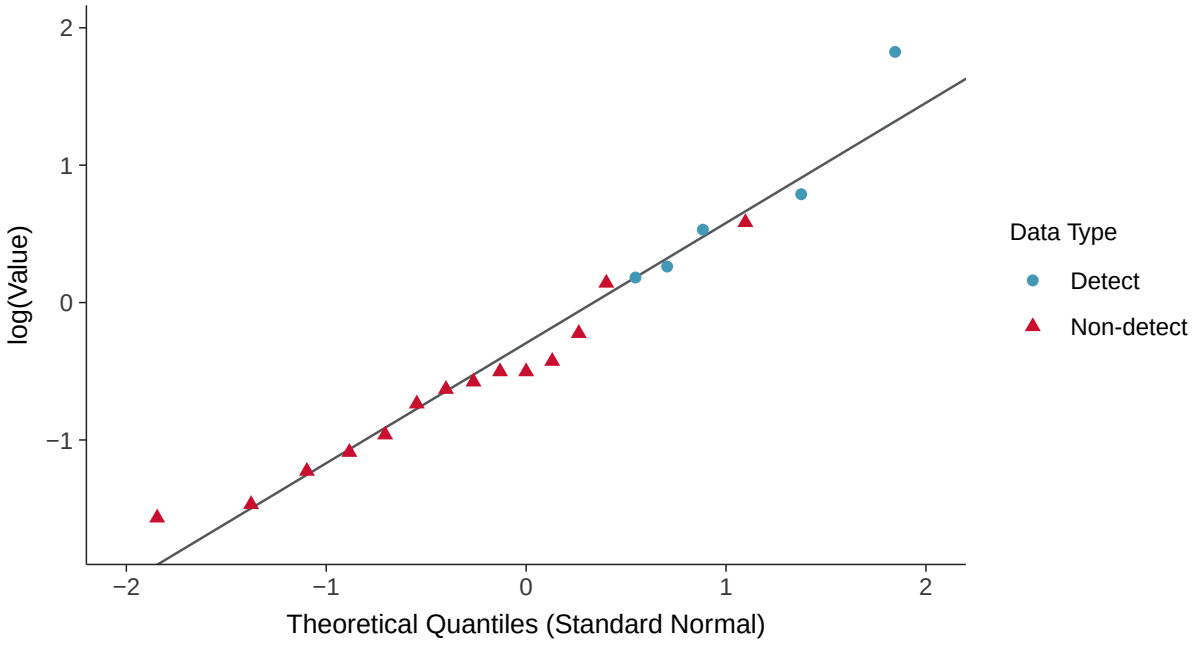
Boxplot by Season

Nickel, MW-11D (ug/L)



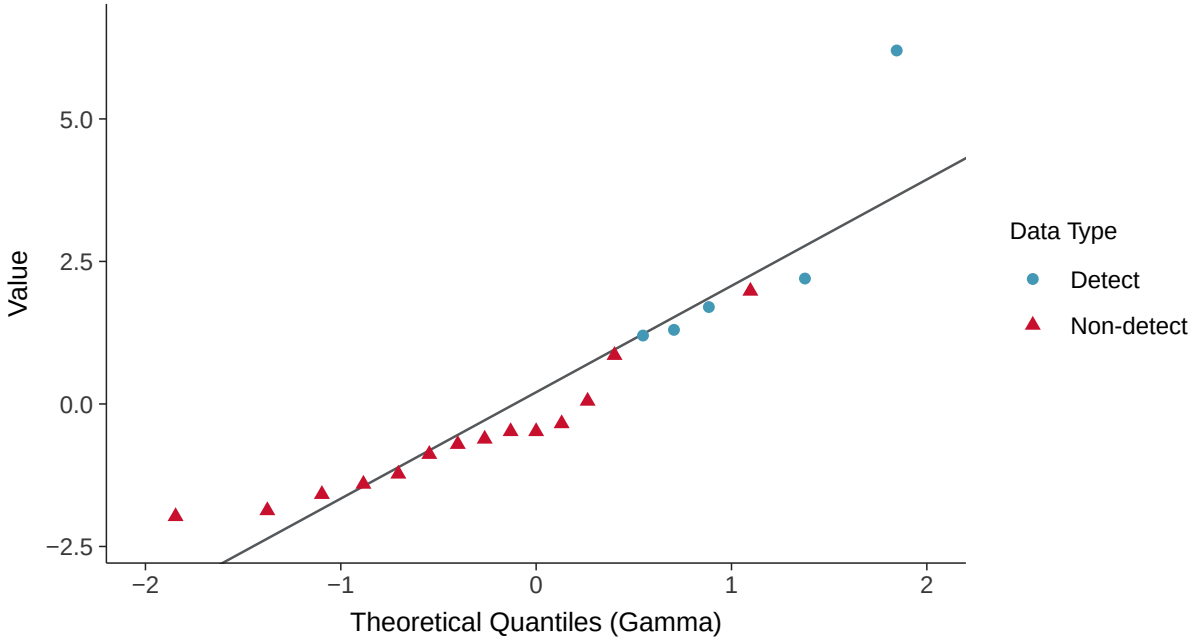
Lognormal Q-Q plot using ROS Imputed Estimates

Nickel, MW-11D (ug/L)



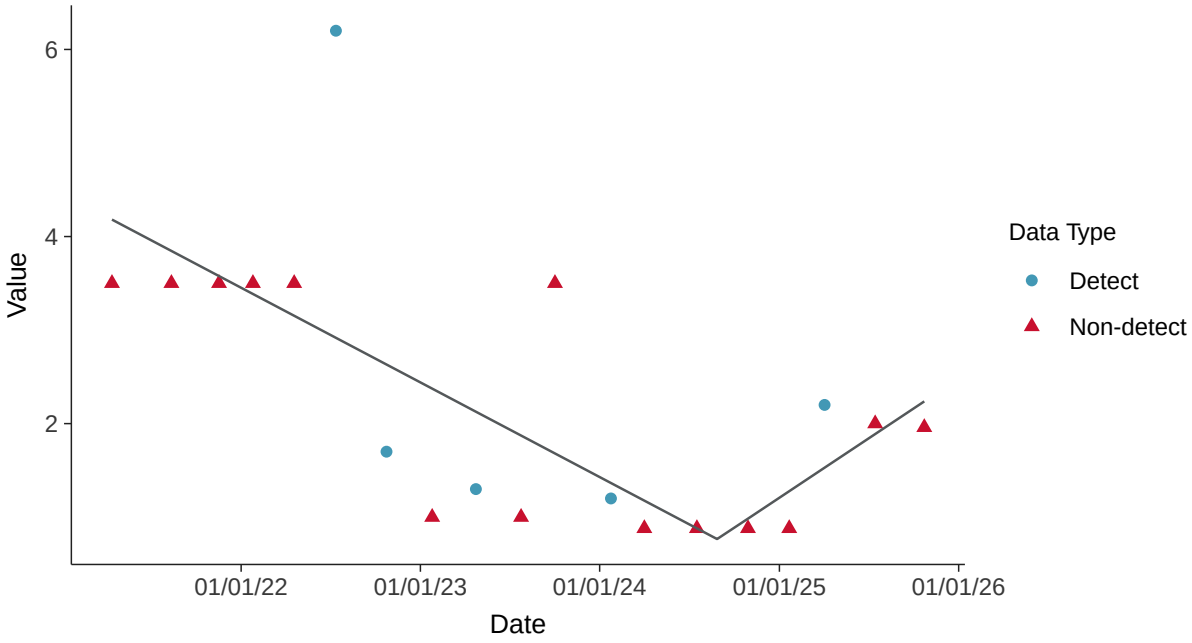
Gamma Q-Q plot using ROS Imputed Estimates

Nickel, MW-11D (ug/L)



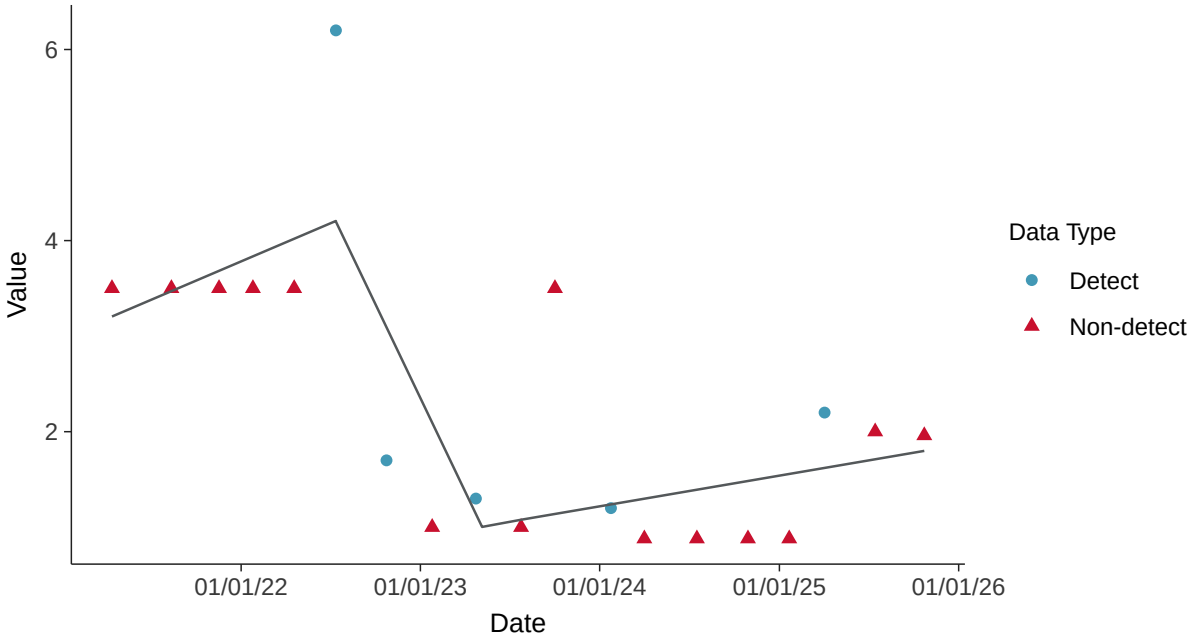
Trend Regression: Piecewise Linear-Linear

Nickel, MW-11D (ug/L)



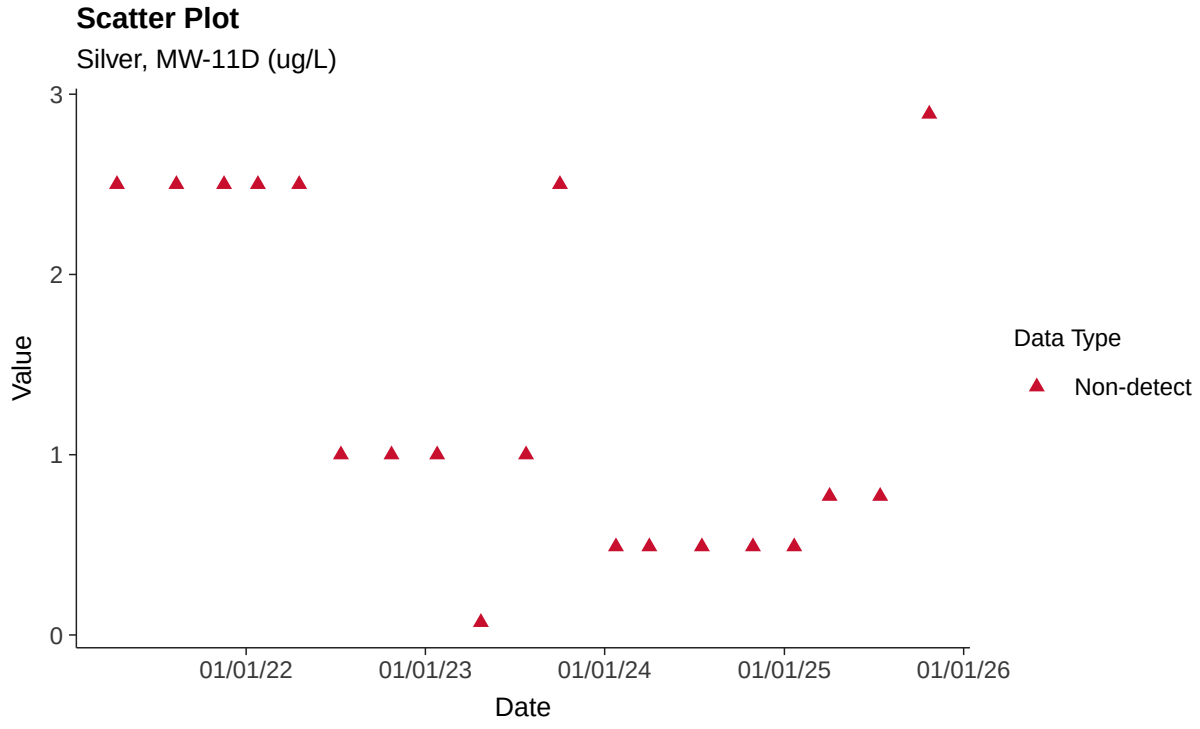
Trend Regression: Piecewise Linear-Linear-Linear

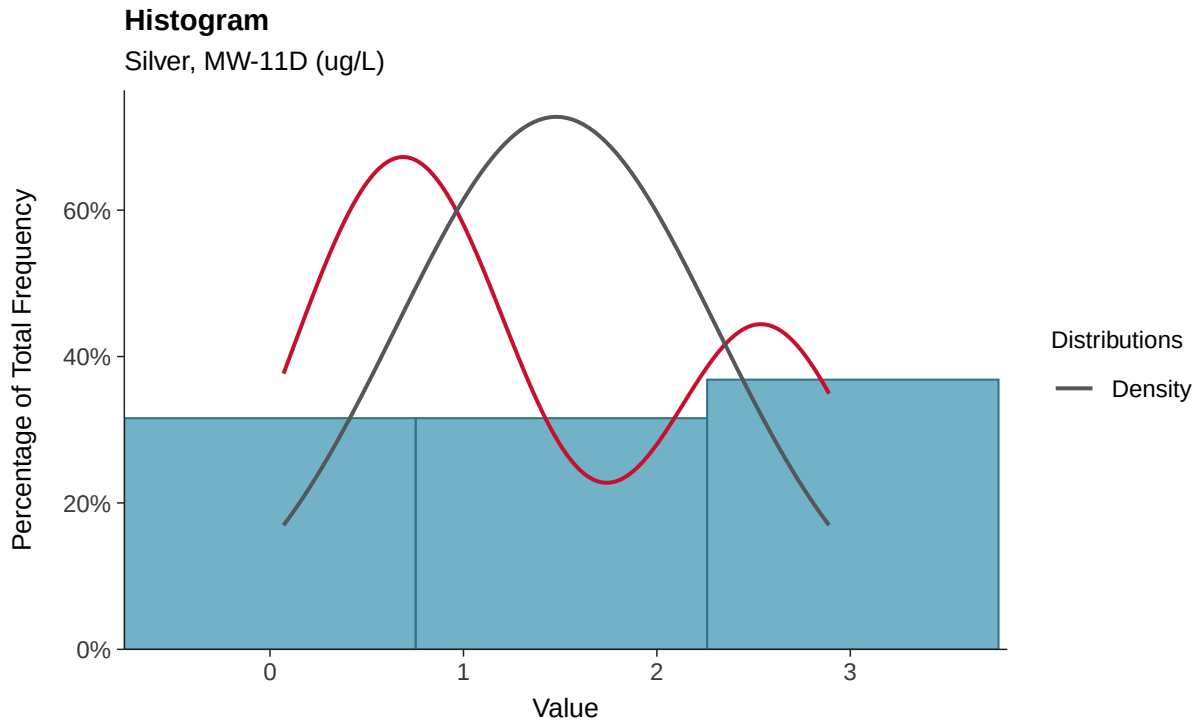
Nickel, MW-11D (ug/L)



App. I Metals: Silver, MW-11D

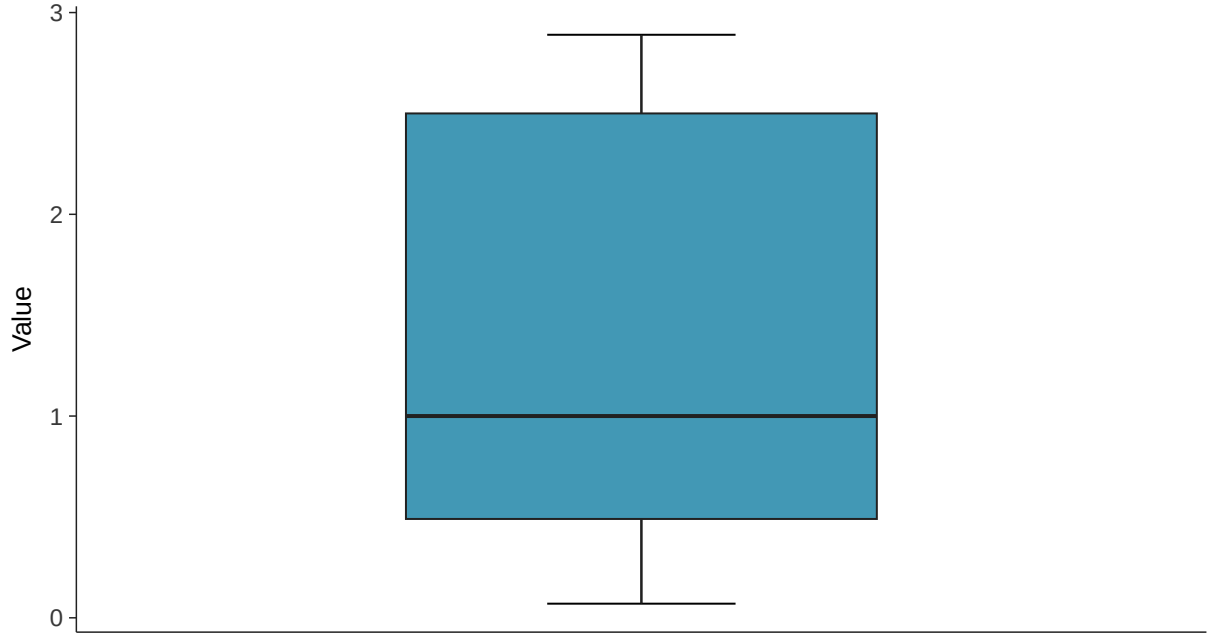
ID: 11_1_122





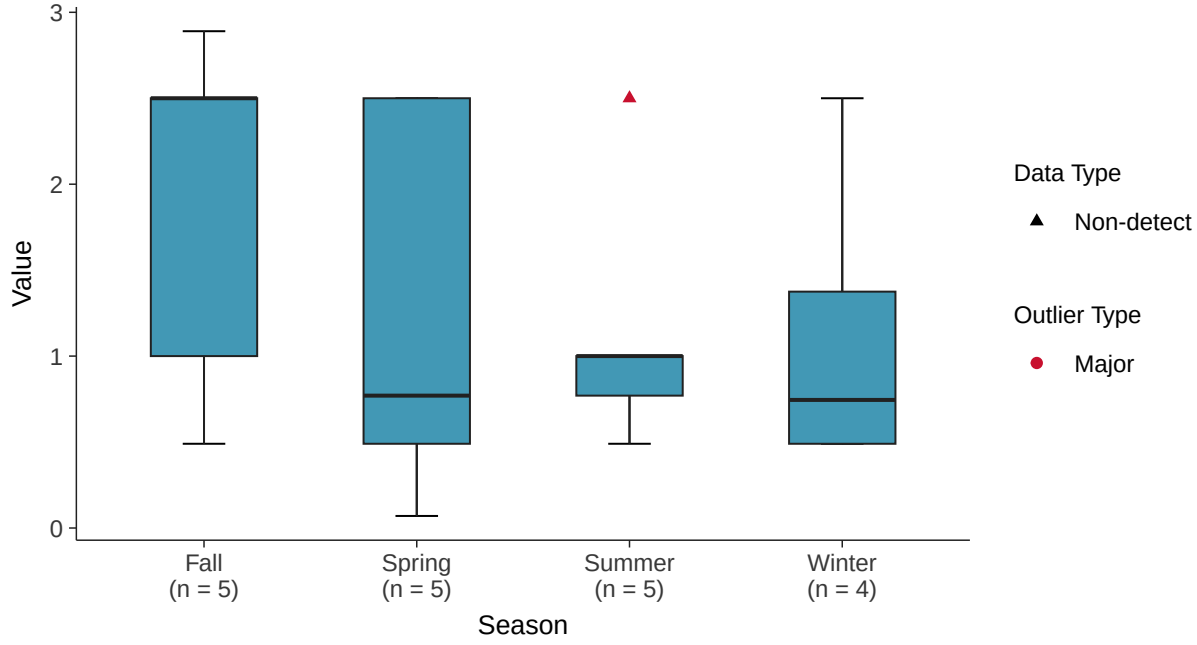
Boxplot

Silver, MW-11D (ug/L)



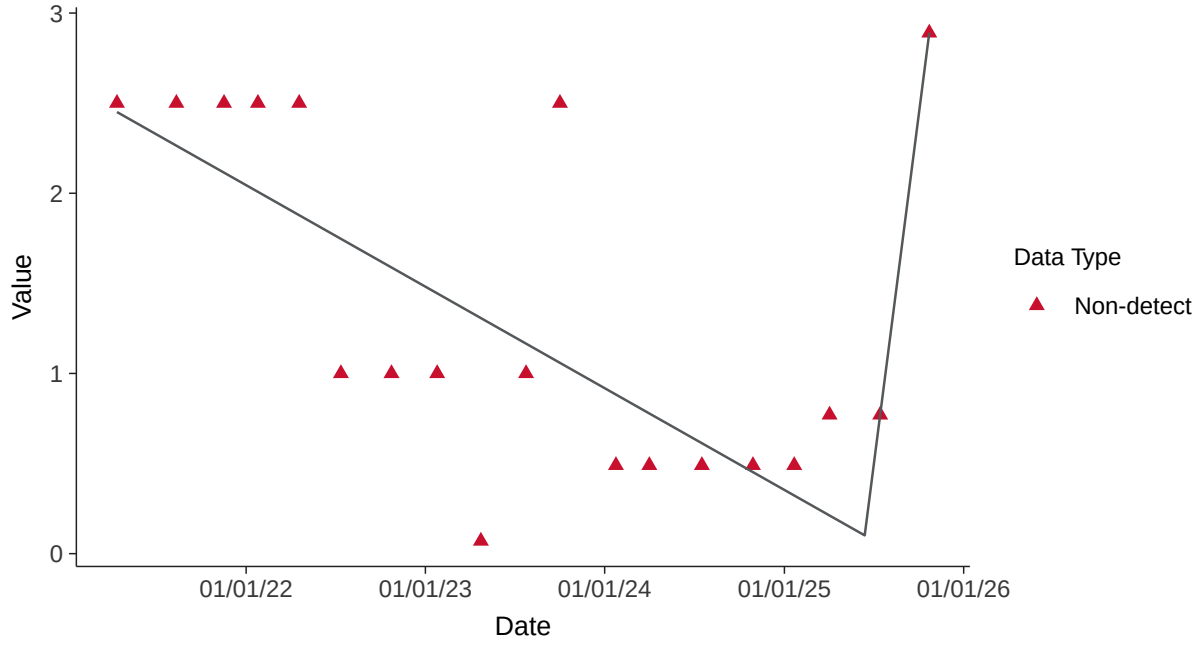
Boxplot by Season

Silver, MW-11D (ug/L)



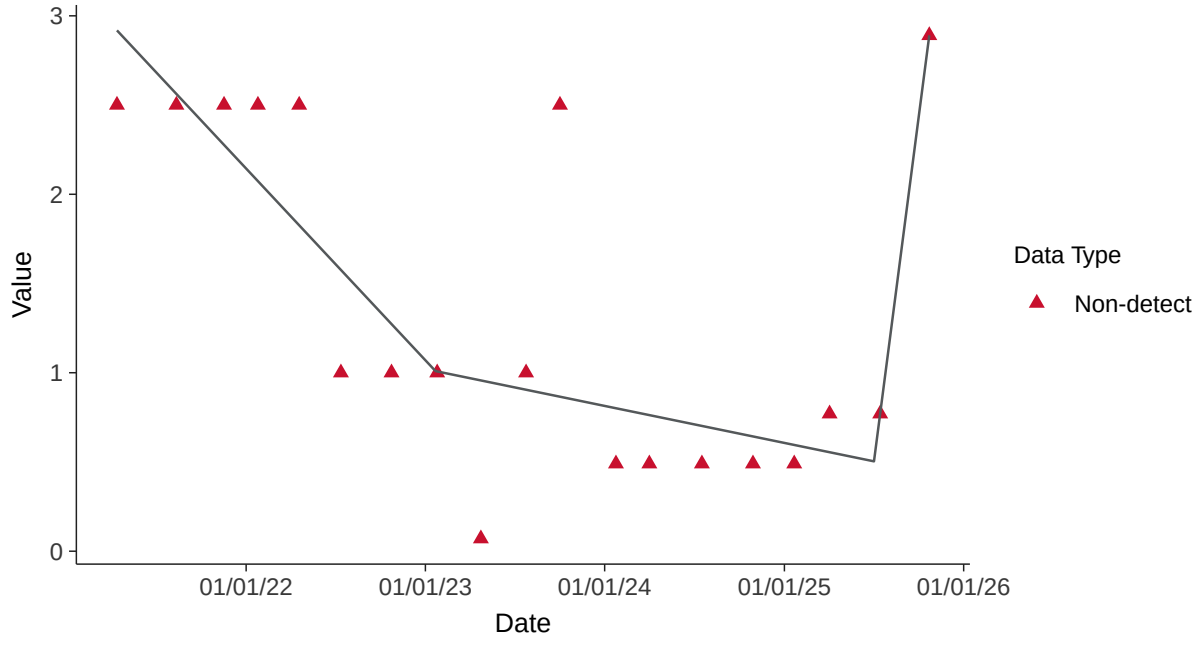
Trend Regression: Piecewise Linear-Linear

Silver, MW-11D (ug/L)



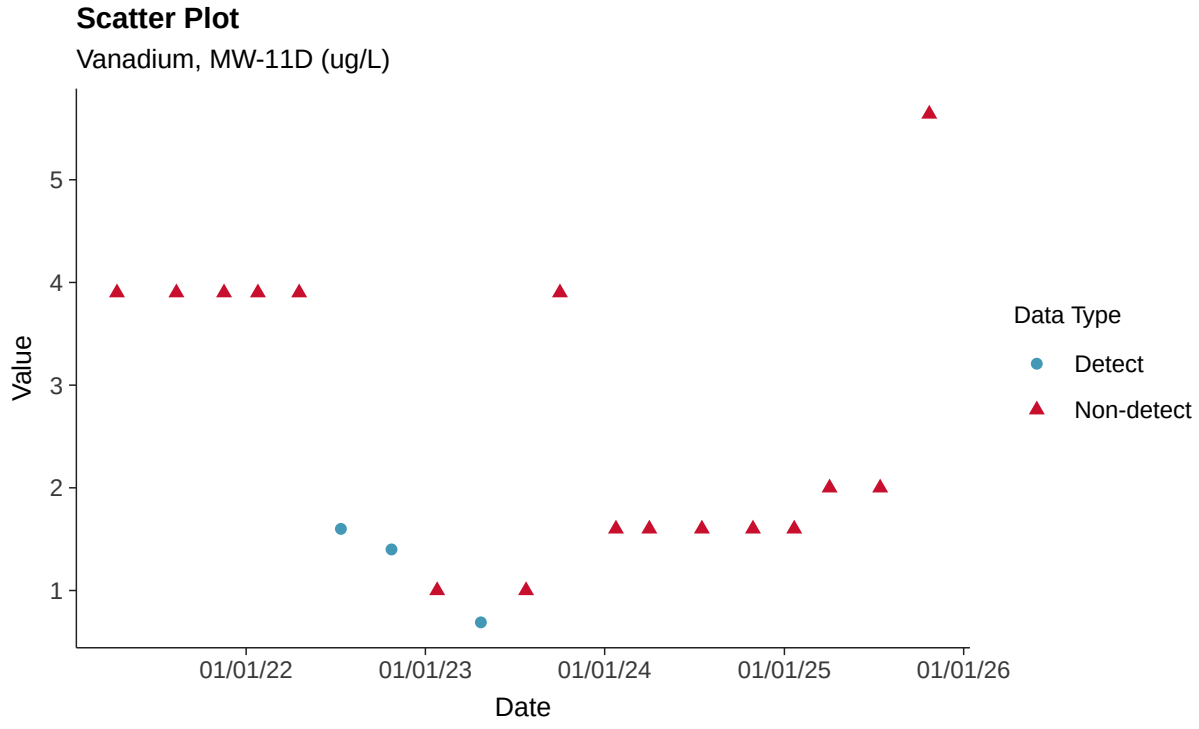
Trend Regression: Piecewise Linear-Linear-Linear

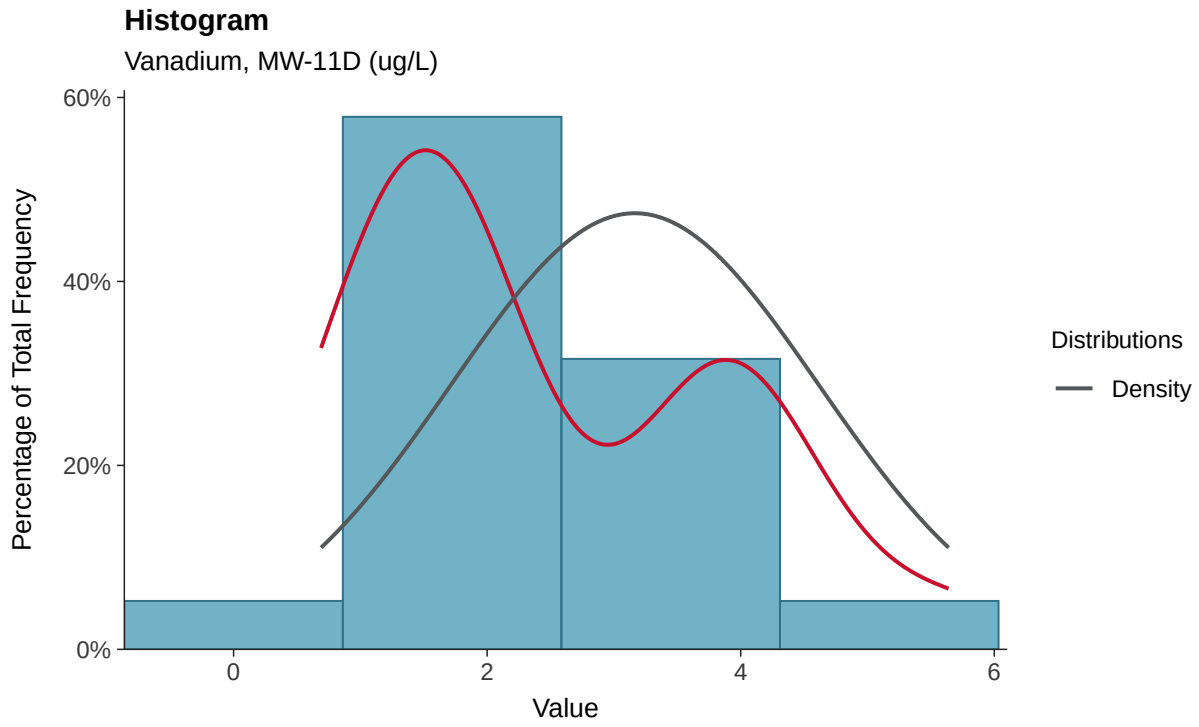
Silver, MW-11D (ug/L)



App. I Metals: Vanadium, MW-11D

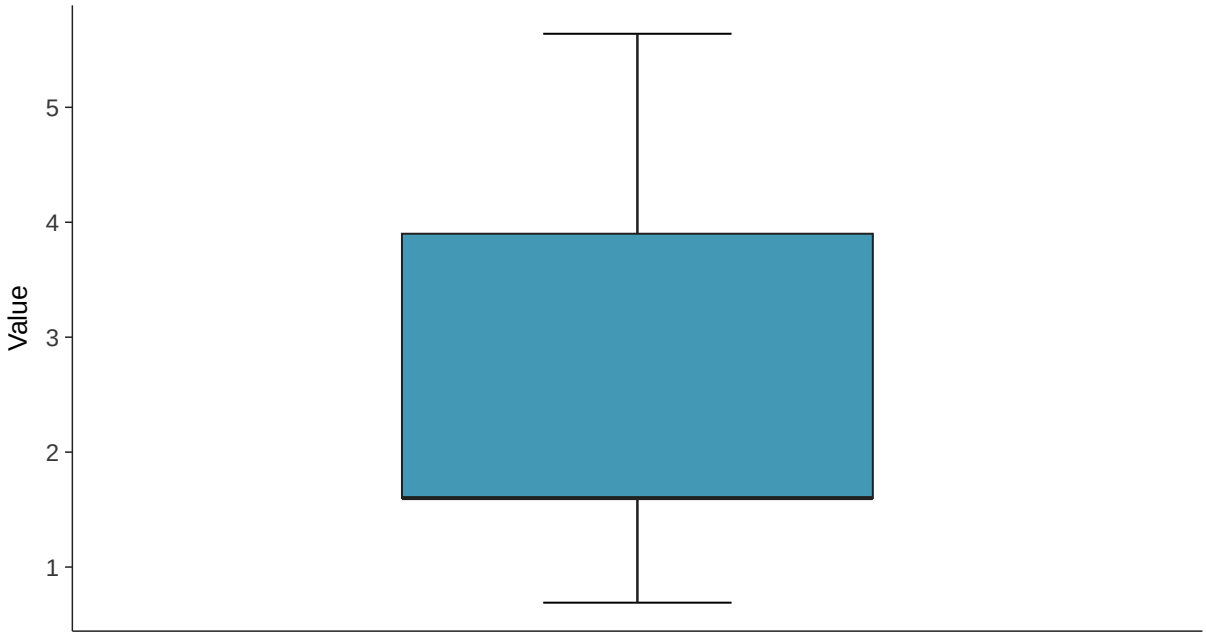
ID: 11_1_127





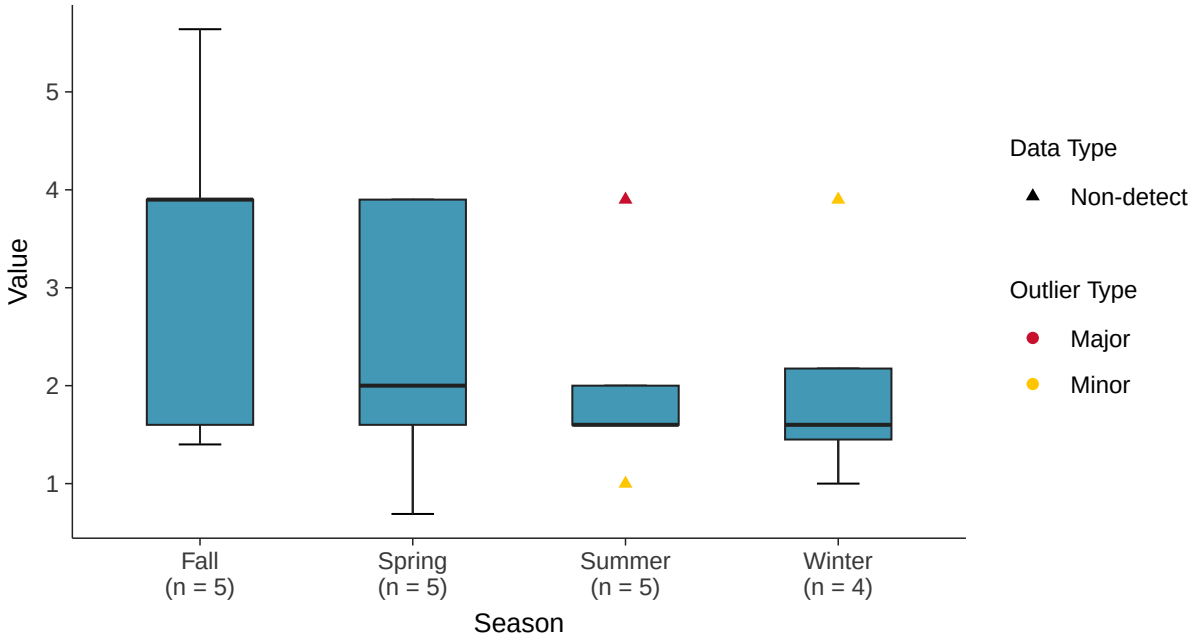
Boxplot

Vanadium, MW-11D (ug/L)



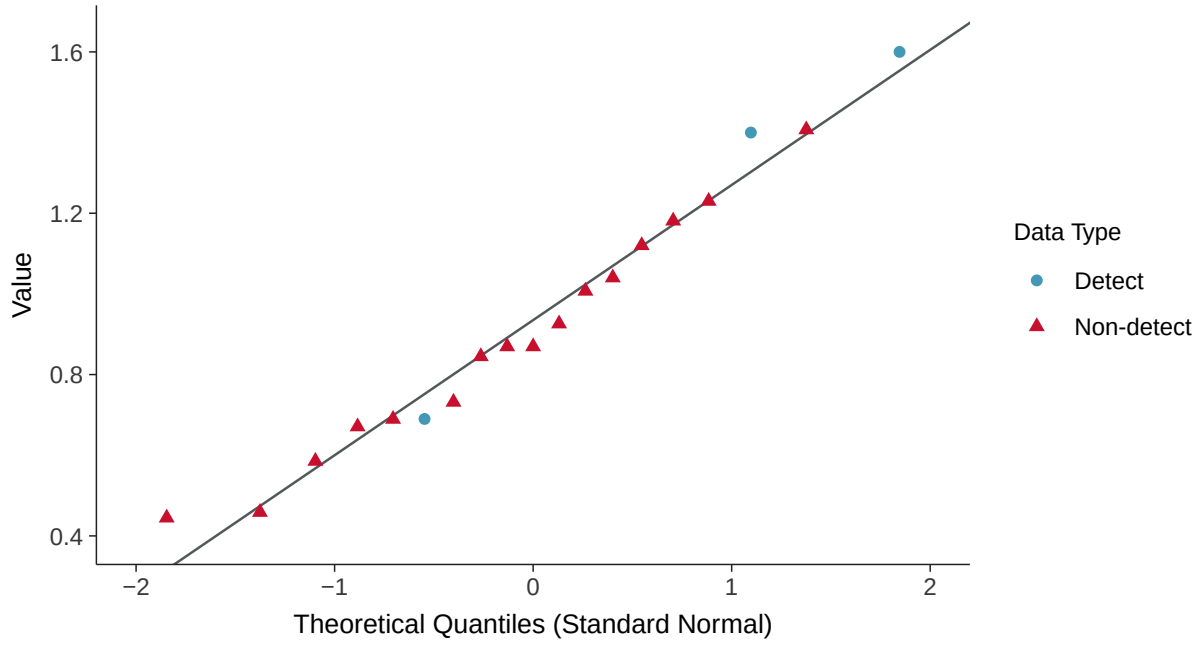
Boxplot by Season

Vanadium, MW-11D (ug/L)



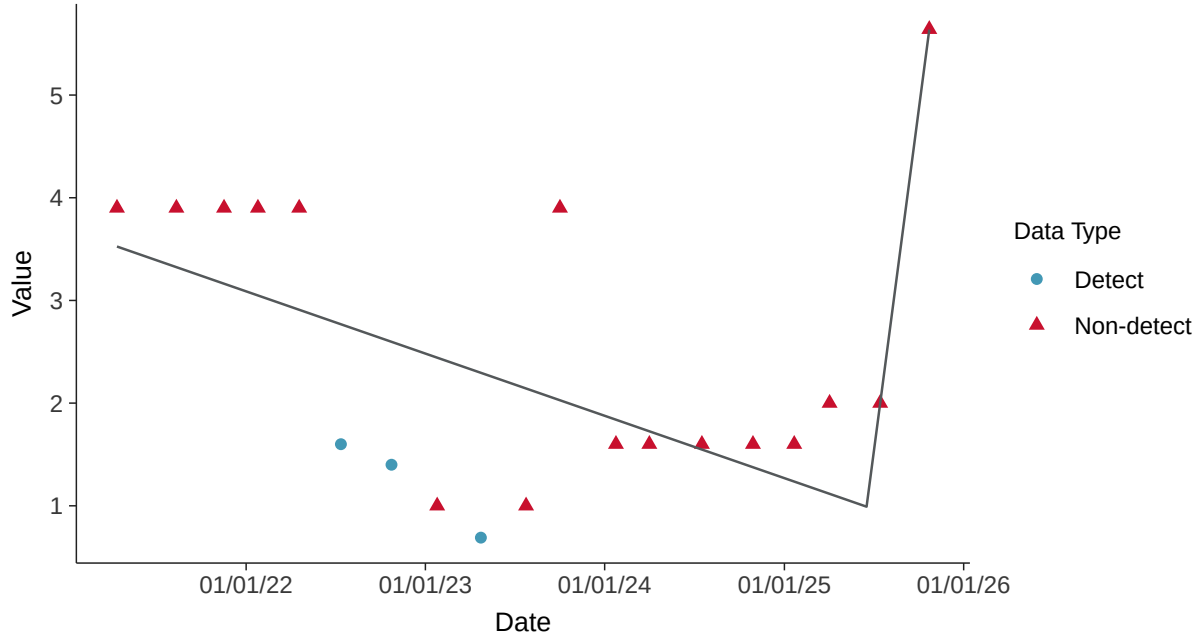
Normal Q-Q plot using ROS Imputed Estimates

Vanadium, MW-11D (ug/L)



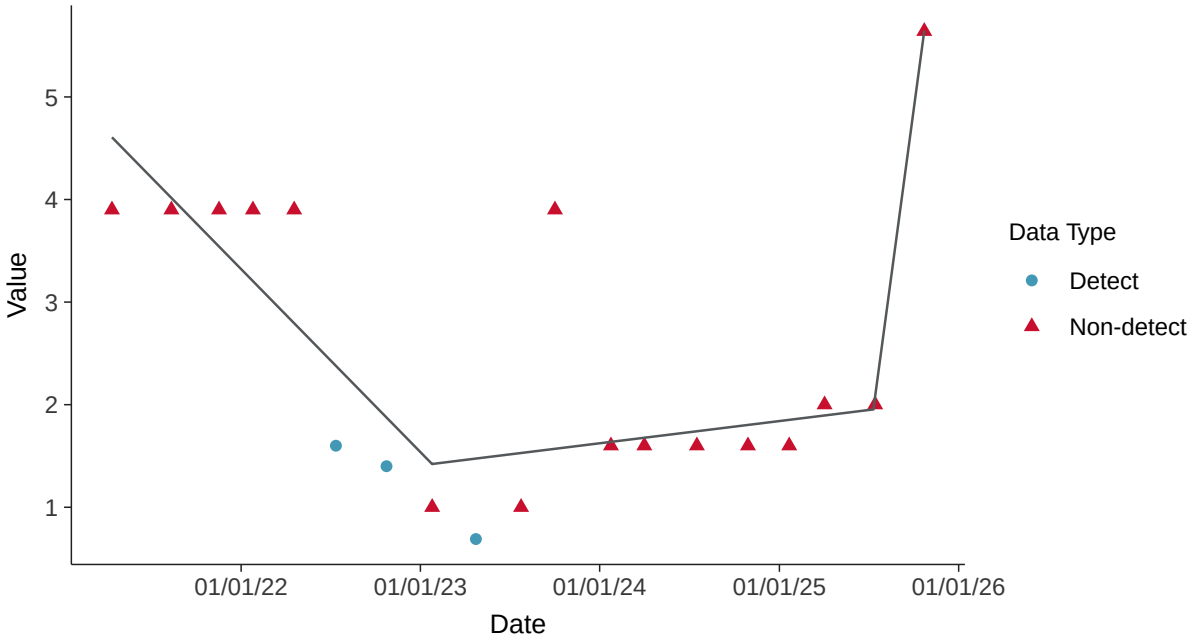
Trend Regression: Piecewise Linear-Linear

Vanadium, MW-11D (ug/L)



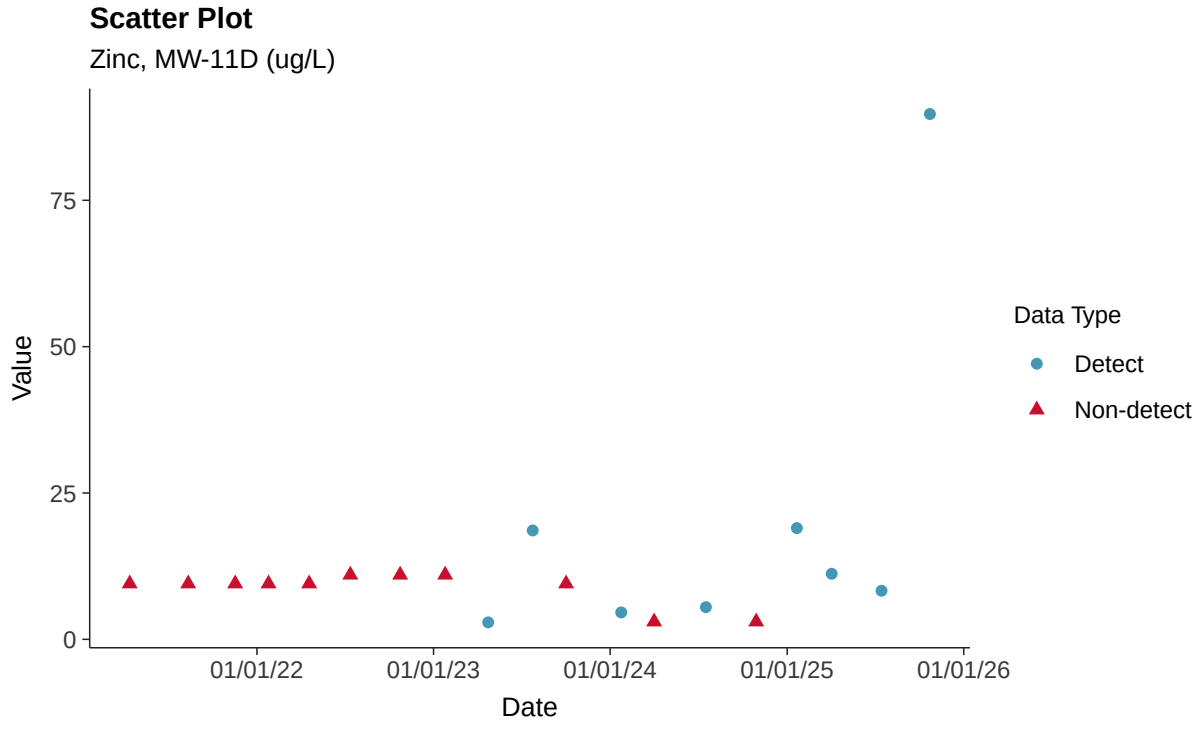
Trend Regression: Piecewise Linear-Linear-Linear

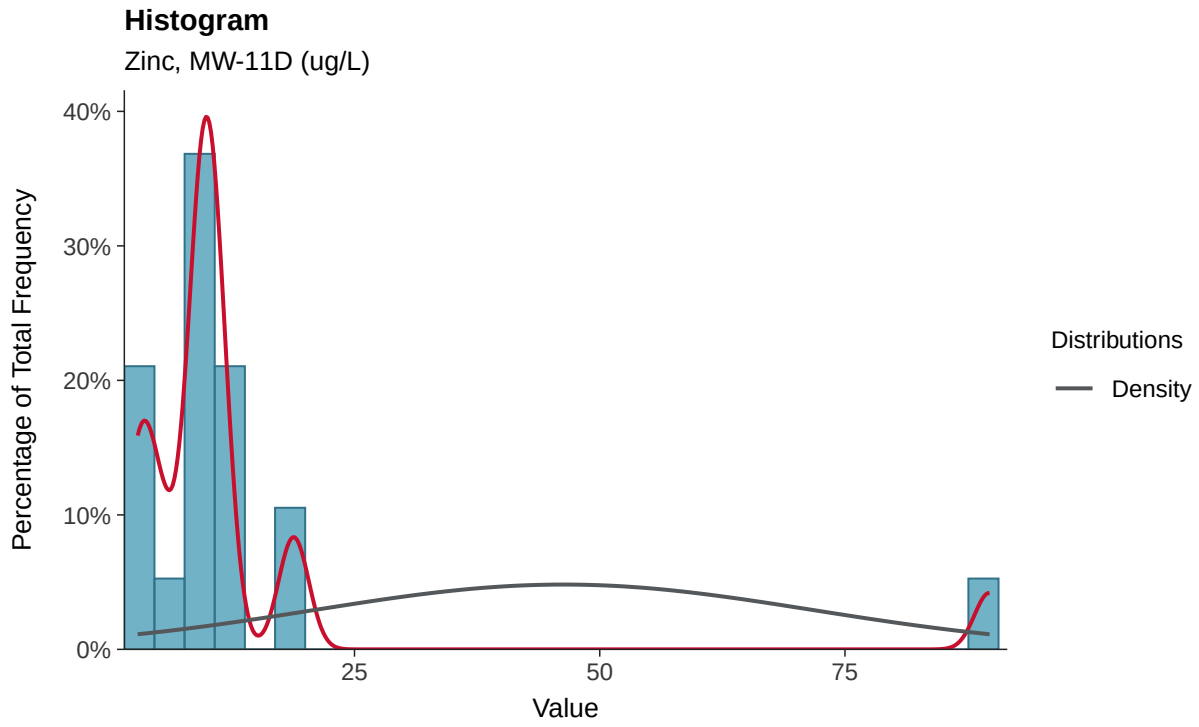
Vanadium, MW-11D (ug/L)



App. I Metals: Zinc, MW-11D

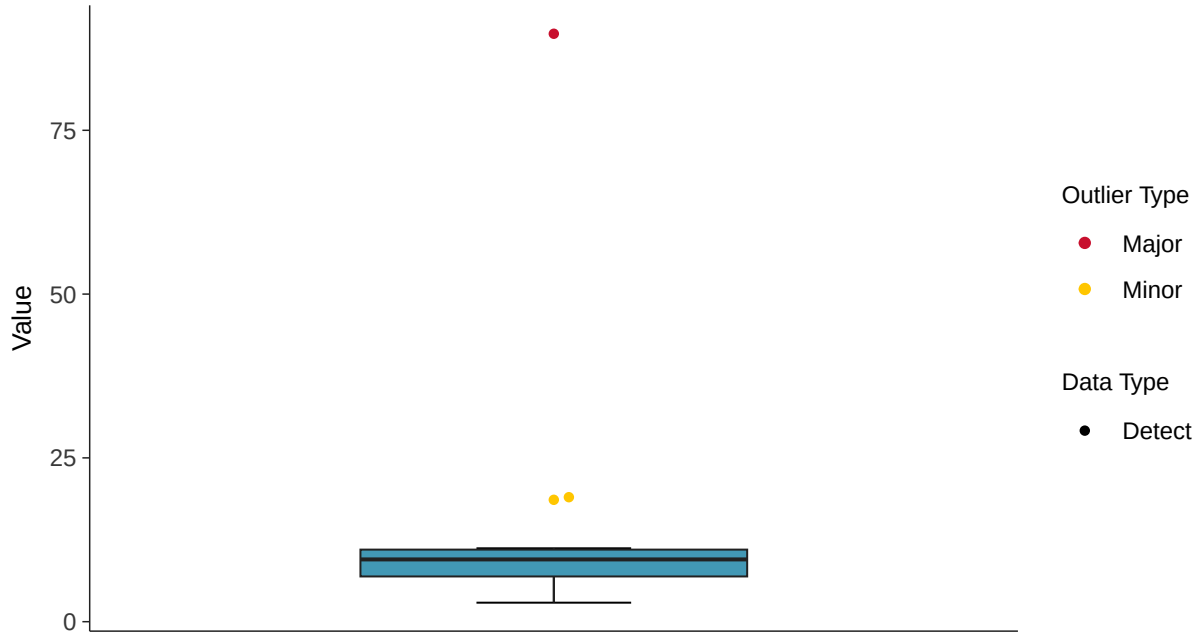
ID: 11_1_128





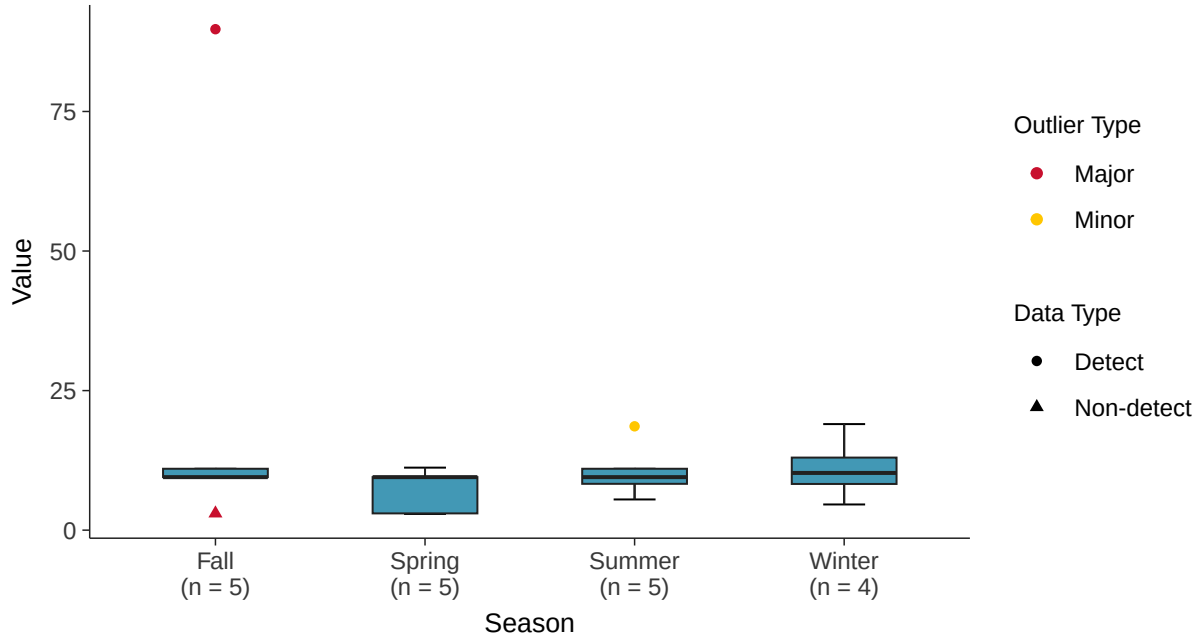
Boxplot

Zinc, MW-11D (ug/L)



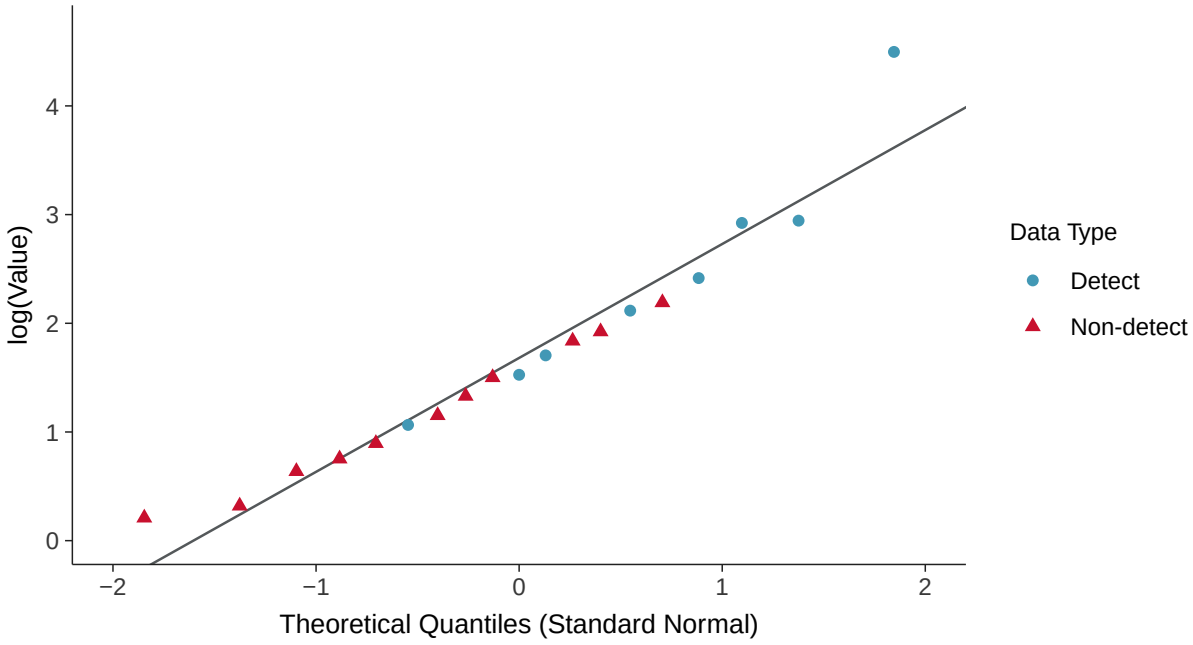
Boxplot by Season

Zinc, MW-11D (ug/L)



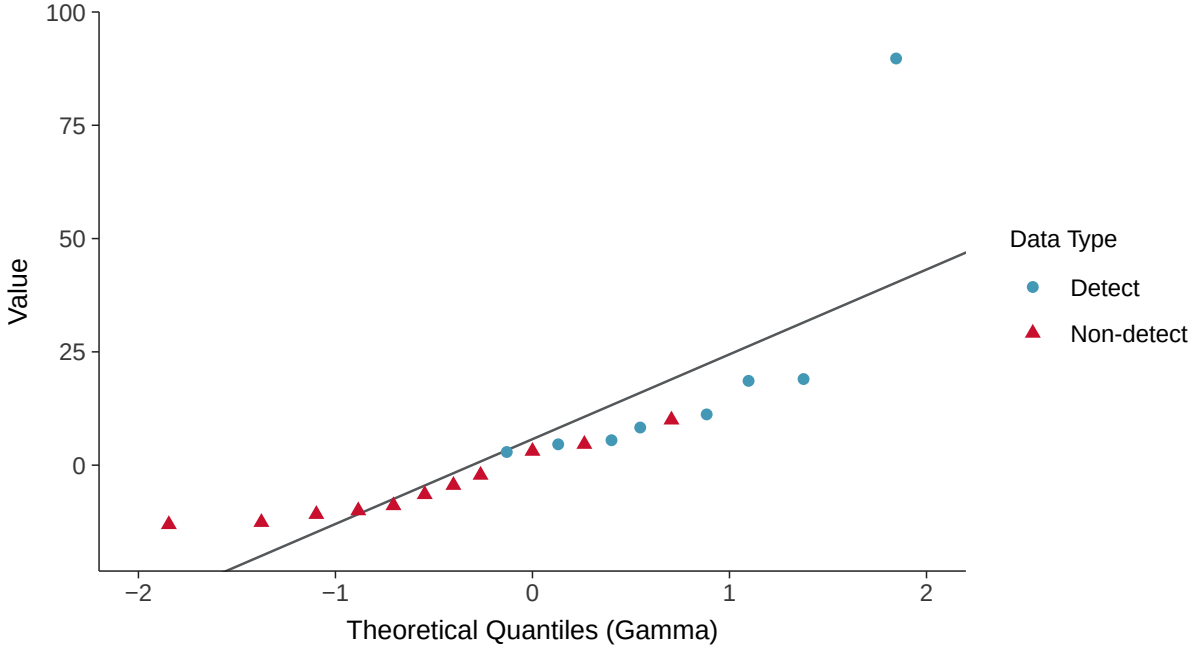
Lognormal Q-Q plot using ROS Imputed Estimates

Zinc, MW-11D (ug/L)



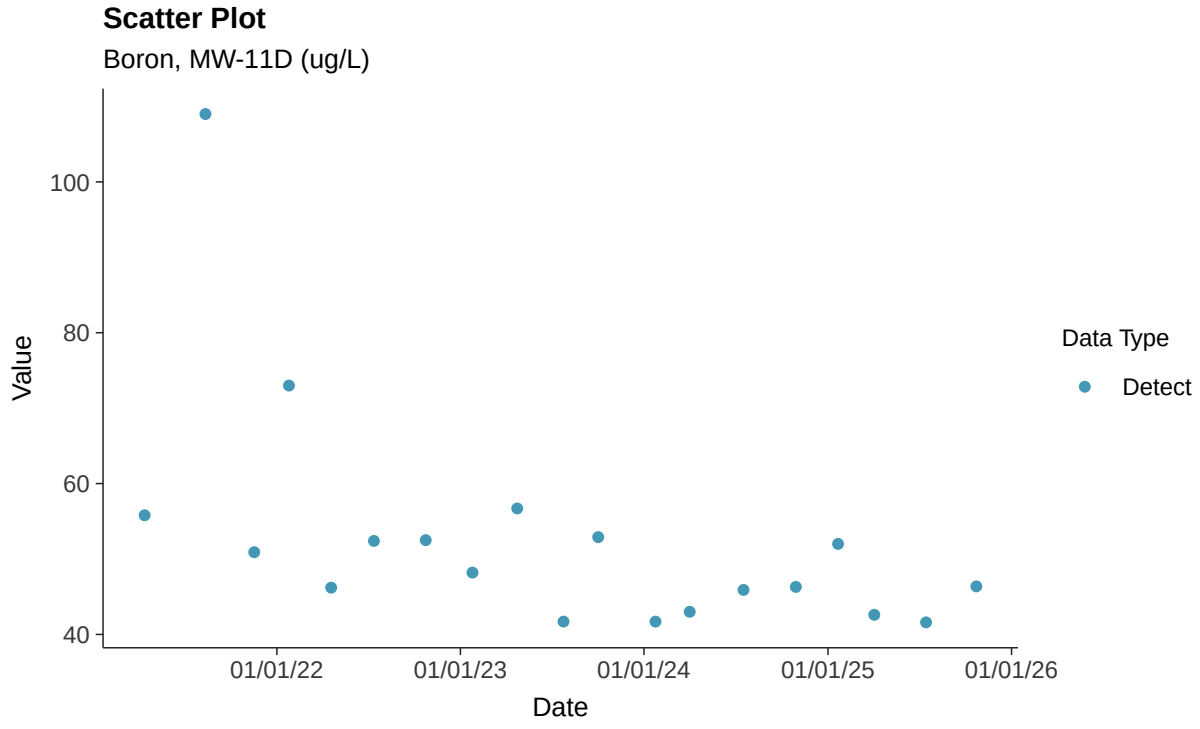
Gamma Q-Q plot using ROS Imputed Estimates

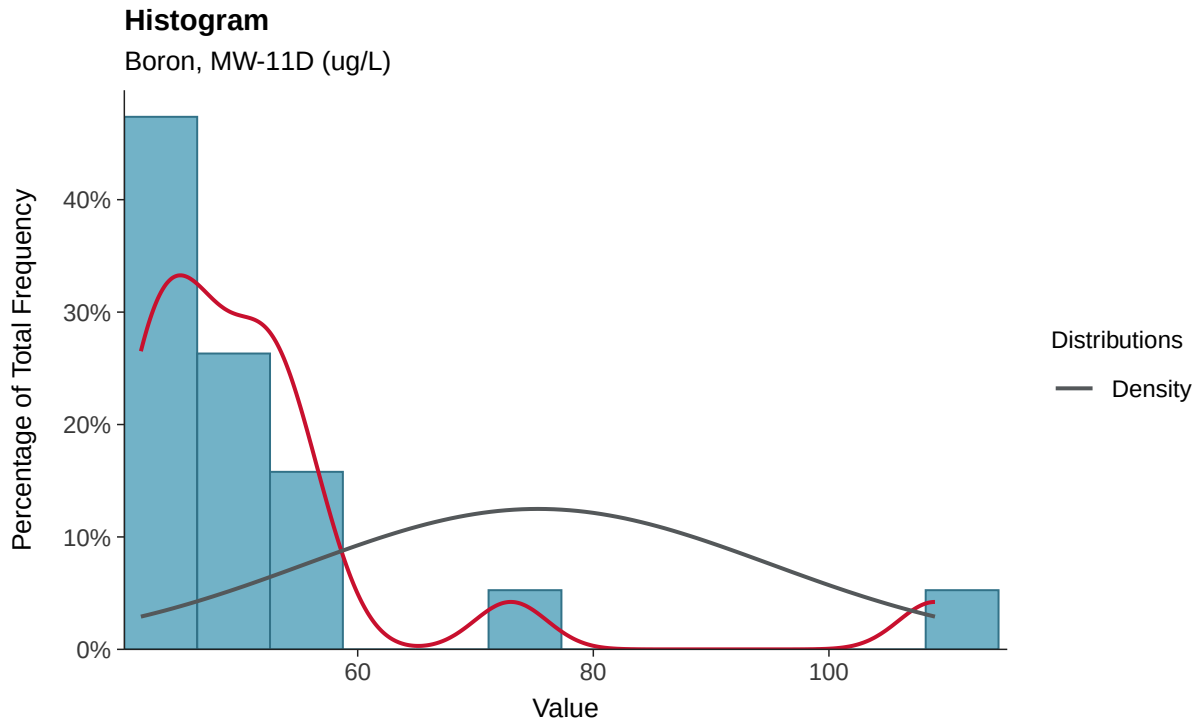
Zinc, MW-11D (ug/L)



App. III: Boron, MW-11D

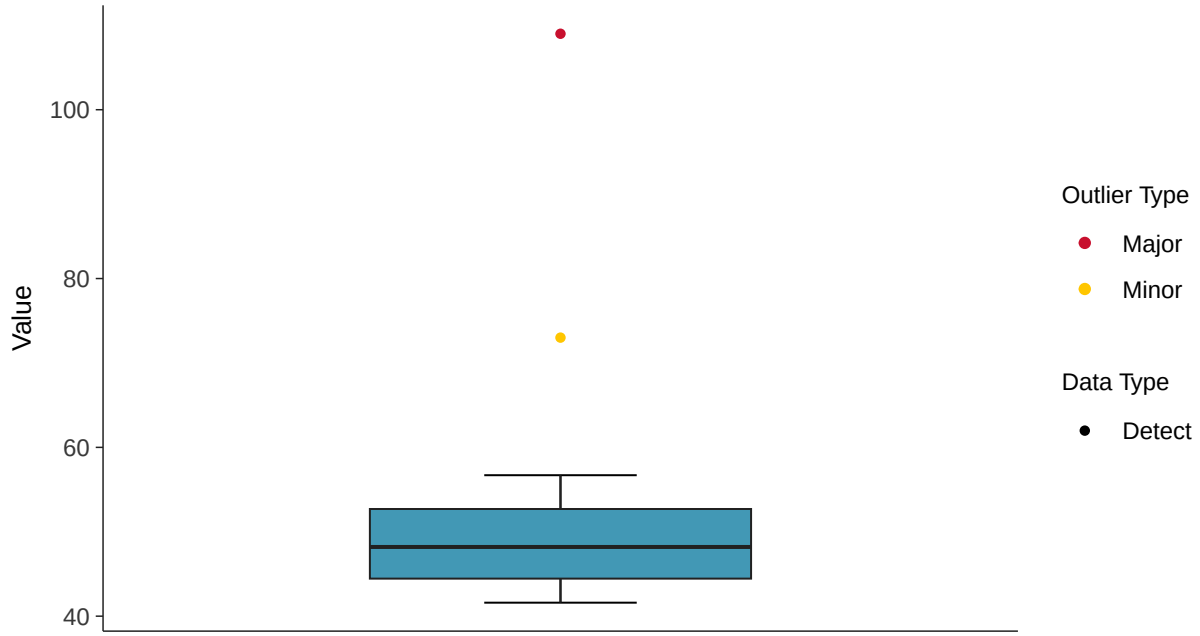
ID: 11_2_105





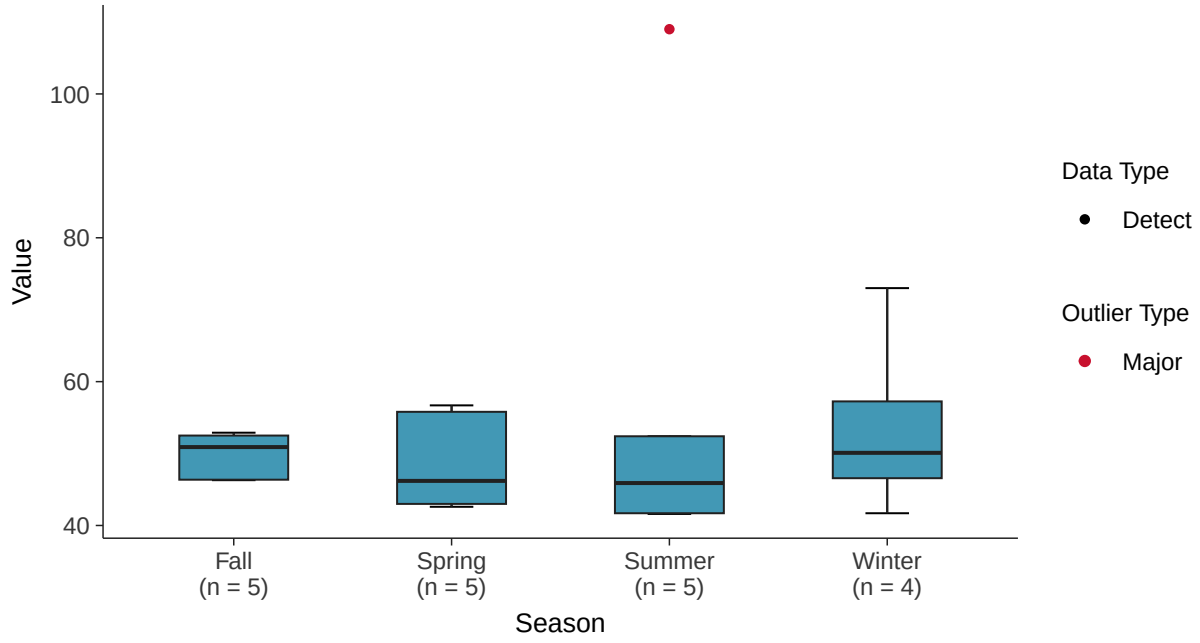
Boxplot

Boron, MW-11D (ug/L)



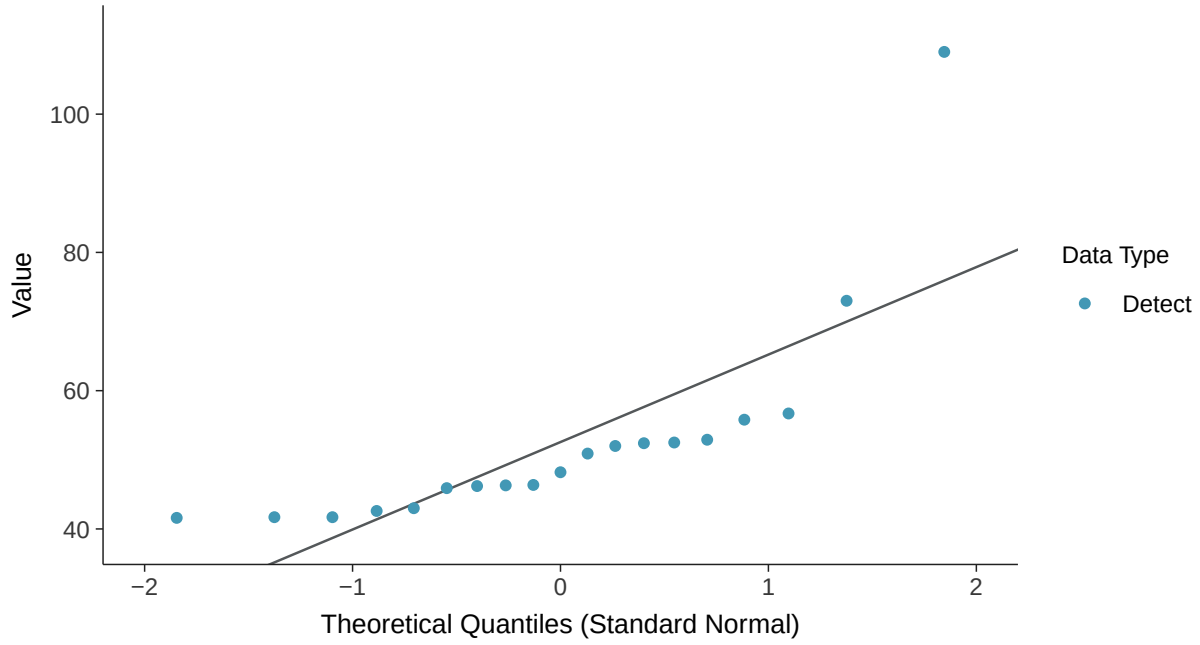
Boxplot by Season

Boron, MW-11D (ug/L)



