2025 ANNUAL GROUNDWATER QUALITY REPORT

FOR THE
GOOSE LAKE QUARRY
BENEFICIAL USE DETERMINATION (BUD)
23-BUD-15-03P
GOOSE LAKE, IOWA

by:
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Engineering Management

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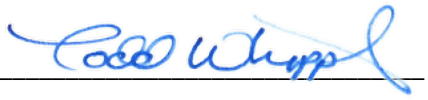
Certification

Prepared by:  Date: 2-2-2026

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Section 1.0 Background Information

1.1 Report Format

This report is prepared in accordance with Special Provision 10h of Beneficial Use Determination (BUD) Permit dated January 23, 2023 (Doc #105560). The statistical evaluation of water quality data is in accordance with Special Provisions 10c., 10.d., and 10.f.

IDNR Standardized Tables 1, 2, 4, 5, 6, and 7 are utilized as warranted in this report to convey data. Note that numerous IDNR Standardized tables do not apply to the Goose Lake BUD and are not required to be included. Also, the various IDNR Standardized Tables utilized may not be referenced in consecutive order in the text below.

1.2 Report Priority

This report is recommended to be considered low priority at the present time.

This report is prepared based on preliminary and incomplete water quality data for sample location "Sump". The sump sample warrants intrawell statistical evaluations in lieu of the interwell statistical evaluations, since the open water source should not be compared to background data collected from the bedrock formation at this site. The sump sample had 11 sample episodes of the desired 15 sample episodes completed by the end of 2025. When 15 sample episodes are complete, water quality evaluations will no longer be considered incomplete at the Sump.

The Monitoring wells (MW-1, MW-2, MW-3, and MW-4) had 17 sample collection episodes completed at the end of 2025. Water quality evaluations at MW-1, MW-2, MW-3, and MW-4 are considered comprehensive.

Supplemental water quality data collection over time is warranted at the Sump to satisfy the minimum data requirements and appropriate evaluation by both interwell and intrawell statistical methods.

1.3 Period of Report Coverage

Water quality data includes a running compilation of data beginning on August 28, 2018.

Interwell statistical evaluations herein are based upon comparison of the current year (2025) water quality result to the background data from MW-3 and MW-4.

Intrawell statistical evaluations reported herein are based on eight (8) rounds of data included in the background for each well, while the remaining datapoints (3 to 9 points depending upon compound and sampling point) are then compared to the background control limits established from the initial 8 rounds of data. Statistical evaluations will become more robust with each additional episode moving forward.

Based on the Statistical evaluation plan in place with the statistical subcontractor, the background at the monitoring wells will be expanded at the end of 2026 to include 13 or more datapoints in the background, while the 2026 results will then be compared to the control limits established based on the expanded background. The background for the Sump will not be expanded until more than 13 datapoints are available for the background pool at the Sump (estimated for 2028).

1.4 Current Site Map

Figure 1 is attached illustrating the current site features and monitoring well locations.

1.5 Site Status and Applicable Rules

Site Location

The Goose Lake Quarry is located at 3715 – 137th Street, Goose Lake, Iowa (in SE¼ SE¼ Section 21 and SW¼SW¼ Section 22, T83N, R5E). The site encompasses approximately 80 acres. The facility is situated approximately 1 mile north-northeast of the corporate limits of Goose Lake, Iowa. The facility operates under the Iowa Department of Natural Resources (IDNR) Permit Number 23-BUD-15-03.

Site Layout

The site is situated in the uplands between tributaries to Deep Creek located to the north and to the south. The quarry is actively receiving beneficial use materials.

Applicable Rules

Iowa Administrative Code (IAC) 567-108 is applicable to the site.

1.6 Summary of Hydrologic Monitoring System Plan (HMSP)

The approved HMSP includes four (4) monitoring wells designated MW-1, MW-2, MW-3, and MW-4 and an open water body designated as the quarry sump (Sump-1). The Site Plan and the approved monitoring network is illustrated on Figure 1. The current HMSP water quality findings and the HMSP Implementation Schedule is itemized in Table 1 and Table 2.

A Water Table Contour Map (Figure 2) dated September 17, 2025 is included with this report. The Water Table Contour Map illustrates the water table surface and the effects of the topography and the dewatering sump located within the quarry. The excavated dewatering sump is 70 feet x 125 feet and is 29 feet deep. The quarry floor near the sump is at elevation 674.8.

The water surface in the quarry sump was estimated at elevation 665 on December 20, 2019. We note that the water surface in the sump has also historically been estimated at elevation 668. The interpretation is made that the water level in the sump varies between elevation 665 and 668.

Available water elevation data is included in Table 4 and Table 4A. The wells are interpreted to be appropriately located to detect impact, should it occur. No changes or modifications to the site monitoring wells themselves are recommended.

Section 2.0 Monitoring Activities & Data Evaluation

The "Results of Groundwater Statistics for Goose Lake Quarry, Semi-annual Monitoring Events in 2025" dated November 2025 is included in Appendix A. The report includes evaluations of May 29, 2025 data and the September 17, 2025 data. The statistical evaluations are prepared by Otter Creek Environmental Services, LLC.

A current year summary of Analytical Results for the site monitoring points is included in *Attachment A* of the November 2025 Otter Creek Report (Appendix A). A comprehensive summary of Analytical Results for the site monitoring points is included in *Attachment B* of the November 2025 Otter Creek Report (Appendix A).

2.1 Current Detection Monitoring Activities

Interwell - The background wells are MW-3 and MW-4. The downgradient monitoring points are MW-1, MW-2, Sump 1.

Intrawell - The background points in each monitoring well and in the sump include the initial eight (8) rounds of data available (dates varies by sampling point). The results collected during the subsequent sampling episodes are compared to the intrawell background (the Control Limits) established at each point.

As stated previously, the background for MW-1, MW-2, MW-3, and MW-4 will be expanded at the end of 2026 to include supplemental data (up to 15 datapoints). The background for the Sump will be expanded when approximately 13-15 points are available for the background (estimated for 2028).

2.2 Current Assessment Monitoring Activities

Not warranted at this time.

2.3 Current Corrective Action Monitoring Activities

Not warranted at this time.

The Analytical Reports for May 29, 2025 data and the September 17, 2025 sampling events are included in Appendix B.

The most current Time Series Plots for all compounds in each downgradient well (MW-1, MW-2, and Sump) are included in *Attachment C* (May results) and *Attachment E* (September results) of the November 2025 Otter Creek Report (Appendix A) and visually illustrate the detected compound concentrations over time in each well.

Groundwater Protection Standards (GWPS) have been defined as the drinking water MCL (USEPA 40-CFR-Part 141) or a health-based concentration published as a Statewide Standard for Protected Groundwater under IAC 567, Chapter 137, as designated in Special Provision 10.c. of the Permit.

Note that GWPS for some of the compounds tested (either as primary USEPA MCL (USEPA 40-CFR-Part 141) or Statewide Standards for Protected Groundwater (IAC 567, Chapter 137)) do not exist. Examples of compounds that are tested at the Goose Lake facility where a GWPS doesn't exist include aluminum*, COD, chloride*, iron*, magnesium, sulfate*, TOX, and TSS. Those compounds designated with an asterisk have USEPA National Secondary Drinking Water Regulations (NSDWRs) published. NSDWRs (or secondary standards) are non-enforceable guidelines regulating contaminants that may cause cosmetic effects (such as skin or tooth discoloration) or aesthetic effects (such as taste, odor, or color) in drinking water. EPA recommends secondary standards to water supply systems but does not require systems to comply with the standard.

INTERWELL METHODS

Upgradient Data, Table 1, *Attachment C* (Spring data) and Upgradient Data, Table 1, *Attachment E* (Fall data), to the November 2025 Statistical Evaluation Report (Appendix A) includes a summary of the most comprehensive background data. The calculated interwell Prediction Limits are summarized on Table 5.

STATISTICALLY SIGNIFICANT INCREASES (SSI)/EXCEEDANCES OF LIMITS
The detected concentration of each compound is compared to the current site prediction limit for each respective compound calculated based on the background data set. A detected concentration for a compound that is in excess of the calculated site prediction limit is recorded as a Statistically Significant Increase (SSI) at detection monitoring wells.

The evaluation of SSI is summarized in Table 6, where *current year* exceedances of the Prediction Limits are summarized. An ongoing summary of the compound concentrations that have inconsistently exceeded the prediction limit over time (beginning September 17, 2019) are summarized in Table 7 (for MW-1, MW-2, and Sump). All exceedances of the prediction limits are highlighted in brown.

INTRAWELL METHODS

It is deemed important to include Intrawell Statistical Evaluation at this site for two (2) reasons. First, intrawell statistical methods will better address anticipated future site conditions where discernible hydraulic gradients change and where limited wells exist. And second, where the Sump sample (an open water body that experiences both atmospheric impact and some surface water inflow) may not be readily compared to groundwater data from bedrock wells.

A summary of the Intrawell Statistics is included in Summary Statistics and Intermediate Computations for Combined Shewhart-CUSUM Control Charts, *Attachment D* (Spring data), Table 1; and Summary Statistics and Intermediate Computations for Combined Shewhart-CUSUM Control Charts, *Attachment F* (Fall Data), Table 1, to the November 2025 Statistical Evaluation Report (Appendix A).

STATISTICALLY SIGNIFICANT INCREASES (SSI)/EXCEEDANCES OF LIMITS
The detected concentration of each compound is compared to the control limit for each respective compound calculated based on the intrawell background data set. A detected concentration for a compound that is in excess of the control limit is recorded as a Statistically Significant Increase (SSI) at detection monitoring wells.

There were no *verified* Intrawell Control Limit exceedances for the water samples collected in 2025 at any site monitoring point. In the Spring, nickel was identified as a potential exceedance in MW-2 and the Sump, while TOX was identified as a potential exceedance in MW-4. The Spring detections were not verified by the testing in the Fall.

Similarly, TOX was identified as a potential exceedance in MW-3 and the Sump in the Fall but has not been verified by resampling (pending Spring 2026).

It follows that there were no compounds in 2025 that were recorded as SSI by both Interwell and Intrawell methods.

It is further noted that all detected concentrations of compounds that are recorded as SSI by interwell statistical methods are well below the Groundwater Protection Standards (GWPS).

Table 1 is attached summarizing the findings of the statistical evaluations (Interwell and Intrawell).

IAC 567, Chapter 108 does not have a requirement to collect Appendix II samples in the event of a detected SSI. Additional testing requirements are at the discretion of the IDNR based on any perceived release from the facility. No release is interpreted based on water quality findings to date. Further all current compound detections are well below applicable GWPS.

CONFIDENCE INTERVAL EVALUATION/ STATISTICALLY SIGNIFICANT LEVELS (SSL)

The detections that exceed the current site prediction/control limits are utilized to calculate the 95% lower confidence limits (LCL) in accordance with the 2009 Unified Guidance for Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities by US EPA. The 95% LCL values are compared to applicable GWPS. Any 95% LCL value that exceeds an applicable GWPS is recorded as a Statistically Significant Level (SSL).

Table 7 includes a summary of the Confidence Limits (95% LCL) compared to the GWPS. *There are no Statistically Significant Levels (SSL) recorded to date.* Please note that this finding satisfies the requirements of Special Provision 10.f. of the Beneficial Use Determination (BUD) Permit, dated January 23, 2023 (Doc #105560).

RESPONSES TO WATER QUALITY RESULTS

Detected concentrations in groundwater and in the sump are well below applicable GWPS. There are no verified SSI recorded at the site by Intrawell statistical evaluation methods. The interwell statistical evaluation methods indicate tentative SSI at MW-2 and at the Sump (Table 6). Although designated as SSI by interwell statistical evaluation methods, the actual detected concentrations for all compounds are well below applicable GWPS and are deemed to be relatively insignificant from both health-based and environmental perspectives.

The reported manganese concentration at MW-2 on September 28, 2021 (301 ug/L) slightly exceeded the Iowa Statewide Standard published in IAC 567, Chapter 137 (300 ug/L). The most recent manganese results reported in 2025 (31.4 ug/L and <20 ug/L) were both well below the GWPS (300 ug/L).

It is noted that manganese does not have a published Federal Drinking Water Maximum Contaminant Limit (is not regulated under Federal Drinking Water rules). The Federal rule manages the compound manganese much the same way it manages COD, chloride, iron, magnesium, and sulfate where health effects are not sufficient to pose problems.

Based on the minor nature of the water quality findings to date, there is no recommendation to perform additional sampling (assessment monitoring) in accordance with IAC 113.10(6) at this time.

ASSESSMENT MONITORING

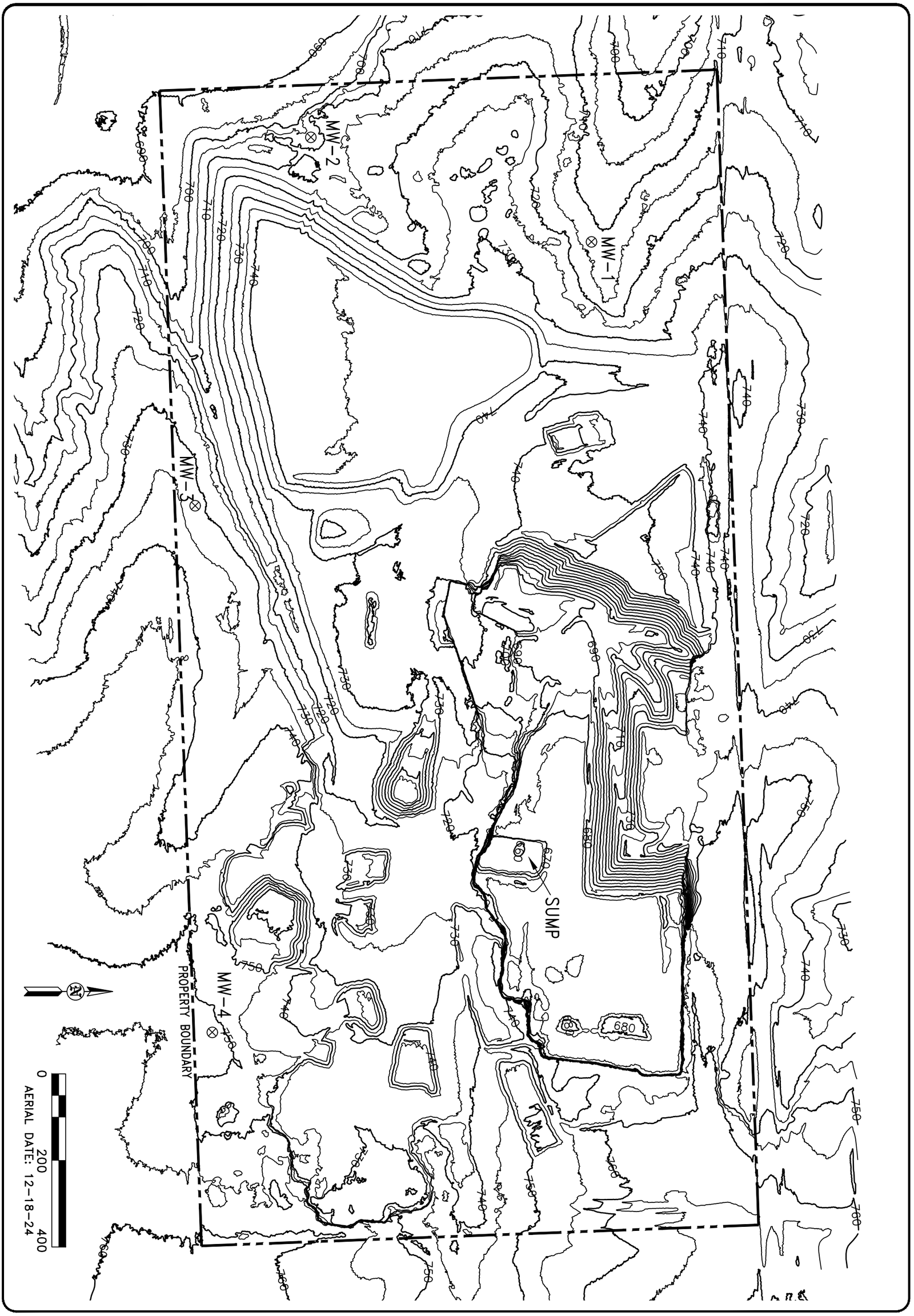
Assessment monitoring is not recommended at this time at any well.

Section 3.0 Recommendations

Continue semi-annual detection monitoring in accordance with the approved HMSP in accordance with Provision 10.d. of the Permit.

The intrawell background at MW-1, MW-2, MW-3, and MW-4 will be expanded in 2026 to include more than 13 datapoints. The Water Quality Report for 2026 will base findings upon the expanded background. The sampling and evaluations in the Spring and Fall of 2026 will be in accordance with Provision 10.h. of the Permit.

Figures



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SITE PLAN

GOOSE LAKE #23-BUD-15-03
GOOSE LAKE, IOWA

FIGURE: 1

REVISION	NO.	DATE
DRAWN DRA	PROJECT NO. 6048	DATE 1-18-26

WATER ELEVATION SEPTEMBER 17, 2025	
WELL	ELEV.
MW–1	663.22
MW–2	665.03
MW–3	673.20
MW–4	667.50
SUMP	665.00

MW–1
MW–2
MW–3
MW–4
SUMP

664
665
666
667
668
669
670
671
672
673

PROPERTY BOUNDARY

0 200 400
AERIAL DATE: 12–18–24

FIGURE: 2

REVISION	NO.	DATE
DRAWN DRA	PROJECT NO. 6048	DATE 1–18–26

GROUNDWATER CONTOURS
GOOSE LAKE #23–BUD–15–03
GOOSE LAKE, IOWA

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Tables
(in IDNR Format)

Table Index

Table 1 – Monitoring Program Summary – Interwell
&
Table 1A – Monitoring Program Summary – Intrawell

Table 1

Monitoring Program Summary - Interwell Statistical Evaluation

Annual Water Quality Report
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Monitoring Well	Formation	Current Monitoring Program	Change for next sampling event	Historic - Constituents w/ SSI	Spring 2025- Constituents w/ SSI	Fall 2025 - Constituents w/ SSI	Historic - Constituents w/ SSL	Spring 2025 - Constituents w/ SSL	Fall 2025 - Constituents w/ SSL	Total # of Samples in each monitoring program since August 28, 2018		
										Detection	Assessment	Corrective Action
MW-1	Limestone	Downgradient - Detection	None	**Barium, selenium, sulfate**	None	None	NA	NA	NA	17	0	0
MW-2	Limestone	Downgradient - Detection	None	**Barium, sulfate**	**Barium, sulfate**	**sulfate**	NA	NA	NA	17	0	0
MW-3	Limestone	Background	None	NA	NA	NA	NA	NA	NA	17	0	0
MW-4	Limestone	Background	None	NA	NA	NA	NA	NA	NA	17	0	0
Sump	Limestone	Downgradient - Detection	None	**barium, boron, sulfate**	**barium, boron, sulfate**	**barium, boron, sulfate**	NA	NA	NA	11	0	0

Table 1A

Monitoring Program Summary - Intrawell Statistical Evaluation

Annual Water Quality Report
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Monitoring Well	Formation	Current Monitoring Program	Change for next sampling event	Historic - Constituents w/ SSI	Spring 2025- Constituents w/ SSI	Fall 2025 - Constituents w/ SSI	Historic - Constituents w/ SSL	Spring 2025 - Constituents w/ SSL	Fall 2025 - Constituents w/ SSL	Total # of Samples in each monitoring		
										Detection	Assessment	Corrective Action
MW-1	Limestone	Downgradient - Detection	None	**cadmium**	None	None	NA	NA	NA	17	0	0
MW-2	Limestone	Downgradient - Detection	None	**cadmium, chromium**	**Nickel**	None	NA	NA	NA	17	0	0
MW-3	Limestone	Background	None	None	None	**TOX**	NA	NA	NA	17	0	0
MW-4	Limestone	Background	None	None	**TOX**	None	NA	NA	NA	17	0	0
Sump	Limestone	Downgradient - Detection	None	None	**Nickel**	**TOX**	NA	NA	NA	11	0	0

Note - Cadmium & chromium results indicate a spike in concentration in the Spring 2022 which has not been recorded since.

Table 2 – Monitoring Program Implementation Schedule

Table 2
Monitoring Program Implementation Schedule
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Monitoring Well	Recent Sampling Dates	Upcoming Sampling Dates and Constituents		Full Appendix II Sample Dates	
		March, 2026	September, 2026	Previously Collected	Next Event
MW-1	8-28-18; 11-14-18; 1-10-19; 4-1-19; 9-17-19; 4-6-20; 9-24-20; 4/27/2021; 9/28/2021; 5/11/2022; 9/14/2022; 5/10/2023; 9/13/2023, 5/15/2024, 9/17/2024	see Constituents List Below	see Constituents List Below	N/A	N/A
MW-2	8-28-18; 11-14-18; 1-10-19; 4-1-19; 9-17-19; 4-6-20; 9-24-20; 4/27/2021; 9/28/2021; 5/11/2022; 9/14/2022; 5/10/2023; 9/13/2023, 5/15/2024, 9/17/2024	see Constituents List Below	see Constituents List Below	N/A	N/A
MW-3	8-28-18; 11-14-18; 1-10-19; 4-1-19; 9-17-19; 4-6-20; 9-24-20; 4/27/2021; 9/28/2021; 5/11/2022; 9/14/2022; 5/10/2023; 9/13/2023, 5/15/2024, 9/17/2024	see Constituents List Below	see Constituents List Below	N/A	N/A
MW-4	8-28-18; 11-14-18; 1-10-19; 4-1-19; 9-17-19; 4-6-20; 9-24-20; 4/27/2021; 9/28/2021; 5/11/2022; 9/14/2022; 5/10/2023; 9/13/2023, 5/15/2024, 9/17/2024	see Constituents List Below	see Constituents List Below	N/A	N/A
Sump	4-6-20; 9-24-20; 4/27/2021; 9/28/2021; 5/11/2022; 9/14/2022; 5/10/2023; 9/13/2023, 5/15/2024, 9/17/2024	see Constituents List Below	see Constituents List Below	N/A	N/A

Constituent List		
Aluminum	Cobalt (Co)	Nickel (Ni)
Ammonia Nitrogen	Copper (Cu)	Phenols
Antimony (Sb)	Flouride (Fl)	Selenium (Se)
Arsenic (As)	Formaldehyde	Silver (Ag)
Barium (Ba)	Iron (Fe)	Sulfate
Beryllium (Be)	Lead (Pb)	Thallium (Tl)
Boron (B)	Magnesium (Mg)	TOX
Cadmium (Cd)	Manganese (Mn)	TSS
COD	Mercury (Hg)	Vanadium (V)
Chloride	Methyl Etyl Ketone	Zinc (Zn)
Chromium (Cr)	Molybdenum (Mo)	

Table 4 – Monitoring Well Data Summary

Table 4
Monitoring Well Maintenance and Performance Summary
Annual Water Quality Report
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Well	Top of casing	Top of Screen	Total Depth		Date of Measurements		Maximum Depth Discrepancy (ft)
					5/29/2025	9/17/2025	
MW-1	716.42	649.55	77.17	Groundwater Level (ft)	57.1	53.2	0
				Groundwater Elevation (Ft MSL)	659.32	663.22	
				Measured Well Depth (ft)	77.17	77.17	
				Submerged (+) or Exposed screen (-)	9.77	13.67	
MW-2	709.47	632.2	87.27	Groundwater Level (ft)	46.54	44.44	0.44
				Groundwater Elevation (Ft MSL)	662.93	665.03	
				Measured Well Depth (ft)	86.83	86.83	
				Submerged (+) or Exposed screen (-)	30.73	32.83	
MW-3	736.56	669.4	77.17	Groundwater Level (ft)	66.86	63.36	0
				Groundwater Elevation (Ft MSL)	669.7	673.2	
				Measured Well Depth (ft)	77.17	77.17	
				Submerged (+) or Exposed screen (-)	0.3	3.8	
MW-4	756.33	648.4	118	Groundwater Level (ft)	92.73	88.83	0
				Groundwater Elevation (Ft MSL)	663.6	667.5	
				Measured Well Depth (ft)	118	118	
				Submerged (+) or Exposed screen (-)	15.2	19.1	

Table 4A – Supplemental Water Elevation Data

Table 4A
Water Elevation Data
Annual Water Quality Report
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Permit No. 23-BUD-15-03

Well	Date	Top Casing Elevation	SWL	Water Elevation	Well	Date	Top Casing Elevation	SWL	Water Elevation	Well	Date	Top Casing Elevation	SWL	Water Elevation	Well	Date	Top Casing Elevation	SWL	Water Elevation
MW-1	12/20/2019	716.42	48.45	667.97	MW-2	12/20/2019	709.47	43.66	665.81	MW-3	12/20/2019	736.56	62.12	674.44	MW-4	12/20/2019	756.33	85.65	670.68
MW-1	4/6/2020	716.42	49.10	667.32	MW-2	4/6/2020	709.47	39.24	670.23	MW-3	4/6/2020	736.56	61.16	675.40	MW-4	4/6/2020	756.33	85.53	670.80
MW-1	9/24/2020	716.42	52.00	664.42	MW-2	9/24/2020	709.47	41.64	667.83	MW-3	9/24/2020	736.56	62.11	674.45	MW-4	9/24/2020	756.33	86.83	669.50
MW-1	4/27/2021	716.42	47.70	668.72	MW-2	4/27/2021	709.47	41.34	668.13	MW-3	4/27/2021	736.56	59.46	677.10	MW-4	4/27/2021	756.33	83.33	673.00
MW-1	9/28/2021	716.42	55.90	660.52	MW-2	9/28/2021	709.47	44.64	664.83	MW-3	9/28/2021	736.56	66.06	670.50	MW-4	9/28/2021	756.33	91.93	664.40
MW-1	5/11/2022	716.42	53.50	662.92	MW-2	5/11/2022	709.47	44.94	664.53	MW-3	5/11/2022	736.56	65.76	670.80	MW-4	5/11/2022	756.33	89.23	667.10
MW-1	9/14/2022	716.42	56.40	660.02	MW-2	9/14/2022	709.47	50.24	659.23	MW-3	9/14/2022	736.56	67.46	669.10	MW-4	9/14/2022	756.33	92.13	664.20
MW-1	5/10/2023	716.42	49.70	666.72	MW-2	5/10/2023	709.47	42.74	666.73	MW-3	5/10/2023	736.56	62.16	674.40	MW-4	5/10/2023	756.33	84.83	671.50
MW-1	9/13/2023	716.42	56.60	659.82	MW-2	9/13/2023	709.47	47.94	661.53	MW-3	9/13/2023	736.56	68.26	668.30	MW-4	9/13/2023	756.33	91.73	664.60
MW-1	5/15/2024	716.42	48.70	667.72	MW-2	5/15/2024	709.47	40.24	669.23	MW-3	5/15/2024	736.56	62.06	674.50	MW-4	5/15/2024	756.33	84.43	671.90
MW-1	9/17/2024	716.42	51.20	665.22	MW-2	9/17/2024	709.47	40.94	668.53	MW-3	9/17/2024	736.56	62.76	673.80	MW-4	9/17/2024	756.33	85.83	670.50
MW-1	5/29/2025	716.42	57.10	659.32	MW-2	5/29/2025	709.47	46.54	662.93	MW-3	5/29/2025	736.56	66.86	669.70	MW-4	5/29/2025	756.33	92.73	663.60
MW-1	9/17/2025	716.42	53.20	663.22	MW-2	9/17/2025	709.47	44.44	665.03	MW-3	9/17/2025	736.56	63.36	673.20	MW-4	9/17/2025	756.33	88.83	667.50

Table 5 – Background and GWPS Summary

Table 5
Background and GWPS Summary
Annual Water Quality Report
Goose Lake Quarry BUD
Permit No. 23-BUD-15-03

Interwell Background Wells (MW-3 and MW-4)

Constituent	Units	Model Type	Samples - N	Detections	Mean	SD	Prediction Limit	Confidence	GWPS	Source
Aluminum	µg/l	nonparametric	32	16			870.0000	0.99	NA	SS
Ammonia Nitrogen	mg/L	nonparametric	34	2			0.2600	0.99	30	SS
Antimony (Sb)	µg/l	nonparametric	34	0			5.0000	0.99	6	SS
Arsenic (As)	µg/l	nonparametric	34	0			10.0000	0.99	10	SS
Barium (Ba)	µg/l	normal	34	34	37.7147	10.4205	63.5606		2000	SS
Beryllium (Be)	µg/l	nonparametric	34	0			1.0000	0.99	4	SS
Boron (B)	µg/l	nonparametric	33	4			31.0000	0.99	6000	SS
Cadmium (Cd)	µg/l	nonparametric	34	0			0.4000	0.99	5	SS
COD	mg/L	nonparametric	34	13			20.0000	0.99	NA	SS
Chloride	mg/L	nonparametric	33	33			34.1000	0.99	250	SS
Chromium (Cr)	µg/l	normal	34	32	7.2053	4.4651	18.2802		100	SS
Cobalt (Co)	µg/l	nonparametric	34	1			**3.3700**	0.99	**3.37**	SS
Copper (Cu)	µg/l	nonparametric	33	10			7.6800	0.99	1300	SS
Flouride (Fl)	mg/L	nonparametric	34	18			0.3000		4	SS
Formaldehyde	µg/l	nonparametric	34	0			100.0000	0.99	1000	SS
Iron (Fe)	µg/l	lognormal	33	33	4.9308	1.2435	2704.0261		NA	SS
Lead (Pb)	µg/l	nonparametric	34	3			3.0100	0.99	15	SS
Magnesium (Mg)	mg/L	nonparametric	34	34			72.0000	0.99	NA	SS
Manganese (Mn)	µg/l	nonparametric	32	8			145.0000	0.99	300	SS
Mercury (Hg)	µg/l	nonparametric	34	0			2.0000	0.99	2	SS
Methyl Etyl Ketone	µg/l	nonparametric	32	0			10.0000	0.99	4000	SS
Molybdenum (Mo)	µg/l	nonparametric	34	4			10.0000	0.99	40	SS
Nickel (Ni)	µg/l	nonparametric	32	7			2.5100	0.99	100	SS
Phenols	µg/l	nonparametric	33	6			25.0000	0.99	2000	SS
Selenium (Se)	µg/l	nonparametric	34	0			5.0000	0.99	50	SS
Silver (Ag)	µg/l	nonparametric	34	0			0.5000	0.99	100	SS
Sulfate	mg/L	nonparametric	33	33			25.1000	0.99	NA	SS
Thallium (Tl)	µg/l	nonparametric	34	0			2.0000	0.99	2	SS
TOX	mg/L	nonparametric	32	15			0.1550	0.99	NA	SS
TSS	mg/L	nonparametric	34	33			632.0000	0.99	NA	SS
Vanadium (V)	µg/l	nonparametric	33	3			1.9200	0.99	35	SS
Zinc (Zn)	µg/l	nonparametric	34	26			31.4000	0.99	2000	SS

Intrawell Background

Constituent	Units	Model Type	Samples - N	Detections	Mean	SD	Prediction Limit	Confidence	GWPS	Source
See Following Pages for INTRAWELL Control Limits										

= Prediction limit exceeds the GWPS. A Site-Specific GWPS is warranted

Table 1

Summary Statistics and Intermediate Computations for Combined Shewhart-CUSUM Control Charts

Constituent	Units	Well	N(back)	N(mon)	N(tot)	Mean	SD	R(i-1)	R(i)	S(i-1)	S(i)	Limit	Type	Conf	
Aluminum, total	ug/L	MW-1	8	9	17	295.3625	422.9416	100.0000	100.0000	295.3625	295.3625	3044.4831	normal		
Aluminum, total	ug/L	MW-2	8	9	17	192.5375	223.5234	100.0000	100.0000	192.5375	192.5375	1645.4399	normal		
Aluminum, total	ug/L	MW-3	8	8	17	210.2125	172.5289	100.0000	100.0000	210.2125	210.2125	1331.6502	normal		
Aluminum, total	ug/L	MW-4	7	9	17	77.5571	31.4196	100.0000	100.0000	77.5571	77.5571	281.7844	normal		
Aluminum, total	ug/L	Sump Grab	8	3	11	101.5000	29.7706	100.0000	100.0000	101.5000	101.5000	295.0086	normal		
Ammonia nitrogen	mg/L	MW-1	8	9	17			0.1200	0.1000			0.1300	nonpar	.99	**
Ammonia nitrogen	mg/L	MW-2	8	9	17			0.1000	0.1000			0.2300	nonpar	.99	**
Ammonia nitrogen	mg/L	MW-3	8	9	17			0.1000	0.1000			0.2600	nonpar	.99	**
Ammonia nitrogen	mg/L	MW-4	8	9	17			0.1000	0.1000			0.1200	nonpar	.99	**
Ammonia nitrogen	mg/L	Sump Grab	8	3	11			0.1000	0.1100			0.2500	nonpar	.99	**
Antimony, total	ug/L	MW-1	8	9	17			5.0000	5.0000			5.0000	nonpar	.99	**
Antimony, total	ug/L	MW-2	8	9	17			5.0000	5.0000			5.0000	nonpar	.99	**
Antimony, total	ug/L	MW-3	8	9	17			5.0000	5.0000			5.0000	nonpar	.99	**
Antimony, total	ug/L	MW-4	8	9	17			5.0000	5.0000			5.0000	nonpar	.99	**
Antimony, total	ug/L	Sump Grab	8	3	11			5.0000	5.0000			5.0000	nonpar	.99	**
Arsenic, total	ug/L	MW-1	8	9	17			10.0000	10.0000			10.0000	nonpar	.99	**
Arsenic, total	ug/L	MW-2	8	9	17			10.0000	10.0000			10.0000	nonpar	.99	**
Arsenic, total	ug/L	MW-3	8	9	17			10.0000	10.0000			10.0000	nonpar	.99	**
Arsenic, total	ug/L	MW-4	8	9	17			10.0000	10.0000			10.0000	nonpar	.99	**
Arsenic, total	ug/L	Sump Grab	8	3	11			10.0000	10.0000			10.0000	nonpar	.99	**
Barium, total	ug/L	MW-1	8	9	17	60.2750	16.6684	38.4000	37.4000	60.2750	60.2750	168.6198	normal		
Barium, total	ug/L	MW-2	8	9	17	72.9625	32.1116	66.0000	62.1000	72.9625	72.9625	281.6881	normal		
Barium, total	ug/L	MW-3	8	9	17	30.7750	6.6257	29.3000	26.4000	30.7750	30.7750	73.8417	normal		
Barium, total	ug/L	MW-4	8	9	17	43.3000	4.9742	41.7000	40.2000	43.3000	43.3000	75.6324	normal		
Barium, total	ug/L	Sump Grab	8	3	11	108.3625	17.9467	123.0000	134.0000	108.3625	116.0533	225.0163	normal		
Beryllium, total	ug/L	MW-1	8	9	17			1.0000	1.0000			1.0000	nonpar	.99	**
Beryllium, total	ug/L	MW-2	8	9	17			1.0000	1.0000			1.0000	nonpar	.99	**
Beryllium, total	ug/L	MW-3	8	9	17			1.0000	1.0000			1.0000	nonpar	.99	**
Beryllium, total	ug/L	MW-4	8	9	17			1.0000	1.0000			1.0000	nonpar	.99	**
Beryllium, total	ug/L	Sump Grab	8	3	11			1.0000	1.0000			1.0000	nonpar	.99	**
Boron, total	ug/L	MW-1	8	9	17	21.7625	3.8000	20.0000	20.9000	21.7625	21.7625	46.4623	normal		
Boron, total	ug/L	MW-2	8	9	17	30.3750	13.7966	20.0000	20.0000	30.3750	30.3750	120.0526	normal		
Boron, total	ug/L	MW-3	8	9	17			20.0000	20.0000			20.0000	nonpar	.99	**
Boron, total	ug/L	MW-4	7	9	17	21.7143	4.1115	20.0000	20.0000	21.7143	21.7143	48.4393	normal		
Boron, total	ug/L	Sump Grab	8	3	11	53.0375	21.0596	53.4000	102.0000	53.0375	80.9404	189.9247	normal		
Cadmium, total	ug/L	MW-1	8	9	17			0.4000	0.4000			0.4000	nonpar	.99	**
Cadmium, total	ug/L	MW-2	8	9	17			0.4000	0.4000			0.4000	nonpar	.99	**
Cadmium, total	ug/L	MW-3	8	9	17			0.4000	0.4000			0.4000	nonpar	.99	**
Cadmium, total	ug/L	MW-4	8	9	17			0.4000	0.4000			0.4000	nonpar	.99	**
Cadmium, total	ug/L	Sump Grab	8	3	11			0.4000	0.4000			0.4000	nonpar	.99	**
Chemical oxygen demand	mg/L	MW-1	8	9	17	8.6250	2.8253	10.0000	12.0000	8.6250	9.1747	26.9892	normal		
Chemical oxygen demand	mg/L	MW-2	8	9	17	8.3750	3.5431	10.0000	10.0000	8.3750	8.3750	31.4052	normal		
Chemical oxygen demand	mg/L	MW-3	8	9	17	9.1250	3.0443	10.0000	10.0000	9.1250	9.1250	28.9131	normal		
Chemical oxygen demand	mg/L	MW-4	8	9	17	10.6250	4.3404	10.0000	10.0000	10.6250	10.6250	38.8378	normal		
Chemical oxygen demand	mg/L	Sump Grab	8	3	11	7.2500	0.7071	10.0000	10.0000	7.2500	9.2929	11.8462	normal		
Chloride	mg/L	MW-1	8	9	17	5.8200	2.4947	3.1300	3.2900	5.8200	5.8200	22.0355	normal		

N(back) and N(mon) = Non-outlier measurements in the background and monitoring periods.
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For transformed data, mean and SD in transformed units and control limit in original units.
Conf = confidence level for passing initial test or one of two verification resamples (nonparametric test only).
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** - Detection Frequency < 25%.
*** - Zero Variance.

Table 1

Summary Statistics and Intermediate Computations for Combined Shewhart-CUSUM Control Charts

Constituent	Units	Well	N(back)	N(mon)	N(tot)	Mean	SD	R(i-1)	R(i)	S(i-1)	S(i)	Limit	Type	Conf	
Chloride	mg/L	MW-2	8	9	17	29.1675	28.1862	2.7700	2.9400	29.1675	29.1675	212.3775	normal		
Chloride	mg/L	MW-3	8	9	17	1.3752	1.3315	0.5920	0.6230	1.3752	1.3752	10.0303	normal		
Chloride	mg/L	MW-4	8	9	17	10.7650	11.4330	3.1700	2.9200	10.7650	10.7650	85.0797	normal		
Chloride	mg/L	Sump Grab	8	3	11	21.6750	7.9688	14.4000	15.1000	21.6750	21.6750	73.4724	normal		
Chromium, total	ug/L	MW-1	8	9	17	5.2988	4.0865	3.0800	4.2600	5.2988	5.2988	31.8611	normal		
Chromium, total	ug/L	MW-2	6	9	17	6.2000	1.2036	6.9900	3.9400	6.2000	6.2000	14.0234	normal		
Chromium, total	ug/L	MW-3	8	9	17	7.3575	6.3409	6.5900	1.1100	7.3575	7.3575	48.5731	normal		
Chromium, total	ug/L	MW-4	8	9	17	7.5900	4.6921	4.4300	2.5100	7.5900	7.5900	38.0883	normal		
Chromium, total	ug/L	Sump Grab	8	3	11			1.0000	1.0000			1.5000	nonpar	.99	**
Cobalt, total	ug/L	MW-1	8	9	17			2.0000	2.0000			2.0000	nonpar	.99	**
Cobalt, total	ug/L	MW-2	8	9	17			2.0000	2.0000			2.0000	nonpar	.99	**
Cobalt, total	ug/L	MW-3	8	9	17			2.0000	2.0000			2.0000	nonpar	.99	**
Cobalt, total	ug/L	MW-4	8	9	17			2.0000	2.0000			2.0000	nonpar	.99	**
Cobalt, total	ug/L	Sump Grab	8	3	11			2.0000	2.0000			2.0000	nonpar	.99	**
Copper, total	ug/L	MW-1	8	9	17	3.9662	1.8957	3.0000	3.0000	3.9662	3.9662	16.2886	normal		
Copper, total	ug/L	MW-2	8	9	17	2.6725	1.1713	3.0000	3.0000	2.6725	2.6725	10.2858	normal		
Copper, total	ug/L	MW-3	8	9	17	7.3413	10.3878	3.0000	3.0000	7.3413	7.3413	74.8616	normal		
Copper, total	ug/L	MW-4	8	9	17	3.0838	2.0070	3.0000	3.0000	3.0838	3.0838	16.1294	normal		
Copper, total	ug/L	Sump Grab	8	3	11	6.8725	4.8530	3.0000	3.2100	6.8725	6.8725	38.4171	normal		
Fluoride	mg/L	MW-1	8	9	17	0.1406	0.0651	0.1000	0.1000	0.1406	0.1406	0.5635	normal		
Fluoride	mg/L	MW-2	8	9	17	0.1781	0.1119	0.1310	0.1340	0.1781	0.1781	0.9055	normal		
Fluoride	mg/L	MW-3	8	9	17	0.1205	0.0431	0.1000	0.1000	0.1205	0.1205	0.4003	normal		
Fluoride	mg/L	MW-4	8	9	17	0.1548	0.0681	0.1490	0.1110	0.1548	0.1548	0.5972	normal		
Fluoride	mg/L	Sump Grab	8	3	11	0.1478	0.0182	0.1330	0.1000	0.1478	0.1478	0.2661	normal		
Formaldehyde	ug/L	MW-1	8	9	17			100.0000	100.0000			100.0000	nonpar	.99	**
Formaldehyde	ug/L	MW-2	8	9	17			100.0000	100.0000			100.0000	nonpar	.99	**
Formaldehyde	ug/L	MW-3	8	9	17			100.0000	100.0000			100.0000	nonpar	.99	**
Formaldehyde	ug/L	MW-4	8	9	17			100.0000	100.0000			100.0000	nonpar	.99	**
Formaldehyde	ug/L	Sump Grab	8	2	10			100.0000	100.0000			100.0000	nonpar	.99	**
Iron, total	ug/L	MW-1	8	9	17	232.1375	256.1545	26.9000	53.5000	232.1375	232.1375	1897.1415	normal		
Iron, total	ug/L	MW-2	8	9	17	414.6125	502.0142	57.9000	36.1000	414.6125	414.6125	3677.7047	normal		
Iron, total	ug/L	MW-3	8	8	17	485.8500	557.5418	31.0000	15.7000	485.8500	485.8500	4109.8717	normal		
Iron, total	ug/L	MW-4	8	9	17	273.4000	351.1964	22.5000	16.4000	273.4000	273.4000	2556.1763	normal		
Iron, total	ug/L	Sump Grab	8	3	11	451.2125	1131.6694	41.0000	43.4000	451.2125	451.2125	7807.0639	normal		
Lead, total	ug/L	MW-1	8	9	17			2.0000	2.0000			2.0000	nonpar	.99	**
Lead, total	ug/L	MW-2	8	9	17			2.0000	2.0000			2.2100	nonpar	.99	**
Lead, total	ug/L	MW-3	8	9	17			2.0000	2.0000			2.4100	nonpar	.99	**
Lead, total	ug/L	MW-4	8	9	17			2.0000	2.0000			3.0100	nonpar	.99	**
Lead, total	ug/L	Sump Grab	8	3	11			2.0000	2.0000			2.0000	nonpar	.99	**
Magnesium, total	mg/L	MW-1	8	9	17	39.3125	9.1299	49.9000	47.8000	41.0276	40.3852	98.6570	normal		
Magnesium, total	mg/L	MW-2	8	9	17	60.7625	12.3983	48.1000	46.1000	60.7625	60.7625	141.3512	normal		
Magnesium, total	mg/L	MW-3	8	9	17	26.5625	4.8447	22.5000	21.1000	26.5625	26.5625	58.0531	normal		
Magnesium, total	mg/L	MW-4	8	9	17	51.7250	9.0714	41.9000	41.0000	51.7250	51.7250	110.6892	normal		
Magnesium, total	mg/L	Sump Grab	8	3	11	38.3625	3.9935	38.5000	32.2000	38.3625	38.3625	64.3205	normal		
Manganese, total	ug/L	MW-1	8	9	17	31.3875	21.5201	20.0000	20.0000	31.3875	31.3875	171.2683	normal		
Manganese, total	ug/L	MW-2	8	9	17	67.3500	34.2578	31.4000	20.0000	67.3500	67.3500	290.0255	normal		

N(back) and N(mon) = Non-outlier measurements in the background and monitoring periods.
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Constituent	Units	Well	N(back)	N(mon)	N(tot)	Mean	SD	R(i-1)	R(i)	S(i-1)	S(i)	Limit	Type	Conf	
Manganese, total	ug/L	MW-3	8	8	17	38.1250	27.8922	20.0000	20.0000	38.1250	38.1250	219.4245	normal		
Manganese, total	ug/L	MW-4	7	9	17	21.3429	2.1801	20.0000	20.0000	21.3429	21.3429	35.5135	normal		
Manganese, total	ug/L	Sump Grab	8	3	11	30.5625	29.2739	20.0000	20.0000	30.5625	30.5625	220.8427	normal		
Mercury, total	ug/L	MW-1	8	9	17			2.0000	2.0000			2.0000	nonpar	.99	**
Mercury, total	ug/L	MW-2	8	9	17			2.0000	2.0000			2.0000	nonpar	.99	**
Mercury, total	ug/L	MW-3	8	9	17			2.0000	2.0000			2.0000	nonpar	.99	**
Mercury, total	ug/L	MW-4	8	9	17			2.0000	2.0000			2.0000	nonpar	.99	**
Mercury, total	ug/L	Sump Grab	8	3	11			2.0000	2.0000			2.0000	nonpar	.99	**
Methyl ethyl ketone	ug/L	MW-1	8	9	17			10.0000	10.0000			10.0000	nonpar	.99	**
Methyl ethyl ketone	ug/L	MW-2	8	9	17			10.0000	10.0000			10.0000	nonpar	.99	**
Methyl ethyl ketone	ug/L	MW-3	8	9	17			10.0000	10.0000			10.0000	nonpar	.99	**
Methyl ethyl ketone	ug/L	MW-4	8	9	17			10.0000	10.0000			10.0000	nonpar	.99	**
Methyl ethyl ketone	ug/L	Sump Grab	7	3	10								nonpar *		**
Molybdenum, total	ug/L	MW-1	8	9	17	2.0888	0.1795	10.0000	10.0000	2.0888	2.0888	3.2554	normal		
Molybdenum, total	ug/L	MW-2	8	9	17	3.2550	2.0221	10.0000	10.0000	3.2550	3.2550	16.3984	normal		
Molybdenum, total	ug/L	MW-3	8	9	17	2.3863	0.7607	10.0000	10.0000	2.3863	2.3863	7.3310	normal		
Molybdenum, total	ug/L	MW-4	8	9	17	2.3800	0.7205	10.0000	10.0000	2.3800	2.3800	7.0632	normal		
Molybdenum, total	ug/L	Sump Grab	8	3	11			10.0000	10.0000			10.0000	nonpar	.99	**
Nickel, total	ug/L	MW-1	8	9	17	1.3188	0.7304	1.9300	1.0000	1.3188	1.3188	6.0664	normal		
Nickel, total	ug/L	MW-2	6	9	17	1.0950	0.2004	2.9700	1.0000	2.7696	1.0950	2.3974	normal		
Nickel, total	ug/L	MW-3	8	9	17	1.6000	0.9365	1.4000	1.0000	1.6000	1.6000	7.6873	normal		
Nickel, total	ug/L	MW-4	8	9	17	1.2488	0.5285	1.8300	1.0000	1.3015	1.2488	4.6843	normal		
Nickel, total	ug/L	Sump Grab	8	3	11			1.8600	1.0000			1.0000	nonpar	.99	**
Phenols	ug/L	MW-1	8	9	17	9.8750	7.7724	10.0000	10.0000	9.8750	9.8750	60.3958	normal		
Phenols	ug/L	MW-2	8	9	17	7.5000	4.7208	10.0000	10.0000	7.5000	7.5000	38.1850	normal		
Phenols	ug/L	MW-3	8	9	17	8.0000	6.1644	10.0000	10.0000	8.0000	8.0000	48.0687	normal		
Phenols	ug/L	MW-4	8	9	17	8.3125	8.0487	10.0000	10.0000	8.3125	8.3125	60.6289	normal		
Phenols	ug/L	Sump Grab	8	3	11	5.6250	1.4079	10.0000	10.0000	5.6250	5.6250	14.7763	normal		
Selenium, total	ug/L	MW-1	8	9	17	5.5413	0.9765	5.0000	5.0000	5.5413	5.5413	11.8882	normal		
Selenium, total	ug/L	MW-2	8	9	17			5.0000	5.0000			5.0000	nonpar	.99	**
Selenium, total	ug/L	MW-3	8	9	17			5.0000	5.0000			5.0000	nonpar	.99	**
Selenium, total	ug/L	MW-4	8	9	17			5.0000	5.0000			5.0000	nonpar	.99	**
Selenium, total	ug/L	Sump Grab	8	3	11			5.0000	5.0000			5.0000	nonpar	.99	**
Silver, total	ug/L	MW-1	8	9	17			1.0000	1.0000			0.5000	nonpar	.99	**
Silver, total	ug/L	MW-2	8	9	17			1.0000	1.0000			0.5000	nonpar	.99	**
Silver, total	ug/L	MW-3	8	9	17			1.0000	1.0000			0.5000	nonpar	.99	**
Silver, total	ug/L	MW-4	8	9	17			1.0000	1.0000			0.5000	nonpar	.99	**
Silver, total	ug/L	Sump Grab	8	3	11			1.0000	1.0000			0.5000	nonpar	.99	**
Sulfate	mg/L	MW-1	8	9	17	28.0150	25.1579	8.0900	8.6700	28.0150	28.0150	191.5417	normal		
Sulfate	mg/L	MW-2	8	9	17	27.0000	4.5416	24.3000	25.2000	27.0000	27.0000	56.5201	normal		
Sulfate	mg/L	MW-3	8	9	17	4.5625	0.4935	4.9700	5.1800	5.7405	5.8646	7.7702	normal		
Sulfate	mg/L	MW-4	8	9	17	9.9363	6.6715	9.9500	8.8700	9.9363	9.9363	53.3012	normal		
Sulfate	mg/L	Sump Grab	8	3	11	65.0375	38.7615	50.8000	68.8000	65.0375	65.0375	316.9875	normal		
Thallium, total	ug/L	MW-1	8	9	17			2.0000	2.0000			2.0000	nonpar	.99	**
Thallium, total	ug/L	MW-2	8	9	17			2.0000	2.0000			2.0000	nonpar	.99	**
Thallium, total	ug/L	MW-3	8	9	17			2.0000	2.0000			2.0000	nonpar	.99	**

N(back) and N(mon) = Non-outlier measurements in the background and monitoring periods.
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Table 1

Summary Statistics and Intermediate Computations for Combined Shewhart-CUSUM Control Charts

Constituent	Units	Well	N(back)	N(mon)	N(tot)	Mean	SD	R(i-1)	R(i)	S(i-1)	S(i)	Limit	Type	Conf	
Thallium, total	ug/L	MW-4	8	9	17			2.0000	2.0000			2.0000	nonpar	.99	**
Thallium, total	ug/L	Sump Grab	8	3	11			2.0000	2.0000			3.0000	nonpar	.99	**
Total organic halogen	mg/L	MW-1	7	9	17	0.0066	0.0022	0.0100	0.0150	0.0066	0.0128	0.0210	normal		
Total organic halogen	mg/L	MW-2	8	9	17	0.0289	0.0325	0.0360	0.0320	0.0289	0.0289	0.2401	normal		
Total organic halogen	mg/L	MW-3	8	9	17	0.0161	0.0139	0.0320	0.1550	0.0181	0.1430	0.1067	normal		
Total organic halogen	mg/L	MW-4	6	9	17	0.0142	0.0048	0.0870	0.0100	0.0822	0.0142	0.0453	normal		
Total organic halogen	mg/L	Sump Grab	7	3	10	0.0161	0.0113	0.0380	0.0520	0.0702	0.0947	0.0899	normal		
Total suspended solids	mg/L	MW-1	8	9	17	31.1250	21.1284	6.0000	3.0000	31.1250	31.1250	168.4598	normal		
Total suspended solids	mg/L	MW-2	8	9	17	53.6250	47.6443	14.0000	4.0000	53.6250	53.6250	363.3131	normal		
Total suspended solids	mg/L	MW-3	8	9	17	83.1250	43.1126	79.0000	1.0000	83.1250	83.1250	363.3569	normal		
Total suspended solids	mg/L	MW-4	6	9	17	26.6667	11.3078	5.0000	3.0000	26.6667	26.6667	100.1675	normal		
Total suspended solids	mg/L	Sump Grab	8	3	11	5.1250	2.6959	1.0000	1.0000	5.1250	5.1250	22.6483	normal		
Vanadium, total	ug/L	MW-1	8	9	17	1.2188	0.4051	1.0000	1.0000	1.2188	1.2188	3.8516	normal		
Vanadium, total	ug/L	MW-2	8	9	17	1.0813	0.1524	1.0000	1.0000	1.0813	1.0813	2.0716	normal		
Vanadium, total	ug/L	MW-3	8	9	17			1.0000	1.0000			1.4100	nonpar	.99	**
Vanadium, total	ug/L	MW-4	8	9	17			1.0000	1.0000			1.2600	nonpar	.99	**
Vanadium, total	ug/L	Sump Grab	8	3	11			1.0000	1.0000			1.7100	nonpar	.99	**
Zinc, total	ug/L	MW-1	8	9	17	14.3588	9.9482	5.0000	9.1800	14.3588	14.3588	79.0220	normal		
Zinc, total	ug/L	MW-2	8	9	17	7.4325	3.2733	9.1100	5.5500	7.4325	7.4325	28.7091	normal		
Zinc, total	ug/L	MW-3	8	9	17	11.2038	6.8501	5.0000	5.0000	11.2038	11.2038	55.7291	normal		
Zinc, total	ug/L	MW-4	8	9	17	14.4125	8.7494	5.0000	5.0400	14.4125	14.4125	71.2839	normal		
Zinc, total	ug/L	Sump Grab	8	3	11	15.3375	16.7809	11.4000	10.4000	15.3375	15.3375	124.4130	normal		

N(back) and N(mon) = Non-outlier measurements in the background and monitoring periods.
N(tot) = All independent measurements for that constituent and well.
For transformed data, mean and SD in transformed units and control limit in original units.
Conf = confidence level for passing initial test or one of two verification resamples (nonparametric test only).
* - Insufficient Data.
** - Detection Frequency < 25%.
*** - Zero Variance.

Table 6 – Summary of Current Year Detections

Table 6
Summary of Well/Detected Constituent Pairs that Exceed the Prediction Limit (Interwell)
Annual Water Quality Report
Goose Lake Quarry BUD
Permit No. 23-BUD-15-03

Well	Date	Compound	Result (ug/L)	Prediction Limit (ug/L)	GWPS (ug/L)	Monitoring Program
MW-2	5/29/2025	Barium	66.0	64.3	2000	Detection Monitoring
MW-2	5/29/2025	Sulfate	24.3	18.3	250*	Detection Monitoring
MW-2	9/17/2025	Sulfate	25.2	25.1	250*	Detection Monitoring
Sump	5/29/2025	Barium	123.00	64.3	2000	Detection Monitoring
Sump	9/17/2025	Barium	134.00	63.6	2000	Detection Monitoring
Sump	5/29/2025	Boron	53.4	31.0	6000	Detection Monitoring
Sump	9/17/2025	Boron	102.0	31.0	6000	Detection Monitoring
Sump	5/29/2025	Sulfate	50.8	18.3	250*	Detection Monitoring
Sump	9/17/2025	Sulfate	68.8	25.1	250*	Detection Monitoring

* = USEPA Recommendation as a Secondary MCL (non binding).

Table 7 – Summary of Ongoing and Newly Identified SSI *(Interwell)*

Table 7
Summary of Ongoing & Newly Identified SSI
Annual Water Quality Report
Goose Lake Quarry BUD
Permit No. 23-BUD-15-03

KEY:	SSI	SSL LCL>GWPS

Note: The absence of shading indicates that the condition does not exist.

Monitoring Well	Compound	Units	Sample Date	Each Result	Prediction Limit	95% LCL (ug/L)	GWPS Limit	SSI Initial Exceedance	Resamples Due	5th Background Sample
MW-1	Barium	ug/L	9/17/2019	87.50	65.4320	---	2,000	9/17/2019	NA	9/17/2019
MW-1	Barium	ug/L	4/6/2020	72.80	63.4396	---	2,000	9/17/2019	NA	9/17/2019
MW-1	Barium	ug/L	9/24/2020	45.90	61.9617	---	2,000	9/17/2019	NA	9/17/2019
MW-1	Barium	ug/L	4/27/2021	43.00	60.0740	43.6805	2,000	9/17/2019	NA	9/17/2019
MW-1	Barium	ug/L	9/28/2021	41.80	73.5207	38.1291	2,000	9/17/2019	NA	9/17/2019
MW-1	Barium	ug/L	5/11/2022	49.10	71.7596	42.128	2,000	9/17/2019	NA	9/17/2019
MW-1	Barium	ug/L	9/14/2022	40.70	69.7633	40.400	2,000	9/17/2019	NA	9/17/2019
MW-1	Barium	ug/L	5/10/2023	32.30	68.3582	35.016	2,000	9/17/2019	NA	9/17/2019
MW-1	Barium	ug/L	9/13/2023	44.10	67.2065	35.431	2,000	9/17/2019	NA	9/17/2019
MW-1	Barium	ug/L	5/15/2024	46.40	66.0927	35.525	2,000	9/17/2019	NA	9/17/2019
MW-1	Barium	ug/L	9/17/2024	36.10	65.0791	33.981	2,000	9/17/2019	NA	9/17/2019
MW-1	Barium	ug/L	5/29/2025	38.40	64.2528	37.088	2,000	9/17/2019	NA	9/17/2019
MW-1	Barium	ug/L	9/17/2025	37.40	63.5606	35.551	2,000	9/17/2019	NA	9/17/2019

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Permit No. 23-BUD-15-03

KEY:	SSI	SSL LCL>GWPS

Note: The absence of shading indicates that the condition does not exist.

Monitoring Well	Compound	Units	Sample Date	Each Result	Prediction Limit	95% LCL (ug/L)	GWPS Limit	SSI Initial Exceedance	Resamples Due	5th Background Sample
MW-1	Cadmium	ug/L	9/17/2019	<0.4	0.4000	---	5	5/11/2022	NA	9/17/2019
MW-1	Cadmium	ug/L	4/6/2020	<0.4	0.4000	---	5	5/11/2022	NA	9/17/2019
MW-1	Cadmium	ug/L	9/24/2020	<0.4	0.4000	---	5	5/11/2022	NA	9/17/2019
MW-1	Cadmium	ug/L	4/27/2021	<0.4	0.4000	0.200	5	5/11/2022	NA	9/17/2019
MW-1	Cadmium	ug/L	9/28/2021	<0.4	0.4000	0.200	5	5/11/2022	NA	9/17/2019
MW-1	Cadmium	ug/L	5/11/2022	1.02	0.4000	0.050	5	5/11/2022	NA	9/17/2019
MW-1	Cadmium	ug/L	9/14/2022	<0.4	0.4000	0.050	5	5/11/2022	NA	9/17/2019
MW-1	Cadmium	ug/L	5/10/2023	<0.4	0.4000	0.050	5	5/11/2022	NA	9/17/2019
MW-1	Cadmium	ug/L	9/13/2023	<0.4	0.4000	0.050	5	5/11/2022	NA	9/17/2019
MW-1	Cadmium	ug/L	5/15/2024	<0.4	0.4000	0.200	5	5/11/2022	NA	9/17/2019
MW-1	Cadmium	ug/L	9/17/2024	<0.4	0.4000	0.200	5	5/11/2022	NA	9/17/2019
MW-1	Cadmium	ug/L	5/29/2025	<0.4	0.4000	0.200	5	5/11/2022	NA	9/17/2019
MW-1	Cadmium	ug/L	9/17/2025	<0.4	0.4000	0.200	5	5/11/2022	NA	9/17/2019

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KEY:	SSI	SSL LCL>GWPS

Note: The absence of shading indicates that the condition does not exist.

Monitoring Well	Compound	Units	Sample Date	Each Result	Prediction Limit	95% LCL (ug/L)	GWPS Limit	SSI Initial Exceedance	Resamples Due	5th Background Sample
MW-1	Selenium	ug/L	9/17/2019	7.45	5.0000	---	50	9/17/2019	NA	9/17/2019
MW-1	Selenium	ug/L	4/6/2020	6.73	5.0000	---	50	9/17/2019	NA	9/17/2019
MW-1	Selenium	ug/L	9/24/2020	<5.00	5.0000	---	50	9/17/2019	NA	9/17/2019
MW-1	Selenium	ug/L	4/27/2021	<5.00	5.0000	2.4859	50	9/17/2019	NA	9/17/2019
MW-1	Selenium	ug/L	9/28/2021	<5.00	5.0000	1.7259	50	9/17/2019	NA	9/17/2019
MW-1	Selenium	ug/L	5/11/2022	<5.00	5.0000	2.500	50	9/17/2019	NA	9/17/2019
MW-1	Selenium	ug/L	9/14/2022	<5.00	5.0000	2.500	50	9/17/2019	NA	9/17/2019
MW-1	Selenium	ug/L	5/10/2023	<5.00	5.0000	2.500	50	9/17/2019	NA	9/17/2019
MW-1	Selenium	ug/L	9/13/2023	<5.00	5.0000	2.500	50	9/17/2019	NA	9/17/2019
MW-1	Selenium	ug/L	5/15/2024	<5.00	5.0000	2.500	50	9/17/2019	NA	9/17/2019
MW-1	Selenium	ug/L	9/17/2024	<5.00	5.0000	2.500	50	9/17/2019	NA	9/17/2019
MW-1	Selenium	ug/L	5/29/2025	<5.00	5.0000	2.500	50	9/17/2019	NA	9/17/2019
MW-1	Selenium	ug/L	9/17/2025	<5.00	5.0000	2.500	50	9/17/2019	NA	9/17/2019

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Monitoring Well	Compound	Units	Sample Date	Each Result	Prediction Limit	95% LCL (ug/L)	GWPS Limit	SSI Initial Exceedance	Resamples Due	5th Background Sample
MW-1	Sulfate	mg/L	9/17/2019	82.80	27.7099	---	**250***	9/17/2019	NA	9/17/2019
MW-1	Sulfate	mg/L	4/6/2020	30.40	24.8692	---	**250***	9/17/2019	NA	9/17/2019
MW-1	Sulfate	mg/L	9/24/2020	12.00	22.9755	---	**250***	9/17/2019	NA	9/17/2019
MW-1	Sulfate	mg/L	4/27/2021	7.72	21.5802	3.3692	**250***	9/17/2019	NA	9/17/2019
MW-1	Sulfate	mg/L	9/28/2021	10.80	21.9178	6.3336	**250***	9/17/2019	NA	9/17/2019
MW-1	Sulfate	mg/L	5/11/2022	11.90	20.1254	8.874	**250***	9/17/2019	NA	9/17/2019
MW-1	Sulfate	mg/L	9/14/2022	8.97	21.2893	8.234	**250***	9/17/2019	NA	9/17/2019
MW-1	Sulfate	mg/L	5/10/2023	13.80	20.5351	9.616	**250***	9/17/2019	NA	9/17/2019
MW-1	Sulfate	mg/L	9/13/2023	10.90	18.6454	9.649	**250***	9/17/2019	NA	9/17/2019
MW-1	Sulfate	mg/L	5/15/2024	19.10	19.2059	9.373	**250***	9/17/2019	NA	9/17/2019
MW-1	Sulfate	mg/L	9/17/2024	8.47	19.2059	9.106	**250***	9/17/2019	NA	9/17/2019
MW-1	Sulfate	mg/L	5/29/2025	8.09	19.2059	9.106	**250***	9/17/2019	NA	9/17/2019
MW-1	Sulfate	mg/L	9/17/2025	8.67	19.2059	9.106	**250***	9/17/2019	NA	9/17/2019

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Monitoring Well	Compound	Units	Sample Date	Each Result	Prediction Limit	95% LCL (ug/L)	GWPS Limit	SSI Initial Exceedance	Resamples Due	5th Background Sample
MW-1	Vanadium	ug/L	9/17/2019	1.88	1.4100	---	35	9/17/2019	NA	9/17/2019
MW-1	Vanadium	ug/L	4/6/2020	<1.00	1.4100	---	35	9/17/2019	NA	9/17/2019
MW-1	Vanadium	ug/L	9/24/2020	<1.00	1.4100	---	35	9/17/2019	NA	9/17/2019
MW-1	Vanadium	ug/L	4/27/2021	<1.00	1.4100	0.2474	35	9/17/2019	NA	9/17/2019
MW-1	Vanadium	ug/L	9/28/2021	<1.00	5.7600	0.500	35	9/17/2019	NA	9/17/2019
MW-1	Vanadium	ug/L	5/11/2022	1.27	1.9200	0.359	35	9/17/2019	NA	9/17/2019
MW-1	Vanadium	ug/L	9/14/2022	<1.00	1.9200	0.359	35	9/17/2019	NA	9/17/2019
MW-1	Vanadium	ug/L	5/10/2023	<1.00	1.9200	0.359	35	9/17/2019	NA	9/17/2019
MW-1	Vanadium	ug/L	9/13/2023	<1.00	1.9200	0.359	35	9/17/2019	NA	9/17/2019
MW-1	Vanadium	ug/L	5/15/2024	<1.00	1.9200	0.500	35	9/17/2019	NA	9/17/2019
MW-1	Vanadium	ug/L	9/17/2024	<1.00	1.9200	0.500	35	9/17/2019	NA	9/17/2019
MW-1	Vanadium	ug/L	5/29/2025	<1.00	1.9200	0.500	35	9/17/2019	NA	9/17/2019
MW-1	Vanadium	ug/L	9/17/2025	<1.00	1.9200	0.500	35	9/17/2019	NA	9/17/2019

*** = USEPA Reccommendation as a Secondary MCL (non binding).**

Table 7
Summary of Ongoing & Newly Identified SSI
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Permit No. 23-BUD-15-03

KEY:	SSI	SSL LCL>GWPS

Note: The absence of shading indicates that the condition does not exist.

Monitoring Well	Compound	Units	Sample Date	Each Result	Prediction Limit	95% LCL (ug/L)	GWPS Limit	SSI Initial Exceedance	Resamples Due	5th Background Sample
MW-2	Barium	ug/L	9/17/2019	58.60	65.4320	---	2,000	4/6/2020	NA	9/17/2019
MW-2	Barium	ug/L	4/6/2020	64.80	63.4396	---	2,000	4/6/2020	NA	9/17/2019
MW-2	Barium	ug/L	9/24/2020	56.60	61.9617	---	2,000	4/6/2020	NA	9/17/2019
MW-2	Barium	ug/L	4/27/2021	57.10	60.0740	56.001	2,000	4/6/2020	NA	9/17/2019
MW-2	Barium	ug/L	9/28/2021	75.00	73.5207	55.918	2,000	4/6/2020	NA	9/17/2019
MW-2	Barium	ug/L	5/11/2022	63.00	71.7596	55.513	2,000	4/6/2020	NA	9/17/2019
MW-2	Barium	ug/L	9/14/2022	54.10	69.7633	54.299	2,000	4/6/2020	NA	9/17/2019
MW-2	Barium	ug/L	5/10/2023	61.00	68.3582	55.743	2,000	4/6/2020	NA	9/17/2019
MW-2	Barium	ug/L	9/13/2023	60.00	67.2065	56.212	2,000	4/6/2020	NA	9/17/2019
MW-2	Barium	ug/L	5/15/2024	57.60	66.0927	55.518	2,000	4/6/2020	NA	9/17/2019
MW-2	Barium	ug/L	9/17/2024	61.10	65.0791	58.515	2,000	4/6/2020	NA	9/17/2019
MW-2	Barium	ug/L	5/29/2025	66.00	64.2528	58.115	2,000	4/6/2020	NA	9/17/2019
MW-2	Barium	ug/L	9/17/2025	62.10	63.5606	58.708	2,000	4/6/2020	NA	9/17/2019

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Monitoring Well	Compound	Units	Sample Date	Each Result	Prediction Limit	95% LCL (ug/L)	GWPS Limit	SSI Initial Exceedance	Resamples Due	5th Background Sample
MW-2	Cadmium	ug/L	9/17/2019	<0.4	0.400	---	5	5/11/2022	NA	9/17/2019
MW-2	Cadmium	ug/L	4/6/2020	<0.4	0.400	---	5	5/11/2022	NA	9/17/2019
MW-2	Cadmium	ug/L	9/24/2020	<0.4	0.400	---	5	5/11/2022	NA	9/17/2019
MW-2	Cadmium	ug/L	4/27/2021	<0.4	0.400	0.200	5	5/11/2022	NA	9/17/2019
MW-2	Cadmium	ug/L	9/28/2021	<0.4	0.400	0.200	5	5/11/2022	NA	9/17/2019
MW-2	Cadmium	ug/L	5/11/2022	0.67	0.400	0.114	5	5/11/2022	NA	9/17/2019
MW-2	Cadmium	ug/L	9/14/2022	<0.4	0.400	0.114	5	5/11/2022	NA	9/17/2019
MW-2	Cadmium	ug/L	5/10/2023	<0.4	0.400	0.114	5	5/11/2022	NA	9/17/2019
MW-2	Cadmium	ug/L	9/13/2023	<0.4	0.400	0.114	5	5/11/2022	NA	9/17/2019
MW-2	Cadmium	ug/L	5/15/2024	<0.4	0.400	0.200	5	5/11/2022	NA	9/17/2019
MW-2	Cadmium	ug/L	9/17/2024	<0.4	0.400	0.200	5	5/11/2022	NA	9/17/2019
MW-2	Cadmium	ug/L	5/29/2025	<0.4	0.400	0.200	5	5/11/2022	NA	9/17/2019
MW-2	Cadmium	ug/L	9/17/2025	<0.4	0.400	0.200	5	5/11/2022	NA	9/17/2019

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Note: The absence of shading indicates that the condition does not exist.

Monitoring Well	Compound	Units	Sample Date	Each Result	Prediction Limit	95% LCL (ug/L)	GWPS Limit	SSI Initial Exceedance	Resamples Due	5th Background Sample
MW-2	Chromium	ug/L	9/17/2019	7.46	22.5591	---	100	9/28/2021	NA	9/17/2019
MW-2	Chromium	ug/L	4/6/2020	6.65	22.0413	---	100	9/28/2021	NA	9/17/2019
MW-2	Chromium	ug/L	9/24/2020	5.13	20.3033	---	100	9/28/2021	NA	9/17/2019
MW-2	Chromium	ug/L	4/27/2021	6.87	22.2996	5.668	100	9/28/2021	NA	9/17/2019
MW-2	Chromium	ug/L	9/28/2021	23.00	22.6783	3.114	100	9/28/2021	NA	9/17/2019
MW-2	Chromium	ug/L	5/11/2022	15.00	21.8168	5.385	100	9/28/2021	NA	9/17/2019
MW-2	Chromium	ug/L	9/14/2022	5.96	20.9272	5.801	100	9/28/2021	NA	9/17/2019
MW-2	Chromium	ug/L	5/10/2023	5.13	20.2469	4.969	100	9/28/2021	NA	9/17/2019
MW-2	Chromium	ug/L	9/13/2023	3.48	19.9970	2.911	100	9/28/2021	NA	9/17/2019
MW-2	Chromium	ug/L	5/15/2024	1.49	19.4387	2.306	100	9/28/2021	NA	9/17/2019
MW-2	Chromium	ug/L	9/17/2024	7.19	19.4387	2.224	100	9/28/2021	NA	9/17/2019
MW-2	Chromium	ug/L	5/29/2025	6.99	18.4548	2.379	100	9/28/2021	NA	9/17/2019
MW-2	Chromium	ug/L	9/17/2025	3.94	18.2802	2.549	100	9/28/2021	NA	9/17/2019

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KEY:	SSI	SSL LCL>GWPS

Note: The absence of shading indicates that the condition does not exist.

Monitoring Well	Compound	Units	Sample Date	Each Result	Prediction Limit	95% LCL (ug/L)	GWPS Limit	SSI Initial Exceedance	Resamples Due	5th Background Sample
MW-2	Fluoride	mg/L	9/17/2019	0.430	0.3000	---	4	9/17/2019	NA	9/17/2019
MW-2	Fluoride	mg/L	4/6/2020	0.229	0.3000	---	4	9/17/2019	NA	9/17/2019
MW-2	Fluoride	mg/L	9/24/2020	0.128	0.3763	---	4	9/17/2019	NA	9/17/2019
MW-2	Fluoride	mg/L	4/27/2021	0.151	0.3577	0.116	4	9/17/2019	NA	9/17/2019
MW-2	Fluoride	mg/L	9/28/2021	0.228	0.3464	0.139	4	9/17/2019	NA	9/17/2019
MW-2	Fluoride	mg/L	5/11/2022	0.122	0.3329	0.115	4	9/17/2019	NA	9/17/2019
MW-2	Fluoride	mg/L	9/14/2022	0.158	0.3241	0.126	4	9/17/2019	NA	9/17/2019
MW-2	Fluoride	mg/L	5/10/2023	0.136	0.3000	0.120	4	9/17/2019	NA	9/17/2019
MW-2	Fluoride	mg/L	9/13/2023	0.114	0.3000	0.116	4	9/17/2019	NA	9/17/2019
MW-2	Fluoride	mg/L	5/15/2024	0.128	0.3000	0.118	4	9/17/2019	NA	9/17/2019
MW-2	Fluoride	mg/L	9/17/2024	0.129	0.3000	0.119	4	9/17/2019	NA	9/17/2019
MW-2	Fluoride	mg/L	5/29/2025	0.131	0.3000	0.119	4	9/17/2019	NA	9/17/2019
MW-2	Fluoride	mg/L	9/17/2025	0.134	0.3000	0.128	4	9/17/2019	NA	9/17/2019

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Note: The absence of shading indicates that the condition does not exist.

Monitoring Well	Compound	Units	Sample Date	Each Result	Prediction Limit	95% LCL (ug/L)	GWPS Limit	SSI Initial Exceedance	Resamples Due	5th Background Sample
MW-2	Manganese	ug/L	9/17/2019	57.00	102.0000	---	300	4/6/2020	NA	9/17/2019
MW-2	Manganese	ug/L	4/6/2020	108.00	102.0000	---	300	4/6/2020	NA	9/17/2019
MW-2	Manganese	ug/L	9/24/2020	<20.0	102.0000	---	300	4/6/2020	NA	9/17/2019
MW-2	Manganese	ug/L	4/27/2021	95.00	102.0000	29.379	300	4/6/2020	NA	9/17/2019
MW-2	Manganese	ug/L	9/28/2021	301.00	102.0000	22.033	300	4/6/2020	NA	9/17/2019
MW-2	Manganese	ug/L	5/11/2022	70.90	145.0000	9.801	300	4/6/2020	NA	9/17/2019
MW-2	Manganese	ug/L	9/14/2022	37.60	145.0000	23.124	300	4/6/2020	NA	9/17/2019
MW-2	Manganese	ug/L	5/10/2023	<20.0	145.0000	0.000	300	4/6/2020	NA	9/17/2019
MW-2	Manganese	ug/L	9/13/2023	23.50	145.0000	12.851	300	4/6/2020	NA	9/17/2019
MW-2	Manganese	ug/L	5/15/2024	<20.0	145.0000	8.855	300	4/6/2020	NA	9/17/2019
MW-2	Manganese	ug/L	9/17/2024	<20.0	145.0000	7.529	300	4/6/2020	NA	9/17/2019
MW-2	Manganese	ug/L	5/29/2025	31.40	145.0000	9.564	300	4/6/2020	NA	9/17/2019
MW-2	Manganese	ug/L	9/17/2025	<20.0	145.0000	6.084	300	4/6/2020	NA	9/17/2019

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Monitoring Well	Compound	Units	Sample Date	Each Result	Prediction Limit	95% LCL (ug/L)	GWPS Limit	SSI Initial Exceedance	Resamples Due	5th Background Sample
MW-2	Sulfate	mg/L	9/17/2019	23.40	27.7099	---	**250***	9/24/2020	NA	9/17/2019
MW-2	Sulfate	mg/L	4/6/2020	24.30	24.8692	---	**250***	9/24/2020	NA	9/17/2019
MW-2	Sulfate	mg/L	9/24/2020	24.00	22.9755	---	**250***	9/24/2020	NA	9/17/2019
MW-2	Sulfate	mg/L	4/27/2021	24.40	21.5802	23.6353	**250***	9/24/2020	NA	9/17/2019
MW-2	Sulfate	mg/L	9/28/2021	25.40	21.9178	23.9988	**250***	9/24/2020	NA	9/17/2019
MW-2	Sulfate	mg/L	5/11/2022	25.70	20.1254	24.177	**250***	9/24/2020	NA	9/17/2019
MW-2	Sulfate	mg/L	9/14/2022	24.40	21.2893	24.390	**250***	9/24/2020	NA	9/17/2019
MW-2	Sulfate	mg/L	5/10/2023	23.80	20.5351	24.062	**250***	9/24/2020	NA	9/17/2019
MW-2	Sulfate	mg/L	9/13/2023	20.70	18.6454	21.814	**250***	9/24/2020	NA	9/17/2019
MW-2	Sulfate	mg/L	5/15/2024	27.00	19.2059	21.734	**250***	9/24/2020	NA	9/17/2019
MW-2	Sulfate	mg/L	9/17/2024	25.20	19.2059	21.870	**250***	9/24/2020	NA	9/17/2019
MW-2	Sulfate	mg/L	5/29/2025	24.30	18.3271	22.005	**250***	9/24/2020	NA	9/17/2019
MW-2	Sulfate	mg/L	9/17/2025	25.20	25.1000	24.444	**250***	9/24/2020	NA	9/17/2019

*** = USEPA Reccommendation as a Secondary MCL (non binding).**

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Monitoring Well	Compound	Units	Sample Date	Each Result	Prediction Limit	95% LCL (ug/L)	GWPS Limit	SSI Initial Exceedance	Resamples Due	5th Background Sample
Sump	Barium	ug/L	4/6/2020	109.00	63.4396	---	2000	4/6/2020	NA	5/11/2022
Sump	Barium	ug/L	9/24/2020	108.00	61.9617	---	2000	4/6/2020	NA	5/11/2022
Sump	Barium	ug/L	4/27/2021	93.10	60.0740	---	2000	4/6/2020	NA	5/11/2022
Sump	Barium	ug/L	9/28/2021	127.00	73.5207	97.259	2000	4/6/2020	NA	5/11/2022
Sump	Barium	ug/L	5/11/2022	98.80	71.7596	93.869	2000	4/6/2020	NA	5/11/2022
Sump	Barium	ug/L	9/14/2022	79.00	69.7633	82.025	2000	4/6/2020	NA	5/11/2022
Sump	Barium	ug/L	5/10/2023	97.60	68.3582	83.455	2000	4/6/2020	NA	5/11/2022
Sump	Barium	ug/L	9/13/2023	133.00	67.2065	82.609	2000	4/6/2020	NA	5/11/2022
Sump	Barium	ug/L	5/15/2024	119.00	66.0927	86.5814	2000	4/6/2020	NA	5/11/2022
Sump	Barium	ug/L	9/17/2024	127.00	65.0791	105.7535	2000	4/6/2020	NA	5/11/2022
Sump	Barium	ug/L	5/29/2025	123.00	64.2528	120.3280	2000	4/6/2020	NA	5/11/2022
Sump	Barium	ug/L	9/17/2025	134.00	63.5606	120.2104	2000	4/6/2020	NA	5/11/2022

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Monitoring Well	Compound	Units	Sample Date	Each Result	Prediction Limit	95% LCL (ug/L)	GWPS Limit	SSI Initial Exceedance	Resamples Due	5th Background Sample
Sump	Boron	ug/L	4/6/2020	40.50	31.0000	---	6000	4/6/2020	NA	5/11/2022
Sump	Boron	ug/L	9/24/2020	54.80	31.0000	---	6000	4/6/2020	NA	5/11/2022
Sump	Boron	ug/L	4/27/2021	34.20	31.0000	---	6000	4/6/2020	NA	5/11/2022
Sump	Boron	ug/L	9/28/2021	30.40	31.0000	30.687	6000	4/6/2020	NA	5/11/2022
Sump	Boron	ug/L	5/11/2022	36.60	31.0000	29.614	6000	4/6/2020	NA	5/11/2022
Sump	Boron	ug/L	9/14/2022	63.50	31.0000	28.097	6000	4/6/2020	NA	5/11/2022
Sump	Boron	ug/L	5/10/2023	60.50	31.0000	33.293	6000	4/6/2020	NA	5/11/2022
Sump	Boron	ug/L	9/13/2023	81.10	31.0000	44.578	6000	4/6/2020	NA	5/11/2022
Sump	Boron	ug/L	5/15/2024	83.20	31.0000	61.9172	6000	4/6/2020	NA	5/11/2022
Sump	Boron	ug/L	9/17/2024	90.00	31.0000	67.6893	6000	4/6/2020	NA	5/11/2022
Sump	Boron	ug/L	5/29/2025	53.40	31.0000	62.9501	6000	4/6/2020	NA	5/11/2022
Sump	Boron	ug/L	9/17/2025	102.00	31.0000	64.2383	6000	4/6/2020	NA	5/11/2022

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Monitoring Well	Compound	Units	Sample Date	Each Result	Prediction Limit	95% LCL (ug/L)	GWPS Limit	SSI Initial Exceedance	Resamples Due	5th Background Sample
Sump	Chloride	mg/L	4/6/2020	35.500	34.1000	---	**250***	4/6/2020	NA	5/11/2022
Sump	Chloride	mg/L	9/24/2020	29.300	34.1000	---	**250***	4/6/2020	NA	5/11/2022
Sump	Chloride	mg/L	4/27/2021	23.600	34.1000	---	**250***	4/6/2020	NA	5/11/2022
Sump	Chloride	mg/L	9/28/2021	19.000	34.1000	20.665	**250***	4/6/2020	NA	5/11/2022
Sump	Chloride	mg/L	5/11/2022	13.000	34.1000	15.237	**250***	4/6/2020	NA	5/11/2022
Sump	Chloride	mg/L	9/14/2022	11.900	34.1000	12.144	**250***	4/6/2020	NA	5/11/2022
Sump	Chloride	mg/L	5/10/2023	22.400	34.1000	12.261	**250***	4/6/2020	NA	5/11/2022
Sump	Chloride	mg/L	9/13/2023	22.900	34.1000	12.432	**250***	4/6/2020	NA	5/11/2022
Sump	Chloride	mg/L	5/15/2024	18.200	34.1000	14.4418	**250***	4/6/2020	NA	5/11/2022
Sump	Chloride	mg/L	9/17/2024	23.700	34.1000	19.6704	**250***	4/6/2020	NA	5/11/2022
Sump	Chloride	mg/L	5/29/2025	14.400	34.1000	16.0403	**250***	4/6/2020	NA	5/11/2022
Sump	Chloride	mg/L	9/17/2025	15.100	34.1000	14.1822	**250***	4/6/2020	NA	5/11/2022

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Monitoring Well	Compound	Units	Sample Date	Each Result	Prediction Limit	95% LCL (ug/L)	GWPS Limit	SSI Initial Exceedance	Resamples Due	5th Background Sample
Sump	Copper	mg/L	4/6/2020	<2.0	7.6800	---	1,300	9/24/2020	NA	5/11/2022
Sump	Copper	mg/L	9/24/2020	11.200	7.6800	---	1,300	9/24/2020	NA	5/11/2022
Sump	Copper	mg/L	4/27/2021	<3.0	7.6800	---	1,300	9/24/2020	NA	5/11/2022
Sump	Copper	mg/L	9/28/2021	5.680	7.6800	0.7506	1,300	9/24/2020	NA	5/11/2022
Sump	Copper	mg/L	5/11/2022	11.000	7.6800	3.3090	1,300	9/24/2020	NA	5/11/2022
Sump	Copper	mg/L	9/14/2022	<3.0	7.6800	1.0169	1,300	9/24/2020	NA	5/11/2022
Sump	Copper	mg/L	5/10/2023	<3.0	7.6800	1.0169	1,300	9/24/2020	NA	5/11/2022
Sump	Copper	mg/L	9/13/2023	<3.0	7.6800	0.0000	1,300	9/24/2020	NA	5/11/2022
Sump	Copper	mg/L	5/15/2024	15.100	7.6800	0.0000	1,300	9/24/2020	NA	5/11/2022
Sump	Copper	mg/L	9/17/2024	<3.0	7.6800	0.0000	1,300	9/24/2020	NA	5/11/2022
Sump	Copper	mg/L	5/29/2025	<3.0	7.6800	0.0000	1,300	9/24/2020	NA	5/11/2022
Sump	Copper	mg/L	9/17/2025	3.210	7.6800	0.0000	1,300	9/24/2020	NA	5/11/2022

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Monitoring Well	Compound	Units	Sample Date	Each Result	Prediction Limit	95% LCL (ug/L)	GWPS Limit	SSI Initial Exceedance	Resamples Due	5th Background Sample
Sump	Manganese	ug/L	4/6/2020	<20	102.0000	---	300	9/24/2020	NA	5/11/2022
Sump	Manganese	ug/L	9/24/2020	103.00	102.0000	---	300	9/24/2020	NA	5/11/2022
Sump	Manganese	ug/L	4/27/2021	<20	102.0000	---	300	9/24/2020	NA	5/11/2022
Sump	Manganese	ug/L	9/28/2021	21.50	102.0000	0.000	300	9/24/2020	NA	5/11/2022
Sump	Manganese	ug/L	5/11/2022	<20	145.0000	0.000	300	9/24/2020	NA	5/11/2022
Sump	Manganese	ug/L	9/14/2022	<20	145.0000	7.895	300	9/24/2020	NA	5/11/2022
Sump	Manganese	ug/L	5/10/2023	<20	145.0000	7.895	300	9/24/2020	NA	5/11/2022
Sump	Manganese	ug/L	9/13/2023	<20	145.0000	10.000	300	9/24/2020	NA	5/11/2022
Sump	Manganese	ug/L	5/15/2024	<20	145.0000	10.000	300	9/24/2020	NA	5/11/2022
Sump	Manganese	ug/L	9/17/2024	<20	145.0000	10.000	300	9/24/2020	NA	5/11/2022
Sump	Manganese	ug/L	5/29/2025	<20	145.0000	10.000	300	9/24/2020	NA	5/11/2022
Sump	Manganese	ug/L	9/17/2025	<20	145.0000	10.000	300	9/24/2020	NA	5/11/2022

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Monitoring Well	Compound	Units	Sample Date	Each Result	Prediction Limit	95% LCL (ug/L)	GWPS Limit	SSI Initial Exceedance	Resamples Due	5th Background Sample
Sump	Sulfate	mg/L	4/6/2020	122.00	24.8692	---	**250***	4/6/2020	NA	5/11/2022
Sump	Sulfate	mg/L	9/24/2020	66.80	22.9755	---	**250***	4/6/2020	NA	5/11/2022
Sump	Sulfate	mg/L	4/27/2021	120.00	21.5802	---	**250***	4/6/2020	NA	5/11/2022
Sump	Sulfate	mg/L	9/28/2021	33.60	21.9178	48.298	**250***	4/6/2020	NA	5/11/2022
Sump	Sulfate	mg/L	5/11/2022	39.00	20.1254	30.608	**250***	4/6/2020	NA	5/11/2022
Sump	Sulfate	mg/L	9/14/2022	43.60	21.2893	23.683	**250***	4/6/2020	NA	5/11/2022
Sump	Sulfate	mg/L	5/10/2023	76.70	20.5351	31.408	**250***	4/6/2020	NA	5/11/2022
Sump	Sulfate	mg/L	9/13/2023	20.10	18.6454	24.461	**250***	4/6/2020	NA	5/11/2022
Sump	Sulfate	mg/L	5/15/2024	75.20	19.2059	30.3306	**250***	4/6/2020	NA	5/11/2022
Sump	Sulfate	mg/L	9/17/2024	100.00	19.2059	38.6489	**250***	4/6/2020	NA	5/11/2022
Sump	Sulfate	mg/L	5/29/2025	50.80	18.3271	31.9514	**250***	4/6/2020	NA	5/11/2022
Sump	Sulfate	mg/L	9/17/2025	68.80	25.1000	56.0764	**250***	4/6/2020	NA	5/11/2022

*** = USEPA Reccommendation as a Secondary MCL (non binding).**

Appendix A

Statistical Report
(Combined Spring & Fall Data)

Results of the Ground Water Statistics

for Goose Lake Quarry

Semi-Annual Monitoring Events in 2025

Prepared for:
Goose Lake Quarry
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INTRODUCTION

This report contains the results of the statistical analyses used to evaluate the ground water data obtained during the 2025 semi-annual monitoring events at Goose Lake Quarry. The ground water at Goose Lake Quarry is monitored by wells MW-1, MW-2, MW-3, MW-4, and Sump Grab/Sump Composite. These monitoring wells were sampled on May 29, 2025 and September 17, 2025 and analyzed for the parameters required by permit.

The statistical plan is designed to detect a release from the facility at the earliest indication so that it is protective of human health and the environment. Both interwell and intrawell methodologies are described and then applied to the Goose Lake Quarry data. The statistical plan conforms with IAC 567, Chapter 113.10, USEPA Guidance document ("*Statistical Analysis of Ground-Water Monitoring Data at RCRA Facilities, Unified Guidance"*, March 2009), and the American Society for Testing and Materials (ASTM) standard D6312-98, *Developing Appropriate Statistical Approaches for Ground-Water Detection Monitoring Programs*.

Ground Water Monitoring Program

The groundwater monitoring network for Goose Lake Quarry includes wells MW-1, MW-2, MW-3, MW-4, and Sump Grab/Sump Composite. Each of the groundwater monitoring wells is to be sampled at least semiannually and analyzed for the detection monitoring parameters listed below.

Detection monitoring constituents for Goose Lake Quarry

Aluminum, Total	Fluoride	Thallium, Total
Antimony, Total	Iron, Total	Vanadium, Total
Arsenic, Total	Lead, Total	Zinc, Total
Barium, Total	Magnesium, Total	Total suspended solids (TSS)
Beryllium, Total	Manganese, Total	Chemical oxygen demand (COD)
Boron, Total	Mercury, Total	Total Organic Halogen (TOX)
Cadmium, Total	Molybdenum, Total	Phenols
Chloride	Nickel, Total	Nitrogen ammonia
Chromium, Total	Selenium, Total	Formaldehyde
Cobalt, Total	Silver, Total	Methyl ethyl ketone
Copper, Total	Sulfate	

The ground water data obtained during the first and second semi-annual monitoring events in 2025 are summarized in Attachment A. The historical ground water data obtained from August 2018 through 2025 are summarized in Attachment B.

STATISTICAL METHODOLOGIES FOR DETECTION MONITORING

IAC 567, Chapter 113.10(4) provides several options for statistically evaluating the ground water data at those wells that monitor the open cells or contiguous MSWLF units. The preferred methods for comparing ground water data are using either prediction limits or using control charts. Both of these methods were applied to the Goose Lake Quarry data using the DUMPStat® statistical program. DUMPStat® is a program for the statistical analysis of groundwater monitoring data using methods described in "Statistical Methods for Groundwater Monitoring" by Dr. Robert D. Gibbons. The DUMPStat program is completely consistent

with all USEPA regulations and guidance and the ASTM D6312-98 guidance. Ground water statistics are to be done on the constituents listed.

Interwell Statistics: Upgradient versus Downgradient Comparisons

Interwell statistics are appropriate when the upgradient and downgradient wells monitor the same ground water formation and there is similar variability in the upgradient and downgradient zones. Site prediction limits are determined by pooling the historical ground water data from hydraulically upgradient wells. This statistical method compares the current downgradient determinations to site prediction limits and checks for exceedances. The type of prediction limit utilized (e.g., parametric or nonparametric) is based on the detection frequency and the data distribution of each parameter in the background data. The distribution of the background data is tested for normality using the Shapiro-Wilk test (Gibbons, 1994 and USEPA 1992). If the constituent is normally distributed, a normal prediction limit is used. If normality is rejected by the Shapiro-Wilk test, the background data is transformed by taking the natural logarithm. The Shapiro-Wilk test is then reapplied on the transformed data. If it is not rejected, lognormal prediction limits are used. If after transforming the data, normality is still rejected, nonparametric prediction limits are used for that analyte. The nonparametric prediction limit is the largest determination in the background measurements. For constituents where the background detection frequency is greater than 0% but less than 50%, nonparametric prediction limits will be used. If the detection frequency is 0% after thirteen samples have been collected, the practical quantitation limit (PQL) becomes the nonparametric prediction limit.

Intrawell statistics

Intrawell statistics are appropriate for facilities where the upgradient wells do not accurately characterize the natural ground water conditions downgradient from the facility. This may be due to different hydrogeological conditions where the wells are screened, having too few upgradient wells to account for the spatial variability, or the site exhibiting no definable hydraulic gradient. Intrawell statistics compare new measurements to the historical data at each ground water monitoring well independently. It is recommended that at least eight background samples be obtained prior to performing the statistics.

The most useful technique for intrawell comparisons is the combined Shewhart-CUSUM control chart. This control chart procedure is useful because it will detect releases both in terms of the constituent concentration and cumulative increases. This method is also extremely sensitive to sudden and gradual releases. A requirement for constructing these control charts is that the parameter is detected at a frequency greater than or equal to 25%, otherwise the data variance is not properly defined.

The combined Shewhart-CUSUM control chart assumes that the data are independent and normally distributed with a fixed mean and a constant variance. Independent data is much more critical than the normality assumption. To achieve independence, it is recommended that data are collected no more frequently than quarterly to account for seasonal variation. The combined Shewhart-CUSUM control chart is extremely robust to deviations from normality. Because the control charts do not use a specific multiplier based on a normal distribution, it is more conservative to assume normality.

It is recommended that at least eight rounds of data be available to provide a reliable estimate of the mean and standard deviation of the parameter concentration, although the control charts will be generated with

as few as four data points. Having only four data points may produce greater uncertainty in the mean and standard deviation of the background data, leading to higher control limits, thus having a potentially high false negative rate.

Many groundwater monitoring parameters are not detected at a frequency great enough to generate the combined Shewhart-CUSUM control charts. For constituents that are detected less than 25% of the time at a particular well, the data should be plotted as a time series until a sufficient number of data points are available to provide a 99% confidence nonparametric prediction limit. Thirteen independent measurements (with 1 resample) are necessary to achieve a 99% confidence (1% false positive rate) nonparametric prediction limit. Eight independent measurements (for pass 1 of 2 resamples) are necessary to achieve a 99% confidence nonparametric prediction limit. The nonparametric prediction limit is the largest determination out of the data set collected for that well and parameter. If the detection frequency is 0% after thirteen samples have been collected, the practical quantitation limit (PQL) becomes the nonparametric prediction limit.

In developing the statistical background, the historical data must be thoroughly screened for anomalous data due to sampling error, analytical error, or simply by chance alone. An erroneous data point, if not removed prior to the mean and variance computations, would yield a larger control limit thus increasing the false negative rate. The DUMPStat® program screens for outliers using the Dixon test. Anomalous data will still be plotted on the graphs (with a unique symbol) but will not be included in the calculations.

The verification resample plan is an integral function of the statistical plan to reduce the probability that anomalous data obtained after the background has been established, is indicative of a release.

The background data for each well and constituent is tested for existing trends using Sen's nonparametric estimate of trend. If contamination exists prior to completing the background, the control limits could be potentially high and this control chart method would not be able to detect an increasing trend unless the increase is severe.

First Semi-Annual Monitoring Event in 2025

Results of the Interwell Statistics

The background data used in this statistical analysis includes the ground water data collected from ground water wells MW-3 and MW-4 during the period from August 2018 through the May 2025 data. A summary of the background data from monitoring wells MW-3 and MW-4 is listed in Attachment C, Table 1 “Upgradient Data”. This statistical method compares the current downgradient determinations to site prediction limits and checks for exceedances.

Table 2 “Most Current Downgradient Monitoring Data”, summarizes the May 2025 data from downgradient wells MW-1, MW-2, and Sump Grab compared to the site prediction limits. Prediction limit exceedances are flagged with asterisks. For the most current data, the site prediction limit exceedances detected are summarized in the table below.

Prediction Limit Exceedances at Goose Lake Quarry during the First Semi-Annual Monitoring Event in 2025

Well	Parameter	Result	Prediction Limit	Prediction Limit Type	Verified/ Awaiting verification
MW-2	Barium, µg/L	66.0	64.2528	Normal	Awaiting verification
	Nickel, µg/L	2.97	2.5100	Nonparametric	Awaiting verification
	Sulfate, mg/L	24.3	18.3271	Lognormal	Verified
Sump Comp	Barium, µg/L	123	64.2528	Normal	Verified
	Boron, µg/L	53.4	31.0000	Nonparametric	Verified
	Sulfate, mg/L	50.8	18.3271	Lognormal	Verified

The detection frequencies of the parameters in the up and down gradient monitoring wells are summarized in Table 3. The constituents rarely detected (less than 50% in the upgradient wells) use nonparametric prediction limits.

Table 4 summarizes the results of the Shapiro-Wilk test. Table 5 is a summary of the statistics and prediction limits determined. Time series graphs of each of the parameters at each well with the corresponding prediction limits are attached.

A statistical power curve indicates the expected false assessments for the site as a whole. The false positive rate for interwell analyses is the percentage of failures when the upgradient versus downgradient true mean difference equals zero. False negative rate indicates the chance of missing contamination at a single well for a single constituent. The statistical power is a function of the number of wells included, the number of constituents compared, the detection frequencies, and the data distributions involved. For interwell analysis, the site-wide false positive rate is 4% and the test becomes sensitive to 4 standard deviation unit increases over background.

Results of the Intrawell Statistics

The monitoring constituents at wells MW-1, MW-2, MW-3, MW-4, and Sump Grab were evaluated using the combined Shewhart-CUSUM control chart method. The previous background included the five rounds of data obtained from 2018 through 2019. These comparisons should not be considered binding since a minimum of eight rounds of data is recommended. The background was updated to include the eight rounds of data from 2018 through April 2021. The background at Sump Grab to includes the rounds of data from 2018 through May 2024.

A summary of the intrawell statistics is included in Attachment D, Table 1 "Summary Statistics and Intermediate Computations for Combined Shewhart-CUSUM Control Charts." The control charts or time series graphs follow the summary table. For the May 2025 data, the control limit exceedances detected are summarized in the table below.

Summary of Exceedances – First Semi-Annual Monitoring Event In 2025

Well	Parameter	Result	CUSUM Value	Control Limit	Control Limit Type	Verified/Awaiting Verification
MW-2	Nickel, µg/L	2.97	2.7696	2.3974	Normal	Awaiting verification
MW-4	TOX (mg/L)	0.087	0.0822	0.0453	Normal	Awaiting verification
Sump Grab	Nickel, µg/L	1.86	--	1.0000	Nonparametric	Awaiting verification

An increasing trend was detected in the updated background data for chromium at MW-1.

A control chart factor was selected to provide a balance of the site-wide false positive and false negative rates. A statistical power curve indicates the expected false assessments for the site as a whole. The site-wide false positive rate is 13% and the test becomes sensitive to 4 standard deviation units over background.

Second Semi-Annual Monitoring Event in 2025

Results of the Interwell Statistics

The background data used in this statistical analysis includes the ground water data collected from ground water wells MW-3 and MW-4 during the period from August 2018 through the current data. A summary of the background data from monitoring wells MW-3 and MW-4 is listed in Attachment E, Table 1 "Upgradient Data". This statistical method compares the current downgradient determinations to site prediction limits and checks for exceedances.

Table 2 "Most Current Downgradient Monitoring Data", summarizes the current data from downgradient wells MW-1, MW-2, and Sump Grab compared to the site prediction limits. Prediction limit exceedances are flagged with asterisks. For the most current data, the site prediction limit exceedances detected are summarized in the table below.

Prediction Limit Exceedances at Goose Lake Quarry during the Second Semi-Annual Monitoring Event in 2025

Well	Parameter	Result	Prediction Limit	Prediction Limit Type	Verified/ Awaiting verification
MW-2	Sulfate, mg/L	25.2	25.1000	Nonparametric	Verified
Sump Grab	Barium, µg/L	134	63.5606	Normal	Verified
	Boron, µg/L	102	31.0000	Nonparametric	Verified
	Sulfate, mg/L	68.8	25.1000	Nonparametric	Verified

The detection frequencies of the parameters in the up and down gradient monitoring wells are summarized in Table 3. The constituents rarely detected (less than 50% in the upgradient wells) use nonparametric prediction limits.

Table 4 summarizes the results of the Shapiro-Wilk test. Table 5 is a summary of the statistics and prediction limits determined. Time series graphs of each of the parameters at each well with the corresponding prediction limits are attached.

A statistical power curve indicates the expected false assessments for the site as a whole. The false positive rate for interwell analyses is the percentage of failures when the upgradient versus downgradient true mean difference equals zero. False negative rate indicates the chance of missing contamination at a single well for a single constituent. The statistical power is a function of the number of wells included, the number of constituents compared, the detection frequencies, and the data distributions involved. For interwell analysis, the site-wide false positive rate is 4% and the test becomes sensitive to 4 standard deviation unit increases over background.

Results of the Intrawell Statistics

The monitoring constituents at wells MW-1, MW-2, MW-3, MW-4, and Sump Grab were evaluated using the combined Shewhart-CUSUM control chart method. The background includes the eight rounds of data from 2018 through April 2021. The background at Sump Grab to includes the rounds of data from 2018 through May 2024.

A summary of the intrawell statistics is included in Attachment F, Table 1 "Summary Statistics and Intermediate Computations for Combined Shewhart-CUSUM Control Charts." The control charts or time series graphs follow the summary table. For the September 2025 data, the control limit exceedances detected are summarized in the table below.

Summary of Exceedances – Second Semi-Annual Monitoring Event In 2025

Well	Parameter	Result	CUSUM Value	Control Limit	Control Limit Type	Verified/Awaiting Verification
MW-3	TOX (mg/L)	0.032	0.1430	0.1067	Normal	Awaiting verification
Sump Grab	TOX (mg/L)	0.038	0.0947	0.0899	Normal	Awaiting verification

An increasing trend was detected in the updated background data for chromium at MW-1.

A control chart factor was selected to provide a balance of the site-wide false positive and false negative rates. A statistical power curve indicates the expected false assessments for the site as a whole. The site-wide false positive rate is 13% and the test becomes sensitive to 4 standard deviation units over background.

CONCLUSIONS

This document describes a comprehensive statistical plan designated for the Goose Lake Quarry. The groundwater monitoring network for Goose Lake Quarry includes wells MW-1, MW-2, MW-3, MW-4, and Sump Grab/Sump Composite. The ground water data was compared to background using prediction limits (interwell) and using control charts (intrawell). Following both semi-annual monitoring events in 2025, the only current statistical exceedances are verified site prediction limit exceedances for sulfate at MW-2 and

barium, boron, and sulfate at Sump Grab. Using intrawell comparisons, there are no current verified control limit exceedances detected.

Attachment A

Ground Water Data

Table 1

Analytical Data Summary for 5/29/2025

Constituents	Units	MW-1	MW-2	MW-3	MW-4	Sump Grab
Aluminum, total	ug/L	<100	<100	<100	<100	<100
Ammonia nitrogen	mg/L	.12	<.10	<.10	<.10	<.10
Antimony, total	ug/L	<5	<5	<5	<5	<5
Arsenic, total	ug/L	<10	<10	<10	<10	<10
Barium, total	ug/L	38.4	66.0	29.3	41.7	123.0
Beryllium, total	ug/L	<1	<1	<1	<1	<1
Boron, total	ug/L	<20.0	<20.0	<20.0	<20.0	53.4
Cadmium, total	ug/L	<.4	<.4	<.4	<.4	<.4
Chemical oxygen demand	mg/L	<10	<10	<10	<10	<10
Chloride	mg/L	3.130	2.770	.592	3.170	14.400
Chromium, total	ug/L	3.08	6.99	6.59	4.43	<1.00
Cobalt, total	ug/L	<2	<2	<2	<2	<2
Copper, total	ug/L	<3	<3	<3	<3	<3
Field Temperature	F	57.0	55.6	54.7	53.2	65.8
Fluoride	mg/L	<.100	.131	<.100	.149	.133
Formaldehyde	ug/L	<100	<100	<100	<100	<100
Iron, total	ug/L	26.9	57.9	31.0	22.5	41.0
Lead, total	ug/L	<2	<2	<2	<2	<2
Magnesium, total	mg/L	49.9	48.1	22.5	41.9	38.5
Manganese, total	ug/L	<20.0	31.4	<20.0	<20.0	<20.0
Mercury, total	ug/L	<2	<2	<2	<2	<2
Methyl ethyl ketone	ug/L	<10	<10	<10	<10	<10
Molybdenum, total	ug/L	<10	<10	<10	<10	<10
Nickel, total	ug/L	1.93	2.97	1.40	1.83	1.86
pH (Field)	SU	8.5	8.2	8.0	7.8	8.2
Phenols	ug/L	<10	<10	<10	<10	<10
Selenium, total	ug/L	<5	<5	<5	<5	<5
Silver, total	ug/L	<1	<1	<1	<1	<1
Specific conductivity (Field)	uS	460	525	321	490	560
Sulfate	mg/L	8.09	24.30	4.97	9.95	50.80
Thallium, total	ug/L	<2	<2	<2	<2	<2
Total organic halogen	mg/L	<.010	.036	.032	.087	.038
Total suspended solids	mg/L	6	14	79	5	<1
Vanadium, total	ug/L	<1	<1	<1	<1	<1
Zinc, total	ug/L	<5.00	9.11	5.00	<5.00	11.40

* - The displayed value is the arithmetic mean of multiple database matches.

Table 2

Analytical Data Summary for 9/17/2025

Constituents	Units	MW-1	MW-2	MW-3	MW-4	Sump Grab
Aluminum, total	ug/L	<100	<100	<100	<100	<100
Ammonia nitrogen	mg/L	<.10	<.10	<.10	<.10	.11
Antimony, total	ug/L	<5	<5	<5	<5	<5
Arsenic, total	ug/L	<10	<10	<10	<10	<10
Barium, total	ug/L	37.4	62.1	26.4	40.2	134.0
Beryllium, total	ug/L	<1	<1	<1	<1	<1
Bis(2-ethylhexyl)phthalate	mg/L					<10
Boron, total	ug/L	20.9	<20.0	<20.0	<20.0	102.0
Cadmium, total	ug/L	<.4	<.4	<.4	<.4	<.4
Chemical oxygen demand	mg/L	12	<10	<10	10	10
Chloride	mg/L	3.290	2.940	.623	2.920	15.100
Chromium, total	ug/L	4.26	3.94	1.11	2.51	<1.00
Cobalt, total	ug/L	<2	<2	<2	<2	<2
Conductivity	uS/cm	589	620	371	567	558
Copper, total	ug/L	<3.00	<3.00	<3.00	<3.00	3.21
Field Temperature	F	58.1	56.8	56.8	55.9	72.7
Fluoride	mg/L	<.100	.134	<.100	.111	<.100
Formaldehyde	ug/L	<100	<100	<100	<100	
Iron, total	ug/L	53.5	36.1	15.7	16.4	43.4
Lead, total	ug/L	<2	<2	<2	<2	<2
Magnesium, total	mg/L	47.8	46.1	21.1	41.0	32.2
Manganese, total	ug/L	<20	<20	<20	<20	<20
Mercury, total	ug/L	<2	<2	<2	<2	<2
Methyl ethyl ketone	ug/L	<10	<10	<10	<10	<10
Molybdenum, total	ug/L	<10	<10	<10	<10	<10
Nickel, total	ug/L	<1	<1	<1	<1	<1
pH (Field)	SU	8.6	8.1	8.2	7.8	8.3
Phenols	ug/L	<10	<10	<10	<10	<10
Selenium, total	ug/L	<5	<5	<5	<5	<5
Silver, total	ug/L	<1	<1	<1	<1	<1
Specific conductivity (Field)	uS	483	538	322	465	497
Sulfate	mg/L	8.67	25.20	5.18	8.87	68.80
Thallium, total	ug/L	<2	<2	<2	<2	<2
Total organic halogen	mg/L	.015	.032	.155	<.010	.052
Total suspended solids	mg/L	3	4	1	3	1
Vanadium, total	ug/L	<1	<1	<1	<1	<1
Zinc, total	ug/L	9.18	5.55	<5.00	5.04	10.40

* - The displayed value is the arithmetic mean of multiple database matches.

Attachment B

Historical Ground Water Data

Table 1

Analytical Data Summary for MW-1

Constituents	Units	8/23/2018	11/14/2018	1/10/2019	4/1/2019	9/17/2019	4/6/2020	9/24/2020	4/27/2021	9/28/2021	5/11/2022	9/14/2022	5/10/2023	9/13/2023
Aluminum, total	ug/L	1070.0	26.2	47.0	65.7	877.0	89.5	53.5	134.0	<100.0	330.0	125.0	<100.0	<100.0
Ammonia nitrogen	mg/L	<.10	<.10	.13	<.10	<.10	<.10	<.10	<.10	<.10	<.10	<.10	<.10	<.10
Antimony, total	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Arsenic, total	ug/L	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Barium, total	ug/L	77.8	51.6	49.0	54.6	87.5	72.8	45.9	43.0	41.8	49.1	40.7	32.3	44.1
Beryllium, total	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Boron, total	ug/L	21.3	<20.0	21.8	<20.0	<20.0	31.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0
Cadmium, total	ug/L	<.40	<.40	<.40	<.40	<.40	<.40	<.40	<.40	<.40	1.02	<.40	<.40	<.40
Chemical oxygen demand	mg/L	10	9	15	7	<6	<7	7	<7	<7	8	<7	6	<10
Chloride	mg/L	6.47	6.75	5.14	4.77	11.20	5.35	3.77	3.11	3.75	3.88	3.57	11.60	4.81
Chromium, total	ug/L	1.68	<1.00	1.58	3.46	8.86	9.68	4.83	11.30	2.44	12.30	8.33	2.59	7.12
Cobalt, total	ug/L	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Conductivity	uS/cm													
Copper, total	ug/L	3.85	2.75	<2.00	6.80	3.44	4.17	<2.00	6.72	<3.00	3.50	<3.00	<3.00	<3.00
Field Temperature	F									55.2				54.7
Fluoride	mg/L	<.100	<.100	<.100	.102	.270	.212	.137	.104	.141	<.100	.108	.138	.101
Formaldehyde	ug/L	<100	<100	<100	<100	<100	<50	<50	<100	<100	<100	<100	<100	<100
Iron, total	ug/L	562.0	38.8	62.1	164.0	710.0	142.0	56.2	122.0	46.4	338.0	140.0	<10.0	79.4
Lead, total	ug/L	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Magnesium, total	mg/L	34.1	30.9	33.3	34.9	46.3	31.9	47.9	55.2	49.9	54.9	45.3	34.0	50.3
Manganese, total	ug/L	57.5	<20.0	<20.0	<20.0	73.6	<20.0	<20.0	<20.0	<20.0	31.4	<20.0	<20.0	<20.0
Mercury, total	ug/L	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Methyl ethyl ketone	ug/L	<10	<10	<10	<10	<100	<5	<5	<10	<5	<10	<10	<10	<10
Molybdenum, total	ug/L	2.22	<2.00	2.49	<2.00	<2.00	<2.00	<2.00	<10.00	<10.00	<10.00	<10.00	<10.00	<10.00
Nickel, total	ug/L	<1.00	<1.00	1.00	<1.00	1.47	<1.00	<1.00	3.08	<1.00	<1.00	<1.00	<1.00	<1.00
pH (Field)	SU							8.0		8.5	8.4	8.6		8.3
Phenols	ug/L	<5	<5	6	27	13	<5	13	<5	8	8	<5	<8	<8
Selenium, total	ug/L	<5.00	<5.00	5.15	<5.00	7.45	6.73	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
Silver, total	ug/L	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5
Specific conductivity (Field)	uS							520		530	544	459		475
Sulfate	mg/L	14.70	44.80	15.80	15.90	82.80	30.40	12.00	7.72	10.80	11.90	8.97	13.80	10.90
Thallium, total	ug/L	<2	<2	<2	<2	<2	<2	<2	<3	<3	<3	<3	<3	<3
Total organic halogen	mg/L	<.0050	.0066	.0094	<.0050	.0910	<.0100	<.0100	.0100	<.0200	<.0100	<.0100	<.0100	.0120
Total Organic Halogens-1	mg/L								.016					
Total Organic Halogens-2	mg/L								<.01					
Total suspended solids	mg/L	8	60	21	59	48	12	20	21	18	34	14	11	9
Vanadium, total	ug/L	1.87	<1.00	<1.00	<1.00	1.88	<1.00	<1.00	<1.00	<1.00	1.27	<1.00	<1.00	<1.00
Zinc, total	ug/L	<5.00	<5.00	<5.00	22.40	23.40	30.50	9.57	14.00	<5.00	15.00	11.10	8.50	13.50

* - The displayed value is the arithmetic mean of multiple database matches.

Table 1

Analytical Data Summary for MW-1

Constituents	5/15/2024	9/17/2024	5/29/2025	9/17/2025
Aluminum, total	<100.0	<100.0	<100.0	<100.0
Ammonia nitrogen	<.10	<.10	.12	<.10
Antimony, total	<5	<5	<5	<5
Arsenic, total	<10	<10	<10	<10
Barium, total	46.4	36.1	38.4	37.4
Beryllium, total	<1	<1	<1	<1
Boron, total	<20.0	<20.0	<20.0	20.9
Cadmium, total	<.40	<.40	<.40	<.40
Chemical oxygen demand	<10	<10	<10	12
Chloride	13.90	3.42	3.13	3.29
Chromium, total	4.37	2.88	3.08	4.26
Cobalt, total	<2	<2	<2	<2
Conductivity				589
Copper, total	<3.00	<3.00	<3.00	<3.00
Field Temperature	55.8	56.3	57.0	58.1
Fluoride	.105	.136	<.100	<.100
Formaldehyde	<100	<100	<100	<100
Iron, total	38.2	24.4	26.9	53.5
Lead, total	<2	<2	<2	<2
Magnesium, total	38.4	48.7	49.9	47.8
Manganese, total	<20.0	<20.0	<20.0	<20.0
Mercury, total	<2	<2	<2	<2
Methyl ethyl ketone	<10	<10	<10	<10
Molybdenum, total	<10.00	<10.00	<10.00	<10.00
Nickel, total	<1.00	<1.00	1.93	<1.00
pH (Field)	8.4	8.2	8.5	8.6
Phenols	<10	<10	<10	<10
Selenium, total	<5.00	<5.00	<5.00	<5.00
Silver, total	<.5	<.5	<1.0	<1.0
Specific conductivity (Field)	530	539	460	483
Sulfate	19.10	8.47	8.09	8.67
Thallium, total	<3	<3	<2	<2
Total organic halogen	<.0100	<.0100	<.0100	.0150
Total Organic Halogens-1				
Total Organic Halogens-2				
Total suspended solids	5	2	6	3
Vanadium, total	<1.00	<1.00	<1.00	<1.00
Zinc, total	9.64	5.68	<5.00	9.18

* - The displayed value is the arithmetic mean of multiple database matches.

Table 2

Analytical Data Summary for MW-2

Constituents	Units	8/23/2018	11/14/2018	1/10/2019	4/1/2019	9/17/2019	4/6/2020	9/24/2020	4/27/2021	9/28/2021	5/11/2022	9/14/2022	5/10/2023	9/13/2023
Aluminum, total	ug/L	111.0	547.0	550.0	18.4	134.0	59.8	20.1	<100.0	431.0	<100.0	<100.0	<100.0	<100.0
Ammonia nitrogen	mg/L	<.10	<.10	.23	<.10	<.10	<.10	<.10	<.10	<.10	<.10	<.10	<.10	<.10
Antimony, total	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Arsenic, total	ug/L	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Barium, total	ug/L	151.0	75.3	61.2	59.1	58.6	64.8	56.6	57.1	75.0	63.0	54.1	61.0	60.0
Beryllium, total	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Boron, total	ug/L	22.2	49.6	49.3	41.3	20.6	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0
Cadmium, total	ug/L	<.40	<.40	<.40	<.40	<.40	<.40	<.40	<.40	<.40	.67	<.40	<.40	<.40
Chemical oxygen demand	mg/L	8	11	16	<6	<6	8	<7	<7	<7	<7	<7	14	<10
Chloride	mg/L	59.40	60.80	63.10	32.70	7.79	3.18	2.89	3.48	2.99	2.90	2.75	2.74	2.75
Chromium, total	ug/L	<1.00	4.32	6.77	<1.00	7.46	6.65	5.13	6.87	23.00	15.00	5.96	5.13	3.48
Cobalt, total	ug/L	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Conductivity	uS/cm													
Copper, total	ug/L	4.95	4.10	2.33	<2.00	<2.00	<2.00	<2.00	<3.00	5.45	<3.00	<3.00	<3.00	<3.00
Field Temperature	F									55.0				54.0
Fluoride	mg/L	<.100	<.100	<.100	.187	.430	.229	.128	.151	.228	.122	.158	.136	.114
Formaldehyde	ug/L	<100	<100	<100	<100	<100	<50	<50	<100	<100	<100	<100	<100	<100
Iron, total	ug/L	391.0	1180.0	1230.0	37.2	231.0	119.0	19.7	109.0	699.0	162.0	68.9	18.3	15.4
Lead, total	ug/L	<2.00	<2.00	2.21	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00
Magnesium, total	mg/L	54.8	73.2	84.6	61.7	58.5	47.8	50.0	55.5	54.9	51.6	44.6	52.6	49.9
Manganese, total	ug/L	35.4	104.0	81.7	37.7	57.0	108.0	<20.0	95.0	301.0	70.9	37.6	<20.0	23.5
Mercury, total	ug/L	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Methyl ethyl ketone	ug/L	<10	<10	<10	<10	<100	<5	<5	<10	<5	<10	<10	<10	<10
Molybdenum, total	ug/L	<2.00	3.77	7.53	4.74	<2.00	<2.00	<2.00	<10.00	<10.00	<10.00	<10.00	<10.00	<10.00
Nickel, total	ug/L	<1.00	1.50	3.22	<1.00	1.07	<1.00	<1.00	3.35	1.46	<1.00	<1.00	<1.00	<1.00
pH (Field)	SU							8.0		8.0	7.9	8.0		8.1
Phenols	ug/L	<5	<5	<5	18	6	<5	11	<5	8	<5	<5	<8	<8
Selenium, total	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Silver, total	ug/L	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5
Specific conductivity (Field)	uS							573		548	550	525		556
Sulfate	mg/L	29.8	37.0	26.8	26.3	23.4	24.3	24.0	24.4	25.4	25.7	24.4	23.8	20.7
Thallium, total	ug/L	<2	<2	<2	<2	<2	<2	<2	<3	<3	<3	<3	<3	<3
Total organic halogen	mg/L	<.005	.020	.067	.011	.093	<.010	<.010	<.010	<.020	.012	.024	<.010	.012
Total Organic Halogens-1	mg/L								<.01					
Total Organic Halogens-2	mg/L								<.01					
Total suspended solids	mg/L	91	29	152	57	51	13	17	19	20	24	40	8	8
Vanadium, total	ug/L	<1.00	1.37	1.28	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Zinc, total	ug/L	<5.00	5.30	12.30	<5.00	12.10	9.28	5.48	<5.00	19.80	11.20	<5.00	5.34	5.13

* - The displayed value is the arithmetic mean of multiple database matches.

Table 2

Analytical Data Summary for MW-2

Constituents	5/15/2024	9/17/2024	5/29/2025	9/17/2025
Aluminum, total	<100.0	<100.0	<100.0	<100.0
Ammonia nitrogen	<.10	<.10	<.10	<.10
Antimony, total	<5	<5	<5	<5
Arsenic, total	<10	<10	<10	<10
Barium, total	57.6	61.1	66.0	62.1
Beryllium, total	<1	<1	<1	<1
Boron, total	<20.0	<20.0	<20.0	<20.0
Cadmium, total	<.40	<.40	<.40	<.40
Chemical oxygen demand	<10	<10	<10	<10
Chloride	3.54	2.91	2.77	2.94
Chromium, total	1.49	7.19	6.99	3.94
Cobalt, total	<2	<2	<2	<2
Conductivity				620
Copper, total	<3.00	<3.00	<3.00	<3.00
Field Temperature	55.2	55.6	55.6	56.8
Fluoride	.128	.129	.131	.134
Formaldehyde	<100	<100	<100	<100
Iron, total	<10.0	37.1	57.9	36.1
Lead, total	<2.00	<2.00	<2.00	<2.00
Magnesium, total	54.2	46.5	48.1	46.1
Manganese, total	<20.0	<20.0	31.4	<20.0
Mercury, total	<2	<2	<2	<2
Methyl ethyl ketone	<10	<10	<10	<10
Molybdenum, total	<10.00	<10.00	<10.00	<10.00
Nickel, total	<1.00	<1.00	2.97	<1.00
pH (Field)	8.1	8.0	8.2	8.1
Phenols	<10	<10	<10	<10
Selenium, total	<5	<5	<5	<5
Silver, total	<.5	<.5	<1.0	<1.0
Specific conductivity (Field)	490	528	525	538
Sulfate	27.0	25.2	24.3	25.2
Thallium, total	<3	<3	<2	<2
Total organic halogen	<.010	<.010	.036	.032
Total Organic Halogens-1				
Total Organic Halogens-2				
Total suspended solids	1	<1	14	4
Vanadium, total	<1.00	<1.00	<1.00	<1.00
Zinc, total	<5.00	6.41	9.11	5.55

* - The displayed value is the arithmetic mean of multiple database matches.

Table 3

Analytical Data Summary for MW-3

Constituents	Units	8/23/2018	11/14/2018	1/10/2019	4/1/2019	9/17/2019	4/6/2020	9/24/2020	4/27/2021	9/28/2021	5/11/2022	9/14/2022	5/10/2023	9/13/2023
Aluminum, total	ug/L	22.9	219.0	99.0	58.8	575.0	248.0	193.0	266.0	2720.0	870.0	124.0	<100.0	<100.0
Ammonia nitrogen	mg/L	<.10	<.10	.26	<.10	<.10	<.10	<.10	<.10	<.10	<.10	<.10	<.10	<.10
Antimony, total	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Arsenic, total	ug/L	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Barium, total	ug/L	33.2	25.9	21.1	26.5	42.9	33.8	29.3	33.5	79.0	44.6	31.4	26.9	27.6
Beryllium, total	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Boron, total	ug/L	<20.0	<20.0	20.0	<20.0	<20.0	<20.0	<20.0	<20.0	21.3	<20.0	<20.0	<20.0	<20.0
Cadmium, total	ug/L	<.4	<.4	<.4	<.4	<.4	<.4	<.4	<.4	<.4	<.4	<.4	<.4	<.4
Chemical oxygen demand	mg/L	7	14	11	13	7	<7	<7	<7	<7	<7	<7	20	<10
Chloride	mg/L	.834	4.610	1.480	1.060	.762	.715	.751	.790	.666	.853	.787	.611	.633
Chromium, total	ug/L	<1.00	1.62	4.08	4.00	16.40	11.20	4.26	16.30	13.50	8.11	6.86	4.84	4.61
Cobalt, total	ug/L	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	3.37	<2.00	<2.00	<2.00	<2.00
Conductivity	uS/cm													
Copper, total	ug/L	32.60	5.91	<2.00	3.08	7.33	<2.00	2.31	3.50	5.14	<3.00	<3.00	<3.00	<3.00
Field Temperature	F									54.5				52.9
Fluoride	mg/L	<.100	<.100	<.100	<.100	.220	.100	.144	<.100	<.100	<.100	<.100	.104	<.100
Formaldehyde	ug/L	<100	<100	<100	<100	<100	<50	<50	<100	<100	<100	<100	<100	<100
Iron, total	ug/L	27.8	177.0	130.0	116.0	1740.0	541.0	663.0	492.0	4830.0	1900.0	135.0	22.9	35.1
Lead, total	ug/L	<2.00	<2.00	<2.00	<2.00	2.41	<2.00	<2.00	<2.00	2.32	<2.00	<2.00	<2.00	<2.00
Magnesium, total	mg/L	22.0	22.2	24.2	25.5	36.6	27.1	24.7	30.2	62.8	42.6	21.6	23.0	24.0
Manganese, total	ug/L	<20.0	<20.0	<20.0	<20.0	102.0	45.2	38.4	39.4	451.0	145.0	<20.0	<20.0	<20.0
Mercury, total	ug/L	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Methyl ethyl ketone	ug/L	<10	<10	<10	<10	<100	<5	<5	<10	<5	<10	<10	<10	<10
Molybdenum, total	ug/L	<2.00	4.03	3.06	<2.00	<2.00	<2.00	<2.00	<10.00	<10.00	<10.00	<10.00	<10.00	<10.00
Nickel, total	ug/L	<1.00	1.17	1.60	<1.00	2.51	<1.00	<1.00	3.52	5.05	<1.00	<1.00	<1.00	<1.00
pH (Field)	SU							8.2		8.2	8.3	8.0		8.2
Phenols	ug/L	<5	<5	22	<5	<5	<5	12	<5	<5	<5	<5	<8	<8
Selenium, total	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Silver, total	ug/L	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5
Specific conductivity (Field)	uS							315		319	290	332		320
Sulfate	mg/L	4.69	5.18	4.76	4.42	3.63	4.89	4.11	4.82	4.97	5.31	4.92	5.12	5.57
Thallium, total	ug/L	<2	<2	<2	<2	<2	<2	<2	<3	<3	<3	<3	<3	<3
Total organic halogen	mg/L	<.005	.009	.013	.017	.050	<.010	<.010	<.010	<.020	<.010	<.010	<.010	<.010
Total Organic Halogens-1	mg/L								<.01					
Total Organic Halogens-2	mg/L								<.01					
Total suspended solids	mg/L	75	41	29	97	138	144	48	93	126	632	315	15	29
Vanadium, total	ug/L	<1.00	<1.00	<1.00	<1.00	1.41	<1.00	<1.00	<1.00	5.76	1.92	<1.00	<1.00	<1.00
Zinc, total	ug/L	<5.00	20.10	<5.00	12.10	22.80	10.80	6.67	7.16	8.45	<5.00	8.32	8.36	<5.00

* - The displayed value is the arithmetic mean of multiple database matches.

