

SCS ENGINEERS

February 1, 2018
Project No. 27214218.01

Mr. Bill Sadler, P.G.
ADEQ – Solid Waste Management Division
5301 Northshore Drive
North Little Rock, Arkansas 72118

Subject: **NABORS Landfill**
Second Half 2017 Groundwater Monitoring and Gas Monitoring Reports

Mr. Sadler,

In accordance with Contract Number 4600033394, SCS Engineers is submitting the Second Half Groundwater Monitoring Report (GWMR) and Second Half Gas Monitoring Report summarizing monitoring activities performed in September 2017 at the NABORS Landfill.

If you have questions or comments regarding these reports, please do not hesitate to contact us at (913) 681-0030.

Sincerely,



Dillon Baird, P.E.
Project Engineer
SCS ENGINEERS



Floyd Cotter, P.E.
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Enclosure: Second Half 2017 Groundwater Monitoring Report
Second Half 2017 Gas Monitoring Report
Second Half 2017 Sanitas Database Flat File

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AFIN: 03-00051

PMT#: 0249-S1-R2

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SECOND HALF 2017 NABORS LANDFILL GROUNDWATER MONITORING REPORT

Presented to:
Arkansas Department of Environmental Quality



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North Little Rock, AR 72118-5317
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January 26, 2018
File No. 27214218.01

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1 INTRODUCTION

This report summarizes the results of the Second Half 2017 Groundwater Assessment Monitoring event at the NABORS Landfill. Field work was conducted by personnel from SCS Engineers (SCS) on September 26-29, 2017. This report was prepared under the provisions of Contract No. 4600033394 between the Arkansas Department of Environmental Quality (ADEQ) and SCS.

The NABORS Landfill originally operated under Solid Waste Disposal Permit number 0249-S, as issued to RLH, Inc. (RLH) by the Arkansas Department of Environmental Quality (ADEQ) on June 14, 1988. The solid waste permit was transferred to NABORS on August 31, 2005. The NABORS Landfill is currently under Solid Waste Disposal Permit 0249-S1-R2 issued by the ADEQ on August 10, 2006. Although the permit is considered “open”, the landfill is not receiving waste. The ADEQ is currently managing the closure of the site. On May 8, 2017 ADEQ with DIN: 71757 reduced the groundwater sampling frequency at the NABORS Landfill to semi-annually. This new sampling frequency began with the Second Half 2017 event. The analytical work for this sampling event was conducted by Environmental Science Corporation (ESC) of Nashville, Tennessee and groundwater sampling was conducted by SCS.

1.1 SITE DESCRIPTION

The Northwest Arkansas Regional Solid Waste Management District (District) owns both a Class 1 and Class 4 Landfill at the subject site. The NABORS Landfills (herein referred to as Landfill) are located on approximately 700 acres near Three Brothers (Baxter County), Arkansas. The permitted Class 1 area is located in a portion of the SW1/4 of SE1/4 of Section 26, Township 21 North, Range 14 West, and NW1/4 of NE1/4 of Section 35, Township 21 North, Range 14 West. A general geographic location map is included as **FIGURE 1** in **APPENDIX A**. All report Figures are provided in **APPENDIX A**.

1.2 SITE GROUNDWATER MONITORING SYSTEM

The Landfill groundwater monitoring system has evolved over time into a system of monitoring points including both monitoring wells and local springs. The current Assessment Monitoring Program was triggered by the statistically significant occurrence of certain parameters documented in the original Detection Monitoring System. In turn, the required contingencies for Nature and Extent characterization and other regulatory provisions were addressed through the development of the site.

More specifically, the Second Detection Monitoring System for the site that was intended to comply with the provisions of Reg.22.1202 through Reg.22.1204 was approved by ADEQ in 1998. Following the Second Half 2005 sampling event, the ADEQ was notified under the provisions of 22.1204(c) of a statistically significant increase for volatile organic compounds (VOC) at MW-1. These detections were verified during the Second Half 2006 sampling event and the facility began Assessment Monitoring at wells MW-1, MW-2, MW-3, MW-4, MW-5, MW-6, and MW-7 in June of 2006 as required by Regulation 22.1205. At that time these seven wells were the only permitted facility Detection Monitoring wells.

The Assessment Monitoring program was later expanded to include all the wells/springs listed below when the new permit was issued in August of 2006 (0249-S1-R2), and when the Nature and Extent

Characterization was completed. Monitoring was conducted under this program through the Third Quarter 2012.

Assessment Monitoring continued on a quarterly basis as per 22.1205(d) based upon:

- The presence of VOCs at MW-1
- Detected concentrations of arsenic at various wells, some of which were above the Groundwater Protection Standard (GWPS)
- Vinyl chloride detections at CAO-1 which historically exceed the GWPS.

The current groundwater monitoring system for the NABORS Landfill consists of twenty-four (24) monitoring wells, thirteen (13) springs, and a Leachate sample for a total of thirty-eight (38) Assessment Monitoring points. These sampling points are listed below and are located on **FIGURE 2**.

NABORS GROUNDWATER ASSESSMENT MONITORING POINTS					
Wells			Springs		Leachate
MW-1	CAO-1	MW-509D	Entrance Seep	Class I Draw	Leachate
MW-1R	CAO-2	MW-577	Spring A**	Class IV Draw**	
MW-2	CAO-3	MW-633D	Spring B**	SP-4*	
MW-3	NAB-1	MW-689D	TSP-1*	SP-5*	
MW-4	NAB-2	NE-2	TSP-2*	SP-7	
MW-5	NAB-3	NE-3	TSP-3**	Spring near NE-3**	
MW-6	NAB-4	NE-4	TSP-4**		
MW-7	NAB-7	NE-6			
	NAB-8				
Notes: <ul style="list-style-type: none"> • <i>NAB-1 is damaged at approximately 68 feet below top of casing and is no longer being sampled.</i> • <i>NE-4 will be sampled in place of NAB-1 at the request of ADEQ (Doc. 71567, April 18, 2017)</i> • <i>*Covered by landfill construction and no longer exist</i> • <i>**Dry</i> 					

2 GROUNDWATER SAMPLING

The Second Half 2017 Assessment Monitoring sampling event was conducted on September 26-29, 2017. A representative of SCS collected samples from twenty- (20) monitoring wells (MW-1, MW-2, MW-4, MW-5, MW-6, MW-7, MW-1R, MW-509D, MW-577, MW-633D, MW-689D, CAO-1, CAO-3, NAB-3, NAB-7, NAB-8, NE-2, NE-3, NE-4 and NE-6) and three (3) springs (Class I Draw Spring, SP-7, and the Landfill Entrance Seep). The current *Groundwater Sampling and Analysis Plan* dated December 2011 (ADEQ document #61474) was utilized for this sampling event. The procedures for obtaining groundwater samples, parameters analyzed, sample preservation and handling are discussed in the following sections.

2.1 WATER LEVEL DETERMINATION

Prior to evacuating each well for sampling, the depth to water was measured using an electronic water level probe. The measurements were taken to the nearest 0.01-foot from the top of the well casing and the information was used to calculate the volume of water in the well. Because non-dedicated equipment was used to obtain water levels, procedures were instituted to insure the samples were not contaminated. The electronic water level probe is constructed of inert materials and was de-contaminated with distilled water prior to use at each well.

2.2 WELL EVACUATION

The water in a well prior to sampling may not be representative of in-situ groundwater quality. Therefore, the groundwater technician used an electric submersible pump with dedicated sampling tubing to purge a minimum of three casing volumes at a rate that did not excessively agitate the recharge water. Since non-dedicated equipment was used to purge the wells, procedures were utilized to insure the samples were not contaminated. Clean, non-powdered, nitrile gloves were worn by the sampling personnel. Measures were taken to prevent surface soils from coming in contact with the purging equipment and lines, which could introduce contaminants to the well.

2.3 EQUIPMENT DECONTAMINATION PROCEDURES

All equipment that was used in the monitoring wells and had contact with the samples was thoroughly cleaned before use. These devices included a water level probe and a submersible pump. The water level probe was washed with potable water and phosphate-free laboratory detergent. Next, the probe was rinsed with potable water and finally, rinsed with distilled water. The water level probe was then placed in a plastic bag to reduce contact with air and transported into the field. After a water level was measured at each well, a paper towel was soaked with distilled water and as the probe was reeled up the tape and probe were wiped clean.

The submersible pump was initially flushed with potable water and phosphate-free detergent. Next, the pump was rinsed with potable water, and finally rinsed and flushed with distilled water in a portable decontamination tub prior to use in each well. The pump was transported in a clean, sealed tub to minimize contact with the air prior to use at each well.

2.4 SAMPLE EXTRACTION

The technique used to withdraw each groundwater sample from the wells was selected based on consideration of the parameters analyzed in the sample. To insure the groundwater sample is representative of the formation, it is important to minimize physically altering or chemically contaminating the sample during the withdrawal process. In order to minimize the possibility of sample contamination the groundwater technicians did the following:

- Made sure clean sampling equipment was not placed directly on the ground or other contaminated surfaces prior to insertion into the well.
- Gently lowered and retrieved sampling equipment in order to prevent undue disturbance of the water column. Monitoring wells were purged and samples were collected using a submersible pump. Wells that went dry during purging were allowed to recharge for approximately 24 hours and samples were collected using a disposable bailer.
- Transferred samples to the appropriate containers in a manner that minimized agitation and aeration.

Samples were collected and containerized in the order of volatilization sensitivity of the parameters. Spring samples are collected where able, by utilizing a grab sample method by holding the sample bottle within the spring water flow path. The list of parameters analyzed is presented in **TABLE 1**.

TABLE 1. ASSESSMENT MONITORING CONSTITUENTS (AMC)

<u>APPENDIX 1 VOLATILES</u>	<u>INDICATOR PARAMETERS</u>	<u>INORGANICS</u>
ACETONE	CHLORIDE	ANTIMONY
ACRYLONITRILE	pH	ARSENIC
BENZENE	SULFATE	BARIUM
BROMOCHLOROMETHANE	TDS	BERYLLIUM
BROMODICHLOROMETHANE	TOC	CADMIUM
CHROMIUM	SPECIFIC CONDUCTANCE	CHROMIUM
CARBON TETRACHLORIDE		COBALT
CARBON DISULFIDE		COPPER
CHLOROBENZENE		LEAD
CHLOROETHANE		NICKEL
CHLOROFORM		SELENIUM
DIBROMOCHLOROMETHANE		SILVER
1,2, DICHLOROBENZENE		THALLIUM
1,4, DICHLOROBENZENE		VANADIUM
TRANS- 1,4-DICHLORO-2-BUTENE		ZINC
1,1 DICHLOROETHANE		IRON
1,2 DICHLOROETHANE		MANGANESE
CIS-1,2,-DICHLOROETHYLENE		TIN
TRANS-1,2-DICHLOROETHYLENE		
1,2-DICHLOROPROPANE		
CIS-1,3-DICHLOROPROPENE		
TRANS-1,3-DICHLOROPROPENE		
ETHYLBENZENE		
2-HEXANONE		
METHYL BROMIDE		
METHYL CHLORIDE		
METHYLENE BROMIDE		
METHYLENE CHLORIDE		
METHYL ETHYL KETONE		
METHYL IODIDE		
4- METHYL-2-PENTANONE		
STYRENE		
1,1,1,2-TETRACHLOROETHANE		
1,1,2,2,-TETRACHLOROETHANE		
TETRACHLOROETHANE		
TOLUENE		
1,1,1-TRICHLOROETHANE		
1,1,2-TRICHLOROETHANE		
TRICHLOROETHYLENE		
TRICHLOROFLUOROMETHANE		
1,2,3-TRICHLOROPROPANE		
VINYL ACETATE		
VINYL CHLORIDE		
XYLENE		

The collection order for the common groundwater parameters was as follows:

- Volatile Organic Compounds (VOCs)
- Total Organic Carbon (TOC)
- Sulfate, Chloride, and Total Dissolved Solids (TDS)
- Total Metals

2.5 FIELD TESTING

Some of the parameters evaluated are physically or chemically unstable and were measured immediately after collection by the SCS representative using a flow cell. Examples of unstable elements or properties include pH and temperature. Although the turbidity and specific conductance (inverse of electrical resistance) of a substance are relatively stable, these parameters were also measured in the field. This information was recorded on *Groundwater Monitoring Sampling Records* presented in **APPENDIX B**. A summary of the field measurements for the Second Half 2017 Assessment Monitoring sampling event is presented in **TABLE 2**.

TABLE 2. SECOND HALF 2017 FIELD MEASUREMENTS

Well #	Date	Time	TOC Elev. (ft.)	GW Depth (ft.)	GW Elev. (ft.)	pH (SU)	Temp. (°C)	Spec. Cond. (uS/cm)	Turbidity (NTU)
MW-1R	9/27/2017	1535	1067.57	69.40	998.17	6.35	17.6	1287	10.4
MW-1	9/27/2017	1452	1067.26	67.40	999.86	6.21	17.7	1375	7.3
MW-2	9/28/2017	0820	1001.21	35.60	965.61	7.42	17.0	499	5.64
MW-3	NS	NS	994.48	NS	NS	NS	NS	NS	NS
MW-4	9/28/2017	0935	1012.11	87.25	924.86	7.22	16.0	539	8.81
MW-5	9/28/2017	1017	1004.38	77.81	926.57	7.22	15.5	598	7.76
MW-6	9/28/2017	1114	1000.38	56.55	943.83	7.63	14.6	622	6.36
MW-7	9/27/2017	1400	999.66	8.24	991.42	7.01	17.9	484	2.11
CAO-1	9/28/2017	1458	1026.40	26.45	999.95	6.31	17.4	1257	8.38
CAO-2	NS	NS	998.80	NS	NS	NS	NS	NS	NS
CAO-3	9/29/2017	0700	984.20	13.92	970.28	7.33	18.6	523	6.25
NAB-2	NS	NS	993.98	NS	NS	NS	NS	NS	NS
NAB-3	9/27/2017	0853	921.49	25.83	895.66	7.00	15.6	586	7.37
NAB-4	NS	NS	1004.20	NS	NS	NS	NS	NS	NS
NAB-7	9/28/2017	1240	1012.36	22.91	989.45	7.31	16.0	512	6.61
*NAB-8	9/27/2017	0700	1039.21	79.00	960.21	6.43	21.1	653	8.6
MW-509D	9/27/2017	1210	1014.20	22.18	992.02	6.76	17.9	521	15.9
MW-577	9/27/2017	0927	982.60	42.59	940.01	7.18	16.2	566	2.69
MW-633D	9/27/2017	1055	1050.10	63.00	987.10	6.94	17.0	593	7.25
MW-689D	9/27/2017	1000	966.20	26.10	940.10	7.13	16.4	554	7.76
NE-2	9/26/2017	1440	976.98	49.79	927.19	6.88	16.9	1571	14.7
*NE-3	9/27/2017	0745	846.91	8.05	838.86	8.18	19.8	544	3.36
NE-4	9/27/2017	1322	1009.85	74.00	935.85	7.20	23.1	504	14.8
NE-6	9/28/2017	0848	901.42	9.38	892.04	7.58	17.9	490	7.42

*Note: NAB-8 and NE-3 went dry during purging (at approx. 2.5 and 3.5 gallons, respectively)

Note: MW-3, CAO-2, NAB-2 and NAB-4 were not accessible during the Second Half 2017 event to landfill closure activities.

2.6 FIELD QA/QC PROCEDURES

For QA/QC purposes, a duplicate sample of MW-6 was collected and labeled Dupe. Procedures utilized for collecting the duplicate sample were identical to the sampling protocol detailed in Section 2.4 and collected at the same time as the MW-6 samples. The duplicate sample was collected to verify the consistency and precision of the sampling and testing procedures.

A field blank was also collected and labeled FB. The field blank consisted of distilled water poured into a sample container under field conditions and returned for laboratory analysis. The SCS field representative prepared the field blank for all the required monitoring parameters. The field blank was used to verify that the sample collection and handling process or ambient conditions, such as airborne materials or other factors unique to the sampling area did not affect the quality of the samples. A volatile organic analyte (VOA) trip blank was also included as part of the field QA/QC procedures. The trip blank was prepared in the laboratory utilizing de-ionized water, transported to the site, handled as a sample (yet never opened in the field), and returned to the laboratory for analysis. Trip blank results are used to verify that the sample containers were adequately prepared/handled in the laboratory, and that the groundwater samples were protected from contamination during transport.

An equipment blank, labeled EB, was prepared on site by pouring de-ionized water over the water level probe, gloves, and through a disposable bailer. Equipment blank results are used to verify that proper protocols for collection of samples and decontamination of equipment were followed.

2.7 HANDLING/TRANSPORT/CUSTODY

Samples were accompanied by a Chain-of-Custody record that includes the name of the facility, collector's signature, monitoring point identification number, date, time, type of sample, number of containers, and analyses required. Samples collected from the Landfill site were placed in sample containers provided by the Laboratory. Containers were certified clean by the supplier and transported with ice to preserve samples.

Attached to the sample container at the time of collection is the sample label. The following information is recorded on the sample label:

- Project or facility name
- Sample type
- Sample location number (well number)
- Preservation type
- Sampling date and time
- Sample collector's name or initials

Documentation for the sample collection process and other important information was recorded on the chain of custody. The standard format includes the date, time, type of sample, code for sample analysis, unique sample number, and sampling location. The entries were signed by the sample collector.

2.8 SAMPLE PRESERVATION

In accordance with the facility's *Sampling and Analysis Plan*, the samples were placed in an ice chest for preservation and cooled to approximately 4 degrees Celsius. Custody was retained by a SCS representative from the time of collection until shipment via Federal Express to Environmental Science Corp. (ESC) in Nashville, Tennessee. Laboratory analytical results and a copy of the ESC Chain-of-Custody form are included in **APPENDIX C**.

3 SECOND HALF 2017 ASSESSMENT MONITORING EVENT

The sampling results summarized in this report are for the Second Half 2017 Assessment Monitoring Event. The results for this event, conducted on September 26-29, 2017 are provided in the following sections, tables, and appendices. In addition, all historical groundwater data was evaluated statistically to determine if significant differences exist between compliance and background concentrations at each monitoring point.

3.1 GROUNDWATER ELEVATION, FLOW DIRECTION & RATE

There are currently twenty-four monitoring wells located around the Landfill area. Water level elevations were measured for monitoring wells MW-1R, MW-1, MW-2, MW-4, MW-5, MW-6, MW-7, CAO-1, CAO-3, NAB-3, NAB-7, NAB-8, NE-2, NE-3, NE-4, NE-6, MW-509D, MW-577, MW-689 and MW-633D during the Second Half 2017 event. **TABLE 2** summarizes the results of the water level and field measurements for this event. The highest water level elevation during this event was measured in monitoring well CAO-1, located east of Area 1-2, and the lowest elevation occurred in monitoring well NE-3, located southeast of Area 1-3. A potentiometric surface map was constructed utilizing the water levels measured during the Second Half 2017 Assessment Monitoring Event and is presented as **FIGURE 2**.

As **FIGURE 2** indicates, groundwater within the uppermost aquifer was found to flow to the west/northwest in Area 1-2 and generally to the east-southeast in Area 1-3. Based on this flow pattern, monitoring wells MW-1, MW-1R, MW-7, and NAB-7 are upgradient wells, and wells MW-2, MW-3, MW-4, MW-5, MW-6, NAB-2, NAB-3, NAB-4, NAB-8, MW-509D, MW-633D, MW-577, MW-689, CAO-1, CAO-2, and CAO-3 monitor the groundwater downgradient of the landfill.

Based on the principles of Darcian flow, the average linear velocity (groundwater flow rate) during the Second Half 2017 Assessment Monitoring event was calculated utilizing the following equation:

$$V_x = (K \cdot i) / n_e$$

where,

V_x is the average linear velocity (length/time),
 K is the hydraulic conductivity (length/time),
 i is the hydraulic gradient (length/length),
and n_e is the effective porosity (decimal).

The hydraulic gradient in the Area 1-2 portion of the Landfill was calculated by comparing upgradient well, MW-1R, to the most directly downgradient well, MW-5. The change in head of 71.60 feet between the two wells over a distance of approximately 1,432 feet produces a hydraulic gradient of 0.050 (ft/ft).

The hydraulic gradient in the Area 1-3 portion of the Landfill was calculated by comparing upgradient well, MW-1R, to a downgradient well, NAB-3. The change in head of 102.51 feet between the two wells over a distance of approximately 1811 feet produces a hydraulic gradient of 0.056 (ft/ft).

Grubbs, Garner, & Hoskyn, Inc. reported an average hydraulic conductivity of 1.0×10^{-3} cm/sec in the site's *Hydrogeologic and Geotechnical Report* (1987). This hydraulic conductivity for the uppermost aquifer was used to aid in the flow rate calculations. SCS utilized an estimated porosity for this report of 10 percent for dolomite bedrock (Freeze and Cherry, 1979). An effective porosity was then determined by multiplying the porosity by 0.90 (90 percent). Effective porosity is always equal to or less than the porosity and utilizing 90 percent is a conservative approach since part of the total porosity is occupied by static fluid held to the mineral surface by surface tension. The effective porosity determined was nine percent.

Area 1-2:

$$V_x = [(1.0 \times 10^{-3} \text{ cm/sec})(0.050)] / (0.09) = 5.56 \times 10^{-4} \text{ cm/sec or } \mathbf{1.575 \text{ ft/day}}$$

Area 1-3:

$$V_x = [(1.0 \times 10^{-3} \text{ cm/sec})(0.056)] / (0.09) = 6.29 \times 10^{-4} \text{ cm/sec or } \mathbf{1.783 \text{ ft/day}}$$

3.2 STATISTICAL EVALUATION

The historical statistical database (provided in **APPENDIX D**) was first reviewed for anomalies or outliers using the statistical program SANITAS™ for Groundwater. Statistical outliers were calculated at NE-6 for sulfate and chloride during this event.

In addition to outlier analysis, parameter concentrations were plotted versus time for each of the parameters. These graphs are included in **APPENDIX E**. Graphs provide a summary of the historical data that are more easily visualized on graphs than tables. Another important application of these graphs is for detecting possible trends or drifts in the data from a given well. Furthermore, when visually comparing the plots of all the wells for a parameter, it is easy to identify the variability among the wells. This variability may be spatial or due to contamination from an off-site source.

An important consideration in any graphical presentation is whether the data is significantly influenced by seasonal changes. If this is the case, then the data should be adjusted for seasonal influences. In order to make such a determination, there should exist at least eight and preferably sixteen observations for each parameter. However, seasonal influences will likely be first suspected from visual observation of the data graphs discussed above. Based on the data generated thus far and as stated in previous reports, it is suspected that concentration levels are significantly influenced by the amount of precipitation and the timing of individual precipitation events in relation to sampling events.

The methods used to evaluate the groundwater data for the statistical analysis are based on statistical procedures outlined in the *Statistical Analysis of Ground-Water Monitoring Data at RCRA Facilities (Unified Guidance, March 2009)*. The SANITAS™ for Groundwater program was utilized to statistically evaluate the

data for the Second Half 2017 sampling event. A brief description of the procedures used in the statistical evaluation is provided on each statistical plot (See **APPENDIX E**).

3.2.1 Sen's Slope/Mann-Kendall

When used in conjunction with one another, the Mann-Kendall test for temporal trend and the Sen's slope estimate are two types of Evaluation Monitoring Statistics useful in determining the significance of an apparent trend and to estimate the magnitude of that trend. The Sen's Slope/Mann-Kendall was performed on all detected constituents from each well to determine whether a statistical trend is present in the data. The results of the Sen's Slope/Mann-Kendall plots associated with the Second Half 2017 sampling event are presented in **APPENDIX E**. A number of constituents presented a false trend due to a change in reporting limits. Only constituents with true statistical trends in detected concentrations are presented below:

Well	Significant Decreasing Trends	Significant Increasing Trends
CAO-1	1,1-dichloroethane , cobalt, manganese, nickel, zinc	arsenic, barium, benzene, chloride, iron, total organic carbon
CAO-3	lead, nickel, sulfate	chloride
MW-1		1,1-dichloroethane, arsenic, barium, chloride, chlorobenzene, cis-1,2-dichloroethene, cobalt, TDS, iron, manganese, nickel, sulfate, total organic carbon, vinyl chloride, zinc
MW-1R	manganese	arsenic, cis-1,2-dichloroethene
MW-4		chloride, TDS, sulfate, zinc
MW-5		chloride, TDS, sulfate, zinc
MW-6		chloride, sulfate, zinc, TDS
MW-7	barium, chloride	
MW-509D		chloride, sulfate, TDS
MW-577	barium, sulfate, TDS	chloride
MW-633D	sulfate	1,1-dichloroethane, barium, chloride, zinc, TDS
MW-689D		
NAB-3	nickel,	barium, chloride, iron, TDS
NAB-7	nickel	barium, chloride, iron, sulfate, TDS, zinc
NAB-8	barium	chloride
NE-2	chloride, iron, manganese, sulfate, total organic carbon, TDS	
NE-6	sulfate, zinc	

3.2.2 Results of Assessment Monitoring Statistical Analyses

Confidence intervals are the recommended statistical strategy for assessment monitoring. The Groundwater Protection Standards (GWPS) utilized in the statistical evaluation are included in **TABLE 3**. The statistical evaluation was conducted in accordance with recommended procedures found in the Unified Guidance. Confidence Intervals were constructed, with a minimum of 4 events, for any metal or VOC constituent detected in concentrations greater than the PQL. Confidence Interval statistical analysis was not performed for indicator parameters. The calculation of confidence intervals consisted of the establishment of 95% Lower Confidence Limits (LCLs) and 95% Upper Confidence Limits (UCLs). If one, or more, of the 4 events used for the confidence interval was above the constituent's MCL and the calculated coefficient of variation (CV) for the population was greater than 0.3 then additional evaluations were performed for that well/constituent pair. If after further evaluation a population that complied with the statistical procedures outlined in the Unified Guidance (UG) 22.1.1 & UG Table 22-3, a visual inspection of the data was performed to identify shift points in the data set. From these shift points the most recent population was used in the calculation of confidence limits. If the 95% LCL of one parameter exceeds action levels defined as Maximum Contaminant Levels (MCLs), if applicable, or a health-based alternate Groundwater Protection Standards (GWPS) as stipulated in Section 22.1205(d)(4), the site will conduct an Assessment of Corrective Measures in coordination with ADEQ.

The results of the assessment monitoring statistical evaluations indicated the concentrations of the following parameters at the following wells, statistically exceeded the established Groundwater Protection Standards.

SECOND HALF 2017 GWPS EXCEEDANCES

MONITORING POINT	AMC
CAO-1	1,1-dichloroethane, arsenic, cobalt, vinyl chloride
MW-1	1,1-dichloroethane, arsenic, cobalt, vinyl chloride
MW-1R	1,1-dichloroethane, arsenic, cobalt, vinyl chloride

The results of the Second Half 2017 Sampling Event indicate that AMC concentrations statistically exceed the GWPS at sample points CAO-1, MW-1, and MW-1R

The results of the confidence interval evaluation associated with the Second Half 2017 sampling event are presented in **APPENDIX E**. In accordance with Regulation 12.1205(d)(4), an *Assessment of Corrective Measures Report* (June 2015, Document 67822) was submitted to ADEQ for approval.

TABLE 3. Groundwater Protection Standards (Regulation 22.1205 (h)(I))

Compound	MCL**	RBSL***	Compound	MCL**	RBSL***
Total Arsenic	0.01 mg/l		Chloroethane (Ethyl Chloride)	--	21,000 ug/l
Total Barium	2 mg/l		Vinyl Chloride	2 ug/l	
Total Cadmium	0.005 mg/l		1,1-Dichloroethane	--	2.7 ug/l
Total Cobalt	--	0.011 mg/l	cis-1,2-Dichloroethene (-ethylene)	70 ug/l	--
Total Chromium	0.1 mg/l	--	Tetrachloroethene (-ethylene)	5 ug/l	
Total Nickel	--	0.39 mg/l	1,4-dichlorobenzene	75 ug/l	
Total Zinc	--	6 mg/l	Methylene Chloride	5 ug/l	
Total Selenium	0.05 mg/l		Toluene	1,000 ug/l	
Tin	--	12 mg/l	Trans 1,2-dichloroethylene	100 ug/l	
Silver	--	0.094 mg/l	Xylene (Total)	10,000 ug/l	
Thallium	0.002 mg/l		Ethyl Benzene	700 ug/l	
Vanadium	--	0.086 mg/l	Carbon Disulfide	--	810 ug/l
Antimony	0.006 mg/l		Chlorobenzene	100 ug/l	
Beryllium	0.004 mg/l		Cyanide	200 ug/l	
Copper	1.3 mg/l		Mercury	0.2 mg/l	
Lead	0.015 mg/l		Trichloroethene (-ethylene)	5 ug/l	
Benzene	5 ug/l				
Available MCL's will be used as the Groundwater Protection Standard **MCL = Maximum Contaminant Levels (current or proposed) ***RBSL = Risk-Based Screen Levels (EPA Region 6 Human Health Medium Specific Screening Level) Residential Water (Residential Scenario: Ingestion and Inhalation)					

3.3 LABORATORY ANALYTICAL RESULTS

The analytical laboratory results for the Second Half 2017 Assessment Monitoring sampling event are summarized in **TABLE 4** and **TABLE 5**. The Tables present a comparison of parameter concentrations from the current sampling event to the applicable Primary Drinking Water Standards-Maximum Contaminant Levels (MCLs) and Secondary Drinking Water Standards (SDWS). The SDWS are set primarily for aesthetic reasons and are generally not considered health-based criteria. Constituents covered by the SDWS are those which may adversely affect the aesthetic qualities of drinking water such as taste, odor, color, and appearance and are not federally enforced.

Primary Drinking Water Standard MCL exceedances noted for well samples consisted of arsenic at MW-1, MW-1R, and CAO-1; cadmium at MW-509D, mercury at MW-633D, and vinyl chloride at MW-1, MW-1R and CAO-1 (see TABLE 4 and TABLE 5) during the Second Half 2017 Assessment Monitoring event.

As shown in **TABLE 5**, Appendix 1 volatile organic compound (VOC) detections in well samples above the PQL consisted of the following:

- **MW-1** – chlorobenzene, 1,1-dichloroethane, cis-1,2-dichloroethene, and vinyl chloride
- **MW-1R** – chlorobenzene, 1,1-dichloroethane, Trichloroethene, cis-1,2-dichloroethene, and vinyl chloride
- **CAO-1** – benzene, 1,1-dichloroethane, and vinyl chloride
- **MW-633D** - 1,1-dichloroethane

Because VOCs are not naturally occurring, detected concentrations above the PQL are considered SSIs.

3.4 QUALITY ASSURANCE/QUALITY CONTROL RESULTS

A QA/QC comparison for the Second Half 2017 Assessment Monitoring event is presented in **TABLES 4** and **5**. The duplicate sample was consistent with the representative sample during this event. The field and equipment blanks had “J” value detections of acetone while the trip blank had no VOC detections, during the Second Half 2017 Assessment Monitoring event.

TABLE 4. INORGANIC GROUNDWATER QUALITY RESULTS

WELL ID	pH (SU)	TDS (mg/L)	Sulfide (mg/L)	Cyanide (mg/L)	Cl (mg/L)	SO ₄ (mg/L)	TOC (mg/L)	Hg (mg/L)
CAO-1	6.31	874	<0.05	<0.005	112	<5	10.2	<0.0002
CAO-3	7.33	386	<0.05	<0.005	13.9	12.5	1.02 B	<0.0002
MW-1	6.21	970	<0.05	<0.005	123	19.3	10.2	<0.0002
MW-1R	6.35	894	<0.05	<0.005	118	21.8	9.34	0.000168 J
MW-2	7.42	365	<0.05	<0.005	6.49	16.1	0.589 J	<0.0002
MW-4	7.22	405	<0.05	<0.005	7.46	15.8	0.412 J	<0.0002
MW-5	7.22	444	<0.05	<0.005	5.85	8.56	0.650 J	<0.0002
MW-509D	6.76	396	<0.05	<0.005	7	10.2	0.309 B J	<0.0002
MW-577	7.18	416	<0.05	<0.005	3	25.1	0.303 B J	<0.0002
MW-6	7.63	446	<0.05	<0.005	26.4	8.25	1.39	0.000160 J
DUPLICATE (MW-6)	---	457	<0.05	<0.005	26	8.12	2.63	0.0000966 J
MW-633D	6.94	430	<0.05	<0.005	17.5	11.5	1.31	0.00215
MW-689D	7.13	393	<0.05	<0.005	2.9	13.7	0.400 B J	<0.0002
MW-7	7.01	328	<0.05	<0.005	2.19	5.68	0.730 B J	<0.0002
NAB-3	7.00	418	<0.05	<0.005	12	9.89	1.2	0.000112 J
NAB-7	7.31	371	<0.05	<0.005	2.98	22.9	0.614 B J	<0.0002
NAB-8	6.43	374	<0.05	<0.005	3.01	11.6	5.1	<0.0002
NE-2	6.88	1420	<0.05	<0.005	24.9	693	12.9	<0.0002
NE-3	8.18	352	<0.05	<0.005	6.9	12.3	3.65	<0.0002
NE-4	7.20	355	<0.05	<0.005	3.96	21.9	2.31	<0.0002
NE-6	7.58	352	<0.05	<0.005	2.82	13.4	0.545 B J	<0.0002
SP-7	7.91	228	<0.05	<0.005	12.1	3.3 J	3.55	<0.0002
LEACHATE	7.11	1690	<0.05	<0.005	647	9.18	61.9	<0.0002
LANDFILL ENTRANCE SEEP	8.84	334	<0.05	<0.005	13.9	3.59 J	3.72	<0.0002
CLASS I DRAW	8.01	285	<0.05	0.00417 J	48.7	13.2	5.51	<0.0002
FIELD BLANK	---	<10	<0.05	<0.005	0.756 J	<5	0.415 J	<0.0002
EPA Standards	6.5-8.5**	500**	---	---	250**	250**	---	0.002*

*Primary Drinking Water Standard-Maximum Contaminant Level (MCL)

**Secondary Drinking Water Standard (SDWS)

“J” Value= estimated concentration above the MDL but below the PQL

Values in **bold** exceed applicable Primary Drinking Water EPA Standards.

Values with a “B” suffix denotes the same analyte is found in the associated blank.

NA = Not analyzed

TABLE 4 (CONT'D). INORGANIC GROUNDWATER QUALITY RESULTS

WELL ID	Sb (mg/L)	As (mg/L)	Ba (mg/L)	Be (mg/L)	Cd (mg/L)	Cr (mg/L)	Cu (mg/L)	Co (mg/L)
CAO-1	<0.002	0.142	0.255	<0.002	<0.001	<0.002	0.00298 J	0.0249
CAO-3	<0.002	0.000973 J	0.0456	<0.002	0.00143	0.00103 J	0.00164 J	<0.002
MW-1	<0.002	0.0238	0.19	<0.002	0.000238 J	0.000643 J	0.00407 J	0.0613
MW-1R	<0.002	0.075	0.169	<0.002	<0.001	<0.002	0.00295 J	0.0656
MW-2	<0.002	0.00474	0.0264	<0.002	<0.001	<0.002	0.00178 J	<0.002
MW-4	<0.002	0.000487 J	0.0347	<0.002	0.000796 J	<0.002	0.00105 J	<0.002
MW-5	<0.002	0.000483 J	0.035	<0.002	<0.001	0.000579 J	0.000765 J	<0.002
MW-509D	<0.002	0.00137 J	0.0327	<0.002	0.00614	0.00321	0.00645	0.000445 J
MW-577	<0.002	0.00151 J	0.0231	<0.002	<0.001	<0.002	0.000703 J	<0.002
MW-6	<0.002	0.000478 J	0.0468	<0.002	0.000397 J	0.000630 J	0.00136 J	<0.002
DUPLICATE (MW-6)	<0.002	0.000380 J	0.048	<0.002	0.000476 J	0.00103 J	0.00119 J	<0.002
MW-633D	<0.002	0.000722 J	0.0399	<0.002	0.00182	0.000586 J	0.00288 J	<0.002
MW-689D	<0.002	0.000725 J	0.0268	<0.002	<0.001	0.000552 J	0.000790 J	<0.002
MW-7	<0.002	0.000339 J	0.0371	<0.002	<0.001	0.000569 J	0.00135 J	<0.002
NAB-3	<0.002	0.000596 J	0.0473	<0.002	0.000684 J	0.00108 J	0.00302 J	<0.002
NAB-7	<0.002	0.00897	0.0217	<0.002	<0.001	<0.002	0.000673 J	0.000532 J
NAB-8	<0.002	0.00264	0.03	<0.002	<0.001	<0.002	0.000997 J	<0.002
NE-2	<0.002	0.00108 J	0.0202	<0.002	0.000171 J	0.000548 J	0.00287 J	0.00180 J
NE-3	<0.002	0.00143 J	0.167	<0.002	0.000247 J	<0.002	<0.005	0.000863 J
NE-4	<0.002	0.00311	0.0314	<0.002	0.000272 J	0.000669 J	0.00105 J	0.000362 J
NE-6	<0.002	0.00192 J	0.0316	<0.002	0.000448 J	0.000911 J	0.00130 J	0.000425 J
SP-7	<0.002	0.00533	0.0654	<0.002	<0.001	0.000834 J	0.000657 J	0.00265
LEACHATE	NA	0.00382	NA	NA	<0.001	0.00203	0.00277	NA
LANDFILL ENTRANCE SEEP	<0.002	0.0141	0.152	0.000141 J	<0.001	0.00235	0.00230 J	0.0131
CLASS I DRAW	<0.002	0.00148 J	0.0689	<0.002	<0.001	0.000829 J	0.00208 J	0.000550 J
FIELD BLANK	<0.002	<0.002	<0.005	<0.002	<0.001	0.000959 J	<0.005	<0.002
EPA Standards	0.006*	0.01*	2*	0.004*	0.005*	0.1*	1.3*	--

*Primary Drinking Water Standard-Maximum Contaminant Level (MCL) / **Secondary Drinking Water Standard (SDWS)

"J" Value= estimated concentration above the MDL but below the PQL / Values in **bold** exceed applicable Primary Drinking Water EPA Standards.

Values with a "B" suffix denotes the same analyte is found in the associated blank.

NA = Not analyzed

TABLE 4 (CONT'D). INORGANIC GROUNDWATER QUALITY RESULTS

WELL ID	Fe (mg/L)	Pb (mg/L)	Mn (mg/L)	Ni (mg/L)	Se (mg/L)	Ag (mg/L)	Tl (mg/L)	Sn (mg/L)	V (mg/L)	Zn (mg/L)
CAO-1	35.1	0.000462 J	0.993	0.0508	<0.002	<0.002	<0.002	0.000939 J	0.00112 J	0.0362
CAO-3	0.69	0.00268	0.0102	0.00218	<0.002	<0.002	<0.002	0.000753 J	0.00190 J	0.0326
MW-1	6.34	0.000663 J	0.889	0.0836	<0.002	<0.002	0.000848 J	0.000792 J	0.000409 J	0.327
MW-1R	28	0.000974 J	0.279	0.082	<0.002	<0.002	0.00183 J	0.000482 J	0.000351 J	1.37
MW-2	0.0825 J	<0.002	0.00643	0.00128 J	<0.002	<0.002	<0.002	0.000515 J	0.00160 J	0.00488 J
MW-4	0.0303 J	0.000330 J	0.000883 J	0.000793 J	<0.002	<0.002	<0.002	<0.002	0.000352 J	0.101
MW-5	0.0254 J	<0.002	0.00101 J	0.00101 J	<0.002	<0.002	<0.002	0.000421 J	0.000384 J	0.0287
MW-509D	0.989	0.00271	0.0165	0.00282	<0.002	<0.002	<0.002	0.00139 J	0.00281 J	0.518
MW-577	0.171	0.000249 J	0.0058	<0.002	<0.002	<0.002	<0.002	0.000367 J	0.000407 J	<0.025
MW-6	0.0209 J	<0.002	0.00140 J	0.000766 J	<0.002	<0.002	<0.002	0.000320 J	0.000418 J	0.0449
DUPLICATE (MW-6)	0.0294 J	<0.002	0.00147 J	0.000612 J	<0.002	<0.002	<0.002	0.000491 J	0.000227 J	0.0449
MW-633D	0.0197 J	<0.002	0.0063	0.00174 J	<0.002	<0.002	<0.002	0.000420 J	0.000514 J	0.325
MW-689D	0.0800 J	0.000598 J	0.00569	0.000936 J	<0.002	<0.002	<0.002	<0.002	0.000512 J	0.00456 J
MW-7	<0.1	<0.002	0.0229	0.00107 J	<0.002	<0.002	<0.002	0.000357 J	0.000420 J	0.00645 J
NAB-3	0.187	0.000691 J	0.0497	0.00228	<0.002	<0.002	<0.002	0.000422 J	0.000821 J	0.0603
NAB-7	0.136	0.00478	0.00563	0.00634	<0.002	<0.002	<0.002	<0.002	0.000709 J	0.0626
NAB-8	0.114	0.000417 J	0.00964	0.000531 J	<0.002	<0.002	<0.002	0.000378 J	0.000505 J	0.00767 J
NE-2	0.414	0.000317 J	0.0344	0.00786	<0.002	<0.002	<0.002	<0.002	0.000819 J	0.273
NE-3	0.0994 J	<0.002	0.0562	0.00187 J	<0.002	<0.002	<0.002	<0.002	0.000478 J	0.0692
NE-4	0.145	0.000828 J	0.0119	0.00919	<0.002	<0.002	<0.002	0.000357 J	0.000520 J	0.233
NE-6	0.309	0.000751 J	0.0201	0.00293	<0.002	<0.002	<0.002	0.000401 J	0.000451 J	0.183
SP-7	1.68	0.000496 J	1.22	0.00287	<0.002	<0.002	<0.002	0.000783 J	0.000191 J	<0.025
LEACHATE	NA	<0.001	NA	0.0343	NA	NA	NA	NA	NA	0.0588
LANDFILL ENTRANCE SEEP	12.7	0.00672	5.29	0.00689	<0.002	<0.002	<0.002	0.000567 J	0.00380 J	0.0493
CLASS I DRAW	0.285	0.000805 J	0.0693	0.00475	0.000391 J	<0.002	<0.002	0.000684 J	0.000760 J	0.00622 J
FIELD BLANK	<0.1	<0.002	0.000293 J	<0.002	<0.002	<0.002	<0.002	0.000412 J	<0.005	<0.025
EPA Standards	0.3**	0.015*	0.05**	***	0.05*	0.1**	0.002*	---	---	5**

*Primary Drinking Water Standard-Maximum Contaminant Level (MCL) / **Secondary Drinking Water Standard (SDWS)

"J" Value= estimated concentration above the MDL but below the PQL / Values in **bold** exceed applicable Primary Drinking Water EPA Standards.

Values with a "B" suffix denotes the same analyte is found in the associated blank.

NA = Not analyzed

TABLE 5. VOLATILE ORGANIC GROUNDWATER QUALITY RESULTS

WELL ID	Acetone (ug/L)	Benzene (ug/L)	CS2 (ug/L)	ChlBenz (ug/L)	ClEthane (ug/L)	1,1-DCA (ug/L)	1,2-DCA (ug/L)	CisDCEE (ug/L)	TransDCEE (ug/L)	Toluene (ug/L)	TCE (ug/L)	VC (ug/L)
CAO-1	<50	4.12	<1	0.957 J	1.41 J	<1	<1	<1	<1	<1	<1	2.69
CAO-3	<50	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1	<1
MW-1	<50	0.814 J	<1	2.15	1.95 J	14.7	0.655 J	12	0.560 J	<1	0.969 J	4.86
MW-1R	25.6 J	0.847 J	<1	1.74	1.79 J	13.8	<1	9.76	0.540 J	0.440 J	1.08	3.96
MW-2	<50	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1	<1
MW-4	<50	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1	<1
MW-5	<50	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1	<1
MW-509D	<50	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1	<1
MW-577	<50	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1	<1
MW-6	<50	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1	<1
DUPLICATE	<50	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1	<1
MW-633D	<50	<1	<1	<1	<5	1.56	<1	0.748 J	<1	<1	<1	0.329 J
MW-689D	<50	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1	<1
MW-7	<50	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1	<1
NAB-3	<50	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1	<1
NAB-7	<50	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1	<1
NAB-8	<50	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1	<1
NE-2	<50	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1	<1
NE-3	<50	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1	<1
NE-4	<50	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1	<1
NE-6	<50	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1	<1
LEACHATE	<50	0.772 J	0.430 J	<1	<5	<1	<1	<1	<1	<1	<1	<1
SP-7	<50	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1	<1
LANDFILL ENTRANCE SEEP	<50	<1	<1	<1	2.13 J	0.567 J	<1	0.376 J	<1	<1	<1	<1
CLASS I DRAW	<50	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1	<1
FIELD BLANK	32.2 J	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1	<1
TRIP BLANK	<50	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1	<1
EQUIPMENT BLANK	32.6 J	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1	<1
EPA Standards	---	5	---	100	---	---	5	70	100	1000	5	2

EPA standards depicted above are Primary Drinking Water Standard MCLs / "J" Value= estimated concentration above the MDL but below the PQL
Values in **bold** exceed applicable Primary Drinking Water EPA Standards / Values with a "B" suffix denotes the same analyte is found in the associated blank

4 CONCLUSION

Based on the results of the Second Half 2017 Assessment Monitoring and analytical testing, SCS reached the following conclusions:

Groundwater Flow:

- **FIGURE 2** represents a potentiometric surface map constructed from water levels measured during the Second Half 2017 Assessment Monitoring event. As indicated, groundwater within the uppermost aquifer was found to flow in a west-northwesterly direction in the Area 1-2 portion of the site. This flow relationship is consistent with the flow direction indicated by historical water level measurements. The groundwater flow direction in the Area 1-3 portion of the site is to the east-southeast. The average linear velocity in Area 1-2 is estimated at 5.56×10^{-4} cm/sec or **1.575 ft/day**. The average linear velocity in Area 1-3 is estimated at 6.29×10^{-4} cm/sec or **1.783 ft/day**.

Analytical Results:

- A QA/QC comparison for the Second Half 2017 Assessment Monitoring event showed that the duplicate sample was consistent with the representative sample during this event. The field and equipment blanks had “J” value detections of acetone while the trip blank had no VOC detections during the Second Half 2017 Assessment Monitoring event.
- Primary Drinking Water Standard MCL exceedances noted for well samples consisted of arsenic at MW-1, MW-1R, and CAO-1; cadmium at MW-509D, mercury at MW-633D, and vinyl chloride at MW-1, MW-1R and CAO-1 (see TABLE 4 and TABLE 5) during the Second Half 2017 Assessment Monitoring event.
- (VOC) detections in well samples above the PQL consisted of the following:
 - **MW-1** – chlorobenzene, 1,1-dichloroethane, cis-1,2-dichloroethene, and vinyl chloride
 - **MW-1R** – chlorobenzene, 1,1-dichloroethane, Trichloroethene, cis-1,2-dichloroethene, and vinyl chloride
 - **CAO-1** – benzene, 1,1-dichloroethane, and vinyl chloride
 - **MW-633D** - 1,1-dichloroethane

Statistical Evaluation:

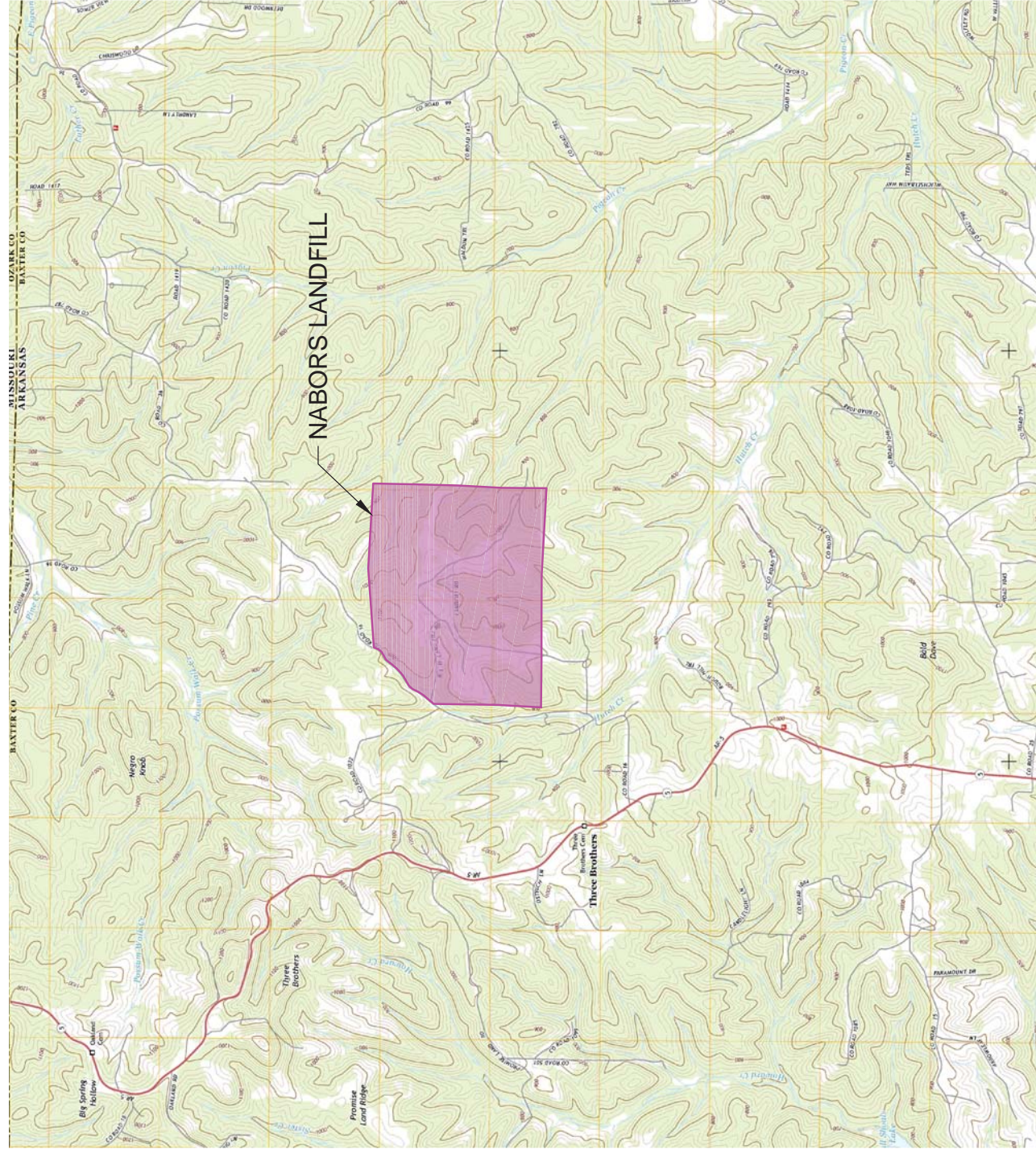
- The results of the Second Half 2017 Sampling Event indicate that AMC concentrations statistically exceed the GWPS at sample points CAO-1, MW-1, and MW-1R

MONITORING POINT	AMC
CAO-1	1,1-dichloroethane, arsenic, cobalt, vinyl chloride
MW-1	1,1-dichloroethane, arsenic, cobalt
MW-1R	1,1-dichloroethane, arsenic, cobalt, vinyl chloride

- *In accordance with Regulation 12.1205(d)(4), an Assessment of Corrective Measures Report (June 2015, Document 67822) was submitted to ADEQ for approval.*
- *The next semi-annual event is scheduled for March 2018.*

APPENDIX A

FIGURES



NOTES:

1. BACKGROUND IMAGERY IS THE MIDWAY QUADRANGLE ARKANSAS-MISSOURI 7.5-MINUTE SERIES TOPO MAP RETRIEVED FROM WWW.USGS.GOV ON APRIL 27, 2016.
2. LANDFILL BOUNDARY IS APPROXIMATE.

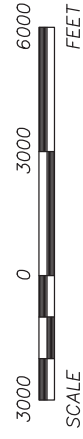
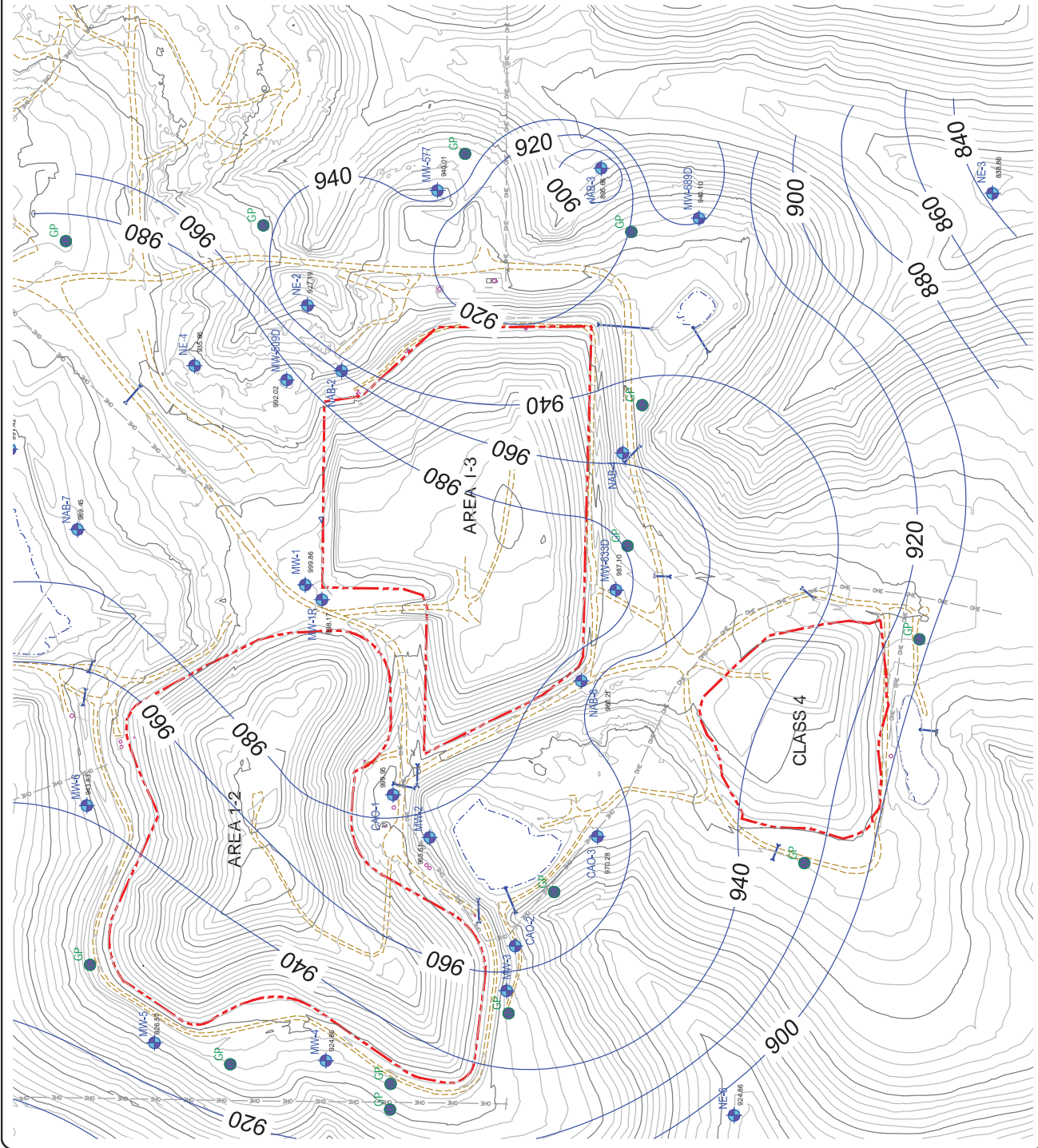


FIGURE 1 - SITE LOCATION MAP
NABORS LANDFILL
BAXTER COUNTY, ARKANSAS

SCS ENGINEERS

11219 Richardson Drive
North Little Rock, AR 72113
PH: (501) 583-2781

CHK. BY:	KV	DWN. BY:	DMB	DSN. BY:	DMB	PROJ. NO.:	---
PROJ. MGR:	DM	DATE:	4/27/16	CADD FILE:	Site Location Map.dwg		



- LEGEND:**
- | | |
|---------------------------------|---------------|
| EXISTING 5' MINOR CONTOUR | — |
| EXISTING 25' MAJOR CONTOUR | — 1025 — |
| GROUNDWATER CONTOUR | — 920 — |
| EXISTING ROAD | - - - - - |
| EXISTING OVERHEAD ELECTRIC | — ONE — ONE — |
| DISPOSAL BOUNDARY (APPROXIMATE) | - - - - - |
| EXISTING BODY OF WATER | - - - - - |
| EXISTING GROUNDWATER WELL | MW-100 |
| EXISTING GAS PROBE | GP |

NOTES:

1. EXISTING TOPOGRAPHY BASED ON AERIAL SURVEY PERFORMED BY M.J. HARDEN ASSOCIATES, INC. ON AUGUST 17, 2010. UPDATES TO THE TOPOGRAPHY AND SITE FEATURES FOR AREA 1-2, AREA 1-3, AND CLASS 4 DISPOSAL UNITS SURVEYED BY CONSOLIDATED LAND SERVICES, INC. BETWEEN DECEMBER 2014 AND JANUARY 2015.
2. GROUNDWATER ELEVATIONS TAKEN ON SEPTEMBER 26-28, 2017.

APPENDIX B

GROUNDWATER SAMPLING RECORDS

Field Groundwater Sampling Record

Facility	NABORS	Date	9/27/2017	Well No.	MW-1R
Sampling Personnel	Darren Motley				
Casing Diameter	2.0"	Condition of well	ok	Locked?	no
Well Depth	78.55	DTW (from TOC)	69.40	Volume H2O in well	1.4
Other Information					
Cloudy, 80°					
10 mph wind					
sub-pump					
started purge @ 1518					

Date	Time	Volume (gallons)	pH (SU)	Temp (°C)	D.O. (mg/L)	ORP (mV)	S.C (µSm)	Turbidity (NTU)
9/27/2017	1522	1.5	6.32	17.6	0.01	-38.0	1304	167
	1528	3.0	6.34	17.6	0.01	-41.4	1291	14.7
	1535	4.5	6.35	17.6	0.01	-44.4	1287	10.4

Sampling Date & Time 9/27/2017 @ 1535

Notes

Field Groundwater Sampling Record

Facility NABORS Date 9/27/2017 Well No. MW-1
 Sampling Personnel Darren Motley
 Casing Diameter 2.0" Condition of well ok Locked? no
 Well Depth 77.20 DTW (from TOC) 67.40 Volume H2O in well 1.5
 Other Information
 Cloudy, 83°
 15 mph wind
 sub-pump
 started purge @ 1436

Date	Time	Volume (gallons)	pH (SU)	Temp (°C)	D.O. (mg/L)	ORP (mV)	S.C (µSm)	Turbidity (NTU)
9/27/2017	1440	1.5	6.33	17.3	0.01	66.9	1366	97.4
	1446	3.0	6.24	17.6	0.01	32.1	1372	12.9
	1452	4.5	6.21	17.7	0.01	27.8	1375	7.3

Sampling Date & Time 9/27/2017 @ 1452

Notes

Lid is broken off.

Field Groundwater Sampling Record

Facility	NABORS	Date	9/28/2017	Well No.	MW-2
Sampling Personnel	Darren Motley				
Casing Diameter	2.0"	Condition of well	ok	Locked?	yes
Well Depth	49.10"	DTW (from TOC)	35.60	Volume H2O in well	2.2
Other Information					
Sunny, 60°					
10 mph wind					
sub-pump					
started purge @ 0808					

Date	Time	Volume (gallons)	pH (SU)	Temp (°C)	D.O. (mg/L)	ORP (mV)	S.C (µSm)	Turbidity (NTU)
9/28/2017	0812	2.0	7.41	16.8	0.00	38.2	504	36.2
	0816	4.0	7.43	16.9	0.00	33.3	495	12.1
	0820	6.0	7.42	17.0	0.00	29.7	499	5.64

Sampling Date & Time 9/28/2017 @ 0820

Notes

Field Groundwater Sampling Record

Facility	NABORS	Date	9/28/2017	Well No.	MW-4
Sampling Personnel	Darren Motley				
Casing Diameter	2.0"	Condition of well	ok	Locked?	yes
Well Depth	100.60	DTW (from TOC)	87.25	Volume H2O in well	2.1
Other Information					
Cloudy, 65°					
5 mph wind					
sub-pump					
start purging @ 0907					

Date	Time	Volume (gallons)	pH (SU)	Temp (°C)	D.O. (mg/L)	ORP (mV)	S.C (µSm)	Turbidity (NTU)
9/28/2017	0912	2.0	7.45	15.8	0.01	28.1	547	53.8
	0917	4.0	7.35	15.8	0.00	21.8	550	92.8
	0921	6.0	7.30	15.9	0.02	20.7	545	49.4
	0927	8.0	7.25	16.0	0.03	21.8	542	35.3
	0931	10.0	7.23	16.0	0.02	22.9	545	22.8
	0935	12.0	7.22	16.0	0.00	23.8	539	8.81

Sampling Date & Time 9/28/2017 @ 0935

Notes

Field Groundwater Sampling Record

Facility NABORS Date 9/28/2017 Well No. MW-5
 Sampling Personnel Darren Motley
 Casing Diameter 2.0" Condition of well ok Locked? yes
 Well Depth 89.75" DTW (from TOC) 77.81 Volume H2O in well 1.9
 Other Information
 Sunny, 70°
 5 mph wind
 sub-pump
 start purging @ 1007

Date	Time	Volume (gallons)	pH (SU)	Temp (°C)	D.O. (mg/L)	ORP (mV)	S.C (µSm)	Turbidity (NTU)
9/28/2017	1011	2.0	7.44	15.5	0.01	46.9	575	33.3
	1014	4.0	7.34	15.5	0.01	43.6	594	19.2
	1017	6.0	7.22	15.5	0.01	42.3	598	7.76

Sampling Date & Time 9/28/2017 @ 1017

Notes

Field Groundwater Sampling Record

Facility NABORS Date 9/28/2017 Well No. MW-6
 Sampling Personnel Darren Motley
 Casing Diameter 2.0" Condition of well ok Locked? yes
 Well Depth 68.90 DTW (from TOC) 56.55 Volume H2O in well 2.0
 Other Information
 Sunny, 76°
 5 mph wind
 sub-pump
 start purging @ 1105

Date	Time	Volume (gallons)	pH (SU)	Temp (°C)	D.O. (mg/L)	ORP (mV)	S.C (µSm)	Turbidity (NTU)
9/28/2017	1108	8.0	7.87	14.6	0.01	95.5	617	20.3
	1111	4.0	7.67	14.6	0.01	81.7	620	9.29
	1114	6.0	7.63	14.6	0.00	81.3	622	6.36

Sampling Date & Time 9/28/2017 @ 1114

Notes

Dup @ 1120

F.B @ 1125

E.B @ 1130

T.B @ 1135

Field Groundwater Sampling Record

Facility NABORS Date 9/27/2017 Well No. MW-7
 Sampling Personnel Darren Motley
 Casing Diameter 2.0" Condition of well ok Locked? yes
 Well Depth 23.0 DTW (from TOC) 8.24 Volume H2O in well 2.4
 Other Information
 Cloudy, 83°
 5 mph wind
 sub-pump
 start purging @ 1338

Date	Time	Volume (gallons)	pH (SU)	Temp (°C)	D.O. (mg/L)	ORP (mV)	S.C (µSm)	Turbidity (NTU)
9/27/2017	1350	2.5	7.39	18.2	0.01	97.0	478	18.1
	1355	5.0	7.03	17.8	0.06	84.9	483	2.28
	1400	7.5	7.01	17.9	0.01	78.9	484	2.11

Sampling Date & Time 9/27/2017 @ 1400

Notes

Field Groundwater Sampling Record

Facility NABORS Date 9/28/2017 Well No. CAO-1
 Sampling Personnel Darren Motley
 Casing Diameter 2.0" Condition of well ok Locked? yes
 Well Depth 37.0 DTW (from TOC) 26.45 Volume H2O in well 1.7
 Other Information
 Sunny, 85°
 10 mph wind
 sub-pump
 start purging @ 1439

Date	Time	Volume (gallons)	pH (SU)	Temp (°C)	D.O. (mg/L)	ORP (mV)	S.C (µSm)	Turbidity (NTU)
9/28/2017	1449	2.0	6.52	17.2	0.00	-3.0	1238	84.4
	1453	4.0	6.34	17.5	0.01	-31.5	1253	13.2
	1458	6.0	6.31	17.4	0.01	-33.0	1257	8.38

Sampling Date & Time 9/28/2017 @ 1458

Notes

Field Groundwater Sampling Record

Facility NABORS Date 9/28/2017 Well No. CAO-3
 Sampling Personnel Darren Motley
 Casing Diameter 2.0" Condition of well ok Locked? yes
 Well Depth 23.0 DTW (from TOC) 13.92 Volume H2O in well 1.4
 Other Information
 Sunny, 60°
 5 mph wind
 sub-pump
 start purging @ 0730

Date	Time	Volume (gallons)	pH (SU)	Temp (°C)	D.O. (mg/L)	ORP (mV)	S.C (µSm)	Turbidity (NTU)
9/28/2017	0737	1.5	7.57	18.7	0.00	59.4	527	287
	0743	3.0	7.18	18.4	0.00	40.0	511	198
	DRY	4.5						
9/29/2017	0700		7.33	18.6	0.01	58.7	523	6.25

Sampling Date & Time 9/29/2017 @ 0700

Notes

Field Groundwater Sampling Record

Facility NABORS Date 9/27/2017 Well No. NAB-3
 Sampling Personnel Darren Motley
 Casing Diameter 2.0" Condition of well ok Locked? yes
 Well Depth 47.0 DTW (from TOC) 25.83 Volume H2O in well 3.4
 Other Information
 Cloudy, 75°
 5 mph wind
 sub pump
 start purging @ 0824

Date	Time	Volume (gallons)	pH (SU)	Temp (°C)	D.O. (mg/L)	ORP (mV)	S.C (µSm)	Turbidity (NTU)
9/27/2017	0834	3.5	7.10	15.8	0.01	38.9	611	53.5
	0843	7.0	7.01	15.6	0.01	29.2	579	13.6
	853	10.5	7.00	15.6	0.01	27.3	586	7.37

Sampling Date & Time 9/27/2017 @ 0853

Notes

Field Groundwater Sampling Record

Facility	NABORS	Date	9/28/2017	Well No.	NAB-7
Sampling Personnel	Darren Motley				
Casing Diameter	2.0"	Condition of well	ok	Locked?	yes
Well Depth	44.0	DTW (from TOC)	22.91	Volume H2O in well	3.4
Other Information					
Sunny 85°					
5 mph wind					
sub-pump					
start purging @ 1225					

Date	Time	Volume (gallons)	pH (SU)	Temp (°C)	D.O. (mg/L)	ORP (mV)	S.C (µSm)	Turbidity (NTU)
9/28/2017	1230	3.5	7.50	16.3	0.01	69.6	513	61.2
	1235	7.0	7.35	16.0	0.01	57.8	513	10.6
	1240	10.5	7.31	16.0	0.01	55.0	512	6.61

Sampling Date & Time 9/28/2017 @ 1240

Notes

Field Groundwater Sampling Record

Facility NABORS Date 9/26/2017 Well No. NAB-8
 Sampling Personnel Darren Motley
 Casing Diameter 2.0" Condition of well ok Locked? yes
 Well Depth 95.0 DTW (from TOC) 79.0 Volume H2O in well 2.6
 Other Information
 Sunny, 88°
 5 mph wind
 Bailer
 start purging @ 1320

Date	Time	Volume (gallons)	pH (SU)	Temp (°C)	D.O. (mg/L)	ORP (mV)	S.C (µSm)	Turbidity (NTU)
9/26/2017	1330	3.0	6.38	21.4	0.01	172.0	657	56.5
Dry @ 2.5 gallons								
9/27/2017	0700		6.43	21.1	0.03	176.4	653	8.6

Sampling Date & Time 9/27/2017 @ 0700

Notes

Hinge is bent and lid is off center.

