TRAINING, SAFETY &
ENVIRONMENTAL
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GRDA
Grand River Dam Authority

January 29, 2021

Ms. Hillary Young, P.E.
Chief Engineer
Land Protection Division
Oklahoma Department of Environmental Quality
707 North Robinson
P.O. Box 1677
Oklahoma City, Oklahoma 73101-1677

RE: Annual Groundwater Monitoring and Corrective Action Report for Calendar Year 2020
Grand River Dam Authority
Grand River Energy Center
Chouteau, Oklahoma

Dear Ms. Young:

As required by the State of Oklahoma regulations governing the disposal of coal combustion residuals (CCRs) from electric utilities (OAC 252:517), please find attached the Annual Groundwater Monitoring and Corrective Action Report for calendar year 2020. This report has been prepared for the CCR Landfill located at the Grand River Energy Center (GREC) in Chouteau, Oklahoma. As required by OAC 252:517, a copy of this document will also be posted on the GRDA CCR Webpage and a copy maintained in the facility operating records.

If you have any questions on this matter, or if you require any additional information, please do not hesitate to call.

Sincerely,

Michael L. Bednar

Michael L. Bednar
Manager of Environmental Compliance

2020 Annual Groundwater Monitoring and Corrective Action Report

Grand River Dam Authority Landfill

Grand River Energy Center

Mayes County, Oklahoma

Solid Waste Permit No. 3549012

Submitted to:

Grand River Dam Authority

Vinita, Oklahoma

Submitted by:

Enercon Services, Inc.

1601 NW Expressway, Suite 1000

Oklahoma City, Oklahoma 73118

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January 29, 2021

ENERCON Project No. GRDA-00012

ENERCON

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1.0 INTRODUCTION

This 2020 Annual Groundwater Monitoring and Corrective Action Report (Annual Report) addresses the Grand River Dam Authority (GRDA) Landfill at the Grand River Energy Center (GREC), operated by the GRDA. This Annual Report was developed in accordance with the Oklahoma Administrative Code (OAC) Title 252, Chapter 517: Disposal of Coal Combustion Residuals (CCR) from Electric Utilities Rule (Rule), effective September 15, 2018. Consistent with applicable sections of OAC 252:517-9, the Annual Report documents the status of the groundwater monitoring and corrective action program, summarizes key actions completed during the previous year (2020), evaluates groundwater data collected during the previous year, describes problems encountered and resolutions, and presents key project objectives and corrective actions for the upcoming year (2021).

This Annual Report is being submitted to the Oklahoma Department of Environmental Quality (ODEQ) to satisfy the requirement under OAC 252:517-9-1 that the owner or operator of a CCR unit prepare an annual groundwater monitoring and corrective action report. This report will be placed in the GRDA Landfill operating record and on GRDA's publicly accessible CCR Website (https://www.grda.com/ccr-rule-compliance-data-and-information/).

2.0 BACKGROUND

The GREC is an electric power generating facility located approximately 3 miles east of the City of Chouteau, in Mayes County, Oklahoma. The GREC houses two coal-fired boilers (Unit No. 1 and Unit No. 2) and one combined cycle natural gas turbine (Unit No. 3). Unit #1 was retired in December 2020. Unit #2 and Unit #3 are currently operational. The GRDA Landfill is permitted by the ODEQ as a Non-Hazardous Industrial Waste (NHIW) Landfill that is allowed to accept fly ash, bottom ash, and spent powdered activated carbon used to control flue gas emissions generated at the GREC. The GRDA Landfill is situated south of the operational area within the GREC complex (**Figure 1**). The total landfill permit area consists of approximately 116 acres, of which only 47 acres have been utilized for CCR disposal.

Sampling and analysis of groundwater at the GRDA Landfill is an on-going activity that has been conducted for at least 26 years. Three of the five groundwater monitoring wells currently used in the monitoring activities (upgradient well MW93-1 and down-gradient wells MW93-2 and MW93-3) have analytical data sets that extend back to December 1994. The two other down-gradient groundwater monitoring wells (MW03-1 and MW03-2) were installed in 2004 and have analytical data sets extending back to June 2004.

Detection monitoring was conducted under the Updated Groundwater Sampling and Analysis Program (SAP) dated January 3, 2018. As part of the updated SAP, eight independent samples required by OAC 252:517-9-5(b) were collected May 2018 through December 2018.

Detection monitoring events conducted in 2018 identified and verified statistically significant increases (SSIs) in certain wells. In accordance with OAC 252:517-9-6, an Assessment Monitoring Plan was developed and first submitted to the ODEQ on March 29, 2019. In correspondence dated June 20, 2019, the ODEQ requested changes to the Assessment Monitoring Plan including changing references to the current CCR regulations (OAC 252:517) rather than the historical regulations which required non-CCR constituents (OAC 252:515). The plan was revised and submitted to the ODEQ in August 2019. Subsequent discussions and correspondence with the ODEQ concerning the Assessment Monitoring Plan resulted in the addition of historical select non-CCR regulated constituents (specific conductivity, total alkalinity, and sodium) into GRDA's Appendix A list of constituents. A revised Assessment Monitoring Plan (dated December 2019) which incorporated the additional non-CCR regulated constituents into a site-specific modified Appendix A was prepared and submitted to the ODEQ on January 10, 2020. The Revised Assessment Monitoring Plan was approved by the ODEQ on January 28, 2020.

The GRDA transitioned into assessment monitoring for the second 2019 semi-annual sampling event and statistical analyses were performed on the entire data set comprising Appendix A and B constituents.

The Annual Groundwater Monitoring and Corrective Action Report (Calendar Year 2019) was posted and submitted on January 31, 2020. The report identified several inter- and intra-well exceedances and identified mercury as exceeding the groundwater protection standard (GWPS) in MW03-2.

The ODEQ issued a letter, dated March 6, 2020, accepting the Annual Groundwater Monitoring and Corrective Action Report (Calendar Year 2019).

An Addendum to the Annual Groundwater Monitoring and Corrective Action Report (Calendar Year 2019), was submitted to (and received by) the ODEQ on March 6, 2020. The addendum reported the detected concentration of mercury in MW03-2 to be below the GWPS, thus continuation of assessment monitoring was requested.

3.0 STATUS OF GROUNDWATER MONITORING AND CORRECTIVE ACTION PROGRAM

As stated above, the GRDA transitioned into assessment monitoring for the second 2019 semi-annual sampling event. A report for the first 2020 semi-annual assessment event revealed concentrations of Appendix B constituents above GWPS in both June 2020 data and previously collected data. GRDA discussed this information with the ODEQ in a meeting on January 11,

2021. A proposed plan and schedule for analyzing the exceedances and for developing appropriate corrective action will be prepared in accordance with OAC 252:517-9-6(g).

4.0 KEY ACTIONS COMPLETED IN 2020

A Revised Assessment Monitoring Plan (approved January 28, 2020) which incorporated the historical non-CCR regulated constituents into GRDA's modified Appendix A list of constituents was submitted to the ODEQ on January 10, 2020.

The Annual Groundwater Monitoring and Corrective Action Report (Calendar Year 2019) was completed in January 2020. Statistical evaluation was completed in January 2020 on analytical data from the 2019 assessment monitoring events.

A semi-annual assessment monitoring event was completed in June 2020 for Appendix A and Appendix B constituents. Statistical evaluation of analytical data from the June 2020 assessment monitoring sampling event was completed the week of October 12, 2020.

A second semi-annual assessment monitoring event was completed in November 2020 for Appendix A and Appendix B constituents. Statistical evaluation of analytical data from the November 2020 assessment monitoring sampling event was completed the week of January 18, 2021.

5.0 GROUNDWATER SAMPLING ACTIVITIES

In accordance with the Revised Assessment Monitoring Plan (approved January 28, 2020), semi-annual assessment monitoring events were conducted at the GRDA landfill on June 25-26, 2020 and November 16-17, 2020. Before samples were collected, a static water level surveys were conducted. For each event, groundwater samples were collected from five on-site monitoring wells, one upgradient/background well (MW93-1) and four downgradient/compliance wells (MW93-2, MW93-3, MW03-1, and MW03-2). Groundwater samples were analyzed for the following constituents:

- Appendix A (modified[1]): boron, calcium, chloride, fluoride, pH, sulfate, total dissolved solids (TDS), specific conductivity, total alkalinity, and sodium; and
- Appendix B: antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, fluoride, lead, lithium, mercury, molybdenum, selenium, thallium, radium 226 and 228 combined.

[1] Specific conductivity, total alkalinity, and sodium are historical non-CCR regulated constituents included in the modified Appendix A list according to the December 2019 Revised Assessment Monitoring Plan.

Prior to the static water level surveys, the groundwater monitoring wells were uncapped and allowed to equilibrate for approximately 20 minutes. Static water levels and total monitoring well depths were then measured and recorded to the nearest one-hundredth of a foot using an electronic water level meter. The static water level survey data is presented in **Tables 1 and 2**.

The monitoring wells were then purged and sampled using a peristaltic pump and new dedicated tubing for each monitoring well. Pump tubing was lowered to the approximate midpoint of the monitoring well screen. Purging and sampling procedures followed the United States Environmental Protection Agency (EPA) Region 1 Low Stress (low flow) Purging and Sampling Procedure for the Collection of Groundwater Samples from Monitoring Wells (2017). Groundwater samples were collected into laboratory supplied sample containers and immediately packed on ice in an insulated container. Groundwater samples for metals analysis were collected unfiltered and unpreserved and were analyzed for total recoverable metals.

Groundwater samples (except for pH) were then submitted to Pace Analytical of Mt. Juliet, Tennessee for analysis. Groundwater pH was measured in the field within the 15-minute hold time and under ENERCON's Oklahoma Department of Environmental Quality (ODEQ) field laboratory accreditation. Quality Assurance/Quality Control (QA/QC) samples consisted of one blind-duplicate and one trip blank per event.

A summary of groundwater analytical data for the June and November 2020 assessment monitoring events are included as **Table 3**. Laboratory analytical reports are included in **Appendix A**.

5.1 Quality Assurance/Quality Control (QA/QC) Review

Field equipment calibration and sampling records were reviewed to evaluate adherence to the purging and sampling procedures. Review of the field notes indicated field instruments were properly calibrated and wells were properly purged prior to sample collection. The chain of custody forms associated with the laboratory reports were reviewed for information regarding sample dates, sample identification, sample media, and date of submittal to the analytical laboratory. Review of the laboratory analytical report confirmed that the samples were received in good condition at the appropriate temperature, in the proper containers, with the appropriate preservatives, with custody seals intact, and within method-specified holding times. Since duplicate samples were collected as "blind" duplicates, the duplicate sample dates, times, and associated field samples were recorded in the field log and purposefully not recorded on the laboratory chain of custody forms. For the laboratory analytical report, the laboratory inserted arbitrary duplicate sample dates required by the laboratory data management system. The sample dates recorded in the laboratory analytical summary table reflect the actual duplicate (Dup) sample collection dates. Based on this review, samples were collected and delivered to the analytical laboratory according to environmental sampling protocols.

The blind duplicate samples (collected from MW93-1 and MW93-3) were collected and analyzed for Appendix A constituents. The relative percent different (RPD) between the analytical results from samples MW93-1 and MW93-3 and their respective duplicate samples were calculated. The RPDs ranged from 0 to 10.29 percent, within the typical groundwater RPD review criteria of 25 percent, indicating acceptable field and laboratory precision.

Per the SAP, one trip blank sample per event was analyzed for Appendix A constituents. TDS was detected in the trip blank (BLANK) from the June 2020 event. TDS, chloride (J- and P1-flagged), and fluoride (J-flagged) were detected in the trip blank (TRIP BLANK) from the November event. The trip blank has no bearing on the analytical results from other samples in the same shipping container for these constituents. As such, no cross-contamination issues are presented by these trip blank detections.

Where applicable, the method detection limit (MDL) and reported detection limit (RDL) values for the groundwater samples were corrected for the dilution factor used in the analysis. The Method and Batch Quality Control analyses were within established criteria for the laboratory methods, except where qualifiers (e.g., J-flags) are presented, thus the analytical results are characterized as accurate and precise.

5.2 Evaluation of 2020 Groundwater Monitoring Data

Groundwater level data collected during the November 2020 groundwater sampling event indicate that groundwater flow in the uppermost aquifer flows from the northwest towards the southeast, generally following the surface terrain. Groundwater velocity can be calculated using the following:

$V = Ki/\Phi$

Where:

K = Hydraulic Conductivity = 1.0×10^{-4} cm/s (Source: 2018 SAP)
i = Hydraulic Gradient = 0.005 ft/ft (Source: November 16, 2020 field data)
Φ = Effective Porosity = 0.2 or 20 % (Source: 2018 SAP)

$$V = \frac{(1.0 \times 10^{-4}\ \text{cm/s})(0.005)}{0.2}$$

V = 2.5 feet per year

Historical groundwater flow maps covering the time period from July 2012 through May 2019 were previously submitted to the ODEQ. The data provided shows the fluctuations of the groundwater levels at each monitoring well and provides an indication of the direction of groundwater flow. The maps were compiled semi-annually and include the elevation of the groundwater at each well, interpolated contours of the top of groundwater elevation across the site, and the direction of

groundwater flow. **Figures 1 and 2** show monitoring well locations, groundwater elevations, and groundwater flow directions for June 2020 and November 2020, respectively.

Statistical evaluation of the laboratory analytical results was performed in accordance with OAC 252:517-9-4(g)(3) and the Revised Assessment Monitoring Plan (approved January 28, 2020) utilizing Chemostat Statistical Analysis Software (Version 6.4.0). Statistical analyses were conducted using the Shapiro-Francia Test of Normality, Levene's equal variance test, and ANOVA (Analysis of Variance) to establish assumptions of normality and equal variance of the historical concentration data sets for each constituent. Analyses of the June 2020 constituent data sets indicated that assumptions of normality and equal variance were not appropriate for all constituents, and non-parametric prediction intervals were used for inter-well and intra-well comparisons.

Inter-well analyses were conducted to compare constituent concentrations in downgradient compliance wells (MW93-2, MW93-3, MW03-1, and MW03-2) to the concentrations observed in an upgradient background well (MW93-1). Inter-well tests assume that concentrations observed in the background well are not impacted by site activities and represent natural groundwater conditions. Background concentrations are established by pooling a statistically significant number of historical data points from the background well to establish a maximum background concentration for each constituent analyzed. A statistically significant increase in concentration occurs if recent detected concentrations exceed the established background concentration. An intra-well exceedance occurs when a pool of recent data demonstrates a statistically significant increasing trend when compared to a pool of historical baseline data from the same well.

Groundwater concentrations are also compared to the site-specific GWPS. The GWPS for each constituent were developed using respective MCLs. If a constituent did not have an MCL or if the background concentration was greater than the MCL, then the statistical background concentration was used as the GWPS. Established background concentrations, GWPS, and results of the statistical analysis are included in **Tables 3 through 5**. A copy of the statistical output is included in **Appendix B**.

5.3 Statistical Analysis of June 2020 Assessment Monitoring Data

A semi-annual groundwater monitoring event was conducted in June 2020. Statistical analysis of the June 2020 and historic data indicated the following:

- Inter-well exceedances (relative to background) for several Appendix A and Appendix B constituents were observed in the compliance wells. Exceedances for Appendix A constituents included alkalinity, boron, chloride, TDS, pH, sodium, specific conductance, and fluoride. Exceedances for Appendix B constituents include arsenic, barium, fluoride, lithium, mercury, molybdenum, and combined radium.

- Wells MW93-3, MW93-2, and MW03-2 exhibited inter-well and intra-well exceedances for two Appendix A constituents (alkalinity and total dissolved solids). GWPS are not established for Appendix A constituents.
- Inter-well and intra-well exceedances for barium (Appendix B) were observed in well MW93-2. Observed barium concentrations were below the GWPS.
- Concentrations of arsenic and molybdenum detected in MW93-2 and a concentration of lithium detected in MW93-3 did not demonstrate SSIs (intra-well exceedances) in concentration but were greater than their respective GWPS.
- Groundwater sampling and statistical analyses of historical and background data indicate that the low flow sampling techniques utilized during the June 2020 groundwater sampling event resulted in fewer intra-well exceedances.

Notification of the exceedances per OAC 252:517-19-1(h)(8) was completed on January 29, 2021. A proposed plan and schedule for analyzing the exceedances and for developing appropriate corrective action is being prepared in accordance with OAC 252:517-9-6(g).

5.4 Statistical Analysis of November 2020 Assessment Monitoring Data

A semi-annual groundwater monitoring event was conducted in November 2020. Statistical analysis of the November 2020 and historic data indicated the following:

- Inter-well exceedances (relative to background) for several Appendix A and Appendix B constituents were observed in the compliance wells. Exceedances for Appendix A constituents include boron, chloride, TDS, pH, sodium, specific conductivity, sulfate, and fluoride. Exceedances for Appendix B constituents include arsenic, barium, fluoride, lithium, mercury, molybdenum, and combined radium.
- Well MW93-2 exhibited inter-well and intra-well exceedances for two Appendix A constituents (sulfate and total dissolved solids). GWPS are not established for Appendix A constituents.
- Inter-well and intra-well exceedances for barium and combined radium (Appendix B) were observed in wells MW93-2 and MW03-2, respectively. Observed barium and combined radium concentrations were below their respective GWPS.
- Concentrations of arsenic and molybdenum detected in MW93-2 and a concentration of lithium detected in MW93-3 did not demonstrate statistically significant increases (intra-well exceedances) in concentration but were greater than their respective GWPS.
- Groundwater sampling and statistical analyses of historical and background data indicate that the low flow sampling techniques utilized during the June 2020 and November 2020 groundwater sampling events resulted in fewer intra-well exceedances.

6.0 PROBLEMS ENCOUNTERED AND RESOLUTIONS

The concentrations of arsenic and molybdenum detected in MW93-2 and the concentration of lithium detected in MW93-3 are greater than their respective GWPSs. In accordance with the Revised Assessment Monitoring Plan (approved January 28, 2020) and in accordance with OAC 252:517-9-6(g), ENERCON recommends that GRDA notify ODEQ of the exceedances and submit a proposed plan and schedule for developing appropriate corrective action. GRDA has proactively initiated internal studies that suggest re-evaluation of the monitoring well network system may be necessary. ENERCON recognizes this effort and recommends continuing to re-evaluate the groundwater monitoring system in accordance with OAC 252:517-9-2.

7.0 KEY ACTIVITIES FOR THE UPCOMING YEAR

In accordance with the Revised Assessment Monitoring Plan (approved January 28, 2020), the following will be completed:

- Semi-annual and annual groundwater monitoring.
- Statistical analysis of the semi-annual and annual groundwater monitoring data; and
- Preparation of semi-annual and annual reports.
- In accordance with OAC 252:517-9-6(g), a proposed plan and schedule for developing appropriate corrective action is in progress. The analysis will include a re-evaluation of the groundwater monitoring system.

8.0 PUBLISHED REFERENCES

EPA, 2017. Region 1 Low Stress (low flow) Purging and Sampling Procedure for the Collection of Groundwater Samples from Monitoring Wells. Revision 4. September 19, 2017.

A&M Engineering and Environmental Services, 2018. Groundwater Sampling and Analysis Program for Grand River Dam Authority Landfill. Grand River Energy Center. Mayes County, Oklahoma. Solid Waste Permit No. 3549012. October 16, 2017. Updated January 3, 2018.

A&M Engineering and Environmental Services, 2019. Assessment Monitoring Plan for the Grand River Dam Authority Grand River Energy Center Landfill. Chouteau, Mayes County, Oklahoma. Permit No. 3549012. March 2019. Revised August 2019 and December 2019. Approved January 28, 2020.

A&M Engineering and Environmental Services, 2020. Annual Groundwater Monitoring and Corrective Action Report (Calendar Year 2019). Grand River Dam Authority Landfill. Grand River Energy Center. Mayes County, Oklahoma. Solid Waste Permit No. 3549012. January 31, 2020.

ODEQ, 2020. Letter to GRDA Re: 2019 Annual Groundwater Monitoring and Corrective Action Report (Report), Grand River Dam Authority Landfill. Mayes County, Permit Number 3549012. Dated March 6, 2020.

GRDA, 2020. Letter to ODEQ Re: Addendum to Annual Groundwater Monitoring and Corrective Action Report for Calendar Year 2019. Grand River Dam Authority. Grand River Dam Authority. Grand River Energy Center, Chouteau, Oklahoma. Dated March 6, 2020.

Tables

Table 1 - Static Water Level Survey Data - June 2020

Grand River Dam Authority Landfill

Grand River Energy Center - Mayes County, Oklahoma

Sample Location	Ground Elevation (ft. AMSL)	TOC Elevation (ft. AMSL)	6/25/2020	
			Depth to Groundwater (ft. BTOC)	GW Elevation (ft. AMSL)
MW03-1	602.17	604.99	9.45	595.54
MW03-2	605.54	607.95	13.46	594.49
MW93-1	618.40	620.62	10.60	610.02
MW93-2	606.55	609.85	7.60	602.25
MW93-3	606.22	608.73	14.80	593.93

AMSL - above mean sea level

BTOC - below top of casing

ft - feet

Table 2 - Static Water Level Survey Data- November 2020

Grand River Dam Authority Landfill

Grand River Energy Center - Mayes County, Oklahoma

Sample Location	Ground Elevation (ft. AMSL)	TOC Elevation (ft. AMSL)	11/26/2020	
			Depth to Groundwater (ft. BTOC)	GW Elevation (ft. AMSL)
MW03-1	602.17	604.99	10.53	594.46
MW03-2	605.54	607.95	15.68	592.27
MW93-1	618.40	620.62	10.84	609.78
MW93-2	606.55	609.85	7.90	601.95
MW93-3	606.22	608.73	14.51	594.22

AMSL - above mean sea level

BTOC - below top of casing

ft - feet

Table 3 - Summary of Groundwater Analytical Data - June and November 2020
Grand River Dam Authority Landfill
Grand River Energy Center - Mayes County, Oklahoma

Units		mg/L		mg/L		mg/L		mg/L		mg/L	su		mg/L		umhos/cm		mg/L		mg/L		mg/L		mg/L		mg/L		mg/L		mg/L		mg/L		mg/L		mg/L		mg/L		mg/L		pCi/L		mg/L		mg/L					
Parameter (Method)		Alkalinity (2320B-2011)		Boron (200.7)		Calcium (200.8)		Chloride (300)		Total Dissolved Solids (2540 C-2011)	pH (4500, field)		Sodium (200.8)		Specific Conductance (120.1)		Sulfate (300)		Fluoride (300)		Antimony (200.8)		Arsenic (200.8)		Barium (200.8)		Beryllium (200.8)		Cadmium (200.8)		Chromium (200.8)		Cobalt (200.8)		Lead (200.8)		Lithium (200.7)		Mercury (245.1)		Molybdenum (200.8)		Radium 226/228 Combined (904/SM 7500 Ra B)		Selenium (200.8)		Thallium (200.8)					
Appendix		A		A		A		A		A	A		A		A		A		A,B		B		B		B		B		B		B		B		B		B		B		B					
Background		550		0.499		670		63		1,050	6.1, 7.05		130		1,888		880		0.243		0.01		0.0109		0.0321		0.01		0.00125		0.02		0.01		0.005		0.015		0.000184		0.01		1.19		0.005		0.01					
GWPS		NA		NA		NA		NA		NA	NA		NA		NA		NA		4.0		0.01		0.0109		2		0.01		0.005		0.1		0.01		0.005		0.015		0.002		0.01		5		0.05		0.01					
MCL		NC		NC		NC		NC		NC	NC		NC		NC		NC		4.0		0.006		0.010		2		0.004		0.005		0.1		NC		NC		NC		0.002		NC		5		0.05		0.002					
Sample Location	Date Sampled	Result	Q	Result	Q	Result	Q	Result	Q	Result	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Inter-Well SSI	Intra-Well SSI	MCL Exceedance	GWPS Exceedance
MW93-1	6/26/2020	542		0.185	J	210		11.0		1,000	6.88		130	V	1,440		346		0.168		<0.00172		0.000405	J	0.0283		<0.000201		0.000369	J	<0.00560		<0.000142		<0.000513		<0.00689		<0.000100		0.00105	J	0.447		<0.000437		<0.000176					
MW93-1	11/17/2021	473		0.211		212		14.4		966	6.45		120		1,460		346		0.183		<0.00172		0.000336	J	0.0405		<0.000201		0.000541	J	<0.00560		0.000252	J	<0.000513		<0.00689		<0.000100		0.00113	J	0.2022	U,J	<0.000437		<0.000176					
MW93-2	6/26/2020	261		1.74		198		109		8,860	8.59		2,660		12,200		523		0.313		<0.00172		0.0176		**0.147**		<0.000201		<0.000160		<0.00560		0.000252	J	<0.000513		0.00976	J	<0.000100		0.213		3.240		0.00129	J	<0.000176		X	X	X	X
MW93-2	11/16/2021	266		1.76		225		1,210		**46,400**	8.48		2,800		12,700		**5,040**		0.705	J	<0.00172		0.0204		**0.151**		<0.000201		<0.000160		<0.00560		0.000281	J	<0.000513		<0.00689		<0.000100		0.320		3.478		0.000834	J	<0.000176		X	X	X	X
MW93-3	6/26/2020	**619**		0.0726	J	92.2		143		1,310	6.75		376		2,080		328		0.252		<0.00172		0.000572	J	0.0604		<0.000201		<0.000160		<0.00560		<0.000142		<0.000513		0.124		<0.000100		<0.000841		0.519		<0.000437		<0.000176		X	X	X	X
MW93-3 (Dup)	6/26/2020	**620**		0.0673	J	90.8		129		1,230	6.75		367		2,100		297		0.243		--		--		--		--		--		--		--		--		--		--		--		--		--		--					
MW93-3	11/16/2021	549		0.0762	J	82.8		187		1,310	6.65		374	V	2,060		258		0.270		<0.00172		0.000593	J	0.0604		<0.000201		<0.000160		<0.00560		<0.000142		<0.000513		0.128		0.000308		<0.000841		0.700	J	<0.000437		<0.000176		X		X	X
MW03-1	6/25/2020	126		<0.0396		35.6		0.652	J	151	6.77		7.75		255		6.20		0.0846	J	<0.00172		0.000538	J	0.0776		<0.000201		<0.000160		<0.00560		<0.000142		<0.000513		<0.00689		<0.000100		0.000992	J	0.715		<0.000437		<0.000176		X			
MW03-1	11/17/2021	234		<0.0396		76.2		2.29		320	6.92		26.9		524		18.9		0.109	J	<0.00172		0.000677	J	0.190		<0.000201		<0.000160		<0.00560		0.000211	J	<0.000513		<0.00689		<0.000100		0.00274	J	1.184		0.000522	J	<0.000176		X			
MW03-1 (Dup)	11/17/2021	233		<0.0396		75.8		2.31		337	6.94		26.4		526		19		0.110	J																															
MW03-2	6/25/2020	223		<0.0396		338		448		**1,940**	6.65		165		2,590		409		0.119	J	<0.00172		0.000329	J	0.0348		<0.000201		<0.000160		<0.00560		<0.000142		<0.000513		0.00813	J	0.000234		<0.000841		0.949		<0.000437		<0.000176		X	X		
MW03-2	11/17/2021	209		<0.0396		321		435		1,770	6.64		162		2,390		377		0.116	J	<0.00172		<0.000195		0.0395		<0.000201		<0.000160		<0.00560		<0.000142		<0.000513		<0.00689		0.000862		<0.000841		**3.586**	J	<0.000437		<0.000176		X	X		
BLANK	6/25/2020	<8.45		<0.0396		<0.112		<0.379		52			<0.513		<10.0		<0.594		<0.0640		--		--		--		--		--		--		--		--		--		--		--		--		--		--					
TRIP BLANK	11/17/2021	<8.45		<0.0396		<0.112		0.612	J,P1	36			<0.513		<10.0		<0.594		0.142	J																															

Shaded analytical results indicate a statistically significant inter-well increase above background.
Bolded analytical results indicate a statistically significant intra-well increase.
A thick border around an analytical result idicates the concentration was detected at a statistically significant level above the Groundwater Protection Standard (GWPS)

MCL - Maximum Contaminant Level (MCL) according to 40 CFR 141.62 and 141.66. (ODEQ has not adopted the 83 FR 364.35 July 30, 2018 health-based GWPS for Co, Pb, Li, Mo, Effective August 29, 2018)
A - Appendix A Constituents for Detection Monitoring (modified to included specific conductivity, total alkalinity, and sodium per December 2019 Revised Assessment
B - Appendix B Constituents for Assessment Monitoring
GWPS - 252:517-9-6(h) Groundwater protection standard. The owner or operator of the CCR unit must establish a groundwater protection standard for each constituent in Appendix B to this Chapter detected in the groundwater. The groundwater protection standard shall be:
(1) For constituents for which a MCL has been established under 40 CFR 141.62 and 141.66, the MCL for that constituent;
(2) For constituents for which an MCL has not been established, the background concentration for the constituent; or
(3) For constituents for which the background level is higher than the MCL, the background concentration.
mg/L - milligrams per liter
NC - no concentration established
umhos/cm - micromhos per centimeter
pCi/L - picocuries per liter
SU - standard units
< - less than the laboratory method detection limit (MDL) or for specific conductance, the reported detection limit (RDL)
Q - Qualifiers:

C1: Tracer recovery limits have been exceeded; values are outside upper control limits.
J: The identification of the analyte is acceptable; the reported value is an estimate.
P1: RPD value not applicable for sample concentrations less than 5 times the reporting limit.
U: Below Detectable Limits: Indicates that the analyte was not detected.
V: The sample concentration is too high to evaluate accurate spike recoveries.

Table 4 - Statistical Analysis Summary June 2020 Semi-Annual Event

Grand River Dam Authority Landfill

Grand River Energy Center - Mayes County, Oklahoma

Parameter		Units	BG	GWPS	MCL	Inter-Well/ Background Exceedance	Intra-Well Exceedance	GWPS Exceedance	MCL Exceedance
Alkalinity	A	mg/L	550	NA	NC	MW93-3	MW93-3	--	--
Boron	A	mg/L	0.499	NA	NC	MW93-2	--	--	--
Calcium	A	mg/L	670	NA	NC	--	--	--	--
Chloride	A	mg/L	63	NA	NC	MW93-2 MW93-3 MW03-2	--	--	--
Total Dissolved Solids	A	mg/L	1,050	NA	NC	MW93-2 MW93-3 MW03-2	MW03-2	--	--
pH	A	su	6.1, 7.05	NA	NC	MW93-2	--	--	--
Sodium	A	mg/L	130	NA	NC	MW93-2 MW93-3 MW03-2	--	--	--
Specific Conductance	A	umhos/cm	1,888	NA	NC	MW93-2 MW93-3 MW03-2	--	--	--
Sulfate	A	mg/L	880	NA	NC		--	--	--
Fluoride	A,B	mg/L	0.243	4.0	4.0	MW93-2 MW93-3	--	--	--
Antimony	B	mg/L	0.01	0.01	0.006	--	--	--	--
Arsenic	B	mg/L	0.0109	0.0109	0.010	MW93-2		MW-93-2	MW-93-2
Barium	B	mg/L	0.0321	2	2	MW93-2 MW93-3 MW03-1 MW03-2	MW-93-2	--	--
Beryllium	B	mg/L	0.01	0.01	0.004	--	--	--	--
Cadmium	B	mg/L	0.00125	0.005	0.005	--	--	--	--
Chromium	B	mg/L	0.02	0.1	0.1	--	--	--	--
Cobalt	B	mg/L	0.01	0.01	NC	--	--	--	--
Lead	B	mg/L	0.005	0.005	NC	--	--	--	--
Lithium	B	mg/L	0.015	0.015	NC	MW93-3	--	MW-93-3	--
Mercury	B	mg/L	0.000184	0.002	0.002	MW03-2	--	--	--
Molybdenum	B	mg/L	0.01	0.01	NC	MW93-2	--	MW-93-2	--
Radium 226/228 Combined	B	pCi/L	1.19	5	5	MW93-2	--	--	--
Selenium	B	mg/L	0.005	0.05	0.05	--	--	--	--
Thallium	B	mg/L	0.01	0.01	0.002	--	--	--	--

MCL - Maximum Contaminant Level (MCL) according to 40 CFR 141.62 and 141.66. (ODEQ has not adopted the 83 FR 364.35 July 30, 2018 health-based GWPS for Co, Pb, Li, Mo, Effective August 29, 2018)

A - Appendix A Constituents for Detection Monitoring (modified to included specific conductivity, total alkalinity, and sodium per December 2019 Revised Assessment Monitoring Plan).

B - Appendix B Constituents for Assessment Monitoring

GWPS - 252:517-9-6(h) Groundwater protection standard. The owner or operator of the CCR unit must establish a groundwater protection standard for each constituent in Appendix B to this Chapter detected in the groundwater. The groundwater protection standard shall be:
(1) For constituents for which a maximum contaminant level (MCL) has been established under 40 CFR 141.62 and 141.66, the MCL for that constituent;
(2) For constituents for which an MCL has not been established, the background concentration for the constituent; or
(3) For constituents for which the background level is higher than the MCL, the background concentration.

mg/L - milligrams per liter
pCi/L - picocuries per liter

Table 5 - Statistical Analysis Summary November 2020 Semi-Annual Event

Grand River Dam Authority Landfill

Grand River Energy Center - Mayes County, Oklahoma

Parameter		Units	BG	GWPS	MCL	Inter-Well/ Background Exceedance	Intra-Well Exceedance	GWPS Exceedance	MCL Exceedance
Alkalinity	A	mg/L	550	NA	NC	--	--	--	--
Boron	A	mg/L	0.499	NA	NC	MW93-2	--	--	--
Calcium	A	mg/L	670	NA	NC	--	--	--	--
Chloride	A	mg/L	63	NA	NC	MW93-2 MW03-1 MW03-2	--	--	--
Total Dissolved Solids	A	mg/L	1,050	NA	NC	MW93-2 MW93-3 MW03-2	MW93-2	--	--
pH	A	su	6.1, 7.05	NA	NC	MW93-2	--	--	--
Sodium	A	mg/L	130	NA	NC	MW93-2 MW93-3 MW03-2	--	--	--
Specific Conductance	A	umhos/cm	1,888	NA	NC	MW93-2 MW93-3 MW03-2	--	--	--
Sulfate	A	mg/L	880	NA	NC	MW93-2	MW93-2	--	--
Fluoride	A,B	mg/L	0.243	4.0	4.0	MW93-2 MW93-3	--	--	--
Antimony	B	mg/L	0.01	0.01	0.006	--	--	--	--
Arsenic	B	mg/L	0.0109	0.0109	0.010	MW93-2		MW-93-2	MW-93-2
Barium	B	mg/L	0.0321	2	2	MW93-2 MW93-3 MW03-1	MW-93-2	--	--
Beryllium	B	mg/L	0.01	0.01	0.004	--	--	--	--
Cadmium	B	mg/L	0.00125	0.005	0.005	--	--	--	--
Chromium	B	mg/L	0.02	0.1	0.1	--	--	--	--
Cobalt	B	mg/L	0.01	0.01	NC	--	--	--	--
Lead	B	mg/L	0.005	0.005	NC	--	--	--	--
Lithium	B	mg/L	0.015	0.015	NC	MW93-3	--	MW-93-3	--
Mercury	B	mg/L	0.000184	0.002	0.002	MW03-2 MW93-3	--	--	--
Molybdenum	B	mg/L	0.01	0.01	NC	MW93-2	--	MW-93-2	--
Radium 226/228 Combined	B	pCi/L	1.19	5	5	MW93-2 MW03-2	MW03-2	--	--
Selenium	B	mg/L	0.005	0.05	0.05	--	--	--	--
Thallium	B	mg/L	0.01	0.01	0.002	--	--	--	--

MCL - Maximum Contaminant Level (MCL) according to 40 CFR 141.62 and 141.66. (ODEQ has not adopted the 83 FR 364.35 July 30, 2018 health-based GWPS for Co, Pb, Li, Mo, Effective August 29, 2018)

A - Appendix A Constituents for Detection Monitoring (modified to included specific conductivity, total alkalinity, and sodium per December 2019 Revised Assessment Monitoring Plan).

B - Appendix B Constituents for Assessment Monitoring

GWPS - 252:517-9-6(h) Groundwater protection standard. The owner or operator of the CCR unit must establish a groundwater protection standard for each constituent in Appendix B to this Chapter detected in the groundwater. The groundwater protection standard shall be:

(1) For constituents for which a maximum contaminant level (MCL) has been established under 40 CFR 141.62 and 141.66, the MCL for that constituent;

(2) For constituents for which an MCL has not been established, the background concentration for the constituent; or

(3) For constituents for which the background level is higher than the MCL, the background concentration.

mg/L - milligrams per liter

pCi/L - picocuries per liter

Figures

Legend:

- Upgradient (Background) Monitoring Well
- Downgradient (Compliance) Monitoring Wells
- (518.59) Groundwater Elevation in ft above msl
- Apparent Groundwater Flow Direction

N

Not to Scale

ENERCON

Figure 1
Monitoring Well Location and Groundwater Flow Direction Map
June 2020

Project No: GRDA-00012

Grand River Dam Authority
Grand River Energy Center CCR Landfill
Chouteau, Mayes County, Oklahoma
Solid Waste Permit No. 3549012

Legend:

- Upgradient (Background) Monitoring Well
- Downgradient (Compliance) Monitoring Wells
- (518.59) Groundwater Elevation in ft above msl
- Apparent Groundwater Flow Direction

N

Not to Scale

ENERCON

Figure 2
Monitoring Well Location and Groundwater Flow Direction Map
November 2020

Project No: GRDA-00012

Grand River Dam Authority
Grand River Energy Center CCR Landfill
Chouteau, Mayes County, Oklahoma
Solid Waste Permit No. 3549012

Appendix A
Laboratory Analytical Reports

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

October 30, 2020

Revised Report

Enercon - Oklahoma City, OK

Sample Delivery Group:	L1234214
Samples Received:	06/27/2020
Project Number:	GRDA~00012
Description:	GREC, Chouteau, OK
Site:	8142 HWY 412B
Report To:	Phillip Kelley
	1601 Northwest Expressway
	Suite 1000
	Oklahoma City, OK 73118

Entire Report Reviewed By:

Jason Romer
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

MW93-1 L1234214-01 WW

Collected by: Matthew Payne | Collected date/time: 06/26/20 13:50 | Received date/time: 06/27/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1500967	1	06/29/20 11:02	06/29/20 13:11	MMF	Mt. Juliet, TN
Wet Chemistry by Method 120.1	WG1504798	1	07/07/20 15:30	07/07/20 15:30	LRP	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG1504012	1	07/05/20 23:10	07/05/20 23:10	MCG	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1502969	1	07/04/20 06:08	07/04/20 06:08	ELN	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1502969	10	07/04/20 06:52	07/04/20 06:52	ELN	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1504602	1	07/06/20 19:41	07/06/20 19:41	ELN	Mt. Juliet, TN
Mercury by Method 245.1	WG1500763	1	06/29/20 20:00	06/30/20 11:50	JDG	Mt. Juliet, TN
Metals (ICP) by Method 200.7	WG1501289	1	07/01/20 18:33	07/02/20 09:09	TRB	Mt. Juliet, TN
Metals (ICPMS) by Method 200.8	WG1501298	1	07/02/20 06:55	07/03/20 15:47	JPD	Mt. Juliet, TN

MW93-2 L1234214-02 WW

Collected by: Matthew Payne | Collected date/time: 06/26/20 11:20 | Received date/time: 06/27/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1500967	1	06/29/20 11:02	06/29/20 13:11	MMF	Mt. Juliet, TN
Wet Chemistry by Method 120.1	WG1504798	1	07/07/20 15:30	07/07/20 15:30	LRP	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG1504014	1	07/06/20 13:35	07/06/20 13:35	MCG	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1502969	10	07/04/20 07:22	07/04/20 07:22	ELN	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1504602	1	07/06/20 20:46	07/06/20 20:46	ELN	Mt. Juliet, TN
Mercury by Method 245.1	WG1500763	1	06/29/20 20:00	06/30/20 11:02	TRB	Mt. Juliet, TN
Metals (ICP) by Method 200.7	WG1501289	1	07/01/20 18:33	07/02/20 09:12	TRB	Mt. Juliet, TN
Metals (ICPMS) by Method 200.8	WG1501298	1	07/02/20 06:55	07/03/20 16:54	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 200.8	WG1501298	10	07/02/20 06:55	07/03/20 17:25	JPD	Mt. Juliet, TN

MW93-3 L1234214-03 WW

Collected by: Matthew Payne | Collected date/time: 06/26/20 09:20 | Received date/time: 06/27/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1500967	1	06/29/20 11:02	06/29/20 13:11	MMF	Mt. Juliet, TN
Wet Chemistry by Method 120.1	WG1504798	1	07/07/20 15:30	07/07/20 15:30	LRP	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG1504014	1	07/06/20 13:44	07/06/20 13:44	MCG	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1502969	5	07/04/20 07:37	07/04/20 07:37	ELN	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1504602	1	07/06/20 20:57	07/06/20 20:57	ELN	Mt. Juliet, TN
Mercury by Method 245.1	WG1500763	1	06/29/20 20:00	06/30/20 11:08	TRB	Mt. Juliet, TN
Metals (ICP) by Method 200.7	WG1501289	1	07/01/20 18:33	07/02/20 09:15	TRB	Mt. Juliet, TN
Metals (ICPMS) by Method 200.8	WG1501298	1	07/02/20 06:55	07/03/20 17:08	JPD	Mt. Juliet, TN

MW03-1 L1234214-04 WW

Collected by: Matthew Payne | Collected date/time: 06/25/20 15:55 | Received date/time: 06/27/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1500967	1	06/29/20 11:02	06/29/20 13:11	MMF	Mt. Juliet, TN
Wet Chemistry by Method 120.1	WG1504802	1	07/07/20 13:55	07/07/20 13:55	LRP	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG1504014	1	07/06/20 13:53	07/06/20 13:53	MCG	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1502969	1	07/04/20 07:52	07/04/20 07:52	ELN	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1504602	1	07/06/20 21:08	07/06/20 21:08	ELN	Mt. Juliet, TN
Mercury by Method 245.1	WG1500763	1	06/29/20 20:00	06/30/20 11:10	TRB	Mt. Juliet, TN
Metals (ICP) by Method 200.7	WG1501289	1	07/01/20 18:33	07/02/20 09:18	TRB	Mt. Juliet, TN
Metals (ICPMS) by Method 200.8	WG1501298	1	07/02/20 06:55	07/03/20 17:11	JPD	Mt. Juliet, TN

MW03-2 L1234214-05 WW

Collected by: Matthew Payne | Collected date/time: 06/25/20 14:20 | Received date/time: 06/27/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1500967	1	06/29/20 11:02	06/29/20 13:11	MMF	Mt. Juliet, TN
Wet Chemistry by Method 120.1	WG1504802	1	07/07/20 13:55	07/07/20 13:55	LRP	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG1504014	1	07/06/20 14:00	07/06/20 14:00	MCG	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1502969	50	07/04/20 08:22	07/04/20 08:22	ELN	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1504602	1	07/06/20 21:19	07/06/20 21:19	ELN	Mt. Juliet, TN
Mercury by Method 245.1	WG1500763	1	06/29/20 20:00	06/30/20 11:12	TRB	Mt. Juliet, TN
Metals (ICP) by Method 200.7	WG1502791	1	07/02/20 06:57	07/03/20 12:40	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 200.8	WG1501298	1	07/02/20 06:55	07/03/20 17:14	JPD	Mt. Juliet, TN

DUPLICATE L1234214-06 WW

Collected by: Matthew Payne | Collected date/time: 06/25/20 00:00 | Received date/time: 06/27/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1500967	1	06/29/20 11:02	06/29/20 13:11	MMF	Mt. Juliet, TN
Wet Chemistry by Method 120.1	WG1504802	1	07/07/20 13:55	07/07/20 13:55	LRP	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG1504014	1	07/06/20 14:09	07/06/20 14:09	MCG	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1502969	50	07/04/20 08:37	07/04/20 08:37	ELN	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1504602	1	07/06/20 21:30	07/06/20 21:30	ELN	Mt. Juliet, TN
Metals (ICP) by Method 200.7	WG1502791	1	07/02/20 06:57	07/03/20 12:43	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 200.8	WG1501298	1	07/02/20 06:55	07/03/20 17:18	JPD	Mt. Juliet, TN

BLANK L1234214-07 WW

Collected by: Matthew Payne | Collected date/time: 06/25/20 13:00 | Received date/time: 06/27/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1500967	1	06/29/20 11:02	06/29/20 13:11	MMF	Mt. Juliet, TN
Wet Chemistry by Method 120.1	WG1504802	1	07/07/20 13:55	07/07/20 13:55	LRP	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG1504014	1	07/06/20 14:18	07/06/20 14:18	MCG	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1502969	1	07/04/20 08:52	07/04/20 08:52	ELN	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1504602	1	07/06/20 21:41	07/06/20 21:41	ELN	Mt. Juliet, TN
Metals (ICP) by Method 200.7	WG1502791	1	07/02/20 06:57	07/03/20 12:46	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 200.8	WG1501298	1	07/02/20 06:55	07/03/20 17:21	JPD	Mt. Juliet, TN

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Jason Romer
Project Manager

Report Revision History

Level II Report - Version 1: 07/08/20 12:29

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Dissolved Solids	1000		2.82	10.0	1	06/29/2020 13:11	WG1500967

Wet Chemistry by Method 120.1

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	umhos/cm		umhos/cm		date / time	
Specific Conductance	1440		10.0	1	07/07/2020 15:30	WG1504798

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Alkalinity	542		8.45	20.0	1	07/05/2020 23:10	WG1504012

Sample Narrative:

L1234214-01 WG1504012: Endpoint pH 4.5

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	11.0		0.379	1.00	1	07/04/2020 06:08	WG1502969
Fluoride	0.168		0.0640	0.150	1	07/06/2020 19:41	WG1504602
Sulfate	346		5.94	50.0	10	07/04/2020 06:52	WG1502969

Mercury by Method 245.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Mercury	U		0.000100	0.000200	1	06/30/2020 11:50	WG1500763

Metals (ICP) by Method 200.7

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Boron	0.185	J	0.0396	0.200	1	07/02/2020 09:09	WG1501289
Lithium	U		0.00689	0.0150	1	07/02/2020 09:09	WG1501289

Metals (ICPMS) by Method 200.8

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Antimony	U		0.00172	0.00500	1	07/03/2020 15:47	WG1501298
Arsenic	0.000405	J	0.000195	0.00100	1	07/03/2020 15:47	WG1501298
Barium	0.0283		0.000476	0.00500	1	07/03/2020 15:47	WG1501298
Beryllium	U		0.000201	0.00100	1	07/03/2020 15:47	WG1501298
Cadmium	0.000369	J	0.000160	0.00100	1	07/03/2020 15:47	WG1501298
Calcium	210		0.112	1.00	1	07/03/2020 15:47	WG1501298
Chromium	U		0.00560	0.0200	1	07/03/2020 15:47	WG1501298
Cobalt	U		0.000142	0.00200	1	07/03/2020 15:47	WG1501298
Lead	U		0.000513	0.00200	1	07/03/2020 15:47	WG1501298
Molybdenum	0.00105	J	0.000841	0.00500	1	07/03/2020 15:47	WG1501298
Selenium	U		0.000437	0.00200	1	07/03/2020 15:47	WG1501298
Sodium	130	V	0.513	2.00	1	07/03/2020 15:47	WG1501298
Thallium	U		0.000176	0.00100	1	07/03/2020 15:47	WG1501298

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Dissolved Solids	8860		2.82	10.0	1	06/29/2020 13:11	WG1500967

Wet Chemistry by Method 120.1

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	umhos/cm		umhos/cm		date / time	
Specific Conductance	12200		10.0	1	07/07/2020 15:30	WG1504798

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Alkalinity	261		8.45	20.0	1	07/06/2020 13:35	WG1504014

Sample Narrative:

L1234214-02 WG1504014: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	109		3.79	10.0	10	07/04/2020 07:22	WG1502969
Fluoride	0.313		0.0640	0.150	1	07/06/2020 20:46	WG1504602
Sulfate	523		5.94	50.0	10	07/04/2020 07:22	WG1502969

Mercury by Method 245.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Mercury	U		0.000100	0.000200	1	06/30/2020 11:02	WG1500763

Metals (ICP) by Method 200.7

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Boron	1.74		0.0396	0.200	1	07/02/2020 09:12	WG1501289
Lithium	0.00976	J	0.00689	0.0150	1	07/02/2020 09:12	WG1501289

Metals (ICPMS) by Method 200.8

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Antimony	U		0.00172	0.00500	1	07/03/2020 16:54	WG1501298
Arsenic	0.0176		0.000195	0.00100	1	07/03/2020 16:54	WG1501298
Barium	0.147		0.000476	0.00500	1	07/03/2020 16:54	WG1501298
Beryllium	U		0.000201	0.00100	1	07/03/2020 16:54	WG1501298
Cadmium	U		0.000160	0.00100	1	07/03/2020 16:54	WG1501298
Calcium	198		0.112	1.00	1	07/03/2020 16:54	WG1501298
Chromium	U		0.00560	0.0200	1	07/03/2020 16:54	WG1501298
Cobalt	0.000252	J	0.000142	0.00200	1	07/03/2020 16:54	WG1501298
Lead	U		0.000513	0.00200	1	07/03/2020 16:54	WG1501298
Molybdenum	0.213		0.000841	0.00500	1	07/03/2020 16:54	WG1501298
Selenium	0.00129	J	0.000437	0.00200	1	07/03/2020 16:54	WG1501298
Sodium	2660		5.13	20.0	10	07/03/2020 17:25	WG1501298
Thallium	U		0.000176	0.00100	1	07/03/2020 16:54	WG1501298

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Dissolved Solids	1310		5.64	20.0	1	06/29/2020 13:11	WG1500967

Wet Chemistry by Method 120.1

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	umhos/cm		umhos/cm		date / time	
Specific Conductance	2080		10.0	1	07/07/2020 15:30	WG1504798

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Alkalinity	619		8.45	20.0	1	07/06/2020 13:44	WG1504014

Sample Narrative:

L1234214-03 WG1504014: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	143		1.90	5.00	5	07/04/2020 07:37	WG1502969
Fluoride	0.252		0.0640	0.150	1	07/06/2020 20:57	WG1504602
Sulfate	328		2.97	25.0	5	07/04/2020 07:37	WG1502969

Mercury by Method 245.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Mercury	U		0.000100	0.000200	1	06/30/2020 11:08	WG1500763

Metals (ICP) by Method 200.7

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Boron	0.0726	J	0.0396	0.200	1	07/02/2020 09:15	WG1501289
Lithium	0.124		0.00689	0.0150	1	07/02/2020 09:15	WG1501289

Metals (ICPMS) by Method 200.8

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Antimony	U		0.00172	0.00500	1	07/03/2020 17:08	WG1501298
Arsenic	0.000572	J	0.000195	0.00100	1	07/03/2020 17:08	WG1501298
Barium	0.0604		0.000476	0.00500	1	07/03/2020 17:08	WG1501298
Beryllium	U		0.000201	0.00100	1	07/03/2020 17:08	WG1501298
Cadmium	U		0.000160	0.00100	1	07/03/2020 17:08	WG1501298
Calcium	92.2		0.112	1.00	1	07/03/2020 17:08	WG1501298
Chromium	U		0.00560	0.0200	1	07/03/2020 17:08	WG1501298
Cobalt	U		0.000142	0.00200	1	07/03/2020 17:08	WG1501298
Lead	U		0.000513	0.00200	1	07/03/2020 17:08	WG1501298
Molybdenum	U		0.000841	0.00500	1	07/03/2020 17:08	WG1501298
Selenium	U		0.000437	0.00200	1	07/03/2020 17:08	WG1501298
Sodium	376		0.513	2.00	1	07/03/2020 17:08	WG1501298
Thallium	U		0.000176	0.00100	1	07/03/2020 17:08	WG1501298

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Dissolved Solids	151		2.82	10.0	1	06/29/2020 13:11	WG1500967

Wet Chemistry by Method 120.1

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	umhos/cm		umhos/cm		date / time	
Specific Conductance	255		10.0	1	07/07/2020 13:55	WG1504802

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Alkalinity	126		8.45	20.0	1	07/06/2020 13:53	WG1504014

Sample Narrative:

L1234214-04 WG1504014: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	0.652	J	0.379	1.00	1	07/04/2020 07:52	WG1502969
Fluoride	0.0846	J	0.0640	0.150	1	07/06/2020 21:08	WG1504602
Sulfate	6.20		0.594	5.00	1	07/04/2020 07:52	WG1502969

Mercury by Method 245.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Mercury	U		0.000100	0.000200	1	06/30/2020 11:10	WG1500763

Metals (ICP) by Method 200.7

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Boron	U		0.0396	0.200	1	07/02/2020 09:18	WG1501289
Lithium	U		0.00689	0.0150	1	07/02/2020 09:18	WG1501289

Metals (ICPMS) by Method 200.8

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Antimony	U		0.00172	0.00500	1	07/03/2020 17:11	WG1501298
Arsenic	0.000538	J	0.000195	0.00100	1	07/03/2020 17:11	WG1501298
Barium	0.0776		0.000476	0.00500	1	07/03/2020 17:11	WG1501298
Beryllium	U		0.000201	0.00100	1	07/03/2020 17:11	WG1501298
Cadmium	U		0.000160	0.00100	1	07/03/2020 17:11	WG1501298
Calcium	35.6		0.112	1.00	1	07/03/2020 17:11	WG1501298
Chromium	U		0.00560	0.0200	1	07/03/2020 17:11	WG1501298
Cobalt	U		0.000142	0.00200	1	07/03/2020 17:11	WG1501298
Lead	U		0.000513	0.00200	1	07/03/2020 17:11	WG1501298
Molybdenum	0.000992	J	0.000841	0.00500	1	07/03/2020 17:11	WG1501298
Selenium	U		0.000437	0.00200	1	07/03/2020 17:11	WG1501298
Sodium	7.75		0.513	2.00	1	07/03/2020 17:11	WG1501298
Thallium	U		0.000176	0.00100	1	07/03/2020 17:11	WG1501298

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Dissolved Solids	1940		5.64	20.0	1	06/29/2020 13:11	WG1500967

Wet Chemistry by Method 120.1

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	umhos/cm		umhos/cm		date / time	
Specific Conductance	2590		10.0	1	07/07/2020 13:55	WG1504802

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Alkalinity	223		8.45	20.0	1	07/06/2020 14:00	WG1504014

Sample Narrative:

L1234214-05 WG1504014: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	448		19.0	50.0	50	07/04/2020 08:22	WG1502969
Fluoride	0.119	J	0.0640	0.150	1	07/06/2020 21:19	WG1504602
Sulfate	409		29.7	250	50	07/04/2020 08:22	WG1502969

Mercury by Method 245.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Mercury	0.000234		0.000100	0.000200	1	06/30/2020 11:12	WG1500763

Metals (ICP) by Method 200.7

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Boron	U		0.0396	0.200	1	07/03/2020 12:40	WG1502791
Lithium	0.00813	J	0.00689	0.0150	1	07/03/2020 12:40	WG1502791

Metals (ICPMS) by Method 200.8

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Antimony	U		0.00172	0.00500	1	07/03/2020 17:14	WG1501298
Arsenic	0.000329	J	0.000195	0.00100	1	07/03/2020 17:14	WG1501298
Barium	0.0348		0.000476	0.00500	1	07/03/2020 17:14	WG1501298
Beryllium	U		0.000201	0.00100	1	07/03/2020 17:14	WG1501298
Cadmium	U		0.000160	0.00100	1	07/03/2020 17:14	WG1501298
Calcium	338		0.112	1.00	1	07/03/2020 17:14	WG1501298
Chromium	U		0.00560	0.0200	1	07/03/2020 17:14	WG1501298
Cobalt	U		0.000142	0.00200	1	07/03/2020 17:14	WG1501298
Lead	U		0.000513	0.00200	1	07/03/2020 17:14	WG1501298
Molybdenum	U		0.000841	0.00500	1	07/03/2020 17:14	WG1501298
Selenium	U		0.000437	0.00200	1	07/03/2020 17:14	WG1501298
Sodium	165		0.513	2.00	1	07/03/2020 17:14	WG1501298
Thallium	U		0.000176	0.00100	1	07/03/2020 17:14	WG1501298

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Dissolved Solids	1230		3.75	13.3	1	06/29/2020 13:11	WG1500967

Wet Chemistry by Method 120.1

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	umhos/cm		umhos/cm		date / time	
Specific Conductance	2100		10.0	1	07/07/2020 13:55	WG1504802

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Alkalinity	620		8.45	20.0	1	07/06/2020 14:09	WG1504014

Sample Narrative:

L1234214-06 WG1504014: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	129		19.0	50.0	50	07/04/2020 08:37	WG1502969
Fluoride	0.243		0.0640	0.150	1	07/06/2020 21:30	WG1504602
Sulfate	297		29.7	250	50	07/04/2020 08:37	WG1502969

Metals (ICP) by Method 200.7

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Boron	0.0673	J	0.0396	0.200	1	07/03/2020 12:43	WG1502791

Metals (ICPMS) by Method 200.8

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Calcium	90.8		0.112	1.00	1	07/03/2020 17:18	WG1501298
Sodium	367		0.513	2.00	1	07/03/2020 17:18	WG1501298

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Dissolved Solids	52.0		2.82	10.0	1	06/29/2020 13:11	WG1500967

Wet Chemistry by Method 120.1

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	umhos/cm		umhos/cm		date / time	
Specific Conductance	ND		10.0	1	07/07/2020 13:55	WG1504802

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Alkalinity	U		8.45	20.0	1	07/06/2020 14:18	WG1504014

Sample Narrative:

L1234214-07 WG1504014: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	U		0.379	1.00	1	07/04/2020 08:52	WG1502969
Fluoride	U		0.0640	0.150	1	07/06/2020 21:41	WG1504602
Sulfate	U		0.594	5.00	1	07/04/2020 08:52	WG1502969

Metals (ICP) by Method 200.7

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Boron	U		0.0396	0.200	1	07/03/2020 12:46	WG1502791

Metals (ICPMS) by Method 200.8

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Calcium	U		0.112	1.00	1	07/03/2020 17:21	WG1501298
Sodium	U		0.513	2.00	1	07/03/2020 17:21	WG1501298

Method Blank (MB)

(MB) R3544993-1 06/29/20 13:11

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		2.82	10.0

L1234133-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1234133-01 06/29/20 13:11 • (DUP) R3544993-3 06/29/20 13:11

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	2700	3250	1	18.3	J3	5

Laboratory Control Sample (LCS)

(LCS) R3544993-2 06/29/20 13:11

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	7930	90.1	85.0-115	

Method Blank (MB)

(MB) R3547151-1 07/07/20 15:30

Analyte	MB Result umhos/cm	MB Qualifier	MB MDL umhos/cm	MB RDL umhos/cm
Specific Conductance	U		10.0	10.0

L1234146-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1234146-06 07/07/20 15:30 • (DUP) R3547151-3 07/07/20 15:30

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	492	497	1	1.01		20

L1234189-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1234189-07 07/07/20 15:30 • (DUP) R3547151-4 07/07/20 15:30

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	549	544	1	0.915		20

L1234196-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1234196-04 07/07/20 15:30 • (DUP) R3547151-5 07/07/20 15:30

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	549	544	1	0.915		20

Laboratory Control Sample (LCS)

(LCS) R3547151-2 07/07/20 15:30

Analyte	Spike Amount umhos/cm	LCS Result umhos/cm	LCS Rec. %	Rec. Limits %	LCS Qualifier
Specific Conductance	445	453	102	85.0-115	

Method Blank (MB)

(MB) R3547152-1 07/07/20 13:55

Analyte	MB Result umhos/cm	MB Qualifier	MB MDL umhos/cm	MB RDL umhos/cm
Specific Conductance	U		10.0	10.0

L1234248-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1234248-02 07/07/20 13:55 • (DUP) R3547152-3 07/07/20 13:55

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	2210	2210	1	0.227		20

L1234283-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1234283-04 07/07/20 13:55 • (DUP) R3547152-4 07/07/20 13:55

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	387	388	1	0.258		20

Laboratory Control Sample (LCS)

(LCS) R3547152-2 07/07/20 13:55

Analyte	Spike Amount umhos/cm	LCS Result umhos/cm	LCS Rec. %	Rec. Limits %	LCS Qualifier
Specific Conductance	445	452	102	85.0-115	

Method Blank (MB)

(MB) R3546205-1 07/05/20 20:07

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Alkalinity	U		8.45	20.0

Sample Narrative:
BLANK: Endpoint pH 4.5

L1234146-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1234146-03 07/05/20 20:17 • (DUP) R3546205-2 07/05/20 20:22

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Alkalinity	U	U	1	0.000		20

Sample Narrative:
OS: Endpoint pH 4.5 Headspace
DUP: Endpoint pH 4.5

L1234294-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1234294-03 07/05/20 23:18 • (DUP) R3546205-4 07/05/20 23:27

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Alkalinity	78.2	77.7	1	0.552		20

Sample Narrative:
OS: Endpoint pH 4.5
DUP: Endpoint pH 4.5

L1234306-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1234306-01 07/05/20 23:18 • (DUP) R3546205-5 07/05/20 23:27

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Alkalinity	78.2	77.7	1	0.552		20

Sample Narrative:
OS: Endpoint pH 4.5
DUP: Endpoint pH 4.5

L1234307-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1234307-01 07/05/20 23:18 • (DUP) R3546205-6 07/05/20 23:27

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Alkalinity	78.2	77.7	1	0.552		20

Sample Narrative:

OS: Endpoint pH 4.5

DUP: Endpoint pH 4.5

Laboratory Control Sample (LCS)

(LCS) R3546205-3 07/05/20 21:24

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Alkalinity	100	104	104	85.0-115	

Sample Narrative:

LCS: Endpoint pH 4.5

Method Blank (MB)

(MB) R3546591-1 07/06/20 13:25

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Alkalinity	U		8.45	20.0

Sample Narrative:

BLANK: Endpoint pH 4.5

L1234289-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1234289-01 07/06/20 14:57 • (DUP) R3546591-3 07/06/20 15:06

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Alkalinity	175	175	1	0.171		20

Sample Narrative:

OS: Endpoint pH 4.5 Headspace

DUP: Endpoint pH 4.5

L1234304-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1234304-06 07/06/20 16:37 • (DUP) R3546591-4 07/06/20 16:46

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Alkalinity	351	352	1	0.0626		20

Sample Narrative:

OS: Endpoint pH 4.5 Headspace

DUP: Endpoint pH 4.5

L1234294-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1234294-01 07/06/20 14:57 • (DUP) R3546591-5 07/06/20 15:06

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Alkalinity	175	175	1	0.171		20

Sample Narrative:

OS: Endpoint pH 4.5 Headspace

DUP: Endpoint pH 4.5

Laboratory Control Sample (LCS)

(LCS) R3546591-2 07/06/20 14:47

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Alkalinity	100	103	103	85.0-115	

Sample Narrative:

LCS: Endpoint pH 4.5

Method Blank (MB)

(MB) R3546555-1 07/04/20 00:39

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Chloride	U		0.379	1.00
Sulfate	U		0.594	5.00

L1234146-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1234146-03 07/04/20 01:24 • (DUP) R3546555-3 07/04/20 01:39

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	U	U	5	0.000		20
Sulfate	292	293	5	0.426		20

L1234214-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1234214-04 07/04/20 07:52 • (DUP) R3546555-7 07/04/20 08:07

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	0.652	0.618	1	5.29	J	20
Sulfate	6.20	6.13	1	1.03		20

Laboratory Control Sample (LCS)

(LCS) R3546555-2 07/04/20 00:54

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40.0	39.4	98.6	90.0-110	
Sulfate	40.0	40.6	101	90.0-110	

L1234146-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1234146-07 07/04/20 02:09 • (MS) R3546555-4 07/04/20 02:38 • (MSD) R3546555-5 07/04/20 02:53

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	50.0	1.61	51.1	50.8	99.0	98.5	1	80.0-120			0.526	20
Sulfate	50.0	222	256	257	68.8	69.7	1	80.0-120	E V	E V	0.181	20

L1234214-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1234214-01 07/04/20 06:08 • (MS) R3546555-6 07/04/20 07:07

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	50.0	11.0	60.7	99.2	1	80.0-120	
Sulfate	50.0	354	363	16.9	1	80.0-120	E V

Method Blank (MB)

(MB) R3546879-1 07/06/20 12:27

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Fluoride	U		0.0640	0.150

L1234214-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1234214-01 07/06/20 19:41 • (DUP) R3546879-3 07/06/20 19:52

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Fluoride	0.168	0.176	1	4.53		20

L1234214-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1234214-07 07/06/20 21:41 • (DUP) R3546879-6 07/06/20 21:51

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Fluoride	U	U	1	0.000		20

Laboratory Control Sample (LCS)

(LCS) R3546879-2 07/06/20 12:38

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Fluoride	8.00	8.15	102	90.0-110	

L1234214-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1234214-01 07/06/20 19:41 • (MS) R3546879-4 07/06/20 20:25 • (MSD) R3546879-5 07/06/20 20:35

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Fluoride	5.00	0.168	5.01	5.02	96.9	97.1	1	80.0-120			0.193	20

L1234214-07 Original Sample (OS) • Matrix Spike (MS)

(OS) L1234214-07 07/06/20 21:41 • (MS) R3546879-7 07/06/20 22:02

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Fluoride	5.00	U	5.05	101	1	80.0-120	

Method Blank (MB)

(MB) R3544642-1 06/30/20 10:24

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Mercury	U		0.000100	0.000200

Laboratory Control Sample (LCS)

(LCS) R3544642-3 06/30/20 10:28

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Mercury	0.00300	0.00299	99.8	85.0-115	

L1234133-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1234133-01 06/30/20 10:31 • (MS) R3544642-5 06/30/20 10:34 • (MSD) R3544642-7 06/30/20 10:37

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Mercury	0.00300	U	0.00312	0.00337	104	112	1	70.0-130			7.74	20

L1234372-08 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1234372-08 06/30/20 10:52 • (MS) R3544642-10 06/30/20 10:54 • (MSD) R3544642-11 06/30/20 10:56

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Mercury	0.00300	U	0.00349	0.00327	116	109	1	70.0-130			6.46	20

Method Blank (MB)

(MB) R3545585-1 07/02/20 07:53

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Boron	U		0.0396	0.200
Lithium	U		0.00689	0.0150

Laboratory Control Sample (LCS)

(LCS) R3545585-2 07/02/20 07:56

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Boron	1.00	0.998	99.8	85.0-115	
Lithium	1.00	0.983	98.3	85.0-115	

L1231865-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1231865-01 07/02/20 07:59 • (MS) R3545585-4 07/02/20 08:04 • (MSD) R3545585-5 07/02/20 08:07

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Boron	1.00	0.266	1.28	1.28	101	101	1	70.0-130			0.00219	20
Lithium	1.00	U	0.999	0.997	99.9	99.7	1	70.0-130			0.212	20

L1234426-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1234426-01 07/02/20 08:09 • (MS) R3545585-6 07/02/20 08:12 • (MSD) R3545585-7 07/02/20 08:15

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Boron	1.00	0.145	1.14	1.14	99.3	99.4	1	70.0-130			0.128	20
Lithium	1.00	0.0164	1.00	0.997	98.6	98.1	1	70.0-130			0.468	20

Method Blank (MB)

(MB) R3546222-7 07/03/20 13:09

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Boron	U		0.0396	0.200
Lithium	U		0.00689	0.0150

Laboratory Control Sample (LCS)

(LCS) R3546222-1 07/03/20 12:03

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Boron	1.00	0.958	95.8	85.0-115	
Lithium	1.00	0.930	93.0	85.0-115	

L1234340-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1234340-01 07/03/20 12:06 • (MS) R3546222-3 07/03/20 12:12 • (MSD) R3546222-4 07/03/20 12:14

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Boron	1.00	U	0.958	0.946	95.8	94.6	1	70.0-130			1.26	20
Lithium	1.00	U	0.941	0.925	94.1	92.5	1	70.0-130			1.66	20

L1234486-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1234486-01 07/03/20 12:17 • (MS) R3546222-5 07/03/20 12:20 • (MSD) R3546222-6 07/03/20 12:23

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Boron	1.00	0.0587	1.04	1.03	97.8	97.2	1	70.0-130			0.599	20
Lithium	1.00	U	0.937	0.930	93.7	93.0	1	70.0-130			0.689	20

Method Blank (MB)

(MB) R3546048-1 07/03/20 15:26

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Antimony	U		0.00172	0.00500
Arsenic	U		0.000195	0.00100
Barium	U		0.000476	0.00500
Beryllium	U		0.000201	0.00100
Cadmium	U		0.000160	0.00100
Calcium	U		0.112	1.00
Chromium	U		0.00560	0.0200
Cobalt	U		0.000142	0.00200
Lead	U		0.000513	0.00200
Molybdenum	U		0.000841	0.00500
Selenium	U		0.000437	0.00200
Sodium	U		0.513	2.00
Thallium	U		0.000176	0.00100

Laboratory Control Sample (LCS)

(LCS) R3546048-2 07/03/20 15:29

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Antimony	0.0500	0.0552	110	85.0-115	
Arsenic	0.0500	0.0477	95.3	85.0-115	
Barium	0.0500	0.0487	97.4	85.0-115	
Beryllium	0.0500	0.0459	91.7	85.0-115	
Cadmium	0.0500	0.0485	96.9	85.0-115	
Calcium	5.00	4.76	95.2	85.0-115	
Chromium	0.0500	0.0487	97.4	85.0-115	
Cobalt	0.0500	0.0485	97.0	85.0-115	
Lead	0.0500	0.0451	90.3	85.0-115	
Molybdenum	0.0500	0.0509	102	85.0-115	
Selenium	0.0500	0.0566	113	85.0-115	
Sodium	5.00	4.63	92.6	85.0-115	
Thallium	0.0500	0.0447	89.3	85.0-115	

L1234177-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1234177-06 07/03/20 15:33 • (MS) R3546048-4 07/03/20 15:40 • (MSD) R3546048-5 07/03/20 15:43

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Antimony	0.0500	U	0.0556	0.0535	111	107	1	70.0-130			3.88	20
Arsenic	0.0500	0.000220	0.0490	0.0471	97.5	93.7	1	70.0-130			4.03	20
Barium	0.0500	0.0302	0.0831	0.0727	106	84.9	1	70.0-130			13.4	20
Beryllium	0.0500	U	0.0500	0.0463	100	92.6	1	70.0-130			7.77	20
Cadmium	0.0500	U	0.0503	0.0491	101	98.2	1	70.0-130			2.39	20
Calcium	5.00	24.2	29.6	27.9	108	75.2	1	70.0-130			5.77	20
Chromium	0.0500	U	0.0498	0.0474	99.5	94.8	1	70.0-130			4.80	20
Cobalt	0.0500	0.000209	0.0495	0.0476	98.6	94.8	1	70.0-130			3.91	20
Lead	0.0500	U	0.0491	0.0478	98.2	95.5	1	70.0-130			2.79	20
Molybdenum	0.0500	U	0.0525	0.0487	105	97.4	1	70.0-130			7.49	20
Selenium	0.0500	U	0.0600	0.0560	120	112	1	70.0-130			6.88	20
Sodium	5.00	22.6	28.6	26.4	121	75.6	1	70.0-130			8.18	20
Thallium	0.0500	U	0.0482	0.0458	96.3	91.7	1	70.0-130			4.95	20

L1234214-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1234214-01 07/03/20 15:47 • (MS) R3546048-6 07/03/20 15:50 • (MSD) R3546048-7 07/03/20 15:53

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Antimony	0.0500	U	0.0593	0.0583	119	117	1	70.0-130			1.77	20
Arsenic	0.0500	0.000405	0.0517	0.0509	103	101	1	70.0-130			1.56	20
Barium	0.0500	0.0283	0.0856	0.0819	115	107	1	70.0-130			4.40	20
Beryllium	0.0500	U	0.0501	0.0496	100	99.2	1	70.0-130			0.914	20
Cadmium	0.0500	0.000369	0.0543	0.0532	108	106	1	70.0-130			2.05	20
Calcium	5.00	210	217	212	138	40.6	1	70.0-130	V	V	2.28	20
Chromium	0.0500	U	0.0517	0.0509	103	102	1	70.0-130			1.66	20
Cobalt	0.0500	U	0.0513	0.0506	103	101	1	70.0-130			1.32	20
Lead	0.0500	U	0.0504	0.0515	101	103	1	70.0-130			2.13	20
Molybdenum	0.0500	0.00105	0.0554	0.0544	109	107	1	70.0-130			1.80	20
Selenium	0.0500	U	0.0638	0.0623	128	125	1	70.0-130			2.44	20
Sodium	5.00	130	137	136	142	117	1	70.0-130	V		0.917	20
Thallium	0.0500	U	0.0514	0.0506	103	101	1	70.0-130			1.63	20

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
J	The identification of the analyte is acceptable; the reported value is an estimate.
J3	The associated batch QC was outside the established quality control range for precision.
V	The sample concentration is too high to evaluate accurate spike recoveries.

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* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T104704245-18-15
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

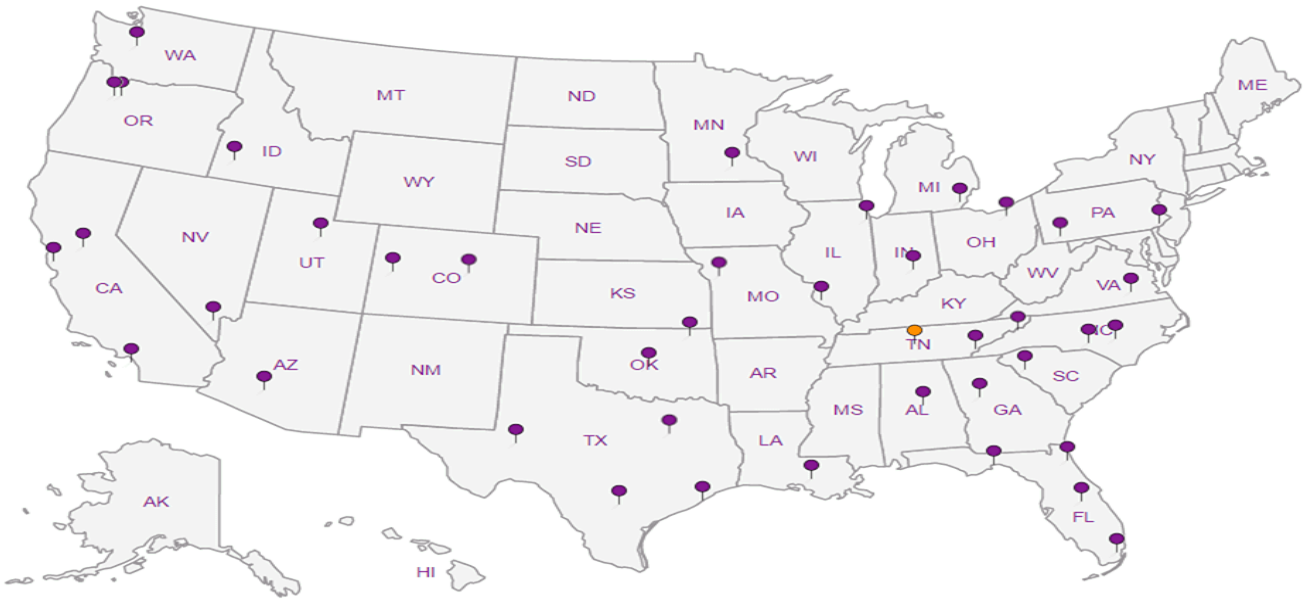
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



Enercon - Oklahoma City, OK

1601 Northwest Expressway
Suite 1000
Oklahoma City, OK 73118

Billing Information:
Accounts Payable - Lisa Hedrick
1601 NW Expressway
Ste.1000
Oklahoma City, OK 73118

Report to: **Phillip Kelley**

Email To: **pkelley@enercon.com**

Project Description: **GREC, Chouteau, OK**

City/State Collected: Chouteau, OK

Please Circle: PT MT (CT) ET

Phone: **405-722-7693**

Client Project # **GRDA ~00012**

Lab Project # **ENERCOOK-GRDA**

Collected by (print): Matthew Payne

Site/Facility ID # 8142 Hwy 412B

P.O. #

Collected by (signature): Matthew Payne

Immediately Packed on Ice N ___ Y ___

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Pres Chk

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	ALK 125mlHDPE-NoPres	Cl, F, SO4 125mlHDPE-NoPres	RA-226,RA-228 1L-HDPE-Add HNO3	SPCON,TDS 250mlHDPE-NoPres	Tot. Rec. Metals 250mlHDPE-HNO3					Remarks	Sample # (lab only)
MW93-1	Grab	~~DW~~ GW	NA	6/26/2020	1350	5	X	X	X	X	X						-01
MW93-2	Grab	~~DW~~ GW	NA	6/26/2020	1120	5	X	X	X	X	X						02
MW93-3	Grab	~~DW~~ GW	NA	6/26/2020	0920	5	X	X	X	X	X						03
MW03-1	Grab	~~DW~~ GW	NA	6/25/2020	1555	5	X	X	X	X	X						04
MW03-2	Grab	~~DW~~ GW	NA	6/25/2020	1420	5	X	X	X	X	X						05
		DW				5	X	X	X	X	X						
		DW				5	X	X	X	X	X						

Chain of Custody Page 1 of 2

Pace Analytical®
National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

SDG # 1234214
H137

Acctnum: **ENERCOOK**
Template: **T167834**
Prelogin: **P781135**
PM: **104 - Jason Romer**
PB: TB 6-17-20
Shipped Via: **FedEX Ground**

* Matrix:
SS - Soil **AIR** - Air **F** - Filter
GW - Groundwater **B** - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:200.7 = B,Li 200.8 = Ca,Na,Sb,As,Ba,Be,Cd,Cr,Co,Pb,Mo,Se,Tl

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS X FedEx __ Courier _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP X Y __N
COC Signed/Accurate: X Y __N
Bottles arrive intact: X Y __N
Correct bottles used: X Y __N
Sufficient volume sent: X Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: X Y __N
RAD Screen <0.5 mR/hr: X Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / (No) HCL / MeoH TBR
Matthew Payne	6/26/2020	1610	E Davis	
E Davis	6/26/20	17:00		Temp: 2.2-2.2-2.0 °C Bottles Received: 25
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 6-27-20 Time: 845

If preservation required by Login: Date/Time

Hold: Condition: NCF / OK

Enercon - Oklahoma City, OK

1601 Northwest Expressway
Suite 1000
Oklahoma City, OK 73118

Billing Information:
Accounts Payable - Lisa Hedrick
1601 NW Expressway
Ste.1000
Oklahoma City, OK 73118

Pres Chk

Report to: Phillip Kelley

Email To: pkelley@enercon.com

Project Description: GREC, Chouteau, OK

City/State Collected: Chouteau, OK

Please Circle: PT MT CT ET

Phone: 405-722-7693

Client Project # GRDA ~00012

Lab Project # ENERCOOK-GRDA

Collected by (print): Matthew Payne

Site/Facility ID # 8142 Hwy 412B

P.O. #

Collected by (signature): Matthew Payne

Immediately Packed on Ice N ___ Y ___

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	ALK 125mlHDPE-NoPres	Cl, F, SO4 125mlHDPE-NoPres	Metals 250mlHDPE-HNO3	SPCON,TDS 250mlHDPE-NoPres							Remarks	Sample # (lab only)
DUPLICATE	Grab	~~WW~~ GW	NA	6/25/2020		4	X	X	X	X								06
		~~WW~~				4	X	X	X	X								
BLANK	Grab	~~WW~~ GW	NA	6/25/2020	1300	4	X	X	X	X								07

Analysis / Container / Preservative

Chain of Custody Page 2 of 2

Pace Analytical® National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

SDG # 1234214

H138

Acctnum: ENERCOOK
Template: T169670
Prelogin: P781137
PM: 104 - Jason Romer
PB: TB 6-17-20
Shipped Via: FedEX Ground

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: 200.7 = B 200.8 = Ca,Na

pH _____ Temp _____

Flow _____ Other _____

Samples returned via: __ UPS X FedEx __ Courier _____

Tracking #

Sample Receipt Checklist

COC Seal Present/Intact:	__NP X Y __N
COC Signed/Accurate:	X Y __N
Bottles arrive intact:	X Y __N
Correct bottles used:	X Y __N
Sufficient volume sent:	X Y __N
If Applicable	
VOA Zero Headspace:	__Y __N
Preservation Correct/Checked:	X Y __N
RAD Screen <0.5 mR/hr:	X Y __N

Relinquished by : (Signature)	Date: 6/26/2020	Time: 1610	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	
Relinquished by : (Signature)	Date: 6/26/20	Time: 17:00	Received by: (Signature)	Temp: 2.2-2.2=0 °C	Bottles Received: 8
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 6-27-20	Time: 845

If preservation required by Login: Date/Time

Hold: Condition: NCF / OK

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

October 30, 2020

Revised Report

Enercon - Oklahoma City, OK

Sample Delivery Group:	L1234219
Samples Received:	06/27/2020
Project Number:	GRDA
Description:	GREC, Chouteau, OK

Report To:

Phillip Kelley
1601 Northwest Expressway
Suite 1000
Oklahoma City, OK 73118

Entire Report Reviewed By:

Jason Romer
Project Manager

TABLE OF CONTENTS

MW93-1 L1234219-01 DW

Collected by: Matthew Payne | Collected date/time: 06/26/20 13:50 | Received date/time: 06/27/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904	WG1505200	1	07/09/20 12:08	07/15/20 10:00	JMR	Mt. Juliet, TN
Radiochemistry by Method SM 7500 Ra B	WG1506198	1	07/09/20 10:01	07/24/20 03:27	SNR	Mt. Juliet, TN

MW93-2 L1234219-02 DW

Collected by: Matthew Payne | Collected date/time: 06/26/20 11:20 | Received date/time: 06/27/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904	WG1505200	1	07/09/20 12:08	07/15/20 10:00	JMR	Mt. Juliet, TN
Radiochemistry by Method SM 7500 Ra B	WG1506198	1	07/09/20 10:01	07/24/20 03:57	SNR	Mt. Juliet, TN

MW93-3 L1234219-03 DW

Collected by: Matthew Payne | Collected date/time: 06/26/20 09:20 | Received date/time: 06/27/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904	WG1505200	1	07/09/20 12:08	07/15/20 10:00	JMR	Mt. Juliet, TN
Radiochemistry by Method SM 7500 Ra B	WG1506198	1	07/09/20 10:01	07/24/20 04:27	SNR	Mt. Juliet, TN

MW03-1 L1234219-04 DW

Collected by: Matthew Payne | Collected date/time: 06/25/20 15:55 | Received date/time: 06/27/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904	WG1505200	1	07/09/20 12:08	07/15/20 10:00	JMR	Mt. Juliet, TN
Radiochemistry by Method SM 7500 Ra B	WG1506198	1	07/09/20 10:01	07/24/20 04:57	SNR	Mt. Juliet, TN

MW03-2 L1234219-05 DW

Collected by: Matthew Payne | Collected date/time: 06/25/20 14:20 | Received date/time: 06/27/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904	WG1505200	1	07/09/20 12:08	07/15/20 10:00	JMR	Mt. Juliet, TN
Radiochemistry by Method SM 7500 Ra B	WG1506198	1	07/09/20 10:01	07/24/20 05:28	SNR	Mt. Juliet, TN

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Jason Romer
Project Manager

Report Revision History

Level II Report - Version 1: 07/27/20 11:40

Radiochemistry by Method 904

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.324		0.462	1.16	07/15/2020 10:00	WG1505200
(T) Barium	*66.9*			*62.0-143*	*07/15/2020 10:00*	WG1505200
(T) Yttrium	*98.9*			*79.0-136*	*07/15/2020 10:00*	WG1505200

Radiochemistry by Method SM 7500 Ra B

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.123		0.138	0.297	07/24/2020 03:27	WG1506198
(T) Barium	*106*			*63.0-143*	*07/24/2020 03:27*	WG1506198

Radiochemistry by Method 904

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	2.17		0.460	0.709	07/15/2020 10:00	WG1505200
(T) Barium	*90.5*			*62.0-143*	*07/15/2020 10:00*	WG1505200
(T) Yttrium	*97.6*			*79.0-136*	*07/15/2020 10:00*	WG1505200

Radiochemistry by Method SM 7500 Ra B

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	1.07		0.377	0.297	07/24/2020 03:57	WG1506198
(T) Barium	*137*			*63.0-143*	*07/24/2020 03:57*	WG1506198

Radiochemistry by Method 904

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.261		0.469	1.03	07/15/2020 10:00	WG1505200
(T) Barium	*74.5*			*62.0-143*	*07/15/2020 10:00*	WG1505200
(T) Yttrium	*107*			*79.0-136*	*07/15/2020 10:00*	WG1505200

Radiochemistry by Method SM 7500 Ra B

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.258		0.192	0.297	07/24/2020 04:27	WG1506198
(T) Barium	*121*			*63.0-143*	*07/24/2020 04:27*	WG1506198

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Radiochemistry by Method 904

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.254		0.475	1.21	07/15/2020 10:00	WG1505200
(T) Barium	*68.8*			*62.0-143*	*07/15/2020 10:00*	WG1505200
(T) Yttrium	*82.2*			*79.0-136*	*07/15/2020 10:00*	WG1505200

Radiochemistry by Method SM 7500 Ra B

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.461		0.251	0.297	07/24/2020 04:57	WG1506198
(T) Barium	*106*			*63.0-143*	*07/24/2020 04:57*	WG1506198

Radiochemistry by Method 904

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.536		0.427	0.844	07/15/2020 10:00	WG1505200
(T) Barium	*72.5*			*62.0-143*	*07/15/2020 10:00*	WG1505200
(T) Yttrium	*98.5*			*79.0-136*	*07/15/2020 10:00*	WG1505200

Radiochemistry by Method SM 7500 Ra B

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.413		0.256	0.341	07/24/2020 05:28	WG1506198
(T) Barium	*87.0*			*63.0-143*	*07/24/2020 05:28*	WG1506198

Method Blank (MB)

(MB) R3550473-1 07/15/20 10:00

Analyte	MB Result pCi/l	MB Qualifier	MB MDA pCi/l
Radium-228	0.211		0.458
(T) Barium	*89.6*		
(T) Yttrium	*104*		

L1236365-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1236365-05 07/15/20 14:15 • (DUP) R3550473-5 07/15/20 10:00

Analyte	Original Result pCi/l	DUP Result pCi/l	Dilution	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-228	-0.574	-0.0845	1	0.000	0.664		20	2
(T) Barium	*95.7*	*89.3*						
(T) Yttrium	*97.9*	*96.2*						

Laboratory Control Sample (LCS)

(LCS) R3550473-2 07/15/20 10:00

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-228	5.00	5.84	117	80.0-120	
(T) Barium			*84.1*		
(T) Yttrium			*96.1*		

L1236365-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1236365-04 07/15/20 14:15 • (MS) R3550473-3 07/15/20 10:00 • (MSD) R3550473-4 07/15/20 10:00

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-228	7.14	0.747	8.48	8.14	108	104	1	70.0-130			4.01		20
(T) Barium		*88.4*			*88.2*	*84.1*							
(T) Yttrium		*94.6*			*97.5*	*95.3*							

Method Blank (MB)

(MB) R3552939-1 07/23/20 23:25

Analyte	MB Result	MB Qualifier	MB MDA
	pCi/l		pCi/l
Radium-226	0.0933		0.124
(T) Barium	*96.4*		

L1233190-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1233190-01 07/24/20 02:56 • (DUP) R3552939-5 07/24/20 02:26

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP RER	DUP Qualifier	DUP RPD Limits	DUP RER Limit
	pCi/l	pCi/l		%			%	
Radium-226	0.110	0.125	1	13.1	0.0882		20	2
(T) Barium	*89.4*	*109*						

Laboratory Control Sample (LCS)

(LCS) R3552939-2 07/24/20 00:25

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	pCi/l	pCi/l	%	%	
Radium-226	5.01	4.70	93.7	90.0-110	
(T) Barium			*111*		

L1235332-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1235332-01 07/24/20 07:59 • (MS) R3552939-3 07/24/20 00:55 • (MSD) R3552939-4 07/24/20 01:26

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	MS RER	RPD Limits
	pCi/l	pCi/l	pCi/l	pCi/l	%	%		%			%		%
Radium-226	10.0	0.0980	9.29	10.3	91.9	102	1	80.0-120			9.87		20
(T) Barium		*151*			*98.2*	*109*							

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDA	Minimum Detectable Activity.
Rec.	Recovery.
RER	Replicate Error Ratio.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(T)	Tracer - A radioisotope of known concentration added to a solution of chemically equivalent radioisotopes at a known concentration to assist in monitoring the yield of the chemical separation.
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description

The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.

Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.
* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T104704245-18-15
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

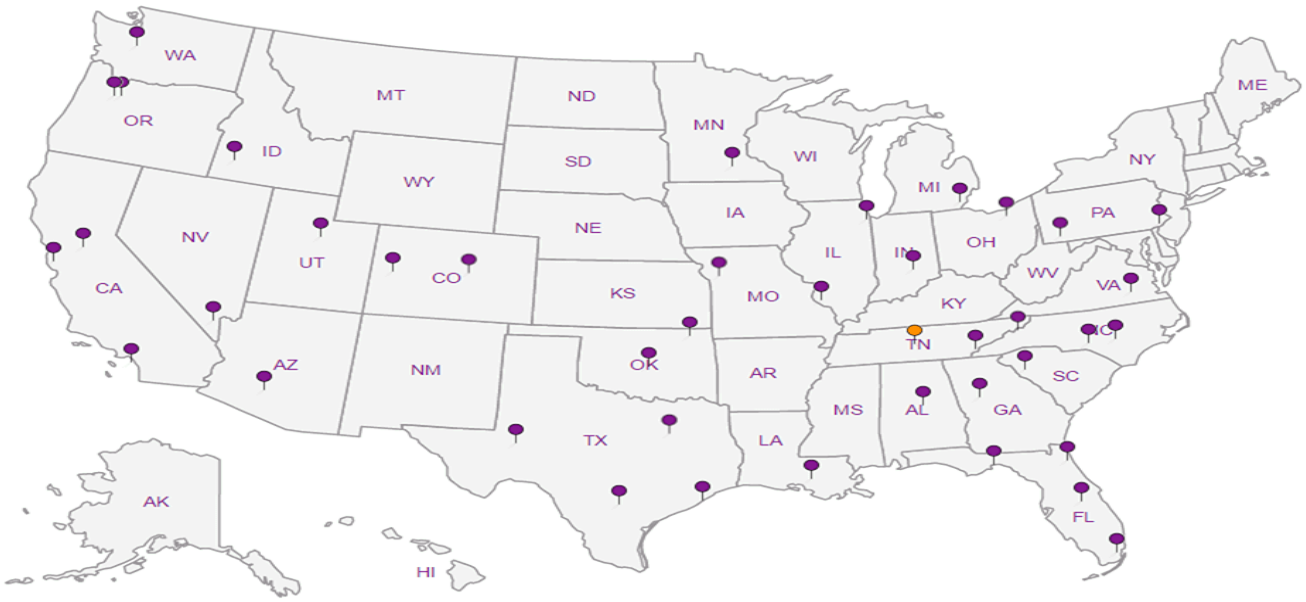
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



Chain of Custody Page 1 of 1

Pace Analytical® National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

Enercon - Oklahoma City, OK

1601 Northwest Expressway
Suite 1000
Oklahoma City, OK 73118

Billing Information:
Accounts Payable - Lisa Hedrick
1601 NW Expressway
Ste.1000
Oklahoma City, OK 73118

Email To: pkelley@enercon.com

Report to: Phillip Kelley

Project Description: GREC, Chouteau, OK

City/State Collected: Chouteau, OK

Please Circle: PT MT CT ET

Phone: 405-722-7693

Client Project # GRDA ~00012

Lab Project # ENERCOOK-GRDA

Collected by (print): Matthew Payne

Site/Facility ID # 8142 Hwy 412B

P.O. #

Collected by (signature): Matthew Payne

Immediately Packed on Ice N ___ Y ___

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

SDG # 1234219

H137

Acctnum: ENERCOOK
Template: T167834
Prelogin: P781135
PM: 104 - Jason Romer
PB: TB 6-17-20

Shipped Via: FedEx Ground

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	ALK 125mlHDPE-NoPres	Cl, F, SO4 125mlHDPE-NoPres	RA-226,RA-228 1L-HDPE-Add HNO3	SPCON,TDS 250mlHDPE-NoPres	Tot. Rec. Metals 250mlHDPE-HNO3	Pres Chk	Remarks	Sample # (lab only)
MW93-1	Grab	~~DW~~ GW	NA	6/26/2020	1350	5	X	X	X	X	X			-01
MW93-2	Grab	~~DW~~ GW	NA	6/26/2020	1120	5	X	X	X	X	X			02
MW93-3	Grab	~~DW~~ GW	NA	6/26/2020	0920	5	X	X	X	X	X			03
MW03-1	Grab	~~DW~~ GW	NA	6/25/2020	1555	5	X	X	X	X	X			04
MW03-2	Grab	~~DW~~ GW	NA	6/25/2020	1420	5	X	X	X	X	X			05
		DW				5	X	X	X	X	X			
		DW				5	X	X	X	X	X			

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: 200.7 = B,Li 200.8 = Ca,Na,Sb,As,Ba,Be,Cd,Cr,Co,Pb,Mo,Se,Tl

pH _____ Temp _____

Flow _____ Other _____

Samples returned via: __UPS X FedEx __Courier _____

Tracking #

Sample Receipt Checklist

COC Seal Present/Intact:	NP	Y N
COC Signed/Accurate:		Y N
Bottles arrive intact:		Y N
Correct bottles used:		Y N
Sufficient volume sent:		Y N
If Applicable		
VOA Zero Headspace:		Y N
Preservation Correct/Checked:		Y N
RAD Screen <0.5 mR/hr:		Y N

	Date:	Time:	
Relinquished by : (Signature) Matthew Payne	6/26/2020	1610	Received by: (Signature) E. Davis
Relinquished by : (Signature) E. Davis	6/26/20	17:00	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature) MPapa

Trip Blank Received: Yes (No) HCL / MeoH TBR

Temp: 2.2-2.2=0 °C Bottles Received: 25

Date: 6-27-20 Time: 845

If preservation required by Login: Date/Time

Hold:

Condition: NCF / (OK)

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

December 03, 2020

Enercon - Oklahoma City, OK

Sample Delivery Group:	L1287880
Samples Received:	11/19/2020
Project Number:	GRDA
Description:	GREC, Chouteau, OK

Report To:

Phillip Kelley
1601 Northwest Expressway
Suite 1000
Oklahoma City, OK 73118

Entire Report Reviewed By:

Jason Romer
Project Manager

TABLE OF CONTENTS

MW93-1 L1287880-01 WW

Collected by: Matthew Payne | Collected date/time: 11/17/20 14:15 | Received date/time: 11/19/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1581845	1	11/24/20 14:22	11/24/20 15:32	VRP	Mt. Juliet, TN
Wet Chemistry by Method 120.1	WG1582709	1	11/26/20 10:00	11/26/20 10:00	JRB	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG1579761	1	11/26/20 11:15	11/26/20 11:15	KAB	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1583127	1	12/01/20 19:21	12/01/20 19:21	ELN	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1583127	5	12/01/20 19:40	12/01/20 19:40	ELN	Mt. Juliet, TN
Mercury by Method 245.1	WG1581937	1	11/25/20 10:28	11/25/20 18:18	ABL	Mt. Juliet, TN
Metals (ICP) by Method 200.7	WG1581571	1	11/24/20 19:19	11/25/20 18:52	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 200.8	WG1581565	1	11/25/20 15:03	11/26/20 13:51	TM	Mt. Juliet, TN
Metals (ICPMS) by Method 200.8	WG1581565	1	11/25/20 15:03	11/27/20 09:13	TM	Mt. Juliet, TN

MW93-2 L1287880-02 WW

Collected by: Matthew Payne | Collected date/time: 11/16/20 16:05 | Received date/time: 11/19/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1580490	1	11/22/20 12:29	11/22/20 14:59	TH	Mt. Juliet, TN
Wet Chemistry by Method 120.1	WG1582709	1	11/26/20 10:00	11/26/20 10:00	JRB	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG1579761	1	11/26/20 11:22	11/26/20 11:22	KAB	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1583127	10	12/02/20 01:11	12/02/20 01:11	ELN	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1583127	100	12/02/20 01:30	12/02/20 01:30	ELN	Mt. Juliet, TN
Mercury by Method 245.1	WG1581937	1	11/25/20 10:28	11/25/20 18:20	ABL	Mt. Juliet, TN
Metals (ICP) by Method 200.7	WG1581571	1	11/24/20 19:19	11/25/20 18:55	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 200.8	WG1581565	1	11/25/20 15:03	11/26/20 13:54	TM	Mt. Juliet, TN
Metals (ICPMS) by Method 200.8	WG1581565	1	11/25/20 15:03	11/27/20 09:16	TM	Mt. Juliet, TN
Metals (ICPMS) by Method 200.8	WG1581565	5	11/25/20 15:03	11/27/20 09:19	TM	Mt. Juliet, TN

MW93-3 L1287880-03 WW

Collected by: Matthew Payne | Collected date/time: 11/16/20 14:50 | Received date/time: 11/19/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1580490	1	11/22/20 12:29	11/22/20 14:59	TH	Mt. Juliet, TN
Wet Chemistry by Method 120.1	WG1582709	1	11/26/20 10:00	11/26/20 10:00	JRB	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG1579761	1	11/26/20 11:31	11/26/20 11:31	KAB	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1583127	1	12/01/20 20:53	12/01/20 20:53	ELN	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1583127	5	12/01/20 21:12	12/01/20 21:12	ELN	Mt. Juliet, TN
Mercury by Method 245.1	WG1581937	1	11/25/20 10:28	11/25/20 18:22	ABL	Mt. Juliet, TN
Metals (ICP) by Method 200.7	WG1581571	1	11/24/20 19:19	11/25/20 18:58	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 200.8	WG1581565	1	11/25/20 15:03	11/26/20 12:34	TM	Mt. Juliet, TN
Metals (ICPMS) by Method 200.8	WG1581565	1	11/25/20 15:03	11/27/20 08:52	TM	Mt. Juliet, TN

MW03-1 L1287880-04 WW

Collected by: Matthew Payne | Collected date/time: 11/17/20 13:05 | Received date/time: 11/19/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1581845	1	11/24/20 14:22	11/24/20 15:32	VRP	Mt. Juliet, TN
Wet Chemistry by Method 120.1	WG1582709	1	11/26/20 10:00	11/26/20 10:00	JRB	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG1579761	1	11/26/20 11:38	11/26/20 11:38	KAB	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1583127	1	12/01/20 21:30	12/01/20 21:30	ELN	Mt. Juliet, TN
Mercury by Method 245.1	WG1581937	1	11/25/20 10:28	11/25/20 18:28	ABL	Mt. Juliet, TN
Metals (ICP) by Method 200.7	WG1581571	1	11/24/20 19:19	11/25/20 19:01	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 200.8	WG1581566	1	11/25/20 15:01	11/26/20 12:01	TM	Mt. Juliet, TN

MW03-2 L1287880-05 WW

Collected by: Matthew Payne
Collected date/time: 11/17/20 15:20
Received date/time: 11/19/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1581845	1	11/24/20 14:22	11/24/20 15:32	VRP	Mt. Juliet, TN
Wet Chemistry by Method 120.1	WG1582709	1	11/26/20 10:00	11/26/20 10:00	JRB	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG1579761	1	11/26/20 11:44	11/26/20 11:44	KAB	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1583127	1	12/01/20 21:49	12/01/20 21:49	ELN	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1583127	20	12/01/20 22:07	12/01/20 22:07	ELN	Mt. Juliet, TN
Mercury by Method 245.1	WG1581937	1	11/25/20 10:28	11/25/20 17:53	ABL	Mt. Juliet, TN
Metals (ICP) by Method 200.7	WG1581571	1	11/24/20 19:19	11/25/20 19:03	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 200.8	WG1581566	1	11/25/20 15:01	11/26/20 12:24	TM	Mt. Juliet, TN

DUPLICATE L1287880-07 WW

Collected by: Matthew Payne
Collected date/time: 11/17/20 00:00
Received date/time: 11/19/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1581845	1	11/24/20 14:22	11/24/20 15:32	VRP	Mt. Juliet, TN
Wet Chemistry by Method 120.1	WG1582709	1	11/26/20 10:00	11/26/20 10:00	JRB	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG1579761	1	11/26/20 11:51	11/26/20 11:51	KAB	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1583127	1	12/01/20 22:25	12/01/20 22:25	ELN	Mt. Juliet, TN
Metals (ICP) by Method 200.7	WG1581571	1	11/24/20 19:19	11/25/20 19:06	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 200.8	WG1581566	1	11/25/20 15:01	11/26/20 12:34	TM	Mt. Juliet, TN

TRIP BLANK L1287880-08 WW

Collected by: Matthew Payne
Collected date/time: 11/17/20 00:00
Received date/time: 11/19/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1581845	1	11/24/20 14:22	11/24/20 15:32	VRP	Mt. Juliet, TN
Wet Chemistry by Method 120.1	WG1582709	1	11/26/20 10:00	11/26/20 10:00	JRB	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG1579761	1	11/26/20 11:59	11/26/20 11:59	KAB	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1583127	1	12/01/20 23:02	12/01/20 23:02	ELN	Mt. Juliet, TN
Metals (ICP) by Method 200.7	WG1581571	1	11/24/20 19:19	11/25/20 19:15	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 200.8	WG1581566	1	11/25/20 15:01	11/26/20 12:37	TM	Mt. Juliet, TN

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Jason Romer
Project Manager

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Dissolved Solids	966		2.82	10.0	1	11/24/2020 15:32	WG1581845

Wet Chemistry by Method 120.1

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	umhos/cm		umhos/cm		date / time	
Specific Conductance	1460		10.0	1	11/26/2020 10:00	WG1582709

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Alkalinity	473		8.45	20.0	1	11/26/2020 11:15	WG1579761

Sample Narrative:

L1287880-01 WG1579761: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	14.4		0.379	1.00	1	12/01/2020 19:21	WG1583127
Fluoride	0.183		0.0640	0.150	1	12/01/2020 19:21	WG1583127
Sulfate	346		2.97	25.0	5	12/01/2020 19:40	WG1583127

Mercury by Method 245.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Mercury	U		0.000100	0.000200	1	11/25/2020 18:18	WG1581937

Metals (ICP) by Method 200.7

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Boron	0.211		0.0396	0.200	1	11/25/2020 18:52	WG1581571
Lithium	U		0.00689	0.0150	1	11/25/2020 18:52	WG1581571

Metals (ICPMS) by Method 200.8

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Antimony	U		0.00172	0.00500	1	11/26/2020 13:51	WG1581565
Arsenic	0.000336	J	0.000195	0.00100	1	11/26/2020 13:51	WG1581565
Barium	0.0405		0.000476	0.00500	1	11/26/2020 13:51	WG1581565
Beryllium	U		0.000201	0.00100	1	11/26/2020 13:51	WG1581565
Cadmium	0.000541	J	0.000160	0.00100	1	11/26/2020 13:51	WG1581565
Calcium	212		0.112	1.00	1	11/26/2020 13:51	WG1581565
Chromium	U		0.00560	0.0200	1	11/27/2020 09:13	WG1581565
Cobalt	0.000252	J	0.000142	0.00200	1	11/26/2020 13:51	WG1581565
Lead	U		0.000513	0.00200	1	11/26/2020 13:51	WG1581565
Molybdenum	0.00113	J	0.000841	0.00500	1	11/26/2020 13:51	WG1581565
Selenium	U		0.000437	0.00200	1	11/26/2020 13:51	WG1581565
Sodium	120		0.513	2.00	1	11/26/2020 13:51	WG1581565
Thallium	U		0.000176	0.00100	1	11/27/2020 09:13	WG1581565

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	46400		282	1000	1	11/22/2020 14:59	WG1580490

Wet Chemistry by Method 120.1

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	12700		10.0	1	11/26/2020 10:00	WG1582709

Wet Chemistry by Method 2320 B-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Alkalinity	266		8.45	20.0	1	11/26/2020 11:22	WG1579761

Sample Narrative:

L1287880-02 WG1579761: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 300.0

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	1210		37.9	100	100	12/02/2020 01:30	WG1583127
Fluoride	0.705	J	0.640	1.50	10	12/02/2020 01:11	WG1583127
Sulfate	5040		59.4	500	100	12/02/2020 01:30	WG1583127

Sample Narrative:

L1287880-02 WG1583127: Diluted @ 10x due to sample matrix

Mercury by Method 245.1

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Mercury	U		0.000100	0.000200	1	11/25/2020 18:20	WG1581937

Metals (ICP) by Method 200.7

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Boron	1.76		0.0396	0.200	1	11/25/2020 18:55	WG1581571
Lithium	U		0.00689	0.0150	1	11/25/2020 18:55	WG1581571

Metals (ICPMS) by Method 200.8

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Antimony	U		0.00172	0.00500	1	11/26/2020 13:54	WG1581565
Arsenic	0.0204		0.000195	0.00100	1	11/26/2020 13:54	WG1581565
Barium	0.151		0.000476	0.00500	1	11/26/2020 13:54	WG1581565
Beryllium	U		0.000201	0.00100	1	11/26/2020 13:54	WG1581565
Cadmium	U		0.000160	0.00100	1	11/26/2020 13:54	WG1581565
Calcium	225		0.112	1.00	1	11/26/2020 13:54	WG1581565
Chromium	U		0.00560	0.0200	1	11/27/2020 09:16	WG1581565
Cobalt	0.000281	J	0.000142	0.00200	1	11/26/2020 13:54	WG1581565
Lead	U		0.000513	0.00200	1	11/26/2020 13:54	WG1581565
Molybdenum	0.320		0.000841	0.00500	1	11/26/2020 13:54	WG1581565
Selenium	0.000834	J	0.000437	0.00200	1	11/26/2020 13:54	WG1581565
Sodium	2800		2.56	10.0	5	11/27/2020 09:19	WG1581565
Thallium	U		0.000176	0.00100	1	11/27/2020 09:16	WG1581565

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Dissolved Solids	1310		2.82	10.0	1	11/22/2020 14:59	WG1580490

Wet Chemistry by Method 120.1

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	umhos/cm		umhos/cm		date / time	
Specific Conductance	2060		10.0	1	11/26/2020 10:00	WG1582709

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Alkalinity	549		8.45	20.0	1	11/26/2020 11:31	WG1579761

Sample Narrative:

L1287880-03 WG1579761: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	187		1.90	5.00	5	12/01/2020 21:12	WG1583127
Fluoride	0.270		0.0640	0.150	1	12/01/2020 20:53	WG1583127
Sulfate	258		2.97	25.0	5	12/01/2020 21:12	WG1583127

Mercury by Method 245.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Mercury	0.000308		0.000100	0.000200	1	11/25/2020 18:22	WG1581937

Metals (ICP) by Method 200.7

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Boron	0.0762	J	0.0396	0.200	1	11/25/2020 18:58	WG1581571
Lithium	0.128		0.00689	0.0150	1	11/25/2020 18:58	WG1581571

Metals (ICPMS) by Method 200.8

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Antimony	U		0.00172	0.00500	1	11/26/2020 12:34	WG1581565
Arsenic	0.000593	J	0.000195	0.00100	1	11/26/2020 12:34	WG1581565
Barium	0.0604		0.000476	0.00500	1	11/26/2020 12:34	WG1581565
Beryllium	U		0.000201	0.00100	1	11/26/2020 12:34	WG1581565
Cadmium	U		0.000160	0.00100	1	11/26/2020 12:34	WG1581565
Calcium	82.8		0.112	1.00	1	11/26/2020 12:34	WG1581565
Chromium	U		0.00560	0.0200	1	11/27/2020 08:52	WG1581565
Cobalt	U		0.000142	0.00200	1	11/26/2020 12:34	WG1581565
Lead	U		0.000513	0.00200	1	11/26/2020 12:34	WG1581565
Molybdenum	U		0.000841	0.00500	1	11/26/2020 12:34	WG1581565
Selenium	U		0.000437	0.00200	1	11/26/2020 12:34	WG1581565
Sodium	374	V	0.513	2.00	1	11/26/2020 12:34	WG1581565
Thallium	U		0.000176	0.00100	1	11/27/2020 08:52	WG1581565

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Dissolved Solids	320		2.82	10.0	1	11/24/2020 15:32	WG1581845

Wet Chemistry by Method 120.1

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	umhos/cm		umhos/cm		date / time	
Specific Conductance	524		10.0	1	11/26/2020 10:00	WG1582709

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Alkalinity	234		8.45	20.0	1	11/26/2020 11:38	WG1579761

Sample Narrative:

L1287880-04 WG1579761: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	2.29		0.379	1.00	1	12/01/2020 21:30	WG1583127
Fluoride	0.109	J	0.0640	0.150	1	12/01/2020 21:30	WG1583127
Sulfate	18.9		0.594	5.00	1	12/01/2020 21:30	WG1583127

Mercury by Method 245.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Mercury	U		0.000100	0.000200	1	11/25/2020 18:28	WG1581937

Metals (ICP) by Method 200.7

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Boron	U		0.0396	0.200	1	11/25/2020 19:01	WG1581571
Lithium	U		0.00689	0.0150	1	11/25/2020 19:01	WG1581571

Metals (ICPMS) by Method 200.8

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Antimony	U		0.00172	0.00500	1	11/26/2020 12:01	WG1581566
Arsenic	0.000677	J	0.000195	0.00100	1	11/26/2020 12:01	WG1581566
Barium	0.190		0.000476	0.00500	1	11/26/2020 12:01	WG1581566
Beryllium	U		0.000201	0.00100	1	11/26/2020 12:01	WG1581566
Cadmium	U		0.000160	0.00100	1	11/26/2020 12:01	WG1581566
Calcium	76.2		0.112	1.00	1	11/26/2020 12:01	WG1581566
Chromium	U		0.00560	0.0200	1	11/26/2020 12:01	WG1581566
Cobalt	0.000211	J	0.000142	0.00200	1	11/26/2020 12:01	WG1581566
Lead	U		0.000513	0.00200	1	11/26/2020 12:01	WG1581566
Molybdenum	0.00274	J	0.000841	0.00500	1	11/26/2020 12:01	WG1581566
Selenium	0.000522	J	0.000437	0.00200	1	11/26/2020 12:01	WG1581566
Sodium	26.9		0.513	2.00	1	11/26/2020 12:01	WG1581566
Thallium	U		0.000176	0.00100	1	11/26/2020 12:01	WG1581566

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	1770		3.75	13.3	1	11/24/2020 15:32	WG1581845

Wet Chemistry by Method 120.1

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	2390		10.0	1	11/26/2020 10:00	WG1582709

Wet Chemistry by Method 2320 B-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Alkalinity	209		8.45	20.0	1	11/26/2020 11:44	WG1579761

Sample Narrative:

L1287880-05 WG1579761: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 300.0

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	435		7.58	20.0	20	12/01/2020 22:07	WG1583127
Fluoride	0.116	J	0.0640	0.150	1	12/01/2020 21:49	WG1583127
Sulfate	377		11.9	100	20	12/01/2020 22:07	WG1583127

Mercury by Method 245.1

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Mercury	0.000862		0.000100	0.000200	1	11/25/2020 17:53	WG1581937

Metals (ICP) by Method 200.7

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Boron	U		0.0396	0.200	1	11/25/2020 19:03	WG1581571
Lithium	U		0.00689	0.0150	1	11/25/2020 19:03	WG1581571

Metals (ICPMS) by Method 200.8

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Antimony	U		0.00172	0.00500	1	11/26/2020 12:24	WG1581566
Arsenic	U		0.000195	0.00100	1	11/26/2020 12:24	WG1581566
Barium	0.0395		0.000476	0.00500	1	11/26/2020 12:24	WG1581566
Beryllium	U		0.000201	0.00100	1	11/26/2020 12:24	WG1581566
Cadmium	U		0.000160	0.00100	1	11/26/2020 12:24	WG1581566
Calcium	321		0.112	1.00	1	11/26/2020 12:24	WG1581566
Chromium	U		0.00560	0.0200	1	11/26/2020 12:24	WG1581566
Cobalt	U		0.000142	0.00200	1	11/26/2020 12:24	WG1581566
Lead	U		0.000513	0.00200	1	11/26/2020 12:24	WG1581566
Molybdenum	U		0.000841	0.00500	1	11/26/2020 12:24	WG1581566
Selenium	U		0.000437	0.00200	1	11/26/2020 12:24	WG1581566
Sodium	162		0.513	2.00	1	11/26/2020 12:24	WG1581566
Thallium	U		0.000176	0.00100	1	11/26/2020 12:24	WG1581566

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Dissolved Solids	337		2.82	10.0	1	11/24/2020 15:32	WG1581845

Wet Chemistry by Method 120.1

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	umhos/cm		umhos/cm		date / time	
Specific Conductance	526		10.0	1	11/26/2020 10:00	WG1582709

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Alkalinity	233		8.45	20.0	1	11/26/2020 11:51	WG1579761

Sample Narrative:

L1287880-07 WG1579761: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	2.31		0.379	1.00	1	12/01/2020 22:25	WG1583127
Fluoride	0.110	J	0.0640	0.150	1	12/01/2020 22:25	WG1583127
Sulfate	19.0		0.594	5.00	1	12/01/2020 22:25	WG1583127

Metals (ICP) by Method 200.7

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Boron	U		0.0396	0.200	1	11/25/2020 19:06	WG1581571

Metals (ICPMS) by Method 200.8

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Calcium	75.8		0.112	1.00	1	11/26/2020 12:34	WG1581566
Sodium	26.4		0.513	2.00	1	11/26/2020 12:34	WG1581566

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Dissolved Solids	36.0		2.82	10.0	1	11/24/2020 15:32	WG1581845

Wet Chemistry by Method 120.1

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	umhos/cm		umhos/cm		date / time	
Specific Conductance	ND		10.0	1	11/26/2020 10:00	WG1582709

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Alkalinity	U		8.45	20.0	1	11/26/2020 11:59	WG1579761

Sample Narrative:

L1287880-08 WG1579761: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	0.612	J P1	0.379	1.00	1	12/01/2020 23:02	WG1583127
Fluoride	0.142	J	0.0640	0.150	1	12/01/2020 23:02	WG1583127
Sulfate	U		0.594	5.00	1	12/01/2020 23:02	WG1583127

Metals (ICP) by Method 200.7

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Boron	U		0.0396	0.200	1	11/25/2020 19:15	WG1581571

Metals (ICPMS) by Method 200.8

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Calcium	U		0.112	1.00	1	11/26/2020 12:37	WG1581566
Sodium	U		0.513	2.00	1	11/26/2020 12:37	WG1581566

Method Blank (MB)

(MB) R3596330-1 11/22/20 14:59

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		2.82	10.0

L1286784-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1286784-01 11/22/20 14:59 • (DUP) R3596330-3 11/22/20 14:59

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	247000	285000	1	14.3	J3	5

Laboratory Control Sample (LCS)

(LCS) R3596330-2 11/22/20 14:59

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	7830	89.0	77.4-123	

Method Blank (MB)

(MB) R3597584-1 11/24/20 15:32

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	mg/l		mg/l	mg/l
Dissolved Solids	U		2.82	10.0

L1287925-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1287925-04 11/24/20 15:32 • (DUP) R3597584-3 11/24/20 15:32

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	mg/l	mg/l		%		%
Dissolved Solids	491	496	1	1.01		5

Laboratory Control Sample (LCS)

(LCS) R3597584-2 11/24/20 15:32

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	mg/l	mg/l	%	%	
Dissolved Solids	8800	8560	97.3	77.4-123	

Method Blank (MB)

(MB) R3597696-1 11/26/20 10:00

Analyte	MB Result umhos/cm	MB Qualifier	MB MDL umhos/cm	MB RDL umhos/cm
Specific Conductance	U		10.0	10.0

L1288993-24 Original Sample (OS) • Duplicate (DUP)

(OS) L1288993-24 11/26/20 10:00 • (DUP) R3597696-3 11/26/20 10:00

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	12800	12800	1	0.0784		20

L1289393-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1289393-01 11/26/20 10:00 • (DUP) R3597696-4 11/26/20 10:00

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	537	536	1	0.186		20

Laboratory Control Sample (LCS)

(LCS) R3597696-2 11/26/20 10:00

Analyte	Spike Amount umhos/cm	LCS Result umhos/cm	LCS Rec. %	Rec. Limits %	LCS Qualifier
Specific Conductance	483	477	98.8	85.0-115	

Method Blank (MB)

(MB) R3597845-1 11/26/20 08:28

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Alkalinity	U		8.45	20.0

Sample Narrative:

BLANK: Endpoint pH 4.5

L1286970-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1286970-01 11/26/20 09:28 • (DUP) R3597845-2 11/26/20 09:35

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Alkalinity	273	270	1	0.906		20

Sample Narrative:

OS: Endpoint pH 4.5 Headspace

DUP: Endpoint pH 4.5

L1287810-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1287810-01 11/26/20 10:53 • (DUP) R3597845-4 11/26/20 11:00

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Alkalinity	447	448	1	0.139		20

Sample Narrative:

OS: Endpoint pH 4.5 Headspace

DUP: Endpoint pH 4.5

Laboratory Control Sample (LCS)

(LCS) R3597845-3 11/26/20 09:49

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Alkalinity	100	97.7	97.7	90.0-110	

Sample Narrative:

LCS: Endpoint pH 4.5

Method Blank (MB)

(MB) R3599402-1 12/01/20 10:04

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Chloride	U		0.379	1.00
Fluoride	U		0.0640	0.150
Sulfate	U		0.594	5.00

L1287817-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1287817-01 12/01/20 15:03 • (DUP) R3599402-3 12/01/20 15:22

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	1.22	0.975	1	22.6	P1	20
Fluoride	0.0786	0.0844	1	0.000		20
Sulfate	28.4	28.4	1	0.0581		20

L1287880-08 Original Sample (OS) • Duplicate (DUP)

(OS) L1287880-08 12/01/20 23:02 • (DUP) R3599402-6 12/01/20 23:21

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	0.612	U	1	200	P1	20
Fluoride	0.142	0.136	1	4.39	J	20
Sulfate	U	U	1	0.000		20

Laboratory Control Sample (LCS)

(LCS) R3599402-2 12/01/20 10:22

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40.0	39.2	98.0	90.0-110	
Fluoride	8.00	8.10	101	90.0-110	
Sulfate	40.0	39.6	98.9	90.0-110	

L1287817-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1287817-01 12/01/20 15:03 • (MS) R3599402-4 12/01/20 15:40 • (MSD) R3599402-5 12/01/20 15:59

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	50.0	1.22	52.1	52.5	102	103	1	80.0-120			0.677	20
Fluoride	5.00	0.0786	5.19	5.23	102	103	1	80.0-120			0.710	20
Sulfate	50.0	28.4	80.7	80.5	105	104	1	80.0-120			0.228	20

L1287880-08 Original Sample (OS) • Matrix Spike (MS)

(OS) L1287880-08 12/01/20 23:02 • (MS) R3599402-7 12/01/20 23:39

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	50.0	0.612	51.9	103	1	80.0-120	
Fluoride	5.00	0.142	5.36	104	1	80.0-120	
Sulfate	50.0	U	51.8	104	1	80.0-120	

Method Blank (MB)

(MB) R3597583-1 11/25/20 17:43

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Mercury	U		0.000100	0.000200

Laboratory Control Sample (LCS)

(LCS) R3597583-2 11/25/20 17:45

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Mercury	0.00300	0.00257	85.5	85.0-115	

L1287694-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1287694-01 11/25/20 17:47 • (MS) R3597583-3 11/25/20 17:49 • (MSD) R3597583-4 11/25/20 17:51

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Mercury	0.00300	U	0.00296	0.00286	98.6	95.3	1	70.0-130			3.47	20

L1287880-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1287880-05 11/25/20 17:53 • (MS) R3597583-5 11/25/20 17:55 • (MSD) R3597583-6 11/25/20 17:57

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Mercury	0.00300	0.000862	0.00396	0.00380	103	98.0	1	70.0-130			4.09	20

Method Blank (MB)

(MB) R3597767-1 11/25/20 18:06

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Boron	U		0.0396	0.200
Lithium	U		0.00689	0.0150

Laboratory Control Sample (LCS)

(LCS) R3597767-2 11/25/20 18:09

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Boron	1.00	0.973	97.3	85.0-115	
Lithium	1.00	0.961	96.1	85.0-115	

L1287694-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1287694-06 11/25/20 18:12 • (MS) R3597767-4 11/25/20 18:17 • (MSD) R3597767-5 11/25/20 18:20

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Boron	1.00	0.923	1.87	1.90	94.2	98.0	1	70.0-130			1.98	20
Lithium	1.00	0.196	1.17	1.18	97.4	98.7	1	70.0-130			1.10	20

L1288059-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1288059-01 11/25/20 18:23 • (MS) R3597767-6 11/25/20 18:26 • (MSD) R3597767-7 11/25/20 18:28

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Boron	1.00	0.242	1.18	1.23	94.1	98.9	1	70.0-130			3.91	20
Lithium	1.00	0.0186	0.961	0.986	94.2	96.8	1	70.0-130			2.62	20

Method Blank (MB)

(MB) R3597747-1 11/26/20 12:13

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Antimony	U		0.00172	0.00500
Arsenic	U		0.000195	0.00100
Barium	U		0.000476	0.00500
Beryllium	U		0.000201	0.00100
Cadmium	U		0.000160	0.00100
Calcium	U		0.112	1.00
Cobalt	U		0.000142	0.00200
Lead	U		0.000513	0.00200
Molybdenum	U		0.000841	0.00500
Selenium	U		0.000437	0.00200
Sodium	U		0.513	2.00

Method Blank (MB)

(MB) R3597801-1 11/27/20 08:30

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Chromium	U		0.00560	0.0200
Thallium	U		0.000176	0.00100

Laboratory Control Sample (LCS)

(LCS) R3597747-2 11/26/20 12:17

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Antimony	0.0500	0.0492	98.4	85.0-115	
Arsenic	0.0500	0.0499	99.9	85.0-115	
Barium	0.0500	0.0444	88.7	85.0-115	
Beryllium	0.0500	0.0462	92.5	85.0-115	
Cadmium	0.0500	0.0497	99.4	85.0-115	
Calcium	5.00	4.86	97.2	85.0-115	
Cobalt	0.0500	0.0529	106	85.0-115	
Lead	0.0500	0.0509	102	85.0-115	
Molybdenum	0.0500	0.0490	98.0	85.0-115	
Selenium	0.0500	0.0478	95.7	85.0-115	
Sodium	5.00	5.30	106	85.0-115	

Laboratory Control Sample (LCS)

(LCS) R3597801-2 11/27/20 08:34

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chromium	0.0500	0.0496	99.2	85.0-115	
Thallium	0.0500	0.0509	102	85.0-115	

L1287842-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1287842-03 11/26/20 12:20 • (MS) R3597747-4 11/26/20 12:27 • (MSD) R3597747-5 11/26/20 12:30

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Antimony	0.0500	U	0.0507	0.0515	101	103	1	70.0-130			1.58	20
Arsenic	0.0500	U	0.0505	0.0524	101	105	1	70.0-130			3.65	20
Barium	0.0500	0.00267	0.0505	0.0507	95.6	96.1	1	70.0-130			0.504	20
Beryllium	0.0500	U	0.0475	0.0481	95.0	96.2	1	70.0-130			1.25	20
Cadmium	0.0500	U	0.0516	0.0532	103	106	1	70.0-130			3.04	20
Calcium	5.00	180	178	177	0.000	0.000	1	70.0-130	V	V	0.533	20
Cobalt	0.0500	0.000879	0.0525	0.0551	103	108	1	70.0-130			4.86	20
Lead	0.0500	U	0.0520	0.0508	104	102	1	70.0-130			2.42	20
Molybdenum	0.0500	U	0.0488	0.0500	97.5	100	1	70.0-130			2.47	20
Selenium	0.0500	U	0.0505	0.0502	101	100	1	70.0-130			0.492	20
Sodium	5.00	6.94	11.9	11.6	99.8	93.8	1	70.0-130			2.56	20

L1287880-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1287880-03 11/26/20 12:34 • (MS) R3597747-6 11/26/20 12:37 • (MSD) R3597747-7 11/26/20 12:40

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Antimony	0.0500	U	0.0539	0.0531	108	106	1	70.0-130			1.54	20
Arsenic	0.0500	0.000593	0.0534	0.0526	106	104	1	70.0-130			1.54	20
Barium	0.0500	0.0604	0.112	0.113	104	105	1	70.0-130			0.345	20
Beryllium	0.0500	U	0.0501	0.0485	100	97.0	1	70.0-130			3.16	20
Cadmium	0.0500	U	0.0527	0.0534	105	107	1	70.0-130			1.33	20
Calcium	5.00	82.8	89.5	92.8	136	201	1	70.0-130	V	V	3.58	20
Cobalt	0.0500	U	0.0535	0.0529	107	106	1	70.0-130			1.02	20
Lead	0.0500	U	0.0532	0.0524	106	105	1	70.0-130			1.52	20
Molybdenum	0.0500	U	0.0525	0.0530	105	106	1	70.0-130			0.820	20
Selenium	0.0500	U	0.0534	0.0543	107	109	1	70.0-130			1.57	20
Sodium	5.00	374	375	392	28.4	368	1	70.0-130	V	V	4.42	20

L1287842-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1287842-03 11/27/20 08:38 • (MS) R3597801-4 11/27/20 08:45 • (MSD) R3597801-5 11/27/20 08:48

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chromium	0.0500	U	0.0480	0.0501	96.1	100	1	70.0-130			4.17	20
Thallium	0.0500	U	0.0520	0.0515	104	103	1	70.0-130			0.954	20

L1287880-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1287880-03 11/27/20 08:52 • (MS) R3597801-6 11/27/20 08:55 • (MSD) R3597801-7 11/27/20 08:59

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chromium	0.0500	U	0.0486	0.0491	97.1	98.3	1	70.0-130			1.17	20
Thallium	0.0500	U	0.0526	0.0499	105	99.7	1	70.0-130			5.23	20

Method Blank (MB)

(MB) R3597748-1 11/26/20 11:55

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Antimony	U		0.00172	0.00500
Arsenic	U		0.000195	0.00100
Barium	U		0.000476	0.00500
Beryllium	U		0.000201	0.00100
Cadmium	U		0.000160	0.00100
Calcium	U		0.112	1.00
Chromium	U		0.00560	0.0200
Cobalt	U		0.000142	0.00200
Lead	U		0.000513	0.00200
Molybdenum	U		0.000841	0.00500
Selenium	U		0.000437	0.00200
Sodium	U		0.513	2.00
Thallium	U		0.000176	0.00100

Laboratory Control Sample (LCS)

(LCS) R3597748-2 11/26/20 11:58

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Antimony	0.0500	0.0524	105	85.0-115	
Arsenic	0.0500	0.0508	102	85.0-115	
Barium	0.0500	0.0498	99.7	85.0-115	
Beryllium	0.0500	0.0513	103	85.0-115	
Cadmium	0.0500	0.0525	105	85.0-115	
Calcium	5.00	5.19	104	85.0-115	
Chromium	0.0500	0.0517	103	85.0-115	
Cobalt	0.0500	0.0523	105	85.0-115	
Lead	0.0500	0.0509	102	85.0-115	
Molybdenum	0.0500	0.0493	98.6	85.0-115	
Selenium	0.0500	0.0506	101	85.0-115	
Sodium	5.00	5.02	100	85.0-115	
Thallium	0.0500	0.0484	96.7	85.0-115	

L1287880-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1287880-04 11/26/20 12:01 • (MS) R3597748-4 11/26/20 12:08 • (MSD) R3597748-5 11/26/20 12:11

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Antimony	0.0500	U	0.0522	0.0526	104	105	1	70.0-130			0.744	20
Arsenic	0.0500	0.000677	0.0519	0.0518	103	102	1	70.0-130			0.243	20
Barium	0.0500	0.190	0.239	0.247	96.6	113	1	70.0-130			3.39	20
Beryllium	0.0500	U	0.0509	0.0495	102	98.9	1	70.0-130			2.93	20
Cadmium	0.0500	U	0.0529	0.0533	106	107	1	70.0-130			0.834	20
Calcium	5.00	76.2	79.8	81.3	71.7	102	1	70.0-130			1.91	20
Chromium	0.0500	U	0.0527	0.0530	105	106	1	70.0-130			0.666	20
Cobalt	0.0500	0.000211	0.0524	0.0520	104	104	1	70.0-130			0.718	20
Lead	0.0500	U	0.0510	0.0519	102	104	1	70.0-130			1.79	20
Molybdenum	0.0500	0.00274	0.0542	0.0548	103	104	1	70.0-130			1.02	20
Selenium	0.0500	0.000522	0.0521	0.0520	103	103	1	70.0-130			0.137	20
Sodium	5.00	26.9	31.2	31.5	86.0	93.1	1	70.0-130			1.13	20
Thallium	0.0500	U	0.0482	0.0495	96.5	99.0	1	70.0-130			2.60	20

L1288117-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1288117-01 11/26/20 12:14 • (MS) R3597748-6 11/26/20 12:18 • (MSD) R3597748-7 11/26/20 12:21

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Antimony	0.0500	0.00296	0.0564	0.0554	107	105	1	70.0-130			1.62	20
Arsenic	0.0500	0.000378	0.0519	0.0516	103	102	1	70.0-130			0.638	20
Barium	0.0500	0.0145	0.0660	0.0664	103	104	1	70.0-130			0.626	20
Beryllium	0.0500	U	0.0498	0.0491	99.6	98.2	1	70.0-130			1.35	20
Cadmium	0.0500	U	0.0536	0.0526	107	105	1	70.0-130			1.90	20
Calcium	5.00	7.67	13.1	12.8	108	102	1	70.0-130			2.42	20
Chromium	0.0500	U	0.0549	0.0545	110	109	1	70.0-130			0.655	20
Cobalt	0.0500	0.000403	0.0537	0.0536	107	106	1	70.0-130			0.148	20
Lead	0.0500	U	0.0525	0.0521	105	104	1	70.0-130			0.718	20
Molybdenum	0.0500	0.0101	0.0617	0.0608	103	101	1	70.0-130			1.35	20
Selenium	0.0500	U	0.0522	0.0518	104	104	1	70.0-130			0.641	20
Sodium	5.00	2.45	7.93	7.82	110	107	1	70.0-130			1.38	20
Thallium	0.0500	U	0.0488	0.0495	97.6	99.0	1	70.0-130			1.43	20

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
J3	The associated batch QC was outside the established quality control range for precision.
P1	RPD value not applicable for sample concentrations less than 5 times the reporting limit.
V	The sample concentration is too high to evaluate accurate spike recoveries.

Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.
* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T104704245-18-15
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

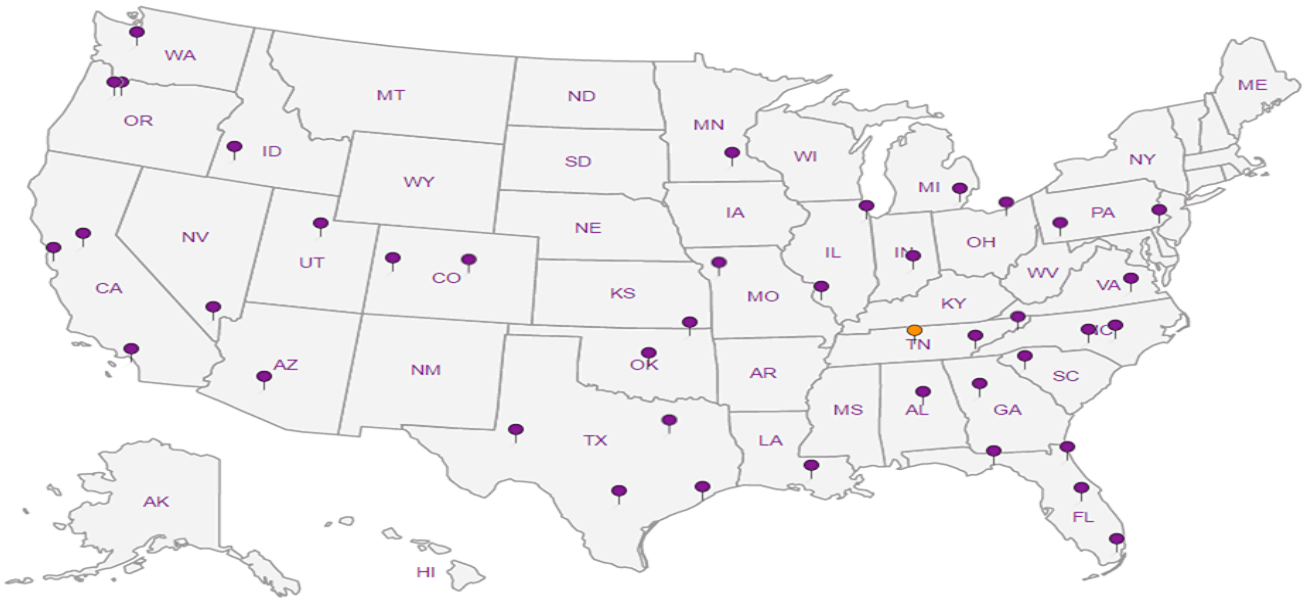
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



Page 1 of 2

Enercon - Oklahoma City, OK

1601 Northwest Expressway
Suite 1000
Oklahoma City, OK 73118

Billing Information:
Accounts Payable - Lisa Hedrick
1601 NW Expressway
Ste.1000
Oklahoma City, OK 73118

Report to: Phillip Kelley

Email To: pkelley@enercon.com

Project Description: GREC, Chouteau, OK

City/State Collected: Chouteau, OK

Please Circle: PT MT CT ET

Phone: 405-722-7693

Client Project # GRDA

Lab Project # ENERCOOK-GRDA

Collected by (print): Matthew Payne

Site/Facility ID # GRDA-GREC

P.O. #

Collected by (signature): Matthew Payne

Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed: STD

Pres Chk

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	ALK 125mlHDPE-NoPres	Cl, F, SO4 125mlHDPE-NoPres	RA-226,RA-228 1L-HDPE-Add HNO3	SPCON,TDS 250mlHDPE-NoPres	Tot. Rec. Metals 250mlHDPE-HNO3	Remarks	Sample # (lab only)
MW93-1	Grab	~~GW~~ DW	NA	11/17/2020	1415	5	X	X	X	X	X		-01
MW93-2	Grab	~~GW~~ DW	NA	11/16/2020	1605	5	X	X	X	X	X		02
MW93-3	Grab	~~GW~~ DW	NA	11/16/2020	1450	5	X	X	X	X	X		03
MW03-1	Grab	~~GW~~ DW	NA	11/17/2020	1635	5	X	X	X	X	X		04
MW03-2	Grab	~~GW~~ DW	NA	11/17/2020	1520	5	X	X	X	X	X		05
		DW				5	X	X	X	X	X		
		DW				5	X	X	X	X	X		
~~TRIP BLANK~~		DW				5	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~		

Chain of Custody

Pace Analytical
National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

SDG # N87880

G026

Acctnum: ENERCOOK
Template: T167834
Prelogin: P808924
PM: 104 - Jason Romer
PB:

Shipped Via: FedEX Ground

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other

Remarks: 200.7 = B,Li 200.8 = Ca,Na,Sb,As,Ba,Be,Cd,Cr,Co,Pb,Mo,Se,Tl

pH ___ Temp ___

Flow ___ Other ___

Samples returned via: ___ UPS ___ FedEx ___ Courier ___

Tracking # 9296 5243 0781 0900

Sample Receipt Checklist

COC Seal Present/Intact:	NP	Y N
COC Signed/Accurate:		Y N
Bottles arrive intact:		Y N
Correct bottles used:		Y N
Sufficient volume sent:		Y N
If Applicable		
VOA Zero Headspace:		Y N
Preservation Correct/Checked:		Y N
RAD Screen <0.5 mR/hr:		Y N

	Date:	Time:		
Relinquished by: (Signature) Matthew Payne	11/18/2020	1:50pm	Received by: (Signature) E. Davis	Trip Blank Received: Yes / No HCL / MeoH TBR
Relinquished by: (Signature) E. Davis	11/18/20	17:00	Received by: (Signature)	Temp: 1.0+0=1.0 °C Bottles Received: 33
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature) Carl Hemp	Date: 11/19/20 Time: 9:00

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

Enercon - Oklahoma City, OK

1601 Northwest Expressway
Suite 1000
Oklahoma City, OK 73118

Billing Information:
Accounts Payable - Lisa Hedrick
1601 NW Expressway
Ste.1000
Oklahoma City, OK 73118

Report to: Phillip Kelley

Email To: pkelley@enercon.com

Project Description: GREC, Chouteau, OK

City/State Collected: Chouteau, OK

Please Circle: PT MT OK ET

Phone: 405-722-7693

Client Project # GRDA

Lab Project # ENERCOOK-GRDA

Collected by (print): Matthew Payne

Site/Facility ID # GRDA-GREC

P.O. #

Collected by (signature): Matthew Payne

Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed: STD

Pres Chk

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	ALK 125mlHDPE-NoPres	Cl, F, SO4 125mlHDPE-NoPres	Metals 250mlHDPE-HNO3	SPCON,TDS 250mlHDPE-NoPres	Remarks	Sample # (lab only)
DUPLICATE	Grab	~~GW~~ WW	NA	~~MT~~ HH		4	X	X	X	X		09
		~~WW~~				4	X	X	X	X		
TRIP BLANK	Comp	~~GW~~ WW	NA	11/16/2020	1300	4	X	X	X	X		07

Chain of Custody Page 2 of 2

Pace Analytical® National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

SDG # 128785

Table #

Acctnum: ENERCOOK
Template: T169670
Prelogin: P808926
PM: 104 - Jason Romer
PB:

Shipped Via: FedEX Ground

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: 200.7 = B 200.8 = Ca,Na

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N
RAD Screen <0.5 mR/hr: Y N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR
Matthew Payne	11/18/2020	10:50pm	E. Davis	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 1.2°C Bottles Received: 33
E. Davis	11/18/20	17:00		1.0+0=1.0
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 11/19/20 Time: 9:00
			Carol Kemp	

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

January 13, 2021

Revised Report

Enercon - Oklahoma City, OK

Sample Delivery Group:	L1287888
Samples Received:	11/19/2020
Project Number:	GRDA
Description:	GREC, Chouteau, OK

Report To: Phillip Kelley
1601 Northwest Expressway
Suite 1000
Oklahoma City, OK 73118

Entire Report Reviewed By:

Jason Romer
Project Manager

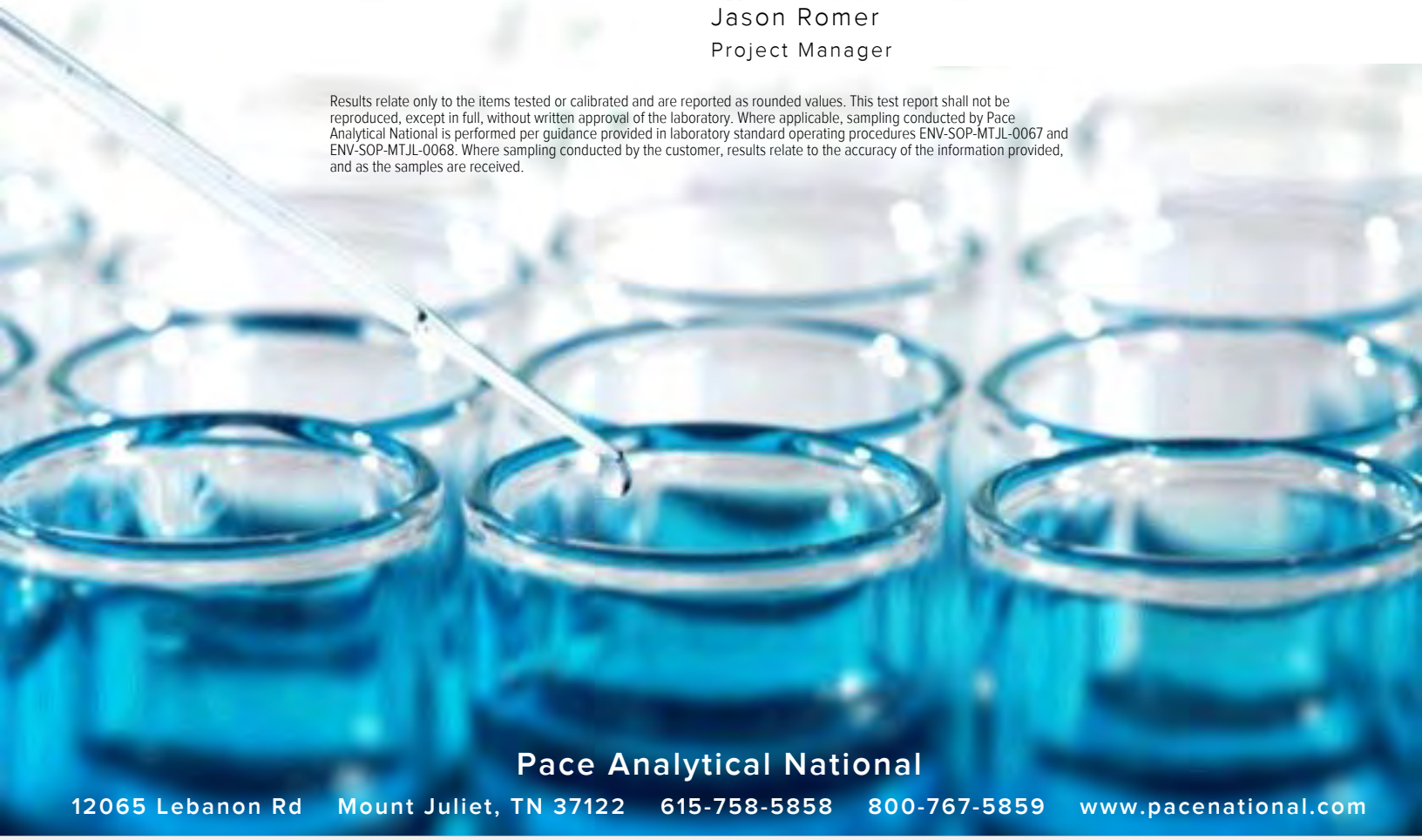


TABLE OF CONTENTS

MW93-1 L1287888-01 DW

Collected by: Matthew Payne | Collected date/time: 11/17/20 14:15 | Received date/time: 11/19/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904	WG1582302	1	11/25/20 12:06	12/03/20 09:55	JMR	Mt. Juliet, TN
Radiochemistry by Method SM 7500 Ra B	WG1586634	1	12/04/20 13:44	12/14/20 12:02	SNR	Mt. Juliet, TN

MW93-2 L1287888-02 DW

Collected by: Matthew Payne | Collected date/time: 11/16/20 16:05 | Received date/time: 11/19/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904	WG1582302	1	11/25/20 12:06	12/03/20 09:55	JMR	Mt. Juliet, TN
Radiochemistry by Method SM 7500 Ra B	WG1586634	1	12/04/20 13:44	12/14/20 13:02	SNR	Mt. Juliet, TN

MW93-3 L1287888-03 DW

Collected by: Matthew Payne | Collected date/time: 11/16/20 14:50 | Received date/time: 11/19/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904	WG1582302	1	11/25/20 12:06	12/03/20 09:55	JMR	Mt. Juliet, TN
Radiochemistry by Method SM 7500 Ra B	WG1586634	1	12/04/20 13:44	12/14/20 14:02	SNR	Mt. Juliet, TN

MW03-1 L1287888-04 DW

Collected by: Matthew Payne | Collected date/time: 11/17/20 16:35 | Received date/time: 11/19/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904	WG1582302	1	11/25/20 12:06	12/03/20 09:55	JMR	Mt. Juliet, TN
Radiochemistry by Method SM 7500 Ra B	WG1586634	1	12/04/20 13:44	12/14/20 15:03	SNR	Mt. Juliet, TN

MW03-2 L1287888-05 DW

Collected by: Matthew Payne | Collected date/time: 11/17/20 15:20 | Received date/time: 11/19/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904	WG1582302	1	11/25/20 12:06	12/03/20 09:55	JMR	Mt. Juliet, TN
Radiochemistry by Method SM 7500 Ra B	WG1586634	1	12/04/20 13:44	12/14/20 16:03	SNR	Mt. Juliet, TN

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Jason Romer
Project Manager

Report Revision History

Level II Report - Version 1: 12/16/20 15:24

Radiochemistry by Method 904

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.113	U	0.545	0.98	12/03/2020 09:55	WG1582302
(T) Barium	*88.3*			*62.0-143*	*12/03/2020 09:55*	WG1582302
(T) Yttrium	*99.4*			*79.0-136*	*12/03/2020 09:55*	WG1582302

Radiochemistry by Method SM 7500 Ra B

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.0892	J	0.195	0.177	12/14/2020 12:02	WG1586634
(T) Barium	*90.7*			*63.0-143*	*12/14/2020 12:02*	WG1586634

Radiochemistry by Method 904

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	2.93		0.476	0.779	12/03/2020 09:55	WG1582302
(T) Barium	*100*			*62.0-143*	*12/03/2020 09:55*	WG1582302
(T) Yttrium	*104*			*79.0-136*	*12/03/2020 09:55*	WG1582302

Radiochemistry by Method SM 7500 Ra B

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.548		0.254	0.155	12/14/2020 13:02	WG1586634
(T) Barium	*115*			*63.0-143*	*12/14/2020 13:02*	WG1586634

Radiochemistry by Method 904

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.524	J	0.590	1.05	12/03/2020 09:55	WG1582302
(T) Barium	*87.9*			*62.0-143*	*12/03/2020 09:55*	WG1582302
(T) Yttrium	*95.5*			*79.0-136*	*12/03/2020 09:55*	WG1582302

Radiochemistry by Method SM 7500 Ra B

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.176		0.191	0.155	12/14/2020 14:02	WG1586634
(T) Barium	*108*			*63.0-143*	*12/14/2020 14:02*	WG1586634

Radiochemistry by Method 904

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.878		0.493	0.865	12/03/2020 09:55	WG1582302
(T) Barium	*93.0*			*62.0-143*	*12/03/2020 09:55*	WG1582302
(T) Yttrium	*97.8*			*79.0-136*	*12/03/2020 09:55*	WG1582302

Radiochemistry by Method SM 7500 Ra B

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.306		0.212	0.152	12/14/2020 15:03	WG1586634
(T) Barium	*156*	C1		*63.0-143*	*12/14/2020 15:03*	WG1586634

Radiochemistry by Method 904

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-228	3.45		0.466	0.743	12/03/2020 09:55	WG1582302
(T) Barium	*85.7*			*62.0-143*	*12/03/2020 09:55*	WG1582302
(T) Yttrium	*99.9*			*79.0-136*	*12/03/2020 09:55*	WG1582302

Radiochemistry by Method SM 7500 Ra B

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.136	J	0.209	0.181	12/14/2020 16:03	WG1586634
(T) Barium	*88.3*			*63.0-143*	*12/14/2020 16:03*	WG1586634

Method Blank (MB)

(MB) R3603552-1 12/03/20 09:55

Analyte	MB Result pCi/l	MB Qualifier	MB MDA pCi/l
Radium-228	0.822		0.432
(T) Barium	*96.4*		
(T) Yttrium	*99.2*		

L1287907-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1287907-01 12/03/20 09:55 • (DUP) R3603552-5 12/03/20 09:55

Analyte	Original Result pCi/l	DUP Result pCi/l	Dilution	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-228	0.441	0.517	1	15.9	0.0948	J	20	2
(T) Barium	*92.3*	*92.4*						
(T) Yttrium	*98.4*	*96.3*						

Laboratory Control Sample (LCS)

(LCS) R3603552-2 12/03/20 09:55

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-228	5.00	5.74	115	80.0-120	
(T) Barium			*96.1*		
(T) Yttrium			*92.8*		

L1285906-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1285906-01 12/03/20 09:55 • (MS) R3603552-3 12/03/20 09:55 • (MSD) R3603552-4 12/03/20 09:55

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-228	10.0	0.634	12.6	13.3	120	126	1	70.0-130			5.26		20
(T) Barium		*83.0*			*88.5*	*87.4*							
(T) Yttrium		*101*			*96.3*	*96.0*							

Method Blank (MB)

(MB) R3602632-1 12/10/20 20:26

Analyte	MB Result pCi/l	MB Qualifier	MB MDA pCi/l
Radium-226	0.000	U	0.104
(T) Barium	*98.6*		

L1288348-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1288348-04 12/11/20 01:27 • (DUP) R3602632-5 12/11/20 00:27

Analyte	Original Result pCi/l	DUP Result pCi/l	Dilution	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-226	-0.0253	0.000	1	0.000	0.0918	U	20	2
(T) Barium	*99.4*	*100*						

Laboratory Control Sample (LCS)

(LCS) R3602632-2 12/10/20 21:26

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-226	5.01	4.56	91.0	90.0-110	
(T) Barium			*101*		

L1289241-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1289241-02 12/11/20 02:27 • (MS) R3602632-3 12/10/20 22:27 • (MSD) R3602632-4 12/10/20 23:27

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-226	10.0	0.501	10.1	9.48	96.4	89.8	1	80.0-120			6.71		20
(T) Barium		*107*			*106*	*98.9*							

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDA	Minimum Detectable Activity.
Rec.	Recovery.
RER	Replicate Error Ratio.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(T)	Tracer - A radioisotope of known concentration added to a solution of chemically equivalent radioisotopes at a known concentration to assist in monitoring the yield of the chemical separation.
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
C1	Tracer recovery limits have been exceeded; values are outside upper control limits.
J	The identification of the analyte is acceptable; the reported value is an estimate.
U	Below Detectable Limits: Indicates that the analyte was not detected.

Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.
* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	KY90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA

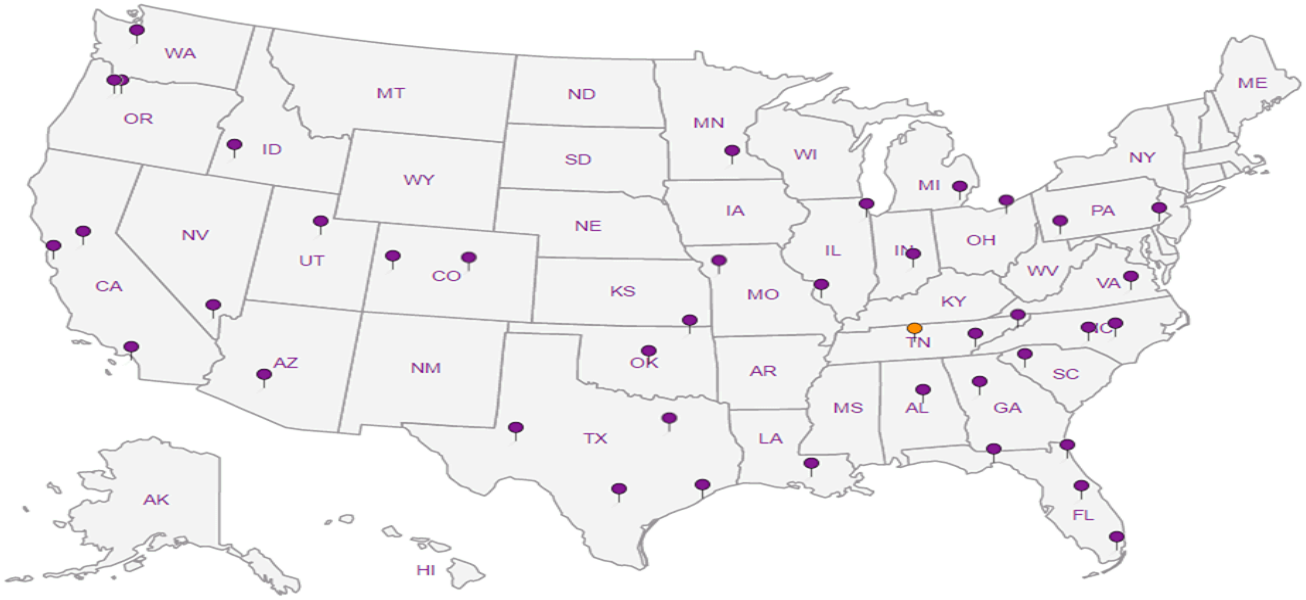
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



Enercon - Oklahoma City, OK

1601 Northwest Expressway
Suite 1000
Oklahoma City, OK 73118

Billing Information:
Accounts Payable - Lisa Hedrick
1601 NW Expressway
Ste.1000
Oklahoma City, OK 73118

Pres Chk

Email To: pkelley@enercon.com

Report to: Phillip Kelley

Project Description: GREC, Chouteau, OK

City/State Collected: Chouteau, OK

Please Circle: PT MT CT ET

Phone: 405-722-7693

Client Project # GRDA

Lab Project # ENERCOOK-GRDA

Collected by (print): Matthew Payne

Site/Facility ID # GRDA-GREC

P.O. #

Collected by (signature): Matthew Payne

Immediately Packed on Ice N ___ Y ___

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed: STD

Analysis / Container / Preservative

Chain of Custody Page 1 of 2

Pace Analytical
National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

SDG # 187858
G026

Acctnum: ENERCOOK
Template: T167834
Prelogin: P808924
PM: 104 - Jason Romer
PB:
Shipped Via: FedEx Ground

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	Nc. of Cntrs	ALK 125mlHDPE-NoPres	Cl, F, SO4 125mlHDPE-NoPres	RA-226,RA-228 1L-HDPE-Add HNO3	SPCON,TDS 250mlHDPE-NoPres	Tot. Rec. Metals 250mlHDPE-HNO3	Remarks	Sample # (lab only)
MW93-1	Grab	~~GW~~ DW	NA	11/17/2020	1415	5	X	X	X	X	X		-01
MW93-2	Grab	~~GW~~ DW	NA	11/16/2020	1605	5	X	X	X	X	X		02
MW93-3	Grab	~~GW~~ DW	NA	11/16/2020	1450	5	X	X	X	X	X		03
MW03-1	Grab	~~GW~~ DW	NA	11/17/2020	1635	5	X	X	X	X	X		04
MW03-2	Grab	~~GW~~ DW	NA	11/17/2020	1520	5	X	X	X	X	X		05
		DW				5	X	X	X	X	X		
		DW				5	X	X	X	X	X		
~~TRIP BLANK~~		DW				5	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~		

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: 200.7 = B,Li 200.8 = Ca,Na,Sb,As,Ba,Be,Cd,Cr,Co,Pb,Mo,Se,Tl

pH _____ Temp _____

Flow _____ Other _____

Samples returned via: __ UPS __ FedEx __ Courier _____

Tracking # 9296 5243 0781

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N
RAD Screen <0.5 mR/hr: Y N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Matthew Payne	11/18/2020	1:50pm	E. Davis
E. Davis	11/18/20	17:00	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)
			Carl Kemp

Trip Blank Received: Yes / No
HCL / MeoH
TBR

Temp: 1.0+0=1.0 °C Bottles Received: 33

Date: 11/19/20 Time: 9:00

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

Appendix B
Statistical Output

Concentrations (ppb)

Parameter: Alkalinity

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 283
Total Non-Detect: 0
Percent Non-Detects: 0%
Total Background Measurements: 71
There is 1 background location

Loc.	Meas.	ND	Date	Conc.	Original
MW#93-1	71	0 (0%)	12/15/1994	367	367
			12/14/1995	334	334
			3/6/1996	384	384
			4/25/1996	363	363
			10/2/1996	365	365
			12/10/1996	346	346
			3/11/1997	350	350
			4/15/1997	330	330
			8/14/1997	400	400
			12/4/1997	380	380
			3/31/1998	360	360
			6/23/1998	390	390
			8/11/1998	389	389
			12/8/1998	376	376
			3/9/1999	340	340
			6/8/1999	395	395
			8/19/1999	400	400
			12/14/1999	360	360
			3/7/2000	384	384
			6/23/2000	364	364
			12/12/2000	450	450
			3/27/2001	362	362
			6/28/2001	340	340
			9/10/2001	326	326
			12/18/2001	326	326
			3/19/2002	330	330
			6/26/2002	350	350
			9/18/2002	353	353
			12/11/2002	344	344
			3/13/2003	320	320
			6/25/2003	336	336
			9/26/2003	320	320
			12/10/2003	324	324
			3/9/2004	329	329
			6/24/2004	348	348
			9/15/2004	332	332
			12/15/2004	327	327
			3/16/2005	340	340
			6/15/2005	330	330
			9/21/2005	347	347
			12/21/2005	340	340
			3/15/2006	320	320
			6/21/2006	314	314
			12/20/2006	300	300
			6/12/2007	310	310

			12/17/2007	330	330
			6/11/2008	370	370
			12/3/2008	344	344
			6/17/2009	350	350
			12/9/2009	370	370
			6/17/2010	380	380
			12/22/2010	370	370
			6/29/2011	366	366
			12/7/2011	370	370
			6/6/2012	384	384
			12/12/2012	330	330
			6/19/2013	360	360
			12/11/2013	358	358
			6/11/2014	342	342
			12/3/2014	368	368
			6/17/2015	380	380
			12/1/2015	383	383
			6/22/2016	390	390
			12/20/2016	395.4	395.4
			6/6/2017	398	398
			11/7/2017	394	394
			2/27/2018	384	384
			9/27/2018	360	360
			5/7/2019	550	550
			11/21/2019	480	480
			6/25/2020	542	542

There are 4 compliance locations

Loc.	Meas.	ND	Date	Conc.	Original
MW#93-2	72	0 (0%)	12/15/1994	170	170
			12/14/1995	191	191
			3/6/1996	308	308
			4/25/1996	340	340
			10/2/1996	340	340
			12/10/1996	270	270
			3/11/1997	210	210
			4/15/1997	220	220
			8/14/1997	240	240
			12/4/1997	200	200
			3/31/1998	184	184
			6/23/1998	250	250
			8/11/1998	208	208
			12/8/1998	200	200
			3/9/1999	224	224
			6/8/1999	220	220
			8/19/1999	226	226
			12/14/1999	240	240
			3/7/2000	244	244
			6/23/2000	264	264
			12/12/2000	220	220
			3/27/2001	215	215
			6/28/2001	240	240
			9/10/2001	208	208
			12/18/2001	235	235
			3/19/2002	263	263

			6/26/2002	290	290
			9/18/2002	256	256
			12/11/2002	249	249
			3/13/2003	240	240
			6/25/2003	246	246
			9/26/2003	250	250
			12/10/2003	200	200
			3/9/2004	280	280
			6/24/2004	329	329
			9/15/2004	272	272
			12/15/2004	288	288
			3/16/2005	240	240
			6/15/2005	246	246
			9/21/2005	228	228
			12/21/2005	232	232
			3/15/2006	250	250
			6/21/2006	290	290
			12/20/2006	356	356
			2/21/2007	340	340
			6/12/2007	312	312
			12/17/2007	210	210
			6/11/2008	240	240
			12/3/2008	280	280
			6/17/2009	250	250
			12/9/2009	236	236
			6/17/2010	252	252
			12/22/2010	240	240
			6/29/2011	266	266
			12/7/2011	288	288
			6/6/2012	256	256
			12/12/2012	248	248
			6/19/2013	364	364
			12/11/2013	328	328
			6/11/2014	342	342
			12/3/2014	296	296
			6/17/2015	384	384
			12/1/2015	226	226
			6/22/2016	176	176
			12/20/2016	162.2	162.2
			6/6/2017	246	246
			11/7/2017	430	430
			2/27/2018	282	282
			9/27/2018	270	270
			5/7/2019	360	360
			11/21/2019	360	360
			6/25/2020	261	261
MW#93-3	71	0 (0%)	12/15/1994	240	240
			12/14/1995	206	206
			3/6/1996	226	226
			4/25/1996	228	228
			10/2/1996	240	240
			12/10/1996	225	225
			3/11/1997	210	210
			4/15/1997	200	200
			8/14/1997	255	255
			12/4/1997	140	140

3/31/1998	240	240
6/23/1998	225	225
8/11/1998	224	224
12/8/1998	214	214
3/9/1999	234	234
6/8/1999	236	236
8/19/1999	260	260
12/14/1999	300	300
3/7/2000	264	264
6/23/2000	244	244
12/12/2000	320	320
3/27/2001	254	254
6/28/2001	255	255
9/10/2001	332	332
12/18/2001	230	230
3/19/2002	255	255
6/26/2002	250	250
9/18/2002	268	268
12/11/2002	268	268
3/13/2003	247	247
6/25/2003	252	252
9/26/2003	244	244
12/10/2003	271	271
3/9/2004	284	284
6/24/2004	309	309
9/15/2004	264	264
12/15/2004	254	254
3/16/2005	290	290
6/15/2005	268	268
9/21/2005	264	264
12/21/2005	246	246
3/15/2006	227	227
6/21/2006	253	253
12/20/2006	250	250
6/12/2007	280	280
12/17/2007	290	290
6/11/2008	300	300
12/3/2008	226	226
6/17/2009	240	240
12/9/2009	214	214
6/17/2010	296	296
12/22/2010	230	230
6/29/2011	256	256
12/7/2011	244	244
6/6/2012	288	288
12/12/2012	226	226
6/19/2013	316	316
12/11/2013	262	262
6/11/2014	338	338
12/3/2014	262	262
6/17/2015	388	388
5/25/2016	440	440
6/22/2016	330	330
12/20/2016	330.4	330.4
6/6/2017	304	304
11/7/2017	409	409
2/27/2018	368	368

			9/27/2018	375	375
			5/7/2019	585	585
			11/21/2019	525	525
			6/25/2020	619	619
MW#03-1	32	0 (0%)	6/24/2004	209	209
			9/15/2004	220	220
			12/15/2004	184	184
			3/16/2005	160	160
			6/15/2005	252	252
			9/21/2005	180	180
			12/20/2006	204	204
			6/12/2007	200	200
			12/17/2007	190	190
			6/11/2008	200	200
			12/3/2008	206	206
			6/17/2009	204	204
			12/9/2009	216	216
			6/17/2010	232	232
			12/22/2010	216	216
			6/29/2011	210	210
			12/7/2011	222	222
			6/6/2012	216	216
			6/19/2013	144	144
			12/11/2013	212	212
			6/11/2014	222	222
			12/3/2014	194	194
			6/17/2015	134	134
			12/1/2015	150	150
			6/22/2016	130	130
			12/20/2016	211.6	211.6
			6/6/2017	56	56
			11/7/2017	217	217
			2/27/2018	72	72
			5/7/2019	55	55
			11/21/2019	55	55
			6/25/2020	126	126
MW#03-2	37	0 (0%)	6/24/2004	235	235
			9/15/2004	200	200
			12/15/2004	222	222
			3/16/2005	220	220
			6/15/2005	252	252
			9/21/2005	224	224
			12/21/2005	230	230
			3/15/2006	220	220
			6/21/2006	228	228
			12/20/2006	220	220
			6/12/2007	228	228
			12/17/2007	200	200
			6/11/2008	200	200
			12/3/2008	210	210
			6/17/2009	200	200
			12/9/2009	208	208
			6/17/2010	216	216
			12/22/2010	230	230
			6/29/2011	224	224

12/7/2011	236	236
6/6/2012	230	230
12/12/2012	242	242
6/19/2013	232	232
12/11/2013	230	230
6/11/2014	92	92
12/3/2014	76	76
6/17/2015	220	220
12/1/2015	214	214
6/22/2016	204	204
12/20/2016	199.4	199.4
6/6/2017	192	192
11/7/2017	192	192
2/27/2018	196	196
9/27/2018	185	185
5/7/2019	220	220
11/21/2019	220	220
6/25/2020	223	223

There are 0 unused locations

Loc.	Meas.	ND	Date	Conc.	Original

Non-Parametric Prediction Interval

Inter-Well Comparison

Parameter: Alkalinity

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 0%
Number of comparisons = 4
Future Samples (k) = 4
Recent Dates = 1
Background Measurements (n) = 71
Maximum Background Value = 550
Confidence Level = 94.7%
False Positive Rate = 5.3%

Location	Date	Count	Mean	Significant
MW#93-2	6/25/2020	1	261	FALSE
MW#93-3	**6/25/2020**	**1**	**619**	**TRUE**
MW#03-1	6/25/2020	1	126	FALSE
MW#03-2	6/25/2020	1	223	FALSE

Non-Parametric Prediction Interval

Intra-Well Comparison for MW#93-3

Parameter: Alkalinity

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 0%
Future Samples (k) = 1
Recent Dates = 1
Baseline Measurements (n) = 70
Maximum Baseline Concentration = 585
Confidence Level = 98.6%
False Positive Rate = 1.4%

Baseline Measurements	Date	Value
	12/15/1994	240
	12/14/1995	206
	3/6/1996	226
	4/25/1996	228
	10/2/1996	240
	12/10/1996	225
	3/11/1997	210
	4/15/1997	200
	8/14/1997	255
	12/4/1997	140
	3/31/1998	240
	6/23/1998	225
	8/11/1998	224
	12/8/1998	214
	3/9/1999	234
	6/8/1999	236
	8/19/1999	260
	12/14/1999	300
	3/7/2000	264
	6/23/2000	244
	12/12/2000	320
	3/27/2001	254
	6/28/2001	255
	9/10/2001	332
	12/18/2001	230
	3/19/2002	255
	6/26/2002	250
	9/18/2002	268
	12/11/2002	268
	3/13/2003	247
	6/25/2003	252
	9/26/2003	244
	12/10/2003	271
	3/9/2004	284
	6/24/2004	309
	9/15/2004	264
	12/15/2004	254
	3/16/2005	290
	6/15/2005	268
	9/21/2005	264
	12/21/2005	246
	3/15/2006	227

6/21/2006	253
12/20/2006	250
6/12/2007	280
12/17/2007	290
6/11/2008	300
12/3/2008	226
6/17/2009	240
12/9/2009	214
6/17/2010	296
12/22/2010	230
6/29/2011	256
12/7/2011	244
6/6/2012	288
12/12/2012	226
6/19/2013	316
12/11/2013	262
6/11/2014	338
12/3/2014	262
6/17/2015	388
5/25/2016	440
6/22/2016	330
12/20/2016	330.4
6/6/2017	304
11/7/2017	409
2/27/2018	368
9/27/2018	375
5/7/2019	585
11/21/2019	525

Date	Count	Mean	Significant
6/25/2020	1	619	TRUE

Levene's Test for Equal of Variance

Parameter: Alkalinity

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Overall Mean = 38.8482
Overall Std Dev = 42.2495
Overall Total = 10994
SS Groups = 34446.6
SS Total = 503376

ANOVA Table

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Squares	F
Between Groups	34446.6	4	8611.65	5.10533
Error (within groups)	468929	278	1686.8	
Totals	503376	282		

95% F-Statistic = 2.37

5.10533 exceeds 2.37; assumption of equal variance should be rejected

Group: MW#93-1	Sample	Residual
	12/15/1994	3.00845
	12/14/1995	29.9915
	3/6/1996	20.0085
	4/25/1996	0.991549
	10/2/1996	1.00845
	12/10/1996	17.9915
	3/11/1997	13.9915
	4/15/1997	33.9915
	8/14/1997	36.0085
	12/4/1997	16.0085
	3/31/1998	3.99155
	6/23/1998	26.0085
	8/11/1998	25.0085
	12/8/1998	12.0085
	3/9/1999	23.9915
	6/8/1999	31.0085
	8/19/1999	36.0085
	12/14/1999	3.99155
	3/7/2000	20.0085
	6/23/2000	0.0084507
	12/12/2000	86.0085
	3/27/2001	1.99155
	6/28/2001	23.9915
	9/10/2001	37.9915
	12/18/2001	37.9915
	3/19/2002	33.9915
	6/26/2002	13.9915
	9/18/2002	10.9915
	12/11/2002	19.9915
	3/13/2003	43.9915

6/25/2003	27.9915
9/26/2003	43.9915
12/10/2003	39.9915
3/9/2004	34.9915
6/24/2004	15.9915
9/15/2004	31.9915
12/15/2004	36.9915
3/16/2005	23.9915
6/15/2005	33.9915
9/21/2005	16.9915
12/21/2005	23.9915
3/15/2006	43.9915
6/21/2006	49.9915
12/20/2006	63.9915
6/12/2007	53.9915
12/17/2007	33.9915
6/11/2008	6.00845
12/3/2008	19.9915
6/17/2009	13.9915
12/9/2009	6.00845
6/17/2010	16.0085
12/22/2010	6.00845
6/29/2011	2.00845
12/7/2011	6.00845
6/6/2012	20.0085
12/12/2012	33.9915
6/19/2013	3.99155
12/11/2013	5.99155
6/11/2014	21.9915
12/3/2014	4.00845
6/17/2015	16.0085
12/1/2015	19.0085
6/22/2016	26.0085
12/20/2016	31.4085
6/6/2017	34.0085
11/7/2017	30.0085
2/27/2018	20.0085
9/27/2018	3.99155
5/7/2019	186.008
11/21/2019	116.008
6/25/2020	178.008

Group: MW#93-2	**Date**	**Residual**
	12/15/1994	90.7944
	12/14/1995	69.7944
	3/6/1996	47.2056
	4/25/1996	79.2056
	10/2/1996	79.2056
	12/10/1996	9.20556
	3/11/1997	50.7944
	4/15/1997	40.7944
	8/14/1997	20.7944
	12/4/1997	60.7944
	3/31/1998	76.7944
	6/23/1998	10.7944
	8/11/1998	52.7944
	12/8/1998	60.7944

3/9/1999	36.7944
6/8/1999	40.7944
8/19/1999	34.7944
12/14/1999	20.7944
3/7/2000	16.7944
6/23/2000	3.20556
12/12/2000	40.7944
3/27/2001	45.7944
6/28/2001	20.7944
9/10/2001	52.7944
12/18/2001	25.7944
3/19/2002	2.20556
6/26/2002	29.2056
9/18/2002	4.79444
12/11/2002	11.7944
3/13/2003	20.7944
6/25/2003	14.7944
9/26/2003	10.7944
12/10/2003	60.7944
3/9/2004	19.2056
6/24/2004	68.2056
9/15/2004	11.2056
12/15/2004	27.2056
3/16/2005	20.7944
6/15/2005	14.7944
9/21/2005	32.7944
12/21/2005	28.7944
3/15/2006	10.7944
6/21/2006	29.2056
12/20/2006	95.2056
2/21/2007	79.2056
6/12/2007	51.2056
12/17/2007	50.7944
6/11/2008	20.7944
12/3/2008	19.2056
6/17/2009	10.7944
12/9/2009	24.7944
6/17/2010	8.79444
12/22/2010	20.7944
6/29/2011	5.20556
12/7/2011	27.2056
6/6/2012	4.79444
12/12/2012	12.7944
6/19/2013	103.206
12/11/2013	67.2056
6/11/2014	81.2056
12/3/2014	35.2056
6/17/2015	123.206
12/1/2015	34.7944
6/22/2016	84.7944
12/20/2016	98.5944
6/6/2017	14.7944
11/7/2017	169.206
2/27/2018	21.2056
9/27/2018	9.20556
5/7/2019	99.2056
11/21/2019	99.2056

	6/25/2020	0.205556

Group: MW#93-3	Date	Residual
	12/15/1994	40.3859
	12/14/1995	74.3859
	3/6/1996	54.3859
	4/25/1996	52.3859
	10/2/1996	40.3859
	12/10/1996	55.3859
	3/11/1997	70.3859
	4/15/1997	80.3859
	8/14/1997	25.3859
	12/4/1997	140.386
	3/31/1998	40.3859
	6/23/1998	55.3859
	8/11/1998	56.3859
	12/8/1998	66.3859
	3/9/1999	46.3859
	6/8/1999	44.3859
	8/19/1999	20.3859
	12/14/1999	19.6141
	3/7/2000	16.3859
	6/23/2000	36.3859
	12/12/2000	39.6141
	3/27/2001	26.3859
	6/28/2001	25.3859
	9/10/2001	51.6141
	12/18/2001	50.3859
	3/19/2002	25.3859
	6/26/2002	30.3859
	9/18/2002	12.3859
	12/11/2002	12.3859
	3/13/2003	33.3859
	6/25/2003	28.3859
	9/26/2003	36.3859
	12/10/2003	9.38592
	3/9/2004	3.61408
	6/24/2004	28.6141
	9/15/2004	16.3859
	12/15/2004	26.3859
	3/16/2005	9.61408
	6/15/2005	12.3859
	9/21/2005	16.3859
	12/21/2005	34.3859
	3/15/2006	53.3859
	6/21/2006	27.3859
	12/20/2006	30.3859
	6/12/2007	0.385915
	12/17/2007	9.61408
	6/11/2008	19.6141
	12/3/2008	54.3859
	6/17/2009	40.3859
	12/9/2009	66.3859
	6/17/2010	15.6141
	12/22/2010	50.3859
	6/29/2011	24.3859
	12/7/2011	36.3859

6/6/2012	7.61408
12/12/2012	54.3859
6/19/2013	35.6141
12/11/2013	18.3859
6/11/2014	57.6141
12/3/2014	18.3859
6/17/2015	107.614
5/25/2016	159.614
6/22/2016	49.6141
12/20/2016	50.0141
6/6/2017	23.6141
11/7/2017	128.614
2/27/2018	87.6141
9/27/2018	94.6141
5/7/2019	304.614
11/21/2019	244.614
6/25/2020	338.614

Group: MW#03-1	Date	Residual
	6/24/2004	30.8875
	9/15/2004	41.8875
	12/15/2004	5.8875
	3/16/2005	18.1125
	6/15/2005	73.8875
	9/21/2005	1.8875
	12/20/2006	25.8875
	6/12/2007	21.8875
	12/17/2007	11.8875
	6/11/2008	21.8875
	12/3/2008	27.8875
	6/17/2009	25.8875
	12/9/2009	37.8875
	6/17/2010	53.8875
	12/22/2010	37.8875
	6/29/2011	31.8875
	12/7/2011	43.8875
	6/6/2012	37.8875
	6/19/2013	34.1125
	12/11/2013	33.8875
	6/11/2014	43.8875
	12/3/2014	15.8875
	6/17/2015	44.1125
	12/1/2015	28.1125
	6/22/2016	48.1125
	12/20/2016	33.4875
	6/6/2017	122.113
	11/7/2017	38.8875
	2/27/2018	106.113
	5/7/2019	123.113
	11/21/2019	123.113
	6/25/2020	52.1125

Group: MW#03-2	Date	Residual
	6/24/2004	24.9892
	9/15/2004	10.0108
	12/15/2004	11.9892
	3/16/2005	9.98919

6/15/2005	41.9892
9/21/2005	13.9892
12/21/2005	19.9892
3/15/2006	9.98919
6/21/2006	17.9892
12/20/2006	9.98919
6/12/2007	17.9892
12/17/2007	10.0108
6/11/2008	10.0108
12/3/2008	0.0108108
6/17/2009	10.0108
12/9/2009	2.01081
6/17/2010	5.98919
12/22/2010	19.9892
6/29/2011	13.9892
12/7/2011	25.9892
6/6/2012	19.9892
12/12/2012	31.9892
6/19/2013	21.9892
12/11/2013	19.9892
6/11/2014	118.011
12/3/2014	134.011
6/17/2015	9.98919
12/1/2015	3.98919
6/22/2016	6.01081
12/20/2016	10.6108
6/6/2017	18.0108
11/7/2017	18.0108
2/27/2018	14.0108
9/27/2018	25.0108
5/7/2019	9.98919
11/21/2019	9.98919
6/25/2020	12.9892

Shapiro-Francia Test of Normality

Parameter: Alkalinity

All Locations

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Number of Measurements = 283

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	55	-2.74777	7.55021	-151.127
2	55	-2.45727	13.5884	-286.277
3	56	-2.32634	19.0003	-416.552
4	72	-2.19728	23.8283	-574.757
5	76	-2.12007	28.323	-735.882
6	92	-2.03352	32.4582	-922.966
7	126	-1.97737	36.3682	-1172.11
8	130	-1.91103	40.0203	-1420.55
9	134	-1.86629	43.5033	-1670.63
10	140	-1.81191	46.7863	-1924.3
11	144	-1.77438	49.9348	-2179.81
12	150	-1.72793	52.9205	-2439
13	160	-1.6954	55.7949	-2710.26
14	162.2	-1.65463	58.5327	-2978.64
15	170	-1.62576	61.1758	-3255.02
16	176	-1.58927	63.7015	-3534.73
17	180	-1.56322	66.1452	-3816.11
18	184	-1.53007	68.4863	-4097.65
19	184	-1.50626	70.7551	-4374.8
20	185	-1.47579	72.9331	-4647.82
21	190	-1.4538	75.0466	-4924.04
22	191	-1.42554	77.0788	-5196.32
23	192	-1.40507	79.053	-5466.1
24	192	-1.37866	80.9537	-5730.8
25	194	-1.35317	82.7848	-5993.31
26	196	-1.33462	84.566	-6254.9
27	199.4	-1.31058	86.2837	-6516.23
28	200	-1.29303	87.9556	-6774.84
29	200	-1.27024	89.5691	-7028.88
30	200	-1.25357	91.1405	-7279.6
31	200	-1.23187	92.658	-7525.97
32	200	-1.21596	94.1366	-7769.16
33	200	-1.19522	95.5651	-8008.21
34	200	-1.18	96.9575	-8244.21
35	200	-1.16012	98.3034	-8476.23
36	200	-1.1455	99.6156	-8705.33
37	200	-1.12639	100.884	-8930.61
38	204	-1.11232	102.122	-9157.52
39	204	-1.0939	103.318	-9380.68
40	204	-1.08032	104.485	-9601.06
41	206	-1.06252	105.614	-9819.94
42	206	-1.04939	106.715	-10036.1
43	208	-1.03215	107.781	-10250.8
44	208	-1.01943	108.82	-10462.8
45	208	-1.00271	109.825	-10671.4
46	209	-0.990356	110.806	-10878.4
47	210	-0.974114	111.755	-11083

48	210	-0.958125	112.673	-11284.2
49	210	-0.946291	113.569	-11482.9
50	210	-0.930718	114.435	-11678.3
51	210	-0.919183	115.28	-11871.4
52	211.6	-0.903992	116.097	-12062.6
53	212	-0.892733	116.894	-12251.9
54	214	-0.877897	117.665	-12439.8
55	214	-0.866894	118.416	-12625.3
56	214	-0.852385	119.143	-12807.7
57	215	-0.841621	119.851	-12988.7
58	216	-0.827417	120.536	-13167.4
59	216	-0.816874	121.203	-13343.8
60	216	-0.802956	121.848	-13517.3
61	216	-0.792618	122.476	-13688.5
62	217	-0.778966	123.083	-13857.5
63	220	-0.768821	123.674	-14026.6
64	220	-0.755415	124.244	-14192.8
65	220	-0.745449	124.8	-14356.8
66	220	-0.732275	125.336	-14517.9
67	220	-0.722479	125.858	-14676.9
68	220	-0.709522	126.362	-14833
69	220	-0.699883	126.852	-14986.9
70	220	-0.687131	127.324	-15138.1
71	220	-0.67449	127.779	-15286.5
72	220	-0.665079	128.221	-15432.8
73	222	-0.652622	128.647	-15577.7
74	222	-0.643345	129.061	-15720.5
75	222	-0.631062	129.459	-15860.6
76	223	-0.621911	129.846	-15999.3
77	224	-0.609791	130.218	-16135.9
78	224	-0.60076	130.579	-16270.5
79	224	-0.588793	130.925	-16402.4
80	224	-0.579873	131.262	-16532.2
81	225	-0.568052	131.584	-16660.1
82	225	-0.559237	131.897	-16785.9
83	226	-0.547551	132.197	-16909.6
84	226	-0.538836	132.487	-17031.4
85	226	-0.52728	132.765	-17150.6
86	226	-0.518658	133.034	-17267.8
87	226	-0.507221	133.291	-17382.4
88	227	-0.498687	133.54	-17495.6
89	228	-0.487364	133.778	-17606.7
90	228	-0.478914	134.007	-17715.9
91	228	-0.467699	134.226	-17822.6
92	228	-0.459327	134.437	-17927.3
93	230	-0.448213	134.638	-18030.4
94	230	-0.439913	134.831	-18131.6
95	230	-0.428895	135.015	-18230.2
96	230	-0.417928	135.19	-18326.3
97	230	-0.409735	135.358	-18420.6
98	230	-0.398855	135.517	-18512.3
99	232	-0.390726	135.669	-18603
100	232	-0.379927	135.814	-18691.1
101	232	-0.371856	135.952	-18777.4
102	234	-0.361133	136.082	-18861.9
103	235	-0.353118	136.207	-18944.9
104	235	-0.342466	136.324	-19025.3

105	236	-0.334503	136.436	-19104.3
106	236	-0.323919	136.541	-19180.7
107	236	-0.316004	136.641	-19255.3
108	240	-0.305481	136.734	-19328.6
109	240	-0.297612	136.823	-19400.1
110	240	-0.287147	136.905	-19469
111	240	-0.279319	136.983	-19536
112	240	-0.268908	137.056	-19600.5
113	240	-0.26112	137.124	-19663.2
114	240	-0.250759	137.187	-19723.4
115	240	-0.243007	137.246	-19781.7
116	240	-0.232693	137.3	-19837.6
117	240	-0.224974	137.351	-19891.6
118	240	-0.214702	137.397	-19943.1
119	242	-0.204452	137.439	-19992.6
120	244	-0.196779	137.477	-20040.6
121	244	-0.186567	137.512	-20086.1
122	244	-0.17892	137.544	-20129.8
123	244	-0.168741	137.573	-20170.9
124	246	-0.161119	137.598	-20210.6
125	246	-0.150969	137.621	-20247.7
126	246	-0.143367	137.642	-20283
127	246	-0.133244	137.66	-20315.7
128	247	-0.125661	137.675	-20346.8
129	248	-0.115562	137.689	-20375.4
130	249	-0.107995	137.7	-20402.3
131	250	-0.0979139	137.71	-20426.8
132	250	-0.0903606	137.718	-20449.4
133	250	-0.0802981	137.725	-20469.5
134	250	-0.0727562	137.73	-20487.7
135	250	-0.0627062	137.734	-20503.3
136	250	-0.0551734	137.737	-20517.1
137	252	-0.0451348	137.739	-20528.5
138	252	-0.0376076	137.74	-20538
139	252	-0.0275759	137.741	-20544.9
140	252	-0.0200544	137.741	-20550
141	253	-0.0100272	137.742	-20552.5
142	254	0	137.742	-20552.5
143	254	0.0100272	137.742	-20550
144	255	0.0200544	137.742	-20544.9
145	255	0.0275759	137.743	-20537.8
146	255	0.0376076	137.744	-20528.2
147	256	0.0451348	137.746	-20516.7
148	256	0.0551734	137.749	-20502.6
149	256	0.0627062	137.753	-20486.5
150	260	0.0727562	137.759	-20467.6
151	261	0.0802981	137.765	-20446.6
152	262	0.0903606	137.773	-20423
153	262	0.0979139	137.783	-20397.3
154	263	0.107995	137.794	-20368.9
155	264	0.115562	137.808	-20338.4
156	264	0.125661	137.824	-20305.2
157	264	0.133244	137.841	-20270
158	264	0.143367	137.862	-20232.2
159	266	0.150969	137.885	-20192
160	268	0.161119	137.911	-20148.9
161	268	0.168741	137.939	-20103.6

162	268	0.17892	137.971	-20055.7
163	270	0.186567	138.006	-20005.3
164	270	0.196779	138.045	-19952.2
165	271	0.204452	138.086	-19896.8
166	272	0.214702	138.133	-19838.4
167	280	0.224974	138.183	-19775.4
168	280	0.232693	138.237	-19710.2
169	280	0.243007	138.296	-19642.2
170	282	0.250759	138.359	-19571.5
171	284	0.26112	138.427	-19497.3
172	288	0.268908	138.5	-19419.9
173	288	0.279319	138.578	-19339.4
174	288	0.287147	138.66	-19256.7
175	290	0.297612	138.749	-19170.4
176	290	0.305481	138.842	-19081.8
177	290	0.316004	138.942	-18990.2
178	290	0.323919	139.047	-18896.3
179	296	0.334503	139.159	-18797.2
180	296	0.342466	139.276	-18695.9
181	300	0.353118	139.401	-18589.9
182	300	0.361133	139.531	-18481.6
183	300	0.371856	139.669	-18370
184	304	0.379927	139.814	-18254.5
185	308	0.390726	139.966	-18134.2
186	309	0.398855	140.126	-18011
187	310	0.409735	140.293	-17883.9
188	312	0.417928	140.468	-17753.5
189	314	0.428895	140.652	-17618.9
190	316	0.439913	140.846	-17479.9
191	320	0.448213	141.046	-17336.4
192	320	0.459327	141.257	-17189.4
193	320	0.467699	141.476	-17039.8
194	320	0.478914	141.706	-16886.5
195	324	0.487364	141.943	-16728.6
196	326	0.498687	142.192	-16566.1
197	326	0.507221	142.449	-16400.7
198	327	0.518658	142.718	-16231.1
199	328	0.52728	142.996	-16058.1
200	329	0.538836	143.286	-15880.9
201	329	0.547551	143.586	-15700.7
202	330	0.559237	143.899	-15516.2
203	330	0.568052	144.222	-15328.7
204	330	0.579873	144.558	-15137.4
205	330	0.588793	144.905	-14943.1
206	330	0.60076	145.265	-14744.8
207	330	0.609791	145.637	-14543.6
208	330.4	0.621911	146.024	-14338.1
209	332	0.631062	146.422	-14128.6
210	332	0.643345	146.836	-13915
211	334	0.652622	147.262	-13697
212	336	0.665079	147.704	-13473.6
213	338	0.67449	148.159	-13245.6
214	340	0.687131	148.632	-13012
215	340	0.699883	149.121	-12774
216	340	0.709522	149.625	-12532.8
217	340	0.722479	150.147	-12287.1
218	340	0.732275	150.683	-12038.1

219	340	0.745449	151.239	-11784.7
220	340	0.755415	151.809	-11527.8
221	342	0.768821	152.4	-11264.9
222	342	0.778966	153.007	-10998.5
223	344	0.792618	153.635	-10725.8
224	344	0.802956	154.28	-10449.6
225	346	0.816874	154.948	-10167
226	347	0.827417	155.632	-9879.87
227	348	0.841621	156.34	-9586.99
228	350	0.852385	157.067	-9288.65
229	350	0.866894	157.819	-8985.24
230	350	0.877897	158.589	-8677.98
231	353	0.892733	159.386	-8362.84
232	356	0.903992	160.203	-8041.02
233	358	0.919183	161.048	-7711.95
234	360	0.930718	161.915	-7376.89
235	360	0.946291	162.81	-7036.23
236	360	0.958125	163.728	-6691.3
237	360	0.974114	164.677	-6340.62
238	360	0.990356	165.658	-5984.1
239	360	1.00271	166.663	-5623.12
240	362	1.01943	167.702	-5254.09
241	363	1.03215	168.768	-4879.41
242	364	1.04939	169.869	-4497.44
243	364	1.06252	170.998	-4110.68
244	365	1.08032	172.165	-3716.36
245	366	1.0939	173.362	-3316
246	367	1.11232	174.599	-2907.78
247	368	1.12639	175.868	-2493.26
248	368	1.1455	177.18	-2071.72
249	370	1.16012	178.526	-1642.47
250	370	1.18	179.918	-1205.87
251	370	1.19522	181.347	-763.642
252	370	1.21596	182.825	-313.736
253	375	1.23187	184.343	148.213
254	376	1.25357	185.914	619.554
255	380	1.27024	187.528	1102.24
256	380	1.29303	189.2	1593.6
257	380	1.31058	190.917	2091.62
258	383	1.33462	192.698	2602.78
259	384	1.35317	194.529	3122.4
260	384	1.37866	196.43	3651.8
261	384	1.40507	198.404	4191.35
262	384	1.42554	200.437	4738.76
263	384	1.4538	202.55	5297.02
264	388	1.47579	204.728	5869.63
265	389	1.50626	206.997	6455.56
266	390	1.53007	209.338	7052.29
267	390	1.56322	211.782	7661.94
268	394	1.58927	214.307	8288.12
269	395	1.62576	216.951	8930.29
270	395.4	1.65463	219.688	9584.53
271	398	1.6954	222.563	10259.3
272	400	1.72793	225.548	10950.5
273	400	1.77438	228.697	11660.2
274	409	1.81191	231.98	12401.3
275	430	1.86629	235.463	13203.8

276	440	1.91103	239.115	14044.7
277	450	1.97737	243.025	14934.5
278	480	2.03352	247.16	15910.6
279	525	2.12007	251.655	17023.6
280	542	2.19728	256.483	18214.5
281	550	2.32634	261.895	19494
282	585	2.45727	267.933	20931.5
283	619	2.74777	275.483	22632.4

Data Set Standard Deviation = 83.4943
Numerator = 5.12225e+008
Denominator = 5.41574e+008
W Statistic = 0.945808 = 5.12225e+008 / 5.41574e+008

5% Critical value of 0.976 exceeds 0.945808
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.945808
Evidence of non-normality at 99% level of significance

Concentrations (ppb)

Parameter: Antimony

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 50
Total Non-Detect: 50
Percent Non-Detects: 100%
Total Background Measurements: 10
There is 1 background location

Loc.	Meas.	ND	Date	Conc.	Original
MW#93-1	10	10 (100%)	5/24/2018	ND<0.01	ND<0.01
			6/19/2018	ND<0.01	ND<0.01
			7/19/2018	ND<0.01	ND<0.01
			8/22/2018	ND<0.01	ND<0.01
			9/19/2018	ND<0.01	ND<0.01
			10/18/2018	ND<0.01	ND<0.01
			11/20/2018	ND<0.01	ND<0.01
			12/20/2018	ND<0.01	ND<0.01
			11/21/2019	ND<0.01	ND<0.01
			6/25/2020	ND<0.005	ND<0.005

There are 4 compliance locations

Loc.	Meas.	ND	Date	Conc.	Original
MW#03-1	10	10 (100%)	5/24/2018	ND<0.01	ND<0.01
			6/19/2018	ND<0.01	ND<0.01
			7/19/2018	ND<0.01	ND<0.01
			8/22/2018	ND<0.01	ND<0.01
			10/18/2018	ND<0.01	ND<0.01
			11/20/2018	ND<0.01	ND<0.01
			12/20/2018	ND<0.01	ND<0.01
			3/26/2019	ND<0.01	ND<0.01
			11/21/2019	ND<0.002	ND<0.002
			6/25/2020	ND<0.005	ND<0.005
MW#03-2	10	10 (100%)	5/24/2018	ND<0.01	ND<0.01
			6/19/2018	ND<0.01	ND<0.01
			7/19/2018	ND<0.01	ND<0.01
			8/22/2018	ND<0.01	ND<0.01
			9/19/2018	ND<0.01	ND<0.01
			10/18/2018	ND<0.01	ND<0.01
			11/20/2018	ND<0.01	ND<0.01
			12/20/2018	ND<0.01	ND<0.01
			11/21/2019	ND<0.002	ND<0.002
			6/25/2020	ND<0.005	ND<0.005
MW#93-2	10	10 (100%)	5/24/2018	ND<0.01	ND<0.01
			6/19/2018	ND<0.01	ND<0.01
			7/19/2018	ND<0.01	ND<0.01
			8/22/2018	ND<0.01	ND<0.01
			9/19/2018	ND<0.01	ND<0.01
			10/18/2018	ND<0.01	ND<0.01
			11/20/2018	ND<0.01	ND<0.01
			12/20/2018	ND<0.01	ND<0.01

			11/21/2019	ND<0.002	ND<0.002
			6/25/2020	ND<0.005	ND<0.005
MW#93-3	10	10 (100%)	5/24/2018	ND<0.01	ND<0.01
			6/19/2018	ND<0.01	ND<0.01
			7/19/2018	ND<0.01	ND<0.01
			8/22/2018	ND<0.01	ND<0.01
			9/19/2018	ND<0.01	ND<0.01
			10/18/2018	ND<0.01	ND<0.01
			11/20/2018	ND<0.01	ND<0.01
			12/20/2018	ND<0.01	ND<0.01
			11/21/2019	ND<0.002	ND<0.002
			6/25/2020	ND<0.005	ND<0.005

There are 0 unused locations

Loc.	Meas.	ND	Date	Conc.	Original

Non-Parametric Prediction Interval

Inter-Well Comparison

Parameter: Antimony

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 100%
Number of comparisons = 4
Future Samples (k) = 4
Recent Dates = 1
Background Measurements (n) = 10
Maximum Background Value = 0.01
Confidence Level = 71.4%
False Positive Rate = 28.6%

Location	Date	Count	Mean	Significant
MW#03-1	6/25/2020	1	0.005	FALSE
MW#03-2	6/25/2020	1	0.005	FALSE
MW#93-2	6/25/2020	1	0.005	FALSE
MW#93-3	6/25/2020	1	0.005	FALSE

Levene's Test for Equal of Variance

Parameter: Antimony

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Overall Mean = 0.001844
Overall Std Dev = 0.00169563
Overall Total = 0.0922
SS Groups = 1.11392e-005
SS Total = 0.000140883

ANOVA Table

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Squares	F
Between Groups	1.11392e-005	4	2.7848e-006	0.965871
Error (within groups)	0.000129744	45	2.8832e-006	
Totals	0.000140883	49		

95% F-Statistic = 2.52521

0.965871 does not exceed 2.52521 indicating equal variance

Group: MW#93-1	Sample	Residual
	5/24/2018	0.0005
	6/19/2018	0.0005
	7/19/2018	0.0005
	8/22/2018	0.0005
	9/19/2018	0.0005
	10/18/2018	0.0005
	11/20/2018	0.0005
	12/20/2018	0.0005
	11/21/2019	0.0005
	6/25/2020	0.0045

Group: MW#03-1	Date	Residual
	5/24/2018	0.0013
	6/19/2018	0.0013
	7/19/2018	0.0013
	8/22/2018	0.0013
	10/18/2018	0.0013
	11/20/2018	0.0013
	12/20/2018	0.0013
	3/26/2019	0.0013
	11/21/2019	0.0067
	6/25/2020	0.0037

Group: MW#03-2	Date	Residual
	5/24/2018	0.0013
	6/19/2018	0.0013
	7/19/2018	0.0013
	8/22/2018	0.0013
	9/19/2018	0.0013
	10/18/2018	0.0013

	11/20/2018	0.0013
	12/20/2018	0.0013
	11/21/2019	0.0067
	6/25/2020	0.0037

Group: MW#93-2	Date	Residual
	5/24/2018	0.0013
	6/19/2018	0.0013
	7/19/2018	0.0013
	8/22/2018	0.0013
	9/19/2018	0.0013
	10/18/2018	0.0013
	11/20/2018	0.0013
	12/20/2018	0.0013
	11/21/2019	0.0067
	6/25/2020	0.0037

Group: MW#93-3	Date	Residual
	5/24/2018	0.0013
	6/19/2018	0.0013
	7/19/2018	0.0013
	8/22/2018	0.0013
	9/19/2018	0.0013
	10/18/2018	0.0013
	11/20/2018	0.0013
	12/20/2018	0.0013
	11/21/2019	0.0067
	6/25/2020	0.0037

Shapiro-Francia Test of Normality

Parameter: Antimony

All Locations

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Number of Measurements = 50

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	0.002	-2.07485	4.305	-0.0041497
2	0.002	-1.76241	7.41108	-0.00767452
3	0.002	-1.57179	9.8816	-0.0108181
4	0.002	-1.41865	11.8942	-0.0136554
5	0.005	-1.29303	13.5661	-0.0201206
6	0.005	-1.19012	14.9825	-0.0260712
7	0.005	-1.0939	16.1791	-0.0315406
8	0.005	-1.01104	17.2013	-0.0365958
9	0.005	-0.930718	18.0675	-0.0412494
10	0.01	-0.855996	18.8003	-0.0498094
11	0.01	-0.789191	19.4231	-0.0577013
12	0.01	-0.722479	19.9451	-0.0649261
13	0.01	-0.661955	20.3832	-0.0715456
14	0.01	-0.60076	20.7442	-0.0775532
15	0.01	-0.541736	21.0376	-0.0829706
16	0.01	-0.487364	21.2752	-0.0878442
17	0.01	-0.431644	21.4615	-0.0921607
18	0.01	-0.379927	21.6058	-0.0959599
19	0.01	-0.326561	21.7125	-0.0992255
20	0.01	-0.27411	21.7876	-0.101967
21	0.01	-0.224974	21.8382	-0.104216
22	0.01	-0.173829	21.8684	-0.105955
23	0.01	-0.125661	21.8842	-0.107211
24	0.01	-0.0752698	21.8899	-0.107964
25	0.01	-0.0250691	21.8905	-0.108215
26	0.01	0.0250691	21.8911	-0.107964
27	0.01	0.0752698	21.8968	-0.107211
28	0.01	0.125661	21.9126	-0.105955
29	0.01	0.173829	21.9428	-0.104216
30	0.01	0.224974	21.9934	-0.101967
31	0.01	0.27411	22.0686	-0.0992255
32	0.01	0.326561	22.1752	-0.0959599
33	0.01	0.379927	22.3196	-0.0921607
34	0.01	0.431644	22.5059	-0.0878442
35	0.01	0.487364	22.7434	-0.0829706
36	0.01	0.541736	23.0369	-0.0775532
37	0.01	0.60076	23.3978	-0.0715456
38	0.01	0.661955	23.836	-0.0649261
39	0.01	0.722479	24.3579	-0.0577013
40	0.01	0.789191	24.9808	-0.0498094
41	0.01	0.855996	25.7135	-0.0412494
42	0.01	0.930718	26.5797	-0.0319422
43	0.01	1.01104	27.6019	-0.0218319
44	0.01	1.0939	28.7985	-0.0108929
45	0.01	1.19012	30.2149	0.00100828
46	0.01	1.29303	31.8869	0.0139386
47	0.01	1.41865	33.8994	0.0281251

48	0.01	1.57179	36.3699	0.043843
49	0.01	1.76241	39.476	0.0614671
50	0.01	2.07485	43.781	0.0822156

Data Set Standard Deviation = 0.00253956
Numerator = 0.00675941
Denominator = 0.0138357
W Statistic = 0.488549 = 0.00675941 / 0.0138357

5% Critical value of 0.953 exceeds 0.488549
Evidence of non-normality at 95% level of significance

1% Critical value of 0.935 exceeds 0.488549
Evidence of non-normality at 99% level of significance

Concentrations (ppb)

Parameter: Arsenic

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 173
Total Non-Detect: 130
Percent Non-Detects: 75.1445%
Total Background Measurements: 35
There is 1 background location

Loc.	Meas.	ND	Date	Conc.	Original
MW#93-1	35	31 (88.5714%)	6/12/2007	0.0109	0.0109
			12/17/2007	ND<0.005	ND<0.005
			6/11/2008	ND<0.005	ND<0.005
			12/3/2008	ND<0.005	ND<0.005
			6/17/2009	ND<0.005	ND<0.005
			12/9/2009	ND<0.005	ND<0.005
			6/17/2010	ND<0.005	ND<0.005
			12/22/2010	ND<0.005	ND<0.005
			6/29/2011	ND<0.005	ND<0.005
			12/7/2011	ND<0.005	ND<0.005
			6/6/2012	ND<0.005	ND<0.005
			12/12/2012	0.0068	0.0068
			6/19/2013	ND<0.005	ND<0.005
			12/11/2013	ND<0.005	ND<0.005
			6/11/2014	ND<0.005	ND<0.005
			12/3/2014	ND<0.005	ND<0.005
			6/17/2015	ND<0.005	ND<0.005
			12/1/2015	ND<0.005	ND<0.005
			6/22/2016	ND<0	ND<0
			12/20/2016	ND<0.0005	ND<0.0005
			6/6/2017	ND<0.005	ND<0.005
			11/7/2017	ND<0.005	ND<0.005
			2/27/2018	0.006	0.006
			5/24/2018	ND<0.005	ND<0.005
			6/19/2018	ND<0.005	ND<0.005
			7/19/2018	ND<0.005	ND<0.005
			8/22/2018	ND<0.005	ND<0.005
			9/19/2018	ND<0.005	ND<0.005
			9/27/2018	ND<0.005	ND<0.005
			10/18/2018	ND<0.005	ND<0.005
			11/20/2018	ND<0.005	ND<0.005
			12/20/2018	ND<0.005	ND<0.005
			5/7/2019	ND<0.005	ND<0.005
			11/21/2019	ND<0.001	ND<0.001
			6/25/2020	0.000405	0.000405

There are 4 compliance locations

Loc.	Meas.	ND	Date	Conc.	Original
MW#03-1	33	29 (87.8788%)	6/12/2007	ND<0.005	ND<0.005
			12/17/2007	ND<0.005	ND<0.005
			6/11/2008	ND<0.005	ND<0.005
			12/3/2008	ND<0.005	ND<0.005
			6/17/2009	ND<0.005	ND<0.005

			12/9/2009	ND<0.005	ND<0.005
			6/17/2010	ND<0.005	ND<0.005
			12/22/2010	ND<0.005	ND<0.005
			6/29/2011	ND<0.005	ND<0.005
			12/7/2011	ND<0.005	ND<0.005
			6/6/2012	ND<0.005	ND<0.005
			6/19/2013	0.008	0.008
			12/11/2013	ND<0.005	ND<0.005
			6/11/2014	ND<0.005	ND<0.005
			12/3/2014	ND<0.005	ND<0.005
			6/17/2015	ND<0.005	ND<0.005
			12/1/2015	ND<0.005	ND<0.005
			6/22/2016	ND<0	ND<0
			12/20/2016	ND<0.0005	ND<0.0005
			6/6/2017	ND<0.005	ND<0.005
			11/7/2017	ND<0.005	ND<0.005
			2/27/2018	ND<0.005	ND<0.005
			5/24/2018	ND<0.005	ND<0.005
			6/19/2018	ND<0.005	ND<0.005
			7/19/2018	0.0445	0.0445
			8/22/2018	0.123	0.123
			10/18/2018	ND<0.005	ND<0.005
			11/20/2018	ND<0.005	ND<0.005
			12/20/2018	ND<0.005	ND<0.005
			3/26/2019	ND<0.005	ND<0.005
			5/7/2019	ND<0.005	ND<0.005
			11/21/2019	ND<0.001	ND<0.001
			6/25/2020	0.000538	0.000538
MW#03-2	35	33 (94.2857%)	6/12/2007	ND<0.005	ND<0.005
			12/17/2007	ND<0.005	ND<0.005
			6/11/2008	ND<0.005	ND<0.005
			12/3/2008	ND<0.005	ND<0.005
			6/17/2009	ND<0.005	ND<0.005
			12/9/2009	ND<0.005	ND<0.005
			6/17/2010	ND<0.005	ND<0.005
			12/22/2010	ND<0.005	ND<0.005
			6/29/2011	ND<0.005	ND<0.005
			12/7/2011	ND<0.005	ND<0.005
			6/6/2012	ND<0.005	ND<0.005
			12/12/2012	ND<0.005	ND<0.005
			6/19/2013	ND<0.005	ND<0.005
			12/11/2013	ND<0.005	ND<0.005
			6/11/2014	ND<0.005	ND<0.005
			12/3/2014	ND<0.005	ND<0.005
			6/17/2015	ND<0.005	ND<0.005
			12/1/2015	ND<0.005	ND<0.005
			6/22/2016	ND<0.005	ND<0.005
			12/20/2016	ND<0.0005	ND<0.0005
			6/6/2017	ND<0.005	ND<0.005
			11/7/2017	ND<0.005	ND<0.005
			2/27/2018	0.008	0.008
			5/24/2018	ND<0.005	ND<0.005
			6/19/2018	ND<0.005	ND<0.005
			7/19/2018	ND<0.005	ND<0.005
			8/22/2018	ND<0.005	ND<0.005
			9/19/2018	ND<0.005	ND<0.005

			9/27/2018	ND<0.005	ND<0.005
			10/18/2018	ND<0.005	ND<0.005
			11/20/2018	ND<0.005	ND<0.005
			12/20/2018	ND<0.005	ND<0.005
			5/7/2019	ND<0.005	ND<0.005
			11/21/2019	ND<0.001	ND<0.001
			6/25/2020	0.000329	0.000329
MW#93-2	35	3 (8.57143%)	6/12/2007	0.0343	0.0343
			12/17/2007	0.0603	0.0603
			6/11/2008	0.051	0.051
			12/3/2008	0.033	0.033
			6/17/2009	0.0525	0.0525
			12/9/2009	0.0635	0.0635
			6/17/2010	0.0179	0.0179
			12/22/2010	0.0215	0.0215
			6/29/2011	0.061	0.061
			12/7/2011	ND<0.005	ND<0.005
			6/6/2012	0.0098	0.0098
			12/12/2012	0.0562	0.0562
			6/19/2013	ND<0.005	ND<0.005
			12/11/2013	0.0353	0.0353
			6/11/2014	0.0197	0.0197
			12/3/2014	0.0274	0.0274
			6/17/2015	ND<0.005	ND<0.005
			12/1/2015	0.03	0.03
			6/22/2016	0.047	0.047
			12/20/2016	0.06	0.06
			6/6/2017	0.038	0.038
			11/7/2017	0.028	0.028
			2/27/2018	0.024	0.024
			5/24/2018	0.0292	0.0292
			6/19/2018	0.0274	0.0274
			7/19/2018	0.0367	0.0367
			8/22/2018	0.0333	0.0333
			9/19/2018	0.0344	0.0344
			9/27/2018	0.0389	0.0389
			10/18/2018	0.0378	0.0378
			11/20/2018	0.0313	0.0313
			12/20/2018	0.0285	0.0285
			5/7/2019	0.0259	0.0259
			11/21/2019	0.0197	0.0197
			6/25/2020	0.0176	0.0176
MW#93-3	35	34 (97.1429%)	6/12/2007	ND<0.005	ND<0.005
			12/17/2007	ND<0.005	ND<0.005
			6/11/2008	ND<0.005	ND<0.005
			12/3/2008	ND<0.005	ND<0.005
			6/17/2009	ND<0.005	ND<0.005
			12/9/2009	ND<0.005	ND<0.005
			6/17/2010	ND<0.005	ND<0.005
			12/22/2010	ND<0.005	ND<0.005
			6/29/2011	ND<0.005	ND<0.005
			12/7/2011	ND<0.005	ND<0.005
			6/6/2012	ND<0.005	ND<0.005
			12/12/2012	ND<0.005	ND<0.005
			6/19/2013	ND<0.005	ND<0.005

12/11/2013	ND<0.005	ND<0.005
6/11/2014	ND<0.005	ND<0.005
12/3/2014	ND<0.005	ND<0.005
6/17/2015	ND<0.005	ND<0.005
12/1/2015	ND<0.005	ND<0.005
6/22/2016	ND<0.005	ND<0.005
12/20/2016	ND<0.0005	ND<0.0005
6/6/2017	ND<0.005	ND<0.005
11/7/2017	ND<0.005	ND<0.005
2/27/2018	ND<0.005	ND<0.005
5/24/2018	ND<0.005	ND<0.005
6/19/2018	ND<0.005	ND<0.005
7/19/2018	ND<0.005	ND<0.005
8/22/2018	ND<0.005	ND<0.005
9/19/2018	ND<0.005	ND<0.005
9/27/2018	ND<0.005	ND<0.005
10/18/2018	ND<0.005	ND<0.005
11/20/2018	ND<0.005	ND<0.005
12/20/2018	ND<0.005	ND<0.005
5/7/2019	ND<0.005	ND<0.005
11/21/2019	ND<0.001	ND<0.001
6/25/2020	0.000572	0.000572

There are 0 unused locations

Loc.	Meas.	ND	Date	Conc.	Original

Non-Parametric Prediction Interval

Inter-Well Comparison

Parameter: Arsenic

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 75.1445%
Number of comparisons = 4
Future Samples (k) = 4
Recent Dates = 1
Background Measurements (n) = 35
Maximum Background Value = 0.0109
Confidence Level = 89.7%
False Positive Rate = 10.3%

Location	Date	Count	Mean	Significant
MW#03-1	6/25/2020	1	0.000538	FALSE
MW#03-2	6/25/2020	1	0.000329	FALSE
MW#93-2	**6/25/2020**	**1**	**0.0176**	**TRUE**
MW#93-3	6/25/2020	1	0.000572	FALSE

Non-Parametric Prediction Interval

Intra-Well Comparison for MW#93-2

Parameter: Arsenic

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 8.82353%
Future Samples (k) = 1
Recent Dates = 1
Baseline Measurements (n) = 34
Maximum Baseline Concentration = 0.0635
Confidence Level = 97.1%
False Positive Rate = 2.9%

Baseline Measurements	Date	Value
	6/12/2007	0.0343
	12/17/2007	0.0603
	6/11/2008	0.051
	12/3/2008	0.033
	6/17/2009	0.0525
	12/9/2009	0.0635
	6/17/2010	0.0179
	12/22/2010	0.0215
	6/29/2011	0.061
	12/7/2011	ND<0.005
	6/6/2012	0.0098
	12/12/2012	0.0562
	6/19/2013	ND<0.005
	12/11/2013	0.0353
	6/11/2014	0.0197
	12/3/2014	0.0274
	6/17/2015	ND<0.005
	12/1/2015	0.03
	6/22/2016	0.047
	12/20/2016	0.06
	6/6/2017	0.038
	11/7/2017	0.028
	2/27/2018	0.024
	5/24/2018	0.0292
	6/19/2018	0.0274
	7/19/2018	0.0367
	8/22/2018	0.0333
	9/19/2018	0.0344
	9/27/2018	0.0389
	10/18/2018	0.0378
	11/20/2018	0.0313
	12/20/2018	0.0285
	5/7/2019	0.0259
	11/21/2019	0.0197

Date	Count	Mean	Significant
6/25/2020	1	0.0176	FALSE

Levene's Test for Equal of Variance

Parameter: Arsenic

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Overall Mean = 0.00469971
Overall Std Dev = 0.0108395
Overall Total = 0.813049
SS Groups = 0.00428926
SS Total = 0.0202092

ANOVA Table

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Squares	F
Between Groups	0.00428926	4	0.00107231	11.3159
Error (within groups)	0.01592	168	9.47617e-005	
Totals	0.0202092	172		

95% F-Statistic = 2.37

11.3159 exceeds 2.37; assumption of equal variance should be rejected

Group: MW#93-1	Sample	Residual
	6/12/2007	0.00616843
	12/17/2007	0.000268429
	6/11/2008	0.000268429
	12/3/2008	0.000268429
	6/17/2009	0.000268429
	12/9/2009	0.000268429
	6/17/2010	0.000268429
	12/22/2010	0.000268429
	6/29/2011	0.000268429
	12/7/2011	0.000268429
	6/6/2012	0.000268429
	12/12/2012	0.00206843
	6/19/2013	0.000268429
	12/11/2013	0.000268429
	6/11/2014	0.000268429
	12/3/2014	0.000268429
	6/17/2015	0.000268429
	12/1/2015	0.000268429
	6/22/2016	0.00473157
	12/20/2016	0.00423157
	6/6/2017	0.000268429
	11/7/2017	0.000268429
	2/27/2018	0.00126843
	5/24/2018	0.000268429
	6/19/2018	0.000268429
	7/19/2018	0.000268429
	8/22/2018	0.000268429
	9/19/2018	0.000268429
	9/27/2018	0.000268429
	10/18/2018	0.000268429

11/20/2018	0.000268429
12/20/2018	0.000268429
5/7/2019	0.000268429
11/21/2019	0.00373157
6/25/2020	0.00432657

Group: MW#03-1

Date	Residual
6/12/2007	0.00431933
12/17/2007	0.00431933
6/11/2008	0.00431933
12/3/2008	0.00431933
6/17/2009	0.00431933
12/9/2009	0.00431933
6/17/2010	0.00431933
12/22/2010	0.00431933
6/29/2011	0.00431933
12/7/2011	0.00431933
6/6/2012	0.00431933
6/19/2013	0.00131933
12/11/2013	0.00431933
6/11/2014	0.00431933
12/3/2014	0.00431933
6/17/2015	0.00431933
12/1/2015	0.00431933
6/22/2016	0.00931933
12/20/2016	0.00881933
6/6/2017	0.00431933
11/7/2017	0.00431933
2/27/2018	0.00431933
5/24/2018	0.00431933
6/19/2018	0.00431933
7/19/2018	0.0351807
8/22/2018	0.113681
10/18/2018	0.00431933
11/20/2018	0.00431933
12/20/2018	0.00431933
3/26/2019	0.00431933
5/7/2019	0.00431933
11/21/2019	0.00831933
6/25/2020	0.00878133

Group: MW#03-2

Date	Residual
6/12/2007	0.0002906
12/17/2007	0.0002906
6/11/2008	0.0002906
12/3/2008	0.0002906
6/17/2009	0.0002906
12/9/2009	0.0002906
6/17/2010	0.0002906
12/22/2010	0.0002906
6/29/2011	0.0002906
12/7/2011	0.0002906
6/6/2012	0.0002906
12/12/2012	0.0002906
6/19/2013	0.0002906
12/11/2013	0.0002906
6/11/2014	0.0002906

12/3/2014	0.0002906
6/17/2015	0.0002906
12/1/2015	0.0002906
6/22/2016	0.0002906
12/20/2016	0.0042094
6/6/2017	0.0002906
11/7/2017	0.0002906
2/27/2018	0.0032906
5/24/2018	0.0002906
6/19/2018	0.0002906
7/19/2018	0.0002906
8/22/2018	0.0002906
9/19/2018	0.0002906
9/27/2018	0.0002906
10/18/2018	0.0002906
11/20/2018	0.0002906
12/20/2018	0.0002906
5/7/2019	0.0002906
11/21/2019	0.0037094
6/25/2020	0.0043804

Group: MW#93-2	Date	Residual
	6/12/2007	0.00155429
	12/17/2007	0.0275543
	6/11/2008	0.0182543
	12/3/2008	0.000254286
	6/17/2009	0.0197543
	12/9/2009	0.0307543
	6/17/2010	0.0148457
	12/22/2010	0.0112457
	6/29/2011	0.0282543
	12/7/2011	0.0277457
	6/6/2012	0.0229457
	12/12/2012	0.0234543
	6/19/2013	0.0277457
	12/11/2013	0.00255429
	6/11/2014	0.0130457
	12/3/2014	0.00534571
	6/17/2015	0.0277457
	12/1/2015	0.00274571
	6/22/2016	0.0142543
	12/20/2016	0.0272543
	6/6/2017	0.00525429
	11/7/2017	0.00474571
	2/27/2018	0.00874571
	5/24/2018	0.00354571
	6/19/2018	0.00534571
	7/19/2018	0.00395429
	8/22/2018	0.000554286
	9/19/2018	0.00165429
	9/27/2018	0.00615429
	10/18/2018	0.00505429
	11/20/2018	0.00144571
	12/20/2018	0.00424571
	5/7/2019	0.00684571
	11/21/2019	0.0130457
	6/25/2020	0.0151457

Group: MW#93-3	Date	Residual
	6/12/2007	0.000369371
	12/17/2007	0.000369371
	6/11/2008	0.000369371
	12/3/2008	0.000369371
	6/17/2009	0.000369371
	12/9/2009	0.000369371
	6/17/2010	0.000369371
	12/22/2010	0.000369371
	6/29/2011	0.000369371
	12/7/2011	0.000369371
	6/6/2012	0.000369371
	12/12/2012	0.000369371
	6/19/2013	0.000369371
	12/11/2013	0.000369371
	6/11/2014	0.000369371
	12/3/2014	0.000369371
	6/17/2015	0.000369371
	12/1/2015	0.000369371
	6/22/2016	0.000369371
	12/20/2016	0.00413063
	6/6/2017	0.000369371
	11/7/2017	0.000369371
	2/27/2018	0.000369371
	5/24/2018	0.000369371
	6/19/2018	0.000369371
	7/19/2018	0.000369371
	8/22/2018	0.000369371
	9/19/2018	0.000369371
	9/27/2018	0.000369371
	10/18/2018	0.000369371
	11/20/2018	0.000369371
	12/20/2018	0.000369371
	5/7/2019	0.000369371
	11/21/2019	0.00363063
	6/25/2020	0.00405863

Shapiro-Francia Test of Normality

Parameter: Arsenic

All Locations

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Number of Measurements = 173

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	0	-2.57583	6.63492	0
2	0	-2.29036	11.8807	0
3	0.000329	-2.12007	16.3754	-0.000697503
4	0.000405	-2.01409	20.4319	-0.00151321
5	0.0005	-1.91103	24.084	-0.00246873
6	0.0005	-1.82501	27.4146	-0.00338123
7	0.0005	-1.75069	30.4795	-0.00425657
8	0.0005	-1.6954	33.3539	-0.00510427
9	0.000538	-1.63524	36.0279	-0.00598403
10	0.000572	-1.58047	38.5258	-0.00688805
11	0.001	-1.53007	40.8669	-0.00841812
12	0.001	-1.49085	43.0895	-0.00990897
13	0.001	-1.44663	45.1823	-0.0113556
14	0.001	-1.40507	47.1565	-0.0127607
15	0.005	-1.36581	49.0219	-0.0195897
16	0.005	-1.33462	50.8031	-0.0262628
17	0.005	-1.29884	52.4901	-0.032757
18	0.005	-1.26464	54.0894	-0.0390802
19	0.005	-1.23187	55.6069	-0.0452395
20	0.005	-1.20553	57.0602	-0.0512672
21	0.005	-1.17499	58.4408	-0.0571421
22	0.005	-1.1455	59.753	-0.0628696
23	0.005	-1.11699	61.0007	-0.0684546
24	0.005	-1.0939	62.1973	-0.073924
25	0.005	-1.06694	63.3356	-0.0792587
26	0.005	-1.04073	64.4187	-0.0844624
27	0.005	-1.01522	65.4494	-0.0895385
28	0.005	-0.994457	66.4384	-0.0945108
29	0.005	-0.970094	67.3794	-0.0993613
30	0.005	-0.946291	68.2749	-0.104093
31	0.005	-0.923014	69.1269	-0.108708
32	0.005	-0.903992	69.9441	-0.113228
33	0.005	-0.881587	70.7213	-0.117636
34	0.005	-0.859618	71.4602	-0.121934
35	0.005	-0.838054	72.1625	-0.126124
36	0.005	-0.820379	72.8356	-0.130226
37	0.005	-0.7995	73.4748	-0.134223
38	0.005	-0.778966	74.0816	-0.138118
39	0.005	-0.758753	74.6573	-0.141912
40	0.005	-0.742143	75.208	-0.145623
41	0.005	-0.722479	75.73	-0.149235
42	0.005	-0.703089	76.2243	-0.152751
43	0.005	-0.68396	76.6922	-0.15617
44	0.005	-0.668209	77.1387	-0.159511
45	0.005	-0.649522	77.5605	-0.162759
46	0.005	-0.631062	77.9588	-0.165914
47	0.005	-0.612813	78.3343	-0.168978

48	0.005	-0.597761	78.6916	-0.171967
49	0.005	-0.579873	79.0279	-0.174867
50	0.005	-0.56217	79.3439	-0.177677
51	0.005	-0.544642	79.6406	-0.180401
52	0.005	-0.530162	79.9216	-0.183051
53	0.005	-0.51293	80.1847	-0.185616
54	0.005	-0.49585	80.4306	-0.188095
55	0.005	-0.478914	80.6599	-0.19049
56	0.005	-0.464904	80.8761	-0.192814
57	0.005	-0.448213	81.077	-0.195056
58	0.005	-0.431644	81.2633	-0.197214
59	0.005	-0.415193	81.4357	-0.19929
60	0.005	-0.401571	81.5969	-0.201298
61	0.005	-0.385321	81.7454	-0.203224
62	0.005	-0.369171	81.8817	-0.20507
63	0.005	-0.353118	82.0064	-0.206836
64	0.005	-0.33981	82.1219	-0.208535
65	0.005	-0.323919	82.2268	-0.210154
66	0.005	-0.308108	82.3217	-0.211695
67	0.005	-0.292375	82.4072	-0.213157
68	0.005	-0.279319	82.4852	-0.214553
69	0.005	-0.263715	82.5548	-0.215872
70	0.005	-0.248174	82.6164	-0.217113
71	0.005	-0.232693	82.6705	-0.218276
72	0.005	-0.219834	82.7188	-0.219375
73	0.005	-0.204452	82.7606	-0.220398
74	0.005	-0.189118	82.7964	-0.221343
75	0.005	-0.173829	82.8266	-0.222212
76	0.005	-0.161119	82.8526	-0.223018
77	0.005	-0.1459	82.8739	-0.223747
78	0.005	-0.130716	82.8909	-0.224401
79	0.005	-0.115562	82.9043	-0.224979
80	0.005	-0.102953	82.9149	-0.225494
81	0.005	-0.0878447	82.9226	-0.225933
82	0.005	-0.0727562	82.9279	-0.226297
83	0.005	-0.0576847	82.9312	-0.226585
84	0.005	-0.0451348	82.9333	-0.226811
85	0.005	-0.0300838	82.9342	-0.226961
86	0.005	-0.0150408	82.9344	-0.227036
87	0.005	0	82.9344	-0.227036
88	0.005	0.0150408	82.9346	-0.226961
89	0.005	0.0300838	82.9355	-0.226811
90	0.005	0.0451348	82.9376	-0.226585
91	0.005	0.0576847	82.9409	-0.226297
92	0.005	0.0727562	82.9462	-0.225933
93	0.005	0.0878447	82.9539	-0.225494
94	0.005	0.102953	82.9645	-0.224979
95	0.005	0.115562	82.9779	-0.224401
96	0.005	0.130716	82.995	-0.223747
97	0.005	0.1459	83.0162	-0.223018
98	0.005	0.161119	83.0422	-0.222212
99	0.005	0.173829	83.0724	-0.221343
100	0.005	0.189118	83.1082	-0.220398
101	0.005	0.204452	83.15	-0.219375
102	0.005	0.219834	83.1983	-0.218276
103	0.005	0.232693	83.2525	-0.217113
104	0.005	0.248174	83.314	-0.215872

105	0.005	0.263715	83.3836	-0.214553
106	0.005	0.279319	83.4616	-0.213157
107	0.005	0.292375	83.5471	-0.211695
108	0.005	0.308108	83.642	-0.210154
109	0.005	0.323919	83.7469	-0.208535
110	0.005	0.33981	83.8624	-0.206836
111	0.005	0.353118	83.9871	-0.20507
112	0.005	0.369171	84.1234	-0.203224
113	0.005	0.385321	84.2719	-0.201298
114	0.005	0.401571	84.4331	-0.19929
115	0.005	0.415193	84.6055	-0.197214
116	0.005	0.431644	84.7918	-0.195056
117	0.005	0.448213	84.9927	-0.192814
118	0.005	0.464904	85.2089	-0.19049
119	0.005	0.478914	85.4382	-0.188095
120	0.005	0.49585	85.6841	-0.185616
121	0.005	0.51293	85.9472	-0.183051
122	0.005	0.530162	86.2283	-0.180401
123	0.005	0.544642	86.5249	-0.177677
124	0.005	0.56217	86.8409	-0.174867
125	0.005	0.579873	87.1772	-0.171967
126	0.005	0.597761	87.5345	-0.168978
127	0.005	0.612813	87.91	-0.165914
128	0.005	0.631062	88.3083	-0.162759
129	0.005	0.649522	88.7302	-0.159511
130	0.005	0.668209	89.1767	-0.15617
131	0.005	0.68396	89.6445	-0.152751
132	0.005	0.703089	90.1388	-0.149235
133	0.005	0.722479	90.6608	-0.145623
134	0.005	0.742143	91.2115	-0.141912
135	0.006	0.758753	91.7873	-0.13736
136	0.0068	0.778966	92.394	-0.132063
137	0.008	0.7995	93.0332	-0.125667
138	0.008	0.820379	93.7063	-0.119104
139	0.0098	0.838054	94.4086	-0.110891
140	0.0109	0.859618	95.1475	-0.101521
141	0.0176	0.881587	95.9247	-0.0860048
142	0.0179	0.903992	96.7419	-0.0698234
143	0.0197	0.923014	97.5939	-0.05164
144	0.0197	0.946291	98.4894	-0.0329981
145	0.0215	0.970094	99.4304	-0.012141
146	0.024	0.994457	100.419	0.011726
147	0.0259	1.01522	101.45	0.0380202
148	0.0274	1.04073	102.533	0.0665363
149	0.0274	1.06694	103.672	0.0957703
150	0.028	1.0939	104.868	0.126399
151	0.0285	1.11699	106.116	0.158234
152	0.0292	1.1455	107.428	0.191682
153	0.03	1.17499	108.809	0.226932
154	0.0313	1.20553	110.262	0.264665
155	0.033	1.23187	111.779	0.305316
156	0.0333	1.26464	113.379	0.347429
157	0.0343	1.29884	115.066	0.391979
158	0.0344	1.33462	116.847	0.43789
159	0.0353	1.36581	118.712	0.486103
160	0.0367	1.40507	120.687	0.537669
161	0.0378	1.44663	122.779	0.592352

162	0.038	1.49085	125.002	0.649004
163	0.0389	1.53007	127.343	0.708524
164	0.0445	1.58047	129.841	0.778855
165	0.047	1.63524	132.515	0.855711
166	0.051	1.6954	135.389	0.942176
167	0.0525	1.75069	138.454	1.03409
168	0.0562	1.82501	141.785	1.13665
169	0.06	1.91103	145.437	1.25131
170	0.0603	2.01409	149.493	1.37276
171	0.061	2.12007	153.988	1.50209
172	0.0635	2.29036	159.234	1.64753
173	0.123	2.57583	165.869	1.96435

Data Set Standard Deviation = 0.0161468
Numerator = 3.85869
Denominator = 7.43816
W Statistic = 0.518769 = 3.85869 / 7.43816

5% Critical value of 0.976 exceeds 0.518769
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.518769
Evidence of non-normality at 99% level of significance

Concentrations (ppb)

Parameter: Barium

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 50
Total Non-Detect: 2
Percent Non-Detects: 4%
Total Background Measurements: 10
There is 1 background location

Loc.	Meas.	ND	Date	Conc.	Original
MW#93-1	10	0 (0%)	5/24/2018	0.0246	0.0246
			6/19/2018	0.0239	0.0239
			7/19/2018	0.0202	0.0202
			8/22/2018	0.0152	0.0152
			9/19/2018	0.0267	0.0267
			10/18/2018	0.0213	0.0213
			11/20/2018	0.0267	0.0267
			12/20/2018	0.0175	0.0175
			11/21/2019	0.0321	0.0321
			6/25/2020	0.0283	0.0283

There are 4 compliance locations

Loc.	Meas.	ND	Date	Conc.	Original
MW#03-1	10	0 (0%)	5/24/2018	0.0519	0.0519
			6/19/2018	0.0752	0.0752
			7/19/2018	0.671	0.671
			8/22/2018	2	2
			10/18/2018	0.184	0.184
			11/20/2018	0.0663	0.0663
			12/20/2018	0.0375	0.0375
			3/26/2019	0.0384	0.0384
			11/21/2019	0.0449	0.0449
			6/25/2020	0.0776	0.0776
MW#03-2	10	1 (10%)	5/24/2018	0.0519	0.0519
			6/19/2018	0.0391	0.0391
			7/19/2018	0.044	0.044
			8/22/2018	0.0409	0.0409
			9/19/2018	0.0447	0.0447
			10/18/2018	0.0463	0.0463
			11/20/2018	ND<0.01	ND<0.01
			12/20/2018	0.0443	0.0443
			11/21/2019	0.044	0.044
			6/25/2020	0.0348	0.0348
MW#93-2	10	0 (0%)	5/24/2018	0.0604	0.0604
			6/19/2018	0.0538	0.0538
			7/19/2018	0.0583	0.0583
			8/22/2018	0.0612	0.0612
			9/19/2018	0.0641	0.0641
			10/18/2018	0.0669	0.0669
			11/20/2018	0.069	0.069
			12/20/2018	0.0651	0.0651

			11/21/2019	0.1	0.1
			6/25/2020	0.147	0.147
MW#93-3	10	1 (10%)	5/24/2018	0.214	0.214
			6/19/2018	0.201	0.201
			7/19/2018	0.259	0.259
			8/22/2018	0.184	0.184
			9/19/2018	0.228	0.228
			10/18/2018	0.241	0.241
			11/20/2018	ND<0.01	ND<0.01
			12/20/2018	0.259	0.259
			11/21/2019	0.116	0.116
			6/25/2020	0.0604	0.0604

There are 0 unused locations

Loc.	Meas.	ND	Date	Conc.	Original

Non-Parametric Prediction Interval

Inter-Well Comparison

Parameter: Barium

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 4%
Number of comparisons = 4
Future Samples (k) = 4
Recent Dates = 1
Background Measurements (n) = 10
Maximum Background Value = 0.0321
Confidence Level = 71.4%
False Positive Rate = 28.6%

Location	Date	Count	Mean	Significant
MW#03-1	6/25/2020	1	0.0776	TRUE
MW#03-2	6/25/2020	1	0.0348	TRUE
MW#93-2	6/25/2020	1	0.147	TRUE
MW#93-3	6/25/2020	1	0.0604	TRUE

Non-Parametric Prediction Interval

Intra-Well Comparison for MW#03-1

Parameter: Barium

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 0%
Future Samples (k) = 1
Recent Dates = 1
Baseline Measurements (n) = 9
Maximum Baseline Concentration = 2
Confidence Level = 90%
False Positive Rate = 10%

Baseline Measurements	Date	Value
	5/24/2018	0.0519
	6/19/2018	0.0752
	7/19/2018	0.671
	8/22/2018	2
	10/18/2018	0.184
	11/20/2018	0.0663
	12/20/2018	0.0375
	3/26/2019	0.0384
	11/21/2019	0.0449

Date	Count	Mean	Significant
6/25/2020	1	0.0776	FALSE

Non-Parametric Prediction Interval

Intra-Well Comparison for MW#03-2

Parameter: Barium

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 11.1111%
Future Samples (k) = 1
Recent Dates = 1
Baseline Measurements (n) = 9
Maximum Baseline Concentration = 0.0519
Confidence Level = 90%
False Positive Rate = 10%

Baseline Measurements	Date	Value
	5/24/2018	0.0519
	6/19/2018	0.0391
	7/19/2018	0.044
	8/22/2018	0.0409
	9/19/2018	0.0447
	10/18/2018	0.0463
	11/20/2018	ND<0.01
	12/20/2018	0.0443
	11/21/2019	0.044

Date	Count	Mean	Significant
6/25/2020	1	0.0348	FALSE

Non-Parametric Prediction Interval

Intra-Well Comparison for MW#93-2

Parameter: Barium

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 0%
Future Samples (k) = 1
Recent Dates = 1
Baseline Measurements (n) = 9
Maximum Baseline Concentration = 0.1
Confidence Level = 90%
False Positive Rate = 10%

Baseline Measurements	Date	Value
	5/24/2018	0.0604
	6/19/2018	0.0538
	7/19/2018	0.0583
	8/22/2018	0.0612
	9/19/2018	0.0641
	10/18/2018	0.0669
	11/20/2018	0.069
	12/20/2018	0.0651
	11/21/2019	0.1

Date	Count	Mean	Significant
6/25/2020	1	0.147	TRUE

Non-Parametric Prediction Interval

Intra-Well Comparison for MW#93-3

Parameter: Barium

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 11.1111%
Future Samples (k) = 1
Recent Dates = 1
Baseline Measurements (n) = 9
Maximum Baseline Concentration = 0.259
Confidence Level = 90%
False Positive Rate = 10%

Baseline Measurements	Date	Value
	5/24/2018	0.214
	6/19/2018	0.201
	7/19/2018	0.259
	8/22/2018	0.184
	9/19/2018	0.228
	10/18/2018	0.241
	11/20/2018	ND<0.01
	12/20/2018	0.259
	11/21/2019	0.116

Date	Count	Mean	Significant
6/25/2020	1	0.0604	FALSE

Levene's Test for Equal of Variance

Parameter: Barium

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Overall Mean = 0.100852
Overall Std Dev = 0.248303
Overall Total = 5.0426
SS Groups = 1.17847
SS Total = 3.02106

ANOVA Table

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Squares	F
Between Groups	1.17847	4	0.294618	7.19521
Error (within groups)	1.84259	45	0.0409464	
Totals	3.02106	49		

95% F-Statistic = 2.52521

7.19521 exceeds 2.52521; assumption of equal variance should be rejected

Group: MW#93-1	Sample	Residual
	5/24/2018	0.00095
	6/19/2018	0.00025
	7/19/2018	0.00345
	8/22/2018	0.00845
	9/19/2018	0.00305
	10/18/2018	0.00235
	11/20/2018	0.00305
	12/20/2018	0.00615
	11/21/2019	0.00845
	6/25/2020	0.00465

Group: MW#03-1	Date	Residual
	5/24/2018	0.27278
	6/19/2018	0.24948
	7/19/2018	0.34632
	8/22/2018	1.67532
	10/18/2018	0.14068
	11/20/2018	0.25838
	12/20/2018	0.28718
	3/26/2019	0.28628
	11/21/2019	0.27978
	6/25/2020	0.24708

Group: MW#03-2	Date	Residual
	5/24/2018	0.0119
	6/19/2018	0.0009
	7/19/2018	0.004
	8/22/2018	0.0009
	9/19/2018	0.0047
	10/18/2018	0.0063

	11/20/2018	0.03
	12/20/2018	0.0043
	11/21/2019	0.004
	6/25/2020	0.0052

Group: MW#93-2	Date	Residual
	5/24/2018	0.01418
	6/19/2018	0.02078
	7/19/2018	0.01628
	8/22/2018	0.01338
	9/19/2018	0.01048
	10/18/2018	0.00768
	11/20/2018	0.00558
	12/20/2018	0.00948
	11/21/2019	0.02542
	6/25/2020	0.07242

Group: MW#93-3	Date	Residual
	5/24/2018	0.03676
	6/19/2018	0.02376
	7/19/2018	0.08176
	8/22/2018	0.00676
	9/19/2018	0.05076
	10/18/2018	0.06376
	11/20/2018	0.16724
	12/20/2018	0.08176
	11/21/2019	0.06124
	6/25/2020	0.11684

Shapiro-Francia Test of Normality

Parameter: Barium

All Locations

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Number of Measurements = 50

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	0.01	-2.07485	4.305	-0.0207485
2	0.01	-1.76241	7.41108	-0.0383726
3	0.0152	-1.57179	9.8816	-0.0622638
4	0.0175	-1.41865	11.8942	-0.0870902
5	0.0202	-1.29303	13.5661	-0.113209
6	0.0213	-1.19012	14.9825	-0.138559
7	0.0239	-1.0939	16.1791	-0.164703
8	0.0246	-1.01104	17.2013	-0.189575
9	0.0267	-0.930718	18.0675	-0.214425
10	0.0267	-0.855996	18.8003	-0.23728
11	0.0283	-0.789191	19.4231	-0.259614
12	0.0321	-0.722479	19.9451	-0.282806
13	0.0348	-0.661955	20.3832	-0.305842
14	0.0375	-0.60076	20.7442	-0.32837
15	0.0384	-0.541736	21.0376	-0.349173
16	0.0391	-0.487364	21.2752	-0.368229
17	0.0409	-0.431644	21.4615	-0.385883
18	0.044	-0.379927	21.6058	-0.4026
19	0.044	-0.326561	21.7125	-0.416968
20	0.0443	-0.27411	21.7876	-0.429111
21	0.0447	-0.224974	21.8382	-0.439168
22	0.0449	-0.173829	21.8684	-0.446973
23	0.0463	-0.125661	21.8842	-0.452791
24	0.0519	-0.0752698	21.8899	-0.456697
25	0.0519	-0.0250691	21.8905	-0.457998
26	0.0538	0.0250691	21.8911	-0.45665
27	0.0583	0.0752698	21.8968	-0.452261
28	0.0604	0.125661	21.9126	-0.444672
29	0.0604	0.173829	21.9428	-0.434172
30	0.0612	0.224974	21.9934	-0.420404
31	0.0641	0.27411	22.0686	-0.402833
32	0.0651	0.326561	22.1752	-0.381574
33	0.0663	0.379927	22.3196	-0.356385
34	0.0669	0.431644	22.5059	-0.327508
35	0.069	0.487364	22.7434	-0.29388
36	0.0752	0.541736	23.0369	-0.253141
37	0.0776	0.60076	23.3978	-0.206523
38	0.1	0.661955	23.836	-0.140327
39	0.116	0.722479	24.3579	-0.0565195
40	0.147	0.789191	24.9808	0.0594917
41	0.184	0.855996	25.7135	0.216995
42	0.184	0.930718	26.5797	0.388247
43	0.201	1.01104	27.6019	0.591465
44	0.214	1.0939	28.7985	0.825559
45	0.228	1.19012	30.2149	1.09691
46	0.241	1.29303	31.8869	1.40853
47	0.259	1.41865	33.8994	1.77596

48	0.259	1.57179	36.3699	2.18305
49	0.671	1.76241	39.476	3.36563
50	2	2.07485	43.781	7.51533

Data Set Standard Deviation = 0.291217
Numerator = 56.4801
Denominator = 181.934
W Statistic = 0.310442 = 56.4801 / 181.934

5% Critical value of 0.953 exceeds 0.310442
Evidence of non-normality at 95% level of significance

1% Critical value of 0.935 exceeds 0.310442
Evidence of non-normality at 99% level of significance

Concentrations (ppb)

Parameter: Beryllium

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 50
Total Non-Detect: 48
Percent Non-Detects: 96%
Total Background Measurements: 10
There is 1 background location

Loc.	Meas.	ND	Date	Conc.	Original
MW#93-1	10	10 (100%)	5/24/2018	ND<0.01	ND<0.01
			6/19/2018	ND<0.01	ND<0.01
			7/19/2018	ND<0.01	ND<0.01
			8/22/2018	ND<0.01	ND<0.01
			9/19/2018	ND<0.01	ND<0.01
			10/18/2018	ND<0.01	ND<0.01
			11/20/2018	ND<0.01	ND<0.01
			12/20/2018	ND<0.01	ND<0.01
			11/21/2019	ND<0.01	ND<0.01
			6/25/2020	ND<0.001	ND<0.001

There are 4 compliance locations

Loc.	Meas.	ND	Date	Conc.	Original
MW#03-1	10	8 (80%)	5/24/2018	ND<0.01	ND<0.01
			6/19/2018	ND<0.01	ND<0.01
			7/19/2018	0.0201	0.0201
			8/22/2018	0.0108	0.0108
			10/18/2018	ND<0.01	ND<0.01
			11/20/2018	ND<0.01	ND<0.01
			12/20/2018	ND<0.01	ND<0.01
			3/26/2019	ND<0.01	ND<0.01
			11/21/2019	ND<0.001	ND<0.001
			6/25/2020	ND<0.001	ND<0.001
MW#03-2	10	10 (100%)	5/24/2018	ND<0.01	ND<0.01
			6/19/2018	ND<0.01	ND<0.01
			7/19/2018	ND<0.01	ND<0.01
			8/22/2018	ND<0.01	ND<0.01
			9/19/2018	ND<0.01	ND<0.01
			10/18/2018	ND<0.01	ND<0.01
			11/20/2018	ND<0.01	ND<0.01
			12/20/2018	ND<0.01	ND<0.01
			11/21/2019	ND<0.001	ND<0.001
			6/25/2020	ND<0.001	ND<0.001
MW#93-2	10	10 (100%)	5/24/2018	ND<0.01	ND<0.01
			6/19/2018	ND<0.01	ND<0.01
			7/19/2018	ND<0.01	ND<0.01
			8/22/2018	ND<0.01	ND<0.01
			9/19/2018	ND<0.01	ND<0.01
			10/18/2018	ND<0.01	ND<0.01
			11/20/2018	ND<0.01	ND<0.01
			12/20/2018	ND<0.01	ND<0.01

			11/21/2019	ND<0.001	ND<0.001
			6/25/2020	ND<0.001	ND<0.001
MW#93-3	10	10 (100%)	5/24/2018	ND<0.01	ND<0.01
			6/19/2018	ND<0.01	ND<0.01
			7/19/2018	ND<0.01	ND<0.01
			8/22/2018	ND<0.01	ND<0.01
			9/19/2018	ND<0.01	ND<0.01
			10/18/2018	ND<0.01	ND<0.01
			11/20/2018	ND<0.01	ND<0.01
			12/20/2018	ND<0.01	ND<0.01
			11/21/2019	ND<0.001	ND<0.001
			6/25/2020	ND<0.001	ND<0.001

There are 0 unused locations

Loc.	Meas.	ND	Date	Conc.	Original

Non-Parametric Prediction Interval

Inter-Well Comparison

Parameter: Beryllium

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 96%
Number of comparisons = 4
Future Samples (k) = 4
Recent Dates = 1
Background Measurements (n) = 10
Maximum Background Value = 0.01
Confidence Level = 71.4%
False Positive Rate = 28.6%

Location	Date	Count	Mean	Significant
MW#03-1	6/25/2020	1	0.001	FALSE
MW#03-2	6/25/2020	1	0.001	FALSE
MW#93-2	6/25/2020	1	0.001	FALSE
MW#93-3	6/25/2020	1	0.001	FALSE

Levene's Test for Equal of Variance

Parameter: Beryllium

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Overall Mean = 0.0027152
Overall Std Dev = 0.00268288
Overall Total = 0.13576
SS Groups = 1.6419e-005
SS Total = 0.000352693

ANOVA Table

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Squares	F
Between Groups	1.6419e-005	4	4.10475e-006	0.549295
Error (within groups)	0.000336274	45	7.47277e-006	
Totals	0.000352693	49		

95% F-Statistic = 2.52521

0.549295 does not exceed 2.52521 indicating equal variance

Group: MW#93-1	Sample	Residual
	5/24/2018	0.0009
	6/19/2018	0.0009
	7/19/2018	0.0009
	8/22/2018	0.0009
	9/19/2018	0.0009
	10/18/2018	0.0009
	11/20/2018	0.0009
	12/20/2018	0.0009
	11/21/2019	0.0009
	6/25/2020	0.0081

Group: MW#03-1	Date	Residual
	5/24/2018	0.00071
	6/19/2018	0.00071
	7/19/2018	0.01081
	8/22/2018	0.00151
	10/18/2018	0.00071
	11/20/2018	0.00071
	12/20/2018	0.00071
	3/26/2019	0.00071
	11/21/2019	0.00829
	6/25/2020	0.00829

Group: MW#03-2	Date	Residual
	5/24/2018	0.0018
	6/19/2018	0.0018
	7/19/2018	0.0018
	8/22/2018	0.0018
	9/19/2018	0.0018
	10/18/2018	0.0018

11/20/2018	0.0018
12/20/2018	0.0018
11/21/2019	0.0072
6/25/2020	0.0072

Group: MW#93-2	Date	Residual
	5/24/2018	0.0018
	6/19/2018	0.0018
	7/19/2018	0.0018
	8/22/2018	0.0018
	9/19/2018	0.0018
	10/18/2018	0.0018
	11/20/2018	0.0018
	12/20/2018	0.0018
	11/21/2019	0.0072
	6/25/2020	0.0072

Group: MW#93-3	Date	Residual
	5/24/2018	0.0018
	6/19/2018	0.0018
	7/19/2018	0.0018
	8/22/2018	0.0018
	9/19/2018	0.0018
	10/18/2018	0.0018
	11/20/2018	0.0018
	12/20/2018	0.0018
	11/21/2019	0.0072
	6/25/2020	0.0072

Concentrations (ppb)

Parameter: Boron

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 68
Total Non-Detect: 27
Percent Non-Detects: 39.7059%
Total Background Measurements: 14
There is 1 background location

Loc.	Meas.	ND	Date	Conc.	Original
MW#93-1	14	0 (0%)	10/11/2016	0.429	0.429
			12/20/2016	0.386	0.386
			2/16/2017	0.341	0.341
			3/8/2017	0.348	0.348
			5/9/2017	0.366	0.366
			6/6/2017	0.371	0.371
			8/22/2017	0.458	0.458
			9/22/2017	0.499	0.499
			11/7/2017	0.46	0.46
			2/27/2018	0.33	0.33
			9/27/2018	0.386	0.386
			5/7/2019	0.178	0.178
			11/21/2019	0.303	0.303
			6/25/2020	0.185	0.185

There are 4 compliance locations

Loc.	Meas.	ND	Date	Conc.	Original
MW#03-1	13	10 (76.9231%)	10/11/2016	ND<0.025	ND<0.025
			12/20/2016	ND<0.025	ND<0.025
			2/16/2017	ND<0.025	ND<0.025
			3/8/2017	ND<0.025	ND<0.025
			5/9/2017	0.041	0.041
			6/6/2017	ND<0.025	ND<0.025
			8/22/2017	ND<0.025	ND<0.025
			9/22/2017	0.025	0.025
			11/7/2017	ND<0.1	ND<0.1
			2/27/2018	0.05	0.05
			5/7/2019	ND<0.1	ND<0.1
			11/21/2019	ND<0.2	ND<0.2
			6/25/2020	ND<0.2	ND<0.2
MW#03-2	13	12 (92.3077%)	10/11/2016	ND<0.025	ND<0.025
			12/20/2016	ND<0.025	ND<0.025
			2/16/2017	ND<0.025	ND<0.025
			3/8/2017	ND<0.025	ND<0.025
			5/9/2017	0.032	0.032
			6/6/2017	ND<0.025	ND<0.025
			8/22/2017	ND<0.025	ND<0.025
			9/22/2017	ND<0.025	ND<0.025
			11/7/2017	ND<0.1	ND<0.1
			2/27/2018	ND<0.05	ND<0.05
			5/7/2019	ND<0.1	ND<0.1
			11/21/2019	ND<0.2	ND<0.2

			6/25/2020	ND<0.2	ND<0.2
MW#93-2	14	0 (0%)	10/11/2016	2.86	2.86
			12/20/2016	2.31	2.31
			2/16/2017	2.09	2.09
			3/8/2017	2.07	2.07
			5/9/2017	1.97	1.97
			6/6/2017	1.83	1.83
			8/22/2017	2.38	2.38
			9/22/2017	2.48	2.48
			11/7/2017	0.46	0.46
			2/27/2018	0.064	0.064
			9/27/2018	2.01	2.01
			5/7/2019	1.61	1.61
			11/21/2019	1.76	1.76
			6/25/2020	1.74	1.74
MW#93-3	14	5 (35.7143%)	10/11/2016	0.079	0.079
			12/20/2016	0.08	0.08
			2/16/2017	0.126	0.126
			3/8/2017	0.09	0.09
			5/9/2017	0.139	0.139
			6/6/2017	ND<0.025	ND<0.025
			8/22/2017	0.119	0.119
			9/22/2017	0.118	0.118
			11/7/2017	ND<0.1	ND<0.1
			2/27/2018	0.089	0.089
			9/27/2018	ND<0.1	ND<0.1
			5/7/2019	ND<0.1	ND<0.1
			11/21/2019	ND<0.2	ND<0.2
			6/25/2020	0.0726	0.0726

There are 0 unused locations

Loc.	Meas.	ND	Date	Conc.	Original

Non-Parametric Prediction Interval

Inter-Well Comparison

Parameter: Boron

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 39.7059%
Number of comparisons = 4
Future Samples (k) = 4
Recent Dates = 1
Background Measurements (n) = 14
Maximum Background Value = 0.499
Confidence Level = 77.8%
False Positive Rate = 22.2%

Location	Date	Count	Mean	Significant
MW#03-1	6/25/2020	1	0.2	FALSE
MW#03-2	6/25/2020	1	0.2	FALSE
MW#93-3	6/25/2020	1	0.0726	FALSE
MW#93-2	**6/25/2020**	**1**	**1.74**	**TRUE**