Table 3

Analytical Data Summary for MW-3

Constituents	5/15/2024	9/17/2024	5/29/2025	9/17/2025
Aluminum, total	<100.0	<100.0	<100.0	<100.0
Ammonia nitrogen	<.10	<.10	<.10	<.10
Antimony, total	<5	<5	<5	<5
Arsenic, total	<10	<10	<10	<10
Barium, total	31.7	27.6	29.3	26.4
Beryllium, total	<1	<1	<1	<1
Boron, total	<20.0	<20.0	<20.0	<20.0
Cadmium, total	<.4	<.4	<.4	<.4
Chemical oxygen demand	<10	<10	<10	<10
Chloride	.607	.608	.592	.623
Chromium, total	7.70	5.90	6.59	1.11
Cobalt, total	<2.00	<2.00	<2.00	<2.00
Conductivity				371
Copper, total	<3.00	<3.00	<3.00	<3.00
Field Temperature	54.1	56.5	54.7	56.8
Fluoride	<.100	<.100	<.100	<.100
Formaldehyde	<100	<100	<100	<100
Iron, total	41.7	43.0	31.0	15.7
Lead, total	<2.00	<2.00	<2.00	<2.00
Magnesium, total	25.8	21.3	22.5	21.1
Manganese, total	<20.0	<20.0	<20.0	<20.0
Mercury, total	<2	<2	<2	<2
Methyl ethyl ketone	<10	<10	<10	<10
Molybdenum, total	<10.00	<10.00	<10.00	<10.00
Nickel, total	<1.00	<1.00	1.40	<1.00
pH (Field)	8.2	8.0	8.0	8.2
Phenols	<10	<10	<10	<10
Selenium, total	<5	<5	<5	<5
Silver, total	<.5	<.5	<1.0	<1.0
Specific conductivity (Field)	316	323	321	322
Sulfate	5.16	5.52	4.97	5.18
Thallium, total	<3	<3	<2	<2
Total organic halogen	<.010	.019	.032	.155
Total Organic Halogens-1				
Total Organic Halogens-2				
Total suspended solids	7	2	79	1
Vanadium, total	<1.00	<1.00	<1.00	<1.00
Zinc, total	9.15	6.99	5.00	<5.00

* - The displayed value is the arithmetic mean of multiple database matches.

Table 4

Analytical Data Summary for MW-4

Constituents	Units	8/23/2018	8/28/2018	11/30/2018	1/10/2019	4/1/2019	9/17/2019	4/6/2020	9/24/2020	4/27/2021	9/28/2021	5/11/2022	9/14/2022	5/10/2023
Aluminum, total	ug/L	105.0		755.0	32.1	113.0	87.5	54.1	51.2	<100.0	<100.0	<100.0	<100.0	<100.0
Ammonia nitrogen	mg/L		<.10	<.10	.12	<.10	<.10	<.10	<.10	<.10	<.10	<.10	<.10	<.10
Antimony, total	ug/L		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Arsenic, total	ug/L	<10		<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Barium, total	ug/L	49.7		34.5	38.6	47.4	44.4	46.2	44.5	41.1	44.3	41.8	36.3	38.9
Beryllium, total	ug/L	<1		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Boron, total	ug/L		90.1	31.0	21.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0
Cadmium, total	ug/L	<.4		<.4	<.4	<.4	<.4	<.4	<.4	<.4	<.4	<.4	<.4	<.4
Chemical oxygen demand	mg/L		15	17	15	7	<6	<7	10	<7	<7	<7	<7	14
Chloride	mg/L	34.10		20.90	12.80	6.63	3.49	2.95	2.60	2.65	2.68	3.38	3.04	2.88
Chromium, total	ug/L	<1.00		4.82	2.12	9.75	13.30	10.00	6.73	13.00	12.90	9.66	5.18	8.60
Cobalt, total	ug/L		<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Conductivity	uS/cm													
Copper, total	ug/L		<2.00	6.27	<2.00	6.40	<2.00	<2.00	<2.00	<3.00	3.44	<3.00	<3.00	<3.00
Field Temperature	F										54.1			
Fluoride	mg/L		<.100	<.100	<.100	.145	.300	.200	.152	.141	.160	.123	.144	.150
Formaldehyde	ug/L		<100	<100	<100	<100	<100	<50	<50	<100	<100	<100	<100	<100
Iron, total	ug/L		193.0	1130.0	69.2	211.0	198.0	107.0	204.0	75.0	101.0	97.4	44.3	35.4
Lead, total	ug/L		<2.00	<2.00	<2.00	3.01	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00
Magnesium, total	mg/L		55.3	72.0	48.9	52.9	49.3	43.2	45.4	46.8	44.7	47.4	40.6	45.1
Manganese, total	ug/L		25.7	100.0	<20.0	20.9	<20.0	22.8	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0
Mercury, total	ug/L		<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Methyl ethyl ketone	ug/L		<10	<10	<10	<10	<100	<5	<5	<10	<5	<10	<10	<10
Molybdenum, total	ug/L		3.81	<2.00	3.23	<2.00	<2.00	<2.00	<2.00	<10.00	<10.00	<10.00	<10.00	<10.00
Nickel, total	ug/L		<1.00	<1.00	1.51	<1.00	<1.00	<1.00	<1.00	2.48	<1.00	<1.00	<1.00	<1.00
pH (Field)	SU								8.0		7.9	7.8	7.8	
Phenols	ug/L		16.0	<5.0	25.0	.5	<5.0	<5.0	5.0	<5.0	<5.0	<5.0	<5.0	<8.0
Selenium, total	ug/L		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Silver, total	ug/L		<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5
Specific conductivity (Field)	uS								515		492	508	514	
Sulfate	mg/L		25.10	13.80	6.97	5.53	5.26	7.20	7.56	8.07	8.70	11.70	10.00	<.10
Thallium, total	ug/L		<2	<2	<2	<2	<2	<2	<2	<3	<3	<3	<3	<3
Total organic halogen	mg/L		.0609	.0230	.0150	.0130	.1100	<.0100	<.0100	.0140	<.0200	<.0100	.0270	<.0100
Total Organic Halogens-1	mg/L									.021				
Total Organic Halogens-2	mg/L									<.01				
Total suspended solids	mg/L		500	237	38	20	44	18	19	21	26	18	19	11
Vanadium, total	ug/L		<1.00	1.26	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Zinc, total	ug/L		<5.00	18.80	<5.00	31.40	17.90	10.50	16.60	10.10	9.33	7.59	7.58	8.85

* - The displayed value is the arithmetic mean of multiple database matches.

Table 4

Analytical Data Summary for MW-4

Constituents	9/13/2023	5/15/2024	9/17/2024	5/29/2025	9/17/2025
Aluminum, total	<100.0	<100.0	<100.0	<100.0	<100.0
Ammonia nitrogen	<.10	<.10	<.10	<.10	<.10
Antimony, total	<5	<5	<5	<5	<5
Arsenic, total	<10	<10	<10	<10	<10
Barium, total	41.4	42.2	38.4	41.7	40.2
Beryllium, total	<1	<1	<1	<1	<1
Boron, total	<20.0	<20.0	<20.0	<20.0	<20.0
Cadmium, total	<.4	<.4	<.4	<.4	<.4
Chemical oxygen demand	<10	<10	<10	<10	10
Chloride	2.74	2.91	2.60	3.17	2.92
Chromium, total	12.10	7.20	5.60	4.43	2.51
Cobalt, total	<2	<2	<2	<2	<2
Conductivity					567
Copper, total	<3.00	<3.00	7.68	<3.00	<3.00
Field Temperature	52.5	53.6	54.3	53.2	55.9
Fluoride	.124	.105	.149	.149	.111
Formaldehyde	<100	<100	<100	<100	<100
Iron, total	55.4	38.1	23.8	22.5	16.4
Lead, total	<2.00	<2.00	<2.00	<2.00	<2.00
Magnesium, total	46.7	49.1	40.6	41.9	41.0
Manganese, total	<20.0	<20.0	<20.0	<20.0	<20.0
Mercury, total	<2	<2	<2	<2	<2
Methyl ethyl ketone	<10	<10	<10	<10	<10
Molybdenum, total	<10.00	<10.00	<10.00	<10.00	<10.00
Nickel, total	<1.00	<1.00	<1.00	1.83	<1.00
pH (Field)	7.9	7.9	7.9	7.8	7.8
Phenols	<8.0	<10.0	17.0	<10.0	<10.0
Selenium, total	<5	<5	<5	<5	<5
Silver, total	<.5	<.5	<.5	<1.0	<1.0
Specific conductivity (Field)	486	490	499	490	465
Sulfate	8.93	8.82	7.93	9.95	8.87
Thallium, total	<3	<3	<3	<2	<2
Total organic halogen	.0100	<.0100	.0140	.0870	<.0100
Total Organic Halogens-1					
Total Organic Halogens-2					
Total suspended solids	8	3	<1	5	3
Vanadium, total	<1.00	<1.00	<1.00	<1.00	<1.00
Zinc, total	7.81	9.86	9.82	<5.00	5.04

* - The displayed value is the arithmetic mean of multiple database matches.

Table 5

Analytical Data Summary for Sump Comp

Constituents	Units	5/10/2023
Aluminum, total	ug/L	<100
Ammonia nitrogen	mg/L	.11
Antimony, total	ug/L	<5
Arsenic, total	ug/L	<10
Barium, total	ug/L	97.6
Beryllium, total	ug/L	<1
Boron, total	ug/L	60.5
Cadmium, total	ug/L	<.4
Chemical oxygen demand	mg/L	15
Chloride	mg/L	22.4
Chromium, total	ug/L	<1
Cobalt, total	ug/L	<2
Copper, total	ug/L	<3
Fluoride	mg/L	.167
Formaldehyde	ug/L	<100
Iron, total	ug/L	38.2
Lead, total	ug/L	<2
Magnesium, total	mg/L	40.8
Manganese, total	ug/L	<20
Mercury, total	ug/L	<2
Methyl ethyl ketone	ug/L	<10
Molybdenum, total	ug/L	<10
Nickel, total	ug/L	<1
pH (Field)	SU	8.4
Phenols	ug/L	<8
Selenium, total	ug/L	<5
Silver, total	ug/L	<.5
Specific conductivity (Field)	uS	654
Sulfate	mg/L	76.7
Thallium, total	ug/L	<3
Total organic halogen	mg/L	<.01
Total suspended solids	mg/L	6
Vanadium, total	ug/L	<1
Zinc, total	ug/L	<5

* - The displayed value is the arithmetic mean of multiple database matches.

Table 6

Analytical Data Summary for Sump Grab

Constituents	Units	4/6/2020	9/24/2020	4/27/2021	9/28/2021	5/11/2022	9/14/2022	9/13/2023	5/15/2024	9/17/2024	5/29/2025	9/17/2025
Aluminum, total	ug/L	47	158	<100	<100	<100	<100	<100	107	<100	<100	<100
Ammonia nitrogen	mg/L	<.10	<.10	<.10	.25	<.10	<.10	<.10	<.10	<.10	<.10	.11
Antimony, total	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Arsenic, total	ug/L	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Barium, total	ug/L	109.0	108.0	93.1	127.0	98.8	79.0	133.0	119.0	127.0	123.0	134.0
Beryllium, total	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bis(2-ethylhexyl)phthalate	mg/L											<10
Boron, total	ug/L	40.5	54.8	34.2	30.4	36.6	63.5	81.1	83.2	90.0	53.4	102.0
Cadmium, total	ug/L	<.4	<.4	<.4	<.4	<.4	<.4	<.4	<.4	<.4	<.4	<.4
Chemical oxygen demand	mg/L	7	9	<7	<7	<7	<7	<10	<10	<10	<10	10
Chloride	mg/L	35.5	29.3	23.6	19.0	13.0	11.9	22.9	18.2	23.7	14.4	15.1
Chromium, total	ug/L	<1.0	1.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Cobalt, total	ug/L	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Conductivity	uS/cm											558
Copper, total	ug/L	<2.00	11.20	<3.00	5.68	11.00	<3.00	<3.00	15.10	<3.00	<3.00	3.21
Field Temperature	F				64.6			69.4	62.0	73.9	65.8	72.7
Fluoride	mg/L	.170	.159	.174	.136	.126	.147	.141	.129	.147	.133	<.100
Formaldehyde	ug/L	<50	<50	<100	<100	<100	<100	<100	<100	<100	<100	
Iron, total	ug/L	55.0	3250.0	146.0	42.9	47.0	<10.0	<10.0	48.8	21.7	41.0	43.4
Lead, total	ug/L	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Magnesium, total	mg/L	37.4	34.6	41.5	39.4	37.4	31.4	43.0	42.2	37.4	38.5	32.2
Manganese, total	ug/L	<20.0	103.0	<20.0	21.5	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0
Mercury, total	ug/L	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Methyl ethyl ketone	ug/L		<5	<10	<5	<10	<10	<10	<10	<10	<10	<10
Molybdenum, total	ug/L	<2	<2	<10	<10	<10	<10	<10	<10	<10	<10	<10
Nickel, total	ug/L	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	1.86	<1.00
pH (Field)	SU		8.4		8.2	8.4	8.4	8.2	8.3	8.4	8.2	8.3
Phenols	ug/L	<5	6	5	9	<5	<5	<8	<10	<10	<10	<10
Selenium, total	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Silver, total	ug/L	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<1.0	<1.0
Specific conductivity (Field)	uS		665		586	510	445	570	540	774	560	497
Sulfate	mg/L	122.0	66.8	120.0	33.6	39.0	43.6	20.1	75.2	100.0	50.8	68.8
Thallium, total	ug/L	<2	<2	<3	<3	<3	<3	<3	<3	<3	<2	<2
Total organic halogen	mg/L		<.010	.024	<.020	<.010	.039	<.010	<.010	.071	.038	.052
Total Organic Halogens-1	mg/L			.012								
Total Organic Halogens-2	mg/L			.036								
Total suspended solids	mg/L	7	10	6	4	5	5	1	3	3	<1	1
Vanadium, total	ug/L	<1.00	1.71	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Zinc, total	ug/L	<5.0	22.5	<5.0	14.6	11.8	<5.0	<5.0	53.8	<5.0	11.4	10.4

* - The displayed value is the arithmetic mean of multiple database matches.

Attachment C

Summary Tables and Graphs for the Interwell Comparisons
First Semi-Annual Monitoring Event in 2025

Table 1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Aluminum, total	ug/L	MW-3	08/23/2018		22.9000		
Aluminum, total	ug/L	MW-3	11/14/2018		219.0000		
Aluminum, total	ug/L	MW-3	01/10/2019		99.0000		
Aluminum, total	ug/L	MW-3	04/01/2019		58.8000		
Aluminum, total	ug/L	MW-3	09/17/2019		575.0000		
Aluminum, total	ug/L	MW-3	04/06/2020		248.0000		
Aluminum, total	ug/L	MW-3	09/24/2020		193.0000		
Aluminum, total	ug/L	MW-3	04/27/2021		266.0000		
Aluminum, total	ug/L	MW-3	09/28/2021		2720.0000		*
Aluminum, total	ug/L	MW-3	05/11/2022		870.0000		
Aluminum, total	ug/L	MW-3	09/14/2022		124.0000		
Aluminum, total	ug/L	MW-3	05/10/2023	ND	100.0000		
Aluminum, total	ug/L	MW-3	09/13/2023	ND	100.0000		
Aluminum, total	ug/L	MW-3	05/15/2024	ND	100.0000		
Aluminum, total	ug/L	MW-3	09/17/2024	ND	100.0000		
Aluminum, total	ug/L	MW-3	05/29/2025	ND	100.0000		
Aluminum, total	ug/L	MW-4	08/23/2018		105.0000		
Aluminum, total	ug/L	MW-4	11/30/2018		755.0000		*
Aluminum, total	ug/L	MW-4	01/10/2019		32.1000		
Aluminum, total	ug/L	MW-4	04/01/2019		113.0000		
Aluminum, total	ug/L	MW-4	09/17/2019		87.5000		
Aluminum, total	ug/L	MW-4	04/06/2020		54.1000		
Aluminum, total	ug/L	MW-4	09/24/2020		51.2000		
Aluminum, total	ug/L	MW-4	04/27/2021	ND	100.0000		
Aluminum, total	ug/L	MW-4	09/28/2021	ND	100.0000		
Aluminum, total	ug/L	MW-4	05/11/2022	ND	100.0000		
Aluminum, total	ug/L	MW-4	09/14/2022	ND	100.0000		
Aluminum, total	ug/L	MW-4	05/10/2023	ND	100.0000		
Aluminum, total	ug/L	MW-4	09/13/2023	ND	100.0000		
Aluminum, total	ug/L	MW-4	05/15/2024	ND	100.0000		
Aluminum, total	ug/L	MW-4	09/17/2024	ND	100.0000		
Aluminum, total	ug/L	MW-4	05/29/2025	ND	100.0000		
Ammonia nitrogen	mg/L	MW-3	08/23/2018	ND	0.1000		
Ammonia nitrogen	mg/L	MW-3	11/14/2018	ND	0.1000		
Ammonia nitrogen	mg/L	MW-3	01/10/2019		0.2600		
Ammonia nitrogen	mg/L	MW-3	04/01/2019	ND	0.1000		
Ammonia nitrogen	mg/L	MW-3	09/17/2019	ND	0.1000		
Ammonia nitrogen	mg/L	MW-3	04/06/2020	ND	0.1000		
Ammonia nitrogen	mg/L	MW-3	09/24/2020	ND	0.1000		
Ammonia nitrogen	mg/L	MW-3	04/27/2021	ND	0.1000		
Ammonia nitrogen	mg/L	MW-3	09/28/2021	ND	0.1000		
Ammonia nitrogen	mg/L	MW-3	05/11/2022	ND	0.1000		
Ammonia nitrogen	mg/L	MW-3	09/14/2022	ND	0.1000		
Ammonia nitrogen	mg/L	MW-3	05/10/2023	ND	0.1000		
Ammonia nitrogen	mg/L	MW-3	09/13/2023	ND	0.1000		
Ammonia nitrogen	mg/L	MW-3	05/15/2024	ND	0.1000		
Ammonia nitrogen	mg/L	MW-3	09/17/2024	ND	0.1000		
Ammonia nitrogen	mg/L	MW-3	05/29/2025	ND	0.1000		
Ammonia nitrogen	mg/L	MW-4	08/28/2018	ND	0.1000		
Ammonia nitrogen	mg/L	MW-4	11/30/2018	ND	0.1000		
Ammonia nitrogen	mg/L	MW-4	01/10/2019		0.1200		
Ammonia nitrogen	mg/L	MW-4	04/01/2019	ND	0.1000		
Ammonia nitrogen	mg/L	MW-4	09/17/2019	ND	0.1000		
Ammonia nitrogen	mg/L	MW-4	04/06/2020	ND	0.1000		
Ammonia nitrogen	mg/L	MW-4	09/24/2020	ND	0.1000		
Ammonia nitrogen	mg/L	MW-4	04/27/2021	ND	0.1000		
Ammonia nitrogen	mg/L	MW-4	09/28/2021	ND	0.1000		
Ammonia nitrogen	mg/L	MW-4	05/11/2022	ND	0.1000		
Ammonia nitrogen	mg/L	MW-4	09/14/2022	ND	0.1000		
Ammonia nitrogen	mg/L	MW-4	05/10/2023	ND	0.1000		
Ammonia nitrogen	mg/L	MW-4	09/13/2023	ND	0.1000		
Ammonia nitrogen	mg/L	MW-4	05/15/2024	ND	0.1000		
Ammonia nitrogen	mg/L	MW-4	09/17/2024	ND	0.1000		
Ammonia nitrogen	mg/L	MW-4	05/29/2025	ND	0.1000		
Antimony, total	ug/L	MW-3	08/23/2018	ND	5.0000		
Antimony, total	ug/L	MW-3	11/14/2018	ND	5.0000		
Antimony, total	ug/L	MW-3	01/10/2019	ND	5.0000		
Antimony, total	ug/L	MW-3	04/01/2019	ND	5.0000		
Antimony, total	ug/L	MW-3	09/17/2019	ND	5.0000		
Antimony, total	ug/L	MW-3	04/06/2020	ND	5.0000		
Antimony, total	ug/L	MW-3	09/24/2020	ND	5.0000		
Antimony, total	ug/L	MW-3	04/27/2021	ND	5.0000		
Antimony, total	ug/L	MW-3	09/28/2021	ND	5.0000		
Antimony, total	ug/L	MW-3	05/11/2022	ND	5.0000		

* - Outlier for that well and constituent.
** - ND value replaced with median RL.
*** - ND value replaced with manual RL.
ND = Not detected, Result = detection limit.

Table 1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Antimony, total	ug/L	MW-3	09/14/2022	ND	5.0000		
Antimony, total	ug/L	MW-3	05/10/2023	ND	5.0000		
Antimony, total	ug/L	MW-3	09/13/2023	ND	5.0000		
Antimony, total	ug/L	MW-3	05/15/2024	ND	5.0000		
Antimony, total	ug/L	MW-3	09/17/2024	ND	5.0000		
Antimony, total	ug/L	MW-3	05/29/2025	ND	5.0000		
Antimony, total	ug/L	MW-4	08/28/2018	ND	5.0000		
Antimony, total	ug/L	MW-4	11/30/2018	ND	5.0000		
Antimony, total	ug/L	MW-4	01/10/2019	ND	5.0000		
Antimony, total	ug/L	MW-4	04/01/2019	ND	5.0000		
Antimony, total	ug/L	MW-4	09/17/2019	ND	5.0000		
Antimony, total	ug/L	MW-4	04/06/2020	ND	5.0000		
Antimony, total	ug/L	MW-4	09/24/2020	ND	5.0000		
Antimony, total	ug/L	MW-4	04/27/2021	ND	5.0000		
Antimony, total	ug/L	MW-4	09/28/2021	ND	5.0000		
Antimony, total	ug/L	MW-4	05/11/2022	ND	5.0000		
Antimony, total	ug/L	MW-4	09/14/2022	ND	5.0000		
Antimony, total	ug/L	MW-4	05/10/2023	ND	5.0000		
Antimony, total	ug/L	MW-4	09/13/2023	ND	5.0000		
Antimony, total	ug/L	MW-4	05/15/2024	ND	5.0000		
Antimony, total	ug/L	MW-4	09/17/2024	ND	5.0000		
Antimony, total	ug/L	MW-4	05/29/2025	ND	5.0000		
Arsenic, total	ug/L	MW-3	08/23/2018	ND	10.0000		
Arsenic, total	ug/L	MW-3	11/14/2018	ND	10.0000		
Arsenic, total	ug/L	MW-3	01/10/2019	ND	10.0000		
Arsenic, total	ug/L	MW-3	04/01/2019	ND	10.0000		
Arsenic, total	ug/L	MW-3	09/17/2019	ND	10.0000		
Arsenic, total	ug/L	MW-3	04/06/2020	ND	10.0000		
Arsenic, total	ug/L	MW-3	09/24/2020	ND	10.0000		
Arsenic, total	ug/L	MW-3	04/27/2021	ND	10.0000		
Arsenic, total	ug/L	MW-3	09/28/2021	ND	10.0000		
Arsenic, total	ug/L	MW-3	05/11/2022	ND	10.0000		
Arsenic, total	ug/L	MW-3	09/14/2022	ND	10.0000		
Arsenic, total	ug/L	MW-3	05/10/2023	ND	10.0000		
Arsenic, total	ug/L	MW-3	09/13/2023	ND	10.0000		
Arsenic, total	ug/L	MW-3	05/15/2024	ND	10.0000		
Arsenic, total	ug/L	MW-3	09/17/2024	ND	10.0000		
Arsenic, total	ug/L	MW-3	05/29/2025	ND	10.0000		
Arsenic, total	ug/L	MW-4	08/23/2018	ND	10.0000		
Arsenic, total	ug/L	MW-4	11/30/2018	ND	10.0000		
Arsenic, total	ug/L	MW-4	01/10/2019	ND	10.0000		
Arsenic, total	ug/L	MW-4	04/01/2019	ND	10.0000		
Arsenic, total	ug/L	MW-4	09/17/2019	ND	10.0000		
Arsenic, total	ug/L	MW-4	04/06/2020	ND	10.0000		
Arsenic, total	ug/L	MW-4	09/24/2020	ND	10.0000		
Arsenic, total	ug/L	MW-4	04/27/2021	ND	10.0000		
Arsenic, total	ug/L	MW-4	09/28/2021	ND	10.0000		
Arsenic, total	ug/L	MW-4	05/11/2022	ND	10.0000		
Arsenic, total	ug/L	MW-4	09/14/2022	ND	10.0000		
Arsenic, total	ug/L	MW-4	05/10/2023	ND	10.0000		
Arsenic, total	ug/L	MW-4	09/13/2023	ND	10.0000		
Arsenic, total	ug/L	MW-4	05/15/2024	ND	10.0000		
Arsenic, total	ug/L	MW-4	09/17/2024	ND	10.0000		
Arsenic, total	ug/L	MW-4	05/29/2025	ND	10.0000		
Barium, total	ug/L	MW-3	08/23/2018		33.2000		
Barium, total	ug/L	MW-3	11/14/2018		25.9000		
Barium, total	ug/L	MW-3	01/10/2019		21.1000		
Barium, total	ug/L	MW-3	04/01/2019		26.5000		
Barium, total	ug/L	MW-3	09/17/2019		42.9000		
Barium, total	ug/L	MW-3	04/06/2020		33.8000		
Barium, total	ug/L	MW-3	09/24/2020		29.3000		
Barium, total	ug/L	MW-3	04/27/2021		33.5000		
Barium, total	ug/L	MW-3	09/28/2021		79.0000		
Barium, total	ug/L	MW-3	05/11/2022		44.6000		
Barium, total	ug/L	MW-3	09/14/2022		31.4000		
Barium, total	ug/L	MW-3	05/10/2023		26.9000		
Barium, total	ug/L	MW-3	09/13/2023		27.6000		
Barium, total	ug/L	MW-3	05/15/2024		31.7000		
Barium, total	ug/L	MW-3	09/17/2024		27.6000		
Barium, total	ug/L	MW-3	05/29/2025		29.3000		
Barium, total	ug/L	MW-4	08/23/2018		49.7000		
Barium, total	ug/L	MW-4	11/30/2018		34.5000		
Barium, total	ug/L	MW-4	01/10/2019		38.6000		
Barium, total	ug/L	MW-4	04/01/2019		47.4000		

* - Outlier for that well and constituent.
** - ND value replaced with median RL.
*** - ND value replaced with manual RL.
ND = Not detected, Result = detection limit.

Table 1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Barium, total	ug/L	MW-4	09/17/2019		44.4000		
Barium, total	ug/L	MW-4	04/06/2020		46.2000		
Barium, total	ug/L	MW-4	09/24/2020		44.5000		
Barium, total	ug/L	MW-4	04/27/2021		41.1000		
Barium, total	ug/L	MW-4	09/28/2021		44.3000		
Barium, total	ug/L	MW-4	05/11/2022		41.8000		
Barium, total	ug/L	MW-4	09/14/2022		36.3000		
Barium, total	ug/L	MW-4	05/10/2023		38.9000		
Barium, total	ug/L	MW-4	09/13/2023		41.4000		
Barium, total	ug/L	MW-4	05/15/2024		42.2000		
Barium, total	ug/L	MW-4	09/17/2024		38.4000		
Barium, total	ug/L	MW-4	05/29/2025		41.7000		
Beryllium, total	ug/L	MW-3	08/23/2018	ND	1.0000		
Beryllium, total	ug/L	MW-3	11/14/2018	ND	1.0000		
Beryllium, total	ug/L	MW-3	01/10/2019	ND	1.0000		
Beryllium, total	ug/L	MW-3	04/01/2019	ND	1.0000		
Beryllium, total	ug/L	MW-3	09/17/2019	ND	1.0000		
Beryllium, total	ug/L	MW-3	04/06/2020	ND	1.0000		
Beryllium, total	ug/L	MW-3	09/24/2020	ND	1.0000		
Beryllium, total	ug/L	MW-3	04/27/2021	ND	1.0000		
Beryllium, total	ug/L	MW-3	09/28/2021	ND	1.0000		
Beryllium, total	ug/L	MW-3	05/11/2022	ND	1.0000		
Beryllium, total	ug/L	MW-3	09/14/2022	ND	1.0000		
Beryllium, total	ug/L	MW-3	05/10/2023	ND	1.0000		
Beryllium, total	ug/L	MW-3	09/13/2023	ND	1.0000		
Beryllium, total	ug/L	MW-3	05/15/2024	ND	1.0000		
Beryllium, total	ug/L	MW-3	09/17/2024	ND	1.0000		
Beryllium, total	ug/L	MW-3	05/29/2025	ND	1.0000		
Beryllium, total	ug/L	MW-4	08/23/2018	ND	1.0000		
Beryllium, total	ug/L	MW-4	11/30/2018	ND	1.0000		
Beryllium, total	ug/L	MW-4	01/10/2019	ND	1.0000		
Beryllium, total	ug/L	MW-4	04/01/2019	ND	1.0000		
Beryllium, total	ug/L	MW-4	09/17/2019	ND	1.0000		
Beryllium, total	ug/L	MW-4	04/06/2020	ND	1.0000		
Beryllium, total	ug/L	MW-4	09/24/2020	ND	1.0000		
Beryllium, total	ug/L	MW-4	04/27/2021	ND	1.0000		
Beryllium, total	ug/L	MW-4	09/28/2021	ND	1.0000		
Beryllium, total	ug/L	MW-4	05/11/2022	ND	1.0000		
Beryllium, total	ug/L	MW-4	09/14/2022	ND	1.0000		
Beryllium, total	ug/L	MW-4	05/10/2023	ND	1.0000		
Beryllium, total	ug/L	MW-4	09/13/2023	ND	1.0000		
Beryllium, total	ug/L	MW-4	05/15/2024	ND	1.0000		
Beryllium, total	ug/L	MW-4	09/17/2024	ND	1.0000		
Beryllium, total	ug/L	MW-4	05/29/2025	ND	1.0000		
Boron, total	ug/L	MW-3	08/23/2018	ND	20.0000		
Boron, total	ug/L	MW-3	11/14/2018	ND	20.0000		
Boron, total	ug/L	MW-3	01/10/2019		20.0000		
Boron, total	ug/L	MW-3	04/01/2019	ND	20.0000		
Boron, total	ug/L	MW-3	09/17/2019	ND	20.0000		
Boron, total	ug/L	MW-3	04/06/2020	ND	20.0000		
Boron, total	ug/L	MW-3	09/24/2020	ND	20.0000		
Boron, total	ug/L	MW-3	04/27/2021	ND	20.0000		
Boron, total	ug/L	MW-3	09/28/2021		21.3000		
Boron, total	ug/L	MW-3	05/11/2022	ND	20.0000		
Boron, total	ug/L	MW-3	09/14/2022	ND	20.0000		
Boron, total	ug/L	MW-3	05/10/2023	ND	20.0000		
Boron, total	ug/L	MW-3	09/13/2023	ND	20.0000		
Boron, total	ug/L	MW-3	05/15/2024	ND	20.0000		
Boron, total	ug/L	MW-3	09/17/2024	ND	20.0000		
Boron, total	ug/L	MW-3	05/29/2025	ND	20.0000		
Boron, total	ug/L	MW-4	08/28/2018		90.1000		*
Boron, total	ug/L	MW-4	11/30/2018		31.0000		
Boron, total	ug/L	MW-4	01/10/2019		21.0000		
Boron, total	ug/L	MW-4	04/01/2019	ND	20.0000		
Boron, total	ug/L	MW-4	09/17/2019	ND	20.0000		
Boron, total	ug/L	MW-4	04/06/2020	ND	20.0000		
Boron, total	ug/L	MW-4	09/24/2020	ND	20.0000		
Boron, total	ug/L	MW-4	04/27/2021	ND	20.0000		
Boron, total	ug/L	MW-4	09/28/2021	ND	20.0000		
Boron, total	ug/L	MW-4	05/11/2022	ND	20.0000		
Boron, total	ug/L	MW-4	09/14/2022	ND	20.0000		
Boron, total	ug/L	MW-4	05/10/2023	ND	20.0000		
Boron, total	ug/L	MW-4	09/13/2023	ND	20.0000		
Boron, total	ug/L	MW-4	05/15/2024	ND	20.0000		

* - Outlier for that well and constituent.
** - ND value replaced with median RL.
*** - ND value replaced with manual RL.
ND = Not detected, Result = detection limit.

Table 1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Boron, total	ug/L	MW-4	09/17/2024	ND	20.0000		
Boron, total	ug/L	MW-4	05/29/2025	ND	20.0000		
Cadmium, total	ug/L	MW-3	08/23/2018	ND	0.4000		
Cadmium, total	ug/L	MW-3	11/14/2018	ND	0.4000		
Cadmium, total	ug/L	MW-3	01/10/2019	ND	0.4000		
Cadmium, total	ug/L	MW-3	04/01/2019	ND	0.4000		
Cadmium, total	ug/L	MW-3	09/17/2019	ND	0.4000		
Cadmium, total	ug/L	MW-3	04/06/2020	ND	0.4000		
Cadmium, total	ug/L	MW-3	09/24/2020	ND	0.4000		
Cadmium, total	ug/L	MW-3	04/27/2021	ND	0.4000		
Cadmium, total	ug/L	MW-3	09/28/2021	ND	0.4000		
Cadmium, total	ug/L	MW-3	05/11/2022	ND	0.4000		
Cadmium, total	ug/L	MW-3	09/14/2022	ND	0.4000		
Cadmium, total	ug/L	MW-3	05/10/2023	ND	0.4000		
Cadmium, total	ug/L	MW-3	09/13/2023	ND	0.4000		
Cadmium, total	ug/L	MW-3	05/15/2024	ND	0.4000		
Cadmium, total	ug/L	MW-3	09/17/2024	ND	0.4000		
Cadmium, total	ug/L	MW-3	05/29/2025	ND	0.4000		
Cadmium, total	ug/L	MW-4	08/23/2018	ND	0.4000		
Cadmium, total	ug/L	MW-4	11/30/2018	ND	0.4000		
Cadmium, total	ug/L	MW-4	01/10/2019	ND	0.4000		
Cadmium, total	ug/L	MW-4	04/01/2019	ND	0.4000		
Cadmium, total	ug/L	MW-4	09/17/2019	ND	0.4000		
Cadmium, total	ug/L	MW-4	04/06/2020	ND	0.4000		
Cadmium, total	ug/L	MW-4	09/24/2020	ND	0.4000		
Cadmium, total	ug/L	MW-4	04/27/2021	ND	0.4000		
Cadmium, total	ug/L	MW-4	09/28/2021	ND	0.4000		
Cadmium, total	ug/L	MW-4	05/11/2022	ND	0.4000		
Cadmium, total	ug/L	MW-4	09/14/2022	ND	0.4000		
Cadmium, total	ug/L	MW-4	05/10/2023	ND	0.4000		
Cadmium, total	ug/L	MW-4	09/13/2023	ND	0.4000		
Cadmium, total	ug/L	MW-4	05/15/2024	ND	0.4000		
Cadmium, total	ug/L	MW-4	09/17/2024	ND	0.4000		
Cadmium, total	ug/L	MW-4	05/29/2025	ND	0.4000		
Chemical oxygen demand	mg/L	MW-3	08/23/2018		7.0000		
Chemical oxygen demand	mg/L	MW-3	11/14/2018		14.0000		
Chemical oxygen demand	mg/L	MW-3	01/10/2019		11.0000		
Chemical oxygen demand	mg/L	MW-3	04/01/2019		13.0000		
Chemical oxygen demand	mg/L	MW-3	09/17/2019		7.0000		
Chemical oxygen demand	mg/L	MW-3	04/06/2020	ND	7.0000		
Chemical oxygen demand	mg/L	MW-3	09/24/2020	ND	7.0000		
Chemical oxygen demand	mg/L	MW-3	04/27/2021	ND	7.0000		
Chemical oxygen demand	mg/L	MW-3	09/28/2021	ND	7.0000		
Chemical oxygen demand	mg/L	MW-3	05/11/2022	ND	7.0000		
Chemical oxygen demand	mg/L	MW-3	09/14/2022	ND	7.0000		
Chemical oxygen demand	mg/L	MW-3	05/10/2023		20.0000		
Chemical oxygen demand	mg/L	MW-3	09/13/2023	ND	10.0000	7.0000	**
Chemical oxygen demand	mg/L	MW-3	05/15/2024	ND	10.0000	7.0000	**
Chemical oxygen demand	mg/L	MW-3	09/17/2024	ND	10.0000	7.0000	**
Chemical oxygen demand	mg/L	MW-3	05/29/2025	ND	10.0000	7.0000	**
Chemical oxygen demand	mg/L	MW-4	08/28/2018		15.0000		
Chemical oxygen demand	mg/L	MW-4	11/30/2018		17.0000		
Chemical oxygen demand	mg/L	MW-4	01/10/2019		15.0000		
Chemical oxygen demand	mg/L	MW-4	04/01/2019		7.0000		
Chemical oxygen demand	mg/L	MW-4	09/17/2019	ND	6.0000	7.0000	**
Chemical oxygen demand	mg/L	MW-4	04/06/2020	ND	7.0000		
Chemical oxygen demand	mg/L	MW-4	09/24/2020		10.0000		
Chemical oxygen demand	mg/L	MW-4	04/27/2021	ND	7.0000		
Chemical oxygen demand	mg/L	MW-4	09/28/2021	ND	7.0000		
Chemical oxygen demand	mg/L	MW-4	05/11/2022	ND	7.0000		
Chemical oxygen demand	mg/L	MW-4	09/14/2022	ND	7.0000		
Chemical oxygen demand	mg/L	MW-4	05/10/2023		14.0000		
Chemical oxygen demand	mg/L	MW-4	09/13/2023	ND	10.0000	7.0000	**
Chemical oxygen demand	mg/L	MW-4	05/15/2024	ND	10.0000	7.0000	**
Chemical oxygen demand	mg/L	MW-4	09/17/2024	ND	10.0000	7.0000	**
Chemical oxygen demand	mg/L	MW-4	05/29/2025	ND	10.0000	7.0000	**
Chloride	mg/L	MW-3	08/23/2018		0.8340		
Chloride	mg/L	MW-3	11/14/2018		4.6100		*
Chloride	mg/L	MW-3	01/10/2019		1.4800		
Chloride	mg/L	MW-3	04/01/2019		1.0600		
Chloride	mg/L	MW-3	09/17/2019		0.7620		
Chloride	mg/L	MW-3	04/06/2020		0.7150		
Chloride	mg/L	MW-3	09/24/2020		0.7510		
Chloride	mg/L	MW-3	04/27/2021		0.7900		

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Table 1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Chloride	mg/L	MW-3	09/28/2021		0.6660		
Chloride	mg/L	MW-3	05/11/2022		0.8530		
Chloride	mg/L	MW-3	09/14/2022		0.7870		
Chloride	mg/L	MW-3	05/10/2023		0.6110		
Chloride	mg/L	MW-3	09/13/2023		0.6330		
Chloride	mg/L	MW-3	05/15/2024		0.6070		
Chloride	mg/L	MW-3	09/17/2024		0.6080		
Chloride	mg/L	MW-3	05/29/2025		0.5920		
Chloride	mg/L	MW-4	08/23/2018		34.1000		
Chloride	mg/L	MW-4	11/30/2018		20.9000		
Chloride	mg/L	MW-4	01/10/2019		12.8000		
Chloride	mg/L	MW-4	04/01/2019		6.6300		
Chloride	mg/L	MW-4	09/17/2019		3.4900		
Chloride	mg/L	MW-4	04/06/2020		2.9500		
Chloride	mg/L	MW-4	09/24/2020		2.6000		
Chloride	mg/L	MW-4	04/27/2021		2.6500		
Chloride	mg/L	MW-4	09/28/2021		2.6800		
Chloride	mg/L	MW-4	05/11/2022		3.3800		
Chloride	mg/L	MW-4	09/14/2022		3.0400		
Chloride	mg/L	MW-4	05/10/2023		2.8800		
Chloride	mg/L	MW-4	09/13/2023		2.7400		
Chloride	mg/L	MW-4	05/15/2024		2.9100		
Chloride	mg/L	MW-4	09/17/2024		2.6000		
Chloride	mg/L	MW-4	05/29/2025		3.1700		
Chromium, total	ug/L	MW-3	08/23/2018	ND	1.0000		
Chromium, total	ug/L	MW-3	11/14/2018		1.6200		
Chromium, total	ug/L	MW-3	01/10/2019		4.0800		
Chromium, total	ug/L	MW-3	04/01/2019		4.0000		
Chromium, total	ug/L	MW-3	09/17/2019		16.4000		
Chromium, total	ug/L	MW-3	04/06/2020		11.2000		
Chromium, total	ug/L	MW-3	09/24/2020		4.2600		
Chromium, total	ug/L	MW-3	04/27/2021		16.3000		
Chromium, total	ug/L	MW-3	09/28/2021		13.5000		
Chromium, total	ug/L	MW-3	05/11/2022		8.1100		
Chromium, total	ug/L	MW-3	09/14/2022		6.8600		
Chromium, total	ug/L	MW-3	05/10/2023		4.8400		
Chromium, total	ug/L	MW-3	09/13/2023		4.6100		
Chromium, total	ug/L	MW-3	05/15/2024		7.7000		
Chromium, total	ug/L	MW-3	09/17/2024		5.9000		
Chromium, total	ug/L	MW-3	05/29/2025		6.5900		
Chromium, total	ug/L	MW-4	08/23/2018	ND	1.0000		
Chromium, total	ug/L	MW-4	11/30/2018		4.8200		
Chromium, total	ug/L	MW-4	01/10/2019		2.1200		
Chromium, total	ug/L	MW-4	04/01/2019		9.7500		
Chromium, total	ug/L	MW-4	09/17/2019		13.3000		
Chromium, total	ug/L	MW-4	04/06/2020		10.0000		
Chromium, total	ug/L	MW-4	09/24/2020		6.7300		
Chromium, total	ug/L	MW-4	04/27/2021		13.0000		
Chromium, total	ug/L	MW-4	09/28/2021		12.9000		
Chromium, total	ug/L	MW-4	05/11/2022		9.6600		
Chromium, total	ug/L	MW-4	09/14/2022		5.1800		
Chromium, total	ug/L	MW-4	05/10/2023		8.6000		
Chromium, total	ug/L	MW-4	09/13/2023		12.1000		
Chromium, total	ug/L	MW-4	05/15/2024		7.2000		
Chromium, total	ug/L	MW-4	09/17/2024		5.6000		
Chromium, total	ug/L	MW-4	05/29/2025		4.4300		
Cobalt, total	ug/L	MW-3	08/23/2018	ND	2.0000		
Cobalt, total	ug/L	MW-3	11/14/2018	ND	2.0000		
Cobalt, total	ug/L	MW-3	01/10/2019	ND	2.0000		
Cobalt, total	ug/L	MW-3	04/01/2019	ND	2.0000		
Cobalt, total	ug/L	MW-3	09/17/2019	ND	2.0000		
Cobalt, total	ug/L	MW-3	04/06/2020	ND	2.0000		
Cobalt, total	ug/L	MW-3	09/24/2020	ND	2.0000		
Cobalt, total	ug/L	MW-3	04/27/2021	ND	2.0000		
Cobalt, total	ug/L	MW-3	09/28/2021		3.3700		
Cobalt, total	ug/L	MW-3	05/11/2022	ND	2.0000		
Cobalt, total	ug/L	MW-3	09/14/2022	ND	2.0000		
Cobalt, total	ug/L	MW-3	05/10/2023	ND	2.0000		
Cobalt, total	ug/L	MW-3	09/13/2023	ND	2.0000		
Cobalt, total	ug/L	MW-3	05/15/2024	ND	2.0000		
Cobalt, total	ug/L	MW-3	09/17/2024	ND	2.0000		
Cobalt, total	ug/L	MW-3	05/29/2025	ND	2.0000		
Cobalt, total	ug/L	MW-4	08/28/2018	ND	2.0000		
Cobalt, total	ug/L	MW-4	11/30/2018	ND	2.0000		

* - Outlier for that well and constituent.
** - ND value replaced with median RL.
*** - ND value replaced with manual RL.
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Table 1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Cobalt, total	ug/L	MW-4	01/10/2019	ND	2.0000		
Cobalt, total	ug/L	MW-4	04/01/2019	ND	2.0000		
Cobalt, total	ug/L	MW-4	09/17/2019	ND	2.0000		
Cobalt, total	ug/L	MW-4	04/06/2020	ND	2.0000		
Cobalt, total	ug/L	MW-4	09/24/2020	ND	2.0000		
Cobalt, total	ug/L	MW-4	04/27/2021	ND	2.0000		
Cobalt, total	ug/L	MW-4	09/28/2021	ND	2.0000		
Cobalt, total	ug/L	MW-4	05/11/2022	ND	2.0000		
Cobalt, total	ug/L	MW-4	09/14/2022	ND	2.0000		
Cobalt, total	ug/L	MW-4	05/10/2023	ND	2.0000		
Cobalt, total	ug/L	MW-4	09/13/2023	ND	2.0000		
Cobalt, total	ug/L	MW-4	05/15/2024	ND	2.0000		
Cobalt, total	ug/L	MW-4	09/17/2024	ND	2.0000		
Cobalt, total	ug/L	MW-4	05/29/2025	ND	2.0000		
Copper, total	ug/L	MW-3	08/23/2018		32.6000		*
Copper, total	ug/L	MW-3	11/14/2018		5.9100		
Copper, total	ug/L	MW-3	01/10/2019	ND	2.0000	3.0000	**
Copper, total	ug/L	MW-3	04/01/2019		3.0800		
Copper, total	ug/L	MW-3	09/17/2019		7.3300		
Copper, total	ug/L	MW-3	04/06/2020	ND	2.0000	3.0000	**
Copper, total	ug/L	MW-3	09/24/2020		2.3100		
Copper, total	ug/L	MW-3	04/27/2021		3.5000		
Copper, total	ug/L	MW-3	09/28/2021		5.1400		
Copper, total	ug/L	MW-3	05/11/2022	ND	3.0000		
Copper, total	ug/L	MW-3	09/14/2022	ND	3.0000		
Copper, total	ug/L	MW-3	05/10/2023	ND	3.0000		
Copper, total	ug/L	MW-3	09/13/2023	ND	3.0000		
Copper, total	ug/L	MW-3	05/15/2024	ND	3.0000		
Copper, total	ug/L	MW-3	09/17/2024	ND	3.0000		
Copper, total	ug/L	MW-3	05/29/2025	ND	3.0000		
Copper, total	ug/L	MW-4	08/28/2018	ND	2.0000	3.0000	**
Copper, total	ug/L	MW-4	11/30/2018		6.2700		
Copper, total	ug/L	MW-4	01/10/2019	ND	2.0000	3.0000	**
Copper, total	ug/L	MW-4	04/01/2019		6.4000		
Copper, total	ug/L	MW-4	09/17/2019	ND	2.0000	3.0000	**
Copper, total	ug/L	MW-4	04/06/2020	ND	2.0000	3.0000	**
Copper, total	ug/L	MW-4	09/24/2020	ND	2.0000	3.0000	**
Copper, total	ug/L	MW-4	04/27/2021	ND	3.0000		
Copper, total	ug/L	MW-4	09/28/2021		3.4400		
Copper, total	ug/L	MW-4	05/11/2022	ND	3.0000		
Copper, total	ug/L	MW-4	09/14/2022	ND	3.0000		
Copper, total	ug/L	MW-4	05/10/2023	ND	3.0000		
Copper, total	ug/L	MW-4	09/13/2023	ND	3.0000		
Copper, total	ug/L	MW-4	05/15/2024	ND	3.0000		
Copper, total	ug/L	MW-4	09/17/2024		7.6800		
Copper, total	ug/L	MW-4	05/29/2025	ND	3.0000		
Fluoride	mg/L	MW-3	08/23/2018	ND	0.1000		
Fluoride	mg/L	MW-3	11/14/2018	ND	0.1000		
Fluoride	mg/L	MW-3	01/10/2019	ND	0.1000		
Fluoride	mg/L	MW-3	04/01/2019	ND	0.1000		
Fluoride	mg/L	MW-3	09/17/2019		0.2200		
Fluoride	mg/L	MW-3	04/06/2020		0.1000		
Fluoride	mg/L	MW-3	09/24/2020		0.1440		
Fluoride	mg/L	MW-3	04/27/2021	ND	0.1000		
Fluoride	mg/L	MW-3	09/28/2021	ND	0.1000		
Fluoride	mg/L	MW-3	05/11/2022	ND	0.1000		
Fluoride	mg/L	MW-3	09/14/2022	ND	0.1000		
Fluoride	mg/L	MW-3	05/10/2023		0.1040		
Fluoride	mg/L	MW-3	09/13/2023	ND	0.1000		
Fluoride	mg/L	MW-3	05/15/2024	ND	0.1000		
Fluoride	mg/L	MW-3	09/17/2024	ND	0.1000		
Fluoride	mg/L	MW-3	05/29/2025	ND	0.1000		
Fluoride	mg/L	MW-4	08/28/2018	ND	0.1000		
Fluoride	mg/L	MW-4	11/30/2018	ND	0.1000		
Fluoride	mg/L	MW-4	01/10/2019	ND	0.1000		
Fluoride	mg/L	MW-4	04/01/2019		0.1450		
Fluoride	mg/L	MW-4	09/17/2019		0.3000		
Fluoride	mg/L	MW-4	04/06/2020		0.2000		
Fluoride	mg/L	MW-4	09/24/2020		0.1520		
Fluoride	mg/L	MW-4	04/27/2021		0.1410		
Fluoride	mg/L	MW-4	09/28/2021		0.1600		
Fluoride	mg/L	MW-4	05/11/2022		0.1230		
Fluoride	mg/L	MW-4	09/14/2022		0.1440		
Fluoride	mg/L	MW-4	05/10/2023		0.1500		

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Table 1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Fluoride	mg/L	MW-4	09/13/2023		0.1240		
Fluoride	mg/L	MW-4	05/15/2024		0.1050		
Fluoride	mg/L	MW-4	09/17/2024		0.1490		
Fluoride	mg/L	MW-4	05/29/2025		0.1490		
Formaldehyde	ug/L	MW-3	08/23/2018	ND	100.0000		
Formaldehyde	ug/L	MW-3	11/14/2018	ND	100.0000		
Formaldehyde	ug/L	MW-3	01/10/2019	ND	100.0000		
Formaldehyde	ug/L	MW-3	04/01/2019	ND	100.0000		
Formaldehyde	ug/L	MW-3	09/17/2019	ND	100.0000		
Formaldehyde	ug/L	MW-3	04/06/2020	ND	50.0000	100.0000	**
Formaldehyde	ug/L	MW-3	09/24/2020	ND	50.0000	100.0000	**
Formaldehyde	ug/L	MW-3	04/27/2021	ND	100.0000		
Formaldehyde	ug/L	MW-3	09/28/2021	ND	100.0000		
Formaldehyde	ug/L	MW-3	05/11/2022	ND	100.0000		
Formaldehyde	ug/L	MW-3	09/14/2022	ND	100.0000		
Formaldehyde	ug/L	MW-3	05/10/2023	ND	100.0000		
Formaldehyde	ug/L	MW-3	09/13/2023	ND	100.0000		
Formaldehyde	ug/L	MW-3	05/15/2024	ND	100.0000		
Formaldehyde	ug/L	MW-3	09/17/2024	ND	100.0000		
Formaldehyde	ug/L	MW-3	05/29/2025	ND	100.0000		
Formaldehyde	ug/L	MW-4	08/28/2018	ND	100.0000		
Formaldehyde	ug/L	MW-4	11/30/2018	ND	100.0000		
Formaldehyde	ug/L	MW-4	01/10/2019	ND	100.0000		
Formaldehyde	ug/L	MW-4	04/01/2019	ND	100.0000		
Formaldehyde	ug/L	MW-4	09/17/2019	ND	100.0000		
Formaldehyde	ug/L	MW-4	04/06/2020	ND	50.0000	100.0000	**
Formaldehyde	ug/L	MW-4	09/24/2020	ND	50.0000	100.0000	**
Formaldehyde	ug/L	MW-4	04/27/2021	ND	100.0000		
Formaldehyde	ug/L	MW-4	09/28/2021	ND	100.0000		
Formaldehyde	ug/L	MW-4	05/11/2022	ND	100.0000		
Formaldehyde	ug/L	MW-4	09/14/2022	ND	100.0000		
Formaldehyde	ug/L	MW-4	05/10/2023	ND	100.0000		
Formaldehyde	ug/L	MW-4	09/13/2023	ND	100.0000		
Formaldehyde	ug/L	MW-4	05/15/2024	ND	100.0000		
Formaldehyde	ug/L	MW-4	09/17/2024	ND	100.0000		
Formaldehyde	ug/L	MW-4	05/29/2025	ND	100.0000		
Iron, total	ug/L	MW-3	08/23/2018		27.8000		
Iron, total	ug/L	MW-3	11/14/2018		177.0000		
Iron, total	ug/L	MW-3	01/10/2019		130.0000		
Iron, total	ug/L	MW-3	04/01/2019		116.0000		
Iron, total	ug/L	MW-3	09/17/2019		1740.0000		
Iron, total	ug/L	MW-3	04/06/2020		541.0000		
Iron, total	ug/L	MW-3	09/24/2020		663.0000		
Iron, total	ug/L	MW-3	04/27/2021		492.0000		
Iron, total	ug/L	MW-3	09/28/2021		4830.0000		*
Iron, total	ug/L	MW-3	05/11/2022		1900.0000		
Iron, total	ug/L	MW-3	09/14/2022		135.0000		
Iron, total	ug/L	MW-3	05/10/2023		22.9000		
Iron, total	ug/L	MW-3	09/13/2023		35.1000		
Iron, total	ug/L	MW-3	05/15/2024		41.7000		
Iron, total	ug/L	MW-3	09/17/2024		43.0000		
Iron, total	ug/L	MW-3	05/29/2025		31.0000		
Iron, total	ug/L	MW-4	08/28/2018		193.0000		
Iron, total	ug/L	MW-4	11/30/2018		1130.0000		
Iron, total	ug/L	MW-4	01/10/2019		69.2000		
Iron, total	ug/L	MW-4	04/01/2019		211.0000		
Iron, total	ug/L	MW-4	09/17/2019		198.0000		
Iron, total	ug/L	MW-4	04/06/2020		107.0000		
Iron, total	ug/L	MW-4	09/24/2020		204.0000		
Iron, total	ug/L	MW-4	04/27/2021		75.0000		
Iron, total	ug/L	MW-4	09/28/2021		101.0000		
Iron, total	ug/L	MW-4	05/11/2022		97.4000		
Iron, total	ug/L	MW-4	09/14/2022		44.3000		
Iron, total	ug/L	MW-4	05/10/2023		35.4000		
Iron, total	ug/L	MW-4	09/13/2023		55.4000		
Iron, total	ug/L	MW-4	05/15/2024		38.1000		
Iron, total	ug/L	MW-4	09/17/2024		23.8000		
Iron, total	ug/L	MW-4	05/29/2025		22.5000		
Lead, total	ug/L	MW-3	08/23/2018	ND	2.0000		
Lead, total	ug/L	MW-3	11/14/2018	ND	2.0000		
Lead, total	ug/L	MW-3	01/10/2019	ND	2.0000		
Lead, total	ug/L	MW-3	04/01/2019	ND	2.0000		
Lead, total	ug/L	MW-3	09/17/2019		2.4100		
Lead, total	ug/L	MW-3	04/06/2020	ND	2.0000		

* - Outlier for that well and constituent.
** - ND value replaced with median RL.
*** - ND value replaced with manual RL.
ND = Not detected, Result = detection limit.

Table 1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Lead, total	ug/L	MW-3	09/24/2020	ND	2.0000		
Lead, total	ug/L	MW-3	04/27/2021	ND	2.0000		
Lead, total	ug/L	MW-3	09/28/2021		2.3200		
Lead, total	ug/L	MW-3	05/11/2022	ND	2.0000		
Lead, total	ug/L	MW-3	09/14/2022	ND	2.0000		
Lead, total	ug/L	MW-3	05/10/2023	ND	2.0000		
Lead, total	ug/L	MW-3	09/13/2023	ND	2.0000		
Lead, total	ug/L	MW-3	05/15/2024	ND	2.0000		
Lead, total	ug/L	MW-3	09/17/2024	ND	2.0000		
Lead, total	ug/L	MW-3	05/29/2025	ND	2.0000		
Lead, total	ug/L	MW-4	08/28/2018	ND	2.0000		
Lead, total	ug/L	MW-4	11/30/2018	ND	2.0000		
Lead, total	ug/L	MW-4	01/10/2019	ND	2.0000		
Lead, total	ug/L	MW-4	04/01/2019		3.0100		
Lead, total	ug/L	MW-4	09/17/2019	ND	2.0000		
Lead, total	ug/L	MW-4	04/06/2020	ND	2.0000		
Lead, total	ug/L	MW-4	09/24/2020	ND	2.0000		
Lead, total	ug/L	MW-4	04/27/2021	ND	2.0000		
Lead, total	ug/L	MW-4	09/28/2021	ND	2.0000		
Lead, total	ug/L	MW-4	05/11/2022	ND	2.0000		
Lead, total	ug/L	MW-4	09/14/2022	ND	2.0000		
Lead, total	ug/L	MW-4	05/10/2023	ND	2.0000		
Lead, total	ug/L	MW-4	09/13/2023	ND	2.0000		
Lead, total	ug/L	MW-4	05/15/2024	ND	2.0000		
Lead, total	ug/L	MW-4	09/17/2024	ND	2.0000		
Lead, total	ug/L	MW-4	05/29/2025	ND	2.0000		
Magnesium, total	mg/L	MW-3	08/23/2018		22.0000		
Magnesium, total	mg/L	MW-3	11/14/2018		22.2000		
Magnesium, total	mg/L	MW-3	01/10/2019		24.2000		
Magnesium, total	mg/L	MW-3	04/01/2019		25.5000		
Magnesium, total	mg/L	MW-3	09/17/2019		36.6000		
Magnesium, total	mg/L	MW-3	04/06/2020		27.1000		
Magnesium, total	mg/L	MW-3	09/24/2020		24.7000		
Magnesium, total	mg/L	MW-3	04/27/2021		30.2000		
Magnesium, total	mg/L	MW-3	09/28/2021		62.8000		
Magnesium, total	mg/L	MW-3	05/11/2022		42.6000		
Magnesium, total	mg/L	MW-3	09/14/2022		21.6000		
Magnesium, total	mg/L	MW-3	05/10/2023		23.0000		
Magnesium, total	mg/L	MW-3	09/13/2023		24.0000		
Magnesium, total	mg/L	MW-3	05/15/2024		25.8000		
Magnesium, total	mg/L	MW-3	09/17/2024		21.3000		
Magnesium, total	mg/L	MW-3	05/29/2025		22.5000		
Magnesium, total	mg/L	MW-4	08/28/2018		55.3000		
Magnesium, total	mg/L	MW-4	11/30/2018		72.0000		
Magnesium, total	mg/L	MW-4	01/10/2019		48.9000		
Magnesium, total	mg/L	MW-4	04/01/2019		52.9000		
Magnesium, total	mg/L	MW-4	09/17/2019		49.3000		
Magnesium, total	mg/L	MW-4	04/06/2020		43.2000		
Magnesium, total	mg/L	MW-4	09/24/2020		45.4000		
Magnesium, total	mg/L	MW-4	04/27/2021		46.8000		
Magnesium, total	mg/L	MW-4	09/28/2021		44.7000		
Magnesium, total	mg/L	MW-4	05/11/2022		47.4000		
Magnesium, total	mg/L	MW-4	09/14/2022		40.6000		
Magnesium, total	mg/L	MW-4	05/10/2023		45.1000		
Magnesium, total	mg/L	MW-4	09/13/2023		46.7000		
Magnesium, total	mg/L	MW-4	05/15/2024		49.1000		
Magnesium, total	mg/L	MW-4	09/17/2024		40.6000		
Magnesium, total	mg/L	MW-4	05/29/2025		41.9000		
Manganese, total	ug/L	MW-3	08/23/2018	ND	20.0000		
Manganese, total	ug/L	MW-3	11/14/2018	ND	20.0000		
Manganese, total	ug/L	MW-3	01/10/2019	ND	20.0000		
Manganese, total	ug/L	MW-3	04/01/2019	ND	20.0000		
Manganese, total	ug/L	MW-3	09/17/2019		102.0000		
Manganese, total	ug/L	MW-3	04/06/2020		45.2000		
Manganese, total	ug/L	MW-3	09/24/2020		38.4000		
Manganese, total	ug/L	MW-3	04/27/2021		39.4000		
Manganese, total	ug/L	MW-3	09/28/2021		451.0000		*
Manganese, total	ug/L	MW-3	05/11/2022		145.0000		
Manganese, total	ug/L	MW-3	09/14/2022	ND	20.0000		
Manganese, total	ug/L	MW-3	05/10/2023	ND	20.0000		
Manganese, total	ug/L	MW-3	09/13/2023	ND	20.0000		
Manganese, total	ug/L	MW-3	05/15/2024	ND	20.0000		
Manganese, total	ug/L	MW-3	09/17/2024	ND	20.0000		
Manganese, total	ug/L	MW-3	05/29/2025	ND	20.0000		

* - Outlier for that well and constituent.
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*** - ND value replaced with manual RL.
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Table 1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Manganese, total	ug/L	MW-4	08/28/2018		25.7000		
Manganese, total	ug/L	MW-4	11/30/2018		100.0000		*
Manganese, total	ug/L	MW-4	01/10/2019	ND	20.0000		
Manganese, total	ug/L	MW-4	04/01/2019		20.9000		
Manganese, total	ug/L	MW-4	09/17/2019	ND	20.0000		
Manganese, total	ug/L	MW-4	04/06/2020		22.8000		
Manganese, total	ug/L	MW-4	09/24/2020	ND	20.0000		
Manganese, total	ug/L	MW-4	04/27/2021	ND	20.0000		
Manganese, total	ug/L	MW-4	09/28/2021	ND	20.0000		
Manganese, total	ug/L	MW-4	05/11/2022	ND	20.0000		
Manganese, total	ug/L	MW-4	09/14/2022	ND	20.0000		
Manganese, total	ug/L	MW-4	05/10/2023	ND	20.0000		
Manganese, total	ug/L	MW-4	09/13/2023	ND	20.0000		
Manganese, total	ug/L	MW-4	05/15/2024	ND	20.0000		
Manganese, total	ug/L	MW-4	09/17/2024	ND	20.0000		
Manganese, total	ug/L	MW-4	05/29/2025	ND	20.0000		
Mercury, total	ug/L	MW-3	08/23/2018	ND	2.0000		
Mercury, total	ug/L	MW-3	11/14/2018	ND	2.0000		
Mercury, total	ug/L	MW-3	01/10/2019	ND	2.0000		
Mercury, total	ug/L	MW-3	04/01/2019	ND	2.0000		
Mercury, total	ug/L	MW-3	09/17/2019	ND	2.0000		
Mercury, total	ug/L	MW-3	04/06/2020	ND	2.0000		
Mercury, total	ug/L	MW-3	09/24/2020	ND	2.0000		
Mercury, total	ug/L	MW-3	04/27/2021	ND	2.0000		
Mercury, total	ug/L	MW-3	09/28/2021	ND	2.0000		
Mercury, total	ug/L	MW-3	05/11/2022	ND	2.0000		
Mercury, total	ug/L	MW-3	09/14/2022	ND	2.0000		
Mercury, total	ug/L	MW-3	05/10/2023	ND	2.0000		
Mercury, total	ug/L	MW-3	09/13/2023	ND	2.0000		
Mercury, total	ug/L	MW-3	05/15/2024	ND	2.0000		
Mercury, total	ug/L	MW-3	09/17/2024	ND	2.0000		
Mercury, total	ug/L	MW-3	05/29/2025	ND	2.0000		
Mercury, total	ug/L	MW-4	08/28/2018	ND	2.0000		
Mercury, total	ug/L	MW-4	11/30/2018	ND	2.0000		
Mercury, total	ug/L	MW-4	01/10/2019	ND	2.0000		
Mercury, total	ug/L	MW-4	04/01/2019	ND	2.0000		
Mercury, total	ug/L	MW-4	09/17/2019	ND	2.0000		
Mercury, total	ug/L	MW-4	04/06/2020	ND	2.0000		
Mercury, total	ug/L	MW-4	09/24/2020	ND	2.0000		
Mercury, total	ug/L	MW-4	04/27/2021	ND	2.0000		
Mercury, total	ug/L	MW-4	09/28/2021	ND	2.0000		
Mercury, total	ug/L	MW-4	05/11/2022	ND	2.0000		
Mercury, total	ug/L	MW-4	09/14/2022	ND	2.0000		
Mercury, total	ug/L	MW-4	05/10/2023	ND	2.0000		
Mercury, total	ug/L	MW-4	09/13/2023	ND	2.0000		
Mercury, total	ug/L	MW-4	05/15/2024	ND	2.0000		
Mercury, total	ug/L	MW-4	09/17/2024	ND	2.0000		
Mercury, total	ug/L	MW-4	05/29/2025	ND	2.0000		
Methyl ethyl ketone	ug/L	MW-3	08/23/2018	ND	10.0000		
Methyl ethyl ketone	ug/L	MW-3	11/14/2018	ND	10.0000		
Methyl ethyl ketone	ug/L	MW-3	01/10/2019	ND	10.0000		
Methyl ethyl ketone	ug/L	MW-3	04/01/2019	ND	10.0000		
Methyl ethyl ketone	ug/L	MW-3	09/17/2019	ND	100.0000		*
Methyl ethyl ketone	ug/L	MW-3	04/06/2020	ND	5.0000	10.0000	**
Methyl ethyl ketone	ug/L	MW-3	09/24/2020	ND	5.0000	10.0000	**
Methyl ethyl ketone	ug/L	MW-3	04/27/2021	ND	10.0000		
Methyl ethyl ketone	ug/L	MW-3	09/28/2021	ND	5.0000	10.0000	**
Methyl ethyl ketone	ug/L	MW-3	05/11/2022	ND	10.0000		
Methyl ethyl ketone	ug/L	MW-3	09/14/2022	ND	10.0000		
Methyl ethyl ketone	ug/L	MW-3	05/10/2023	ND	10.0000		
Methyl ethyl ketone	ug/L	MW-3	09/13/2023	ND	10.0000		
Methyl ethyl ketone	ug/L	MW-3	05/15/2024	ND	10.0000		
Methyl ethyl ketone	ug/L	MW-3	09/17/2024	ND	10.0000		
Methyl ethyl ketone	ug/L	MW-3	05/29/2025	ND	10.0000		
Methyl ethyl ketone	ug/L	MW-4	08/28/2018	ND	10.0000		
Methyl ethyl ketone	ug/L	MW-4	11/30/2018	ND	10.0000		
Methyl ethyl ketone	ug/L	MW-4	01/10/2019	ND	10.0000		
Methyl ethyl ketone	ug/L	MW-4	04/01/2019	ND	10.0000		
Methyl ethyl ketone	ug/L	MW-4	09/17/2019	ND	100.0000		*
Methyl ethyl ketone	ug/L	MW-4	04/06/2020	ND	5.0000	10.0000	**
Methyl ethyl ketone	ug/L	MW-4	09/24/2020	ND	5.0000	10.0000	**
Methyl ethyl ketone	ug/L	MW-4	04/27/2021	ND	10.0000		
Methyl ethyl ketone	ug/L	MW-4	09/28/2021	ND	5.0000	10.0000	**
Methyl ethyl ketone	ug/L	MW-4	05/11/2022	ND	10.0000		

* - Outlier for that well and constituent.
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*** - ND value replaced with manual RL.
ND = Not detected, Result = detection limit.

Table 1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Methyl ethyl ketone	ug/L	MW-4	09/14/2022	ND	10.0000		
Methyl ethyl ketone	ug/L	MW-4	05/10/2023	ND	10.0000		
Methyl ethyl ketone	ug/L	MW-4	09/13/2023	ND	10.0000		
Methyl ethyl ketone	ug/L	MW-4	05/15/2024	ND	10.0000		
Methyl ethyl ketone	ug/L	MW-4	09/17/2024	ND	10.0000		
Methyl ethyl ketone	ug/L	MW-4	05/29/2025	ND	10.0000		
Molybdenum, total	ug/L	MW-3	08/23/2018	ND	2.0000	10.0000	**
Molybdenum, total	ug/L	MW-3	11/14/2018		4.0300		
Molybdenum, total	ug/L	MW-3	01/10/2019		3.0600		
Molybdenum, total	ug/L	MW-3	04/01/2019	ND	2.0000	10.0000	**
Molybdenum, total	ug/L	MW-3	09/17/2019	ND	2.0000	10.0000	**
Molybdenum, total	ug/L	MW-3	04/06/2020	ND	2.0000	10.0000	**
Molybdenum, total	ug/L	MW-3	09/24/2020	ND	2.0000	10.0000	**
Molybdenum, total	ug/L	MW-3	04/27/2021	ND	10.0000		
Molybdenum, total	ug/L	MW-3	09/28/2021	ND	10.0000		
Molybdenum, total	ug/L	MW-3	05/11/2022	ND	10.0000		
Molybdenum, total	ug/L	MW-3	09/14/2022	ND	10.0000		
Molybdenum, total	ug/L	MW-3	05/10/2023	ND	10.0000		
Molybdenum, total	ug/L	MW-3	09/13/2023	ND	10.0000		
Molybdenum, total	ug/L	MW-3	05/15/2024	ND	10.0000		
Molybdenum, total	ug/L	MW-3	09/17/2024	ND	10.0000		
Molybdenum, total	ug/L	MW-3	05/29/2025	ND	10.0000		
Molybdenum, total	ug/L	MW-4	08/28/2018		3.8100		
Molybdenum, total	ug/L	MW-4	11/30/2018	ND	2.0000	10.0000	**
Molybdenum, total	ug/L	MW-4	01/10/2019		3.2300		
Molybdenum, total	ug/L	MW-4	04/01/2019	ND	2.0000	10.0000	**
Molybdenum, total	ug/L	MW-4	09/17/2019	ND	2.0000	10.0000	**
Molybdenum, total	ug/L	MW-4	04/06/2020	ND	2.0000	10.0000	**
Molybdenum, total	ug/L	MW-4	09/24/2020	ND	2.0000	10.0000	**
Molybdenum, total	ug/L	MW-4	04/27/2021	ND	10.0000		
Molybdenum, total	ug/L	MW-4	09/28/2021	ND	10.0000		
Molybdenum, total	ug/L	MW-4	05/11/2022	ND	10.0000		
Molybdenum, total	ug/L	MW-4	09/14/2022	ND	10.0000		
Molybdenum, total	ug/L	MW-4	05/10/2023	ND	10.0000		
Molybdenum, total	ug/L	MW-4	09/13/2023	ND	10.0000		
Molybdenum, total	ug/L	MW-4	05/15/2024	ND	10.0000		
Molybdenum, total	ug/L	MW-4	09/17/2024	ND	10.0000		
Molybdenum, total	ug/L	MW-4	05/29/2025	ND	10.0000		
Nickel, total	ug/L	MW-3	08/23/2018	ND	1.0000		
Nickel, total	ug/L	MW-3	11/14/2018		1.1700		
Nickel, total	ug/L	MW-3	01/10/2019		1.6000		
Nickel, total	ug/L	MW-3	04/01/2019	ND	1.0000		
Nickel, total	ug/L	MW-3	09/17/2019		2.5100		
Nickel, total	ug/L	MW-3	04/06/2020	ND	1.0000		
Nickel, total	ug/L	MW-3	09/24/2020	ND	1.0000		
Nickel, total	ug/L	MW-3	04/27/2021		3.5200		*
Nickel, total	ug/L	MW-3	09/28/2021		5.0500		*
Nickel, total	ug/L	MW-3	05/11/2022	ND	1.0000		
Nickel, total	ug/L	MW-3	09/14/2022	ND	1.0000		
Nickel, total	ug/L	MW-3	05/10/2023	ND	1.0000		
Nickel, total	ug/L	MW-3	09/13/2023	ND	1.0000		
Nickel, total	ug/L	MW-3	05/15/2024	ND	1.0000		
Nickel, total	ug/L	MW-3	09/17/2024	ND	1.0000		
Nickel, total	ug/L	MW-3	05/29/2025		1.4000		
Nickel, total	ug/L	MW-4	08/28/2018	ND	1.0000		
Nickel, total	ug/L	MW-4	11/30/2018	ND	1.0000		
Nickel, total	ug/L	MW-4	01/10/2019		1.5100		
Nickel, total	ug/L	MW-4	04/01/2019	ND	1.0000		
Nickel, total	ug/L	MW-4	09/17/2019	ND	1.0000		
Nickel, total	ug/L	MW-4	04/06/2020	ND	1.0000		
Nickel, total	ug/L	MW-4	09/24/2020	ND	1.0000		
Nickel, total	ug/L	MW-4	04/27/2021		2.4800		
Nickel, total	ug/L	MW-4	09/28/2021	ND	1.0000		
Nickel, total	ug/L	MW-4	05/11/2022	ND	1.0000		
Nickel, total	ug/L	MW-4	09/14/2022	ND	1.0000		
Nickel, total	ug/L	MW-4	05/10/2023	ND	1.0000		
Nickel, total	ug/L	MW-4	09/13/2023	ND	1.0000		
Nickel, total	ug/L	MW-4	05/15/2024	ND	1.0000		
Nickel, total	ug/L	MW-4	09/17/2024	ND	1.0000		
Nickel, total	ug/L	MW-4	05/29/2025		1.8300		
Phenols	ug/L	MW-3	08/23/2018	ND	5.0000		
Phenols	ug/L	MW-3	11/14/2018	ND	5.0000		
Phenols	ug/L	MW-3	01/10/2019		22.0000		
Phenols	ug/L	MW-3	04/01/2019	ND	5.0000		

* - Outlier for that well and constituent.
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*** - ND value replaced with manual RL.
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Table 1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Phenols	ug/L	MW-3	09/17/2019	ND	5.0000		
Phenols	ug/L	MW-3	04/06/2020	ND	5.0000		
Phenols	ug/L	MW-3	09/24/2020		12.0000		
Phenols	ug/L	MW-3	04/27/2021	ND	5.0000		
Phenols	ug/L	MW-3	09/28/2021	ND	5.0000		
Phenols	ug/L	MW-3	05/11/2022	ND	5.0000		
Phenols	ug/L	MW-3	09/14/2022	ND	5.0000		
Phenols	ug/L	MW-3	05/10/2023	ND	8.0000	5.0000	**
Phenols	ug/L	MW-3	09/13/2023	ND	8.0000	5.0000	**
Phenols	ug/L	MW-3	05/15/2024	ND	10.0000	5.0000	**
Phenols	ug/L	MW-3	09/17/2024	ND	10.0000	5.0000	**
Phenols	ug/L	MW-3	05/29/2025	ND	10.0000	5.0000	**
Phenols	ug/L	MW-4	08/28/2018		16.0000		
Phenols	ug/L	MW-4	11/30/2018	ND	5.0000		
Phenols	ug/L	MW-4	01/10/2019		25.0000		
Phenols	ug/L	MW-4	04/01/2019		0.5000		*
Phenols	ug/L	MW-4	09/17/2019	ND	5.0000		
Phenols	ug/L	MW-4	04/06/2020	ND	5.0000		
Phenols	ug/L	MW-4	09/24/2020		5.0000		
Phenols	ug/L	MW-4	04/27/2021	ND	5.0000		
Phenols	ug/L	MW-4	09/28/2021	ND	5.0000		
Phenols	ug/L	MW-4	05/11/2022	ND	5.0000		
Phenols	ug/L	MW-4	09/14/2022	ND	5.0000		
Phenols	ug/L	MW-4	05/10/2023	ND	8.0000	5.0000	**
Phenols	ug/L	MW-4	09/13/2023	ND	8.0000	5.0000	**
Phenols	ug/L	MW-4	05/15/2024	ND	10.0000	5.0000	**
Phenols	ug/L	MW-4	09/17/2024		17.0000		
Phenols	ug/L	MW-4	05/29/2025	ND	10.0000	5.0000	**
Selenium, total	ug/L	MW-3	08/23/2018	ND	5.0000		
Selenium, total	ug/L	MW-3	11/14/2018	ND	5.0000		
Selenium, total	ug/L	MW-3	01/10/2019	ND	5.0000		
Selenium, total	ug/L	MW-3	04/01/2019	ND	5.0000		
Selenium, total	ug/L	MW-3	09/17/2019	ND	5.0000		
Selenium, total	ug/L	MW-3	04/06/2020	ND	5.0000		
Selenium, total	ug/L	MW-3	09/24/2020	ND	5.0000		
Selenium, total	ug/L	MW-3	04/27/2021	ND	5.0000		
Selenium, total	ug/L	MW-3	09/28/2021	ND	5.0000		
Selenium, total	ug/L	MW-3	05/11/2022	ND	5.0000		
Selenium, total	ug/L	MW-3	09/14/2022	ND	5.0000		
Selenium, total	ug/L	MW-3	05/10/2023	ND	5.0000		
Selenium, total	ug/L	MW-3	09/13/2023	ND	5.0000		
Selenium, total	ug/L	MW-3	05/15/2024	ND	5.0000		
Selenium, total	ug/L	MW-3	09/17/2024	ND	5.0000		
Selenium, total	ug/L	MW-3	05/29/2025	ND	5.0000		
Selenium, total	ug/L	MW-4	08/28/2018	ND	5.0000		
Selenium, total	ug/L	MW-4	11/30/2018	ND	5.0000		
Selenium, total	ug/L	MW-4	01/10/2019	ND	5.0000		
Selenium, total	ug/L	MW-4	04/01/2019	ND	5.0000		
Selenium, total	ug/L	MW-4	09/17/2019	ND	5.0000		
Selenium, total	ug/L	MW-4	04/06/2020	ND	5.0000		
Selenium, total	ug/L	MW-4	09/24/2020	ND	5.0000		
Selenium, total	ug/L	MW-4	04/27/2021	ND	5.0000		
Selenium, total	ug/L	MW-4	09/28/2021	ND	5.0000		
Selenium, total	ug/L	MW-4	05/11/2022	ND	5.0000		
Selenium, total	ug/L	MW-4	09/14/2022	ND	5.0000		
Selenium, total	ug/L	MW-4	05/10/2023	ND	5.0000		
Selenium, total	ug/L	MW-4	09/13/2023	ND	5.0000		
Selenium, total	ug/L	MW-4	05/15/2024	ND	5.0000		
Selenium, total	ug/L	MW-4	09/17/2024	ND	5.0000		
Selenium, total	ug/L	MW-4	05/29/2025	ND	5.0000		
Silver, total	ug/L	MW-3	08/23/2018	ND	0.5000		
Silver, total	ug/L	MW-3	11/14/2018	ND	0.5000		
Silver, total	ug/L	MW-3	01/10/2019	ND	0.5000		
Silver, total	ug/L	MW-3	04/01/2019	ND	0.5000		
Silver, total	ug/L	MW-3	09/17/2019	ND	0.5000		
Silver, total	ug/L	MW-3	04/06/2020	ND	0.5000		
Silver, total	ug/L	MW-3	09/24/2020	ND	0.5000		
Silver, total	ug/L	MW-3	04/27/2021	ND	0.5000		
Silver, total	ug/L	MW-3	09/28/2021	ND	0.5000		
Silver, total	ug/L	MW-3	05/11/2022	ND	0.5000		
Silver, total	ug/L	MW-3	09/14/2022	ND	0.5000		
Silver, total	ug/L	MW-3	05/10/2023	ND	0.5000		
Silver, total	ug/L	MW-3	09/13/2023	ND	0.5000		
Silver, total	ug/L	MW-3	05/15/2024	ND	0.5000		

* - Outlier for that well and constituent.
** - ND value replaced with median RL.
*** - ND value replaced with manual RL.
ND = Not detected, Result = detection limit.

Table 1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Silver, total	ug/L	MW-3	09/17/2024	ND	0.5000		
Silver, total	ug/L	MW-3	05/29/2025	ND	1.0000	0.5000	**
Silver, total	ug/L	MW-4	08/28/2018	ND	0.5000		
Silver, total	ug/L	MW-4	11/30/2018	ND	0.5000		
Silver, total	ug/L	MW-4	01/10/2019	ND	0.5000		
Silver, total	ug/L	MW-4	04/01/2019	ND	0.5000		
Silver, total	ug/L	MW-4	09/17/2019	ND	0.5000		
Silver, total	ug/L	MW-4	04/06/2020	ND	0.5000		
Silver, total	ug/L	MW-4	09/24/2020	ND	0.5000		
Silver, total	ug/L	MW-4	04/27/2021	ND	0.5000		
Silver, total	ug/L	MW-4	09/28/2021	ND	0.5000		
Silver, total	ug/L	MW-4	05/11/2022	ND	0.5000		
Silver, total	ug/L	MW-4	09/14/2022	ND	0.5000		
Silver, total	ug/L	MW-4	05/10/2023	ND	0.5000		
Silver, total	ug/L	MW-4	09/13/2023	ND	0.5000		
Silver, total	ug/L	MW-4	05/15/2024	ND	0.5000		
Silver, total	ug/L	MW-4	09/17/2024	ND	0.5000		
Silver, total	ug/L	MW-4	05/29/2025	ND	1.0000	0.5000	**
Sulfate	mg/L	MW-3	08/23/2018		4.6900		
Sulfate	mg/L	MW-3	11/14/2018		5.1800		
Sulfate	mg/L	MW-3	01/10/2019		4.7600		
Sulfate	mg/L	MW-3	04/01/2019		4.4200		
Sulfate	mg/L	MW-3	09/17/2019		3.6300		
Sulfate	mg/L	MW-3	04/06/2020		4.8900		
Sulfate	mg/L	MW-3	09/24/2020		4.1100		
Sulfate	mg/L	MW-3	04/27/2021		4.8200		
Sulfate	mg/L	MW-3	09/28/2021		4.9700		
Sulfate	mg/L	MW-3	05/11/2022		5.3100		
Sulfate	mg/L	MW-3	09/14/2022		4.9200		
Sulfate	mg/L	MW-3	05/10/2023		5.1200		
Sulfate	mg/L	MW-3	09/13/2023		5.5700		
Sulfate	mg/L	MW-3	05/15/2024		5.1600		
Sulfate	mg/L	MW-3	09/17/2024		5.5200		
Sulfate	mg/L	MW-3	05/29/2025		4.9700		
Sulfate	mg/L	MW-4	08/28/2018		25.1000		
Sulfate	mg/L	MW-4	11/30/2018		13.8000		
Sulfate	mg/L	MW-4	01/10/2019		6.9700		
Sulfate	mg/L	MW-4	04/01/2019		5.5300		
Sulfate	mg/L	MW-4	09/17/2019		5.2600		
Sulfate	mg/L	MW-4	04/06/2020		7.2000		
Sulfate	mg/L	MW-4	09/24/2020		7.5600		
Sulfate	mg/L	MW-4	04/27/2021		8.0700		
Sulfate	mg/L	MW-4	09/28/2021		8.7000		
Sulfate	mg/L	MW-4	05/11/2022		11.7000		
Sulfate	mg/L	MW-4	09/14/2022		10.0000		
Sulfate	mg/L	MW-4	05/10/2023	ND	0.1000		*
Sulfate	mg/L	MW-4	09/13/2023		8.9300		
Sulfate	mg/L	MW-4	05/15/2024		8.8200		
Sulfate	mg/L	MW-4	09/17/2024		7.9300		
Sulfate	mg/L	MW-4	05/29/2025		9.9500		
Thallium, total	ug/L	MW-3	08/23/2018	ND	2.0000		
Thallium, total	ug/L	MW-3	11/14/2018	ND	2.0000		
Thallium, total	ug/L	MW-3	01/10/2019	ND	2.0000		
Thallium, total	ug/L	MW-3	04/01/2019	ND	2.0000		
Thallium, total	ug/L	MW-3	09/17/2019	ND	2.0000		
Thallium, total	ug/L	MW-3	04/06/2020	ND	2.0000		
Thallium, total	ug/L	MW-3	09/24/2020	ND	2.0000		
Thallium, total	ug/L	MW-3	04/27/2021	ND	3.0000	2.0000	**
Thallium, total	ug/L	MW-3	09/28/2021	ND	3.0000	2.0000	**
Thallium, total	ug/L	MW-3	05/11/2022	ND	3.0000	2.0000	**
Thallium, total	ug/L	MW-3	09/14/2022	ND	3.0000	2.0000	**
Thallium, total	ug/L	MW-3	05/10/2023	ND	3.0000	2.0000	**
Thallium, total	ug/L	MW-3	09/13/2023	ND	3.0000	2.0000	**
Thallium, total	ug/L	MW-3	05/15/2024	ND	3.0000	2.0000	**
Thallium, total	ug/L	MW-3	09/17/2024	ND	3.0000	2.0000	**
Thallium, total	ug/L	MW-3	05/29/2025	ND	2.0000		
Thallium, total	ug/L	MW-4	08/28/2018	ND	2.0000		
Thallium, total	ug/L	MW-4	11/30/2018	ND	2.0000		
Thallium, total	ug/L	MW-4	01/10/2019	ND	2.0000		
Thallium, total	ug/L	MW-4	04/01/2019	ND	2.0000		
Thallium, total	ug/L	MW-4	09/17/2019	ND	2.0000		
Thallium, total	ug/L	MW-4	04/06/2020	ND	2.0000		
Thallium, total	ug/L	MW-4	09/24/2020	ND	2.0000		
Thallium, total	ug/L	MW-4	04/27/2021	ND	3.0000	2.0000	**

* - Outlier for that well and constituent.
** - ND value replaced with median RL.
*** - ND value replaced with manual RL.
ND = Not detected, Result = detection limit.

Table 1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Thallium, total	ug/L	MW-4	09/28/2021	ND	3.0000	2.0000	**
Thallium, total	ug/L	MW-4	05/11/2022	ND	3.0000	2.0000	**
Thallium, total	ug/L	MW-4	09/14/2022	ND	3.0000	2.0000	**
Thallium, total	ug/L	MW-4	05/10/2023	ND	3.0000	2.0000	**
Thallium, total	ug/L	MW-4	09/13/2023	ND	3.0000	2.0000	**
Thallium, total	ug/L	MW-4	05/15/2024	ND	3.0000	2.0000	**
Thallium, total	ug/L	MW-4	09/17/2024	ND	3.0000	2.0000	**
Thallium, total	ug/L	MW-4	05/29/2025	ND	2.0000		
Total organic halogen	mg/L	MW-3	08/23/2018	ND	0.0050	0.0100	**
Total organic halogen	mg/L	MW-3	11/14/2018		0.0090		
Total organic halogen	mg/L	MW-3	01/10/2019		0.0130		
Total organic halogen	mg/L	MW-3	04/01/2019		0.0170		
Total organic halogen	mg/L	MW-3	09/17/2019		0.0500		
Total organic halogen	mg/L	MW-3	04/06/2020	ND	0.0100		
Total organic halogen	mg/L	MW-3	09/24/2020	ND	0.0100		
Total organic halogen	mg/L	MW-3	04/27/2021	ND	0.0100		
Total organic halogen	mg/L	MW-3	09/28/2021	ND	0.0200	0.0100	**
Total organic halogen	mg/L	MW-3	05/11/2022	ND	0.0100		
Total organic halogen	mg/L	MW-3	09/14/2022	ND	0.0100		
Total organic halogen	mg/L	MW-3	05/10/2023	ND	0.0100		
Total organic halogen	mg/L	MW-3	09/13/2023	ND	0.0100		
Total organic halogen	mg/L	MW-3	05/15/2024	ND	0.0100		
Total organic halogen	mg/L	MW-3	09/17/2024		0.0190		
Total organic halogen	mg/L	MW-3	05/29/2025		0.0320		
Total organic halogen	mg/L	MW-4	08/28/2018		0.0609		*
Total organic halogen	mg/L	MW-4	11/30/2018		0.0230		
Total organic halogen	mg/L	MW-4	01/10/2019		0.0150		
Total organic halogen	mg/L	MW-4	04/01/2019		0.0130		
Total organic halogen	mg/L	MW-4	09/17/2019		0.1100		*
Total organic halogen	mg/L	MW-4	04/06/2020	ND	0.0100		
Total organic halogen	mg/L	MW-4	09/24/2020	ND	0.0100		
Total organic halogen	mg/L	MW-4	04/27/2021		0.0140		
Total organic halogen	mg/L	MW-4	09/28/2021	ND	0.0200	0.0100	**
Total organic halogen	mg/L	MW-4	05/11/2022	ND	0.0100		
Total organic halogen	mg/L	MW-4	09/14/2022		0.0270		
Total organic halogen	mg/L	MW-4	05/10/2023	ND	0.0100		
Total organic halogen	mg/L	MW-4	09/13/2023		0.0100		
Total organic halogen	mg/L	MW-4	05/15/2024	ND	0.0100		
Total organic halogen	mg/L	MW-4	09/17/2024		0.0140		
Total organic halogen	mg/L	MW-4	05/29/2025		0.0870		
Total suspended solids	mg/L	MW-3	08/23/2018		75.0000		
Total suspended solids	mg/L	MW-3	11/14/2018		41.0000		
Total suspended solids	mg/L	MW-3	01/10/2019		29.0000		
Total suspended solids	mg/L	MW-3	04/01/2019		97.0000		
Total suspended solids	mg/L	MW-3	09/17/2019		138.0000		
Total suspended solids	mg/L	MW-3	04/06/2020		144.0000		
Total suspended solids	mg/L	MW-3	09/24/2020		48.0000		
Total suspended solids	mg/L	MW-3	04/27/2021		93.0000		
Total suspended solids	mg/L	MW-3	09/28/2021		126.0000		
Total suspended solids	mg/L	MW-3	05/11/2022		632.0000		
Total suspended solids	mg/L	MW-3	09/14/2022		315.0000		
Total suspended solids	mg/L	MW-3	05/10/2023		15.0000		
Total suspended solids	mg/L	MW-3	09/13/2023		29.0000		
Total suspended solids	mg/L	MW-3	05/15/2024		7.0000		
Total suspended solids	mg/L	MW-3	09/17/2024		2.0000		
Total suspended solids	mg/L	MW-3	05/29/2025		79.0000		
Total suspended solids	mg/L	MW-4	08/28/2018		500.0000		
Total suspended solids	mg/L	MW-4	11/30/2018		237.0000		
Total suspended solids	mg/L	MW-4	01/10/2019		38.0000		
Total suspended solids	mg/L	MW-4	04/01/2019		20.0000		
Total suspended solids	mg/L	MW-4	09/17/2019		44.0000		
Total suspended solids	mg/L	MW-4	04/06/2020		18.0000		
Total suspended solids	mg/L	MW-4	09/24/2020		19.0000		
Total suspended solids	mg/L	MW-4	04/27/2021		21.0000		
Total suspended solids	mg/L	MW-4	09/28/2021		26.0000		
Total suspended solids	mg/L	MW-4	05/11/2022		18.0000		
Total suspended solids	mg/L	MW-4	09/14/2022		19.0000		
Total suspended solids	mg/L	MW-4	05/10/2023		11.0000		
Total suspended solids	mg/L	MW-4	09/13/2023		8.0000		
Total suspended solids	mg/L	MW-4	05/15/2024		3.0000		
Total suspended solids	mg/L	MW-4	09/17/2024	ND	1.0000		
Total suspended solids	mg/L	MW-4	05/29/2025		5.0000		
Vanadium, total	ug/L	MW-3	08/23/2018	ND	1.0000		
Vanadium, total	ug/L	MW-3	11/14/2018	ND	1.0000		

* - Outlier for that well and constituent.
** - ND value replaced with median RL.
*** - ND value replaced with manual RL.
ND = Not detected, Result = detection limit.

Table 1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Vanadium, total	ug/L	MW-3	01/10/2019	ND	1.0000		
Vanadium, total	ug/L	MW-3	04/01/2019	ND	1.0000		
Vanadium, total	ug/L	MW-3	09/17/2019		1.4100		
Vanadium, total	ug/L	MW-3	04/06/2020	ND	1.0000		
Vanadium, total	ug/L	MW-3	09/24/2020	ND	1.0000		
Vanadium, total	ug/L	MW-3	04/27/2021	ND	1.0000		
Vanadium, total	ug/L	MW-3	09/28/2021		5.7600		*
Vanadium, total	ug/L	MW-3	05/11/2022		1.9200		
Vanadium, total	ug/L	MW-3	09/14/2022	ND	1.0000		
Vanadium, total	ug/L	MW-3	05/10/2023	ND	1.0000		
Vanadium, total	ug/L	MW-3	09/13/2023	ND	1.0000		
Vanadium, total	ug/L	MW-3	05/15/2024	ND	1.0000		
Vanadium, total	ug/L	MW-3	09/17/2024	ND	1.0000		
Vanadium, total	ug/L	MW-3	05/29/2025	ND	1.0000		
Vanadium, total	ug/L	MW-4	08/28/2018	ND	1.0000		
Vanadium, total	ug/L	MW-4	11/30/2018		1.2600		
Vanadium, total	ug/L	MW-4	01/10/2019	ND	1.0000		
Vanadium, total	ug/L	MW-4	04/01/2019	ND	1.0000		
Vanadium, total	ug/L	MW-4	09/17/2019	ND	1.0000		
Vanadium, total	ug/L	MW-4	04/06/2020	ND	1.0000		
Vanadium, total	ug/L	MW-4	09/24/2020	ND	1.0000		
Vanadium, total	ug/L	MW-4	04/27/2021	ND	1.0000		
Vanadium, total	ug/L	MW-4	09/28/2021	ND	1.0000		
Vanadium, total	ug/L	MW-4	05/11/2022	ND	1.0000		
Vanadium, total	ug/L	MW-4	09/14/2022	ND	1.0000		
Vanadium, total	ug/L	MW-4	05/10/2023	ND	1.0000		
Vanadium, total	ug/L	MW-4	09/13/2023	ND	1.0000		
Vanadium, total	ug/L	MW-4	05/15/2024	ND	1.0000		
Vanadium, total	ug/L	MW-4	09/17/2024	ND	1.0000		
Vanadium, total	ug/L	MW-4	05/29/2025	ND	1.0000		
Zinc, total	ug/L	MW-3	08/23/2018	ND	5.0000		
Zinc, total	ug/L	MW-3	11/14/2018		20.1000		
Zinc, total	ug/L	MW-3	01/10/2019	ND	5.0000		
Zinc, total	ug/L	MW-3	04/01/2019		12.1000		
Zinc, total	ug/L	MW-3	09/17/2019		22.8000		
Zinc, total	ug/L	MW-3	04/06/2020		10.8000		
Zinc, total	ug/L	MW-3	09/24/2020		6.6700		
Zinc, total	ug/L	MW-3	04/27/2021		7.1600		
Zinc, total	ug/L	MW-3	09/28/2021		8.4500		
Zinc, total	ug/L	MW-3	05/11/2022	ND	5.0000		
Zinc, total	ug/L	MW-3	09/14/2022		8.3200		
Zinc, total	ug/L	MW-3	05/10/2023		8.3600		
Zinc, total	ug/L	MW-3	09/13/2023	ND	5.0000		
Zinc, total	ug/L	MW-3	05/15/2024		9.1500		
Zinc, total	ug/L	MW-3	09/17/2024		6.9900		
Zinc, total	ug/L	MW-3	05/29/2025		5.0000		
Zinc, total	ug/L	MW-4	08/28/2018	ND	5.0000		
Zinc, total	ug/L	MW-4	11/30/2018		18.8000		
Zinc, total	ug/L	MW-4	01/10/2019	ND	5.0000		
Zinc, total	ug/L	MW-4	04/01/2019		31.4000		
Zinc, total	ug/L	MW-4	09/17/2019		17.9000		
Zinc, total	ug/L	MW-4	04/06/2020		10.5000		
Zinc, total	ug/L	MW-4	09/24/2020		16.6000		
Zinc, total	ug/L	MW-4	04/27/2021		10.1000		
Zinc, total	ug/L	MW-4	09/28/2021		9.3300		
Zinc, total	ug/L	MW-4	05/11/2022		7.5900		
Zinc, total	ug/L	MW-4	09/14/2022		7.5800		
Zinc, total	ug/L	MW-4	05/10/2023		8.8500		
Zinc, total	ug/L	MW-4	09/13/2023		7.8100		
Zinc, total	ug/L	MW-4	05/15/2024		9.8600		
Zinc, total	ug/L	MW-4	09/17/2024		9.8200		
Zinc, total	ug/L	MW-4	05/29/2025	ND	5.0000		

* - Outlier for that well and constituent.
** - ND value replaced with median RL.
*** - ND value replaced with manual RL.
ND = Not detected, Result = detection limit.

Table 2

Most Current Downgradient Monitoring Data

Constituent	Units	Well	Date		Result		Pred. Limit
Aluminum, total	ug/L	MW-1	05/29/2025	ND	100.0000		870.0000
Aluminum, total	ug/L	MW-2	05/29/2025	ND	100.0000		870.0000
Aluminum, total	ug/L	Sump Grab	05/29/2025	ND	100.0000		870.0000
Ammonia nitrogen	mg/L	MW-1	05/29/2025		0.1200		0.2600
Ammonia nitrogen	mg/L	MW-2	05/29/2025	ND	0.1000		0.2600
Ammonia nitrogen	mg/L	Sump Grab	05/29/2025	ND	0.1000		0.2600
Antimony, total	ug/L	MW-1	05/29/2025	ND	5.0000		5.0000
Antimony, total	ug/L	MW-2	05/29/2025	ND	5.0000		5.0000
Antimony, total	ug/L	Sump Grab	05/29/2025	ND	5.0000		5.0000
Arsenic, total	ug/L	MW-1	05/29/2025	ND	10.0000		10.0000
Arsenic, total	ug/L	MW-2	05/29/2025	ND	10.0000		10.0000
Arsenic, total	ug/L	Sump Grab	05/29/2025	ND	10.0000		10.0000
Barium, total	ug/L	MW-1	05/29/2025		38.4000		64.2528
Barium, total	ug/L	MW-2	05/29/2025		66.0000	*	64.2528
Barium, total	ug/L	Sump Grab	05/29/2025		123.0000	***	64.2528
Beryllium, total	ug/L	MW-1	05/29/2025	ND	1.0000		1.0000
Beryllium, total	ug/L	MW-2	05/29/2025	ND	1.0000		1.0000
Beryllium, total	ug/L	Sump Grab	05/29/2025	ND	1.0000		1.0000
Boron, total	ug/L	MW-1	05/29/2025	ND	20.0000		31.0000
Boron, total	ug/L	MW-2	05/29/2025	ND	20.0000		31.0000
Boron, total	ug/L	Sump Grab	05/29/2025		53.4000	***	31.0000
Cadmium, total	ug/L	MW-1	05/29/2025	ND	0.4000		0.4000
Cadmium, total	ug/L	MW-2	05/29/2025	ND	0.4000		0.4000
Cadmium, total	ug/L	Sump Grab	05/29/2025	ND	0.4000		0.4000
Chemical oxygen demand	mg/L	MW-1	05/29/2025	ND	10.0000		20.0000
Chemical oxygen demand	mg/L	MW-2	05/29/2025	ND	10.0000		20.0000
Chemical oxygen demand	mg/L	Sump Grab	05/29/2025	ND	10.0000		20.0000
Chloride	mg/L	MW-1	05/29/2025		3.1300		34.1000
Chloride	mg/L	MW-2	05/29/2025		2.7700		34.1000
Chloride	mg/L	Sump Grab	05/29/2025		14.4000		34.1000
Chromium, total	ug/L	MW-1	05/29/2025		3.0800		18.4548
Chromium, total	ug/L	MW-2	05/29/2025		6.9900		18.4548
Chromium, total	ug/L	Sump Grab	05/29/2025	ND	1.0000		18.4548
Cobalt, total	ug/L	MW-1	05/29/2025	ND	2.0000		3.3700
Cobalt, total	ug/L	MW-2	05/29/2025	ND	2.0000		3.3700
Cobalt, total	ug/L	Sump Grab	05/29/2025	ND	2.0000		3.3700
Copper, total	ug/L	MW-1	05/29/2025	ND	3.0000		7.6800
Copper, total	ug/L	MW-2	05/29/2025	ND	3.0000		7.6800
Copper, total	ug/L	Sump Grab	05/29/2025	ND	3.0000		7.6800
Fluoride	mg/L	MW-1	05/29/2025	ND	0.1000		0.3000
Fluoride	mg/L	MW-2	05/29/2025		0.1310		0.3000
Fluoride	mg/L	Sump Grab	05/29/2025		0.1330		0.3000
Formaldehyde	ug/L	MW-1	05/29/2025	ND	100.0000		100.0000
Formaldehyde	ug/L	MW-2	05/29/2025	ND	100.0000		100.0000
Formaldehyde	ug/L	Sump Grab	05/29/2025	ND	100.0000		100.0000
Iron, total	ug/L	MW-1	05/29/2025		26.9000		2747.0956
Iron, total	ug/L	MW-2	05/29/2025		57.9000		2747.0956
Iron, total	ug/L	Sump Grab	05/29/2025		41.0000		2747.0956
Lead, total	ug/L	MW-1	05/29/2025	ND	2.0000		3.0100
Lead, total	ug/L	MW-2	05/29/2025	ND	2.0000		3.0100
Lead, total	ug/L	Sump Grab	05/29/2025	ND	2.0000		3.0100
Magnesium, total	mg/L	MW-1	05/29/2025		49.9000		72.0000
Magnesium, total	mg/L	MW-2	05/29/2025		48.1000		72.0000
Magnesium, total	mg/L	Sump Grab	05/29/2025		38.5000		72.0000
Manganese, total	ug/L	MW-1	05/29/2025	ND	20.0000		145.0000
Manganese, total	ug/L	MW-2	05/29/2025		31.4000		145.0000
Manganese, total	ug/L	Sump Grab	05/29/2025	ND	20.0000		145.0000
Mercury, total	ug/L	MW-1	05/29/2025	ND	2.0000		2.0000
Mercury, total	ug/L	MW-2	05/29/2025	ND	2.0000		2.0000
Mercury, total	ug/L	Sump Grab	05/29/2025	ND	2.0000		2.0000
Methyl ethyl ketone	ug/L	MW-1	05/29/2025	ND	10.0000		10.0000
Methyl ethyl ketone	ug/L	MW-2	05/29/2025	ND	10.0000		10.0000
Methyl ethyl ketone	ug/L	Sump Grab	05/29/2025	ND	10.0000		10.0000
Molybdenum, total	ug/L	MW-1	05/29/2025	ND	10.0000		10.0000
Molybdenum, total	ug/L	MW-2	05/29/2025	ND	10.0000		10.0000
Molybdenum, total	ug/L	Sump Grab	05/29/2025	ND	10.0000		10.0000
Nickel, total	ug/L	MW-1	05/29/2025		1.9300		2.5100
Nickel, total	ug/L	MW-2	05/29/2025		2.9700	*	2.5100
Nickel, total	ug/L	Sump Grab	05/29/2025		1.8600		2.5100
Phenols	ug/L	MW-1	05/29/2025	ND	10.0000		25.0000
Phenols	ug/L	MW-2	05/29/2025	ND	10.0000		25.0000
Phenols	ug/L	Sump Grab	05/29/2025	ND	10.0000		25.0000

* - Current value failed - awaiting verification.
** - Current value passed - previous exceedance not verified.
*** - Current value failed - exceedance verified.
**** - Current value passed - awaiting one more verification.
***** - Insufficient background data to compute prediction limit.
ND = Not Detected, Result = detection limit.

Table 2

Most Current Downgradient Monitoring Data

Constituent	Units	Well	Date		Result		Pred. Limit
Selenium, total	ug/L	MW-1	05/29/2025	ND	5.0000		5.0000
Selenium, total	ug/L	MW-2	05/29/2025	ND	5.0000		5.0000
Selenium, total	ug/L	Sump Grab	05/29/2025	ND	5.0000		5.0000
Silver, total	ug/L	MW-1	05/29/2025	ND	1.0000		0.5000
Silver, total	ug/L	MW-2	05/29/2025	ND	1.0000		0.5000
Silver, total	ug/L	Sump Grab	05/29/2025	ND	1.0000		0.5000
Sulfate	mg/L	MW-1	05/29/2025		8.0900		18.3271
Sulfate	mg/L	MW-2	05/29/2025		24.3000	***	18.3271
Sulfate	mg/L	Sump Grab	05/29/2025		50.8000	***	18.3271
Thallium, total	ug/L	MW-1	05/29/2025	ND	2.0000		2.0000
Thallium, total	ug/L	MW-2	05/29/2025	ND	2.0000		2.0000
Thallium, total	ug/L	Sump Grab	05/29/2025	ND	2.0000		2.0000
Total organic halogen	mg/L	MW-1	05/29/2025	ND	0.0100		0.0870
Total organic halogen	mg/L	MW-2	05/29/2025		0.0360		0.0870
Total organic halogen	mg/L	Sump Grab	05/29/2025		0.0380		0.0870
Total suspended solids	mg/L	MW-1	05/29/2025		6.0000		1482.9526
Total suspended solids	mg/L	MW-2	05/29/2025		14.0000		1482.9526
Total suspended solids	mg/L	Sump Grab	05/29/2025	ND	1.0000		1482.9526
Vanadium, total	ug/L	MW-1	05/29/2025	ND	1.0000		1.9200
Vanadium, total	ug/L	MW-2	05/29/2025	ND	1.0000		1.9200
Vanadium, total	ug/L	Sump Grab	05/29/2025	ND	1.0000		1.9200
Zinc, total	ug/L	MW-1	05/29/2025	ND	5.0000		31.4000
Zinc, total	ug/L	MW-2	05/29/2025		9.1100		31.4000
Zinc, total	ug/L	Sump Grab	05/29/2025		11.4000		31.4000

* - Current value failed - awaiting verification.
** - Current value passed - previous exceedance not verified.
*** - Current value failed - exceedance verified.
**** - Current value passed - awaiting one more verification.
***** - Insufficient background data to compute prediction limit.
ND = Not Detected, Result = detection limit.

Table 3

Detection Frequencies in Upgradient and Downgradient Wells

Constituent	Detect	Upgradient N	Proportion	Detect	Downgradient N	Proportion
Aluminum, total	16	30	0.533	21	42	0.500
Ammonia nitrogen	2	32	0.063	4	42	0.095
Antimony, total	0	32	0.000	0	42	0.000
Arsenic, total	0	32	0.000	0	42	0.000
Barium, total	32	32	1.000	42	42	1.000
Beryllium, total	0	32	0.000	0	42	0.000
Boron, total	4	31	0.129	18	42	0.429
Cadmium, total	0	32	0.000	2	42	0.048
Chemical oxygen demand	12	32	0.375	14	42	0.333
Chloride	31	31	1.000	42	42	1.000
Chromium, total	30	32	0.938	30	42	0.714
Cobalt, total	1	32	0.031	0	42	0.000
Copper, total	10	31	0.323	15	42	0.357
Fluoride	17	32	0.531	34	42	0.810
Formaldehyde	0	32	0.000	0	42	0.000
Iron, total	31	31	1.000	38	42	0.905
Lead, total	3	32	0.094	1	42	0.024
Magnesium, total	32	32	1.000	42	42	1.000
Manganese, total	8	30	0.267	17	42	0.405
Mercury, total	0	32	0.000	0	42	0.000
Methyl ethyl ketone	0	30	0.000	0	41	0.000
Molybdenum, total	4	32	0.125	5	42	0.119
Nickel, total	7	30	0.233	11	42	0.262
Phenols	6	31	0.194	13	42	0.310
Selenium, total	0	32	0.000	3	42	0.071
Silver, total	0	32	0.000	0	42	0.000
Sulfate	31	31	1.000	42	42	1.000
Thallium, total	0	32	0.000	0	42	0.000
Total organic halogen	14	30	0.467	17	41	0.415
Total suspended solids	31	32	0.969	40	42	0.952
Vanadium, total	3	31	0.097	6	42	0.143
Zinc, total	25	32	0.781	27	42	0.643

N = Total number of measurements in all wells.
Detect = Total number of detections in all wells.
Proportion = Detect/N.

Table 4

Shapiro-Wilk Multiple Group Test of Normality

Constituent	Detect	N	Detect Freq	G raw	G log	G cbrt	G sqrt	G sqr	G cub	Crit Value	Dist Form	Model Type
Aluminum, total	16	30	0.533	4.904	5.439					2.326	non-norm	nonpar
Ammonia nitrogen	2	32	0.063	6.459	6.459					2.326	non-norm	nonpar
Antimony, total	0	32	0.000	6.459	6.459					2.326	non-norm	nonpar
Arsenic, total	0	32	0.000	6.459	6.459					2.326	non-norm	nonpar
Barium, total	32	32	1.000	1.543	0.459					2.326	normal	normal
Beryllium, total	0	32	0.000	6.459	6.459					2.326	non-norm	nonpar
Boron, total	4	31	0.129	9.817	10.003					2.326	non-norm	nonpar
Cadmium, total	0	32	0.000	6.459	6.459					2.326	non-norm	nonpar
Chemical oxygen demand	12	32	0.375	5.443	6.322					2.326	non-norm	nonpar
Chloride	31	31	1.000	6.127	4.461					2.326	non-norm	nonpar
Chromium, total	30	32	0.938	0.707	7.489					2.326	normal	normal
Cobalt, total	1	32	0.031	6.459	6.459					2.326	non-norm	nonpar
Copper, total	10	31	0.323	5.971	6.651					2.326	non-norm	nonpar
Fluoride	17	32	0.531	5.071	7.269					2.326	non-norm	nonpar
Formaldehyde	0	32	0.000	6.459	6.459					2.326	non-norm	nonpar
Iron, total	31	31	1.000	7.214	1.248					2.326	lognor	lognor
Lead, total	3	32	0.094	8.336	8.365					2.326	non-norm	nonpar
Magnesium, total	32	32	1.000	5.282	3.908					2.326	non-norm	nonpar
Manganese, total	8	30	0.267	7.048	7.225					2.326	non-norm	nonpar
Mercury, total	0	32	0.000	6.459	6.459					2.326	non-norm	nonpar
Methyl ethyl ketone	0	30	0.000	6.184	6.184					2.326	non-norm	nonpar
Molybdenum, total	4	32	0.125	9.998	10.215					2.326	non-norm	nonpar
Nickel, total	7	30	0.233	7.035	7.498					2.326	non-norm	nonpar
Phenols	6	31	0.194	8.466	8.548					2.326	non-norm	nonpar
Selenium, total	0	32	0.000	6.459	6.459					2.326	non-norm	nonpar
Silver, total	0	32	0.000	6.459	6.459					2.326	non-norm	nonpar
Sulfate	31	31	1.000	3.249	2.067					2.326	lognor	lognor
Thallium, total	0	32	0.000	6.459	6.459					2.326	non-norm	nonpar
Total organic halogen	14	30	0.467	5.921	5.154					2.326	non-norm	nonpar
Total suspended solids	31	32	0.969	7.400	2.039					2.326	lognor	lognor
Vanadium, total	3	31	0.097	7.967	8.089					2.326	non-norm	nonpar
Zinc, total	25	32	0.781	2.433	6.524					2.326	non-norm	nonpar

* - Distribution override for that constituent.
Fit to distribution is confirmed if G <= critical value.
Model type may not match distributional form when detection frequency < 50%.

Table 5

Summary Statistics and Prediction Limits

Constituent	Units	Detect	N	Mean	SD	alpha	Factor	Pred Limit	Type		Conf
Aluminum, total	ug/L	16	30					870.0000	nonpar		0.99
Ammonia nitrogen	mg/L	2	32					0.2600	nonpar		0.99
Antimony, total	ug/L	0	32					5.0000	nonpar	***	0.99
Arsenic, total	ug/L	0	32					10.0000	nonpar	***	0.99
Barium, total	ug/L	32	32	37.9906	10.5444	0.0100	2.4906	64.2528	normal		
Beryllium, total	ug/L	0	32					1.0000	nonpar	***	0.99
Boron, total	ug/L	4	31					31.0000	nonpar		0.99
Cadmium, total	ug/L	0	32					0.4000	nonpar	***	0.99
Chemical oxygen demand	mg/L	12	32					20.0000	nonpar		0.99
Chloride	mg/L	31	31					34.1000	nonpar		0.99
Chromium, total	ug/L	30	32	7.5425	4.3813	0.0100	2.4906	18.4548	normal		
Cobalt, total	ug/L	1	32					3.3700	nonpar		0.99
Copper, total	ug/L	10	31					7.6800	nonpar		0.99
Fluoride	mg/L	17	32					0.3000	nonpar		0.99
Formaldehyde	ug/L	0	32					100.0000	nonpar	***	0.99
Iron, total	ug/L	31	31	4.7294	1.2775	0.0100	2.4963	2747.0956	lognor		
Lead, total	ug/L	3	32					3.0100	nonpar		0.99
Magnesium, total	mg/L	32	32					72.0000	nonpar		0.99
Manganese, total	ug/L	8	30					145.0000	nonpar		0.99
Mercury, total	ug/L	0	32					2.0000	nonpar	***	0.99
Methyl ethyl ketone	ug/L	0	30					10.0000	nonpar	***	0.99
Molybdenum, total	ug/L	4	32					10.0000	nonpar	***	0.99
Nickel, total	ug/L	7	30					2.5100	nonpar		0.99
Phenols	ug/L	6	31					25.0000	nonpar		0.99
Selenium, total	ug/L	0	32					5.0000	nonpar	***	0.99
Silver, total	ug/L	0	32					0.5000	nonpar	***	0.99
Sulfate	mg/L	31	31	1.8766	0.4133	0.0100	2.4963	18.3271	lognor		
Thallium, total	ug/L	0	32					2.0000	nonpar	***	0.99
Total organic halogen	mg/L	14	30					0.0870	nonpar		0.99
Total suspended solids	mg/L	31	32	3.4892	1.5308	0.0100	2.4906	1482.9526	lognor		
Vanadium, total	ug/L	3	31					1.9200	nonpar		0.99
Zinc, total	ug/L	25	32					31.4000	nonpar		0.99

Conf = confidence level for passing initial test or one of two verification resamples at all downgradient wells for a single constituent (nonparametric test only).
* - Insufficient Data.
** - Calculated limit raised to Manual Reporting Limit.
*** - Nonparametric limit based on ND value.
For transformed data, mean and SD in transformed units and prediction limit in original units.
All sample sizes and statistics are based on outlier free data.
For nonparametric limits, median reporting limits are substituted for extreme reporting limit values.

Table 6

Dixon's Test Outliers
1% Significance Level

Constituent	Units	Well	Date	Result	ND Qualifier	Date Range	N	Critical Value
Aluminum, total	ug/L	MW-4	11/30/2018	755.0000		08/23/2018-05/29/2025	16	0.5973
Boron, total	ug/L	MW-4	08/28/2018	90.1000		08/28/2018-05/29/2025	16	0.5973
Chloride	mg/L	MW-3	11/14/2018	4.6100		08/23/2018-05/29/2025	16	0.5973
Copper, total	ug/L	MW-3	08/23/2018	32.6000		08/23/2018-05/29/2025	16	0.5973
Manganese, total	ug/L	MW-4	11/30/2018	100.0000		08/28/2018-05/29/2025	16	0.5973
Methyl ethyl ketone	ug/L	MW-3	09/17/2019	100.0000	< 100.0000	08/23/2018-05/29/2025	16	0.5973
Methyl ethyl ketone	ug/L	MW-4	09/17/2019	100.0000	< 100.0000	08/28/2018-05/29/2025	16	0.5973
Nickel, total	ug/L	MW-3	04/27/2021	3.5200		08/23/2018-05/29/2025	16	0.6177
Nickel, total	ug/L	MW-3	09/28/2021	5.0500		08/23/2018-05/29/2025	16	0.6177
Phenols	ug/L	MW-4	04/01/2019	0.5000		08/28/2018-05/29/2025	16	0.5973
Sulfate	mg/L	MW-4	05/10/2023	0.1000	< 0.1000	08/28/2018-05/29/2025	16	0.5973
Vanadium, total	ug/L	MW-3	09/28/2021	5.7600		08/23/2018-05/29/2025	16	0.5973

N = Total number of independent measurements in background at each well.
Date Range = Dates of the first and last measurements included in background at each well.
Critical Value depends on the significance level and on N-1 when the two most extreme values are tested or N for the most extreme value.

Table 8

Historical Downgradient Data for Constituent-Well Combinations that Failed the Current Statistical Evaluation or are in Verification Resampling Mode

Constituent	Units	Well	Date		Result		Pred. Limit
Barium, total	ug/L	MW-2	08/23/2018		151.0000	*	64.2528
Barium, total	ug/L	MW-2	11/14/2018		75.3000	*	64.2528
Barium, total	ug/L	MW-2	01/10/2019		61.2000		64.2528
Barium, total	ug/L	MW-2	04/01/2019		59.1000		64.2528
Barium, total	ug/L	MW-2	09/17/2019		58.6000		64.2528
Barium, total	ug/L	MW-2	04/06/2020		64.8000	*	64.2528
Barium, total	ug/L	MW-2	09/24/2020		56.6000		64.2528
Barium, total	ug/L	MW-2	04/27/2021		57.1000		64.2528
Barium, total	ug/L	MW-2	09/28/2021		75.0000	*	64.2528
Barium, total	ug/L	MW-2	05/11/2022		63.0000		64.2528
Barium, total	ug/L	MW-2	09/14/2022		54.1000		64.2528
Barium, total	ug/L	MW-2	05/10/2023		61.0000		64.2528
Barium, total	ug/L	MW-2	09/13/2023		60.0000		64.2528
Barium, total	ug/L	MW-2	05/15/2024		57.6000		64.2528
Barium, total	ug/L	MW-2	09/17/2024		61.1000		64.2528
Barium, total	ug/L	MW-2	05/29/2025		66.0000	*	64.2528
Barium, total	ug/L	Sump Grab	04/06/2020		109.0000	*	64.2528
Barium, total	ug/L	Sump Grab	09/24/2020		108.0000	*	64.2528
Barium, total	ug/L	Sump Grab	04/27/2021		93.1000	*	64.2528
Barium, total	ug/L	Sump Grab	09/28/2021		127.0000	*	64.2528
Barium, total	ug/L	Sump Grab	05/11/2022		98.8000	*	64.2528
Barium, total	ug/L	Sump Grab	09/14/2022		79.0000	*	64.2528
Barium, total	ug/L	Sump Grab	09/13/2023		133.0000	*	64.2528
Barium, total	ug/L	Sump Grab	05/15/2024		119.0000	*	64.2528
Barium, total	ug/L	Sump Grab	09/17/2024		127.0000	*	64.2528
Barium, total	ug/L	Sump Grab	05/29/2025		123.0000	*	64.2528
Boron, total	ug/L	Sump Grab	04/06/2020		40.5000	*	31.0000
Boron, total	ug/L	Sump Grab	09/24/2020		54.8000	*	31.0000
Boron, total	ug/L	Sump Grab	04/27/2021		34.2000	*	31.0000
Boron, total	ug/L	Sump Grab	09/28/2021		30.4000		31.0000
Boron, total	ug/L	Sump Grab	05/11/2022		36.6000	*	31.0000
Boron, total	ug/L	Sump Grab	09/14/2022		63.5000	*	31.0000
Boron, total	ug/L	Sump Grab	09/13/2023		81.1000	*	31.0000
Boron, total	ug/L	Sump Grab	05/15/2024		83.2000	*	31.0000
Boron, total	ug/L	Sump Grab	09/17/2024		90.0000	*	31.0000
Boron, total	ug/L	Sump Grab	05/29/2025		53.4000	*	31.0000
Nickel, total	ug/L	MW-2	08/23/2018	ND	1.0000		2.5100
Nickel, total	ug/L	MW-2	11/14/2018		1.5000		2.5100
Nickel, total	ug/L	MW-2	01/10/2019		3.2200	*	2.5100
Nickel, total	ug/L	MW-2	04/01/2019	ND	1.0000		2.5100
Nickel, total	ug/L	MW-2	09/17/2019		1.0700		2.5100
Nickel, total	ug/L	MW-2	04/06/2020	ND	1.0000		2.5100
Nickel, total	ug/L	MW-2	09/24/2020	ND	1.0000		2.5100
Nickel, total	ug/L	MW-2	04/27/2021		3.3500	*	2.5100
Nickel, total	ug/L	MW-2	09/28/2021		1.4600		2.5100
Nickel, total	ug/L	MW-2	05/11/2022	ND	1.0000		2.5100
Nickel, total	ug/L	MW-2	09/14/2022	ND	1.0000		2.5100
Nickel, total	ug/L	MW-2	05/10/2023	ND	1.0000		2.5100
Nickel, total	ug/L	MW-2	09/13/2023	ND	1.0000		2.5100
Nickel, total	ug/L	MW-2	05/15/2024	ND	1.0000		2.5100
Nickel, total	ug/L	MW-2	09/17/2024	ND	1.0000		2.5100
Nickel, total	ug/L	MW-2	05/29/2025		2.9700	*	2.5100
Sulfate	mg/L	MW-2	08/23/2018		29.8000	*	18.3271
Sulfate	mg/L	MW-2	11/14/2018		37.0000	*	18.3271
Sulfate	mg/L	MW-2	01/10/2019		26.8000	*	18.3271
Sulfate	mg/L	MW-2	04/01/2019		26.3000	*	18.3271
Sulfate	mg/L	MW-2	09/17/2019		23.4000	*	18.3271
Sulfate	mg/L	MW-2	04/06/2020		24.3000	*	18.3271
Sulfate	mg/L	MW-2	09/24/2020		24.0000	*	18.3271
Sulfate	mg/L	MW-2	04/27/2021		24.4000	*	18.3271
Sulfate	mg/L	MW-2	09/28/2021		25.4000	*	18.3271
Sulfate	mg/L	MW-2	05/11/2022		25.7000	*	18.3271
Sulfate	mg/L	MW-2	09/14/2022		24.4000	*	18.3271
Sulfate	mg/L	MW-2	05/10/2023		23.8000	*	18.3271
Sulfate	mg/L	MW-2	09/13/2023		20.7000	*	18.3271
Sulfate	mg/L	MW-2	05/15/2024		27.0000	*	18.3271
Sulfate	mg/L	MW-2	09/17/2024		25.2000	*	18.3271
Sulfate	mg/L	MW-2	05/29/2025		24.3000	*	18.3271
Sulfate	mg/L	Sump Grab	04/06/2020		122.0000	*	18.3271
Sulfate	mg/L	Sump Grab	09/24/2020		66.8000	*	18.3271
Sulfate	mg/L	Sump Grab	04/27/2021		120.0000	*	18.3271

* - Significantly increased over background.
** - Detect at limit for 100% NDs in background (NPPL only).
*** - Manual exclusion.
ND = Not Detected, Result = detection limit.

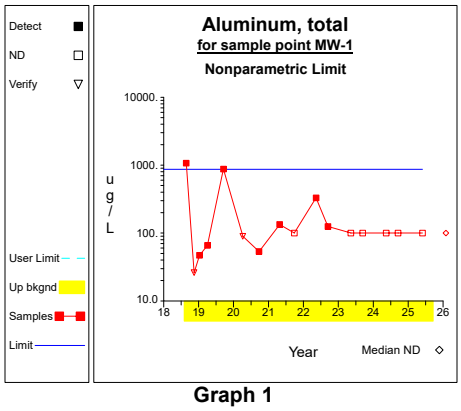
Table 8

Historical Downgradient Data for Constituent-Well Combinations that Failed the Current Statistical Evaluation or are in Verification Resampling Mode

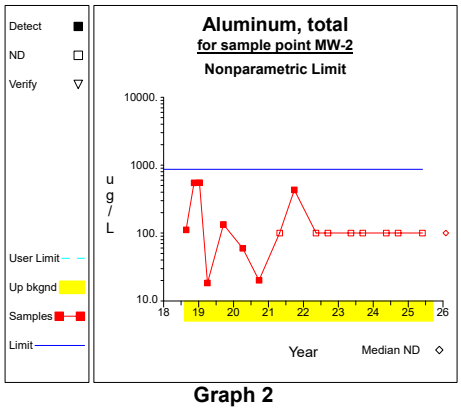
Constituent	Units	Well	Date		Result		Pred. Limit
Sulfate	mg/L	Sump Grab	09/28/2021		33.6000	*	18.3271
Sulfate	mg/L	Sump Grab	05/11/2022		39.0000	*	18.3271
Sulfate	mg/L	Sump Grab	09/14/2022		43.6000	*	18.3271
Sulfate	mg/L	Sump Grab	09/13/2023		20.1000	*	18.3271
Sulfate	mg/L	Sump Grab	05/15/2024		75.2000	*	18.3271
Sulfate	mg/L	Sump Grab	09/17/2024		100.0000	*	18.3271
Sulfate	mg/L	Sump Grab	05/29/2025		50.8000	*	18.3271

* - Significantly increased over background.
** - Detect at limit for 100% NDs in background (NPPL only).
*** - Manual exclusion.
ND = Not Detected, Result = detection limit.