Field Groundwater Sampling Record

Facility NABORS Date 9/27/2017 Well No. MW-509D
 Sampling Personnel Darren Motley
 Casing Diameter 2.0" Condition of well ok Locked? yes
 Well Depth 39.65 DTW (from TOC) 22.18 Volume H2O in well 2.8
 Other Information
 Cloudy, 85°
 5 mph wind
 sub-pump
 start purging @ 1127

Date	Time	Volume (gallons)	pH (SU)	Temp (°C)	D.O. (mg/L)	ORP (mV)	S.C (µSm)	Turbidity (NTU)
9/27/2017	1140	3.0	6.93	18.1	0.01	48.2	544	161
	1156	6.0	6.86	17.6	0.05	46.8	535	42.6
	1210	9.0	6.76	17.9	0.01	51.4	521	15.9

Sampling Date & Time 9/27/2017 @ 1210

Notes

Field Groundwater Sampling Record

Facility NABORS Date 9/27/2017 Well No. MW-577
 Sampling Personnel Darren Motley
 Casing Diameter 2.0" Condition of well ok Locked? yes
 Well Depth 55.6 DTW (from TOC) 42.59 Volume H2O in well 2.1
 Other Information
 Cloudy, 75°
 10 mph wind
 sub-pump
 start purging @ 0910

Date	Time	Volume (gallons)	pH (SU)	Temp (°C)	D.O. (mg/L)	ORP (mV)	S.C (µSm)	Turbidity (NTU)
9/27/2017	0919	2.0	7.36	16.2	0.01	23.5	573	12.7
	0923	4.0	7.21	16.2	0.01	18.5	568	5.46
	0927	6.0	7.18	16.2	0.12	17.8	566	2.69

Sampling Date & Time 9/27/2017 @ 0927

Notes

Field Groundwater Sampling Record

Facility	NABORS	Date	9/27/2017	Well No.	MW-633D
Sampling Personnel	Darren Motley				
Casing Diameter	2.0"	Condition of well	OK	Locked?	YES
Well Depth	87.92	DTW (from TOC)	63.00	Volume H2O in well	4.0
Other Information					
Cloudy, 80°					
5 mph wind					
sub-pump					
start purging @ 1015					

Date	Time	Volume (gallons)	pH (SU)	Temp (°C)	D.O. (mg/L)	ORP (mV)	S.C (µSm)	Turbidity (NTU)
9/27/2017	1031	4.0	7.11	16.9	0.01	34.7	593	51.0
	1045	8.0	6.97	17.0	0.01	27.0	593	17.4
	1055	12.0	6.94	17.0	0.00	24.9	593	7.25

Sampling Date & Time 9/27/2017 @ 1055

Notes

Field Groundwater Sampling Record

Facility NABORS Date 9/27/2017 Well No. MW-689D
 Sampling Personnel Darren Motley
 Casing Diameter 2.0" Condition of well ok Locked? yes
 Well Depth 44.45 DTW (from TOC) 26.10 Volume H2O in well 2.9
 Other Information
 Cloudy, 75°
 5 mph wind
 sub-pump
 start purging @ 0947

Date	Time	Volume (gallons)	pH (SU)	Temp (°C)	D.O. (mg/L)	ORP (mV)	S.C (µSm)	Turbidity (NTU)
9/27/2017	0951	3.0	7.36	16.4	0.01	39.7	549	72.7
	0955	6.0	7.23	16.4	0.01	31.2	552	16.9
	1000	9.0	7.13	16.4	0.01	27.3	554	7.76

Sampling Date & Time 9/27/2017 @ 1000

Notes

Field Groundwater Sampling Record

Facility NABORS Date 9/26/2017 Well No. NE-2
Sampling Personnel Darren Motley
Casing Diameter 2.0" Condition of well ok Locked? yes
Well Depth 64.0 DTW (from TOC) 49.79 Volume H2O in well 2.3
Other Information
Sunny, 90°
5 mph wind
bailer
start purging @ 1430

Date	Time	Volume (gallons)	pH (SU)	Temp (°C)	D.O. (mg/L)	ORP (mV)	S.C (µSm)	Turbidity (NTU)
9/26/2017	14440	1.0	6.88	16.9	0.01	121.6	1571	14.7

Sampling Date & Time 9/26/2017 @ 1440

Notes

Field Groundwater Sampling Record

Facility NABORS Date 9/26/2017 Well No. NE-3
 Sampling Personnel Darren Motley
 Casing Diameter 2.0" Condition of well ok Locked? yes
 Well Depth 27.7 DTW (from TOC) 8.05 Volume H2O in well 3.2
 Other Information
 Sunny, 88°
 5 mph wind
 Bailer
 started purging @ 1400

Date	Time	Volume (gallons)	pH (SU)	Temp (°C)	D.O. (mg/L)	ORP (mV)	S.C (µSm)	Turbidity (NTU)
9/26/2017	1415	3.5	7.31	21.2	4.68	135.1	523	157.0
Dry @ 3.5 gallons								
9/27/2017	0745		8.18	19.8	0.01	107.0	544	3.36

Sampling Date & Time 9/27/2017 @ 0745

Notes

Field Groundwater Sampling Record

Facility NABORS Date 9/27/2017 Well No. NE-4
 Sampling Personnel Darren Motley
 Casing Diameter 2.0" Condition of well ok Locked? yes
 Well Depth 113.80 DTW (from TOC) 74.00 Volume H2O in well 6.4
 Other Information
 Cloudy, 80°
 5 mph wind
 bailer
 start purging @ 1248

Date	Time	Volume (gallons)	pH (SU)	Temp (°C)	D.O. (mg/L)	ORP (mV)	S.C (µSm)	Turbidity (NTU)
9/27/2017	1258	6.5	7.65	22.8	0.01	79.0	514	183
	1310	13.0	7.31	22.6	0.01	77.6	509	40.4
	1322	18.5	7.20	23.1	0.01	72.3	504	14.8

Sampling Date & Time 9/27/2017 @ 1322

Notes

Field Groundwater Sampling Record

Facility	NABORS	Date	9/28/2017	Well No.	NE-6
Sampling Personnel	Darren Motley				
Casing Diameter	2.0"	Condition of well	ok	Locked?	yes
Well Depth	18.15	DTW (from TOC)	9.38	Volume H2O in well	1.4
Other Information					
Cloudy, 65°					
5 mph wind					
sub-pump					
start purging @ 0837					

Date	Time	Volume (gallons)	pH (SU)	Temp (°C)	D.O. (mg/L)	ORP (mV)	S.C (µSm)	Turbidity (NTU)
9/28/2017	0839	1.5	7.73	18.1	0.01	14.0	487	25.1
	0844	3.0	7.61	17.9	0.01	10.2	491	13.3
	0848	4.5	7.58	17.9	0.01	9.8	490	7.42

Sampling Date & Time	9/28/2017 @ 0848
Notes	

Field Groundwater Sampling Record

Facility NABORS Date 9/28/2017 Sample. LeachateSampling Personnel Darren Motley

Other Information _____

Sunny, 80°

5 mph wind

Date	Time	Volume (gallons)	pH (SU)	Temp (°C)	D.O. (mg/L)	ORP (mV)	S.C (µSm)	Turbidity (NTU)
9/28/2017	1600		7.11	26.3	0.02	109.2	2799	136

Sampling Date & Time 9/28/2017 @ 1600

Notes _____

Field Spring Sampling Record

Facility NABORS Date 9/26-28/2017Sampling Personnel Darren MotleyOther Information _____

Sample ID	Sample Date	Time	pH (SU)	Temp (°C)	D.O. (mg/L)	ORP (mV)	S.C (µSm)	Turbidity (NTU)
SP-NE-3	9/26/2017	1420	DRY					
TSP-3	9/27/2017	0857	DRY					
TSP-4	9/27/2017	1710	DRY					
Spring-A	9/27/2017	1403	DRY					
Class I Draw	9/28/2017	1350	8.01	23.1	0.001	133.0	412	21.6
Class IV Draw	9/28/2017	1400	DRY					
SP-7	9/28/2017	1200	7.91	21.2	0.01	56.3	338	12.9
Spring B	9/27/2017	1700	DRY					
Entrance Sweep	9/29/2017	0900	8.84	18.3	0.01	88.4	505	63.2

Notes _____

APPENDIX C

LABORATORY ANALYTICAL RESULTS

SCS Engineers - Little Rock, AR

Sample Delivery Group: L940345
Samples Received: 09/30/2017
Project Number:
Description: Nabors Landfill

Report To: Stacie Whitmer
11219 Richardson Drive
North Little Rock, AR 72113

Entire Report Reviewed By:



Mark W. Beasley
Technical Service Representative

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 ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



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CAO-3 L940345-08	25
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SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



MW-1 L940345-01 GW

Collected by
Darren Motley

Collected date/time
09/27/17 14:52

Received date/time
09/30/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Gravimetric Analysis by Method 2540 C-2011	WG1026917	1	10/03/17 17:07	10/03/17 17:43	MMF
Wet Chemistry by Method 4500CN E-2011	WG1027998	1	10/05/17 21:14	10/06/17 11:35	KK
Wet Chemistry by Method 4500S2 D-2011	WG1026981	1	10/03/17 21:53	10/03/17 21:53	MZ
Wet Chemistry by Method 9056A	WG1028454	1	10/06/17 18:51	10/06/17 18:51	DR
Wet Chemistry by Method 9056A	WG1028454	5	10/06/17 19:05	10/06/17 19:05	DR
Wet Chemistry by Method 9060A	WG1027642	1	10/05/17 00:40	10/05/17 00:40	SJM
Mercury by Method 7470A	WG1027771	1	10/05/17 20:40	10/08/17 10:12	EL
Metals (ICPMS) by Method 6020	WG1027832	1	10/09/17 11:58	10/14/17 12:19	JPD
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1027353	1	10/05/17 00:03	10/05/17 00:03	LRL

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Gl

7 Al

8 Sc

MW-2 L940345-02 GW

Collected by
Darren Motley

Collected date/time
09/28/17 08:20

Received date/time
09/30/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Gravimetric Analysis by Method 2540 C-2011	WG1027317	1	10/04/17 11:34	10/04/17 12:04	BS
Wet Chemistry by Method 4500CN E-2011	WG1027998	1	10/05/17 21:14	10/06/17 11:38	KK
Wet Chemistry by Method 4500S2 D-2011	WG1027507	1	10/04/17 21:34	10/04/17 21:34	MZ
Wet Chemistry by Method 9056A	WG1028454	1	10/06/17 19:20	10/06/17 19:20	DR
Wet Chemistry by Method 9060A	WG1027642	1	10/05/17 00:55	10/05/17 00:55	SJM
Mercury by Method 7470A	WG1027771	1	10/05/17 20:40	10/08/17 10:19	EL
Metals (ICPMS) by Method 6020	WG1027832	1	10/09/17 11:58	10/14/17 12:23	JPD
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1027353	1	10/05/17 00:23	10/05/17 00:23	LRL

MW-4 L940345-03 GW

Collected by
Darren Motley

Collected date/time
09/28/17 09:35

Received date/time
09/30/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Gravimetric Analysis by Method 2540 C-2011	WG1027317	1	10/04/17 11:34	10/04/17 12:04	BS
Wet Chemistry by Method 4500CN E-2011	WG1028433	1	10/06/17 21:10	10/09/17 12:58	KK
Wet Chemistry by Method 4500S2 D-2011	WG1027507	1	10/04/17 21:34	10/04/17 21:34	MZ
Wet Chemistry by Method 9056A	WG1028454	1	10/06/17 19:34	10/06/17 19:34	DR
Wet Chemistry by Method 9060A	WG1027642	1	10/05/17 01:14	10/05/17 01:14	SJM
Mercury by Method 7470A	WG1027771	1	10/05/17 20:40	10/08/17 10:21	EL
Metals (ICPMS) by Method 6020	WG1027832	1	10/09/17 11:58	10/14/17 12:26	JPD
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1027353	1	10/05/17 00:42	10/05/17 00:42	LRL

MW-5 L940345-04 GW

Collected by
Darren Motley

Collected date/time
09/28/17 10:17

Received date/time
09/30/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Gravimetric Analysis by Method 2540 C-2011	WG1027317	1	10/04/17 11:34	10/04/17 12:04	BS
Wet Chemistry by Method 4500CN E-2011	WG1028433	1	10/06/17 20:58	10/09/17 12:59	KK
Wet Chemistry by Method 4500S2 D-2011	WG1027507	1	10/04/17 21:34	10/04/17 21:34	MZ
Wet Chemistry by Method 9056A	WG1028454	1	10/06/17 20:17	10/06/17 20:17	DR
Wet Chemistry by Method 9060A	WG1027642	1	10/05/17 01:31	10/05/17 01:31	SJM
Mercury by Method 7470A	WG1027771	1	10/05/17 20:40	10/08/17 10:28	EL
Metals (ICPMS) by Method 6020	WG1027832	1	10/09/17 11:58	10/14/17 12:37	JPD
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1027353	1	10/05/17 01:02	10/05/17 01:02	LRL

ACCOUNT:

SCS Engineers - Little Rock, AR

PROJECT:

SDG:

L940345

DATE/TIME:

10/16/17 10:47

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SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



MW-6 L940345-05 GW

Collected by
Darren Motley

Collected date/time
09/28/17 11:14

Received date/time
09/30/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Gravimetric Analysis by Method 2540 C-2011	WG1027616	1	10/04/17 14:20	10/04/17 14:55	MMF
Wet Chemistry by Method 4500CN E-2011	WG1028433	1	10/06/17 20:58	10/09/17 13:01	KK
Wet Chemistry by Method 4500S2 D-2011	WG1027507	1	10/04/17 21:35	10/04/17 21:35	MZ
Wet Chemistry by Method 9056A	WG1028455	1	10/07/17 13:23	10/07/17 13:23	KCF
Wet Chemistry by Method 9060A	WG1028089	1	10/05/17 18:53	10/05/17 18:53	SJM
Mercury by Method 7470A	WG1027771	1	10/05/17 20:40	10/08/17 10:30	EL
Metals (ICPMS) by Method 6020	WG1027832	1	10/09/17 11:58	10/14/17 12:40	JPD
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1027353	1	10/05/17 01:21	10/05/17 01:21	LRL

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Gl

7 Al

8 Sc

MW-7 L940345-06 GW

Collected by
Darren Motley

Collected date/time
09/27/17 14:00

Received date/time
09/30/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Gravimetric Analysis by Method 2540 C-2011	WG1026918	1	10/04/17 09:17	10/04/17 09:48	MMF
Wet Chemistry by Method 4500CN E-2011	WG1028433	1	10/06/17 20:58	10/09/17 13:02	KK
Wet Chemistry by Method 4500S2 D-2011	WG1026981	1	10/03/17 21:54	10/03/17 21:54	MZ
Wet Chemistry by Method 9056A	WG1028455	1	10/07/17 13:38	10/07/17 13:38	KCF
Wet Chemistry by Method 9060A	WG1028089	1	10/05/17 19:48	10/05/17 19:48	SJM
Mercury by Method 7470A	WG1027771	1	10/05/17 20:40	10/08/17 10:33	EL
Metals (ICPMS) by Method 6020	WG1027832	1	10/09/17 11:58	10/14/17 12:44	JPD
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1027353	1	10/05/17 01:40	10/05/17 01:40	LRL

CAO-1 L940345-07 GW

Collected by
Darren Motley

Collected date/time
09/28/17 14:58

Received date/time
09/30/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Gravimetric Analysis by Method 2540 C-2011	WG1027616	1	10/04/17 14:20	10/04/17 14:55	MMF
Wet Chemistry by Method 4500CN E-2011	WG1028433	1	10/06/17 20:58	10/09/17 13:06	KK
Wet Chemistry by Method 4500S2 D-2011	WG1027507	1	10/04/17 21:35	10/04/17 21:35	MZ
Wet Chemistry by Method 9056A	WG1028455	1	10/07/17 13:53	10/07/17 13:53	KCF
Wet Chemistry by Method 9056A	WG1028455	5	10/07/17 14:08	10/07/17 14:08	KCF
Wet Chemistry by Method 9060A	WG1028089	1	10/05/17 20:05	10/05/17 20:05	SJM
Mercury by Method 7470A	WG1027771	1	10/05/17 20:40	10/08/17 10:35	EL
Metals (ICPMS) by Method 6020	WG1027832	1	10/09/17 11:58	10/14/17 12:47	JPD
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1027353	1	10/05/17 01:59	10/05/17 01:59	LRL

CAO-3 L940345-08 GW

Collected by
Darren Motley

Collected date/time
09/29/17 07:00

Received date/time
09/30/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Gravimetric Analysis by Method 2540 C-2011	WG1027700	1	10/05/17 16:00	10/05/17 16:30	MMF
Wet Chemistry by Method 4500CN E-2011	WG1028433	1	10/06/17 20:58	10/09/17 13:07	KK
Wet Chemistry by Method 4500S2 D-2011	WG1027507	1	10/04/17 21:36	10/04/17 21:36	MZ
Wet Chemistry by Method 9056A	WG1028455	1	10/07/17 14:23	10/07/17 14:23	KCF
Wet Chemistry by Method 9060A	WG1028089	1	10/05/17 21:10	10/05/17 21:10	SJM
Mercury by Method 7470A	WG1027771	1	10/05/17 20:40	10/08/17 10:37	EL
Metals (ICPMS) by Method 6020	WG1027832	1	10/09/17 11:58	10/14/17 12:51	JPD
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1027353	1	10/05/17 02:19	10/05/17 02:19	LRL

ACCOUNT:

SCS Engineers - Little Rock, AR

PROJECT:

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L940345

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10/16/17 10:47

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SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



NE-4 L940345-09 GW

Collected by
Darren Motley

Collected date/time
09/27/17 13:22

Received date/time
09/30/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Gravimetric Analysis by Method 2540 C-2011	WG1026918	1	10/04/17 09:17	10/04/17 09:48	MMF
Wet Chemistry by Method 4500CN E-2011	WG1028433	1	10/06/17 20:58	10/09/17 13:08	KK
Wet Chemistry by Method 4500S2 D-2011	WG1026981	1	10/03/17 21:54	10/03/17 21:54	MZ
Wet Chemistry by Method 9056A	WG1028455	1	10/07/17 14:37	10/07/17 14:37	KCF
Wet Chemistry by Method 9060A	WG1028089	1	10/05/17 21:27	10/05/17 21:27	SJM
Mercury by Method 7470A	WG1027771	1	10/05/17 20:40	10/08/17 10:39	EL
Metals (ICPMS) by Method 6020	WG1027832	1	10/09/17 11:58	10/14/17 12:54	JPD
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1027353	1	10/05/17 02:39	10/05/17 02:39	LRL

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Gl

⁷Al

⁸Sc

NAB-3 L940345-10 GW

Collected by
Darren Motley

Collected date/time
09/27/17 08:53

Received date/time
09/30/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Gravimetric Analysis by Method 2540 C-2011	WG1026918	1	10/04/17 09:17	10/04/17 09:48	MMF
Wet Chemistry by Method 4500CN E-2011	WG1028433	1	10/06/17 20:58	10/09/17 13:09	KK
Wet Chemistry by Method 4500S2 D-2011	WG1026981	1	10/03/17 21:55	10/03/17 21:55	MZ
Wet Chemistry by Method 9056A	WG1028455	1	10/07/17 16:07	10/07/17 16:07	KCF
Wet Chemistry by Method 9060A	WG1028089	1	10/05/17 22:54	10/05/17 22:54	SJM
Mercury by Method 7470A	WG1027771	1	10/05/17 20:40	10/08/17 10:42	EL
Metals (ICPMS) by Method 6020	WG1027832	1	10/09/17 11:58	10/14/17 12:58	JPD
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1027353	1	10/05/17 02:58	10/05/17 02:58	LRL

NAB-7 L940345-11 GW

Collected by
Darren Motley

Collected date/time
09/28/17 12:40

Received date/time
09/30/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Gravimetric Analysis by Method 2540 C-2011	WG1027616	1	10/04/17 14:20	10/04/17 14:55	MMF
Wet Chemistry by Method 4500CN E-2011	WG1028433	1	10/06/17 20:58	10/09/17 13:10	KK
Wet Chemistry by Method 4500S2 D-2011	WG1027507	1	10/04/17 21:36	10/04/17 21:36	MZ
Wet Chemistry by Method 9056A	WG1028455	1	10/07/17 16:22	10/07/17 16:22	KCF
Wet Chemistry by Method 9060A	WG1028089	1	10/05/17 23:15	10/05/17 23:15	SJM
Mercury by Method 7470A	WG1027771	1	10/05/17 20:40	10/08/17 10:44	EL
Metals (ICPMS) by Method 6020	WG1027832	1	10/09/17 11:58	10/14/17 13:01	JPD
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1027353	1	10/05/17 03:18	10/05/17 03:18	LRL

NAB-8 L940345-12 GW

Collected by
Darren Motley

Collected date/time
09/27/17 07:00

Received date/time
09/30/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Gravimetric Analysis by Method 2540 C-2011	WG1026918	1	10/04/17 09:17	10/04/17 09:48	MMF
Wet Chemistry by Method 4500CN E-2011	WG1028433	1	10/06/17 20:58	10/09/17 13:11	KK
Wet Chemistry by Method 4500S2 D-2011	WG1026981	1	10/03/17 21:55	10/03/17 21:55	MZ
Wet Chemistry by Method 9056A	WG1028455	1	10/07/17 16:37	10/07/17 16:37	KCF
Wet Chemistry by Method 9060A	WG1028089	1	10/05/17 23:30	10/05/17 23:30	SJM
Mercury by Method 7470A	WG1027771	1	10/05/17 20:40	10/08/17 10:46	EL
Metals (ICPMS) by Method 6020	WG1027832	1	10/09/17 11:58	10/14/17 13:05	JPD
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1027353	1	10/05/17 03:37	10/05/17 03:37	LRL

SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



MW-509D L940345-13 GW

Collected by
Darren Motley

Collected date/time
09/27/17 12:10

Received date/time
09/30/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Gravimetric Analysis by Method 2540 C-2011	WG1026918	1	10/04/17 09:17	10/04/17 09:48	MMF
Wet Chemistry by Method 4500CN E-2011	WG1028433	1	10/06/17 20:58	10/09/17 13:14	KK
Wet Chemistry by Method 4500S2 D-2011	WG1026981	1	10/03/17 21:56	10/03/17 21:56	MZ
Wet Chemistry by Method 9056A	WG1028455	1	10/07/17 16:52	10/07/17 16:52	KCF
Wet Chemistry by Method 9060A	WG1028089	1	10/05/17 23:45	10/05/17 23:45	SJM
Mercury by Method 7470A	WG1027771	1	10/05/17 20:40	10/08/17 10:49	EL
Metals (ICPMS) by Method 6020	WG1027832	1	10/09/17 11:58	10/14/17 13:15	JPD
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1027353	1	10/05/17 03:56	10/05/17 03:56	LRL

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Gl

⁷ Al

⁸ Sc

MW-577 L940345-14 GW

Collected by
Darren Motley

Collected date/time
09/27/17 09:27

Received date/time
09/30/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Gravimetric Analysis by Method 2540 C-2011	WG1026918	1	10/04/17 09:17	10/04/17 09:48	MMF
Wet Chemistry by Method 4500CN E-2011	WG1028433	1	10/06/17 21:10	10/09/17 13:15	KK
Wet Chemistry by Method 4500S2 D-2011	WG1026981	1	10/03/17 21:56	10/03/17 21:56	MZ
Wet Chemistry by Method 9056A	WG1028455	1	10/07/17 17:07	10/07/17 17:07	KCF
Wet Chemistry by Method 9060A	WG1028089	1	10/06/17 00:16	10/06/17 00:16	SJM
Mercury by Method 7470A	WG1027771	1	10/05/17 20:40	10/08/17 10:55	EL
Metals (ICPMS) by Method 6020	WG1027832	1	10/09/17 11:58	10/14/17 13:19	JPD
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1027353	1	10/05/17 04:15	10/05/17 04:15	LRL

MW-689D L940345-15 GW

Collected by
Darren Motley

Collected date/time
09/27/17 10:00

Received date/time
09/30/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Gravimetric Analysis by Method 2540 C-2011	WG1026918	1	10/04/17 09:17	10/04/17 09:48	MMF
Wet Chemistry by Method 4500CN E-2011	WG1028433	1	10/06/17 21:10	10/09/17 13:18	KK
Wet Chemistry by Method 4500S2 D-2011	WG1026981	1	10/03/17 21:57	10/03/17 21:57	MZ
Wet Chemistry by Method 9056A	WG1028455	1	10/07/17 17:21	10/07/17 17:21	KCF
Wet Chemistry by Method 9060A	WG1028089	1	10/06/17 00:35	10/06/17 00:35	SJM
Mercury by Method 7470A	WG1027771	1	10/05/17 20:40	10/08/17 10:58	EL
Metals (ICPMS) by Method 6020	WG1027832	1	10/09/17 11:58	10/14/17 13:22	JPD
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1027353	1	10/05/17 04:35	10/05/17 04:35	LRL

MW-633D L940345-16 GW

Collected by
Darren Motley

Collected date/time
09/27/17 10:55

Received date/time
09/30/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Gravimetric Analysis by Method 2540 C-2011	WG1026918	1	10/04/17 09:17	10/04/17 09:48	MMF
Wet Chemistry by Method 4500CN E-2011	WG1028433	1	10/06/17 21:10	10/09/17 13:19	KK
Wet Chemistry by Method 4500S2 D-2011	WG1026981	1	10/03/17 21:57	10/03/17 21:57	MZ
Wet Chemistry by Method 9056A	WG1028455	1	10/07/17 18:36	10/07/17 18:36	KCF
Wet Chemistry by Method 9060A	WG1028089	1	10/06/17 00:55	10/06/17 00:55	SJM
Mercury by Method 7470A	WG1027771	1	10/05/17 20:40	10/08/17 11:00	EL
Metals (ICPMS) by Method 6020	WG1027832	1	10/09/17 11:58	10/14/17 13:26	JPD
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1027353	1	10/05/17 04:54	10/05/17 04:54	LRL

SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



NE-2 L940345-17 GW

Collected by
Darren Motley

Collected date/time
09/26/17 14:40

Received date/time
09/30/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Gravimetric Analysis by Method 2540 C-2011	WG1026862	1	10/03/17 16:25	10/03/17 17:02	MMF
Wet Chemistry by Method 4500CN E-2011	WG1028433	1	10/06/17 21:10	10/09/17 13:21	KK
Wet Chemistry by Method 4500S2 D-2011	WG1026981	1	10/03/17 21:57	10/03/17 21:57	MZ
Wet Chemistry by Method 9056A	WG1028455	1	10/07/17 18:51	10/07/17 18:51	KCF
Wet Chemistry by Method 9056A	WG1029416	20	10/09/17 15:47	10/09/17 15:47	KCF
Wet Chemistry by Method 9060A	WG1028089	1	10/06/17 01:13	10/06/17 01:13	SJM
Mercury by Method 7470A	WG1027771	1	10/05/17 20:40	10/08/17 11:02	EL
Metals (ICPMS) by Method 6020	WG1027832	1	10/09/17 11:58	10/14/17 13:29	JPD
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1027353	1	10/05/17 05:14	10/05/17 05:14	LRL

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Gl

⁷ Al

⁸ Sc

NE-3 L940345-18 GW

Collected by
Darren Motley

Collected date/time
09/27/17 07:45

Received date/time
09/30/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Gravimetric Analysis by Method 2540 C-2011	WG1026918	1	10/04/17 09:17	10/04/17 09:48	MMF
Wet Chemistry by Method 4500CN E-2011	WG1028433	1	10/06/17 21:10	10/09/17 13:22	KK
Wet Chemistry by Method 4500S2 D-2011	WG1027507	1	10/04/17 21:36	10/04/17 21:36	MZ
Wet Chemistry by Method 9056A	WG1028455	1	10/07/17 19:06	10/07/17 19:06	KCF
Wet Chemistry by Method 9060A	WG1028089	1	10/06/17 02:37	10/06/17 02:37	SJM
Mercury by Method 7470A	WG1027771	1	10/05/17 20:40	10/08/17 11:04	EL
Metals (ICPMS) by Method 6020	WG1027832	1	10/09/17 11:58	10/14/17 13:33	JPD
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1027353	1	10/05/17 05:33	10/05/17 05:33	LRL

NE-6 L940345-19 GW

Collected by
Darren Motley

Collected date/time
09/28/17 08:48

Received date/time
09/30/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Gravimetric Analysis by Method 2540 C-2011	WG1027616	1	10/04/17 14:20	10/04/17 14:55	MMF
Wet Chemistry by Method 4500CN E-2011	WG1028433	1	10/06/17 21:10	10/09/17 13:23	KK
Wet Chemistry by Method 4500S2 D-2011	WG1027507	1	10/04/17 21:37	10/04/17 21:37	MZ
Wet Chemistry by Method 9056A	WG1028455	1	10/07/17 19:21	10/07/17 19:21	KCF
Wet Chemistry by Method 9060A	WG1028089	1	10/06/17 02:55	10/06/17 02:55	SJM
Mercury by Method 7470A	WG1027771	1	10/05/17 20:40	10/08/17 11:07	EL
Metals (ICPMS) by Method 6020	WG1027832	1	10/09/17 11:58	10/14/17 13:36	JPD
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1027353	1	10/05/17 05:53	10/05/17 05:53	LRL

MW-1R L940345-20 GW

Collected by
Darren Motley

Collected date/time
09/27/17 15:35

Received date/time
09/30/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Gravimetric Analysis by Method 2540 C-2011	WG1026918	1	10/04/17 09:17	10/04/17 09:48	MMF
Wet Chemistry by Method 4500CN E-2011	WG1028861	1	10/09/17 21:20	10/10/17 13:45	KK
Wet Chemistry by Method 4500S2 D-2011	WG1026981	1	10/03/17 21:58	10/03/17 21:58	MZ
Wet Chemistry by Method 9056A	WG1028455	1	10/07/17 19:36	10/07/17 19:36	KCF
Wet Chemistry by Method 9056A	WG1028455	5	10/07/17 19:51	10/07/17 19:51	KCF
Wet Chemistry by Method 9060A	WG1028089	1	10/06/17 03:15	10/06/17 03:15	SJM
Mercury by Method 7470A	WG1027771	1	10/05/17 20:40	10/08/17 11:09	EL
Metals (ICPMS) by Method 6020	WG1027832	1	10/09/17 11:58	10/14/17 12:05	JPD
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1027353	1	10/05/17 06:12	10/05/17 06:12	LRL

ACCOUNT:

SCS Engineers - Little Rock, AR

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L940345

DATE/TIME:

10/16/17 10:47

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SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



SP-7 L940345-21 GW

Collected by
Darren Motley

Collected date/time
09/28/17 12:00

Received date/time
09/30/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Gravimetric Analysis by Method 2540 C-2011	WG1027616	1	10/04/17 14:20	10/04/17 14:55	MMF
Wet Chemistry by Method 4500CN E-2011	WG1028861	1	10/09/17 21:20	10/10/17 13:46	KK
Wet Chemistry by Method 4500S2 D-2011	WG1027507	1	10/04/17 21:37	10/04/17 21:37	MZ
Wet Chemistry by Method 9056A	WG1028455	1	10/07/17 20:05	10/07/17 20:05	KCF
Wet Chemistry by Method 9060A	WG1028518	1	10/06/17 11:16	10/06/17 11:16	SJM
Mercury by Method 7470A	WG1027770	1	10/05/17 10:34	10/05/17 19:37	EL
Metals (ICPMS) by Method 6020	WG1028492	1	10/06/17 11:41	10/07/17 19:39	LAT
Metals (ICPMS) by Method 6020	WG1028492	1	10/06/17 11:41	10/10/17 20:36	LAT
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1027352	1	10/05/17 16:28	10/05/17 16:28	LRL



LANDFILL ENTRANCE SEEP L940345-22 GW

Collected by
Darren Motley

Collected date/time
09/29/17 09:00

Received date/time
09/30/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Gravimetric Analysis by Method 2540 C-2011	WG1027700	1	10/05/17 16:00	10/05/17 16:30	MMF
Wet Chemistry by Method 4500CN E-2011	WG1028861	1	10/09/17 21:20	10/10/17 13:47	KK
Wet Chemistry by Method 4500S2 D-2011	WG1027507	1	10/04/17 21:38	10/04/17 21:38	MZ
Wet Chemistry by Method 9056A	WG1028455	1	10/07/17 20:20	10/07/17 20:20	KCF
Wet Chemistry by Method 9060A	WG1028518	1	10/06/17 11:38	10/06/17 11:38	SJM
Mercury by Method 7470A	WG1027770	1	10/05/17 10:34	10/05/17 19:39	EL
Metals (ICPMS) by Method 6020	WG1028492	1	10/06/17 11:41	10/07/17 19:49	LAT
Metals (ICPMS) by Method 6020	WG1028492	1	10/06/17 11:41	10/10/17 20:40	LAT
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1027352	1	10/05/17 16:48	10/05/17 16:48	LRL

CLASS I DRAW L940345-23 GW

Collected by
Darren Motley

Collected date/time
09/28/17 13:50

Received date/time
09/30/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Gravimetric Analysis by Method 2540 C-2011	WG1027616	1	10/04/17 14:20	10/04/17 14:55	MMF
Wet Chemistry by Method 4500CN E-2011	WG1028861	1	10/09/17 21:20	10/10/17 13:48	KK
Wet Chemistry by Method 4500S2 D-2011	WG1027507	1	10/04/17 21:38	10/04/17 21:38	MZ
Wet Chemistry by Method 9056A	WG1028455	1	10/07/17 20:35	10/07/17 20:35	KCF
Wet Chemistry by Method 9060A	WG1028518	1	10/06/17 11:50	10/06/17 11:50	SJM
Mercury by Method 7470A	WG1027770	1	10/05/17 10:34	10/05/17 19:42	EL
Metals (ICPMS) by Method 6020	WG1028492	1	10/06/17 11:41	10/07/17 19:53	LAT
Metals (ICPMS) by Method 6020	WG1028492	1	10/06/17 11:41	10/10/17 20:43	LAT
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1027352	1	10/05/17 17:07	10/05/17 17:07	LRL

DUPLICATE L940345-24 GW

Collected by
Darren Motley

Collected date/time
09/28/17 11:20

Received date/time
09/30/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Gravimetric Analysis by Method 2540 C-2011	WG1027616	1	10/04/17 14:20	10/04/17 14:55	MMF
Wet Chemistry by Method 4500CN E-2011	WG1028861	1	10/09/17 21:20	10/10/17 13:49	KK
Wet Chemistry by Method 4500S2 D-2011	WG1027507	1	10/04/17 21:39	10/04/17 21:39	MZ
Wet Chemistry by Method 9056A	WG1028455	1	10/07/17 21:20	10/07/17 21:20	KCF
Wet Chemistry by Method 9060A	WG1028518	1	10/06/17 12:03	10/06/17 12:03	SJM
Mercury by Method 7470A	WG1027770	1	10/05/17 10:34	10/05/17 19:44	EL
Metals (ICPMS) by Method 6020	WG1028492	1	10/06/17 11:41	10/07/17 19:56	LAT
Metals (ICPMS) by Method 6020	WG1028492	1	10/06/17 11:41	10/10/17 20:54	LAT
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1027352	1	10/05/17 17:27	10/05/17 17:27	LRL

ACCOUNT:

SCS Engineers - Little Rock, AR

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SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



FIELD BLANK L940345-25 GW

Collected by
Darren Motley

Collected date/time
09/28/17 11:25

Received date/time
09/30/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Gravimetric Analysis by Method 2540 C-2011	WG1027616	1	10/04/17 14:20	10/04/17 14:55	MMF
Wet Chemistry by Method 4500CN E-2011	WG1028861	1	10/09/17 21:20	10/10/17 13:50	KK
Wet Chemistry by Method 4500S2 D-2011	WG1027507	1	10/04/17 21:39	10/04/17 21:39	MZ
Wet Chemistry by Method 9056A	WG1028456	1	10/07/17 00:13	10/07/17 00:13	MAJ
Wet Chemistry by Method 9060A	WG1028518	1	10/06/17 12:14	10/06/17 12:14	SJM
Mercury by Method 7470A	WG1027770	1	10/05/17 10:34	10/05/17 19:46	EL
Metals (ICPMS) by Method 6020	WG1028492	1	10/06/17 11:41	10/07/17 20:00	LAT
Metals (ICPMS) by Method 6020	WG1028492	1	10/06/17 11:41	10/10/17 20:58	LAT
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1028396	1	10/09/17 21:16	10/09/17 21:16	JAH



LEACHATE L940345-26 GW

Collected by
Darren Motley

Collected date/time
09/28/17 16:00

Received date/time
09/30/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Gravimetric Analysis by Method 2540 C-2011	WG1027616	1	10/04/17 14:20	10/04/17 14:55	MMF
Wet Chemistry by Method 1664A	WG1026754	1	10/02/17 10:37	10/02/17 17:03	STM
Wet Chemistry by Method 350.1	WG1028425	20	10/06/17 20:24	10/06/17 20:24	JER
Wet Chemistry by Method 365.4	WG1029423	1	10/06/17 16:29	10/09/17 16:18	KK
Wet Chemistry by Method 4500CN E-2011	WG1028861	1	10/09/17 21:20	10/10/17 13:51	KK
Wet Chemistry by Method 4500S2 D-2011	WG1027507	1	10/04/17 21:39	10/04/17 21:39	MZ
Wet Chemistry by Method 9056A	WG1028456	1	10/07/17 00:54	10/07/17 00:54	MAJ
Wet Chemistry by Method 9056A	WG1028456	10	10/07/17 01:04	10/07/17 01:04	MAJ
Wet Chemistry by Method 9060A	WG1028518	1	10/06/17 12:29	10/06/17 12:29	SJM
Wet Chemistry by Method D93/1010A	WG1028870	1	10/08/17 07:30	10/08/17 07:30	MZ
Mercury by Method 7470A	WG1027770	1	10/05/17 10:34	10/05/17 19:48	EL
Metals (ICPMS) by Method 6020	WG1028492	1	10/06/17 11:41	10/07/17 20:03	LAT
Metals (ICPMS) by Method 6020	WG1028492	1	10/06/17 11:41	10/10/17 21:01	LAT
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1027352	1	10/05/17 17:46	10/05/17 17:46	LRL

EQUIPMENT BLANK L940345-27 GW

Collected by
Darren Motley

Collected date/time
09/28/17 11:30

Received date/time
09/30/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1027352	1	10/05/17 18:05	10/05/17 18:05	LRL

TRIP BLANK L940345-28 GW

Collected by
Darren Motley

Collected date/time
09/28/17 11:35

Received date/time
09/30/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1027352	1	10/05/17 11:37	10/05/17 11:37	LRL



All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. 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.

Mark W. Beasley
Technical Service Representative

Project Narrative

L940345-21 (SP-7): Cyanide pH was 10.04.





Gravimetric Analysis by Method 2540 C-2011

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Dissolved Solids	970000		2820	10000	1	10/03/2017 17:43	WG1026917

1 Cp

2 Tc

Wet Chemistry by Method 4500CN E-2011

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Cyanide	U		1.80	5.00	1	10/06/2017 11:35	WG1027998

3 Ss

4 Cn

Wet Chemistry by Method 4500S2 D-2011

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Sulfide	U		6.50	50.0	1	10/03/2017 21:53	WG1026981

5 Sr

6 Gl

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	123000		260	5000	5	10/06/2017 19:05	WG1028454
Sulfate	19300		77.4	5000	1	10/06/2017 18:51	WG1028454

7 Al

8 Sc

Wet Chemistry by Method 9060A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	10200		102	1000	1	10/05/2017 00:40	WG1027642

Mercury by Method 7470A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Mercury	U		0.0490	0.200	1	10/08/2017 10:12	WG1027771

Metals (ICPMS) by Method 6020

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Antimony	U		0.754	2.00	1	10/14/2017 12:19	WG1027832
Arsenic	23.8		0.250	2.00	1	10/14/2017 12:19	WG1027832
Barium	190		0.360	5.00	1	10/14/2017 12:19	WG1027832
Beryllium	U		0.120	2.00	1	10/14/2017 12:19	WG1027832
Cadmium	0.238	J	0.160	1.00	1	10/14/2017 12:19	WG1027832
Chromium	0.643	J	0.540	2.00	1	10/14/2017 12:19	WG1027832
Copper	4.07	J	0.520	5.00	1	10/14/2017 12:19	WG1027832
Cobalt	61.3		0.260	2.00	1	10/14/2017 12:19	WG1027832
Iron	6340		15.0	100	1	10/14/2017 12:19	WG1027832
Lead	0.663	J	0.240	2.00	1	10/14/2017 12:19	WG1027832
Manganese	889		0.250	5.00	1	10/14/2017 12:19	WG1027832
Nickel	83.6		0.350	2.00	1	10/14/2017 12:19	WG1027832
Selenium	U		0.380	2.00	1	10/14/2017 12:19	WG1027832
Silver	U		0.310	2.00	1	10/14/2017 12:19	WG1027832
Thallium	0.848	J	0.190	2.00	1	10/14/2017 12:19	WG1027832
Tin	0.792	J	0.300	2.00	1	10/14/2017 12:19	WG1027832
Vanadium	0.409	J	0.180	5.00	1	10/14/2017 12:19	WG1027832
Zinc	327		2.56	25.0	1	10/14/2017 12:19	WG1027832



Collected date/time: 09/27/17 14:52

L940345

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	U		10.0	50.0	1	10/05/2017 00:03	WG1027353
Acrylonitrile	U		1.87	10.0	1	10/05/2017 00:03	WG1027353
Benzene	0.814	U	0.331	1.00	1	10/05/2017 00:03	WG1027353
Bromochloromethane	U		0.520	1.00	1	10/05/2017 00:03	WG1027353
Bromodichloromethane	U		0.380	1.00	1	10/05/2017 00:03	WG1027353
Bromoform	U		0.469	1.00	1	10/05/2017 00:03	WG1027353
Bromomethane	U		0.866	5.00	1	10/05/2017 00:03	WG1027353
Carbon disulfide	U		0.275	1.00	1	10/05/2017 00:03	WG1027353
Carbon tetrachloride	U		0.379	1.00	1	10/05/2017 00:03	WG1027353
Chlorobenzene	2.15		0.348	1.00	1	10/05/2017 00:03	WG1027353
Chlorodibromomethane	U		0.327	1.00	1	10/05/2017 00:03	WG1027353
Chloroethane	1.95	U	0.453	5.00	1	10/05/2017 00:03	WG1027353
Chloroform	U		0.324	5.00	1	10/05/2017 00:03	WG1027353
Chloromethane	U		0.276	2.50	1	10/05/2017 00:03	WG1027353
Dibromomethane	U		0.346	1.00	1	10/05/2017 00:03	WG1027353
1,2-Dibromoethane	U		0.381	1.00	1	10/05/2017 00:03	WG1027353
1,2-Dibromo-3-Chloropropane	U		1.33	5.00	1	10/05/2017 00:03	WG1027353
1,2-Dichlorobenzene	U		0.349	1.00	1	10/05/2017 00:03	WG1027353
1,4-Dichlorobenzene	U		0.274	1.00	1	10/05/2017 00:03	WG1027353
trans-1,4-Dichloro-2-butene	U		0.866	2.50	1	10/05/2017 00:03	WG1027353
1,1-Dichloroethane	14.7		0.259	1.00	1	10/05/2017 00:03	WG1027353
1,2-Dichloroethane	0.655	U	0.361	1.00	1	10/05/2017 00:03	WG1027353
1,1-Dichloroethene	U		0.398	1.00	1	10/05/2017 00:03	WG1027353
cis-1,2-Dichloroethene	12.0		0.260	1.00	1	10/05/2017 00:03	WG1027353
trans-1,2-Dichloroethene	0.560	U	0.396	1.00	1	10/05/2017 00:03	WG1027353
1,2-Dichloropropane	U		0.306	1.00	1	10/05/2017 00:03	WG1027353
cis-1,3-Dichloropropene	U		0.418	1.00	1	10/05/2017 00:03	WG1027353
trans-1,3-Dichloropropene	U		0.419	1.00	1	10/05/2017 00:03	WG1027353
Ethylbenzene	U		0.384	1.00	1	10/05/2017 00:03	WG1027353
2-Hexanone	U		3.82	10.0	1	10/05/2017 00:03	WG1027353
Iodomethane	U		1.71	10.0	1	10/05/2017 00:03	WG1027353
2-Butanone (MEK)	U		3.93	15.0	1	10/05/2017 00:03	WG1027353
Methylene Chloride	U		1.00	5.00	1	10/05/2017 00:03	WG1027353
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0	1	10/05/2017 00:03	WG1027353
Styrene	U		0.307	1.00	1	10/05/2017 00:03	WG1027353
1,1,1,2-Tetrachloroethane	U		0.385	1.00	1	10/05/2017 00:03	WG1027353
1,1,2,2-Tetrachloroethane	U		0.130	1.00	1	10/05/2017 00:03	WG1027353
Tetrachloroethene	U		0.372	1.00	1	10/05/2017 00:03	WG1027353
Toluene	U		0.412	1.00	1	10/05/2017 00:03	WG1027353
1,1,1-Trichloroethane	U		0.319	1.00	1	10/05/2017 00:03	WG1027353
1,1,2-Trichloroethane	U		0.383	1.00	1	10/05/2017 00:03	WG1027353
Trichloroethene	0.969	U	0.398	1.00	1	10/05/2017 00:03	WG1027353
Trichlorofluoromethane	U		1.20	5.00	1	10/05/2017 00:03	WG1027353
1,2,3-Trichloropropane	U		0.807	2.50	1	10/05/2017 00:03	WG1027353
Vinyl acetate	U		1.63	10.0	1	10/05/2017 00:03	WG1027353
Vinyl chloride	4.86		0.259	1.00	1	10/05/2017 00:03	WG1027353
Xylenes, Total	U		1.06	3.00	1	10/05/2017 00:03	WG1027353
(S) Toluene-d8	102			80.0-120		10/05/2017 00:03	WG1027353
(S) Dibromofluoromethane	93.1			76.0-123		10/05/2017 00:03	WG1027353
(S) 4-Bromofluorobenzene	83.5			80.0-120		10/05/2017 00:03	WG1027353

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Gl

7 Al

8 Sc



Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	365000		2820	10000	1	10/04/2017 12:04	WG1027317

1 Cp

2 Tc

Wet Chemistry by Method 4500CN E-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Cyanide	U		1.80	5.00	1	10/06/2017 11:38	WG1027998

3 Ss

4 Cn

Wet Chemistry by Method 4500S2 D-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Sulfide	U		6.50	50.0	1	10/04/2017 21:34	WG1027507

5 Sr

6 Gl

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Chloride	6490		51.9	1000	1	10/06/2017 19:20	WG1028454
Sulfate	16100		77.4	5000	1	10/06/2017 19:20	WG1028454

7 Al

8 Sc

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	589	J	102	1000	1	10/05/2017 00:55	WG1027642

Mercury by Method 7470A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Mercury	U		0.0490	0.200	1	10/08/2017 10:19	WG1027771

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Antimony	U		0.754	2.00	1	10/14/2017 12:23	WG1027832
Arsenic	4.74		0.250	2.00	1	10/14/2017 12:23	WG1027832
Barium	26.4		0.360	5.00	1	10/14/2017 12:23	WG1027832
Beryllium	U		0.120	2.00	1	10/14/2017 12:23	WG1027832
Cadmium	U		0.160	1.00	1	10/14/2017 12:23	WG1027832
Chromium	U		0.540	2.00	1	10/14/2017 12:23	WG1027832
Copper	1.78	J	0.520	5.00	1	10/14/2017 12:23	WG1027832
Cobalt	U		0.260	2.00	1	10/14/2017 12:23	WG1027832
Iron	82.5	J	15.0	100	1	10/14/2017 12:23	WG1027832
Lead	U		0.240	2.00	1	10/14/2017 12:23	WG1027832
Manganese	6.43		0.250	5.00	1	10/14/2017 12:23	WG1027832
Nickel	1.28	J	0.350	2.00	1	10/14/2017 12:23	WG1027832
Selenium	U		0.380	2.00	1	10/14/2017 12:23	WG1027832
Silver	U		0.310	2.00	1	10/14/2017 12:23	WG1027832
Thallium	U		0.190	2.00	1	10/14/2017 12:23	WG1027832
Tin	0.515	J	0.300	2.00	1	10/14/2017 12:23	WG1027832
Vanadium	1.60	J	0.180	5.00	1	10/14/2017 12:23	WG1027832
Zinc	4.88	J	2.56	25.0	1	10/14/2017 12:23	WG1027832



Collected date/time: 09/28/17 08:20

L940345

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	U		10.0	50.0	1	10/05/2017 00:23	WG1027353
Acrylonitrile	U		1.87	10.0	1	10/05/2017 00:23	WG1027353
Benzene	U		0.331	1.00	1	10/05/2017 00:23	WG1027353
Bromochloromethane	U		0.520	1.00	1	10/05/2017 00:23	WG1027353
Bromodichloromethane	U		0.380	1.00	1	10/05/2017 00:23	WG1027353
Bromoform	U		0.469	1.00	1	10/05/2017 00:23	WG1027353
Bromomethane	U		0.866	5.00	1	10/05/2017 00:23	WG1027353
Carbon disulfide	U		0.275	1.00	1	10/05/2017 00:23	WG1027353
Carbon tetrachloride	U		0.379	1.00	1	10/05/2017 00:23	WG1027353
Chlorobenzene	U		0.348	1.00	1	10/05/2017 00:23	WG1027353
Chlorodibromomethane	U		0.327	1.00	1	10/05/2017 00:23	WG1027353
Chloroethane	U		0.453	5.00	1	10/05/2017 00:23	WG1027353
Chloroform	U		0.324	5.00	1	10/05/2017 00:23	WG1027353
Chloromethane	U		0.276	2.50	1	10/05/2017 00:23	WG1027353
Dibromomethane	U		0.346	1.00	1	10/05/2017 00:23	WG1027353
1,2-Dibromoethane	U		0.381	1.00	1	10/05/2017 00:23	WG1027353
1,2-Dibromo-3-Chloropropane	U		1.33	5.00	1	10/05/2017 00:23	WG1027353
1,2-Dichlorobenzene	U		0.349	1.00	1	10/05/2017 00:23	WG1027353
1,4-Dichlorobenzene	U		0.274	1.00	1	10/05/2017 00:23	WG1027353
trans-1,4-Dichloro-2-butene	U		0.866	2.50	1	10/05/2017 00:23	WG1027353
1,1-Dichloroethane	U		0.259	1.00	1	10/05/2017 00:23	WG1027353
1,2-Dichloroethane	U		0.361	1.00	1	10/05/2017 00:23	WG1027353
1,1-Dichloroethene	U		0.398	1.00	1	10/05/2017 00:23	WG1027353
cis-1,2-Dichloroethene	U		0.260	1.00	1	10/05/2017 00:23	WG1027353
trans-1,2-Dichloroethene	U		0.396	1.00	1	10/05/2017 00:23	WG1027353
1,2-Dichloropropane	U		0.306	1.00	1	10/05/2017 00:23	WG1027353
cis-1,3-Dichloropropene	U		0.418	1.00	1	10/05/2017 00:23	WG1027353
trans-1,3-Dichloropropene	U		0.419	1.00	1	10/05/2017 00:23	WG1027353
Ethylbenzene	U		0.384	1.00	1	10/05/2017 00:23	WG1027353
2-Hexanone	U		3.82	10.0	1	10/05/2017 00:23	WG1027353
Iodomethane	U		1.71	10.0	1	10/05/2017 00:23	WG1027353
2-Butanone (MEK)	U		3.93	15.0	1	10/05/2017 00:23	WG1027353
Methylene Chloride	U		1.00	5.00	1	10/05/2017 00:23	WG1027353
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0	1	10/05/2017 00:23	WG1027353
Styrene	U		0.307	1.00	1	10/05/2017 00:23	WG1027353
1,1,1,2-Tetrachloroethane	U		0.385	1.00	1	10/05/2017 00:23	WG1027353
1,1,2,2-Tetrachloroethane	U		0.130	1.00	1	10/05/2017 00:23	WG1027353
Tetrachloroethene	U		0.372	1.00	1	10/05/2017 00:23	WG1027353
Toluene	U		0.412	1.00	1	10/05/2017 00:23	WG1027353
1,1,1-Trichloroethane	U		0.319	1.00	1	10/05/2017 00:23	WG1027353
1,1,2-Trichloroethane	U		0.383	1.00	1	10/05/2017 00:23	WG1027353
Trichloroethene	U		0.398	1.00	1	10/05/2017 00:23	WG1027353
Trichlorofluoromethane	U		1.20	5.00	1	10/05/2017 00:23	WG1027353
1,2,3-Trichloropropane	U		0.807	2.50	1	10/05/2017 00:23	WG1027353
Vinyl acetate	U		1.63	10.0	1	10/05/2017 00:23	WG1027353
Vinyl chloride	U		0.259	1.00	1	10/05/2017 00:23	WG1027353
Xylenes, Total	U		1.06	3.00	1	10/05/2017 00:23	WG1027353
(S) Toluene-d8	102			80.0-120		10/05/2017 00:23	WG1027353
(S) Dibromofluoromethane	94.9			76.0-123		10/05/2017 00:23	WG1027353
(S) 4-Bromofluorobenzene	84.0			80.0-120		10/05/2017 00:23	WG1027353

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Gl

7 Al

8 Sc



Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	405000		2820	10000	1	10/04/2017 12:04	WG1027317

1 Cp

2 Tc

Wet Chemistry by Method 4500CN E-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Cyanide	U	J4	1.80	5.00	1	10/09/2017 12:58	WG1028433

3 Ss

4 Cn

Wet Chemistry by Method 4500S2 D-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Sulfide	U		6.50	50.0	1	10/04/2017 21:34	WG1027507

5 Sr

6 Gl

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Chloride	7460		51.9	1000	1	10/06/2017 19:34	WG1028454
Sulfate	15800		77.4	5000	1	10/06/2017 19:34	WG1028454

7 Al

8 Sc

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	412	J	102	1000	1	10/05/2017 01:14	WG1027642

Mercury by Method 7470A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Mercury	U		0.0490	0.200	1	10/08/2017 10:21	WG1027771

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Antimony	U		0.754	2.00	1	10/14/2017 12:26	WG1027832
Arsenic	0.487	J	0.250	2.00	1	10/14/2017 12:26	WG1027832
Barium	34.7		0.360	5.00	1	10/14/2017 12:26	WG1027832
Beryllium	U		0.120	2.00	1	10/14/2017 12:26	WG1027832
Cadmium	0.796	J	0.160	1.00	1	10/14/2017 12:26	WG1027832
Chromium	U		0.540	2.00	1	10/14/2017 12:26	WG1027832
Copper	1.05	J	0.520	5.00	1	10/14/2017 12:26	WG1027832
Cobalt	U		0.260	2.00	1	10/14/2017 12:26	WG1027832
Iron	30.3	J	15.0	100	1	10/14/2017 12:26	WG1027832
Lead	0.330	J	0.240	2.00	1	10/14/2017 12:26	WG1027832
Manganese	0.883	J	0.250	5.00	1	10/14/2017 12:26	WG1027832
Nickel	0.793	J	0.350	2.00	1	10/14/2017 12:26	WG1027832
Selenium	U		0.380	2.00	1	10/14/2017 12:26	WG1027832
Silver	U		0.310	2.00	1	10/14/2017 12:26	WG1027832
Thallium	U		0.190	2.00	1	10/14/2017 12:26	WG1027832
Tin	U		0.300	2.00	1	10/14/2017 12:26	WG1027832
Vanadium	0.352	J	0.180	5.00	1	10/14/2017 12:26	WG1027832
Zinc	101		2.56	25.0	1	10/14/2017 12:26	WG1027832



Collected date/time: 09/28/17 09:35

L940345

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	U		10.0	50.0	1	10/05/2017 00:42	WG1027353
Acrylonitrile	U		1.87	10.0	1	10/05/2017 00:42	WG1027353
Benzene	U		0.331	1.00	1	10/05/2017 00:42	WG1027353
Bromochloromethane	U		0.520	1.00	1	10/05/2017 00:42	WG1027353
Bromodichloromethane	U		0.380	1.00	1	10/05/2017 00:42	WG1027353
Bromoform	U		0.469	1.00	1	10/05/2017 00:42	WG1027353
Bromomethane	U		0.866	5.00	1	10/05/2017 00:42	WG1027353
Carbon disulfide	U		0.275	1.00	1	10/05/2017 00:42	WG1027353
Carbon tetrachloride	U		0.379	1.00	1	10/05/2017 00:42	WG1027353
Chlorobenzene	U		0.348	1.00	1	10/05/2017 00:42	WG1027353
Chlorodibromomethane	U		0.327	1.00	1	10/05/2017 00:42	WG1027353
Chloroethane	U		0.453	5.00	1	10/05/2017 00:42	WG1027353
Chloroform	U		0.324	5.00	1	10/05/2017 00:42	WG1027353
Chloromethane	U		0.276	2.50	1	10/05/2017 00:42	WG1027353
Dibromomethane	U		0.346	1.00	1	10/05/2017 00:42	WG1027353
1,2-Dibromoethane	U		0.381	1.00	1	10/05/2017 00:42	WG1027353
1,2-Dibromo-3-Chloropropane	U		1.33	5.00	1	10/05/2017 00:42	WG1027353
1,2-Dichlorobenzene	U		0.349	1.00	1	10/05/2017 00:42	WG1027353
1,4-Dichlorobenzene	U		0.274	1.00	1	10/05/2017 00:42	WG1027353
trans-1,4-Dichloro-2-butene	U		0.866	2.50	1	10/05/2017 00:42	WG1027353
1,1-Dichloroethane	U		0.259	1.00	1	10/05/2017 00:42	WG1027353
1,2-Dichloroethane	U		0.361	1.00	1	10/05/2017 00:42	WG1027353
1,1-Dichloroethene	U		0.398	1.00	1	10/05/2017 00:42	WG1027353
cis-1,2-Dichloroethene	U		0.260	1.00	1	10/05/2017 00:42	WG1027353
trans-1,2-Dichloroethene	U		0.396	1.00	1	10/05/2017 00:42	WG1027353
1,2-Dichloropropane	U		0.306	1.00	1	10/05/2017 00:42	WG1027353
cis-1,3-Dichloropropene	U		0.418	1.00	1	10/05/2017 00:42	WG1027353
trans-1,3-Dichloropropene	U		0.419	1.00	1	10/05/2017 00:42	WG1027353
Ethylbenzene	U		0.384	1.00	1	10/05/2017 00:42	WG1027353
2-Hexanone	U		3.82	10.0	1	10/05/2017 00:42	WG1027353
Iodomethane	U		1.71	10.0	1	10/05/2017 00:42	WG1027353
2-Butanone (MEK)	U		3.93	15.0	1	10/05/2017 00:42	WG1027353
Methylene Chloride	U		1.00	5.00	1	10/05/2017 00:42	WG1027353
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0	1	10/05/2017 00:42	WG1027353
Styrene	U		0.307	1.00	1	10/05/2017 00:42	WG1027353
1,1,1,2-Tetrachloroethane	U		0.385	1.00	1	10/05/2017 00:42	WG1027353
1,1,2,2-Tetrachloroethane	U		0.130	1.00	1	10/05/2017 00:42	WG1027353
Tetrachloroethene	U		0.372	1.00	1	10/05/2017 00:42	WG1027353
Toluene	U		0.412	1.00	1	10/05/2017 00:42	WG1027353
1,1,1-Trichloroethane	U		0.319	1.00	1	10/05/2017 00:42	WG1027353
1,1,2-Trichloroethane	U		0.383	1.00	1	10/05/2017 00:42	WG1027353
Trichloroethene	U		0.398	1.00	1	10/05/2017 00:42	WG1027353
Trichlorofluoromethane	U		1.20	5.00	1	10/05/2017 00:42	WG1027353
1,2,3-Trichloropropane	U		0.807	2.50	1	10/05/2017 00:42	WG1027353
Vinyl acetate	U		1.63	10.0	1	10/05/2017 00:42	WG1027353
Vinyl chloride	U		0.259	1.00	1	10/05/2017 00:42	WG1027353
Xylenes, Total	U		1.06	3.00	1	10/05/2017 00:42	WG1027353
(S) Toluene-d8	106			80.0-120		10/05/2017 00:42	WG1027353
(S) Dibromofluoromethane	93.7			76.0-123		10/05/2017 00:42	WG1027353
(S) 4-Bromofluorobenzene	83.2			80.0-120		10/05/2017 00:42	WG1027353

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Gl

7 Al

8 Sc



Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	444000		2820	10000	1	10/04/2017 12:04	WG1027317

1 Cp

2 Tc

Wet Chemistry by Method 4500CN E-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Cyanide	U	J4	1.80	5.00	1	10/09/2017 12:59	WG1028433

3 Ss

4 Cn

Wet Chemistry by Method 4500S2 D-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Sulfide	U		6.50	50.0	1	10/04/2017 21:34	WG1027507

5 Sr

6 Gl

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Chloride	5850		51.9	1000	1	10/06/2017 20:17	WG1028454
Sulfate	8560		77.4	5000	1	10/06/2017 20:17	WG1028454

7 Al

8 Sc

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	650	J	102	1000	1	10/05/2017 01:31	WG1027642

Mercury by Method 7470A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Mercury	U		0.0490	0.200	1	10/08/2017 10:28	WG1027771

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Antimony	U		0.754	2.00	1	10/14/2017 12:37	WG1027832
Arsenic	0.483	J	0.250	2.00	1	10/14/2017 12:37	WG1027832
Barium	35.0		0.360	5.00	1	10/14/2017 12:37	WG1027832
Beryllium	U		0.120	2.00	1	10/14/2017 12:37	WG1027832
Cadmium	U		0.160	1.00	1	10/14/2017 12:37	WG1027832
Chromium	0.579	J	0.540	2.00	1	10/14/2017 12:37	WG1027832
Copper	0.765	J	0.520	5.00	1	10/14/2017 12:37	WG1027832
Cobalt	U		0.260	2.00	1	10/14/2017 12:37	WG1027832
Iron	25.4	J	15.0	100	1	10/14/2017 12:37	WG1027832
Lead	U		0.240	2.00	1	10/14/2017 12:37	WG1027832
Manganese	1.01	J	0.250	5.00	1	10/14/2017 12:37	WG1027832
Nickel	1.01	J	0.350	2.00	1	10/14/2017 12:37	WG1027832
Selenium	U		0.380	2.00	1	10/14/2017 12:37	WG1027832
Silver	U		0.310	2.00	1	10/14/2017 12:37	WG1027832
Thallium	U		0.190	2.00	1	10/14/2017 12:37	WG1027832
Tin	0.421	J	0.300	2.00	1	10/14/2017 12:37	WG1027832
Vanadium	0.384	J	0.180	5.00	1	10/14/2017 12:37	WG1027832
Zinc	28.7		2.56	25.0	1	10/14/2017 12:37	WG1027832



Collected date/time: 09/28/17 10:17

L940345

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	U		10.0	50.0	1	10/05/2017 01:02	WG1027353
Acrylonitrile	U		1.87	10.0	1	10/05/2017 01:02	WG1027353
Benzene	U		0.331	1.00	1	10/05/2017 01:02	WG1027353
Bromochloromethane	U		0.520	1.00	1	10/05/2017 01:02	WG1027353
Bromodichloromethane	U		0.380	1.00	1	10/05/2017 01:02	WG1027353
Bromoform	U		0.469	1.00	1	10/05/2017 01:02	WG1027353
Bromomethane	U		0.866	5.00	1	10/05/2017 01:02	WG1027353
Carbon disulfide	U		0.275	1.00	1	10/05/2017 01:02	WG1027353
Carbon tetrachloride	U		0.379	1.00	1	10/05/2017 01:02	WG1027353
Chlorobenzene	U		0.348	1.00	1	10/05/2017 01:02	WG1027353
Chlorodibromomethane	U		0.327	1.00	1	10/05/2017 01:02	WG1027353
Chloroethane	U		0.453	5.00	1	10/05/2017 01:02	WG1027353
Chloroform	U		0.324	5.00	1	10/05/2017 01:02	WG1027353
Chloromethane	U		0.276	2.50	1	10/05/2017 01:02	WG1027353
Dibromomethane	U		0.346	1.00	1	10/05/2017 01:02	WG1027353
1,2-Dibromoethane	U		0.381	1.00	1	10/05/2017 01:02	WG1027353
1,2-Dibromo-3-Chloropropane	U		1.33	5.00	1	10/05/2017 01:02	WG1027353
1,2-Dichlorobenzene	U		0.349	1.00	1	10/05/2017 01:02	WG1027353
1,4-Dichlorobenzene	U		0.274	1.00	1	10/05/2017 01:02	WG1027353
trans-1,4-Dichloro-2-butene	U		0.866	2.50	1	10/05/2017 01:02	WG1027353
1,1-Dichloroethane	U		0.259	1.00	1	10/05/2017 01:02	WG1027353
1,2-Dichloroethane	U		0.361	1.00	1	10/05/2017 01:02	WG1027353
1,1-Dichloroethene	U		0.398	1.00	1	10/05/2017 01:02	WG1027353
cis-1,2-Dichloroethene	U		0.260	1.00	1	10/05/2017 01:02	WG1027353
trans-1,2-Dichloroethene	U		0.396	1.00	1	10/05/2017 01:02	WG1027353
1,2-Dichloropropane	U		0.306	1.00	1	10/05/2017 01:02	WG1027353
cis-1,3-Dichloropropene	U		0.418	1.00	1	10/05/2017 01:02	WG1027353
trans-1,3-Dichloropropene	U		0.419	1.00	1	10/05/2017 01:02	WG1027353
Ethylbenzene	U		0.384	1.00	1	10/05/2017 01:02	WG1027353
2-Hexanone	U		3.82	10.0	1	10/05/2017 01:02	WG1027353
Iodomethane	U		1.71	10.0	1	10/05/2017 01:02	WG1027353
2-Butanone (MEK)	U		3.93	15.0	1	10/05/2017 01:02	WG1027353
Methylene Chloride	U		1.00	5.00	1	10/05/2017 01:02	WG1027353
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0	1	10/05/2017 01:02	WG1027353
Styrene	U		0.307	1.00	1	10/05/2017 01:02	WG1027353
1,1,1,2-Tetrachloroethane	U		0.385	1.00	1	10/05/2017 01:02	WG1027353
1,1,2,2-Tetrachloroethane	U		0.130	1.00	1	10/05/2017 01:02	WG1027353
Tetrachloroethene	U		0.372	1.00	1	10/05/2017 01:02	WG1027353
Toluene	U		0.412	1.00	1	10/05/2017 01:02	WG1027353
1,1,1-Trichloroethane	U		0.319	1.00	1	10/05/2017 01:02	WG1027353
1,1,2-Trichloroethane	U		0.383	1.00	1	10/05/2017 01:02	WG1027353
Trichloroethene	U		0.398	1.00	1	10/05/2017 01:02	WG1027353
Trichlorofluoromethane	U		1.20	5.00	1	10/05/2017 01:02	WG1027353
1,2,3-Trichloropropane	U		0.807	2.50	1	10/05/2017 01:02	WG1027353
Vinyl acetate	U		1.63	10.0	1	10/05/2017 01:02	WG1027353
Vinyl chloride	U		0.259	1.00	1	10/05/2017 01:02	WG1027353
Xylenes, Total	U		1.06	3.00	1	10/05/2017 01:02	WG1027353
(S) Toluene-d8	106			80.0-120		10/05/2017 01:02	WG1027353
(S) Dibromofluoromethane	92.6			76.0-123		10/05/2017 01:02	WG1027353
(S) 4-Bromofluorobenzene	80.9			80.0-120		10/05/2017 01:02	WG1027353





Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	446000		2820	10000	1	10/04/2017 14:55	WG1027616

1 Cp

2 Tc

Wet Chemistry by Method 4500CN E-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Cyanide	U	J4	1.80	5.00	1	10/09/2017 13:01	WG1028433

3 Ss

4 Cn

Wet Chemistry by Method 4500S2 D-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Sulfide	U		6.50	50.0	1	10/04/2017 21:35	WG1027507

5 Sr

6 Gl

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Chloride	26400		51.9	1000	1	10/07/2017 13:23	WG1028455
Sulfate	8250		77.4	5000	1	10/07/2017 13:23	WG1028455

7 Al

8 Sc

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	1390		102	1000	1	10/05/2017 18:53	WG1028089

Mercury by Method 7470A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Mercury	0.160	J	0.0490	0.200	1	10/08/2017 10:30	WG1027771

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Antimony	U		0.754	2.00	1	10/14/2017 12:40	WG1027832
Arsenic	0.478	J	0.250	2.00	1	10/14/2017 12:40	WG1027832
Barium	46.8		0.360	5.00	1	10/14/2017 12:40	WG1027832
Beryllium	U		0.120	2.00	1	10/14/2017 12:40	WG1027832
Cadmium	0.397	J	0.160	1.00	1	10/14/2017 12:40	WG1027832
Chromium	0.630	J	0.540	2.00	1	10/14/2017 12:40	WG1027832
Copper	1.36	J	0.520	5.00	1	10/14/2017 12:40	WG1027832
Cobalt	U		0.260	2.00	1	10/14/2017 12:40	WG1027832
Iron	20.9	J	15.0	100	1	10/14/2017 12:40	WG1027832
Lead	U		0.240	2.00	1	10/14/2017 12:40	WG1027832
Manganese	1.40	J	0.250	5.00	1	10/14/2017 12:40	WG1027832
Nickel	0.766	J	0.350	2.00	1	10/14/2017 12:40	WG1027832
Selenium	U		0.380	2.00	1	10/14/2017 12:40	WG1027832
Silver	U		0.310	2.00	1	10/14/2017 12:40	WG1027832
Thallium	U		0.190	2.00	1	10/14/2017 12:40	WG1027832
Tin	0.320	J	0.300	2.00	1	10/14/2017 12:40	WG1027832
Vanadium	0.418	J	0.180	5.00	1	10/14/2017 12:40	WG1027832
Zinc	44.9		2.56	25.0	1	10/14/2017 12:40	WG1027832



Collected date/time: 09/28/17 11:14

L940345

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	U		10.0	50.0	1	10/05/2017 01:21	WG1027353
Acrylonitrile	U		1.87	10.0	1	10/05/2017 01:21	WG1027353
Benzene	U		0.331	1.00	1	10/05/2017 01:21	WG1027353
Bromochloromethane	U		0.520	1.00	1	10/05/2017 01:21	WG1027353
Bromodichloromethane	U		0.380	1.00	1	10/05/2017 01:21	WG1027353
Bromoform	U		0.469	1.00	1	10/05/2017 01:21	WG1027353
Bromomethane	U		0.866	5.00	1	10/05/2017 01:21	WG1027353
Carbon disulfide	U		0.275	1.00	1	10/05/2017 01:21	WG1027353
Carbon tetrachloride	U		0.379	1.00	1	10/05/2017 01:21	WG1027353
Chlorobenzene	U		0.348	1.00	1	10/05/2017 01:21	WG1027353
Chlorodibromomethane	U		0.327	1.00	1	10/05/2017 01:21	WG1027353
Chloroethane	U		0.453	5.00	1	10/05/2017 01:21	WG1027353
Chloroform	U		0.324	5.00	1	10/05/2017 01:21	WG1027353
Chloromethane	U		0.276	2.50	1	10/05/2017 01:21	WG1027353
Dibromomethane	U		0.346	1.00	1	10/05/2017 01:21	WG1027353
1,2-Dibromoethane	U		0.381	1.00	1	10/05/2017 01:21	WG1027353
1,2-Dibromo-3-Chloropropane	U		1.33	5.00	1	10/05/2017 01:21	WG1027353
1,2-Dichlorobenzene	U		0.349	1.00	1	10/05/2017 01:21	WG1027353
1,4-Dichlorobenzene	U		0.274	1.00	1	10/05/2017 01:21	WG1027353
trans-1,4-Dichloro-2-butene	U		0.866	2.50	1	10/05/2017 01:21	WG1027353
1,1-Dichloroethane	U		0.259	1.00	1	10/05/2017 01:21	WG1027353
1,2-Dichloroethane	U		0.361	1.00	1	10/05/2017 01:21	WG1027353
1,1-Dichloroethene	U		0.398	1.00	1	10/05/2017 01:21	WG1027353
cis-1,2-Dichloroethene	U		0.260	1.00	1	10/05/2017 01:21	WG1027353
trans-1,2-Dichloroethene	U		0.396	1.00	1	10/05/2017 01:21	WG1027353
1,2-Dichloropropane	U		0.306	1.00	1	10/05/2017 01:21	WG1027353
cis-1,3-Dichloropropene	U		0.418	1.00	1	10/05/2017 01:21	WG1027353
trans-1,3-Dichloropropene	U		0.419	1.00	1	10/05/2017 01:21	WG1027353
Ethylbenzene	U		0.384	1.00	1	10/05/2017 01:21	WG1027353
2-Hexanone	U		3.82	10.0	1	10/05/2017 01:21	WG1027353
Iodomethane	U		1.71	10.0	1	10/05/2017 01:21	WG1027353
2-Butanone (MEK)	U		3.93	15.0	1	10/05/2017 01:21	WG1027353
Methylene Chloride	U		1.00	5.00	1	10/05/2017 01:21	WG1027353
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0	1	10/05/2017 01:21	WG1027353
Styrene	U		0.307	1.00	1	10/05/2017 01:21	WG1027353
1,1,1,2-Tetrachloroethane	U		0.385	1.00	1	10/05/2017 01:21	WG1027353
1,1,2,2-Tetrachloroethane	U		0.130	1.00	1	10/05/2017 01:21	WG1027353
Tetrachloroethene	U		0.372	1.00	1	10/05/2017 01:21	WG1027353
Toluene	U		0.412	1.00	1	10/05/2017 01:21	WG1027353
1,1,1-Trichloroethane	U		0.319	1.00	1	10/05/2017 01:21	WG1027353
1,1,2-Trichloroethane	U		0.383	1.00	1	10/05/2017 01:21	WG1027353
Trichloroethene	U		0.398	1.00	1	10/05/2017 01:21	WG1027353
Trichlorofluoromethane	U		1.20	5.00	1	10/05/2017 01:21	WG1027353
1,2,3-Trichloropropane	U		0.807	2.50	1	10/05/2017 01:21	WG1027353
Vinyl acetate	U		1.63	10.0	1	10/05/2017 01:21	WG1027353
Vinyl chloride	U		0.259	1.00	1	10/05/2017 01:21	WG1027353
Xylenes, Total	U		1.06	3.00	1	10/05/2017 01:21	WG1027353
(S) Toluene-d8	103			80.0-120		10/05/2017 01:21	WG1027353
(S) Dibromofluoromethane	93.4			76.0-123		10/05/2017 01:21	WG1027353
(S) 4-Bromofluorobenzene	79.9	J2		80.0-120		10/05/2017 01:21	WG1027353