Non-Parametric Prediction Interval

Intra-Well Comparison for MW#93-2

Parameter: Boron

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 0%
Future Samples (k) = 1
Recent Dates = 1
Baseline Measurements (n) = 13
Maximum Baseline Concentration = 2.86
Confidence Level = 92.9%
False Positive Rate = 7.1%

Baseline Measurements	Date	Value
	10/11/2016	2.86
	12/20/2016	2.31
	2/16/2017	2.09
	3/8/2017	2.07
	5/9/2017	1.97
	6/6/2017	1.83
	8/22/2017	2.38
	9/22/2017	2.48
	11/7/2017	0.46
	2/27/2018	0.064
	9/27/2018	2.01
	5/7/2019	1.61
	11/21/2019	1.76

Date	Count	Mean	Significant
6/25/2020	1	1.74	FALSE

Levene's Test for Equal of Variance

Parameter: Boron

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Overall Mean = 0.142806
Overall Std Dev = 0.301733
Overall Total = 9.71084
SS Groups = 2.30102
SS Total = 6.09986

ANOVA Table

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Squares	F
Between Groups	2.30102	4	0.575256	9.54006
Error (within groups)	3.79884	63	0.060299	
Totals	6.09986	67		

95% F-Statistic = 2.44724

9.54006 exceeds 2.44724; assumption of equal variance should be rejected

Group: MW#93-1	Sample	Residual
	10/11/2016	0.069
	12/20/2016	0.026
	2/16/2017	0.019
	3/8/2017	0.012
	5/9/2017	0.006
	6/6/2017	0.011
	8/22/2017	0.098
	9/22/2017	0.139
	11/7/2017	0.1
	2/27/2018	0.03
	9/27/2018	0.026
	5/7/2019	0.182
	11/21/2019	0.057
	6/25/2020	0.175

Group: MW#03-1	Date	Residual
	10/11/2016	0.0416154
	12/20/2016	0.0416154
	2/16/2017	0.0416154
	3/8/2017	0.0416154
	5/9/2017	0.0256154
	6/6/2017	0.0416154
	8/22/2017	0.0416154
	9/22/2017	0.0416154
	11/7/2017	0.0333846
	2/27/2018	0.0166154
	5/7/2019	0.0333846
	11/21/2019	0.133385
	6/25/2020	0.133385

Group: MW#03-2	Date	Residual
	10/11/2016	0.0409231
	12/20/2016	0.0409231
	2/16/2017	0.0409231
	3/8/2017	0.0409231
	5/9/2017	0.0339231
	6/6/2017	0.0409231
	8/22/2017	0.0409231
	9/22/2017	0.0409231
	11/7/2017	0.0340769
	2/27/2018	0.0159231
	5/7/2019	0.0340769
	11/21/2019	0.134077
	6/25/2020	0.134077

Group: MW#93-2	Date	Residual
	10/11/2016	1.029
	12/20/2016	0.479
	2/16/2017	0.259
	3/8/2017	0.239
	5/9/2017	0.139
	6/6/2017	0.001
	8/22/2017	0.549
	9/22/2017	0.649
	11/7/2017	1.371
	2/27/2018	1.767
	9/27/2018	0.179
	5/7/2019	0.221
	11/21/2019	0.071
	6/25/2020	0.091

Group: MW#93-3	Date	Residual
	10/11/2016	0.0236857
	12/20/2016	0.0226857
	2/16/2017	0.0233143
	3/8/2017	0.0126857
	5/9/2017	0.0363143
	6/6/2017	0.0776857
	8/22/2017	0.0163143
	9/22/2017	0.0153143
	11/7/2017	0.00268571
	2/27/2018	0.0136857
	9/27/2018	0.00268571
	5/7/2019	0.00268571
	11/21/2019	0.0973143
	6/25/2020	0.0300857

Non-Parametric Prediction Interval

Inter-Well Comparison

Parameter: Boron

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 39.7059%
Number of comparisons = 4
Future Samples (k) = 4
Recent Dates = 1
Background Measurements (n) = 14
Maximum Background Value = 0.499
Confidence Level = 77.8%
False Positive Rate = 22.2%

Location	Date	Count	Mean	Significant
MW#03-1	6/25/2020	1	0.2	FALSE
MW#03-2	6/25/2020	1	0.2	FALSE
MW#93-2	**6/25/2020**	**1**	**1.74**	**TRUE**
MW#93-3	6/25/2020	1	0.0726	FALSE

Shapiro-Francia Test of Normality

Parameter: Boron

All Locations

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Number of Measurements = 68

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	0.025	-2.19728	4.82806	-0.0549321
2	0.025	-1.91103	8.4801	-0.102708
3	0.025	-1.71688	11.4278	-0.14563
4	0.025	-1.58047	13.9257	-0.185142
5	0.025	-1.46106	16.0604	-0.221668
6	0.025	-1.36581	17.9258	-0.255813
7	0.025	-1.27588	19.5536	-0.28771
8	0.025	-1.20036	20.9945	-0.317719
9	0.025	-1.12639	22.2633	-0.345879
10	0.025	-1.06252	23.3922	-0.372442
11	0.025	-0.998575	24.3894	-0.397406
12	0.025	-0.942375	25.2774	-0.420966
13	0.025	-0.885291	26.0612	-0.443098
14	0.025	-0.834498	26.7576	-0.46396
15	0.025	-0.782366	27.3697	-0.483519
16	0.032	-0.735557	27.9107	-0.507057
17	0.041	-0.687131	28.3828	-0.53523
18	0.05	-0.643345	28.7967	-0.567397
19	0.05	-0.597761	29.1541	-0.597285
20	0.064	-0.556308	29.4635	-0.632889
21	0.0726	-0.51293	29.7266	-0.670127
22	0.079	-0.473299	29.9506	-0.707518
23	0.08	-0.431644	30.137	-0.74205
24	0.089	-0.393433	30.2917	-0.777065
25	0.09	-0.353118	30.4164	-0.808846
26	0.1	-0.316004	30.5163	-0.840446
27	0.1	-0.276714	30.5929	-0.868117
28	0.1	-0.240426	30.6507	-0.89216
29	0.1	-0.201894	30.6914	-0.912349
30	0.1	-0.166199	30.7191	-0.928969
31	0.1	-0.128189	30.7355	-0.941788
32	0.1	-0.0928787	30.7441	-0.951076
33	0.118	-0.0551734	30.7472	-0.957587
34	0.119	-0.0200544	30.7476	-0.959973
35	0.126	0.0200544	30.748	-0.957446
36	0.139	0.0551734	30.751	-0.949777
37	0.178	0.0928787	30.7596	-0.933245
38	0.185	0.128189	30.7761	-0.90953
39	0.2	0.166199	30.8037	-0.87629
40	0.2	0.201894	30.8445	-0.835911
41	0.2	0.240426	30.9023	-0.787826
42	0.2	0.276714	30.9788	-0.732483
43	0.2	0.316004	31.0787	-0.669282
44	0.303	0.353118	31.2034	-0.562288
45	0.33	0.393433	31.3582	-0.432455
46	0.341	0.431644	31.5445	-0.285264
47	0.348	0.473299	31.7685	-0.120556

48	0.366	0.51293	32.0316	0.0671761
49	0.371	0.556308	32.3411	0.273566
50	0.386	0.597761	32.6984	0.504302
51	0.386	0.643345	33.1123	0.752633
52	0.429	0.687131	33.5844	1.04741
53	0.458	0.735557	34.1255	1.3843
54	0.46	0.782366	34.7376	1.74419
55	0.46	0.834498	35.434	2.12805
56	0.499	0.885291	36.2177	2.56981
57	1.61	0.942375	37.1058	4.08704
58	1.74	0.998575	38.1029	5.82456
59	1.76	1.06252	39.2319	7.69459
60	1.83	1.12639	40.5006	9.75589
61	1.97	1.20036	41.9415	12.1206
62	2.01	1.27588	43.5693	14.6851
63	2.07	1.36581	45.4348	17.5123
64	2.09	1.46106	47.5695	20.5659
65	2.31	1.58047	50.0673	24.2168
66	2.38	1.71688	53.015	28.303
67	2.48	1.91103	56.6671	33.0424
68	2.86	2.19728	61.4951	39.3266

Data Set Standard Deviation = 0.769412
Numerator = 1546.58
Denominator = 2439.12
W Statistic = 0.634072 = 1546.58 / 2439.12

5% Critical value of 0.966 exceeds 0.634072
Evidence of non-normality at 95% level of significance

1% Critical value of 0.951 exceeds 0.634072
Evidence of non-normality at 99% level of significance

Concentrations (ppb)

Parameter: Cadmium

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 50
Total Non-Detect: 45
Percent Non-Detects: 90%
Total Background Measurements: 10
There is 1 background location

Loc.	Meas.	ND	Date	Conc.	Original
MW#93-1	10	7 (70%)	5/24/2018	ND<0.001	ND<0.001
			6/19/2018	ND<0.001	ND<0.001
			7/19/2018	ND<0.001	ND<0.001
			8/22/2018	ND<0.001	ND<0.001
			9/19/2018	ND<0.00117	ND<0.00117
			10/18/2018	ND<0.001	ND<0.001
			11/20/2018	0.00125	0.00125
			12/20/2018	ND<0.001	ND<0.001
			11/21/2019	0.00112	0.00112
			6/25/2020	0.000369	0.000369

There are 4 compliance locations

Loc.	Meas.	ND	Date	Conc.	Original
MW#03-1	10	8 (80%)	5/24/2018	ND<0.001	ND<0.001
			6/19/2018	ND<0.001	ND<0.001
			7/19/2018	0.00486	0.00486
			8/22/2018	0.0204	0.0204
			10/18/2018	ND<0.001	ND<0.001
			11/20/2018	ND<0.001	ND<0.001
			12/20/2018	ND<0.001	ND<0.001
			3/26/2019	ND<0.001	ND<0.001
			11/21/2019	ND<0.001	ND<0.001
			6/25/2020	ND<0.001	ND<0.001
MW#03-2	10	10 (100%)	5/24/2018	ND<0.001	ND<0.001
			6/19/2018	ND<0.001	ND<0.001
			7/19/2018	ND<0.001	ND<0.001
			8/22/2018	ND<0.001	ND<0.001
			9/19/2018	ND<0.001	ND<0.001
			10/18/2018	ND<0.001	ND<0.001
			11/20/2018	ND<0.001	ND<0.001
			12/20/2018	ND<0.001	ND<0.001
			11/21/2019	ND<0.001	ND<0.001
			6/25/2020	ND<0.001	ND<0.001
MW#93-2	10	10 (100%)	5/24/2018	ND<0.001	ND<0.001
			6/19/2018	ND<0.001	ND<0.001
			7/19/2018	ND<0.001	ND<0.001
			8/22/2018	ND<0.001	ND<0.001
			9/19/2018	ND<0.001	ND<0.001
			10/18/2018	ND<0.001	ND<0.001
			11/20/2018	ND<0.001	ND<0.001
			12/20/2018	ND<0.001	ND<0.001

			11/21/2019	ND<0.001	ND<0.001
			6/25/2020	ND<0.001	ND<0.001
MW#93-3	10	10 (100%)	5/24/2018	ND<0.001	ND<0.001
			6/19/2018	ND<0.001	ND<0.001
			7/19/2018	ND<0.001	ND<0.001
			8/22/2018	ND<0.001	ND<0.001
			9/19/2018	ND<0.001	ND<0.001
			10/18/2018	ND<0.001	ND<0.001
			11/20/2018	ND<0.001	ND<0.001
			12/20/2018	ND<0.001	ND<0.001
			11/21/2019	ND<0.001	ND<0.001
			6/25/2020	ND<0.001	ND<0.001

There are 0 unused locations

Loc.	Meas.	ND	Date	Conc.	Original

Non-Parametric Prediction Interval

Inter-Well Comparison

Parameter: Cadmium

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 90%
Number of comparisons = 4
Future Samples (k) = 4
Recent Dates = 1
Background Measurements (n) = 10
Maximum Background Value = 0.00125
Confidence Level = 71.4%
False Positive Rate = 28.6%

Location	Date	Count	Mean	Significant
MW#03-1	6/25/2020	1	0.001	FALSE
MW#03-2	6/25/2020	1	0.001	FALSE
MW#93-2	6/25/2020	1	0.001	FALSE
MW#93-3	6/25/2020	1	0.001	FALSE

Levene's Test for Equal of Variance

Parameter: Cadmium

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Overall Mean = 0.000769196
Overall Std Dev = 0.00250745
Overall Total = 0.0384598
SS Groups = 0.000109075
SS Total = 0.000308077

ANOVA Table

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Squares	F
Between Groups	0.000109075	4	2.72687e-005	6.16621
Error (within groups)	0.000199002	45	4.42227e-006	
Totals	0.000308077	49		

95% F-Statistic = 2.52521

6.16621 exceeds 2.52521; assumption of equal variance should be rejected

Group: MW#93-1	Sample	Residual
	5/24/2018	9.1e-006
	6/19/2018	9.1e-006
	7/19/2018	9.1e-006
	8/22/2018	9.1e-006
	9/19/2018	0.0001791
	10/18/2018	9.1e-006
	11/20/2018	0.0002591
	12/20/2018	9.1e-006
	11/21/2019	0.0001291
	6/25/2020	0.0006219

Group: MW#03-1	Date	Residual
	5/24/2018	0.002326
	6/19/2018	0.002326
	7/19/2018	0.001534
	8/22/2018	0.017074
	10/18/2018	0.002326
	11/20/2018	0.002326
	12/20/2018	0.002326
	3/26/2019	0.002326
	11/21/2019	0.002326
	6/25/2020	0.002326

Group: MW#03-2	Date	Residual
	5/24/2018	2.1684e-019
	6/19/2018	2.1684e-019
	7/19/2018	2.1684e-019
	8/22/2018	2.1684e-019
	9/19/2018	2.1684e-019
	10/18/2018	2.1684e-019

	11/20/2018	2.1684e-019
	12/20/2018	2.1684e-019
	11/21/2019	2.1684e-019
	6/25/2020	2.1684e-019

Group: MW#93-2	Date	Residual
	5/24/2018	2.1684e-019
	6/19/2018	2.1684e-019
	7/19/2018	2.1684e-019
	8/22/2018	2.1684e-019
	9/19/2018	2.1684e-019
	10/18/2018	2.1684e-019
	11/20/2018	2.1684e-019
	12/20/2018	2.1684e-019
	11/21/2019	2.1684e-019
	6/25/2020	2.1684e-019

Group: MW#93-3	Date	Residual
	5/24/2018	2.1684e-019
	6/19/2018	2.1684e-019
	7/19/2018	2.1684e-019
	8/22/2018	2.1684e-019
	9/19/2018	2.1684e-019
	10/18/2018	2.1684e-019
	11/20/2018	2.1684e-019
	12/20/2018	2.1684e-019
	11/21/2019	2.1684e-019
	6/25/2020	2.1684e-019

Shapiro-Francia Test of Normality

Parameter: Cadmium

All Locations

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Number of Measurements = 50

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	0.000369	-2.07485	4.305	-0.000765619
2	0.001	-1.76241	7.41108	-0.00252803
3	0.001	-1.57179	9.8816	-0.00409982
4	0.001	-1.41865	11.8942	-0.00551847
5	0.001	-1.29303	13.5661	-0.0068115
6	0.001	-1.19012	14.9825	-0.00800162
7	0.001	-1.0939	16.1791	-0.00909552
8	0.001	-1.01104	17.2013	-0.0101066
9	0.001	-0.930718	18.0675	-0.0110373
10	0.001	-0.855996	18.8003	-0.0118933
11	0.001	-0.789191	19.4231	-0.0126825
12	0.001	-0.722479	19.9451	-0.0134049
13	0.001	-0.661955	20.3832	-0.0140669
14	0.001	-0.60076	20.7442	-0.0146677
15	0.001	-0.541736	21.0376	-0.0152094
16	0.001	-0.487364	21.2752	-0.0156968
17	0.001	-0.431644	21.4615	-0.0161284
18	0.001	-0.379927	21.6058	-0.0165083
19	0.001	-0.326561	21.7125	-0.0168349
20	0.001	-0.27411	21.7876	-0.017109
21	0.001	-0.224974	21.8382	-0.017334
22	0.001	-0.173829	21.8684	-0.0175078
23	0.001	-0.125661	21.8842	-0.0176335
24	0.001	-0.0752698	21.8899	-0.0177087
25	0.001	-0.0250691	21.8905	-0.0177338
26	0.001	0.0250691	21.8911	-0.0177087
27	0.001	0.0752698	21.8968	-0.0176335
28	0.001	0.125661	21.9126	-0.0175078
29	0.001	0.173829	21.9428	-0.017334
30	0.001	0.224974	21.9934	-0.017109
31	0.001	0.27411	22.0686	-0.0168349
32	0.001	0.326561	22.1752	-0.0165083
33	0.001	0.379927	22.3196	-0.0161284
34	0.001	0.431644	22.5059	-0.0156968
35	0.001	0.487364	22.7434	-0.0152094
36	0.001	0.541736	23.0369	-0.0146677
37	0.001	0.60076	23.3978	-0.0140669
38	0.001	0.661955	23.836	-0.0134049
39	0.001	0.722479	24.3579	-0.0126825
40	0.001	0.789191	24.9808	-0.0118933
41	0.001	0.855996	25.7135	-0.0110373
42	0.001	0.930718	26.5797	-0.0101066
43	0.001	1.01104	27.6019	-0.00909552
44	0.001	1.0939	28.7985	-0.00800162
45	0.001	1.19012	30.2149	-0.0068115
46	0.00112	1.29303	31.8869	-0.00536331
47	0.00117	1.41865	33.8994	-0.00370348

48	0.00125	1.57179	36.3699	-0.00173875
49	0.00486	1.76241	39.476	0.00682656
50	0.0204	2.07485	43.781	0.0491535

Data Set Standard Deviation = 0.00278856
Numerator = 0.00241606
Denominator = 0.0166818
W Statistic = 0.144833 = 0.00241606 / 0.0166818

5% Critical value of 0.953 exceeds 0.144833
Evidence of non-normality at 95% level of significance

1% Critical value of 0.935 exceeds 0.144833
Evidence of non-normality at 99% level of significance

Concentrations (ppb)

Parameter: Calcium

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 77
Total Non-Detect: 5
Percent Non-Detects: 6.49351%
Total Background Measurements: 18
There is 1 background location

Loc.	Meas.	ND	Date	Conc.	Original
MW#93-1	18	1 (5.55556%)	6/6/2012	484	484
			12/12/2012	560	560
			6/19/2013	670	670
			12/11/2013	549	549
			6/11/2014	192	192
			12/3/2014	213	213
			6/17/2015	184	184
			12/1/2015	199	199
			6/22/2016	205	205
			12/20/2016	202	202
			6/6/2017	206	206
			11/7/2017	212	212
			2/27/2018	211	211
			9/27/2018	240	240
			11/20/2018	ND<0.5	ND<0.5
			5/7/2019	212	212
			11/21/2019	228	228
			6/25/2020	210	210

There are 4 compliance locations

Loc.	Meas.	ND	Date	Conc.	Original
MW#93-2	18	1 (5.55556%)	6/6/2012	78.9	78.9
			12/12/2012	101	101
			6/19/2013	100	100
			12/11/2013	88	88
			6/11/2014	41.8	41.8
			12/3/2014	53.8	53.8
			6/17/2015	2.29	2.29
			12/1/2015	42.8	42.8
			6/22/2016	40	40
			12/20/2016	41.8	41.8
			6/6/2017	45.2	45.2
			11/7/2017	68.5	68.5
			2/27/2018	74.7	74.7
			9/27/2018	68.9	68.9
			11/20/2018	ND<0.5	ND<0.5
			5/7/2019	86.3	86.3
			11/21/2019	117	117
			6/25/2020	198	198
MW#93-3	18	1 (5.55556%)	6/6/2012	86.4	86.4
			12/12/2012	97	97
			6/19/2013	163	163

			12/11/2013	102	102
			6/11/2014	49.5	49.5
			12/3/2014	31.7	31.7
			6/17/2015	43.4	43.4
			12/1/2015	58	58
			6/22/2016	95.6	95.6
			12/20/2016	82.1	82.1
			6/6/2017	56	56
			11/7/2017	80.2	80.2
			2/27/2018	91.8	91.8
			9/27/2018	94.8	94.8
			11/20/2018	ND<0.5	ND<0.5
			5/7/2019	110	110
			11/21/2019	107	107
			6/25/2020	92.2	92.2
MW#03-1	11	1 (9.09091%)	5/24/2018	22.2	22.2
			6/19/2018	43.6	43.6
			7/19/2018	154	154
			8/22/2018	613	613
			11/20/2018	ND<0.5	ND<0.5
			11/20/2018	35.6	35.6
			12/20/2018	13.3	13.3
			3/26/2019	16.6	16.6
			5/7/2019	15	15
			11/21/2019	16.9	16.9
			6/25/2020	35.6	35.6
MW#03-2	12	1 (8.33333%)	5/24/2018	197	197
			6/19/2018	291	291
			7/19/2018	338	338
			8/22/2018	325	325
			9/19/2018	303	303
			9/27/2018	352	352
			11/20/2018	ND<0.5	ND<0.5
			11/20/2018	331	331
			12/20/2018	350	350
			5/7/2019	267	267
			11/21/2019	386	386
			6/25/2020	338	338

There are 0 unused locations

Loc.	Meas.	ND	Date	Conc.	Original

Non-Parametric Prediction Interval

Inter-Well Comparison

Parameter: Calcium

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 6.49351%
Number of comparisons = 4
Future Samples (k) = 4
Recent Dates = 1
Background Measurements (n) = 18
Maximum Background Value = 670
Confidence Level = 81.8%
False Positive Rate = 18.2%

Location	Date	Count	Mean	Significant
MW#93-2	6/25/2020	1	198	FALSE
MW#93-3	6/25/2020	1	92.2	FALSE
MW#03-1	6/25/2020	1	35.6	FALSE
MW#03-2	6/25/2020	1	338	FALSE

Levene's Test for Equal of Variance

Parameter: Calcium

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Overall Mean = 69.6934
Overall Std Dev = 89.6884
Overall Total = 5366.39
SS Groups = 136716
SS Total = 611345

ANOVA Table

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Squares	F
Between Groups	136716	4	34179	5.18486
Error (within groups)	474629	72	6592.07	
Totals	611345	76		

95% F-Statistic = 2.44724

5.18486 exceeds 2.44724; assumption of equal variance should be rejected

Group: MW#93-1	Sample	Residual
	6/6/2012	207.472
	12/12/2012	283.472
	6/19/2013	393.472
	12/11/2013	272.472
	6/11/2014	84.5278
	12/3/2014	63.5278
	6/17/2015	92.5278
	12/1/2015	77.5278
	6/22/2016	71.5278
	12/20/2016	74.5278
	6/6/2017	70.5278
	11/7/2017	64.5278
	2/27/2018	65.5278
	9/27/2018	36.5278
	11/20/2018	276.028
	5/7/2019	64.5278
	11/21/2019	48.5278
	6/25/2020	66.5278

Group: MW#93-2	Date	Residual
	6/6/2012	9.48389
	12/12/2012	31.5839
	6/19/2013	30.5839
	12/11/2013	18.5839
	6/11/2014	27.6161
	12/3/2014	15.6161
	6/17/2015	67.1261
	12/1/2015	26.6161
	6/22/2016	29.4161
	12/20/2016	27.6161

6/6/2017	24.2161
11/7/2017	0.916111
2/27/2018	5.28389
9/27/2018	0.516111
11/20/2018	68.9161
5/7/2019	16.8839
11/21/2019	47.5839
6/25/2020	128.584

Group: MW#93-3

Date	Residual
6/6/2012	6.33333
12/12/2012	16.9333
6/19/2013	82.9333
12/11/2013	21.9333
6/11/2014	30.5667
12/3/2014	48.3667
6/17/2015	36.6667
12/1/2015	22.0667
6/22/2016	15.5333
12/20/2016	2.03333
6/6/2017	24.0667
11/7/2017	0.133333
2/27/2018	11.7333
9/27/2018	14.7333
11/20/2018	79.5667
5/7/2019	29.9333
11/21/2019	26.9333
6/25/2020	12.1333

Group: MW#03-1

Date	Residual
5/24/2018	65.6455
6/19/2018	44.2455
7/19/2018	66.1545
8/22/2018	525.155
11/20/2018	87.3455
11/20/2018	52.2455
12/20/2018	74.5455
3/26/2019	71.2455
5/7/2019	72.8455
11/21/2019	70.9455
6/25/2020	52.2455

Group: MW#03-2

Date	Residual
5/24/2018	92.875
6/19/2018	1.125
7/19/2018	48.125
8/22/2018	35.125
9/19/2018	13.125
9/27/2018	62.125
11/20/2018	289.375
11/20/2018	41.125
12/20/2018	60.125
5/7/2019	22.875
11/21/2019	96.125
6/25/2020	48.125

Concentrations (ppb)

Parameter: Chloride

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 290
Total Non-Detect: 6
Percent Non-Detects: 2.06897%
Total Background Measurements: 73
There is 1 background location

Loc.	Meas.	ND	Date	Conc.	Original
MW#93-1	73	0 (0%)	12/15/1994	30	30
			3/14/1995	38	38
			6/21/1995	37	37
			12/14/1995	24	24
			3/6/1996	20	20
			4/25/1996	32	32
			10/2/1996	40	40
			12/10/1996	30	30
			3/11/1997	4	4
			4/15/1997	28	28
			8/14/1997	33	33
			12/4/1997	29	29
			3/31/1998	30	30
			6/23/1998	37	37
			8/11/1998	24	24
			12/8/1998	31	31
			3/9/1999	30	30
			6/8/1999	35	35
			8/19/1999	40	40
			12/14/1999	40	40
			3/7/2000	50	50
			6/23/2000	52	52
			12/12/2000	54	54
			3/27/2001	60	60
			6/28/2001	58	58
			9/10/2001	46	46
			12/18/2001	46	46
			3/19/2002	42	42
			6/26/2002	51	51
			9/18/2002	57	57
			12/11/2002	56	56
			3/13/2003	56	56
			6/25/2003	63	63
			9/26/2003	59	59
			12/10/2003	40	40
			3/9/2004	58	58
			6/24/2004	61	61
			9/15/2004	44	44
			12/15/2004	48	48
			3/16/2005	42	42
			6/15/2005	42	42
			9/21/2005	42	42
			12/21/2005	58	58
			3/15/2006	50	50
			6/21/2006	31	31

			12/20/2006	35	35
			6/12/2007	24	24
			12/17/2007	27	27
			6/11/2008	29	29
			12/3/2008	28	28
			6/17/2009	20	20
			12/9/2009	24	24
			6/17/2010	17	17
			12/22/2010	20	20
			6/29/2011	20.8	20.8
			12/7/2011	17.6	17.6
			6/6/2012	23.8	23.8
			12/12/2012	22.2	22.2
			6/19/2013	21.5	21.5
			12/11/2013	17.6	17.6
			6/11/2014	19.3	19.3
			12/3/2014	16.9	16.9
			6/17/2015	13	13
			12/1/2015	15.2	15.2
			6/22/2016	13	13
			12/20/2016	15.2	15.2
			6/6/2017	16.1	16.1
			11/7/2017	16.2	16.2
			2/27/2018	15.6	15.6
			9/27/2018	16.8	16.8
			5/7/2019	18.8	18.8
			11/21/2019	22	22
			6/25/2020	11	11

There are 4 compliance locations

Loc.	Meas.	ND	Date	Conc.	Original
MW#03-1	32	4 (12.5%)	6/24/2004	10	10
			9/15/2004	22	22
			12/15/2004	6	6
			3/16/2005	4	4
			6/15/2005	6	6
			9/21/2005	5	5
			12/20/2006	5	5
			6/12/2007	4	4
			12/17/2007	3	3
			6/11/2008	11	11
			12/3/2008	11	11
			6/17/2009	4	4
			12/9/2009	32	32
			6/17/2010	5	5
			12/22/2010	8.7	8.7
			6/29/2011	4.86	4.86
			12/7/2011	5.88	5.88
			6/6/2012	9.36	9.36
			6/19/2013	ND<5	ND<5
			12/11/2013	ND<5	ND<5
			6/11/2014	44	44
			12/3/2014	ND<5	ND<5
			6/17/2015	ND<5	ND<5
			12/1/2015	0.777	0.777

			6/22/2016	0.628	0.628
			12/20/2016	0.786	0.786
			6/6/2017	0.887	0.887
			11/7/2017	1.13	1.13
			2/27/2018	1.07	1.07
			5/7/2019	5.9	5.9
			11/21/2019	410	410
			6/25/2020	0.652	0.652
MW#03-2	38	1 (2.63158%)	6/24/2004	36	36
			9/15/2004	4	4
			12/15/2004	28	28
			3/16/2005	30	30
			6/15/2005	30	30
			9/21/2005	27	27
			12/21/2005	26	26
			3/15/2006	27	27
			6/21/2006	23	23
			12/20/2006	35	35
			6/12/2007	30	30
			12/17/2007	20	20
			6/11/2008	41	41
			12/3/2008	46	46
			6/17/2009	60	60
			12/9/2009	45	45
			6/17/2010	33	33
			12/22/2010	29	29
			6/29/2011	28.4	28.4
			12/7/2011	23.5	23.5
			6/6/2012	29.3	29.3
			12/12/2012	28.3	28.3
			6/19/2013	32.1	32.1
			12/11/2013	32.8	32.8
			6/11/2014	ND<5	ND<5
			12/3/2014	51.2	51.2
			6/17/2015	54.7	54.7
			12/1/2015	67.8	67.8
			6/22/2016	79.7	79.7
			10/11/2016	88.4	88.4
			12/20/2016	126	126
			6/6/2017	117	117
			11/7/2017	288	288
			2/27/2018	247	247
			9/27/2018	283	283
			5/7/2019	313	313
			11/21/2019	543	543
			6/25/2020	448	448
MW#93-2	74	1 (1.35135%)	12/15/1994	400	400
			3/14/1995	1500	1500
			6/21/1995	75	75
			12/14/1995	1749	1749
			3/6/1996	1674	1674
			4/25/1996	1999	1999
			10/2/1996	1553	1553
			12/10/1996	1560	1560
			3/11/1997	1634	1634

4/15/1997	1700	1700
8/14/1997	2149	2149
12/4/1997	1769	1769
3/31/1998	2000	2000
6/23/1998	2099	2099
8/11/1998	1874	1874
12/8/1998	1922	1922
3/9/1999	1700	1700
6/8/1999	1739	1739
8/19/1999	1800	1800
12/14/1999	1800	1800
3/7/2000	1328	1328
6/23/2000	950	950
12/12/2000	1789	1789
3/27/2001	1749	1749
6/28/2001	1799	1799
9/10/2001	2050	2050
12/18/2001	1600	1600
3/19/2002	1730	1730
6/26/2002	1699	1699
9/18/2002	1674	1674
12/11/2002	1613	1613
3/13/2003	1510	1510
6/25/2003	1800	1800
9/26/2003	1616	1616
12/10/2003	1509	1509
3/9/2004	1800	1800
6/24/2004	1892	1892
9/15/2004	1435	1435
12/15/2004	1600	1600
3/16/2005	1325	1325
6/15/2005	1400	1400
9/21/2005	1412	1412
12/21/2005	1550	1550
3/15/2006	1375	1375
6/21/2006	1500	1500
12/20/2006	1250	1250
2/21/2007	1250	1250
6/12/2007	1350	1350
12/17/2007	1399	1399
6/11/2008	1210	1210
12/3/2008	1584	1584
6/17/2009	750	750
12/9/2009	875	875
6/17/2010	1500	1500
12/22/2010	1600	1600
6/29/2011	1670	1670
12/7/2011	1510	1510
6/6/2012	1610	1610
12/12/2012	1750	1750
6/19/2013	1390	1390
12/11/2013	1410	1410
6/11/2014	1360	1360
12/3/2014	1520	1520
6/17/2015	47.7	47.7
12/1/2015	1760	1760
6/22/2016	1300	1300

			12/20/2016	1690	1690
			6/6/2017	1580	1580
			11/7/2017	1160	1160
			2/27/2018	1270	1270
			9/27/2018	1250	1250
			5/7/2019	1360	1360
			11/21/2019	ND<5	ND<5
			6/25/2020	109	109
MW#93-3	73	0 (0%)	12/15/1994	440	440
			3/14/1995	420	420
			6/21/1995	420	420
			12/14/1995	406	406
			3/6/1996	368	368
			4/25/1996	384	384
			10/2/1996	430	430
			12/10/1996	377	377
			3/11/1997	375	375
			4/15/1997	400	400
			8/14/1997	916	916
			12/4/1997	249	249
			3/31/1998	275	275
			6/23/1998	246	246
			8/11/1998	500	500
			12/8/1998	260	260
			3/9/1999	280	280
			6/8/1999	214	214
			8/19/1999	260	260
			12/14/1999	200	200
			3/7/2000	232	232
			6/23/2000	270	270
			12/12/2000	196	196
			3/27/2001	190	190
			6/28/2001	180	180
			9/10/2001	202	202
			12/18/2001	149	149
			3/19/2002	203	203
			6/26/2002	180	180
			9/18/2002	185	185
			12/11/2002	178	178
			3/13/2003	207	207
			6/25/2003	190	190
			9/26/2003	158	158
			12/10/2003	140	140
			3/9/2004	13	13
			6/24/2004	160	160
			9/15/2004	139	139
			12/15/2004	122	122
			3/16/2005	180	180
			6/15/2005	150	150
			9/21/2005	215	215
			12/21/2005	180	180
			3/15/2006	221	221
			6/21/2006	210	210
			12/20/2006	210	210
			6/12/2007	110	110
			12/17/2007	131	131

6/11/2008	144	144
12/3/2008	152	152
6/17/2009	120	120
12/9/2009	175	175
6/17/2010	150	150
12/22/2010	170	170
6/29/2011	170	170
12/7/2011	98.9	98.9
6/6/2012	194	194
12/12/2012	168	168
6/19/2013	194	194
12/11/2013	173	173
6/11/2014	254	254
12/3/2014	194	194
6/17/2015	168	168
12/1/2015	280	280
6/22/2016	518	518
12/20/2016	475	475
6/6/2017	113	113
11/7/2017	402	402
2/27/2018	435	435
9/27/2018	426	426
5/7/2019	421	421
11/21/2019	1070	1070
6/25/2020	143	143

There are 0 unused locations

Loc.	Meas.	ND	Date	Conc.	Original

Non-Parametric Prediction Interval

Inter-Well Comparison

Parameter: Chloride

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 2.06897%
Number of comparisons = 4
Future Samples (k) = 4
Recent Dates = 1
Background Measurements (n) = 73
Maximum Background Value = 63
Confidence Level = 94.8%
False Positive Rate = 5.2%

Location	Date	Count	Mean	Significant
MW#03-1	6/25/2020	1	0.652	FALSE
MW#03-2	**6/25/2020**	**1**	**448**	**TRUE**
MW#93-2	**6/25/2020**	**1**	**109**	**TRUE**
MW#93-3	**6/25/2020**	**1**	**143**	**TRUE**

Non-Parametric Prediction Interval

Intra-Well Comparison for MW#03-2

Parameter: Chloride

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 2.7027%
Future Samples (k) = 1
Recent Dates = 1
Baseline Measurements (n) = 37
Maximum Baseline Concentration = 543
Confidence Level = 97.4%
False Positive Rate = 2.6%

Baseline Measurements	Date	Value
	6/24/2004	36
	9/15/2004	4
	12/15/2004	28
	3/16/2005	30
	6/15/2005	30
	9/21/2005	27
	12/21/2005	26
	3/15/2006	27
	6/21/2006	23
	12/20/2006	35
	6/12/2007	30
	12/17/2007	20
	6/11/2008	41
	12/3/2008	46
	6/17/2009	60
	12/9/2009	45
	6/17/2010	33
	12/22/2010	29
	6/29/2011	28.4
	12/7/2011	23.5
	6/6/2012	29.3
	12/12/2012	28.3
	6/19/2013	32.1
	12/11/2013	32.8
	6/11/2014	ND<5
	12/3/2014	51.2
	6/17/2015	54.7
	12/1/2015	67.8
	6/22/2016	79.7
	10/11/2016	88.4
	12/20/2016	126
	6/6/2017	117
	11/7/2017	288
	2/27/2018	247
	9/27/2018	283
	5/7/2019	313
	11/21/2019	543

Date	Count	Mean	Significant
6/25/2020	1	448	FALSE

Non-Parametric Prediction Interval

Intra-Well Comparison for MW#93-2

Parameter: Chloride

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 1.36986%
Future Samples (k) = 1
Recent Dates = 1
Baseline Measurements (n) = 73
Maximum Baseline Concentration = 2149
Confidence Level = 98.6%
False Positive Rate = 1.4%

Baseline Measurements	Date	Value
	12/15/1994	400
	3/14/1995	1500
	6/21/1995	75
	12/14/1995	1749
	3/6/1996	1674
	4/25/1996	1999
	10/2/1996	1553
	12/10/1996	1560
	3/11/1997	1634
	4/15/1997	1700
	8/14/1997	2149
	12/4/1997	1769
	3/31/1998	2000
	6/23/1998	2099
	8/11/1998	1874
	12/8/1998	1922
	3/9/1999	1700
	6/8/1999	1739
	8/19/1999	1800
	12/14/1999	1800
	3/7/2000	1328
	6/23/2000	950
	12/12/2000	1789
	3/27/2001	1749
	6/28/2001	1799
	9/10/2001	2050
	12/18/2001	1600
	3/19/2002	1730
	6/26/2002	1699
	9/18/2002	1674
	12/11/2002	1613
	3/13/2003	1510
	6/25/2003	1800
	9/26/2003	1616
	12/10/2003	1509
	3/9/2004	1800
	6/24/2004	1892
	9/15/2004	1435
	12/15/2004	1600
	3/16/2005	1325
	6/15/2005	1400
	9/21/2005	1412

12/21/2005	1550
3/15/2006	1375
6/21/2006	1500
12/20/2006	1250
2/21/2007	1250
6/12/2007	1350
12/17/2007	1399
6/11/2008	1210
12/3/2008	1584
6/17/2009	750
12/9/2009	875
6/17/2010	1500
12/22/2010	1600
6/29/2011	1670
12/7/2011	1510
6/6/2012	1610
12/12/2012	1750
6/19/2013	1390
12/11/2013	1410
6/11/2014	1360
12/3/2014	1520
6/17/2015	47.7
12/1/2015	1760
6/22/2016	1300
12/20/2016	1690
6/6/2017	1580
11/7/2017	1160
2/27/2018	1270
9/27/2018	1250
5/7/2019	1360
11/21/2019	ND<5

Date	Count	Mean	Significant
6/25/2020	1	109	FALSE

Non-Parametric Prediction Interval

Intra-Well Comparison for MW#93-3

Parameter: Chloride

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 0%
Future Samples (k) = 1
Recent Dates = 1
Baseline Measurements (n) = 72
Maximum Baseline Concentration = 1070
Confidence Level = 98.6%
False Positive Rate = 1.4%

Baseline Measurements	Date	Value
	12/15/1994	440
	3/14/1995	420
	6/21/1995	420
	12/14/1995	406
	3/6/1996	368
	4/25/1996	384
	10/2/1996	430
	12/10/1996	377
	3/11/1997	375
	4/15/1997	400
	8/14/1997	916
	12/4/1997	249
	3/31/1998	275
	6/23/1998	246
	8/11/1998	500
	12/8/1998	260
	3/9/1999	280
	6/8/1999	214
	8/19/1999	260
	12/14/1999	200
	3/7/2000	232
	6/23/2000	270
	12/12/2000	196
	3/27/2001	190
	6/28/2001	180
	9/10/2001	202
	12/18/2001	149
	3/19/2002	203
	6/26/2002	180
	9/18/2002	185
	12/11/2002	178
	3/13/2003	207
	6/25/2003	190
	9/26/2003	158
	12/10/2003	140
	3/9/2004	13
	6/24/2004	160
	9/15/2004	139
	12/15/2004	122
	3/16/2005	180
	6/15/2005	150
	9/21/2005	215

12/21/2005	180
3/15/2006	221
6/21/2006	210
12/20/2006	210
6/12/2007	110
12/17/2007	131
6/11/2008	144
12/3/2008	152
6/17/2009	120
12/9/2009	175
6/17/2010	150
12/22/2010	170
6/29/2011	170
12/7/2011	98.9
6/6/2012	194
12/12/2012	168
6/19/2013	194
12/11/2013	173
6/11/2014	254
12/3/2014	194
6/17/2015	168
12/1/2015	280
6/22/2016	518
12/20/2016	475
6/6/2017	113
11/7/2017	402
2/27/2018	435
9/27/2018	426
5/7/2019	421
11/21/2019	1070

Date	Count	Mean	Significant
6/25/2020	1	143	FALSE

Concentrations (ppb)

Parameter: Chloride

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 290
Total Non-Detect: 6
Percent Non-Detects: 2.06897%
Total Background Measurements: 73
There is 1 background location

Loc.	Meas.	ND	Date	Conc.	Original
MW#93-1	73	0 (0%)	12/15/1994	30	30
			3/14/1995	38	38
			6/21/1995	37	37
			12/14/1995	24	24
			3/6/1996	20	20
			4/25/1996	32	32
			10/2/1996	40	40
			12/10/1996	30	30
			3/11/1997	4	4
			4/15/1997	28	28
			8/14/1997	33	33
			12/4/1997	29	29
			3/31/1998	30	30
			6/23/1998	37	37
			8/11/1998	24	24
			12/8/1998	31	31
			3/9/1999	30	30
			6/8/1999	35	35
			8/19/1999	40	40
			12/14/1999	40	40
			3/7/2000	50	50
			6/23/2000	52	52
			12/12/2000	54	54
			3/27/2001	60	60
			6/28/2001	58	58
			9/10/2001	46	46
			12/18/2001	46	46
			3/19/2002	42	42
			6/26/2002	51	51
			9/18/2002	57	57
			12/11/2002	56	56
			3/13/2003	56	56
			6/25/2003	63	63
			9/26/2003	59	59
			12/10/2003	40	40
			3/9/2004	58	58
			6/24/2004	61	61
			9/15/2004	44	44
			12/15/2004	48	48
			3/16/2005	42	42
			6/15/2005	42	42
			9/21/2005	42	42
			12/21/2005	58	58
			3/15/2006	50	50
			6/21/2006	31	31

			12/20/2006	35	35
			6/12/2007	24	24
			12/17/2007	27	27
			6/11/2008	29	29
			12/3/2008	28	28
			6/17/2009	20	20
			12/9/2009	24	24
			6/17/2010	17	17
			12/22/2010	20	20
			6/29/2011	20.8	20.8
			12/7/2011	17.6	17.6
			6/6/2012	23.8	23.8
			12/12/2012	22.2	22.2
			6/19/2013	21.5	21.5
			12/11/2013	17.6	17.6
			6/11/2014	19.3	19.3
			12/3/2014	16.9	16.9
			6/17/2015	13	13
			12/1/2015	15.2	15.2
			6/22/2016	13	13
			12/20/2016	15.2	15.2
			6/6/2017	16.1	16.1
			11/7/2017	16.2	16.2
			2/27/2018	15.6	15.6
			9/27/2018	16.8	16.8
			5/7/2019	18.8	18.8
			11/21/2019	22	22
			6/25/2020	11	11

There are 4 compliance locations

Loc.	Meas.	ND	Date	Conc.	Original
MW#03-1	32	4 (12.5%)	6/24/2004	10	10
			9/15/2004	22	22
			12/15/2004	6	6
			3/16/2005	4	4
			6/15/2005	6	6
			9/21/2005	5	5
			12/20/2006	5	5
			6/12/2007	4	4
			12/17/2007	3	3
			6/11/2008	11	11
			12/3/2008	11	11
			6/17/2009	4	4
			12/9/2009	32	32
			6/17/2010	5	5
			12/22/2010	8.7	8.7
			6/29/2011	4.86	4.86
			12/7/2011	5.88	5.88
			6/6/2012	9.36	9.36
			6/19/2013	ND<5	ND<5
			12/11/2013	ND<5	ND<5
			6/11/2014	44	44
			12/3/2014	ND<5	ND<5
			6/17/2015	ND<5	ND<5
			12/1/2015	0.777	0.777

			6/22/2016	0.628	0.628
			12/20/2016	0.786	0.786
			6/6/2017	0.887	0.887
			11/7/2017	1.13	1.13
			2/27/2018	1.07	1.07
			5/7/2019	5.9	5.9
			11/21/2019	410	410
			6/25/2020	0.652	0.652
MW#03-2	38	1 (2.63158%)	6/24/2004	36	36
			9/15/2004	4	4
			12/15/2004	28	28
			3/16/2005	30	30
			6/15/2005	30	30
			9/21/2005	27	27
			12/21/2005	26	26
			3/15/2006	27	27
			6/21/2006	23	23
			12/20/2006	35	35
			6/12/2007	30	30
			12/17/2007	20	20
			6/11/2008	41	41
			12/3/2008	46	46
			6/17/2009	60	60
			12/9/2009	45	45
			6/17/2010	33	33
			12/22/2010	29	29
			6/29/2011	28.4	28.4
			12/7/2011	23.5	23.5
			6/6/2012	29.3	29.3
			12/12/2012	28.3	28.3
			6/19/2013	32.1	32.1
			12/11/2013	32.8	32.8
			6/11/2014	ND<5	ND<5
			12/3/2014	51.2	51.2
			6/17/2015	54.7	54.7
			12/1/2015	67.8	67.8
			6/22/2016	79.7	79.7
			10/11/2016	88.4	88.4
			12/20/2016	126	126
			6/6/2017	117	117
			11/7/2017	288	288
			2/27/2018	247	247
			9/27/2018	283	283
			5/7/2019	313	313
			11/21/2019	543	543
			6/25/2020	448	448
MW#93-2	74	1 (1.35135%)	12/15/1994	400	400
			3/14/1995	1500	1500
			6/21/1995	75	75
			12/14/1995	1749	1749
			3/6/1996	1674	1674
			4/25/1996	1999	1999
			10/2/1996	1553	1553
			12/10/1996	1560	1560
			3/11/1997	1634	1634

4/15/1997	1700	1700
8/14/1997	2149	2149
12/4/1997	1769	1769
3/31/1998	2000	2000
6/23/1998	2099	2099
8/11/1998	1874	1874
12/8/1998	1922	1922
3/9/1999	1700	1700
6/8/1999	1739	1739
8/19/1999	1800	1800
12/14/1999	1800	1800
3/7/2000	1328	1328
6/23/2000	950	950
12/12/2000	1789	1789
3/27/2001	1749	1749
6/28/2001	1799	1799
9/10/2001	2050	2050
12/18/2001	1600	1600
3/19/2002	1730	1730
6/26/2002	1699	1699
9/18/2002	1674	1674
12/11/2002	1613	1613
3/13/2003	1510	1510
6/25/2003	1800	1800
9/26/2003	1616	1616
12/10/2003	1509	1509
3/9/2004	1800	1800
6/24/2004	1892	1892
9/15/2004	1435	1435
12/15/2004	1600	1600
3/16/2005	1325	1325
6/15/2005	1400	1400
9/21/2005	1412	1412
12/21/2005	1550	1550
3/15/2006	1375	1375
6/21/2006	1500	1500
12/20/2006	1250	1250
2/21/2007	1250	1250
6/12/2007	1350	1350
12/17/2007	1399	1399
6/11/2008	1210	1210
12/3/2008	1584	1584
6/17/2009	750	750
12/9/2009	875	875
6/17/2010	1500	1500
12/22/2010	1600	1600
6/29/2011	1670	1670
12/7/2011	1510	1510
6/6/2012	1610	1610
12/12/2012	1750	1750
6/19/2013	1390	1390
12/11/2013	1410	1410
6/11/2014	1360	1360
12/3/2014	1520	1520
6/17/2015	47.7	47.7
12/1/2015	1760	1760
6/22/2016	1300	1300

			12/20/2016	1690	1690
			6/6/2017	1580	1580
			11/7/2017	1160	1160
			2/27/2018	1270	1270
			9/27/2018	1250	1250
			5/7/2019	1360	1360
			11/21/2019	ND<5	ND<5
			6/25/2020	109	109
MW#93-3	73	0 (0%)	12/15/1994	440	440
			3/14/1995	420	420
			6/21/1995	420	420
			12/14/1995	406	406
			3/6/1996	368	368
			4/25/1996	384	384
			10/2/1996	430	430
			12/10/1996	377	377
			3/11/1997	375	375
			4/15/1997	400	400
			8/14/1997	916	916
			12/4/1997	249	249
			3/31/1998	275	275
			6/23/1998	246	246
			8/11/1998	500	500
			12/8/1998	260	260
			3/9/1999	280	280
			6/8/1999	214	214
			8/19/1999	260	260
			12/14/1999	200	200
			3/7/2000	232	232
			6/23/2000	270	270
			12/12/2000	196	196
			3/27/2001	190	190
			6/28/2001	180	180
			9/10/2001	202	202
			12/18/2001	149	149
			3/19/2002	203	203
			6/26/2002	180	180
			9/18/2002	185	185
			12/11/2002	178	178
			3/13/2003	207	207
			6/25/2003	190	190
			9/26/2003	158	158
			12/10/2003	140	140
			3/9/2004	13	13
			6/24/2004	160	160
			9/15/2004	139	139
			12/15/2004	122	122
			3/16/2005	180	180
			6/15/2005	150	150
			9/21/2005	215	215
			12/21/2005	180	180
			3/15/2006	221	221
			6/21/2006	210	210
			12/20/2006	210	210
			6/12/2007	110	110
			12/17/2007	131	131

6/11/2008	144	144
12/3/2008	152	152
6/17/2009	120	120
12/9/2009	175	175
6/17/2010	150	150
12/22/2010	170	170
6/29/2011	170	170
12/7/2011	98.9	98.9
6/6/2012	194	194
12/12/2012	168	168
6/19/2013	194	194
12/11/2013	173	173
6/11/2014	254	254
12/3/2014	194	194
6/17/2015	168	168
12/1/2015	280	280
6/22/2016	518	518
12/20/2016	475	475
6/6/2017	113	113
11/7/2017	402	402
2/27/2018	435	435
9/27/2018	426	426
5/7/2019	421	421
11/21/2019	1070	1070
6/25/2020	143	143

There are 0 unused locations

Loc.	Meas.	ND	Date	Conc.	Original

Concentrations (ppb)

Parameter: Chromium

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 50
Total Non-Detect: 48
Percent Non-Detects: 96%
Total Background Measurements: 10
There is 1 background location

Loc.	Meas.	ND	Date	Conc.	Original
MW#93-1	10	10 (100%)	5/24/2018	ND<0.01	ND<0.01
			6/19/2018	ND<0.01	ND<0.01
			7/19/2018	ND<0.01	ND<0.01
			8/22/2018	ND<0.01	ND<0.01
			9/19/2018	ND<0.01	ND<0.01
			10/18/2018	ND<0.01	ND<0.01
			11/20/2018	ND<0.01	ND<0.01
			12/20/2018	ND<0.01	ND<0.01
			11/21/2019	ND<0.01	ND<0.01
			6/25/2020	ND<0.02	ND<0.02

There are 4 compliance locations

Loc.	Meas.	ND	Date	Conc.	Original
MW#03-1	10	8 (80%)	5/24/2018	ND<0.01	ND<0.01
			6/19/2018	ND<0.01	ND<0.01
			7/19/2018	0.0808	0.0808
			8/22/2018	0.38	0.38
			10/18/2018	ND<0.01	ND<0.01
			11/20/2018	ND<0.01	ND<0.01
			12/20/2018	ND<0.01	ND<0.01
			3/26/2019	ND<0.01	ND<0.01
			11/21/2019	ND<0.01	ND<0.01
			6/25/2020	ND<0.02	ND<0.02
MW#03-2	10	10 (100%)	5/24/2018	ND<0.01	ND<0.01
			6/19/2018	ND<0.01	ND<0.01
			7/19/2018	ND<0.01	ND<0.01
			8/22/2018	ND<0.01	ND<0.01
			9/19/2018	ND<0.01	ND<0.01
			10/18/2018	ND<0.01	ND<0.01
			11/20/2018	ND<0.01	ND<0.01
			12/20/2018	ND<0.01	ND<0.01
			11/21/2019	ND<0.01	ND<0.01
			6/25/2020	ND<0.02	ND<0.02
MW#93-2	10	10 (100%)	5/24/2018	ND<0.01	ND<0.01
			6/19/2018	ND<0.01	ND<0.01
			7/19/2018	ND<0.01	ND<0.01
			8/22/2018	ND<0.01	ND<0.01
			9/19/2018	ND<0.01	ND<0.01
			10/18/2018	ND<0.01	ND<0.01
			11/20/2018	ND<0.01	ND<0.01
			12/20/2018	ND<0.01	ND<0.01

			11/21/2019	ND<0.01	ND<0.01
			6/25/2020	ND<0.02	ND<0.02
MW#93-3	10	10 (100%)	5/24/2018	ND<0.01	ND<0.01
			6/19/2018	ND<0.01	ND<0.01
			7/19/2018	ND<0.01	ND<0.01
			8/22/2018	ND<0.01	ND<0.01
			9/19/2018	ND<0.01	ND<0.01
			10/18/2018	ND<0.01	ND<0.01
			11/20/2018	ND<0.01	ND<0.01
			12/20/2018	ND<0.01	ND<0.01
			11/21/2019	ND<0.01	ND<0.01
			6/25/2020	ND<0.02	ND<0.02

There are 0 unused locations

Loc.	Meas.	ND	Date	Conc.	Original

Non-Parametric Prediction Interval

Inter-Well Comparison

Parameter: Chromium

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 96%
Number of comparisons = 4
Future Samples (k) = 4
Recent Dates = 1
Background Measurements (n) = 10
Maximum Background Value = 0.02
Confidence Level = 71.4%
False Positive Rate = 28.6%

Location	Date	Count	Mean	Significant
MW#03-1	6/25/2020	1	0.02	FALSE
MW#03-2	6/25/2020	1	0.02	FALSE
MW#93-2	6/25/2020	1	0.02	FALSE
MW#93-3	6/25/2020	1	0.02	FALSE

Levene's Test for Equal of Variance

Parameter: Chromium

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Overall Mean = 0.0154656
Overall Std Dev = 0.0474
Overall Total = 0.77328
SS Groups = 0.0373497
SS Total = 0.110091

ANOVA Table

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Squares	F
Between Groups	0.0373497	4	0.00933743	5.7764
Error (within groups)	0.0727416	45	0.00161648	
Totals	0.110091	49		

95% F-Statistic = 2.52521

5.7764 exceeds 2.52521; assumption of equal variance should be rejected

Group: MW#93-1	Sample	Residual
	5/24/2018	0.001
	6/19/2018	0.001
	7/19/2018	0.001
	8/22/2018	0.001
	9/19/2018	0.001
	10/18/2018	0.001
	11/20/2018	0.001
	12/20/2018	0.001
	11/21/2019	0.001
	6/25/2020	0.009

Group: MW#03-1	Date	Residual
	5/24/2018	0.04508
	6/19/2018	0.04508
	7/19/2018	0.02572
	8/22/2018	0.32492
	10/18/2018	0.04508
	11/20/2018	0.04508
	12/20/2018	0.04508
	3/26/2019	0.04508
	11/21/2019	0.04508
	6/25/2020	0.03508

Group: MW#03-2	Date	Residual
	5/24/2018	0.001
	6/19/2018	0.001
	7/19/2018	0.001
	8/22/2018	0.001
	9/19/2018	0.001
	10/18/2018	0.001

	11/20/2018	0.001
	12/20/2018	0.001
	11/21/2019	0.001
	6/25/2020	0.009

Group: MW#93-2	Date	Residual
	5/24/2018	0.001
	6/19/2018	0.001
	7/19/2018	0.001
	8/22/2018	0.001
	9/19/2018	0.001
	10/18/2018	0.001
	11/20/2018	0.001
	12/20/2018	0.001
	11/21/2019	0.001
	6/25/2020	0.009

Group: MW#93-3	Date	Residual
	5/24/2018	0.001
	6/19/2018	0.001
	7/19/2018	0.001
	8/22/2018	0.001
	9/19/2018	0.001
	10/18/2018	0.001
	11/20/2018	0.001
	12/20/2018	0.001
	11/21/2019	0.001
	6/25/2020	0.009

Shapiro-Francia Test of Normality

Parameter: Chromium

All Locations

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Number of Measurements = 50

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	0.01	-2.07485	4.305	-0.0207485
2	0.01	-1.76241	7.41108	-0.0383726
3	0.01	-1.57179	9.8816	-0.0540905
4	0.01	-1.41865	11.8942	-0.068277
5	0.01	-1.29303	13.5661	-0.0812073
6	0.01	-1.19012	14.9825	-0.0931085
7	0.01	-1.0939	16.1791	-0.104047
8	0.01	-1.01104	17.2013	-0.114158
9	0.01	-0.930718	18.0675	-0.123465
10	0.01	-0.855996	18.8003	-0.132025
11	0.01	-0.789191	19.4231	-0.139917
12	0.01	-0.722479	19.9451	-0.147142
13	0.01	-0.661955	20.3832	-0.153761
14	0.01	-0.60076	20.7442	-0.159769
15	0.01	-0.541736	21.0376	-0.165186
16	0.01	-0.487364	21.2752	-0.17006
17	0.01	-0.431644	21.4615	-0.174376
18	0.01	-0.379927	21.6058	-0.178176
19	0.01	-0.326561	21.7125	-0.181441
20	0.01	-0.27411	21.7876	-0.184182
21	0.01	-0.224974	21.8382	-0.186432
22	0.01	-0.173829	21.8684	-0.18817
23	0.01	-0.125661	21.8842	-0.189427
24	0.01	-0.0752698	21.8899	-0.19018
25	0.01	-0.0250691	21.8905	-0.19043
26	0.01	0.0250691	21.8911	-0.19018
27	0.01	0.0752698	21.8968	-0.189427
28	0.01	0.125661	21.9126	-0.18817
29	0.01	0.173829	21.9428	-0.186432
30	0.01	0.224974	21.9934	-0.184182
31	0.01	0.27411	22.0686	-0.181441
32	0.01	0.326561	22.1752	-0.178176
33	0.01	0.379927	22.3196	-0.174376
34	0.01	0.431644	22.5059	-0.17006
35	0.01	0.487364	22.7434	-0.165186
36	0.01	0.541736	23.0369	-0.159769
37	0.01	0.60076	23.3978	-0.153761
38	0.01	0.661955	23.836	-0.147142
39	0.01	0.722479	24.3579	-0.139917
40	0.01	0.789191	24.9808	-0.132025
41	0.01	0.855996	25.7135	-0.123465
42	0.01	0.930718	26.5797	-0.114158
43	0.01	1.01104	27.6019	-0.104047
44	0.02	1.0939	28.7985	-0.0821695
45	0.02	1.19012	30.2149	-0.0583672
46	0.02	1.29303	31.8869	-0.0325065
47	0.02	1.41865	33.8994	-0.00413345

48	0.02	1.57179	36.3699	0.0273023
49	0.0808	1.76241	39.476	0.169705
50	0.38	2.07485	43.781	0.958147

Data Set Standard Deviation = 0.0529911
Numerator = 0.918047
Denominator = 6.02405
W Statistic = 0.152397 = 0.918047 / 6.02405

5% Critical value of 0.953 exceeds 0.152397
Evidence of non-normality at 95% level of significance

1% Critical value of 0.935 exceeds 0.152397
Evidence of non-normality at 99% level of significance

Concentrations (ppb)

Parameter: Cobalt

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 50
Total Non-Detect: 47
Percent Non-Detects: 94%
Total Background Measurements: 10
There is 1 background location

Loc.	Meas.	ND	Date	Conc.	Original
MW#93-1	10	10 (100%)	5/24/2018	ND<0.01	ND<0.01
			6/19/2018	ND<0.01	ND<0.01
			7/19/2018	ND<0.01	ND<0.01
			8/22/2018	ND<0.01	ND<0.01
			9/19/2018	ND<0.01	ND<0.01
			10/18/2018	ND<0.01	ND<0.01
			11/20/2018	ND<0.01	ND<0.01
			12/20/2018	ND<0.01	ND<0.01
			11/21/2019	ND<0.006	ND<0.006
			6/25/2020	ND<0.002	ND<0.002

There are 4 compliance locations

Loc.	Meas.	ND	Date	Conc.	Original
MW#03-1	10	8 (80%)	5/24/2018	ND<0.01	ND<0.01
			6/19/2018	ND<0.01	ND<0.01
			7/19/2018	0.0321	0.0321
			8/22/2018	0.115	0.115
			10/18/2018	ND<0.01	ND<0.01
			11/20/2018	ND<0.01	ND<0.01
			12/20/2018	ND<0.01	ND<0.01
			3/26/2019	ND<0.01	ND<0.01
			11/21/2019	ND<0.006	ND<0.006
			6/25/2020	ND<0.002	ND<0.002
MW#03-2	10	10 (100%)	5/24/2018	ND<0.01	ND<0.01
			6/19/2018	ND<0.01	ND<0.01
			7/19/2018	ND<0.01	ND<0.01
			8/22/2018	ND<0.01	ND<0.01
			9/19/2018	ND<0.01	ND<0.01
			10/18/2018	ND<0.01	ND<0.01
			11/20/2018	ND<0.01	ND<0.01
			12/20/2018	ND<0.01	ND<0.01
			11/21/2019	ND<0.006	ND<0.006
			6/25/2020	ND<0.002	ND<0.002
MW#93-2	10	9 (90%)	5/24/2018	ND<0.01	ND<0.01
			6/19/2018	ND<0.01	ND<0.01
			7/19/2018	ND<0.01	ND<0.01
			8/22/2018	ND<0.01	ND<0.01
			9/19/2018	ND<0.01	ND<0.01
			10/18/2018	ND<0.01	ND<0.01
			11/20/2018	ND<0.01	ND<0.01
			12/20/2018	ND<0.01	ND<0.01

			11/21/2019	ND<0.006	ND<0.006
			6/25/2020	0.000252	0.000252
MW#93-3	10	10 (100%)	5/24/2018	ND<0.01	ND<0.01
			6/19/2018	ND<0.01	ND<0.01
			7/19/2018	ND<0.01	ND<0.01
			8/22/2018	ND<0.01	ND<0.01
			9/19/2018	ND<0.01	ND<0.01
			10/18/2018	ND<0.01	ND<0.01
			11/20/2018	ND<0.01	ND<0.01
			12/20/2018	ND<0.01	ND<0.01
			11/21/2019	ND<0.006	ND<0.006
			6/25/2020	ND<0.002	ND<0.002

There are 0 unused locations

Loc.	Meas.	ND	Date	Conc.	Original

Non-Parametric Prediction Interval

Inter-Well Comparison

Parameter: Cobalt

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 94%
Number of comparisons = 4
Future Samples (k) = 4
Recent Dates = 1
Background Measurements (n) = 10
Maximum Background Value = 0.01
Confidence Level = 71.4%
False Positive Rate = 28.6%

Location	Date	Count	Mean	Significant
MW#03-1	6/25/2020	1	0.002	FALSE
MW#03-2	6/25/2020	1	0.002	FALSE
MW#93-2	6/25/2020	1	0.000252	FALSE
MW#93-3	6/25/2020	1	0.002	FALSE

Levene's Test for Equal of Variance

Parameter: Cobalt

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Overall Mean = 0.00575514
Overall Std Dev = 0.0134782
Overall Total = 0.287757
SS Groups = 0.00283596
SS Total = 0.00890145

ANOVA Table

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Squares	F
Between Groups	0.00283596	4	0.000708989	5.26
Error (within groups)	0.0060655	45	0.000134789	
Totals	0.00890145	49		

95% F-Statistic = 2.52521

5.26 exceeds 2.52521; assumption of equal variance should be rejected

Group: MW#93-1	Sample	Residual
	5/24/2018	0.0012
	6/19/2018	0.0012
	7/19/2018	0.0012
	8/22/2018	0.0012
	9/19/2018	0.0012
	10/18/2018	0.0012
	11/20/2018	0.0012
	12/20/2018	0.0012
	11/21/2019	0.0028
	6/25/2020	0.0068

Group: MW#03-1	Date	Residual
	5/24/2018	0.01151
	6/19/2018	0.01151
	7/19/2018	0.01059
	8/22/2018	0.09349
	10/18/2018	0.01151
	11/20/2018	0.01151
	12/20/2018	0.01151
	3/26/2019	0.01151
	11/21/2019	0.01551
	6/25/2020	0.01951

Group: MW#03-2	Date	Residual
	5/24/2018	0.0012
	6/19/2018	0.0012
	7/19/2018	0.0012
	8/22/2018	0.0012
	9/19/2018	0.0012
	10/18/2018	0.0012

	11/20/2018	0.0012
	12/20/2018	0.0012
	11/21/2019	0.0028
	6/25/2020	0.0068

Group: MW#93-2	Date	Residual
	5/24/2018	0.0013748
	6/19/2018	0.0013748
	7/19/2018	0.0013748
	8/22/2018	0.0013748
	9/19/2018	0.0013748
	10/18/2018	0.0013748
	11/20/2018	0.0013748
	12/20/2018	0.0013748
	11/21/2019	0.0026252
	6/25/2020	0.0083732

Group: MW#93-3	Date	Residual
	5/24/2018	0.0012
	6/19/2018	0.0012
	7/19/2018	0.0012
	8/22/2018	0.0012
	9/19/2018	0.0012
	10/18/2018	0.0012
	11/20/2018	0.0012
	12/20/2018	0.0012
	11/21/2019	0.0028
	6/25/2020	0.0068

Shapiro-Francia Test of Normality

Parameter: Cobalt

All Locations

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Number of Measurements = 50

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	0.000252	-2.07485	4.305	-0.000522862
2	0.002	-1.76241	7.41108	-0.00404768
3	0.002	-1.57179	9.8816	-0.00719126
4	0.002	-1.41865	11.8942	-0.0100286
5	0.002	-1.29303	13.5661	-0.0126146
6	0.006	-1.19012	14.9825	-0.0197553
7	0.006	-1.0939	16.1791	-0.0263187
8	0.006	-1.01104	17.2013	-0.0323849
9	0.006	-0.930718	18.0675	-0.0379692
10	0.006	-0.855996	18.8003	-0.0431052
11	0.01	-0.789191	19.4231	-0.0509971
12	0.01	-0.722479	19.9451	-0.0582219
13	0.01	-0.661955	20.3832	-0.0648415
14	0.01	-0.60076	20.7442	-0.0708491
15	0.01	-0.541736	21.0376	-0.0762664
16	0.01	-0.487364	21.2752	-0.0811401
17	0.01	-0.431644	21.4615	-0.0854565
18	0.01	-0.379927	21.6058	-0.0892558
19	0.01	-0.326561	21.7125	-0.0925214
20	0.01	-0.27411	21.7876	-0.0952625
21	0.01	-0.224974	21.8382	-0.0975122
22	0.01	-0.173829	21.8684	-0.0992505
23	0.01	-0.125661	21.8842	-0.100507
24	0.01	-0.0752698	21.8899	-0.10126
25	0.01	-0.0250691	21.8905	-0.101511
26	0.01	0.0250691	21.8911	-0.10126
27	0.01	0.0752698	21.8968	-0.100507
28	0.01	0.125661	21.9126	-0.0992505
29	0.01	0.173829	21.9428	-0.0975122
30	0.01	0.224974	21.9934	-0.0952625
31	0.01	0.27411	22.0686	-0.0925214
32	0.01	0.326561	22.1752	-0.0892558
33	0.01	0.379927	22.3196	-0.0854565
34	0.01	0.431644	22.5059	-0.0811401
35	0.01	0.487364	22.7434	-0.0762664
36	0.01	0.541736	23.0369	-0.0708491
37	0.01	0.60076	23.3978	-0.0648415
38	0.01	0.661955	23.836	-0.0582219
39	0.01	0.722479	24.3579	-0.0509971
40	0.01	0.789191	24.9808	-0.0431052
41	0.01	0.855996	25.7135	-0.0345453
42	0.01	0.930718	26.5797	-0.0252381
43	0.01	1.01104	27.6019	-0.0151277
44	0.01	1.0939	28.7985	-0.00418876
45	0.01	1.19012	30.2149	0.00771243
46	0.01	1.29303	31.8869	0.0206428
47	0.01	1.41865	33.8994	0.0348293

48	0.01	1.57179	36.3699	0.0505472
49	0.0321	1.76241	39.476	0.107121
50	0.115	2.07485	43.781	0.345728

Data Set Standard Deviation = 0.015557
Numerator = 0.119528
Denominator = 0.5192
W Statistic = 0.230216 = 0.119528 / 0.5192

5% Critical value of 0.953 exceeds 0.230216
Evidence of non-normality at 95% level of significance

1% Critical value of 0.935 exceeds 0.230216
Evidence of non-normality at 99% level of significance

Concentrations (ppb)

Parameter: Specific Conductance

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 288
Total Non-Detect: 0
Percent Non-Detects: 0%
Total Background Measurements: 72
There is 1 background location

Loc.	Meas.	ND	Date	Conc.	Original
MW#93-1	72	0 (0%)	12/15/1994	1080	1080
			3/14/1995	1103	1103
			6/21/1995	1154	1154
			12/14/1995	1109	1109
			3/6/1996	1010	1010
			4/25/1996	1063	1063
			10/2/1996	1169	1169
			12/10/1996	1187	1187
			3/11/1997	1077	1077
			4/15/1997	1070	1070
			8/14/1997	1217	1217
			12/4/1997	1170	1170
			3/31/1998	1092	1092
			6/23/1998	1210	1210
			8/11/1998	1273	1273
			12/8/1998	1888	1888
			3/9/1999	1080	1080
			6/8/1999	1301	1301
			8/19/1999	1301	1301
			12/14/1999	1270	1270
			3/7/2000	1290	1290
			6/23/2000	1393	1393
			12/12/2000	1309	1309
			3/27/2001	1469	1469
			6/28/2001	1560	1560
			9/10/2001	1374	1374
			12/18/2001	1374	1374
			3/19/2002	1326	1326
			6/26/2002	1516	1516
			9/18/2002	1423	1423
			12/11/2002	1515	1515
			3/13/2003	1332	1332
			6/25/2003	1608	1608
			9/26/2003	1602	1602
			12/10/2003	1620	1620
			3/9/2004	1630	1630
			6/24/2004	1620	1620
			9/15/2004	1618	1618
			12/15/2004	1586	1586
			3/16/2005	1521	1521
			6/15/2005	1531	1531
			9/21/2005	1441	1441
			12/21/2005	1030	1030
			3/15/2006	1318	1318
			6/21/2006	1547	1547

			12/20/2006	1370	1370
			6/12/2007	1466	1466
			12/17/2007	1327	1327
			6/11/2008	1334	1334
			12/3/2008	1352	1352
			6/17/2009	1301	1301
			12/9/2009	1218	1218
			6/17/2010	1179	1179
			12/22/2010	1270	1270
			6/29/2011	1275	1275
			12/7/2011	1236	1236
			6/6/2012	1185	1185
			12/12/2012	1227	1227
			6/19/2013	1366	1366
			12/11/2013	1329	1329
			6/11/2014	1200	1200
			12/3/2014	1230	1230
			6/17/2015	1210	1210
			12/1/2015	1230	1230
			6/22/2016	1185	1185
			12/20/2016	1186	1186
			6/6/2017	1289	1289
			11/7/2017	1458	1458
			2/27/2018	1235	1235
			9/19/2018	1520	1520
			11/21/2019	1510	1510
			6/25/2020	1440	1440

There are 4 compliance locations

Loc.	Meas.	ND	Date	Conc.	Original
MW#93-2	75	0 (0%)	12/15/1994	7950	7950
			3/14/1995	8217	8217
			6/21/1995	9210	9210
			12/14/1995	9000	9000
			3/6/1996	8820	8820
			4/25/1996	9310	9310
			10/2/1996	9420	9420
			12/10/1996	9590	9590
			3/11/1997	9250	9250
			4/15/1997	9690	9690
			8/14/1997	10660	10660
			12/4/1997	10240	10240
			3/31/1998	9237	9237
			6/23/1998	10400	10400
			8/11/1998	11460	11460
			12/8/1998	10280	10280
			3/9/1999	9240	9240
			6/8/1999	10850	10850
			8/19/1999	10873	10873
			12/14/1999	9690	9690
			3/7/2000	9340	9340
			6/23/2000	1034	1034
			12/12/2000	9080	9080
			3/27/2001	10260	10260
			6/28/2001	11600	11600

			9/10/2001	10700	10700
			12/18/2001	10660	10660
			3/19/2002	10197	10197
			6/26/2002	10590	10590
			9/18/2002	9690	9690
			12/11/2002	10283	10283
			3/13/2003	8920	8920
			6/25/2003	10590	10590
			9/26/2003	10693	10693
			12/10/2003	10550	10550
			3/9/2004	10620	10620
			6/24/2004	10494	10494
			9/15/2004	10340	10340
			12/15/2004	9940	9940
			3/16/2005	9690	9690
			6/15/2005	10010	10010
			9/21/2005	9660	9660
			12/21/2005	10000	10000
			3/15/2006	8650	8650
			6/21/2006	9830	9830
			12/20/2006	8310	8310
			2/21/2007	7660	7660
			6/12/2007	9590	9590
			12/17/2007	9100	9100
			6/11/2008	9600	9600
			12/3/2008	10520	10520
			12/15/2008	9070	9070
			6/17/2009	10690	10690
			12/9/2009	10050	10050
			6/17/2010	10020	10020
			12/22/2010	11230	11230
			6/29/2011	11110	11110
			12/7/2011	10770	10770
			6/6/2012	10490	10490
			12/12/2012	11460	11460
			6/19/2013	10500	10500
			12/11/2013	10650	10650
			6/11/2014	9940	9940
			12/3/2014	10900	10900
			6/17/2015	1270	1270
			12/1/2015	10560	10560
			6/22/2016	6710	6710
			12/20/2016	11400	11400
			6/6/2017	12590	12590
			11/7/2017	10.52	10.52
			2/27/2018	10.9	10.9
			9/19/2018	15700	15700
			5/7/2019	15700	15700
			11/21/2019	15400	15400
			6/25/2020	12200	12200
MW#93-3	73	0 (0%)	12/15/1994	1762	1762
			3/14/1995	1490	1490
			6/21/1995	1421	1421
			12/14/1995	1534	1534
			3/6/1996	1327	1327
			4/25/1996	1570	1570

10/2/1996	1657	1657
12/10/1996	1427	1427
3/11/1997	1370	1370
4/15/1997	1244	1244
8/14/1997	1351	1351
12/4/1997	1140	1140
3/31/1998	1172	1172
6/23/1998	1214	1214
8/11/1998	1296	1296
12/8/1998	1177	1177
3/9/1999	1137	1137
6/8/1999	1180	1180
8/19/1999	1253	1253
12/14/1999	1088	1088
3/7/2000	1250	1250
6/23/2000	1070	1070
12/12/2000	1051	1051
3/27/2001	1149	1149
6/28/2001	1155	1155
9/10/2001	1250	1250
12/18/2001	1064	1064
3/19/2002	1240	1240
6/26/2002	787	787
9/18/2002	1109	1109
12/11/2002	1125	1125
3/13/2003	1034	1034
6/25/2003	1111	1111
9/26/2003	1109	1109
12/10/2003	1173	1173
3/9/2004	881	881
6/24/2004	1129	1129
9/15/2004	1068	1068
12/15/2004	972	972
3/16/2005	1134	1134
6/15/2005	1080	1080
9/21/2005	1155	1155
12/21/2005	1140	1140
3/15/2006	1035	1035
6/21/2006	1226	1226
12/20/2006	1087	1087
6/12/2007	1031	1031
12/17/2007	910	910
6/11/2008	1023	1023
12/3/2008	1073	1073
6/17/2009	1073	1073
12/9/2009	1038	1038
6/17/2010	1108	1108
12/22/2010	1090	1090
6/29/2011	1178	1178
12/7/2011	930	930
6/6/2012	1203	1203
12/12/2012	1010	1010
6/19/2013	1438	1438
12/11/2013	1252	1252
6/11/2014	1500	1500
12/3/2014	1200	1200
6/17/2015	1480	1480

			12/1/2015	1807	1807
			10/11/2016	2005	2005
			12/20/2016	2200	2200
			6/6/2017	1743	1743
			11/7/2017	2121	2121
			9/6/2018	2380	2380
			9/19/2018	2110	2110
			5/7/2019	2830	2830
			11/21/2019	2200	2200
			6/25/2020	2080	2080
MW#03-1	31	0 (0%)	6/24/2004	497	497
			9/15/2004	687	687
			12/15/2004	514	514
			3/16/2005	422	422
			6/15/2005	465	465
			9/21/2005	517	517
			12/20/2006	447	447
			6/12/2007	630	630
			12/17/2007	540	540
			6/11/2008	467	467
			12/3/2008	649	649
			6/17/2009	519	519
			12/9/2009	469	469
			6/17/2010	500	500
			12/22/2010	504	504
			6/29/2011	463	463
			12/7/2011	501	501
			6/6/2012	457	457
			6/19/2013	373	373
			12/11/2013	476	476
			6/11/2014	826	826
			12/3/2014	409	409
			6/17/2015	267	267
			12/1/2015	385	385
			6/22/2016	320	320
			6/6/2017	198	198
			11/7/2017	444	444
			2/27/2018	186.1	186.1
			9/19/2018	573	573
			11/21/2019	140	140
			6/25/2020	255	255
MW#03-2	37	0 (0%)	6/24/2004	692	692
			9/15/2004	522	522
			12/15/2004	655	655
			3/16/2005	661	661
			6/15/2005	674	674
			9/21/2005	625	625
			12/21/2005	572	572
			3/15/2006	594	594
			6/21/2006	636	636
			12/20/2006	580	580
			6/12/2007	680	680
			12/17/2007	617	617
			6/11/2008	674	674
			12/3/2008	752	752

6/17/2009	720	720
12/9/2009	690	690
6/17/2010	685	685
12/22/2010	728	728
6/29/2011	748	748
12/7/2011	755	755
6/6/2012	716	716
12/12/2012	807	807
6/19/2013	807	807
12/11/2013	805	805
6/11/2014	219	219
12/3/2014	1540	1540
6/17/2015	965	965
12/1/2015	967	967
6/22/2016	1074	1074
12/20/2016	1454	1454
6/6/2017	1498	1498
11/7/2017	2042	2042
9/6/2018	2620	2620
9/19/2018	2880	2880
5/7/2019	2730	2730
11/21/2019	3600	3600
6/25/2020	2590	2590

There are 0 unused locations

Loc.	Meas.	ND	Date	Conc.	Original

Non-Parametric Prediction Interval

Inter-Well Comparison

Parameter: Specific Conductance

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 0%
Number of comparisons = 4
Future Samples (k) = 4
Recent Dates = 1
Background Measurements (n) = 72
Maximum Background Value = 1888
Confidence Level = 94.7%
False Positive Rate = 5.3%

Location	Date	Count	Mean	Significant
MW#93-2	**6/25/2020**	**1**	**12200**	**TRUE**
MW#93-3	**6/25/2020**	**1**	**2080**	**TRUE**
MW#03-1	6/25/2020	1	255	FALSE
MW#03-2	**6/25/2020**	**1**	**2590**	**TRUE**

Non-Parametric Prediction Interval

Intra-Well Comparison for MW#03-2

Parameter: Specific Conductance

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 0%
Future Samples (k) = 1
Recent Dates = 1
Baseline Measurements (n) = 36
Maximum Baseline Concentration = 3600
Confidence Level = 97.3%
False Positive Rate = 2.7%

Baseline Measurements	Date	Value
	6/24/2004	692
	9/15/2004	522
	12/15/2004	655
	3/16/2005	661
	6/15/2005	674
	9/21/2005	625
	12/21/2005	572
	3/15/2006	594
	6/21/2006	636
	12/20/2006	580
	6/12/2007	680
	12/17/2007	617
	6/11/2008	674
	12/3/2008	752
	6/17/2009	720
	12/9/2009	690
	6/17/2010	685
	12/22/2010	728
	6/29/2011	748
	12/7/2011	755
	6/6/2012	716
	12/12/2012	807
	6/19/2013	807
	12/11/2013	805
	6/11/2014	219
	12/3/2014	1540
	6/17/2015	965
	12/1/2015	967
	6/22/2016	1074
	12/20/2016	1454
	6/6/2017	1498
	11/7/2017	2042
	9/6/2018	2620
	9/19/2018	2880
	5/7/2019	2730
	11/21/2019	3600

Date	Count	Mean	Significant
6/25/2020	1	2590	FALSE

Non-Parametric Prediction Interval

Intra-Well Comparison for MW#93-2

Parameter: Specific Conductance

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 0%
Future Samples (k) = 1
Recent Dates = 1
Baseline Measurements (n) = 74
Maximum Baseline Concentration = 15700
Confidence Level = 98.7%
False Positive Rate = 1.3%

Baseline Measurements	Date	Value
	12/15/1994	7950
	3/14/1995	8217
	6/21/1995	9210
	12/14/1995	9000
	3/6/1996	8820
	4/25/1996	9310
	10/2/1996	9420
	12/10/1996	9590
	3/11/1997	9250
	4/15/1997	9690
	8/14/1997	10660
	12/4/1997	10240
	3/31/1998	9237
	6/23/1998	10400
	8/11/1998	11460
	12/8/1998	10280
	3/9/1999	9240
	6/8/1999	10850
	8/19/1999	10873
	12/14/1999	9690
	3/7/2000	9340
	6/23/2000	1034
	12/12/2000	9080
	3/27/2001	10260
	6/28/2001	11600
	9/10/2001	10700
	12/18/2001	10660
	3/19/2002	10197
	6/26/2002	10590
	9/18/2002	9690
	12/11/2002	10283
	3/13/2003	8920
	6/25/2003	10590
	9/26/2003	10693
	12/10/2003	10550
	3/9/2004	10620
	6/24/2004	10494
	9/15/2004	10340
	12/15/2004	9940
	3/16/2005	9690
	6/15/2005	10010
	9/21/2005	9660

12/21/2005	10000
3/15/2006	8650
6/21/2006	9830
12/20/2006	8310
2/21/2007	7660
6/12/2007	9590
12/17/2007	9100
6/11/2008	9600
12/3/2008	10520
12/15/2008	9070
6/17/2009	10690
12/9/2009	10050
6/17/2010	10020
12/22/2010	11230
6/29/2011	11110
12/7/2011	10770
6/6/2012	10490
12/12/2012	11460
6/19/2013	10500
12/11/2013	10650
6/11/2014	9940
12/3/2014	10900
6/17/2015	1270
12/1/2015	10560
6/22/2016	6710
12/20/2016	11400
6/6/2017	12590
11/7/2017	10.52
2/27/2018	10.9
9/19/2018	15700
5/7/2019	15700
11/21/2019	15400

Date	Count	Mean	Significant
6/25/2020	1	12200	FALSE

Non-Parametric Prediction Interval

Intra-Well Comparison for MW#93-3

Parameter: Specific Conductance

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 0%
Future Samples (k) = 1
Recent Dates = 1
Baseline Measurements (n) = 71
Maximum Baseline Concentration = 2830
Confidence Level = 98.6%
False Positive Rate = 1.4%

Baseline Measurements	Date	Value
	12/15/1994	1762
	3/14/1995	1490
	6/21/1995	1421
	12/14/1995	1534
	3/6/1996	1327
	4/25/1996	1570
	10/2/1996	1657
	12/10/1996	1427
	3/11/1997	1370
	4/15/1997	1244
	8/14/1997	1351
	12/4/1997	1140
	3/31/1998	1172
	6/23/1998	1214
	8/11/1998	1296
	12/8/1998	1177
	3/9/1999	1137
	6/8/1999	1180
	8/19/1999	1253
	12/14/1999	1088
	3/7/2000	1250
	6/23/2000	1070
	12/12/2000	1051
	3/27/2001	1149
	6/28/2001	1155
	9/10/2001	1250
	12/18/2001	1064
	3/19/2002	1240
	6/26/2002	787
	9/18/2002	1109
	12/11/2002	1125
	3/13/2003	1034
	6/25/2003	1111
	9/26/2003	1109
	12/10/2003	1173
	3/9/2004	881
	6/24/2004	1129
	9/15/2004	1068
	12/15/2004	972
	3/16/2005	1134
	6/15/2005	1080
	9/21/2005	1155

12/21/2005	1140
3/15/2006	1035
6/21/2006	1226
12/20/2006	1087
6/12/2007	1031
12/17/2007	910
6/11/2008	1023
12/3/2008	1073
6/17/2009	1073
12/9/2009	1038
6/17/2010	1108
12/22/2010	1090
6/29/2011	1178
12/7/2011	930
6/6/2012	1203
12/12/2012	1010
6/19/2013	1438
12/11/2013	1252
6/11/2014	1500
12/3/2014	1200
6/17/2015	1480
12/1/2015	1807
10/11/2016	2005
12/20/2016	2200
6/6/2017	1743
11/7/2017	2121
9/6/2018	2380
9/19/2018	2110
5/7/2019	2830

Date	Count	Mean	Significant
6/25/2020	1	2080	FALSE

Levene's Test for Equal of Variance

Parameter: Specific Conductance

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Overall Mean = 583.612
Overall Std Dev = 1258.97
Overall Total = 168080
SS Groups = 8.85785e+007
SS Total = 4.549e+008

ANOVA Table

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Squares	F
Between Groups	8.85785e+007	4	2.21446e+007	17.1077
Error (within groups)	3.66322e+008	283	1.29442e+006	
Totals	4.549e+008	287		

95% F-Statistic = 2.37

17.1077 exceeds 2.37; assumption of equal variance should be rejected

Group: MW#93-1	Sample	Residual
	12/15/1994	246.458
	3/14/1995	223.458
	6/21/1995	172.458
	12/14/1995	217.458
	3/6/1996	316.458
	4/25/1996	263.458
	10/2/1996	157.458
	12/10/1996	139.458
	3/11/1997	249.458
	4/15/1997	256.458
	8/14/1997	109.458
	12/4/1997	156.458
	3/31/1998	234.458
	6/23/1998	116.458
	8/11/1998	53.4583
	12/8/1998	561.542
	3/9/1999	246.458
	6/8/1999	25.4583
	8/19/1999	25.4583
	12/14/1999	56.4583
	3/7/2000	36.4583
	6/23/2000	66.5417
	12/12/2000	17.4583
	3/27/2001	142.542
	6/28/2001	233.542
	9/10/2001	47.5417
	12/18/2001	47.5417
	3/19/2002	0.458333
	6/26/2002	189.542
	9/18/2002	96.5417

12/11/2002	188.542
3/13/2003	5.54167
6/25/2003	281.542
9/26/2003	275.542
12/10/2003	293.542
3/9/2004	303.542
6/24/2004	293.542
9/15/2004	291.542
12/15/2004	259.542
3/16/2005	194.542
6/15/2005	204.542
9/21/2005	114.542
12/21/2005	296.458
3/15/2006	8.45833
6/21/2006	220.542
12/20/2006	43.5417
6/12/2007	139.542
12/17/2007	0.541667
6/11/2008	7.54167
12/3/2008	25.5417
6/17/2009	25.4583
12/9/2009	108.458
6/17/2010	147.458
12/22/2010	56.4583
6/29/2011	51.4583
12/7/2011	90.4583
6/6/2012	141.458
12/12/2012	99.4583
6/19/2013	39.5417
12/11/2013	2.54167
6/11/2014	126.458
12/3/2014	96.4583
6/17/2015	116.458
12/1/2015	96.4583
6/22/2016	141.458
12/20/2016	140.458
6/6/2017	37.4583
11/7/2017	131.542
2/27/2018	91.4583
9/19/2018	193.542
11/21/2019	183.542
6/25/2020	113.542

Group: MW#93-2	**Date**	**Residual**
	12/15/1994	1783.59
	3/14/1995	1516.59
	6/21/1995	523.592
	12/14/1995	733.592
	3/6/1996	913.592
	4/25/1996	423.592
	10/2/1996	313.592
	12/10/1996	143.592
	3/11/1997	483.592
	4/15/1997	43.5923
	8/14/1997	926.408
	12/4/1997	506.408
	3/31/1998	496.592

6/23/1998	666.408
8/11/1998	1726.41
12/8/1998	546.408
3/9/1999	493.592
6/8/1999	1116.41
8/19/1999	1139.41
12/14/1999	43.5923
3/7/2000	393.592
6/23/2000	8699.59
12/12/2000	653.592
3/27/2001	526.408
6/28/2001	1866.41
9/10/2001	966.408
12/18/2001	926.408
3/19/2002	463.408
6/26/2002	856.408
9/18/2002	43.5923
12/11/2002	549.408
3/13/2003	813.592
6/25/2003	856.408
9/26/2003	959.408
12/10/2003	816.408
3/9/2004	886.408
6/24/2004	760.408
9/15/2004	606.408
12/15/2004	206.408
3/16/2005	43.5923
6/15/2005	276.408
9/21/2005	73.5923
12/21/2005	266.408
3/15/2006	1083.59
6/21/2006	96.4077
12/20/2006	1423.59
2/21/2007	2073.59
6/12/2007	143.592
12/17/2007	633.592
6/11/2008	133.592
12/3/2008	786.408
12/15/2008	663.592
6/17/2009	956.408
12/9/2009	316.408
6/17/2010	286.408
12/22/2010	1496.41
6/29/2011	1376.41
12/7/2011	1036.41
6/6/2012	756.408
12/12/2012	1726.41
6/19/2013	766.408
12/11/2013	916.408
6/11/2014	206.408
12/3/2014	1166.41
6/17/2015	8463.59
12/1/2015	826.408
6/22/2016	3023.59
12/20/2016	1666.41
6/6/2017	2856.41
11/7/2017	9723.07

2/27/2018	9722.69
9/19/2018	5966.41
5/7/2019	5966.41
11/21/2019	5666.41
6/25/2020	2466.41

Group: MW#93-3	Date	Residual
	12/15/1994	441.356
	3/14/1995	169.356
	6/21/1995	100.356
	12/14/1995	213.356
	3/6/1996	6.35616
	4/25/1996	249.356
	10/2/1996	336.356
	12/10/1996	106.356
	3/11/1997	49.3562
	4/15/1997	76.6438
	8/14/1997	30.3562
	12/4/1997	180.644
	3/31/1998	148.644
	6/23/1998	106.644
	8/11/1998	24.6438
	12/8/1998	143.644
	3/9/1999	183.644
	6/8/1999	140.644
	8/19/1999	67.6438
	12/14/1999	232.644
	3/7/2000	70.6438
	6/23/2000	250.644
	12/12/2000	269.644
	3/27/2001	171.644
	6/28/2001	165.644
	9/10/2001	70.6438
	12/18/2001	256.644
	3/19/2002	80.6438
	6/26/2002	533.644
	9/18/2002	211.644
	12/11/2002	195.644
	3/13/2003	286.644
	6/25/2003	209.644
	9/26/2003	211.644
	12/10/2003	147.644
	3/9/2004	439.644
	6/24/2004	191.644
	9/15/2004	252.644
	12/15/2004	348.644
	3/16/2005	186.644
	6/15/2005	240.644
	9/21/2005	165.644
	12/21/2005	180.644
	3/15/2006	285.644
	6/21/2006	94.6438
	12/20/2006	233.644
	6/12/2007	289.644
	12/17/2007	410.644
	6/11/2008	297.644
	12/3/2008	247.644

6/17/2009	247.644
12/9/2009	282.644
6/17/2010	212.644
12/22/2010	230.644
6/29/2011	142.644
12/7/2011	390.644
6/6/2012	117.644
12/12/2012	310.644
6/19/2013	117.356
12/11/2013	68.6438
6/11/2014	179.356
12/3/2014	120.644
6/17/2015	159.356
12/1/2015	486.356
10/11/2016	684.356
12/20/2016	879.356
6/6/2017	422.356
11/7/2017	800.356
9/6/2018	1059.36
9/19/2018	789.356
5/7/2019	1509.36
11/21/2019	879.356
6/25/2020	759.356

Group: MW#03-1

Date	Residual
6/24/2004	42.1581
9/15/2004	232.158
12/15/2004	59.1581
3/16/2005	32.8419
6/15/2005	10.1581
9/21/2005	62.1581
12/20/2006	7.84194
6/12/2007	175.158
12/17/2007	85.1581
6/11/2008	12.1581
12/3/2008	194.158
6/17/2009	64.1581
12/9/2009	14.1581
6/17/2010	45.1581
12/22/2010	49.1581
6/29/2011	8.15806
12/7/2011	46.1581
6/6/2012	2.15806
6/19/2013	81.8419
12/11/2013	21.1581
6/11/2014	371.158
12/3/2014	45.8419
6/17/2015	187.842
12/1/2015	69.8419
6/22/2016	134.842
6/6/2017	256.842
11/7/2017	10.8419
2/27/2018	268.742
9/19/2018	118.158
11/21/2019	314.842
6/25/2020	199.842

Group: MW#03-2	Date	Residual
	6/24/2004	404.595
	9/15/2004	574.595
	12/15/2004	441.595
	3/16/2005	435.595
	6/15/2005	422.595
	9/21/2005	471.595
	12/21/2005	524.595
	3/15/2006	502.595
	6/21/2006	460.595
	12/20/2006	516.595
	6/12/2007	416.595
	12/17/2007	479.595
	6/11/2008	422.595
	12/3/2008	344.595
	6/17/2009	376.595
	12/9/2009	406.595
	6/17/2010	411.595
	12/22/2010	368.595
	6/29/2011	348.595
	12/7/2011	341.595
	6/6/2012	380.595
	12/12/2012	289.595
	6/19/2013	289.595
	12/11/2013	291.595
	6/11/2014	877.595
	12/3/2014	443.405
	6/17/2015	131.595
	12/1/2015	129.595
	6/22/2016	22.5946
	12/20/2016	357.405
	6/6/2017	401.405
	11/7/2017	945.405
	9/6/2018	1523.41
	9/19/2018	1783.41
	5/7/2019	1633.41
	11/21/2019	2503.41
	6/25/2020	1493.41

Shapiro-Francia Test of Normality

Parameter: Specific Conductance

All Locations

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Number of Measurements = 288

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	10.52	-2.74777	7.55021	-28.9065
2	10.9	-2.51213	13.861	-56.2887
3	140	-2.32634	19.2729	-381.977
4	186.1	-2.22621	24.2289	-796.274
5	198	-2.12007	28.7236	-1216.05
6	219	-2.05375	32.9415	-1665.82
7	255	-1.97737	36.8515	-2170.05
8	267	-1.92684	40.5642	-2684.51
9	320	-1.86629	44.0472	-3281.73
10	373	-1.82501	47.3778	-3962.45
11	385	-1.77438	50.5263	-4645.59
12	409	-1.7392	53.5511	-5356.92
13	422	-1.70604	56.4617	-6076.87
14	444	-1.66456	59.2324	-6815.94
15	447	-1.63524	61.9064	-7546.89
16	457	-1.59819	64.4606	-8277.26
17	463	-1.57179	66.9312	-9005
18	465	-1.5382	69.2972	-9720.26
19	467	-1.5141	71.5897	-10427.3
20	469	-1.48328	73.7899	-11123
21	476	-1.46106	75.9245	-11818.5
22	497	-1.4325	77.9766	-12530.4
23	500	-1.41183	79.9699	-13236.3
24	501	-1.38517	81.8886	-13930.3
25	504	-1.36581	83.754	-14618.7
26	514	-1.34694	85.5683	-15311
27	517	-1.32251	87.3173	-15994.7
28	519	-1.30469	89.0195	-16671.9
29	522	-1.28155	90.6619	-17340.8
30	540	-1.26464	92.2612	-18023.7
31	572	-1.24264	93.8053	-18734.5
32	573	-1.22653	95.3097	-19437.3
33	580	-1.20553	96.763	-20136.5
34	594	-1.19012	98.1794	-20843.5
35	617	-1.17	99.5483	-21565.4
36	625	-1.15522	100.883	-22287.4
37	630	-1.1359	102.173	-23003
38	636	-1.12168	103.431	-23716.4
39	649	-1.10768	104.658	-24435.3
40	655	-1.08935	105.845	-25148.8
41	661	-1.07584	107.002	-25859.9
42	674	-1.05812	108.122	-26573.1
43	674	-1.04505	109.214	-27277.5
44	680	-1.02789	110.271	-27976.4
45	685	-1.01522	111.301	-28671.9
46	687	-0.998575	112.298	-29357.9
47	690	-0.986272	113.271	-30038.4

48	692	-0.970094	114.212	-30709.7
49	716	-0.958125	115.13	-31395.7
50	720	-0.942375	116.018	-32074.2
51	728	-0.930718	116.885	-32751.8
52	748	-0.919183	117.729	-33439.3
53	752	-0.903992	118.547	-34119.1
54	755	-0.892733	119.344	-34793.2
55	787	-0.877897	120.114	-35484.1
56	805	-0.866894	120.866	-36181.9
57	807	-0.852385	121.592	-36869.8
58	807	-0.841621	122.301	-37549
59	826	-0.827417	122.985	-38232.4
60	881	-0.816874	123.653	-38952.1
61	910	-0.802956	124.297	-39682.8
62	930	-0.792618	124.926	-40419.9
63	965	-0.782366	125.538	-41174.9
64	967	-0.768821	126.129	-41918.3
65	972	-0.758753	126.705	-42655.9
66	1010	-0.745449	127.26	-43408.8
67	1010	-0.735557	127.801	-44151.7
68	1023	-0.722479	128.323	-44890.8
69	1030	-0.712751	128.831	-45624.9
70	1031	-0.699883	129.321	-46346.5
71	1034	-0.690309	129.798	-47060.3
72	1034	-0.677639	130.257	-47760.9
73	1035	-0.668209	130.703	-48452.5
74	1038	-0.655726	131.133	-49133.2
75	1051	-0.646431	131.551	-49812.6
76	1063	-0.637192	131.957	-50489.9
77	1064	-0.624956	132.348	-51154.9
78	1068	-0.615839	132.727	-51812.6
79	1070	-0.603765	133.092	-52458.6
80	1070	-0.594766	133.445	-53095
81	1073	-0.582841	133.785	-53720.4
82	1073	-0.573953	134.114	-54336.3
83	1074	-0.56217	134.43	-54940
84	1077	-0.553384	134.737	-55536
85	1080	-0.541736	135.03	-56121.1
86	1080	-0.533048	135.314	-56696.8
87	1080	-0.521527	135.586	-57260
88	1087	-0.51293	135.849	-57817.6
89	1088	-0.504372	136.104	-58366.3
90	1090	-0.493018	136.347	-58903.7
91	1092	-0.484544	136.582	-59432.9
92	1103	-0.473299	136.806	-59954.9
93	1108	-0.464904	137.022	-60470
94	1109	-0.453763	137.228	-60973.2
95	1109	-0.445443	137.426	-61467.2
96	1109	-0.434397	137.615	-61949
97	1111	-0.426148	137.796	-62422.4
98	1125	-0.415193	137.969	-62889.5
99	1129	-0.40701	138.134	-63349
100	1134	-0.396142	138.291	-63798.3
101	1137	-0.388022	138.442	-64239.4
102	1140	-0.379927	138.586	-64672.6
103	1140	-0.369171	138.723	-65093.4
104	1149	-0.361133	138.853	-65508.4

105	1154	-0.350451	138.976	-65912.8
106	1155	-0.342466	139.093	-66308.3
107	1155	-0.331854	139.203	-66691.6
108	1169	-0.323919	139.308	-67070.3
109	1170	-0.31337	139.406	-67436.9
110	1172	-0.305481	139.5	-67794.9
111	1173	-0.294992	139.587	-68141
112	1177	-0.287147	139.669	-68478.9
113	1178	-0.276714	139.746	-68804.9
114	1179	-0.268908	139.818	-69122
115	1180	-0.26112	139.886	-69430.1
116	1185	-0.250759	139.949	-69727.2
117	1185	-0.243007	140.008	-70015.2
118	1186	-0.232693	140.062	-70291.2
119	1187	-0.224974	140.113	-70558.2
120	1200	-0.214702	140.159	-70815.9
121	1200	-0.207012	140.202	-71064.3
122	1203	-0.196779	140.241	-71301
123	1210	-0.189118	140.276	-71529.8
124	1210	-0.17892	140.308	-71746.3
125	1214	-0.171285	140.338	-71954.3
126	1217	-0.163659	140.364	-72153.4
127	1218	-0.153505	140.388	-72340.4
128	1226	-0.1459	140.409	-72519.3
129	1227	-0.135774	140.428	-72685.9
130	1230	-0.128189	140.444	-72843.5
131	1230	-0.118085	140.458	-72988.8
132	1235	-0.110516	140.47	-73125.3
133	1236	-0.100433	140.48	-73249.4
134	1240	-0.0928787	140.489	-73364.6
135	1244	-0.0828129	140.496	-73467.6
136	1250	-0.0752698	140.502	-73561.7
137	1250	-0.0652187	140.506	-73643.2
138	1252	-0.0576847	140.509	-73715.4
139	1253	-0.0501541	140.512	-73778.3
140	1270	-0.0401167	140.513	-73829.2
141	1270	-0.0325917	140.514	-73870.6
142	1270	-0.0225612	140.515	-73899.3
143	1273	-0.0150408	140.515	-73918.4
144	1275	-0.00501359	140.515	-73924.8
145	1289	0.00501359	140.515	-73918.3
146	1290	0.0150408	140.515	-73898.9
147	1296	0.0225612	140.516	-73869.7
148	1301	0.0325917	140.517	-73827.3
149	1301	0.0401167	140.519	-73775.1
150	1301	0.0501541	140.521	-73709.9
151	1309	0.0576847	140.524	-73634.3
152	1318	0.0652187	140.529	-73548.4
153	1326	0.0752698	140.534	-73448.6
154	1327	0.0828129	140.541	-73338.7
155	1327	0.0928787	140.55	-73215.4
156	1329	0.100433	140.56	-73082
157	1332	0.110516	140.572	-72934.8
158	1334	0.118085	140.586	-72777.2
159	1351	0.128189	140.602	-72604
160	1352	0.135774	140.621	-72420.5
161	1366	0.1459	140.642	-72221.2

162	1370	0.153505	140.666	-72010.9
163	1370	0.163659	140.693	-71786.7
164	1374	0.171285	140.722	-71551.3
165	1374	0.17892	140.754	-71305.5
166	1393	0.189118	140.79	-71042
167	1421	0.196779	140.828	-70762.4
168	1423	0.207012	140.871	-70467.8
169	1427	0.214702	140.917	-70161.5
170	1438	0.224974	140.968	-69837.9
171	1440	0.232693	141.022	-69502.9
172	1441	0.243007	141.081	-69152.7
173	1454	0.250759	141.144	-68788.1
174	1458	0.26112	141.212	-68407.4
175	1466	0.268908	141.284	-68013.2
176	1469	0.276714	141.361	-67606.7
177	1480	0.287147	141.444	-67181.7
178	1490	0.294992	141.531	-66742.2
179	1498	0.305481	141.624	-66284.5
180	1500	0.31337	141.722	-65814.5
181	1510	0.323919	141.827	-65325.4
182	1515	0.331854	141.937	-64822.6
183	1516	0.342466	142.054	-64303.4
184	1520	0.350451	142.177	-63770.7
185	1521	0.361133	142.308	-63221.5
186	1531	0.369171	142.444	-62656.3
187	1534	0.379927	142.588	-62073.5
188	1540	0.388022	142.739	-61475.9
189	1547	0.396142	142.896	-60863.1
190	1560	0.40701	143.061	-60228.1
191	1570	0.415193	143.234	-59576.3
192	1586	0.426148	143.415	-58900.4
193	1602	0.434397	143.604	-58204.5
194	1608	0.445443	143.802	-57488.2
195	1618	0.453763	144.008	-56754
196	1620	0.464904	144.225	-56000.9
197	1620	0.473299	144.449	-55234.2
198	1630	0.484544	144.683	-54444.3
199	1657	0.493018	144.926	-53627.4
200	1743	0.504372	145.181	-52748.3
201	1762	0.51293	145.444	-51844.5
202	1807	0.521527	145.716	-50902.1
203	1888	0.533048	146	-49895.7
204	2005	0.541736	146.293	-48809.5
205	2042	0.553384	146.6	-47679.5
206	2080	0.56217	146.916	-46510.2
207	2110	0.573953	147.245	-45299.2
208	2121	0.582841	147.585	-44063
209	2200	0.594766	147.939	-42754.5
210	2200	0.603765	148.303	-41426.2
211	2380	0.615839	148.682	-39960.5
212	2590	0.624956	149.073	-38341.9
213	2620	0.637192	149.479	-36672.4
214	2730	0.646431	149.897	-34907.7
215	2830	0.655726	150.327	-33052
216	2880	0.668209	150.773	-31127.5
217	3600	0.677639	151.233	-28688
218	6710	0.690309	151.709	-24056

219	7660	0.699883	152.199	-18694.9
220	7950	0.712751	152.707	-13028.6
221	8217	0.722479	153.229	-7091.97
222	8310	0.735557	153.77	-979.485
223	8650	0.745449	154.326	5468.65
224	8820	0.758753	154.901	12160.8
225	8920	0.768821	155.492	19018.7
226	9000	0.782366	156.105	26060
227	9070	0.792618	156.733	33249.1
228	9080	0.802956	157.378	40539.9
229	9100	0.816874	158.045	47973.5
230	9210	0.827417	158.729	55594
231	9237	0.841621	159.438	63368
232	9240	0.852385	160.164	71244.1
233	9250	0.866894	160.916	79262.8
234	9310	0.877897	161.687	87436.1
235	9340	0.892733	162.483	95774.2
236	9420	0.903992	163.301	104290
237	9590	0.919183	164.146	113105
238	9590	0.930718	165.012	122030
239	9600	0.942375	165.9	131077
240	9660	0.958125	166.818	140333
241	9690	0.970094	167.759	149733
242	9690	0.986272	168.732	159290
243	9690	0.998575	169.729	168966
244	9690	1.01522	170.76	178804
245	9830	1.02789	171.816	188908
246	9940	1.04505	172.908	199295
247	9940	1.05812	174.028	209813
248	10000	1.07584	175.185	220572
249	10010	1.08935	176.372	231476
250	10020	1.10768	177.599	242575
251	10050	1.12168	178.857	253848
252	10197	1.1359	180.147	265431
253	10240	1.15522	181.482	277260
254	10260	1.17	182.851	289264
255	10280	1.19012	184.267	301499
256	10283	1.20553	185.72	313895
257	10340	1.22653	187.225	326577
258	10400	1.24264	188.769	339501
259	10490	1.26464	190.368	352767
260	10494	1.28155	192.011	366216
261	10500	1.30469	193.713	379915
262	10520	1.32251	195.462	393827
263	10550	1.34694	197.276	408038
264	10560	1.36581	199.142	422461
265	10590	1.38517	201.06	437130
266	10590	1.41183	203.054	452081
267	10620	1.4325	205.106	467294
268	10650	1.46106	207.24	482854
269	10660	1.48328	209.44	498666
270	10660	1.5141	211.733	514806
271	10690	1.5382	214.099	531250
272	10693	1.57179	216.57	548057
273	10700	1.59819	219.124	565158
274	10770	1.63524	221.798	582769
275	10850	1.66456	224.568	600830

276	10873	1.70604	227.479	619379
277	10900	1.7392	230.504	638337
278	11110	1.77438	233.652	658050
279	11230	1.82501	236.983	678545
280	11400	1.86629	240.466	699821
281	11460	1.92684	244.179	721902
282	11460	1.97737	248.089	744563
283	11600	2.05375	252.307	768386
284	12200	2.12007	256.801	794251
285	12590	2.22621	261.757	822279
286	15400	2.32634	267.169	858105
287	15700	2.51213	273.48	897545
288	15700	2.74777	281.03	940685

Data Set Standard Deviation = 4026.03
Numerator = 8.84888e+011
Denominator = 1.30734e+012
W Statistic = 0.676862 = 8.84888e+011 / 1.30734e+012

5% Critical value of 0.976 exceeds 0.676862
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.676862
Evidence of non-normality at 99% level of significance

Concentrations (ppb)

Parameter: Total Dissolved Solids

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 58
Total Non-Detect: 0
Percent Non-Detects: 0%
Total Background Measurements: 17
There is 1 background location

Loc.	Meas.	ND	Date	Conc.	Original
MW#93-1	17	0 (0%)	6/6/2012	868	868
			12/12/2012	880	880
			6/19/2013	942	942
			12/11/2013	961	961
			6/11/2014	971	971
			12/3/2014	907	907
			6/17/2015	882	882
			12/1/2015	860	860
			6/22/2016	840	840
			12/20/2016	838	838
			6/6/2017	810	810
			11/7/2017	878	878
			2/27/2018	830	830
			9/27/2018	1050	1050
			5/7/2019	952	952
			11/21/2019	966	966
			6/25/2020	1000	1000

There are 4 compliance locations

Loc.	Meas.	ND	Date	Conc.	Original
MW#93-2	17	0 (0%)	6/6/2012	7530	7530
			12/12/2012	7920	7920
			6/19/2013	7280	7280
			12/11/2013	7440	7440
			6/11/2014	7160	7160
			12/3/2014	7700	7700
			6/17/2015	730	730
			12/1/2015	7950	7950
			6/22/2016	3160	3160
			12/20/2016	8780	8780
			6/6/2017	7350	7350
			11/7/2017	7820	7820
			2/27/2018	7560	7560
			9/27/2018	8890	8890
			5/7/2019	8480	8480
			11/21/2019	8400	8400
			6/25/2020	8860	8860
MW#93-3	17	0 (0%)	6/6/2012	834	834
			12/12/2012	669	669
			6/19/2013	861	861
			12/11/2013	697	697
			6/11/2014	986	986

			12/3/2014	743	743
			6/17/2015	911	911
			12/1/2015	1050	1050
			6/22/2016	1390	1390
			12/20/2016	1189	1189
			6/6/2017	780	780
			11/7/2017	1250	1250
			2/27/2018	1190	1190
			9/27/2018	1420	1420
			5/7/2019	1510	1510
			11/21/2019	1550	1550
			6/25/2020	1310	1310
MW#03-2	4	0 (0%)	9/27/2018	1630	1630
			5/7/2019	1240	1240
			11/21/2019	1760	1760
			6/25/2020	1940	1940
MW#03-1	3	0 (0%)	5/7/2019	102	102
			11/21/2019	80	80
			6/25/2020	151	151

There are 0 unused locations

Loc.	Meas.	ND	Date	Conc.	Original

Concentrations (ppb)

Parameter: Fluoride

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 107
Total Non-Detect: 42
Percent Non-Detects: 39.2523%
Total Background Measurements: 22
There is 1 background location

Loc.	Meas.	ND	Date	Conc.	Original
MW#93-1	22	10 (45.4545%)	10/11/2016	0.1	0.1
			12/20/2016	0.2	0.2
			2/16/2017	0.16	0.16
			3/8/2017	0.19	0.19
			5/9/2017	0.13	0.13
			6/6/2017	0.14	0.14
			8/22/2017	0.1	0.1
			9/22/2017	0.11	0.11
			11/7/2017	0.12	0.12
			2/27/2018	0.16	0.16
			5/24/2018	ND<0.2	ND<0.2
			6/19/2018	ND<0.2	ND<0.2
			7/19/2018	ND<0.2	ND<0.2
			8/22/2018	ND<0.2	ND<0.2
			9/19/2018	0.243	0.243
			9/27/2018	ND<0.1	ND<0.1
			10/18/2018	ND<0.2	ND<0.2
			11/20/2018	ND<0.2	ND<0.2
			12/20/2018	ND<0.2	ND<0.2
			5/7/2019	ND<0.2	ND<0.2
			11/21/2019	ND<0.2	ND<0.2
			6/25/2020	0.168	0.168

There are 4 compliance locations

Loc.	Meas.	ND	Date	Conc.	Original
MW#03-1	22	12 (54.5455%)	10/11/2016	ND<0.1	ND<0.1
			12/20/2016	0.18	0.18
			2/16/2017	0.13	0.13
			3/8/2017	0.19	0.19
			5/9/2017	0.1	0.1
			6/6/2017	ND<0.1	ND<0.1
			8/22/2017	0.1	0.1
			9/22/2017	0.1	0.1
			11/7/2017	0.12	0.12
			2/27/2018	0.1	0.1
			5/24/2018	ND<0.2	ND<0.2
			6/19/2018	ND<0.2	ND<0.2
			7/19/2018	ND<0.2	ND<0.2
			8/22/2018	ND<0.1	ND<0.1
			9/19/2018	0.21	0.21
			10/18/2018	ND<0.2	ND<0.2
			11/20/2018	ND<0.2	ND<0.2
			12/20/2018	ND<0.2	ND<0.2

			3/26/2019	ND<0.2	ND<0.2
			5/7/2019	ND<0.2	ND<0.2
			11/21/2019	ND<0.2	ND<0.2
			6/25/2020	0.0846	0.0846
MW#03-2	21	13 (61.9048%)	10/11/2016	ND<0.1	ND<0.1
			12/20/2016	0.14	0.14
			2/16/2017	0.12	0.12
			3/8/2017	0.14	0.14
			5/9/2017	ND<0.1	ND<0.1
			6/6/2017	0.1	0.1
			8/22/2017	ND<0.1	ND<0.1
			9/22/2017	ND<0.1	ND<0.1
			11/7/2017	0.1	0.1
			2/27/2018	0.12	0.12
			5/24/2018	ND<0.2	ND<0.2
			6/19/2018	ND<0.2	ND<0.2
			7/19/2018	ND<0.2	ND<0.2
			8/22/2018	ND<0.2	ND<0.2
			9/19/2018	0.21	0.21
			10/18/2018	ND<0.2	ND<0.2
			11/20/2018	ND<0.2	ND<0.2
			12/20/2018	ND<0.2	ND<0.2
			5/7/2019	ND<0.2	ND<0.2
			11/21/2019	ND<0.2	ND<0.2
			6/25/2020	0.119	0.119
MW#93-2	21	1 (4.7619%)	10/11/2016	0.81	0.81
			12/20/2016	1.06	1.06
			2/16/2017	0.68	0.68
			3/8/2017	0.79	0.79
			5/9/2017	0.7	0.7
			6/6/2017	0.68	0.68
			8/22/2017	0.35	0.35
			9/22/2017	0.51	0.51
			11/7/2017	0.12	0.12
			2/27/2018	ND<0.1	ND<0.1
			5/24/2018	0.937	0.937
			6/19/2018	0.991	0.991
			7/19/2018	0.906	0.906
			8/22/2018	0.865	0.865
			9/19/2018	1	1
			10/18/2018	0.698	0.698
			11/20/2018	1.02	1.02
			12/20/2018	0.685	0.685
			5/7/2019	0.367	0.367
			11/21/2019	0.554	0.554
			6/25/2020	0.313	0.313
MW#93-3	21	6 (28.5714%)	10/11/2016	0.15	0.15
			12/20/2016	0.23	0.23
			2/16/2017	0.2	0.2
			3/8/2017	0.22	0.22
			5/9/2017	0.18	0.18
			6/6/2017	0.24	0.24
			8/22/2017	0.23	0.23
			9/22/2017	0.2	0.2

11/7/2017	0.2	0.2
2/27/2018	0.21	0.21
5/24/2018	0.23	0.23
6/19/2018	0.223	0.223
7/19/2018	ND<0.21	ND<0.21
8/22/2018	ND<0.2	ND<0.2
9/19/2018	0.389	0.389
10/18/2018	ND<0.2	ND<0.2
11/20/2018	0.283	0.283
12/20/2018	ND<0.2	ND<0.2
5/7/2019	ND<0.2	ND<0.2
11/21/2019	ND<0.2	ND<0.2
6/25/2020	0.252	0.252

There are 0 unused locations

Loc.	Meas.	ND	Date	Conc.	Original

Non-Parametric Prediction Interval

Inter-Well Comparison

Parameter: Fluoride

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 39.2523%
Number of comparisons = 4
Future Samples (k) = 4
Recent Dates = 1
Background Measurements (n) = 22
Maximum Background Value = 0.243
Confidence Level = 84.6%
False Positive Rate = 15.4%

Location	Date	Count	Mean	Significant
MW#03-1	6/25/2020	1	0.0846	FALSE
MW#03-2	6/25/2020	1	0.119	FALSE
MW#93-2	**6/25/2020**	**1**	**0.313**	**TRUE**
MW#93-3	**6/25/2020**	**1**	**0.252**	**TRUE**

Non-Parametric Prediction Interval

Intra-Well Comparison for MW#93-2

Parameter: Fluoride

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 5%
Future Samples (k) = 1
Recent Dates = 1
Baseline Measurements (n) = 20
Maximum Baseline Concentration = 1.06
Confidence Level = 95.2%
False Positive Rate = 4.8%

Baseline Measurements	Date	Value
	10/11/2016	0.81
	12/20/2016	1.06
	2/16/2017	0.68
	3/8/2017	0.79
	5/9/2017	0.7
	6/6/2017	0.68
	8/22/2017	0.35
	9/22/2017	0.51
	11/7/2017	0.12
	2/27/2018	ND<0.1
	5/24/2018	0.937
	6/19/2018	0.991
	7/19/2018	0.906
	8/22/2018	0.865
	9/19/2018	1
	10/18/2018	0.698
	11/20/2018	1.02
	12/20/2018	0.685
	5/7/2019	0.367
	11/21/2019	0.554

Date	Count	Mean	Significant
6/25/2020	1	0.313	FALSE

Non-Parametric Prediction Interval

Intra-Well Comparison for MW#93-3

Parameter: Fluoride

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 30%
Future Samples (k) = 1
Recent Dates = 1
Baseline Measurements (n) = 20
Maximum Baseline Concentration = 0.389
Confidence Level = 95.2%
False Positive Rate = 4.8%

Baseline Measurements	Date	Value
	10/11/2016	0.15
	12/20/2016	0.23
	2/16/2017	0.2
	3/8/2017	0.22
	5/9/2017	0.18
	6/6/2017	0.24
	8/22/2017	0.23
	9/22/2017	0.2
	11/7/2017	0.2
	2/27/2018	0.21
	5/24/2018	0.23
	6/19/2018	0.223
	7/19/2018	ND<0.21
	8/22/2018	ND<0.2
	9/19/2018	0.389
	10/18/2018	ND<0.2
	11/20/2018	0.283
	12/20/2018	ND<0.2
	5/7/2019	ND<0.2
	11/21/2019	ND<0.2

Date	Count	Mean	Significant
6/25/2020	1	0.252	FALSE

Levene's Test for Equal of Variance

Parameter: Fluoride

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Overall Mean = 0.0764192
Overall Std Dev = 0.107621
Overall Total = 8.17685
SS Groups = 0.607445
SS Total = 1.22772

ANOVA Table

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Squares	F
Between Groups	0.607445	4	0.151861	24.9727
Error (within groups)	0.620273	102	0.0060811	
Totals	1.22772	106		

95% F-Statistic = 2.44724

24.9727 exceeds 2.44724; assumption of equal variance should be rejected

Group: MW#93-1	Sample	Residual
	10/11/2016	0.0691364
	12/20/2016	0.0308636
	2/16/2017	0.00913636
	3/8/2017	0.0208636
	5/9/2017	0.0391364
	6/6/2017	0.0291364
	8/22/2017	0.0691364
	9/22/2017	0.0591364
	11/7/2017	0.0491364
	2/27/2018	0.00913636
	5/24/2018	0.0308636
	6/19/2018	0.0308636
	7/19/2018	0.0308636
	8/22/2018	0.0308636
	9/19/2018	0.0738636
	9/27/2018	0.0691364
	10/18/2018	0.0308636
	11/20/2018	0.0308636
	12/20/2018	0.0308636
	5/7/2019	0.0308636
	11/21/2019	0.0308636
	6/25/2020	0.00113636

Group: MW#03-1	Date	Residual
	10/11/2016	0.0552091
	12/20/2016	0.0247909
	2/16/2017	0.0252091
	3/8/2017	0.0347909
	5/9/2017	0.0552091
	6/6/2017	0.0552091

8/22/2017	0.0552091
9/22/2017	0.0552091
11/7/2017	0.0352091
2/27/2018	0.0552091
5/24/2018	0.0447909
6/19/2018	0.0447909
7/19/2018	0.0447909
8/22/2018	0.0552091
9/19/2018	0.0547909
10/18/2018	0.0447909
11/20/2018	0.0447909
12/20/2018	0.0447909
3/26/2019	0.0447909
5/7/2019	0.0447909
11/21/2019	0.0447909
6/25/2020	0.0706091

Group: MW#03-2	Date	Residual
	10/11/2016	0.0547143
	12/20/2016	0.0147143
	2/16/2017	0.0347143
	3/8/2017	0.0147143
	5/9/2017	0.0547143
	6/6/2017	0.0547143
	8/22/2017	0.0547143
	9/22/2017	0.0547143
	11/7/2017	0.0547143
	2/27/2018	0.0347143
	5/24/2018	0.0452857
	6/19/2018	0.0452857
	7/19/2018	0.0452857
	8/22/2018	0.0452857
	9/19/2018	0.0552857
	10/18/2018	0.0452857
	11/20/2018	0.0452857
	12/20/2018	0.0452857
	5/7/2019	0.0452857
	11/21/2019	0.0452857
	6/25/2020	0.0357143

Group: MW#93-2	Date	Residual
	10/11/2016	0.136857
	12/20/2016	0.386857
	2/16/2017	0.00685714
	3/8/2017	0.116857
	5/9/2017	0.0268571
	6/6/2017	0.00685714
	8/22/2017	0.323143
	9/22/2017	0.163143
	11/7/2017	0.553143
	2/27/2018	0.573143
	5/24/2018	0.263857
	6/19/2018	0.317857
	7/19/2018	0.232857
	8/22/2018	0.191857
	9/19/2018	0.326857
	10/18/2018	0.0248571

11/20/2018	0.346857
12/20/2018	0.0118571
5/7/2019	0.306143
11/21/2019	0.119143
6/25/2020	0.360143

Group: MW#93-3	Date	Residual
	10/11/2016	0.0712857
	12/20/2016	0.00871429
	2/16/2017	0.0212857
	3/8/2017	0.00128571
	5/9/2017	0.0412857
	6/6/2017	0.0187143
	8/22/2017	0.00871429
	9/22/2017	0.0212857
	11/7/2017	0.0212857
	2/27/2018	0.0112857
	5/24/2018	0.00871429
	6/19/2018	0.00171429
	7/19/2018	0.0112857
	8/22/2018	0.0212857
	9/19/2018	0.167714
	10/18/2018	0.0212857
	11/20/2018	0.0617143
	12/20/2018	0.0212857
	5/7/2019	0.0212857
	11/21/2019	0.0212857
	6/25/2020	0.0307143

Shapiro-Francia Test of Normality

Parameter: Fluoride

All Locations

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Number of Measurements = 107