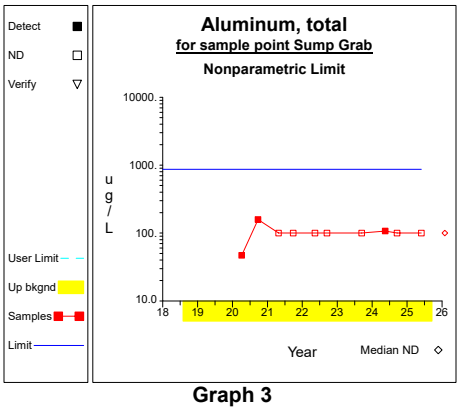
Up vs. Down Prediction Limits



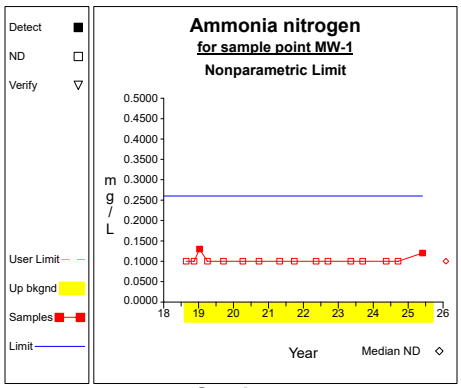
Graph 1



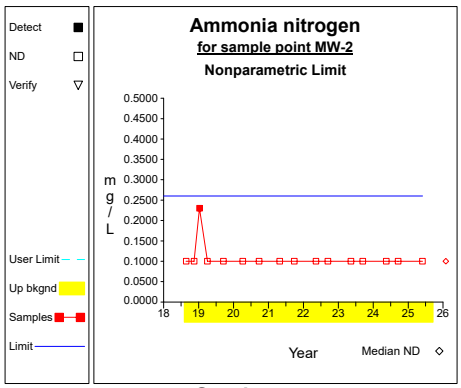
Graph 2



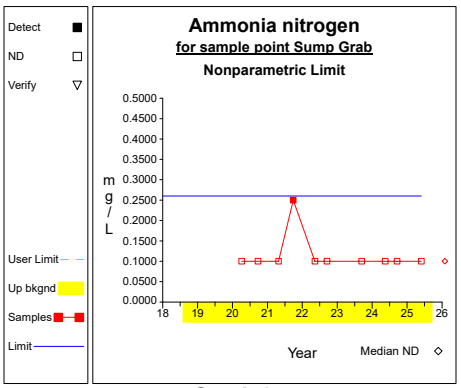
Graph 3



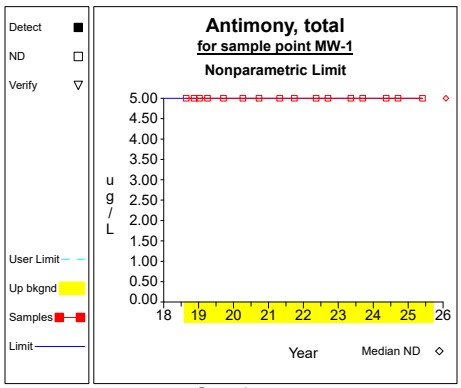
Graph 4



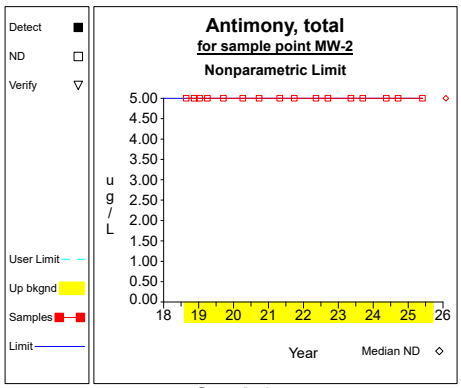
Graph 5



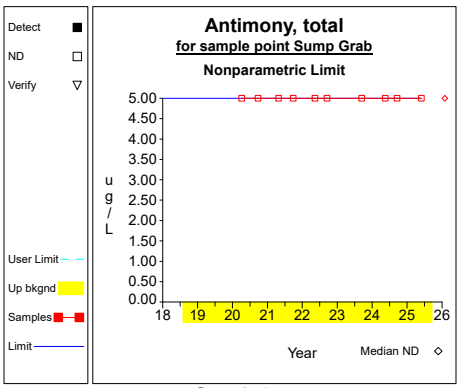
Graph 6



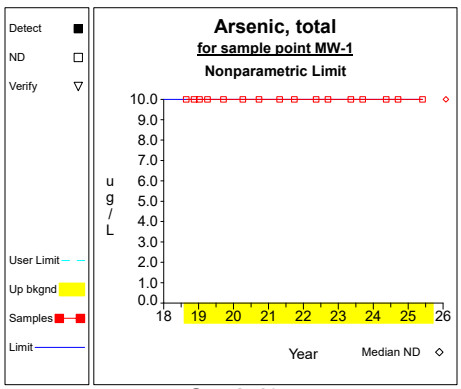
Graph 7



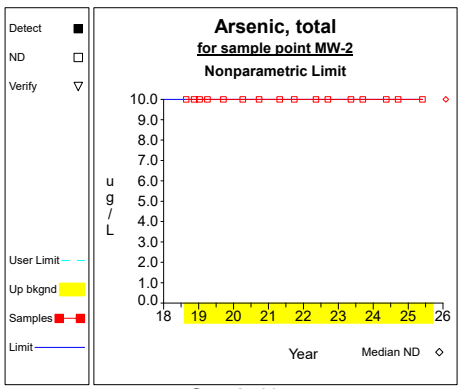
Graph 8



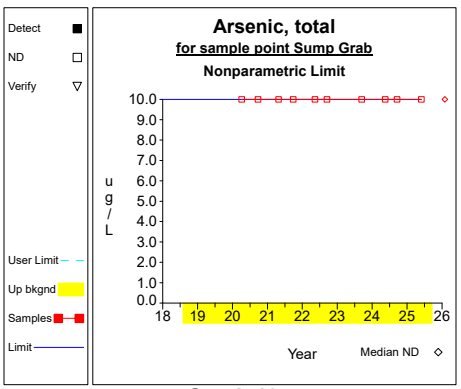
Graph 9



Graph 10



Graph 11



Graph 12

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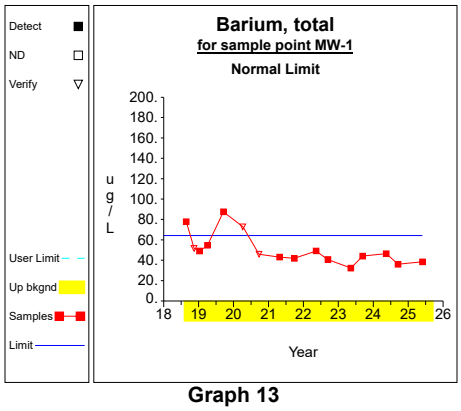
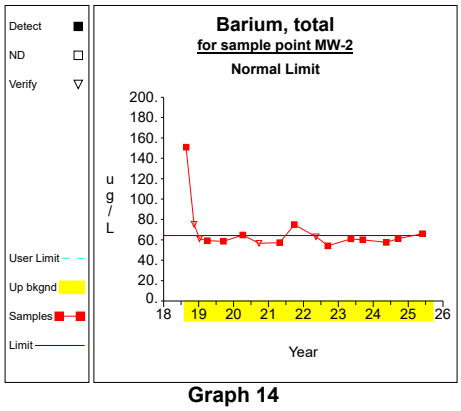
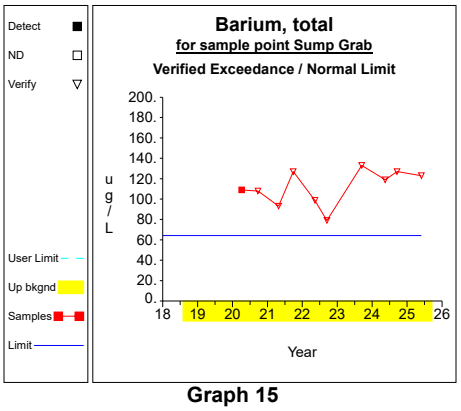
Up vs. Down Prediction Limits



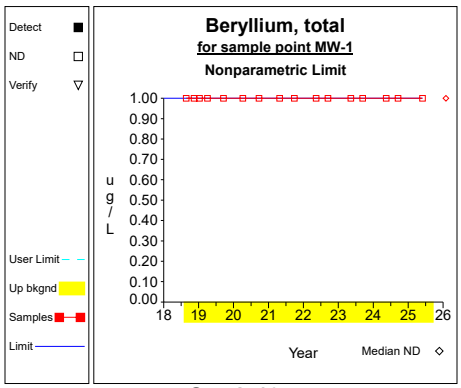
Graph 13



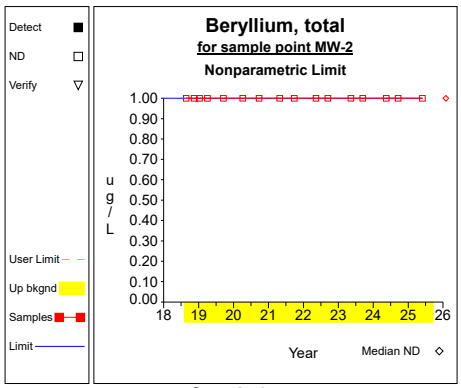
Graph 14



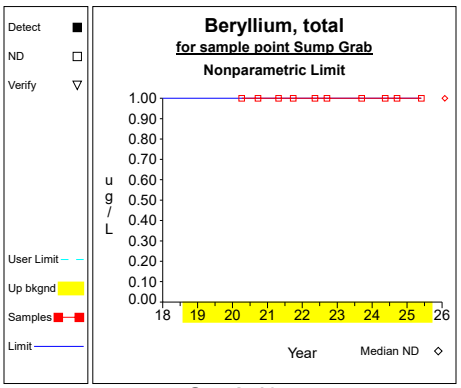
Graph 15



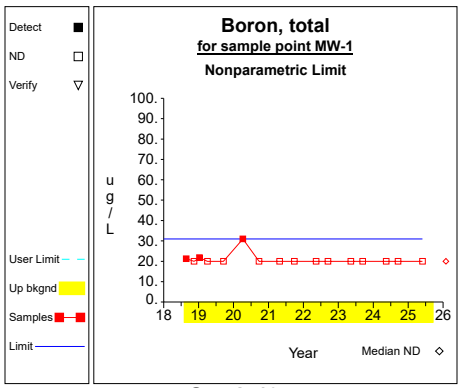
Graph 16



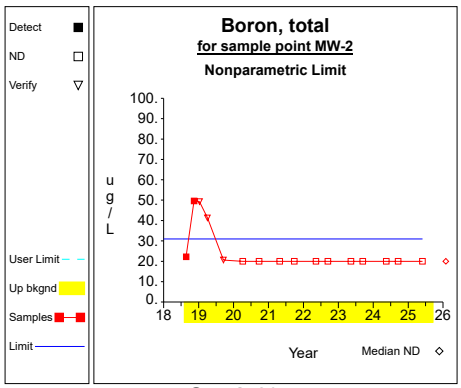
Graph 17



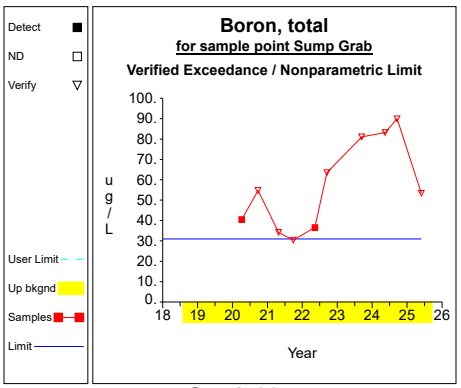
Graph 18



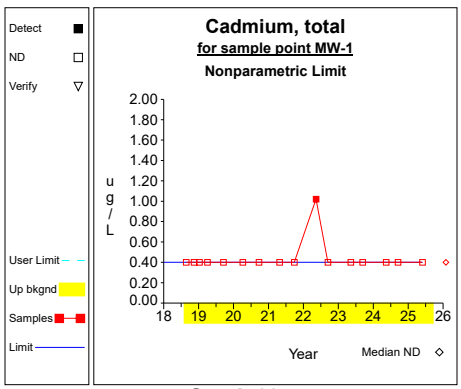
Graph 19



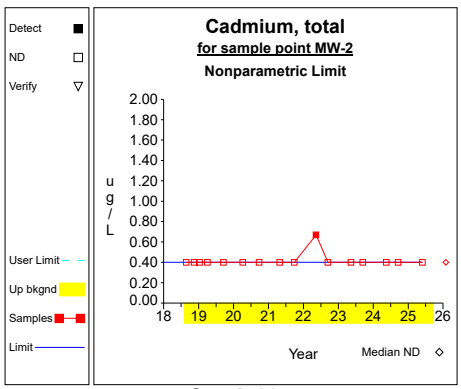
Graph 20



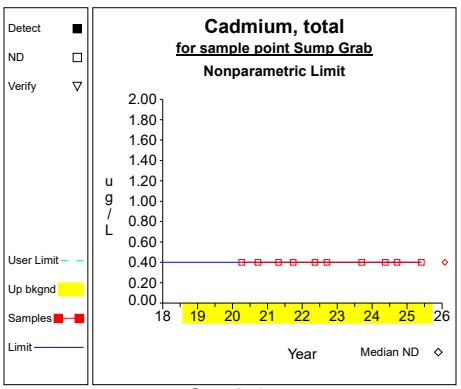
Graph 21



Graph 22



Graph 23



Graph 24

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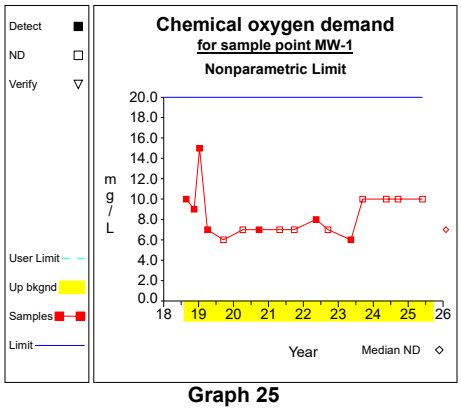
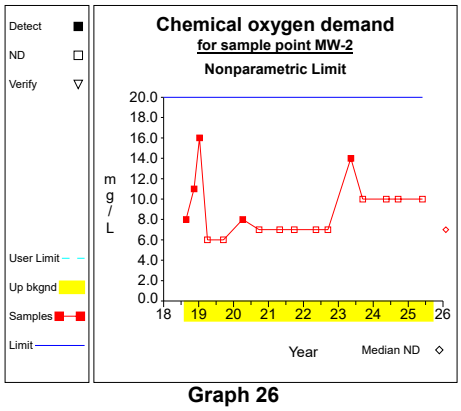
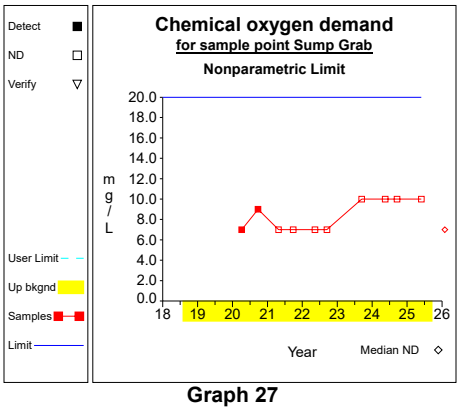
Up vs. Down Prediction Limits



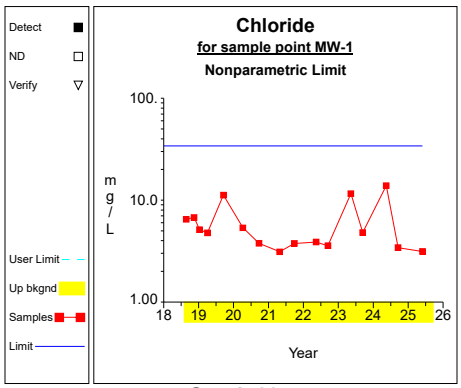
Graph 25



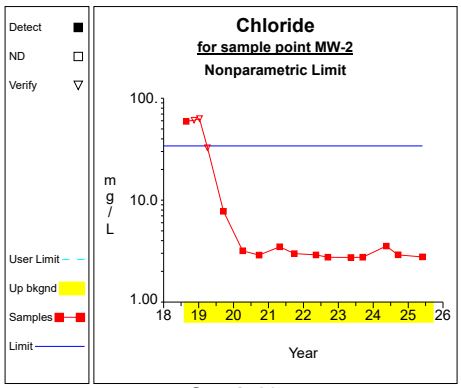
Graph 26



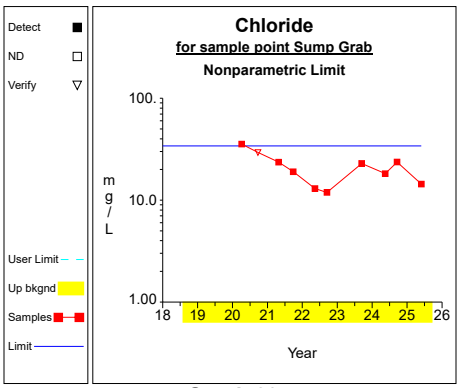
Graph 27



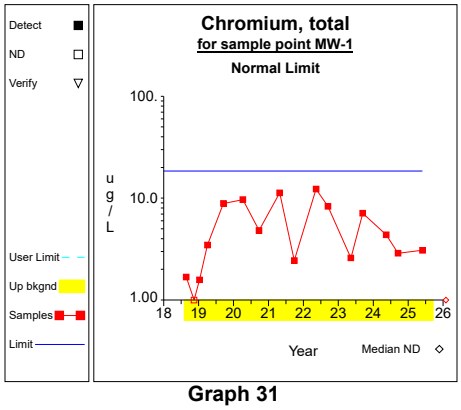
Graph 28



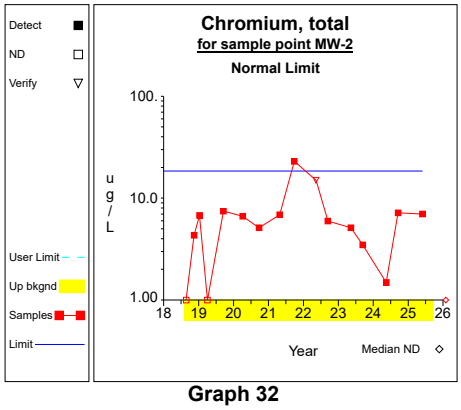
Graph 29



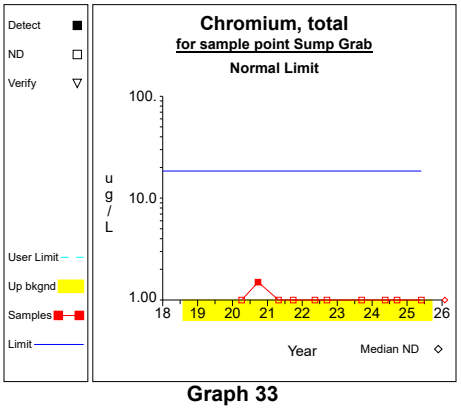
Graph 30



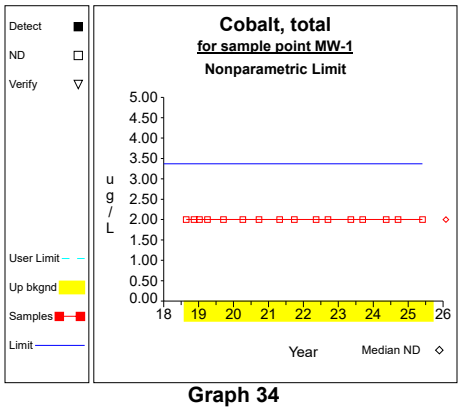
Graph 31



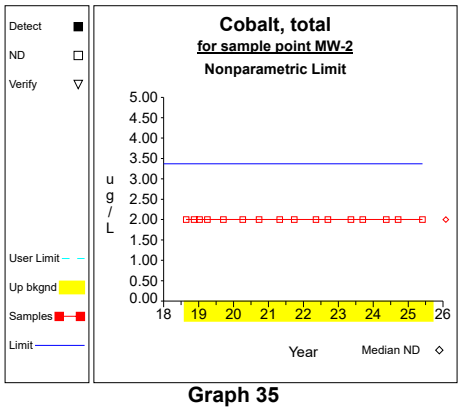
Graph 32



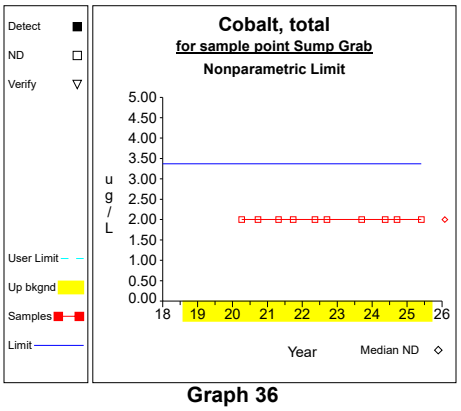
Graph 33



Graph 34



Graph 35



Graph 36

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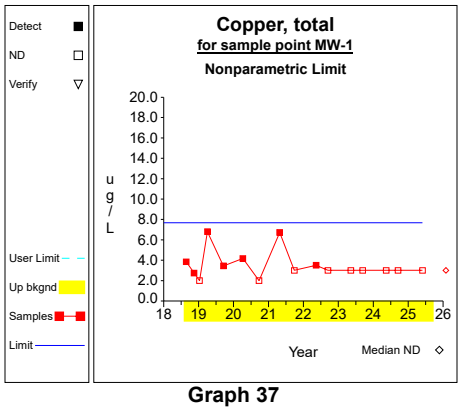
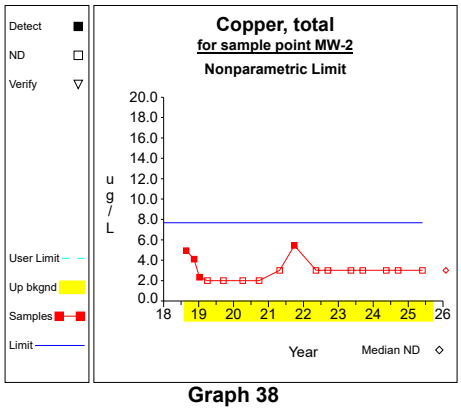
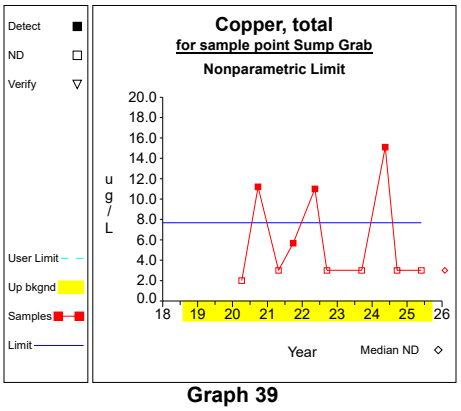
Up vs. Down Prediction Limits



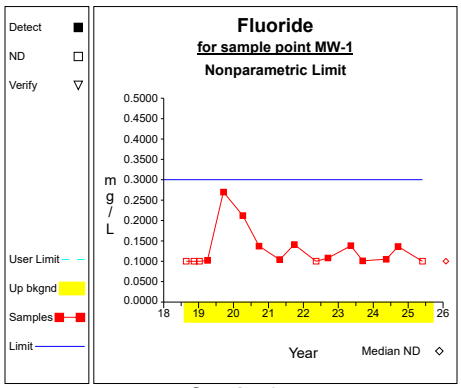
Graph 37



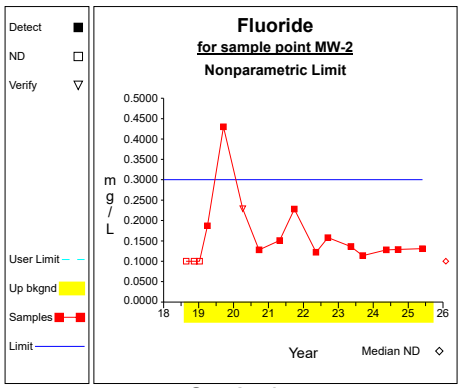
Graph 38



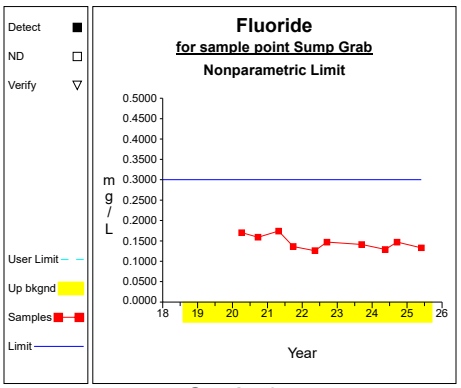
Graph 39



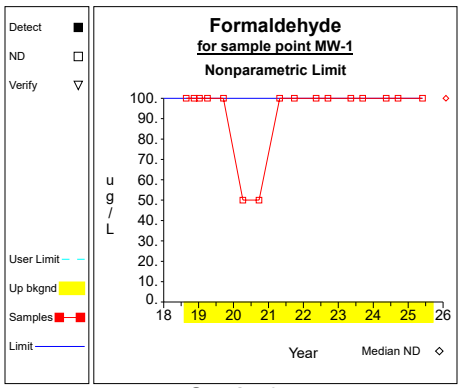
Graph 40



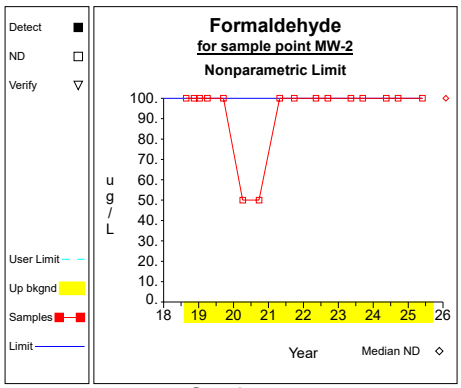
Graph 41



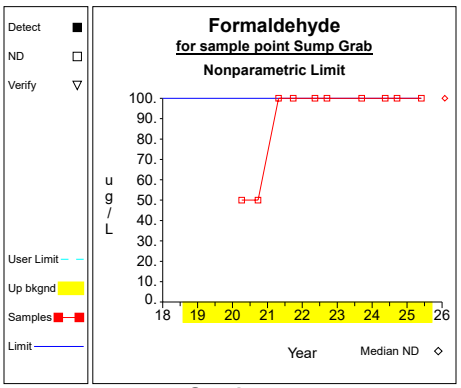
Graph 42



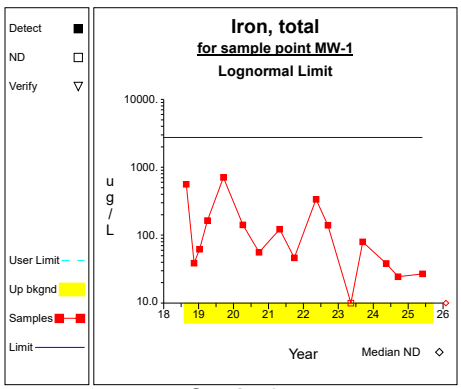
Graph 43



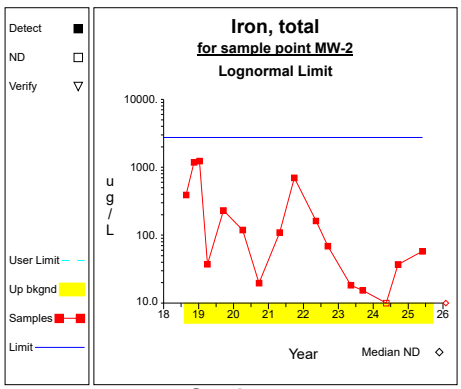
Graph 44



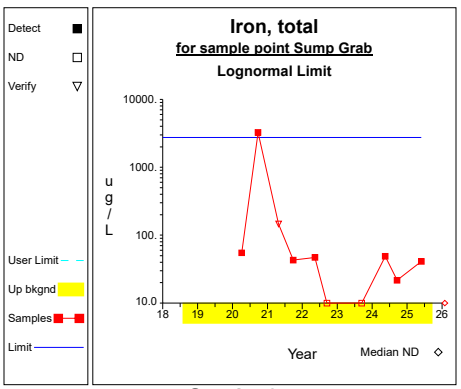
Graph 45



Graph 46



Graph 47



Graph 48

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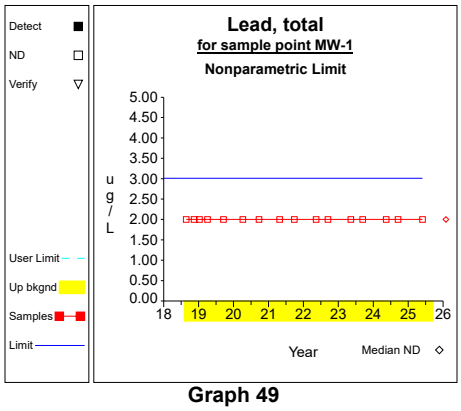
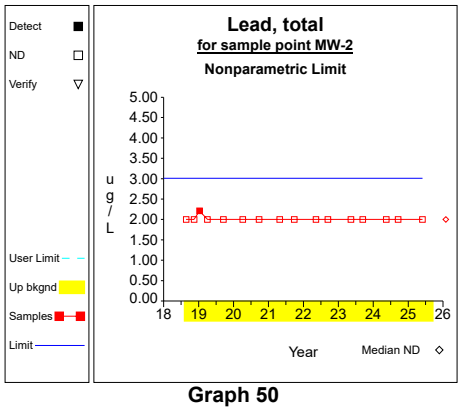
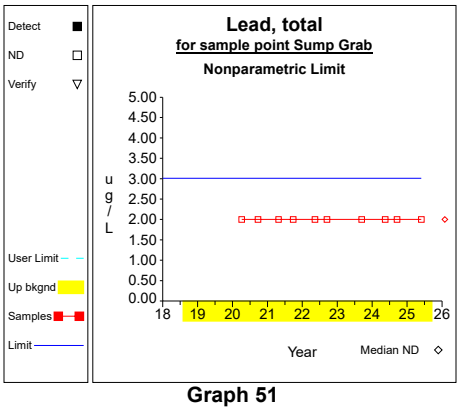
Up vs. Down Prediction Limits



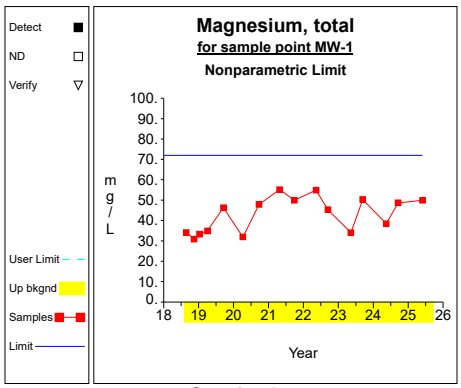
Graph 49



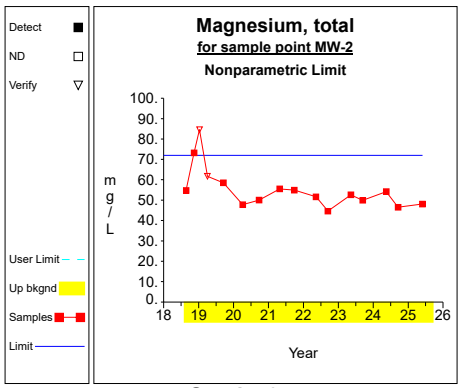
Graph 50



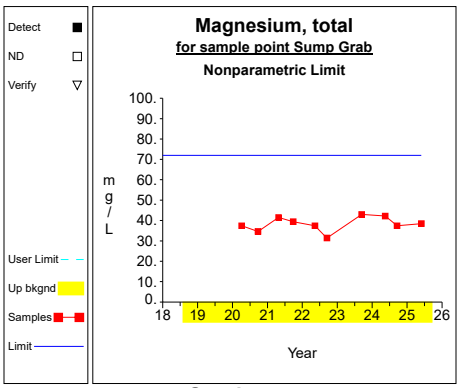
Graph 51



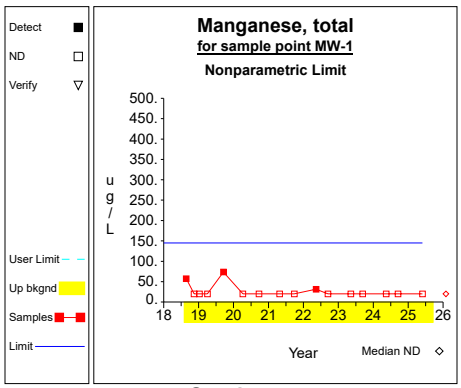
Graph 52



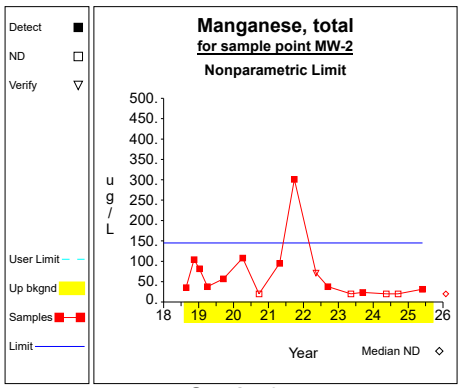
Graph 53



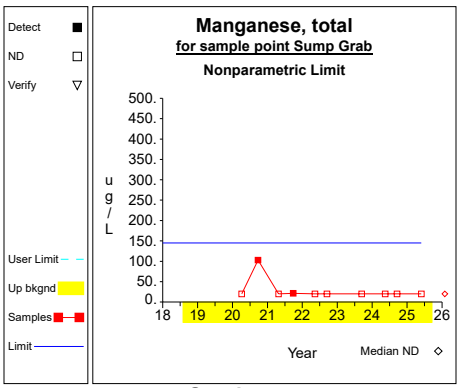
Graph 54



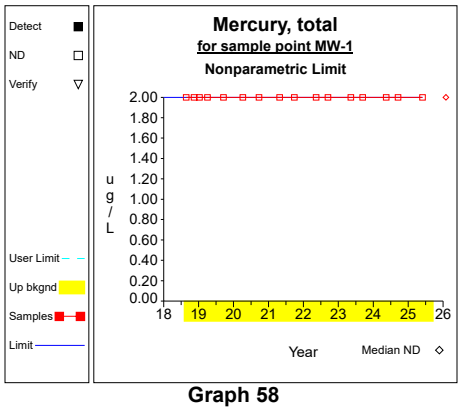
Graph 55



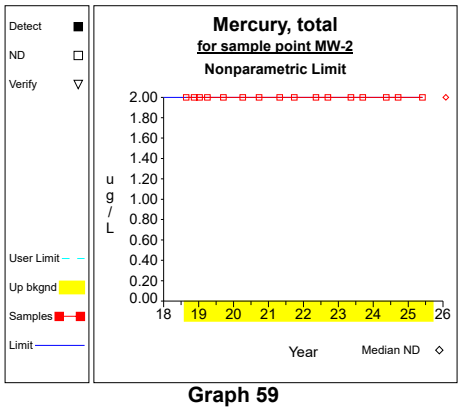
Graph 56



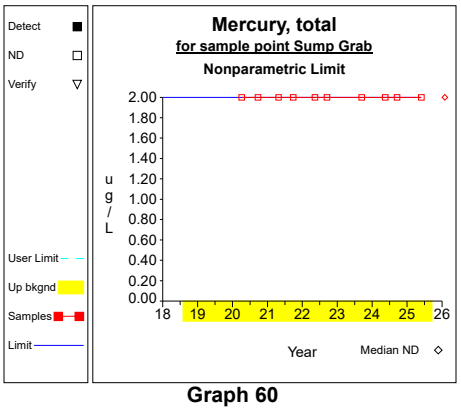
Graph 57



Graph 58



Graph 59



Graph 60

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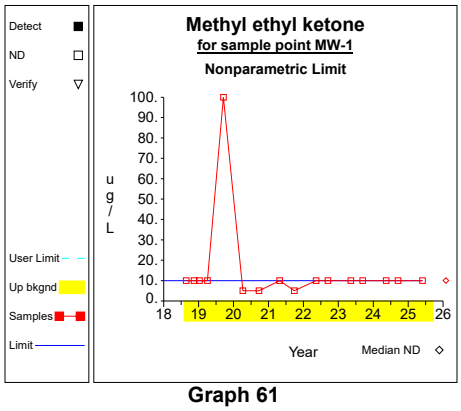
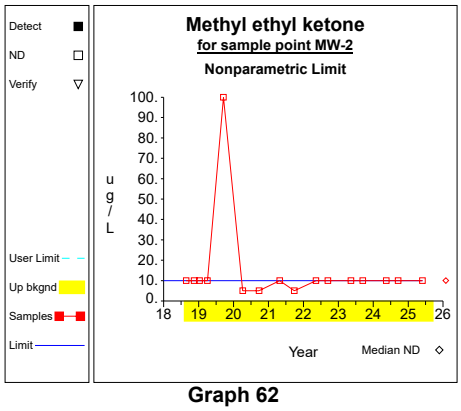
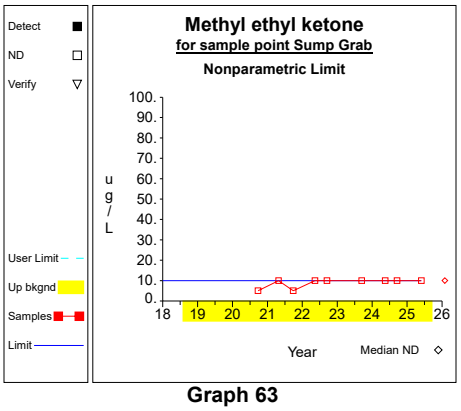
Up vs. Down Prediction Limits



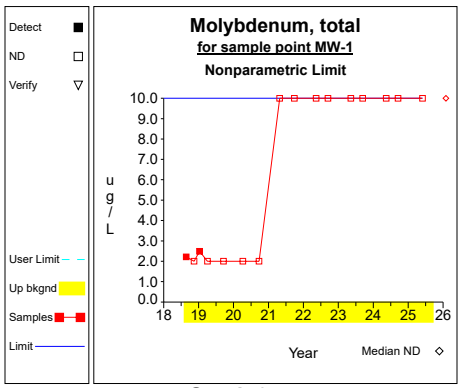
Graph 61



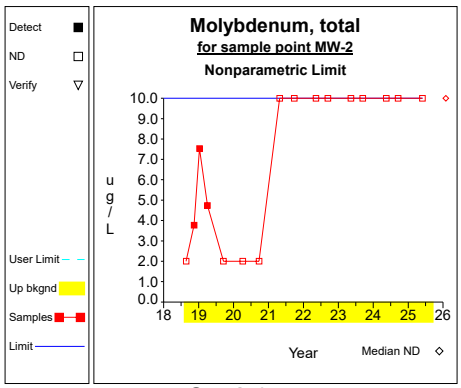
Graph 62



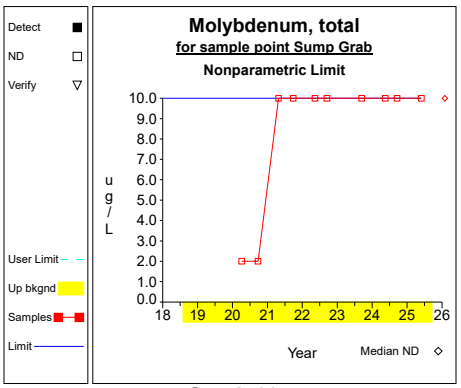
Graph 63



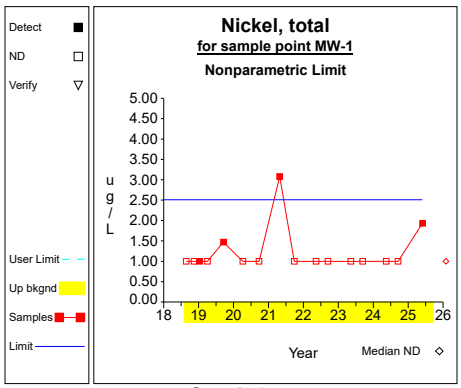
Graph 64



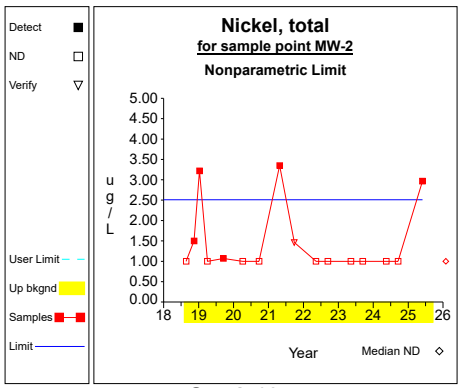
Graph 65



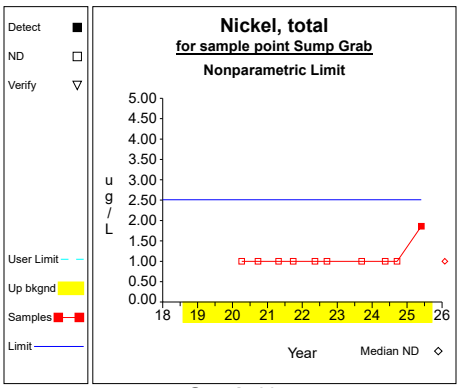
Graph 66



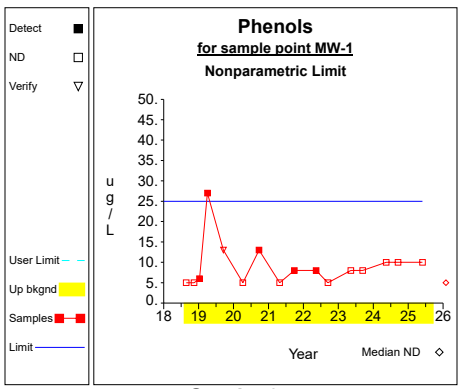
Graph 67



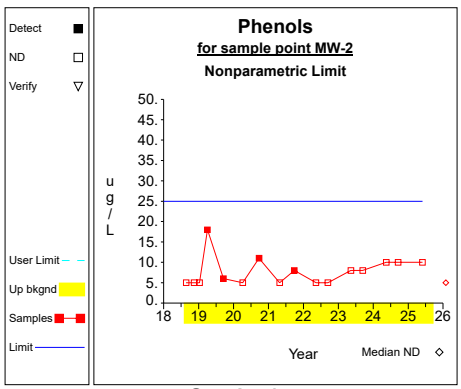
Graph 68



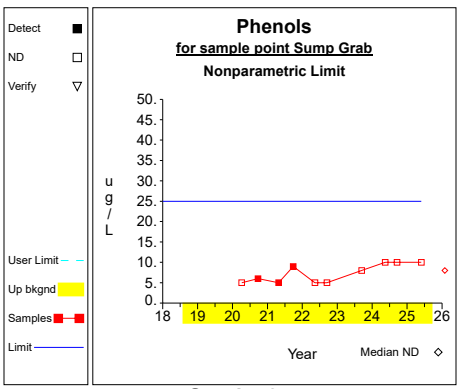
Graph 69



Graph 70



Graph 71



Graph 72

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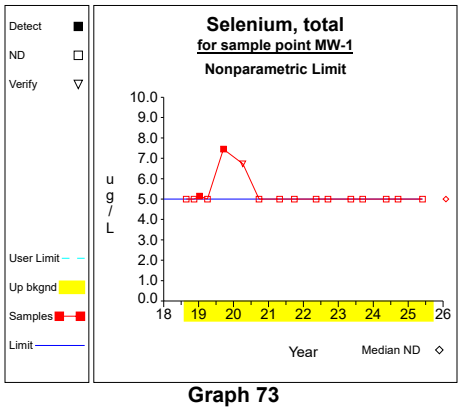
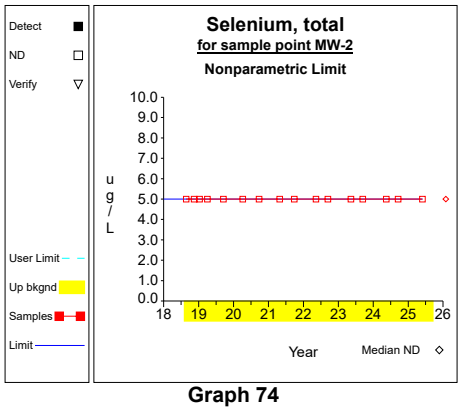
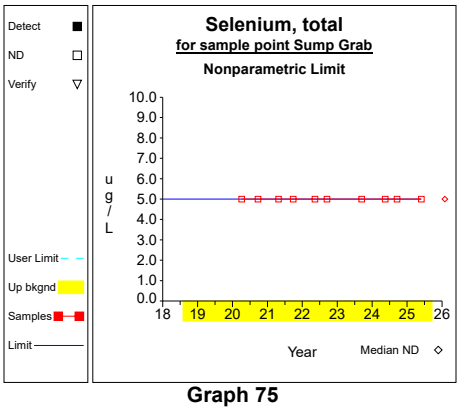
Up vs. Down Prediction Limits



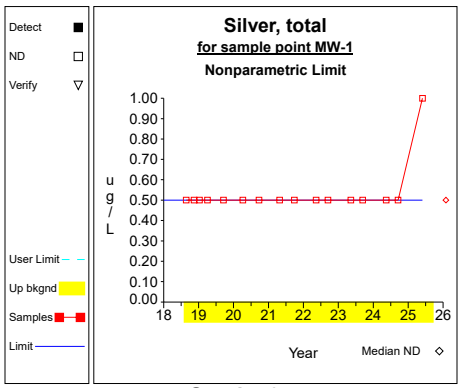
Graph 73



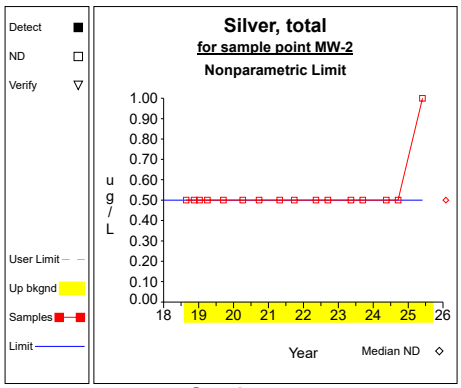
Graph 74



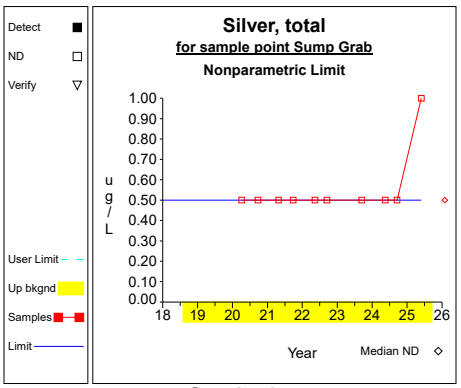
Graph 75



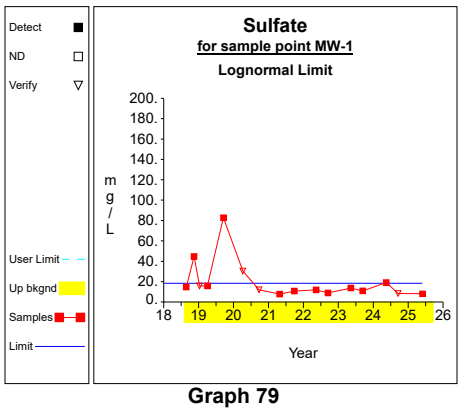
Graph 76



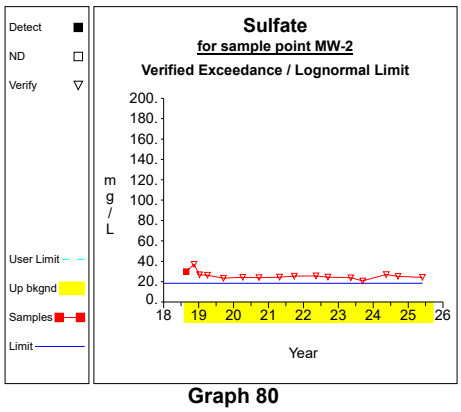
Graph 77



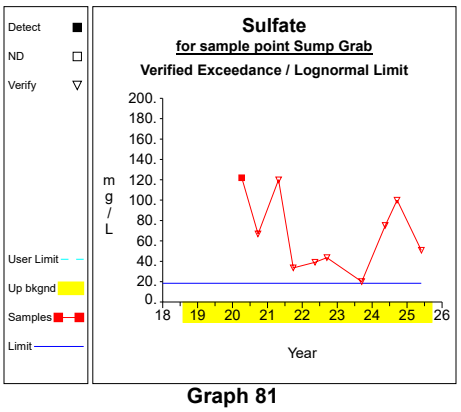
Graph 78



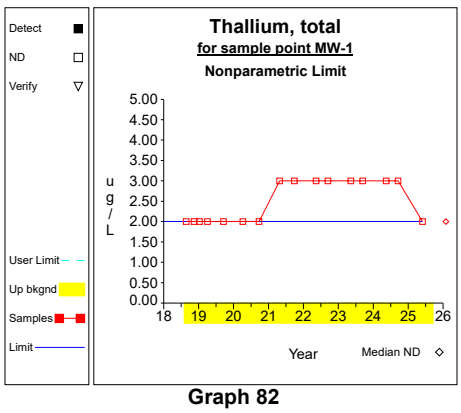
Graph 79



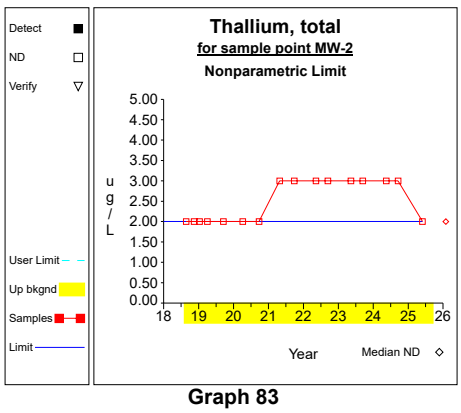
Graph 80



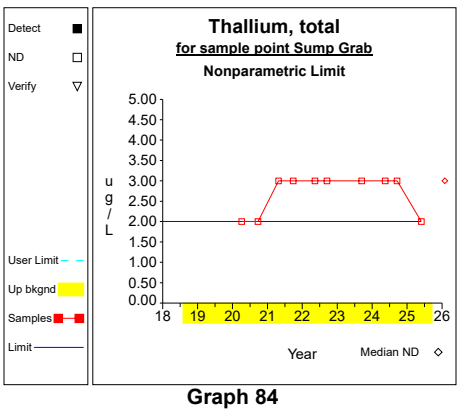
Graph 81



Graph 82



Graph 83



Graph 84

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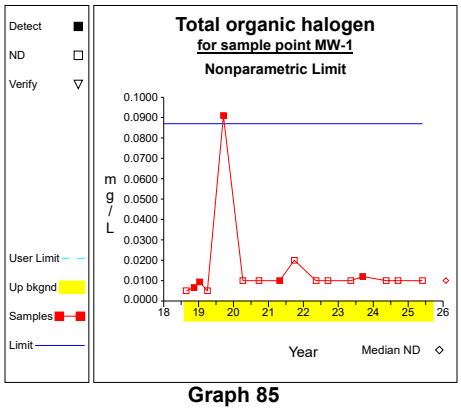
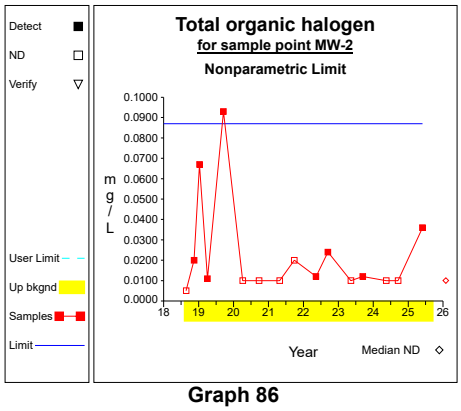
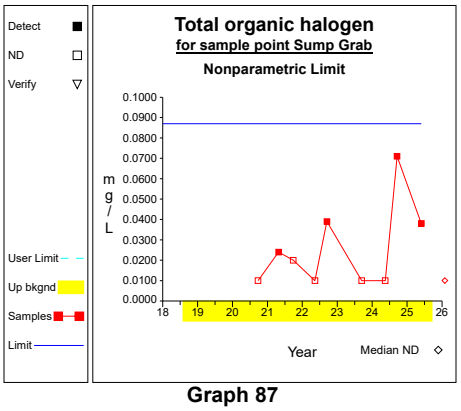
Up vs. Down Prediction Limits



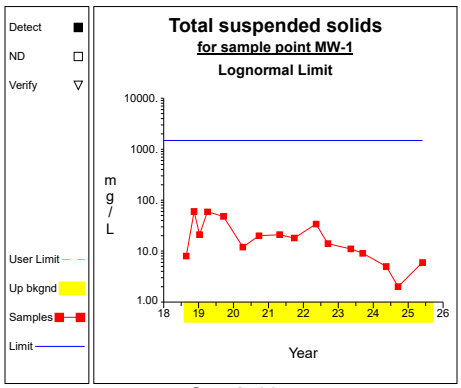
Graph 85



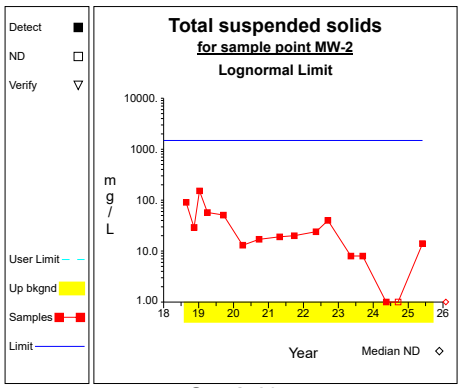
Graph 86



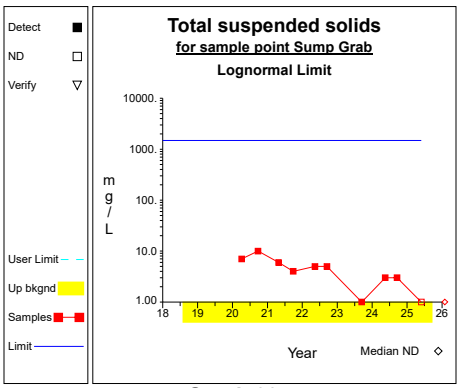
Graph 87



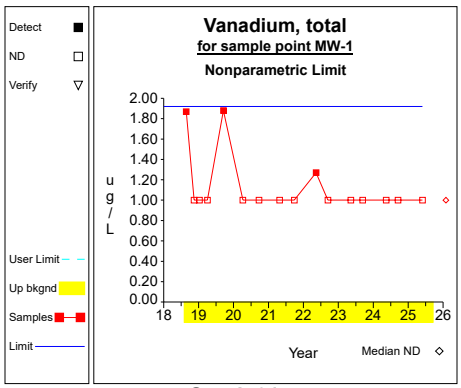
Graph 88



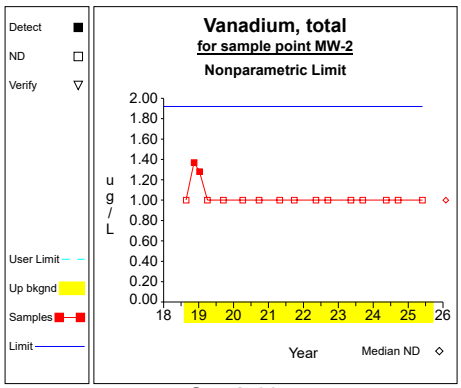
Graph 89



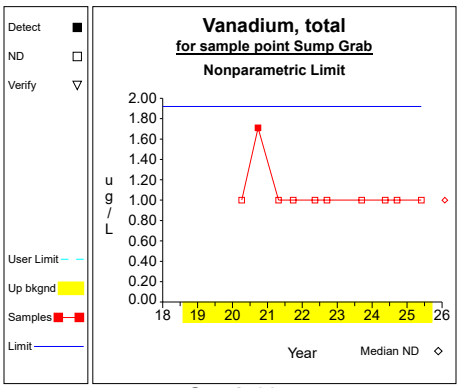
Graph 90



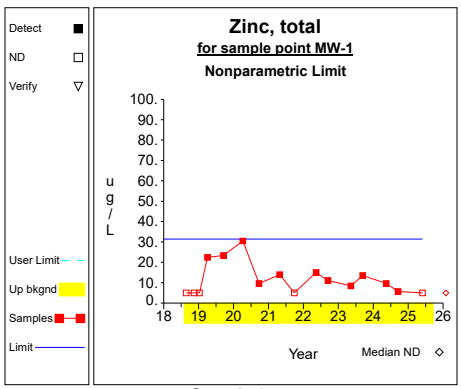
Graph 91



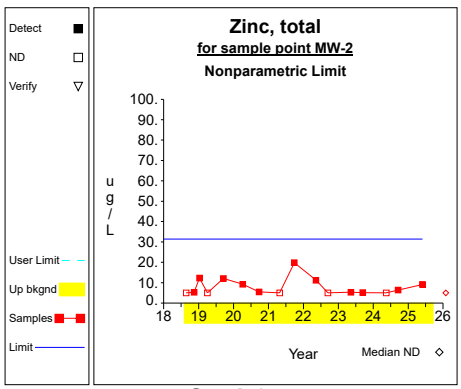
Graph 92



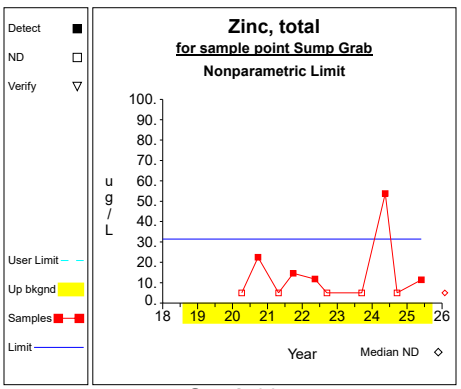
Graph 93



Graph 94



Graph 95

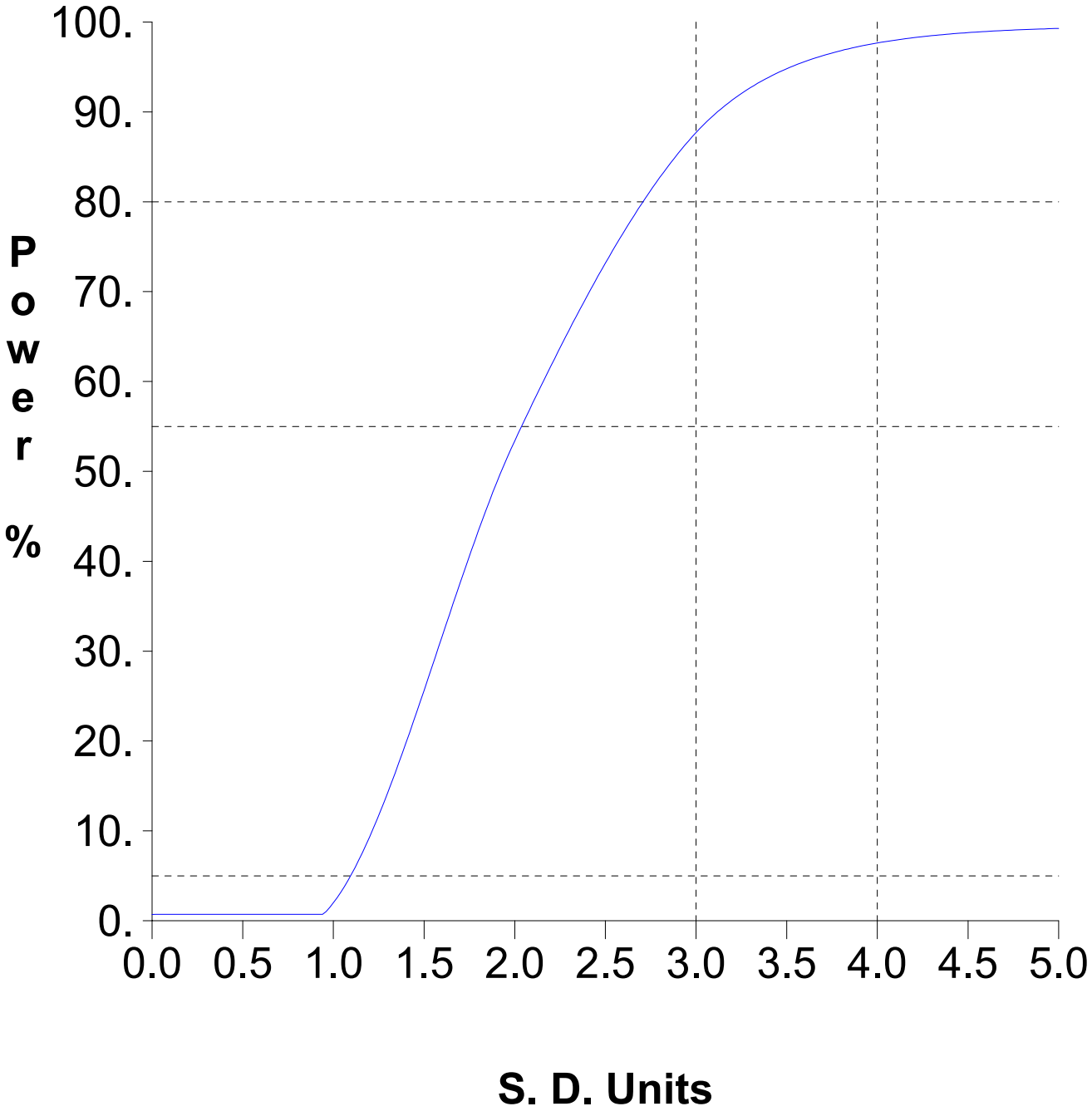


Graph 96

Prepared by: Otter Creek Environmental

False Positive and False Negative Rates for Current

Upgradient vs. Downgradient Monitoring Program



Attachment D

Summary Tables and Graphs for the Intrawell Comparisons
First Semi-Annual Monitoring Event in 2025

Table 1

Summary Statistics and Intermediate Computations for Combined Shewhart-CUSUM Control Charts

Constituent	Units	Well	N(back)	N(mon)	N(tot)	Mean	SD	R(i-1)	R(i)	S(i-1)	S(i)	Limit	Type	Conf	
Aluminum, total	ug/L	MW-1	8	8	16	295.3625	422.9416	100.0000	100.0000	295.3625	295.3625	3044.4831	normal		
Aluminum, total	ug/L	MW-2	8	8	16	192.5375	223.5234	100.0000	100.0000	192.5375	192.5375	1645.4399	normal		
Aluminum, total	ug/L	MW-3	8	7	16	210.2125	172.5289	100.0000	100.0000	210.2125	210.2125	1331.6502	normal		
Aluminum, total	ug/L	MW-4	7	8	16	77.5571	31.4196	100.0000	100.0000	77.5571	77.5571	281.7844	normal		
Aluminum, total	ug/L	Sump Grab	8	2	10	101.5000	29.7706	100.0000	100.0000	101.5000	101.5000	295.0086	normal		
Ammonia nitrogen	mg/L	MW-1	8	8	16			0.1000	0.1200			0.1300	nonpar	.99	**
Ammonia nitrogen	mg/L	MW-2	8	8	16			0.1000	0.1000			0.2300	nonpar	.99	**
Ammonia nitrogen	mg/L	MW-3	8	8	16			0.1000	0.1000			0.2600	nonpar	.99	**
Ammonia nitrogen	mg/L	MW-4	8	8	16			0.1000	0.1000			0.1200	nonpar	.99	**
Ammonia nitrogen	mg/L	Sump Grab	8	2	10			0.1000	0.1000			0.2500	nonpar	.99	**
Antimony, total	ug/L	MW-1	8	8	16			5.0000	5.0000			5.0000	nonpar	.99	**
Antimony, total	ug/L	MW-2	8	8	16			5.0000	5.0000			5.0000	nonpar	.99	**
Antimony, total	ug/L	MW-3	8	8	16			5.0000	5.0000			5.0000	nonpar	.99	**
Antimony, total	ug/L	MW-4	8	8	16			5.0000	5.0000			5.0000	nonpar	.99	**
Antimony, total	ug/L	Sump Grab	8	2	10			5.0000	5.0000			5.0000	nonpar	.99	**
Arsenic, total	ug/L	MW-1	8	8	16			10.0000	10.0000			10.0000	nonpar	.99	**
Arsenic, total	ug/L	MW-2	8	8	16			10.0000	10.0000			10.0000	nonpar	.99	**
Arsenic, total	ug/L	MW-3	8	8	16			10.0000	10.0000			10.0000	nonpar	.99	**
Arsenic, total	ug/L	MW-4	8	8	16			10.0000	10.0000			10.0000	nonpar	.99	**
Arsenic, total	ug/L	Sump Grab	8	2	10			10.0000	10.0000			10.0000	nonpar	.99	**
Barium, total	ug/L	MW-1	8	8	16	60.2750	16.6684	36.1000	38.4000	60.2750	60.2750	168.6198	normal		
Barium, total	ug/L	MW-2	8	8	16	72.9625	32.1116	61.1000	66.0000	72.9625	72.9625	281.6881	normal		
Barium, total	ug/L	MW-3	8	8	16	30.7750	6.6257	27.6000	29.3000	30.7750	30.7750	73.8417	normal		
Barium, total	ug/L	MW-4	8	8	16	43.3000	4.9742	38.4000	41.7000	43.3000	43.3000	75.6324	normal		
Barium, total	ug/L	Sump Grab	8	2	10	108.3625	17.9467	127.0000	123.0000	109.0533	108.3625	225.0163	normal		
Beryllium, total	ug/L	MW-1	8	8	16			1.0000	1.0000			1.0000	nonpar	.99	**
Beryllium, total	ug/L	MW-2	8	8	16			1.0000	1.0000			1.0000	nonpar	.99	**
Beryllium, total	ug/L	MW-3	8	8	16			1.0000	1.0000			1.0000	nonpar	.99	**
Beryllium, total	ug/L	MW-4	8	8	16			1.0000	1.0000			1.0000	nonpar	.99	**
Beryllium, total	ug/L	Sump Grab	8	2	10			1.0000	1.0000			1.0000	nonpar	.99	**
Boron, total	ug/L	MW-1	8	8	16	21.7625	3.8000	20.0000	20.0000	21.7625	21.7625	46.4623	normal		
Boron, total	ug/L	MW-2	8	8	16	30.3750	13.7966	20.0000	20.0000	30.3750	30.3750	120.0526	normal		
Boron, total	ug/L	MW-3	8	8	16			20.0000	20.0000			20.0000	nonpar	.99	**
Boron, total	ug/L	MW-4	7	8	16	21.7143	4.1115	20.0000	20.0000	21.7143	21.7143	48.4393	normal		
Boron, total	ug/L	Sump Grab	8	2	10	53.0375	21.0596	90.0000	53.4000	68.9404	53.0375	189.9247	normal		
Cadmium, total	ug/L	MW-1	8	8	16			0.4000	0.4000			0.4000	nonpar	.99	**
Cadmium, total	ug/L	MW-2	8	8	16			0.4000	0.4000			0.4000	nonpar	.99	**
Cadmium, total	ug/L	MW-3	8	8	16			0.4000	0.4000			0.4000	nonpar	.99	**
Cadmium, total	ug/L	MW-4	8	8	16			0.4000	0.4000			0.4000	nonpar	.99	**
Cadmium, total	ug/L	Sump Grab	8	2	10			0.4000	0.4000			0.4000	nonpar	.99	**
Chemical oxygen demand	mg/L	MW-1	8	8	16	8.6250	2.8253	10.0000	10.0000	8.6250	8.6250	26.9892	normal		
Chemical oxygen demand	mg/L	MW-2	8	8	16	8.3750	3.5431	10.0000	10.0000	8.3750	8.3750	31.4052	normal		
Chemical oxygen demand	mg/L	MW-3	8	8	16	9.1250	3.0443	10.0000	10.0000	9.1250	9.1250	28.9131	normal		
Chemical oxygen demand	mg/L	MW-4	8	8	16	10.6250	4.3404	10.0000	10.0000	10.6250	10.6250	38.8378	normal		
Chemical oxygen demand	mg/L	Sump Grab	8	2	10	7.2500	0.7071	10.0000	10.0000	7.2500	7.2500	11.8462	normal		
Chloride	mg/L	MW-1	8	8	16	5.8200	2.4947	3.4200	3.1300	6.5106	5.8200	22.0355	normal		

N(back) and N(mon) = Non-outlier measurements in the background and monitoring periods.
N(tot) = All independent measurements for that constituent and well.
For transformed data, mean and SD in transformed units and control limit in original units.
Conf = confidence level for passing initial test or one of two verification resamples (nonparametric test only).
* - Insufficient Data.
** - Detection Frequency < 25%.
*** - Zero Variance.

Table 1

Summary Statistics and Intermediate Computations for Combined Shewhart-CUSUM Control Charts

Constituent	Units	Well	N(back)	N(mon)	N(tot)	Mean	SD	R(i-1)	R(i)	S(i-1)	S(i)	Limit	Type	Conf	
Chloride	mg/L	MW-2	8	8	16	29.1675	28.1862	2.9100	2.7700	29.1675	29.1675	212.3775	normal		
Chloride	mg/L	MW-3	8	8	16	1.3752	1.3315	0.6080	0.5920	1.3752	1.3752	10.0303	normal		
Chloride	mg/L	MW-4	8	8	16	10.7650	11.4330	2.6000	3.1700	10.7650	10.7650	85.0797	normal		
Chloride	mg/L	Sump Grab	8	2	10	21.6750	7.9688	23.7000	14.4000	21.6750	21.6750	73.4724	normal		
Chromium, total	ug/L	MW-1	8	8	16	5.2988	4.0865	2.8800	3.0800	5.2988	5.2988	31.8611	normal		
Chromium, total	ug/L	MW-2	6	8	16	6.2000	1.2036	7.1900	6.9900	6.2000	6.2000	14.0234	normal		
Chromium, total	ug/L	MW-3	8	8	16	7.3575	6.3409	5.9000	6.5900	7.3575	7.3575	48.5731	normal		
Chromium, total	ug/L	MW-4	8	8	16	7.5900	4.6921	5.6000	4.4300	7.5900	7.5900	38.0883	normal		
Chromium, total	ug/L	Sump Grab	8	2	10			1.0000	1.0000			1.5000	nonpar	.99	**
Cobalt, total	ug/L	MW-1	8	8	16			2.0000	2.0000			2.0000	nonpar	.99	**
Cobalt, total	ug/L	MW-2	8	8	16			2.0000	2.0000			2.0000	nonpar	.99	**
Cobalt, total	ug/L	MW-3	8	8	16			2.0000	2.0000			2.0000	nonpar	.99	**
Cobalt, total	ug/L	MW-4	8	8	16			2.0000	2.0000			2.0000	nonpar	.99	**
Cobalt, total	ug/L	Sump Grab	8	2	10			2.0000	2.0000			2.0000	nonpar	.99	**
Copper, total	ug/L	MW-1	8	8	16	3.9662	1.8957	3.0000	3.0000	3.9662	3.9662	16.2886	normal		
Copper, total	ug/L	MW-2	8	8	16	2.6725	1.1713	3.0000	3.0000	2.6725	2.6725	10.2858	normal		
Copper, total	ug/L	MW-3	8	8	16	7.3413	10.3878	3.0000	3.0000	7.3413	7.3413	74.8616	normal		
Copper, total	ug/L	MW-4	8	8	16	3.0838	2.0070	7.6800	3.0000	5.6730	3.0838	16.1294	normal		
Copper, total	ug/L	Sump Grab	8	2	10	6.8725	4.8530	3.0000	3.0000	6.8725	6.8725	38.4171	normal		
Fluoride	mg/L	MW-1	8	8	16	0.1406	0.0651	0.1360	0.1000	0.1406	0.1406	0.5635	normal		
Fluoride	mg/L	MW-2	8	8	16	0.1781	0.1119	0.1290	0.1310	0.1781	0.1781	0.9055	normal		
Fluoride	mg/L	MW-3	8	8	16	0.1205	0.0431	0.1000	0.1000	0.1205	0.1205	0.4003	normal		
Fluoride	mg/L	MW-4	8	8	16	0.1548	0.0681	0.1490	0.1490	0.1548	0.1548	0.5972	normal		
Fluoride	mg/L	Sump Grab	8	2	10	0.1478	0.0182	0.1470	0.1330	0.1478	0.1478	0.2661	normal		
Formaldehyde	ug/L	MW-1	8	8	16			100.0000	100.0000			100.0000	nonpar	.99	**
Formaldehyde	ug/L	MW-2	8	8	16			100.0000	100.0000			100.0000	nonpar	.99	**
Formaldehyde	ug/L	MW-3	8	8	16			100.0000	100.0000			100.0000	nonpar	.99	**
Formaldehyde	ug/L	MW-4	8	8	16			100.0000	100.0000			100.0000	nonpar	.99	**
Formaldehyde	ug/L	Sump Grab	8	2	10			100.0000	100.0000			100.0000	nonpar	.99	**
Iron, total	ug/L	MW-1	8	8	16	232.1375	256.1545	24.4000	26.9000	232.1375	232.1375	1897.1415	normal		
Iron, total	ug/L	MW-2	8	8	16	414.6125	502.0142	37.1000	57.9000	414.6125	414.6125	3677.7047	normal		
Iron, total	ug/L	MW-3	8	7	16	485.8500	557.5418	43.0000	31.0000	485.8500	485.8500	4109.8717	normal		
Iron, total	ug/L	MW-4	8	8	16	273.4000	351.1964	23.8000	22.5000	273.4000	273.4000	2556.1763	normal		
Iron, total	ug/L	Sump Grab	8	2	10	451.2125	1131.6694	21.7000	41.0000	451.2125	451.2125	7807.0639	normal		
Lead, total	ug/L	MW-1	8	8	16			2.0000	2.0000			2.0000	nonpar	.99	**
Lead, total	ug/L	MW-2	8	8	16			2.0000	2.0000			2.2100	nonpar	.99	**
Lead, total	ug/L	MW-3	8	8	16			2.0000	2.0000			2.4100	nonpar	.99	**
Lead, total	ug/L	MW-4	8	8	16			2.0000	2.0000			3.0100	nonpar	.99	**
Lead, total	ug/L	Sump Grab	8	2	10			2.0000	2.0000			2.0000	nonpar	.99	**
Magnesium, total	mg/L	MW-1	8	8	16	39.3125	9.1299	48.7000	49.9000	39.5701	41.0276	98.6570	normal		
Magnesium, total	mg/L	MW-2	8	8	16	60.7625	12.3983	46.5000	48.1000	60.7625	60.7625	141.3512	normal		
Magnesium, total	mg/L	MW-3	8	8	16	26.5625	4.8447	21.3000	22.5000	26.5625	26.5625	58.0531	normal		
Magnesium, total	mg/L	MW-4	8	8	16	51.7250	9.0714	40.6000	41.9000	51.7250	51.7250	110.6892	normal		
Magnesium, total	mg/L	Sump Grab	8	2	10	38.3625	3.9935	37.4000	38.5000	38.3625	38.3625	64.3205	normal		
Manganese, total	ug/L	MW-1	8	8	16	31.3875	21.5201	20.0000	20.0000	31.3875	31.3875	171.2683	normal		
Manganese, total	ug/L	MW-2	8	8	16	67.3500	34.2578	20.0000	31.4000	67.3500	67.3500	290.0255	normal		

N(back) and N(mon) = Non-outlier measurements in the background and monitoring periods.
N(tot) = All independent measurements for that constituent and well.
For transformed data, mean and SD in transformed units and control limit in original units.
Conf = confidence level for passing initial test or one of two verification resamples (nonparametric test only).
* - Insufficient Data.
** - Detection Frequency < 25%.
*** - Zero Variance.

Table 1

Summary Statistics and Intermediate Computations for Combined Shewhart-CUSUM Control Charts

Constituent	Units	Well	N(back)	N(mon)	N(tot)	Mean	SD	R(i-1)	R(i)	S(i-1)	S(i)	Limit	Type	Conf	
Manganese, total	ug/L	MW-3	8	7	16	38.1250	27.8922	20.0000	20.0000	38.1250	38.1250	219.4245	normal		
Manganese, total	ug/L	MW-4	7	8	16	21.3429	2.1801	20.0000	20.0000	21.3429	21.3429	35.5135	normal		
Manganese, total	ug/L	Sump Grab	8	2	10	30.5625	29.2739	20.0000	20.0000	30.5625	30.5625	220.8427	normal		
Mercury, total	ug/L	MW-1	8	8	16			2.0000	2.0000			2.0000	nonpar	.99	**
Mercury, total	ug/L	MW-2	8	8	16			2.0000	2.0000			2.0000	nonpar	.99	**
Mercury, total	ug/L	MW-3	8	8	16			2.0000	2.0000			2.0000	nonpar	.99	**
Mercury, total	ug/L	MW-4	8	8	16			2.0000	2.0000			2.0000	nonpar	.99	**
Mercury, total	ug/L	Sump Grab	8	2	10			2.0000	2.0000			2.0000	nonpar	.99	**
Methyl ethyl ketone	ug/L	MW-1	8	8	16			10.0000	10.0000			10.0000	nonpar	.99	**
Methyl ethyl ketone	ug/L	MW-2	8	8	16			10.0000	10.0000			10.0000	nonpar	.99	**
Methyl ethyl ketone	ug/L	MW-3	8	8	16			10.0000	10.0000			10.0000	nonpar	.99	**
Methyl ethyl ketone	ug/L	MW-4	8	8	16			10.0000	10.0000			10.0000	nonpar	.99	**
Methyl ethyl ketone	ug/L	Sump Grab	7	2	9								nonpar *		**
Molybdenum, total	ug/L	MW-1	8	8	16	2.0888	0.1795	10.0000	10.0000	2.0888	2.0888	3.2554	normal		
Molybdenum, total	ug/L	MW-2	8	8	16	3.2550	2.0221	10.0000	10.0000	3.2550	3.2550	16.3984	normal		
Molybdenum, total	ug/L	MW-3	8	8	16	2.3863	0.7607	10.0000	10.0000	2.3863	2.3863	7.3310	normal		
Molybdenum, total	ug/L	MW-4	8	8	16	2.3800	0.7205	10.0000	10.0000	2.3800	2.3800	7.0632	normal		
Molybdenum, total	ug/L	Sump Grab	8	2	10			10.0000	10.0000			10.0000	nonpar	.99	**
Nickel, total	ug/L	MW-1	8	8	16	1.3188	0.7304	1.0000	1.9300	1.3188	1.3188	6.0664	normal		
Nickel, total	ug/L	MW-2	6	8	16	1.0950	0.2004	1.0000	2.9700	1.0950	2.7696	2.3974	normal		
Nickel, total	ug/L	MW-3	8	8	16	1.6000	0.9365	1.0000	1.4000	1.6000	1.6000	7.6873	normal		
Nickel, total	ug/L	MW-4	8	8	16	1.2488	0.5285	1.0000	1.8300	1.2488	1.3015	4.6843	normal		
Nickel, total	ug/L	Sump Grab	8	2	10			1.0000	1.8600			1.0000	nonpar	.99	**
Phenols	ug/L	MW-1	8	8	16	9.8750	7.7724	10.0000	10.0000	9.8750	9.8750	60.3958	normal		
Phenols	ug/L	MW-2	8	8	16	7.5000	4.7208	10.0000	10.0000	7.5000	7.5000	38.1850	normal		
Phenols	ug/L	MW-3	8	8	16	8.0000	6.1644	10.0000	10.0000	8.0000	8.0000	48.0687	normal		
Phenols	ug/L	MW-4	8	8	16	8.3125	8.0487	17.0000	10.0000	8.9513	8.3125	60.6289	normal		
Phenols	ug/L	Sump Grab	8	2	10	5.6250	1.4079	10.0000	10.0000	5.6250	5.6250	14.7763	normal		
Selenium, total	ug/L	MW-1	8	8	16	5.5413	0.9765	5.0000	5.0000	5.5413	5.5413	11.8882	normal		
Selenium, total	ug/L	MW-2	8	8	16			5.0000	5.0000			5.0000	nonpar	.99	**
Selenium, total	ug/L	MW-3	8	8	16			5.0000	5.0000			5.0000	nonpar	.99	**
Selenium, total	ug/L	MW-4	8	8	16			5.0000	5.0000			5.0000	nonpar	.99	**
Selenium, total	ug/L	Sump Grab	8	2	10			5.0000	5.0000			5.0000	nonpar	.99	**
Silver, total	ug/L	MW-1	8	8	16			0.5000	1.0000			0.5000	nonpar	.99	**
Silver, total	ug/L	MW-2	8	8	16			0.5000	1.0000			0.5000	nonpar	.99	**
Silver, total	ug/L	MW-3	8	8	16			0.5000	1.0000			0.5000	nonpar	.99	**
Silver, total	ug/L	MW-4	8	8	16			0.5000	1.0000			0.5000	nonpar	.99	**
Silver, total	ug/L	Sump Grab	8	2	10			0.5000	1.0000			0.5000	nonpar	.99	**
Sulfate	mg/L	MW-1	8	8	16	28.0150	25.1579	8.4700	8.0900	28.0150	28.0150	191.5417	normal		
Sulfate	mg/L	MW-2	8	8	16	27.0000	4.5416	25.2000	24.3000	27.0000	27.0000	56.5201	normal		
Sulfate	mg/L	MW-3	8	8	16	4.5625	0.4935	5.5200	4.9700	5.8265	5.7405	7.7702	normal		
Sulfate	mg/L	MW-4	8	8	16	9.9363	6.6715	7.9300	9.9500	9.9363	9.9363	53.3012	normal		
Sulfate	mg/L	Sump Grab	8	2	10	65.0375	38.7615	100.0000	50.8000	65.0375	65.0375	316.9875	normal		
Thallium, total	ug/L	MW-1	8	8	16			3.0000	2.0000			2.0000	nonpar	.99	**
Thallium, total	ug/L	MW-2	8	8	16			3.0000	2.0000			2.0000	nonpar	.99	**
Thallium, total	ug/L	MW-3	8	8	16			3.0000	2.0000			2.0000	nonpar	.99	**

N(back) and N(mon) = Non-outlier measurements in the background and monitoring periods.
N(tot) = All independent measurements for that constituent and well.
For transformed data, mean and SD in transformed units and control limit in original units.
Conf = confidence level for passing initial test or one of two verification resamples (nonparametric test only).
* - Insufficient Data.
** - Detection Frequency < 25%.
*** - Zero Variance.

Table 1

Summary Statistics and Intermediate Computations for Combined Shewhart-CUSUM Control Charts

Constituent	Units	Well	N(back)	N(mon)	N(tot)	Mean	SD	R(i-1)	R(i)	S(i-1)	S(i)	Limit	Type	Conf	
Thallium, total	ug/L	MW-4	8	8	16			3.0000	2.0000			2.0000	nonpar	.99	**
Thallium, total	ug/L	Sump Grab	8	2	10			3.0000	2.0000			3.0000	nonpar	.99	**
Total organic halogen	mg/L	MW-1	7	8	16	0.0066	0.0022	0.0100	0.0100	0.0066	0.0066	0.0210	normal		
Total organic halogen	mg/L	MW-2	8	8	16	0.0289	0.0325	0.0100	0.0360	0.0289	0.0289	0.2401	normal		
Total organic halogen	mg/L	MW-3	8	8	16	0.0161	0.0139	0.0190	0.0320	0.0161	0.0181	0.1067	normal		
Total organic halogen	mg/L	MW-4	6	8	16	0.0142	0.0048	0.0140	0.0870	0.0142	0.0822	0.0453	normal		
Total organic halogen	mg/L	Sump Grab	7	2	9	0.0161	0.0113	0.0710	0.0380	0.0597	0.0702	0.0899	normal		
Total suspended solids	mg/L	MW-1	8	8	16	31.1250	21.1284	2.0000	6.0000	31.1250	31.1250	168.4598	normal		
Total suspended solids	mg/L	MW-2	8	8	16	53.6250	47.6443	1.0000	14.0000	53.6250	53.6250	363.3131	normal		
Total suspended solids	mg/L	MW-3	8	8	16	83.1250	43.1126	2.0000	79.0000	83.1250	83.1250	363.3569	normal		
Total suspended solids	mg/L	MW-4	6	8	16	26.6667	11.3078	1.0000	5.0000	26.6667	26.6667	100.1675	normal		
Total suspended solids	mg/L	Sump Grab	8	2	10	5.1250	2.6959	3.0000	1.0000	5.1250	5.1250	22.6483	normal		
Vanadium, total	ug/L	MW-1	8	8	16	1.2188	0.4051	1.0000	1.0000	1.2188	1.2188	3.8516	normal		
Vanadium, total	ug/L	MW-2	8	8	16	1.0813	0.1524	1.0000	1.0000	1.0813	1.0813	2.0716	normal		
Vanadium, total	ug/L	MW-3	8	8	16			1.0000	1.0000			1.4100	nonpar	.99	**
Vanadium, total	ug/L	MW-4	8	8	16			1.0000	1.0000			1.2600	nonpar	.99	**
Vanadium, total	ug/L	Sump Grab	8	2	10			1.0000	1.0000			1.7100	nonpar	.99	**
Zinc, total	ug/L	MW-1	8	8	16	14.3588	9.9482	5.6800	5.0000	14.3588	14.3588	79.0220	normal		
Zinc, total	ug/L	MW-2	8	8	16	7.4325	3.2733	6.4100	9.1100	7.4325	7.4325	28.7091	normal		
Zinc, total	ug/L	MW-3	8	8	16	11.2038	6.8501	6.9900	5.0000	11.2038	11.2038	55.7291	normal		
Zinc, total	ug/L	MW-4	8	8	16	14.4125	8.7494	9.8200	5.0000	14.4125	14.4125	71.2839	normal		
Zinc, total	ug/L	Sump Grab	8	2	10	15.3375	16.7809	5.0000	11.4000	15.3375	15.3375	124.4130	normal		

N(back) and N(mon) = Non-outlier measurements in the background and monitoring periods.
N(tot) = All independent measurements for that constituent and well.
For transformed data, mean and SD in transformed units and control limit in original units.
Conf = confidence level for passing initial test or one of two verification resamples (nonparametric test only).
* - Insufficient Data.
** - Detection Frequency < 25%.
*** - Zero Variance.

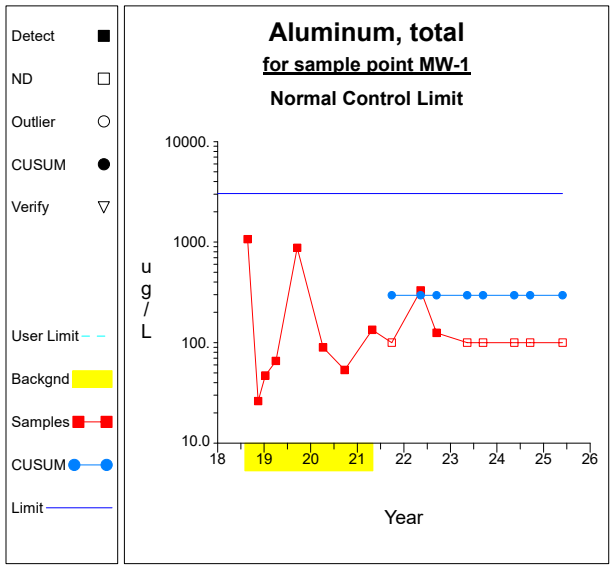
Table 4

Dixon's Test Outliers
1% Significance Level

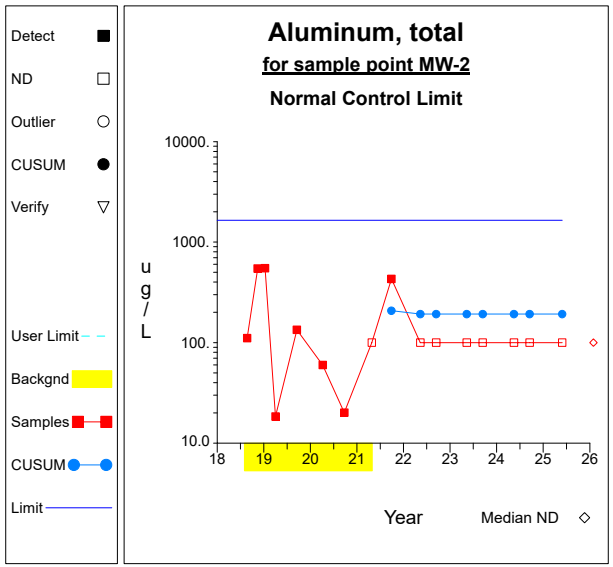
Constituent	Units	Well	Date	Result	ND Qualifier	Date Range	N	Critical Value
Aluminum, total	ug/L	MW-4	11/30/2018	755.0000		08/23/2018-04/27/2021	8	0.6808
Boron, total	ug/L	MW-4	08/28/2018	90.1000		08/28/2018-04/27/2021	8	0.6808
Chromium, total	ug/L	MW-2	08/23/2018	1.0000	< 1.0000	08/23/2018-04/27/2021	8	0.6371
Chromium, total	ug/L	MW-2	04/01/2019	1.0000	< 1.0000	08/23/2018-04/27/2021	8	0.6371
Manganese, total	ug/L	MW-4	11/30/2018	100.0000		08/28/2018-04/27/2021	8	0.6808
Nickel, total	ug/L	MW-2	01/10/2019	3.2200		08/23/2018-04/27/2021	8	0.6371
Nickel, total	ug/L	MW-2	04/27/2021	3.3500		08/23/2018-04/27/2021	8	0.6371
Total organic halogen	mg/L	MW-1	09/17/2019	0.0910		08/23/2018-04/27/2021	8	0.6808
Total suspended solids	mg/L	MW-4	08/28/2018	500.0000		08/28/2018-04/27/2021	8	0.6371
Total suspended solids	mg/L	MW-4	11/30/2018	237.0000		08/28/2018-04/27/2021	8	0.6371

N = Total number of independent measurements in background at each well.
Date Range = Dates of the first and last measurements included in background at each well.
Critical Value depends on the significance level and on N-1 when the two most extreme values are tested or N for the most extreme value.

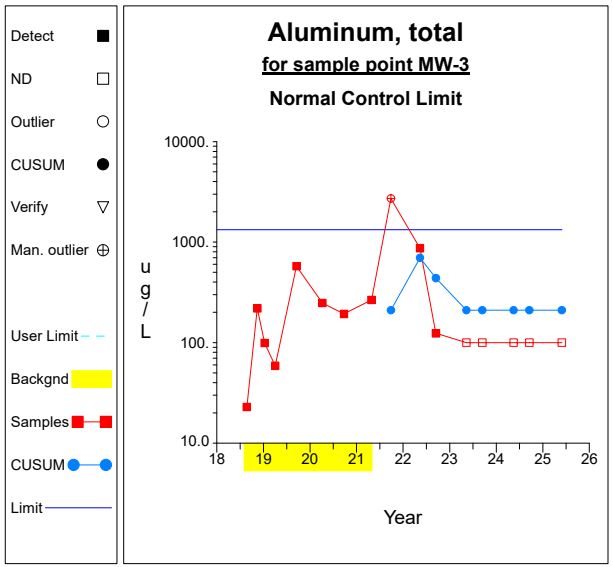
Intra-Well Control Charts / Prediction Limits



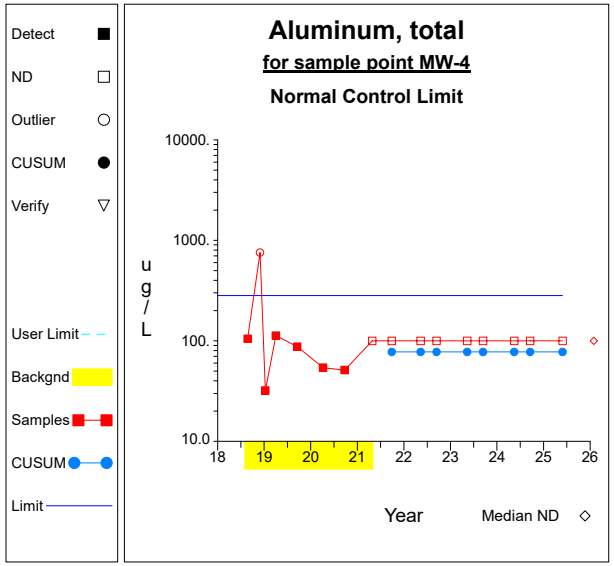
Graph 1



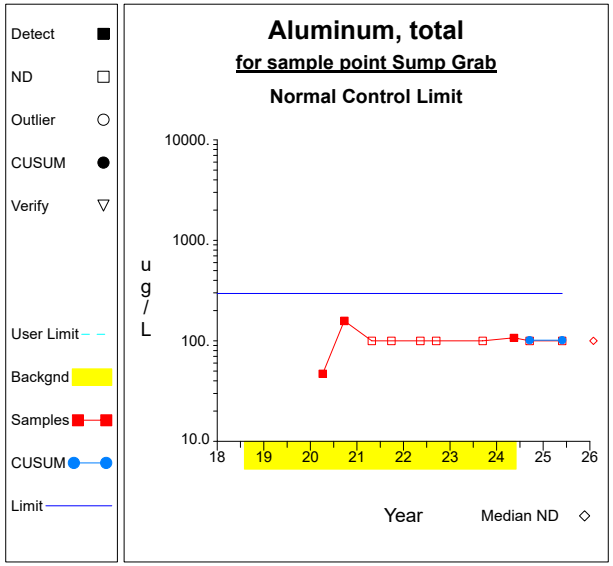
Graph 2



Graph 3

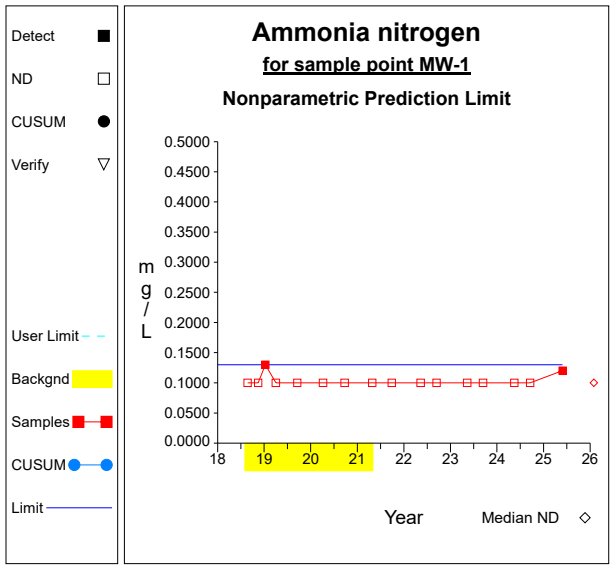


Graph 4

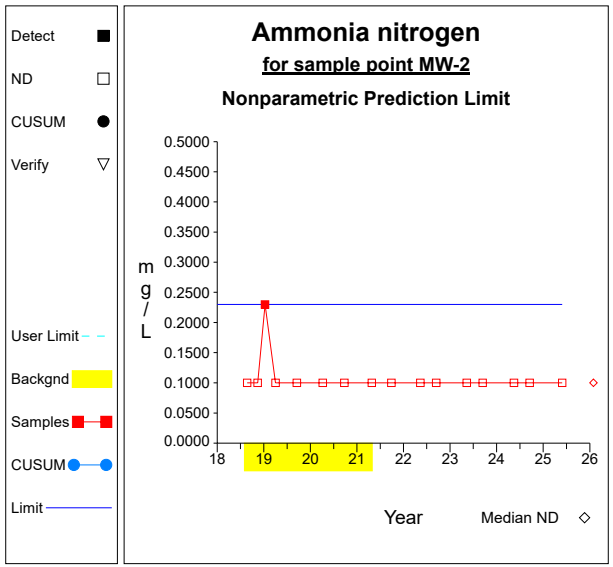


Graph 5

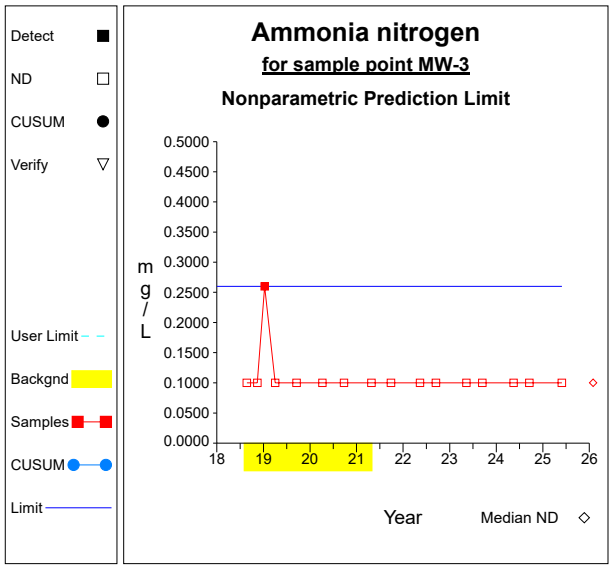
Intra-Well Control Charts / Prediction Limits



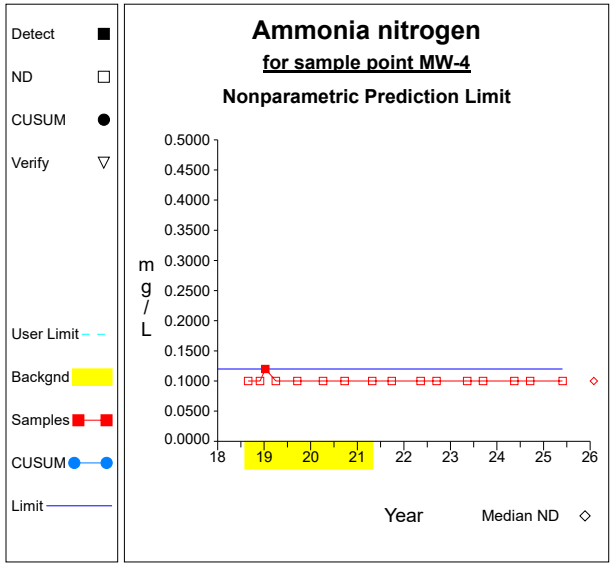
Graph 6



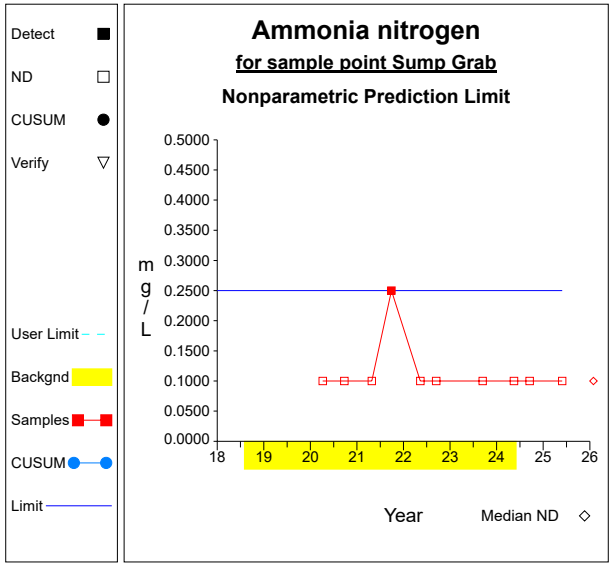
Graph 7



Graph 8

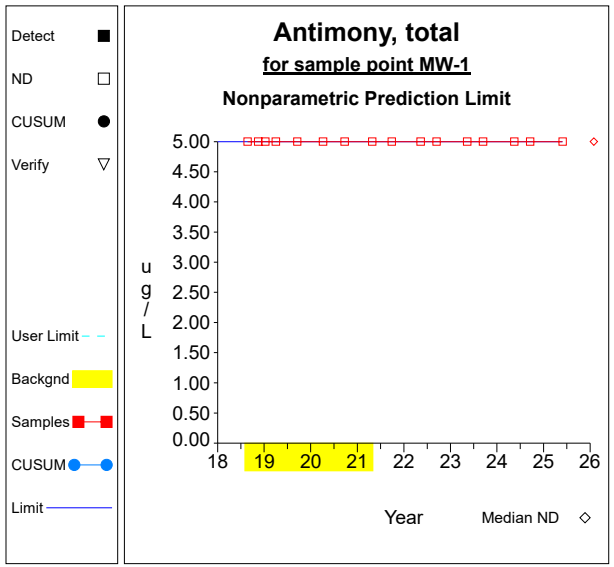


Graph 9

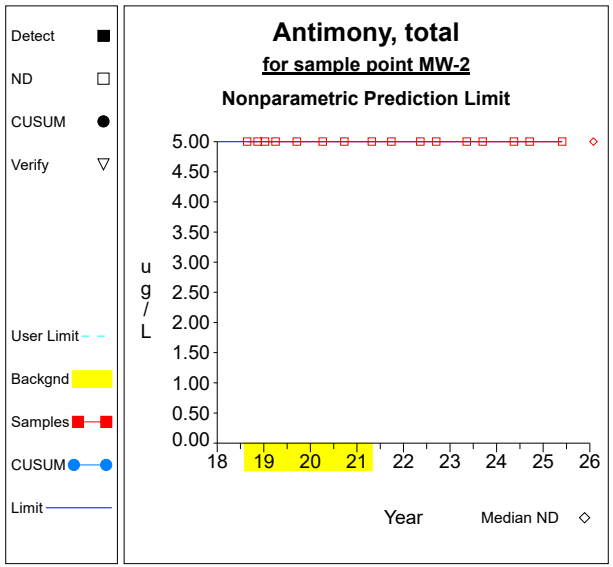


Graph 10

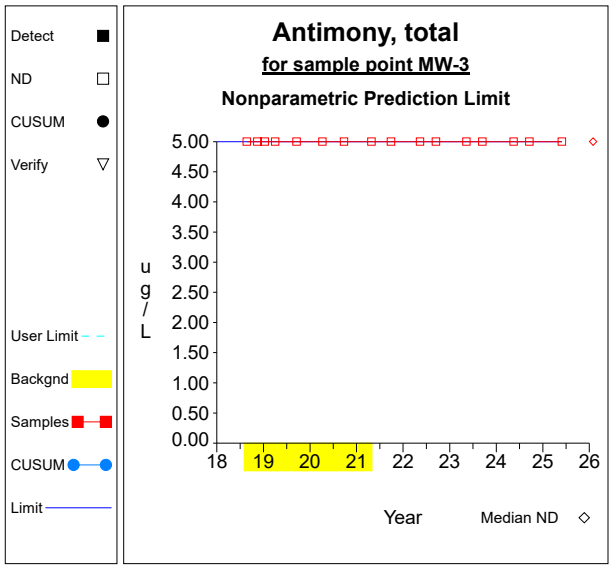
Intra-Well Control Charts / Prediction Limits



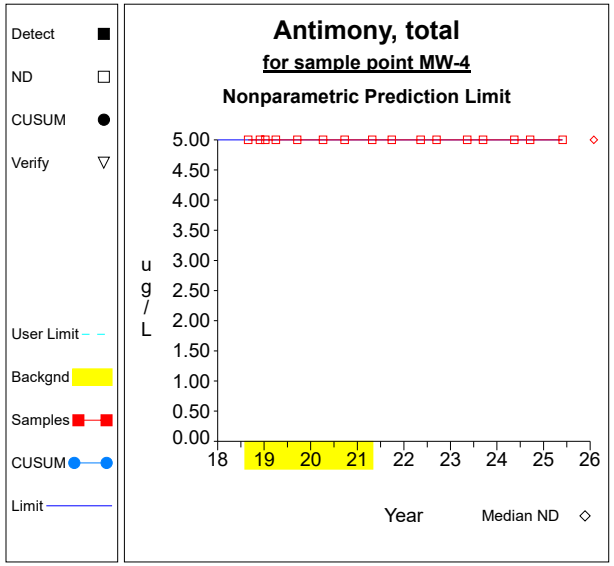
Graph 11



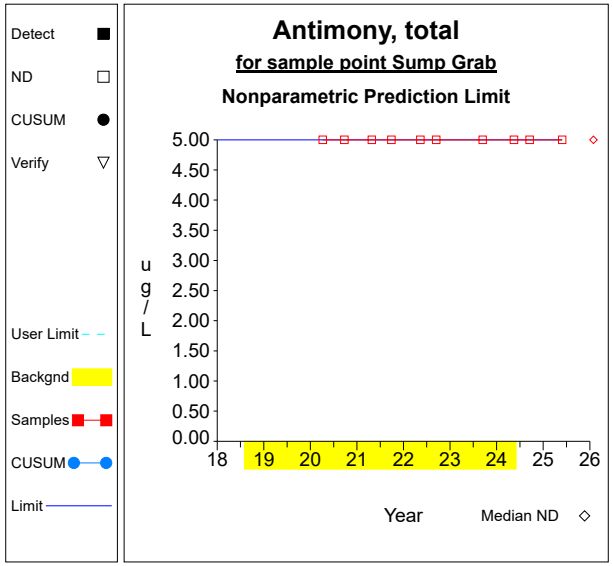
Graph 12



Graph 13

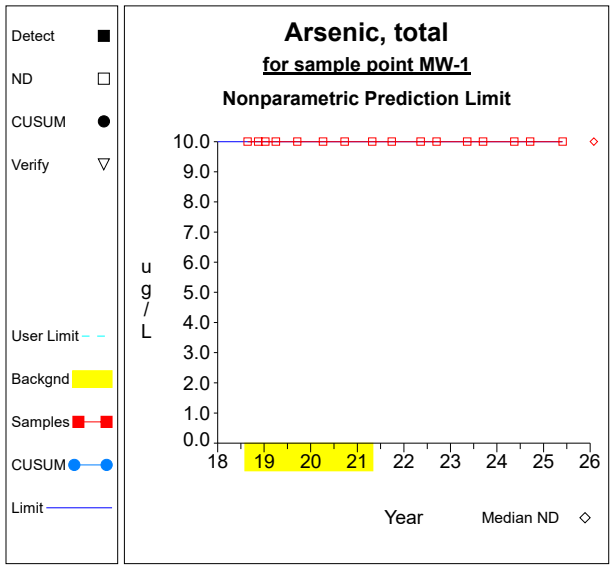


Graph 14

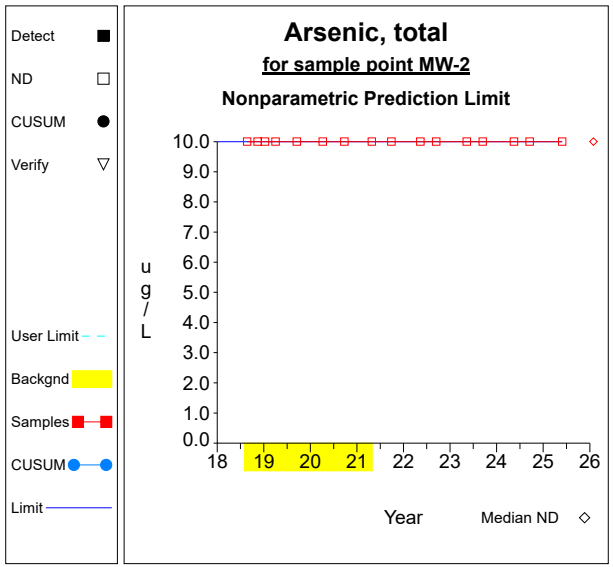


Graph 15

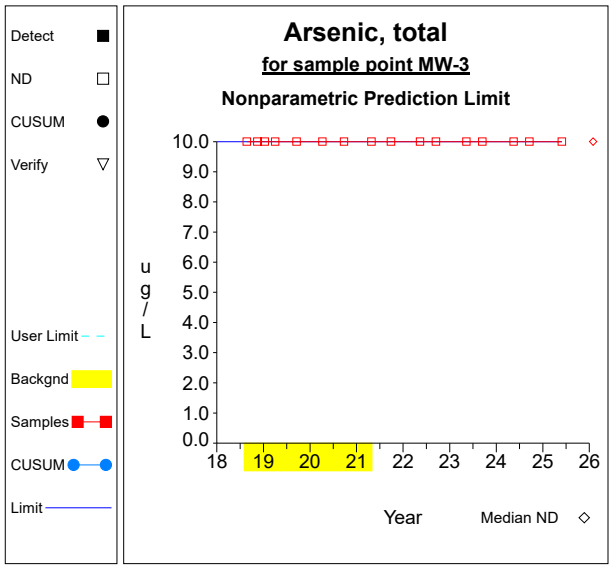
Intra-Well Control Charts / Prediction Limits



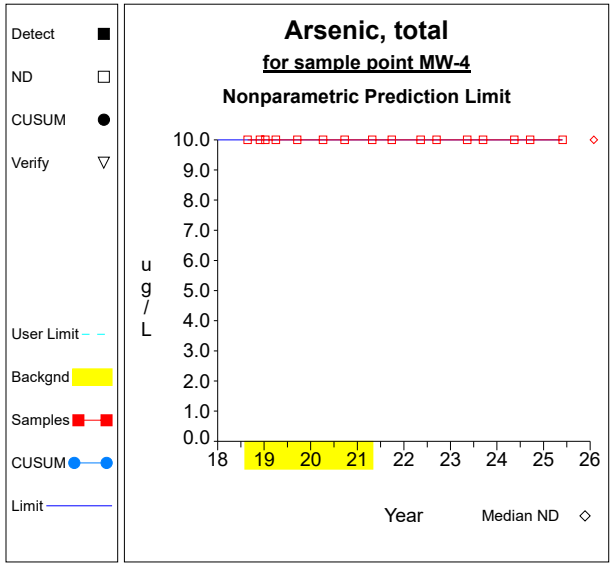
Graph 16



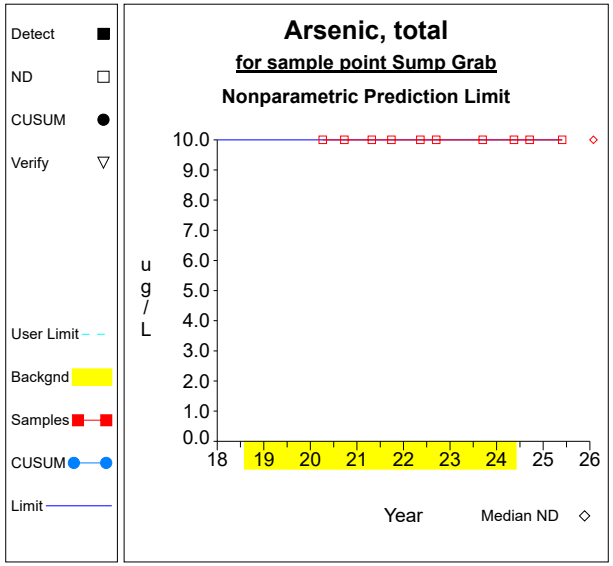
Graph 17



Graph 18

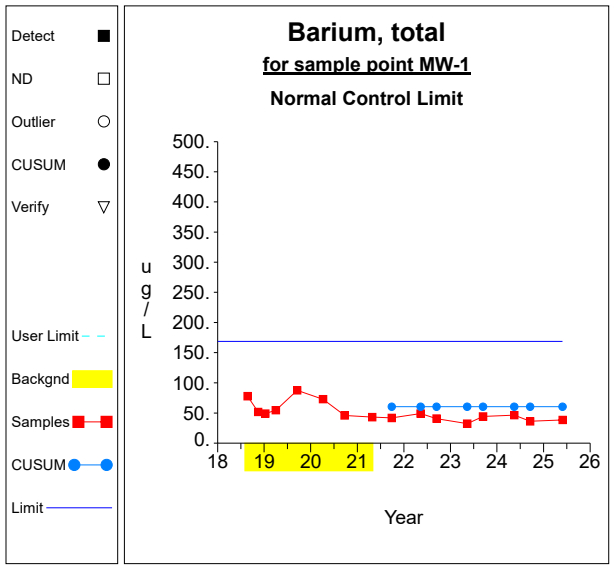


Graph 19

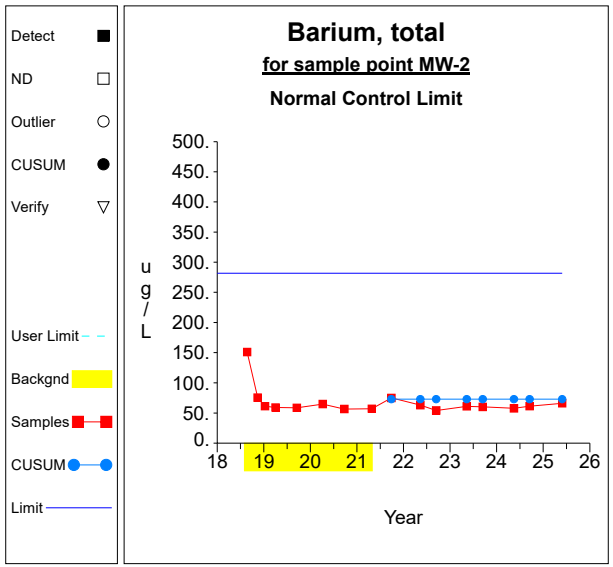


Graph 20

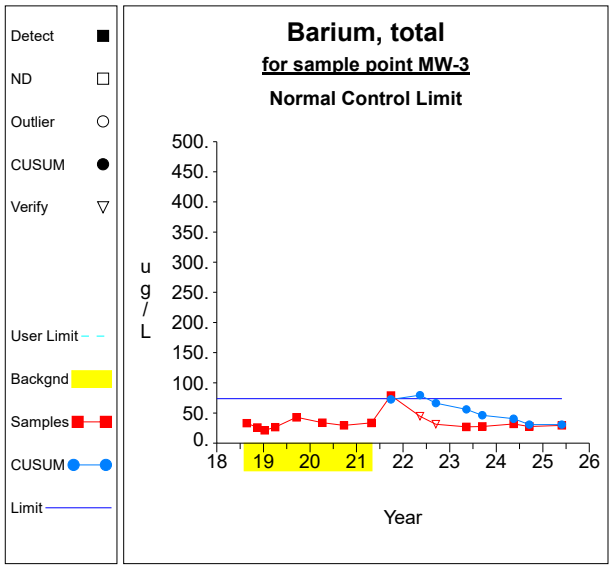
Intra-Well Control Charts / Prediction Limits



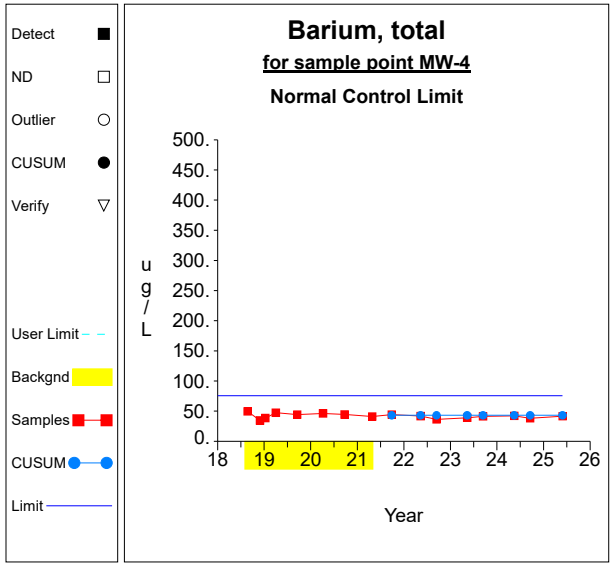
Graph 21



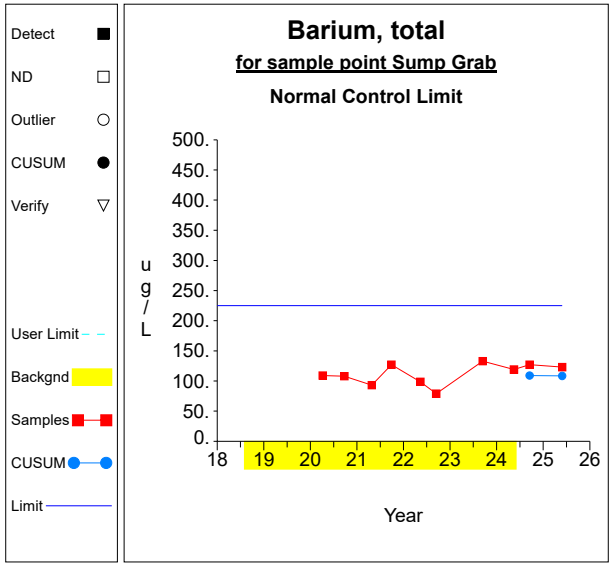
Graph 22



Graph 23



Graph 24



Graph 25

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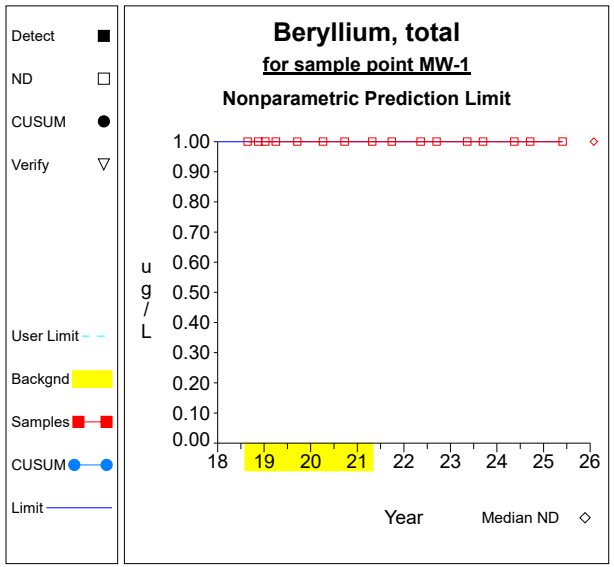
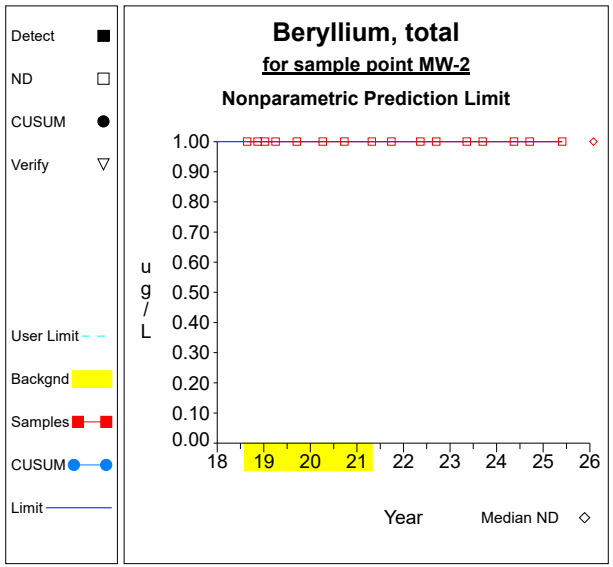
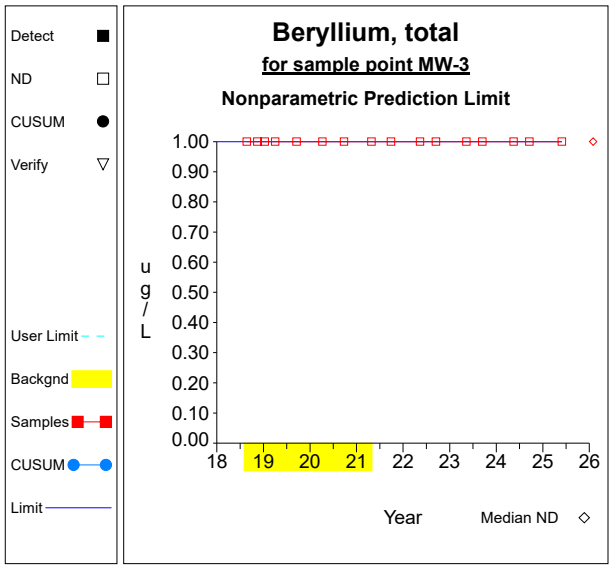
Intra-Well Control Charts / Prediction Limits



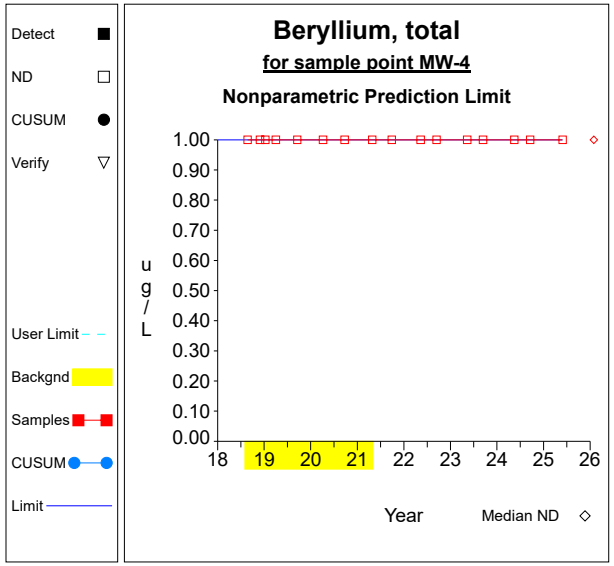
Graph 26



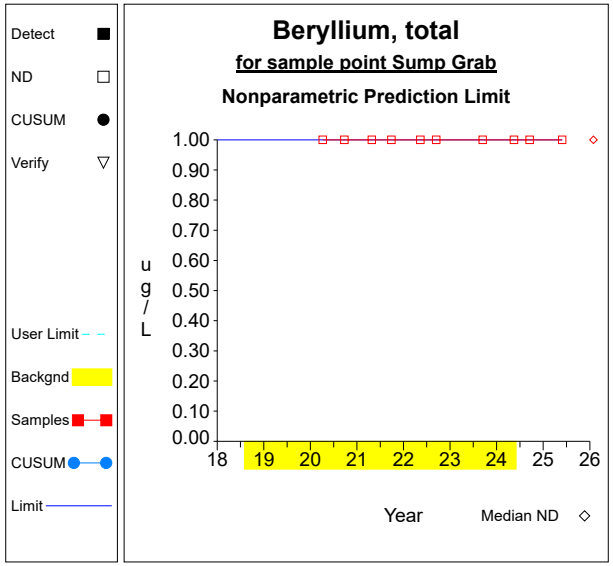
Graph 27



Graph 28



Graph 29



Graph 30

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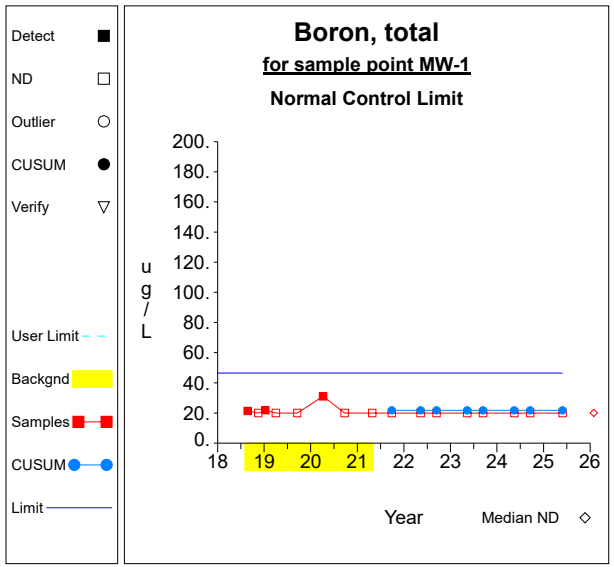
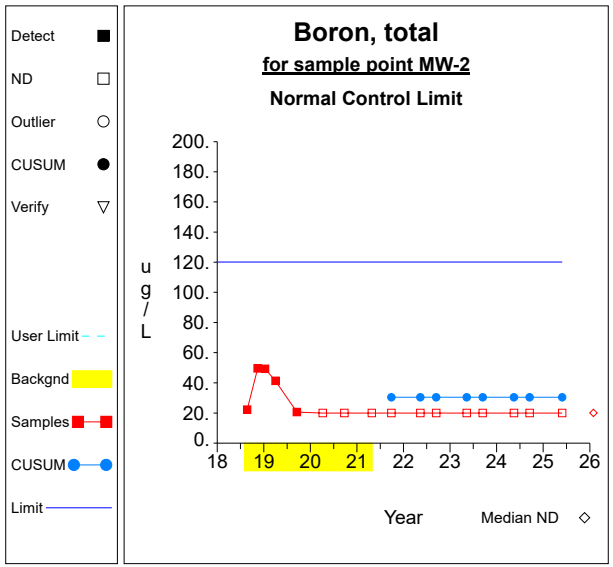
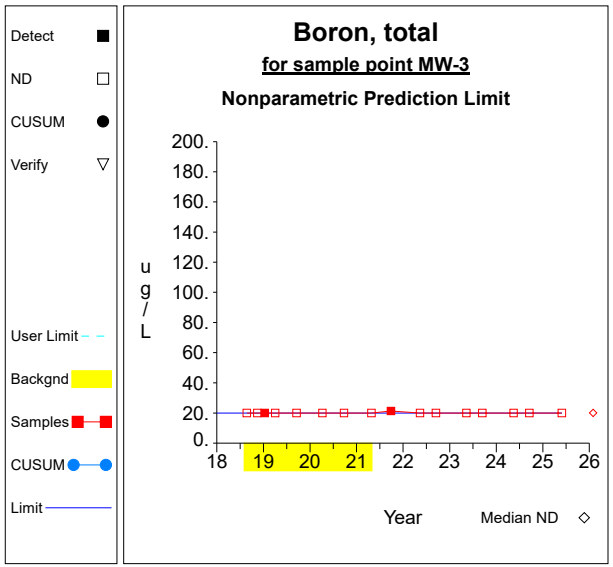
Intra-Well Control Charts / Prediction Limits