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Gl

7 Al

8 Sc



Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	328000		2820	10000	1	10/04/2017 09:48	WG1026918

1 Cp

2 Tc

Wet Chemistry by Method 4500CN E-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Cyanide	U	J4	1.80	5.00	1	10/09/2017 13:02	WG1028433

3 Ss

4 Cn

Wet Chemistry by Method 4500S2 D-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Sulfide	U		6.50	50.0	1	10/03/2017 21:54	WG1026981

5 Sr

6 Gl

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Chloride	2190		51.9	1000	1	10/07/2017 13:38	WG1028455
Sulfate	5680		77.4	5000	1	10/07/2017 13:38	WG1028455

7 Al

8 Sc

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	730	B J	102	1000	1	10/05/2017 19:48	WG1028089

Mercury by Method 7470A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Mercury	U		0.0490	0.200	1	10/08/2017 10:33	WG1027771

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Antimony	U		0.754	2.00	1	10/14/2017 12:44	WG1027832
Arsenic	0.339	J	0.250	2.00	1	10/14/2017 12:44	WG1027832
Barium	37.1		0.360	5.00	1	10/14/2017 12:44	WG1027832
Beryllium	U		0.120	2.00	1	10/14/2017 12:44	WG1027832
Cadmium	U		0.160	1.00	1	10/14/2017 12:44	WG1027832
Chromium	0.569	J	0.540	2.00	1	10/14/2017 12:44	WG1027832
Copper	1.35	J	0.520	5.00	1	10/14/2017 12:44	WG1027832
Cobalt	U		0.260	2.00	1	10/14/2017 12:44	WG1027832
Iron	U		15.0	100	1	10/14/2017 12:44	WG1027832
Lead	U		0.240	2.00	1	10/14/2017 12:44	WG1027832
Manganese	22.9		0.250	5.00	1	10/14/2017 12:44	WG1027832
Nickel	1.07	J	0.350	2.00	1	10/14/2017 12:44	WG1027832
Selenium	U		0.380	2.00	1	10/14/2017 12:44	WG1027832
Silver	U		0.310	2.00	1	10/14/2017 12:44	WG1027832
Thallium	U		0.190	2.00	1	10/14/2017 12:44	WG1027832
Tin	0.357	J	0.300	2.00	1	10/14/2017 12:44	WG1027832
Vanadium	0.420	J	0.180	5.00	1	10/14/2017 12:44	WG1027832
Zinc	6.45	J	2.56	25.0	1	10/14/2017 12:44	WG1027832



Collected date/time: 09/27/17 14:00

L940345

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	U		10.0	50.0	1	10/05/2017 01:40	WG1027353
Acrylonitrile	U		1.87	10.0	1	10/05/2017 01:40	WG1027353
Benzene	U		0.331	1.00	1	10/05/2017 01:40	WG1027353
Bromochloromethane	U		0.520	1.00	1	10/05/2017 01:40	WG1027353
Bromodichloromethane	U		0.380	1.00	1	10/05/2017 01:40	WG1027353
Bromoform	U		0.469	1.00	1	10/05/2017 01:40	WG1027353
Bromomethane	U		0.866	5.00	1	10/05/2017 01:40	WG1027353
Carbon disulfide	U		0.275	1.00	1	10/05/2017 01:40	WG1027353
Carbon tetrachloride	U		0.379	1.00	1	10/05/2017 01:40	WG1027353
Chlorobenzene	U		0.348	1.00	1	10/05/2017 01:40	WG1027353
Chlorodibromomethane	U		0.327	1.00	1	10/05/2017 01:40	WG1027353
Chloroethane	U		0.453	5.00	1	10/05/2017 01:40	WG1027353
Chloroform	U		0.324	5.00	1	10/05/2017 01:40	WG1027353
Chloromethane	U		0.276	2.50	1	10/05/2017 01:40	WG1027353
Dibromomethane	U		0.346	1.00	1	10/05/2017 01:40	WG1027353
1,2-Dibromoethane	U		0.381	1.00	1	10/05/2017 01:40	WG1027353
1,2-Dibromo-3-Chloropropane	U		1.33	5.00	1	10/05/2017 01:40	WG1027353
1,2-Dichlorobenzene	U		0.349	1.00	1	10/05/2017 01:40	WG1027353
1,4-Dichlorobenzene	U		0.274	1.00	1	10/05/2017 01:40	WG1027353
trans-1,4-Dichloro-2-butene	U		0.866	2.50	1	10/05/2017 01:40	WG1027353
1,1-Dichloroethane	U		0.259	1.00	1	10/05/2017 01:40	WG1027353
1,2-Dichloroethane	U		0.361	1.00	1	10/05/2017 01:40	WG1027353
1,1-Dichloroethene	U		0.398	1.00	1	10/05/2017 01:40	WG1027353
cis-1,2-Dichloroethene	U		0.260	1.00	1	10/05/2017 01:40	WG1027353
trans-1,2-Dichloroethene	U		0.396	1.00	1	10/05/2017 01:40	WG1027353
1,2-Dichloropropane	U		0.306	1.00	1	10/05/2017 01:40	WG1027353
cis-1,3-Dichloropropene	U		0.418	1.00	1	10/05/2017 01:40	WG1027353
trans-1,3-Dichloropropene	U		0.419	1.00	1	10/05/2017 01:40	WG1027353
Ethylbenzene	U		0.384	1.00	1	10/05/2017 01:40	WG1027353
2-Hexanone	U		3.82	10.0	1	10/05/2017 01:40	WG1027353
Iodomethane	U		1.71	10.0	1	10/05/2017 01:40	WG1027353
2-Butanone (MEK)	U		3.93	15.0	1	10/05/2017 01:40	WG1027353
Methylene Chloride	U		1.00	5.00	1	10/05/2017 01:40	WG1027353
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0	1	10/05/2017 01:40	WG1027353
Styrene	U		0.307	1.00	1	10/05/2017 01:40	WG1027353
1,1,1,2-Tetrachloroethane	U		0.385	1.00	1	10/05/2017 01:40	WG1027353
1,1,2,2-Tetrachloroethane	U		0.130	1.00	1	10/05/2017 01:40	WG1027353
Tetrachloroethene	U		0.372	1.00	1	10/05/2017 01:40	WG1027353
Toluene	U		0.412	1.00	1	10/05/2017 01:40	WG1027353
1,1,1-Trichloroethane	U		0.319	1.00	1	10/05/2017 01:40	WG1027353
1,1,2-Trichloroethane	U		0.383	1.00	1	10/05/2017 01:40	WG1027353
Trichloroethene	U		0.398	1.00	1	10/05/2017 01:40	WG1027353
Trichlorofluoromethane	U		1.20	5.00	1	10/05/2017 01:40	WG1027353
1,2,3-Trichloropropane	U		0.807	2.50	1	10/05/2017 01:40	WG1027353
Vinyl acetate	U		1.63	10.0	1	10/05/2017 01:40	WG1027353
Vinyl chloride	U		0.259	1.00	1	10/05/2017 01:40	WG1027353
Xylenes, Total	U		1.06	3.00	1	10/05/2017 01:40	WG1027353
(S) Toluene-d8	104			80.0-120		10/05/2017 01:40	WG1027353
(S) Dibromofluoromethane	90.3			76.0-123		10/05/2017 01:40	WG1027353
(S) 4-Bromofluorobenzene	82.5			80.0-120		10/05/2017 01:40	WG1027353

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Gl

7 Al

8 Sc



Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	874000		2820	10000	1	10/04/2017 14:55	WG1027616

1 Cp

2 Tc

Wet Chemistry by Method 4500CN E-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Cyanide	U	J4	1.80	5.00	1	10/09/2017 13:06	WG1028433

3 Ss

4 Cn

Wet Chemistry by Method 4500S2 D-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Sulfide	U		6.50	50.0	1	10/04/2017 21:35	WG1027507

5 Sr

6 Gl

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Chloride	112000		260	5000	5	10/07/2017 14:08	WG1028455
Sulfate	U		77.4	5000	1	10/07/2017 13:53	WG1028455

7 Al

8 Sc

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	10200		102	1000	1	10/05/2017 20:05	WG1028089

Mercury by Method 7470A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Mercury	U		0.0490	0.200	1	10/08/2017 10:35	WG1027771

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Antimony	U		0.754	2.00	1	10/14/2017 12:47	WG1027832
Arsenic	142		0.250	2.00	1	10/14/2017 12:47	WG1027832
Barium	255		0.360	5.00	1	10/14/2017 12:47	WG1027832
Beryllium	U		0.120	2.00	1	10/14/2017 12:47	WG1027832
Cadmium	U		0.160	1.00	1	10/14/2017 12:47	WG1027832
Chromium	U		0.540	2.00	1	10/14/2017 12:47	WG1027832
Copper	2.98	J	0.520	5.00	1	10/14/2017 12:47	WG1027832
Cobalt	24.9		0.260	2.00	1	10/14/2017 12:47	WG1027832
Iron	35100		15.0	100	1	10/14/2017 12:47	WG1027832
Lead	0.462	J	0.240	2.00	1	10/14/2017 12:47	WG1027832
Manganese	993		0.250	5.00	1	10/14/2017 12:47	WG1027832
Nickel	50.8		0.350	2.00	1	10/14/2017 12:47	WG1027832
Selenium	U		0.380	2.00	1	10/14/2017 12:47	WG1027832
Silver	U		0.310	2.00	1	10/14/2017 12:47	WG1027832
Thallium	U		0.190	2.00	1	10/14/2017 12:47	WG1027832
Tin	0.939	J	0.300	2.00	1	10/14/2017 12:47	WG1027832
Vanadium	1.12	J	0.180	5.00	1	10/14/2017 12:47	WG1027832
Zinc	36.2		2.56	25.0	1	10/14/2017 12:47	WG1027832



Collected date/time: 09/28/17 14:58

L940345

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	U		10.0	50.0	1	10/05/2017 01:59	WG1027353
Acrylonitrile	U		1.87	10.0	1	10/05/2017 01:59	WG1027353
Benzene	4.12		0.331	1.00	1	10/05/2017 01:59	WG1027353
Bromochloromethane	U		0.520	1.00	1	10/05/2017 01:59	WG1027353
Bromodichloromethane	U		0.380	1.00	1	10/05/2017 01:59	WG1027353
Bromoform	U		0.469	1.00	1	10/05/2017 01:59	WG1027353
Bromomethane	U		0.866	5.00	1	10/05/2017 01:59	WG1027353
Carbon disulfide	U		0.275	1.00	1	10/05/2017 01:59	WG1027353
Carbon tetrachloride	U		0.379	1.00	1	10/05/2017 01:59	WG1027353
Chlorobenzene	0.957	U	0.348	1.00	1	10/05/2017 01:59	WG1027353
Chlorodibromomethane	U		0.327	1.00	1	10/05/2017 01:59	WG1027353
Chloroethane	1.41	U	0.453	5.00	1	10/05/2017 01:59	WG1027353
Chloroform	U		0.324	5.00	1	10/05/2017 01:59	WG1027353
Chloromethane	U		0.276	2.50	1	10/05/2017 01:59	WG1027353
Dibromomethane	U		0.346	1.00	1	10/05/2017 01:59	WG1027353
1,2-Dibromoethane	U		0.381	1.00	1	10/05/2017 01:59	WG1027353
1,2-Dibromo-3-Chloropropane	U		1.33	5.00	1	10/05/2017 01:59	WG1027353
1,2-Dichlorobenzene	U		0.349	1.00	1	10/05/2017 01:59	WG1027353
1,4-Dichlorobenzene	U		0.274	1.00	1	10/05/2017 01:59	WG1027353
trans-1,4-Dichloro-2-butene	U		0.866	2.50	1	10/05/2017 01:59	WG1027353
1,1-Dichloroethane	3.83		0.259	1.00	1	10/05/2017 01:59	WG1027353
1,2-Dichloroethane	U		0.361	1.00	1	10/05/2017 01:59	WG1027353
1,1-Dichloroethene	U		0.398	1.00	1	10/05/2017 01:59	WG1027353
cis-1,2-Dichloroethene	U		0.260	1.00	1	10/05/2017 01:59	WG1027353
trans-1,2-Dichloroethene	U		0.396	1.00	1	10/05/2017 01:59	WG1027353
1,2-Dichloropropane	U		0.306	1.00	1	10/05/2017 01:59	WG1027353
cis-1,3-Dichloropropene	U		0.418	1.00	1	10/05/2017 01:59	WG1027353
trans-1,3-Dichloropropene	U		0.419	1.00	1	10/05/2017 01:59	WG1027353
Ethylbenzene	U		0.384	1.00	1	10/05/2017 01:59	WG1027353
2-Hexanone	U		3.82	10.0	1	10/05/2017 01:59	WG1027353
Iodomethane	U		1.71	10.0	1	10/05/2017 01:59	WG1027353
2-Butanone (MEK)	U		3.93	15.0	1	10/05/2017 01:59	WG1027353
Methylene Chloride	U		1.00	5.00	1	10/05/2017 01:59	WG1027353
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0	1	10/05/2017 01:59	WG1027353
Styrene	U		0.307	1.00	1	10/05/2017 01:59	WG1027353
1,1,1,2-Tetrachloroethane	U		0.385	1.00	1	10/05/2017 01:59	WG1027353
1,1,2,2-Tetrachloroethane	U		0.130	1.00	1	10/05/2017 01:59	WG1027353
Tetrachloroethene	U		0.372	1.00	1	10/05/2017 01:59	WG1027353
Toluene	U		0.412	1.00	1	10/05/2017 01:59	WG1027353
1,1,1-Trichloroethane	U		0.319	1.00	1	10/05/2017 01:59	WG1027353
1,1,2-Trichloroethane	U		0.383	1.00	1	10/05/2017 01:59	WG1027353
Trichloroethene	U		0.398	1.00	1	10/05/2017 01:59	WG1027353
Trichlorofluoromethane	U		1.20	5.00	1	10/05/2017 01:59	WG1027353
1,2,3-Trichloropropane	U		0.807	2.50	1	10/05/2017 01:59	WG1027353
Vinyl acetate	U		1.63	10.0	1	10/05/2017 01:59	WG1027353
Vinyl chloride	2.69		0.259	1.00	1	10/05/2017 01:59	WG1027353
Xylenes, Total	U		1.06	3.00	1	10/05/2017 01:59	WG1027353
(S) Toluene-d8	104			80.0-120		10/05/2017 01:59	WG1027353
(S) Dibromofluoromethane	92.7			76.0-123		10/05/2017 01:59	WG1027353
(S) 4-Bromofluorobenzene	85.5			80.0-120		10/05/2017 01:59	WG1027353

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Gl

7 Al

8 Sc



Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	386000		2820	10000	1	10/05/2017 16:30	WG1027700

1 Cp

2 Tc

Wet Chemistry by Method 4500CN E-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Cyanide	U	J4	1.80	5.00	1	10/09/2017 13:07	WG1028433

3 Ss

4 Cn

Wet Chemistry by Method 4500S2 D-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Sulfide	U		6.50	50.0	1	10/04/2017 21:36	WG1027507

5 Sr

6 Gl

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Chloride	13900		51.9	1000	1	10/07/2017 14:23	WG1028455
Sulfate	12500		77.4	5000	1	10/07/2017 14:23	WG1028455

7 Al

8 Sc

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	1020	B	102	1000	1	10/05/2017 21:10	WG1028089

Mercury by Method 7470A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Mercury	U		0.0490	0.200	1	10/08/2017 10:37	WG1027771

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Antimony	U		0.754	2.00	1	10/14/2017 12:51	WG1027832
Arsenic	0.973	J	0.250	2.00	1	10/14/2017 12:51	WG1027832
Barium	45.6		0.360	5.00	1	10/14/2017 12:51	WG1027832
Beryllium	U		0.120	2.00	1	10/14/2017 12:51	WG1027832
Cadmium	1.43		0.160	1.00	1	10/14/2017 12:51	WG1027832
Chromium	1.03	J	0.540	2.00	1	10/14/2017 12:51	WG1027832
Copper	1.64	J	0.520	5.00	1	10/14/2017 12:51	WG1027832
Cobalt	U		0.260	2.00	1	10/14/2017 12:51	WG1027832
Iron	690		15.0	100	1	10/14/2017 12:51	WG1027832
Lead	2.68		0.240	2.00	1	10/14/2017 12:51	WG1027832
Manganese	10.2		0.250	5.00	1	10/14/2017 12:51	WG1027832
Nickel	2.18		0.350	2.00	1	10/14/2017 12:51	WG1027832
Selenium	U		0.380	2.00	1	10/14/2017 12:51	WG1027832
Silver	U		0.310	2.00	1	10/14/2017 12:51	WG1027832
Thallium	U		0.190	2.00	1	10/14/2017 12:51	WG1027832
Tin	0.753	J	0.300	2.00	1	10/14/2017 12:51	WG1027832
Vanadium	1.90	J	0.180	5.00	1	10/14/2017 12:51	WG1027832
Zinc	32.6		2.56	25.0	1	10/14/2017 12:51	WG1027832



Collected date/time: 09/29/17 07:00

L940345

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	U		10.0	50.0	1	10/05/2017 02:19	WG1027353
Acrylonitrile	U		1.87	10.0	1	10/05/2017 02:19	WG1027353
Benzene	U		0.331	1.00	1	10/05/2017 02:19	WG1027353
Bromochloromethane	U		0.520	1.00	1	10/05/2017 02:19	WG1027353
Bromodichloromethane	U		0.380	1.00	1	10/05/2017 02:19	WG1027353
Bromoform	U		0.469	1.00	1	10/05/2017 02:19	WG1027353
Bromomethane	U		0.866	5.00	1	10/05/2017 02:19	WG1027353
Carbon disulfide	U		0.275	1.00	1	10/05/2017 02:19	WG1027353
Carbon tetrachloride	U		0.379	1.00	1	10/05/2017 02:19	WG1027353
Chlorobenzene	U		0.348	1.00	1	10/05/2017 02:19	WG1027353
Chlorodibromomethane	U		0.327	1.00	1	10/05/2017 02:19	WG1027353
Chloroethane	U		0.453	5.00	1	10/05/2017 02:19	WG1027353
Chloroform	U		0.324	5.00	1	10/05/2017 02:19	WG1027353
Chloromethane	U		0.276	2.50	1	10/05/2017 02:19	WG1027353
Dibromomethane	U		0.346	1.00	1	10/05/2017 02:19	WG1027353
1,2-Dibromoethane	U		0.381	1.00	1	10/05/2017 02:19	WG1027353
1,2-Dibromo-3-Chloropropane	U		1.33	5.00	1	10/05/2017 02:19	WG1027353
1,2-Dichlorobenzene	U		0.349	1.00	1	10/05/2017 02:19	WG1027353
1,4-Dichlorobenzene	U		0.274	1.00	1	10/05/2017 02:19	WG1027353
trans-1,4-Dichloro-2-butene	U		0.866	2.50	1	10/05/2017 02:19	WG1027353
1,1-Dichloroethane	U		0.259	1.00	1	10/05/2017 02:19	WG1027353
1,2-Dichloroethane	U		0.361	1.00	1	10/05/2017 02:19	WG1027353
1,1-Dichloroethene	U		0.398	1.00	1	10/05/2017 02:19	WG1027353
cis-1,2-Dichloroethene	U		0.260	1.00	1	10/05/2017 02:19	WG1027353
trans-1,2-Dichloroethene	U		0.396	1.00	1	10/05/2017 02:19	WG1027353
1,2-Dichloropropane	U		0.306	1.00	1	10/05/2017 02:19	WG1027353
cis-1,3-Dichloropropene	U		0.418	1.00	1	10/05/2017 02:19	WG1027353
trans-1,3-Dichloropropene	U		0.419	1.00	1	10/05/2017 02:19	WG1027353
Ethylbenzene	U		0.384	1.00	1	10/05/2017 02:19	WG1027353
2-Hexanone	U		3.82	10.0	1	10/05/2017 02:19	WG1027353
Iodomethane	U		1.71	10.0	1	10/05/2017 02:19	WG1027353
2-Butanone (MEK)	U		3.93	15.0	1	10/05/2017 02:19	WG1027353
Methylene Chloride	U		1.00	5.00	1	10/05/2017 02:19	WG1027353
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0	1	10/05/2017 02:19	WG1027353
Styrene	U		0.307	1.00	1	10/05/2017 02:19	WG1027353
1,1,1,2-Tetrachloroethane	U		0.385	1.00	1	10/05/2017 02:19	WG1027353
1,1,2,2-Tetrachloroethane	U		0.130	1.00	1	10/05/2017 02:19	WG1027353
Tetrachloroethene	U		0.372	1.00	1	10/05/2017 02:19	WG1027353
Toluene	U		0.412	1.00	1	10/05/2017 02:19	WG1027353
1,1,1-Trichloroethane	U		0.319	1.00	1	10/05/2017 02:19	WG1027353
1,1,2-Trichloroethane	U		0.383	1.00	1	10/05/2017 02:19	WG1027353
Trichloroethene	U		0.398	1.00	1	10/05/2017 02:19	WG1027353
Trichlorofluoromethane	U		1.20	5.00	1	10/05/2017 02:19	WG1027353
1,2,3-Trichloropropane	U		0.807	2.50	1	10/05/2017 02:19	WG1027353
Vinyl acetate	U		1.63	10.0	1	10/05/2017 02:19	WG1027353
Vinyl chloride	U		0.259	1.00	1	10/05/2017 02:19	WG1027353
Xylenes, Total	U		1.06	3.00	1	10/05/2017 02:19	WG1027353
(S) Toluene-d8	105			80.0-120		10/05/2017 02:19	WG1027353
(S) Dibromofluoromethane	93.5			76.0-123		10/05/2017 02:19	WG1027353
(S) 4-Bromofluorobenzene	82.2			80.0-120		10/05/2017 02:19	WG1027353

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Gl

7 Al

8 Sc



Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	355000		2820	10000	1	10/04/2017 09:48	WG1026918

1 Cp

2 Tc

Wet Chemistry by Method 4500CN E-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Cyanide	U	J4	1.80	5.00	1	10/09/2017 13:08	WG1028433

3 Ss

4 Cn

Wet Chemistry by Method 4500S2 D-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Sulfide	U		6.50	50.0	1	10/03/2017 21:54	WG1026981

5 Sr

6 Gl

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Chloride	3960		51.9	1000	1	10/07/2017 14:37	WG1028455
Sulfate	21900		77.4	5000	1	10/07/2017 14:37	WG1028455

7 Al

8 Sc

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	2310		102	1000	1	10/05/2017 21:27	WG1028089

Mercury by Method 7470A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Mercury	U		0.0490	0.200	1	10/08/2017 10:39	WG1027771

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Antimony	U		0.754	2.00	1	10/14/2017 12:54	WG1027832
Arsenic	3.11		0.250	2.00	1	10/14/2017 12:54	WG1027832
Barium	31.4		0.360	5.00	1	10/14/2017 12:54	WG1027832
Beryllium	U		0.120	2.00	1	10/14/2017 12:54	WG1027832
Cadmium	0.272	J	0.160	1.00	1	10/14/2017 12:54	WG1027832
Chromium	0.669	J	0.540	2.00	1	10/14/2017 12:54	WG1027832
Copper	1.05	J	0.520	5.00	1	10/14/2017 12:54	WG1027832
Cobalt	0.362	J	0.260	2.00	1	10/14/2017 12:54	WG1027832
Iron	145		15.0	100	1	10/14/2017 12:54	WG1027832
Lead	0.828	J	0.240	2.00	1	10/14/2017 12:54	WG1027832
Manganese	11.9		0.250	5.00	1	10/14/2017 12:54	WG1027832
Nickel	9.19		0.350	2.00	1	10/14/2017 12:54	WG1027832
Selenium	U		0.380	2.00	1	10/14/2017 12:54	WG1027832
Silver	U		0.310	2.00	1	10/14/2017 12:54	WG1027832
Thallium	U		0.190	2.00	1	10/14/2017 12:54	WG1027832
Tin	0.357	J	0.300	2.00	1	10/14/2017 12:54	WG1027832
Vanadium	0.520	J	0.180	5.00	1	10/14/2017 12:54	WG1027832
Zinc	233		2.56	25.0	1	10/14/2017 12:54	WG1027832



Collected date/time: 09/27/17 13:22

L940345

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	U		10.0	50.0	1	10/05/2017 02:39	WG1027353
Acrylonitrile	U		1.87	10.0	1	10/05/2017 02:39	WG1027353
Benzene	U		0.331	1.00	1	10/05/2017 02:39	WG1027353
Bromochloromethane	U		0.520	1.00	1	10/05/2017 02:39	WG1027353
Bromodichloromethane	U		0.380	1.00	1	10/05/2017 02:39	WG1027353
Bromoform	U		0.469	1.00	1	10/05/2017 02:39	WG1027353
Bromomethane	U		0.866	5.00	1	10/05/2017 02:39	WG1027353
Carbon disulfide	U		0.275	1.00	1	10/05/2017 02:39	WG1027353
Carbon tetrachloride	U		0.379	1.00	1	10/05/2017 02:39	WG1027353
Chlorobenzene	U		0.348	1.00	1	10/05/2017 02:39	WG1027353
Chlorodibromomethane	U		0.327	1.00	1	10/05/2017 02:39	WG1027353
Chloroethane	U		0.453	5.00	1	10/05/2017 02:39	WG1027353
Chloroform	U		0.324	5.00	1	10/05/2017 02:39	WG1027353
Chloromethane	U		0.276	2.50	1	10/05/2017 02:39	WG1027353
Dibromomethane	U		0.346	1.00	1	10/05/2017 02:39	WG1027353
1,2-Dibromoethane	U		0.381	1.00	1	10/05/2017 02:39	WG1027353
1,2-Dibromo-3-Chloropropane	U		1.33	5.00	1	10/05/2017 02:39	WG1027353
1,2-Dichlorobenzene	U		0.349	1.00	1	10/05/2017 02:39	WG1027353
1,4-Dichlorobenzene	U		0.274	1.00	1	10/05/2017 02:39	WG1027353
trans-1,4-Dichloro-2-butene	U		0.866	2.50	1	10/05/2017 02:39	WG1027353
1,1-Dichloroethane	U		0.259	1.00	1	10/05/2017 02:39	WG1027353
1,2-Dichloroethane	U		0.361	1.00	1	10/05/2017 02:39	WG1027353
1,1-Dichloroethene	U		0.398	1.00	1	10/05/2017 02:39	WG1027353
cis-1,2-Dichloroethene	U		0.260	1.00	1	10/05/2017 02:39	WG1027353
trans-1,2-Dichloroethene	U		0.396	1.00	1	10/05/2017 02:39	WG1027353
1,2-Dichloropropane	U		0.306	1.00	1	10/05/2017 02:39	WG1027353
cis-1,3-Dichloropropene	U		0.418	1.00	1	10/05/2017 02:39	WG1027353
trans-1,3-Dichloropropene	U		0.419	1.00	1	10/05/2017 02:39	WG1027353
Ethylbenzene	U		0.384	1.00	1	10/05/2017 02:39	WG1027353
2-Hexanone	U		3.82	10.0	1	10/05/2017 02:39	WG1027353
Iodomethane	U		1.71	10.0	1	10/05/2017 02:39	WG1027353
2-Butanone (MEK)	U		3.93	15.0	1	10/05/2017 02:39	WG1027353
Methylene Chloride	U		1.00	5.00	1	10/05/2017 02:39	WG1027353
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0	1	10/05/2017 02:39	WG1027353
Styrene	U		0.307	1.00	1	10/05/2017 02:39	WG1027353
1,1,1,2-Tetrachloroethane	U		0.385	1.00	1	10/05/2017 02:39	WG1027353
1,1,2,2-Tetrachloroethane	U		0.130	1.00	1	10/05/2017 02:39	WG1027353
Tetrachloroethene	U		0.372	1.00	1	10/05/2017 02:39	WG1027353
Toluene	U		0.412	1.00	1	10/05/2017 02:39	WG1027353
1,1,1-Trichloroethane	U		0.319	1.00	1	10/05/2017 02:39	WG1027353
1,1,2-Trichloroethane	U		0.383	1.00	1	10/05/2017 02:39	WG1027353
Trichloroethene	U		0.398	1.00	1	10/05/2017 02:39	WG1027353
Trichlorofluoromethane	U		1.20	5.00	1	10/05/2017 02:39	WG1027353
1,2,3-Trichloropropane	U		0.807	2.50	1	10/05/2017 02:39	WG1027353
Vinyl acetate	U		1.63	10.0	1	10/05/2017 02:39	WG1027353
Vinyl chloride	U		0.259	1.00	1	10/05/2017 02:39	WG1027353
Xylenes, Total	U		1.06	3.00	1	10/05/2017 02:39	WG1027353
(S) Toluene-d8	107			80.0-120		10/05/2017 02:39	WG1027353
(S) Dibromofluoromethane	93.6			76.0-123		10/05/2017 02:39	WG1027353
(S) 4-Bromofluorobenzene	81.9			80.0-120		10/05/2017 02:39	WG1027353





Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	418000		2820	10000	1	10/04/2017 09:48	WG1026918

1 Cp

2 Tc

Wet Chemistry by Method 4500CN E-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Cyanide	U	J4	1.80	5.00	1	10/09/2017 13:09	WG1028433

3 Ss

4 Cn

Wet Chemistry by Method 4500S2 D-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Sulfide	U		6.50	50.0	1	10/03/2017 21:55	WG1026981

5 Sr

6 Gl

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Chloride	12000		51.9	1000	1	10/07/2017 16:07	WG1028455
Sulfate	9890		77.4	5000	1	10/07/2017 16:07	WG1028455

7 Al

8 Sc

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	1200		102	1000	1	10/05/2017 22:54	WG1028089

Mercury by Method 7470A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Mercury	0.112	J	0.0490	0.200	1	10/08/2017 10:42	WG1027771

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Antimony	U		0.754	2.00	1	10/14/2017 12:58	WG1027832
Arsenic	0.596	J	0.250	2.00	1	10/14/2017 12:58	WG1027832
Barium	47.3		0.360	5.00	1	10/14/2017 12:58	WG1027832
Beryllium	U		0.120	2.00	1	10/14/2017 12:58	WG1027832
Cadmium	0.684	J	0.160	1.00	1	10/14/2017 12:58	WG1027832
Chromium	1.08	J	0.540	2.00	1	10/14/2017 12:58	WG1027832
Copper	3.02	J	0.520	5.00	1	10/14/2017 12:58	WG1027832
Cobalt	U		0.260	2.00	1	10/14/2017 12:58	WG1027832
Iron	187		15.0	100	1	10/14/2017 12:58	WG1027832
Lead	0.691	J	0.240	2.00	1	10/14/2017 12:58	WG1027832
Manganese	49.7		0.250	5.00	1	10/14/2017 12:58	WG1027832
Nickel	2.28		0.350	2.00	1	10/14/2017 12:58	WG1027832
Selenium	U		0.380	2.00	1	10/14/2017 12:58	WG1027832
Silver	U		0.310	2.00	1	10/14/2017 12:58	WG1027832
Thallium	U		0.190	2.00	1	10/14/2017 12:58	WG1027832
Tin	0.422	J	0.300	2.00	1	10/14/2017 12:58	WG1027832
Vanadium	0.821	J	0.180	5.00	1	10/14/2017 12:58	WG1027832
Zinc	60.3		2.56	25.0	1	10/14/2017 12:58	WG1027832



Collected date/time: 09/27/17 08:53

L940345

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	U		10.0	50.0	1	10/05/2017 02:58	WG1027353
Acrylonitrile	U		1.87	10.0	1	10/05/2017 02:58	WG1027353
Benzene	U		0.331	1.00	1	10/05/2017 02:58	WG1027353
Bromochloromethane	U		0.520	1.00	1	10/05/2017 02:58	WG1027353
Bromodichloromethane	U		0.380	1.00	1	10/05/2017 02:58	WG1027353
Bromoform	U		0.469	1.00	1	10/05/2017 02:58	WG1027353
Bromomethane	U		0.866	5.00	1	10/05/2017 02:58	WG1027353
Carbon disulfide	U		0.275	1.00	1	10/05/2017 02:58	WG1027353
Carbon tetrachloride	U		0.379	1.00	1	10/05/2017 02:58	WG1027353
Chlorobenzene	U		0.348	1.00	1	10/05/2017 02:58	WG1027353
Chlorodibromomethane	U		0.327	1.00	1	10/05/2017 02:58	WG1027353
Chloroethane	U		0.453	5.00	1	10/05/2017 02:58	WG1027353
Chloroform	U		0.324	5.00	1	10/05/2017 02:58	WG1027353
Chloromethane	U		0.276	2.50	1	10/05/2017 02:58	WG1027353
Dibromomethane	U		0.346	1.00	1	10/05/2017 02:58	WG1027353
1,2-Dibromoethane	U		0.381	1.00	1	10/05/2017 02:58	WG1027353
1,2-Dibromo-3-Chloropropane	U		1.33	5.00	1	10/05/2017 02:58	WG1027353
1,2-Dichlorobenzene	U		0.349	1.00	1	10/05/2017 02:58	WG1027353
1,4-Dichlorobenzene	U		0.274	1.00	1	10/05/2017 02:58	WG1027353
trans-1,4-Dichloro-2-butene	U		0.866	2.50	1	10/05/2017 02:58	WG1027353
1,1-Dichloroethane	U		0.259	1.00	1	10/05/2017 02:58	WG1027353
1,2-Dichloroethane	U		0.361	1.00	1	10/05/2017 02:58	WG1027353
1,1-Dichloroethene	U		0.398	1.00	1	10/05/2017 02:58	WG1027353
cis-1,2-Dichloroethene	U		0.260	1.00	1	10/05/2017 02:58	WG1027353
trans-1,2-Dichloroethene	U		0.396	1.00	1	10/05/2017 02:58	WG1027353
1,2-Dichloropropane	U		0.306	1.00	1	10/05/2017 02:58	WG1027353
cis-1,3-Dichloropropene	U		0.418	1.00	1	10/05/2017 02:58	WG1027353
trans-1,3-Dichloropropene	U		0.419	1.00	1	10/05/2017 02:58	WG1027353
Ethylbenzene	U		0.384	1.00	1	10/05/2017 02:58	WG1027353
2-Hexanone	U		3.82	10.0	1	10/05/2017 02:58	WG1027353
Iodomethane	U		1.71	10.0	1	10/05/2017 02:58	WG1027353
2-Butanone (MEK)	U		3.93	15.0	1	10/05/2017 02:58	WG1027353
Methylene Chloride	U		1.00	5.00	1	10/05/2017 02:58	WG1027353
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0	1	10/05/2017 02:58	WG1027353
Styrene	U		0.307	1.00	1	10/05/2017 02:58	WG1027353
1,1,1,2-Tetrachloroethane	U		0.385	1.00	1	10/05/2017 02:58	WG1027353
1,1,2,2-Tetrachloroethane	U		0.130	1.00	1	10/05/2017 02:58	WG1027353
Tetrachloroethene	U		0.372	1.00	1	10/05/2017 02:58	WG1027353
Toluene	U		0.412	1.00	1	10/05/2017 02:58	WG1027353
1,1,1-Trichloroethane	U		0.319	1.00	1	10/05/2017 02:58	WG1027353
1,1,2-Trichloroethane	U		0.383	1.00	1	10/05/2017 02:58	WG1027353
Trichloroethene	U		0.398	1.00	1	10/05/2017 02:58	WG1027353
Trichlorofluoromethane	U		1.20	5.00	1	10/05/2017 02:58	WG1027353
1,2,3-Trichloropropane	U		0.807	2.50	1	10/05/2017 02:58	WG1027353
Vinyl acetate	U		1.63	10.0	1	10/05/2017 02:58	WG1027353
Vinyl chloride	U		0.259	1.00	1	10/05/2017 02:58	WG1027353
Xylenes, Total	U		1.06	3.00	1	10/05/2017 02:58	WG1027353
(S) Toluene-d8	104			80.0-120		10/05/2017 02:58	WG1027353
(S) Dibromofluoromethane	92.6			76.0-123		10/05/2017 02:58	WG1027353
(S) 4-Bromofluorobenzene	81.1			80.0-120		10/05/2017 02:58	WG1027353

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



Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	371000		2820	10000	1	10/04/2017 14:55	WG1027616

1 Cp

2 Tc

Wet Chemistry by Method 4500CN E-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Cyanide	U	J4	1.80	5.00	1	10/09/2017 13:10	WG1028433

3 Ss

4 Cn

Wet Chemistry by Method 4500S2 D-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Sulfide	U		6.50	50.0	1	10/04/2017 21:36	WG1027507

5 Sr

6 Gl

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Chloride	2980		51.9	1000	1	10/07/2017 16:22	WG1028455
Sulfate	22900		77.4	5000	1	10/07/2017 16:22	WG1028455

7 Al

8 Sc

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	614	B J	102	1000	1	10/05/2017 23:15	WG1028089

Mercury by Method 7470A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Mercury	U		0.0490	0.200	1	10/08/2017 10:44	WG1027771

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Antimony	U		0.754	2.00	1	10/14/2017 13:01	WG1027832
Arsenic	8.97		0.250	2.00	1	10/14/2017 13:01	WG1027832
Barium	21.7		0.360	5.00	1	10/14/2017 13:01	WG1027832
Beryllium	U		0.120	2.00	1	10/14/2017 13:01	WG1027832
Cadmium	U		0.160	1.00	1	10/14/2017 13:01	WG1027832
Chromium	U		0.540	2.00	1	10/14/2017 13:01	WG1027832
Copper	0.673	J	0.520	5.00	1	10/14/2017 13:01	WG1027832
Cobalt	0.532	J	0.260	2.00	1	10/14/2017 13:01	WG1027832
Iron	136		15.0	100	1	10/14/2017 13:01	WG1027832
Lead	4.78		0.240	2.00	1	10/14/2017 13:01	WG1027832
Manganese	5.63		0.250	5.00	1	10/14/2017 13:01	WG1027832
Nickel	6.34		0.350	2.00	1	10/14/2017 13:01	WG1027832
Selenium	U		0.380	2.00	1	10/14/2017 13:01	WG1027832
Silver	U		0.310	2.00	1	10/14/2017 13:01	WG1027832
Thallium	U		0.190	2.00	1	10/14/2017 13:01	WG1027832
Tin	U		0.300	2.00	1	10/14/2017 13:01	WG1027832
Vanadium	0.709	J	0.180	5.00	1	10/14/2017 13:01	WG1027832
Zinc	62.6		2.56	25.0	1	10/14/2017 13:01	WG1027832



Collected date/time: 09/28/17 12:40

L940345

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	U		10.0	50.0	1	10/05/2017 03:18	WG1027353
Acrylonitrile	U		1.87	10.0	1	10/05/2017 03:18	WG1027353
Benzene	U		0.331	1.00	1	10/05/2017 03:18	WG1027353
Bromochloromethane	U		0.520	1.00	1	10/05/2017 03:18	WG1027353
Bromodichloromethane	U		0.380	1.00	1	10/05/2017 03:18	WG1027353
Bromoform	U		0.469	1.00	1	10/05/2017 03:18	WG1027353
Bromomethane	U		0.866	5.00	1	10/05/2017 03:18	WG1027353
Carbon disulfide	U		0.275	1.00	1	10/05/2017 03:18	WG1027353
Carbon tetrachloride	U		0.379	1.00	1	10/05/2017 03:18	WG1027353
Chlorobenzene	U		0.348	1.00	1	10/05/2017 03:18	WG1027353
Chlorodibromomethane	U		0.327	1.00	1	10/05/2017 03:18	WG1027353
Chloroethane	U		0.453	5.00	1	10/05/2017 03:18	WG1027353
Chloroform	U		0.324	5.00	1	10/05/2017 03:18	WG1027353
Chloromethane	U		0.276	2.50	1	10/05/2017 03:18	WG1027353
Dibromomethane	U		0.346	1.00	1	10/05/2017 03:18	WG1027353
1,2-Dibromoethane	U		0.381	1.00	1	10/05/2017 03:18	WG1027353
1,2-Dibromo-3-Chloropropane	U		1.33	5.00	1	10/05/2017 03:18	WG1027353
1,2-Dichlorobenzene	U		0.349	1.00	1	10/05/2017 03:18	WG1027353
1,4-Dichlorobenzene	U		0.274	1.00	1	10/05/2017 03:18	WG1027353
trans-1,4-Dichloro-2-butene	U		0.866	2.50	1	10/05/2017 03:18	WG1027353
1,1-Dichloroethane	U		0.259	1.00	1	10/05/2017 03:18	WG1027353
1,2-Dichloroethane	U		0.361	1.00	1	10/05/2017 03:18	WG1027353
1,1-Dichloroethene	U		0.398	1.00	1	10/05/2017 03:18	WG1027353
cis-1,2-Dichloroethene	U		0.260	1.00	1	10/05/2017 03:18	WG1027353
trans-1,2-Dichloroethene	U		0.396	1.00	1	10/05/2017 03:18	WG1027353
1,2-Dichloropropane	U		0.306	1.00	1	10/05/2017 03:18	WG1027353
cis-1,3-Dichloropropene	U		0.418	1.00	1	10/05/2017 03:18	WG1027353
trans-1,3-Dichloropropene	U		0.419	1.00	1	10/05/2017 03:18	WG1027353
Ethylbenzene	U		0.384	1.00	1	10/05/2017 03:18	WG1027353
2-Hexanone	U		3.82	10.0	1	10/05/2017 03:18	WG1027353
Iodomethane	U		1.71	10.0	1	10/05/2017 03:18	WG1027353
2-Butanone (MEK)	U		3.93	15.0	1	10/05/2017 03:18	WG1027353
Methylene Chloride	U		1.00	5.00	1	10/05/2017 03:18	WG1027353
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0	1	10/05/2017 03:18	WG1027353
Styrene	U		0.307	1.00	1	10/05/2017 03:18	WG1027353
1,1,1,2-Tetrachloroethane	U		0.385	1.00	1	10/05/2017 03:18	WG1027353
1,1,2,2-Tetrachloroethane	U		0.130	1.00	1	10/05/2017 03:18	WG1027353
Tetrachloroethene	U		0.372	1.00	1	10/05/2017 03:18	WG1027353
Toluene	U		0.412	1.00	1	10/05/2017 03:18	WG1027353
1,1,1-Trichloroethane	U		0.319	1.00	1	10/05/2017 03:18	WG1027353
1,1,2-Trichloroethane	U		0.383	1.00	1	10/05/2017 03:18	WG1027353
Trichloroethene	U		0.398	1.00	1	10/05/2017 03:18	WG1027353
Trichlorofluoromethane	U		1.20	5.00	1	10/05/2017 03:18	WG1027353
1,2,3-Trichloropropane	U		0.807	2.50	1	10/05/2017 03:18	WG1027353
Vinyl acetate	U		1.63	10.0	1	10/05/2017 03:18	WG1027353
Vinyl chloride	U		0.259	1.00	1	10/05/2017 03:18	WG1027353
Xylenes, Total	U		1.06	3.00	1	10/05/2017 03:18	WG1027353
(S) Toluene-d8	106			80.0-120		10/05/2017 03:18	WG1027353
(S) Dibromofluoromethane	95.7			76.0-123		10/05/2017 03:18	WG1027353
(S) 4-Bromofluorobenzene	82.5			80.0-120		10/05/2017 03:18	WG1027353





Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	374000		2820	10000	1	10/04/2017 09:48	WG1026918

1 Cp

2 Tc

Wet Chemistry by Method 4500CN E-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Cyanide	U	J4	1.80	5.00	1	10/09/2017 13:11	WG1028433

3 Ss

4 Cn

Wet Chemistry by Method 4500S2 D-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Sulfide	U		6.50	50.0	1	10/03/2017 21:55	WG1026981

5 Sr

6 Gl

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Chloride	3010		51.9	1000	1	10/07/2017 16:37	WG1028455
Sulfate	11600		77.4	5000	1	10/07/2017 16:37	WG1028455

7 Al

8 Sc

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	5100		102	1000	1	10/05/2017 23:30	WG1028089

Mercury by Method 7470A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Mercury	U		0.0490	0.200	1	10/08/2017 10:46	WG1027771

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Antimony	U		0.754	2.00	1	10/14/2017 13:05	WG1027832
Arsenic	2.64		0.250	2.00	1	10/14/2017 13:05	WG1027832
Barium	30.0		0.360	5.00	1	10/14/2017 13:05	WG1027832
Beryllium	U		0.120	2.00	1	10/14/2017 13:05	WG1027832
Cadmium	U		0.160	1.00	1	10/14/2017 13:05	WG1027832
Chromium	U		0.540	2.00	1	10/14/2017 13:05	WG1027832
Copper	0.997	J	0.520	5.00	1	10/14/2017 13:05	WG1027832
Cobalt	U		0.260	2.00	1	10/14/2017 13:05	WG1027832
Iron	114		15.0	100	1	10/14/2017 13:05	WG1027832
Lead	0.417	J	0.240	2.00	1	10/14/2017 13:05	WG1027832
Manganese	9.64		0.250	5.00	1	10/14/2017 13:05	WG1027832
Nickel	0.531	J	0.350	2.00	1	10/14/2017 13:05	WG1027832
Selenium	U		0.380	2.00	1	10/14/2017 13:05	WG1027832
Silver	U		0.310	2.00	1	10/14/2017 13:05	WG1027832
Thallium	U		0.190	2.00	1	10/14/2017 13:05	WG1027832
Tin	0.378	J	0.300	2.00	1	10/14/2017 13:05	WG1027832
Vanadium	0.505	J	0.180	5.00	1	10/14/2017 13:05	WG1027832
Zinc	7.67	J	2.56	25.0	1	10/14/2017 13:05	WG1027832



Collected date/time: 09/27/17 07:00

L940345

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	U		10.0	50.0	1	10/05/2017 03:37	WG1027353
Acrylonitrile	U		1.87	10.0	1	10/05/2017 03:37	WG1027353
Benzene	U		0.331	1.00	1	10/05/2017 03:37	WG1027353
Bromochloromethane	U		0.520	1.00	1	10/05/2017 03:37	WG1027353
Bromodichloromethane	U		0.380	1.00	1	10/05/2017 03:37	WG1027353
Bromoform	U		0.469	1.00	1	10/05/2017 03:37	WG1027353
Bromomethane	U		0.866	5.00	1	10/05/2017 03:37	WG1027353
Carbon disulfide	U		0.275	1.00	1	10/05/2017 03:37	WG1027353
Carbon tetrachloride	U		0.379	1.00	1	10/05/2017 03:37	WG1027353
Chlorobenzene	U		0.348	1.00	1	10/05/2017 03:37	WG1027353
Chlorodibromomethane	U		0.327	1.00	1	10/05/2017 03:37	WG1027353
Chloroethane	U		0.453	5.00	1	10/05/2017 03:37	WG1027353
Chloroform	U		0.324	5.00	1	10/05/2017 03:37	WG1027353
Chloromethane	U		0.276	2.50	1	10/05/2017 03:37	WG1027353
Dibromomethane	U		0.346	1.00	1	10/05/2017 03:37	WG1027353
1,2-Dibromoethane	U		0.381	1.00	1	10/05/2017 03:37	WG1027353
1,2-Dibromo-3-Chloropropane	U		1.33	5.00	1	10/05/2017 03:37	WG1027353
1,2-Dichlorobenzene	U		0.349	1.00	1	10/05/2017 03:37	WG1027353
1,4-Dichlorobenzene	U		0.274	1.00	1	10/05/2017 03:37	WG1027353
trans-1,4-Dichloro-2-butene	U		0.866	2.50	1	10/05/2017 03:37	WG1027353
1,1-Dichloroethane	U		0.259	1.00	1	10/05/2017 03:37	WG1027353
1,2-Dichloroethane	U		0.361	1.00	1	10/05/2017 03:37	WG1027353
1,1-Dichloroethene	U		0.398	1.00	1	10/05/2017 03:37	WG1027353
cis-1,2-Dichloroethene	U		0.260	1.00	1	10/05/2017 03:37	WG1027353
trans-1,2-Dichloroethene	U		0.396	1.00	1	10/05/2017 03:37	WG1027353
1,2-Dichloropropane	U		0.306	1.00	1	10/05/2017 03:37	WG1027353
cis-1,3-Dichloropropene	U		0.418	1.00	1	10/05/2017 03:37	WG1027353
trans-1,3-Dichloropropene	U		0.419	1.00	1	10/05/2017 03:37	WG1027353
Ethylbenzene	U		0.384	1.00	1	10/05/2017 03:37	WG1027353
2-Hexanone	U		3.82	10.0	1	10/05/2017 03:37	WG1027353
Iodomethane	U		1.71	10.0	1	10/05/2017 03:37	WG1027353
2-Butanone (MEK)	U		3.93	15.0	1	10/05/2017 03:37	WG1027353
Methylene Chloride	U		1.00	5.00	1	10/05/2017 03:37	WG1027353
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0	1	10/05/2017 03:37	WG1027353
Styrene	U		0.307	1.00	1	10/05/2017 03:37	WG1027353
1,1,1,2-Tetrachloroethane	U		0.385	1.00	1	10/05/2017 03:37	WG1027353
1,1,2,2-Tetrachloroethane	U		0.130	1.00	1	10/05/2017 03:37	WG1027353
Tetrachloroethene	U		0.372	1.00	1	10/05/2017 03:37	WG1027353
Toluene	U		0.412	1.00	1	10/05/2017 03:37	WG1027353
1,1,1-Trichloroethane	U		0.319	1.00	1	10/05/2017 03:37	WG1027353
1,1,2-Trichloroethane	U		0.383	1.00	1	10/05/2017 03:37	WG1027353
Trichloroethene	U		0.398	1.00	1	10/05/2017 03:37	WG1027353
Trichlorofluoromethane	U		1.20	5.00	1	10/05/2017 03:37	WG1027353
1,2,3-Trichloropropane	U		0.807	2.50	1	10/05/2017 03:37	WG1027353
Vinyl acetate	U		1.63	10.0	1	10/05/2017 03:37	WG1027353
Vinyl chloride	U		0.259	1.00	1	10/05/2017 03:37	WG1027353
Xylenes, Total	U		1.06	3.00	1	10/05/2017 03:37	WG1027353
(S) Toluene-d8	102			80.0-120		10/05/2017 03:37	WG1027353
(S) Dibromofluoromethane	92.8			76.0-123		10/05/2017 03:37	WG1027353
(S) 4-Bromofluorobenzene	83.6			80.0-120		10/05/2017 03:37	WG1027353

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



Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	396000		2820	10000	1	10/04/2017 09:48	WG1026918

1 Cp

2 Tc

Wet Chemistry by Method 4500CN E-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Cyanide	U	J4	1.80	5.00	1	10/09/2017 13:14	WG1028433

3 Ss

4 Cn

Wet Chemistry by Method 4500S2 D-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Sulfide	U		6.50	50.0	1	10/03/2017 21:56	WG1026981

5 Sr

6 Gl

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Chloride	7000		51.9	1000	1	10/07/2017 16:52	WG1028455
Sulfate	10200		77.4	5000	1	10/07/2017 16:52	WG1028455

7 Al

8 Sc

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	309	B J	102	1000	1	10/05/2017 23:45	WG1028089

Mercury by Method 7470A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Mercury	U		0.0490	0.200	1	10/08/2017 10:49	WG1027771

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Antimony	U		0.754	2.00	1	10/14/2017 13:15	WG1027832
Arsenic	1.37	J	0.250	2.00	1	10/14/2017 13:15	WG1027832
Barium	32.7		0.360	5.00	1	10/14/2017 13:15	WG1027832
Beryllium	U		0.120	2.00	1	10/14/2017 13:15	WG1027832
Cadmium	6.14		0.160	1.00	1	10/14/2017 13:15	WG1027832
Chromium	3.21		0.540	2.00	1	10/14/2017 13:15	WG1027832
Copper	6.45		0.520	5.00	1	10/14/2017 13:15	WG1027832
Cobalt	0.445	J	0.260	2.00	1	10/14/2017 13:15	WG1027832
Iron	989		15.0	100	1	10/14/2017 13:15	WG1027832
Lead	2.71		0.240	2.00	1	10/14/2017 13:15	WG1027832
Manganese	16.5		0.250	5.00	1	10/14/2017 13:15	WG1027832
Nickel	2.82		0.350	2.00	1	10/14/2017 13:15	WG1027832
Selenium	U		0.380	2.00	1	10/14/2017 13:15	WG1027832
Silver	U		0.310	2.00	1	10/14/2017 13:15	WG1027832
Thallium	U		0.190	2.00	1	10/14/2017 13:15	WG1027832
Tin	1.39	J	0.300	2.00	1	10/14/2017 13:15	WG1027832
Vanadium	2.81	J	0.180	5.00	1	10/14/2017 13:15	WG1027832
Zinc	518		2.56	25.0	1	10/14/2017 13:15	WG1027832



Collected date/time: 09/27/17 12:10

L940345

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	U		10.0	50.0	1	10/05/2017 03:56	WG1027353
Acrylonitrile	U		1.87	10.0	1	10/05/2017 03:56	WG1027353
Benzene	U		0.331	1.00	1	10/05/2017 03:56	WG1027353
Bromochloromethane	U		0.520	1.00	1	10/05/2017 03:56	WG1027353
Bromodichloromethane	U		0.380	1.00	1	10/05/2017 03:56	WG1027353
Bromoform	U		0.469	1.00	1	10/05/2017 03:56	WG1027353
Bromomethane	U		0.866	5.00	1	10/05/2017 03:56	WG1027353
Carbon disulfide	U		0.275	1.00	1	10/05/2017 03:56	WG1027353
Carbon tetrachloride	U		0.379	1.00	1	10/05/2017 03:56	WG1027353
Chlorobenzene	U		0.348	1.00	1	10/05/2017 03:56	WG1027353
Chlorodibromomethane	U		0.327	1.00	1	10/05/2017 03:56	WG1027353
Chloroethane	U		0.453	5.00	1	10/05/2017 03:56	WG1027353
Chloroform	U		0.324	5.00	1	10/05/2017 03:56	WG1027353
Chloromethane	U		0.276	2.50	1	10/05/2017 03:56	WG1027353
Dibromomethane	U		0.346	1.00	1	10/05/2017 03:56	WG1027353
1,2-Dibromoethane	U		0.381	1.00	1	10/05/2017 03:56	WG1027353
1,2-Dibromo-3-Chloropropane	U		1.33	5.00	1	10/05/2017 03:56	WG1027353
1,2-Dichlorobenzene	U		0.349	1.00	1	10/05/2017 03:56	WG1027353
1,4-Dichlorobenzene	U		0.274	1.00	1	10/05/2017 03:56	WG1027353
trans-1,4-Dichloro-2-butene	U		0.866	2.50	1	10/05/2017 03:56	WG1027353
1,1-Dichloroethane	U		0.259	1.00	1	10/05/2017 03:56	WG1027353
1,2-Dichloroethane	U		0.361	1.00	1	10/05/2017 03:56	WG1027353
1,1-Dichloroethene	U		0.398	1.00	1	10/05/2017 03:56	WG1027353
cis-1,2-Dichloroethene	U		0.260	1.00	1	10/05/2017 03:56	WG1027353
trans-1,2-Dichloroethene	U		0.396	1.00	1	10/05/2017 03:56	WG1027353
1,2-Dichloropropane	U		0.306	1.00	1	10/05/2017 03:56	WG1027353
cis-1,3-Dichloropropene	U		0.418	1.00	1	10/05/2017 03:56	WG1027353
trans-1,3-Dichloropropene	U		0.419	1.00	1	10/05/2017 03:56	WG1027353
Ethylbenzene	U		0.384	1.00	1	10/05/2017 03:56	WG1027353
2-Hexanone	U		3.82	10.0	1	10/05/2017 03:56	WG1027353
Iodomethane	U		1.71	10.0	1	10/05/2017 03:56	WG1027353
2-Butanone (MEK)	U		3.93	15.0	1	10/05/2017 03:56	WG1027353
Methylene Chloride	U		1.00	5.00	1	10/05/2017 03:56	WG1027353
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0	1	10/05/2017 03:56	WG1027353
Styrene	U		0.307	1.00	1	10/05/2017 03:56	WG1027353
1,1,1,2-Tetrachloroethane	U		0.385	1.00	1	10/05/2017 03:56	WG1027353
1,1,2,2-Tetrachloroethane	U		0.130	1.00	1	10/05/2017 03:56	WG1027353
Tetrachloroethene	U		0.372	1.00	1	10/05/2017 03:56	WG1027353
Toluene	U		0.412	1.00	1	10/05/2017 03:56	WG1027353
1,1,1-Trichloroethane	U		0.319	1.00	1	10/05/2017 03:56	WG1027353
1,1,2-Trichloroethane	U		0.383	1.00	1	10/05/2017 03:56	WG1027353
Trichloroethene	U		0.398	1.00	1	10/05/2017 03:56	WG1027353
Trichlorofluoromethane	U		1.20	5.00	1	10/05/2017 03:56	WG1027353
1,2,3-Trichloropropane	U		0.807	2.50	1	10/05/2017 03:56	WG1027353
Vinyl acetate	U		1.63	10.0	1	10/05/2017 03:56	WG1027353
Vinyl chloride	U		0.259	1.00	1	10/05/2017 03:56	WG1027353
Xylenes, Total	U		1.06	3.00	1	10/05/2017 03:56	WG1027353
(S) Toluene-d8	107			80.0-120		10/05/2017 03:56	WG1027353
(S) Dibromofluoromethane	91.5			76.0-123		10/05/2017 03:56	WG1027353
(S) 4-Bromofluorobenzene	84.2			80.0-120		10/05/2017 03:56	WG1027353





Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	416000		2820	10000	1	10/04/2017 09:48	WG1026918

1 Cp

2 Tc

Wet Chemistry by Method 4500CN E-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Cyanide	U	J4	1.80	5.00	1	10/09/2017 13:15	WG1028433

3 Ss

4 Cn

Wet Chemistry by Method 4500S2 D-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Sulfide	U		6.50	50.0	1	10/03/2017 21:56	WG1026981

5 Sr

6 Gl

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Chloride	3000		51.9	1000	1	10/07/2017 17:07	WG1028455
Sulfate	25100		77.4	5000	1	10/07/2017 17:07	WG1028455

7 Al

8 Sc

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	303	B J	102	1000	1	10/06/2017 00:16	WG1028089

Mercury by Method 7470A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Mercury	U		0.0490	0.200	1	10/08/2017 10:55	WG1027771

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Antimony	U		0.754	2.00	1	10/14/2017 13:19	WG1027832
Arsenic	1.51	J	0.250	2.00	1	10/14/2017 13:19	WG1027832
Barium	23.1		0.360	5.00	1	10/14/2017 13:19	WG1027832
Beryllium	U		0.120	2.00	1	10/14/2017 13:19	WG1027832
Cadmium	U		0.160	1.00	1	10/14/2017 13:19	WG1027832
Chromium	U		0.540	2.00	1	10/14/2017 13:19	WG1027832
Copper	0.703	J	0.520	5.00	1	10/14/2017 13:19	WG1027832
Cobalt	U		0.260	2.00	1	10/14/2017 13:19	WG1027832
Iron	171		15.0	100	1	10/14/2017 13:19	WG1027832
Lead	0.249	J	0.240	2.00	1	10/14/2017 13:19	WG1027832
Manganese	5.80		0.250	5.00	1	10/14/2017 13:19	WG1027832
Nickel	U		0.350	2.00	1	10/14/2017 13:19	WG1027832
Selenium	U		0.380	2.00	1	10/14/2017 13:19	WG1027832
Silver	U		0.310	2.00	1	10/14/2017 13:19	WG1027832
Thallium	U		0.190	2.00	1	10/14/2017 13:19	WG1027832
Tin	0.367	J	0.300	2.00	1	10/14/2017 13:19	WG1027832
Vanadium	0.407	J	0.180	5.00	1	10/14/2017 13:19	WG1027832
Zinc	U		2.56	25.0	1	10/14/2017 13:19	WG1027832



Collected date/time: 09/27/17 09:27

L940345

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	U		10.0	50.0	1	10/05/2017 04:15	WG1027353
Acrylonitrile	U		1.87	10.0	1	10/05/2017 04:15	WG1027353
Benzene	U		0.331	1.00	1	10/05/2017 04:15	WG1027353
Bromochloromethane	U		0.520	1.00	1	10/05/2017 04:15	WG1027353
Bromodichloromethane	U		0.380	1.00	1	10/05/2017 04:15	WG1027353
Bromoform	U		0.469	1.00	1	10/05/2017 04:15	WG1027353
Bromomethane	U		0.866	5.00	1	10/05/2017 04:15	WG1027353
Carbon disulfide	U		0.275	1.00	1	10/05/2017 04:15	WG1027353
Carbon tetrachloride	U		0.379	1.00	1	10/05/2017 04:15	WG1027353
Chlorobenzene	U		0.348	1.00	1	10/05/2017 04:15	WG1027353
Chlorodibromomethane	U		0.327	1.00	1	10/05/2017 04:15	WG1027353
Chloroethane	U		0.453	5.00	1	10/05/2017 04:15	WG1027353
Chloroform	U		0.324	5.00	1	10/05/2017 04:15	WG1027353
Chloromethane	U		0.276	2.50	1	10/05/2017 04:15	WG1027353
Dibromomethane	U		0.346	1.00	1	10/05/2017 04:15	WG1027353
1,2-Dibromoethane	U		0.381	1.00	1	10/05/2017 04:15	WG1027353
1,2-Dibromo-3-Chloropropane	U		1.33	5.00	1	10/05/2017 04:15	WG1027353
1,2-Dichlorobenzene	U		0.349	1.00	1	10/05/2017 04:15	WG1027353
1,4-Dichlorobenzene	U		0.274	1.00	1	10/05/2017 04:15	WG1027353
trans-1,4-Dichloro-2-butene	U		0.866	2.50	1	10/05/2017 04:15	WG1027353
1,1-Dichloroethane	U		0.259	1.00	1	10/05/2017 04:15	WG1027353
1,2-Dichloroethane	U		0.361	1.00	1	10/05/2017 04:15	WG1027353
1,1-Dichloroethene	U		0.398	1.00	1	10/05/2017 04:15	WG1027353
cis-1,2-Dichloroethene	U		0.260	1.00	1	10/05/2017 04:15	WG1027353
trans-1,2-Dichloroethene	U		0.396	1.00	1	10/05/2017 04:15	WG1027353
1,2-Dichloropropane	U		0.306	1.00	1	10/05/2017 04:15	WG1027353
cis-1,3-Dichloropropene	U		0.418	1.00	1	10/05/2017 04:15	WG1027353
trans-1,3-Dichloropropene	U		0.419	1.00	1	10/05/2017 04:15	WG1027353
Ethylbenzene	U		0.384	1.00	1	10/05/2017 04:15	WG1027353
2-Hexanone	U		3.82	10.0	1	10/05/2017 04:15	WG1027353
Iodomethane	U		1.71	10.0	1	10/05/2017 04:15	WG1027353
2-Butanone (MEK)	U		3.93	15.0	1	10/05/2017 04:15	WG1027353
Methylene Chloride	U		1.00	5.00	1	10/05/2017 04:15	WG1027353
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0	1	10/05/2017 04:15	WG1027353
Styrene	U		0.307	1.00	1	10/05/2017 04:15	WG1027353
1,1,1,2-Tetrachloroethane	U		0.385	1.00	1	10/05/2017 04:15	WG1027353
1,1,2,2-Tetrachloroethane	U		0.130	1.00	1	10/05/2017 04:15	WG1027353
Tetrachloroethene	U		0.372	1.00	1	10/05/2017 04:15	WG1027353
Toluene	U		0.412	1.00	1	10/05/2017 04:15	WG1027353
1,1,1-Trichloroethane	U		0.319	1.00	1	10/05/2017 04:15	WG1027353
1,1,2-Trichloroethane	U		0.383	1.00	1	10/05/2017 04:15	WG1027353
Trichloroethene	U		0.398	1.00	1	10/05/2017 04:15	WG1027353
Trichlorofluoromethane	U		1.20	5.00	1	10/05/2017 04:15	WG1027353
1,2,3-Trichloropropane	U		0.807	2.50	1	10/05/2017 04:15	WG1027353
Vinyl acetate	U		1.63	10.0	1	10/05/2017 04:15	WG1027353
Vinyl chloride	U		0.259	1.00	1	10/05/2017 04:15	WG1027353
Xylenes, Total	U		1.06	3.00	1	10/05/2017 04:15	WG1027353
(S) Toluene-d8	105			80.0-120		10/05/2017 04:15	WG1027353
(S) Dibromofluoromethane	93.0			76.0-123		10/05/2017 04:15	WG1027353
(S) 4-Bromofluorobenzene	81.6			80.0-120		10/05/2017 04:15	WG1027353

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Gl

7 Al

8 Sc



Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	393000		2820	10000	1	10/04/2017 09:48	WG1026918

1 Cp

2 Tc

Wet Chemistry by Method 4500CN E-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Cyanide	U	J4	1.80	5.00	1	10/09/2017 13:18	WG1028433

3 Ss

4 Cn

Wet Chemistry by Method 4500S2 D-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Sulfide	U		6.50	50.0	1	10/03/2017 21:57	WG1026981

5 Sr

6 Gl

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Chloride	2910	P1	51.9	1000	1	10/07/2017 17:21	WG1028455
Sulfate	13700		77.4	5000	1	10/07/2017 17:21	WG1028455

7 Al

8 Sc

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	400	B J	102	1000	1	10/06/2017 00:35	WG1028089

Mercury by Method 7470A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Mercury	U		0.0490	0.200	1	10/08/2017 10:58	WG1027771

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Antimony	U		0.754	2.00	1	10/14/2017 13:22	WG1027832
Arsenic	0.725	J	0.250	2.00	1	10/14/2017 13:22	WG1027832
Barium	26.8		0.360	5.00	1	10/14/2017 13:22	WG1027832
Beryllium	U		0.120	2.00	1	10/14/2017 13:22	WG1027832
Cadmium	U		0.160	1.00	1	10/14/2017 13:22	WG1027832
Chromium	0.552	J	0.540	2.00	1	10/14/2017 13:22	WG1027832
Copper	0.790	J	0.520	5.00	1	10/14/2017 13:22	WG1027832
Cobalt	U		0.260	2.00	1	10/14/2017 13:22	WG1027832
Iron	80.0	J	15.0	100	1	10/14/2017 13:22	WG1027832
Lead	0.598	J	0.240	2.00	1	10/14/2017 13:22	WG1027832
Manganese	5.69		0.250	5.00	1	10/14/2017 13:22	WG1027832
Nickel	0.936	J	0.350	2.00	1	10/14/2017 13:22	WG1027832
Selenium	U		0.380	2.00	1	10/14/2017 13:22	WG1027832
Silver	U		0.310	2.00	1	10/14/2017 13:22	WG1027832
Thallium	U		0.190	2.00	1	10/14/2017 13:22	WG1027832
Tin	U		0.300	2.00	1	10/14/2017 13:22	WG1027832
Vanadium	0.512	J	0.180	5.00	1	10/14/2017 13:22	WG1027832
Zinc	4.56	J	2.56	25.0	1	10/14/2017 13:22	WG1027832