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	0.0846	-2.36561	5.59613	-0.200131
2	0.1	-2.09693	9.99325	-0.409824
3	0.1	-1.92684	13.706	-0.602508
4	0.1	-1.78661	16.8979	-0.781169
5	0.1	-1.68494	19.737	-0.949663
6	0.1	-1.59819	22.2912	-1.10948
7	0.1	-1.52203	24.6078	-1.26169
8	0.1	-1.44663	26.7005	-1.40635
9	0.1	-1.38517	28.6192	-1.54487
10	0.1	-1.32854	30.3842	-1.67772
11	0.1	-1.27588	32.0121	-1.80531
12	0.1	-1.22123	33.5035	-1.92743
13	0.1	-1.17499	34.8841	-2.04493
14	0.1	-1.13113	36.1635	-2.15804
15	0.1	-1.08935	37.3502	-2.26698
16	0.1	-1.04505	38.4423	-2.37148
17	0.1	-1.00687	39.4561	-2.47217
18	0.1	-0.970094	40.3972	-2.56918
19	0.11	-0.93459	41.2707	-2.67198
20	0.119	-0.896473	42.0743	-2.77866
21	0.12	-0.863249	42.8195	-2.88225
22	0.12	-0.830953	43.51	-2.98197
23	0.12	-0.7995	44.1492	-3.07791
24	0.12	-0.765456	44.7351	-3.16976
25	0.12	-0.735557	45.2762	-3.25803
26	0.13	-0.706302	45.775	-3.34985
27	0.13	-0.67449	46.23	-3.43753
28	0.14	-0.646431	46.6479	-3.52803
29	0.14	-0.618872	47.0309	-3.61467
30	0.14	-0.591776	47.3811	-3.69752
31	0.15	-0.56217	47.6971	-3.78185
32	0.16	-0.53594	47.9843	-3.8676
33	0.16	-0.510074	48.2445	-3.94921
34	0.168	-0.484544	48.4793	-4.03061
35	0.18	-0.456542	48.6877	-4.11279
36	0.18	-0.431644	48.874	-4.19049
37	0.19	-0.40701	49.0397	-4.26782
38	0.19	-0.382622	49.1861	-4.34052
39	0.2	-0.355788	49.3127	-4.41168
40	0.2	-0.331854	49.4228	-4.47805
41	0.2	-0.308108	49.5177	-4.53967
42	0.2	-0.284535	49.5987	-4.59658
43	0.2	-0.258527	49.6655	-4.64828
44	0.2	-0.235269	49.7209	-4.69533
45	0.2	-0.212137	49.7659	-4.73776
46	0.2	-0.189118	49.8016	-4.77559
47	0.2	-0.163659	49.8284	-4.80832

48	0.2	-0.140835	49.8483	-4.83648
49	0.2	-0.118085	49.8622	-4.8601
50	0.2	-0.0953969	49.8713	-4.87918
51	0.2	-0.0702426	49.8762	-4.89323
52	0.2	-0.0476439	49.8785	-4.90276
53	0.2	-0.0250691	49.8791	-4.90777
54	0.2	0	49.8791	-4.90777
55	0.2	0.0250691	49.8798	-4.90276
56	0.2	0.0476439	49.882	-4.89323
57	0.2	0.0702426	49.887	-4.87918
58	0.2	0.0953969	49.8961	-4.8601
59	0.2	0.118085	49.91	-4.83648
60	0.2	0.140835	49.9299	-4.80832
61	0.2	0.163659	49.9566	-4.77559
62	0.2	0.189118	49.9924	-4.73776
63	0.2	0.212137	50.0374	-4.69533
64	0.2	0.235269	50.0928	-4.64828
65	0.2	0.258527	50.1596	-4.59658
66	0.2	0.284535	50.2406	-4.53967
67	0.2	0.308108	50.3355	-4.47805
68	0.2	0.331854	50.4456	-4.41168
69	0.2	0.355788	50.5722	-4.34052
70	0.2	0.382622	50.7186	-4.26399
71	0.2	0.40701	50.8843	-4.18259
72	0.2	0.431644	51.0706	-4.09626
73	0.2	0.456542	51.279	-4.00495
74	0.2	0.484544	51.5138	-3.90805
75	0.21	0.510074	51.774	-3.80093
76	0.21	0.53594	52.0612	-3.68838
77	0.21	0.56217	52.3772	-3.57033
78	0.21	0.591776	52.7274	-3.44605
79	0.22	0.618872	53.1104	-3.3099
80	0.223	0.646431	53.5283	-3.16575
81	0.23	0.67449	53.9832	-3.01062
82	0.23	0.706302	54.4821	-2.84817
83	0.23	0.735557	55.0231	-2.67899
84	0.24	0.765456	55.6091	-2.49528
85	0.243	0.7995	56.2483	-2.301
86	0.252	0.830953	56.9388	-2.0916
87	0.283	0.863249	57.684	-1.8473
88	0.313	0.896473	58.4876	-1.5667
89	0.35	0.93459	59.3611	-1.2396
90	0.367	0.970094	60.3022	-0.883573
91	0.389	1.00687	61.3159	-0.491902
92	0.51	1.04505	62.4081	0.0410735
93	0.554	1.08935	63.5947	0.644573
94	0.68	1.13113	64.8742	1.41374
95	0.68	1.17499	66.2548	2.21273
96	0.685	1.22123	67.7462	3.04928
97	0.698	1.27588	69.3741	3.93984
98	0.7	1.32854	71.1391	4.86981
99	0.79	1.38517	73.0578	5.9641
100	0.81	1.44663	75.1505	7.13587
101	0.865	1.52203	77.4671	8.45243
102	0.906	1.59819	80.0213	9.9004
103	0.937	1.68494	82.8604	11.4792
104	0.991	1.78661	86.0523	13.2497

105	1	1.92684	89.765	15.1766
106	1.02	2.09693	94.1622	17.3154
107	1.06	2.36561	99.7583	19.823

Data Set Standard Deviation = 0.240038
Numerator = 392.95
Denominator = 609.276
W Statistic = 0.644946 = 392.95 / 609.276

5% Critical value of 0.976 exceeds 0.644946
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.644946
Evidence of non-normality at 99% level of significance

Concentrations (ppb)

Parameter: Lead

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 50
Total Non-Detect: 47
Percent Non-Detects: 94%
Total Background Measurements: 10
There is 1 background location

Loc.	Meas.	ND	Date	Conc.	Original
MW#93-1	10	10 (100%)	5/24/2018	ND<0.005	ND<0.005
			6/19/2018	ND<0.005	ND<0.005
			7/19/2018	ND<0.005	ND<0.005
			8/22/2018	ND<0.005	ND<0.005
			9/19/2018	ND<0.005	ND<0.005
			10/18/2018	ND<0.005	ND<0.005
			11/20/2018	ND<0.005	ND<0.005
			12/20/2018	ND<0.005	ND<0.005
			11/21/2019	ND<0.001	ND<0.001
			6/25/2020	ND<0.002	ND<0.002

There are 4 compliance locations

Loc.	Meas.	ND	Date	Conc.	Original
MW#03-1	10	7 (70%)	5/24/2018	ND<0.005	ND<0.005
			6/19/2018	ND<0.005	ND<0.005
			7/19/2018	0.124	0.124
			8/22/2018	0.143	0.143
			10/18/2018	ND<0.005	ND<0.005
			11/20/2018	ND<0.005	ND<0.005
			12/20/2018	0.00791	0.00791
			3/26/2019	ND<0.005	ND<0.005
			11/21/2019	ND<0.001	ND<0.001
			6/25/2020	ND<0.002	ND<0.002
MW#03-2	10	10 (100%)	5/24/2018	ND<0.005	ND<0.005
			6/19/2018	ND<0.005	ND<0.005
			7/19/2018	ND<0.005	ND<0.005
			8/22/2018	ND<0.005	ND<0.005
			9/19/2018	ND<0.005	ND<0.005
			10/18/2018	ND<0.005	ND<0.005
			11/20/2018	ND<0.005	ND<0.005
			12/20/2018	ND<0.005	ND<0.005
			11/21/2019	ND<0.001	ND<0.001
			6/25/2020	ND<0.002	ND<0.002
MW#93-2	10	10 (100%)	5/24/2018	ND<0.005	ND<0.005
			6/19/2018	ND<0.005	ND<0.005
			7/19/2018	ND<0.005	ND<0.005
			8/22/2018	ND<0.005	ND<0.005
			9/19/2018	ND<0.005	ND<0.005
			10/18/2018	ND<0.005	ND<0.005
			11/20/2018	ND<0.005	ND<0.005
			12/20/2018	ND<0.005	ND<0.005

			11/21/2019	ND<0.001	ND<0.001
			6/25/2020	ND<0.002	ND<0.002
MW#93-3	10	10 (100%)	5/24/2018	ND<0.005	ND<0.005
			6/19/2018	ND<0.005	ND<0.005
			7/19/2018	ND<0.005	ND<0.005
			8/22/2018	ND<0.005	ND<0.005
			9/19/2018	ND<0.005	ND<0.005
			10/18/2018	ND<0.005	ND<0.005
			11/20/2018	ND<0.005	ND<0.005
			12/20/2018	ND<0.005	ND<0.005
			11/21/2019	ND<0.001	ND<0.001
			6/25/2020	ND<0.002	ND<0.002

There are 0 unused locations

Loc.	Meas.	ND	Date	Conc.	Original

Non-Parametric Prediction Interval

Inter-Well Comparison

Parameter: Lead

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 94%
Number of comparisons = 4
Future Samples (k) = 4
Recent Dates = 1
Background Measurements (n) = 10
Maximum Background Value = 0.005
Confidence Level = 71.4%
False Positive Rate = 28.6%

Location	Date	Count	Mean	Significant
MW#03-1	6/25/2020	1	0.002	FALSE
MW#03-2	6/25/2020	1	0.002	FALSE
MW#93-2	6/25/2020	1	0.002	FALSE
MW#93-3	6/25/2020	1	0.002	FALSE

Levene's Test for Equal of Variance

Parameter: Lead

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Overall Mean = 0.00915272
Overall Std Dev = 0.0215397
Overall Total = 0.457636
SS Groups = 0.0129049
SS Total = 0.0227339

ANOVA Table

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Squares	F
Between Groups	0.0129049	4	0.00322623	14.7706
Error (within groups)	0.00982899	45	0.000218422	
Totals	0.0227339	49		

95% F-Statistic = 2.52521

14.7706 exceeds 2.52521; assumption of equal variance should be rejected

Group: MW#93-1	Sample	Residual
	5/24/2018	0.0007
	6/19/2018	0.0007
	7/19/2018	0.0007
	8/22/2018	0.0007
	9/19/2018	0.0007
	10/18/2018	0.0007
	11/20/2018	0.0007
	12/20/2018	0.0007
	11/21/2019	0.0033
	6/25/2020	0.0023

Group: MW#03-1	Date	Residual
	5/24/2018	0.025291
	6/19/2018	0.025291
	7/19/2018	0.093709
	8/22/2018	0.112709
	10/18/2018	0.025291
	11/20/2018	0.025291
	12/20/2018	0.022381
	3/26/2019	0.025291
	11/21/2019	0.029291
	6/25/2020	0.028291

Group: MW#03-2	Date	Residual
	5/24/2018	0.0007
	6/19/2018	0.0007
	7/19/2018	0.0007
	8/22/2018	0.0007
	9/19/2018	0.0007
	10/18/2018	0.0007

	11/20/2018	0.0007
	12/20/2018	0.0007
	11/21/2019	0.0033
	6/25/2020	0.0023

Group: MW#93-2	Date	Residual
	5/24/2018	0.0007
	6/19/2018	0.0007
	7/19/2018	0.0007
	8/22/2018	0.0007
	9/19/2018	0.0007
	10/18/2018	0.0007
	11/20/2018	0.0007
	12/20/2018	0.0007
	11/21/2019	0.0033
	6/25/2020	0.0023

Group: MW#93-3	Date	Residual
	5/24/2018	0.0007
	6/19/2018	0.0007
	7/19/2018	0.0007
	8/22/2018	0.0007
	9/19/2018	0.0007
	10/18/2018	0.0007
	11/20/2018	0.0007
	12/20/2018	0.0007
	11/21/2019	0.0033
	6/25/2020	0.0023

Levene's Test for Equal of Variance

Parameter: Lead

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Overall Mean = 0.00915272
Overall Std Dev = 0.0215397
Overall Total = 0.457636
SS Groups = 0.0129049
SS Total = 0.0227339

ANOVA Table

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Squares	F
Between Groups	0.0129049	4	0.00322623	14.7706
Error (within groups)	0.00982899	45	0.000218422	
Totals	0.0227339	49		

95% F-Statistic = 2.52521

14.7706 exceeds 2.52521; assumption of equal variance should be rejected

Group: MW#93-1	Sample	Residual
	5/24/2018	0.0007
	6/19/2018	0.0007
	7/19/2018	0.0007
	8/22/2018	0.0007
	9/19/2018	0.0007
	10/18/2018	0.0007
	11/20/2018	0.0007
	12/20/2018	0.0007
	11/21/2019	0.0033
	6/25/2020	0.0023

Group: MW#03-1	Date	Residual
	5/24/2018	0.025291
	6/19/2018	0.025291
	7/19/2018	0.093709
	8/22/2018	0.112709
	10/18/2018	0.025291
	11/20/2018	0.025291
	12/20/2018	0.022381
	3/26/2019	0.025291
	11/21/2019	0.029291
	6/25/2020	0.028291

Group: MW#03-2	Date	Residual
	5/24/2018	0.0007
	6/19/2018	0.0007
	7/19/2018	0.0007
	8/22/2018	0.0007
	9/19/2018	0.0007
	10/18/2018	0.0007

	11/20/2018	0.0007
	12/20/2018	0.0007
	11/21/2019	0.0033
	6/25/2020	0.0023

Group: MW#93-2	Date	Residual
	5/24/2018	0.0007
	6/19/2018	0.0007
	7/19/2018	0.0007
	8/22/2018	0.0007
	9/19/2018	0.0007
	10/18/2018	0.0007
	11/20/2018	0.0007
	12/20/2018	0.0007
	11/21/2019	0.0033
	6/25/2020	0.0023

Group: MW#93-3	Date	Residual
	5/24/2018	0.0007
	6/19/2018	0.0007
	7/19/2018	0.0007
	8/22/2018	0.0007
	9/19/2018	0.0007
	10/18/2018	0.0007
	11/20/2018	0.0007
	12/20/2018	0.0007
	11/21/2019	0.0033
	6/25/2020	0.0023

Levene's Test for Equal of Variance

Parameter: Total Dissolved Solids

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Overall Mean = 475.085
Overall Std Dev = 1026.22
Overall Total = 27554.9
SS Groups = 1.49817e+007
SS Total = 6.00277e+007

ANOVA Table

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Squares	F
Between Groups	1.49817e+007	4	3.74541e+006	4.40675
Error (within groups)	4.50461e+007	53	849926	
Totals	6.00277e+007	57		

95% F-Statistic = 2.52521

4.40675 exceeds 2.52521; assumption of equal variance should be rejected

Group: MW#93-1	Sample	Residual
	6/6/2012	39.9412
	12/12/2012	27.9412
	6/19/2013	34.0588
	12/11/2013	53.0588
	6/11/2014	63.0588
	12/3/2014	0.941176
	6/17/2015	25.9412
	12/1/2015	47.9412
	6/22/2016	67.9412
	12/20/2016	69.9412
	6/6/2017	97.9412
	11/7/2017	29.9412
	2/27/2018	77.9412
	9/27/2018	142.059
	5/7/2019	44.0588
	11/21/2019	58.0588
	6/25/2020	92.0588

Group: MW#93-2	Date	Residual
	6/6/2012	294.118
	12/12/2012	684.118
	6/19/2013	44.1176
	12/11/2013	204.118
	6/11/2014	75.8824
	12/3/2014	464.118
	6/17/2015	6505.88
	12/1/2015	714.118
	6/22/2016	4075.88
	12/20/2016	1544.12
	6/6/2017	114.118

	11/7/2017	584.118
	2/27/2018	324.118
	9/27/2018	1654.12
	5/7/2019	1244.12
	11/21/2019	1164.12
	6/25/2020	1624.12

Group: MW#93-3	Date	Residual
	6/6/2012	244.824
	12/12/2012	409.824
	6/19/2013	217.824
	12/11/2013	381.824
	6/11/2014	92.8235
	12/3/2014	335.824
	6/17/2015	167.824
	12/1/2015	28.8235
	6/22/2016	311.176
	12/20/2016	110.176
	6/6/2017	298.824
	11/7/2017	171.176
	2/27/2018	111.176
	9/27/2018	341.176
	5/7/2019	431.176
	11/21/2019	471.176
	6/25/2020	231.176

Group: MW#03-2	Date	Residual
	9/27/2018	12.5
	5/7/2019	402.5
	11/21/2019	117.5
	6/25/2020	297.5

Group: MW#03-1	Date	Residual
	5/7/2019	9
	11/21/2019	31
	6/25/2020	40

Concentrations (ppb)

Parameter: Lithium

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 50
Total Non-Detect: 34
Percent Non-Detects: 68%
Total Background Measurements: 10
There is 1 background location

Loc.	Meas.	ND	Date	Conc.	Original
MW#93-1	10	10 (100%)	5/24/2018	ND<0.01	ND<0.01
			6/19/2018	ND<0.015	ND<0.015
			7/19/2018	ND<0.015	ND<0.015
			8/22/2018	ND<0.015	ND<0.015
			9/19/2018	ND<0.015	ND<0.015
			10/18/2018	ND<0.015	ND<0.015
			11/20/2018	ND<0.015	ND<0.015
			12/20/2018	ND<0.015	ND<0.015
			11/21/2019	ND<0.015	ND<0.015
			6/25/2020	ND<0.015	ND<0.015

There are 4 compliance locations

Loc.	Meas.	ND	Date	Conc.	Original
MW#03-1	10	9 (90%)	5/24/2018	ND<0.01	ND<0.01
			6/19/2018	ND<0.015	ND<0.015
			7/19/2018	ND<0.015	ND<0.015
			8/22/2018	0.0461	0.0461
			10/18/2018	ND<0.015	ND<0.015
			11/20/2018	ND<0.015	ND<0.015
			12/20/2018	ND<0.015	ND<0.015
			3/26/2019	ND<0.015	ND<0.015
			11/21/2019	ND<0.015	ND<0.015
			6/25/2020	ND<0.015	ND<0.015
MW#03-2	10	7 (70%)	5/24/2018	0.0173	0.0173
			6/19/2018	ND<0.015	ND<0.015
			7/19/2018	ND<0.015	ND<0.015
			8/22/2018	ND<0.015	ND<0.015
			9/19/2018	ND<0.015	ND<0.015
			10/18/2018	ND<0.015	ND<0.015
			11/20/2018	ND<0.015	ND<0.015
			12/20/2018	ND<0.015	ND<0.015
			11/21/2019	0.0154	0.0154
			6/25/2020	0.00813	0.00813
MW#93-2	10	7 (70%)	5/24/2018	0.0302	0.0302
			6/19/2018	ND<0.015	ND<0.015
			7/19/2018	ND<0.015	ND<0.015
			8/22/2018	ND<0.015	ND<0.015
			9/19/2018	ND<0.015	ND<0.015
			10/18/2018	ND<0.015	ND<0.015
			11/20/2018	0.0185	0.0185
			12/20/2018	ND<0.015	ND<0.015

			11/21/2019	ND<0.015	ND<0.015
			6/25/2020	0.00976	0.00976
MW#93-3	10	1 (10%)	5/24/2018	0.178	0.178
			6/19/2018	0.162	0.162
			7/19/2018	ND<0.015	ND<0.015
			8/22/2018	0.159	0.159
			9/19/2018	0.16	0.16
			10/18/2018	0.164	0.164
			11/20/2018	0.187	0.187
			12/20/2018	0.168	0.168
			11/21/2019	0.182	0.182
			6/25/2020	0.124	0.124

There are 0 unused locations

Loc.	Meas.	ND	Date	Conc.	Original

Non-Parametric Prediction Interval

Inter-Well Comparison

Parameter: Lithium

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 68%
Number of comparisons = 4
Future Samples (k) = 4
Recent Dates = 1
Background Measurements (n) = 10
Maximum Background Value = 0.015
Confidence Level = 71.4%
False Positive Rate = 28.6%

Location	Date	Count	Mean	Significant
MW#03-1	6/25/2020	1	0.015	FALSE
MW#03-2	6/25/2020	1	0.00813	FALSE
MW#93-2	6/25/2020	1	0.00976	FALSE
MW#93-3	**6/25/2020**	**1**	**0.124**	**TRUE**

Non-Parametric Prediction Interval

Intra-Well Comparison for MW#93-3

Parameter: Lithium

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 11.1111%
Future Samples (k) = 1
Recent Dates = 1
Baseline Measurements (n) = 9
Maximum Baseline Concentration = 0.187
Confidence Level = 90%
False Positive Rate = 10%

Baseline Measurements	Date	Value
	5/24/2018	0.178
	6/19/2018	0.162
	7/19/2018	ND<0.015
	8/22/2018	0.159
	9/19/2018	0.16
	10/18/2018	0.164
	11/20/2018	0.187
	12/20/2018	0.168
	11/21/2019	0.182

Date	Count	Mean	Significant
6/25/2020	1	0.124	FALSE

Levene's Test for Equal of Variance

Parameter: Lithium

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Overall Mean = 0.00865004
Overall Std Dev = 0.02042
Overall Total = 0.432502
SS Groups = 0.00705343
SS Total = 0.0204319

ANOVA Table

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Squares	F
Between Groups	0.00705343	4	0.00176336	5.93126
Error (within groups)	0.0133784	45	0.000297299	
Totals	0.0204319	49		

95% F-Statistic = 2.52521

5.93126 exceeds 2.52521; assumption of equal variance should be rejected

Group: MW#93-1	Sample	Residual
	5/24/2018	0.0045
	6/19/2018	0.0005
	7/19/2018	0.0005
	8/22/2018	0.0005
	9/19/2018	0.0005
	10/18/2018	0.0005
	11/20/2018	0.0005
	12/20/2018	0.0005
	11/21/2019	0.0005
	6/25/2020	0.0005

Group: MW#03-1	Date	Residual
	5/24/2018	0.00761
	6/19/2018	0.00261
	7/19/2018	0.00261
	8/22/2018	0.02849
	10/18/2018	0.00261
	11/20/2018	0.00261
	12/20/2018	0.00261
	3/26/2019	0.00261
	11/21/2019	0.00261
	6/25/2020	0.00261

Group: MW#03-2	Date	Residual
	5/24/2018	0.002717
	6/19/2018	0.000417
	7/19/2018	0.000417
	8/22/2018	0.000417
	9/19/2018	0.000417
	10/18/2018	0.000417

	11/20/2018	0.000417
	12/20/2018	0.000417
	11/21/2019	0.000817
	6/25/2020	0.006453

Group: MW#93-2	Date	Residual
	5/24/2018	0.013854
	6/19/2018	0.001346
	7/19/2018	0.001346
	8/22/2018	0.001346
	9/19/2018	0.001346
	10/18/2018	0.001346
	11/20/2018	0.002154
	12/20/2018	0.001346
	11/21/2019	0.001346
	6/25/2020	0.006586

Group: MW#93-3	Date	Residual
	5/24/2018	0.0281
	6/19/2018	0.0121
	7/19/2018	0.1349
	8/22/2018	0.0091
	9/19/2018	0.0101
	10/18/2018	0.0141
	11/20/2018	0.0371
	12/20/2018	0.0181
	11/21/2019	0.0321
	6/25/2020	0.0259

Shapiro-Francia Test of Normality

Parameter: Lithium

All Locations

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Number of Measurements = 50

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	0.00813	-2.07485	4.305	-0.0168685
2	0.00976	-1.76241	7.41108	-0.0340696
3	0.01	-1.57179	9.8816	-0.0497875
4	0.01	-1.41865	11.8942	-0.0639741
5	0.015	-1.29303	13.5661	-0.0833695
6	0.015	-1.19012	14.9825	-0.101221
7	0.015	-1.0939	16.1791	-0.11763
8	0.015	-1.01104	17.2013	-0.132795
9	0.015	-0.930718	18.0675	-0.146756
10	0.015	-0.855996	18.8003	-0.159596
11	0.015	-0.789191	19.4231	-0.171434
12	0.015	-0.722479	19.9451	-0.182271
13	0.015	-0.661955	20.3832	-0.1922
14	0.015	-0.60076	20.7442	-0.201212
15	0.015	-0.541736	21.0376	-0.209338
16	0.015	-0.487364	21.2752	-0.216648
17	0.015	-0.431644	21.4615	-0.223123
18	0.015	-0.379927	21.6058	-0.228822
19	0.015	-0.326561	21.7125	-0.23372
20	0.015	-0.27411	21.7876	-0.237832
21	0.015	-0.224974	21.8382	-0.241207
22	0.015	-0.173829	21.8684	-0.243814
23	0.015	-0.125661	21.8842	-0.245699
24	0.015	-0.0752698	21.8899	-0.246828
25	0.015	-0.0250691	21.8905	-0.247204
26	0.015	0.0250691	21.8911	-0.246828
27	0.015	0.0752698	21.8968	-0.245699
28	0.015	0.125661	21.9126	-0.243814
29	0.015	0.173829	21.9428	-0.241207
30	0.015	0.224974	21.9934	-0.237832
31	0.015	0.27411	22.0686	-0.23372
32	0.015	0.326561	22.1752	-0.228822
33	0.015	0.379927	22.3196	-0.223123
34	0.015	0.431644	22.5059	-0.216648
35	0.015	0.487364	22.7434	-0.209338
36	0.015	0.541736	23.0369	-0.201212
37	0.0154	0.60076	23.3978	-0.19196
38	0.0173	0.661955	23.836	-0.180508
39	0.0185	0.722479	24.3579	-0.167142
40	0.0302	0.789191	24.9808	-0.143309
41	0.0461	0.855996	25.7135	-0.103847
42	0.124	0.930718	26.5797	0.0115616
43	0.159	1.01104	27.6019	0.172316
44	0.16	1.0939	28.7985	0.34734
45	0.162	1.19012	30.2149	0.540139
46	0.164	1.29303	31.8869	0.752196
47	0.168	1.41865	33.8994	0.99053

48	0.178	1.57179	36.3699	1.27031
49	0.182	1.76241	39.476	1.59107
50	0.187	2.07485	43.781	1.97906

Data Set Standard Deviation = 0.058587
Numerator = 3.91669
Denominator = 7.3635
W Statistic = 0.531906 = 3.91669 / 7.3635

5% Critical value of 0.953 exceeds 0.531906
Evidence of non-normality at 95% level of significance

1% Critical value of 0.935 exceeds 0.531906
Evidence of non-normality at 99% level of significance

Concentrations (ppb)

Parameter: Mercury

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 51
Total Non-Detect: 30
Percent Non-Detects: 58.8235%
Total Background Measurements: 10
There is 1 background location

Loc.	Meas.	ND	Date	Conc.	Original
MW#93-1	10	10 (100%)	5/24/2018	ND<5e-005	ND<5e-005
			6/19/2018	ND<5e-005	ND<5e-005
			7/19/2018	ND<5e-005	ND<5e-005
			8/22/2018	ND<5e-005	ND<5e-005
			9/19/2018	ND<5e-005	ND<5e-005
			10/18/2018	ND<5e-005	ND<5e-005
			11/20/2018	ND<5e-005	ND<5e-005
			12/20/2018	ND<5e-005	ND<5e-005
			11/21/2019	ND<5e-005	ND<5e-005
			6/25/2020	ND<0.0002	ND<0.0002

There are 4 compliance locations

Loc.	Meas.	ND	Date	Conc.	Original
MW#03-1	10	9 (90%)	5/24/2018	ND<5e-005	ND<5e-005
			6/19/2018	ND<5e-005	ND<5e-005
			7/19/2018	ND<5e-005	ND<5e-005
			8/22/2018	0.000184	0.000184
			10/18/2018	ND<5e-005	ND<5e-005
			11/20/2018	ND<5e-005	ND<5e-005
			12/20/2018	ND<5e-005	ND<5e-005
			3/26/2019	ND<5e-005	ND<5e-005
			11/21/2019	ND<5e-005	ND<5e-005
			6/25/2020	ND<0.0002	ND<0.0002
MW#03-2	11	1 (9.09091%)	5/24/2018	ND<5e-005	ND<5e-005
			6/19/2018	0.000224	0.000224
			7/19/2018	0.000239	0.000239
			8/22/2018	0.000255	0.000255
			9/19/2018	0.000636	0.000636
			10/18/2018	0.00101	0.00101
			11/20/2018	0.000803	0.000803
			12/20/2018	0.00107	0.00107
			11/21/2019	0.00694	0.00694
			2/14/2020	0.00171	0.00171
			6/25/2020	0.000234	0.000234
MW#93-2	10	9 (90%)	5/24/2018	ND<5e-005	ND<5e-005
			6/19/2018	ND<5e-005	ND<5e-005
			7/19/2018	ND<5e-005	ND<5e-005
			8/22/2018	ND<5e-005	ND<5e-005
			9/19/2018	ND<5e-005	ND<5e-005
			10/18/2018	0.000572	0.000572
			11/20/2018	ND<5e-005	ND<5e-005

			12/20/2018	ND<5e-005	ND<5e-005
			11/21/2019	ND<5e-005	ND<5e-005
			6/25/2020	ND<0.0002	ND<0.0002
MW#93-3	10	1 (10%)	5/24/2018	0.000787	0.000787
			6/19/2018	0.000367	0.000367
			7/19/2018	0.00033	0.00033
			8/22/2018	0.000514	0.000514
			9/19/2018	0.000428	0.000428
			10/18/2018	0.000579	0.000579
			11/20/2018	0.000577	0.000577
			12/20/2018	0.000245	0.000245
			11/21/2019	0.000861	0.000861
			6/25/2020	ND<0.0002	ND<0.0002

There are 0 unused locations

Loc.	Meas.	ND	Date	Conc.	Original

Non-Parametric Prediction Interval

Inter-Well Comparison

Parameter: Mercury

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 58.8235%
Number of comparisons = 4
Future Samples (k) = 4
Recent Dates = 1
Background Measurements (n) = 10
Maximum Background Value = 0.0002
Confidence Level = 71.4%
False Positive Rate = 28.6%

Location	Date	Count	Mean	Significant
MW#03-1	6/25/2020	1	0.0002	FALSE
MW#03-2	**6/25/2020**	**1**	**0.000234**	**TRUE**
MW#93-2	6/25/2020	1	0.0002	FALSE
MW#93-3	6/25/2020	1	0.0002	FALSE

Non-Parametric Prediction Interval

Intra-Well Comparison for MW#03-2

Parameter: Mercury

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 10%
Future Samples (k) = 1
Recent Dates = 1
Baseline Measurements (n) = 10
Maximum Baseline Concentration = 0.00694
Confidence Level = 90.9%
False Positive Rate = 9.1%

Baseline Measurements	Date	Value
	5/24/2018	ND<5e-005
	6/19/2018	0.000224
	7/19/2018	0.000239
	8/22/2018	0.000255
	9/19/2018	0.000636
	10/18/2018	0.00101
	11/20/2018	0.000803
	12/20/2018	0.00107
	11/21/2019	0.00694
	2/14/2020	0.00171

Date	Count	Mean	Significant
6/25/2020	1	0.000234	FALSE

Levene's Test for Equal of Variance

Parameter: Mercury

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Overall Mean = 0.000314866
Overall Std Dev = 0.000829916
Overall Total = 0.0160581
SS Groups = 9.62146e-006
SS Total = 3.4438e-005

ANOVA Table

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Squares	F
Between Groups	9.62146e-006	4	2.40536e-006	4.45859
Error (within groups)	2.48166e-005	46	5.3949e-007	
Totals	3.4438e-005	50		

95% F-Statistic = 2.52521

4.45859 exceeds 2.52521; assumption of equal variance should be rejected

Group: MW#93-1	Sample	Residual
	5/24/2018	1.5e-005
	6/19/2018	1.5e-005
	7/19/2018	1.5e-005
	8/22/2018	1.5e-005
	9/19/2018	1.5e-005
	10/18/2018	1.5e-005
	11/20/2018	1.5e-005
	12/20/2018	1.5e-005
	11/21/2019	1.5e-005
	6/25/2020	0.000135

Group: MW#03-1	Date	Residual
	5/24/2018	2.84e-005
	6/19/2018	2.84e-005
	7/19/2018	2.84e-005
	8/22/2018	0.0001056
	10/18/2018	2.84e-005
	11/20/2018	2.84e-005
	12/20/2018	2.84e-005
	3/26/2019	2.84e-005
	11/21/2019	2.84e-005
	6/25/2020	0.0001216

Group: MW#03-2	Date	Residual
	5/24/2018	0.00114736
	6/19/2018	0.000973364
	7/19/2018	0.000958364
	8/22/2018	0.000942364
	9/19/2018	0.000561364
	10/18/2018	0.000187364

11/20/2018	0.000394364
12/20/2018	0.000127364
11/21/2019	0.00574264
2/14/2020	0.000512636
6/25/2020	0.000963364

Group: MW#93-2	Date	Residual
	5/24/2018	6.72e-005
	6/19/2018	6.72e-005
	7/19/2018	6.72e-005
	8/22/2018	6.72e-005
	9/19/2018	6.72e-005
	10/18/2018	0.0004548
	11/20/2018	6.72e-005
	12/20/2018	6.72e-005
	11/21/2019	6.72e-005
	6/25/2020	8.28e-005

Group: MW#93-3	Date	Residual
	5/24/2018	0.0002982
	6/19/2018	0.0001218
	7/19/2018	0.0001588
	8/22/2018	2.52e-005
	9/19/2018	6.08e-005
	10/18/2018	9.02e-005
	11/20/2018	8.82e-005
	12/20/2018	0.0002438
	11/21/2019	0.0003722
	6/25/2020	0.0002888

Shapiro-Francia Test of Normality

Parameter: Mercury

All Locations

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Number of Measurements = 51

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	5e-005	-2.07485	4.305	-0.000103742
2	5e-005	-1.77438	7.45342	-0.000192461
3	5e-005	-1.58047	9.95129	-0.000271485
4	5e-005	-1.4325	12.0034	-0.00034311
5	5e-005	-1.30469	13.7056	-0.000408344
6	5e-005	-1.20036	15.1464	-0.000468362
7	5e-005	-1.10768	16.3734	-0.000523746
8	5e-005	-1.02365	17.4212	-0.000574929
9	5e-005	-0.942375	18.3093	-0.000622048
10	5e-005	-0.87055	19.0672	-0.000665575
11	5e-005	-0.802956	19.7119	-0.000705723
12	5e-005	-0.738846	20.2578	-0.000742665
13	5e-005	-0.67449	20.7127	-0.00077639
14	5e-005	-0.615839	21.092	-0.000807182
15	5e-005	-0.559237	21.4047	-0.000835144
16	5e-005	-0.504372	21.6591	-0.000860362
17	5e-005	-0.450985	21.8625	-0.000882911
18	5e-005	-0.396142	22.0195	-0.000902718
19	5e-005	-0.345126	22.1386	-0.000919975
20	5e-005	-0.294992	22.2256	-0.000934724
21	5e-005	-0.24559	22.2859	-0.000947004
22	5e-005	-0.194225	22.3236	-0.000956715
23	5e-005	-0.1459	22.3449	-0.00096401
24	5e-005	-0.0979139	22.3545	-0.000968906
25	5e-005	-0.0501541	22.357	-0.000971413
26	5e-005	0	22.357	-0.000971413
27	0.000184	0.0501541	22.3595	-0.000962185
28	0.0002	0.0979139	22.3691	-0.000942602
29	0.0002	0.1459	22.3904	-0.000913422
30	0.0002	0.194225	22.4281	-0.000874577
31	0.0002	0.24559	22.4884	-0.000825459
32	0.000224	0.294992	22.5755	-0.000759381
33	0.000234	0.345126	22.6946	-0.000678622
34	0.000239	0.396142	22.8515	-0.000583944
35	0.000245	0.450985	23.0549	-0.000473452
36	0.000255	0.504372	23.3093	-0.000344838
37	0.00033	0.559237	23.622	-0.000160289
38	0.000367	0.615839	24.0013	6.57236e-005
39	0.000428	0.67449	24.4562	0.000354406
40	0.000514	0.738846	25.0021	0.000734172
41	0.000572	0.802956	25.6469	0.00119346
42	0.000577	0.87055	26.4047	0.00169577
43	0.000579	0.942375	27.2928	0.00224141
44	0.000636	1.02365	28.3406	0.00289245
45	0.000787	1.10768	29.5676	0.00376419
46	0.000803	1.20036	31.0085	0.00472808
47	0.000861	1.30469	32.7107	0.00585142

48	0.00101	1.4325	34.7627	0.00729825
49	0.00107	1.58047	37.2606	0.00898934
50	0.00171	1.77438	40.409	0.0120235
51	0.00694	2.07485	44.714	0.026423

Data Set Standard Deviation = 0.000995205
Numerator = 0.000698174
Denominator = 0.00221431
W Statistic = 0.315301 = 0.000698174 / 0.00221431

5% Critical value of 0.954 exceeds 0.315301
Evidence of non-normality at 95% level of significance

1% Critical value of 0.935 exceeds 0.315301
Evidence of non-normality at 99% level of significance

Concentrations (ppb)

Parameter: Molybdenum

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 50
Total Non-Detect: 38
Percent Non-Detects: 76%
Total Background Measurements: 10
There is 1 background location

Loc.	Meas.	ND	Date	Conc.	Original
MW#93-1	10	9 (90%)	5/24/2018	ND<0.01	ND<0.01
			6/19/2018	ND<0.01	ND<0.01
			7/19/2018	ND<0.01	ND<0.01
			8/22/2018	ND<0.01	ND<0.01
			9/19/2018	ND<0.01	ND<0.01
			10/18/2018	ND<0.01	ND<0.01
			11/20/2018	ND<0.01	ND<0.01
			12/20/2018	ND<0.01	ND<0.01
			11/21/2019	ND<0.01	ND<0.01
			6/25/2020	0.00105	0.00105

There are 4 compliance locations

Loc.	Meas.	ND	Date	Conc.	Original
MW#93-2	10	1 (10%)	5/24/2018	1.4	1.4
			6/19/2018	1.18	1.18
			7/19/2018	ND<0.01	ND<0.01
			8/22/2018	0.949	0.949
			9/19/2018	1.34	1.34
			10/18/2018	1.08	1.08
			11/20/2018	1.29	1.29
			12/20/2018	1.34	1.34
			11/21/2019	0.252	0.252
			6/25/2020	0.213	0.213
MW#03-1	10	8 (80%)	5/24/2018	ND<0.01	ND<0.01
			6/19/2018	ND<0.01	ND<0.01
			7/19/2018	ND<0.01	ND<0.01
			8/22/2018	0.0167	0.0167
			10/18/2018	ND<0.01	ND<0.01
			11/20/2018	ND<0.01	ND<0.01
			12/20/2018	ND<0.01	ND<0.01
			3/26/2019	ND<0.01	ND<0.01
			11/21/2019	ND<0.01	ND<0.01
			6/25/2020	0.000992	0.000992
MW#03-2	10	10 (100%)	5/24/2018	ND<0.01	ND<0.01
			6/19/2018	ND<0.01	ND<0.01
			7/19/2018	ND<0.01	ND<0.01
			8/22/2018	ND<0.01	ND<0.01
			9/19/2018	ND<0.01	ND<0.01
			10/18/2018	ND<0.01	ND<0.01
			11/20/2018	ND<0.01	ND<0.01
			12/20/2018	ND<0.01	ND<0.01

			11/21/2019	ND<0.01	ND<0.01
			6/25/2020	ND<0.005	ND<0.005
MW#93-3	10	10 (100%)	5/24/2018	ND<0.01	ND<0.01
			6/19/2018	ND<0.01	ND<0.01
			7/19/2018	ND<0.01	ND<0.01
			8/22/2018	ND<0.01	ND<0.01
			9/19/2018	ND<0.01	ND<0.01
			10/18/2018	ND<0.01	ND<0.01
			11/20/2018	ND<0.01	ND<0.01
			12/20/2018	ND<0.01	ND<0.01
			11/21/2019	ND<0.01	ND<0.01
			6/25/2020	ND<0.005	ND<0.005

There are 0 unused locations

Loc.	Meas.	ND	Date	Conc.	Original

Non-Parametric Prediction Interval

Inter-Well Comparison

Parameter: Molybdenum

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 76%
Number of comparisons = 4
Future Samples (k) = 4
Recent Dates = 1
Background Measurements (n) = 10
Maximum Background Value = 0.01
Confidence Level = 71.4%
False Positive Rate = 28.6%

Location	Date	Count	Mean	Significant
MW#93-2	**6/25/2020**	**1**	**0.213**	**TRUE**
MW#03-1	6/25/2020	1	0.000992	FALSE
MW#03-2	6/25/2020	1	0.005	FALSE
MW#93-3	6/25/2020	1	0.005	FALSE

Non-Parametric Prediction Interval

Intra-Well Comparison for MW#93-2

Parameter: Molybdenum

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 11.1111%
Future Samples (k) = 1
Recent Dates = 1
Baseline Measurements (n) = 9
Maximum Baseline Concentration = 1.4
Confidence Level = 90%
False Positive Rate = 10%

Baseline Measurements	Date	Value
	5/24/2018	1.4
	6/19/2018	1.18
	7/19/2018	ND<0.01
	8/22/2018	0.949
	9/19/2018	1.34
	10/18/2018	1.08
	11/20/2018	1.29
	12/20/2018	1.34
	11/21/2019	0.252

Date	Count	Mean	Significant
6/25/2020	1	0.213	FALSE

Levene's Test for Equal of Variance

Parameter: Molybdenum

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Overall Mean = 0.0906813
Overall Std Dev = 0.210697
Overall Total = 4.53406
SS Groups = 1.59811
SS Total = 2.17527

ANOVA Table

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Squares	F
Between Groups	1.59811	4	0.399527	31.1503
Error (within groups)	0.577161	45	0.0128258	
Totals	2.17527	49		

95% F-Statistic = 2.52521

31.1503 exceeds 2.52521; assumption of equal variance should be rejected

Group: MW#93-1	Sample	Residual
	5/24/2018	0.000895
	6/19/2018	0.000895
	7/19/2018	0.000895
	8/22/2018	0.000895
	9/19/2018	0.000895
	10/18/2018	0.000895
	11/20/2018	0.000895
	12/20/2018	0.000895
	11/21/2019	0.000895
	6/25/2020	0.008055

Group: MW#93-2	Date	Residual
	5/24/2018	0.4946
	6/19/2018	0.2746
	7/19/2018	0.8954
	8/22/2018	0.0436
	9/19/2018	0.4346
	10/18/2018	0.1746
	11/20/2018	0.3846
	12/20/2018	0.4346
	11/21/2019	0.6534
	6/25/2020	0.6924

Group: MW#03-1	Date	Residual
	5/24/2018	0.0002308
	6/19/2018	0.0002308
	7/19/2018	0.0002308
	8/22/2018	0.0069308
	10/18/2018	0.0002308
	11/20/2018	0.0002308

	12/20/2018	0.0002308
	3/26/2019	0.0002308
	11/21/2019	0.0002308
	6/25/2020	0.0087772

Group: MW#03-2	Date	Residual
	5/24/2018	0.0005
	6/19/2018	0.0005
	7/19/2018	0.0005
	8/22/2018	0.0005
	9/19/2018	0.0005
	10/18/2018	0.0005
	11/20/2018	0.0005
	12/20/2018	0.0005
	11/21/2019	0.0005
	6/25/2020	0.0045

Group: MW#93-3	Date	Residual
	5/24/2018	0.0005
	6/19/2018	0.0005
	7/19/2018	0.0005
	8/22/2018	0.0005
	9/19/2018	0.0005
	10/18/2018	0.0005
	11/20/2018	0.0005
	12/20/2018	0.0005
	11/21/2019	0.0005
	6/25/2020	0.0045

Shapiro-Francia Test of Normality

Parameter: Molybdenum

All Locations

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Number of Measurements = 50

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	0.000992	-2.07485	4.305	-0.00205825
2	0.00105	-1.76241	7.41108	-0.00390878
3	0.005	-1.57179	9.8816	-0.0117677
4	0.005	-1.41865	11.8942	-0.018861
5	0.01	-1.29303	13.5661	-0.0317913
6	0.01	-1.19012	14.9825	-0.0436925
7	0.01	-1.0939	16.1791	-0.0546315
8	0.01	-1.01104	17.2013	-0.0647418
9	0.01	-0.930718	18.0675	-0.074049
10	0.01	-0.855996	18.8003	-0.082609
11	0.01	-0.789191	19.4231	-0.0905009
12	0.01	-0.722479	19.9451	-0.0977257
13	0.01	-0.661955	20.3832	-0.104345
14	0.01	-0.60076	20.7442	-0.110353
15	0.01	-0.541736	21.0376	-0.11577
16	0.01	-0.487364	21.2752	-0.120644
17	0.01	-0.431644	21.4615	-0.12496
18	0.01	-0.379927	21.6058	-0.12876
19	0.01	-0.326561	21.7125	-0.132025
20	0.01	-0.27411	21.7876	-0.134766
21	0.01	-0.224974	21.8382	-0.137016
22	0.01	-0.173829	21.8684	-0.138754
23	0.01	-0.125661	21.8842	-0.140011
24	0.01	-0.0752698	21.8899	-0.140764
25	0.01	-0.0250691	21.8905	-0.141014
26	0.01	0.0250691	21.8911	-0.140764
27	0.01	0.0752698	21.8968	-0.140011
28	0.01	0.125661	21.9126	-0.138754
29	0.01	0.173829	21.9428	-0.137016
30	0.01	0.224974	21.9934	-0.134766
31	0.01	0.27411	22.0686	-0.132025
32	0.01	0.326561	22.1752	-0.12876
33	0.01	0.379927	22.3196	-0.12496
34	0.01	0.431644	22.5059	-0.120644
35	0.01	0.487364	22.7434	-0.11577
36	0.01	0.541736	23.0369	-0.110353
37	0.01	0.60076	23.3978	-0.104345
38	0.01	0.661955	23.836	-0.0977257
39	0.01	0.722479	24.3579	-0.0905009
40	0.01	0.789191	24.9808	-0.082609
41	0.0167	0.855996	25.7135	-0.0683138
42	0.213	0.930718	26.5797	0.129929
43	0.252	1.01104	27.6019	0.38471
44	0.949	1.0939	28.7985	1.42282
45	1.08	1.19012	30.2149	2.70815
46	1.18	1.29303	31.8869	4.23393
47	1.29	1.41865	33.8994	6.06399

48	1.34	1.57179	36.3699	8.17018
49	1.34	1.76241	39.476	10.5318
50	1.4	2.07485	43.781	13.4366

Data Set Standard Deviation = 0.428761
Numerator = 180.542
Denominator = 394.378
W Statistic = 0.45779 = 180.542 / 394.378

5% Critical value of 0.953 exceeds 0.45779
Evidence of non-normality at 95% level of significance

1% Critical value of 0.935 exceeds 0.45779
Evidence of non-normality at 99% level of significance

Concentrations (ppb)

Parameter: ph

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 292
Total Non-Detect: 0
Percent Non-Detects: 0%
Total Background Measurements: 73
There is 1 background location

Loc.	Meas.	ND	Date	Conc.	Original
MW#93-1	73	0 (0%)	12/15/1994	6.67	6.67
			3/14/1995	6.72	6.72
			6/21/1995	6.58	6.58
			12/14/1995	6.72	6.72
			3/6/1996	6.72	6.72
			4/25/1996	6.79	6.79
			10/2/1996	6.61	6.61
			12/10/1996	6.51	6.51
			3/11/1997	6.77	6.77
			4/15/1997	6.66	6.66
			8/14/1997	6.66	6.66
			12/4/1997	6.78	6.78
			3/31/1998	6.87	6.87
			6/23/1998	6.5	6.5
			8/11/1998	7.05	7.05
			12/8/1998	6.62	6.62
			3/9/1999	6.6	6.6
			6/8/1999	6.93	6.93
			8/19/1999	6.54	6.54
			12/14/1999	6.55	6.55
			3/7/2000	6.59	6.59
			6/23/2000	6.52	6.52
			12/12/2000	6.56	6.56
			3/27/2001	6.6	6.6
			6/28/2001	6.59	6.59
			9/10/2001	6.76	6.76
			12/18/2001	6.76	6.76
			3/19/2002	6.93	6.93
			6/26/2002	6.85	6.85
			9/18/2002	6.62	6.62
			12/11/2002	6.58	6.58
			3/13/2003	6.66	6.66
			6/25/2003	6.94	6.94
			9/26/2003	6.42	6.42
			12/10/2003	6.64	6.64
			3/9/2004	6.68	6.68
			6/24/2004	6.53	6.53
			9/15/2004	6.43	6.43
			12/15/2004	6.61	6.61
			3/16/2005	6.57	6.57
			6/15/2005	6.53	6.53
			9/21/2005	6.65	6.65
			12/21/2005	6.61	6.61
			3/15/2006	6.64	6.64
			6/21/2006	6.85	6.85

			12/20/2006	6.67	6.67
			6/12/2007	6.58	6.58
			12/17/2007	6.33	6.33
			6/11/2008	6.7	6.7
			12/3/2008	6.5	6.5
			6/17/2009	6.8	6.8
			12/9/2009	6.6	6.6
			6/17/2010	6.5	6.5
			12/22/2010	6.55	6.55
			6/29/2011	6.5	6.5
			12/7/2011	6.41	6.41
			6/6/2012	6.23	6.23
			12/12/2012	6.61	6.61
			6/19/2013	6.58	6.58
			12/11/2013	6.57	6.57
			6/11/2014	6.1	6.1
			12/3/2014	6.69	6.69
			6/17/2015	6.38	6.38
			12/1/2015	6.45	6.45
			6/22/2016	6.59	6.59
			12/20/2016	6.28	6.28
			6/6/2017	6.69	6.69
			11/7/2017	6.21	6.21
			2/27/2018	6.47	6.47
			9/19/2018	6.62	6.62
			5/7/2019	7	7
			11/21/2019	6.46	6.46
			6/26/2020	6.88	6.88

There are 4 compliance locations

Loc.	Meas.	ND	Date	Conc.	Original
MW#93-2	76	0 (0%)	12/15/1994	8.54	8.54
			3/14/1995	8.82	8.82
			6/21/1995	8.68	8.68
			12/14/1995	8.16	8.16
			3/6/1996	9.37	9.37
			4/25/1996	9.14	9.14
			10/2/1996	8.94	8.94
			12/10/1996	9.27	9.27
			3/11/1997	8.95	8.95
			4/15/1997	9.25	9.25
			8/14/1997	8.67	8.67
			12/4/1997	8.77	8.77
			3/31/1998	9.32	9.32
			6/23/1998	8.87	8.87
			8/11/1998	9	9
			12/8/1998	8.9	8.9
			3/9/1999	9.39	9.39
			6/8/1999	9.25	9.25
			8/19/1999	9.15	9.15
			12/14/1999	8.98	8.98
			3/7/2000	9.2	9.2
			6/23/2000	9.18	9.18
			12/12/2000	9.18	9.18
			3/27/2001	9.29	9.29

			6/28/2001	9.22	9.22
			9/10/2001	9.1	9.1
			12/18/2001	9.4	9.4
			3/19/2002	9.54	9.54
			6/26/2002	9.44	9.44
			9/18/2002	9.24	9.24
			12/11/2002	9.16	9.16
			3/13/2003	9.28	9.28
			6/25/2003	9.27	9.27
			9/26/2003	9.32	9.32
			12/10/2003	9.25	9.25
			3/9/2004	9.37	9.37
			6/24/2004	9.24	9.24
			9/15/2004	9.32	9.32
			12/15/2004	9.26	9.26
			3/16/2005	9.23	9.23
			6/15/2005	9.1	9.1
			9/21/2005	9.25	9.25
			12/21/2005	9.31	9.31
			3/15/2006	9.47	9.47
			6/21/2006	9.4	9.4
			12/20/2006	9.18	9.18
			2/21/2007	9.2	9.2
			6/12/2007	9.1	9.1
			12/17/2007	9.3	9.3
			6/11/2008	9.4	9.4
			12/3/2008	9.7	9.7
			12/15/2008	9.6	9.6
			6/17/2009	9.8	9.8
			12/9/2009	9.8	9.8
			6/17/2010	9.6	9.6
			12/22/2010	9.5	9.5
			6/29/2011	9.4	9.4
			12/7/2011	9.5	9.5
			6/6/2012	9.68	9.68
			12/12/2012	10.02	10.02
			1/9/2013	9.51	9.51
			6/19/2013	9.4	9.4
			12/11/2013	9.46	9.46
			6/11/2014	8.55	8.55
			12/3/2014	8.95	8.95
			6/17/2015	9.13	9.13
			12/1/2015	9.37	9.37
			6/22/2016	9.28	9.28
			12/20/2016	9.72	9.72
			6/6/2017	9.29	9.29
			11/7/2017	8.86	8.86
			2/27/2018	9.04	9.04
			9/19/2018	9.09	9.09
			5/7/2019	9.05	9.05
			11/21/2019	8.44	8.44
			6/26/2020	8.59	8.59
MW#93-3	73	0 (0%)	12/15/1994	6.68	6.68
			3/14/1995	6.74	6.74
			6/21/1995	6.61	6.61
			12/14/1995	6.75	6.75

3/6/1996	6.85	6.85
4/25/1996	6.78	6.78
10/2/1996	6.75	6.75
12/10/1996	6.7	6.7
3/11/1997	6.8	6.8
4/15/1997	6.74	6.74
8/14/1997	6.88	6.88
12/4/1997	6.88	6.88
3/31/1998	6.92	6.92
6/23/1998	6.76	6.76
8/11/1998	6.91	6.91
12/8/1998	6.93	6.93
3/9/1999	6.78	6.78
6/8/1999	6.85	6.85
8/19/1999	6.97	6.97
12/14/1999	6.8	6.8
3/7/2000	6.77	6.77
6/23/2000	6.82	6.82
12/12/2000	6.86	6.86
3/27/2001	6.79	6.79
6/28/2001	6.86	6.86
9/10/2001	7.04	7.04
12/18/2001	6.93	6.93
3/19/2002	7	7
6/26/2002	6.89	6.89
9/18/2002	7.96	7.96
12/11/2002	6.74	6.74
3/13/2003	6.87	6.87
6/25/2003	6.85	6.85
9/26/2003	6.77	6.77
12/10/2003	6.99	6.99
3/9/2004	7.45	7.45
6/24/2004	6.8	6.8
9/15/2004	6.7	6.7
12/15/2004	6.88	6.88
3/16/2005	6.69	6.69
6/15/2005	6.81	6.81
9/21/2005	6.85	6.85
12/21/2005	6.7	6.7
3/15/2006	7.07	7.07
6/21/2006	6.84	6.84
12/20/2006	6.93	6.93
6/12/2007	6.89	6.89
12/17/2007	6.8	6.8
6/11/2008	6.8	6.8
12/3/2008	6.8	6.8
6/17/2009	7.2	7.2
12/9/2009	6.9	6.9
6/17/2010	6.7	6.7
12/22/2010	6.82	6.82
6/29/2011	6.7	6.7
12/7/2011	6.77	6.77
6/6/2012	6.42	6.42
12/12/2012	6.85	6.85
6/19/2013	6.49	6.49
12/11/2013	7.07	7.07
6/11/2014	6.08	6.08

			12/3/2014	6.8	6.8
			6/17/2015	6.4	6.4
			12/1/2015	6.6	6.6
			6/22/2016	6.43	6.43
			12/20/2016	6.27	6.27
			6/6/2017	6.65	6.65
			11/7/2017	6.46	6.46
			2/27/2018	6.49	6.49
			9/19/2018	6.55	6.55
			5/7/2019	6.69	6.69
			11/21/2019	6.54	6.54
			6/26/2020	6.75	6.75
MW#03-1	33	0 (0%)	6/24/2004	7.27	7.27
			9/15/2004	6.78	6.78
			12/15/2004	7.32	7.32
			3/16/2005	7.3	7.3
			6/15/2005	7.28	7.28
			9/21/2005	7.88	7.88
			12/20/2006	7	7
			6/12/2007	7.29	7.29
			12/17/2007	6.8	6.8
			6/11/2008	7.4	7.4
			12/3/2008	7.4	7.4
			6/17/2009	7.6	7.6
			12/9/2009	7.5	7.5
			6/17/2010	7.1	7.1
			12/22/2010	6.89	6.89
			6/29/2011	7.3	7.3
			12/7/2011	7.05	7.05
			6/6/2012	7.33	7.33
			6/19/2013	7.15	7.15
			12/11/2013	7.19	7.19
			6/11/2014	6.62	6.62
			12/3/2014	6.73	6.73
			6/17/2015	6.66	6.66
			12/1/2015	6.34	6.34
			6/22/2016	7.2	7.2
			12/20/2016	6.75	6.75
			6/6/2017	6.64	6.64
			11/7/2017	6.44	6.44
			2/27/2018	6.81	6.81
			9/19/2018	7.19	7.19
			5/7/2019	6.33	6.33
			11/21/2019	6.23	6.23
			6/25/2020	6.77	6.77
MW#03-2	37	0 (0%)	6/24/2004	6.84	6.84
			9/15/2004	7.17	7.17
			12/15/2004	6.86	6.86
			3/16/2005	6.8	6.8
			6/15/2005	6.87	6.87
			9/21/2005	6.87	6.87
			12/21/2005	6.83	6.83
			3/15/2006	6.88	6.88
			6/21/2006	6.78	6.78
			12/20/2006	6.88	6.88

6/12/2007	6.87	6.87
12/17/2007	6.7	6.7
6/11/2008	6.9	6.9
12/3/2008	6.8	6.8
6/17/2009	7.3	7.3
12/9/2009	6.8	6.8
6/17/2010	6.8	6.8
12/22/2010	7.2	7.2
6/29/2011	6.7	6.7
12/7/2011	6.69	6.69
6/6/2012	6.73	6.73
12/12/2012	6.82	6.82
6/19/2013	6.88	6.88
12/11/2013	6.72	6.72
6/11/2014	7	7
12/3/2014	7.14	7.14
6/17/2015	6.45	6.45
12/1/2015	6.39	6.39
6/22/2016	6.75	6.75
12/20/2016	6.36	6.36
6/6/2017	6.73	6.73
11/7/2017	6.22	6.22
2/27/2018	6.47	6.47
9/19/2018	6.63	6.63
5/7/2019	6.81	6.81
11/21/2019	6.56	6.56
6/25/2020	6.65	6.65

There are 0 unused locations

Loc.	Meas.	ND	Date	Conc.	Original

Non-Parametric Prediction Interval

Inter-Well Comparison

Parameter: ph

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 0%
Number of comparisons = 4
Future Samples (k) = 4
Recent Dates = 1
Background Measurements (n) = 73
Maximum Background Value = 7.05
Confidence Level = 94.8%
False Positive Rate = 5.2%

Location	Date	Count	Mean	Significant
MW#93-2	**6/26/2020**	**1**	**8.59**	**TRUE**
MW#93-3	6/26/2020	1	6.75	FALSE
MW#03-1	6/25/2020	1	6.77	FALSE
MW#03-2	6/25/2020	1	6.65	FALSE

Non-Parametric Prediction Interval

Intra-Well Comparison for MW#93-2

Parameter: ph

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 0%
Future Samples (k) = 1
Recent Dates = 1
Baseline Measurements (n) = 75
Maximum Baseline Concentration = 10.02
Confidence Level = 98.7%
False Positive Rate = 1.3%

Baseline Measurements	Date	Value
	12/15/1994	8.54
	3/14/1995	8.82
	6/21/1995	8.68
	12/14/1995	8.16
	3/6/1996	9.37
	4/25/1996	9.14
	10/2/1996	8.94
	12/10/1996	9.27
	3/11/1997	8.95
	4/15/1997	9.25
	8/14/1997	8.67
	12/4/1997	8.77
	3/31/1998	9.32
	6/23/1998	8.87
	8/11/1998	9
	12/8/1998	8.9
	3/9/1999	9.39
	6/8/1999	9.25
	8/19/1999	9.15
	12/14/1999	8.98
	3/7/2000	9.2
	6/23/2000	9.18
	12/12/2000	9.18
	3/27/2001	9.29
	6/28/2001	9.22
	9/10/2001	9.1
	12/18/2001	9.4
	3/19/2002	9.54
	6/26/2002	9.44
	9/18/2002	9.24
	12/11/2002	9.16
	3/13/2003	9.28
	6/25/2003	9.27
	9/26/2003	9.32
	12/10/2003	9.25
	3/9/2004	9.37
	6/24/2004	9.24
	9/15/2004	9.32
	12/15/2004	9.26
	3/16/2005	9.23
	6/15/2005	9.1
	9/21/2005	9.25

12/21/2005	9.31
3/15/2006	9.47
6/21/2006	9.4
12/20/2006	9.18
2/21/2007	9.2
6/12/2007	9.1
12/17/2007	9.3
6/11/2008	9.4
12/3/2008	9.7
12/15/2008	9.6
6/17/2009	9.8
12/9/2009	9.8
6/17/2010	9.6
12/22/2010	9.5
6/29/2011	9.4
12/7/2011	9.5
6/6/2012	9.68
12/12/2012	10.02
1/9/2013	9.51
6/19/2013	9.4
12/11/2013	9.46
6/11/2014	8.55
12/3/2014	8.95
6/17/2015	9.13
12/1/2015	9.37
6/22/2016	9.28
12/20/2016	9.72
6/6/2017	9.29
11/7/2017	8.86
2/27/2018	9.04
9/19/2018	9.09
5/7/2019	9.05
11/21/2019	8.44

Date	Count	Mean	Significant
6/26/2020	1	8.59	FALSE

Levene's Test for Equal of Variance

Parameter: ph

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Overall Mean = 0.189311
Overall Std Dev = 0.192771
Overall Total = 55.2788
SS Groups = 1.25221
SS Total = 10.8137

ANOVA Table

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Squares	F
Between Groups	1.25221	4	0.313051	9.39661
Error (within groups)	9.56151	287	0.0333154	
Totals	10.8137	291		

95% F-Statistic = 2.37

9.39661 exceeds 2.37; assumption of equal variance should be rejected

Group: MW#93-1	Sample	Residual
	12/15/1994	0.0546575
	3/14/1995	0.104658
	6/21/1995	0.0353425
	12/14/1995	0.104658
	3/6/1996	0.104658
	4/25/1996	0.174658
	10/2/1996	0.00534247
	12/10/1996	0.105342
	3/11/1997	0.154658
	4/15/1997	0.0446575
	8/14/1997	0.0446575
	12/4/1997	0.164658
	3/31/1998	0.254658
	6/23/1998	0.115342
	8/11/1998	0.434658
	12/8/1998	0.00465753
	3/9/1999	0.0153425
	6/8/1999	0.314658
	8/19/1999	0.0753425
	12/14/1999	0.0653425
	3/7/2000	0.0253425
	6/23/2000	0.0953425
	12/12/2000	0.0553425
	3/27/2001	0.0153425
	6/28/2001	0.0253425
	9/10/2001	0.144658
	12/18/2001	0.144658
	3/19/2002	0.314658
	6/26/2002	0.234658
	9/18/2002	0.00465753

12/11/2002	0.0353425
3/13/2003	0.0446575
6/25/2003	0.324658
9/26/2003	0.195342
12/10/2003	0.0246575
3/9/2004	0.0646575
6/24/2004	0.0853425
9/15/2004	0.185342
12/15/2004	0.00534247
3/16/2005	0.0453425
6/15/2005	0.0853425
9/21/2005	0.0346575
12/21/2005	0.00534247
3/15/2006	0.0246575
6/21/2006	0.234658
12/20/2006	0.0546575
6/12/2007	0.0353425
12/17/2007	0.285342
6/11/2008	0.0846575
12/3/2008	0.115342
6/17/2009	0.184658
12/9/2009	0.0153425
6/17/2010	0.115342
12/22/2010	0.0653425
6/29/2011	0.115342
12/7/2011	0.205342
6/6/2012	0.385342
12/12/2012	0.00534247
6/19/2013	0.0353425
12/11/2013	0.0453425
6/11/2014	0.515342
12/3/2014	0.0746575
6/17/2015	0.235342
12/1/2015	0.165342
6/22/2016	0.0253425
12/20/2016	0.335342
6/6/2017	0.0746575
11/7/2017	0.405342
2/27/2018	0.145342
9/19/2018	0.00465753
5/7/2019	0.384658
11/21/2019	0.155342
6/26/2020	0.264658

Group: MW#93-2	**Date**	**Residual**
	12/15/1994	0.669868
	3/14/1995	0.389868
	6/21/1995	0.529868
	12/14/1995	1.04987
	3/6/1996	0.160132
	4/25/1996	0.0698684
	10/2/1996	0.269868
	12/10/1996	0.0601316
	3/11/1997	0.259868
	4/15/1997	0.0401316
	8/14/1997	0.539868
	12/4/1997	0.439868

3/31/1998	0.110132
6/23/1998	0.339868
8/11/1998	0.209868
12/8/1998	0.309868
3/9/1999	0.180132
6/8/1999	0.0401316
8/19/1999	0.0598684
12/14/1999	0.229868
3/7/2000	0.00986842
6/23/2000	0.0298684
12/12/2000	0.0298684
3/27/2001	0.0801316
6/28/2001	0.0101316
9/10/2001	0.109868
12/18/2001	0.190132
3/19/2002	0.330132
6/26/2002	0.230132
9/18/2002	0.0301316
12/11/2002	0.0498684
3/13/2003	0.0701316
6/25/2003	0.0601316
9/26/2003	0.110132
12/10/2003	0.0401316
3/9/2004	0.160132
6/24/2004	0.0301316
9/15/2004	0.110132
12/15/2004	0.0501316
3/16/2005	0.0201316
6/15/2005	0.109868
9/21/2005	0.0401316
12/21/2005	0.100132
3/15/2006	0.260132
6/21/2006	0.190132
12/20/2006	0.0298684
2/21/2007	0.00986842
6/12/2007	0.109868
12/17/2007	0.0901316
6/11/2008	0.190132
12/3/2008	0.490132
12/15/2008	0.390132
6/17/2009	0.590132
12/9/2009	0.590132
6/17/2010	0.390132
12/22/2010	0.290132
6/29/2011	0.190132
12/7/2011	0.290132
6/6/2012	0.470132
12/12/2012	0.810132
1/9/2013	0.300132
6/19/2013	0.190132
12/11/2013	0.250132
6/11/2014	0.659868
12/3/2014	0.259868
6/17/2015	0.0798684
12/1/2015	0.160132
6/22/2016	0.0701316
12/20/2016	0.510132

6/6/2017	0.0801316
11/7/2017	0.349868
2/27/2018	0.169868
9/19/2018	0.119868
5/7/2019	0.159868
11/21/2019	0.769868
6/26/2020	0.619868

Group: MW#93-3

Date	Residual
12/15/1994	0.112603
3/14/1995	0.0526027
6/21/1995	0.182603
12/14/1995	0.0426027
3/6/1996	0.0573973
4/25/1996	0.0126027
10/2/1996	0.0426027
12/10/1996	0.0926027
3/11/1997	0.00739726
4/15/1997	0.0526027
8/14/1997	0.0873973
12/4/1997	0.0873973
3/31/1998	0.127397
6/23/1998	0.0326027
8/11/1998	0.117397
12/8/1998	0.137397
3/9/1999	0.0126027
6/8/1999	0.0573973
8/19/1999	0.177397
12/14/1999	0.00739726
3/7/2000	0.0226027
6/23/2000	0.0273973
12/12/2000	0.0673973
3/27/2001	0.00260274
6/28/2001	0.0673973
9/10/2001	0.247397
12/18/2001	0.137397
3/19/2002	0.207397
6/26/2002	0.0973973
9/18/2002	1.1674
12/11/2002	0.0526027
3/13/2003	0.0773973
6/25/2003	0.0573973
9/26/2003	0.0226027
12/10/2003	0.197397
3/9/2004	0.657397
6/24/2004	0.00739726
9/15/2004	0.0926027
12/15/2004	0.0873973
3/16/2005	0.102603
6/15/2005	0.0173973
9/21/2005	0.0573973
12/21/2005	0.0926027
3/15/2006	0.277397
6/21/2006	0.0473973
12/20/2006	0.137397
6/12/2007	0.0973973
12/17/2007	0.00739726

6/11/2008	0.00739726
12/3/2008	0.00739726
6/17/2009	0.407397
12/9/2009	0.107397
6/17/2010	0.0926027
12/22/2010	0.0273973
6/29/2011	0.0926027
12/7/2011	0.0226027
6/6/2012	0.372603
12/12/2012	0.0573973
6/19/2013	0.302603
12/11/2013	0.277397
6/11/2014	0.712603
12/3/2014	0.00739726
6/17/2015	0.392603
12/1/2015	0.192603
6/22/2016	0.362603
12/20/2016	0.522603
6/6/2017	0.142603
11/7/2017	0.332603
2/27/2018	0.302603
9/19/2018	0.242603
5/7/2019	0.102603
11/21/2019	0.252603
6/26/2020	0.0426027

Group: MW#03-1	**Date**	**Residual**
	6/24/2004	0.253636
	9/15/2004	0.236364
	12/15/2004	0.303636
	3/16/2005	0.283636
	6/15/2005	0.263636
	9/21/2005	0.863636
	12/20/2006	0.0163636
	6/12/2007	0.273636
	12/17/2007	0.216364
	6/11/2008	0.383636
	12/3/2008	0.383636
	6/17/2009	0.583636
	12/9/2009	0.483636
	6/17/2010	0.0836364
	12/22/2010	0.126364
	6/29/2011	0.283636
	12/7/2011	0.0336364
	6/6/2012	0.313636
	6/19/2013	0.133636
	12/11/2013	0.173636
	6/11/2014	0.396364
	12/3/2014	0.286364
	6/17/2015	0.356364
	12/1/2015	0.676364
	6/22/2016	0.183636
	12/20/2016	0.266364
	6/6/2017	0.376364
	11/7/2017	0.576364
	2/27/2018	0.206364
	9/19/2018	0.173636

	5/7/2019	0.686364
	11/21/2019	0.786364
	6/25/2020	0.246364

Group: MW#03-2	Date	Residual
	6/24/2004	0.0602703
	9/15/2004	0.39027
	12/15/2004	0.0802703
	3/16/2005	0.0202703
	6/15/2005	0.0902703
	9/21/2005	0.0902703
	12/21/2005	0.0502703
	3/15/2006	0.10027
	6/21/2006	0.00027027
	12/20/2006	0.10027
	6/12/2007	0.0902703
	12/17/2007	0.0797297
	6/11/2008	0.12027
	12/3/2008	0.0202703
	6/17/2009	0.52027
	12/9/2009	0.0202703
	6/17/2010	0.0202703
	12/22/2010	0.42027
	6/29/2011	0.0797297
	12/7/2011	0.0897297
	6/6/2012	0.0497297
	12/12/2012	0.0402703
	6/19/2013	0.10027
	12/11/2013	0.0597297
	6/11/2014	0.22027
	12/3/2014	0.36027
	6/17/2015	0.32973
	12/1/2015	0.38973
	6/22/2016	0.0297297
	12/20/2016	0.41973
	6/6/2017	0.0497297
	11/7/2017	0.55973
	2/27/2018	0.30973
	9/19/2018	0.14973
	5/7/2019	0.0302703
	11/21/2019	0.21973
	6/25/2020	0.12973

Shapiro-Francia Test of Normality

Parameter: ph

All Locations

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Number of Measurements = 292

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	6.08	-2.74777	7.55021	-16.7064
2	6.1	-2.51213	13.861	-32.0304
3	6.21	-2.32634	19.2729	-46.477
4	6.22	-2.22621	24.2289	-60.324
5	6.23	-2.12007	28.7236	-73.532
6	6.23	-2.05375	32.9415	-86.3269
7	6.27	-1.99539	36.9231	-98.838
8	6.28	-1.92684	40.6358	-110.939
9	6.33	-1.88079	44.1731	-122.844
10	6.33	-1.82501	47.5038	-134.396
11	6.34	-1.78661	50.6958	-145.723
12	6.36	-1.75069	53.7607	-156.858
13	6.38	-1.70604	56.6713	-167.742
14	6.39	-1.67466	59.4757	-178.443
15	6.4	-1.63524	62.1497	-188.909
16	6.41	-1.60725	64.733	-199.211
17	6.42	-1.57179	67.2035	-209.302
18	6.42	-1.54643	69.595	-219.23
19	6.43	-1.52203	71.9116	-229.017
20	6.43	-1.49085	74.1342	-238.603
21	6.44	-1.46838	76.2903	-248.06
22	6.45	-1.43953	78.3626	-257.345
23	6.45	-1.41865	80.3752	-266.495
24	6.46	-1.39838	82.3306	-275.528
25	6.46	-1.3722	84.2136	-284.393
26	6.47	-1.35317	86.0446	-293.148
27	6.47	-1.32854	87.8097	-301.743
28	6.49	-1.31058	89.5273	-310.249
29	6.49	-1.29303	91.1992	-318.641
30	6.5	-1.27024	92.8127	-326.897
31	6.5	-1.25357	94.3841	-335.046
32	6.5	-1.23187	95.9016	-343.053
33	6.5	-1.21596	97.3802	-350.957
34	6.51	-1.19522	98.8087	-358.737
35	6.52	-1.18	100.201	-366.431
36	6.53	-1.16505	101.558	-374.039
37	6.53	-1.1455	102.871	-381.519
38	6.54	-1.13113	104.15	-388.917
39	6.54	-1.11232	105.387	-396.191
40	6.55	-1.09847	106.594	-403.386
41	6.55	-1.08482	107.771	-410.492
42	6.55	-1.06694	108.909	-417.48
43	6.56	-1.05375	110.02	-424.393
44	6.56	-1.03643	111.094	-431.192
45	6.57	-1.02365	112.142	-437.917
46	6.57	-1.01104	113.164	-444.56
47	6.58	-0.994457	114.153	-451.103

48	6.58	-0.982202	115.118	-457.566
49	6.58	-0.966088	116.051	-463.923
50	6.58	-0.954165	116.961	-470.201
51	6.59	-0.938476	117.842	-476.386
52	6.59	-0.926859	118.701	-482.494
53	6.59	-0.915365	119.539	-488.526
54	6.6	-0.900227	120.349	-494.468
55	6.6	-0.889006	121.14	-500.335
56	6.6	-0.874218	121.904	-506.105
57	6.6	-0.863249	122.649	-511.802
58	6.61	-0.852385	123.376	-517.437
59	6.61	-0.838054	124.078	-522.976
60	6.61	-0.827417	124.763	-528.445
61	6.61	-0.813379	125.424	-533.822
62	6.61	-0.802956	126.069	-539.129
63	6.62	-0.789191	126.692	-544.354
64	6.62	-0.778966	127.299	-549.51
65	6.62	-0.768821	127.89	-554.6
66	6.62	-0.755415	128.46	-559.601
67	6.63	-0.745449	129.016	-564.543
68	6.64	-0.732275	129.552	-569.406
69	6.64	-0.722479	130.074	-574.203
70	6.64	-0.712751	130.582	-578.935
71	6.65	-0.699883	131.072	-583.59
72	6.65	-0.690309	131.549	-588.18
73	6.65	-0.677639	132.008	-592.687
74	6.66	-0.668209	132.454	-597.137
75	6.66	-0.658838	132.888	-601.525
76	6.66	-0.646431	133.306	-605.83
77	6.66	-0.637192	133.712	-610.074
78	6.67	-0.624956	134.103	-614.242
79	6.67	-0.615839	134.482	-618.35
80	6.68	-0.603765	134.847	-622.383
81	6.68	-0.594766	135.2	-626.356
82	6.69	-0.585815	135.544	-630.275
83	6.69	-0.573953	135.873	-634.115
84	6.69	-0.565108	136.192	-637.895
85	6.69	-0.553384	136.499	-641.597
86	6.69	-0.544642	136.795	-645.241
87	6.7	-0.53594	137.082	-648.832
88	6.7	-0.524401	137.357	-652.345
89	6.7	-0.515791	137.623	-655.801
90	6.7	-0.504372	137.878	-659.181
91	6.7	-0.49585	138.124	-662.503
92	6.7	-0.487364	138.361	-665.768
93	6.7	-0.476105	138.588	-668.958
94	6.7	-0.467699	138.807	-672.092
95	6.72	-0.456542	139.015	-675.159
96	6.72	-0.448213	139.216	-678.171
97	6.72	-0.437153	139.407	-681.109
98	6.72	-0.428895	139.591	-683.991
99	6.73	-0.420664	139.768	-686.822
100	6.73	-0.409735	139.936	-689.58
101	6.73	-0.401571	140.097	-692.282
102	6.74	-0.390726	140.25	-694.916
103	6.74	-0.382622	140.396	-697.495
104	6.74	-0.374544	140.536	-700.019

105	6.75	-0.363809	140.669	-702.475
106	6.75	-0.355788	140.795	-704.877
107	6.75	-0.345126	140.915	-707.206
108	6.75	-0.337155	141.028	-709.482
109	6.75	-0.326561	141.135	-711.686
110	6.76	-0.318639	141.236	-713.84
111	6.76	-0.310738	141.333	-715.941
112	6.76	-0.300232	141.423	-717.97
113	6.77	-0.292375	141.509	-719.95
114	6.77	-0.281926	141.588	-721.858
115	6.77	-0.27411	141.663	-723.714
116	6.77	-0.266311	141.734	-725.517
117	6.77	-0.255936	141.8	-727.25
118	6.78	-0.248174	141.861	-728.932
119	6.78	-0.237847	141.918	-730.545
120	6.78	-0.230118	141.971	-732.105
121	6.78	-0.222403	142.02	-733.613
122	6.78	-0.212137	142.065	-735.051
123	6.79	-0.204452	142.107	-736.44
124	6.79	-0.194225	142.145	-737.758
125	6.8	-0.186567	142.18	-739.027
126	6.8	-0.176374	142.211	-740.226
127	6.8	-0.168741	142.239	-741.374
128	6.8	-0.161119	142.265	-742.469
129	6.8	-0.150969	142.288	-743.496
130	6.8	-0.143367	142.308	-744.471
131	6.8	-0.133244	142.326	-745.377
132	6.8	-0.125661	142.342	-746.231
133	6.8	-0.118085	142.356	-747.034
134	6.8	-0.107995	142.368	-747.769
135	6.8	-0.100433	142.378	-748.452
136	6.8	-0.0903606	142.386	-749.066
137	6.8	-0.0828129	142.393	-749.629
138	6.81	-0.0752698	142.398	-750.142
139	6.81	-0.0652187	142.403	-750.586
140	6.81	-0.0576847	142.406	-750.979
141	6.82	-0.0476439	142.408	-751.304
142	6.82	-0.0401167	142.41	-751.577
143	6.82	-0.0300838	142.411	-751.783
144	6.83	-0.0225612	142.411	-751.937
145	6.84	-0.0150408	142.411	-752.04
146	6.84	-0.00501359	142.411	-752.074
147	6.85	0.00501359	142.411	-752.04
148	6.85	0.0150408	142.412	-751.937
149	6.85	0.0225612	142.412	-751.782
150	6.85	0.0300838	142.413	-751.576
151	6.85	0.0401167	142.415	-751.301
152	6.85	0.0476439	142.417	-750.975
153	6.85	0.0576847	142.42	-750.58
154	6.86	0.0652187	142.425	-750.132
155	6.86	0.0752698	142.43	-749.616
156	6.86	0.0828129	142.437	-749.048
157	6.87	0.0903606	142.445	-748.427
158	6.87	0.100433	142.455	-747.737
159	6.87	0.107995	142.467	-746.995
160	6.87	0.118085	142.481	-746.184
161	6.87	0.125661	142.497	-745.321

162	6.88	0.133244	142.515	-744.404
163	6.88	0.143367	142.535	-743.417
164	6.88	0.150969	142.558	-742.379
165	6.88	0.161119	142.584	-741.27
166	6.88	0.168741	142.612	-740.109
167	6.88	0.176374	142.643	-738.896
168	6.88	0.186567	142.678	-737.612
169	6.89	0.194225	142.716	-736.274
170	6.89	0.204452	142.758	-734.865
171	6.89	0.212137	142.803	-733.404
172	6.9	0.222403	142.852	-731.869
173	6.9	0.230118	142.905	-730.281
174	6.91	0.237847	142.962	-728.638
175	6.92	0.248174	143.023	-726.921
176	6.93	0.255936	143.089	-725.147
177	6.93	0.266311	143.16	-723.301
178	6.93	0.27411	143.235	-721.402
179	6.93	0.281926	143.314	-719.448
180	6.93	0.292375	143.4	-717.422
181	6.94	0.300232	143.49	-715.338
182	6.97	0.310738	143.587	-713.172
183	6.99	0.318639	143.688	-710.945
184	7	0.326561	143.795	-708.659
185	7	0.337155	143.908	-706.299
186	7	0.345126	144.028	-703.883
187	7	0.355788	144.154	-701.393
188	7.04	0.363809	144.286	-698.831
189	7.05	0.374544	144.427	-696.191
190	7.05	0.382622	144.573	-693.493
191	7.07	0.390726	144.726	-690.731
192	7.07	0.401571	144.887	-687.892
193	7.1	0.409735	145.055	-684.983
194	7.14	0.420664	145.232	-681.979
195	7.15	0.428895	145.416	-678.913
196	7.17	0.437153	145.607	-675.778
197	7.19	0.448213	145.808	-672.556
198	7.19	0.456542	146.016	-669.273
199	7.2	0.467699	146.235	-665.906
200	7.2	0.476105	146.462	-662.478
201	7.2	0.487364	146.699	-658.969
202	7.27	0.49585	146.945	-655.364
203	7.28	0.504372	147.199	-651.692
204	7.29	0.515791	147.466	-647.932
205	7.3	0.524401	147.741	-644.104
206	7.3	0.53594	148.028	-640.191
207	7.3	0.544642	148.324	-636.216
208	7.32	0.553384	148.631	-632.165
209	7.33	0.565108	148.95	-628.023
210	7.4	0.573953	149.279	-623.775
211	7.4	0.585815	149.623	-619.44
212	7.45	0.594766	149.976	-615.009
213	7.5	0.603765	150.341	-610.481
214	7.6	0.615839	150.72	-605.801
215	7.88	0.624956	151.111	-600.876
216	7.96	0.637192	151.517	-595.804
217	8.16	0.646431	151.935	-590.529
218	8.44	0.658838	152.369	-584.968

219	8.54	0.668209	152.815	-579.262
220	8.55	0.677639	153.274	-573.468
221	8.59	0.690309	153.751	-567.538
222	8.67	0.699883	154.241	-561.47
223	8.68	0.712751	154.749	-555.284
224	8.77	0.722479	155.271	-548.948
225	8.82	0.732275	155.807	-542.489
226	8.86	0.745449	156.363	-535.884
227	8.87	0.755415	156.933	-529.184
228	8.9	0.768821	157.524	-522.341
229	8.94	0.778966	158.131	-515.377
230	8.95	0.789191	158.754	-508.314
231	8.95	0.802956	159.399	-501.127
232	8.98	0.813379	160.06	-493.823
233	9	0.827417	160.745	-486.377
234	9.04	0.838054	161.447	-478.801
235	9.05	0.852385	162.174	-471.086
236	9.09	0.863249	162.919	-463.24
237	9.1	0.874218	163.683	-455.284
238	9.1	0.889006	164.474	-447.194
239	9.1	0.900227	165.284	-439.002
240	9.13	0.915365	166.122	-430.645
241	9.14	0.926859	166.981	-422.173
242	9.15	0.938476	167.862	-413.586
243	9.16	0.954165	168.772	-404.846
244	9.18	0.966088	169.705	-395.977
245	9.18	0.982202	170.67	-386.961
246	9.18	0.994457	171.659	-377.832
247	9.2	1.01104	172.681	-368.53
248	9.2	1.02365	173.729	-359.113
249	9.22	1.03643	174.803	-349.557
250	9.23	1.05375	175.914	-339.831
251	9.24	1.06694	177.052	-329.972
252	9.24	1.08482	178.229	-319.948
253	9.25	1.09847	179.436	-309.788
254	9.25	1.11232	180.673	-299.499
255	9.25	1.13113	181.952	-289.036
256	9.25	1.1455	183.264	-278.44
257	9.26	1.16505	184.622	-267.651
258	9.27	1.18	186.014	-256.713
259	9.27	1.19522	187.443	-245.633
260	9.28	1.21596	188.921	-234.349
261	9.28	1.23187	190.439	-222.917
262	9.29	1.25357	192.01	-211.272
263	9.29	1.27024	193.624	-199.471
264	9.3	1.29303	195.296	-187.446
265	9.31	1.31058	197.013	-175.244
266	9.32	1.32854	198.778	-162.862
267	9.32	1.35317	200.609	-150.251
268	9.32	1.3722	202.492	-137.462
269	9.37	1.39838	204.448	-124.359
270	9.37	1.41865	206.46	-111.066
271	9.37	1.43953	208.533	-97.5779
272	9.39	1.46838	210.689	-83.7898
273	9.4	1.49085	212.911	-69.7758
274	9.4	1.52203	215.228	-55.4687
275	9.4	1.54643	217.619	-40.9322

276	9.4	1.57179	220.09	-26.1574
277	9.4	1.60725	222.673	-11.0492
278	9.44	1.63524	225.347	4.38738
279	9.46	1.67466	228.152	20.2297
280	9.47	1.70604	231.062	36.3859
281	9.5	1.75069	234.127	53.0174
282	9.5	1.78661	237.319	69.9902
283	9.51	1.82501	240.65	87.346
284	9.54	1.88079	244.187	105.289
285	9.6	1.92684	247.9	123.786
286	9.6	1.99539	251.881	142.942
287	9.68	2.05375	256.099	162.822
288	9.7	2.12007	260.594	183.387
289	9.72	2.22621	265.55	205.026
290	9.8	2.32634	270.962	227.824
291	9.8	2.51213	277.273	252.443
292	10.02	2.74777	284.823	279.976

Data Set Standard Deviation = 1.1141
Numerator = 78386.3
Denominator = 102877
W Statistic = 0.761945 = 78386.3 / 102877

5% Critical value of 0.976 exceeds 0.761945
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.761945
Evidence of non-normality at 99% level of significance

Non-Parametric Prediction Interval

Inter-Well Comparison

Parameter: Radium Combined

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 2%
Number of comparisons = 4
Future Samples (k) = 4
Recent Dates = 1
Background Measurements (n) = 10
Maximum Background Value = 1.19
Confidence Level = 71.4%
False Positive Rate = 28.6%

Location	Date	Count	Mean	Significant
MW#03-1	6/25/2020	1	0.715	FALSE
MW#03-2	6/25/2020	1	0.949	FALSE
MW#93-2	**6/25/2020**	**1**	**3.24**	**TRUE**
MW#93-3	6/25/2020	1	0.519	FALSE

Non-Parametric Prediction Interval

Intra-Well Comparison for MW#93-2

Parameter: Radium Combined

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 0%
Future Samples (k) = 1
Recent Dates = 1
Baseline Measurements (n) = 9
Maximum Baseline Concentration = 5.74
Confidence Level = 90%
False Positive Rate = 10%

Baseline Measurements	Date	Value
	5/24/2018	1.44
	6/22/2018	1.8
	7/19/2018	5.74
	8/22/2018	2.24
	9/19/2018	0.935
	10/18/2018	1.9
	11/20/2018	1.28
	12/20/2018	1.16
	11/21/2019	1.25

Date	Count	Mean	Significant
6/25/2020	1	3.24	FALSE

Levene's Test for Equal of Variance

Parameter: Radium Combined

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Overall Mean = 0.700646
Overall Std Dev = 0.773736
Overall Total = 35.0323
SS Groups = 6.88813
SS Total = 29.3347

ANOVA Table

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Squares	F
Between Groups	6.88813	4	1.72203	3.45227
Error (within groups)	22.4465	45	0.498812	
Totals	29.3347	49		

95% F-Statistic = 2.52521

3.45227 exceeds 2.52521; assumption of equal variance should be rejected

Group: MW#93-1	Sample	Residual
	5/24/2018	0.14447
	6/22/2018	0.43823
	7/19/2018	0.40453
	8/22/2018	0.20153
	9/19/2018	0.52153
	10/18/2018	0.66847
	11/20/2018	0.26347
	12/20/2018	0.21347
	11/21/2019	0.35047
	6/25/2020	0.07453

Group: MW#03-1	Date	Residual
	5/24/2018	0.6724
	6/22/2018	1.2176
	7/19/2018	1.4054
	8/22/2018	4.2376
	10/18/2018	0.9776
	11/20/2018	1.0534
	12/20/2018	0.1524
	3/26/2019	0.8684
	11/21/2019	1.1334
	6/25/2020	1.1474

Group: MW#03-2	Date	Residual
	5/24/2018	0.2965
	6/22/2018	0.8355
	7/19/2018	1.6065
	8/22/2018	0.4285
	9/19/2018	0.6035
	10/18/2018	0.0045

	11/20/2018	0.4465
	12/20/2018	0.0665
	11/21/2019	0.5495
	6/25/2020	0.0055

Group: MW#93-2	Date	Residual
	5/24/2018	0.6585
	6/22/2018	0.2985
	7/19/2018	3.6415
	8/22/2018	0.1415
	9/19/2018	1.1635
	10/18/2018	0.1985
	11/20/2018	0.8185
	12/20/2018	0.9385
	11/21/2019	0.8485
	6/25/2020	1.1415

Group: MW#93-3	Date	Residual
	5/24/2018	0.4166
	6/22/2018	0.5026
	7/19/2018	0.3196
	8/22/2018	0.1614
	9/19/2018	0.5386
	10/18/2018	0.6114
	11/20/2018	0.5814
	12/20/2018	0.5514
	11/21/2019	0.1914
	6/25/2020	0.3196

Shapiro-Francia Test of Normality

Parameter: Radium Combined

All Locations

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Number of Measurements = 50

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	0	-2.07485	4.305	0
2	0.0833	-1.76241	7.41108	-0.146809
3	0.108	-1.57179	9.8816	-0.316562
4	0.117	-1.41865	11.8942	-0.482544
5	0.3	-1.29303	13.5661	-0.870454
6	0.32	-1.19012	14.9825	-1.25129
7	0.336	-1.0939	16.1791	-1.61884
8	0.34	-1.01104	17.2013	-1.96259
9	0.394	-0.930718	18.0675	-2.3293
10	0.422	-0.855996	18.8003	-2.69053
11	0.447	-0.789191	19.4231	-3.0433
12	0.457	-0.722479	19.9451	-3.37347
13	0.515	-0.661955	20.3832	-3.71438
14	0.519	-0.60076	20.7442	-4.02617
15	0.519	-0.541736	21.0376	-4.30733
16	0.666	-0.487364	21.2752	-4.63191
17	0.715	-0.431644	21.4615	-4.94054
18	0.729	-0.379927	21.6058	-5.21751
19	0.735	-0.326561	21.7125	-5.45753
20	0.785	-0.27411	21.7876	-5.67271
21	0.809	-0.224974	21.8382	-5.85471
22	0.872	-0.173829	21.8684	-6.00629
23	0.935	-0.125661	21.8842	-6.12378
24	0.939	-0.0752698	21.8899	-6.19446
25	0.949	-0.0250691	21.8905	-6.21825
26	0.994	0.0250691	21.8911	-6.19333
27	1	0.0752698	21.8968	-6.11806
28	1.01	0.125661	21.9126	-5.99114
29	1.03	0.173829	21.9428	-5.8121
30	1.16	0.224974	21.9934	-5.55113
31	1.19	0.27411	22.0686	-5.22494
32	1.19	0.326561	22.1752	-4.83633
33	1.24	0.379927	22.3196	-4.36522
34	1.25	0.431644	22.5059	-3.82567
35	1.28	0.487364	22.7434	-3.20184
36	1.39	0.541736	23.0369	-2.44883
37	1.39	0.60076	23.3978	-1.61377
38	1.42	0.661955	23.836	-0.673796
39	1.44	0.722479	24.3579	0.366573
40	1.45	0.789191	24.9808	1.5109
41	1.71	0.855996	25.7135	2.97465
42	1.8	0.930718	26.5797	4.64995
43	1.9	1.01104	27.6019	6.57091
44	2.24	1.0939	28.7985	9.02124
45	2.55	1.19012	30.2149	12.056
46	2.84	1.29303	31.8869	15.7283
47	3.08	1.41865	33.8994	20.0977

48	3.24	1.57179	36.3699	25.1903
49	5.74	1.76241	39.476	35.3065
50	6.1	2.07485	43.781	47.9631

Data Set Standard Deviation = 1.21863
Numerator = 2300.46
Denominator = 3185.86
W Statistic = 0.722085 = 2300.46 / 3185.86

5% Critical value of 0.953 exceeds 0.722085
Evidence of non-normality at 95% level of significance

1% Critical value of 0.935 exceeds 0.722085
Evidence of non-normality at 99% level of significance

Concentrations (ppb)

Parameter: Radium Combined

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 50
Total Non-Detect: 1
Percent Non-Detects: 2%
Total Background Measurements: 10
There is 1 background location

Loc.	Meas.	ND	Date	Conc.	Original
MW#93-1	10	1 (10%)	5/24/2018	0.666	0.666
			6/22/2018	0.0833	0.0833
			7/19/2018	0.117	0.117
			8/22/2018	0.32	0.32
			9/19/2018	ND<0	ND<0
			10/18/2018	1.19	1.19
			11/20/2018	0.785	0.785
			12/20/2018	0.735	0.735
			11/21/2019	0.872	0.872
			6/25/2020	0.447	0.447

There are 4 compliance locations

Loc.	Meas.	ND	Date	Conc.	Original
MW#03-1	10	0 (0%)	5/24/2018	1.19	1.19
			6/22/2018	3.08	3.08
			7/19/2018	0.457	0.457
			8/22/2018	6.1	6.1
			10/18/2018	2.84	2.84
			11/20/2018	0.809	0.809
			12/20/2018	1.71	1.71
			3/26/2019	0.994	0.994
			11/21/2019	0.729	0.729
			6/25/2020	0.715	0.715
MW#03-2	10	0 (0%)	5/24/2018	1.24	1.24
			6/22/2018	0.108	0.108
			7/19/2018	2.55	2.55
			8/22/2018	0.515	0.515
			9/19/2018	0.34	0.34
			10/18/2018	0.939	0.939
			11/20/2018	1.39	1.39
			12/20/2018	1.01	1.01
			11/21/2019	0.394	0.394
			6/25/2020	0.949	0.949
MW#93-2	10	0 (0%)	5/24/2018	1.44	1.44
			6/22/2018	1.8	1.8
			7/19/2018	5.74	5.74
			8/22/2018	2.24	2.24
			9/19/2018	0.935	0.935
			10/18/2018	1.9	1.9
			11/20/2018	1.28	1.28
			12/20/2018	1.16	1.16

			11/21/2019	1.25	1.25
			6/25/2020	3.24	3.24
MW#93-3	10	0 (0%)	5/24/2018	0.422	0.422
			6/22/2018	0.336	0.336
			7/19/2018	0.519	0.519
			8/22/2018	1	1
			9/19/2018	0.3	0.3
			10/18/2018	1.45	1.45
			11/20/2018	1.42	1.42
			12/20/2018	1.39	1.39
			11/21/2019	1.03	1.03
			6/25/2020	0.519	0.519

There are 0 unused locations

Loc.	Meas.	ND	Date	Conc.	Original

Concentrations (ppb)

Parameter: Selenium

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 50
Total Non-Detect: 47
Percent Non-Detects: 94%
Total Background Measurements: 10
There is 1 background location

Loc.	Meas.	ND	Date	Conc.	Original
MW#93-1	10	10 (100%)	5/24/2018	ND<0.005	ND<0.005
			6/19/2018	ND<0.005	ND<0.005
			7/19/2018	ND<0.005	ND<0.005
			8/22/2018	ND<0.005	ND<0.005
			9/19/2018	ND<0.005	ND<0.005
			10/18/2018	ND<0.005	ND<0.005
			11/20/2018	ND<0.005	ND<0.005
			12/20/2018	ND<0.005	ND<0.005
			11/21/2019	ND<0.005	ND<0.005
			6/25/2020	ND<0.002	ND<0.002

There are 4 compliance locations

Loc.	Meas.	ND	Date	Conc.	Original
MW#03-1	10	9 (90%)	5/24/2018	ND<0.005	ND<0.005
			6/19/2018	ND<0.005	ND<0.005
			7/19/2018	ND<0.005	ND<0.005
			8/22/2018	0.0144	0.0144
			10/18/2018	ND<0.005	ND<0.005
			11/20/2018	ND<0.005	ND<0.005
			12/20/2018	ND<0.005	ND<0.005
			3/26/2019	ND<0.005	ND<0.005
			11/21/2019	ND<0.005	ND<0.005
			6/25/2020	ND<0.002	ND<0.002
MW#03-2	10	10 (100%)	5/24/2018	ND<0.005	ND<0.005
			6/19/2018	ND<0.005	ND<0.005
			7/19/2018	ND<0.005	ND<0.005
			8/22/2018	ND<0.005	ND<0.005
			9/19/2018	ND<0.005	ND<0.005
			10/18/2018	ND<0.005	ND<0.005
			11/20/2018	ND<0.005	ND<0.005
			12/20/2018	ND<0.005	ND<0.005
			11/21/2019	ND<0.005	ND<0.005
			6/25/2020	ND<0.002	ND<0.002
MW#93-2	10	8 (80%)	5/24/2018	ND<0.005	ND<0.005
			6/19/2018	ND<0.005	ND<0.005
			7/19/2018	ND<0.005	ND<0.005
			8/22/2018	ND<0.005	ND<0.005
			9/19/2018	ND<0.005	ND<0.005
			10/18/2018	ND<0.005	ND<0.005
			11/20/2018	ND<0.005	ND<0.005
			12/20/2018	ND<0.005	ND<0.005

			11/21/2019	0.00621	0.00621
			6/25/2020	0.00129	0.00129
MW#93-3	10	10 (100%)	5/24/2018	ND<0.005	ND<0.005
			6/19/2018	ND<0.005	ND<0.005
			7/19/2018	ND<0.005	ND<0.005
			8/22/2018	ND<0.005	ND<0.005
			9/19/2018	ND<0.005	ND<0.005
			10/18/2018	ND<0.005	ND<0.005
			11/20/2018	ND<0.005	ND<0.005
			12/20/2018	ND<0.005	ND<0.005
			11/21/2019	ND<0.005	ND<0.005
			6/25/2020	ND<0.002	ND<0.002

There are 0 unused locations

Loc.	Meas.	ND	Date	Conc.	Original

Non-Parametric Prediction Interval

Inter-Well Comparison

Parameter: Selenium

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 94%
Number of comparisons = 4
Future Samples (k) = 4
Recent Dates = 1
Background Measurements (n) = 10
Maximum Background Value = 0.005
Confidence Level = 71.4%
False Positive Rate = 28.6%

Location	Date	Count	Mean	Significant
MW#03-1	6/25/2020	1	0.002	FALSE
MW#03-2	6/25/2020	1	0.002	FALSE
MW#93-2	6/25/2020	1	0.00129	FALSE
MW#93-3	6/25/2020	1	0.002	FALSE

Levene's Test for Equal of Variance

Parameter: Selenium

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Overall Mean = 0.0008128
Overall Std Dev = 0.00142238
Overall Total = 0.04064
SS Groups = 1.11995e-005
SS Total = 9.9135e-005

ANOVA Table

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Squares	F
Between Groups	1.11995e-005	4	2.79987e-006	1.4328
Error (within groups)	8.79355e-005	45	1.95412e-006	
Totals	9.9135e-005	49		

95% F-Statistic = 2.52521

1.4328 does not exceed 2.52521 indicating equal variance

Group: MW#93-1	Sample	Residual
	5/24/2018	0.0003
	6/19/2018	0.0003
	7/19/2018	0.0003
	8/22/2018	0.0003
	9/19/2018	0.0003
	10/18/2018	0.0003
	11/20/2018	0.0003
	12/20/2018	0.0003
	11/21/2019	0.0003
	6/25/2020	0.0027

Group: MW#03-1	Date	Residual
	5/24/2018	0.00064
	6/19/2018	0.00064
	7/19/2018	0.00064
	8/22/2018	0.00876
	10/18/2018	0.00064
	11/20/2018	0.00064
	12/20/2018	0.00064
	3/26/2019	0.00064
	11/21/2019	0.00064
	6/25/2020	0.00364

Group: MW#03-2	Date	Residual
	5/24/2018	0.0003
	6/19/2018	0.0003
	7/19/2018	0.0003
	8/22/2018	0.0003
	9/19/2018	0.0003
	10/18/2018	0.0003

	11/20/2018	0.0003
	12/20/2018	0.0003
	11/21/2019	0.0003
	6/25/2020	0.0027

Group: MW#93-2	Date	Residual
	5/24/2018	0.00025
	6/19/2018	0.00025
	7/19/2018	0.00025
	8/22/2018	0.00025
	9/19/2018	0.00025
	10/18/2018	0.00025
	11/20/2018	0.00025
	12/20/2018	0.00025
	11/21/2019	0.00146
	6/25/2020	0.00346

Group: MW#93-3	Date	Residual
	5/24/2018	0.0003
	6/19/2018	0.0003
	7/19/2018	0.0003
	8/22/2018	0.0003
	9/19/2018	0.0003
	10/18/2018	0.0003
	11/20/2018	0.0003
	12/20/2018	0.0003
	11/21/2019	0.0003
	6/25/2020	0.0027

Shapiro-Francia Test of Normality

Parameter: Selenium

All Locations

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Number of Measurements = 50

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	0.00129	-2.07485	4.305	-0.00267655
2	0.002	-1.76241	7.41108	-0.00620137
3	0.002	-1.57179	9.8816	-0.00934495
4	0.002	-1.41865	11.8942	-0.0121823
5	0.002	-1.29303	13.5661	-0.0147683
6	0.005	-1.19012	14.9825	-0.0207189
7	0.005	-1.0939	16.1791	-0.0261884
8	0.005	-1.01104	17.2013	-0.0312436
9	0.005	-0.930718	18.0675	-0.0358972
10	0.005	-0.855996	18.8003	-0.0401771
11	0.005	-0.789191	19.4231	-0.0441231
12	0.005	-0.722479	19.9451	-0.0477355
13	0.005	-0.661955	20.3832	-0.0510453
14	0.005	-0.60076	20.7442	-0.0540491
15	0.005	-0.541736	21.0376	-0.0567578
16	0.005	-0.487364	21.2752	-0.0591946
17	0.005	-0.431644	21.4615	-0.0613528
18	0.005	-0.379927	21.6058	-0.0632524
19	0.005	-0.326561	21.7125	-0.0648852
20	0.005	-0.27411	21.7876	-0.0662558
21	0.005	-0.224974	21.8382	-0.0673807
22	0.005	-0.173829	21.8684	-0.0682498
23	0.005	-0.125661	21.8842	-0.0688781
24	0.005	-0.0752698	21.8899	-0.0692545
25	0.005	-0.0250691	21.8905	-0.0693798
26	0.005	0.0250691	21.8911	-0.0692545
27	0.005	0.0752698	21.8968	-0.0688781
28	0.005	0.125661	21.9126	-0.0682498
29	0.005	0.173829	21.9428	-0.0673807
30	0.005	0.224974	21.9934	-0.0662558
31	0.005	0.27411	22.0686	-0.0648852
32	0.005	0.326561	22.1752	-0.0632524
33	0.005	0.379927	22.3196	-0.0613528
34	0.005	0.431644	22.5059	-0.0591946
35	0.005	0.487364	22.7434	-0.0567578
36	0.005	0.541736	23.0369	-0.0540491
37	0.005	0.60076	23.3978	-0.0510453
38	0.005	0.661955	23.836	-0.0477355
39	0.005	0.722479	24.3579	-0.0441231
40	0.005	0.789191	24.9808	-0.0401771
41	0.005	0.855996	25.7135	-0.0358972
42	0.005	0.930718	26.5797	-0.0312436
43	0.005	1.01104	27.6019	-0.0261884
44	0.005	1.0939	28.7985	-0.0207189
45	0.005	1.19012	30.2149	-0.0147683
46	0.005	1.29303	31.8869	-0.00830316
47	0.005	1.41865	33.8994	-0.00120989

48	0.005	1.57179	36.3699	0.00664905
49	0.00621	1.76241	39.476	0.0175936
50	0.0144	2.07485	43.781	0.0474714

Data Set Standard Deviation = 0.00168467
Numerator = 0.00225354
Denominator = 0.00608854
W Statistic = 0.370128 = 0.00225354 / 0.00608854

5% Critical value of 0.953 exceeds 0.370128
Evidence of non-normality at 95% level of significance

1% Critical value of 0.935 exceeds 0.370128
Evidence of non-normality at 99% level of significance

Concentrations (ppb)

Parameter: Sodium

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 231
Total Non-Detect: 0
Percent Non-Detects: 0%
Total Background Measurements: 53
There is 1 background location

Loc.	Meas.	ND	Date	Conc.	Original
MW#93-1	53	0 (0%)	12/15/1994	54.7	54.7
			12/14/1995	51.9	51.9
			12/10/1996	51.6	51.6
			12/4/1997	51.2	51.2
			12/8/1998	47	47
			12/14/1999	64.4	64.4
			12/12/2000	100	100
			3/19/2002	112	112
			6/26/2002	95	95
			9/18/2002	78	78
			12/11/2002	83	83
			3/13/2003	94	94
			6/25/2003	113	113
			9/26/2003	84.6	84.6
			12/10/2003	98.1	98.1
			3/9/2004	95.4	95.4
			6/24/2004	94.7	94.7
			9/15/2004	71	71
			12/15/2004	92.3	92.3
			3/16/2005	86.3	86.3
			6/15/2005	77.4	77.4
			9/21/2005	92.8	92.8
			12/21/2005	81.9	81.9
			3/15/2006	99.7	99.7
			6/21/2006	82	82
			12/20/2006	85.1	85.1
			6/12/2007	74.9	74.9
			12/17/2007	81.8	81.8
			6/11/2008	56.5	56.5
			12/3/2008	75.2	75.2
			6/17/2009	67.4	67.4
			12/9/2009	76.9	76.9
			6/17/2010	55	55
			12/22/2010	70.5	70.5
			6/29/2011	55.4	55.4
			12/7/2011	69.1	69.1
			6/6/2012	55.6	55.6
			12/12/2012	58.9	58.9
			6/19/2013	70	70
			12/11/2013	72.9	72.9
			6/11/2014	56.5	56.5
			12/3/2014	69.4	69.4
			6/17/2015	69.7	69.7
			12/1/2015	57.5	57.5
			6/22/2016	66.9	66.9

			12/20/2016	54.8	54.8
			6/6/2017	58.4	58.4
			11/7/2017	45.2	45.2
			2/27/2018	59.6	59.6
			9/27/2018	68.2	68.2
			5/7/2019	124	124
			11/21/2019	99.1	99.1
			6/25/2020	130	130

There are 4 compliance locations

Loc.	Meas.	ND	Date	Conc.	Original
MW#93-2	54	0 (0%)	12/15/1994	2170	2170
			12/14/1995	2220	2220
			12/10/1996	2100	2100
			12/4/1997	2440	2440
			12/8/1998	2565	2565
			12/14/1999	2980	2980
			12/12/2000	2800	2800
			3/19/2002	2500	2500
			6/26/2002	2260	2260
			9/18/2002	2140	2140
			12/11/2002	2320	2320
			3/13/2003	2600	2600
			6/25/2003	1990	1990
			9/26/2003	1820	1820
			12/10/2003	1920	1920
			3/9/2004	2050	2050
			6/24/2004	2180	2180
			9/15/2004	1800	1800
			12/15/2004	2480	2480
			3/16/2005	2490	2490
			6/15/2005	2030	2030
			9/21/2005	2520	2520
			12/21/2005	2300	2300
			3/15/2006	2720	2720
			6/21/2006	2450	2450
			12/20/2006	2170	2170
			2/21/2007	2900	2900
			6/12/2007	1980	1980
			12/17/2007	2244	2244
			6/11/2008	2649	2649
			12/3/2008	2120	2120
			6/17/2009	2230	2230
			12/9/2009	2140	2140
			6/17/2010	2100	2100
			12/22/2010	2460	2460
			6/29/2011	2190	2190
			12/7/2011	2500	2500
			6/6/2012	2060	2060
			12/12/2012	2730	2730
			6/19/2013	2230	2230
			12/11/2013	2290	2290
			6/11/2014	1940	1940
			12/3/2014	2730	2730
			6/17/2015	270	270

			5/25/2016	1890	1890
			6/22/2016	2700	2700
			12/20/2016	2400	2400
			6/6/2017	2310	2310
			11/7/2017	2750	2750
			2/27/2018	2220	2220
			9/27/2018	2660	2660
			5/7/2019	2470	2470
			11/21/2019	2500	2500
			6/25/2020	2660	2660
MW#93-3	55	0 (0%)	12/15/1994	330	330
			12/14/1995	219	219
			12/10/1996	248	248
			12/4/1997	201	201
			12/8/1998	199	199
			12/14/1999	208	208
			12/12/2000	230	230
			12/18/2001	172	172
			3/19/2002	222	222
			6/26/2002	189	189
			9/18/2002	163	163
			12/11/2002	216	216
			3/13/2003	230	230
			6/25/2003	190	190
			9/26/2003	229	229
			12/10/2003	231	231
			3/9/2004	30.8	30.8
			6/24/2004	150	150
			9/15/2004	200	200
			12/15/2004	186	186
			3/16/2005	196	196
			6/15/2005	170	170
			9/21/2005	239	239
			12/21/2005	180	180
			3/15/2006	180	180
			6/21/2006	227	227
			12/20/2006	211	211
			6/12/2007	159	159
			12/17/2007	194	194
			6/11/2008	195	195
			12/3/2008	190	190
			6/17/2009	173	173
			12/9/2009	202	202
			6/17/2010	202	202
			12/22/2010	216	216
			6/29/2011	158	158
			12/7/2011	218	218
			6/6/2012	201	201
			12/12/2012	168	168
			6/19/2013	235	235
			12/11/2013	234	234
			6/11/2014	258	258
			12/3/2014	220	220
			6/17/2015	280	280
			12/1/2015	339	339
			6/22/2016	449	449

			10/11/2016	368	368
			12/20/2016	337	337
			6/6/2017	301	301
			11/7/2017	368	368
			2/27/2018	272	272
			9/27/2018	372	372
			5/7/2019	412	412
			11/21/2019	403	403
			6/25/2020	376	376
MW#03-1	32	0 (0%)	6/24/2004	10.2	10.2
			9/15/2004	42	42
			12/15/2004	8.04	8.04
			3/16/2005	5.99	5.99
			6/15/2005	7.3	7.3
			9/21/2005	14.1	14.1
			12/20/2006	8	8
			6/12/2007	7.96	7.96
			12/17/2007	9.88	9.88
			6/11/2008	5.71	5.71
			12/3/2008	7.01	7.01
			6/17/2009	7.34	7.34
			12/9/2009	6.77	6.77
			6/17/2010	9.31	9.31
			12/22/2010	7.11	7.11
			6/29/2011	7.04	7.04
			12/7/2011	8.87	8.87
			6/6/2012	7.94	7.94
			6/19/2013	10.3	10.3
			12/11/2013	9.78	9.78
			6/11/2014	55.9	55.9
			12/3/2014	9.8	9.8
			6/17/2015	9.7	9.7
			12/1/2015	12	12
			6/22/2016	8.59	8.59
			12/20/2016	7.94	7.94
			6/6/2017	6.56	6.56
			11/7/2017	17.6	17.6
			2/27/2018	16.8	16.8
			5/7/2019	13.1	13.1
			11/21/2019	10.5	10.5
			6/25/2020	7.75	7.75
MW#03-2	37	0 (0%)	6/24/2004	47.4	47.4
			9/15/2004	8.7	8.7
			12/15/2004	51.3	51.3
			3/16/2005	47	47
			6/15/2005	42.8	42.8
			9/21/2005	52.6	52.6
			12/21/2005	46.5	46.5
			3/15/2006	50.4	50.4
			6/21/2006	44.9	44.9
			12/20/2006	50.5	50.5
			6/12/2007	47	47
			12/17/2007	50.2	50.2
			6/11/2008	33.8	33.8
			12/3/2008	54.4	54.4

6/17/2009	48.2	48.2
12/9/2009	47.3	47.3
6/17/2010	52.9	52.9
12/22/2010	51.7	51.7
6/29/2011	51	51
12/7/2011	60.1	60.1
6/6/2012	52	52
12/12/2012	61.3	61.3
6/19/2013	57.3	57.3
12/11/2013	54	54
6/11/2014	9.78	9.78
12/3/2014	68	68
6/17/2015	66.3	66.3
12/1/2015	63.8	63.8
6/22/2016	76.8	76.8
12/20/2016	80.2	80.2
6/6/2017	96.8	96.8
11/7/2017	120	120
2/27/2018	104	104
9/27/2018	128	128
5/7/2019	138	138
11/21/2019	166	166
6/25/2020	165	165

There are 0 unused locations

Loc.	Meas.	ND	Date	Conc.	Original

Non-Parametric Prediction Interval

Inter-Well Comparison

Parameter: Sodium

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 0%
Number of comparisons = 4
Future Samples (k) = 4
Recent Dates = 1
Background Measurements (n) = 53
Maximum Background Value = 130
Confidence Level = 93%
False Positive Rate = 7%

Location	Date	Count	Mean	Significant
MW#93-3	**6/25/2020**	**1**	**376**	**TRUE**
MW#93-2	**6/25/2020**	**1**	**2660**	**TRUE**
MW#03-1	6/25/2020	1	7.75	FALSE
MW#03-2	**6/25/2020**	**1**	**165**	**TRUE**

Non-Parametric Prediction Interval

Intra-Well Comparison for MW#03-2

Parameter: Sodium

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 0%
Future Samples (k) = 1
Recent Dates = 1
Baseline Measurements (n) = 36
Maximum Baseline Concentration = 166
Confidence Level = 97.3%
False Positive Rate = 2.7%

Baseline Measurements	Date	Value
	6/24/2004	47.4
	9/15/2004	8.7
	12/15/2004	51.3
	3/16/2005	47
	6/15/2005	42.8
	9/21/2005	52.6
	12/21/2005	46.5
	3/15/2006	50.4
	6/21/2006	44.9
	12/20/2006	50.5
	6/12/2007	47
	12/17/2007	50.2
	6/11/2008	33.8
	12/3/2008	54.4
	6/17/2009	48.2
	12/9/2009	47.3
	6/17/2010	52.9
	12/22/2010	51.7
	6/29/2011	51
	12/7/2011	60.1
	6/6/2012	52
	12/12/2012	61.3
	6/19/2013	57.3
	12/11/2013	54
	6/11/2014	9.78
	12/3/2014	68
	6/17/2015	66.3
	12/1/2015	63.8
	6/22/2016	76.8
	12/20/2016	80.2
	6/6/2017	96.8
	11/7/2017	120
	2/27/2018	104
	9/27/2018	128
	5/7/2019	138
	11/21/2019	166

Date	Count	Mean	Significant
6/25/2020	1	165	FALSE

Non-Parametric Prediction Interval

Intra-Well Comparison for MW#93-2

Parameter: Sodium

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 0%
Future Samples (k) = 1
Recent Dates = 1
Baseline Measurements (n) = 52
Maximum Baseline Concentration = 2980
Confidence Level = 98.1%
False Positive Rate = 1.9%

Baseline Measurements	Date	Value
	12/15/1994	2170
	12/14/1995	2220
	12/10/1996	2100
	12/4/1997	2440
	12/8/1998	2565
	12/14/1999	2980
	12/12/2000	2800
	3/19/2002	2500
	6/26/2002	2260
	9/18/2002	2140
	12/11/2002	2320
	3/13/2003	2600
	6/25/2003	1990
	9/26/2003	1820
	12/10/2003	1920
	3/9/2004	2050
	6/24/2004	2180
	9/15/2004	1800
	12/15/2004	2480
	3/16/2005	2490
	6/15/2005	2030
	9/21/2005	2520
	12/21/2005	2300
	3/15/2006	2720
	6/21/2006	2450
	12/20/2006	2170
	2/21/2007	2900
	6/12/2007	1980
	12/17/2007	2244
	6/11/2008	2649
	12/3/2008	2120
	6/17/2009	2230
	12/9/2009	2140
	6/17/2010	2100
	12/22/2010	2460
	6/29/2011	2190
	12/7/2011	2500
	6/6/2012	2060
	12/12/2012	2730
	6/19/2013	2230
	12/11/2013	2290
	6/11/2014	1940

12/3/2014	2730
6/17/2015	270
5/25/2016	1890
6/22/2016	2700
12/20/2016	2400
6/6/2017	2310
11/7/2017	2750
2/27/2018	2220
9/27/2018	2660
5/7/2019	2470

Date	Count	Mean	Significant
6/25/2020	1	2660	FALSE

Non-Parametric Prediction Interval

Intra-Well Comparison for MW#93-3

Parameter: Sodium

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 0%
Future Samples (k) = 1
Recent Dates = 1
Baseline Measurements (n) = 54
Maximum Baseline Concentration = 449
Confidence Level = 98.2%
False Positive Rate = 1.8%

Baseline Measurements	Date	Value
	12/15/1994	330
	12/14/1995	219
	12/10/1996	248
	12/4/1997	201
	12/8/1998	199
	12/14/1999	208
	12/12/2000	230
	12/18/2001	172
	3/19/2002	222
	6/26/2002	189
	9/18/2002	163
	12/11/2002	216
	3/13/2003	230
	6/25/2003	190
	9/26/2003	229
	12/10/2003	231
	3/9/2004	30.8
	6/24/2004	150
	9/15/2004	200
	12/15/2004	186
	3/16/2005	196
	6/15/2005	170
	9/21/2005	239
	12/21/2005	180
	3/15/2006	180
	6/21/2006	227
	12/20/2006	211
	6/12/2007	159
	12/17/2007	194
	6/11/2008	195
	12/3/2008	190
	6/17/2009	173
	12/9/2009	202
	6/17/2010	202
	12/22/2010	216
	6/29/2011	158
	12/7/2011	218
	6/6/2012	201
	12/12/2012	168
	6/19/2013	235
	12/11/2013	234
	6/11/2014	258

12/3/2014	220
6/17/2015	280
12/1/2015	339
6/22/2016	449
10/11/2016	368
12/20/2016	337
6/6/2017	301
11/7/2017	368
2/27/2018	272
9/27/2018	372
5/7/2019	412
11/21/2019	403

Date	Count	Mean	Significant
6/25/2020	1	376	FALSE

Levene's Test for Equal of Variance

Parameter: Sodium

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Overall Mean = 86.6098
Overall Std Dev = 177.186
Overall Total = 20006.9
SS Groups = 2.56564e+006
SS Total = 7.22082e+006

ANOVA Table

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Squares	F
Between Groups	2.56564e+006	4	641409	31.1392
Error (within groups)	4.65518e+006	226	20598.1	
Totals	7.22082e+006	230		

95% F-Statistic = 2.37

31.1392 exceeds 2.37; assumption of equal variance should be rejected

Group: MW#93-1	Sample	Residual
	12/15/1994	21.4604
	12/14/1995	24.2604
	12/10/1996	24.5604
	12/4/1997	24.9604
	12/8/1998	29.1604
	12/14/1999	11.7604
	12/12/2000	23.8396
	3/19/2002	35.8396
	6/26/2002	18.8396
	9/18/2002	1.83962
	12/11/2002	6.83962
	3/13/2003	17.8396
	6/25/2003	36.8396
	9/26/2003	8.43962
	12/10/2003	21.9396
	3/9/2004	19.2396
	6/24/2004	18.5396
	9/15/2004	5.16038
	12/15/2004	16.1396
	3/16/2005	10.1396
	6/15/2005	1.23962
	9/21/2005	16.6396
	12/21/2005	5.73962
	3/15/2006	23.5396
	6/21/2006	5.83962
	12/20/2006	8.93962
	6/12/2007	1.26038
	12/17/2007	5.63962
	6/11/2008	19.6604
	12/3/2008	0.960377

6/17/2009	8.76038
12/9/2009	0.739623
6/17/2010	21.1604
12/22/2010	5.66038
6/29/2011	20.7604
12/7/2011	7.06038
6/6/2012	20.5604
12/12/2012	17.2604
6/19/2013	6.16038
12/11/2013	3.26038
6/11/2014	19.6604
12/3/2014	6.76038
6/17/2015	6.46038
12/1/2015	18.6604
6/22/2016	9.26038
12/20/2016	21.3604
6/6/2017	17.7604
11/7/2017	30.9604
2/27/2018	16.5604
9/27/2018	7.96038
5/7/2019	47.8396
11/21/2019	22.9396
6/25/2020	53.8396

Group: MW#93-2	Date	Residual
	12/15/1994	132.556
	12/14/1995	82.5556
	12/10/1996	202.556
	12/4/1997	137.444
	12/8/1998	262.444
	12/14/1999	677.444
	12/12/2000	497.444
	3/19/2002	197.444
	6/26/2002	42.5556
	9/18/2002	162.556
	12/11/2002	17.4444
	3/13/2003	297.444
	6/25/2003	312.556
	9/26/2003	482.556
	12/10/2003	382.556
	3/9/2004	252.556
	6/24/2004	122.556
	9/15/2004	502.556
	12/15/2004	177.444
	3/16/2005	187.444
	6/15/2005	272.556
	9/21/2005	217.444
	12/21/2005	2.55556
	3/15/2006	417.444
	6/21/2006	147.444
	12/20/2006	132.556
	2/21/2007	597.444
	6/12/2007	322.556
	12/17/2007	58.5556
	6/11/2008	346.444
	12/3/2008	182.556
	6/17/2009	72.5556

12/9/2009	162.556
6/17/2010	202.556
12/22/2010	157.444
6/29/2011	112.556
12/7/2011	197.444
6/6/2012	242.556
12/12/2012	427.444
6/19/2013	72.5556
12/11/2013	12.5556
6/11/2014	362.556
12/3/2014	427.444
6/17/2015	2032.56
5/25/2016	412.556
6/22/2016	397.444
12/20/2016	97.4444
6/6/2017	7.44444
11/7/2017	447.444
2/27/2018	82.5556
9/27/2018	357.444
5/7/2019	167.444
11/21/2019	197.444
6/25/2020	357.444

Group: MW#93-3	**Date**	**Residual**
	12/15/1994	94.6036
	12/14/1995	16.3964
	12/10/1996	12.6036
	12/4/1997	34.3964
	12/8/1998	36.3964
	12/14/1999	27.3964
	12/12/2000	5.39636
	12/18/2001	63.3964
	3/19/2002	13.3964
	6/26/2002	46.3964
	9/18/2002	72.3964
	12/11/2002	19.3964
	3/13/2003	5.39636
	6/25/2003	45.3964
	9/26/2003	6.39636
	12/10/2003	4.39636
	3/9/2004	204.596
	6/24/2004	85.3964
	9/15/2004	35.3964
	12/15/2004	49.3964
	3/16/2005	39.3964
	6/15/2005	65.3964
	9/21/2005	3.60364
	12/21/2005	55.3964
	3/15/2006	55.3964
	6/21/2006	8.39636
	12/20/2006	24.3964
	6/12/2007	76.3964
	12/17/2007	41.3964
	6/11/2008	40.3964
	12/3/2008	45.3964
	6/17/2009	62.3964
	12/9/2009	33.3964

6/17/2010	33.3964
12/22/2010	19.3964
6/29/2011	77.3964
12/7/2011	17.3964
6/6/2012	34.3964
12/12/2012	67.3964
6/19/2013	0.396364
12/11/2013	1.39636
6/11/2014	22.6036
12/3/2014	15.3964
6/17/2015	44.6036
12/1/2015	103.604
6/22/2016	213.604
10/11/2016	132.604
12/20/2016	101.604
6/6/2017	65.6036
11/7/2017	132.604
2/27/2018	36.6036
9/27/2018	136.604
5/7/2019	176.604
11/21/2019	167.604
6/25/2020	140.604

Group: MW#03-1	**Date**	**Residual**
	6/24/2004	1.57781
	9/15/2004	30.2222
	12/15/2004	3.73781
	3/16/2005	5.78781
	6/15/2005	4.47781
	9/21/2005	2.32219
	12/20/2006	3.77781
	6/12/2007	3.81781
	12/17/2007	1.89781
	6/11/2008	6.06781
	12/3/2008	4.76781
	6/17/2009	4.43781
	12/9/2009	5.00781
	6/17/2010	2.46781
	12/22/2010	4.66781
	6/29/2011	4.73781
	12/7/2011	2.90781
	6/6/2012	3.83781
	6/19/2013	1.47781
	12/11/2013	1.99781
	6/11/2014	44.1222
	12/3/2014	1.97781
	6/17/2015	2.07781
	12/1/2015	0.222187
	6/22/2016	3.18781
	12/20/2016	3.83781
	6/6/2017	5.21781
	11/7/2017	5.82219
	2/27/2018	5.02219
	5/7/2019	1.32219
	11/21/2019	1.27781
	6/25/2020	4.02781