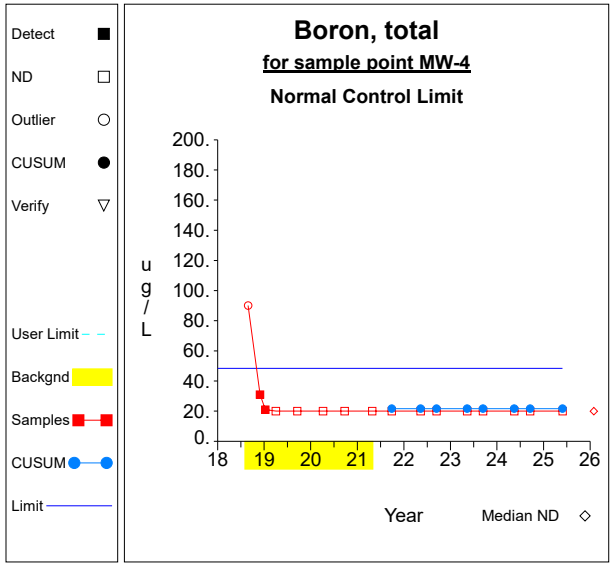
Graph 31



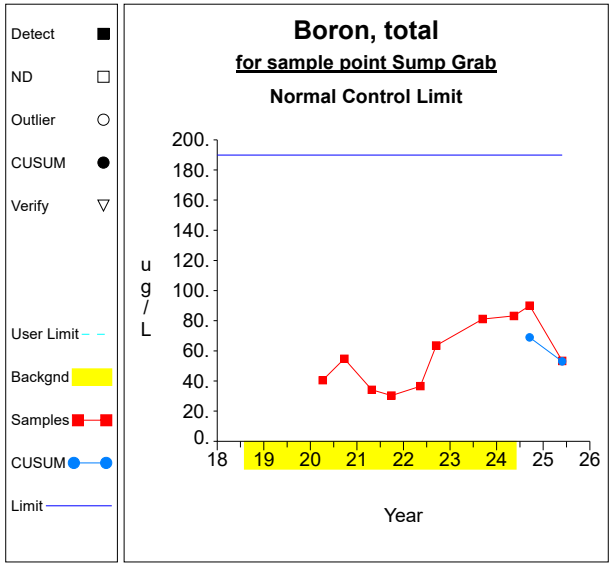
Graph 32



Graph 33

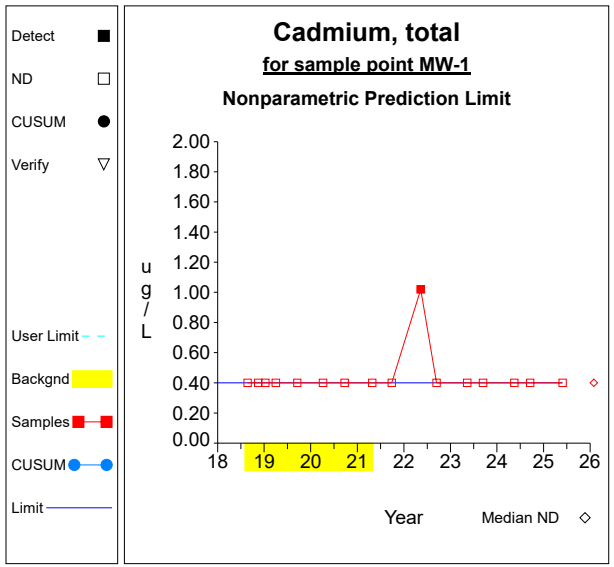


Graph 34

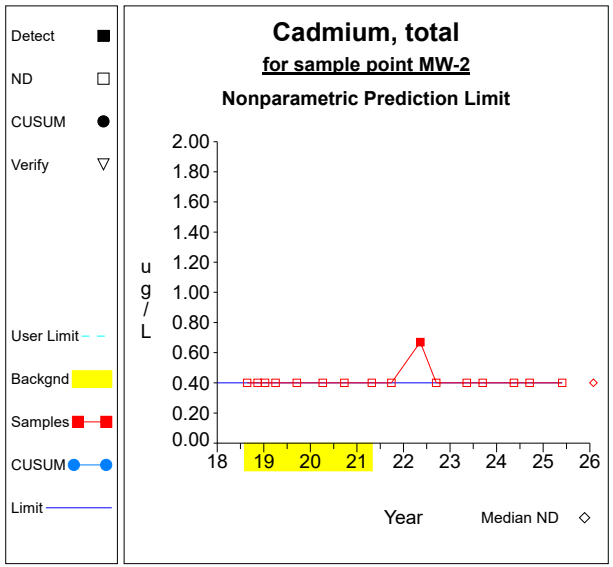


Graph 35

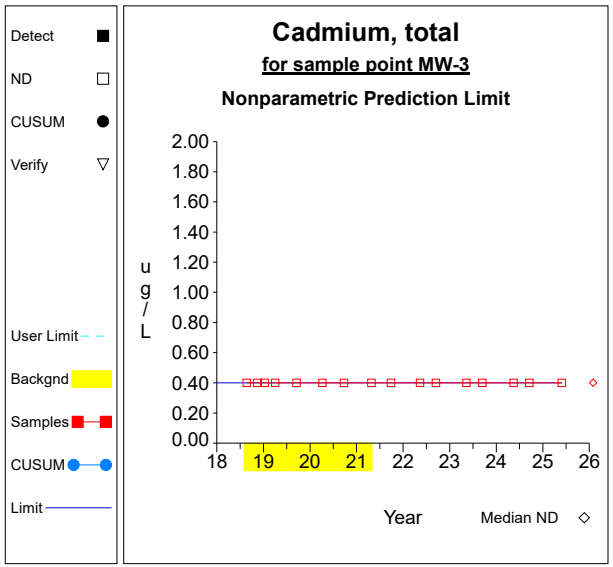
Intra-Well Control Charts / Prediction Limits



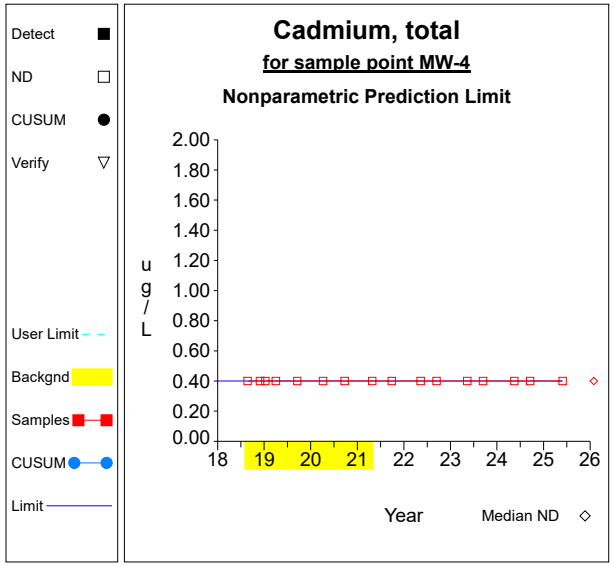
Graph 36



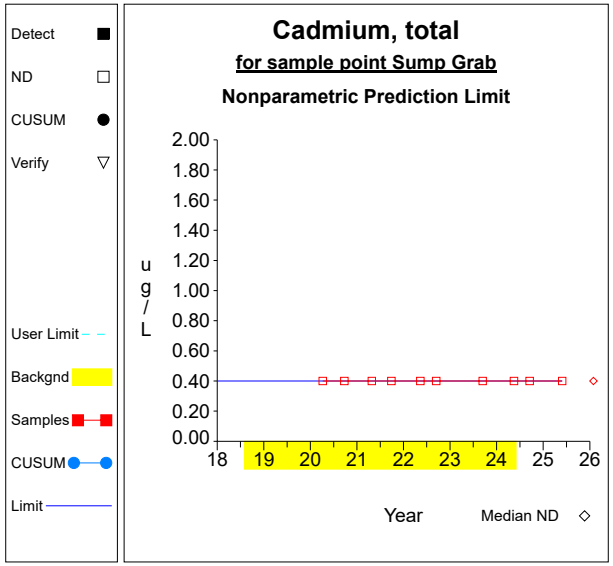
Graph 37



Graph 38

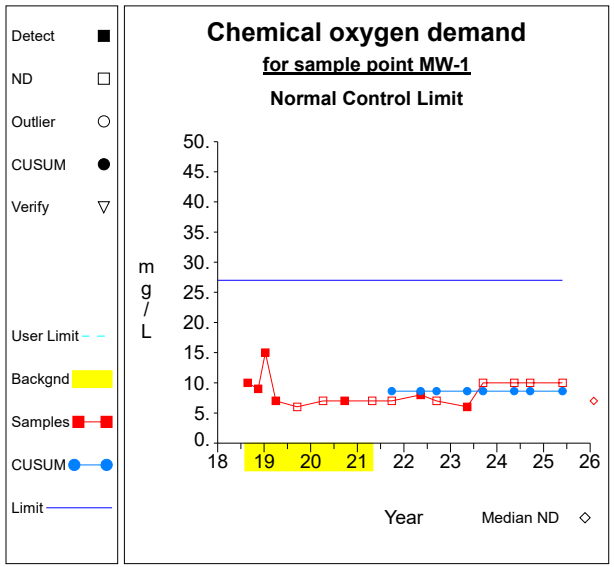


Graph 39

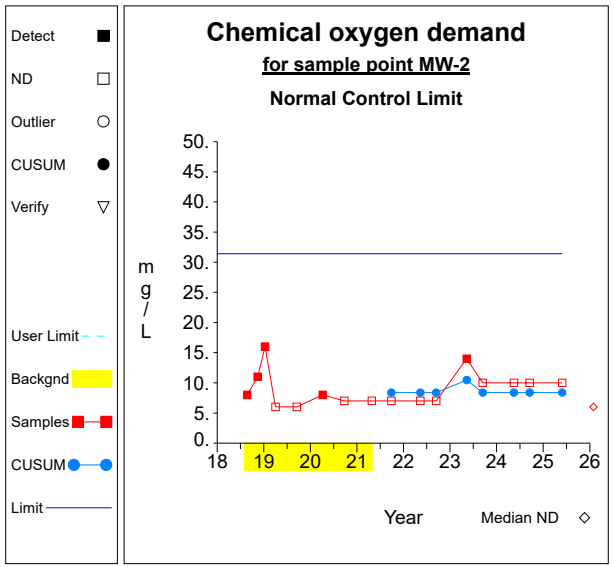


Graph 40

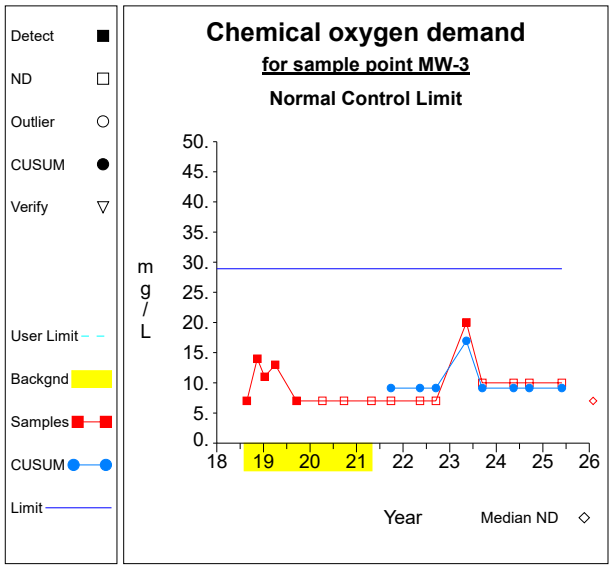
Intra-Well Control Charts / Prediction Limits



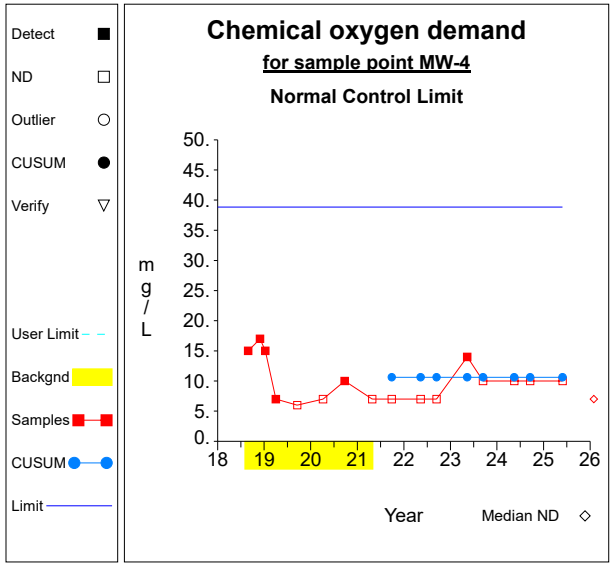
Graph 41



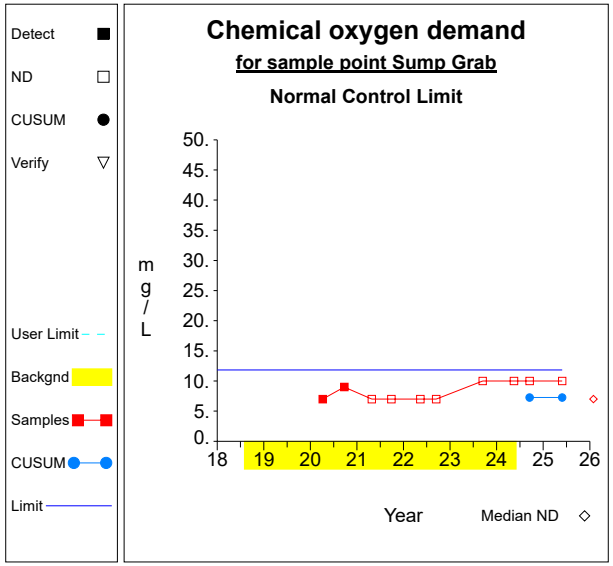
Graph 42



Graph 43



Graph 44



Graph 45

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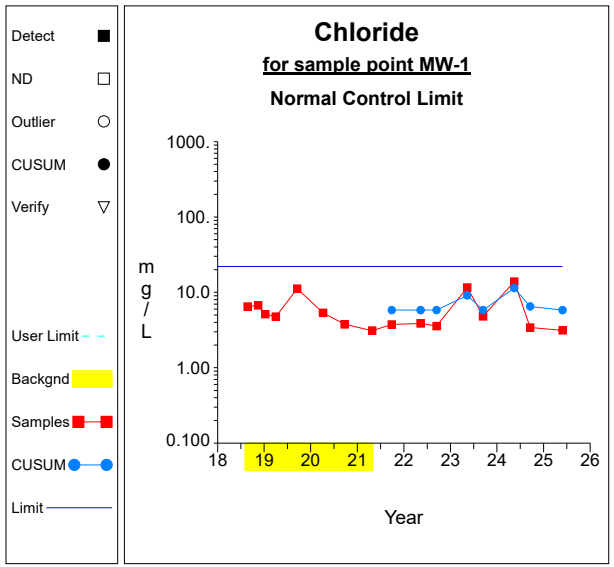
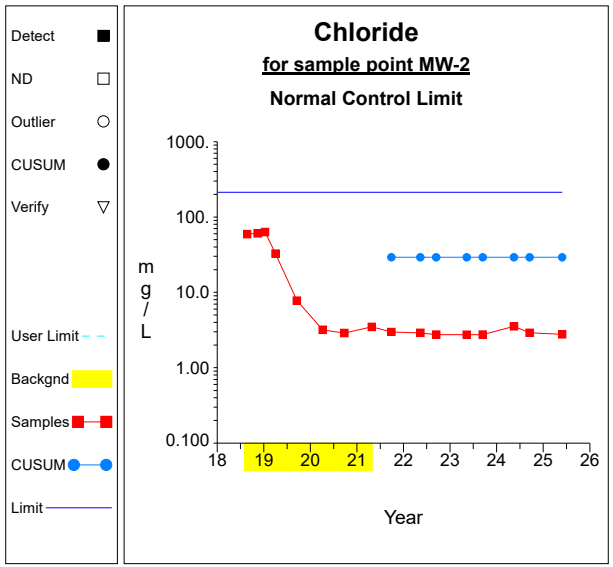
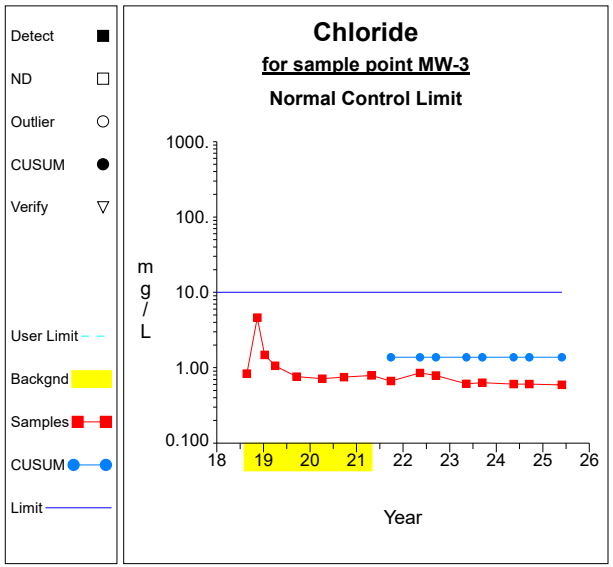
Intra-Well Control Charts / Prediction Limits



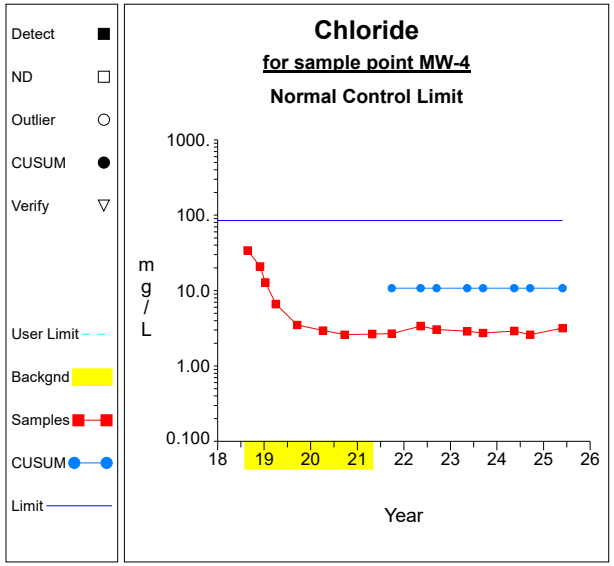
Graph 46



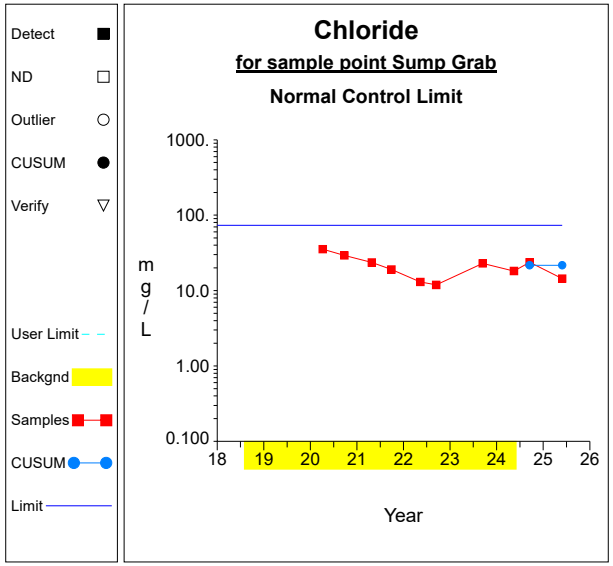
Graph 47



Graph 48



Graph 49



Graph 50

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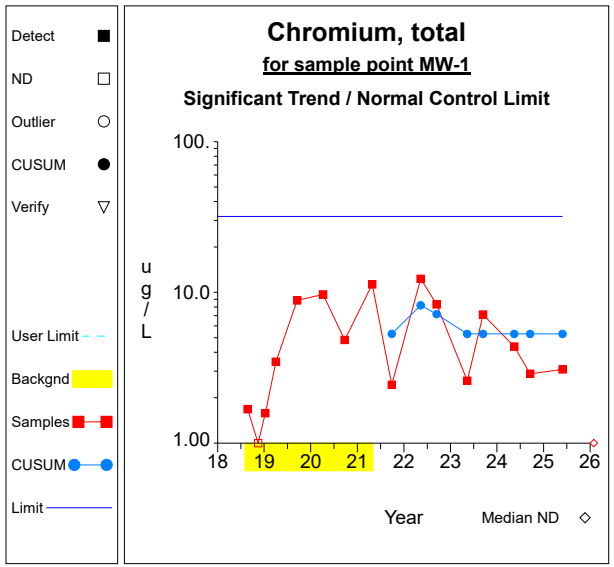
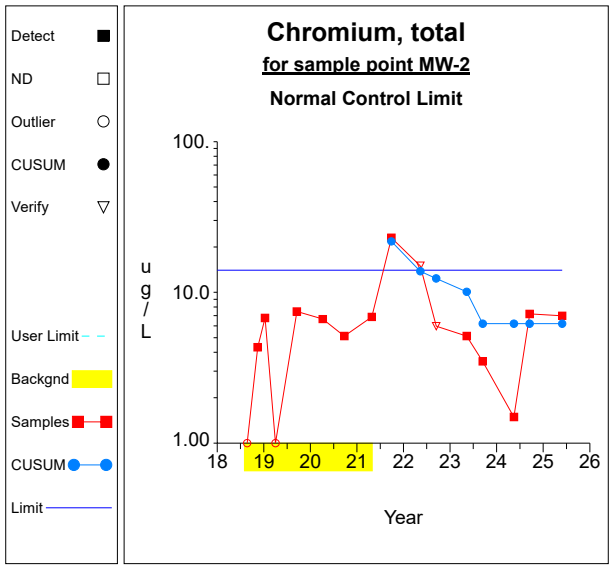
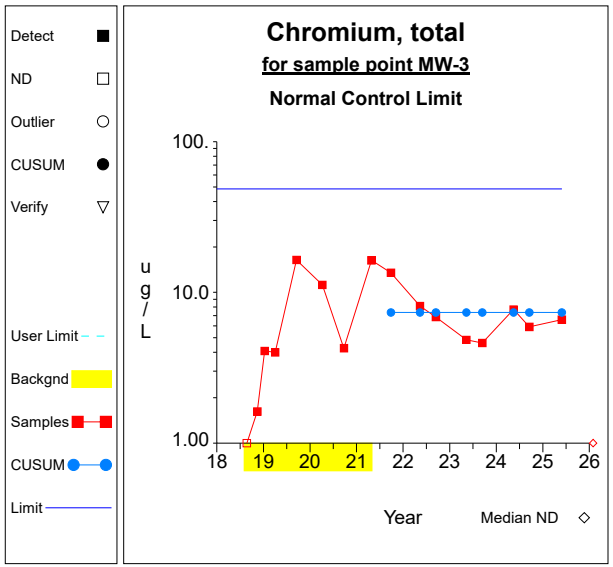
Intra-Well Control Charts / Prediction Limits



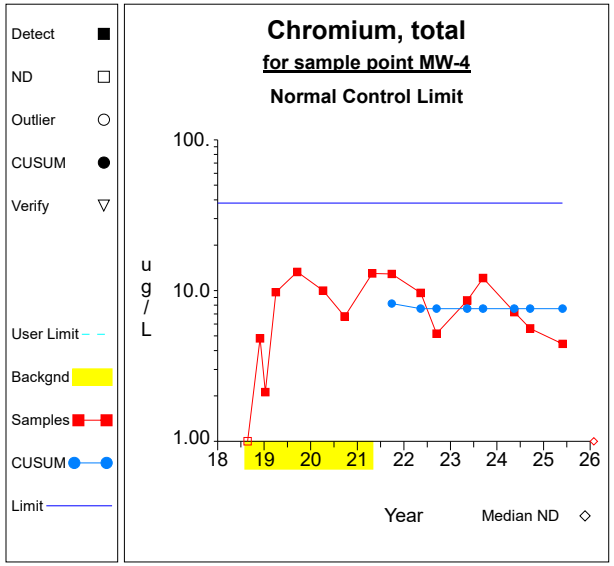
Graph 51



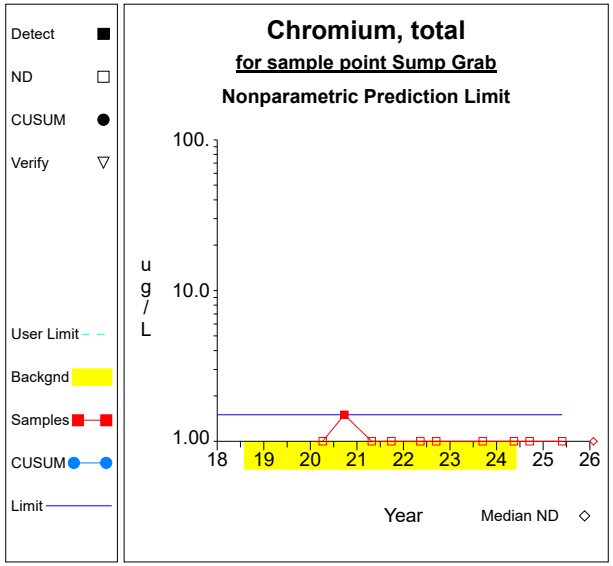
Graph 52



Graph 53



Graph 54



Graph 55

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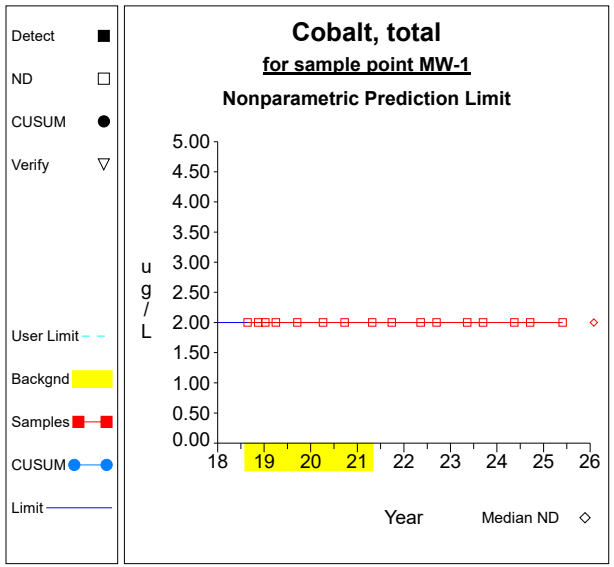
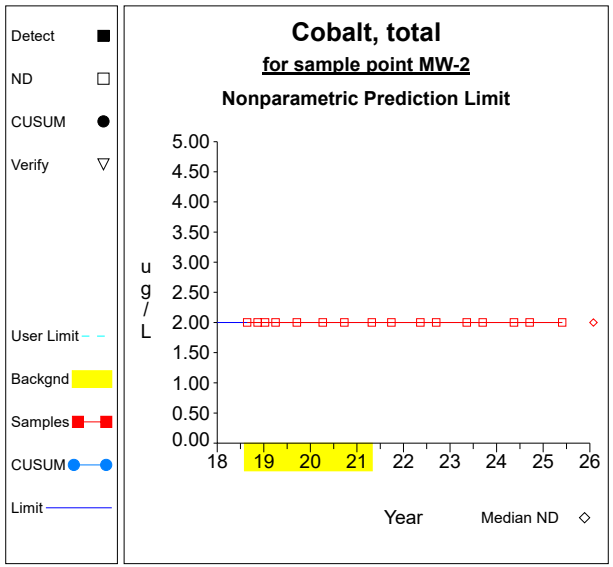
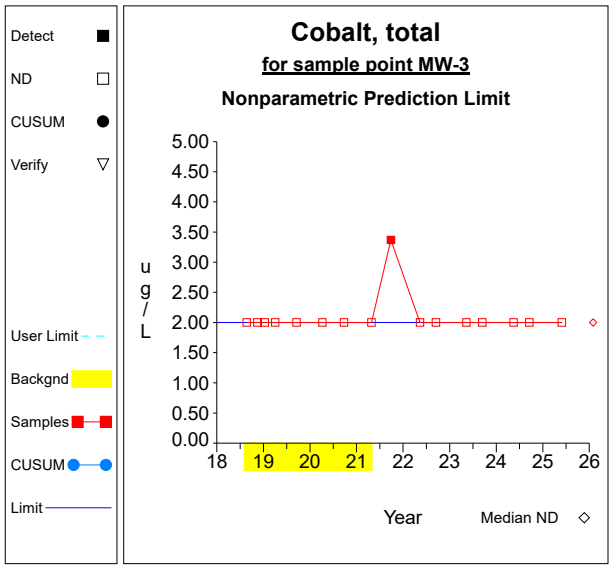
Intra-Well Control Charts / Prediction Limits



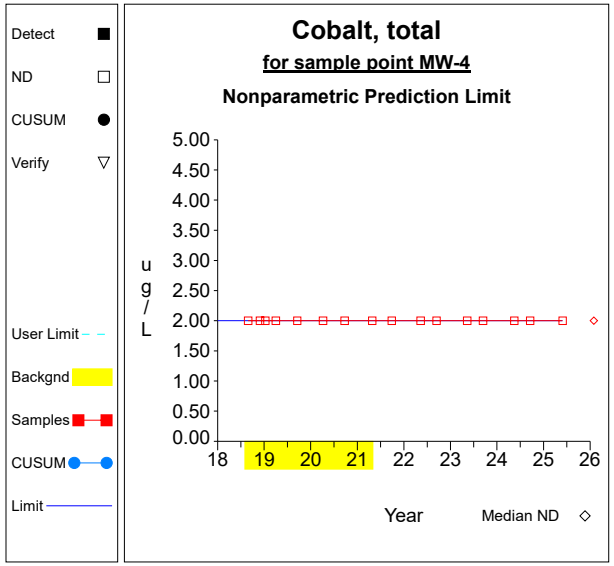
Graph 56



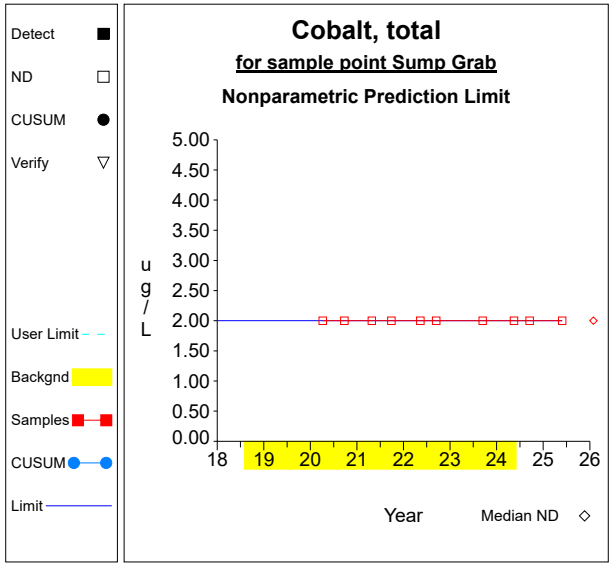
Graph 57



Graph 58



Graph 59



Graph 60

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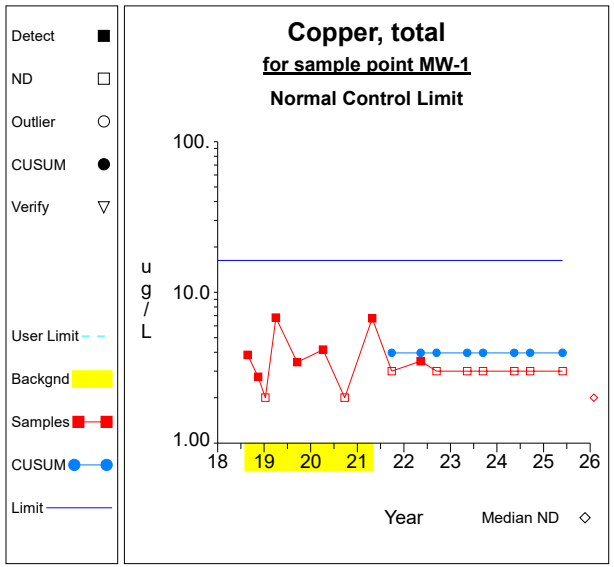
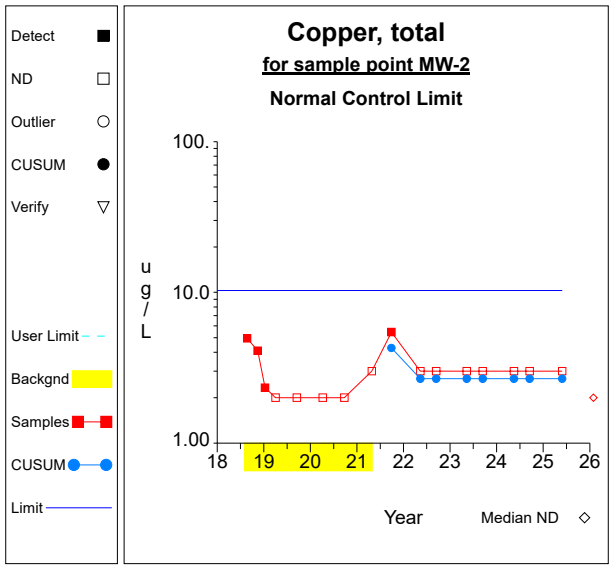
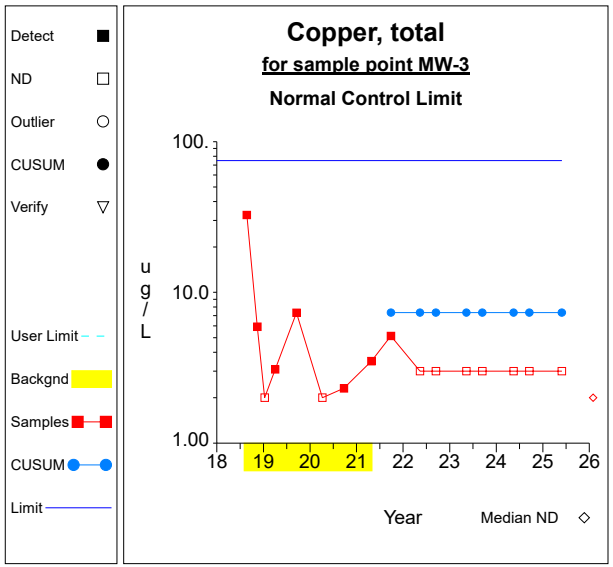
Intra-Well Control Charts / Prediction Limits



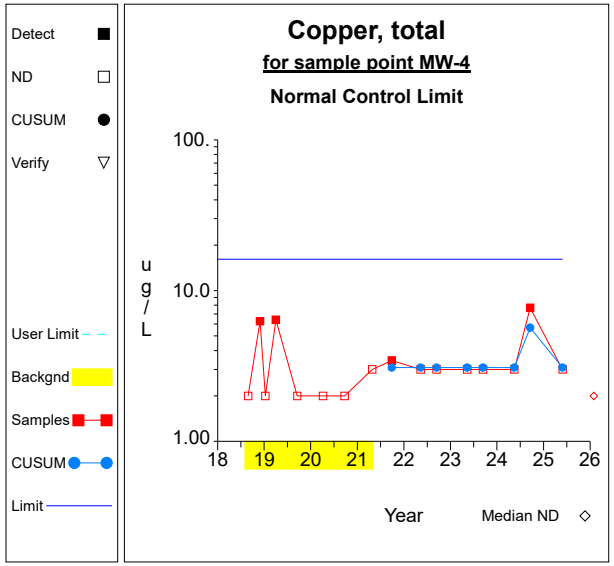
Graph 61



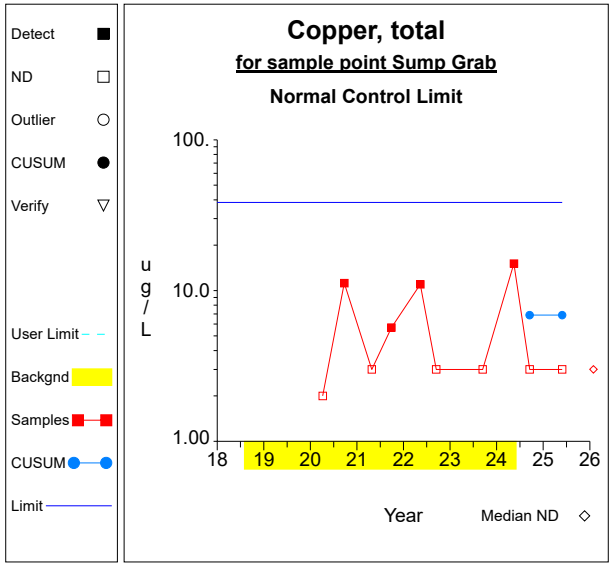
Graph 62



Graph 63

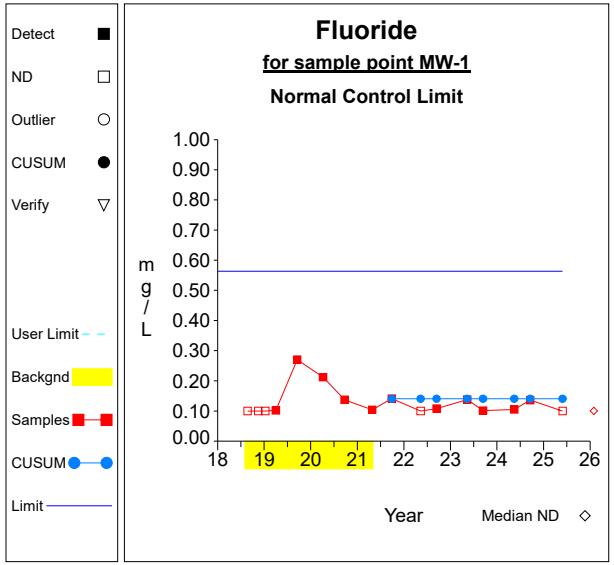


Graph 64

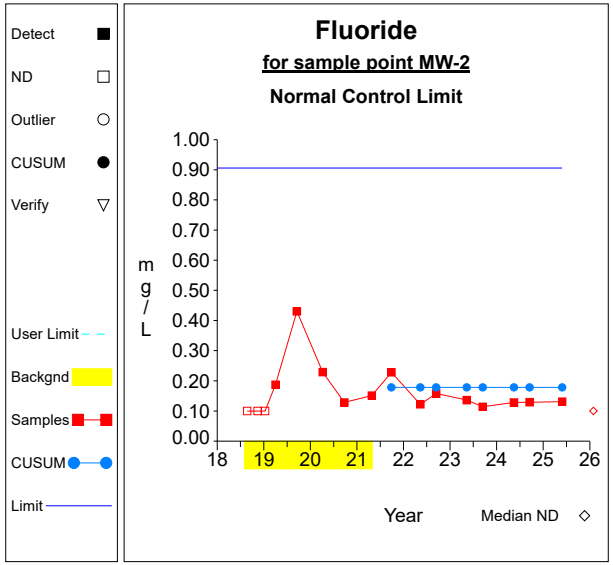


Graph 65

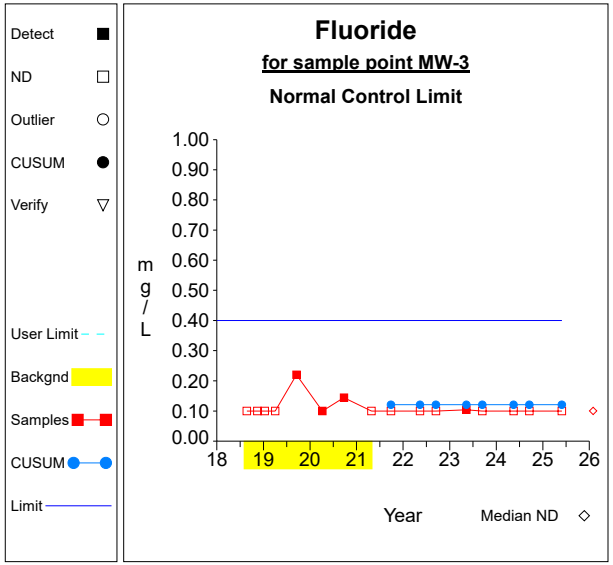
Intra-Well Control Charts / Prediction Limits



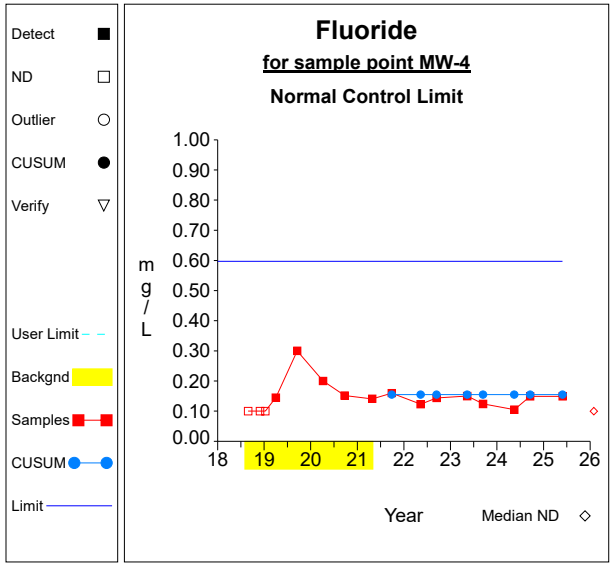
Graph 66



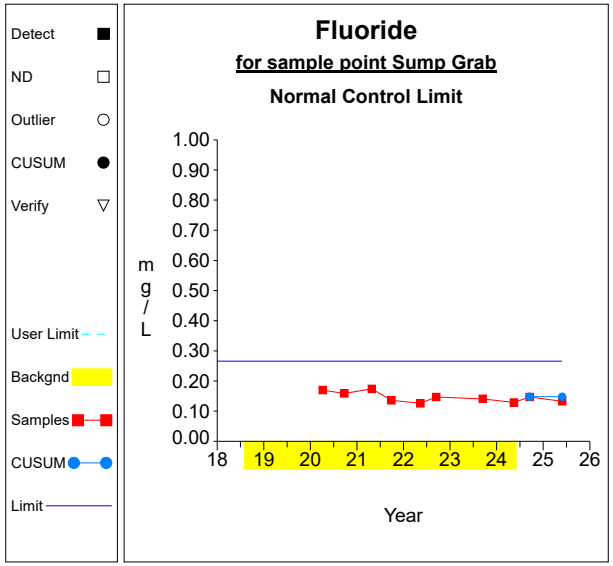
Graph 67



Graph 68

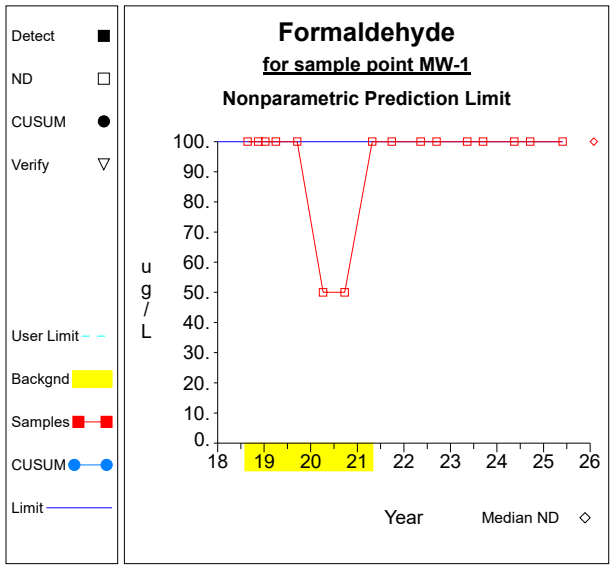


Graph 69

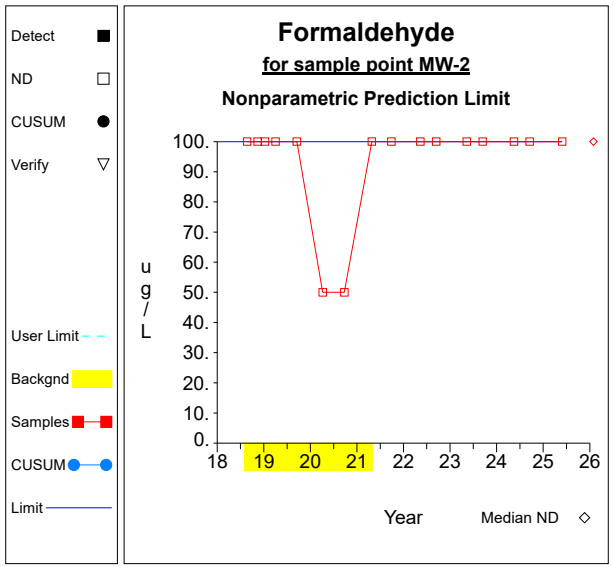


Graph 70

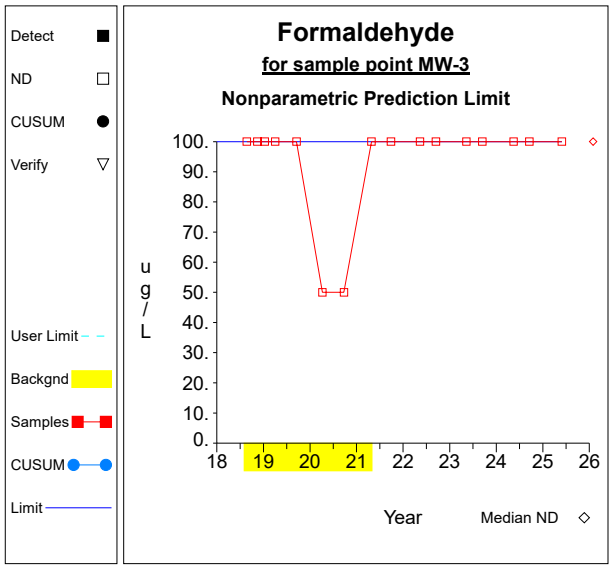
Intra-Well Control Charts / Prediction Limits



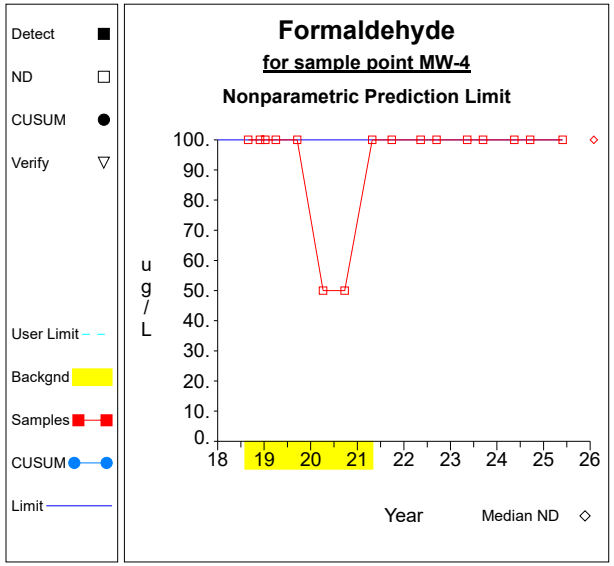
Graph 71



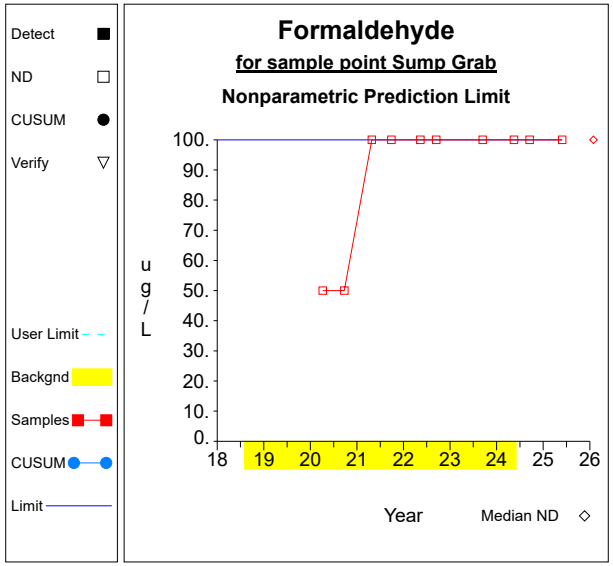
Graph 72



Graph 73



Graph 74



Graph 75

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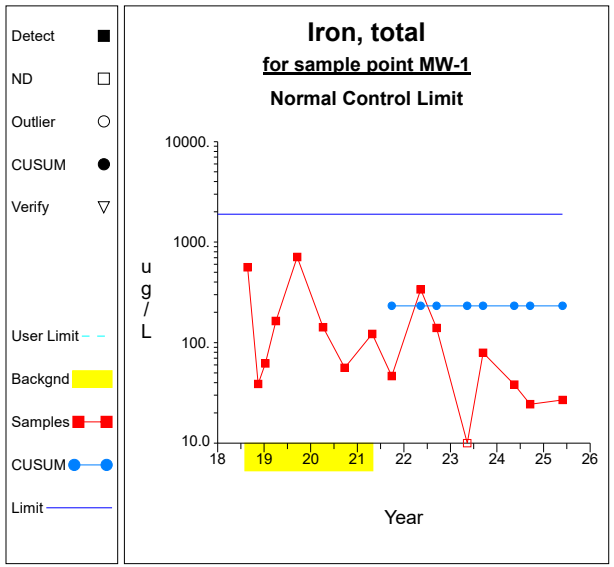
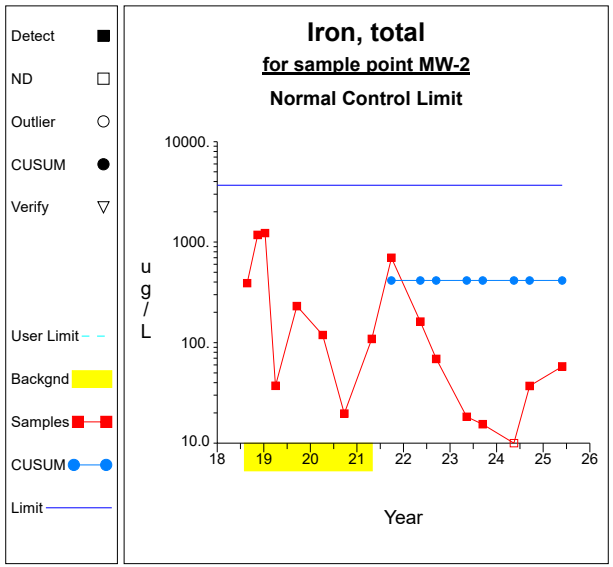
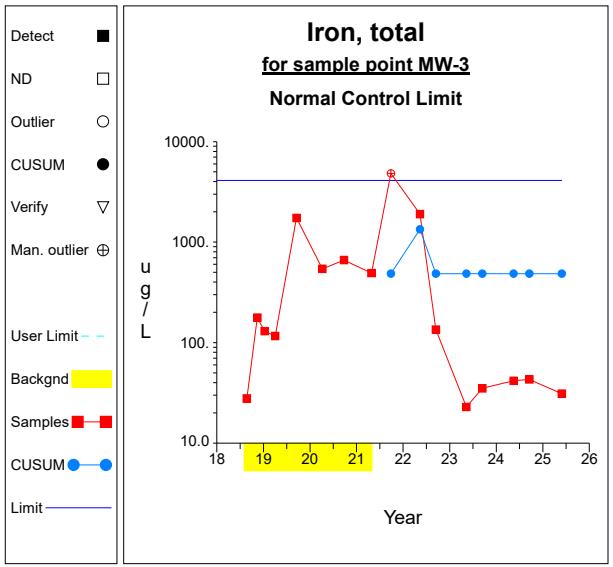
Intra-Well Control Charts / Prediction Limits



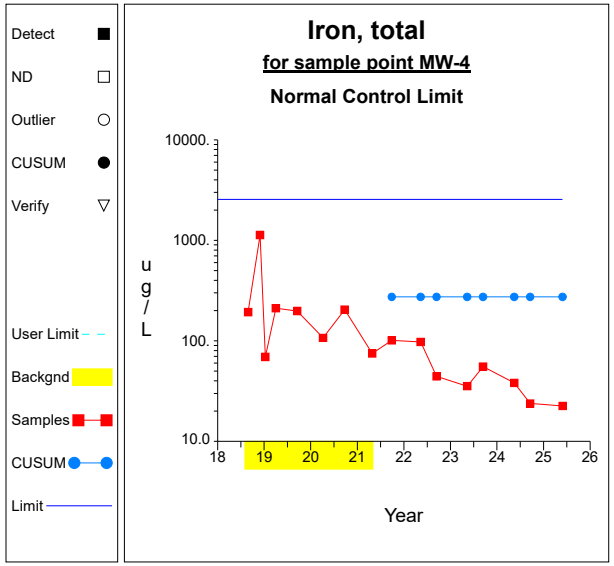
Graph 76



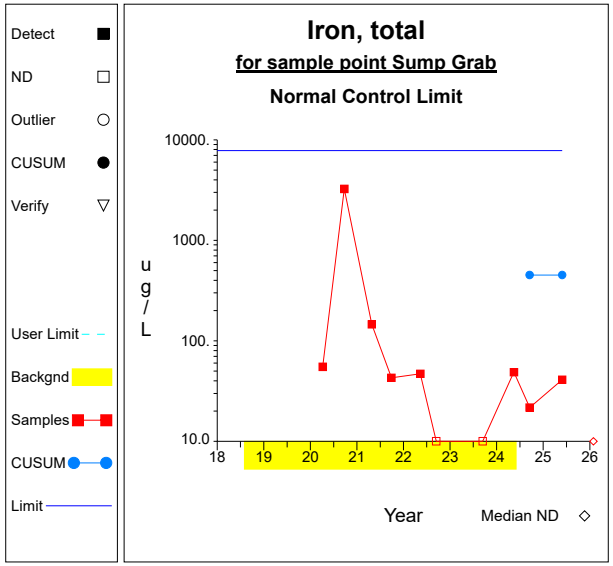
Graph 77



Graph 78



Graph 79



Graph 80

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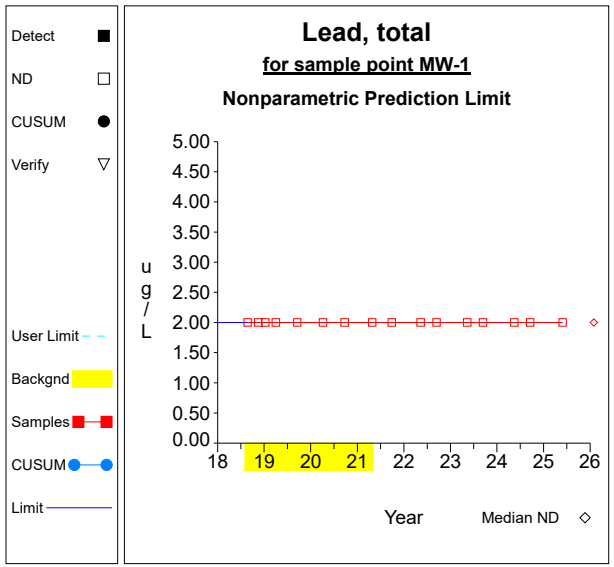
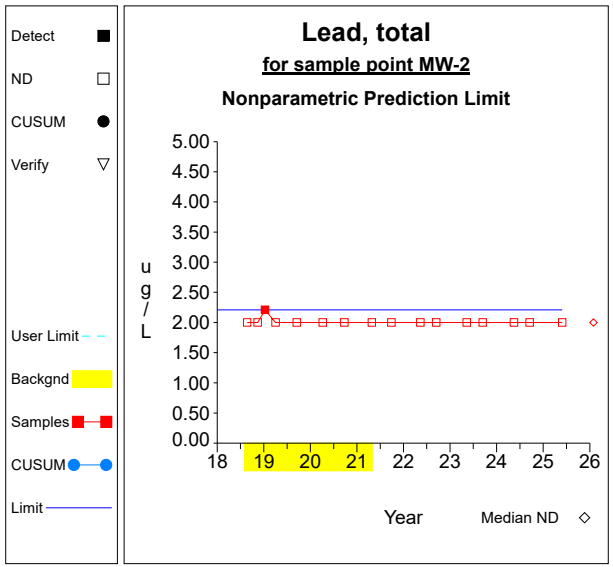
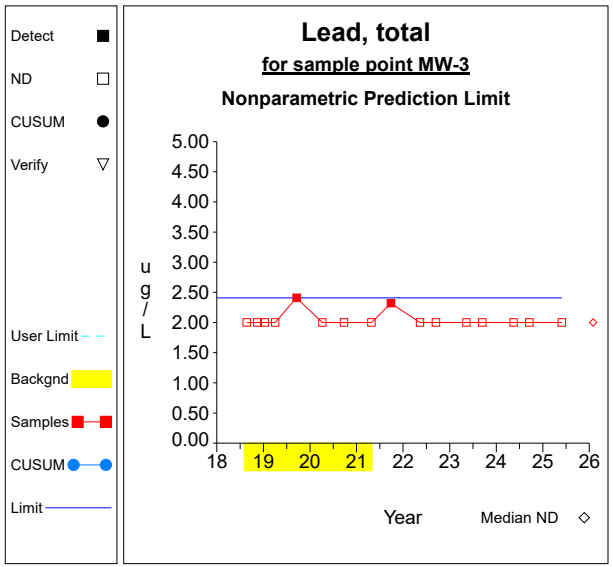
Intra-Well Control Charts / Prediction Limits



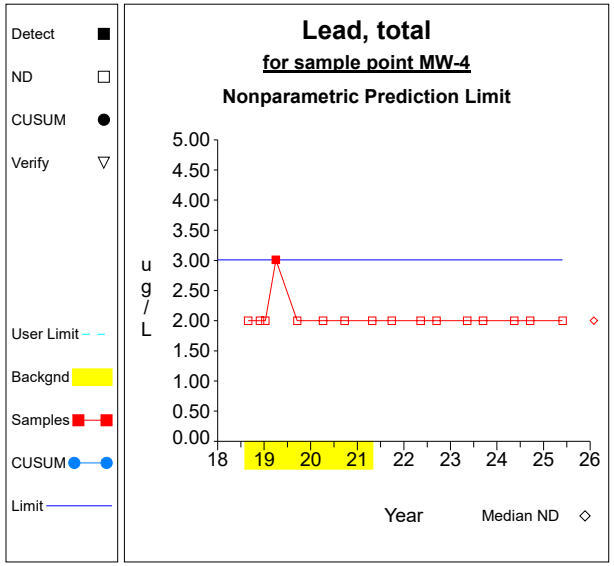
Graph 81



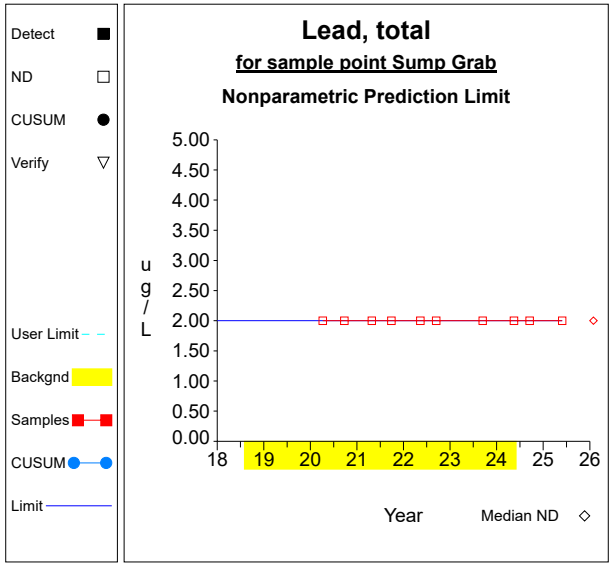
Graph 82



Graph 83

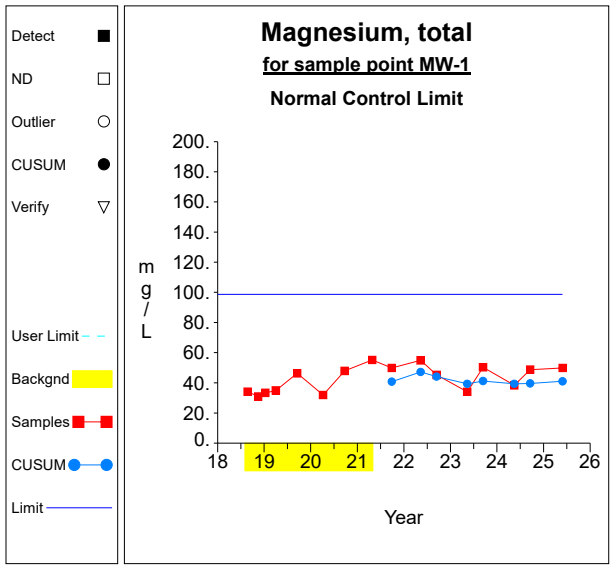


Graph 84

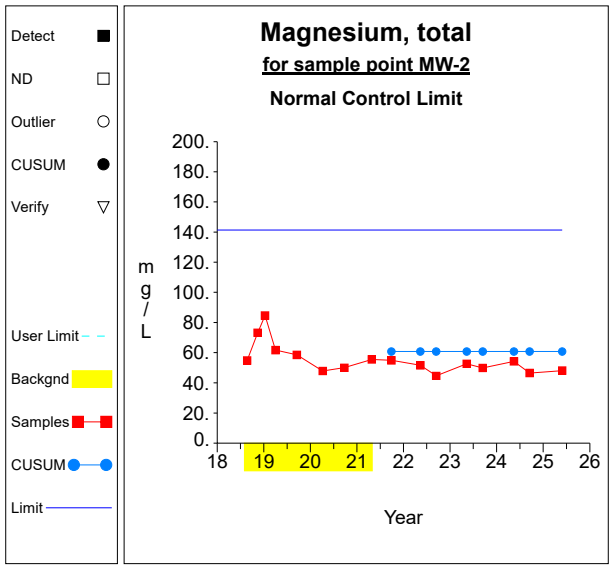


Graph 85

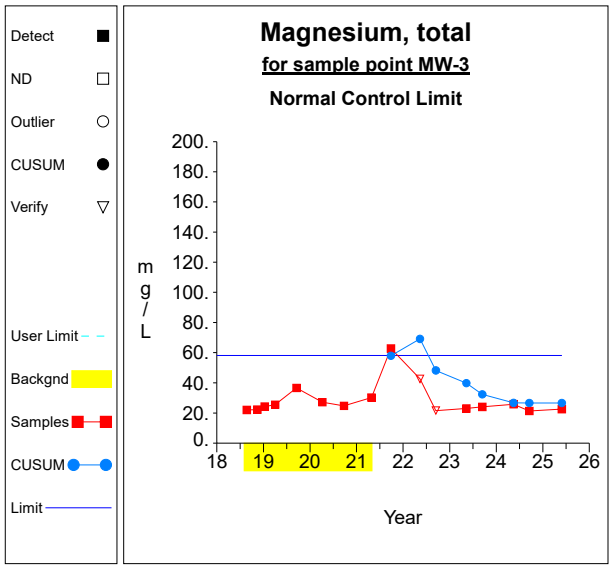
Intra-Well Control Charts / Prediction Limits



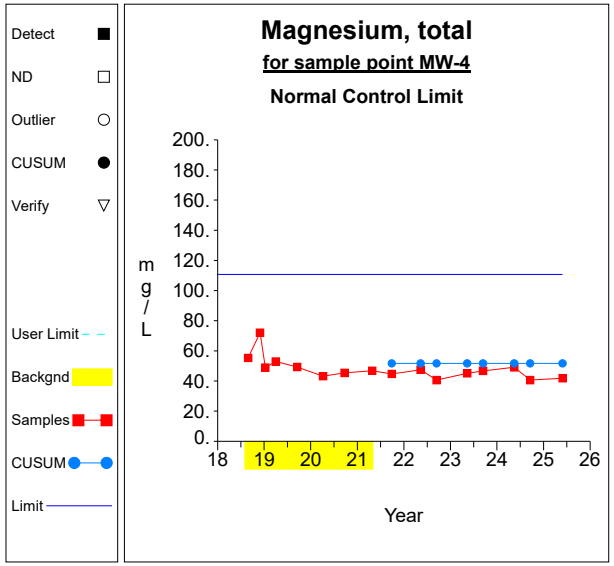
Graph 86



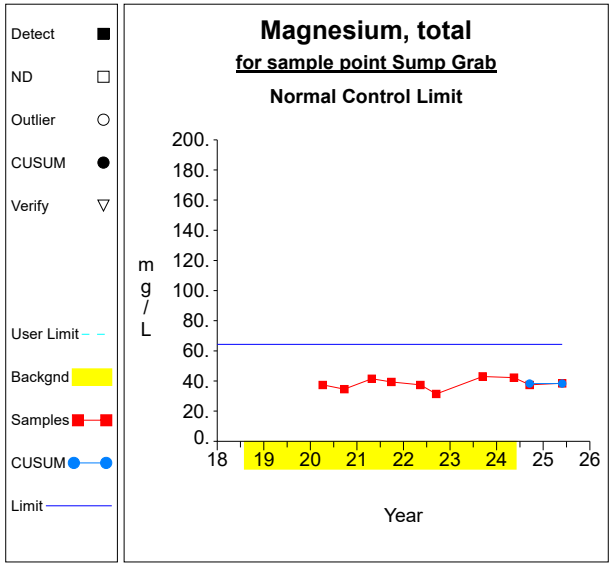
Graph 87



Graph 88

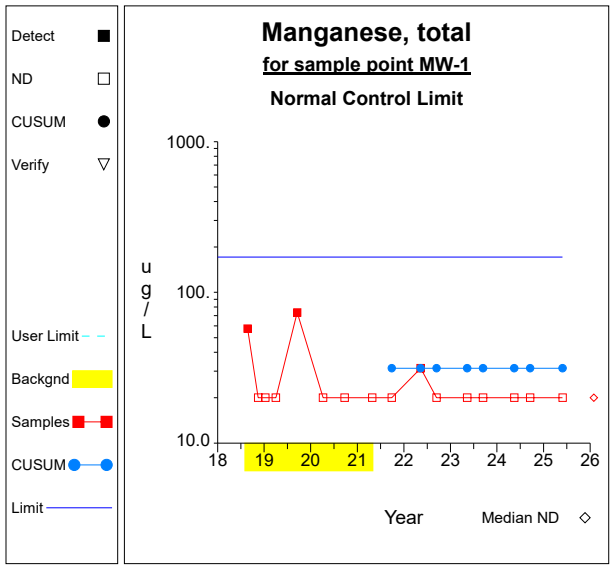


Graph 89

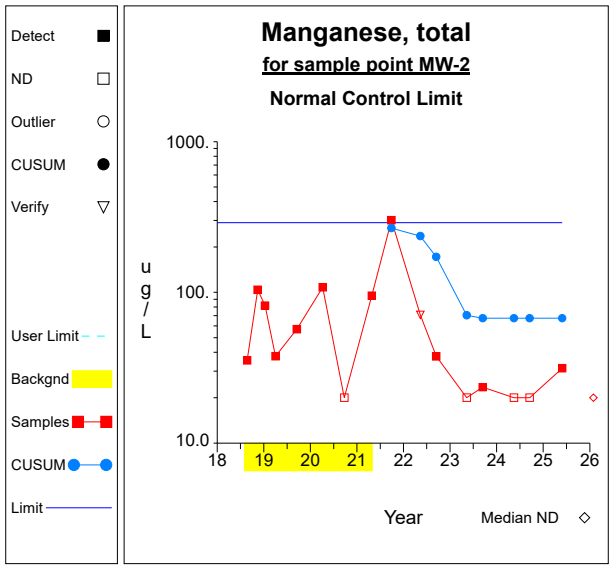


Graph 90

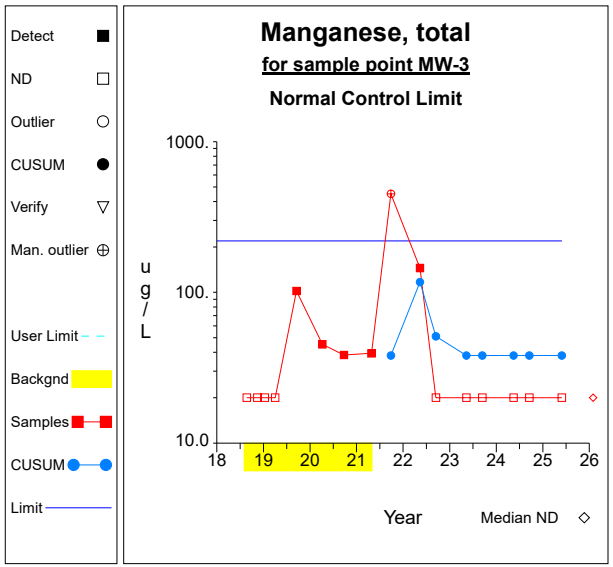
Intra-Well Control Charts / Prediction Limits



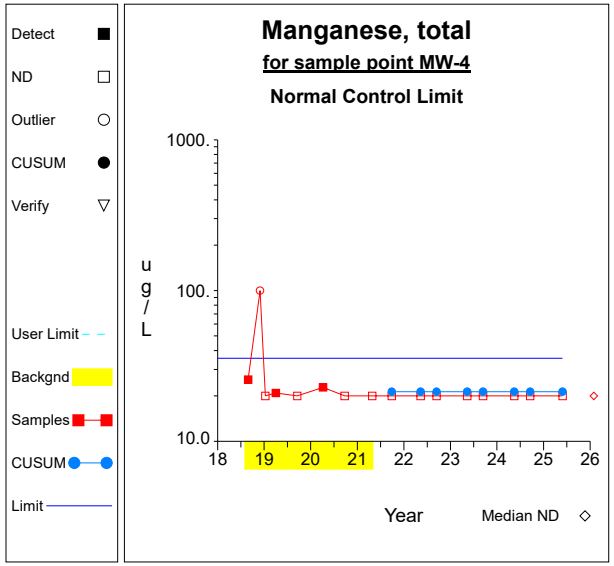
Graph 91



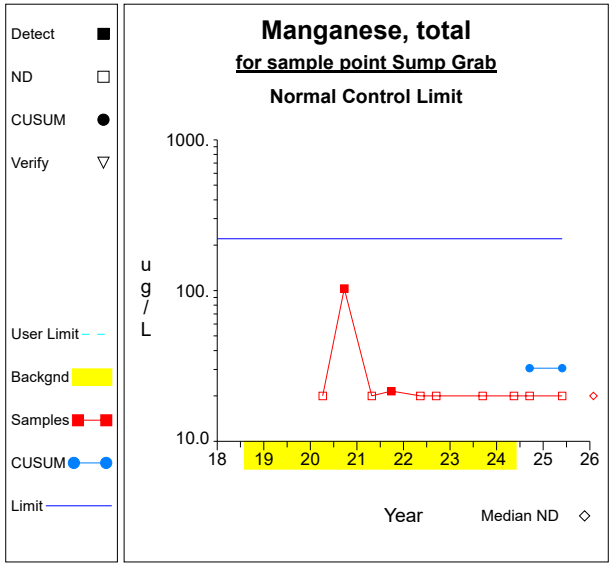
Graph 92



Graph 93



Graph 94



Graph 95

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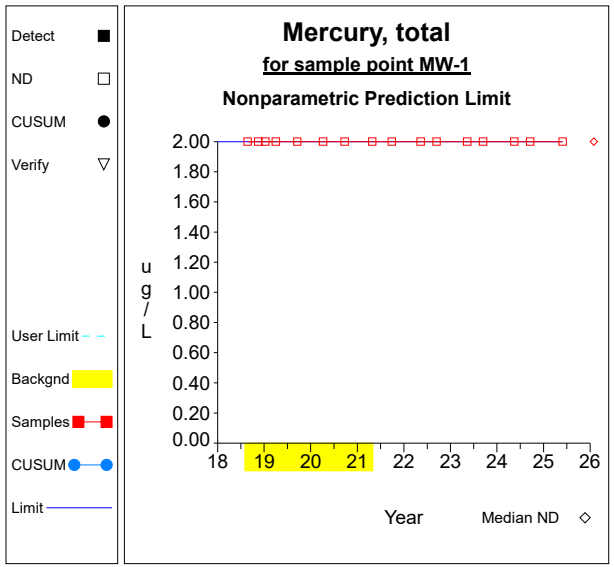
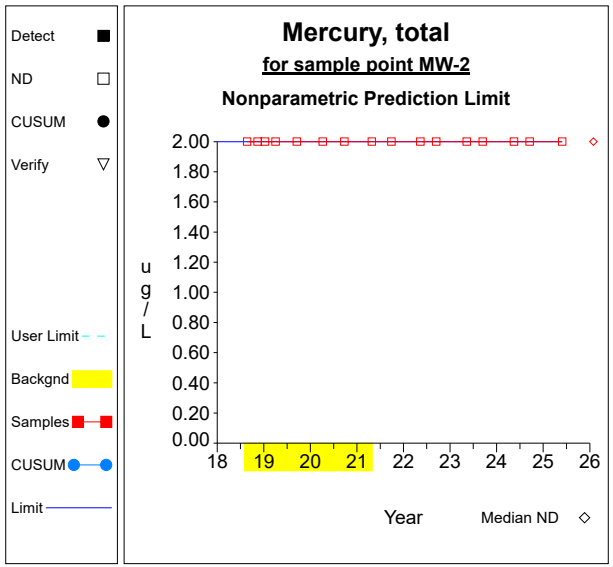
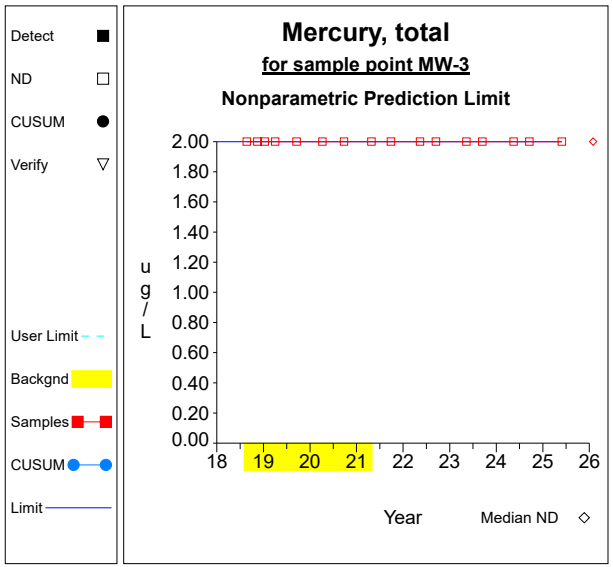
Intra-Well Control Charts / Prediction Limits



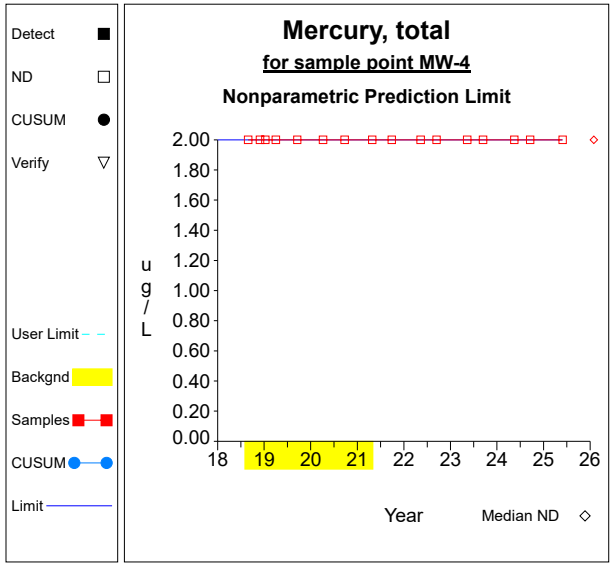
Graph 96



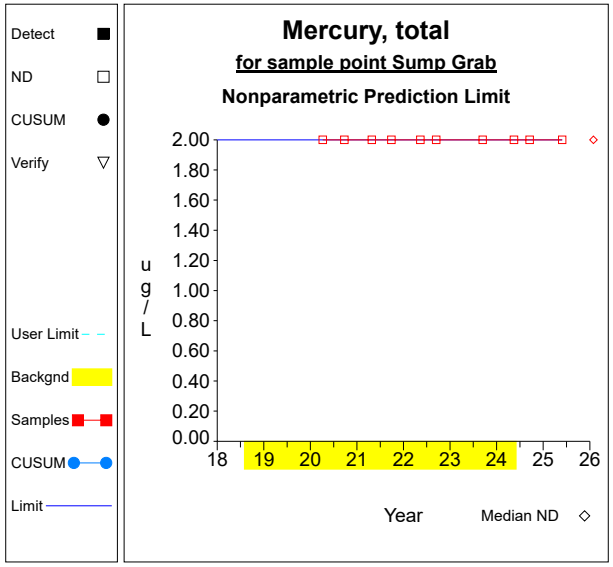
Graph 97



Graph 98



Graph 99



Graph 100

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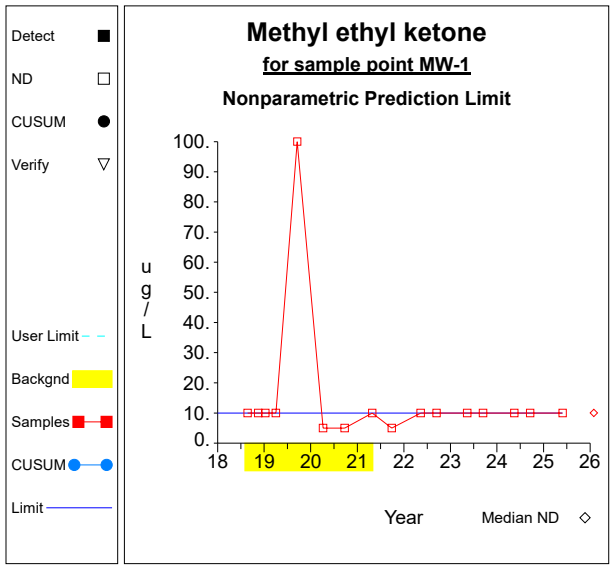
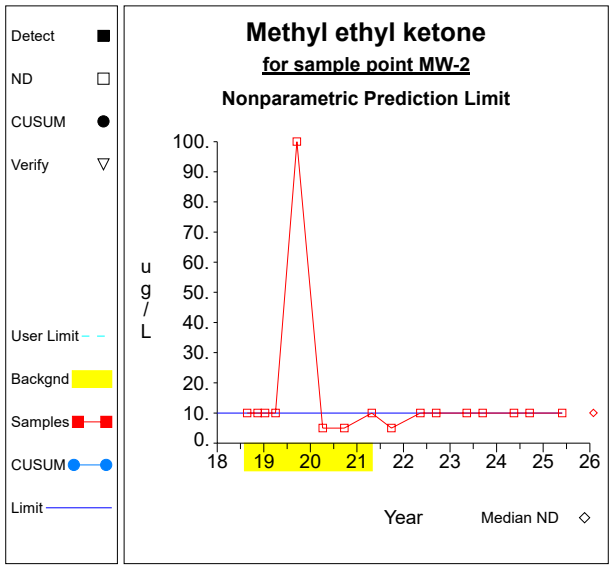
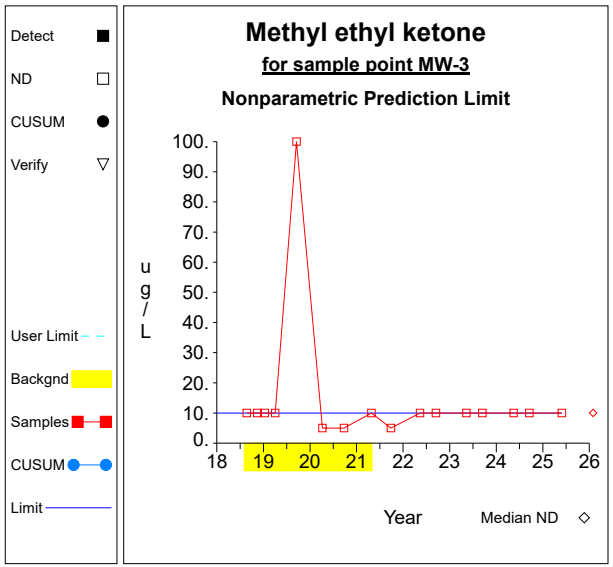
Intra-Well Control Charts / Prediction Limits



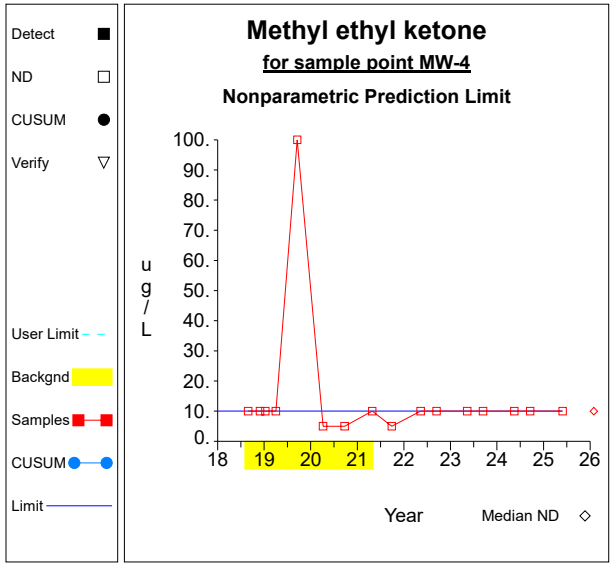
Graph 101



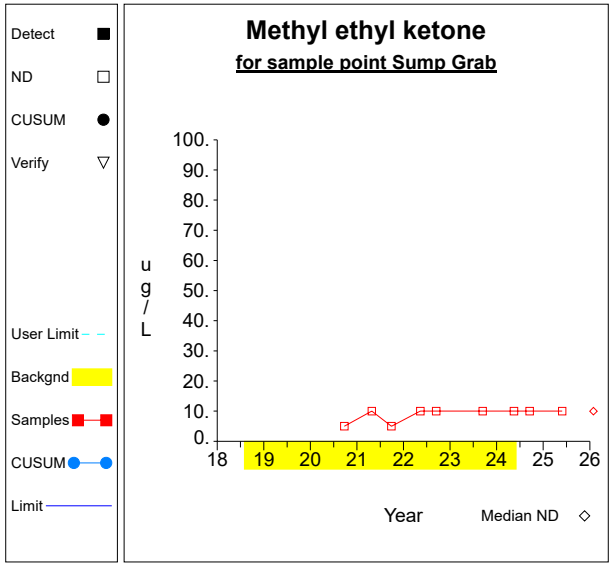
Graph 102



Graph 103



Graph 104



Graph 105

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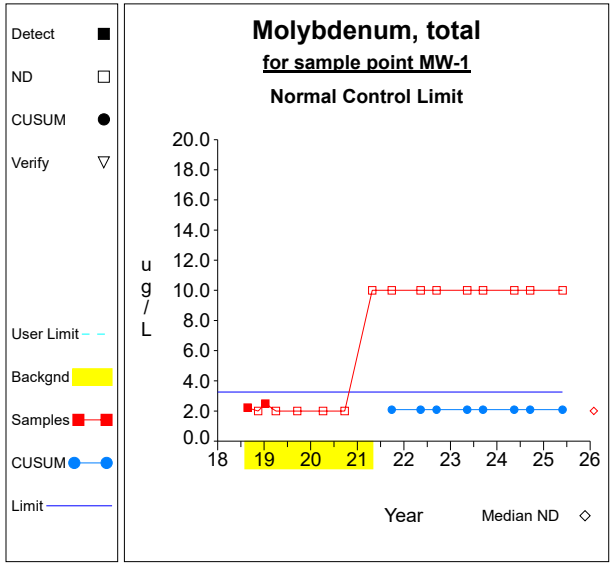
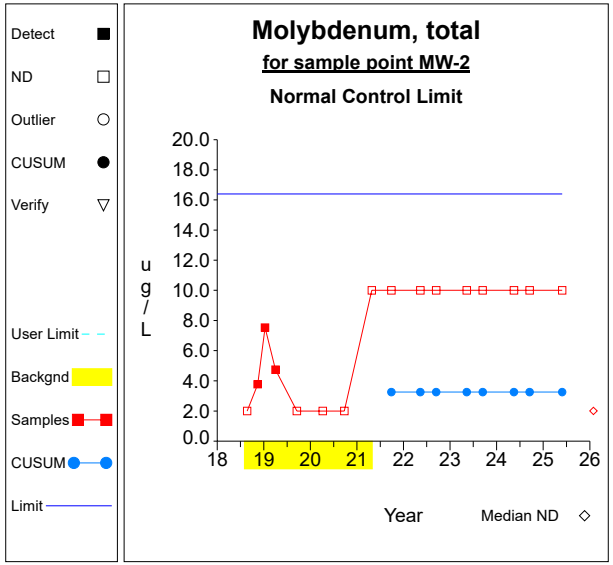
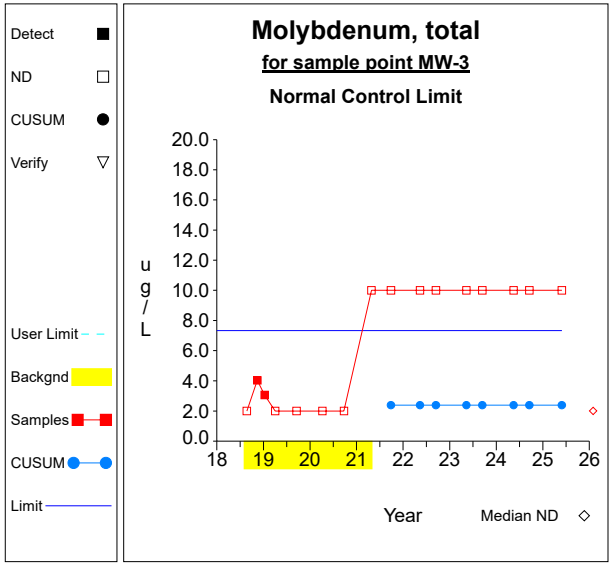
Intra-Well Control Charts / Prediction Limits



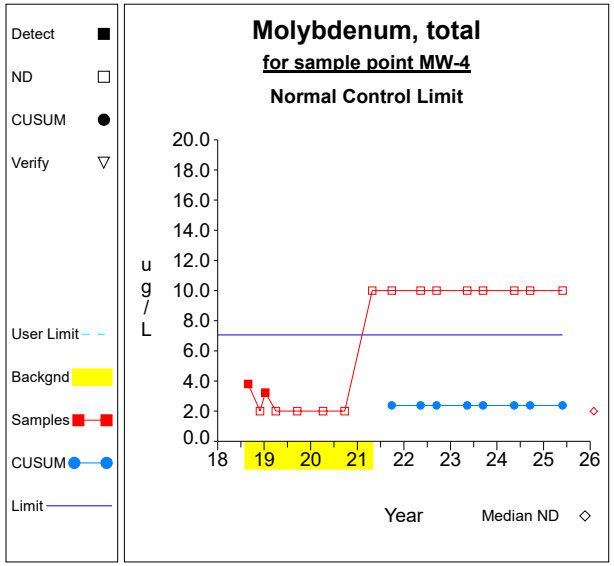
Graph 106



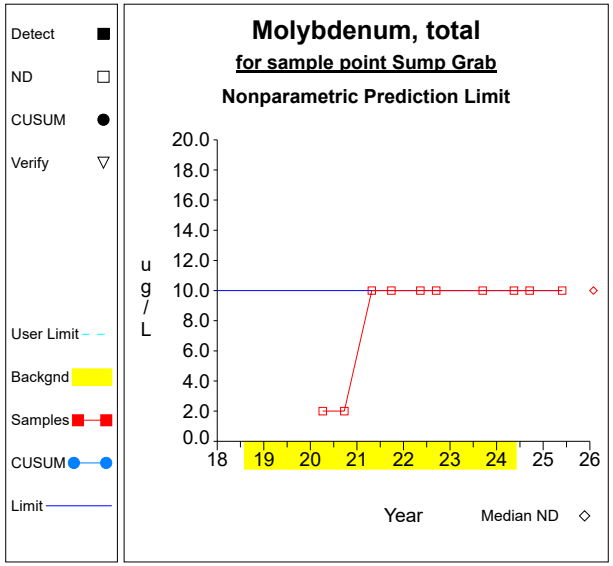
Graph 107



Graph 108



Graph 109



Graph 110

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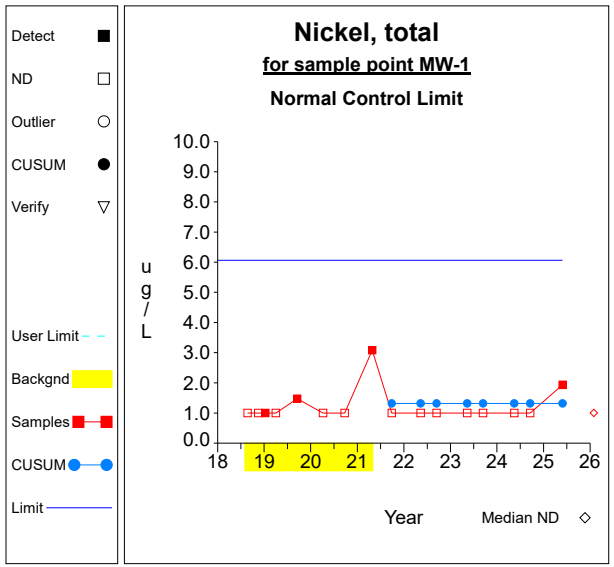
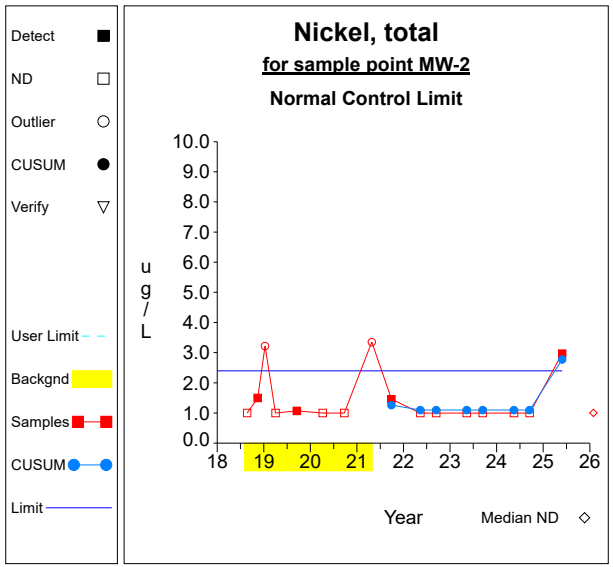
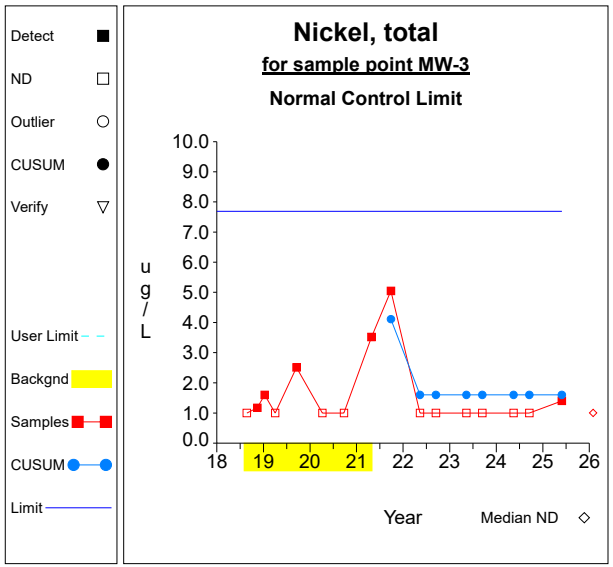
Intra-Well Control Charts / Prediction Limits



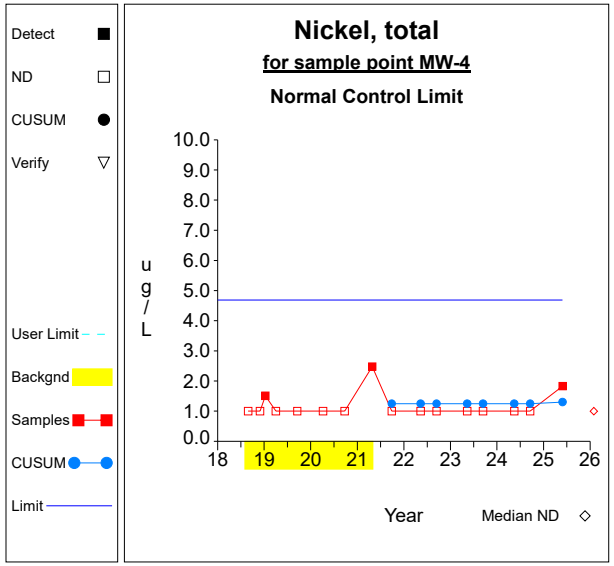
Graph 111



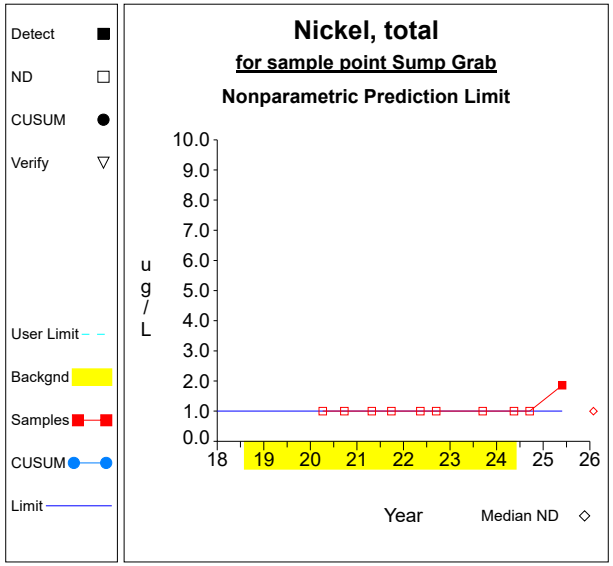
Graph 112



Graph 113



Graph 114



Graph 115

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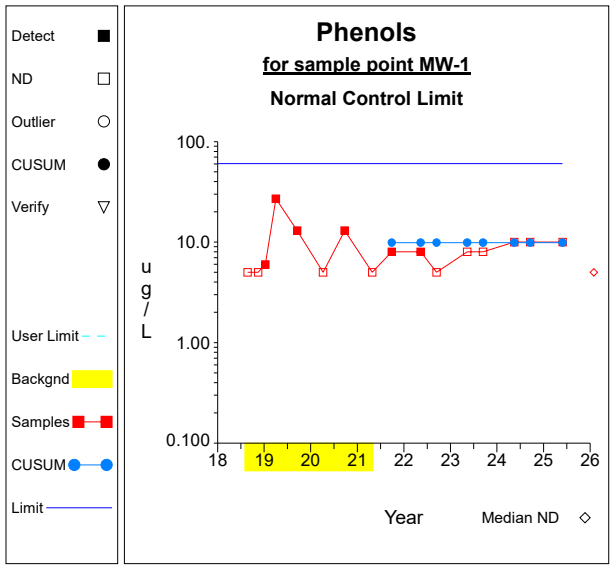
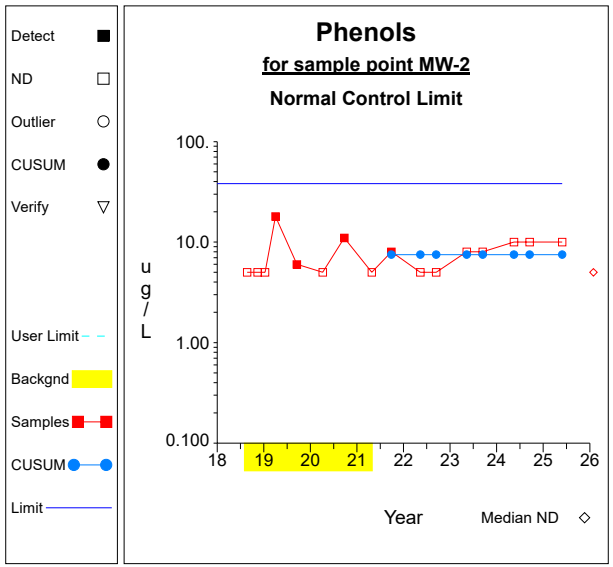
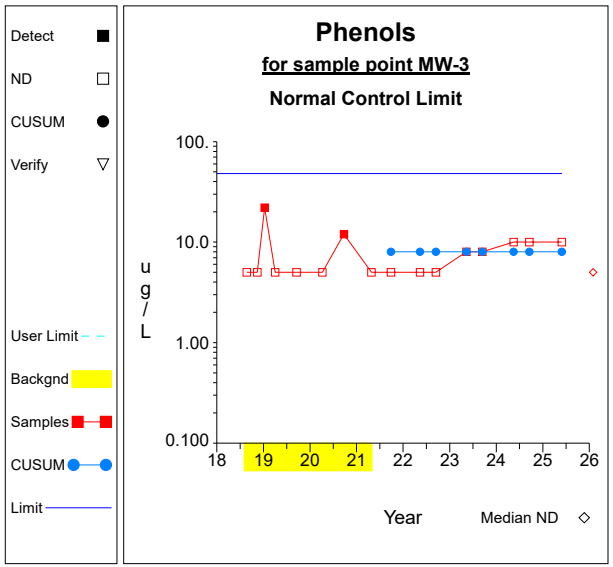
Intra-Well Control Charts / Prediction Limits



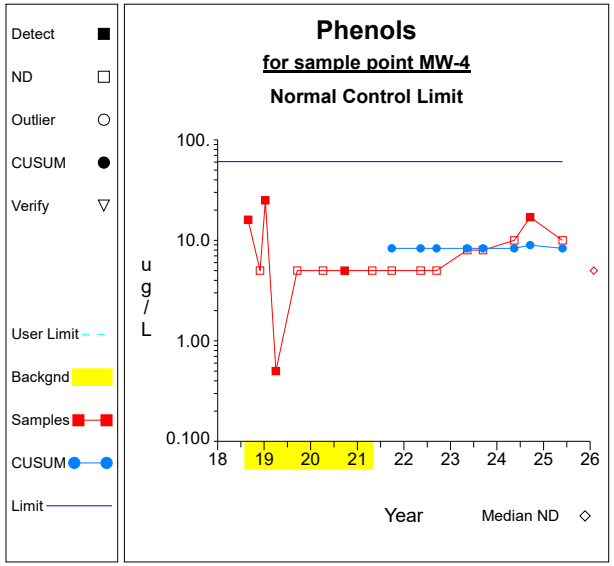
Graph 116



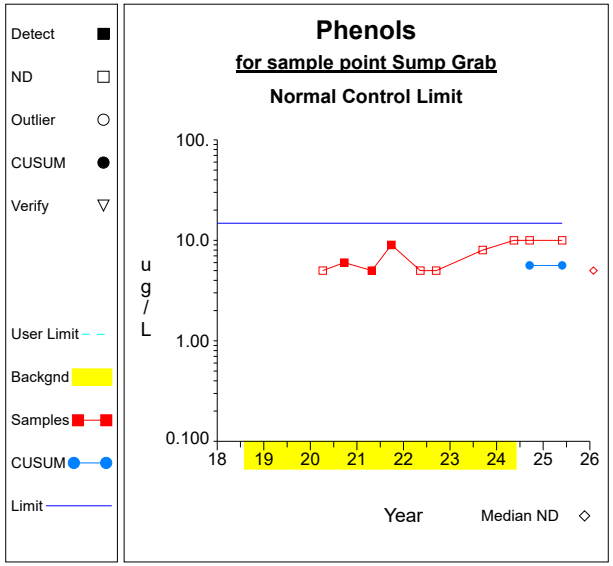
Graph 117



Graph 118

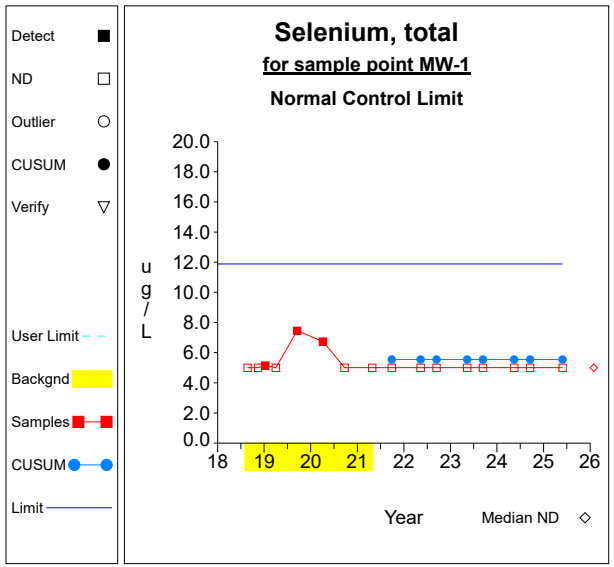


Graph 119

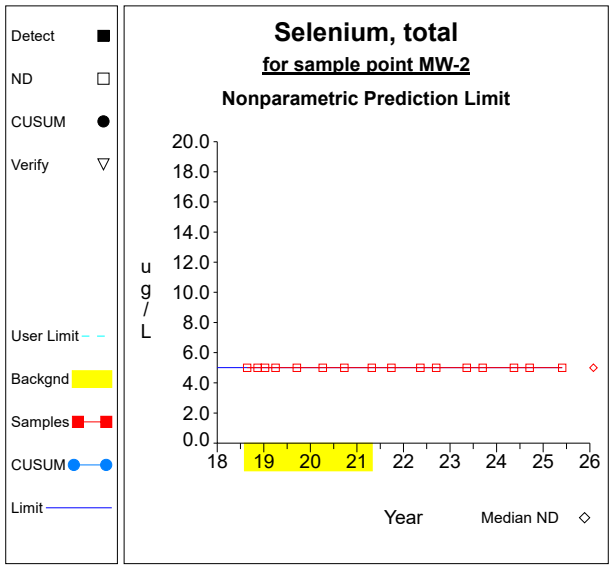


Graph 120

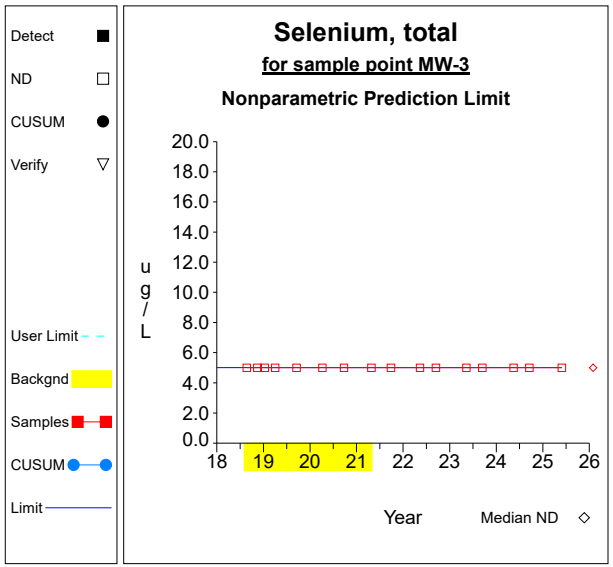
Intra-Well Control Charts / Prediction Limits



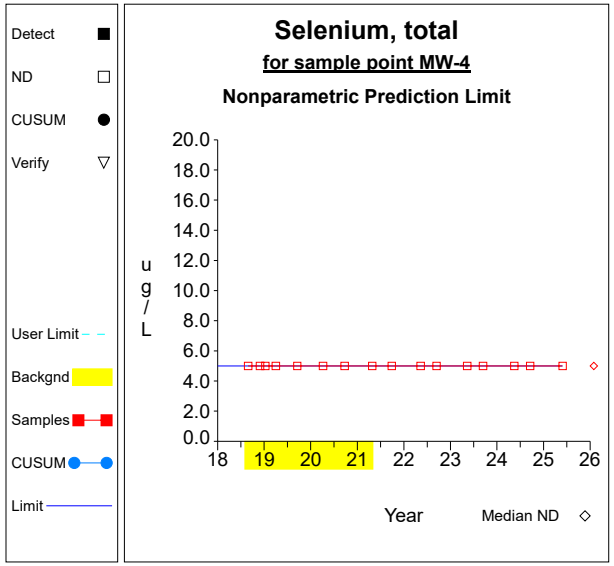
Graph 121



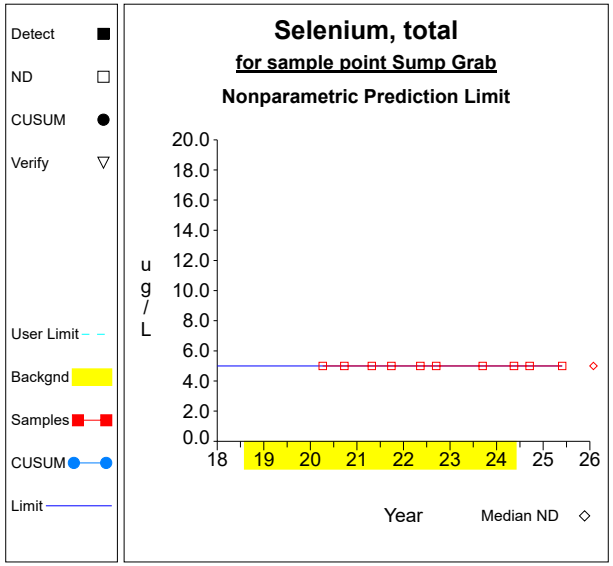
Graph 122



Graph 123



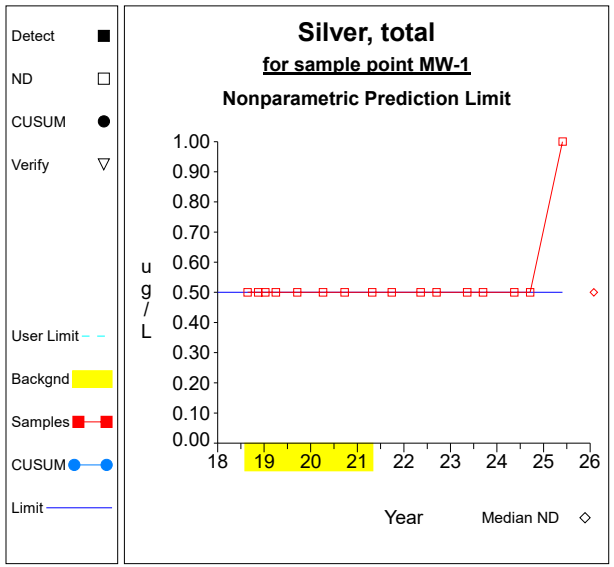
Graph 124



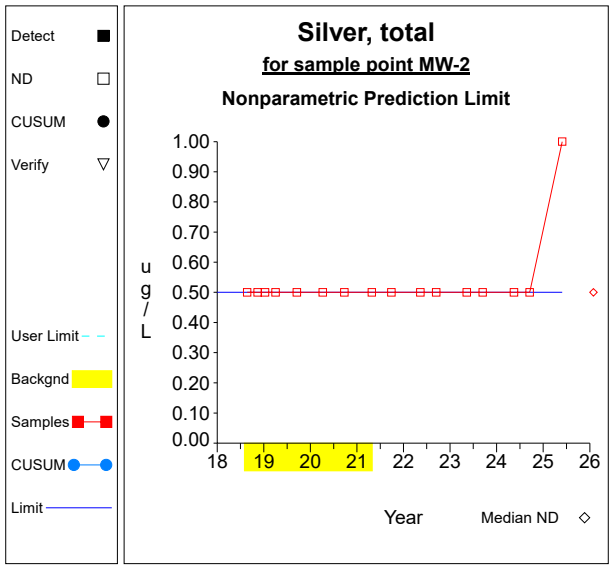
Graph 125

Prepared by: Otter Creek Environmental

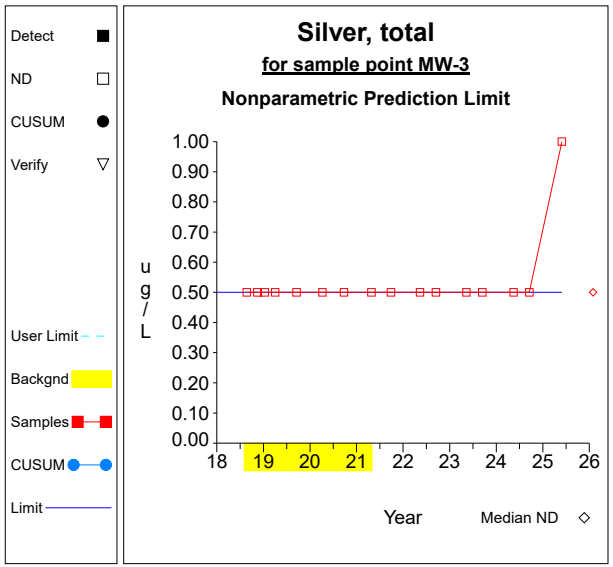
Intra-Well Control Charts / Prediction Limits



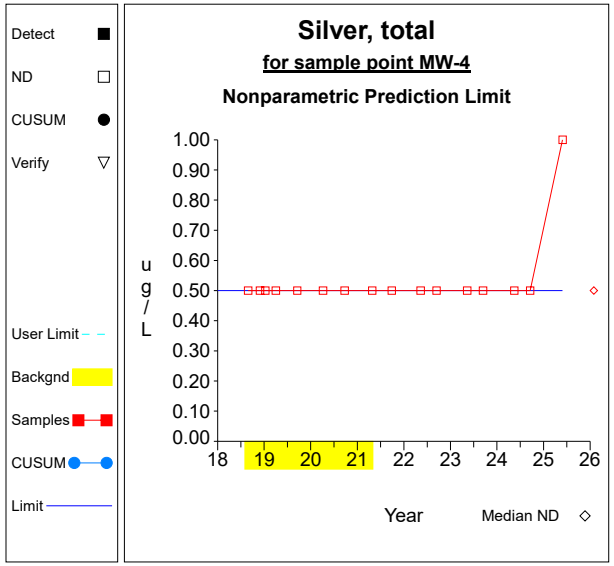
Graph 126



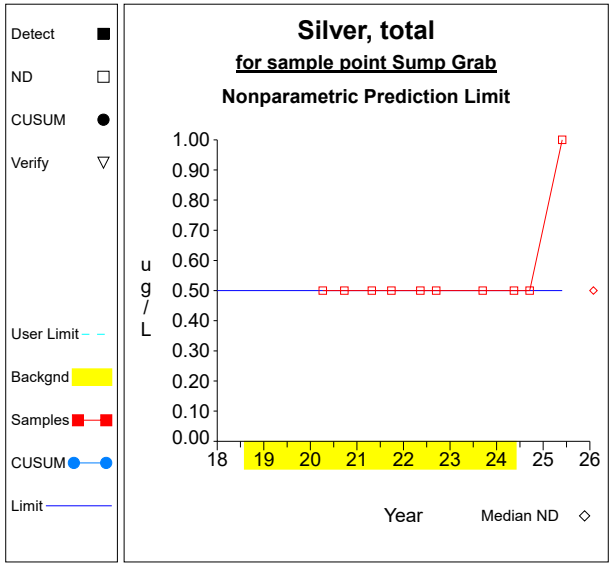
Graph 127



Graph 128



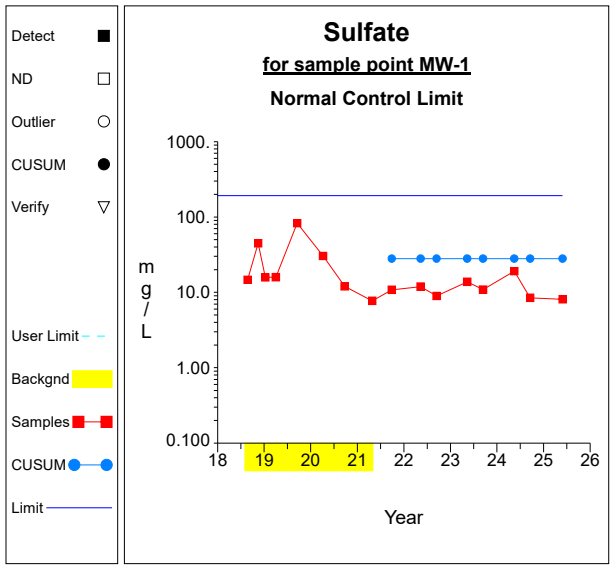
Graph 129



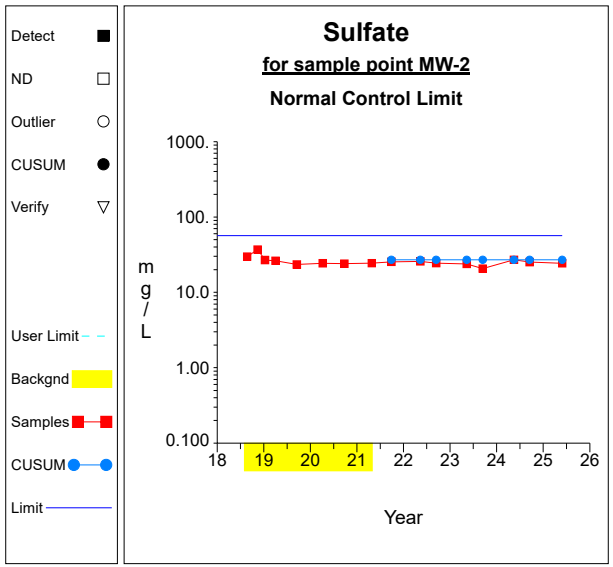
Graph 130

Prepared by: Otter Creek Environmental

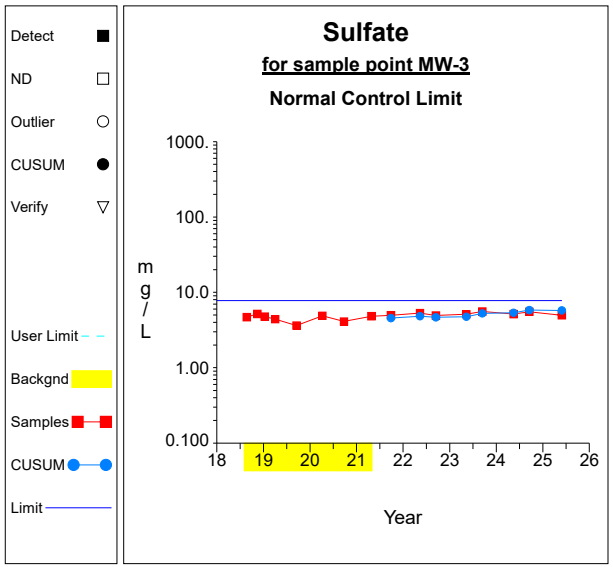
Intra-Well Control Charts / Prediction Limits



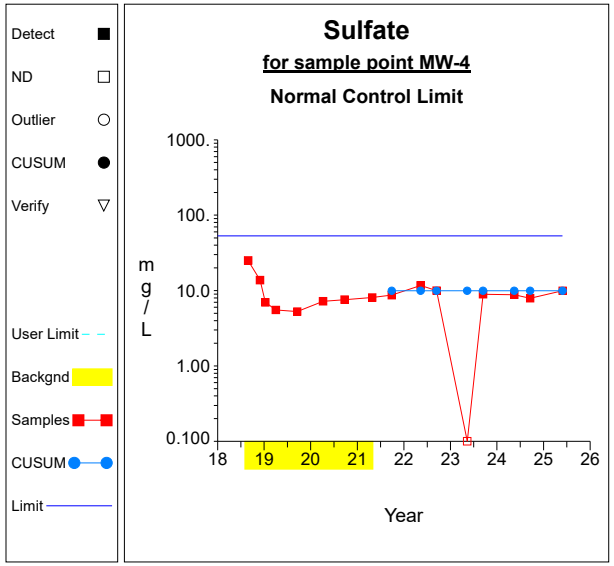
Graph 131



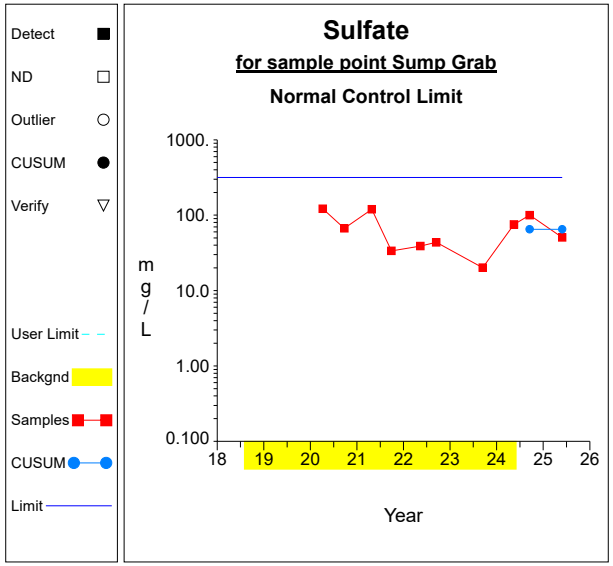
Graph 132



Graph 133



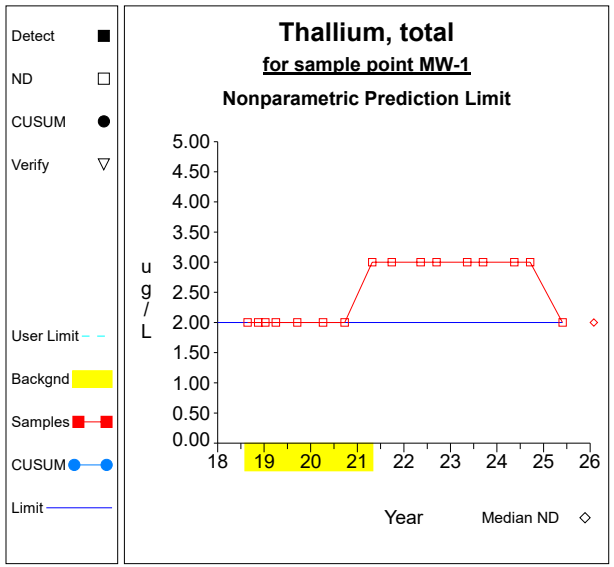
Graph 134



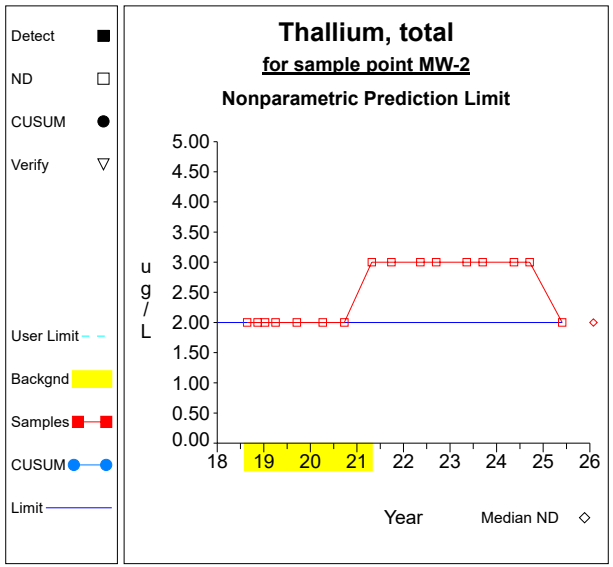
Graph 135

Prepared by: Otter Creek Environmental

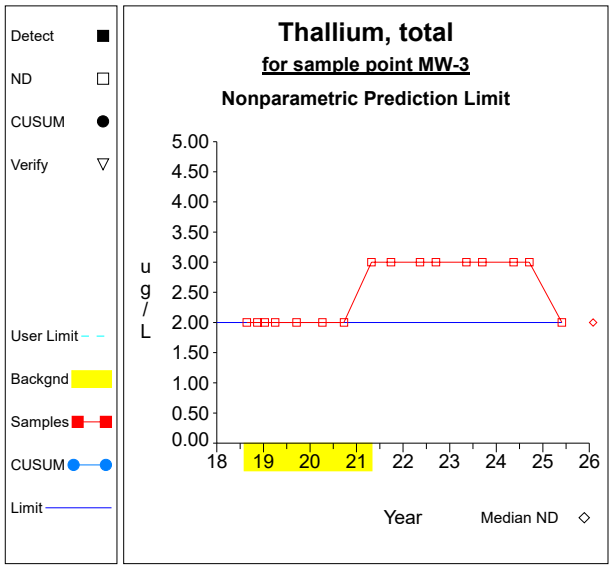
Intra-Well Control Charts / Prediction Limits



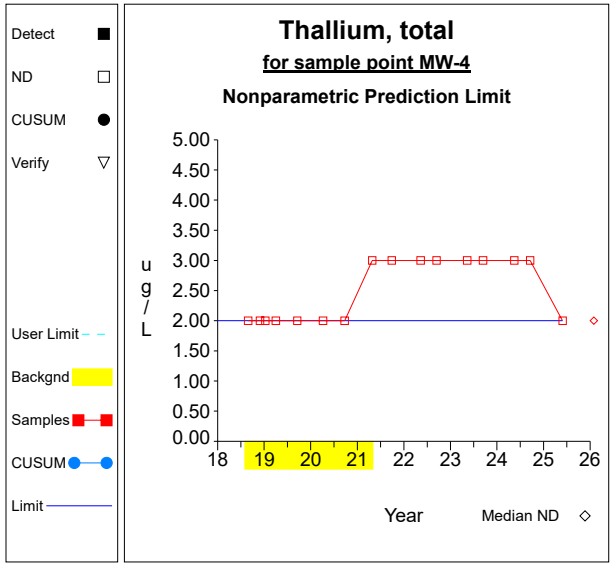
Graph 136



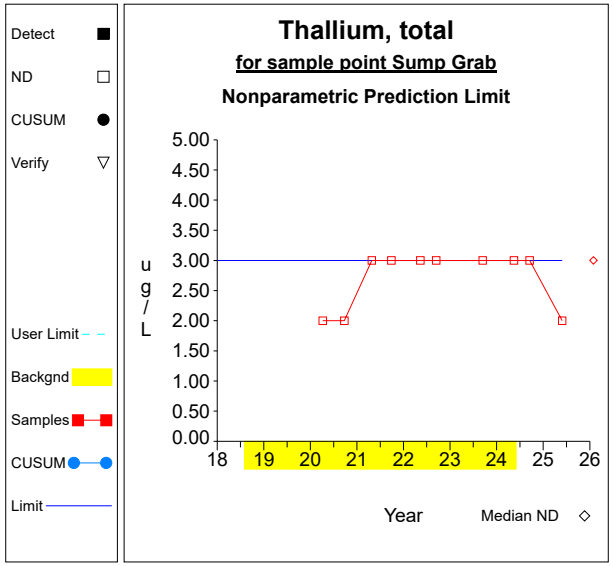
Graph 137



Graph 138



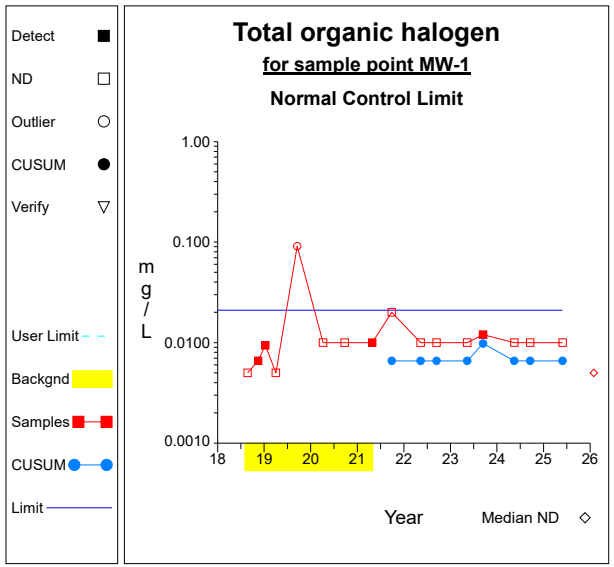
Graph 139



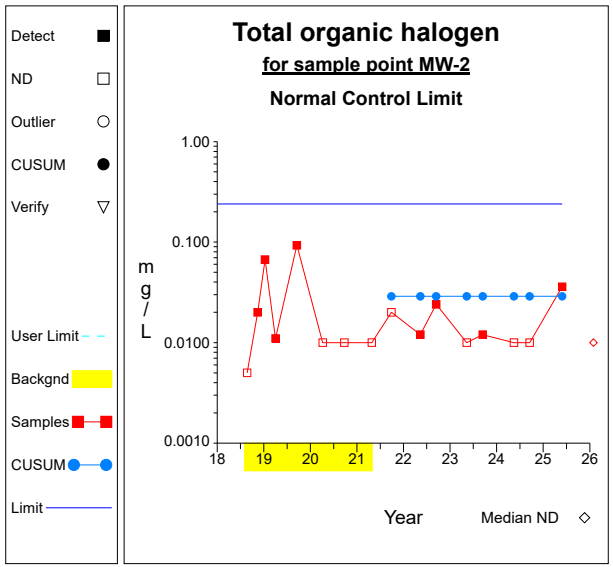
Graph 140

Prepared by: Otter Creek Environmental

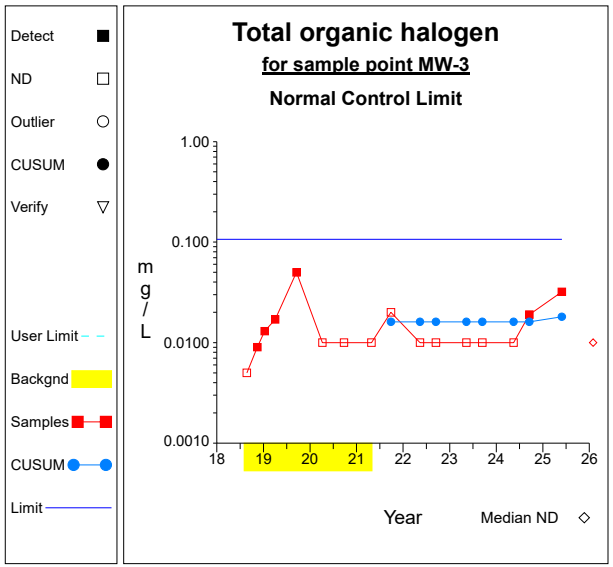
Intra-Well Control Charts / Prediction Limits