Collected date/time: 09/27/17 10:00

L940345

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	U		10.0	50.0	1	10/05/2017 04:35	WG1027353
Acrylonitrile	U		1.87	10.0	1	10/05/2017 04:35	WG1027353
Benzene	U		0.331	1.00	1	10/05/2017 04:35	WG1027353
Bromochloromethane	U		0.520	1.00	1	10/05/2017 04:35	WG1027353
Bromodichloromethane	U		0.380	1.00	1	10/05/2017 04:35	WG1027353
Bromoform	U		0.469	1.00	1	10/05/2017 04:35	WG1027353
Bromomethane	U		0.866	5.00	1	10/05/2017 04:35	WG1027353
Carbon disulfide	U		0.275	1.00	1	10/05/2017 04:35	WG1027353
Carbon tetrachloride	U		0.379	1.00	1	10/05/2017 04:35	WG1027353
Chlorobenzene	U		0.348	1.00	1	10/05/2017 04:35	WG1027353
Chlorodibromomethane	U		0.327	1.00	1	10/05/2017 04:35	WG1027353
Chloroethane	U		0.453	5.00	1	10/05/2017 04:35	WG1027353
Chloroform	U		0.324	5.00	1	10/05/2017 04:35	WG1027353
Chloromethane	U		0.276	2.50	1	10/05/2017 04:35	WG1027353
Dibromomethane	U		0.346	1.00	1	10/05/2017 04:35	WG1027353
1,2-Dibromoethane	U		0.381	1.00	1	10/05/2017 04:35	WG1027353
1,2-Dibromo-3-Chloropropane	U		1.33	5.00	1	10/05/2017 04:35	WG1027353
1,2-Dichlorobenzene	U		0.349	1.00	1	10/05/2017 04:35	WG1027353
1,4-Dichlorobenzene	U		0.274	1.00	1	10/05/2017 04:35	WG1027353
trans-1,4-Dichloro-2-butene	U		0.866	2.50	1	10/05/2017 04:35	WG1027353
1,1-Dichloroethane	U		0.259	1.00	1	10/05/2017 04:35	WG1027353
1,2-Dichloroethane	U		0.361	1.00	1	10/05/2017 04:35	WG1027353
1,1-Dichloroethene	U		0.398	1.00	1	10/05/2017 04:35	WG1027353
cis-1,2-Dichloroethene	U		0.260	1.00	1	10/05/2017 04:35	WG1027353
trans-1,2-Dichloroethene	U		0.396	1.00	1	10/05/2017 04:35	WG1027353
1,2-Dichloropropane	U		0.306	1.00	1	10/05/2017 04:35	WG1027353
cis-1,3-Dichloropropene	U		0.418	1.00	1	10/05/2017 04:35	WG1027353
trans-1,3-Dichloropropene	U		0.419	1.00	1	10/05/2017 04:35	WG1027353
Ethylbenzene	U		0.384	1.00	1	10/05/2017 04:35	WG1027353
2-Hexanone	U		3.82	10.0	1	10/05/2017 04:35	WG1027353
Iodomethane	U		1.71	10.0	1	10/05/2017 04:35	WG1027353
2-Butanone (MEK)	U		3.93	15.0	1	10/05/2017 04:35	WG1027353
Methylene Chloride	U		1.00	5.00	1	10/05/2017 04:35	WG1027353
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0	1	10/05/2017 04:35	WG1027353
Styrene	U		0.307	1.00	1	10/05/2017 04:35	WG1027353
1,1,1,2-Tetrachloroethane	U		0.385	1.00	1	10/05/2017 04:35	WG1027353
1,1,2,2-Tetrachloroethane	U		0.130	1.00	1	10/05/2017 04:35	WG1027353
Tetrachloroethene	U		0.372	1.00	1	10/05/2017 04:35	WG1027353
Toluene	U		0.412	1.00	1	10/05/2017 04:35	WG1027353
1,1,1-Trichloroethane	U		0.319	1.00	1	10/05/2017 04:35	WG1027353
1,1,2-Trichloroethane	U		0.383	1.00	1	10/05/2017 04:35	WG1027353
Trichloroethene	U		0.398	1.00	1	10/05/2017 04:35	WG1027353
Trichlorofluoromethane	U		1.20	5.00	1	10/05/2017 04:35	WG1027353
1,2,3-Trichloropropane	U		0.807	2.50	1	10/05/2017 04:35	WG1027353
Vinyl acetate	U		1.63	10.0	1	10/05/2017 04:35	WG1027353
Vinyl chloride	U		0.259	1.00	1	10/05/2017 04:35	WG1027353
Xylenes, Total	U		1.06	3.00	1	10/05/2017 04:35	WG1027353
(S) Toluene-d8	105			80.0-120		10/05/2017 04:35	WG1027353
(S) Dibromofluoromethane	93.8			76.0-123		10/05/2017 04:35	WG1027353
(S) 4-Bromofluorobenzene	81.4			80.0-120		10/05/2017 04:35	WG1027353

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Gl

7 Al

8 Sc



Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	430000		2820	10000	1	10/04/2017 09:48	WG1026918

1 Cp

2 Tc

Wet Chemistry by Method 4500CN E-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Cyanide	U	J4	1.80	5.00	1	10/09/2017 13:19	WG1028433

3 Ss

4 Cn

Wet Chemistry by Method 4500S2 D-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Sulfide	U		6.50	50.0	1	10/03/2017 21:57	WG1026981

5 Sr

6 Gl

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Chloride	17500		51.9	1000	1	10/07/2017 18:36	WG1028455
Sulfate	11500		77.4	5000	1	10/07/2017 18:36	WG1028455

7 Al

8 Sc

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	1310		102	1000	1	10/06/2017 00:55	WG1028089

Mercury by Method 7470A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Mercury	2.15		0.0490	0.200	1	10/08/2017 11:00	WG1027771

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Antimony	U		0.754	2.00	1	10/14/2017 13:26	WG1027832
Arsenic	0.722	J	0.250	2.00	1	10/14/2017 13:26	WG1027832
Barium	39.9		0.360	5.00	1	10/14/2017 13:26	WG1027832
Beryllium	U		0.120	2.00	1	10/14/2017 13:26	WG1027832
Cadmium	1.82		0.160	1.00	1	10/14/2017 13:26	WG1027832
Chromium	0.586	J	0.540	2.00	1	10/14/2017 13:26	WG1027832
Copper	2.88	J	0.520	5.00	1	10/14/2017 13:26	WG1027832
Cobalt	U		0.260	2.00	1	10/14/2017 13:26	WG1027832
Iron	19.7	J	15.0	100	1	10/14/2017 13:26	WG1027832
Lead	U		0.240	2.00	1	10/14/2017 13:26	WG1027832
Manganese	6.30		0.250	5.00	1	10/14/2017 13:26	WG1027832
Nickel	1.74	J	0.350	2.00	1	10/14/2017 13:26	WG1027832
Selenium	U		0.380	2.00	1	10/14/2017 13:26	WG1027832
Silver	U		0.310	2.00	1	10/14/2017 13:26	WG1027832
Thallium	U		0.190	2.00	1	10/14/2017 13:26	WG1027832
Tin	0.420	J	0.300	2.00	1	10/14/2017 13:26	WG1027832
Vanadium	0.514	J	0.180	5.00	1	10/14/2017 13:26	WG1027832
Zinc	325		2.56	25.0	1	10/14/2017 13:26	WG1027832



Collected date/time: 09/27/17 10:55

L940345

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	U		10.0	50.0	1	10/05/2017 04:54	WG1027353
Acrylonitrile	U		1.87	10.0	1	10/05/2017 04:54	WG1027353
Benzene	U		0.331	1.00	1	10/05/2017 04:54	WG1027353
Bromochloromethane	U		0.520	1.00	1	10/05/2017 04:54	WG1027353
Bromodichloromethane	U		0.380	1.00	1	10/05/2017 04:54	WG1027353
Bromoform	U		0.469	1.00	1	10/05/2017 04:54	WG1027353
Bromomethane	U		0.866	5.00	1	10/05/2017 04:54	WG1027353
Carbon disulfide	U		0.275	1.00	1	10/05/2017 04:54	WG1027353
Carbon tetrachloride	U		0.379	1.00	1	10/05/2017 04:54	WG1027353
Chlorobenzene	U		0.348	1.00	1	10/05/2017 04:54	WG1027353
Chlorodibromomethane	U		0.327	1.00	1	10/05/2017 04:54	WG1027353
Chloroethane	U		0.453	5.00	1	10/05/2017 04:54	WG1027353
Chloroform	U		0.324	5.00	1	10/05/2017 04:54	WG1027353
Chloromethane	U		0.276	2.50	1	10/05/2017 04:54	WG1027353
Dibromomethane	U		0.346	1.00	1	10/05/2017 04:54	WG1027353
1,2-Dibromoethane	U		0.381	1.00	1	10/05/2017 04:54	WG1027353
1,2-Dibromo-3-Chloropropane	U		1.33	5.00	1	10/05/2017 04:54	WG1027353
1,2-Dichlorobenzene	U		0.349	1.00	1	10/05/2017 04:54	WG1027353
1,4-Dichlorobenzene	U		0.274	1.00	1	10/05/2017 04:54	WG1027353
trans-1,4-Dichloro-2-butene	U		0.866	2.50	1	10/05/2017 04:54	WG1027353
1,1-Dichloroethane	1.56		0.259	1.00	1	10/05/2017 04:54	WG1027353
1,2-Dichloroethane	U		0.361	1.00	1	10/05/2017 04:54	WG1027353
1,1-Dichloroethene	U		0.398	1.00	1	10/05/2017 04:54	WG1027353
cis-1,2-Dichloroethene	0.748	U	0.260	1.00	1	10/05/2017 04:54	WG1027353
trans-1,2-Dichloroethene	U		0.396	1.00	1	10/05/2017 04:54	WG1027353
1,2-Dichloropropane	U		0.306	1.00	1	10/05/2017 04:54	WG1027353
cis-1,3-Dichloropropene	U		0.418	1.00	1	10/05/2017 04:54	WG1027353
trans-1,3-Dichloropropene	U		0.419	1.00	1	10/05/2017 04:54	WG1027353
Ethylbenzene	U		0.384	1.00	1	10/05/2017 04:54	WG1027353
2-Hexanone	U		3.82	10.0	1	10/05/2017 04:54	WG1027353
Iodomethane	U		1.71	10.0	1	10/05/2017 04:54	WG1027353
2-Butanone (MEK)	U		3.93	15.0	1	10/05/2017 04:54	WG1027353
Methylene Chloride	U		1.00	5.00	1	10/05/2017 04:54	WG1027353
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0	1	10/05/2017 04:54	WG1027353
Styrene	U		0.307	1.00	1	10/05/2017 04:54	WG1027353
1,1,1,2-Tetrachloroethane	U		0.385	1.00	1	10/05/2017 04:54	WG1027353
1,1,2,2-Tetrachloroethane	U		0.130	1.00	1	10/05/2017 04:54	WG1027353
Tetrachloroethene	U		0.372	1.00	1	10/05/2017 04:54	WG1027353
Toluene	U		0.412	1.00	1	10/05/2017 04:54	WG1027353
1,1,1-Trichloroethane	U		0.319	1.00	1	10/05/2017 04:54	WG1027353
1,1,2-Trichloroethane	U		0.383	1.00	1	10/05/2017 04:54	WG1027353
Trichloroethene	U		0.398	1.00	1	10/05/2017 04:54	WG1027353
Trichlorofluoromethane	U		1.20	5.00	1	10/05/2017 04:54	WG1027353
1,2,3-Trichloropropane	U		0.807	2.50	1	10/05/2017 04:54	WG1027353
Vinyl acetate	U		1.63	10.0	1	10/05/2017 04:54	WG1027353
Vinyl chloride	0.329	U	0.259	1.00	1	10/05/2017 04:54	WG1027353
Xylenes, Total	U		1.06	3.00	1	10/05/2017 04:54	WG1027353
(S) Toluene-d8	105			80.0-120		10/05/2017 04:54	WG1027353
(S) Dibromofluoromethane	93.7			76.0-123		10/05/2017 04:54	WG1027353
(S) 4-Bromofluorobenzene	81.9			80.0-120		10/05/2017 04:54	WG1027353

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Gl

7 Al

8 Sc



Collected date/time: 09/26/17 14:40

L940345

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	1420000		2820	10000	1	10/03/2017 17:02	WG1026862

1 Cp

2 Tc

Wet Chemistry by Method 4500CN E-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Cyanide	U	J4	1.80	5.00	1	10/09/2017 13:21	WG1028433

3 Ss

4 Cn

Wet Chemistry by Method 4500S2 D-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Sulfide	U		6.50	50.0	1	10/03/2017 21:57	WG1026981

5 Sr

6 Gl

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Chloride	24900		51.9	1000	1	10/07/2017 18:51	WG1028455
Sulfate	693000		1550	100000	20	10/09/2017 15:47	WG1029416

7 Al

8 Sc

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	12900		102	1000	1	10/06/2017 01:13	WG1028089

Mercury by Method 7470A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Mercury	U		0.0490	0.200	1	10/08/2017 11:02	WG1027771

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Antimony	U		0.754	2.00	1	10/14/2017 13:29	WG1027832
Arsenic	1.08	J	0.250	2.00	1	10/14/2017 13:29	WG1027832
Barium	20.2		0.360	5.00	1	10/14/2017 13:29	WG1027832
Beryllium	U		0.120	2.00	1	10/14/2017 13:29	WG1027832
Cadmium	0.171	J	0.160	1.00	1	10/14/2017 13:29	WG1027832
Chromium	0.548	J	0.540	2.00	1	10/14/2017 13:29	WG1027832
Copper	2.87	J	0.520	5.00	1	10/14/2017 13:29	WG1027832
Cobalt	1.80	J	0.260	2.00	1	10/14/2017 13:29	WG1027832
Iron	414		15.0	100	1	10/14/2017 13:29	WG1027832
Lead	0.317	J	0.240	2.00	1	10/14/2017 13:29	WG1027832
Manganese	34.4		0.250	5.00	1	10/14/2017 13:29	WG1027832
Nickel	7.86		0.350	2.00	1	10/14/2017 13:29	WG1027832
Selenium	U		0.380	2.00	1	10/14/2017 13:29	WG1027832
Silver	U		0.310	2.00	1	10/14/2017 13:29	WG1027832
Thallium	U		0.190	2.00	1	10/14/2017 13:29	WG1027832
Tin	U		0.300	2.00	1	10/14/2017 13:29	WG1027832
Vanadium	0.819	J	0.180	5.00	1	10/14/2017 13:29	WG1027832
Zinc	273		2.56	25.0	1	10/14/2017 13:29	WG1027832



Collected date/time: 09/26/17 14:40

L940345

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	U		10.0	50.0	1	10/05/2017 05:14	WG1027353
Acrylonitrile	U		1.87	10.0	1	10/05/2017 05:14	WG1027353
Benzene	U		0.331	1.00	1	10/05/2017 05:14	WG1027353
Bromochloromethane	U		0.520	1.00	1	10/05/2017 05:14	WG1027353
Bromodichloromethane	U		0.380	1.00	1	10/05/2017 05:14	WG1027353
Bromoform	U		0.469	1.00	1	10/05/2017 05:14	WG1027353
Bromomethane	U		0.866	5.00	1	10/05/2017 05:14	WG1027353
Carbon disulfide	U		0.275	1.00	1	10/05/2017 05:14	WG1027353
Carbon tetrachloride	U		0.379	1.00	1	10/05/2017 05:14	WG1027353
Chlorobenzene	U		0.348	1.00	1	10/05/2017 05:14	WG1027353
Chlorodibromomethane	U		0.327	1.00	1	10/05/2017 05:14	WG1027353
Chloroethane	U		0.453	5.00	1	10/05/2017 05:14	WG1027353
Chloroform	U		0.324	5.00	1	10/05/2017 05:14	WG1027353
Chloromethane	U		0.276	2.50	1	10/05/2017 05:14	WG1027353
Dibromomethane	U		0.346	1.00	1	10/05/2017 05:14	WG1027353
1,2-Dibromoethane	U		0.381	1.00	1	10/05/2017 05:14	WG1027353
1,2-Dibromo-3-Chloropropane	U		1.33	5.00	1	10/05/2017 05:14	WG1027353
1,2-Dichlorobenzene	U		0.349	1.00	1	10/05/2017 05:14	WG1027353
1,4-Dichlorobenzene	U		0.274	1.00	1	10/05/2017 05:14	WG1027353
trans-1,4-Dichloro-2-butene	U		0.866	2.50	1	10/05/2017 05:14	WG1027353
1,1-Dichloroethane	U		0.259	1.00	1	10/05/2017 05:14	WG1027353
1,2-Dichloroethane	U		0.361	1.00	1	10/05/2017 05:14	WG1027353
1,1-Dichloroethene	U		0.398	1.00	1	10/05/2017 05:14	WG1027353
cis-1,2-Dichloroethene	U		0.260	1.00	1	10/05/2017 05:14	WG1027353
trans-1,2-Dichloroethene	U		0.396	1.00	1	10/05/2017 05:14	WG1027353
1,2-Dichloropropane	U		0.306	1.00	1	10/05/2017 05:14	WG1027353
cis-1,3-Dichloropropene	U		0.418	1.00	1	10/05/2017 05:14	WG1027353
trans-1,3-Dichloropropene	U		0.419	1.00	1	10/05/2017 05:14	WG1027353
Ethylbenzene	U		0.384	1.00	1	10/05/2017 05:14	WG1027353
2-Hexanone	U		3.82	10.0	1	10/05/2017 05:14	WG1027353
Iodomethane	U		1.71	10.0	1	10/05/2017 05:14	WG1027353
2-Butanone (MEK)	U		3.93	15.0	1	10/05/2017 05:14	WG1027353
Methylene Chloride	U		1.00	5.00	1	10/05/2017 05:14	WG1027353
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0	1	10/05/2017 05:14	WG1027353
Styrene	U		0.307	1.00	1	10/05/2017 05:14	WG1027353
1,1,1,2-Tetrachloroethane	U		0.385	1.00	1	10/05/2017 05:14	WG1027353
1,1,2,2-Tetrachloroethane	U		0.130	1.00	1	10/05/2017 05:14	WG1027353
Tetrachloroethene	U		0.372	1.00	1	10/05/2017 05:14	WG1027353
Toluene	U		0.412	1.00	1	10/05/2017 05:14	WG1027353
1,1,1-Trichloroethane	U		0.319	1.00	1	10/05/2017 05:14	WG1027353
1,1,2-Trichloroethane	U		0.383	1.00	1	10/05/2017 05:14	WG1027353
Trichloroethene	U		0.398	1.00	1	10/05/2017 05:14	WG1027353
Trichlorofluoromethane	U		1.20	5.00	1	10/05/2017 05:14	WG1027353
1,2,3-Trichloropropane	U		0.807	2.50	1	10/05/2017 05:14	WG1027353
Vinyl acetate	U		1.63	10.0	1	10/05/2017 05:14	WG1027353
Vinyl chloride	U		0.259	1.00	1	10/05/2017 05:14	WG1027353
Xylenes, Total	U		1.06	3.00	1	10/05/2017 05:14	WG1027353
(S) Toluene-d8	102			80.0-120		10/05/2017 05:14	WG1027353
(S) Dibromofluoromethane	94.2			76.0-123		10/05/2017 05:14	WG1027353
(S) 4-Bromofluorobenzene	80.8			80.0-120		10/05/2017 05:14	WG1027353

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Gl

7 Al

8 Sc



Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	352000		2820	10000	1	10/04/2017 09:48	WG1026918

1 Cp

2 Tc

Wet Chemistry by Method 4500CN E-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Cyanide	U	J4	1.80	5.00	1	10/09/2017 13:22	WG1028433

3 Ss

4 Cn

Wet Chemistry by Method 4500S2 D-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Sulfide	U		6.50	50.0	1	10/04/2017 21:36	WG1027507

5 Sr

6 Gl

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Chloride	6900		51.9	1000	1	10/07/2017 19:06	WG1028455
Sulfate	12300		77.4	5000	1	10/07/2017 19:06	WG1028455

7 Al

8 Sc

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	3650		102	1000	1	10/06/2017 02:37	WG1028089

Mercury by Method 7470A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Mercury	U		0.0490	0.200	1	10/08/2017 11:04	WG1027771

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Antimony	U		0.754	2.00	1	10/14/2017 13:33	WG1027832
Arsenic	1.43	J	0.250	2.00	1	10/14/2017 13:33	WG1027832
Barium	167		0.360	5.00	1	10/14/2017 13:33	WG1027832
Beryllium	U		0.120	2.00	1	10/14/2017 13:33	WG1027832
Cadmium	0.247	J	0.160	1.00	1	10/14/2017 13:33	WG1027832
Chromium	U		0.540	2.00	1	10/14/2017 13:33	WG1027832
Copper	U		0.520	5.00	1	10/14/2017 13:33	WG1027832
Cobalt	0.863	J	0.260	2.00	1	10/14/2017 13:33	WG1027832
Iron	99.4	J	15.0	100	1	10/14/2017 13:33	WG1027832
Lead	U		0.240	2.00	1	10/14/2017 13:33	WG1027832
Manganese	56.2		0.250	5.00	1	10/14/2017 13:33	WG1027832
Nickel	1.87	J	0.350	2.00	1	10/14/2017 13:33	WG1027832
Selenium	U		0.380	2.00	1	10/14/2017 13:33	WG1027832
Silver	U		0.310	2.00	1	10/14/2017 13:33	WG1027832
Thallium	U		0.190	2.00	1	10/14/2017 13:33	WG1027832
Tin	U		0.300	2.00	1	10/14/2017 13:33	WG1027832
Vanadium	0.478	J	0.180	5.00	1	10/14/2017 13:33	WG1027832
Zinc	69.2		2.56	25.0	1	10/14/2017 13:33	WG1027832



Collected date/time: 09/27/17 07:45

L940345

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	U		10.0	50.0	1	10/05/2017 05:33	WG1027353
Acrylonitrile	U		1.87	10.0	1	10/05/2017 05:33	WG1027353
Benzene	U		0.331	1.00	1	10/05/2017 05:33	WG1027353
Bromochloromethane	U		0.520	1.00	1	10/05/2017 05:33	WG1027353
Bromodichloromethane	U		0.380	1.00	1	10/05/2017 05:33	WG1027353
Bromoform	U		0.469	1.00	1	10/05/2017 05:33	WG1027353
Bromomethane	U		0.866	5.00	1	10/05/2017 05:33	WG1027353
Carbon disulfide	U		0.275	1.00	1	10/05/2017 05:33	WG1027353
Carbon tetrachloride	U		0.379	1.00	1	10/05/2017 05:33	WG1027353
Chlorobenzene	U		0.348	1.00	1	10/05/2017 05:33	WG1027353
Chlorodibromomethane	U		0.327	1.00	1	10/05/2017 05:33	WG1027353
Chloroethane	U		0.453	5.00	1	10/05/2017 05:33	WG1027353
Chloroform	U		0.324	5.00	1	10/05/2017 05:33	WG1027353
Chloromethane	U		0.276	2.50	1	10/05/2017 05:33	WG1027353
Dibromomethane	U		0.346	1.00	1	10/05/2017 05:33	WG1027353
1,2-Dibromoethane	U		0.381	1.00	1	10/05/2017 05:33	WG1027353
1,2-Dibromo-3-Chloropropane	U		1.33	5.00	1	10/05/2017 05:33	WG1027353
1,2-Dichlorobenzene	U		0.349	1.00	1	10/05/2017 05:33	WG1027353
1,4-Dichlorobenzene	U		0.274	1.00	1	10/05/2017 05:33	WG1027353
trans-1,4-Dichloro-2-butene	U		0.866	2.50	1	10/05/2017 05:33	WG1027353
1,1-Dichloroethane	U		0.259	1.00	1	10/05/2017 05:33	WG1027353
1,2-Dichloroethane	U		0.361	1.00	1	10/05/2017 05:33	WG1027353
1,1-Dichloroethene	U		0.398	1.00	1	10/05/2017 05:33	WG1027353
cis-1,2-Dichloroethene	U		0.260	1.00	1	10/05/2017 05:33	WG1027353
trans-1,2-Dichloroethene	U		0.396	1.00	1	10/05/2017 05:33	WG1027353
1,2-Dichloropropane	U		0.306	1.00	1	10/05/2017 05:33	WG1027353
cis-1,3-Dichloropropene	U		0.418	1.00	1	10/05/2017 05:33	WG1027353
trans-1,3-Dichloropropene	U		0.419	1.00	1	10/05/2017 05:33	WG1027353
Ethylbenzene	U		0.384	1.00	1	10/05/2017 05:33	WG1027353
2-Hexanone	U		3.82	10.0	1	10/05/2017 05:33	WG1027353
Iodomethane	U		1.71	10.0	1	10/05/2017 05:33	WG1027353
2-Butanone (MEK)	U		3.93	15.0	1	10/05/2017 05:33	WG1027353
Methylene Chloride	U		1.00	5.00	1	10/05/2017 05:33	WG1027353
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0	1	10/05/2017 05:33	WG1027353
Styrene	U		0.307	1.00	1	10/05/2017 05:33	WG1027353
1,1,1,2-Tetrachloroethane	U		0.385	1.00	1	10/05/2017 05:33	WG1027353
1,1,2,2-Tetrachloroethane	U		0.130	1.00	1	10/05/2017 05:33	WG1027353
Tetrachloroethene	U		0.372	1.00	1	10/05/2017 05:33	WG1027353
Toluene	U		0.412	1.00	1	10/05/2017 05:33	WG1027353
1,1,1-Trichloroethane	U		0.319	1.00	1	10/05/2017 05:33	WG1027353
1,1,2-Trichloroethane	U		0.383	1.00	1	10/05/2017 05:33	WG1027353
Trichloroethene	U		0.398	1.00	1	10/05/2017 05:33	WG1027353
Trichlorofluoromethane	U		1.20	5.00	1	10/05/2017 05:33	WG1027353
1,2,3-Trichloropropane	U		0.807	2.50	1	10/05/2017 05:33	WG1027353
Vinyl acetate	U		1.63	10.0	1	10/05/2017 05:33	WG1027353
Vinyl chloride	U		0.259	1.00	1	10/05/2017 05:33	WG1027353
Xylenes, Total	U		1.06	3.00	1	10/05/2017 05:33	WG1027353
(S) Toluene-d8	105			80.0-120		10/05/2017 05:33	WG1027353
(S) Dibromofluoromethane	92.2			76.0-123		10/05/2017 05:33	WG1027353
(S) 4-Bromofluorobenzene	81.0			80.0-120		10/05/2017 05:33	WG1027353

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Gl

7 Al

8 Sc



Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	352000		2820	10000	1	10/04/2017 14:55	WG1027616

1 Cp

2 Tc

Wet Chemistry by Method 4500CN E-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Cyanide	U	J4	1.80	5.00	1	10/09/2017 13:23	WG1028433

3 Ss

4 Cn

Wet Chemistry by Method 4500S2 D-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Sulfide	U		6.50	50.0	1	10/04/2017 21:37	WG1027507

5 Sr

6 Gl

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Chloride	2820		51.9	1000	1	10/07/2017 19:21	WG1028455
Sulfate	13400		77.4	5000	1	10/07/2017 19:21	WG1028455

7 Al

8 Sc

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	545	B J	102	1000	1	10/06/2017 02:55	WG1028089

Mercury by Method 7470A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Mercury	U		0.0490	0.200	1	10/08/2017 11:07	WG1027771

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Antimony	U		0.754	2.00	1	10/14/2017 13:36	WG1027832
Arsenic	1.92	J	0.250	2.00	1	10/14/2017 13:36	WG1027832
Barium	31.6		0.360	5.00	1	10/14/2017 13:36	WG1027832
Beryllium	U		0.120	2.00	1	10/14/2017 13:36	WG1027832
Cadmium	0.448	J	0.160	1.00	1	10/14/2017 13:36	WG1027832
Chromium	0.911	J	0.540	2.00	1	10/14/2017 13:36	WG1027832
Copper	1.30	J	0.520	5.00	1	10/14/2017 13:36	WG1027832
Cobalt	0.425	J	0.260	2.00	1	10/14/2017 13:36	WG1027832
Iron	309		15.0	100	1	10/14/2017 13:36	WG1027832
Lead	0.751	J	0.240	2.00	1	10/14/2017 13:36	WG1027832
Manganese	20.1		0.250	5.00	1	10/14/2017 13:36	WG1027832
Nickel	2.93		0.350	2.00	1	10/14/2017 13:36	WG1027832
Selenium	U		0.380	2.00	1	10/14/2017 13:36	WG1027832
Silver	U		0.310	2.00	1	10/14/2017 13:36	WG1027832
Thallium	U		0.190	2.00	1	10/14/2017 13:36	WG1027832
Tin	0.401	J	0.300	2.00	1	10/14/2017 13:36	WG1027832
Vanadium	0.451	J	0.180	5.00	1	10/14/2017 13:36	WG1027832
Zinc	183		2.56	25.0	1	10/14/2017 13:36	WG1027832



Collected date/time: 09/28/17 08:48

L940345

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	U		10.0	50.0	1	10/05/2017 05:53	WG1027353
Acrylonitrile	U		1.87	10.0	1	10/05/2017 05:53	WG1027353
Benzene	U		0.331	1.00	1	10/05/2017 05:53	WG1027353
Bromochloromethane	U		0.520	1.00	1	10/05/2017 05:53	WG1027353
Bromodichloromethane	U		0.380	1.00	1	10/05/2017 05:53	WG1027353
Bromoform	U		0.469	1.00	1	10/05/2017 05:53	WG1027353
Bromomethane	U		0.866	5.00	1	10/05/2017 05:53	WG1027353
Carbon disulfide	U		0.275	1.00	1	10/05/2017 05:53	WG1027353
Carbon tetrachloride	U		0.379	1.00	1	10/05/2017 05:53	WG1027353
Chlorobenzene	U		0.348	1.00	1	10/05/2017 05:53	WG1027353
Chlorodibromomethane	U		0.327	1.00	1	10/05/2017 05:53	WG1027353
Chloroethane	U		0.453	5.00	1	10/05/2017 05:53	WG1027353
Chloroform	U		0.324	5.00	1	10/05/2017 05:53	WG1027353
Chloromethane	U		0.276	2.50	1	10/05/2017 05:53	WG1027353
Dibromomethane	U		0.346	1.00	1	10/05/2017 05:53	WG1027353
1,2-Dibromoethane	U		0.381	1.00	1	10/05/2017 05:53	WG1027353
1,2-Dibromo-3-Chloropropane	U		1.33	5.00	1	10/05/2017 05:53	WG1027353
1,2-Dichlorobenzene	U		0.349	1.00	1	10/05/2017 05:53	WG1027353
1,4-Dichlorobenzene	U		0.274	1.00	1	10/05/2017 05:53	WG1027353
trans-1,4-Dichloro-2-butene	U		0.866	2.50	1	10/05/2017 05:53	WG1027353
1,1-Dichloroethane	U		0.259	1.00	1	10/05/2017 05:53	WG1027353
1,2-Dichloroethane	U		0.361	1.00	1	10/05/2017 05:53	WG1027353
1,1-Dichloroethene	U		0.398	1.00	1	10/05/2017 05:53	WG1027353
cis-1,2-Dichloroethene	U		0.260	1.00	1	10/05/2017 05:53	WG1027353
trans-1,2-Dichloroethene	U		0.396	1.00	1	10/05/2017 05:53	WG1027353
1,2-Dichloropropane	U		0.306	1.00	1	10/05/2017 05:53	WG1027353
cis-1,3-Dichloropropene	U		0.418	1.00	1	10/05/2017 05:53	WG1027353
trans-1,3-Dichloropropene	U		0.419	1.00	1	10/05/2017 05:53	WG1027353
Ethylbenzene	U		0.384	1.00	1	10/05/2017 05:53	WG1027353
2-Hexanone	U		3.82	10.0	1	10/05/2017 05:53	WG1027353
Iodomethane	U		1.71	10.0	1	10/05/2017 05:53	WG1027353
2-Butanone (MEK)	U		3.93	15.0	1	10/05/2017 05:53	WG1027353
Methylene Chloride	U		1.00	5.00	1	10/05/2017 05:53	WG1027353
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0	1	10/05/2017 05:53	WG1027353
Styrene	U		0.307	1.00	1	10/05/2017 05:53	WG1027353
1,1,1,2-Tetrachloroethane	U		0.385	1.00	1	10/05/2017 05:53	WG1027353
1,1,2,2-Tetrachloroethane	U		0.130	1.00	1	10/05/2017 05:53	WG1027353
Tetrachloroethene	U		0.372	1.00	1	10/05/2017 05:53	WG1027353
Toluene	U		0.412	1.00	1	10/05/2017 05:53	WG1027353
1,1,1-Trichloroethane	U		0.319	1.00	1	10/05/2017 05:53	WG1027353
1,1,2-Trichloroethane	U		0.383	1.00	1	10/05/2017 05:53	WG1027353
Trichloroethene	U		0.398	1.00	1	10/05/2017 05:53	WG1027353
Trichlorofluoromethane	U		1.20	5.00	1	10/05/2017 05:53	WG1027353
1,2,3-Trichloropropane	U		0.807	2.50	1	10/05/2017 05:53	WG1027353
Vinyl acetate	U		1.63	10.0	1	10/05/2017 05:53	WG1027353
Vinyl chloride	U		0.259	1.00	1	10/05/2017 05:53	WG1027353
Xylenes, Total	U		1.06	3.00	1	10/05/2017 05:53	WG1027353
(S) Toluene-d8	102			80.0-120		10/05/2017 05:53	WG1027353
(S) Dibromofluoromethane	93.4			76.0-123		10/05/2017 05:53	WG1027353
(S) 4-Bromofluorobenzene	81.5			80.0-120		10/05/2017 05:53	WG1027353





Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	894000		2820	10000	1	10/04/2017 09:48	WG1026918

1 Cp

2 Tc

Wet Chemistry by Method 4500CN E-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Cyanide	U		1.80	5.00	1	10/10/2017 13:45	WG1028861

3 Ss

4 Cn

Wet Chemistry by Method 4500S2 D-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Sulfide	U		6.50	50.0	1	10/03/2017 21:58	WG1026981

5 Sr

6 Gl

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Chloride	118000		260	5000	5	10/07/2017 19:51	WG1028455
Sulfate	21800		77.4	5000	1	10/07/2017 19:36	WG1028455

7 Al

8 Sc

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	9340		102	1000	1	10/06/2017 03:15	WG1028089

Mercury by Method 7470A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Mercury	0.168	J	0.0490	0.200	1	10/08/2017 11:09	WG1027771

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Antimony	U		0.754	2.00	1	10/14/2017 12:05	WG1027832
Arsenic	75.0		0.250	2.00	1	10/14/2017 12:05	WG1027832
Barium	169		0.360	5.00	1	10/14/2017 12:05	WG1027832
Beryllium	U		0.120	2.00	1	10/14/2017 12:05	WG1027832
Cadmium	U		0.160	1.00	1	10/14/2017 12:05	WG1027832
Chromium	U		0.540	2.00	1	10/14/2017 12:05	WG1027832
Copper	2.95	J	0.520	5.00	1	10/14/2017 12:05	WG1027832
Cobalt	65.6		0.260	2.00	1	10/14/2017 12:05	WG1027832
Iron	28000		15.0	100	1	10/14/2017 12:05	WG1027832
Lead	0.974	J	0.240	2.00	1	10/14/2017 12:05	WG1027832
Manganese	279		0.250	5.00	1	10/14/2017 12:05	WG1027832
Nickel	82.0		0.350	2.00	1	10/14/2017 12:05	WG1027832
Selenium	U		0.380	2.00	1	10/14/2017 12:05	WG1027832
Silver	U		0.310	2.00	1	10/14/2017 12:05	WG1027832
Thallium	1.83	J	0.190	2.00	1	10/14/2017 12:05	WG1027832
Tin	0.482	J	0.300	2.00	1	10/14/2017 12:05	WG1027832
Vanadium	0.351	J	0.180	5.00	1	10/14/2017 12:05	WG1027832
Zinc	1370	Q1 V	2.56	25.0	1	10/14/2017 12:05	WG1027832



Collected date/time: 09/27/17 15:35

L940345

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	25.6	U	10.0	50.0	1	10/05/2017 06:12	WG1027353
Acrylonitrile	U		1.87	10.0	1	10/05/2017 06:12	WG1027353
Benzene	0.847	U	0.331	1.00	1	10/05/2017 06:12	WG1027353
Bromochloromethane	U		0.520	1.00	1	10/05/2017 06:12	WG1027353
Bromodichloromethane	U		0.380	1.00	1	10/05/2017 06:12	WG1027353
Bromoform	U		0.469	1.00	1	10/05/2017 06:12	WG1027353
Bromomethane	U		0.866	5.00	1	10/05/2017 06:12	WG1027353
Carbon disulfide	U		0.275	1.00	1	10/05/2017 06:12	WG1027353
Carbon tetrachloride	U		0.379	1.00	1	10/05/2017 06:12	WG1027353
Chlorobenzene	1.74		0.348	1.00	1	10/05/2017 06:12	WG1027353
Chlorodibromomethane	U		0.327	1.00	1	10/05/2017 06:12	WG1027353
Chloroethane	1.79	U	0.453	5.00	1	10/05/2017 06:12	WG1027353
Chloroform	U		0.324	5.00	1	10/05/2017 06:12	WG1027353
Chloromethane	U		0.276	2.50	1	10/05/2017 06:12	WG1027353
Dibromomethane	U		0.346	1.00	1	10/05/2017 06:12	WG1027353
1,2-Dibromoethane	U		0.381	1.00	1	10/05/2017 06:12	WG1027353
1,2-Dibromo-3-Chloropropane	U		1.33	5.00	1	10/05/2017 06:12	WG1027353
1,2-Dichlorobenzene	U		0.349	1.00	1	10/05/2017 06:12	WG1027353
1,4-Dichlorobenzene	U		0.274	1.00	1	10/05/2017 06:12	WG1027353
trans-1,4-Dichloro-2-butene	U		0.866	2.50	1	10/05/2017 06:12	WG1027353
1,1-Dichloroethane	13.8		0.259	1.00	1	10/05/2017 06:12	WG1027353
1,2-Dichloroethane	U		0.361	1.00	1	10/05/2017 06:12	WG1027353
1,1-Dichloroethene	U		0.398	1.00	1	10/05/2017 06:12	WG1027353
cis-1,2-Dichloroethene	9.76		0.260	1.00	1	10/05/2017 06:12	WG1027353
trans-1,2-Dichloroethene	0.540	U	0.396	1.00	1	10/05/2017 06:12	WG1027353
1,2-Dichloropropane	U		0.306	1.00	1	10/05/2017 06:12	WG1027353
cis-1,3-Dichloropropene	U		0.418	1.00	1	10/05/2017 06:12	WG1027353
trans-1,3-Dichloropropene	U		0.419	1.00	1	10/05/2017 06:12	WG1027353
Ethylbenzene	U		0.384	1.00	1	10/05/2017 06:12	WG1027353
2-Hexanone	U		3.82	10.0	1	10/05/2017 06:12	WG1027353
Iodomethane	U		1.71	10.0	1	10/05/2017 06:12	WG1027353
2-Butanone (MEK)	U		3.93	15.0	1	10/05/2017 06:12	WG1027353
Methylene Chloride	U		1.00	5.00	1	10/05/2017 06:12	WG1027353
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0	1	10/05/2017 06:12	WG1027353
Styrene	U		0.307	1.00	1	10/05/2017 06:12	WG1027353
1,1,1,2-Tetrachloroethane	U		0.385	1.00	1	10/05/2017 06:12	WG1027353
1,1,2,2-Tetrachloroethane	U		0.130	1.00	1	10/05/2017 06:12	WG1027353
Tetrachloroethene	U		0.372	1.00	1	10/05/2017 06:12	WG1027353
Toluene	0.440	U	0.412	1.00	1	10/05/2017 06:12	WG1027353
1,1,1-Trichloroethane	U		0.319	1.00	1	10/05/2017 06:12	WG1027353
1,1,2-Trichloroethane	U		0.383	1.00	1	10/05/2017 06:12	WG1027353
Trichloroethene	1.08		0.398	1.00	1	10/05/2017 06:12	WG1027353
Trichlorofluoromethane	U		1.20	5.00	1	10/05/2017 06:12	WG1027353
1,2,3-Trichloropropane	U		0.807	2.50	1	10/05/2017 06:12	WG1027353
Vinyl acetate	U		1.63	10.0	1	10/05/2017 06:12	WG1027353
Vinyl chloride	3.96		0.259	1.00	1	10/05/2017 06:12	WG1027353
Xylenes, Total	U		1.06	3.00	1	10/05/2017 06:12	WG1027353
(S) Toluene-d8	105			80.0-120		10/05/2017 06:12	WG1027353
(S) Dibromofluoromethane	96.1			76.0-123		10/05/2017 06:12	WG1027353
(S) 4-Bromofluorobenzene	84.0			80.0-120		10/05/2017 06:12	WG1027353

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Gl

7 Al

8 Sc



Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	228000		2820	10000	1	10/04/2017 14:55	WG1027616

1 Cp

2 Tc

Wet Chemistry by Method 4500CN E-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Cyanide	U		1.80	5.00	1	10/10/2017 13:46	WG1028861

3 Ss

4 Cn

Wet Chemistry by Method 4500S2 D-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Sulfide	U		6.50	50.0	1	10/04/2017 21:37	WG1027507

5 Sr

6 Gl

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Chloride	12100		51.9	1000	1	10/07/2017 20:05	WG1028455
Sulfate	3300	J	77.4	5000	1	10/07/2017 20:05	WG1028455

7 Al

8 Sc

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	3550		102	1000	1	10/06/2017 11:16	WG1028518

Mercury by Method 7470A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Mercury	U		0.0490	0.200	1	10/05/2017 19:37	WG1027770

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Antimony	U		0.754	2.00	1	10/07/2017 19:39	WG1028492
Arsenic	5.33		0.250	2.00	1	10/07/2017 19:39	WG1028492
Barium	65.4		0.360	5.00	1	10/07/2017 19:39	WG1028492
Beryllium	U		0.120	2.00	1	10/10/2017 20:36	WG1028492
Cadmium	U		0.160	1.00	1	10/07/2017 19:39	WG1028492
Chromium	0.834	J	0.540	2.00	1	10/07/2017 19:39	WG1028492
Copper	0.657	J	0.520	5.00	1	10/07/2017 19:39	WG1028492
Cobalt	2.65		0.260	2.00	1	10/07/2017 19:39	WG1028492
Iron	1680		15.0	100	1	10/07/2017 19:39	WG1028492
Lead	0.496	J	0.240	2.00	1	10/07/2017 19:39	WG1028492
Manganese	1220		0.250	5.00	1	10/07/2017 19:39	WG1028492
Nickel	2.87		0.350	2.00	1	10/07/2017 19:39	WG1028492
Selenium	U		0.380	2.00	1	10/07/2017 19:39	WG1028492
Silver	U		0.310	2.00	1	10/07/2017 19:39	WG1028492
Thallium	U		0.190	2.00	1	10/07/2017 19:39	WG1028492
Tin	0.783	J	0.300	2.00	1	10/07/2017 19:39	WG1028492
Vanadium	0.191	J	0.180	5.00	1	10/07/2017 19:39	WG1028492
Zinc	U		2.56	25.0	1	10/07/2017 19:39	WG1028492



Collected date/time: 09/28/17 12:00

L940345

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	U		10.0	50.0	1	10/05/2017 16:28	WG1027352
Acrylonitrile	U		1.87	10.0	1	10/05/2017 16:28	WG1027352
Benzene	U		0.331	1.00	1	10/05/2017 16:28	WG1027352
Bromochloromethane	U		0.520	1.00	1	10/05/2017 16:28	WG1027352
Bromodichloromethane	U		0.380	1.00	1	10/05/2017 16:28	WG1027352
Bromoform	U		0.469	1.00	1	10/05/2017 16:28	WG1027352
Bromomethane	U		0.866	5.00	1	10/05/2017 16:28	WG1027352
Carbon disulfide	U		0.275	1.00	1	10/05/2017 16:28	WG1027352
Carbon tetrachloride	U		0.379	1.00	1	10/05/2017 16:28	WG1027352
Chlorobenzene	U		0.348	1.00	1	10/05/2017 16:28	WG1027352
Chlorodibromomethane	U		0.327	1.00	1	10/05/2017 16:28	WG1027352
Chloroethane	U		0.453	5.00	1	10/05/2017 16:28	WG1027352
Chloroform	U		0.324	5.00	1	10/05/2017 16:28	WG1027352
Chloromethane	U		0.276	2.50	1	10/05/2017 16:28	WG1027352
Dibromomethane	U		0.346	1.00	1	10/05/2017 16:28	WG1027352
1,2-Dibromoethane	U		0.381	1.00	1	10/05/2017 16:28	WG1027352
1,2-Dibromo-3-Chloropropane	U		1.33	5.00	1	10/05/2017 16:28	WG1027352
1,2-Dichlorobenzene	U		0.349	1.00	1	10/05/2017 16:28	WG1027352
1,4-Dichlorobenzene	U		0.274	1.00	1	10/05/2017 16:28	WG1027352
trans-1,4-Dichloro-2-butene	U		0.866	2.50	1	10/05/2017 16:28	WG1027352
1,1-Dichloroethane	U		0.259	1.00	1	10/05/2017 16:28	WG1027352
1,2-Dichloroethane	U		0.361	1.00	1	10/05/2017 16:28	WG1027352
1,1-Dichloroethene	U		0.398	1.00	1	10/05/2017 16:28	WG1027352
cis-1,2-Dichloroethene	U		0.260	1.00	1	10/05/2017 16:28	WG1027352
trans-1,2-Dichloroethene	U		0.396	1.00	1	10/05/2017 16:28	WG1027352
1,2-Dichloropropane	U		0.306	1.00	1	10/05/2017 16:28	WG1027352
cis-1,3-Dichloropropene	U		0.418	1.00	1	10/05/2017 16:28	WG1027352
trans-1,3-Dichloropropene	U		0.419	1.00	1	10/05/2017 16:28	WG1027352
Ethylbenzene	U		0.384	1.00	1	10/05/2017 16:28	WG1027352
2-Hexanone	U		3.82	10.0	1	10/05/2017 16:28	WG1027352
Iodomethane	U		1.71	10.0	1	10/05/2017 16:28	WG1027352
2-Butanone (MEK)	U		3.93	15.0	1	10/05/2017 16:28	WG1027352
Methylene Chloride	U		1.00	5.00	1	10/05/2017 16:28	WG1027352
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0	1	10/05/2017 16:28	WG1027352
Styrene	U		0.307	1.00	1	10/05/2017 16:28	WG1027352
1,1,1,2-Tetrachloroethane	U		0.385	1.00	1	10/05/2017 16:28	WG1027352
1,1,2,2-Tetrachloroethane	U		0.130	1.00	1	10/05/2017 16:28	WG1027352
Tetrachloroethene	U		0.372	1.00	1	10/05/2017 16:28	WG1027352
Toluene	U		0.412	1.00	1	10/05/2017 16:28	WG1027352
1,1,1-Trichloroethane	U		0.319	1.00	1	10/05/2017 16:28	WG1027352
1,1,2-Trichloroethane	U		0.383	1.00	1	10/05/2017 16:28	WG1027352
Trichloroethene	U		0.398	1.00	1	10/05/2017 16:28	WG1027352
Trichlorofluoromethane	U		1.20	5.00	1	10/05/2017 16:28	WG1027352
1,2,3-Trichloropropane	U		0.807	2.50	1	10/05/2017 16:28	WG1027352
Vinyl acetate	U		1.63	10.0	1	10/05/2017 16:28	WG1027352
Vinyl chloride	U		0.259	1.00	1	10/05/2017 16:28	WG1027352
Xylenes, Total	U		1.06	3.00	1	10/05/2017 16:28	WG1027352
(S) Toluene-d8	102			80.0-120		10/05/2017 16:28	WG1027352
(S) Dibromofluoromethane	94.2			76.0-123		10/05/2017 16:28	WG1027352
(S) 4-Bromofluorobenzene	80.7			80.0-120		10/05/2017 16:28	WG1027352

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Gl

7 Al

8 Sc



Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	334000		2820	10000	1	10/05/2017 16:30	WG1027700

1 Cp

2 Tc

Wet Chemistry by Method 4500CN E-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Cyanide	U		1.80	5.00	1	10/10/2017 13:47	WG1028861

3 Ss

4 Cn

Wet Chemistry by Method 4500S2 D-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Sulfide	U		6.50	50.0	1	10/04/2017 21:38	WG1027507

5 Sr

6 Gl

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Chloride	13900		51.9	1000	1	10/07/2017 20:20	WG1028455
Sulfate	3590	J	77.4	5000	1	10/07/2017 20:20	WG1028455

7 Al

8 Sc

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	3720		102	1000	1	10/06/2017 11:38	WG1028518

Mercury by Method 7470A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Mercury	U		0.0490	0.200	1	10/05/2017 19:39	WG1027770

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Antimony	U		0.754	2.00	1	10/07/2017 19:49	WG1028492
Arsenic	14.1		0.250	2.00	1	10/07/2017 19:49	WG1028492
Barium	152		0.360	5.00	1	10/07/2017 19:49	WG1028492
Beryllium	0.141	J	0.120	2.00	1	10/10/2017 20:40	WG1028492
Cadmium	U		0.160	1.00	1	10/07/2017 19:49	WG1028492
Chromium	2.35		0.540	2.00	1	10/07/2017 19:49	WG1028492
Copper	2.30	J	0.520	5.00	1	10/07/2017 19:49	WG1028492
Cobalt	13.1		0.260	2.00	1	10/07/2017 19:49	WG1028492
Iron	12700		15.0	100	1	10/07/2017 19:49	WG1028492
Lead	6.72		0.240	2.00	1	10/07/2017 19:49	WG1028492
Manganese	5290		0.250	5.00	1	10/07/2017 19:49	WG1028492
Nickel	6.89		0.350	2.00	1	10/07/2017 19:49	WG1028492
Selenium	U		0.380	2.00	1	10/07/2017 19:49	WG1028492
Silver	U		0.310	2.00	1	10/07/2017 19:49	WG1028492
Thallium	U		0.190	2.00	1	10/07/2017 19:49	WG1028492
Tin	0.567	J	0.300	2.00	1	10/07/2017 19:49	WG1028492
Vanadium	3.80	J	0.180	5.00	1	10/07/2017 19:49	WG1028492
Zinc	49.3		2.56	25.0	1	10/07/2017 19:49	WG1028492

LANDFILL ENTRANCE SEEP

Collected date/time: 09/29/17 09:00

SAMPLE RESULTS - 22

L940345

ONE LAB. NATIONWIDE.



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	U		10.0	50.0	1	10/05/2017 16:48	WG1027352
Acrylonitrile	U		1.87	10.0	1	10/05/2017 16:48	WG1027352
Benzene	U		0.331	1.00	1	10/05/2017 16:48	WG1027352
Bromochloromethane	U		0.520	1.00	1	10/05/2017 16:48	WG1027352
Bromodichloromethane	U		0.380	1.00	1	10/05/2017 16:48	WG1027352
Bromoform	U		0.469	1.00	1	10/05/2017 16:48	WG1027352
Bromomethane	U		0.866	5.00	1	10/05/2017 16:48	WG1027352
Carbon disulfide	U		0.275	1.00	1	10/05/2017 16:48	WG1027352
Carbon tetrachloride	U		0.379	1.00	1	10/05/2017 16:48	WG1027352
Chlorobenzene	U		0.348	1.00	1	10/05/2017 16:48	WG1027352
Chlorodibromomethane	U		0.327	1.00	1	10/05/2017 16:48	WG1027352
Chloroethane	2.13	U	0.453	5.00	1	10/05/2017 16:48	WG1027352
Chloroform	U		0.324	5.00	1	10/05/2017 16:48	WG1027352
Chloromethane	U		0.276	2.50	1	10/05/2017 16:48	WG1027352
Dibromomethane	U		0.346	1.00	1	10/05/2017 16:48	WG1027352
1,2-Dibromoethane	U		0.381	1.00	1	10/05/2017 16:48	WG1027352
1,2-Dibromo-3-Chloropropane	U		1.33	5.00	1	10/05/2017 16:48	WG1027352
1,2-Dichlorobenzene	U		0.349	1.00	1	10/05/2017 16:48	WG1027352
1,4-Dichlorobenzene	U		0.274	1.00	1	10/05/2017 16:48	WG1027352
trans-1,4-Dichloro-2-butene	U		0.866	2.50	1	10/05/2017 16:48	WG1027352
1,1-Dichloroethane	0.567	U	0.259	1.00	1	10/05/2017 16:48	WG1027352
1,2-Dichloroethane	U		0.361	1.00	1	10/05/2017 16:48	WG1027352
1,1-Dichloroethene	U		0.398	1.00	1	10/05/2017 16:48	WG1027352
cis-1,2-Dichloroethene	0.376	U	0.260	1.00	1	10/05/2017 16:48	WG1027352
trans-1,2-Dichloroethene	U		0.396	1.00	1	10/05/2017 16:48	WG1027352
1,2-Dichloropropane	U		0.306	1.00	1	10/05/2017 16:48	WG1027352
cis-1,3-Dichloropropene	U		0.418	1.00	1	10/05/2017 16:48	WG1027352
trans-1,3-Dichloropropene	U		0.419	1.00	1	10/05/2017 16:48	WG1027352
Ethylbenzene	U		0.384	1.00	1	10/05/2017 16:48	WG1027352
2-Hexanone	U		3.82	10.0	1	10/05/2017 16:48	WG1027352
Iodomethane	U		1.71	10.0	1	10/05/2017 16:48	WG1027352
2-Butanone (MEK)	U		3.93	15.0	1	10/05/2017 16:48	WG1027352
Methylene Chloride	U		1.00	5.00	1	10/05/2017 16:48	WG1027352
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0	1	10/05/2017 16:48	WG1027352
Styrene	U		0.307	1.00	1	10/05/2017 16:48	WG1027352
1,1,1,2-Tetrachloroethane	U		0.385	1.00	1	10/05/2017 16:48	WG1027352
1,1,2,2-Tetrachloroethane	U		0.130	1.00	1	10/05/2017 16:48	WG1027352
Tetrachloroethene	U		0.372	1.00	1	10/05/2017 16:48	WG1027352
Toluene	U		0.412	1.00	1	10/05/2017 16:48	WG1027352
1,1,1-Trichloroethane	U		0.319	1.00	1	10/05/2017 16:48	WG1027352
1,1,2-Trichloroethane	U		0.383	1.00	1	10/05/2017 16:48	WG1027352
Trichloroethene	U		0.398	1.00	1	10/05/2017 16:48	WG1027352
Trichlorofluoromethane	U		1.20	5.00	1	10/05/2017 16:48	WG1027352
1,2,3-Trichloropropane	U		0.807	2.50	1	10/05/2017 16:48	WG1027352
Vinyl acetate	U		1.63	10.0	1	10/05/2017 16:48	WG1027352
Vinyl chloride	U		0.259	1.00	1	10/05/2017 16:48	WG1027352
Xylenes, Total	U		1.06	3.00	1	10/05/2017 16:48	WG1027352
(S) Toluene-d8	103			80.0-120		10/05/2017 16:48	WG1027352
(S) Dibromofluoromethane	94.6			76.0-123		10/05/2017 16:48	WG1027352
(S) 4-Bromofluorobenzene	82.3			80.0-120		10/05/2017 16:48	WG1027352

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Gl

7 Al

8 Sc

ACCOUNT:

SCS Engineers - Little Rock, AR

PROJECT:

SDG:

L940345

DATE/TIME:

10/16/17 10:47

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Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	285000		2820	10000	1	10/04/2017 14:55	WG1027616

1 Cp

2 Tc

Wet Chemistry by Method 4500CN E-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Cyanide	4.17	J	1.80	5.00	1	10/10/2017 13:48	WG1028861

3 Ss

4 Cn

Wet Chemistry by Method 4500S2 D-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Sulfide	U		6.50	50.0	1	10/04/2017 21:38	WG1027507

5 Sr

6 Gl

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Chloride	48700		51.9	1000	1	10/07/2017 20:35	WG1028455
Sulfate	13200		77.4	5000	1	10/07/2017 20:35	WG1028455

7 Al

8 Sc

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	5510		102	1000	1	10/06/2017 11:50	WG1028518

Mercury by Method 7470A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Mercury	U		0.0490	0.200	1	10/05/2017 19:42	WG1027770

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Antimony	U		0.754	2.00	1	10/07/2017 19:53	WG1028492
Arsenic	1.48	J	0.250	2.00	1	10/07/2017 19:53	WG1028492
Barium	68.9		0.360	5.00	1	10/07/2017 19:53	WG1028492
Beryllium	U		0.120	2.00	1	10/10/2017 20:43	WG1028492
Cadmium	U		0.160	1.00	1	10/07/2017 19:53	WG1028492
Chromium	0.829	J	0.540	2.00	1	10/07/2017 19:53	WG1028492
Copper	2.08	J	0.520	5.00	1	10/07/2017 19:53	WG1028492
Cobalt	0.550	J	0.260	2.00	1	10/07/2017 19:53	WG1028492
Iron	285		15.0	100	1	10/07/2017 19:53	WG1028492
Lead	0.805	J	0.240	2.00	1	10/07/2017 19:53	WG1028492
Manganese	69.3		0.250	5.00	1	10/07/2017 19:53	WG1028492
Nickel	4.75		0.350	2.00	1	10/07/2017 19:53	WG1028492
Selenium	0.391	J	0.380	2.00	1	10/07/2017 19:53	WG1028492
Silver	U		0.310	2.00	1	10/07/2017 19:53	WG1028492
Thallium	U		0.190	2.00	1	10/07/2017 19:53	WG1028492
Tin	0.684	J	0.300	2.00	1	10/07/2017 19:53	WG1028492
Vanadium	0.760	J	0.180	5.00	1	10/07/2017 19:53	WG1028492
Zinc	6.22	J	2.56	25.0	1	10/07/2017 19:53	WG1028492



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	U		10.0	50.0	1	10/05/2017 17:07	WG1027352
Acrylonitrile	U		1.87	10.0	1	10/05/2017 17:07	WG1027352
Benzene	U		0.331	1.00	1	10/05/2017 17:07	WG1027352
Bromochloromethane	U		0.520	1.00	1	10/05/2017 17:07	WG1027352
Bromodichloromethane	U		0.380	1.00	1	10/05/2017 17:07	WG1027352
Bromoform	U		0.469	1.00	1	10/05/2017 17:07	WG1027352
Bromomethane	U		0.866	5.00	1	10/05/2017 17:07	WG1027352
Carbon disulfide	U		0.275	1.00	1	10/05/2017 17:07	WG1027352
Carbon tetrachloride	U		0.379	1.00	1	10/05/2017 17:07	WG1027352
Chlorobenzene	U		0.348	1.00	1	10/05/2017 17:07	WG1027352
Chlorodibromomethane	U		0.327	1.00	1	10/05/2017 17:07	WG1027352
Chloroethane	U		0.453	5.00	1	10/05/2017 17:07	WG1027352
Chloroform	U		0.324	5.00	1	10/05/2017 17:07	WG1027352
Chloromethane	U		0.276	2.50	1	10/05/2017 17:07	WG1027352
Dibromomethane	U		0.346	1.00	1	10/05/2017 17:07	WG1027352
1,2-Dibromoethane	U		0.381	1.00	1	10/05/2017 17:07	WG1027352
1,2-Dibromo-3-Chloropropane	U		1.33	5.00	1	10/05/2017 17:07	WG1027352
1,2-Dichlorobenzene	U		0.349	1.00	1	10/05/2017 17:07	WG1027352
1,4-Dichlorobenzene	U		0.274	1.00	1	10/05/2017 17:07	WG1027352
trans-1,4-Dichloro-2-butene	U		0.866	2.50	1	10/05/2017 17:07	WG1027352
1,1-Dichloroethane	U		0.259	1.00	1	10/05/2017 17:07	WG1027352
1,2-Dichloroethane	U		0.361	1.00	1	10/05/2017 17:07	WG1027352
1,1-Dichloroethene	U		0.398	1.00	1	10/05/2017 17:07	WG1027352
cis-1,2-Dichloroethene	U		0.260	1.00	1	10/05/2017 17:07	WG1027352
trans-1,2-Dichloroethene	U		0.396	1.00	1	10/05/2017 17:07	WG1027352
1,2-Dichloropropane	U		0.306	1.00	1	10/05/2017 17:07	WG1027352
cis-1,3-Dichloropropene	U		0.418	1.00	1	10/05/2017 17:07	WG1027352
trans-1,3-Dichloropropene	U		0.419	1.00	1	10/05/2017 17:07	WG1027352
Ethylbenzene	U		0.384	1.00	1	10/05/2017 17:07	WG1027352
2-Hexanone	U		3.82	10.0	1	10/05/2017 17:07	WG1027352
Iodomethane	U		1.71	10.0	1	10/05/2017 17:07	WG1027352
2-Butanone (MEK)	U		3.93	15.0	1	10/05/2017 17:07	WG1027352
Methylene Chloride	U		1.00	5.00	1	10/05/2017 17:07	WG1027352
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0	1	10/05/2017 17:07	WG1027352
Styrene	U		0.307	1.00	1	10/05/2017 17:07	WG1027352
1,1,1,2-Tetrachloroethane	U		0.385	1.00	1	10/05/2017 17:07	WG1027352
1,1,2,2-Tetrachloroethane	U		0.130	1.00	1	10/05/2017 17:07	WG1027352
Tetrachloroethene	U		0.372	1.00	1	10/05/2017 17:07	WG1027352
Toluene	U		0.412	1.00	1	10/05/2017 17:07	WG1027352
1,1,1-Trichloroethane	U		0.319	1.00	1	10/05/2017 17:07	WG1027352
1,1,2-Trichloroethane	U		0.383	1.00	1	10/05/2017 17:07	WG1027352
Trichloroethene	U		0.398	1.00	1	10/05/2017 17:07	WG1027352
Trichlorofluoromethane	U		1.20	5.00	1	10/05/2017 17:07	WG1027352
1,2,3-Trichloropropane	U		0.807	2.50	1	10/05/2017 17:07	WG1027352
Vinyl acetate	U		1.63	10.0	1	10/05/2017 17:07	WG1027352
Vinyl chloride	U		0.259	1.00	1	10/05/2017 17:07	WG1027352
Xylenes, Total	U		1.06	3.00	1	10/05/2017 17:07	WG1027352
(S) Toluene-d8	103			80.0-120		10/05/2017 17:07	WG1027352
(S) Dibromofluoromethane	94.0			76.0-123		10/05/2017 17:07	WG1027352
(S) 4-Bromofluorobenzene	83.5			80.0-120		10/05/2017 17:07	WG1027352

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Gl

7 Al

8 Sc



Gravimetric Analysis by Method 2540 C-2011

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Dissolved Solids	457000		2820	10000	1	10/04/2017 14:55	WG1027616

1 Cp

2 Tc

Wet Chemistry by Method 4500CN E-2011

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Cyanide	U		1.80	5.00	1	10/10/2017 13:49	WG1028861

3 Ss

4 Cn

Wet Chemistry by Method 4500S2 D-2011

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Sulfide	U		6.50	50.0	1	10/04/2017 21:39	WG1027507

5 Sr

6 Gl

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	26000		51.9	1000	1	10/07/2017 21:20	WG1028455
Sulfate	8120		77.4	5000	1	10/07/2017 21:20	WG1028455

7 Al

8 Sc

Wet Chemistry by Method 9060A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	2630		102	1000	1	10/06/2017 12:03	WG1028518

Mercury by Method 7470A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Mercury	0.0966	J	0.0490	0.200	1	10/05/2017 19:44	WG1027770

Metals (ICPMS) by Method 6020

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Antimony	U		0.754	2.00	1	10/07/2017 19:56	WG1028492
Arsenic	0.380	J	0.250	2.00	1	10/07/2017 19:56	WG1028492
Barium	48.0		0.360	5.00	1	10/07/2017 19:56	WG1028492
Beryllium	U		0.120	2.00	1	10/10/2017 20:54	WG1028492
Cadmium	0.476	J	0.160	1.00	1	10/07/2017 19:56	WG1028492
Chromium	1.03	J	0.540	2.00	1	10/07/2017 19:56	WG1028492
Copper	1.19	J	0.520	5.00	1	10/07/2017 19:56	WG1028492
Cobalt	U		0.260	2.00	1	10/07/2017 19:56	WG1028492
Iron	29.4	J	15.0	100	1	10/07/2017 19:56	WG1028492
Lead	U		0.240	2.00	1	10/07/2017 19:56	WG1028492
Manganese	1.47	J	0.250	5.00	1	10/07/2017 19:56	WG1028492
Nickel	0.612	J	0.350	2.00	1	10/07/2017 19:56	WG1028492
Selenium	U		0.380	2.00	1	10/07/2017 19:56	WG1028492
Silver	U		0.310	2.00	1	10/07/2017 19:56	WG1028492
Thallium	U		0.190	2.00	1	10/07/2017 19:56	WG1028492
Tin	0.491	J	0.300	2.00	1	10/07/2017 19:56	WG1028492
Vanadium	0.227	J	0.180	5.00	1	10/07/2017 19:56	WG1028492
Zinc	44.9		2.56	25.0	1	10/07/2017 19:56	WG1028492



Collected date/time: 09/28/17 11:20

L940345

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	U		10.0	50.0	1	10/05/2017 17:27	WG1027352
Acrylonitrile	U		1.87	10.0	1	10/05/2017 17:27	WG1027352
Benzene	U		0.331	1.00	1	10/05/2017 17:27	WG1027352
Bromochloromethane	U		0.520	1.00	1	10/05/2017 17:27	WG1027352
Bromodichloromethane	U		0.380	1.00	1	10/05/2017 17:27	WG1027352
Bromoform	U		0.469	1.00	1	10/05/2017 17:27	WG1027352
Bromomethane	U		0.866	5.00	1	10/05/2017 17:27	WG1027352
Carbon disulfide	U		0.275	1.00	1	10/05/2017 17:27	WG1027352
Carbon tetrachloride	U		0.379	1.00	1	10/05/2017 17:27	WG1027352
Chlorobenzene	U		0.348	1.00	1	10/05/2017 17:27	WG1027352
Chlorodibromomethane	U		0.327	1.00	1	10/05/2017 17:27	WG1027352
Chloroethane	U		0.453	5.00	1	10/05/2017 17:27	WG1027352
Chloroform	U		0.324	5.00	1	10/05/2017 17:27	WG1027352
Chloromethane	U		0.276	2.50	1	10/05/2017 17:27	WG1027352
Dibromomethane	U		0.346	1.00	1	10/05/2017 17:27	WG1027352
1,2-Dibromoethane	U		0.381	1.00	1	10/05/2017 17:27	WG1027352
1,2-Dibromo-3-Chloropropane	U		1.33	5.00	1	10/05/2017 17:27	WG1027352
1,2-Dichlorobenzene	U		0.349	1.00	1	10/05/2017 17:27	WG1027352
1,4-Dichlorobenzene	U		0.274	1.00	1	10/05/2017 17:27	WG1027352
trans-1,4-Dichloro-2-butene	U		0.866	2.50	1	10/05/2017 17:27	WG1027352
1,1-Dichloroethane	U		0.259	1.00	1	10/05/2017 17:27	WG1027352
1,2-Dichloroethane	U		0.361	1.00	1	10/05/2017 17:27	WG1027352
1,1-Dichloroethene	U		0.398	1.00	1	10/05/2017 17:27	WG1027352
cis-1,2-Dichloroethene	U		0.260	1.00	1	10/05/2017 17:27	WG1027352
trans-1,2-Dichloroethene	U		0.396	1.00	1	10/05/2017 17:27	WG1027352
1,2-Dichloropropane	U		0.306	1.00	1	10/05/2017 17:27	WG1027352
cis-1,3-Dichloropropene	U		0.418	1.00	1	10/05/2017 17:27	WG1027352
trans-1,3-Dichloropropene	U		0.419	1.00	1	10/05/2017 17:27	WG1027352
Ethylbenzene	U		0.384	1.00	1	10/05/2017 17:27	WG1027352
2-Hexanone	U		3.82	10.0	1	10/05/2017 17:27	WG1027352
Iodomethane	U		1.71	10.0	1	10/05/2017 17:27	WG1027352
2-Butanone (MEK)	U		3.93	15.0	1	10/05/2017 17:27	WG1027352
Methylene Chloride	U		1.00	5.00	1	10/05/2017 17:27	WG1027352
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0	1	10/05/2017 17:27	WG1027352
Styrene	U		0.307	1.00	1	10/05/2017 17:27	WG1027352
1,1,1,2-Tetrachloroethane	U		0.385	1.00	1	10/05/2017 17:27	WG1027352
1,1,2,2-Tetrachloroethane	U		0.130	1.00	1	10/05/2017 17:27	WG1027352
Tetrachloroethene	U		0.372	1.00	1	10/05/2017 17:27	WG1027352
Toluene	U		0.412	1.00	1	10/05/2017 17:27	WG1027352
1,1,1-Trichloroethane	U		0.319	1.00	1	10/05/2017 17:27	WG1027352
1,1,2-Trichloroethane	U		0.383	1.00	1	10/05/2017 17:27	WG1027352
Trichloroethene	U		0.398	1.00	1	10/05/2017 17:27	WG1027352
Trichlorofluoromethane	U		1.20	5.00	1	10/05/2017 17:27	WG1027352
1,2,3-Trichloropropane	U		0.807	2.50	1	10/05/2017 17:27	WG1027352
Vinyl acetate	U		1.63	10.0	1	10/05/2017 17:27	WG1027352
Vinyl chloride	U		0.259	1.00	1	10/05/2017 17:27	WG1027352
Xylenes, Total	U		1.06	3.00	1	10/05/2017 17:27	WG1027352
(S) Toluene-d8	106			80.0-120		10/05/2017 17:27	WG1027352
(S) Dibromofluoromethane	93.9			76.0-123		10/05/2017 17:27	WG1027352
(S) 4-Bromofluorobenzene	85.0			80.0-120		10/05/2017 17:27	WG1027352

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Gl

7 Al

8 Sc



Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	U		2820	10000	1	10/04/2017 14:55	WG1027616

1 Cp

2 Tc

Wet Chemistry by Method 4500CN E-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Cyanide	U		1.80	5.00	1	10/10/2017 13:50	WG1028861

3 Ss

4 Cn

Wet Chemistry by Method 4500S2 D-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Sulfide	U		6.50	50.0	1	10/04/2017 21:39	WG1027507

5 Sr

6 Gl

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Chloride	756	J P1	51.9	1000	1	10/07/2017 00:13	WG1028456
Sulfate	U		77.4	5000	1	10/07/2017 00:13	WG1028456

7 Al

8 Sc

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	415	J	102	1000	1	10/06/2017 12:14	WG1028518

Mercury by Method 7470A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Mercury	U		0.0490	0.200	1	10/05/2017 19:46	WG1027770

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Antimony	U		0.754	2.00	1	10/07/2017 20:00	WG1028492
Arsenic	U		0.250	2.00	1	10/07/2017 20:00	WG1028492
Barium	U		0.360	5.00	1	10/07/2017 20:00	WG1028492
Beryllium	U		0.120	2.00	1	10/10/2017 20:58	WG1028492
Cadmium	U		0.160	1.00	1	10/07/2017 20:00	WG1028492
Chromium	0.959	J	0.540	2.00	1	10/07/2017 20:00	WG1028492
Copper	U		0.520	5.00	1	10/07/2017 20:00	WG1028492
Cobalt	U		0.260	2.00	1	10/07/2017 20:00	WG1028492
Iron	U		15.0	100	1	10/07/2017 20:00	WG1028492
Lead	U		0.240	2.00	1	10/07/2017 20:00	WG1028492
Manganese	0.293	J	0.250	5.00	1	10/07/2017 20:00	WG1028492
Nickel	U		0.350	2.00	1	10/07/2017 20:00	WG1028492
Selenium	U		0.380	2.00	1	10/07/2017 20:00	WG1028492
Silver	U		0.310	2.00	1	10/07/2017 20:00	WG1028492
Thallium	U		0.190	2.00	1	10/07/2017 20:00	WG1028492
Tin	0.412	J	0.300	2.00	1	10/07/2017 20:00	WG1028492
Vanadium	U		0.180	5.00	1	10/07/2017 20:00	WG1028492
Zinc	U		2.56	25.0	1	10/07/2017 20:00	WG1028492