Group: MW#03-2	Date	Residual
	6/24/2004	18.7076
	9/15/2004	57.4076
	12/15/2004	14.8076
	3/16/2005	19.1076
	6/15/2005	23.3076
	9/21/2005	13.5076
	12/21/2005	19.6076
	3/15/2006	15.7076
	6/21/2006	21.2076
	12/20/2006	15.6076
	6/12/2007	19.1076
	12/17/2007	15.9076
	6/11/2008	32.3076
	12/3/2008	11.7076
	6/17/2009	17.9076
	12/9/2009	18.8076
	6/17/2010	13.2076
	12/22/2010	14.4076
	6/29/2011	15.1076
	12/7/2011	6.00757
	6/6/2012	14.1076
	12/12/2012	4.80757
	6/19/2013	8.80757
	12/11/2013	12.1076
	6/11/2014	56.3276
	12/3/2014	1.89243
	6/17/2015	0.192432
	12/1/2015	2.30757
	6/22/2016	10.6924
	12/20/2016	14.0924
	6/6/2017	30.6924
	11/7/2017	53.8924
	2/27/2018	37.8924
	9/27/2018	61.8924
	5/7/2019	71.8924
	11/21/2019	99.8924
	6/25/2020	98.8924

Shapiro-Francia Test of Normality

Parameter: Sodium

All Locations

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Number of Measurements = 231

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	5.71	-2.65209	7.03356	-15.1434
2	5.99	-2.40892	12.8365	-29.5729
3	6.56	-2.25713	17.9311	-44.3796
4	6.77	-2.12007	22.4258	-58.7325
5	7.01	-2.03352	26.561	-72.9875
6	7.04	-1.95996	30.4025	-86.7856
7	7.11	-1.88079	33.9398	-100.158
8	7.3	-1.82501	37.2705	-113.481
9	7.34	-1.77438	40.4189	-126.505
10	7.75	-1.71688	43.3666	-139.81
11	7.94	-1.67466	46.1711	-153.107
12	7.94	-1.63524	48.8451	-166.091
13	7.96	-1.58927	51.3708	-178.742
14	8	-1.55477	53.7882	-191.18
15	8.04	-1.52203	56.1048	-203.417
16	8.59	-1.49085	58.3274	-216.223
17	8.7	-1.4538	60.4409	-228.871
18	8.87	-1.42554	62.4731	-241.516
19	9.31	-1.39838	64.4286	-254.535
20	9.7	-1.36581	66.294	-267.783
21	9.78	-1.34075	68.0916	-280.896
22	9.78	-1.31652	69.8249	-293.771
23	9.8	-1.28727	71.4819	-306.387
24	9.88	-1.26464	73.0812	-318.881
25	10.2	-1.24264	74.6254	-331.556
26	10.3	-1.21596	76.104	-344.081
27	10.5	-1.19522	77.5325	-356.63
28	12	-1.17499	78.9131	-370.73
29	13.1	-1.15035	80.2364	-385.8
30	14.1	-1.13113	81.5159	-401.749
31	16.8	-1.11232	82.7531	-420.436
32	17.6	-1.0939	83.9497	-439.688
33	30.8	-1.07138	85.0976	-472.687
34	33.8	-1.05375	86.208	-508.303
35	42	-1.03643	87.2822	-551.834
36	42.8	-1.01522	88.3128	-595.285
37	44.9	-0.998575	89.31	-640.121
38	45.2	-0.982202	90.2747	-684.517
39	46.5	-0.9621	91.2003	-729.254
40	47	-0.946291	92.0958	-773.73
41	47	-0.930718	92.962	-817.474
42	47	-0.911562	93.793	-860.317
43	47.3	-0.896473	94.5967	-902.72
44	47.4	-0.881587	95.3738	-944.507
45	48.2	-0.866894	96.1254	-986.292
46	50.2	-0.848786	96.8458	-1028.9
47	50.4	-0.834498	97.5422	-1070.96

48	50.5	-0.820379	98.2152	-1112.39
49	51	-0.802956	98.8599	-1153.34
50	51.2	-0.789191	99.4828	-1193.75
51	51.3	-0.775574	100.084	-1233.53
52	51.6	-0.758753	100.66	-1272.68
53	51.7	-0.745449	101.216	-1311.22
54	51.9	-0.732275	101.752	-1349.23
55	52	-0.715986	102.265	-1386.46
56	52.6	-0.703089	102.759	-1423.44
57	52.9	-0.690309	103.235	-1459.96
58	54	-0.67449	103.69	-1496.38
59	54.4	-0.661955	104.129	-1532.39
60	54.7	-0.649522	104.55	-1567.92
61	54.8	-0.637192	104.956	-1602.84
62	55	-0.621911	105.343	-1637.05
63	55.4	-0.609791	105.715	-1670.83
64	55.6	-0.597761	106.072	-1704.06
65	55.9	-0.582841	106.412	-1736.64
66	56.5	-0.570999	106.738	-1768.91
67	56.5	-0.559237	107.051	-1800.5
68	57.3	-0.544642	107.347	-1831.71
69	57.5	-0.533048	107.632	-1862.36
70	58.4	-0.521527	107.904	-1892.82
71	58.9	-0.507221	108.161	-1922.69
72	59.6	-0.49585	108.407	-1952.25
73	60.1	-0.484544	108.642	-1981.37
74	61.3	-0.473299	108.866	-2010.38
75	63.8	-0.459327	109.077	-2039.69
76	64.4	-0.448213	109.277	-2068.55
77	66.3	-0.437153	109.469	-2097.53
78	66.9	-0.423405	109.648	-2125.86
79	67.4	-0.412463	109.818	-2153.66
80	68	-0.401571	109.979	-2180.97
81	68.2	-0.388022	110.13	-2207.43
82	69.1	-0.377233	110.272	-2233.5
83	69.4	-0.36649	110.406	-2258.93
84	69.7	-0.353118	110.531	-2283.54
85	70	-0.342466	110.648	-2307.52
86	70.5	-0.331854	110.758	-2330.91
87	71	-0.318639	110.86	-2353.53
88	72.9	-0.308108	110.955	-2376
89	74.9	-0.297612	111.043	-2398.29
90	75.2	-0.287147	111.126	-2419.88
91	76.8	-0.27411	111.201	-2440.93
92	76.9	-0.263715	111.271	-2461.21
93	77.4	-0.253347	111.335	-2480.82
94	78	-0.240426	111.393	-2499.57
95	80.2	-0.230118	111.446	-2518.03
96	81.8	-0.219834	111.494	-2536.01
97	81.9	-0.207012	111.537	-2552.97
98	82	-0.196779	111.575	-2569.1
99	83	-0.186567	111.61	-2584.59
100	84.6	-0.173829	111.641	-2599.29
101	85.1	-0.163659	111.667	-2613.22
102	86.3	-0.153505	111.691	-2626.47
103	92.3	-0.143367	111.711	-2639.7
104	92.8	-0.130716	111.728	-2651.83

105	94	-0.12061	111.743	-2663.17
106	94.7	-0.110516	111.755	-2673.63
107	95	-0.0979139	111.765	-2682.94
108	95.4	-0.0878447	111.773	-2691.32
109	96.8	-0.0777834	111.779	-2698.85
110	98.1	-0.0652187	111.783	-2705.24
111	99.1	-0.0551734	111.786	-2710.71
112	99.7	-0.0451348	111.788	-2715.21
113	100	-0.0325917	111.789	-2718.47
114	104	-0.0225612	111.79	-2720.82
115	112	-0.0125328	111.79	-2722.22
116	113	0	111.79	-2722.22
117	120	0.0125328	111.79	-2720.72
118	124	0.0225612	111.79	-2717.92
119	128	0.0325917	111.791	-2713.75
120	130	0.0451348	111.793	-2707.88
121	138	0.0551734	111.796	-2700.27
122	150	0.0652187	111.801	-2690.48
123	158	0.0777834	111.807	-2678.19
124	159	0.0878447	111.814	-2664.23
125	163	0.0979139	111.824	-2648.27
126	165	0.110516	111.836	-2630.03
127	166	0.12061	111.851	-2610.01
128	168	0.130716	111.868	-2588.05
129	170	0.143367	111.888	-2563.68
130	172	0.153505	111.912	-2537.27
131	173	0.163659	111.939	-2508.96
132	180	0.173829	111.969	-2477.67
133	180	0.186567	112.004	-2444.09
134	186	0.196779	112.043	-2407.49
135	189	0.207012	112.085	-2368.36
136	190	0.219834	112.134	-2326.59
137	190	0.230118	112.187	-2282.87
138	194	0.240426	112.245	-2236.23
139	195	0.253347	112.309	-2186.83
140	196	0.263715	112.378	-2135.14
141	199	0.27411	112.453	-2080.59
142	200	0.287147	112.536	-2023.16
143	201	0.297612	112.624	-1963.34
144	201	0.308108	112.719	-1901.41
145	202	0.318639	112.821	-1837.05
146	202	0.331854	112.931	-1770.01
147	208	0.342466	113.048	-1698.78
148	211	0.353118	113.173	-1624.27
149	216	0.36649	113.307	-1545.11
150	216	0.377233	113.45	-1463.63
151	218	0.388022	113.6	-1379.04
152	219	0.401571	113.761	-1291.09
153	220	0.412463	113.932	-1200.35
154	222	0.423405	114.111	-1106.36
155	227	0.437153	114.302	-1007.12
156	229	0.448213	114.503	-904.482
157	230	0.459327	114.714	-798.837
158	230	0.473299	114.938	-689.978
159	231	0.484544	115.173	-578.049
160	234	0.49585	115.418	-462.02
161	235	0.507221	115.676	-342.823

162	239	0.521527	115.948	-218.178
163	248	0.533048	116.232	-85.9822
164	258	0.544642	116.528	54.5354
165	270	0.559237	116.841	205.529
166	272	0.570999	117.167	360.841
167	280	0.582841	117.507	524.036
168	301	0.597761	117.864	703.962
169	330	0.609791	118.236	905.194
170	337	0.621911	118.623	1114.78
171	339	0.637192	119.029	1330.79
172	368	0.649522	119.451	1569.81
173	368	0.661955	119.889	1813.41
174	372	0.67449	120.344	2064.32
175	376	0.690309	120.82	2323.88
176	403	0.703089	121.315	2607.22
177	412	0.715986	121.827	2902.21
178	449	0.732275	122.364	3231
179	1800	0.745449	122.919	4572.81
180	1820	0.758753	123.495	5953.74
181	1890	0.775574	124.097	7419.57
182	1920	0.789191	124.719	8934.82
183	1940	0.802956	125.364	10492.6
184	1980	0.820379	126.037	12116.9
185	1990	0.834498	126.734	13777.6
186	2030	0.848786	127.454	15500.6
187	2050	0.866894	128.205	17277.7
188	2060	0.881587	128.983	19093.8
189	2100	0.896473	129.786	20976.4
190	2100	0.911562	130.617	22890.7
191	2120	0.930718	131.484	24863.8
192	2140	0.946291	132.379	26888.8
193	2140	0.9621	133.305	28947.7
194	2170	0.982202	134.269	31079.1
195	2170	0.998575	135.266	33246
196	2180	1.01522	136.297	35459.2
197	2190	1.03643	137.371	37729
198	2220	1.05375	138.482	40068.3
199	2220	1.07138	139.63	42446.8
200	2230	1.0939	140.826	44886.2
201	2230	1.11232	142.063	47366.6
202	2244	1.13113	143.343	49904.9
203	2260	1.15035	144.666	52504.7
204	2290	1.17499	146.047	55195.4
205	2300	1.19522	147.475	57944.4
206	2310	1.21596	148.954	60753.3
207	2320	1.24264	150.498	63636.2
208	2400	1.26464	152.097	66671.4
209	2440	1.28727	153.754	69812.3
210	2450	1.31652	155.488	73037.8
211	2460	1.34075	157.285	76336
212	2470	1.36581	159.151	79709.6
213	2480	1.39838	161.106	83177.5
214	2490	1.42554	163.138	86727.1
215	2500	1.4538	165.252	90361.7
216	2500	1.49085	167.475	94088.8
217	2500	1.52203	169.791	97893.9
218	2520	1.55477	172.208	101812

219	2565	1.58927	174.734	105888
220	2600	1.63524	177.408	110140
221	2649	1.67466	180.213	114576
222	2660	1.71688	183.16	119143
223	2660	1.77438	186.309	123863
224	2700	1.82501	189.64	128790
225	2720	1.88079	193.177	133906
226	2730	1.95996	197.018	139257
227	2730	2.03352	201.154	144808
228	2750	2.12007	205.648	150639
229	2800	2.25713	210.743	156959
230	2900	2.40892	216.546	163944
231	2980	2.65209	223.579	171848

Data Set Standard Deviation = 952.854
Numerator = 2.95316e+010
Denominator = 4.66887e+010
W Statistic = 0.632522 = 2.95316e+010 / 4.66887e+010

5% Critical value of 0.976 exceeds 0.632522
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.632522
Evidence of non-normality at 99% level of significance

Concentrations (ppb)

Parameter: Sulfate

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 289
Total Non-Detect: 8
Percent Non-Detects: 2.76817%
Total Background Measurements: 73
There is 1 background location

Loc.	Meas.	ND	Date	Conc.	Original
MW#93-1	73	0 (0%)	12/15/1994	195	195
			3/14/1995	275	275
			6/21/1995	750	750
			12/14/1995	320	320
			3/6/1996	215	215
			4/25/1996	272	272
			10/2/1996	300	300
			12/10/1996	260	260
			3/11/1997	278	278
			4/15/1997	250	250
			8/14/1997	320	320
			12/4/1997	360	360
			3/31/1998	230	230
			6/23/1998	500	500
			8/11/1998	350	350
			12/8/1998	270	270
			3/9/1999	290	290
			6/8/1999	408	408
			8/19/1999	388	388
			12/14/1999	310	310
			3/7/2000	373	373
			6/23/2000	410	410
			12/12/2000	420	420
			3/27/2001	350	350
			6/28/2001	425	425
			9/10/2001	390	390
			12/18/2001	390	390
			3/19/2002	425	425
			6/26/2002	420	420
			9/18/2002	517	517
			12/11/2002	430	430
			3/13/2003	450	450
			6/25/2003	434	434
			9/26/2003	460	460
			12/10/2003	470	470
			3/9/2004	444	444
			6/24/2004	500	500
			9/15/2004	475	475
			12/15/2004	558	558
			3/16/2005	880	880
			6/15/2005	22	22
			9/21/2005	467	467
			12/21/2005	475	475
			3/15/2006	375	375
			6/21/2006	420	420

			12/20/2006	330	330
			6/12/2007	260	260
			12/17/2007	300	300
			6/11/2008	375	375
			12/3/2008	340	340
			6/17/2009	240	240
			12/9/2009	160	160
			6/17/2010	290	290
			12/22/2010	304	304
			6/29/2011	306	306
			12/7/2011	255	255
			6/6/2012	275	275
			12/12/2012	301	301
			6/19/2013	409	409
			12/11/2013	306	306
			6/11/2014	316	316
			12/3/2014	292	292
			6/17/2015	286	286
			12/1/2015	299	299
			6/22/2016	250	250
			12/20/2016	275	275
			6/6/2017	265	265
			11/7/2017	281	281
			2/27/2018	299	299
			9/27/2018	305	305
			5/7/2019	275	275
			11/21/2019	299	299
			6/25/2020	346	346

There are 4 compliance locations

Loc.	Meas.	ND	Date	Conc.	Original
MW#03-1	32	0 (0%)	6/24/2004	42	42
			9/15/2004	76	76
			12/15/2004	62	62
			3/16/2005	22	22
			6/15/2005	23	23
			9/21/2005	17	17
			12/20/2006	55	55
			6/12/2007	88	88
			12/17/2007	120	120
			6/11/2008	23	23
			12/3/2008	90	90
			6/17/2009	21	21
			12/9/2009	15	15
			6/17/2010	16	16
			12/22/2010	22.9	22.9
			6/29/2011	21.6	21.6
			12/7/2011	18.1	18.1
			6/6/2012	14.3	14.3
			6/19/2013	16.2	16.2
			12/11/2013	29.1	29.1
			6/11/2014	127	127
			12/3/2014	19.7	19.7
			6/17/2015	7.86	7.86
			12/1/2015	12.1	12.1

			6/22/2016	10.3	10.3
			12/20/2016	30.9	30.9
			6/6/2017	8.92	8.92
			11/7/2017	14.4	14.4
			2/27/2018	12.6	12.6
			5/7/2019	12.2	12.2
			11/21/2019	184	184
			6/25/2020	6.2	6.2
MW#03-2	36	0 (0%)	6/24/2004	72	72
			9/15/2004	32	32
			12/15/2004	54	54
			3/16/2005	78	78
			6/15/2005	23	23
			9/21/2005	80	80
			12/21/2005	72	72
			3/15/2006	30	30
			12/20/2006	34	34
			6/12/2007	68	68
			12/17/2007	130	130
			6/11/2008	67	67
			12/3/2008	210	210
			6/17/2009	84	84
			12/9/2009	80	80
			6/17/2010	106	106
			12/22/2010	98.9	98.9
			6/29/2011	101	101
			12/7/2011	98.8	98.8
			6/6/2012	107	107
			12/12/2012	111	111
			6/19/2013	113	113
			12/11/2013	106	106
			6/11/2014	10.3	10.3
			12/3/2014	158	158
			6/17/2015	179	179
			12/1/2015	197	197
			6/22/2016	254	254
			12/20/2016	451	451
			6/6/2017	332	332
			11/7/2017	516	516
			2/27/2018	468	468
			9/27/2018	426	426
			5/7/2019	29.6	29.6
			11/21/2019	394	394
			6/25/2020	409	409
MW#93-2	75	0 (0%)	12/15/1994	2000	2000
			3/14/1995	1550	1550
			6/21/1995	185	185
			12/14/1995	2367	2367
			3/6/1996	2150	2150
			4/25/1996	2000	2000
			10/2/1996	3267	3267
			12/10/1996	4000	4000
			3/11/1997	1700	1700
			4/15/1997	1500	1500
			8/14/1997	3650	3650

12/4/1997	4300	4300
3/31/1998	2500	2500
6/23/1998	3250	3250
8/11/1998	3050	3050
12/8/1998	3050	3050
3/9/1999	3600	3600
6/8/1999	3150	3150
8/19/1999	1897	1897
12/14/1999	2500	2500
3/7/2000	3400	3400
6/23/2000	3400	3400
12/12/2000	3000	3000
3/27/2001	2133	2133
6/28/2001	2750	2750
9/10/2001	2650	2650
12/18/2001	2950	2950
3/19/2002	2967	2967
6/26/2002	3050	3050
9/18/2002	2900	2900
12/11/2002	2933	2933
3/13/2003	2900	2900
6/25/2003	2700	2700
9/26/2003	2767	2767
12/10/2003	2700	2700
3/9/2004	2550	2550
6/24/2004	2650	2650
9/15/2004	2700	2700
12/15/2004	2950	2950
3/16/2005	3200	3200
6/15/2005	2650	2650
9/21/2005	3200	3200
12/21/2005	3200	3200
3/15/2006	3000	3000
6/21/2006	2700	2700
12/20/2006	2500	2500
2/21/2007	1900	1900
6/12/2007	2400	2400
12/17/2007	3100	3100
6/11/2008	2350	2350
12/3/2008	3300	3300
12/15/2008	2400	2400
6/17/2009	2300	2300
12/9/2009	2200	2200
6/17/2010	2900	2900
12/22/2010	3460	3460
6/29/2011	2630	2630
12/7/2011	2520	2520
6/6/2012	2360	2360
12/12/2012	3240	3240
6/19/2013	2510	2510
12/11/2013	2460	2460
6/11/2014	2790	2790
12/3/2014	2940	2940
6/17/2015	114	114
12/1/2015	3600	3600
6/22/2016	2620	2620
12/20/2016	3800	3800

			6/6/2017	3630	3630
			11/7/2017	4340	4340
			2/27/2018	3870	3870
			9/27/2018	3680	3680
			5/7/2019	3890	3890
			11/21/2019	12.4	12.4
			6/25/2020	523	523
MW#93-3	73	8 (10.9589%)	12/15/1994	ND<10	ND<10
			3/14/1995	ND<10	ND<10
			6/21/1995	10	10
			12/14/1995	ND<10	ND<10
			3/6/1996	10	10
			4/25/1996	ND<10	ND<10
			10/2/1996	11	11
			12/10/1996	10	10
			3/11/1997	12	12
			4/15/1997	15	15
			8/14/1997	11	11
			12/4/1997	8	8
			3/31/1998	45	45
			6/23/1998	4	4
			8/11/1998	9	9
			12/8/1998	2	2
			3/9/1999	ND<10	ND<10
			6/8/1999	3	3
			8/19/1999	ND<10	ND<10
			12/14/1999	ND<10	ND<10
			3/7/2000	13	13
			6/23/2000	14	14
			12/12/2000	7	7
			3/27/2001	3	3
			6/28/2001	ND<10	ND<10
			9/10/2001	20	20
			12/18/2001	19	19
			3/19/2002	8	8
			6/26/2002	8	8
			9/18/2002	8	8
			12/11/2002	6	6
			3/13/2003	18	18
			6/25/2003	13	13
			9/26/2003	16	16
			12/10/2003	34	34
			3/9/2004	130	130
			6/24/2004	24	24
			9/15/2004	17	17
			12/15/2004	26	26
			3/16/2005	29	29
			6/15/2005	26	26
			9/21/2005	19	19
			12/21/2005	23	23
			3/15/2006	19	19
			6/21/2006	21	21
			12/20/2006	42	42
			6/12/2007	3	3
			12/17/2007	28	28
			6/11/2008	27	27

12/3/2008	11	11
6/17/2009	16	16
12/9/2009	12	12
6/17/2010	45	45
12/22/2010	25.8	25.8
6/29/2011	34.2	34.2
12/7/2011	37.4	37.4
6/6/2012	38.3	38.3
12/12/2012	25.8	25.8
6/19/2013	61.6	61.6
12/11/2013	26.5	26.5
6/11/2014	56.2	56.2
12/3/2014	36	36
6/17/2015	109	109
12/1/2015	81	81
6/22/2016	58.5	58.5
12/20/2016	66.6	66.6
6/6/2017	18.2	18.2
11/7/2017	80.3	80.3
2/27/2018	64.2	64.2
9/27/2018	75.8	75.8
5/7/2019	105	105
11/21/2019	4010	4010
6/25/2020	328	328

There are 0 unused locations

Loc.	Meas.	ND	Date	Conc.	Original

Non-Parametric Prediction Interval

Inter-Well Comparison

Parameter: Sulfate

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 2.76817%
Number of comparisons = 4
Future Samples (k) = 4
Recent Dates = 1
Background Measurements (n) = 73
Maximum Background Value = 880
Confidence Level = 94.8%
False Positive Rate = 5.2%

Location	Date	Count	Mean	Significant
MW#03-1	6/25/2020	1	6.2	FALSE
MW#03-2	6/25/2020	1	409	FALSE
MW#93-2	6/25/2020	1	523	FALSE
MW#93-3	6/25/2020	1	328	FALSE

Levene's Test for Equal of Variance

Parameter: Sulfate

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Overall Mean = 224.02
Overall Std Dev = 441.501
Overall Total = 64741.8
SS Groups = 1.41796e+007
SS Total = 5.61378e+007

ANOVA Table

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Squares	F
Between Groups	1.41796e+007	4	3.54489e+006	23.994
Error (within groups)	4.19583e+007	284	147740	
Totals	5.61378e+007	288		

95% F-Statistic = 2.37

23.994 exceeds 2.37; assumption of equal variance should be rejected

Group: MW#93-1	Sample	Residual
	12/15/1994	157.877
	3/14/1995	77.8767
	6/21/1995	397.123
	12/14/1995	32.8767
	3/6/1996	137.877
	4/25/1996	80.8767
	10/2/1996	52.8767
	12/10/1996	92.8767
	3/11/1997	74.8767
	4/15/1997	102.877
	8/14/1997	32.8767
	12/4/1997	7.12329
	3/31/1998	122.877
	6/23/1998	147.123
	8/11/1998	2.87671
	12/8/1998	82.8767
	3/9/1999	62.8767
	6/8/1999	55.1233
	8/19/1999	35.1233
	12/14/1999	42.8767
	3/7/2000	20.1233
	6/23/2000	57.1233
	12/12/2000	67.1233
	3/27/2001	2.87671
	6/28/2001	72.1233
	9/10/2001	37.1233
	12/18/2001	37.1233
	3/19/2002	72.1233
	6/26/2002	67.1233
	9/18/2002	164.123

12/11/2002	77.1233
3/13/2003	97.1233
6/25/2003	81.1233
9/26/2003	107.123
12/10/2003	117.123
3/9/2004	91.1233
6/24/2004	147.123
9/15/2004	122.123
12/15/2004	205.123
3/16/2005	527.123
6/15/2005	330.877
9/21/2005	114.123
12/21/2005	122.123
3/15/2006	22.1233
6/21/2006	67.1233
12/20/2006	22.8767
6/12/2007	92.8767
12/17/2007	52.8767
6/11/2008	22.1233
12/3/2008	12.8767
6/17/2009	112.877
12/9/2009	192.877
6/17/2010	62.8767
12/22/2010	48.8767
6/29/2011	46.8767
12/7/2011	97.8767
6/6/2012	77.8767
12/12/2012	51.8767
6/19/2013	56.1233
12/11/2013	46.8767
6/11/2014	36.8767
12/3/2014	60.8767
6/17/2015	66.8767
12/1/2015	53.8767
6/22/2016	102.877
12/20/2016	77.8767
6/6/2017	87.8767
11/7/2017	71.8767
2/27/2018	53.8767
9/27/2018	47.8767
5/7/2019	77.8767
11/21/2019	53.8767
6/25/2020	6.87671

Group: MW#03-1	**Date**	**Residual**
	6/24/2004	3.30062
	9/15/2004	37.3006
	12/15/2004	23.3006
	3/16/2005	16.6994
	6/15/2005	15.6994
	9/21/2005	21.6994
	12/20/2006	16.3006
	6/12/2007	49.3006
	12/17/2007	81.3006
	6/11/2008	15.6994
	12/3/2008	51.3006
	6/17/2009	17.6994

12/9/2009	23.6994
6/17/2010	22.6994
12/22/2010	15.7994
6/29/2011	17.0994
12/7/2011	20.5994
6/6/2012	24.3994
6/19/2013	22.4994
12/11/2013	9.59938
6/11/2014	88.3006
12/3/2014	18.9994
6/17/2015	30.8394
12/1/2015	26.5994
6/22/2016	28.3994
12/20/2016	7.79938
6/6/2017	29.7794
11/7/2017	24.2994
2/27/2018	26.0994
5/7/2019	26.4994
11/21/2019	145.301
6/25/2020	32.4994

Group: MW#03-2	Date	Residual
	6/24/2004	88.5444
	9/15/2004	128.544
	12/15/2004	106.544
	3/16/2005	82.5444
	6/15/2005	137.544
	9/21/2005	80.5444
	12/21/2005	88.5444
	3/15/2006	130.544
	12/20/2006	126.544
	6/12/2007	92.5444
	12/17/2007	30.5444
	6/11/2008	93.5444
	12/3/2008	49.4556
	6/17/2009	76.5444
	12/9/2009	80.5444
	6/17/2010	54.5444
	12/22/2010	61.6444
	6/29/2011	59.5444
	12/7/2011	61.7444
	6/6/2012	53.5444
	12/12/2012	49.5444
	6/19/2013	47.5444
	12/11/2013	54.5444
	6/11/2014	150.244
	12/3/2014	2.54444
	6/17/2015	18.4556
	12/1/2015	36.4556
	6/22/2016	93.4556
	12/20/2016	290.456
	6/6/2017	171.456
	11/7/2017	355.456
	2/27/2018	307.456
	9/27/2018	265.456
	5/7/2019	130.944
	11/21/2019	233.456

	6/25/2020	248.456

Group: MW#93-2	Date	Residual
	12/15/1994	720.072
	3/14/1995	1170.07
	6/21/1995	2535.07
	12/14/1995	353.072
	3/6/1996	570.072
	4/25/1996	720.072
	10/2/1996	546.928
	12/10/1996	1279.93
	3/11/1997	1020.07
	4/15/1997	1220.07
	8/14/1997	929.928
	12/4/1997	1579.93
	3/31/1998	220.072
	6/23/1998	529.928
	8/11/1998	329.928
	12/8/1998	329.928
	3/9/1999	879.928
	6/8/1999	429.928
	8/19/1999	823.072
	12/14/1999	220.072
	3/7/2000	679.928
	6/23/2000	679.928
	12/12/2000	279.928
	3/27/2001	587.072
	6/28/2001	29.928
	9/10/2001	70.072
	12/18/2001	229.928
	3/19/2002	246.928
	6/26/2002	329.928
	9/18/2002	179.928
	12/11/2002	212.928
	3/13/2003	179.928
	6/25/2003	20.072
	9/26/2003	46.928
	12/10/2003	20.072
	3/9/2004	170.072
	6/24/2004	70.072
	9/15/2004	20.072
	12/15/2004	229.928
	3/16/2005	479.928
	6/15/2005	70.072
	9/21/2005	479.928
	12/21/2005	479.928
	3/15/2006	279.928
	6/21/2006	20.072
	12/20/2006	220.072
	2/21/2007	820.072
	6/12/2007	320.072
	12/17/2007	379.928
	6/11/2008	370.072
	12/3/2008	579.928
	12/15/2008	320.072
	6/17/2009	420.072
	12/9/2009	520.072

6/17/2010	179.928
12/22/2010	739.928
6/29/2011	90.072
12/7/2011	200.072
6/6/2012	360.072
12/12/2012	519.928
6/19/2013	210.072
12/11/2013	260.072
6/11/2014	69.928
12/3/2014	219.928
6/17/2015	2606.07
12/1/2015	879.928
6/22/2016	100.072
12/20/2016	1079.93
6/6/2017	909.928
11/7/2017	1619.93
2/27/2018	1149.93
9/27/2018	959.928
5/7/2019	1169.93
11/21/2019	2707.67
6/25/2020	2197.07

Group: MW#93-3	**Date**	**Residual**
	12/15/1994	75.937
	3/14/1995	75.937
	6/21/1995	75.937
	12/14/1995	75.937
	3/6/1996	75.937
	4/25/1996	75.937
	10/2/1996	74.937
	12/10/1996	75.937
	3/11/1997	73.937
	4/15/1997	70.937
	8/14/1997	74.937
	12/4/1997	77.937
	3/31/1998	40.937
	6/23/1998	81.937
	8/11/1998	76.937
	12/8/1998	83.937
	3/9/1999	75.937
	6/8/1999	82.937
	8/19/1999	75.937
	12/14/1999	75.937
	3/7/2000	72.937
	6/23/2000	71.937
	12/12/2000	78.937
	3/27/2001	82.937
	6/28/2001	75.937
	9/10/2001	65.937
	12/18/2001	66.937
	3/19/2002	77.937
	6/26/2002	77.937
	9/18/2002	77.937
	12/11/2002	79.937
	3/13/2003	67.937
	6/25/2003	72.937
	9/26/2003	69.937

12/10/2003	51.937
3/9/2004	44.063
6/24/2004	61.937
9/15/2004	68.937
12/15/2004	59.937
3/16/2005	56.937
6/15/2005	59.937
9/21/2005	66.937
12/21/2005	62.937
3/15/2006	66.937
6/21/2006	64.937
12/20/2006	43.937
6/12/2007	82.937
12/17/2007	57.937
6/11/2008	58.937
12/3/2008	74.937
6/17/2009	69.937
12/9/2009	73.937
6/17/2010	40.937
12/22/2010	60.137
6/29/2011	51.737
12/7/2011	48.537
6/6/2012	47.637
12/12/2012	60.137
6/19/2013	24.337
12/11/2013	59.437
6/11/2014	29.737
12/3/2014	49.937
6/17/2015	23.063
12/1/2015	4.93699
6/22/2016	27.437
12/20/2016	19.337
6/6/2017	67.737
11/7/2017	5.63699
2/27/2018	21.737
9/27/2018	10.137
5/7/2019	19.063
11/21/2019	3924.06
6/25/2020	242.063

Concentrations (ppb)

Parameter: Total Dissolved Solids

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 58
Total Non-Detect: 0
Percent Non-Detects: 0%
Total Background Measurements: 17
There is 1 background location

Loc.	Meas.	ND	Date	Conc.	Original
MW#93-1	17	0 (0%)	6/6/2012	868	868
			12/12/2012	880	880
			6/19/2013	942	942
			12/11/2013	961	961
			6/11/2014	971	971
			12/3/2014	907	907
			6/17/2015	882	882
			12/1/2015	860	860
			6/22/2016	840	840
			12/20/2016	838	838
			6/6/2017	810	810
			11/7/2017	878	878
			2/27/2018	830	830
			9/27/2018	1050	1050
			5/7/2019	952	952
			11/21/2019	966	966
			6/25/2020	1000	1000

There are 4 compliance locations

Loc.	Meas.	ND	Date	Conc.	Original
MW#93-2	17	0 (0%)	6/6/2012	7530	7530
			12/12/2012	7920	7920
			6/19/2013	7280	7280
			12/11/2013	7440	7440
			6/11/2014	7160	7160
			12/3/2014	7700	7700
			6/17/2015	730	730
			12/1/2015	7950	7950
			6/22/2016	3160	3160
			12/20/2016	8780	8780
			6/6/2017	7350	7350
			11/7/2017	7820	7820
			2/27/2018	7560	7560
			9/27/2018	8890	8890
			5/7/2019	8480	8480
			11/21/2019	8400	8400
			6/25/2020	8860	8860
MW#93-3	17	0 (0%)	6/6/2012	834	834
			12/12/2012	669	669
			6/19/2013	861	861
			12/11/2013	697	697
			6/11/2014	986	986

			12/3/2014	743	743
			6/17/2015	911	911
			12/1/2015	1050	1050
			6/22/2016	1390	1390
			12/20/2016	1189	1189
			6/6/2017	780	780
			11/7/2017	1250	1250
			2/27/2018	1190	1190
			9/27/2018	1420	1420
			5/7/2019	1510	1510
			11/21/2019	1550	1550
			6/25/2020	1310	1310
MW#03-2	4	0 (0%)	9/27/2018	1630	1630
			5/7/2019	1240	1240
			11/21/2019	1760	1760
			6/25/2020	1940	1940
MW#03-1	3	0 (0%)	5/7/2019	102	102
			11/21/2019	80	80
			6/25/2020	151	151

There are 0 unused locations

Loc.	Meas.	ND	Date	Conc.	Original

Non-Parametric Prediction Interval

Inter-Well Comparison

Parameter: Total Dissolved Solids

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 0%
Number of comparisons = 4
Future Samples (k) = 4
Recent Dates = 1
Background Measurements (n) = 17
Maximum Background Value = 1050
Confidence Level = 81%
False Positive Rate = 19%

Location	Date	Count	Mean	Significant
MW#93-2	**6/25/2020**	**1**	**8860**	**TRUE**
MW#93-3	**6/25/2020**	**1**	**1310**	**TRUE**
MW#03-2	**6/25/2020**	**1**	**1940**	**TRUE**
MW#03-1	6/25/2020	1	151	FALSE

Non-Parametric Prediction Interval

Intra-Well Comparison for MW#03-2

Parameter: Total Dissolved Solids

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 0%
Future Samples (k) = 1
Recent Dates = 1
Baseline Measurements (n) = 3
Maximum Baseline Concentration = 1760
Confidence Level = 75%
False Positive Rate = 25%

Baseline Measurements	Date	Value
	9/27/2018	1630
	5/7/2019	1240
	11/21/2019	1760

Date	Count	Mean	Significant
6/25/2020	1	1940	TRUE

Non-Parametric Prediction Interval

Intra-Well Comparison for MW#93-2

Parameter: Total Dissolved Solids

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 0%
Future Samples (k) = 1
Recent Dates = 1
Baseline Measurements (n) = 16
Maximum Baseline Concentration = 8890
Confidence Level = 94.1%
False Positive Rate = 5.9%

Baseline Measurements	Date	Value
	6/6/2012	7530
	12/12/2012	7920
	6/19/2013	7280
	12/11/2013	7440
	6/11/2014	7160
	12/3/2014	7700
	6/17/2015	730
	12/1/2015	7950
	6/22/2016	3160
	12/20/2016	8780
	6/6/2017	7350
	11/7/2017	7820
	2/27/2018	7560
	9/27/2018	8890
	5/7/2019	8480
	11/21/2019	8400

Date	Count	Mean	Significant
6/25/2020	1	8860	FALSE

Non-Parametric Prediction Interval

Intra-Well Comparison for MW#93-3

Parameter: Total Dissolved Solids

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 0%
Future Samples (k) = 1
Recent Dates = 1
Baseline Measurements (n) = 16
Maximum Baseline Concentration = 1550
Confidence Level = 94.1%
False Positive Rate = 5.9%

Baseline Measurements	Date	Value
	6/6/2012	834
	12/12/2012	669
	6/19/2013	861
	12/11/2013	697
	6/11/2014	986
	12/3/2014	743
	6/17/2015	911
	12/1/2015	1050
	6/22/2016	1390
	12/20/2016	1189
	6/6/2017	780
	11/7/2017	1250
	2/27/2018	1190
	9/27/2018	1420
	5/7/2019	1510
	11/21/2019	1550

Date	Count	Mean	Significant
6/25/2020	1	1310	FALSE

Shapiro-Francia Test of Normality

Parameter: Total Dissolved Solids

All Locations

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Number of Measurements = 58

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	80	-2.14441	4.59848	-171.553
2	102	-1.83843	7.97829	-359.072
3	151	-1.64485	10.6838	-607.445
4	669	-1.49852	12.9294	-1609.95
5	697	-1.37866	14.8301	-2570.88
6	730	-1.27588	16.4579	-3502.26
7	743	-1.18504	17.8623	-4382.75
8	780	-1.10306	19.079	-5243.14
9	810	-1.02789	20.1356	-6075.73
10	830	-0.958125	21.0536	-6870.98
11	834	-0.892733	21.8505	-7615.52
12	838	-0.830953	22.541	-8311.86
13	840	-0.772193	23.1373	-8960.5
14	860	-0.715986	23.6499	-9576.25
15	861	-0.661955	24.0881	-10146.2
16	868	-0.609791	24.46	-10675.5
17	878	-0.559237	24.7727	-11166.5
18	880	-0.510074	25.0329	-11615.4
19	882	-0.462114	25.2465	-12022.9
20	907	-0.417928	25.4211	-12402
21	911	-0.371856	25.5594	-12740.8
22	942	-0.326561	25.666	-13048.4
23	952	-0.281926	25.7455	-13316.8
24	961	-0.237847	25.8021	-13545.4
25	966	-0.194225	25.8398	-13733
26	971	-0.150969	25.8626	-13879.6
27	986	-0.107995	25.8743	-13986
28	1000	-0.0652187	25.8785	-14051.3
29	1050	-0.0225612	25.879	-14075
30	1050	0.0225612	25.8795	-14051.3
31	1189	0.0652187	25.8838	-13973.7
32	1190	0.107995	25.8955	-13845.2
33	1240	0.150969	25.9182	-13658
34	1250	0.194225	25.956	-13415.2
35	1310	0.237847	26.0125	-13103.6
36	1390	0.281926	26.092	-12711.8
37	1420	0.326561	26.1987	-12248.1
38	1510	0.371856	26.3369	-11686.6
39	1550	0.417928	26.5116	-11038.8
40	1630	0.462114	26.7252	-10285.5
41	1760	0.510074	26.9853	-9387.79
42	1940	0.559237	27.2981	-8302.87
43	3160	0.609791	27.6699	-6375.93
44	7160	0.661955	28.1081	-1636.33
45	7280	0.715986	28.6207	3576.05
46	7350	0.772193	29.217	9251.67
47	7440	0.830953	29.9075	15434

48	7530	0.892733	30.7045	22156.2
49	7560	0.958125	31.6225	29399.7
50	7700	1.02789	32.679	37314.4
51	7820	1.10306	33.8958	45940.4
52	7920	1.18504	35.3001	55325.9
53	7950	1.27588	36.928	65469.1
54	8400	1.37866	38.8287	77049.9
55	8480	1.49852	41.0742	89757.3
56	8780	1.64485	43.7798	104199
57	8860	1.83843	47.1596	120488
58	8890	2.14441	51.7581	139551

Data Set Standard Deviation = 3094.62
Numerator = 1.94746e+010
Denominator = 2.82532e+010
W Statistic = 0.689287 = 1.94746e+010 / 2.82532e+010

5% Critical value of 0.962 exceeds 0.689287
Evidence of non-normality at 95% level of significance

1% Critical value of 0.945 exceeds 0.689287
Evidence of non-normality at 99% level of significance

Concentrations (ppb)

Parameter: Thallium

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 55
Total Non-Detect: 55
Percent Non-Detects: 100%
Total Background Measurements: 11
There is 1 background location

Loc.	Meas.	ND	Date	Conc.	Original
MW#93-1	11	11 (100%)	5/24/2018	ND<0.01	ND<0.01
			6/19/2018	ND<0.01	ND<0.01
			7/19/2018	ND<0.01	ND<0.01
			8/22/2018	ND<0.01	ND<0.01
			9/19/2018	ND<0.01	ND<0.01
			10/18/2018	ND<0.01	ND<0.01
			11/20/2018	ND<0.01	ND<0.01
			12/20/2018	ND<0.01	ND<0.01
			11/21/2019	ND<0.001	ND<0.001
			2/11/2020	ND<0.01	ND<0.01
			6/25/2020	ND<0.001	ND<0.001

There are 4 compliance locations

Loc.	Meas.	ND	Date	Conc.	Original
MW#03-1	11	11 (100%)	5/24/2018	ND<0.01	ND<0.01
			6/19/2018	ND<0.01	ND<0.01
			7/19/2018	ND<0.01	ND<0.01
			8/22/2018	ND<0.01	ND<0.01
			10/18/2018	ND<0.01	ND<0.01
			11/20/2018	ND<0.01	ND<0.01
			12/20/2018	ND<0.01	ND<0.01
			3/26/2019	ND<0.01	ND<0.01
			11/21/2019	ND<0.001	ND<0.001
			2/11/2020	ND<0.01	ND<0.01
			6/25/2020	ND<0.001	ND<0.001
MW#03-2	11	11 (100%)	5/24/2018	ND<0.01	ND<0.01
			6/19/2018	ND<0.01	ND<0.01
			7/19/2018	ND<0.01	ND<0.01
			8/22/2018	ND<0.01	ND<0.01
			9/19/2018	ND<0.01	ND<0.01
			10/18/2018	ND<0.01	ND<0.01
			11/20/2018	ND<0.01	ND<0.01
			12/20/2018	ND<0.01	ND<0.01
			11/21/2019	ND<0.001	ND<0.001
			2/11/2020	ND<0.01	ND<0.01
			6/25/2020	ND<0.001	ND<0.001
MW#93-2	11	11 (100%)	5/24/2018	ND<0.01	ND<0.01
			6/19/2018	ND<0.01	ND<0.01
			7/19/2018	ND<0.01	ND<0.01
			8/22/2018	ND<0.01	ND<0.01
			9/19/2018	ND<0.01	ND<0.01

			10/18/2018	ND<0.01	ND<0.01
			11/20/2018	ND<0.01	ND<0.01
			12/20/2018	ND<0.01	ND<0.01
			11/21/2019	ND<0.001	ND<0.001
			2/11/2020	ND<0.01	ND<0.01
			6/25/2020	ND<0.001	ND<0.001
MW#93-3	11	11 (100%)	5/24/2018	ND<0.01	ND<0.01
			6/19/2018	ND<0.01	ND<0.01
			7/19/2018	ND<0.01	ND<0.01
			8/22/2018	ND<0.01	ND<0.01
			9/19/2018	ND<0.01	ND<0.01
			10/18/2018	ND<0.01	ND<0.01
			11/20/2018	ND<0.01	ND<0.01
			12/20/2018	ND<0.01	ND<0.01
			11/21/2019	ND<0.001	ND<0.001
			2/11/2020	ND<0.01	ND<0.01
			6/25/2020	ND<0.001	ND<0.001

There are 0 unused locations

Loc.	Meas.	ND	Date	Conc.	Original

Non-Parametric Prediction Interval

Inter-Well Comparison

Parameter: Thallium

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 100%
Number of comparisons = 4
Future Samples (k) = 4
Recent Dates = 1
Background Measurements (n) = 11
Maximum Background Value = 0.01
Confidence Level = 73.3%
False Positive Rate = 26.7%

Location	Date	Count	Mean	Significant
MW#03-1	6/25/2020	1	0.001	FALSE
MW#03-2	6/25/2020	1	0.001	FALSE
MW#93-2	6/25/2020	1	0.001	FALSE
MW#93-3	6/25/2020	1	0.001	FALSE

Levene's Test for Equal of Variance

Parameter: Thallium

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Overall Mean = 0.00267769
Overall Std Dev = 0.00222934
Overall Total = 0.147273
SS Groups = 8.13152e-019
SS Total = 0.000268377

ANOVA Table

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Squares	F
Between Groups	8.13152e-019	4	2.03288e-019	3.78735e-014
Error (within groups)	0.000268377	50	5.36754e-006	
Totals	0.000268377	54		

95% F-Statistic = 2.52521

3.78735e-014 does not exceed 2.52521 indicating equal variance

Group: MW#93-1	Sample	Residual
	5/24/2018	0.00163636
	6/19/2018	0.00163636
	7/19/2018	0.00163636
	8/22/2018	0.00163636
	9/19/2018	0.00163636
	10/18/2018	0.00163636
	11/20/2018	0.00163636
	12/20/2018	0.00163636
	11/21/2019	0.00736364
	2/11/2020	0.00163636
	6/25/2020	0.00736364

Group: MW#03-1	Date	Residual
	5/24/2018	0.00163636
	6/19/2018	0.00163636
	7/19/2018	0.00163636
	8/22/2018	0.00163636
	10/18/2018	0.00163636
	11/20/2018	0.00163636
	12/20/2018	0.00163636
	3/26/2019	0.00163636
	11/21/2019	0.00736364
	2/11/2020	0.00163636
	6/25/2020	0.00736364

Group: MW#03-2	Date	Residual
	5/24/2018	0.00163636
	6/19/2018	0.00163636
	7/19/2018	0.00163636
	8/22/2018	0.00163636

9/19/2018	0.00163636
10/18/2018	0.00163636
11/20/2018	0.00163636
12/20/2018	0.00163636
11/21/2019	0.00736364
2/11/2020	0.00163636
6/25/2020	0.00736364

Group: MW#93-2	Date	Residual
	5/24/2018	0.00163636
	6/19/2018	0.00163636
	7/19/2018	0.00163636
	8/22/2018	0.00163636
	9/19/2018	0.00163636
	10/18/2018	0.00163636
	11/20/2018	0.00163636
	12/20/2018	0.00163636
	11/21/2019	0.00736364
	2/11/2020	0.00163636
	6/25/2020	0.00736364

Group: MW#93-3	Date	Residual
	5/24/2018	0.00163636
	6/19/2018	0.00163636
	7/19/2018	0.00163636
	8/22/2018	0.00163636
	9/19/2018	0.00163636
	10/18/2018	0.00163636
	11/20/2018	0.00163636
	12/20/2018	0.00163636
	11/21/2019	0.00736364
	2/11/2020	0.00163636
	6/25/2020	0.00736364

Shapiro-Francia Test of Normality

Parameter: Thallium

All Locations

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Number of Measurements = 55

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	0.001	-2.12007	4.49469	-0.00212007
2	0.001	-1.81191	7.77772	-0.00393198
3	0.001	-1.61644	10.3906	-0.00554842
4	0.001	-1.46838	12.5467	-0.0070168
5	0.001	-1.34694	14.361	-0.00836374
6	0.001	-1.24264	15.9051	-0.00960638
7	0.001	-1.15035	17.2284	-0.0107567
8	0.001	-1.07138	18.3763	-0.0118281
9	0.001	-0.994457	19.3652	-0.0128226
10	0.001	-0.923014	20.2172	-0.0137456
11	0.01	-0.855996	20.9499	-0.0223055
12	0.01	-0.792618	21.5782	-0.0302317
13	0.01	-0.732275	22.1144	-0.0375545
14	0.01	-0.67449	22.5693	-0.0442994
15	0.01	-0.621911	22.9561	-0.0505185
16	0.01	-0.568052	23.2788	-0.056199
17	0.01	-0.515791	23.5448	-0.0613569
18	0.01	-0.464904	23.761	-0.066006
19	0.01	-0.415193	23.9334	-0.0701579
20	0.01	-0.36649	24.0677	-0.0738228
21	0.01	-0.318639	24.1692	-0.0770092
22	0.01	-0.27411	24.2443	-0.0797503
23	0.01	-0.227545	24.2961	-0.0820257
24	0.01	-0.181468	24.329	-0.0838404
25	0.01	-0.135774	24.3475	-0.0851982
26	0.01	-0.0903606	24.3556	-0.0861018
27	0.01	-0.0451348	24.3577	-0.0865531
28	0.01	0	24.3577	-0.0865531
29	0.01	0.0451348	24.3597	-0.0861018
30	0.01	0.0903606	24.3679	-0.0851982
31	0.01	0.135774	24.3863	-0.0838404
32	0.01	0.181468	24.4192	-0.0820257
33	0.01	0.227545	24.471	-0.0797503
34	0.01	0.27411	24.5462	-0.0770092
35	0.01	0.318639	24.6477	-0.0738228
36	0.01	0.36649	24.782	-0.0701579
37	0.01	0.415193	24.9544	-0.066006
38	0.01	0.464904	25.1705	-0.0613569
39	0.01	0.515791	25.4366	-0.056199
40	0.01	0.568052	25.7593	-0.0505185
41	0.01	0.621911	26.146	-0.0442994
42	0.01	0.67449	26.601	-0.0375545
43	0.01	0.732275	27.1372	-0.0302317
44	0.01	0.792618	27.7654	-0.0223055
45	0.01	0.855996	28.4982	-0.0137456
46	0.01	0.923014	29.3501	-0.00451544
47	0.01	0.994457	30.3391	0.00542914

48	0.01	1.07138	31.4869	0.0161429
49	0.01	1.15035	32.8102	0.0276464
50	0.01	1.24264	34.3544	0.0400728
51	0.01	1.34694	36.1686	0.0535422
52	0.01	1.46838	38.3248	0.0682261
53	0.01	1.61644	40.9376	0.0843904
54	0.01	1.81191	44.2207	0.10251
55	0.01	2.12007	48.7154	0.12371

Data Set Standard Deviation = 0.00350325
Numerator = 0.0153042
Denominator = 0.032285
W Statistic = 0.474035 = 0.0153042 / 0.032285

5% Critical value of 0.958 exceeds 0.474035
Evidence of non-normality at 95% level of significance

1% Critical value of 0.94 exceeds 0.474035
Evidence of non-normality at 99% level of significance

Shapiro-Francia Test of Normality

Parameter: ALKALINITY

All Locations

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Number of Measurements = 288

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	55	-2.74777	7.55021	-151.127
2	55	-2.51213	13.861	-289.294
3	56	-2.32634	19.2729	-419.57
4	72	-2.22621	24.2289	-579.856
5	76	-2.12007	28.7236	-740.982
6	92	-2.05375	32.9415	-929.927
7	126	-1.97737	36.8515	-1179.07
8	130	-1.92684	40.5642	-1429.56
9	134	-1.86629	44.0472	-1679.65
10	140	-1.82501	47.3778	-1935.15
11	144	-1.77438	50.5263	-2190.66
12	150	-1.7392	53.5511	-2451.54
13	160	-1.70604	56.4617	-2724.51
14	162.2	-1.66456	59.2324	-2994.5
15	170	-1.63524	61.9064	-3272.49
16	176	-1.59819	64.4606	-3553.77
17	180	-1.57179	66.9312	-3836.69
18	184	-1.5382	69.2972	-4119.72
19	184	-1.5141	71.5897	-4398.31
20	185	-1.48328	73.7899	-4672.72
21	190	-1.46106	75.9245	-4950.32
22	191	-1.4325	77.9766	-5223.93
23	192	-1.41183	79.9699	-5495
24	192	-1.38517	81.8886	-5760.96
25	194	-1.36581	83.754	-6025.92
26	196	-1.34694	85.5683	-6289.92
27	199.4	-1.32251	87.3173	-6553.63
28	200	-1.30469	89.0195	-6814.57
29	200	-1.28155	90.6619	-7070.88
30	200	-1.26464	92.2612	-7323.81
31	200	-1.24264	93.8053	-7572.33
32	200	-1.22653	95.3097	-7817.64
33	200	-1.20553	96.763	-8058.74
34	200	-1.19012	98.1794	-8296.77
35	200	-1.17	99.5483	-8530.77
36	200	-1.15522	100.883	-8761.81
37	200	-1.1359	102.173	-8988.99
38	204	-1.12168	103.431	-9217.81
39	204	-1.10768	104.658	-9443.78
40	204	-1.08935	105.845	-9666.01
41	206	-1.07584	107.002	-9887.63
42	206	-1.05812	108.122	-10105.6
43	208	-1.04505	109.214	-10323
44	208	-1.02789	110.271	-10536.8
45	208	-1.01522	111.301	-10747.9
46	209	-0.998575	112.298	-10956.6
47	209	-0.986272	113.271	-11162.8

48	210	-0.970094	114.212	-11366.5
49	210	-0.958125	115.13	-11567.7
50	210	-0.942375	116.018	-11765.6
51	210	-0.930718	116.885	-11961.1
52	210	-0.919183	117.729	-12154.1
53	211.6	-0.903992	118.547	-12345.4
54	212	-0.892733	119.344	-12534.6
55	214	-0.877897	120.114	-12722.5
56	214	-0.866894	120.866	-12908
57	214	-0.852385	121.592	-13090.4
58	215	-0.841621	122.301	-13271.4
59	216	-0.827417	122.985	-13450.1
60	216	-0.816874	123.653	-13626.5
61	216	-0.802956	124.297	-13800
62	216	-0.792618	124.926	-13971.2
63	217	-0.782366	125.538	-14141
64	220	-0.768821	126.129	-14310.1
65	220	-0.758753	126.705	-14477
66	220	-0.745449	127.26	-14641
67	220	-0.735557	127.801	-14802.8
68	220	-0.722479	128.323	-14961.8
69	220	-0.712751	128.831	-15118.6
70	220	-0.699883	129.321	-15272.6
71	220	-0.690309	129.798	-15424.4
72	220	-0.677639	130.257	-15573.5
73	220	-0.668209	130.703	-15720.5
74	222	-0.655726	131.133	-15866.1
75	222	-0.646431	131.551	-16009.6
76	222	-0.637192	131.957	-16151.1
77	223	-0.624956	132.348	-16290.4
78	224	-0.615839	132.727	-16428.4
79	224	-0.603765	133.092	-16563.6
80	224	-0.594766	133.445	-16696.8
81	224	-0.582841	133.785	-16827.4
82	225	-0.573953	134.114	-16956.5
83	225	-0.56217	134.43	-17083
84	226	-0.553384	134.737	-17208.1
85	226	-0.541736	135.03	-17330.5
86	226	-0.533048	135.314	-17451
87	226	-0.521527	135.586	-17568.9
88	226	-0.51293	135.849	-17684.8
89	227	-0.504372	136.104	-17799.3
90	228	-0.493018	136.347	-17911.7
91	228	-0.484544	136.582	-18022.2
92	228	-0.473299	136.806	-18130.1
93	228	-0.464904	137.022	-18236.1
94	230	-0.453763	137.228	-18340.4
95	230	-0.445443	137.426	-18442.9
96	230	-0.434397	137.615	-18542.8
97	230	-0.426148	137.796	-18640.8
98	230	-0.415193	137.969	-18736.3
99	230	-0.40701	138.134	-18829.9
100	232	-0.396142	138.291	-18921.8
101	232	-0.388022	138.442	-19011.8
102	232	-0.379927	138.586	-19100
103	234	-0.369171	138.723	-19186.4
104	234	-0.361133	138.853	-19270.9

105	235	-0.350451	138.976	-19353.2
106	235	-0.342466	139.093	-19433.7
107	236	-0.331854	139.203	-19512
108	236	-0.323919	139.308	-19588.5
109	236	-0.31337	139.406	-19662.4
110	240	-0.305481	139.5	-19735.7
111	240	-0.294992	139.587	-19806.5
112	240	-0.287147	139.669	-19875.5
113	240	-0.276714	139.746	-19941.9
114	240	-0.268908	139.818	-20006.4
115	240	-0.26112	139.886	-20069.1
116	240	-0.250759	139.949	-20129.3
117	240	-0.243007	140.008	-20187.6
118	240	-0.232693	140.062	-20243.4
119	240	-0.224974	140.113	-20297.4
120	240	-0.214702	140.159	-20348.9
121	242	-0.207012	140.202	-20399
122	244	-0.196779	140.241	-20447.1
123	244	-0.189118	140.276	-20493.2
124	244	-0.17892	140.308	-20536.9
125	244	-0.171285	140.338	-20578.7
126	246	-0.163659	140.364	-20618.9
127	246	-0.153505	140.388	-20656.7
128	246	-0.1459	140.409	-20692.6
129	246	-0.135774	140.428	-20726
130	247	-0.128189	140.444	-20757.6
131	248	-0.118085	140.458	-20786.9
132	249	-0.110516	140.47	-20814.4
133	250	-0.100433	140.48	-20839.5
134	250	-0.0928787	140.489	-20862.8
135	250	-0.0828129	140.496	-20883.5
136	250	-0.0752698	140.502	-20902.3
137	250	-0.0652187	140.506	-20918.6
138	250	-0.0576847	140.509	-20933
139	252	-0.0501541	140.512	-20945.6
140	252	-0.0401167	140.513	-20955.8
141	252	-0.0325917	140.514	-20964
142	252	-0.0225612	140.515	-20969.7
143	253	-0.0150408	140.515	-20973.5
144	254	-0.00501359	140.515	-20974.7
145	254	0.00501359	140.515	-20973.5
146	255	0.0150408	140.515	-20969.6
147	255	0.0225612	140.516	-20963.9
148	255	0.0325917	140.517	-20955.6
149	256	0.0401167	140.519	-20945.3
150	256	0.0501541	140.521	-20932.4
151	256	0.0576847	140.524	-20917.7
152	260	0.0652187	140.529	-20900.7
153	261	0.0752698	140.534	-20881.1
154	262	0.0828129	140.541	-20859.4
155	262	0.0928787	140.55	-20835
156	263	0.100433	140.56	-20808.6
157	264	0.110516	140.572	-20779.5
158	264	0.118085	140.586	-20748.3
159	264	0.128189	140.602	-20714.4
160	264	0.135774	140.621	-20678.6
161	266	0.1459	140.642	-20639.8

162	266	0.153505	140.666	-20599
163	268	0.163659	140.693	-20555.1
164	268	0.171285	140.722	-20509.2
165	268	0.17892	140.754	-20461.2
166	270	0.189118	140.79	-20410.2
167	270	0.196779	140.828	-20357
168	271	0.207012	140.871	-20300.9
169	272	0.214702	140.917	-20242.5
170	280	0.224974	140.968	-20179.6
171	280	0.232693	141.022	-20114.4
172	280	0.243007	141.081	-20046.4
173	282	0.250759	141.144	-19975.6
174	284	0.26112	141.212	-19901.5
175	288	0.268908	141.284	-19824
176	288	0.276714	141.361	-19744.3
177	288	0.287147	141.444	-19661.7
178	290	0.294992	141.531	-19576.1
179	290	0.305481	141.624	-19487.5
180	290	0.31337	141.722	-19396.6
181	290	0.323919	141.827	-19302.7
182	296	0.331854	141.937	-19204.5
183	296	0.342466	142.054	-19103.1
184	300	0.350451	142.177	-18998
185	300	0.361133	142.308	-18889.6
186	300	0.369171	142.444	-18778.9
187	304	0.379927	142.588	-18663.4
188	308	0.388022	142.739	-18543.9
189	309	0.396142	142.896	-18421.5
190	310	0.40701	143.061	-18295.3
191	312	0.415193	143.234	-18165.7
192	314	0.426148	143.415	-18031.9
193	316	0.434397	143.604	-17894.7
194	320	0.445443	143.802	-17752.1
195	320	0.453763	144.008	-17606.9
196	320	0.464904	144.225	-17458.1
197	320	0.473299	144.449	-17306.7
198	324	0.484544	144.683	-17149.7
199	326	0.493018	144.926	-16989
200	326	0.504372	145.181	-16824.6
201	327	0.51293	145.444	-16656.8
202	328	0.521527	145.716	-16485.8
203	329	0.533048	146	-16310.4
204	329	0.541736	146.293	-16132.2
205	330	0.553384	146.6	-15949.5
206	330	0.56217	146.916	-15764
207	330	0.573953	147.245	-15574.6
208	330	0.582841	147.585	-15382.3
209	330	0.594766	147.939	-15186
210	330	0.603765	148.303	-14986.8
211	330.4	0.615839	148.682	-14783.3
212	332	0.624956	149.073	-14575.8
213	332	0.637192	149.479	-14364.3
214	334	0.646431	149.897	-14148.4
215	336	0.655726	150.327	-13928
216	338	0.668209	150.773	-13702.2
217	340	0.677639	151.233	-13471.8
218	340	0.690309	151.709	-13237.1

219	340	0.699883	152.199	-12999.1
220	340	0.712751	152.707	-12756.8
221	340	0.722479	153.229	-12511.1
222	340	0.735557	153.77	-12261
223	340	0.745449	154.326	-12007.6
224	342	0.758753	154.901	-11748.1
225	342	0.768821	155.492	-11485.2
226	344	0.782366	156.105	-11216
227	344	0.792618	156.733	-10943.4
228	346	0.802956	157.378	-10665.5
229	347	0.816874	158.045	-10382.1
230	348	0.827417	158.729	-10094.1
231	350	0.841621	159.438	-9799.58
232	350	0.852385	160.164	-9501.25
233	350	0.866894	160.916	-9197.83
234	353	0.877897	161.687	-8887.94
235	356	0.892733	162.483	-8570.12
236	358	0.903992	163.301	-8246.49
237	360	0.919183	164.146	-7915.59
238	360	0.930718	165.012	-7580.53
239	360	0.942375	165.9	-7241.28
240	360	0.958125	166.818	-6896.35
241	360	0.970094	167.759	-6547.12
242	360	0.986272	168.732	-6192.06
243	362	0.998575	169.729	-5830.57
244	363	1.01522	170.76	-5462.05
245	364	1.02789	171.816	-5087.9
246	364	1.04505	172.908	-4707.5
247	365	1.05812	174.028	-4321.28
248	366	1.07584	175.185	-3927.53
249	367	1.08935	176.372	-3527.74
250	368	1.10768	177.599	-3120.11
251	368	1.12168	178.857	-2707.33
252	370	1.1359	180.147	-2287.05
253	370	1.15522	181.482	-1859.62
254	370	1.17	182.851	-1426.72
255	370	1.19012	184.267	-986.374
256	375	1.20553	185.72	-534.302
257	376	1.22653	187.225	-73.127
258	380	1.24264	188.769	399.077
259	380	1.26464	190.368	879.641
260	380	1.28155	192.011	1366.63
261	383	1.30469	193.713	1866.32
262	384	1.32251	195.462	2374.17
263	384	1.34694	197.276	2891.39
264	384	1.36581	199.142	3415.86
265	384	1.38517	201.06	3947.77
266	384	1.41183	203.054	4489.91
267	388	1.4325	205.106	5045.72
268	389	1.46106	207.24	5614.07
269	390	1.48328	209.44	6192.55
270	390	1.5141	211.733	6783.05
271	394	1.5382	214.099	7389.1
272	395	1.57179	216.57	8009.96
273	395.4	1.59819	219.124	8641.89
274	398	1.63524	221.798	9292.71
275	400	1.66456	224.568	9958.53

276	400	1.70604	227.479	10641
277	409	1.7392	230.504	11352.3
278	430	1.77438	233.652	12115.3
279	440	1.82501	236.983	12918.3
280	450	1.86629	240.466	13758.1
281	473	1.92684	244.179	14669.5
282	480	1.97737	248.089	15618.6
283	525	2.05375	252.307	16696.9
284	542	2.12007	256.801	17845.9
285	549	2.22621	261.757	19068.1
286	550	2.32634	267.169	20347.6
287	585	2.51213	273.48	21817.2
288	619	2.74777	281.03	23518.1

Data Set Standard Deviation = 85.2428
Numerator = 5.531e+008
Denominator = 5.86071e+008
W Statistic = 0.943742 = 5.531e+008 / 5.86071e+008

5% Critical value of 0.976 exceeds 0.943742
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.943742
Evidence of non-normality at 99% level of significance

Shapiro-Francia Test of Normality

Parameter: ALKALINITY

All Locations

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Number of Measurements = 288

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	55	-2.74777	7.55021	-151.127
2	55	-2.51213	13.861	-289.294
3	56	-2.32634	19.2729	-419.57
4	72	-2.22621	24.2289	-579.856
5	76	-2.12007	28.7236	-740.982
6	92	-2.05375	32.9415	-929.927
7	126	-1.97737	36.8515	-1179.07
8	130	-1.92684	40.5642	-1429.56
9	134	-1.86629	44.0472	-1679.65
10	140	-1.82501	47.3778	-1935.15
11	144	-1.77438	50.5263	-2190.66
12	150	-1.7392	53.5511	-2451.54
13	160	-1.70604	56.4617	-2724.51
14	162.2	-1.66456	59.2324	-2994.5
15	170	-1.63524	61.9064	-3272.49
16	176	-1.59819	64.4606	-3553.77
17	180	-1.57179	66.9312	-3836.69
18	184	-1.5382	69.2972	-4119.72
19	184	-1.5141	71.5897	-4398.31
20	185	-1.48328	73.7899	-4672.72
21	190	-1.46106	75.9245	-4950.32
22	191	-1.4325	77.9766	-5223.93
23	192	-1.41183	79.9699	-5495
24	192	-1.38517	81.8886	-5760.96
25	194	-1.36581	83.754	-6025.92
26	196	-1.34694	85.5683	-6289.92
27	199.4	-1.32251	87.3173	-6553.63
28	200	-1.30469	89.0195	-6814.57
29	200	-1.28155	90.6619	-7070.88
30	200	-1.26464	92.2612	-7323.81
31	200	-1.24264	93.8053	-7572.33
32	200	-1.22653	95.3097	-7817.64
33	200	-1.20553	96.763	-8058.74
34	200	-1.19012	98.1794	-8296.77
35	200	-1.17	99.5483	-8530.77
36	200	-1.15522	100.883	-8761.81
37	200	-1.1359	102.173	-8988.99
38	204	-1.12168	103.431	-9217.81
39	204	-1.10768	104.658	-9443.78
40	204	-1.08935	105.845	-9666.01
41	206	-1.07584	107.002	-9887.63
42	206	-1.05812	108.122	-10105.6
43	208	-1.04505	109.214	-10323
44	208	-1.02789	110.271	-10536.8
45	208	-1.01522	111.301	-10747.9
46	209	-0.998575	112.298	-10956.6
47	209	-0.986272	113.271	-11162.8

48	210	-0.970094	114.212	-11366.5
49	210	-0.958125	115.13	-11567.7
50	210	-0.942375	116.018	-11765.6
51	210	-0.930718	116.885	-11961.1
52	210	-0.919183	117.729	-12154.1
53	211.6	-0.903992	118.547	-12345.4
54	212	-0.892733	119.344	-12534.6
55	214	-0.877897	120.114	-12722.5
56	214	-0.866894	120.866	-12908
57	214	-0.852385	121.592	-13090.4
58	215	-0.841621	122.301	-13271.4
59	216	-0.827417	122.985	-13450.1
60	216	-0.816874	123.653	-13626.5
61	216	-0.802956	124.297	-13800
62	216	-0.792618	124.926	-13971.2
63	217	-0.782366	125.538	-14141
64	220	-0.768821	126.129	-14310.1
65	220	-0.758753	126.705	-14477
66	220	-0.745449	127.26	-14641
67	220	-0.735557	127.801	-14802.8
68	220	-0.722479	128.323	-14961.8
69	220	-0.712751	128.831	-15118.6
70	220	-0.699883	129.321	-15272.6
71	220	-0.690309	129.798	-15424.4
72	220	-0.677639	130.257	-15573.5
73	220	-0.668209	130.703	-15720.5
74	222	-0.655726	131.133	-15866.1
75	222	-0.646431	131.551	-16009.6
76	222	-0.637192	131.957	-16151.1
77	223	-0.624956	132.348	-16290.4
78	224	-0.615839	132.727	-16428.4
79	224	-0.603765	133.092	-16563.6
80	224	-0.594766	133.445	-16696.8
81	224	-0.582841	133.785	-16827.4
82	225	-0.573953	134.114	-16956.5
83	225	-0.56217	134.43	-17083
84	226	-0.553384	134.737	-17208.1
85	226	-0.541736	135.03	-17330.5
86	226	-0.533048	135.314	-17451
87	226	-0.521527	135.586	-17568.9
88	226	-0.51293	135.849	-17684.8
89	227	-0.504372	136.104	-17799.3
90	228	-0.493018	136.347	-17911.7
91	228	-0.484544	136.582	-18022.2
92	228	-0.473299	136.806	-18130.1
93	228	-0.464904	137.022	-18236.1
94	230	-0.453763	137.228	-18340.4
95	230	-0.445443	137.426	-18442.9
96	230	-0.434397	137.615	-18542.8
97	230	-0.426148	137.796	-18640.8
98	230	-0.415193	137.969	-18736.3
99	230	-0.40701	138.134	-18829.9
100	232	-0.396142	138.291	-18921.8
101	232	-0.388022	138.442	-19011.8
102	232	-0.379927	138.586	-19100
103	234	-0.369171	138.723	-19186.4
104	234	-0.361133	138.853	-19270.9

105	235	-0.350451	138.976	-19353.2
106	235	-0.342466	139.093	-19433.7
107	236	-0.331854	139.203	-19512
108	236	-0.323919	139.308	-19588.5
109	236	-0.31337	139.406	-19662.4
110	240	-0.305481	139.5	-19735.7
111	240	-0.294992	139.587	-19806.5
112	240	-0.287147	139.669	-19875.5
113	240	-0.276714	139.746	-19941.9
114	240	-0.268908	139.818	-20006.4
115	240	-0.26112	139.886	-20069.1
116	240	-0.250759	139.949	-20129.3
117	240	-0.243007	140.008	-20187.6
118	240	-0.232693	140.062	-20243.4
119	240	-0.224974	140.113	-20297.4
120	240	-0.214702	140.159	-20348.9
121	242	-0.207012	140.202	-20399
122	244	-0.196779	140.241	-20447.1
123	244	-0.189118	140.276	-20493.2
124	244	-0.17892	140.308	-20536.9
125	244	-0.171285	140.338	-20578.7
126	246	-0.163659	140.364	-20618.9
127	246	-0.153505	140.388	-20656.7
128	246	-0.1459	140.409	-20692.6
129	246	-0.135774	140.428	-20726
130	247	-0.128189	140.444	-20757.6
131	248	-0.118085	140.458	-20786.9
132	249	-0.110516	140.47	-20814.4
133	250	-0.100433	140.48	-20839.5
134	250	-0.0928787	140.489	-20862.8
135	250	-0.0828129	140.496	-20883.5
136	250	-0.0752698	140.502	-20902.3
137	250	-0.0652187	140.506	-20918.6
138	250	-0.0576847	140.509	-20933
139	252	-0.0501541	140.512	-20945.6
140	252	-0.0401167	140.513	-20955.8
141	252	-0.0325917	140.514	-20964
142	252	-0.0225612	140.515	-20969.7
143	253	-0.0150408	140.515	-20973.5
144	254	-0.00501359	140.515	-20974.7
145	254	0.00501359	140.515	-20973.5
146	255	0.0150408	140.515	-20969.6
147	255	0.0225612	140.516	-20963.9
148	255	0.0325917	140.517	-20955.6
149	256	0.0401167	140.519	-20945.3
150	256	0.0501541	140.521	-20932.4
151	256	0.0576847	140.524	-20917.7
152	260	0.0652187	140.529	-20900.7
153	261	0.0752698	140.534	-20881.1
154	262	0.0828129	140.541	-20859.4
155	262	0.0928787	140.55	-20835
156	263	0.100433	140.56	-20808.6
157	264	0.110516	140.572	-20779.5
158	264	0.118085	140.586	-20748.3
159	264	0.128189	140.602	-20714.4
160	264	0.135774	140.621	-20678.6
161	266	0.1459	140.642	-20639.8

162	266	0.153505	140.666	-20599
163	268	0.163659	140.693	-20555.1
164	268	0.171285	140.722	-20509.2
165	268	0.17892	140.754	-20461.2
166	270	0.189118	140.79	-20410.2
167	270	0.196779	140.828	-20357
168	271	0.207012	140.871	-20300.9
169	272	0.214702	140.917	-20242.5
170	280	0.224974	140.968	-20179.6
171	280	0.232693	141.022	-20114.4
172	280	0.243007	141.081	-20046.4
173	282	0.250759	141.144	-19975.6
174	284	0.26112	141.212	-19901.5
175	288	0.268908	141.284	-19824
176	288	0.276714	141.361	-19744.3
177	288	0.287147	141.444	-19661.7
178	290	0.294992	141.531	-19576.1
179	290	0.305481	141.624	-19487.5
180	290	0.31337	141.722	-19396.6
181	290	0.323919	141.827	-19302.7
182	296	0.331854	141.937	-19204.5
183	296	0.342466	142.054	-19103.1
184	300	0.350451	142.177	-18998
185	300	0.361133	142.308	-18889.6
186	300	0.369171	142.444	-18778.9
187	304	0.379927	142.588	-18663.4
188	308	0.388022	142.739	-18543.9
189	309	0.396142	142.896	-18421.5
190	310	0.40701	143.061	-18295.3
191	312	0.415193	143.234	-18165.7
192	314	0.426148	143.415	-18031.9
193	316	0.434397	143.604	-17894.7
194	320	0.445443	143.802	-17752.1
195	320	0.453763	144.008	-17606.9
196	320	0.464904	144.225	-17458.1
197	320	0.473299	144.449	-17306.7
198	324	0.484544	144.683	-17149.7
199	326	0.493018	144.926	-16989
200	326	0.504372	145.181	-16824.6
201	327	0.51293	145.444	-16656.8
202	328	0.521527	145.716	-16485.8
203	329	0.533048	146	-16310.4
204	329	0.541736	146.293	-16132.2
205	330	0.553384	146.6	-15949.5
206	330	0.56217	146.916	-15764
207	330	0.573953	147.245	-15574.6
208	330	0.582841	147.585	-15382.3
209	330	0.594766	147.939	-15186
210	330	0.603765	148.303	-14986.8
211	330.4	0.615839	148.682	-14783.3
212	332	0.624956	149.073	-14575.8
213	332	0.637192	149.479	-14364.3
214	334	0.646431	149.897	-14148.4
215	336	0.655726	150.327	-13928
216	338	0.668209	150.773	-13702.2
217	340	0.677639	151.233	-13471.8
218	340	0.690309	151.709	-13237.1

219	340	0.699883	152.199	-12999.1
220	340	0.712751	152.707	-12756.8
221	340	0.722479	153.229	-12511.1
222	340	0.735557	153.77	-12261
223	340	0.745449	154.326	-12007.6
224	342	0.758753	154.901	-11748.1
225	342	0.768821	155.492	-11485.2
226	344	0.782366	156.105	-11216
227	344	0.792618	156.733	-10943.4
228	346	0.802956	157.378	-10665.5
229	347	0.816874	158.045	-10382.1
230	348	0.827417	158.729	-10094.1
231	350	0.841621	159.438	-9799.58
232	350	0.852385	160.164	-9501.25
233	350	0.866894	160.916	-9197.83
234	353	0.877897	161.687	-8887.94
235	356	0.892733	162.483	-8570.12
236	358	0.903992	163.301	-8246.49
237	360	0.919183	164.146	-7915.59
238	360	0.930718	165.012	-7580.53
239	360	0.942375	165.9	-7241.28
240	360	0.958125	166.818	-6896.35
241	360	0.970094	167.759	-6547.12
242	360	0.986272	168.732	-6192.06
243	362	0.998575	169.729	-5830.57
244	363	1.01522	170.76	-5462.05
245	364	1.02789	171.816	-5087.9
246	364	1.04505	172.908	-4707.5
247	365	1.05812	174.028	-4321.28
248	366	1.07584	175.185	-3927.53
249	367	1.08935	176.372	-3527.74
250	368	1.10768	177.599	-3120.11
251	368	1.12168	178.857	-2707.33
252	370	1.1359	180.147	-2287.05
253	370	1.15522	181.482	-1859.62
254	370	1.17	182.851	-1426.72
255	370	1.19012	184.267	-986.374
256	375	1.20553	185.72	-534.302
257	376	1.22653	187.225	-73.127
258	380	1.24264	188.769	399.077
259	380	1.26464	190.368	879.641
260	380	1.28155	192.011	1366.63
261	383	1.30469	193.713	1866.32
262	384	1.32251	195.462	2374.17
263	384	1.34694	197.276	2891.39
264	384	1.36581	199.142	3415.86
265	384	1.38517	201.06	3947.77
266	384	1.41183	203.054	4489.91
267	388	1.4325	205.106	5045.72
268	389	1.46106	207.24	5614.07
269	390	1.48328	209.44	6192.55
270	390	1.5141	211.733	6783.05
271	394	1.5382	214.099	7389.1
272	395	1.57179	216.57	8009.96
273	395.4	1.59819	219.124	8641.89
274	398	1.63524	221.798	9292.71
275	400	1.66456	224.568	9958.53

276	400	1.70604	227.479	10641
277	409	1.7392	230.504	11352.3
278	430	1.77438	233.652	12115.3
279	440	1.82501	236.983	12918.3
280	450	1.86629	240.466	13758.1
281	473	1.92684	244.179	14669.5
282	480	1.97737	248.089	15618.6
283	525	2.05375	252.307	16696.9
284	542	2.12007	256.801	17845.9
285	549	2.22621	261.757	19068.1
286	550	2.32634	267.169	20347.6
287	585	2.51213	273.48	21817.2
288	619	2.74777	281.03	23518.1

Data Set Standard Deviation = 85.2428
Numerator = 5.531e+008
Denominator = 5.86071e+008
W Statistic = 0.943742 = 5.531e+008 / 5.86071e+008

5% Critical value of 0.976 exceeds 0.943742
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.943742
Evidence of non-normality at 99% level of significance

Concentrations (ppb)

Parameter: ALKALINITY

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 288
Total Non-Detect: 0
Percent Non-Detects: 0%
Total Background Measurements: 72
There is 1 background location

Loc.	Meas.	ND	Date	Conc.	Original
MW#93-1	72	0 (0%)	12/15/1994	367	367
			12/14/1995	334	334
			3/6/1996	384	384
			4/25/1996	363	363
			10/2/1996	365	365
			12/10/1996	346	346
			3/11/1997	350	350
			4/15/1997	330	330
			8/14/1997	400	400
			12/4/1997	380	380
			3/31/1998	360	360
			6/23/1998	390	390
			8/11/1998	389	389
			12/8/1998	376	376
			3/9/1999	340	340
			6/8/1999	395	395
			8/19/1999	400	400
			12/14/1999	360	360
			3/7/2000	384	384
			6/23/2000	364	364
			12/12/2000	450	450
			3/27/2001	362	362
			6/28/2001	340	340
			9/10/2001	326	326
			12/18/2001	326	326
			3/19/2002	330	330
			6/26/2002	350	350
			9/18/2002	353	353
			12/11/2002	344	344
			3/13/2003	320	320
			6/25/2003	336	336
			9/26/2003	320	320
			12/10/2003	324	324
			3/9/2004	329	329
			6/24/2004	348	348
			9/15/2004	332	332
			12/15/2004	327	327
			3/16/2005	340	340
			6/15/2005	330	330
			9/21/2005	347	347
			12/21/2005	340	340
			3/15/2006	320	320
			6/21/2006	314	314
			12/20/2006	300	300
			6/12/2007	310	310

			12/17/2007	330	330
			6/11/2008	370	370
			12/3/2008	344	344
			6/17/2009	350	350
			12/9/2009	370	370
			6/17/2010	380	380
			12/22/2010	370	370
			6/29/2011	366	366
			12/7/2011	370	370
			6/6/2012	384	384
			12/12/2012	330	330
			6/19/2013	360	360
			12/11/2013	358	358
			6/11/2014	342	342
			12/3/2014	368	368
			6/17/2015	380	380
			12/1/2015	383	383
			6/22/2016	390	390
			12/20/2016	395.4	395.4
			6/6/2017	398	398
			11/7/2017	394	394
			2/27/2018	384	384
			9/27/2018	360	360
			5/7/2019	550	550
			11/21/2019	480	480
			6/25/2020	542	542
			11/17/2020	473	473

There are 4 compliance locations

Loc.	Meas.	ND	Date	Conc.	Original
MW#03-1	33	0 (0%)	6/24/2004	209	209
			9/15/2004	220	220
			12/15/2004	184	184
			3/16/2005	160	160
			6/15/2005	252	252
			9/21/2005	180	180
			12/20/2006	204	204
			6/12/2007	200	200
			12/17/2007	190	190
			6/11/2008	200	200
			12/3/2008	206	206
			6/17/2009	204	204
			12/9/2009	216	216
			6/17/2010	232	232
			12/22/2010	216	216
			6/29/2011	210	210
			12/7/2011	222	222
			6/6/2012	216	216
			6/19/2013	144	144
			12/11/2013	212	212
			6/11/2014	222	222
			12/3/2014	194	194
			6/17/2015	134	134
			12/1/2015	150	150
			6/22/2016	130	130

			12/20/2016	211.6	211.6
			6/6/2017	56	56
			11/7/2017	217	217
			2/27/2018	72	72
			5/7/2019	55	55
			11/21/2019	55	55
			6/25/2020	126	126
			11/17/2020	234	234
MW#03-2	38	0 (0%)	6/24/2004	235	235
			9/15/2004	200	200
			12/15/2004	222	222
			3/16/2005	220	220
			6/15/2005	252	252
			9/21/2005	224	224
			12/21/2005	230	230
			3/15/2006	220	220
			6/21/2006	228	228
			12/20/2006	220	220
			6/12/2007	228	228
			12/17/2007	200	200
			6/11/2008	200	200
			12/3/2008	210	210
			6/17/2009	200	200
			12/9/2009	208	208
			6/17/2010	216	216
			12/22/2010	230	230
			6/29/2011	224	224
			12/7/2011	236	236
			6/6/2012	230	230
			12/12/2012	242	242
			6/19/2013	232	232
			12/11/2013	230	230
			6/11/2014	92	92
			12/3/2014	76	76
			6/17/2015	220	220
			12/1/2015	214	214
			6/22/2016	204	204
			12/20/2016	199.4	199.4
			6/6/2017	192	192
			11/7/2017	192	192
			2/27/2018	196	196
			9/27/2018	185	185
			5/7/2019	220	220
			11/21/2019	220	220
			6/25/2020	223	223
			11/17/2020	209	209
MW#93-2	73	0 (0%)	12/15/1994	170	170
			12/14/1995	191	191
			3/6/1996	308	308
			4/25/1996	340	340
			10/2/1996	340	340
			12/10/1996	270	270
			3/11/1997	210	210
			4/15/1997	220	220
			8/14/1997	240	240

12/4/1997	200	200
3/31/1998	184	184
6/23/1998	250	250
8/11/1998	208	208
12/8/1998	200	200
3/9/1999	224	224
6/8/1999	220	220
8/19/1999	226	226
12/14/1999	240	240
3/7/2000	244	244
6/23/2000	264	264
12/12/2000	220	220
3/27/2001	215	215
6/28/2001	240	240
9/10/2001	208	208
12/18/2001	235	235
3/19/2002	263	263
6/26/2002	290	290
9/18/2002	256	256
12/11/2002	249	249
3/13/2003	240	240
6/25/2003	246	246
9/26/2003	250	250
12/10/2003	200	200
3/9/2004	280	280
6/24/2004	329	329
9/15/2004	272	272
12/15/2004	288	288
3/16/2005	240	240
6/15/2005	246	246
9/21/2005	228	228
12/21/2005	232	232
3/15/2006	250	250
6/21/2006	290	290
12/20/2006	356	356
2/21/2007	340	340
6/12/2007	312	312
12/17/2007	210	210
6/11/2008	240	240
12/3/2008	280	280
6/17/2009	250	250
12/9/2009	236	236
6/17/2010	252	252
12/22/2010	240	240
6/29/2011	266	266
12/7/2011	288	288
6/6/2012	256	256
12/12/2012	248	248
6/19/2013	364	364
12/11/2013	328	328
6/11/2014	342	342
12/3/2014	296	296
6/17/2015	384	384
12/1/2015	226	226
6/22/2016	176	176
12/20/2016	162.2	162.2
6/6/2017	246	246

			11/7/2017	430	430
			2/27/2018	282	282
			9/27/2018	270	270
			5/7/2019	360	360
			11/21/2019	360	360
			6/25/2020	261	261
			11/16/2020	266	266
MW#93-3	72	0 (0%)	12/15/1994	240	240
			12/14/1995	206	206
			3/6/1996	226	226
			4/25/1996	228	228
			10/2/1996	240	240
			12/10/1996	225	225
			3/11/1997	210	210
			4/15/1997	200	200
			8/14/1997	255	255
			12/4/1997	140	140
			3/31/1998	240	240
			6/23/1998	225	225
			8/11/1998	224	224
			12/8/1998	214	214
			3/9/1999	234	234
			6/8/1999	236	236
			8/19/1999	260	260
			12/14/1999	300	300
			3/7/2000	264	264
			6/23/2000	244	244
			12/12/2000	320	320
			3/27/2001	254	254
			6/28/2001	255	255
			9/10/2001	332	332
			12/18/2001	230	230
			3/19/2002	255	255
			6/26/2002	250	250
			9/18/2002	268	268
			12/11/2002	268	268
			3/13/2003	247	247
			6/25/2003	252	252
			9/26/2003	244	244
			12/10/2003	271	271
			3/9/2004	284	284
			6/24/2004	309	309
			9/15/2004	264	264
			12/15/2004	254	254
			3/16/2005	290	290
			6/15/2005	268	268
			9/21/2005	264	264
			12/21/2005	246	246
			3/15/2006	227	227
			6/21/2006	253	253
			12/20/2006	250	250
			6/12/2007	280	280
			12/17/2007	290	290
			6/11/2008	300	300
			12/3/2008	226	226
			6/17/2009	240	240

12/9/2009	214	214
6/17/2010	296	296
12/22/2010	230	230
6/29/2011	256	256
12/7/2011	244	244
6/6/2012	288	288
12/12/2012	226	226
6/19/2013	316	316
12/11/2013	262	262
6/11/2014	338	338
12/3/2014	262	262
6/17/2015	388	388
5/25/2016	440	440
6/22/2016	330	330
12/20/2016	330.4	330.4
6/6/2017	304	304
11/7/2017	409	409
2/27/2018	368	368
9/27/2018	375	375
5/7/2019	585	585
11/21/2019	525	525
6/25/2020	619	619
11/16/2020	549	549

There are 0 unused locations

Loc.	Meas.	ND	Date	Conc.	Original

Non-Parametric Prediction Interval

Inter-Well Comparison

Parameter: ALKALINITY

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 0%
Number of comparisons = 4
Future Samples (k) = 4
Recent Dates = 1
Background Measurements (n) = 72
Maximum Background Value = 550
Confidence Level = 94.7%
False Positive Rate = 5.3%

Location	Date	Count	Mean	Significant
MW#03-1	11/17/2020	1	234	FALSE
MW#03-2	11/17/2020	1	209	FALSE
MW#93-2	11/16/2020	1	266	FALSE
MW#93-3	11/16/2020	1	549	FALSE

Levene's Test for Equal of Variance

Parameter: ALKALINITY

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Overall Mean = 39.996
Overall Std Dev = 44.0024
Overall Total = 11518.8
SS Groups = 43482.6
SS Total = 555694

ANOVA Table

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Squares	F
Between Groups	43482.6	4	10870.7	6.00611
Error (within groups)	512211	283	1809.93	
Totals	555694	287		

95% F-Statistic = 2.37

6.00611 exceeds 2.37; assumption of equal variance should be rejected

Group: MW#93-1	Sample	Residual
	12/15/1994	1.49444
	12/14/1995	31.5056
	3/6/1996	18.4944
	4/25/1996	2.50556
	10/2/1996	0.505556
	12/10/1996	19.5056
	3/11/1997	15.5056
	4/15/1997	35.5056
	8/14/1997	34.4944
	12/4/1997	14.4944
	3/31/1998	5.50556
	6/23/1998	24.4944
	8/11/1998	23.4944
	12/8/1998	10.4944
	3/9/1999	25.5056
	6/8/1999	29.4944
	8/19/1999	34.4944
	12/14/1999	5.50556
	3/7/2000	18.4944
	6/23/2000	1.50556
	12/12/2000	84.4944
	3/27/2001	3.50556
	6/28/2001	25.5056
	9/10/2001	39.5056
	12/18/2001	39.5056
	3/19/2002	35.5056
	6/26/2002	15.5056
	9/18/2002	12.5056
	12/11/2002	21.5056
	3/13/2003	45.5056

6/25/2003	29.5056
9/26/2003	45.5056
12/10/2003	41.5056
3/9/2004	36.5056
6/24/2004	17.5056
9/15/2004	33.5056
12/15/2004	38.5056
3/16/2005	25.5056
6/15/2005	35.5056
9/21/2005	18.5056
12/21/2005	25.5056
3/15/2006	45.5056
6/21/2006	51.5056
12/20/2006	65.5056
6/12/2007	55.5056
12/17/2007	35.5056
6/11/2008	4.49444
12/3/2008	21.5056
6/17/2009	15.5056
12/9/2009	4.49444
6/17/2010	14.4944
12/22/2010	4.49444
6/29/2011	0.494444
12/7/2011	4.49444
6/6/2012	18.4944
12/12/2012	35.5056
6/19/2013	5.50556
12/11/2013	7.50556
6/11/2014	23.5056
12/3/2014	2.49444
6/17/2015	14.4944
12/1/2015	17.4944
6/22/2016	24.4944
12/20/2016	29.8944
6/6/2017	32.4944
11/7/2017	28.4944
2/27/2018	18.4944
9/27/2018	5.50556
5/7/2019	184.494
11/21/2019	114.494
6/25/2020	176.494
11/17/2020	107.494

Group: MW#03-1	**Date**	**Residual**
	6/24/2004	29.1939
	9/15/2004	40.1939
	12/15/2004	4.19394
	3/16/2005	19.8061
	6/15/2005	72.1939
	9/21/2005	0.193939
	12/20/2006	24.1939
	6/12/2007	20.1939
	12/17/2007	10.1939
	6/11/2008	20.1939
	12/3/2008	26.1939
	6/17/2009	24.1939
	12/9/2009	36.1939

6/17/2010	52.1939
12/22/2010	36.1939
6/29/2011	30.1939
12/7/2011	42.1939
6/6/2012	36.1939
6/19/2013	35.8061
12/11/2013	32.1939
6/11/2014	42.1939
12/3/2014	14.1939
6/17/2015	45.8061
12/1/2015	29.8061
6/22/2016	49.8061
12/20/2016	31.7939
6/6/2017	123.806
11/7/2017	37.1939
2/27/2018	107.806
5/7/2019	124.806
11/21/2019	124.806
6/25/2020	53.8061
11/17/2020	54.1939

Group: MW#03-2	**Date**	**Residual**
	6/24/2004	25.0158
	9/15/2004	9.98421
	12/15/2004	12.0158
	3/16/2005	10.0158
	6/15/2005	42.0158
	9/21/2005	14.0158
	12/21/2005	20.0158
	3/15/2006	10.0158
	6/21/2006	18.0158
	12/20/2006	10.0158
	6/12/2007	18.0158
	12/17/2007	9.98421
	6/11/2008	9.98421
	12/3/2008	0.0157895
	6/17/2009	9.98421
	12/9/2009	1.98421
	6/17/2010	6.01579
	12/22/2010	20.0158
	6/29/2011	14.0158
	12/7/2011	26.0158
	6/6/2012	20.0158
	12/12/2012	32.0158
	6/19/2013	22.0158
	12/11/2013	20.0158
	6/11/2014	117.984
	12/3/2014	133.984
	6/17/2015	10.0158
	12/1/2015	4.01579
	6/22/2016	5.98421
	12/20/2016	10.5842
	6/6/2017	17.9842
	11/7/2017	17.9842
	2/27/2018	13.9842
	9/27/2018	24.9842
	5/7/2019	10.0158

	11/21/2019	10.0158
	6/25/2020	13.0158
	11/17/2020	0.984211

Group: MW#93-2	Date	Residual
	12/15/1994	90.8658
	12/14/1995	69.8658
	3/6/1996	47.1342
	4/25/1996	79.1342
	10/2/1996	79.1342
	12/10/1996	9.13425
	3/11/1997	50.8658
	4/15/1997	40.8658
	8/14/1997	20.8658
	12/4/1997	60.8658
	3/31/1998	76.8658
	6/23/1998	10.8658
	8/11/1998	52.8658
	12/8/1998	60.8658
	3/9/1999	36.8658
	6/8/1999	40.8658
	8/19/1999	34.8658
	12/14/1999	20.8658
	3/7/2000	16.8658
	6/23/2000	3.13425
	12/12/2000	40.8658
	3/27/2001	45.8658
	6/28/2001	20.8658
	9/10/2001	52.8658
	12/18/2001	25.8658
	3/19/2002	2.13425
	6/26/2002	29.1342
	9/18/2002	4.86575
	12/11/2002	11.8658
	3/13/2003	20.8658
	6/25/2003	14.8658
	9/26/2003	10.8658
	12/10/2003	60.8658
	3/9/2004	19.1342
	6/24/2004	68.1342
	9/15/2004	11.1342
	12/15/2004	27.1342
	3/16/2005	20.8658
	6/15/2005	14.8658
	9/21/2005	32.8658
	12/21/2005	28.8658
	3/15/2006	10.8658
	6/21/2006	29.1342
	12/20/2006	95.1342
	2/21/2007	79.1342
	6/12/2007	51.1342
	12/17/2007	50.8658
	6/11/2008	20.8658
	12/3/2008	19.1342
	6/17/2009	10.8658
	12/9/2009	24.8658
	6/17/2010	8.86575

12/22/2010	20.8658
6/29/2011	5.13425
12/7/2011	27.1342
6/6/2012	4.86575
12/12/2012	12.8658
6/19/2013	103.134
12/11/2013	67.1342
6/11/2014	81.1342
12/3/2014	35.1342
6/17/2015	123.134
12/1/2015	34.8658
6/22/2016	84.8658
12/20/2016	98.6658
6/6/2017	14.8658
11/7/2017	169.134
2/27/2018	21.1342
9/27/2018	9.13425
5/7/2019	99.1342
11/21/2019	99.1342
6/25/2020	0.134247
11/16/2020	5.13425

Group: MW#93-3	Date	Residual
	12/15/1994	44.1167
	12/14/1995	78.1167
	3/6/1996	58.1167
	4/25/1996	56.1167
	10/2/1996	44.1167
	12/10/1996	59.1167
	3/11/1997	74.1167
	4/15/1997	84.1167
	8/14/1997	29.1167
	12/4/1997	144.117
	3/31/1998	44.1167
	6/23/1998	59.1167
	8/11/1998	60.1167
	12/8/1998	70.1167
	3/9/1999	50.1167
	6/8/1999	48.1167
	8/19/1999	24.1167
	12/14/1999	15.8833
	3/7/2000	20.1167
	6/23/2000	40.1167
	12/12/2000	35.8833
	3/27/2001	30.1167
	6/28/2001	29.1167
	9/10/2001	47.8833
	12/18/2001	54.1167
	3/19/2002	29.1167
	6/26/2002	34.1167
	9/18/2002	16.1167
	12/11/2002	16.1167
	3/13/2003	37.1167
	6/25/2003	32.1167
	9/26/2003	40.1167
	12/10/2003	13.1167
	3/9/2004	0.116667

6/24/2004	24.8833
9/15/2004	20.1167
12/15/2004	30.1167
3/16/2005	5.88333
6/15/2005	16.1167
9/21/2005	20.1167
12/21/2005	38.1167
3/15/2006	57.1167
6/21/2006	31.1167
12/20/2006	34.1167
6/12/2007	4.11667
12/17/2007	5.88333
6/11/2008	15.8833
12/3/2008	58.1167
6/17/2009	44.1167
12/9/2009	70.1167
6/17/2010	11.8833
12/22/2010	54.1167
6/29/2011	28.1167
12/7/2011	40.1167
6/6/2012	3.88333
12/12/2012	58.1167
6/19/2013	31.8833
12/11/2013	22.1167
6/11/2014	53.8833
12/3/2014	22.1167
6/17/2015	103.883
5/25/2016	155.883
6/22/2016	45.8833
12/20/2016	46.2833
6/6/2017	19.8833
11/7/2017	124.883
2/27/2018	83.8833
9/27/2018	90.8833
5/7/2019	300.883
11/21/2019	240.883
6/25/2020	334.883
11/16/2020	264.883

Shapiro-Francia Test of Normality

Parameter: ALKALINITY

All Locations

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Number of Measurements = 288

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	55	-2.74777	7.55021	-151.127
2	55	-2.51213	13.861	-289.294
3	56	-2.32634	19.2729	-419.57
4	72	-2.22621	24.2289	-579.856
5	76	-2.12007	28.7236	-740.982
6	92	-2.05375	32.9415	-929.927
7	126	-1.97737	36.8515	-1179.07
8	130	-1.92684	40.5642	-1429.56
9	134	-1.86629	44.0472	-1679.65
10	140	-1.82501	47.3778	-1935.15
11	144	-1.77438	50.5263	-2190.66
12	150	-1.7392	53.5511	-2451.54
13	160	-1.70604	56.4617	-2724.51
14	162.2	-1.66456	59.2324	-2994.5
15	170	-1.63524	61.9064	-3272.49
16	176	-1.59819	64.4606	-3553.77
17	180	-1.57179	66.9312	-3836.69
18	184	-1.5382	69.2972	-4119.72
19	184	-1.5141	71.5897	-4398.31
20	185	-1.48328	73.7899	-4672.72
21	190	-1.46106	75.9245	-4950.32
22	191	-1.4325	77.9766	-5223.93
23	192	-1.41183	79.9699	-5495
24	192	-1.38517	81.8886	-5760.96
25	194	-1.36581	83.754	-6025.92
26	196	-1.34694	85.5683	-6289.92
27	199.4	-1.32251	87.3173	-6553.63
28	200	-1.30469	89.0195	-6814.57
29	200	-1.28155	90.6619	-7070.88
30	200	-1.26464	92.2612	-7323.81
31	200	-1.24264	93.8053	-7572.33
32	200	-1.22653	95.3097	-7817.64
33	200	-1.20553	96.763	-8058.74
34	200	-1.19012	98.1794	-8296.77
35	200	-1.17	99.5483	-8530.77
36	200	-1.15522	100.883	-8761.81
37	200	-1.1359	102.173	-8988.99
38	204	-1.12168	103.431	-9217.81
39	204	-1.10768	104.658	-9443.78
40	204	-1.08935	105.845	-9666.01
41	206	-1.07584	107.002	-9887.63
42	206	-1.05812	108.122	-10105.6
43	208	-1.04505	109.214	-10323
44	208	-1.02789	110.271	-10536.8
45	208	-1.01522	111.301	-10747.9
46	209	-0.998575	112.298	-10956.6
47	209	-0.986272	113.271	-11162.8

48	210	-0.970094	114.212	-11366.5
49	210	-0.958125	115.13	-11567.7
50	210	-0.942375	116.018	-11765.6
51	210	-0.930718	116.885	-11961.1
52	210	-0.919183	117.729	-12154.1
53	211.6	-0.903992	118.547	-12345.4
54	212	-0.892733	119.344	-12534.6
55	214	-0.877897	120.114	-12722.5
56	214	-0.866894	120.866	-12908
57	214	-0.852385	121.592	-13090.4
58	215	-0.841621	122.301	-13271.4
59	216	-0.827417	122.985	-13450.1
60	216	-0.816874	123.653	-13626.5
61	216	-0.802956	124.297	-13800
62	216	-0.792618	124.926	-13971.2
63	217	-0.782366	125.538	-14141
64	220	-0.768821	126.129	-14310.1
65	220	-0.758753	126.705	-14477
66	220	-0.745449	127.26	-14641
67	220	-0.735557	127.801	-14802.8
68	220	-0.722479	128.323	-14961.8
69	220	-0.712751	128.831	-15118.6
70	220	-0.699883	129.321	-15272.6
71	220	-0.690309	129.798	-15424.4
72	220	-0.677639	130.257	-15573.5
73	220	-0.668209	130.703	-15720.5
74	222	-0.655726	131.133	-15866.1
75	222	-0.646431	131.551	-16009.6
76	222	-0.637192	131.957	-16151.1
77	223	-0.624956	132.348	-16290.4
78	224	-0.615839	132.727	-16428.4
79	224	-0.603765	133.092	-16563.6
80	224	-0.594766	133.445	-16696.8
81	224	-0.582841	133.785	-16827.4
82	225	-0.573953	134.114	-16956.5
83	225	-0.56217	134.43	-17083
84	226	-0.553384	134.737	-17208.1
85	226	-0.541736	135.03	-17330.5
86	226	-0.533048	135.314	-17451
87	226	-0.521527	135.586	-17568.9
88	226	-0.51293	135.849	-17684.8
89	227	-0.504372	136.104	-17799.3
90	228	-0.493018	136.347	-17911.7
91	228	-0.484544	136.582	-18022.2
92	228	-0.473299	136.806	-18130.1
93	228	-0.464904	137.022	-18236.1
94	230	-0.453763	137.228	-18340.4
95	230	-0.445443	137.426	-18442.9
96	230	-0.434397	137.615	-18542.8
97	230	-0.426148	137.796	-18640.8
98	230	-0.415193	137.969	-18736.3
99	230	-0.40701	138.134	-18829.9
100	232	-0.396142	138.291	-18921.8
101	232	-0.388022	138.442	-19011.8
102	232	-0.379927	138.586	-19100
103	234	-0.369171	138.723	-19186.4
104	234	-0.361133	138.853	-19270.9

105	235	-0.350451	138.976	-19353.2
106	235	-0.342466	139.093	-19433.7
107	236	-0.331854	139.203	-19512
108	236	-0.323919	139.308	-19588.5
109	236	-0.31337	139.406	-19662.4
110	240	-0.305481	139.5	-19735.7
111	240	-0.294992	139.587	-19806.5
112	240	-0.287147	139.669	-19875.5
113	240	-0.276714	139.746	-19941.9
114	240	-0.268908	139.818	-20006.4
115	240	-0.26112	139.886	-20069.1
116	240	-0.250759	139.949	-20129.3
117	240	-0.243007	140.008	-20187.6
118	240	-0.232693	140.062	-20243.4
119	240	-0.224974	140.113	-20297.4
120	240	-0.214702	140.159	-20348.9
121	242	-0.207012	140.202	-20399
122	244	-0.196779	140.241	-20447.1
123	244	-0.189118	140.276	-20493.2
124	244	-0.17892	140.308	-20536.9
125	244	-0.171285	140.338	-20578.7
126	246	-0.163659	140.364	-20618.9
127	246	-0.153505	140.388	-20656.7
128	246	-0.1459	140.409	-20692.6
129	246	-0.135774	140.428	-20726
130	247	-0.128189	140.444	-20757.6
131	248	-0.118085	140.458	-20786.9
132	249	-0.110516	140.47	-20814.4
133	250	-0.100433	140.48	-20839.5
134	250	-0.0928787	140.489	-20862.8
135	250	-0.0828129	140.496	-20883.5
136	250	-0.0752698	140.502	-20902.3
137	250	-0.0652187	140.506	-20918.6
138	250	-0.0576847	140.509	-20933
139	252	-0.0501541	140.512	-20945.6
140	252	-0.0401167	140.513	-20955.8
141	252	-0.0325917	140.514	-20964
142	252	-0.0225612	140.515	-20969.7
143	253	-0.0150408	140.515	-20973.5
144	254	-0.00501359	140.515	-20974.7
145	254	0.00501359	140.515	-20973.5
146	255	0.0150408	140.515	-20969.6
147	255	0.0225612	140.516	-20963.9
148	255	0.0325917	140.517	-20955.6
149	256	0.0401167	140.519	-20945.3
150	256	0.0501541	140.521	-20932.4
151	256	0.0576847	140.524	-20917.7
152	260	0.0652187	140.529	-20900.7
153	261	0.0752698	140.534	-20881.1
154	262	0.0828129	140.541	-20859.4
155	262	0.0928787	140.55	-20835
156	263	0.100433	140.56	-20808.6
157	264	0.110516	140.572	-20779.5
158	264	0.118085	140.586	-20748.3
159	264	0.128189	140.602	-20714.4
160	264	0.135774	140.621	-20678.6
161	266	0.1459	140.642	-20639.8

162	266	0.153505	140.666	-20599
163	268	0.163659	140.693	-20555.1
164	268	0.171285	140.722	-20509.2
165	268	0.17892	140.754	-20461.2
166	270	0.189118	140.79	-20410.2
167	270	0.196779	140.828	-20357
168	271	0.207012	140.871	-20300.9
169	272	0.214702	140.917	-20242.5
170	280	0.224974	140.968	-20179.6
171	280	0.232693	141.022	-20114.4
172	280	0.243007	141.081	-20046.4
173	282	0.250759	141.144	-19975.6
174	284	0.26112	141.212	-19901.5
175	288	0.268908	141.284	-19824
176	288	0.276714	141.361	-19744.3
177	288	0.287147	141.444	-19661.7
178	290	0.294992	141.531	-19576.1
179	290	0.305481	141.624	-19487.5
180	290	0.31337	141.722	-19396.6
181	290	0.323919	141.827	-19302.7
182	296	0.331854	141.937	-19204.5
183	296	0.342466	142.054	-19103.1
184	300	0.350451	142.177	-18998
185	300	0.361133	142.308	-18889.6
186	300	0.369171	142.444	-18778.9
187	304	0.379927	142.588	-18663.4
188	308	0.388022	142.739	-18543.9
189	309	0.396142	142.896	-18421.5
190	310	0.40701	143.061	-18295.3
191	312	0.415193	143.234	-18165.7
192	314	0.426148	143.415	-18031.9
193	316	0.434397	143.604	-17894.7
194	320	0.445443	143.802	-17752.1
195	320	0.453763	144.008	-17606.9
196	320	0.464904	144.225	-17458.1
197	320	0.473299	144.449	-17306.7
198	324	0.484544	144.683	-17149.7
199	326	0.493018	144.926	-16989
200	326	0.504372	145.181	-16824.6
201	327	0.51293	145.444	-16656.8
202	328	0.521527	145.716	-16485.8
203	329	0.533048	146	-16310.4
204	329	0.541736	146.293	-16132.2
205	330	0.553384	146.6	-15949.5
206	330	0.56217	146.916	-15764
207	330	0.573953	147.245	-15574.6
208	330	0.582841	147.585	-15382.3
209	330	0.594766	147.939	-15186
210	330	0.603765	148.303	-14986.8
211	330.4	0.615839	148.682	-14783.3
212	332	0.624956	149.073	-14575.8
213	332	0.637192	149.479	-14364.3
214	334	0.646431	149.897	-14148.4
215	336	0.655726	150.327	-13928
216	338	0.668209	150.773	-13702.2
217	340	0.677639	151.233	-13471.8
218	340	0.690309	151.709	-13237.1

219	340	0.699883	152.199	-12999.1
220	340	0.712751	152.707	-12756.8
221	340	0.722479	153.229	-12511.1
222	340	0.735557	153.77	-12261
223	340	0.745449	154.326	-12007.6
224	342	0.758753	154.901	-11748.1
225	342	0.768821	155.492	-11485.2
226	344	0.782366	156.105	-11216
227	344	0.792618	156.733	-10943.4
228	346	0.802956	157.378	-10665.5
229	347	0.816874	158.045	-10382.1
230	348	0.827417	158.729	-10094.1
231	350	0.841621	159.438	-9799.58
232	350	0.852385	160.164	-9501.25
233	350	0.866894	160.916	-9197.83
234	353	0.877897	161.687	-8887.94
235	356	0.892733	162.483	-8570.12
236	358	0.903992	163.301	-8246.49
237	360	0.919183	164.146	-7915.59
238	360	0.930718	165.012	-7580.53
239	360	0.942375	165.9	-7241.28
240	360	0.958125	166.818	-6896.35
241	360	0.970094	167.759	-6547.12
242	360	0.986272	168.732	-6192.06
243	362	0.998575	169.729	-5830.57
244	363	1.01522	170.76	-5462.05
245	364	1.02789	171.816	-5087.9
246	364	1.04505	172.908	-4707.5
247	365	1.05812	174.028	-4321.28
248	366	1.07584	175.185	-3927.53
249	367	1.08935	176.372	-3527.74
250	368	1.10768	177.599	-3120.11
251	368	1.12168	178.857	-2707.33
252	370	1.1359	180.147	-2287.05
253	370	1.15522	181.482	-1859.62
254	370	1.17	182.851	-1426.72
255	370	1.19012	184.267	-986.374
256	375	1.20553	185.72	-534.302
257	376	1.22653	187.225	-73.127
258	380	1.24264	188.769	399.077
259	380	1.26464	190.368	879.641
260	380	1.28155	192.011	1366.63
261	383	1.30469	193.713	1866.32
262	384	1.32251	195.462	2374.17
263	384	1.34694	197.276	2891.39
264	384	1.36581	199.142	3415.86
265	384	1.38517	201.06	3947.77
266	384	1.41183	203.054	4489.91
267	388	1.4325	205.106	5045.72
268	389	1.46106	207.24	5614.07
269	390	1.48328	209.44	6192.55
270	390	1.5141	211.733	6783.05
271	394	1.5382	214.099	7389.1
272	395	1.57179	216.57	8009.96
273	395.4	1.59819	219.124	8641.89
274	398	1.63524	221.798	9292.71
275	400	1.66456	224.568	9958.53

276	400	1.70604	227.479	10641
277	409	1.7392	230.504	11352.3
278	430	1.77438	233.652	12115.3
279	440	1.82501	236.983	12918.3
280	450	1.86629	240.466	13758.1
281	473	1.92684	244.179	14669.5
282	480	1.97737	248.089	15618.6
283	525	2.05375	252.307	16696.9
284	542	2.12007	256.801	17845.9
285	549	2.22621	261.757	19068.1
286	550	2.32634	267.169	20347.6
287	585	2.51213	273.48	21817.2
288	619	2.74777	281.03	23518.1

Data Set Standard Deviation = 85.2428
Numerator = 5.531e+008
Denominator = 5.86071e+008
W Statistic = 0.943742 = 5.531e+008 / 5.86071e+008

5% Critical value of 0.976 exceeds 0.943742
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.943742
Evidence of non-normality at 99% level of significance

Concentrations (ppb)

Parameter: Antimony

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 55
Total Non-Detect: 55
Percent Non-Detects: 100%
Total Background Measurements: 11
There is 1 background location

Loc.	Meas.	ND	Date	Conc.	Original
MW#93-1	11	11 (100%)	5/24/2018	ND<0.01	ND<0.01
			6/19/2018	ND<0.01	ND<0.01
			7/19/2018	ND<0.01	ND<0.01
			8/22/2018	ND<0.01	ND<0.01
			9/19/2018	ND<0.01	ND<0.01
			10/18/2018	ND<0.01	ND<0.01
			11/20/2018	ND<0.01	ND<0.01
			12/20/2018	ND<0.01	ND<0.01
			11/21/2019	ND<0.01	ND<0.01
			6/25/2020	ND<0.005	ND<0.005
			11/17/2020	ND<0.005	ND<0.005

There are 4 compliance locations

Loc.	Meas.	ND	Date	Conc.	Original
MW#03-1	11	11 (100%)	5/24/2018	ND<0.01	ND<0.01
			6/19/2018	ND<0.01	ND<0.01
			7/19/2018	ND<0.01	ND<0.01
			8/22/2018	ND<0.01	ND<0.01
			10/18/2018	ND<0.01	ND<0.01
			11/20/2018	ND<0.01	ND<0.01
			12/20/2018	ND<0.01	ND<0.01
			3/26/2019	ND<0.01	ND<0.01
			11/21/2019	ND<0.002	ND<0.002
			6/25/2020	ND<0.005	ND<0.005
			11/17/2020	ND<0.005	ND<0.005
MW#03-2	11	11 (100%)	5/24/2018	ND<0.01	ND<0.01
			6/19/2018	ND<0.01	ND<0.01
			7/19/2018	ND<0.01	ND<0.01
			8/22/2018	ND<0.01	ND<0.01
			9/19/2018	ND<0.01	ND<0.01
			10/18/2018	ND<0.01	ND<0.01
			11/20/2018	ND<0.01	ND<0.01
			12/20/2018	ND<0.01	ND<0.01
			11/21/2019	ND<0.002	ND<0.002
			6/25/2020	ND<0.005	ND<0.005
			11/17/2020	ND<0.005	ND<0.005
MW#93-2	11	11 (100%)	5/24/2018	ND<0.01	ND<0.01
			6/19/2018	ND<0.01	ND<0.01
			7/19/2018	ND<0.01	ND<0.01
			8/22/2018	ND<0.01	ND<0.01
			9/19/2018	ND<0.01	ND<0.01

			10/18/2018	ND<0.01	ND<0.01
			11/20/2018	ND<0.01	ND<0.01
			12/20/2018	ND<0.01	ND<0.01
			11/21/2019	ND<0.002	ND<0.002
			6/25/2020	ND<0.005	ND<0.005
			11/16/2020	ND<0.005	ND<0.005
MW#93-3	11	11 (100%)	5/24/2018	ND<0.01	ND<0.01
			6/19/2018	ND<0.01	ND<0.01
			7/19/2018	ND<0.01	ND<0.01
			8/22/2018	ND<0.01	ND<0.01
			9/19/2018	ND<0.01	ND<0.01
			10/18/2018	ND<0.01	ND<0.01
			11/20/2018	ND<0.01	ND<0.01
			12/20/2018	ND<0.01	ND<0.01
			11/21/2019	ND<0.002	ND<0.002
			6/25/2020	ND<0.005	ND<0.005
			11/16/2020	ND<0.005	ND<0.005

There are 0 unused locations

Loc.	Meas.	ND	Date	Conc.	Original

Non-Parametric Prediction Interval

Inter-Well Comparison

Parameter: Antimony

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 100%
Number of comparisons = 4
Future Samples (k) = 4
Recent Dates = 1
Background Measurements (n) = 11
Maximum Background Value = 0.01
Confidence Level = 73.3%
False Positive Rate = 26.7%

Location	Date	Count	Mean	Significant
MW#03-1	11/17/2020	1	0.005	FALSE
MW#03-2	11/17/2020	1	0.005	FALSE
MW#93-2	11/16/2020	1	0.005	FALSE
MW#93-3	11/16/2020	1	0.005	FALSE

Shapiro-Francia Test of Normality

Parameter: Antimony

All Locations

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Number of Measurements = 55

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	0.002	-2.12007	4.49469	-0.00424014
2	0.002	-1.81191	7.77772	-0.00786396
3	0.002	-1.61644	10.3906	-0.0110968
4	0.002	-1.46838	12.5467	-0.0140336
5	0.005	-1.34694	14.361	-0.0207683
6	0.005	-1.24264	15.9051	-0.0269815
7	0.005	-1.15035	17.2284	-0.0327333
8	0.005	-1.07138	18.3763	-0.0380901
9	0.005	-0.994457	19.3652	-0.0430624
10	0.005	-0.923014	20.2172	-0.0476775
11	0.005	-0.855996	20.9499	-0.0519575
12	0.005	-0.792618	21.5782	-0.0559206
13	0.005	-0.732275	22.1144	-0.059582
14	0.005	-0.67449	22.5693	-0.0629544
15	0.01	-0.621911	22.9561	-0.0691735
16	0.01	-0.568052	23.2788	-0.074854
17	0.01	-0.515791	23.5448	-0.080012
18	0.01	-0.464904	23.761	-0.084661
19	0.01	-0.415193	23.9334	-0.0888129
20	0.01	-0.36649	24.0677	-0.0924778
21	0.01	-0.318639	24.1692	-0.0956642
22	0.01	-0.27411	24.2443	-0.0984053
23	0.01	-0.227545	24.2961	-0.100681
24	0.01	-0.181468	24.329	-0.102495
25	0.01	-0.135774	24.3475	-0.103853
26	0.01	-0.0903606	24.3556	-0.104757
27	0.01	-0.0451348	24.3577	-0.105208
28	0.01	0	24.3577	-0.105208
29	0.01	0.0451348	24.3597	-0.104757
30	0.01	0.0903606	24.3679	-0.103853
31	0.01	0.135774	24.3863	-0.102495
32	0.01	0.181468	24.4192	-0.100681
33	0.01	0.227545	24.471	-0.0984053
34	0.01	0.27411	24.5462	-0.0956642
35	0.01	0.318639	24.6477	-0.0924778
36	0.01	0.36649	24.782	-0.0888129
37	0.01	0.415193	24.9544	-0.084661
38	0.01	0.464904	25.1705	-0.080012
39	0.01	0.515791	25.4366	-0.074854
40	0.01	0.568052	25.7593	-0.0691735
41	0.01	0.621911	26.146	-0.0629544
42	0.01	0.67449	26.601	-0.0562095
43	0.01	0.732275	27.1372	-0.0488867
44	0.01	0.792618	27.7654	-0.0409606
45	0.01	0.855996	28.4982	-0.0324006
46	0.01	0.923014	29.3501	-0.0231705
47	0.01	0.994457	30.3391	-0.0132259

48	0.01	1.07138	31.4869	-0.00251211
49	0.01	1.15035	32.8102	0.00899138
50	0.01	1.24264	34.3544	0.0214178
51	0.01	1.34694	36.1686	0.0348872
52	0.01	1.46838	38.3248	0.049571
53	0.01	1.61644	40.9376	0.0657354
54	0.01	1.81191	44.2207	0.0838545
55	0.01	2.12007	48.7154	0.105055

Data Set Standard Deviation = 0.00266578
Numerator = 0.0110366
Denominator = 0.0186943
W Statistic = 0.590372 = 0.0110366 / 0.0186943

5% Critical value of 0.958 exceeds 0.590372
Evidence of non-normality at 95% level of significance

1% Critical value of 0.94 exceeds 0.590372
Evidence of non-normality at 99% level of significance

Concentrations (ppb)

Parameter: Arsenic

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 178
Total Non-Detect: 131
Percent Non-Detects: 73.5955%
Total Background Measurements: 36
There is 1 background location

Loc.	Meas.	ND	Date	Conc.	Original
MW#93-1	36	31 (86.1111%)	6/12/2007	0.0109	0.0109
			12/17/2007	ND<0.005	ND<0.005
			6/11/2008	ND<0.005	ND<0.005
			12/3/2008	ND<0.005	ND<0.005
			6/17/2009	ND<0.005	ND<0.005
			12/9/2009	ND<0.005	ND<0.005
			6/17/2010	ND<0.005	ND<0.005
			12/22/2010	ND<0.005	ND<0.005
			6/29/2011	ND<0.005	ND<0.005
			12/7/2011	ND<0.005	ND<0.005
			6/6/2012	ND<0.005	ND<0.005
			12/12/2012	0.0068	0.0068
			6/19/2013	ND<0.005	ND<0.005
			12/11/2013	ND<0.005	ND<0.005
			6/11/2014	ND<0.005	ND<0.005
			12/3/2014	ND<0.005	ND<0.005
			6/17/2015	ND<0.005	ND<0.005
			12/1/2015	ND<0.005	ND<0.005
			6/22/2016	ND<0	ND<0
			12/20/2016	ND<0.0005	ND<0.0005
			6/6/2017	ND<0.005	ND<0.005
			11/7/2017	ND<0.005	ND<0.005
			2/27/2018	0.006	0.006
			5/24/2018	ND<0.005	ND<0.005
			6/19/2018	ND<0.005	ND<0.005
			7/19/2018	ND<0.005	ND<0.005
			8/22/2018	ND<0.005	ND<0.005
			9/19/2018	ND<0.005	ND<0.005
			9/27/2018	ND<0.005	ND<0.005
			10/18/2018	ND<0.005	ND<0.005
			11/20/2018	ND<0.005	ND<0.005
			12/20/2018	ND<0.005	ND<0.005
			5/7/2019	ND<0.005	ND<0.005
			11/21/2019	ND<0.001	ND<0.001
			6/25/2020	0.000405	0.000405
			11/17/2020	0.000336	0.000336

There are 4 compliance locations

Loc.	Meas.	ND	Date	Conc.	Original
MW#03-1	34	29 (85.2941%)	6/12/2007	ND<0.005	ND<0.005
			12/17/2007	ND<0.005	ND<0.005
			6/11/2008	ND<0.005	ND<0.005
			12/3/2008	ND<0.005	ND<0.005

			6/17/2009	ND<0.005	ND<0.005
			12/9/2009	ND<0.005	ND<0.005
			6/17/2010	ND<0.005	ND<0.005
			12/22/2010	ND<0.005	ND<0.005
			6/29/2011	ND<0.005	ND<0.005
			12/7/2011	ND<0.005	ND<0.005
			6/6/2012	ND<0.005	ND<0.005
			6/19/2013	0.008	0.008
			12/11/2013	ND<0.005	ND<0.005
			6/11/2014	ND<0.005	ND<0.005
			12/3/2014	ND<0.005	ND<0.005
			6/17/2015	ND<0.005	ND<0.005
			12/1/2015	ND<0.005	ND<0.005
			6/22/2016	ND<0	ND<0
			12/20/2016	ND<0.0005	ND<0.0005
			6/6/2017	ND<0.005	ND<0.005
			11/7/2017	ND<0.005	ND<0.005
			2/27/2018	ND<0.005	ND<0.005
			5/24/2018	ND<0.005	ND<0.005
			6/19/2018	ND<0.005	ND<0.005
			7/19/2018	0.0445	0.0445
			8/22/2018	0.123	0.123
			10/18/2018	ND<0.005	ND<0.005
			11/20/2018	ND<0.005	ND<0.005
			12/20/2018	ND<0.005	ND<0.005
			3/26/2019	ND<0.005	ND<0.005
			5/7/2019	ND<0.005	ND<0.005
			11/21/2019	ND<0.001	ND<0.001
			6/25/2020	0.000538	0.000538
			11/17/2020	0.000677	0.000677
MW#03-2	36	34 (94.4444%)	6/12/2007	ND<0.005	ND<0.005
			12/17/2007	ND<0.005	ND<0.005
			6/11/2008	ND<0.005	ND<0.005
			12/3/2008	ND<0.005	ND<0.005
			6/17/2009	ND<0.005	ND<0.005
			12/9/2009	ND<0.005	ND<0.005
			6/17/2010	ND<0.005	ND<0.005
			12/22/2010	ND<0.005	ND<0.005
			6/29/2011	ND<0.005	ND<0.005
			12/7/2011	ND<0.005	ND<0.005
			6/6/2012	ND<0.005	ND<0.005
			12/12/2012	ND<0.005	ND<0.005
			6/19/2013	ND<0.005	ND<0.005
			12/11/2013	ND<0.005	ND<0.005
			6/11/2014	ND<0.005	ND<0.005
			12/3/2014	ND<0.005	ND<0.005
			6/17/2015	ND<0.005	ND<0.005
			12/1/2015	ND<0.005	ND<0.005
			6/22/2016	ND<0.005	ND<0.005
			12/20/2016	ND<0.0005	ND<0.0005
			6/6/2017	ND<0.005	ND<0.005
			11/7/2017	ND<0.005	ND<0.005
			2/27/2018	0.008	0.008
			5/24/2018	ND<0.005	ND<0.005
			6/19/2018	ND<0.005	ND<0.005
			7/19/2018	ND<0.005	ND<0.005