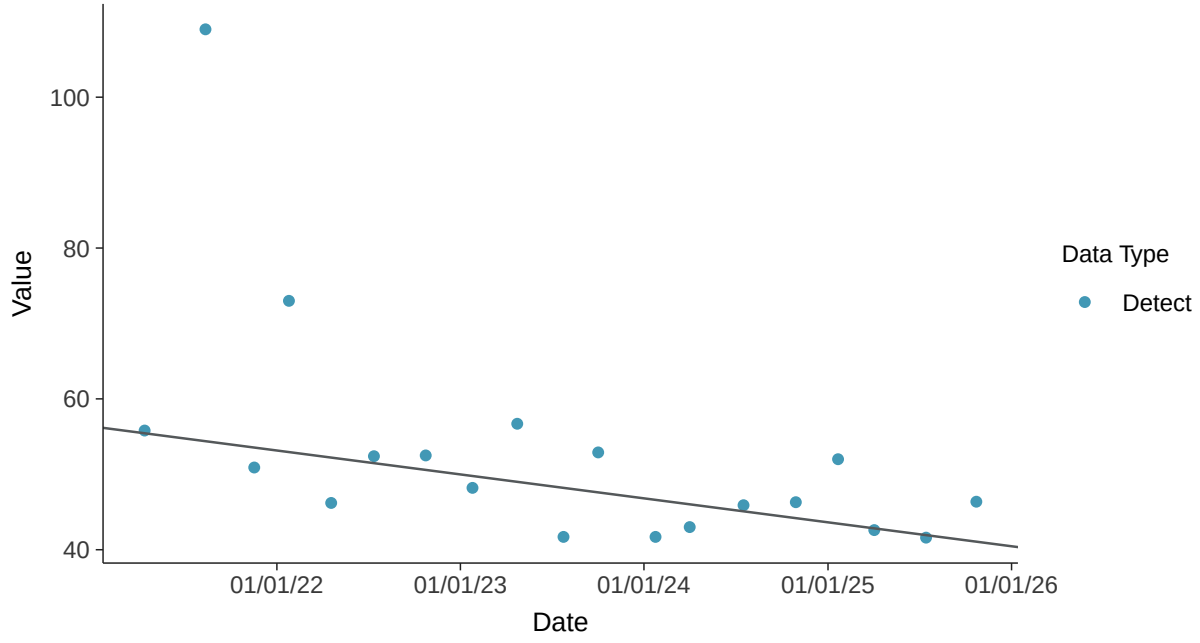
Normal Q-Q plot

Boron, MW-11D (ug/L)



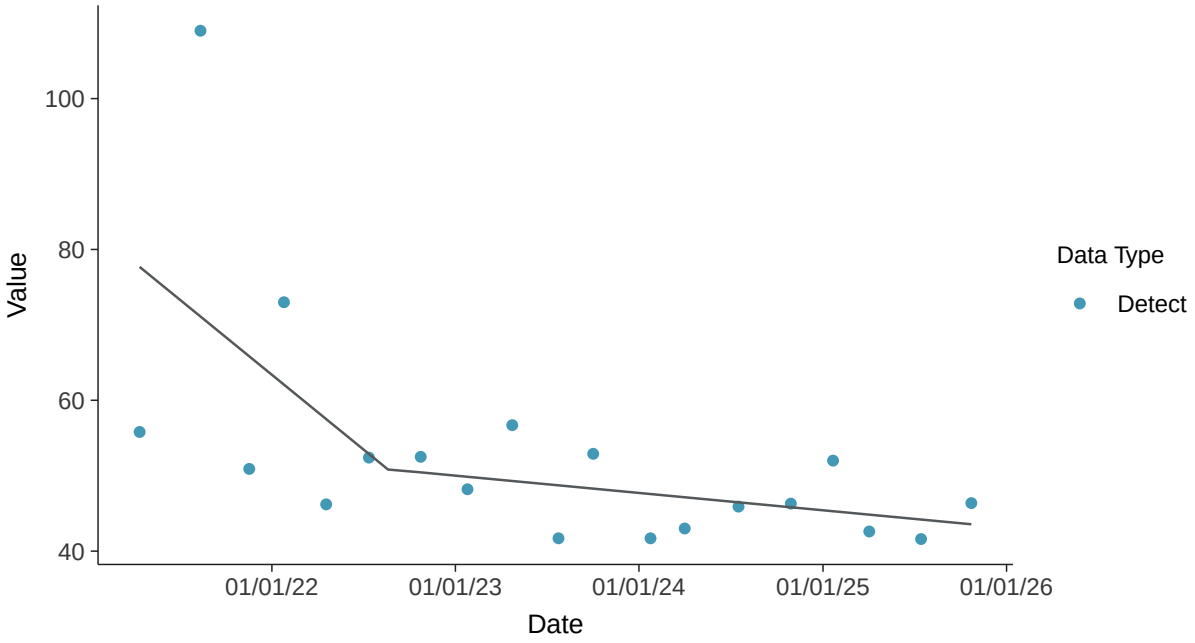
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Boron, MW-11D (ug/L)



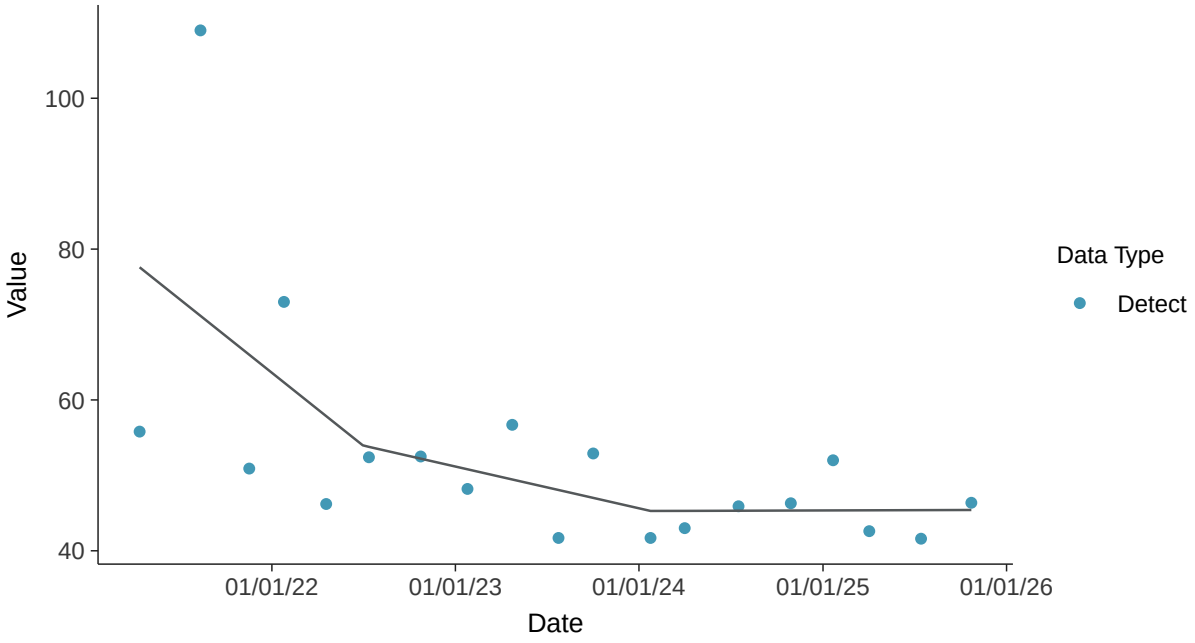
Trend Regression: Piecewise Linear-Linear

Boron, MW-11D (ug/L)



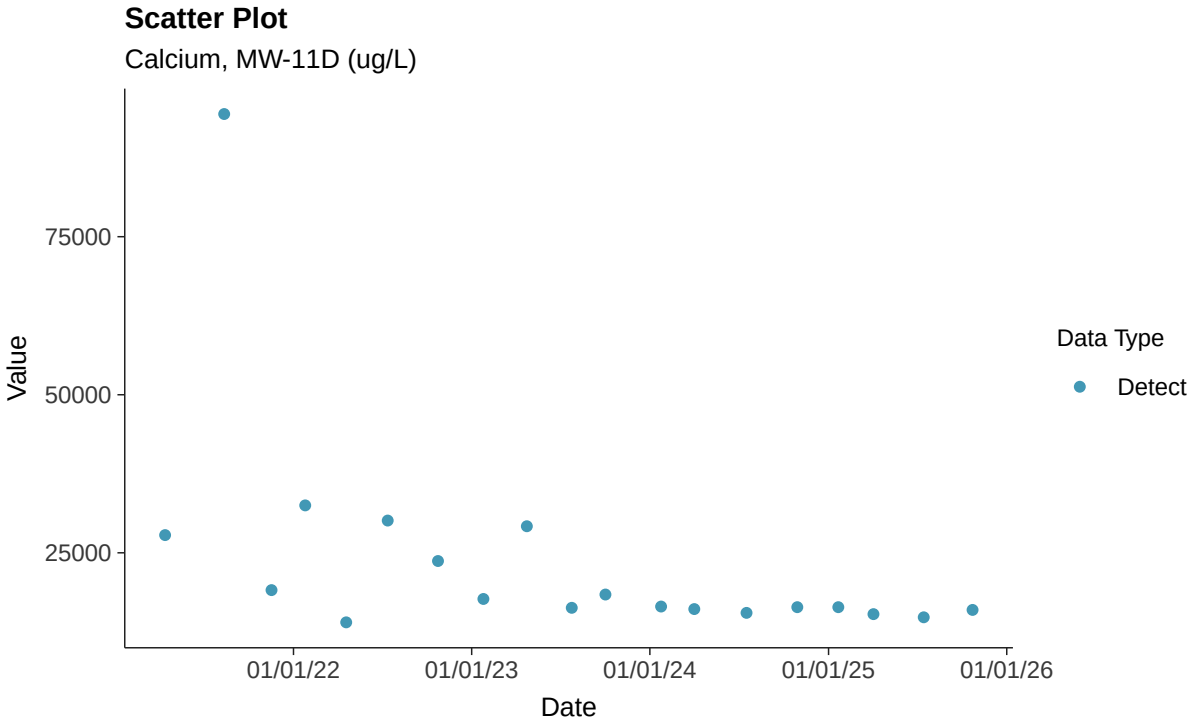
Trend Regression: Piecewise Linear-Linear-Linear

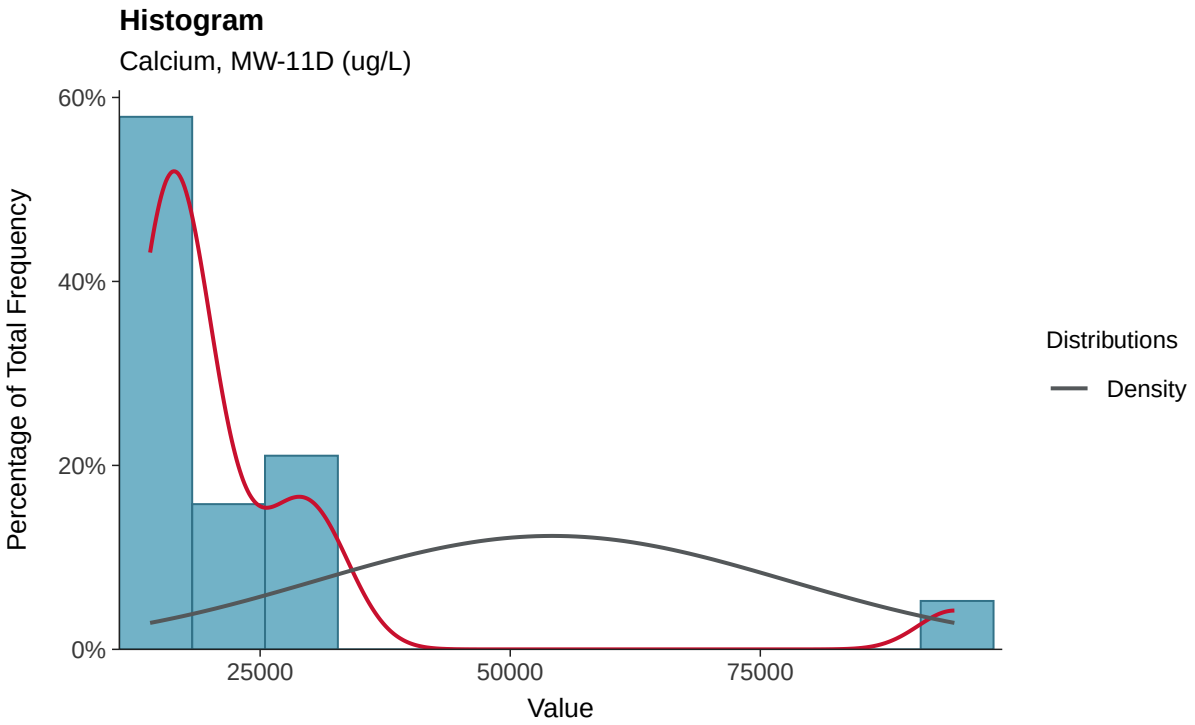
Boron, MW-11D (ug/L)



App. III: Calcium, MW-11D

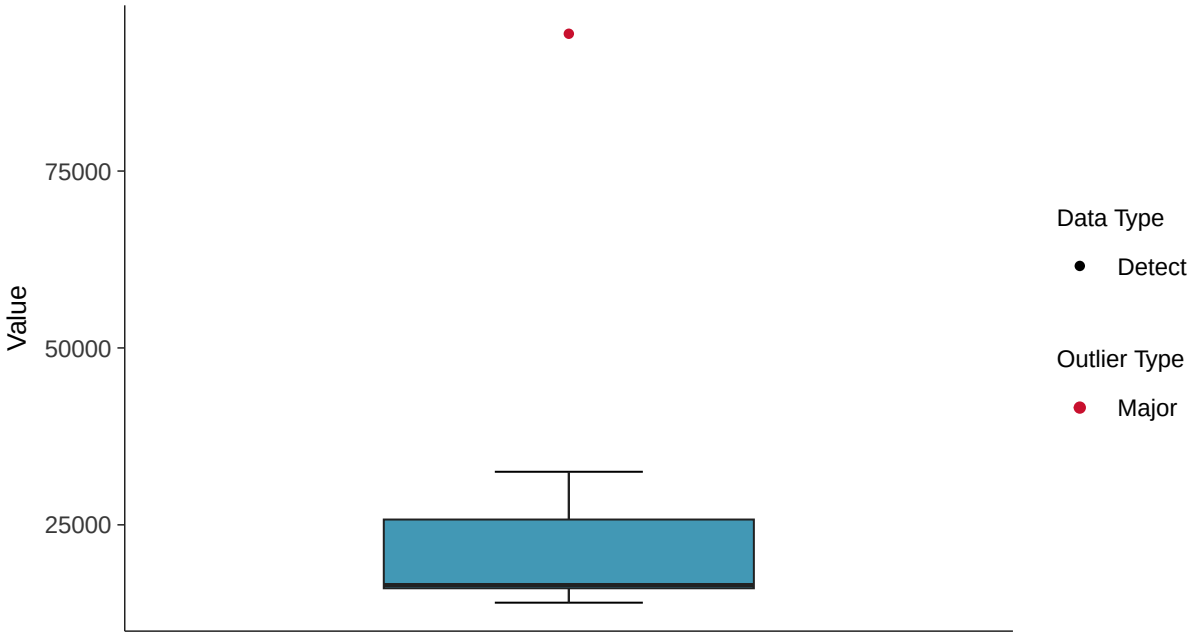
ID: 11_2_107





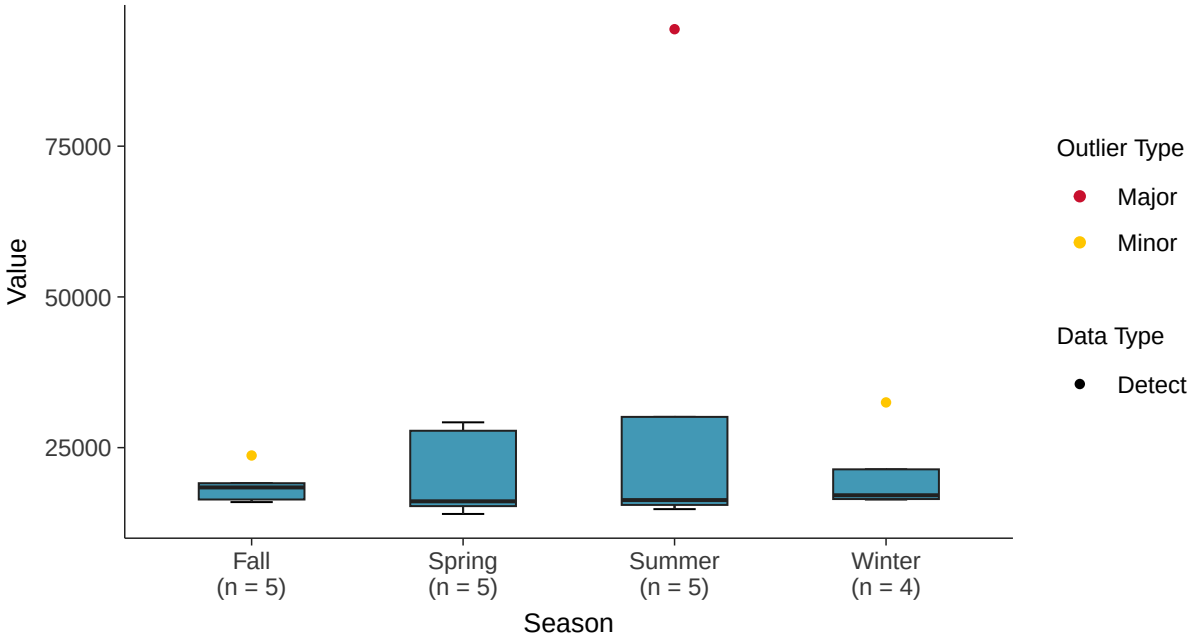
Boxplot

Calcium, MW-11D (ug/L)



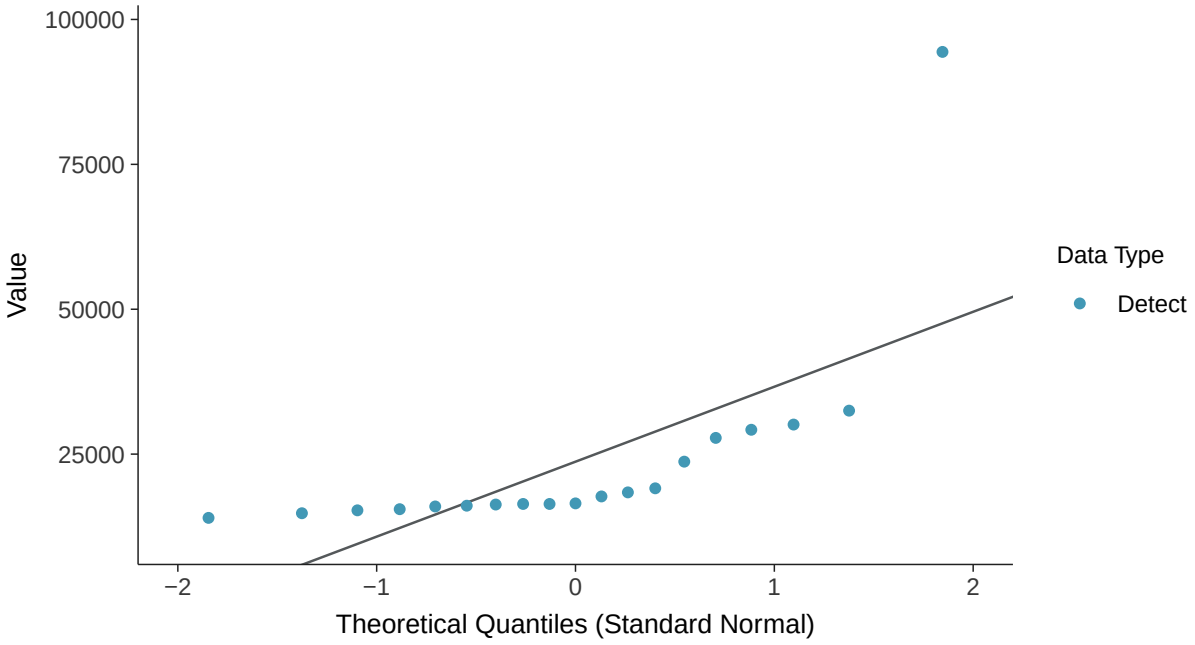
Boxplot by Season

Calcium, MW-11D (ug/L)



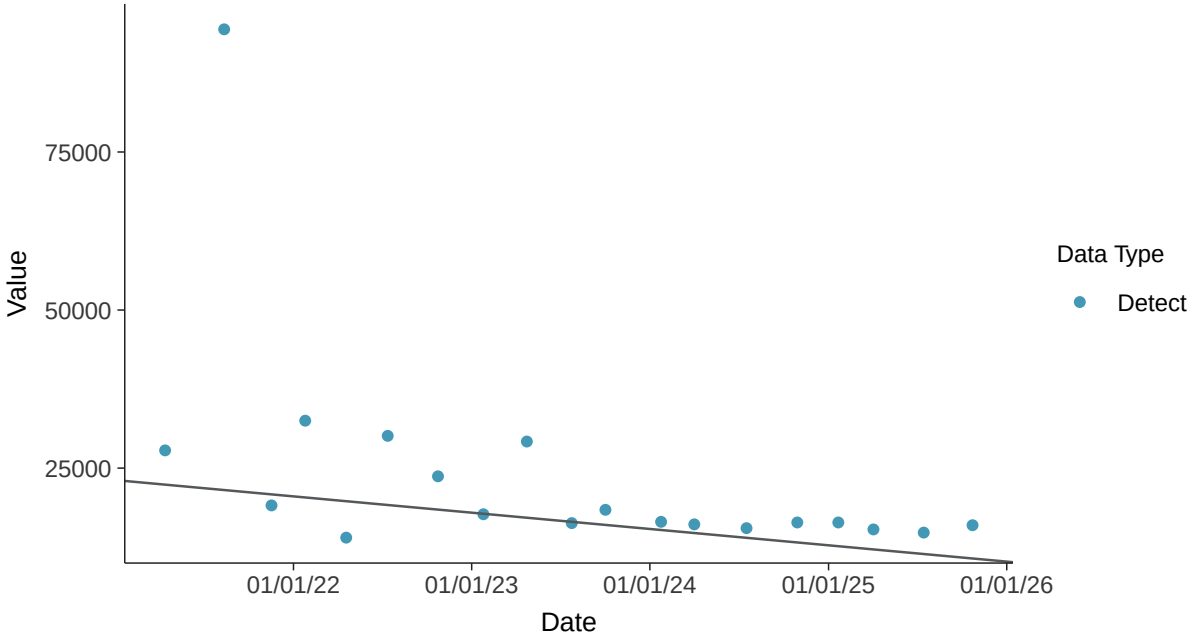
Normal Q-Q plot

Calcium, MW-11D (ug/L)



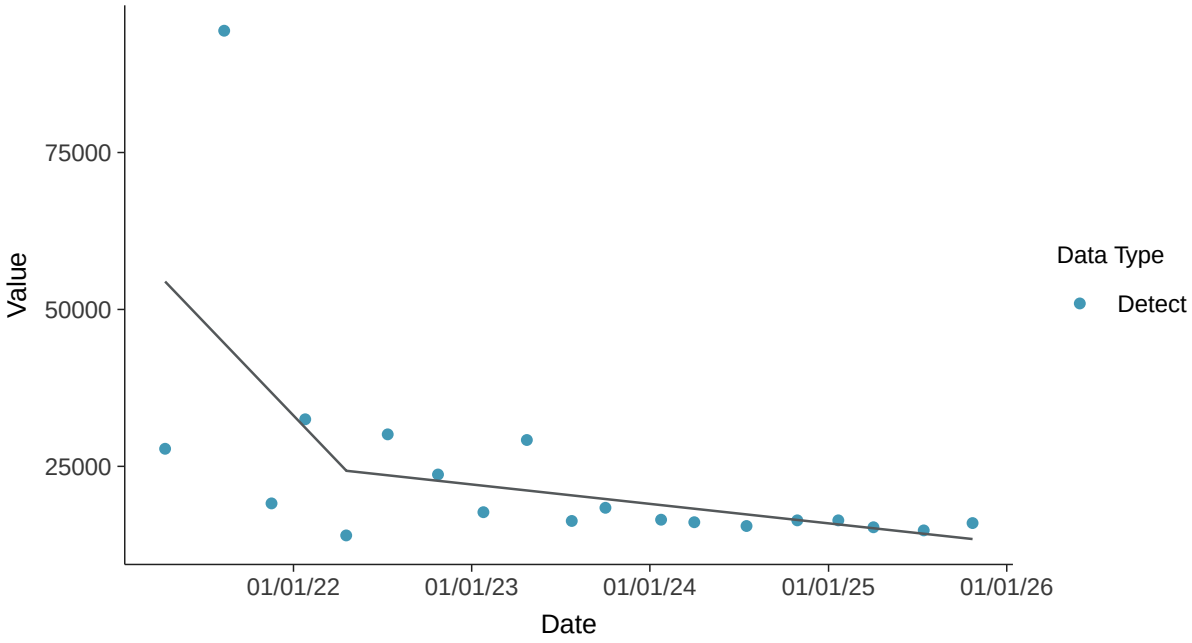
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Calcium, MW-11D (ug/L)



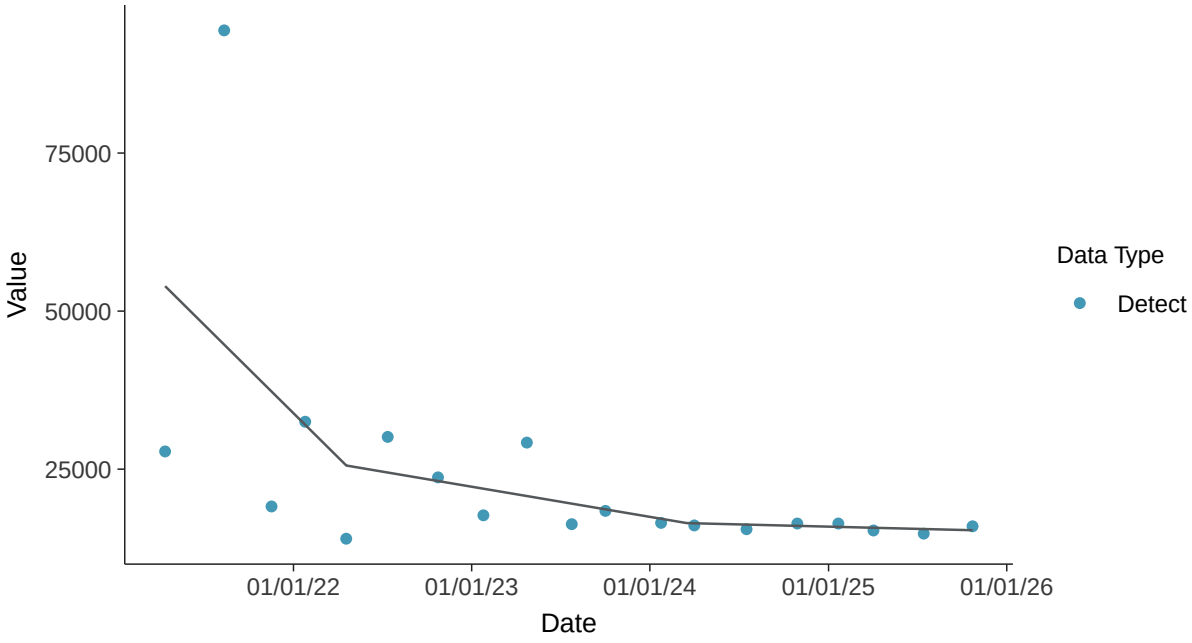
Trend Regression: Piecewise Linear-Linear

Calcium, MW-11D (ug/L)



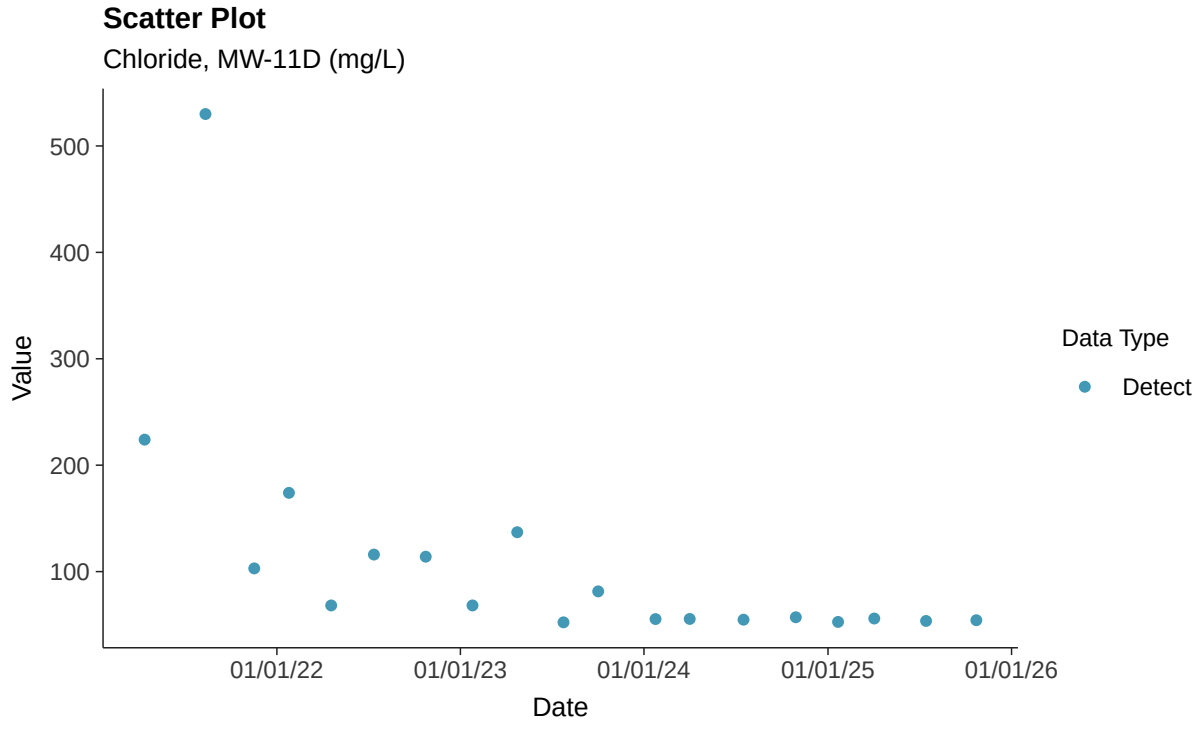
Trend Regression: Piecewise Linear-Linear-Linear

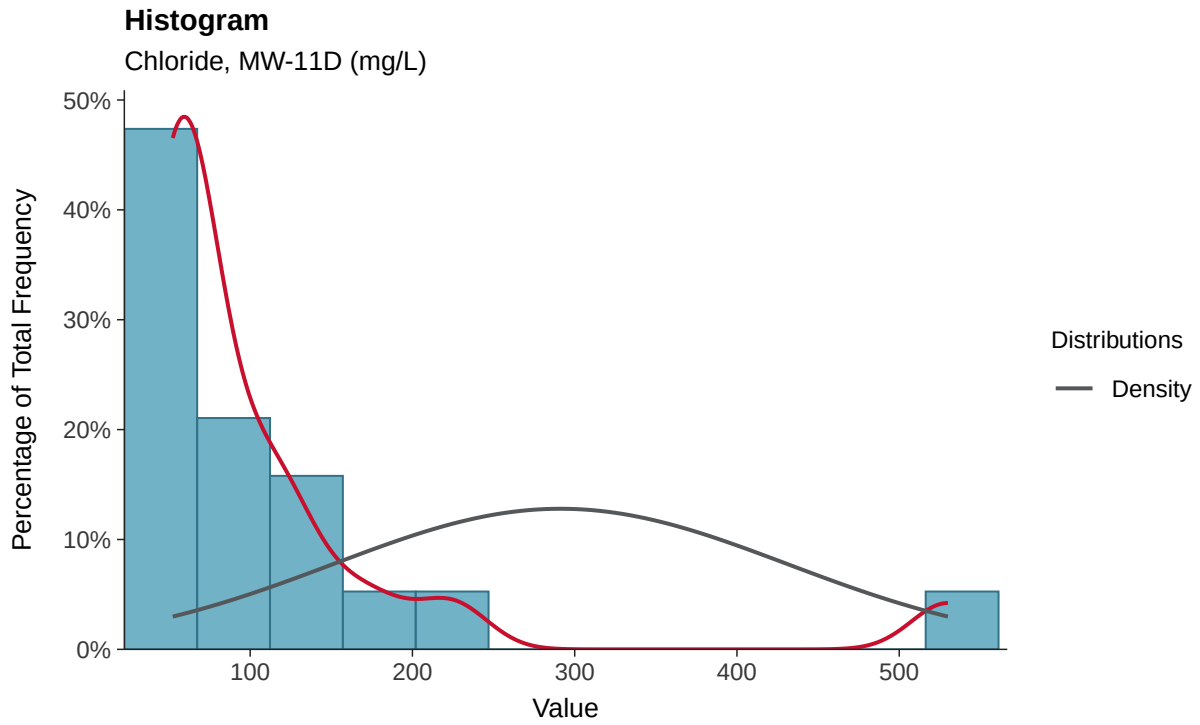
Calcium, MW-11D (ug/L)



App. III: Chloride, MW-11D

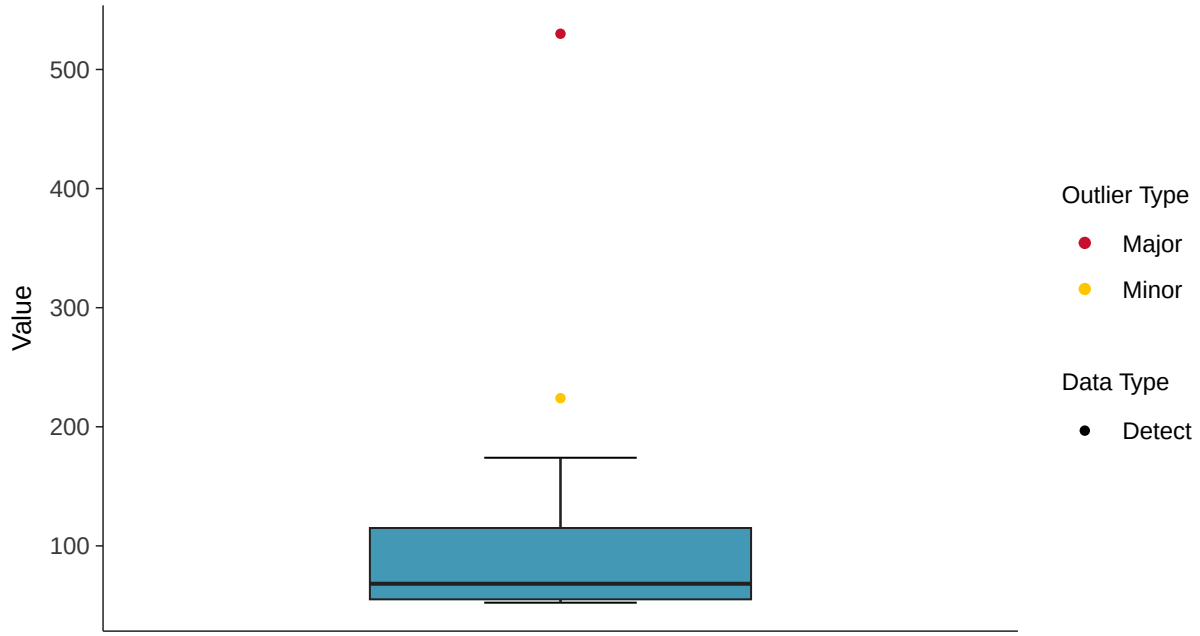
ID: 11_2_108





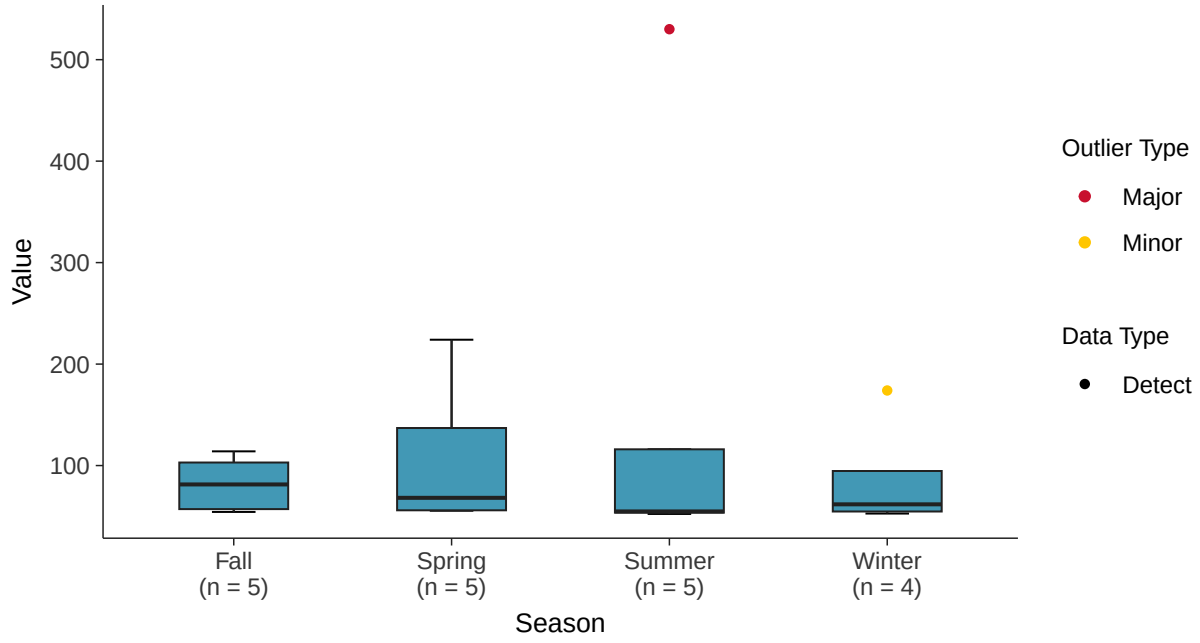
Boxplot

Chloride, MW-11D (mg/L)



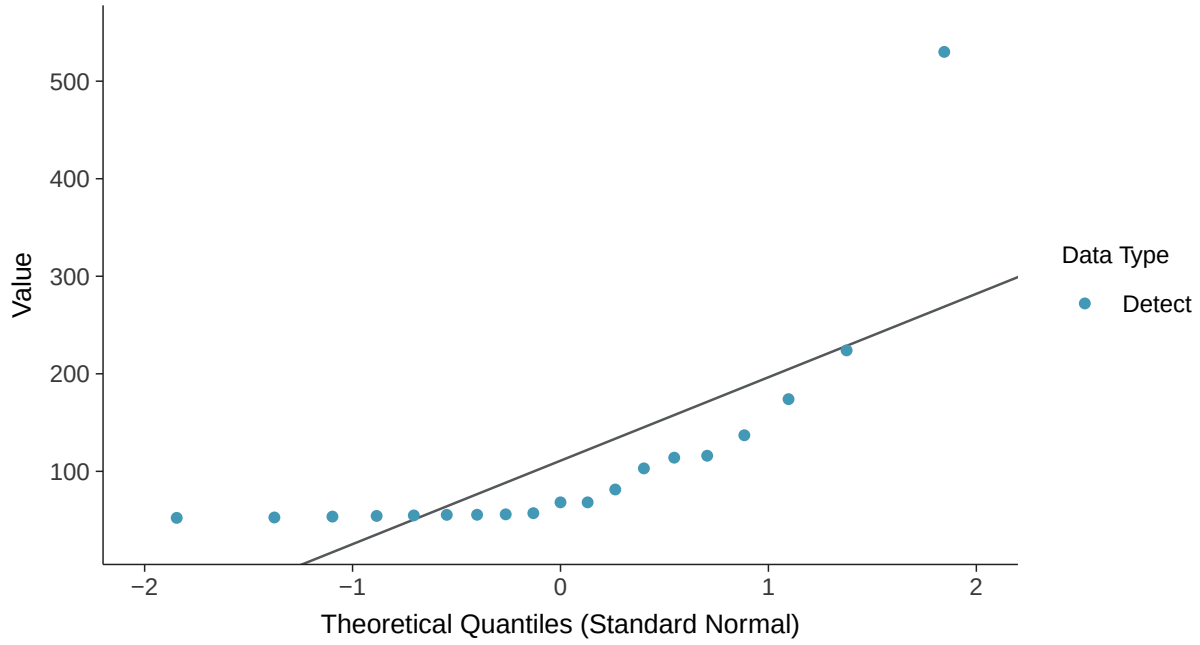
Boxplot by Season

Chloride, MW-11D (mg/L)



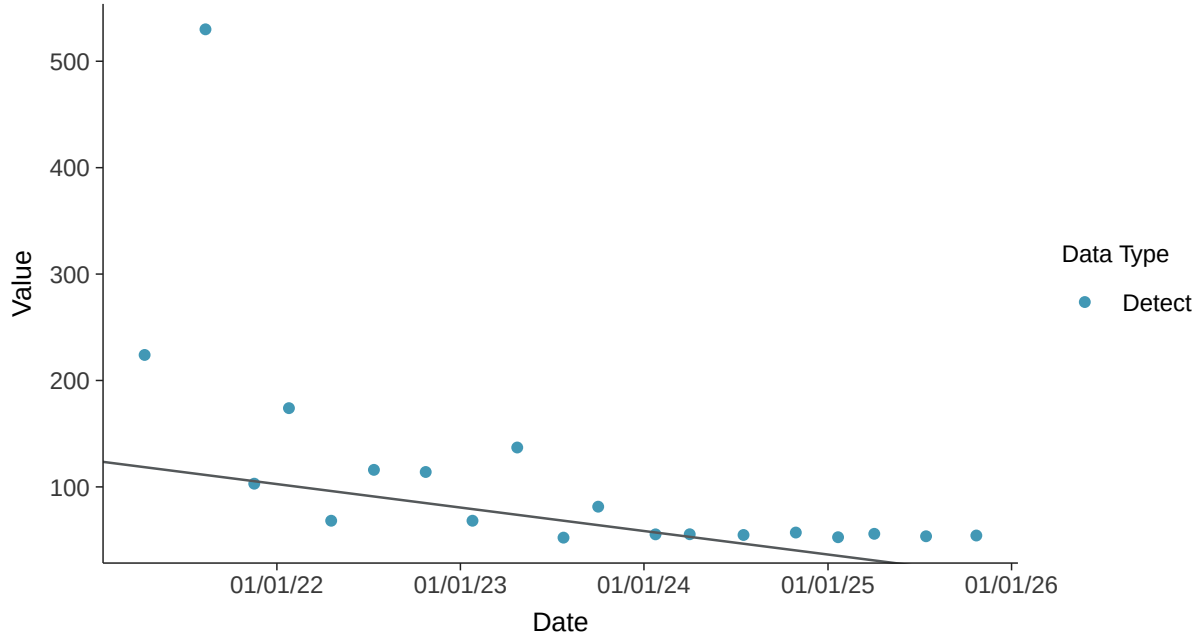
Normal Q-Q plot

Chloride, MW-11D (mg/L)



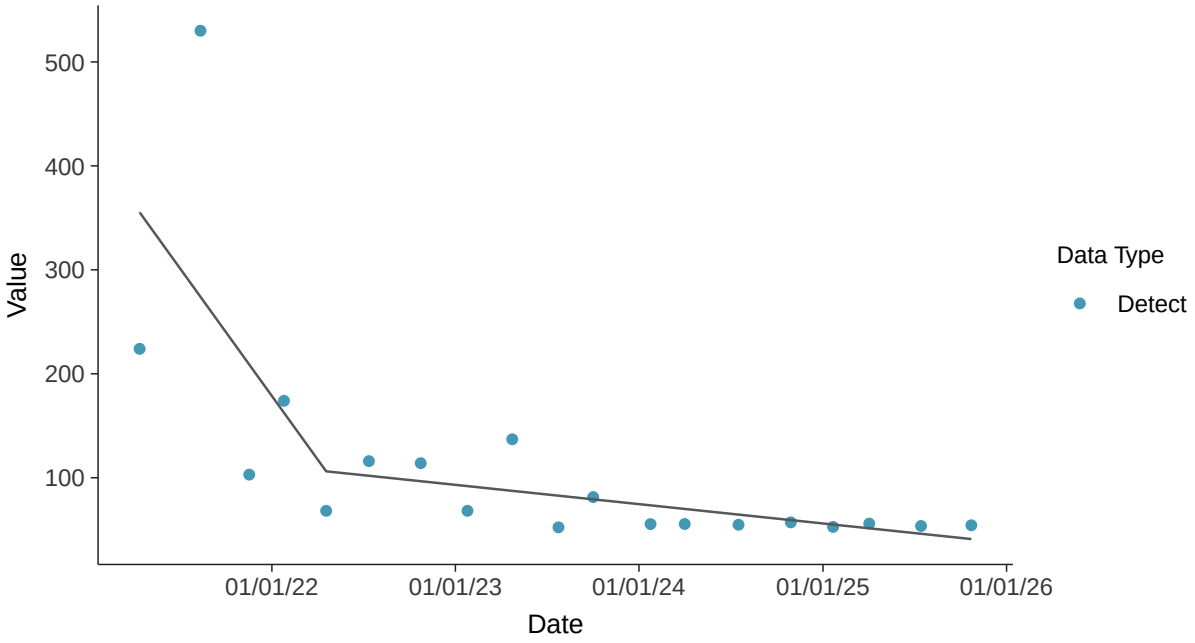
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Chloride, MW-11D (mg/L)



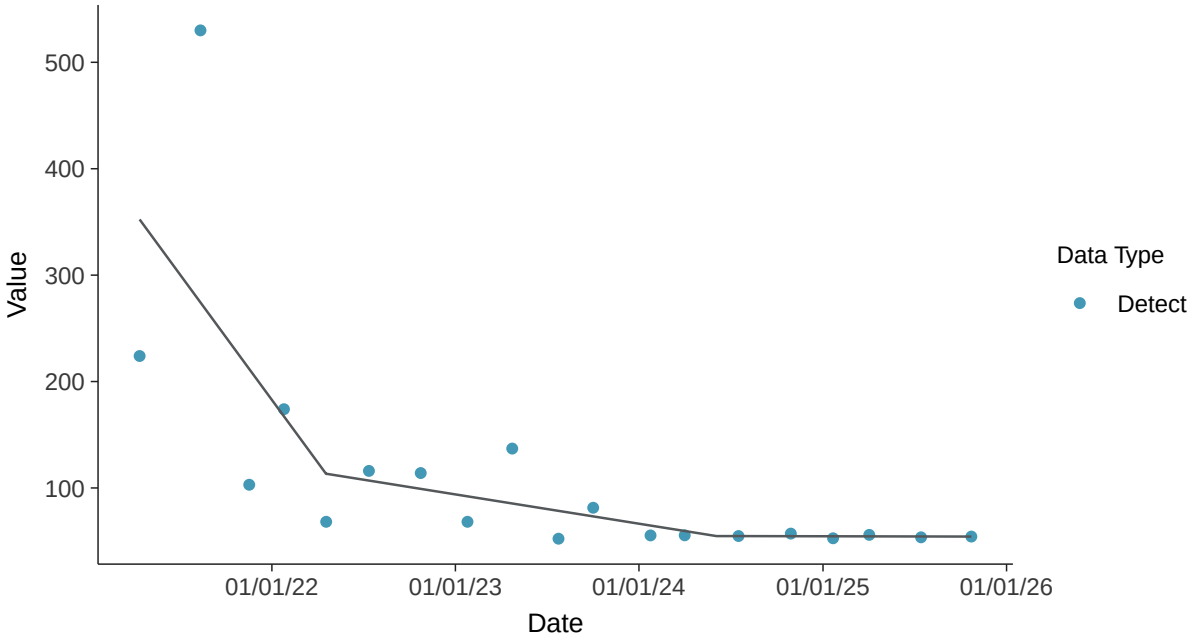
Trend Regression: Piecewise Linear-Linear

Chloride, MW-11D (mg/L)



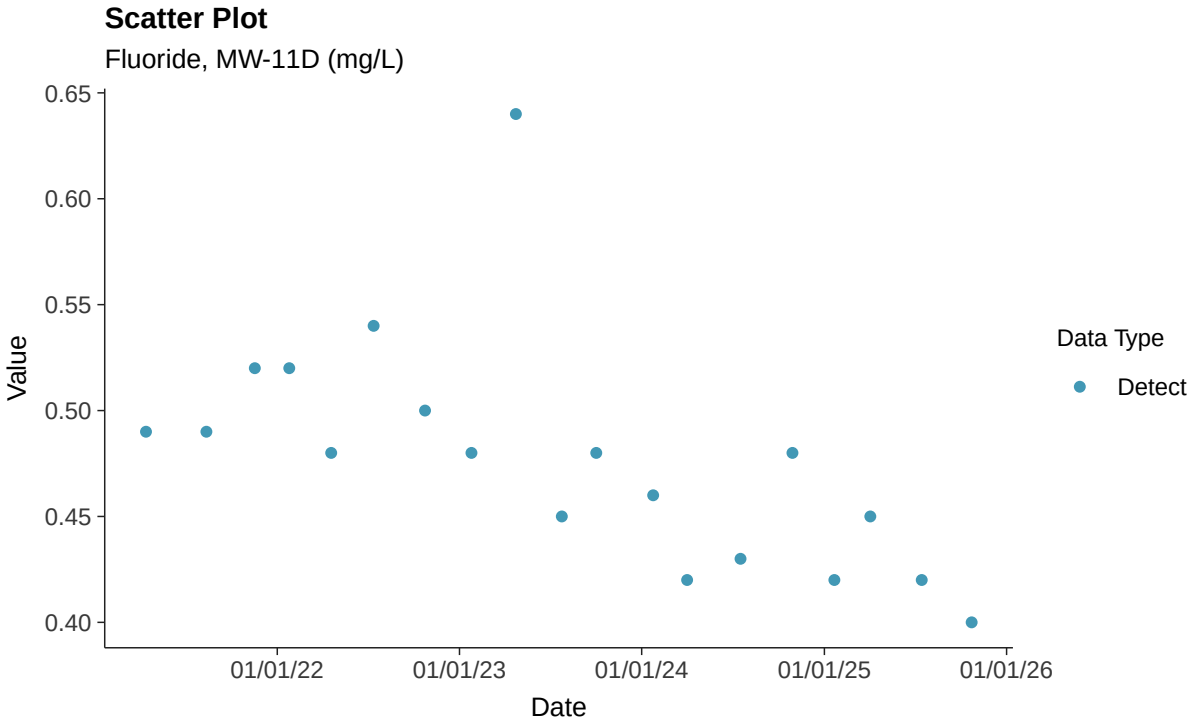
Trend Regression: Piecewise Linear-Linear-Linear

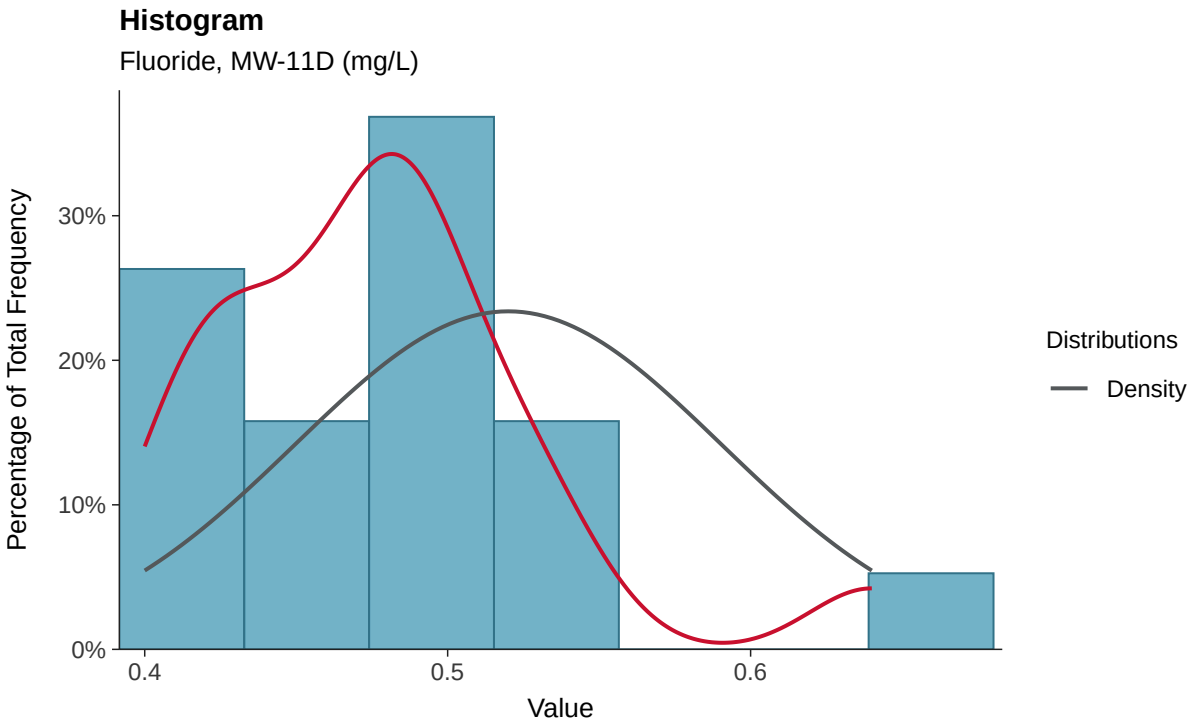
Chloride, MW-11D (mg/L)



App. III: Fluoride, MW-11D

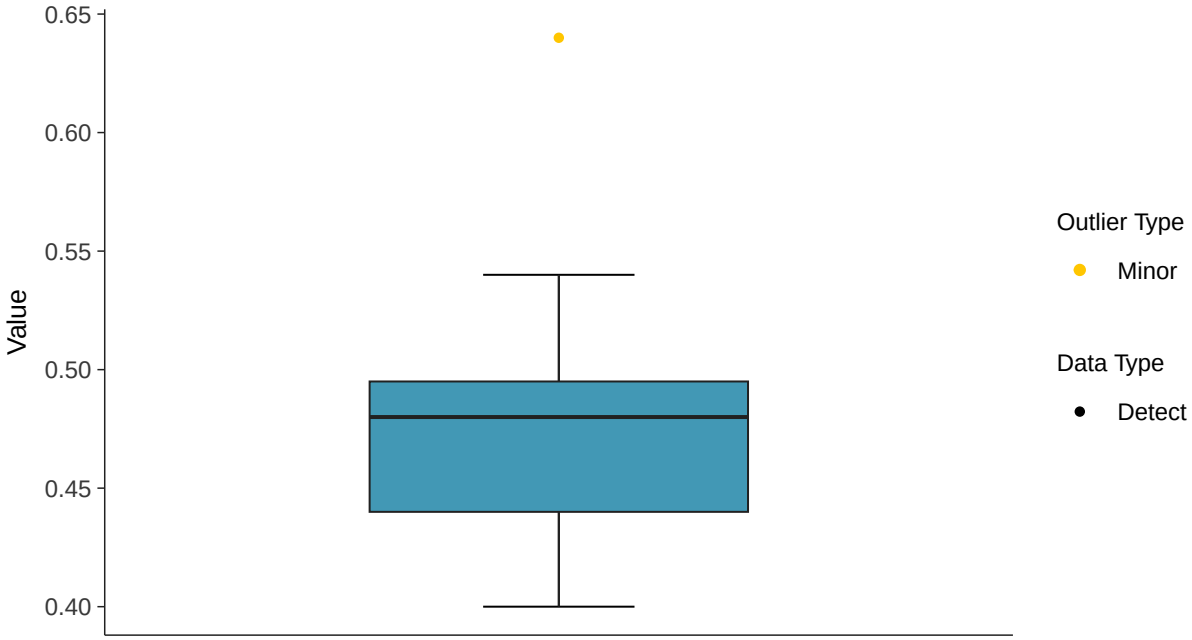
ID: 11_2_112





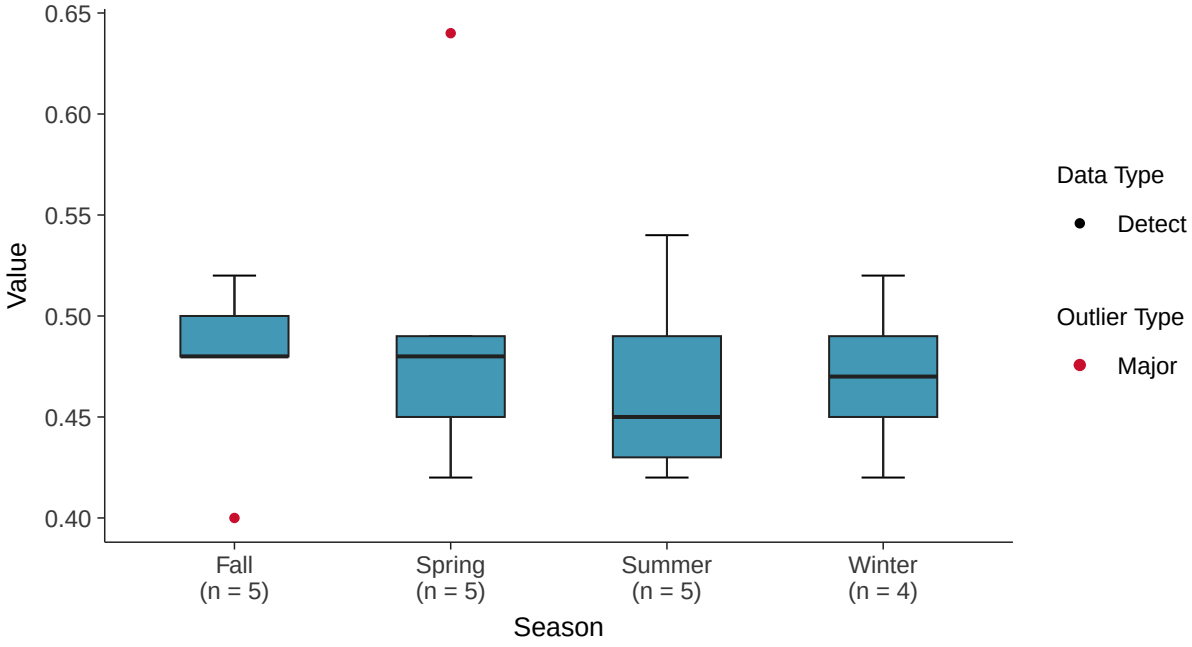
Boxplot

Fluoride, MW-11D (mg/L)



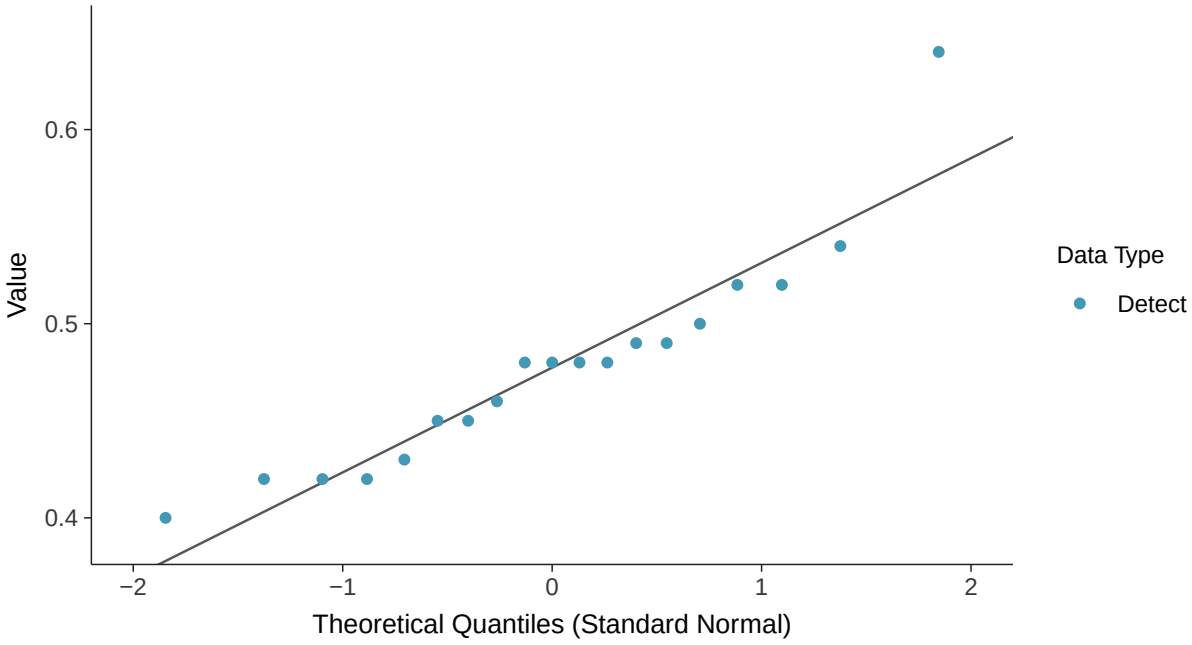
Boxplot by Season

Fluoride, MW-11D (mg/L)



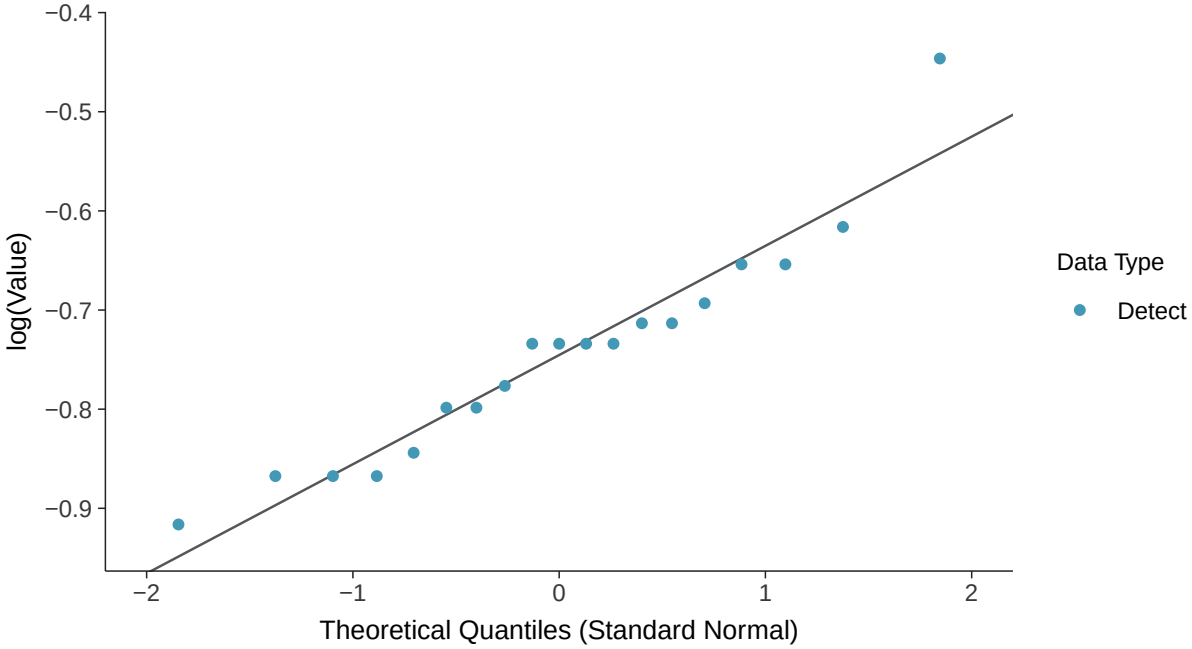
Normal Q-Q plot

Fluoride, MW-11D (mg/L)



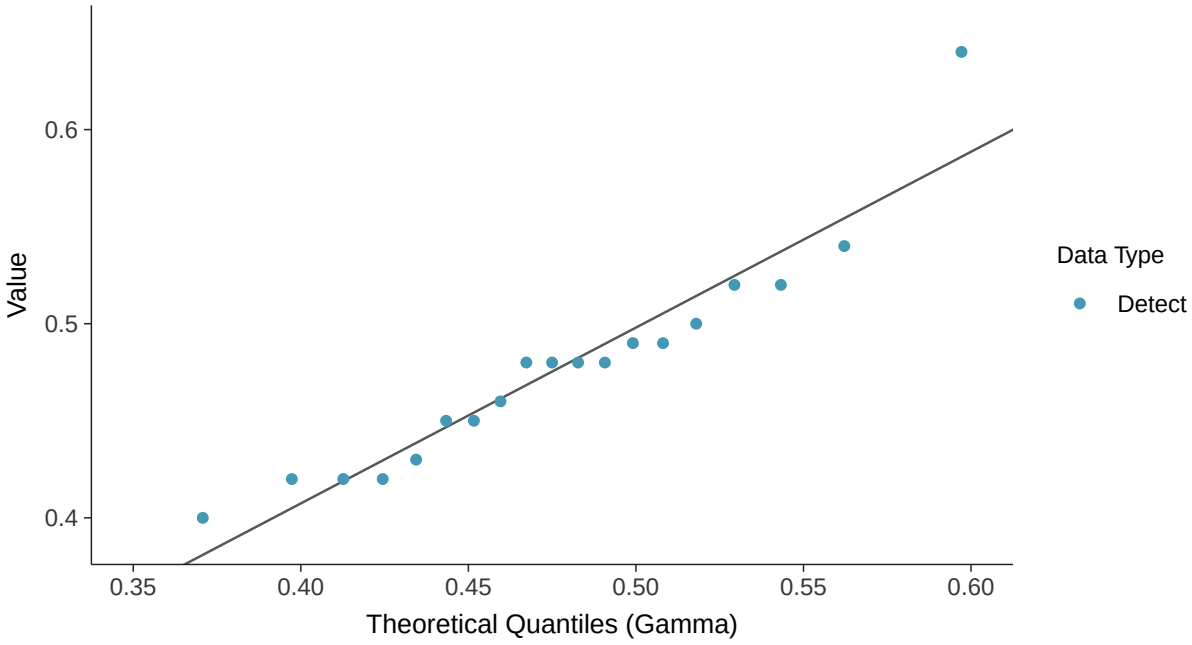
Lognormal Q-Q plot

Fluoride, MW-11D (mg/L)



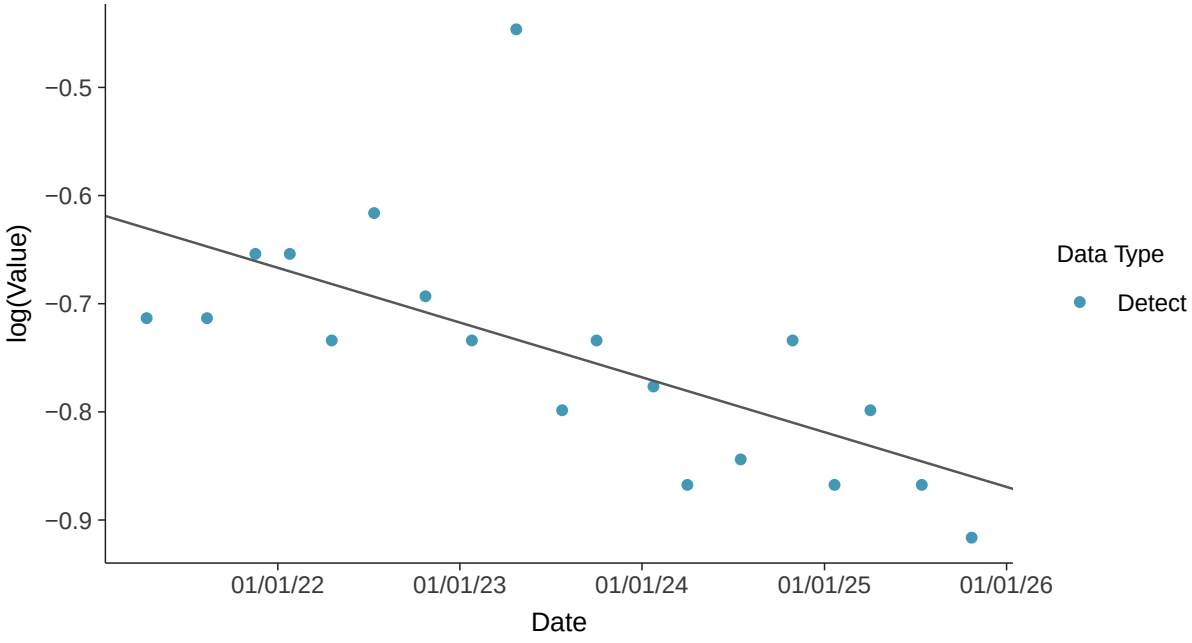
Gamma Q-Q plot

Fluoride, MW-11D (mg/L)



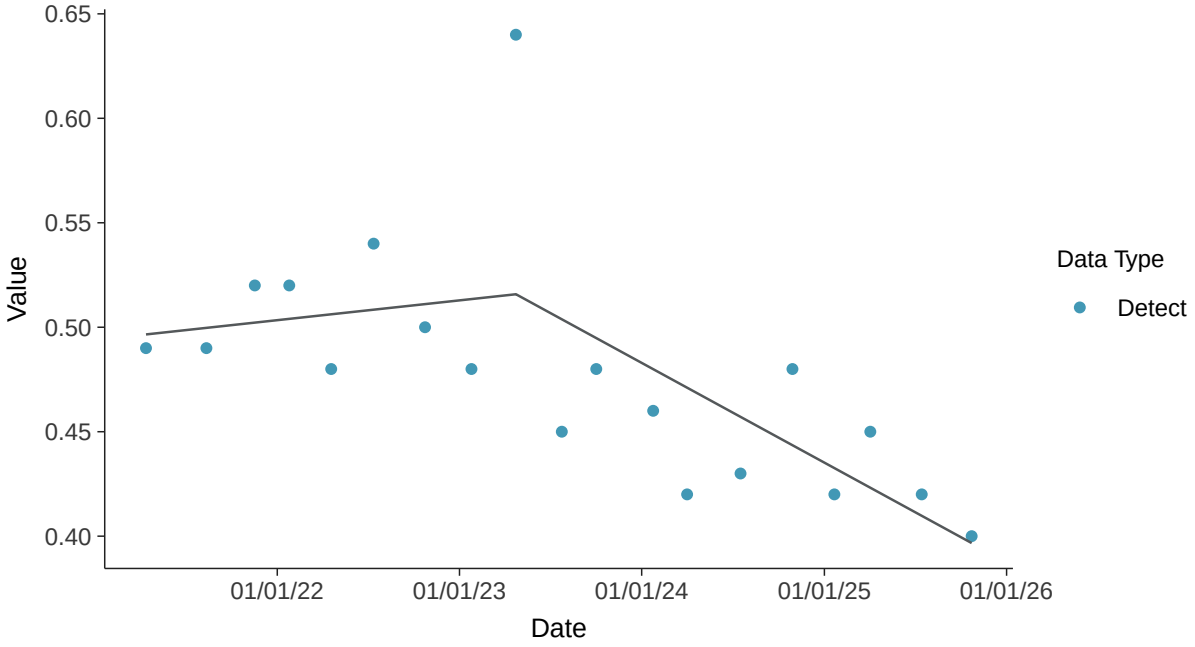
Trend Regression: Lognormal MLE

Fluoride, MW-11D (mg/L)