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	32.2	J	10.0	50.0	1	10/09/2017 21:16	WG1028396
Acrylonitrile	U		1.87	10.0	1	10/09/2017 21:16	WG1028396
Benzene	U		0.331	1.00	1	10/09/2017 21:16	WG1028396
Bromochloromethane	U		0.520	1.00	1	10/09/2017 21:16	WG1028396
Bromodichloromethane	U		0.380	1.00	1	10/09/2017 21:16	WG1028396
Bromoform	U		0.469	1.00	1	10/09/2017 21:16	WG1028396
Bromomethane	U		0.866	5.00	1	10/09/2017 21:16	WG1028396
Carbon disulfide	U		0.275	1.00	1	10/09/2017 21:16	WG1028396
Carbon tetrachloride	U		0.379	1.00	1	10/09/2017 21:16	WG1028396
Chlorobenzene	U		0.348	1.00	1	10/09/2017 21:16	WG1028396
Chlorodibromomethane	U		0.327	1.00	1	10/09/2017 21:16	WG1028396
Chloroethane	U		0.453	5.00	1	10/09/2017 21:16	WG1028396
Chloroform	U		0.324	5.00	1	10/09/2017 21:16	WG1028396
Chloromethane	U		0.276	2.50	1	10/09/2017 21:16	WG1028396
Dibromomethane	U		0.346	1.00	1	10/09/2017 21:16	WG1028396
1,2-Dibromoethane	U		0.381	1.00	1	10/09/2017 21:16	WG1028396
1,2-Dibromo-3-Chloropropane	U		1.33	5.00	1	10/09/2017 21:16	WG1028396
1,2-Dichlorobenzene	U		0.349	1.00	1	10/09/2017 21:16	WG1028396
1,4-Dichlorobenzene	U		0.274	1.00	1	10/09/2017 21:16	WG1028396
trans-1,4-Dichloro-2-butene	U		0.866	2.50	1	10/09/2017 21:16	WG1028396
1,1-Dichloroethane	U		0.259	1.00	1	10/09/2017 21:16	WG1028396
1,2-Dichloroethane	U		0.361	1.00	1	10/09/2017 21:16	WG1028396
1,1-Dichloroethene	U		0.398	1.00	1	10/09/2017 21:16	WG1028396
cis-1,2-Dichloroethene	U		0.260	1.00	1	10/09/2017 21:16	WG1028396
trans-1,2-Dichloroethene	U		0.396	1.00	1	10/09/2017 21:16	WG1028396
1,2-Dichloropropane	U		0.306	1.00	1	10/09/2017 21:16	WG1028396
cis-1,3-Dichloropropene	U		0.418	1.00	1	10/09/2017 21:16	WG1028396
trans-1,3-Dichloropropene	U		0.419	1.00	1	10/09/2017 21:16	WG1028396
Ethylbenzene	U		0.384	1.00	1	10/09/2017 21:16	WG1028396
2-Hexanone	U		3.82	10.0	1	10/09/2017 21:16	WG1028396
Iodomethane	U		1.71	10.0	1	10/09/2017 21:16	WG1028396
2-Butanone (MEK)	U		3.93	15.0	1	10/09/2017 21:16	WG1028396
Methylene Chloride	U		1.00	5.00	1	10/09/2017 21:16	WG1028396
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0	1	10/09/2017 21:16	WG1028396
Styrene	U		0.307	1.00	1	10/09/2017 21:16	WG1028396
1,1,1,2-Tetrachloroethane	U		0.385	1.00	1	10/09/2017 21:16	WG1028396
1,1,2,2-Tetrachloroethane	U		0.130	1.00	1	10/09/2017 21:16	WG1028396
Tetrachloroethene	U		0.372	1.00	1	10/09/2017 21:16	WG1028396
Toluene	U		0.412	1.00	1	10/09/2017 21:16	WG1028396
1,1,1-Trichloroethane	U		0.319	1.00	1	10/09/2017 21:16	WG1028396
1,1,2-Trichloroethane	U		0.383	1.00	1	10/09/2017 21:16	WG1028396
Trichloroethene	U		0.398	1.00	1	10/09/2017 21:16	WG1028396
Trichlorofluoromethane	U		1.20	5.00	1	10/09/2017 21:16	WG1028396
1,2,3-Trichloropropane	U		0.807	2.50	1	10/09/2017 21:16	WG1028396
Vinyl acetate	U		1.63	10.0	1	10/09/2017 21:16	WG1028396
Vinyl chloride	U		0.259	1.00	1	10/09/2017 21:16	WG1028396
Xylenes, Total	U		1.06	3.00	1	10/09/2017 21:16	WG1028396
(S) Toluene-d8	104			80.0-120		10/09/2017 21:16	WG1028396
(S) Dibromofluoromethane	84.7			76.0-123		10/09/2017 21:16	WG1028396
(S) 4-Bromofluorobenzene	91.0			80.0-120		10/09/2017 21:16	WG1028396

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Gl

7 Al

8 Sc



Gravimetric Analysis by Method 2540 C-2011

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Dissolved Solids	1690000		2820	10000	1	10/04/2017 14:55	WG1027616

1 Cp

2 Tc

Wet Chemistry by Method 1664A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Oil & Grease (Hexane Extr)	U		1160	5880	1	10/02/2017 17:03	WG1026754

3 Ss

4 Cn

Wet Chemistry by Method 350.1

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Ammonia Nitrogen	72200		634	2000	20	10/06/2017 20:24	WG1028425

5 Sr

6 Gl

Wet Chemistry by Method 365.4

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Phosphorus, Total	96.5	J	35.0	100	1	10/09/2017 16:18	WG1029423

7 Al

8 Sc

Wet Chemistry by Method 4500CN E-2011

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Cyanide	U		1.80	5.00	1	10/10/2017 13:51	WG1028861

Wet Chemistry by Method 4500S2 D-2011

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Sulfide	U		6.50	50.0	1	10/04/2017 21:39	WG1027507

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	647000		519	10000	10	10/07/2017 01:04	WG1028456
Sulfate	9180		77.4	5000	1	10/07/2017 00:54	WG1028456

Wet Chemistry by Method 9060A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	61900		102	1000	1	10/06/2017 12:29	WG1028518

Wet Chemistry by Method D93/1010A

Analyte	Result deg F	Qualifier	Dilution	Analysis date / time	Batch
Flashpoint	DNF at 170		1	10/08/2017 07:30	WG1028870

Mercury by Method 7470A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Mercury	U		0.0490	0.200	1	10/05/2017 19:48	WG1027770



Metals (ICPMS) by Method 6020

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Antimony	U		0.754	2.00	1	10/07/2017 20:03	WG1028492
Arsenic	4.07		0.250	2.00	1	10/07/2017 20:03	WG1028492
Barium	2650		0.360	5.00	1	10/07/2017 20:03	WG1028492
Beryllium	U		0.120	2.00	1	10/10/2017 21:01	WG1028492
Cadmium	U		0.160	1.00	1	10/07/2017 20:03	WG1028492
Chromium	2.90		0.540	2.00	1	10/07/2017 20:03	WG1028492
Copper	4.24	U	0.520	5.00	1	10/07/2017 20:03	WG1028492
Cobalt	4.69		0.260	2.00	1	10/07/2017 20:03	WG1028492
Iron	2080		15.0	100	1	10/07/2017 20:03	WG1028492
Lead	U		0.240	2.00	1	10/07/2017 20:03	WG1028492
Manganese	1030		0.250	5.00	1	10/07/2017 20:03	WG1028492
Nickel	39.1		0.350	2.00	1	10/07/2017 20:03	WG1028492
Selenium	0.447	U	0.380	2.00	1	10/07/2017 20:03	WG1028492
Silver	U		0.310	2.00	1	10/07/2017 20:03	WG1028492
Thallium	U		0.190	2.00	1	10/07/2017 20:03	WG1028492
Tin	3.94		0.300	2.00	1	10/07/2017 20:03	WG1028492
Vanadium	0.651	U	0.180	5.00	1	10/07/2017 20:03	WG1028492
Zinc	65.6		2.56	25.0	1	10/07/2017 20:03	WG1028492

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Gl

7 Al

8 Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	U		10.0	50.0	1	10/05/2017 17:46	WG1027352
Acrylonitrile	U		1.87	10.0	1	10/05/2017 17:46	WG1027352
Benzene	0.772	U	0.331	1.00	1	10/05/2017 17:46	WG1027352
Bromochloromethane	U		0.520	1.00	1	10/05/2017 17:46	WG1027352
Bromodichloromethane	U		0.380	1.00	1	10/05/2017 17:46	WG1027352
Bromoform	U		0.469	1.00	1	10/05/2017 17:46	WG1027352
Bromomethane	U		0.866	5.00	1	10/05/2017 17:46	WG1027352
Carbon disulfide	0.430	U	0.275	1.00	1	10/05/2017 17:46	WG1027352
Carbon tetrachloride	U		0.379	1.00	1	10/05/2017 17:46	WG1027352
Chlorobenzene	U		0.348	1.00	1	10/05/2017 17:46	WG1027352
Chlorodibromomethane	U		0.327	1.00	1	10/05/2017 17:46	WG1027352
Chloroethane	U		0.453	5.00	1	10/05/2017 17:46	WG1027352
Chloroform	U		0.324	5.00	1	10/05/2017 17:46	WG1027352
Chloromethane	U		0.276	2.50	1	10/05/2017 17:46	WG1027352
Dibromomethane	U		0.346	1.00	1	10/05/2017 17:46	WG1027352
1,2-Dibromoethane	U		0.381	1.00	1	10/05/2017 17:46	WG1027352
1,2-Dibromo-3-Chloropropane	U		1.33	5.00	1	10/05/2017 17:46	WG1027352
1,2-Dichlorobenzene	U		0.349	1.00	1	10/05/2017 17:46	WG1027352
1,4-Dichlorobenzene	U		0.274	1.00	1	10/05/2017 17:46	WG1027352
trans-1,4-Dichloro-2-butene	U		0.866	2.50	1	10/05/2017 17:46	WG1027352
1,1-Dichloroethane	U		0.259	1.00	1	10/05/2017 17:46	WG1027352
1,2-Dichloroethane	U		0.361	1.00	1	10/05/2017 17:46	WG1027352
1,1-Dichloroethene	U		0.398	1.00	1	10/05/2017 17:46	WG1027352
cis-1,2-Dichloroethene	U		0.260	1.00	1	10/05/2017 17:46	WG1027352
trans-1,2-Dichloroethene	U		0.396	1.00	1	10/05/2017 17:46	WG1027352
1,2-Dichloropropane	U		0.306	1.00	1	10/05/2017 17:46	WG1027352
cis-1,3-Dichloropropene	U		0.418	1.00	1	10/05/2017 17:46	WG1027352
trans-1,3-Dichloropropene	U		0.419	1.00	1	10/05/2017 17:46	WG1027352
Ethylbenzene	U		0.384	1.00	1	10/05/2017 17:46	WG1027352
2-Hexanone	U		3.82	10.0	1	10/05/2017 17:46	WG1027352
Iodomethane	U		1.71	10.0	1	10/05/2017 17:46	WG1027352
2-Butanone (MEK)	U		3.93	15.0	1	10/05/2017 17:46	WG1027352
Methylene Chloride	U		1.00	5.00	1	10/05/2017 17:46	WG1027352
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0	1	10/05/2017 17:46	WG1027352



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Styrene	U		0.307	1.00	1	10/05/2017 17:46	WG1027352
1,1,1,2-Tetrachloroethane	U		0.385	1.00	1	10/05/2017 17:46	WG1027352
1,1,2,2-Tetrachloroethane	U		0.130	1.00	1	10/05/2017 17:46	WG1027352
Tetrachloroethene	U		0.372	1.00	1	10/05/2017 17:46	WG1027352
Toluene	U		0.412	1.00	1	10/05/2017 17:46	WG1027352
1,1,1-Trichloroethane	U		0.319	1.00	1	10/05/2017 17:46	WG1027352
1,1,2-Trichloroethane	U		0.383	1.00	1	10/05/2017 17:46	WG1027352
Trichloroethene	U		0.398	1.00	1	10/05/2017 17:46	WG1027352
Trichlorofluoromethane	U		1.20	5.00	1	10/05/2017 17:46	WG1027352
1,2,3-Trichloropropane	U		0.807	2.50	1	10/05/2017 17:46	WG1027352
Vinyl acetate	U		1.63	10.0	1	10/05/2017 17:46	WG1027352
Vinyl chloride	U		0.259	1.00	1	10/05/2017 17:46	WG1027352
Xylenes, Total	U		1.06	3.00	1	10/05/2017 17:46	WG1027352
(S) Toluene-d8	103			80.0-120		10/05/2017 17:46	WG1027352
(S) Dibromofluoromethane	93.1			76.0-123		10/05/2017 17:46	WG1027352
(S) 4-Bromofluorobenzene	85.1			80.0-120		10/05/2017 17:46	WG1027352

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Gl⁷ Al⁸ Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	32.6	J	10.0	50.0	1	10/05/2017 18:05	WG1027352
Acrylonitrile	U		1.87	10.0	1	10/05/2017 18:05	WG1027352
Benzene	U		0.331	1.00	1	10/05/2017 18:05	WG1027352
Bromochloromethane	U		0.520	1.00	1	10/05/2017 18:05	WG1027352
Bromodichloromethane	U		0.380	1.00	1	10/05/2017 18:05	WG1027352
Bromoform	U		0.469	1.00	1	10/05/2017 18:05	WG1027352
Bromomethane	U		0.866	5.00	1	10/05/2017 18:05	WG1027352
Carbon disulfide	U		0.275	1.00	1	10/05/2017 18:05	WG1027352
Carbon tetrachloride	U		0.379	1.00	1	10/05/2017 18:05	WG1027352
Chlorobenzene	U		0.348	1.00	1	10/05/2017 18:05	WG1027352
Chlorodibromomethane	U		0.327	1.00	1	10/05/2017 18:05	WG1027352
Chloroethane	U		0.453	5.00	1	10/05/2017 18:05	WG1027352
Chloroform	U		0.324	5.00	1	10/05/2017 18:05	WG1027352
Chloromethane	U		0.276	2.50	1	10/05/2017 18:05	WG1027352
Dibromomethane	U		0.346	1.00	1	10/05/2017 18:05	WG1027352
1,2-Dibromoethane	U		0.381	1.00	1	10/05/2017 18:05	WG1027352
1,2-Dibromo-3-Chloropropane	U		1.33	5.00	1	10/05/2017 18:05	WG1027352
1,2-Dichlorobenzene	U		0.349	1.00	1	10/05/2017 18:05	WG1027352
1,4-Dichlorobenzene	U		0.274	1.00	1	10/05/2017 18:05	WG1027352
trans-1,4-Dichloro-2-butene	U		0.866	2.50	1	10/05/2017 18:05	WG1027352
1,1-Dichloroethane	U		0.259	1.00	1	10/05/2017 18:05	WG1027352
1,2-Dichloroethane	U		0.361	1.00	1	10/05/2017 18:05	WG1027352
1,1-Dichloroethene	U		0.398	1.00	1	10/05/2017 18:05	WG1027352
cis-1,2-Dichloroethene	U		0.260	1.00	1	10/05/2017 18:05	WG1027352
trans-1,2-Dichloroethene	U		0.396	1.00	1	10/05/2017 18:05	WG1027352
1,2-Dichloropropane	U		0.306	1.00	1	10/05/2017 18:05	WG1027352
cis-1,3-Dichloropropene	U		0.418	1.00	1	10/05/2017 18:05	WG1027352
trans-1,3-Dichloropropene	U		0.419	1.00	1	10/05/2017 18:05	WG1027352
Ethylbenzene	U		0.384	1.00	1	10/05/2017 18:05	WG1027352
2-Hexanone	U		3.82	10.0	1	10/05/2017 18:05	WG1027352
Iodomethane	U		1.71	10.0	1	10/05/2017 18:05	WG1027352
2-Butanone (MEK)	U		3.93	15.0	1	10/05/2017 18:05	WG1027352
Methylene Chloride	U		1.00	5.00	1	10/05/2017 18:05	WG1027352
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0	1	10/05/2017 18:05	WG1027352
Styrene	U		0.307	1.00	1	10/05/2017 18:05	WG1027352
1,1,1,2-Tetrachloroethane	U		0.385	1.00	1	10/05/2017 18:05	WG1027352
1,1,2,2-Tetrachloroethane	U		0.130	1.00	1	10/05/2017 18:05	WG1027352
Tetrachloroethene	U		0.372	1.00	1	10/05/2017 18:05	WG1027352
Toluene	U		0.412	1.00	1	10/05/2017 18:05	WG1027352
1,1,1-Trichloroethane	U		0.319	1.00	1	10/05/2017 18:05	WG1027352
1,1,2-Trichloroethane	U		0.383	1.00	1	10/05/2017 18:05	WG1027352
Trichloroethene	U		0.398	1.00	1	10/05/2017 18:05	WG1027352
Trichlorofluoromethane	U		1.20	5.00	1	10/05/2017 18:05	WG1027352
1,2,3-Trichloropropane	U		0.807	2.50	1	10/05/2017 18:05	WG1027352
Vinyl acetate	U		1.63	10.0	1	10/05/2017 18:05	WG1027352
Vinyl chloride	U		0.259	1.00	1	10/05/2017 18:05	WG1027352
Xylenes, Total	U		1.06	3.00	1	10/05/2017 18:05	WG1027352
(S) Toluene-d8	104			80.0-120		10/05/2017 18:05	WG1027352
(S) Dibromofluoromethane	92.3			76.0-123		10/05/2017 18:05	WG1027352
(S) 4-Bromofluorobenzene	85.0			80.0-120		10/05/2017 18:05	WG1027352

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Gl

7 Al

8 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		10.0	50.0	1	10/05/2017 11:37	WG1027352
Acrylonitrile	U		1.87	10.0	1	10/05/2017 11:37	WG1027352
Benzene	U		0.331	1.00	1	10/05/2017 11:37	WG1027352
Bromochloromethane	U		0.520	1.00	1	10/05/2017 11:37	WG1027352
Bromodichloromethane	U		0.380	1.00	1	10/05/2017 11:37	WG1027352
Bromoform	U		0.469	1.00	1	10/05/2017 11:37	WG1027352
Bromomethane	U		0.866	5.00	1	10/05/2017 11:37	WG1027352
Carbon disulfide	U		0.275	1.00	1	10/05/2017 11:37	WG1027352
Carbon tetrachloride	U		0.379	1.00	1	10/05/2017 11:37	WG1027352
Chlorobenzene	U		0.348	1.00	1	10/05/2017 11:37	WG1027352
Chlorodibromomethane	U		0.327	1.00	1	10/05/2017 11:37	WG1027352
Chloroethane	U		0.453	5.00	1	10/05/2017 11:37	WG1027352
Chloroform	U		0.324	5.00	1	10/05/2017 11:37	WG1027352
Chloromethane	U		0.276	2.50	1	10/05/2017 11:37	WG1027352
Dibromomethane	U		0.346	1.00	1	10/05/2017 11:37	WG1027352
1,2-Dibromoethane	U		0.381	1.00	1	10/05/2017 11:37	WG1027352
1,2-Dibromo-3-Chloropropane	U		1.33	5.00	1	10/05/2017 11:37	WG1027352
1,2-Dichlorobenzene	U		0.349	1.00	1	10/05/2017 11:37	WG1027352
1,4-Dichlorobenzene	U		0.274	1.00	1	10/05/2017 11:37	WG1027352
trans-1,4-Dichloro-2-butene	U		0.866	2.50	1	10/05/2017 11:37	WG1027352
1,1-Dichloroethane	U		0.259	1.00	1	10/05/2017 11:37	WG1027352
1,2-Dichloroethane	U		0.361	1.00	1	10/05/2017 11:37	WG1027352
1,1-Dichloroethene	U		0.398	1.00	1	10/05/2017 11:37	WG1027352
cis-1,2-Dichloroethene	U		0.260	1.00	1	10/05/2017 11:37	WG1027352
trans-1,2-Dichloroethene	U		0.396	1.00	1	10/05/2017 11:37	WG1027352
1,2-Dichloropropane	U		0.306	1.00	1	10/05/2017 11:37	WG1027352
cis-1,3-Dichloropropene	U		0.418	1.00	1	10/05/2017 11:37	WG1027352
trans-1,3-Dichloropropene	U		0.419	1.00	1	10/05/2017 11:37	WG1027352
Ethylbenzene	U		0.384	1.00	1	10/05/2017 11:37	WG1027352
2-Hexanone	U		3.82	10.0	1	10/05/2017 11:37	WG1027352
Iodomethane	U		1.71	10.0	1	10/05/2017 11:37	WG1027352
2-Butanone (MEK)	U		3.93	15.0	1	10/05/2017 11:37	WG1027352
Methylene Chloride	U		1.00	5.00	1	10/05/2017 11:37	WG1027352
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0	1	10/05/2017 11:37	WG1027352
Styrene	U		0.307	1.00	1	10/05/2017 11:37	WG1027352
1,1,1,2-Tetrachloroethane	U		0.385	1.00	1	10/05/2017 11:37	WG1027352
1,1,2,2-Tetrachloroethane	U		0.130	1.00	1	10/05/2017 11:37	WG1027352
Tetrachloroethene	U		0.372	1.00	1	10/05/2017 11:37	WG1027352
Toluene	U		0.412	1.00	1	10/05/2017 11:37	WG1027352
1,1,1-Trichloroethane	U		0.319	1.00	1	10/05/2017 11:37	WG1027352
1,1,2-Trichloroethane	U		0.383	1.00	1	10/05/2017 11:37	WG1027352
Trichloroethene	U		0.398	1.00	1	10/05/2017 11:37	WG1027352
Trichlorofluoromethane	U		1.20	5.00	1	10/05/2017 11:37	WG1027352
1,2,3-Trichloropropane	U		0.807	2.50	1	10/05/2017 11:37	WG1027352
Vinyl acetate	U		1.63	10.0	1	10/05/2017 11:37	WG1027352
Vinyl chloride	U		0.259	1.00	1	10/05/2017 11:37	WG1027352
Xylenes, Total	U		1.06	3.00	1	10/05/2017 11:37	WG1027352
(S) Toluene-d8	102			80.0-120		10/05/2017 11:37	WG1027352
(S) Dibromofluoromethane	97.5			76.0-123		10/05/2017 11:37	WG1027352
(S) 4-Bromofluorobenzene	82.2			80.0-120		10/05/2017 11:37	WG1027352





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.

Abbreviations and Definitions

MDL	Method Detection Limit.
RDL	Reported Detection Limit.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
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, 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.
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.
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.
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
B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.
J2	Surrogate recovery limits have been exceeded; values are outside lower control limits.
J4	The associated batch QC was outside the established quality control range for accuracy.
O1	The analyte failed the method required serial dilution test and/or subsequent post-spike criteria. These failures indicate matrix interference.
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.

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Gl

⁷ Al

⁸ Sc



ESC Lab Sciences 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.

State Accreditations

Alabama	40660	Nevada	TN-03-2002-34
Alaska	UST-080	New Hampshire	2975
Arizona	AZ0612	New Jersey–NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Connecticut	PH-0197	North Carolina ¹	DW21704
Florida	E87487	North Carolina ²	41
Georgia	NELAP	North Dakota	R-140
Georgia ¹	923	Ohio–VAP	CL0069
Idaho	TN00003	Oklahoma	9915
Illinois	200008	Oregon	TN200002
Indiana	C-TN-01	Pennsylvania	68-02979
Iowa	364	Rhode Island	221
Kansas	E-10277	South Carolina	84004
Kentucky ¹	90010	South Dakota	n/a
Kentucky ²	16	Tennessee ¹⁴	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas ⁵	LAB0152
Maryland	324	Utah	6157585858
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA
Nebraska	NE-OS-15-05		

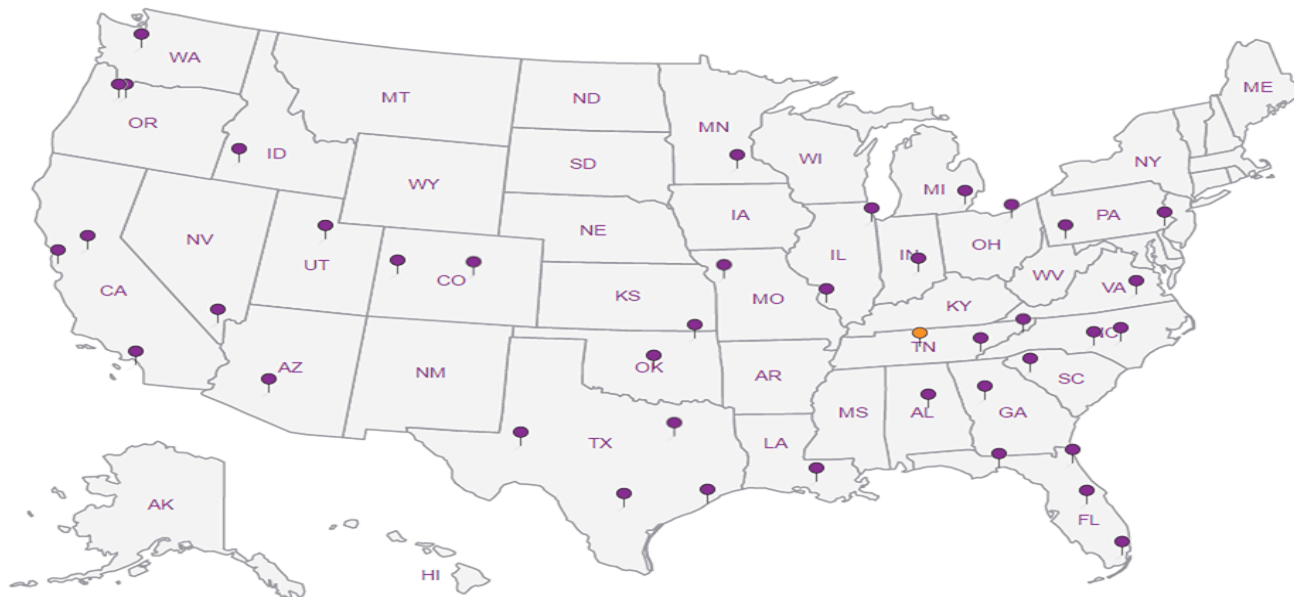
Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC	100789
A2LA – ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	S-67674
EPA–Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ^{n/a} Accreditation not applicable

Our Locations


ESC Lab Sciences 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. **ESC Lab Sciences performs all testing at our central laboratory.**



[illegible]

SCS Engineers - Little Rock, AR 11219 Richardson Drive North Little Rock, AR 72113				Billing Information: Accounts Payable 11219 Richardson Drive N. Little Rock, AR 72113 Email To: swhitmer@scsengineers.com				Chain of Custody Page <u>1</u> of <u>1</u>			
Report to: Stacie Whitmer Project Description: Nabors Landfill				Analysis / Container / Preservative							
City/State: MT, Home, AR Lab Project # CHIROCKAR-NABORS P.O. # _____ Quote # _____ Date Results Needed _____ Rush? (Lab MUST Be Notified) _____ Same Day _____ Five Day _____ Next Day _____ 5 Day (Rad Only) _____ Two Day _____ 10 Day (Rad Only) _____ Three Day _____				Pres Chk _____				L# _____ Table # _____ Acctnum: CHIROCKAR Template: T98870 Prelogin: P619567 TSR: 134 - Mark W. Beasley PDB: 12-13-14 Shipped Via: FedEx Ground			
Sample ID _____ Collected by (print): Daren Motley Collected by (signature): <i>Daren Motley</i> Immediately packed on ice N <u>Y</u> <u>X</u>				No. of Cntrs _____ Time _____ Date _____ Depth _____ Matrix * _____ Comp/Grab _____				CN 250mlHDPFAmb-NaOH C1, SO4, TDS 250mlHDPF-NoPres M6010AP1 + Fe, Mn, Sn 250mlHDPF-HNO3 SULFIDE 125mlAmb-5-NaOH+ZnAc TOC 250mlAmb-HCl V8260AP1 40mlAmb-HCl V8260AP1 - Trip Blk 40mlAmb-HCl			
Sample ID: NE-4 NAB-2 NAB-3 NAB-4 NAB-7 NAB-8 MW-509D MW-577 MW-689D MW-633D				GW GW GW GW GW GW GW GW				7 7 7 7 7 7 7 7			
Date: 9-27-17 Time: 1322				Date: 9-27-17 Time: 853				Date: 9-28-17 Time: 1240			
Date: 9-27-17 Time: 900				Date: 9-27-17 Time: 1210				Date: 9-27-17 Time: 927			
Date: 9-27-17 Time: 1000				Date: 9-27-17 Time: 1055				Date: _____ Time: _____			
Remarks: _____ * Matrix: _____ SS - Soil AIR - Air F - Filter GW - Groundwater B - Bioassay WW - Waste Water DW - Drinking Water OT - Other _____				pH _____ Temp _____ Flow _____ Other _____				Sample Receipt Checklist CCC Seal Present/Intact: _____ CCC Signed/Accurate: _____ Bottles arrive intact: _____ Correct bottles used: _____ Sufficient volume sent: _____ If Applicable: _____ VOA Zero Headspace: _____ Preservation Correct/Checked: _____			
Samples returned via: _____ UPS _____ FedEx _____ Courier _____				Tracking # _____ Received by: (Signature) _____ Received by: (Signature) _____ Received for lab by: (Signature) _____				Trip Blank Received: Yes / No HCL / Meoh TBR Temp: 22.46 °C Bottles Received: 188 Date: 9-30-17 Time: 0845			
Relinquished by: (Signature) <i>Daren Motley</i> Relinquished by: (Signature) _____ Relinquished by: (Signature) _____				Date: 9-29-17 Time: 11:00 Date: _____ Time: _____ Date: _____ Time: _____				If preservation required by Login: Date/Time _____ Hold: _____ Condition: NCF / OK			

SCS Engineers - Little Rock, AR 11219 Richardson Drive North Little Rock, AR 72113						Billing Information: Accounts Payable 11219 Richardson Drive N. Little Rock, AR 72113 Email To: swhitmer@scseengineers.com						Chain of Custody Page ____ of ____ a subsidiary of "Pacemaker" 12065 Lebanon Rd. Mount Juliet, TN 37122 Phone: 615-758-5858 Phone: 800-767-5859 Fax: 615-758-5859					
Report to: Stacie Whitmer Project Description: Nabors Landfill						City/State Collected: MT, Homee, Ar~ Lab Project # CHIROCKAR-NABORS P.O. # Quote # Date Results Needed _____ Same Day _____ Five Day _____ Next Day _____ 5 Day (Rad Only) _____ Two Day _____ 10 Day (Rad Only) _____ Three Day _____						Pres Chk					
Client Project # Site/Facility ID # Rush? (Lab MUST Be Notified) Same Day _____ Five Day _____ Next Day _____ 5 Day (Rad Only) _____ Two Day _____ 10 Day (Rad Only) _____ Three Day _____ Immediately Packed on Ice N ___ Y ___						Comp/Grab Matrix * Depth Date Time NE-2 GW 9-26-17 1440 NE-3 GW 9-27-17 745 NE-6 GW 9-28-17 848 MW-1R GW 9-27-17 1535 TSP-1 GW TSP-2 GW TSP-3 GW TSP-4 GW SP-4 GW SP-5 GW						No. of Cntrs 7 7 7 7 7 7 7 7 7 7					
Sample ID Remarks: * Matrix: SS - Soil AIR - Air F - Filter GW - Groundwater B - Bioassay WW - Waste Water DW - Drinking Water OT - Other						Samples returned via: UPS FedEx Courier						pH Temp Flow Other pH _____ Temp _____ Flow _____ Other _____					
Relinquished by : (Signature) <i>Daner Motley</i> Date: 9-29-17 Time: 11:00						Received by: (Signature) Date: 9-29-17 Time: 11:00						Trip Blank Received: Yes/No HCL / MeOH TBR Temp: 2.2°C Bottles Received: 188 Date: 9-30-17 Time: 0845					
Relinquished by : (Signature) Date: Time:						Received by: (Signature) Date: Time:						Hold: Condition: NCF / OK					

SCS Engineers - Little Rock, AR				Billing Information: Accounts Payable 11219 Richardson Drive N. Little Rock, AR 72113				Chain of Custody Page ____ of ____						
11219 Richardson Drive North Little Rock, AR 72113				Report to: Stacie Whitmer				 SCS ENGINEERS, INC. 12065 Lebanon Rd. Mount Juliet, TN 37122 Phone: 615-758-5858 Phone: 800-767-5859 Fax: 615-758-5859						
Project Description: Nabors Landfill				Client Project #				Analysis / Container / Preservation						
Phone: 501-812-4551				City/State Collected:				Pres Chk						
Fax:				Lab Project # CHIROCKAR-NABORS										
Collected by (print): Danen Motey				P.O. #										
Collected by (signature): [Signature]				Quote #										
Immediately Packed on ice N YD				Date Results Needed										
Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	CN 250mHDPPEAmb-NaOH	M6010AP1 + Fe,Mn,Sn 250mIHDPPE-HNO3	SULFIDE 125mIAmb-S-NaOH+ZnAc	TOC 250mIAmb-HCl	V8260AP1 40mIAmb-HCl	V8260AP1-Trip BIK 40mIAmb-HCl	Remarks	Sample # (lab only)
SP-7		GW				7	X	X	X	X	X	X	1-250 ml plastic w/H2SO4 (ammonia) 1-250 ml glass for flash point 1-L glass w/HCL-Oil grade 1-250 ml plastic w/NCOH-Cyanide 1-250 ml plastic w/HNO3 (As cd Cr Cu Pb Hg Ni Zn)	
SPRING-A		GW				7	X	X	X	X	X	X		
SPRING-B		GW				7	X	X	X	X	X	X		
SP-NE-3		GW				7	X	X	X	X	X	X		
LANDFILL ENTRANCE SEEP		GW				7	X	X	X	X	X	X		
CLASS IV DRAW		GW				7	X	X	X	X	X	X		
CLASS I DRAW		GW				7	X	X	X	X	X	X		
LEACHATE	grab	GW		9/28	1100	7	X	X	X	X	X	X	See Mark Basler for questions	
DUPLICATE		GW				7	X	X	X	X	X	X		
FIELD BLANK		GW				7	X	X	X	X	X	X		
Remarks: * Matrix: SS - Soil AIR - Air F - Filter GW - Groundwater B - Bioassay WW - Waste Water DW - Drinking Water OT - Other _____ Samples returned via: ___ UPS ___ FedEx ___ Courier ___ Relinquished by : (Signature) Date: 9-29-17 Time: 15:00 Relinquished by : (Signature) Date: Time: Relinquished by : (Signature) Date: Time: Tracking # Received by: (Signature) Trip Blank Received: Yes No HCL / Meoh TBR Temp: 0.2 u/s °C Bottles Recycled: 180 Date: 9-30-17 Time: 2005 Condition: NCF / OK If preservation required by Login: Date/Time Hold:														

SCS Engineers - Little Rock, AR

Sample Delivery Group: L943632

Samples Received: 09/30/2017

Project Number:

Description: Nabors Landfill

Report To:

Stacie Whitmer

11219 Richardson Drive

North Little Rock, AR 72113

Entire Report Reviewed By:



Mark W. Beasley

Technical Service Representative

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 ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



Cp: Cover Page	1	¹ Cp
Tc: Table of Contents	2	
Ss: Sample Summary	3	² Tc
Cn: Case Narrative	4	
Sr: Sample Results	5	³ Ss
LEACHATE L943632-01	5	
Gl: Glossary of Terms	6	⁴ Cn
Al: Accreditations & Locations	7	⁵ Sr
Sc: Sample Chain of Custody	8	⁶ Gl
		⁷ Al
		⁸ Sc

SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



LEACHATE L943632-01 WW

Collected by
Darren Motley

Collected date/time
09/28/17 16:00

Received date/time
09/30/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 335.4	WG1032144	1	10/16/17 21:00	10/17/17 15:47	KK
Mercury by Method 245.1	WG1031098	1	10/17/17 02:28	10/17/17 12:56	ABL
Metals (ICPMS) by Method 200.8	WG1032029	1	10/18/17 11:44	10/23/17 14:57	LAT

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Gl

⁷Al

⁸Sc

ACCOUNT:

SCS Engineers - Little Rock, AR

PROJECT:

SDG:

L943632

DATE/TIME:

10/23/17 18:35

PAGE:

3 of 9



All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. 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.

Mark W. Beasley
Technical Service Representative





Wet Chemistry by Method 335.4

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Cyanide	U		1.80	5.00	1	10/17/2017 15:47	WG1032144

Mercury by Method 245.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Mercury	U		0.0490	0.200	1	10/17/2017 12:56	WG1031098

Metals (ICPMS) by Method 200.8

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Arsenic	3.82		0.170	1.00	1	10/23/2017 14:57	WG1032029
Cadmium	U		0.220	1.00	1	10/23/2017 14:57	WG1032029
Chromium	2.03		0.320	1.00	1	10/23/2017 14:57	WG1032029
Copper	2.77		0.270	1.00	1	10/23/2017 14:57	WG1032029
Lead	U		0.260	1.00	1	10/23/2017 14:57	WG1032029
Nickel	34.3		0.320	1.00	1	10/23/2017 14:57	WG1032029
Zinc	58.8		1.91	10.0	1	10/23/2017 14:57	WG1032029

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Gl⁷ Al⁸ Sc



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.

Abbreviations and Definitions

MDL	Method Detection Limit.
RDL	Reported Detection Limit.
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, 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.
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.
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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.

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Gl

⁷ Al

⁸ Sc



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Indiana	C-TN-01	Pennsylvania	68-02979
Iowa	364	Rhode Island	221
Kansas	E-10277	South Carolina	84004
Kentucky ¹	90010	South Dakota	n/a
Kentucky ²	16	Tennessee ¹⁴	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas ⁵	LAB0152
Maryland	324	Utah	6157585858
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA
Nebraska	NE-OS-15-05		

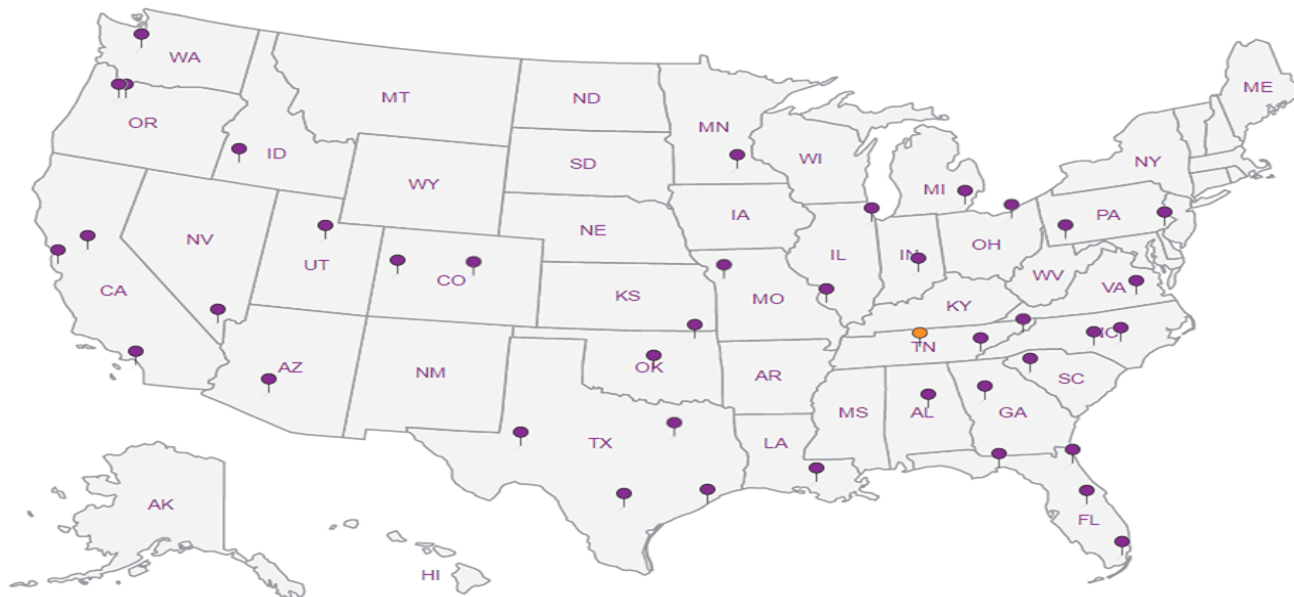
Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC	100789
A2LA – ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	S-67674
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¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ^{n/a} Accreditation not applicable

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Andy Vann

From: Mark Beasley
Sent: Friday, October 13, 2017 1:50 PM
To: Login; Sample Storage
Subject: L940345 *CHIROCKAR* relog

Relog L940345-26 for matrix WW ASG, CDG, CRG, CUG, PBG, HG, NIG, ZNG and matrix 2 CN.

✱ Mark Beasley

National Account Manager

ECS Lab Sciences-a subsidiary of Pace Analytical

12065 Lebanon Road | Mt. Juliet, TN 37122

615.773.9672 | Cell 615.330.1602

mbeasley@esclabsciences.com | www.esclabsciences.com

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APPENDIX D

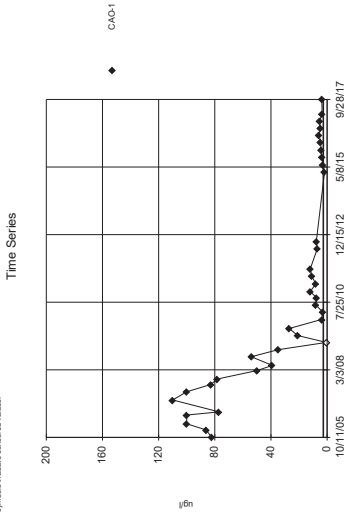
STATISTICAL DATABASE

**AN ELECTRONIC DATABASE FILE IS INCLUDED WITH THIS
REPORT SUBMITTAL**

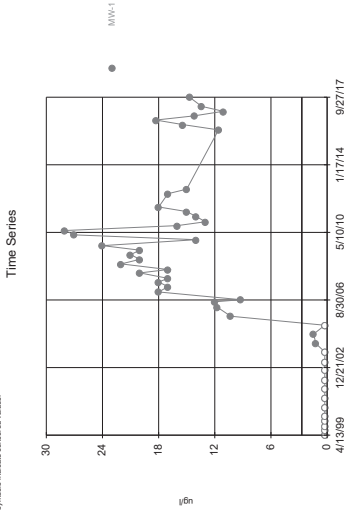
APPENDIX E

STATISTICAL EVALUATION

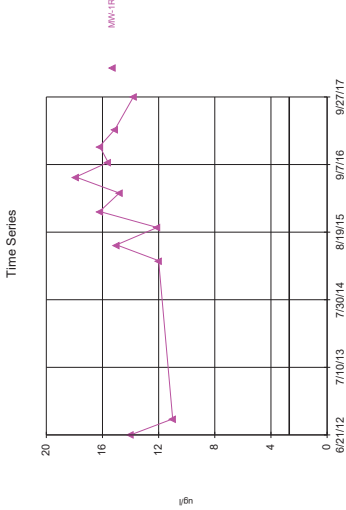
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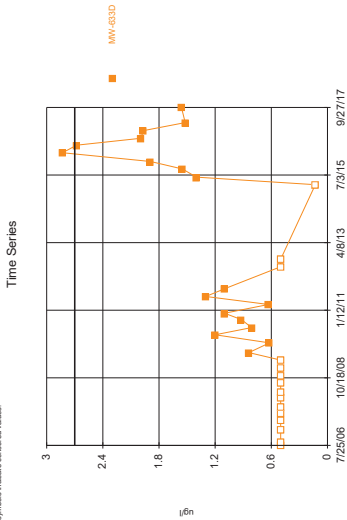
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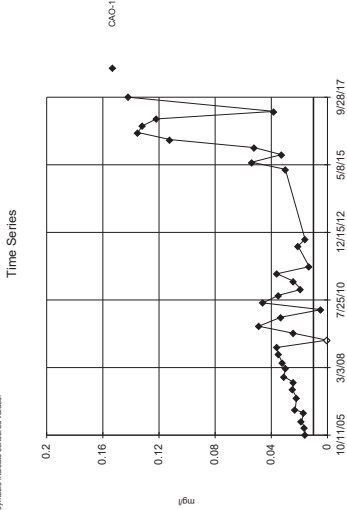
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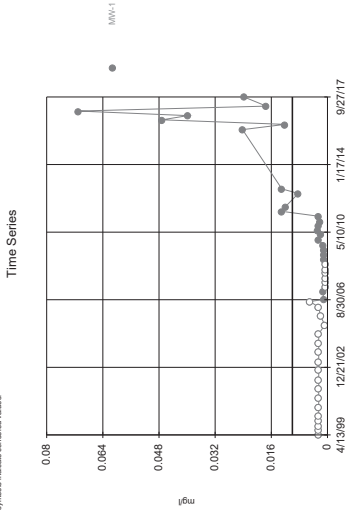
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Hollow symbols indicate censored values.



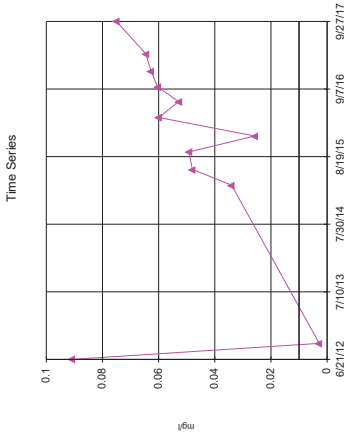
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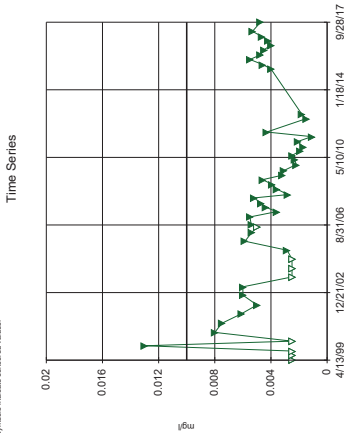
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Constituent: Arsenic Analysis Run 12/7/2017 1:33 PM
Client: SCS Engineers Data: NABORS_DATABASE_SantitasMatrix

NABORS

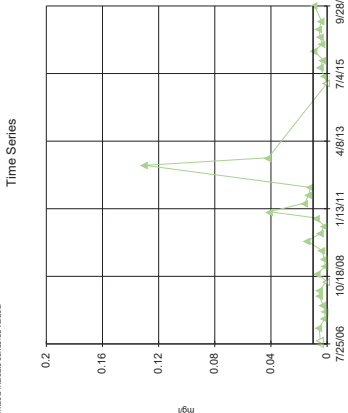
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Constituent: Arsenic Analysis Run 12/7/2017 1:33 PM
Client: SCS Engineers Data: NABORS_DATABASE_SantitasMatrix

NABORS

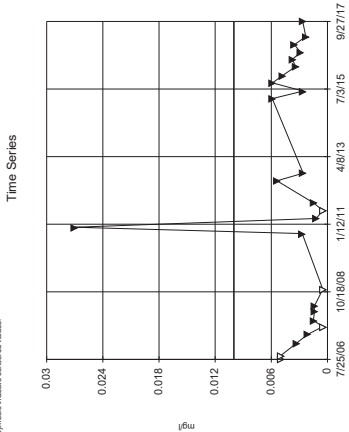
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Constituent: Arsenic Analysis Run 12/7/2017 1:33 PM
Client: SCS Engineers Data: NABORS_DATABASE_SantitasMatrix

NABORS

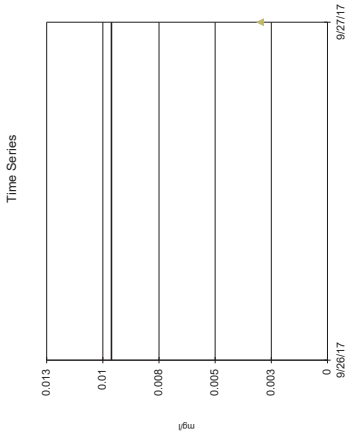
Seni™ v4.5.2 Software licensed to SCS Engineers, LLC



Constituent: Arsenic Analysis Run 12/7/2017 1:33 PM
Client: SCS Engineers Data: NABORS_DATABASE_SantitasMatrix

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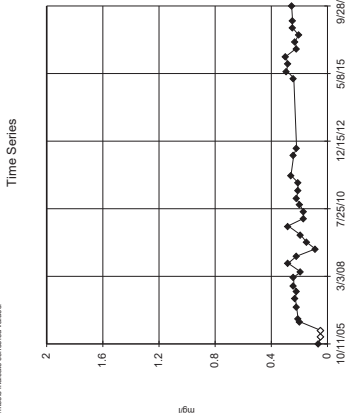
Seni™ v4.5.2 Software licensed to SCS Engineers, LLC



Constituent: Arsenic Analysis Run 12/7/2017 1:33 PM
Client: SCS Engineers Data: NABORS_DATABASE_SantitasMatrix

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Seni™ v4.5.2 Software licensed to SCS Engineers, LLC

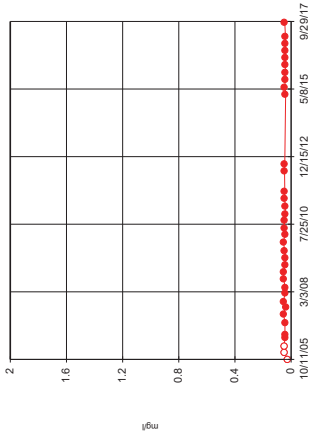


Constituent: Barium Analysis Run 12/7/2017 1:33 PM
Client: SCS Engineers Data: NABORS_DATABASE_SantitasMatrix

NABORS

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Hollow symbols indicate censored values.

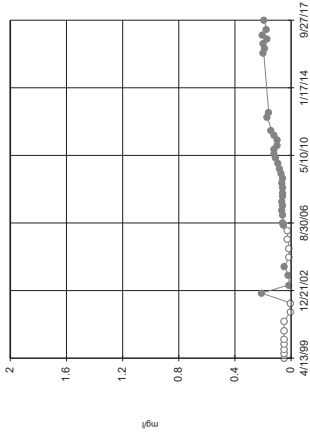
Time Series



Constituent: Barium Analysis Run 12/7/2017 1:33 PM
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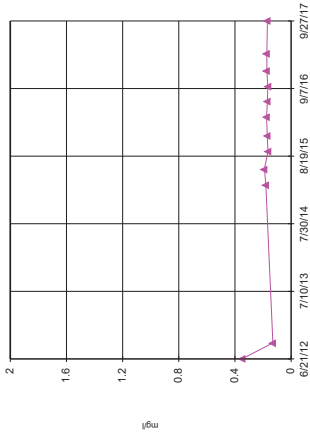
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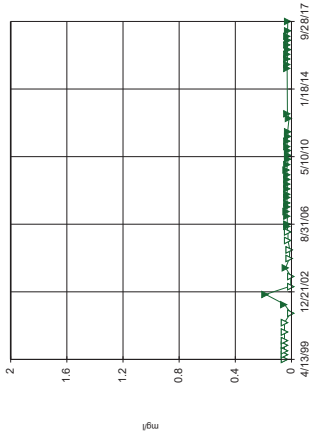
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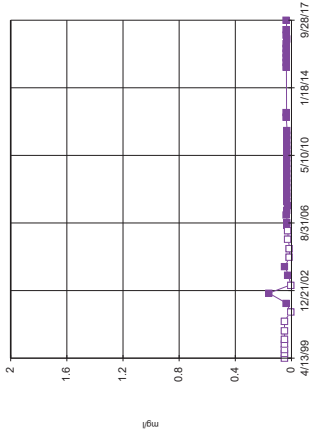
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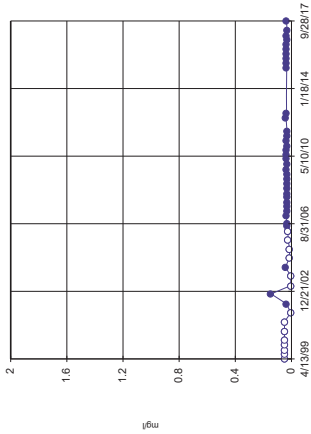
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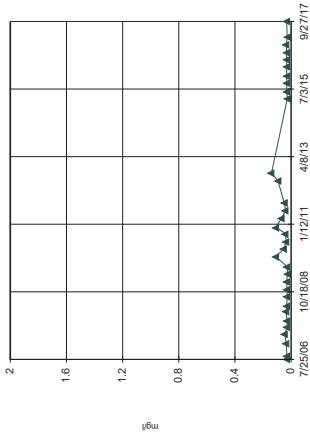
Time Series



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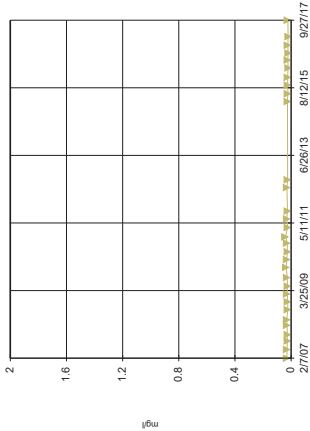
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Time Series



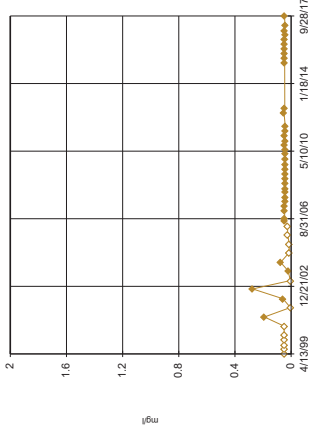
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Time Series



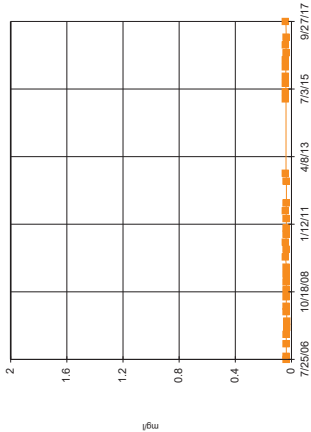
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Time Series



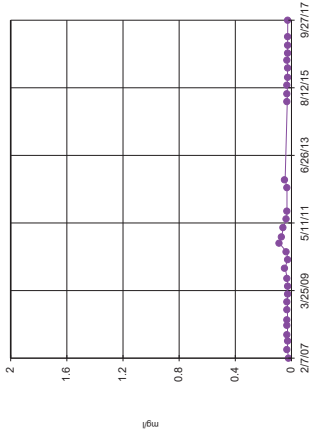
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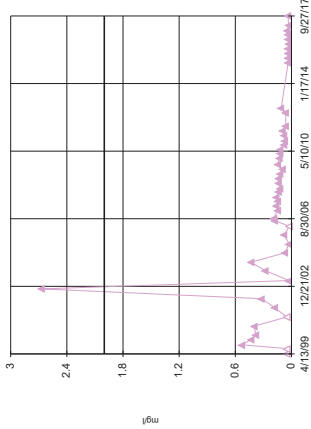
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Time Series

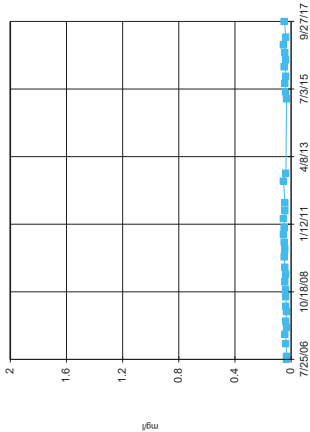


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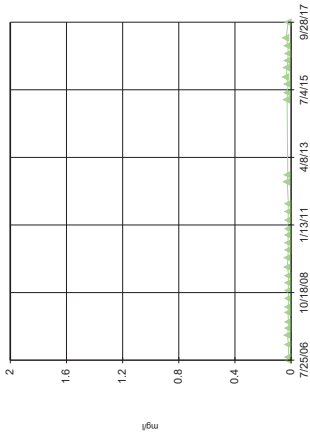


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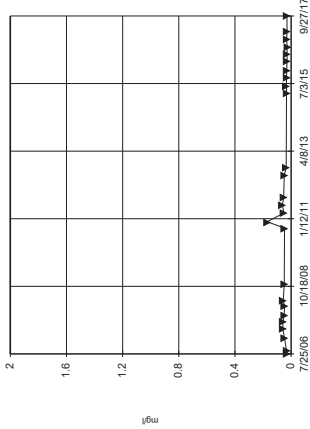
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Time Series



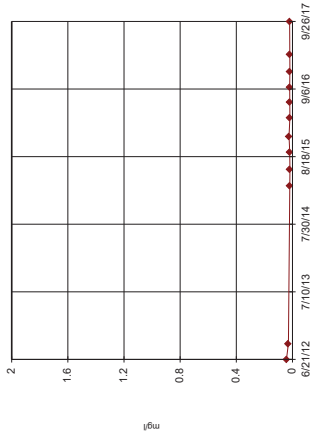
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Time Series



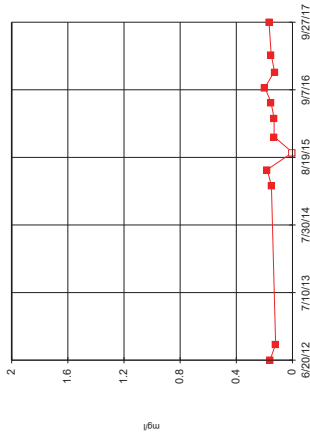
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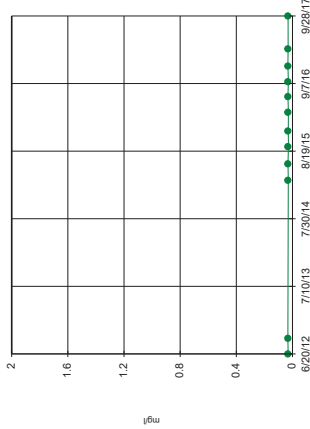
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Time Series



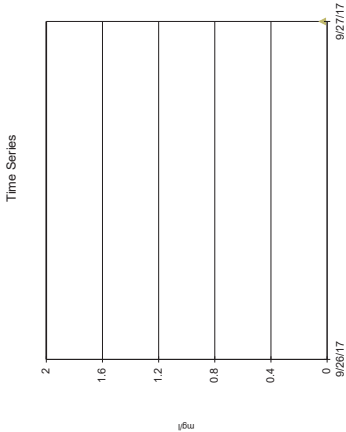
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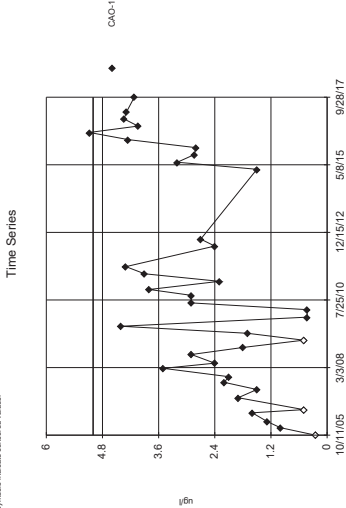


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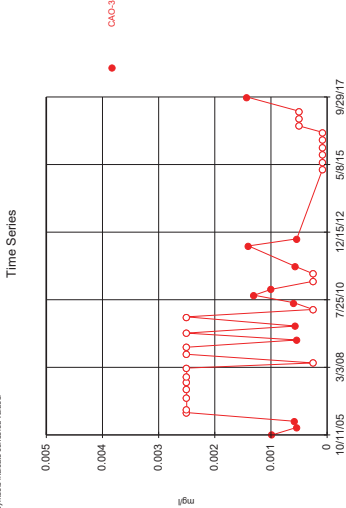
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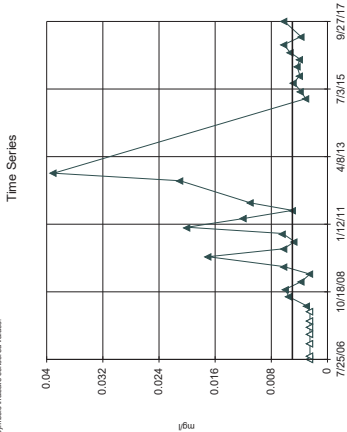
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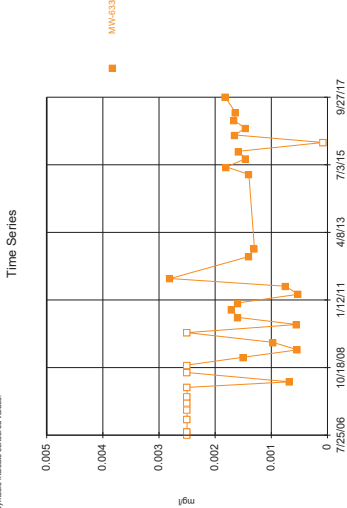
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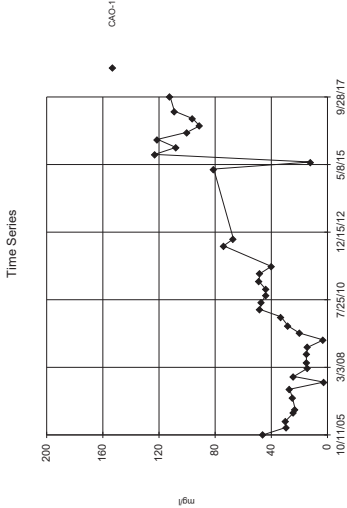
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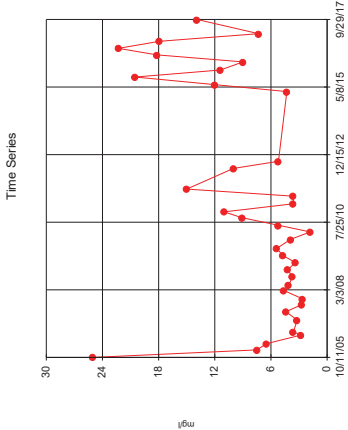
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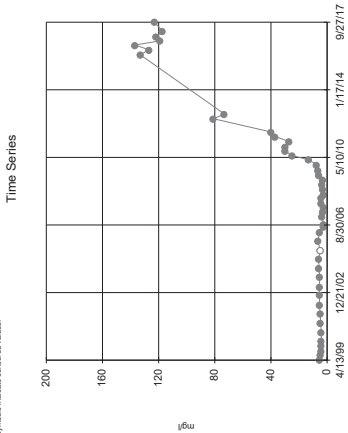
Senza™ v5.5.2 Software Forward to SCS Engineers, LG



Constituent: Chloride Analysis Run 12/7/2017 1:34 PM
Client: SCS Engineers Data: NABORS_DATABASE_SantitasMatrix

NABORS

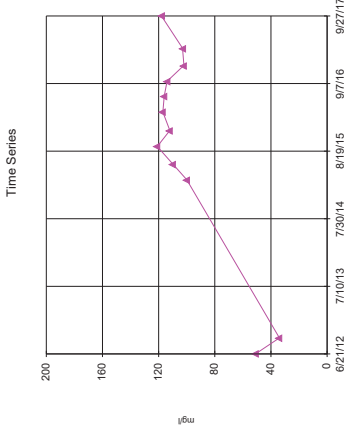
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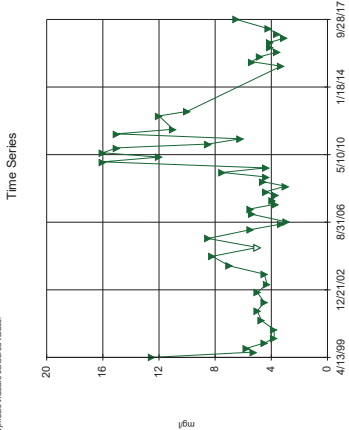
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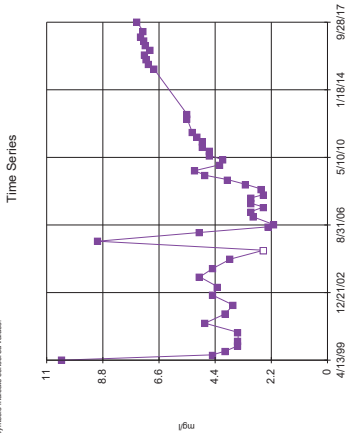
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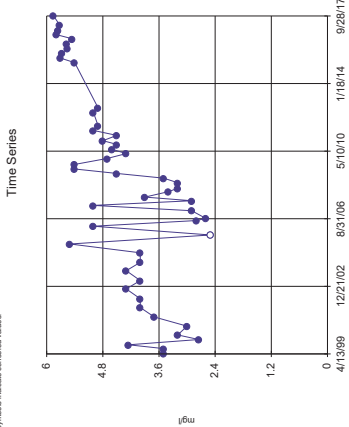
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Constituent: Chloride Analysis Run 12/7/2017 1:34 PM
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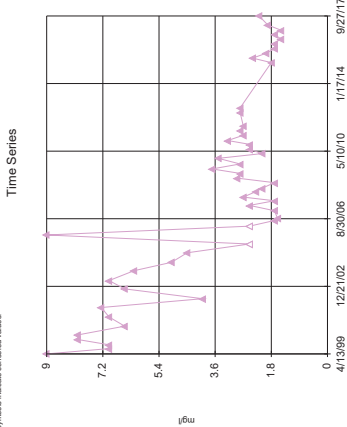
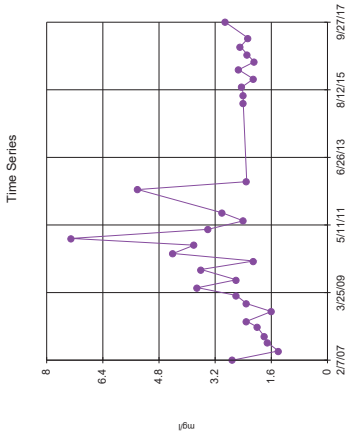
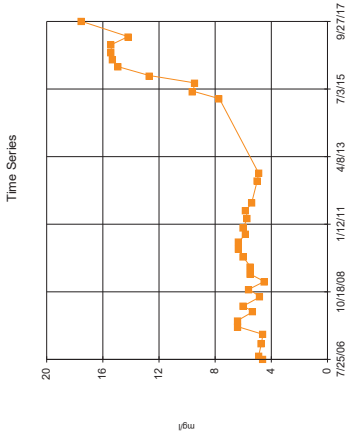
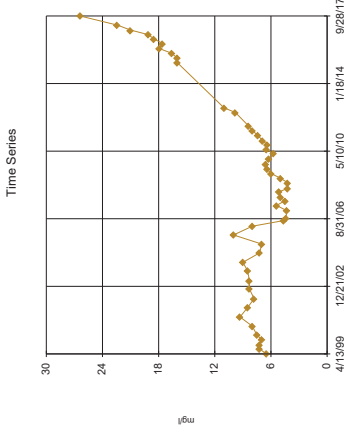
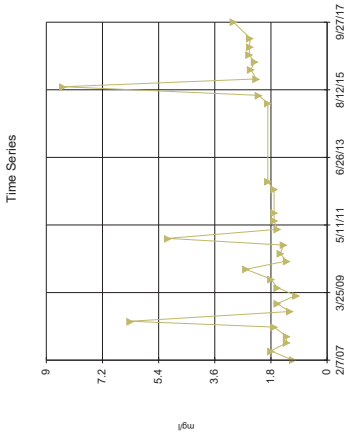
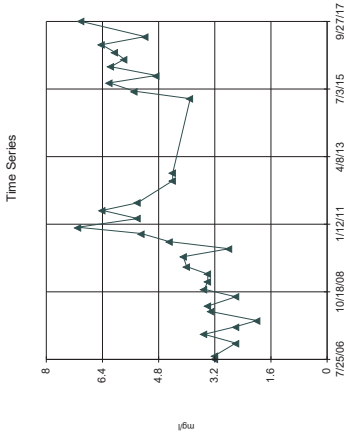
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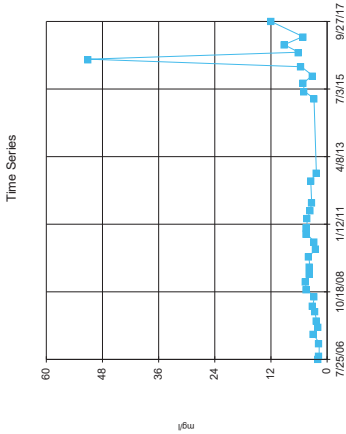
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Constituent: Chloride Analysis Run 12/7/2017 1:34 PM
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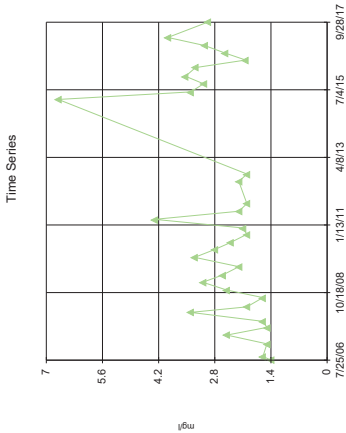
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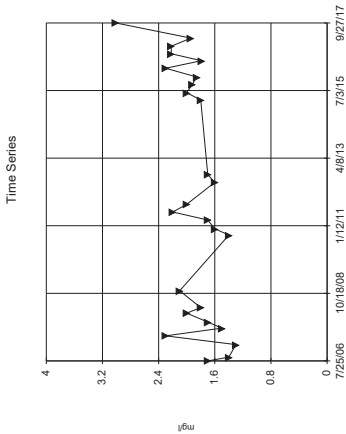
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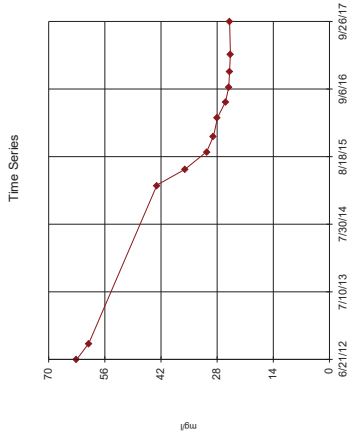
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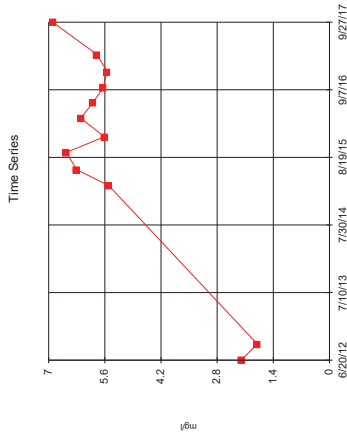
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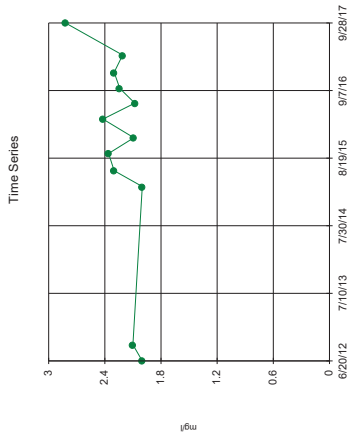
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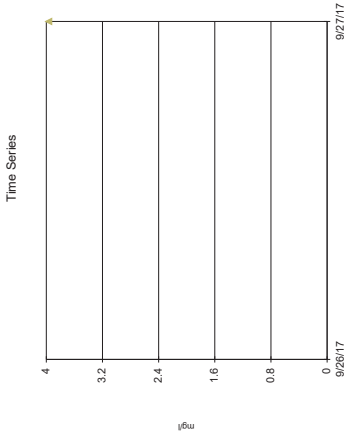
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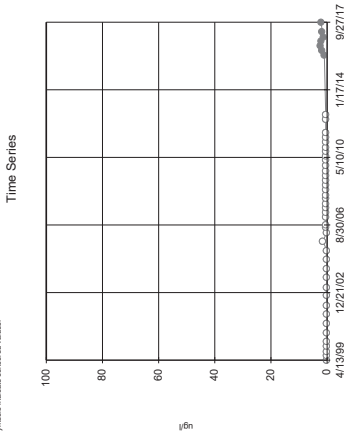
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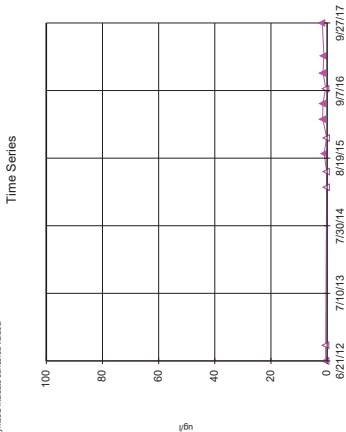
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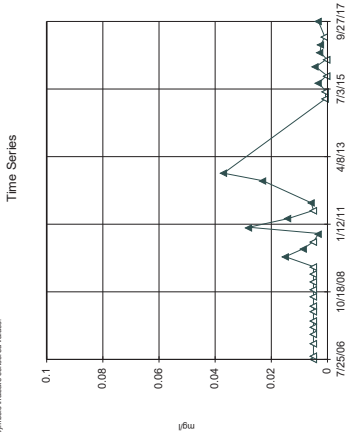
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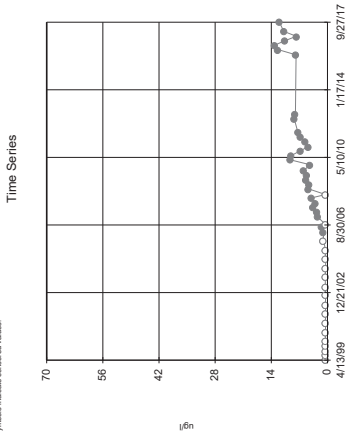
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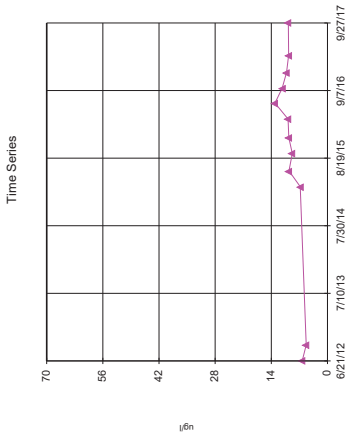
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Client: SCS Engineers Data: NABORS_DATABASE_SentiaMatrix