			8/22/2018	ND<0.005	ND<0.005
			9/19/2018	ND<0.005	ND<0.005
			9/27/2018	ND<0.005	ND<0.005
			10/18/2018	ND<0.005	ND<0.005
			11/20/2018	ND<0.005	ND<0.005
			12/20/2018	ND<0.005	ND<0.005
			5/7/2019	ND<0.005	ND<0.005
			11/21/2019	ND<0.001	ND<0.001
			6/25/2020	0.000329	0.000329
			11/17/2020	ND<0.001	ND<0.001
MW#93-2	36	3 (8.33333%)	6/12/2007	0.0343	0.0343
			12/17/2007	0.0603	0.0603
			6/11/2008	0.051	0.051
			12/3/2008	0.033	0.033
			6/17/2009	0.0525	0.0525
			12/9/2009	0.0635	0.0635
			6/17/2010	0.0179	0.0179
			12/22/2010	0.0215	0.0215
			6/29/2011	0.061	0.061
			12/7/2011	ND<0.005	ND<0.005
			6/6/2012	0.0098	0.0098
			12/12/2012	0.0562	0.0562
			6/19/2013	ND<0.005	ND<0.005
			12/11/2013	0.0353	0.0353
			6/11/2014	0.0197	0.0197
			12/3/2014	0.0274	0.0274
			6/17/2015	ND<0.005	ND<0.005
			12/1/2015	0.03	0.03
			6/22/2016	0.047	0.047
			12/20/2016	0.06	0.06
			6/6/2017	0.038	0.038
			11/7/2017	0.028	0.028
			2/27/2018	0.024	0.024
			5/24/2018	0.0292	0.0292
			6/19/2018	0.0274	0.0274
			7/19/2018	0.0367	0.0367
			8/22/2018	0.0333	0.0333
			9/19/2018	0.0344	0.0344
			9/27/2018	0.0389	0.0389
			10/18/2018	0.0378	0.0378
			11/20/2018	0.0313	0.0313
			12/20/2018	0.0285	0.0285
			5/7/2019	0.0259	0.0259
			11/21/2019	0.0197	0.0197
			6/25/2020	0.0176	0.0176
			11/16/2020	0.0204	0.0204
MW#93-3	36	34 (94.4444%)	6/12/2007	ND<0.005	ND<0.005
			12/17/2007	ND<0.005	ND<0.005
			6/11/2008	ND<0.005	ND<0.005
			12/3/2008	ND<0.005	ND<0.005
			6/17/2009	ND<0.005	ND<0.005
			12/9/2009	ND<0.005	ND<0.005
			6/17/2010	ND<0.005	ND<0.005
			12/22/2010	ND<0.005	ND<0.005
			6/29/2011	ND<0.005	ND<0.005

12/7/2011	ND<0.005	ND<0.005
6/6/2012	ND<0.005	ND<0.005
12/12/2012	ND<0.005	ND<0.005
6/19/2013	ND<0.005	ND<0.005
12/11/2013	ND<0.005	ND<0.005
6/11/2014	ND<0.005	ND<0.005
12/3/2014	ND<0.005	ND<0.005
6/17/2015	ND<0.005	ND<0.005
12/1/2015	ND<0.005	ND<0.005
6/22/2016	ND<0.005	ND<0.005
12/20/2016	ND<0.0005	ND<0.0005
6/6/2017	ND<0.005	ND<0.005
11/7/2017	ND<0.005	ND<0.005
2/27/2018	ND<0.005	ND<0.005
5/24/2018	ND<0.005	ND<0.005
6/19/2018	ND<0.005	ND<0.005
7/19/2018	ND<0.005	ND<0.005
8/22/2018	ND<0.005	ND<0.005
9/19/2018	ND<0.005	ND<0.005
9/27/2018	ND<0.005	ND<0.005
10/18/2018	ND<0.005	ND<0.005
11/20/2018	ND<0.005	ND<0.005
12/20/2018	ND<0.005	ND<0.005
5/7/2019	ND<0.005	ND<0.005
11/21/2019	ND<0.001	ND<0.001
6/25/2020	0.000572	0.000572
11/16/2020	0.00059	0.00059

There are 0 unused locations

Loc.	Meas.	ND	Date	Conc.	Original

Non-Parametric Prediction Interval

Inter-Well Comparison

Parameter: Arsenic

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 73.5955%
Number of comparisons = 4
Future Samples (k) = 4
Recent Dates = 1
Background Measurements (n) = 36
Maximum Background Value = 0.0109
Confidence Level = 90%
False Positive Rate = 10%

Location	Date	Count	Mean	Significant
MW#03-1	11/17/2020	1	0.000677	FALSE
MW#03-2	11/17/2020	1	0.001	FALSE
MW#93-2	**11/16/2020**	**1**	**0.0204**	**TRUE**
MW#93-3	11/16/2020	1	0.00059	FALSE

Non-Parametric Prediction Interval

Intra-Well Comparison for MW#93-2

Parameter: Arsenic

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 8.57143%
Future Samples (k) = 1
Recent Dates = 1
Baseline Measurements (n) = 35
Maximum Baseline Concentration = 0.0635
Confidence Level = 97.2%
False Positive Rate = 2.8%

Baseline Measurements	Date	Value
	6/12/2007	0.0343
	12/17/2007	0.0603
	6/11/2008	0.051
	12/3/2008	0.033
	6/17/2009	0.0525
	12/9/2009	0.0635
	6/17/2010	0.0179
	12/22/2010	0.0215
	6/29/2011	0.061
	12/7/2011	ND<0.005
	6/6/2012	0.0098
	12/12/2012	0.0562
	6/19/2013	ND<0.005
	12/11/2013	0.0353
	6/11/2014	0.0197
	12/3/2014	0.0274
	6/17/2015	ND<0.005
	12/1/2015	0.03
	6/22/2016	0.047
	12/20/2016	0.06
	6/6/2017	0.038
	11/7/2017	0.028
	2/27/2018	0.024
	5/24/2018	0.0292
	6/19/2018	0.0274
	7/19/2018	0.0367
	8/22/2018	0.0333
	9/19/2018	0.0344
	9/27/2018	0.0389
	10/18/2018	0.0378
	11/20/2018	0.0313
	12/20/2018	0.0285
	5/7/2019	0.0259
	11/21/2019	0.0197
	6/25/2020	0.0176

Date	Count	Mean	Significant
11/16/2020	1	0.0204	FALSE

Shapiro-Francia Test of Normality

Parameter: Arsenic

All Locations

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Number of Measurements = 178

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	0	-2.57583	6.63492	0
2	0	-2.29036	11.8807	0
3	0.000329	-2.14441	16.4792	-0.00070551
4	0.000336	-2.01409	20.5357	-0.00138225
5	0.000405	-1.92684	24.2484	-0.00216261
6	0.0005	-1.83843	27.6282	-0.00308183
7	0.0005	-1.76241	30.7343	-0.00396303
8	0.0005	-1.70604	33.6449	-0.00481605
9	0.0005	-1.64485	36.3505	-0.00563848
10	0.000538	-1.59819	38.9047	-0.00649831
11	0.000572	-1.54643	41.2961	-0.00738287
12	0.00059	-1.49852	43.5417	-0.00826699
13	0.000677	-1.46106	45.6764	-0.00925613
14	0.001	-1.41865	47.6889	-0.0106748
15	0.001	-1.38517	49.6076	-0.01206
16	0.001	-1.34694	51.4219	-0.0134069
17	0.001	-1.31652	53.1551	-0.0147234
18	0.001	-1.28155	54.7975	-0.016005
19	0.005	-1.24809	56.3552	-0.0222454
20	0.005	-1.22123	57.8466	-0.0283515
21	0.005	-1.19012	59.263	-0.0343021
22	0.005	-1.16505	60.6203	-0.0401274
23	0.005	-1.1359	61.9106	-0.0458068
24	0.005	-1.10768	63.1375	-0.0513452
25	0.005	-1.08482	64.3144	-0.0567694
26	0.005	-1.05812	65.434	-0.06206
27	0.005	-1.03643	66.5082	-0.0672421
28	0.005	-1.01104	67.5304	-0.0722973
29	0.005	-0.986272	68.5031	-0.0772287
30	0.005	-0.966088	69.4364	-0.0820591
31	0.005	-0.942375	70.3245	-0.086771
32	0.005	-0.923014	71.1765	-0.0913861
33	0.005	-0.900227	71.9869	-0.0958872
34	0.005	-0.881587	72.7641	-0.100295
35	0.005	-0.859618	73.503	-0.104593
36	0.005	-0.838054	74.2054	-0.108783
37	0.005	-0.820379	74.8784	-0.112885
38	0.005	-0.7995	75.5176	-0.116883
39	0.005	-0.782366	76.1297	-0.120795
40	0.005	-0.7621	76.7105	-0.124605
41	0.005	-0.742143	77.2612	-0.128316
42	0.005	-0.725736	77.7879	-0.131945
43	0.005	-0.706302	78.2868	-0.135476
44	0.005	-0.690309	78.7633	-0.138928
45	0.005	-0.671346	79.214	-0.142284
46	0.005	-0.655726	79.644	-0.145563
47	0.005	-0.637192	80.05	-0.148749

48	0.005	-0.618872	80.433	-0.151843
49	0.005	-0.603765	80.7976	-0.154862
50	0.005	-0.585815	81.1407	-0.157791
51	0.005	-0.570999	81.4668	-0.160646
52	0.005	-0.553384	81.773	-0.163413
53	0.005	-0.53594	82.0602	-0.166093
54	0.005	-0.521527	82.3322	-0.1687
55	0.005	-0.504372	82.5866	-0.171222
56	0.005	-0.490189	82.8269	-0.173673
57	0.005	-0.473299	83.0509	-0.17604
58	0.005	-0.456542	83.2593	-0.178322
59	0.005	-0.442676	83.4553	-0.180536
60	0.005	-0.426148	83.6369	-0.182667
61	0.005	-0.412463	83.807	-0.184729
62	0.005	-0.396142	83.964	-0.18671
63	0.005	-0.382622	84.1104	-0.188623
64	0.005	-0.36649	84.2447	-0.190455
65	0.005	-0.350451	84.3675	-0.192207
66	0.005	-0.337155	84.4812	-0.193893
67	0.005	-0.321278	84.5844	-0.1955
68	0.005	-0.308108	84.6793	-0.19704
69	0.005	-0.292375	84.7648	-0.198502
70	0.005	-0.276714	84.8414	-0.199886
71	0.005	-0.263715	84.9109	-0.201204
72	0.005	-0.248174	84.9725	-0.202445
73	0.005	-0.235269	85.0279	-0.203621
74	0.005	-0.219834	85.0762	-0.204721
75	0.005	-0.207012	85.119	-0.205756
76	0.005	-0.191671	85.1558	-0.206714
77	0.005	-0.176374	85.1869	-0.207596
78	0.005	-0.163659	85.2137	-0.208414
79	0.005	-0.148434	85.2357	-0.209156
80	0.005	-0.135774	85.2541	-0.209835
81	0.005	-0.12061	85.2687	-0.210438
82	0.005	-0.105474	85.2798	-0.210966
83	0.005	-0.0928787	85.2884	-0.21143
84	0.005	-0.0777834	85.2945	-0.211819
85	0.005	-0.0652187	85.2987	-0.212145
86	0.005	-0.0501541	85.3013	-0.212396
87	0.005	-0.0350997	85.3025	-0.212571
88	0.005	-0.0225612	85.303	-0.212684
89	0.005	-0.00751925	85.3031	-0.212722
90	0.005	0.00751925	85.3031	-0.212684
91	0.005	0.0225612	85.3036	-0.212571
92	0.005	0.0350997	85.3049	-0.212396
93	0.005	0.0501541	85.3074	-0.212145
94	0.005	0.0652187	85.3116	-0.211819
95	0.005	0.0777834	85.3177	-0.21143
96	0.005	0.0928787	85.3263	-0.210966
97	0.005	0.105474	85.3374	-0.210438
98	0.005	0.12061	85.352	-0.209835
99	0.005	0.135774	85.3704	-0.209156
100	0.005	0.148434	85.3924	-0.208414
101	0.005	0.163659	85.4192	-0.207596
102	0.005	0.176374	85.4503	-0.206714
103	0.005	0.191671	85.4871	-0.205756
104	0.005	0.207012	85.5299	-0.204721

105	0.005	0.219834	85.5782	-0.203621
106	0.005	0.235269	85.6336	-0.202445
107	0.005	0.248174	85.6952	-0.201204
108	0.005	0.263715	85.7647	-0.199886
109	0.005	0.276714	85.8413	-0.198502
110	0.005	0.292375	85.9268	-0.19704
111	0.005	0.308108	86.0217	-0.1955
112	0.005	0.321278	86.1249	-0.193893
113	0.005	0.337155	86.2386	-0.192207
114	0.005	0.350451	86.3614	-0.190455
115	0.005	0.36649	86.4957	-0.188623
116	0.005	0.382622	86.6421	-0.18671
117	0.005	0.396142	86.7991	-0.184729
118	0.005	0.412463	86.9692	-0.182667
119	0.005	0.426148	87.1508	-0.180536
120	0.005	0.442676	87.3468	-0.178322
121	0.005	0.456542	87.5552	-0.17604
122	0.005	0.473299	87.7792	-0.173673
123	0.005	0.490189	88.0195	-0.171222
124	0.005	0.504372	88.2739	-0.1687
125	0.005	0.521527	88.5459	-0.166093
126	0.005	0.53594	88.8331	-0.163413
127	0.005	0.553384	89.1393	-0.160646
128	0.005	0.570999	89.4654	-0.157791
129	0.005	0.585815	89.8086	-0.154862
130	0.005	0.603765	90.1731	-0.151843
131	0.005	0.618872	90.5561	-0.148749
132	0.005	0.637192	90.9621	-0.145563
133	0.005	0.655726	91.3921	-0.142284
134	0.005	0.671346	91.8428	-0.138928
135	0.005	0.690309	92.3193	-0.135476
136	0.005	0.706302	92.8182	-0.131945
137	0.005	0.725736	93.3449	-0.128316
138	0.005	0.742143	93.8956	-0.124605
139	0.006	0.7621	94.4764	-0.120033
140	0.0068	0.782366	95.0885	-0.114713
141	0.008	0.7995	95.7277	-0.108317
142	0.008	0.820379	96.4008	-0.101753
143	0.0098	0.838054	97.1031	-0.0935406
144	0.0109	0.859618	97.842	-0.0841707
145	0.0176	0.881587	98.6192	-0.0686548
146	0.0179	0.900227	99.4296	-0.0525407
147	0.0197	0.923014	100.282	-0.0343573
148	0.0197	0.942375	101.17	-0.0157926
149	0.0204	0.966088	102.103	0.00391564
150	0.0215	0.986272	103.076	0.0251205
151	0.024	1.01104	104.098	0.0493853
152	0.0259	1.03643	105.172	0.0762289
153	0.0274	1.05812	106.292	0.105221
154	0.0274	1.08482	107.469	0.134946
155	0.028	1.10768	108.696	0.165961
156	0.0285	1.1359	109.986	0.198334
157	0.0292	1.16505	111.343	0.232353
158	0.03	1.19012	112.76	0.268057
159	0.0313	1.22123	114.251	0.306281
160	0.033	1.24809	115.809	0.347468
161	0.0333	1.28155	117.451	0.390144

162	0.0343	1.31652	119.184	0.4353
163	0.0344	1.34694	120.998	0.481635
164	0.0353	1.38517	122.917	0.530531
165	0.0367	1.41865	124.93	0.582596
166	0.0378	1.46106	127.064	0.637824
167	0.038	1.49852	129.31	0.694768
168	0.0389	1.54643	131.701	0.754924
169	0.0445	1.59819	134.256	0.826043
170	0.047	1.64485	136.961	0.903351
171	0.051	1.70604	139.872	0.99036
172	0.0525	1.76241	142.978	1.08289
173	0.0562	1.83843	146.358	1.18621
174	0.06	1.92684	150.07	1.30182
175	0.0603	2.01409	154.127	1.42327
176	0.061	2.14441	158.725	1.55407
177	0.0635	2.29036	163.971	1.69951
178	0.123	2.57583	170.606	2.01634

Data Set Standard Deviation = 0.0160104
Numerator = 4.06563
Denominator = 7.74052
W Statistic = 0.52524 = 4.06563 / 7.74052

5% Critical value of 0.976 exceeds 0.52524
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.52524
Evidence of non-normality at 99% level of significance

Non-Parametric Prediction Interval

Inter-Well Comparison

Parameter: Barium

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 3.63636%
Number of comparisons = 4
Future Samples (k) = 4
Recent Dates = 1
Background Measurements (n) = 11
Maximum Background Value = 0.0405
Confidence Level = 73.3%
False Positive Rate = 26.7%

Location	Date	Count	Mean	Significant
MW#03-1	**11/17/2020**	**1**	**0.19**	**TRUE**
MW#03-2	11/17/2020	1	0.0395	FALSE
MW#93-2	**11/16/2020**	**1**	**0.151**	**TRUE**
MW#93-3	**11/16/2020**	**1**	**0.0604**	**TRUE**

Non-Parametric Prediction Interval

Intra-Well Comparison for MW#03-1

Parameter: Barium

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 0%
Future Samples (k) = 1
Recent Dates = 1
Baseline Measurements (n) = 10
Maximum Baseline Concentration = 2
Confidence Level = 90.9%
False Positive Rate = 9.1%

Baseline Measurements	Date	Value
	5/24/2018	0.0519
	6/19/2018	0.0752
	7/19/2018	0.671
	8/22/2018	2
	10/18/2018	0.184
	11/20/2018	0.0663
	12/20/2018	0.0375
	3/26/2019	0.0384
	11/21/2019	0.0449
	6/25/2020	0.0776

Date	Count	Mean	Significant
11/17/2020	1	0.19	FALSE

Non-Parametric Prediction Interval

Intra-Well Comparison for MW#93-2

Parameter: Barium

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 0%
Future Samples (k) = 1
Recent Dates = 1
Baseline Measurements (n) = 10
Maximum Baseline Concentration = 0.147
Confidence Level = 90.9%
False Positive Rate = 9.1%

Baseline Measurements	Date	Value
	5/24/2018	0.0604
	6/19/2018	0.0538
	7/19/2018	0.0583
	8/22/2018	0.0612
	9/19/2018	0.0641
	10/18/2018	0.0669
	11/20/2018	0.069
	12/20/2018	0.0651
	11/21/2019	0.1
	6/25/2020	0.147

Date	Count	Mean	Significant
11/16/2020	1	0.151	TRUE

Non-Parametric Prediction Interval

Intra-Well Comparison for MW#93-3

Parameter: Barium

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 10%
Future Samples (k) = 1
Recent Dates = 1
Baseline Measurements (n) = 10
Maximum Baseline Concentration = 0.259
Confidence Level = 90.9%
False Positive Rate = 9.1%

Baseline Measurements	Date	Value
	5/24/2018	0.214
	6/19/2018	0.201
	7/19/2018	0.259
	8/22/2018	0.184
	9/19/2018	0.228
	10/18/2018	0.241
	11/20/2018	ND<0.01
	12/20/2018	0.259
	11/21/2019	0.116
	6/25/2020	0.0604

Date	Count	Mean	Significant
11/16/2020	1	0.0604	FALSE

Levene's Test for Equal of Variance

Parameter: Barium

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Overall Mean = 0.097601
Overall Std Dev = 0.237274
Overall Total = 5.36805
SS Groups = 1.07187
SS Total = 3.04015

ANOVA Table

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Squares	F
Between Groups	1.07187	4	0.267966	6.8071
Error (within groups)	1.96829	50	0.0393657	
Totals	3.04015	54		

95% F-Statistic = 2.52521

6.8071 exceeds 2.52521; assumption of equal variance should be rejected

Group: MW#93-1	Sample	Residual
	5/24/2018	0.000581818
	6/19/2018	0.00128182
	7/19/2018	0.00498182
	8/22/2018	0.00998182
	9/19/2018	0.00151818
	10/18/2018	0.00388182
	11/20/2018	0.00151818
	12/20/2018	0.00768182
	11/21/2019	0.00691818
	6/25/2020	0.00311818
	11/17/2020	0.0153182

Group: MW#03-1	Date	Residual
	5/24/2018	0.260536
	6/19/2018	0.237236
	7/19/2018	0.358564
	8/22/2018	1.68756
	10/18/2018	0.128436
	11/20/2018	0.246136
	12/20/2018	0.274936
	3/26/2019	0.274036
	11/21/2019	0.267536
	6/25/2020	0.234836
	11/17/2020	0.122436

Group: MW#03-2	Date	Residual
	5/24/2018	0.0119455
	6/19/2018	0.000854545
	7/19/2018	0.00404545
	8/22/2018	0.000945455

9/19/2018	0.00474545
10/18/2018	0.00634545
11/20/2018	0.0299545
12/20/2018	0.00434545
11/21/2019	0.00404545
6/25/2020	0.00515455
11/17/2020	0.000454545

Group: MW#93-2	Date	Residual
	5/24/2018	0.0211273
	6/19/2018	0.0277273
	7/19/2018	0.0232273
	8/22/2018	0.0203273
	9/19/2018	0.0174273
	10/18/2018	0.0146273
	11/20/2018	0.0125273
	12/20/2018	0.0164273
	11/21/2019	0.0184727
	6/25/2020	0.0654727
	11/16/2020	0.0694727

Group: MW#93-3	Date	Residual
	5/24/2018	0.0473818
	6/19/2018	0.0343818
	7/19/2018	0.0923818
	8/22/2018	0.0173818
	9/19/2018	0.0613818
	10/18/2018	0.0743818
	11/20/2018	0.156618
	12/20/2018	0.0923818
	11/21/2019	0.0506182
	6/25/2020	0.106218
	11/16/2020	0.106218

Concentrations (ppb)

Parameter: Barium

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 55
Total Non-Detect: 2
Percent Non-Detects: 3.63636%
Total Background Measurements: 11
There is 1 background location

Loc.	Meas.	ND	Date	Conc.	Original
MW#93-1	11	0 (0%)	5/24/2018	0.0246	0.0246
			6/19/2018	0.0239	0.0239
			7/19/2018	0.0202	0.0202
			8/22/2018	0.0152	0.0152
			9/19/2018	0.0267	0.0267
			10/18/2018	0.0213	0.0213
			11/20/2018	0.0267	0.0267
			12/20/2018	0.0175	0.0175
			11/21/2019	0.0321	0.0321
			6/25/2020	0.0283	0.0283
			11/17/2020	0.0405	0.0405

There are 4 compliance locations

Loc.	Meas.	ND	Date	Conc.	Original
MW#03-1	11	0 (0%)	5/24/2018	0.0519	0.0519
			6/19/2018	0.0752	0.0752
			7/19/2018	0.671	0.671
			8/22/2018	2	2
			10/18/2018	0.184	0.184
			11/20/2018	0.0663	0.0663
			12/20/2018	0.0375	0.0375
			3/26/2019	0.0384	0.0384
			11/21/2019	0.0449	0.0449
			6/25/2020	0.0776	0.0776
			11/17/2020	0.19	0.19
MW#03-2	11	1 (9.09091%)	5/24/2018	0.0519	0.0519
			6/19/2018	0.0391	0.0391
			7/19/2018	0.044	0.044
			8/22/2018	0.0409	0.0409
			9/19/2018	0.0447	0.0447
			10/18/2018	0.0463	0.0463
			11/20/2018	ND<0.01	ND<0.01
			12/20/2018	0.0443	0.0443
			11/21/2019	0.044	0.044
			6/25/2020	0.0348	0.0348
			11/17/2020	0.0395	0.0395
MW#93-2	11	0 (0%)	5/24/2018	0.0604	0.0604
			6/19/2018	0.0538	0.0538
			7/19/2018	0.0583	0.0583
			8/22/2018	0.0612	0.0612
			9/19/2018	0.0641	0.0641

			10/18/2018	0.0669	0.0669
			11/20/2018	0.069	0.069
			12/20/2018	0.0651	0.0651
			11/21/2019	0.1	0.1
			6/25/2020	0.147	0.147
			11/16/2020	0.151	0.151
MW#93-3	11	1 (9.09091%)	5/24/2018	0.214	0.214
			6/19/2018	0.201	0.201
			7/19/2018	0.259	0.259
			8/22/2018	0.184	0.184
			9/19/2018	0.228	0.228
			10/18/2018	0.241	0.241
			11/20/2018	ND<0.01	ND<0.01
			12/20/2018	0.259	0.259
			11/21/2019	0.116	0.116
			6/25/2020	0.0604	0.0604
			11/16/2020	0.0604	0.0604

There are 0 unused locations

Loc.	Meas.	ND	Date	Conc.	Original

Shapiro-Francia Test of Normality

Parameter: Barium

All Locations

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Number of Measurements = 55

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	0.01	-2.12007	4.49469	-0.0212007
2	0.01	-1.81191	7.77772	-0.0393198
3	0.0152	-1.61644	10.3906	-0.0638896
4	0.0175	-1.46838	12.5467	-0.0895864
5	0.0202	-1.34694	14.361	-0.116795
6	0.0213	-1.24264	15.9051	-0.143263
7	0.0239	-1.15035	17.2284	-0.170756
8	0.0246	-1.07138	18.3763	-0.197112
9	0.0267	-0.994457	19.3652	-0.223664
10	0.0267	-0.923014	20.2172	-0.248309
11	0.0283	-0.855996	20.9499	-0.272533
12	0.0321	-0.792618	21.5782	-0.297976
13	0.0348	-0.732275	22.1144	-0.323459
14	0.0375	-0.67449	22.5693	-0.348753
15	0.0384	-0.621911	22.9561	-0.372634
16	0.0391	-0.568052	23.2788	-0.394845
17	0.0395	-0.515791	23.5448	-0.415219
18	0.0405	-0.464904	23.761	-0.434047
19	0.0409	-0.415193	23.9334	-0.451029
20	0.044	-0.36649	24.0677	-0.467154
21	0.044	-0.318639	24.1692	-0.481175
22	0.0443	-0.27411	24.2443	-0.493318
23	0.0447	-0.227545	24.2961	-0.503489
24	0.0449	-0.181468	24.329	-0.511637
25	0.0463	-0.135774	24.3475	-0.517923
26	0.0519	-0.0903606	24.3556	-0.522613
27	0.0519	-0.0451348	24.3577	-0.524955
28	0.0538	0	24.3577	-0.524955
29	0.0583	0.0451348	24.3597	-0.522324
30	0.0604	0.0903606	24.3679	-0.516866
31	0.0604	0.135774	24.3863	-0.508665
32	0.0604	0.181468	24.4192	-0.497705
33	0.0612	0.227545	24.471	-0.483779
34	0.0641	0.27411	24.5462	-0.466209
35	0.0651	0.318639	24.6477	-0.445465
36	0.0663	0.36649	24.782	-0.421167
37	0.0669	0.415193	24.9544	-0.39339
38	0.069	0.464904	25.1705	-0.361312
39	0.0752	0.515791	25.4366	-0.322525
40	0.0776	0.568052	25.7593	-0.278444
41	0.1	0.621911	26.146	-0.216253
42	0.116	0.67449	26.601	-0.138012
43	0.147	0.732275	27.1372	-0.0303672
44	0.151	0.792618	27.7654	0.0893181
45	0.184	0.855996	28.4982	0.246821
46	0.184	0.923014	29.3501	0.416656
47	0.19	0.994457	30.3391	0.605603

48	0.201	1.07138	31.4869	0.82095
49	0.214	1.15035	32.8102	1.06712
50	0.228	1.24264	34.3544	1.35045
51	0.241	1.34694	36.1686	1.67506
52	0.259	1.46838	38.3248	2.05537
53	0.259	1.61644	40.9376	2.47403
54	0.671	1.81191	44.2207	3.68982
55	2	2.12007	48.7154	7.92996

Data Set Standard Deviation = 0.278206
Numerator = 62.8842
Denominator = 203.608
W Statistic = 0.30885 = 62.8842 / 203.608

5% Critical value of 0.958 exceeds 0.30885
Evidence of non-normality at 95% level of significance

1% Critical value of 0.94 exceeds 0.30885
Evidence of non-normality at 99% level of significance

Concentrations (ppb)

Parameter: Beryllium

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 55
Total Non-Detect: 53
Percent Non-Detects: 96.3636%
Total Background Measurements: 11
There is 1 background location

Loc.	Meas.	ND	Date	Conc.	Original
MW#93-1	11	11 (100%)	5/24/2018	ND<0.01	ND<0.01
			6/19/2018	ND<0.01	ND<0.01
			7/19/2018	ND<0.01	ND<0.01
			8/22/2018	ND<0.01	ND<0.01
			9/19/2018	ND<0.01	ND<0.01
			10/18/2018	ND<0.01	ND<0.01
			11/20/2018	ND<0.01	ND<0.01
			12/20/2018	ND<0.01	ND<0.01
			11/21/2019	ND<0.01	ND<0.01
			6/25/2020	ND<0.001	ND<0.001
			11/17/2020	ND<0.001	ND<0.001

There are 4 compliance locations

Loc.	Meas.	ND	Date	Conc.	Original
MW#03-1	11	9 (81.8182%)	5/24/2018	ND<0.01	ND<0.01
			6/19/2018	ND<0.01	ND<0.01
			7/19/2018	0.0201	0.0201
			8/22/2018	0.0108	0.0108
			10/18/2018	ND<0.01	ND<0.01
			11/20/2018	ND<0.01	ND<0.01
			12/20/2018	ND<0.01	ND<0.01
			3/26/2019	ND<0.01	ND<0.01
			11/21/2019	ND<0.001	ND<0.001
			6/25/2020	ND<0.001	ND<0.001
			11/17/2020	ND<0.001	ND<0.001
MW#03-2	11	11 (100%)	5/24/2018	ND<0.01	ND<0.01
			6/19/2018	ND<0.01	ND<0.01
			7/19/2018	ND<0.01	ND<0.01
			8/22/2018	ND<0.01	ND<0.01
			9/19/2018	ND<0.01	ND<0.01
			10/18/2018	ND<0.01	ND<0.01
			11/20/2018	ND<0.01	ND<0.01
			12/20/2018	ND<0.01	ND<0.01
			11/21/2019	ND<0.001	ND<0.001
			6/25/2020	ND<0.001	ND<0.001
			11/17/2020	ND<0.001	ND<0.001
MW#93-2	11	11 (100%)	5/24/2018	ND<0.01	ND<0.01
			6/19/2018	ND<0.01	ND<0.01
			7/19/2018	ND<0.01	ND<0.01
			8/22/2018	ND<0.01	ND<0.01
			9/19/2018	ND<0.01	ND<0.01

			10/18/2018	ND<0.01	ND<0.01
			11/20/2018	ND<0.01	ND<0.01
			12/20/2018	ND<0.01	ND<0.01
			11/21/2019	ND<0.001	ND<0.001
			6/25/2020	ND<0.001	ND<0.001
			11/16/2020	ND<0.001	ND<0.001
MW#93-3	11	11 (100%)	5/24/2018	ND<0.01	ND<0.01
			6/19/2018	ND<0.01	ND<0.01
			7/19/2018	ND<0.01	ND<0.01
			8/22/2018	ND<0.01	ND<0.01
			9/19/2018	ND<0.01	ND<0.01
			10/18/2018	ND<0.01	ND<0.01
			11/20/2018	ND<0.01	ND<0.01
			12/20/2018	ND<0.01	ND<0.01
			11/21/2019	ND<0.001	ND<0.001
			6/25/2020	ND<0.001	ND<0.001
			11/16/2020	ND<0.001	ND<0.001

There are 0 unused locations

Loc.	Meas.	ND	Date	Conc.	Original

Non-Parametric Prediction Interval

Inter-Well Comparison

Parameter: Beryllium

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 96.3636%
Number of comparisons = 4
Future Samples (k) = 4
Recent Dates = 1
Background Measurements (n) = 11
Maximum Background Value = 0.01
Confidence Level = 73.3%
False Positive Rate = 26.7%

Location	Date	Count	Mean	Significant
MW#03-1	11/17/2020	1	0.001	FALSE
MW#03-2	11/17/2020	1	0.001	FALSE
MW#93-2	11/16/2020	1	0.001	FALSE
MW#93-3	11/16/2020	1	0.001	FALSE

Levene's Test for Equal of Variance

Parameter: Beryllium

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Overall Mean = 0.00349983
Overall Std Dev = 0.00240033
Overall Total = 0.192491
SS Groups = 1.17041e-005
SS Total = 0.000311126

ANOVA Table

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Squares	F
Between Groups	1.17041e-005	4	2.92603e-006	0.488613
Error (within groups)	0.000299422	50	5.98844e-006	
Totals	0.000311126	54		

95% F-Statistic = 2.52521

0.488613 does not exceed 2.52521 indicating equal variance

Group: MW#93-1	Sample	Residual
	5/24/2018	0.00163636
	6/19/2018	0.00163636
	7/19/2018	0.00163636
	8/22/2018	0.00163636
	9/19/2018	0.00163636
	10/18/2018	0.00163636
	11/20/2018	0.00163636
	12/20/2018	0.00163636
	11/21/2019	0.00163636
	6/25/2020	0.00736364
	11/17/2020	0.00736364

Group: MW#03-1	Date	Residual
	5/24/2018	0.00146364
	6/19/2018	0.00146364
	7/19/2018	0.0115636
	8/22/2018	0.00226364
	10/18/2018	0.00146364
	11/20/2018	0.00146364
	12/20/2018	0.00146364
	3/26/2019	0.00146364
	11/21/2019	0.00753636
	6/25/2020	0.00753636
	11/17/2020	0.00753636

Group: MW#03-2	Date	Residual
	5/24/2018	0.00245455
	6/19/2018	0.00245455
	7/19/2018	0.00245455
	8/22/2018	0.00245455

	9/19/2018	0.00245455
	10/18/2018	0.00245455
	11/20/2018	0.00245455
	12/20/2018	0.00245455
	11/21/2019	0.00654545
	6/25/2020	0.00654545
	11/17/2020	0.00654545

Group: MW#93-2	**Date**	**Residual**
	5/24/2018	0.00245455
	6/19/2018	0.00245455
	7/19/2018	0.00245455
	8/22/2018	0.00245455
	9/19/2018	0.00245455
	10/18/2018	0.00245455
	11/20/2018	0.00245455
	12/20/2018	0.00245455
	11/21/2019	0.00654545
	6/25/2020	0.00654545
	11/16/2020	0.00654545

Group: MW#93-3	**Date**	**Residual**
	5/24/2018	0.00245455
	6/19/2018	0.00245455
	7/19/2018	0.00245455
	8/22/2018	0.00245455
	9/19/2018	0.00245455
	10/18/2018	0.00245455
	11/20/2018	0.00245455
	12/20/2018	0.00245455
	11/21/2019	0.00654545
	6/25/2020	0.00654545
	11/16/2020	0.00654545

Shapiro-Francia Test of Normality

Parameter: Beryllium

All Locations

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Number of Measurements = 55

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	0.001	-2.12007	4.49469	-0.00212007
2	0.001	-1.81191	7.77772	-0.00393198
3	0.001	-1.61644	10.3906	-0.00554842
4	0.001	-1.46838	12.5467	-0.0070168
5	0.001	-1.34694	14.361	-0.00836374
6	0.001	-1.24264	15.9051	-0.00960638
7	0.001	-1.15035	17.2284	-0.0107567
8	0.001	-1.07138	18.3763	-0.0118281
9	0.001	-0.994457	19.3652	-0.0128226
10	0.001	-0.923014	20.2172	-0.0137456
11	0.001	-0.855996	20.9499	-0.0146016
12	0.001	-0.792618	21.5782	-0.0153942
13	0.001	-0.732275	22.1144	-0.0161265
14	0.001	-0.67449	22.5693	-0.016801
15	0.01	-0.621911	22.9561	-0.0230201
16	0.01	-0.568052	23.2788	-0.0287006
17	0.01	-0.515791	23.5448	-0.0338585
18	0.01	-0.464904	23.761	-0.0385076
19	0.01	-0.415193	23.9334	-0.0426595
20	0.01	-0.36649	24.0677	-0.0463244
21	0.01	-0.318639	24.1692	-0.0495108
22	0.01	-0.27411	24.2443	-0.0522519
23	0.01	-0.227545	24.2961	-0.0545273
24	0.01	-0.181468	24.329	-0.056342
25	0.01	-0.135774	24.3475	-0.0576998
26	0.01	-0.0903606	24.3556	-0.0586034
27	0.01	-0.0451348	24.3577	-0.0590547
28	0.01	0	24.3577	-0.0590547
29	0.01	0.0451348	24.3597	-0.0586034
30	0.01	0.0903606	24.3679	-0.0576998
31	0.01	0.135774	24.3863	-0.056342
32	0.01	0.181468	24.4192	-0.0545273
33	0.01	0.227545	24.471	-0.0522519
34	0.01	0.27411	24.5462	-0.0495108
35	0.01	0.318639	24.6477	-0.0463244
36	0.01	0.36649	24.782	-0.0426595
37	0.01	0.415193	24.9544	-0.0385076
38	0.01	0.464904	25.1705	-0.0338585
39	0.01	0.515791	25.4366	-0.0287006
40	0.01	0.568052	25.7593	-0.0230201
41	0.01	0.621911	26.146	-0.016801
42	0.01	0.67449	26.601	-0.0100561
43	0.01	0.732275	27.1372	-0.00273331
44	0.01	0.792618	27.7654	0.00519287
45	0.01	0.855996	28.4982	0.0137528
46	0.01	0.923014	29.3501	0.022983
47	0.01	0.994457	30.3391	0.0329275

48	0.01	1.07138	31.4869	0.0436413
49	0.01	1.15035	32.8102	0.0551448
50	0.01	1.24264	34.3544	0.0675712
51	0.01	1.34694	36.1686	0.0810406
52	0.01	1.46838	38.3248	0.0957245
53	0.01	1.61644	40.9376	0.111889
54	0.0108	1.81191	44.2207	0.131457
55	0.0201	2.12007	48.7154	0.174071

Data Set Standard Deviation = 0.00429422
Numerator = 0.0303007
Denominator = 0.0485096
W Statistic = 0.624632 = 0.0303007 / 0.0485096

5% Critical value of 0.958 exceeds 0.624632
Evidence of non-normality at 95% level of significance

1% Critical value of 0.94 exceeds 0.624632
Evidence of non-normality at 99% level of significance

Non-Parametric Prediction Interval

Inter-Well Comparison

Parameter: Boron

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 39.726%
Number of comparisons = 4
Future Samples (k) = 4
Recent Dates = 1
Background Measurements (n) = 15
Maximum Background Value = 0.499
Confidence Level = 78.9%
False Positive Rate = 21.1%

Location	Date	Count	Mean	Significant
MW#03-1	11/17/2020	1	0.2	FALSE
MW#03-2	11/17/2020	1	0.2	FALSE
MW#93-2	**11/16/2020**	**1**	**1.76**	**TRUE**
MW#93-3	11/16/2020	1	0.0762	FALSE

Non-Parametric Prediction Interval

Intra-Well Comparison for MW#93-2

Parameter: Boron

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 0%
Future Samples (k) = 1
Recent Dates = 1
Baseline Measurements (n) = 14
Maximum Baseline Concentration = 2.86
Confidence Level = 93.3%
False Positive Rate = 6.7%

Baseline Measurements	Date	Value
	10/11/2016	2.86
	12/20/2016	2.31
	2/16/2017	2.09
	3/8/2017	2.07
	5/9/2017	1.97
	6/6/2017	1.83
	8/22/2017	2.38
	9/22/2017	2.48
	11/7/2017	0.46
	2/27/2018	0.064
	9/27/2018	2.01
	5/7/2019	1.61
	11/21/2019	1.76
	6/25/2020	1.74

Date	Count	Mean	Significant
11/16/2020	1	1.76	FALSE

Concentrations (ppb)

Parameter: Boron

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 73
Total Non-Detect: 29
Percent Non-Detects: 39.726%
Total Background Measurements: 15
There is 1 background location

Loc.	Meas.	ND	Date	Conc.	Original
MW#93-1	15	0 (0%)	10/11/2016	0.429	0.429
			12/20/2016	0.386	0.386
			2/16/2017	0.341	0.341
			3/8/2017	0.348	0.348
			5/9/2017	0.366	0.366
			6/6/2017	0.371	0.371
			8/22/2017	0.458	0.458
			9/22/2017	0.499	0.499
			11/7/2017	0.46	0.46
			2/27/2018	0.33	0.33
			9/27/2018	0.386	0.386
			5/7/2019	0.178	0.178
			11/21/2019	0.303	0.303
			6/25/2020	0.185	0.185
			11/17/2020	0.211	0.211

There are 4 compliance locations

Loc.	Meas.	ND	Date	Conc.	Original
MW#03-1	14	11 (78.5714%)	10/11/2016	ND<0.025	ND<0.025
			12/20/2016	ND<0.025	ND<0.025
			2/16/2017	ND<0.025	ND<0.025
			3/8/2017	ND<0.025	ND<0.025
			5/9/2017	0.041	0.041
			6/6/2017	ND<0.025	ND<0.025
			8/22/2017	ND<0.025	ND<0.025
			9/22/2017	0.025	0.025
			11/7/2017	ND<0.1	ND<0.1
			2/27/2018	0.05	0.05
			5/7/2019	ND<0.1	ND<0.1
			11/21/2019	ND<0.2	ND<0.2
			6/25/2020	ND<0.2	ND<0.2
			11/17/2020	ND<0.2	ND<0.2
MW#03-2	14	13 (92.8571%)	10/11/2016	ND<0.025	ND<0.025
			12/20/2016	ND<0.025	ND<0.025
			2/16/2017	ND<0.025	ND<0.025
			3/8/2017	ND<0.025	ND<0.025
			5/9/2017	0.032	0.032
			6/6/2017	ND<0.025	ND<0.025
			8/22/2017	ND<0.025	ND<0.025
			9/22/2017	ND<0.025	ND<0.025
			11/7/2017	ND<0.1	ND<0.1
			2/27/2018	ND<0.05	ND<0.05

			5/7/2019	ND<0.1	ND<0.1
			11/21/2019	ND<0.2	ND<0.2
			6/25/2020	ND<0.2	ND<0.2
			11/17/2020	ND<0.2	ND<0.2
MW#93-2	15	0 (0%)	10/11/2016	2.86	2.86
			12/20/2016	2.31	2.31
			2/16/2017	2.09	2.09
			3/8/2017	2.07	2.07
			5/9/2017	1.97	1.97
			6/6/2017	1.83	1.83
			8/22/2017	2.38	2.38
			9/22/2017	2.48	2.48
			11/7/2017	0.46	0.46
			2/27/2018	0.064	0.064
			9/27/2018	2.01	2.01
			5/7/2019	1.61	1.61
			11/21/2019	1.76	1.76
			6/25/2020	1.74	1.74
			11/16/2020	1.76	1.76
MW#93-3	15	5 (33.3333%)	10/11/2016	0.079	0.079
			12/20/2016	0.08	0.08
			2/16/2017	0.126	0.126
			3/8/2017	0.09	0.09
			5/9/2017	0.139	0.139
			6/6/2017	ND<0.025	ND<0.025
			8/22/2017	0.119	0.119
			9/22/2017	0.118	0.118
			11/7/2017	ND<0.1	ND<0.1
			2/27/2018	0.089	0.089
			9/27/2018	ND<0.1	ND<0.1
			5/7/2019	ND<0.1	ND<0.1
			11/21/2019	ND<0.2	ND<0.2
			6/25/2020	0.0726	0.0726
			11/16/2020	0.0762	0.0762

There are 0 unused locations

Loc.	Meas.	ND	Date	Conc.	Original

Levene's Test for Equal of Variance

Parameter: Boron

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Overall Mean = 0.141295
Overall Std Dev = 0.290797
Overall Total = 10.3145
SS Groups = 2.12269
SS Total = 6.08854

ANOVA Table

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Squares	F
Between Groups	2.12269	4	0.530671	9.09909
Error (within groups)	3.96585	68	0.0583214	
Totals	6.08854	72		

95% F-Statistic = 2.44724

9.09909 exceeds 2.44724; assumption of equal variance should be rejected

Group: MW#93-1	Sample	Residual
	10/11/2016	0.0789333
	12/20/2016	0.0359333
	2/16/2017	0.00906667
	3/8/2017	0.00206667
	5/9/2017	0.0159333
	6/6/2017	0.0209333
	8/22/2017	0.107933
	9/22/2017	0.148933
	11/7/2017	0.109933
	2/27/2018	0.0200667
	9/27/2018	0.0359333
	5/7/2019	0.172067
	11/21/2019	0.0470667
	6/25/2020	0.165067
	11/17/2020	0.139067

Group: MW#03-1	Date	Residual
	10/11/2016	0.0511429
	12/20/2016	0.0511429
	2/16/2017	0.0511429
	3/8/2017	0.0511429
	5/9/2017	0.0351429
	6/6/2017	0.0511429
	8/22/2017	0.0511429
	9/22/2017	0.0511429
	11/7/2017	0.0238571
	2/27/2018	0.0261429
	5/7/2019	0.0238571
	11/21/2019	0.123857
	6/25/2020	0.123857

	11/17/2020	0.123857

Group: MW#03-2	Date	Residual
	10/11/2016	0.0505
	12/20/2016	0.0505
	2/16/2017	0.0505
	3/8/2017	0.0505
	5/9/2017	0.0435
	6/6/2017	0.0505
	8/22/2017	0.0505
	9/22/2017	0.0505
	11/7/2017	0.0245
	2/27/2018	0.0255
	5/7/2019	0.0245
	11/21/2019	0.1245
	6/25/2020	0.1245
	11/17/2020	0.1245

Group: MW#93-2	Date	Residual
	10/11/2016	1.03373
	12/20/2016	0.483733
	2/16/2017	0.263733
	3/8/2017	0.243733
	5/9/2017	0.143733
	6/6/2017	0.00373333
	8/22/2017	0.553733
	9/22/2017	0.653733
	11/7/2017	1.36627
	2/27/2018	1.76227
	9/27/2018	0.183733
	5/7/2019	0.216267
	11/21/2019	0.0662667
	6/25/2020	0.0862667
	11/16/2020	0.0662667

Group: MW#93-3	Date	Residual
	10/11/2016	0.02192
	12/20/2016	0.02092
	2/16/2017	0.02508
	3/8/2017	0.01092
	5/9/2017	0.03808
	6/6/2017	0.07592
	8/22/2017	0.01808
	9/22/2017	0.01708
	11/7/2017	0.00092
	2/27/2018	0.01192
	9/27/2018	0.00092
	5/7/2019	0.00092
	11/21/2019	0.09908
	6/25/2020	0.02832
	11/16/2020	0.02472

Concentrations (ppb)

Parameter: Cadmium

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 55
Total Non-Detect: 49
Percent Non-Detects: 89.0909%
Total Background Measurements: 11
There is 1 background location

Loc.	Meas.	ND	Date	Conc.	Original
MW#93-1	11	7 (63.6364%)	5/24/2018	ND<0.001	ND<0.001
			6/19/2018	ND<0.001	ND<0.001
			7/19/2018	ND<0.001	ND<0.001
			8/22/2018	ND<0.001	ND<0.001
			9/19/2018	ND<0.00117	ND<0.00117
			10/18/2018	ND<0.001	ND<0.001
			11/20/2018	0.00125	0.00125
			12/20/2018	ND<0.001	ND<0.001
			11/21/2019	0.00112	0.00112
			6/25/2020	0.000369	0.000369
			11/17/2020	0.000541	0.000541

There are 4 compliance locations

Loc.	Meas.	ND	Date	Conc.	Original
MW#03-1	11	9 (81.8182%)	5/24/2018	ND<0.001	ND<0.001
			6/19/2018	ND<0.001	ND<0.001
			7/19/2018	0.00486	0.00486
			8/22/2018	0.0204	0.0204
			10/18/2018	ND<0.001	ND<0.001
			11/20/2018	ND<0.001	ND<0.001
			12/20/2018	ND<0.001	ND<0.001
			3/26/2019	ND<0.001	ND<0.001
			11/21/2019	ND<0.001	ND<0.001
			6/25/2020	ND<0.001	ND<0.001
			11/17/2020	ND<0.001	ND<0.001
MW#03-2	11	11 (100%)	5/24/2018	ND<0.001	ND<0.001
			6/19/2018	ND<0.001	ND<0.001
			7/19/2018	ND<0.001	ND<0.001
			8/22/2018	ND<0.001	ND<0.001
			9/19/2018	ND<0.001	ND<0.001
			10/18/2018	ND<0.001	ND<0.001
			11/20/2018	ND<0.001	ND<0.001
			12/20/2018	ND<0.001	ND<0.001
			11/21/2019	ND<0.001	ND<0.001
			6/25/2020	ND<0.001	ND<0.001
			11/17/2020	ND<0.001	ND<0.001
MW#93-2	11	11 (100%)	5/24/2018	ND<0.001	ND<0.001
			6/19/2018	ND<0.001	ND<0.001
			7/19/2018	ND<0.001	ND<0.001
			8/22/2018	ND<0.001	ND<0.001
			9/19/2018	ND<0.001	ND<0.001

			10/18/2018	ND<0.001	ND<0.001
			11/20/2018	ND<0.001	ND<0.001
			12/20/2018	ND<0.001	ND<0.001
			11/21/2019	ND<0.001	ND<0.001
			6/25/2020	ND<0.001	ND<0.001
			11/16/2020	ND<0.001	ND<0.001
MW#93-3	11	11 (100%)	5/24/2018	ND<0.001	ND<0.001
			6/19/2018	ND<0.001	ND<0.001
			7/19/2018	ND<0.001	ND<0.001
			8/22/2018	ND<0.001	ND<0.001
			9/19/2018	ND<0.001	ND<0.001
			10/18/2018	ND<0.001	ND<0.001
			11/20/2018	ND<0.001	ND<0.001
			12/20/2018	ND<0.001	ND<0.001
			11/21/2019	ND<0.001	ND<0.001
			6/25/2020	ND<0.001	ND<0.001
			11/16/2020	ND<0.001	ND<0.001

There are 0 unused locations

Loc.	Meas.	ND	Date	Conc.	Original

Non-Parametric Prediction Interval

Inter-Well Comparison

Parameter: Cadmium

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 89.0909%
Number of comparisons = 4
Future Samples (k) = 4
Recent Dates = 1
Background Measurements (n) = 11
Maximum Background Value = 0.00125
Confidence Level = 73.3%
False Positive Rate = 26.7%

Location	Date	Count	Mean	Significant
MW#03-1	11/17/2020	1	0.001	FALSE
MW#03-2	11/17/2020	1	0.001	FALSE
MW#93-2	11/16/2020	1	0.001	FALSE
MW#93-3	11/16/2020	1	0.001	FALSE

Levene's Test for Equal of Variance

Parameter: Cadmium

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Overall Mean = 0.000728033
Overall Std Dev = 0.0024099
Overall Total = 0.0400418
SS Groups = 0.000102905
SS Total = 0.000313611

ANOVA Table

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Squares	F
Between Groups	0.000102905	4	2.57262e-005	6.10477
Error (within groups)	0.000210706	50	4.21412e-006	
Totals	0.000313611	54		

95% F-Statistic = 2.52521

6.10477 exceeds 2.52521; assumption of equal variance should be rejected

Group: MW#93-1	Sample	Residual
	5/24/2018	5e-005
	6/19/2018	5e-005
	7/19/2018	5e-005
	8/22/2018	5e-005
	9/19/2018	0.00022
	10/18/2018	5e-005
	11/20/2018	0.0003
	12/20/2018	5e-005
	11/21/2019	0.00017
	6/25/2020	0.000581
	11/17/2020	0.000409

Group: MW#03-1	Date	Residual
	5/24/2018	0.00211455
	6/19/2018	0.00211455
	7/19/2018	0.00174545
	8/22/2018	0.0172855
	10/18/2018	0.00211455
	11/20/2018	0.00211455
	12/20/2018	0.00211455
	3/26/2019	0.00211455
	11/21/2019	0.00211455
	6/25/2020	0.00211455
	11/17/2020	0.00211455

Group: MW#03-2	Date	Residual
	5/24/2018	2.1684e-019
	6/19/2018	2.1684e-019
	7/19/2018	2.1684e-019
	8/22/2018	2.1684e-019

9/19/2018	2.1684e-019
10/18/2018	2.1684e-019
11/20/2018	2.1684e-019
12/20/2018	2.1684e-019
11/21/2019	2.1684e-019
6/25/2020	2.1684e-019
11/17/2020	2.1684e-019

Group: MW#93-2	Date	Residual
	5/24/2018	2.1684e-019
	6/19/2018	2.1684e-019
	7/19/2018	2.1684e-019
	8/22/2018	2.1684e-019
	9/19/2018	2.1684e-019
	10/18/2018	2.1684e-019
	11/20/2018	2.1684e-019
	12/20/2018	2.1684e-019
	11/21/2019	2.1684e-019
	6/25/2020	2.1684e-019
	11/16/2020	2.1684e-019

Group: MW#93-3	Date	Residual
	5/24/2018	2.1684e-019
	6/19/2018	2.1684e-019
	7/19/2018	2.1684e-019
	8/22/2018	2.1684e-019
	9/19/2018	2.1684e-019
	10/18/2018	2.1684e-019
	11/20/2018	2.1684e-019
	12/20/2018	2.1684e-019
	11/21/2019	2.1684e-019
	6/25/2020	2.1684e-019
	11/16/2020	2.1684e-019

Shapiro-Francia Test of Normality

Parameter: Cadmium

All Locations

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Number of Measurements = 55

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	0.000369	-2.12007	4.49469	-0.000782305
2	0.000541	-1.81191	7.77772	-0.00176255
3	0.001	-1.61644	10.3906	-0.00337899
4	0.001	-1.46838	12.5467	-0.00484737
5	0.001	-1.34694	14.361	-0.00619431
6	0.001	-1.24264	15.9051	-0.00743695
7	0.001	-1.15035	17.2284	-0.0085873
8	0.001	-1.07138	18.3763	-0.00965868
9	0.001	-0.994457	19.3652	-0.0106531
10	0.001	-0.923014	20.2172	-0.0115762
11	0.001	-0.855996	20.9499	-0.0124321
12	0.001	-0.792618	21.5782	-0.0132248
13	0.001	-0.732275	22.1144	-0.013957
14	0.001	-0.67449	22.5693	-0.0146315
15	0.001	-0.621911	22.9561	-0.0152534
16	0.001	-0.568052	23.2788	-0.0158215
17	0.001	-0.515791	23.5448	-0.0163373
18	0.001	-0.464904	23.761	-0.0168022
19	0.001	-0.415193	23.9334	-0.0172174
20	0.001	-0.36649	24.0677	-0.0175839
21	0.001	-0.318639	24.1692	-0.0179025
22	0.001	-0.27411	24.2443	-0.0181766
23	0.001	-0.227545	24.2961	-0.0184042
24	0.001	-0.181468	24.329	-0.0185856
25	0.001	-0.135774	24.3475	-0.0187214
26	0.001	-0.0903606	24.3556	-0.0188118
27	0.001	-0.0451348	24.3577	-0.0188569
28	0.001	0	24.3577	-0.0188569
29	0.001	0.0451348	24.3597	-0.0188118
30	0.001	0.0903606	24.3679	-0.0187214
31	0.001	0.135774	24.3863	-0.0185856
32	0.001	0.181468	24.4192	-0.0184042
33	0.001	0.227545	24.471	-0.0181766
34	0.001	0.27411	24.5462	-0.0179025
35	0.001	0.318639	24.6477	-0.0175839
36	0.001	0.36649	24.782	-0.0172174
37	0.001	0.415193	24.9544	-0.0168022
38	0.001	0.464904	25.1705	-0.0163373
39	0.001	0.515791	25.4366	-0.0158215
40	0.001	0.568052	25.7593	-0.0152534
41	0.001	0.621911	26.146	-0.0146315
42	0.001	0.67449	26.601	-0.013957
43	0.001	0.732275	27.1372	-0.0132248
44	0.001	0.792618	27.7654	-0.0124321
45	0.001	0.855996	28.4982	-0.0115762
46	0.001	0.923014	29.3501	-0.0106531
47	0.001	0.994457	30.3391	-0.00965868

48	0.001	1.07138	31.4869	-0.0085873
49	0.001	1.15035	32.8102	-0.00743695
50	0.001	1.24264	34.3544	-0.00619431
51	0.00112	1.34694	36.1686	-0.00468574
52	0.00117	1.46838	38.3248	-0.00296773
53	0.00125	1.61644	40.9376	-0.000947184
54	0.00486	1.81191	44.2207	0.00785872
55	0.0204	2.12007	48.7154	0.0511081

Data Set Standard Deviation = 0.00266179
Numerator = 0.00261204
Denominator = 0.0186384
W Statistic = 0.140143 = 0.00261204 / 0.0186384

5% Critical value of 0.958 exceeds 0.140143
Evidence of non-normality at 95% level of significance

1% Critical value of 0.94 exceeds 0.140143
Evidence of non-normality at 99% level of significance

Concentrations (ppb)

Parameter: Calcium

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 82
Total Non-Detect: 5
Percent Non-Detects: 6.09756%
Total Background Measurements: 19
There is 1 background location

Loc.	Meas.	ND	Date	Conc.	Original
MW#93-1	19	1 (5.26316%)	6/6/2012	484	484
			12/12/2012	560	560
			6/19/2013	670	670
			12/11/2013	549	549
			6/11/2014	192	192
			12/3/2014	213	213
			6/17/2015	184	184
			12/1/2015	199	199
			6/22/2016	205	205
			12/20/2016	202	202
			6/6/2017	206	206
			11/7/2017	212	212
			2/27/2018	211	211
			9/27/2018	240	240
			11/20/2018	ND<0.5	ND<0.5
			5/7/2019	212	212
			11/21/2019	228	228
			6/25/2020	210	210
			11/17/2020	212	212

There are 4 compliance locations

Loc.	Meas.	ND	Date	Conc.	Original
MW#93-2	19	1 (5.26316%)	6/6/2012	78.9	78.9
			12/12/2012	101	101
			6/19/2013	100	100
			12/11/2013	88	88
			6/11/2014	41.8	41.8
			12/3/2014	53.8	53.8
			6/17/2015	2.29	2.29
			12/1/2015	42.8	42.8
			6/22/2016	40	40
			12/20/2016	41.8	41.8
			6/6/2017	45.2	45.2
			11/7/2017	68.5	68.5
			2/27/2018	74.7	74.7
			9/27/2018	68.9	68.9
			11/20/2018	ND<0.5	ND<0.5
			5/7/2019	86.3	86.3
			11/21/2019	117	117
			6/25/2020	198	198
			11/16/2020	225	225
MW#93-3	19	1 (5.26316%)	6/6/2012	86.4	86.4

			12/12/2012	97	97
			6/19/2013	163	163
			12/11/2013	102	102
			6/11/2014	49.5	49.5
			12/3/2014	31.7	31.7
			6/17/2015	43.4	43.4
			12/1/2015	58	58
			6/22/2016	95.6	95.6
			12/20/2016	82.1	82.1
			6/6/2017	56	56
			11/7/2017	80.2	80.2
			2/27/2018	91.8	91.8
			9/27/2018	94.8	94.8
			11/20/2018	ND<0.5	ND<0.5
			5/7/2019	110	110
			11/21/2019	107	107
			6/25/2020	92.2	92.2
			11/16/2020	82.8	82.8
MW#03-1	12	1 (8.33333%)	5/24/2018	22.2	22.2
			6/19/2018	43.6	43.6
			7/19/2018	154	154
			8/22/2018	613	613
			11/20/2018	ND<0.5	ND<0.5
			11/20/2018	35.6	35.6
			12/20/2018	13.3	13.3
			3/26/2019	16.6	16.6
			5/7/2019	15	15
			11/21/2019	16.9	16.9
			6/25/2020	35.6	35.6
			11/17/2020	76.2	76.2
MW#03-2	13	1 (7.69231%)	5/24/2018	197	197
			6/19/2018	291	291
			7/19/2018	338	338
			8/22/2018	325	325
			9/19/2018	303	303
			9/27/2018	352	352
			11/20/2018	ND<0.5	ND<0.5
			11/20/2018	331	331
			12/20/2018	350	350
			5/7/2019	267	267
			11/21/2019	386	386
			6/25/2020	338	338
			11/17/2020	321	321

There are 0 unused locations

Loc.	Meas.	ND	Date	Conc.	Original

Non-Parametric Prediction Interval

Inter-Well Comparison

Parameter: Calcium

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 6.09756%
Number of comparisons = 4
Future Samples (k) = 4
Recent Dates = 1
Background Measurements (n) = 19
Maximum Background Value = 670
Confidence Level = 82.6%
False Positive Rate = 17.4%

Location	Date	Count	Mean	Significant
MW#93-2	11/16/2020	1	225	FALSE
MW#93-3	11/16/2020	1	82.8	FALSE
MW#03-1	11/17/2020	1	76.2	FALSE
MW#03-2	11/17/2020	1	321	FALSE

Levene's Test for Equal of Variance

Parameter: Calcium

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Overall Mean = 68.118
Overall Std Dev = 88.385
Overall Total = 5585.67
SS Groups = 119577
SS Total = 632765

ANOVA Table

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Squares	F
Between Groups	119577	4	29894.3	4.48541
Error (within groups)	513188	77	6664.78	
Totals	632765	81		

95% F-Statistic = 2.44724

4.48541 exceeds 2.44724; assumption of equal variance should be rejected

Group: MW#93-1	Sample	Residual
	6/6/2012	210.868
	12/12/2012	286.868
	6/19/2013	396.868
	12/11/2013	275.868
	6/11/2014	81.1316
	12/3/2014	60.1316
	6/17/2015	89.1316
	12/1/2015	74.1316
	6/22/2016	68.1316
	12/20/2016	71.1316
	6/6/2017	67.1316
	11/7/2017	61.1316
	2/27/2018	62.1316
	9/27/2018	33.1316
	11/20/2018	272.632
	5/7/2019	61.1316
	11/21/2019	45.1316
	6/25/2020	63.1316
	11/17/2020	61.1316

Group: MW#93-2	Date	Residual
	6/6/2012	1.29526
	12/12/2012	23.3953
	6/19/2013	22.3953
	12/11/2013	10.3953
	6/11/2014	35.8047
	12/3/2014	23.8047
	6/17/2015	75.3147
	12/1/2015	34.8047
	6/22/2016	37.6047

12/20/2016	35.8047
6/6/2017	32.4047
11/7/2017	9.10474
2/27/2018	2.90474
9/27/2018	8.70474
11/20/2018	77.1047
5/7/2019	8.69526
11/21/2019	39.3953
6/25/2020	120.395
11/16/2020	147.395

Group: MW#93-3

Date	Residual
6/6/2012	6.18947
12/12/2012	16.7895
6/19/2013	82.7895
12/11/2013	21.7895
6/11/2014	30.7105
12/3/2014	48.5105
6/17/2015	36.8105
12/1/2015	22.2105
6/22/2016	15.3895
12/20/2016	1.88947
6/6/2017	24.2105
11/7/2017	0.0105263
2/27/2018	11.5895
9/27/2018	14.5895
11/20/2018	79.7105
5/7/2019	29.7895
11/21/2019	26.7895
6/25/2020	11.9895
11/16/2020	2.58947

Group: MW#03-1

Date	Residual
5/24/2018	64.675
6/19/2018	43.275
7/19/2018	67.125
8/22/2018	526.125
11/20/2018	86.375
11/20/2018	51.275
12/20/2018	73.575
3/26/2019	70.275
5/7/2019	71.875
11/21/2019	69.975
6/25/2020	51.275
11/17/2020	10.675

Group: MW#03-2

Date	Residual
5/24/2018	95.2692
6/19/2018	1.26923
7/19/2018	45.7308
8/22/2018	32.7308
9/19/2018	10.7308
9/27/2018	59.7308
11/20/2018	291.769
11/20/2018	38.7308
12/20/2018	57.7308
5/7/2019	25.2692

11/21/2019	93.7308
6/25/2020	45.7308
11/17/2020	28.7308

Shapiro-Francia Test of Normality

Parameter: Calcium

All Locations

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Number of Measurements = 82

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	0.5	-2.25713	5.09463	-1.12856
2	0.5	-1.97737	9.00462	-2.11725
3	0.5	-1.79912	12.2414	-3.01681
4	0.5	-1.66456	15.0122	-3.84909
5	0.5	-1.55477	17.4295	-4.62647
6	2.29	-1.46106	19.5642	-7.9723
7	13.3	-1.37866	21.4649	-26.3084
8	15	-1.30469	23.1671	-45.8787
9	16.6	-1.23724	24.6979	-66.4168
10	16.9	-1.17499	26.0785	-86.2741
11	22.2	-1.11699	27.3261	-111.071
12	31.7	-1.06252	28.4551	-144.753
13	35.6	-1.01104	29.4773	-180.746
14	35.6	-0.9621	30.4029	-214.997
15	40	-0.915365	31.2408	-251.611
16	41.8	-0.87055	31.9987	-288
17	41.8	-0.827417	32.6833	-322.586
18	42.8	-0.785774	33.3007	-356.218
19	43.4	-0.745449	33.8564	-388.57
20	43.6	-0.706302	34.3553	-419.365
21	45.2	-0.665079	34.7976	-449.426
22	49.5	-0.628006	35.192	-480.513
23	53.8	-0.591776	35.5422	-512.35
24	56	-0.556308	35.8517	-543.503
25	58	-0.521527	36.1237	-573.752
26	68.5	-0.487364	36.3612	-607.137
27	68.9	-0.453763	36.5671	-638.401
28	74.7	-0.420664	36.744	-669.824
29	76.2	-0.388022	36.8946	-699.392
30	78.9	-0.355788	37.0212	-727.463
31	80.2	-0.323919	37.1261	-753.442
32	82.1	-0.292375	37.2116	-777.446
33	82.8	-0.26112	37.2798	-799.066
34	86.3	-0.230118	37.3327	-818.926
35	86.4	-0.199336	37.3725	-836.148
36	88	-0.168741	37.4009	-850.997
37	91.8	-0.138305	37.4201	-863.694
38	92.2	-0.107995	37.4317	-873.651
39	94.8	-0.0777834	37.4378	-881.025
40	95.6	-0.0476439	37.4401	-885.579
41	97	-0.0175476	37.4404	-887.282
42	100	0.0175476	37.4407	-885.527
43	101	0.0476439	37.4429	-880.715
44	102	0.0777834	37.449	-872.781
45	107	0.107995	37.4607	-861.225
46	110	0.138305	37.4798	-846.012
47	117	0.168741	37.5083	-826.269

48	154	0.199336	37.548	-795.572
49	163	0.230118	37.6009	-758.062
50	184	0.26112	37.6691	-710.016
51	192	0.292375	37.7546	-653.88
52	197	0.323919	37.8595	-590.068
53	198	0.355788	37.9861	-519.622
54	199	0.388022	38.1367	-442.406
55	202	0.420664	38.3136	-357.432
56	205	0.453763	38.5195	-264.41
57	206	0.487364	38.7571	-164.013
58	210	0.521527	39.0291	-54.4925
59	211	0.556308	39.3385	62.8886
60	212	0.591776	39.6887	188.345
61	212	0.628006	40.0831	321.482
62	212	0.665079	40.5255	462.479
63	213	0.706302	41.0243	612.922
64	225	0.745449	41.58	780.648
65	228	0.785774	42.1975	959.804
66	240	0.827417	42.8821	1158.38
67	267	0.87055	43.6399	1390.82
68	291	0.915365	44.4778	1657.19
69	303	0.9621	45.4035	1948.71
70	321	1.01104	46.4257	2273.25
71	325	1.06252	47.5546	2618.57
72	331	1.11699	48.8023	2988.29
73	338	1.17499	50.1829	3385.44
74	338	1.23724	51.7136	3803.62
75	350	1.30469	53.4158	4260.26
76	352	1.37866	55.3165	4745.55
77	386	1.46106	57.4512	5309.52
78	484	1.55477	59.8685	6062.03
79	549	1.66456	62.6393	6975.87
80	560	1.79912	65.8761	7983.38
81	613	1.97737	69.7861	9195.51
82	670	2.25713	74.8807	10707.8

Data Set Standard Deviation = 148.983
Numerator = 1.14657e+008
Denominator = 1.34627e+008
W Statistic = 0.851663 = 1.14657e+008 / 1.34627e+008

5% Critical value of 0.971 exceeds 0.851663
Evidence of non-normality at 95% level of significance

1% Critical value of 0.96 exceeds 0.851663
Evidence of non-normality at 99% level of significance

Concentrations (ppb)

Parameter: Chloride

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 295
Total Non-Detect: 6
Percent Non-Detects: 2.0339%
Total Background Measurements: 74
There is 1 background location

Loc.	Meas.	ND	Date	Conc.	Original
MW#93-1	74	0 (0%)	12/15/1994	30	30
			3/14/1995	38	38
			6/21/1995	37	37
			12/14/1995	24	24
			3/6/1996	20	20
			4/25/1996	32	32
			10/2/1996	40	40
			12/10/1996	30	30
			3/11/1997	4	4
			4/15/1997	28	28
			8/14/1997	33	33
			12/4/1997	29	29
			3/31/1998	30	30
			6/23/1998	37	37
			8/11/1998	24	24
			12/8/1998	31	31
			3/9/1999	30	30
			6/8/1999	35	35
			8/19/1999	40	40
			12/14/1999	40	40
			3/7/2000	50	50
			6/23/2000	52	52
			12/12/2000	54	54
			3/27/2001	60	60
			6/28/2001	58	58
			9/10/2001	46	46
			12/18/2001	46	46
			3/19/2002	42	42
			6/26/2002	51	51
			9/18/2002	57	57
			12/11/2002	56	56
			3/13/2003	56	56
			6/25/2003	63	63
			9/26/2003	59	59
			12/10/2003	40	40
			3/9/2004	58	58
			6/24/2004	61	61
			9/15/2004	44	44
			12/15/2004	48	48
			3/16/2005	42	42
			6/15/2005	42	42
			9/21/2005	42	42
			12/21/2005	58	58
			3/15/2006	50	50
			6/21/2006	31	31

			12/20/2006	35	35
			6/12/2007	24	24
			12/17/2007	27	27
			6/11/2008	29	29
			12/3/2008	28	28
			6/17/2009	20	20
			12/9/2009	24	24
			6/17/2010	17	17
			12/22/2010	20	20
			6/29/2011	20.8	20.8
			12/7/2011	17.6	17.6
			6/6/2012	23.8	23.8
			12/12/2012	22.2	22.2
			6/19/2013	21.5	21.5
			12/11/2013	17.6	17.6
			6/11/2014	19.3	19.3
			12/3/2014	16.9	16.9
			6/17/2015	13	13
			12/1/2015	15.2	15.2
			6/22/2016	13	13
			12/20/2016	15.2	15.2
			6/6/2017	16.1	16.1
			11/7/2017	16.2	16.2
			2/27/2018	15.6	15.6
			9/27/2018	16.8	16.8
			5/7/2019	18.8	18.8
			11/21/2019	22	22
			6/25/2020	11	11
			11/17/2020	14.4	14.4

There are 4 compliance locations

Loc.	Meas.	ND	Date	Conc.	Original
MW#03-1	33	4 (12.1212%)	6/24/2004	10	10
			9/15/2004	22	22
			12/15/2004	6	6
			3/16/2005	4	4
			6/15/2005	6	6
			9/21/2005	5	5
			12/20/2006	5	5
			6/12/2007	4	4
			12/17/2007	3	3
			6/11/2008	11	11
			12/3/2008	11	11
			6/17/2009	4	4
			12/9/2009	32	32
			6/17/2010	5	5
			12/22/2010	8.7	8.7
			6/29/2011	4.86	4.86
			12/7/2011	5.88	5.88
			6/6/2012	9.36	9.36
			6/19/2013	ND<5	ND<5
			12/11/2013	ND<5	ND<5
			6/11/2014	44	44
			12/3/2014	ND<5	ND<5
			6/17/2015	ND<5	ND<5

			12/1/2015	0.777	0.777
			6/22/2016	0.628	0.628
			12/20/2016	0.786	0.786
			6/6/2017	0.887	0.887
			11/7/2017	1.13	1.13
			2/27/2018	1.07	1.07
			5/7/2019	5.9	5.9
			11/21/2019	410	410
			6/25/2020	0.652	0.652
			11/17/2020	2.29	2.29
MW#03-2	39	1 (2.5641%)	6/24/2004	36	36
			9/15/2004	4	4
			12/15/2004	28	28
			3/16/2005	30	30
			6/15/2005	30	30
			9/21/2005	27	27
			12/21/2005	26	26
			3/15/2006	27	27
			6/21/2006	23	23
			12/20/2006	35	35
			6/12/2007	30	30
			12/17/2007	20	20
			6/11/2008	41	41
			12/3/2008	46	46
			6/17/2009	60	60
			12/9/2009	45	45
			6/17/2010	33	33
			12/22/2010	29	29
			6/29/2011	28.4	28.4
			12/7/2011	23.5	23.5
			6/6/2012	29.3	29.3
			12/12/2012	28.3	28.3
			6/19/2013	32.1	32.1
			12/11/2013	32.8	32.8
			6/11/2014	ND<5	ND<5
			12/3/2014	51.2	51.2
			6/17/2015	54.7	54.7
			12/1/2015	67.8	67.8
			6/22/2016	79.7	79.7
			10/11/2016	88.4	88.4
			12/20/2016	126	126
			6/6/2017	117	117
			11/7/2017	288	288
			2/27/2018	247	247
			9/27/2018	283	283
			5/7/2019	313	313
			11/21/2019	543	543
			6/25/2020	448	448
			11/17/2020	435	435
MW#93-2	75	1 (1.33333%)	12/15/1994	400	400
			3/14/1995	1500	1500
			6/21/1995	75	75
			12/14/1995	1749	1749
			3/6/1996	1674	1674
			4/25/1996	1999	1999

10/2/1996	1553	1553
12/10/1996	1560	1560
3/11/1997	1634	1634
4/15/1997	1700	1700
8/14/1997	2149	2149
12/4/1997	1769	1769
3/31/1998	2000	2000
6/23/1998	2099	2099
8/11/1998	1874	1874
12/8/1998	1922	1922
3/9/1999	1700	1700
6/8/1999	1739	1739
8/19/1999	1800	1800
12/14/1999	1800	1800
3/7/2000	1328	1328
6/23/2000	950	950
12/12/2000	1789	1789
3/27/2001	1749	1749
6/28/2001	1799	1799
9/10/2001	2050	2050
12/18/2001	1600	1600
3/19/2002	1730	1730
6/26/2002	1699	1699
9/18/2002	1674	1674
12/11/2002	1613	1613
3/13/2003	1510	1510
6/25/2003	1800	1800
9/26/2003	1616	1616
12/10/2003	1509	1509
3/9/2004	1800	1800
6/24/2004	1892	1892
9/15/2004	1435	1435
12/15/2004	1600	1600
3/16/2005	1325	1325
6/15/2005	1400	1400
9/21/2005	1412	1412
12/21/2005	1550	1550
3/15/2006	1375	1375
6/21/2006	1500	1500
12/20/2006	1250	1250
2/21/2007	1250	1250
6/12/2007	1350	1350
12/17/2007	1399	1399
6/11/2008	1210	1210
12/3/2008	1584	1584
6/17/2009	750	750
12/9/2009	875	875
6/17/2010	1500	1500
12/22/2010	1600	1600
6/29/2011	1670	1670
12/7/2011	1510	1510
6/6/2012	1610	1610
12/12/2012	1750	1750
6/19/2013	1390	1390
12/11/2013	1410	1410
6/11/2014	1360	1360
12/3/2014	1520	1520

			6/17/2015	47.7	47.7
			12/1/2015	1760	1760
			6/22/2016	1300	1300
			12/20/2016	1690	1690
			6/6/2017	1580	1580
			11/7/2017	1160	1160
			2/27/2018	1270	1270
			9/27/2018	1250	1250
			5/7/2019	1360	1360
			11/21/2019	ND<5	ND<5
			6/25/2020	109	109
			11/16/2020	1210	1210
MW#93-3	74	0 (0%)	12/15/1994	440	440
			3/14/1995	420	420
			6/21/1995	420	420
			12/14/1995	406	406
			3/6/1996	368	368
			4/25/1996	384	384
			10/2/1996	430	430
			12/10/1996	377	377
			3/11/1997	375	375
			4/15/1997	400	400
			8/14/1997	916	916
			12/4/1997	249	249
			3/31/1998	275	275
			6/23/1998	246	246
			8/11/1998	500	500
			12/8/1998	260	260
			3/9/1999	280	280
			6/8/1999	214	214
			8/19/1999	260	260
			12/14/1999	200	200
			3/7/2000	232	232
			6/23/2000	270	270
			12/12/2000	196	196
			3/27/2001	190	190
			6/28/2001	180	180
			9/10/2001	202	202
			12/18/2001	149	149
			3/19/2002	203	203
			6/26/2002	180	180
			9/18/2002	185	185
			12/11/2002	178	178
			3/13/2003	207	207
			6/25/2003	190	190
			9/26/2003	158	158
			12/10/2003	140	140
			3/9/2004	13	13
			6/24/2004	160	160
			9/15/2004	139	139
			12/15/2004	122	122
			3/16/2005	180	180
			6/15/2005	150	150
			9/21/2005	215	215
			12/21/2005	180	180
			3/15/2006	221	221

6/21/2006	210	210
12/20/2006	210	210
6/12/2007	110	110
12/17/2007	131	131
6/11/2008	144	144
12/3/2008	152	152
6/17/2009	120	120
12/9/2009	175	175
6/17/2010	150	150
12/22/2010	170	170
6/29/2011	170	170
12/7/2011	98.9	98.9
6/6/2012	194	194
12/12/2012	168	168
6/19/2013	194	194
12/11/2013	173	173
6/11/2014	254	254
12/3/2014	194	194
6/17/2015	168	168
12/1/2015	280	280
6/22/2016	518	518
12/20/2016	475	475
6/6/2017	113	113
11/7/2017	402	402
2/27/2018	435	435
9/27/2018	426	426
5/7/2019	421	421
11/21/2019	1070	1070
6/25/2020	143	143
11/16/2020	187	187

There are 0 unused locations

Loc.	Meas.	ND	Date	Conc.	Original

Non-Parametric Prediction Interval

Inter-Well Comparison

Parameter: Chloride

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 2.0339%
Number of comparisons = 4
Future Samples (k) = 4
Recent Dates = 1
Background Measurements (n) = 74
Maximum Background Value = 63
Confidence Level = 94.9%
False Positive Rate = 5.1%

Location	Date	Count	Mean	Significant
MW#03-1	11/17/2020	1	2.29	FALSE
MW#03-2	**11/17/2020**	**1**	**435**	**TRUE**
MW#93-2	**11/16/2020**	**1**	**1210**	**TRUE**
MW#93-3	**11/16/2020**	**1**	**187**	**TRUE**

Non-Parametric Prediction Interval

Intra-Well Comparison for MW#03-1

Parameter: Chloride

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 12.5%
Future Samples (k) = 1
Recent Dates = 1
Baseline Measurements (n) = 32
Maximum Baseline Concentration = 410
Confidence Level = 97%
False Positive Rate = 3%

Baseline Measurements	Date	Value
	6/24/2004	10
	9/15/2004	22
	12/15/2004	6
	3/16/2005	4
	6/15/2005	6
	9/21/2005	5
	12/20/2006	5
	6/12/2007	4
	12/17/2007	3
	6/11/2008	11
	12/3/2008	11
	6/17/2009	4
	12/9/2009	32
	6/17/2010	5
	12/22/2010	8.7
	6/29/2011	4.86
	12/7/2011	5.88
	6/6/2012	9.36
	6/19/2013	ND<5
	12/11/2013	ND<5
	6/11/2014	44
	12/3/2014	ND<5
	6/17/2015	ND<5
	12/1/2015	0.777
	6/22/2016	0.628
	12/20/2016	0.786
	6/6/2017	0.887
	11/7/2017	1.13
	2/27/2018	1.07
	5/7/2019	5.9
	11/21/2019	410
	6/25/2020	0.652

Date	Count	Mean	Significant
11/17/2020	1	2.29	FALSE

Non-Parametric Prediction Interval

Intra-Well Comparison for MW#93-3

Parameter: Chloride

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 0%
Future Samples (k) = 1
Recent Dates = 1
Baseline Measurements (n) = 73
Maximum Baseline Concentration = 1070
Confidence Level = 98.6%
False Positive Rate = 1.4%

Baseline Measurements	Date	Value
	12/15/1994	440
	3/14/1995	420
	6/21/1995	420
	12/14/1995	406
	3/6/1996	368
	4/25/1996	384
	10/2/1996	430
	12/10/1996	377
	3/11/1997	375
	4/15/1997	400
	8/14/1997	916
	12/4/1997	249
	3/31/1998	275
	6/23/1998	246
	8/11/1998	500
	12/8/1998	260
	3/9/1999	280
	6/8/1999	214
	8/19/1999	260
	12/14/1999	200
	3/7/2000	232
	6/23/2000	270
	12/12/2000	196
	3/27/2001	190
	6/28/2001	180
	9/10/2001	202
	12/18/2001	149
	3/19/2002	203
	6/26/2002	180
	9/18/2002	185
	12/11/2002	178
	3/13/2003	207
	6/25/2003	190
	9/26/2003	158
	12/10/2003	140
	3/9/2004	13
	6/24/2004	160
	9/15/2004	139
	12/15/2004	122
	3/16/2005	180
	6/15/2005	150
	9/21/2005	215

12/21/2005	180
3/15/2006	221
6/21/2006	210
12/20/2006	210
6/12/2007	110
12/17/2007	131
6/11/2008	144
12/3/2008	152
6/17/2009	120
12/9/2009	175
6/17/2010	150
12/22/2010	170
6/29/2011	170
12/7/2011	98.9
6/6/2012	194
12/12/2012	168
6/19/2013	194
12/11/2013	173
6/11/2014	254
12/3/2014	194
6/17/2015	168
12/1/2015	280
6/22/2016	518
12/20/2016	475
6/6/2017	113
11/7/2017	402
2/27/2018	435
9/27/2018	426
5/7/2019	421
11/21/2019	1070
6/25/2020	143

Date	Count	Mean	Significant
11/16/2020	1	187	FALSE

Non-Parametric Prediction Interval

Intra-Well Comparison for MW#93-2

Parameter: Chloride

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 1.35135%
Future Samples (k) = 1
Recent Dates = 1
Baseline Measurements (n) = 74
Maximum Baseline Concentration = 2149
Confidence Level = 98.7%
False Positive Rate = 1.3%

Baseline Measurements	Date	Value
	12/15/1994	400
	3/14/1995	1500
	6/21/1995	75
	12/14/1995	1749
	3/6/1996	1674
	4/25/1996	1999
	10/2/1996	1553
	12/10/1996	1560
	3/11/1997	1634
	4/15/1997	1700
	8/14/1997	2149
	12/4/1997	1769
	3/31/1998	2000
	6/23/1998	2099
	8/11/1998	1874
	12/8/1998	1922
	3/9/1999	1700
	6/8/1999	1739
	8/19/1999	1800
	12/14/1999	1800
	3/7/2000	1328
	6/23/2000	950
	12/12/2000	1789
	3/27/2001	1749
	6/28/2001	1799
	9/10/2001	2050
	12/18/2001	1600
	3/19/2002	1730
	6/26/2002	1699
	9/18/2002	1674
	12/11/2002	1613
	3/13/2003	1510
	6/25/2003	1800
	9/26/2003	1616
	12/10/2003	1509
	3/9/2004	1800
	6/24/2004	1892
	9/15/2004	1435
	12/15/2004	1600
	3/16/2005	1325
	6/15/2005	1400
	9/21/2005	1412

12/21/2005	1550
3/15/2006	1375
6/21/2006	1500
12/20/2006	1250
2/21/2007	1250
6/12/2007	1350
12/17/2007	1399
6/11/2008	1210
12/3/2008	1584
6/17/2009	750
12/9/2009	875
6/17/2010	1500
12/22/2010	1600
6/29/2011	1670
12/7/2011	1510
6/6/2012	1610
12/12/2012	1750
6/19/2013	1390
12/11/2013	1410
6/11/2014	1360
12/3/2014	1520
6/17/2015	47.7
12/1/2015	1760
6/22/2016	1300
12/20/2016	1690
6/6/2017	1580
11/7/2017	1160
2/27/2018	1270
9/27/2018	1250
5/7/2019	1360
11/21/2019	ND<5
6/25/2020	109

Date	Count	Mean	Significant
11/16/2020	1	1210	FALSE

Levene's Test for Equal of Variance

Parameter: Chloride

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Overall Mean = 125.79
Overall Std Dev = 210.782
Overall Total = 37108
SS Groups = 3.73427e+006
SS Total = 1.30621e+007

ANOVA Table

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Squares	F
Between Groups	3.73427e+006	4	933567	29.0243
Error (within groups)	9.32786e+006	290	32165	
Totals	1.30621e+007	294		

95% F-Statistic = 2.37

29.0243 exceeds 2.37; assumption of equal variance should be rejected

Group: MW#93-1	Sample	Residual
	12/15/1994	3.09459
	3/14/1995	4.90541
	6/21/1995	3.90541
	12/14/1995	9.09459
	3/6/1996	13.0946
	4/25/1996	1.09459
	10/2/1996	6.90541
	12/10/1996	3.09459
	3/11/1997	29.0946
	4/15/1997	5.09459
	8/14/1997	0.0945946
	12/4/1997	4.09459
	3/31/1998	3.09459
	6/23/1998	3.90541
	8/11/1998	9.09459
	12/8/1998	2.09459
	3/9/1999	3.09459
	6/8/1999	1.90541
	8/19/1999	6.90541
	12/14/1999	6.90541
	3/7/2000	16.9054
	6/23/2000	18.9054
	12/12/2000	20.9054
	3/27/2001	26.9054
	6/28/2001	24.9054
	9/10/2001	12.9054
	12/18/2001	12.9054
	3/19/2002	8.90541
	6/26/2002	17.9054
	9/18/2002	23.9054

12/11/2002	22.9054
3/13/2003	22.9054
6/25/2003	29.9054
9/26/2003	25.9054
12/10/2003	6.90541
3/9/2004	24.9054
6/24/2004	27.9054
9/15/2004	10.9054
12/15/2004	14.9054
3/16/2005	8.90541
6/15/2005	8.90541
9/21/2005	8.90541
12/21/2005	24.9054
3/15/2006	16.9054
6/21/2006	2.09459
12/20/2006	1.90541
6/12/2007	9.09459
12/17/2007	6.09459
6/11/2008	4.09459
12/3/2008	5.09459
6/17/2009	13.0946
12/9/2009	9.09459
6/17/2010	16.0946
12/22/2010	13.0946
6/29/2011	12.2946
12/7/2011	15.4946
6/6/2012	9.29459
12/12/2012	10.8946
6/19/2013	11.5946
12/11/2013	15.4946
6/11/2014	13.7946
12/3/2014	16.1946
6/17/2015	20.0946
12/1/2015	17.8946
6/22/2016	20.0946
12/20/2016	17.8946
6/6/2017	16.9946
11/7/2017	16.8946
2/27/2018	17.4946
9/27/2018	16.2946
5/7/2019	14.2946
11/21/2019	11.0946
6/25/2020	22.0946
11/17/2020	18.6946

Group: MW#03-1	**Date**	**Residual**
	6/24/2004	9.54303
	9/15/2004	2.45697
	12/15/2004	13.543
	3/16/2005	15.543
	6/15/2005	13.543
	9/21/2005	14.543
	12/20/2006	14.543
	6/12/2007	15.543
	12/17/2007	16.543
	6/11/2008	8.54303
	12/3/2008	8.54303

6/17/2009	15.543
12/9/2009	12.457
6/17/2010	14.543
12/22/2010	10.843
6/29/2011	14.683
12/7/2011	13.663
6/6/2012	10.183
6/19/2013	14.543
12/11/2013	14.543
6/11/2014	24.457
12/3/2014	14.543
6/17/2015	14.543
12/1/2015	18.766
6/22/2016	18.915
12/20/2016	18.757
6/6/2017	18.656
11/7/2017	18.413
2/27/2018	18.473
5/7/2019	13.643
11/21/2019	390.457
6/25/2020	18.891
11/17/2020	17.253

Group: MW#03-2	**Date**	**Residual**
	6/24/2004	63.7744
	9/15/2004	95.7744
	12/15/2004	71.7744
	3/16/2005	69.7744
	6/15/2005	69.7744
	9/21/2005	72.7744
	12/21/2005	73.7744
	3/15/2006	72.7744
	6/21/2006	76.7744
	12/20/2006	64.7744
	6/12/2007	69.7744
	12/17/2007	79.7744
	6/11/2008	58.7744
	12/3/2008	53.7744
	6/17/2009	39.7744
	12/9/2009	54.7744
	6/17/2010	66.7744
	12/22/2010	70.7744
	6/29/2011	71.3744
	12/7/2011	76.2744
	6/6/2012	70.4744
	12/12/2012	71.4744
	6/19/2013	67.6744
	12/11/2013	66.9744
	6/11/2014	94.7744
	12/3/2014	48.5744
	6/17/2015	45.0744
	12/1/2015	31.9744
	6/22/2016	20.0744
	10/11/2016	11.3744
	12/20/2016	26.2256
	6/6/2017	17.2256
	11/7/2017	188.226

2/27/2018	147.226
9/27/2018	183.226
5/7/2019	213.226
11/21/2019	443.226
6/25/2020	348.226
11/17/2020	335.226

Group: MW#93-2	Date	Residual
	12/15/1994	1068.41
	3/14/1995	31.5907
	6/21/1995	1393.41
	12/14/1995	280.591
	3/6/1996	205.591
	4/25/1996	530.591
	10/2/1996	84.5907
	12/10/1996	91.5907
	3/11/1997	165.591
	4/15/1997	231.591
	8/14/1997	680.591
	12/4/1997	300.591
	3/31/1998	531.591
	6/23/1998	630.591
	8/11/1998	405.591
	12/8/1998	453.591
	3/9/1999	231.591
	6/8/1999	270.591
	8/19/1999	331.591
	12/14/1999	331.591
	3/7/2000	140.409
	6/23/2000	518.409
	12/12/2000	320.591
	3/27/2001	280.591
	6/28/2001	330.591
	9/10/2001	581.591
	12/18/2001	131.591
	3/19/2002	261.591
	6/26/2002	230.591
	9/18/2002	205.591
	12/11/2002	144.591
	3/13/2003	41.5907
	6/25/2003	331.591
	9/26/2003	147.591
	12/10/2003	40.5907
	3/9/2004	331.591
	6/24/2004	423.591
	9/15/2004	33.4093
	12/15/2004	131.591
	3/16/2005	143.409
	6/15/2005	68.4093
	9/21/2005	56.4093
	12/21/2005	81.5907
	3/15/2006	93.4093
	6/21/2006	31.5907
	12/20/2006	218.409
	2/21/2007	218.409
	6/12/2007	118.409
	12/17/2007	69.4093

6/11/2008	258.409
12/3/2008	115.591
6/17/2009	718.409
12/9/2009	593.409
6/17/2010	31.5907
12/22/2010	131.591
6/29/2011	201.591
12/7/2011	41.5907
6/6/2012	141.591
12/12/2012	281.591
6/19/2013	78.4093
12/11/2013	58.4093
6/11/2014	108.409
12/3/2014	51.5907
6/17/2015	1420.71
12/1/2015	291.591
6/22/2016	168.409
12/20/2016	221.591
6/6/2017	111.591
11/7/2017	308.409
2/27/2018	198.409
9/27/2018	218.409
5/7/2019	108.409
11/21/2019	1463.41
6/25/2020	1359.41
11/16/2020	258.409

Group: MW#93-3	**Date**	**Residual**
	12/15/1994	178.974
	3/14/1995	158.974
	6/21/1995	158.974
	12/14/1995	144.974
	3/6/1996	106.974
	4/25/1996	122.974
	10/2/1996	168.974
	12/10/1996	115.974
	3/11/1997	113.974
	4/15/1997	138.974
	8/14/1997	654.974
	12/4/1997	12.0257
	3/31/1998	13.9743
	6/23/1998	15.0257
	8/11/1998	238.974
	12/8/1998	1.02568
	3/9/1999	18.9743
	6/8/1999	47.0257
	8/19/1999	1.02568
	12/14/1999	61.0257
	3/7/2000	29.0257
	6/23/2000	8.97432
	12/12/2000	65.0257
	3/27/2001	71.0257
	6/28/2001	81.0257
	9/10/2001	59.0257
	12/18/2001	112.026
	3/19/2002	58.0257
	6/26/2002	81.0257

9/18/2002	76.0257
12/11/2002	83.0257
3/13/2003	54.0257
6/25/2003	71.0257
9/26/2003	103.026
12/10/2003	121.026
3/9/2004	248.026
6/24/2004	101.026
9/15/2004	122.026
12/15/2004	139.026
3/16/2005	81.0257
6/15/2005	111.026
9/21/2005	46.0257
12/21/2005	81.0257
3/15/2006	40.0257
6/21/2006	51.0257
12/20/2006	51.0257
6/12/2007	151.026
12/17/2007	130.026
6/11/2008	117.026
12/3/2008	109.026
6/17/2009	141.026
12/9/2009	86.0257
6/17/2010	111.026
12/22/2010	91.0257
6/29/2011	91.0257
12/7/2011	162.126
6/6/2012	67.0257
12/12/2012	93.0257
6/19/2013	67.0257
12/11/2013	88.0257
6/11/2014	7.02568
12/3/2014	67.0257
6/17/2015	93.0257
12/1/2015	18.9743
6/22/2016	256.974
12/20/2016	213.974
6/6/2017	148.026
11/7/2017	140.974
2/27/2018	173.974
9/27/2018	164.974
5/7/2019	159.974
11/21/2019	808.974
6/25/2020	118.026
11/16/2020	74.0257

Shapiro-Francia Test of Normality

Parameter: Chloride

All Locations

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Number of Measurements = 295

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	0.628	-2.74777	7.55021	-1.7256
2	0.652	-2.51213	13.861	-3.36351
3	0.777	-2.32634	19.2729	-5.17108
4	0.786	-2.22621	24.2289	-6.92087
5	0.887	-2.14441	28.8274	-8.82296
6	1.07	-2.05375	33.0453	-11.0205
7	1.13	-1.99539	37.0269	-13.2753
8	2.29	-1.92684	40.7396	-17.6877
9	3	-1.88079	44.2769	-23.3301
10	4	-1.83843	47.6567	-30.6838
11	4	-1.78661	50.8487	-37.8302
12	4	-1.75069	53.9136	-44.833
13	4	-1.71688	56.8613	-51.7005
14	4	-1.67466	59.6658	-58.3992
15	4.86	-1.64485	62.3713	-66.3932
16	5	-1.60725	64.9546	-74.4294
17	5	-1.58047	67.4525	-82.3317
18	5	-1.55477	69.8698	-90.1056
19	5	-1.52203	72.1864	-97.7158
20	5	-1.49852	74.4319	-105.208
21	5	-1.47579	76.6099	-112.587
22	5	-1.44663	78.7026	-119.82
23	5	-1.42554	80.7348	-126.948
24	5	-1.39838	82.6903	-133.94
25	5.88	-1.37866	84.591	-142.047
26	5.9	-1.35946	86.4391	-150.067
27	6	-1.33462	88.2203	-158.075
28	6	-1.31652	89.9535	-165.974
29	8.7	-1.29884	91.6405	-177.274
30	9.36	-1.27588	93.2684	-189.216
31	10	-1.25908	94.8537	-201.807
32	11	-1.23724	96.3844	-215.417
33	11	-1.22123	97.8758	-228.85
34	11	-1.20553	99.3291	-242.111
35	13	-1.18504	100.733	-257.517
36	13	-1.17	102.102	-272.727
37	13	-1.15035	103.426	-287.681
38	14.4	-1.1359	104.716	-304.038
39	15.2	-1.12168	105.974	-321.088
40	15.2	-1.10306	107.191	-337.854
41	15.6	-1.08935	108.377	-354.848
42	16.1	-1.07584	109.535	-372.169
43	16.2	-1.05812	110.655	-389.311
44	16.8	-1.04505	111.747	-406.867
45	16.9	-1.02789	112.803	-424.239
46	17	-1.01522	113.834	-441.498
47	17.6	-1.00271	114.839	-459.145

48	17.6	-0.986272	115.812	-476.504
49	18.8	-0.974114	116.761	-494.817
50	19.3	-0.9621	117.687	-513.386
51	20	-0.946291	118.582	-532.311
52	20	-0.93459	119.456	-551.003
53	20	-0.919183	120.3	-569.387
54	20	-0.907769	121.124	-587.542
55	20.8	-0.896473	121.928	-606.189
56	21.5	-0.881587	122.705	-625.143
57	22	-0.87055	123.463	-644.295
58	22	-0.859618	124.202	-663.207
59	22.2	-0.845198	124.916	-681.97
60	23	-0.834498	125.613	-701.163
61	23.5	-0.820379	126.286	-720.442
62	23.8	-0.809896	126.942	-739.718
63	24	-0.7995	127.581	-758.906
64	24	-0.785774	128.198	-777.764
65	24	-0.775574	128.8	-796.378
66	24	-0.765456	129.386	-814.749
67	26	-0.752084	129.952	-834.303
68	27	-0.742143	130.502	-854.341
69	27	-0.729003	131.034	-874.024
70	27	-0.719228	131.551	-893.443
71	28	-0.709522	132.054	-913.31
72	28	-0.696684	132.54	-932.817
73	28	-0.687131	133.012	-952.057
74	28.3	-0.67449	133.467	-971.145
75	28.4	-0.665079	133.909	-990.033
76	29	-0.655726	134.339	-1009.05
77	29	-0.643345	134.753	-1027.71
78	29	-0.634124	135.155	-1046.1
79	29.3	-0.624956	135.546	-1064.41
80	30	-0.612813	135.921	-1082.79
81	30	-0.603765	136.286	-1100.9
82	30	-0.591776	136.636	-1118.66
83	30	-0.582841	136.976	-1136.14
84	30	-0.573953	137.305	-1153.36
85	30	-0.56217	137.621	-1170.23
86	30	-0.553384	137.927	-1186.83
87	31	-0.544642	138.224	-1203.71
88	31	-0.533048	138.508	-1220.24
89	32	-0.524401	138.783	-1237.02
90	32	-0.51293	139.046	-1253.43
91	32.1	-0.504372	139.301	-1269.62
92	32.8	-0.49585	139.547	-1285.89
93	33	-0.484544	139.781	-1301.88
94	33	-0.476105	140.008	-1317.59
95	35	-0.467699	140.227	-1333.96
96	35	-0.456542	140.435	-1349.94
97	35	-0.448213	140.636	-1365.62
98	36	-0.437153	140.827	-1381.36
99	37	-0.428895	141.011	-1397.23
100	37	-0.420664	141.188	-1412.79
101	38	-0.409735	141.356	-1428.36
102	40	-0.401571	141.517	-1444.43
103	40	-0.393433	141.672	-1460.16
104	40	-0.382622	141.818	-1475.47

105	40	-0.374544	141.959	-1490.45
106	41	-0.363809	142.091	-1505.37
107	42	-0.355788	142.218	-1520.31
108	42	-0.347787	142.339	-1534.92
109	42	-0.337155	142.452	-1549.08
110	42	-0.329206	142.561	-1562.9
111	44	-0.318639	142.662	-1576.92
112	44	-0.310738	142.759	-1590.6
113	45	-0.302855	142.851	-1604.23
114	46	-0.292375	142.936	-1617.67
115	46	-0.284535	143.017	-1630.76
116	46	-0.276714	143.094	-1643.49
117	47.7	-0.266311	143.164	-1656.19
118	48	-0.258527	143.231	-1668.6
119	50	-0.248174	143.293	-1681.01
120	50	-0.240426	143.351	-1693.03
121	51	-0.232693	143.405	-1704.9
122	51.2	-0.222403	143.454	-1716.29
123	52	-0.214702	143.5	-1727.45
124	54	-0.207012	143.543	-1738.63
125	54.7	-0.196779	143.582	-1749.4
126	56	-0.189118	143.618	-1759.99
127	56	-0.17892	143.65	-1770.01
128	57	-0.171285	143.679	-1779.77
129	58	-0.163659	143.706	-1789.26
130	58	-0.153505	143.729	-1798.16
131	58	-0.1459	143.751	-1806.63
132	59	-0.138305	143.77	-1814.79
133	60	-0.128189	143.786	-1822.48
134	60	-0.12061	143.801	-1829.71
135	61	-0.110516	143.813	-1836.46
136	63	-0.102953	143.824	-1842.94
137	67.8	-0.0953969	143.833	-1849.41
138	75	-0.0853288	143.84	-1855.81
139	79.7	-0.0777834	143.846	-1862.01
140	88.4	-0.0702426	143.851	-1868.22
141	98.9	-0.0601949	143.855	-1874.17
142	109	-0.0526632	143.857	-1879.91
143	110	-0.0426257	143.859	-1884.6
144	113	-0.0350997	143.86	-1888.57
145	117	-0.0275759	143.861	-1891.79
146	120	-0.0175476	143.862	-1893.9
147	122	-0.0100272	143.862	-1895.12
148	126	0	143.862	-1895.12
149	131	0.0100272	143.862	-1893.81
150	139	0.0175476	143.862	-1891.37
151	140	0.0275759	143.863	-1887.51
152	143	0.0350997	143.864	-1882.49
153	144	0.0426257	143.866	-1876.35
154	149	0.0526632	143.869	-1868.51
155	150	0.0601949	143.872	-1859.48
156	150	0.0702426	143.877	-1848.94
157	152	0.0777834	143.883	-1837.12
158	158	0.0853288	143.89	-1823.63
159	160	0.0953969	143.9	-1808.37
160	168	0.102953	143.91	-1791.07
161	168	0.110516	143.922	-1772.51

162	170	0.12061	143.937	-1752
163	170	0.128189	143.953	-1730.21
164	173	0.138305	143.973	-1706.29
165	175	0.1459	143.994	-1680.75
166	178	0.153505	144.017	-1653.43
167	180	0.163659	144.044	-1623.97
168	180	0.171285	144.073	-1593.14
169	180	0.17892	144.106	-1560.93
170	180	0.189118	144.141	-1526.89
171	185	0.196779	144.18	-1490.49
172	187	0.207012	144.223	-1451.78
173	190	0.214702	144.269	-1410.98
174	190	0.222403	144.318	-1368.73
175	194	0.232693	144.373	-1323.58
176	194	0.240426	144.43	-1276.94
177	194	0.248174	144.492	-1228.8
178	196	0.258527	144.559	-1178.12
179	200	0.266311	144.63	-1124.86
180	202	0.276714	144.706	-1068.97
181	203	0.284535	144.787	-1011.21
182	207	0.292375	144.873	-950.684
183	210	0.302855	144.964	-887.084
184	210	0.310738	145.061	-821.829
185	214	0.318639	145.163	-753.641
186	215	0.329206	145.271	-682.861
187	221	0.337155	145.385	-608.35
188	232	0.347787	145.506	-527.663
189	246	0.355788	145.632	-440.14
190	247	0.363809	145.764	-350.279
191	249	0.374544	145.905	-257.017
192	254	0.382622	146.051	-159.831
193	260	0.393433	146.206	-57.5388
194	260	0.401571	146.367	46.8698
195	270	0.409735	146.535	157.498
196	275	0.420664	146.712	273.181
197	280	0.428895	146.896	393.272
198	280	0.437153	147.087	515.674
199	283	0.448213	147.288	642.519
200	288	0.456542	147.496	774.003
201	313	0.467699	147.715	920.392
202	368	0.476105	147.942	1095.6
203	375	0.484544	148.177	1277.3
204	377	0.49585	148.422	1464.24
205	384	0.504372	148.677	1657.92
206	400	0.51293	148.94	1863.09
207	400	0.524401	149.215	2072.85
208	402	0.533048	149.499	2287.13
209	406	0.544642	149.796	2508.26
210	410	0.553384	150.102	2735.15
211	420	0.56217	150.418	2971.26
212	420	0.573953	150.747	3212.32
213	421	0.582841	151.087	3457.69
214	426	0.591776	151.437	3709.79
215	430	0.603765	151.802	3969.41
216	435	0.612813	152.177	4235.98
217	435	0.624956	152.568	4507.84
218	440	0.634124	152.97	4786.85

219	448	0.643345	153.384	5075.07
220	475	0.655726	153.814	5386.54
221	500	0.665079	154.256	5719.08
222	518	0.67449	154.711	6068.47
223	543	0.687131	155.183	6441.58
224	750	0.696684	155.669	6964.09
225	875	0.709522	156.172	7584.92
226	916	0.719228	156.689	8243.74
227	950	0.729003	157.221	8936.29
228	1070	0.742143	157.772	9730.38
229	1160	0.752084	158.337	10602.8
230	1210	0.765456	158.923	11529
231	1210	0.775574	159.525	12467.4
232	1250	0.785774	160.142	13449.7
233	1250	0.7995	160.781	14449
234	1250	0.809896	161.437	15461.4
235	1270	0.820379	162.11	16503.3
236	1300	0.834498	162.807	17588.1
237	1325	0.845198	163.521	18708
238	1328	0.859618	164.26	19849.6
239	1350	0.87055	165.018	21024.8
240	1360	0.881587	165.795	22223.8
241	1360	0.896473	166.599	23443
242	1375	0.907769	167.423	24691.2
243	1390	0.919183	168.268	25968.8
244	1399	0.93459	169.141	27276.3
245	1400	0.946291	170.037	28601.1
246	1410	0.9621	170.962	29957.7
247	1412	0.974114	171.911	31333.2
248	1435	0.986272	172.884	32748.5
249	1500	1.00271	173.889	34252.5
250	1500	1.01522	174.92	35775.4
251	1500	1.02789	175.977	37317.2
252	1509	1.04505	177.069	38894.2
253	1510	1.05812	178.188	40491.9
254	1510	1.07584	179.346	42116.5
255	1520	1.08935	180.532	43772.3
256	1550	1.10306	181.749	45482
257	1553	1.12168	183.007	47224
258	1560	1.1359	184.298	48996
259	1580	1.15035	185.621	50813.5
260	1584	1.17	186.99	52666.8
261	1600	1.18504	188.394	54562.9
262	1600	1.20553	189.847	56491.7
263	1600	1.22123	191.339	58445.7
264	1610	1.23724	192.87	60437.6
265	1613	1.25908	194.455	62468.5
266	1616	1.27588	196.083	64530.4
267	1634	1.29884	197.77	66652.7
268	1670	1.31652	199.503	68851.2
269	1674	1.33462	201.284	71085.4
270	1674	1.35946	203.132	73361.1
271	1690	1.37866	205.033	75691.1
272	1699	1.39838	206.988	78066.9
273	1700	1.42554	209.021	80490.3
274	1700	1.44663	211.113	82949.6
275	1730	1.47579	213.291	85502.7

276	1739	1.49852	215.537	88108.7
277	1749	1.52203	217.853	90770.7
278	1749	1.55477	220.271	93490
279	1750	1.58047	222.769	96255.8
280	1760	1.60725	225.352	99084.6
281	1769	1.64485	228.057	101994
282	1789	1.67466	230.862	104990
283	1799	1.71688	233.81	108079
284	1800	1.75069	236.875	111230
285	1800	1.78661	240.067	114446
286	1800	1.83843	243.446	117755
287	1800	1.88079	246.984	121141
288	1874	1.92684	250.696	124752
289	1892	1.99539	254.678	128527
290	1922	2.05375	258.896	132474
291	1999	2.14441	263.494	136761
292	2000	2.22621	268.45	141213
293	2050	2.32634	273.862	145982
294	2099	2.51213	280.173	151255
295	2149	2.74777	287.723	157160

Data Set Standard Deviation = 643.845
Numerator = 2.46993e+010
Denominator = 3.50659e+010
W Statistic = 0.704368 = 2.46993e+010 / 3.50659e+010

5% Critical value of 0.976 exceeds 0.704368
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.704368
Evidence of non-normality at 99% level of significance

Concentrations (ppb)

Parameter: Chromium

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 55
Total Non-Detect: 53
Percent Non-Detects: 96.3636%
Total Background Measurements: 11
There is 1 background location

Loc.	Meas.	ND	Date	Conc.	Original
MW#93-1	11	11 (100%)	5/24/2018	ND<0.01	ND<0.01
			6/19/2018	ND<0.01	ND<0.01
			7/19/2018	ND<0.01	ND<0.01
			8/22/2018	ND<0.01	ND<0.01
			9/19/2018	ND<0.01	ND<0.01
			10/18/2018	ND<0.01	ND<0.01
			11/20/2018	ND<0.01	ND<0.01
			12/20/2018	ND<0.01	ND<0.01
			11/21/2019	ND<0.01	ND<0.01
			6/25/2020	ND<0.02	ND<0.02
			11/17/2020	ND<0.02	ND<0.02

There are 4 compliance locations

Loc.	Meas.	ND	Date	Conc.	Original
MW#03-1	11	9 (81.8182%)	5/24/2018	ND<0.01	ND<0.01
			6/19/2018	ND<0.01	ND<0.01
			7/19/2018	0.0808	0.0808
			8/22/2018	0.38	0.38
			10/18/2018	ND<0.01	ND<0.01
			11/20/2018	ND<0.01	ND<0.01
			12/20/2018	ND<0.01	ND<0.01
			3/26/2019	ND<0.01	ND<0.01
			11/21/2019	ND<0.01	ND<0.01
			6/25/2020	ND<0.02	ND<0.02
			11/17/2020	ND<0.02	ND<0.02
MW#03-2	11	11 (100%)	5/24/2018	ND<0.01	ND<0.01
			6/19/2018	ND<0.01	ND<0.01
			7/19/2018	ND<0.01	ND<0.01
			8/22/2018	ND<0.01	ND<0.01
			9/19/2018	ND<0.01	ND<0.01
			10/18/2018	ND<0.01	ND<0.01
			11/20/2018	ND<0.01	ND<0.01
			12/20/2018	ND<0.01	ND<0.01
			11/21/2019	ND<0.01	ND<0.01
			6/25/2020	ND<0.02	ND<0.02
			11/17/2020	ND<0.02	ND<0.02
MW#93-2	11	11 (100%)	5/24/2018	ND<0.01	ND<0.01
			6/19/2018	ND<0.01	ND<0.01
			7/19/2018	ND<0.01	ND<0.01
			8/22/2018	ND<0.01	ND<0.01
			9/19/2018	ND<0.01	ND<0.01

			10/18/2018	ND<0.01	ND<0.01
			11/20/2018	ND<0.01	ND<0.01
			12/20/2018	ND<0.01	ND<0.01
			11/21/2019	ND<0.01	ND<0.01
			6/25/2020	ND<0.02	ND<0.02
			11/16/2020	ND<0.02	ND<0.02
MW#93-3	11	11 (100%)	5/24/2018	ND<0.01	ND<0.01
			6/19/2018	ND<0.01	ND<0.01
			7/19/2018	ND<0.01	ND<0.01
			8/22/2018	ND<0.01	ND<0.01
			9/19/2018	ND<0.01	ND<0.01
			10/18/2018	ND<0.01	ND<0.01
			11/20/2018	ND<0.01	ND<0.01
			12/20/2018	ND<0.01	ND<0.01
			11/21/2019	ND<0.01	ND<0.01
			6/25/2020	ND<0.02	ND<0.02
			11/16/2020	ND<0.02	ND<0.02

There are 0 unused locations

Loc.	Meas.	ND	Date	Conc.	Original

Non-Parametric Prediction Interval

Inter-Well Comparison

Parameter: Chromium

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 96.3636%
Number of comparisons = 4
Future Samples (k) = 4
Recent Dates = 1
Background Measurements (n) = 11
Maximum Background Value = 0.02
Confidence Level = 73.3%
False Positive Rate = 26.7%

Location	Date	Count	Mean	Significant
MW#03-1	11/17/2020	1	0.02	FALSE
MW#03-2	11/17/2020	1	0.02	FALSE
MW#93-2	11/16/2020	1	0.02	FALSE
MW#93-3	11/16/2020	1	0.02	FALSE

Levene's Test for Equal of Variance

Parameter: Chromium

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Overall Mean = 0.0153626
Overall Std Dev = 0.0452326
Overall Total = 0.844945
SS Groups = 0.0337587
SS Total = 0.110483

ANOVA Table

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Squares	F
Between Groups	0.0337587	4	0.00843967	5.49998
Error (within groups)	0.0767246	50	0.00153449	
Totals	0.110483	54		

95% F-Statistic = 2.52521

5.49998 exceeds 2.52521; assumption of equal variance should be rejected

Group: MW#93-1	Sample	Residual
	5/24/2018	0.00181818
	6/19/2018	0.00181818
	7/19/2018	0.00181818
	8/22/2018	0.00181818
	9/19/2018	0.00181818
	10/18/2018	0.00181818
	11/20/2018	0.00181818
	12/20/2018	0.00181818
	11/21/2019	0.00181818
	6/25/2020	0.00818182
	11/17/2020	0.00818182

Group: MW#03-1	Date	Residual
	5/24/2018	0.0418909
	6/19/2018	0.0418909
	7/19/2018	0.0289091
	8/22/2018	0.328109
	10/18/2018	0.0418909
	11/20/2018	0.0418909
	12/20/2018	0.0418909
	3/26/2019	0.0418909
	11/21/2019	0.0418909
	6/25/2020	0.0318909
	11/17/2020	0.0318909

Group: MW#03-2	Date	Residual
	5/24/2018	0.00181818
	6/19/2018	0.00181818
	7/19/2018	0.00181818
	8/22/2018	0.00181818

9/19/2018	0.00181818
10/18/2018	0.00181818
11/20/2018	0.00181818
12/20/2018	0.00181818
11/21/2019	0.00181818
6/25/2020	0.00818182
11/17/2020	0.00818182

Group: MW#93-2	Date	Residual
	5/24/2018	0.00181818
	6/19/2018	0.00181818
	7/19/2018	0.00181818
	8/22/2018	0.00181818
	9/19/2018	0.00181818
	10/18/2018	0.00181818
	11/20/2018	0.00181818
	12/20/2018	0.00181818
	11/21/2019	0.00181818
	6/25/2020	0.00818182
	11/16/2020	0.00818182

Group: MW#93-3	Date	Residual
	5/24/2018	0.00181818
	6/19/2018	0.00181818
	7/19/2018	0.00181818
	8/22/2018	0.00181818
	9/19/2018	0.00181818
	10/18/2018	0.00181818
	11/20/2018	0.00181818
	12/20/2018	0.00181818
	11/21/2019	0.00181818
	6/25/2020	0.00818182
	11/16/2020	0.00818182

Shapiro-Francia Test of Normality

Parameter: Chromium

All Locations

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Number of Measurements = 55

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	0.01	-2.12007	4.49469	-0.0212007
2	0.01	-1.81191	7.77772	-0.0393198
3	0.01	-1.61644	10.3906	-0.0554842
4	0.01	-1.46838	12.5467	-0.070168
5	0.01	-1.34694	14.361	-0.0836374
6	0.01	-1.24264	15.9051	-0.0960638
7	0.01	-1.15035	17.2284	-0.107567
8	0.01	-1.07138	18.3763	-0.118281
9	0.01	-0.994457	19.3652	-0.128226
10	0.01	-0.923014	20.2172	-0.137456
11	0.01	-0.855996	20.9499	-0.146016
12	0.01	-0.792618	21.5782	-0.153942
13	0.01	-0.732275	22.1144	-0.161265
14	0.01	-0.67449	22.5693	-0.16801
15	0.01	-0.621911	22.9561	-0.174229
16	0.01	-0.568052	23.2788	-0.179909
17	0.01	-0.515791	23.5448	-0.185067
18	0.01	-0.464904	23.761	-0.189716
19	0.01	-0.415193	23.9334	-0.193868
20	0.01	-0.36649	24.0677	-0.197533
21	0.01	-0.318639	24.1692	-0.200719
22	0.01	-0.27411	24.2443	-0.203461
23	0.01	-0.227545	24.2961	-0.205736
24	0.01	-0.181468	24.329	-0.207551
25	0.01	-0.135774	24.3475	-0.208908
26	0.01	-0.0903606	24.3556	-0.209812
27	0.01	-0.0451348	24.3577	-0.210263
28	0.01	0	24.3577	-0.210263
29	0.01	0.0451348	24.3597	-0.209812
30	0.01	0.0903606	24.3679	-0.208908
31	0.01	0.135774	24.3863	-0.207551
32	0.01	0.181468	24.4192	-0.205736
33	0.01	0.227545	24.471	-0.203461
34	0.01	0.27411	24.5462	-0.200719
35	0.01	0.318639	24.6477	-0.197533
36	0.01	0.36649	24.782	-0.193868
37	0.01	0.415193	24.9544	-0.189716
38	0.01	0.464904	25.1705	-0.185067
39	0.01	0.515791	25.4366	-0.179909
40	0.01	0.568052	25.7593	-0.174229
41	0.01	0.621911	26.146	-0.16801
42	0.01	0.67449	26.601	-0.161265
43	0.01	0.732275	27.1372	-0.153942
44	0.02	0.792618	27.7654	-0.13809
45	0.02	0.855996	28.4982	-0.12097
46	0.02	0.923014	29.3501	-0.102509
47	0.02	0.994457	30.3391	-0.0826202

48	0.02	1.07138	31.4869	-0.0611927
49	0.02	1.15035	32.8102	-0.0381857
50	0.02	1.24264	34.3544	-0.0133329
51	0.02	1.34694	36.1686	0.0136059
52	0.02	1.46838	38.3248	0.0429736
53	0.02	1.61644	40.9376	0.0753023
54	0.0808	1.81191	44.2207	0.221705
55	0.38	2.12007	48.7154	1.02733

Data Set Standard Deviation = 0.0504783
Numerator = 1.05541
Denominator = 6.70299
W Statistic = 0.157453 = 1.05541 / 6.70299

5% Critical value of 0.958 exceeds 0.157453
Evidence of non-normality at 95% level of significance

1% Critical value of 0.94 exceeds 0.157453
Evidence of non-normality at 99% level of significance

Concentrations (ppb)

Parameter: Cobalt

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 55
Total Non-Detect: 49
Percent Non-Detects: 89.0909%
Total Background Measurements: 11
There is 1 background location

Loc.	Meas.	ND	Date	Conc.	Original
MW#93-1	11	10 (90.9091%)	5/24/2018	ND<0.01	ND<0.01
			6/19/2018	ND<0.01	ND<0.01
			7/19/2018	ND<0.01	ND<0.01
			8/22/2018	ND<0.01	ND<0.01
			9/19/2018	ND<0.01	ND<0.01
			10/18/2018	ND<0.01	ND<0.01
			11/20/2018	ND<0.01	ND<0.01
			12/20/2018	ND<0.01	ND<0.01
			11/21/2019	ND<0.006	ND<0.006
			6/25/2020	ND<0.002	ND<0.002
			11/17/2020	0.000252	0.000252

There are 4 compliance locations

Loc.	Meas.	ND	Date	Conc.	Original
MW#03-1	11	8 (72.7273%)	5/24/2018	ND<0.01	ND<0.01
			6/19/2018	ND<0.01	ND<0.01
			7/19/2018	0.0321	0.0321
			8/22/2018	0.115	0.115
			10/18/2018	ND<0.01	ND<0.01
			11/20/2018	ND<0.01	ND<0.01
			12/20/2018	ND<0.01	ND<0.01
			3/26/2019	ND<0.01	ND<0.01
			11/21/2019	ND<0.006	ND<0.006
			6/25/2020	ND<0.002	ND<0.002
			11/17/2020	0.000211	0.000211
MW#03-2	11	11 (100%)	5/24/2018	ND<0.01	ND<0.01
			6/19/2018	ND<0.01	ND<0.01
			7/19/2018	ND<0.01	ND<0.01
			8/22/2018	ND<0.01	ND<0.01
			9/19/2018	ND<0.01	ND<0.01
			10/18/2018	ND<0.01	ND<0.01
			11/20/2018	ND<0.01	ND<0.01
			12/20/2018	ND<0.01	ND<0.01
			11/21/2019	ND<0.006	ND<0.006
			6/25/2020	ND<0.002	ND<0.002
			11/17/2020	ND<0.002	ND<0.002
MW#93-2	11	9 (81.8182%)	5/24/2018	ND<0.01	ND<0.01
			6/19/2018	ND<0.01	ND<0.01
			7/19/2018	ND<0.01	ND<0.01
			8/22/2018	ND<0.01	ND<0.01
			9/19/2018	ND<0.01	ND<0.01

			10/18/2018	ND<0.01	ND<0.01
			11/20/2018	ND<0.01	ND<0.01
			12/20/2018	ND<0.01	ND<0.01
			11/21/2019	ND<0.006	ND<0.006
			6/25/2020	0.000252	0.000252
			11/16/2020	0.000281	0.000281
MW#93-3	11	11 (100%)	5/24/2018	ND<0.01	ND<0.01
			6/19/2018	ND<0.01	ND<0.01
			7/19/2018	ND<0.01	ND<0.01
			8/22/2018	ND<0.01	ND<0.01
			9/19/2018	ND<0.01	ND<0.01
			10/18/2018	ND<0.01	ND<0.01
			11/20/2018	ND<0.01	ND<0.01
			12/20/2018	ND<0.01	ND<0.01
			11/21/2019	ND<0.006	ND<0.006
			6/25/2020	ND<0.002	ND<0.002
			11/16/2020	ND<0.002	ND<0.002

There are 0 unused locations

Loc.	Meas.	ND	Date	Conc.	Original

Non-Parametric Prediction Interval

Inter-Well Comparison

Parameter: Cobalt

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 89.0909%
Number of comparisons = 4
Future Samples (k) = 4
Recent Dates = 1
Background Measurements (n) = 11
Maximum Background Value = 0.01
Confidence Level = 73.3%
False Positive Rate = 26.7%

Location	Date	Count	Mean	Significant
MW#03-1	11/17/2020	1	0.000211	FALSE
MW#03-2	11/17/2020	1	0.002	FALSE
MW#93-2	11/16/2020	1	0.000281	FALSE
MW#93-3	11/16/2020	1	0.002	FALSE

Shapiro-Francia Test of Normality

Parameter: Cobalt

All Locations

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Number of Measurements = 55

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	0.000211	-2.12007	4.49469	-0.000447334
2	0.000252	-1.81191	7.77772	-0.000903937
3	0.000252	-1.61644	10.3906	-0.00131128
4	0.000281	-1.46838	12.5467	-0.00172389
5	0.002	-1.34694	14.361	-0.00441777
6	0.002	-1.24264	15.9051	-0.00690306
7	0.002	-1.15035	17.2284	-0.00920376
8	0.002	-1.07138	18.3763	-0.0113465
9	0.002	-0.994457	19.3652	-0.0133354
10	0.002	-0.923014	20.2172	-0.0151815
11	0.006	-0.855996	20.9499	-0.0203174
12	0.006	-0.792618	21.5782	-0.0250731
13	0.006	-0.732275	22.1144	-0.0294668
14	0.006	-0.67449	22.5693	-0.0335137
15	0.006	-0.621911	22.9561	-0.0372452
16	0.01	-0.568052	23.2788	-0.0429257
17	0.01	-0.515791	23.5448	-0.0480836
18	0.01	-0.464904	23.761	-0.0527327
19	0.01	-0.415193	23.9334	-0.0568846
20	0.01	-0.36649	24.0677	-0.0605495
21	0.01	-0.318639	24.1692	-0.0637359
22	0.01	-0.27411	24.2443	-0.066477
23	0.01	-0.227545	24.2961	-0.0687525
24	0.01	-0.181468	24.329	-0.0705671
25	0.01	-0.135774	24.3475	-0.0719249
26	0.01	-0.0903606	24.3556	-0.0728285
27	0.01	-0.0451348	24.3577	-0.0732798
28	0.01	0	24.3577	-0.0732798
29	0.01	0.0451348	24.3597	-0.0728285
30	0.01	0.0903606	24.3679	-0.0719249
31	0.01	0.135774	24.3863	-0.0705671
32	0.01	0.181468	24.4192	-0.0687525
33	0.01	0.227545	24.471	-0.066477
34	0.01	0.27411	24.5462	-0.0637359
35	0.01	0.318639	24.6477	-0.0605495
36	0.01	0.36649	24.782	-0.0568846
37	0.01	0.415193	24.9544	-0.0527327
38	0.01	0.464904	25.1705	-0.0480836
39	0.01	0.515791	25.4366	-0.0429257
40	0.01	0.568052	25.7593	-0.0372452
41	0.01	0.621911	26.146	-0.0310261
42	0.01	0.67449	26.601	-0.0242812
43	0.01	0.732275	27.1372	-0.0169584
44	0.01	0.792618	27.7654	-0.00903225
45	0.01	0.855996	28.4982	-0.000472293
46	0.01	0.923014	29.3501	0.00875785
47	0.01	0.994457	30.3391	0.0187024

48	0.01	1.07138	31.4869	0.0294162
49	0.01	1.15035	32.8102	0.0409197
50	0.01	1.24264	34.3544	0.0533461
51	0.01	1.34694	36.1686	0.0668155
52	0.01	1.46838	38.3248	0.0814994
53	0.01	1.61644	40.9376	0.0976637
54	0.0321	1.81191	44.2207	0.155826
55	0.115	2.12007	48.7154	0.399634

Data Set Standard Deviation = 0.0151232
Numerator = 0.159707
Denominator = 0.601654
W Statistic = 0.265447 = 0.159707 / 0.601654

5% Critical value of 0.958 exceeds 0.265447
Evidence of non-normality at 95% level of significance

1% Critical value of 0.94 exceeds 0.265447
Evidence of non-normality at 99% level of significance

Non-Parametric Prediction Interval

Intra-Well Comparison for MW#93-2

Parameter: Specific Conductance

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 0%
Future Samples (k) = 1
Recent Dates = 1
Baseline Measurements (n) = 75
Maximum Baseline Concentration = 15700
Confidence Level = 98.7%
False Positive Rate = 1.3%

Baseline Measurements	Date	Value
	12/15/1994	7950
	3/14/1995	8217
	6/21/1995	9210
	12/14/1995	9000
	3/6/1996	8820
	4/25/1996	9310
	10/2/1996	9420
	12/10/1996	9590
	3/11/1997	9250
	4/15/1997	9690
	8/14/1997	10660
	12/4/1997	10240
	3/31/1998	9237
	6/23/1998	10400
	8/11/1998	11460
	12/8/1998	10280
	3/9/1999	9240
	6/8/1999	10850
	8/19/1999	10873
	12/14/1999	9690
	3/7/2000	9340
	6/23/2000	1034
	12/12/2000	9080
	3/27/2001	10260
	6/28/2001	11600
	9/10/2001	10700
	12/18/2001	10660
	3/19/2002	10197
	6/26/2002	10590
	9/18/2002	9690
	12/11/2002	10283
	3/13/2003	8920
	6/25/2003	10590
	9/26/2003	10693
	12/10/2003	10550
	3/9/2004	10620
	6/24/2004	10494
	9/15/2004	10340
	12/15/2004	9940
	3/16/2005	9690
	6/15/2005	10010
	9/21/2005	9660

12/21/2005	10000
3/15/2006	8650
6/21/2006	9830
12/20/2006	8310
2/21/2007	7660
6/12/2007	9590
12/17/2007	9100
6/11/2008	9600
12/3/2008	10520
12/15/2008	9070
6/17/2009	10690
12/9/2009	10050
6/17/2010	10020
12/22/2010	11230
6/29/2011	11110
12/7/2011	10770
6/6/2012	10490
12/12/2012	11460
6/19/2013	10500
12/11/2013	10650
6/11/2014	9940
12/3/2014	10900
6/17/2015	1270
12/1/2015	10560
6/22/2016	6710
12/20/2016	11400
6/6/2017	12590
11/7/2017	10.52
2/27/2018	10.9
9/19/2018	15700
5/7/2019	15700
11/21/2019	15400
6/25/2020	12200

Date	Count	Mean	Significant
11/16/2020	1	12700	FALSE

Concentrations (ppb)

Parameter: Specific Conductance

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 293
Total Non-Detect: 0
Percent Non-Detects: 0%
Total Background Measurements: 73
There is 1 background location

Loc.	Meas.	ND	Date	Conc.	Original
MW#93-1	73	0 (0%)	12/15/1994	1080	1080
			3/14/1995	1103	1103
			6/21/1995	1154	1154
			12/14/1995	1109	1109
			3/6/1996	1010	1010
			4/25/1996	1063	1063
			10/2/1996	1169	1169
			12/10/1996	1187	1187
			3/11/1997	1077	1077
			4/15/1997	1070	1070
			8/14/1997	1217	1217
			12/4/1997	1170	1170
			3/31/1998	1092	1092
			6/23/1998	1210	1210
			8/11/1998	1273	1273
			12/8/1998	1888	1888
			3/9/1999	1080	1080
			6/8/1999	1301	1301
			8/19/1999	1301	1301
			12/14/1999	1270	1270
			3/7/2000	1290	1290
			6/23/2000	1393	1393
			12/12/2000	1309	1309
			3/27/2001	1469	1469
			6/28/2001	1560	1560
			9/10/2001	1374	1374
			12/18/2001	1374	1374
			3/19/2002	1326	1326
			6/26/2002	1516	1516
			9/18/2002	1423	1423
			12/11/2002	1515	1515
			3/13/2003	1332	1332
			6/25/2003	1608	1608
			9/26/2003	1602	1602
			12/10/2003	1620	1620
			3/9/2004	1630	1630
			6/24/2004	1620	1620
			9/15/2004	1618	1618
			12/15/2004	1586	1586
			3/16/2005	1521	1521
			6/15/2005	1531	1531
			9/21/2005	1441	1441
			12/21/2005	1030	1030
			3/15/2006	1318	1318
			6/21/2006	1547	1547

			12/20/2006	1370	1370
			6/12/2007	1466	1466
			12/17/2007	1327	1327
			6/11/2008	1334	1334
			12/3/2008	1352	1352
			6/17/2009	1301	1301
			12/9/2009	1218	1218
			6/17/2010	1179	1179
			12/22/2010	1270	1270
			6/29/2011	1275	1275
			12/7/2011	1236	1236
			6/6/2012	1185	1185
			12/12/2012	1227	1227
			6/19/2013	1366	1366
			12/11/2013	1329	1329
			6/11/2014	1200	1200
			12/3/2014	1230	1230
			6/17/2015	1210	1210
			12/1/2015	1230	1230
			6/22/2016	1185	1185
			12/20/2016	1186	1186
			6/6/2017	1289	1289
			11/7/2017	1458	1458
			2/27/2018	1235	1235
			9/19/2018	1520	1520
			11/21/2019	1510	1510
			6/25/2020	1440	1440
			11/17/2020	1460	1460

There are 4 compliance locations

Loc.	Meas.	ND	Date	Conc.	Original
MW#93-2	76	0 (0%)	12/15/1994	7950	7950
			3/14/1995	8217	8217
			6/21/1995	9210	9210
			12/14/1995	9000	9000
			3/6/1996	8820	8820
			4/25/1996	9310	9310
			10/2/1996	9420	9420
			12/10/1996	9590	9590
			3/11/1997	9250	9250
			4/15/1997	9690	9690
			8/14/1997	10660	10660
			12/4/1997	10240	10240
			3/31/1998	9237	9237
			6/23/1998	10400	10400
			8/11/1998	11460	11460
			12/8/1998	10280	10280
			3/9/1999	9240	9240
			6/8/1999	10850	10850
			8/19/1999	10873	10873
			12/14/1999	9690	9690
			3/7/2000	9340	9340
			6/23/2000	1034	1034
			12/12/2000	9080	9080
			3/27/2001	10260	10260

			6/28/2001	11600	11600
			9/10/2001	10700	10700
			12/18/2001	10660	10660
			3/19/2002	10197	10197
			6/26/2002	10590	10590
			9/18/2002	9690	9690
			12/11/2002	10283	10283
			3/13/2003	8920	8920
			6/25/2003	10590	10590
			9/26/2003	10693	10693
			12/10/2003	10550	10550
			3/9/2004	10620	10620
			6/24/2004	10494	10494
			9/15/2004	10340	10340
			12/15/2004	9940	9940
			3/16/2005	9690	9690
			6/15/2005	10010	10010
			9/21/2005	9660	9660
			12/21/2005	10000	10000
			3/15/2006	8650	8650
			6/21/2006	9830	9830
			12/20/2006	8310	8310
			2/21/2007	7660	7660
			6/12/2007	9590	9590
			12/17/2007	9100	9100
			6/11/2008	9600	9600
			12/3/2008	10520	10520
			12/15/2008	9070	9070
			6/17/2009	10690	10690
			12/9/2009	10050	10050
			6/17/2010	10020	10020
			12/22/2010	11230	11230
			6/29/2011	11110	11110
			12/7/2011	10770	10770
			6/6/2012	10490	10490
			12/12/2012	11460	11460
			6/19/2013	10500	10500
			12/11/2013	10650	10650
			6/11/2014	9940	9940
			12/3/2014	10900	10900
			6/17/2015	1270	1270
			12/1/2015	10560	10560
			6/22/2016	6710	6710
			12/20/2016	11400	11400
			6/6/2017	12590	12590
			11/7/2017	10.52	10.52
			2/27/2018	10.9	10.9
			9/19/2018	15700	15700
			5/7/2019	15700	15700
			11/21/2019	15400	15400
			6/25/2020	12200	12200
			11/16/2020	12700	12700
MW#93-3	74	0 (0%)	12/15/1994	1762	1762
			3/14/1995	1490	1490
			6/21/1995	1421	1421
			12/14/1995	1534	1534

3/6/1996	1327	1327
4/25/1996	1570	1570
10/2/1996	1657	1657
12/10/1996	1427	1427
3/11/1997	1370	1370
4/15/1997	1244	1244
8/14/1997	1351	1351
12/4/1997	1140	1140
3/31/1998	1172	1172
6/23/1998	1214	1214
8/11/1998	1296	1296
12/8/1998	1177	1177
3/9/1999	1137	1137
6/8/1999	1180	1180
8/19/1999	1253	1253
12/14/1999	1088	1088
3/7/2000	1250	1250
6/23/2000	1070	1070
12/12/2000	1051	1051
3/27/2001	1149	1149
6/28/2001	1155	1155
9/10/2001	1250	1250
12/18/2001	1064	1064
3/19/2002	1240	1240
6/26/2002	787	787
9/18/2002	1109	1109
12/11/2002	1125	1125
3/13/2003	1034	1034
6/25/2003	1111	1111
9/26/2003	1109	1109
12/10/2003	1173	1173
3/9/2004	881	881
6/24/2004	1129	1129
9/15/2004	1068	1068
12/15/2004	972	972
3/16/2005	1134	1134
6/15/2005	1080	1080
9/21/2005	1155	1155
12/21/2005	1140	1140
3/15/2006	1035	1035
6/21/2006	1226	1226
12/20/2006	1087	1087
6/12/2007	1031	1031
12/17/2007	910	910
6/11/2008	1023	1023
12/3/2008	1073	1073
6/17/2009	1073	1073
12/9/2009	1038	1038
6/17/2010	1108	1108
12/22/2010	1090	1090
6/29/2011	1178	1178
12/7/2011	930	930
6/6/2012	1203	1203
12/12/2012	1010	1010
6/19/2013	1438	1438
12/11/2013	1252	1252
6/11/2014	1500	1500

			12/3/2014	1200	1200
			6/17/2015	1480	1480
			12/1/2015	1807	1807
			10/11/2016	2005	2005
			12/20/2016	2200	2200
			6/6/2017	1743	1743
			11/7/2017	2121	2121
			9/6/2018	2380	2380
			9/19/2018	2110	2110
			5/7/2019	2830	2830
			11/21/2019	2200	2200
			6/25/2020	2080	2080
			11/16/2020	2060	2060
MW#03-1	32	0 (0%)	6/24/2004	497	497
			9/15/2004	687	687
			12/15/2004	514	514
			3/16/2005	422	422
			6/15/2005	465	465
			9/21/2005	517	517
			12/20/2006	447	447
			6/12/2007	630	630
			12/17/2007	540	540
			6/11/2008	467	467
			12/3/2008	649	649
			6/17/2009	519	519
			12/9/2009	469	469
			6/17/2010	500	500
			12/22/2010	504	504
			6/29/2011	463	463
			12/7/2011	501	501
			6/6/2012	457	457
			6/19/2013	373	373
			12/11/2013	476	476
			6/11/2014	826	826
			12/3/2014	409	409
			6/17/2015	267	267
			12/1/2015	385	385
			6/22/2016	320	320
			6/6/2017	198	198
			11/7/2017	444	444
			2/27/2018	186.1	186.1
			9/19/2018	573	573
			11/21/2019	140	140
			6/25/2020	255	255
			11/17/2020	524	524
MW#03-2	38	0 (0%)	6/24/2004	692	692
			9/15/2004	522	522
			12/15/2004	655	655
			3/16/2005	661	661
			6/15/2005	674	674
			9/21/2005	625	625
			12/21/2005	572	572
			3/15/2006	594	594
			6/21/2006	636	636
			12/20/2006	580	580

6/12/2007	680	680
12/17/2007	617	617
6/11/2008	674	674
12/3/2008	752	752
6/17/2009	720	720
12/9/2009	690	690
6/17/2010	685	685
12/22/2010	728	728
6/29/2011	748	748
12/7/2011	755	755
6/6/2012	716	716
12/12/2012	807	807
6/19/2013	807	807
12/11/2013	805	805
6/11/2014	219	219
12/3/2014	1540	1540
6/17/2015	965	965
12/1/2015	967	967
6/22/2016	1074	1074
12/20/2016	1454	1454
6/6/2017	1498	1498
11/7/2017	2042	2042
9/6/2018	2620	2620
9/19/2018	2880	2880
5/7/2019	2730	2730
11/21/2019	3600	3600
6/25/2020	2590	2590
11/17/2020	2390	2390

There are 0 unused locations

Loc.	Meas.	ND	Date	Conc.	Original

Non-Parametric Prediction Interval

Inter-Well Comparison

Parameter: Specific Conductance

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 0%
Number of comparisons = 4
Future Samples (k) = 4
Recent Dates = 1
Background Measurements (n) = 73
Maximum Background Value = 1888
Confidence Level = 94.8%
False Positive Rate = 5.2%

Location	Date	Count	Mean	Significant
MW#93-2	**11/16/2020**	**1**	**12700**	**TRUE**
MW#93-3	**11/16/2020**	**1**	**2060**	**TRUE**
MW#03-1	11/17/2020	1	524	FALSE
MW#03-2	**11/17/2020**	**1**	**2390**	**TRUE**

Non-Parametric Prediction Interval

Intra-Well Comparison for MW#93-3

Parameter: Specific Conductance

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 0%
Future Samples (k) = 1
Recent Dates = 1
Baseline Measurements (n) = 73
Maximum Baseline Concentration = 2830
Confidence Level = 98.6%
False Positive Rate = 1.4%

Baseline Measurements	Date	Value
	12/15/1994	1762
	3/14/1995	1490
	6/21/1995	1421
	12/14/1995	1534
	3/6/1996	1327
	4/25/1996	1570
	10/2/1996	1657
	12/10/1996	1427
	3/11/1997	1370
	4/15/1997	1244
	8/14/1997	1351
	12/4/1997	1140
	3/31/1998	1172
	6/23/1998	1214
	8/11/1998	1296
	12/8/1998	1177
	3/9/1999	1137
	6/8/1999	1180
	8/19/1999	1253
	12/14/1999	1088
	3/7/2000	1250
	6/23/2000	1070
	12/12/2000	1051
	3/27/2001	1149
	6/28/2001	1155
	9/10/2001	1250
	12/18/2001	1064
	3/19/2002	1240
	6/26/2002	787
	9/18/2002	1109
	12/11/2002	1125
	3/13/2003	1034
	6/25/2003	1111
	9/26/2003	1109
	12/10/2003	1173
	3/9/2004	881
	6/24/2004	1129
	9/15/2004	1068
	12/15/2004	972
	3/16/2005	1134
	6/15/2005	1080
	9/21/2005	1155

12/21/2005	1140
3/15/2006	1035
6/21/2006	1226
12/20/2006	1087
6/12/2007	1031
12/17/2007	910
6/11/2008	1023
12/3/2008	1073
6/17/2009	1073
12/9/2009	1038
6/17/2010	1108
12/22/2010	1090
6/29/2011	1178
12/7/2011	930
6/6/2012	1203
12/12/2012	1010
6/19/2013	1438
12/11/2013	1252
6/11/2014	1500
12/3/2014	1200
6/17/2015	1480
12/1/2015	1807
10/11/2016	2005
12/20/2016	2200
6/6/2017	1743
11/7/2017	2121
9/6/2018	2380
9/19/2018	2110
5/7/2019	2830
11/21/2019	2200
6/25/2020	2080

Date	Count	Mean	Significant
11/16/2020	1	2060	FALSE

Levene's Test for Equal of Variance

Parameter: Specific Conductance

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Overall Mean = 592.537
Overall Std Dev = 1256.48
Overall Total = 173613
SS Groups = 9.12876e+007
SS Total = 4.60995e+008

ANOVA Table

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Squares	F
Between Groups	9.12876e+007	4	2.28219e+007	17.7781
Error (within groups)	3.69708e+008	288	1.28371e+006	
Totals	4.60995e+008	292		

95% F-Statistic = 2.37

17.7781 exceeds 2.37; assumption of equal variance should be rejected

Group: MW#93-1	Sample	Residual
	12/15/1994	248.288
	3/14/1995	225.288
	6/21/1995	174.288
	12/14/1995	219.288
	3/6/1996	318.288
	4/25/1996	265.288
	10/2/1996	159.288
	12/10/1996	141.288
	3/11/1997	251.288
	4/15/1997	258.288
	8/14/1997	111.288
	12/4/1997	158.288
	3/31/1998	236.288
	6/23/1998	118.288
	8/11/1998	55.2877
	12/8/1998	559.712
	3/9/1999	248.288
	6/8/1999	27.2877
	8/19/1999	27.2877
	12/14/1999	58.2877
	3/7/2000	38.2877
	6/23/2000	64.7123
	12/12/2000	19.2877
	3/27/2001	140.712
	6/28/2001	231.712
	9/10/2001	45.7123
	12/18/2001	45.7123
	3/19/2002	2.28767
	6/26/2002	187.712
	9/18/2002	94.7123

12/11/2002	186.712
3/13/2003	3.71233
6/25/2003	279.712
9/26/2003	273.712
12/10/2003	291.712
3/9/2004	301.712
6/24/2004	291.712
9/15/2004	289.712
12/15/2004	257.712
3/16/2005	192.712
6/15/2005	202.712
9/21/2005	112.712
12/21/2005	298.288
3/15/2006	10.2877
6/21/2006	218.712
12/20/2006	41.7123
6/12/2007	137.712
12/17/2007	1.28767
6/11/2008	5.71233
12/3/2008	23.7123
6/17/2009	27.2877
12/9/2009	110.288
6/17/2010	149.288
12/22/2010	58.2877
6/29/2011	53.2877
12/7/2011	92.2877
6/6/2012	143.288
12/12/2012	101.288
6/19/2013	37.7123
12/11/2013	0.712329
6/11/2014	128.288
12/3/2014	98.2877
6/17/2015	118.288
12/1/2015	98.2877
6/22/2016	143.288
12/20/2016	142.288
6/6/2017	39.2877
11/7/2017	129.712
2/27/2018	93.2877
9/19/2018	191.712
11/21/2019	181.712
6/25/2020	111.712
11/17/2020	131.712

Group: MW#93-2	**Date**	**Residual**
	12/15/1994	1822.62
	3/14/1995	1555.62
	6/21/1995	562.624
	12/14/1995	772.624
	3/6/1996	952.624
	4/25/1996	462.624
	10/2/1996	352.624
	12/10/1996	182.624
	3/11/1997	522.624
	4/15/1997	82.6239
	8/14/1997	887.376
	12/4/1997	467.376

3/31/1998	535.624
6/23/1998	627.376
8/11/1998	1687.38
12/8/1998	507.376
3/9/1999	532.624
6/8/1999	1077.38
8/19/1999	1100.38
12/14/1999	82.6239
3/7/2000	432.624
6/23/2000	8738.62
12/12/2000	692.624
3/27/2001	487.376
6/28/2001	1827.38
9/10/2001	927.376
12/18/2001	887.376
3/19/2002	424.376
6/26/2002	817.376
9/18/2002	82.6239
12/11/2002	510.376
3/13/2003	852.624
6/25/2003	817.376
9/26/2003	920.376
12/10/2003	777.376
3/9/2004	847.376
6/24/2004	721.376
9/15/2004	567.376
12/15/2004	167.376
3/16/2005	82.6239
6/15/2005	237.376
9/21/2005	112.624
12/21/2005	227.376
3/15/2006	1122.62
6/21/2006	57.3761
12/20/2006	1462.62
2/21/2007	2112.62
6/12/2007	182.624
12/17/2007	672.624
6/11/2008	172.624
12/3/2008	747.376
12/15/2008	702.624
6/17/2009	917.376
12/9/2009	277.376
6/17/2010	247.376
12/22/2010	1457.38
6/29/2011	1337.38
12/7/2011	997.376
6/6/2012	717.376
12/12/2012	1687.38
6/19/2013	727.376
12/11/2013	877.376
6/11/2014	167.376
12/3/2014	1127.38
6/17/2015	8502.62
12/1/2015	787.376
6/22/2016	3062.62
12/20/2016	1627.38
6/6/2017	2817.38

11/7/2017	9762.1
2/27/2018	9761.72
9/19/2018	5927.38
5/7/2019	5927.38
11/21/2019	5627.38
6/25/2020	2427.38
11/16/2020	2927.38

Group: MW#93-3	Date	Residual
	12/15/1994	431.365
	3/14/1995	159.365
	6/21/1995	90.3649
	12/14/1995	203.365
	3/6/1996	3.63514
	4/25/1996	239.365
	10/2/1996	326.365
	12/10/1996	96.3649
	3/11/1997	39.3649
	4/15/1997	86.6351
	8/14/1997	20.3649
	12/4/1997	190.635
	3/31/1998	158.635
	6/23/1998	116.635
	8/11/1998	34.6351
	12/8/1998	153.635
	3/9/1999	193.635
	6/8/1999	150.635
	8/19/1999	77.6351
	12/14/1999	242.635
	3/7/2000	80.6351
	6/23/2000	260.635
	12/12/2000	279.635
	3/27/2001	181.635
	6/28/2001	175.635
	9/10/2001	80.6351
	12/18/2001	266.635
	3/19/2002	90.6351
	6/26/2002	543.635
	9/18/2002	221.635
	12/11/2002	205.635
	3/13/2003	296.635
	6/25/2003	219.635
	9/26/2003	221.635
	12/10/2003	157.635
	3/9/2004	449.635
	6/24/2004	201.635
	9/15/2004	262.635
	12/15/2004	358.635
	3/16/2005	196.635
	6/15/2005	250.635
	9/21/2005	175.635
	12/21/2005	190.635
	3/15/2006	295.635
	6/21/2006	104.635
	12/20/2006	243.635
	6/12/2007	299.635
	12/17/2007	420.635

6/11/2008	307.635
12/3/2008	257.635
6/17/2009	257.635
12/9/2009	292.635
6/17/2010	222.635
12/22/2010	240.635
6/29/2011	152.635
12/7/2011	400.635
6/6/2012	127.635
12/12/2012	320.635
6/19/2013	107.365
12/11/2013	78.6351
6/11/2014	169.365
12/3/2014	130.635
6/17/2015	149.365
12/1/2015	476.365
10/11/2016	674.365
12/20/2016	869.365
6/6/2017	412.365
11/7/2017	790.365
9/6/2018	1049.36
9/19/2018	779.365
5/7/2019	1499.36
11/21/2019	869.365
6/25/2020	749.365
11/16/2020	729.365

Group: MW#03-1	**Date**	**Residual**
	6/24/2004	39.9969
	9/15/2004	229.997
	12/15/2004	56.9969
	3/16/2005	35.0031
	6/15/2005	7.99687
	9/21/2005	59.9969
	12/20/2006	10.0031
	6/12/2007	172.997
	12/17/2007	82.9969
	6/11/2008	9.99687
	12/3/2008	191.997
	6/17/2009	61.9969
	12/9/2009	11.9969
	6/17/2010	42.9969
	12/22/2010	46.9969
	6/29/2011	5.99687
	12/7/2011	43.9969
	6/6/2012	0.003125
	6/19/2013	84.0031
	12/11/2013	18.9969
	6/11/2014	368.997
	12/3/2014	48.0031
	6/17/2015	190.003
	12/1/2015	72.0031
	6/22/2016	137.003
	6/6/2017	259.003
	11/7/2017	13.0031
	2/27/2018	270.903
	9/19/2018	115.997

	11/21/2019	317.003
	6/25/2020	202.003
	11/17/2020	66.9969

Group: MW#03-2	Date	Residual
	6/24/2004	438.632
	9/15/2004	608.632
	12/15/2004	475.632
	3/16/2005	469.632
	6/15/2005	456.632
	9/21/2005	505.632
	12/21/2005	558.632
	3/15/2006	536.632
	6/21/2006	494.632
	12/20/2006	550.632
	6/12/2007	450.632
	12/17/2007	513.632
	6/11/2008	456.632
	12/3/2008	378.632
	6/17/2009	410.632
	12/9/2009	440.632
	6/17/2010	445.632
	12/22/2010	402.632
	6/29/2011	382.632
	12/7/2011	375.632
	6/6/2012	414.632
	12/12/2012	323.632
	6/19/2013	323.632
	12/11/2013	325.632
	6/11/2014	911.632
	12/3/2014	409.368
	6/17/2015	165.632
	12/1/2015	163.632
	6/22/2016	56.6316
	12/20/2016	323.368
	6/6/2017	367.368
	11/7/2017	911.368
	9/6/2018	1489.37
	9/19/2018	1749.37
	5/7/2019	1599.37
	11/21/2019	2469.37
	6/25/2020	1459.37
	11/17/2020	1259.37

Non-Parametric Prediction Interval

Intra-Well Comparison for MW#03-2

Parameter: Specific Conductance

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 0%
Future Samples (k) = 1
Recent Dates = 1
Baseline Measurements (n) = 37
Maximum Baseline Concentration = 3600
Confidence Level = 97.4%
False Positive Rate = 2.6%

Baseline Measurements	Date	Value
	6/24/2004	692
	9/15/2004	522
	12/15/2004	655
	3/16/2005	661
	6/15/2005	674
	9/21/2005	625
	12/21/2005	572
	3/15/2006	594
	6/21/2006	636
	12/20/2006	580
	6/12/2007	680
	12/17/2007	617
	6/11/2008	674
	12/3/2008	752
	6/17/2009	720
	12/9/2009	690
	6/17/2010	685
	12/22/2010	728
	6/29/2011	748
	12/7/2011	755
	6/6/2012	716
	12/12/2012	807
	6/19/2013	807
	12/11/2013	805
	6/11/2014	219
	12/3/2014	1540
	6/17/2015	965
	12/1/2015	967
	6/22/2016	1074
	12/20/2016	1454
	6/6/2017	1498
	11/7/2017	2042
	9/6/2018	2620
	9/19/2018	2880
	5/7/2019	2730
	11/21/2019	3600
	6/25/2020	2590

Date	Count	Mean	Significant
11/17/2020	1	2390	FALSE

Shapiro-Francia Test of Normality

Parameter: Specific Conductance

All Locations

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Number of Measurements = 293

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	10.52	-2.74777	7.55021	-28.9065
2	10.9	-2.51213	13.861	-56.2887
3	140	-2.32634	19.2729	-381.977
4	186.1	-2.22621	24.2289	-796.274
5	198	-2.12007	28.7236	-1216.05
6	219	-2.05375	32.9415	-1665.82
7	255	-1.99539	36.9231	-2174.64
8	267	-1.92684	40.6358	-2689.11
9	320	-1.88079	44.1731	-3290.96
10	373	-1.82501	47.5038	-3971.69
11	385	-1.78661	50.6958	-4659.53
12	409	-1.75069	53.7607	-5375.57
13	422	-1.70604	56.6713	-6095.52
14	444	-1.67466	59.4757	-6839.07
15	447	-1.63524	62.1497	-7570.02
16	457	-1.60725	64.733	-8304.53
17	463	-1.58047	67.2309	-9036.28
18	465	-1.54643	69.6223	-9755.38
19	467	-1.52203	71.9389	-10466.2
20	469	-1.49085	74.1615	-11165.4
21	476	-1.46838	76.3177	-11864.3
22	497	-1.44663	78.4104	-12583.3
23	500	-1.41865	80.423	-13292.6
24	501	-1.39838	82.3785	-13993.2
25	504	-1.3722	84.2614	-14684.8
26	514	-1.35317	86.0925	-15380.3
27	517	-1.33462	87.8737	-16070.3
28	519	-1.31058	89.5913	-16750.5
29	522	-1.29303	91.2633	-17425.5
30	524	-1.27024	92.8768	-18091.1
31	540	-1.25357	94.4482	-18768
32	572	-1.23724	95.979	-19475.7
33	573	-1.21596	97.4575	-20172.5
34	580	-1.20036	98.8984	-20868.7
35	594	-1.18	100.291	-21569.6
36	617	-1.16505	101.648	-22288.4
37	625	-1.15035	102.971	-23007.4
38	630	-1.13113	104.251	-23720
39	636	-1.11699	105.499	-24430.4
40	649	-1.09847	106.705	-25143.3
41	655	-1.08482	107.882	-25853.9
42	661	-1.07138	109.03	-26562.1
43	674	-1.05375	110.14	-27272.3
44	674	-1.04073	111.223	-27973.7
45	680	-1.02365	112.271	-28669.8
46	685	-1.01104	113.293	-29362.4
47	687	-0.998575	114.291	-30048.4

48	690	-0.982202	115.255	-30726.1
49	692	-0.970094	116.196	-31397.4
50	716	-0.954165	117.107	-32080.6
51	720	-0.942375	117.995	-32759.1
52	728	-0.930718	118.861	-33436.7
53	748	-0.915365	119.699	-34121.4
54	752	-0.903992	120.516	-34801.2
55	755	-0.889006	121.307	-35472.4
56	787	-0.877897	122.077	-36163.3
57	805	-0.866894	122.829	-36861.1
58	807	-0.852385	123.555	-37549
59	807	-0.841621	124.264	-38228.2
60	826	-0.827417	124.948	-38911.6
61	881	-0.816874	125.616	-39631.3
62	910	-0.806422	126.266	-40365.2
63	930	-0.792618	126.894	-41102.3
64	965	-0.782366	127.506	-41857.3
65	967	-0.768821	128.097	-42600.7
66	972	-0.758753	128.673	-43338.2
67	1010	-0.748762	129.234	-44094.5
68	1010	-0.735557	129.775	-44837.4
69	1023	-0.725736	130.301	-45579.8
70	1030	-0.712751	130.809	-46313.9
71	1031	-0.703089	131.304	-47038.8
72	1034	-0.693493	131.785	-47755.9
73	1034	-0.680797	132.248	-48459.8
74	1035	-0.671346	132.699	-49154.7
75	1038	-0.658838	133.133	-49838.6
76	1051	-0.649522	133.555	-50521.2
77	1063	-0.640266	133.965	-51201.8
78	1064	-0.628006	134.359	-51870
79	1068	-0.618872	134.742	-52531
80	1070	-0.606775	135.11	-53180.2
81	1070	-0.597761	135.468	-53819.8
82	1073	-0.588793	135.814	-54451.6
83	1073	-0.576911	136.147	-55070.6
84	1074	-0.568052	136.47	-55680.7
85	1077	-0.556308	136.779	-56279.9
86	1080	-0.547551	137.079	-56871.2
87	1080	-0.538836	137.369	-57453.2
88	1080	-0.52728	137.647	-58022.6
89	1087	-0.518658	137.916	-58586.4
90	1088	-0.507221	138.174	-59138.3
91	1090	-0.498687	138.422	-59681.8
92	1092	-0.490189	138.663	-60217.1
93	1103	-0.478914	138.892	-60745.4
94	1108	-0.470498	139.113	-61266.7
95	1109	-0.459327	139.324	-61776.1
96	1109	-0.450985	139.528	-62276.2
97	1109	-0.442676	139.724	-62767.1
98	1111	-0.431644	139.91	-63246.7
99	1125	-0.423405	140.089	-63723
100	1129	-0.412463	140.259	-64188.7
101	1134	-0.40429	140.423	-64647.1
102	1137	-0.396142	140.58	-65097.6
103	1140	-0.385321	140.728	-65536.8
104	1140	-0.377233	140.871	-65966.9

105	1149	-0.36649	141.005	-66388
106	1154	-0.358459	141.133	-66801.6
107	1155	-0.350451	141.256	-67206.4
108	1155	-0.33981	141.372	-67598.9
109	1169	-0.331854	141.482	-67986.8
110	1170	-0.321278	141.585	-68362.7
111	1172	-0.31337	141.683	-68730
112	1173	-0.305481	141.777	-69088.3
113	1177	-0.294992	141.864	-69435.5
114	1178	-0.287147	141.946	-69773.8
115	1179	-0.276714	142.023	-70100
116	1180	-0.268908	142.095	-70417.3
117	1185	-0.26112	142.163	-70726.8
118	1185	-0.250759	142.226	-71023.9
119	1186	-0.243007	142.285	-71312.1
120	1187	-0.232693	142.339	-71588.3
121	1200	-0.224974	142.39	-71858.3
122	1200	-0.217267	142.437	-72119
123	1203	-0.207012	142.48	-72368.1
124	1210	-0.199336	142.52	-72609.2
125	1210	-0.189118	142.555	-72838.1
126	1214	-0.181468	142.588	-73058.4
127	1217	-0.173829	142.619	-73269.9
128	1218	-0.163659	142.645	-73469.3
129	1226	-0.156042	142.67	-73660.6
130	1227	-0.1459	142.691	-73839.6
131	1230	-0.138305	142.71	-74009.7
132	1230	-0.130716	142.727	-74170.5
133	1235	-0.12061	142.742	-74319.4
134	1236	-0.113039	142.754	-74459.2
135	1240	-0.102953	142.765	-74586.8
136	1244	-0.0953969	142.774	-74705.5
137	1250	-0.0878447	142.782	-74815.3
138	1250	-0.0777834	142.788	-74912.5
139	1252	-0.0702426	142.793	-75000.5
140	1253	-0.0601949	142.797	-75075.9
141	1270	-0.0526632	142.799	-75142.8
142	1270	-0.0451348	142.801	-75200.1
143	1270	-0.0350997	142.803	-75244.7
144	1273	-0.0275759	142.803	-75279.8
145	1275	-0.0175476	142.804	-75302.2
146	1289	-0.0100272	142.804	-75315.1
147	1290	0	142.804	-75315.1
148	1296	0.0100272	142.804	-75302.1
149	1301	0.0175476	142.804	-75279.3
150	1301	0.0275759	142.805	-75243.4
151	1301	0.0350997	142.806	-75197.7
152	1309	0.0451348	142.808	-75138.6
153	1318	0.0526632	142.811	-75069.2
154	1326	0.0601949	142.815	-74989.4
155	1327	0.0702426	142.819	-74896.2
156	1327	0.0777834	142.826	-74793
157	1329	0.0878447	142.833	-74676.2
158	1332	0.0953969	142.842	-74549.2
159	1334	0.102953	142.853	-74411.8
160	1351	0.113039	142.866	-74259.1
161	1352	0.12061	142.88	-74096

162	1366	0.130716	142.897	-73917.5
163	1370	0.138305	142.917	-73728
164	1370	0.1459	142.938	-73528.1
165	1374	0.156042	142.962	-73313.7
166	1374	0.163659	142.989	-73088.9
167	1393	0.173829	143.019	-72846.7
168	1421	0.181468	143.052	-72588.8
169	1423	0.189118	143.088	-72319.7
170	1427	0.199336	143.128	-72035.3
171	1438	0.207012	143.17	-71737.6
172	1440	0.217267	143.218	-71424.7
173	1441	0.224974	143.268	-71100.5
174	1454	0.232693	143.322	-70762.2
175	1458	0.243007	143.381	-70407.9
176	1460	0.250759	143.444	-70041.8
177	1466	0.26112	143.513	-69659
178	1469	0.268908	143.585	-69264
179	1480	0.276714	143.661	-68854.4
180	1490	0.287147	143.744	-68426.6
181	1498	0.294992	143.831	-67984.7
182	1500	0.305481	143.924	-67526.5
183	1510	0.31337	144.022	-67053.3
184	1515	0.321278	144.126	-66566.5
185	1516	0.331854	144.236	-66063.4
186	1520	0.33981	144.351	-65546.9
187	1521	0.350451	144.474	-65013.9
188	1531	0.358459	144.603	-64465.1
189	1534	0.36649	144.737	-63902.9
190	1540	0.377233	144.879	-63322
191	1547	0.385321	145.028	-62725.9
192	1560	0.396142	145.185	-62107.9
193	1570	0.40429	145.348	-61473.2
194	1586	0.412463	145.518	-60819
195	1602	0.423405	145.697	-60140.7
196	1608	0.431644	145.884	-59446.6
197	1618	0.442676	146.08	-58730.4
198	1620	0.450985	146.283	-57999.8
199	1620	0.459327	146.494	-57255.7
200	1630	0.470498	146.715	-56488.7
201	1657	0.478914	146.945	-55695.2
202	1743	0.490189	147.185	-54840.8
203	1762	0.498687	147.434	-53962.1
204	1807	0.507221	147.691	-53045.5
205	1888	0.518658	147.96	-52066.3
206	2005	0.52728	148.238	-51009.1
207	2042	0.538836	148.528	-49908.8
208	2060	0.547551	148.828	-48780.9
209	2080	0.556308	149.138	-47623.7
210	2110	0.568052	149.46	-46425.2
211	2121	0.576911	149.793	-45201.5
212	2200	0.588793	150.14	-43906.2
213	2200	0.597761	150.497	-42591.1
214	2380	0.606775	150.865	-41147
215	2390	0.618872	151.248	-39667.9
216	2590	0.628006	151.643	-38041.3
217	2620	0.640266	152.053	-36363.8
218	2730	0.649522	152.475	-34590.7

219	2830	0.658838	152.909	-32726.1
220	2880	0.671346	153.359	-30792.7
221	3600	0.680797	153.823	-28341.8
222	6710	0.693493	154.304	-23688.5
223	7660	0.703089	154.798	-18302.8
224	7950	0.712751	155.306	-12636.4
225	8217	0.725736	155.833	-6673.06
226	8310	0.735557	156.374	-560.576
227	8650	0.748762	156.934	5916.22
228	8820	0.758753	157.51	12608.4
229	8920	0.768821	158.101	19466.3
230	9000	0.782366	158.713	26507.6
231	9070	0.792618	159.342	33696.6
232	9080	0.806422	159.992	41018.9
233	9100	0.816874	160.659	48452.5
234	9210	0.827417	161.344	56073
235	9237	0.841621	162.052	63847.1
236	9240	0.852385	162.779	71723.1
237	9250	0.866894	163.53	79741.9
238	9310	0.877897	164.301	87915.1
239	9340	0.889006	165.091	96218.4
240	9420	0.903992	165.908	104734
241	9590	0.915365	166.746	113512
242	9590	0.930718	167.613	122438
243	9600	0.942375	168.501	131485
244	9660	0.954165	169.411	140702
245	9690	0.970094	170.352	150102
246	9690	0.982202	171.317	159620
247	9690	0.998575	172.314	169296
248	9690	1.01104	173.336	179093
249	9830	1.02365	174.384	189155
250	9940	1.04073	175.467	199500
251	9940	1.05375	176.578	209974
252	10000	1.07138	177.725	220688
253	10010	1.08482	178.902	231547
254	10020	1.09847	180.109	242554
255	10050	1.11699	181.357	253780
256	10197	1.13113	182.636	265314
257	10240	1.15035	183.959	277093
258	10260	1.16505	185.317	289047
259	10280	1.18	186.709	301177
260	10283	1.20036	188.15	313521
261	10340	1.21596	189.629	326094
262	10400	1.23724	191.159	338961
263	10490	1.25357	192.731	352111
264	10494	1.27024	194.344	365441
265	10500	1.29303	196.016	379017
266	10520	1.31058	197.734	392805
267	10550	1.33462	199.515	406885
268	10560	1.35317	201.346	421175
269	10590	1.3722	203.229	435706
270	10590	1.39838	205.184	450515
271	10620	1.41865	207.197	465581
272	10650	1.44663	209.29	480988
273	10660	1.46838	211.446	496641
274	10660	1.49085	213.669	512533
275	10690	1.52203	215.985	528804

276	10693	1.54643	218.377	545340
277	10700	1.58047	220.874	562251
278	10770	1.60725	223.458	579561
279	10850	1.63524	226.132	597303
280	10873	1.67466	228.936	615512
281	10900	1.70604	231.847	634108
282	11110	1.75069	234.912	653558
283	11230	1.78661	238.104	673621
284	11400	1.82501	241.434	694426
285	11460	1.88079	244.972	715980
286	11460	1.92684	248.684	738062
287	11600	1.99539	252.666	761208
288	12200	2.05375	256.884	786264
289	12590	2.12007	261.379	812956
290	12700	2.22621	266.335	841229
291	15400	2.32634	271.746	877054
292	15700	2.51213	278.057	916495
293	15700	2.74777	285.607	959635

Data Set Standard Deviation = 4034.66
Numerator = 9.20899e+011
Denominator = 1.35758e+012
W Statistic = 0.678337 = 9.20899e+011 / 1.35758e+012

5% Critical value of 0.976 exceeds 0.678337
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.678337
Evidence of non-normality at 99% level of significance

Non-Parametric Prediction Interval

Inter-Well Comparison

Parameter: Fluoride

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 37.5%
Number of comparisons = 4
Future Samples (k) = 4
Recent Dates = 1
Background Measurements (n) = 23
Maximum Background Value = 0.243
Confidence Level = 85.2%
False Positive Rate = 14.8%

Location	Date	Count	Mean	Significant
MW#03-1	11/17/2020	1	0.109	FALSE
MW#03-2	11/17/2020	1	0.116	FALSE
MW#93-2	**11/16/2020**	**1**	**0.705**	**TRUE**
MW#93-3	**11/16/2020**	**1**	**0.27**	**TRUE**

Non-Parametric Prediction Interval

Intra-Well Comparison for MW#93-3

Parameter: Fluoride

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 28.5714%
Future Samples (k) = 1
Recent Dates = 1
Baseline Measurements (n) = 21
Maximum Baseline Concentration = 0.389
Confidence Level = 95.5%
False Positive Rate = 4.5%

Baseline Measurements	Date	Value
	10/11/2016	0.15
	12/20/2016	0.23
	2/16/2017	0.2
	3/8/2017	0.22
	5/9/2017	0.18
	6/6/2017	0.24
	8/22/2017	0.23
	9/22/2017	0.2
	11/7/2017	0.2
	2/27/2018	0.21
	5/24/2018	0.23
	6/19/2018	0.223
	7/19/2018	ND<0.21
	8/22/2018	ND<0.2
	9/19/2018	0.389
	10/18/2018	ND<0.2
	11/20/2018	0.283
	12/20/2018	ND<0.2
	5/7/2019	ND<0.2
	11/21/2019	ND<0.2
	6/25/2020	0.252

Date	Count	Mean	Significant
11/16/2020	1	0.27	FALSE

Non-Parametric Prediction Interval

Intra-Well Comparison for MW#93-2

Parameter: Fluoride

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 4.7619%
Future Samples (k) = 1
Recent Dates = 1
Baseline Measurements (n) = 21
Maximum Baseline Concentration = 1.06
Confidence Level = 95.5%
False Positive Rate = 4.5%

Baseline Measurements	Date	Value
	10/11/2016	0.81
	12/20/2016	1.06
	2/16/2017	0.68
	3/8/2017	0.79
	5/9/2017	0.7
	6/6/2017	0.68
	8/22/2017	0.35
	9/22/2017	0.51
	11/7/2017	0.12
	2/27/2018	ND<0.1
	5/24/2018	0.937
	6/19/2018	0.991
	7/19/2018	0.906
	8/22/2018	0.865
	9/19/2018	1
	10/18/2018	0.698
	11/20/2018	1.02
	12/20/2018	0.685
	5/7/2019	0.367
	11/21/2019	0.554
	6/25/2020	0.313

Date	Count	Mean	Significant
11/16/2020	1	0.705	FALSE

Levene's Test for Equal of Variance

Parameter: Fluoride

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Overall Mean = 0.074564
Overall Std Dev = 0.105556
Overall Total = 8.35116
SS Groups = 0.574349
SS Total = 1.23678

ANOVA Table

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Squares	F
Between Groups	0.574349	4	0.143587	23.193
Error (within groups)	0.662432	107	0.00619096	
Totals	1.23678	111		

95% F-Statistic = 2.44724

23.193 exceeds 2.44724; assumption of equal variance should be rejected

Group: MW#93-1	Sample	Residual
	10/11/2016	0.0697391
	12/20/2016	0.0302609
	2/16/2017	0.00973913
	3/8/2017	0.0202609
	5/9/2017	0.0397391
	6/6/2017	0.0297391
	8/22/2017	0.0697391
	9/22/2017	0.0597391
	11/7/2017	0.0497391
	2/27/2018	0.00973913
	5/24/2018	0.0302609
	6/19/2018	0.0302609
	7/19/2018	0.0302609
	8/22/2018	0.0302609
	9/19/2018	0.0732609
	9/27/2018	0.0697391
	10/18/2018	0.0302609
	11/20/2018	0.0302609
	12/20/2018	0.0302609
	5/7/2019	0.0302609
	11/21/2019	0.0302609
	6/25/2020	0.00173913
	11/17/2020	0.0132609

Group: MW#03-1	Date	Residual
	10/11/2016	0.0532
	12/20/2016	0.0268
	2/16/2017	0.0232
	3/8/2017	0.0368
	5/9/2017	0.0532

6/6/2017	0.0532
8/22/2017	0.0532
9/22/2017	0.0532
11/7/2017	0.0332
2/27/2018	0.0532
5/24/2018	0.0468
6/19/2018	0.0468
7/19/2018	0.0468
8/22/2018	0.0532
9/19/2018	0.0568
10/18/2018	0.0468
11/20/2018	0.0468
12/20/2018	0.0468
3/26/2019	0.0468
5/7/2019	0.0468
11/21/2019	0.0468
6/25/2020	0.0686
11/17/2020	0.0442

Group: MW#03-2

Date	Residual
10/11/2016	0.0529545
12/20/2016	0.0129545
2/16/2017	0.0329545
3/8/2017	0.0129545
5/9/2017	0.0529545
6/6/2017	0.0529545
8/22/2017	0.0529545
9/22/2017	0.0529545
11/7/2017	0.0529545
2/27/2018	0.0329545
5/24/2018	0.0470455
6/19/2018	0.0470455
7/19/2018	0.0470455
8/22/2018	0.0470455
9/19/2018	0.0570455
10/18/2018	0.0470455
11/20/2018	0.0470455
12/20/2018	0.0470455
5/7/2019	0.0470455
11/21/2019	0.0470455
6/25/2020	0.0339545
11/17/2020	0.0369545

Group: MW#93-2

Date	Residual
10/11/2016	0.135409
12/20/2016	0.385409
2/16/2017	0.00540909
3/8/2017	0.115409
5/9/2017	0.0254091
6/6/2017	0.00540909
8/22/2017	0.324591
9/22/2017	0.164591
11/7/2017	0.554591
2/27/2018	0.574591
5/24/2018	0.262409
6/19/2018	0.316409
7/19/2018	0.231409

8/22/2018	0.190409
9/19/2018	0.325409
10/18/2018	0.0234091
11/20/2018	0.345409
12/20/2018	0.0104091
5/7/2019	0.307591
11/21/2019	0.120591
6/25/2020	0.361591
11/16/2020	0.0304091

Group: MW#93-3

Date	Residual
10/11/2016	0.0735
12/20/2016	0.0065
2/16/2017	0.0235
3/8/2017	0.0035
5/9/2017	0.0435
6/6/2017	0.0165
8/22/2017	0.0065
9/22/2017	0.0235
11/7/2017	0.0235
2/27/2018	0.0135
5/24/2018	0.0065
6/19/2018	0.0005
7/19/2018	0.0135
8/22/2018	0.0235
9/19/2018	0.1655
10/18/2018	0.0235
11/20/2018	0.0595
12/20/2018	0.0235
5/7/2019	0.0235
11/21/2019	0.0235
6/25/2020	0.0285
11/16/2020	0.0465

Shapiro-Francia Test of Normality

Parameter: Fluoride

All Locations

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Number of Measurements = 112

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	0.0846	-2.40892	5.80292	-0.203795
2	0.1	-2.12007	10.2976	-0.415802
3	0.1	-1.94314	14.0734	-0.610115
4	0.1	-1.81191	17.3564	-0.791307
5	0.1	-1.70604	20.267	-0.961911
6	0.1	-1.61644	22.8799	-1.12355
7	0.1	-1.54643	25.2713	-1.2782
8	0.1	-1.47579	27.4493	-1.42578
9	0.1	-1.41183	29.4425	-1.56696
10	0.1	-1.35317	31.2736	-1.70228
11	0.1	-1.29884	32.9606	-1.83216
12	0.1	-1.24809	34.5183	-1.95697
13	0.1	-1.20036	35.9592	-2.07701
14	0.1	-1.16012	37.3051	-2.19302
15	0.1	-1.11699	38.5527	-2.30472
16	0.1	-1.07584	39.7101	-2.4123
17	0.1	-1.03643	40.7843	-2.51594
18	0.1	-0.998575	41.7815	-2.6158
19	0.109	-0.9621	42.7071	-2.72067
20	0.11	-0.930718	43.5734	-2.82305
21	0.116	-0.896473	44.377	-2.92704
22	0.119	-0.863249	45.1222	-3.02977
23	0.12	-0.830953	45.8127	-3.12948
24	0.12	-0.7995	46.4519	-3.22542
25	0.12	-0.768821	47.043	-3.31768
26	0.12	-0.738846	47.5889	-3.40634
27	0.12	-0.712751	48.0969	-3.49187
28	0.13	-0.68396	48.5647	-3.58079
29	0.13	-0.655726	48.9947	-3.66603
30	0.14	-0.628006	49.3891	-3.75395
31	0.14	-0.60076	49.75	-3.83806
32	0.14	-0.573953	50.0794	-3.91841
33	0.15	-0.547551	50.3792	-4.00054
34	0.16	-0.524401	50.6542	-4.08445
35	0.16	-0.498687	50.9029	-4.16424
36	0.168	-0.473299	51.1269	-4.24375
37	0.18	-0.448213	51.3278	-4.32443
38	0.18	-0.423405	51.5071	-4.40064
39	0.183	-0.398855	51.6662	-4.47363
40	0.19	-0.377233	51.8085	-4.54531
41	0.19	-0.353118	51.9332	-4.6124
42	0.2	-0.329206	52.0415	-4.67824
43	0.2	-0.305481	52.1349	-4.73934
44	0.2	-0.281926	52.2143	-4.79572
45	0.2	-0.258527	52.2812	-4.84743
46	0.2	-0.235269	52.3365	-4.89448
47	0.2	-0.214702	52.3826	-4.93742

48	0.2	-0.191671	52.4194	-4.97576
49	0.2	-0.168741	52.4478	-5.00951
50	0.2	-0.1459	52.4691	-5.03869
51	0.2	-0.123135	52.4843	-5.06331
52	0.2	-0.100433	52.4944	-5.0834
53	0.2	-0.0777834	52.5004	-5.09896
54	0.2	-0.0576847	52.5037	-5.11049
55	0.2	-0.0350997	52.505	-5.11751
56	0.2	-0.0125328	52.5051	-5.12002
57	0.2	0.0125328	52.5053	-5.11751
58	0.2	0.0350997	52.5065	-5.11049
59	0.2	0.0576847	52.5099	-5.09896
60	0.2	0.0777834	52.5159	-5.0834
61	0.2	0.100433	52.526	-5.06331
62	0.2	0.123135	52.5412	-5.03869
63	0.2	0.1459	52.5624	-5.00951
64	0.2	0.168741	52.5909	-4.97576
65	0.2	0.191671	52.6277	-4.93742
66	0.2	0.214702	52.6737	-4.89448
67	0.2	0.235269	52.7291	-4.84743
68	0.2	0.258527	52.7959	-4.79572
69	0.2	0.281926	52.8754	-4.73934
70	0.2	0.305481	52.9687	-4.67824
71	0.2	0.329206	53.0771	-4.6124
72	0.2	0.353118	53.2018	-4.54178
73	0.2	0.377233	53.3441	-4.46633
74	0.2	0.398855	53.5032	-4.38656
75	0.2	0.423405	53.6825	-4.30188
76	0.2	0.448213	53.8834	-4.21224
77	0.2	0.473299	54.1074	-4.11758
78	0.21	0.498687	54.3561	-4.01285
79	0.21	0.524401	54.6311	-3.90273
80	0.21	0.547551	54.9309	-3.78774
81	0.21	0.573953	55.2603	-3.66721
82	0.22	0.60076	55.6212	-3.53504
83	0.223	0.628006	56.0156	-3.395
84	0.23	0.655726	56.4456	-3.24418
85	0.23	0.68396	56.9134	-3.08687
86	0.23	0.712751	57.4214	-2.92294
87	0.24	0.738846	57.9673	-2.74561
88	0.243	0.768821	58.5584	-2.55879
89	0.252	0.7995	59.1976	-2.35732
90	0.27	0.830953	59.8881	-2.13296
91	0.283	0.863249	60.6333	-1.88866
92	0.313	0.896473	61.4369	-1.60806
93	0.35	0.930718	62.3032	-1.28231
94	0.367	0.9621	63.2288	-0.929223
95	0.389	0.998575	64.2259	-0.540777
96	0.51	1.03643	65.3001	-0.0121961
97	0.554	1.07584	66.4576	0.583817
98	0.68	1.11699	67.7052	1.34337
99	0.68	1.16012	69.0511	2.13225
100	0.685	1.20036	70.492	2.9545
101	0.698	1.24809	72.0497	3.82566
102	0.7	1.29884	73.7367	4.73485
103	0.705	1.35317	75.5677	5.68883
104	0.79	1.41183	77.561	6.80418

105	0.81	1.47579	79.739	7.99957
106	0.865	1.54643	82.1304	9.33723
107	0.906	1.61644	84.7433	10.8017
108	0.937	1.70604	87.6539	12.4003
109	0.991	1.81191	90.9369	14.1959
110	1	1.94314	94.7127	16.139
111	1.02	2.12007	99.2074	18.3015
112	1.06	2.40892	105.01	20.855

Data Set Standard Deviation = 0.239252
Numerator = 434.929
Denominator = 667.216
W Statistic = 0.651857 = 434.929 / 667.216

5% Critical value of 0.976 exceeds 0.651857
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.651857
Evidence of non-normality at 99% level of significance

Concentrations (ppb)

Parameter: Lead

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 55
Total Non-Detect: 52
Percent Non-Detects: 94.5455%
Total Background Measurements: 11
There is 1 background location

Loc.	Meas.	ND	Date	Conc.	Original
MW#93-1	11	11 (100%)	5/24/2018	ND<0.005	ND<0.005
			6/19/2018	ND<0.005	ND<0.005
			7/19/2018	ND<0.005	ND<0.005
			8/22/2018	ND<0.005	ND<0.005
			9/19/2018	ND<0.005	ND<0.005
			10/18/2018	ND<0.005	ND<0.005
			11/20/2018	ND<0.005	ND<0.005
			12/20/2018	ND<0.005	ND<0.005
			11/21/2019	ND<0.001	ND<0.001
			6/25/2020	ND<0.002	ND<0.002
			11/17/2020	ND<0.002	ND<0.002

There are 4 compliance locations

Loc.	Meas.	ND	Date	Conc.	Original
MW#03-1	11	8 (72.7273%)	5/24/2018	ND<0.005	ND<0.005
			6/19/2018	ND<0.005	ND<0.005
			7/19/2018	0.124	0.124
			8/22/2018	0.143	0.143
			10/18/2018	ND<0.005	ND<0.005
			11/20/2018	ND<0.005	ND<0.005
			12/20/2018	0.00791	0.00791
			3/26/2019	ND<0.005	ND<0.005
			11/21/2019	ND<0.001	ND<0.001
			6/25/2020	ND<0.002	ND<0.002
			11/17/2020	ND<0.002	ND<0.002
MW#03-2	11	11 (100%)	5/24/2018	ND<0.005	ND<0.005
			6/19/2018	ND<0.005	ND<0.005
			7/19/2018	ND<0.005	ND<0.005
			8/22/2018	ND<0.005	ND<0.005
			9/19/2018	ND<0.005	ND<0.005
			10/18/2018	ND<0.005	ND<0.005
			11/20/2018	ND<0.005	ND<0.005
			12/20/2018	ND<0.005	ND<0.005
			11/21/2019	ND<0.001	ND<0.001
			6/25/2020	ND<0.002	ND<0.002
			11/17/2020	ND<0.002	ND<0.002
MW#93-2	11	11 (100%)	5/24/2018	ND<0.005	ND<0.005
			6/19/2018	ND<0.005	ND<0.005
			7/19/2018	ND<0.005	ND<0.005
			8/22/2018	ND<0.005	ND<0.005
			9/19/2018	ND<0.005	ND<0.005

			10/18/2018	ND<0.005	ND<0.005
			11/20/2018	ND<0.005	ND<0.005
			12/20/2018	ND<0.005	ND<0.005
			11/21/2019	ND<0.001	ND<0.001
			6/25/2020	ND<0.002	ND<0.002
			11/16/2020	ND<0.002	ND<0.002
MW#93-3	11	11 (100%)	5/24/2018	ND<0.005	ND<0.005
			6/19/2018	ND<0.005	ND<0.005
			7/19/2018	ND<0.005	ND<0.005
			8/22/2018	ND<0.005	ND<0.005
			9/19/2018	ND<0.005	ND<0.005
			10/18/2018	ND<0.005	ND<0.005
			11/20/2018	ND<0.005	ND<0.005
			12/20/2018	ND<0.005	ND<0.005
			11/21/2019	ND<0.001	ND<0.001
			6/25/2020	ND<0.002	ND<0.002
			11/16/2020	ND<0.002	ND<0.002

There are 0 unused locations

Loc.	Meas.	ND	Date	Conc.	Original

Non-Parametric Prediction Interval

Inter-Well Comparison

Parameter: Lead

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 94.5455%
Number of comparisons = 4
Future Samples (k) = 4
Recent Dates = 1
Background Measurements (n) = 11
Maximum Background Value = 0.005
Confidence Level = 73.3%
False Positive Rate = 26.7%

Location	Date	Count	Mean	Significant
MW#03-1	11/17/2020	1	0.002	FALSE
MW#03-2	11/17/2020	1	0.002	FALSE
MW#93-2	11/16/2020	1	0.002	FALSE
MW#93-3	11/16/2020	1	0.002	FALSE

Levene's Test for Equal of Variance

Parameter: Lead

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Overall Mean = 0.00875101
Overall Std Dev = 0.0208422
Overall Total = 0.481305
SS Groups = 0.0121408
SS Total = 0.0234575

ANOVA Table

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Squares	F
Between Groups	0.0121408	4	0.0030352	13.4103
Error (within groups)	0.0113167	50	0.000226333	
Totals	0.0234575	54		

95% F-Statistic = 2.52521

13.4103 exceeds 2.52521; assumption of equal variance should be rejected

Group: MW#93-1	Sample	Residual
	5/24/2018	0.000909091
	6/19/2018	0.000909091
	7/19/2018	0.000909091
	8/22/2018	0.000909091
	9/19/2018	0.000909091
	10/18/2018	0.000909091
	11/20/2018	0.000909091
	12/20/2018	0.000909091
	11/21/2019	0.00309091
	6/25/2020	0.00209091
	11/17/2020	0.00209091

Group: MW#03-1	Date	Residual
	5/24/2018	0.0227191
	6/19/2018	0.0227191
	7/19/2018	0.0962809
	8/22/2018	0.115281
	10/18/2018	0.0227191
	11/20/2018	0.0227191
	12/20/2018	0.0198091
	3/26/2019	0.0227191
	11/21/2019	0.0267191
	6/25/2020	0.0257191
	11/17/2020	0.0257191

Group: MW#03-2	Date	Residual
	5/24/2018	0.000909091
	6/19/2018	0.000909091
	7/19/2018	0.000909091
	8/22/2018	0.000909091

9/19/2018	0.000909091
10/18/2018	0.000909091
11/20/2018	0.000909091
12/20/2018	0.000909091
11/21/2019	0.00309091
6/25/2020	0.00209091
11/17/2020	0.00209091

Group: MW#93-2	Date	Residual
	5/24/2018	0.000909091
	6/19/2018	0.000909091
	7/19/2018	0.000909091
	8/22/2018	0.000909091
	9/19/2018	0.000909091
	10/18/2018	0.000909091
	11/20/2018	0.000909091
	12/20/2018	0.000909091
	11/21/2019	0.00309091
	6/25/2020	0.00209091
	11/16/2020	0.00209091

Group: MW#93-3	Date	Residual
	5/24/2018	0.000909091
	6/19/2018	0.000909091
	7/19/2018	0.000909091
	8/22/2018	0.000909091
	9/19/2018	0.000909091
	10/18/2018	0.000909091
	11/20/2018	0.000909091
	12/20/2018	0.000909091
	11/21/2019	0.00309091
	6/25/2020	0.00209091
	11/16/2020	0.00209091

Concentrations (ppb)

Parameter: Lithium

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 55
Total Non-Detect: 38
Percent Non-Detects: 69.0909%
Total Background Measurements: 11
There is 1 background location

Loc.	Meas.	ND	Date	Conc.	Original
MW#93-1	11	11 (100%)	5/24/2018	ND<0.01	ND<0.01
			6/19/2018	ND<0.015	ND<0.015
			7/19/2018	ND<0.015	ND<0.015
			8/22/2018	ND<0.015	ND<0.015
			9/19/2018	ND<0.015	ND<0.015
			10/18/2018	ND<0.015	ND<0.015
			11/20/2018	ND<0.015	ND<0.015
			12/20/2018	ND<0.015	ND<0.015
			11/21/2019	ND<0.015	ND<0.015
			6/25/2020	ND<0.015	ND<0.015
			11/17/2020	ND<0.015	ND<0.015

There are 4 compliance locations

Loc.	Meas.	ND	Date	Conc.	Original
MW#03-1	11	10 (90.9091%)	5/24/2018	ND<0.01	ND<0.01
			6/19/2018	ND<0.015	ND<0.015
			7/19/2018	ND<0.015	ND<0.015
			8/22/2018	0.0461	0.0461
			10/18/2018	ND<0.015	ND<0.015
			11/20/2018	ND<0.015	ND<0.015
			12/20/2018	ND<0.015	ND<0.015
			3/26/2019	ND<0.015	ND<0.015
			11/21/2019	ND<0.015	ND<0.015
			6/25/2020	ND<0.015	ND<0.015
			11/17/2020	ND<0.015	ND<0.015
MW#03-2	11	8 (72.7273%)	5/24/2018	0.0173	0.0173
			6/19/2018	ND<0.015	ND<0.015
			7/19/2018	ND<0.015	ND<0.015
			8/22/2018	ND<0.015	ND<0.015
			9/19/2018	ND<0.015	ND<0.015
			10/18/2018	ND<0.015	ND<0.015
			11/20/2018	ND<0.015	ND<0.015
			12/20/2018	ND<0.015	ND<0.015
			11/21/2019	0.0154	0.0154
			6/25/2020	0.00813	0.00813
			11/17/2020	ND<0.015	ND<0.015
MW#93-2	11	8 (72.7273%)	5/24/2018	0.0302	0.0302
			6/19/2018	ND<0.015	ND<0.015
			7/19/2018	ND<0.015	ND<0.015
			8/22/2018	ND<0.015	ND<0.015
			9/19/2018	ND<0.015	ND<0.015

			10/18/2018	ND<0.015	ND<0.015
			11/20/2018	0.0185	0.0185
			12/20/2018	ND<0.015	ND<0.015
			11/21/2019	ND<0.015	ND<0.015
			6/25/2020	0.00976	0.00976
			11/16/2020	ND<0.015	ND<0.015
MW#93-3	11	1 (9.09091%)	5/24/2018	0.178	0.178
			6/19/2018	0.162	0.162
			7/19/2018	ND<0.015	ND<0.015
			8/22/2018	0.159	0.159
			9/19/2018	0.16	0.16
			10/18/2018	0.164	0.164
			11/20/2018	0.187	0.187
			12/20/2018	0.168	0.168
			11/21/2019	0.182	0.182
			6/25/2020	0.124	0.124
			11/16/2020	0.128	0.128

There are 0 unused locations

Loc.	Meas.	ND	Date	Conc.	Original

Non-Parametric Prediction Interval

Inter-Well Comparison

Parameter: Lithium

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 69.0909%
Number of comparisons = 4
Future Samples (k) = 4
Recent Dates = 1
Background Measurements (n) = 11
Maximum Background Value = 0.015
Confidence Level = 73.3%
False Positive Rate = 26.7%

Location	Date	Count	Mean	Significant
MW#03-1	11/17/2020	1	0.015	FALSE
MW#03-2	11/17/2020	1	0.015	FALSE
MW#93-2	11/16/2020	1	0.015	FALSE
MW#93-3	**11/16/2020**	**1**	**0.128**	**TRUE**

Non-Parametric Prediction Interval

Intra-Well Comparison for MW#93-3

Parameter: Lithium

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 10%
Future Samples (k) = 1
Recent Dates = 1
Baseline Measurements (n) = 10
Maximum Baseline Concentration = 0.187
Confidence Level = 90.9%
False Positive Rate = 9.1%

Baseline Measurements	Date	Value
	5/24/2018	0.178
	6/19/2018	0.162
	7/19/2018	ND<0.015
	8/22/2018	0.159
	9/19/2018	0.16
	10/18/2018	0.164
	11/20/2018	0.187
	12/20/2018	0.168
	11/21/2019	0.182
	6/25/2020	0.124

Date	Count	Mean	Significant
11/16/2020	1	0.128	FALSE

Levene's Test for Equal of Variance

Parameter: Lithium

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Overall Mean = 0.0084634
Overall Std Dev = 0.0195683
Overall Total = 0.465487
SS Groups = 0.00783666
SS Total = 0.0206777

ANOVA Table

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Squares	F
Between Groups	0.00783666	4	0.00195916	7.62855
Error (within groups)	0.012841	50	0.00025682	
Totals	0.0206777	54		

95% F-Statistic = 2.52521

7.62855 exceeds 2.52521; assumption of equal variance should be rejected

Group: MW#93-1	Sample	Residual
	5/24/2018	0.00454545
	6/19/2018	0.000454545
	7/19/2018	0.000454545
	8/22/2018	0.000454545
	9/19/2018	0.000454545
	10/18/2018	0.000454545
	11/20/2018	0.000454545
	12/20/2018	0.000454545
	11/21/2019	0.000454545
	6/25/2020	0.000454545
	11/17/2020	0.000454545

Group: MW#03-1	Date	Residual
	5/24/2018	0.00737273
	6/19/2018	0.00237273
	7/19/2018	0.00237273
	8/22/2018	0.0287273
	10/18/2018	0.00237273
	11/20/2018	0.00237273
	12/20/2018	0.00237273
	3/26/2019	0.00237273
	11/21/2019	0.00237273
	6/25/2020	0.00237273
	11/17/2020	0.00237273

Group: MW#03-2	Date	Residual
	5/24/2018	0.00267909
	6/19/2018	0.000379091
	7/19/2018	0.000379091
	8/22/2018	0.000379091

9/19/2018	0.000379091
10/18/2018	0.000379091
11/20/2018	0.000379091
12/20/2018	0.000379091
11/21/2019	0.000779091
6/25/2020	0.00649091
11/17/2020	0.000379091

Group: MW#93-2	Date	Residual
	5/24/2018	0.0139764
	6/19/2018	0.00122364
	7/19/2018	0.00122364
	8/22/2018	0.00122364
	9/19/2018	0.00122364
	10/18/2018	0.00122364
	11/20/2018	0.00227636
	12/20/2018	0.00122364
	11/21/2019	0.00122364
	6/25/2020	0.00646364
	11/16/2020	0.00122364

Group: MW#93-3	Date	Residual
	5/24/2018	0.0300909
	6/19/2018	0.0140909
	7/19/2018	0.132909
	8/22/2018	0.0110909
	9/19/2018	0.0120909
	10/18/2018	0.0160909
	11/20/2018	0.0390909
	12/20/2018	0.0200909
	11/21/2019	0.0340909
	6/25/2020	0.0239091
	11/16/2020	0.0199091

Shapiro-Francia Test of Normality

Parameter: Lithium

All Locations

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Number of Measurements = 55

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	0.00813	-2.12007	4.49469	-0.0172362
2	0.00976	-1.81191	7.77772	-0.0349204
3	0.01	-1.61644	10.3906	-0.0510848
4	0.01	-1.46838	12.5467	-0.0657686
5	0.015	-1.34694	14.361	-0.0859727
6	0.015	-1.24264	15.9051	-0.104612
7	0.015	-1.15035	17.2284	-0.121868
8	0.015	-1.07138	18.3763	-0.137938
9	0.015	-0.994457	19.3652	-0.152855
10	0.015	-0.923014	20.2172	-0.1667
11	0.015	-0.855996	20.9499	-0.17954
12	0.015	-0.792618	21.5782	-0.19143
13	0.015	-0.732275	22.1144	-0.202414
14	0.015	-0.67449	22.5693	-0.212531
15	0.015	-0.621911	22.9561	-0.22186
16	0.015	-0.568052	23.2788	-0.23038
17	0.015	-0.515791	23.5448	-0.238117
18	0.015	-0.464904	23.761	-0.245091
19	0.015	-0.415193	23.9334	-0.251319
20	0.015	-0.36649	24.0677	-0.256816
21	0.015	-0.318639	24.1692	-0.261596
22	0.015	-0.27411	24.2443	-0.265707
23	0.015	-0.227545	24.2961	-0.269121
24	0.015	-0.181468	24.329	-0.271843
25	0.015	-0.135774	24.3475	-0.273879
26	0.015	-0.0903606	24.3556	-0.275235
27	0.015	-0.0451348	24.3577	-0.275912
28	0.015	0	24.3577	-0.275912
29	0.015	0.0451348	24.3597	-0.275235
30	0.015	0.0903606	24.3679	-0.273879
31	0.015	0.135774	24.3863	-0.271843
32	0.015	0.181468	24.4192	-0.269121
33	0.015	0.227545	24.471	-0.265707
34	0.015	0.27411	24.5462	-0.261596
35	0.015	0.318639	24.6477	-0.256816
36	0.015	0.36649	24.782	-0.251319
37	0.015	0.415193	24.9544	-0.245091
38	0.015	0.464904	25.1705	-0.238117
39	0.015	0.515791	25.4366	-0.23038
40	0.015	0.568052	25.7593	-0.22186
41	0.0154	0.621911	26.146	-0.212282
42	0.0173	0.67449	26.601	-0.200614
43	0.0185	0.732275	27.1372	-0.187066
44	0.0302	0.792618	27.7654	-0.163129
45	0.0461	0.855996	28.4982	-0.123668
46	0.124	0.923014	29.3501	-0.00921424
47	0.128	0.994457	30.3391	0.118076

48	0.159	1.07138	31.4869	0.288425
49	0.16	1.15035	32.8102	0.472481
50	0.162	1.24264	34.3544	0.673789
51	0.164	1.34694	36.1686	0.894687
52	0.168	1.46838	38.3248	1.14138
53	0.178	1.61644	40.9376	1.4291
54	0.182	1.81191	44.2207	1.75887
55	0.187	2.12007	48.7154	2.15532

Data Set Standard Deviation = 0.0574968
Numerator = 4.64542
Denominator = 8.69655
W Statistic = 0.534168 = 4.64542 / 8.69655

5% Critical value of 0.958 exceeds 0.534168
Evidence of non-normality at 95% level of significance

1% Critical value of 0.94 exceeds 0.534168
Evidence of non-normality at 99% level of significance

Concentrations (ppb)

Parameter: Mercury

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 56
Total Non-Detect: 33
Percent Non-Detects: 58.9286%
Total Background Measurements: 11
There is 1 background location

Loc.	Meas.	ND	Date	Conc.	Original
MW#93-1	11	11 (100%)	5/24/2018	ND<5e-005	ND<5e-005
			6/19/2018	ND<5e-005	ND<5e-005
			7/19/2018	ND<5e-005	ND<5e-005
			8/22/2018	ND<5e-005	ND<5e-005
			9/19/2018	ND<5e-005	ND<5e-005
			10/18/2018	ND<5e-005	ND<5e-005
			11/20/2018	ND<5e-005	ND<5e-005
			12/20/2018	ND<5e-005	ND<5e-005
			11/21/2019	ND<5e-005	ND<5e-005
			6/25/2020	ND<0.0002	ND<0.0002
			11/17/2020	ND<0.0002	ND<0.0002

There are 4 compliance locations

Loc.	Meas.	ND	Date	Conc.	Original
MW#03-1	11	10 (90.9091%)	5/24/2018	ND<5e-005	ND<5e-005
			6/19/2018	ND<5e-005	ND<5e-005
			7/19/2018	ND<5e-005	ND<5e-005
			8/22/2018	0.000184	0.000184
			10/18/2018	ND<5e-005	ND<5e-005
			11/20/2018	ND<5e-005	ND<5e-005
			12/20/2018	ND<5e-005	ND<5e-005
			3/26/2019	ND<5e-005	ND<5e-005
			11/21/2019	ND<5e-005	ND<5e-005
			6/25/2020	ND<0.0002	ND<0.0002
			11/17/2020	ND<0.0002	ND<0.0002
MW#03-2	12	1 (8.33333%)	5/24/2018	ND<5e-005	ND<5e-005
			6/19/2018	0.000224	0.000224
			7/19/2018	0.000239	0.000239
			8/22/2018	0.000255	0.000255
			9/19/2018	0.000636	0.000636
			10/18/2018	0.00101	0.00101
			11/20/2018	0.000803	0.000803
			12/20/2018	0.00107	0.00107
			11/21/2019	0.00694	0.00694
			2/14/2020	0.00171	0.00171
			6/25/2020	0.000234	0.000234
			11/17/2020	0.00086	0.00086
MW#93-2	11	10 (90.9091%)	5/24/2018	ND<5e-005	ND<5e-005
			6/19/2018	ND<5e-005	ND<5e-005
			7/19/2018	ND<5e-005	ND<5e-005
			8/22/2018	ND<5e-005	ND<5e-005

			9/19/2018	ND<5e-005	ND<5e-005
			10/18/2018	0.000572	0.000572
			11/20/2018	ND<5e-005	ND<5e-005
			12/20/2018	ND<5e-005	ND<5e-005
			11/21/2019	ND<5e-005	ND<5e-005
			6/25/2020	ND<0.0002	ND<0.0002
			11/16/2020	ND<0.0002	ND<0.0002
MW#93-3	11	1 (9.09091%)	5/24/2018	0.000787	0.000787
			6/19/2018	0.000367	0.000367
			7/19/2018	0.00033	0.00033
			8/22/2018	0.000514	0.000514
			9/19/2018	0.000428	0.000428
			10/18/2018	0.000579	0.000579
			11/20/2018	0.000577	0.000577
			12/20/2018	0.000245	0.000245
			11/21/2019	0.000861	0.000861
			6/25/2020	ND<0.0002	ND<0.0002
			11/16/2020	0.00031	0.00031

There are 0 unused locations

Loc.	Meas.	ND	Date	Conc.	Original

Non-Parametric Prediction Interval

Inter-Well Comparison

Parameter: Mercury

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 58.9286%
Number of comparisons = 4
Future Samples (k) = 4
Recent Dates = 1
Background Measurements (n) = 11
Maximum Background Value = 0.0002
Confidence Level = 73.3%
False Positive Rate = 26.7%

Location	Date	Count	Mean	Significant
MW#03-1	11/17/2020	1	0.0002	FALSE
MW#03-2	**11/17/2020**	**1**	**0.00086**	**TRUE**
MW#93-2	11/16/2020	1	0.0002	FALSE
MW#93-3	**11/16/2020**	**1**	**0.00031**	**TRUE**

Non-Parametric Prediction Interval

Intra-Well Comparison for MW#03-2

Parameter: Mercury

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 9.09091%
Future Samples (k) = 1
Recent Dates = 1
Baseline Measurements (n) = 11
Maximum Baseline Concentration = 0.00694
Confidence Level = 91.7%
False Positive Rate = 8.3%

Baseline Measurements	Date	Value
	5/24/2018	ND<5e-005
	6/19/2018	0.000224
	7/19/2018	0.000239
	8/22/2018	0.000255
	9/19/2018	0.000636
	10/18/2018	0.00101
	11/20/2018	0.000803
	12/20/2018	0.00107
	11/21/2019	0.00694
	2/14/2020	0.00171
	6/25/2020	0.000234

Date	Count	Mean	Significant
11/17/2020	1	0.00086	FALSE

Non-Parametric Prediction Interval

Intra-Well Comparison for MW#93-3

Parameter: Mercury

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 10%
Future Samples (k) = 1
Recent Dates = 1
Baseline Measurements (n) = 10
Maximum Baseline Concentration = 0.000861
Confidence Level = 90.9%
False Positive Rate = 9.1%

Baseline Measurements	Date	Value
	5/24/2018	0.000787
	6/19/2018	0.000367
	7/19/2018	0.00033
	8/22/2018	0.000514
	9/19/2018	0.000428
	10/18/2018	0.000579
	11/20/2018	0.000577
	12/20/2018	0.000245
	11/21/2019	0.000861
	6/25/2020	ND<0.0002

Date	Count	Mean	Significant
11/16/2020	1	0.00031	FALSE

Levene's Test for Equal of Variance

Parameter: Mercury

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Overall Mean = 0.000300917
Overall Std Dev = 0.000793072
Overall Total = 0.0168514
SS Groups = 8.72741e-006
SS Total = 3.45929e-005

ANOVA Table

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Squares	F
Between Groups	8.72741e-006	4	2.18185e-006	4.30204
Error (within groups)	2.58655e-005	51	5.07167e-007	
Totals	3.45929e-005	55		

95% F-Statistic = 2.52521

4.30204 exceeds 2.52521; assumption of equal variance should be rejected

Group: MW#93-1	Sample	Residual
	5/24/2018	2.72727e-005
	6/19/2018	2.72727e-005
	7/19/2018	2.72727e-005
	8/22/2018	2.72727e-005
	9/19/2018	2.72727e-005
	10/18/2018	2.72727e-005
	11/20/2018	2.72727e-005
	12/20/2018	2.72727e-005
	11/21/2019	2.72727e-005
	6/25/2020	0.000122727
	11/17/2020	0.000122727

Group: MW#03-1	Date	Residual
	5/24/2018	3.94545e-005
	6/19/2018	3.94545e-005
	7/19/2018	3.94545e-005
	8/22/2018	9.45455e-005
	10/18/2018	3.94545e-005
	11/20/2018	3.94545e-005
	12/20/2018	3.94545e-005
	3/26/2019	3.94545e-005
	11/21/2019	3.94545e-005
	6/25/2020	0.000110545
	11/17/2020	0.000110545

Group: MW#03-2	Date	Residual
	5/24/2018	0.00111925
	6/19/2018	0.00094525
	7/19/2018	0.00093025
	8/22/2018	0.00091425

9/19/2018	0.00053325
10/18/2018	0.00015925
11/20/2018	0.00036625
12/20/2018	9.925e-005
11/21/2019	0.00577075
2/14/2020	0.00054075
6/25/2020	0.00093525
11/17/2020	0.00030925

Group: MW#93-2	Date	Residual
	5/24/2018	7.47273e-005
	6/19/2018	7.47273e-005
	7/19/2018	7.47273e-005
	8/22/2018	7.47273e-005
	9/19/2018	7.47273e-005
	10/18/2018	0.000447273
	11/20/2018	7.47273e-005
	12/20/2018	7.47273e-005
	11/21/2019	7.47273e-005
	6/25/2020	7.52727e-005
	11/16/2020	7.52727e-005

Group: MW#93-3	Date	Residual
	5/24/2018	0.000314455
	6/19/2018	0.000105545
	7/19/2018	0.000142545
	8/22/2018	4.14545e-005
	9/19/2018	4.45455e-005
	10/18/2018	0.000106455
	11/20/2018	0.000104455
	12/20/2018	0.000227545
	11/21/2019	0.000388455
	6/25/2020	0.000272545
	11/16/2020	0.000162545

Shapiro-Francia Test of Normality

Parameter: Mercury

All Locations

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Number of Measurements = 56

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	5e-005	-2.12007	4.49469	-0.000106003
2	5e-005	-1.81191	7.77772	-0.000196599
3	5e-005	-1.62576	10.4208	-0.000277887
4	5e-005	-1.47579	12.5988	-0.000351677
5	5e-005	-1.35946	14.4469	-0.00041965
6	5e-005	-1.25357	16.0184	-0.000482328
7	5e-005	-1.16505	17.3757	-0.000540581
8	5e-005	-1.08032	18.5428	-0.000594597
9	5e-005	-1.00687	19.5566	-0.00064494
10	5e-005	-0.93459	20.43	-0.000691669
11	5e-005	-0.87055	21.1879	-0.000735197
12	5e-005	-0.806422	21.8382	-0.000775518
13	5e-005	-0.745449	22.3939	-0.00081279
14	5e-005	-0.690309	22.8704	-0.000847306
15	5e-005	-0.634124	23.2725	-0.000879012
16	5e-005	-0.582841	23.6122	-0.000908154
17	5e-005	-0.530162	23.8933	-0.000934662
18	5e-005	-0.481728	24.1254	-0.000958749
19	5e-005	-0.431644	24.3117	-0.000980331
20	5e-005	-0.385321	24.4601	-0.000999597
21	5e-005	-0.337155	24.5738	-0.00101645
22	5e-005	-0.292375	24.6593	-0.00103107
23	5e-005	-0.24559	24.7196	-0.00104335
24	5e-005	-0.199336	24.7594	-0.00105332
25	5e-005	-0.156042	24.7837	-0.00106112
26	5e-005	-0.110516	24.7959	-0.00106665
27	0.000184	-0.0677301	24.8005	-0.00107911
28	0.0002	-0.0225612	24.801	-0.00108362
29	0.0002	0.0225612	24.8015	-0.00107911
30	0.0002	0.0677301	24.8061	-0.00106556
31	0.0002	0.110516	24.8183	-0.00104346
32	0.0002	0.156042	24.8427	-0.00101225
33	0.0002	0.199336	24.8824	-0.000972385
34	0.0002	0.24559	24.9427	-0.000923267
35	0.000224	0.292375	25.0282	-0.000857775
36	0.000234	0.337155	25.1419	-0.000778881
37	0.000239	0.385321	25.2903	-0.000686789
38	0.000245	0.431644	25.4767	-0.000581036
39	0.000255	0.481728	25.7087	-0.000458196
40	0.00031	0.530162	25.9898	-0.000293845
41	0.00033	0.582841	26.3295	-0.000101508
42	0.000367	0.634124	26.7316	0.000131215
43	0.000428	0.690309	27.2081	0.000426667
44	0.000514	0.745449	27.7638	0.000809828
45	0.000572	0.806422	28.4142	0.0012711
46	0.000577	0.87055	29.172	0.00177341
47	0.000579	0.93459	30.0455	0.00231454

48	0.000636	1.00687	31.0592	0.0029549
49	0.000787	1.08032	32.2263	0.00380511
50	0.000803	1.16505	33.5837	0.00474065
51	0.00086	1.25357	35.1551	0.00581871
52	0.000861	1.35946	37.0032	0.00698921
53	0.00101	1.47579	39.1812	0.00847976
54	0.00107	1.62576	41.8243	0.0102193
55	0.00171	1.81191	45.1073	0.0133177
56	0.00694	2.12007	49.602	0.028031

Data Set Standard Deviation = 0.000952152
Numerator = 0.000785736
Denominator = 0.00247329
W Statistic = 0.317689 = 0.000785736 / 0.00247329

5% Critical value of 0.961 exceeds 0.317689
Evidence of non-normality at 95% level of significance

1% Critical value of 0.944 exceeds 0.317689
Evidence of non-normality at 99% level of significance

Concentrations (ppb)

Parameter: Molybdenum

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 55
Total Non-Detect: 40
Percent Non-Detects: 72.7273%
Total Background Measurements: 11
There is 1 background location

Loc.	Meas.	ND	Date	Conc.	Original
MW#93-1	11	9 (81.8182%)	5/24/2018	ND<0.01	ND<0.01
			6/19/2018	ND<0.01	ND<0.01
			7/19/2018	ND<0.01	ND<0.01
			8/22/2018	ND<0.01	ND<0.01
			9/19/2018	ND<0.01	ND<0.01
			10/18/2018	ND<0.01	ND<0.01
			11/20/2018	ND<0.01	ND<0.01
			12/20/2018	ND<0.01	ND<0.01
			11/21/2019	ND<0.01	ND<0.01
			6/25/2020	0.00105	0.00105
			11/17/2020	0.00113	0.00113

There are 4 compliance locations

Loc.	Meas.	ND	Date	Conc.	Original
MW#93-2	11	1 (9.09091%)	5/24/2018	1.4	1.4
			6/19/2018	1.18	1.18
			7/19/2018	ND<0.01	ND<0.01
			8/22/2018	0.949	0.949
			9/19/2018	1.34	1.34
			10/18/2018	1.08	1.08
			11/20/2018	1.29	1.29
			12/20/2018	1.34	1.34
			11/21/2019	0.252	0.252
			6/25/2020	0.213	0.213
			11/16/2020	0.32	0.32
MW#03-1	11	8 (72.7273%)	5/24/2018	ND<0.01	ND<0.01
			6/19/2018	ND<0.01	ND<0.01
			7/19/2018	ND<0.01	ND<0.01
			8/22/2018	0.0167	0.0167
			10/18/2018	ND<0.01	ND<0.01
			11/20/2018	ND<0.01	ND<0.01
			12/20/2018	ND<0.01	ND<0.01
			3/26/2019	ND<0.01	ND<0.01
			11/21/2019	ND<0.01	ND<0.01
			6/25/2020	0.000992	0.000992
			11/17/2020	0.00274	0.00274
MW#03-2	11	11 (100%)	5/24/2018	ND<0.01	ND<0.01
			6/19/2018	ND<0.01	ND<0.01
			7/19/2018	ND<0.01	ND<0.01
			8/22/2018	ND<0.01	ND<0.01
			9/19/2018	ND<0.01	ND<0.01

			10/18/2018	ND<0.01	ND<0.01
			11/20/2018	ND<0.01	ND<0.01
			12/20/2018	ND<0.01	ND<0.01
			11/21/2019	ND<0.01	ND<0.01
			6/25/2020	ND<0.005	ND<0.005
			11/17/2020	ND<0.005	ND<0.005
MW#93-3	11	11 (100%)	5/24/2018	ND<0.01	ND<0.01
			6/19/2018	ND<0.01	ND<0.01
			7/19/2018	ND<0.01	ND<0.01
			8/22/2018	ND<0.01	ND<0.01
			9/19/2018	ND<0.01	ND<0.01
			10/18/2018	ND<0.01	ND<0.01
			11/20/2018	ND<0.01	ND<0.01
			12/20/2018	ND<0.01	ND<0.01
			11/21/2019	ND<0.01	ND<0.01
			6/25/2020	ND<0.005	ND<0.005
			11/16/2020	ND<0.005	ND<0.005

There are 0 unused locations

Loc.	Meas.	ND	Date	Conc.	Original

Non-Parametric Prediction Interval

Inter-Well Comparison

Parameter: Molybdenum

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 72.7273%
Number of comparisons = 4
Future Samples (k) = 4
Recent Dates = 1
Background Measurements (n) = 11
Maximum Background Value = 0.01
Confidence Level = 73.3%
False Positive Rate = 26.7%

Location	Date	Count	Mean	Significant
MW#93-2	**11/16/2020**	**1**	**0.32**	**TRUE**
MW#03-1	11/17/2020	1	0.00274	FALSE
MW#03-2	11/17/2020	1	0.005	FALSE
MW#93-3	11/16/2020	1	0.005	FALSE

Non-Parametric Prediction Interval

Intra-Well Comparison for MW#93-2

Parameter: Molybdenum

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 10%
Future Samples (k) = 1
Recent Dates = 1
Baseline Measurements (n) = 10
Maximum Baseline Concentration = 1.4
Confidence Level = 90.9%
False Positive Rate = 9.1%

Baseline Measurements	Date	Value
	5/24/2018	1.4
	6/19/2018	1.18
	7/19/2018	ND<0.01
	8/22/2018	0.949
	9/19/2018	1.34
	10/18/2018	1.08
	11/20/2018	1.29
	12/20/2018	1.34
	11/21/2019	0.252
	6/25/2020	0.213

Date	Count	Mean	Significant
11/16/2020	1	0.32	FALSE

Levene's Test for Equal of Variance

Parameter: Molybdenum

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Overall Mean = 0.0966982
Overall Std Dev = 0.210107
Overall Total = 5.3184
SS Groups = 1.97013
SS Total = 2.38382

ANOVA Table

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Squares	F
Between Groups	1.97013	4	0.492533	59.5287
Error (within groups)	0.413694	50	0.00827387	
Totals	2.38382	54		

95% F-Statistic = 2.52521

59.5287 exceeds 2.52521; assumption of equal variance should be rejected

Group: MW#93-1	Sample	Residual
	5/24/2018	0.00162
	6/19/2018	0.00162
	7/19/2018	0.00162
	8/22/2018	0.00162
	9/19/2018	0.00162
	10/18/2018	0.00162
	11/20/2018	0.00162
	12/20/2018	0.00162
	11/21/2019	0.00162
	6/25/2020	0.00733
	11/17/2020	0.00725

Group: MW#93-2	Date	Residual
	5/24/2018	0.547818
	6/19/2018	0.327818
	7/19/2018	0.842182
	8/22/2018	0.0968182
	9/19/2018	0.487818
	10/18/2018	0.227818
	11/20/2018	0.437818
	12/20/2018	0.487818
	11/21/2019	0.600182
	6/25/2020	0.639182
	11/16/2020	0.532182

Group: MW#03-1	Date	Residual
	5/24/2018	0.000869818
	6/19/2018	0.000869818
	7/19/2018	0.000869818
	8/22/2018	0.00756982

10/18/2018	0.000869818
11/20/2018	0.000869818
12/20/2018	0.000869818
3/26/2019	0.000869818
11/21/2019	0.000869818
6/25/2020	0.00813818
11/17/2020	0.00639018

Group: MW#03-2	Date	Residual
	5/24/2018	0.000909091
	6/19/2018	0.000909091
	7/19/2018	0.000909091
	8/22/2018	0.000909091
	9/19/2018	0.000909091
	10/18/2018	0.000909091
	11/20/2018	0.000909091
	12/20/2018	0.000909091
	11/21/2019	0.000909091
	6/25/2020	0.00409091
	11/17/2020	0.00409091

Group: MW#93-3	Date	Residual
	5/24/2018	0.000909091
	6/19/2018	0.000909091
	7/19/2018	0.000909091
	8/22/2018	0.000909091
	9/19/2018	0.000909091
	10/18/2018	0.000909091
	11/20/2018	0.000909091
	12/20/2018	0.000909091
	11/21/2019	0.000909091
	6/25/2020	0.00409091
	11/16/2020	0.00409091

Shapiro-Francia Test of Normality

Parameter: Molybdenum

All Locations

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Number of Measurements = 55

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	0.000992	-2.12007	4.49469	-0.00210311
2	0.00105	-1.81191	7.77772	-0.00400562
3	0.00113	-1.61644	10.3906	-0.00583219
4	0.00274	-1.46838	12.5467	-0.00985556
5	0.005	-1.34694	14.361	-0.0165903
6	0.005	-1.24264	15.9051	-0.0228035
7	0.005	-1.15035	17.2284	-0.0285552
8	0.005	-1.07138	18.3763	-0.0339121
9	0.01	-0.994457	19.3652	-0.0438567
10	0.01	-0.923014	20.2172	-0.0530868
11	0.01	-0.855996	20.9499	-0.0616468
12	0.01	-0.792618	21.5782	-0.069573
13	0.01	-0.732275	22.1144	-0.0768957
14	0.01	-0.67449	22.5693	-0.0836406
15	0.01	-0.621911	22.9561	-0.0898597
16	0.01	-0.568052	23.2788	-0.0955403
17	0.01	-0.515791	23.5448	-0.100698
18	0.01	-0.464904	23.761	-0.105347
19	0.01	-0.415193	23.9334	-0.109499
20	0.01	-0.36649	24.0677	-0.113164
21	0.01	-0.318639	24.1692	-0.11635
22	0.01	-0.27411	24.2443	-0.119092
23	0.01	-0.227545	24.2961	-0.121367
24	0.01	-0.181468	24.329	-0.123182
25	0.01	-0.135774	24.3475	-0.124539
26	0.01	-0.0903606	24.3556	-0.125443
27	0.01	-0.0451348	24.3577	-0.125894
28	0.01	0	24.3577	-0.125894
29	0.01	0.0451348	24.3597	-0.125443
30	0.01	0.0903606	24.3679	-0.124539
31	0.01	0.135774	24.3863	-0.123182
32	0.01	0.181468	24.4192	-0.121367
33	0.01	0.227545	24.471	-0.119092
34	0.01	0.27411	24.5462	-0.11635
35	0.01	0.318639	24.6477	-0.113164
36	0.01	0.36649	24.782	-0.109499
37	0.01	0.415193	24.9544	-0.105347
38	0.01	0.464904	25.1705	-0.100698
39	0.01	0.515791	25.4366	-0.0955403
40	0.01	0.568052	25.7593	-0.0898597
41	0.01	0.621911	26.146	-0.0836406
42	0.01	0.67449	26.601	-0.0768957
43	0.01	0.732275	27.1372	-0.069573
44	0.01	0.792618	27.7654	-0.0616468
45	0.0167	0.855996	28.4982	-0.0473517
46	0.213	0.923014	29.3501	0.14925
47	0.252	0.994457	30.3391	0.399854

48	0.32	1.07138	31.4869	0.742695
49	0.949	1.15035	32.8102	1.83438
50	1.08	1.24264	34.3544	3.17643
51	1.18	1.34694	36.1686	4.76582
52	1.29	1.46838	38.3248	6.66003
53	1.34	1.61644	40.9376	8.82606
54	1.34	1.81191	44.2207	11.254
55	1.4	2.12007	48.7154	14.2221

Data Set Standard Deviation = 0.411764
Numerator = 202.269
Denominator = 446.021
W Statistic = 0.453495 = 202.269 / 446.021

5% Critical value of 0.958 exceeds 0.453495
Evidence of non-normality at 95% level of significance

1% Critical value of 0.94 exceeds 0.453495
Evidence of non-normality at 99% level of significance

Concentrations (ppb)

Parameter: ph

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 297
Total Non-Detect: 0
Percent Non-Detects: 0%
Total Background Measurements: 74
There is 1 background location

Loc.	Meas.	ND	Date	Conc.	Original
MW#93-1	74	0 (0%)	12/15/1994	6.67	6.67
			3/14/1995	6.72	6.72
			6/21/1995	6.58	6.58
			12/14/1995	6.72	6.72
			3/6/1996	6.72	6.72
			4/25/1996	6.79	6.79
			10/2/1996	6.61	6.61
			12/10/1996	6.51	6.51
			3/11/1997	6.77	6.77
			4/15/1997	6.66	6.66
			8/14/1997	6.66	6.66
			12/4/1997	6.78	6.78
			3/31/1998	6.87	6.87
			6/23/1998	6.5	6.5
			8/11/1998	7.05	7.05
			12/8/1998	6.62	6.62
			3/9/1999	6.6	6.6
			6/8/1999	6.93	6.93
			8/19/1999	6.54	6.54
			12/14/1999	6.55	6.55
			3/7/2000	6.59	6.59
			6/23/2000	6.52	6.52
			12/12/2000	6.56	6.56
			3/27/2001	6.6	6.6
			6/28/2001	6.59	6.59
			9/10/2001	6.76	6.76
			12/18/2001	6.76	6.76
			3/19/2002	6.93	6.93
			6/26/2002	6.85	6.85
			9/18/2002	6.62	6.62
			12/11/2002	6.58	6.58
			3/13/2003	6.66	6.66
			6/25/2003	6.94	6.94
			9/26/2003	6.42	6.42
			12/10/2003	6.64	6.64
			3/9/2004	6.68	6.68
			6/24/2004	6.53	6.53
			9/15/2004	6.43	6.43
			12/15/2004	6.61	6.61
			3/16/2005	6.57	6.57
			6/15/2005	6.53	6.53
			9/21/2005	6.65	6.65
			12/21/2005	6.61	6.61
			3/15/2006	6.64	6.64
			6/21/2006	6.85	6.85

			12/20/2006	6.67	6.67
			6/12/2007	6.58	6.58
			12/17/2007	6.33	6.33
			6/11/2008	6.7	6.7
			12/3/2008	6.5	6.5
			6/17/2009	6.8	6.8
			12/9/2009	6.6	6.6
			6/17/2010	6.5	6.5
			12/22/2010	6.55	6.55
			6/29/2011	6.5	6.5
			12/7/2011	6.41	6.41
			6/6/2012	6.23	6.23
			12/12/2012	6.61	6.61
			6/19/2013	6.58	6.58
			12/11/2013	6.57	6.57
			6/11/2014	6.1	6.1
			12/3/2014	6.69	6.69
			6/17/2015	6.38	6.38
			12/1/2015	6.45	6.45
			6/22/2016	6.59	6.59
			12/20/2016	6.28	6.28
			6/6/2017	6.69	6.69
			11/7/2017	6.21	6.21
			2/27/2018	6.47	6.47
			9/19/2018	6.62	6.62
			5/7/2019	7	7
			11/21/2019	6.46	6.46
			6/26/2020	6.88	6.88
			11/17/2020	6.45	6.45

There are 4 compliance locations

Loc.	Meas.	ND	Date	Conc.	Original
MW#93-2	77	0 (0%)	12/15/1994	8.54	8.54
			3/14/1995	8.82	8.82
			6/21/1995	8.68	8.68
			12/14/1995	8.16	8.16
			3/6/1996	9.37	9.37
			4/25/1996	9.14	9.14
			10/2/1996	8.94	8.94
			12/10/1996	9.27	9.27
			3/11/1997	8.95	8.95
			4/15/1997	9.25	9.25
			8/14/1997	8.67	8.67
			12/4/1997	8.77	8.77
			3/31/1998	9.32	9.32
			6/23/1998	8.87	8.87
			8/11/1998	9	9
			12/8/1998	8.9	8.9
			3/9/1999	9.39	9.39
			6/8/1999	9.25	9.25
			8/19/1999	9.15	9.15
			12/14/1999	8.98	8.98
			3/7/2000	9.2	9.2
			6/23/2000	9.18	9.18
			12/12/2000	9.18	9.18

			3/27/2001	9.29	9.29
			6/28/2001	9.22	9.22
			9/10/2001	9.1	9.1
			12/18/2001	9.4	9.4
			3/19/2002	9.54	9.54
			6/26/2002	9.44	9.44
			9/18/2002	9.24	9.24
			12/11/2002	9.16	9.16
			3/13/2003	9.28	9.28
			6/25/2003	9.27	9.27
			9/26/2003	9.32	9.32
			12/10/2003	9.25	9.25
			3/9/2004	9.37	9.37
			6/24/2004	9.24	9.24
			9/15/2004	9.32	9.32
			12/15/2004	9.26	9.26
			3/16/2005	9.23	9.23
			6/15/2005	9.1	9.1
			9/21/2005	9.25	9.25
			12/21/2005	9.31	9.31
			3/15/2006	9.47	9.47
			6/21/2006	9.4	9.4
			12/20/2006	9.18	9.18
			2/21/2007	9.2	9.2
			6/12/2007	9.1	9.1
			12/17/2007	9.3	9.3
			6/11/2008	9.4	9.4
			12/3/2008	9.7	9.7
			12/15/2008	9.6	9.6
			6/17/2009	9.8	9.8
			12/9/2009	9.8	9.8
			6/17/2010	9.6	9.6
			12/22/2010	9.5	9.5
			6/29/2011	9.4	9.4
			12/7/2011	9.5	9.5
			6/6/2012	9.68	9.68
			12/12/2012	10.02	10.02
			1/9/2013	9.51	9.51
			6/19/2013	9.4	9.4
			12/11/2013	9.46	9.46
			6/11/2014	8.55	8.55
			12/3/2014	8.95	8.95
			6/17/2015	9.13	9.13
			12/1/2015	9.37	9.37
			6/22/2016	9.28	9.28
			12/20/2016	9.72	9.72
			6/6/2017	9.29	9.29
			11/7/2017	8.86	8.86
			2/27/2018	9.04	9.04
			9/19/2018	9.09	9.09
			5/7/2019	9.05	9.05
			11/21/2019	8.44	8.44
			6/26/2020	8.59	8.59
			11/16/2020	8.48	8.48
MW#93-3	74	0 (0%)	12/15/1994	6.68	6.68
			3/14/1995	6.74	6.74

6/21/1995	6.61	6.61
12/14/1995	6.75	6.75
3/6/1996	6.85	6.85
4/25/1996	6.78	6.78
10/2/1996	6.75	6.75
12/10/1996	6.7	6.7
3/11/1997	6.8	6.8
4/15/1997	6.74	6.74
8/14/1997	6.88	6.88
12/4/1997	6.88	6.88
3/31/1998	6.92	6.92
6/23/1998	6.76	6.76
8/11/1998	6.91	6.91
12/8/1998	6.93	6.93
3/9/1999	6.78	6.78
6/8/1999	6.85	6.85
8/19/1999	6.97	6.97
12/14/1999	6.8	6.8
3/7/2000	6.77	6.77
6/23/2000	6.82	6.82
12/12/2000	6.86	6.86
3/27/2001	6.79	6.79
6/28/2001	6.86	6.86
9/10/2001	7.04	7.04
12/18/2001	6.93	6.93
3/19/2002	7	7
6/26/2002	6.89	6.89
9/18/2002	7.96	7.96
12/11/2002	6.74	6.74
3/13/2003	6.87	6.87
6/25/2003	6.85	6.85
9/26/2003	6.77	6.77
12/10/2003	6.99	6.99
3/9/2004	7.45	7.45
6/24/2004	6.8	6.8
9/15/2004	6.7	6.7
12/15/2004	6.88	6.88
3/16/2005	6.69	6.69
6/15/2005	6.81	6.81
9/21/2005	6.85	6.85
12/21/2005	6.7	6.7
3/15/2006	7.07	7.07
6/21/2006	6.84	6.84
12/20/2006	6.93	6.93
6/12/2007	6.89	6.89
12/17/2007	6.8	6.8
6/11/2008	6.8	6.8
12/3/2008	6.8	6.8
6/17/2009	7.2	7.2
12/9/2009	6.9	6.9
6/17/2010	6.7	6.7
12/22/2010	6.82	6.82
6/29/2011	6.7	6.7
12/7/2011	6.77	6.77
6/6/2012	6.42	6.42
12/12/2012	6.85	6.85
6/19/2013	6.49	6.49

			12/11/2013	7.07	7.07
			6/11/2014	6.08	6.08
			12/3/2014	6.8	6.8
			6/17/2015	6.4	6.4
			12/1/2015	6.6	6.6
			6/22/2016	6.43	6.43
			12/20/2016	6.27	6.27
			6/6/2017	6.65	6.65
			11/7/2017	6.46	6.46
			2/27/2018	6.49	6.49
			9/19/2018	6.55	6.55
			5/7/2019	6.69	6.69
			11/21/2019	6.54	6.54
			6/26/2020	6.75	6.75
			11/16/2020	6.24	6.24
MW#03-1	34	0 (0%)	6/24/2004	7.27	7.27
			9/15/2004	6.78	6.78
			12/15/2004	7.32	7.32
			3/16/2005	7.3	7.3
			6/15/2005	7.28	7.28
			9/21/2005	7.88	7.88
			12/20/2006	7	7
			6/12/2007	7.29	7.29
			12/17/2007	6.8	6.8
			6/11/2008	7.4	7.4
			12/3/2008	7.4	7.4
			6/17/2009	7.6	7.6
			12/9/2009	7.5	7.5
			6/17/2010	7.1	7.1
			12/22/2010	6.89	6.89
			6/29/2011	7.3	7.3
			12/7/2011	7.05	7.05
			6/6/2012	7.33	7.33
			6/19/2013	7.15	7.15
			12/11/2013	7.19	7.19
			6/11/2014	6.62	6.62
			12/3/2014	6.73	6.73
			6/17/2015	6.66	6.66
			12/1/2015	6.34	6.34
			6/22/2016	7.2	7.2
			12/20/2016	6.75	6.75
			6/6/2017	6.64	6.64
			11/7/2017	6.44	6.44
			2/27/2018	6.81	6.81
			9/19/2018	7.19	7.19
			5/7/2019	6.33	6.33
			11/21/2019	6.23	6.23
			6/25/2020	6.77	6.77
			11/17/2020	6.92	6.92
MW#03-2	38	0 (0%)	6/24/2004	6.84	6.84
			9/15/2004	7.17	7.17
			12/15/2004	6.86	6.86
			3/16/2005	6.8	6.8
			6/15/2005	6.87	6.87
			9/21/2005	6.87	6.87

12/21/2005	6.83	6.83
3/15/2006	6.88	6.88
6/21/2006	6.78	6.78
12/20/2006	6.88	6.88
6/12/2007	6.87	6.87
12/17/2007	6.7	6.7
6/11/2008	6.9	6.9
12/3/2008	6.8	6.8
6/17/2009	7.3	7.3
12/9/2009	6.8	6.8
6/17/2010	6.8	6.8
12/22/2010	7.2	7.2
6/29/2011	6.7	6.7
12/7/2011	6.69	6.69
6/6/2012	6.73	6.73
12/12/2012	6.82	6.82
6/19/2013	6.88	6.88
12/11/2013	6.72	6.72
6/11/2014	7	7
12/3/2014	7.14	7.14
6/17/2015	6.45	6.45
12/1/2015	6.39	6.39
6/22/2016	6.75	6.75
12/20/2016	6.36	6.36
6/6/2017	6.73	6.73
11/7/2017	6.22	6.22
2/27/2018	6.47	6.47
9/19/2018	6.63	6.63
5/7/2019	6.81	6.81
11/21/2019	6.56	6.56
6/25/2020	6.65	6.65
11/17/2020	6.64	6.64

There are 0 unused locations

Loc.	Meas.	ND	Date	Conc.	Original

Non-Parametric Prediction Interval

Inter-Well Comparison

Parameter: ph

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 0%
Number of comparisons = 4
Future Samples (k) = 4
Recent Dates = 1
Background Measurements (n) = 74
Maximum Background Value = 7.05
Confidence Level = 94.9%
False Positive Rate = 5.1%

Location	Date	Count	Mean	Significant
MW#93-2	**11/16/2020**	**1**	**8.48**	**TRUE**
MW#93-3	11/16/2020	1	6.24	FALSE
MW#03-1	11/17/2020	1	6.92	FALSE
MW#03-2	11/17/2020	1	6.64	FALSE

Non-Parametric Prediction Interval

Intra-Well Comparison for MW#93-2

Parameter: ph

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 0%
Future Samples (k) = 1
Recent Dates = 1
Baseline Measurements (n) = 76
Maximum Baseline Concentration = 10.02
Confidence Level = 98.7%
False Positive Rate = 1.3%

Baseline Measurements	Date	Value
	12/15/1994	8.54
	3/14/1995	8.82
	6/21/1995	8.68
	12/14/1995	8.16
	3/6/1996	9.37
	4/25/1996	9.14
	10/2/1996	8.94
	12/10/1996	9.27
	3/11/1997	8.95
	4/15/1997	9.25
	8/14/1997	8.67
	12/4/1997	8.77
	3/31/1998	9.32
	6/23/1998	8.87
	8/11/1998	9
	12/8/1998	8.9
	3/9/1999	9.39
	6/8/1999	9.25
	8/19/1999	9.15
	12/14/1999	8.98
	3/7/2000	9.2
	6/23/2000	9.18
	12/12/2000	9.18
	3/27/2001	9.29
	6/28/2001	9.22
	9/10/2001	9.1
	12/18/2001	9.4
	3/19/2002	9.54
	6/26/2002	9.44
	9/18/2002	9.24
	12/11/2002	9.16
	3/13/2003	9.28
	6/25/2003	9.27
	9/26/2003	9.32
	12/10/2003	9.25
	3/9/2004	9.37
	6/24/2004	9.24
	9/15/2004	9.32
	12/15/2004	9.26
	3/16/2005	9.23
	6/15/2005	9.1
	9/21/2005	9.25

12/21/2005	9.31
3/15/2006	9.47
6/21/2006	9.4
12/20/2006	9.18
2/21/2007	9.2
6/12/2007	9.1
12/17/2007	9.3
6/11/2008	9.4
12/3/2008	9.7
12/15/2008	9.6
6/17/2009	9.8
12/9/2009	9.8
6/17/2010	9.6
12/22/2010	9.5
6/29/2011	9.4
12/7/2011	9.5
6/6/2012	9.68
12/12/2012	10.02
1/9/2013	9.51
6/19/2013	9.4
12/11/2013	9.46
6/11/2014	8.55
12/3/2014	8.95
6/17/2015	9.13
12/1/2015	9.37
6/22/2016	9.28
12/20/2016	9.72
6/6/2017	9.29
11/7/2017	8.86
2/27/2018	9.04
9/19/2018	9.09
5/7/2019	9.05
11/21/2019	8.44
6/26/2020	8.59

Date	Count	Mean	Significant
11/16/2020	1	8.48	FALSE

Levene's Test for Equal of Variance

Parameter: ph

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Overall Mean = 0.192311
Overall Std Dev = 0.194315
Overall Total = 57.1164
SS Groups = 1.24388
SS Total = 11.1765

ANOVA Table

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Squares	F
Between Groups	1.24388	4	0.31097	9.14194
Error (within groups)	9.93261	292	0.0340158	
Totals	11.1765	296		

95% F-Statistic = 2.37

9.14194 exceeds 2.37; assumption of equal variance should be rejected

Group: MW#93-1	Sample	Residual
	12/15/1994	0.0568919
	3/14/1995	0.106892
	6/21/1995	0.0331081
	12/14/1995	0.106892
	3/6/1996	0.106892
	4/25/1996	0.176892
	10/2/1996	0.00310811
	12/10/1996	0.103108
	3/11/1997	0.156892
	4/15/1997	0.0468919
	8/14/1997	0.0468919
	12/4/1997	0.166892
	3/31/1998	0.256892
	6/23/1998	0.113108
	8/11/1998	0.436892
	12/8/1998	0.00689189
	3/9/1999	0.0131081
	6/8/1999	0.316892
	8/19/1999	0.0731081
	12/14/1999	0.0631081
	3/7/2000	0.0231081
	6/23/2000	0.0931081
	12/12/2000	0.0531081
	3/27/2001	0.0131081
	6/28/2001	0.0231081
	9/10/2001	0.146892
	12/18/2001	0.146892
	3/19/2002	0.316892
	6/26/2002	0.236892
	9/18/2002	0.00689189

12/11/2002	0.0331081
3/13/2003	0.0468919
6/25/2003	0.326892
9/26/2003	0.193108
12/10/2003	0.0268919
3/9/2004	0.0668919
6/24/2004	0.0831081
9/15/2004	0.183108
12/15/2004	0.00310811
3/16/2005	0.0431081
6/15/2005	0.0831081
9/21/2005	0.0368919
12/21/2005	0.00310811
3/15/2006	0.0268919
6/21/2006	0.236892
12/20/2006	0.0568919
6/12/2007	0.0331081
12/17/2007	0.283108
6/11/2008	0.0868919
12/3/2008	0.113108
6/17/2009	0.186892
12/9/2009	0.0131081
6/17/2010	0.113108
12/22/2010	0.0631081
6/29/2011	0.113108
12/7/2011	0.203108
6/6/2012	0.383108
12/12/2012	0.00310811
6/19/2013	0.0331081
12/11/2013	0.0431081
6/11/2014	0.513108
12/3/2014	0.0768919
6/17/2015	0.233108
12/1/2015	0.163108
6/22/2016	0.0231081
12/20/2016	0.333108
6/6/2017	0.0768919
11/7/2017	0.403108
2/27/2018	0.143108
9/19/2018	0.00689189
5/7/2019	0.386892
11/21/2019	0.153108
6/26/2020	0.266892
11/17/2020	0.163108

Group: MW#93-2	**Date**	**Residual**
	12/15/1994	0.66039
	3/14/1995	0.38039
	6/21/1995	0.52039
	12/14/1995	1.04039
	3/6/1996	0.16961
	4/25/1996	0.0603896
	10/2/1996	0.26039
	12/10/1996	0.0696104
	3/11/1997	0.25039
	4/15/1997	0.0496104
	8/14/1997	0.53039

12/4/1997	0.43039
3/31/1998	0.11961
6/23/1998	0.33039
8/11/1998	0.20039
12/8/1998	0.30039
3/9/1999	0.18961
6/8/1999	0.0496104
8/19/1999	0.0503896
12/14/1999	0.22039
3/7/2000	0.00038961
6/23/2000	0.0203896
12/12/2000	0.0203896
3/27/2001	0.0896104
6/28/2001	0.0196104
9/10/2001	0.10039
12/18/2001	0.19961
3/19/2002	0.33961
6/26/2002	0.23961
9/18/2002	0.0396104
12/11/2002	0.0403896
3/13/2003	0.0796104
6/25/2003	0.0696104
9/26/2003	0.11961
12/10/2003	0.0496104
3/9/2004	0.16961
6/24/2004	0.0396104
9/15/2004	0.11961
12/15/2004	0.0596104
3/16/2005	0.0296104
6/15/2005	0.10039
9/21/2005	0.0496104
12/21/2005	0.10961
3/15/2006	0.26961
6/21/2006	0.19961
12/20/2006	0.0203896
2/21/2007	0.00038961
6/12/2007	0.10039
12/17/2007	0.0996104
6/11/2008	0.19961
12/3/2008	0.49961
12/15/2008	0.39961
6/17/2009	0.59961
12/9/2009	0.59961
6/17/2010	0.39961
12/22/2010	0.29961
6/29/2011	0.19961
12/7/2011	0.29961
6/6/2012	0.47961
12/12/2012	0.81961
1/9/2013	0.30961
6/19/2013	0.19961
12/11/2013	0.25961
6/11/2014	0.65039
12/3/2014	0.25039
6/17/2015	0.0703896
12/1/2015	0.16961
6/22/2016	0.0796104

12/20/2016	0.51961
6/6/2017	0.0896104
11/7/2017	0.34039
2/27/2018	0.16039
9/19/2018	0.11039
5/7/2019	0.15039
11/21/2019	0.76039
6/26/2020	0.61039
11/16/2020	0.72039

Group: MW#93-3	Date	Residual
	12/15/1994	0.105135
	3/14/1995	0.0451351
	6/21/1995	0.175135
	12/14/1995	0.0351351
	3/6/1996	0.0648649
	4/25/1996	0.00513514
	10/2/1996	0.0351351
	12/10/1996	0.0851351
	3/11/1997	0.0148649
	4/15/1997	0.0451351
	8/14/1997	0.0948649
	12/4/1997	0.0948649
	3/31/1998	0.134865
	6/23/1998	0.0251351
	8/11/1998	0.124865
	12/8/1998	0.144865
	3/9/1999	0.00513514
	6/8/1999	0.0648649
	8/19/1999	0.184865
	12/14/1999	0.0148649
	3/7/2000	0.0151351
	6/23/2000	0.0348649
	12/12/2000	0.0748649
	3/27/2001	0.00486486
	6/28/2001	0.0748649
	9/10/2001	0.254865
	12/18/2001	0.144865
	3/19/2002	0.214865
	6/26/2002	0.104865
	9/18/2002	1.17486
	12/11/2002	0.0451351
	3/13/2003	0.0848649
	6/25/2003	0.0648649
	9/26/2003	0.0151351
	12/10/2003	0.204865
	3/9/2004	0.664865
	6/24/2004	0.0148649
	9/15/2004	0.0851351
	12/15/2004	0.0948649
	3/16/2005	0.0951351
	6/15/2005	0.0248649
	9/21/2005	0.0648649
	12/21/2005	0.0851351
	3/15/2006	0.284865
	6/21/2006	0.0548649
	12/20/2006	0.144865

6/12/2007	0.104865
12/17/2007	0.0148649
6/11/2008	0.0148649
12/3/2008	0.0148649
6/17/2009	0.414865
12/9/2009	0.114865
6/17/2010	0.0851351
12/22/2010	0.0348649
6/29/2011	0.0851351
12/7/2011	0.0151351
6/6/2012	0.365135
12/12/2012	0.0648649
6/19/2013	0.295135
12/11/2013	0.284865
6/11/2014	0.705135
12/3/2014	0.0148649
6/17/2015	0.385135
12/1/2015	0.185135
6/22/2016	0.355135
12/20/2016	0.515135
6/6/2017	0.135135
11/7/2017	0.325135
2/27/2018	0.295135
9/19/2018	0.235135
5/7/2019	0.0951351
11/21/2019	0.245135
6/26/2020	0.0351351
11/16/2020	0.545135

Group: MW#03-1	**Date**	**Residual**
	6/24/2004	0.256471
	9/15/2004	0.233529
	12/15/2004	0.306471
	3/16/2005	0.286471
	6/15/2005	0.266471
	9/21/2005	0.866471
	12/20/2006	0.0135294
	6/12/2007	0.276471
	12/17/2007	0.213529
	6/11/2008	0.386471
	12/3/2008	0.386471
	6/17/2009	0.586471
	12/9/2009	0.486471
	6/17/2010	0.0864706
	12/22/2010	0.123529
	6/29/2011	0.286471
	12/7/2011	0.0364706
	6/6/2012	0.316471
	6/19/2013	0.136471
	12/11/2013	0.176471
	6/11/2014	0.393529
	12/3/2014	0.283529
	6/17/2015	0.353529
	12/1/2015	0.673529
	6/22/2016	0.186471
	12/20/2016	0.263529
	6/6/2017	0.373529

11/7/2017	0.573529
2/27/2018	0.203529
9/19/2018	0.176471
5/7/2019	0.683529
11/21/2019	0.783529
6/25/2020	0.243529
11/17/2020	0.0935294

Group: MW#03-2	Date	Residual
	6/24/2004	0.0639474
	9/15/2004	0.393947
	12/15/2004	0.0839474
	3/16/2005	0.0239474
	6/15/2005	0.0939474
	9/21/2005	0.0939474
	12/21/2005	0.0539474
	3/15/2006	0.103947
	6/21/2006	0.00394737
	12/20/2006	0.103947
	6/12/2007	0.0939474
	12/17/2007	0.0760526
	6/11/2008	0.123947
	12/3/2008	0.0239474
	6/17/2009	0.523947
	12/9/2009	0.0239474
	6/17/2010	0.0239474
	12/22/2010	0.423947
	6/29/2011	0.0760526
	12/7/2011	0.0860526
	6/6/2012	0.0460526
	12/12/2012	0.0439474
	6/19/2013	0.103947
	12/11/2013	0.0560526
	6/11/2014	0.223947
	12/3/2014	0.363947
	6/17/2015	0.326053
	12/1/2015	0.386053
	6/22/2016	0.0260526
	12/20/2016	0.416053
	6/6/2017	0.0460526
	11/7/2017	0.556053
	2/27/2018	0.306053
	9/19/2018	0.146053
	5/7/2019	0.0339474
	11/21/2019	0.216053
	6/25/2020	0.126053
	11/17/2020	0.136053

Shapiro-Francia Test of Normality

Parameter: ph

All Locations

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Number of Measurements = 297

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	6.08	-2.74777	7.55021	-16.7064
2	6.1	-2.51213	13.861	-32.0304
3	6.21	-2.32634	19.2729	-46.477
4	6.22	-2.22621	24.2289	-60.324
5	6.23	-2.14441	28.8274	-73.6837
6	6.23	-2.05375	33.0453	-86.4785
7	6.24	-1.99539	37.0269	-98.9298
8	6.27	-1.94314	40.8026	-111.113
9	6.28	-1.88079	44.34	-122.925
10	6.33	-1.83843	47.7198	-134.562
11	6.33	-1.79912	50.9566	-145.95
12	6.34	-1.75069	54.0215	-157.05
13	6.36	-1.71688	56.9692	-167.969
14	6.38	-1.68494	59.8082	-178.719
15	6.39	-1.64485	62.5138	-189.23
16	6.4	-1.61644	65.1267	-199.575
17	6.41	-1.58047	67.6245	-209.705
18	6.42	-1.55477	70.0418	-219.687
19	6.42	-1.53007	72.3829	-229.51
20	6.43	-1.49852	74.6285	-239.146
21	6.43	-1.47579	76.8064	-248.635
22	6.44	-1.4538	78.92	-257.997
23	6.45	-1.42554	80.9522	-267.192
24	6.45	-1.40507	82.9264	-276.255
25	6.45	-1.38517	84.8451	-285.189
26	6.46	-1.35946	86.6932	-293.971
27	6.46	-1.34075	88.4909	-302.633
28	6.47	-1.32251	90.2399	-311.189
29	6.47	-1.29884	91.9269	-319.593
30	6.49	-1.28155	93.5692	-327.91
31	6.49	-1.25908	95.1545	-336.081
32	6.5	-1.24264	96.6987	-344.159
33	6.5	-1.22653	98.2031	-352.131
34	6.5	-1.20553	99.6564	-359.967
35	6.5	-1.19012	101.073	-367.703
36	6.51	-1.17499	102.453	-375.352
37	6.52	-1.15522	103.788	-382.884
38	6.53	-1.14069	105.089	-390.333
39	6.53	-1.12639	106.358	-397.688
40	6.54	-1.10768	107.585	-404.932
41	6.54	-1.0939	108.781	-412.086
42	6.55	-1.08032	109.948	-419.162
43	6.55	-1.06252	111.077	-426.122
44	6.55	-1.04939	112.179	-432.995
45	6.56	-1.03215	113.244	-439.766
46	6.56	-1.01943	114.283	-446.454
47	6.57	-1.00687	115.297	-453.069