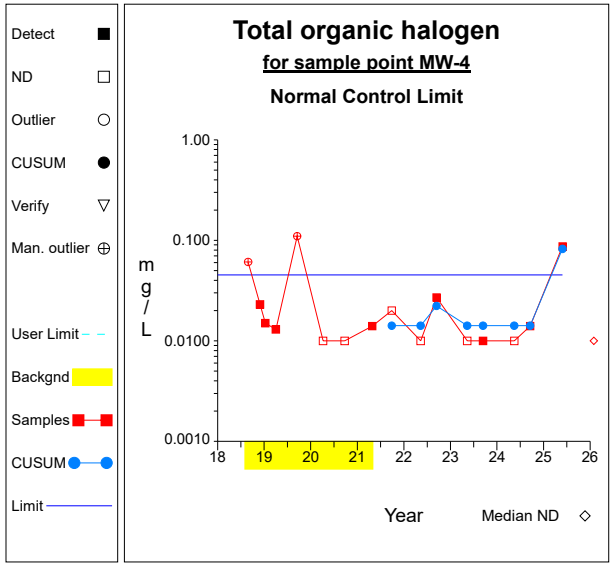
Graph 141



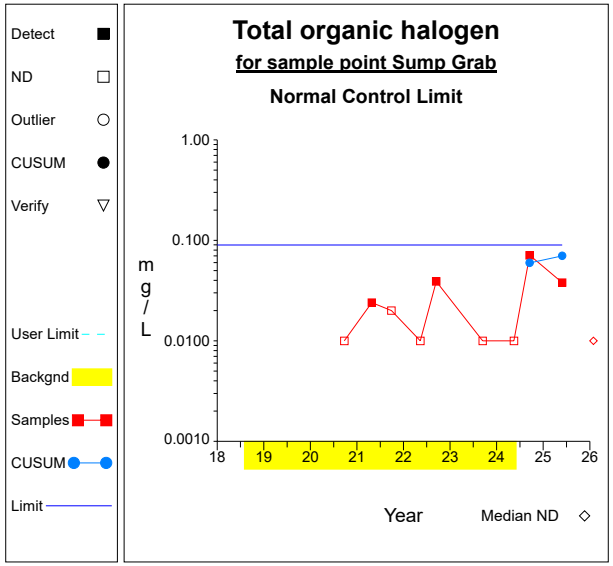
Graph 142



Graph 143

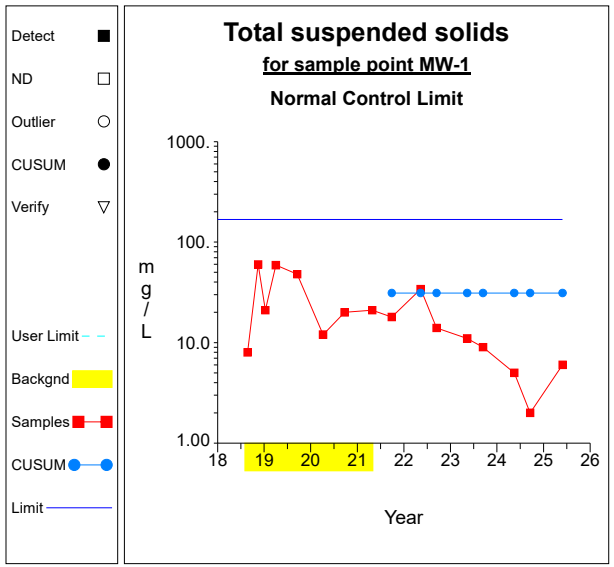


Graph 144

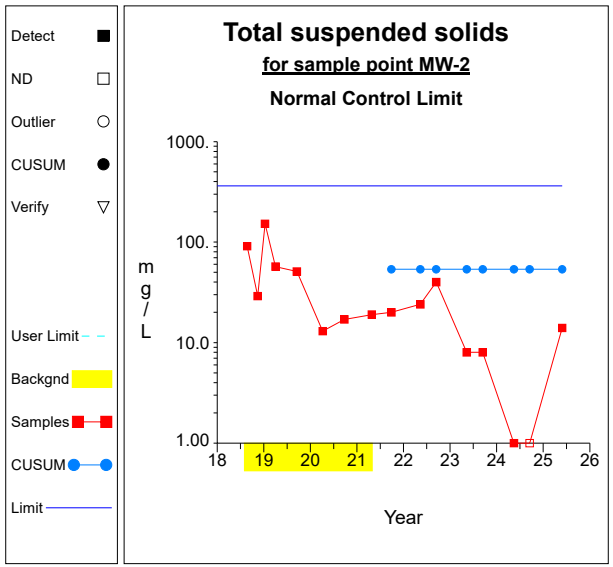


Graph 145

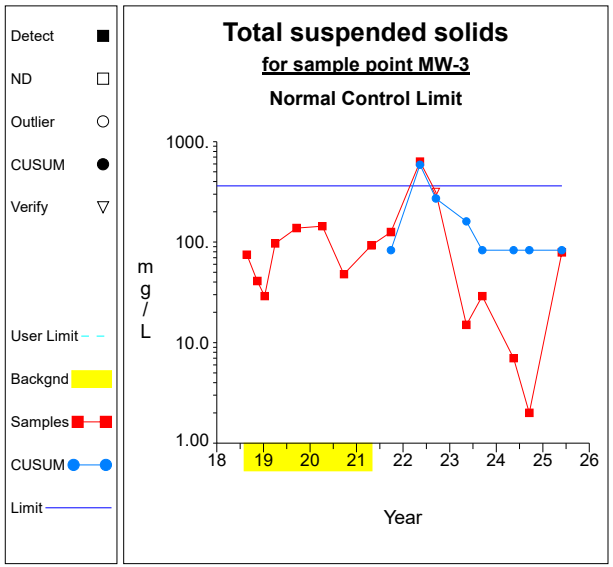
Intra-Well Control Charts / Prediction Limits



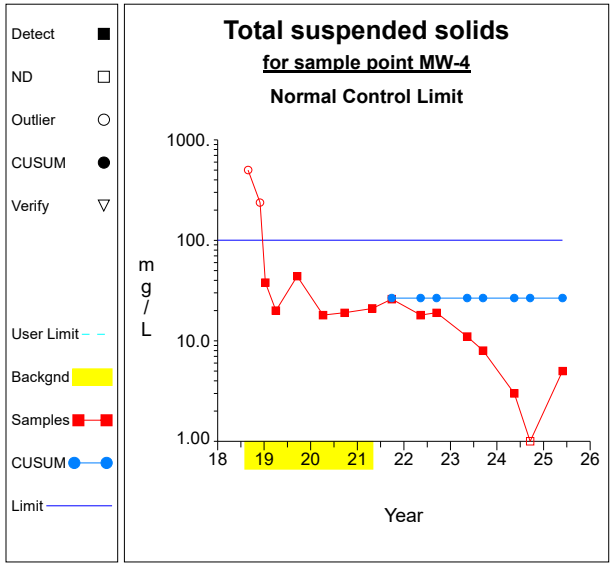
Graph 146



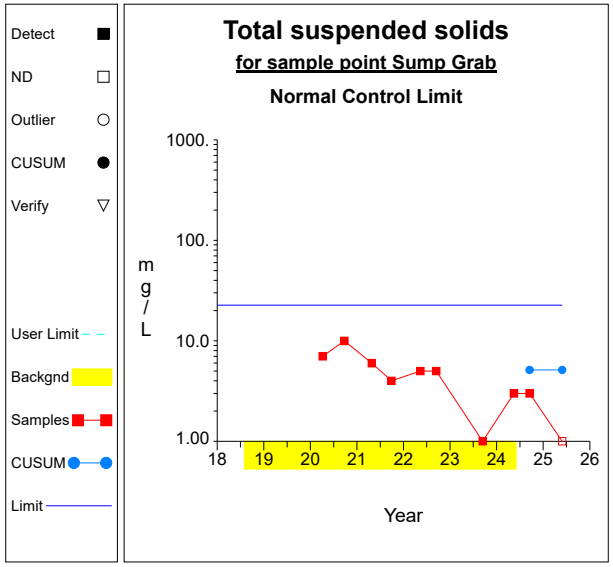
Graph 147



Graph 148



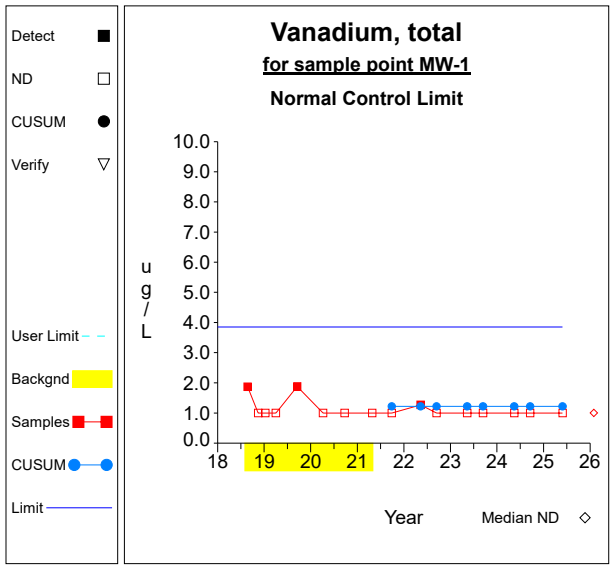
Graph 149



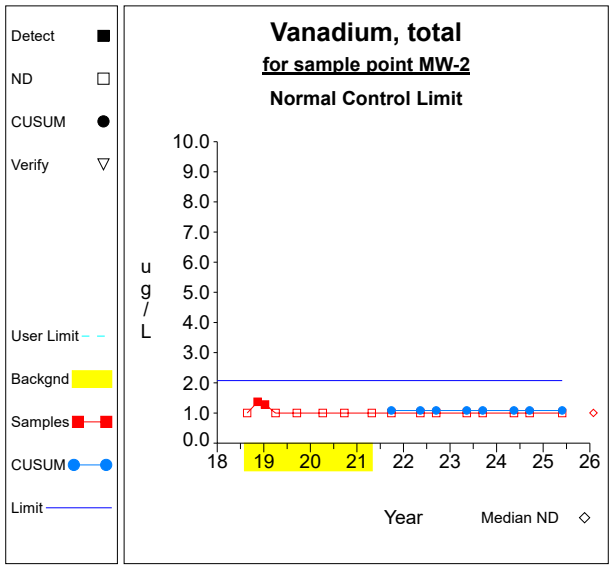
Graph 150

Prepared by: Otter Creek Environmental

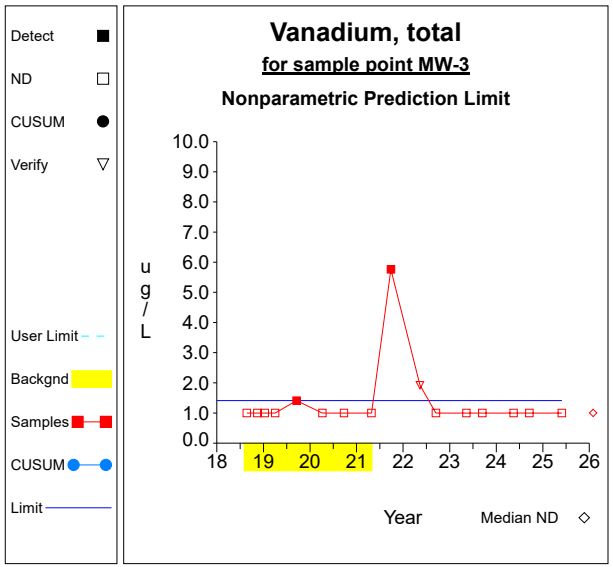
Intra-Well Control Charts / Prediction Limits



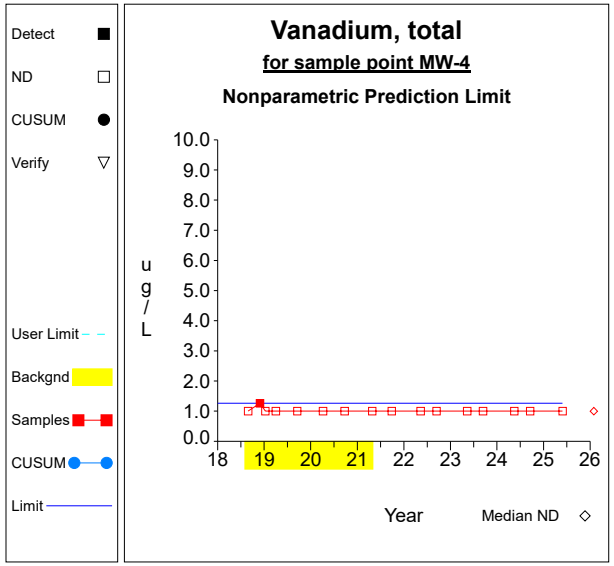
Graph 151



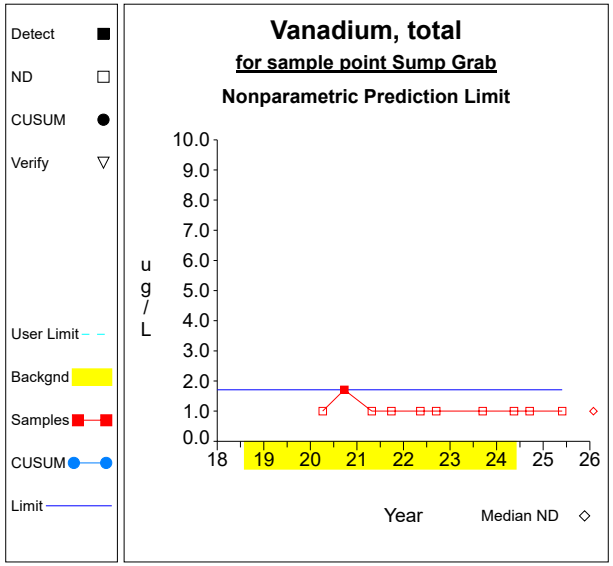
Graph 152



Graph 153

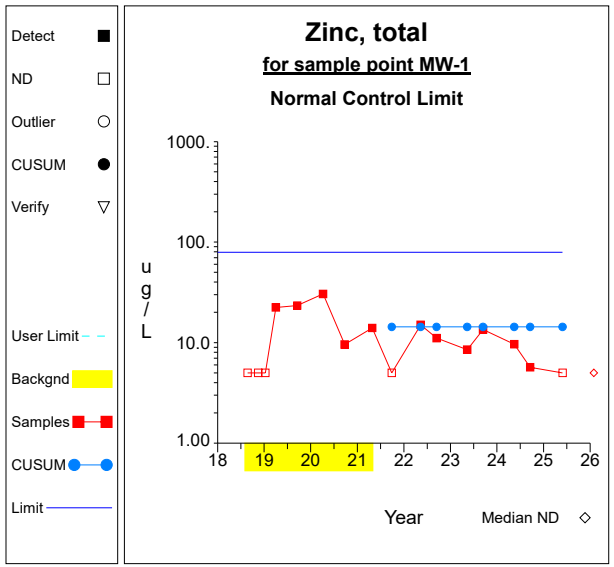


Graph 154

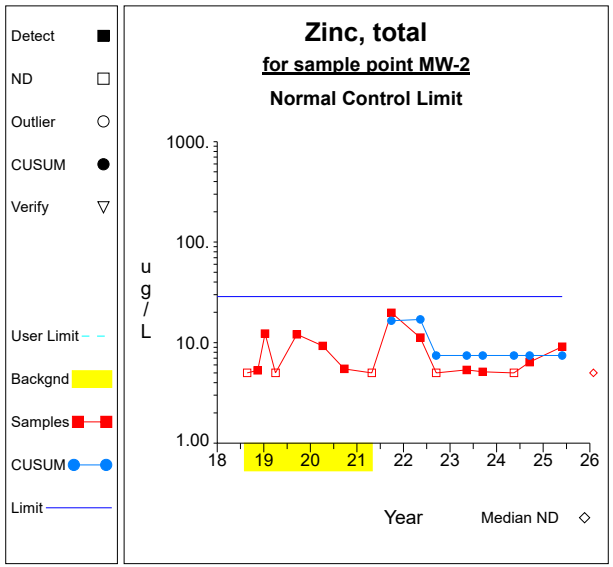


Graph 155

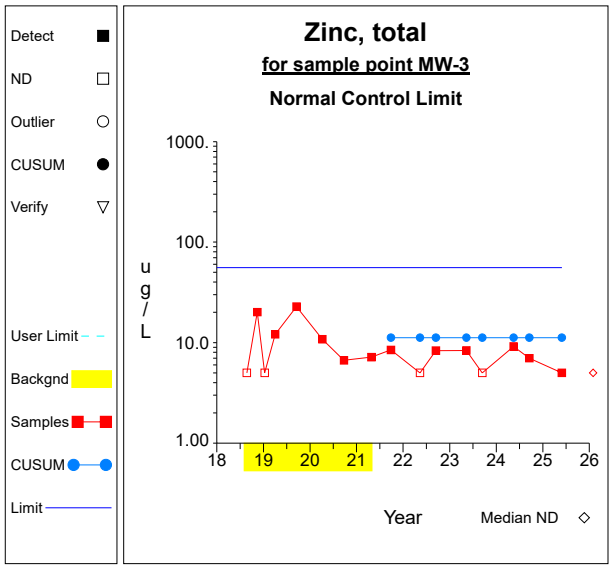
Intra-Well Control Charts / Prediction Limits



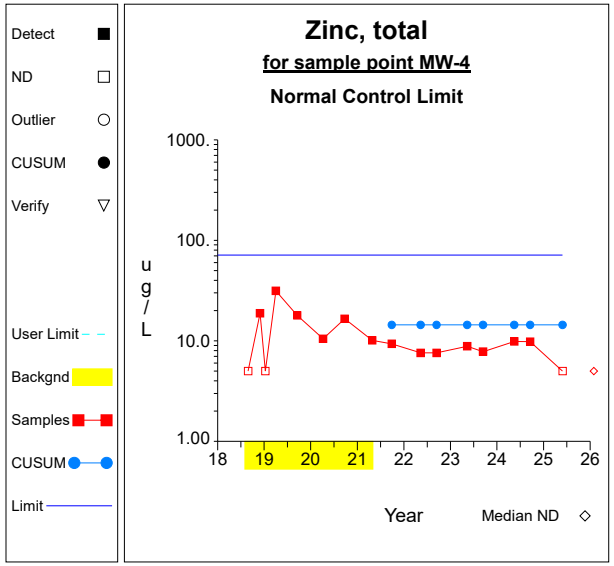
Graph 156



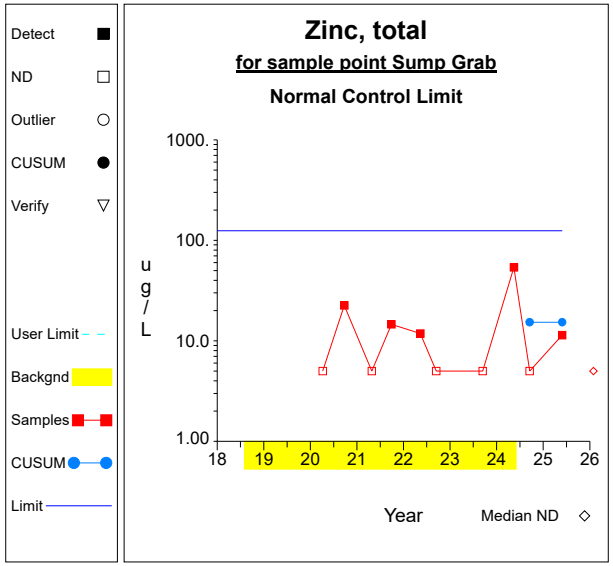
Graph 157



Graph 158

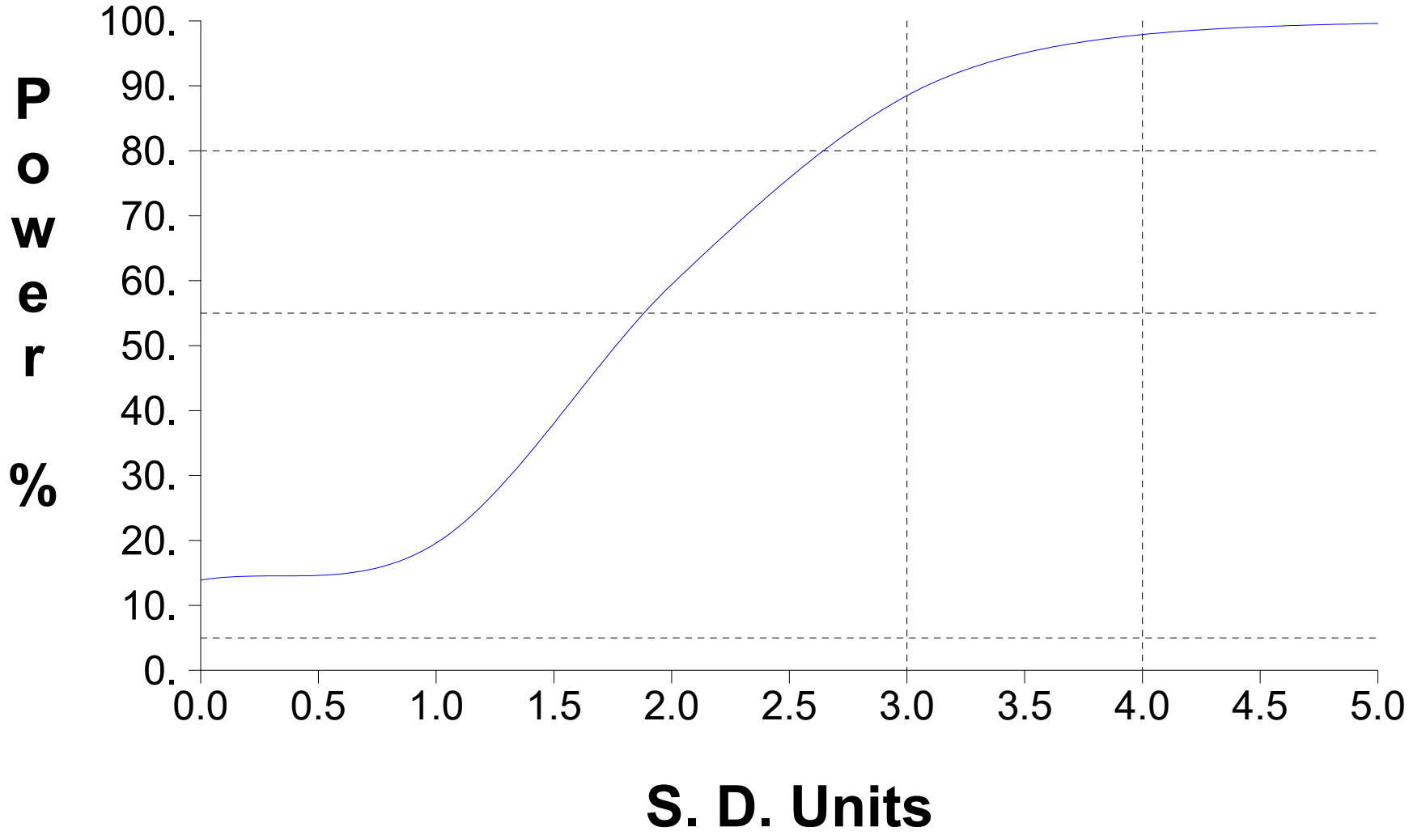


Graph 159



Graph 160

False Positive and False Negative Rates for Current Intra-Well Control Charts Monitoring Program



Attachment E

Summary Tables and Graphs for the Interwell Comparisons
Second Semi-Annual Monitoring Event in 2025

Table 1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Aluminum, total	ug/L	MW-3	08/23/2018		22.9000		
Aluminum, total	ug/L	MW-3	11/14/2018		219.0000		
Aluminum, total	ug/L	MW-3	01/10/2019		99.0000		
Aluminum, total	ug/L	MW-3	04/01/2019		58.8000		
Aluminum, total	ug/L	MW-3	09/17/2019		575.0000		
Aluminum, total	ug/L	MW-3	04/06/2020		248.0000		
Aluminum, total	ug/L	MW-3	09/24/2020		193.0000		
Aluminum, total	ug/L	MW-3	04/27/2021		266.0000		
Aluminum, total	ug/L	MW-3	09/28/2021		2720.0000		*
Aluminum, total	ug/L	MW-3	05/11/2022		870.0000		
Aluminum, total	ug/L	MW-3	09/14/2022		124.0000		
Aluminum, total	ug/L	MW-3	05/10/2023	ND	100.0000		
Aluminum, total	ug/L	MW-3	09/13/2023	ND	100.0000		
Aluminum, total	ug/L	MW-3	05/15/2024	ND	100.0000		
Aluminum, total	ug/L	MW-3	09/17/2024	ND	100.0000		
Aluminum, total	ug/L	MW-3	05/29/2025	ND	100.0000		
Aluminum, total	ug/L	MW-3	09/17/2025	ND	100.0000		
Aluminum, total	ug/L	MW-4	08/23/2018		105.0000		
Aluminum, total	ug/L	MW-4	11/30/2018		755.0000		*
Aluminum, total	ug/L	MW-4	01/10/2019		32.1000		
Aluminum, total	ug/L	MW-4	04/01/2019		113.0000		
Aluminum, total	ug/L	MW-4	09/17/2019		87.5000		
Aluminum, total	ug/L	MW-4	04/06/2020		54.1000		
Aluminum, total	ug/L	MW-4	09/24/2020		51.2000		
Aluminum, total	ug/L	MW-4	04/27/2021	ND	100.0000		
Aluminum, total	ug/L	MW-4	09/28/2021	ND	100.0000		
Aluminum, total	ug/L	MW-4	05/11/2022	ND	100.0000		
Aluminum, total	ug/L	MW-4	09/14/2022	ND	100.0000		
Aluminum, total	ug/L	MW-4	05/10/2023	ND	100.0000		
Aluminum, total	ug/L	MW-4	09/13/2023	ND	100.0000		
Aluminum, total	ug/L	MW-4	05/15/2024	ND	100.0000		
Aluminum, total	ug/L	MW-4	09/17/2024	ND	100.0000		
Aluminum, total	ug/L	MW-4	05/29/2025	ND	100.0000		
Aluminum, total	ug/L	MW-4	09/17/2025	ND	100.0000		
Ammonia nitrogen	mg/L	MW-3	08/23/2018	ND	0.1000		
Ammonia nitrogen	mg/L	MW-3	11/14/2018	ND	0.1000		
Ammonia nitrogen	mg/L	MW-3	01/10/2019		0.2600		
Ammonia nitrogen	mg/L	MW-3	04/01/2019	ND	0.1000		
Ammonia nitrogen	mg/L	MW-3	09/17/2019	ND	0.1000		
Ammonia nitrogen	mg/L	MW-3	04/06/2020	ND	0.1000		
Ammonia nitrogen	mg/L	MW-3	09/24/2020	ND	0.1000		
Ammonia nitrogen	mg/L	MW-3	04/27/2021	ND	0.1000		
Ammonia nitrogen	mg/L	MW-3	09/28/2021	ND	0.1000		
Ammonia nitrogen	mg/L	MW-3	05/11/2022	ND	0.1000		
Ammonia nitrogen	mg/L	MW-3	09/14/2022	ND	0.1000		
Ammonia nitrogen	mg/L	MW-3	05/10/2023	ND	0.1000		
Ammonia nitrogen	mg/L	MW-3	09/13/2023	ND	0.1000		
Ammonia nitrogen	mg/L	MW-3	05/15/2024	ND	0.1000		
Ammonia nitrogen	mg/L	MW-3	09/17/2024	ND	0.1000		
Ammonia nitrogen	mg/L	MW-3	05/29/2025	ND	0.1000		
Ammonia nitrogen	mg/L	MW-3	09/17/2025	ND	0.1000		
Ammonia nitrogen	mg/L	MW-4	08/28/2018	ND	0.1000		
Ammonia nitrogen	mg/L	MW-4	11/30/2018	ND	0.1000		
Ammonia nitrogen	mg/L	MW-4	01/10/2019		0.1200		
Ammonia nitrogen	mg/L	MW-4	04/01/2019	ND	0.1000		
Ammonia nitrogen	mg/L	MW-4	09/17/2019	ND	0.1000		
Ammonia nitrogen	mg/L	MW-4	04/06/2020	ND	0.1000		
Ammonia nitrogen	mg/L	MW-4	09/24/2020	ND	0.1000		
Ammonia nitrogen	mg/L	MW-4	04/27/2021	ND	0.1000		
Ammonia nitrogen	mg/L	MW-4	09/28/2021	ND	0.1000		
Ammonia nitrogen	mg/L	MW-4	05/11/2022	ND	0.1000		
Ammonia nitrogen	mg/L	MW-4	09/14/2022	ND	0.1000		
Ammonia nitrogen	mg/L	MW-4	05/10/2023	ND	0.1000		
Ammonia nitrogen	mg/L	MW-4	09/13/2023	ND	0.1000		
Ammonia nitrogen	mg/L	MW-4	05/15/2024	ND	0.1000		
Ammonia nitrogen	mg/L	MW-4	09/17/2024	ND	0.1000		
Ammonia nitrogen	mg/L	MW-4	05/29/2025	ND	0.1000		
Ammonia nitrogen	mg/L	MW-4	09/17/2025	ND	0.1000		
Antimony, total	ug/L	MW-3	08/23/2018	ND	5.0000		
Antimony, total	ug/L	MW-3	11/14/2018	ND	5.0000		
Antimony, total	ug/L	MW-3	01/10/2019	ND	5.0000		
Antimony, total	ug/L	MW-3	04/01/2019	ND	5.0000		
Antimony, total	ug/L	MW-3	09/17/2019	ND	5.0000		
Antimony, total	ug/L	MW-3	04/06/2020	ND	5.0000		

* - Outlier for that well and constituent.
** - ND value replaced with median RL.
*** - ND value replaced with manual RL.
ND = Not detected, Result = detection limit.

Table 1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Antimony, total	ug/L	MW-3	09/24/2020	ND	5.0000		
Antimony, total	ug/L	MW-3	04/27/2021	ND	5.0000		
Antimony, total	ug/L	MW-3	09/28/2021	ND	5.0000		
Antimony, total	ug/L	MW-3	05/11/2022	ND	5.0000		
Antimony, total	ug/L	MW-3	09/14/2022	ND	5.0000		
Antimony, total	ug/L	MW-3	05/10/2023	ND	5.0000		
Antimony, total	ug/L	MW-3	09/13/2023	ND	5.0000		
Antimony, total	ug/L	MW-3	05/15/2024	ND	5.0000		
Antimony, total	ug/L	MW-3	09/17/2024	ND	5.0000		
Antimony, total	ug/L	MW-3	05/29/2025	ND	5.0000		
Antimony, total	ug/L	MW-3	09/17/2025	ND	5.0000		
Antimony, total	ug/L	MW-4	08/28/2018	ND	5.0000		
Antimony, total	ug/L	MW-4	11/30/2018	ND	5.0000		
Antimony, total	ug/L	MW-4	01/10/2019	ND	5.0000		
Antimony, total	ug/L	MW-4	04/01/2019	ND	5.0000		
Antimony, total	ug/L	MW-4	09/17/2019	ND	5.0000		
Antimony, total	ug/L	MW-4	04/06/2020	ND	5.0000		
Antimony, total	ug/L	MW-4	09/24/2020	ND	5.0000		
Antimony, total	ug/L	MW-4	04/27/2021	ND	5.0000		
Antimony, total	ug/L	MW-4	09/28/2021	ND	5.0000		
Antimony, total	ug/L	MW-4	05/11/2022	ND	5.0000		
Antimony, total	ug/L	MW-4	09/14/2022	ND	5.0000		
Antimony, total	ug/L	MW-4	05/10/2023	ND	5.0000		
Antimony, total	ug/L	MW-4	09/13/2023	ND	5.0000		
Antimony, total	ug/L	MW-4	05/15/2024	ND	5.0000		
Antimony, total	ug/L	MW-4	09/17/2024	ND	5.0000		
Antimony, total	ug/L	MW-4	05/29/2025	ND	5.0000		
Antimony, total	ug/L	MW-4	09/17/2025	ND	5.0000		
Arsenic, total	ug/L	MW-3	08/23/2018	ND	10.0000		
Arsenic, total	ug/L	MW-3	11/14/2018	ND	10.0000		
Arsenic, total	ug/L	MW-3	01/10/2019	ND	10.0000		
Arsenic, total	ug/L	MW-3	04/01/2019	ND	10.0000		
Arsenic, total	ug/L	MW-3	09/17/2019	ND	10.0000		
Arsenic, total	ug/L	MW-3	04/06/2020	ND	10.0000		
Arsenic, total	ug/L	MW-3	09/24/2020	ND	10.0000		
Arsenic, total	ug/L	MW-3	04/27/2021	ND	10.0000		
Arsenic, total	ug/L	MW-3	09/28/2021	ND	10.0000		
Arsenic, total	ug/L	MW-3	05/11/2022	ND	10.0000		
Arsenic, total	ug/L	MW-3	09/14/2022	ND	10.0000		
Arsenic, total	ug/L	MW-3	05/10/2023	ND	10.0000		
Arsenic, total	ug/L	MW-3	09/13/2023	ND	10.0000		
Arsenic, total	ug/L	MW-3	05/15/2024	ND	10.0000		
Arsenic, total	ug/L	MW-3	09/17/2024	ND	10.0000		
Arsenic, total	ug/L	MW-3	05/29/2025	ND	10.0000		
Arsenic, total	ug/L	MW-3	09/17/2025	ND	10.0000		
Arsenic, total	ug/L	MW-4	08/23/2018	ND	10.0000		
Arsenic, total	ug/L	MW-4	11/30/2018	ND	10.0000		
Arsenic, total	ug/L	MW-4	01/10/2019	ND	10.0000		
Arsenic, total	ug/L	MW-4	04/01/2019	ND	10.0000		
Arsenic, total	ug/L	MW-4	09/17/2019	ND	10.0000		
Arsenic, total	ug/L	MW-4	04/06/2020	ND	10.0000		
Arsenic, total	ug/L	MW-4	09/24/2020	ND	10.0000		
Arsenic, total	ug/L	MW-4	04/27/2021	ND	10.0000		
Arsenic, total	ug/L	MW-4	09/28/2021	ND	10.0000		
Arsenic, total	ug/L	MW-4	05/11/2022	ND	10.0000		
Arsenic, total	ug/L	MW-4	09/14/2022	ND	10.0000		
Arsenic, total	ug/L	MW-4	05/10/2023	ND	10.0000		
Arsenic, total	ug/L	MW-4	09/13/2023	ND	10.0000		
Arsenic, total	ug/L	MW-4	05/15/2024	ND	10.0000		
Arsenic, total	ug/L	MW-4	09/17/2024	ND	10.0000		
Arsenic, total	ug/L	MW-4	05/29/2025	ND	10.0000		
Arsenic, total	ug/L	MW-4	09/17/2025	ND	10.0000		
Barium, total	ug/L	MW-3	08/23/2018		33.2000		
Barium, total	ug/L	MW-3	11/14/2018		25.9000		
Barium, total	ug/L	MW-3	01/10/2019		21.1000		
Barium, total	ug/L	MW-3	04/01/2019		26.5000		
Barium, total	ug/L	MW-3	09/17/2019		42.9000		
Barium, total	ug/L	MW-3	04/06/2020		33.8000		
Barium, total	ug/L	MW-3	09/24/2020		29.3000		
Barium, total	ug/L	MW-3	04/27/2021		33.5000		
Barium, total	ug/L	MW-3	09/28/2021		79.0000		
Barium, total	ug/L	MW-3	05/11/2022		44.6000		
Barium, total	ug/L	MW-3	09/14/2022		31.4000		
Barium, total	ug/L	MW-3	05/10/2023		26.9000		

* - Outlier for that well and constituent.
** - ND value replaced with median RL.
*** - ND value replaced with manual RL.
ND = Not detected, Result = detection limit.

Table 1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Barium, total	ug/L	MW-3	09/13/2023		27.6000		
Barium, total	ug/L	MW-3	05/15/2024		31.7000		
Barium, total	ug/L	MW-3	09/17/2024		27.6000		
Barium, total	ug/L	MW-3	05/29/2025		29.3000		
Barium, total	ug/L	MW-3	09/17/2025		26.4000		
Barium, total	ug/L	MW-4	08/23/2018		49.7000		
Barium, total	ug/L	MW-4	11/30/2018		34.5000		
Barium, total	ug/L	MW-4	01/10/2019		38.6000		
Barium, total	ug/L	MW-4	04/01/2019		47.4000		
Barium, total	ug/L	MW-4	09/17/2019		44.4000		
Barium, total	ug/L	MW-4	04/06/2020		46.2000		
Barium, total	ug/L	MW-4	09/24/2020		44.5000		
Barium, total	ug/L	MW-4	04/27/2021		41.1000		
Barium, total	ug/L	MW-4	09/28/2021		44.3000		
Barium, total	ug/L	MW-4	05/11/2022		41.8000		
Barium, total	ug/L	MW-4	09/14/2022		36.3000		
Barium, total	ug/L	MW-4	05/10/2023		38.9000		
Barium, total	ug/L	MW-4	09/13/2023		41.4000		
Barium, total	ug/L	MW-4	05/15/2024		42.2000		
Barium, total	ug/L	MW-4	09/17/2024		38.4000		
Barium, total	ug/L	MW-4	05/29/2025		41.7000		
Barium, total	ug/L	MW-4	09/17/2025		40.2000		
Beryllium, total	ug/L	MW-3	08/23/2018	ND	1.0000		
Beryllium, total	ug/L	MW-3	11/14/2018	ND	1.0000		
Beryllium, total	ug/L	MW-3	01/10/2019	ND	1.0000		
Beryllium, total	ug/L	MW-3	04/01/2019	ND	1.0000		
Beryllium, total	ug/L	MW-3	09/17/2019	ND	1.0000		
Beryllium, total	ug/L	MW-3	04/06/2020	ND	1.0000		
Beryllium, total	ug/L	MW-3	09/24/2020	ND	1.0000		
Beryllium, total	ug/L	MW-3	04/27/2021	ND	1.0000		
Beryllium, total	ug/L	MW-3	09/28/2021	ND	1.0000		
Beryllium, total	ug/L	MW-3	05/11/2022	ND	1.0000		
Beryllium, total	ug/L	MW-3	09/14/2022	ND	1.0000		
Beryllium, total	ug/L	MW-3	05/10/2023	ND	1.0000		
Beryllium, total	ug/L	MW-3	09/13/2023	ND	1.0000		
Beryllium, total	ug/L	MW-3	05/15/2024	ND	1.0000		
Beryllium, total	ug/L	MW-3	09/17/2024	ND	1.0000		
Beryllium, total	ug/L	MW-3	05/29/2025	ND	1.0000		
Beryllium, total	ug/L	MW-3	09/17/2025	ND	1.0000		
Beryllium, total	ug/L	MW-4	08/23/2018	ND	1.0000		
Beryllium, total	ug/L	MW-4	11/30/2018	ND	1.0000		
Beryllium, total	ug/L	MW-4	01/10/2019	ND	1.0000		
Beryllium, total	ug/L	MW-4	04/01/2019	ND	1.0000		
Beryllium, total	ug/L	MW-4	09/17/2019	ND	1.0000		
Beryllium, total	ug/L	MW-4	04/06/2020	ND	1.0000		
Beryllium, total	ug/L	MW-4	09/24/2020	ND	1.0000		
Beryllium, total	ug/L	MW-4	04/27/2021	ND	1.0000		
Beryllium, total	ug/L	MW-4	09/28/2021	ND	1.0000		
Beryllium, total	ug/L	MW-4	05/11/2022	ND	1.0000		
Beryllium, total	ug/L	MW-4	09/14/2022	ND	1.0000		
Beryllium, total	ug/L	MW-4	05/10/2023	ND	1.0000		
Beryllium, total	ug/L	MW-4	09/13/2023	ND	1.0000		
Beryllium, total	ug/L	MW-4	05/15/2024	ND	1.0000		
Beryllium, total	ug/L	MW-4	09/17/2024	ND	1.0000		
Beryllium, total	ug/L	MW-4	05/29/2025	ND	1.0000		
Beryllium, total	ug/L	MW-4	09/17/2025	ND	1.0000		
Boron, total	ug/L	MW-3	08/23/2018	ND	20.0000		
Boron, total	ug/L	MW-3	11/14/2018	ND	20.0000		
Boron, total	ug/L	MW-3	01/10/2019		20.0000		
Boron, total	ug/L	MW-3	04/01/2019	ND	20.0000		
Boron, total	ug/L	MW-3	09/17/2019	ND	20.0000		
Boron, total	ug/L	MW-3	04/06/2020	ND	20.0000		
Boron, total	ug/L	MW-3	09/24/2020	ND	20.0000		
Boron, total	ug/L	MW-3	04/27/2021	ND	20.0000		
Boron, total	ug/L	MW-3	09/28/2021		21.3000		
Boron, total	ug/L	MW-3	05/11/2022	ND	20.0000		
Boron, total	ug/L	MW-3	09/14/2022	ND	20.0000		
Boron, total	ug/L	MW-3	05/10/2023	ND	20.0000		
Boron, total	ug/L	MW-3	09/13/2023	ND	20.0000		
Boron, total	ug/L	MW-3	05/15/2024	ND	20.0000		
Boron, total	ug/L	MW-3	09/17/2024	ND	20.0000		
Boron, total	ug/L	MW-3	05/29/2025	ND	20.0000		
Boron, total	ug/L	MW-3	09/17/2025	ND	20.0000		
Boron, total	ug/L	MW-4	08/28/2018		90.1000		*

* - Outlier for that well and constituent.
** - ND value replaced with median RL.
*** - ND value replaced with manual RL.
ND = Not detected, Result = detection limit.

Table 1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Boron, total	ug/L	MW-4	11/30/2018		31.0000		
Boron, total	ug/L	MW-4	01/10/2019		21.0000		
Boron, total	ug/L	MW-4	04/01/2019	ND	20.0000		
Boron, total	ug/L	MW-4	09/17/2019	ND	20.0000		
Boron, total	ug/L	MW-4	04/06/2020	ND	20.0000		
Boron, total	ug/L	MW-4	09/24/2020	ND	20.0000		
Boron, total	ug/L	MW-4	04/27/2021	ND	20.0000		
Boron, total	ug/L	MW-4	09/28/2021	ND	20.0000		
Boron, total	ug/L	MW-4	05/11/2022	ND	20.0000		
Boron, total	ug/L	MW-4	09/14/2022	ND	20.0000		
Boron, total	ug/L	MW-4	05/10/2023	ND	20.0000		
Boron, total	ug/L	MW-4	09/13/2023	ND	20.0000		
Boron, total	ug/L	MW-4	05/15/2024	ND	20.0000		
Boron, total	ug/L	MW-4	09/17/2024	ND	20.0000		
Boron, total	ug/L	MW-4	05/29/2025	ND	20.0000		
Boron, total	ug/L	MW-4	09/17/2025	ND	20.0000		
Cadmium, total	ug/L	MW-3	08/23/2018	ND	0.4000		
Cadmium, total	ug/L	MW-3	11/14/2018	ND	0.4000		
Cadmium, total	ug/L	MW-3	01/10/2019	ND	0.4000		
Cadmium, total	ug/L	MW-3	04/01/2019	ND	0.4000		
Cadmium, total	ug/L	MW-3	09/17/2019	ND	0.4000		
Cadmium, total	ug/L	MW-3	04/06/2020	ND	0.4000		
Cadmium, total	ug/L	MW-3	09/24/2020	ND	0.4000		
Cadmium, total	ug/L	MW-3	04/27/2021	ND	0.4000		
Cadmium, total	ug/L	MW-3	09/28/2021	ND	0.4000		
Cadmium, total	ug/L	MW-3	05/11/2022	ND	0.4000		
Cadmium, total	ug/L	MW-3	09/14/2022	ND	0.4000		
Cadmium, total	ug/L	MW-3	05/10/2023	ND	0.4000		
Cadmium, total	ug/L	MW-3	09/13/2023	ND	0.4000		
Cadmium, total	ug/L	MW-3	05/15/2024	ND	0.4000		
Cadmium, total	ug/L	MW-3	09/17/2024	ND	0.4000		
Cadmium, total	ug/L	MW-3	05/29/2025	ND	0.4000		
Cadmium, total	ug/L	MW-3	09/17/2025	ND	0.4000		
Cadmium, total	ug/L	MW-4	08/23/2018	ND	0.4000		
Cadmium, total	ug/L	MW-4	11/30/2018	ND	0.4000		
Cadmium, total	ug/L	MW-4	01/10/2019	ND	0.4000		
Cadmium, total	ug/L	MW-4	04/01/2019	ND	0.4000		
Cadmium, total	ug/L	MW-4	09/17/2019	ND	0.4000		
Cadmium, total	ug/L	MW-4	04/06/2020	ND	0.4000		
Cadmium, total	ug/L	MW-4	09/24/2020	ND	0.4000		
Cadmium, total	ug/L	MW-4	04/27/2021	ND	0.4000		
Cadmium, total	ug/L	MW-4	09/28/2021	ND	0.4000		
Cadmium, total	ug/L	MW-4	05/11/2022	ND	0.4000		
Cadmium, total	ug/L	MW-4	09/14/2022	ND	0.4000		
Cadmium, total	ug/L	MW-4	05/10/2023	ND	0.4000		
Cadmium, total	ug/L	MW-4	09/13/2023	ND	0.4000		
Cadmium, total	ug/L	MW-4	05/15/2024	ND	0.4000		
Cadmium, total	ug/L	MW-4	09/17/2024	ND	0.4000		
Cadmium, total	ug/L	MW-4	05/29/2025	ND	0.4000		
Cadmium, total	ug/L	MW-4	09/17/2025	ND	0.4000		
Chemical oxygen demand	mg/L	MW-3	08/23/2018		7.0000		
Chemical oxygen demand	mg/L	MW-3	11/14/2018		14.0000		
Chemical oxygen demand	mg/L	MW-3	01/10/2019		11.0000		
Chemical oxygen demand	mg/L	MW-3	04/01/2019		13.0000		
Chemical oxygen demand	mg/L	MW-3	09/17/2019		7.0000		
Chemical oxygen demand	mg/L	MW-3	04/06/2020	ND	7.0000		
Chemical oxygen demand	mg/L	MW-3	09/24/2020	ND	7.0000		
Chemical oxygen demand	mg/L	MW-3	04/27/2021	ND	7.0000		
Chemical oxygen demand	mg/L	MW-3	09/28/2021	ND	7.0000		
Chemical oxygen demand	mg/L	MW-3	05/11/2022	ND	7.0000		
Chemical oxygen demand	mg/L	MW-3	09/14/2022	ND	7.0000		
Chemical oxygen demand	mg/L	MW-3	05/10/2023		20.0000		
Chemical oxygen demand	mg/L	MW-3	09/13/2023	ND	10.0000	7.0000	**
Chemical oxygen demand	mg/L	MW-3	05/15/2024	ND	10.0000	7.0000	**
Chemical oxygen demand	mg/L	MW-3	09/17/2024	ND	10.0000	7.0000	**
Chemical oxygen demand	mg/L	MW-3	05/29/2025	ND	10.0000	7.0000	**
Chemical oxygen demand	mg/L	MW-3	09/17/2025	ND	10.0000	7.0000	**
Chemical oxygen demand	mg/L	MW-4	08/28/2018		15.0000		
Chemical oxygen demand	mg/L	MW-4	11/30/2018		17.0000		
Chemical oxygen demand	mg/L	MW-4	01/10/2019		15.0000		
Chemical oxygen demand	mg/L	MW-4	04/01/2019		7.0000		
Chemical oxygen demand	mg/L	MW-4	09/17/2019	ND	6.0000	7.0000	**
Chemical oxygen demand	mg/L	MW-4	04/06/2020	ND	7.0000		
Chemical oxygen demand	mg/L	MW-4	09/24/2020		10.0000		

* - Outlier for that well and constituent.
** - ND value replaced with median RL.
*** - ND value replaced with manual RL.
ND = Not detected, Result = detection limit.

Table 1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Chemical oxygen demand	mg/L	MW-4	04/27/2021	ND	7.0000		
Chemical oxygen demand	mg/L	MW-4	09/28/2021	ND	7.0000		
Chemical oxygen demand	mg/L	MW-4	05/11/2022	ND	7.0000		
Chemical oxygen demand	mg/L	MW-4	09/14/2022	ND	7.0000		
Chemical oxygen demand	mg/L	MW-4	05/10/2023		14.0000		
Chemical oxygen demand	mg/L	MW-4	09/13/2023	ND	10.0000	7.0000	**
Chemical oxygen demand	mg/L	MW-4	05/15/2024	ND	10.0000	7.0000	**
Chemical oxygen demand	mg/L	MW-4	09/17/2024	ND	10.0000	7.0000	**
Chemical oxygen demand	mg/L	MW-4	05/29/2025	ND	10.0000	7.0000	**
Chemical oxygen demand	mg/L	MW-4	09/17/2025		10.0000		
Chloride	mg/L	MW-3	08/23/2018		0.8340		
Chloride	mg/L	MW-3	11/14/2018		4.6100		*
Chloride	mg/L	MW-3	01/10/2019		1.4800		
Chloride	mg/L	MW-3	04/01/2019		1.0600		
Chloride	mg/L	MW-3	09/17/2019		0.7620		
Chloride	mg/L	MW-3	04/06/2020		0.7150		
Chloride	mg/L	MW-3	09/24/2020		0.7510		
Chloride	mg/L	MW-3	04/27/2021		0.7900		
Chloride	mg/L	MW-3	09/28/2021		0.6660		
Chloride	mg/L	MW-3	05/11/2022		0.8530		
Chloride	mg/L	MW-3	09/14/2022		0.7870		
Chloride	mg/L	MW-3	05/10/2023		0.6110		
Chloride	mg/L	MW-3	09/13/2023		0.6330		
Chloride	mg/L	MW-3	05/15/2024		0.6070		
Chloride	mg/L	MW-3	09/17/2024		0.6080		
Chloride	mg/L	MW-3	05/29/2025		0.5920		
Chloride	mg/L	MW-3	09/17/2025		0.6230		
Chloride	mg/L	MW-4	08/23/2018		34.1000		
Chloride	mg/L	MW-4	11/30/2018		20.9000		
Chloride	mg/L	MW-4	01/10/2019		12.8000		
Chloride	mg/L	MW-4	04/01/2019		6.6300		
Chloride	mg/L	MW-4	09/17/2019		3.4900		
Chloride	mg/L	MW-4	04/06/2020		2.9500		
Chloride	mg/L	MW-4	09/24/2020		2.6000		
Chloride	mg/L	MW-4	04/27/2021		2.6500		
Chloride	mg/L	MW-4	09/28/2021		2.6800		
Chloride	mg/L	MW-4	05/11/2022		3.3800		
Chloride	mg/L	MW-4	09/14/2022		3.0400		
Chloride	mg/L	MW-4	05/10/2023		2.8800		
Chloride	mg/L	MW-4	09/13/2023		2.7400		
Chloride	mg/L	MW-4	05/15/2024		2.9100		
Chloride	mg/L	MW-4	09/17/2024		2.6000		
Chloride	mg/L	MW-4	05/29/2025		3.1700		
Chloride	mg/L	MW-4	09/17/2025		2.9200		
Chromium, total	ug/L	MW-3	08/23/2018	ND	1.0000		
Chromium, total	ug/L	MW-3	11/14/2018		1.6200		
Chromium, total	ug/L	MW-3	01/10/2019		4.0800		
Chromium, total	ug/L	MW-3	04/01/2019		4.0000		
Chromium, total	ug/L	MW-3	09/17/2019		16.4000		
Chromium, total	ug/L	MW-3	04/06/2020		11.2000		
Chromium, total	ug/L	MW-3	09/24/2020		4.2600		
Chromium, total	ug/L	MW-3	04/27/2021		16.3000		
Chromium, total	ug/L	MW-3	09/28/2021		13.5000		
Chromium, total	ug/L	MW-3	05/11/2022		8.1100		
Chromium, total	ug/L	MW-3	09/14/2022		6.8600		
Chromium, total	ug/L	MW-3	05/10/2023		4.8400		
Chromium, total	ug/L	MW-3	09/13/2023		4.6100		
Chromium, total	ug/L	MW-3	05/15/2024		7.7000		
Chromium, total	ug/L	MW-3	09/17/2024		5.9000		
Chromium, total	ug/L	MW-3	05/29/2025		6.5900		
Chromium, total	ug/L	MW-3	09/17/2025		1.1100		
Chromium, total	ug/L	MW-4	08/23/2018	ND	1.0000		
Chromium, total	ug/L	MW-4	11/30/2018		4.8200		
Chromium, total	ug/L	MW-4	01/10/2019		2.1200		
Chromium, total	ug/L	MW-4	04/01/2019		9.7500		
Chromium, total	ug/L	MW-4	09/17/2019		13.3000		
Chromium, total	ug/L	MW-4	04/06/2020		10.0000		
Chromium, total	ug/L	MW-4	09/24/2020		6.7300		
Chromium, total	ug/L	MW-4	04/27/2021		13.0000		
Chromium, total	ug/L	MW-4	09/28/2021		12.9000		
Chromium, total	ug/L	MW-4	05/11/2022		9.6600		
Chromium, total	ug/L	MW-4	09/14/2022		5.1800		
Chromium, total	ug/L	MW-4	05/10/2023		8.6000		
Chromium, total	ug/L	MW-4	09/13/2023		12.1000		

* - Outlier for that well and constituent.
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*** - ND value replaced with manual RL.
ND = Not detected, Result = detection limit.

Table 1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Chromium, total	ug/L	MW-4	05/15/2024		7.2000		
Chromium, total	ug/L	MW-4	09/17/2024		5.6000		
Chromium, total	ug/L	MW-4	05/29/2025		4.4300		
Chromium, total	ug/L	MW-4	09/17/2025		2.5100		
Cobalt, total	ug/L	MW-3	08/23/2018	ND	2.0000		
Cobalt, total	ug/L	MW-3	11/14/2018	ND	2.0000		
Cobalt, total	ug/L	MW-3	01/10/2019	ND	2.0000		
Cobalt, total	ug/L	MW-3	04/01/2019	ND	2.0000		
Cobalt, total	ug/L	MW-3	09/17/2019	ND	2.0000		
Cobalt, total	ug/L	MW-3	04/06/2020	ND	2.0000		
Cobalt, total	ug/L	MW-3	09/24/2020	ND	2.0000		
Cobalt, total	ug/L	MW-3	04/27/2021	ND	2.0000		
Cobalt, total	ug/L	MW-3	09/28/2021		3.3700		
Cobalt, total	ug/L	MW-3	05/11/2022	ND	2.0000		
Cobalt, total	ug/L	MW-3	09/14/2022	ND	2.0000		
Cobalt, total	ug/L	MW-3	05/10/2023	ND	2.0000		
Cobalt, total	ug/L	MW-3	09/13/2023	ND	2.0000		
Cobalt, total	ug/L	MW-3	05/15/2024	ND	2.0000		
Cobalt, total	ug/L	MW-3	09/17/2024	ND	2.0000		
Cobalt, total	ug/L	MW-3	05/29/2025	ND	2.0000		
Cobalt, total	ug/L	MW-3	09/17/2025	ND	2.0000		
Cobalt, total	ug/L	MW-4	08/28/2018	ND	2.0000		
Cobalt, total	ug/L	MW-4	11/30/2018	ND	2.0000		
Cobalt, total	ug/L	MW-4	01/10/2019	ND	2.0000		
Cobalt, total	ug/L	MW-4	04/01/2019	ND	2.0000		
Cobalt, total	ug/L	MW-4	09/17/2019	ND	2.0000		
Cobalt, total	ug/L	MW-4	04/06/2020	ND	2.0000		
Cobalt, total	ug/L	MW-4	09/24/2020	ND	2.0000		
Cobalt, total	ug/L	MW-4	04/27/2021	ND	2.0000		
Cobalt, total	ug/L	MW-4	09/28/2021	ND	2.0000		
Cobalt, total	ug/L	MW-4	05/11/2022	ND	2.0000		
Cobalt, total	ug/L	MW-4	09/14/2022	ND	2.0000		
Cobalt, total	ug/L	MW-4	05/10/2023	ND	2.0000		
Cobalt, total	ug/L	MW-4	09/13/2023	ND	2.0000		
Cobalt, total	ug/L	MW-4	05/15/2024	ND	2.0000		
Cobalt, total	ug/L	MW-4	09/17/2024	ND	2.0000		
Cobalt, total	ug/L	MW-4	05/29/2025	ND	2.0000		
Cobalt, total	ug/L	MW-4	09/17/2025	ND	2.0000		
Copper, total	ug/L	MW-3	08/23/2018		32.6000		*
Copper, total	ug/L	MW-3	11/14/2018		5.9100		
Copper, total	ug/L	MW-3	01/10/2019	ND	2.0000	3.0000	**
Copper, total	ug/L	MW-3	04/01/2019		3.0800		
Copper, total	ug/L	MW-3	09/17/2019		7.3300		
Copper, total	ug/L	MW-3	04/06/2020	ND	2.0000	3.0000	**
Copper, total	ug/L	MW-3	09/24/2020		2.3100		
Copper, total	ug/L	MW-3	04/27/2021		3.5000		
Copper, total	ug/L	MW-3	09/28/2021		5.1400		
Copper, total	ug/L	MW-3	05/11/2022	ND	3.0000		
Copper, total	ug/L	MW-3	09/14/2022	ND	3.0000		
Copper, total	ug/L	MW-3	05/10/2023	ND	3.0000		
Copper, total	ug/L	MW-3	09/13/2023	ND	3.0000		
Copper, total	ug/L	MW-3	05/15/2024	ND	3.0000		
Copper, total	ug/L	MW-3	09/17/2024	ND	3.0000		
Copper, total	ug/L	MW-3	05/29/2025	ND	3.0000		
Copper, total	ug/L	MW-3	09/17/2025	ND	3.0000		
Copper, total	ug/L	MW-4	08/28/2018	ND	2.0000	3.0000	**
Copper, total	ug/L	MW-4	11/30/2018		6.2700		
Copper, total	ug/L	MW-4	01/10/2019	ND	2.0000	3.0000	**
Copper, total	ug/L	MW-4	04/01/2019		6.4000		
Copper, total	ug/L	MW-4	09/17/2019	ND	2.0000	3.0000	**
Copper, total	ug/L	MW-4	04/06/2020	ND	2.0000	3.0000	**
Copper, total	ug/L	MW-4	09/24/2020	ND	2.0000	3.0000	**
Copper, total	ug/L	MW-4	04/27/2021	ND	3.0000		
Copper, total	ug/L	MW-4	09/28/2021		3.4400		
Copper, total	ug/L	MW-4	05/11/2022	ND	3.0000		
Copper, total	ug/L	MW-4	09/14/2022	ND	3.0000		
Copper, total	ug/L	MW-4	05/10/2023	ND	3.0000		
Copper, total	ug/L	MW-4	09/13/2023	ND	3.0000		
Copper, total	ug/L	MW-4	05/15/2024	ND	3.0000		
Copper, total	ug/L	MW-4	09/17/2024		7.6800		
Copper, total	ug/L	MW-4	05/29/2025	ND	3.0000		
Copper, total	ug/L	MW-4	09/17/2025	ND	3.0000		
Fluoride	mg/L	MW-3	08/23/2018	ND	0.1000		
Fluoride	mg/L	MW-3	11/14/2018	ND	0.1000		

* - Outlier for that well and constituent.
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*** - ND value replaced with manual RL.
ND = Not detected, Result = detection limit.

Table 1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Fluoride	mg/L	MW-3	01/10/2019	ND	0.1000		
Fluoride	mg/L	MW-3	04/01/2019	ND	0.1000		
Fluoride	mg/L	MW-3	09/17/2019		0.2200		
Fluoride	mg/L	MW-3	04/06/2020		0.1000		
Fluoride	mg/L	MW-3	09/24/2020		0.1440		
Fluoride	mg/L	MW-3	04/27/2021	ND	0.1000		
Fluoride	mg/L	MW-3	09/28/2021	ND	0.1000		
Fluoride	mg/L	MW-3	05/11/2022	ND	0.1000		
Fluoride	mg/L	MW-3	09/14/2022	ND	0.1000		
Fluoride	mg/L	MW-3	05/10/2023		0.1040		
Fluoride	mg/L	MW-3	09/13/2023	ND	0.1000		
Fluoride	mg/L	MW-3	05/15/2024	ND	0.1000		
Fluoride	mg/L	MW-3	09/17/2024	ND	0.1000		
Fluoride	mg/L	MW-3	05/29/2025	ND	0.1000		
Fluoride	mg/L	MW-3	09/17/2025	ND	0.1000		
Fluoride	mg/L	MW-4	08/28/2018	ND	0.1000		
Fluoride	mg/L	MW-4	11/30/2018	ND	0.1000		
Fluoride	mg/L	MW-4	01/10/2019	ND	0.1000		
Fluoride	mg/L	MW-4	04/01/2019		0.1450		
Fluoride	mg/L	MW-4	09/17/2019		0.3000		
Fluoride	mg/L	MW-4	04/06/2020		0.2000		
Fluoride	mg/L	MW-4	09/24/2020		0.1520		
Fluoride	mg/L	MW-4	04/27/2021		0.1410		
Fluoride	mg/L	MW-4	09/28/2021		0.1600		
Fluoride	mg/L	MW-4	05/11/2022		0.1230		
Fluoride	mg/L	MW-4	09/14/2022		0.1440		
Fluoride	mg/L	MW-4	05/10/2023		0.1500		
Fluoride	mg/L	MW-4	09/13/2023		0.1240		
Fluoride	mg/L	MW-4	05/15/2024		0.1050		
Fluoride	mg/L	MW-4	09/17/2024		0.1490		
Fluoride	mg/L	MW-4	05/29/2025		0.1490		
Fluoride	mg/L	MW-4	09/17/2025		0.1110		
Formaldehyde	ug/L	MW-3	08/23/2018	ND	100.0000		
Formaldehyde	ug/L	MW-3	11/14/2018	ND	100.0000		
Formaldehyde	ug/L	MW-3	01/10/2019	ND	100.0000		
Formaldehyde	ug/L	MW-3	04/01/2019	ND	100.0000		
Formaldehyde	ug/L	MW-3	09/17/2019	ND	100.0000		
Formaldehyde	ug/L	MW-3	04/06/2020	ND	50.0000	100.0000	**
Formaldehyde	ug/L	MW-3	09/24/2020	ND	50.0000	100.0000	**
Formaldehyde	ug/L	MW-3	04/27/2021	ND	100.0000		
Formaldehyde	ug/L	MW-3	09/28/2021	ND	100.0000		
Formaldehyde	ug/L	MW-3	05/11/2022	ND	100.0000		
Formaldehyde	ug/L	MW-3	09/14/2022	ND	100.0000		
Formaldehyde	ug/L	MW-3	05/10/2023	ND	100.0000		
Formaldehyde	ug/L	MW-3	09/13/2023	ND	100.0000		
Formaldehyde	ug/L	MW-3	05/15/2024	ND	100.0000		
Formaldehyde	ug/L	MW-3	09/17/2024	ND	100.0000		
Formaldehyde	ug/L	MW-3	05/29/2025	ND	100.0000		
Formaldehyde	ug/L	MW-3	09/17/2025	ND	100.0000		
Formaldehyde	ug/L	MW-4	08/28/2018	ND	100.0000		
Formaldehyde	ug/L	MW-4	11/30/2018	ND	100.0000		
Formaldehyde	ug/L	MW-4	01/10/2019	ND	100.0000		
Formaldehyde	ug/L	MW-4	04/01/2019	ND	100.0000		
Formaldehyde	ug/L	MW-4	09/17/2019	ND	100.0000		
Formaldehyde	ug/L	MW-4	04/06/2020	ND	50.0000	100.0000	**
Formaldehyde	ug/L	MW-4	09/24/2020	ND	50.0000	100.0000	**
Formaldehyde	ug/L	MW-4	04/27/2021	ND	100.0000		
Formaldehyde	ug/L	MW-4	09/28/2021	ND	100.0000		
Formaldehyde	ug/L	MW-4	05/11/2022	ND	100.0000		
Formaldehyde	ug/L	MW-4	09/14/2022	ND	100.0000		
Formaldehyde	ug/L	MW-4	05/10/2023	ND	100.0000		
Formaldehyde	ug/L	MW-4	09/13/2023	ND	100.0000		
Formaldehyde	ug/L	MW-4	05/15/2024	ND	100.0000		
Formaldehyde	ug/L	MW-4	09/17/2024	ND	100.0000		
Formaldehyde	ug/L	MW-4	05/29/2025	ND	100.0000		
Formaldehyde	ug/L	MW-4	09/17/2025	ND	100.0000		
Iron, total	ug/L	MW-3	08/23/2018		27.8000		
Iron, total	ug/L	MW-3	11/14/2018		177.0000		
Iron, total	ug/L	MW-3	01/10/2019		130.0000		
Iron, total	ug/L	MW-3	04/01/2019		116.0000		
Iron, total	ug/L	MW-3	09/17/2019		1740.0000		
Iron, total	ug/L	MW-3	04/06/2020		541.0000		
Iron, total	ug/L	MW-3	09/24/2020		663.0000		
Iron, total	ug/L	MW-3	04/27/2021		492.0000		

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Table 1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Iron, total	ug/L	MW-3	09/28/2021		4830.0000		*
Iron, total	ug/L	MW-3	05/11/2022		1900.0000		
Iron, total	ug/L	MW-3	09/14/2022		135.0000		
Iron, total	ug/L	MW-3	05/10/2023		22.9000		
Iron, total	ug/L	MW-3	09/13/2023		35.1000		
Iron, total	ug/L	MW-3	05/15/2024		41.7000		
Iron, total	ug/L	MW-3	09/17/2024		43.0000		
Iron, total	ug/L	MW-3	05/29/2025		31.0000		
Iron, total	ug/L	MW-3	09/17/2025		15.7000		
Iron, total	ug/L	MW-4	08/28/2018		193.0000		
Iron, total	ug/L	MW-4	11/30/2018		1130.0000		
Iron, total	ug/L	MW-4	01/10/2019		69.2000		
Iron, total	ug/L	MW-4	04/01/2019		211.0000		
Iron, total	ug/L	MW-4	09/17/2019		198.0000		
Iron, total	ug/L	MW-4	04/06/2020		107.0000		
Iron, total	ug/L	MW-4	09/24/2020		204.0000		
Iron, total	ug/L	MW-4	04/27/2021		75.0000		
Iron, total	ug/L	MW-4	09/28/2021		101.0000		
Iron, total	ug/L	MW-4	05/11/2022		97.4000		
Iron, total	ug/L	MW-4	09/14/2022		44.3000		
Iron, total	ug/L	MW-4	05/10/2023		35.4000		
Iron, total	ug/L	MW-4	09/13/2023		55.4000		
Iron, total	ug/L	MW-4	05/15/2024		38.1000		
Iron, total	ug/L	MW-4	09/17/2024		23.8000		
Iron, total	ug/L	MW-4	05/29/2025		22.5000		
Iron, total	ug/L	MW-4	09/17/2025		16.4000		
Lead, total	ug/L	MW-3	08/23/2018	ND	2.0000		
Lead, total	ug/L	MW-3	11/14/2018	ND	2.0000		
Lead, total	ug/L	MW-3	01/10/2019	ND	2.0000		
Lead, total	ug/L	MW-3	04/01/2019	ND	2.0000		
Lead, total	ug/L	MW-3	09/17/2019		2.4100		
Lead, total	ug/L	MW-3	04/06/2020	ND	2.0000		
Lead, total	ug/L	MW-3	09/24/2020	ND	2.0000		
Lead, total	ug/L	MW-3	04/27/2021	ND	2.0000		
Lead, total	ug/L	MW-3	09/28/2021		2.3200		
Lead, total	ug/L	MW-3	05/11/2022	ND	2.0000		
Lead, total	ug/L	MW-3	09/14/2022	ND	2.0000		
Lead, total	ug/L	MW-3	05/10/2023	ND	2.0000		
Lead, total	ug/L	MW-3	09/13/2023	ND	2.0000		
Lead, total	ug/L	MW-3	05/15/2024	ND	2.0000		
Lead, total	ug/L	MW-3	09/17/2024	ND	2.0000		
Lead, total	ug/L	MW-3	05/29/2025	ND	2.0000		
Lead, total	ug/L	MW-3	09/17/2025	ND	2.0000		
Lead, total	ug/L	MW-4	08/28/2018	ND	2.0000		
Lead, total	ug/L	MW-4	11/30/2018	ND	2.0000		
Lead, total	ug/L	MW-4	01/10/2019	ND	2.0000		
Lead, total	ug/L	MW-4	04/01/2019		3.0100		
Lead, total	ug/L	MW-4	09/17/2019	ND	2.0000		
Lead, total	ug/L	MW-4	04/06/2020	ND	2.0000		
Lead, total	ug/L	MW-4	09/24/2020	ND	2.0000		
Lead, total	ug/L	MW-4	04/27/2021	ND	2.0000		
Lead, total	ug/L	MW-4	09/28/2021	ND	2.0000		
Lead, total	ug/L	MW-4	05/11/2022	ND	2.0000		
Lead, total	ug/L	MW-4	09/14/2022	ND	2.0000		
Lead, total	ug/L	MW-4	05/10/2023	ND	2.0000		
Lead, total	ug/L	MW-4	09/13/2023	ND	2.0000		
Lead, total	ug/L	MW-4	05/15/2024	ND	2.0000		
Lead, total	ug/L	MW-4	09/17/2024	ND	2.0000		
Lead, total	ug/L	MW-4	05/29/2025	ND	2.0000		
Lead, total	ug/L	MW-4	09/17/2025	ND	2.0000		
Magnesium, total	mg/L	MW-3	08/23/2018		22.0000		
Magnesium, total	mg/L	MW-3	11/14/2018		22.2000		
Magnesium, total	mg/L	MW-3	01/10/2019		24.2000		
Magnesium, total	mg/L	MW-3	04/01/2019		25.5000		
Magnesium, total	mg/L	MW-3	09/17/2019		36.6000		
Magnesium, total	mg/L	MW-3	04/06/2020		27.1000		
Magnesium, total	mg/L	MW-3	09/24/2020		24.7000		
Magnesium, total	mg/L	MW-3	04/27/2021		30.2000		
Magnesium, total	mg/L	MW-3	09/28/2021		62.8000		
Magnesium, total	mg/L	MW-3	05/11/2022		42.6000		
Magnesium, total	mg/L	MW-3	09/14/2022		21.6000		
Magnesium, total	mg/L	MW-3	05/10/2023		23.0000		
Magnesium, total	mg/L	MW-3	09/13/2023		24.0000		
Magnesium, total	mg/L	MW-3	05/15/2024		25.8000		

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Table 1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Magnesium, total	mg/L	MW-3	09/17/2024		21.3000		
Magnesium, total	mg/L	MW-3	05/29/2025		22.5000		
Magnesium, total	mg/L	MW-3	09/17/2025		21.1000		
Magnesium, total	mg/L	MW-4	08/28/2018		55.3000		
Magnesium, total	mg/L	MW-4	11/30/2018		72.0000		
Magnesium, total	mg/L	MW-4	01/10/2019		48.9000		
Magnesium, total	mg/L	MW-4	04/01/2019		52.9000		
Magnesium, total	mg/L	MW-4	09/17/2019		49.3000		
Magnesium, total	mg/L	MW-4	04/06/2020		43.2000		
Magnesium, total	mg/L	MW-4	09/24/2020		45.4000		
Magnesium, total	mg/L	MW-4	04/27/2021		46.8000		
Magnesium, total	mg/L	MW-4	09/28/2021		44.7000		
Magnesium, total	mg/L	MW-4	05/11/2022		47.4000		
Magnesium, total	mg/L	MW-4	09/14/2022		40.6000		
Magnesium, total	mg/L	MW-4	05/10/2023		45.1000		
Magnesium, total	mg/L	MW-4	09/13/2023		46.7000		
Magnesium, total	mg/L	MW-4	05/15/2024		49.1000		
Magnesium, total	mg/L	MW-4	09/17/2024		40.6000		
Magnesium, total	mg/L	MW-4	05/29/2025		41.9000		
Magnesium, total	mg/L	MW-4	09/17/2025		41.0000		
Manganese, total	ug/L	MW-3	08/23/2018	ND	20.0000		
Manganese, total	ug/L	MW-3	11/14/2018	ND	20.0000		
Manganese, total	ug/L	MW-3	01/10/2019	ND	20.0000		
Manganese, total	ug/L	MW-3	04/01/2019	ND	20.0000		
Manganese, total	ug/L	MW-3	09/17/2019		102.0000		
Manganese, total	ug/L	MW-3	04/06/2020		45.2000		
Manganese, total	ug/L	MW-3	09/24/2020		38.4000		
Manganese, total	ug/L	MW-3	04/27/2021		39.4000		
Manganese, total	ug/L	MW-3	09/28/2021		451.0000		*
Manganese, total	ug/L	MW-3	05/11/2022		145.0000		
Manganese, total	ug/L	MW-3	09/14/2022	ND	20.0000		
Manganese, total	ug/L	MW-3	05/10/2023	ND	20.0000		
Manganese, total	ug/L	MW-3	09/13/2023	ND	20.0000		
Manganese, total	ug/L	MW-3	05/15/2024	ND	20.0000		
Manganese, total	ug/L	MW-3	09/17/2024	ND	20.0000		
Manganese, total	ug/L	MW-3	05/29/2025	ND	20.0000		
Manganese, total	ug/L	MW-3	09/17/2025	ND	20.0000		
Manganese, total	ug/L	MW-4	08/28/2018		25.7000		
Manganese, total	ug/L	MW-4	11/30/2018		100.0000		*
Manganese, total	ug/L	MW-4	01/10/2019	ND	20.0000		
Manganese, total	ug/L	MW-4	04/01/2019		20.9000		
Manganese, total	ug/L	MW-4	09/17/2019	ND	20.0000		
Manganese, total	ug/L	MW-4	04/06/2020		22.8000		
Manganese, total	ug/L	MW-4	09/24/2020	ND	20.0000		
Manganese, total	ug/L	MW-4	04/27/2021	ND	20.0000		
Manganese, total	ug/L	MW-4	09/28/2021	ND	20.0000		
Manganese, total	ug/L	MW-4	05/11/2022	ND	20.0000		
Manganese, total	ug/L	MW-4	09/14/2022	ND	20.0000		
Manganese, total	ug/L	MW-4	05/10/2023	ND	20.0000		
Manganese, total	ug/L	MW-4	09/13/2023	ND	20.0000		
Manganese, total	ug/L	MW-4	05/15/2024	ND	20.0000		
Manganese, total	ug/L	MW-4	09/17/2024	ND	20.0000		
Manganese, total	ug/L	MW-4	05/29/2025	ND	20.0000		
Manganese, total	ug/L	MW-4	09/17/2025	ND	20.0000		
Mercury, total	ug/L	MW-3	08/23/2018	ND	2.0000		
Mercury, total	ug/L	MW-3	11/14/2018	ND	2.0000		
Mercury, total	ug/L	MW-3	01/10/2019	ND	2.0000		
Mercury, total	ug/L	MW-3	04/01/2019	ND	2.0000		
Mercury, total	ug/L	MW-3	09/17/2019	ND	2.0000		
Mercury, total	ug/L	MW-3	04/06/2020	ND	2.0000		
Mercury, total	ug/L	MW-3	09/24/2020	ND	2.0000		
Mercury, total	ug/L	MW-3	04/27/2021	ND	2.0000		
Mercury, total	ug/L	MW-3	09/28/2021	ND	2.0000		
Mercury, total	ug/L	MW-3	05/11/2022	ND	2.0000		
Mercury, total	ug/L	MW-3	09/14/2022	ND	2.0000		
Mercury, total	ug/L	MW-3	05/10/2023	ND	2.0000		
Mercury, total	ug/L	MW-3	09/13/2023	ND	2.0000		
Mercury, total	ug/L	MW-3	05/15/2024	ND	2.0000		
Mercury, total	ug/L	MW-3	09/17/2024	ND	2.0000		
Mercury, total	ug/L	MW-3	05/29/2025	ND	2.0000		
Mercury, total	ug/L	MW-3	09/17/2025	ND	2.0000		
Mercury, total	ug/L	MW-4	08/28/2018	ND	2.0000		
Mercury, total	ug/L	MW-4	11/30/2018	ND	2.0000		
Mercury, total	ug/L	MW-4	01/10/2019	ND	2.0000		

* - Outlier for that well and constituent.
** - ND value replaced with median RL.
*** - ND value replaced with manual RL.
ND = Not detected, Result = detection limit.

Table 1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Mercury, total	ug/L	MW-4	04/01/2019	ND	2.0000		
Mercury, total	ug/L	MW-4	09/17/2019	ND	2.0000		
Mercury, total	ug/L	MW-4	04/06/2020	ND	2.0000		
Mercury, total	ug/L	MW-4	09/24/2020	ND	2.0000		
Mercury, total	ug/L	MW-4	04/27/2021	ND	2.0000		
Mercury, total	ug/L	MW-4	09/28/2021	ND	2.0000		
Mercury, total	ug/L	MW-4	05/11/2022	ND	2.0000		
Mercury, total	ug/L	MW-4	09/14/2022	ND	2.0000		
Mercury, total	ug/L	MW-4	05/10/2023	ND	2.0000		
Mercury, total	ug/L	MW-4	09/13/2023	ND	2.0000		
Mercury, total	ug/L	MW-4	05/15/2024	ND	2.0000		
Mercury, total	ug/L	MW-4	09/17/2024	ND	2.0000		
Mercury, total	ug/L	MW-4	05/29/2025	ND	2.0000		
Mercury, total	ug/L	MW-4	09/17/2025	ND	2.0000		
Methyl ethyl ketone	ug/L	MW-3	08/23/2018	ND	10.0000		
Methyl ethyl ketone	ug/L	MW-3	11/14/2018	ND	10.0000		
Methyl ethyl ketone	ug/L	MW-3	01/10/2019	ND	10.0000		
Methyl ethyl ketone	ug/L	MW-3	04/01/2019	ND	10.0000		
Methyl ethyl ketone	ug/L	MW-3	09/17/2019	ND	100.0000		*
Methyl ethyl ketone	ug/L	MW-3	04/06/2020	ND	5.0000	10.0000	**
Methyl ethyl ketone	ug/L	MW-3	09/24/2020	ND	5.0000	10.0000	**
Methyl ethyl ketone	ug/L	MW-3	04/27/2021	ND	10.0000		
Methyl ethyl ketone	ug/L	MW-3	09/28/2021	ND	5.0000	10.0000	**
Methyl ethyl ketone	ug/L	MW-3	05/11/2022	ND	10.0000		
Methyl ethyl ketone	ug/L	MW-3	09/14/2022	ND	10.0000		
Methyl ethyl ketone	ug/L	MW-3	05/10/2023	ND	10.0000		
Methyl ethyl ketone	ug/L	MW-3	09/13/2023	ND	10.0000		
Methyl ethyl ketone	ug/L	MW-3	05/15/2024	ND	10.0000		
Methyl ethyl ketone	ug/L	MW-3	09/17/2024	ND	10.0000		
Methyl ethyl ketone	ug/L	MW-3	05/29/2025	ND	10.0000		
Methyl ethyl ketone	ug/L	MW-3	09/17/2025	ND	10.0000		
Methyl ethyl ketone	ug/L	MW-4	08/28/2018	ND	10.0000		
Methyl ethyl ketone	ug/L	MW-4	11/30/2018	ND	10.0000		
Methyl ethyl ketone	ug/L	MW-4	01/10/2019	ND	10.0000		
Methyl ethyl ketone	ug/L	MW-4	04/01/2019	ND	10.0000		
Methyl ethyl ketone	ug/L	MW-4	09/17/2019	ND	100.0000		*
Methyl ethyl ketone	ug/L	MW-4	04/06/2020	ND	5.0000	10.0000	**
Methyl ethyl ketone	ug/L	MW-4	09/24/2020	ND	5.0000	10.0000	**
Methyl ethyl ketone	ug/L	MW-4	04/27/2021	ND	10.0000		
Methyl ethyl ketone	ug/L	MW-4	09/28/2021	ND	5.0000	10.0000	**
Methyl ethyl ketone	ug/L	MW-4	05/11/2022	ND	10.0000		
Methyl ethyl ketone	ug/L	MW-4	09/14/2022	ND	10.0000		
Methyl ethyl ketone	ug/L	MW-4	05/10/2023	ND	10.0000		
Methyl ethyl ketone	ug/L	MW-4	09/13/2023	ND	10.0000		
Methyl ethyl ketone	ug/L	MW-4	05/15/2024	ND	10.0000		
Methyl ethyl ketone	ug/L	MW-4	09/17/2024	ND	10.0000		
Methyl ethyl ketone	ug/L	MW-4	05/29/2025	ND	10.0000		
Methyl ethyl ketone	ug/L	MW-4	09/17/2025	ND	10.0000		
Molybdenum, total	ug/L	MW-3	08/23/2018	ND	2.0000	10.0000	**
Molybdenum, total	ug/L	MW-3	11/14/2018		4.0300		
Molybdenum, total	ug/L	MW-3	01/10/2019		3.0600		
Molybdenum, total	ug/L	MW-3	04/01/2019	ND	2.0000	10.0000	**
Molybdenum, total	ug/L	MW-3	09/17/2019	ND	2.0000	10.0000	**
Molybdenum, total	ug/L	MW-3	04/06/2020	ND	2.0000	10.0000	**
Molybdenum, total	ug/L	MW-3	09/24/2020	ND	2.0000	10.0000	**
Molybdenum, total	ug/L	MW-3	04/27/2021	ND	10.0000		
Molybdenum, total	ug/L	MW-3	09/28/2021	ND	10.0000		
Molybdenum, total	ug/L	MW-3	05/11/2022	ND	10.0000		
Molybdenum, total	ug/L	MW-3	09/14/2022	ND	10.0000		
Molybdenum, total	ug/L	MW-3	05/10/2023	ND	10.0000		
Molybdenum, total	ug/L	MW-3	09/13/2023	ND	10.0000		
Molybdenum, total	ug/L	MW-3	05/15/2024	ND	10.0000		
Molybdenum, total	ug/L	MW-3	09/17/2024	ND	10.0000		
Molybdenum, total	ug/L	MW-3	05/29/2025	ND	10.0000		
Molybdenum, total	ug/L	MW-3	09/17/2025	ND	10.0000		
Molybdenum, total	ug/L	MW-4	08/28/2018		3.8100		
Molybdenum, total	ug/L	MW-4	11/30/2018	ND	2.0000	10.0000	**
Molybdenum, total	ug/L	MW-4	01/10/2019		3.2300		
Molybdenum, total	ug/L	MW-4	04/01/2019	ND	2.0000	10.0000	**
Molybdenum, total	ug/L	MW-4	09/17/2019	ND	2.0000	10.0000	**
Molybdenum, total	ug/L	MW-4	04/06/2020	ND	2.0000	10.0000	**
Molybdenum, total	ug/L	MW-4	09/24/2020	ND	2.0000	10.0000	**
Molybdenum, total	ug/L	MW-4	04/27/2021	ND	10.0000		
Molybdenum, total	ug/L	MW-4	09/28/2021	ND	10.0000		

* - Outlier for that well and constituent.
** - ND value replaced with median RL.
*** - ND value replaced with manual RL.
ND = Not detected, Result = detection limit.

Table 1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Molybdenum, total	ug/L	MW-4	05/11/2022	ND	10.0000		
Molybdenum, total	ug/L	MW-4	09/14/2022	ND	10.0000		
Molybdenum, total	ug/L	MW-4	05/10/2023	ND	10.0000		
Molybdenum, total	ug/L	MW-4	09/13/2023	ND	10.0000		
Molybdenum, total	ug/L	MW-4	05/15/2024	ND	10.0000		
Molybdenum, total	ug/L	MW-4	09/17/2024	ND	10.0000		
Molybdenum, total	ug/L	MW-4	05/29/2025	ND	10.0000		
Molybdenum, total	ug/L	MW-4	09/17/2025	ND	10.0000		
Nickel, total	ug/L	MW-3	08/23/2018	ND	1.0000		
Nickel, total	ug/L	MW-3	11/14/2018		1.1700		
Nickel, total	ug/L	MW-3	01/10/2019		1.6000		
Nickel, total	ug/L	MW-3	04/01/2019	ND	1.0000		
Nickel, total	ug/L	MW-3	09/17/2019		2.5100		
Nickel, total	ug/L	MW-3	04/06/2020	ND	1.0000		
Nickel, total	ug/L	MW-3	09/24/2020	ND	1.0000		
Nickel, total	ug/L	MW-3	04/27/2021		3.5200		*
Nickel, total	ug/L	MW-3	09/28/2021		5.0500		*
Nickel, total	ug/L	MW-3	05/11/2022	ND	1.0000		
Nickel, total	ug/L	MW-3	09/14/2022	ND	1.0000		
Nickel, total	ug/L	MW-3	05/10/2023	ND	1.0000		
Nickel, total	ug/L	MW-3	09/13/2023	ND	1.0000		
Nickel, total	ug/L	MW-3	05/15/2024	ND	1.0000		
Nickel, total	ug/L	MW-3	09/17/2024	ND	1.0000		
Nickel, total	ug/L	MW-3	05/29/2025		1.4000		
Nickel, total	ug/L	MW-3	09/17/2025	ND	1.0000		
Nickel, total	ug/L	MW-4	08/28/2018	ND	1.0000		
Nickel, total	ug/L	MW-4	11/30/2018	ND	1.0000		
Nickel, total	ug/L	MW-4	01/10/2019		1.5100		
Nickel, total	ug/L	MW-4	04/01/2019	ND	1.0000		
Nickel, total	ug/L	MW-4	09/17/2019	ND	1.0000		
Nickel, total	ug/L	MW-4	04/06/2020	ND	1.0000		
Nickel, total	ug/L	MW-4	09/24/2020	ND	1.0000		
Nickel, total	ug/L	MW-4	04/27/2021		2.4800		
Nickel, total	ug/L	MW-4	09/28/2021	ND	1.0000		
Nickel, total	ug/L	MW-4	05/11/2022	ND	1.0000		
Nickel, total	ug/L	MW-4	09/14/2022	ND	1.0000		
Nickel, total	ug/L	MW-4	05/10/2023	ND	1.0000		
Nickel, total	ug/L	MW-4	09/13/2023	ND	1.0000		
Nickel, total	ug/L	MW-4	05/15/2024	ND	1.0000		
Nickel, total	ug/L	MW-4	09/17/2024	ND	1.0000		
Nickel, total	ug/L	MW-4	05/29/2025		1.8300		
Nickel, total	ug/L	MW-4	09/17/2025	ND	1.0000		
Phenols	ug/L	MW-3	08/23/2018	ND	5.0000		
Phenols	ug/L	MW-3	11/14/2018	ND	5.0000		
Phenols	ug/L	MW-3	01/10/2019		22.0000		
Phenols	ug/L	MW-3	04/01/2019	ND	5.0000		
Phenols	ug/L	MW-3	09/17/2019	ND	5.0000		
Phenols	ug/L	MW-3	04/06/2020	ND	5.0000		
Phenols	ug/L	MW-3	09/24/2020		12.0000		
Phenols	ug/L	MW-3	04/27/2021	ND	5.0000		
Phenols	ug/L	MW-3	09/28/2021	ND	5.0000		
Phenols	ug/L	MW-3	05/11/2022	ND	5.0000		
Phenols	ug/L	MW-3	09/14/2022	ND	5.0000		
Phenols	ug/L	MW-3	05/10/2023	ND	8.0000	5.0000	**
Phenols	ug/L	MW-3	09/13/2023	ND	8.0000	5.0000	**
Phenols	ug/L	MW-3	05/15/2024	ND	10.0000	5.0000	**
Phenols	ug/L	MW-3	09/17/2024	ND	10.0000	5.0000	**
Phenols	ug/L	MW-3	05/29/2025	ND	10.0000	5.0000	**
Phenols	ug/L	MW-3	09/17/2025	ND	10.0000	5.0000	**
Phenols	ug/L	MW-4	08/28/2018		16.0000		
Phenols	ug/L	MW-4	11/30/2018	ND	5.0000		
Phenols	ug/L	MW-4	01/10/2019		25.0000		
Phenols	ug/L	MW-4	04/01/2019		0.5000		*
Phenols	ug/L	MW-4	09/17/2019	ND	5.0000		
Phenols	ug/L	MW-4	04/06/2020	ND	5.0000		
Phenols	ug/L	MW-4	09/24/2020		5.0000		
Phenols	ug/L	MW-4	04/27/2021	ND	5.0000		
Phenols	ug/L	MW-4	09/28/2021	ND	5.0000		
Phenols	ug/L	MW-4	05/11/2022	ND	5.0000		
Phenols	ug/L	MW-4	09/14/2022	ND	5.0000		
Phenols	ug/L	MW-4	05/10/2023	ND	8.0000	5.0000	**
Phenols	ug/L	MW-4	09/13/2023	ND	8.0000	5.0000	**
Phenols	ug/L	MW-4	05/15/2024	ND	10.0000	5.0000	**
Phenols	ug/L	MW-4	09/17/2024		17.0000		

* - Outlier for that well and constituent.
** - ND value replaced with median RL.
*** - ND value replaced with manual RL.
ND = Not detected, Result = detection limit.

Table 1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Phenols	ug/L	MW-4	05/29/2025	ND	10.0000	5.0000	**
Phenols	ug/L	MW-4	09/17/2025	ND	10.0000	5.0000	**
Selenium, total	ug/L	MW-3	08/23/2018	ND	5.0000		
Selenium, total	ug/L	MW-3	11/14/2018	ND	5.0000		
Selenium, total	ug/L	MW-3	01/10/2019	ND	5.0000		
Selenium, total	ug/L	MW-3	04/01/2019	ND	5.0000		
Selenium, total	ug/L	MW-3	09/17/2019	ND	5.0000		
Selenium, total	ug/L	MW-3	04/06/2020	ND	5.0000		
Selenium, total	ug/L	MW-3	09/24/2020	ND	5.0000		
Selenium, total	ug/L	MW-3	04/27/2021	ND	5.0000		
Selenium, total	ug/L	MW-3	09/28/2021	ND	5.0000		
Selenium, total	ug/L	MW-3	05/11/2022	ND	5.0000		
Selenium, total	ug/L	MW-3	09/14/2022	ND	5.0000		
Selenium, total	ug/L	MW-3	05/10/2023	ND	5.0000		
Selenium, total	ug/L	MW-3	09/13/2023	ND	5.0000		
Selenium, total	ug/L	MW-3	05/15/2024	ND	5.0000		
Selenium, total	ug/L	MW-3	09/17/2024	ND	5.0000		
Selenium, total	ug/L	MW-3	05/29/2025	ND	5.0000		
Selenium, total	ug/L	MW-3	09/17/2025	ND	5.0000		
Selenium, total	ug/L	MW-4	08/28/2018	ND	5.0000		
Selenium, total	ug/L	MW-4	11/30/2018	ND	5.0000		
Selenium, total	ug/L	MW-4	01/10/2019	ND	5.0000		
Selenium, total	ug/L	MW-4	04/01/2019	ND	5.0000		
Selenium, total	ug/L	MW-4	09/17/2019	ND	5.0000		
Selenium, total	ug/L	MW-4	04/06/2020	ND	5.0000		
Selenium, total	ug/L	MW-4	09/24/2020	ND	5.0000		
Selenium, total	ug/L	MW-4	04/27/2021	ND	5.0000		
Selenium, total	ug/L	MW-4	09/28/2021	ND	5.0000		
Selenium, total	ug/L	MW-4	05/11/2022	ND	5.0000		
Selenium, total	ug/L	MW-4	09/14/2022	ND	5.0000		
Selenium, total	ug/L	MW-4	05/10/2023	ND	5.0000		
Selenium, total	ug/L	MW-4	09/13/2023	ND	5.0000		
Selenium, total	ug/L	MW-4	05/15/2024	ND	5.0000		
Selenium, total	ug/L	MW-4	09/17/2024	ND	5.0000		
Selenium, total	ug/L	MW-4	05/29/2025	ND	5.0000		
Selenium, total	ug/L	MW-4	09/17/2025	ND	5.0000		
Silver, total	ug/L	MW-3	08/23/2018	ND	0.5000		
Silver, total	ug/L	MW-3	11/14/2018	ND	0.5000		
Silver, total	ug/L	MW-3	01/10/2019	ND	0.5000		
Silver, total	ug/L	MW-3	04/01/2019	ND	0.5000		
Silver, total	ug/L	MW-3	09/17/2019	ND	0.5000		
Silver, total	ug/L	MW-3	04/06/2020	ND	0.5000		
Silver, total	ug/L	MW-3	09/24/2020	ND	0.5000		
Silver, total	ug/L	MW-3	04/27/2021	ND	0.5000		
Silver, total	ug/L	MW-3	09/28/2021	ND	0.5000		
Silver, total	ug/L	MW-3	05/11/2022	ND	0.5000		
Silver, total	ug/L	MW-3	09/14/2022	ND	0.5000		
Silver, total	ug/L	MW-3	05/10/2023	ND	0.5000		
Silver, total	ug/L	MW-3	09/13/2023	ND	0.5000		
Silver, total	ug/L	MW-3	05/15/2024	ND	0.5000		
Silver, total	ug/L	MW-3	09/17/2024	ND	0.5000		
Silver, total	ug/L	MW-3	05/29/2025	ND	1.0000	0.5000	**
Silver, total	ug/L	MW-3	09/17/2025	ND	1.0000	0.5000	**
Silver, total	ug/L	MW-4	08/28/2018	ND	0.5000		
Silver, total	ug/L	MW-4	11/30/2018	ND	0.5000		
Silver, total	ug/L	MW-4	01/10/2019	ND	0.5000		
Silver, total	ug/L	MW-4	04/01/2019	ND	0.5000		
Silver, total	ug/L	MW-4	09/17/2019	ND	0.5000		
Silver, total	ug/L	MW-4	04/06/2020	ND	0.5000		
Silver, total	ug/L	MW-4	09/24/2020	ND	0.5000		
Silver, total	ug/L	MW-4	04/27/2021	ND	0.5000		
Silver, total	ug/L	MW-4	09/28/2021	ND	0.5000		
Silver, total	ug/L	MW-4	05/11/2022	ND	0.5000		
Silver, total	ug/L	MW-4	09/14/2022	ND	0.5000		
Silver, total	ug/L	MW-4	05/10/2023	ND	0.5000		
Silver, total	ug/L	MW-4	09/13/2023	ND	0.5000		
Silver, total	ug/L	MW-4	05/15/2024	ND	0.5000		
Silver, total	ug/L	MW-4	09/17/2024	ND	0.5000		
Silver, total	ug/L	MW-4	05/29/2025	ND	1.0000	0.5000	**
Silver, total	ug/L	MW-4	09/17/2025	ND	1.0000	0.5000	**
Sulfate	mg/L	MW-3	08/23/2018		4.6900		
Sulfate	mg/L	MW-3	11/14/2018		5.1800		
Sulfate	mg/L	MW-3	01/10/2019		4.7600		
Sulfate	mg/L	MW-3	04/01/2019		4.4200		

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Table 1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Sulfate	mg/L	MW-3	09/17/2019		3.6300		
Sulfate	mg/L	MW-3	04/06/2020		4.8900		
Sulfate	mg/L	MW-3	09/24/2020		4.1100		
Sulfate	mg/L	MW-3	04/27/2021		4.8200		
Sulfate	mg/L	MW-3	09/28/2021		4.9700		
Sulfate	mg/L	MW-3	05/11/2022		5.3100		
Sulfate	mg/L	MW-3	09/14/2022		4.9200		
Sulfate	mg/L	MW-3	05/10/2023		5.1200		
Sulfate	mg/L	MW-3	09/13/2023		5.5700		
Sulfate	mg/L	MW-3	05/15/2024		5.1600		
Sulfate	mg/L	MW-3	09/17/2024		5.5200		
Sulfate	mg/L	MW-3	05/29/2025		4.9700		
Sulfate	mg/L	MW-3	09/17/2025		5.1800		
Sulfate	mg/L	MW-4	08/28/2018		25.1000		
Sulfate	mg/L	MW-4	11/30/2018		13.8000		
Sulfate	mg/L	MW-4	01/10/2019		6.9700		
Sulfate	mg/L	MW-4	04/01/2019		5.5300		
Sulfate	mg/L	MW-4	09/17/2019		5.2600		
Sulfate	mg/L	MW-4	04/06/2020		7.2000		
Sulfate	mg/L	MW-4	09/24/2020		7.5600		
Sulfate	mg/L	MW-4	04/27/2021		8.0700		
Sulfate	mg/L	MW-4	09/28/2021		8.7000		
Sulfate	mg/L	MW-4	05/11/2022		11.7000		
Sulfate	mg/L	MW-4	09/14/2022		10.0000		
Sulfate	mg/L	MW-4	05/10/2023	ND	0.1000		*
Sulfate	mg/L	MW-4	09/13/2023		8.9300		
Sulfate	mg/L	MW-4	05/15/2024		8.8200		
Sulfate	mg/L	MW-4	09/17/2024		7.9300		
Sulfate	mg/L	MW-4	05/29/2025		9.9500		
Sulfate	mg/L	MW-4	09/17/2025		8.8700		
Thallium, total	ug/L	MW-3	08/23/2018	ND	2.0000		
Thallium, total	ug/L	MW-3	11/14/2018	ND	2.0000		
Thallium, total	ug/L	MW-3	01/10/2019	ND	2.0000		
Thallium, total	ug/L	MW-3	04/01/2019	ND	2.0000		
Thallium, total	ug/L	MW-3	09/17/2019	ND	2.0000		
Thallium, total	ug/L	MW-3	04/06/2020	ND	2.0000		
Thallium, total	ug/L	MW-3	09/24/2020	ND	2.0000		
Thallium, total	ug/L	MW-3	04/27/2021	ND	3.0000	2.0000	**
Thallium, total	ug/L	MW-3	09/28/2021	ND	3.0000	2.0000	**
Thallium, total	ug/L	MW-3	05/11/2022	ND	3.0000	2.0000	**
Thallium, total	ug/L	MW-3	09/14/2022	ND	3.0000	2.0000	**
Thallium, total	ug/L	MW-3	05/10/2023	ND	3.0000	2.0000	**
Thallium, total	ug/L	MW-3	09/13/2023	ND	3.0000	2.0000	**
Thallium, total	ug/L	MW-3	05/15/2024	ND	3.0000	2.0000	**
Thallium, total	ug/L	MW-3	09/17/2024	ND	3.0000	2.0000	**
Thallium, total	ug/L	MW-3	05/29/2025	ND	2.0000		
Thallium, total	ug/L	MW-3	09/17/2025	ND	2.0000		
Thallium, total	ug/L	MW-4	08/28/2018	ND	2.0000		
Thallium, total	ug/L	MW-4	11/30/2018	ND	2.0000		
Thallium, total	ug/L	MW-4	01/10/2019	ND	2.0000		
Thallium, total	ug/L	MW-4	04/01/2019	ND	2.0000		
Thallium, total	ug/L	MW-4	09/17/2019	ND	2.0000		
Thallium, total	ug/L	MW-4	04/06/2020	ND	2.0000		
Thallium, total	ug/L	MW-4	09/24/2020	ND	2.0000		
Thallium, total	ug/L	MW-4	04/27/2021	ND	3.0000	2.0000	**
Thallium, total	ug/L	MW-4	09/28/2021	ND	3.0000	2.0000	**
Thallium, total	ug/L	MW-4	05/11/2022	ND	3.0000	2.0000	**
Thallium, total	ug/L	MW-4	09/14/2022	ND	3.0000	2.0000	**
Thallium, total	ug/L	MW-4	05/10/2023	ND	3.0000	2.0000	**
Thallium, total	ug/L	MW-4	09/13/2023	ND	3.0000	2.0000	**
Thallium, total	ug/L	MW-4	05/15/2024	ND	3.0000	2.0000	**
Thallium, total	ug/L	MW-4	09/17/2024	ND	3.0000	2.0000	**
Thallium, total	ug/L	MW-4	05/29/2025	ND	2.0000		
Thallium, total	ug/L	MW-4	09/17/2025	ND	2.0000		
Total organic halogen	mg/L	MW-3	08/23/2018	ND	0.0050	0.0100	**
Total organic halogen	mg/L	MW-3	11/14/2018		0.0090		
Total organic halogen	mg/L	MW-3	01/10/2019		0.0130		
Total organic halogen	mg/L	MW-3	04/01/2019		0.0170		
Total organic halogen	mg/L	MW-3	09/17/2019		0.0500		
Total organic halogen	mg/L	MW-3	04/06/2020	ND	0.0100		
Total organic halogen	mg/L	MW-3	09/24/2020	ND	0.0100		
Total organic halogen	mg/L	MW-3	04/27/2021	ND	0.0100		
Total organic halogen	mg/L	MW-3	09/28/2021	ND	0.0200	0.0100	**
Total organic halogen	mg/L	MW-3	05/11/2022	ND	0.0100		

* - Outlier for that well and constituent.
** - ND value replaced with median RL.
*** - ND value replaced with manual RL.
ND = Not detected, Result = detection limit.

Table 1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Total organic halogen	mg/L	MW-3	09/14/2022	ND	0.0100		
Total organic halogen	mg/L	MW-3	05/10/2023	ND	0.0100		
Total organic halogen	mg/L	MW-3	09/13/2023	ND	0.0100		
Total organic halogen	mg/L	MW-3	05/15/2024	ND	0.0100		
Total organic halogen	mg/L	MW-3	09/17/2024		0.0190		
Total organic halogen	mg/L	MW-3	05/29/2025		0.0320		
Total organic halogen	mg/L	MW-3	09/17/2025		0.1550		
Total organic halogen	mg/L	MW-4	08/28/2018		0.0609		*
Total organic halogen	mg/L	MW-4	11/30/2018		0.0230		
Total organic halogen	mg/L	MW-4	01/10/2019		0.0150		
Total organic halogen	mg/L	MW-4	04/01/2019		0.0130		
Total organic halogen	mg/L	MW-4	09/17/2019		0.1100		*
Total organic halogen	mg/L	MW-4	04/06/2020	ND	0.0100		
Total organic halogen	mg/L	MW-4	09/24/2020	ND	0.0100		
Total organic halogen	mg/L	MW-4	04/27/2021		0.0140		
Total organic halogen	mg/L	MW-4	09/28/2021	ND	0.0200	0.0100	**
Total organic halogen	mg/L	MW-4	05/11/2022	ND	0.0100		
Total organic halogen	mg/L	MW-4	09/14/2022		0.0270		
Total organic halogen	mg/L	MW-4	05/10/2023	ND	0.0100		
Total organic halogen	mg/L	MW-4	09/13/2023		0.0100		
Total organic halogen	mg/L	MW-4	05/15/2024	ND	0.0100		
Total organic halogen	mg/L	MW-4	09/17/2024		0.0140		
Total organic halogen	mg/L	MW-4	05/29/2025		0.0870		
Total organic halogen	mg/L	MW-4	09/17/2025	ND	0.0100		
Total suspended solids	mg/L	MW-3	08/23/2018		75.0000		
Total suspended solids	mg/L	MW-3	11/14/2018		41.0000		
Total suspended solids	mg/L	MW-3	01/10/2019		29.0000		
Total suspended solids	mg/L	MW-3	04/01/2019		97.0000		
Total suspended solids	mg/L	MW-3	09/17/2019		138.0000		
Total suspended solids	mg/L	MW-3	04/06/2020		144.0000		
Total suspended solids	mg/L	MW-3	09/24/2020		48.0000		
Total suspended solids	mg/L	MW-3	04/27/2021		93.0000		
Total suspended solids	mg/L	MW-3	09/28/2021		126.0000		
Total suspended solids	mg/L	MW-3	05/11/2022		632.0000		
Total suspended solids	mg/L	MW-3	09/14/2022		315.0000		
Total suspended solids	mg/L	MW-3	05/10/2023		15.0000		
Total suspended solids	mg/L	MW-3	09/13/2023		29.0000		
Total suspended solids	mg/L	MW-3	05/15/2024		7.0000		
Total suspended solids	mg/L	MW-3	09/17/2024		2.0000		
Total suspended solids	mg/L	MW-3	05/29/2025		79.0000		
Total suspended solids	mg/L	MW-3	09/17/2025		1.0000		
Total suspended solids	mg/L	MW-4	08/28/2018		500.0000		
Total suspended solids	mg/L	MW-4	11/30/2018		237.0000		
Total suspended solids	mg/L	MW-4	01/10/2019		38.0000		
Total suspended solids	mg/L	MW-4	04/01/2019		20.0000		
Total suspended solids	mg/L	MW-4	09/17/2019		44.0000		
Total suspended solids	mg/L	MW-4	04/06/2020		18.0000		
Total suspended solids	mg/L	MW-4	09/24/2020		19.0000		
Total suspended solids	mg/L	MW-4	04/27/2021		21.0000		
Total suspended solids	mg/L	MW-4	09/28/2021		26.0000		
Total suspended solids	mg/L	MW-4	05/11/2022		18.0000		
Total suspended solids	mg/L	MW-4	09/14/2022		19.0000		
Total suspended solids	mg/L	MW-4	05/10/2023		11.0000		
Total suspended solids	mg/L	MW-4	09/13/2023		8.0000		
Total suspended solids	mg/L	MW-4	05/15/2024		3.0000		
Total suspended solids	mg/L	MW-4	09/17/2024	ND	1.0000		
Total suspended solids	mg/L	MW-4	05/29/2025		5.0000		
Total suspended solids	mg/L	MW-4	09/17/2025		3.0000		
Vanadium, total	ug/L	MW-3	08/23/2018	ND	1.0000		
Vanadium, total	ug/L	MW-3	11/14/2018	ND	1.0000		
Vanadium, total	ug/L	MW-3	01/10/2019	ND	1.0000		
Vanadium, total	ug/L	MW-3	04/01/2019	ND	1.0000		
Vanadium, total	ug/L	MW-3	09/17/2019		1.4100		
Vanadium, total	ug/L	MW-3	04/06/2020	ND	1.0000		
Vanadium, total	ug/L	MW-3	09/24/2020	ND	1.0000		
Vanadium, total	ug/L	MW-3	04/27/2021	ND	1.0000		
Vanadium, total	ug/L	MW-3	09/28/2021		5.7600		*
Vanadium, total	ug/L	MW-3	05/11/2022		1.9200		
Vanadium, total	ug/L	MW-3	09/14/2022	ND	1.0000		
Vanadium, total	ug/L	MW-3	05/10/2023	ND	1.0000		
Vanadium, total	ug/L	MW-3	09/13/2023	ND	1.0000		
Vanadium, total	ug/L	MW-3	05/15/2024	ND	1.0000		
Vanadium, total	ug/L	MW-3	09/17/2024	ND	1.0000		
Vanadium, total	ug/L	MW-3	05/29/2025	ND	1.0000		

* - Outlier for that well and constituent.
** - ND value replaced with median RL.
*** - ND value replaced with manual RL.
ND = Not detected, Result = detection limit.

Table 1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Vanadium, total	ug/L	MW-3	09/17/2025	ND	1.0000		
Vanadium, total	ug/L	MW-4	08/28/2018	ND	1.0000		
Vanadium, total	ug/L	MW-4	11/30/2018		1.2600		
Vanadium, total	ug/L	MW-4	01/10/2019	ND	1.0000		
Vanadium, total	ug/L	MW-4	04/01/2019	ND	1.0000		
Vanadium, total	ug/L	MW-4	09/17/2019	ND	1.0000		
Vanadium, total	ug/L	MW-4	04/06/2020	ND	1.0000		
Vanadium, total	ug/L	MW-4	09/24/2020	ND	1.0000		
Vanadium, total	ug/L	MW-4	04/27/2021	ND	1.0000		
Vanadium, total	ug/L	MW-4	09/28/2021	ND	1.0000		
Vanadium, total	ug/L	MW-4	05/11/2022	ND	1.0000		
Vanadium, total	ug/L	MW-4	09/14/2022	ND	1.0000		
Vanadium, total	ug/L	MW-4	05/10/2023	ND	1.0000		
Vanadium, total	ug/L	MW-4	09/13/2023	ND	1.0000		
Vanadium, total	ug/L	MW-4	05/15/2024	ND	1.0000		
Vanadium, total	ug/L	MW-4	09/17/2024	ND	1.0000		
Vanadium, total	ug/L	MW-4	05/29/2025	ND	1.0000		
Vanadium, total	ug/L	MW-4	09/17/2025	ND	1.0000		
Zinc, total	ug/L	MW-3	08/23/2018	ND	5.0000		
Zinc, total	ug/L	MW-3	11/14/2018		20.1000		
Zinc, total	ug/L	MW-3	01/10/2019	ND	5.0000		
Zinc, total	ug/L	MW-3	04/01/2019		12.1000		
Zinc, total	ug/L	MW-3	09/17/2019		22.8000		
Zinc, total	ug/L	MW-3	04/06/2020		10.8000		
Zinc, total	ug/L	MW-3	09/24/2020		6.6700		
Zinc, total	ug/L	MW-3	04/27/2021		7.1600		
Zinc, total	ug/L	MW-3	09/28/2021		8.4500		
Zinc, total	ug/L	MW-3	05/11/2022	ND	5.0000		
Zinc, total	ug/L	MW-3	09/14/2022		8.3200		
Zinc, total	ug/L	MW-3	05/10/2023		8.3600		
Zinc, total	ug/L	MW-3	09/13/2023	ND	5.0000		
Zinc, total	ug/L	MW-3	05/15/2024		9.1500		
Zinc, total	ug/L	MW-3	09/17/2024		6.9900		
Zinc, total	ug/L	MW-3	05/29/2025		5.0000		
Zinc, total	ug/L	MW-3	09/17/2025	ND	5.0000		
Zinc, total	ug/L	MW-4	08/28/2018	ND	5.0000		
Zinc, total	ug/L	MW-4	11/30/2018		18.8000		
Zinc, total	ug/L	MW-4	01/10/2019	ND	5.0000		
Zinc, total	ug/L	MW-4	04/01/2019		31.4000		
Zinc, total	ug/L	MW-4	09/17/2019		17.9000		
Zinc, total	ug/L	MW-4	04/06/2020		10.5000		
Zinc, total	ug/L	MW-4	09/24/2020		16.6000		
Zinc, total	ug/L	MW-4	04/27/2021		10.1000		
Zinc, total	ug/L	MW-4	09/28/2021		9.3300		
Zinc, total	ug/L	MW-4	05/11/2022		7.5900		
Zinc, total	ug/L	MW-4	09/14/2022		7.5800		
Zinc, total	ug/L	MW-4	05/10/2023		8.8500		
Zinc, total	ug/L	MW-4	09/13/2023		7.8100		
Zinc, total	ug/L	MW-4	05/15/2024		9.8600		
Zinc, total	ug/L	MW-4	09/17/2024		9.8200		
Zinc, total	ug/L	MW-4	05/29/2025	ND	5.0000		
Zinc, total	ug/L	MW-4	09/17/2025		5.0400		

* - Outlier for that well and constituent.
** - ND value replaced with median RL.
*** - ND value replaced with manual RL.
ND = Not detected, Result = detection limit.

Table 2

Most Current Downgradient Monitoring Data

Constituent	Units	Well	Date		Result		Pred. Limit
Aluminum, total	ug/L	MW-1	09/17/2025	ND	100.0000		870.0000
Aluminum, total	ug/L	MW-2	09/17/2025	ND	100.0000		870.0000
Aluminum, total	ug/L	Sump Grab	09/17/2025	ND	100.0000		870.0000
Ammonia nitrogen	mg/L	MW-1	09/17/2025	ND	0.1000		0.2600
Ammonia nitrogen	mg/L	MW-2	09/17/2025	ND	0.1000		0.2600
Ammonia nitrogen	mg/L	Sump Grab	09/17/2025		0.1100		0.2600
Antimony, total	ug/L	MW-1	09/17/2025	ND	5.0000		5.0000
Antimony, total	ug/L	MW-2	09/17/2025	ND	5.0000		5.0000
Antimony, total	ug/L	Sump Grab	09/17/2025	ND	5.0000		5.0000
Arsenic, total	ug/L	MW-1	09/17/2025	ND	10.0000		10.0000
Arsenic, total	ug/L	MW-2	09/17/2025	ND	10.0000		10.0000
Arsenic, total	ug/L	Sump Grab	09/17/2025	ND	10.0000		10.0000
Barium, total	ug/L	MW-1	09/17/2025		37.4000		63.5606
Barium, total	ug/L	MW-2	09/17/2025		62.1000	**	63.5606
Barium, total	ug/L	Sump Grab	09/17/2025		134.0000	***	63.5606
Beryllium, total	ug/L	MW-1	09/17/2025	ND	1.0000		1.0000
Beryllium, total	ug/L	MW-2	09/17/2025	ND	1.0000		1.0000
Beryllium, total	ug/L	Sump Grab	09/17/2025	ND	1.0000		1.0000
Boron, total	ug/L	MW-1	09/17/2025		20.9000		31.0000
Boron, total	ug/L	MW-2	09/17/2025	ND	20.0000		31.0000
Boron, total	ug/L	Sump Grab	09/17/2025		102.0000	***	31.0000
Cadmium, total	ug/L	MW-1	09/17/2025	ND	0.4000		0.4000
Cadmium, total	ug/L	MW-2	09/17/2025	ND	0.4000		0.4000
Cadmium, total	ug/L	Sump Grab	09/17/2025	ND	0.4000		0.4000
Chemical oxygen demand	mg/L	MW-1	09/17/2025		12.0000		20.0000
Chemical oxygen demand	mg/L	MW-2	09/17/2025	ND	10.0000		20.0000
Chemical oxygen demand	mg/L	Sump Grab	09/17/2025		10.0000		20.0000
Chloride	mg/L	MW-1	09/17/2025		3.2900		34.1000
Chloride	mg/L	MW-2	09/17/2025		2.9400		34.1000
Chloride	mg/L	Sump Grab	09/17/2025		15.1000		34.1000
Chromium, total	ug/L	MW-1	09/17/2025		4.2600		18.2802
Chromium, total	ug/L	MW-2	09/17/2025		3.9400		18.2802
Chromium, total	ug/L	Sump Grab	09/17/2025	ND	1.0000		18.2802
Cobalt, total	ug/L	MW-1	09/17/2025	ND	2.0000		3.3700
Cobalt, total	ug/L	MW-2	09/17/2025	ND	2.0000		3.3700
Cobalt, total	ug/L	Sump Grab	09/17/2025	ND	2.0000		3.3700
Copper, total	ug/L	MW-1	09/17/2025	ND	3.0000		7.6800
Copper, total	ug/L	MW-2	09/17/2025	ND	3.0000		7.6800
Copper, total	ug/L	Sump Grab	09/17/2025		3.2100		7.6800
Fluoride	mg/L	MW-1	09/17/2025	ND	0.1000		0.3000
Fluoride	mg/L	MW-2	09/17/2025		0.1340		0.3000
Fluoride	mg/L	Sump Grab	09/17/2025	ND	0.1000		0.3000
Formaldehyde	ug/L	MW-1	09/17/2025	ND	100.0000		100.0000
Formaldehyde	ug/L	MW-2	09/17/2025	ND	100.0000		100.0000
Formaldehyde	ug/L	Sump Grab	05/29/2025	ND	100.0000		100.0000
Iron, total	ug/L	MW-1	09/17/2025		53.5000		2704.0261
Iron, total	ug/L	MW-2	09/17/2025		36.1000		2704.0261
Iron, total	ug/L	Sump Grab	09/17/2025		43.4000		2704.0261
Lead, total	ug/L	MW-1	09/17/2025	ND	2.0000		3.0100
Lead, total	ug/L	MW-2	09/17/2025	ND	2.0000		3.0100
Lead, total	ug/L	Sump Grab	09/17/2025	ND	2.0000		3.0100
Magnesium, total	mg/L	MW-1	09/17/2025		47.8000		72.0000
Magnesium, total	mg/L	MW-2	09/17/2025		46.1000		72.0000
Magnesium, total	mg/L	Sump Grab	09/17/2025		32.2000		72.0000
Manganese, total	ug/L	MW-1	09/17/2025	ND	20.0000		145.0000
Manganese, total	ug/L	MW-2	09/17/2025	ND	20.0000		145.0000
Manganese, total	ug/L	Sump Grab	09/17/2025	ND	20.0000		145.0000
Mercury, total	ug/L	MW-1	09/17/2025	ND	2.0000		2.0000
Mercury, total	ug/L	MW-2	09/17/2025	ND	2.0000		2.0000
Mercury, total	ug/L	Sump Grab	09/17/2025	ND	2.0000		2.0000
Methyl ethyl ketone	ug/L	MW-1	09/17/2025	ND	10.0000		10.0000
Methyl ethyl ketone	ug/L	MW-2	09/17/2025	ND	10.0000		10.0000
Methyl ethyl ketone	ug/L	Sump Grab	09/17/2025	ND	10.0000		10.0000
Molybdenum, total	ug/L	MW-1	09/17/2025	ND	10.0000		10.0000
Molybdenum, total	ug/L	MW-2	09/17/2025	ND	10.0000		10.0000
Molybdenum, total	ug/L	Sump Grab	09/17/2025	ND	10.0000		10.0000
Nickel, total	ug/L	MW-1	09/17/2025	ND	1.0000		2.5100
Nickel, total	ug/L	MW-2	09/17/2025	ND	1.0000	**	2.5100
Nickel, total	ug/L	Sump Grab	09/17/2025	ND	1.0000		2.5100
Phenols	ug/L	MW-1	09/17/2025	ND	10.0000		25.0000
Phenols	ug/L	MW-2	09/17/2025	ND	10.0000		25.0000
Phenols	ug/L	Sump Grab	09/17/2025	ND	10.0000		25.0000

* - Current value failed - awaiting verification.
** - Current value passed - previous exceedance not verified.
*** - Current value failed - exceedance verified.
**** - Current value passed - awaiting one more verification.
***** - Insufficient background data to compute prediction limit.
ND = Not Detected, Result = detection limit.

Table 2

Most Current Downgradient Monitoring Data

Constituent	Units	Well	Date		Result		Pred. Limit
Selenium, total	ug/L	MW-1	09/17/2025	ND	5.0000		5.0000
Selenium, total	ug/L	MW-2	09/17/2025	ND	5.0000		5.0000
Selenium, total	ug/L	Sump Grab	09/17/2025	ND	5.0000		5.0000
Silver, total	ug/L	MW-1	09/17/2025	ND	1.0000		0.5000
Silver, total	ug/L	MW-2	09/17/2025	ND	1.0000		0.5000
Silver, total	ug/L	Sump Grab	09/17/2025	ND	1.0000		0.5000
Sulfate	mg/L	MW-1	09/17/2025		8.6700		25.1000
Sulfate	mg/L	MW-2	09/17/2025		25.2000	*	25.1000
Sulfate	mg/L	Sump Grab	09/17/2025		68.8000	***	25.1000
Thallium, total	ug/L	MW-1	09/17/2025	ND	2.0000		2.0000
Thallium, total	ug/L	MW-2	09/17/2025	ND	2.0000		2.0000
Thallium, total	ug/L	Sump Grab	09/17/2025	ND	2.0000		2.0000
Total organic halogen	mg/L	MW-1	09/17/2025		0.0150		0.1550
Total organic halogen	mg/L	MW-2	09/17/2025		0.0320		0.1550
Total organic halogen	mg/L	Sump Grab	09/17/2025		0.0520		0.1550
Total suspended solids	mg/L	MW-1	09/17/2025		3.0000		632.0000
Total suspended solids	mg/L	MW-2	09/17/2025		4.0000		632.0000
Total suspended solids	mg/L	Sump Grab	09/17/2025		1.0000		632.0000
Vanadium, total	ug/L	MW-1	09/17/2025	ND	1.0000		1.9200
Vanadium, total	ug/L	MW-2	09/17/2025	ND	1.0000		1.9200
Vanadium, total	ug/L	Sump Grab	09/17/2025	ND	1.0000		1.9200
Zinc, total	ug/L	MW-1	09/17/2025		9.1800		31.4000
Zinc, total	ug/L	MW-2	09/17/2025		5.5500		31.4000
Zinc, total	ug/L	Sump Grab	09/17/2025		10.4000		31.4000

* - Current value failed - awaiting verification.
** - Current value passed - previous exceedance not verified.
*** - Current value failed - exceedance verified.
**** - Current value passed - awaiting one more verification.
***** - Insufficient background data to compute prediction limit.
ND = Not Detected, Result = detection limit.

Table 3

Detection Frequencies in Upgradient and Downgradient Wells

Constituent	Upgradient Detect	Upgradient N	Upgradient Proportion	Downgradient Detect	Downgradient N	Downgradient Proportion
Aluminum, total	16	32	0.500	21	45	0.467
Ammonia nitrogen	2	34	0.059	5	45	0.111
Antimony, total	0	34	0.000	0	45	0.000
Arsenic, total	0	34	0.000	0	45	0.000
Barium, total	34	34	1.000	45	45	1.000
Beryllium, total	0	34	0.000	0	45	0.000
Boron, total	4	33	0.121	20	45	0.444
Cadmium, total	0	34	0.000	2	45	0.044
Chemical oxygen demand	13	34	0.382	16	45	0.356
Chloride	33	33	1.000	45	45	1.000
Chromium, total	32	34	0.941	32	45	0.711
Cobalt, total	1	34	0.029	0	45	0.000
Copper, total	10	33	0.303	16	45	0.356
Fluoride	18	34	0.529	35	45	0.778
Formaldehyde	0	34	0.000	0	44	0.000
Iron, total	33	33	1.000	41	45	0.911
Lead, total	3	34	0.088	1	45	0.022
Magnesium, total	34	34	1.000	45	45	1.000
Manganese, total	8	32	0.250	17	45	0.378
Mercury, total	0	34	0.000	0	45	0.000
Methyl ethyl ketone	0	32	0.000	0	44	0.000
Molybdenum, total	4	34	0.118	5	45	0.111
Nickel, total	7	32	0.219	11	45	0.244
Phenols	6	33	0.182	13	45	0.289
Selenium, total	0	34	0.000	3	45	0.067
Silver, total	0	34	0.000	0	45	0.000
Sulfate	33	33	1.000	45	45	1.000
Thallium, total	0	34	0.000	0	45	0.000
Total organic halogen	15	32	0.469	20	44	0.455
Total suspended solids	33	34	0.971	43	45	0.956
Vanadium, total	3	33	0.091	6	45	0.133
Zinc, total	26	34	0.765	30	45	0.667

N = Total number of measurements in all wells.
Detect = Total number of detections in all wells.
Proportion = Detect/N.

Table 4

Shapiro-Wilk Multiple Group Test of Normality

Constituent	Detect	N	Detect Freq	G raw	G log	G cbrt	G sqrt	G sqr	G cub	Crit Value	Dist Form
Aluminum, total	16	32	0.500	5.377	5.694					2.326	non-norm
Ammonia nitrogen	2	34	0.059	31.089	31.089					2.326	non-norm
Antimony, total	0	34	0.000	6.665	6.665					2.326	non-norm
Arsenic, total	0	34	0.000	6.665	6.665					2.326	non-norm
Barium, total	34	34	1.000	1.524	0.293					2.326	normal
Beryllium, total	0	34	0.000	6.665	6.665					2.326	non-norm
Boron, total	4	33	0.121	10.229	10.405					2.326	non-norm
Cadmium, total	0	34	0.000	6.665	6.665					2.326	non-norm
Chemical oxygen demand	13	34	0.382	5.490	6.443					2.326	non-norm
Chloride	33	33	1.000	6.510	4.871					2.326	non-norm
Chromium, total	32	34	0.941	0.794	7.046					2.326	normal
Cobalt, total	1	34	0.029	18.877	18.877					2.326	non-norm
Copper, total	10	33	0.303	6.405	7.000					2.326	non-norm
Fluoride	18	34	0.529	5.263	7.549					2.326	non-norm
Formaldehyde	0	34	0.000	6.665	6.665					2.326	non-norm
Iron, total	33	33	1.000	7.502	0.823					2.326	lognor
Lead, total	3	34	0.088	20.826	20.854					2.326	non-norm
Magnesium, total	34	34	1.000	5.490	4.112					2.326	non-norm
Manganese, total	8	32	0.250	7.506	7.636					2.326	non-norm
Mercury, total	0	34	0.000	6.665	6.665					2.326	non-norm
Methyl ethyl ketone	0	32	0.000	6.459	6.459					2.326	non-norm
Molybdenum, total	4	34	0.118	10.357	10.564					2.326	non-norm
Nickel, total	7	32	0.219	7.477	7.898					2.326	non-norm
Phenols	6	33	0.182	8.885	8.934					2.326	non-norm
Selenium, total	0	34	0.000	6.665	6.665					2.326	non-norm
Silver, total	0	34	0.000	6.665	6.665					2.326	non-norm
Sulfate	33	33	1.000	3.664	2.477					2.326	non-norm
Thallium, total	0	34	0.000	6.665	6.665					2.326	non-norm
Total organic halogen	15	32	0.469	7.317	5.076					2.326	non-norm
Total suspended solids	33	34	0.971	7.649	2.601					2.326	non-norm
Vanadium, total	3	33	0.091	20.517	20.633					2.326	non-norm
Zinc, total	26	34	0.765	2.640	6.502					2.326	non-norm

* - Distribution override for that constituent.
Fit to distribution is confirmed if G <= critical value.
Model type may not match distributional form when detection frequency < 50%.

Table 4

Shapiro-Wilk Multiple Group Test of Normality

Constituent	Model Type
Aluminum, total	nonpar
Ammonia nitrogen	nonpar
Antimony, total	nonpar
Arsenic, total	nonpar
Barium, total	normal
Beryllium, total	nonpar
Boron, total	nonpar
Cadmium, total	nonpar
Chemical oxygen demand	nonpar
Chloride	nonpar
Chromium, total	normal
Cobalt, total	nonpar
Copper, total	nonpar
Fluoride	nonpar
Formaldehyde	nonpar
Iron, total	lognor
Lead, total	nonpar
Magnesium, total	nonpar
Manganese, total	nonpar
Mercury, total	nonpar
Methyl ethyl ketone	nonpar
Molybdenum, total	nonpar
Nickel, total	nonpar
Phenols	nonpar
Selenium, total	nonpar
Silver, total	nonpar
Sulfate	nonpar
Thallium, total	nonpar
Total organic halogen	nonpar
Total suspended solids	nonpar
Vanadium, total	nonpar
Zinc, total	nonpar

* - Distribution override for that constituent.
Fit to distribution is confirmed if G <= critical value.
Model type may not match distributional form when detection frequency < 50%.