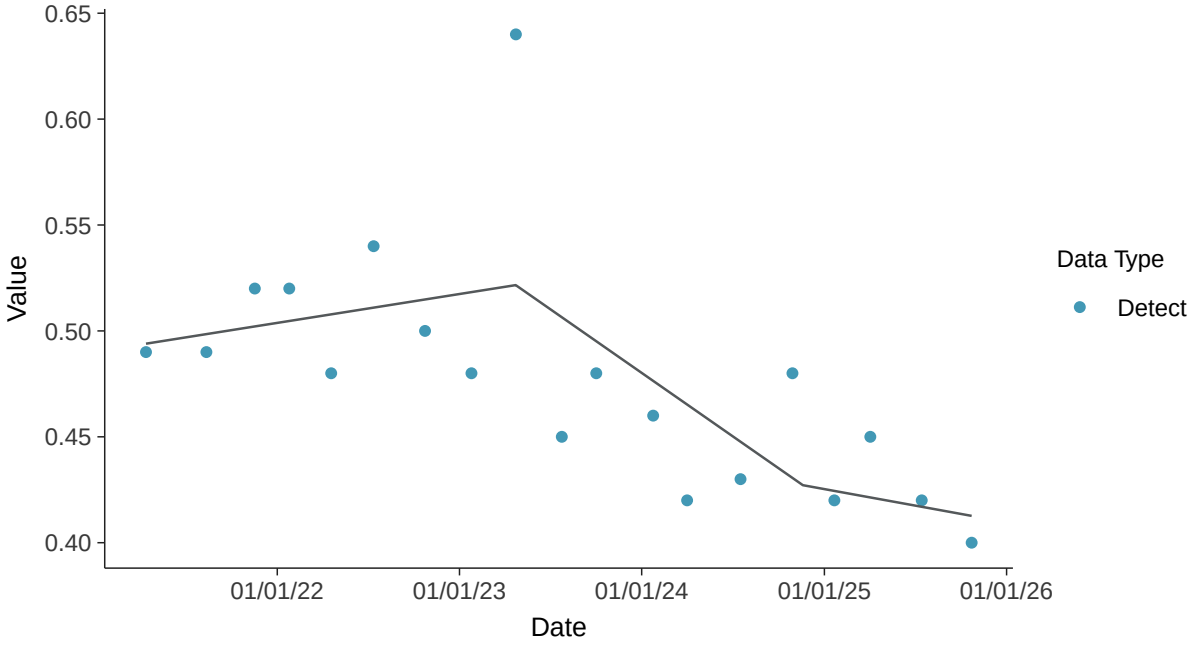
Trend Regression: Piecewise Linear-Linear

Fluoride, MW-11D (mg/L)



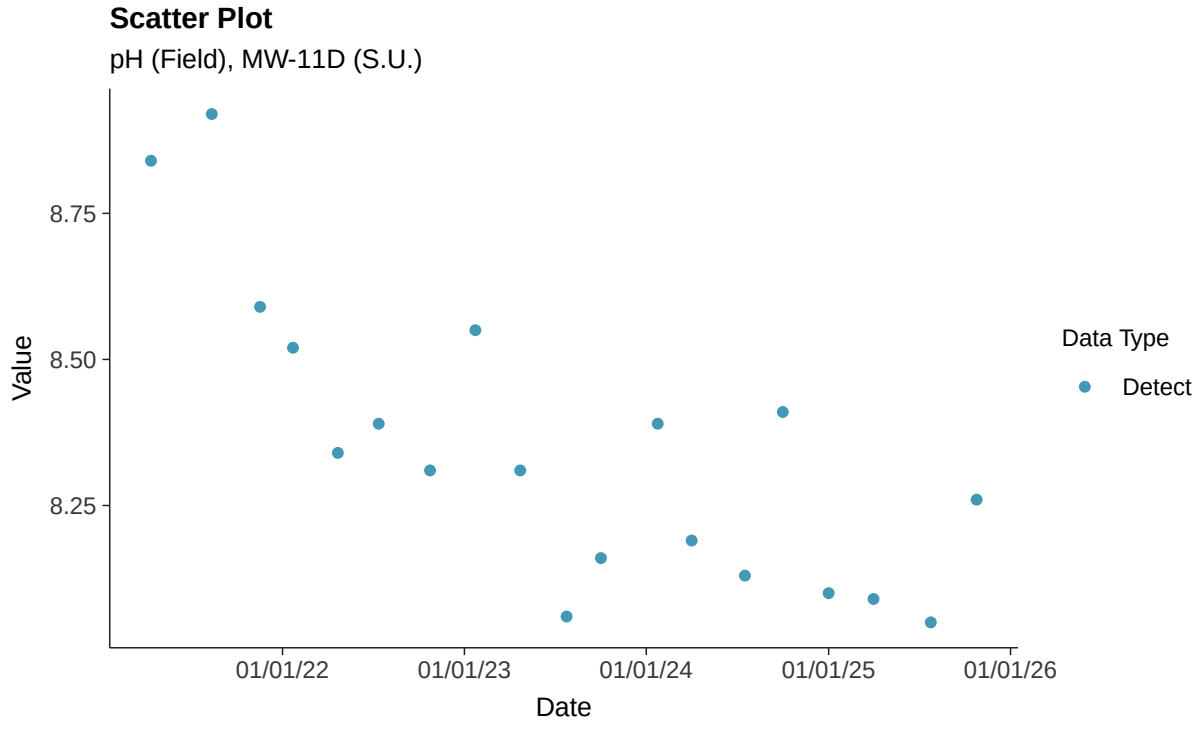
Trend Regression: Piecewise Linear-Linear-Linear

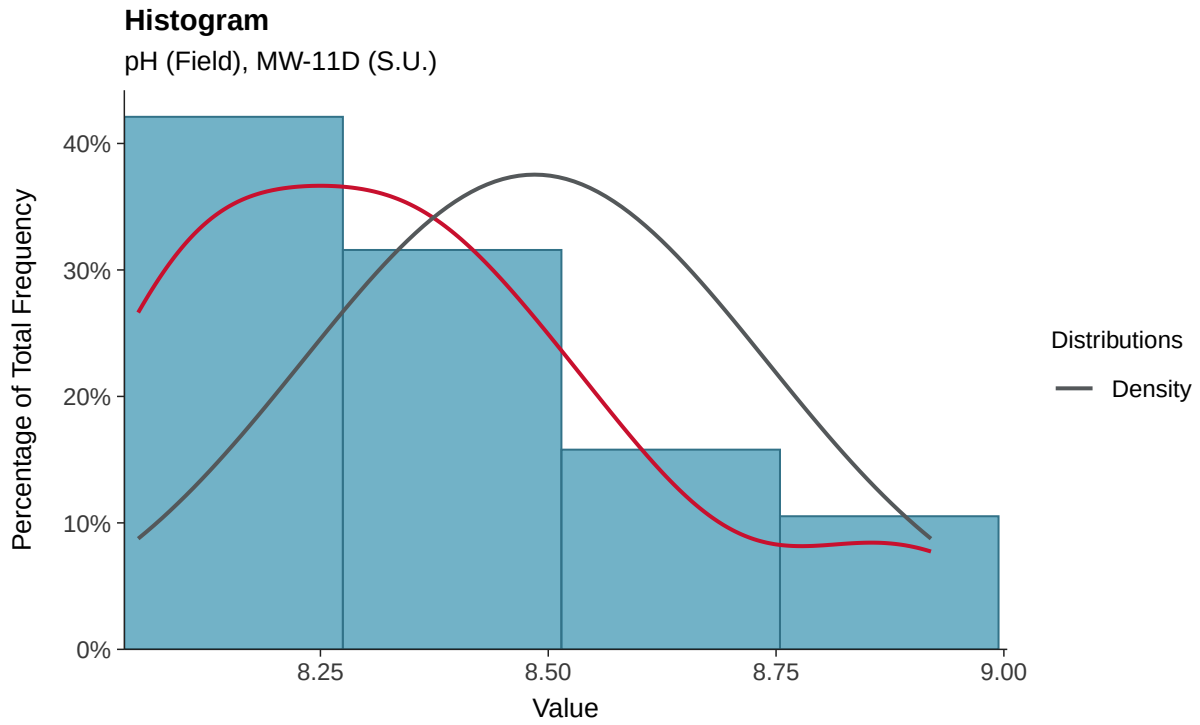
Fluoride, MW-11D (mg/L)



App. III: pH (Field), MW-11D

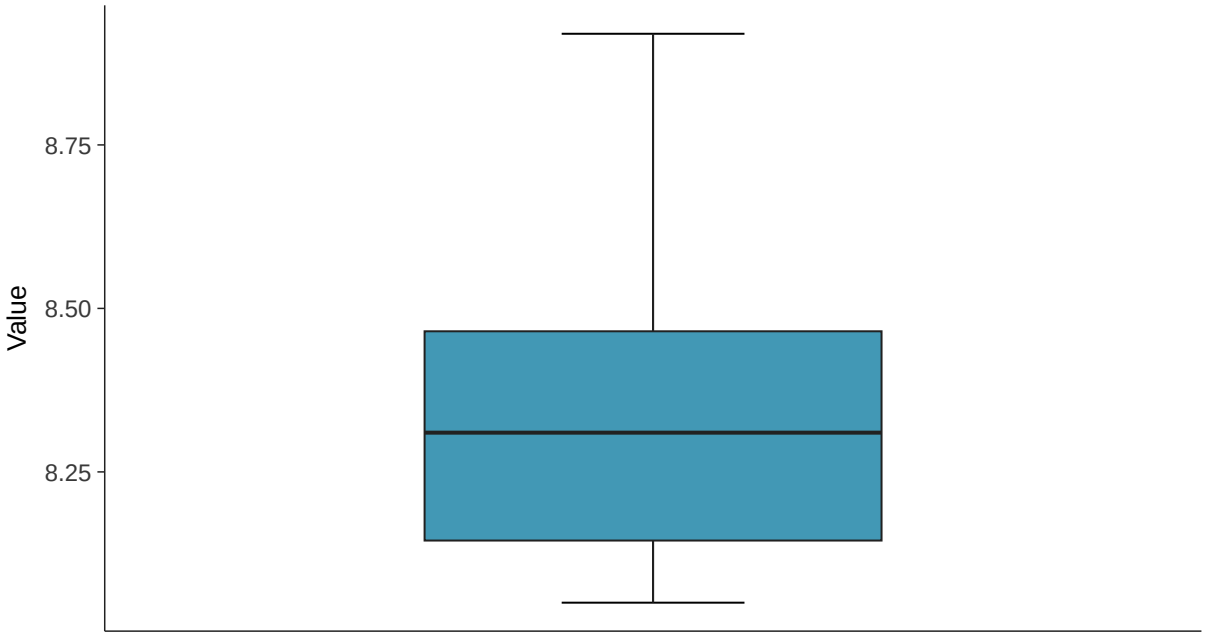
ID: 11_2_118





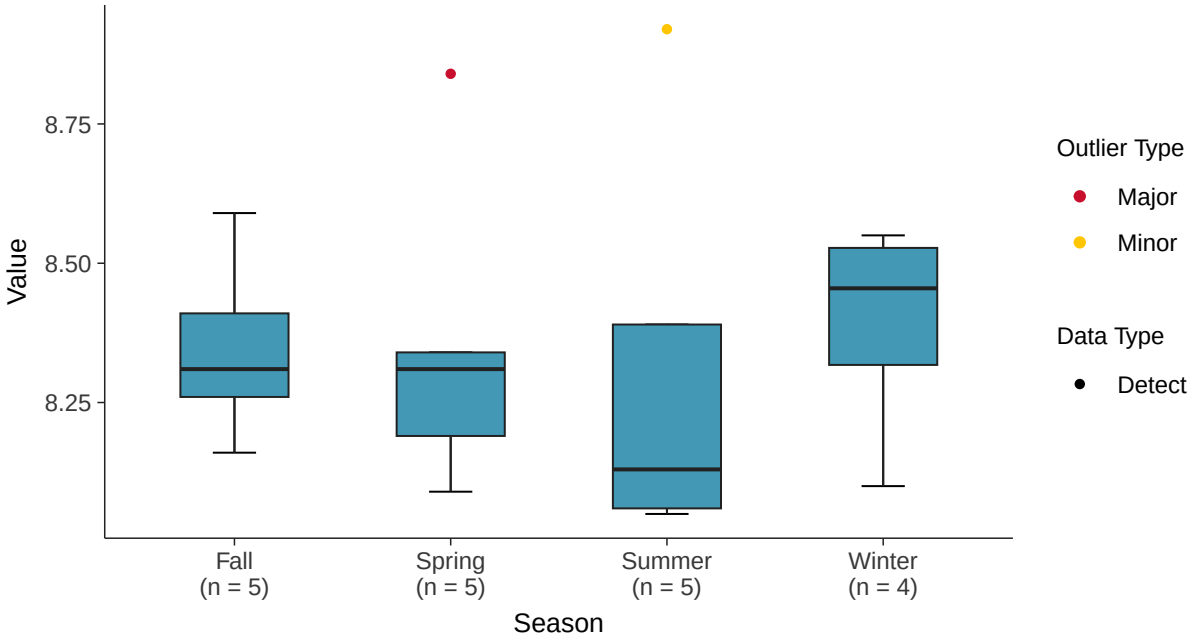
Boxplot

pH (Field), MW-11D (S.U.)



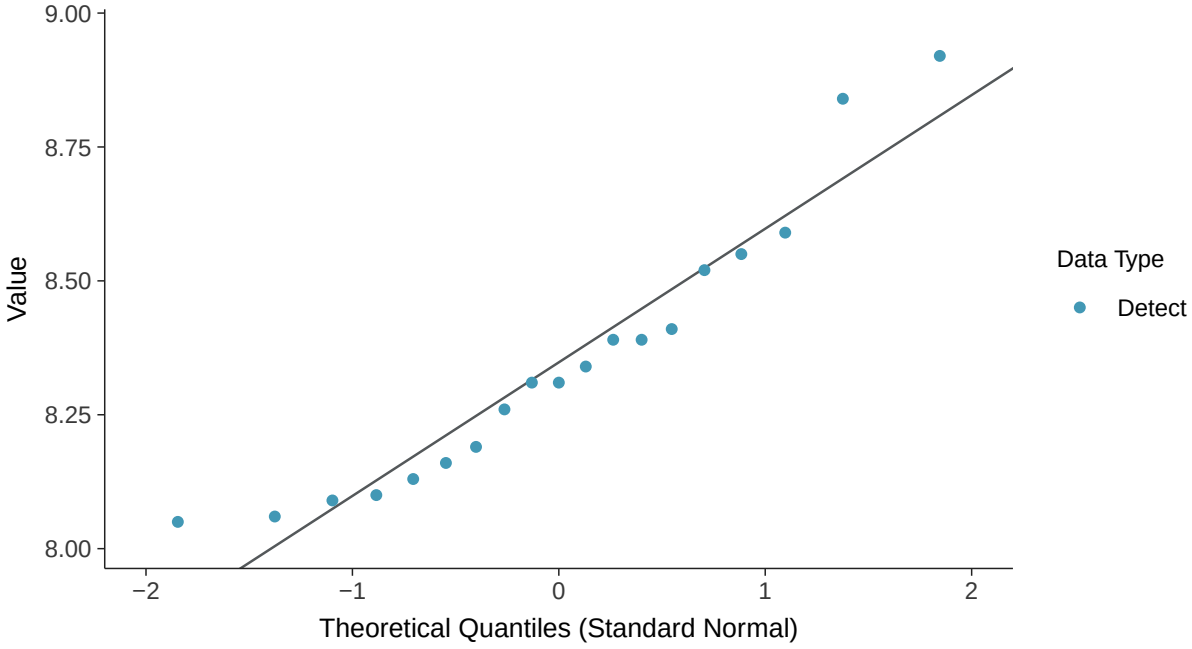
Boxplot by Season

pH (Field), MW-11D (S.U.)



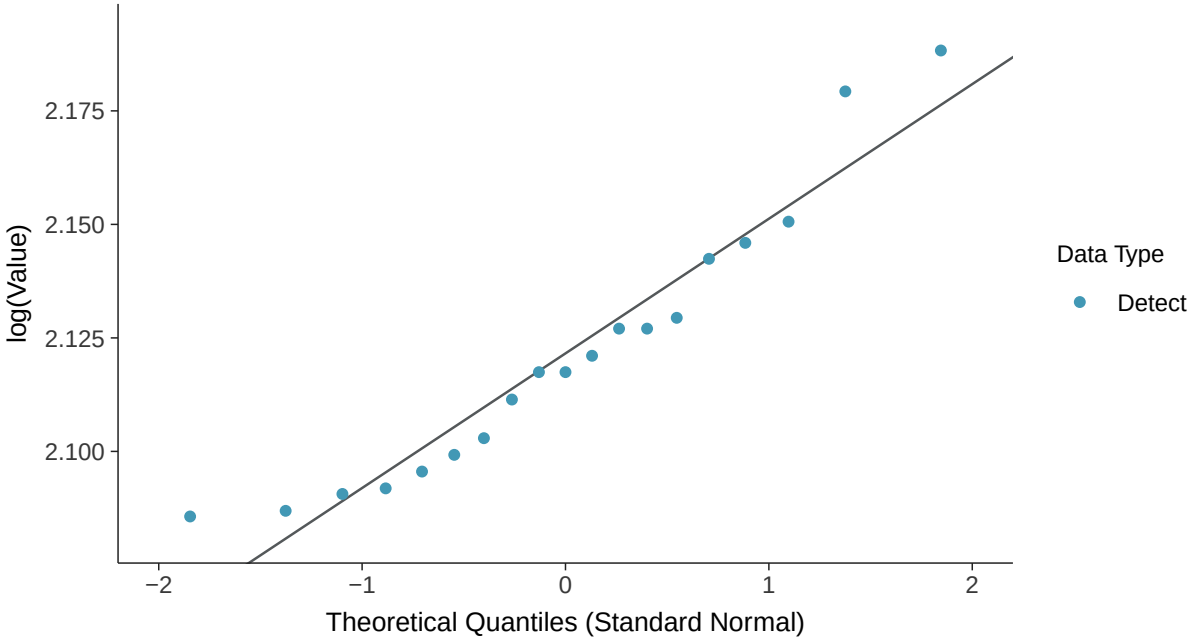
Normal Q-Q plot

pH (Field), MW-11D (S.U.)



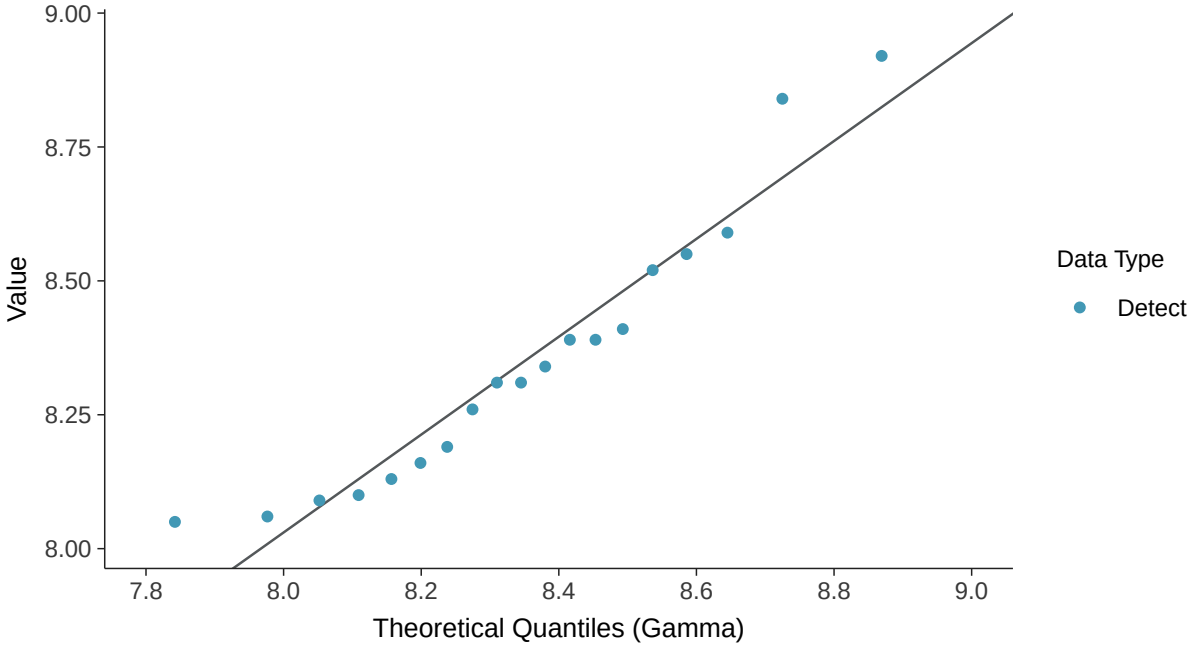
Lognormal Q-Q plot

pH (Field), MW-11D (S.U.)



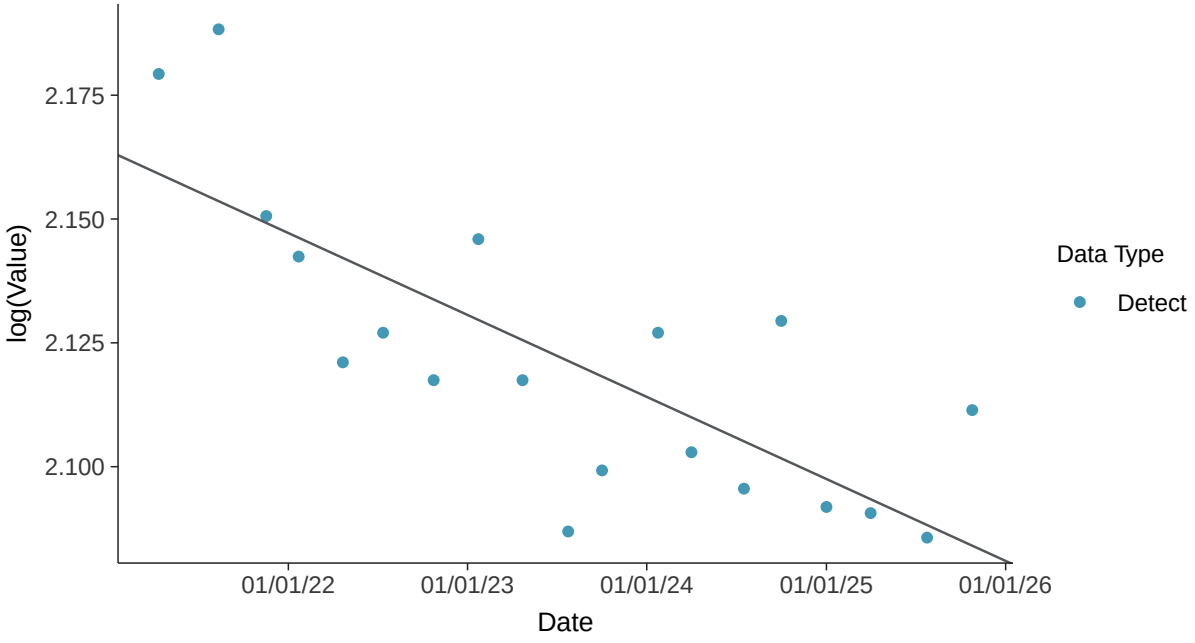
Gamma Q-Q plot

pH (Field), MW-11D (S.U.)



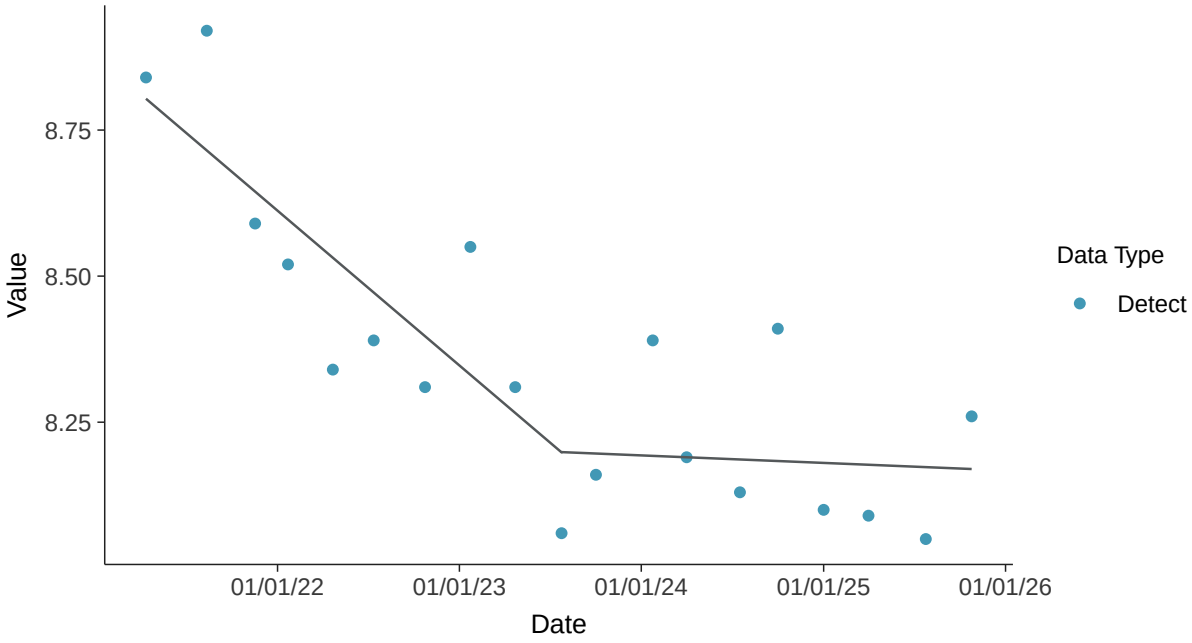
Trend Regression: Lognormal MLE

pH (Field), MW-11D (S.U.)



Trend Regression: Piecewise Linear-Linear

pH (Field), MW-11D (S.U.)

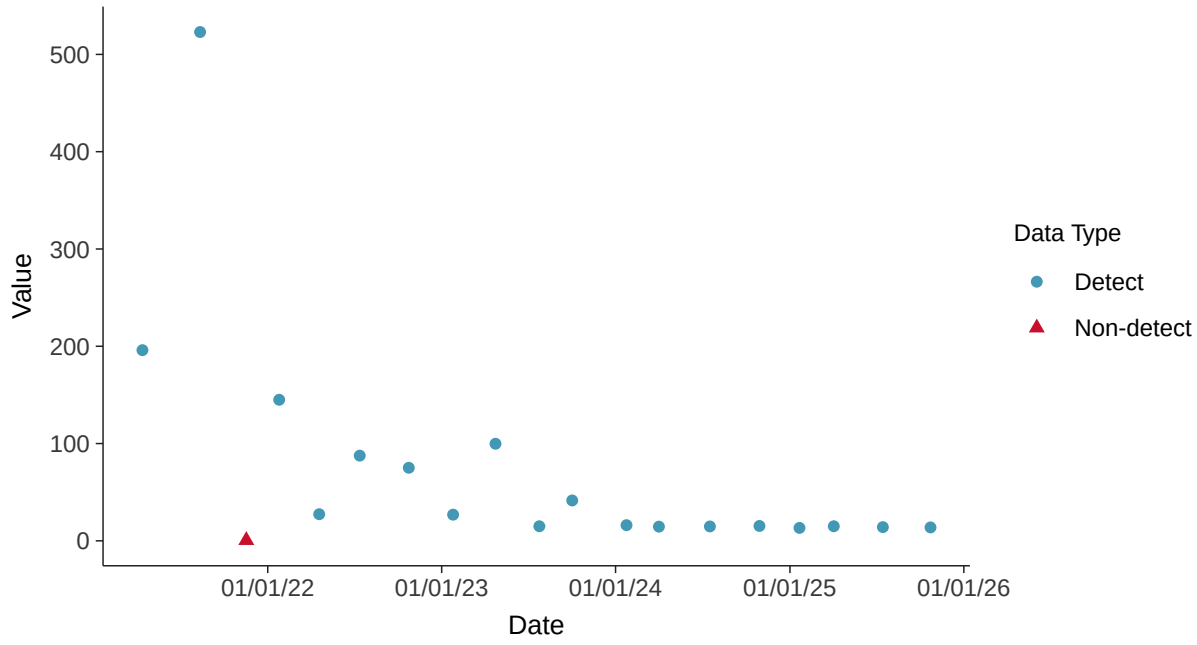


App. III: Sulfate, MW-11D

ID: 11_2_123

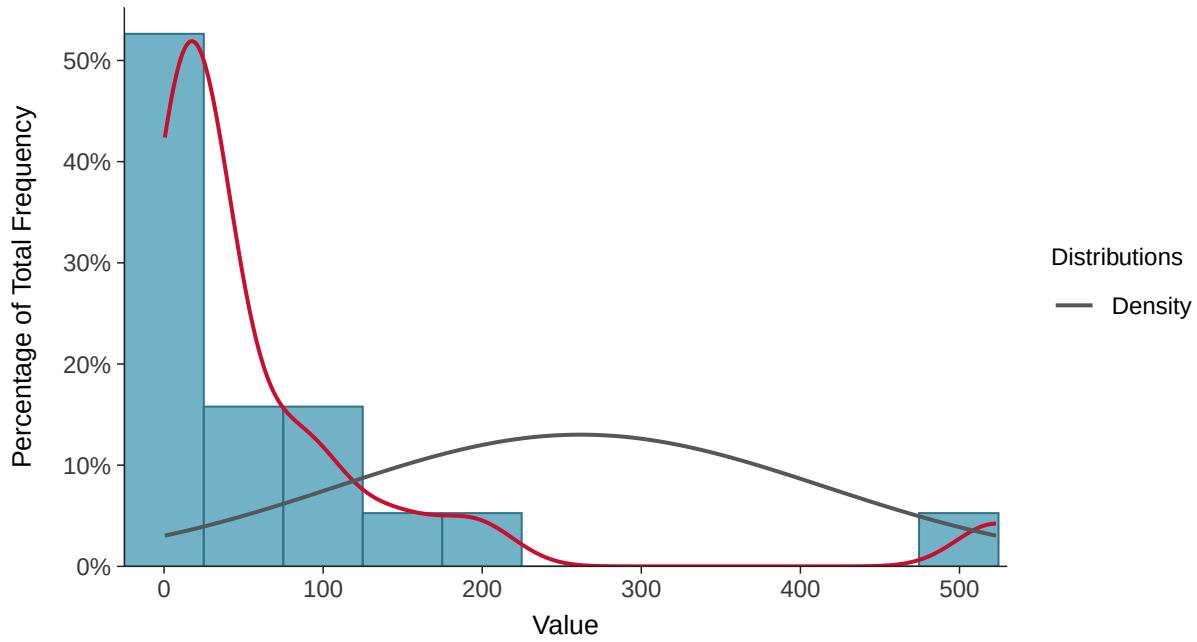
Scatter Plot

Sulfate, MW-11D (mg/L)



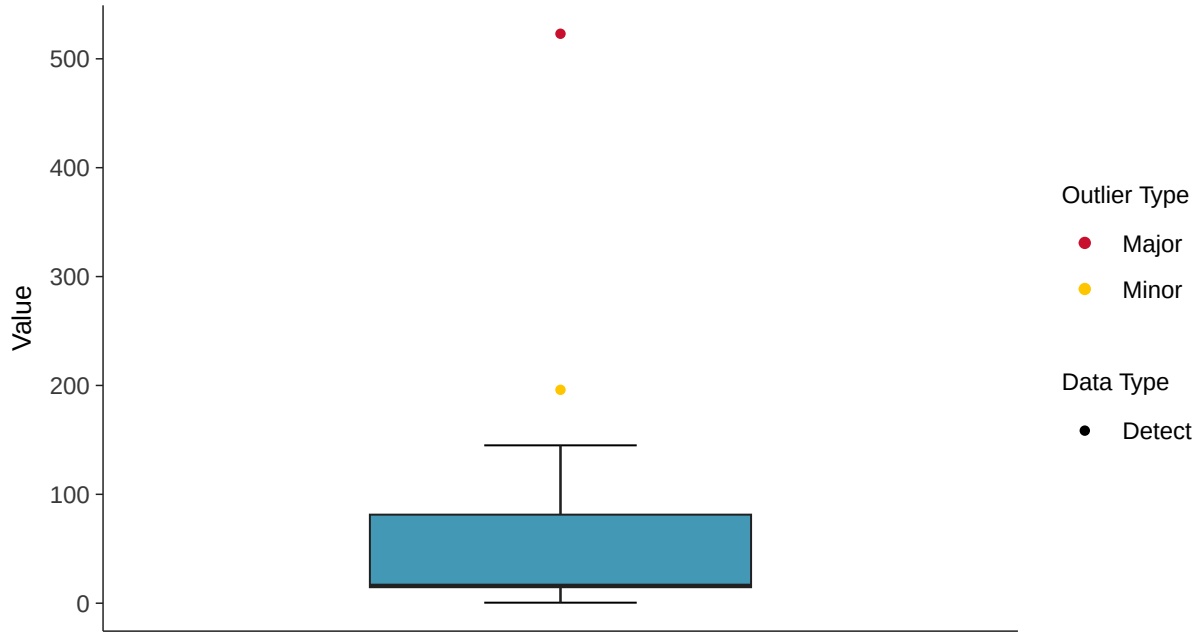
Histogram

Sulfate, MW-11D (mg/L)



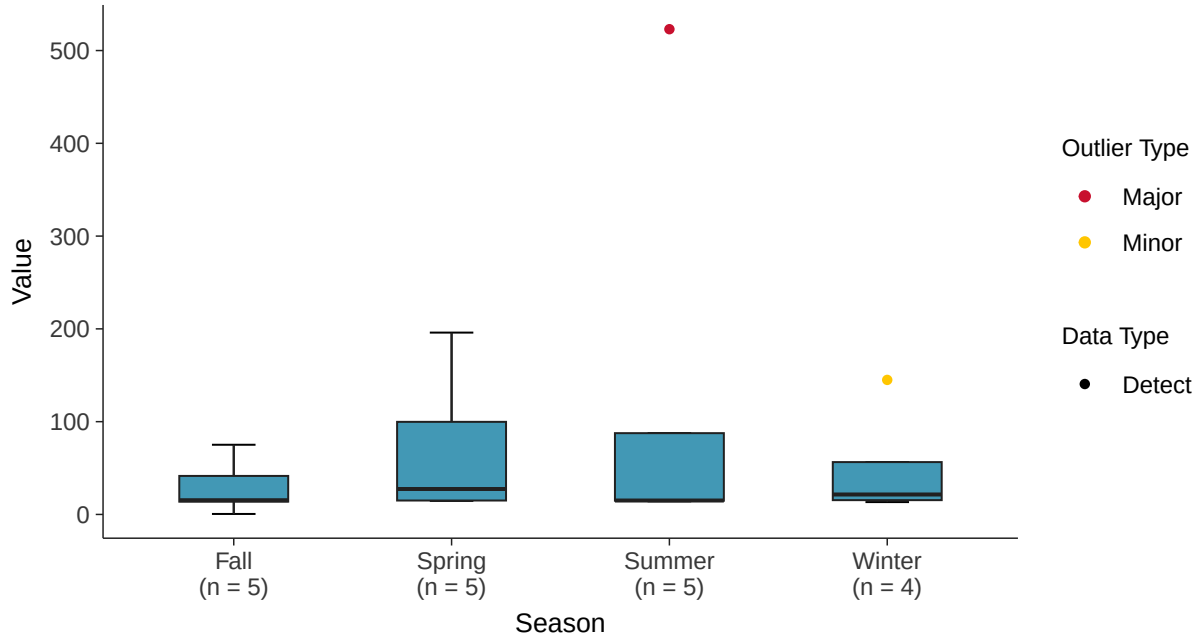
Boxplot

Sulfate, MW-11D (mg/L)



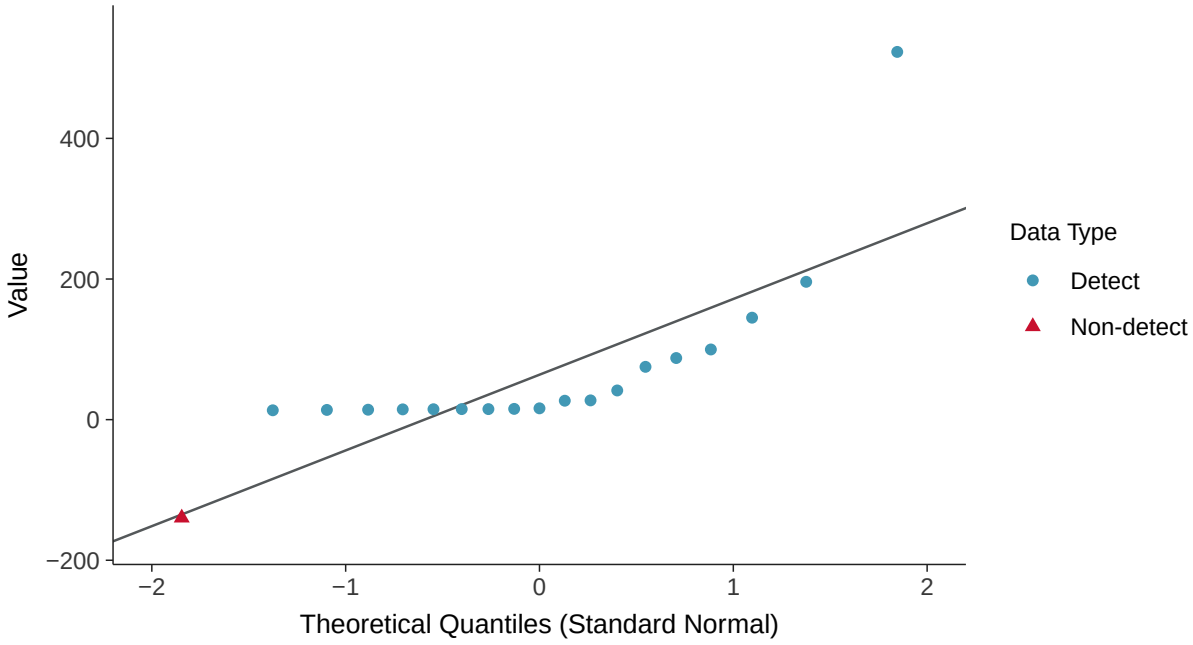
Boxplot by Season

Sulfate, MW-11D (mg/L)



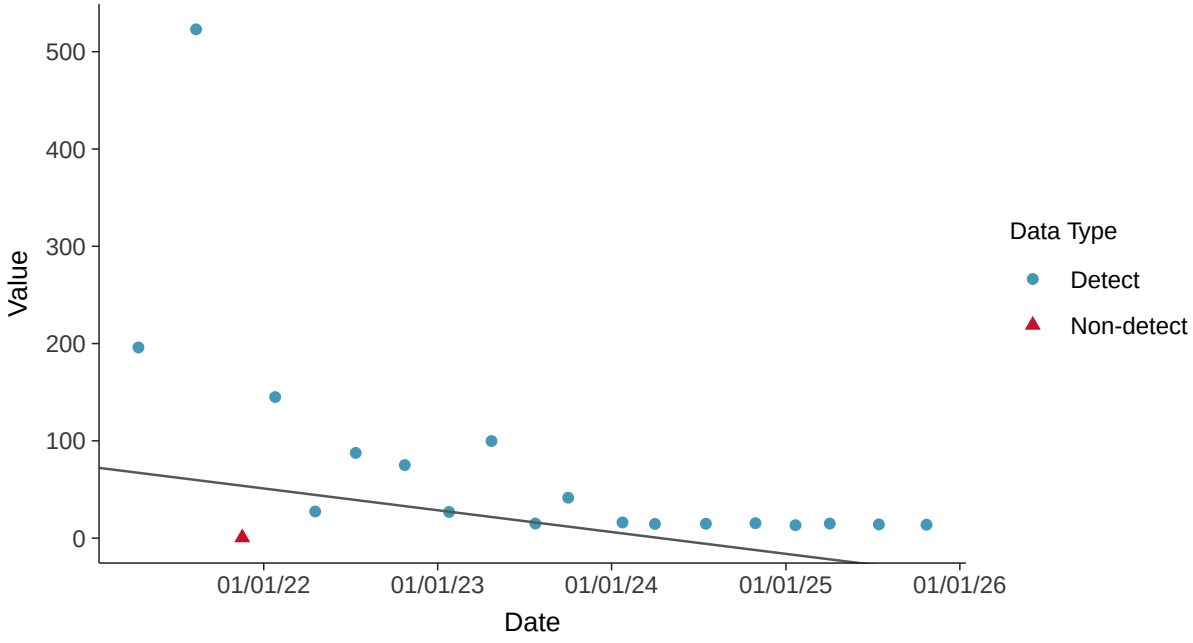
Normal Q-Q plot using ROS Imputed Estimates

Sulfate, MW-11D (mg/L)



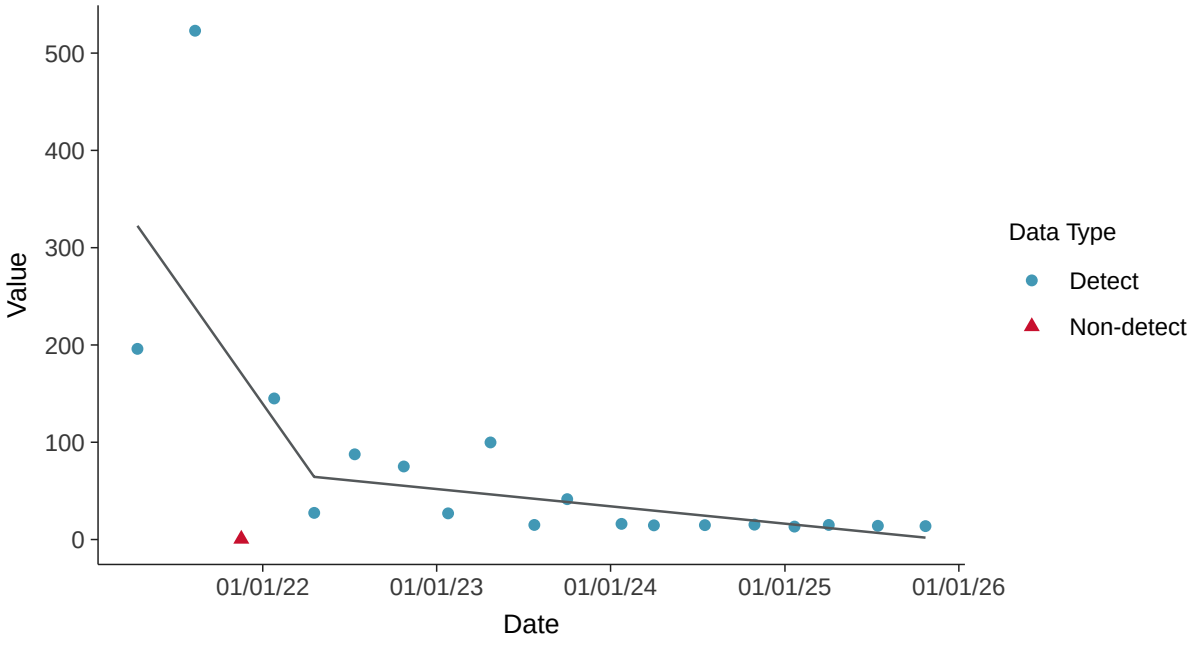
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Sulfate, MW-11D (mg/L)



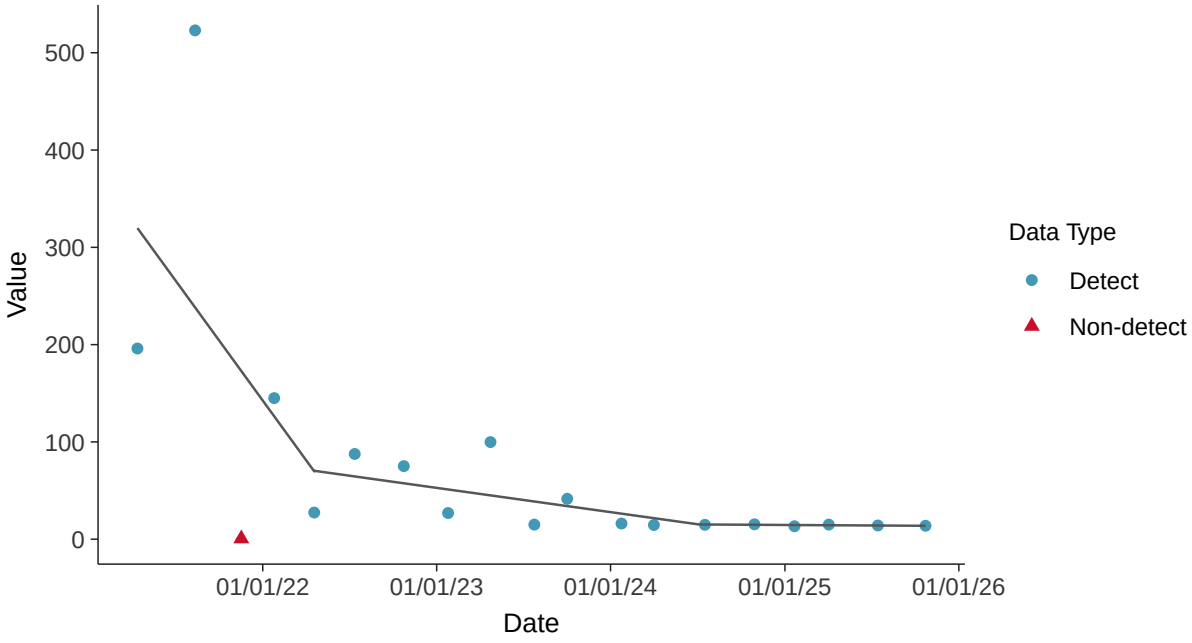
Trend Regression: Piecewise Linear-Linear

Sulfate, MW-11D (mg/L)



Trend Regression: Piecewise Linear-Linear-Linear

Sulfate, MW-11D (mg/L)

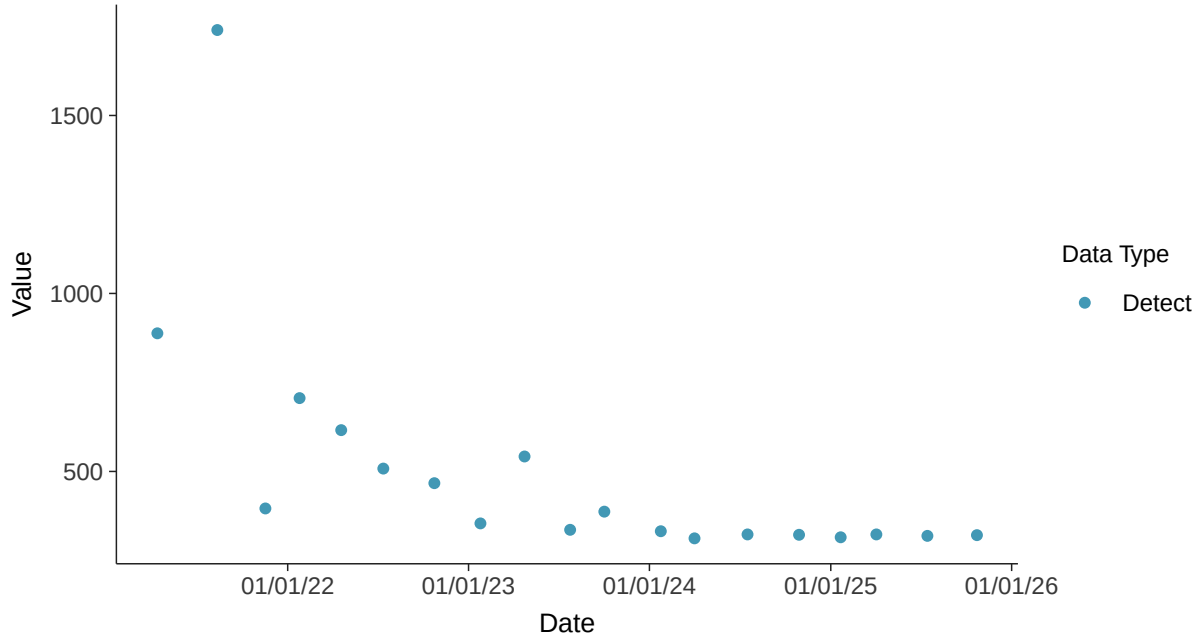


App. III: Total Dissolved Solids, MW-11D

ID: 11_2_125

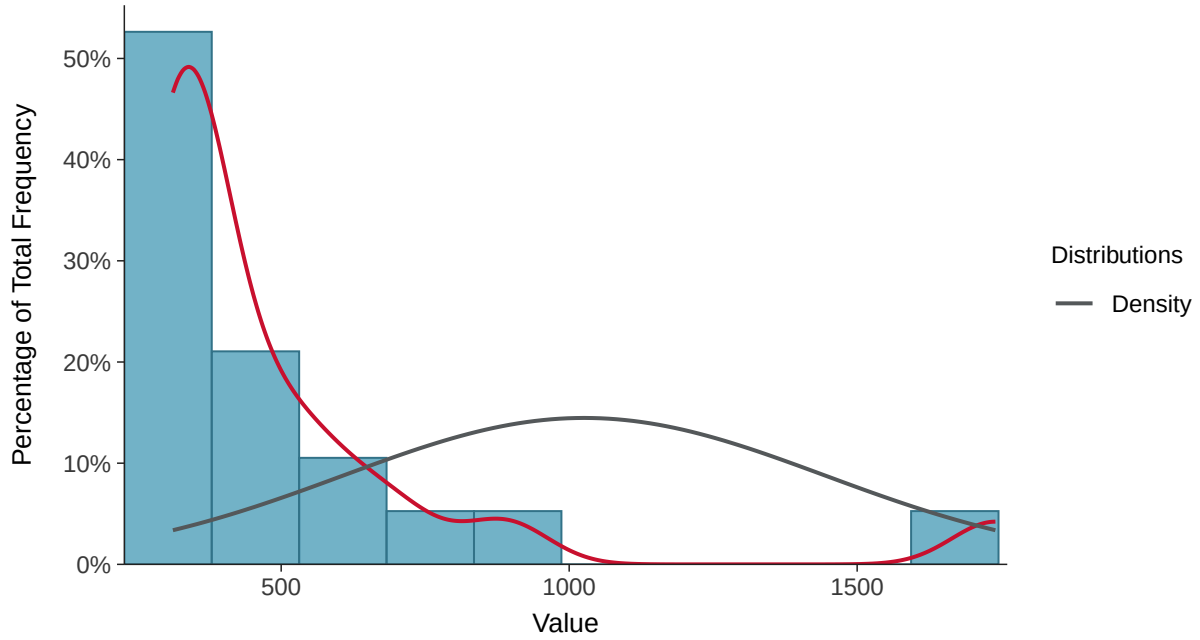
Scatter Plot

Total Dissolved Solids, MW-11D (mg/L)



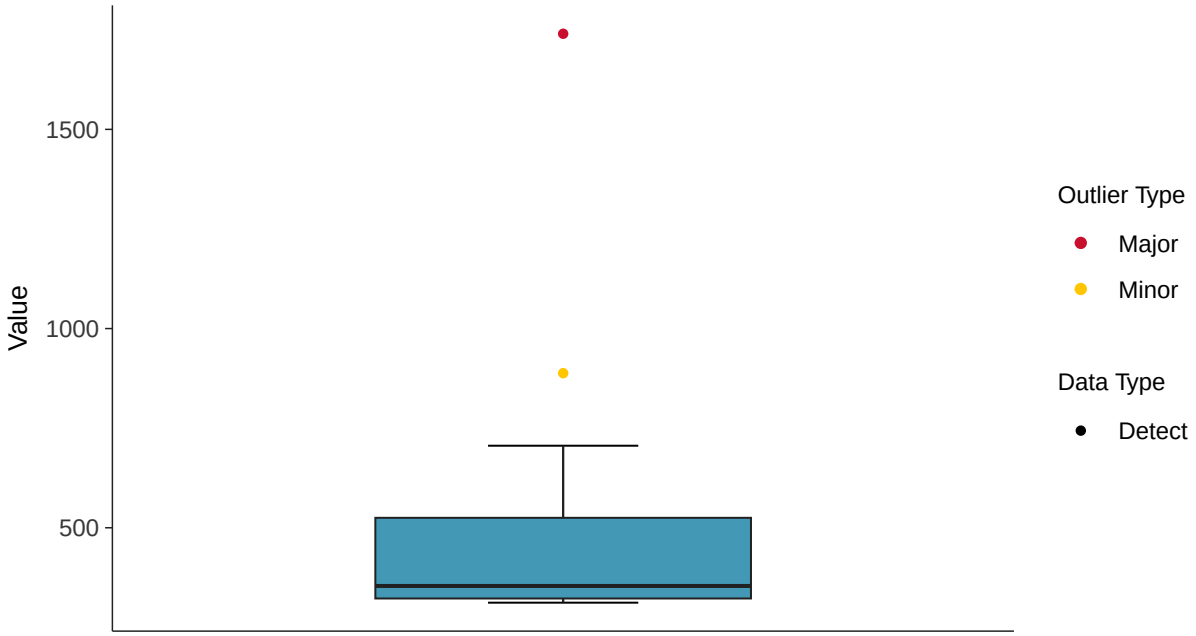
Histogram

Total Dissolved Solids, MW-11D (mg/L)



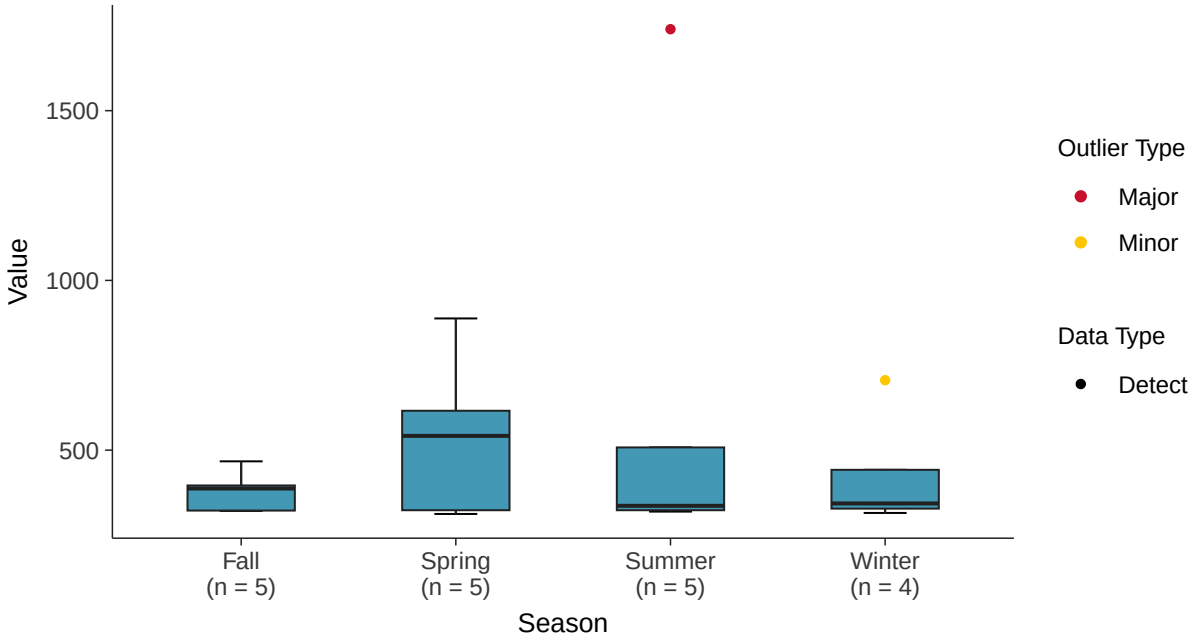
Boxplot

Total Dissolved Solids, MW-11D (mg/L)



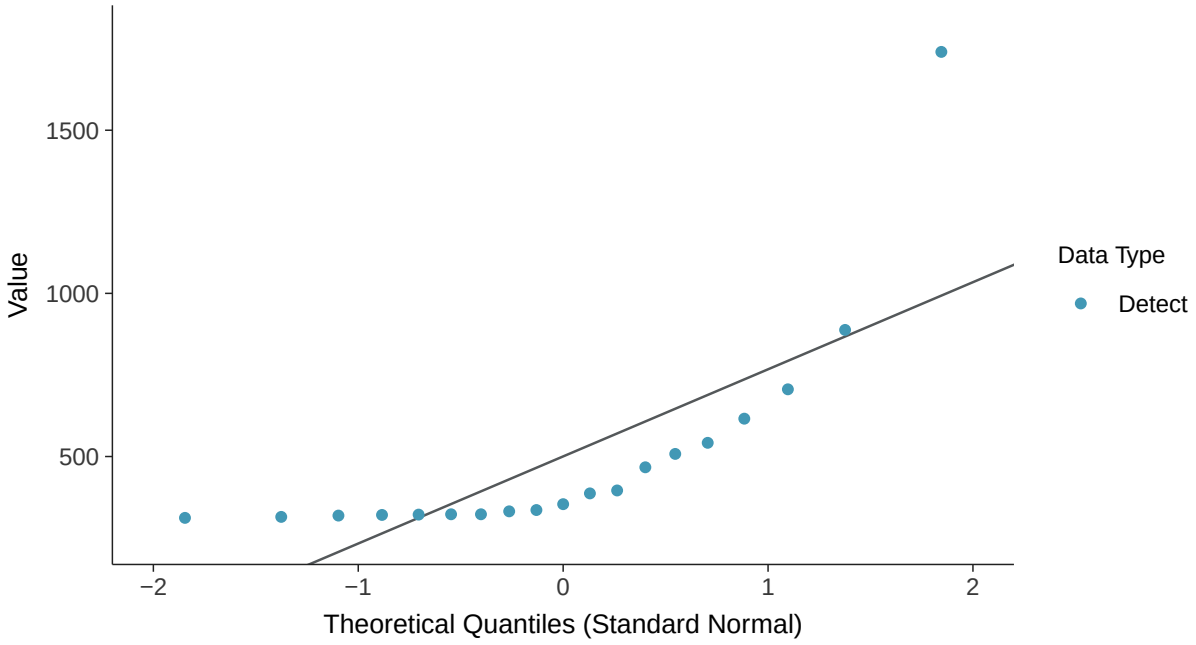
Boxplot by Season

Total Dissolved Solids, MW-11D (mg/L)



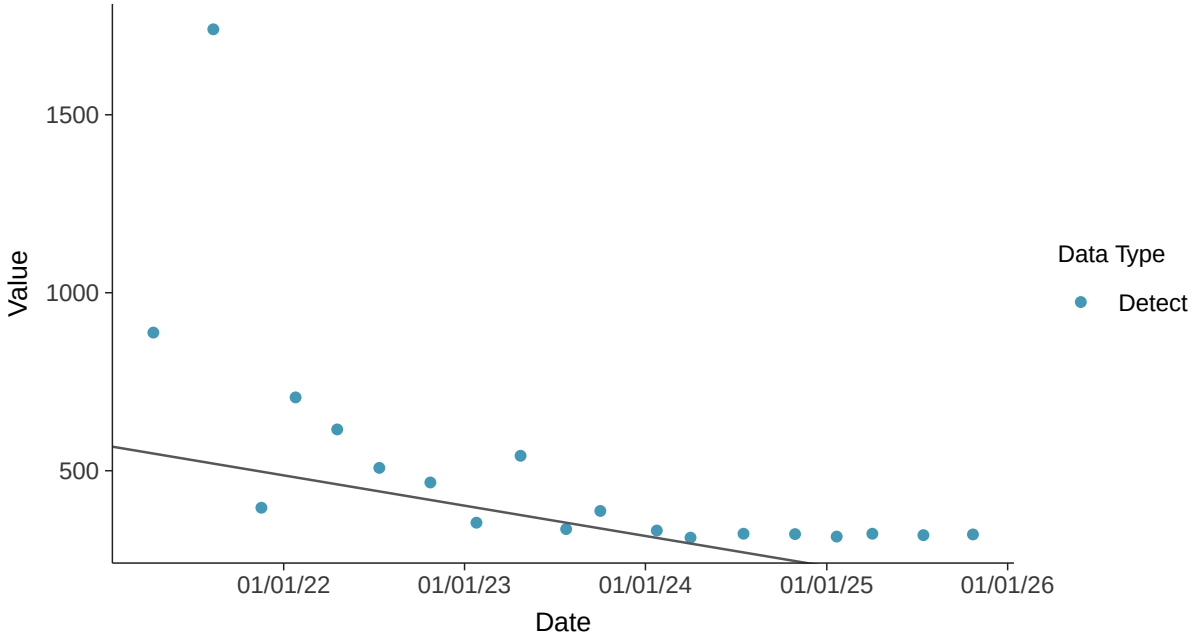
Normal Q-Q plot

Total Dissolved Solids, MW-11D (mg/L)



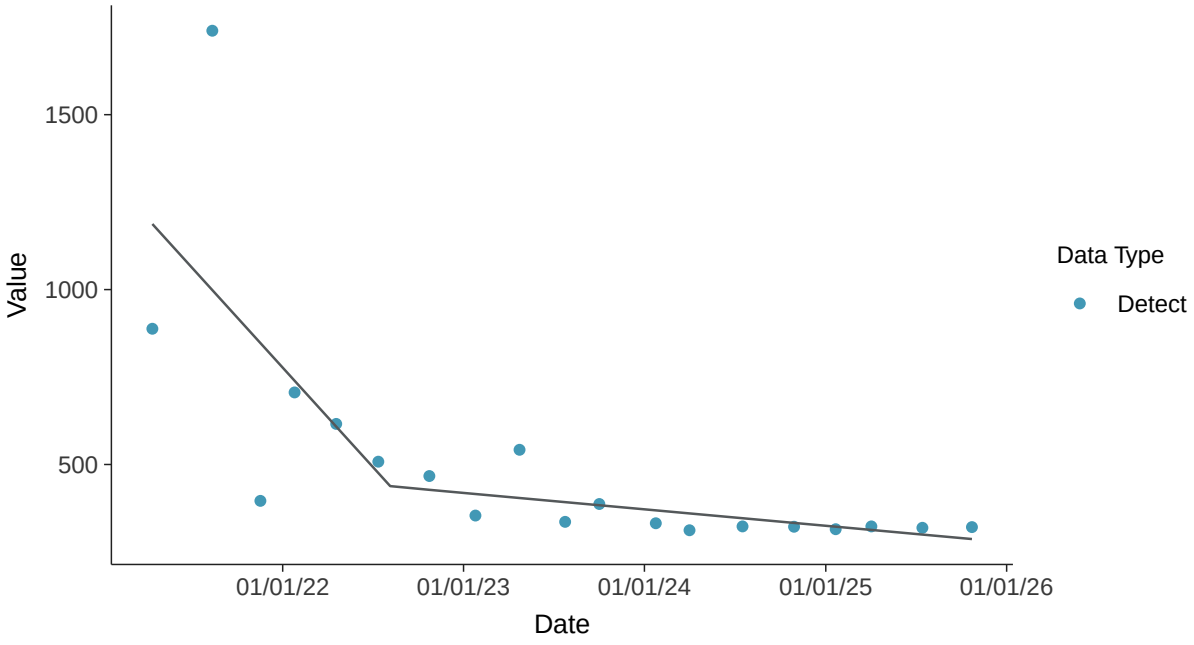
Trend Regression: Mann-Kendall/Theil-Sen Estimate

Total Dissolved Solids, MW-11D (mg/L)



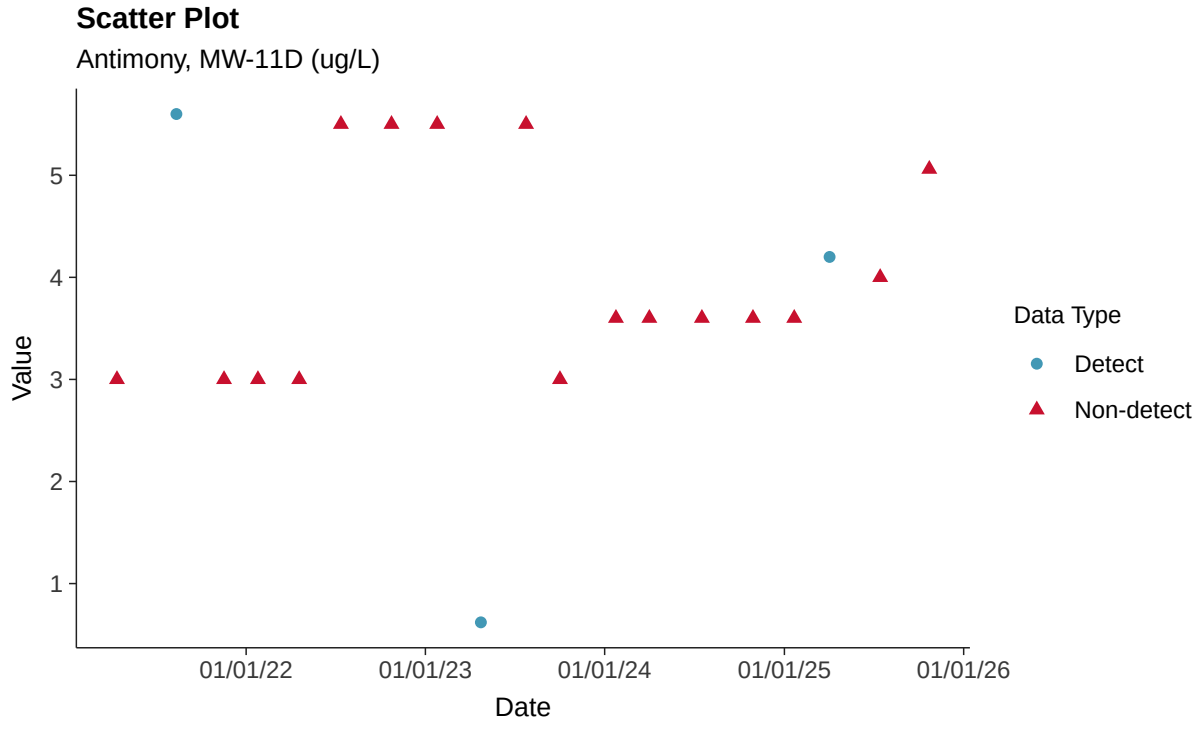
Trend Regression: Piecewise Linear-Linear

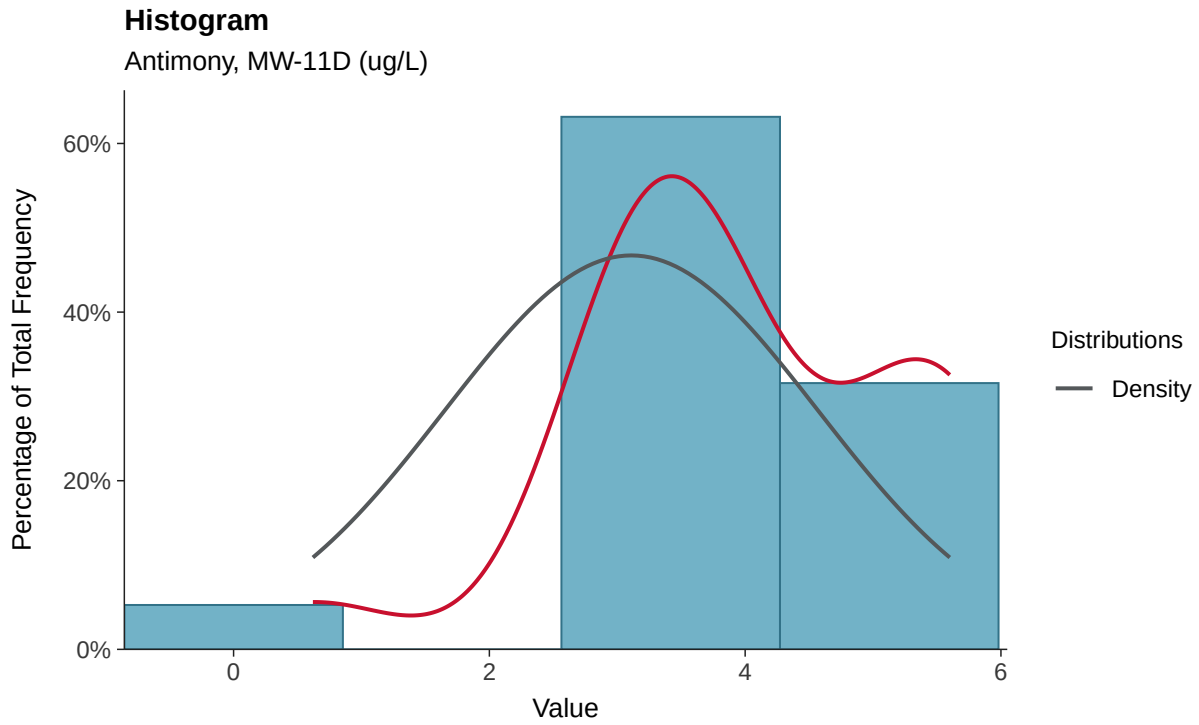
Total Dissolved Solids, MW-11D (mg/L)



App. IV: Antimony, MW-11D

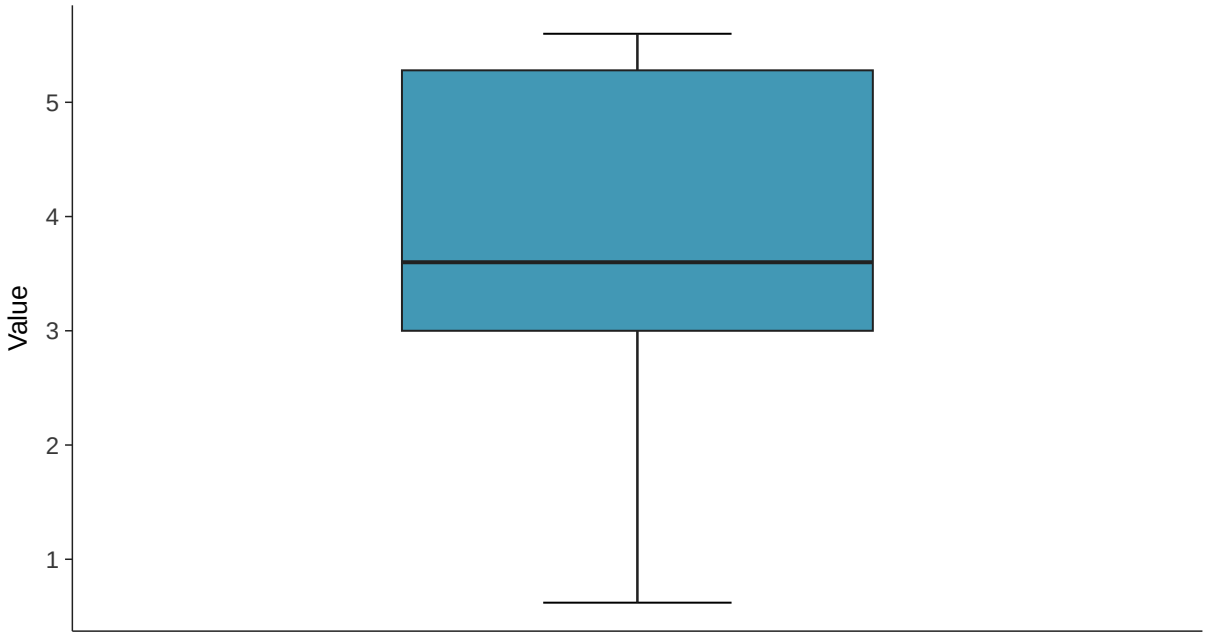
ID: 11_3_101





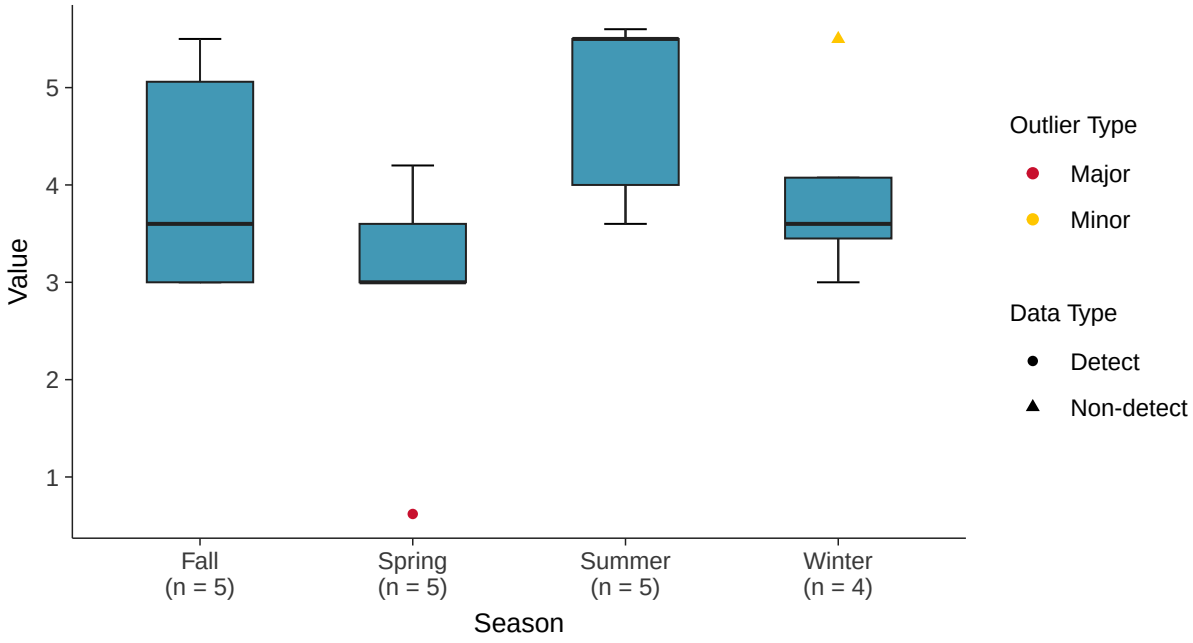
Boxplot

Antimony, MW-11D (ug/L)