48	6.57	-0.990356	116.278	-459.576
49	6.58	-0.97815	117.235	-466.012
50	6.58	-0.966088	118.168	-472.369
51	6.58	-0.950222	119.071	-478.621
52	6.58	-0.938476	119.952	-484.796
53	6.59	-0.926859	120.811	-490.904
54	6.59	-0.911562	121.642	-496.911
55	6.59	-0.900227	122.452	-502.844
56	6.6	-0.889006	123.242	-508.711
57	6.6	-0.874218	124.007	-514.481
58	6.6	-0.863249	124.752	-520.179
59	6.6	-0.852385	125.478	-525.804
60	6.61	-0.838054	126.181	-531.344
61	6.61	-0.827417	126.865	-536.813
62	6.61	-0.813379	127.527	-542.19
63	6.61	-0.802956	128.172	-547.497
64	6.61	-0.792618	128.8	-552.736
65	6.62	-0.778966	129.407	-557.893
66	6.62	-0.768821	129.998	-562.983
67	6.62	-0.758753	130.573	-568.006
68	6.62	-0.745449	131.129	-572.941
69	6.63	-0.735557	131.67	-577.817
70	6.64	-0.725736	132.197	-582.636
71	6.64	-0.712751	132.705	-587.369
72	6.64	-0.703089	133.199	-592.037
73	6.64	-0.693493	133.68	-596.642
74	6.65	-0.680797	134.144	-601.169
75	6.65	-0.671346	134.594	-605.634
76	6.65	-0.658838	135.028	-610.015
77	6.66	-0.649522	135.45	-614.341
78	6.66	-0.640266	135.86	-618.605
79	6.66	-0.628006	136.255	-622.788
80	6.66	-0.618872	136.638	-626.909
81	6.67	-0.609791	137.009	-630.977
82	6.67	-0.597761	137.367	-634.964
83	6.68	-0.588793	137.713	-638.897
84	6.68	-0.579873	138.05	-642.77
85	6.69	-0.568052	138.372	-646.571
86	6.69	-0.559237	138.685	-650.312
87	6.69	-0.550465	138.988	-653.995
88	6.69	-0.538836	139.278	-657.599
89	6.69	-0.530162	139.56	-661.146
90	6.7	-0.518658	139.829	-664.621
91	6.7	-0.510074	140.089	-668.039
92	6.7	-0.501527	140.34	-671.399
93	6.7	-0.490189	140.581	-674.683
94	6.7	-0.481728	140.813	-677.911
95	6.7	-0.473299	141.037	-681.082
96	6.7	-0.462114	141.25	-684.178
97	6.7	-0.453763	141.456	-687.218
98	6.72	-0.445443	141.654	-690.212
99	6.72	-0.434397	141.843	-693.131
100	6.72	-0.426148	142.025	-695.994
101	6.72	-0.417928	142.199	-698.803
102	6.73	-0.40701	142.365	-701.542
103	6.73	-0.398855	142.524	-704.226
104	6.73	-0.390726	142.677	-706.856

105	6.74	-0.379927	142.821	-709.417
106	6.74	-0.371856	142.959	-711.923
107	6.74	-0.361133	143.09	-714.357
108	6.75	-0.353118	143.215	-716.741
109	6.75	-0.345126	143.334	-719.07
110	6.75	-0.334503	143.446	-721.328
111	6.75	-0.326561	143.552	-723.532
112	6.75	-0.318639	143.654	-725.683
113	6.76	-0.308108	143.749	-727.766
114	6.76	-0.300232	143.839	-729.796
115	6.76	-0.292375	143.924	-731.772
116	6.77	-0.281926	144.004	-733.681
117	6.77	-0.27411	144.079	-735.536
118	6.77	-0.266311	144.15	-737.339
119	6.77	-0.255936	144.215	-739.072
120	6.77	-0.248174	144.277	-740.752
121	6.78	-0.237847	144.334	-742.365
122	6.78	-0.230118	144.386	-743.925
123	6.78	-0.222403	144.436	-745.433
124	6.78	-0.212137	144.481	-746.871
125	6.78	-0.204452	144.523	-748.257
126	6.79	-0.196779	144.561	-749.593
127	6.79	-0.186567	144.596	-750.86
128	6.8	-0.17892	144.628	-752.077
129	6.8	-0.171285	144.658	-753.242
130	6.8	-0.161119	144.684	-754.337
131	6.8	-0.153505	144.707	-755.381
132	6.8	-0.1459	144.728	-756.373
133	6.8	-0.135774	144.747	-757.296
134	6.8	-0.128189	144.763	-758.168
135	6.8	-0.118085	144.777	-758.971
136	6.8	-0.110516	144.789	-759.723
137	6.8	-0.102953	144.8	-760.423
138	6.8	-0.0928787	144.809	-761.054
139	6.8	-0.0853288	144.816	-761.635
140	6.8	-0.0777834	144.822	-762.163
141	6.81	-0.0677301	144.827	-762.625
142	6.81	-0.0601949	144.83	-763.035
143	6.81	-0.0526632	144.833	-763.393
144	6.82	-0.0426257	144.835	-763.684
145	6.82	-0.0350997	144.836	-763.923
146	6.82	-0.0275759	144.837	-764.111
147	6.83	-0.0175476	144.837	-764.231
148	6.84	-0.0100272	144.837	-764.3
149	6.84	0	144.837	-764.3
150	6.85	0.0100272	144.837	-764.231
151	6.85	0.0175476	144.838	-764.111
152	6.85	0.0275759	144.838	-763.922
153	6.85	0.0350997	144.84	-763.682
154	6.85	0.0426257	144.841	-763.39
155	6.85	0.0526632	144.844	-763.029
156	6.85	0.0601949	144.848	-762.617
157	6.86	0.0677301	144.852	-762.152
158	6.86	0.0777834	144.858	-761.618
159	6.86	0.0853288	144.866	-761.033
160	6.87	0.0928787	144.874	-760.395
161	6.87	0.102953	144.885	-759.688

162	6.87	0.110516	144.897	-758.928
163	6.87	0.118085	144.911	-758.117
164	6.87	0.128189	144.928	-757.237
165	6.88	0.135774	144.946	-756.302
166	6.88	0.1459	144.967	-755.299
167	6.88	0.153505	144.991	-754.242
168	6.88	0.161119	145.017	-753.134
169	6.88	0.171285	145.046	-751.956
170	6.88	0.17892	145.078	-750.725
171	6.88	0.186567	145.113	-749.441
172	6.89	0.196779	145.152	-748.085
173	6.89	0.204452	145.193	-746.676
174	6.89	0.212137	145.238	-745.215
175	6.9	0.222403	145.288	-743.68
176	6.9	0.230118	145.341	-742.092
177	6.91	0.237847	145.397	-740.449
178	6.92	0.248174	145.459	-738.732
179	6.92	0.255936	145.525	-736.961
180	6.93	0.266311	145.595	-735.115
181	6.93	0.27411	145.671	-733.215
182	6.93	0.281926	145.75	-731.262
183	6.93	0.292375	145.836	-729.235
184	6.93	0.300232	145.926	-727.155
185	6.94	0.308108	146.021	-725.017
186	6.97	0.318639	146.122	-722.796
187	6.99	0.326561	146.229	-720.513
188	7	0.334503	146.341	-718.172
189	7	0.345126	146.46	-715.756
190	7	0.353118	146.585	-713.284
191	7	0.361133	146.715	-710.756
192	7.04	0.371856	146.853	-708.138
193	7.05	0.379927	146.998	-705.46
194	7.05	0.390726	147.15	-702.705
195	7.07	0.398855	147.309	-699.885
196	7.07	0.40701	147.475	-697.007
197	7.1	0.417928	147.65	-694.04
198	7.14	0.426148	147.831	-690.997
199	7.15	0.434397	148.02	-687.891
200	7.17	0.445443	148.218	-684.698
201	7.19	0.453763	148.424	-681.435
202	7.19	0.462114	148.638	-678.113
203	7.2	0.473299	148.862	-674.705
204	7.2	0.481728	149.094	-671.236
205	7.2	0.490189	149.334	-667.707
206	7.27	0.501527	149.586	-664.061
207	7.28	0.510074	149.846	-660.348
208	7.29	0.518658	150.115	-656.567
209	7.3	0.530162	150.396	-652.696
210	7.3	0.538836	150.686	-648.763
211	7.3	0.550465	150.989	-644.744
212	7.32	0.559237	151.302	-640.651
213	7.33	0.568052	151.625	-636.487
214	7.4	0.579873	151.961	-632.196
215	7.4	0.588793	152.308	-627.839
216	7.45	0.597761	152.665	-623.386
217	7.5	0.609791	153.037	-618.812
218	7.6	0.618872	153.42	-614.109

219	7.88	0.628006	153.814	-609.16
220	7.96	0.640266	154.224	-604.063
221	8.16	0.649522	154.646	-598.763
222	8.44	0.658838	155.08	-593.203
223	8.48	0.671346	155.531	-587.51
224	8.54	0.680797	155.994	-581.696
225	8.55	0.693493	156.475	-575.766
226	8.59	0.703089	156.97	-569.727
227	8.67	0.712751	157.478	-563.547
228	8.68	0.725736	158.004	-557.248
229	8.77	0.735557	158.545	-550.797
230	8.82	0.745449	159.101	-544.222
231	8.86	0.758753	159.677	-537.5
232	8.87	0.768821	160.268	-530.68
233	8.9	0.778966	160.875	-523.747
234	8.94	0.792618	161.503	-516.661
235	8.95	0.802956	162.148	-509.475
236	8.95	0.813379	162.809	-502.195
237	8.98	0.827417	163.494	-494.765
238	9	0.838054	164.196	-487.223
239	9.04	0.852385	164.923	-479.517
240	9.05	0.863249	165.668	-471.705
241	9.09	0.874218	166.432	-463.758
242	9.1	0.889006	167.222	-455.668
243	9.1	0.900227	168.033	-447.476
244	9.1	0.911562	168.864	-439.181
245	9.13	0.926859	169.723	-430.718
246	9.14	0.938476	170.604	-422.141
247	9.15	0.950222	171.507	-413.446
248	9.16	0.966088	172.44	-404.597
249	9.18	0.97815	173.397	-395.617
250	9.18	0.990356	174.377	-386.526
251	9.18	1.00687	175.391	-377.283
252	9.2	1.01943	176.43	-367.904
253	9.2	1.03215	177.496	-358.408
254	9.22	1.04939	178.597	-348.733
255	9.23	1.06252	179.726	-338.926
256	9.24	1.08032	180.893	-328.944
257	9.24	1.0939	182.09	-318.836
258	9.25	1.10768	183.317	-308.59
259	9.25	1.12639	184.585	-298.171
260	9.25	1.14069	185.887	-287.62
261	9.25	1.15522	187.221	-276.934
262	9.26	1.17499	188.602	-266.054
263	9.27	1.19012	190.018	-255.021
264	9.27	1.20553	191.471	-243.846
265	9.28	1.22653	192.976	-232.464
266	9.28	1.24264	194.52	-220.932
267	9.29	1.25908	196.105	-209.235
268	9.29	1.28155	197.748	-197.33
269	9.3	1.29884	199.435	-185.25
270	9.31	1.32251	201.184	-172.938
271	9.32	1.34075	202.981	-160.442
272	9.32	1.35946	204.829	-147.772
273	9.32	1.38517	206.748	-134.862
274	9.37	1.40507	208.722	-121.696
275	9.37	1.42554	210.754	-108.339

276	9.37	1.4538	212.868	-94.717
277	9.39	1.47579	215.046	-80.8593
278	9.4	1.49852	217.291	-66.7732
279	9.4	1.53007	219.633	-52.3906
280	9.4	1.55477	222.05	-37.7758
281	9.4	1.58047	224.548	-22.9194
282	9.4	1.61644	227.161	-7.7249
283	9.44	1.64485	229.866	7.80251
284	9.46	1.68494	232.705	23.742
285	9.47	1.71688	235.653	40.0009
286	9.5	1.75069	238.718	56.6325
287	9.5	1.79912	241.955	73.7241
288	9.51	1.83843	245.334	91.2075
289	9.54	1.88079	248.872	109.15
290	9.6	1.94314	252.648	127.804
291	9.6	1.99539	256.629	146.96
292	9.68	2.05375	260.847	166.84
293	9.7	2.14441	265.446	187.641
294	9.72	2.22621	270.402	209.28
295	9.8	2.32634	275.813	232.078
296	9.8	2.51213	282.124	256.697
297	10.02	2.74777	289.674	284.23

Data Set Standard Deviation = 1.11107
Numerator = 80786.4
Denominator = 105848
W Statistic = 0.763227 = 80786.4 / 105848

5% Critical value of 0.976 exceeds 0.763227
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.763227
Evidence of non-normality at 99% level of significance

Concentrations (ppb)

Parameter: Radium Combined

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 55
Total Non-Detect: 1
Percent Non-Detects: 1.81818%
Total Background Measurements: 11
There is 1 background location

Loc.	Meas.	ND	Date	Conc.	Original
MW#93-1	11	1 (9.09091%)	5/24/2018	0.666	0.666
			6/22/2018	0.0833	0.0833
			7/19/2018	0.117	0.117
			8/22/2018	0.32	0.32
			9/19/2018	ND<0	ND<0
			10/18/2018	1.19	1.19
			11/20/2018	0.785	0.785
			12/20/2018	0.735	0.735
			11/21/2019	0.872	0.872
			6/25/2020	0.447	0.447
			11/17/2020	0.202	0.202

There are 4 compliance locations

Loc.	Meas.	ND	Date	Conc.	Original
MW#03-1	11	0 (0%)	5/24/2018	1.19	1.19
			6/22/2018	3.08	3.08
			7/19/2018	0.457	0.457
			8/22/2018	6.1	6.1
			10/18/2018	2.84	2.84
			11/20/2018	0.809	0.809
			12/20/2018	1.71	1.71
			3/26/2019	0.994	0.994
			11/21/2019	0.729	0.729
			6/25/2020	0.715	0.715
			11/17/2020	1.184	1.184
MW#03-2	11	0 (0%)	5/24/2018	1.24	1.24
			6/22/2018	0.108	0.108
			7/19/2018	2.55	2.55
			8/22/2018	0.515	0.515
			9/19/2018	0.34	0.34
			10/18/2018	0.939	0.939
			11/20/2018	1.39	1.39
			12/20/2018	1.01	1.01
			11/21/2019	0.394	0.394
			6/25/2020	0.949	0.949
			11/17/2020	3.586	3.586
MW#93-2	11	0 (0%)	5/24/2018	1.44	1.44
			6/22/2018	1.8	1.8
			7/19/2018	5.74	5.74
			8/22/2018	2.24	2.24
			9/19/2018	0.935	0.935

			10/18/2018	1.9	1.9
			11/20/2018	1.28	1.28
			12/20/2018	1.16	1.16
			11/21/2019	1.25	1.25
			6/25/2020	3.24	3.24
			11/16/2020	3.478	3.478
MW#93-3	11	0 (0%)	5/24/2018	0.422	0.422
			6/22/2018	0.336	0.336
			7/19/2018	0.519	0.519
			8/22/2018	1	1
			9/19/2018	0.3	0.3
			10/18/2018	1.45	1.45
			11/20/2018	1.42	1.42
			12/20/2018	1.39	1.39
			11/21/2019	1.03	1.03
			6/25/2020	0.519	0.519
			11/16/2020	0.7	0.7

There are 0 unused locations

Loc.	Meas.	ND	Date	Conc.	Original

Non-Parametric Prediction Interval

Inter-Well Comparison

Parameter: Radium Combined

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 1.81818%
Number of comparisons = 4
Future Samples (k) = 4
Recent Dates = 1
Background Measurements (n) = 11
Maximum Background Value = 1.19
Confidence Level = 73.3%
False Positive Rate = 26.7%

Location	Date	Count	Mean	Significant
MW#03-1	11/17/2020	1	1.184	FALSE
MW#03-2	**11/17/2020**	**1**	**3.586**	**TRUE**
MW#93-2	**11/16/2020**	**1**	**3.478**	**TRUE**
MW#93-3	11/16/2020	1	0.7	FALSE

Non-Parametric Prediction Interval

Intra-Well Comparison for MW#03-2

Parameter: Radium Combined

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 0%
Future Samples (k) = 1
Recent Dates = 1
Baseline Measurements (n) = 10
Maximum Baseline Concentration = 2.55
Confidence Level = 90.9%
False Positive Rate = 9.1%

Baseline Measurements	Date	Value
	5/24/2018	1.24
	6/22/2018	0.108
	7/19/2018	2.55
	8/22/2018	0.515
	9/19/2018	0.34
	10/18/2018	0.939
	11/20/2018	1.39
	12/20/2018	1.01
	11/21/2019	0.394
	6/25/2020	0.949

Date	Count	Mean	Significant
11/17/2020	1	3.586	TRUE

Non-Parametric Prediction Interval

Intra-Well Comparison for MW#93-2

Parameter: Radium Combined

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 0%
Future Samples (k) = 1
Recent Dates = 1
Baseline Measurements (n) = 10
Maximum Baseline Concentration = 5.74
Confidence Level = 90.9%
False Positive Rate = 9.1%

Baseline Measurements	Date	Value
	5/24/2018	1.44
	6/22/2018	1.8
	7/19/2018	5.74
	8/22/2018	2.24
	9/19/2018	0.935
	10/18/2018	1.9
	11/20/2018	1.28
	12/20/2018	1.16
	11/21/2019	1.25
	6/25/2020	3.24

Date	Count	Mean	Significant
11/16/2020	1	3.478	FALSE

Levene's Test for Equal of Variance

Parameter: Radium Combined

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Overall Mean = 0.741704
Overall Std Dev = 0.772559
Overall Total = 40.7937
SS Groups = 6.67642
SS Total = 32.2297

ANOVA Table

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Squares	F
Between Groups	6.67642	4	1.66911	3.26593
Error (within groups)	25.5533	50	0.511066	
Totals	32.2297	54		

95% F-Statistic = 2.52521

3.26593 exceeds 2.52521; assumption of equal variance should be rejected

Group: MW#93-1	Sample	Residual
	5/24/2018	0.173518
	6/22/2018	0.409182
	7/19/2018	0.375482
	8/22/2018	0.172482
	9/19/2018	0.492482
	10/18/2018	0.697518
	11/20/2018	0.292518
	12/20/2018	0.242518
	11/21/2019	0.379518
	6/25/2020	0.0454818
	11/17/2020	0.290482

Group: MW#03-1	Date	Residual
	5/24/2018	0.610727
	6/22/2018	1.27927
	7/19/2018	1.34373
	8/22/2018	4.29927
	10/18/2018	1.03927
	11/20/2018	0.991727
	12/20/2018	0.0907273
	3/26/2019	0.806727
	11/21/2019	1.07173
	6/25/2020	1.08573
	11/17/2020	0.616727

Group: MW#03-2	Date	Residual
	5/24/2018	0.0562727
	6/22/2018	1.07573
	7/19/2018	1.36627
	8/22/2018	0.668727

9/19/2018	0.843727
10/18/2018	0.244727
11/20/2018	0.206273
12/20/2018	0.173727
11/21/2019	0.789727
6/25/2020	0.234727
11/17/2020	2.40227

Group: MW#93-2	Date	Residual
	5/24/2018	0.783909
	6/22/2018	0.423909
	7/19/2018	3.51609
	8/22/2018	0.0160909
	9/19/2018	1.28891
	10/18/2018	0.323909
	11/20/2018	0.943909
	12/20/2018	1.06391
	11/21/2019	0.973909
	6/25/2020	1.01609
	11/16/2020	1.25409

Group: MW#93-3	Date	Residual
	5/24/2018	0.404
	6/22/2018	0.49
	7/19/2018	0.307
	8/22/2018	0.174
	9/19/2018	0.526
	10/18/2018	0.624
	11/20/2018	0.594
	12/20/2018	0.564
	11/21/2019	0.204
	6/25/2020	0.307
	11/16/2020	0.126

Shapiro-Francia Test of Normality

Parameter: Radium Combined

All Locations

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Number of Measurements = 55

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	0	-2.12007	4.49469	0
2	0.0833	-1.81191	7.77772	-0.150932
3	0.108	-1.61644	10.3906	-0.325507
4	0.117	-1.46838	12.5467	-0.497308
5	0.202	-1.34694	14.361	-0.76939
6	0.3	-1.24264	15.9051	-1.14218
7	0.32	-1.15035	17.2284	-1.51029
8	0.336	-1.07138	18.3763	-1.87028
9	0.34	-0.994457	19.3652	-2.20839
10	0.394	-0.923014	20.2172	-2.57206
11	0.422	-0.855996	20.9499	-2.93329
12	0.447	-0.792618	21.5782	-3.28759
13	0.457	-0.732275	22.1144	-3.62224
14	0.515	-0.67449	22.5693	-3.9696
15	0.519	-0.621911	22.9561	-4.29238
16	0.519	-0.568052	23.2788	-4.58719
17	0.666	-0.515791	23.5448	-4.93071
18	0.7	-0.464904	23.761	-5.25614
19	0.715	-0.415193	23.9334	-5.55301
20	0.729	-0.36649	24.0677	-5.82018
21	0.735	-0.318639	24.1692	-6.05438
22	0.785	-0.27411	24.2443	-6.26956
23	0.809	-0.227545	24.2961	-6.45364
24	0.872	-0.181468	24.329	-6.61188
25	0.935	-0.135774	24.3475	-6.73883
26	0.939	-0.0903606	24.3556	-6.82368
27	0.949	-0.0451348	24.3577	-6.86651
28	0.994	0	24.3577	-6.86651
29	1	0.0451348	24.3597	-6.82138
30	1.01	0.0903606	24.3679	-6.73011
31	1.03	0.135774	24.3863	-6.59026
32	1.16	0.181468	24.4192	-6.37976
33	1.184	0.227545	24.471	-6.11035
34	1.19	0.27411	24.5462	-5.78416
35	1.19	0.318639	24.6477	-5.40498
36	1.24	0.36649	24.782	-4.95053
37	1.25	0.415193	24.9544	-4.43154
38	1.28	0.464904	25.1705	-3.83646
39	1.39	0.515791	25.4366	-3.11951
40	1.39	0.568052	25.7593	-2.32992
41	1.42	0.621911	26.146	-1.4468
42	1.44	0.67449	26.601	-0.475536
43	1.45	0.732275	27.1372	0.586263
44	1.71	0.792618	27.7654	1.94164
45	1.8	0.855996	28.4982	3.48243
46	1.9	0.923014	29.3501	5.23616
47	2.24	0.994457	30.3391	7.46374

48	2.55	1.07138	31.4869	10.1958
49	2.84	1.15035	32.8102	13.4628
50	3.08	1.24264	34.3544	17.2901
51	3.24	1.34694	36.1686	21.6542
52	3.478	1.46838	38.3248	26.7612
53	3.586	1.61644	40.9376	32.5577
54	5.74	1.81191	44.2207	42.9581
55	6.1	2.12007	48.7154	55.8906

Data Set Standard Deviation = 1.25038
Numerator = 3123.75
Denominator = 4112.83
W Statistic = 0.759514 = 3123.75 / 4112.83

5% Critical value of 0.958 exceeds 0.759514
Evidence of non-normality at 95% level of significance

1% Critical value of 0.94 exceeds 0.759514
Evidence of non-normality at 99% level of significance

Concentrations (ppb)

Parameter: Selenium

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 55
Total Non-Detect: 50
Percent Non-Detects: 90.9091%
Total Background Measurements: 11
There is 1 background location

Loc.	Meas.	ND	Date	Conc.	Original
MW#93-1	11	11 (100%)	5/24/2018	ND<0.005	ND<0.005
			6/19/2018	ND<0.005	ND<0.005
			7/19/2018	ND<0.005	ND<0.005
			8/22/2018	ND<0.005	ND<0.005
			9/19/2018	ND<0.005	ND<0.005
			10/18/2018	ND<0.005	ND<0.005
			11/20/2018	ND<0.005	ND<0.005
			12/20/2018	ND<0.005	ND<0.005
			11/21/2019	ND<0.005	ND<0.005
			6/25/2020	ND<0.002	ND<0.002
			11/17/2020	ND<0.002	ND<0.002

There are 4 compliance locations

Loc.	Meas.	ND	Date	Conc.	Original
MW#03-1	11	9 (81.8182%)	5/24/2018	ND<0.005	ND<0.005
			6/19/2018	ND<0.005	ND<0.005
			7/19/2018	ND<0.005	ND<0.005
			8/22/2018	0.0144	0.0144
			10/18/2018	ND<0.005	ND<0.005
			11/20/2018	ND<0.005	ND<0.005
			12/20/2018	ND<0.005	ND<0.005
			3/26/2019	ND<0.005	ND<0.005
			11/21/2019	ND<0.005	ND<0.005
			6/25/2020	ND<0.002	ND<0.002
			11/17/2020	0.000522	0.000522
MW#03-2	11	11 (100%)	5/24/2018	ND<0.005	ND<0.005
			6/19/2018	ND<0.005	ND<0.005
			7/19/2018	ND<0.005	ND<0.005
			8/22/2018	ND<0.005	ND<0.005
			9/19/2018	ND<0.005	ND<0.005
			10/18/2018	ND<0.005	ND<0.005
			11/20/2018	ND<0.005	ND<0.005
			12/20/2018	ND<0.005	ND<0.005
			11/21/2019	ND<0.005	ND<0.005
			6/25/2020	ND<0.002	ND<0.002
			11/17/2020	ND<0.002	ND<0.002
MW#93-2	11	8 (72.7273%)	5/24/2018	ND<0.005	ND<0.005
			6/19/2018	ND<0.005	ND<0.005
			7/19/2018	ND<0.005	ND<0.005
			8/22/2018	ND<0.005	ND<0.005
			9/19/2018	ND<0.005	ND<0.005

			10/18/2018	ND<0.005	ND<0.005
			11/20/2018	ND<0.005	ND<0.005
			12/20/2018	ND<0.005	ND<0.005
			11/21/2019	0.00621	0.00621
			6/25/2020	0.00129	0.00129
			11/16/2020	0.000834	0.000834
MW#93-3	11	11 (100%)	5/24/2018	ND<0.005	ND<0.005
			6/19/2018	ND<0.005	ND<0.005
			7/19/2018	ND<0.005	ND<0.005
			8/22/2018	ND<0.005	ND<0.005
			9/19/2018	ND<0.005	ND<0.005
			10/18/2018	ND<0.005	ND<0.005
			11/20/2018	ND<0.005	ND<0.005
			12/20/2018	ND<0.005	ND<0.005
			11/21/2019	ND<0.005	ND<0.005
			6/25/2020	ND<0.002	ND<0.002
			11/16/2020	ND<0.002	ND<0.002

There are 0 unused locations

Loc.	Meas.	ND	Date	Conc.	Original

Non-Parametric Prediction Interval

Inter-Well Comparison

Parameter: Selenium

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 90.9091%
Number of comparisons = 4
Future Samples (k) = 4
Recent Dates = 1
Background Measurements (n) = 11
Maximum Background Value = 0.005
Confidence Level = 73.3%
False Positive Rate = 26.7%

Location	Date	Count	Mean	Significant
MW#03-1	11/17/2020	1	0.000522	FALSE
MW#03-2	11/17/2020	1	0.002	FALSE
MW#93-2	11/16/2020	1	0.000834	FALSE
MW#93-3	11/16/2020	1	0.002	FALSE

Levene's Test for Equal of Variance

Parameter: Selenium

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Overall Mean = 0.00111333
Overall Std Dev = 0.0015008
Overall Total = 0.0612331
SS Groups = 5.21364e-006
SS Total = 0.00012163

ANOVA Table

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Squares	F
Between Groups	5.21364e-006	4	1.30341e-006	0.559805
Error (within groups)	0.000116416	50	2.32833e-006	
Totals	0.00012163	54		

95% F-Statistic = 2.52521

0.559805 does not exceed 2.52521 indicating equal variance

Group: MW#93-1	Sample	Residual
	5/24/2018	0.000545455
	6/19/2018	0.000545455
	7/19/2018	0.000545455
	8/22/2018	0.000545455
	9/19/2018	0.000545455
	10/18/2018	0.000545455
	11/20/2018	0.000545455
	12/20/2018	0.000545455
	11/21/2019	0.000545455
	6/25/2020	0.00245455
	11/17/2020	0.00245455

Group: MW#03-1	Date	Residual
	5/24/2018	0.000174727
	6/19/2018	0.000174727
	7/19/2018	0.000174727
	8/22/2018	0.00922527
	10/18/2018	0.000174727
	11/20/2018	0.000174727
	12/20/2018	0.000174727
	3/26/2019	0.000174727
	11/21/2019	0.000174727
	6/25/2020	0.00317473
	11/17/2020	0.00465273

Group: MW#03-2	Date	Residual
	5/24/2018	0.000545455
	6/19/2018	0.000545455
	7/19/2018	0.000545455
	8/22/2018	0.000545455

9/19/2018	0.000545455
10/18/2018	0.000545455
11/20/2018	0.000545455
12/20/2018	0.000545455
11/21/2019	0.000545455
6/25/2020	0.00245455
11/17/2020	0.00245455

Group: MW#93-2

Date	Residual
5/24/2018	0.000606
6/19/2018	0.000606
7/19/2018	0.000606
8/22/2018	0.000606
9/19/2018	0.000606
10/18/2018	0.000606
11/20/2018	0.000606
12/20/2018	0.000606
11/21/2019	0.001816
6/25/2020	0.003104
11/16/2020	0.00356

Group: MW#93-3

Date	Residual
5/24/2018	0.000545455
6/19/2018	0.000545455
7/19/2018	0.000545455
8/22/2018	0.000545455
9/19/2018	0.000545455
10/18/2018	0.000545455
11/20/2018	0.000545455
12/20/2018	0.000545455
11/21/2019	0.000545455
6/25/2020	0.00245455
11/16/2020	0.00245455

Shapiro-Francia Test of Normality

Parameter: Selenium

All Locations

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Number of Measurements = 55

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	0.000522	-2.12007	4.49469	-0.00110668
2	0.000834	-1.81191	7.77772	-0.00261781
3	0.00129	-1.61644	10.3906	-0.00470301
4	0.002	-1.46838	12.5467	-0.00763978
5	0.002	-1.34694	14.361	-0.0103337
6	0.002	-1.24264	15.9051	-0.0128189
7	0.002	-1.15035	17.2284	-0.0151196
8	0.002	-1.07138	18.3763	-0.0172624
9	0.002	-0.994457	19.3652	-0.0192513
10	0.002	-0.923014	20.2172	-0.0210973
11	0.005	-0.855996	20.9499	-0.0253773
12	0.005	-0.792618	21.5782	-0.0293404
13	0.005	-0.732275	22.1144	-0.0330018
14	0.005	-0.67449	22.5693	-0.0363742
15	0.005	-0.621911	22.9561	-0.0394838
16	0.005	-0.568052	23.2788	-0.0423241
17	0.005	-0.515791	23.5448	-0.044903
18	0.005	-0.464904	23.761	-0.0472275
19	0.005	-0.415193	23.9334	-0.0493035
20	0.005	-0.36649	24.0677	-0.051136
21	0.005	-0.318639	24.1692	-0.0527291
22	0.005	-0.27411	24.2443	-0.0540997
23	0.005	-0.227545	24.2961	-0.0552374
24	0.005	-0.181468	24.329	-0.0561448
25	0.005	-0.135774	24.3475	-0.0568236
26	0.005	-0.0903606	24.3556	-0.0572754
27	0.005	-0.0451348	24.3577	-0.0575011
28	0.005	0	24.3577	-0.0575011
29	0.005	0.0451348	24.3597	-0.0572754
30	0.005	0.0903606	24.3679	-0.0568236
31	0.005	0.135774	24.3863	-0.0561448
32	0.005	0.181468	24.4192	-0.0552374
33	0.005	0.227545	24.471	-0.0540997
34	0.005	0.27411	24.5462	-0.0527291
35	0.005	0.318639	24.6477	-0.051136
36	0.005	0.36649	24.782	-0.0493035
37	0.005	0.415193	24.9544	-0.0472275
38	0.005	0.464904	25.1705	-0.044903
39	0.005	0.515791	25.4366	-0.0423241
40	0.005	0.568052	25.7593	-0.0394838
41	0.005	0.621911	26.146	-0.0363742
42	0.005	0.67449	26.601	-0.0330018
43	0.005	0.732275	27.1372	-0.0293404
44	0.005	0.792618	27.7654	-0.0253773
45	0.005	0.855996	28.4982	-0.0210973
46	0.005	0.923014	29.3501	-0.0164823
47	0.005	0.994457	30.3391	-0.01151

48	0.005	1.07138	31.4869	-0.00615309
49	0.005	1.15035	32.8102	-0.000401347
50	0.005	1.24264	34.3544	0.00581187
51	0.005	1.34694	36.1686	0.0125466
52	0.005	1.46838	38.3248	0.0198885
53	0.005	1.61644	40.9376	0.0279707
54	0.00621	1.81191	44.2207	0.0392226
55	0.0144	2.12007	48.7154	0.0697516

Data Set Standard Deviation = 0.0018983
Numerator = 0.00486529
Denominator = 0.00947957
W Statistic = 0.51324 = 0.00486529 / 0.00947957

5% Critical value of 0.958 exceeds 0.51324
Evidence of non-normality at 95% level of significance

1% Critical value of 0.94 exceeds 0.51324
Evidence of non-normality at 99% level of significance

Concentrations (ppb)

Parameter: Sodium

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 236
Total Non-Detect: 0
Percent Non-Detects: 0%
Total Background Measurements: 54
There is 1 background location

Loc.	Meas.	ND	Date	Conc.	Original
MW#93-1	54	0 (0%)	12/15/1994	54.7	54.7
			12/14/1995	51.9	51.9
			12/10/1996	51.6	51.6
			12/4/1997	51.2	51.2
			12/8/1998	47	47
			12/14/1999	64.4	64.4
			12/12/2000	100	100
			3/19/2002	112	112
			6/26/2002	95	95
			9/18/2002	78	78
			12/11/2002	83	83
			3/13/2003	94	94
			6/25/2003	113	113
			9/26/2003	84.6	84.6
			12/10/2003	98.1	98.1
			3/9/2004	95.4	95.4
			6/24/2004	94.7	94.7
			9/15/2004	71	71
			12/15/2004	92.3	92.3
			3/16/2005	86.3	86.3
			6/15/2005	77.4	77.4
			9/21/2005	92.8	92.8
			12/21/2005	81.9	81.9
			3/15/2006	99.7	99.7
			6/21/2006	82	82
			12/20/2006	85.1	85.1
			6/12/2007	74.9	74.9
			12/17/2007	81.8	81.8
			6/11/2008	56.5	56.5
			12/3/2008	75.2	75.2
			6/17/2009	67.4	67.4
			12/9/2009	76.9	76.9
			6/17/2010	55	55
			12/22/2010	70.5	70.5
			6/29/2011	55.4	55.4
			12/7/2011	69.1	69.1
			6/6/2012	55.6	55.6
			12/12/2012	58.9	58.9
			6/19/2013	70	70
			12/11/2013	72.9	72.9
			6/11/2014	56.5	56.5
			12/3/2014	69.4	69.4
			6/17/2015	69.7	69.7
			12/1/2015	57.5	57.5
			6/22/2016	66.9	66.9

			12/20/2016	54.8	54.8
			6/6/2017	58.4	58.4
			11/7/2017	45.2	45.2
			2/27/2018	59.6	59.6
			9/27/2018	68.2	68.2
			5/7/2019	124	124
			11/21/2019	99.1	99.1
			6/25/2020	130	130
			11/17/2020	120	120

There are 4 compliance locations

Loc.	Meas.	ND	Date	Conc.	Original
MW#93-2	55	0 (0%)	12/15/1994	2170	2170
			12/14/1995	2220	2220
			12/10/1996	2100	2100
			12/4/1997	2440	2440
			12/8/1998	2565	2565
			12/14/1999	2980	2980
			12/12/2000	2800	2800
			3/19/2002	2500	2500
			6/26/2002	2260	2260
			9/18/2002	2140	2140
			12/11/2002	2320	2320
			3/13/2003	2600	2600
			6/25/2003	1990	1990
			9/26/2003	1820	1820
			12/10/2003	1920	1920
			3/9/2004	2050	2050
			6/24/2004	2180	2180
			9/15/2004	1800	1800
			12/15/2004	2480	2480
			3/16/2005	2490	2490
			6/15/2005	2030	2030
			9/21/2005	2520	2520
			12/21/2005	2300	2300
			3/15/2006	2720	2720
			6/21/2006	2450	2450
			12/20/2006	2170	2170
			2/21/2007	2900	2900
			6/12/2007	1980	1980
			12/17/2007	2244	2244
			6/11/2008	2649	2649
			12/3/2008	2120	2120
			6/17/2009	2230	2230
			12/9/2009	2140	2140
			6/17/2010	2100	2100
			12/22/2010	2460	2460
			6/29/2011	2190	2190
			12/7/2011	2500	2500
			6/6/2012	2060	2060
			12/12/2012	2730	2730
			6/19/2013	2230	2230
			12/11/2013	2290	2290
			6/11/2014	1940	1940
			12/3/2014	2730	2730

			6/17/2015	270	270
			5/25/2016	1890	1890
			6/22/2016	2700	2700
			12/20/2016	2400	2400
			6/6/2017	2310	2310
			11/7/2017	2750	2750
			2/27/2018	2220	2220
			9/27/2018	2660	2660
			5/7/2019	2470	2470
			11/21/2019	2500	2500
			6/25/2020	2660	2660
			11/16/2020	2800	2800
MW#93-3	56	0 (0%)	12/15/1994	330	330
			12/14/1995	219	219
			12/10/1996	248	248
			12/4/1997	201	201
			12/8/1998	199	199
			12/14/1999	208	208
			12/12/2000	230	230
			12/18/2001	172	172
			3/19/2002	222	222
			6/26/2002	189	189
			9/18/2002	163	163
			12/11/2002	216	216
			3/13/2003	230	230
			6/25/2003	190	190
			9/26/2003	229	229
			12/10/2003	231	231
			3/9/2004	30.8	30.8
			6/24/2004	150	150
			9/15/2004	200	200
			12/15/2004	186	186
			3/16/2005	196	196
			6/15/2005	170	170
			9/21/2005	239	239
			12/21/2005	180	180
			3/15/2006	180	180
			6/21/2006	227	227
			12/20/2006	211	211
			6/12/2007	159	159
			12/17/2007	194	194
			6/11/2008	195	195
			12/3/2008	190	190
			6/17/2009	173	173
			12/9/2009	202	202
			6/17/2010	202	202
			12/22/2010	216	216
			6/29/2011	158	158
			12/7/2011	218	218
			6/6/2012	201	201
			12/12/2012	168	168
			6/19/2013	235	235
			12/11/2013	234	234
			6/11/2014	258	258
			12/3/2014	220	220
			6/17/2015	280	280

			12/1/2015	339	339
			6/22/2016	449	449
			10/11/2016	368	368
			12/20/2016	337	337
			6/6/2017	301	301
			11/7/2017	368	368
			2/27/2018	272	272
			9/27/2018	372	372
			5/7/2019	412	412
			11/21/2019	403	403
			6/25/2020	376	376
			11/16/2020	374	374
MW#03-1	33	0 (0%)	6/24/2004	10.2	10.2
			9/15/2004	42	42
			12/15/2004	8.04	8.04
			3/16/2005	5.99	5.99
			6/15/2005	7.3	7.3
			9/21/2005	14.1	14.1
			12/20/2006	8	8
			6/12/2007	7.96	7.96
			12/17/2007	9.88	9.88
			6/11/2008	5.71	5.71
			12/3/2008	7.01	7.01
			6/17/2009	7.34	7.34
			12/9/2009	6.77	6.77
			6/17/2010	9.31	9.31
			12/22/2010	7.11	7.11
			6/29/2011	7.04	7.04
			12/7/2011	8.87	8.87
			6/6/2012	7.94	7.94
			6/19/2013	10.3	10.3
			12/11/2013	9.78	9.78
			6/11/2014	55.9	55.9
			12/3/2014	9.8	9.8
			6/17/2015	9.7	9.7
			12/1/2015	12	12
			6/22/2016	8.59	8.59
			12/20/2016	7.94	7.94
			6/6/2017	6.56	6.56
			11/7/2017	17.6	17.6
			2/27/2018	16.8	16.8
			5/7/2019	13.1	13.1
			11/21/2019	10.5	10.5
			6/25/2020	7.75	7.75
			11/17/2020	26.9	26.9
MW#03-2	38	0 (0%)	6/24/2004	47.4	47.4
			9/15/2004	8.7	8.7
			12/15/2004	51.3	51.3
			3/16/2005	47	47
			6/15/2005	42.8	42.8
			9/21/2005	52.6	52.6
			12/21/2005	46.5	46.5
			3/15/2006	50.4	50.4
			6/21/2006	44.9	44.9
			12/20/2006	50.5	50.5

6/12/2007	47	47
12/17/2007	50.2	50.2
6/11/2008	33.8	33.8
12/3/2008	54.4	54.4
6/17/2009	48.2	48.2
12/9/2009	47.3	47.3
6/17/2010	52.9	52.9
12/22/2010	51.7	51.7
6/29/2011	51	51
12/7/2011	60.1	60.1
6/6/2012	52	52
12/12/2012	61.3	61.3
6/19/2013	57.3	57.3
12/11/2013	54	54
6/11/2014	9.78	9.78
12/3/2014	68	68
6/17/2015	66.3	66.3
12/1/2015	63.8	63.8
6/22/2016	76.8	76.8
12/20/2016	80.2	80.2
6/6/2017	96.8	96.8
11/7/2017	120	120
2/27/2018	104	104
9/27/2018	128	128
5/7/2019	138	138
11/21/2019	166	166
6/25/2020	165	165
11/17/2020	162	162

There are 0 unused locations

Loc.	Meas.	ND	Date	Conc.	Original

Non-Parametric Prediction Interval

Inter-Well Comparison

Parameter: Sodium

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 0%
Number of comparisons = 4
Future Samples (k) = 4
Recent Dates = 1
Background Measurements (n) = 54
Maximum Background Value = 130
Confidence Level = 93.1%
False Positive Rate = 6.9%

Location	Date	Count	Mean	Significant
MW#93-2	**11/16/2020**	**1**	**2800**	**TRUE**
MW#93-3	**11/16/2020**	**1**	**374**	**TRUE**
MW#03-1	11/17/2020	1	26.9	FALSE
MW#03-2	**11/17/2020**	**1**	**162**	**TRUE**

Non-Parametric Prediction Interval

Intra-Well Comparison for MW#03-2

Parameter: Sodium

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 0%
Future Samples (k) = 1
Recent Dates = 1
Baseline Measurements (n) = 37
Maximum Baseline Concentration = 166
Confidence Level = 97.4%
False Positive Rate = 2.6%

Baseline Measurements	Date	Value
	6/24/2004	47.4
	9/15/2004	8.7
	12/15/2004	51.3
	3/16/2005	47
	6/15/2005	42.8
	9/21/2005	52.6
	12/21/2005	46.5
	3/15/2006	50.4
	6/21/2006	44.9
	12/20/2006	50.5
	6/12/2007	47
	12/17/2007	50.2
	6/11/2008	33.8
	12/3/2008	54.4
	6/17/2009	48.2
	12/9/2009	47.3
	6/17/2010	52.9
	12/22/2010	51.7
	6/29/2011	51
	12/7/2011	60.1
	6/6/2012	52
	12/12/2012	61.3
	6/19/2013	57.3
	12/11/2013	54
	6/11/2014	9.78
	12/3/2014	68
	6/17/2015	66.3
	12/1/2015	63.8
	6/22/2016	76.8
	12/20/2016	80.2
	6/6/2017	96.8
	11/7/2017	120
	2/27/2018	104
	9/27/2018	128
	5/7/2019	138
	11/21/2019	166
	6/25/2020	165

Date	Count	Mean	Significant
11/17/2020	1	162	FALSE

Non-Parametric Prediction Interval

Intra-Well Comparison for MW#93-2

Parameter: Sodium

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 0%
Future Samples (k) = 1
Recent Dates = 1
Baseline Measurements (n) = 54
Maximum Baseline Concentration = 2980
Confidence Level = 98.2%
False Positive Rate = 1.8%

Baseline Measurements	Date	Value
	12/15/1994	2170
	12/14/1995	2220
	12/10/1996	2100
	12/4/1997	2440
	12/8/1998	2565
	12/14/1999	2980
	12/12/2000	2800
	3/19/2002	2500
	6/26/2002	2260
	9/18/2002	2140
	12/11/2002	2320
	3/13/2003	2600
	6/25/2003	1990
	9/26/2003	1820
	12/10/2003	1920
	3/9/2004	2050
	6/24/2004	2180
	9/15/2004	1800
	12/15/2004	2480
	3/16/2005	2490
	6/15/2005	2030
	9/21/2005	2520
	12/21/2005	2300
	3/15/2006	2720
	6/21/2006	2450
	12/20/2006	2170
	2/21/2007	2900
	6/12/2007	1980
	12/17/2007	2244
	6/11/2008	2649
	12/3/2008	2120
	6/17/2009	2230
	12/9/2009	2140
	6/17/2010	2100
	12/22/2010	2460
	6/29/2011	2190
	12/7/2011	2500
	6/6/2012	2060
	12/12/2012	2730
	6/19/2013	2230
	12/11/2013	2290
	6/11/2014	1940

12/3/2014	2730
6/17/2015	270
5/25/2016	1890
6/22/2016	2700
12/20/2016	2400
6/6/2017	2310
11/7/2017	2750
2/27/2018	2220
9/27/2018	2660
5/7/2019	2470
11/21/2019	2500
6/25/2020	2660

Date	Count	Mean	Significant
11/16/2020	1	2800	FALSE

Non-Parametric Prediction Interval

Intra-Well Comparison for MW#93-3

Parameter: Sodium

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 0%
Future Samples (k) = 1
Recent Dates = 1
Baseline Measurements (n) = 55
Maximum Baseline Concentration = 449
Confidence Level = 98.2%
False Positive Rate = 1.8%

Baseline Measurements	Date	Value
	12/15/1994	330
	12/14/1995	219
	12/10/1996	248
	12/4/1997	201
	12/8/1998	199
	12/14/1999	208
	12/12/2000	230
	12/18/2001	172
	3/19/2002	222
	6/26/2002	189
	9/18/2002	163
	12/11/2002	216
	3/13/2003	230
	6/25/2003	190
	9/26/2003	229
	12/10/2003	231
	3/9/2004	30.8
	6/24/2004	150
	9/15/2004	200
	12/15/2004	186
	3/16/2005	196
	6/15/2005	170
	9/21/2005	239
	12/21/2005	180
	3/15/2006	180
	6/21/2006	227
	12/20/2006	211
	6/12/2007	159
	12/17/2007	194
	6/11/2008	195
	12/3/2008	190
	6/17/2009	173
	12/9/2009	202
	6/17/2010	202
	12/22/2010	216
	6/29/2011	158
	12/7/2011	218
	6/6/2012	201
	12/12/2012	168
	6/19/2013	235
	12/11/2013	234
	6/11/2014	258

12/3/2014	220
6/17/2015	280
12/1/2015	339
6/22/2016	449
10/11/2016	368
12/20/2016	337
6/6/2017	301
11/7/2017	368
2/27/2018	272
9/27/2018	372
5/7/2019	412
11/21/2019	403
6/25/2020	376

Date	Count	Mean	Significant
11/16/2020	1	374	FALSE

Levene's Test for Equal of Variance

Parameter: Sodium

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Overall Mean = 88.633
Overall Std Dev = 177.123
Overall Total = 20917.4
SS Groups = 2.67762e+006
SS Total = 7.37252e+006

ANOVA Table

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Squares	F
Between Groups	2.67762e+006	4	669405	32.9363
Error (within groups)	4.6949e+006	231	20324.3	
Totals	7.37252e+006	235		

95% F-Statistic = 2.37

32.9363 exceeds 2.37; assumption of equal variance should be rejected

Group: MW#93-1	Sample	Residual
	12/15/1994	22.2722
	12/14/1995	25.0722
	12/10/1996	25.3722
	12/4/1997	25.7722
	12/8/1998	29.9722
	12/14/1999	12.5722
	12/12/2000	23.0278
	3/19/2002	35.0278
	6/26/2002	18.0278
	9/18/2002	1.02778
	12/11/2002	6.02778
	3/13/2003	17.0278
	6/25/2003	36.0278
	9/26/2003	7.62778
	12/10/2003	21.1278
	3/9/2004	18.4278
	6/24/2004	17.7278
	9/15/2004	5.97222
	12/15/2004	15.3278
	3/16/2005	9.32778
	6/15/2005	0.427778
	9/21/2005	15.8278
	12/21/2005	4.92778
	3/15/2006	22.7278
	6/21/2006	5.02778
	12/20/2006	8.12778
	6/12/2007	2.07222
	12/17/2007	4.82778
	6/11/2008	20.4722
	12/3/2008	1.77222

6/17/2009	9.57222
12/9/2009	0.0722222
6/17/2010	21.9722
12/22/2010	6.47222
6/29/2011	21.5722
12/7/2011	7.87222
6/6/2012	21.3722
12/12/2012	18.0722
6/19/2013	6.97222
12/11/2013	4.07222
6/11/2014	20.4722
12/3/2014	7.57222
6/17/2015	7.27222
12/1/2015	19.4722
6/22/2016	10.0722
12/20/2016	22.1722
6/6/2017	18.5722
11/7/2017	31.7722
2/27/2018	17.3722
9/27/2018	8.77222
5/7/2019	47.0278
11/21/2019	22.1278
6/25/2020	53.0278
11/17/2020	43.0278

Group: MW#93-2	**Date**	**Residual**
	12/15/1994	141.6
	12/14/1995	91.6
	12/10/1996	211.6
	12/4/1997	128.4
	12/8/1998	253.4
	12/14/1999	668.4
	12/12/2000	488.4
	3/19/2002	188.4
	6/26/2002	51.6
	9/18/2002	171.6
	12/11/2002	8.4
	3/13/2003	288.4
	6/25/2003	321.6
	9/26/2003	491.6
	12/10/2003	391.6
	3/9/2004	261.6
	6/24/2004	131.6
	9/15/2004	511.6
	12/15/2004	168.4
	3/16/2005	178.4
	6/15/2005	281.6
	9/21/2005	208.4
	12/21/2005	11.6
	3/15/2006	408.4
	6/21/2006	138.4
	12/20/2006	141.6
	2/21/2007	588.4
	6/12/2007	331.6
	12/17/2007	67.6
	6/11/2008	337.4
	12/3/2008	191.6

6/17/2009	81.6
12/9/2009	171.6
6/17/2010	211.6
12/22/2010	148.4
6/29/2011	121.6
12/7/2011	188.4
6/6/2012	251.6
12/12/2012	418.4
6/19/2013	81.6
12/11/2013	21.6
6/11/2014	371.6
12/3/2014	418.4
6/17/2015	2041.6
5/25/2016	421.6
6/22/2016	388.4
12/20/2016	88.4
6/6/2017	1.6
11/7/2017	438.4
2/27/2018	91.6
9/27/2018	348.4
5/7/2019	158.4
11/21/2019	188.4
6/25/2020	348.4
11/16/2020	488.4

Group: MW#93-3	Date	Residual
	12/15/1994	92.1286
	12/14/1995	18.8714
	12/10/1996	10.1286
	12/4/1997	36.8714
	12/8/1998	38.8714
	12/14/1999	29.8714
	12/12/2000	7.87143
	12/18/2001	65.8714
	3/19/2002	15.8714
	6/26/2002	48.8714
	9/18/2002	74.8714
	12/11/2002	21.8714
	3/13/2003	7.87143
	6/25/2003	47.8714
	9/26/2003	8.87143
	12/10/2003	6.87143
	3/9/2004	207.071
	6/24/2004	87.8714
	9/15/2004	37.8714
	12/15/2004	51.8714
	3/16/2005	41.8714
	6/15/2005	67.8714
	9/21/2005	1.12857
	12/21/2005	57.8714
	3/15/2006	57.8714
	6/21/2006	10.8714
	12/20/2006	26.8714
	6/12/2007	78.8714
	12/17/2007	43.8714
	6/11/2008	42.8714
	12/3/2008	47.8714

6/17/2009	64.8714
12/9/2009	35.8714
6/17/2010	35.8714
12/22/2010	21.8714
6/29/2011	79.8714
12/7/2011	19.8714
6/6/2012	36.8714
12/12/2012	69.8714
6/19/2013	2.87143
12/11/2013	3.87143
6/11/2014	20.1286
12/3/2014	17.8714
6/17/2015	42.1286
12/1/2015	101.129
6/22/2016	211.129
10/11/2016	130.129
12/20/2016	99.1286
6/6/2017	63.1286
11/7/2017	130.129
2/27/2018	34.1286
9/27/2018	134.129
5/7/2019	174.129
11/21/2019	165.129
6/25/2020	138.129
11/16/2020	136.129

Group: MW#03-1

Date	Residual
6/24/2004	2.03606
9/15/2004	29.7639
12/15/2004	4.19606
3/16/2005	6.24606
6/15/2005	4.93606
9/21/2005	1.86394
12/20/2006	4.23606
6/12/2007	4.27606
12/17/2007	2.35606
6/11/2008	6.52606
12/3/2008	5.22606
6/17/2009	4.89606
12/9/2009	5.46606
6/17/2010	2.92606
12/22/2010	5.12606
6/29/2011	5.19606
12/7/2011	3.36606
6/6/2012	4.29606
6/19/2013	1.93606
12/11/2013	2.45606
6/11/2014	43.6639
12/3/2014	2.43606
6/17/2015	2.53606
12/1/2015	0.236061
6/22/2016	3.64606
12/20/2016	4.29606
6/6/2017	5.67606
11/7/2017	5.36394
2/27/2018	4.56394
5/7/2019	0.863939

	11/21/2019	1.73606
	6/25/2020	4.48606
	11/17/2020	14.6639

Group: MW#03-2	Date	Residual
	6/24/2004	21.2311
	9/15/2004	59.9311
	12/15/2004	17.3311
	3/16/2005	21.6311
	6/15/2005	25.8311
	9/21/2005	16.0311
	12/21/2005	22.1311
	3/15/2006	18.2311
	6/21/2006	23.7311
	12/20/2006	18.1311
	6/12/2007	21.6311
	12/17/2007	18.4311
	6/11/2008	34.8311
	12/3/2008	14.2311
	6/17/2009	20.4311
	12/9/2009	21.3311
	6/17/2010	15.7311
	12/22/2010	16.9311
	6/29/2011	17.6311
	12/7/2011	8.53105
	6/6/2012	16.6311
	12/12/2012	7.33105
	6/19/2013	11.3311
	12/11/2013	14.6311
	6/11/2014	58.8511
	12/3/2014	0.631053
	6/17/2015	2.33105
	12/1/2015	4.83105
	6/22/2016	8.16895
	12/20/2016	11.5689
	6/6/2017	28.1689
	11/7/2017	51.3689
	2/27/2018	35.3689
	9/27/2018	59.3689
	5/7/2019	69.3689
	11/21/2019	97.3689
	6/25/2020	96.3689
	11/17/2020	93.3689

Shapiro-Francia Test of Normality

Parameter: Sodium

All Locations

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Number of Measurements = 236

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	5.71	-2.65209	7.03356	-15.1434
2	5.99	-2.40892	12.8365	-29.5729
3	6.56	-2.25713	17.9311	-44.3796
4	6.77	-2.14441	22.5296	-58.8973
5	7.01	-2.03352	26.6648	-73.1523
6	7.04	-1.95996	30.5062	-86.9504
7	7.11	-1.8957	34.0999	-100.429
8	7.3	-1.83843	37.4797	-113.849
9	7.34	-1.78661	40.6717	-126.963
10	7.75	-1.72793	43.6574	-140.354
11	7.94	-1.68494	46.4965	-153.733
12	7.94	-1.64485	49.202	-166.793
13	7.96	-1.60725	51.7853	-179.587
14	8	-1.56322	54.2289	-192.093
15	8.04	-1.53007	56.57	-204.394
16	8.59	-1.49852	58.8156	-217.266
17	8.7	-1.46838	60.9717	-230.041
18	8.87	-1.43953	63.044	-242.81
19	9.31	-1.40507	65.0182	-255.891
20	9.7	-1.37866	66.9189	-269.264
21	9.78	-1.35317	68.75	-282.498
22	9.78	-1.32854	70.515	-295.491
23	9.8	-1.29884	72.202	-308.22
24	9.88	-1.27588	73.8298	-320.826
25	10.2	-1.25357	75.4012	-333.612
26	10.3	-1.23187	76.9187	-346.3
27	10.5	-1.21073	78.3846	-359.013
28	12	-1.18504	79.7889	-373.233
29	13.1	-1.16505	81.1463	-388.496
30	14.1	-1.1455	82.4584	-404.647
31	16.8	-1.12639	83.7272	-423.571
32	17.6	-1.10306	84.944	-442.984
33	26.9	-1.08482	86.1208	-472.166
34	30.8	-1.06694	87.2591	-505.028
35	33.8	-1.04939	88.3604	-540.497
36	42	-1.03215	89.4257	-583.848
37	42.8	-1.01104	90.4479	-627.12
38	44.9	-0.994457	91.4368	-671.771
39	45.2	-0.97815	92.3936	-715.983
40	46.5	-0.9621	93.3193	-760.721
41	47	-0.946291	94.2147	-805.197
42	47	-0.926859	95.0738	-848.759
43	47	-0.911562	95.9047	-891.602
44	47.3	-0.896473	96.7084	-934.006
45	47.4	-0.881587	97.4856	-975.793
46	48.2	-0.863249	98.2308	-1017.4
47	50.2	-0.848786	98.9512	-1060.01

48	50.4	-0.834498	99.6476	-1102.07
49	50.5	-0.820379	100.321	-1143.5
50	51	-0.806422	100.971	-1184.63
51	51.2	-0.789191	101.594	-1225.03
52	51.3	-0.775574	102.195	-1264.82
53	51.6	-0.7621	102.776	-1304.14
54	51.7	-0.748762	103.337	-1342.85
55	51.9	-0.732275	103.873	-1380.86
56	52	-0.719228	104.39	-1418.26
57	52.6	-0.706302	104.889	-1455.41
58	52.9	-0.693493	105.37	-1492.1
59	54	-0.680797	105.834	-1528.86
60	54.4	-0.665079	106.276	-1565.04
61	54.7	-0.652622	106.702	-1600.74
62	54.8	-0.640266	107.112	-1635.83
63	55	-0.628006	107.506	-1670.37
64	55.4	-0.612813	107.882	-1704.32
65	55.6	-0.60076	108.243	-1737.72
66	55.9	-0.588793	108.589	-1770.63
67	56.5	-0.576911	108.922	-1803.23
68	56.5	-0.565108	109.241	-1835.16
69	57.3	-0.550465	109.544	-1866.7
70	57.5	-0.538836	109.835	-1897.68
71	58.4	-0.52728	110.113	-1928.47
72	58.9	-0.515791	110.379	-1958.85
73	59.6	-0.501527	110.63	-1988.74
74	60.1	-0.490189	110.871	-2018.2
75	61.3	-0.478914	111.1	-2047.56
76	63.8	-0.467699	111.319	-2077.4
77	64.4	-0.456542	111.527	-2106.8
78	66.3	-0.442676	111.723	-2136.15
79	66.9	-0.431644	111.909	-2165.03
80	67.4	-0.420664	112.086	-2193.38
81	68	-0.409735	112.254	-2221.24
82	68.2	-0.398855	112.413	-2248.45
83	69.1	-0.385321	112.562	-2275.07
84	69.4	-0.374544	112.702	-2301.06
85	69.7	-0.363809	112.834	-2326.42
86	70	-0.353118	112.959	-2351.14
87	70.5	-0.33981	113.075	-2375.1
88	71	-0.329206	113.183	-2398.47
89	72.9	-0.318639	113.285	-2421.7
90	74.9	-0.308108	113.379	-2444.78
91	75.2	-0.297612	113.468	-2467.16
92	76.8	-0.284535	113.549	-2489.01
93	76.9	-0.27411	113.624	-2510.09
94	77.4	-0.263715	113.694	-2530.5
95	78	-0.253347	113.758	-2550.26
96	80.2	-0.240426	113.816	-2569.54
97	81.8	-0.230118	113.869	-2588.37
98	81.9	-0.219834	113.917	-2606.37
99	82	-0.209575	113.961	-2623.56
100	83	-0.199336	114.001	-2640.1
101	84.6	-0.186567	114.035	-2655.88
102	85.1	-0.176374	114.067	-2670.89
103	86.3	-0.166199	114.094	-2685.24
104	92.3	-0.156042	114.119	-2699.64

105	92.8	-0.143367	114.139	-2712.94
106	94	-0.133244	114.157	-2725.47
107	94.7	-0.123135	114.172	-2737.13
108	95	-0.113039	114.185	-2747.87
109	95.4	-0.102953	114.195	-2757.69
110	96.8	-0.0903606	114.204	-2766.44
111	98.1	-0.0802981	114.21	-2774.31
112	99.1	-0.0702426	114.215	-2781.28
113	99.7	-0.0601949	114.219	-2787.28
114	100	-0.0476439	114.221	-2792.04
115	104	-0.0376076	114.222	-2795.95
116	112	-0.0275759	114.223	-2799.04
117	113	-0.0175476	114.223	-2801.02
118	120	-0.00751925	114.223	-2801.93
119	120	0.00751925	114.223	-2801.02
120	124	0.0175476	114.224	-2798.85
121	128	0.0275759	114.224	-2795.32
122	130	0.0376076	114.226	-2790.43
123	138	0.0476439	114.228	-2783.85
124	150	0.0601949	114.232	-2774.83
125	158	0.0702426	114.237	-2763.73
126	159	0.0802981	114.243	-2750.96
127	162	0.0903606	114.251	-2736.32
128	163	0.102953	114.262	-2719.54
129	165	0.113039	114.275	-2700.89
130	166	0.123135	114.29	-2680.45
131	168	0.133244	114.308	-2658.06
132	170	0.143367	114.328	-2633.69
133	172	0.156042	114.353	-2606.85
134	173	0.166199	114.38	-2578.1
135	180	0.176374	114.411	-2546.35
136	180	0.186567	114.446	-2512.77
137	186	0.199336	114.486	-2475.69
138	189	0.209575	114.53	-2436.08
139	190	0.219834	114.578	-2394.32
140	190	0.230118	114.631	-2350.59
141	194	0.240426	114.689	-2303.95
142	195	0.253347	114.753	-2254.55
143	196	0.263715	114.823	-2202.86
144	199	0.27411	114.898	-2148.31
145	200	0.284535	114.979	-2091.4
146	201	0.297612	115.067	-2031.58
147	201	0.308108	115.162	-1969.65
148	202	0.318639	115.264	-1905.29
149	202	0.329206	115.372	-1838.79
150	208	0.33981	115.488	-1768.11
151	211	0.353118	115.612	-1693.6
152	216	0.363809	115.745	-1615.02
153	216	0.374544	115.885	-1534.12
154	218	0.385321	116.033	-1450.12
155	219	0.398855	116.192	-1362.77
156	220	0.409735	116.36	-1272.63
157	222	0.420664	116.537	-1179.24
158	227	0.431644	116.724	-1081.26
159	229	0.442676	116.92	-979.883
160	230	0.456542	117.128	-874.878
161	230	0.467699	117.347	-767.307

162	231	0.478914	117.576	-656.678
163	234	0.490189	117.816	-541.974
164	235	0.501527	118.068	-424.115
165	239	0.515791	118.334	-300.841
166	248	0.52728	118.612	-170.076
167	258	0.538836	118.902	-31.056
168	270	0.550465	119.205	117.57
169	272	0.565108	119.525	271.279
170	280	0.576911	119.857	432.814
171	301	0.588793	120.204	610.041
172	330	0.60076	120.565	808.291
173	337	0.612813	120.941	1014.81
174	339	0.628006	121.335	1227.7
175	368	0.640266	121.745	1463.32
176	368	0.652622	122.171	1703.49
177	372	0.665079	122.613	1950.9
178	374	0.680797	123.077	2205.51
179	376	0.693493	123.558	2466.27
180	403	0.706302	124.056	2750.91
181	412	0.719228	124.574	3047.23
182	449	0.732275	125.11	3376.02
183	1800	0.748762	125.671	4723.79
184	1820	0.7621	126.251	6110.81
185	1890	0.775574	126.853	7576.65
186	1920	0.789191	127.476	9091.9
187	1940	0.806422	128.126	10656.4
188	1980	0.820379	128.799	12280.7
189	1990	0.834498	129.495	13941.4
190	2030	0.848786	130.216	15664.4
191	2050	0.863249	130.961	17434.1
192	2060	0.881587	131.738	19250.1
193	2100	0.896473	132.542	21132.7
194	2100	0.911562	133.373	23047
195	2120	0.926859	134.232	25011.9
196	2140	0.946291	135.127	27037
197	2140	0.9621	136.053	29095.9
198	2170	0.97815	137.01	31218.5
199	2170	0.994457	137.999	33376.4
200	2180	1.01104	139.021	35580.5
201	2190	1.03215	140.086	37840.9
202	2220	1.04939	141.188	40170.6
203	2220	1.06694	142.326	42539.2
204	2230	1.08482	143.503	44958.3
205	2230	1.10306	144.719	47418.1
206	2244	1.12639	145.988	49945.8
207	2260	1.1455	147.3	52534.6
208	2290	1.16505	148.658	55202.6
209	2300	1.18504	150.062	57928.2
210	2310	1.21073	151.528	60724.9
211	2320	1.23187	153.045	63582.9
212	2400	1.25357	154.617	66591.4
213	2440	1.27588	156.245	69704.6
214	2450	1.29884	157.932	72886.7
215	2460	1.32854	159.697	76154.9
216	2470	1.35317	161.528	79497.3
217	2480	1.37866	163.428	82916.3
218	2490	1.40507	165.403	86415

219	2500	1.43953	167.475	90013.8
220	2500	1.46838	169.631	93684.7
221	2500	1.49852	171.877	97431
222	2520	1.53007	174.218	101287
223	2565	1.56322	176.661	105296
224	2600	1.60725	179.245	109475
225	2649	1.64485	181.95	113833
226	2660	1.68494	184.789	118314
227	2660	1.72793	187.775	122911
228	2700	1.78661	190.967	127735
229	2720	1.83843	194.347	132735
230	2730	1.8957	197.94	137910
231	2730	1.95996	201.782	143261
232	2750	2.03352	205.917	148853
233	2800	2.14441	210.516	154858
234	2800	2.25713	215.61	161178
235	2900	2.40892	221.413	168163
236	2980	2.65209	228.447	176067

Data Set Standard Deviation = 955.265
Numerator = 3.09995e+010
Denominator = 4.89892e+010
W Statistic = 0.632782 = 3.09995e+010 / 4.89892e+010

5% Critical value of 0.976 exceeds 0.632782
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.632782
Evidence of non-normality at 99% level of significance

Concentrations (ppb)

Parameter: Sulfate

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 294
Total Non-Detect: 8
Percent Non-Detects: 2.72109%
Total Background Measurements: 74
There is 1 background location

Loc.	Meas.	ND	Date	Conc.	Original
MW#93-1	74	0 (0%)	12/15/1994	195	195
			3/14/1995	275	275
			6/21/1995	750	750
			12/14/1995	320	320
			3/6/1996	215	215
			4/25/1996	272	272
			10/2/1996	300	300
			12/10/1996	260	260
			3/11/1997	278	278
			4/15/1997	250	250
			8/14/1997	320	320
			12/4/1997	360	360
			3/31/1998	230	230
			6/23/1998	500	500
			8/11/1998	350	350
			12/8/1998	270	270
			3/9/1999	290	290
			6/8/1999	408	408
			8/19/1999	388	388
			12/14/1999	310	310
			3/7/2000	373	373
			6/23/2000	410	410
			12/12/2000	420	420
			3/27/2001	350	350
			6/28/2001	425	425
			9/10/2001	390	390
			12/18/2001	390	390
			3/19/2002	425	425
			6/26/2002	420	420
			9/18/2002	517	517
			12/11/2002	430	430
			3/13/2003	450	450
			6/25/2003	434	434
			9/26/2003	460	460
			12/10/2003	470	470
			3/9/2004	444	444
			6/24/2004	500	500
			9/15/2004	475	475
			12/15/2004	558	558
			3/16/2005	880	880
			6/15/2005	22	22
			9/21/2005	467	467
			12/21/2005	475	475
			3/15/2006	375	375
			6/21/2006	420	420

			12/20/2006	330	330
			6/12/2007	260	260
			12/17/2007	300	300
			6/11/2008	375	375
			12/3/2008	340	340
			6/17/2009	240	240
			12/9/2009	160	160
			6/17/2010	290	290
			12/22/2010	304	304
			6/29/2011	306	306
			12/7/2011	255	255
			6/6/2012	275	275
			12/12/2012	301	301
			6/19/2013	409	409
			12/11/2013	306	306
			6/11/2014	316	316
			12/3/2014	292	292
			6/17/2015	286	286
			12/1/2015	299	299
			6/22/2016	250	250
			12/20/2016	275	275
			6/6/2017	265	265
			11/7/2017	281	281
			2/27/2018	299	299
			9/27/2018	305	305
			5/7/2019	275	275
			11/21/2019	299	299
			6/25/2020	346	346
			11/17/2020	346	346

There are 4 compliance locations

Loc.	Meas.	ND	Date	Conc.	Original
MW#03-1	33	0 (0%)	6/24/2004	42	42
			9/15/2004	76	76
			12/15/2004	62	62
			3/16/2005	22	22
			6/15/2005	23	23
			9/21/2005	17	17
			12/20/2006	55	55
			6/12/2007	88	88
			12/17/2007	120	120
			6/11/2008	23	23
			12/3/2008	90	90
			6/17/2009	21	21
			12/9/2009	15	15
			6/17/2010	16	16
			12/22/2010	22.9	22.9
			6/29/2011	21.6	21.6
			12/7/2011	18.1	18.1
			6/6/2012	14.3	14.3
			6/19/2013	16.2	16.2
			12/11/2013	29.1	29.1
			6/11/2014	127	127
			12/3/2014	19.7	19.7
			6/17/2015	7.86	7.86

			12/1/2015	12.1	12.1
			6/22/2016	10.3	10.3
			12/20/2016	30.9	30.9
			6/6/2017	8.92	8.92
			11/7/2017	14.4	14.4
			2/27/2018	12.6	12.6
			5/7/2019	12.2	12.2
			11/21/2019	184	184
			6/25/2020	6.2	6.2
			11/17/2020	18.9	18.9
MW#03-2	37	0 (0%)	6/24/2004	72	72
			9/15/2004	32	32
			12/15/2004	54	54
			3/16/2005	78	78
			6/15/2005	23	23
			9/21/2005	80	80
			12/21/2005	72	72
			3/15/2006	30	30
			12/20/2006	34	34
			6/12/2007	68	68
			12/17/2007	130	130
			6/11/2008	67	67
			12/3/2008	210	210
			6/17/2009	84	84
			12/9/2009	80	80
			6/17/2010	106	106
			12/22/2010	98.9	98.9
			6/29/2011	101	101
			12/7/2011	98.8	98.8
			6/6/2012	107	107
			12/12/2012	111	111
			6/19/2013	113	113
			12/11/2013	106	106
			6/11/2014	10.3	10.3
			12/3/2014	158	158
			6/17/2015	179	179
			12/1/2015	197	197
			6/22/2016	254	254
			12/20/2016	451	451
			6/6/2017	332	332
			11/7/2017	516	516
			2/27/2018	468	468
			9/27/2018	426	426
			5/7/2019	29.6	29.6
			11/21/2019	394	394
			6/25/2020	409	409
			11/17/2020	377	377
MW#93-2	76	0 (0%)	12/15/1994	2000	2000
			3/14/1995	1550	1550
			6/21/1995	185	185
			12/14/1995	2367	2367
			3/6/1996	2150	2150
			4/25/1996	2000	2000
			10/2/1996	3267	3267
			12/10/1996	4000	4000

3/11/1997	1700	1700
4/15/1997	1500	1500
8/14/1997	3650	3650
12/4/1997	4300	4300
3/31/1998	2500	2500
6/23/1998	3250	3250
8/11/1998	3050	3050
12/8/1998	3050	3050
3/9/1999	3600	3600
6/8/1999	3150	3150
8/19/1999	1897	1897
12/14/1999	2500	2500
3/7/2000	3400	3400
6/23/2000	3400	3400
12/12/2000	3000	3000
3/27/2001	2133	2133
6/28/2001	2750	2750
9/10/2001	2650	2650
12/18/2001	2950	2950
3/19/2002	2967	2967
6/26/2002	3050	3050
9/18/2002	2900	2900
12/11/2002	2933	2933
3/13/2003	2900	2900
6/25/2003	2700	2700
9/26/2003	2767	2767
12/10/2003	2700	2700
3/9/2004	2550	2550
6/24/2004	2650	2650
9/15/2004	2700	2700
12/15/2004	2950	2950
3/16/2005	3200	3200
6/15/2005	2650	2650
9/21/2005	3200	3200
12/21/2005	3200	3200
3/15/2006	3000	3000
6/21/2006	2700	2700
12/20/2006	2500	2500
2/21/2007	1900	1900
6/12/2007	2400	2400
12/17/2007	3100	3100
6/11/2008	2350	2350
12/3/2008	3300	3300
12/15/2008	2400	2400
6/17/2009	2300	2300
12/9/2009	2200	2200
6/17/2010	2900	2900
12/22/2010	3460	3460
6/29/2011	2630	2630
12/7/2011	2520	2520
6/6/2012	2360	2360
12/12/2012	3240	3240
6/19/2013	2510	2510
12/11/2013	2460	2460
6/11/2014	2790	2790
12/3/2014	2940	2940
6/17/2015	114	114

			12/1/2015	3600	3600
			6/22/2016	2620	2620
			12/20/2016	3800	3800
			6/6/2017	3630	3630
			11/7/2017	4340	4340
			2/27/2018	3870	3870
			9/27/2018	3680	3680
			5/7/2019	3890	3890
			11/21/2019	12.4	12.4
			6/25/2020	523	523
			11/16/2020	5040	5040
MW#93-3	74	8 (10.8108%)	12/15/1994	ND<10	ND<10
			3/14/1995	ND<10	ND<10
			6/21/1995	10	10
			12/14/1995	ND<10	ND<10
			3/6/1996	10	10
			4/25/1996	ND<10	ND<10
			10/2/1996	11	11
			12/10/1996	10	10
			3/11/1997	12	12
			4/15/1997	15	15
			8/14/1997	11	11
			12/4/1997	8	8
			3/31/1998	45	45
			6/23/1998	4	4
			8/11/1998	9	9
			12/8/1998	2	2
			3/9/1999	ND<10	ND<10
			6/8/1999	3	3
			8/19/1999	ND<10	ND<10
			12/14/1999	ND<10	ND<10
			3/7/2000	13	13
			6/23/2000	14	14
			12/12/2000	7	7
			3/27/2001	3	3
			6/28/2001	ND<10	ND<10
			9/10/2001	20	20
			12/18/2001	19	19
			3/19/2002	8	8
			6/26/2002	8	8
			9/18/2002	8	8
			12/11/2002	6	6
			3/13/2003	18	18
			6/25/2003	13	13
			9/26/2003	16	16
			12/10/2003	34	34
			3/9/2004	130	130
			6/24/2004	24	24
			9/15/2004	17	17
			12/15/2004	26	26
			3/16/2005	29	29
			6/15/2005	26	26
			9/21/2005	19	19
			12/21/2005	23	23
			3/15/2006	19	19
			6/21/2006	21	21

12/20/2006	42	42
6/12/2007	3	3
12/17/2007	28	28
6/11/2008	27	27
12/3/2008	11	11
6/17/2009	16	16
12/9/2009	12	12
6/17/2010	45	45
12/22/2010	25.8	25.8
6/29/2011	34.2	34.2
12/7/2011	37.4	37.4
6/6/2012	38.3	38.3
12/12/2012	25.8	25.8
6/19/2013	61.6	61.6
12/11/2013	26.5	26.5
6/11/2014	56.2	56.2
12/3/2014	36	36
6/17/2015	109	109
12/1/2015	81	81
6/22/2016	58.5	58.5
12/20/2016	66.6	66.6
6/6/2017	18.2	18.2
11/7/2017	80.3	80.3
2/27/2018	64.2	64.2
9/27/2018	75.8	75.8
5/7/2019	105	105
11/21/2019	4010	4010
6/25/2020	328	328
11/16/2020	258	258

There are 0 unused locations

Loc.	Meas.	ND	Date	Conc.	Original

Non-Parametric Prediction Interval

Inter-Well Comparison

Parameter: Sulfate

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 2.72109%
Number of comparisons = 4
Future Samples (k) = 4
Recent Dates = 1
Background Measurements (n) = 74
Maximum Background Value = 880
Confidence Level = 94.9%
False Positive Rate = 5.1%

Location	Date	Count	Mean	Significant
MW#03-1	11/17/2020	1	18.9	FALSE
MW#03-2	11/17/2020	1	377	FALSE
MW#93-2	**11/16/2020**	**1**	**5040**	**TRUE**
MW#93-3	11/16/2020	1	258	FALSE

Non-Parametric Prediction Interval

Intra-Well Comparison for MW#93-2

Parameter: Sulfate

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 0%
Future Samples (k) = 1
Recent Dates = 1
Baseline Measurements (n) = 75
Maximum Baseline Concentration = 4340
Confidence Level = 98.7%
False Positive Rate = 1.3%

Baseline Measurements	Date	Value
	12/15/1994	2000
	3/14/1995	1550
	6/21/1995	185
	12/14/1995	2367
	3/6/1996	2150
	4/25/1996	2000
	10/2/1996	3267
	12/10/1996	4000
	3/11/1997	1700
	4/15/1997	1500
	8/14/1997	3650
	12/4/1997	4300
	3/31/1998	2500
	6/23/1998	3250
	8/11/1998	3050
	12/8/1998	3050
	3/9/1999	3600
	6/8/1999	3150
	8/19/1999	1897
	12/14/1999	2500
	3/7/2000	3400
	6/23/2000	3400
	12/12/2000	3000
	3/27/2001	2133
	6/28/2001	2750
	9/10/2001	2650
	12/18/2001	2950
	3/19/2002	2967
	6/26/2002	3050
	9/18/2002	2900
	12/11/2002	2933
	3/13/2003	2900
	6/25/2003	2700
	9/26/2003	2767
	12/10/2003	2700
	3/9/2004	2550
	6/24/2004	2650
	9/15/2004	2700
	12/15/2004	2950
	3/16/2005	3200
	6/15/2005	2650
	9/21/2005	3200

12/21/2005	3200
3/15/2006	3000
6/21/2006	2700
12/20/2006	2500
2/21/2007	1900
6/12/2007	2400
12/17/2007	3100
6/11/2008	2350
12/3/2008	3300
12/15/2008	2400
6/17/2009	2300
12/9/2009	2200
6/17/2010	2900
12/22/2010	3460
6/29/2011	2630
12/7/2011	2520
6/6/2012	2360
12/12/2012	3240
6/19/2013	2510
12/11/2013	2460
6/11/2014	2790
12/3/2014	2940
6/17/2015	114
12/1/2015	3600
6/22/2016	2620
12/20/2016	3800
6/6/2017	3630
11/7/2017	4340
2/27/2018	3870
9/27/2018	3680
5/7/2019	3890
11/21/2019	12.4
6/25/2020	523

Date	Count	Mean	Significant
11/16/2020	1	5040	TRUE

Levene's Test for Equal of Variance

Parameter: Sulfate

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Overall Mean = 229.816
Overall Std Dev = 454.406
Overall Total = 67566
SS Groups = 1.5563e+007
SS Total = 6.05e+007

ANOVA Table

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Squares	F
Between Groups	1.5563e+007	4	3.89074e+006	25.0222
Error (within groups)	4.49371e+007	289	155492	
Totals	6.05e+007	293		

95% F-Statistic = 2.37

25.0222 exceeds 2.37; assumption of equal variance should be rejected

Group: MW#93-1	Sample	Residual
	12/15/1994	157.784
	3/14/1995	77.7838
	6/21/1995	397.216
	12/14/1995	32.7838
	3/6/1996	137.784
	4/25/1996	80.7838
	10/2/1996	52.7838
	12/10/1996	92.7838
	3/11/1997	74.7838
	4/15/1997	102.784
	8/14/1997	32.7838
	12/4/1997	7.21622
	3/31/1998	122.784
	6/23/1998	147.216
	8/11/1998	2.78378
	12/8/1998	82.7838
	3/9/1999	62.7838
	6/8/1999	55.2162
	8/19/1999	35.2162
	12/14/1999	42.7838
	3/7/2000	20.2162
	6/23/2000	57.2162
	12/12/2000	67.2162
	3/27/2001	2.78378
	6/28/2001	72.2162
	9/10/2001	37.2162
	12/18/2001	37.2162
	3/19/2002	72.2162
	6/26/2002	67.2162
	9/18/2002	164.216

12/11/2002	77.2162
3/13/2003	97.2162
6/25/2003	81.2162
9/26/2003	107.216
12/10/2003	117.216
3/9/2004	91.2162
6/24/2004	147.216
9/15/2004	122.216
12/15/2004	205.216
3/16/2005	527.216
6/15/2005	330.784
9/21/2005	114.216
12/21/2005	122.216
3/15/2006	22.2162
6/21/2006	67.2162
12/20/2006	22.7838
6/12/2007	92.7838
12/17/2007	52.7838
6/11/2008	22.2162
12/3/2008	12.7838
6/17/2009	112.784
12/9/2009	192.784
6/17/2010	62.7838
12/22/2010	48.7838
6/29/2011	46.7838
12/7/2011	97.7838
6/6/2012	77.7838
12/12/2012	51.7838
6/19/2013	56.2162
12/11/2013	46.7838
6/11/2014	36.7838
12/3/2014	60.7838
6/17/2015	66.7838
12/1/2015	53.7838
6/22/2016	102.784
12/20/2016	77.7838
6/6/2017	87.7838
11/7/2017	71.7838
2/27/2018	53.7838
9/27/2018	47.7838
5/7/2019	77.7838
11/21/2019	53.7838
6/25/2020	6.78378
11/17/2020	6.78378

Group: MW#03-1	**Date**	**Residual**
	6/24/2004	3.90061
	9/15/2004	37.9006
	12/15/2004	23.9006
	3/16/2005	16.0994
	6/15/2005	15.0994
	9/21/2005	21.0994
	12/20/2006	16.9006
	6/12/2007	49.9006
	12/17/2007	81.9006
	6/11/2008	15.0994
	12/3/2008	51.9006

6/17/2009	17.0994
12/9/2009	23.0994
6/17/2010	22.0994
12/22/2010	15.1994
6/29/2011	16.4994
12/7/2011	19.9994
6/6/2012	23.7994
6/19/2013	21.8994
12/11/2013	8.99939
6/11/2014	88.9006
12/3/2014	18.3994
6/17/2015	30.2394
12/1/2015	25.9994
6/22/2016	27.7994
12/20/2016	7.19939
6/6/2017	29.1794
11/7/2017	23.6994
2/27/2018	25.4994
5/7/2019	25.8994
11/21/2019	145.901
6/25/2020	31.8994
11/17/2020	19.1994

Group: MW#03-2	**Date**	**Residual**
	6/24/2004	94.3946
	9/15/2004	134.395
	12/15/2004	112.395
	3/16/2005	88.3946
	6/15/2005	143.395
	9/21/2005	86.3946
	12/21/2005	94.3946
	3/15/2006	136.395
	12/20/2006	132.395
	6/12/2007	98.3946
	12/17/2007	36.3946
	6/11/2008	99.3946
	12/3/2008	43.6054
	6/17/2009	82.3946
	12/9/2009	86.3946
	6/17/2010	60.3946
	12/22/2010	67.4946
	6/29/2011	65.3946
	12/7/2011	67.5946
	6/6/2012	59.3946
	12/12/2012	55.3946
	6/19/2013	53.3946
	12/11/2013	60.3946
	6/11/2014	156.095
	12/3/2014	8.39459
	6/17/2015	12.6054
	12/1/2015	30.6054
	6/22/2016	87.6054
	12/20/2016	284.605
	6/6/2017	165.605
	11/7/2017	349.605
	2/27/2018	301.605
	9/27/2018	259.605

	5/7/2019	136.795
	11/21/2019	227.605
	6/25/2020	242.605
	11/17/2020	210.605

Group: MW#93-2	Date	Residual
	12/15/1994	750.597
	3/14/1995	1200.6
	6/21/1995	2565.6
	12/14/1995	383.597
	3/6/1996	600.597
	4/25/1996	750.597
	10/2/1996	516.403
	12/10/1996	1249.4
	3/11/1997	1050.6
	4/15/1997	1250.6
	8/14/1997	899.403
	12/4/1997	1549.4
	3/31/1998	250.597
	6/23/1998	499.403
	8/11/1998	299.403
	12/8/1998	299.403
	3/9/1999	849.403
	6/8/1999	399.403
	8/19/1999	853.597
	12/14/1999	250.597
	3/7/2000	649.403
	6/23/2000	649.403
	12/12/2000	249.403
	3/27/2001	617.597
	6/28/2001	0.597368
	9/10/2001	100.597
	12/18/2001	199.403
	3/19/2002	216.403
	6/26/2002	299.403
	9/18/2002	149.403
	12/11/2002	182.403
	3/13/2003	149.403
	6/25/2003	50.5974
	9/26/2003	16.4026
	12/10/2003	50.5974
	3/9/2004	200.597
	6/24/2004	100.597
	9/15/2004	50.5974
	12/15/2004	199.403
	3/16/2005	449.403
	6/15/2005	100.597
	9/21/2005	449.403
	12/21/2005	449.403
	3/15/2006	249.403
	6/21/2006	50.5974
	12/20/2006	250.597
	2/21/2007	850.597
	6/12/2007	350.597
	12/17/2007	349.403
	6/11/2008	400.597
	12/3/2008	549.403

12/15/2008	350.597
6/17/2009	450.597
12/9/2009	550.597
6/17/2010	149.403
12/22/2010	709.403
6/29/2011	120.597
12/7/2011	230.597
6/6/2012	390.597
12/12/2012	489.403
6/19/2013	240.597
12/11/2013	290.597
6/11/2014	39.4026
12/3/2014	189.403
6/17/2015	2636.6
12/1/2015	849.403
6/22/2016	130.597
12/20/2016	1049.4
6/6/2017	879.403
11/7/2017	1589.4
2/27/2018	1119.4
9/27/2018	929.403
5/7/2019	1139.4
11/21/2019	2738.2
6/25/2020	2227.6
11/16/2020	2289.4

Group: MW#93-3	**Date**	**Residual**
	12/15/1994	78.2622
	3/14/1995	78.2622
	6/21/1995	78.2622
	12/14/1995	78.2622
	3/6/1996	78.2622
	4/25/1996	78.2622
	10/2/1996	77.2622
	12/10/1996	78.2622
	3/11/1997	76.2622
	4/15/1997	73.2622
	8/14/1997	77.2622
	12/4/1997	80.2622
	3/31/1998	43.2622
	6/23/1998	84.2622
	8/11/1998	79.2622
	12/8/1998	86.2622
	3/9/1999	78.2622
	6/8/1999	85.2622
	8/19/1999	78.2622
	12/14/1999	78.2622
	3/7/2000	75.2622
	6/23/2000	74.2622
	12/12/2000	81.2622
	3/27/2001	85.2622
	6/28/2001	78.2622
	9/10/2001	68.2622
	12/18/2001	69.2622
	3/19/2002	80.2622
	6/26/2002	80.2622
	9/18/2002	80.2622

12/11/2002	82.2622
3/13/2003	70.2622
6/25/2003	75.2622
9/26/2003	72.2622
12/10/2003	54.2622
3/9/2004	41.7378
6/24/2004	64.2622
9/15/2004	71.2622
12/15/2004	62.2622
3/16/2005	59.2622
6/15/2005	62.2622
9/21/2005	69.2622
12/21/2005	65.2622
3/15/2006	69.2622
6/21/2006	67.2622
12/20/2006	46.2622
6/12/2007	85.2622
12/17/2007	60.2622
6/11/2008	61.2622
12/3/2008	77.2622
6/17/2009	72.2622
12/9/2009	76.2622
6/17/2010	43.2622
12/22/2010	62.4622
6/29/2011	54.0622
12/7/2011	50.8622
6/6/2012	49.9622
12/12/2012	62.4622
6/19/2013	26.6622
12/11/2013	61.7622
6/11/2014	32.0622
12/3/2014	52.2622
6/17/2015	20.7378
12/1/2015	7.26216
6/22/2016	29.7622
12/20/2016	21.6622
6/6/2017	70.0622
11/7/2017	7.96216
2/27/2018	24.0622
9/27/2018	12.4622
5/7/2019	16.7378
11/21/2019	3921.74
6/25/2020	239.738
11/16/2020	169.738

Shapiro-Francia Test of Normality

Parameter: Sulfate

All Locations

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Number of Measurements = 294

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	2	-2.74777	7.55021	-5.49553
2	3	-2.51213	13.861	-13.0319
3	3	-2.32634	19.2729	-20.011
4	3	-2.22621	24.2289	-26.6896
5	4	-2.14441	28.8274	-35.2672
6	6	-2.05375	33.0453	-47.5897
7	6.2	-1.99539	37.0269	-59.9611
8	7	-1.92684	40.7396	-73.449
9	7.86	-1.88079	44.2769	-88.232
10	8	-1.83843	47.6567	-102.939
11	8	-1.78661	50.8487	-117.232
12	8	-1.75069	53.9136	-131.238
13	8	-1.70604	56.8242	-144.886
14	8.92	-1.67466	59.6287	-159.824
15	9	-1.64485	62.3342	-174.628
16	10	-1.60725	64.9175	-190.7
17	10	-1.58047	67.4154	-206.505
18	10	-1.54643	69.8068	-221.969
19	10	-1.52203	72.1234	-237.19
20	10	-1.49852	74.3689	-252.175
21	10	-1.46838	76.5251	-266.859
22	10	-1.44663	78.6178	-281.325
23	10	-1.42554	80.65	-295.58
24	10	-1.39838	82.6055	-309.564
25	10	-1.37866	84.5062	-323.351
26	10	-1.35317	86.3373	-336.882
27	10.3	-1.33462	88.1185	-350.629
28	10.3	-1.31652	89.8517	-364.189
29	11	-1.29303	91.5236	-378.413
30	11	-1.27588	93.1515	-392.447
31	11	-1.25357	94.7229	-406.236
32	12	-1.23724	96.2537	-421.083
33	12	-1.22123	97.7451	-435.738
34	12.1	-1.20036	99.1859	-450.262
35	12.2	-1.18504	100.59	-464.72
36	12.4	-1.16505	101.948	-479.167
37	12.6	-1.15035	103.271	-493.661
38	13	-1.1359	104.561	-508.428
39	13	-1.11699	105.809	-522.948
40	14	-1.10306	107.026	-538.391
41	14.3	-1.08935	108.212	-553.969
42	14.4	-1.07138	109.36	-569.397
43	15	-1.05812	110.48	-585.269
44	15	-1.04073	111.563	-600.88
45	16	-1.02789	112.619	-617.326
46	16	-1.01522	113.65	-633.569
47	16	-0.998575	114.647	-649.547

48	16.2	-0.986272	115.62	-665.524
49	17	-0.970094	116.561	-682.016
50	17	-0.958125	117.479	-698.304
51	18	-0.946291	118.375	-715.337
52	18.1	-0.930718	119.241	-732.183
53	18.2	-0.919183	120.086	-748.912
54	18.9	-0.903992	120.903	-765.998
55	19	-0.892733	121.7	-782.96
56	19	-0.881587	122.477	-799.71
57	19	-0.866894	123.229	-816.181
58	19.7	-0.855996	123.961	-833.044
59	20	-0.841621	124.67	-849.876
60	21	-0.830953	125.36	-867.326
61	21	-0.820379	126.033	-884.554
62	21.6	-0.806422	126.683	-901.973
63	22	-0.796056	127.317	-919.486
64	22	-0.785774	127.935	-936.773
65	22.9	-0.772193	128.531	-954.457
66	23	-0.7621	129.112	-971.985
67	23	-0.748762	129.672	-989.206
68	23	-0.738846	130.218	-1006.2
69	23	-0.729003	130.75	-1022.97
70	24	-0.715986	131.262	-1040.15
71	25.8	-0.706302	131.761	-1058.37
72	25.8	-0.693493	132.242	-1076.27
73	26	-0.68396	132.71	-1094.05
74	26	-0.67449	133.165	-1111.59
75	26.5	-0.661955	133.603	-1129.13
76	27	-0.652622	134.029	-1146.75
77	28	-0.640266	134.439	-1164.68
78	29	-0.631062	134.837	-1182.98
79	29.1	-0.621911	135.224	-1201.07
80	29.6	-0.609791	135.596	-1219.12
81	30	-0.60076	135.957	-1237.15
82	30.9	-0.591776	136.307	-1255.43
83	32	-0.579873	136.643	-1273.99
84	34	-0.570999	136.969	-1293.4
85	34	-0.559237	137.282	-1312.42
86	34.2	-0.550465	137.585	-1331.24
87	36	-0.541736	137.878	-1350.74
88	37.4	-0.530162	138.159	-1370.57
89	38.3	-0.521527	138.431	-1390.55
90	42	-0.510074	138.692	-1411.97
91	42	-0.501527	138.943	-1433.03
92	45	-0.493018	139.186	-1455.22
93	45	-0.481728	139.418	-1476.9
94	54	-0.473299	139.642	-1502.46
95	55	-0.462114	139.856	-1527.87
96	56.2	-0.453763	140.062	-1553.37
97	58.5	-0.445443	140.26	-1579.43
98	61.6	-0.434397	140.449	-1606.19
99	62	-0.426148	140.63	-1632.61
100	64.2	-0.417928	140.805	-1659.44
101	66.6	-0.40701	140.971	-1686.55
102	67	-0.398855	141.13	-1713.27
103	68	-0.388022	141.28	-1739.66
104	72	-0.379927	141.425	-1767.01

105	72	-0.371856	141.563	-1793.79
106	75.8	-0.361133	141.693	-1821.16
107	76	-0.353118	141.818	-1848
108	78	-0.342466	141.935	-1874.71
109	80	-0.334503	142.047	-1901.47
110	80	-0.326561	142.154	-1927.6
111	80.3	-0.316004	142.254	-1952.97
112	81	-0.308108	142.349	-1977.93
113	84	-0.297612	142.437	-2002.93
114	88	-0.28976	142.521	-2028.43
115	90	-0.281926	142.601	-2053.8
116	98.8	-0.271509	142.674	-2080.62
117	98.9	-0.263715	142.744	-2106.71
118	101	-0.253347	142.808	-2132.29
119	105	-0.24559	142.868	-2158.08
120	106	-0.237847	142.925	-2183.29
121	106	-0.227545	142.977	-2207.41
122	107	-0.219834	143.025	-2230.93
123	109	-0.212137	143.07	-2254.06
124	111	-0.201894	143.111	-2276.47
125	113	-0.194225	143.149	-2298.41
126	114	-0.184017	143.183	-2319.39
127	120	-0.176374	143.214	-2340.56
128	127	-0.168741	143.242	-2361.99
129	130	-0.158579	143.267	-2382.6
130	130	-0.150969	143.29	-2402.23
131	158	-0.140835	143.31	-2424.48
132	160	-0.133244	143.328	-2445.8
133	179	-0.125661	143.343	-2468.29
134	184	-0.115562	143.357	-2489.56
135	185	-0.107995	143.368	-2509.54
136	195	-0.0979139	143.378	-2528.63
137	197	-0.0903606	143.386	-2546.43
138	210	-0.0828129	143.393	-2563.82
139	215	-0.0727562	143.398	-2579.46
140	230	-0.0652187	143.403	-2594.46
141	240	-0.0576847	143.406	-2608.31
142	250	-0.0476439	143.408	-2620.22
143	250	-0.0401167	143.41	-2630.25
144	254	-0.0300838	143.411	-2637.89
145	255	-0.0225612	143.411	-2643.64
146	258	-0.0150408	143.411	-2647.52
147	260	-0.00501359	143.411	-2648.83
148	260	0.00501359	143.411	-2647.52
149	265	0.0150408	143.412	-2643.54
150	270	0.0225612	143.412	-2637.45
151	272	0.0300838	143.413	-2629.26
152	275	0.0401167	143.415	-2618.23
153	275	0.0476439	143.417	-2605.13
154	275	0.0576847	143.42	-2589.27
155	275	0.0652187	143.425	-2571.33
156	278	0.0727562	143.43	-2551.1
157	281	0.0828129	143.437	-2527.83
158	286	0.0903606	143.445	-2501.99
159	290	0.0979139	143.454	-2473.6
160	290	0.107995	143.466	-2442.28
161	292	0.115562	143.48	-2408.53

162	299	0.125661	143.495	-2370.96
163	299	0.133244	143.513	-2331.12
164	299	0.140835	143.533	-2289.01
165	300	0.150969	143.556	-2243.72
166	300	0.158579	143.581	-2196.15
167	301	0.168741	143.609	-2145.35
168	304	0.176374	143.64	-2091.74
169	305	0.184017	143.674	-2035.61
170	306	0.194225	143.712	-1976.18
171	306	0.201894	143.753	-1914.4
172	310	0.212137	143.798	-1848.64
173	316	0.219834	143.846	-1779.17
174	320	0.227545	143.898	-1706.36
175	320	0.237847	143.954	-1630.24
176	328	0.24559	144.015	-1549.69
177	330	0.253347	144.079	-1466.09
178	332	0.263715	144.148	-1378.53
179	340	0.271509	144.222	-1286.22
180	346	0.281926	144.302	-1188.67
181	346	0.28976	144.386	-1088.42
182	350	0.297612	144.474	-984.252
183	350	0.308108	144.569	-876.414
184	360	0.316004	144.669	-762.653
185	373	0.326561	144.776	-640.846
186	375	0.334503	144.888	-515.407
187	375	0.342466	145.005	-386.982
188	377	0.353118	145.13	-253.857
189	388	0.361133	145.26	-113.737
190	390	0.371856	145.398	31.2867
191	390	0.379927	145.543	179.458
192	394	0.388022	145.693	332.339
193	408	0.398855	145.852	495.072
194	409	0.40701	146.018	661.539
195	409	0.417928	146.193	832.471
196	410	0.426148	146.374	1007.19
197	420	0.434397	146.563	1189.64
198	420	0.445443	146.761	1376.73
199	420	0.453763	146.967	1567.31
200	425	0.462114	147.181	1763.7
201	425	0.473299	147.405	1964.86
202	426	0.481728	147.637	2170.07
203	430	0.493018	147.88	2382.07
204	434	0.501527	148.131	2599.73
205	444	0.510074	148.392	2826.21
206	450	0.521527	148.664	3060.89
207	451	0.530162	148.945	3300
208	460	0.541736	149.238	3549.19
209	467	0.550465	149.541	3806.26
210	468	0.559237	149.854	4067.98
211	470	0.570999	150.18	4336.35
212	475	0.579873	150.516	4611.79
213	475	0.591776	150.866	4892.89
214	500	0.60076	151.227	5193.27
215	500	0.609791	151.599	5498.16
216	516	0.621911	151.986	5819.07
217	517	0.631062	152.384	6145.33
218	523	0.640266	152.794	6480.19

219	558	0.652622	153.22	6844.35
220	750	0.661955	153.658	7340.82
221	880	0.67449	154.113	7934.37
222	1500	0.68396	154.581	8960.31
223	1550	0.693493	155.062	10035.2
224	1700	0.706302	155.561	11235.9
225	1897	0.715986	156.073	12594.2
226	1900	0.729003	156.605	13979.3
227	2000	0.738846	157.151	15457
228	2000	0.748762	157.711	16954.5
229	2133	0.7621	158.292	18580
230	2150	0.772193	158.888	20240.3
231	2200	0.785774	159.506	21969
232	2300	0.796056	160.14	23799.9
233	2350	0.806422	160.79	25695
234	2360	0.820379	161.463	27631.1
235	2367	0.830953	162.153	29597.9
236	2400	0.841621	162.862	31617.8
237	2400	0.855996	163.594	33672.2
238	2460	0.866894	164.346	35804.8
239	2500	0.881587	165.123	38008.7
240	2500	0.892733	165.92	40240.6
241	2500	0.903992	166.737	42500.6
242	2510	0.919183	167.582	44807.7
243	2520	0.930718	168.448	47153.1
244	2550	0.946291	169.344	49566.2
245	2620	0.958125	170.262	52076.4
246	2630	0.970094	171.203	54627.8
247	2650	0.986272	172.176	57241.4
248	2650	0.998575	173.173	59887.6
249	2650	1.01522	174.204	62578
250	2700	1.02789	175.26	65353.3
251	2700	1.04073	176.343	68163.3
252	2700	1.05812	177.463	71020.2
253	2700	1.07138	178.611	73912.9
254	2750	1.08935	179.797	76908.6
255	2767	1.10306	181.014	79960.8
256	2790	1.11699	182.262	83077.2
257	2900	1.1359	183.552	86371.3
258	2900	1.15035	184.875	89707.3
259	2900	1.16505	186.233	93085.9
260	2933	1.18504	187.637	96561.7
261	2940	1.20036	189.078	100091
262	2950	1.22123	190.569	103693
263	2950	1.23724	192.1	107343
264	2967	1.25357	193.671	111063
265	3000	1.27588	195.299	114890
266	3000	1.29303	196.971	118769
267	3050	1.31652	198.704	122785
268	3050	1.33462	200.486	126855
269	3050	1.35317	202.317	130982
270	3100	1.37866	204.217	135256
271	3150	1.39838	206.173	139661
272	3200	1.42554	208.205	144223
273	3200	1.44663	210.298	148852
274	3200	1.46838	212.454	153551
275	3240	1.49852	214.7	158406

276	3250	1.52203	217.016	163353
277	3267	1.54643	219.408	168405
278	3300	1.58047	221.905	173620
279	3400	1.60725	224.489	179085
280	3400	1.64485	227.194	184678
281	3460	1.67466	229.999	190472
282	3600	1.70604	232.909	196614
283	3600	1.75069	235.974	202916
284	3630	1.78661	239.166	209402
285	3650	1.83843	242.546	216112
286	3680	1.88079	246.083	223033
287	3800	1.92684	249.796	230355
288	3870	1.99539	253.778	238077
289	3890	2.05375	257.996	246066
290	4000	2.14441	262.594	254644
291	4010	2.22621	267.55	263571
292	4300	2.32634	272.962	273574
293	4340	2.51213	279.273	284477
294	5040	2.74777	286.823	298326

Data Set Standard Deviation = 1240.44
Numerator = 8.89983e+010
Denominator = 1.2931e+011
W Statistic = 0.688257 = 8.89983e+010 / 1.2931e+011

5% Critical value of 0.976 exceeds 0.688257
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.688257
Evidence of non-normality at 99% level of significance

Concentrations (ppb)

Parameter: Total Dissolved Solids

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 63
Total Non-Detect: 0
Percent Non-Detects: 0%
Total Background Measurements: 18
There is 1 background location

Loc.	Meas.	ND	Date	Conc.	Original
MW#93-1	18	0 (0%)	6/6/2012	868	868
			12/12/2012	880	880
			6/19/2013	942	942
			12/11/2013	961	961
			6/11/2014	971	971
			12/3/2014	907	907
			6/17/2015	882	882
			12/1/2015	860	860
			6/22/2016	840	840
			12/20/2016	838	838
			6/6/2017	810	810
			11/7/2017	878	878
			2/27/2018	830	830
			9/27/2018	1050	1050
			5/7/2019	952	952
			11/21/2019	966	966
			6/25/2020	1000	1000
			11/17/2020	966	966

There are 4 compliance locations

Loc.	Meas.	ND	Date	Conc.	Original
MW#93-2	18	0 (0%)	6/6/2012	7530	7530
			12/12/2012	7920	7920
			6/19/2013	7280	7280
			12/11/2013	7440	7440
			6/11/2014	7160	7160
			12/3/2014	7700	7700
			6/17/2015	730	730
			12/1/2015	7950	7950
			6/22/2016	3160	3160
			12/20/2016	8780	8780
			6/6/2017	7350	7350
			11/7/2017	7820	7820
			2/27/2018	7560	7560
			9/27/2018	8890	8890
			5/7/2019	8480	8480
			11/21/2019	8400	8400
			6/25/2020	8860	8860
			11/16/2020	46400	46400
MW#93-3	18	0 (0%)	6/6/2012	834	834
			12/12/2012	669	669
			6/19/2013	861	861

			12/11/2013	697	697
			6/11/2014	986	986
			12/3/2014	743	743
			6/17/2015	911	911
			12/1/2015	1050	1050
			6/22/2016	1390	1390
			12/20/2016	1189	1189
			6/6/2017	780	780
			11/7/2017	1250	1250
			2/27/2018	1190	1190
			9/27/2018	1420	1420
			5/7/2019	1510	1510
			11/21/2019	1550	1550
			6/25/2020	1310	1310
			11/16/2020	1310	1310
MW#03-2	5	0 (0%)	9/27/2018	1630	1630
			5/7/2019	1240	1240
			11/21/2019	1760	1760
			6/25/2020	1940	1940
			11/17/2020	1770	1770
MW#03-1	4	0 (0%)	5/7/2019	102	102
			11/21/2019	80	80
			6/25/2020	151	151
			11/17/2020	320	320

There are 0 unused locations

Loc.	Meas.	ND	Date	Conc.	Original

Non-Parametric Prediction Interval

Inter-Well Comparison

Parameter: Total Dissolved Solids

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 0%
Number of comparisons = 4
Future Samples (k) = 4
Recent Dates = 1
Background Measurements (n) = 18
Maximum Background Value = 1050
Confidence Level = 81.8%
False Positive Rate = 18.2%

Location	Date	Count	Mean	Significant
MW#93-2	11/16/2020	1	46400	TRUE
MW#93-3	11/16/2020	1	1310	TRUE
MW#03-2	11/17/2020	1	1770	TRUE
MW#03-1	11/17/2020	1	320	FALSE

Non-Parametric Prediction Interval

Intra-Well Comparison for MW#03-2

Parameter: Total Dissolved Solids

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 0%
Future Samples (k) = 1
Recent Dates = 1
Baseline Measurements (n) = 4
Maximum Baseline Concentration = 1940
Confidence Level = 80%
False Positive Rate = 20%

Baseline Measurements	Date	Value
	9/27/2018	1630
	5/7/2019	1240
	11/21/2019	1760
	6/25/2020	1940

Date	Count	Mean	Significant
11/17/2020	1	1770	FALSE

Non-Parametric Prediction Interval

Intra-Well Comparison for MW#93-2

Parameter: Total Dissolved Solids

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 0%
Future Samples (k) = 1
Recent Dates = 1
Baseline Measurements (n) = 17
Maximum Baseline Concentration = 8890
Confidence Level = 94.4%
False Positive Rate = 5.6%

Baseline Measurements	Date	Value
	6/6/2012	7530
	12/12/2012	7920
	6/19/2013	7280
	12/11/2013	7440
	6/11/2014	7160
	12/3/2014	7700
	6/17/2015	730
	12/1/2015	7950
	6/22/2016	3160
	12/20/2016	8780
	6/6/2017	7350
	11/7/2017	7820
	2/27/2018	7560
	9/27/2018	8890
	5/7/2019	8480
	11/21/2019	8400
	6/25/2020	8860

Date	Count	Mean	Significant
11/16/2020	1	46400	TRUE

Levene's Test for Equal of Variance

Parameter: Total Dissolved Solids

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Overall Mean = 1283.29
Overall Std Dev = 4782.5
Overall Total = 80847.5
SS Groups = 2.01707e+008
SS Total = 1.41808e+009

ANOVA Table

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Squares	F
Between Groups	2.01707e+008	4	5.04267e+007	2.40448
Error (within groups)	1.21638e+009	58	2.0972e+007	
Totals	1.41808e+009	62		

95% F-Statistic = 2.52521

2.40448 does not exceed 2.52521 indicating equal variance

Group: MW#93-1	Sample	Residual
	6/6/2012	43.1667
	12/12/2012	31.1667
	6/19/2013	30.8333
	12/11/2013	49.8333
	6/11/2014	59.8333
	12/3/2014	4.16667
	6/17/2015	29.1667
	12/1/2015	51.1667
	6/22/2016	71.1667
	12/20/2016	73.1667
	6/6/2017	101.167
	11/7/2017	33.1667
	2/27/2018	81.1667
	9/27/2018	138.833
	5/7/2019	40.8333
	11/21/2019	54.8333
	6/25/2020	88.8333
	11/17/2020	54.8333

Group: MW#93-2	Date	Residual
	6/6/2012	1881.67
	12/12/2012	1491.67
	6/19/2013	2131.67
	12/11/2013	1971.67
	6/11/2014	2251.67
	12/3/2014	1711.67
	6/17/2015	8681.67
	12/1/2015	1461.67
	6/22/2016	6251.67
	12/20/2016	631.667

6/6/2017	2061.67
11/7/2017	1591.67
2/27/2018	1851.67
9/27/2018	521.667
5/7/2019	931.667
11/21/2019	1011.67
6/25/2020	551.667
11/16/2020	36988.3

Group: MW#93-3	Date	Residual
	6/6/2012	257.667
	12/12/2012	422.667
	6/19/2013	230.667
	12/11/2013	394.667
	6/11/2014	105.667
	12/3/2014	348.667
	6/17/2015	180.667
	12/1/2015	41.6667
	6/22/2016	298.333
	12/20/2016	97.3333
	6/6/2017	311.667
	11/7/2017	158.333
	2/27/2018	98.3333
	9/27/2018	328.333
	5/7/2019	418.333
	11/21/2019	458.333
	6/25/2020	218.333
	11/16/2020	218.333

Group: MW#03-2	Date	Residual
	9/27/2018	38
	5/7/2019	428
	11/21/2019	92
	6/25/2020	272
	11/17/2020	102

Group: MW#03-1	Date	Residual
	5/7/2019	61.25
	11/21/2019	83.25
	6/25/2020	12.25
	11/17/2020	156.75

Non-Parametric Prediction Interval

Intra-Well Comparison for MW#93-3

Parameter: Total Dissolved Solids

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 0%
Future Samples (k) = 1
Recent Dates = 1
Baseline Measurements (n) = 17
Maximum Baseline Concentration = 1550
Confidence Level = 94.4%
False Positive Rate = 5.6%

Baseline Measurements	Date	Value
	6/6/2012	834
	12/12/2012	669
	6/19/2013	861
	12/11/2013	697
	6/11/2014	986
	12/3/2014	743
	6/17/2015	911
	12/1/2015	1050
	6/22/2016	1390
	12/20/2016	1189
	6/6/2017	780
	11/7/2017	1250
	2/27/2018	1190
	9/27/2018	1420
	5/7/2019	1510
	11/21/2019	1550
	6/25/2020	1310

Date	Count	Mean	Significant
11/16/2020	1	1310	FALSE

Shapiro-Francia Test of Normality

Parameter: Total Dissolved Solids

All Locations

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Number of Measurements = 63

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	80	-2.17009	4.70929	-173.607
2	102	-1.86629	8.19234	-363.969
3	151	-1.68494	11.0314	-618.395
4	320	-1.5382	13.3974	-1110.62
5	669	-1.41865	15.41	-2059.7
6	697	-1.32251	17.159	-2981.48
7	730	-1.23187	18.6765	-3880.75
8	743	-1.15035	19.9998	-4735.46
9	780	-1.08032	21.1669	-5578.11
10	810	-1.01104	22.1891	-6397.04
11	830	-0.950222	23.092	-7185.73
12	834	-0.889006	23.8824	-7927.16
13	838	-0.830953	24.5728	-8623.5
14	840	-0.778966	25.1796	-9277.83
15	860	-0.725736	25.7063	-9901.96
16	861	-0.67449	26.1613	-10482.7
17	868	-0.628006	26.5556	-11027.8
18	878	-0.579873	26.8919	-11536.9
19	880	-0.53594	27.1791	-12008.6
20	882	-0.490189	27.4194	-12440.9
21	907	-0.445443	27.6178	-12844.9
22	911	-0.40429	27.7813	-13213.2
23	942	-0.361133	27.9117	-13553.4
24	952	-0.318639	28.0132	-13856.8
25	961	-0.279319	28.0913	-14125.2
26	966	-0.237847	28.1478	-14355
27	966	-0.199336	28.1876	-14547.5
28	971	-0.158579	28.2127	-14701.5
29	986	-0.118085	28.2266	-14817.9
30	1000	-0.0802981	28.2331	-14898.2
31	1050	-0.0401167	28.2347	-14940.3
32	1050	0	28.2347	-14940.3
33	1189	0.0401167	28.2363	-14892.6
34	1190	0.0802981	28.2428	-14797.1
35	1240	0.118085	28.2567	-14650.7
36	1250	0.158579	28.2819	-14452.4
37	1310	0.199336	28.3216	-14191.3
38	1310	0.237847	28.3782	-13879.7
39	1390	0.279319	28.4562	-13491.5
40	1420	0.318639	28.5577	-13039
41	1510	0.361133	28.6881	-12493.7
42	1550	0.40429	28.8516	-11867.1
43	1630	0.445443	29.05	-11141
44	1760	0.490189	29.2903	-10278.2
45	1770	0.53594	29.5775	-9329.63
46	1940	0.579873	29.9138	-8204.68
47	3160	0.628006	30.3082	-6220.18

48	7160	0.67449	30.7631	-1390.83
49	7280	0.725736	31.2898	3892.53
50	7350	0.778966	31.8966	9617.93
51	7440	0.830953	32.5871	15800.2
52	7530	0.889006	33.3774	22494.4
53	7560	0.950222	34.2803	29678.1
54	7700	1.01104	35.3025	37463.1
55	7820	1.08032	36.4696	45911.2
56	7920	1.15035	37.7929	55022
57	7950	1.23187	39.3104	64815.3
58	8400	1.32251	41.0594	75924.3
59	8480	1.41865	43.072	87954.5
60	8780	1.5382	45.4381	101460
61	8860	1.68494	48.2771	116388
62	8890	1.86629	51.7601	132980
63	46400	2.17009	56.4694	233672

Data Set Standard Deviation = 6269.06
Numerator = 5.46026e+010
Denominator = 1.37597e+011
W Statistic = 0.396829 = 5.46026e+010 / 1.37597e+011

5% Critical value of 0.964 exceeds 0.396829
Evidence of non-normality at 95% level of significance

1% Critical value of 0.947 exceeds 0.396829
Evidence of non-normality at 99% level of significance

Concentrations (ppb)

Parameter: Thallium

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 60
Total Non-Detect: 60
Percent Non-Detects: 100%
Total Background Measurements: 12
There is 1 background location

Loc.	Meas.	ND	Date	Conc.	Original
MW#93-1	12	12 (100%)	5/24/2018	ND<0.01	ND<0.01
			6/19/2018	ND<0.01	ND<0.01
			7/19/2018	ND<0.01	ND<0.01
			8/22/2018	ND<0.01	ND<0.01
			9/19/2018	ND<0.01	ND<0.01
			10/18/2018	ND<0.01	ND<0.01
			11/20/2018	ND<0.01	ND<0.01
			12/20/2018	ND<0.01	ND<0.01
			11/21/2019	ND<0.001	ND<0.001
			2/11/2020	ND<0.01	ND<0.01
			6/25/2020	ND<0.001	ND<0.001
			11/17/2020	ND<0.001	ND<0.001

There are 4 compliance locations

Loc.	Meas.	ND	Date	Conc.	Original
MW#03-1	12	12 (100%)	5/24/2018	ND<0.01	ND<0.01
			6/19/2018	ND<0.01	ND<0.01
			7/19/2018	ND<0.01	ND<0.01
			8/22/2018	ND<0.01	ND<0.01
			10/18/2018	ND<0.01	ND<0.01
			11/20/2018	ND<0.01	ND<0.01
			12/20/2018	ND<0.01	ND<0.01
			3/26/2019	ND<0.01	ND<0.01
			11/21/2019	ND<0.001	ND<0.001
			2/11/2020	ND<0.01	ND<0.01
			6/25/2020	ND<0.001	ND<0.001
			11/17/2020	ND<0.001	ND<0.001
MW#03-2	12	12 (100%)	5/24/2018	ND<0.01	ND<0.01
			6/19/2018	ND<0.01	ND<0.01
			7/19/2018	ND<0.01	ND<0.01
			8/22/2018	ND<0.01	ND<0.01
			9/19/2018	ND<0.01	ND<0.01
			10/18/2018	ND<0.01	ND<0.01
			11/20/2018	ND<0.01	ND<0.01
			12/20/2018	ND<0.01	ND<0.01
			11/21/2019	ND<0.001	ND<0.001
			2/11/2020	ND<0.01	ND<0.01
			6/25/2020	ND<0.001	ND<0.001
			11/17/2020	ND<0.001	ND<0.001
MW#93-2	12	12 (100%)	5/24/2018	ND<0.01	ND<0.01
			6/19/2018	ND<0.01	ND<0.01

			7/19/2018	ND<0.01	ND<0.01
			8/22/2018	ND<0.01	ND<0.01
			9/19/2018	ND<0.01	ND<0.01
			10/18/2018	ND<0.01	ND<0.01
			11/20/2018	ND<0.01	ND<0.01
			12/20/2018	ND<0.01	ND<0.01
			11/21/2019	ND<0.001	ND<0.001
			2/11/2020	ND<0.01	ND<0.01
			6/25/2020	ND<0.001	ND<0.001
			11/16/2020	ND<0.001	ND<0.001
MW#93-3	12	12 (100%)	5/24/2018	ND<0.01	ND<0.01
			6/19/2018	ND<0.01	ND<0.01
			7/19/2018	ND<0.01	ND<0.01
			8/22/2018	ND<0.01	ND<0.01
			9/19/2018	ND<0.01	ND<0.01
			10/18/2018	ND<0.01	ND<0.01
			11/20/2018	ND<0.01	ND<0.01
			12/20/2018	ND<0.01	ND<0.01
			11/21/2019	ND<0.001	ND<0.001
			2/11/2020	ND<0.01	ND<0.01
			6/25/2020	ND<0.001	ND<0.001
			11/16/2020	ND<0.001	ND<0.001

There are 0 unused locations

Loc.	Meas.	ND	Date	Conc.	Original

Non-Parametric Prediction Interval

Inter-Well Comparison

Parameter: Thallium

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 100%
Number of comparisons = 4
Future Samples (k) = 4
Recent Dates = 1
Background Measurements (n) = 12
Maximum Background Value = 0.01
Confidence Level = 75%
False Positive Rate = 25%

Location	Date	Count	Mean	Significant
MW#03-1	11/17/2020	1	0.001	FALSE
MW#03-2	11/17/2020	1	0.001	FALSE
MW#93-2	11/16/2020	1	0.001	FALSE
MW#93-3	11/16/2020	1	0.001	FALSE

Levene's Test for Equal of Variance

Parameter: Thallium

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Overall Mean = 0.003375
Overall Std Dev = 0.001965
Overall Total = 0.2025
SS Groups = -7.58942e-019
SS Total = 0.000227812

ANOVA Table

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Squares	F
Between Groups	-7.58942e-019	4	-1.89735e-019	-4.58072e-014
Error (within groups)	0.000227812	55	4.14205e-006	
Totals	0.000227812	59		

95% F-Statistic = 2.52521

-4.58072e-014 does not exceed 2.52521 indicating equal variance

Group: MW#93-1	Sample	Residual
	5/24/2018	0.00225
	6/19/2018	0.00225
	7/19/2018	0.00225
	8/22/2018	0.00225
	9/19/2018	0.00225
	10/18/2018	0.00225
	11/20/2018	0.00225
	12/20/2018	0.00225
	11/21/2019	0.00675
	2/11/2020	0.00225
	6/25/2020	0.00675
	11/17/2020	0.00675

Group: MW#03-1	Date	Residual
	5/24/2018	0.00225
	6/19/2018	0.00225
	7/19/2018	0.00225
	8/22/2018	0.00225
	10/18/2018	0.00225
	11/20/2018	0.00225
	12/20/2018	0.00225
	3/26/2019	0.00225
	11/21/2019	0.00675
	2/11/2020	0.00225
	6/25/2020	0.00675
	11/17/2020	0.00675

Group: MW#03-2	Date	Residual
	5/24/2018	0.00225
	6/19/2018	0.00225

7/19/2018	0.00225
8/22/2018	0.00225
9/19/2018	0.00225
10/18/2018	0.00225
11/20/2018	0.00225
12/20/2018	0.00225
11/21/2019	0.00675
2/11/2020	0.00225
6/25/2020	0.00675
11/17/2020	0.00675

Group: MW#93-2	Date	Residual
	5/24/2018	0.00225
	6/19/2018	0.00225
	7/19/2018	0.00225
	8/22/2018	0.00225
	9/19/2018	0.00225
	10/18/2018	0.00225
	11/20/2018	0.00225
	12/20/2018	0.00225
	11/21/2019	0.00675
	2/11/2020	0.00225
	6/25/2020	0.00675
	11/16/2020	0.00675

Group: MW#93-3	Date	Residual
	5/24/2018	0.00225
	6/19/2018	0.00225
	7/19/2018	0.00225
	8/22/2018	0.00225
	9/19/2018	0.00225
	10/18/2018	0.00225
	11/20/2018	0.00225
	12/20/2018	0.00225
	11/21/2019	0.00675
	2/11/2020	0.00225
	6/25/2020	0.00675
	11/16/2020	0.00675

Shapiro-Francia Test of Normality

Parameter: Thallium

All Locations

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Number of Measurements = 60

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	0.001	-2.14441	4.59848	-0.00214441
2	0.001	-1.85218	8.02904	-0.00399658
3	0.001	-1.65463	10.7668	-0.00565121
4	0.001	-1.5141	13.0593	-0.00716531
5	0.001	-1.39838	15.0148	-0.00856369
6	0.001	-1.29303	16.6867	-0.00985672
7	0.001	-1.20553	18.14	-0.0110622
8	0.001	-1.12168	19.3982	-0.0121839
9	0.001	-1.04939	20.4994	-0.0132333
10	0.001	-0.982202	21.4641	-0.0142155
11	0.001	-0.915365	22.302	-0.0151309
12	0.001	-0.855996	23.0347	-0.0159869
13	0.001	-0.796056	23.6684	-0.0167829
14	0.001	-0.742143	24.2192	-0.0175251
15	0.001	-0.690309	24.6957	-0.0182154
16	0.01	-0.637192	25.1018	-0.0245873
17	0.01	-0.588793	25.4484	-0.0304752
18	0.01	-0.538836	25.7388	-0.0358636
19	0.01	-0.493018	25.9818	-0.0407938
20	0.01	-0.448213	26.1827	-0.0452759
21	0.01	-0.401571	26.344	-0.0492916
22	0.01	-0.358459	26.4725	-0.0528762
23	0.01	-0.31337	26.5707	-0.0560099
24	0.01	-0.271509	26.6444	-0.058725
25	0.01	-0.230118	26.6974	-0.0610262
26	0.01	-0.186567	26.7322	-0.0628918
27	0.01	-0.1459	26.7535	-0.0643508
28	0.01	-0.102953	26.7641	-0.0653804
29	0.01	-0.0627062	26.768	-0.0660074
30	0.01	-0.0225612	26.7685	-0.066233
31	0.01	0.0225612	26.769	-0.0660074
32	0.01	0.0627062	26.7729	-0.0653804
33	0.01	0.102953	26.7835	-0.0643508
34	0.01	0.1459	26.8048	-0.0628918
35	0.01	0.186567	26.8396	-0.0610262
36	0.01	0.230118	26.8926	-0.058725
37	0.01	0.271509	26.9663	-0.0560099
38	0.01	0.31337	27.0645	-0.0528762
39	0.01	0.358459	27.193	-0.0492916
40	0.01	0.401571	27.3543	-0.0452759
41	0.01	0.448213	27.5551	-0.0407938
42	0.01	0.493018	27.7982	-0.0358636
43	0.01	0.538836	28.0886	-0.0304752
44	0.01	0.588793	28.4352	-0.0245873
45	0.01	0.637192	28.8413	-0.0182154
46	0.01	0.690309	29.3178	-0.0113123
47	0.01	0.742143	29.8686	-0.00389086

48	0.01	0.796056	30.5023	0.00406969
49	0.01	0.855996	31.235	0.0126297
50	0.01	0.915365	32.0729	0.0217833
51	0.01	0.982202	33.0376	0.0316053
52	0.01	1.04939	34.1388	0.0420992
53	0.01	1.12168	35.397	0.053316
54	0.01	1.20553	36.8503	0.0653712
55	0.01	1.29303	38.5222	0.0783016
56	0.01	1.39838	40.4777	0.0922853
57	0.01	1.5141	42.7702	0.107426
58	0.01	1.65463	45.508	0.123973
59	0.01	1.85218	48.9385	0.142494
60	0.01	2.14441	53.537	0.163938

Data Set Standard Deviation = 0.00393
Numerator = 0.0268758
Denominator = 0.0487856
W Statistic = 0.550897 = 0.0268758 / 0.0487856

5% Critical value of 0.963 exceeds 0.550897
Evidence of non-normality at 95% level of significance

1% Critical value of 0.947 exceeds 0.550897
Evidence of non-normality at 99% level of significance