Table 5

Summary Statistics and Prediction Limits

Constituent	Units	Detect	N	Mean	SD	alpha	Factor	Pred Limit	Type		Conf
Aluminum, total	ug/L	16	32					870.0000	nonpar		0.99
Ammonia nitrogen	mg/L	2	34					0.2600	nonpar		0.99
Antimony, total	ug/L	0	34					5.0000	nonpar	***	0.99
Arsenic, total	ug/L	0	34					10.0000	nonpar	***	0.99
Barium, total	ug/L	34	34	37.7147	10.4205	0.0100	2.4803	63.5606	normal		
Beryllium, total	ug/L	0	34					1.0000	nonpar	***	0.99
Boron, total	ug/L	4	33					31.0000	nonpar		0.99
Cadmium, total	ug/L	0	34					0.4000	nonpar	***	0.99
Chemical oxygen demand	mg/L	13	34					20.0000	nonpar		0.99
Chloride	mg/L	33	33					34.1000	nonpar		0.99
Chromium, total	ug/L	32	34	7.2053	4.4651	0.0100	2.4803	18.2802	normal		
Cobalt, total	ug/L	1	34					3.3700	nonpar		0.99
Copper, total	ug/L	10	33					7.6800	nonpar		0.99
Fluoride	mg/L	18	34					0.3000	nonpar		0.99
Formaldehyde	ug/L	0	34					100.0000	nonpar	***	0.99
Iron, total	ug/L	33	33	4.6109	1.3244	0.0100	2.4853	2704.0261	lognor		
Lead, total	ug/L	3	34					3.0100	nonpar		0.99
Magnesium, total	mg/L	34	34					72.0000	nonpar		0.99
Manganese, total	ug/L	8	32					145.0000	nonpar		0.99
Mercury, total	ug/L	0	34					2.0000	nonpar	***	0.99
Methyl ethyl ketone	ug/L	0	32					10.0000	nonpar	***	0.99
Molybdenum, total	ug/L	4	34					10.0000	nonpar	***	0.99
Nickel, total	ug/L	7	32					2.5100	nonpar		0.99
Phenols	ug/L	6	33					25.0000	nonpar		0.99
Selenium, total	ug/L	0	34					5.0000	nonpar	***	0.99
Silver, total	ug/L	0	34					0.5000	nonpar	***	0.99
Sulfate	mg/L	33	33					25.1000	nonpar		0.99
Thallium, total	ug/L	0	34					2.0000	nonpar	***	0.99
Total organic halogen	mg/L	15	32					0.1550	nonpar		0.99
Total suspended solids	mg/L	33	34					632.0000	nonpar		0.99
Vanadium, total	ug/L	3	33					1.9200	nonpar		0.99
Zinc, total	ug/L	26	34					31.4000	nonpar		0.99

Conf = confidence level for passing initial test or one verification resample at all downgradient wells for a single constituent (nonparametric test only).
* - Insufficient Data.
** - Calculated limit raised to Manual Reporting Limit.
*** - Nonparametric limit based on ND value.
For transformed data, mean and SD in transformed units and prediction limit in original units.
All sample sizes and statistics are based on outlier free data.
For nonparametric limits, median reporting limits are substituted for extreme reporting limit values.

Table 6

Dixon's Test Outliers
1% Significance Level

Constituent	Units	Well	Date	Result	ND Qualifier	Date Range	N	Critical Value
Aluminum, total	ug/L	MW-4	11/30/2018	755.0000		08/23/2018-09/17/2025	17	0.5798
Boron, total	ug/L	MW-4	08/28/2018	90.1000		08/28/2018-09/17/2025	17	0.5798
Chloride	mg/L	MW-3	11/14/2018	4.6100		08/23/2018-09/17/2025	17	0.5798
Copper, total	ug/L	MW-3	08/23/2018	32.6000		08/23/2018-09/17/2025	17	0.5798
Manganese, total	ug/L	MW-4	11/30/2018	100.0000		08/28/2018-09/17/2025	17	0.5798
Methyl ethyl ketone	ug/L	MW-3	09/17/2019	100.0000	< 100.0000	08/23/2018-09/17/2025	17	0.5798
Methyl ethyl ketone	ug/L	MW-4	09/17/2019	100.0000	< 100.0000	08/28/2018-09/17/2025	17	0.5798
Nickel, total	ug/L	MW-3	04/27/2021	3.5200		08/23/2018-09/17/2025	17	0.5973
Nickel, total	ug/L	MW-3	09/28/2021	5.0500		08/23/2018-09/17/2025	17	0.5973
Phenols	ug/L	MW-4	04/01/2019	0.5000		08/28/2018-09/17/2025	17	0.5798
Sulfate	mg/L	MW-4	05/10/2023	0.1000	< 0.1000	08/28/2018-09/17/2025	17	0.5798
Vanadium, total	ug/L	MW-3	09/28/2021	5.7600		08/23/2018-09/17/2025	17	0.5798

N = Total number of independent measurements in background at each well.
Date Range = Dates of the first and last measurements included in background at each well.
Critical Value depends on the significance level and on N-1 when the two most extreme values are tested or N for the most extreme value.

Table 8

Historical Downgradient Data for Constituent-Well Combinations that Failed the Current Statistical Evaluation or are in Verification Resampling Mode

Constituent	Units	Well	Date		Result		Pred. Limit
Barium, total	ug/L	MW-2	08/23/2018		151.0000	*	63.5606
Barium, total	ug/L	MW-2	11/14/2018		75.3000	*	63.5606
Barium, total	ug/L	MW-2	01/10/2019		61.2000		63.5606
Barium, total	ug/L	MW-2	04/01/2019		59.1000		63.5606
Barium, total	ug/L	MW-2	09/17/2019		58.6000		63.5606
Barium, total	ug/L	MW-2	04/06/2020		64.8000	*	63.5606
Barium, total	ug/L	MW-2	09/24/2020		56.6000		63.5606
Barium, total	ug/L	MW-2	04/27/2021		57.1000		63.5606
Barium, total	ug/L	MW-2	09/28/2021		75.0000	*	63.5606
Barium, total	ug/L	MW-2	05/11/2022		63.0000		63.5606
Barium, total	ug/L	MW-2	09/14/2022		54.1000		63.5606
Barium, total	ug/L	MW-2	05/10/2023		61.0000		63.5606
Barium, total	ug/L	MW-2	09/13/2023		60.0000		63.5606
Barium, total	ug/L	MW-2	05/15/2024		57.6000		63.5606
Barium, total	ug/L	MW-2	09/17/2024		61.1000		63.5606
Barium, total	ug/L	MW-2	05/29/2025		66.0000	*	63.5606
Barium, total	ug/L	MW-2	09/17/2025		62.1000		63.5606
Barium, total	ug/L	Sump Grab	04/06/2020		109.0000	*	63.5606
Barium, total	ug/L	Sump Grab	09/24/2020		108.0000	*	63.5606
Barium, total	ug/L	Sump Grab	04/27/2021		93.1000	*	63.5606
Barium, total	ug/L	Sump Grab	09/28/2021		127.0000	*	63.5606
Barium, total	ug/L	Sump Grab	05/11/2022		98.8000	*	63.5606
Barium, total	ug/L	Sump Grab	09/14/2022		79.0000	*	63.5606
Barium, total	ug/L	Sump Grab	09/13/2023		133.0000	*	63.5606
Barium, total	ug/L	Sump Grab	05/15/2024		119.0000	*	63.5606
Barium, total	ug/L	Sump Grab	09/17/2024		127.0000	*	63.5606
Barium, total	ug/L	Sump Grab	05/29/2025		123.0000	*	63.5606
Barium, total	ug/L	Sump Grab	09/17/2025		134.0000	*	63.5606
Boron, total	ug/L	Sump Grab	04/06/2020		40.5000	*	31.0000
Boron, total	ug/L	Sump Grab	09/24/2020		54.8000	*	31.0000
Boron, total	ug/L	Sump Grab	04/27/2021		34.2000	*	31.0000
Boron, total	ug/L	Sump Grab	09/28/2021		30.4000		31.0000
Boron, total	ug/L	Sump Grab	05/11/2022		36.6000	*	31.0000
Boron, total	ug/L	Sump Grab	09/14/2022		63.5000	*	31.0000
Boron, total	ug/L	Sump Grab	09/13/2023		81.1000	*	31.0000
Boron, total	ug/L	Sump Grab	05/15/2024		83.2000	*	31.0000
Boron, total	ug/L	Sump Grab	09/17/2024		90.0000	*	31.0000
Boron, total	ug/L	Sump Grab	05/29/2025		53.4000	*	31.0000
Boron, total	ug/L	Sump Grab	09/17/2025		102.0000	*	31.0000
Nickel, total	ug/L	MW-2	08/23/2018	ND	1.0000		2.5100
Nickel, total	ug/L	MW-2	11/14/2018		1.5000		2.5100
Nickel, total	ug/L	MW-2	01/10/2019		3.2200	*	2.5100
Nickel, total	ug/L	MW-2	04/01/2019	ND	1.0000		2.5100
Nickel, total	ug/L	MW-2	09/17/2019		1.0700		2.5100
Nickel, total	ug/L	MW-2	04/06/2020	ND	1.0000		2.5100
Nickel, total	ug/L	MW-2	09/24/2020	ND	1.0000		2.5100
Nickel, total	ug/L	MW-2	04/27/2021		3.3500	*	2.5100
Nickel, total	ug/L	MW-2	09/28/2021		1.4600		2.5100
Nickel, total	ug/L	MW-2	05/11/2022	ND	1.0000		2.5100
Nickel, total	ug/L	MW-2	09/14/2022	ND	1.0000		2.5100
Nickel, total	ug/L	MW-2	05/10/2023	ND	1.0000		2.5100
Nickel, total	ug/L	MW-2	09/13/2023	ND	1.0000		2.5100
Nickel, total	ug/L	MW-2	05/15/2024	ND	1.0000		2.5100
Nickel, total	ug/L	MW-2	09/17/2024	ND	1.0000		2.5100
Nickel, total	ug/L	MW-2	05/29/2025		2.9700	*	2.5100
Nickel, total	ug/L	MW-2	09/17/2025	ND	1.0000		2.5100
Sulfate	mg/L	MW-2	08/23/2018		29.8000	*	25.1000
Sulfate	mg/L	MW-2	11/14/2018		37.0000	*	25.1000
Sulfate	mg/L	MW-2	01/10/2019		26.8000	*	25.1000
Sulfate	mg/L	MW-2	04/01/2019		26.3000	*	25.1000
Sulfate	mg/L	MW-2	09/17/2019		23.4000		25.1000
Sulfate	mg/L	MW-2	04/06/2020		24.3000		25.1000
Sulfate	mg/L	MW-2	09/24/2020		24.0000		25.1000
Sulfate	mg/L	MW-2	04/27/2021		24.4000		25.1000
Sulfate	mg/L	MW-2	09/28/2021		25.4000	*	25.1000
Sulfate	mg/L	MW-2	05/11/2022		25.7000	*	25.1000
Sulfate	mg/L	MW-2	09/14/2022		24.4000		25.1000
Sulfate	mg/L	MW-2	05/10/2023		23.8000		25.1000
Sulfate	mg/L	MW-2	09/13/2023		20.7000		25.1000
Sulfate	mg/L	MW-2	05/15/2024		27.0000	*	25.1000
Sulfate	mg/L	MW-2	09/17/2024		25.2000	*	25.1000

* - Significantly increased over background.
** - Detect at limit for 100% NDs in background (NPPL only).
*** - Manual exclusion.
ND = Not Detected, Result = detection limit.

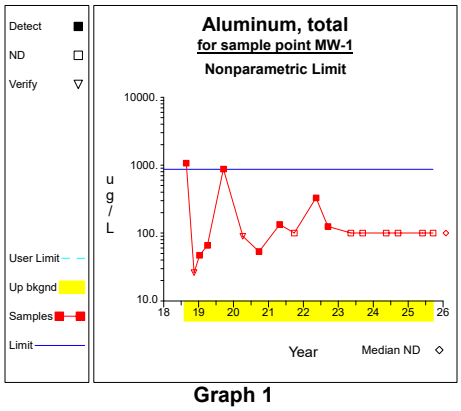
Table 8

Historical Downgradient Data for Constituent-Well Combinations that Failed the Current Statistical Evaluation or are in Verification Resampling Mode

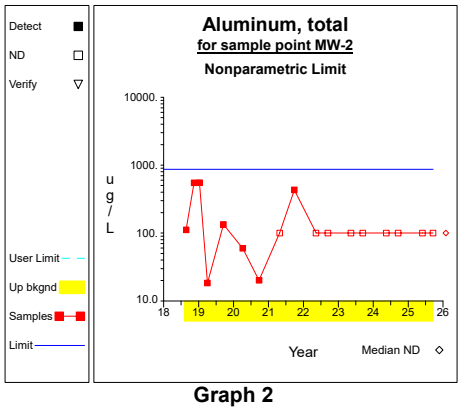
Constituent	Units	Well	Date		Result		Pred. Limit
Sulfate	mg/L	MW-2	05/29/2025		24.3000		25.1000
Sulfate	mg/L	MW-2	09/17/2025		25.2000	*	25.1000
Sulfate	mg/L	Sump Grab	04/06/2020		122.0000	*	25.1000
Sulfate	mg/L	Sump Grab	09/24/2020		66.8000	*	25.1000
Sulfate	mg/L	Sump Grab	04/27/2021		120.0000	*	25.1000
Sulfate	mg/L	Sump Grab	09/28/2021		33.6000	*	25.1000
Sulfate	mg/L	Sump Grab	05/11/2022		39.0000	*	25.1000
Sulfate	mg/L	Sump Grab	09/14/2022		43.6000	*	25.1000
Sulfate	mg/L	Sump Grab	09/13/2023		20.1000		25.1000
Sulfate	mg/L	Sump Grab	05/15/2024		75.2000	*	25.1000
Sulfate	mg/L	Sump Grab	09/17/2024		100.0000	*	25.1000
Sulfate	mg/L	Sump Grab	05/29/2025		50.8000	*	25.1000
Sulfate	mg/L	Sump Grab	09/17/2025		68.8000	*	25.1000

* - Significantly increased over background.
** - Detect at limit for 100% NDs in background (NPPL only).
*** - Manual exclusion.
ND = Not Detected, Result = detection limit.

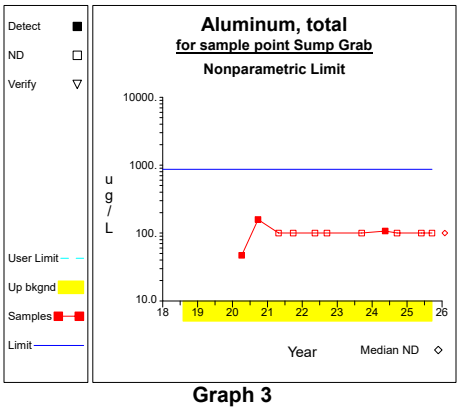
Up vs. Down Prediction Limits



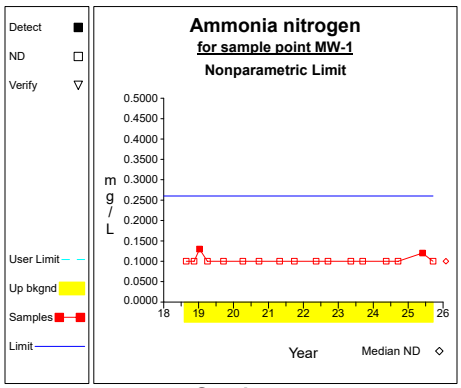
Graph 1



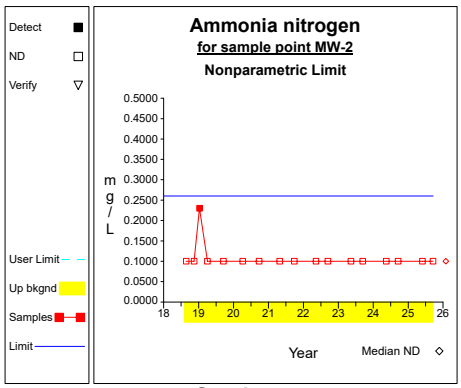
Graph 2



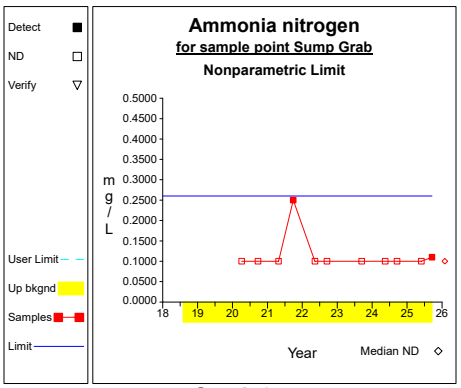
Graph 3



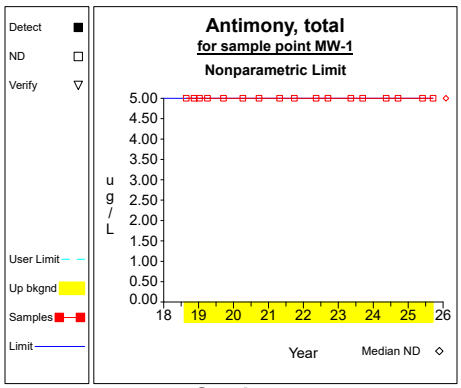
Graph 4



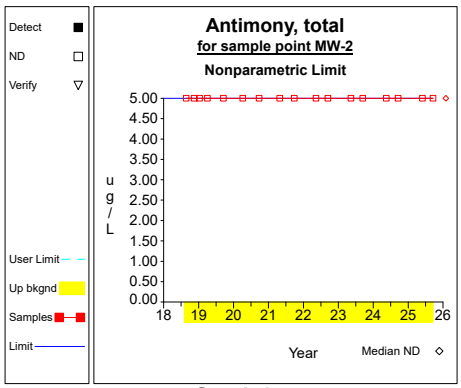
Graph 5



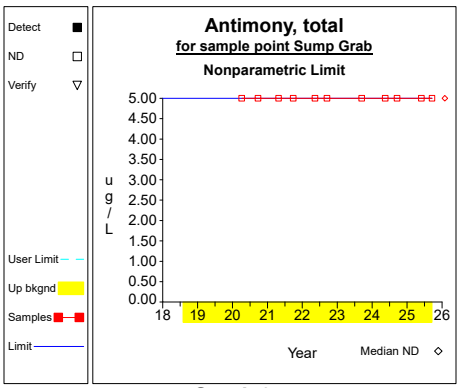
Graph 6



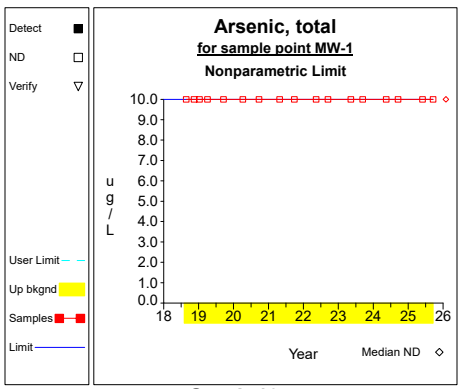
Graph 7



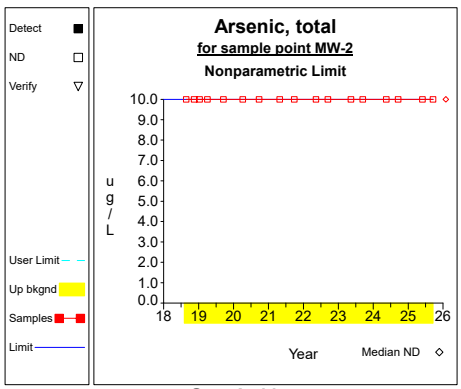
Graph 8



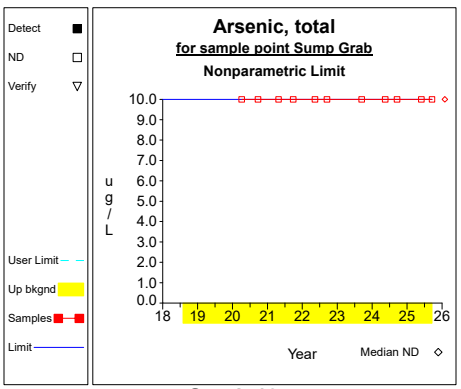
Graph 9



Graph 10



Graph 11



Graph 12

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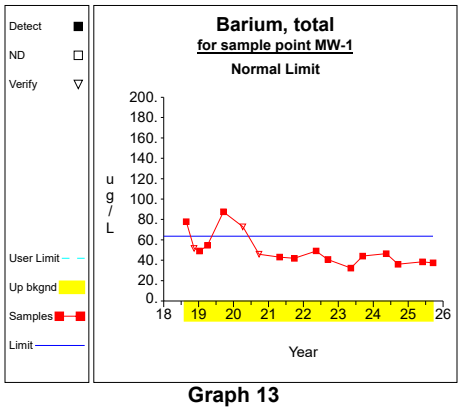
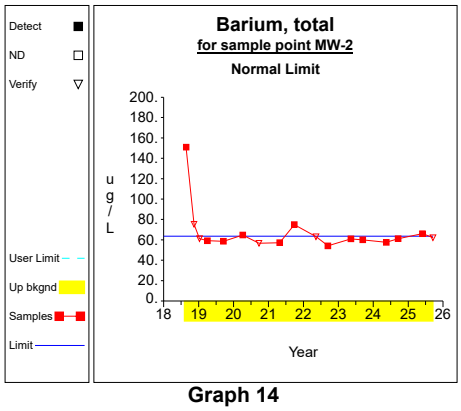
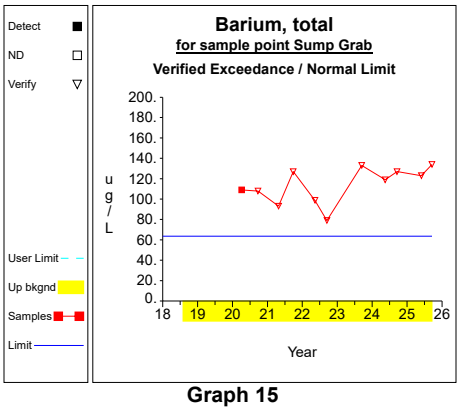
Up vs. Down Prediction Limits



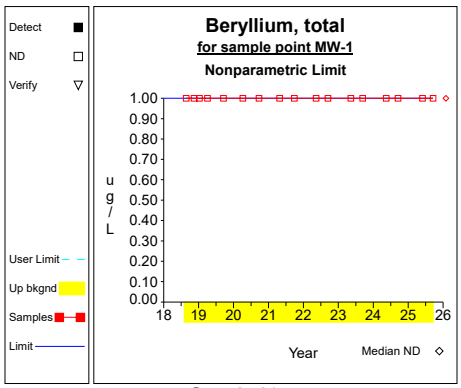
Graph 13



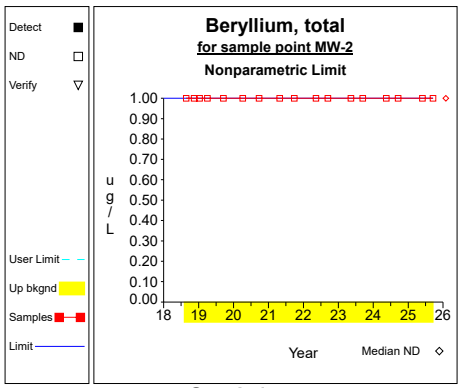
Graph 14



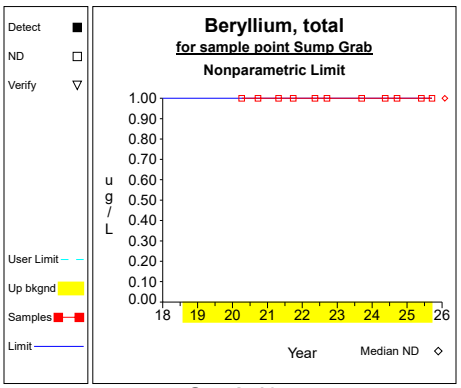
Graph 15



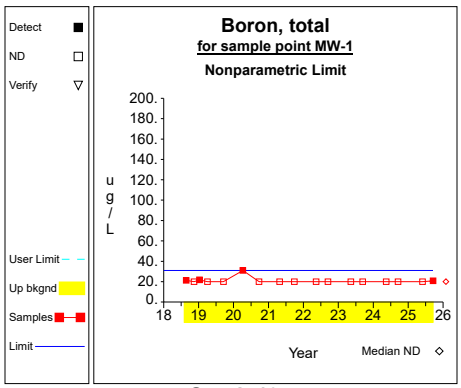
Graph 16



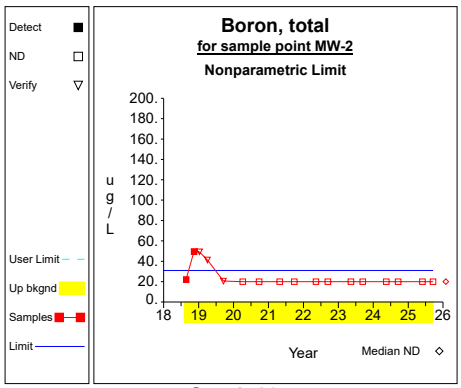
Graph 17



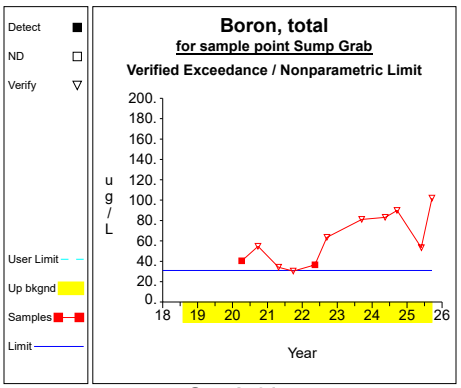
Graph 18



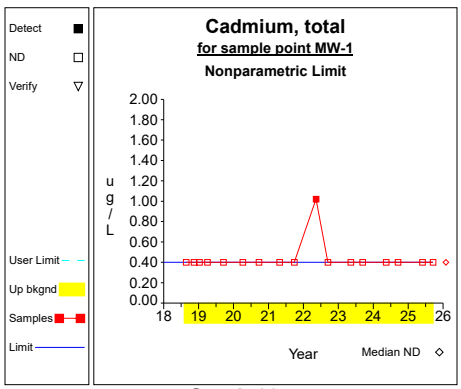
Graph 19



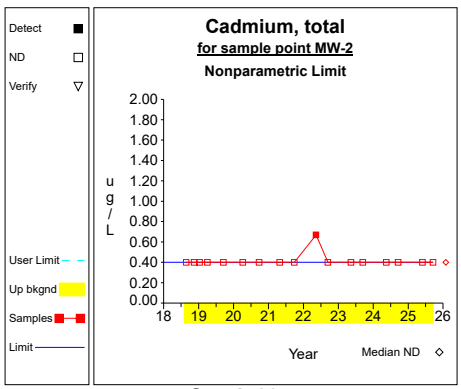
Graph 20



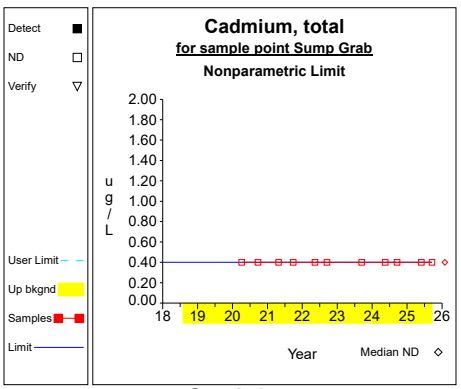
Graph 21



Graph 22



Graph 23



Graph 24

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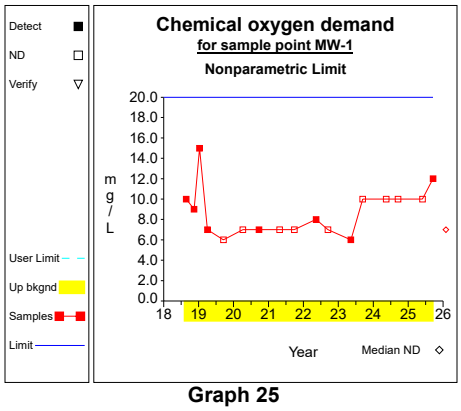
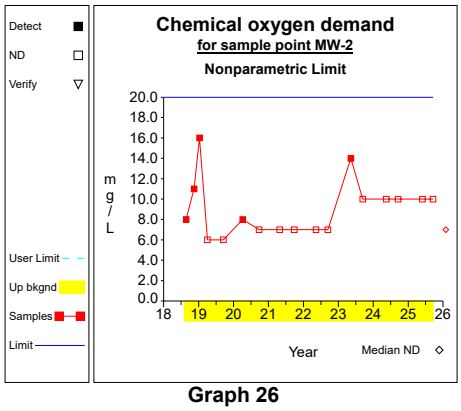
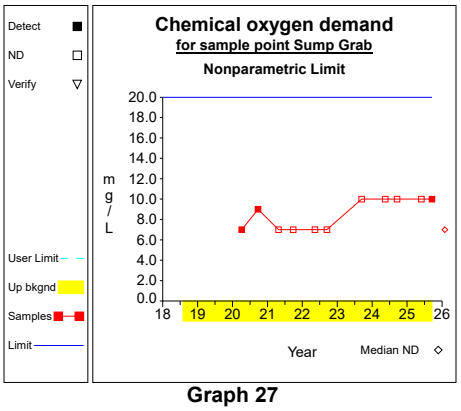
Up vs. Down Prediction Limits



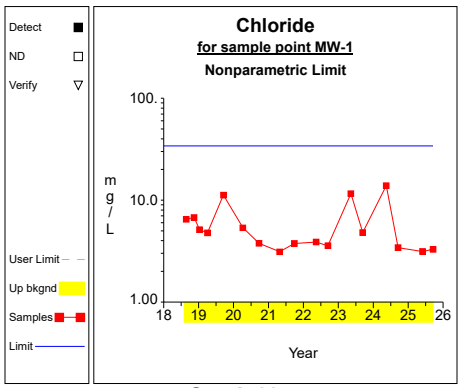
Graph 25



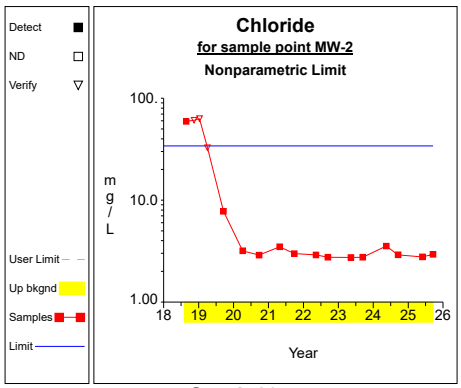
Graph 26



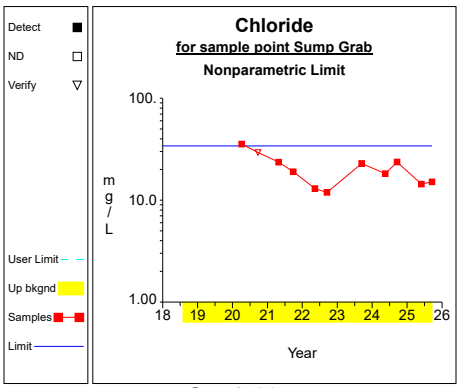
Graph 27



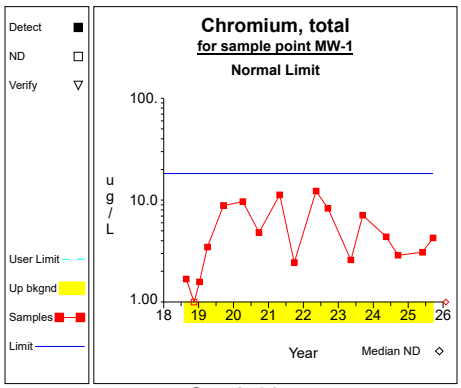
Graph 28



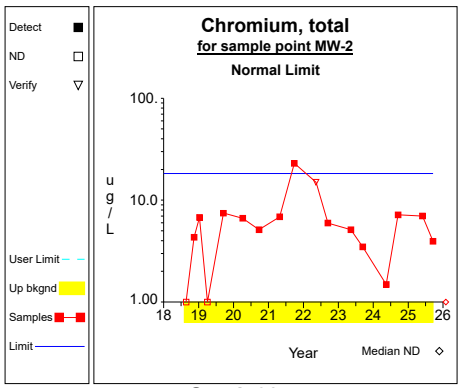
Graph 29



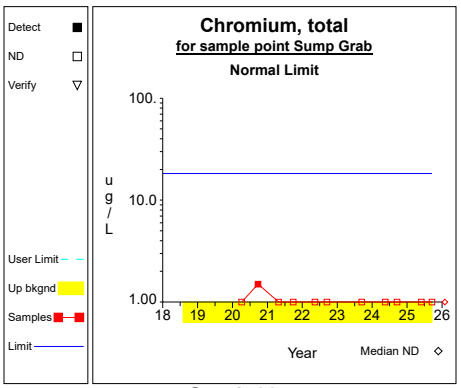
Graph 30



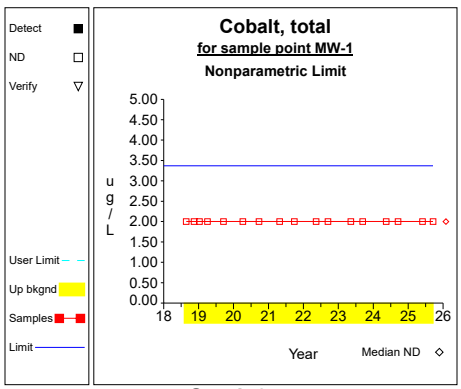
Graph 31



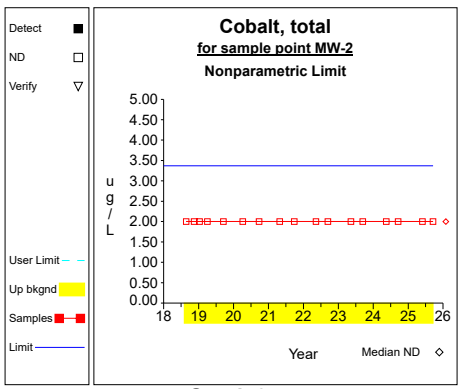
Graph 32



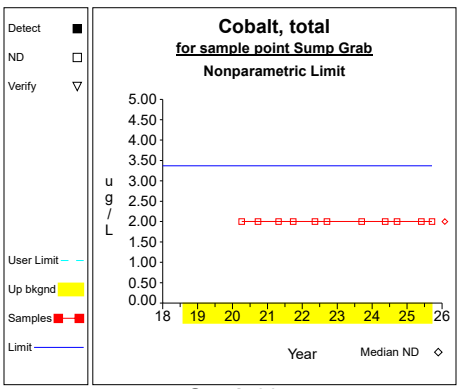
Graph 33



Graph 34



Graph 35



Graph 36

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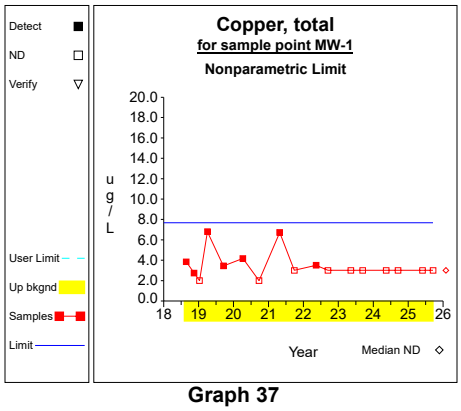
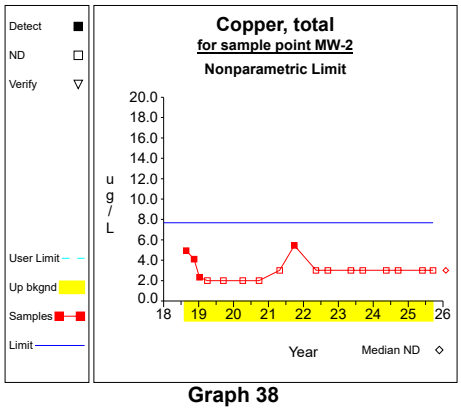
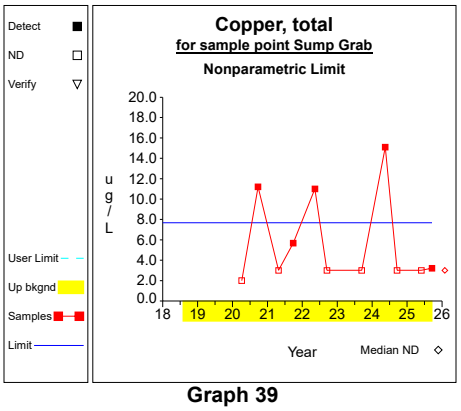
Up vs. Down Prediction Limits



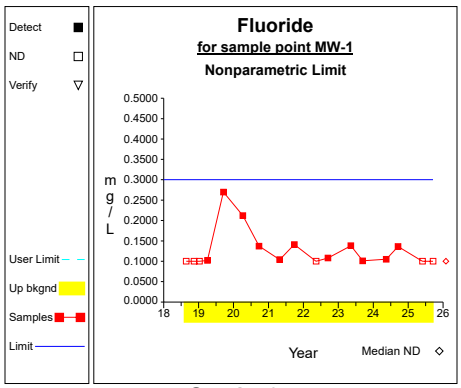
Graph 37



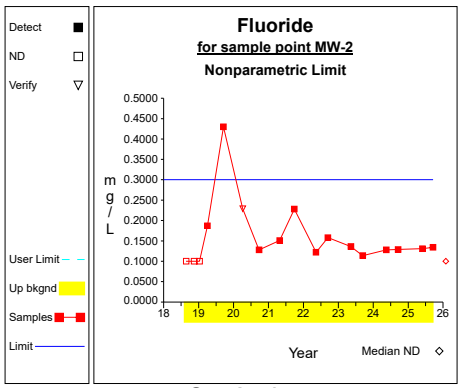
Graph 38



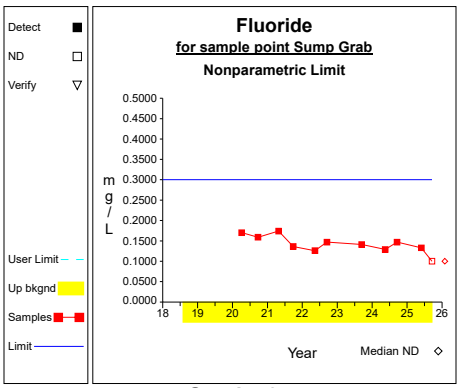
Graph 39



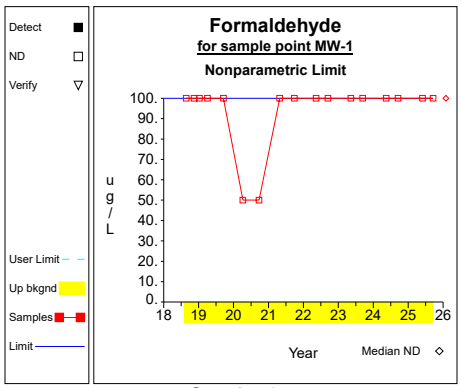
Graph 40



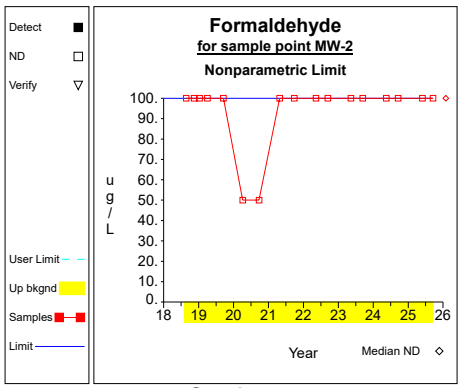
Graph 41



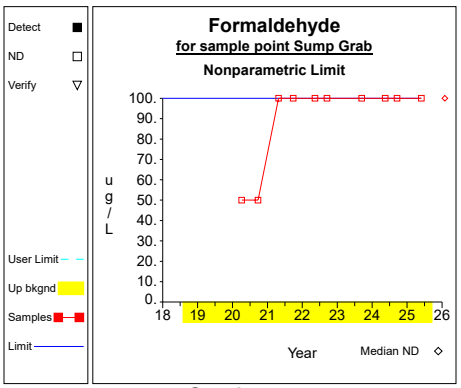
Graph 42



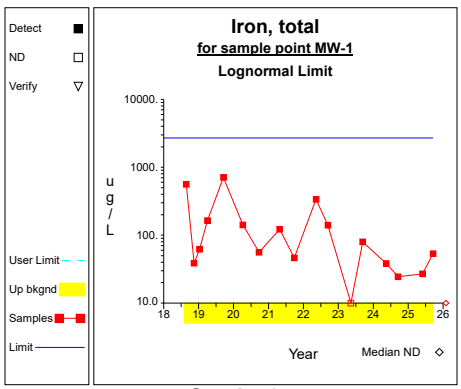
Graph 43



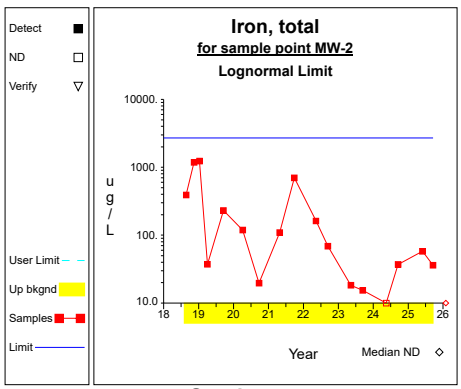
Graph 44



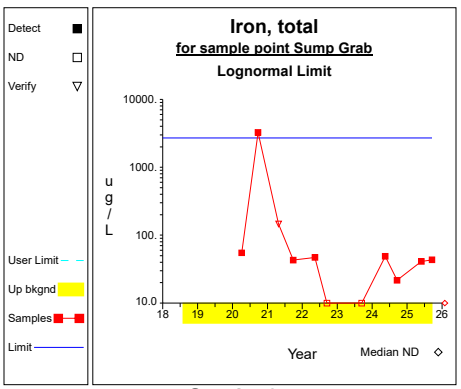
Graph 45



Graph 46



Graph 47



Graph 48

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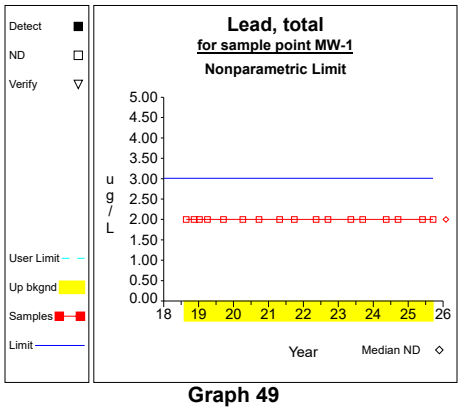
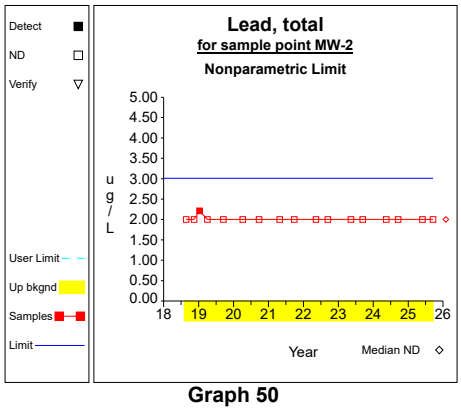
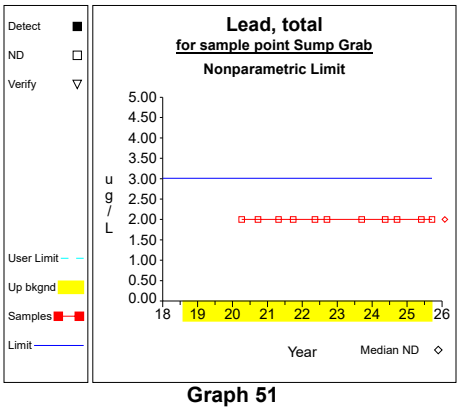
Up vs. Down Prediction Limits



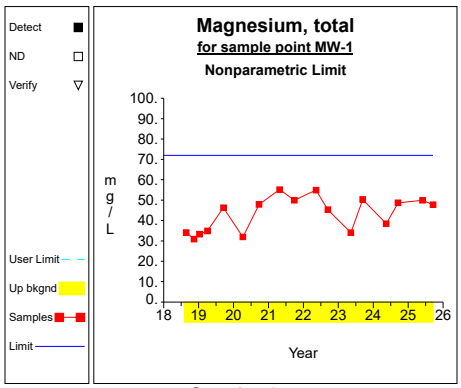
Graph 49



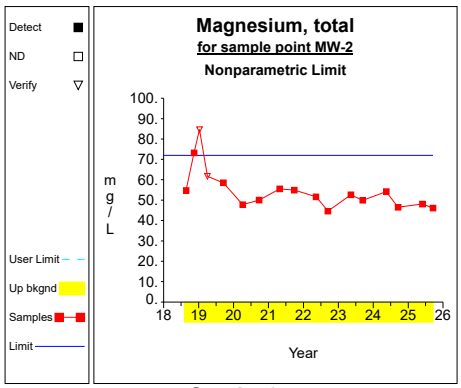
Graph 50



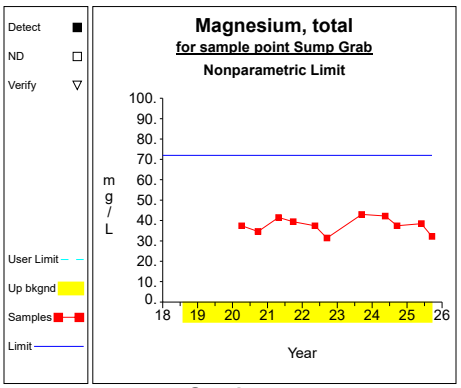
Graph 51



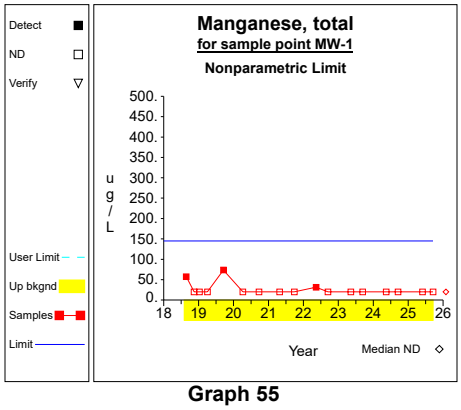
Graph 52



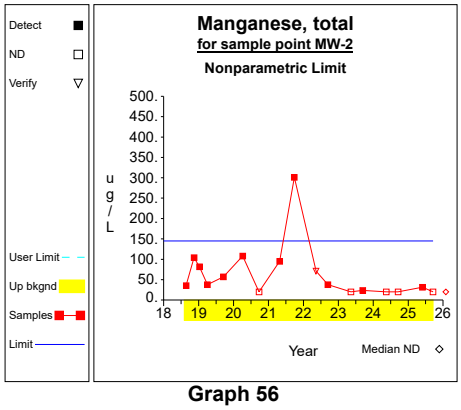
Graph 53



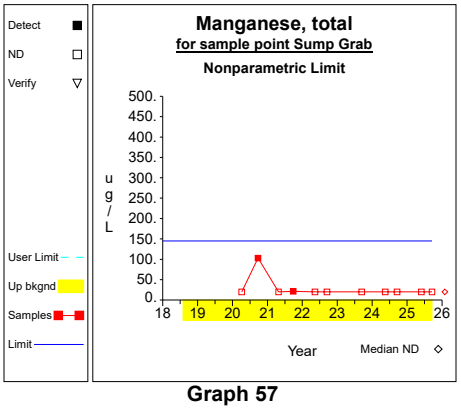
Graph 54



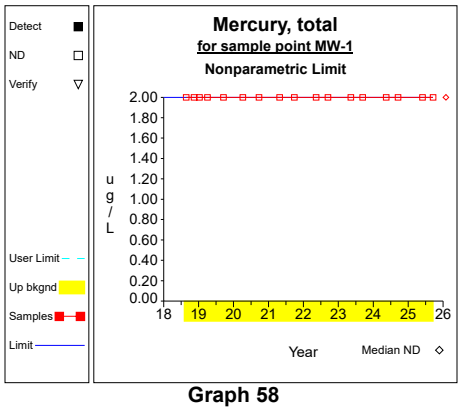
Graph 55



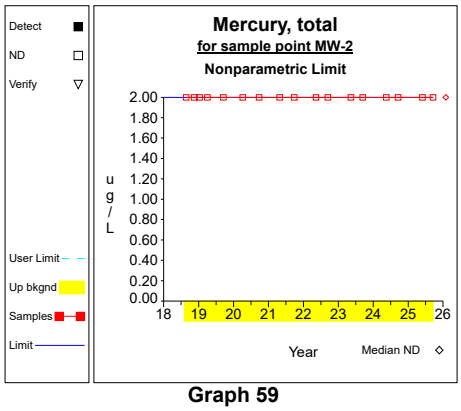
Graph 56



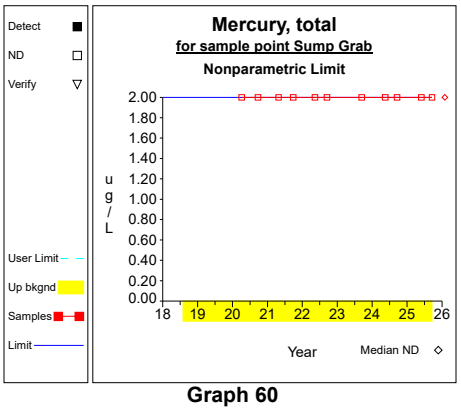
Graph 57



Graph 58



Graph 59



Graph 60

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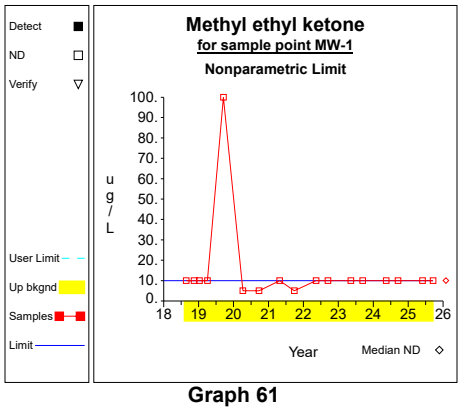
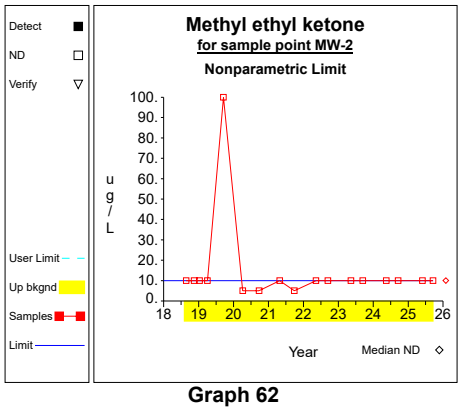
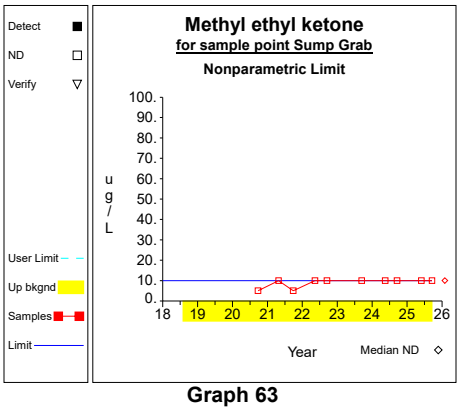
Up vs. Down Prediction Limits



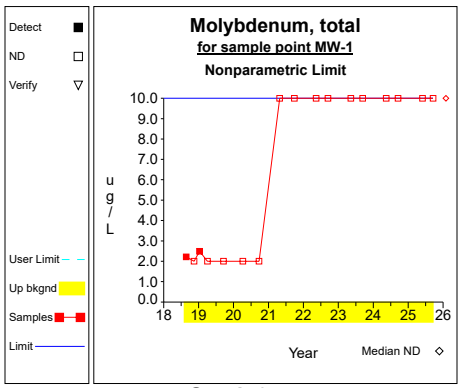
Graph 61



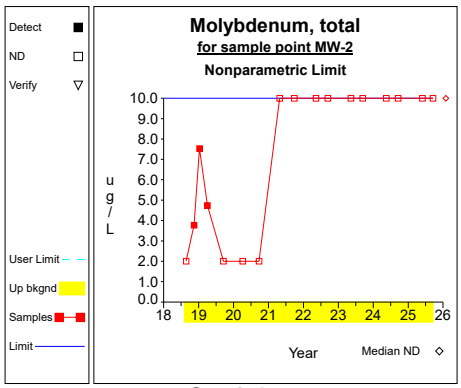
Graph 62



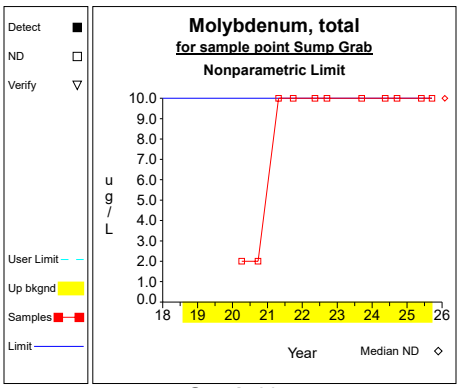
Graph 63



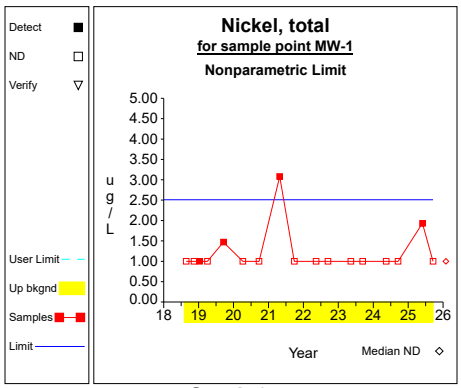
Graph 64



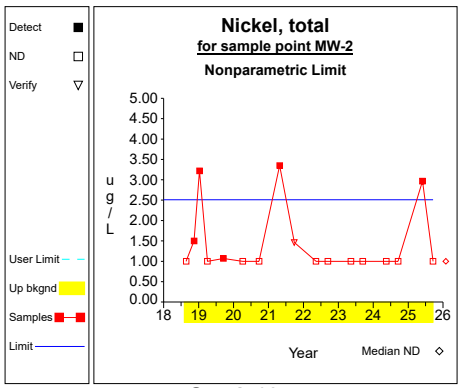
Graph 65



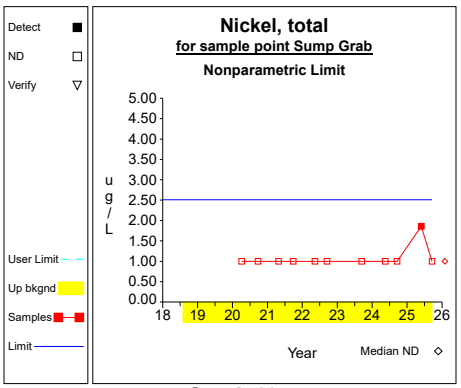
Graph 66



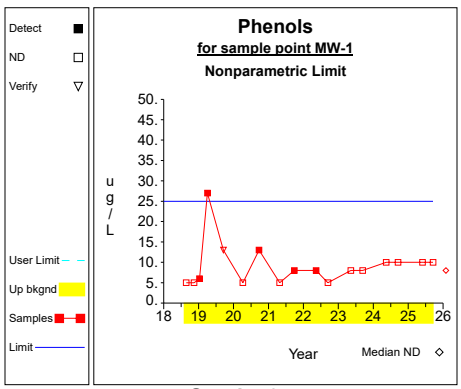
Graph 67



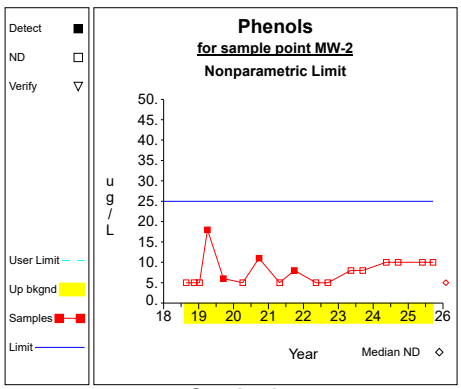
Graph 68



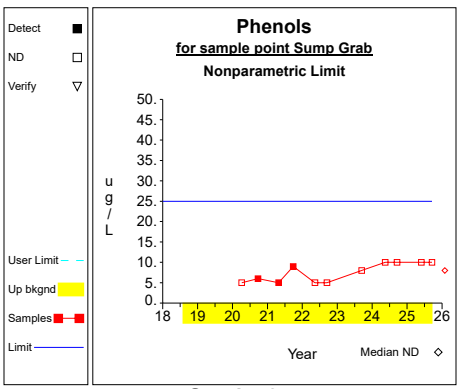
Graph 69



Graph 70



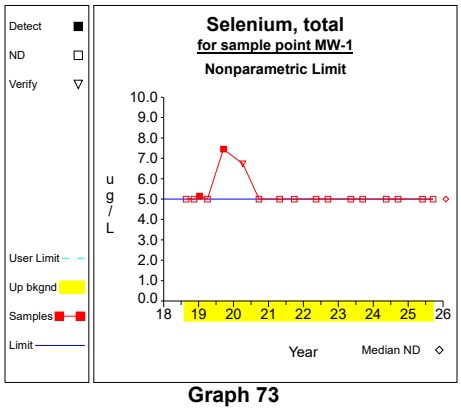
Graph 71



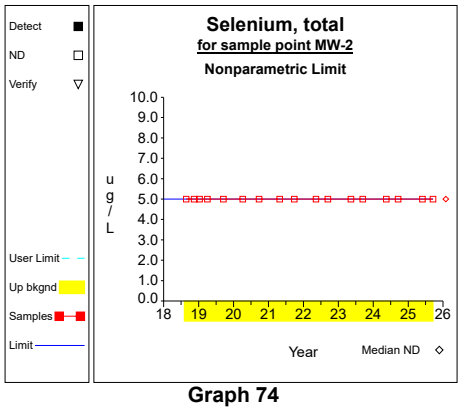
Graph 72

Prepared by: Otter Creek Environmental

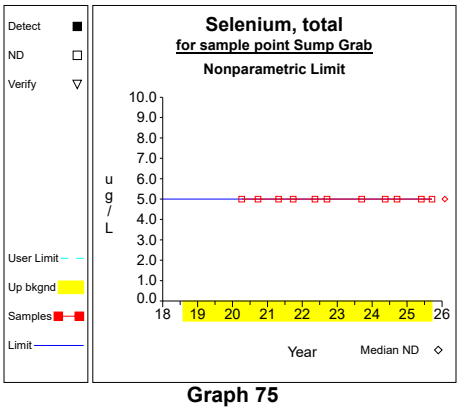
Up vs. Down Prediction Limits



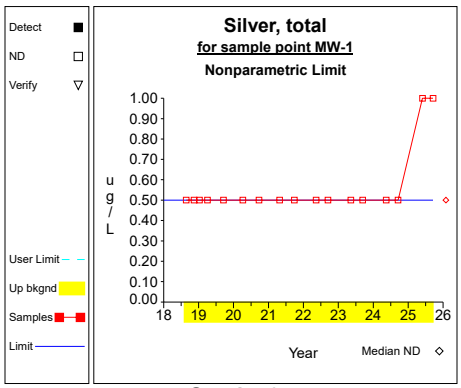
Graph 73



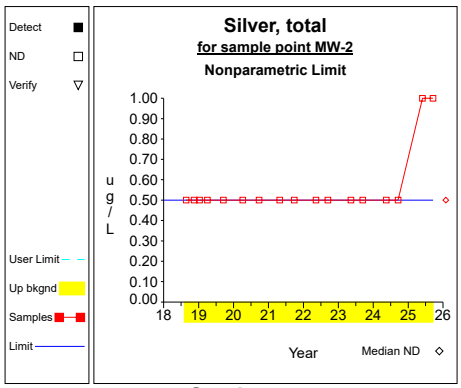
Graph 74



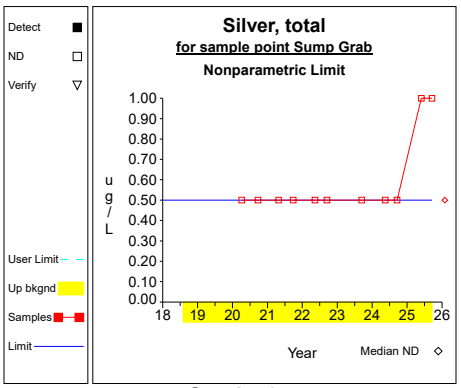
Graph 75



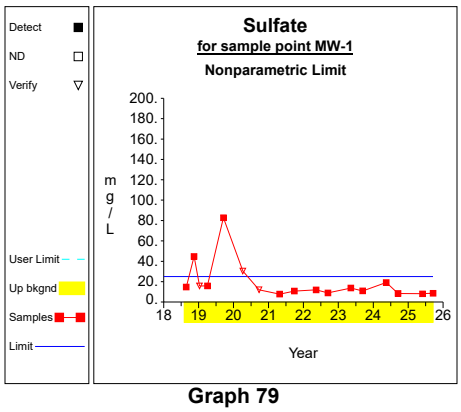
Graph 76



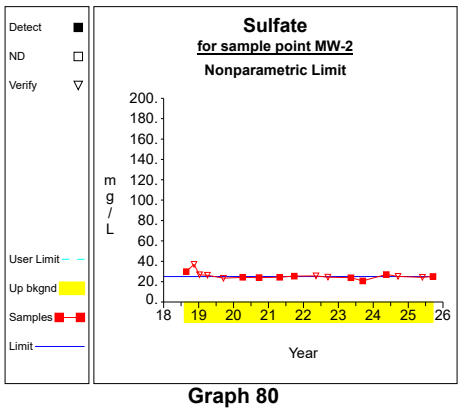
Graph 77



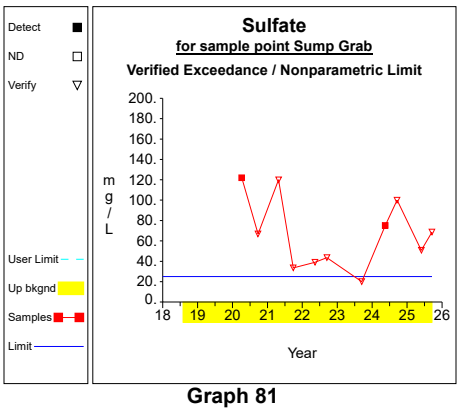
Graph 78



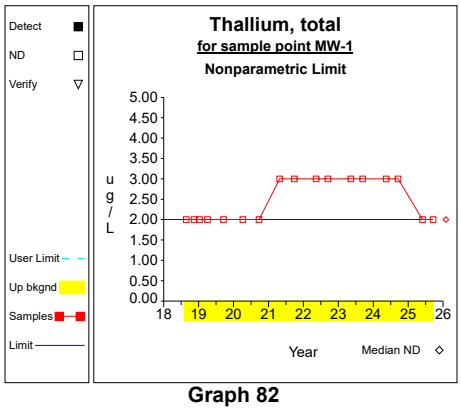
Graph 79



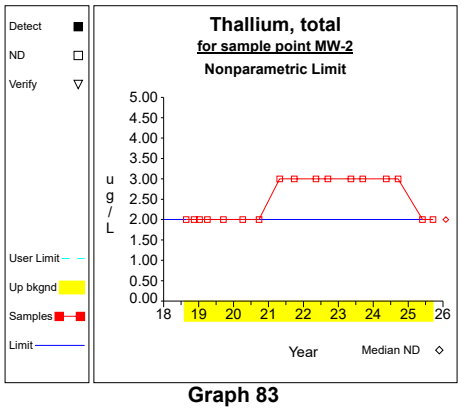
Graph 80



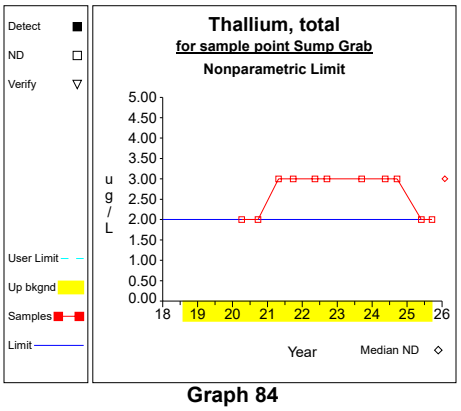
Graph 81



Graph 82



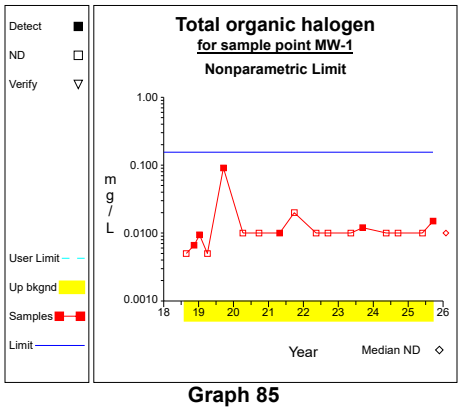
Graph 83



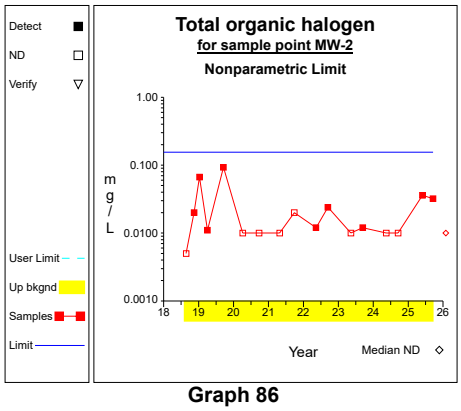
Graph 84

Prepared by: Otter Creek Environmental

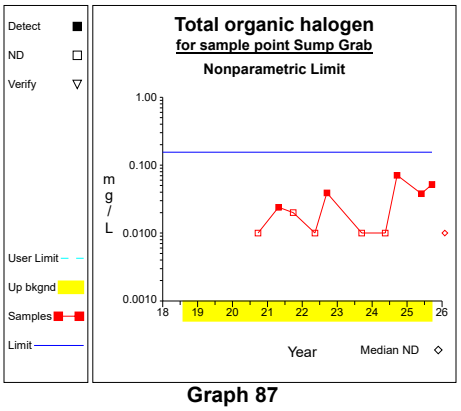
Up vs. Down Prediction Limits



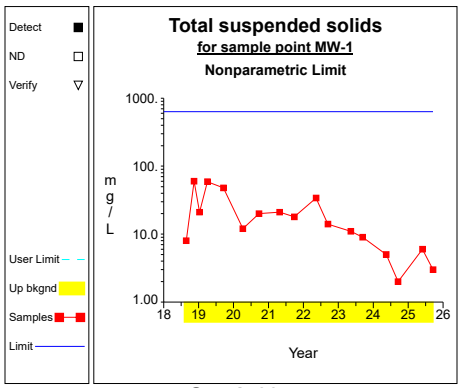
Graph 85



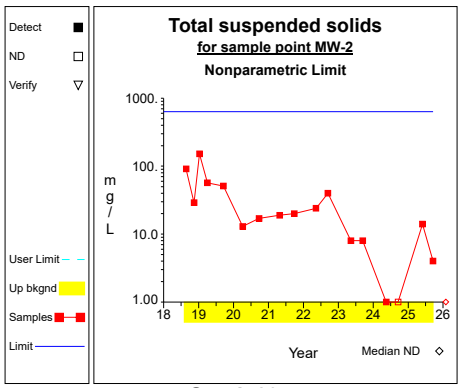
Graph 86



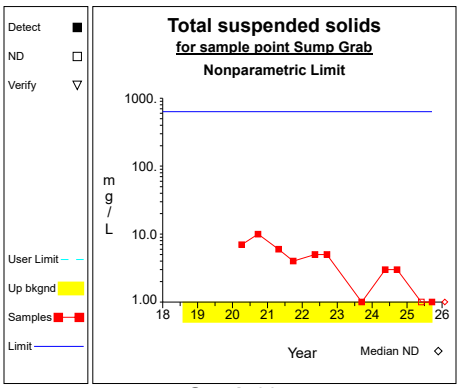
Graph 87



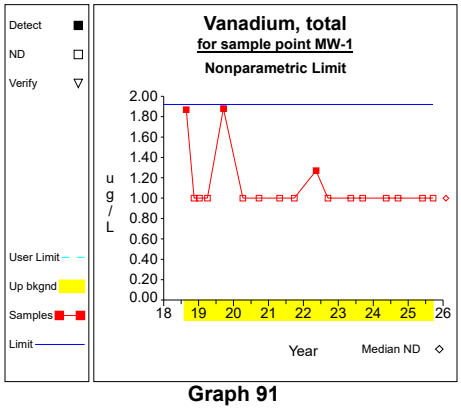
Graph 88



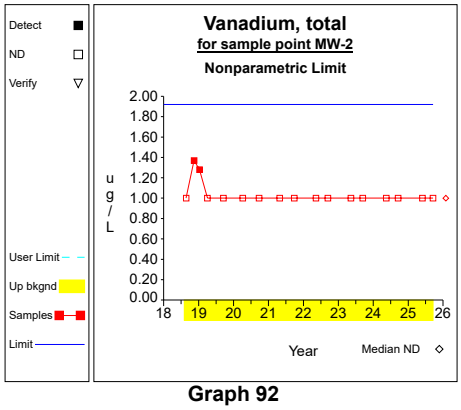
Graph 89



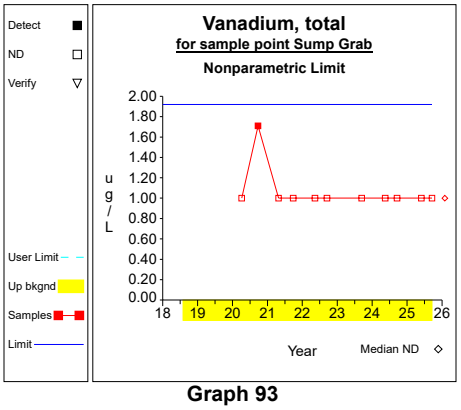
Graph 90



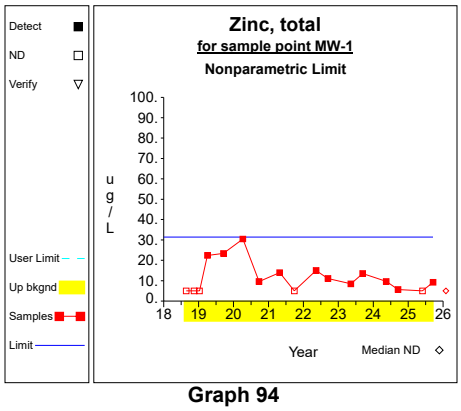
Graph 91



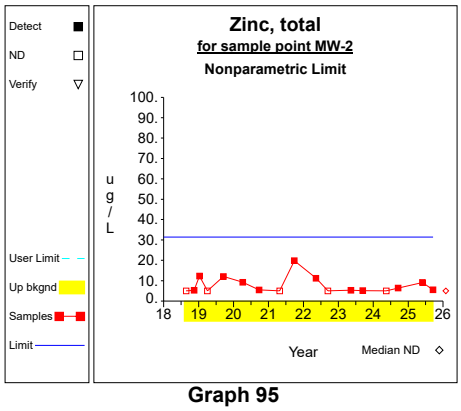
Graph 92



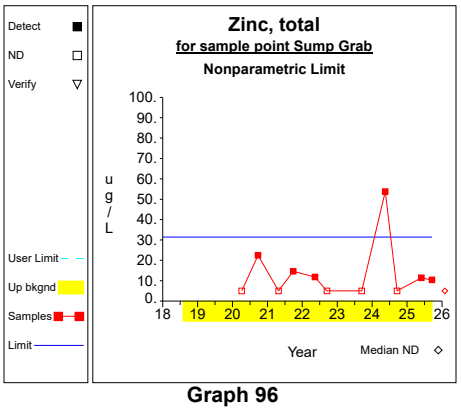
Graph 93



Graph 94



Graph 95

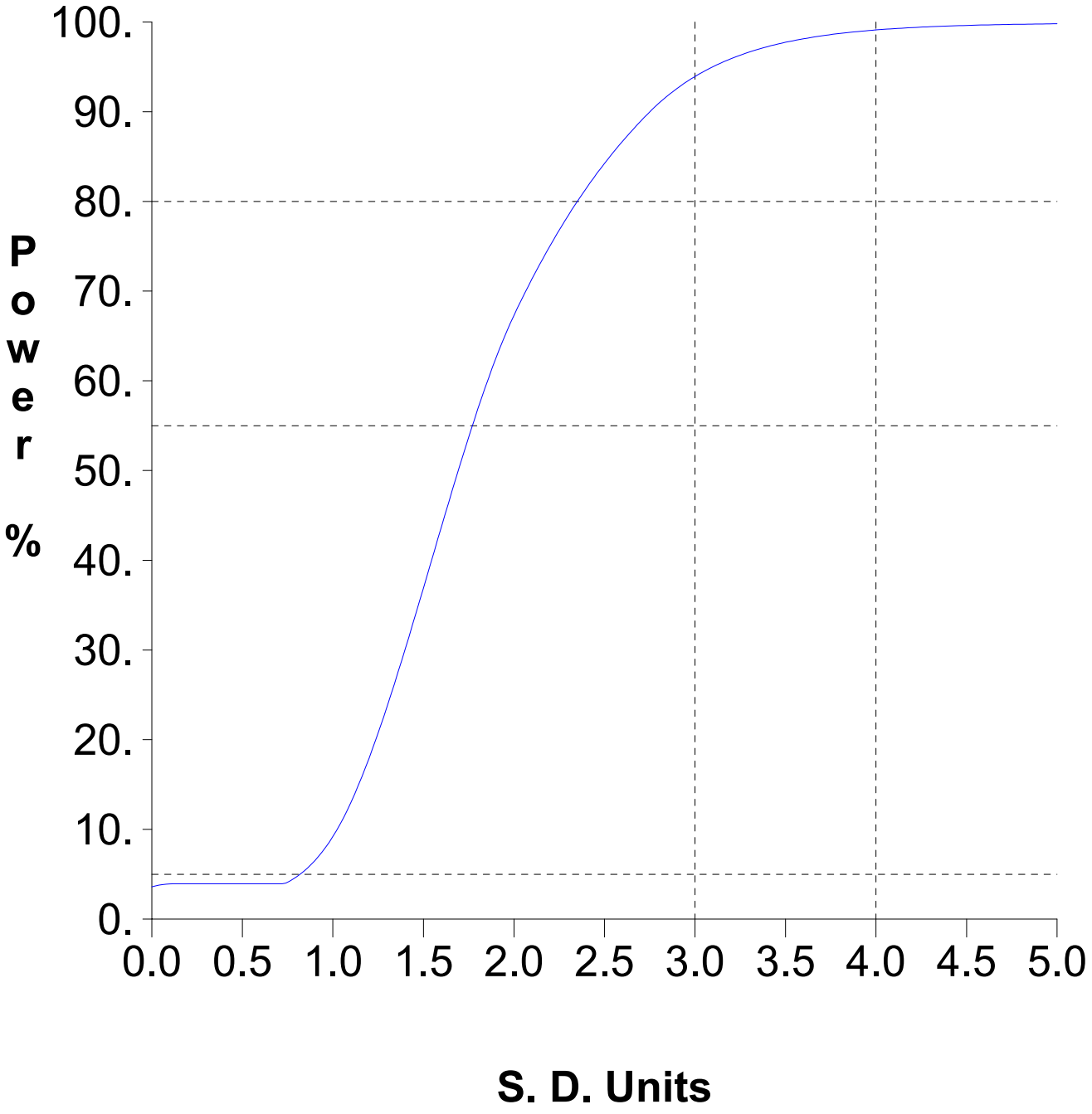


Graph 96

Prepared by: Otter Creek Environmental

False Positive and False Negative Rates for Current

Upgradient vs. Downgradient Monitoring Program



Attachment F

Summary Tables and Graphs for the Intrawell Comparisons
Second Semi-Annual Monitoring Event in 2025

Table 1

Summary Statistics and Intermediate Computations for Combined Shewhart-CUSUM Control Charts

Constituent	Units	Well	N(back)	N(mon)	N(tot)	Mean	SD	R(i-1)	R(i)	S(i-1)	S(i)	Limit	Type	Conf	
Aluminum, total	ug/L	MW-1	8	9	17	295.3625	422.9416	100.0000	100.0000	295.3625	295.3625	3044.4831	normal		
Aluminum, total	ug/L	MW-2	8	9	17	192.5375	223.5234	100.0000	100.0000	192.5375	192.5375	1645.4399	normal		
Aluminum, total	ug/L	MW-3	8	8	17	210.2125	172.5289	100.0000	100.0000	210.2125	210.2125	1331.6502	normal		
Aluminum, total	ug/L	MW-4	7	9	17	77.5571	31.4196	100.0000	100.0000	77.5571	77.5571	281.7844	normal		
Aluminum, total	ug/L	Sump Grab	8	3	11	101.5000	29.7706	100.0000	100.0000	101.5000	101.5000	295.0086	normal		
Ammonia nitrogen	mg/L	MW-1	8	9	17			0.1200	0.1000			0.1300	nonpar	.99	**
Ammonia nitrogen	mg/L	MW-2	8	9	17			0.1000	0.1000			0.2300	nonpar	.99	**
Ammonia nitrogen	mg/L	MW-3	8	9	17			0.1000	0.1000			0.2600	nonpar	.99	**
Ammonia nitrogen	mg/L	MW-4	8	9	17			0.1000	0.1000			0.1200	nonpar	.99	**
Ammonia nitrogen	mg/L	Sump Grab	8	3	11			0.1000	0.1100			0.2500	nonpar	.99	**
Antimony, total	ug/L	MW-1	8	9	17			5.0000	5.0000			5.0000	nonpar	.99	**
Antimony, total	ug/L	MW-2	8	9	17			5.0000	5.0000			5.0000	nonpar	.99	**
Antimony, total	ug/L	MW-3	8	9	17			5.0000	5.0000			5.0000	nonpar	.99	**
Antimony, total	ug/L	MW-4	8	9	17			5.0000	5.0000			5.0000	nonpar	.99	**
Antimony, total	ug/L	Sump Grab	8	3	11			5.0000	5.0000			5.0000	nonpar	.99	**
Arsenic, total	ug/L	MW-1	8	9	17			10.0000	10.0000			10.0000	nonpar	.99	**
Arsenic, total	ug/L	MW-2	8	9	17			10.0000	10.0000			10.0000	nonpar	.99	**
Arsenic, total	ug/L	MW-3	8	9	17			10.0000	10.0000			10.0000	nonpar	.99	**
Arsenic, total	ug/L	MW-4	8	9	17			10.0000	10.0000			10.0000	nonpar	.99	**
Arsenic, total	ug/L	Sump Grab	8	3	11			10.0000	10.0000			10.0000	nonpar	.99	**
Barium, total	ug/L	MW-1	8	9	17	60.2750	16.6684	38.4000	37.4000	60.2750	60.2750	168.6198	normal		
Barium, total	ug/L	MW-2	8	9	17	72.9625	32.1116	66.0000	62.1000	72.9625	72.9625	281.6881	normal		
Barium, total	ug/L	MW-3	8	9	17	30.7750	6.6257	29.3000	26.4000	30.7750	30.7750	73.8417	normal		
Barium, total	ug/L	MW-4	8	9	17	43.3000	4.9742	41.7000	40.2000	43.3000	43.3000	75.6324	normal		
Barium, total	ug/L	Sump Grab	8	3	11	108.3625	17.9467	123.0000	134.0000	108.3625	116.0533	225.0163	normal		
Beryllium, total	ug/L	MW-1	8	9	17			1.0000	1.0000			1.0000	nonpar	.99	**
Beryllium, total	ug/L	MW-2	8	9	17			1.0000	1.0000			1.0000	nonpar	.99	**
Beryllium, total	ug/L	MW-3	8	9	17			1.0000	1.0000			1.0000	nonpar	.99	**
Beryllium, total	ug/L	MW-4	8	9	17			1.0000	1.0000			1.0000	nonpar	.99	**
Beryllium, total	ug/L	Sump Grab	8	3	11			1.0000	1.0000			1.0000	nonpar	.99	**
Boron, total	ug/L	MW-1	8	9	17	21.7625	3.8000	20.0000	20.9000	21.7625	21.7625	46.4623	normal		
Boron, total	ug/L	MW-2	8	9	17	30.3750	13.7966	20.0000	20.0000	30.3750	30.3750	120.0526	normal		
Boron, total	ug/L	MW-3	8	9	17			20.0000	20.0000			20.0000	nonpar	.99	**
Boron, total	ug/L	MW-4	7	9	17	21.7143	4.1115	20.0000	20.0000	21.7143	21.7143	48.4393	normal		
Boron, total	ug/L	Sump Grab	8	3	11	53.0375	21.0596	53.4000	102.0000	53.0375	80.9404	189.9247	normal		
Cadmium, total	ug/L	MW-1	8	9	17			0.4000	0.4000			0.4000	nonpar	.99	**
Cadmium, total	ug/L	MW-2	8	9	17			0.4000	0.4000			0.4000	nonpar	.99	**
Cadmium, total	ug/L	MW-3	8	9	17			0.4000	0.4000			0.4000	nonpar	.99	**
Cadmium, total	ug/L	MW-4	8	9	17			0.4000	0.4000			0.4000	nonpar	.99	**
Cadmium, total	ug/L	Sump Grab	8	3	11			0.4000	0.4000			0.4000	nonpar	.99	**
Chemical oxygen demand	mg/L	MW-1	8	9	17	8.6250	2.8253	10.0000	12.0000	8.6250	9.1747	26.9892	normal		
Chemical oxygen demand	mg/L	MW-2	8	9	17	8.3750	3.5431	10.0000	10.0000	8.3750	8.3750	31.4052	normal		
Chemical oxygen demand	mg/L	MW-3	8	9	17	9.1250	3.0443	10.0000	10.0000	9.1250	9.1250	28.9131	normal		
Chemical oxygen demand	mg/L	MW-4	8	9	17	10.6250	4.3404	10.0000	10.0000	10.6250	10.6250	38.8378	normal		
Chemical oxygen demand	mg/L	Sump Grab	8	3	11	7.2500	0.7071	10.0000	10.0000	7.2500	9.2929	11.8462	normal		
Chloride	mg/L	MW-1	8	9	17	5.8200	2.4947	3.1300	3.2900	5.8200	5.8200	22.0355	normal		

N(back) and N(mon) = Non-outlier measurements in the background and monitoring periods.
N(tot) = All independent measurements for that constituent and well.
For transformed data, mean and SD in transformed units and control limit in original units.
Conf = confidence level for passing initial test or one of two verification resamples (nonparametric test only).
* - Insufficient Data.
** - Detection Frequency < 25%.
*** - Zero Variance.

Table 1

Summary Statistics and Intermediate Computations for Combined Shewhart-CUSUM Control Charts

Constituent	Units	Well	N(back)	N(mon)	N(tot)	Mean	SD	R(i-1)	R(i)	S(i-1)	S(i)	Limit	Type	Conf	
Chloride	mg/L	MW-2	8	9	17	29.1675	28.1862	2.7700	2.9400	29.1675	29.1675	212.3775	normal		
Chloride	mg/L	MW-3	8	9	17	1.3752	1.3315	0.5920	0.6230	1.3752	1.3752	10.0303	normal		
Chloride	mg/L	MW-4	8	9	17	10.7650	11.4330	3.1700	2.9200	10.7650	10.7650	85.0797	normal		
Chloride	mg/L	Sump Grab	8	3	11	21.6750	7.9688	14.4000	15.1000	21.6750	21.6750	73.4724	normal		
Chromium, total	ug/L	MW-1	8	9	17	5.2988	4.0865	3.0800	4.2600	5.2988	5.2988	31.8611	normal		
Chromium, total	ug/L	MW-2	6	9	17	6.2000	1.2036	6.9900	3.9400	6.2000	6.2000	14.0234	normal		
Chromium, total	ug/L	MW-3	8	9	17	7.3575	6.3409	6.5900	1.1100	7.3575	7.3575	48.5731	normal		
Chromium, total	ug/L	MW-4	8	9	17	7.5900	4.6921	4.4300	2.5100	7.5900	7.5900	38.0883	normal		
Chromium, total	ug/L	Sump Grab	8	3	11			1.0000	1.0000			1.5000	nonpar	.99	**
Cobalt, total	ug/L	MW-1	8	9	17			2.0000	2.0000			2.0000	nonpar	.99	**
Cobalt, total	ug/L	MW-2	8	9	17			2.0000	2.0000			2.0000	nonpar	.99	**
Cobalt, total	ug/L	MW-3	8	9	17			2.0000	2.0000			2.0000	nonpar	.99	**
Cobalt, total	ug/L	MW-4	8	9	17			2.0000	2.0000			2.0000	nonpar	.99	**
Cobalt, total	ug/L	Sump Grab	8	3	11			2.0000	2.0000			2.0000	nonpar	.99	**
Copper, total	ug/L	MW-1	8	9	17	3.9662	1.8957	3.0000	3.0000	3.9662	3.9662	16.2886	normal		
Copper, total	ug/L	MW-2	8	9	17	2.6725	1.1713	3.0000	3.0000	2.6725	2.6725	10.2858	normal		
Copper, total	ug/L	MW-3	8	9	17	7.3413	10.3878	3.0000	3.0000	7.3413	7.3413	74.8616	normal		
Copper, total	ug/L	MW-4	8	9	17	3.0838	2.0070	3.0000	3.0000	3.0838	3.0838	16.1294	normal		
Copper, total	ug/L	Sump Grab	8	3	11	6.8725	4.8530	3.0000	3.2100	6.8725	6.8725	38.4171	normal		
Fluoride	mg/L	MW-1	8	9	17	0.1406	0.0651	0.1000	0.1000	0.1406	0.1406	0.5635	normal		
Fluoride	mg/L	MW-2	8	9	17	0.1781	0.1119	0.1310	0.1340	0.1781	0.1781	0.9055	normal		
Fluoride	mg/L	MW-3	8	9	17	0.1205	0.0431	0.1000	0.1000	0.1205	0.1205	0.4003	normal		
Fluoride	mg/L	MW-4	8	9	17	0.1548	0.0681	0.1490	0.1110	0.1548	0.1548	0.5972	normal		
Fluoride	mg/L	Sump Grab	8	3	11	0.1478	0.0182	0.1330	0.1000	0.1478	0.1478	0.2661	normal		
Formaldehyde	ug/L	MW-1	8	9	17			100.0000	100.0000			100.0000	nonpar	.99	**
Formaldehyde	ug/L	MW-2	8	9	17			100.0000	100.0000			100.0000	nonpar	.99	**
Formaldehyde	ug/L	MW-3	8	9	17			100.0000	100.0000			100.0000	nonpar	.99	**
Formaldehyde	ug/L	MW-4	8	9	17			100.0000	100.0000			100.0000	nonpar	.99	**
Formaldehyde	ug/L	Sump Grab	8	2	10			100.0000	100.0000			100.0000	nonpar	.99	**
Iron, total	ug/L	MW-1	8	9	17	232.1375	256.1545	26.9000	53.5000	232.1375	232.1375	1897.1415	normal		
Iron, total	ug/L	MW-2	8	9	17	414.6125	502.0142	57.9000	36.1000	414.6125	414.6125	3677.7047	normal		
Iron, total	ug/L	MW-3	8	8	17	485.8500	557.5418	31.0000	15.7000	485.8500	485.8500	4109.8717	normal		
Iron, total	ug/L	MW-4	8	9	17	273.4000	351.1964	22.5000	16.4000	273.4000	273.4000	2556.1763	normal		
Iron, total	ug/L	Sump Grab	8	3	11	451.2125	1131.6694	41.0000	43.4000	451.2125	451.2125	7807.0639	normal		
Lead, total	ug/L	MW-1	8	9	17			2.0000	2.0000			2.0000	nonpar	.99	**
Lead, total	ug/L	MW-2	8	9	17			2.0000	2.0000			2.2100	nonpar	.99	**
Lead, total	ug/L	MW-3	8	9	17			2.0000	2.0000			2.4100	nonpar	.99	**
Lead, total	ug/L	MW-4	8	9	17			2.0000	2.0000			3.0100	nonpar	.99	**
Lead, total	ug/L	Sump Grab	8	3	11			2.0000	2.0000			2.0000	nonpar	.99	**
Magnesium, total	mg/L	MW-1	8	9	17	39.3125	9.1299	49.9000	47.8000	41.0276	40.3852	98.6570	normal		
Magnesium, total	mg/L	MW-2	8	9	17	60.7625	12.3983	48.1000	46.1000	60.7625	60.7625	141.3512	normal		
Magnesium, total	mg/L	MW-3	8	9	17	26.5625	4.8447	22.5000	21.1000	26.5625	26.5625	58.0531	normal		
Magnesium, total	mg/L	MW-4	8	9	17	51.7250	9.0714	41.9000	41.0000	51.7250	51.7250	110.6892	normal		
Magnesium, total	mg/L	Sump Grab	8	3	11	38.3625	3.9935	38.5000	32.2000	38.3625	38.3625	64.3205	normal		
Manganese, total	ug/L	MW-1	8	9	17	31.3875	21.5201	20.0000	20.0000	31.3875	31.3875	171.2683	normal		
Manganese, total	ug/L	MW-2	8	9	17	67.3500	34.2578	31.4000	20.0000	67.3500	67.3500	290.0255	normal		

N(back) and N(mon) = Non-outlier measurements in the background and monitoring periods.
N(tot) = All independent measurements for that constituent and well.
For transformed data, mean and SD in transformed units and control limit in original units.
Conf = confidence level for passing initial test or one of two verification resamples (nonparametric test only).
* - Insufficient Data.
** - Detection Frequency < 25%.
*** - Zero Variance.

Table 1

Summary Statistics and Intermediate Computations for Combined Shewhart-CUSUM Control Charts

Constituent	Units	Well	N(back)	N(mon)	N(tot)	Mean	SD	R(i-1)	R(i)	S(i-1)	S(i)	Limit	Type	Conf	
Manganese, total	ug/L	MW-3	8	8	17	38.1250	27.8922	20.0000	20.0000	38.1250	38.1250	219.4245	normal		
Manganese, total	ug/L	MW-4	7	9	17	21.3429	2.1801	20.0000	20.0000	21.3429	21.3429	35.5135	normal		
Manganese, total	ug/L	Sump Grab	8	3	11	30.5625	29.2739	20.0000	20.0000	30.5625	30.5625	220.8427	normal		
Mercury, total	ug/L	MW-1	8	9	17			2.0000	2.0000			2.0000	nonpar	.99	**
Mercury, total	ug/L	MW-2	8	9	17			2.0000	2.0000			2.0000	nonpar	.99	**
Mercury, total	ug/L	MW-3	8	9	17			2.0000	2.0000			2.0000	nonpar	.99	**
Mercury, total	ug/L	MW-4	8	9	17			2.0000	2.0000			2.0000	nonpar	.99	**
Mercury, total	ug/L	Sump Grab	8	3	11			2.0000	2.0000			2.0000	nonpar	.99	**
Methyl ethyl ketone	ug/L	MW-1	8	9	17			10.0000	10.0000			10.0000	nonpar	.99	**
Methyl ethyl ketone	ug/L	MW-2	8	9	17			10.0000	10.0000			10.0000	nonpar	.99	**
Methyl ethyl ketone	ug/L	MW-3	8	9	17			10.0000	10.0000			10.0000	nonpar	.99	**
Methyl ethyl ketone	ug/L	MW-4	8	9	17			10.0000	10.0000			10.0000	nonpar	.99	**
Methyl ethyl ketone	ug/L	Sump Grab	7	3	10								nonpar *		**
Molybdenum, total	ug/L	MW-1	8	9	17	2.0888	0.1795	10.0000	10.0000	2.0888	2.0888	3.2554	normal		
Molybdenum, total	ug/L	MW-2	8	9	17	3.2550	2.0221	10.0000	10.0000	3.2550	3.2550	16.3984	normal		
Molybdenum, total	ug/L	MW-3	8	9	17	2.3863	0.7607	10.0000	10.0000	2.3863	2.3863	7.3310	normal		
Molybdenum, total	ug/L	MW-4	8	9	17	2.3800	0.7205	10.0000	10.0000	2.3800	2.3800	7.0632	normal		
Molybdenum, total	ug/L	Sump Grab	8	3	11			10.0000	10.0000			10.0000	nonpar	.99	**
Nickel, total	ug/L	MW-1	8	9	17	1.3188	0.7304	1.9300	1.0000	1.3188	1.3188	6.0664	normal		
Nickel, total	ug/L	MW-2	6	9	17	1.0950	0.2004	2.9700	1.0000	2.7696	1.0950	2.3974	normal		
Nickel, total	ug/L	MW-3	8	9	17	1.6000	0.9365	1.4000	1.0000	1.6000	1.6000	7.6873	normal		
Nickel, total	ug/L	MW-4	8	9	17	1.2488	0.5285	1.8300	1.0000	1.3015	1.2488	4.6843	normal		
Nickel, total	ug/L	Sump Grab	8	3	11			1.8600	1.0000			1.0000	nonpar	.99	**
Phenols	ug/L	MW-1	8	9	17	9.8750	7.7724	10.0000	10.0000	9.8750	9.8750	60.3958	normal		
Phenols	ug/L	MW-2	8	9	17	7.5000	4.7208	10.0000	10.0000	7.5000	7.5000	38.1850	normal		
Phenols	ug/L	MW-3	8	9	17	8.0000	6.1644	10.0000	10.0000	8.0000	8.0000	48.0687	normal		
Phenols	ug/L	MW-4	8	9	17	8.3125	8.0487	10.0000	10.0000	8.3125	8.3125	60.6289	normal		
Phenols	ug/L	Sump Grab	8	3	11	5.6250	1.4079	10.0000	10.0000	5.6250	5.6250	14.7763	normal		
Selenium, total	ug/L	MW-1	8	9	17	5.5413	0.9765	5.0000	5.0000	5.5413	5.5413	11.8882	normal		
Selenium, total	ug/L	MW-2	8	9	17			5.0000	5.0000			5.0000	nonpar	.99	**
Selenium, total	ug/L	MW-3	8	9	17			5.0000	5.0000			5.0000	nonpar	.99	**
Selenium, total	ug/L	MW-4	8	9	17			5.0000	5.0000			5.0000	nonpar	.99	**
Selenium, total	ug/L	Sump Grab	8	3	11			5.0000	5.0000			5.0000	nonpar	.99	**
Silver, total	ug/L	MW-1	8	9	17			1.0000	1.0000			0.5000	nonpar	.99	**
Silver, total	ug/L	MW-2	8	9	17			1.0000	1.0000			0.5000	nonpar	.99	**
Silver, total	ug/L	MW-3	8	9	17			1.0000	1.0000			0.5000	nonpar	.99	**
Silver, total	ug/L	MW-4	8	9	17			1.0000	1.0000			0.5000	nonpar	.99	**
Silver, total	ug/L	Sump Grab	8	3	11			1.0000	1.0000			0.5000	nonpar	.99	**
Sulfate	mg/L	MW-1	8	9	17	28.0150	25.1579	8.0900	8.6700	28.0150	28.0150	191.5417	normal		
Sulfate	mg/L	MW-2	8	9	17	27.0000	4.5416	24.3000	25.2000	27.0000	27.0000	56.5201	normal		
Sulfate	mg/L	MW-3	8	9	17	4.5625	0.4935	4.9700	5.1800	5.7405	5.8646	7.7702	normal		
Sulfate	mg/L	MW-4	8	9	17	9.9363	6.6715	9.9500	8.8700	9.9363	9.9363	53.3012	normal		
Sulfate	mg/L	Sump Grab	8	3	11	65.0375	38.7615	50.8000	68.8000	65.0375	65.0375	316.9875	normal		
Thallium, total	ug/L	MW-1	8	9	17			2.0000	2.0000			2.0000	nonpar	.99	**
Thallium, total	ug/L	MW-2	8	9	17			2.0000	2.0000			2.0000	nonpar	.99	**
Thallium, total	ug/L	MW-3	8	9	17			2.0000	2.0000			2.0000	nonpar	.99	**

N(back) and N(mon) = Non-outlier measurements in the background and monitoring periods.
N(tot) = All independent measurements for that constituent and well.
For transformed data, mean and SD in transformed units and control limit in original units.
Conf = confidence level for passing initial test or one of two verification resamples (nonparametric test only).
* - Insufficient Data.
** - Detection Frequency < 25%.
*** - Zero Variance.

Table 1

Summary Statistics and Intermediate Computations for Combined Shewhart-CUSUM Control Charts

Constituent	Units	Well	N(back)	N(mon)	N(tot)	Mean	SD	R(i-1)	R(i)	S(i-1)	S(i)	Limit	Type	Conf	
Thallium, total	ug/L	MW-4	8	9	17			2.0000	2.0000			2.0000	nonpar	.99	**
Thallium, total	ug/L	Sump Grab	8	3	11			2.0000	2.0000			3.0000	nonpar	.99	**
Total organic halogen	mg/L	MW-1	7	9	17	0.0066	0.0022	0.0100	0.0150	0.0066	0.0128	0.0210	normal		
Total organic halogen	mg/L	MW-2	8	9	17	0.0289	0.0325	0.0360	0.0320	0.0289	0.0289	0.2401	normal		
Total organic halogen	mg/L	MW-3	8	9	17	0.0161	0.0139	0.0320	0.1550	0.0181	0.1430	0.1067	normal		
Total organic halogen	mg/L	MW-4	6	9	17	0.0142	0.0048	0.0870	0.0100	0.0822	0.0142	0.0453	normal		
Total organic halogen	mg/L	Sump Grab	7	3	10	0.0161	0.0113	0.0380	0.0520	0.0702	0.0947	0.0899	normal		
Total suspended solids	mg/L	MW-1	8	9	17	31.1250	21.1284	6.0000	3.0000	31.1250	31.1250	168.4598	normal		
Total suspended solids	mg/L	MW-2	8	9	17	53.6250	47.6443	14.0000	4.0000	53.6250	53.6250	363.3131	normal		
Total suspended solids	mg/L	MW-3	8	9	17	83.1250	43.1126	79.0000	1.0000	83.1250	83.1250	363.3569	normal		
Total suspended solids	mg/L	MW-4	6	9	17	26.6667	11.3078	5.0000	3.0000	26.6667	26.6667	100.1675	normal		
Total suspended solids	mg/L	Sump Grab	8	3	11	5.1250	2.6959	1.0000	1.0000	5.1250	5.1250	22.6483	normal		
Vanadium, total	ug/L	MW-1	8	9	17	1.2188	0.4051	1.0000	1.0000	1.2188	1.2188	3.8516	normal		
Vanadium, total	ug/L	MW-2	8	9	17	1.0813	0.1524	1.0000	1.0000	1.0813	1.0813	2.0716	normal		
Vanadium, total	ug/L	MW-3	8	9	17			1.0000	1.0000			1.4100	nonpar	.99	**
Vanadium, total	ug/L	MW-4	8	9	17			1.0000	1.0000			1.2600	nonpar	.99	**
Vanadium, total	ug/L	Sump Grab	8	3	11			1.0000	1.0000			1.7100	nonpar	.99	**
Zinc, total	ug/L	MW-1	8	9	17	14.3588	9.9482	5.0000	9.1800	14.3588	14.3588	79.0220	normal		
Zinc, total	ug/L	MW-2	8	9	17	7.4325	3.2733	9.1100	5.5500	7.4325	7.4325	28.7091	normal		
Zinc, total	ug/L	MW-3	8	9	17	11.2038	6.8501	5.0000	5.0000	11.2038	11.2038	55.7291	normal		
Zinc, total	ug/L	MW-4	8	9	17	14.4125	8.7494	5.0000	5.0400	14.4125	14.4125	71.2839	normal		
Zinc, total	ug/L	Sump Grab	8	3	11	15.3375	16.7809	11.4000	10.4000	15.3375	15.3375	124.4130	normal		

N(back) and N(mon) = Non-outlier measurements in the background and monitoring periods.
N(tot) = All independent measurements for that constituent and well.
For transformed data, mean and SD in transformed units and control limit in original units.
Conf = confidence level for passing initial test or one of two verification resamples (nonparametric test only).
* - Insufficient Data.
** - Detection Frequency < 25%.
*** - Zero Variance.

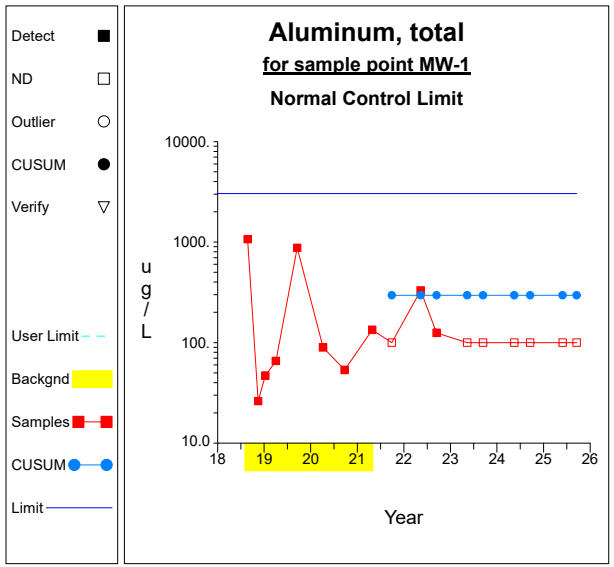
Table 4

Dixon's Test Outliers
1% Significance Level

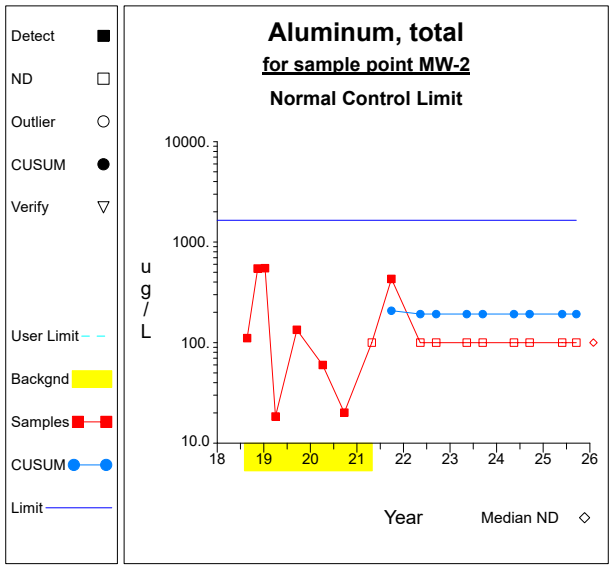
Constituent	Units	Well	Date	Result	ND Qualifier	Date Range	N	Critical Value
Aluminum, total	ug/L	MW-4	11/30/2018	755.0000		08/23/2018-04/27/2021	8	0.6808
Boron, total	ug/L	MW-4	08/28/2018	90.1000		08/28/2018-04/27/2021	8	0.6808
Chromium, total	ug/L	MW-2	08/23/2018	1.0000	< 1.0000	08/23/2018-04/27/2021	8	0.6371
Chromium, total	ug/L	MW-2	04/01/2019	1.0000	< 1.0000	08/23/2018-04/27/2021	8	0.6371
Manganese, total	ug/L	MW-4	11/30/2018	100.0000		08/28/2018-04/27/2021	8	0.6808
Nickel, total	ug/L	MW-2	01/10/2019	3.2200		08/23/2018-04/27/2021	8	0.6371
Nickel, total	ug/L	MW-2	04/27/2021	3.3500		08/23/2018-04/27/2021	8	0.6371
Total organic halogen	mg/L	MW-1	09/17/2019	0.0910		08/23/2018-04/27/2021	8	0.6808
Total suspended solids	mg/L	MW-4	08/28/2018	500.0000		08/28/2018-04/27/2021	8	0.6371
Total suspended solids	mg/L	MW-4	11/30/2018	237.0000		08/28/2018-04/27/2021	8	0.6371

N = Total number of independent measurements in background at each well.
Date Range = Dates of the first and last measurements included in background at each well.
Critical Value depends on the significance level and on N-1 when the two most extreme values are tested or N for the most extreme value.

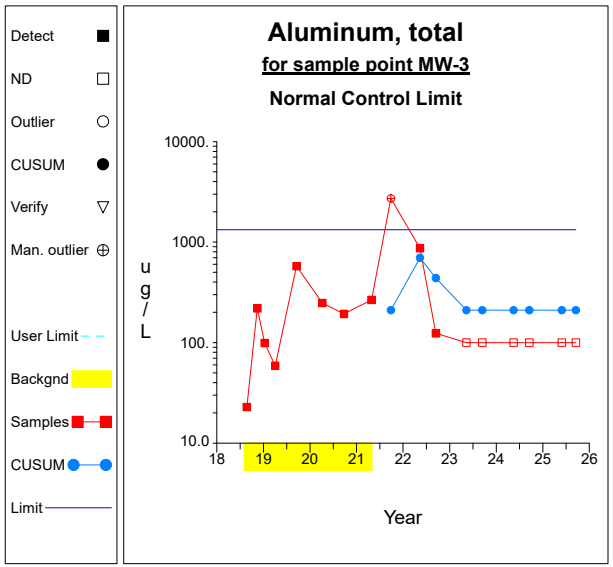
Intra-Well Control Charts / Prediction Limits



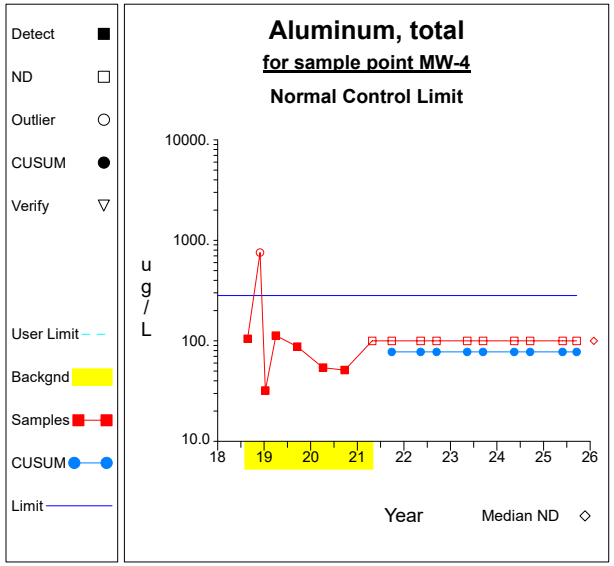
Graph 1



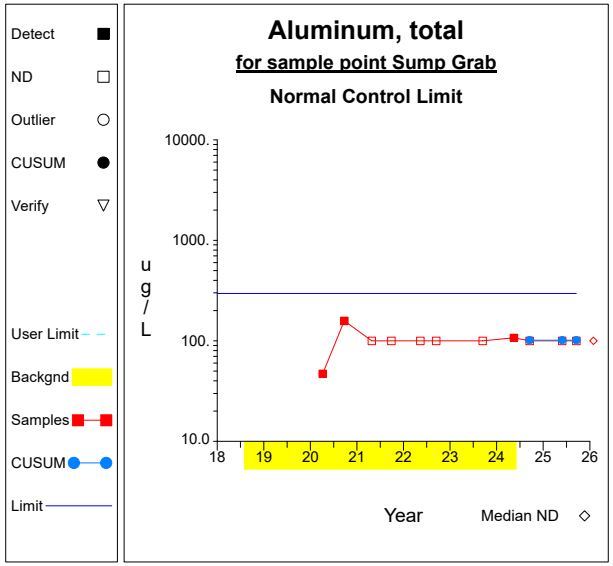
Graph 2



Graph 3

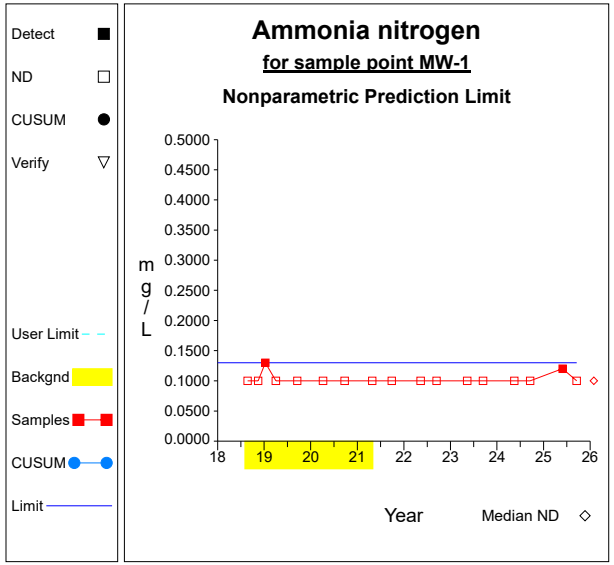


Graph 4

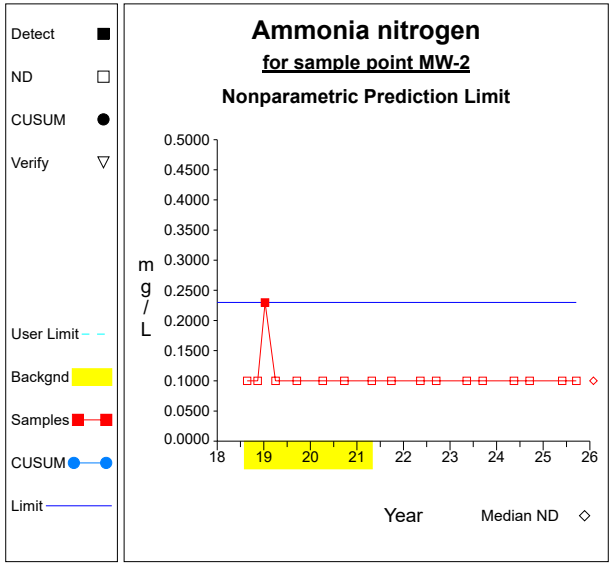


Graph 5

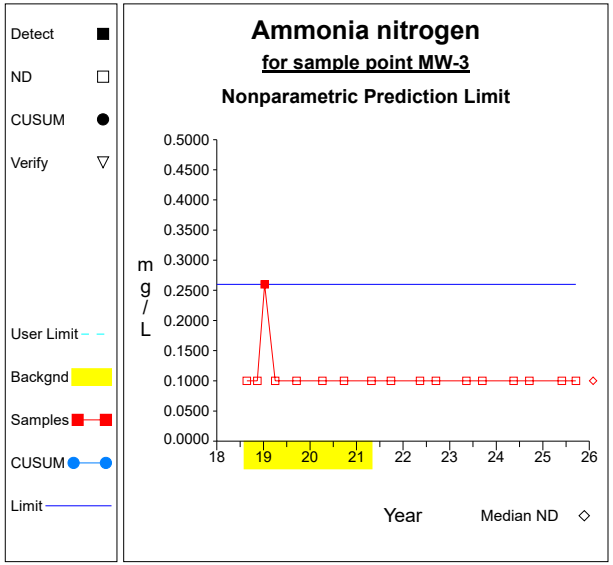
Intra-Well Control Charts / Prediction Limits



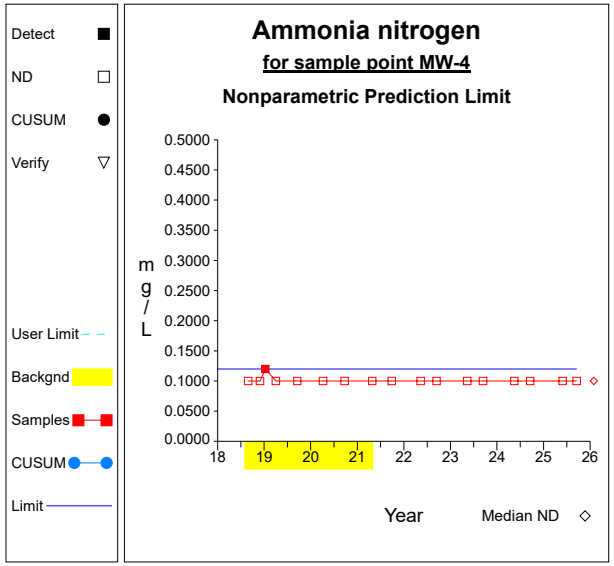
Graph 6



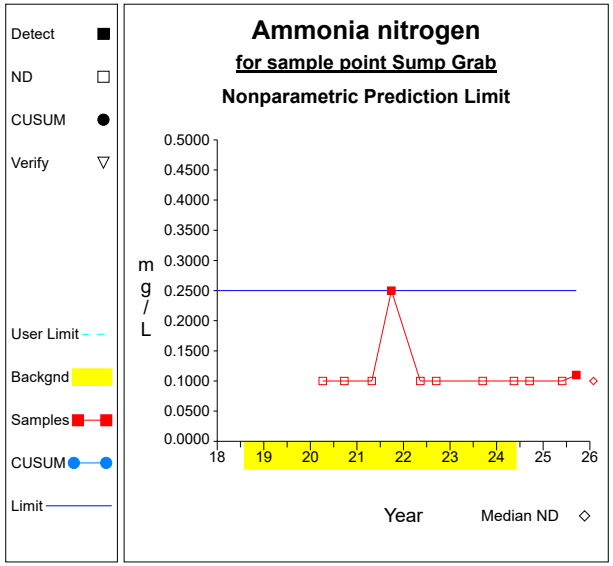
Graph 7



Graph 8

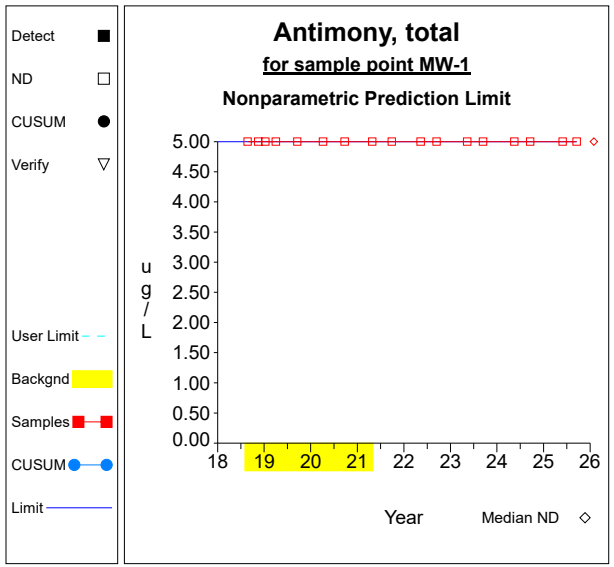


Graph 9

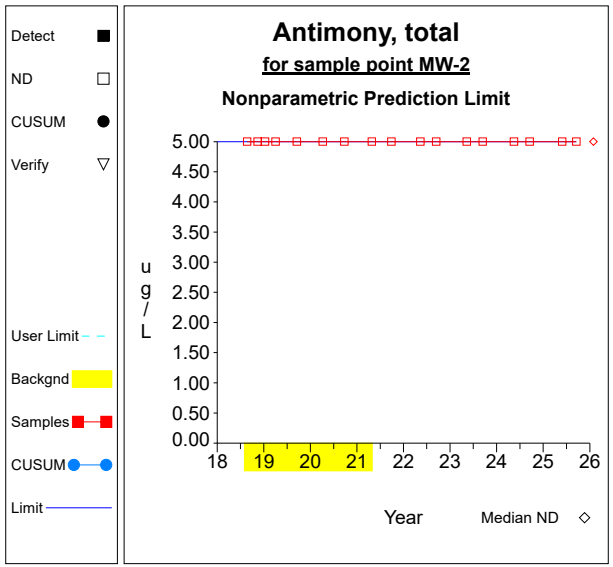


Graph 10

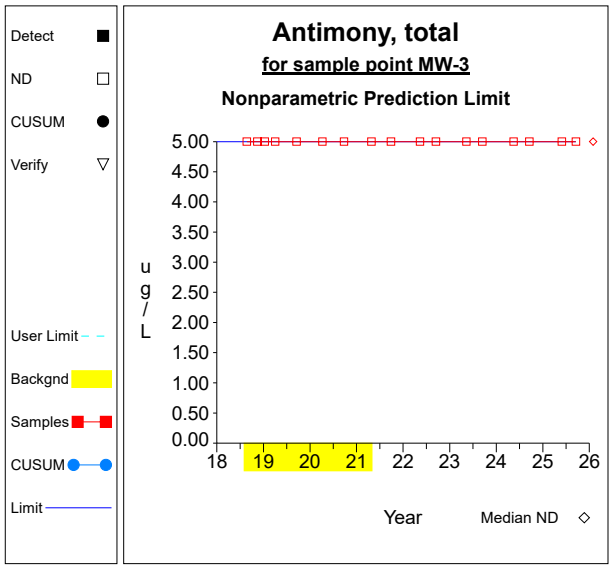
Intra-Well Control Charts / Prediction Limits



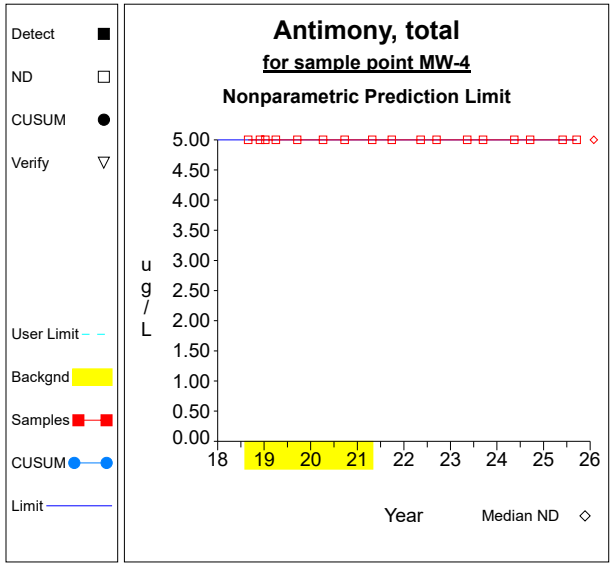
Graph 11



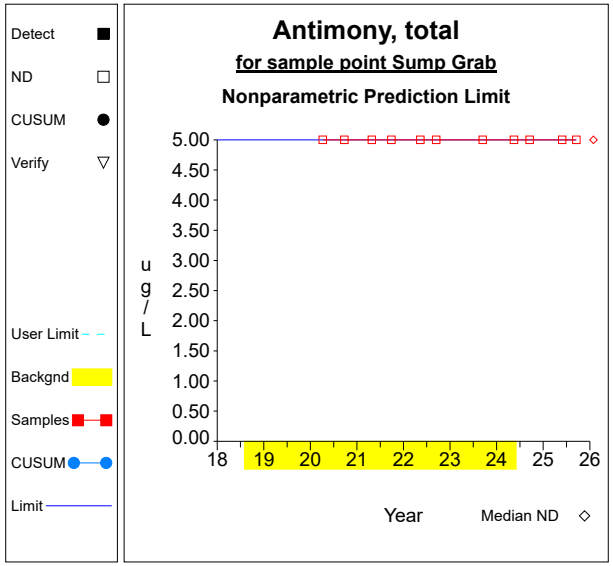
Graph 12



Graph 13



Graph 14



Graph 15

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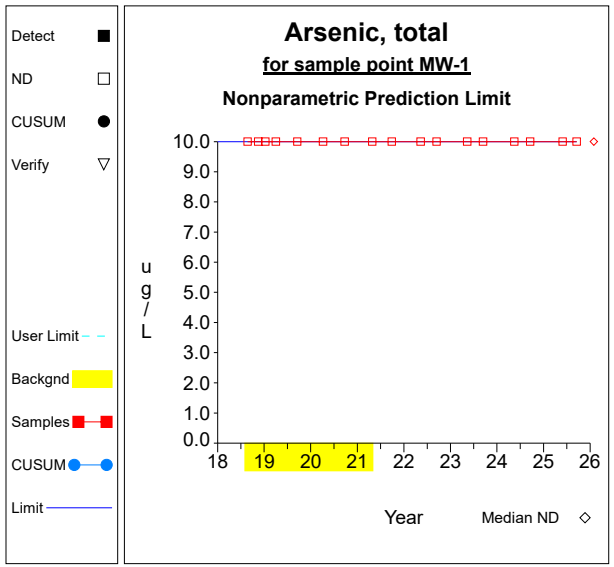
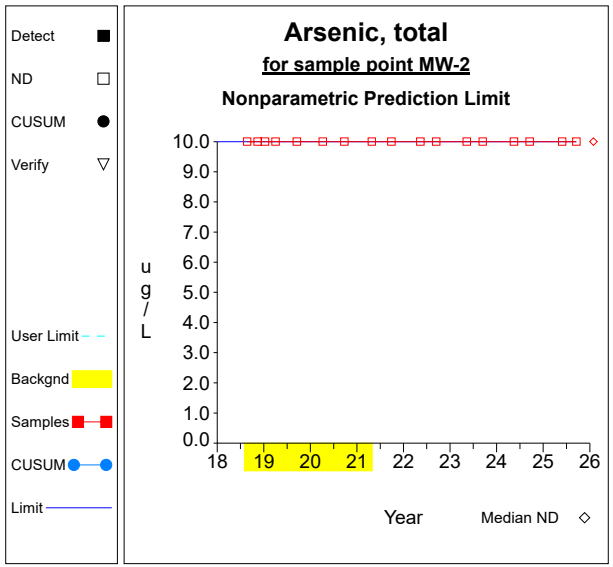
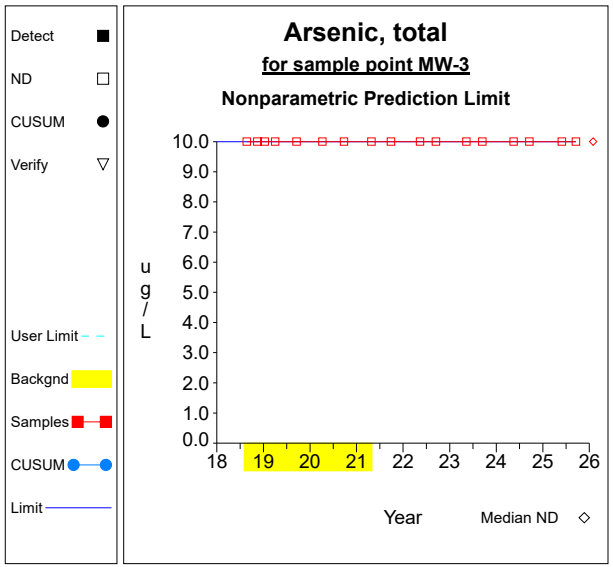
Intra-Well Control Charts / Prediction Limits



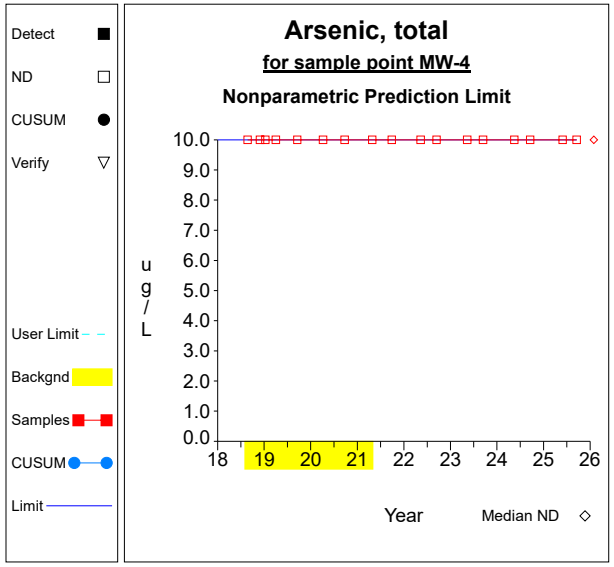
Graph 16



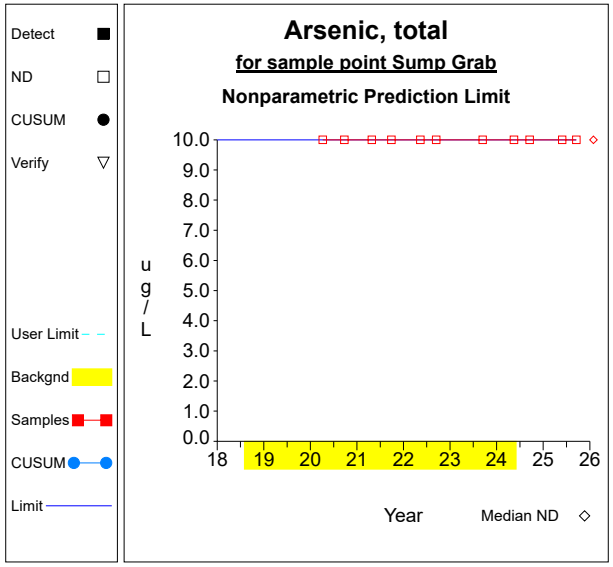
Graph 17



Graph 18



Graph 19



Graph 20

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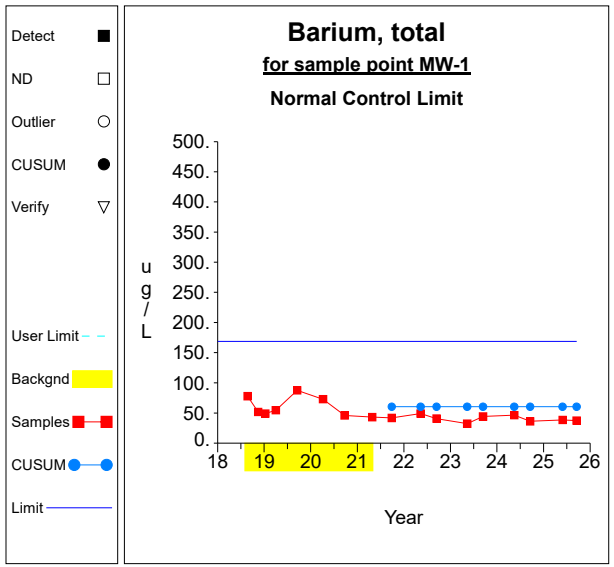
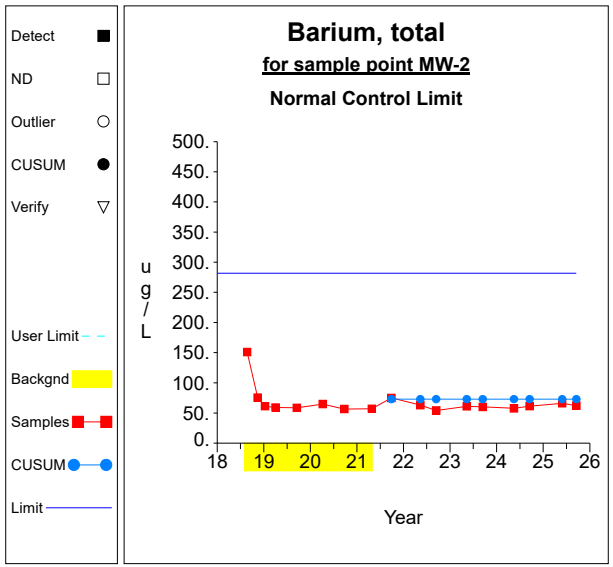
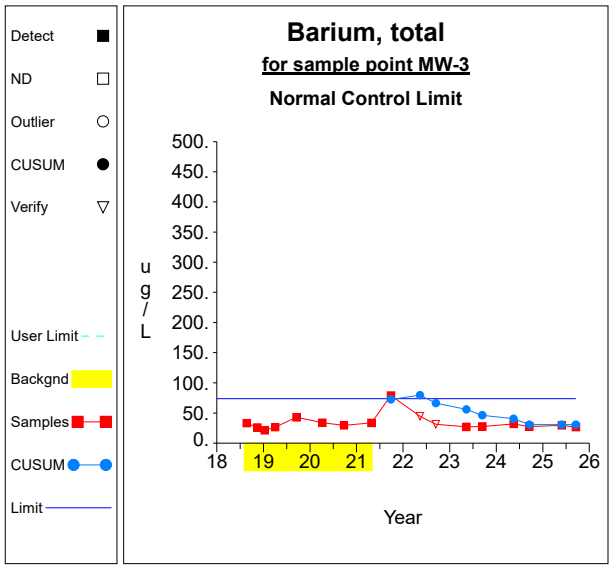
Intra-Well Control Charts / Prediction Limits



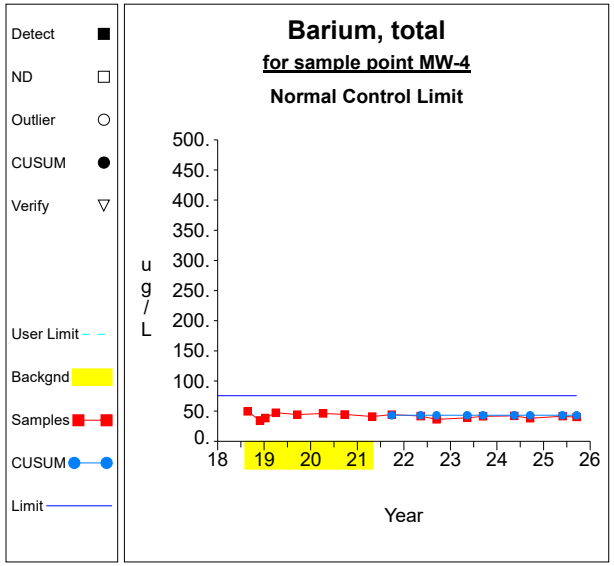
Graph 21



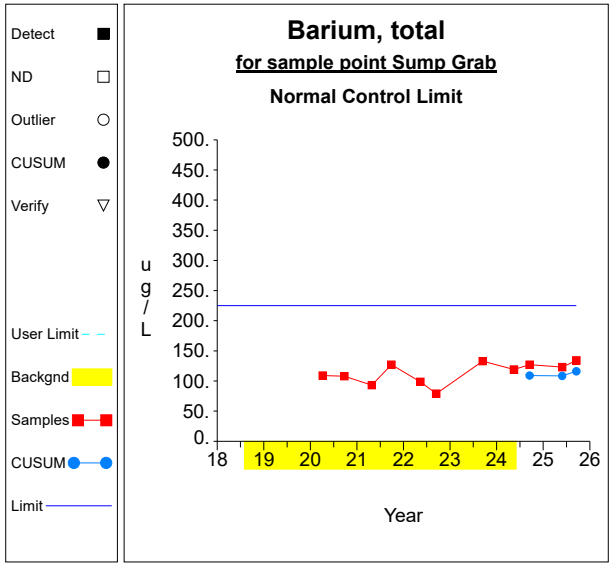
Graph 22



Graph 23



Graph 24



Graph 25

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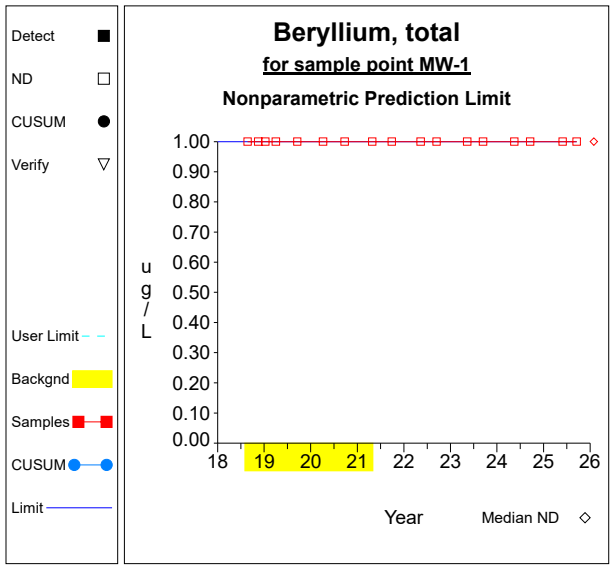
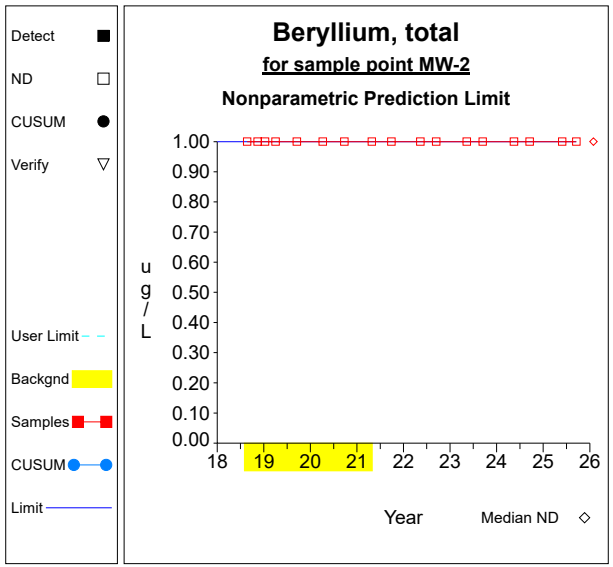
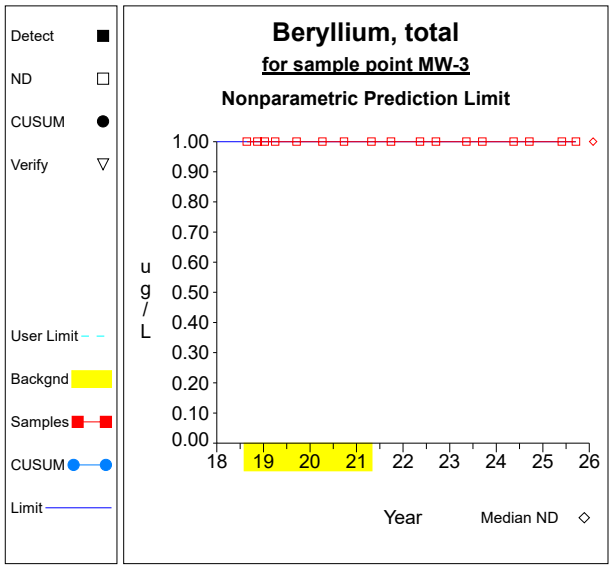
Intra-Well Control Charts / Prediction Limits



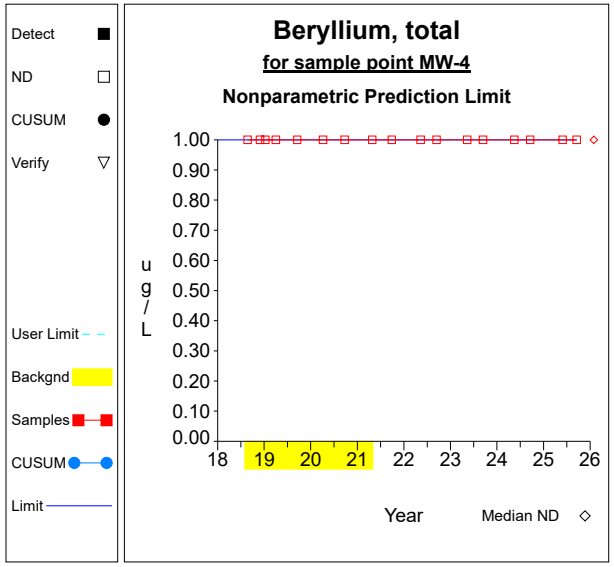
Graph 26



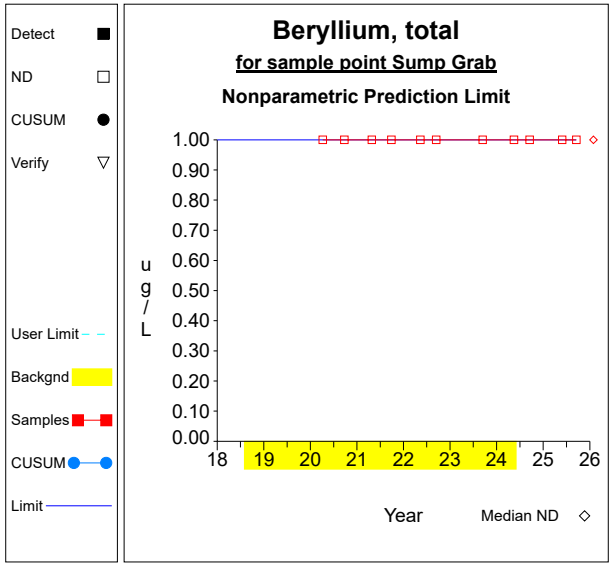
Graph 27



Graph 28



Graph 29



Graph 30

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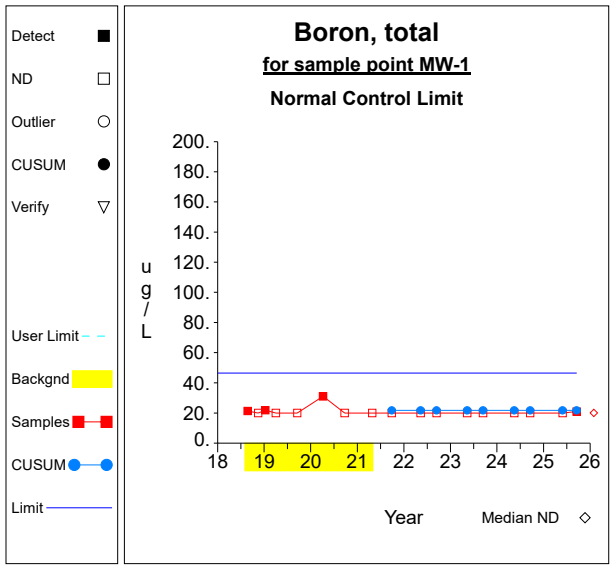
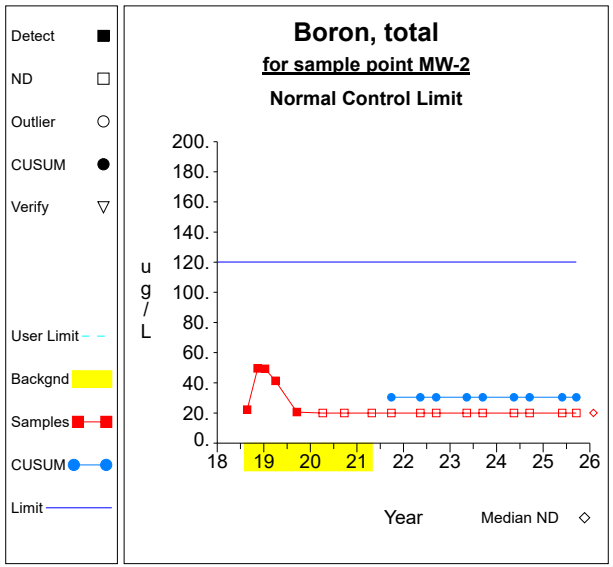
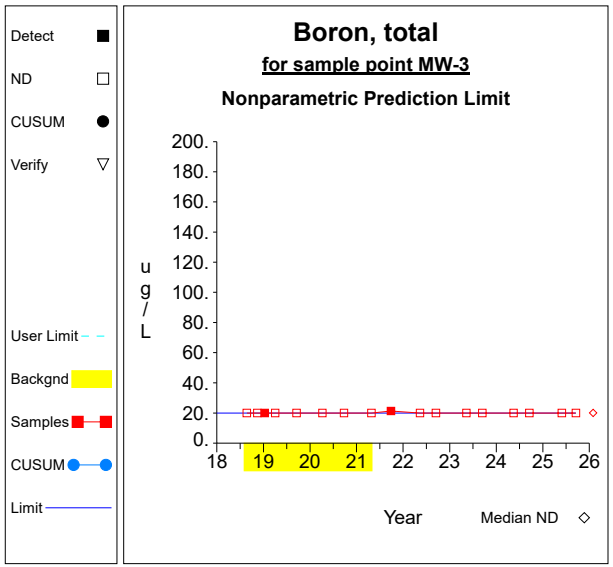
Intra-Well Control Charts / Prediction Limits



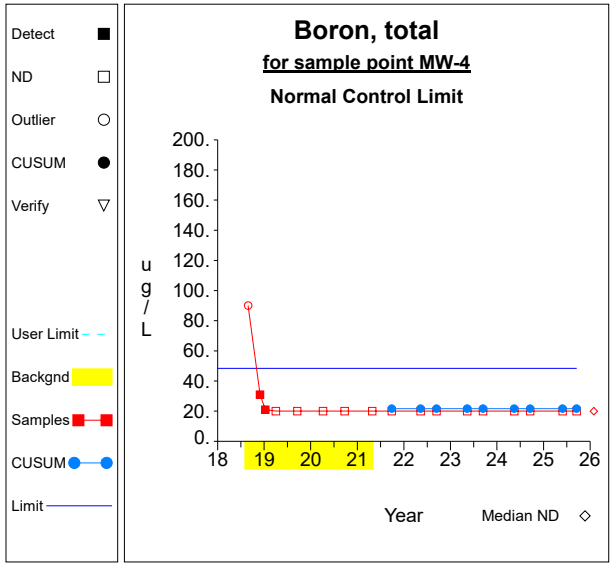
Graph 31



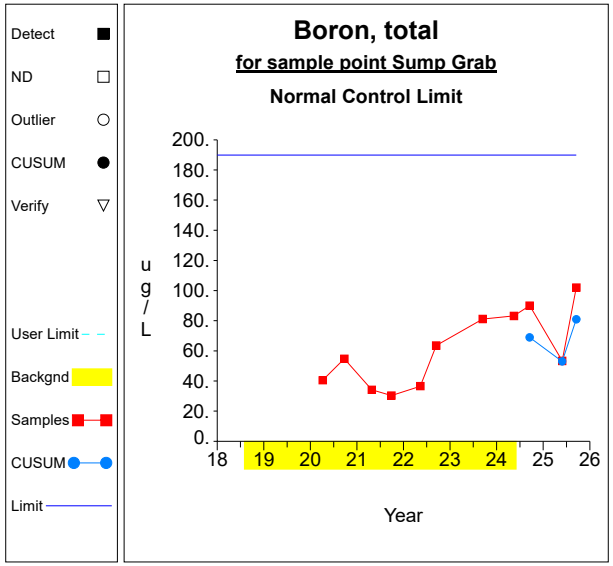
Graph 32



Graph 33



Graph 34



Graph 35

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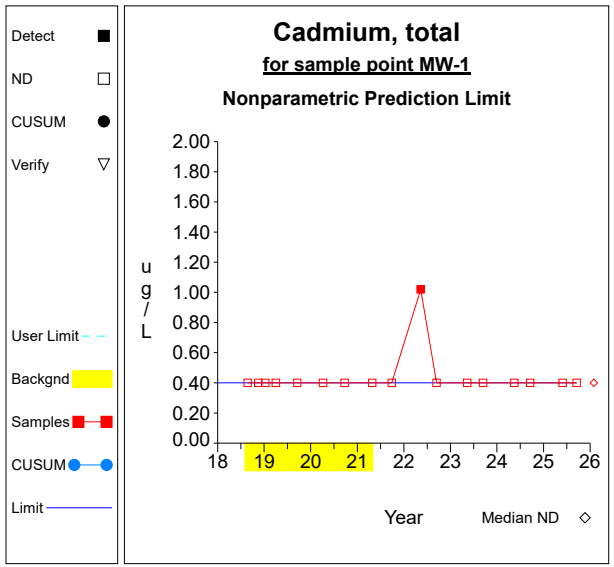
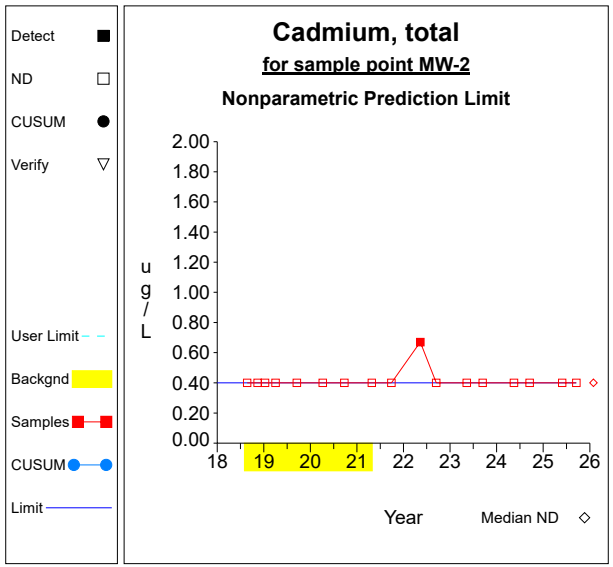
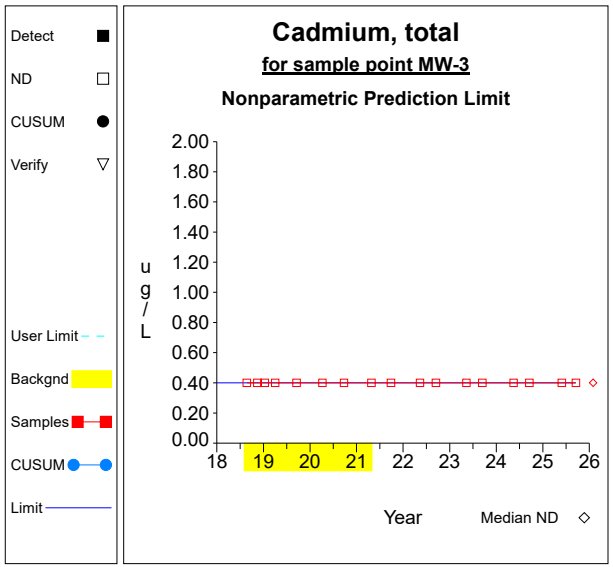
Intra-Well Control Charts / Prediction Limits



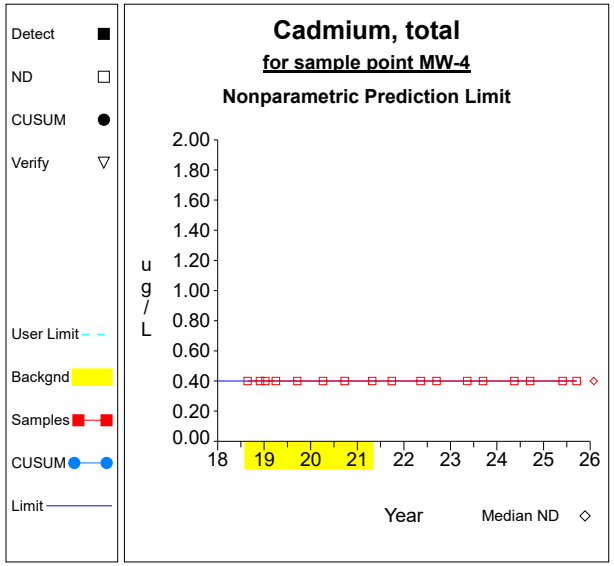
Graph 36



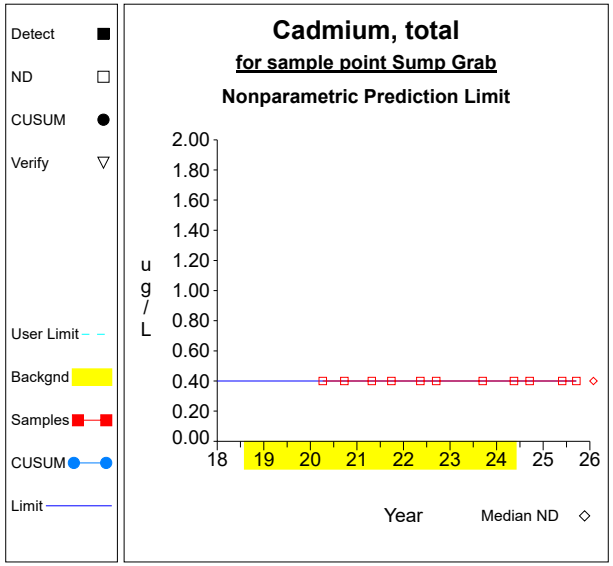
Graph 37



Graph 38

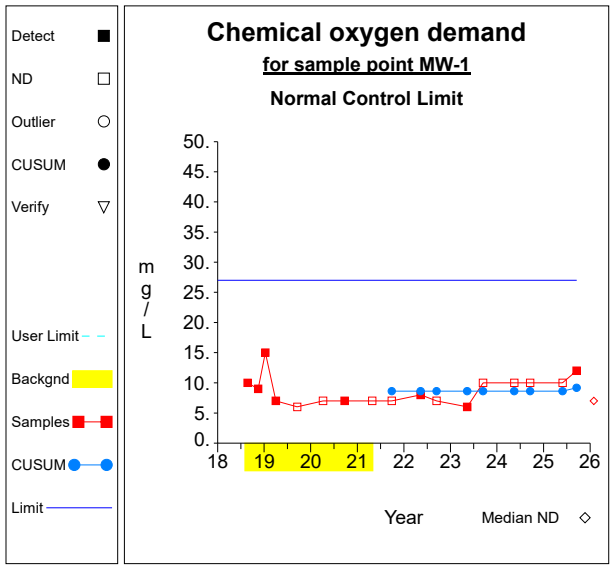


Graph 39

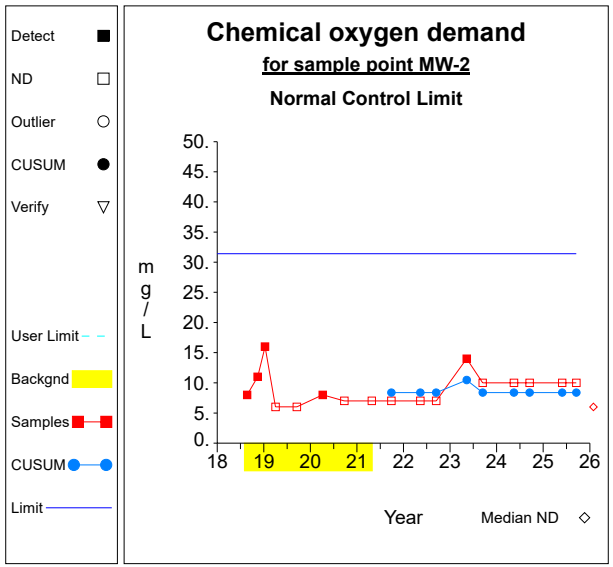


Graph 40

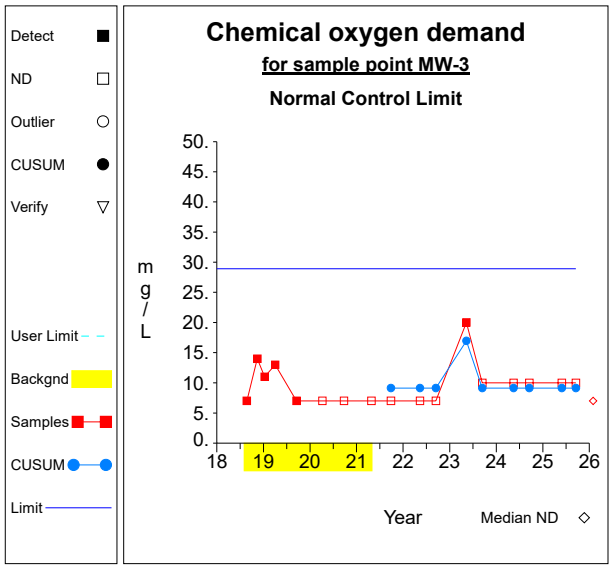
Intra-Well Control Charts / Prediction Limits



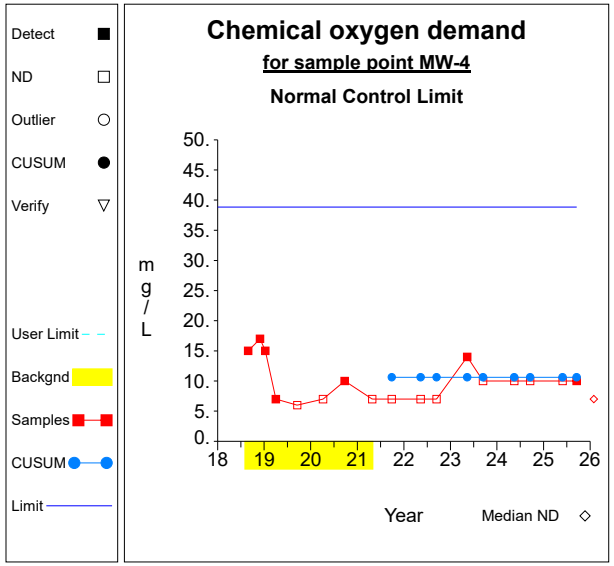
Graph 41



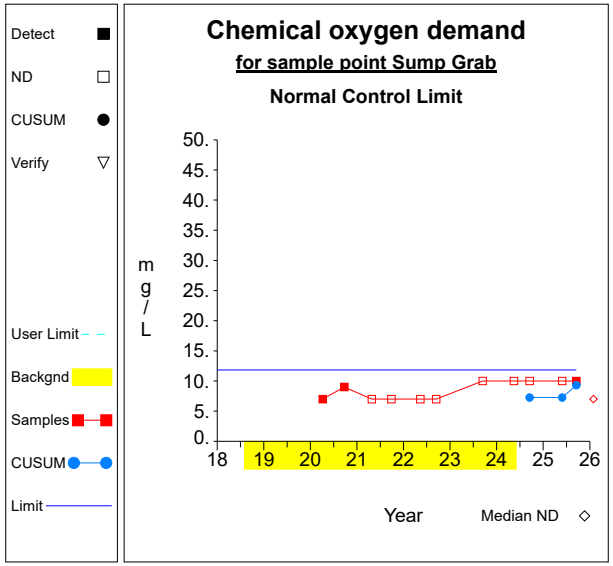
Graph 42



Graph 43

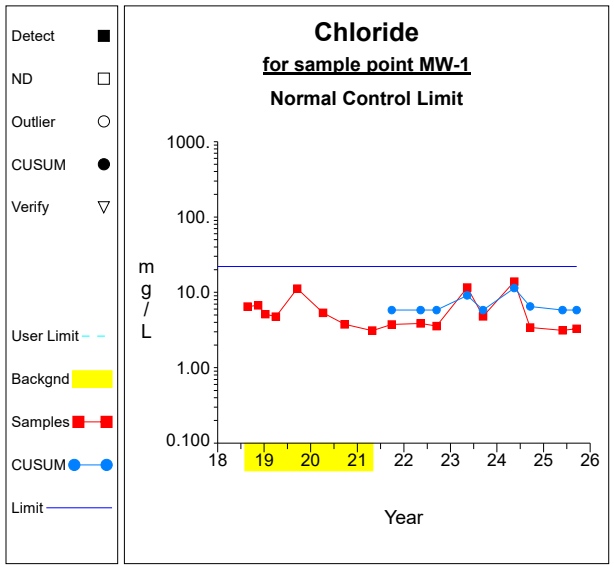


Graph 44

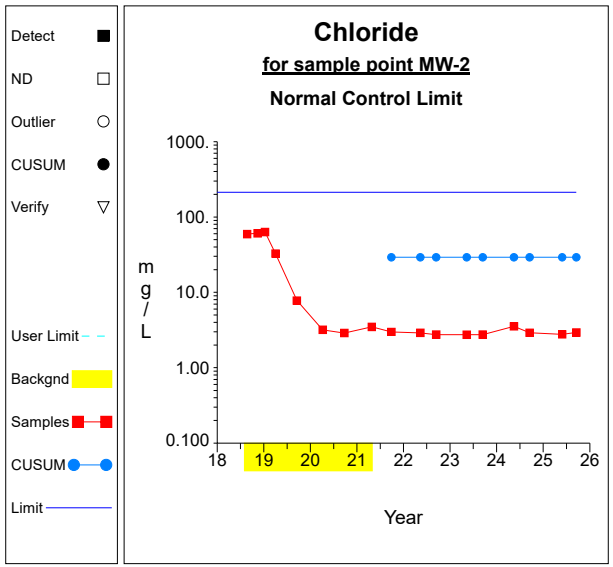


Graph 45

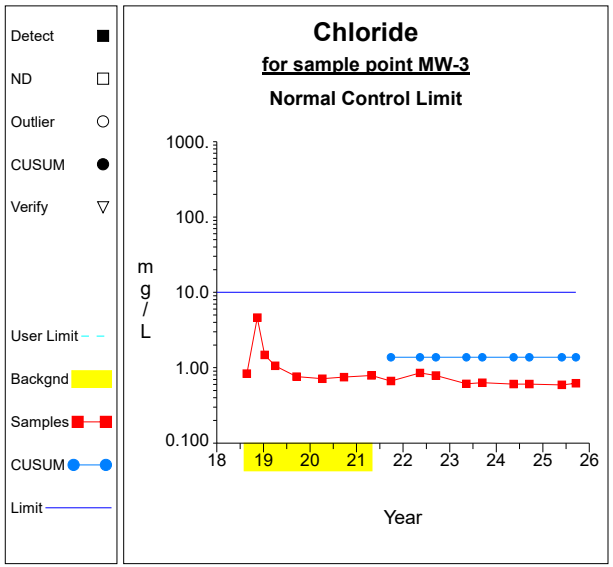
Intra-Well Control Charts / Prediction Limits



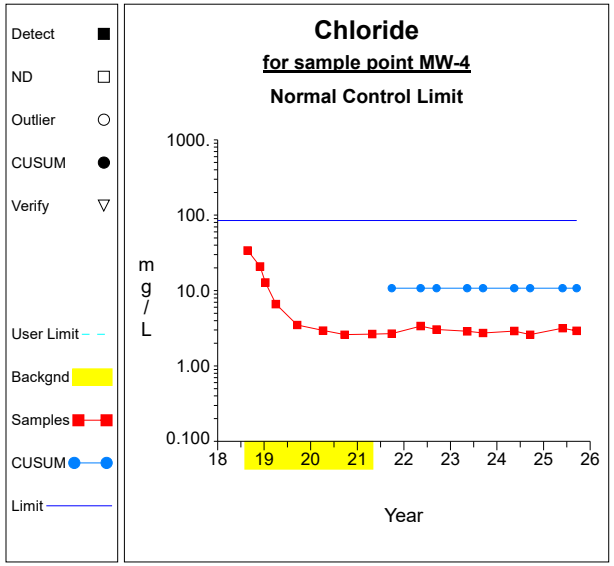
Graph 46



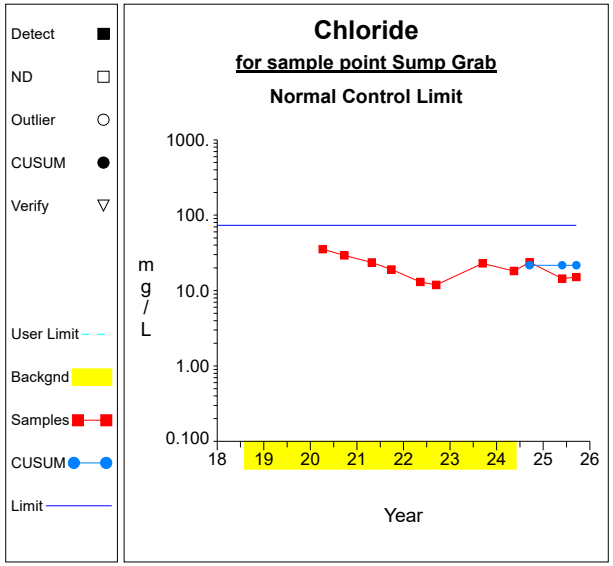
Graph 47



Graph 48



Graph 49



Graph 50

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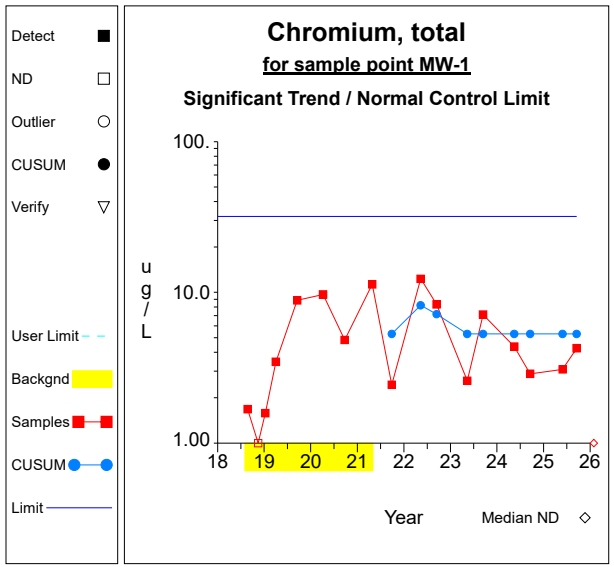
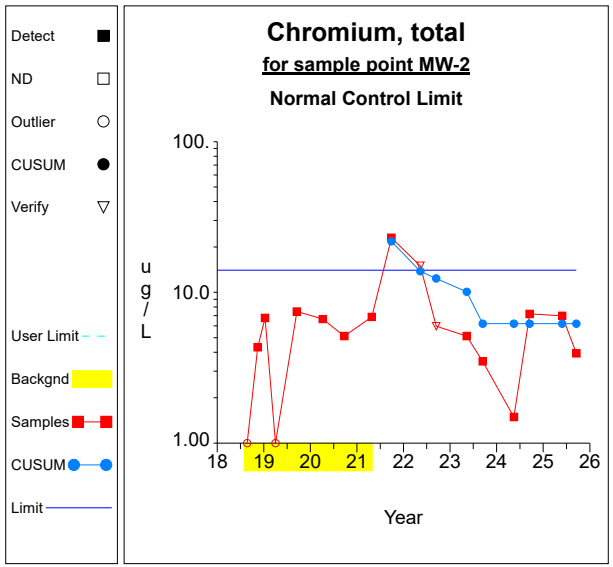
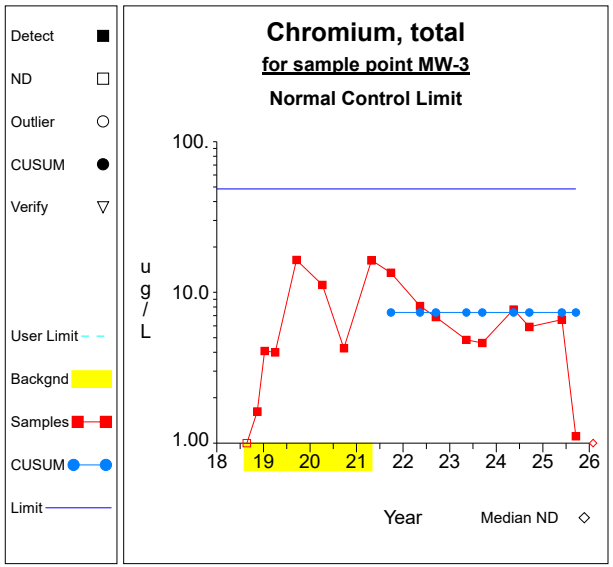
Intra-Well Control Charts / Prediction Limits



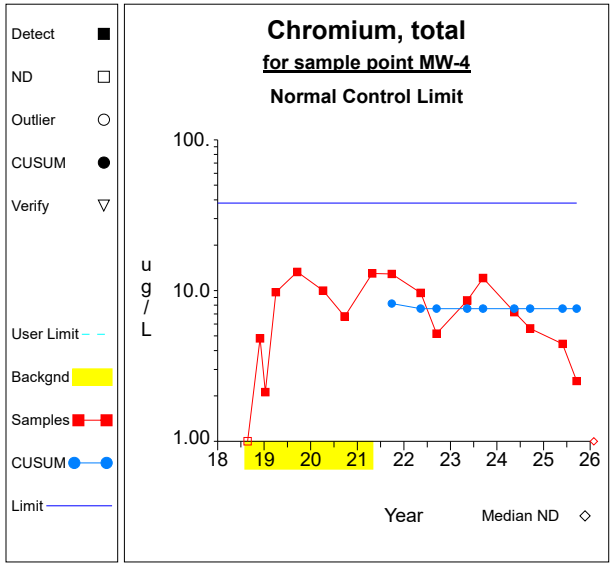
Graph 51



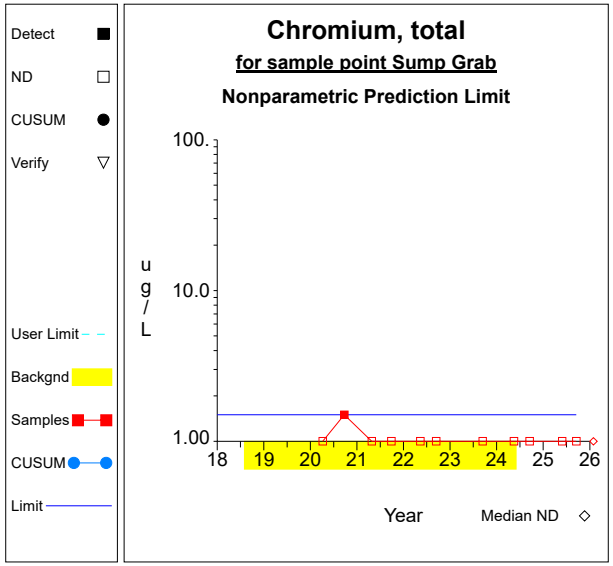
Graph 52



Graph 53

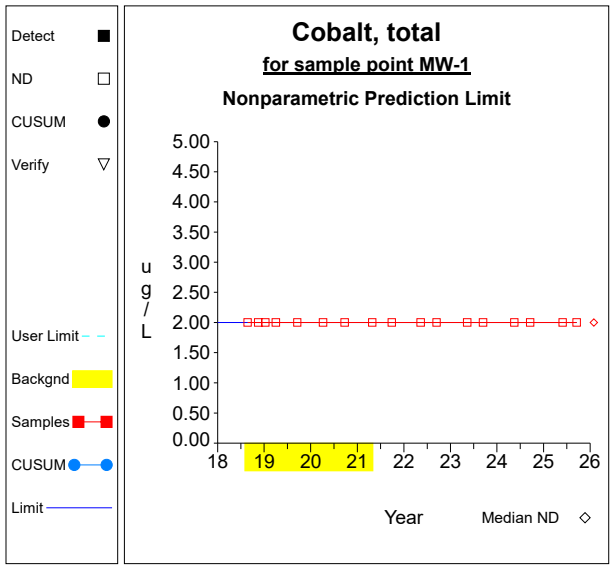


Graph 54

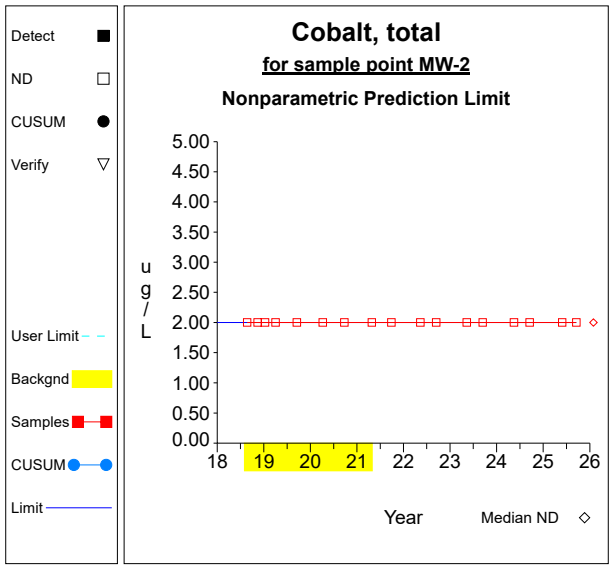


Graph 55

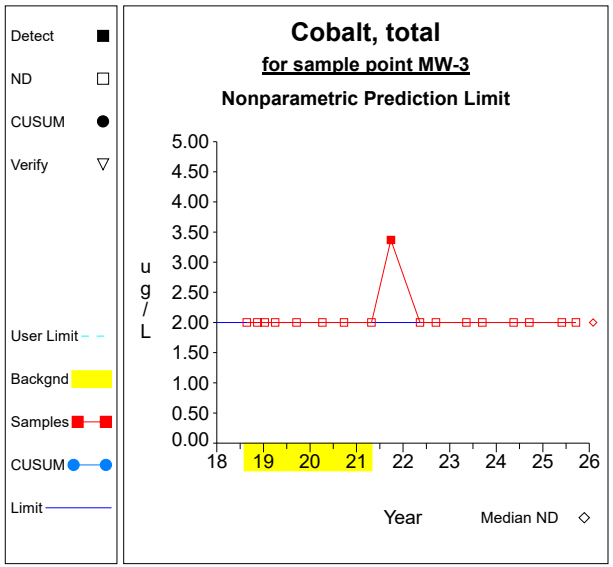
Intra-Well Control Charts / Prediction Limits



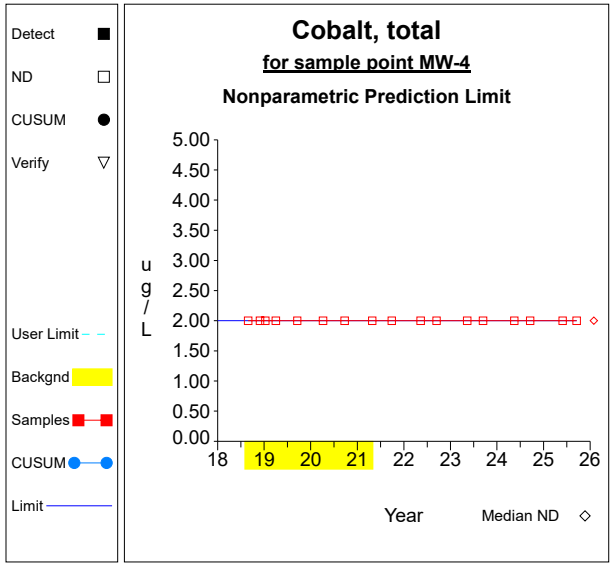
Graph 56



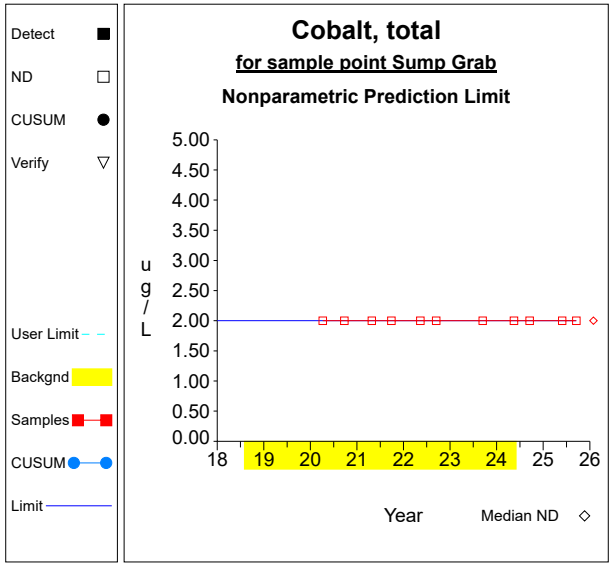
Graph 57



Graph 58



Graph 59



Graph 60

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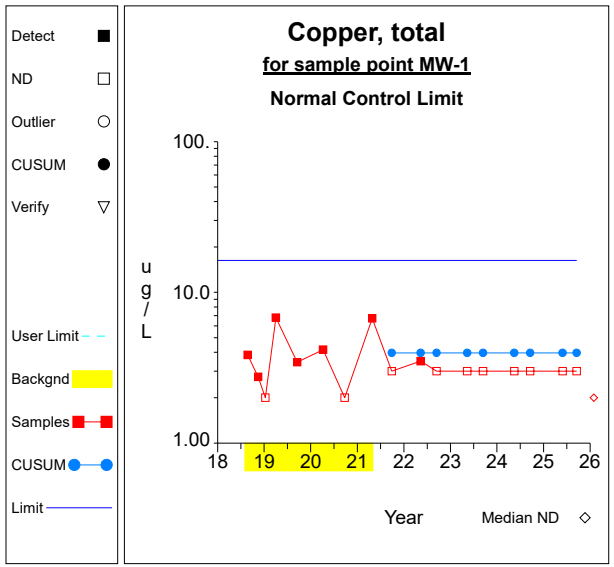
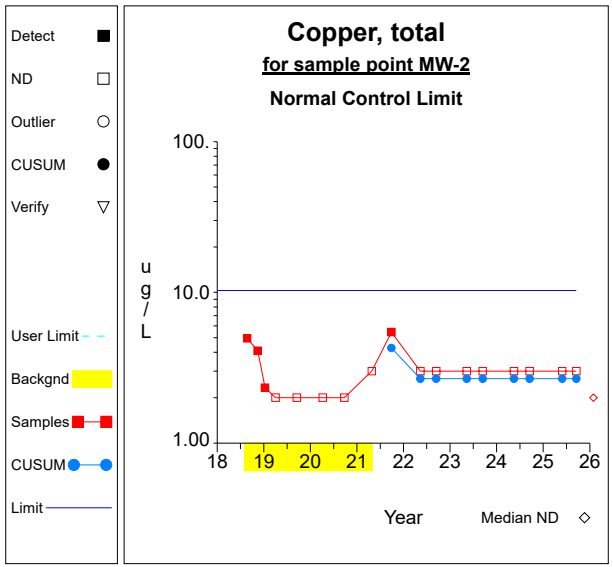
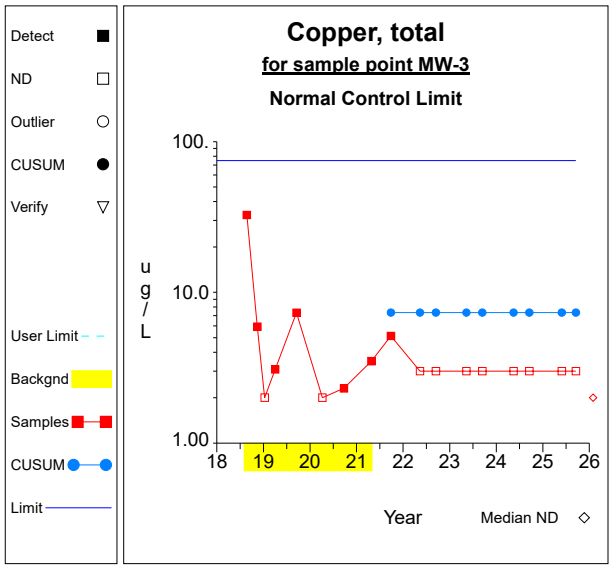
Intra-Well Control Charts / Prediction Limits



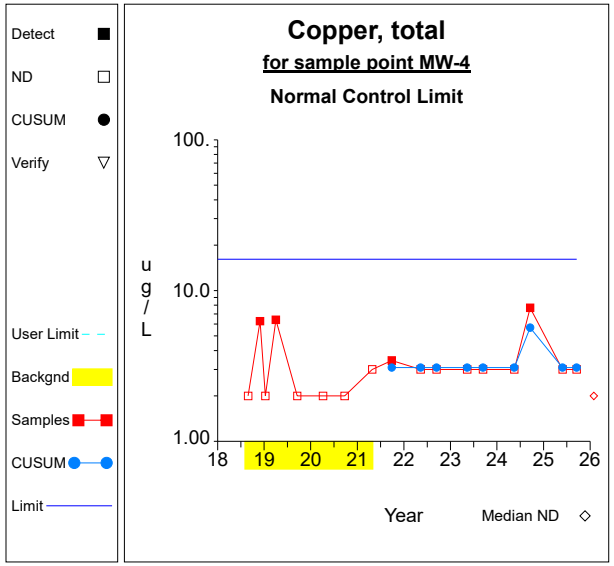
Graph 61



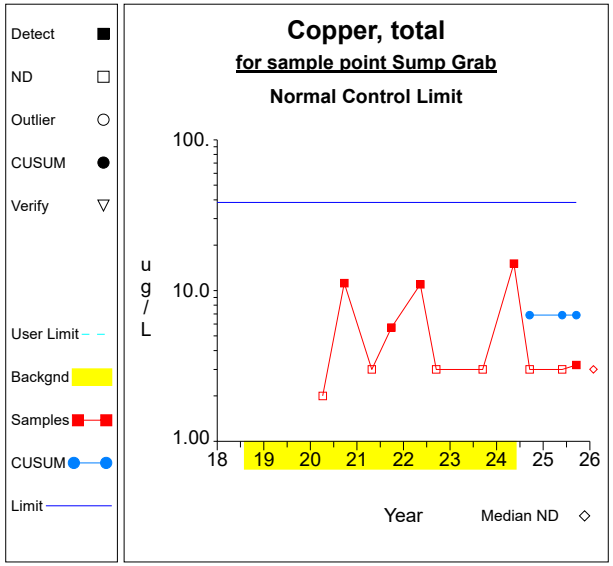
Graph 62



Graph 63

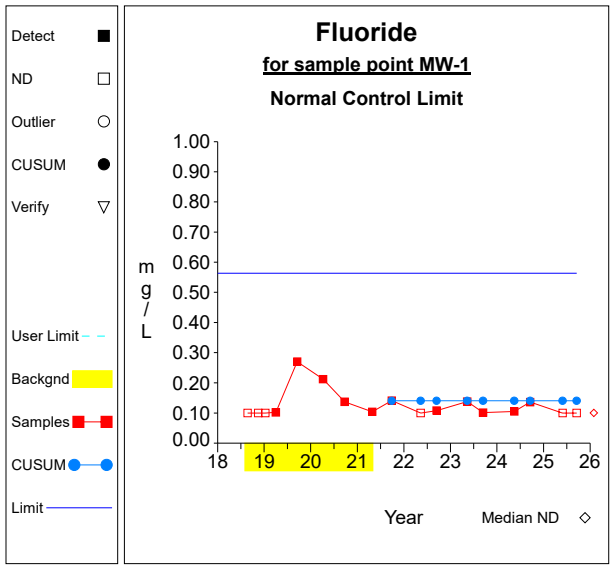


Graph 64

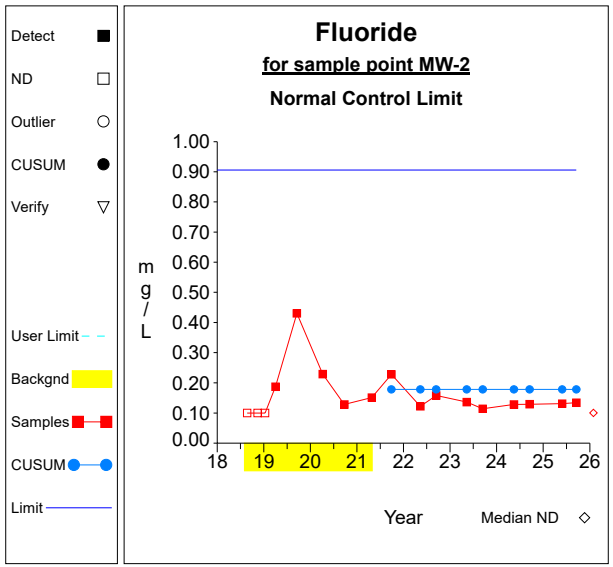


Graph 65

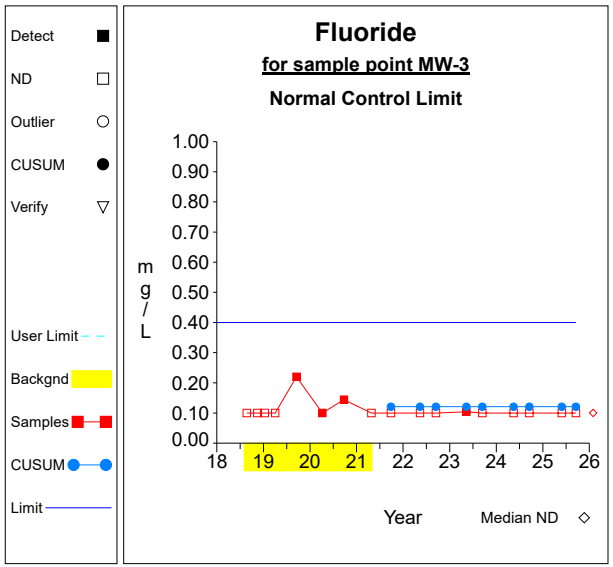
Intra-Well Control Charts / Prediction Limits



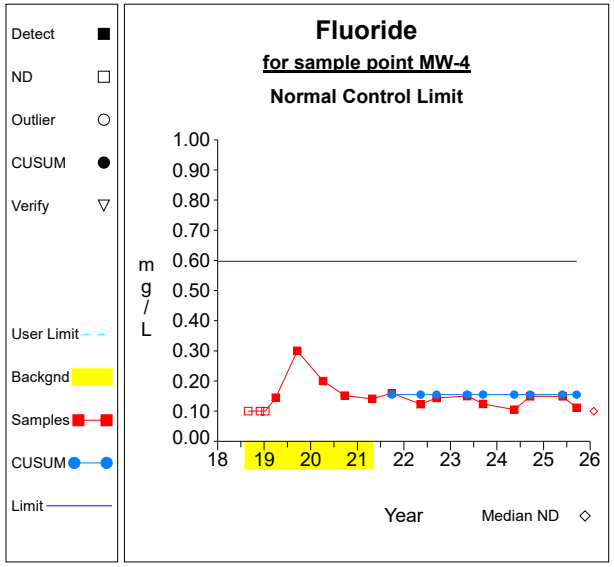
Graph 66



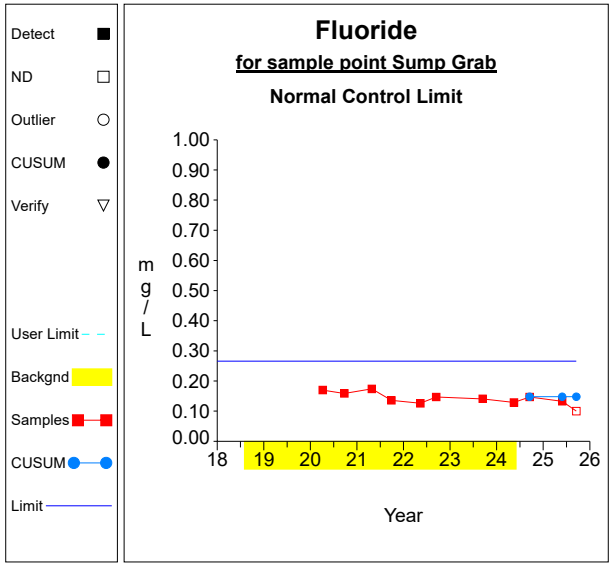
Graph 67



Graph 68

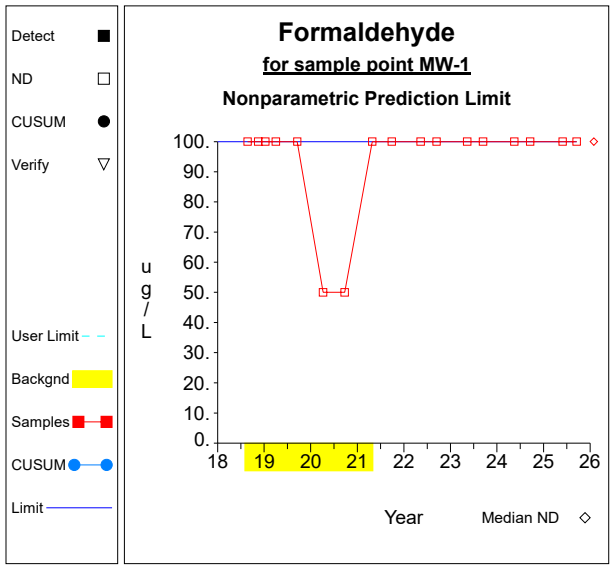


Graph 69

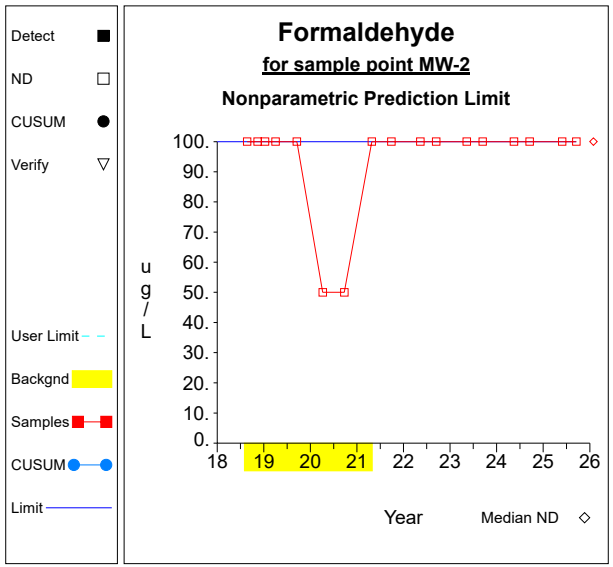


Graph 70

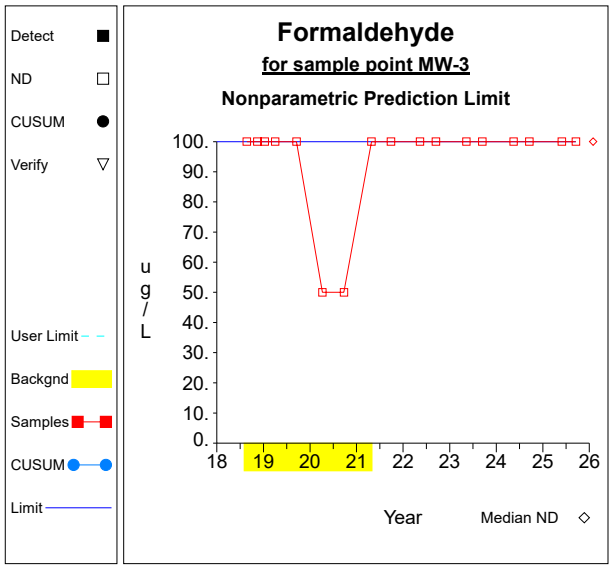
Intra-Well Control Charts / Prediction Limits



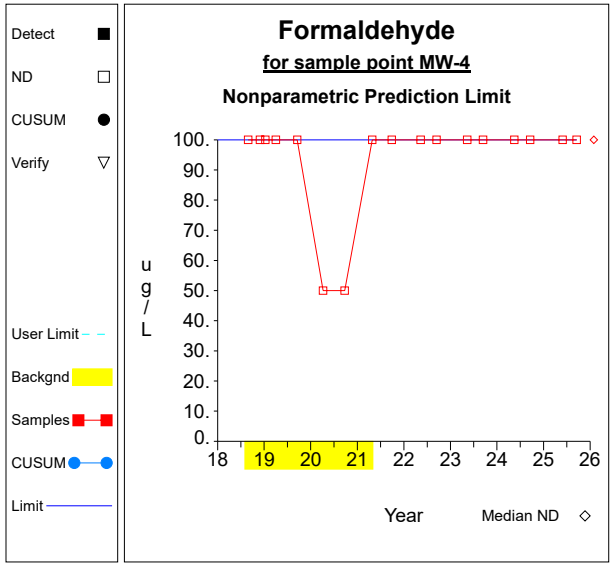
Graph 71



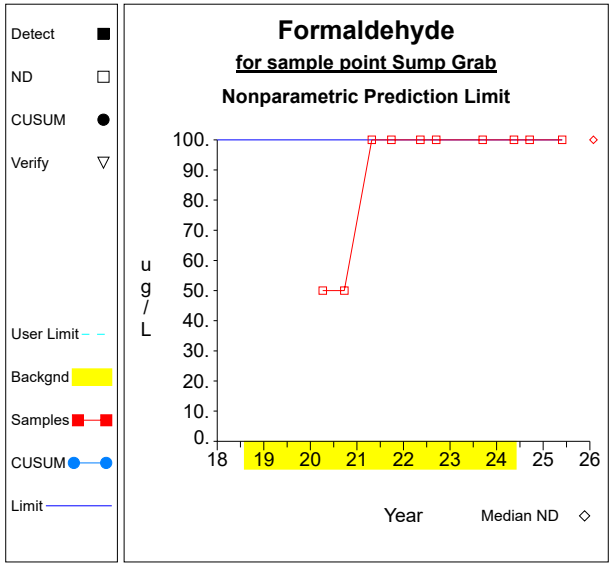
Graph 72



Graph 73



Graph 74



Graph 75

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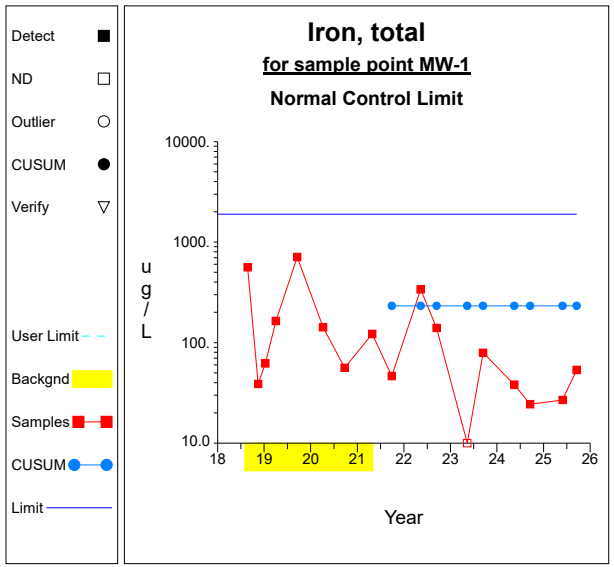
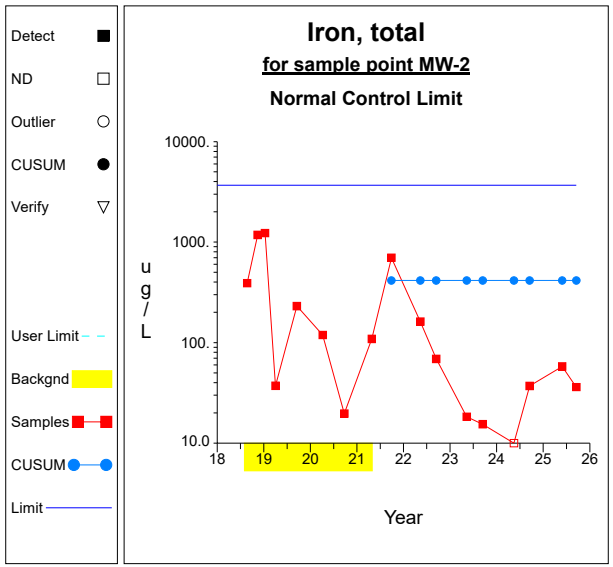
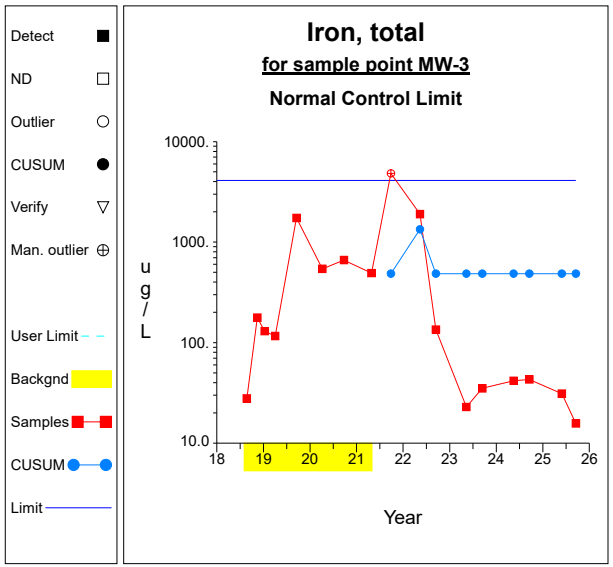
Intra-Well Control Charts / Prediction Limits



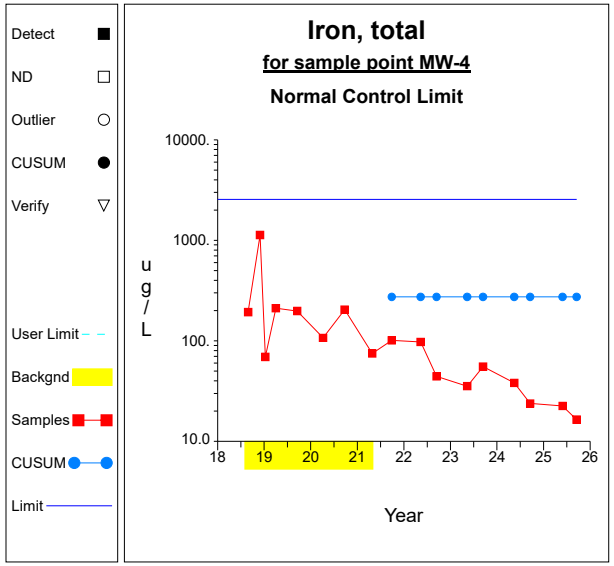
Graph 76



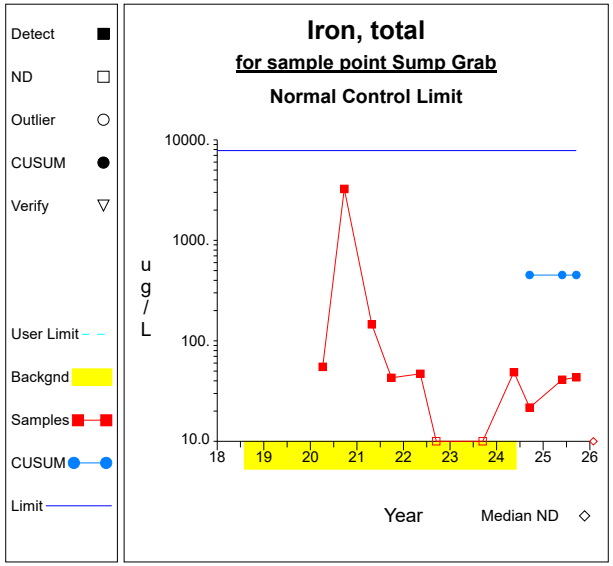
Graph 77



Graph 78

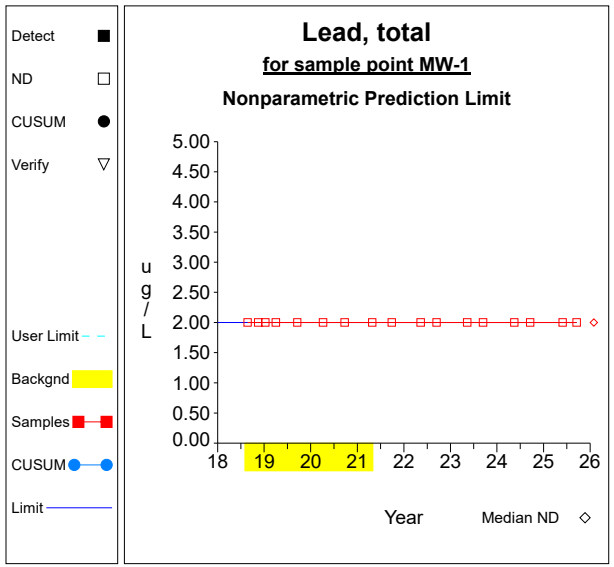


Graph 79

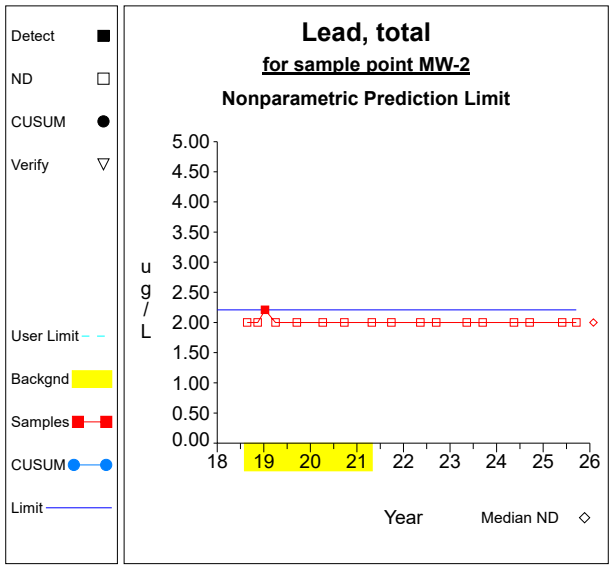


Graph 80

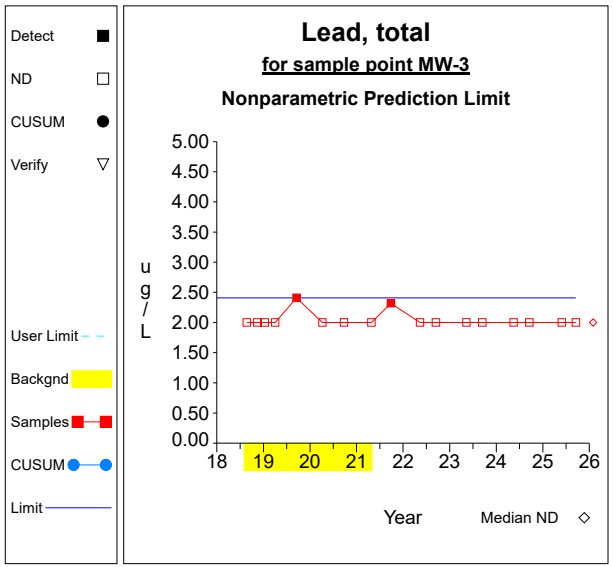
Intra-Well Control Charts / Prediction Limits



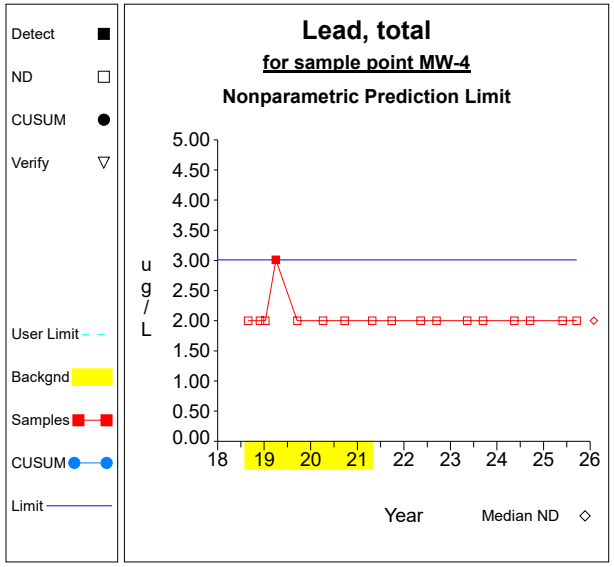
Graph 81



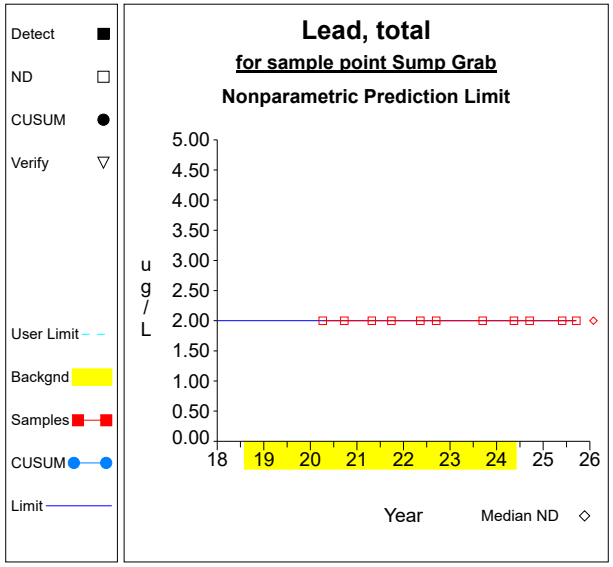
Graph 82



Graph 83



Graph 84



Graph 85

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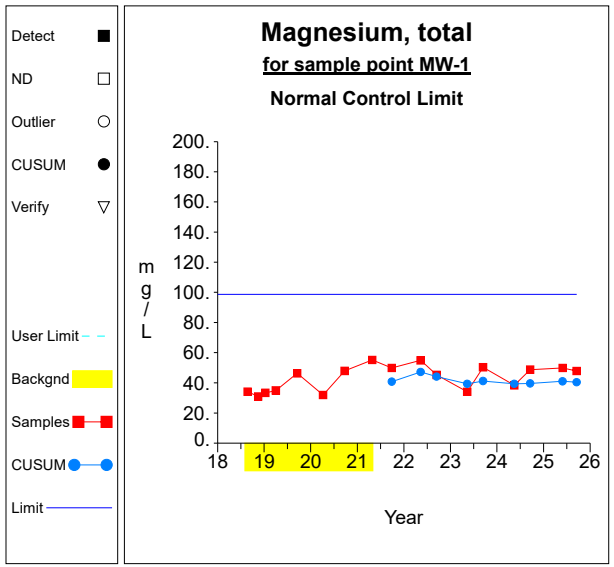
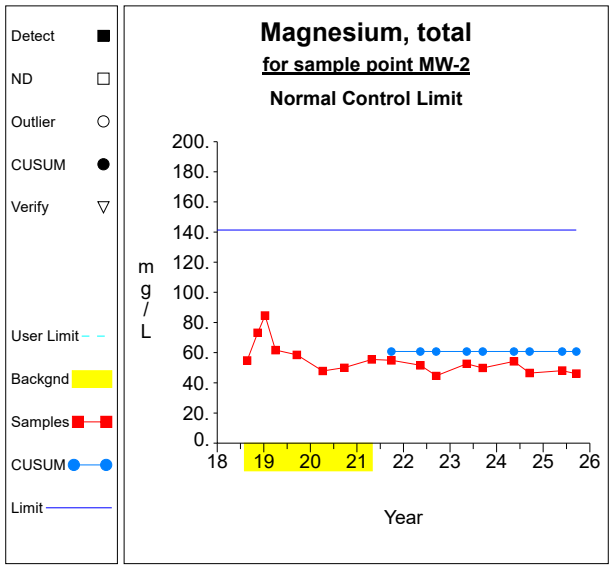
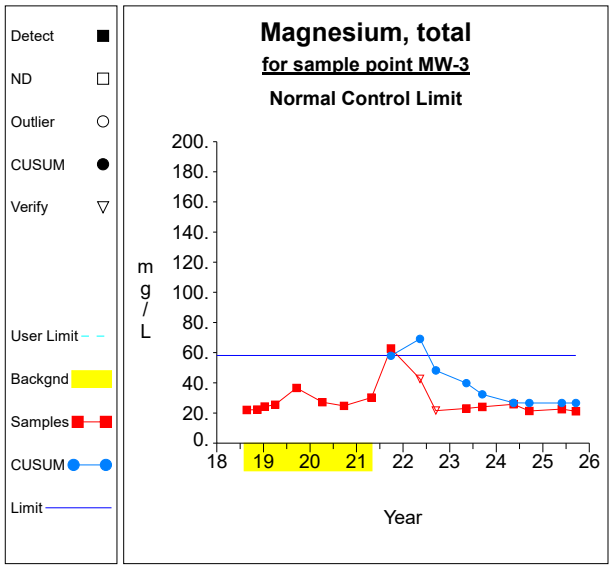
Intra-Well Control Charts / Prediction Limits



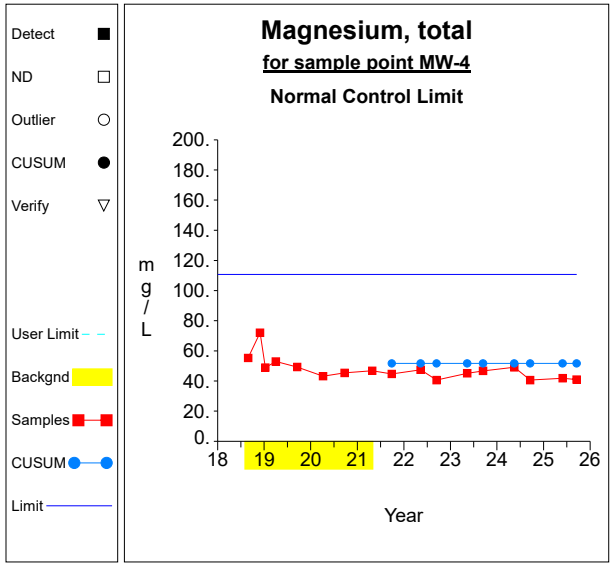
Graph 86



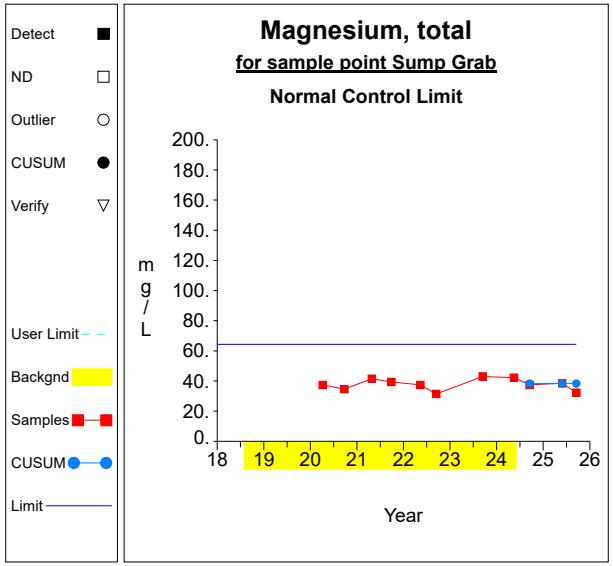
Graph 87



Graph 88



Graph 89



Graph 90

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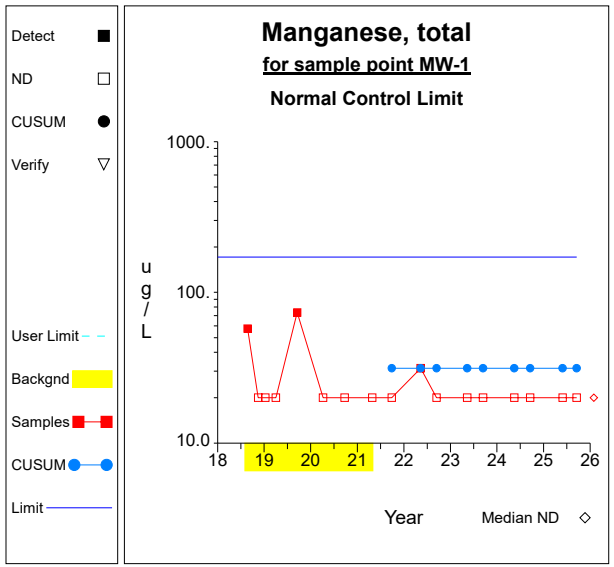
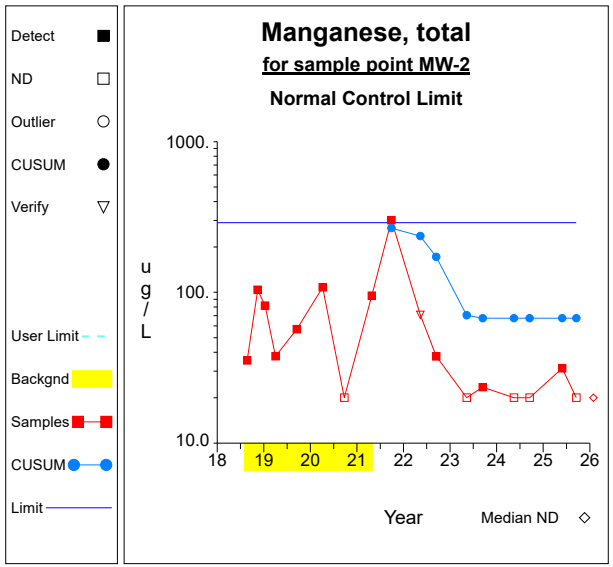
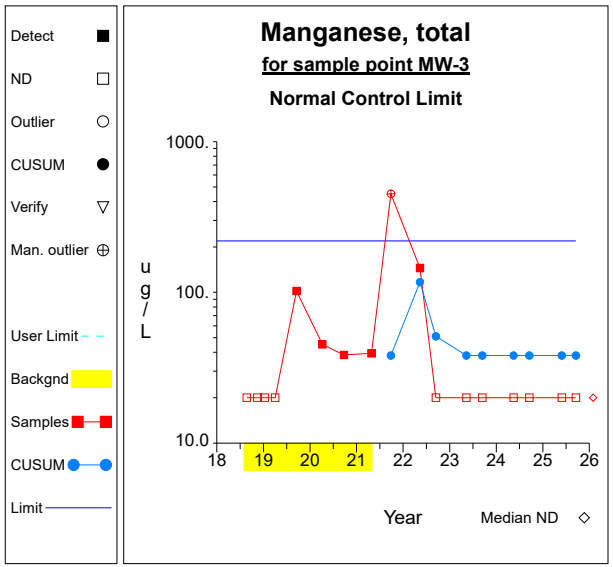
Intra-Well Control Charts / Prediction Limits



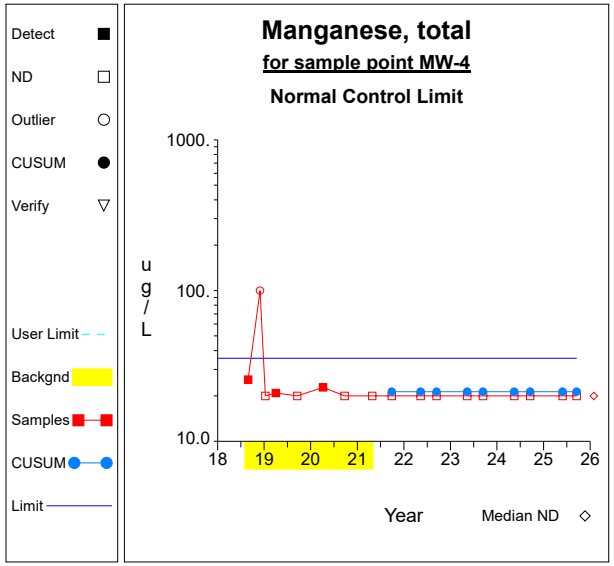
Graph 91



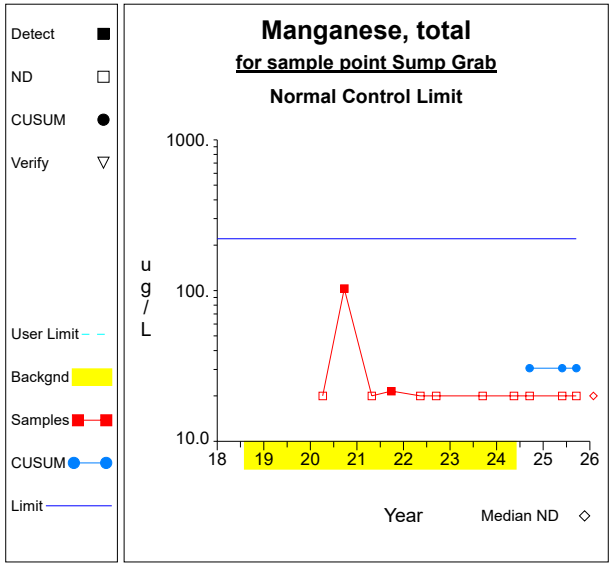
Graph 92



Graph 93



Graph 94



Graph 95

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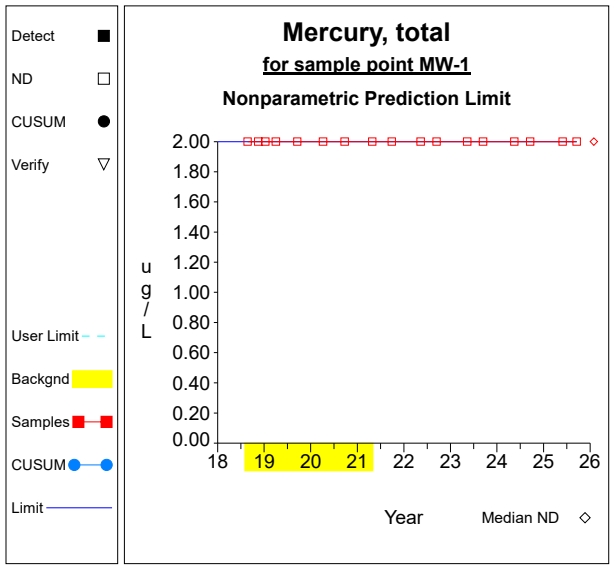
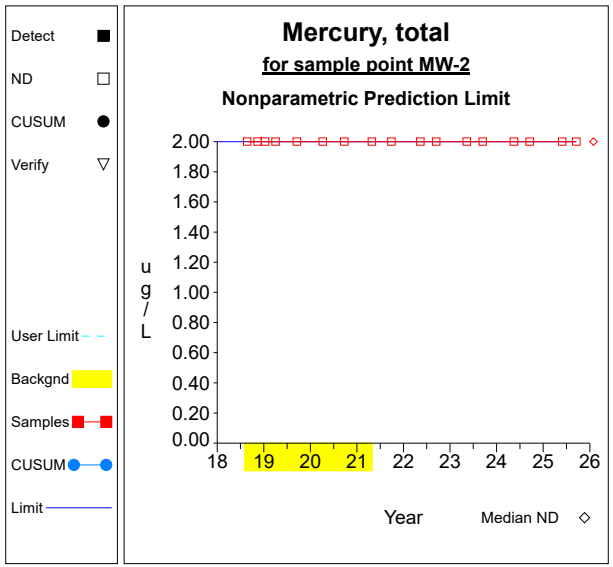
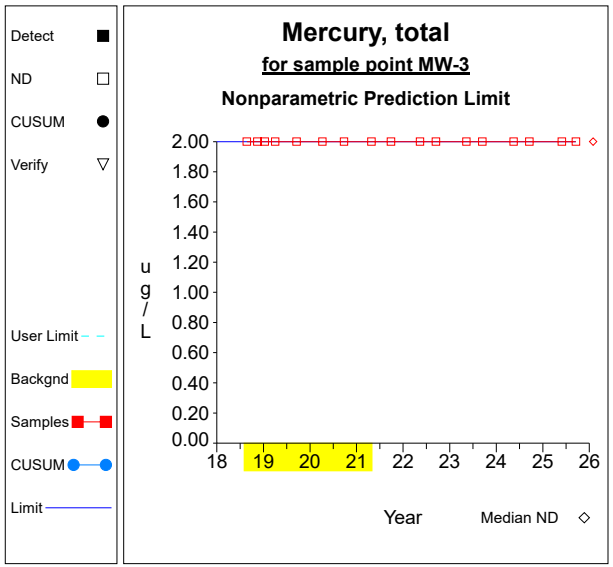
Intra-Well Control Charts / Prediction Limits



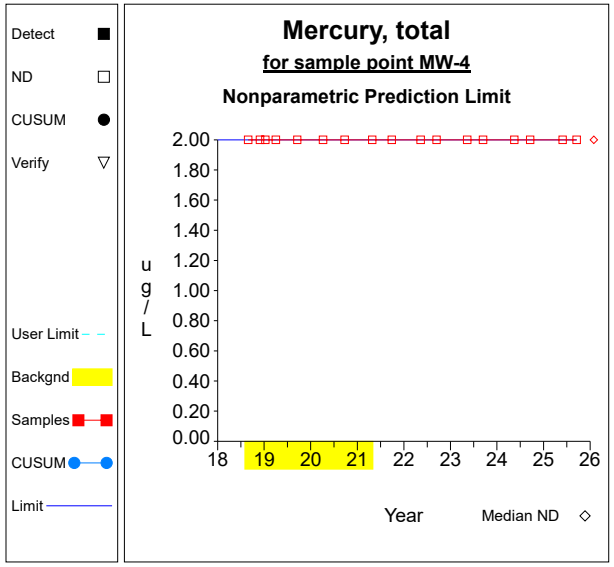
Graph 96



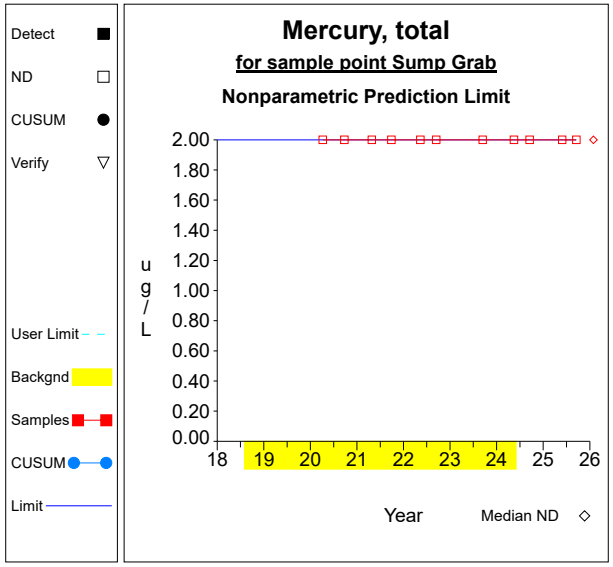
Graph 97



Graph 98



Graph 99



Graph 100

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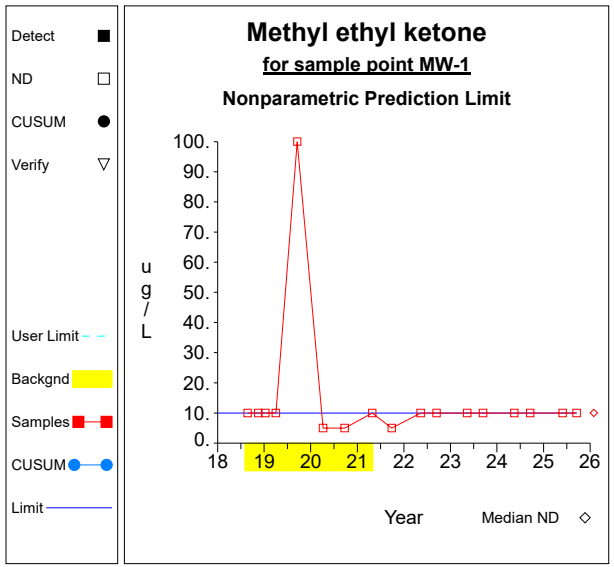
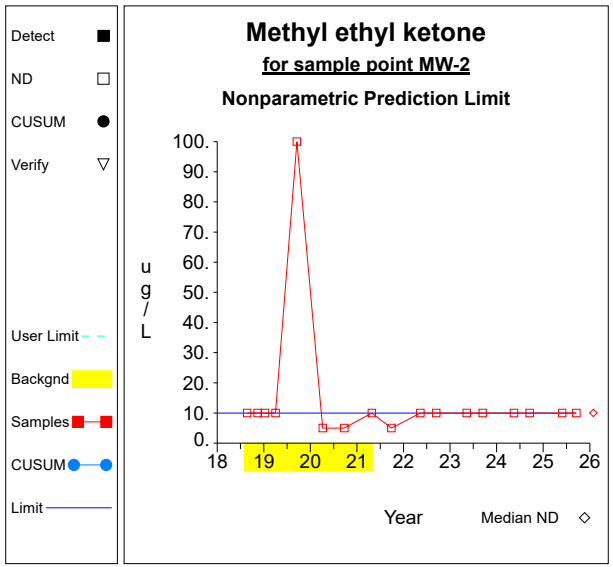
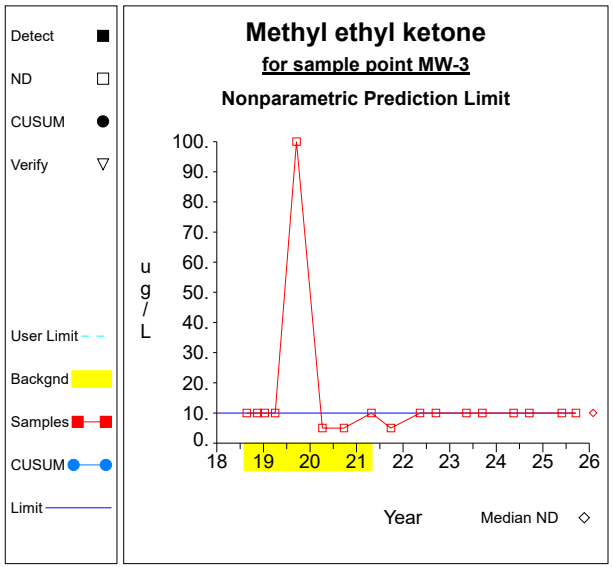
Intra-Well Control Charts / Prediction Limits



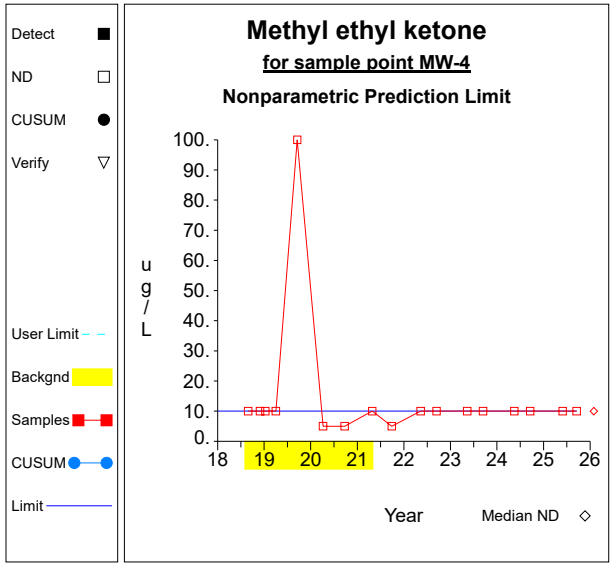
Graph 101



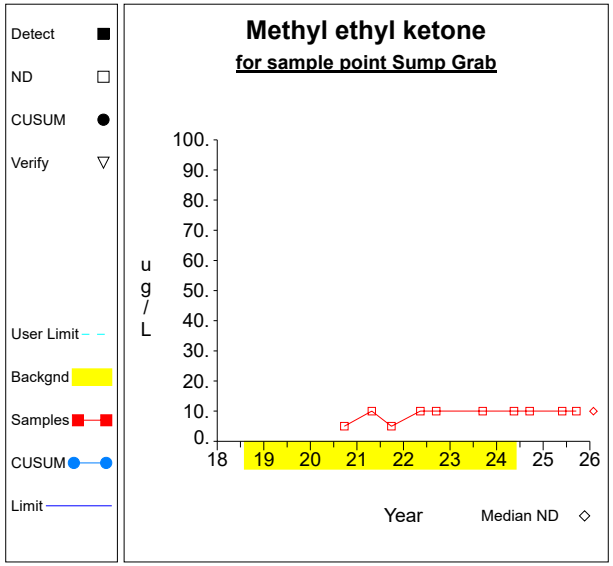
Graph 102



Graph 103



Graph 104



Graph 105

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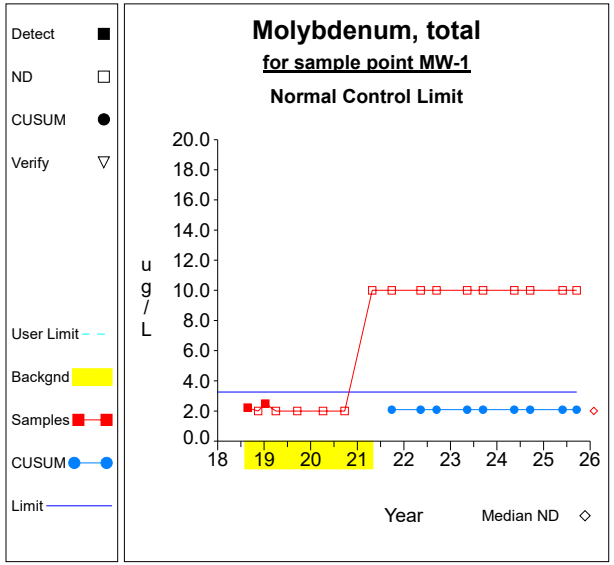
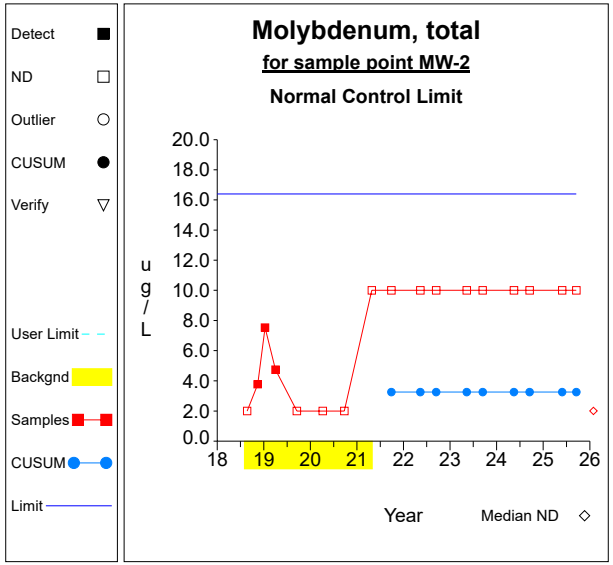
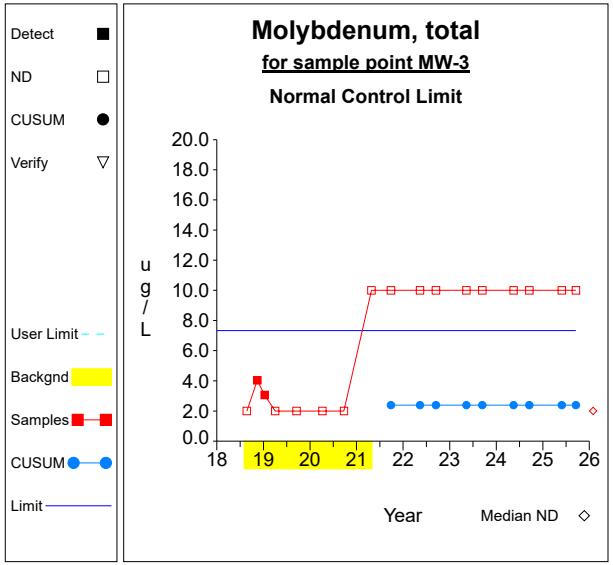
Intra-Well Control Charts / Prediction Limits



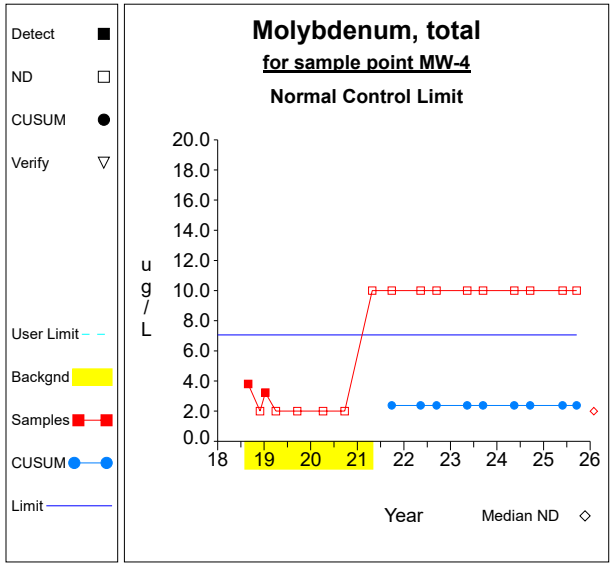
Graph 106



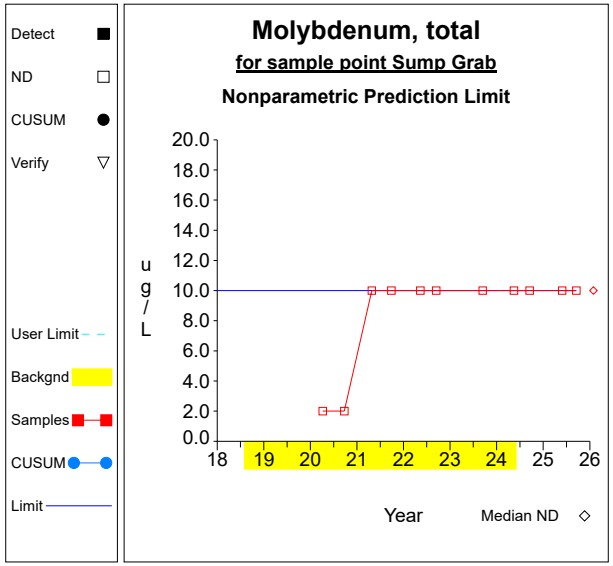
Graph 107



Graph 108



Graph 109



Graph 110

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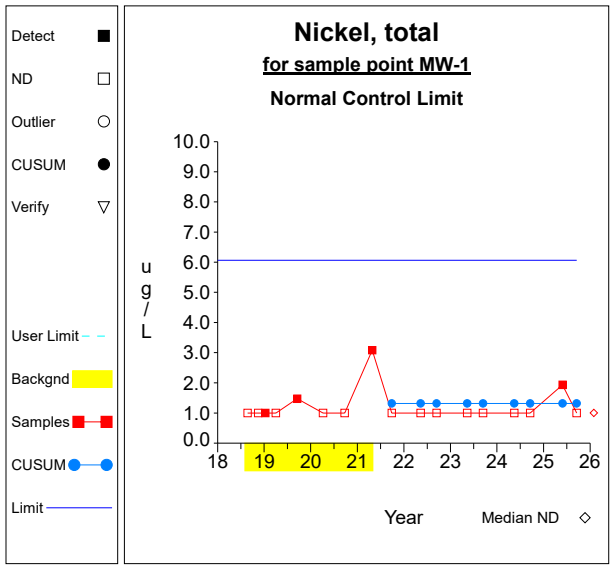
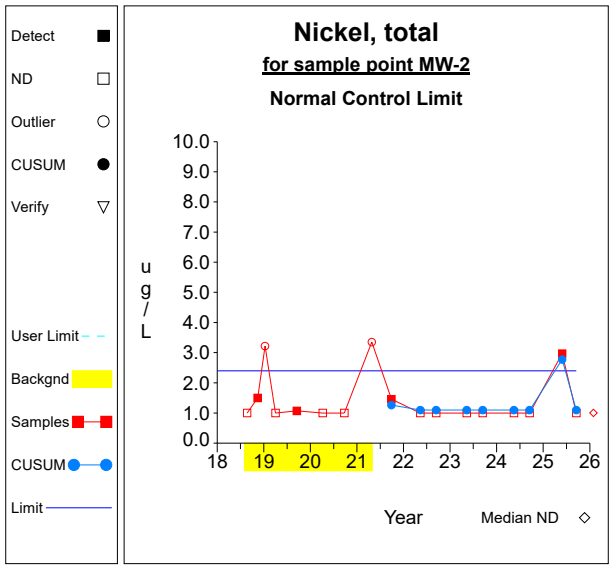
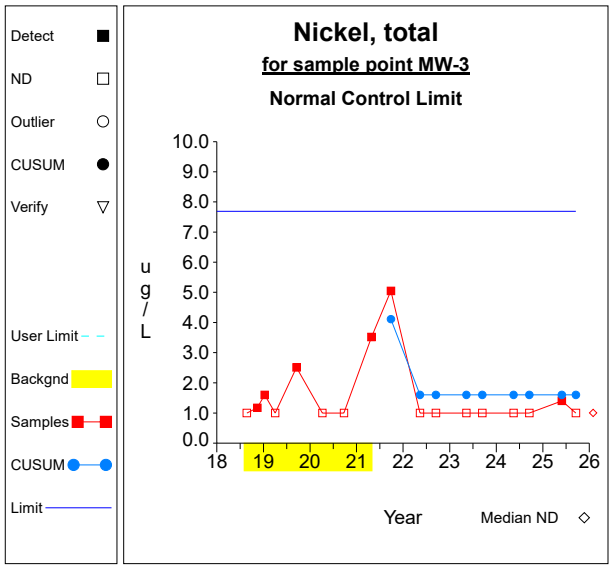
Intra-Well Control Charts / Prediction Limits



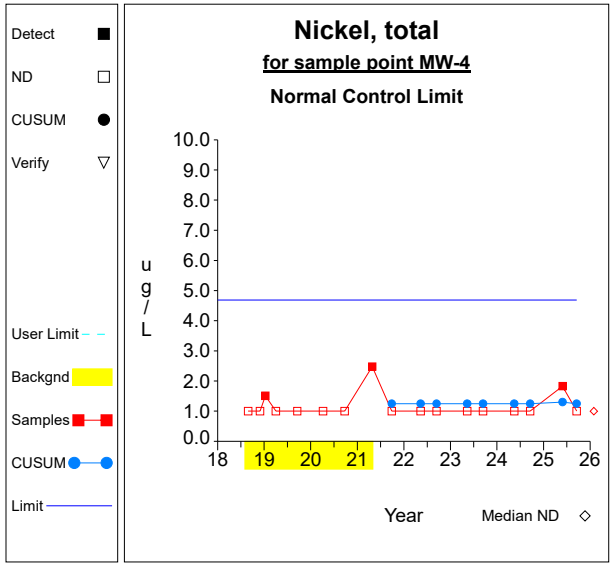
Graph 111



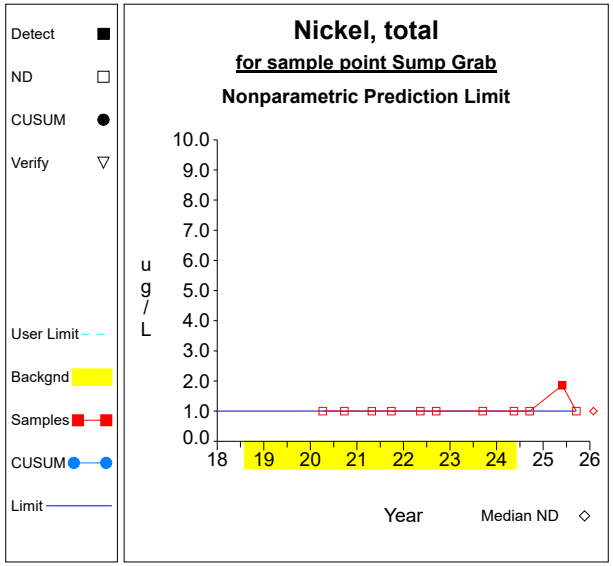
Graph 112



Graph 113



Graph 114



Graph 115

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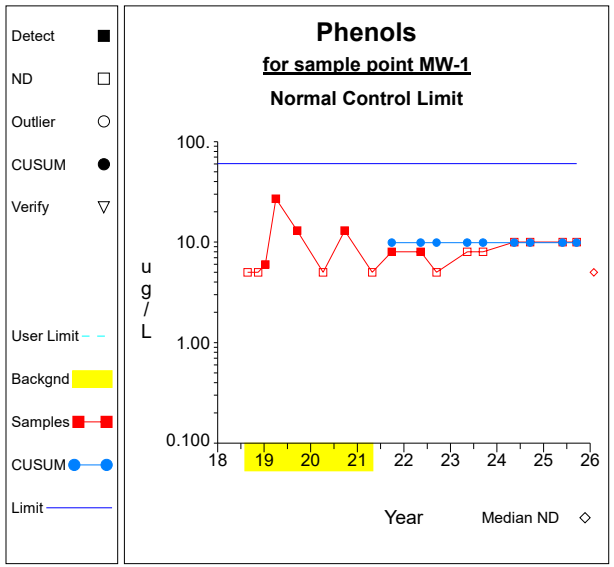
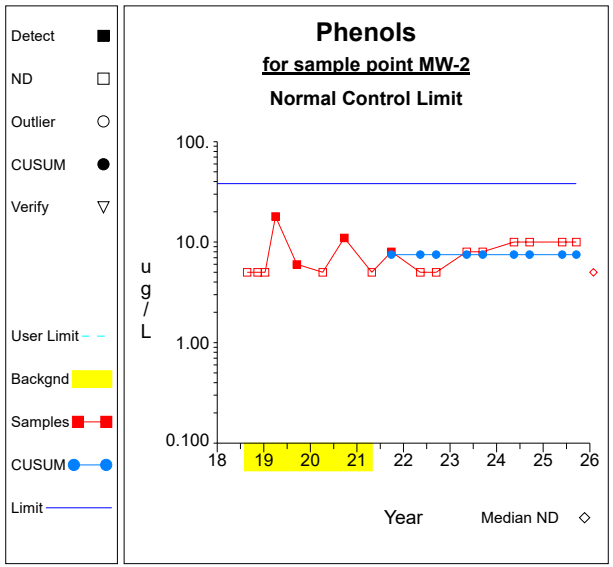
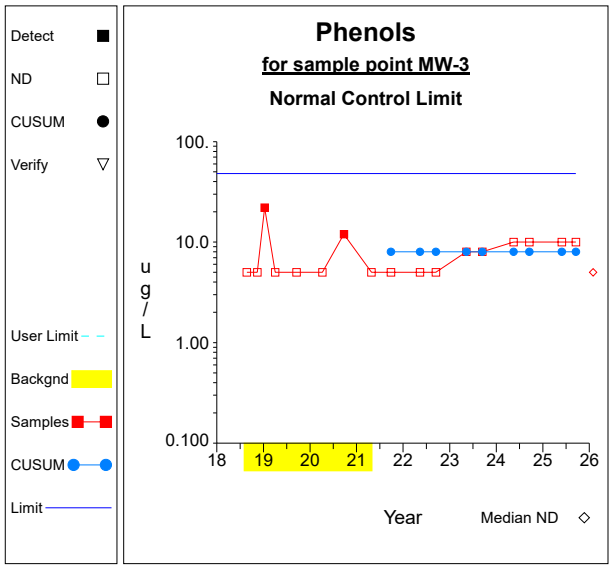
Intra-Well Control Charts / Prediction Limits



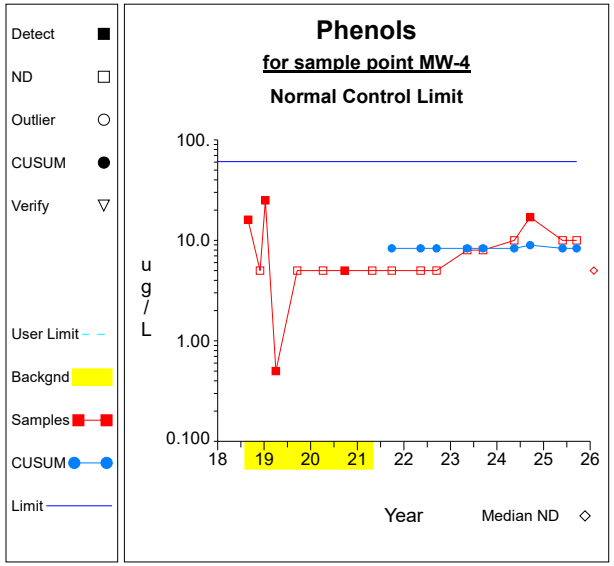
Graph 116



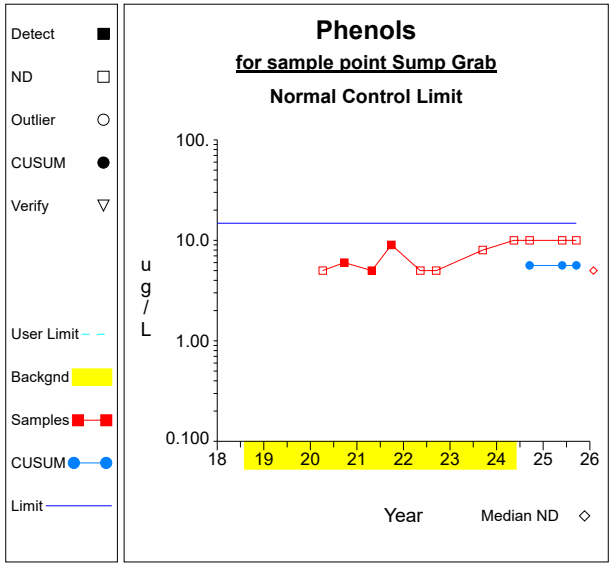
Graph 117



Graph 118

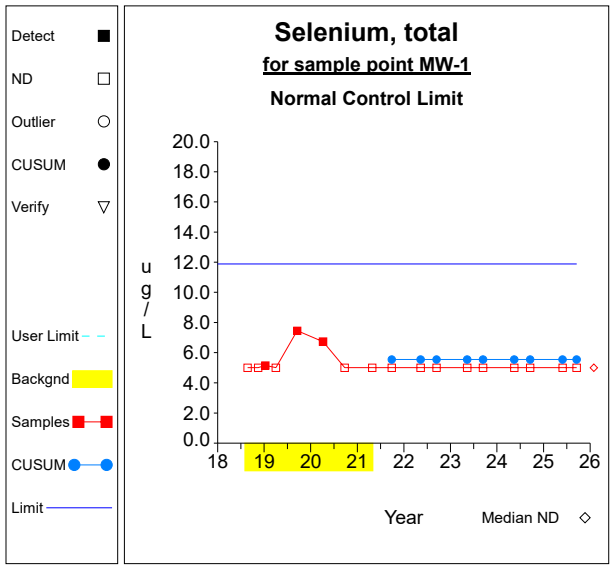


Graph 119

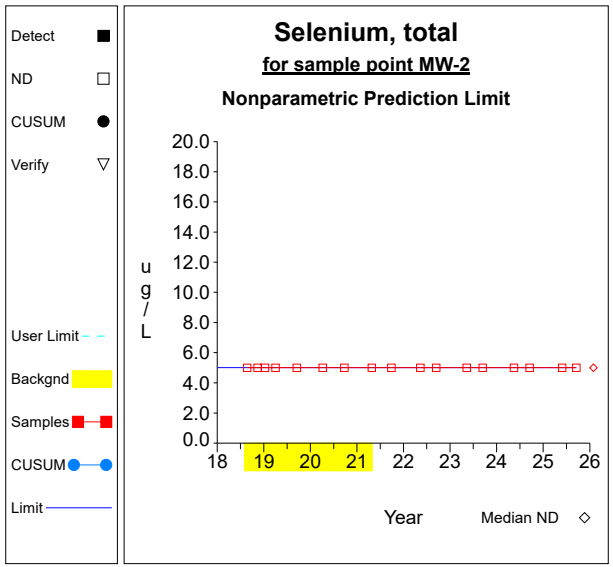


Graph 120

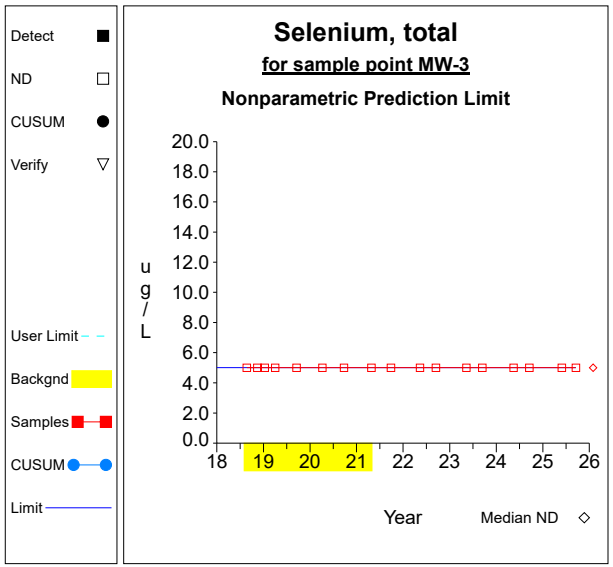
Intra-Well Control Charts / Prediction Limits



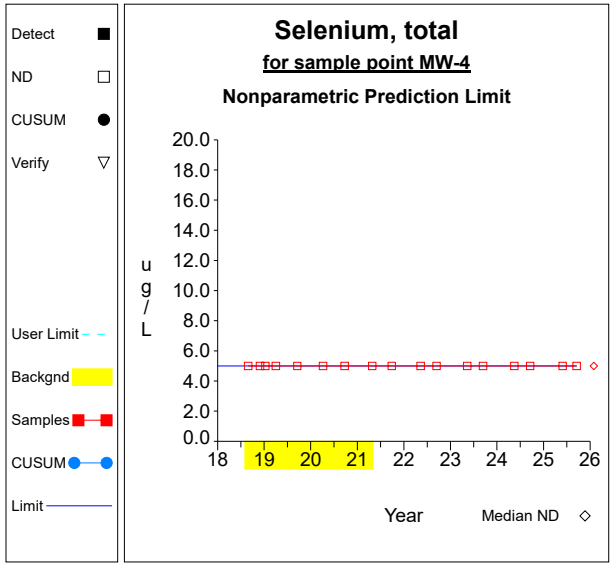
Graph 121



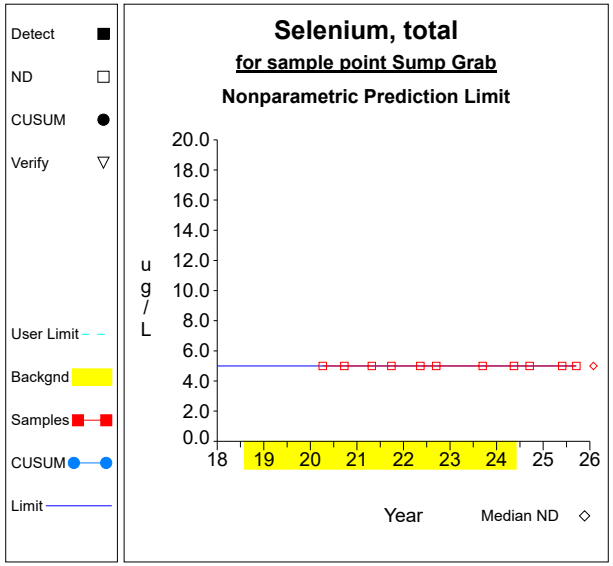
Graph 122



Graph 123



Graph 124



Graph 125

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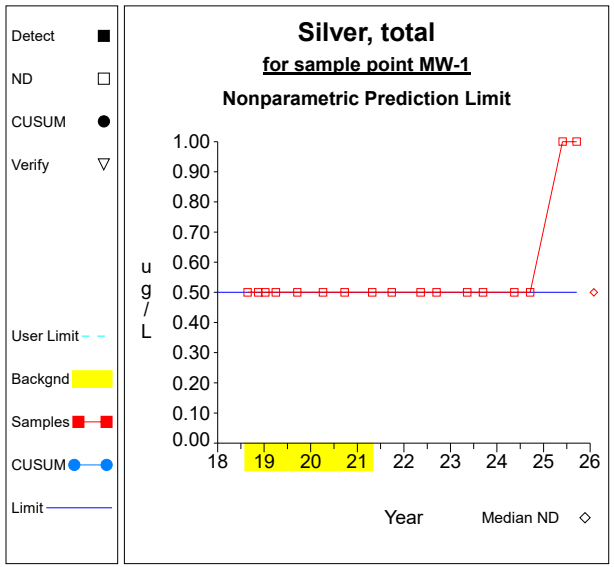
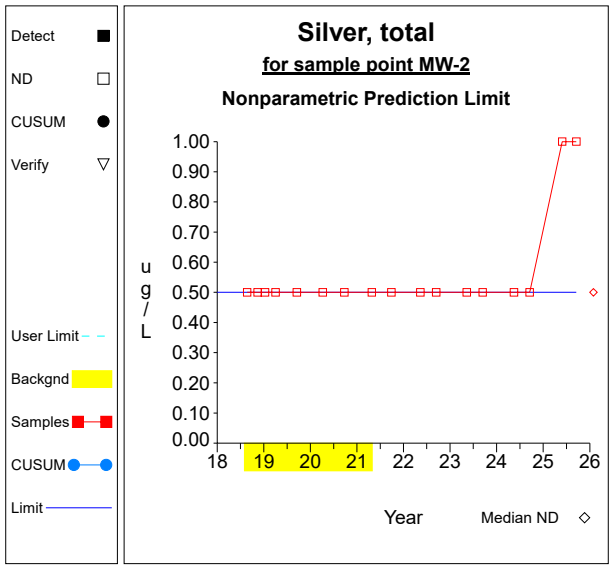
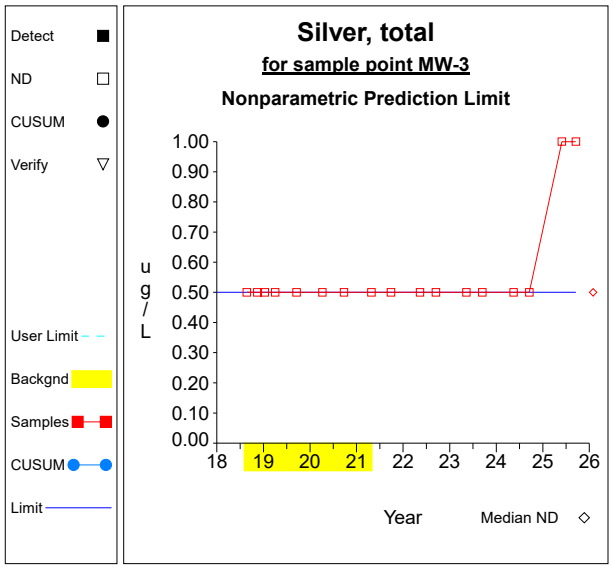
Intra-Well Control Charts / Prediction Limits



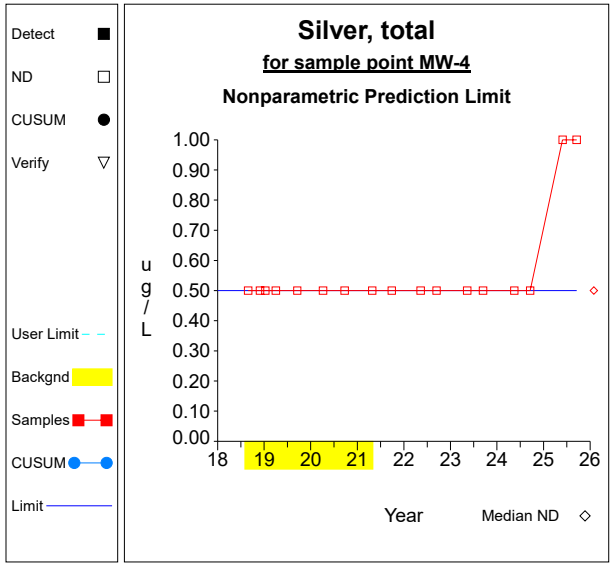
Graph 126



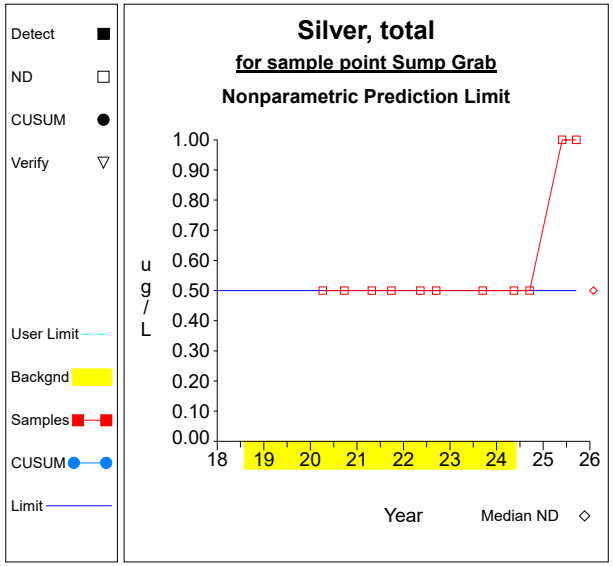
Graph 127



Graph 128



Graph 129



Graph 130

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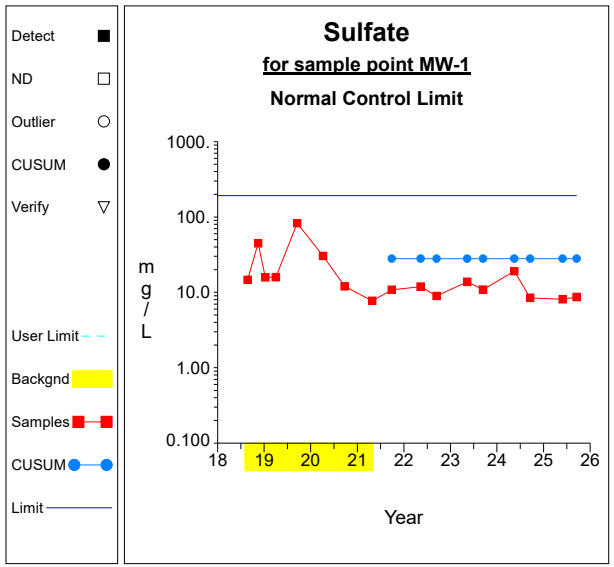
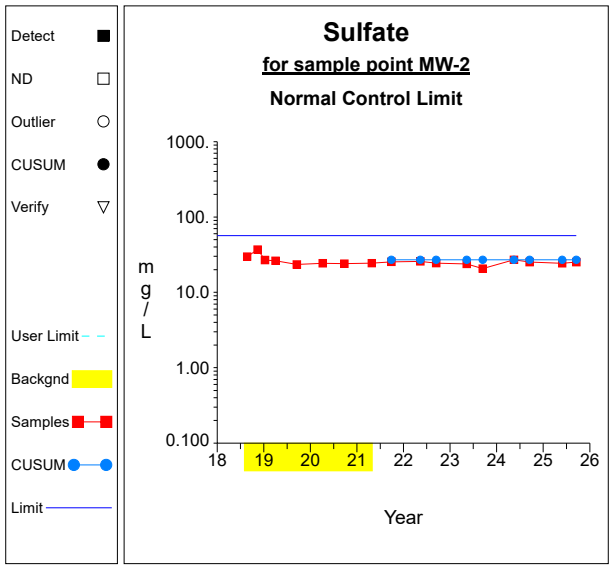
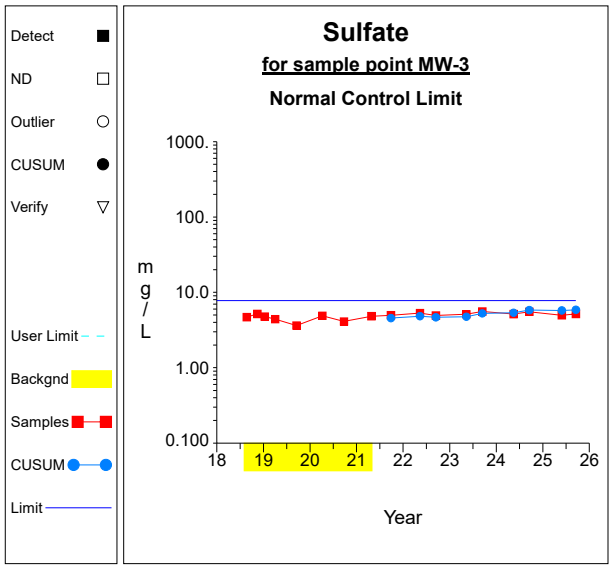
Intra-Well Control Charts / Prediction Limits



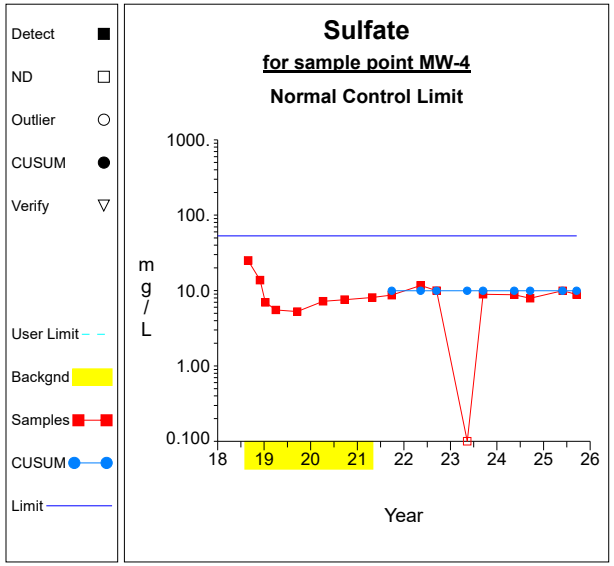
Graph 131



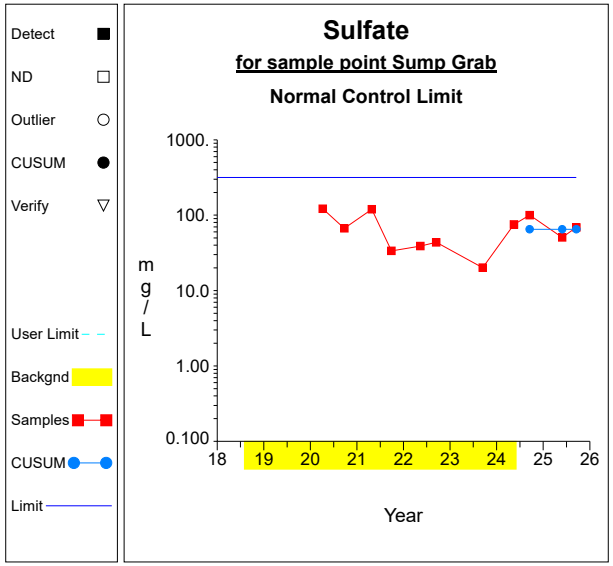
Graph 132



Graph 133



Graph 134



Graph 135

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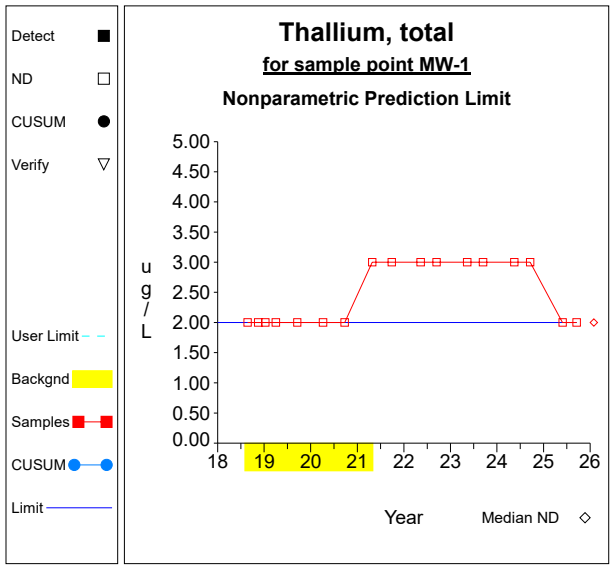
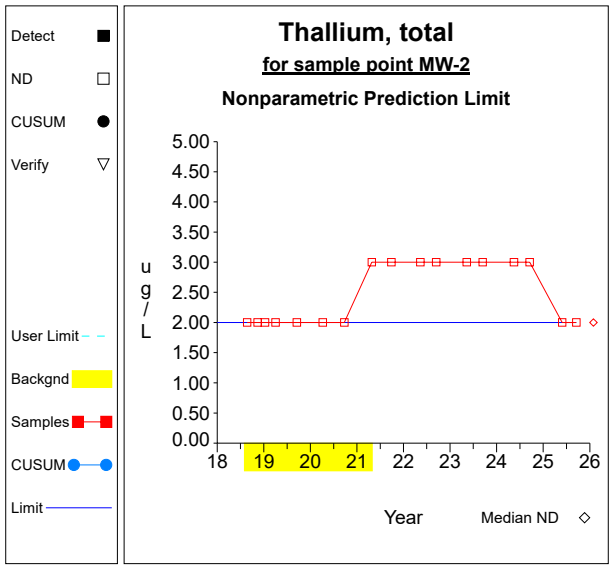
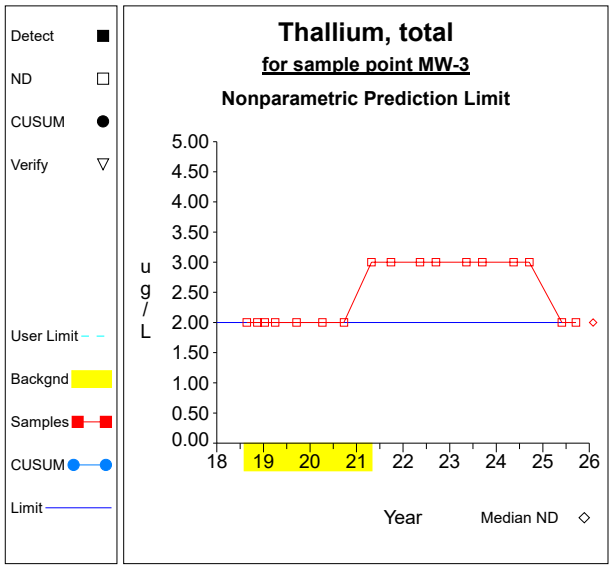
Intra-Well Control Charts / Prediction Limits



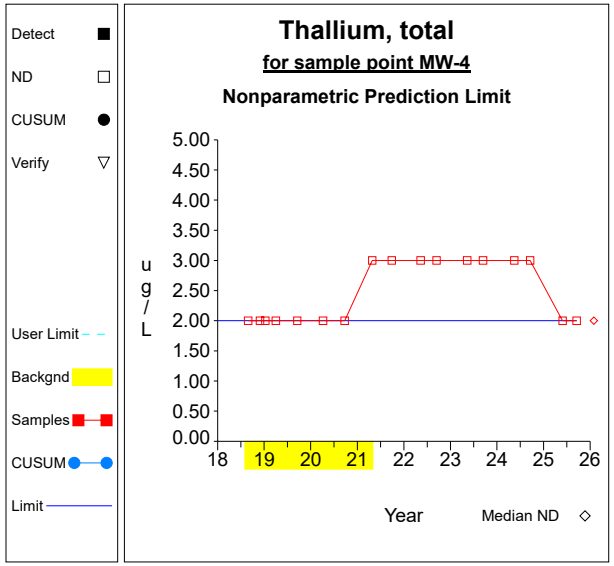
Graph 136



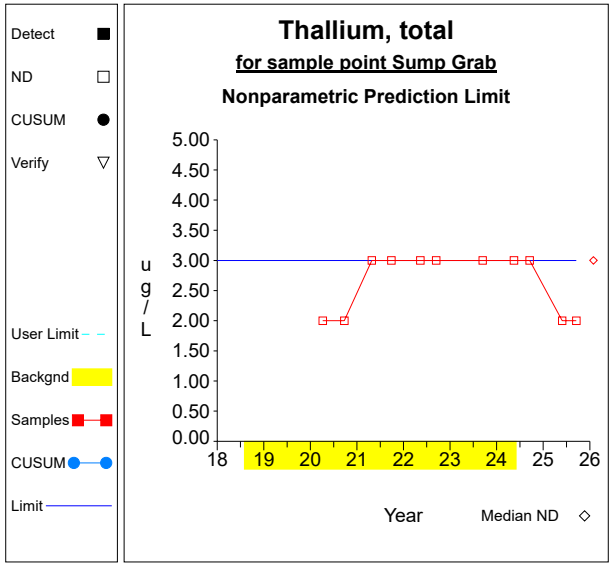
Graph 137



Graph 138



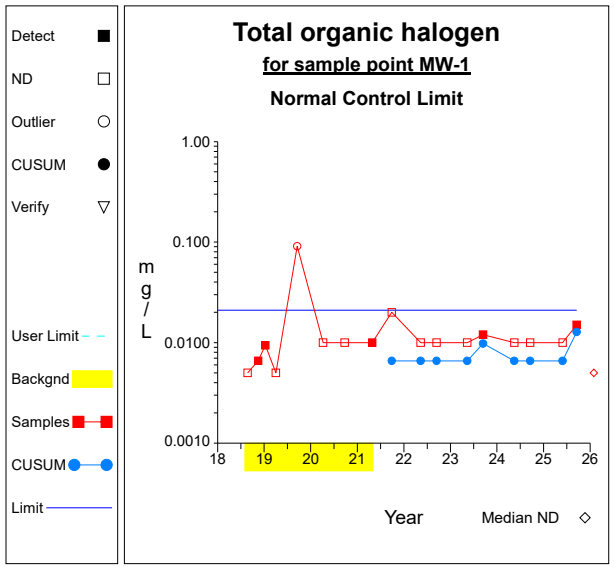
Graph 139



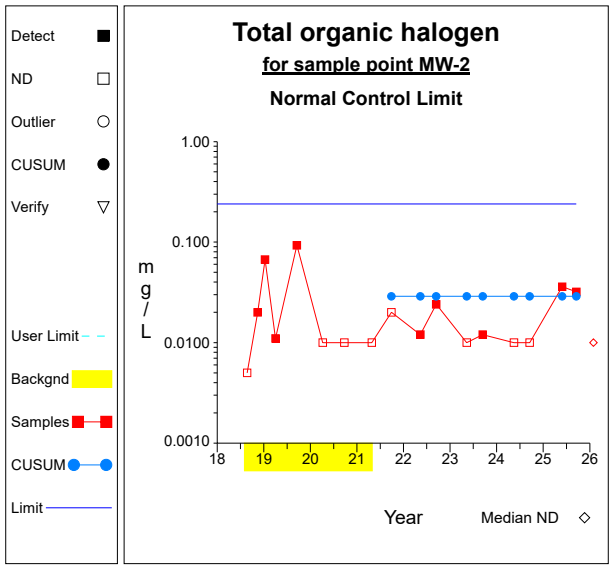
Graph 140

Prepared by: Otter Creek Environmental

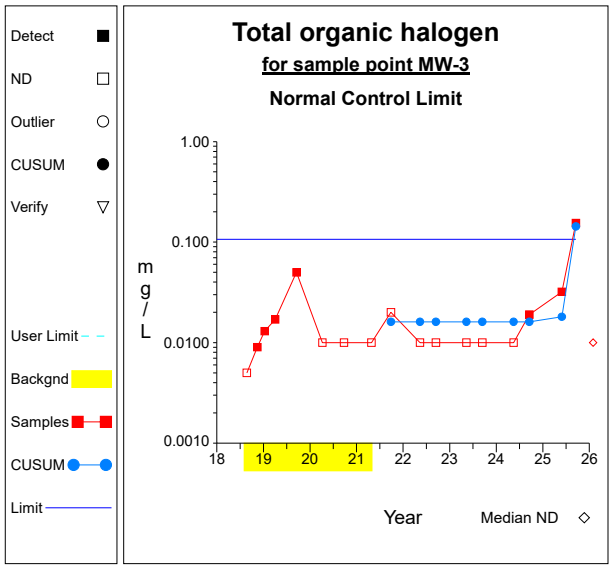
Intra-Well Control Charts / Prediction Limits



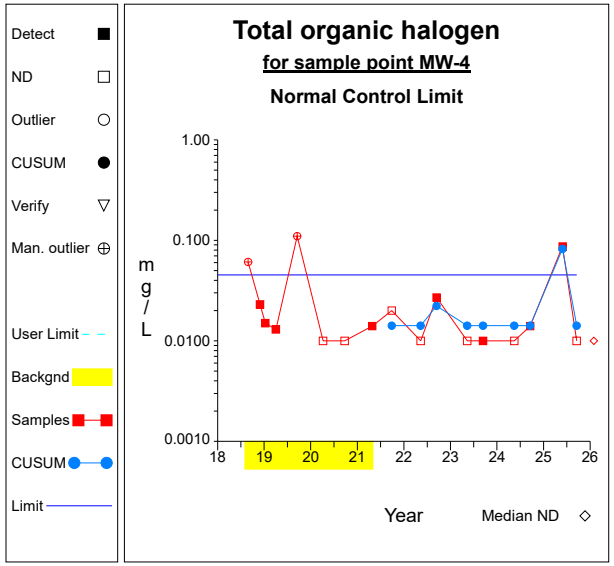
Graph 141



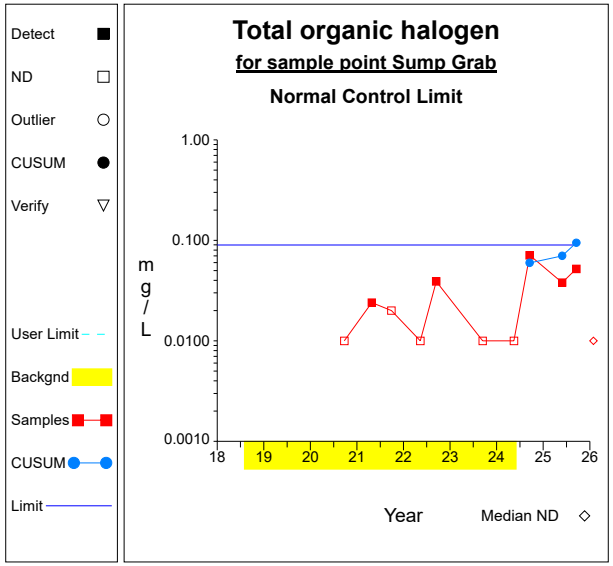
Graph 142



Graph 143



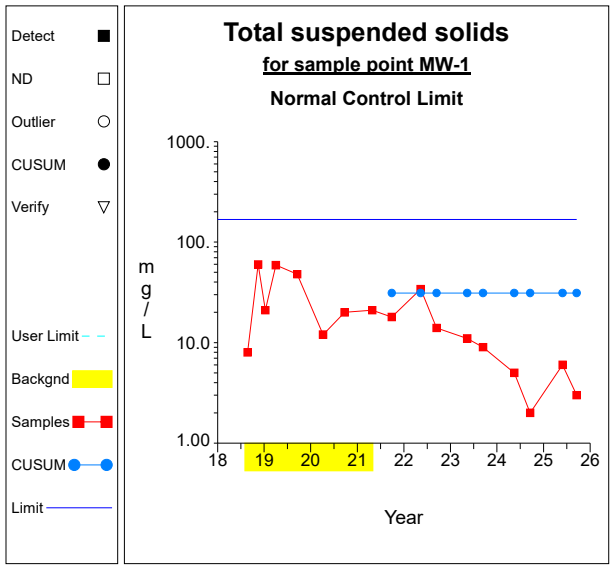
Graph 144



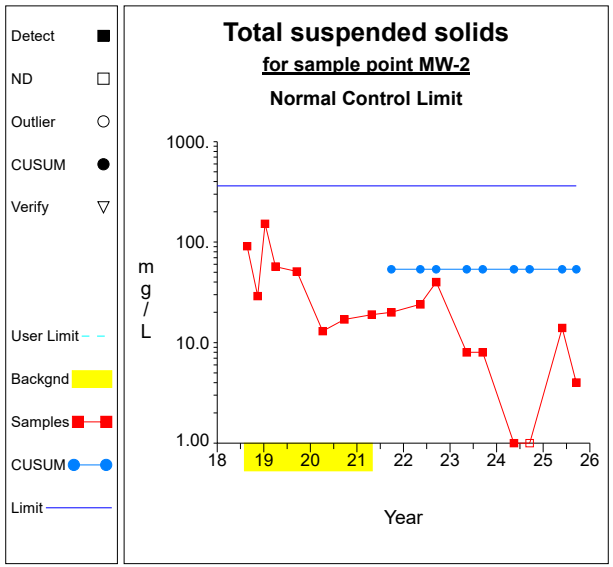
Graph 145

Prepared by: Otter Creek Environmental

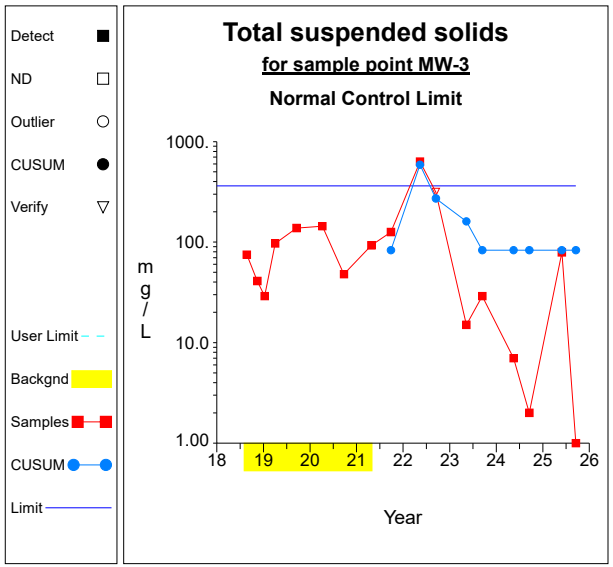
Intra-Well Control Charts / Prediction Limits



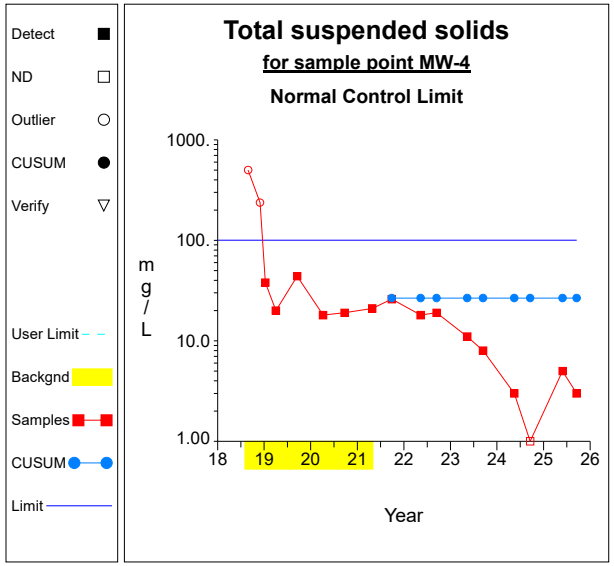
Graph 146



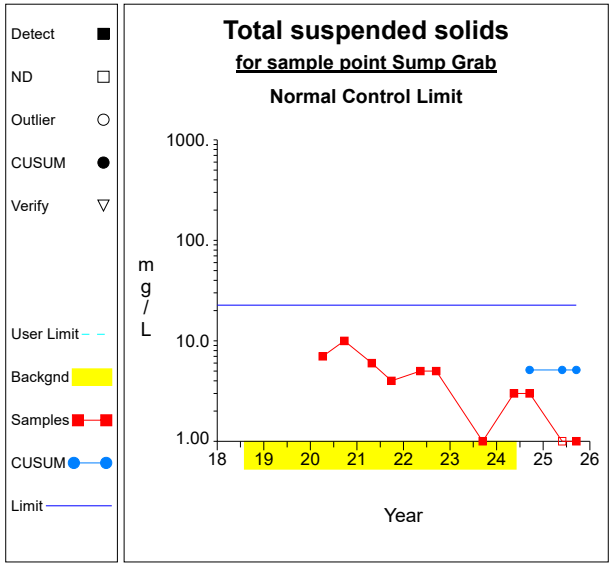
Graph 147



Graph 148

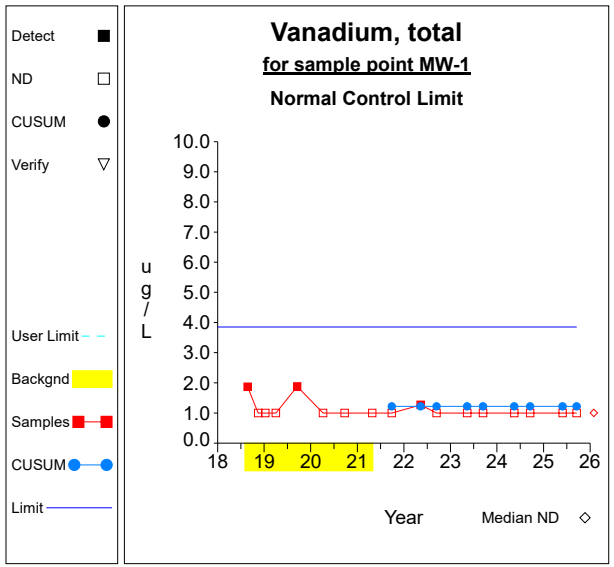


Graph 149

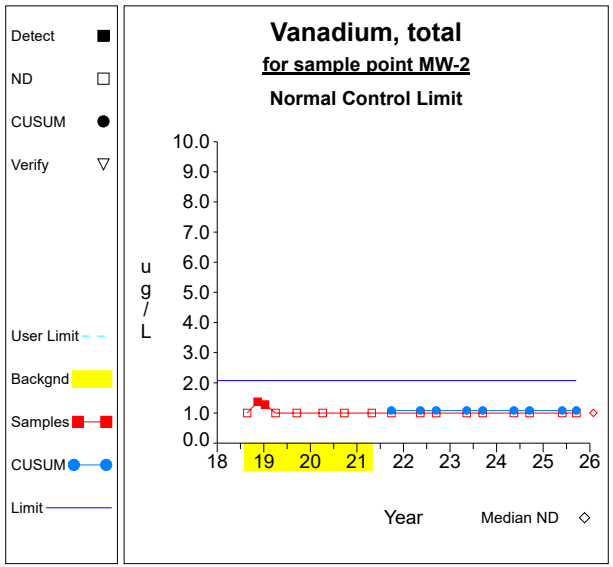


Graph 150

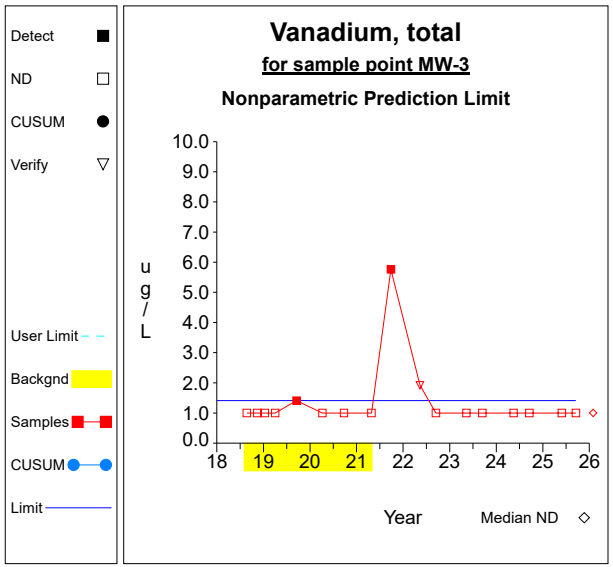
Intra-Well Control Charts / Prediction Limits



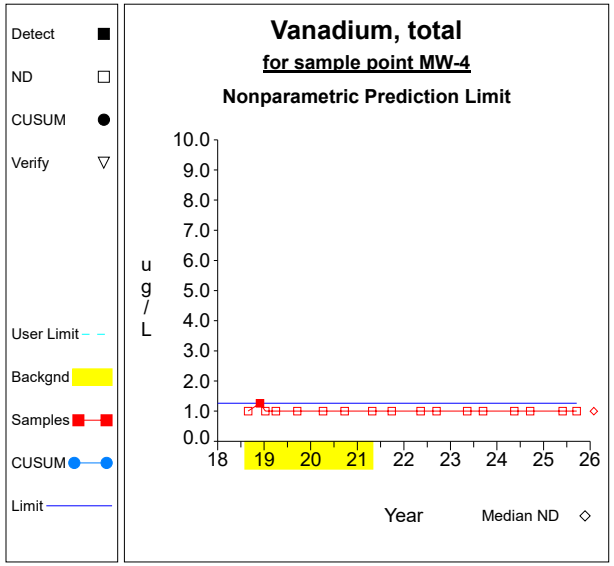
Graph 151



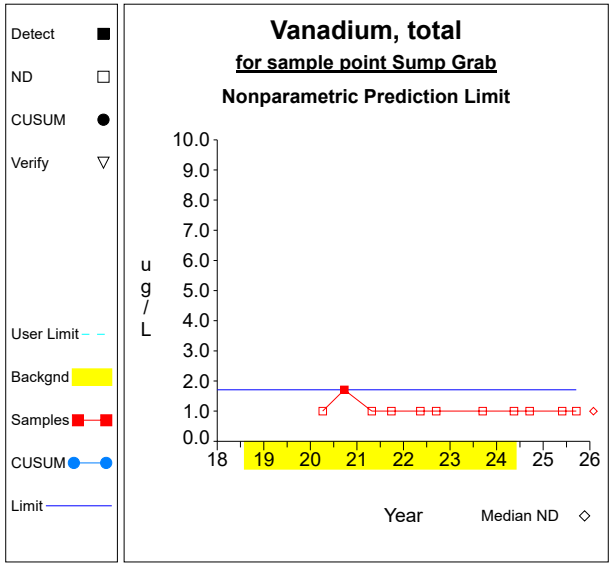
Graph 152



Graph 153

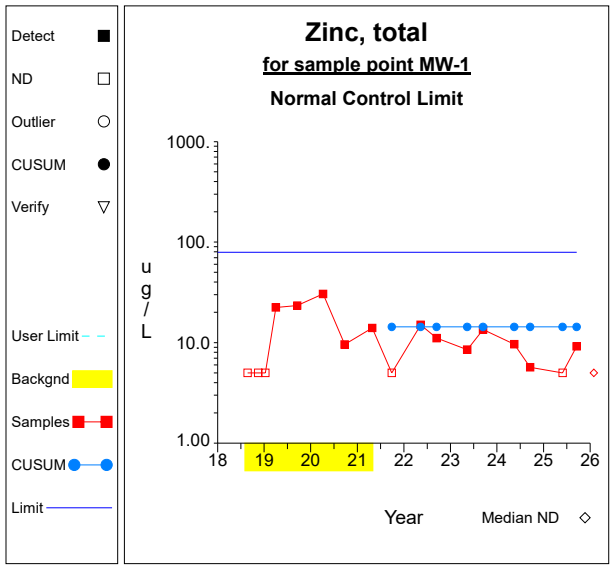


Graph 154

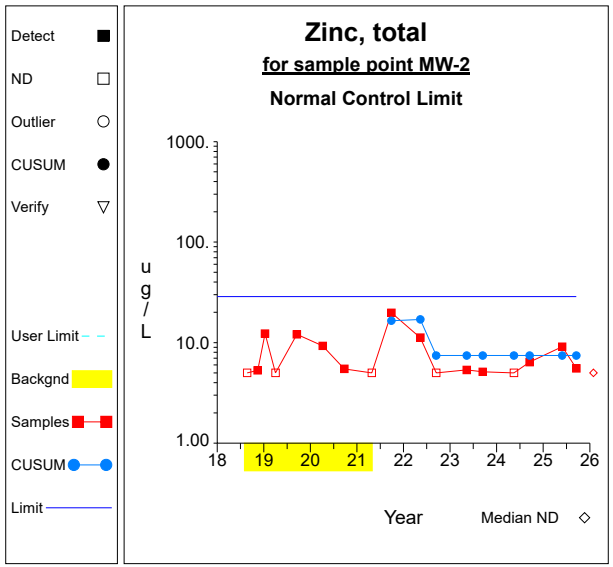


Graph 155

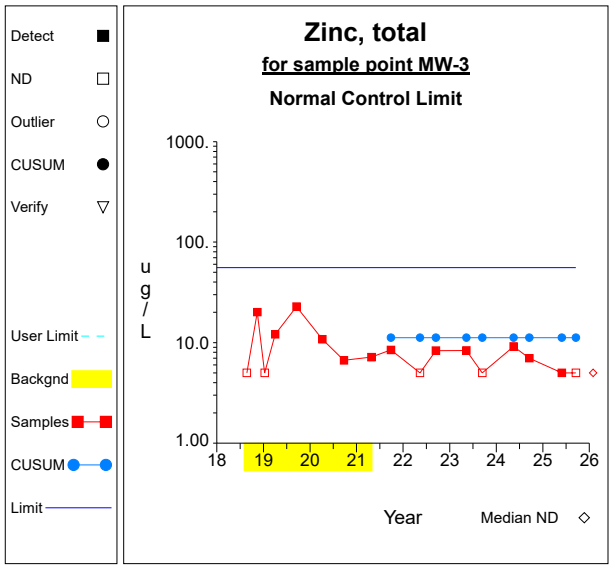
Intra-Well Control Charts / Prediction Limits



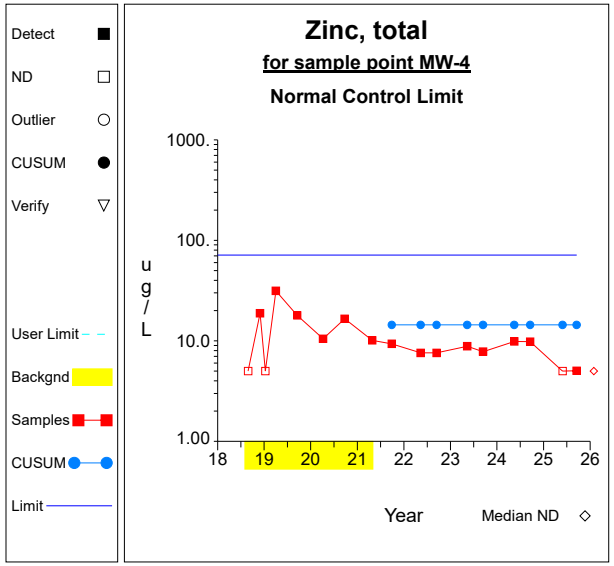
Graph 156



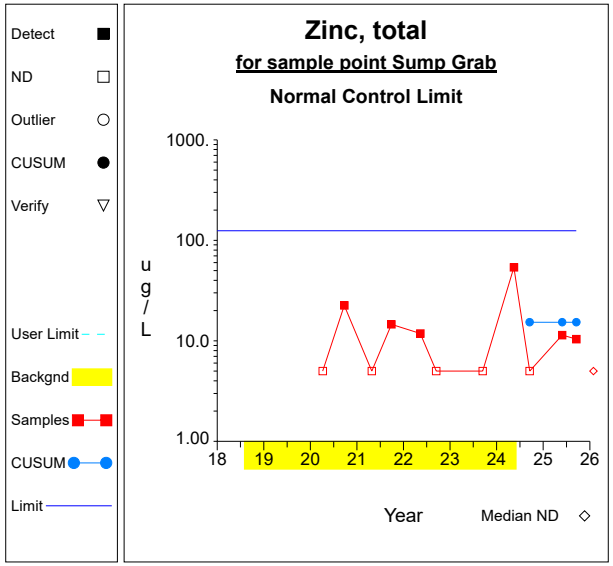
Graph 157



Graph 158

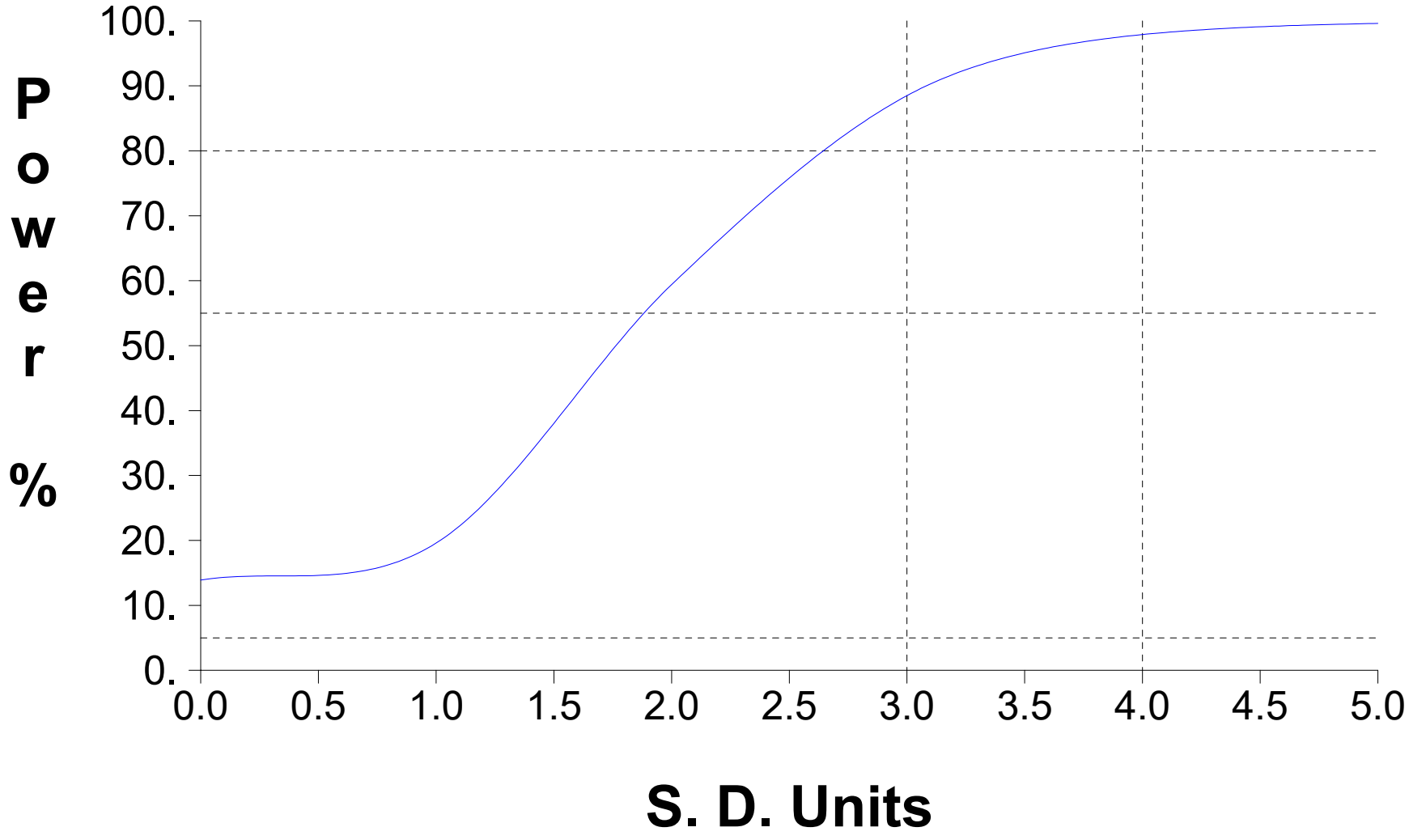


Graph 159



Graph 160

False Positive and False Negative Rates for Current Intra-Well Control Charts Monitoring Program



Appendix B

Laboratory Analytical Reports

Spring

QCAnalytical Services, LLC
1798 Iowa Drive, LeClaire, IA 52753 • qcanalytical.net
O: 563-289-3373 • Fx: 563-289-5526

Laboratory Report

Wendling Quarries Inc.
Morgan Schuler
2647 225th Street P.O. Box 230
Dewitt,IA 52742

Date Received: 05/29/25 14:34
Date Reported: 08/25/25 17:14
Project: Monitoring wells-Goose Lake BiAnnual include Excel data file

Case Narrative

Sample ID: Goose Lake Well #1 Grab
Lab No.: 25E2927-01

Analyte	Result	Units	Analyzed	Analyst	Method
Total Organic Halogens (TOX)	<0.010	mg/L	8/25/25	LT	EPA 9020B
2-Butanone (MEK)	<0.010	mg/L	6/5/25 14:52	RAF	EPA 624.1

Analyte	Result	Units	Analyzed	Analyst	Method	Notes
Sample ID: Goose Lake Well #1 Grab			**Date Sampled: 05/29/25 10:00**		**Date Received: 05/29/25 14:34**	
Lab No.: 25E2927-01			**Sampled by: Morgan Schuler**			
****** DEFAULT GENERAL METHOD ******						
Formaldehyde	<0.100	mg/L	06/11/25 14:18	kc	GC-MS	
Classical Chemistry Parameters						
Ammonia as N	0.12	mg/L	06/04/25 14:25	jc	Timberline	
Chemical Oxygen Demand	<10	mg/L	05/29/25 13:21	EV	SM 5220D-1997	
Chloride	3.13	mg/L	05/30/25 16:12	EV	EPA 300.0	
Fluoride	<0.100	mg/L	05/30/25 16:12	EV	EPA 300.0	
Sulfate as SO4	8.09	mg/L	05/30/25 16:12	EV	EPA 300.0	
Phenolics	<0.010	mg/L	06/02/25 16:23	kc	EPA 420.1 rev1978	
Total Suspended Solids	6	mg/L	06/03/25 10:01	kt	USGS I-3765-85	
Metals by EPA 200 Series Methods						
Silver	<0.00100	mg/L	06/02/25 14:13	kc	EPA 200.7	
Aluminum	<0.100	mg/L	06/02/25 14:13	kc	EPA 200.7	
Arsenic	<0.0100	mg/L	06/02/25 14:13	kc	EPA 200.7	
Boron	<0.0200	mg/L	06/02/25 14:13	kc	EPA 200.7	
Barium	0.0384	mg/L	06/02/25 14:13	kc	EPA 200.7	
Beryllium	<0.00100	mg/L	06/02/25 14:13	kc	EPA 200.7	
Cadmium	<0.000400	mg/L	06/02/25 14:13	kc	EPA 200.7	
Cobalt	<0.00200	mg/L	06/02/25 14:13	kc	EPA 200.7	

Analysis Certified by:

Randall Wanke, Ph.D.

Randal Wanke, Laboratory Director

QCAnalytical Services, LLC
1798 Iowa Drive, LeClaire, IA 52753 • qcanalytical.net
O: 563-289-3373 • Fx: 563-289-5526

Wendling Quarries Inc.	Project: Monitoring wells-Goose Lake BiAnnual	
2647 225th Street P.O. Box 230	include Excel data file	**Reported:**
Dewitt IA, 52742	Client Contact: Morgan Schuler	08/25/25 17:14

Analyte	Result	Units	Analyzed	Analyst	Method	Notes
Sample ID: Goose Lake Well #1 Grab			**Date Sampled: 05/29/25 10:00**		**Date Received: 05/29/25 14:34**	
Lab No.: 25E2927-01			**Sampled by: Morgan Schuler**			
Chromium	0.00308	mg/L	06/02/25 14:13	kc	EPA 200.7	
Copper	<0.00300	mg/L	06/02/25 14:13	kc	EPA 200.7	
Iron	0.0269	mg/L	06/02/25 14:13	kc	EPA 200.7	
Magnesium	49.9	mg/L	06/02/25 11:45	kc	EPA 200.7	
Manganese	<0.0200	mg/L	06/02/25 14:13	kc	EPA 200.7	
Molybdenum	<0.0100	mg/L	06/02/25 14:13	kc	EPA 200.7	
Nickel	0.00193	mg/L	06/02/25 14:13	kc	EPA 200.7	
Lead	<0.00200	mg/L	06/02/25 14:13	kc	EPA 200.7	
Antimony	<0.00500	mg/L	06/02/25 14:13	kc	EPA 200.7	
Selenium	<0.00500	mg/L	06/02/25 14:13	kc	EPA 200.7	
Thallium	<0.00200	mg/L	06/02/25 14:13	kc	EPA 200.7	
Vanadium	<0.00100	mg/L	06/02/25 14:13	kc	EPA 200.7	
Zinc	<0.00500	mg/L	06/02/25 14:13	kc	EPA 200.7	
Mercury	<0.00200	mg/L	06/06/25 16:28	kc	EPA 245.1 rev 3-1994	
Field pH	8.5	pH Units	05/29/25 10:00	Morgan S	SM 4500 H + B	
Field Temperature	57	ºF	05/29/25 10:00	Morgan S	SM 2550 B	
Field Conductivity	460	uS	05/29/25 10:00	Morgan S	EPA 150	

QCAnalytical Services, LLC
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CHAIN OF CUSTODY RECORD

25E2927

Monitoring wells-Goose Lake BiAnnual

Wendling Quarries Inc.
~~John Kulper~~ Morgan Schuler
2647 225th Street P.O. Box 230
Dewitt, IA 52742
(563) 659-9181

Collection Point	Date/Time	Sample Type Comp or Grab	Contents	Qty Container	Analysis	Sampler Initials
Goose Lake Well #1	5/29/25 10:00	G	Water	1 01 - 40mL Clear Vial w/ HCl; 2 per set	EPA 624 - WW VOC-QCAS	MS
Goose Lake Well #1	5/29/25 10:00	G	Water	1 02 - 1000mL Amber Glass Cool to 4° C	General GC-MS-QCAS	MS
Goose Lake Well #1	5/29/25 10:00	G	Water	1 05 - 500mL Plastic pH <2 w/ H2SO4	Ammonia-Timberline-QCAS	MS
Goose Lake Well #1	5/29/25 10:00	G	Water	1 06 - 250mL Plastic pH <2 w/ H2SO4	Phenols-QCAS	MS
Goose Lake Well #1	5/29/25 10:00	G	Water	1 12 - 500mL WM Plastic Cool to 4° C	COD-QCAS, Conductivity-QCAS, IC Chloride-QCAS, IC Sulfate-QCAS, TSS-QCAS	MS
Goose Lake Well #1	5/29/25 10:00	G	Water	1 13 - 250mL WM Plastic Cool to 4° C	IC Fluoride-QCAS	MS
Goose Lake Well #1 pH 8.5 µS 460 Temp 57°	5/29/25 10:00	G	Water	1 18 - 250mL WM Plastic pH <2 w/HNO3	ICP (WW) Ag - Silver-QCAS, ICP (WW) Al - Aluminum-QCAS, ICP (WW) As - Arsenic-QCAS, ICP (WW) B - Boron-QCAS, ICP (WW) Ba - Barium-QCAS, ICP (WW) Be - Beryllium-QCAS, ICP (WW) Cd - Cadmium-QCAS, ICP (WW) Co - Cobalt-QCAS, ICP (WW) Cr - Chromium-QCAS, ICP (WW) Cu - Copper-QCAS, ICP (WW) Fe - Iron-QCAS, ICP (WW) Mg - Magnesium-QCAS, ICP (WW) Mn - Manganese-QCAS, ICP (WW) Mo - Molybdenum-QCAS, ICP (WW) Ni - Nickel-QCAS, ICP (WW) Pb - Lead-QCAS, ICP (WW) Sb - Antimony-QCAS, ICP (WW) Se - Selenium-QCAS, ICP (WW) Tl - Thallium-QCAS, ICP (WW) V - Vanadium-QCAS, ICP (WW) Zn - Zinc-QCAS, Mercury EPA 245.1-QCAS	MS
Goose Lake Well #1	5/29/25 10:00	G	Water	1 40 - 250ml Amber Glass pH<2 w/ H2SO4	EOX-QCAS	MS

Relinquished By	Date/Time	Received By	Date/Time	
	5/29/25 2:25			
Relinquished By	Date/Time	Received By	Date/Time	Comments
			5-29-25 2:25	
Cooler Numbers and Temperatures				

QCAnalytical Services, LLC
1798 Iowa Drive, LeClaire, IA 52753 • qcanalytical.net
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Laboratory Report

Wendling Quarries Inc.
Morgan Schuler
2647 225th Street P.O. Box 230
Dewitt,IA 52742

Date Received: 05/29/25 14:38
Date Reported: 07/20/25 08:00
Project: Monitoring wells-Goose Lake BiAnnual include Excel data file

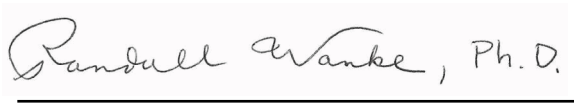
Case Narrative

Sample ID: Goose Lake Well #2 Grab
Lab No.: 25E2928-01

Analyte	Result	Units	Analyzed	Analyst	Method
Total Organic Halogens (TOX)	0.036	mg/L	6/16/25 14:56	CSM	EPA 9020B
2-Butanone (MEK)	<0.010	mg/L	6/5/25 15:17	RAF	EPA 624.1

Analyte	Result	Units	Analyzed	Analyst	Method	Notes
Sample ID: Goose Lake Well #2 Grab			**Date Sampled: 05/29/25 11:00**		**Date Received: 05/29/25 14:38**	
Lab No.: 25E2928-01			**Sampled by: Morgan Schuler**			
****** DEFAULT GENERAL METHOD ******						
Formaldehyde	<0.100	mg/L	06/11/25 14:18	kc	GC-MS	
Classical Chemistry Parameters						
Ammonia as N	<0.10	mg/L	06/04/25 14:28	jc	Timberline	
Chemical Oxygen Demand	<10	mg/L	05/29/25 13:21	EV	SM 5220D-1997	
Chloride	2.77	mg/L	05/30/25 16:12	EV	EPA 300.0	
Fluoride	0.131	mg/L	05/30/25 16:12	EV	EPA 300.0	
Sulfate as SO4	24.3	mg/L	05/30/25 16:12	EV	EPA 300.0	
Phenolics	<0.010	mg/L	06/02/25 16:23	kc	EPA 420.1 rev1978	
Total Suspended Solids	14	mg/L	06/03/25 10:01	kt	USGS I-3765-85	
Metals by EPA 200 Series Methods						
Silver	<0.00100	mg/L	06/02/25 14:16	kc	EPA 200.7	
Aluminum	<0.100	mg/L	06/02/25 14:16	kc	EPA 200.7	
Arsenic	<0.0100	mg/L	06/02/25 14:16	kc	EPA 200.7	
Boron	<0.0200	mg/L	06/02/25 14:16	kc	EPA 200.7	
Barium	0.0660	mg/L	06/02/25 14:16	kc	EPA 200.7	
Beryllium	<0.00100	mg/L	06/02/25 14:16	kc	EPA 200.7	
Cadmium	<0.000400	mg/L	06/02/25 14:16	kc	EPA 200.7	

Analysis Certified by:



Randal Wanke, Laboratory Director

QCAnalytical Services, LLC
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Wendling Quarries Inc.	Project: Monitoring wells-Goose Lake BiAnnual	
2647 225th Street P.O. Box 230	include Excel data file	**Reported:**
Dewitt IA, 52742	Client Contact: Morgan Schuler	07/20/25 08:00

Analyte	Result	Units	Analyzed	Analyst	Method	Notes
Sample ID: Goose Lake Well #2 Grab			**Date Sampled: 05/29/25 11:00**		**Date Received: 05/29/25 14:38**	
Lab No.: 25E2928-01			**Sampled by: Morgan Schuler**			
Cobalt	<0.00200	mg/L	06/02/25 14:16	kc	EPA 200.7	
Chromium	0.00699	mg/L	06/02/25 14:16	kc	EPA 200.7	
Copper	<0.00300	mg/L	06/02/25 14:16	kc	EPA 200.7	
Iron	0.0579	mg/L	06/02/25 14:16	kc	EPA 200.7	
Magnesium	48.1	mg/L	06/02/25 11:45	kc	EPA 200.7	
Manganese	0.0314	mg/L	06/02/25 14:16	kc	EPA 200.7	
Molybdenum	<0.0100	mg/L	06/02/25 14:16	kc	EPA 200.7	
Nickel	0.00297	mg/L	06/02/25 14:16	kc	EPA 200.7	
Lead	<0.00200	mg/L	06/02/25 14:16	kc	EPA 200.7	
Antimony	<0.00500	mg/L	06/02/25 14:16	kc	EPA 200.7	
Selenium	<0.00500	mg/L	06/02/25 14:16	kc	EPA 200.7	
Thallium	<0.00200	mg/L	06/02/25 14:16	kc	EPA 200.7	
Vanadium	<0.00100	mg/L	06/02/25 14:16	kc	EPA 200.7	
Zinc	0.00911	mg/L	06/02/25 14:16	kc	EPA 200.7	
Mercury	<0.00200	mg/L	06/06/25 16:28	kc	EPA 245.1 rev 3-1994	
Field pH	8.2	pH Units	05/29/25 11:00	Morgan S	SM 4500 H + B	
Field Temperature	55.6	ºF	05/29/25 11:00	Morgan S	SM 2550 B	
Field Conductivity	525	uS	05/29/25 11:00	Morgan S	EPA 150	

25E2428

CHAIN OF CUSTODY RECORD

QCAnalytical Services, LLC
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Monitoring wells-Goose Lake BiAnnual

Wendling Quarries Inc.
~~John Kalper~~ Morgan Schuler
2647 225th Street P.O. Box 230
Dewitt, IA 52742
(563) 659-9181

Collection Point	Date/Time	Sample Type Comp or Grab	Contents	Qty Container	Analysis	Sampler Initials
Goose Lake Well #2	5/29/25 11:00	G	Water	1 01 - 40mL Clear Vial w/ HCl; 2 per set	EPA 624 - WW VOC-QCAS	MS
Goose Lake Well #2	5/29/25 11:00	G	Water	1 02 - 1000mL Amber Glass Cool to 4° C	General GC-MS-QCAS	MS
Goose Lake Well #2	5/29/25 11:00	G	Water	1 05 - 500mL Plastic pH <2 w/ H2SO4	Ammonia-Timberline-QCAS	MS
Goose Lake Well #2	5/29/25 11:00	G	Water	1 06 - 250mL Plastic pH <2 w/ H2SO4	Phenols-QCAS	MS
Goose Lake Well #2	5/29/25 11:00	G	Water	1 12 - 500mL WM Plastic Cool to 4° C	COD-QCAS, Conductivity-QCAS, IC Chloride-QCAS, IC Sulfate-QCAS, TSS-QCAS	MS
Goose Lake Well #2	5/29/25 11:00	G	Water	1 13 - 250mL WM Plastic Cool to 4° C	IC Fluoride-QCAS	MS
Goose Lake Well #2 pH 8.2 ys 525 Temp 55.6°	5/29/25 11:00	G	Water	1 18 - 250mL WM Plastic pH <2 w/HNO3	ICP (WW) Ag - Silver-QCAS, ICP (WW) Al - Aluminum-QCAS, ICP (WW) As - Arsenic-QCAS, ICP (WW) B - Boron-QCAS, ICP (WW) Ba - Barium-QCAS, ICP (WW) Be - Beryllium-QCAS, ICP (WW) Cd - Cadmium-QCAS, ICP (WW) Co - Cobalt-QCAS, ICP (WW) Cr - Chromium-QCAS, ICP (WW) Cu - Copper-QCAS, ICP (WW) Fe - Iron-QCAS, ICP (WW) Mg - Magnesium-QCAS, ICP (WW) Mn - Manganese-QCAS, ICP (WW) Mo - Molybdenum-QCAS, ICP (WW) Ni - Nickel-QCAS, ICP (WW) Pb - Lead-QCAS, ICP (WW) Sb - Antimony-QCAS, ICP (WW) Se - Selenium-QCAS, ICP (WW) Tl - Thallium-QCAS, ICP (WW) V - Vanadium-QCAS, ICP (WW) Zn - Zinc-QCAS, Mercury EPA 245.1-QCAS	MS
Goose Lake Well #2	5/29/25 11:00	G	Water	1 40 - 250ml Amber Glass pH<2 w/ H2SO4	EOX-QCAS	MS

Relinquished By	Date/Time	Received By	Date/Time	
5/29/25 2:25				
Relinquished By	Date/Time	Received By	Date/Time	Comments
			5-29-25 2:25	
Cooler Numbers and Temperatures				

QCAnalytical Services, LLC
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Laboratory Report

Wendling Quarries Inc.
Morgan Schuler
2647 225th Street P.O. Box 230
Dewitt,IA 52742

Date Received: 05/29/25 14:39
Date Reported: 07/20/25 07:23
Project: Monitoring wells-Goose Lake BiAnnual include Excel data file

Case Narrative

Sample ID: Goose Lake Well #3 Grab
Lab No.: 25E2929-01

Analyte	Result	Units	Analyzed	Analyst	Method
Total Organic Halogens (TOX)	0.032	mg/L	6/16/25 14:56	CSM	EPA 9020B
2-Butanone (MEK)	<0.010	mg/L	6/5/25 17:18	RAF	EPA 624.1

Analyte	Result	Units	Analyzed	Analyst	Method	Notes
Sample ID: Goose Lake Well #3 Grab			**Date Sampled: 05/29/25 11:55**		**Date Received: 05/29/25 14:39**	
Lab No.: 25E2929-01			**Sampled by: Morgan Schuler**			
****** DEFAULT GENERAL METHOD ******						
Formaldehyde	<0.100	mg/L	06/11/25 14:18	kc	GC-MS	
Classical Chemistry Parameters						
Ammonia as N	<0.10	mg/L	06/04/25 14:30	jc	Timberline	
Chemical Oxygen Demand	<10	mg/L	05/29/25 13:21	EV	SM 5220D-1997	
Chloride	0.592	mg/L	05/30/25 16:12	EV	EPA 300.0	
Fluoride	<0.100	mg/L	05/30/25 16:12	EV	EPA 300.0	
Sulfate as SO4	4.97	mg/L	05/30/25 16:12	EV	EPA 300.0	
Phenolics	<0.010	mg/L	06/02/25 16:23	kc	EPA 420.1 rev1978	
Total Suspended Solids	79	mg/L	06/03/25 10:01	kt	USGS I-3765-85	
Metals by EPA 200 Series Methods						
Silver	<0.00100	mg/L	06/02/25 14:20	kc	EPA 200.7	
Aluminum	<0.100	mg/L	06/02/25 14:20	kc	EPA 200.7	
Arsenic	<0.0100	mg/L	06/02/25 14:20	kc	EPA 200.7	
Boron	<0.0200	mg/L	06/02/25 14:20	kc	EPA 200.7	
Barium	0.0293	mg/L	06/02/25 14:20	kc	EPA 200.7	
Beryllium	<0.00100	mg/L	06/02/25 14:20	kc	EPA 200.7	
Cadmium	<0.000400	mg/L	06/02/25 14:20	kc	EPA 200.7	

Analysis Certified by:

Randall Wanke, Ph.D.

Randal Wanke, Laboratory Director

QCAnalytical Services, LLC
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Wendling Quarries Inc.	Project: Monitoring wells-Goose Lake BiAnnual	
2647 225th Street P.O. Box 230	include Excel data file	**Reported:**
Dewitt IA, 52742	Client Contact: Morgan Schuler	07/20/25 07:23

Analyte	Result	Units	Analyzed	Analyst	Method	Notes
Sample ID: Goose Lake Well #3 Grab			**Date Sampled: 05/29/25 11:55**		**Date Received: 05/29/25 14:39**	
Lab No.: 25E2929-01			**Sampled by: Morgan Schuler**			
Cobalt	<0.00200	mg/L	06/02/25 14:20	kc	EPA 200.7	
Chromium	0.00659	mg/L	06/02/25 14:20	kc	EPA 200.7	
Copper	<0.00300	mg/L	06/02/25 14:20	kc	EPA 200.7	
Iron	0.0310	mg/L	06/02/25 14:20	kc	EPA 200.7	
Magnesium	22.5	mg/L	06/02/25 11:45	kc	EPA 200.7	
Manganese	<0.0200	mg/L	06/02/25 14:20	kc	EPA 200.7	
Molybdenum	<0.0100	mg/L	06/02/25 14:20	kc	EPA 200.7	
Nickel	0.00140	mg/L	06/02/25 14:20	kc	EPA 200.7	
Lead	<0.00200	mg/L	06/02/25 14:20	kc	EPA 200.7	
Antimony	<0.00500	mg/L	06/02/25 14:20	kc	EPA 200.7	
Selenium	<0.00500	mg/L	06/02/25 14:20	kc	EPA 200.7	
Thallium	<0.00200	mg/L	06/02/25 14:20	kc	EPA 200.7	
Vanadium	<0.00100	mg/L	06/02/25 14:20	kc	EPA 200.7	
Zinc	0.00500	mg/L	06/02/25 14:20	kc	EPA 200.7	
Mercury	<0.00200	mg/L	06/06/25 16:28	kc	EPA 245.1 rev 3-1994	
Field pH	8	pH Units	05/29/25 11:55	Morgan S	SM 4500 H + B	
Field Temperature	54.7	ºF	05/29/25 11:55	Morgan S	SM 2550 B	
Field Conductivity	321	uS	05/29/25 11:55	Morgan S	EPA 150	

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CHAIN OF CUSTODY RECORD

25E2729

Monitoring wells-Goose Lake BiAnnual

Wendling Quarries Inc.
~~John Kulper~~ Morgan Schuler
2647 225th Street P.O. Box 230
Dewitt, IA 52742
(563) 659-9181

Collection Point	Date/Time	Sample Type Comp or Grab	Contents	Qty Container	Analysis	Sampler Initials
Goose Lake Well #3	5|29|25 11:55	G	Water	1 01 - 40mL Clear Vial w/ HCl; 2 per set	EPA 624 - WW VOC-QCAS	MS
Goose Lake Well #3	5|29|25 11:55	G	Water	1 02 - 1000mL Amber Glass Cool to 4° C	General GC-MS-QCAS	MS
Goose Lake Well #3	5|29|25 11:55	G	Water	1 05 - 500mL Plastic pH <2 w/ H2SO4	Ammonia-Timberline-QCAS	MS
Goose Lake Well #3	5|29|25 11:55	G	Water	1 06 - 250mL Plastic pH <2 w/ H2SO4	Phenols-QCAS	MS
Goose Lake Well #3	5|29|25 11:55	G	Water	1 12 - 500mL WM Plastic Cool to 4° C	COD-QCAS, Conductivity-QCAS, IC Chloride-QCAS, IC Sulfate-QCAS, TSS-QCAS	MS
Goose Lake Well #3	5|29|25 11:55	G	Water	1 13 - 250mL WM Plastic Cool to 4° C	IC Fluoride-QCAS	MS
Goose Lake Well #3 pH 8 WS 321 Temp 54.7°	5|29|25 11:55	G	Water	1 18 - 250mL WM Plastic pH <2 w/HNO3	ICP (WW) Ag - Silver-QCAS, ICP (WW) Al - Aluminum-QCAS, ICP (WW) As - Arsenic-QCAS, ICP (WW) B - Boron-QCAS, ICP (WW) Ba - Barium-QCAS, ICP (WW) Be - Beryllium-QCAS, ICP (WW) Cd - Cadmium-QCAS, ICP (WW) Co - Cobalt-QCAS, ICP (WW) Cr - Chromium-QCAS, ICP (WW) Cu - Copper-QCAS, ICP (WW) Fe - Iron-QCAS, ICP (WW) Mg - Magnesium-QCAS, ICP (WW) Mn - Manganese-QCAS, ICP (WW) Mo - Molybdenum-QCAS, ICP (WW) Ni - Nickel-QCAS, ICP (WW) Pb - Lead-QCAS, ICP (WW) Sb - Antimony-QCAS, ICP (WW) Se - Selenium-QCAS, ICP (WW) Tl - Thallium-QCAS, ICP (WW) V - Vanadium-QCAS, ICP (WW) Zn - Zinc-QCAS, Mercury EPA 245.1-QCAS	MS
Goose Lake Well #3	5|29|25 11:55	G	Water	1 40 - 250ml Amber Glass pH<2 w/ H2SO4	EOX-QCAS	MS

Relinquished By	Date/Time	Received By	Date/Time	
[signature] 5/29/25 2:25				
Relinquished By	Date/Time	Received By	Date/Time 5-29-25 2:25	Comments
Cooler Numbers and Temperatures				

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Laboratory Report

Wendling Quarries Inc.
Morgan Schuler
2647 225th Street P.O. Box 230
Dewitt,IA 52742

Date Received: 05/29/25 14:41
Date Reported: 07/20/25 07:10
Project: Monitoring wells-Goose Lake BiAnnual include Excel data file

Case Narrative

Sample ID: Goose Lake Well #4 Grab
Lab No.: 25E2930-01

Analyte	Result	Units	Analyzed	Analyst	Method
Total Organic Halogens (TOX)	0.087	mg/L	6/16/25 14:56	CSM	EPA 9020B
2-Butanone (MEK)	<0.010	mg/L	6/5/25 17:42	RAF	EPA 624.1

Analyte	Result	Units	Analyzed	Analyst	Method	Notes
Sample ID: Goose Lake Well #4 Grab			**Date Sampled: 05/29/25 12:40**		**Date Received: 05/29/25 14:41**	
Lab No.: 25E2930-01			**Sampled by: Morgan Schuler**			
****** DEFAULT GENERAL METHOD ******						
Formaldehyde	<0.100	mg/L	06/11/25 14:18	kc	GC-MS	
Classical Chemistry Parameters						
Ammonia as N	<0.10	mg/L	06/04/25 14:32	jc	Timberline	
Chemical Oxygen Demand	<10	mg/L	05/29/25 13:21	EV	SM 5220D-1997	
Chloride	3.17	mg/L	05/30/25 16:12	EV	EPA 300.0	
Fluoride	0.149	mg/L	05/30/25 16:12	EV	EPA 300.0	
Sulfate as SO4	9.95	mg/L	05/30/25 16:12	EV	EPA 300.0	
Phenolics	<0.010	mg/L	06/02/25 16:23	kc	EPA 420.1 rev1978	
Total Suspended Solids	5	mg/L	06/03/25 10:01	kt	USGS I-3765-85	
Metals by EPA 200 Series Methods						
Silver	<0.00100	mg/L	06/02/25 14:23	kc	EPA 200.7	
Aluminum	<0.100	mg/L	06/02/25 14:23	kc	EPA 200.7	
Arsenic	<0.0100	mg/L	06/02/25 14:23	kc	EPA 200.7	
Boron	<0.0200	mg/L	06/02/25 14:23	kc	EPA 200.7	
Barium	0.0417	mg/L	06/02/25 14:23	kc	EPA 200.7	
Beryllium	<0.00100	mg/L	06/02/25 14:23	kc	EPA 200.7	
Cadmium	<0.000400	mg/L	06/02/25 14:23	kc	EPA 200.7	

Analysis Certified by:

Randall Wanke, Ph.D.

Randal Wanke, Laboratory Director

QCAnalytical Services, LLC
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Wendling Quarries Inc.	Project: Monitoring wells-Goose Lake BiAnnual	
2647 225th Street P.O. Box 230	include Excel data file	**Reported:**
Dewitt IA, 52742	Client Contact: Morgan Schuler	07/20/25 07:10

Analyte	Result	Units	Analyzed	Analyst	Method	Notes
Sample ID: Goose Lake Well #4 Grab			**Date Sampled: 05/29/25 12:40**		**Date Received: 05/29/25 14:41**	
Lab No.: 25E2930-01			**Sampled by: Morgan Schuler**			
Cobalt	<0.00200	mg/L	06/02/25 14:23	kc	EPA 200.7	
Chromium	0.00443	mg/L	06/02/25 14:23	kc	EPA 200.7	
Copper	<0.00300	mg/L	06/02/25 14:23	kc	EPA 200.7	
Iron	0.0225	mg/L	06/02/25 14:23	kc	EPA 200.7	
Magnesium	41.9	mg/L	06/02/25 11:45	kc	EPA 200.7	
Manganese	<0.0200	mg/L	06/02/25 14:23	kc	EPA 200.7	
Molybdenum	<0.0100	mg/L	06/02/25 14:23	kc	EPA 200.7	
Nickel	0.00183	mg/L	06/02/25 14:23	kc	EPA 200.7	
Lead	<0.00200	mg/L	06/02/25 14:23	kc	EPA 200.7	
Antimony	<0.00500	mg/L	06/02/25 14:23	kc	EPA 200.7	
Selenium	<0.00500	mg/L	06/02/25 14:23	kc	EPA 200.7	
Thallium	<0.00200	mg/L	06/02/25 14:23	kc	EPA 200.7	
Vanadium	<0.00100	mg/L	06/02/25 14:23	kc	EPA 200.7	
Zinc	<0.00500	mg/L	06/02/25 14:23	kc	EPA 200.7	
Mercury	<0.00200	mg/L	06/06/25 16:28	kc	EPA 245.1 rev 3-1994	
Field pH	7.8	pH Units	05/29/25 12:40	Morgan S	SM 4500 H + B	
Field Temperature	53.2	ºF	05/29/25 12:40	Morgan S	SM 2550 B	
Field Conductivity	490	uS	05/29/25 12:40	Morgan S	EPA 150	

QCAnalytical Services, LLC
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CHAIN OF CUSTODY RECORD

25C2930-01

Monitoring wells-Goose Lake BiAnnual

Wendling Quarries Inc.
~~John Kulper~~ Morgan Schuler
2647 225th Street P.O. Box 230
Dewitt, IA 52742
(563) 659-9181

Collection Point	Date/Time	Sample Type Comp or Grab	Contents	Qty Container	Analysis	Sampler Initials
Goose Lake Well #4	5/29/25 12:40	G	Water	1 01 - 40mL Clear Vial w/ HCl; 2 per set	EPA 624 - WW VOC-QCAS	MS
Goose Lake Well #4	5/29/25 12:40	G	Water	1 02 - 1000mL Amber Glass Cool to 4° C	General GC-MS-QCAS	MS
Goose Lake Well #4	5/29/25 12:40	G	Water	1 05 - 500mL Plastic pH <2 w/ H2SO4	Ammonia-Timberline-QCAS	MS
Goose Lake Well #4	5/29/25 12:40	G	Water	1 06 - 250mL Plastic pH <2 w/ H2SO4	Phenols-QCAS	MS
Goose Lake Well #4	5/29/25 12:40	G	Water	1 12 - 500mL WM Plastic Cool to 4° C	COD-QCAS, Conductivity-QCAS, IC Chloride-QCAS, IC Sulfate-QCAS, TSS-QCAS	MS
Goose Lake Well #4	5/29/25 12:40	G	Water	1 13 - 250mL WM Plastic Cool to 4° C	IC Fluoride-QCAS	MS
Goose Lake Well #4 pH 7.8 µS 490 Temp 53.2°	5/29/25 12:40	G	Water	1 18 - 250mL WM Plastic pH <2 w/HNO3	ICP (WW) Ag - Silver-QCAS, ICP (WW) Al - Aluminum-QCAS, ICP (WW) As - Arsenic-QCAS, ICP (WW) B - Boron-QCAS, ICP (WW) Ba - Barium-QCAS, ICP (WW) Be - Beryllium-QCAS, ICP (WW) Cd - Cadmium-QCAS, ICP (WW) Co - Cobalt-QCAS, ICP (WW) Cr - Chromium-QCAS, ICP (WW) Cu - Copper-QCAS, ICP (WW) Fe - Iron-QCAS, ICP (WW) Mg - Magnesium-QCAS, ICP (WW) Mn - Manganese-QCAS, ICP (WW) Mo - Molybdenum-QCAS, ICP (WW) Ni - Nickel-QCAS, ICP (WW) Pb - Lead-QCAS, ICP (WW) Sb - Antimony-QCAS, ICP (WW) Se - Selenium-QCAS, ICP (WW) Tl - Thallium-QCAS, ICP (WW) V - Vanadium-QCAS, ICP (WW) Zn - Zinc-QCAS, Mercury EPA 245.1-QCAS	MS
Goose Lake Well #4	5/29/25 12:40	G	Water	1 40 - 250ml Amber Glass pH<2 w/ H2SO4	EOX-QCAS	MS

Relinquished By	5/29/25 2:25	Date/Time	Received By	Date/Time	
Relinquished By		Date/Time	Received By	Date/Time 5/30/25 2:25	Comments
Cooler Numbers and Temperatures					

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Laboratory Report

Wendling Quarries Inc.
Morgan Schuler
2647 225th Street P.O. Box 230
Dewitt,IA 52742

Date Received: 05/29/25 14:49
Date Reported: 07/20/25 06:57
Project: Monitoring wells-Goose Lake BiAnnual include Excel data file

Case Narrative

Sample ID: Goose Lake Sump Grab
Lab No.: 25E2932-01

Analyte	Result	Units	Analyzed	Analyst	Method
Total Organic Halogens (TOX)	0.038	mg/L	6/16/25 14:56	CSM	EPA 9020B
2-Butanone (MEK)	<0.010	mg/L	6/5/25 18:06	RAF	EPA 624.1

Analyte	Result	Units	Analyzed	Analyst	Method	Notes
Sample ID: Goose Lake Sump Grab			**Date Sampled: 05/29/25 13:10**		**Date Received: 05/29/25 14:49**	
Lab No.: 25E2932-01			**Sampled by: Morgan Schuler**			
****** DEFAULT GENERAL METHOD ******						
Formaldehyde	<0.100	mg/L	06/11/25 14:18	kc	GC-MS	
Classical Chemistry Parameters						
Ammonia as N	<0.10	mg/L	06/04/25 14:41	jc	Timberline	
Chemical Oxygen Demand	<10	mg/L	05/29/25 13:21	EV	SM 5220D-1997	
Chloride	14.4	mg/L	05/30/25 16:12	EV	EPA 300.0	
Fluoride	0.133	mg/L	05/30/25 16:12	EV	EPA 300.0	
Sulfate as SO4	50.8	mg/L	05/30/25 16:12	EV	EPA 300.0	
Phenolics	<0.010	mg/L	06/02/25 16:23	kc	EPA 420.1 rev1978	
Total Suspended Solids	<1	mg/L	06/03/25 10:01	kt	USGS I-3765-85	
Metals by EPA 200 Series Methods						
Silver	<0.00100	mg/L	06/02/25 14:30	kc	EPA 200.7	
Aluminum	<0.100	mg/L	06/02/25 14:30	kc	EPA 200.7	
Arsenic	<0.0100	mg/L	06/02/25 14:30	kc	EPA 200.7	
Boron	0.0534	mg/L	06/02/25 14:30	kc	EPA 200.7	
Barium	0.123	mg/L	06/02/25 14:30	kc	EPA 200.7	
Beryllium	<0.00100	mg/L	06/02/25 14:30	kc	EPA 200.7	
Cadmium	<0.000400	mg/L	06/02/25 14:30	kc	EPA 200.7	
Cobalt	<0.00200	mg/L	06/02/25 14:30	kc	EPA 200.7	

Analysis Certified by:

Randall Wanke, Ph.D.

Randal Wanke, Laboratory Director

QCAnalytical Services, LLC
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Wendling Quarries Inc.	Project: Monitoring wells-Goose Lake BiAnnual	
2647 225th Street P.O. Box 230	include Excel data file	**Reported:**
Dewitt IA, 52742	Client Contact: Morgan Schuler	07/20/25 06:57

Analyte	Result	Units	Analyzed	Analyst	Method	Notes
Sample ID: Goose Lake Sump Grab			**Date Sampled: 05/29/25 13:10**		**Date Received: 05/29/25 14:49**	
Lab No.: 25E2932-01			**Sampled by: Morgan Schuler**			
Chromium	<0.00100	mg/L	06/02/25 14:30	kc	EPA 200.7	
Copper	<0.00300	mg/L	06/02/25 14:30	kc	EPA 200.7	
Iron	0.0410	mg/L	06/02/25 14:30	kc	EPA 200.7	
Magnesium	38.5	mg/L	06/02/25 11:45	kc	EPA 200.7	
Manganese	<0.0200	mg/L	06/02/25 14:30	kc	EPA 200.7	
Molybdenum	<0.0100	mg/L	06/02/25 14:30	kc	EPA 200.7	
Nickel	0.00186	mg/L	06/02/25 14:30	kc	EPA 200.7	
Lead	<0.00200	mg/L	06/02/25 14:30	kc	EPA 200.7	
Antimony	<0.00500	mg/L	06/02/25 14:30	kc	EPA 200.7	
Selenium	<0.00500	mg/L	06/02/25 14:30	kc	EPA 200.7	
Thallium	<0.00200	mg/L	06/02/25 14:30	kc	EPA 200.7	
Vanadium	<0.00100	mg/L	06/02/25 14:30	kc	EPA 200.7	
Zinc	0.0114	mg/L	06/02/25 14:30	kc	EPA 200.7	
Mercury	<0.00200	mg/L	06/06/25 16:28	kc	EPA 245.1 rev 3-1994	
Field pH	8.2	pH Units	05/29/25 13:10	Morgan S	SM 4500 H + B	
Field Temperature	65.8	ºF	05/29/25 13:10	Morgan S	SM 2550 B	
Field Conductivity	560	uS	05/29/25 13:10	Morgan S	EPA 150	

QCAnalytical Services, LLC
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CHAIN OF CUSTODY RECORD

25-2932

Monitoring wells-Goose Lake BiAnnual

(Continued)

Wendling Quarries Inc.
~~John Kulper~~ Morgan Schuler
2647 225th Street P.O. Box 230
Dewitt, IA 52742
(563) 659-9181

Collection Point	Date/Time	Sample Type Comp or Grab	Contents	Qty Container	Analysis	Sampler Initials
Goose Lake Sump	5/29/25 1:10	G	Water	1 01 - 40mL Clear Vial w/ HCl; 2 per set	EPA 624 - WW VOC-QCAS	MS
Goose Lake Sump	5/29/25 1:10	G	Water	1 02 - 1000mL Amber Glass Cool to 4° C	General GC-MS-QCAS	MS
Goose Lake Sump	5/29/25 1:10	G	Water	1 05 - 500mL Plastic pH <2 w/ H2SO4	Ammonia-Timberline-QCAS	MS
Goose Lake Sump	5/29/25 1:10	G	Water	1 06 - 250mL Plastic pH <2 w/ H2SO4	Phenols-QCAS	MS
Goose Lake Sump	5/29/25 1:10	G	Water	1 12 - 500mL WM Plastic Cool to 4° C	COD-QCAS, Conductivity-QCAS, IC Chloride-QCAS, IC Sulfate-QCAS, TSS-QCAS	MS
Goose Lake Sump	5/29/25 1:10	G	Water	1 13 - 250mL WM Plastic Cool to 4° C	IC Fluoride-QCAS	MS
Goose Lake Sump pH 8.2 µS 560 Temp 65.8°	5/29/25 1:10	G	Water	1 18 - 250mL WM Plastic pH <2 w/HNO3	ICP (WW) Ag - Silver-QCAS, ICP (WW) Al - Aluminum-QCAS, ICP (WW) As - Arsenic-QCAS, ICP (WW) B - Boron-QCAS, ICP (WW) Ba - Barium-QCAS, ICP (WW) Be - Beryllium-QCAS, ICP (WW) Cd - Cadmium-QCAS, ICP (WW) Co - Cobalt-QCAS, ICP (WW) Cr - Chromium-QCAS, ICP (WW) Cu - Copper-QCAS, ICP (WW) Fe - Iron-QCAS, ICP (WW) Mg - Magnesium-QCAS, ICP (WW) Mn - Manganese-QCAS, ICP (WW) Mo - Molybdenum-QCAS, ICP (WW) Ni - Nickel-QCAS, ICP (WW) Pb - Lead-QCAS, ICP (WW) Sb - Antimony-QCAS, ICP (WW) Se - Selenium-QCAS, ICP (WW) Tl - Thallium-QCAS, ICP (WW) V - Vanadium-QCAS, ICP (WW) Zn - Zinc-QCAS, Mercury EPA 245.1-QCAS	MS
Goose Lake Sump	5/29/25 1:10	G	Water	1 40 - 250ml Amber Glass pH<2 w/ H2SO4	EOX-QCAS	MS

Relinquished By MS	5/29/25 2:25	Date/Time	Received By	Date/Time	
Relinquished By		Date/Time	Received By	Date/Time 5-29-25 2:25	Comments
Cooler Numbers and Temperatures					

Fall

QCAnalytical Services, LLC
1798 Iowa Drive, LeClaire, IA 52753 • qcanalytical.net
O: 563-289-3373 • Fx: 563-289-5526

Laboratory Report

Wendling Quarries Inc.
Morgan Schuler
2647 225th Street P.O. Box 230
Dewitt,IA 52742

Date Received: 09/18/25 14:57
Date Reported: 10/30/25 04:42
Project: Monitoring wells-Goose Lake BiAnnual include Excel data file

Case Narrative

Sample ID: Goose Lake Well #1 Grab
Lab No.: 25I1847-01

Analyte	Result	Units	Analyzed	Analyst	Method
Total Organic Halogens (TOX)	0.015	mg/L	10/0725	KMT	EPA 9020B
2-Butanone (MEK)	<0.010	mg/L	10/07/25	KMT	EPA 624.1

Analyte	Result	Units	Analyzed	Analyst	Method	Notes
Sample ID: Goose Lake Well #1 Grab			**Date Sampled: 09/17/25 10:15**		**Date Received: 09/18/25 14:57**	
Lab No.: 25I1847-01			**Sampled by: Morgan Schuler**			
****** DEFAULT GENERAL METHOD ******						
Formaldehyde	<0.100	mg/L	10/29/25 15:47	kc	GC-MS	
Classical Chemistry Parameters						
Ammonia as N	<0.10	mg/L	09/24/25 12:36	jc	Timberline	
Chemical Oxygen Demand	12	mg/L	09/19/25 16:07	EV	SM 5220D-1997	
conductivity	589	uS/cm	09/18/25 13:49	EV	SM 2510 B-1997	
Chloride	3.29	mg/L	09/19/25 17:11	EV	EPA 300.0	
Fluoride	<0.100	mg/L	09/19/25 17:11	EV	EPA 300.0	
Sulfate as SO4	8.67	mg/L	09/19/25 17:11	EV	EPA 300.0	
Phenolics	<0.010	mg/L	09/24/25 16:23	kc	EPA 420.1 rev1978	
Total Suspended Solids	3	mg/L	09/23/25 14:02	kt	USGS I-3765-85	
Metals by EPA 200 Series Methods						
Silver	<0.00100	mg/L	09/19/25 13:25	kc	EPA 200.7	
Aluminum	<0.100	mg/L	09/19/25 13:25	kc	EPA 200.7	
Arsenic	<0.0100	mg/L	09/19/25 13:25	kc	EPA 200.7	
Boron	0.0209	mg/L	09/19/25 13:25	kc	EPA 200.7	
Barium	0.0374	mg/L	09/19/25 13:25	kc	EPA 200.7	
Beryllium	<0.00100	mg/L	09/19/25 13:25	kc	EPA 200.7	
Cadmium	<0.000400	mg/L	09/19/25 13:25	kc	EPA 200.7	

Analysis Certified by:

Randall Wanke, Ph.D.

Randal Wanke, Laboratory Director

QCAnalytical Services, LLC
1798 Iowa Drive, LeClaire, IA 52753 • qcanalytical.net
O: 563-289-3373 • Fx: 563-289-5526

Wendling Quarries Inc.	Project: Monitoring wells-Goose Lake BiAnnual	
2647 225th Street P.O. Box 230	include Excel data file	**Reported:**
Dewitt IA, 52742	Client Contact: Morgan Schuler	10/30/25 04:42

Analyte	Result	Units	Analyzed	Analyst	Method	Notes
Sample ID: Goose Lake Well #1 Grab			**Date Sampled: 09/17/25 10:15**		**Date Received: 09/18/25 14:57**	
Lab No.: 25I1847-01			**Sampled by: Morgan Schuler**			
Cobalt	<0.00200	mg/L	09/19/25 13:25	kc	EPA 200.7	
Chromium	0.00426	mg/L	09/19/25 13:25	kc	EPA 200.7	
Copper	<0.00300	mg/L	09/19/25 13:25	kc	EPA 200.7	
Iron	0.0535	mg/L	09/19/25 13:25	kc	EPA 200.7	
Magnesium	47.8	mg/L	09/22/25 13:56	kc	EPA 200.7	
Manganese	<0.0200	mg/L	09/19/25 13:25	kc	EPA 200.7	
Molybdenum	<0.0100	mg/L	09/19/25 13:25	kc	EPA 200.7	
Nickel	<0.00100	mg/L	09/19/25 13:25	kc	EPA 200.7	
Lead	<0.00200	mg/L	09/19/25 13:25	kc	EPA 200.7	
Antimony	<0.00500	mg/L	09/19/25 13:25	kc	EPA 200.7	
Selenium	<0.00500	mg/L	09/19/25 13:25	kc	EPA 200.7	
Thallium	<0.00200	mg/L	09/19/25 13:25	kc	EPA 200.7	
Vanadium	<0.00100	mg/L	09/19/25 13:25	kc	EPA 200.7	
Zinc	0.00918	mg/L	09/19/25 13:25	kc	EPA 200.7	
Mercury	<0.00200	mg/L	10/01/25 15:30	kc	EPA 245.1 rev 3-1994	
Field pH	8.6	pH Units	09/17/25 10:15	Morgan S	SM 4500 H + B	
Field Temperature	58.1	ºF	09/17/25 10:15	Morgan S	SM 2550 B	
Field Conductivity	483	uS	09/17/25 10:15	Morgan S	EPA 150	

QCAnalytical Services, LLC
1798 Iowa Drive, LeClaire, IA 52753 • qcanalytical.net
O: 563-289-3373 • Fx: 563-289-5526

CHAIN OF CUSTODY RECORD

25I1847

Monitoring wells-Goose Lake BiAnnual

Wendling Quarries Inc.
~~John Kulper~~ Morgan Schuler
2647 225th Street P.O. Box 230
Dewitt, IA 52742
(563) 659-9181

Collection Point	Date/Time	Sample Type Comp or Grab	Contents	Qty Container	Analysis	Sampler Initials
Goose Lake Well #1	9/17/25 10:15	G	Water	1 01 - 40mL Clear Vial w/ HCl; 2 per set	EPA 624 - WW VOC-QCAS	MS
Goose Lake Well #1	9/17/25 10:15	G	Water	1 02 - 1000mL Amber Glass Cool to 4° C	General GC-MS-QCAS	MS
Goose Lake Well #1	9/17/25 10:15	G	Water	1 05 - 500mL Plastic pH <2 w/ H2SO4	Ammonia-Timberline-QCAS	MS
Goose Lake Well #1	9/17/25 10:15	G	Water	1 06 - 250mL Plastic pH <2 w/ H2SO4	Phenols-QCAS	MS
Goose Lake Well #1	9/17/25 10:15	G	Water	1 12 - 500mL WM Plastic Cool to 4° C	COD-QCAS, Conductivity-QCAS, IC Chloride-QCAS, IC Sulfate-QCAS, TSS-QCAS	MS
Goose Lake Well #1	9/17/25 10:15	G	Water	1 13 - 250mL WM Plastic Cool to 4° C	IC Fluoride-QCAS	MS
Goose Lake Well #1 pH 8.6 ms 483 Temp 58.1°	9/17/25 10:15	G	Water	1 18 - 250mL WM Plastic pH <2 w/HNO3	ICP (WW) Ag - Silver-QCAS, ICP (WW) Al - Aluminum-QCAS, ICP (WW) As - Arsenic-QCAS, ICP (WW) B - Boron-QCAS, ICP (WW) Ba - Barium-QCAS, ICP (WW) Be - Beryllium-QCAS, ICP (WW) Cd - Cadmium-QCAS, ICP (WW) Co - Cobalt-QCAS, ICP (WW) Cr - Chromium-QCAS, ICP (WW) Cu - Copper-QCAS, ICP (WW) Fe - Iron-QCAS, ICP (WW) Mg - Magnesium-QCAS, ICP (WW) Mn - Manganese-QCAS, ICP (WW) Mo - Molybdenum-QCAS, ICP (WW) Ni - Nickel-QCAS, ICP (WW) Pb - Lead-QCAS, ICP (WW) Sb - Antimony-QCAS, ICP (WW) Se - Selenium-QCAS, ICP (WW) Tl - Thallium-QCAS, ICP (WW) V - Vanadium-QCAS, ICP (WW) Zn - Zinc-QCAS, Mercury EPA 245.1-QCAS	MS
Goose Lake Well #1	9/17/25 10:15	G	Water	1 40 - 250ml Amber Glass pH<2 w/ H2SO4	EOX-QCAS	MS

Relinquished By	Date/Time	Received By	Date/Time	
	9/17/25 2:50			
Relinquished By	**Date/Time**	**Received By**	**Date/Time**	**Comments**
			9/17/25 2:50	
Cooler Numbers and Temperatures				

KMT Labs
600 E 17th St S
Newton, IA 50208

ANALYTICAL REPORT

October 07, 2025

Work Order: 1II1811

Report To

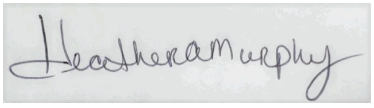
Randall Wanke
QC Analytical Services, LLC
1798 Iowa Drive
LeClaire, IA 52753

Project : EOX/TOX

PO : Credit Card on File

Analyte		Result	Method
ID:25I1847-01		Matrix:Aqueous	Collected: 09/17/25 10:15
2-Butanone (MEK)		<10.0 ug/L	EPA 624.1
Surrogate: Dibromofluoromethane	*88.4 %*		*59-123*
Surrogate: 1,2-Dichloroethane-d4	*80.9 %*		*56-130*
Surrogate: Toluene-d8	*96.2 %*		*85-113*
Surrogate: 4-Bromofluorobenzene	*91.7 %*		*82-112*
Total Organic Halogens (TOX)		0.015 mg/L	EPA 9020B

End of Report



Keystone Materials Testing, Inc.

Heather Murphy
Customer Relationship Specialist

QCAnalytical Services, LLC
1798 Iowa Drive, LeClaire, IA 52753 • qcanalytical.net
O: 563-289-3373 • Fx: 563-289-5526

Laboratory Report

Wendling Quarries Inc.
Morgan Schuler
2647 225th Street P.O. Box 230
Dewitt,IA 52742

Date Received: 09/18/25 15:05
Date Reported: 10/30/25 04:53
Project: Monitoring wells-Goose Lake BiAnnual include Excel data file

Case Narrative

Sample ID: Goose Lake Well #2 Grab
Lab No.: 25I1848-01

Analyte	Result	Units	Analyzed	Analyst	Method
Total Organic Halogens (TOX)	0.032	mg/L	10/0725	KMT	EPA 9020B
2-Butanone (MEK)	<0.010	mg/L	10/07/25	KMT	EPA 624.1

Analyte	Result	Units	Analyzed	Analyst	Method	Notes
Sample ID: Goose Lake Well #2 Grab			**Date Sampled: 09/17/25 11:15**		**Date Received: 09/18/25 15:05**	
Lab No.: 25I1848-01			**Sampled by: Morgan Schuler**			
****** DEFAULT GENERAL METHOD ******						
Formaldehyde	<0.100	mg/L	10/29/25 15:47	kc	GC-MS	
Classical Chemistry Parameters						
Ammonia as N	<0.10	mg/L	09/24/25 12:43	jc	Timberline	
Chemical Oxygen Demand	<10	mg/L	09/19/25 16:07	EV	SM 5220D-1997	
conductivity	620	uS/cm	09/18/25 13:49	EV	SM 2510 B-1997	
Chloride	2.94	mg/L	09/19/25 17:11	EV	EPA 300.0	
Fluoride	0.134	mg/L	09/19/25 17:11	EV	EPA 300.0	
Sulfate as SO4	25.2	mg/L	09/19/25 17:11	EV	EPA 300.0	
Phenolics	<0.010	mg/L	09/24/25 16:23	kc	EPA 420.1 rev1978	
Total Suspended Solids	4	mg/L	09/23/25 14:02	kt	USGS I-3765-85	
Metals by EPA 200 Series Methods						
Silver	<0.00100	mg/L	09/19/25 13:28	kc	EPA 200.7	
Aluminum	<0.100	mg/L	09/19/25 13:28	kc	EPA 200.7	
Arsenic	<0.0100	mg/L	09/19/25 13:28	kc	EPA 200.7	
Boron	<0.0200	mg/L	09/19/25 13:28	kc	EPA 200.7	
Barium	0.0621	mg/L	09/19/25 13:28	kc	EPA 200.7	
Beryllium	<0.00100	mg/L	09/19/25 13:28	kc	EPA 200.7	
Cadmium	<0.000400	mg/L	09/19/25 13:28	kc	EPA 200.7	

Analysis Certified by:

Randall Wanke, Ph.D.

Randal Wanke, Laboratory Director

QCAnalytical Services, LLC
1798 Iowa Drive, LeClaire, IA 52753 • qcanalytical.net
O: 563-289-3373 • Fx: 563-289-5526

Wendling Quarries Inc.	Project: Monitoring wells-Goose Lake BiAnnual	
2647 225th Street P.O. Box 230	include Excel data file	**Reported:**
Dewitt IA, 52742	Client Contact: Morgan Schuler	10/30/25 04:53

Analyte	Result	Units	Analyzed	Analyst	Method	Notes
Sample ID: Goose Lake Well #2 Grab			**Date Sampled: 09/17/25 11:15**		**Date Received: 09/18/25 15:05**	
Lab No.: 25I1848-01			**Sampled by: Morgan Schuler**			
Cobalt	<0.00200	mg/L	09/19/25 13:28	kc	EPA 200.7	
Chromium	0.00394	mg/L	09/19/25 13:28	kc	EPA 200.7	
Copper	<0.00300	mg/L	09/19/25 13:28	kc	EPA 200.7	
Iron	0.0361	mg/L	09/19/25 13:28	kc	EPA 200.7	
Magnesium	46.1	mg/L	09/22/25 13:56	kc	EPA 200.7	
Manganese	<0.0200	mg/L	09/19/25 13:28	kc	EPA 200.7	
Molybdenum	<0.0100	mg/L	09/19/25 13:28	kc	EPA 200.7	
Nickel	<0.00100	mg/L	09/19/25 13:28	kc	EPA 200.7	
Lead	<0.00200	mg/L	09/19/25 13:28	kc	EPA 200.7	
Antimony	<0.00500	mg/L	09/19/25 13:28	kc	EPA 200.7	
Selenium	<0.00500	mg/L	09/19/25 13:28	kc	EPA 200.7	
Thallium	<0.00200	mg/L	09/19/25 13:28	kc	EPA 200.7	
Vanadium	<0.00100	mg/L	09/19/25 13:28	kc	EPA 200.7	
Zinc	0.00555	mg/L	09/19/25 13:28	kc	EPA 200.7	
Mercury	<0.00200	mg/L	10/01/25 15:30	kc	EPA 245.1 rev 3-1994	
Field pH	8.1	pH Units	09/17/25 11:15	Morgan S	SM 4500 H + B	
Field Temperature	56.8	ºF	09/17/25 11:15	Morgan S	SM 2550 B	
Field Conductivity	538	uS	09/17/25 11:15	Morgan S	EPA 150	

QCAnalytical Services, LLC
1798 Iowa Drive, LeClaire, IA 52753 • qcanalytical.net
O: 563-289-3373 • Fx: 563-289-5526

CHAIN OF CUSTODY RECORD

2JI1848

Monitoring wells-Goose Lake BiAnnual

Wendling Quarries Inc.
~~John Kulper~~ Morgan Schuler
2647 225th Street P.O. Box 230
Dewitt, IA 52742
(563) 659-9181

Collection Point	Date/Time	Sample Type Comp or Grab	Contents	Qty Container	Analysis	Sampler Initials
Goose Lake Well #2	9/17/25 11:15	G	Water	1 01 - 40mL Clear Vial w/ HCl; 2 per set	EPA 624 - WW VOC-QCAS	MS
Goose Lake Well #2	9/17/25 11:15	G	Water	1 02 - 1000mL Amber Glass Cool to 4° C	General GC-MS-QCAS	MS
Goose Lake Well #2	9/17/25 11:15	G	Water	1 05 - 500mL Plastic pH <2 w/ H2SO4	Ammonia-Timberline-QCAS	MS
Goose Lake Well #2	9/17/25 11:15	G	Water	1 06 - 250mL Plastic pH <2 w/ H2SO4	Phenols-QCAS	MS
Goose Lake Well #2	9/17/25 11:15	G	Water	1 12 - 500mL WM Plastic Cool to 4° C	COD-QCAS, Conductivity-QCAS, IC Chloride-QCAS, IC Sulfate-QCAS, TSS-QCAS	MS
Goose Lake Well #2	9/17/25 11:15	G	Water	1 13 - 250mL WM Plastic Cool to 4° C	IC Fluoride-QCAS	MS
Goose Lake Well #2 pH 8.1 µS 538 Temp 56.8°	9/17/25 11:15	G	Water	1 18 - 250mL WM Plastic pH <2 w/HNO3	ICP (WW) Ag - Silver-QCAS, ICP (WW) Al - Aluminum-QCAS, ICP (WW) As - Arsenic-QCAS, ICP (WW) B - Boron-QCAS, ICP (WW) Ba - Barium-QCAS, ICP (WW) Be - Beryllium-QCAS, ICP (WW) Cd - Cadmium-QCAS, ICP (WW) Co - Cobalt-QCAS, ICP (WW) Cr - Chromium-QCAS, ICP (WW) Cu - Copper-QCAS, ICP (WW) Fe - Iron-QCAS, ICP (WW) Mg - Magnesium-QCAS, ICP (WW) Mn - Manganese-QCAS, ICP (WW) Mo - Molybdenum-QCAS, ICP (WW) Ni - Nickel-QCAS, ICP (WW) Pb - Lead-QCAS, ICP (WW) Sb - Antimony-QCAS, ICP (WW) Se - Selenium-QCAS, ICP (WW) Tl - Thallium-QCAS, ICP (WW) V - Vanadium-QCAS, ICP (WW) Zn - Zinc-QCAS, Mercury EPA 245.1-QCAS	MS
Goose Lake Well #2	9/17/25 11:15	G	Water	1 40 - 250ml Amber Glass pH<2 w/ H2SO4	EOX-QCAS	MS

Relinquished By	Date/Time 9/17/25 2:50	Received By	Date/Time	
Relinquished By	Date/Time	Received By	Date/Time 9-17-25 2:50	Comments
Cooler Numbers and Temperatures				

KMT Labs
600 E 17th St S
Newton, IA 50208

ANALYTICAL REPORT

October 07, 2025

Work Order: 1II1821

Report To

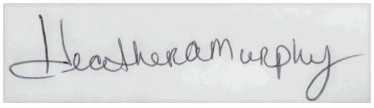
Randall Wanke
QC Analytical Services, LLC
1798 Iowa Drive
LeClaire, IA 52753

Project : EOX/TOX

PO : Credit Card on File

Analyte		Result	Method
ID:25I1848- 01		Matrix:Aqueous	Collected: 09/17/25 11:15
2-Butanone (MEK)		<10.0 ug/L	EPA 624.1
Surrogate: Dibromofluoromethane	*88.2 %*		*59-123*
Surrogate: 1,2-Dichloroethane-d4	*82.6 %*		*56-130*
Surrogate: Toluene-d8	*96.0 %*		*85-113*
Surrogate: 4-Bromofluorobenzene	*93.0 %*		*82-112*
Total Organic Halogens (TOX)		0.032 mg/L	EPA 9020B

End of Report



Keystone Materials Testing, Inc.

Heather Murphy
Customer Relationship Specialist

QCAnalytical Services, LLC
1798 Iowa Drive, LeClaire, IA 52753 • qcanalytical.net
O: 563-289-3373 • Fx: 563-289-5526

Laboratory Report

Wendling Quarries Inc.
Morgan Schuler
2647 225th Street P.O. Box 230
Dewitt,IA 52742

Date Received: 09/18/25 15:10
Date Reported: 10/30/25 05:02
Project: Monitoring wells-Goose Lake BiAnnual include Excel data file

Case Narrative

Sample ID: Goose Lake Well #3 Grab
Lab No.: 25I1850-01

Analyte	Result	Units	Analyzed	Analyst	Method
Total Organic Halogens (TOX)	0.155	mg/L	10/0725	KMT	EPA 9020B
2-Butanone (MEK)	<0.010	mg/L	10/07/25	KMT	EPA 624.1

Analyte	Result	Units	Analyzed	Analyst	Method	Notes
Sample ID: Goose Lake Well #3 Grab			**Date Sampled: 09/17/25 12:15**		**Date Received: 09/18/25 15:10**	
Lab No.: 25I1850-01			**Sampled by: Morgan Schuler**			
****** DEFAULT GENERAL METHOD ******						
Formaldehyde	<0.100	mg/L	10/29/25 15:47	kc	GC-MS	
Classical Chemistry Parameters						
Ammonia as N	<0.10	mg/L	09/24/25 12:45	jc	Timberline	
Chemical Oxygen Demand	<10	mg/L	09/19/25 16:07	EV	SM 5220D-1997	
conductivity	371	uS/cm	09/18/25 13:49	EV	SM 2510 B-1997	
Chloride	0.623	mg/L	09/19/25 17:11	EV	EPA 300.0	
Fluoride	<0.100	mg/L	09/19/25 17:11	EV	EPA 300.0	
Sulfate as SO4	5.18	mg/L	09/19/25 17:11	EV	EPA 300.0	
Phenolics	<0.010	mg/L	09/24/25 16:23	kc	EPA 420.1 rev1978	
Total Suspended Solids	1	mg/L	09/23/25 14:02	kt	USGS I-3765-85	
Metals by EPA 200 Series Methods						
Silver	<0.00100	mg/L	09/19/25 13:32	kc	EPA 200.7	
Aluminum	<0.100	mg/L	09/19/25 13:32	kc	EPA 200.7	
Arsenic	<0.0100	mg/L	09/19/25 13:32	kc	EPA 200.7	
Boron	<0.0200	mg/L	09/19/25 13:32	kc	EPA 200.7	
Barium	0.0264	mg/L	09/19/25 13:32	kc	EPA 200.7	
Beryllium	<0.00100	mg/L	09/19/25 13:32	kc	EPA 200.7	
Cadmium	<0.000400	mg/L	09/19/25 13:32	kc	EPA 200.7	

Analysis Certified by:

Randall Wanke, Ph.D.

Randal Wanke, Laboratory Director

QCAnalytical Services, LLC
1798 Iowa Drive, LeClaire, IA 52753 • qcanalytical.net
O: 563-289-3373 • Fx: 563-289-5526

Wendling Quarries Inc.	Project: Monitoring wells-Goose Lake BiAnnual	
2647 225th Street P.O. Box 230	include Excel data file	**Reported:**
Dewitt IA, 52742	Client Contact: Morgan Schuler	10/30/25 05:02

Analyte	Result	Units	Analyzed	Analyst	Method	Notes
Sample ID: Goose Lake Well #3 Grab			**Date Sampled: 09/17/25 12:15**		**Date Received: 09/18/25 15:10**	
Lab No.: 25I1850-01			**Sampled by: Morgan Schuler**			
Cobalt	<0.00200	mg/L	09/19/25 13:32	kc	EPA 200.7	
Chromium	0.00111	mg/L	09/19/25 13:32	kc	EPA 200.7	
Copper	<0.00300	mg/L	09/19/25 13:32	kc	EPA 200.7	
Iron	0.0157	mg/L	09/19/25 13:32	kc	EPA 200.7	
Magnesium	21.1	mg/L	09/22/25 13:56	kc	EPA 200.7	
Manganese	<0.0200	mg/L	09/19/25 13:32	kc	EPA 200.7	
Molybdenum	<0.0100	mg/L	09/19/25 13:32	kc	EPA 200.7	
Nickel	<0.00100	mg/L	09/19/25 13:32	kc	EPA 200.7	
Lead	<0.00200	mg/L	09/19/25 13:32	kc	EPA 200.7	
Antimony	<0.00500	mg/L	09/19/25 13:32	kc	EPA 200.7	
Selenium	<0.00500	mg/L	09/19/25 13:32	kc	EPA 200.7	
Thallium	<0.00200	mg/L	09/19/25 13:32	kc	EPA 200.7	
Vanadium	<0.00100	mg/L	09/19/25 13:32	kc	EPA 200.7	
Zinc	<0.00500	mg/L	09/19/25 13:32	kc	EPA 200.7	
Mercury	<0.00200	mg/L	10/01/25 15:30	kc	EPA 245.1 rev 3-1994	
Field pH	8.2	pH Units	09/17/25 12:15	Morgan S	SM 4500 H + B	
Field Temperature	56.8	ºF	09/17/25 12:15	Morgan S	SM 2550 B	
Field Conductivity	322	uS	09/17/25 12:15	Morgan S	EPA 150	

QCAnalytical Services, LLC
1798 Iowa Drive, LeClaire, IA 52753 • qcanalytical.net
O: 563-289-3373 • Fx: 563-289-5526

CHAIN OF CUSTODY RECORD

25I1850

Monitoring wells-Goose Lake BiAnnual

Wendling Quarries Inc.
~~John Kuiper~~ Morgan Schuler
2647 225th Street P.O. Box 230
Dewitt, IA 52742
(563) 659-9181

Collection Point	Date/Time	Sample Type Comp or Grab	Contents	Qty Container	Analysis	Sampler Initials
Goose Lake Well #3	9/17/25 12:15	G	Water	1 01 - 40mL Clear Vial w/ HCl; 2 per set	EPA 624 - WW VOC-QCAS	MS
Goose Lake Well #3	9/17/25 12:15	G	Water	1 02 - 1000mL Amber Glass Cool to 4° C	General GC-MS-QCAS	MS
Goose Lake Well #3	9/17/25 12:15	G	Water	1 05 - 500mL Plastic pH <2 w/ H2SO4	Ammonia-Timberline-QCAS	MS
Goose Lake Well #3	9/17/25 12:15	G	Water	1 06 - 250mL Plastic pH <2 w/ H2SO4	Phenols-QCAS	MS
Goose Lake Well #3	9/17/25 12:15	C	Water	1 12 - 500mL WM Plastic Cool to 4° C	COD-QCAS, Conductivity-QCAS, IC Chloride-QCAS, IC Sulfate-QCAS, TSS-QCAS	MS
Goose Lake Well #3	9/17/25 12:15	G	Water	1 13 - 250mL WM Plastic Cool to 4° C	IC Fluoride-QCAS	MS
Goose Lake Well #3 pH 8.2 WS 322 Temp 56.8°	9/17/25 12:15	G	Water	1 18 - 250mL WM Plastic pH <2 w/HNO3	ICP (WW) Ag - Silver-QCAS, ICP (WW) Al - Aluminum-QCAS, ICP (WW) As - Arsenic-QCAS, ICP (WW) B - Boron-QCAS, ICP (WW) Ba - Barium-QCAS, ICP (WW) Be - Beryllium-QCAS, ICP (WW) Cd - Cadmium-QCAS, ICP (WW) Co - Cobalt-QCAS, ICP (WW) Cr - Chromium-QCAS, ICP (WW) Cu - Copper-QCAS, ICP (WW) Fe - Iron-QCAS, ICP (WW) Mg - Magnesium-QCAS, ICP (WW) Mn - Manganese-QCAS, ICP (WW) Mo - Molybdenum-QCAS, ICP (WW) Ni - Nickel-QCAS, ICP (WW) Pb - Lead-QCAS, ICP (WW) Sb - Antimony-QCAS, ICP (WW) Se - Selenium-QCAS, ICP (WW) Tl - Thallium-QCAS, ICP (WW) V - Vanadium-QCAS, ICP (WW) Zn - Zinc-QCAS, Mercury EPA 245.1-QCAS	MS
Goose Lake Well #3	9/17/25 12:15	C	Water	1 40 - 250ml Amber Glass pH<2 w/ H2SO4	EOX-QCAS	MS

Relinquished By	Date/Time	Received By	Date/Time	
	9/17/25 2:50			
Relinquished By	Date/Time	Received By	Date/Time	Comments
			9/17/25 2:50	
Cooler Numbers and Temperatures				

KMT Labs
600 E 17th St S
Newton, IA 50208

ANALYTICAL REPORT

October 07, 2025

Work Order: **1II1822**

Report To

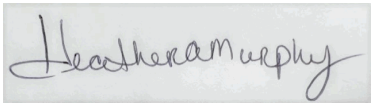
Randall Wanke
QC Analytical Services, LLC
1798 Iowa Drive
LeClaire, IA 52753

Project : EOX/TOX

PO : Credit Card on File

Analyte		Result	Method
ID:25I1850		Matrix:Aqueous	Collected: 09/17/25 12:15
2-Butanone (MEK)		<10.0 ug/L	EPA 624.1
Surrogate: Dibromofluoromethane	*83.9 %*		*59-123*
Surrogate: 1,2-Dichloroethane-d4	*77.3 %*		*56-130*
Surrogate: Toluene-d8	*104 %*		*85-113*
Surrogate: 4-Bromofluorobenzene	*92.9 %*		*82-112*
Total Organic Halogens (TOX)		0.155 mg/L	EPA 9020B

End of Report



Keystone Materials Testing, Inc.

Heather Murphy
Customer Relationship Specialist

QCAnalytical Services, LLC
1798 Iowa Drive, LeClaire, IA 52753 • qcanalytical.net
O: 563-289-3373 • Fx: 563-289-5526

Laboratory Report

Wendling Quarries Inc.
Morgan Schuler
2647 225th Street P.O. Box 230
Dewitt,IA 52742

Date Received: 09/18/25 15:13
Date Reported: 10/30/25 05:21
Project: Monitoring wells-Goose Lake BiAnnual include Excel data file

Case Narrative

Sample ID: Goose Lake Well #4 Grab
Lab No.: 25I1851-01

Analyte	Result	Units	Analyzed	Analyst	Method
Total Organic Halogens (TOX)	<0.010	mg/L	10/0725	KMT	EPA 9020B
2-Butanone (MEK)	<0.010	mg/L	10/07/25	KMT	EPA 624.1

Analyte	Result	Units	Analyzed	Analyst	Method	Notes
Sample ID: Goose Lake Well #4 Grab			**Date Sampled: 09/17/25 13:00**		**Date Received: 09/18/25 15:13**	
Lab No.: 25I1851-01			**Sampled by: Morgan Schuler**			
****** DEFAULT GENERAL METHOD ******						
Formaldehyde	<0.100	mg/L	10/29/25 15:47	kc	GC-MS	
Classical Chemistry Parameters						
Ammonia as N	<0.10	mg/L	09/25/25 13:04	jc	Timberline	
Chemical Oxygen Demand	10	mg/L	09/19/25 16:07	EV	SM 5220D-1997	
conductivity	567	uS/cm	09/18/25 13:49	EV	SM 2510 B-1997	
Chloride	2.92	mg/L	09/19/25 17:11	EV	EPA 300.0	
Fluoride	0.111	mg/L	09/19/25 17:11	EV	EPA 300.0	
Sulfate as SO4	8.87	mg/L	09/19/25 17:11	EV	EPA 300.0	
Phenolics	<0.010	mg/L	09/24/25 16:23	kc	EPA 420.1 rev1978	
Total Suspended Solids	3	mg/L	09/23/25 14:02	kt	USGS I-3765-85	
Metals by EPA 200 Series Methods						
Silver	<0.00100	mg/L	09/19/25 13:35	kc	EPA 200.7	
Aluminum	<0.100	mg/L	09/19/25 13:35	kc	EPA 200.7	
Arsenic	<0.0100	mg/L	09/19/25 13:35	kc	EPA 200.7	
Boron	<0.0200	mg/L	09/19/25 13:35	kc	EPA 200.7	
Barium	0.0402	mg/L	09/19/25 13:35	kc	EPA 200.7	
Beryllium	<0.00100	mg/L	09/19/25 13:35	kc	EPA 200.7	
Cadmium	<0.000400	mg/L	09/19/25 13:35	kc	EPA 200.7	

Analysis Certified by:

Randall Wanke, Ph.D.

Randal Wanke, Laboratory Director

QCAnalytical Services, LLC
1798 Iowa Drive, LeClaire, IA 52753 • qcanalytical.net
O: 563-289-3373 • Fx: 563-289-5526

Wendling Quarries Inc.	Project: Monitoring wells-Goose Lake BiAnnual	
2647 225th Street P.O. Box 230	include Excel data file	**Reported:**
Dewitt IA, 52742	Client Contact: Morgan Schuler	10/30/25 05:21

Analyte	Result	Units	Analyzed	Analyst	Method	Notes
Sample ID: Goose Lake Well #4 Grab			**Date Sampled: 09/17/25 13:00**		**Date Received: 09/18/25 15:13**	
Lab No.: 25I1851-01			**Sampled by: Morgan Schuler**			
Cobalt	<0.00200	mg/L	09/19/25 13:35	kc	EPA 200.7	
Chromium	0.00251	mg/L	09/19/25 13:35	kc	EPA 200.7	
Copper	<0.00300	mg/L	09/19/25 13:35	kc	EPA 200.7	
Iron	0.0164	mg/L	09/19/25 13:35	kc	EPA 200.7	
Magnesium	41.0	mg/L	09/22/25 13:56	kc	EPA 200.7	
Manganese	<0.0200	mg/L	09/19/25 13:35	kc	EPA 200.7	
Molybdenum	<0.0100	mg/L	09/19/25 13:35	kc	EPA 200.7	
Nickel	<0.00100	mg/L	09/19/25 13:35	kc	EPA 200.7	
Lead	<0.00200	mg/L	09/19/25 13:35	kc	EPA 200.7	
Antimony	<0.00500	mg/L	09/19/25 13:35	kc	EPA 200.7	
Selenium	<0.00500	mg/L	09/19/25 13:35	kc	EPA 200.7	
Thallium	<0.00200	mg/L	09/19/25 13:35	kc	EPA 200.7	
Vanadium	<0.00100	mg/L	09/19/25 13:35	kc	EPA 200.7	
Zinc	0.00504	mg/L	09/19/25 13:35	kc	EPA 200.7	
Mercury	<0.00200	mg/L	10/01/25 15:30	kc	EPA 245.1 rev 3-1994	
Field pH	7.8	pH Units	09/17/25 13:00	Morgan S	SM 4500 H + B	
Field Temperature	55.9	ºF	09/17/25 13:00	Morgan S	SM 2550 B	
Field Conductivity	465	uS	09/17/25 13:00	Morgan S	EPA 150	

QCAnalytical Services, LLC
1798 Iowa Drive, LeClaire, IA 52753 • qcanalytical.net
O: 563-289-3373 • Fx: 563-289-5526

CHAIN OF CUSTODY RECORD

25I1851

Monitoring wells-Goose Lake BiAnnual

Wendling Quarries Inc.
~~John Kulper~~ Morgan Schuler
2647 225th Street P.O. Box 230
Dewitt, IA 52742
(563) 659-9181

Collection Point	Date/Time	Sample Type Comp or Grab	Contents	Qty Container	Analysis	Sampler Initials
Goose Lake Well #4	9/17/25 1:00	G	Water	1 01 - 40mL Clear Vial w/ HCl; 2 per set	EPA 624 - WW VOC-QCAS	MS
Goose Lake Well #4	9/17/25 1:00	G	Water	1 02 - 1000mL Amber Glass Cool to 4° C	General GC-MS-QCAS	MS
Goose Lake Well #4	9/17/25 1:00	G	Water	1 05 - 500mL Plastic pH <2 w/ H2SO4	Ammonia-Timberline-QCAS	MS
Goose Lake Well #4	9/17/25 1:00	G	Water	1 06 - 250mL Plastic pH <2 w/ H2SO4	Phenols-QCAS	MS
Goose Lake Well #4	9/17/25 1:00	G	Water	1 12 - 500mL WM Plastic Cool to 4° C	COD-QCAS, Conductivity-QCAS, IC Chloride-QCAS, IC Sulfate-QCAS, TSS-QCAS	MS
Goose Lake Well #4	9/17/25 1:00	G	Water	1 13 - 250mL WM Plastic Cool to 4° C	IC Fluoride-QCAS	MS
Goose Lake Well #4 pH 7.8 MS 465 TEMP 55.9°	9/17/25 1:00	G	Water	1 18 - 250mL WM Plastic pH <2 w/HNO3	ICP (WW) Ag - Silver-QCAS, ICP (WW) Al - Aluminum-QCAS, ICP (WW) As - Arsenic-QCAS, ICP (WW) B - Boron-QCAS, ICP (WW) Ba - Barium-QCAS, ICP (WW) Be - Beryllium-QCAS, ICP (WW) Cd - Cadmium-QCAS, ICP (WW) Co - Cobalt-QCAS, ICP (WW) Cr - Chromium-QCAS, ICP (WW) Cu - Copper-QCAS, ICP (WW) Fe - Iron-QCAS, ICP (WW) Mg - Magnesium-QCAS, ICP (WW) Mn - Manganese-QCAS, ICP (WW) Mo - Molybdenum-QCAS, ICP (WW) Ni - Nickel-QCAS, ICP (WW) Pb - Lead-QCAS, ICP (WW) Sb - Antimony-QCAS, ICP (WW) Se - Selenium-QCAS, ICP (WW) Tl - Thallium-QCAS, ICP (WW) V - Vanadium-QCAS, ICP (WW) Zn - Zinc-QCAS, Mercury EPA 245.1-QCAS	MS
Goose Lake Well #4	9/17/25 1:00	G	Water	1 40 - 250ml Amber Glass pH<2 w/ H2SO4	EOX-QCAS	MS

Relinquished By	Date/Time	Received By	Date/Time	
	9/17/25 2:50			
Relinquished By	Date/Time	Received By	Date/Time	Comments
			9/17/25 2:50	
Cooler Numbers and Temperatures				

KMT Labs
600 E 17th St S
Newton, IA 50208

ANALYTICAL REPORT

October 07, 2025

Work Order: **1II1823**

Report To

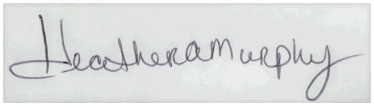
Randall Wanke
QC Analytical Services, LLC
1798 Iowa Drive
LeClaire, IA 52753

Project : EOX/TOX

PO : Credit Card on File

Analyte		Result	Method
ID:25I1851- 01		Matrix:Aqueous	Collected: 09/17/25 13:00
2-Butanone (MEK)		<10.0 ug/L	EPA 624.1
Surrogate: Dibromofluoromethane	*88.6 %*		*59-123*
Surrogate: 1,2-Dichloroethane-d4	*85.1 %*		*56-130*
Surrogate: Toluene-d8	*96.0 %*		*85-113*
Surrogate: 4-Bromofluorobenzene	*92.1 %*		*82-112*
Total Organic Halogens (TOX)		<0.010 mg/L	EPA 9020B

End of Report



Keystone Materials Testing, Inc.

Heather Murphy
Customer Relationship Specialist

QCAnalytical Services, LLC
1798 Iowa Drive, LeClaire, IA 52753 • qcanalytical.net
O: 563-289-3373 • Fx: 563-289-5526

Laboratory Report

Wendling Quarries Inc.
Morgan Schuler
2647 225th Street P.O. Box 230
Dewitt,IA 52742

Date Received: 09/18/25 15:17
Date Reported: 10/30/25 05:32
Project: Monitoring wells-Goose Lake BiAnnual include Excel data file

Case Narrative

Sample ID: Goose Lake Sump Grab
Lab No.: 25I1853-01

Analyte	Result	Units	Analyzed	Analyst	Method
Total Organic Halogens (TOX)	0.052	mg/L	10/0725	KMT	EPA 9020B
2-Butanone (MEK)	<0.010	mg/L	10/07/25	KMT	EPA 624.1

Analyte	Result	Units	Analyzed	Analyst	Method	Notes
Sample ID: Goose Lake Sump Grab			**Date Sampled: 09/17/25 13:45**		**Date Received: 09/18/25 15:17**	
Lab No.: 25I1853-01			**Sampled by: Morgan Schuler**			
****** DEFAULT GENERAL METHOD ******						
Bis(2-ethylhexyl) phthalate	<10.0	mg/L	10/29/25 15:47	kc	GC-MS	
Classical Chemistry Parameters						
Ammonia as N	0.11	mg/L	09/25/25 13:06	jc	Timberline	
Chemical Oxygen Demand	10	mg/L	09/19/25 16:07	EV	SM 5220D-1997	
conductivity	558	uS/cm	09/18/25 13:49	EV	SM 2510 B-1997	
Chloride	15.1	mg/L	09/19/25 17:11	EV	EPA 300.0	
Fluoride	<0.100	mg/L	09/19/25 17:11	EV	EPA 300.0	
Sulfate as SO4	68.8	mg/L	09/19/25 17:11	EV	EPA 300.0	
Phenolics	<0.010	mg/L	09/24/25 16:23	kc	EPA 420.1 rev1978	
Total Suspended Solids	1	mg/L	09/23/25 14:02	kt	USGS I-3765-85	
Metals by EPA 200 Series Methods						
Silver	<0.00100	mg/L	09/19/25 13:39	kc	EPA 200.7	
Aluminum	<0.100	mg/L	09/19/25 13:39	kc	EPA 200.7	
Arsenic	<0.0100	mg/L	09/19/25 13:39	kc	EPA 200.7	
Boron	0.102	mg/L	09/19/25 13:39	kc	EPA 200.7	
Barium	0.134	mg/L	09/19/25 13:39	kc	EPA 200.7	
Beryllium	<0.00100	mg/L	09/19/25 13:39	kc	EPA 200.7	
Cadmium	<0.000400	mg/L	09/19/25 13:39	kc	EPA 200.7	

Analysis Certified by:

Randall Wanke, Ph.D.

Randal Wanke, Laboratory Director

QCAnalytical Services, LLC
1798 Iowa Drive, LeClaire, IA 52753 • qcanalytical.net
O: 563-289-3373 • Fx: 563-289-5526

Wendling Quarries Inc.	Project: Monitoring wells-Goose Lake BiAnnual	
2647 225th Street P.O. Box 230	include Excel data file	**Reported:**
Dewitt IA, 52742	Client Contact: Morgan Schuler	10/30/25 05:32

Analyte	Result	Units	Analyzed	Analyst	Method	Notes
Sample ID: Goose Lake Sump Grab			**Date Sampled: 09/17/25 13:45**		**Date Received: 09/18/25 15:17**	
Lab No.: 25I1853-01			**Sampled by: Morgan Schuler**			
Cobalt	<0.00200	mg/L	09/19/25 13:39	kc	EPA 200.7	
Chromium	<0.00100	mg/L	09/19/25 13:39	kc	EPA 200.7	
Copper	0.00321	mg/L	09/19/25 13:39	kc	EPA 200.7	
Iron	0.0434	mg/L	09/19/25 13:39	kc	EPA 200.7	
Magnesium	32.2	mg/L	09/22/25 13:56	kc	EPA 200.7	
Manganese	<0.0200	mg/L	09/19/25 13:39	kc	EPA 200.7	
Molybdenum	<0.0100	mg/L	09/19/25 13:39	kc	EPA 200.7	
Nickel	<0.00100	mg/L	09/19/25 13:39	kc	EPA 200.7	
Lead	<0.00200	mg/L	09/19/25 13:39	kc	EPA 200.7	
Antimony	<0.00500	mg/L	09/19/25 13:39	kc	EPA 200.7	
Selenium	<0.00500	mg/L	09/19/25 13:39	kc	EPA 200.7	
Thallium	<0.00200	mg/L	09/19/25 13:39	kc	EPA 200.7	
Vanadium	<0.00100	mg/L	09/19/25 13:39	kc	EPA 200.7	
Zinc	0.0104	mg/L	09/19/25 13:39	kc	EPA 200.7	
Mercury	<0.00200	mg/L	10/01/25 15:30	kc	EPA 245.1 rev 3-1994	
Field pH	8.3	pH Units	09/17/25 13:45	Morgan S	SM 4500 H + B	
Field Temperature	72.7	ºF	09/17/25 13:45	Morgan S	SM 2550 B	
Field Conductivity	497	uS	09/17/25 13:45	Morgan S	EPA 150	

QCAnalytical Services, LLC
1798 Iowa Drive, LeClaire, IA 52753 • qcanalytical.net
O: 563-289-3373 • Fx: 563-289-5526

CHAIN OF CUSTODY RECORD

2II1853

Monitoring wells-Goose Lake BiAnnual

Wendling Quarries Inc.
~~John Kulper~~ Morgan Schuler
2647 225th Street P.O. Box 230
Dewitt, IA 52742
(563) 659-9181

Collection Point	Date/Time	Sample Type Comp or Grab	Contents	Qty Container	Analysis	Sampler Initials
Goose Lake Sump	9/17/25 1:45	G	Water	1 01 - 40mL Clear Vial w/ HCl; 2 per set	EPA 624 - WW VOC-QCAS	MS
Goose Lake Sump	9/17/25 1:45	G	Water	1 02 - 1000mL Amber Glass Cool to 4° C	General GC-MS-QCAS	MS
Goose Lake Sump	9/17/25 1:45	G	Water	1 05 - 500mL Plastic pH <2 w/ H2SO4	Ammonia-Timberline-QCAS	MS
Goose Lake Sump	9/17/25 1:45	G	Water	1 06 - 250mL Plastic pH <2 w/ H2SO4	Phenols-QCAS	MS
Goose Lake Sump	9/17/25 1:45	G	Water	1 12 - 500mL WM Plastic Cool to 4° C	COD-QCAS, Conductivity-QCAS, IC Chloride-QCAS, IC Sulfate-QCAS, TSS-QCAS	MS
Goose Lake Sump	9/17/25 1:45	G	Water	1 13 - 250mL WM Plastic Cool to 4° C	IC Fluoride-QCAS	MS
Goose Lake Sump pH 8.3 MS 4/97 Temp 72.7°	9/17/25 1:45	G	Water	1 18 - 250mL WM Plastic pH <2 w/HNO3	ICP (WW) Ag - Silver-QCAS, ICP (WW) Al - Aluminum-QCAS, ICP (WW) As - Arsenic-QCAS, ICP (WW) B - Boron-QCAS, ICP (WW) Ba - Barium-QCAS, ICP (WW) Be - Beryllium-QCAS, ICP (WW) Cd - Cadmium-QCAS, ICP (WW) Co - Cobalt-QCAS, ICP (WW) Cr - Chromium-QCAS, ICP (WW) Cu - Copper-QCAS, ICP (WW) Fe - Iron-QCAS, ICP (WW) Mg - Magnesium-QCAS, ICP (WW) Mn - Manganese-QCAS, ICP (WW) Mo - Molybdenum-QCAS, ICP (WW) Ni - Nickel-QCAS, ICP (WW) Pb - Lead-QCAS, ICP (WW) Sb - Antimony-QCAS, ICP (WW) Se - Selenium-QCAS, ICP (WW) Tl - Thallium-QCAS, ICP (WW) V - Vanadium-QCAS, ICP (WW) Zn - Zinc-QCAS, Mercury EPA 245.1-QCAS	MS
Goose Lake Sump	9/17/25 1:45	G	Water	1 40 - 250ml Amber Glass pH<2 w/ H2SO4	EOX-QCAS	MS

Relinquished By	Date/Time	Received By	Date/Time	
	9/17/25 2:50			
Relinquished By	Date/Time	Received By	Date/Time	Comments
			9/17/25 2:50	
Cooler Numbers and Temperatures				

KMT Labs
600 E 17th St S
Newton, IA 50208

ANALYTICAL REPORT

October 07, 2025

Work Order: 1II1824

Report To

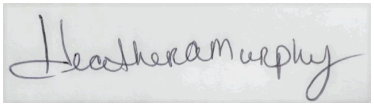
Randall Wanke
QC Analytical Services, LLC
1798 Iowa Drive
LeClaire, IA 52753

Project : EOX/TOX

PO : Credit Card on File

Analyte		Result	Method
ID:25I1853- 01		Matrix:Aqueous	Collected: 09/17/25 13:45
2-Butanone (MEK)		<10.0 ug/L	EPA 624.1
Surrogate: Dibromofluoromethane	*89.2 %*		*59-123*
Surrogate: 1,2-Dichloroethane-d4	*85.0 %*		*56-130*
Surrogate: Toluene-d8	*96.2 %*		*85-113*
Surrogate: 4-Bromofluorobenzene	*92.2 %*		*82-112*
Total Organic Halogens (TOX)		0.052 mg/L	EPA 9020B

End of Report



Keystone Materials Testing, Inc.

Heather Murphy
Customer Relationship Specialist