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Constituent: cis-1,2-Dichloroethene Analysis Run 12/7/2017 1:34 PM
Client: SCS Engineers Data: NABORS_DATABASE_SentiaMatrix

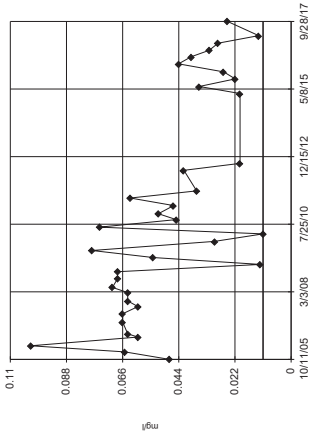
Seni™ v5.5.2 Software licensed to SCS Engineers, LLC



Constituent: cis-1,2-Dichloroethene Analysis Run 12/7/2017 1:34 PM
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Sanitas™ v4.5.2 Software licensed to SCS Engineers, LLC

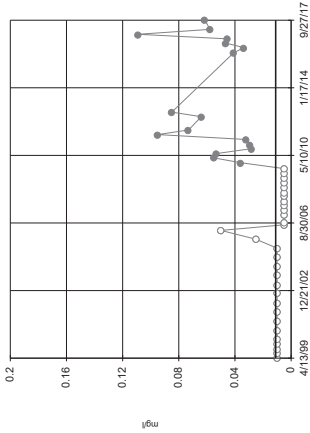
Time Series



Constituent: Cobalt Analysis Run 12/7/2017 1:34 PM
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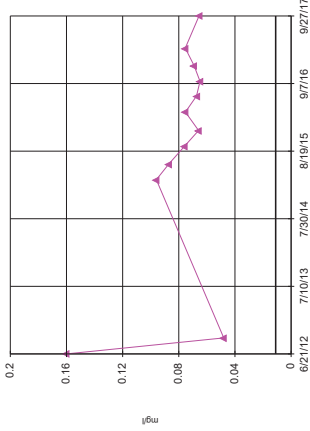
Time Series



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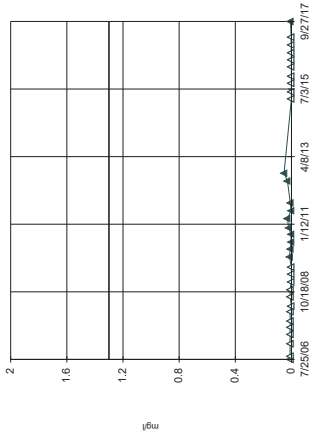
Time Series



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Sanitas™ v4.5.2 Software licensed to SCS Engineers, LLC

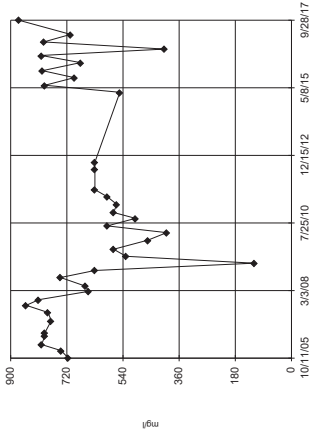
Time Series



Constituent: Copper Analysis Run 12/7/2017 1:34 PM
Client: SCS Engineers Data: NABORS_DATABASE_SantitasMatrix

Sanitas™ v4.5.2 Software licensed to SCS Engineers, LLC

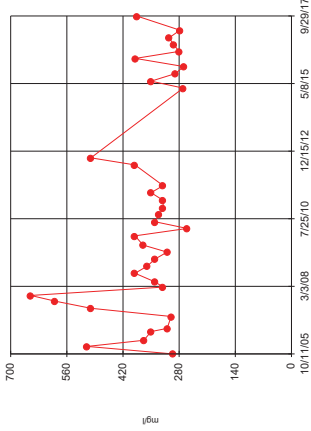
Time Series



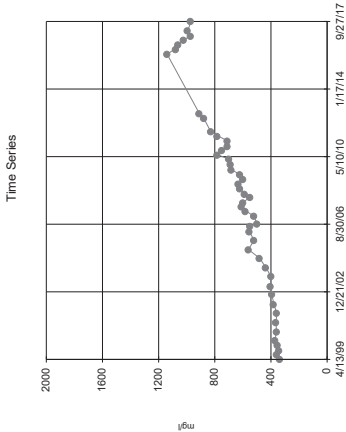
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Sanitas™ v4.5.2 Software licensed to SCS Engineers, LLC

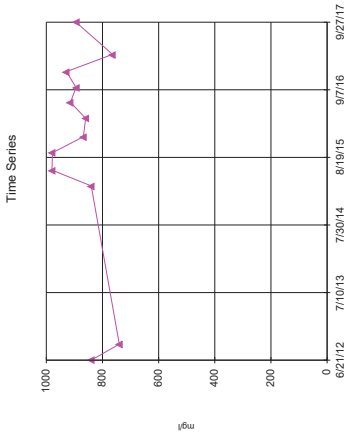
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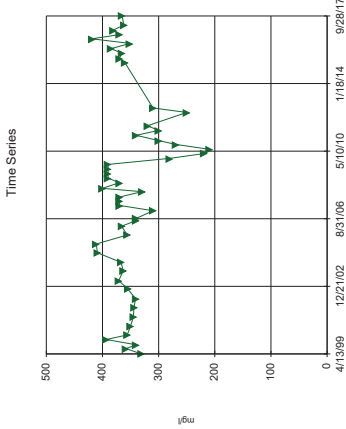
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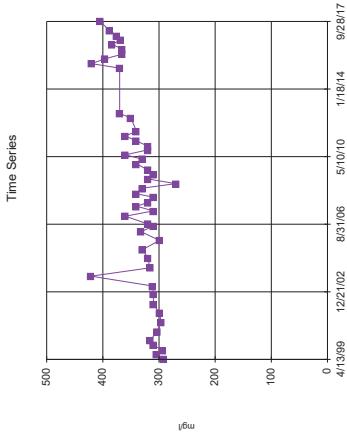
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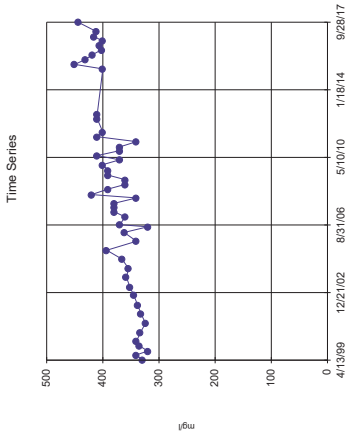
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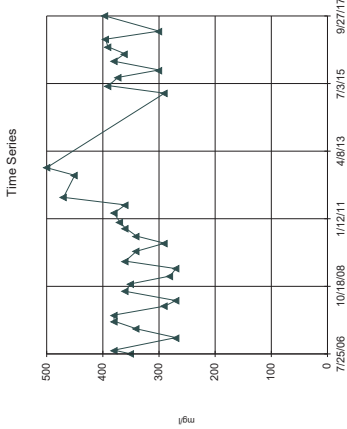
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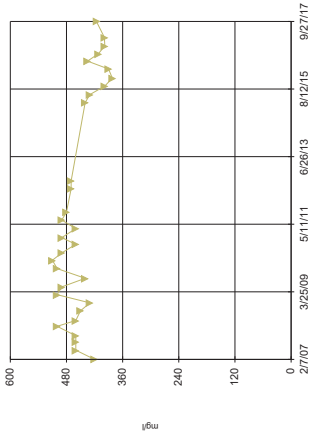


Constituent: Dissolved Solids Analysis Run 12/7/2017 1:34 PM
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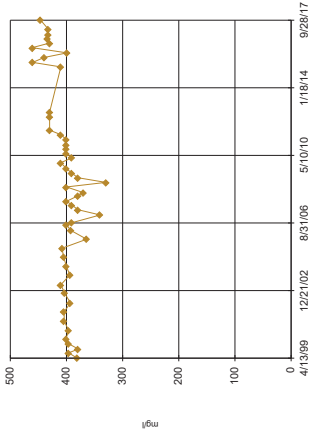
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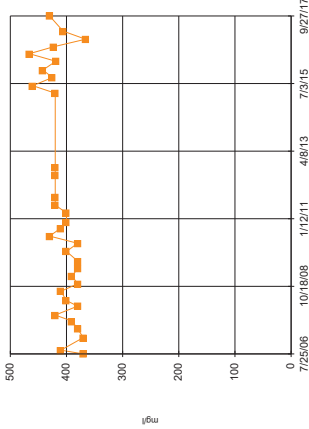
Time Series



Constituent: Dissolved Solids Analysis Run 12/7/2017 1:34 PM
Client: SCS Engineers Data: NABORS_DATABASE_SantitasMatrix

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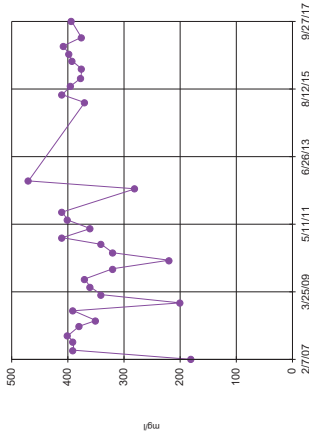
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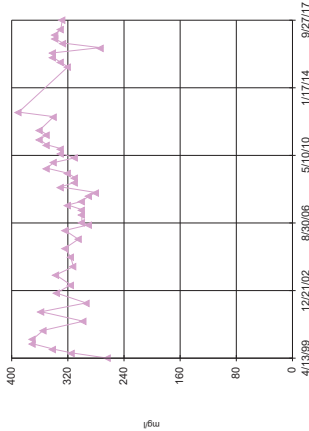
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Client: SCS Engineers Data: NABORS_DATABASE_SantitasMatrix

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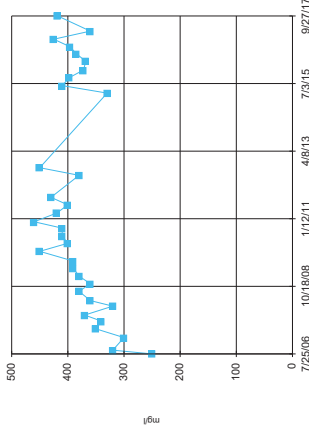
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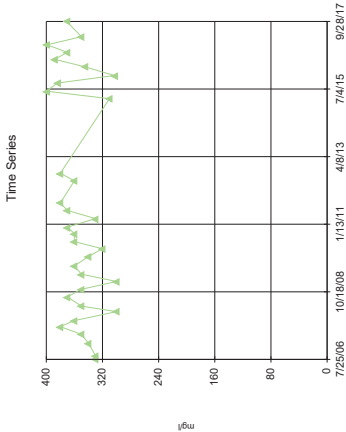
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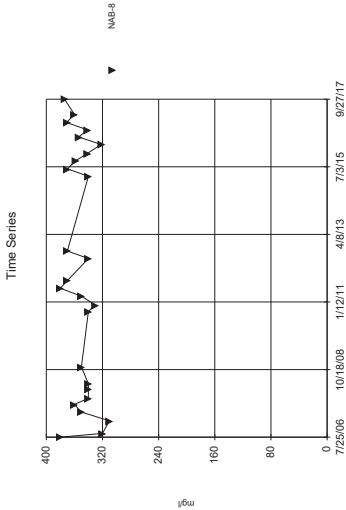
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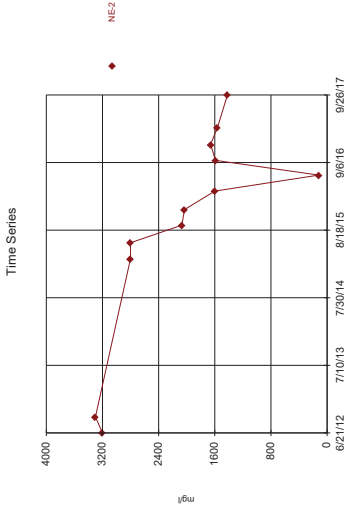
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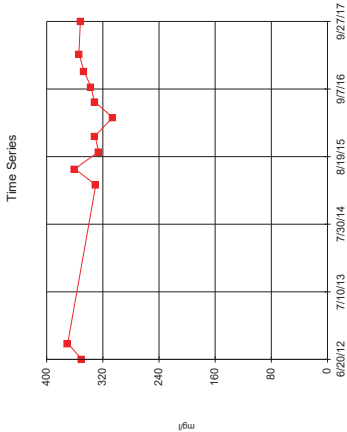
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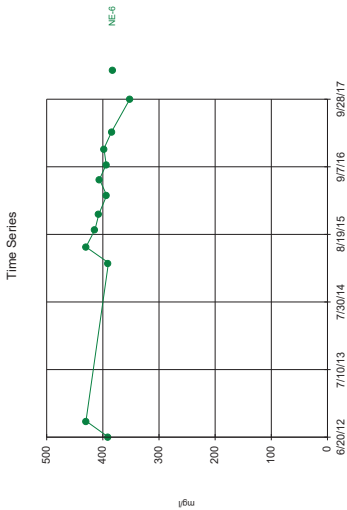
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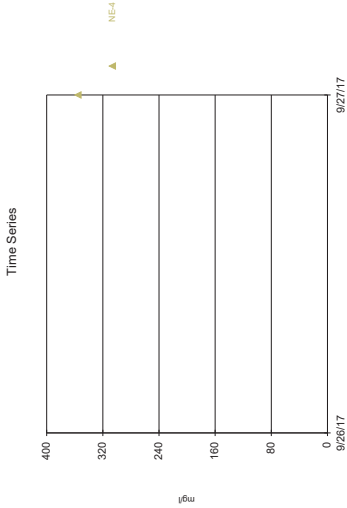
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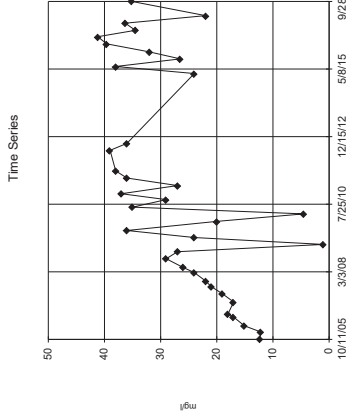
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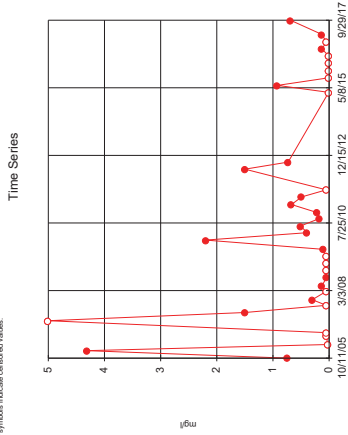


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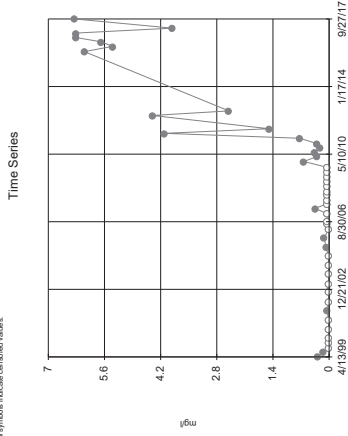
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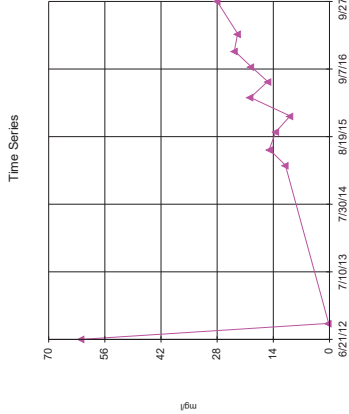
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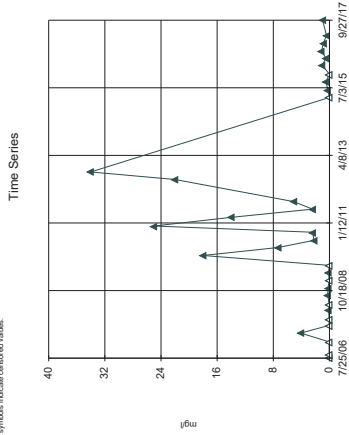
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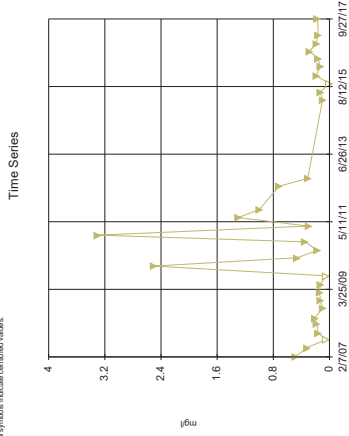
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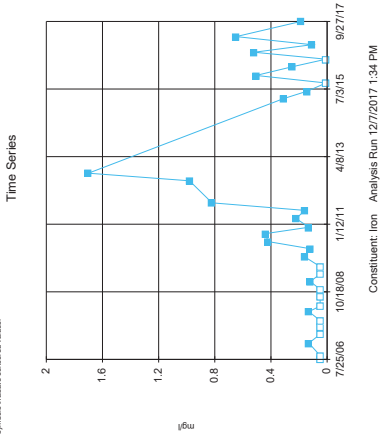
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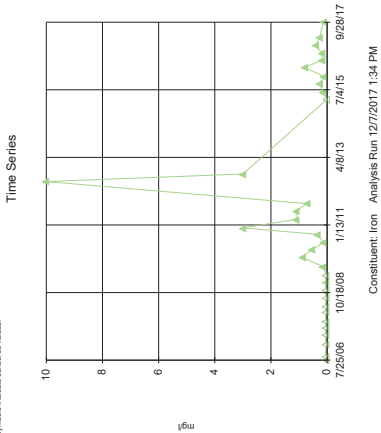
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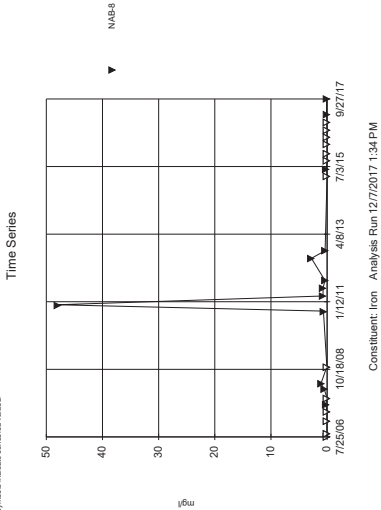
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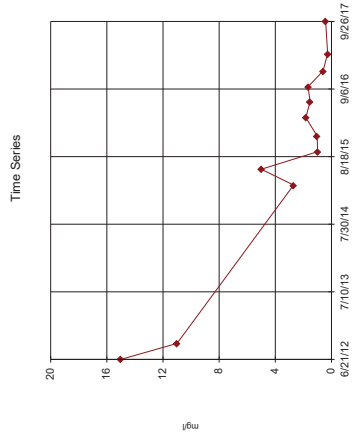
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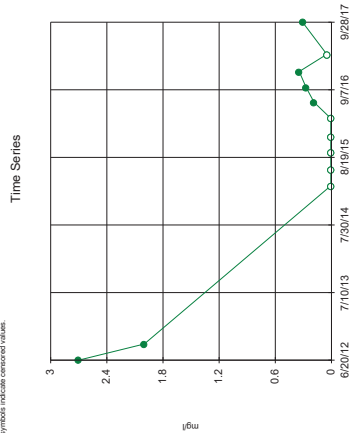
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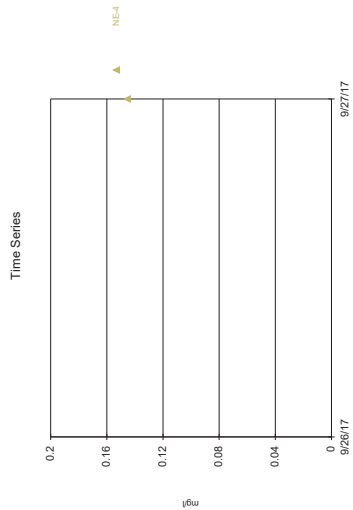
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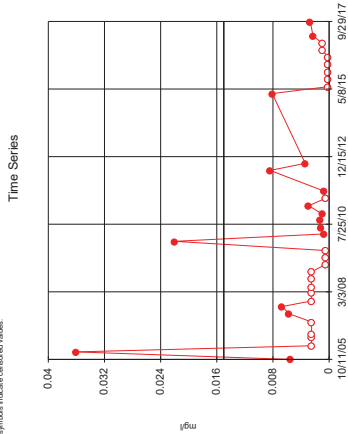
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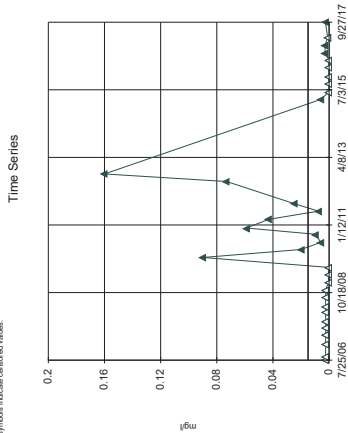
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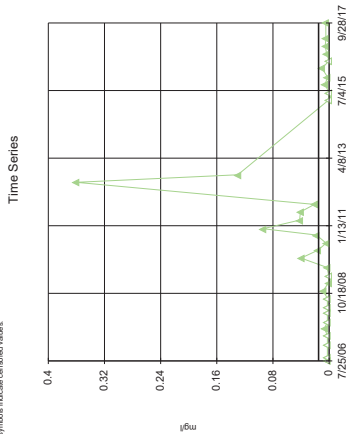
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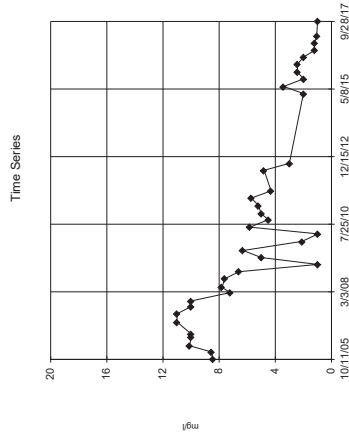
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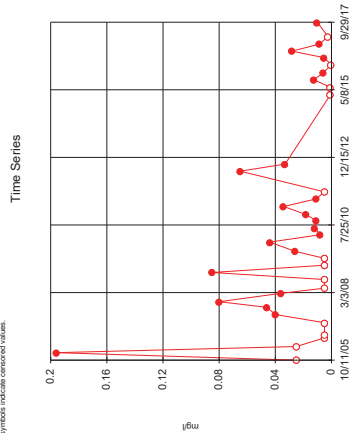
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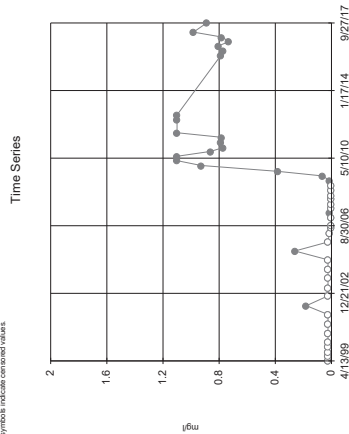
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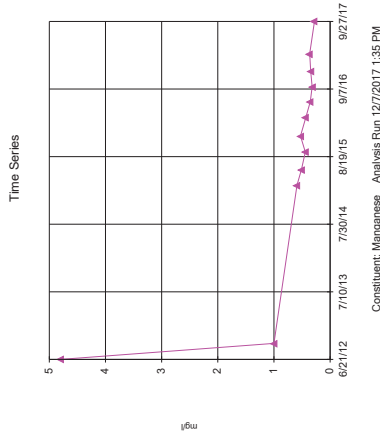
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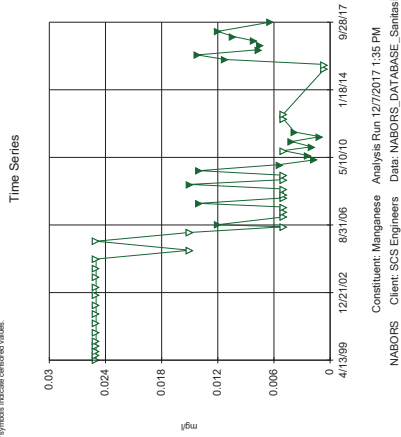
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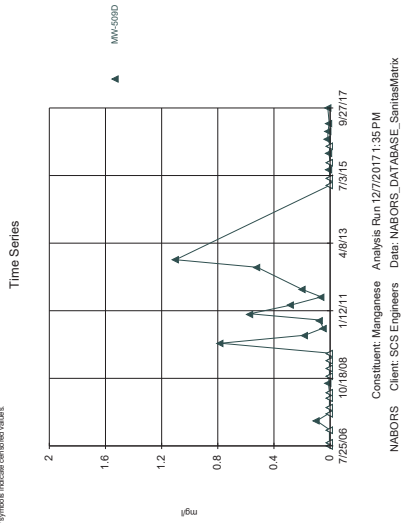
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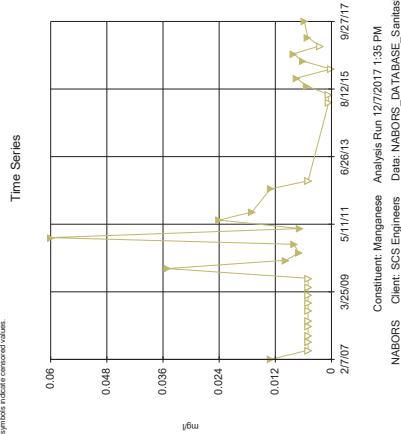
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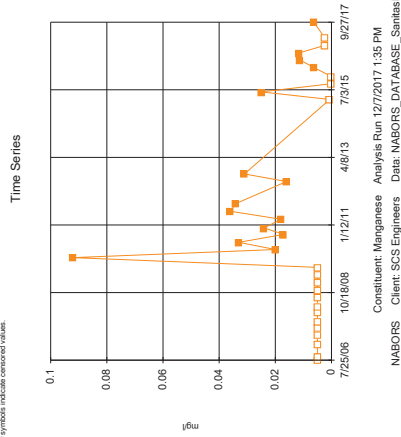
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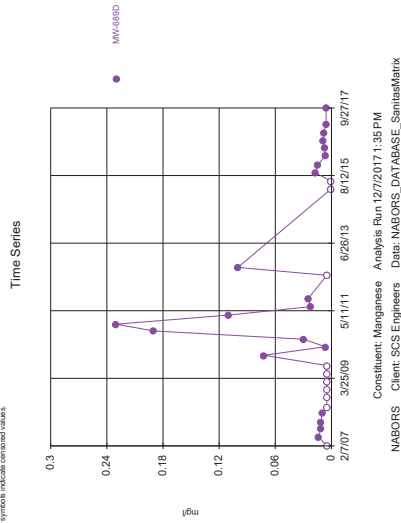
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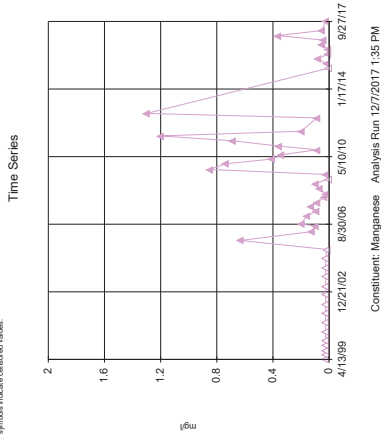
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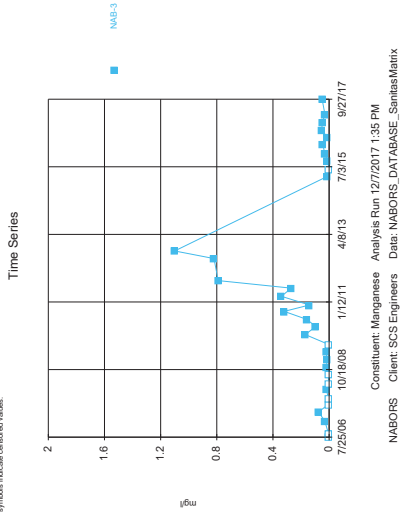
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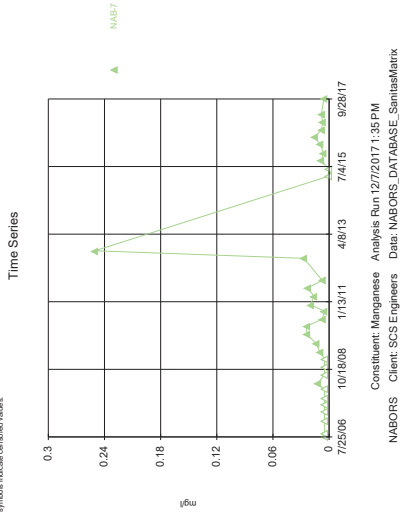
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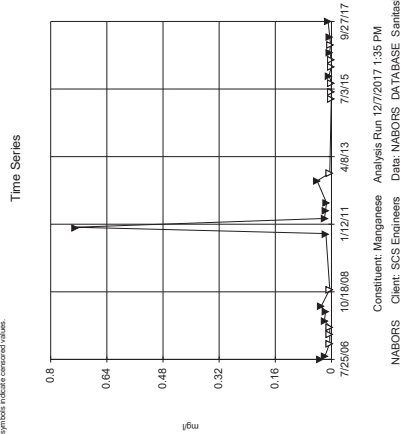
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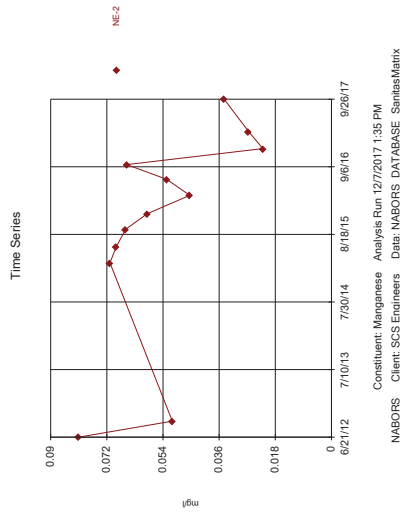
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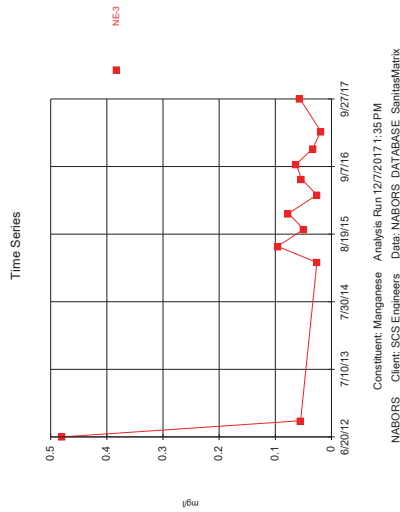
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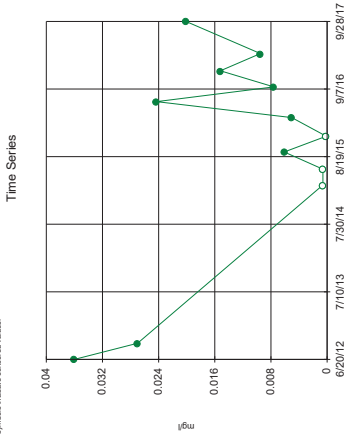
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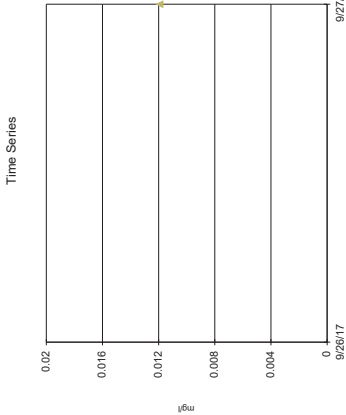
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Constituent: Manganese
Client: SCS Engineers
Data: NABORS_DATABASE_SantitasMatrix

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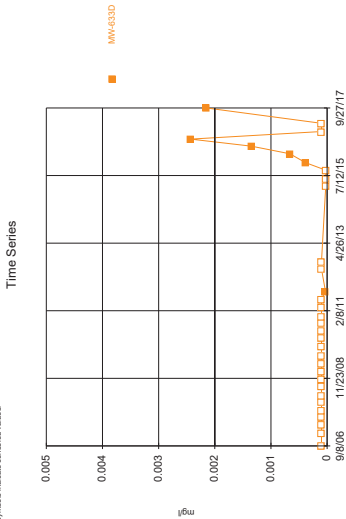
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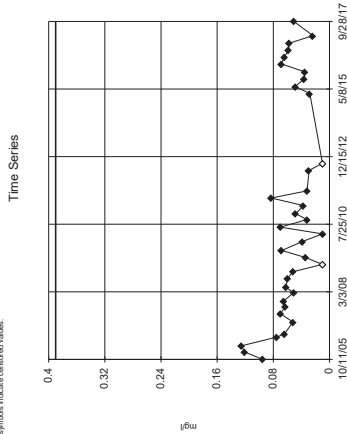
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Constituent: Mercury
Client: SCS Engineers
Data: NABORS_DATABASE_SantitasMatrix

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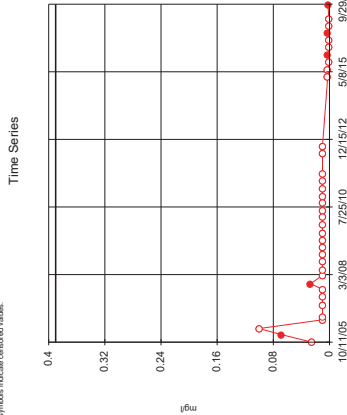
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Constituent: Nickel
Client: SCS Engineers
Data: NABORS_DATABASE_SantitasMatrix

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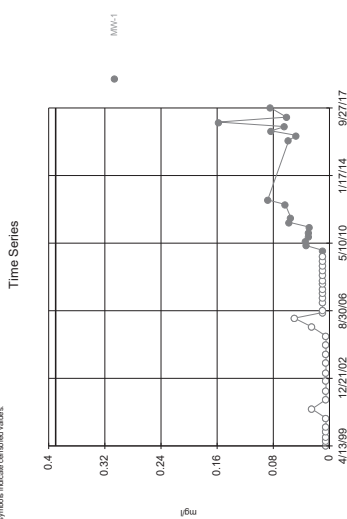
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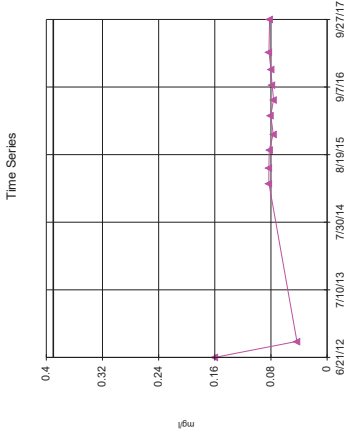
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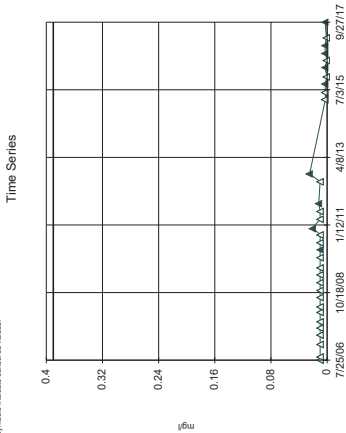
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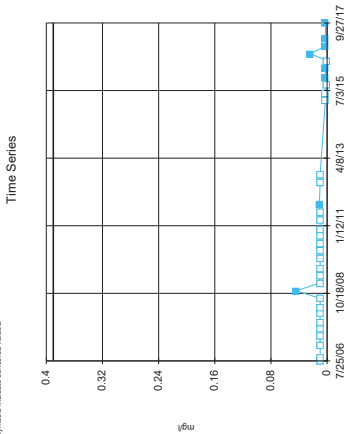
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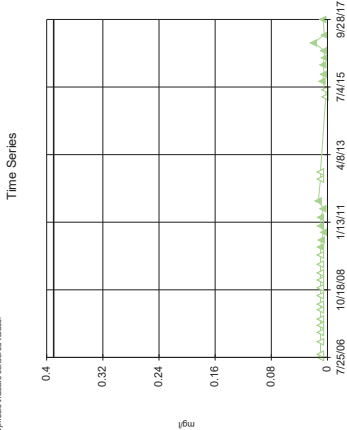
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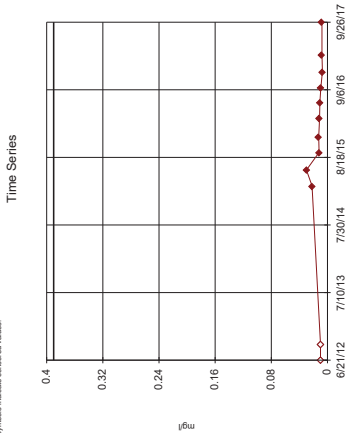
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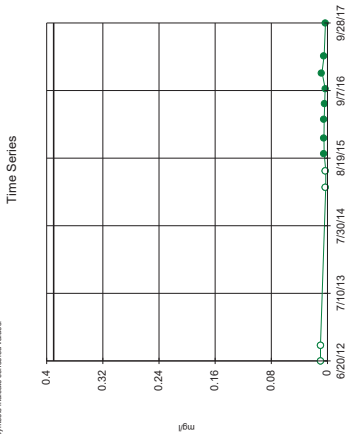
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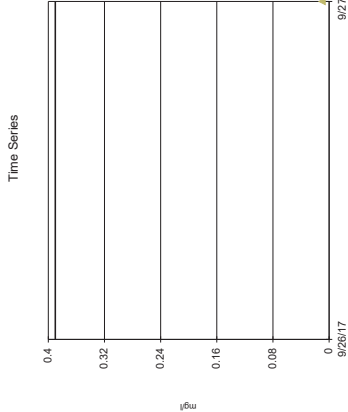
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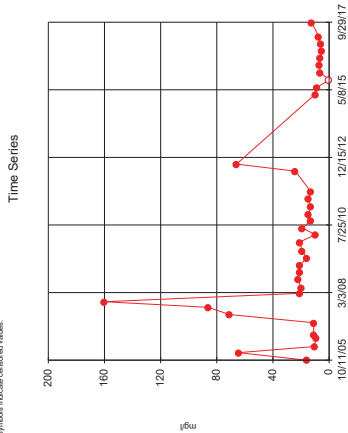
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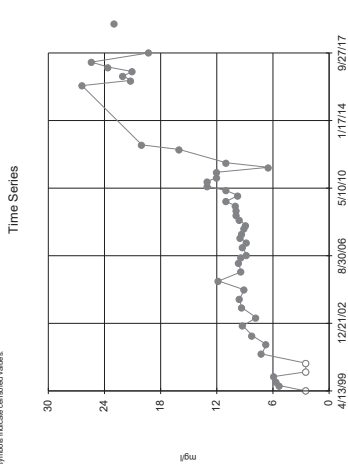
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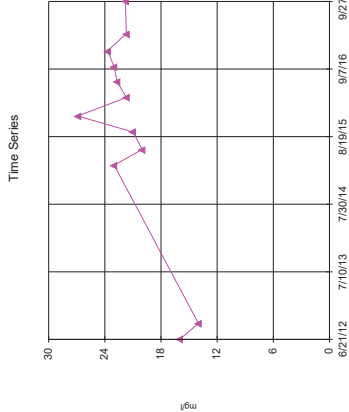
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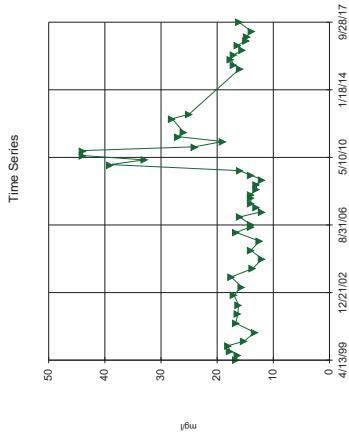
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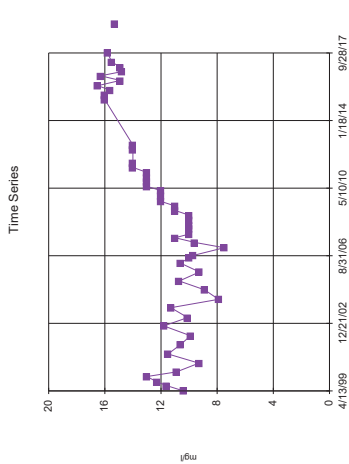
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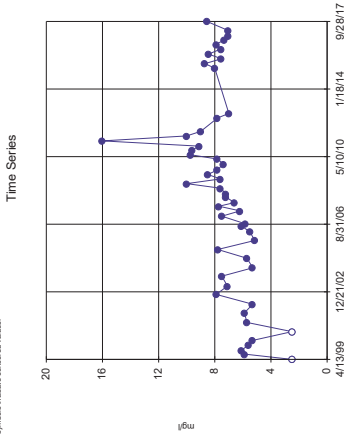
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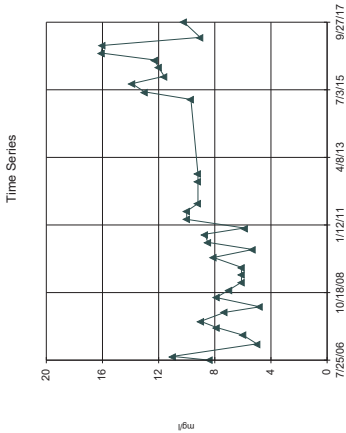
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Client: SCS Engineers Data: NABORS_DATABASE_SenSimMatrix

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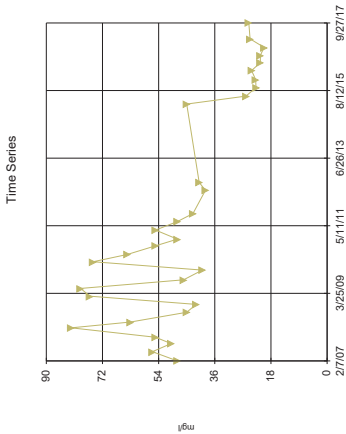
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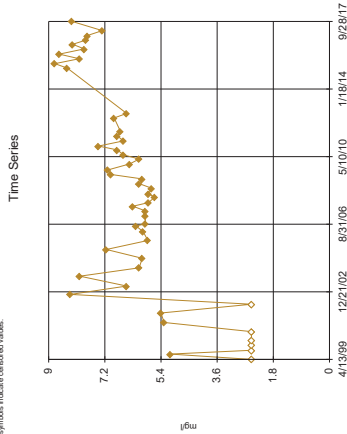
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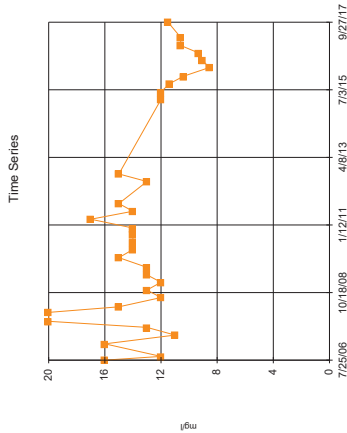
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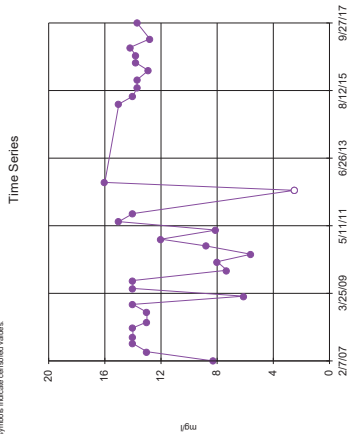
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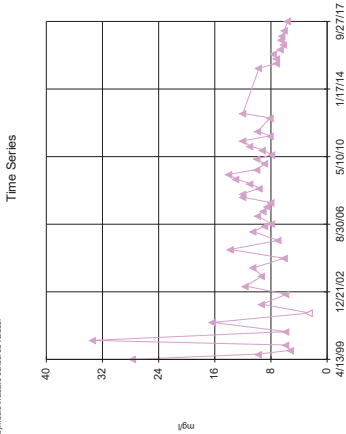
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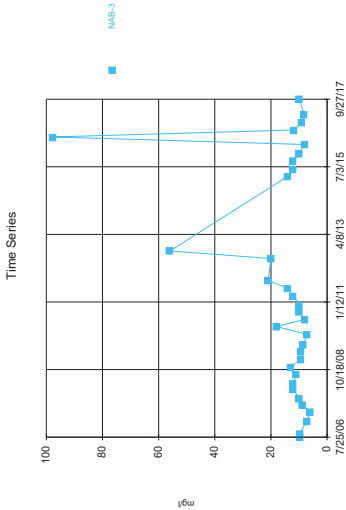
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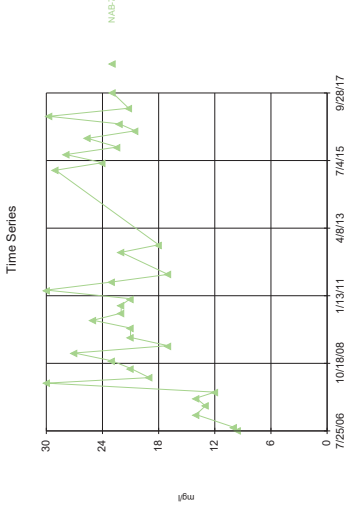
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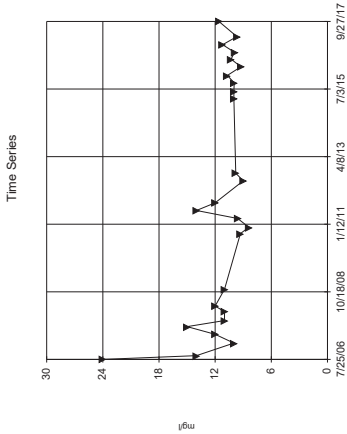
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Client: SCS Engineers Data: NABORS_DATABASE_SenSoftMatrix

NABORS

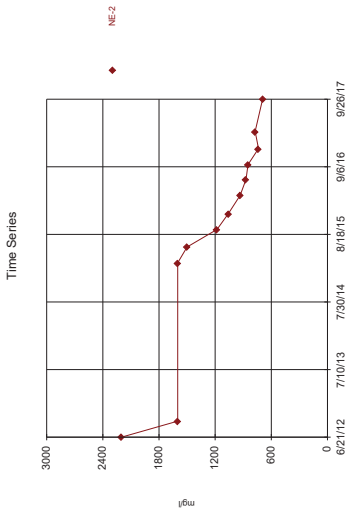
SeniSoft® v4.5.2 Software licensed to SCS Engineers, LLC



Constituent: Sulfate Analysis Run 12/7/2017 1:35 PM
Client: SCS Engineers Data: NABORS_DATABASE_SenSoftMatrix

NABORS

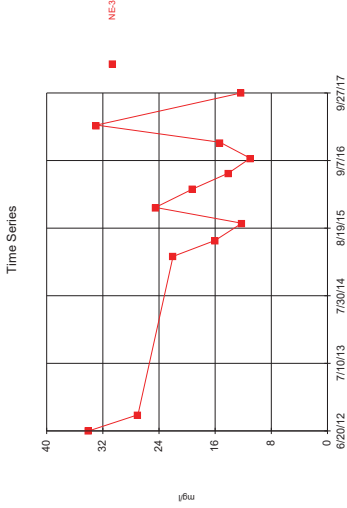
SeniSoft® v4.5.3.2 Software licensed to SCS Engineers, LLC



Constituent: Sulfate Analysis Run 12/7/2017 1:35 PM
Client: SCS Engineers Data: NABORS_DATABASE_SenSoftMatrix

NABORS

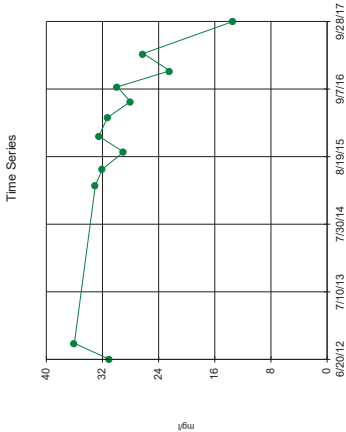
SeniSoft® v4.5.3.2 Software licensed to SCS Engineers, LLC



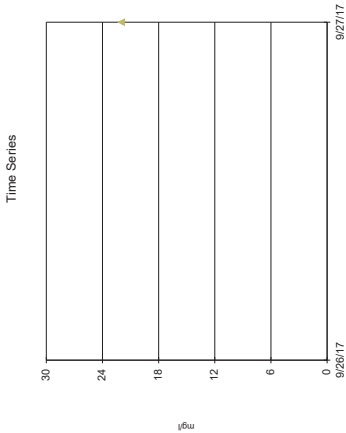
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Client: SCS Engineers Data: NABORS_DATABASE_SenSoftMatrix

NABORS

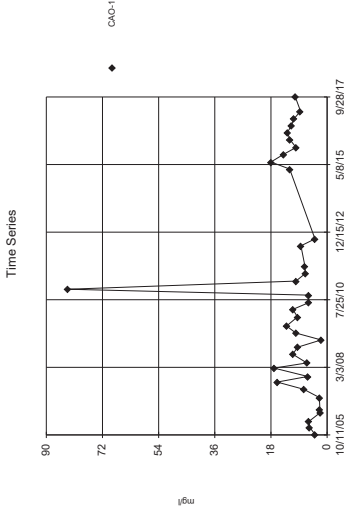
Senlin™ v5.5.2 Software licensed to SCS Engineers, LLC



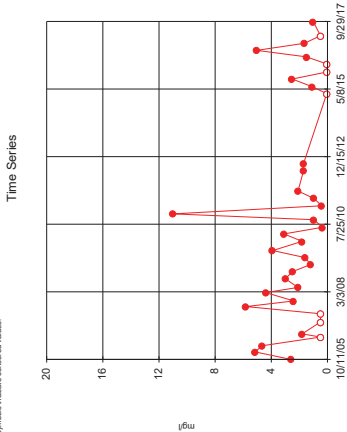
Senlin™ v5.5.2 Software licensed to SCS Engineers, LLC



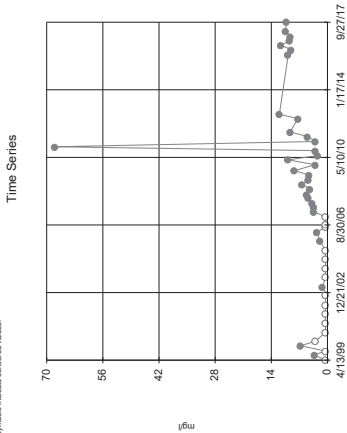
Senlin™ v5.5.2 Software licensed to SCS Engineers, LLC



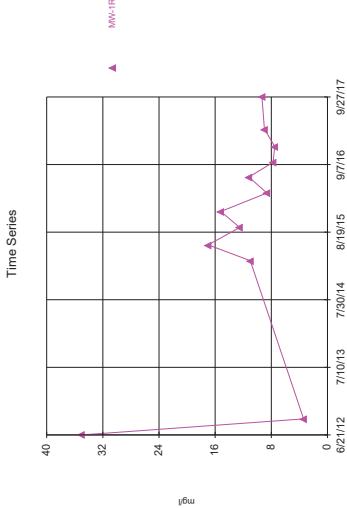
Senlin™ v5.5.2 Software licensed to SCS Engineers, LLC



Senlin™ v5.5.2 Software licensed to SCS Engineers, LLC

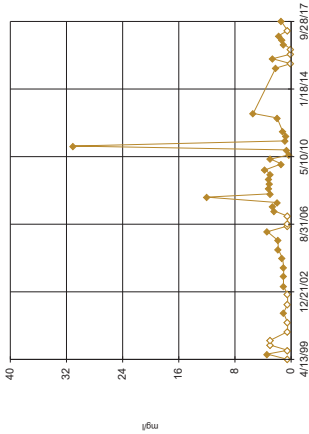


Senlin™ v5.5.2 Software licensed to SCS Engineers, LLC



Senlin™ v5.5.2 Software licensed to SCS Engineers, LLC
Hollow symbols indicate censored values.

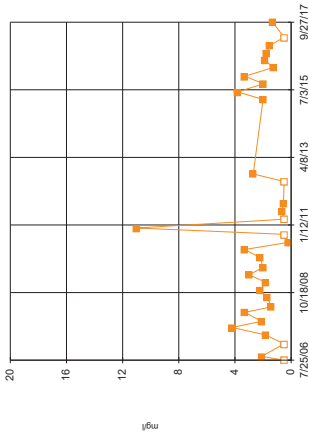
Time Series



Constituent: TOC [Total Organic Carbon] Analysis Run 12/7/2017 1:35 PM
NABORS Client: SCS Engineers Data: NABORS_DATABASE_SantitasMatrix

Senlin™ v5.5.2 Software licensed to SCS Engineers, LLC
Hollow symbols indicate censored values.

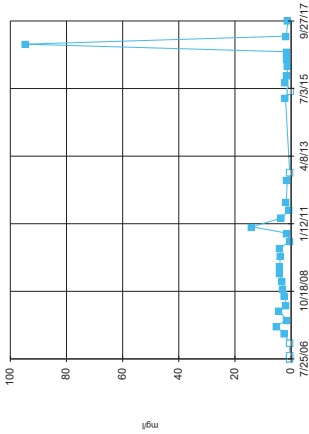
Time Series



Constituent: TOC [Total Organic Carbon] Analysis Run 12/7/2017 1:35 PM
NABORS Client: SCS Engineers Data: NABORS_DATABASE_SantitasMatrix

Senlin™ v5.5.5.2 Software licensed to SCS Engineers, LLC
Hollow symbols indicate censored values.

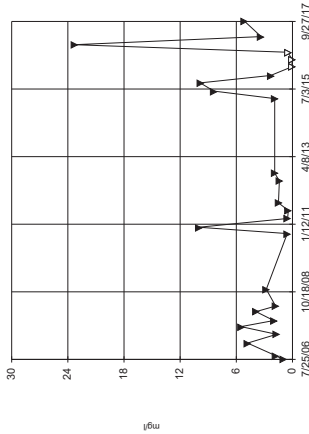
Time Series



Constituent: TOC [Total Organic Carbon] Analysis Run 12/7/2017 1:35 PM
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Senlin™ v5.5.2 Software licensed to SCS Engineers, LLC
Hollow symbols indicate censored values.

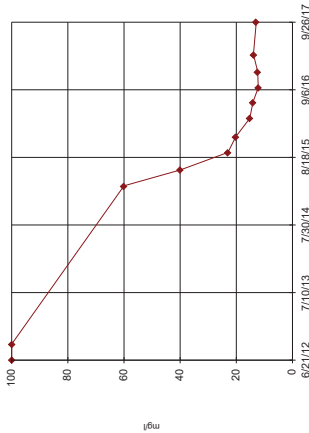
Time Series



Constituent: TOC [Total Organic Carbon] Analysis Run 12/7/2017 1:35 PM
NABORS Client: SCS Engineers Data: NABORS_DATABASE_SantitasMatrix

Senlin™ v5.5.3.2 Software licensed to SCS Engineers, LLC
Hollow symbols indicate censored values.

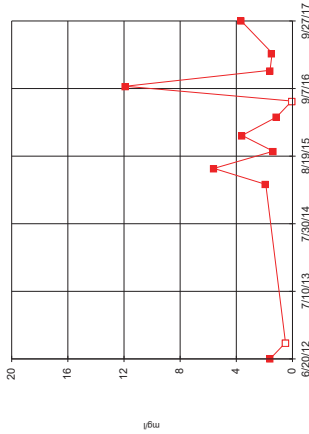
Time Series



Constituent: TOC [Total Organic Carbon] Analysis Run 12/7/2017 1:35 PM
NABORS Client: SCS Engineers Data: NABORS_DATABASE_SantitasMatrix

Senlin™ v5.5.3.2 Software licensed to SCS Engineers, LLC
Hollow symbols indicate censored values.

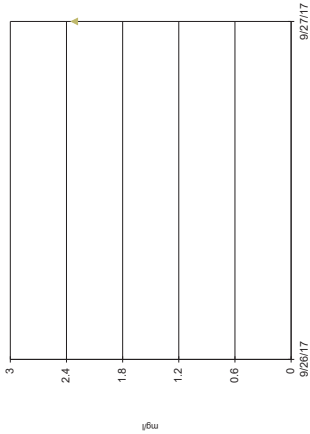
Time Series



Constituent: TOC [Total Organic Carbon] Analysis Run 12/7/2017 1:35 PM
NABORS Client: SCS Engineers Data: NABORS_DATABASE_SantitasMatrix

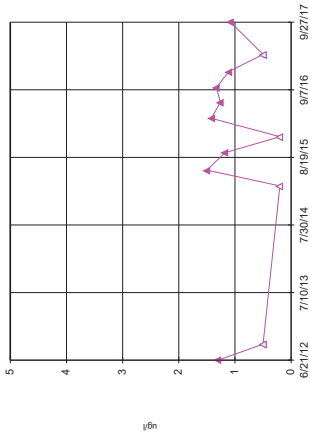
Seis™ v4.5.2 Software licensed to SCS Engineers, LLC

Time Series



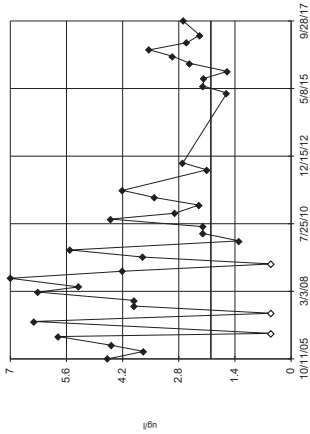
Seis™ v4.5.12 Software licensed to SCS Engineers, LLC

Time Series



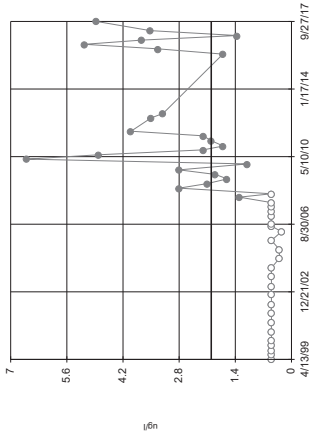
Seis™ v4.5.12 Software licensed to SCS Engineers, LLC

Time Series



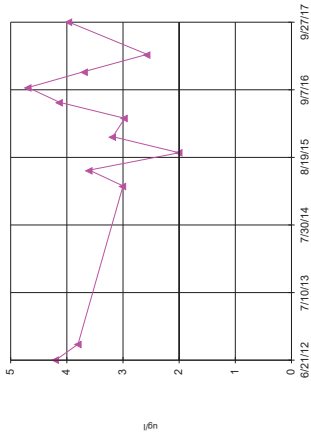
Seis™ v4.5.2 Software licensed to SCS Engineers, LLC

Time Series



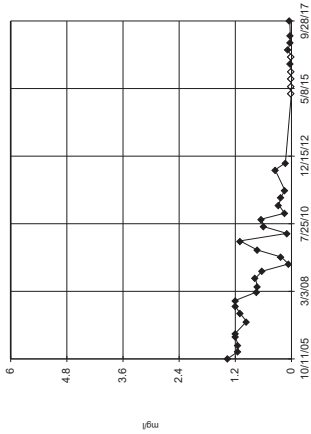
Seis™ v4.5.12 Software licensed to SCS Engineers, LLC

Time Series



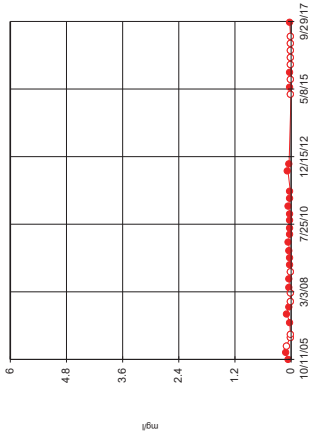
Seis™ v4.5.12 Software licensed to SCS Engineers, LLC

Time Series



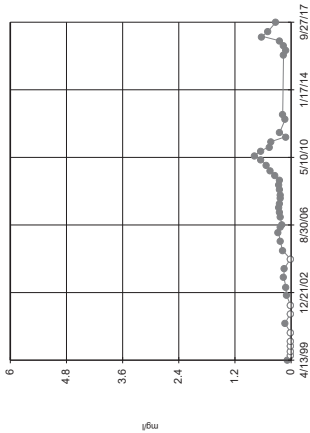
Senlin™ v4.5.2 Software licensed to SCS Engineers, LLC
Yellow symbols indicate censored values.

Time Series



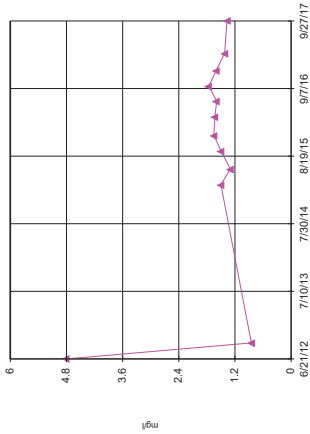
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Yellow symbols indicate censored values.

Time Series



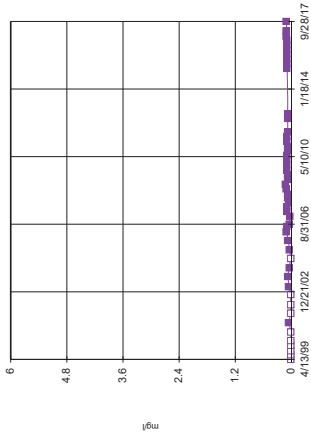
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Time Series



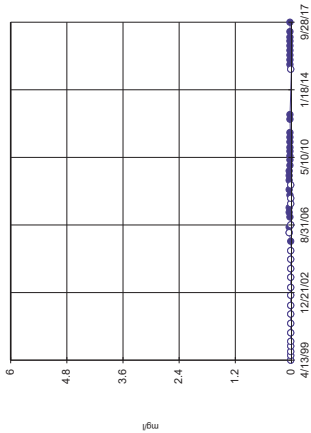
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Yellow symbols indicate censored values.

Time Series



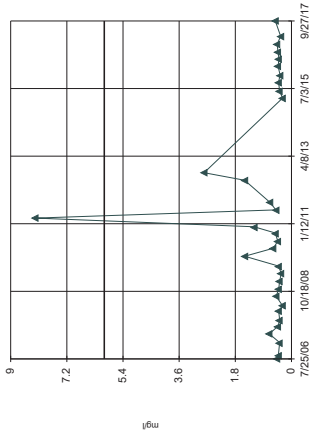
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Yellow symbols indicate censored values.

Time Series



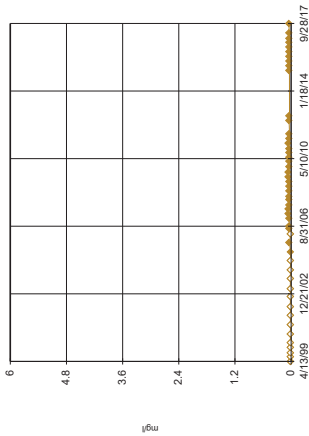
Senlin™ v4.5.2 Software licensed to SCS Engineers, LLC

Time Series



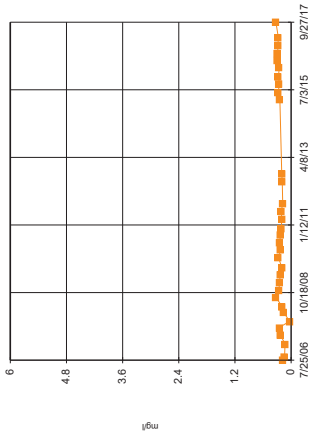
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Yellow symbols indicate censored values.

Time Series



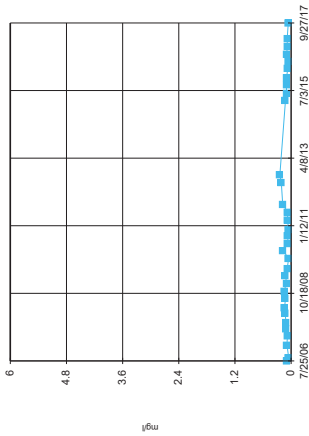
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Time Series



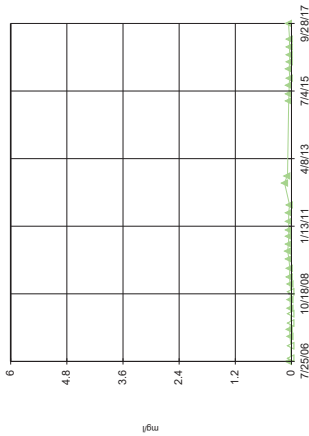
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Time Series



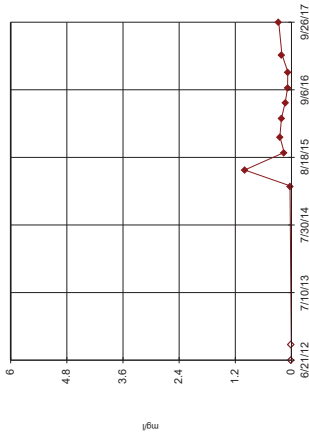
Seislab™ v4.5.2 Software licensed to SCS Engineers, LLC
Yellow symbols indicate censored values.

Time Series



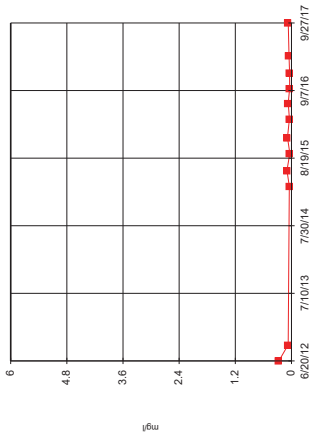
Seislab™ v4.5.3.2 Software licensed to SCS Engineers, LLC
Yellow symbols indicate censored values.