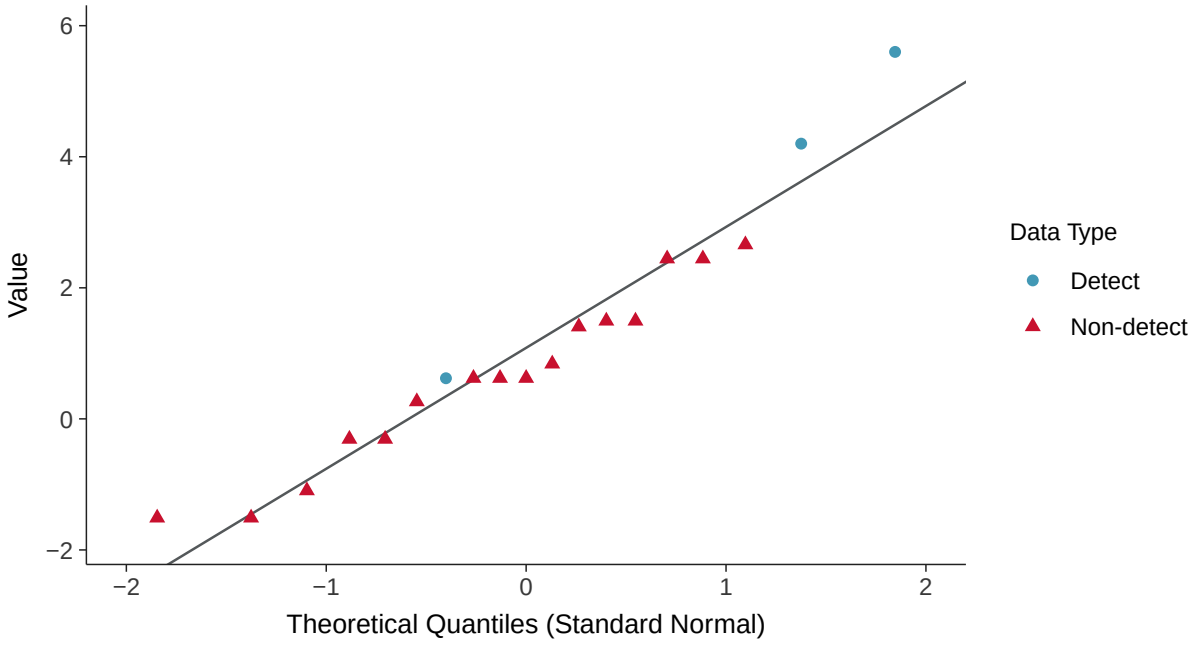
Boxplot by Season

Antimony, MW-11D (ug/L)



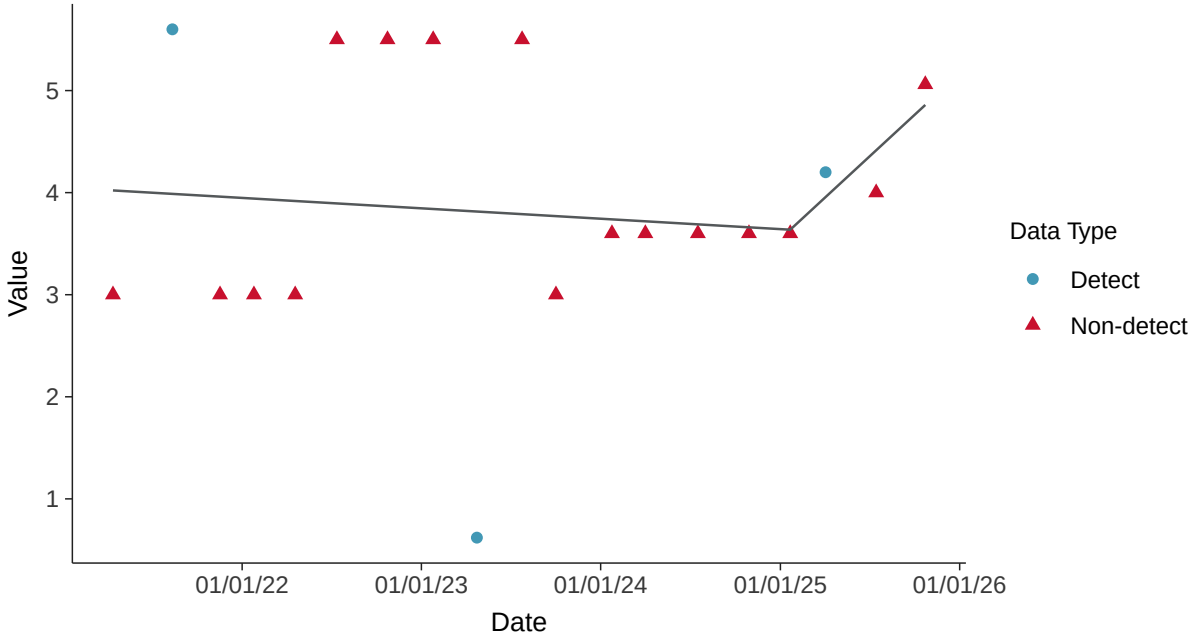
Normal Q-Q plot using ROS Imputed Estimates

Antimony, MW-11D (ug/L)



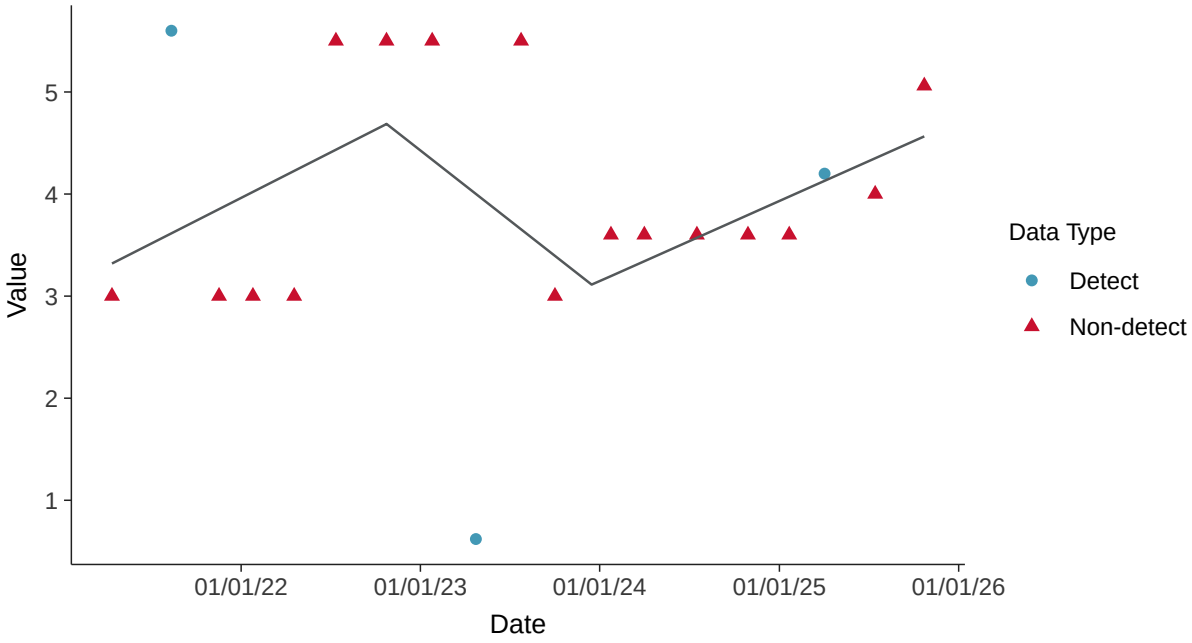
Trend Regression: Piecewise Linear-Linear

Antimony, MW-11D (ug/L)



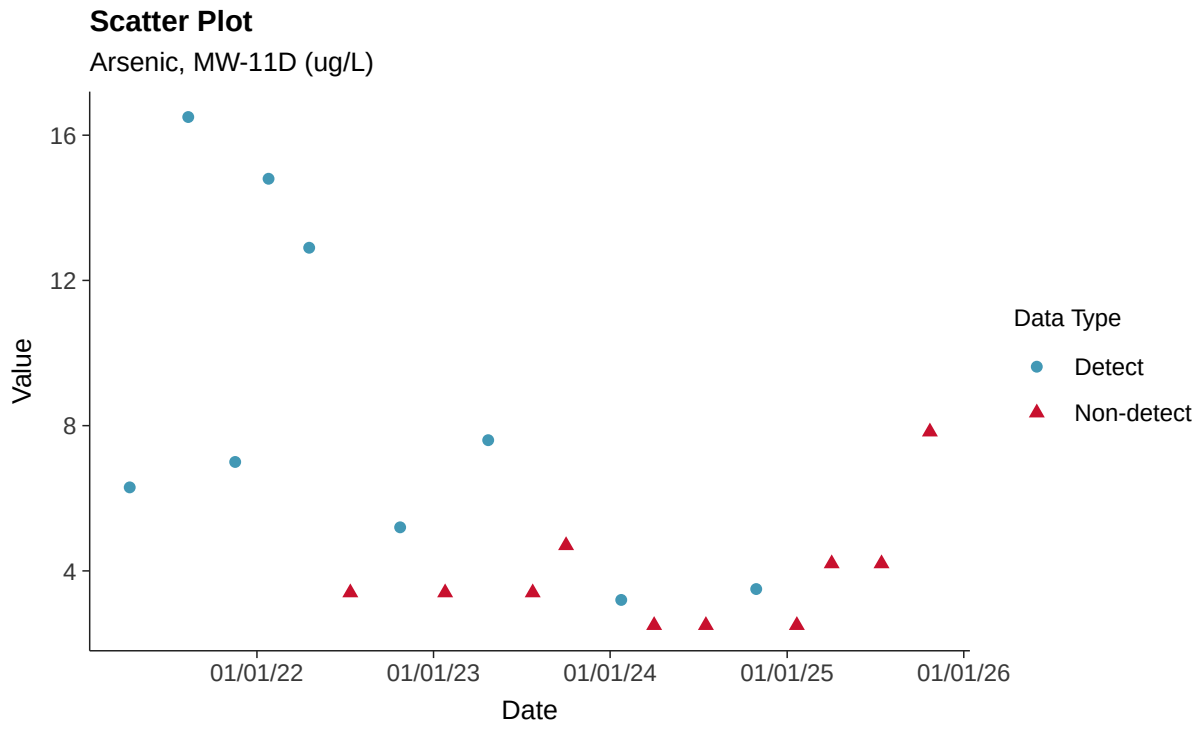
Trend Regression: Piecewise Linear-Linear-Linear

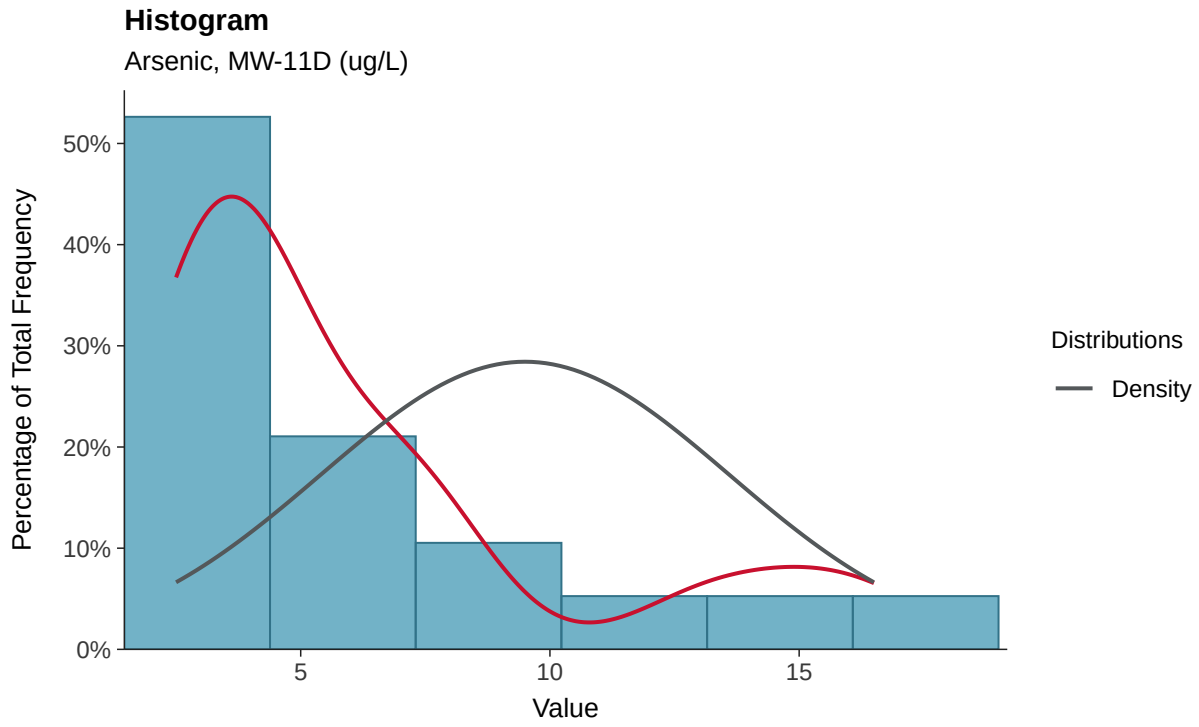
Antimony, MW-11D (ug/L)



App. IV: Arsenic, MW-11D

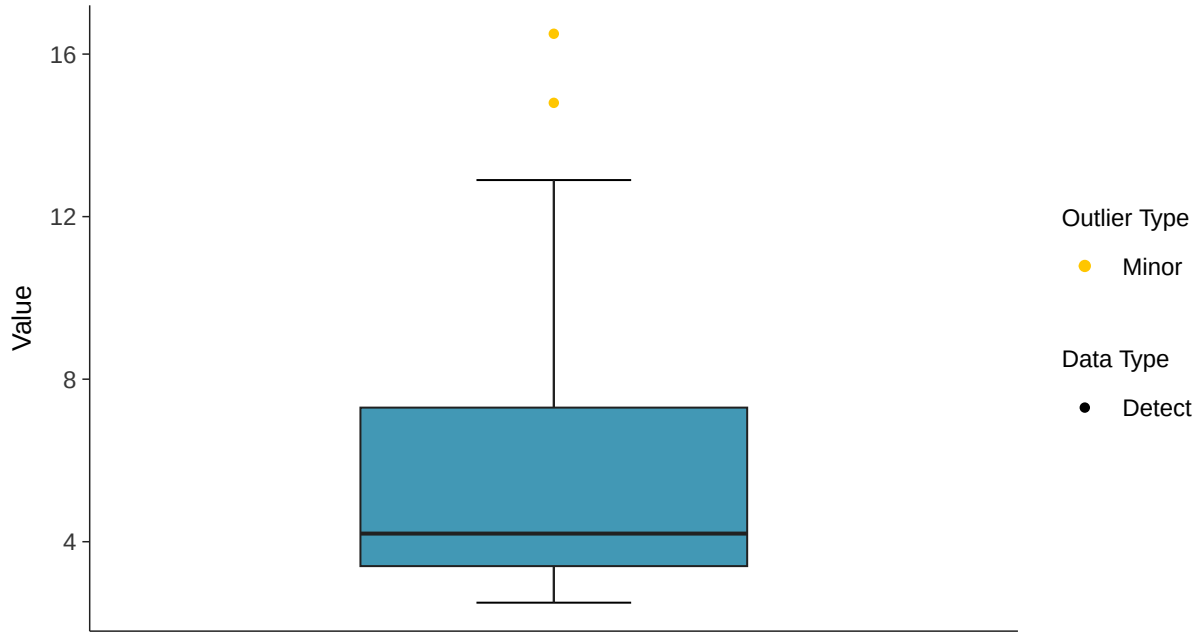
ID: 11_3_102





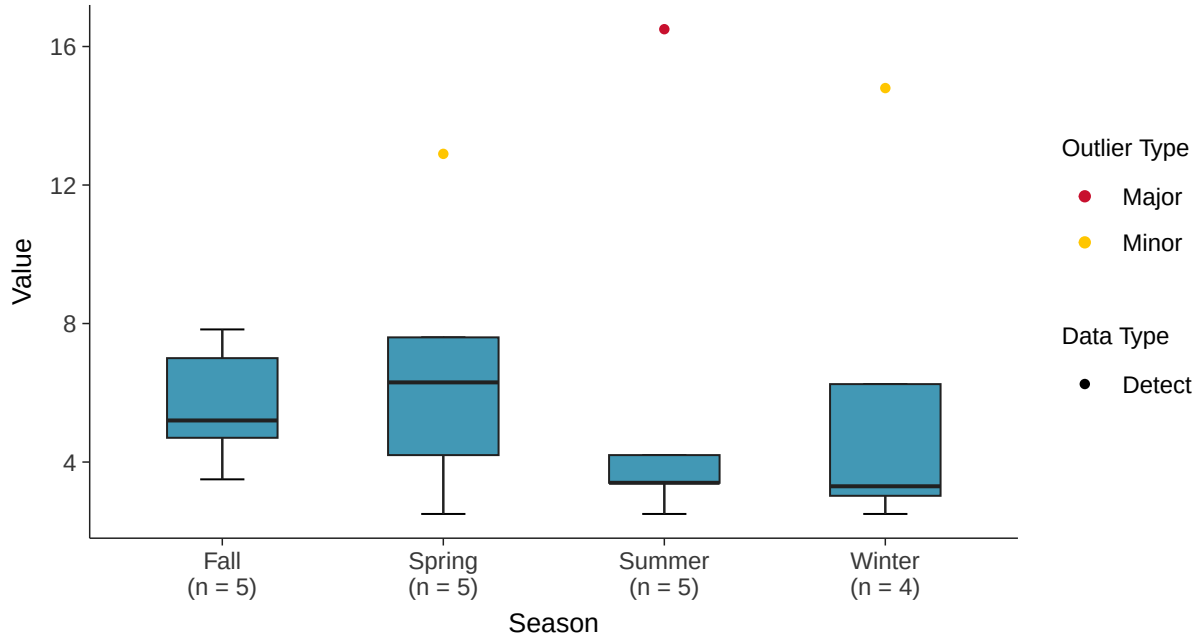
Boxplot

Arsenic, MW-11D (ug/L)



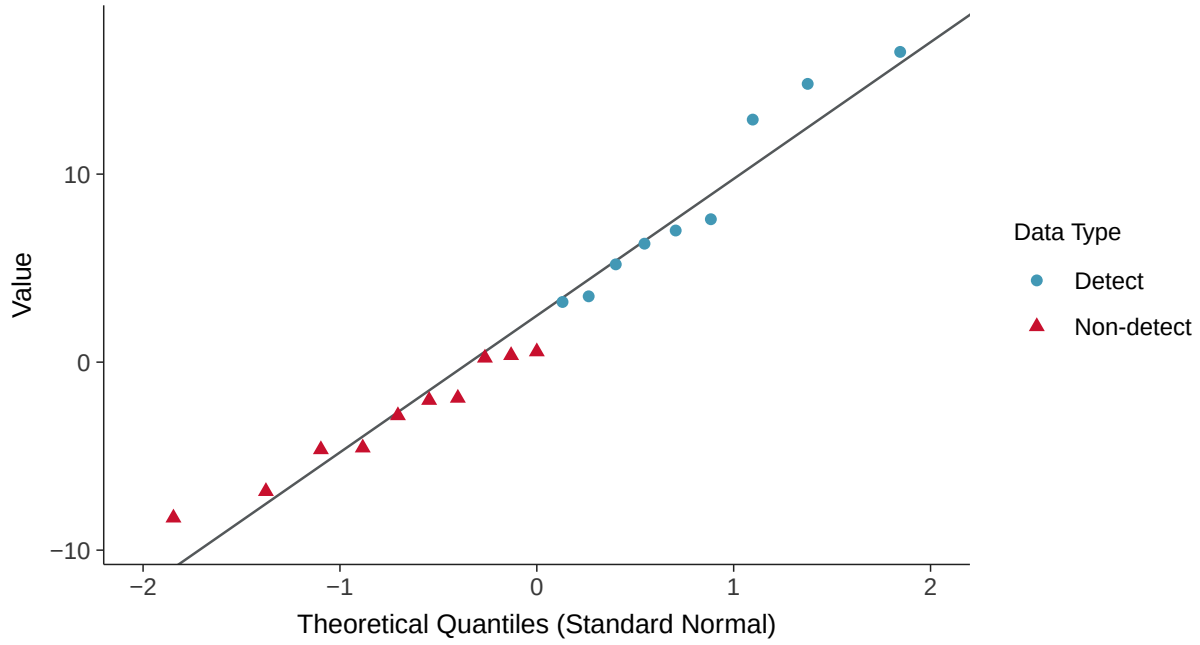
Boxplot by Season

Arsenic, MW-11D (ug/L)



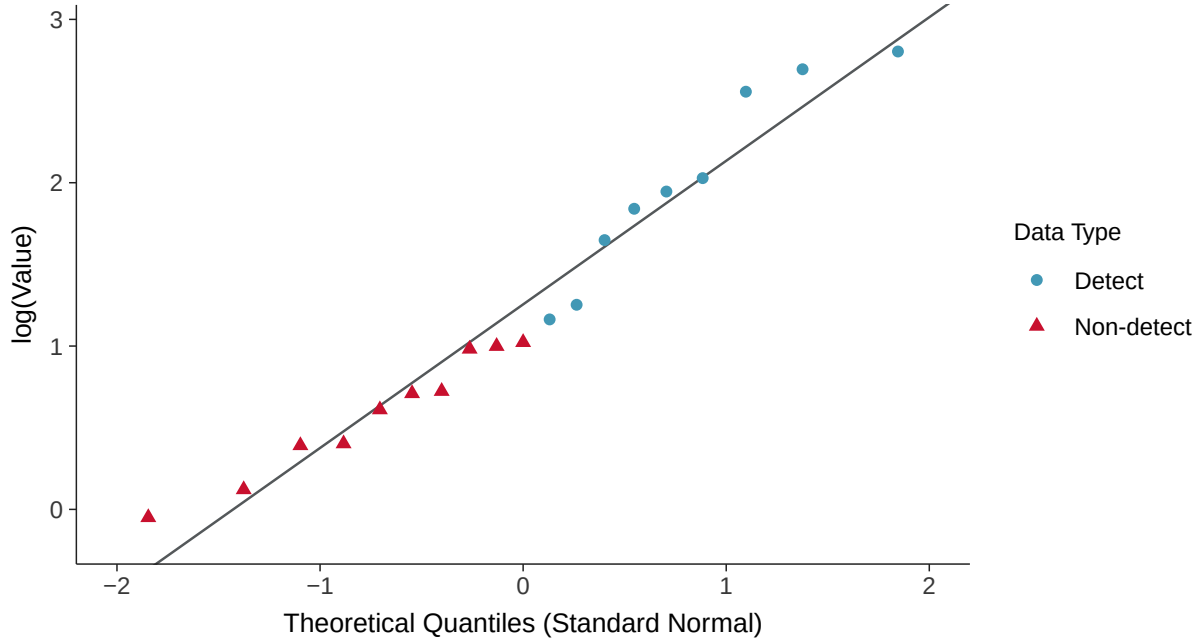
Normal Q-Q plot using ROS Imputed Estimates

Arsenic, MW-11D (ug/L)



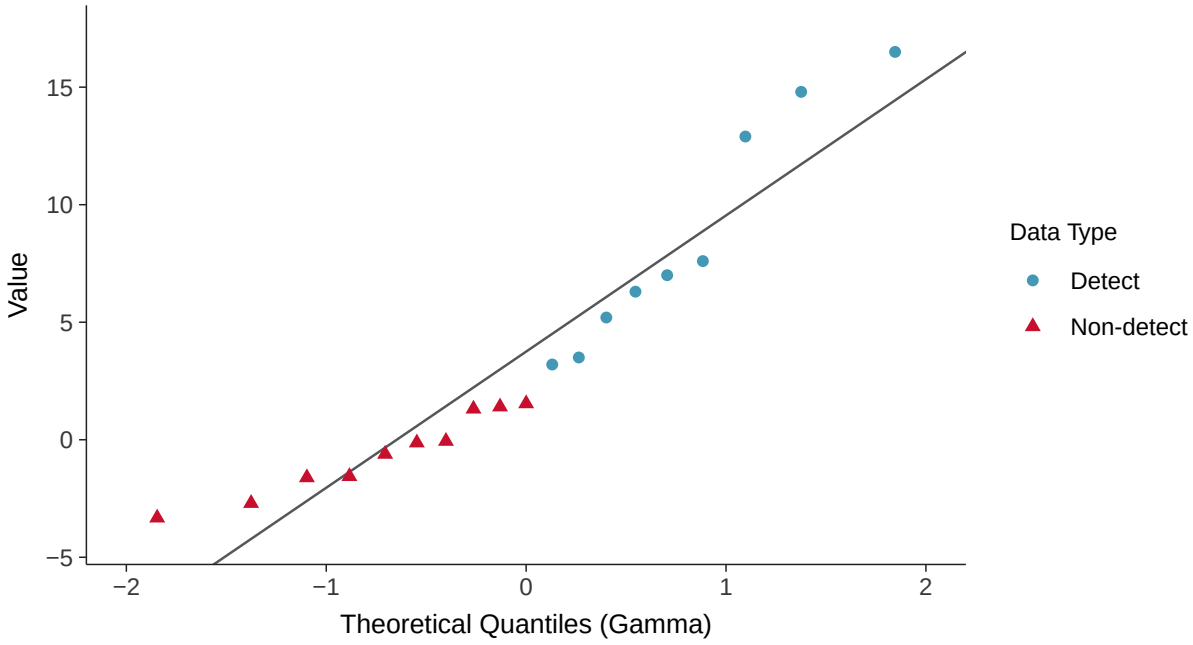
Lognormal Q-Q plot using ROS Imputed Estimates

Arsenic, MW-11D (ug/L)



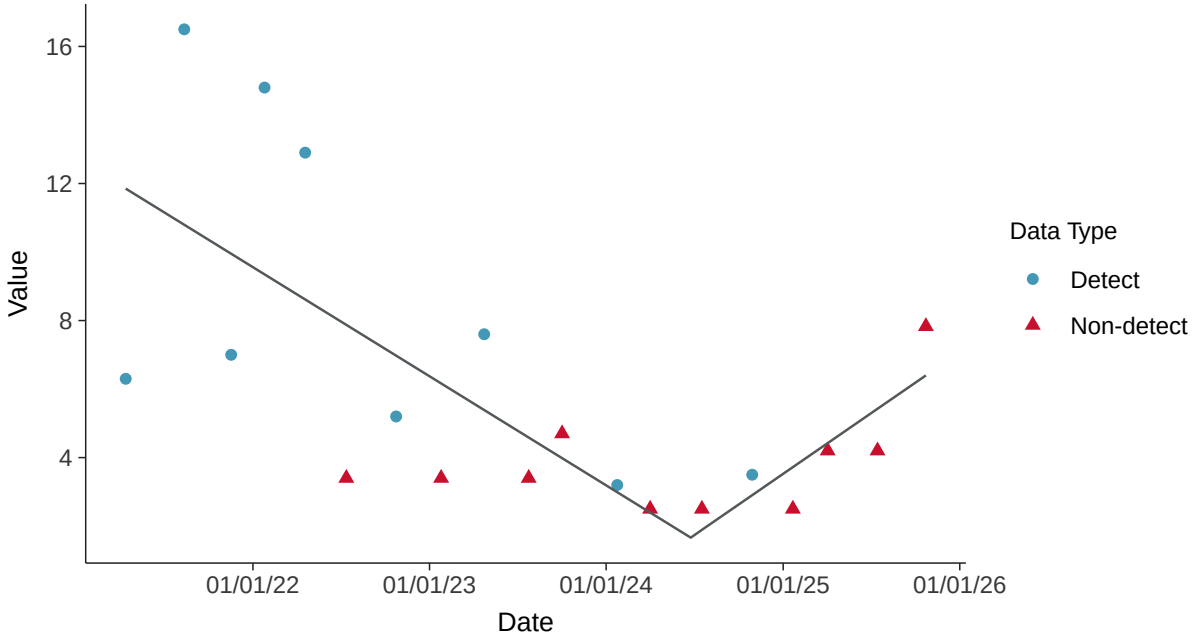
Gamma Q-Q plot using ROS Imputed Estimates

Arsenic, MW-11D (ug/L)



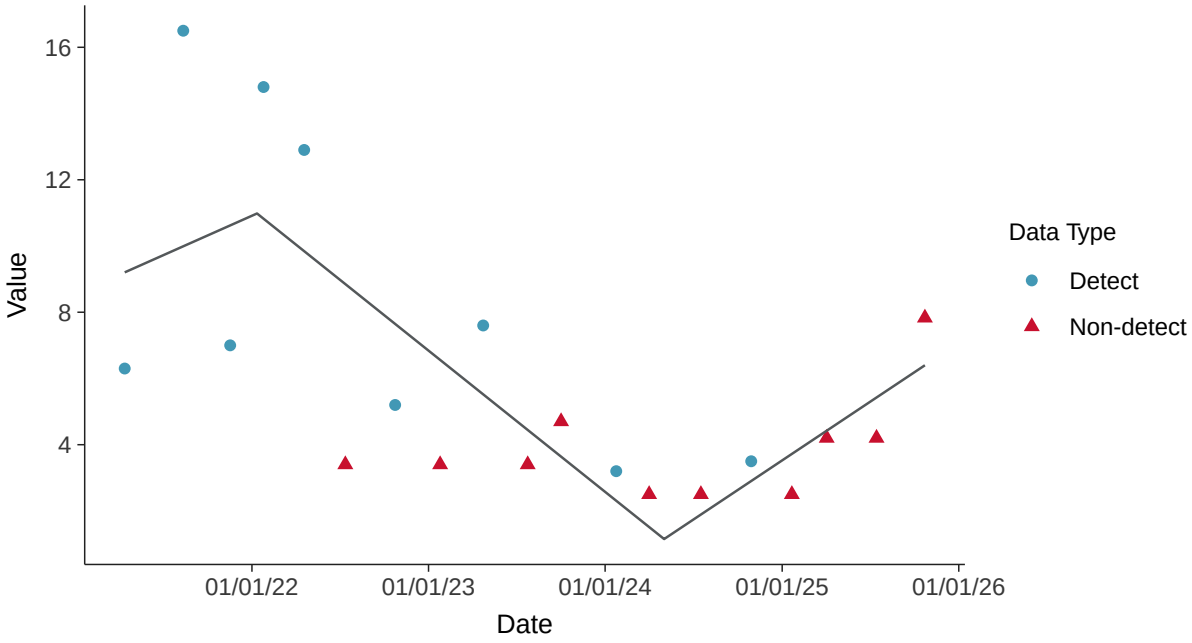
Trend Regression: Piecewise Linear-Linear

Arsenic, MW-11D (ug/L)



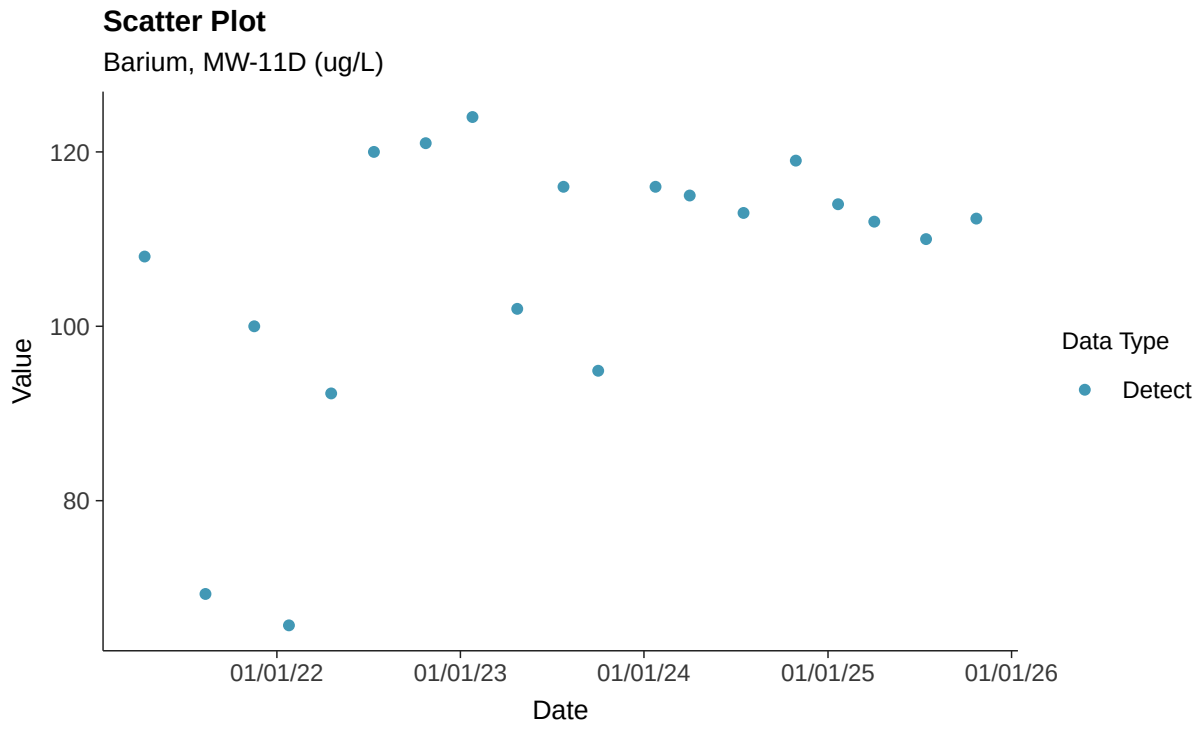
Trend Regression: Piecewise Linear-Linear-Linear

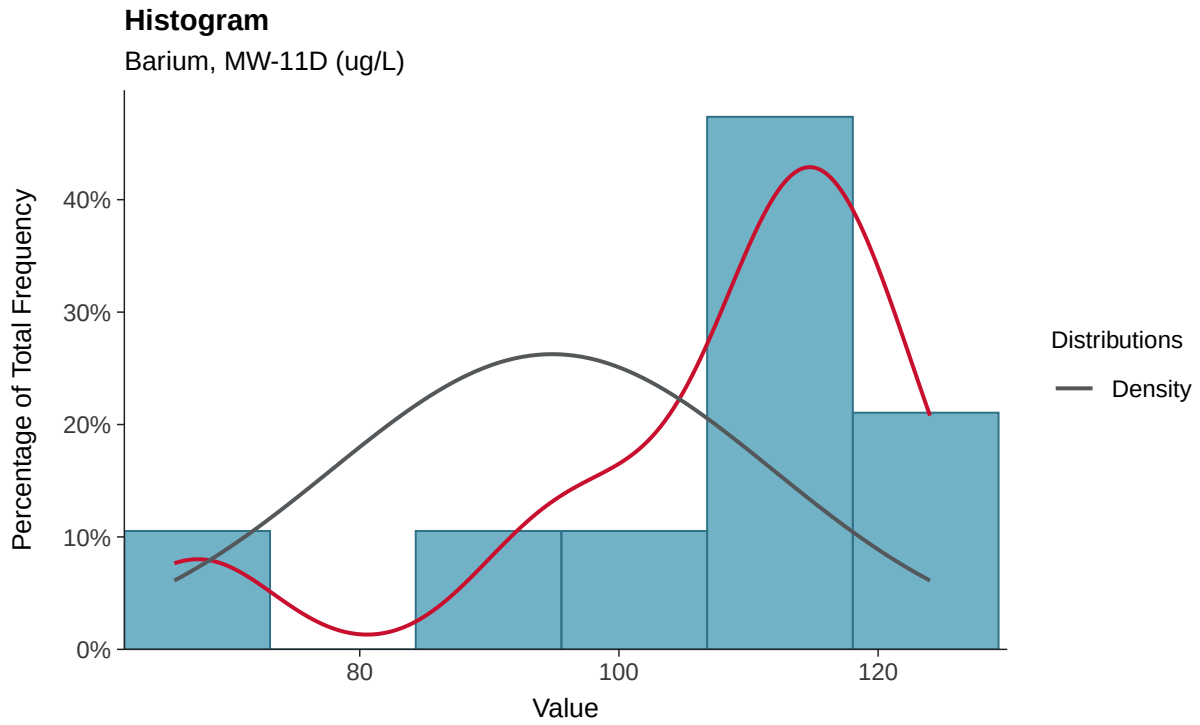
Arsenic, MW-11D (ug/L)



App. IV: Barium, MW-11D

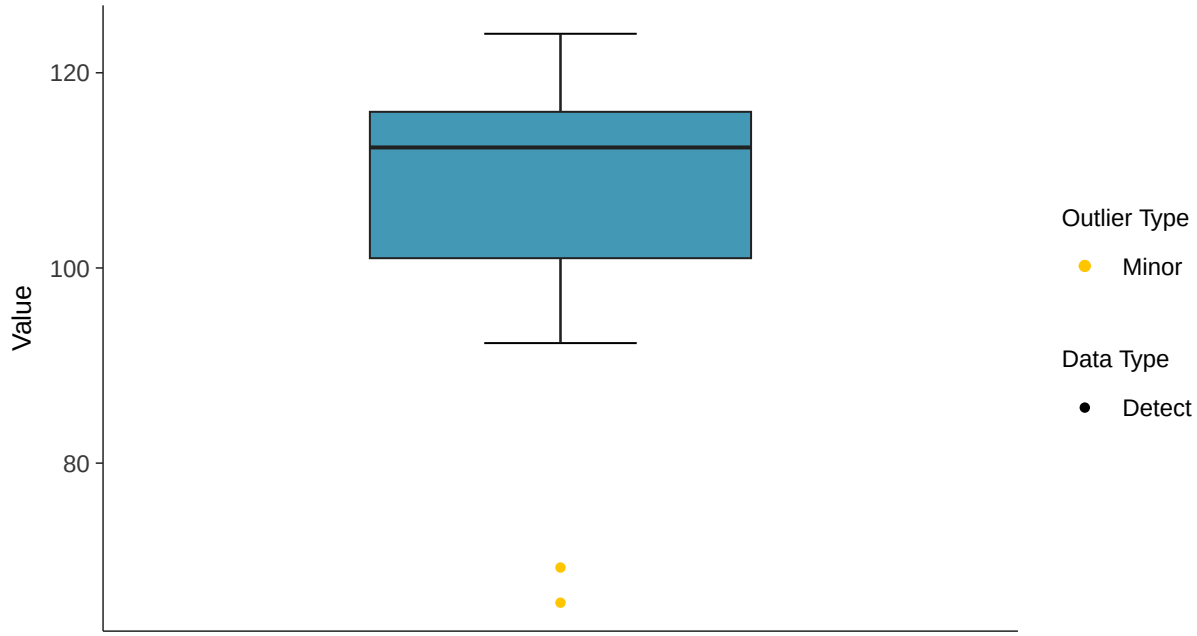
ID: 11_3_103





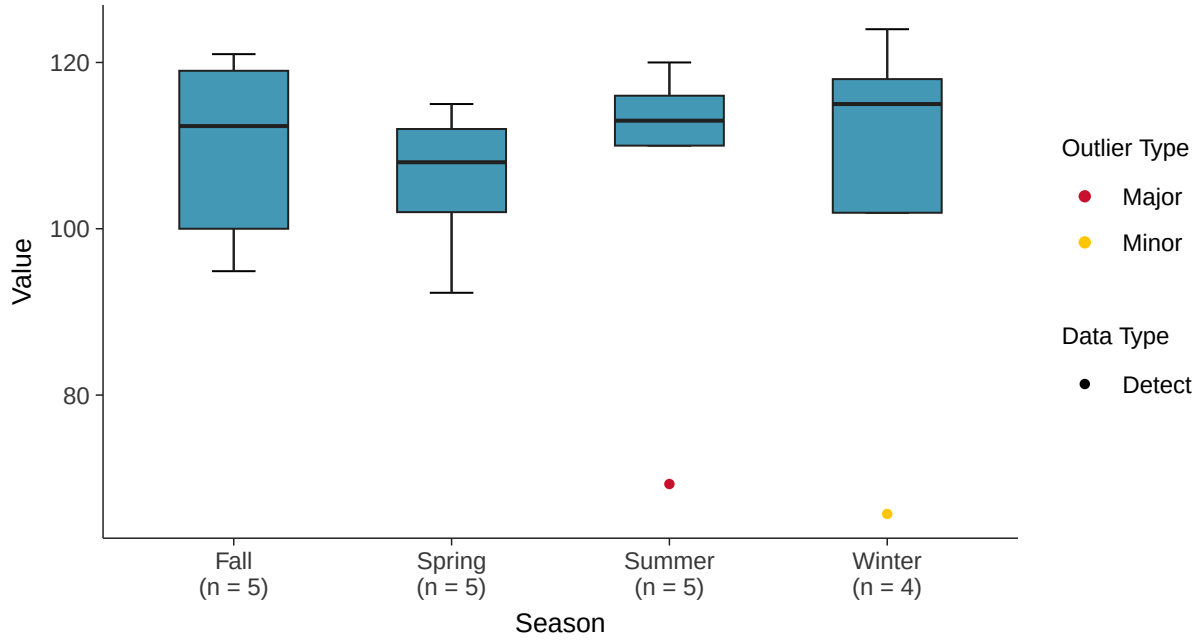
Boxplot

Barium, MW-11D (ug/L)



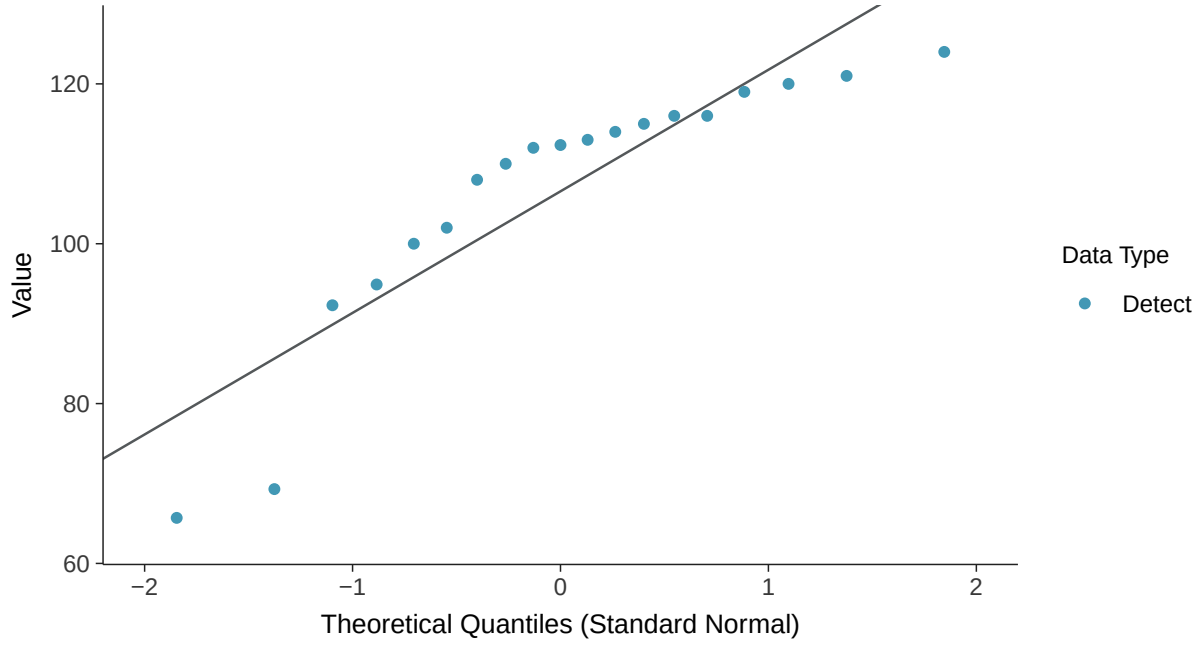
Boxplot by Season

Barium, MW-11D (ug/L)



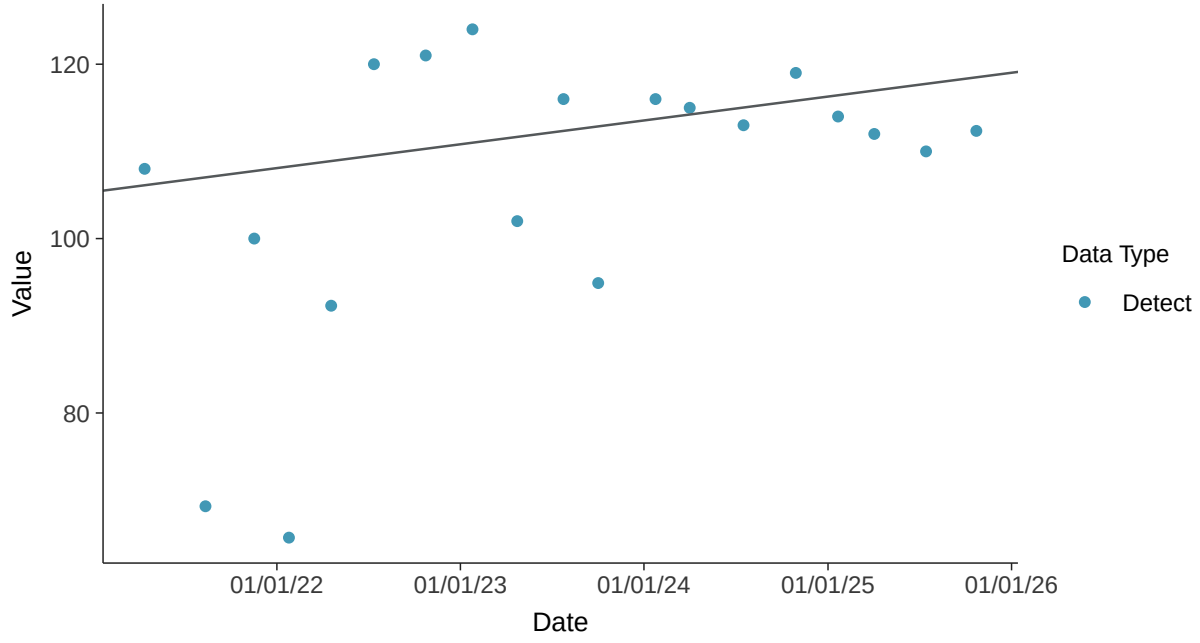
Normal Q-Q plot

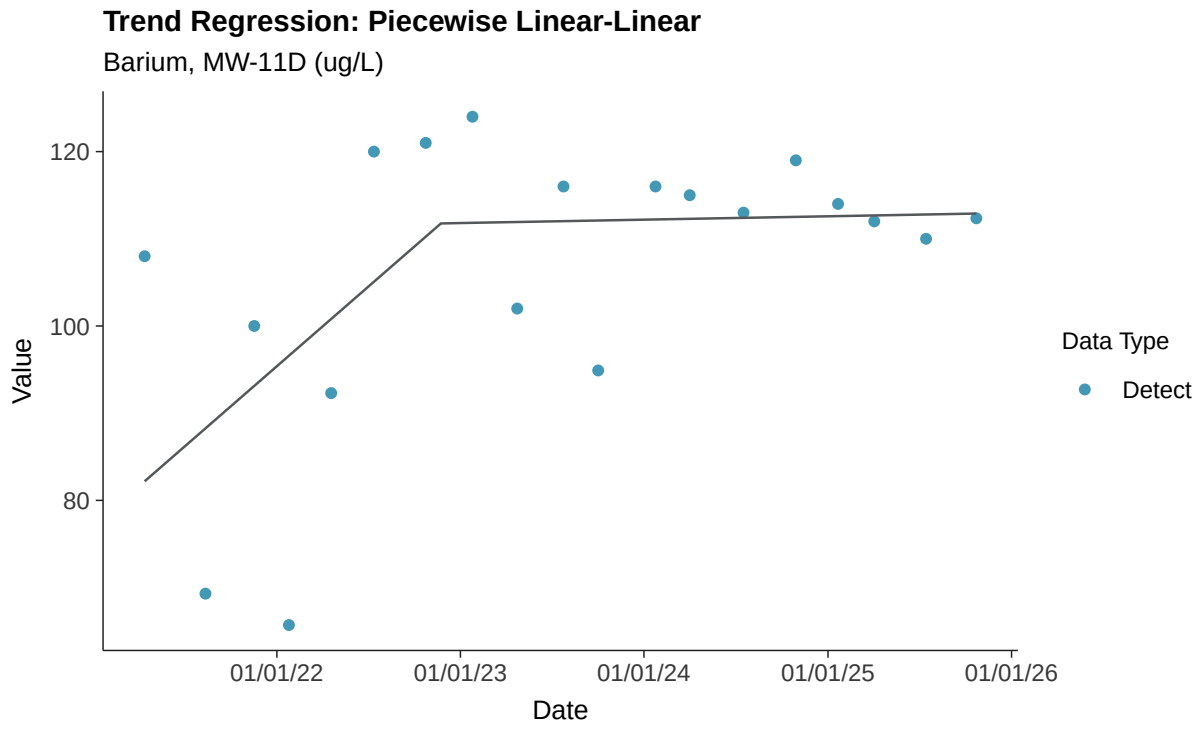
Barium, MW-11D (ug/L)



Trend Regression: Mann-Kendall/Theil-Sen Estimate

Barium, MW-11D (ug/L)



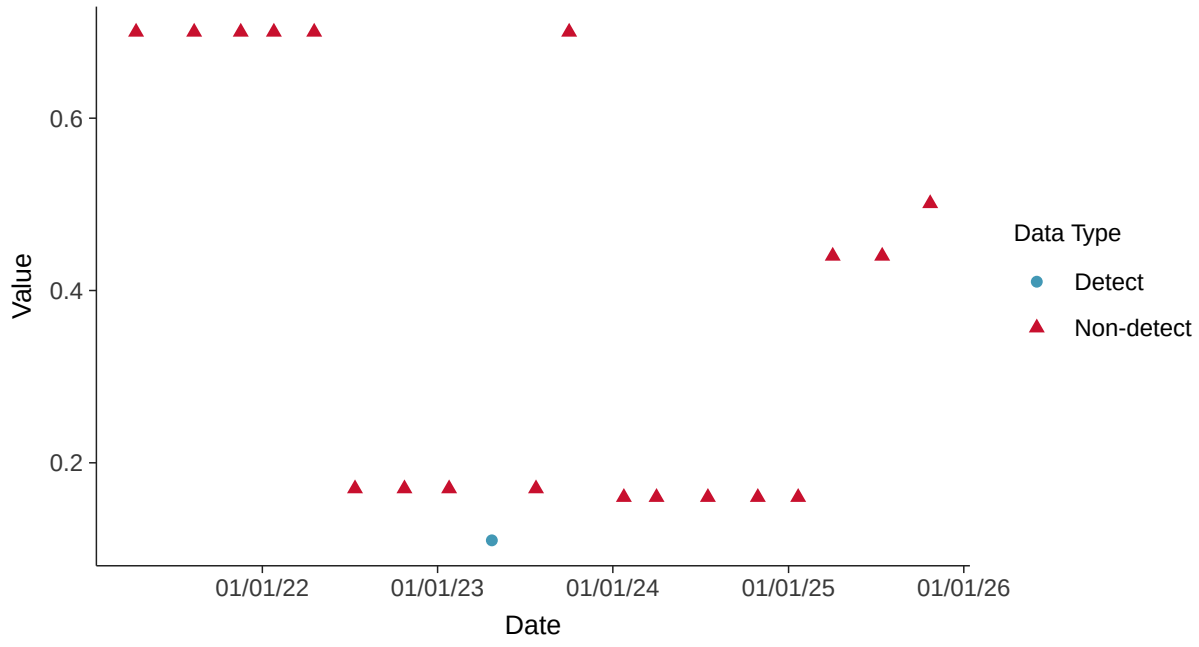

Trend Regression: Piecewise Linear-Linear
Barium, MW-11D (ug/L)
120
100
80
Value
01/01/22
01/01/23
01/01/24
01/01/25
01/01/26
Date
Data Type
Detect

App. IV: Beryllium, MW-11D

ID: 11_3_104

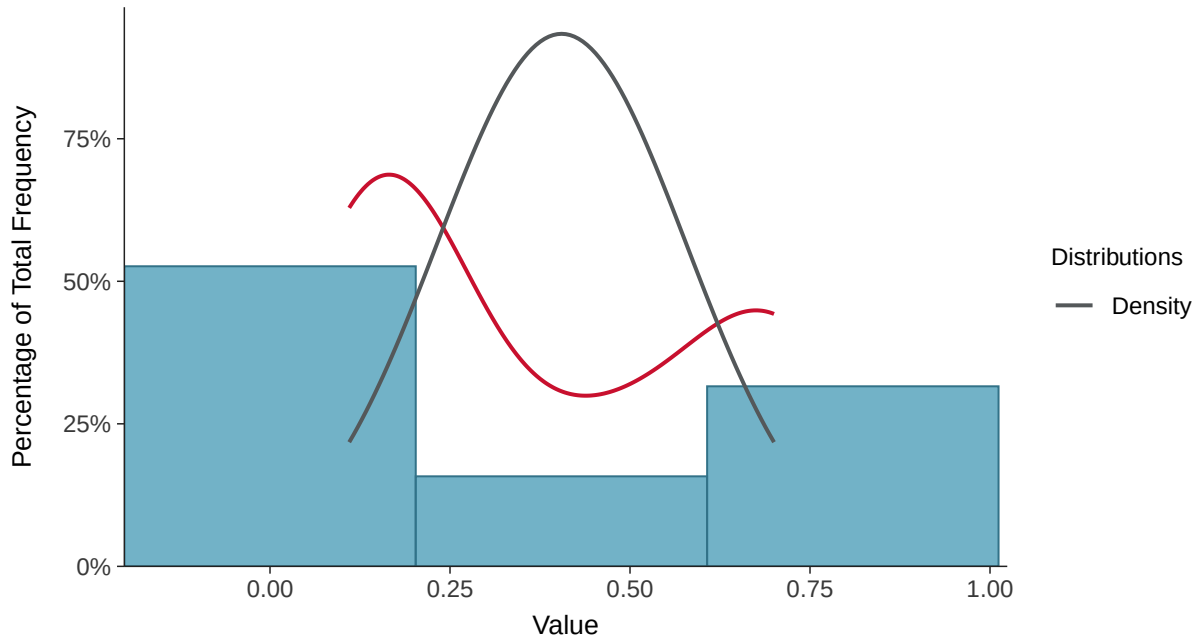
Scatter Plot

Beryllium, MW-11D (ug/L)



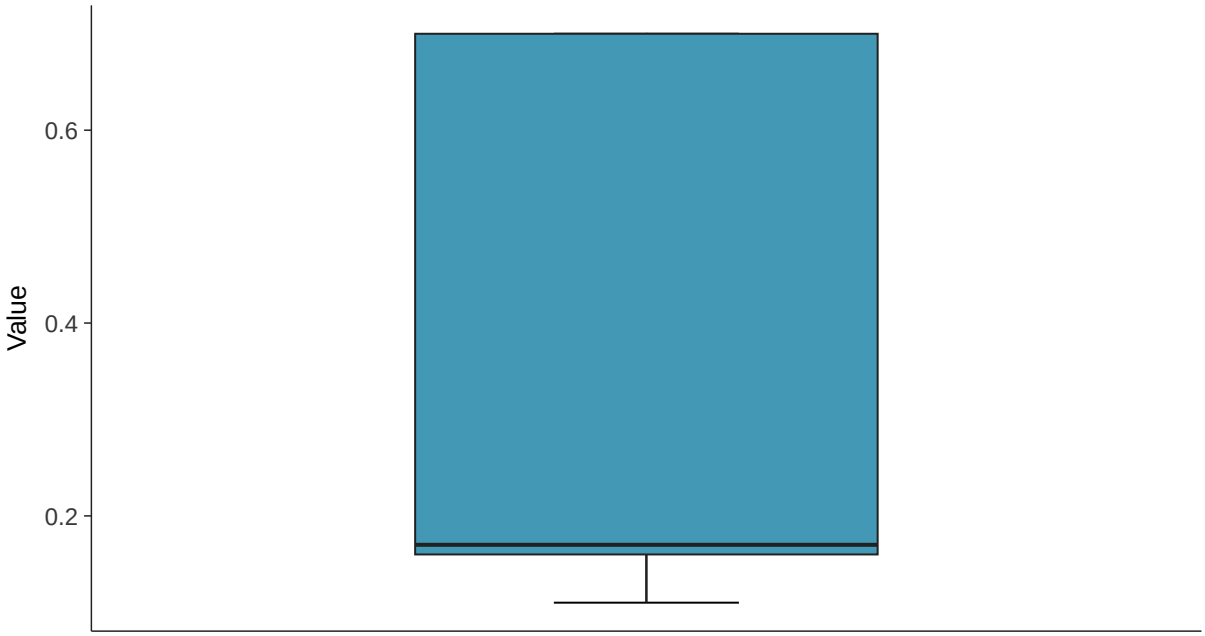
Histogram

Beryllium, MW-11D (ug/L)



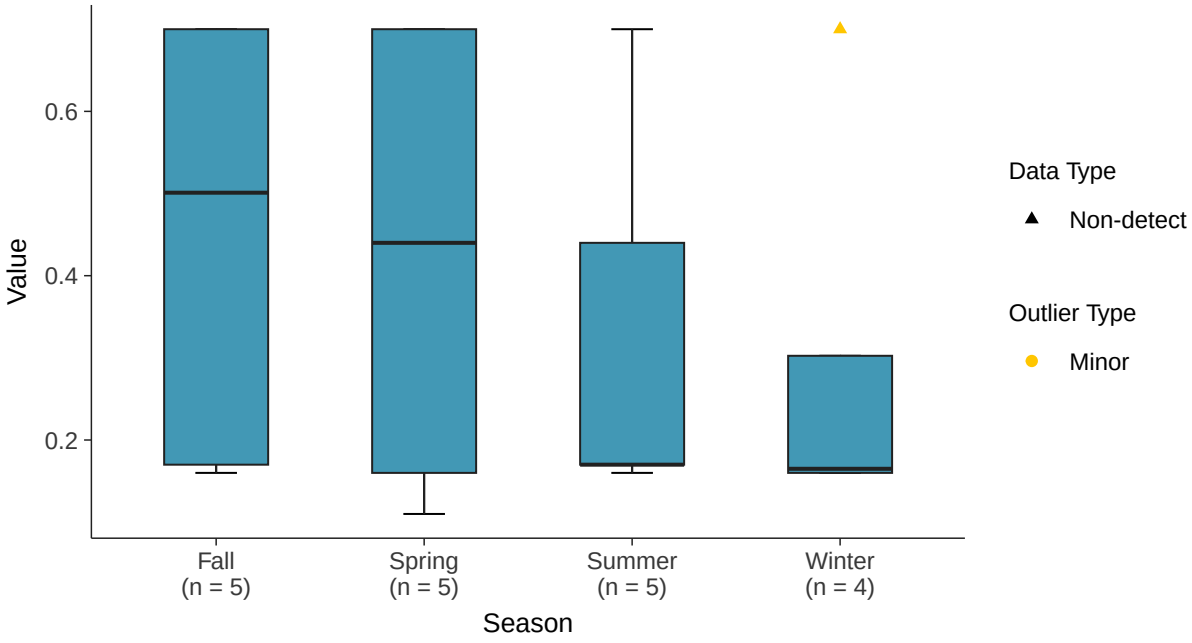
Boxplot

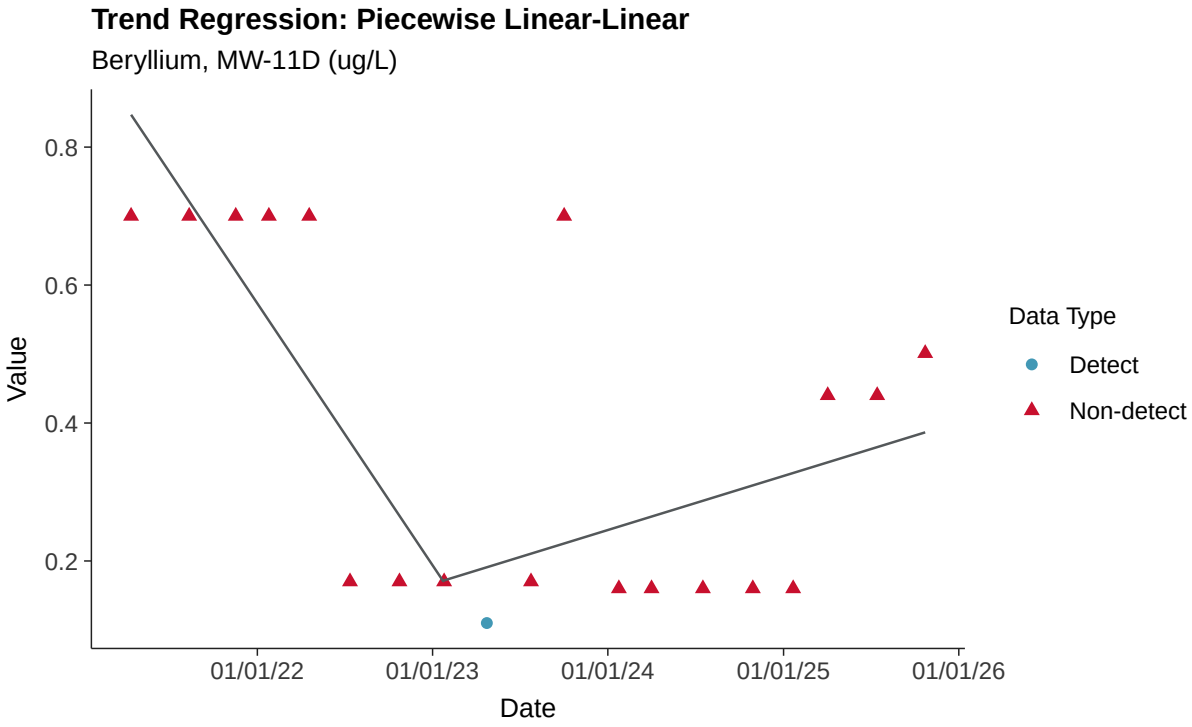
Beryllium, MW-11D (ug/L)



Boxplot by Season

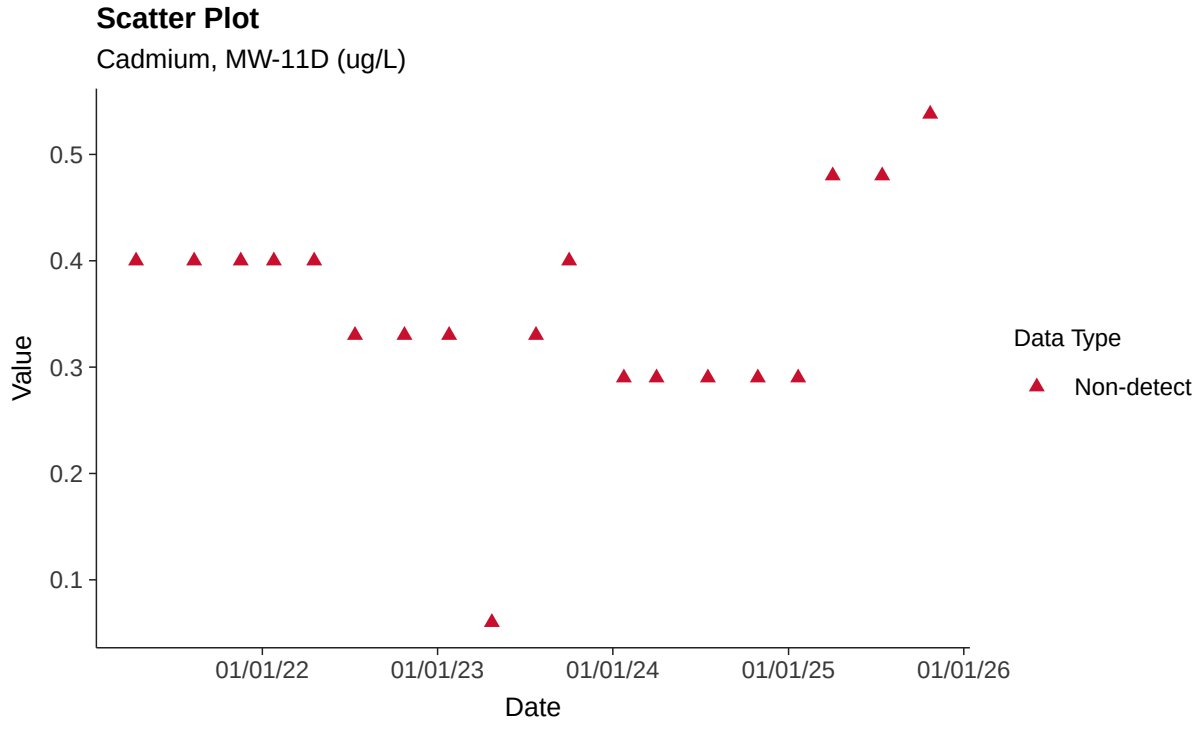
Beryllium, MW-11D (ug/L)

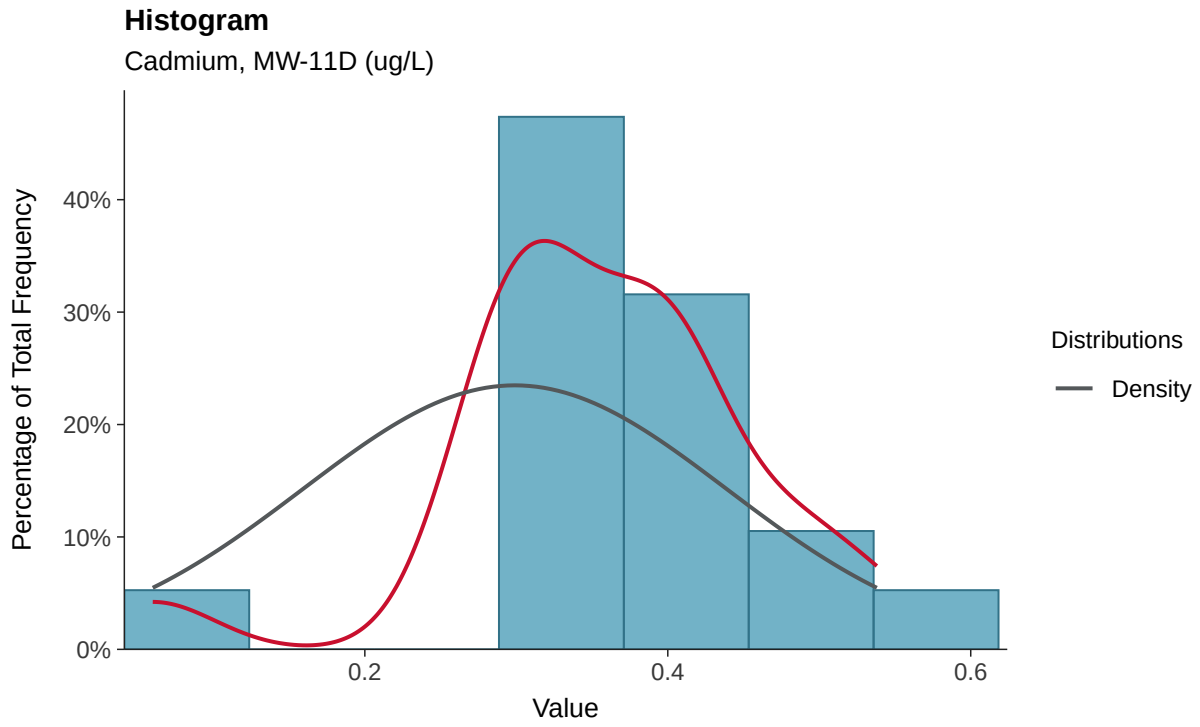



Trend Regression: Piecewise Linear-Linear
Beryllium, MW-11D (ug/L)
0.8
0.6
0.4
0.2
Value
01/01/22
01/01/23
01/01/24
01/01/25
01/01/26
Date
Data Type
Detect
Non-detect

App. IV: Cadmium, MW-11D

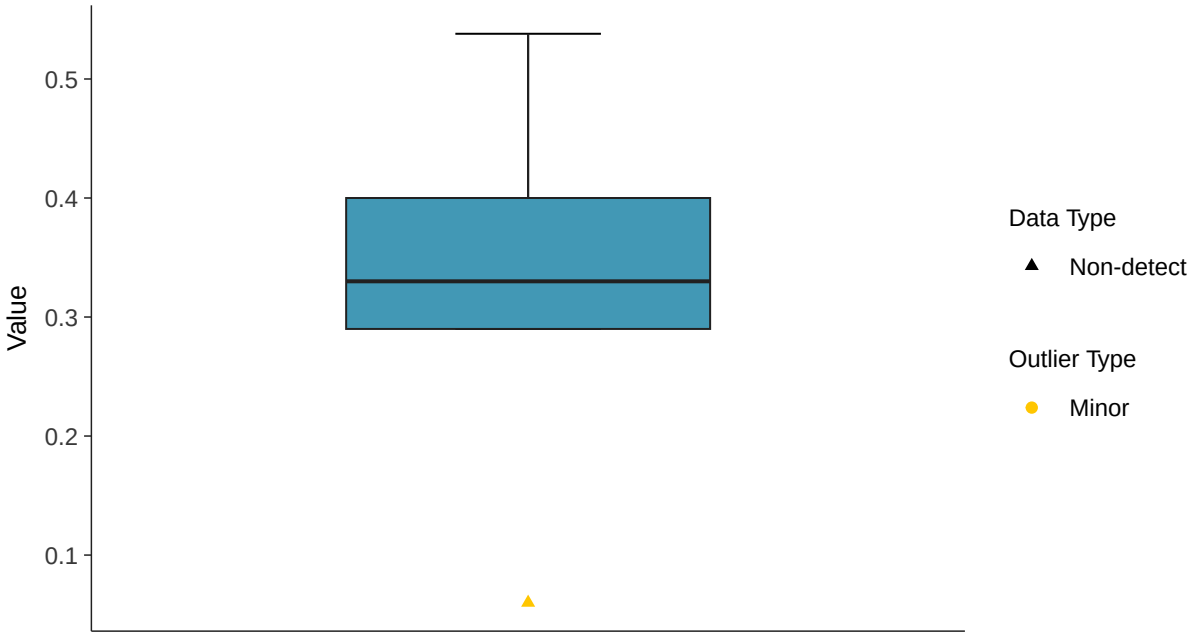
ID: 11_3_106





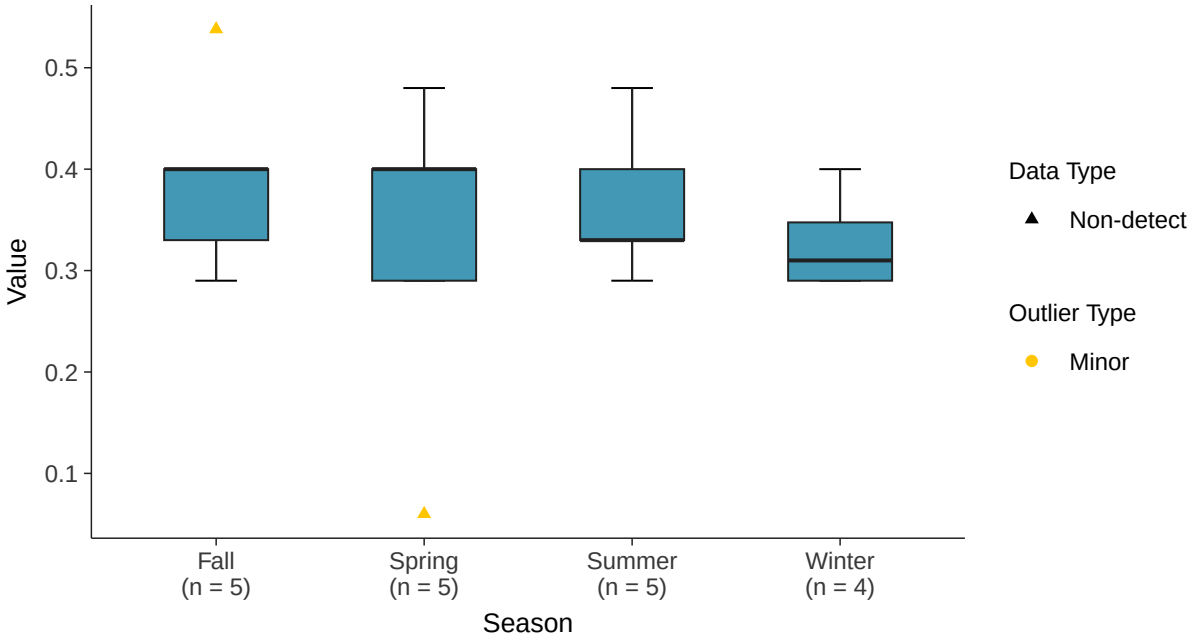
Boxplot

Cadmium, MW-11D (ug/L)



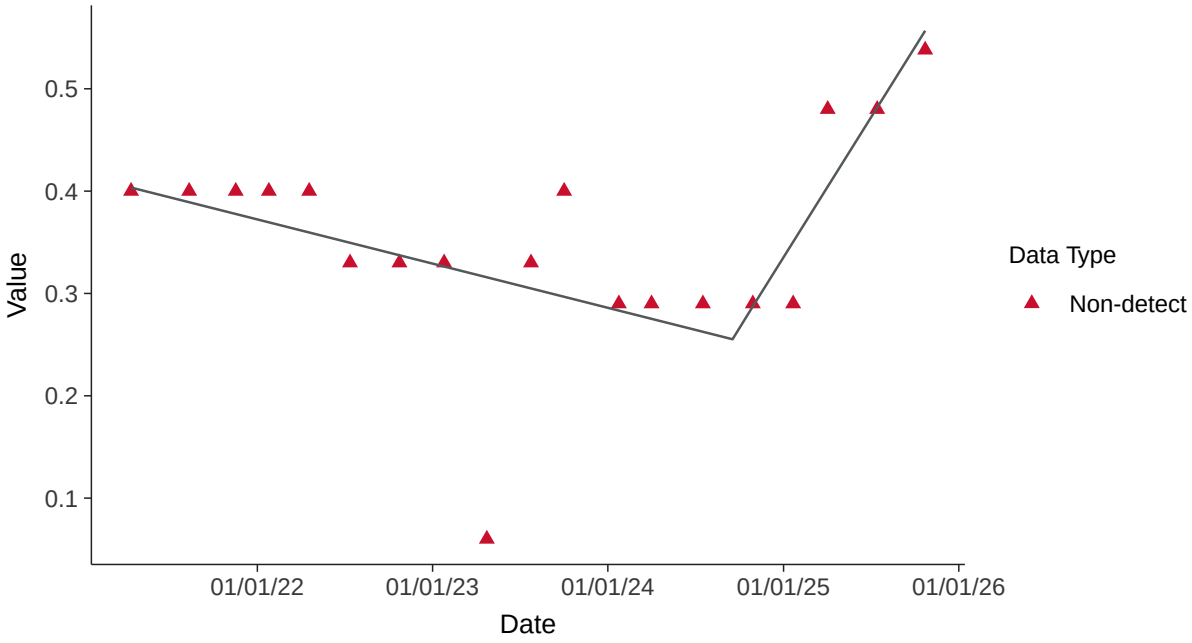
Boxplot by Season

Cadmium, MW-11D (ug/L)



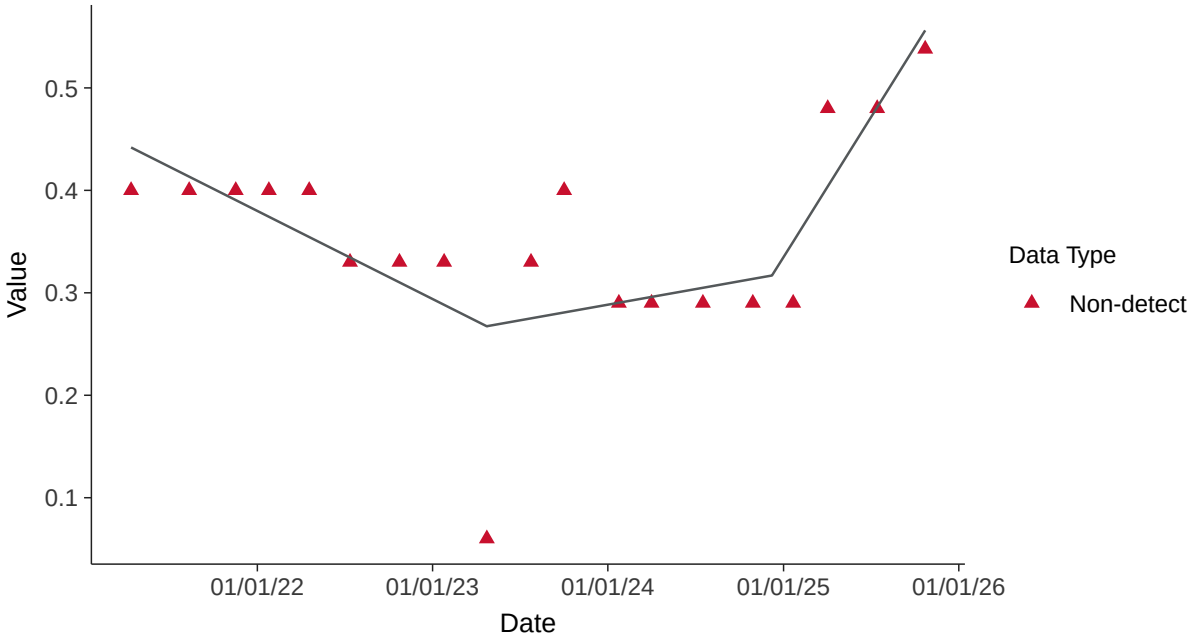
Trend Regression: Piecewise Linear-Linear

Cadmium, MW-11D (ug/L)



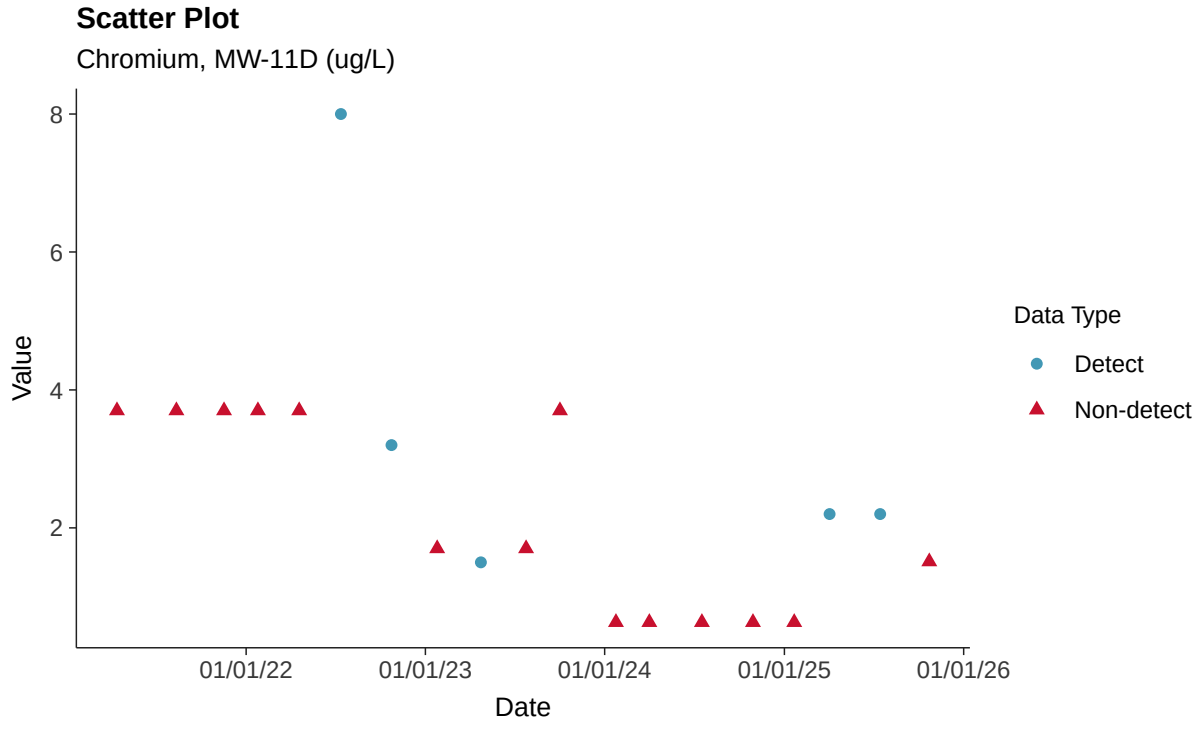
Trend Regression: Piecewise Linear-Linear-Linear

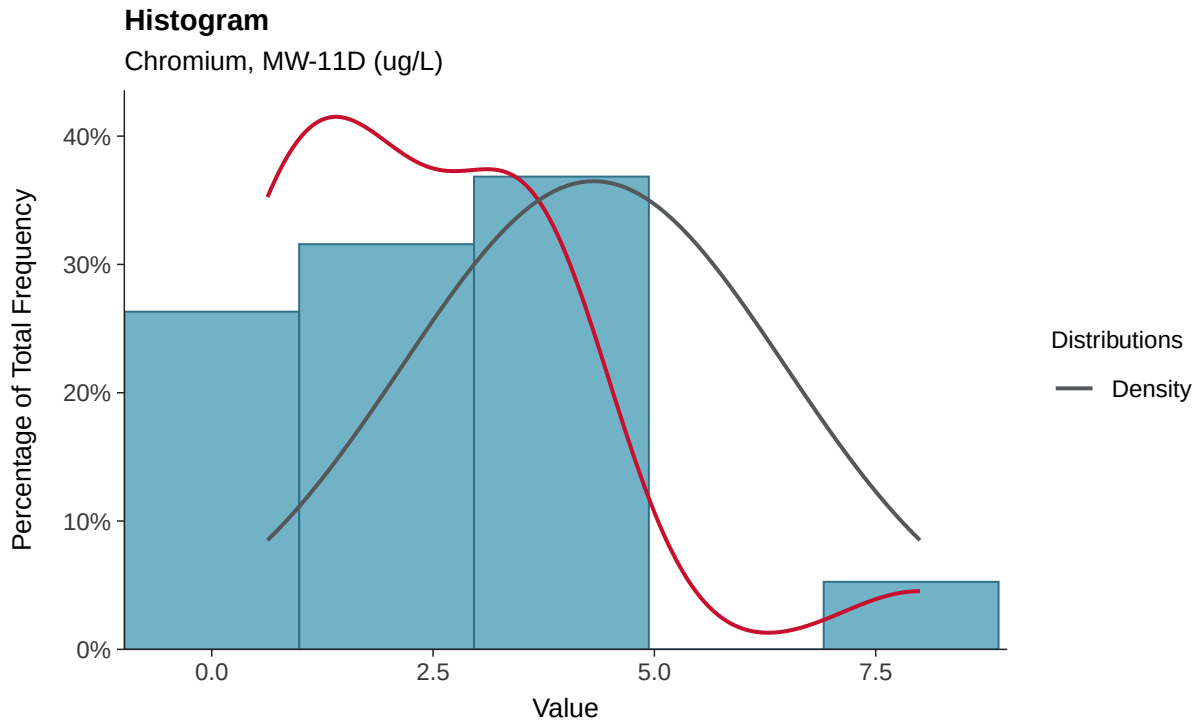
Cadmium, MW-11D (ug/L)



App. IV: Chromium, MW-11D

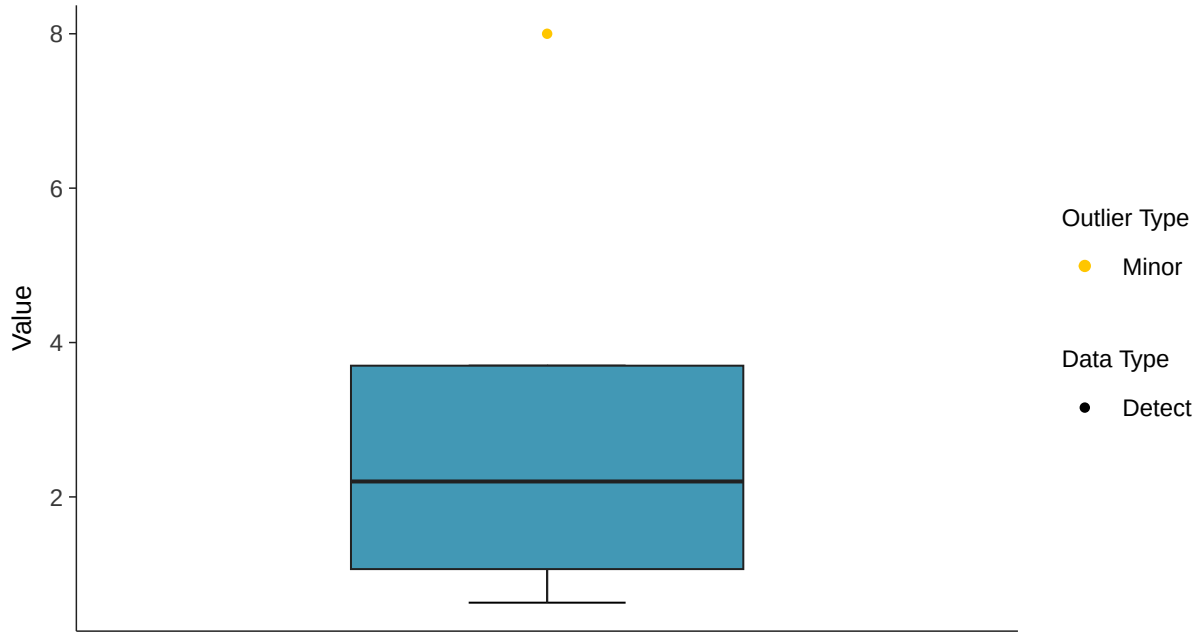
ID: 11_3_109





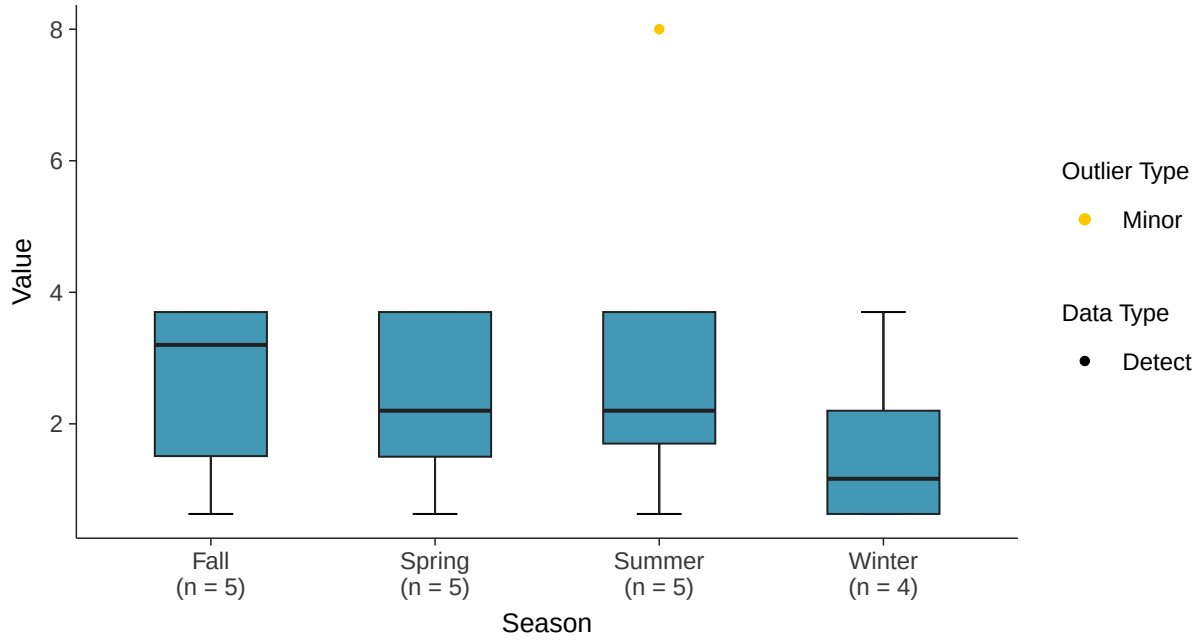
Boxplot

Chromium, MW-11D (ug/L)



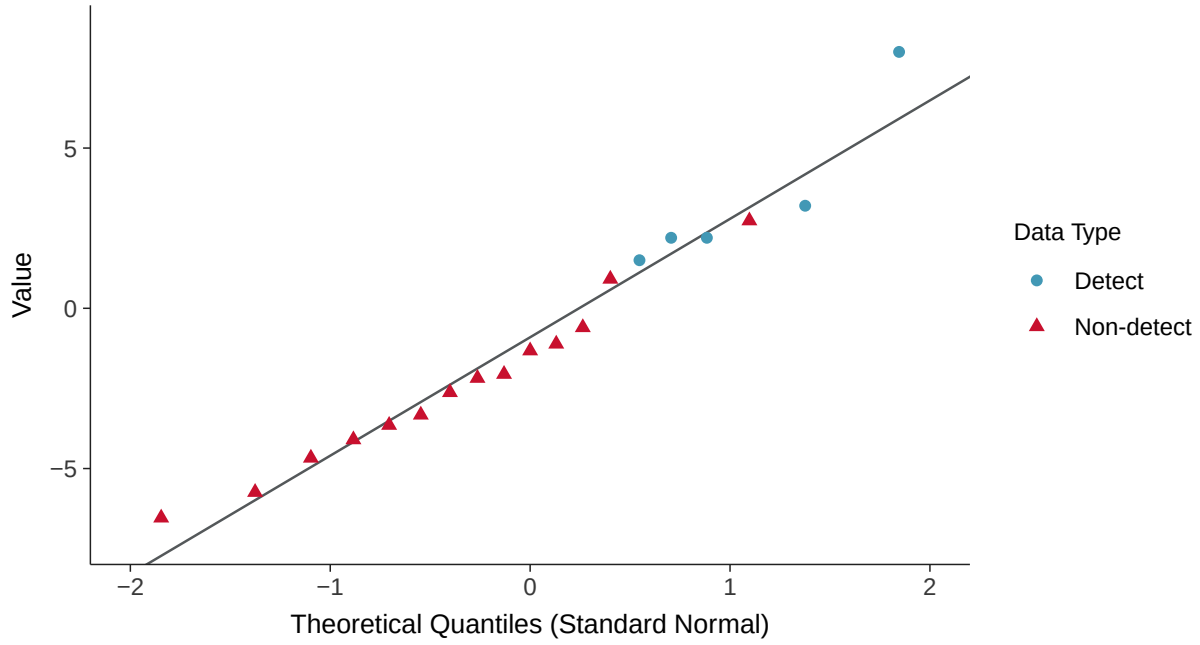
Boxplot by Season

Chromium, MW-11D (ug/L)



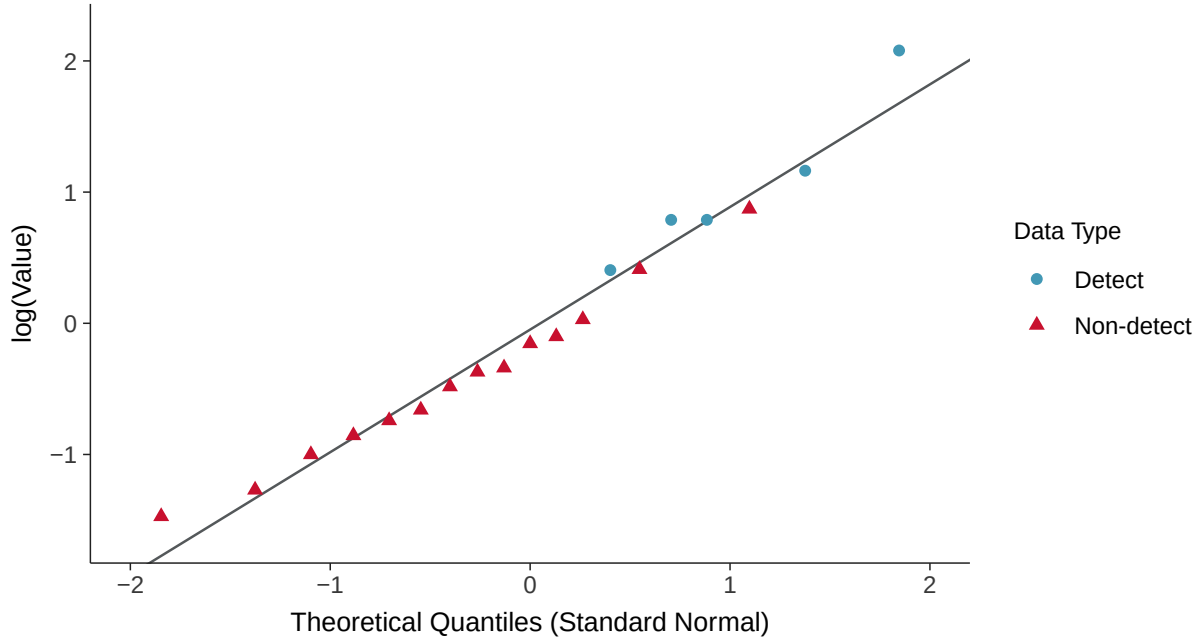
Normal Q-Q plot using ROS Imputed Estimates

Chromium, MW-11D (ug/L)



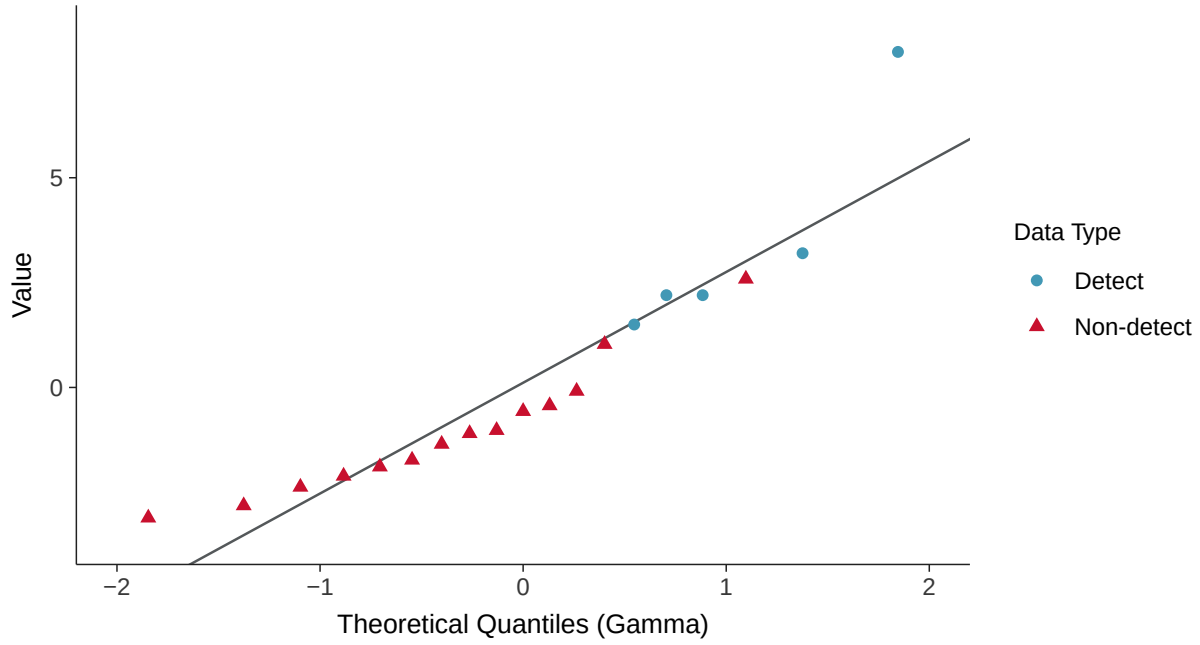
Lognormal Q-Q plot using ROS Imputed Estimates

Chromium, MW-11D (ug/L)



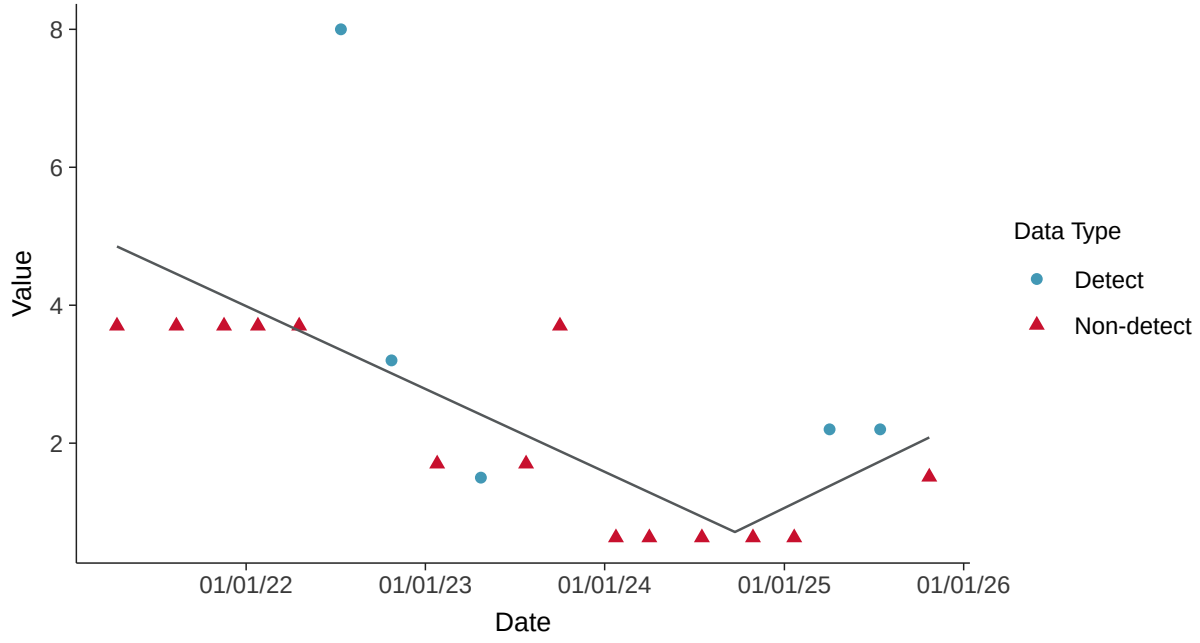
Gamma Q-Q plot using ROS Imputed Estimates

Chromium, MW-11D (ug/L)



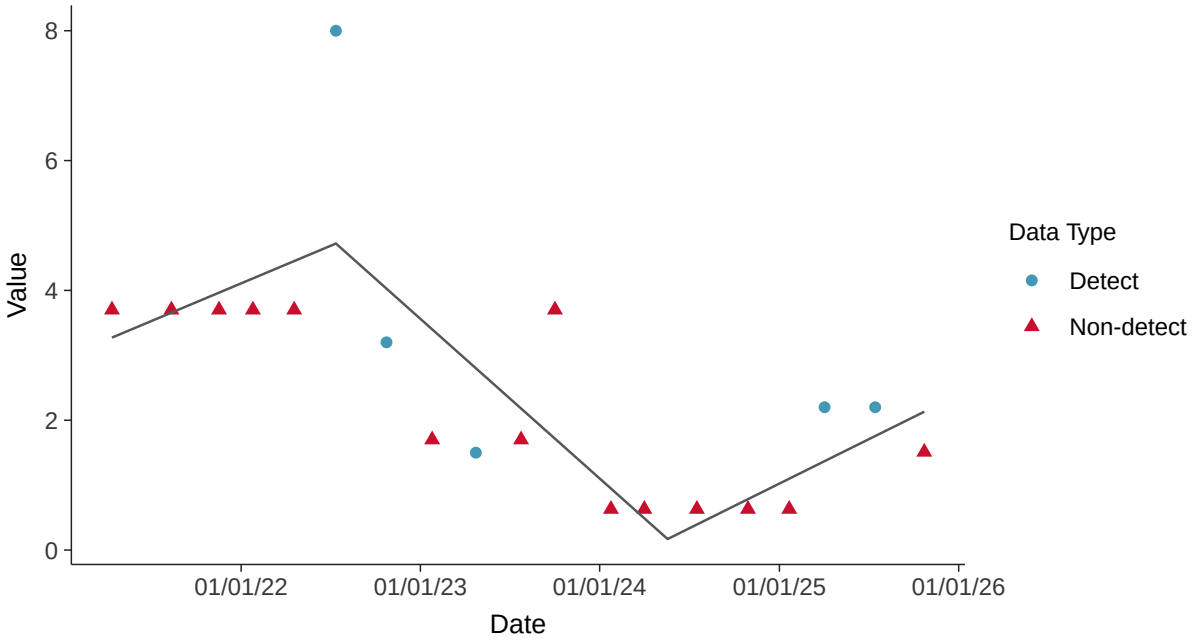
Trend Regression: Piecewise Linear-Linear

Chromium, MW-11D (ug/L)



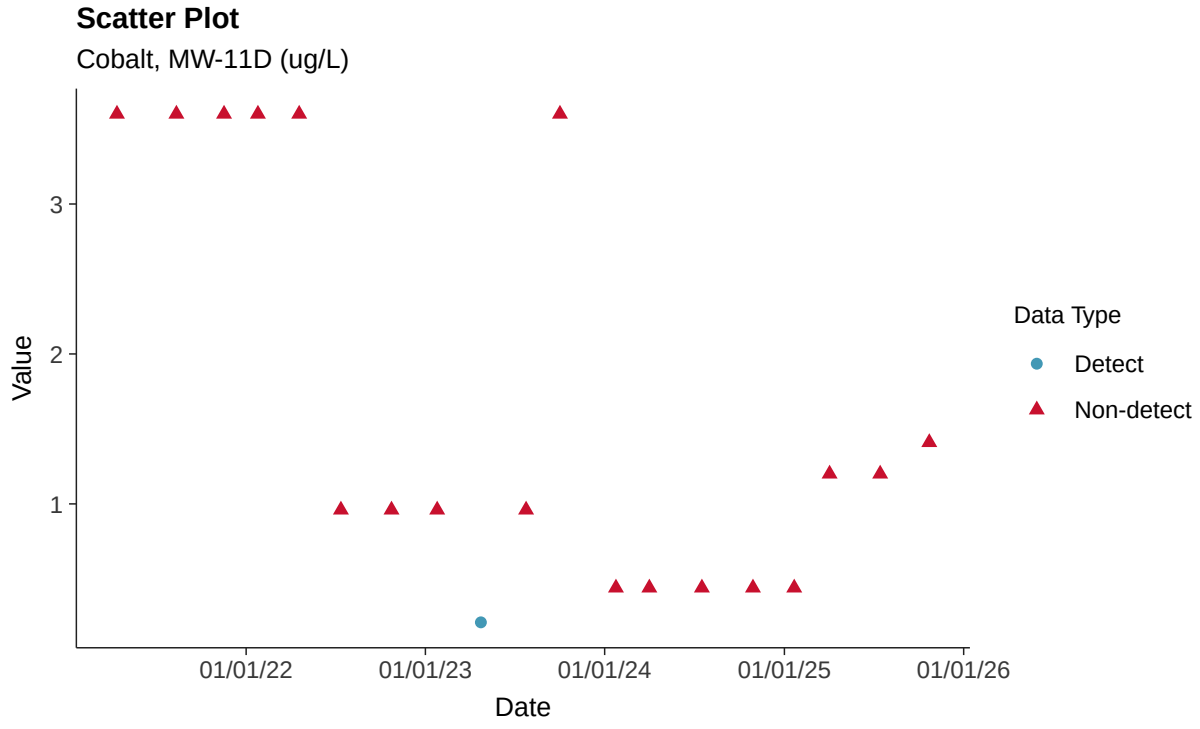
Trend Regression: Piecewise Linear-Linear-Linear

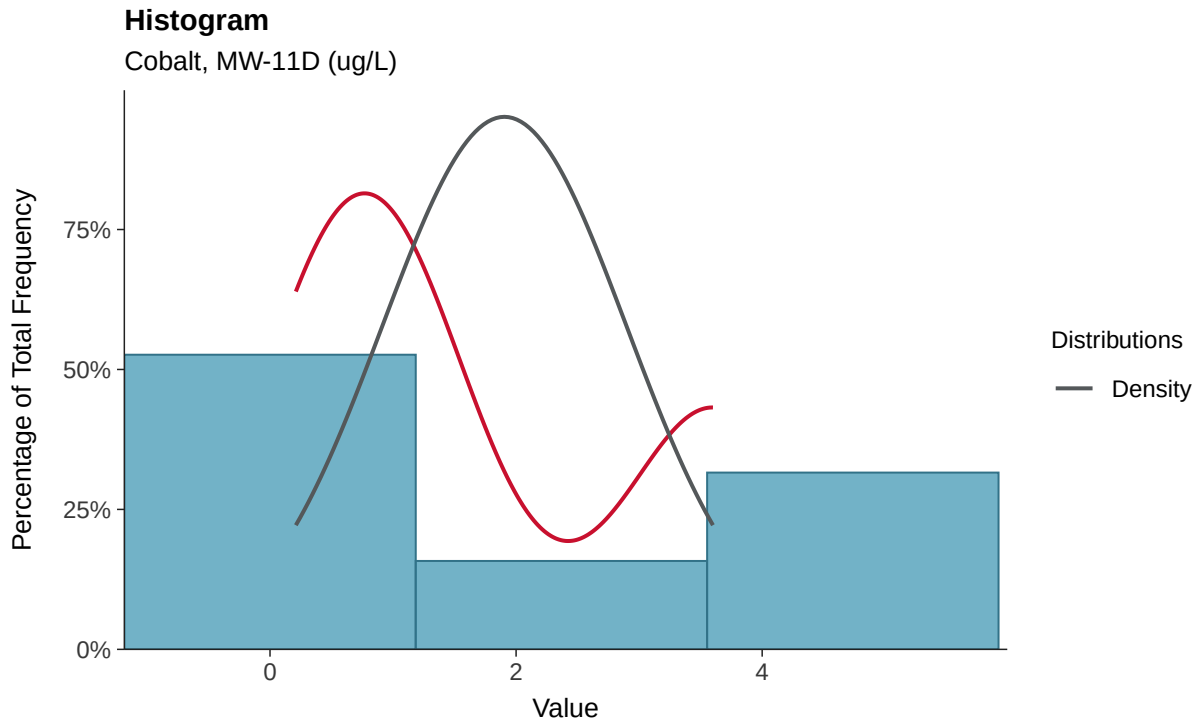
Chromium, MW-11D (ug/L)



App. IV: Cobalt, MW-11D

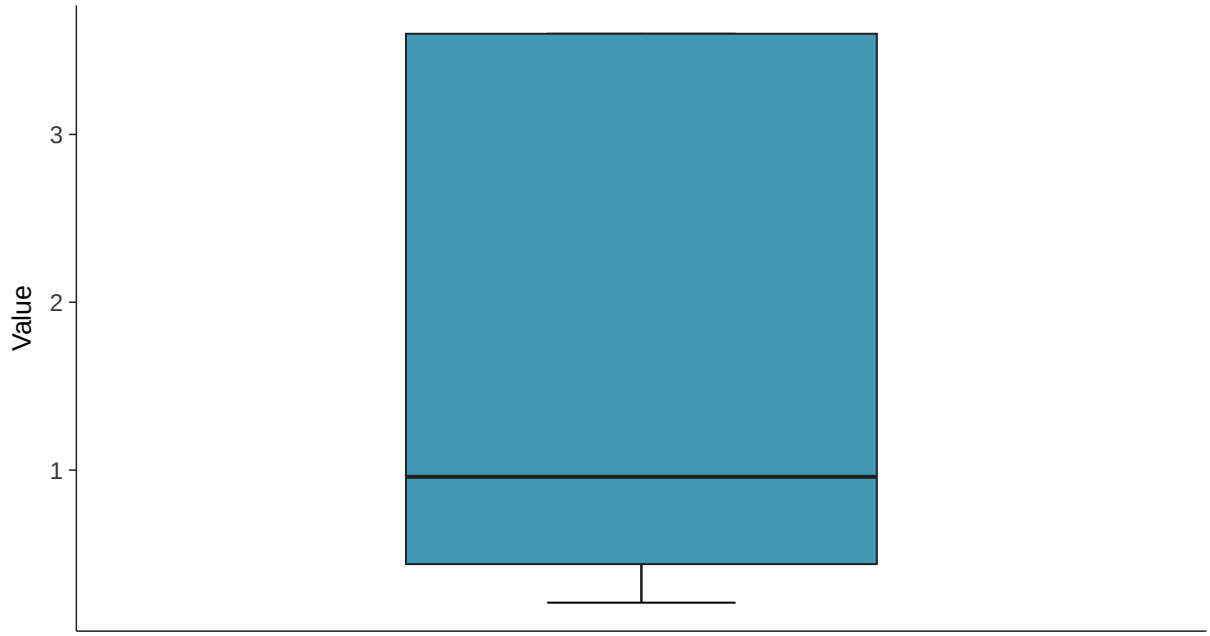
ID: 11_3_110





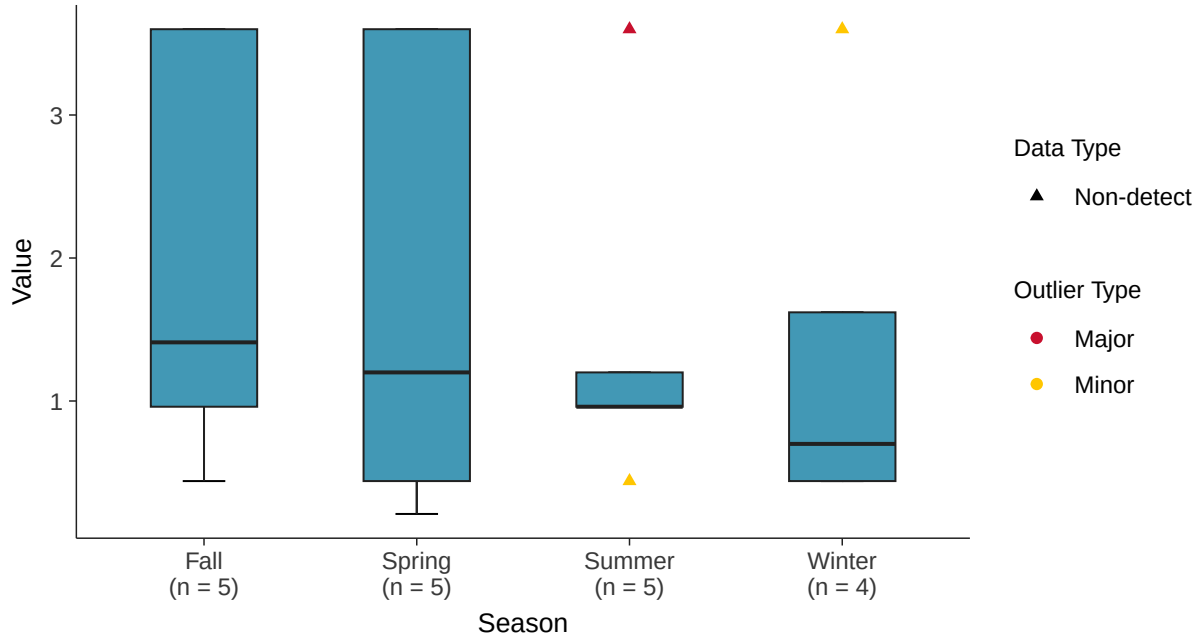
Boxplot

Cobalt, MW-11D (ug/L)



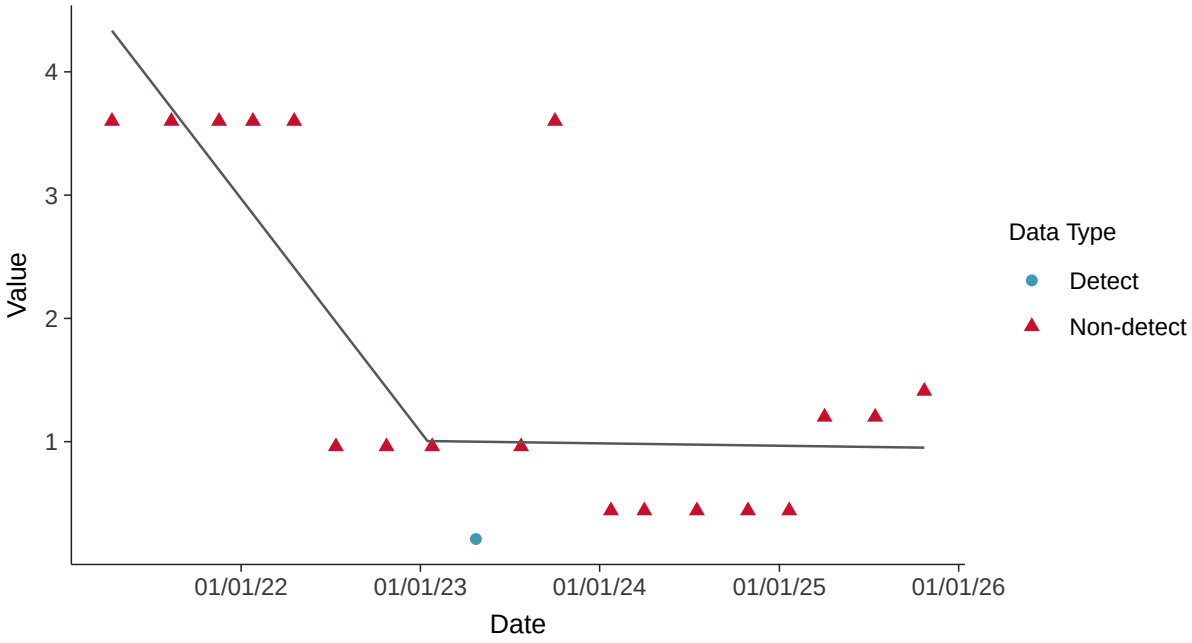
Boxplot by Season

Cobalt, MW-11D (ug/L)



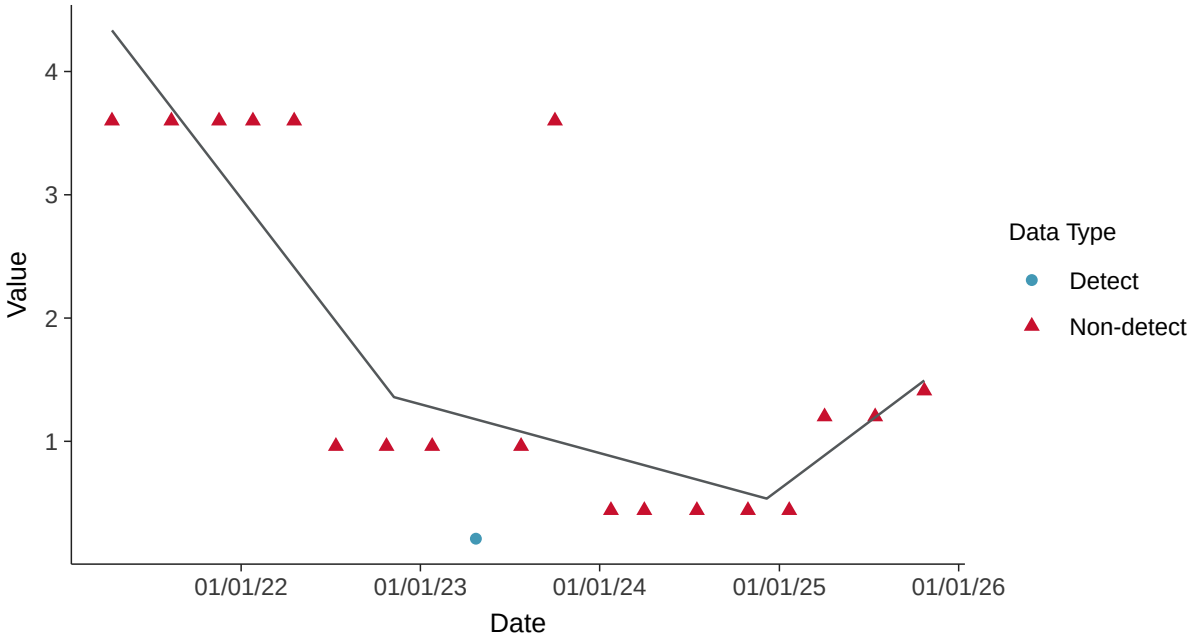
Trend Regression: Piecewise Linear-Linear

Cobalt, MW-11D (ug/L)



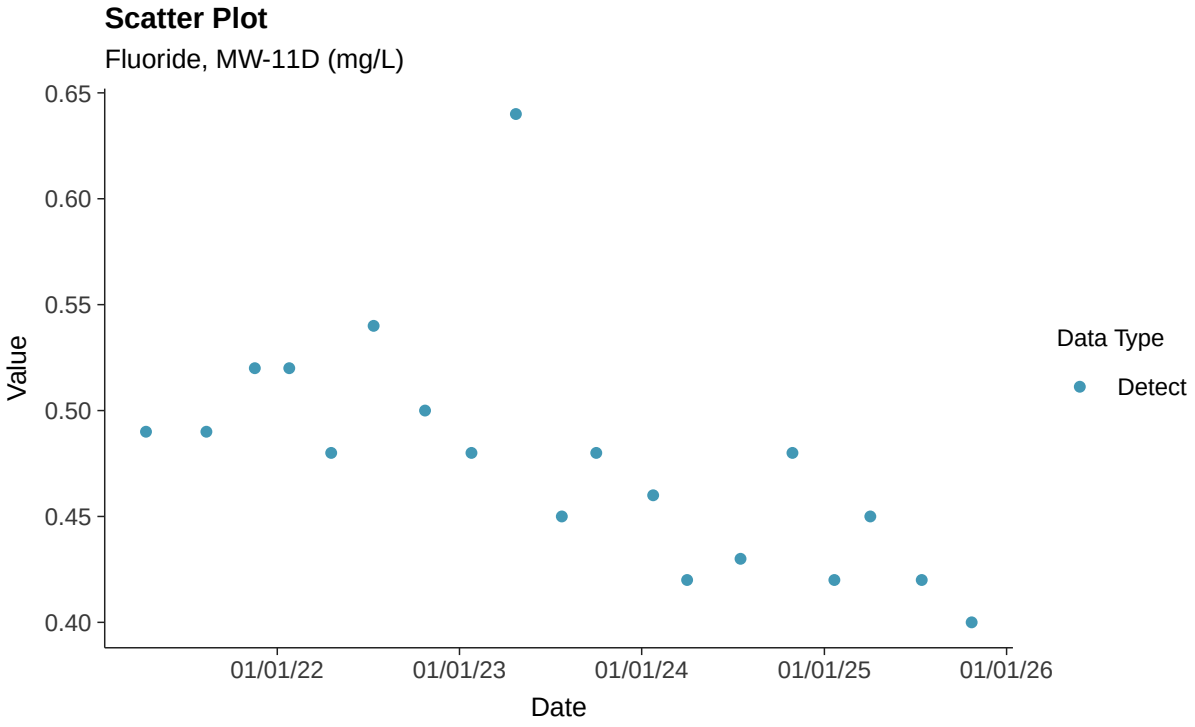
Trend Regression: Piecewise Linear-Linear-Linear

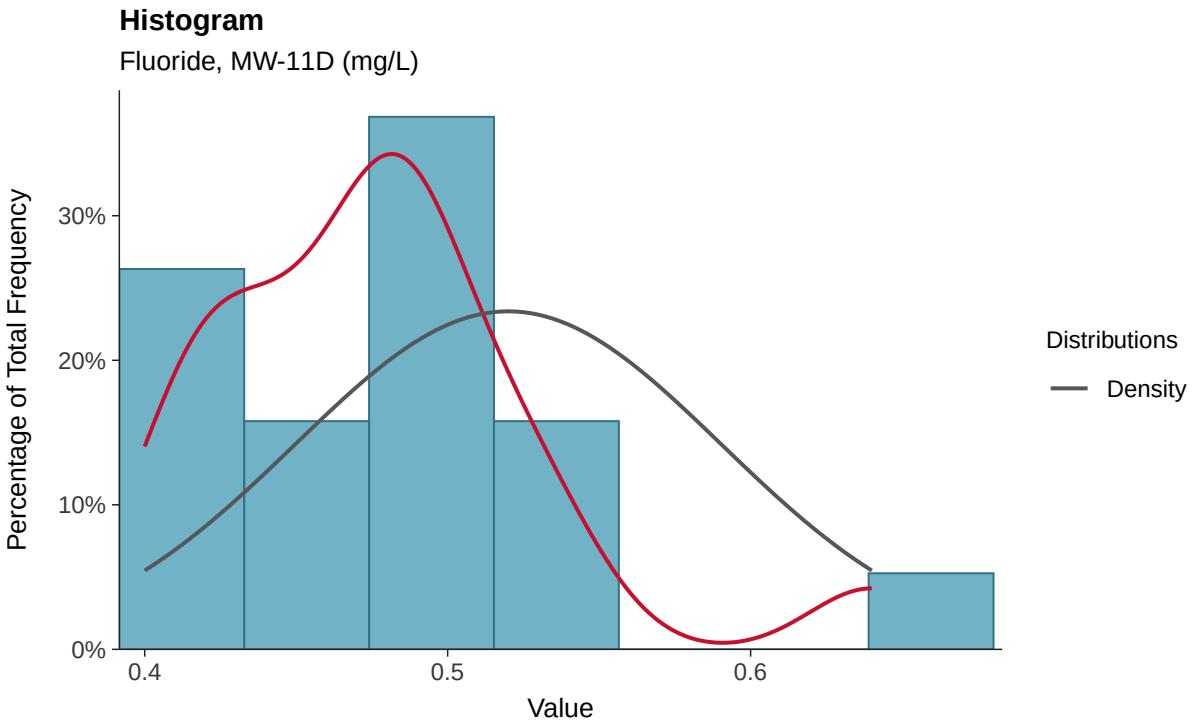
Cobalt, MW-11D (ug/L)



App. IV: Fluoride, MW-11D

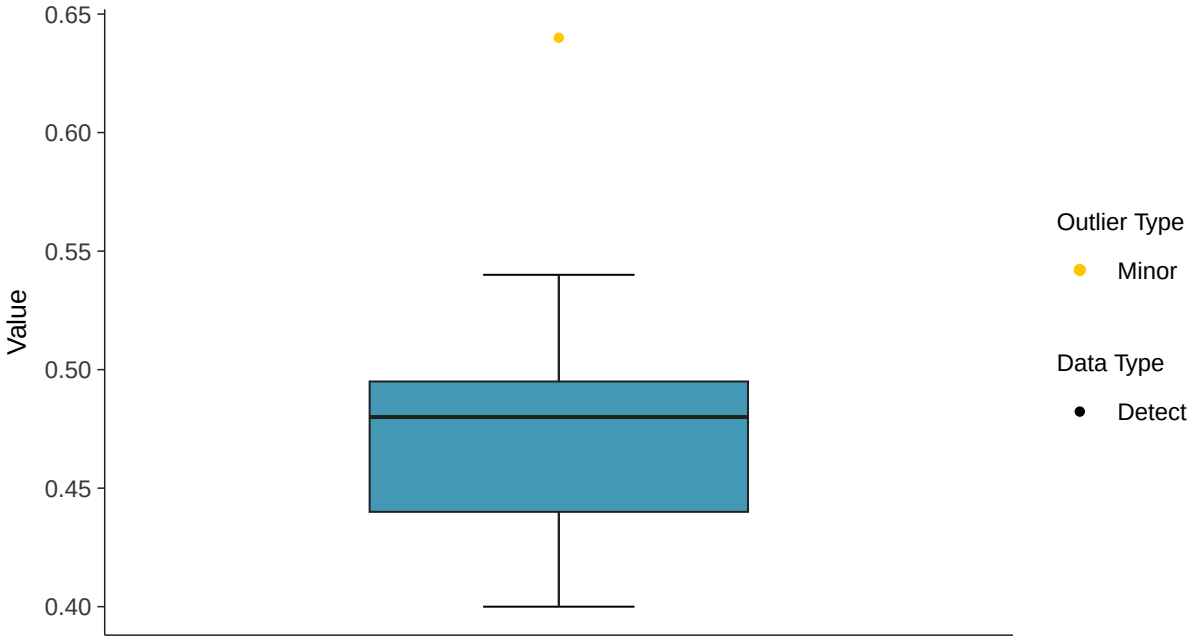
ID: 11_3_112





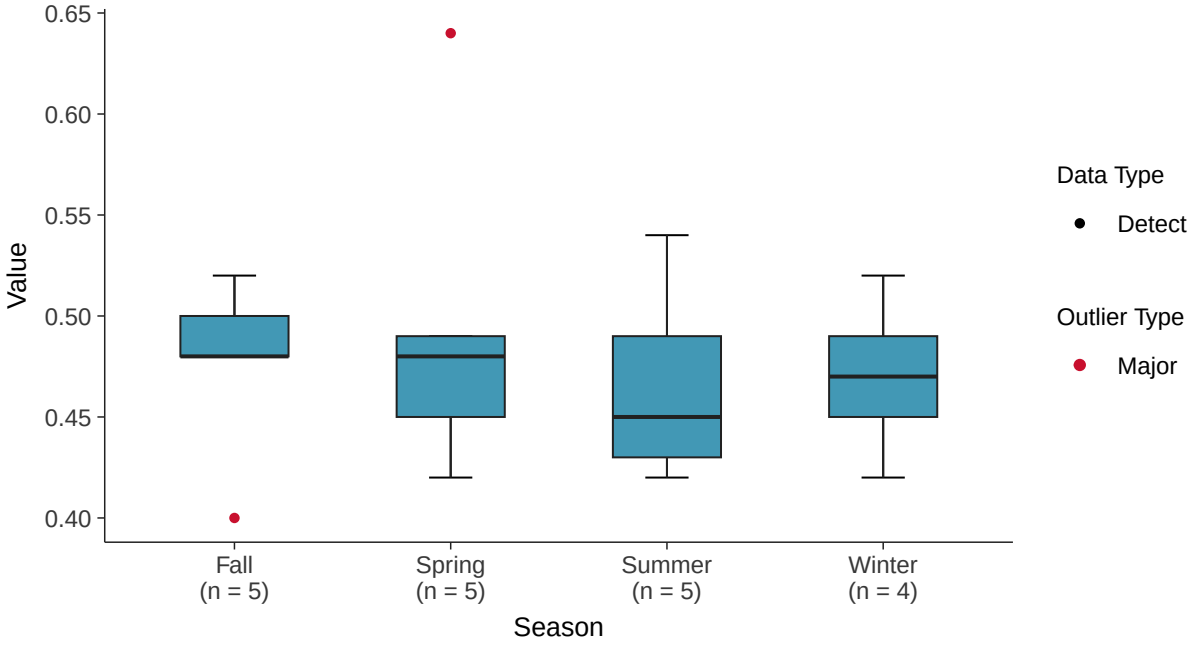
Boxplot

Fluoride, MW-11D (mg/L)



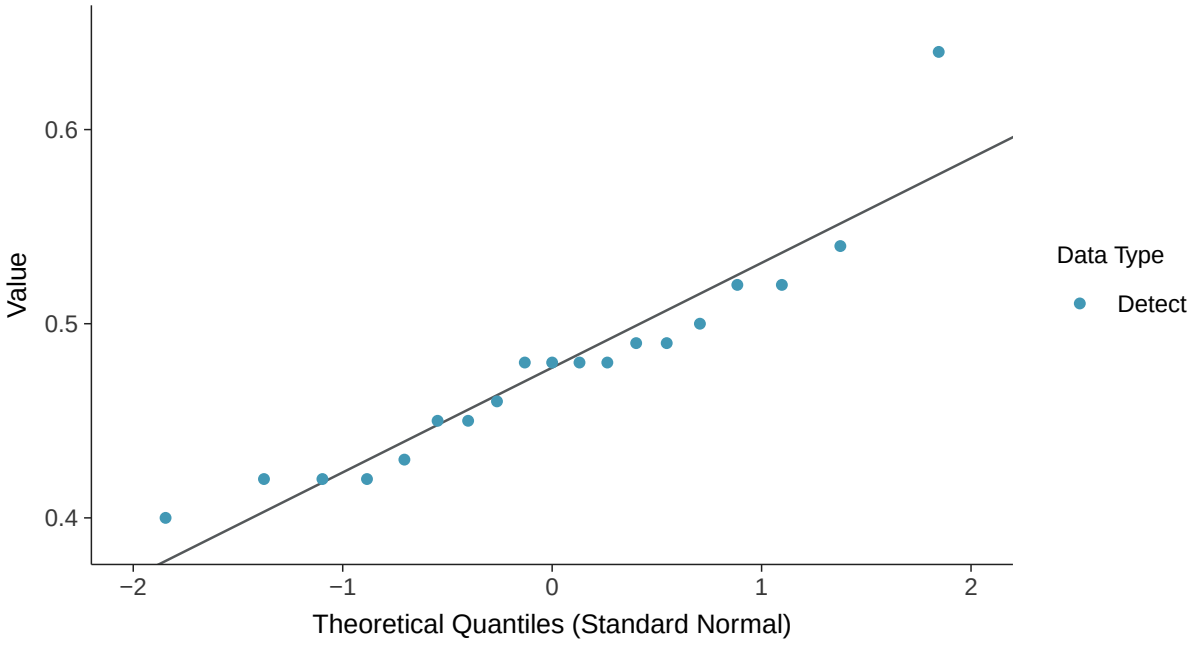
Boxplot by Season

Fluoride, MW-11D (mg/L)



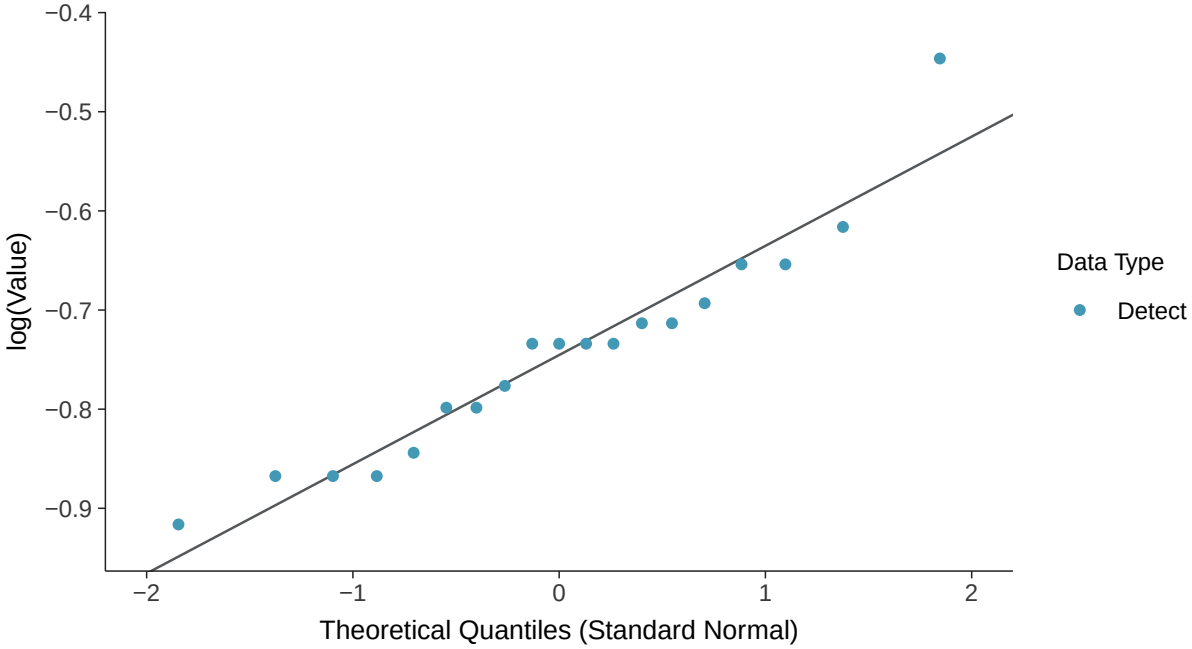
Normal Q-Q plot

Fluoride, MW-11D (mg/L)



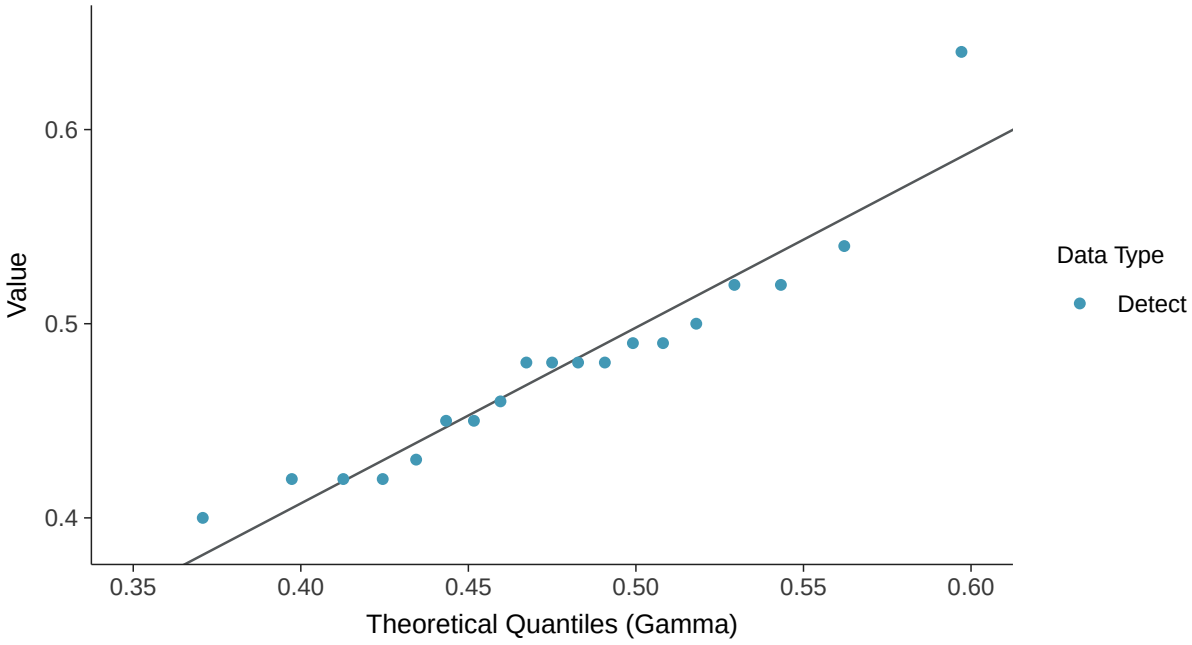
Lognormal Q-Q plot

Fluoride, MW-11D (mg/L)



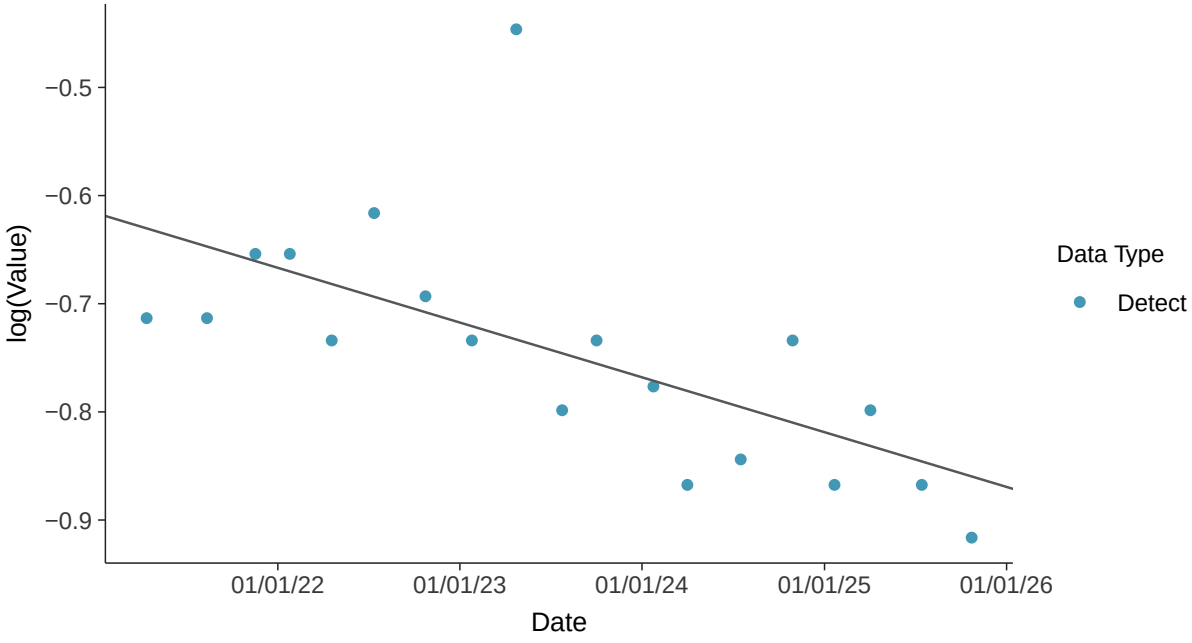
Gamma Q-Q plot

Fluoride, MW-11D (mg/L)



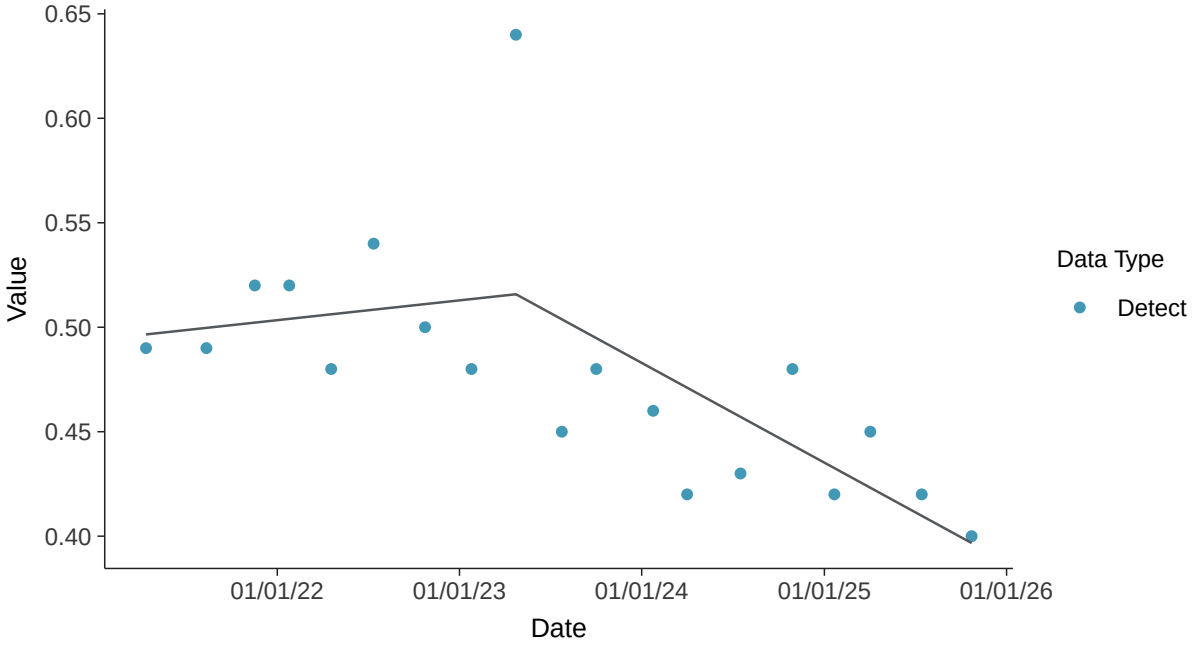
Trend Regression: Lognormal MLE

Fluoride, MW-11D (mg/L)



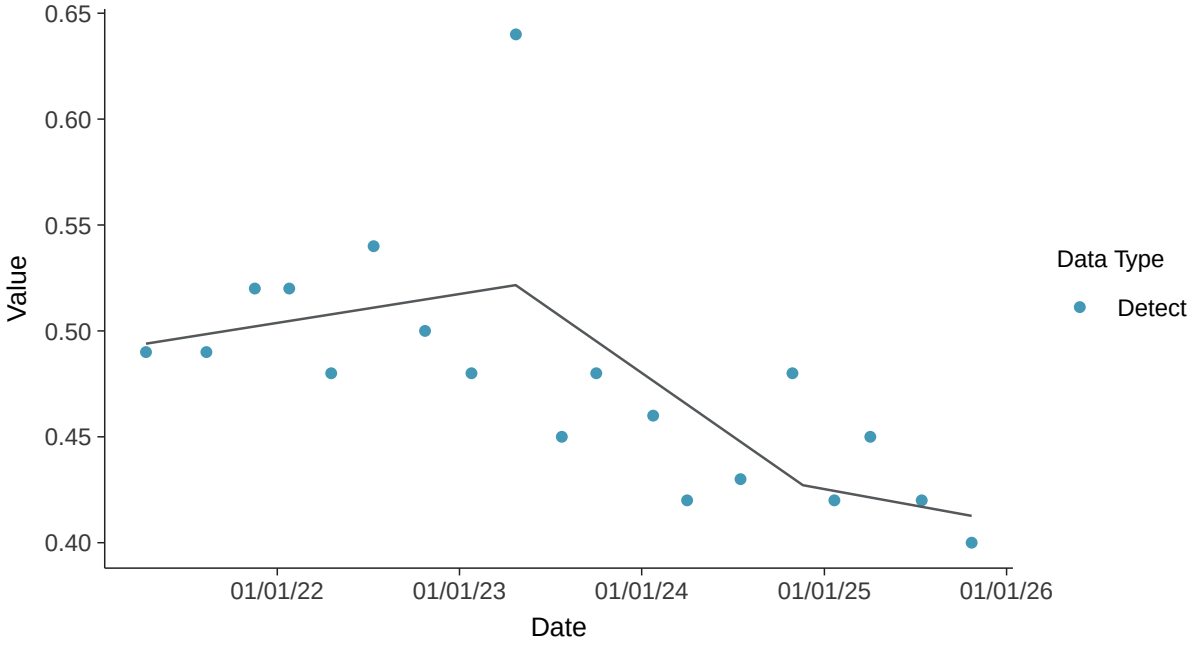
Trend Regression: Piecewise Linear-Linear

Fluoride, MW-11D (mg/L)



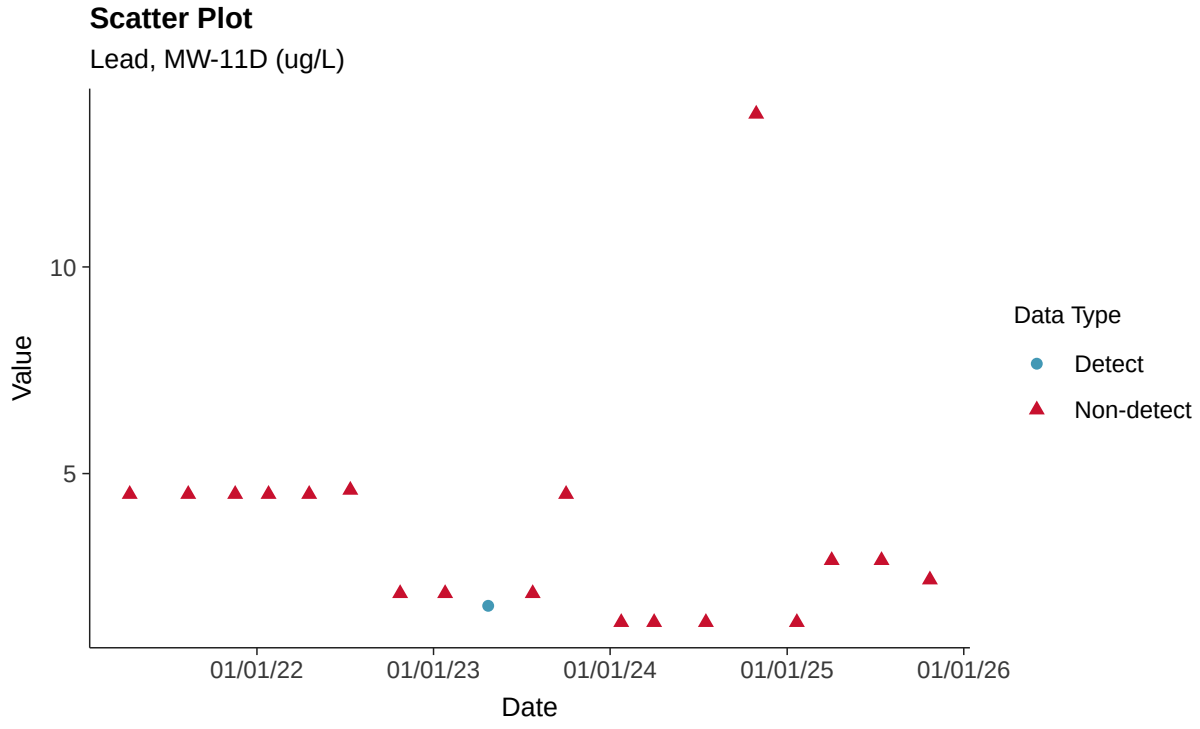
Trend Regression: Piecewise Linear-Linear-Linear

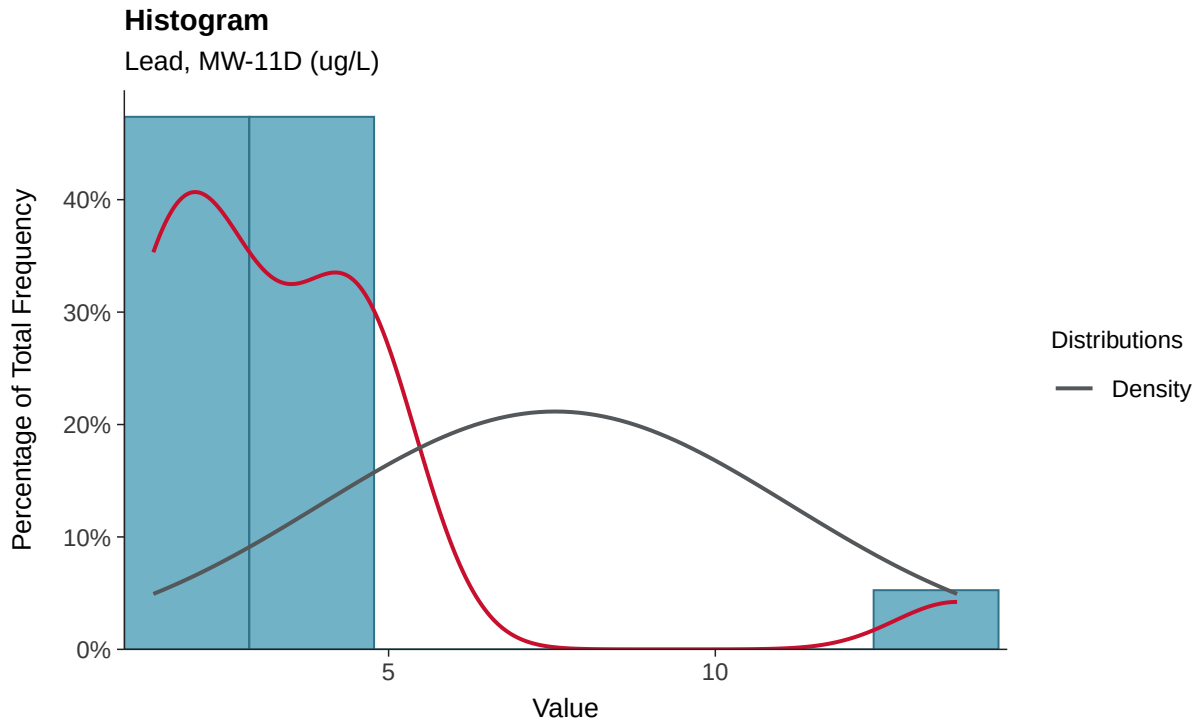
Fluoride, MW-11D (mg/L)



App. IV: Lead, MW-11D

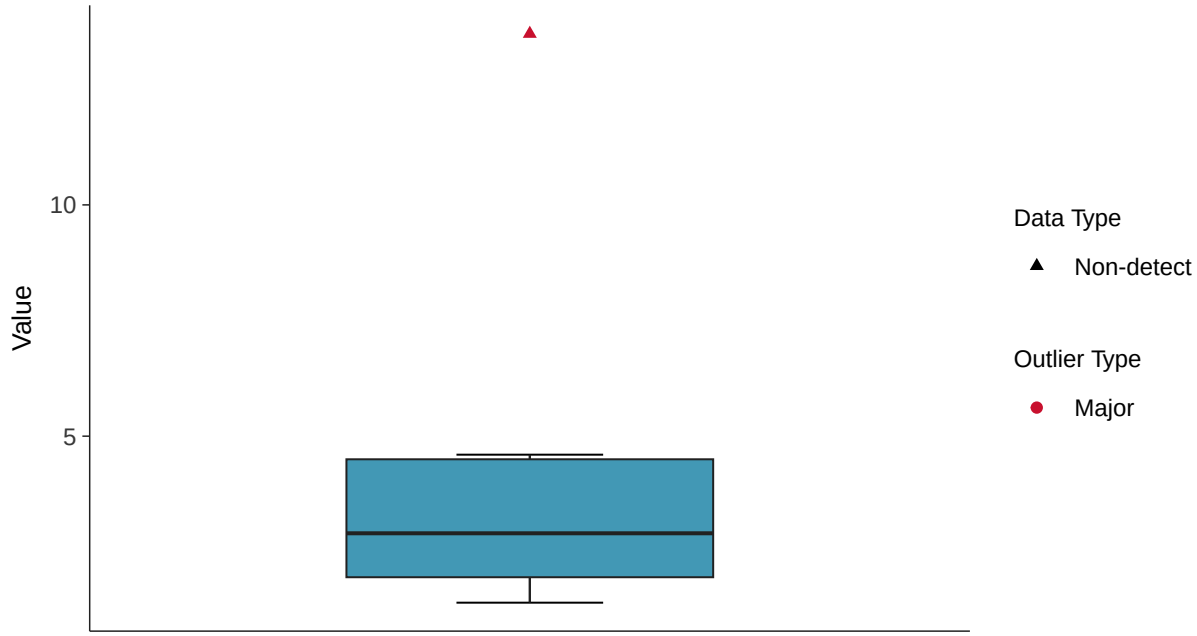
ID: 11_3_113





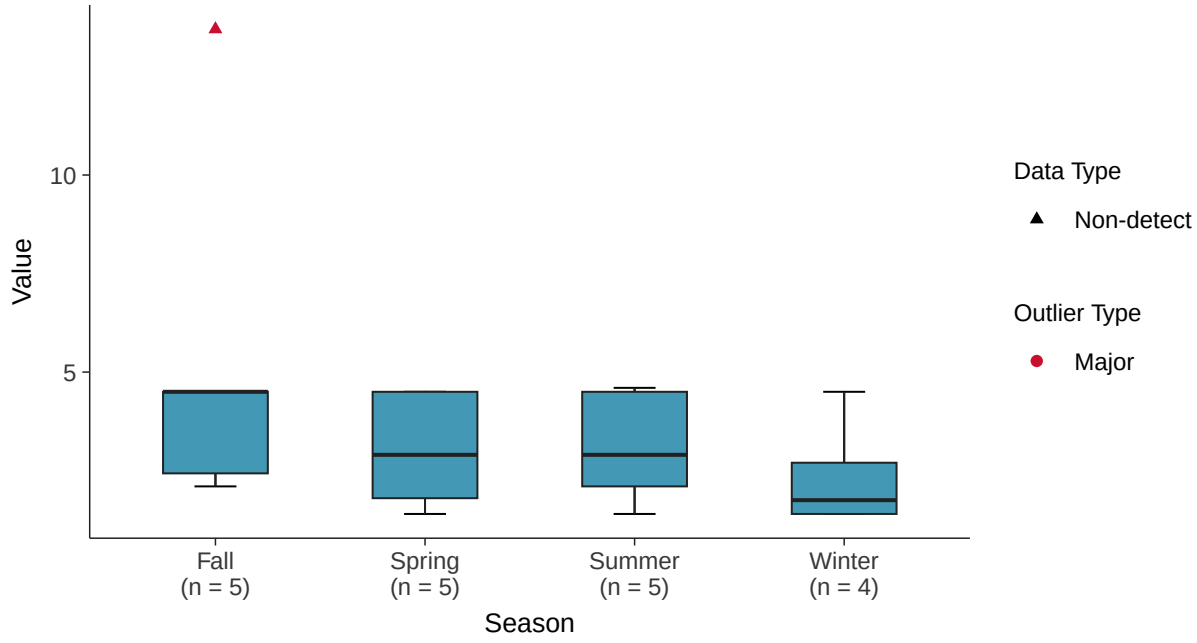
Boxplot

Lead, MW-11D (ug/L)



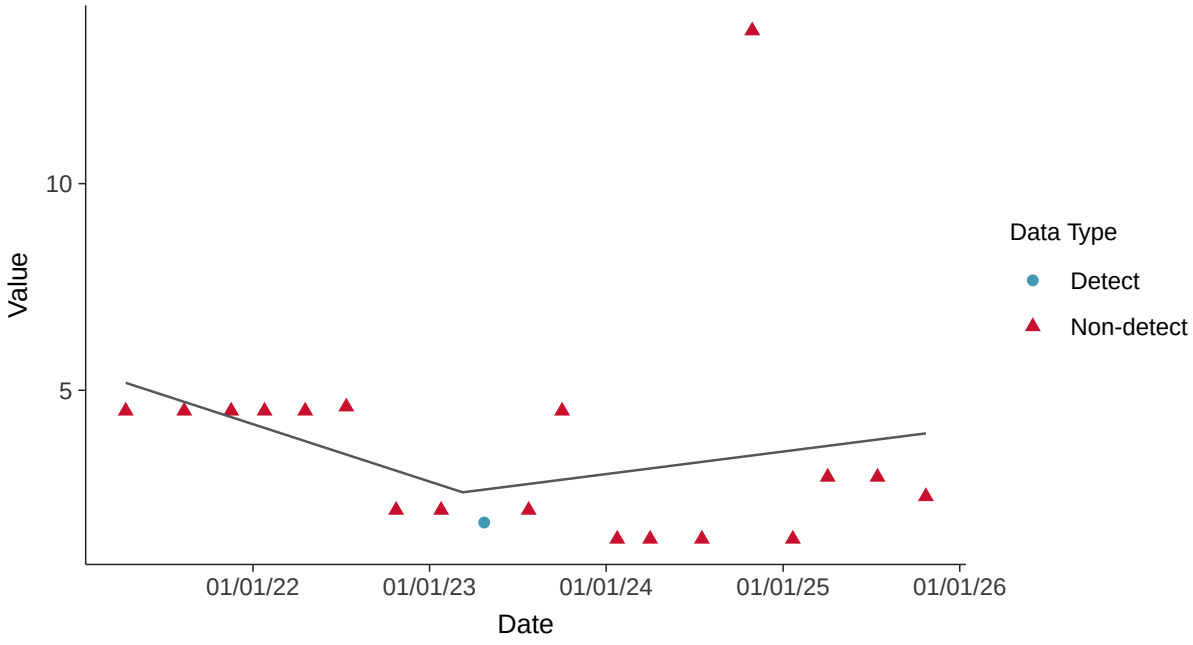
Boxplot by Season

Lead, MW-11D (ug/L)



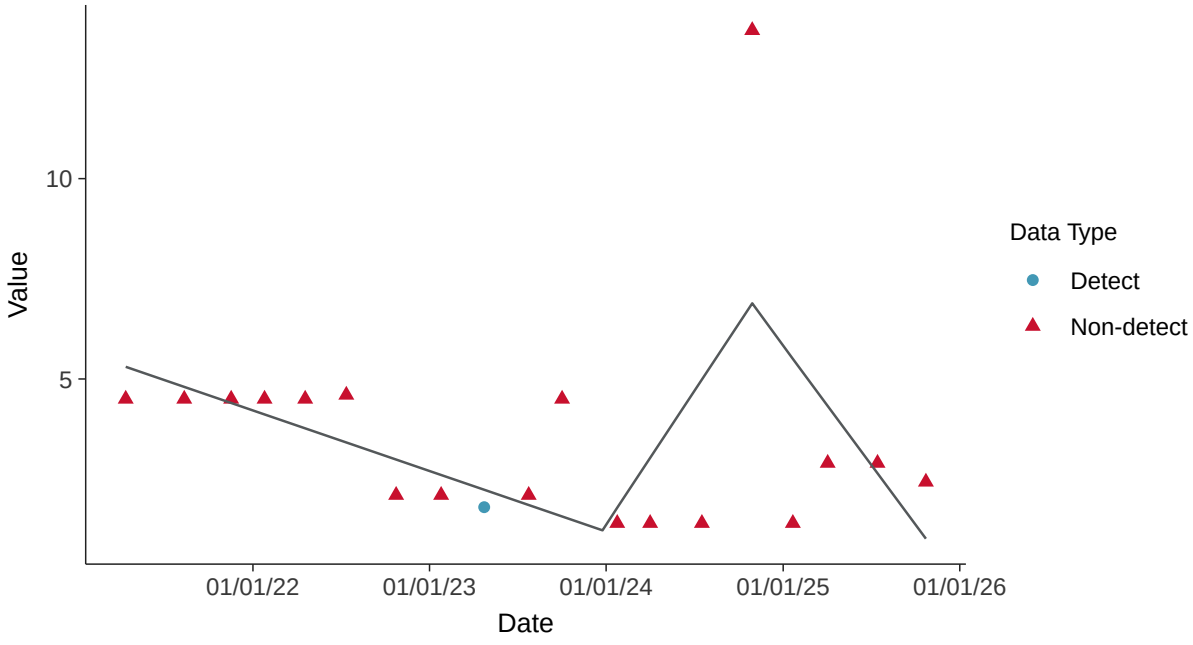
Trend Regression: Piecewise Linear-Linear

Lead, MW-11D (ug/L)



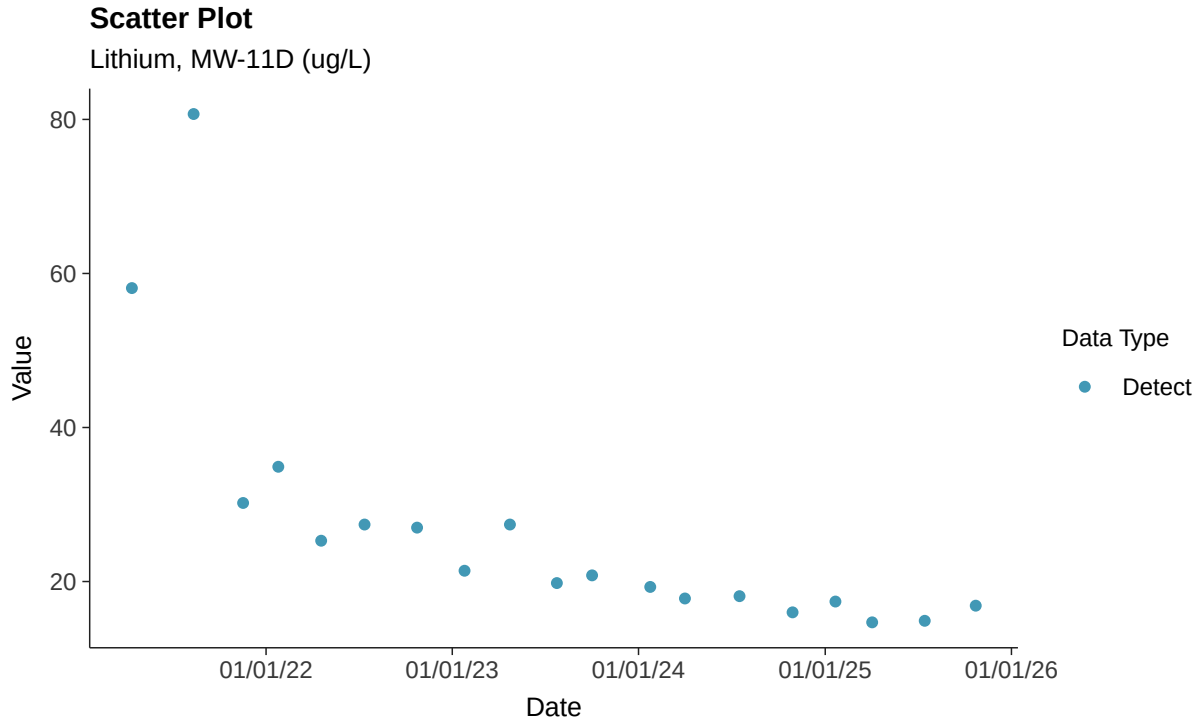
Trend Regression: Piecewise Linear-Linear-Linear

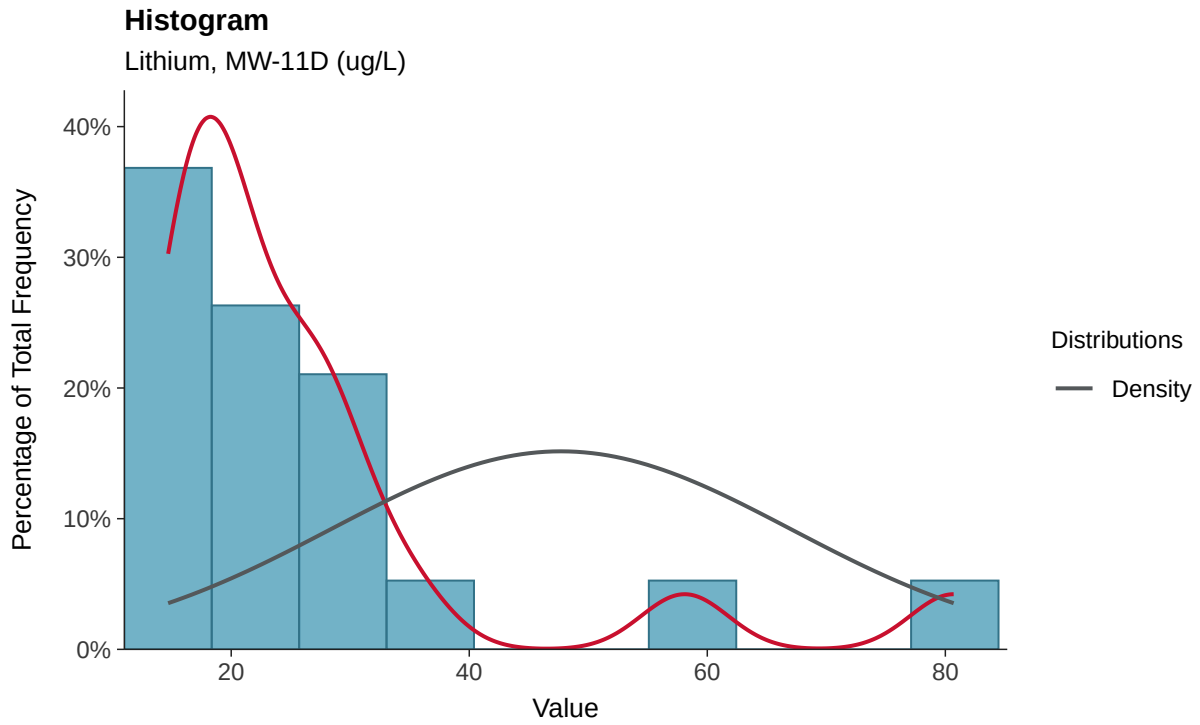
Lead, MW-11D (ug/L)



App. IV: Lithium, MW-11D

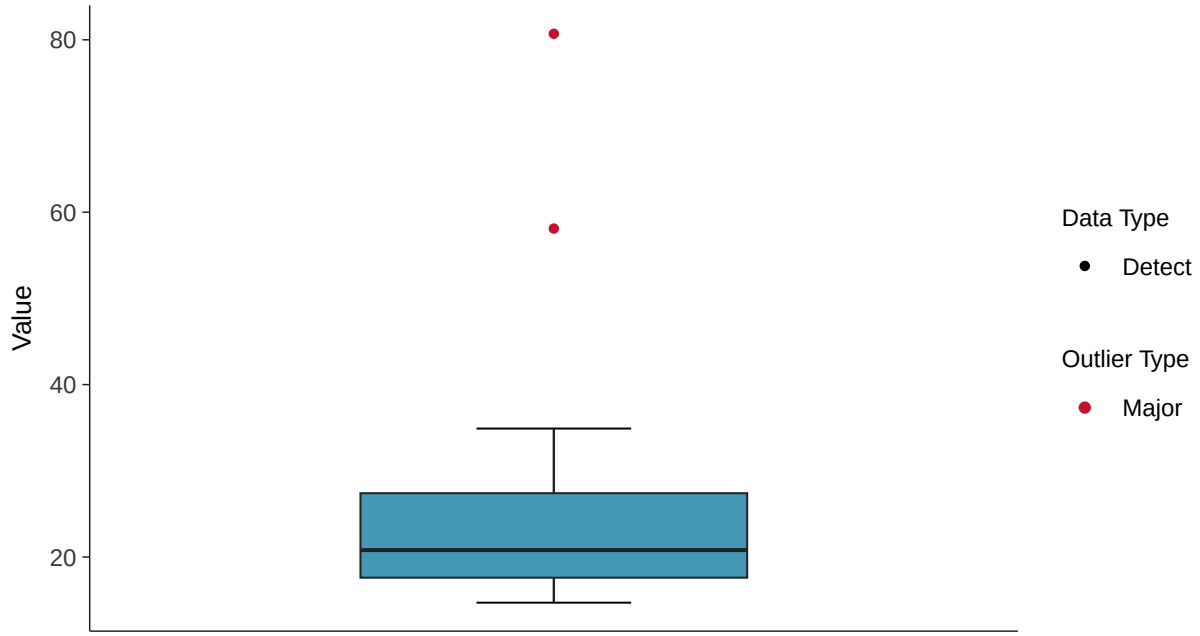
ID: 11_3_114





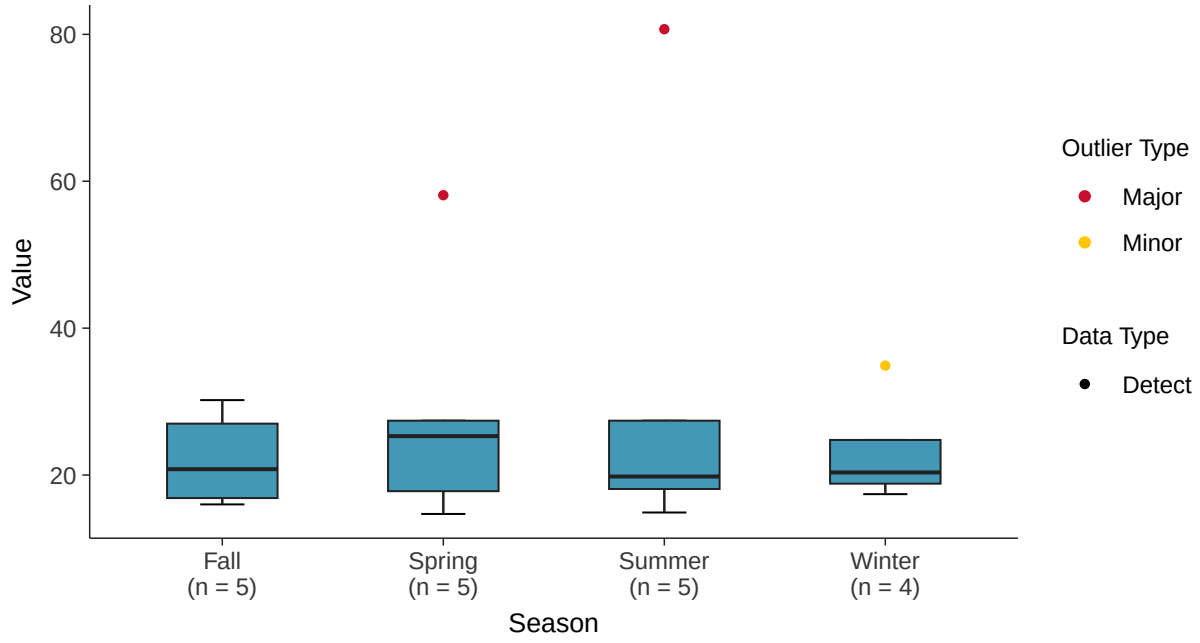
Boxplot

Lithium, MW-11D (ug/L)



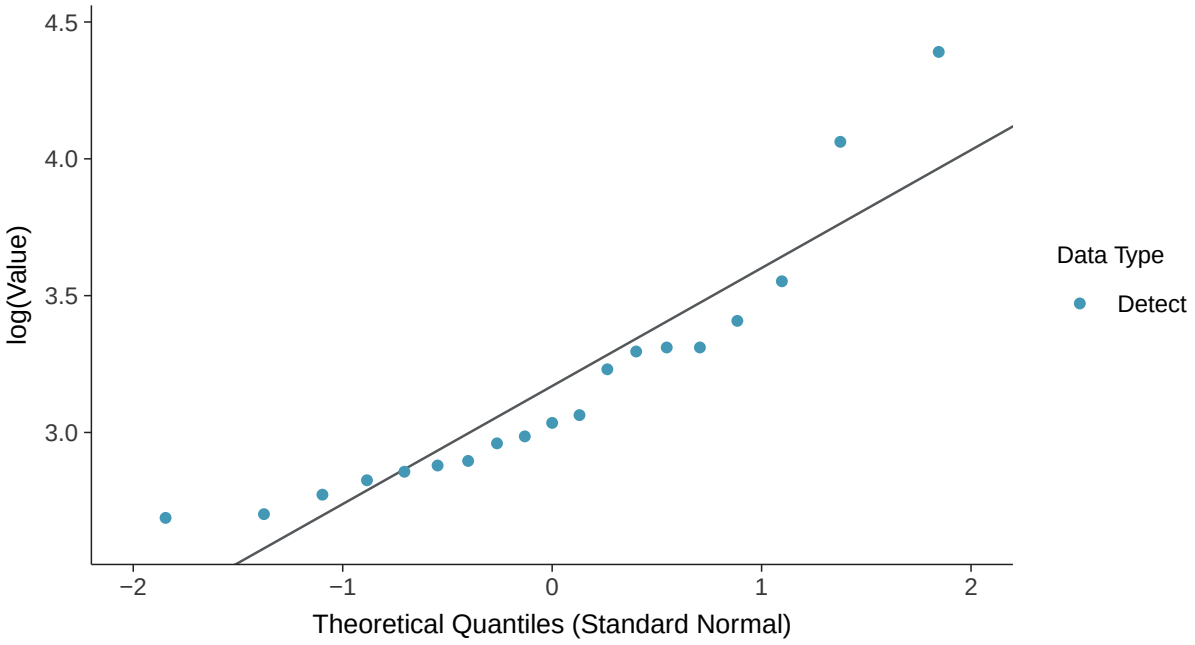
Boxplot by Season

Lithium, MW-11D (ug/L)



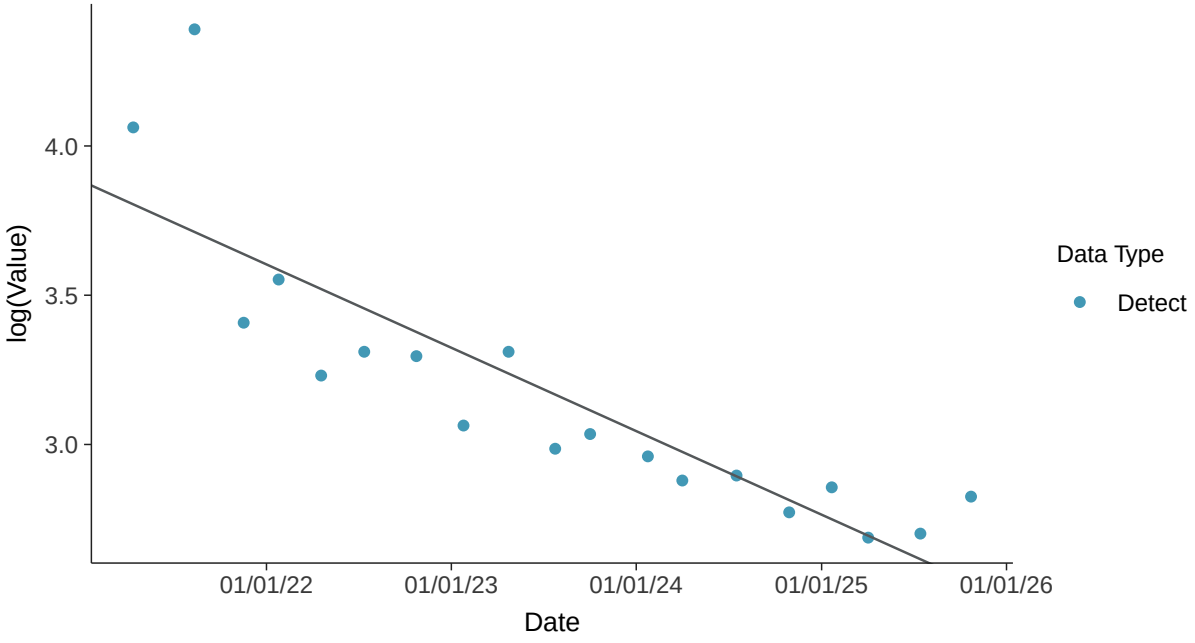
Lognormal Q-Q plot

Lithium, MW-11D (ug/L)



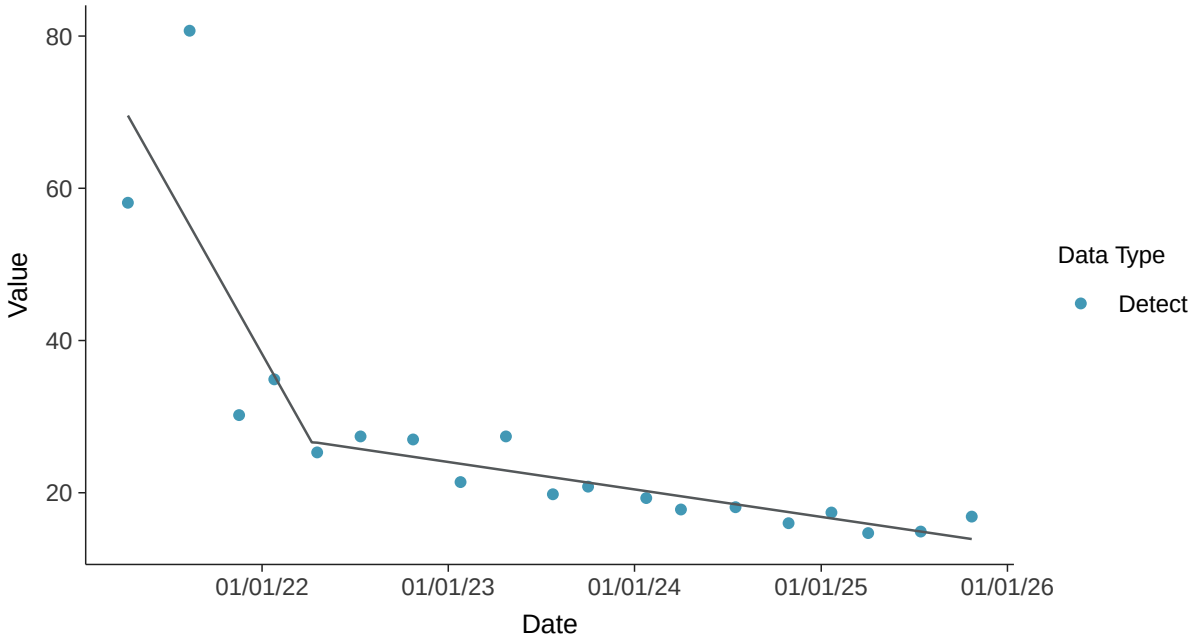
Trend Regression: Lognormal MLE

Lithium, MW-11D (ug/L)



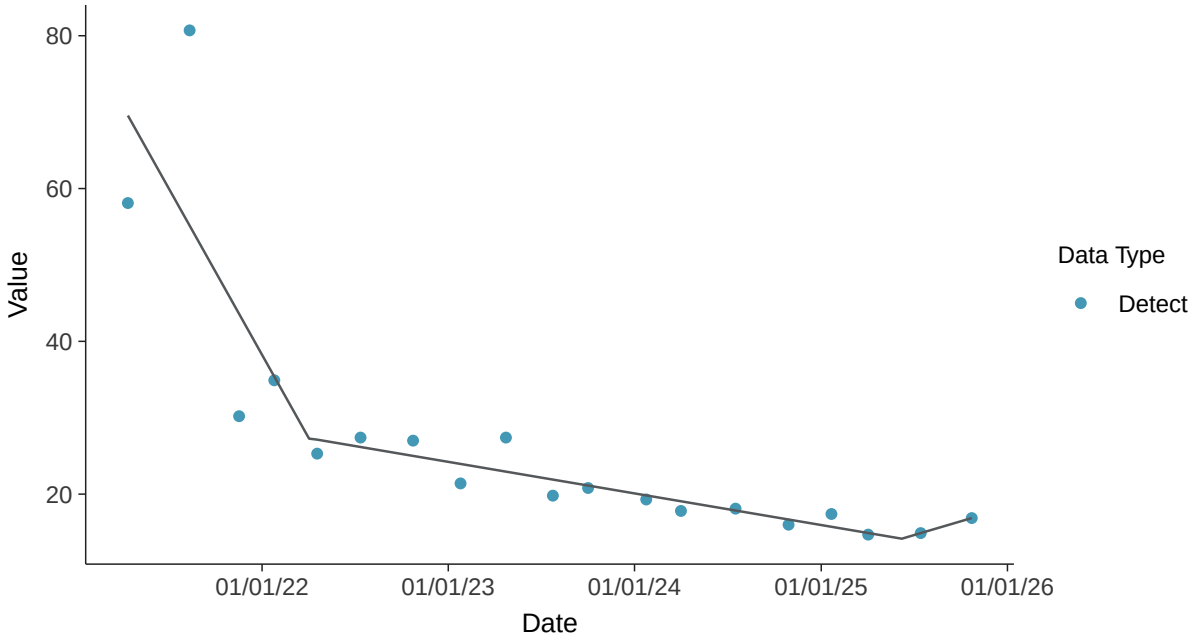
Trend Regression: Piecewise Linear-Linear

Lithium, MW-11D (ug/L)



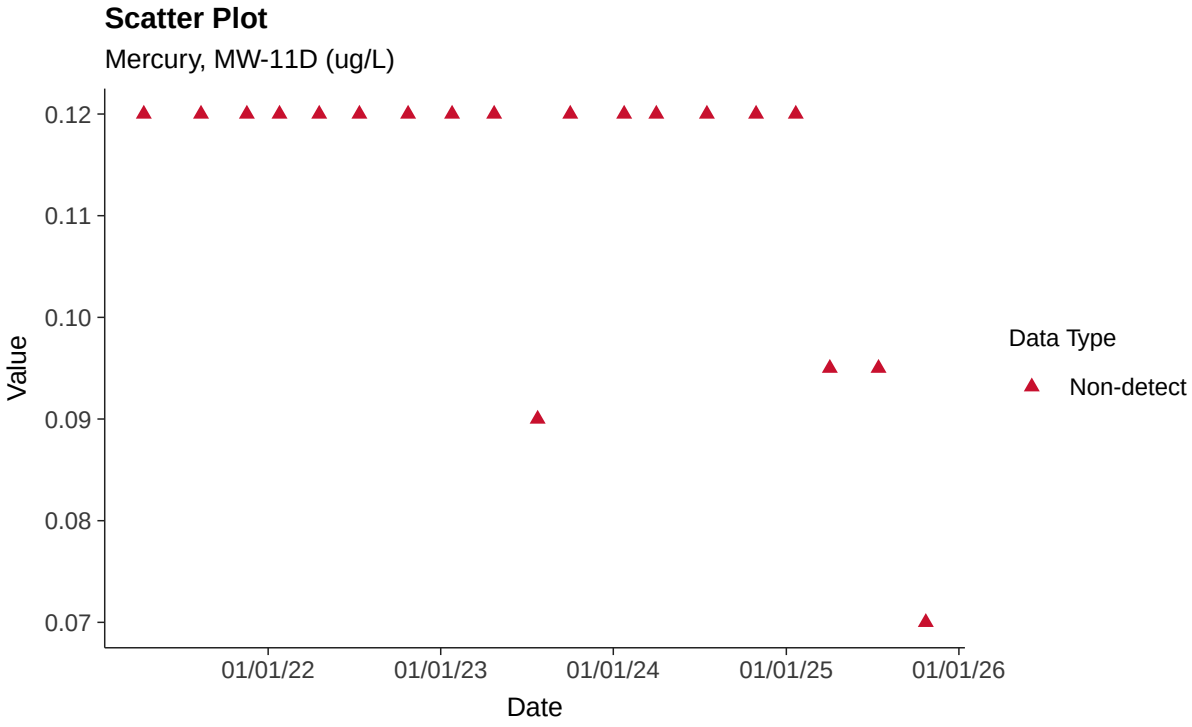
Trend Regression: Piecewise Linear-Linear-Linear

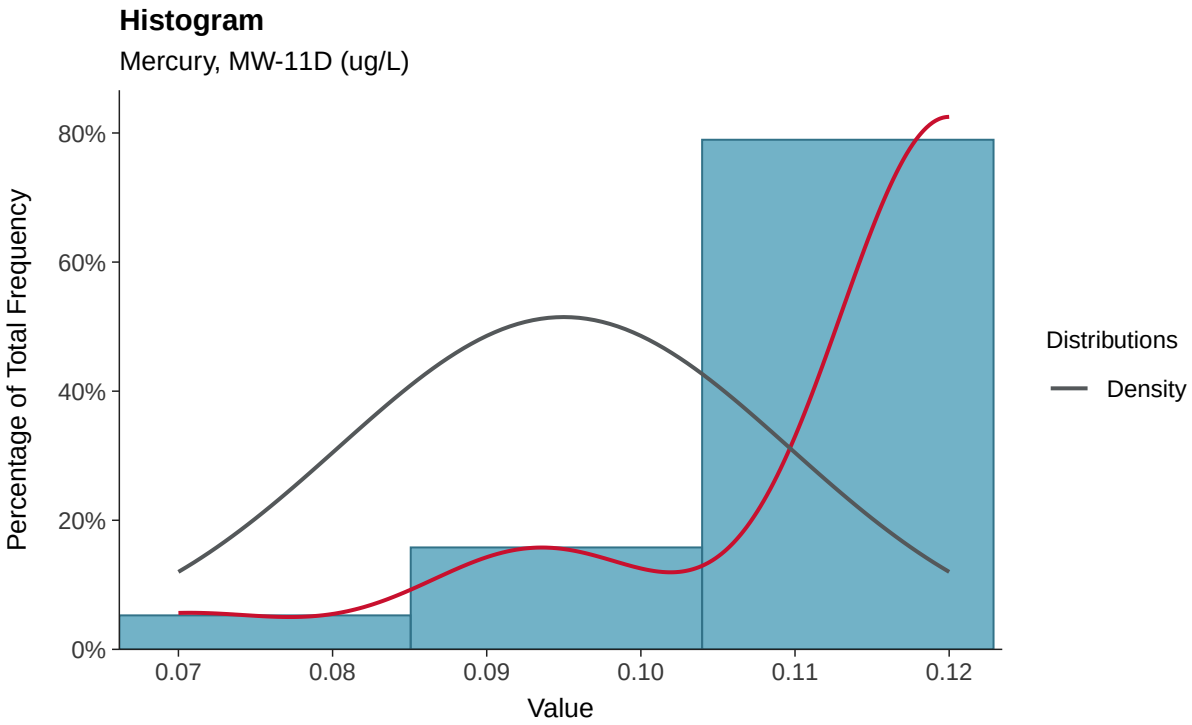
Lithium, MW-11D (ug/L)



App. IV: Mercury, MW-11D

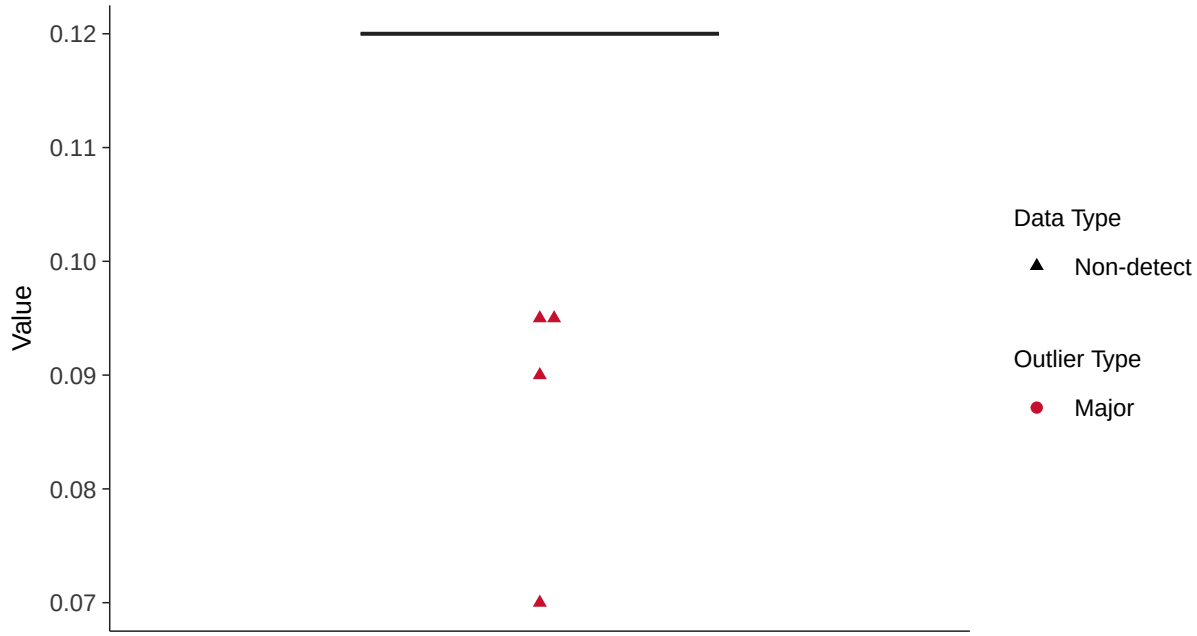
ID: 11_3_115





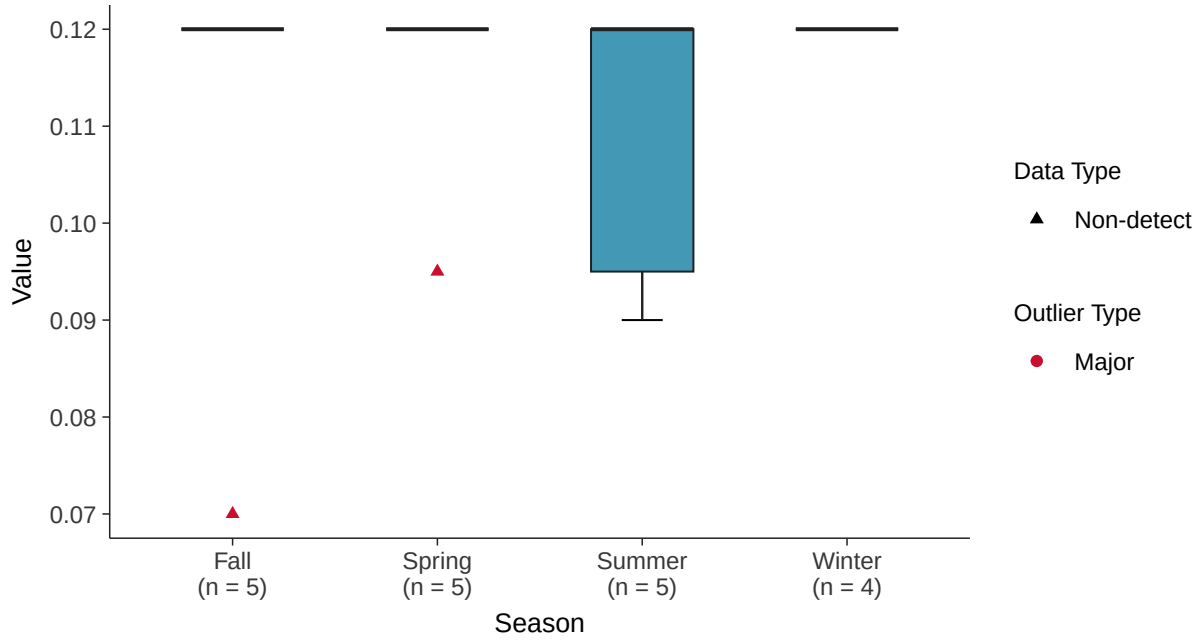
Boxplot

Mercury, MW-11D (ug/L)



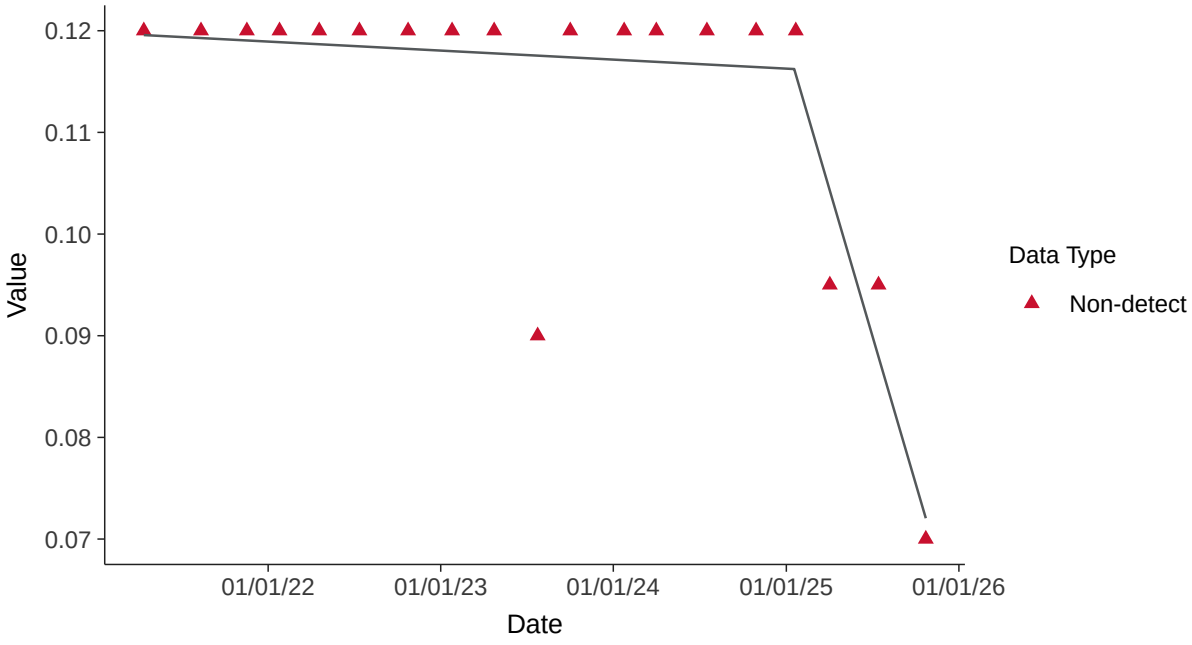
Boxplot by Season

Mercury, MW-11D (ug/L)



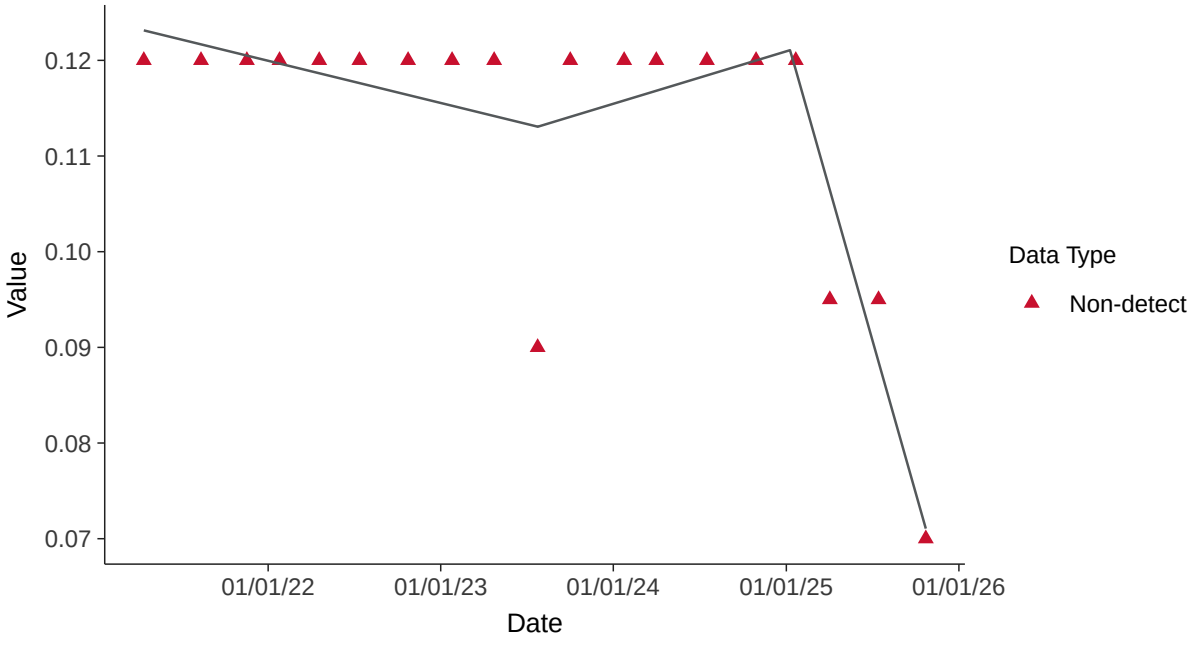
Trend Regression: Piecewise Linear-Linear

Mercury, MW-11D (ug/L)



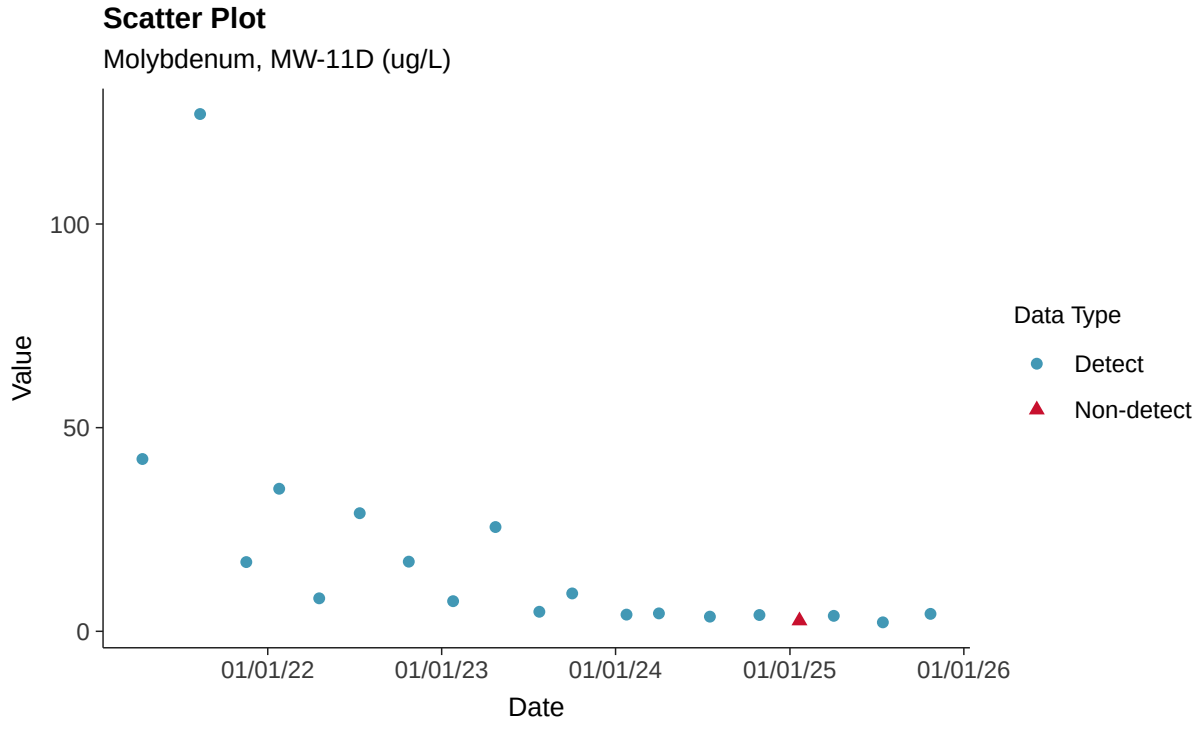
Trend Regression: Piecewise Linear-Linear-Linear

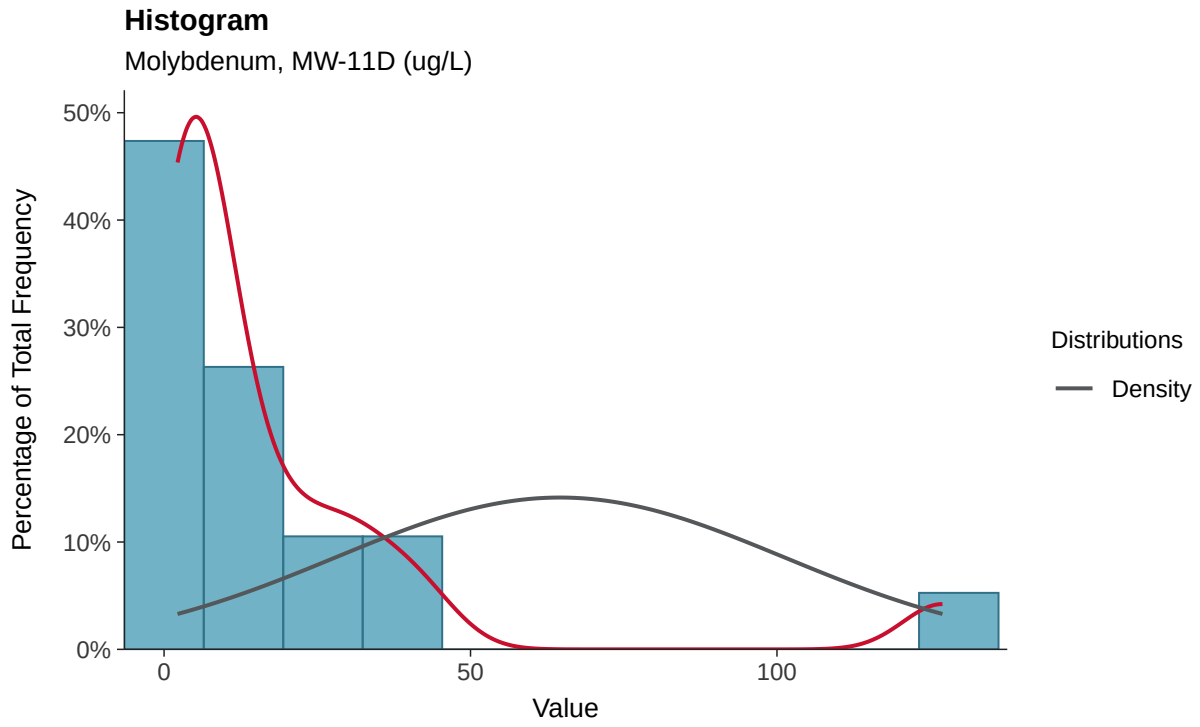
Mercury, MW-11D (ug/L)



App. IV: Molybdenum, MW-11D

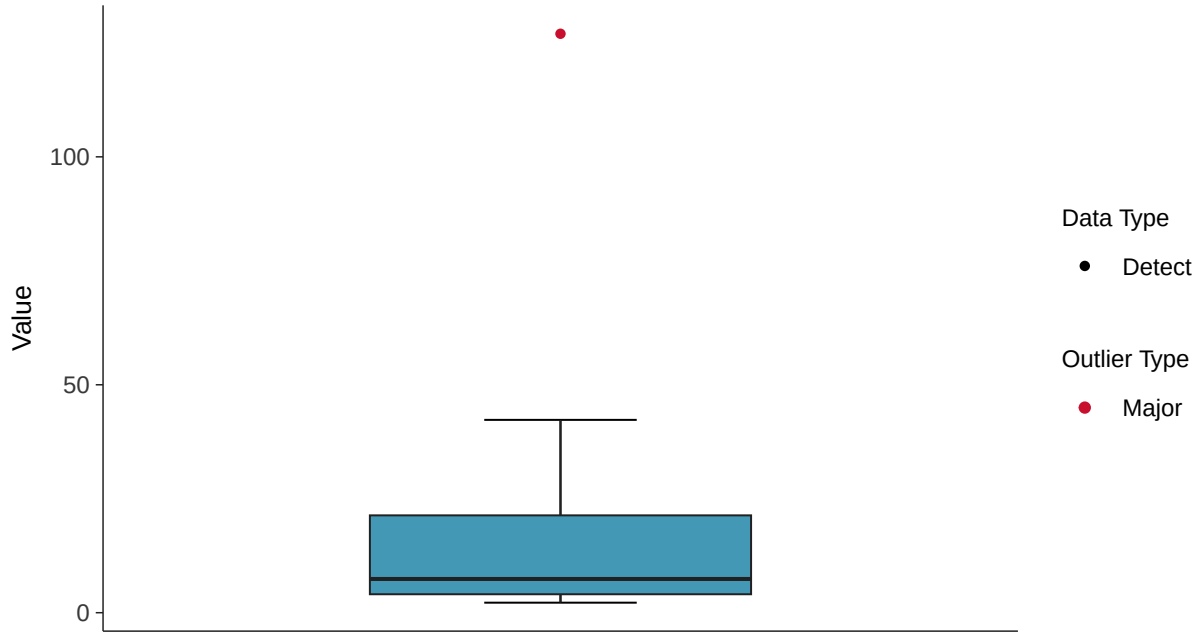
ID: 11_3_116





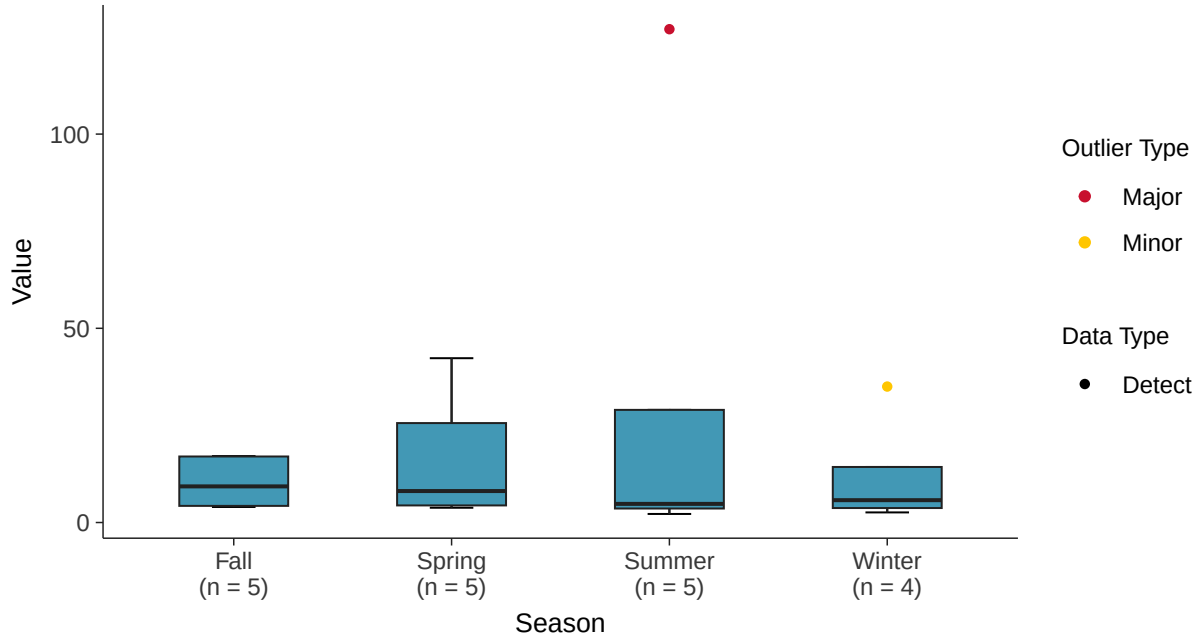
Boxplot

Molybdenum, MW-11D (ug/L)



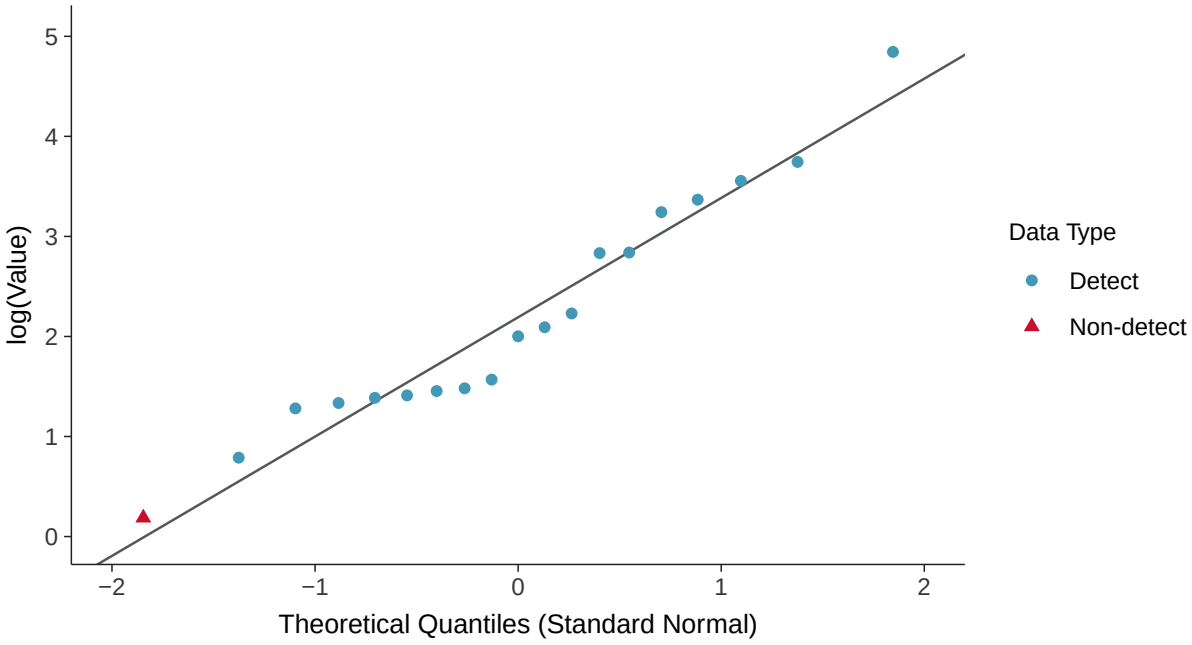
Boxplot by Season

Molybdenum, MW-11D (ug/L)



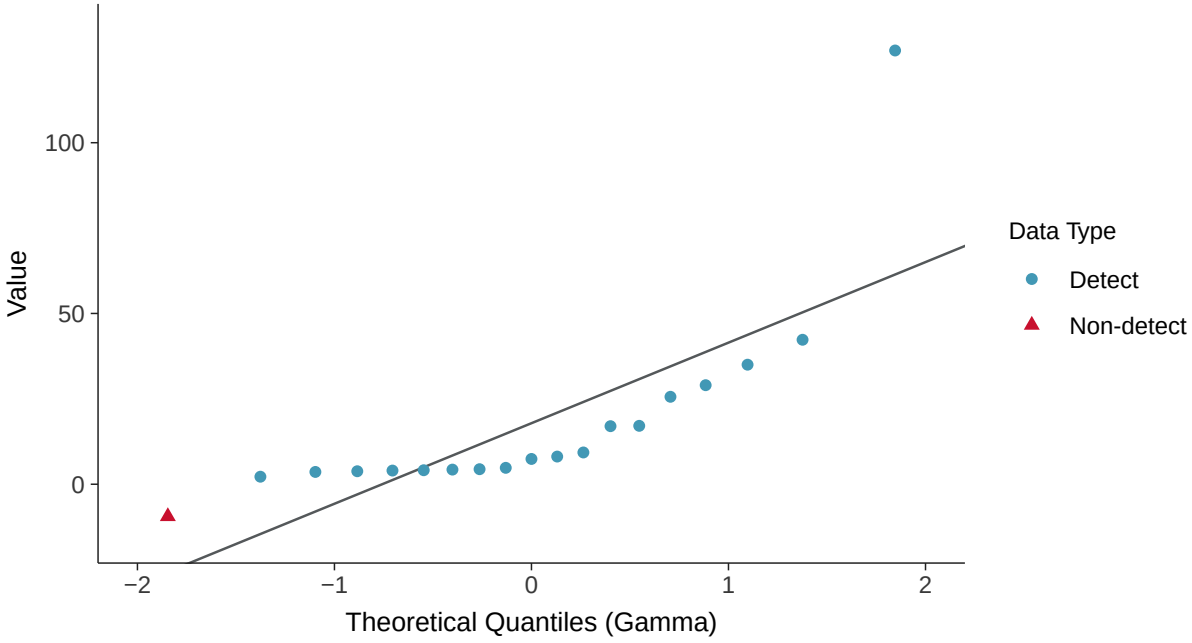
Lognormal Q-Q plot using ROS Imputed Estimates

Molybdenum, MW-11D (ug/L)



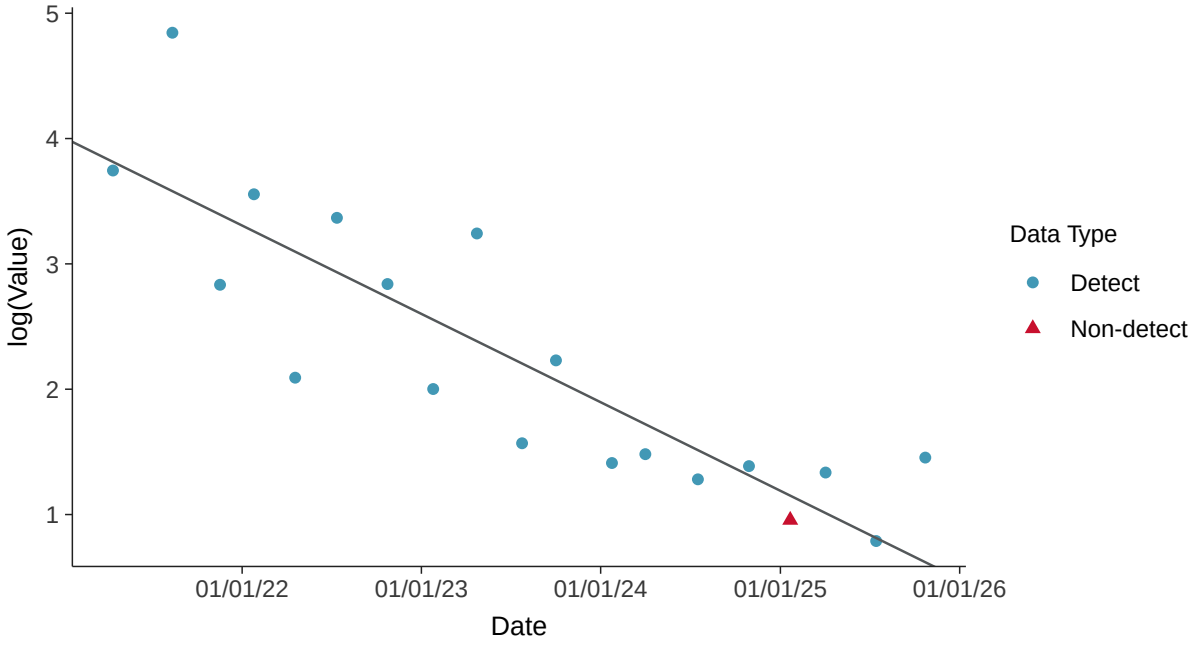
Gamma Q-Q plot using ROS Imputed Estimates

Molybdenum, MW-11D (ug/L)



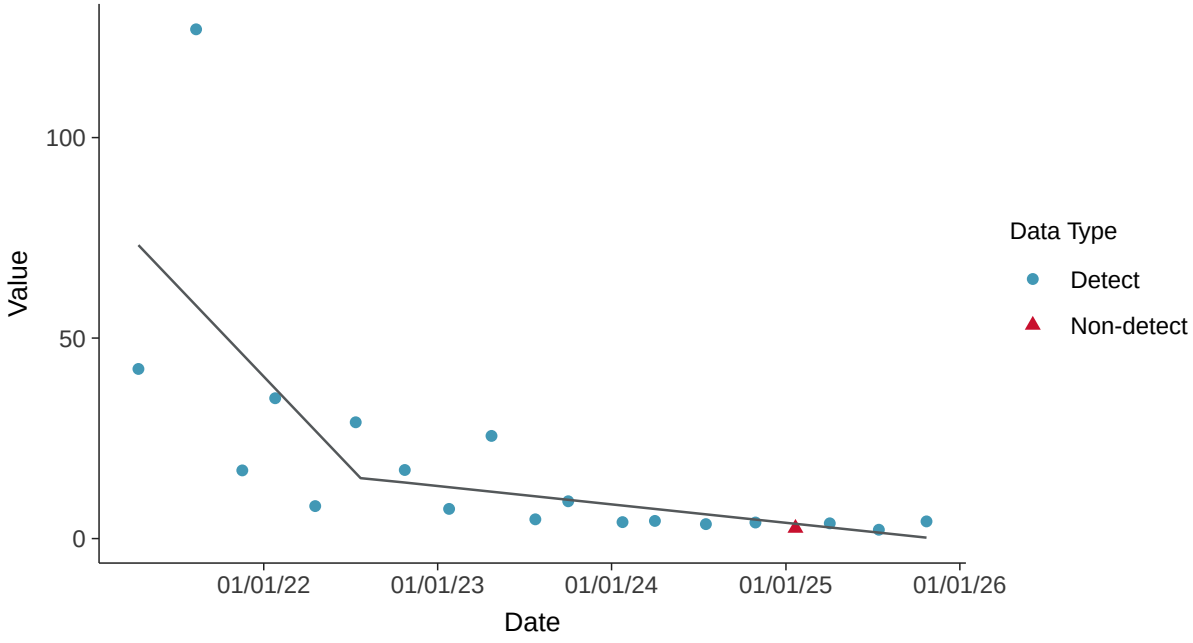
Trend Regression: Lognormal MLE

Molybdenum, MW-11D (ug/L)



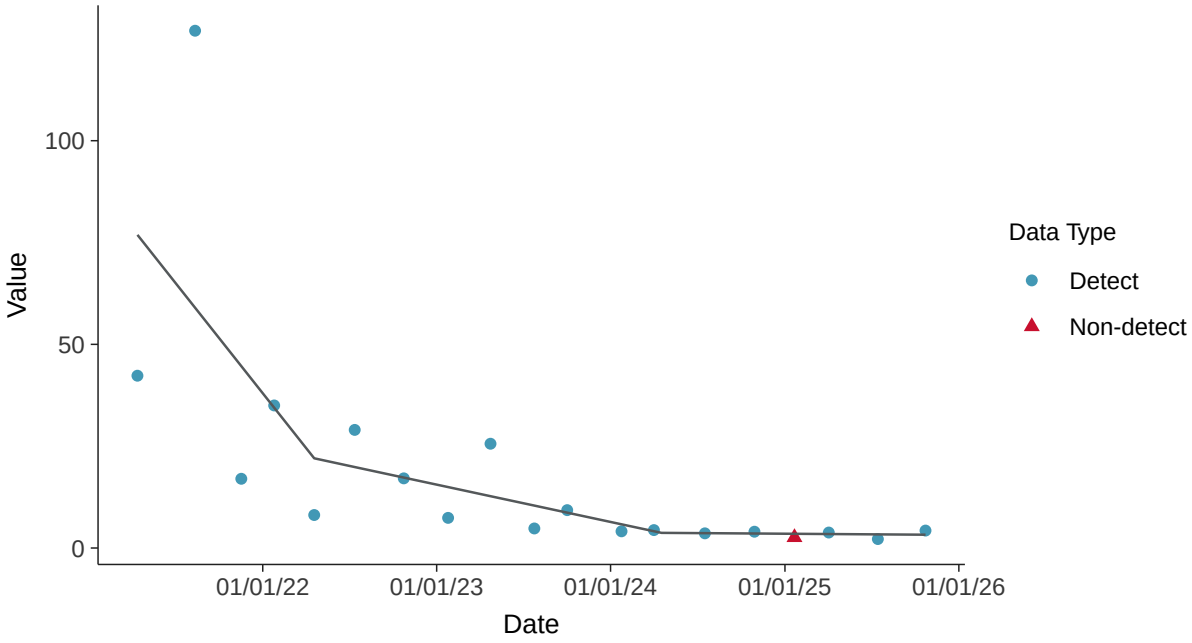
Trend Regression: Piecewise Linear-Linear

Molybdenum, MW-11D (ug/L)



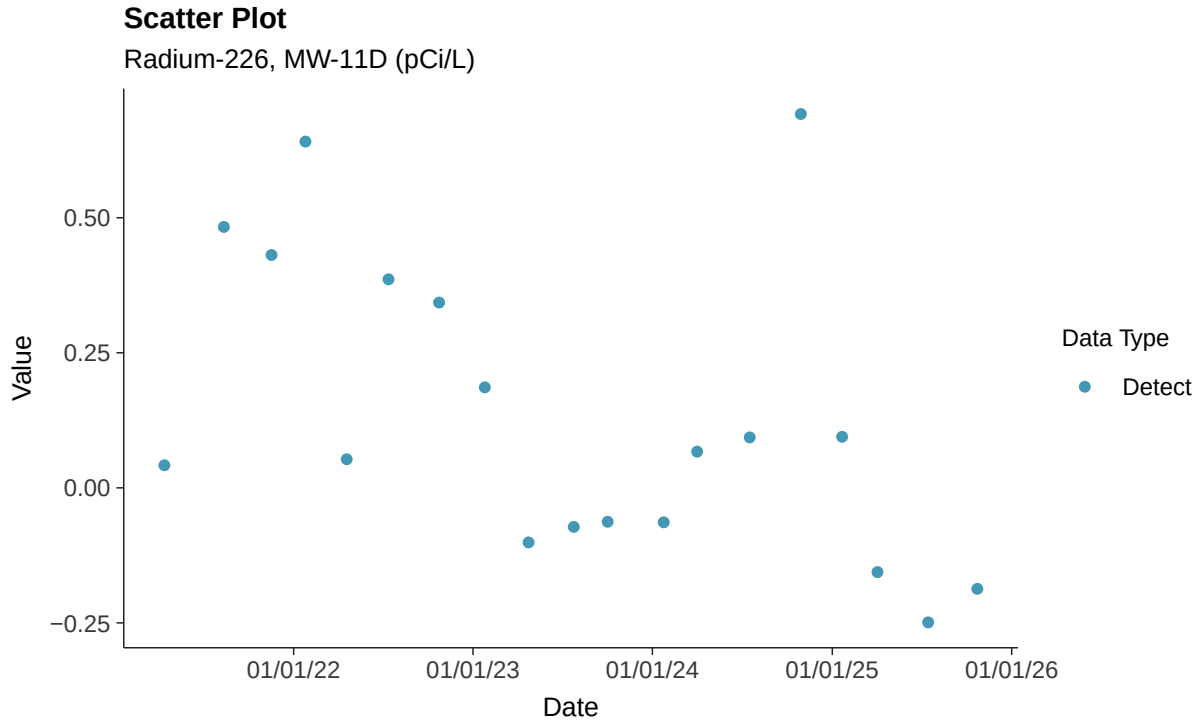
Trend Regression: Piecewise Linear-Linear-Linear

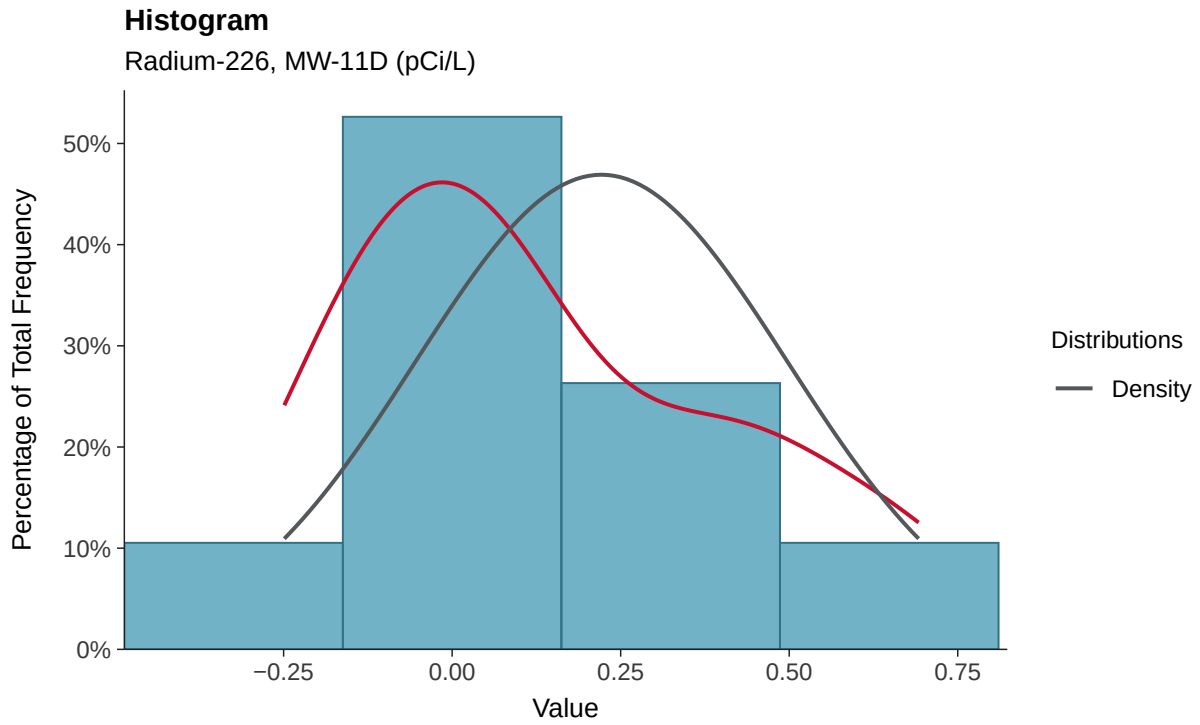
Molybdenum, MW-11D (ug/L)



App. IV: Radium-226, MW-11D

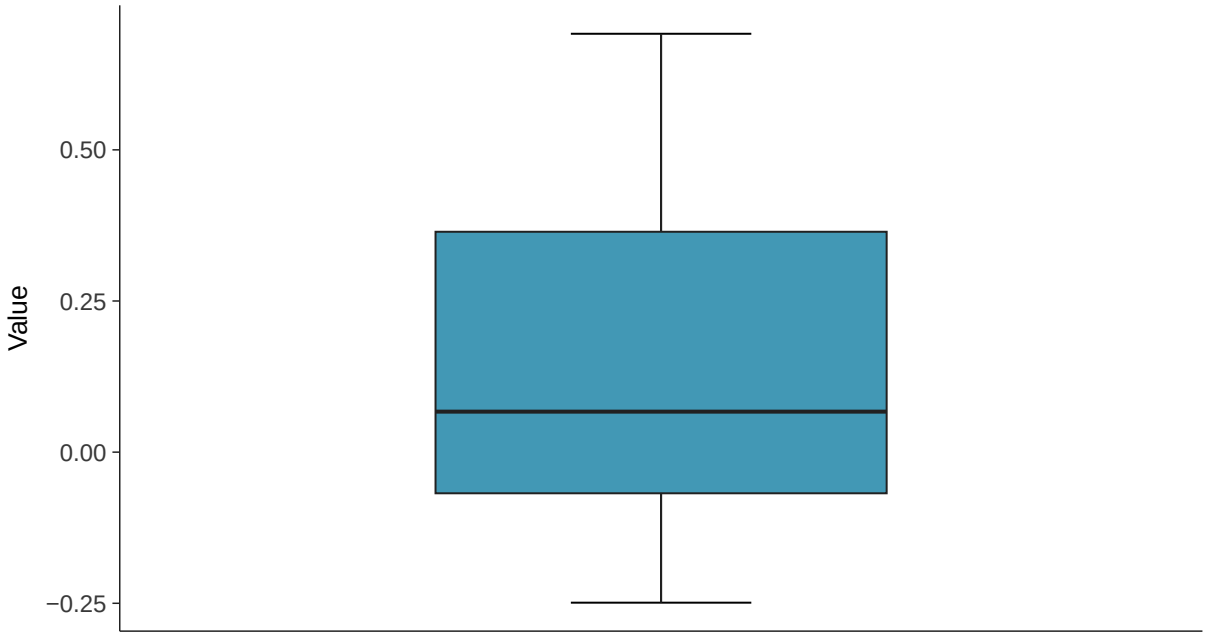
ID: 11_3_119





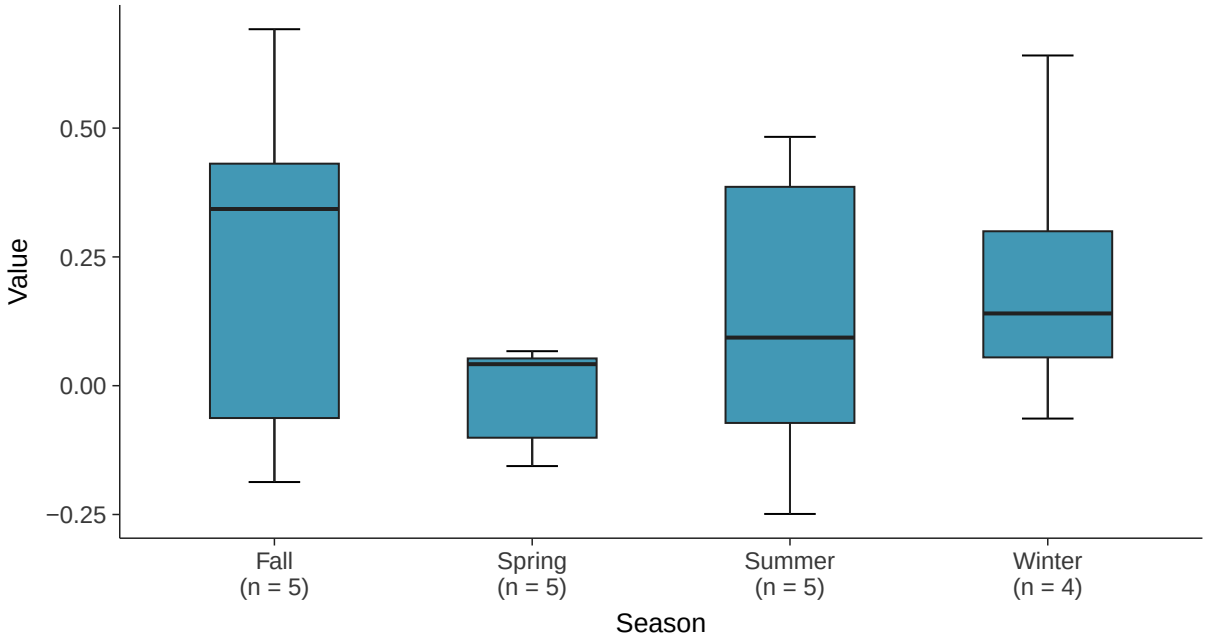
Boxplot

Radium-226, MW-11D (pCi/L)



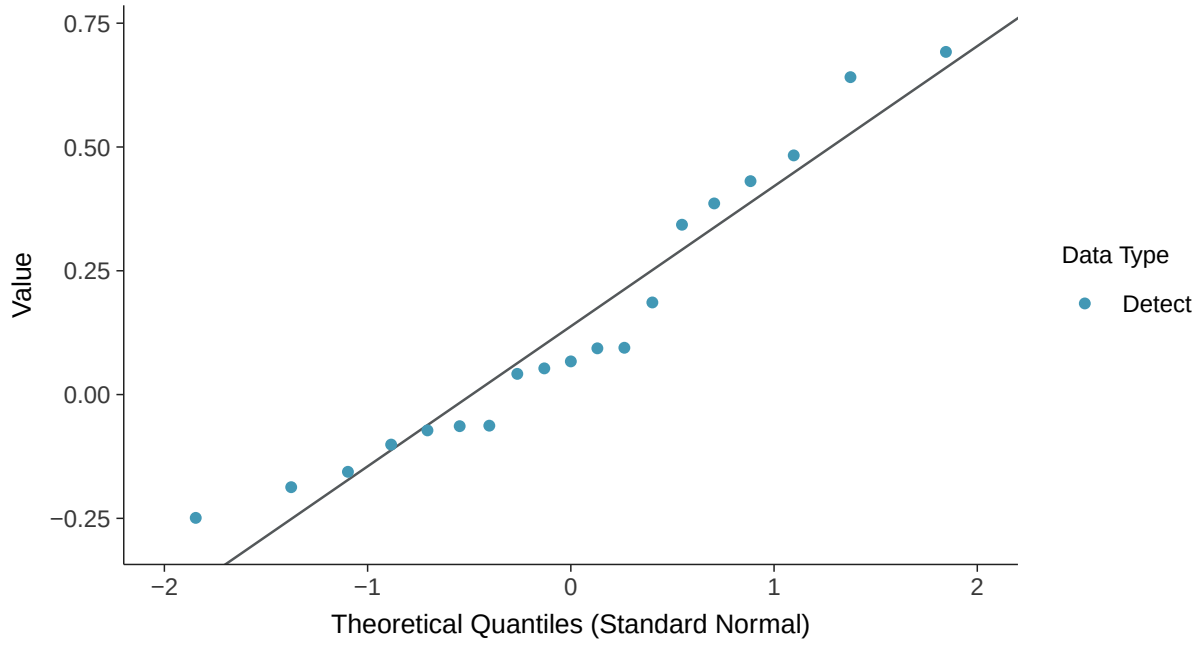
Boxplot by Season

Radium-226, MW-11D (pCi/L)



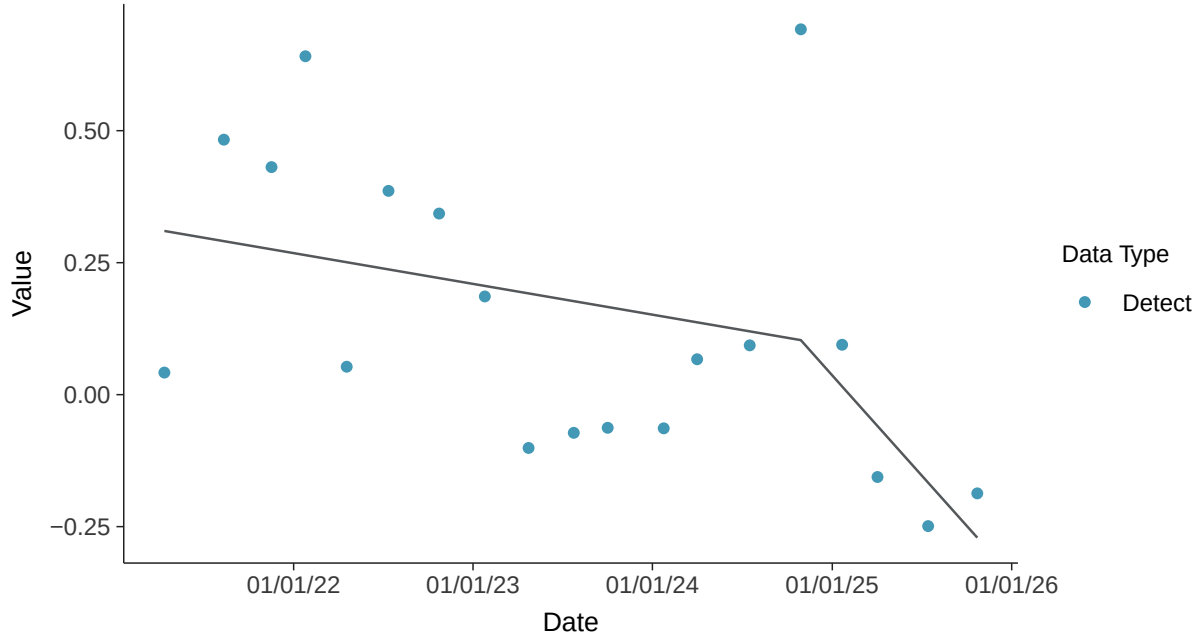
Normal Q-Q plot

Radium-226, MW-11D (pCi/L)



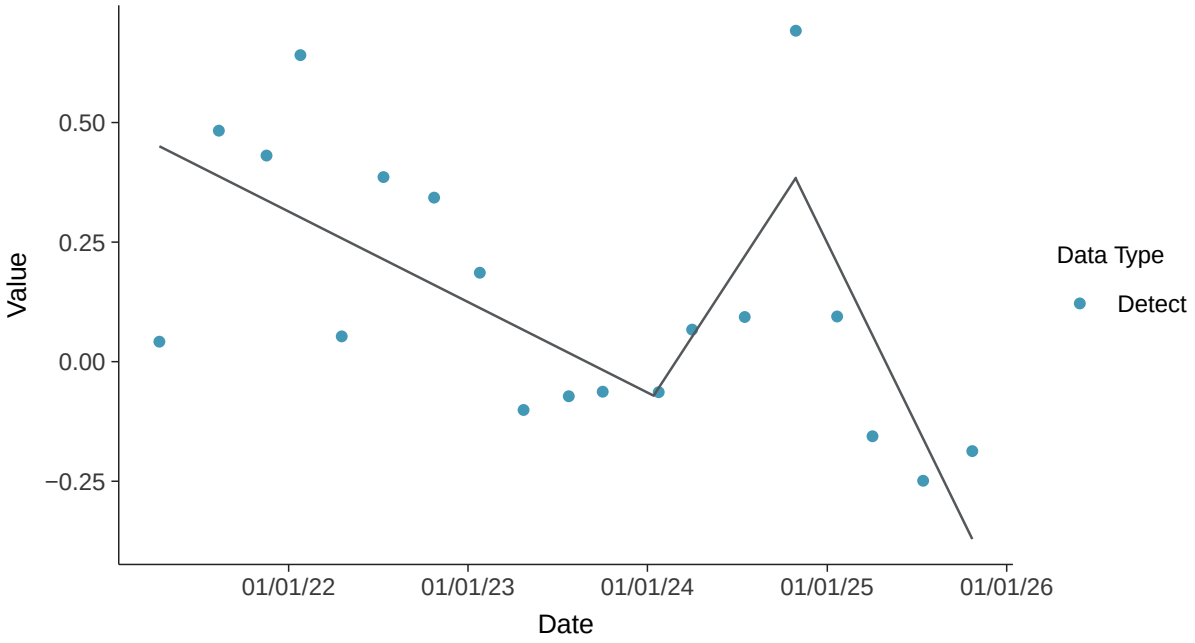
Trend Regression: Piecewise Linear-Linear

Radium-226, MW-11D (pCi/L)



Trend Regression: Piecewise Linear-Linear-Linear

Radium-226, MW-11D (pCi/L)

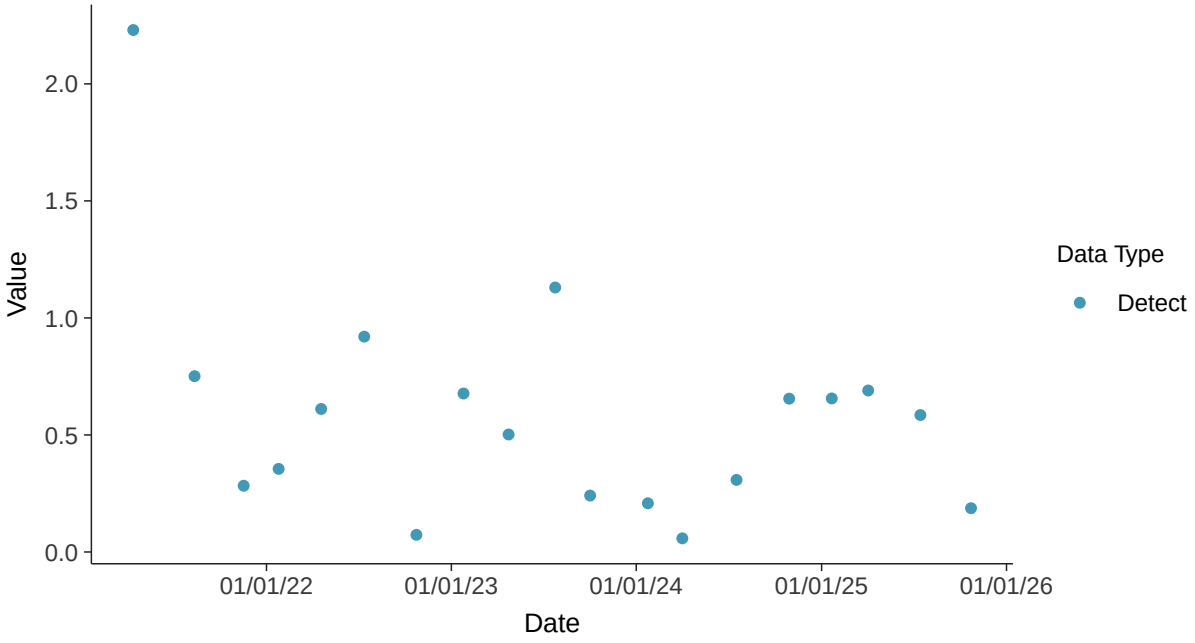


App. IV: Radium-228, MW-11D

ID: 11_3_120

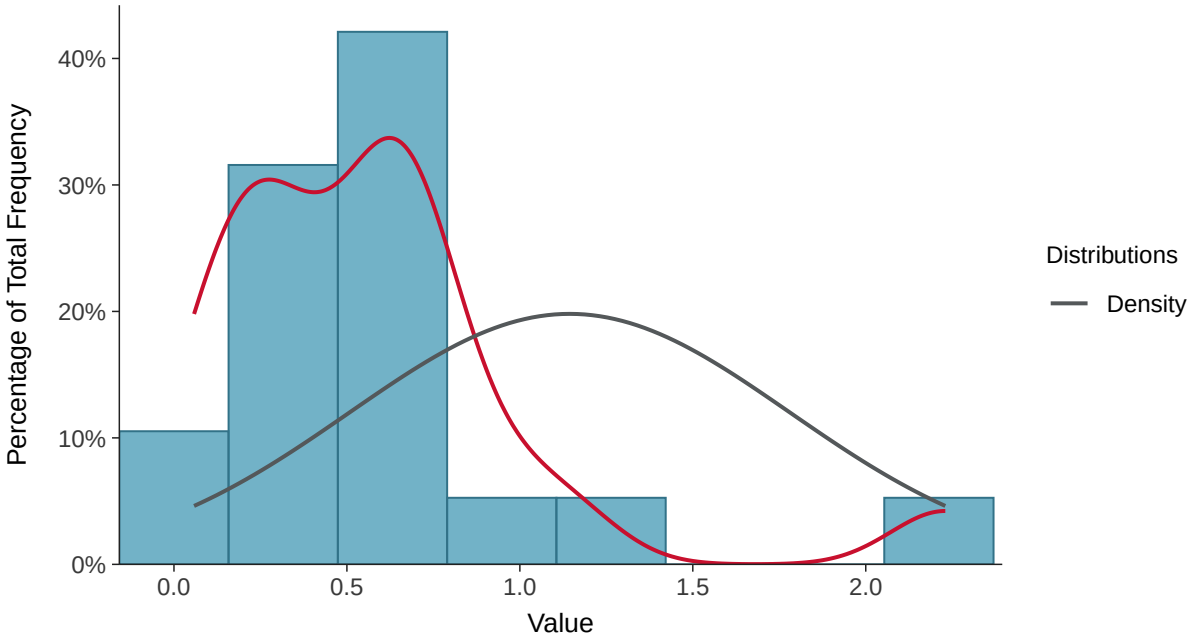
Scatter Plot

Radium-228, MW-11D (pCi/L)



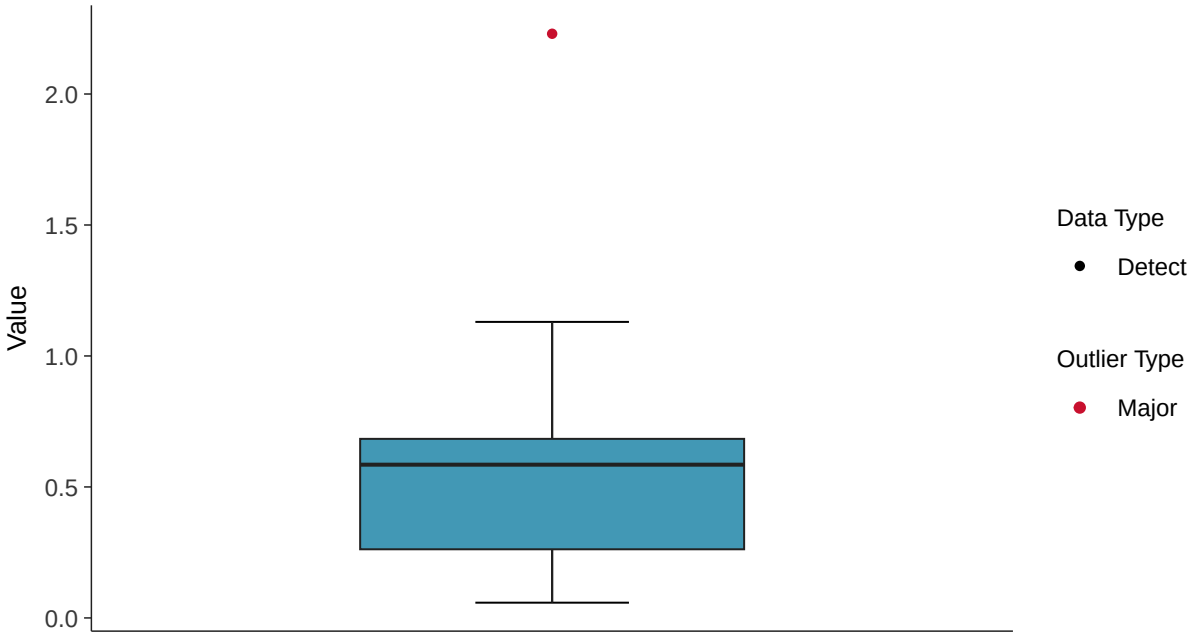
Histogram

Radium-228, MW-11D (pCi/L)



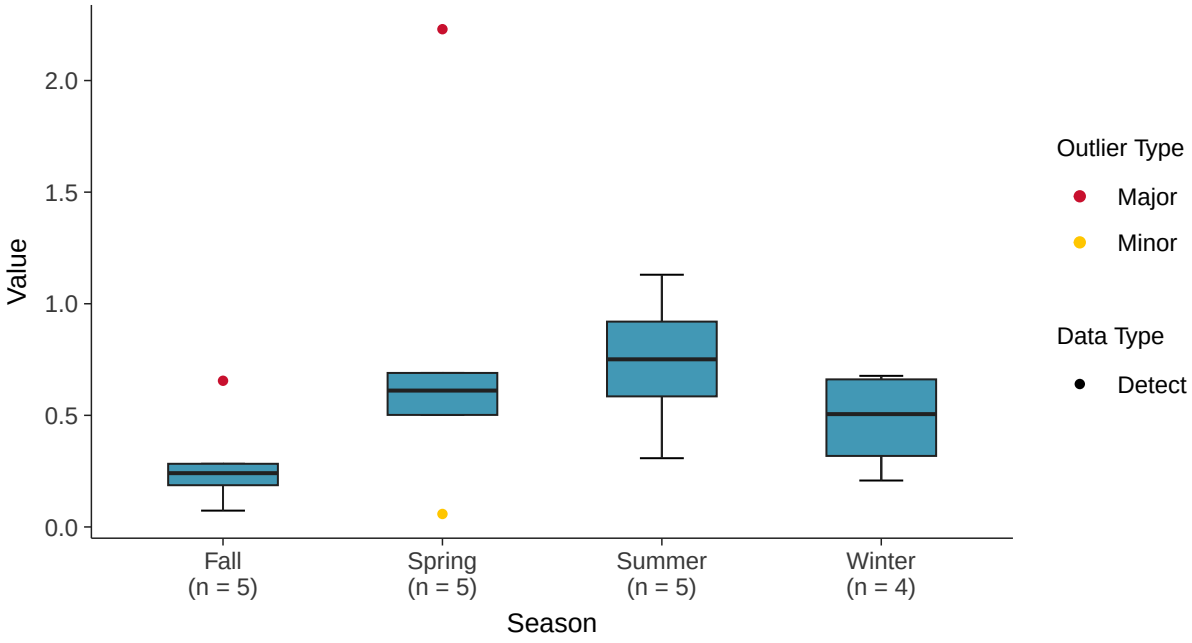
Boxplot

Radium-228, MW-11D (pCi/L)



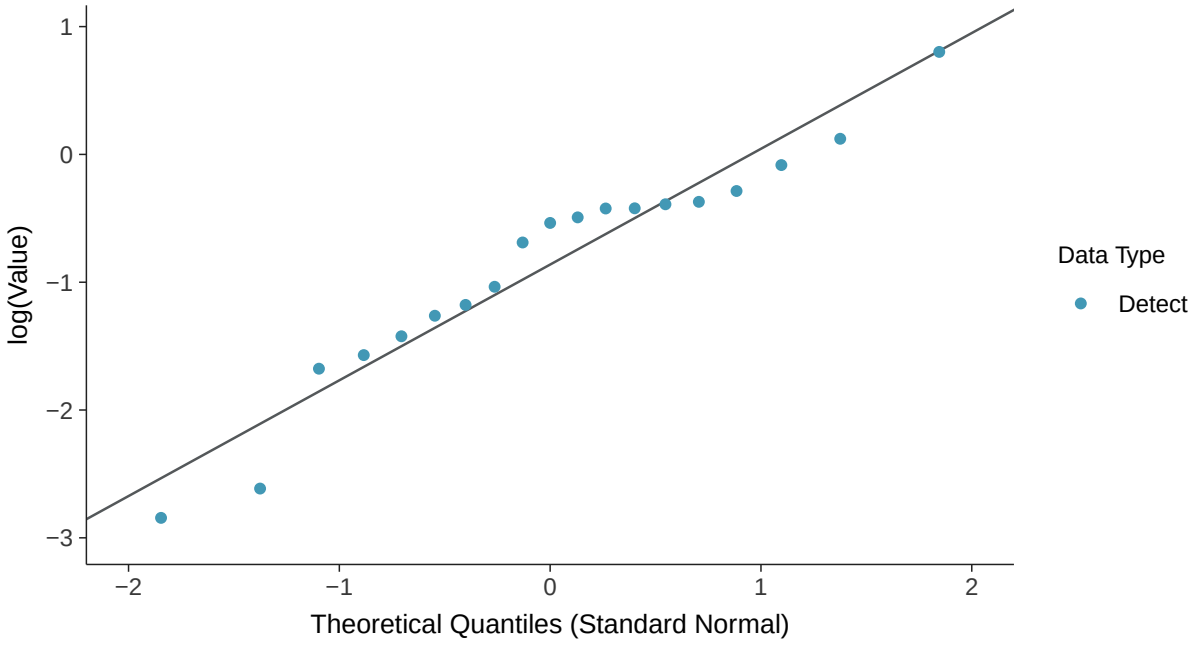
Boxplot by Season

Radium-228, MW-11D (pCi/L)



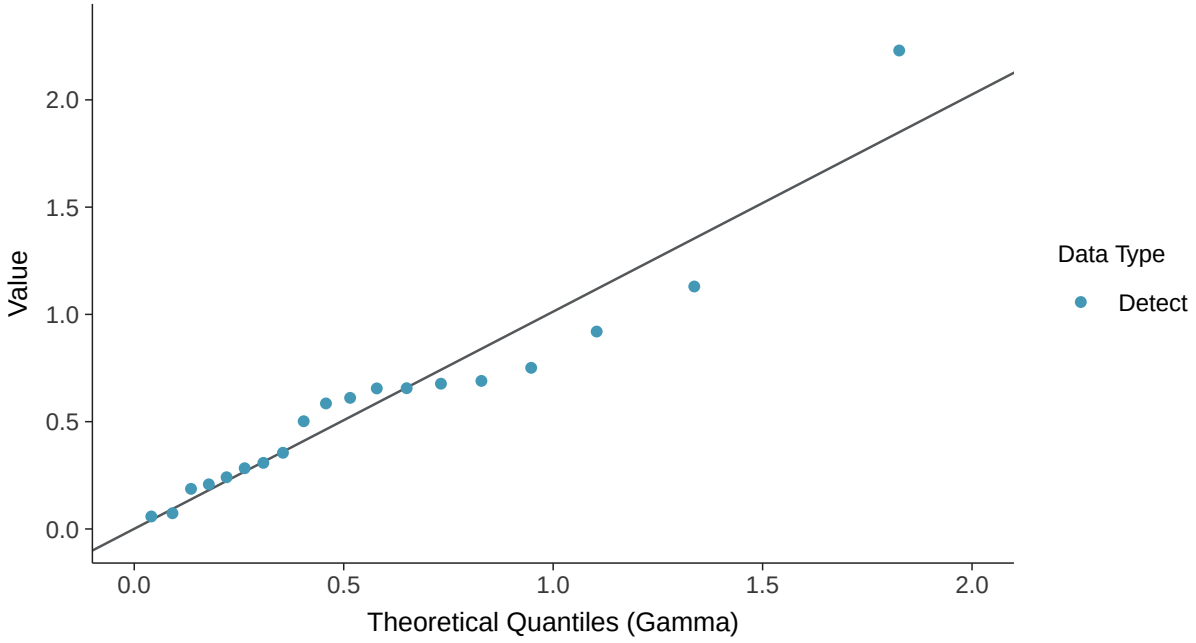
Lognormal Q-Q plot

Radium-228, MW-11D (pCi/L)



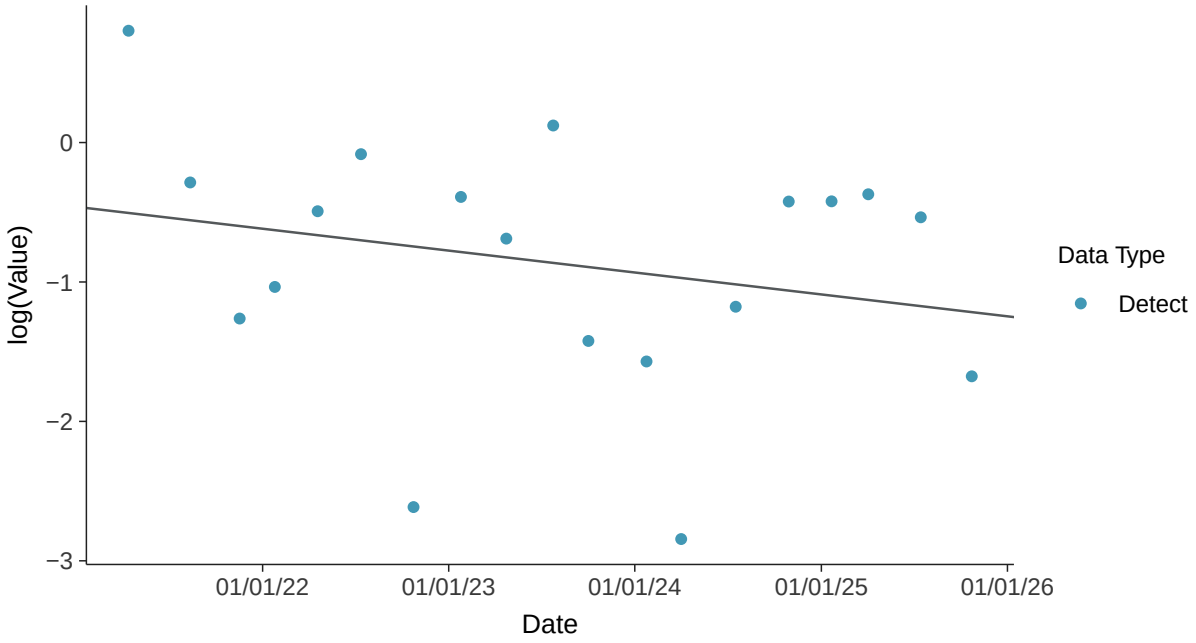
Gamma Q-Q plot

Radium-228, MW-11D (pCi/L)



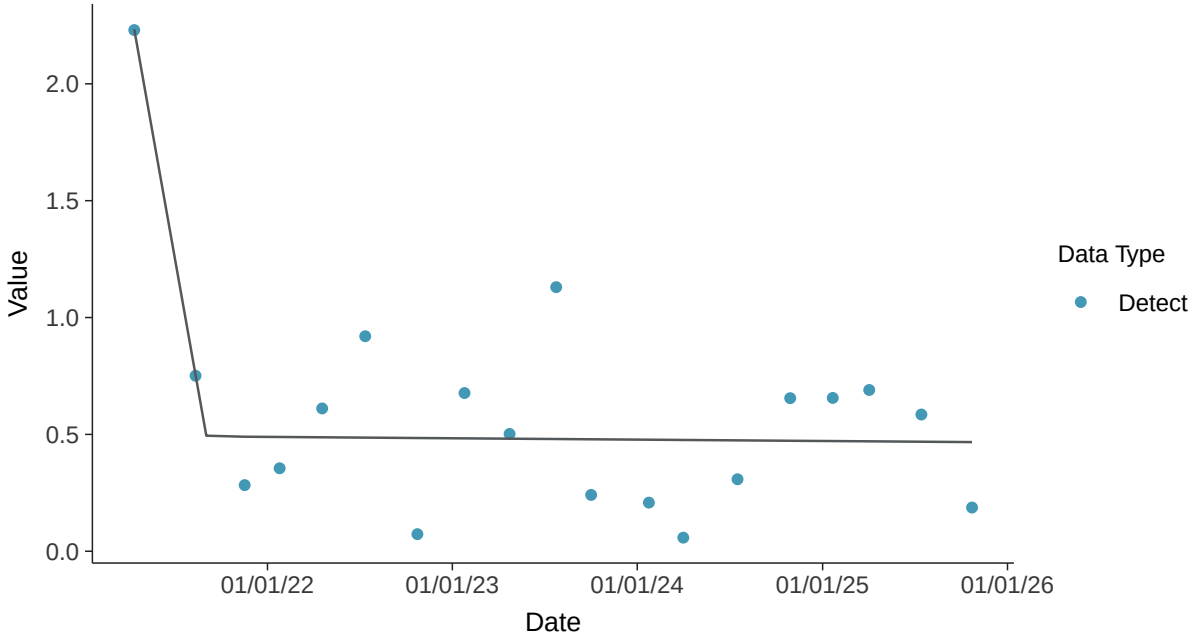
Trend Regression: Lognormal MLE

Radium-228, MW-11D (pCi/L)



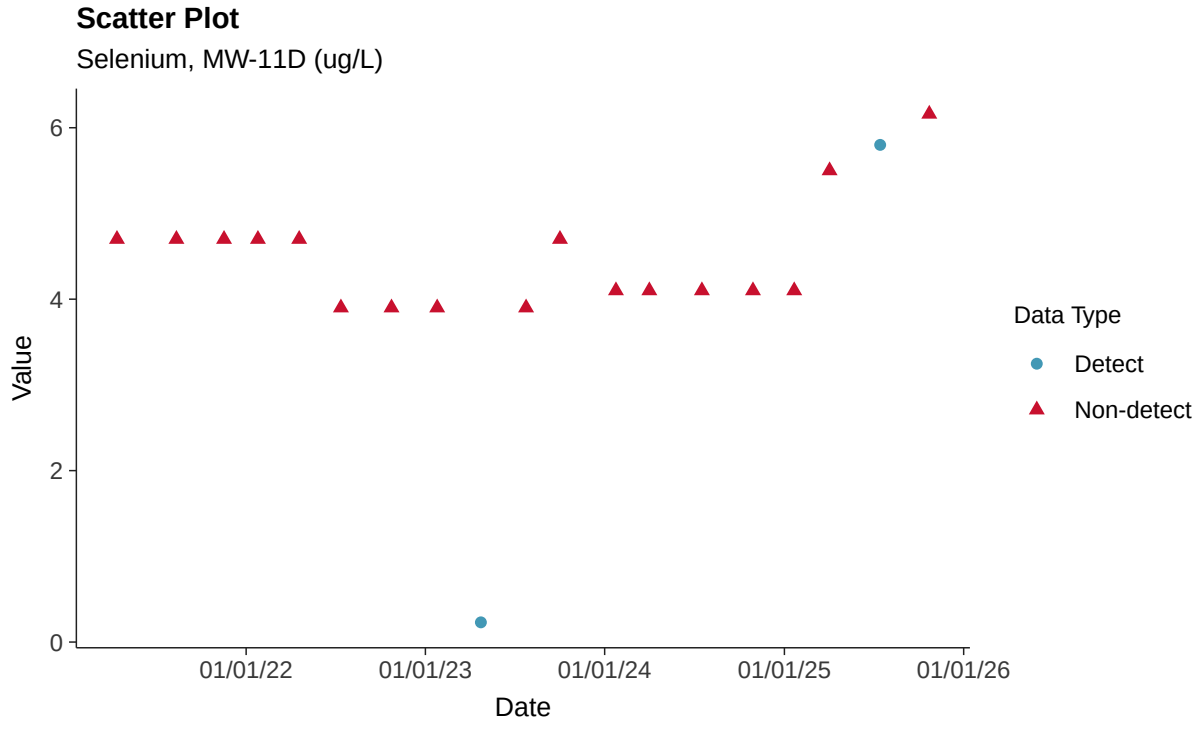
Trend Regression: Piecewise Linear-Linear

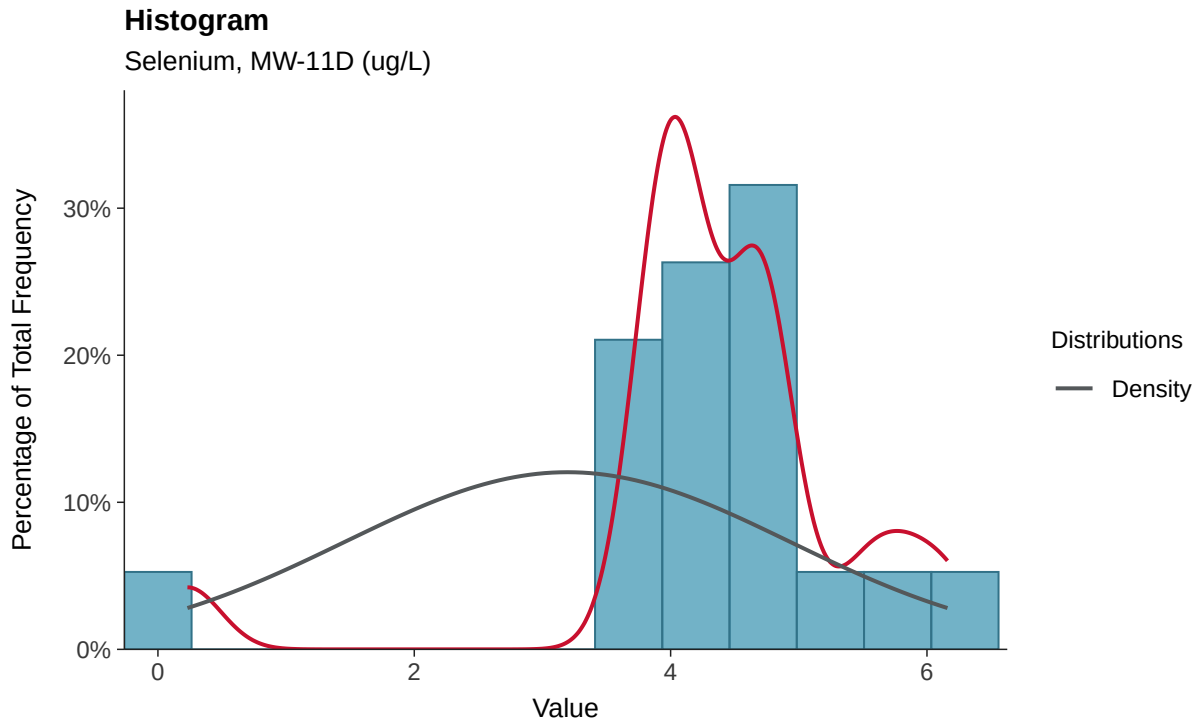
Radium-228, MW-11D (pCi/L)



App. IV: Selenium, MW-11D

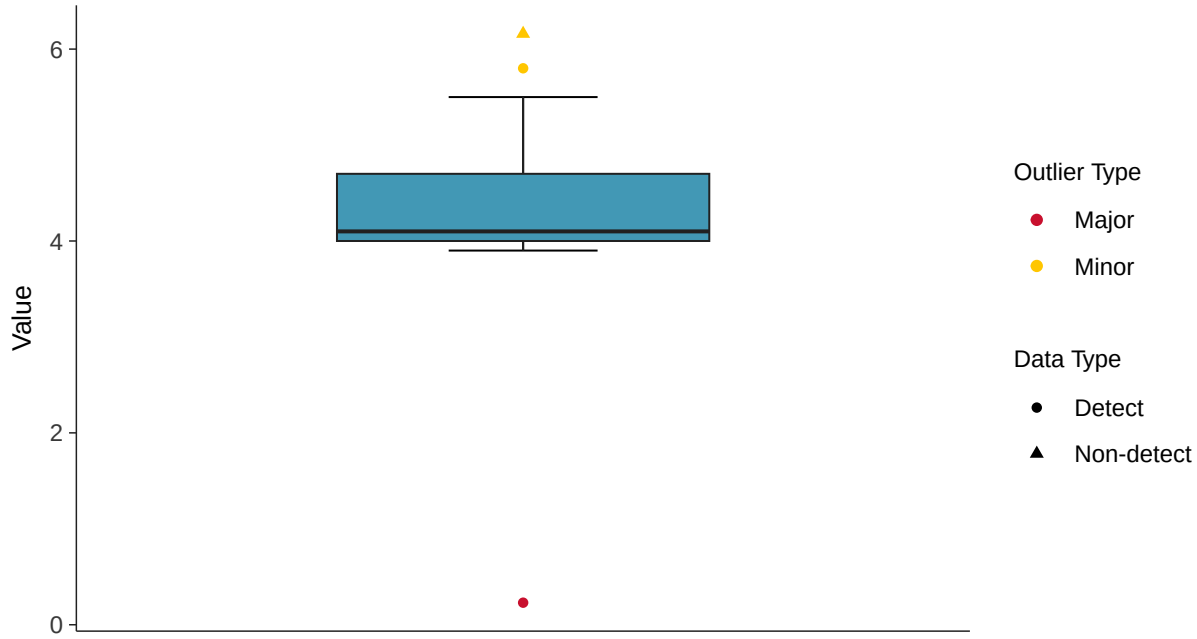
ID: 11_3_121





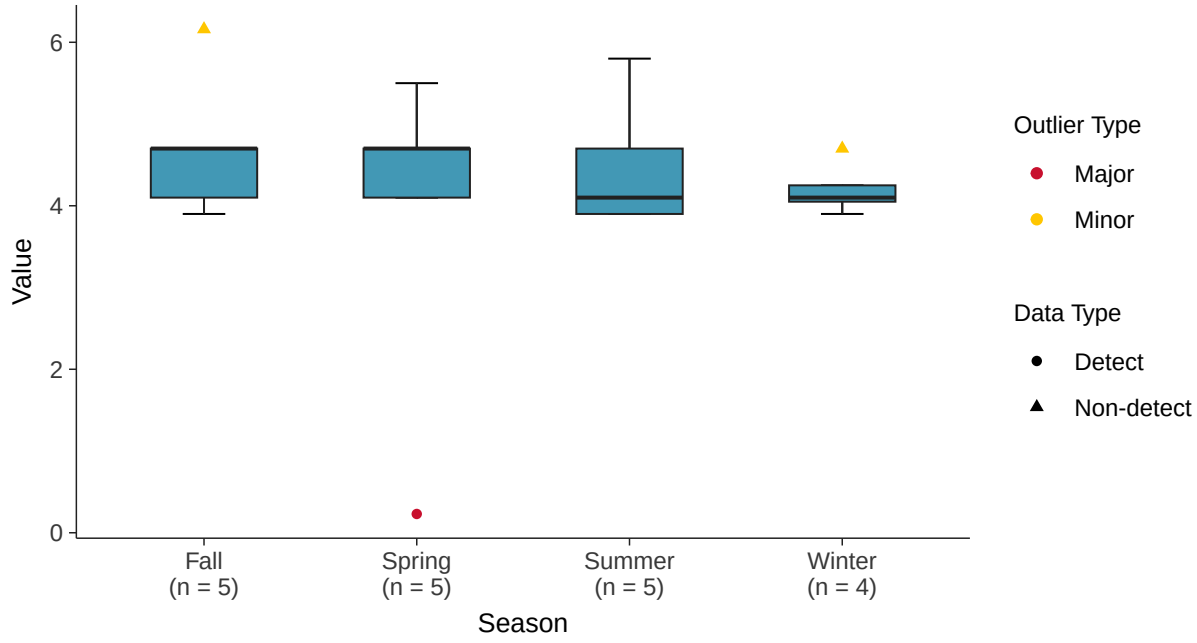
Boxplot

Selenium, MW-11D (ug/L)



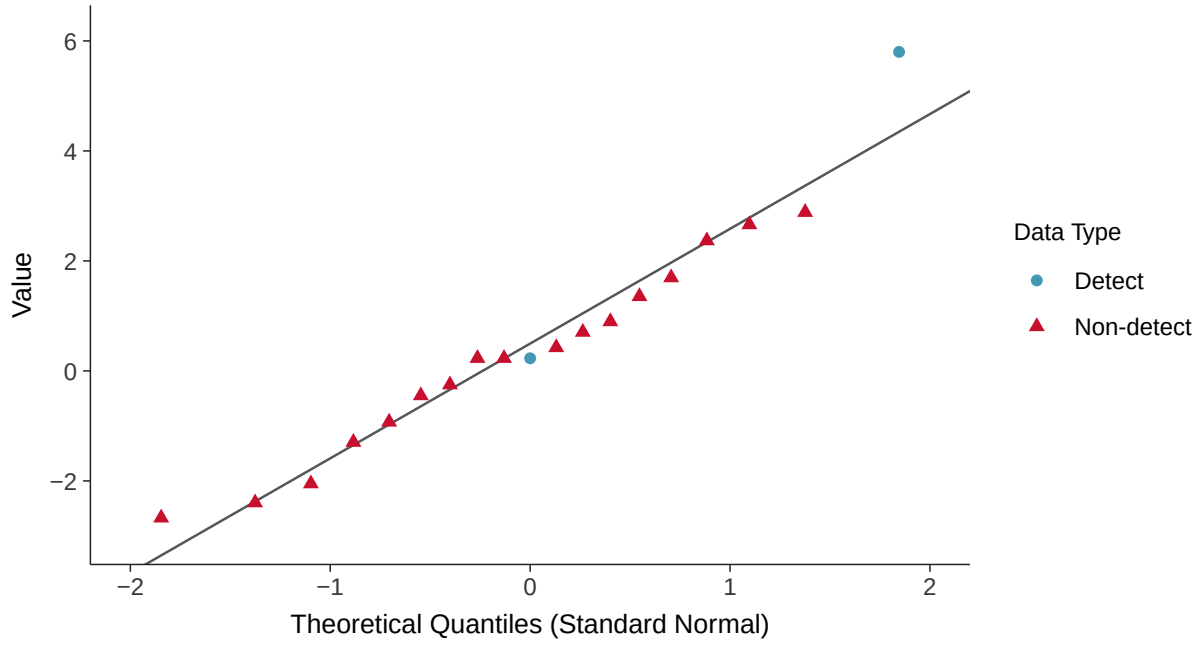
Boxplot by Season

Selenium, MW-11D (ug/L)



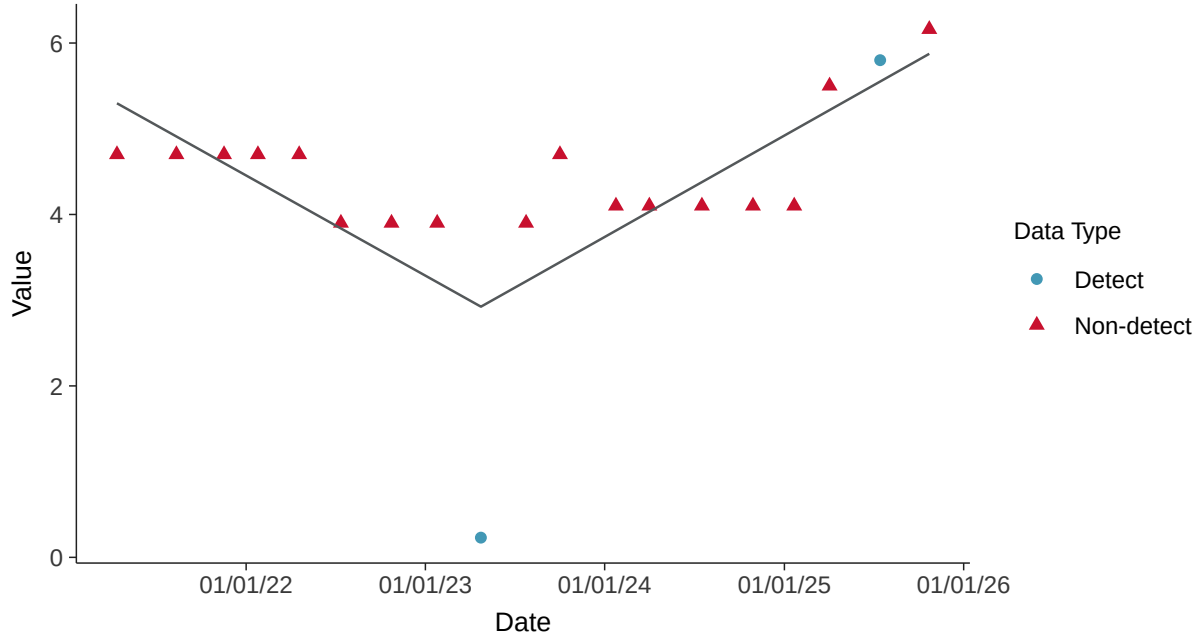
Normal Q-Q plot using ROS Imputed Estimates

Selenium, MW-11D (ug/L)



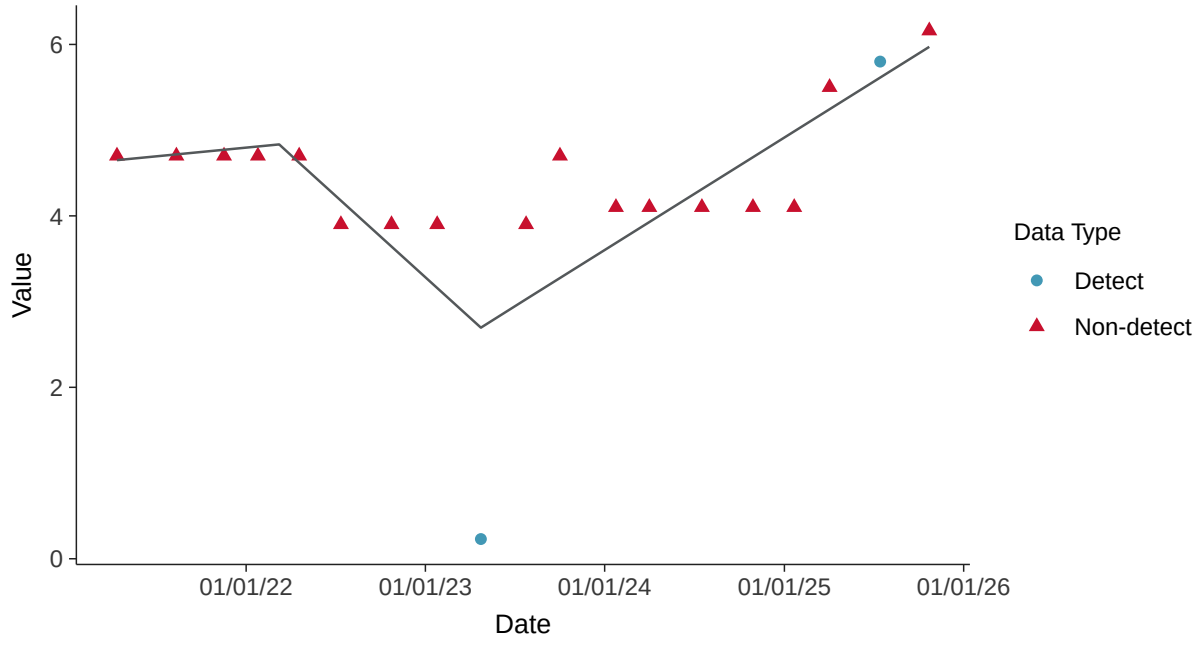
Trend Regression: Piecewise Linear-Linear

Selenium, MW-11D (ug/L)



Trend Regression: Piecewise Linear-Linear-Linear

Selenium, MW-11D (ug/L)

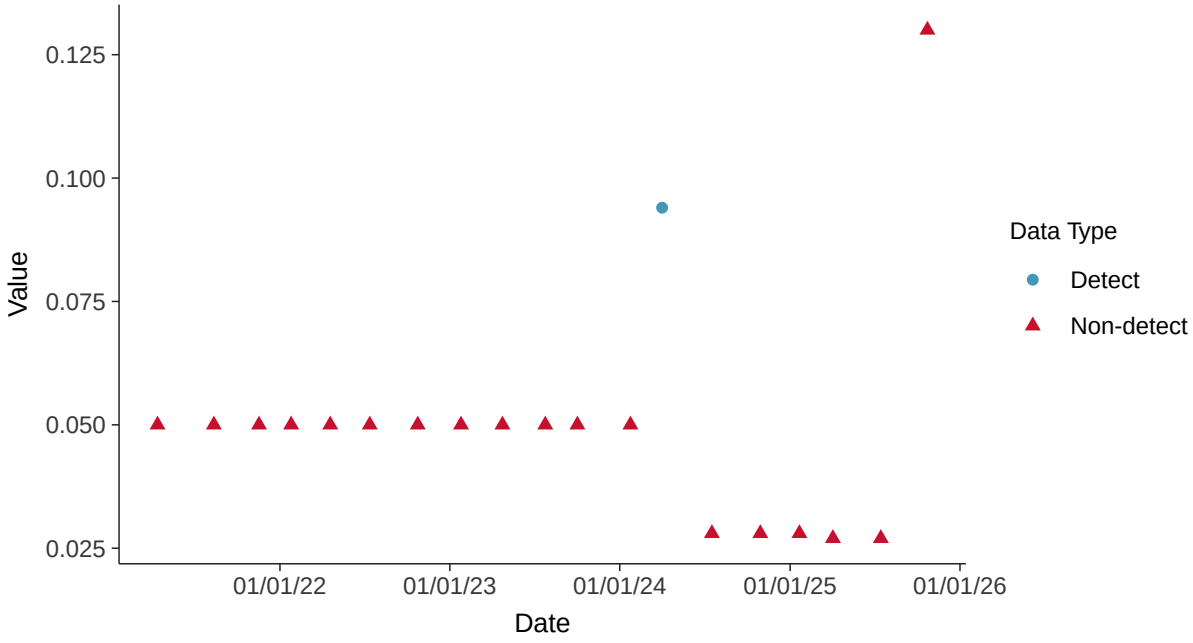


App. IV: Thallium, MW-11D

ID: 11_3_124

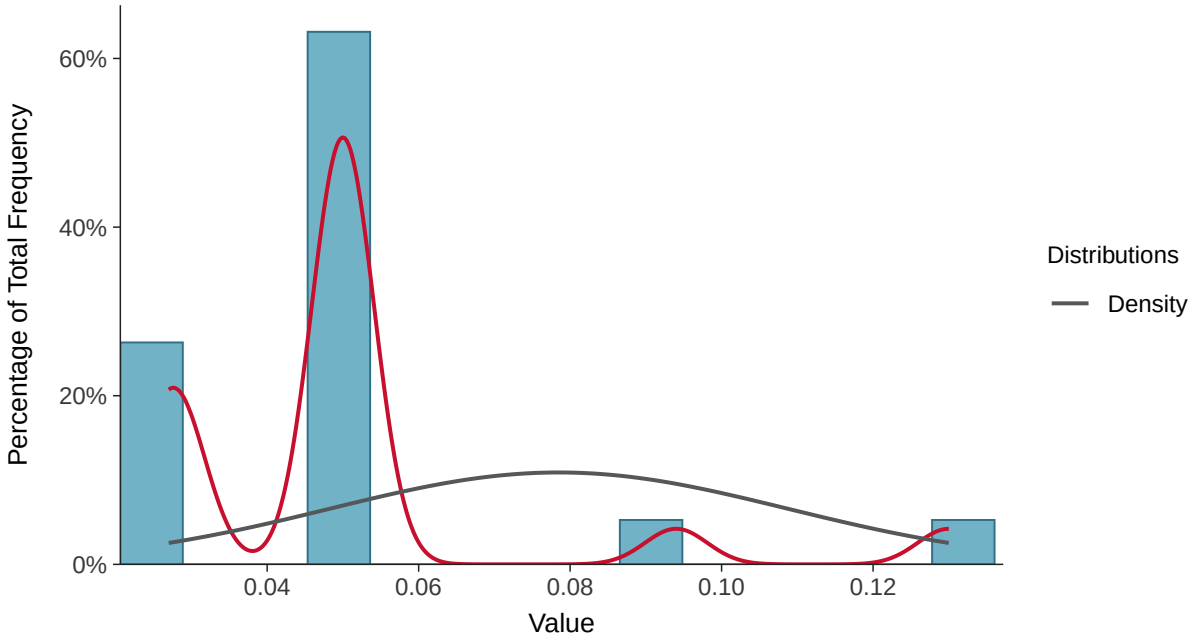
Scatter Plot

Thallium, MW-11D (ug/L)



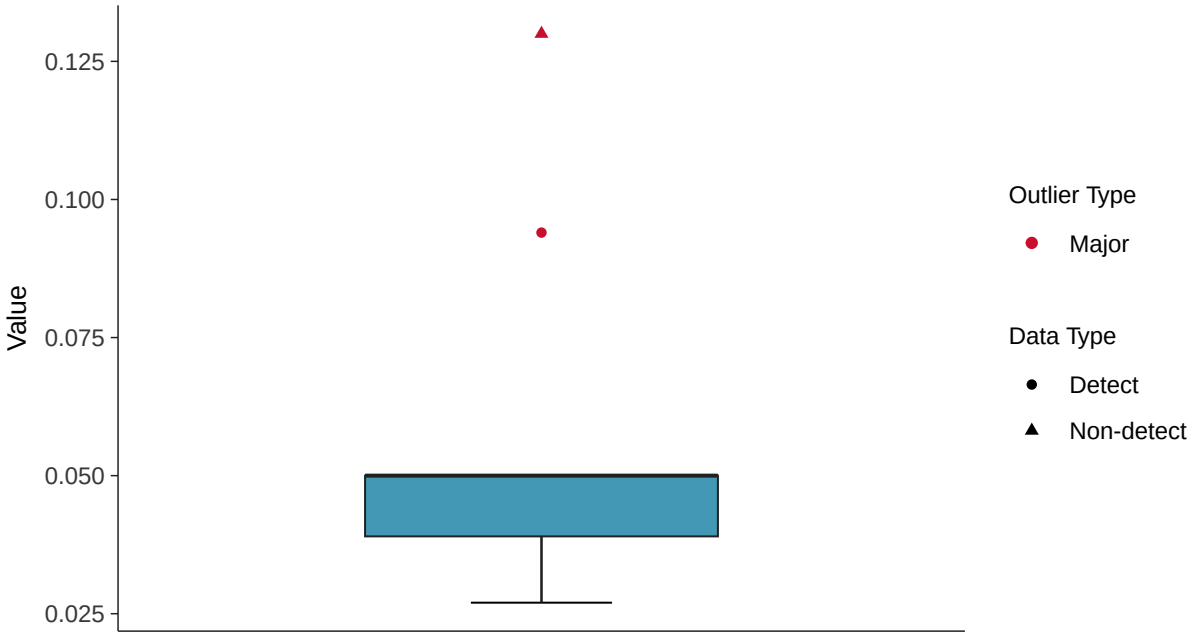
Histogram

Thallium, MW-11D (ug/L)



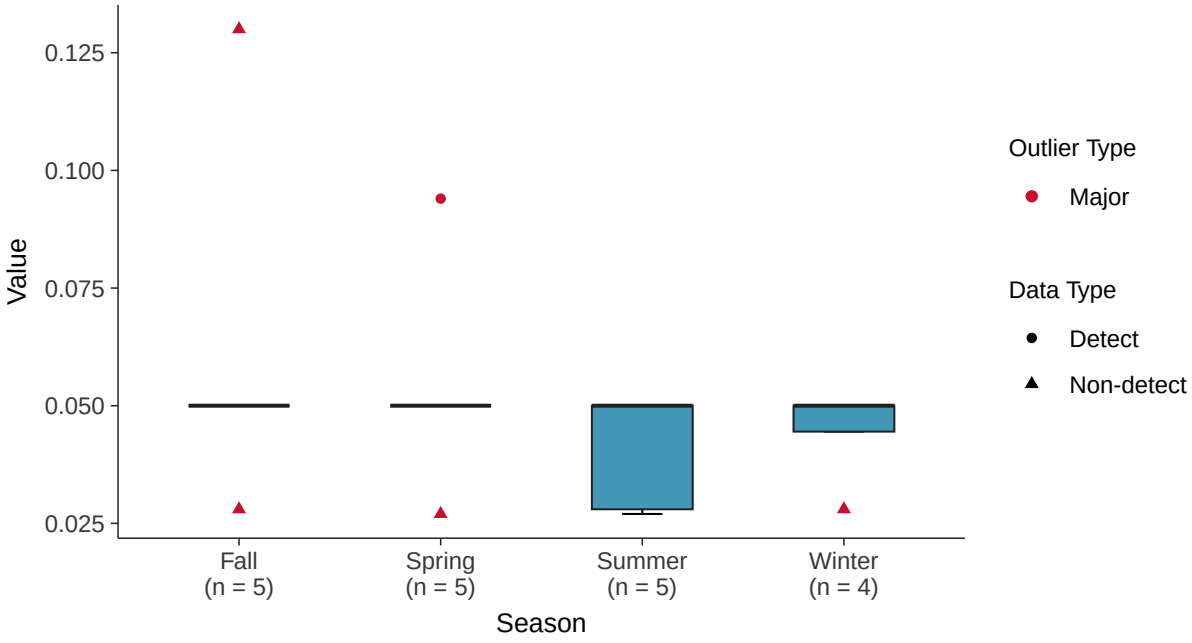
Boxplot

Thallium, MW-11D (ug/L)



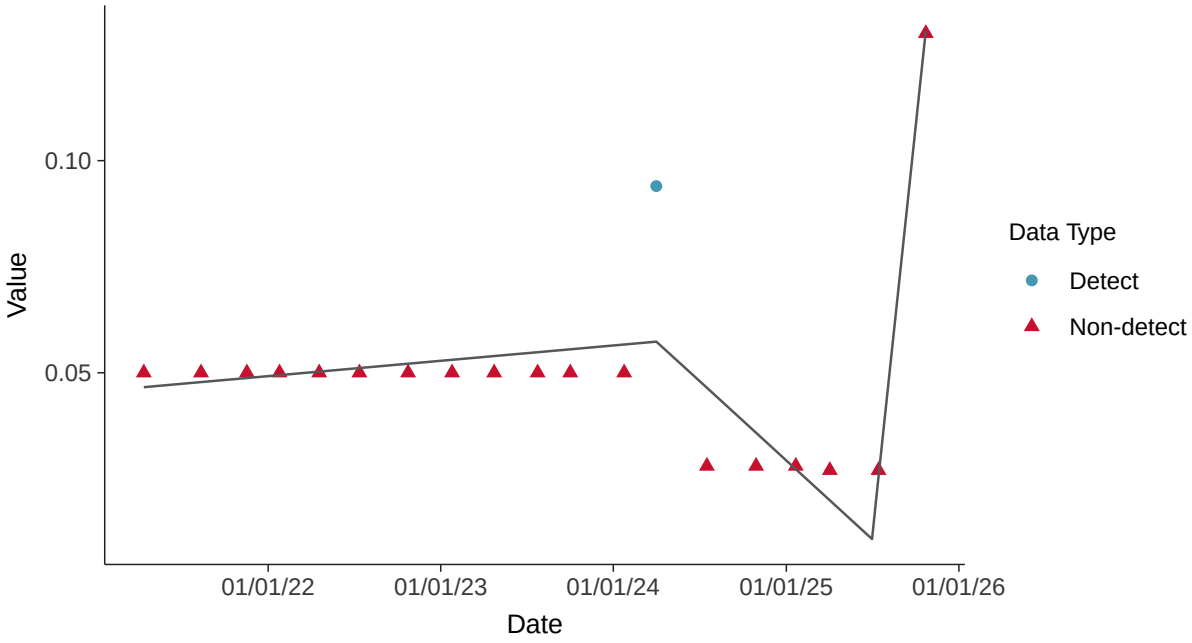
Boxplot by Season

Thallium, MW-11D (ug/L)



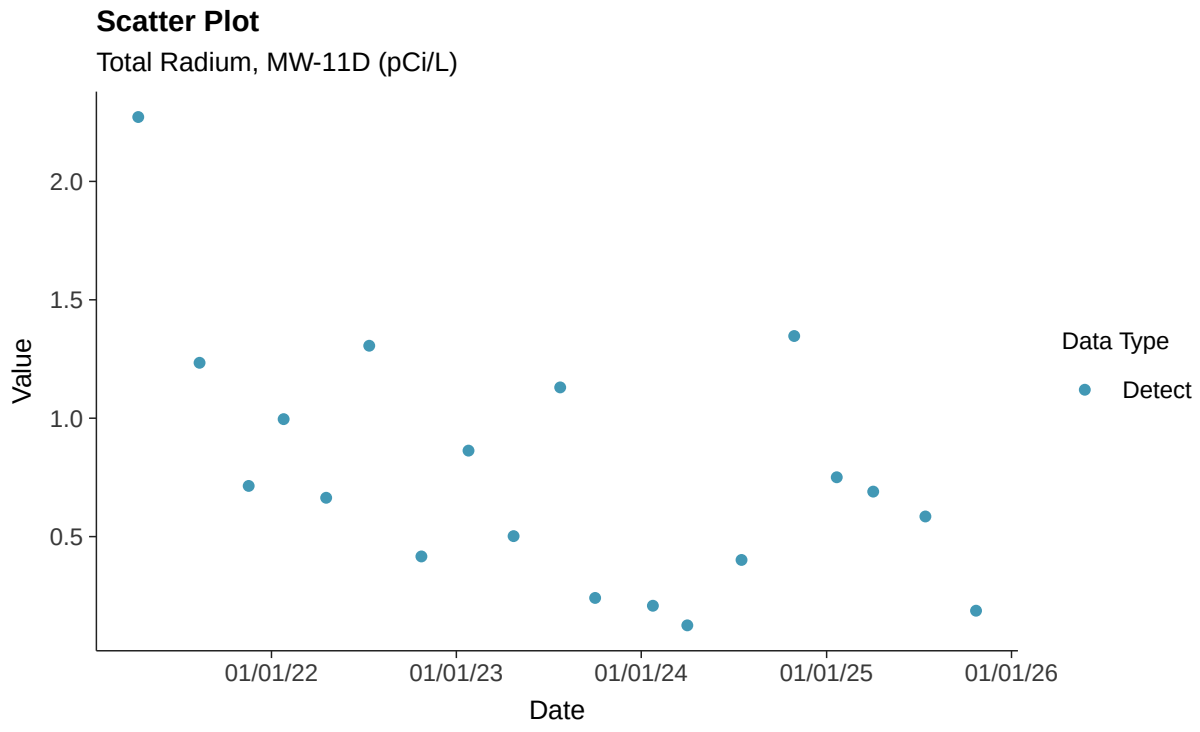
Trend Regression: Piecewise Linear-Linear-Linear

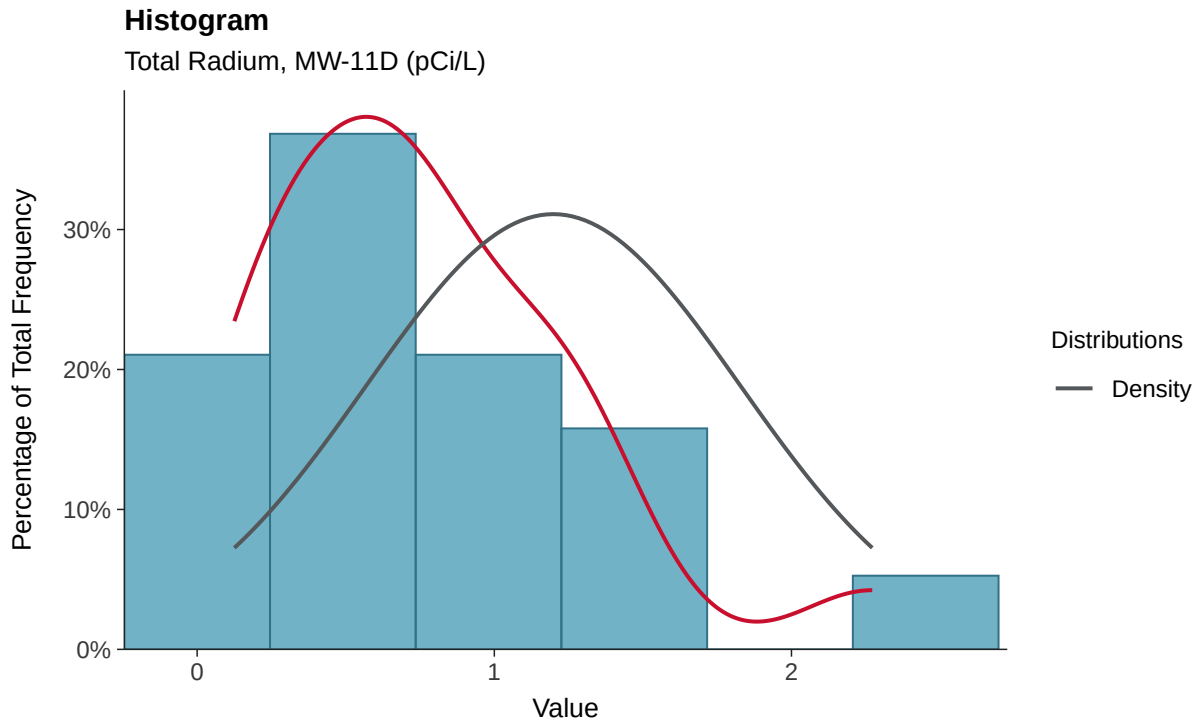
Thallium, MW-11D (ug/L)



App. IV: Total Radium, MW-11D

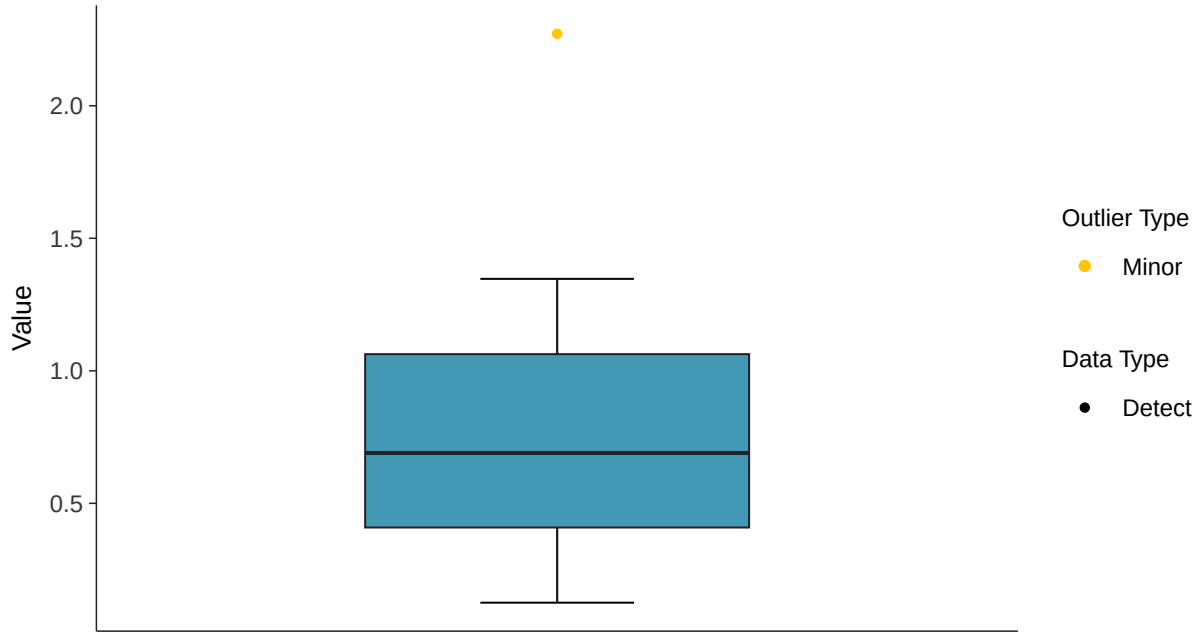
ID: 11_3_126





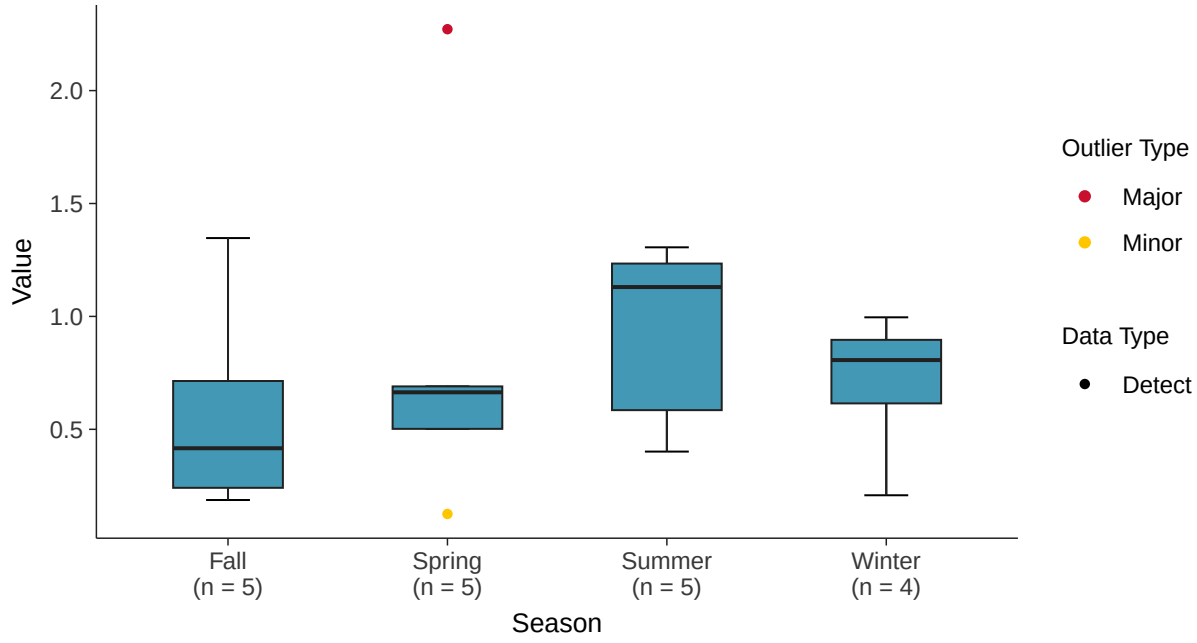
Boxplot

Total Radium, MW-11D (pCi/L)



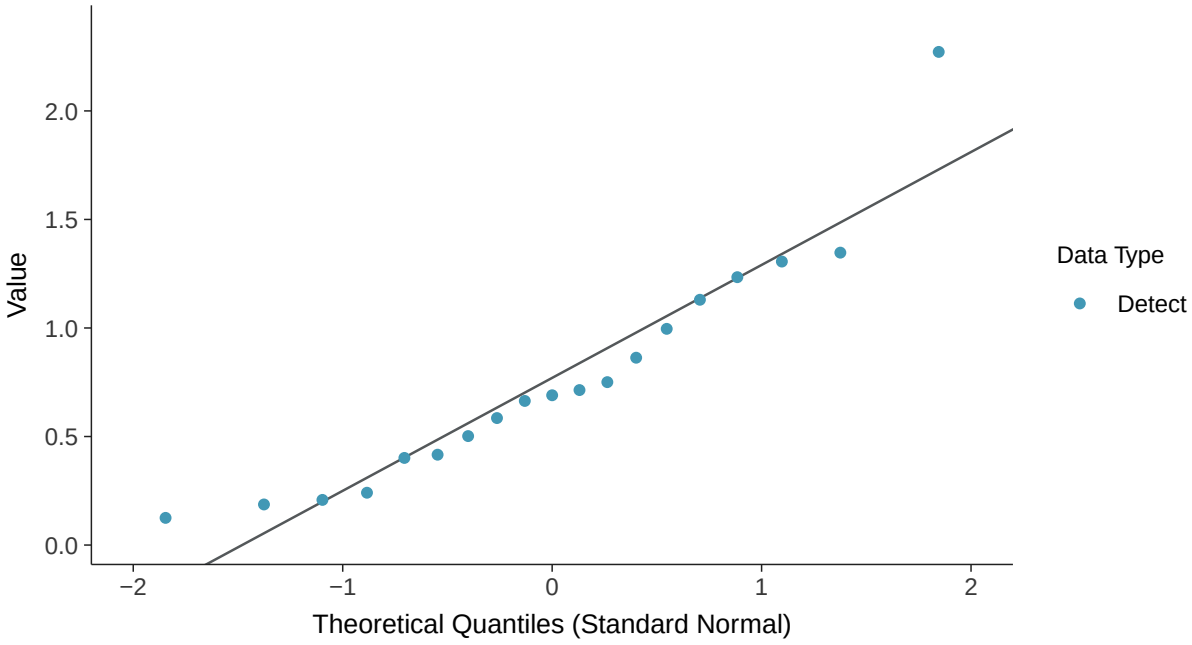
Boxplot by Season

Total Radium, MW-11D (pCi/L)



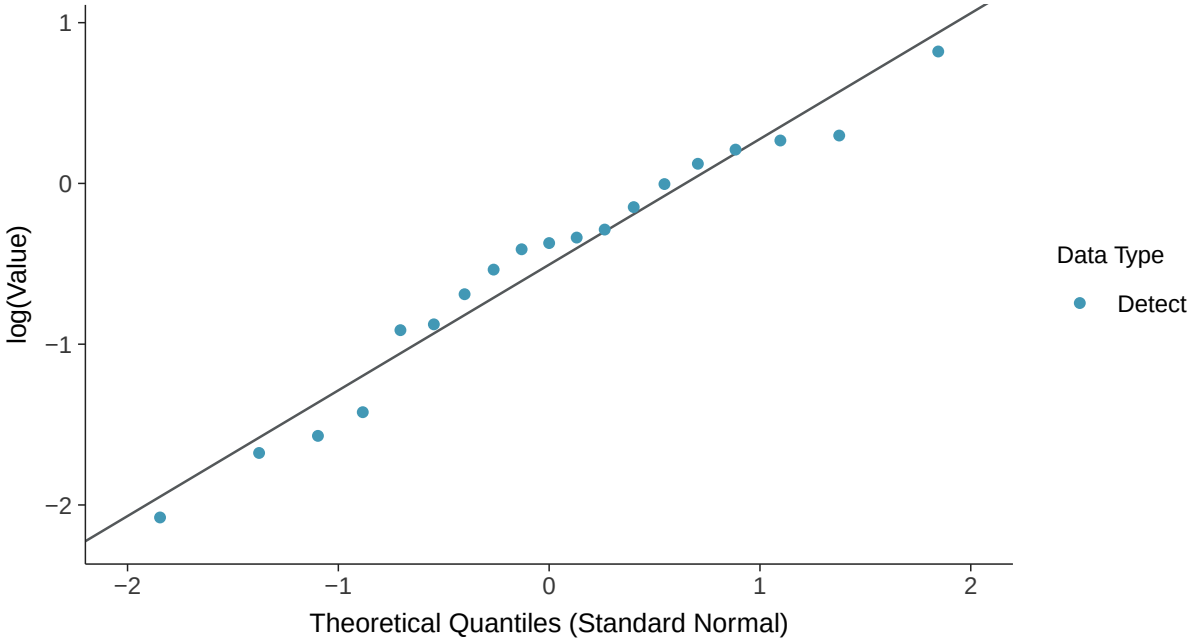
Normal Q-Q plot

Total Radium, MW-11D (pCi/L)



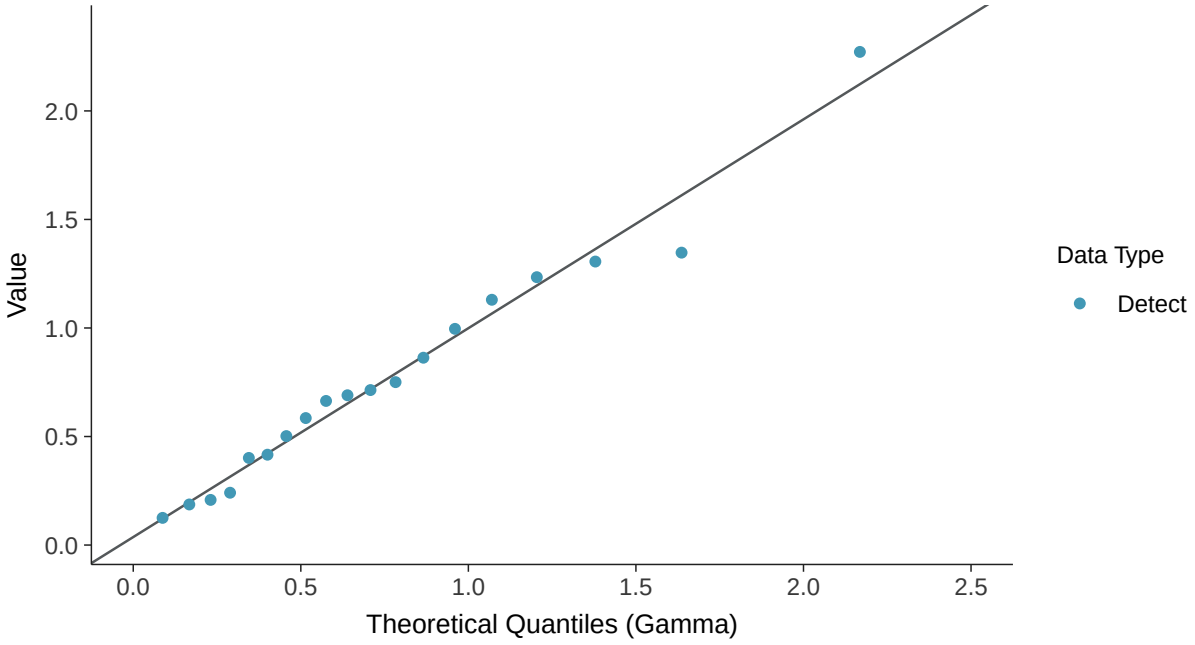
Lognormal Q-Q plot

Total Radium, MW-11D (pCi/L)



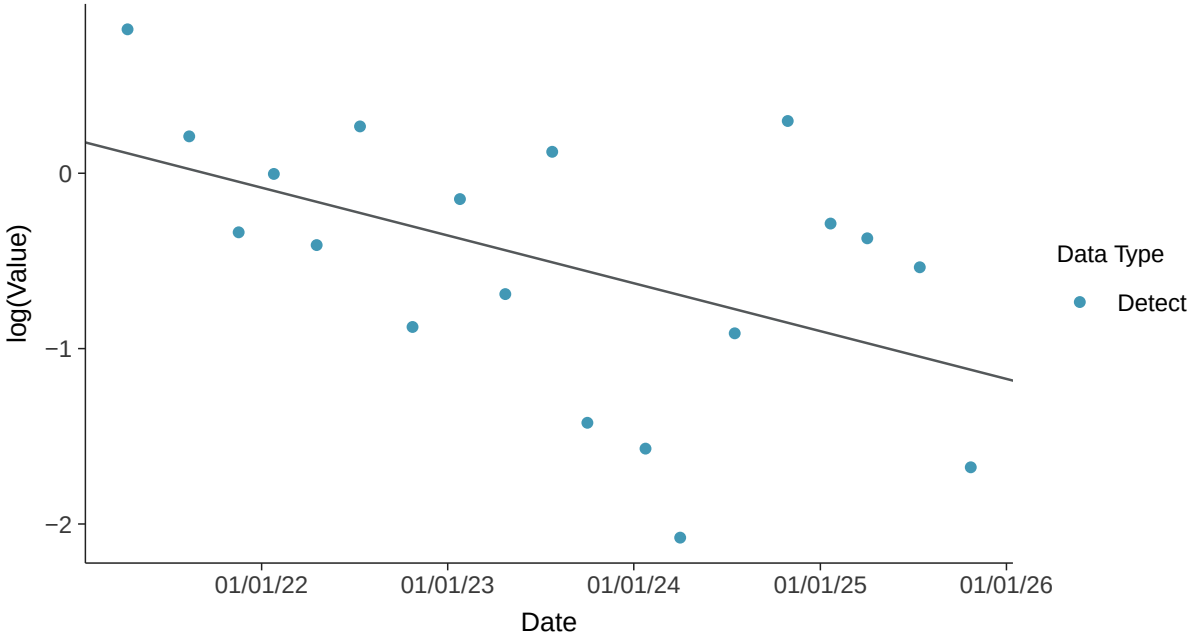
Gamma Q-Q plot

Total Radium, MW-11D (pCi/L)



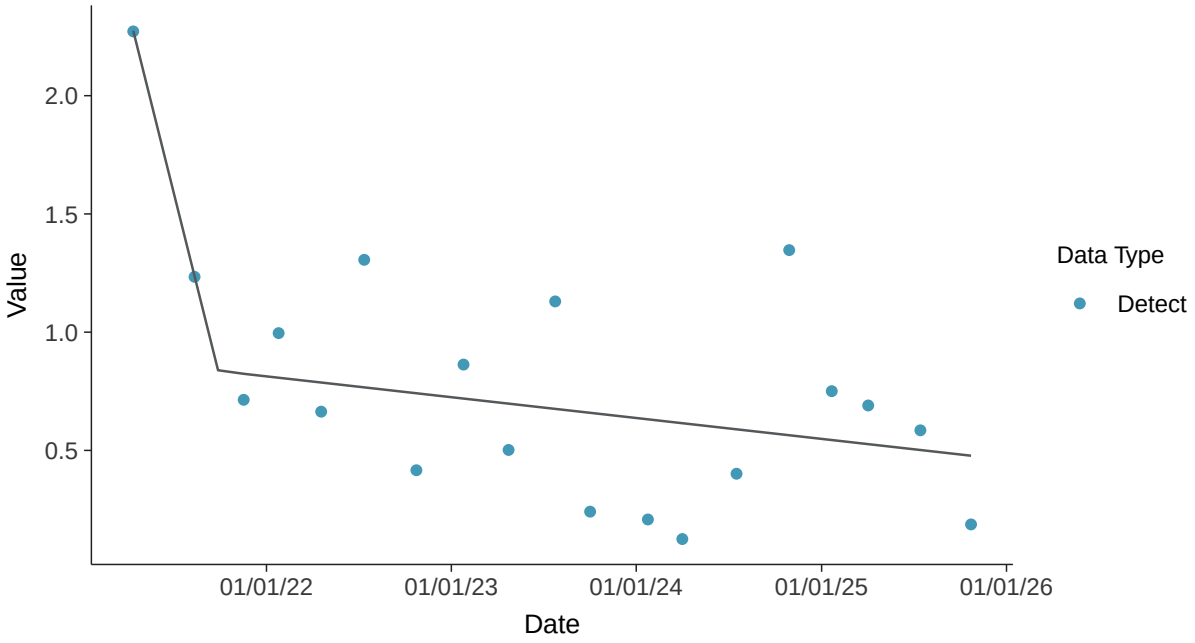
Trend Regression: Lognormal MLE

Total Radium, MW-11D (pCi/L)



Trend Regression: Piecewise Linear-Linear

Total Radium, MW-11D (pCi/L)



E

Appendix E – Detection Monitoring Table

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Detection Monitoring

Code	Well	Constituent Type	Constituent	Unit	Number of Retests	BTV (UPL)	Oct. 2025			July 2025			SSI above BTV
							Value	ND	Date	Value	ND	Date	
01_1_111	MW-1	App. I Metals	Copper	ug/L	2	7.10	2.26	1	10/21/2025	1.10	0	7/16/2025	
01_1_117	MW-1	App. I Metals	Nickel	ug/L	2	4.20	1.96	1	10/21/2025	5.60	0	7/16/2025	
01_1_122	MW-1	App. I Metals	Silver	ug/L	2	0.700	2.89	1	10/21/2025	0.770	1	7/16/2025	
01_1_127	MW-1	App. I Metals	Vanadium	ug/L	2	8.30	5.64	1	10/21/2025	5.10	0	7/16/2025	
01_1_128	MW-1	App. I Metals	Zinc	ug/L	2	32.4	5.23	0	10/21/2025	12.3	0	7/16/2025	
01_2_105	MW-1	App. III	Boron	ug/L	1	56.9	50.8	0	10/21/2025	12.7	0	7/16/2025	
01_2_107	MW-1	App. III	Calcium	ug/L	2	124000	150000	0	10/21/2025	150000	0	7/16/2025	Yes
01_2_108	MW-1	App. III	Chloride	mg/L	1	374	508	0	10/21/2025	568	0	7/16/2025	Yes
01_2_112	MW-1	App. III	Fluoride	mg/L	1	0.509	0.120	0	10/21/2025	0.140	0	7/16/2025	
01_2_118	MW-1	App. III	pH (Field), UPL	S.U.	1	7.55	6.85	0	10/25/2025	6.74	0	7/25/2025	
01_2_118	MW-1	App. III	pH (Field), LPL	S.U.	1	5.63	6.85	0	10/25/2025	6.74	0	7/25/2025	
01_2_123	MW-1	App. III	Sulfate	mg/L	2	210	5.80	0	10/21/2025	5.80	0	7/16/2025	
01_2_125	MW-1	App. III	Total Dissolved Solids	mg/L	2	1400	1320	0	10/21/2025	1670	0	7/16/2025	
01_3_101	MW-1	App. IV	Antimony	ug/L	2	0.790	5.06	1	10/21/2025	4.00	1	7/16/2025	
01_3_102	MW-1	App. IV	Arsenic	ug/L	2	8.80	7.83	1	10/21/2025	4.20	1	7/16/2025	
01_3_103	MW-1	App. IV	Barium	ug/L	2	377	153	0	10/21/2025	192	0	7/16/2025	
01_3_104	MW-1	App. IV	Beryllium	ug/L	DQR	0.700	0.501	1	10/21/2025	0.440	1	7/16/2025	
01_3_106	MW-1	App. IV	Cadmium	ug/L	2	0.500	0.538	1	10/21/2025	0.480	1	7/16/2025	
01_3_109	MW-1	App. IV	Chromium	ug/L	2	7.20	1.51	1	10/21/2025	8.40	0	7/16/2025	
01_3_110	MW-1	App. IV	Cobalt	ug/L	2	2.30	1.41	1	10/21/2025	2.30	0	7/16/2025	
01_3_112	MW-1	App. IV	Fluoride	mg/L	1	0.509	0.120	0	10/21/2025	0.140	0	7/16/2025	
01_3_113	MW-1	App. IV	Lead	ug/L	2	13.7	2.43	1	10/21/2025	5.30	0	7/16/2025	
01_3_114	MW-1	App. IV	Lithium	ug/L	2	43.7	33.2	0	10/21/2025	34.1	0	7/16/2025	
01_3_115	MW-1	App. IV	Mercury	ug/L	2	0.170	0.0700	1	10/21/2025	0.0950	1	7/16/2025	
01_3_116	MW-1	App. IV	Molybdenum	ug/L	2	13.6	1.37	1	10/21/2025	1.70	1	7/16/2025	
01_3_119	MW-1	App. IV	Radium-226	pCi/L	2	0.800	0.179	0	10/21/2025	-0.574	0	7/16/2025	
01_3_120	MW-1	App. IV	Radium-228	pCi/L	2	1.35	1.08	0	10/21/2025	0.757	0	7/16/2025	
01_3_121	MW-1	App. IV	Selenium	ug/L	2	6.00	6.16	1	10/21/2025	5.50	1	7/16/2025	
01_3_124	MW-1	App. IV	Thallium	ug/L	2	13.7	0.130	1	10/21/2025	0.0270	1	7/16/2025	
01_3_126	MW-1	App. IV	Total Radium	pCi/L	2	2.09	1.26	0	10/21/2025	0.757	0	7/16/2025	
02_1_111	MW-2	App. I Metals	Copper	ug/L	2	7.10	6.04	0	10/21/2025	4.20	0	7/17/2025	
02_1_117	MW-2	App. I Metals	Nickel	ug/L	2	4.20	3.09	0	10/21/2025	5.30	0	7/17/2025	
02_1_122	MW-2	App. I Metals	Silver	ug/L	2	0.700	2.89	1	10/21/2025	0.770	1	7/17/2025	
02_1_127	MW-2	App. I Metals	Vanadium	ug/L	2	8.30	5.64	1	10/21/2025	2.00	1	7/17/2025	
02_1_128	MW-2	App. I Metals	Zinc	ug/L	2	32.4	40.3	0	10/21/2025	30.8	0	7/17/2025	Yes
02_2_105	MW-2	App. III	Boron	ug/L	1	56.9	60.9	0	10/21/2025	45.1	0	7/17/2025	Yes
02_2_107	MW-2	App. III	Calcium	ug/L	2	124000	174000	0	10/21/2025	159000	0	7/17/2025	Yes
02_2_108	MW-2	App. III	Chloride	mg/L	1	374	994	0	10/21/2025	1010	0	7/17/2025	Yes
02_2_112	MW-2	App. III	Fluoride	mg/L	1	0.509	0.170	0	10/21/2025	0.190	0	7/17/2025	
02_2_118	MW-2	App. III	pH (Field), UPL	S.U.	1	7.55	7.53	0	10/25/2025	7.37	0	7/25/2025	
02_2_118	MW-2	App. III	pH (Field), LPL	S.U.	1	5.63	7.53	0	10/25/2025	7.37	0	7/25/2025	
02_2_123	MW-2	App. III	Sulfate	mg/L	2	210	61.8	0	10/21/2025	54.1	0	7/17/2025	
02_2_125	MW-2	App. III	Total Dissolved Solids	mg/L	2	1400	2290	0	10/21/2025	2200	0	7/17/2025	Yes
02_3_101	MW-2	App. IV	Antimony	ug/L	2	0.790	5.06	1	10/21/2025	4.00	1	7/17/2025	
02_3_102	MW-2	App. IV	Arsenic	ug/L	2	8.80	7.83	1	10/21/2025	4.20	1	7/17/2025	
02_3_103	MW-2	App. IV	Barium	ug/L	2	377	330	0	10/21/2025	335	0	7/17/2025	
02_3_104	MW-2	App. IV	Beryllium	ug/L	DQR	0.700	0.501	1	10/21/2025	0.440	1	7/17/2025	
02_3_106	MW-2	App. IV	Cadmium	ug/L	2	0.500	0.538	1	10/21/2025	0.520	0	7/17/2025	
02_3_109	MW-2	App. IV	Chromium	ug/L	2	7.20	4.20	0	10/21/2025	7.30	0	7/17/2025	
02_3_110	MW-2	App. IV	Cobalt	ug/L	2	2.30	1.41	1	10/21/2025	2.40	0	7/17/2025	
02_3_112	MW-2	App. IV	Fluoride	mg/L	1	0.509	0.170	0	10/21/2025	0.190	0	7/17/2025	
02_3_113	MW-2	App. IV	Lead	ug/L	2	13.7	2.43	1	10/21/2025	4.20	0	7/17/2025	
02_3_114	MW-2	App. IV	Lithium	ug/L	2	43.7	154	0	10/21/2025	115	0	7/17/2025	Yes
02_3_115	MW-2	App. IV	Mercury	ug/L	2	0.170	0.0700	1	10/21/2025	0.0950	1	7/17/2025	
02_3_116	MW-2	App. IV	Molybdenum	ug/L	2	13.6	5.18	0	10/21/2025	2.80	0	7/17/2025	
02_3_119	MW-2	App. IV	Radium-226	pCi/L	2	0.800	0.955	0	10/21/2025	-0.125	0	7/17/2025	Yes
02_3_120	MW-2	App. IV	Radium-228	pCi/L	2	1.35	1.33	0	10/21/2025	1.18	0	7/17/2025	
02_3_121	MW-2	App. IV	Selenium	ug/L	2	6.00	6.16	1	10/21/2025	5.50	1	7/17/2025	
02_3_124	MW-2	App. IV	Thallium	ug/L	2	13.7	0.130	1	10/21/2025	0.0780	0	7/17/2025	
02_3_126	MW-2	App. IV	Total Radium	pCi/L	2	2.09	2.29	0	10/21/2025	1.18	0	7/17/2025	Yes
03_1_111	MW-3	App. I Metals	Copper	ug/L	2	7.10	3.46	0	10/21/2025	5.00	0	7/14/2025	
03_1_117	MW-3	App. I Metals	Nickel	ug/L	2	4.20	1.96	1	10/21/2025	2.90	0	7/14/2025	
03_1_122	MW-3	App. I Metals	Silver	ug/L	2	0.700	2.89	1	10/21/2025	0.770	1	7/14/2025	
03_1_127	MW-3	App. I Metals	Vanadium	ug/L	2	8.30	5.64	1	10/21/2025	2.00	1	7/14/2025	
03_1_128	MW-3	App. I Metals	Zinc	ug/L	2	32.4	8.25	0	10/21/2025	18.8	0	7/14/2025	
03_2_105	MW-3	App. III	Boron	ug/L	1	56.9	46.1	0	10/21/2025	45.1	0	7/14/2025	
03_2_107	MW-3	App. III	Calcium	ug/L	2	124000	190000	0	10/21/2025	167000	0	7/14/2025	Yes
03_2_108	MW-3	App. III	Chloride	mg/L	1	374	1050	0	10/21/2025	1020	0	7/14/2025	Yes
03_2_112	MW-3	App. III	Fluoride	mg/L	1	0.509	0.220	0	10/21/2025	0.270	0	7/14/2025	
03_2_118	MW-3	App. III	pH (Field), UPL	S.U.	1	7.55	7.40	0	10/25/2025	7.34	0	7/25/2025	
03_2_118	MW-3	App. III	pH (Field), LPL	S.U.	1	5.63	7.40	0	10/25/2025	7.34	0	7/25/2025	
03_2_123	MW-3	App. III	Sulfate	mg/L	2	210	11.2	0	10/21/2025	11.9	0	7/14/2025	
03_2_125	MW-3	App. III	Total Dissolved Solids	mg/L	2	1400	2330	0	10/21/2025	2740	0	7/14/2025	Yes
03_3_101	MW-3	App. IV	Antimony	ug/L	2	0.790	5.06	1	10/21/2025	4.00	1	7/14/2025	
03_3_102	MW-3	App. IV	Arsenic	ug/L	2	8.80	7.83	1	10/21/2025	4.20	1	7/14/2025	
03_3_103	MW-3	App. IV	Barium	ug/L	2	377	763	0	10/21/2025	731	0	7/14/2025	Yes
03_3_104	MW-3	App. IV	Beryllium	ug/L	DQR	0.700	0.501	1	10/21/2025	0.440	1	7/14/2025	
03_3_106	MW-3	App. IV	Cadmium	ug/L	2	0.500	0.538	1	10/21/2025	0.720	0	7/14/2025	
03_3_109	MW-3	App. IV	Chromium	ug/L	2	7.20	1.51	1	10/21/2025	0.920	0	7/14/2025	
03_3_110	MW-3	App. IV	Cobalt	ug/L	2	2.30	1.41	1	10/21/2025	1.30	0	7/14/2025	
03_3_112	MW-3	App. IV	Fluoride	mg/L	1	0.509	0.220	0	10/21/2025	0.270	0	7/14/2025	
03_3_113	MW-3	App. IV	Lead	ug/L	2	13.7	2.43	1	10/21/2025	4.90	0	7/14/2025	
03_3_114	MW-3	App. IV	Lithium	ug/L	2	43.7	88.0	0	10/21/2025	91.7	0	7/14/2025	Yes
03_3_115	MW-3	App. IV	Mercury	ug/L	2	0.170	0.0700	1	10/21/2025	0.0950	1	7/14/2025	
03_3_116	MW-3	App. IV	Molybdenum	ug/L	2	13.6	6.89	0	10/21/2025	5.10	0	7/14/2025	
03_3_119	MW-3	App. IV	Radium-226	pCi/L	2	0.800	0.916	0	10/21/2025	1.48	0	7/14/2025	Yes
03_3_120	MW-3	App. IV	Radium-228	pCi/L	2	1.35	2.10	0	10/21/2025	1.88	0	7/14/2025	Yes
03_3_121	MW-3	App. IV	Selenium	ug/L	2	6.00	6.16	1	10/21/2025	5.50	1	7/14/2025	
03_3_124	MW-3	App. IV	Thallium	ug/L	2	13.7	0.130	1	10/21/2025	0.0280	0	7/14/2025	
03_3_126	MW-3	App. IV	Total Radium	pCi/L	2	2.09	3.02	0	10/21/2025	3.36	0	7/14/2025	Yes
04_1_111	MW-4	App. I Metals	Copper	ug/L	2	7.10	2.26	1	10/20/2025	0.790	1	7/14/2025	
04_1_117	MW-4	App. I Metals	Nickel	ug/L	2	4.20	4.78	0	10/20/2025	8.50	0	7/14/2025	Yes
04_1_122	MW-4	App. I Metals	Silver	ug/L	2	0.700	2.89	1	10/20/2025	0.770	1	7/14/2025	
04_1_127	MW-4	App. I Metals	Vanadium	ug/L	2	8.30	5.64	1	10/20/2025	2.00	1	7/14/2025	
04_1_128	MW-4	App. I Metals	Zinc	ug/L	2	32.4	8.95	0	10/20/2025	9.70	0	7/14/2025	
04_2_105	MW-4	App. III	Boron	ug/L	1	56.9	15.3	0	10/20/2025	7.10	0	7/14/2025	
04_2_107	MW-4	App. III	Calcium	ug/L	2	124000	68100	0	10/20/2025	50700	0	7/14/2025	
04_2_108	MW-4	App. III	Chloride	mg/L	1	374	290	0	10/20/2025	304	0	7/14/2025	
04_2_112	MW-4	App. III	Fluoride	mg/L	1	0.509	0.380	0	10/20/2025	0.350	0	7/14/2025	
04_2_118	MW-4	App. III	pH (Field), UPL	S.U.	1	7.55	6.31	0	10/25/2025	6.20	0	7/25/2025	
04_2_118	MW-4	App. III	pH (Field), LPL	S.U.	1	5.63	6.31	0	10/25/2025	6.20	0	7/25/2025	
04_2_123	MW-4	App. III	Sulfate	mg/L	2	210	9.10	0	10/20/2025	11.3	0	7/14/2025	
04_2_125	MW-4	App. III	Total Dissolved Solids	mg/L	2	1400	1190	0	10/20/2025	1050	0	7/14/2025	
04_3_101	MW-4	App. IV	Antimony	ug/L	2	0.790	5.06	1	10/20/2025	4.00	1	7/14/2025	
04_3_102	MW-4	App. IV	Arsenic	ug/L	2	8.80	7.83	1	10/20/2025	4.20	1	7/14/2025	
04_3_103	MW-4	App. IV	Barium	ug/L	2	377	320	0	10/20/2025	311	0	7/14/2025	
04_3_104	MW-4	App. IV	Beryllium	ug/L	DQR	0.700	0.501	1	10/20/2025	0.440	1	7/14/2025	
04_3_106	MW-4	App. IV	Cadmium	ug/L	2	0.500	0.538	1	10/20/2025	0.480	1	7/14/2025	
04_3_109	MW-4	App. IV	Chromium	ug/L	2	7.20	1.51	1	10/20/2025	1.20	0	7/14/2025	
04_3_110	MW-4	App. IV	Cobalt	ug/L	2	2.30	4.90	0	10/20/2025	11.9	0	7/14/2025	Yes
04_3_112	MW-4	App. IV	Fluoride	mg/L	1	0.509	0.380	0	10/20/2025	0.350	0	7/14/2025	
04_3_113	MW-4	App. IV	Lead	ug/L	2	13.7	2.43	1	10/20/2025	2.90	1	7/14/2025	
04_3_114	MW-4	App. IV	Lithium	ug/L	2	43.7	43.6	0	10/20/2025	40.1	0	7/14/2025	
04_3_115	MW-4	App. IV	Mercury	ug/L	2	0.170	0.0700	1	10/20/2025	0.0950	1	7/14/2025	
04_3_116	MW-4	App. IV	Molybdenum	ug/L	2	13.6	1.54	0	10/20/2025	1.70	1	7/14/2025	

Code	Well	Constituent Type	Constituent	Unit	Number of Retests	BTV (UPL)	Oct. 2025			July 2025			SSI above BTV
							Value	ND	Date	Value	ND	Date	
04_3_119	MW-4	App. IV	Radium-226	pCi/L	2	0.800	0.0573	0	10/20/2025	0.425	0	7/14/2025	
04_3_120	MW-4	App. IV	Radium-228	pCi/L	2	1.35	0.439	0	10/20/2025	0.667	0	7/14/2025	
04_3_121	MW-4	App. IV	Selenium	ug/L	2	6.00	6.24	0	10/20/2025	5.50	1	7/14/2025	Yes
04_3_124	MW-4	App. IV	Thallium	ug/L	2	13.7	0.130	1	10/20/2025	0.0270	1	7/14/2025	
04_3_126	MW-4	App. IV	Total Radium	pCi/L	2	2.09	0.496	0	10/20/2025	1.09	0	7/14/2025	
05_1_111	MW-5	App. I Metals	Copper	ug/L	2	7.10	2.26	1	10/20/2025	0.980	0	7/15/2025	
05_1_117	MW-5	App. I Metals	Nickel	ug/L	2	4.20	1.96	1	10/20/2025	2.00	1	7/15/2025	
05_1_122	MW-5	App. I Metals	Silver	ug/L	2	0.700	2.89	1	10/20/2025	0.770	1	7/15/2025	
05_1_127	MW-5	App. I Metals	Vanadium	ug/L	2	8.30	5.64	1	10/20/2025	2.00	1	7/15/2025	
05_1_128	MW-5	App. I Metals	Zinc	ug/L	2	32.4	14.5	0	10/20/2025	8.10	0	7/15/2025	
05_2_105	MW-5	App. III	Boron	ug/L	1	56.9	16.7	0	10/20/2025	10.5	0	7/15/2025	
05_2_107	MW-5	App. III	Calcium	ug/L	2	124000	9610	0	10/20/2025	7070	0	7/15/2025	
05_2_108	MW-5	App. III	Chloride	mg/L	1	374	20.8	0	10/20/2025	18.1	0	7/15/2025	
05_2_112	MW-5	App. III	Fluoride	mg/L	1	0.509	0.500	0	10/20/2025	0.520	0	7/15/2025	
05_2_118	MW-5	App. III	pH (Field), UPL	S.U.	1	7.55	6.84	0	10/25/2025	6.72	0	7/25/2025	
05_2_118	MW-5	App. III	pH (Field), LPL	S.U.	1	5.63	6.84	0	10/25/2025	6.72	0	7/25/2025	
05_2_123	MW-5	App. III	Sulfate	mg/L	2	210	3.50	0	10/20/2025	3.10	0	7/15/2025	
05_2_125	MW-5	App. III	Total Dissolved Solids	mg/L	2	1400	205	0	10/20/2025	193	0	7/15/2025	
05_3_101	MW-5	App. IV	Antimony	ug/L	2	0.790	5.06	1	10/20/2025	4.00	1	7/15/2025	
05_3_102	MW-5	App. IV	Arsenic	ug/L	2	8.80	7.83	1	10/20/2025	4.20	1	7/15/2025	
05_3_103	MW-5	App. IV	Barium	ug/L	2	377	93.6	0	10/20/2025	71.3	0	7/15/2025	
05_3_104	MW-5	App. IV	Beryllium	ug/L	DQR	0.700	0.501	1	10/20/2025	0.440	1	7/15/2025	
05_3_106	MW-5	App. IV	Cadmium	ug/L	2	0.500	0.538	1	10/20/2025	0.480	1	7/15/2025	
05_3_109	MW-5	App. IV	Chromium	ug/L	2	7.20	1.51	1	10/20/2025	2.10	0	7/15/2025	
05_3_110	MW-5	App. IV	Cobalt	ug/L	2	2.30	1.41	1	10/20/2025	1.20	1	7/15/2025	
05_3_112	MW-5	App. IV	Fluoride	mg/L	1	0.509	0.500	0	10/20/2025	0.520	0	7/15/2025	
05_3_113	MW-5	App. IV	Lead	ug/L	2	13.7	2.43	1	10/20/2025	2.90	1	7/15/2025	
05_3_114	MW-5	App. IV	Lithium	ug/L	2	43.7	10.5	0	10/20/2025	9.40	0	7/15/2025	
05_3_115	MW-5	App. IV	Mercury	ug/L	2	0.170	0.0700	1	10/20/2025	0.0950	1	7/15/2025	
05_3_116	MW-5	App. IV	Molybdenum	ug/L	2	13.6	1.37	1	10/20/2025	1.70	1	7/15/2025	
05_3_119	MW-5	App. IV	Radium-226	pCi/L	2	0.800	0.118	0	10/20/2025	0.0608	0	7/15/2025	
05_3_120	MW-5	App. IV	Radium-228	pCi/L	2	1.35	-0.0196	0	10/20/2025	1.06	0	7/15/2025	
05_3_121	MW-5	App. IV	Selenium	ug/L	2	6.00	6.16	1	10/20/2025	5.50	1	7/15/2025	
05_3_124	MW-5	App. IV	Thallium	ug/L	2	13.7	0.130	1	10/20/2025	0.0270	1	7/15/2025	
05_3_126	MW-5	App. IV	Total Radium	pCi/L	2	2.09	0.118	0	10/20/2025	1.12	0	7/15/2025	
06_1_111	MW-6	App. I Metals	Copper	ug/L	2	7.10	44.0	0	10/22/2025	4.20	0	7/15/2025	Yes
06_1_117	MW-6	App. I Metals	Nickel	ug/L	2	4.20	1.96	1	10/22/2025	7.00	0	7/15/2025	
06_1_122	MW-6	App. I Metals	Silver	ug/L	2	0.700	2.89	1	10/22/2025	0.770	1	7/15/2025	
06_1_127	MW-6	App. I Metals	Vanadium	ug/L	2	8.30	5.64	1	10/22/2025	7.90	0	7/15/2025	
06_1_128	MW-6	App. I Metals	Zinc	ug/L	2	32.4	10.7	0	10/22/2025	31.8	0	7/15/2025	
06_2_105	MW-6	App. III	Boron	ug/L	1	56.9	12.2	0	10/22/2025	10.4	0	7/15/2025	
06_2_107	MW-6	App. III	Calcium	ug/L	2	124000	34000	0	10/22/2025	33800	0	7/15/2025	
06_2_108	MW-6	App. III	Chloride	mg/L	1	374	176	0	10/22/2025	180	0	7/15/2025	
06_2_112	MW-6	App. III	Fluoride	mg/L	1	0.509	0.300	0	10/22/2025	0.320	0	7/15/2025	
06_2_118	MW-6	App. III	pH (Field), UPL	S.U.	1	7.55	6.39	0	10/25/2025	6.28	0	7/25/2025	
06_2_118	MW-6	App. III	pH (Field), LPL	S.U.	1	5.63	6.39	0	10/25/2025	6.28	0	7/25/2025	
06_2_123	MW-6	App. III	Sulfate	mg/L	2	210	27.2	0	10/22/2025	26.8	0	7/15/2025	
06_2_125	MW-6	App. III	Total Dissolved Solids	mg/L	2	1400	590	0	10/22/2025	586	0	7/15/2025	
06_3_101	MW-6	App. IV	Antimony	ug/L	2	0.790	5.06	1	10/22/2025	4.00	1	7/15/2025	
06_3_102	MW-6	App. IV	Arsenic	ug/L	2	8.80	7.83	1	10/22/2025	4.20	1	7/15/2025	
06_3_103	MW-6	App. IV	Barium	ug/L	2	377	54.1	0	10/22/2025	116	0	7/15/2025	
06_3_104	MW-6	App. IV	Beryllium	ug/L	DQR	0.700	0.501	1	10/22/2025	0.440	1	7/15/2025	
06_3_106	MW-6	App. IV	Cadmium	ug/L	2	0.500	0.538	1	10/22/2025	0.480	1	7/15/2025	
06_3_109	MW-6	App. IV	Chromium	ug/L	2	7.20	1.51	1	10/22/2025	9.80	0	7/15/2025	
06_3_110	MW-6	App. IV	Cobalt	ug/L	2	2.30	1.41	1	10/22/2025	4.20	0	7/15/2025	
06_3_112	MW-6	App. IV	Fluoride	mg/L	1	0.509	0.300	0	10/22/2025	0.320	0	7/15/2025	
06_3_113	MW-6	App. IV	Lead	ug/L	2	13.7	2.43	1	10/22/2025	10.8	0	7/15/2025	
06_3_114	MW-6	App. IV	Lithium	ug/L	2	43.7	25.6	0	10/22/2025	25.7	0	7/15/2025	
06_3_115	MW-6	App. IV	Mercury	ug/L	2	0.170	0.0700	1	10/22/2025	0.0950	1	7/15/2025	
06_3_116	MW-6	App. IV	Molybdenum	ug/L	2	13.6	1.37	1	10/22/2025	1.70	1	7/15/2025	
06_3_119	MW-6	App. IV	Radium-226	pCi/L	2	0.800	0.00	0	10/22/2025	-0.885	0	7/15/2025	
06_3_120	MW-6	App. IV	Radium-228	pCi/L	2	1.35	0.571	0	10/22/2025	1.42	0	7/15/2025	
06_3_121	MW-6	App. IV	Selenium	ug/L	2	6.00	6.16	1	10/22/2025	5.50	1	7/15/2025	
06_3_124	MW-6	App. IV	Thallium	ug/L	2	13.7	0.130	1	10/22/2025	0.0980	0	7/15/2025	
06_3_126	MW-6	App. IV	Total Radium	pCi/L	2	2.09	0.571	0	10/22/2025	1.42	0	7/15/2025	
07_1_111	MW-7R	App. I Metals	Copper	ug/L	2	7.10	61.6	0	10/22/2025	1.10	0	7/16/2025	Yes
07_1_117	MW-7R	App. I Metals	Nickel	ug/L	2	4.20	1.96	1	10/22/2025	2.00	1	7/16/2025	
07_1_122	MW-7R	App. I Metals	Silver	ug/L	2	0.700	2.89	1	10/22/2025	0.770	1	7/16/2025	
07_1_127	MW-7R	App. I Metals	Vanadium	ug/L	2	8.30	5.64	1	10/22/2025	3.30	0	7/16/2025	
07_1_128	MW-7R	App. I Metals	Zinc	ug/L	2	32.4	11.3	0	10/22/2025	4.40	0	7/16/2025	
07_2_105	MW-7R	App. III	Boron	ug/L	1	56.9	11.8	0	10/22/2025	9.60	0	7/16/2025	
07_2_107	MW-7R	App. III	Calcium	ug/L	2	124000	96500	0	10/22/2025	82700	0	7/16/2025	
07_2_108	MW-7R	App. III	Chloride	mg/L	1	374	265	0	10/22/2025	259	0	7/16/2025	
07_2_112	MW-7R	App. III	Fluoride	mg/L	1	0.509	0.100	0	10/22/2025	0.130	0	7/16/2025	
07_2_118	MW-7R	App. III	pH (Field), UPL	S.U.	1	7.55	7.41	0	10/25/2025	7.38	0	7/25/2025	
07_2_118	MW-7R	App. III	pH (Field), LPL	S.U.	1	5.63	7.41	0	10/25/2025	7.38	0	7/25/2025	
07_2_123	MW-7R	App. III	Sulfate	mg/L	2	210	14.2	0	10/22/2025	14.3	0	7/16/2025	
07_2_125	MW-7R	App. III	Total Dissolved Solids	mg/L	2	1400	908	0	10/22/2025	866	0	7/16/2025	
07_3_101	MW-7R	App. IV	Antimony	ug/L	2	0.790	5.06	1	10/22/2025	4.00	1	7/16/2025	
07_3_102	MW-7R	App. IV	Arsenic	ug/L	2	8.80	7.83	1	10/22/2025	4.20	1	7/16/2025	
07_3_103	MW-7R	App. IV	Barium	ug/L	2	377	317	0	10/22/2025	302	0	7/16/2025	
07_3_104	MW-7R	App. IV	Beryllium	ug/L	DQR	0.700	0.501	1	10/22/2025	0.440	1	7/16/2025	
07_3_106	MW-7R	App. IV	Cadmium	ug/L	2	0.500	0.538	1	10/22/2025	0.480	1	7/16/2025	
07_3_109	MW-7R	App. IV	Chromium	ug/L	2	7.20	3.39	0	10/22/2025	2.20	0	7/16/2025	
07_3_110	MW-7R	App. IV	Cobalt	ug/L	2	2.30	1.41	1	10/22/2025	1.20	1	7/16/2025	
07_3_112	MW-7R	App. IV	Fluoride	mg/L	1	0.509	0.100	0	10/22/2025	0.130	0	7/16/2025	
07_3_113	MW-7R	App. IV	Lead	ug/L	2	13.7	2.79	0	10/22/2025	3.70	0	7/16/2025	
07_3_114	MW-7R	App. IV	Lithium	ug/L	2	43.7	30.9	0	10/22/2025	31.2	0	7/16/2025	
07_3_115	MW-7R	App. IV	Mercury	ug/L	2	0.170	0.0700	1	10/22/2025	0.0950	1	7/16/2025	
07_3_116	MW-7R	App. IV	Molybdenum	ug/L	2	13.6	1.75	0	10/22/2025	1.70	1	7/16/2025	
07_3_119	MW-7R	App. IV	Radium-226	pCi/L	2	0.800	0.0622	0	10/22/2025	1.17	0	7/16/2025	
07_3_120	MW-7R	App. IV	Radium-228	pCi/L	2	1.35	0.598	0	10/22/2025	0.329	0	7/16/2025	
07_3_121	MW-7R	App. IV	Selenium	ug/L	2	6.00	6.16	1	10/22/2025	5.50	1	7/16/2025	
07_3_124	MW-7R	App. IV	Thallium	ug/L	2	13.7	0.130	1	10/22/2025	0.0270	1	7/16/2025	
07_3_126	MW-7R	App. IV	Total Radium	pCi/L	2	2.09	0.660	0	10/22/2025	1.50	0	7/16/2025	
08_1_111	MW-8	App. I Metals	Copper	ug/L	2	7.10	2.41	0	10/22/2025	0.790	1	7/16/2025	
08_1_117	MW-8	App. I Metals	Nickel	ug/L	2	4.20	1.96	1	10/22/2025	2.00	1	7/16/2025	
08_1_122	MW-8	App. I Metals	Silver	ug/L	2	0.700	2.89	1	10/22/2025	0.770	1	7/16/2025	
08_1_127	MW-8	App. I Metals	Vanadium	ug/L	2	8.30	5.64	1	10/22/2025	2.00	1	7/16/2025	
08_1_128	MW-8	App. I Metals	Zinc	ug/L	2	32.4	15.8	0	10/22/2025	5.60	0	7/16/2025	
08_2_105	MW-8	App. III	Boron	ug/L	1	56.9	13.6	0	10/22/2025	11.0	0	7/16/2025	
08_2_107	MW-8	App. III	Calcium	ug/L	2	124000	164000	0	10/22/2025	99700	0	7/16/2025	Yes
08_2_108	MW-8	App. III	Chloride	mg/L	1	374	499	0	10/22/2025	347	0	7/16/2025	Yes
08_2_112	MW-8	App. III	Fluoride	mg/L	1	0.509	0.0610	0	10/22/2025	0.0930	0	7/16/2025	
08_2_118	MW-8	App. III	pH (Field), UPL	S.U.	1	7.55	7.02	0	10/25/2025	7.08	0	7/25/2025	
08_2_118	MW-8	App. III	pH (Field), LPL	S.U.	1	5.63	7.02	0	10/25/2025	7.08	0	7/25/2025	
08_2_123	MW-8	App. III	Sulfate	mg/L	2	210	6.60	0	10/22/2025	6.80	0	7/16/2025	
08_2_125	MW-8	App. III	Total Dissolved Solids	mg/L	2	1400	1630	0	10/22/2025	1080	0	7/16/2025	Yes
08_3_101	MW-8	App. IV	Antimony	ug/L	2	0.790	5.06	1	10/22/2025	4.00	1	7/16/2025	
08_3_102	MW-8	App. IV	Arsenic	ug/L	2	8.80	7.83	1	10/22/2025	4.20	1	7/16/2025	
08_3_103	MW-8	App. IV	Barium	ug/L	2	377	1370	0	10/22/2025	1020	0	7/16/2025	Yes
08_3_104	MW-8	App. IV	Beryllium	ug/L	DQR	0.700	0.501	1	10/22/2025	0.440	1	7/16/2025	
08_3_106	MW-8	App. IV	Cadmium	ug/L	2	0.500	0.538	1	10/22/2025	0.480	1	7/16/2025	
08_3_109	MW-8	App. IV	Chromium	ug/L	2	7.20	1.51	1	10/22/2025	1.40	0	7/16/2025	
08_3_110	MW-8	App. IV	Cobalt	ug/L	2	2.30	1.41	1	10/22/2025	1.20	1	7/16/2025	
08_3_112	MW-8	App. IV	Fluoride	mg/L	1	0.509	0.0610	0	10/22/2025	0.0930	0	7/16/2025	

Code	Well	Constituent Type	Constituent	Unit	Number of Retests	BTV (UPL)	Oct. 2025			July 2025			SSI above BTV
							Value	ND	Date	Value	ND	Date	
08_3_113	MW-8	App. IV	Lead	ug/L	2	13.7	2.43	1	10/22/2025	3.00	0	7/16/2025	
08_3_114	MW-8	App. IV	Lithium	ug/L	2	43.7	42.0	0	10/22/2025	25.7	0	7/16/2025	
08_3_115	MW-8	App. IV	Mercury	ug/L	2	0.170	0.0700	1	10/22/2025	0.0950	1	7/16/2025	
08_3_116	MW-8	App. IV	Molybdenum	ug/L	2	13.6	1.37	1	10/22/2025	1.70	1	7/16/2025	
08_3_119	MW-8	App. IV	Radium-226	pCi/L	2	0.800	0.444	0	10/22/2025	1.11	0	7/16/2025	
08_3_120	MW-8	App. IV	Radium-228	pCi/L	2	1.35	1.12	0	10/22/2025	0.446	0	7/16/2025	
08_3_121	MW-8	App. IV	Selenium	ug/L	2	6.00	6.16	1	10/22/2025	5.50	1	7/16/2025	
08_3_124	MW-8	App. IV	Thallium	ug/L	2	13.7	0.130	1	10/22/2025	0.0270	1	7/16/2025	
08_3_126	MW-8	App. IV	Total Radium	pCi/L	2	2.09	1.56	0	10/22/2025	1.56	0	7/16/2025	
09_1_111	MW-10	App. I Metals	Copper	ug/L	2	7.10	58.8	0	10/23/2025	0.990	0	7/16/2025	Yes
09_1_117	MW-10	App. I Metals	Nickel	ug/L	2	4.20	1.96	1	10/23/2025	2.00	1	7/16/2025	
09_1_122	MW-10	App. I Metals	Silver	ug/L	2	0.700	2.89	1	10/23/2025	0.770	1	7/16/2025	
09_1_127	MW-10	App. I Metals	Vanadium	ug/L	2	8.30	5.64	1	10/23/2025	2.00	1	7/16/2025	
09_1_128	MW-10	App. I Metals	Zinc	ug/L	2	32.4	10.7	0	10/23/2025	3.20	0	7/16/2025	
09_2_105	MW-10	App. III	Boron	ug/L	1	56.9	30.0	0	10/23/2025	27.0	0	7/16/2025	
09_2_107	MW-10	App. III	Calcium	ug/L	2	124000	21300	0	10/23/2025	19200	0	7/16/2025	
09_2_108	MW-10	App. III	Chloride	mg/L	1	374	29.9	0	10/23/2025	29.2	0	7/16/2025	
09_2_112	MW-10	App. III	Fluoride	mg/L	1	0.509	0.400	0	10/23/2025	0.410	0	7/16/2025	
09_2_118	MW-10	App. III	pH (Field), UPL	S.U.	1	7.55	7.91	0	10/25/2025	7.83	0	7/25/2025	Yes
09_2_118	MW-10	App. III	pH (Field), LPL	S.U.	1	5.63	7.91	0	10/25/2025	7.83	0	7/25/2025	
09_2_123	MW-10	App. III	Sulfate	mg/L	2	210	1.70	0	10/23/2025	1.90	0	7/16/2025	
09_2_125	MW-10	App. III	Total Dissolved Solids	mg/L	2	1400	332	0	10/23/2025	335	0	7/16/2025	
09_3_101	MW-10	App. IV	Antimony	ug/L	2	0.790	5.06	1	10/23/2025	4.00	1	7/16/2025	
09_3_102	MW-10	App. IV	Arsenic	ug/L	2	8.80	7.83	1	10/23/2025	4.20	1	7/16/2025	
09_3_103	MW-10	App. IV	Barium	ug/L	2	377	95.2	0	10/23/2025	93.9	0	7/16/2025	
09_3_104	MW-10	App. IV	Beryllium	ug/L	DQR	0.700	0.501	1	10/23/2025	0.440	1	7/16/2025	
09_3_106	MW-10	App. IV	Cadmium	ug/L	2	0.500	0.538	1	10/23/2025	0.480	1	7/16/2025	
09_3_109	MW-10	App. IV	Chromium	ug/L	2	7.20	1.51	1	10/23/2025	1.00	0	7/16/2025	
09_3_110	MW-10	App. IV	Cobalt	ug/L	2	2.30	1.41	1	10/23/2025	1.20	1	7/16/2025	
09_3_112	MW-10	App. IV	Fluoride	mg/L	1	0.509	0.400	0	10/23/2025	0.410	0	7/16/2025	
09_3_113	MW-10	App. IV	Lead	ug/L	2	13.7	2.43	1	10/23/2025	2.90	1	7/16/2025	
09_3_114	MW-10	App. IV	Lithium	ug/L	2	43.7	6.29	0	10/23/2025	5.30	0	7/16/2025	
09_3_115	MW-10	App. IV	Mercury	ug/L	2	0.170	0.0700	1	10/23/2025	0.0950	1	7/16/2025	
09_3_116	MW-10	App. IV	Molybdenum	ug/L	2	13.6	21.5	0	10/23/2025	20.2	0	7/16/2025	Yes
09_3_119	MW-10	App. IV	Radium-226	pCi/L	2	0.800	0.339	0	10/23/2025	0.297	0	7/16/2025	
09_3_120	MW-10	App. IV	Radium-228	pCi/L	2	1.35	1.07	0	10/23/2025	0.418	0	7/16/2025	
09_3_121	MW-10	App. IV	Selenium	ug/L	2	6.00	7.63	0	10/23/2025	5.50	1	7/16/2025	Yes
09_3_124	MW-10	App. IV	Thallium	ug/L	2	13.7	0.130	1	10/23/2025	0.0270	1	7/16/2025	
09_3_126	MW-10	App. IV	Total Radium	pCi/L	2	2.09	1.41	0	10/23/2025	0.715	0	7/16/2025	
10_1_111	MW-11	App. I Metals	Copper	ug/L	2	7.10	34.4	0	10/23/2025	3.30	0	7/15/2025	Yes
10_1_117	MW-11	App. I Metals	Nickel	ug/L	2	4.20	1.96	1	10/23/2025	2.00	1	7/15/2025	
10_1_122	MW-11	App. I Metals	Silver	ug/L	2	0.700	2.89	1	10/23/2025	0.770	1	7/15/2025	
10_1_127	MW-11	App. I Metals	Vanadium	ug/L	2	8.30	5.64	1	10/23/2025	2.00	1	7/15/2025	
10_1_128	MW-11	App. I Metals	Zinc	ug/L	2	32.4	13.5	0	10/23/2025	14.4	0	7/15/2025	
10_2_105	MW-11	App. III	Boron	ug/L	1	56.9	18.5	0	10/23/2025	16.0	0	7/15/2025	
10_2_107	MW-11	App. III	Calcium	ug/L	2	124000	25200	0	10/23/2025	25500	0	7/15/2025	
10_2_108	MW-11	App. III	Chloride	mg/L	1	374	139	0	10/23/2025	155	0	7/15/2025	
10_2_112	MW-11	App. III	Fluoride	mg/L	1	0.509	0.140	0	10/23/2025	0.150	0	7/15/2025	
10_2_118	MW-11	App. III	pH (Field), UPL	S.U.	1	7.55	6.69	0	10/25/2025	6.50	0	7/25/2025	
10_2_118	MW-11	App. III	pH (Field), LPL	S.U.	1	5.63	6.69	0	10/25/2025	6.50	0	7/25/2025	
10_2_123	MW-11	App. III	Sulfate	mg/L	2	210	2.00	0	10/23/2025	2.00	0	7/15/2025	
10_2_125	MW-11	App. III	Total Dissolved Solids	mg/L	2	1400	404	0	10/23/2025	478	0	7/15/2025	
10_3_101	MW-11	App. IV	Antimony	ug/L	2	0.790	5.06	1	10/23/2025	4.00	1	7/15/2025	
10_3_102	MW-11	App. IV	Arsenic	ug/L	2	8.80	7.83	1	10/23/2025	4.20	1	7/15/2025	
10_3_103	MW-11	App. IV	Barium	ug/L	2	377	38.6	0	10/23/2025	39.4	0	7/15/2025	
10_3_104	MW-11	App. IV	Beryllium	ug/L	DQR	0.700	0.501	1	10/23/2025	0.440	1	7/15/2025	
10_3_106	MW-11	App. IV	Cadmium	ug/L	2	0.500	0.538	1	10/23/2025	0.480	1	7/15/2025	
10_3_109	MW-11	App. IV	Chromium	ug/L	2	7.20	1.51	1	10/23/2025	2.70	0	7/15/2025	
10_3_110	MW-11	App. IV	Cobalt	ug/L	2	2.30	1.41	1	10/23/2025	1.30	0	7/15/2025	
10_3_112	MW-11	App. IV	Fluoride	mg/L	1	0.509	0.140	0	10/23/2025	0.150	0	7/15/2025	
10_3_113	MW-11	App. IV	Lead	ug/L	2	13.7	2.43	1	10/23/2025	3.30	0	7/15/2025	
10_3_114	MW-11	App. IV	Lithium	ug/L	2	43.7	12.0	0	10/23/2025	14.7	0	7/15/2025	
10_3_115	MW-11	App. IV	Mercury	ug/L	2	0.170	0.0700	1	10/23/2025	0.0950	1	7/15/2025	
10_3_116	MW-11	App. IV	Molybdenum	ug/L	2	13.6	1.40	0	10/23/2025	1.70	1	7/15/2025	
10_3_119	MW-11	App. IV	Radium-226	pCi/L	2	0.800	0.113	0	10/23/2025	0.194	0	7/15/2025	
10_3_120	MW-11	App. IV	Radium-228	pCi/L	2	1.35	1.01	0	10/23/2025	0.209	0	7/15/2025	
10_3_121	MW-11	App. IV	Selenium	ug/L	2	6.00	6.16	1	10/23/2025	5.50	1	7/15/2025	
10_3_124	MW-11	App. IV	Thallium	ug/L	2	13.7	0.130	1	10/23/2025	0.0270	1	7/15/2025	
10_3_126	MW-11	App. IV	Total Radium	pCi/L	2	2.09	1.12	0	10/23/2025	0.403	0	7/15/2025	
11_1_111	MW-11D	App. I Metals	Copper	ug/L	2	7.10	4.83	0	10/23/2025	1.10	0	7/15/2025	
11_1_117	MW-11D	App. I Metals	Nickel	ug/L	2	4.20	1.96	1	10/23/2025	2.00	1	7/15/2025	
11_1_122	MW-11D	App. I Metals	Silver	ug/L	2	0.700	2.89	1	10/23/2025	0.770	1	7/15/2025	
11_1_127	MW-11D	App. I Metals	Vanadium	ug/L	2	8.30	5.64	1	10/23/2025	2.00	1	7/15/2025	
11_1_128	MW-11D	App. I Metals	Zinc	ug/L	2	32.4	89.7	0	10/23/2025	8.30	0	7/15/2025	Yes
11_2_105	MW-11D	App. III	Boron	ug/L	1	56.9	46.4	0	10/23/2025	41.6	0	7/15/2025	
11_2_107	MW-11D	App. III	Calcium	ug/L	2	124000	16000	0	10/23/2025	14800	0	7/15/2025	
11_2_108	MW-11D	App. III	Chloride	mg/L	1	374	54.3	0	10/23/2025	53.6	0	7/15/2025	
11_2_112	MW-11D	App. III	Fluoride	mg/L	1	0.509	0.400	0	10/23/2025	0.420	0	7/15/2025	
11_2_118	MW-11D	App. III	pH (Field), UPL	S.U.	1	7.55	8.26	0	10/25/2025	8.05	0	7/25/2025	Yes
11_2_118	MW-11D	App. III	pH (Field), LPL	S.U.	1	5.63	8.26	0	10/25/2025	8.05	0	7/25/2025	
11_2_123	MW-11D	App. III	Sulfate	mg/L	2	210	13.8	0	10/23/2025	14.1	0	7/15/2025	
11_2_125	MW-11D	App. III	Total Dissolved Solids	mg/L	2	1400	321	0	10/23/2025	319	0	7/15/2025	
11_3_101	MW-11D	App. IV	Antimony	ug/L	2	0.790	5.06	1	10/23/2025	4.00	1	7/15/2025	
11_3_102	MW-11D	App. IV	Arsenic	ug/L	2	8.80	7.83	1	10/23/2025	4.20	1	7/15/2025	
11_3_103	MW-11D	App. IV	Barium	ug/L	2	377	112	0	10/23/2025	110	0	7/15/2025	
11_3_104	MW-11D	App. IV	Beryllium	ug/L	DQR	0.700	0.501	1	10/23/2025	0.440	1	7/15/2025	
11_3_106	MW-11D	App. IV	Cadmium	ug/L	2	0.500	0.538	1	10/23/2025	0.480	1	7/15/2025	
11_3_109	MW-11D	App. IV	Chromium	ug/L	2	7.20	1.51	1	10/23/2025	2.20	0	7/15/2025	
11_3_110	MW-11D	App. IV	Cobalt	ug/L	2	2.30	1.41	1	10/23/2025	1.20	1	7/15/2025	
11_3_112	MW-11D	App. IV	Fluoride	mg/L	1	0.509	0.400	0	10/23/2025	0.420	0	7/15/2025	
11_3_113	MW-11D	App. IV	Lead	ug/L	2	13.7	2.43	1	10/23/2025	2.90	1	7/15/2025	
11_3_114	MW-11D	App. IV	Lithium	ug/L	2	43.7	16.9	0	10/23/2025	14.9	0	7/15/2025	
11_3_115	MW-11D	App. IV	Mercury	ug/L	2	0.170	0.0700	1	10/23/2025	0.0950	1	7/15/2025	
11_3_116	MW-11D	App. IV	Molybdenum	ug/L	2	13.6	4.28	0	10/23/2025	2.20	0	7/15/2025	
11_3_119	MW-11D	App. IV	Radium-226	pCi/L	2	0.800	-0.187	0	10/23/2025	-0.249	0	7/15/2025	
11_3_120	MW-11D	App. IV	Radium-228	pCi/L	2	1.35	0.187	0	10/23/2025	0.585	0	7/15/2025	
11_3_121	MW-11D	App. IV	Selenium	ug/L	2	6.00	6.16	1	10/23/2025	5.80	0	7/15/2025	
11_3_124	MW-11D	App. IV	Thallium	ug/L	2	13.7	0.130	1	10/23/2025	0.0270	1	7/15/2025	
11_3_126	MW-11D	App. IV	Total Radium	pCi/L	2	2.09	0.187	0	10/23/2025	0.585	0	7/15/2025	

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