Time Series

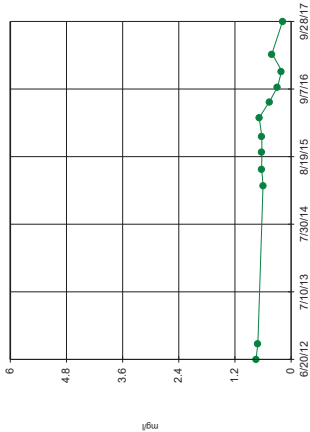


Seislab™ v4.5.3.2 Software licensed to SCS Engineers, LLC

Time Series



Time Series

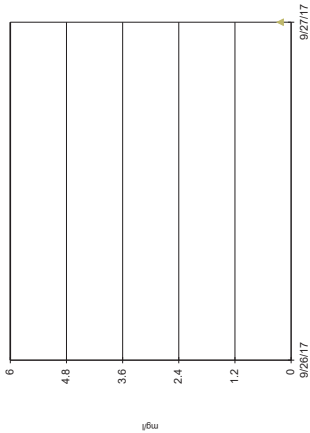


Constituent: Zinc Analysis Run 12/7/2017 1:36 PM

Client: SCS Engineers Data: NABORS_DATABASE_SantitasMatrix

NABORS

Time Series

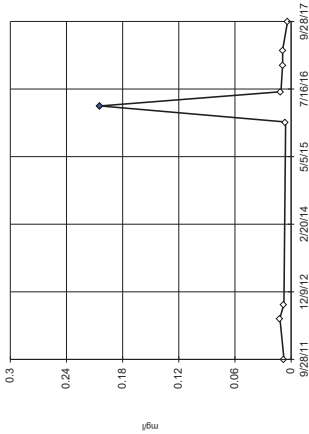


Constituent: Zinc Analysis Run 12/7/2017 1:36 PM

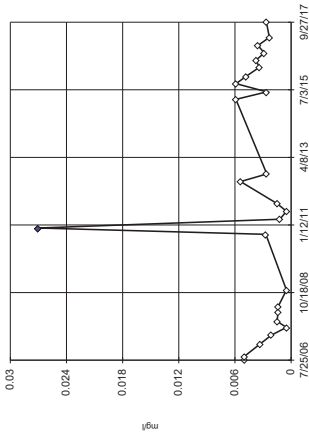
Client: SCS Engineers Data: NABORS_DATABASE_SantitasMatrix

NABORS

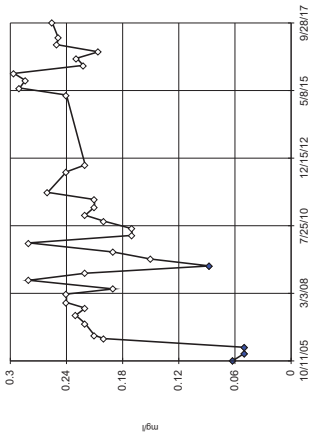
Dixon's Outlier Test LEACHATE



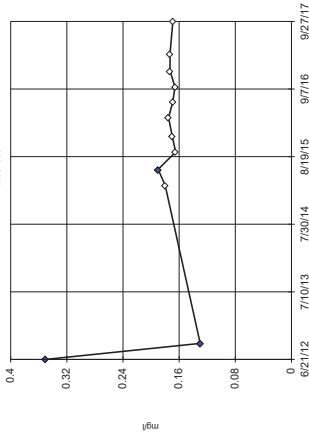
Rosner's Outlier Test NAB-8



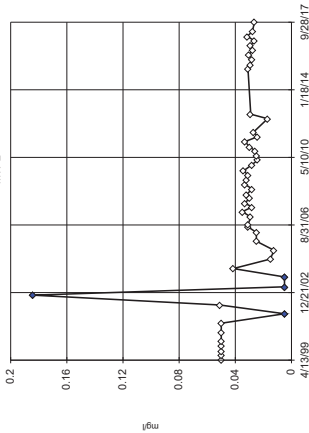
Rosner's Outlier Test CAO-1



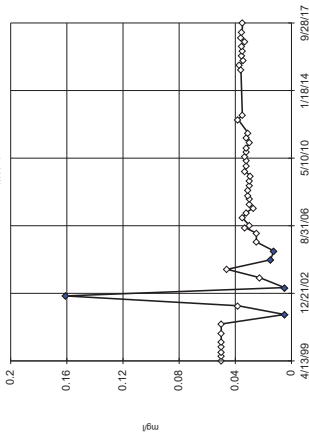
Dixon's Outlier Test MW-1R



Tukey's Outlier Screening MW-2

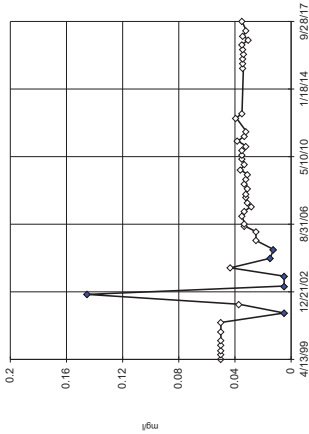


Tukey's Outlier Screening MW-4



Tukey's Outlier Screening

MW-5



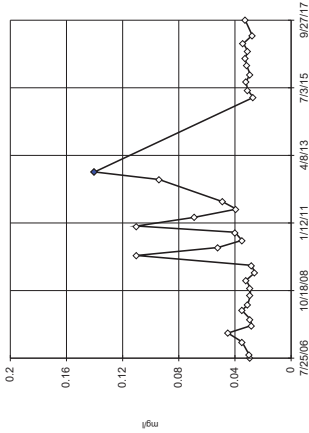
n = 50
Outliers are drawn as solid circles.
Tukey's method used in lieu of parametric test. Data were normally distributed at the 0.1 alpha level.
Data were normally distributed at the 0.1 alpha level.
W statistic graph shown. High value = 0.05453, low value = 0.0013. Based on QQR multiplier of 3.

Constituent: Barium Analysis Run 12/7/2017 11:04 AM

NABORS Client: SCS Engineers Data: NABORS_DATABASE_SantitasMatrix

Tukey's Outlier Screening

MW-509D



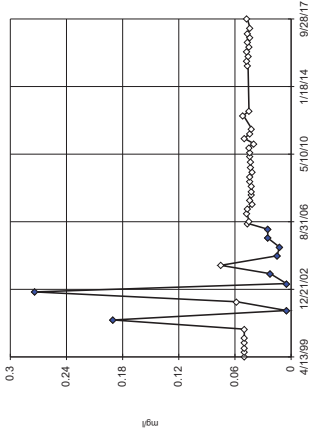
n = 33
Outliers are drawn as solid circles.
Tukey's method used in lieu of parametric test. Data were normally distributed at the 0.1 alpha level.
Data were normally distributed at the 0.1 alpha level.
W statistic graph shown. High value = 0.1326, low value = 0.0000. Based on QQR multiplier of 3.

Constituent: Barium Analysis Run 12/7/2017 11:04 AM

NABORS Client: SCS Engineers Data: NABORS_DATABASE_SantitasMatrix

Tukey's Outlier Screening

MW-6



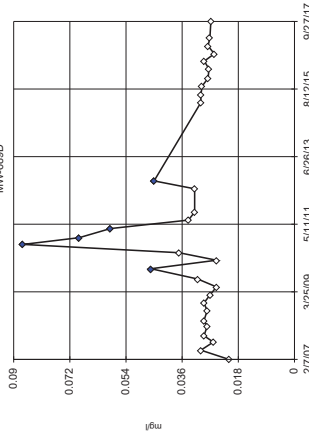
n = 50
Outliers are drawn as solid circles.
Tukey's method used in lieu of parametric test. Data were normally distributed at the 0.1 alpha level.
Data were normally distributed at the 0.1 alpha level.
W statistic graph shown. High value = 0.0756, low value = 0.00706. Based on QQR multiplier of 3.

Constituent: Barium Analysis Run 12/7/2017 11:04 AM

NABORS Client: SCS Engineers Data: NABORS_DATABASE_SantitasMatrix

Rosner's Outlier Test

MW-689D



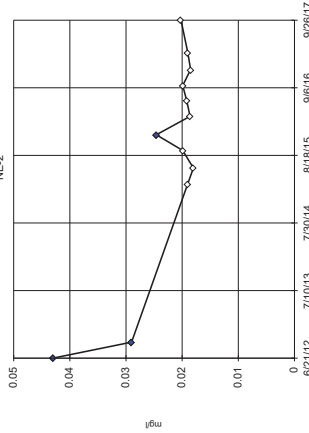
n = 31
Statistical outliers are drawn as solid circles.
k = 5
Tabulated value = 3.495
Alpha = 0.01
Shapiro-Wilk's W = 0.944
Shapiro-Wilk's W = 0.944
Critical value = 0.944
The distribution after removal of suspect values was found to be normally distributed.

Constituent: Barium Analysis Run 12/7/2017 11:04 AM

NABORS Client: SCS Engineers Data: NABORS_DATABASE_SantitasMatrix

Dixon's Outlier Test

NE-2



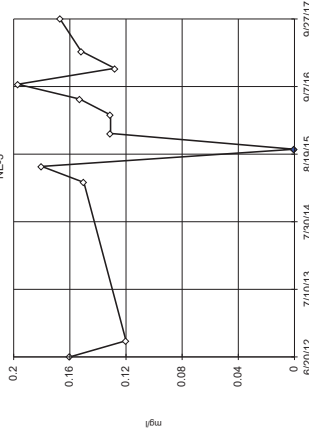
n = 12
Statistical outliers are drawn as solid circles.
Mean = 0.02741
Standard deviation = 0.0046
Alpha = 0.05
Normally distributed.
Shapiro-Wilk's W = 0.944
Shapiro-Wilk's W = 0.944
Critical value = 0.944
The distribution after removal of suspect values was found to be normally distributed.

Constituent: Barium Analysis Run 12/7/2017 11:04 AM

NABORS Client: SCS Engineers Data: NABORS_DATABASE_SantitasMatrix

Dixon's Outlier Test

NE-3

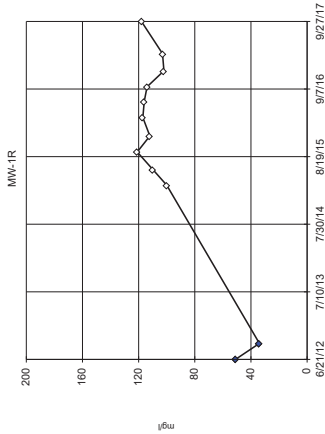


n = 12
Statistical outliers are drawn as solid circles.
Mean = 0.1391
Standard deviation = 0.0208
Alpha = 0.05
Normally distributed.
Shapiro-Wilk's W = 0.944
Shapiro-Wilk's W = 0.944
Critical value = 0.944
The distribution after removal of suspect values was found to be normally distributed.

Constituent: Barium Analysis Run 12/7/2017 11:04 AM

NABORS Client: SCS Engineers Data: NABORS_DATABASE_SantitasMatrix

Dixon's Outlier Test

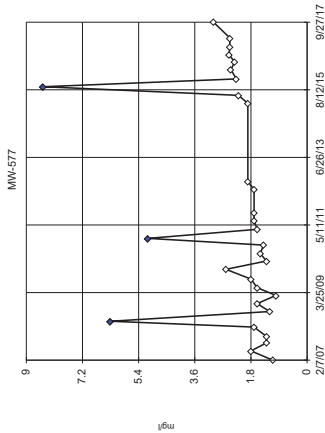


n = 12
Statistical outliers are drawn as solid circles.
Mean = 99.35
Median = 100.00
Q1 = 97.75
Q3 = 102.25
Alpha = 0.005
Normality test used: Shapiro-Wilk Statistic = 0.1
Critical value = 0.099
Conclusion: 0.099 < 0.1, after removal of suspect value, the data are normally distributed.

Constituent: Chloride Analysis Run 12/7/2017 11:04 AM

NABORS Client: SCS Engineers Data: NABORS_DATABASE_SantitasMatrix

Rosner's Outlier Test

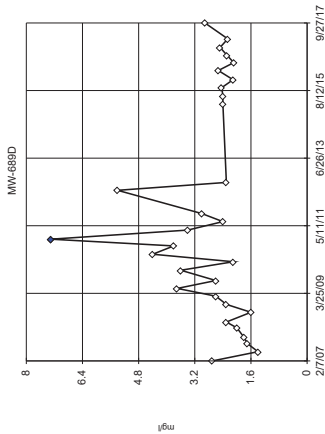


n = 31
Statistical outliers are drawn as solid circles.
k = 3
Mean = 3.427
Median = 3.427
Q1 = 3.427
Q3 = 3.427
Alpha = 0.01
Normality test used: Shapiro-Wilk Statistic = 0.1
Critical value = 0.0031
Conclusion: 0.1 > 0.0031, after removal of suspect values, the data are normally distributed.

Constituent: Chloride Analysis Run 12/7/2017 11:04 AM

NABORS Client: SCS Engineers Data: NABORS_DATABASE_SantitasMatrix

Rosner's Outlier Test

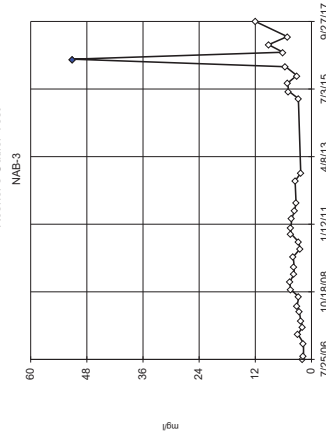


n = 31
Statistical outliers are drawn as solid circles.
k = 1
Mean = 3.427
Median = 3.427
Q1 = 3.427
Q3 = 3.427
Alpha = 0.01
Normality test used: Shapiro-Wilk Statistic = 0.1
Critical value = 0.0031
Conclusion: 0.1 > 0.0031, after removal of suspect values, the data are normally distributed.

Constituent: Chloride Analysis Run 12/7/2017 11:04 AM

NABORS Client: SCS Engineers Data: NABORS_DATABASE_SantitasMatrix

Rosner's Outlier Test

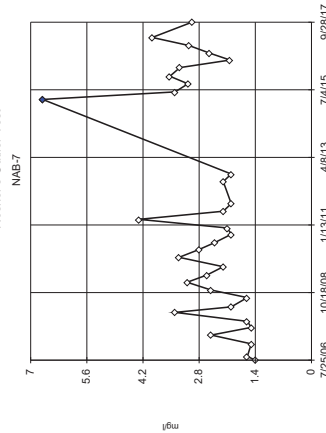


n = 33
Statistical outliers are drawn as solid circles.
k = 1
Mean = 10.04
Median = 10.04
Q1 = 9.75
Q3 = 10.25
Alpha = 0.01
Normality test used: Shapiro-Wilk Statistic = 0.1
Critical value = 0.0031
Conclusion: 0.1 > 0.0031, after removal of suspect values, the data are normally distributed.

Constituent: Chloride Analysis Run 12/7/2017 11:04 AM

NABORS Client: SCS Engineers Data: NABORS_DATABASE_SantitasMatrix

Rosner's Outlier Test

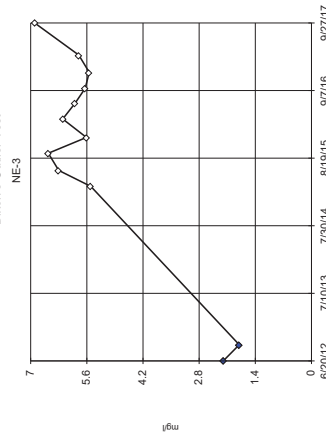


n = 33
Statistical outliers are drawn as solid circles.
k = 1
Mean = 2.938
Median = 2.938
Q1 = 2.938
Q3 = 2.938
Alpha = 0.01
Normality test used: Shapiro-Wilk Statistic = 0.1
Critical value = 0.0031
Conclusion: 0.1 > 0.0031, after removal of suspect values, the data are normally distributed.

Constituent: Chloride Analysis Run 12/7/2017 11:04 AM

NABORS Client: SCS Engineers Data: NABORS_DATABASE_SantitasMatrix

Dixon's Outlier Test

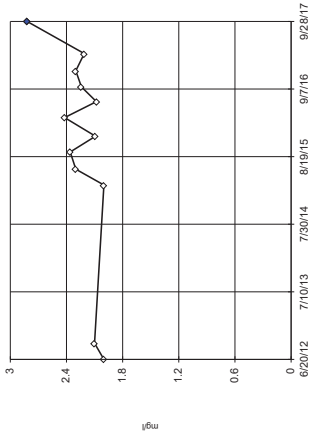


n = 12
Statistical outliers are drawn as solid circles.
Mean = 5.326
Median = 5.326
Q1 = 5.326
Q3 = 5.326
Alpha = 0.005
Normality test used: Shapiro-Wilk Statistic = 0.1
Critical value = 0.0031
Conclusion: 0.1 > 0.0031, after removal of suspect values, the data are normally distributed.

Constituent: Chloride Analysis Run 12/7/2017 11:04 AM

NABORS Client: SCS Engineers Data: NABORS_DATABASE_SantitasMatrix

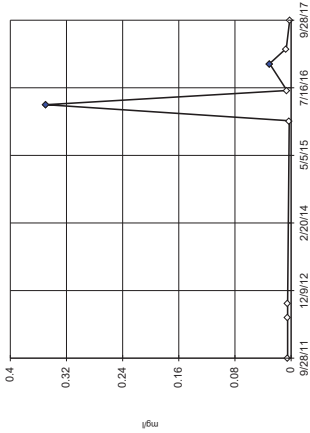
Dixon's Outlier Test
NE-6



n = 12
Statistical outliers are drawn as solid circles.
Mean = 2.243
Standard deviation = 0.561
2.22 < t = 0.961
Alpha = 0.05.
Normality test used:
Shapiro-Wilk Statistic = 0.1
Critical = 0.016
Conclusion: The data after removal of suspect value is normally distributed.

Constituent: Chloride Analysis Run 12/7/2017 11:04 AM
NABORS Client: SCS Engineers Data: NABORS_DATABASE_SantitasMatrix

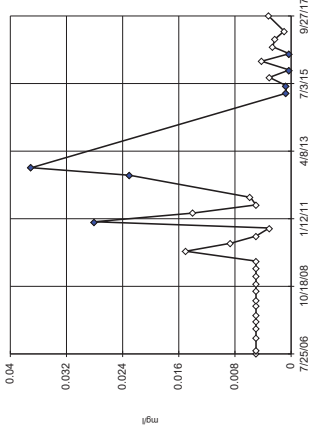
Dixon's Outlier Test
LEACHATE



n = 9
Statistical outliers are drawn as solid circles.
Mean = 0.0406
Standard deviation = 0.0097
0.0097 < t = 0.0821
Alpha = 0.05.
Normality test used:
Shapiro-Wilk Statistic = 0.1
Critical = 0.038
Conclusion: The data after removal of suspect value is normally distributed.

Constituent: Chromium Analysis Run 12/7/2017 11:04 AM
NABORS Client: SCS Engineers Data: NABORS_DATABASE_SantitasMatrix

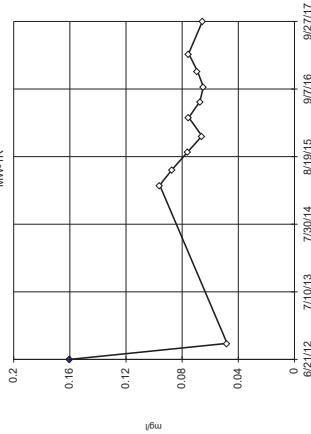
Tukey's Outlier Screening
MW-599D



n = 33
Outliers are drawn as solid circles.
Robustly method used in this test.
Line of parametric test is shown.
Normally test value is at the 0.1 significance level.
The data after the transformation to achieve best fit statistics graph is shown.
The data after the transformation is normally distributed.
Key Stat = 0.02753
Key Stat < 0.007241
Conclusion: The data is normally distributed.

Constituent: Chromium Analysis Run 12/7/2017 11:04 AM
NABORS Client: SCS Engineers Data: NABORS_DATABASE_SantitasMatrix

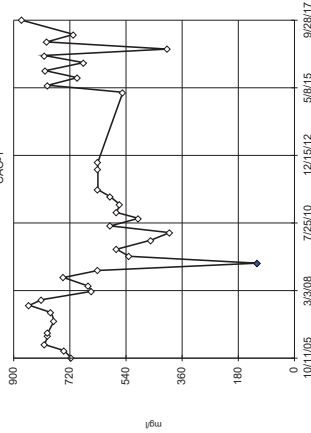
Dixon's Outlier Test
MW-1R



n = 12
Statistical outliers are drawn as solid circles.
Mean = 0.07925
Standard deviation = 0.16
0.16 < t = 0.97611
Alpha = 0.05.
Normality test used:
Shapiro-Wilk Statistic = 0.1
Critical = 0.014
Conclusion: The data after removal of suspect value is normally distributed.

Constituent: Cobalt Analysis Run 12/7/2017 11:04 AM
NABORS Client: SCS Engineers Data: NABORS_DATABASE_SantitasMatrix

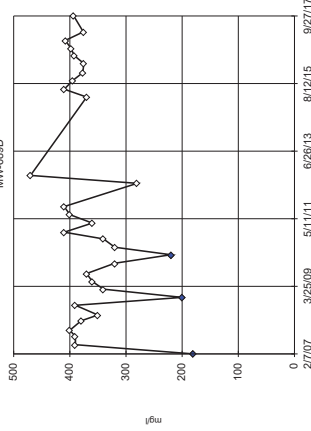
Rosner's Outlier Test
CAO-1



n = 36
Statistical outlier is drawn as solid circle.
k = 1
Tested value = 2.956
Alpha = 0.01
The data after the transformation to achieve best fit statistics graph is shown.
The data after the transformation is normally distributed.

Constituent: Dissolved Solids Analysis Run 12/7/2017 11:04 AM
NABORS Client: SCS Engineers Data: NABORS_DATABASE_SantitasMatrix

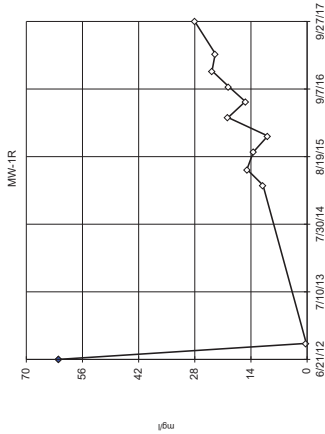
Rosner's Outlier Test
MW-689D



n = 31
Statistical outliers are drawn as solid circles.
k = 4
Tested value = 3.028
Alpha = 0.01
The data after the transformation to achieve best fit statistics graph is shown.
The data after the transformation is normally distributed.

Constituent: Dissolved Solids Analysis Run 12/7/2017 11:04 AM
NABORS Client: SCS Engineers Data: NABORS_DATABASE_SantitasMatrix

Dixon's Outlier Test

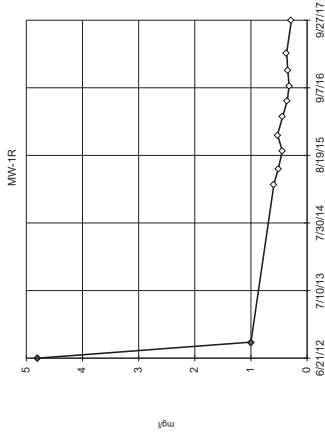


n = 12
Statistical outliers are drawn as solid circles. Outliers are drawn as open circles. Mean = 11.513, Std. Dev. = 11.513, 1-t = 0.0041, 2-t = 0.0082, Alpha = 0.05.
Normally test used: Shapiro-Wilk Statistic = 0.17, Critical = 0.089, P-Value = 0.00001, after removal of suspect value, the distribution of the remaining data is normally distributed.

Constituent: Ion Analysis Run 12/7/2017 11:04 AM

NABORS Client: SCS Engineers Data: NABORS_DATABASE_SantitasMatrix

Dixon's Outlier Test

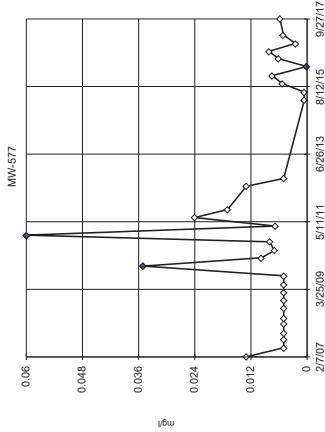


n = 12
Statistical outliers are drawn as solid circles. Outliers are drawn as open circles. Mean = 0.80724, Std. Dev. = 0.80724, 1-t = 0.0041, 2-t = 0.0082, Alpha = 0.05.
Normally test used: Shapiro-Wilk Statistic = 0.17, Critical = 0.089, P-Value = 0.00001, after removal of suspect value, the distribution of the remaining data is normally distributed.

Constituent: Manganese Analysis Run 12/7/2017 11:05 AM

NABORS Client: SCS Engineers Data: NABORS_DATABASE_SantitasMatrix

Tukey's Outlier Screening

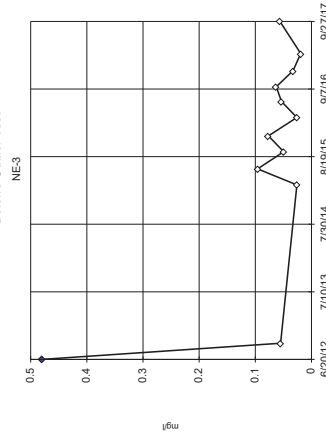


n = 31
Outliers are drawn as solid circles. Outliers are drawn as open circles. Mean = 0.012526, Std. Dev. = 0.012526, 0.022 < t < 0.0082, Alpha = 0.05.
Normally test used: Shapiro-Wilk Statistic = 0.17, Critical = 0.089, P-Value = 0.00001, after removal of suspect value, the distribution of the remaining data is normally distributed.

Constituent: Manganese Analysis Run 12/7/2017 11:05 AM

NABORS Client: SCS Engineers Data: NABORS_DATABASE_SantitasMatrix

Dixon's Outlier Test

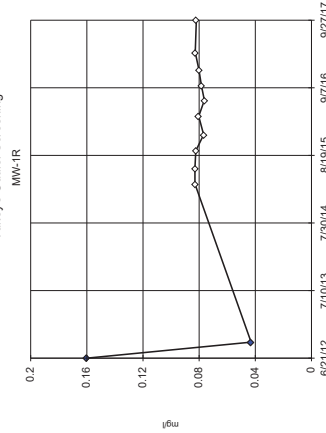


n = 12
Statistical outliers are drawn as solid circles. Outliers are drawn as open circles. Mean = 0.08913, Std. Dev. = 0.08913, 0.04 < t < 0.0081, Alpha = 0.05.
Normally test used: Shapiro-Wilk Statistic = 0.17, Critical = 0.089, P-Value = 0.00001, after removal of suspect value, the distribution of the remaining data is normally distributed.

Constituent: Manganese Analysis Run 12/7/2017 11:05 AM

NABORS Client: SCS Engineers Data: NABORS_DATABASE_SantitasMatrix

Tukey's Outlier Screening

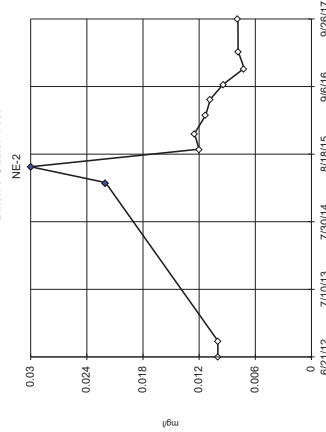


n = 12
Statistical outliers are drawn as solid circles. Outliers are drawn as open circles. Mean = 0.08913, Std. Dev. = 0.08913, 0.04 < t < 0.0081, Alpha = 0.05.
Normally test used: Shapiro-Wilk Statistic = 0.17, Critical = 0.089, P-Value = 0.00001, after removal of suspect value, the distribution of the remaining data is normally distributed.

Constituent: Nickel Analysis Run 12/7/2017 11:05 AM

NABORS Client: SCS Engineers Data: NABORS_DATABASE_SantitasMatrix

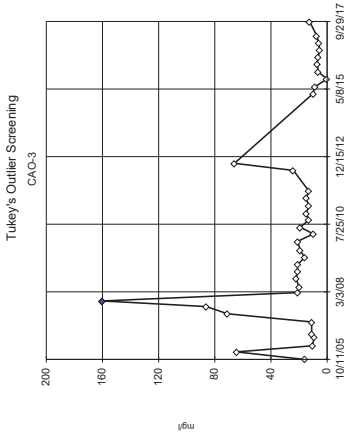
Dixon's Outlier Test



n = 12
Statistical outliers are drawn as solid circles. Outliers are drawn as open circles. Mean = 0.012526, Std. Dev. = 0.012526, 0.022 < t < 0.0082, Alpha = 0.05.
Normally test used: Shapiro-Wilk Statistic = 0.17, Critical = 0.089, P-Value = 0.00001, after removal of suspect value, the distribution of the remaining data is normally distributed.

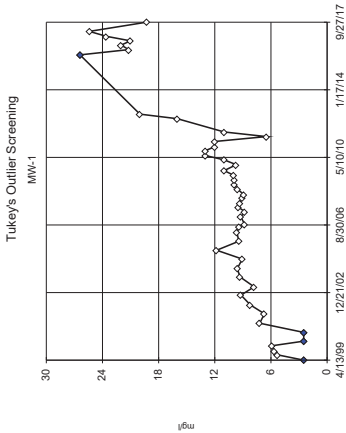
Constituent: Nickel Analysis Run 12/7/2017 11:05 AM

NABORS Client: SCS Engineers Data: NABORS_DATABASE_SantitasMatrix



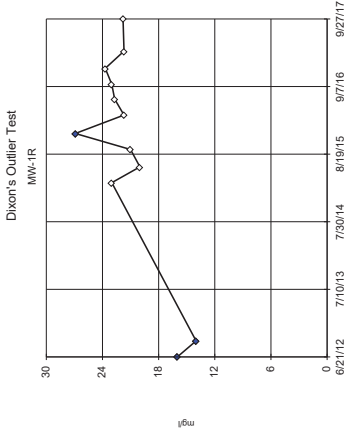
Constituent: Sulfate Analysis Run 12/7/2017 11:05 AM

NABORS Client: SCS Engineers Data: NABORS DATABASE SanitasMatrix



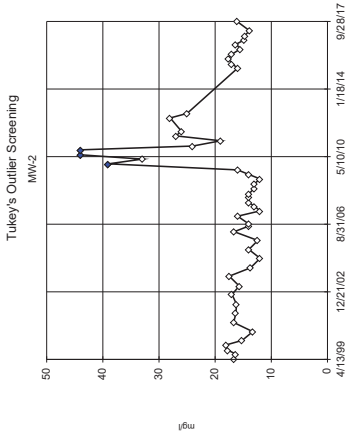
Constituent: Sulfate Analysis Run 12/7/2017 11:05 AM

NABORS Client: SCS Engineers Data: NABORS DATABASE SanitasMatrix



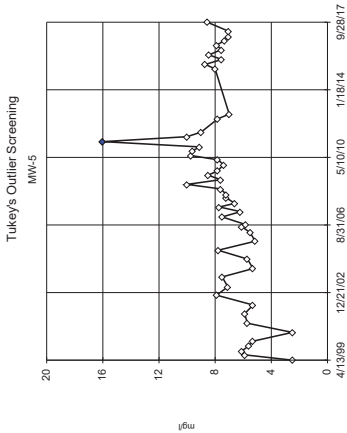
Constituent: Sulfate Analysis Run 12/7/2017 11:05 AM

NABORS Client: **SCS Engineers** Data: **NABORS DATABASE SanitasMatrix**



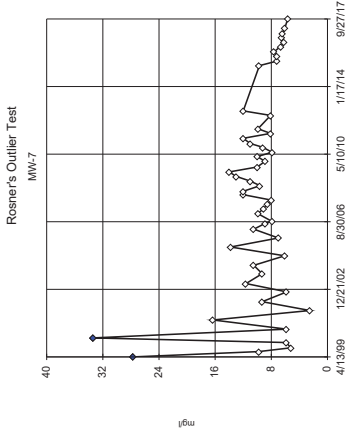
Constituent: Sulfate Analysis Run 12/7/2017 11:05 AM

NABORS Client: SCS Engineers Data: NABORS DATABASE SanitasMatrix



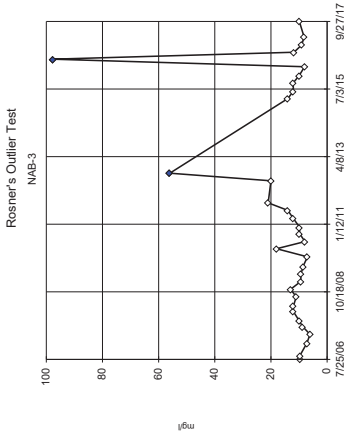
Constituent: Sulfate Analysis Run 12/7/2017 11:05 AM

NABORS Client: SCSS Engineers Data: NABORS DATABASE Sanitas Matrix
 Confidential: Sanitas Matrix
 Confidential: Sanitas Matrix

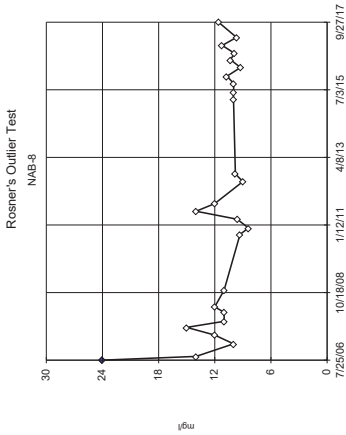


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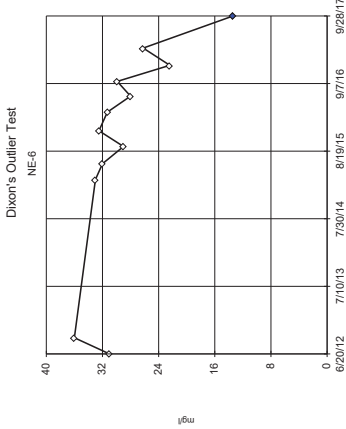
NABORS Client: SCSS Engineers Data: NABORS DATABASE SanitasMatrix
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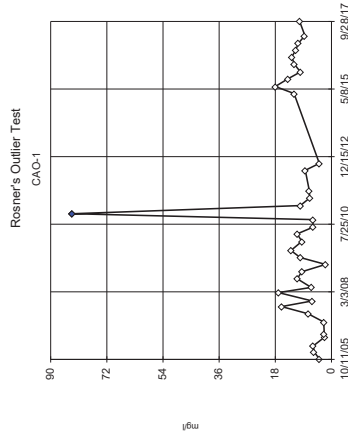
Constituent: Sulfate Analysis Run 12/7/2017 11:05 AM
NABORS Client: SCS Engineers Data: NABORS_DATABASE_SantitasMatrix



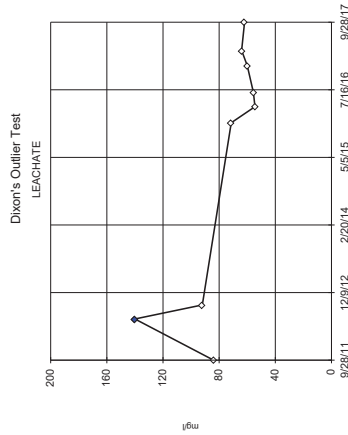
Constituent: Sulfate Analysis Run 12/7/2017 11:05 AM
NABORS Client: SCS Engineers Data: NABORS_DATABASE_SantitasMatrix



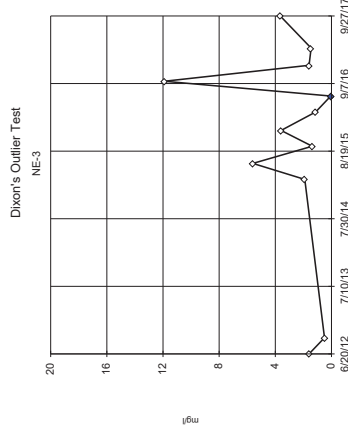
Constituent: Sulfate Analysis Run 12/7/2017 11:05 AM
NABORS Client: SCS Engineers Data: NABORS_DATABASE_SantitasMatrix



Constituent: TOC (Total Organic Carbon) Analysis Run 12/7/2017 11:05 AM
NABORS Client: SCS Engineers Data: NABORS_DATABASE_SantitasMatrix

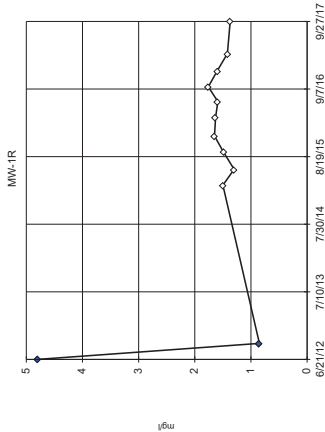


Constituent: TOC (Total Organic Carbon) Analysis Run 12/7/2017 11:05 AM
NABORS Client: SCS Engineers Data: NABORS_DATABASE_SantitasMatrix



Constituent: TOC (Total Organic Carbon) Analysis Run 12/7/2017 11:05 AM
NABORS Client: SCS Engineers Data: NABORS_DATABASE_SantitasMatrix

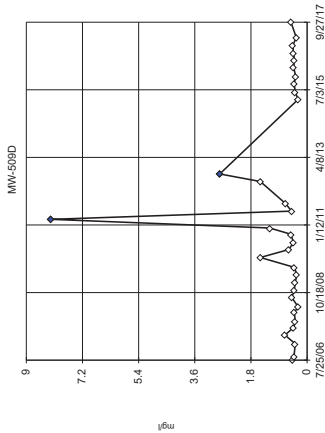
Dixon's Outlier Test



Constituent: Zinc Analysis Run 12/7/2017 11:05 AM

NABORS Client: SCS Engineers Data: NABORS_DATABASE_SantitasMatrix

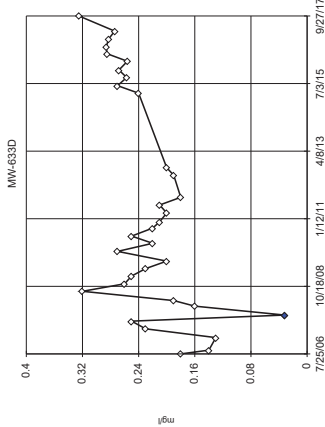
Tukey's Outlier Screening



Constituent: Zinc Analysis Run 12/7/2017 11:05 AM

NABORS Client: SCS Engineers Data: NABORS_DATABASE_SantitasMatrix

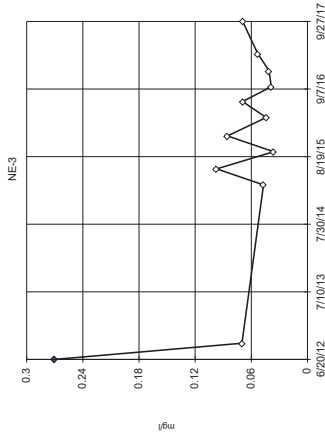
Rosner's Outlier Test



Constituent: Zinc Analysis Run 12/7/2017 11:05 AM

NABORS Client: SCS Engineers Data: NABORS_DATABASE_SantitasMatrix

Dixon's Outlier Test



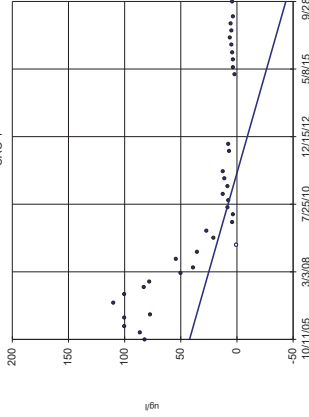
Constituent: Zinc Analysis Run 12/7/2017 11:05 AM

NABORS Client: SCS Engineers Data: NABORS_DATABASE_SantitasMatrix

Sen's $\rho = 0.512$ Software Version 6.025 Engineers, US
Hollow symbols indicate censored values.

Sen's Slope Estimator

CAO-1



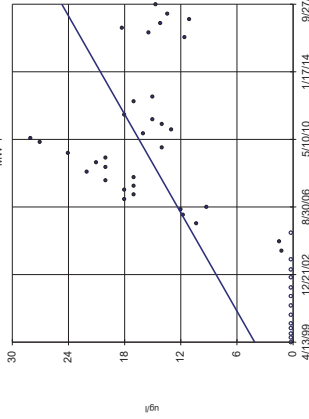
Constituent: 1,1-Dichloroethane Analysis Run 12/7/2017 11:06 AM

NABORS Client: SCS Engineers Data: NABORS_DATABASE_SentinelMatrix

Sen's $\rho = 0.512$ Software Version 6.025 Engineers, US
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-1



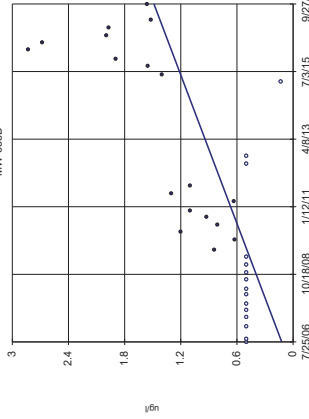
Constituent: 1,1-Dichloroethane Analysis Run 12/7/2017 11:06 AM

NABORS Client: SCS Engineers Data: NABORS_DATABASE_SentinelMatrix

Sen's $\rho = 0.512$ Software Version 6.025 Engineers, US
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-633D



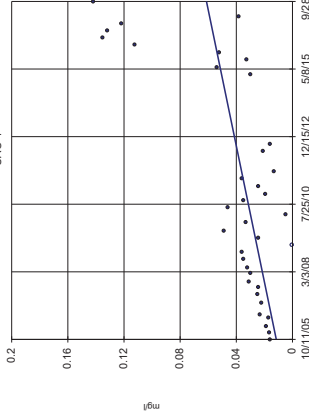
Constituent: 1,1-Dichloroethane Analysis Run 12/7/2017 11:06 AM

NABORS Client: SCS Engineers Data: NABORS_DATABASE_SentinelMatrix

Sen's $\rho = 0.512$ Software Version 6.025 Engineers, US
Hollow symbols indicate censored values.

Sen's Slope Estimator

CAO-1



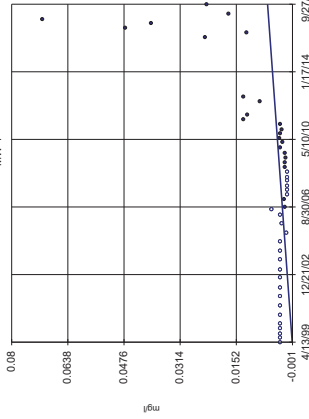
Constituent: Arsenic Analysis Run 12/7/2017 11:06 AM

NABORS Client: SCS Engineers Data: NABORS_DATABASE_SentinelMatrix

Sen's $\rho = 0.512$ Software Version 6.025 Engineers, US
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-1



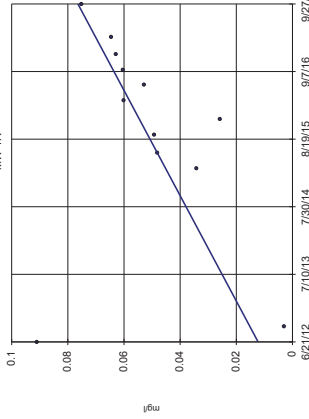
Constituent: Arsenic Analysis Run 12/7/2017 11:07 AM

NABORS Client: SCS Engineers Data: NABORS_DATABASE_SentinelMatrix

Sen's $\rho = 0.512$ Software Version 6.025 Engineers, US
Hollow symbols indicate censored values.

Sen's Slope Estimator

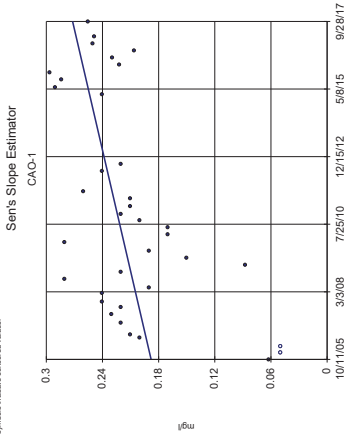
MW-1R



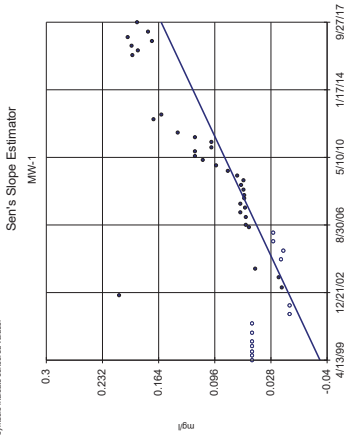
Constituent: Arsenic Analysis Run 12/7/2017 11:07 AM

NABORS Client: SCS Engineers Data: NABORS_DATABASE_SentinelMatrix

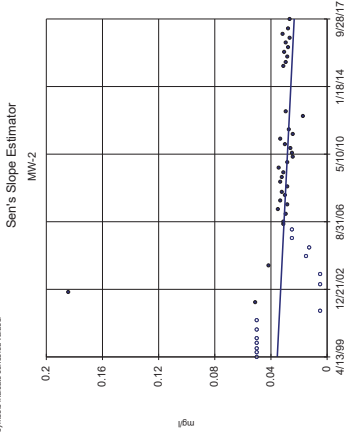
Sen's™ v5.5.2 Software licensed to SCS Engineers, LLC
Hollow symbols indicate censored values.



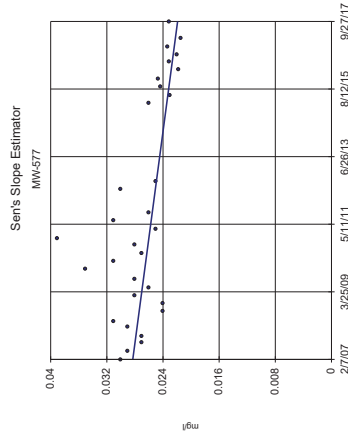
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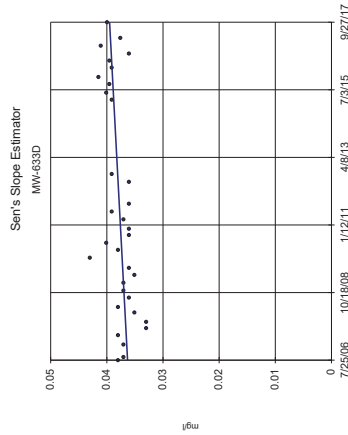
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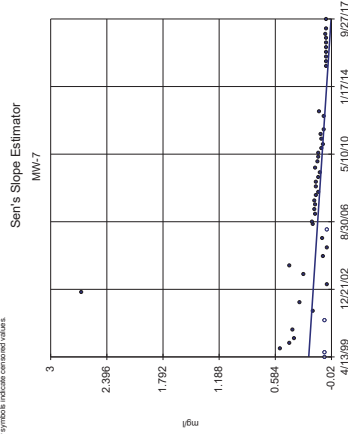
Sen's™ v5.5.2 Software licensed to SCS Engineers, LLC



Sen's™ v5.5.2 Software licensed to SCS Engineers, LLC

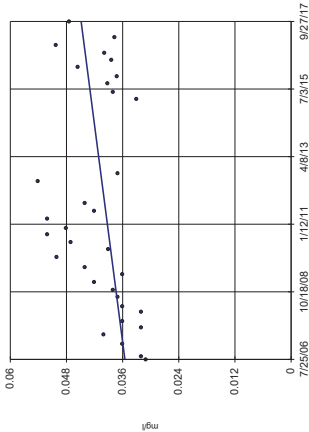


Sen's™ v5.5.2 Software licensed to SCS Engineers, LLC
Hollow symbols indicate censored values.



SenSlope™ v5.5.2 Software licensed to SCS Engineers, LLC

Sent's Slope Estimator NAB-3

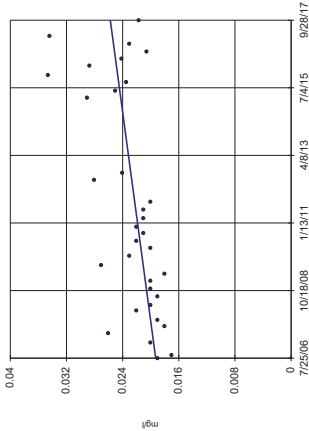


Constituent: Barium Analysis Run 12/7/2017 11:07 AM

NABORS Client: SCS Engineers Data: NABORS_DATABASE_SentiasMatrix

SenSlope™ v5.5.2 Software licensed to SCS Engineers, LLC

Sent's Slope Estimator NAB-7

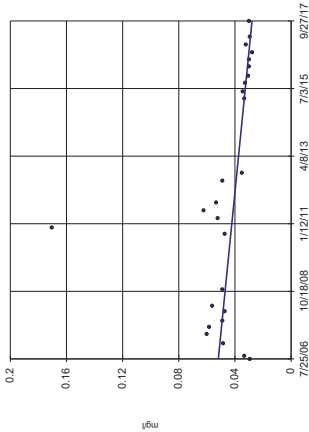


Constituent: Barium Analysis Run 12/7/2017 11:07 AM

NABORS Client: SCS Engineers Data: NABORS_DATABASE_SentiasMatrix

SenSlope™ v5.5.2 Software licensed to SCS Engineers, LLC

Sent's Slope Estimator NAB-8

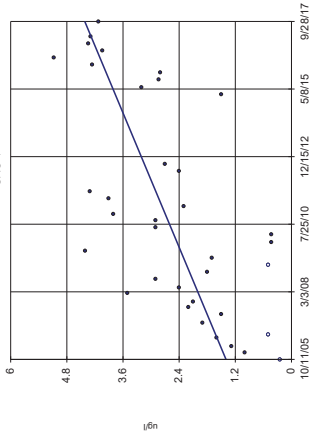


Constituent: Barium Analysis Run 12/7/2017 11:07 AM

NABORS Client: SCS Engineers Data: NABORS_DATABASE_SentiasMatrix

SenSlope™ v5.5.2 Software licensed to SCS Engineers, LLC

Sent's Slope Estimator CAO-1

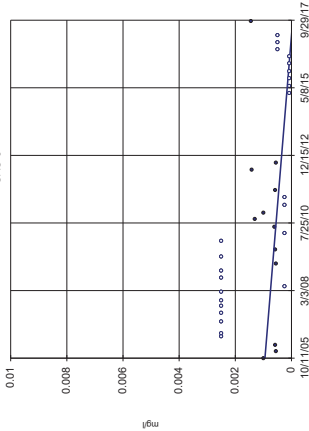


Constituent: Benzene Analysis Run 12/7/2017 11:07 AM

NABORS Client: SCS Engineers Data: NABORS_DATABASE_SentiasMatrix

SenSlope™ v5.5.2 Software licensed to SCS Engineers, LLC

Sent's Slope Estimator CAO-3

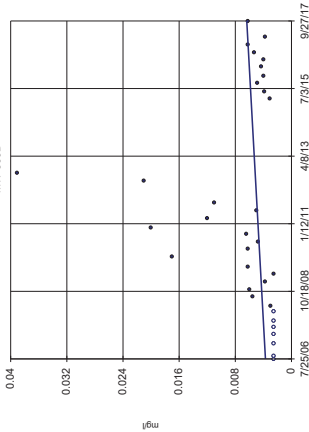


Constituent: Cadmium Analysis Run 12/7/2017 11:07 AM

NABORS Client: SCS Engineers Data: NABORS_DATABASE_SentiasMatrix

SenSlope™ v5.5.2 Software licensed to SCS Engineers, LLC

Sent's Slope Estimator MW-599D

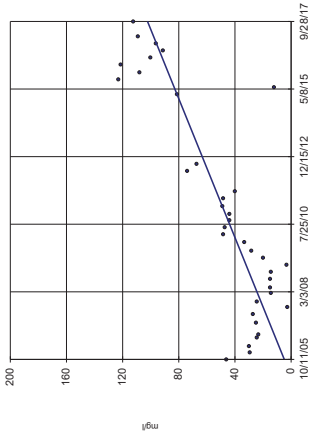


Constituent: Cadmium Analysis Run 12/7/2017 11:07 AM

NABORS Client: SCS Engineers Data: NABORS_DATABASE_SentiasMatrix

Sen's™ v5.5.2 Software licensed to SCS Engineers, LLC

Sen's Slope Estimator CAO-1

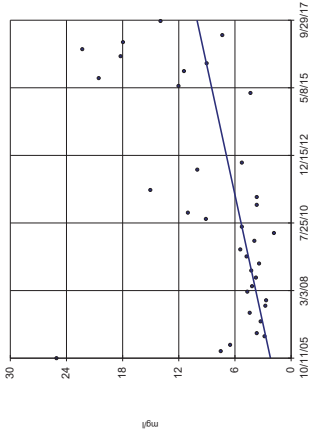


Constituent: Chloride Analysis Run 12/7/2017 11:07 AM

NABORS Client: SCS Engineers Data: NABORS_DATABASE_SentinelMatrix

Sen's™ v5.5.2 Software licensed to SCS Engineers, LLC

Sen's Slope Estimator CAO-3

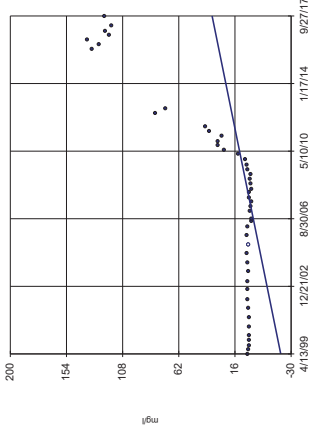


Constituent: Chloride Analysis Run 12/7/2017 11:07 AM

NABORS Client: SCS Engineers Data: NABORS_DATABASE_SentinelMatrix

Sen's™ v5.5.2 Software licensed to SCS Engineers, LLC

Sen's Slope Estimator MW-1

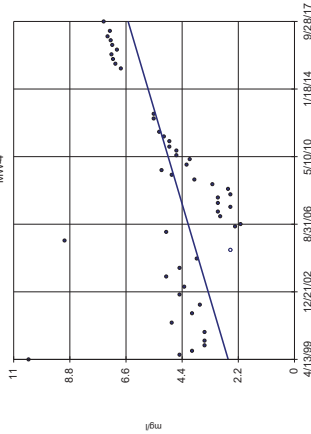


Constituent: Chloride Analysis Run 12/7/2017 11:07 AM

NABORS Client: SCS Engineers Data: NABORS_DATABASE_SentinelMatrix

Sen's™ v5.5.2 Software licensed to SCS Engineers, LLC

Sen's Slope Estimator MW-4

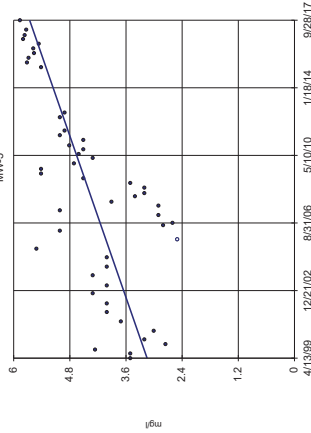


Constituent: Chloride Analysis Run 12/7/2017 11:07 AM

NABORS Client: SCS Engineers Data: NABORS_DATABASE_SentinelMatrix

Sen's™ v5.5.2 Software licensed to SCS Engineers, LLC

Sen's Slope Estimator MW-5

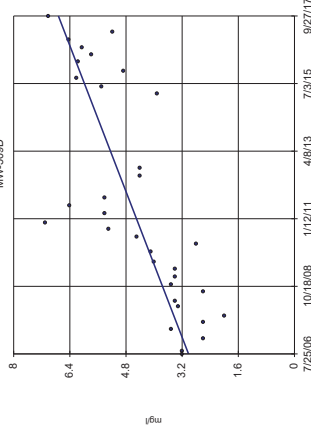


Constituent: Chloride Analysis Run 12/7/2017 11:07 AM

NABORS Client: SCS Engineers Data: NABORS_DATABASE_SentinelMatrix

Sen's™ v5.5.2 Software licensed to SCS Engineers, LLC

Sen's Slope Estimator MW-599D



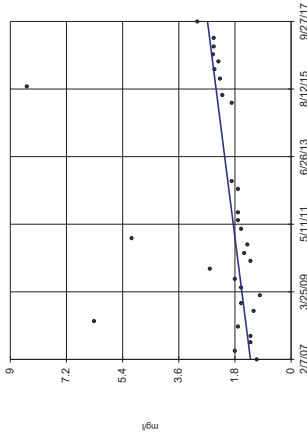
Constituent: Chloride Analysis Run 12/7/2017 11:07 AM

NABORS Client: SCS Engineers Data: NABORS_DATABASE_SentinelMatrix

Statsoft™ v.5.5.2 Software licensed to SCS Engineers, LLC

Sen's Slope Estimator

MW-577



n = 31
Slope = -0.1293
Intercept = 1.86
Mann-Kendall
statistic = -2.26
critical = -1.94
tau = -0.0001
increasing trend
significant at 95%
confidence level
($\alpha = 0.05$ per
tail).

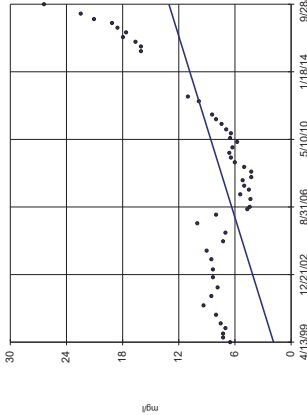
Constituent: Chloride Analysis Run 12/7/2017 11:07 AM

NABORS Client: SCS Engineers Data: NABORS_DATABASE_SantitasMatrix

Statsoft™ v.5.5.2 Software licensed to SCS Engineers, LLC

Sen's Slope Estimator

MW-6



n = 50
Slope = 0.005
Intercept = 1.0
Mann-Kendall
normal approx. =
critical = 2.33
tau = 0.0001
increasing trend
significant at 95%
confidence level
($\alpha = 0.05$ per
tail).

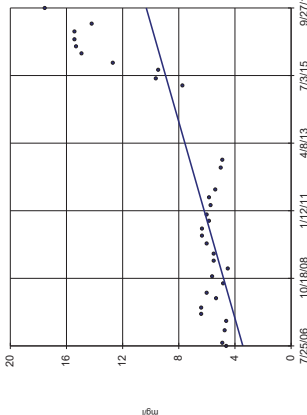
Constituent: Chloride Analysis Run 12/7/2017 11:07 AM

NABORS Client: SCS Engineers Data: NABORS_DATABASE_SantitasMatrix

Statsoft™ v.5.5.2 Software licensed to SCS Engineers, LLC

Sen's Slope Estimator

MW-633D



n = 53
Slope = -0.0149
Intercept = 1.0
Mann-Kendall
statistic = -2.92
critical = -1.91
tau = -0.0001
decreasing trend
significant at 95%
confidence level
($\alpha = 0.05$ per
tail).

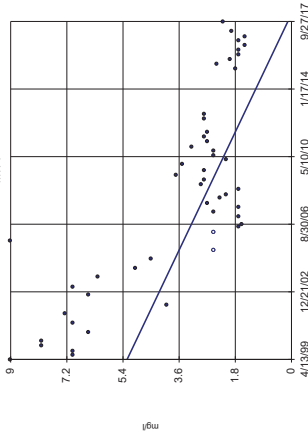
Constituent: Chloride Analysis Run 12/7/2017 11:07 AM

NABORS Client: SCS Engineers Data: NABORS_DATABASE_SantitasMatrix

Statsoft™ v.5.5.2 Software licensed to SCS Engineers, LLC
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-7



n = 50
Slope = -0.2289
Intercept = 1.86
Mann-Kendall
normal approx. =
critical = -2.33
tau = -0.0001
decreasing trend
significant at 95%
confidence level
($\alpha = 0.05$ per
tail).

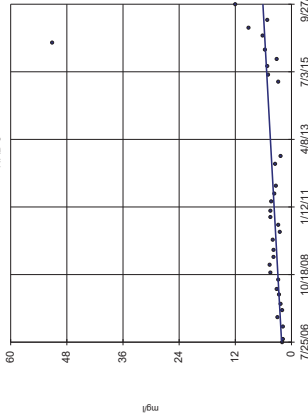
Constituent: Chloride Analysis Run 12/7/2017 11:07 AM

NABORS Client: SCS Engineers Data: NABORS_DATABASE_SantitasMatrix

Statsoft™ v.5.5.2 Software licensed to SCS Engineers, LLC

Sen's Slope Estimator

NAB-3



n = 33
Slope = 0.3697
Intercept = 1.0
Mann-Kendall
statistic = 2.05
critical = 1.91
tau = 0.0001
increasing trend
significant at 95%
confidence level
($\alpha = 0.05$ per
tail).

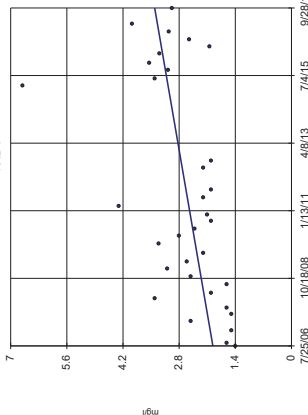
Constituent: Chloride Analysis Run 12/7/2017 11:07 AM

NABORS Client: SCS Engineers Data: NABORS_DATABASE_SantitasMatrix

Statsoft™ v.5.5.2 Software licensed to SCS Engineers, LLC

Sen's Slope Estimator

NAB-7

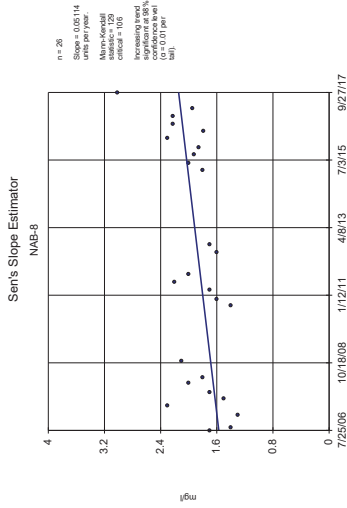


n = 53
Slope = -0.1296
Intercept = 1.86
Mann-Kendall
statistic = -1.99
critical = -1.91
tau = -0.0001
decreasing trend
significant at 95%
confidence level
($\alpha = 0.05$ per
tail).

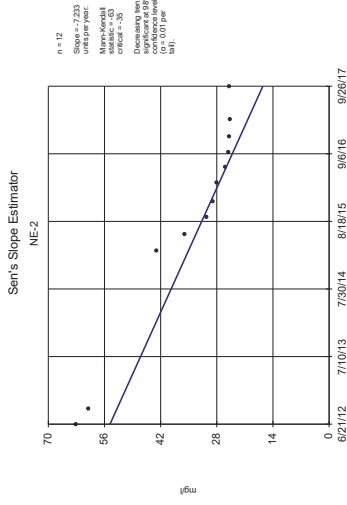
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NABORS Client: SCS Engineers Data: NABORS_DATABASE_SantitasMatrix

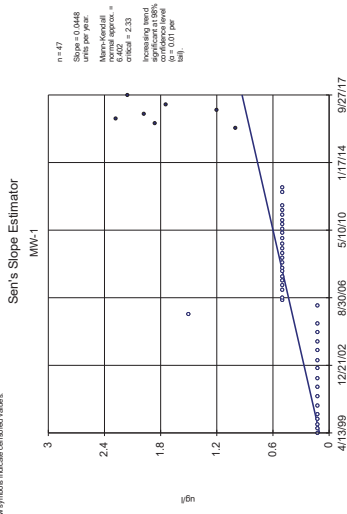
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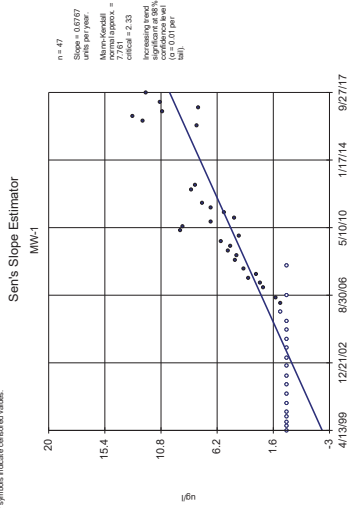
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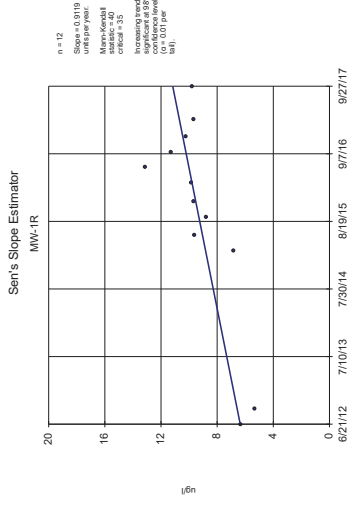
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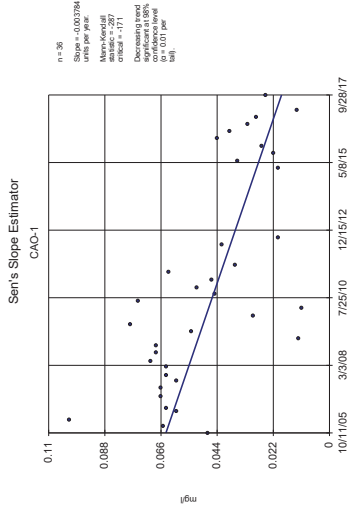
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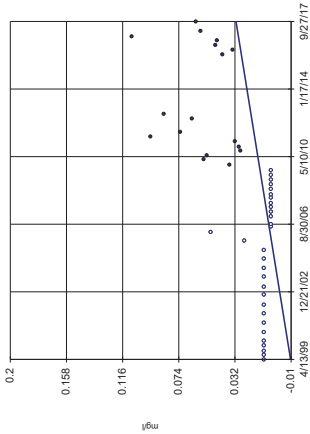


Statsoft™ v.5.5.2 Software licensed to SCS Engineers, LLC



StatSoft® v.5.5.9 Software licensed to SCS Engineers, LLC
Yellow symbols indicate censored values.

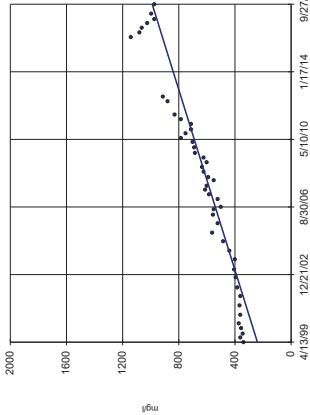
Ser's Slope Estimator
MW-1



Constituent: Cobalt Analysis Run 12/7/2017 11:07 AM
NABORS Client: SCS Engineers Data: NABORS_DATABASE_SantitasMatrix

StatSoft® v.5.5.12 Software licensed to SCS Engineers, LLC

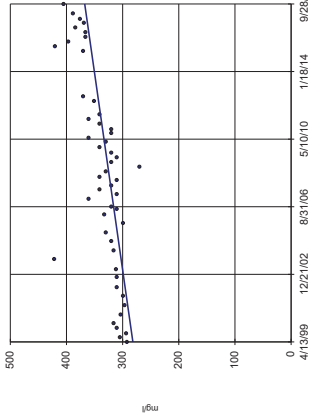
Ser's Slope Estimator
MW-1



Constituent: Dissolved Solids Analysis Run 12/7/2017 11:07 AM
NABORS Client: SCS Engineers Data: NABORS_DATABASE_SantitasMatrix

StatSoft® v.5.5.12 Software licensed to SCS Engineers, LLC

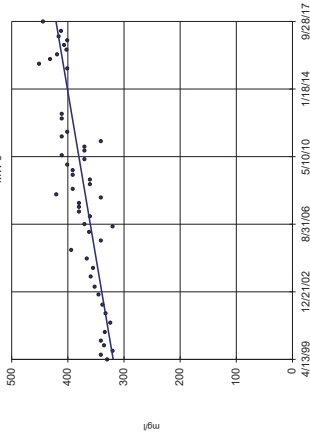
Ser's Slope Estimator
MW-4



Constituent: Dissolved Solids Analysis Run 12/7/2017 11:07 AM
NABORS Client: SCS Engineers Data: NABORS_DATABASE_SantitasMatrix

StatSoft® v.5.5.9 Software licensed to SCS Engineers, LLC

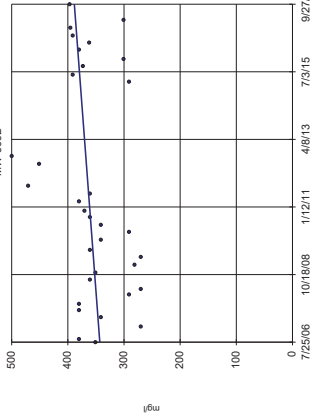
Ser's Slope Estimator
MW-5



Constituent: Dissolved Solids Analysis Run 12/7/2017 11:07 AM
NABORS Client: SCS Engineers Data: NABORS_DATABASE_SantitasMatrix

StatSoft® v.5.5.12 Software licensed to SCS Engineers, LLC

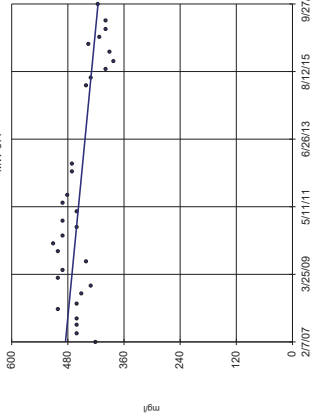
Ser's Slope Estimator
MW-509D



Constituent: Dissolved Solids Analysis Run 12/7/2017 11:07 AM
NABORS Client: SCS Engineers Data: NABORS_DATABASE_SantitasMatrix

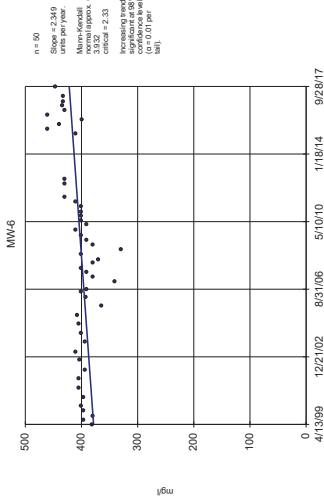
StatSoft® v.5.5.12 Software licensed to SCS Engineers, LLC

Ser's Slope Estimator
MW-577



Constituent: Dissolved Solids Analysis Run 12/7/2017 11:07 AM
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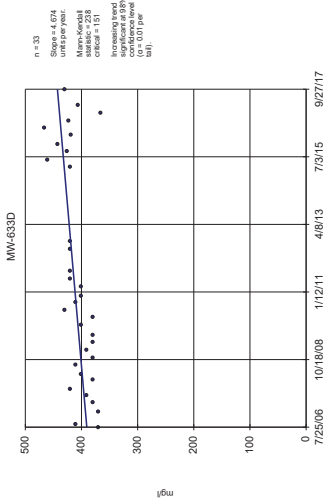
Sent's Slope Estimator



Constituent: Dissolved Solids Analysis Run 12/7/2017 11:07 AM

NABORS Client: SCS Engineers Data: NABORS_DATABASE_SentiasMatrix

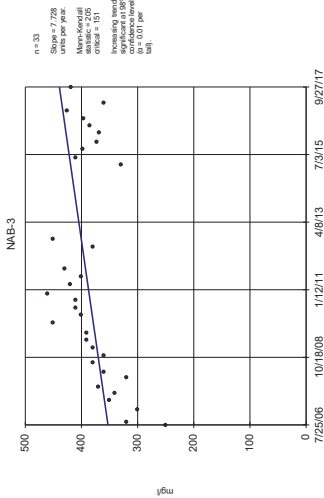
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Constituent: Dissolved Solids Analysis Run 12/7/2017 11:07 AM

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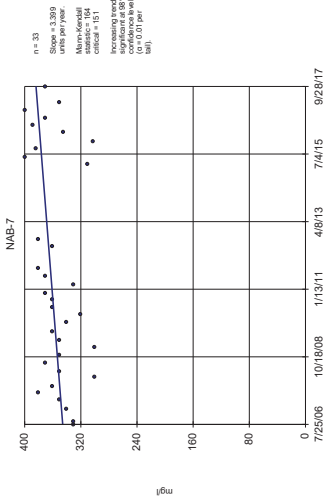
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Constituent: Dissolved Solids Analysis Run 12/7/2017 11:07 AM

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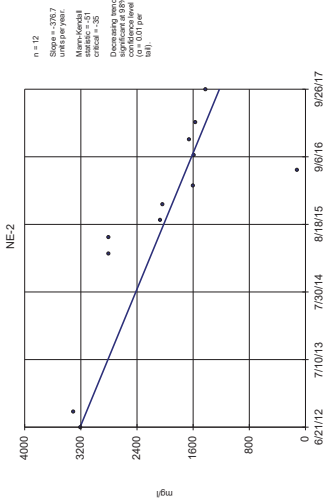
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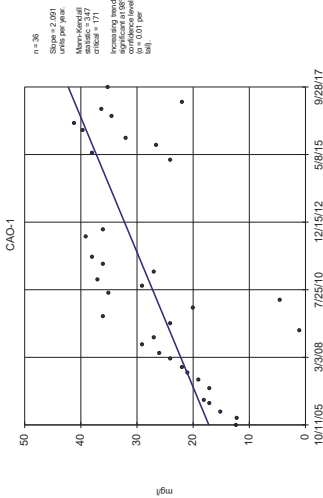
Sent's Slope Estimator



Constituent: Dissolved Solids Analysis Run 12/7/2017 11:07 AM

NABORS Client: SCS Engineers Data: NABORS_DATABASE_SentiasMatrix

Sent's Slope Estimator



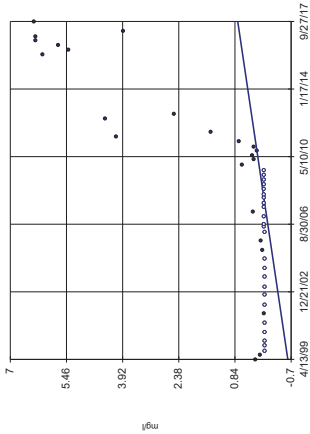
Constituent: Iron Analysis Run 12/7/2017 11:07 AM

NABORS Client: SCS Engineers Data: NABORS_DATABASE_SentiasMatrix

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Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-1



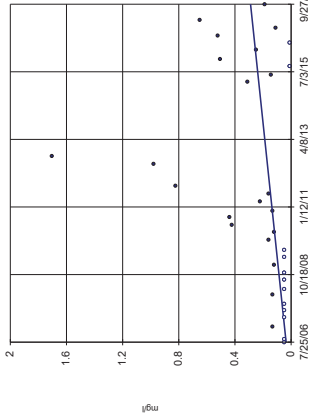
Constituent: Iron Analysis Run 12/7/2017 11:08 AM

NABORS Client: SCS Engineers Data: NABORS_DATABASE_SentinelMatrix

Sen's™ v4.5.2 Software licensed to SCS Engineers, LLC
Hollow symbols indicate censored values.

Sen's Slope Estimator

NAB-3



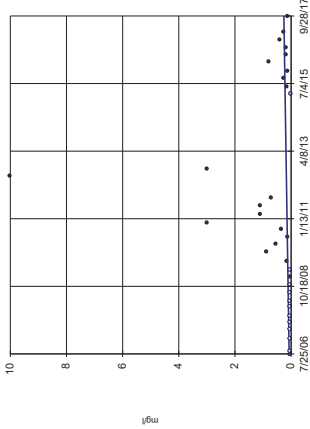
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NABORS Client: SCS Engineers Data: NABORS_DATABASE_SentinelMatrix

Sen's™ v4.5.2 Software licensed to SCS Engineers, LLC
Hollow symbols indicate censored values.

Sen's Slope Estimator

NAB-7



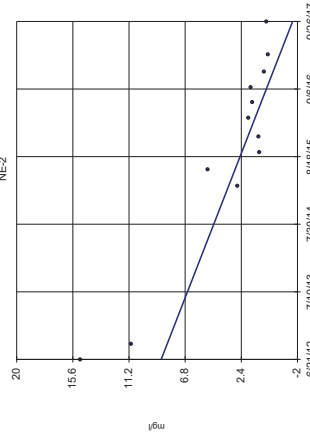
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NABORS Client: SCS Engineers Data: NABORS_DATABASE_SentinelMatrix

Sen's™ v4.5.2 Software licensed to SCS Engineers, LLC

Sen's Slope Estimator

NE-2



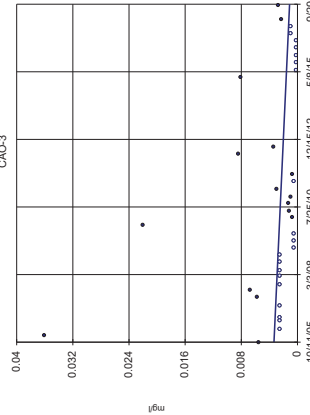
Constituent: Iron Analysis Run 12/7/2017 11:08 AM

NABORS Client: SCS Engineers Data: NABORS_DATABASE_SentinelMatrix

Sen's™ v4.5.2 Software licensed to SCS Engineers, LLC
Hollow symbols indicate censored values.

Sen's Slope Estimator

CAO-3



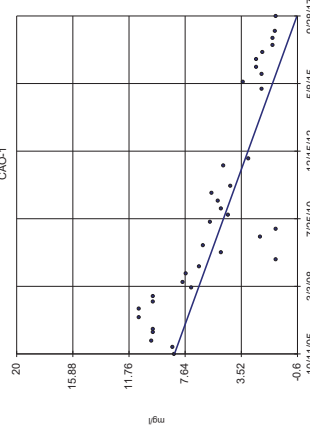
Constituent: Lead Analysis Run 12/7/2017 11:08 AM

NABORS Client: SCS Engineers Data: NABORS_DATABASE_SentinelMatrix

Sen's™ v4.5.2 Software licensed to SCS Engineers, LLC

Sen's Slope Estimator

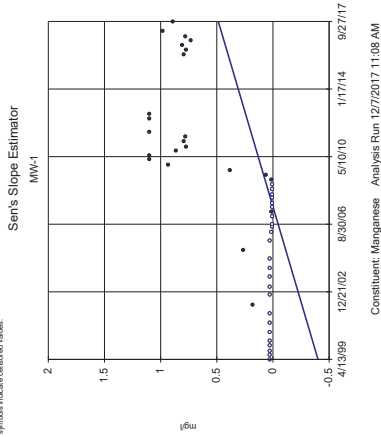
CAO-1



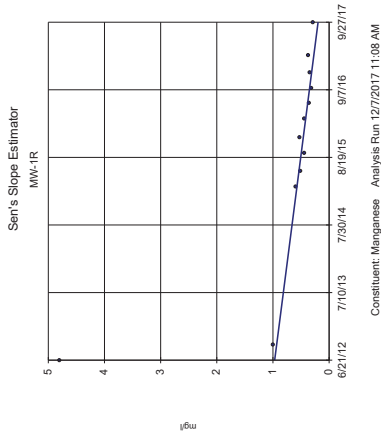
Constituent: Manganese Analysis Run 12/7/2017 11:08 AM

NABORS Client: SCS Engineers Data: NABORS_DATABASE_SentinelMatrix

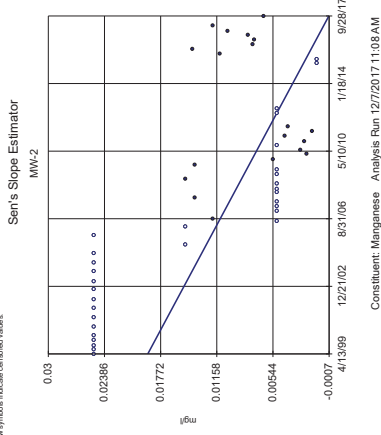
Sen's™ v5.5.2 Software licensed to SCS Engineers, LLC
Hollow symbols indicate censored values.



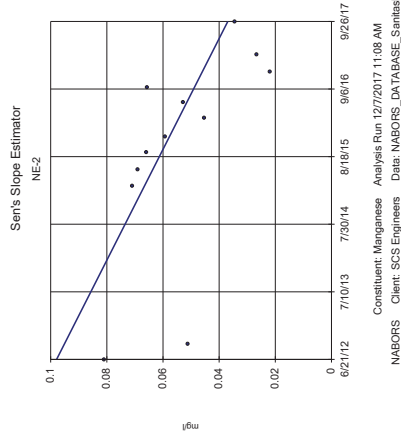
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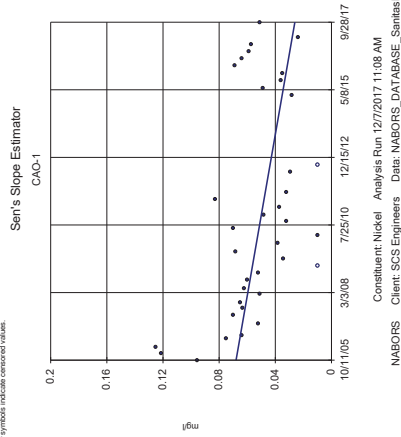
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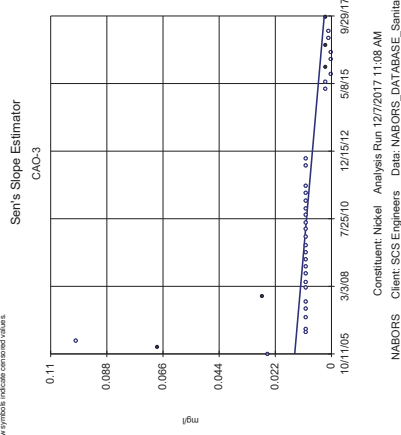
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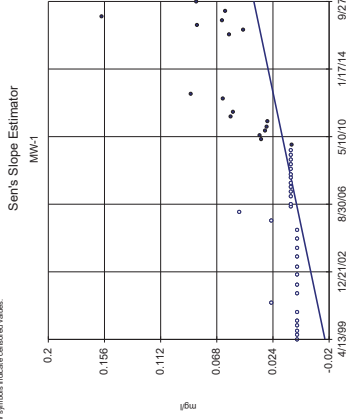
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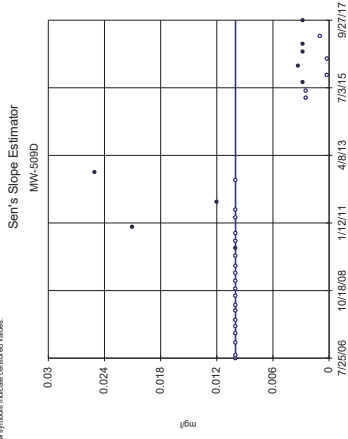
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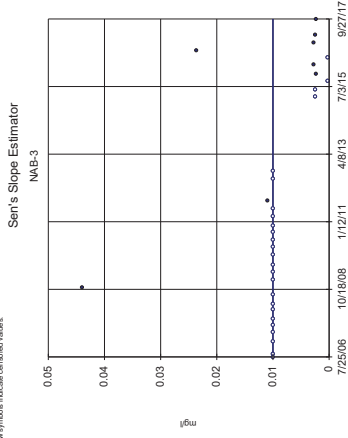
Sen's $\rho = 0.512$ Software Version: SCS Engineers, US
Hollow symbols indicate censored values.



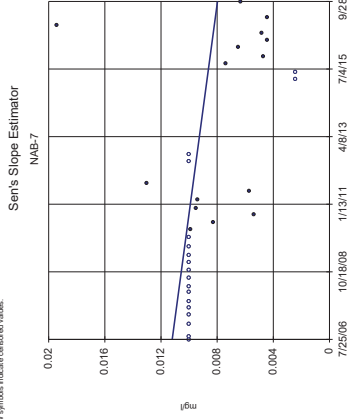
Sen's $\rho = 0.512$ Software Version: SCS Engineers, US
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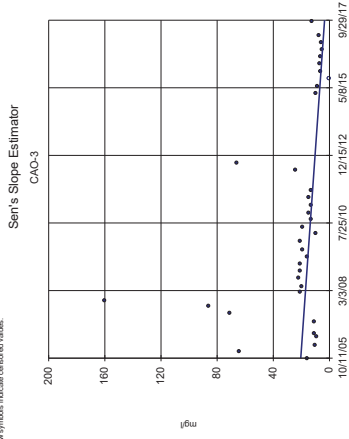
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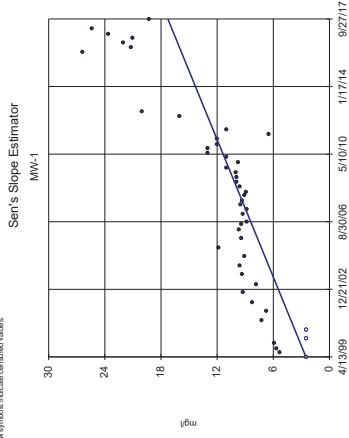
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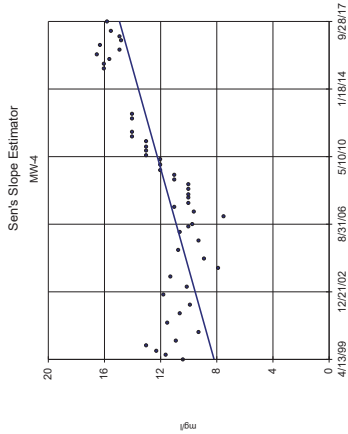
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Sen's $\rho = 0.512$ Software Version: SCS Engineers, US
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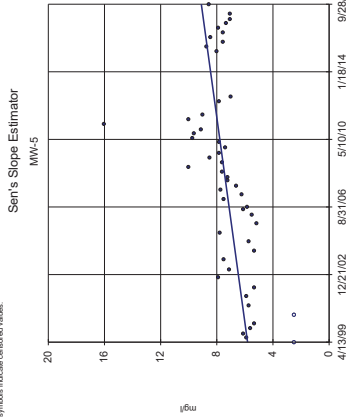
SenSlope™ v4.5.3 Software licensed to SCS Engineers, LLC



Constituent: Sulfate Analysis Run 12/7/2017 11:08 AM

NABORS Client: SCS Engineers Data: NABORS_DATABASE_SentinelMatrix

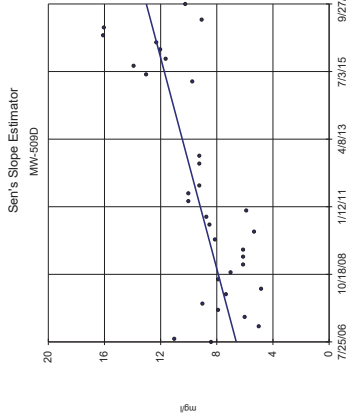
SenSlope™ v4.5.3 Software licensed to SCS Engineers, LLC
Huber symbols indicate observed values.



Constituent: Sulfate Analysis Run 12/7/2017 11:08 AM

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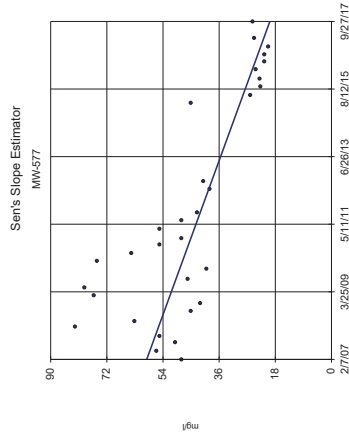
SenSlope™ v4.5.3 Software licensed to SCS Engineers, LLC



Constituent: Sulfate Analysis Run 12/7/2017 11:08 AM

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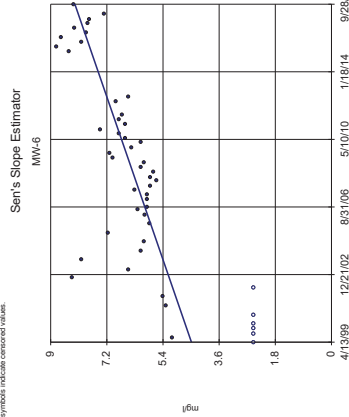
SenSlope™ v4.5.3 Software licensed to SCS Engineers, LLC



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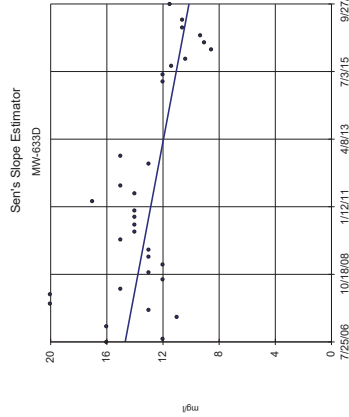
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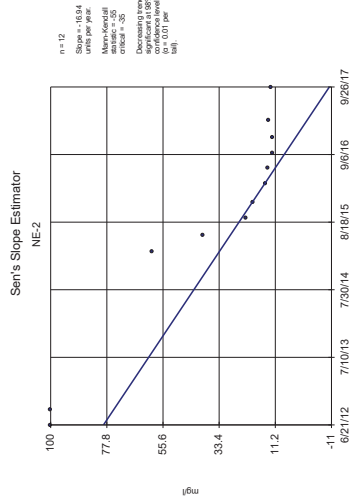
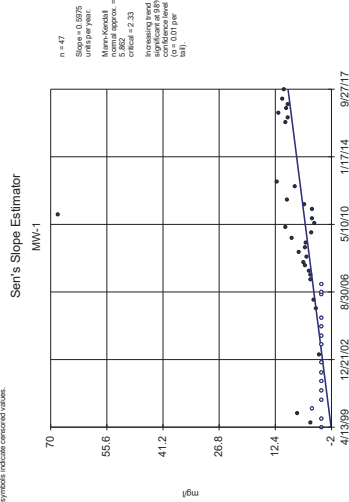
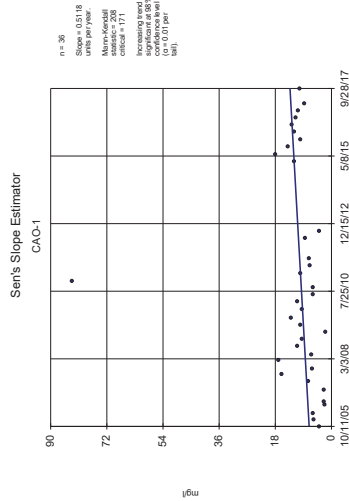
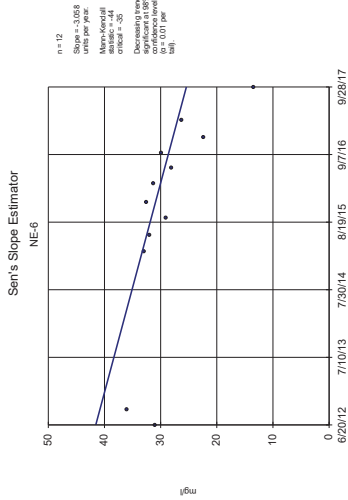
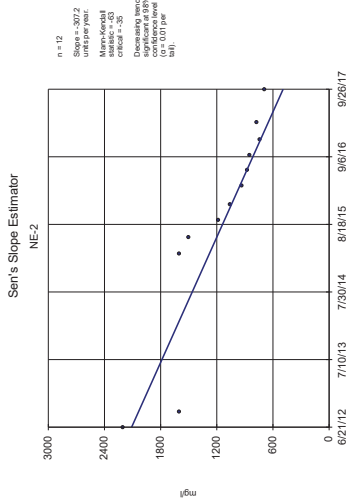
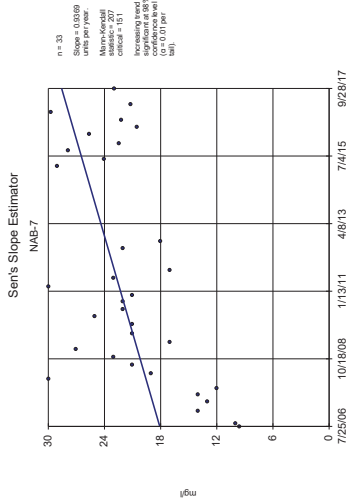
NABORS Client: SCS Engineers Data: NABORS_DATABASE_SentinelMatrix

SenSlope™ v4.5.3 Software licensed to SCS Engineers, LLC



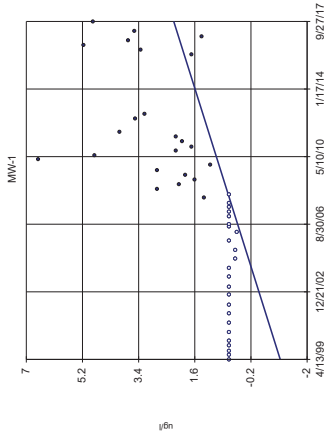
Constituent: Sulfate Analysis Run 12/7/2017 11:08 AM

NABORS Client: SCS Engineers Data: NABORS_DATABASE_SentinelMatrix



Sen's $\rho = 0.512$ between forward to SCS Engineers, US
Hollow symbols indicate censored values.

Sen's Slope Estimator

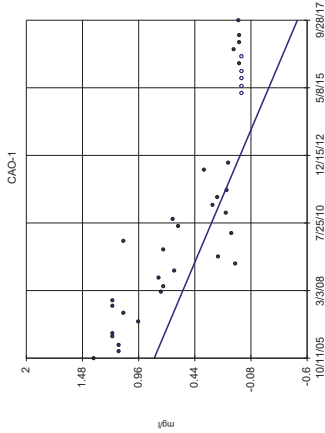


Constituent: Vinyl chloride Analysis Run 12/7/2017 11:08 AM

NABORS Client: SCS Engineers Data: NABORS_DATABASE_SentinelMatrix

Sen's $\rho = 0.512$ between forward to SCS Engineers, US
Hollow symbols indicate censored values.

Sen's Slope Estimator

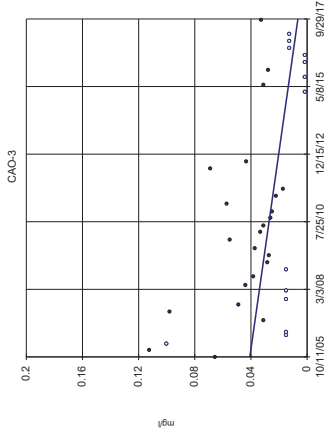


Constituent: Zinc Analysis Run 12/7/2017 11:08 AM

NABORS Client: SCS Engineers Data: NABORS_DATABASE_SentinelMatrix

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Sen's Slope Estimator

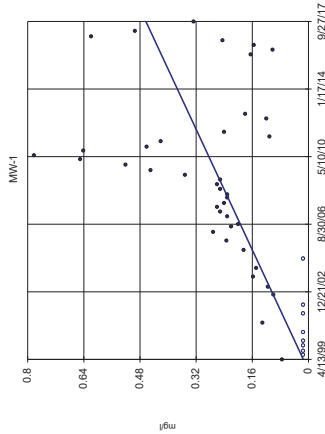


Constituent: Zinc Analysis Run 12/7/2017 11:08 AM

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Sen's Slope Estimator

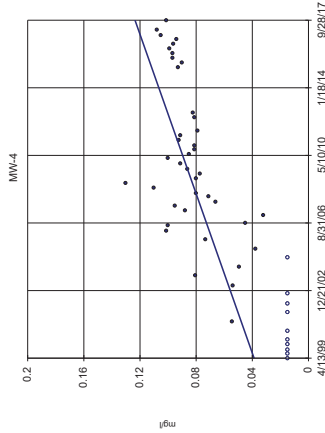


Constituent: Zinc Analysis Run 12/7/2017 11:08 AM

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Sen's Slope Estimator

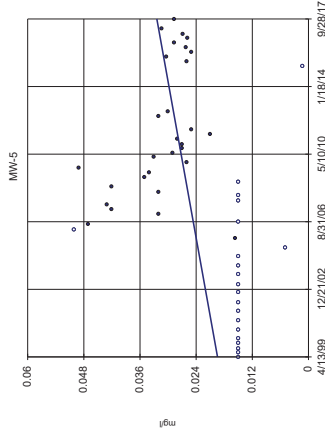


Constituent: Zinc Analysis Run 12/7/2017 11:08 AM

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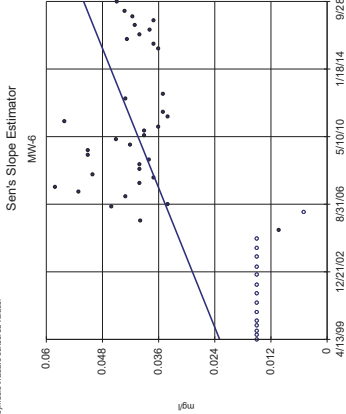
Sen's Slope Estimator



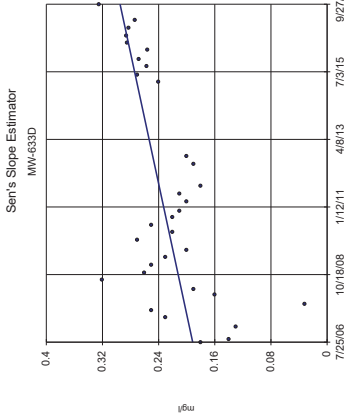
Constituent: Zinc Analysis Run 12/7/2017 11:08 AM

NABORS Client: SCS Engineers Data: NABORS_DATABASE_SentinelMatrix

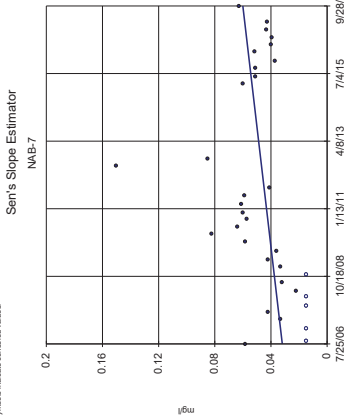
SenSlope™ v4.5.3.2 Software licensed to SCS Engineers, LLC
Hollow symbols indicate censored values.



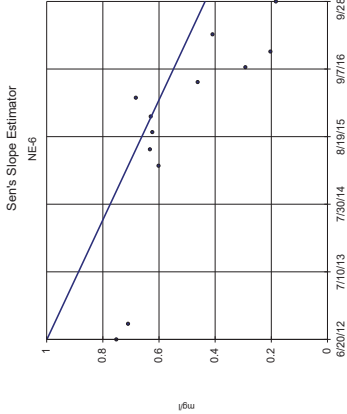
SenSlope™ v4.5.3.2 Software licensed to SCS Engineers, LLC
Hollow symbols indicate censored values.



SenSlope™ v4.5.3.2 Software licensed to SCS Engineers, LLC
Hollow symbols indicate censored values.

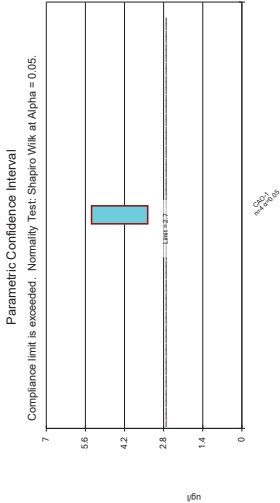


SenSlope™ v4.5.3.2 Software licensed to SCS Engineers, LLC
Hollow symbols indicate censored values.

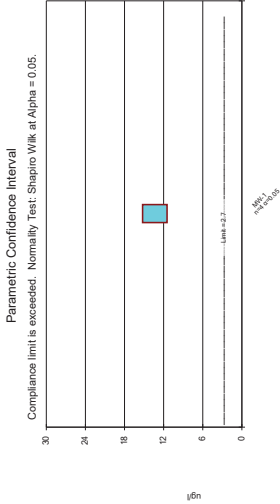


Constituent: Zinc Analysis Run 12/7/2017 11:09 AM

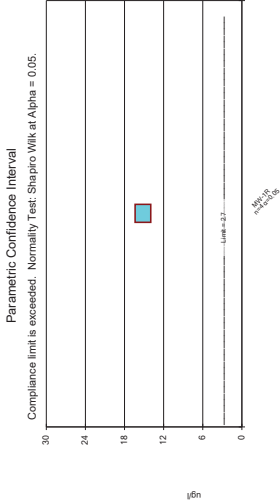
NABORS Client: SCS Engineers Data: NABORS_DATABASE_SentinelMatrix



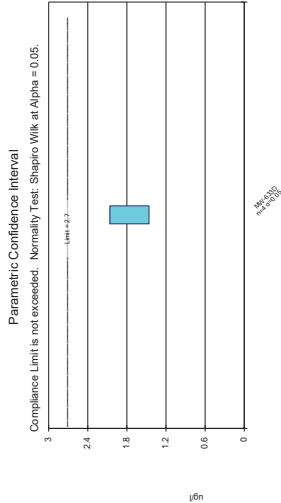
Constituent: 1,1-Dichloroethane Analysis Run 12/7/2017 11:18 AM
Client: SCS Engineers Data: NABORS_DATABASE_SantitasMatrix



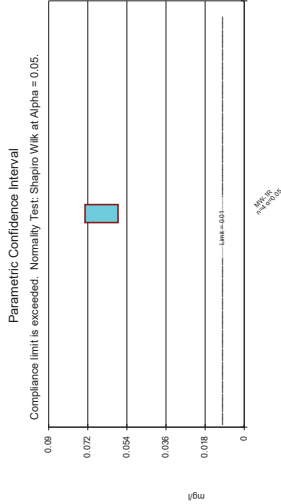
Constituent: 1,1-Dichloroethane Analysis Run 12/7/2017 11:18 AM
Client: SCS Engineers Data: NABORS_DATABASE_SantitasMatrix



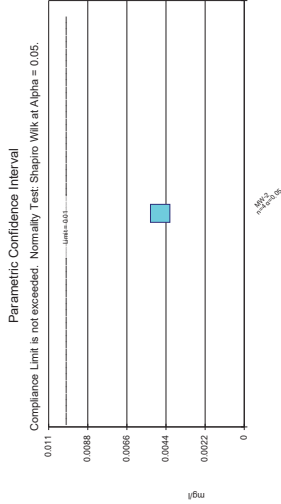
Constituent: 1,1-Dichloroethane Analysis Run 12/7/2017 11:18 AM
Client: SCS Engineers Data: NABORS_DATABASE_SantitasMatrix



Constituent: 1,1-Dichloroethane Analysis Run 12/7/2017 11:18 AM
Client: SCS Engineers Data: NABORS_DATABASE_SantitasMatrix

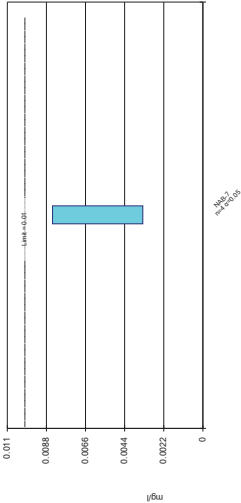


Constituent: Arsenic Analysis Run 12/7/2017 11:19 AM
Client: SCS Engineers Data: NABORS_DATABASE_SantitasMatrix

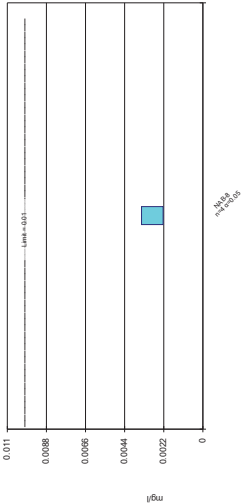


Constituent: Arsenic Analysis Run 12/7/2017 11:19 AM
Client: SCS Engineers Data: NABORS_DATABASE_SantitasMatrix

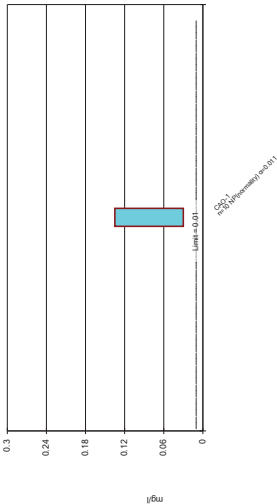
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Client: SCS Engineers Data: NABORS_DATABASE_SantitasMatrix



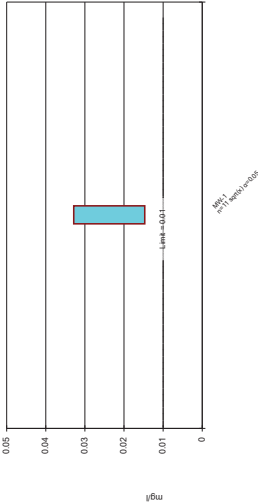
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Client: SCS Engineers Data: NABORS_DATABASE_SantitasMatrix



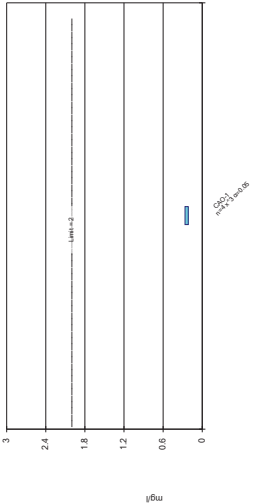
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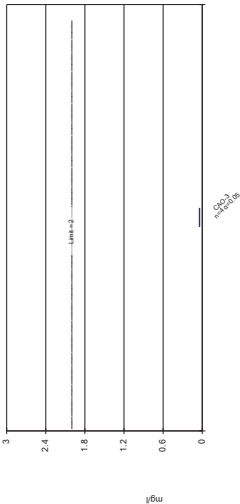
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Client: SCS Engineers Data: NABORS_DATABASE_SantitasMatrix



Constituent: Barium Analysis Run 12/7/2017 11:19 AM
Client: SCS Engineers Data: NABORS_DATABASE_SantitasMatrix



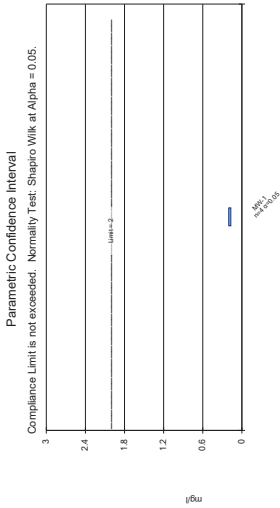
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Client: SCS Engineers Data: NABORS_DATABASE_SantitasMatrix



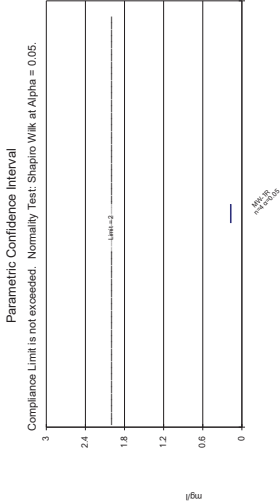
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Client: SCS Engineers Data: NABORS_DATABASE_SantitasMatrix

Constituent: Barium Analysis Run 12/7/2017 11:19 AM
Client: SCS Engineers Data: NABORS_DATABASE_SantitasMatrix

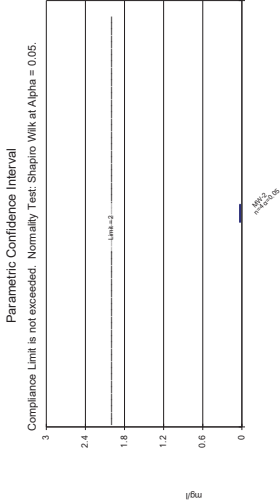
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Client: SCS Engineers Data: NABORS_DATABASE_SantitasMatrix



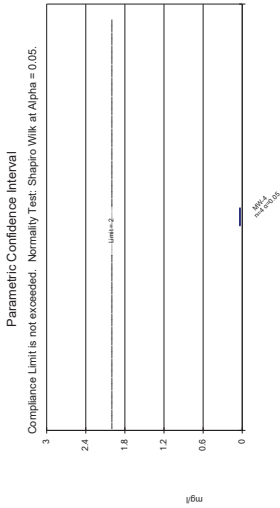
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Client: SCS Engineers Data: NABORS_DATABASE_SantitasMatrix



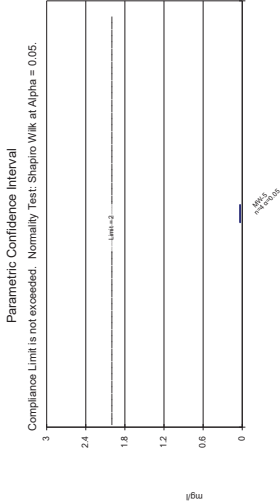
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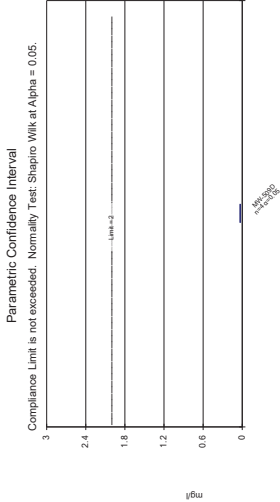
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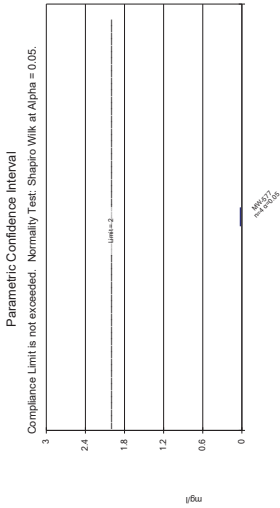
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Client: SCS Engineers Data: NABORS_DATABASE_SantitasMatrix



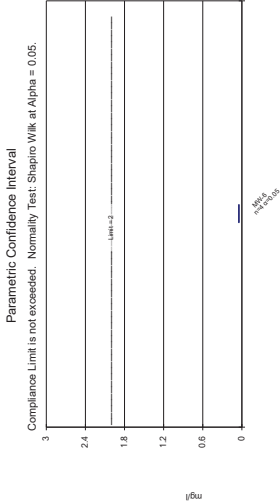
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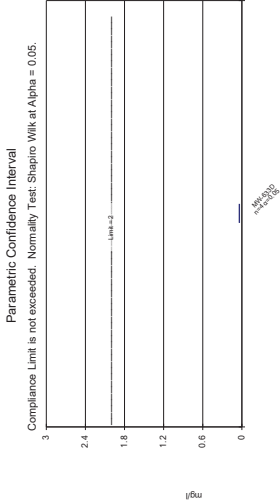
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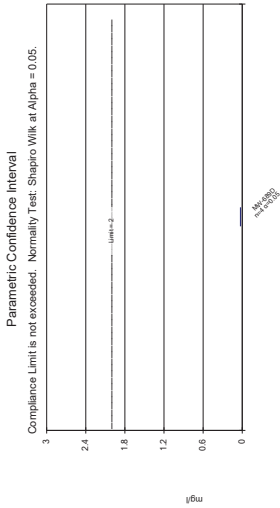
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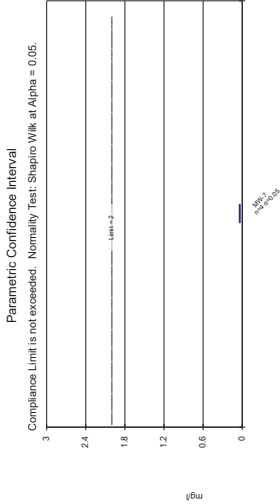
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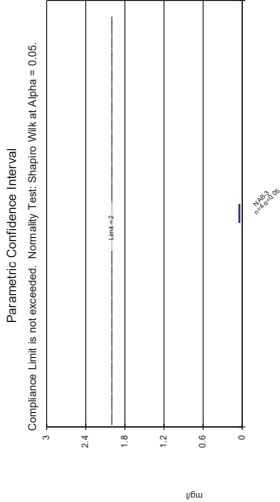
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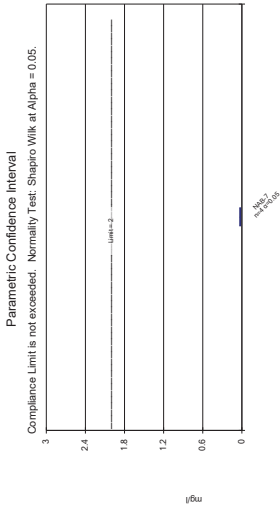
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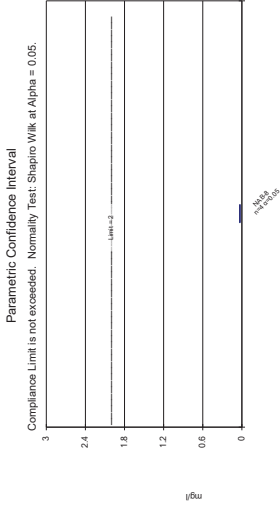
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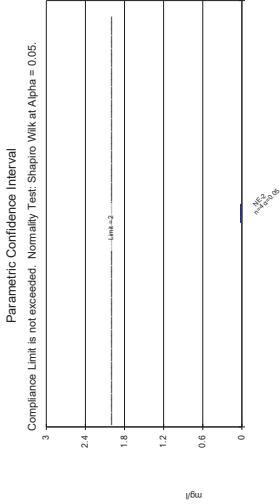
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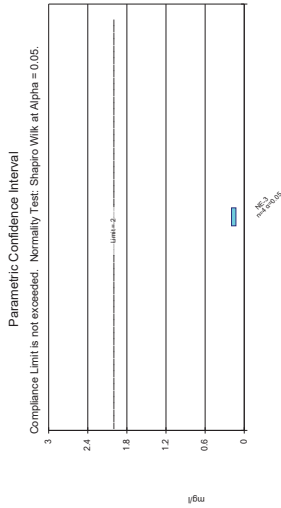
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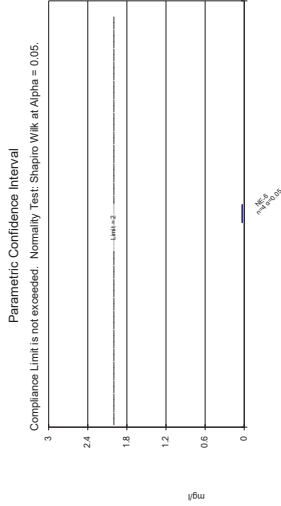
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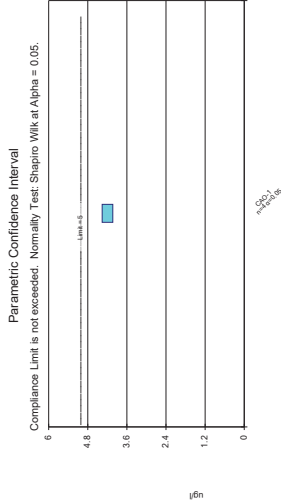
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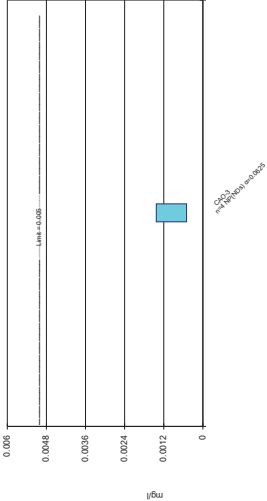


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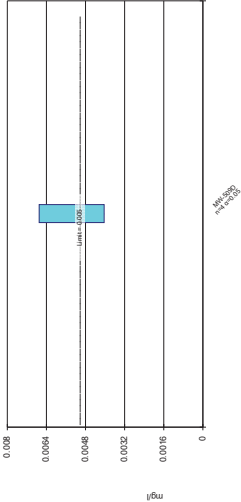
Constituent: Barium Analysis Run 12/7/2017 11:19 AM
Client: SCS Engineers Data: NABORS_DATABASE_SantitasMatrix

Non-Parametric Confidence Interval
Compliance Limit is not exceeded.



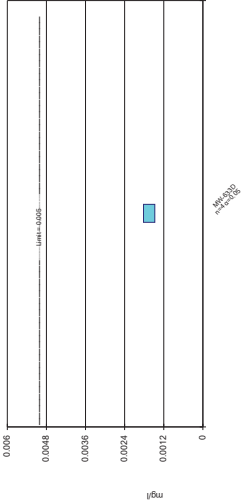
Constituent: Cadmium Analysis Run 12/7/2017 11:19 AM
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Parametric Confidence Interval
Compliance Limit is not exceeded. Normality Test: Shapiro Wilk at Alpha = 0.05.



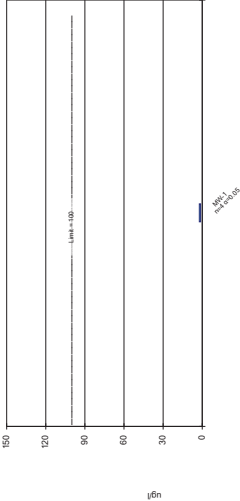
Constituent: Cadmium Analysis Run 12/7/2017 11:19 AM
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Parametric Confidence Interval
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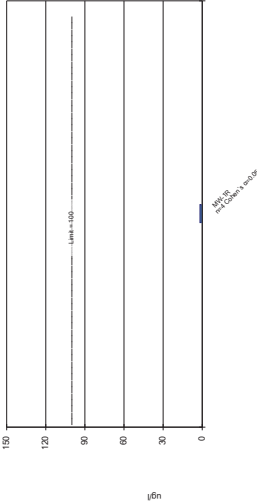
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Parametric Confidence Interval
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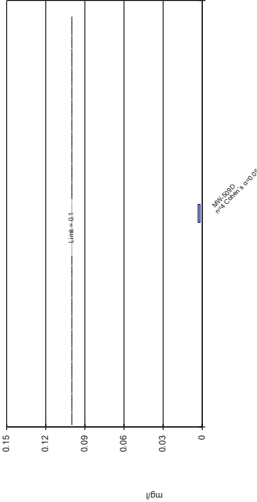
Constituent: Chlorobenzene Analysis Run 12/7/2017 11:20 AM
Client: SCS Engineers Data: NABORS_DATABASE_SantitasMatrix

Parametric Confidence Interval
Compliance Limit is not exceeded. Normality Test: Shapiro Wilk at Alpha = 0.05.

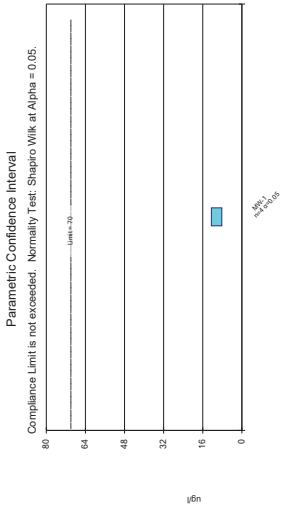


Constituent: Chlorobenzene Analysis Run 12/7/2017 11:20 AM
Client: SCS Engineers Data: NABORS_DATABASE_SantitasMatrix

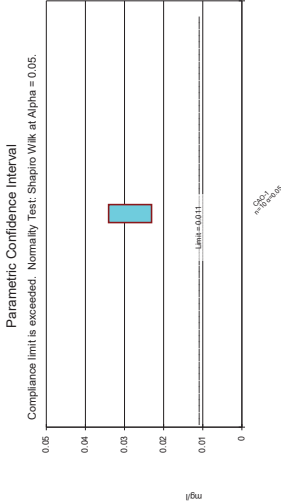
Parametric Confidence Interval
Compliance Limit is not exceeded. Normality Test: Shapiro Wilk at Alpha = 0.05.



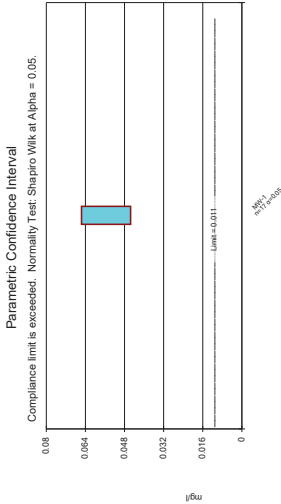
Constituent: Chromium Analysis Run 12/7/2017 11:20 AM
Client: SCS Engineers Data: NABORS_DATABASE_SantitasMatrix



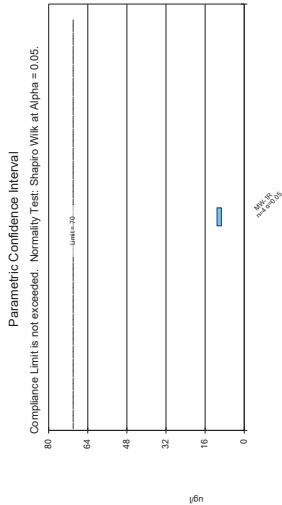
Constituent: cis-1,2-Dichloroethene Analysis Run 12/7/2017 11:20 AM
Client: SCS Engineers Data: NABORS_DATABASE_SantitasMatrix



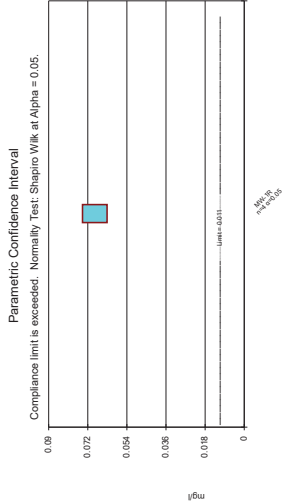
Constituent: Cobalt Analysis Run 12/7/2017 12:13 PM
Client: SCS Engineers Data: NABORS_DATABASE_SantitasMatrix



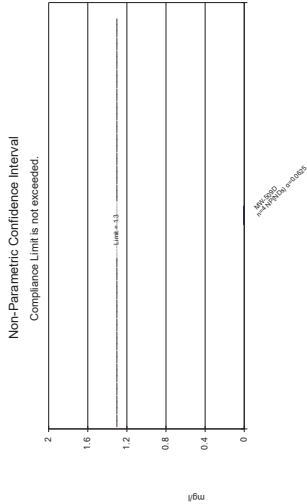
Constituent: Cobalt Analysis Run 12/7/2017 1:15 PM
Client: SCS Engineers Data: NABORS_DATABASE_SantitasMatrix



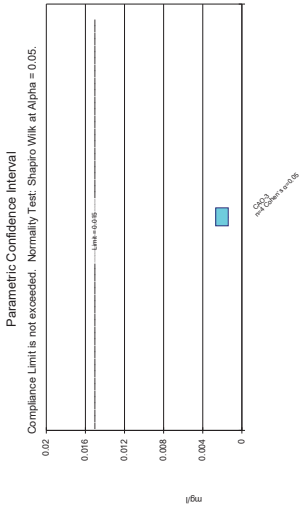
Constituent: cis-1,2-Dichloroethene Analysis Run 12/7/2017 11:20 AM
Client: SCS Engineers Data: NABORS_DATABASE_SantitasMatrix



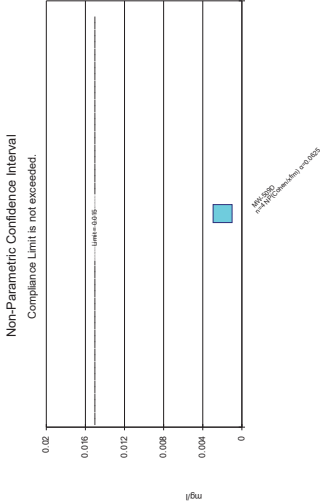
Constituent: Cobalt Analysis Run 12/7/2017 11:20 AM
Client: SCS Engineers Data: NABORS_DATABASE_SantitasMatrix



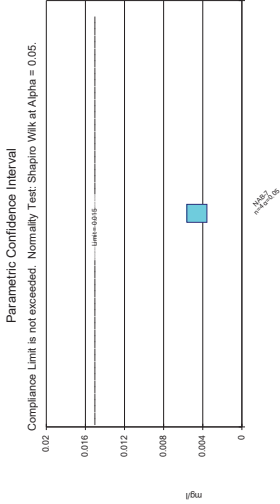
Constituent: Copper Analysis Run 12/7/2017 11:20 AM
Client: SCS Engineers Data: NABORS_DATABASE_SantitasMatrix



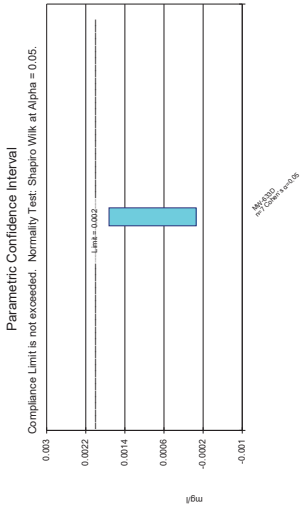
Constituent: Lead Analysis Run 12/7/2017 11:21 AM
Client: SCS Engineers Data: NABORS_DATABASE_SantitasMatrix



Constituent: Lead Analysis Run 12/7/2017 11:21 AM
Client: SCS Engineers Data: NABORS_DATABASE_SantitasMatrix



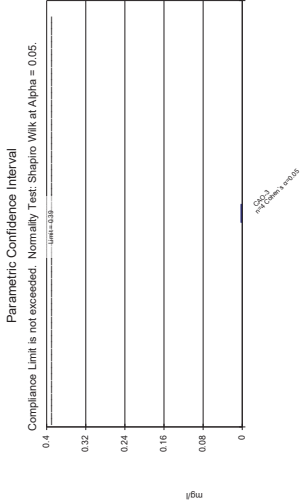
Constituent: Lead Analysis Run 12/7/2017 11:21 AM
Client: SCS Engineers Data: NABORS_DATABASE_SantitasMatrix



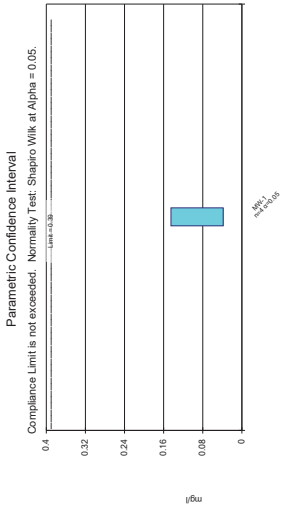
Constituent: Mercury Analysis Run 12/7/2017 1:25 PM
Client: SCS Engineers Data: NABORS_DATABASE_SantitasMatrix



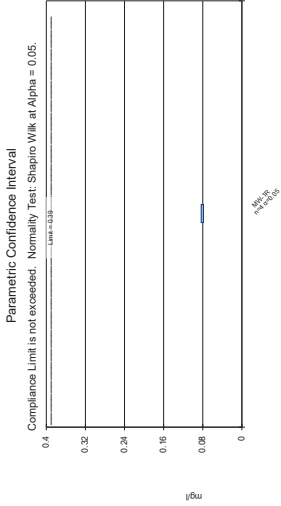
Constituent: Nickel Analysis Run 12/7/2017 11:21 AM
Client: SCS Engineers Data: NABORS_DATABASE_SantitasMatrix



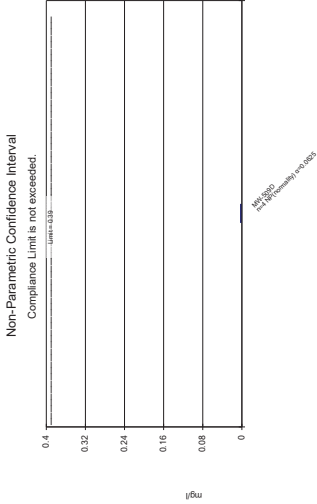
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Client: SCS Engineers Data: NABORS_DATABASE_SantitasMatrix



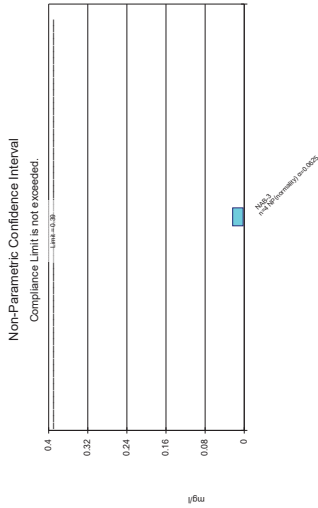
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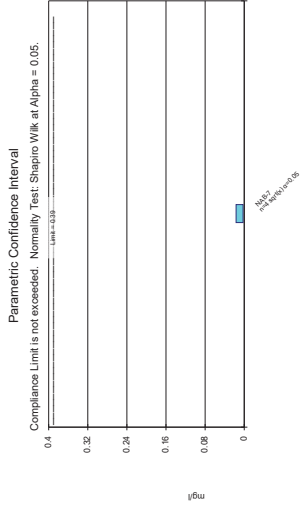
Constituent: Nickel Analysis Run 12/7/2017 11:21 AM
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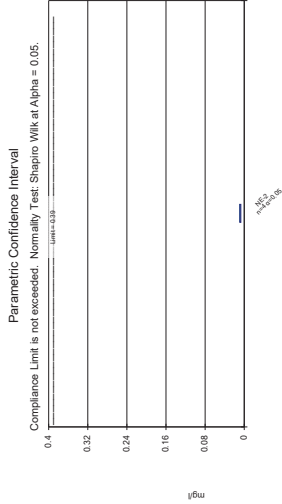
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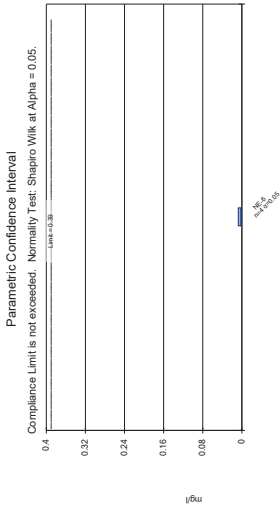
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Client: SCS Engineers Data: NABORS_DATABASE_SantitasMatrix



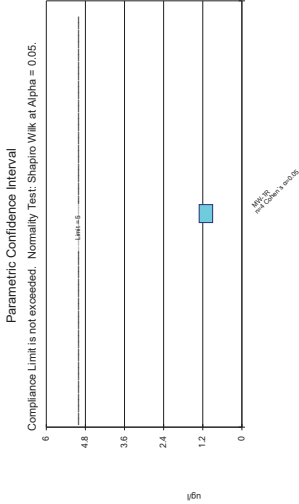
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Client: SCS Engineers Data: NABORS_DATABASE_SantitasMatrix



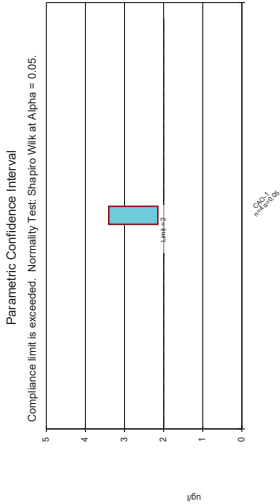
Constituent: Nickel Analysis Run 12/7/2017 11:21 AM
Client: SCS Engineers Data: NABORS_DATABASE_SantitasMatrix



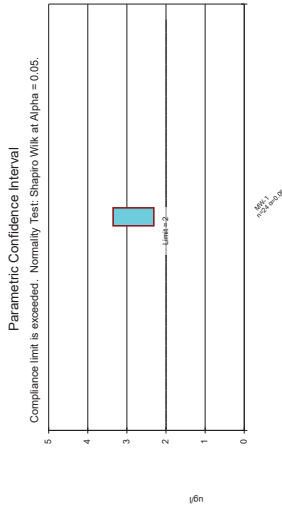
Constituent: Nickel Analysis Run 12/7/2017 11:21 AM
Client: SCS Engineers Data: NABORS_DATABASE_SantitasMatrix



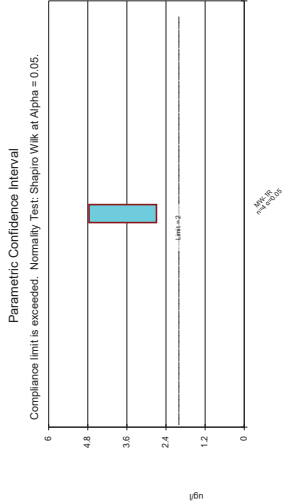
Constituent: Trichloroethene Analysis Run 12/7/2017 11:21 AM
Client: SCS Engineers Data: NABORS_DATABASE_SantitasMatrix



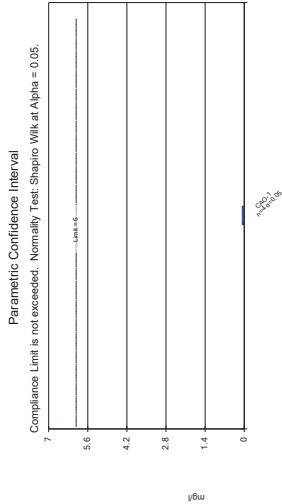
Constituent: Vinyl chloride Analysis Run 12/7/2017 11:22 AM
Client: SCS Engineers Data: NABORS_DATABASE_SantitasMatrix



Constituent: Vinyl chloride Analysis Run 12/7/2017 1:29 PM
Client: SCS Engineers Data: NABORS_DATABASE_SantitasMatrix

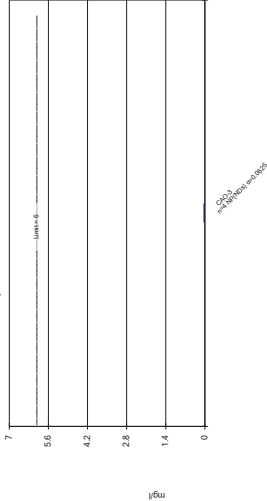


Constituent: Vinyl chloride Analysis Run 12/7/2017 11:22 AM
Client: SCS Engineers Data: NABORS_DATABASE_SantitasMatrix



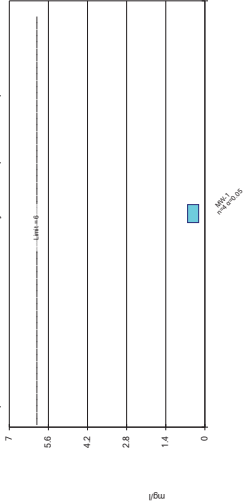
Constituent: Zinc Analysis Run 12/7/2017 11:22 AM
Client: SCS Engineers Data: NABORS_DATABASE_SantitasMatrix

Non-Parametric Confidence Interval
Compliance Limit is not exceeded.



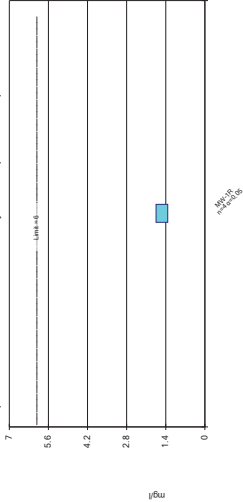
Constituent: Zinc Analysis Run 12/7/2017 11:22 AM
Client: SCS Engineers Data: NABORS_DATABASE_SantitasMatrix

Parametric Confidence Interval
Compliance Limit is not exceeded. Normality Test: Shapiro Wilk at Alpha = 0.05.



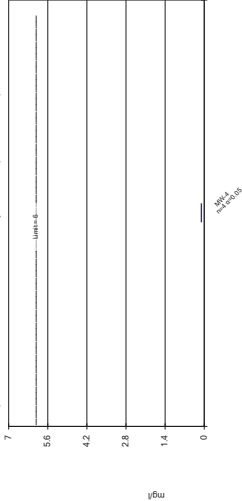
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Parametric Confidence Interval
Compliance Limit is not exceeded. Normality Test: Shapiro Wilk at Alpha = 0.05.



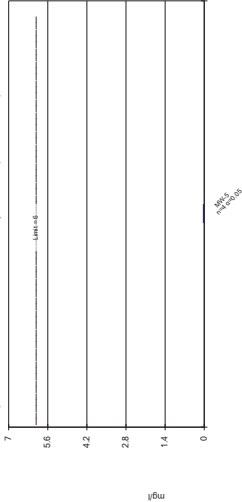
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Parametric Confidence Interval
Compliance Limit is not exceeded. Normality Test: Shapiro Wilk at Alpha = 0.05.



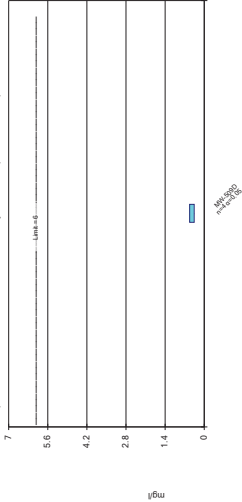
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Parametric Confidence Interval
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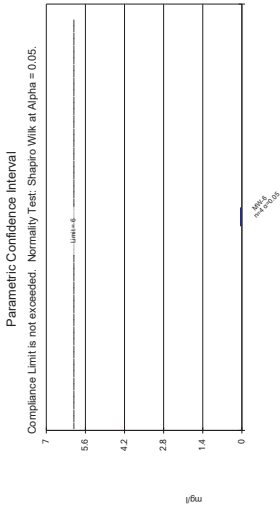


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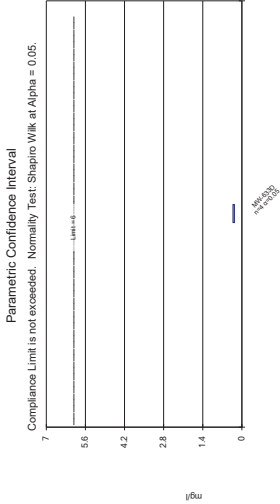
Parametric Confidence Interval
Compliance Limit is not exceeded. Normality Test: Shapiro Wilk at Alpha = 0.05.



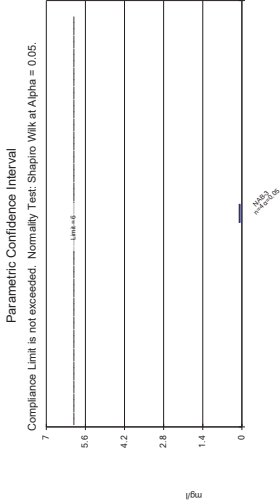
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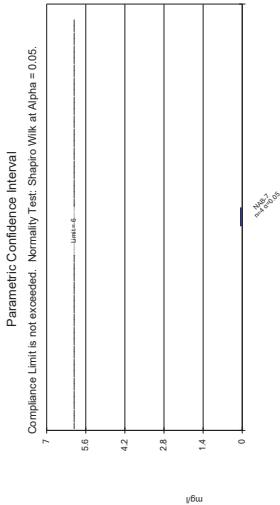
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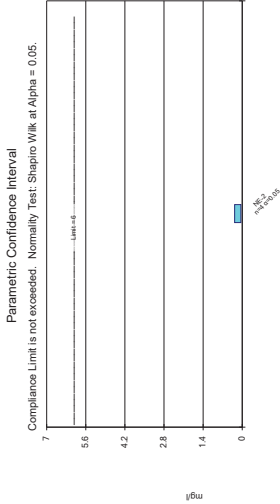
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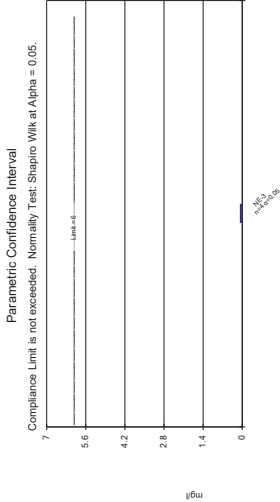
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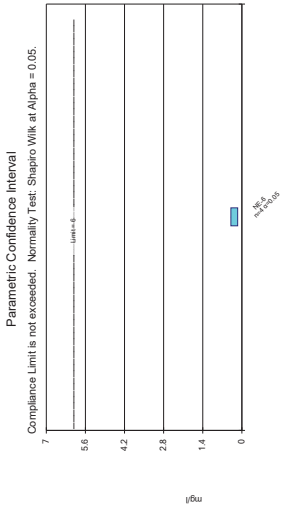
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Constituent: Zinc Analysis Run 12/7/2017 11:22 AM
Client: SCS Engineers Data: NABORS_DATABASE_SantitasMatrix



Constituent: Zinc Analysis Run 12/7/2017 11:22 AM
Client: SCS Engineers Data: NABORS_DATABASE_SantitasMatrix



NABORS Constituent: Zinc Analysis Run 12/7/2017 11:22 AM
Client: SCS Engineers Data: NABORS_DATABASE_SanitasMatrix

SCS ENGINEERS

January 12, 2018
File No. 272114218

Mr. Bill Sadler, P.G.
Solid Waste Division
Arkansas Department of Environmental Quality
5301 Northshore Drive
North Little Rock, AR 72118-5317

**Subject: Fourth Quarter 2017 Explosive Gas Monitoring
NABORS - Class I Landfill
AFIN: 03-0051 Permit No. 0249-S1-R2, 0249-S4**

Dear Mr. Sadler:

Stearns, Conrad, and Schmidt, Consulting Engineers, Inc. (dba SCS Engineers) is pleased to present you with the results of the Fourth Quarter 2017 Explosive Gas Monitoring at the NABORS – Class I Landfill (Landfill). The Fourth Quarter Explosive Gas Monitoring Event was conducted on December 27, 2017 and consisted of monitoring the site perimeter Explosive Gas Monitoring probes GP-1 through GP-18, GP-14R, GP-16R and GP-18R. In addition to these perimeter probes, the landfill office and scale house were monitored for Explosive Gas.

Probe readings indicated methane was above 100% LEL at two (2) interior gas probes (GP-16 and GP-18) which are not point of compliance probes but were monitored for informational purposes.

The next required Quarterly Explosive Gas monitoring event for the Landfill is scheduled for March 2018. Please contact us if we can be of further service or if you have any questions concerning this report.

Sincerely,



Kiefer Vaughn
Project Geologist
SCS ENGINEERS



Dan McCullough, PG
Project Director
SCS ENGINEERS

Attachments: *Third Quarter Gas Monitoring Form
Explosive Gas Probe Location Map*



NABORS Landfill

QUARTERLY GAS MONITORING FORM

EVENT: 4th Quarter 2017 **DATE:** 12/27/2017
WEATHER CONDITIONS: Cloudy, 10 mph Wind **TEMP:** 35° F
PRESSURE 29.37

SAMPLE POINT	TIME	% CH4	METHANE (%LEL)	% O2
GP-1	1230	0.0	0	15.3
GP-2	1245	0.0	0	20.1
GP-3	1253	0.0	0	21.1
GP-4	1300	0.0	0	17.3
GP-5	1305	1.0	20	0.0
GP-6	1310	0.0	0	19.4
GP-7	1320	0.0	0	18.9
GP-8	1325	0.0	0	13.1
GP-9	1330	0.0	0	15.6
GP-10	1334	0.0	0	12.1
GP-11	1339	0.0	0	16.5
GP-12	1344	0.0	0	13.2
GP-13	1348	0.0	0	18.4
GP-14	1353	0.0	0	14.6
GP-15	1400	0.0	0	15.3
GP-16	1405	6.48	>100	0.0
GP-17	1412	0.0	0	13.3
GP-18	1408	10.8	>100	7.9
GP-14R	1420	0.0	0	14.8
GP-16R	1425	0.0	0	19.6
GP-18R	1430	0.0	0	11.4
Scale House	1445	0.0	0	21.1
Office	1450	0.0	0	21.0
Office 2 nd Room	1500	0.0	0	21.1
Office Closet	1515	0.0	0	21.1
GP-16 (2 nd)	1540	62.7	>100	0.0
GP-18 (2 nd)	1545	11.4	>100	6.6

Notes: