



Prepared for
Crisp County Power Commission
202 S. 7th Street
Cordele, Georgia 31015

**2020 ANNUAL GROUNDWATER
MONITORING REPORT**

**CRISP COUNTY POWER COMMISSION
PLANT CRISP ASH POND
Warwick, Georgia**

Prepared by
Geosyntec 
consultants

engineers | scientists | innovators

1255 Roberts Boulevard, Suite 200
Kennesaw, Georgia 30144

January 2021

CERTIFICATION BY QUALIFIED PROFESSIONAL ENGINEER

I certify that this Annual Groundwater Monitoring Report was prepared by me or under my direct supervision and meets the requirements of Section 40 C.F.R. §257 of the Federal Hazardous and Solid Waste Management System; Disposal of Coal Combustion Residuals from Electric Utilities; Final Rule (40 C.F.R. §257) and the Georgia EPD Solid Waste Management Rule for Coal Combustion Residuals (391-3-4-.10). The Annual Groundwater Monitoring Report includes statistical methods and narrative description appropriate for evaluating the groundwater monitoring data for the CCR management area.

MEHMET ISCIMEN

Printed Name of Qualified Professional Engineer

34164

Registration No.

Georgia

Registration State



1/31/2021

Stamp/Signature/Date

CERTIFICATION BY QUALIFIED GROUNDWATER SCIENTIST

I certify that this Annual Groundwater Monitoring Report meets the requirements of Section 40 C.F.R. §257 of the Federal Hazardous and Solid Waste Management System; Disposal of Coal Combustion Residuals from Electric Utilities; Final Rule (40 C.F.R. §257) and the Georgia EPD Solid Waste Management Rule for Coal Combustion Residuals (391-3-4-.10). The Annual Groundwater Monitoring Report includes statistical methods and narrative description appropriate for evaluating the groundwater monitoring data for the CCR management area.

JIMMY WHITMER

Printed Name of Qualified Groundwater Scientist

PG001302
Registration No.

Georgia
Registration State



J Whitmer

1/31/2021
Stamp/Signature/Date

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LIST OF ACRONYMS

CCPC	Crisp County Power Commission
CCR	Coal Combustion Residuals
C.F.R.	Code of Federal Regulations
DO	Dissolved Oxygen
ft/day	Feet per Day
ft/ft	Feet per Foot
GA EPD	Georgia Environmental Protection Division
GWPS	Groundwater Protection Standard
K_h	Horizontal Hydraulic Conductivity
MCL	Maximum Contaminant Level
mg/L	Milligram per Liter
MW	Megawatt
NTU	Nephelometric Turbidity Units
ORP	Oxidation Reduction Potential
PE	Professional Engineer
QA/QC	Quality Assurance/Quality Control
RSL	Regional Screening Levels
SESD	Science and Ecosystem Support Division
SOP	Standard Operating Procedure
SSI	Statistically Significant Increase
SSL	Statistically Significant Level
s.u.	Standard Unit
USEPA	United States Environmental Protection Agency
UTL	Upper Tolerance Limit

EXECUTIVE SUMMARY

Crisp County Power Commission (CCPC) has been monitoring the groundwater quality at the Plant Crisp Ash Pond (ash pond) in accordance with the United States Environmental Protection Agency (USEPA) Coal Combustion Residuals (CCR) Rule [40 Code of Federal Regulations (C.F.R.) Part 257, Subpart D] and the Georgia Environmental Protection Division (GA EPD) Rule for CCR (391-3-4-.10). The following summarizes the timeline and status of the monitoring program and the relevant findings and conclusions derived for the current reporting period (January through December 2020).

- In compliance with 40 C.F.R. §257.94, a groundwater detection monitoring program was conducted between February and September 2017.
- In compliance with 40 C.F.R. §257.95(a), CCPC initiated an assessment monitoring program in March 2018. The ash pond has been monitored under the assessment monitoring program from March 2018 through the current reporting period.
- Pursuant to 40 C.F.R. §257.95, no Statistically Significant Levels above the Groundwater Protection Standards were identified during the reporting period.
- Pursuant to Rule 391-3-4-.10(6), no Statistically Significant Levels above the Groundwater Protection Standards were identified during the reporting period.
- Pursuant to 40 C.F.R. §257.95(d)(1) and GA EPD CCR Rule, assessment monitoring will continue at the ash pond.

1.0 INTRODUCTION

1.1 Overview

Geosyntec Consultants (Geosyntec) of Kennesaw, Georgia, at the request of Crisp County Power Commission (CCPC), prepared this 2020 Annual Groundwater Monitoring Report for the ash pond located at CCPC's Plant Crisp. Plant Crisp is located in Warwick, Georgia, on the southern end of Lake Blackshear (**Figure 1**). CCPC installed a groundwater monitoring well network in February 2017 in compliance with the requirements of the 40 Code of Federal Regulations (C.F.R.) §257.91 and Section 391-3-4-.10(6) of the Georgia Environmental Protection Division (GA EPD) Coal Combustion Residuals (CCR) Rule.

A groundwater detection monitoring program was conducted between February and September 2017 in compliance with the requirements of the 40 C.F.R. §257.94. The first Annual Groundwater Monitoring Report summarizing the results of detection groundwater monitoring activities was prepared in January 2018 [Geosyntec, 2018]. In compliance with 40 C.F.R. §257.95(a), CCPC initiated an assessment monitoring program for the ash pond in March 2018. The assessment monitoring continued in 2020 by performing semi-annual monitoring events in April 2020 and November 2020. The groundwater monitoring and statistical analysis were performed consistent with the Groundwater Monitoring and Statistical Analysis Plan prepared for the ash pond in October 2017 and revised in December 2019.

The April 2020 assessment monitoring event was performed for constituents listed in Appendix III to part §257 (referred herein as Appendix III constituents) and Appendix IV to part §257 (referred herein as Appendix IV constituents) (40 C.F.R. §257.95(b)). The November 2020 semi-annual assessment monitoring event was performed for all parameters in Appendix III to part §257 and for those constituents in Appendix IV that were detected during the April 2020 monitoring (40 C.F.R. §257.95(d)(1)). In compliance with GA EPD CCR Rule 391-3-4-.10(6)(c), a semi-annual groundwater monitoring report summarizing the April 2020 monitoring results was submitted to the GA EPD in July 2020 [Geosyntec, 2020a].

The purpose of this report is to present a summary of the April 2020 and November 2020 groundwater assessment monitoring activities and associated laboratory and statistical analysis results. The report has been prepared to meet the annual reporting requirements

of 40 C.F.R. §257.90(e) and semi-annual reporting requirements of GA EPD CCR Rule 391-3-4-.10(6)(c).

In summary, the April 2020 and November 2020 sampling events detected concentrations of 40 C.F.R. §257, Appendix IV constituents but all concentrations were below their respective USEPA's maximum contaminant levels (MCLs) for those parameters with an established MCL (Appendix I to 40 C.F.R. §257)¹ or below USEPA's health-based level as Groundwater Protection Standard (40 C.F.R. §257.95 (h)(2)) for those constituents without an established MCL.

1.2 Site History

Plant Crisp is a dual-fuel (coal and natural gas) electrical generation facility, with a 12.5-megawatt (MW) capacity coal-fired unit and 5 MW capacity natural gas combustion turbine. The byproducts of power generation from the combustion of coal (commonly referred to as CCR) at Plant Crisp included mainly fly ash and bottom ash. The CCR was disposed into a 6.5-acre ash pond located within the plant property using wet sluicing method. The ash pond was constructed in the mid-1970s, as an unlined pond [CDM Smith, 2014], and started to receive sluiced ash in 1976. The coal burning and resulting ash disposal was conducted until August 2015. The coal burn unit was briefly re-activated in December 2016 to eliminate an existing small coal supply. The last burning of coal took place on March 22, 2017. In October 2016, CCPC submitted notification of closure by removal in accordance with 40 C.F.R. §257. The original schedule for closure would have removed CCR by February 2018, however, Georgia Department of Natural Resources (DNR) CCR management regulations were issued in November 2016, DNR Rule 391-3-4-.07(5), after the initial closure plan. DNR Rule 391-3-4-.07(5) required GA EPD's approval of CCR management plans for the receiving landfill. GA EPD approved the CCR management plan for the receiving landfill on March 28, 2019. On 19 November 2018, CCPC submitted a CCR permit application for the existing impoundment and closure of the ash pond by removal in accordance with 40 C.F.R. §257.102(c) and the GA EPD rule 391-3-4-.10 and other GA EPD regulations as applicable. GA EPD issued a permit on August 17, 2020.

The electrical generation facility, ash pond, and hydroelectric dam are located on approximately 100 acres of CCPC property near Lake Blackshear and the Flint River

¹ MCLs are the maximum contaminant levels for potable drinking water which are established setting a lifetime consumption risk or acute level and would be applied to municipal or other drinking water sources.

(**Figure 1**). The ash pond has embankments on the western and partially southern and northern sides. The maximum embankment height is on the west end and is approximately 22 feet [Rizzo Associates, 2015]. The ash pond was classified as a low hazard unit during the United States Environmental Protection Agency's (USEPA) coal combustion residuals impoundment assessment, dated February 2014 and conducted by CDM Smith [CDM Smith, 2014].

1.3 Geologic and Hydrogeologic Setting

CCPC is located in the Coastal Plain Physiographic Province of Georgia, which is generally characterized by gently rolling to nearly flat topography. The Coastal Plain Physiographic Province of Georgia is characterized by Late Cretaceous and Cenozoic sedimentary rocks and sediments. Based on the Geologic Map of Georgia [Georgia Department of Natural Resources, 1997], the Site is underlain by Quaternary-aged stream alluvium and undifferentiated terrace deposits underlain by residual soil derived by the weathering of Eocene-aged limestone. Beneath the residuum is Eocene-aged limestone (the Ocala Limestone) that dips gently to the southeast and generally thicken in that direction [Hicks et al, 1987]. The Ocala Limestone comprises part of the Upper Floridan aquifer, which is underlain by low permeability zones within the Lisbon Formation (argillaceous limestone). Subsurface investigations at the Site generally describe the surface geology as embankment fill, alluvium, residuum and limestone bedrock [ND&T, 1994, Rizzo, 2015, Geosyntec, 2019].

The uppermost aquifer at the Site is the unconfined groundwater aquifer that occurs in the alluvium and some upper portions of the residuum. The alluvial sediments consist of alternating layers of clay, silty sand, silty clayey sand, and some gravel (SM, SM-SC). While most of the of the residuum consists of clays and calcareous clay (marl) with limestone fragments, there may be sandy clay and gravelly clay lenses that could act along with the overlying alluvium as part of the uppermost aquifer. Based on field observations (increasing clay content with depth in the residuum and increasing blow counts with depth), the hydraulic conductivity of the residuum is expected to decline with depth. As such, the lower part of the residuum is likely a confining unit and represents the lower boundary of the uppermost aquifer. Recharge to the uppermost aquifer is from infiltration of precipitation. In March 2019, Geosyntec performed slug testing in four monitoring wells to estimate horizontal hydraulic conductivity (K_h) of the uppermost aquifer. Based on the slug testing results, the geometric mean of the K_h in the uppermost aquifer was estimated as 1.44×10^{-4} cm/sec (0.41 ft/day). This value is similar to the K_h estimated for the alluvium and residuum during previous investigations.

Under natural conditions, the water table surface is a subdued reflection of the topography, with groundwater generally flowing from southeast to northwest from the higher elevations to lower elevations toward the Flint River. The movement of groundwater in the uppermost aquifer can be characterized as porous media flow.

1.4 Groundwater Monitoring Well Network

In accordance with 40 C.F.R. §257.91, a groundwater monitoring system was installed that (1) consists of a sufficient number of wells; (2) is installed at appropriate locations and depths to yield groundwater samples from the uppermost aquifer; and (3) represents the groundwater quality both upgradient of the units (i.e., background conditions) and passing the waste boundary of the units. The number, spacing, and depths of the groundwater monitoring wells were selected based on the characterization of site-specific hydrogeologic conditions. The well network was certified by a professional engineer (PE) on June 14, 2017; the certification is maintained in the facility's Operating Record. Well construction diagrams of the monitoring wells were included in the January 2018 Annual Groundwater Monitoring Report [Geosyntec, 2018] as well as the Groundwater Monitoring and Statistical Analysis Plan [Geosyntec, 2020]. The certified groundwater monitoring well network includes one monitoring well (MW-U1) located upgradient of the ash pond, representing background groundwater conditions, and three monitoring wells (MW-D1, MW-D2, and MW-D3) located downgradient of the ash pond. The locations of the monitoring wells are shown on **Figure 1** and well construction details are provided in **Table 1**. The monitoring wells are screened in the uppermost aquifer underlying the ash pond, which occurs in the alluvium and some upper portions of the residuum.

CCPC does not currently plan to expand the certified monitoring well network. During the monitoring period: (i) all wells were functioning properly; (ii) there were no dry wells; and (iii) no additional well installation or abandonment was conducted. Inspection of certified well network by a qualified groundwater scientist will be performed by 2022 (i.e., within five years after installation).

2.0 GROUNDWATER SAMPLING AND LABORATORY ANALYSIS RESULTS

2.1 Groundwater Sampling and Laboratory Analysis

Groundwater assessment monitoring events were conducted on April 27, 2020 and November 19, 2020. The groundwater samples were collected in accordance with the USEPA Science and Ecosystem Support Division (SESD) Standard Operating Procedure (SOP No. SESDPROC-301-R4) [USEPA, Athens, Georgia, 2017]. Prior to sampling, depth to groundwater and total well depth were measured for each monitoring well using an electrical water level indicator. The water level indicator was cleaned between wells following the decontamination procedure listed under SESDPROC-205-R3 [USEPA, Athens, Georgia, 2015]. Depth to groundwater data and groundwater elevations from the April and November monitoring events are summarized in **Table 2**. The groundwater elevation data from April 27, 2020 and November 19, 2020 were used to prepare potentiometric surface maps, provided as **Figure 2** and **Figure 3**, respectively. Based on the potentiometric surface maps, groundwater flow direction is from southeast towards northwest with a hydraulic gradient of approximately 0.011 ft/ft (**Table 3**). The average horizontal groundwater flow velocity was calculated using Darcy's equation as approximately 7.9 ft/year (**Table 3**).

Groundwater sampling was performed using a low-flow sampling method. To assess that the samples collected were representative of the groundwater in the aquifer, field water quality parameters were measured during purging using a Horiba U-52 water quality meter. These parameters include temperature, pH, conductivity, oxidation-reduction potential (ORP), and dissolved oxygen (DO). Measurements were taken within an enclosed flow-through cell to minimize effects of contact with air. Turbidity was measured using Hach 2100P turbidity meter. Purging was considered complete when the following stabilization criteria were met for at least three consecutive measurements (as defined by USEPA SESD SOP No. SESDPROC-301-R4):

- pH \pm 0.1 Standard Units;
- Conductivity \pm 5%;
- dissolved oxygen \pm 0.2 milligrams per liter (mg/L) or \pm 10% change in saturation, whichever is greater;

- Turbidity measured less than 10 nephelometric turbidity units (NTU); and
- ORP \pm 20 mV.

Field groundwater sampling forms are provided in **Appendix A**.

The groundwater samples were collected in laboratory-provided containers. Following sampling, the bottles were sealed, labeled, packed in ice, and shipped under chain-of-custody protocol to Eurofins Test America Laboratories in Pensacola, FL, a certified laboratory pursuant to the Georgia State Program. The chain-of-custody procedures were conducted in accordance with SESDPROC-005-R2 [USEPA, Athens, Georgia 2013]. The April 2020 groundwater samples were analyzed for Appendix III constituents (i.e., boron, calcium, chloride, fluoride, sulfate, total dissolved solids) and Appendix IV constituents (antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, fluoride, lead, lithium, mercury, molybdenum, radium 226 and 228 combined, selenium, and thallium). The metal constituents were analyzed as total recoverable as the samples were not field-filtered. The November 2020 groundwater samples were analyzed for Appendix III constituents and Appendix IV constituents that were detected during the April 2020 monitoring event (i.e., arsenic, barium, cadmium, chromium, cobalt, fluoride, lithium, molybdenum, radium 226 and 228 combined, selenium, and thallium). Groundwater pH, also an Appendix III constituent, was measured in the field using a Horiba water quality meter.

Field duplicate samples (DUP-14 in April 2020 and DUP-15 in November 2020) were collected for quality assurance/quality control (QA/QC). DUP 14 was collected from MW-D1 whereas DUP-15 was collected from MW-D2. The duplicate samples were collected in laboratory-provided bottles and submitted under the same chain-of-custody as the primary samples for analysis of the same parameters by Test America laboratories.

2.2 April 2020 Groundwater Monitoring Results

Laboratory analytical results for Appendix III constituents from the April 2020 monitoring event are summarized in **Table 4**. Appendix III constituents were detected in the upgradient and downgradient monitoring well locations.

Laboratory analytical results for Appendix IV constituents are summarized in **Table 5**. Low levels of Appendix IV constituents (arsenic, barium, cadmium, cobalt, fluoride, lithium, molybdenum, radium 226 and 228 combined, selenium, and thallium) were detected in the downgradient monitoring wells. Similarly, low levels of arsenic, barium,

chromium, fluoride, and selenium were detected in the background/upgradient monitoring well MW-U1. **Table 5** shows that the detected concentrations of Appendix IV constituents are below their respective USEPA's maximum contaminant levels (MCLs) for those parameters with an established MCL (Appendix I to 40 C.F.R. §257) or below USEPA's health-based level as Groundwater Protection Standard (40 C.F.R. §257.95 (h)(2)) for those constituents without an established MCL. Low level Appendix IV constituents detected during the April 2020 monitoring event can be naturally occurring as some of these constituents were also detected at low concentrations in the background well. Laboratory reports for the April 2020 monitoring event are included in **Appendix B**.

2.3 November 2020 Groundwater Monitoring Results

Laboratory analytical results of Appendix III constituents from the November 2020 groundwater assessment monitoring event are summarized in **Table 6**. Appendix III constituents were detected in the downgradient and upgradient monitoring well locations.

Laboratory analytical results of Appendix IV constituents from the November 2020 groundwater assessment monitoring event are summarized in **Table 7**. Low levels of Appendix IV constituents (arsenic, barium, cobalt, fluoride, lithium, and radium 226 and 228 combined) were detected in the downgradient monitoring wells. Similarly, low levels of barium, chromium, fluoride, and radium 226 and 228 combined were detected in the background/upgradient monitoring well MW-U1. **Table 7** shows that the detected concentrations of Appendix IV constituents are below their respective USEPA's maximum contaminant levels (MCLs) for those parameters with an established MCL (Appendix I to 40 C.F.R. §257) or below USEPA's health-based level as Groundwater Protection Standard (40 C.F.R. §257.95 (h)(2)) for those constituents without an established MCL. Low level Appendix IV constituents detected during the November 2020 monitoring event can be naturally occurring as some of these constituents were also detected at low concentrations in the background well. The November 2020 laboratory reports are provided in **Appendix B**.

The April and November 2020 assessment monitoring results were statistically evaluated in accordance with 40 C.F.R. §257.93(g). The statistical analysis results are discussed in Section 3.

3.0 ASSESSMENT MONITORING STATISTICAL DATA ANALYSIS PROCEDURES

Statistical analysis of the groundwater data collected during the assessment monitoring event was performed in accordance with the methods listed in the Groundwater Monitoring and Statistical Analysis Plan [Geosyntec, 2020b]. The statistical methods meet the requirements of the methods specified in 40 C.F.R. §257.93(f) (1) through (5) and the performance standards specified in 40 C.F.R. §257.93(g). Statistical analysis was performed using Sanitas™ v.9.6.05 software for Appendix IV constituents.

The primary objectives of the statistical data analysis conducted during this reporting period are:

- (i) To calculate statistically derived background concentration for each Appendix IV constituent. The statistically derived background concentration is used as Groundwater Protection Standard (GWPS) when the statistically derived background concentration is higher than the MCL (if an MCL has been established under 40 C.F.R. §161.62 and 40 C.F.R. §141.66) or the standard listed under 40 C.F.R. §257.95 (h)(2) for those constituents without an established MCL.
- (ii) To construct a lower confidence interval for each constituent at each downgradient well and compare the lower confidence interval to an established GWPS and determine whether a statistically significant level (SSL) is present at any of the downgradient monitoring wells.

3.1 GWPS for Appendix IV Constituents

As a first step in developing the GWPS, groundwater data from the background well were screened for potential outlier (anomalous) data. In addition to visual inspection using time-series plots, statistical methods, such as the USEPA 1989 Outlier Screening method, were used to identify outliers in the groundwater data (when the data was normally distributed). Tukey's Outlier Screening method was used when background well data was not normally distributed. Although outliers were detected, they were not removed from the statistical analysis due to: (i) a large number of non-detects in the data set; and (ii) the USEPA Unified Guidance recommendation on screening data only if the source of the outlier is known. Data distribution was checked using Shapiro Wilk method at 99% confidence level. This method is appropriate for a sample size of less than 50. For

statistical data analysis, non-detect laboratory results were replaced with their reporting limit in accordance with the USEPA Unified Guidance recommendation [USEPA, 2009].

The USEPA Unified Guidance recommends utilizing upper tolerance limits (UTL) from the background well to establish background concentrations. In addition, the CCR Rule lists the UTL method, calculated using data from the background well, as one of the methods acceptable for CCR data analysis [40 C.F.R. §257.93(f)(3)]. As a result, the GWPSs for the site were developed utilizing the UTL method and generally consisted of the following procedures:

- Parametric tolerance limits (95% coverage and 95% confidence) were constructed when the background data followed a normal or transformed-normal distribution.
- Non-parametric tolerance limits were calculated for data sets with greater than 50% non-detect values, and for data sets which do not follow a normal or transformed-normal distribution.
- The UTL was calculated for each constituent using background well data collected during the eight detection monitoring events and the assessment monitoring events conducted to date. As described in 40 C.F.R. §257.95(h), the GWPS is:
 - (1) the maximum contaminant level (MCL) established under 40 C.F.R. §141.62 and §141.66.
 - (2) where an MCL has not been established:
 - (i) Cobalt 0.006 mg/L;
 - (ii) Lead 0.015 mg/L;
 - (iii) Lithium 0.040 mg/L; and
 - (iv) Molybdenum 0.100 mg/L.
 - (3) the UTL computed from background well data for constituents where the UTL is higher than the MCL or rule-specified GWPS.

- USEPA’s updated GWPS have not yet been incorporated under GA EPD’s CCR Rule². The GWPS based on the GA EPD CCR Rule is:
 - (1) the federally established MCL for Appendix IV constituents.
 - (2) where an MCL has not been established, the background concentration for Appendix IV constituents.
 - (3) background levels for constituents where the background level is higher than the MCL for Appendix IV constituents.

3.2 Evaluation of SSLs for Appendix IV Constituents

The USEPA Unified Guidance [USEPA, 2009] recommends utilizing the lower confidence interval from a downgradient well along with the double quantification rule to evaluate SSLs. A 99% lower confidence interval was constructed for each constituent at each downgradient well and the double quantification rule was used to evaluate SSLs. Under this rule, an SSL can be concluded if the lower confidence limit is higher than the GWPS.

² GA EPD has adopted Federal CCR Rule as provided in 80 Fed. Reg. 21468 (April 17, 2015); as amended at 80 Fed. Reg. 37988 (July 2, 2015) and 81 Fed. Reg. 51807 (August 5, 2016). Portions of these federal rules have since been repealed. See, e.g. 83 Fed. Reg. 36,435 (July 30, 2018).

4.0 STATISTICAL ANALYSIS RESULTS

The statistical analysis results are summarized in **Table 8**, which shows the (i) ratio of non-detects to total number of samples; (ii) basic statistics for each constituent in a monitoring well such as minimum and maximum; (iii) UTL of each constituent constructed based on the background well data; (iv) an MCL value for the constituent (if available) established under 40 C.F.R. §161.62 and 40 C.F.R. §141.66 or the standard listed under 40 C.F.R. §257.95(h)(2); and (v) the selected GWPS for each constituent.

Table 9 shows the lower confidence limit constructed for each constituent at each downgradient well and the results of comparison between the lower confidence limit and the selected GWPS to evaluate if there are any SSLs. Comparison of the lower confidence limit to the selected GWPS revealed no SSLs during the 2020 monitoring period. The Sanitas™ statistical calculations and time-series graphs for each constituent are provided in **Appendix C**.

5.0 FUTURE GROUNDWATER MONITORING PROGRAM

Data collected during the assessment monitoring events indicated that Appendix IV constituents detected in the downgradient monitoring wells were below their respective GWPS. Pursuant to the CCR Rule 40 C.F.R. §257.95(d)(1) and GA EPD's CCR Rules, groundwater samples will be collected semi-annually for Appendix III and Appendix IV constituents. The next annual groundwater monitoring report summarizing the 2021 groundwater monitoring results will be submitted by 31 January 2022. Pursuant to the Georgia rule 391-3-4-.10(6)(c), a semi-annual report that coincides with the semi-annual sampling event will be submitted to GA EPD by 31 July 2021.

6.0 REFERENCES

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TABLES

**Table 1. Monitoring Well Network Summary
Crisp County Power Commission
Plant Crisp Ash Pond**

Well ID	Hydraulic Location	Installation Date	Well Depth (ft, BTOC)	Easting	Northing	TOC Elevation (ft, MSL)	Screen Interval Elevation (ft, MSL)
MW-D1	Downgradient	2/22/2017	23.16	2365315.12	670708.47	241.77	218.85-228.85
MW-D2	Downgradient	2/21/2017	23.37	2365308.73	671291.61	232.66	209.64-219.64
MW-D3	Downgradient	2/22/2017	23.54	2365715.53	671291.07	233.78	210.52-220.52
MW-U1	Upgradient	2/23/2017	36.95	2366420.55	669996.79	249.52	212.78-222.78

Notes:

ft = feet

MSL = above mean sea level.

TOC = Top of casing

BTOC = Below top of casing

The easting, northing, and TOC elevations were obtained from a revised survey performed by J.B. Faircloth & Associates, P.C. on 26 November 2019

**Table 2. Groundwater Elevation Summary
Crisp County Power Commission
Plant Crisp Ash Pond**

Well ID	TOC Elevation (ft, MSL)	4/27/2020		11/19/2020	
		Depth to Groundwater (ft, BTOC)	Groundwater Elevation (ft, MSL)	Depth to Groundwater (ft, BTOC)	Groundwater Elevation (ft, MSL)
MW-D1	241.77	12.07	229.70	15.82	225.95
MW-D2	232.66	9.37	223.29	13.80	218.86
MW-D3	233.78	4.99	228.79	6.81	226.97
MW-U1	249.52	6.82	242.70	13.90	235.62
Lake Blackshear	--	--	236.99*	--	233.52*

Notes:

ft = feet

MSL = mean sea level.

TOC = Top of casing

BTOC = Below top of casing

*: Surface water elevation

**Table 3. Hydraulic Gradient and Groundwater Flow Velocity Calculations
Crisp County Power Commission
Plant Crisp Ash Pond**

Date	Hydraulic Gradient				Groundwater Flow Velocity		
	h ₁ (ft)	h ₂ (ft)	Δl (ft)	Δh/Δl (ft/ft)	K _h (ft/day)	η _e	V (ft/year) ¹
4/27/2020	242.70	223.29	1,710	0.011	0.41	0.20	8.5
11/19/2020	235.62	218.86	1,710	0.010	0.41	0.20	7.3
Average				0.011	0.41	0.20	7.9

Notes:

ft = feet

ft/day = feet per day

ft/ft = feet per foot

h₁ and h₂ = groundwater elevation for MW-U1 and MW-D2, respectively.

Δh/Δl = hydraulic gradient

K_h = hydraulic conductivity of 0.59 ft/day estimated using slug testing in monitoring wells.

Δl = distance between MW-U1 and MW-D2.

η_e = effective porosity (estimated based on fine-grained sand aquifer) (Kresic, 2007)

V = groundwater flow velocity

⁽¹⁾ Groundwater flow velocity equation: $V = [K * (\Delta h / \Delta l)] / \eta_e$

**Table 4. Appendix III Analytical Data Summary - Sampling Performed on April 27, 2020
Crisp County Power Commission
Plant Crisp Ash Pond**

Appendix III to 40 CFR Part 257 - Constituents for Detection Monitoring

Constituent	Unit	MCL ⁽¹⁾	MDL ⁽²⁾	Upgradient Well ID	Downgradient Well ID			
				MW-U1	MW-D1		MW-D2	MW-D3
					MW-D1	DUP-14		
Boron	mg/L	N/A	0.0036	<0.01 (0.0042 J)	0.13	0.14	0.13	0.23
Calcium	mg/L	N/A	0.03	31	20	20	120	100
Chloride	mg/L	N/A	1.4	2.4	2.5	2.2	5.1	5.1
Fluoride	mg/L	4	0.032	<0.1 (0.05 J)	<0.1 (0.04 J)	<0.1 (0.06 J)	<0.1 (0.05 J)	0.10
Sulfate	mg/L	N/A	1.4	<5 (2.6 J)	20	21	16	33
pH⁽³⁾	SU	N/A	--	6.05	6.08	6.08	4.80	6.93
Total Dissolved Solids	mg/L	N/A	5.0	120	110	68	370	360

Notes:

J - result is less than the reporting level but greater than or equal to the MDL and the reported concentration is an approximate value.

SU - standard unit.

N/A - not applicable because the constituent does not have an MCL.

-- There is no MDL for pH.

1. MCLs indicate USEPA maximum contaminant levels. MCLs are established under 40 CFR §141.62 and 40 CFR §141.66.
2. MDL indicates minimum detection limit, which is the minimum concentration of analyte that can be measured and reported.
3. The pH value was recorded at the time of sample collection in the field.

**Table 5. Appendix IV Analytical Data Summary - Sampling Performed on April 27, 2020
Crisp County Power Commission
Plant Crisp Ash Pond**

Appendix IV to 40 CFR Part 257 - Constituents for Assessment Monitoring

Constituent	Unit	MCL ⁽¹⁾	USEPA's Health-Based Level ⁽²⁾	MDL ⁽³⁾	Upgradient Well ID	Downgradient Well ID			
					MW-U1	MW-D1		MW-D2	MW-D3
						MW-D1	DUP-14		
Antimony	mg/L	0.006	N/A	0.0003	ND ^	ND ^	ND ^	ND ^	ND
Arsenic	mg/L	0.01	N/A	0.000078	<0.0025 (0.00015 JB)	ND ^	<0.00025 (0.00019 JB)	0.00027 B	0.001 B
Barium	mg/L	2	N/A	0.00014	0.0022	0.015	0.016	0.15	0.091
Beryllium	mg/L	0.004	N/A	0.000034	ND ^	ND	ND ^	ND ^	ND ^
Cadmium	mg/L	0.005	N/A	0.000056	ND	ND	ND ^	<0.0002 (0.000075 J^)	<0.0002 (0.000071 J)
Chromium	mg/L	0.1 ⁽⁴⁾	N/A	0.0002	0.0013	ND ^	ND ^	ND ^	ND ^
Cobalt	mg/L	N/A	0.006	0.00011	ND ^	ND ^	ND ^	0.001	<0.0005 (0.00035 J)
Fluoride	mg/L	4	N/A	0.032	<0.10 (0.05 J)	<0.10 (0.04 J)	<0.10 (0.06 J)	<0.10 (0.05 J)	0.10
Lead	mg/L	0.015 ⁽⁵⁾	N/A	0.000058	ND ^	ND ^	ND ^	ND ^	ND ^
Lithium	mg/L	N/A	0.04	0.00038	ND ^	ND ^	ND ^	ND	<0.0005 (0.00048 J)
Mercury	mg/L	0.002 ⁽⁶⁾	N/A	0.00007	ND	ND	ND	ND	ND
Molybdenum	mg/L	N/A	0.1	0.0009	ND ^	ND ^	ND ^	ND ^	<0.002 (0.0019 J)
Radium 226 and 228 Combined	pCi/L	5	N/A	-- ⁽⁷⁾	0.298 U	0.401	0.274 U	0.184 U	0.326 U
Selenium	mg/L	0.05	N/A	0.00016	0.00061	ND	ND	ND	<0.00025 (0.00021 J)
Thallium	mg/L	0.002	N/A	0.000024	ND ^	ND ^	ND ^	0.00013	0.00012

Notes:

ND - the constituent was not detected above the analytical method detection limit (MDL).

B - compound was found in the blank and sample.

J - concentration is less than the reporting level but greater than or equal to the MDL and the reported concentration is an approximate value.

U - result is less than the sample detection limit.

^ - Instrument related QC is outside acceptance limits. The laboratory flagged several samples due to laboratory nonconformances. These nonconformances were evaluated by a qualified data validator and the laboratory flags were replaced with the appropriate validation qualifiers. A data validation report is provided at the end of laboratory report.

N/A - not applicable for the constituent.

1. MCLs indicate USEPA maximum contaminant levels. MCLs are established under 40 CFR §141.62 and 40 CFR§141.66.

2. USEPA's health-based level as Groundwater Protection Standard (40 CFR §257.95 (h)(2)).

3. MDL indicates minimum detection limit, which is the minimum concentration of analyte that can be measured and reported.

4. MCL value for total chromium.

5. Lead Treatment Technology Action Level is 0.015 mg/L.

6. Value for inorganic mercury.

7. During the analysis of radium, background concentrations are subtracted, thus each sample have a different Minimum Detectable Concentration (MDC). The MDCs were as follows: 0.368 pCi/L for MW-U1, 0.387 pCi/L for MW-D1, 0.336 pCi/L for MW-D2, 0.361 pCi/L for MW-D3, and 0.350 pCi/L for DUP-14.

Table 6. Appendix III Analytical Data Summary - Sampling Performed on November 19, 2020
Crisp County Power Commission
Plant Crisp Ash Pond

Appendix III to 40 CFR Part 257 - Constituents for Detection Monitoring

Constituent	Unit	MCL ⁽¹⁾	MDL ⁽²⁾	Upgradient Well ID		Downgradient Well ID		
				MW-U1	MW-D1	MW-D2		MW-D3
						MW-D2	DUP-15	
Boron	mg/L	N/A	0.018	ND	0.19	0.15	0.16	0.25
Calcium	mg/L	N/A	0.13	36	88	130	130	110
Chloride	mg/L	N/A	1.4	2.4	3.7	5.9	7.5	4.6
Fluoride	mg/L	4	0.032	<0.1 (0.070 J)	0.10	<0.1 (0.050 J)	<0.1 (0.060 J)	0.11
Sulfate	mg/L	N/A	1.4	<5 (2.3 J)	31	19	19	33
pH⁽³⁾	SU	N/A	--	7.47	6.99	6.28	6.28	6.83
Total Dissolved Solids	mg/L	N/A	5.0	130	270	410	380	410

Notes:

J - Result is less than the reporting level but greater than or equal to the MDL and the concentration is an approximate value.

SU - standard unit.

N/A indicates constituent does not have an MCL.

-- There is no MDL for pH.

1. MCLs indicate USEPA maximum contaminant levels. MCLs are established under 40 CFR §141.62 and 40 CFR§141.66.

2. MDL indicates minimum detection limit, which is the minimum concentration of analyte that can be measured and reported.

3. The pH value was recorded at the time of sample collection in the field.

**Table 7. Appendix IV Analytical Data Summary - Sampling Performed on November 19, 2020
Crisp County Power Commission
Plant Crisp Ash Pond**

Appendix IV to 40 CFR Part 257 - Constituents for Assessment Monitoring

Constituent	Unit	MCL ⁽¹⁾	USEPA's Health-Based Level ⁽²⁾	MDL ⁽³⁾	Upgradient Well ID		Downgradient Well ID		
					MW-U1	MW-D1	MW-D2		MW-D3
							MW-D2	DUP-15	
Arsenic	mg/L	0.01	N/A	0.00039	ND	ND	ND	ND	<0.0013 (0.0011 J)
Barium	mg/L	2	N/A	0.0007	0.0062	0.024	0.14	0.14	0.084
Cadmium	mg/L	0.005	N/A	0.00028	ND	ND	ND	ND	ND
Chromium	mg/L	0.1 ⁽⁴⁾	N/A	0.001	<0.0025 (0.0015 J)	ND ^	ND ^	ND ^	ND ^
Cobalt	mg/L	N/A	0.006	0.00056	ND	ND	ND	ND	<0.0025 (0.00059 J)
Fluoride	mg/L	4	N/A	0.032	<0.10 (0.070 J)	0.10	<0.10 (0.05 J)	<0.10 (0.060 J)	0.11
Lithium	mg/L	N/A	0.04	0.0019	ND	<0.0025 (0.0023 J)	0.0031	0.0029	<0.0025 (0.0024 J)
Molybdenum	mg/L	N/A	0.1		ND	ND ^	ND	ND	ND
Radium 226 and 288 Combined	pCi/L	5	N/A	-- ⁽⁵⁾	0.615	0.833	0.551 U	0.662	0.493U
Selenium	mg/L	0.05	N/A		ND	ND	ND	ND	ND
Thallium	mg/L	0.002	N/A	0.00012	ND	ND	ND	ND	ND

Notes:

ND - the substance was not detected above the analytical method detection limit.

J - result is less than the reporting level but greater than or equal to the MDL and the concentration is an approximate value.

U - result is less than the sample detection limit.

^ - Instrument related QC is outside acceptance limits. The laboratory flagged several samples due to laboratory nonconformances. These nonconformances were evaluated by a qualified data validator and the laboratory flags were replaced with the appropriate validation qualifiers. A data validation report is provided at the end of laboratory report.

N/A - not applicable for the constituent.

1. MCLs indicate USEPA maximum contaminant levels. MCLs are established under 40 CFR §141.62 and 40 CFR§141.66.
2. USEPA's health-based level as Groundwater Protection Standard (40 CFR §257.95 (h)(2)).
3. MDL indicates minimum detection limit, which is the minimum concentration of analyte that can be measured and reported.
4. MCL value for total chromium.
5. During the analysis of radium, background concentrations are subtracted, thus each sample have a different Minimum Detectable Concentration (MDC). The MDCs were as follows: 0.488 pCi/L for MW-U1, 0.517 pCi/L for MW-D1, 0.0.570 pCi/L for MW-D2, 0.641 pCi/L for MW-D3, and 0.533 pCi/L for DUP-15.

**Table 8. Summary of Basic Groundwater Statistics and GWPS for Appendix IV Constituents
Crisp County Power Commission
Plant Crisp Ash Pond**

Appendix IV to Part 257 - Constituents for Assessment Monitoring	Well ID	Number of Samples	Number of Non-detects	% Non-detects	Minimum	Maximum	Upper Tolerance Limit	Maximum Contaminant Level (MCL established under 40 CFR §161.62 and 40 CFR §141.66) or Groundwater Protection Standard (GWPS listed under 40 CFR §257.95(h)(2))	Selected Groundwater Protection Standard (GWPS) for the Site
Antimony [mg/L]	MW-U1	11	11	100%	<0.0005	<0.0025	0.0025	0.006	0.006
	MW-D1	11	11	100%	<0.0005	<0.0025			
	MW-D2	11	11	100%	<0.0005	<0.0025			
	MW-D3	11	11	100%	<0.0005	<0.0025			
Arsenic [mg/L]	MW-U1	15	13	87%	0.00015 (JB)	<0.0013	0.0013	0.01	0.01
	MW-D1	15	15	100%	<0.00025	<0.0013			
	MW-D2	15	11	73%	0.00027 (B)	<0.0013			
	MW-D3	15	2	13%	0.00048 (J)	0.0016			
Barium [mg/L]	MW-U1	15	0	0%	0.0018	0.0062	0.0062	2	2
	MW-D1	15	0	0%	0.0095	0.027			
	MW-D2	15	0	0%	0.087	0.190			
	MW-D3	15	0	0%	0.084	0.230			
Beryllium [mg/L]	MW-U1	11	11	100%	<0.0004	<0.0025	0.0025	0.004	0.004
	MW-D1	11	11	100%	<0.0004	<0.0025			
	MW-D2	11	11	100%	<0.0004	<0.0025			
	MW-D3	11	11	100%	<0.0004	<0.0025			
Cadmium [mg/L]	MW-U1	12	12	100%	<0.0002	<0.0025	0.002	0.005	0.005
	MW-D1	12	12	100%	<0.0002	<0.0025			
	MW-D2	12	11	92%	0.000075 (J)	<0.0025			
	MW-D3	12	11	92%	0.000071 (J)	<0.0025			
Chromium [mg/L]	MW-U1	13	0	0%	0.0011	0.0051	0.0051	0.1	0.1
	MW-D1	13	12	92%	<0.0005	0.0034			
	MW-D2	13	12	92%	<0.0005	0.0038			
	MW-D3	13	12	92%	<0.0005	0.0029			
Cobalt [mg/L]	MW-U1	15	15	100%	<0.0005	<0.0025	0.0025	0.006	0.0025*
	MW-D1	15	15	100%	<0.0005	<0.0025			
	MW-D2	15	13	87%	0.00047 (J)	<0.0025			
	MW-D3	15	0	0%	0.00035 (J)	0.0017 (J)			
Fluoride [mg/L]	MW-U1	15	1	7%	0.040	0.100	0.084	4	4
	MW-D1	15	0	0%	0.040	0.120			
	MW-D2	15	0	0%	0.040	0.070			
	MW-D3	15	0	0%	0.060	0.130			
Lead [mg/L]	MW-U1	11	10	91%	<0.00025	<0.0013	0.0013	0.015	0.0013*
	MW-D1	11	10	91%	<0.00025	<0.0013			
	MW-D2	11	9	82%	<0.00025	<0.0013			
	MW-D3	11	11	100%	<0.00025	<0.0013			
Lithium [mg/L]	MW-U1	13	12	92%	0.00034 (J)	<0.0025	0.0025	0.04	0.0025*
	MW-D1	13	12	92%	<0.0005	<0.005			
	MW-D2	13	11	85%	<0.0005	<0.005			
	MW-D3	13	10	77%	0.00048 (J)	<0.005			
Mercury [mg/L]	MW-U1	11	10	91%	0.000099 (JB)	<0.0002	0.0002	0.002	0.002
	MW-D1	11	10	91%	0.000077 (JB)	<0.0002			
	MW-D2	11	9	82%	0.00011 (JB)	<0.0002			
	MW-D3	11	10	91%	0.00011 (JB)	<0.0002			
Molybdenum [mg/L]	MW-U1	14	14	100%	<0.002	<0.01	0.01	0.10	0.01*
	MW-D1	14	14	100%	<0.002	<0.015			
	MW-D2	14	11	79%	0.0012 (J)	<0.015			
	MW-D3	14	3	21%	0.0017 (J)	<0.01			
Radium 226 and 228 228 Combined [pCi/L]	MW-U1	15	3	20%	0.000	0.614	0.784	5	5
	MW-D1	15	2	13%	0.099	0.816			
	MW-D2	15	4	27%	0.014	1.280			
	MW-D3	15	3	20%	0.050	1.280			
Selenium [mg/L]	MW-U1	13	6	46%	0.00039	<0.0013	0.0013	0.05	0.05
	MW-D1	13	12	92%	<0.00025	<0.0013			
	MW-D2	13	10	77%	<0.00025	<0.0013			
	MW-D3	13	9	69%	0.00021 (J)	0.0028			
Thallium [mg/L]	MW-U1	15	15	100%	<0.0001	<0.0005	0.0005	0.002	0.002
	MW-D1	15	15	100%	<0.0001	<0.0005			
	MW-D2	15	5	33%	0.000085 (J)	<0.0005			
	MW-D3	15	1	7%	0.000095 (J)	<0.0005			

Notes:

mg/L = milligrams per liter

pCi/L = picocuries per liter

ND = Not Detected

NA = Not Available

Highlighted cells show the background well (MW-U1).

J - Result is less than the reporting level but greater than or equal to the method detection limit (MDL) and the concentration is an approximate value.

B - Compound was found in the blank and sample.

*: The background level or UTL was selected as GWPS because USEPA's updated GWPS have not yet been incorporated under GA EPD Rule.

**Table 9. Evaluation of SSLs for Appendix IV Constituents
Crisp County Power Commission
Plant Crisp Ash Pond**

Appendix IV to Part 257 - Constituents for Assessment Monitoring	Well ID	Selected Groundwater Protection Standard (GWPS) for the Site (From Table 8)	Lower Confidence Limit if Detected During the 2020 Monitoring Period	Concentrations in Downgradient Well Show Statistically Significant Level (SSL) Above GWPS?
Antimony [mg/L]	MW-U1	0.006	Background Well	
	MW-D1		ND	No
	MW-D2		ND	No
	MW-D3		ND	No
Arsenic [mg/L]	MW-U1	0.01	Background Well	
	MW-D1		0.000125	No
	MW-D2		0.00048	No
	MW-D3		0.000614	No
Barium [mg/L]	MW-U1	2	Background Well	
	MW-D1		0.0099	No
	MW-D2		0.1221	No
	MW-D3		0.133	No
Beryllium [mg/L]	MW-U1	0.004	Background Well	
	MW-D1		ND	No
	MW-D2		ND	No
	MW-D3		ND	No
Cadmium [mg/L]	MW-U1	0.005	Background Well	
	MW-D1		0.0001	No
	MW-D2		0.000075	No
	MW-D3		0.000071	No
Chromium [mg/L]	MW-U1	0.1	Background Well	
	MW-D1		0.00025	No
	MW-D2		0.00025	No
	MW-D3		0.00025	No
Cobalt [mg/L]	MW-U1	0.0025	Background Well	
	MW-D1		0.00025	No
	MW-D2		0.001	No
	MW-D3		0.000907	No
Fluoride [mg/L]	MW-U1	4	Background Well	
	MW-D1		0.05733	No
	MW-D2		0.050	No
	MW-D3		0.1021	No
Lead [mg/L]	MW-U1	0.0013	Background Well	
	MW-D1		ND	No
	MW-D2		ND	No
	MW-D3		ND	No
Lithium [mg/L]	MW-U1	0.0025	Background Well	
	MW-D1		0.0003	No
	MW-D2		0.0011	No
	MW-D3		0.0005	No
Mercury [mg/L]	MW-U1	0.002	Background Well	
	MW-D1		ND	No
	MW-D2		ND	No
	MW-D3		ND	No
Molybdenum [mg/L]	MW-U1	0.01	Background Well	
	MW-D1		0.001	No
	MW-D2		0.0016	No
	MW-D3		0.0019	No
Radium 226 and 228 228 Combined [pCi/L]	MW-U1	5	Background Well	
	MW-D1		0.1897	No
	MW-D2		0.180	No
	MW-D3		0.2325	No
Selenium [mg/L]	MW-U1	0.05	Background Well	
	MW-D1		0.00033	No
	MW-D2		0.00033	No
	MW-D3		0.00021	No
Thallium [mg/L]	MW-U1	0.002	15	
	MW-D1		0.00005	No
	MW-D2		0.000085	No
	MW-D3		0.0001	No

Notes:

mg/L = milligrams per liter

pCi/L = picocuries per liter

ND = Not Detected

Highlighted cells show the background well (MW-U1).

FIGURES

\\n0-01\p1r\1\Crisp County\GIS\MXD\2020\GW Monitoring Well Location Map.mxd 12/16/2020 4:43:46 PM



Service Layer Credits: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community Aerial Photograph from June 2016.



Legend

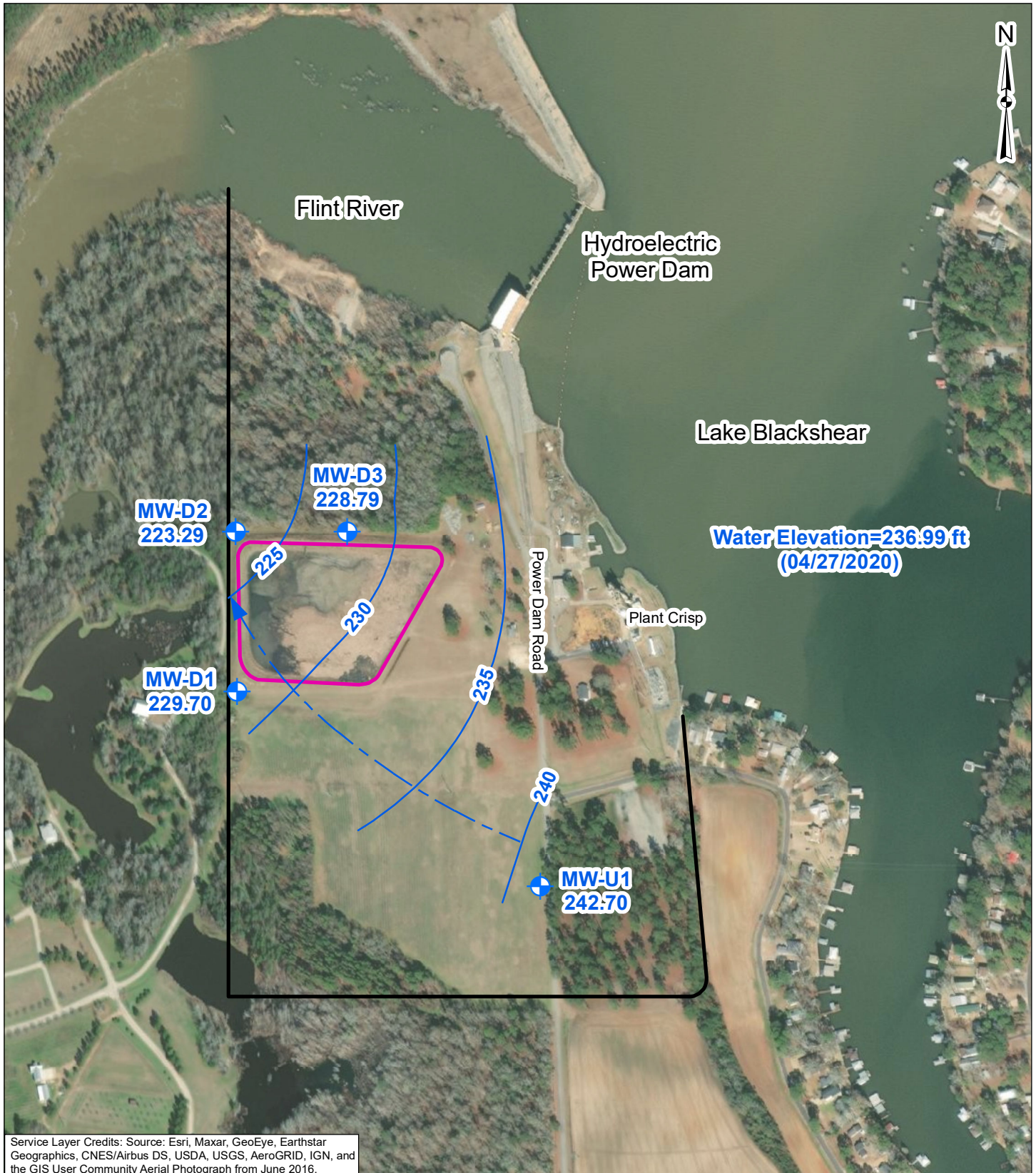
- Groundwater Monitoring Well
- Ash Pond Limits
- CCPC Property Boundary

0 250 500 1,000 Feet

Groundwater Monitoring Well Location Map
Crisp County Power Commission
Warwick, Georgia

	DATE:	JANUARY 2021
	PROJECT NO.	GW6152
	DOCUMENT NO.	GA 210xxx
	FILE NO.	GW MONITORING WELL LOCATION MAP.MXD
KENNESAW, GA	FIGURE NO.	1

\\a-no-01\p1\GIS\Crisp County\GIS\MXD\2020\April 2020 Potentiometric Surface Map.mxd 12/16/2020 4:50:39 PM



Service Layer Credits: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community Aerial Photograph from June 2016.



Legend

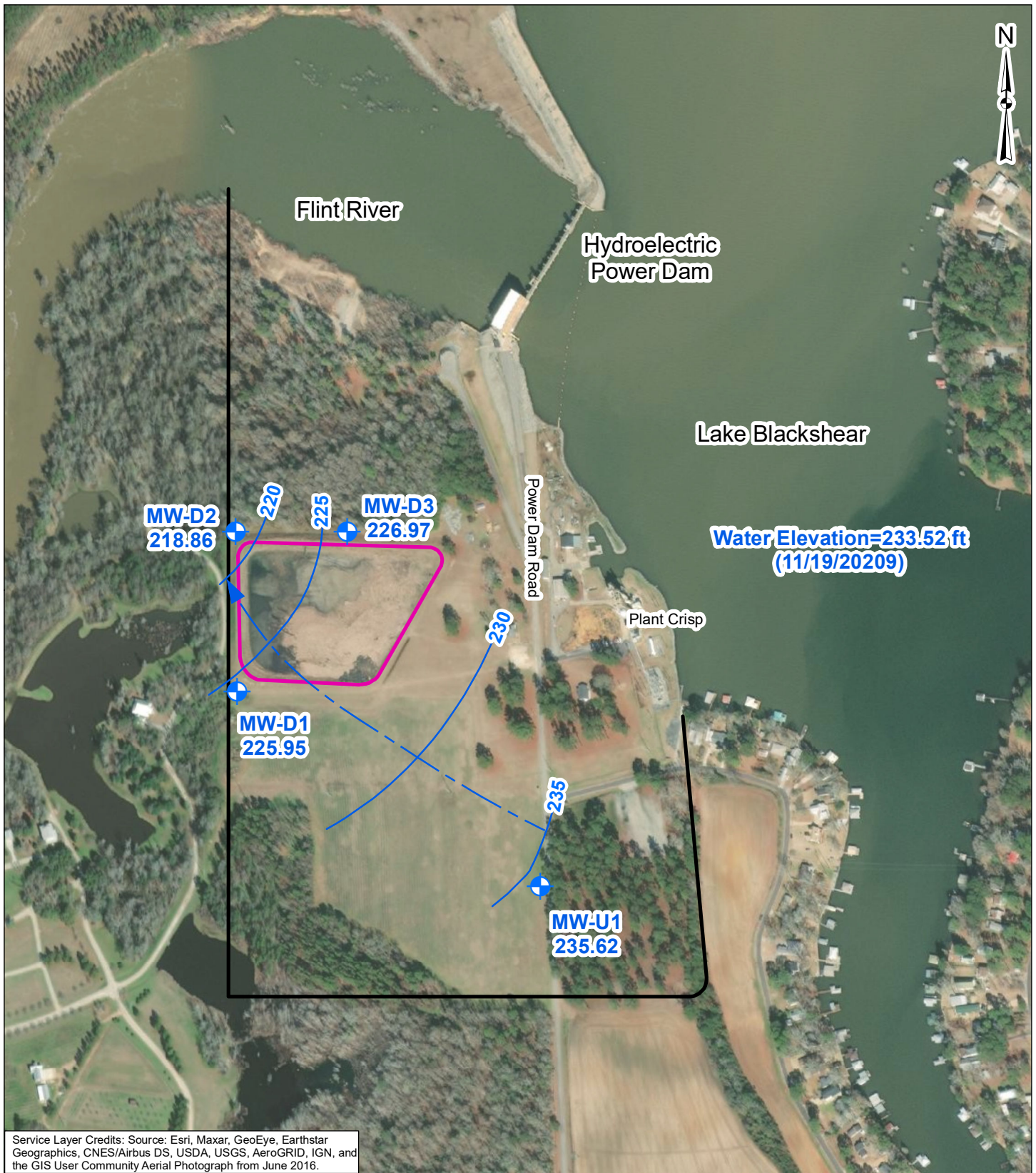
- Groundwater Monitoring Well
- Groundwater Flow Direction
- Groundwater Elevation Contour - 27 April 2020 (ft)
- Ash Pond Limits
- CCPC Property Boundary

0 250 500 1,000
Feet

Potentiometric Surface Map
27 April 2020
Crisp County Power Commission
Warwick, Georgia

	DATE:	JANUARY 2021
	PROJECT NO.	GW6152
	DOCUMENT NO.	GA 200289
	FILE NO.	APRIL 2020 POTENTIOMETRIC SURFACE MAP.MXD
KENNESAW, GA	FIGURE NO.	2

\\no-01\proj\GIS\MXD\2020\November 2020 Potentiometric Surface Map.mxd 12/16/2020 4:24:06 PM



Service Layer Credits: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community Aerial Photograph from June 2016.



Legend

- Groundwater Monitoring Well
- Groundwater Flow Direction
- Groundwater Elevation Contour - 19 November 2020
- Ash Pond Limits
- CCPC Property Boundary

0 250 500 1,000
Feet

Potentiometric Surface Map
19 November 2020
Crisp County Power Commission
Warwick, Georgia

	DATE:	JANUARY 2021
	PROJECT NO.	GW6152
	DOCUMENT NO.	GA 210xxxx
	FILE NO.	NOVEMBER 2020 POTENTIOMETRIC SURFACE MAP.MXD
KENNESAW, GA	FIGURE NO.	3

APPENDIX A

Field Groundwater Sampling Forms

April 2020

WATER LEVEL MEASUREMENTS

Site Name: CRISP Co POWER
 Location: WARNICK, GA
 Date: 4/27/2020

Sampling Personnel: S. RANDALL
 Field Conditions: SCATTERED CLOUDS
51°

Well ID	Time	TOC Elevation	Depth to Water (ft)	Well Depth (ft)	GW Elevation	Field Observations
MW-D3	0842		4.99	22.52		
MW-D2	0847		9.37	22.40		
MW-D1	0852		12.07	22.60		
MW-U1	0857		6.82	37.15		
END OF DAY WATER LEVELS						
MW-D3	1715		4.99	22.52		
MW-D2	1720		9.36	22.40		
MW-D1	1725		12.07	22.60		
MW-U1	1730		6.85	37.15		

0800 Dup-14-20200427

GROUNDWATER SAMPLING LOG

SITE NAME: CRISP COUNTY POWER COMMISSION	SITE LOCATION: 961 Power Dam Road, Warwick, GA 31796
WELL NO: MW-D1	SAMPLE ID: MW-D1-20200427
DATE: 4/27/2020	

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 0.25	WELL SCREEN INTERVAL DEPTH: 12 feet to 22 feet	STATIC DEPTH TO WATER (feet): 12.07	PURGE PUMP TYPE OR BAILER: PP
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable) = (22.6 feet - 12.07 feet) X 0.16 gallons/foot = 1.7 gallons				
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable) = _____ gallons + (_____ gallons/foot X _____ feet) + _____ gallons = _____ gallons				
INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 17'	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 17'	PURGING INITIATED AT: 13.05	PURGING ENDED AT: 14.00	TOTAL VOLUME PURGED (gallons): 2.7

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) μmhos/cm or μS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	ORP (mv)	COLOR (describe)
1305	0.00	0.00	0.066	12.2	5.66	22.03	130	9.26	5.0	195	CLEAR
1341	1.7	1.7	0.066	12.22	5.85	21.59	141	9.41	3.0	202	CLEAR
1346	0.33	2.03	0.066	12.22	5.94	21.69	141	8.41	2.0	198	CLEAR
1351	0.33	2.36	0.066	12.22	6.01	21.81	141	7.54	1.0	196	CLEAR
1354	0.33	2.69	0.066	12.22	6.09	21.83	140	7.45	1.0	194	CLEAR
1359	0.33	3.02	0.066	12.22	6.08	21.79	140	6.75	1.0	195	CLEAR

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
 TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016
 PURGING EQUIPMENT CODES: B = Bailor; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: STEPHEN W. RANDALL			SAMPLER(S) SIGNATURE(S): <i>Stephen W. Randall</i>			SAMPLING INITIATED AT: 14.05		SAMPLING ENDED AT: 14.11	
PUMP OR TUBING DEPTH IN WELL (feet): _____			TUBING MATERIAL CODE: LDPE			FIELD-FILTERED: Y <input checked="" type="checkbox"/> N <input type="checkbox"/>		FILTER SIZE: _____ μm	
FIELD DECONTAMINATION: PUMP Y <input checked="" type="checkbox"/> TUBING Y <input checked="" type="checkbox"/> (replaced)			DUPLICATE: Y <input checked="" type="checkbox"/> N <input type="checkbox"/>						

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
	1	HDPE	1.9L	HNO3	----		9315, 9320, Ra226, Ra228	APP	250
	1	HDPE	1.0L	NONE	----		SM4500, 2540C	APP	250
	1	HDPE	0.25L	HNO3	----		6020, 7470A	APP	250

FIELD SAMPLING CONDITIONS:
 1. Well Sign Present: Yes No
 2. Well Access: CLEAR
 3. Sampling & Purging Equipment Condition: EXCELLENT; RECALIBRATED HORIBA
 4. Site Condition that may Affect Sampling Present? Yes (describe below) No

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; HDPE = High Density Polyethylene; LDPE = Low Density Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After (Through) Peristaltic Pump; B = Bailor; BP = Bladder Pump; ESP = Electric Submersible Pump; RFP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SESDPROC-301-R4)
 pH: ± 0.1 units Specific Conductance: ± 5% Dissolved Oxygen: 0.2 mg/L or 10% change in saturation (whichever is greater) Turbidity: readings ≤ 10 NTU; ORP: ± 20 mV.

GROUNDWATER SAMPLING LOG

SITE NAME: CRISP COUNTY POWER COMMISSION	SITE LOCATION: 961 Power Dam Road, Warwick, GA 31796
WELL NO: MW-D2	SAMPLE ID: MW-D2-20200427
DATE: 4/27/2020	

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 0.25	WELL SCREEN INTERVAL DEPTH: 12 feet to 22 feet	STATIC DEPTH TO WATER (feet): 9.37	PURGE PUMP TYPE OR BAILER: PP
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable) = (22.40 feet - 9.37 feet) X 0.16 gallons/foot = 2.08 gallons				
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable) = _____ gallons + (_____ gallons/foot X _____ feet) + _____ gallons = _____ gallons				
INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 17'		FINAL PUMP OR TUBING DEPTH IN WELL (feet): 17'		PURGING INITIATED AT: 0935
				PURGING ENDED AT: 1027
TOTAL VOLUME PURGED (gallons): 3.6				

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) μmhos/cm or μS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	ORP (mv)	COLOR (describe)
0935	0.00	0.00	0.066	10.42	7.54	15.83	753	0.00	17	288	CLEAR
1001	2.0	2.0	0.066	11.83	4.55	17.94	723	0.11	10	212	CLEAR
1006	0.33	2.33	0.066	11.7	4.49	18.06	722	0.20	2	222	CLEAR
1011	0.33	2.66	0.066	11.74	4.64	18.19	718	0.22	2	213	CLEAR
1016	0.33	2.99	0.066	11.78	4.75	18.27	715	0.41	2	202	CLEAR
1021	0.33	3.32	0.066	11.81	4.77	18.34	713	0.54	2	197	CLEAR
1026	0.33	3.65	0.066	11.83	4.80	18.44	710	0.56	2	199	CLEAR

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
 TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

PURGING EQUIPMENT CODES: B = Bailor; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: STEPHEN W. RANDALL			SAMPLER(S) SIGNATURE(S): <i>Stephen W. Randall</i>			SAMPLING INITIATED AT: 1030		SAMPLING ENDED AT: 1044	
PUMP OR TUBING DEPTH IN WELL (feet): 17'			TUBING MATERIAL CODE: LDPE			FIELD-FILTERED: Y <input checked="" type="radio"/> N <input type="radio"/>		FILTER SIZE: _____ μm	
FIELD DECONTAMINATION: PUMP Y <input checked="" type="radio"/> N <input type="radio"/>			TUBING Y <input checked="" type="radio"/> N <input type="radio"/> (replaced)			DUPLICATE: Y <input checked="" type="radio"/> N <input type="radio"/>			

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
	1	HDPE	1.9L	HNO3	----		9315, 9320, Ra226, Ra228	APP	250
	1	HDPE	1.0L	NONE	----		SM4500, 2540C	APP	250
	1	HDPE	0.25L	HNO3	----		6020, 7470A	APP	250

FIELD SAMPLING CONDITIONS:

1. Well Sign Present: Yes No

2. Well Access: NO PROBLEMS NOTED

3. Sampling & Purging Equipment Condition: EXCELLENT

4. Site Condition that may Affect Sampling Present? Yes (describe below) No

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; HDPE = High Density Polyethylene; LDPE = Low Density Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After (Through) Peristaltic Pump; B = Bailor; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPF = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SESDPROC-301-R4)
 pH: ± 0.1 units Specific Conductance: ± 5% Dissolved Oxygen: 0.2 mg/L or 10% change in saturation (whichever is greater) Turbidity: readings ≤ 10 NTU; ORP: ± 20 mV.

GROUNDWATER SAMPLING LOG

SITE NAME: CRISP COUNTY POWER COMMISSION	SITE LOCATION: 961 Power Dam Road, Warwick, GA 31796
WELL NO: MW-D3	SAMPLE ID: MW-D3-20200427
DATE: 4/27/2020	

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 0.25	WELL SCREEN INTERVAL DEPTH: 12 feet to 22 feet	STATIC DEPTH TO WATER (feet): 4.99	PURGE PUMP TYPE OR BAILER: PP
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable) = (22.52 feet - 4.99 feet) X 0.16 gallons/foot = 2.8 gallons				
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable) = _____ gallons + (_____ gallons/foot X _____ feet) + _____ gallons = _____ gallons				
INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 17'	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 17'	PURGING INITIATED AT: 1059	PURGING ENDED AT: 1212	TOTAL VOLUME PURGED (gallons): 4.5

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) μmhos/cm or μS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	ORP (mv)	COLOR (describe)
1059	0.00	0.00	0.066	6.26	7.66	20.14	656	2.28	3.0	153	clear
1146	2.8	2.8	0.066	7.30	7.05	21.51	681	4.05	1.0	103	
1151	0.33	3.13	0.066	7.31	6.52	21.70	679	3.04	1.0	61	
1156	0.33	3.46	0.066	8.27	6.85	21.95	676	2.58	1.0	33	
1201	0.33	3.79	0.066	8.32	6.93	22.14	673	2.36	1.0	19	
1206	0.33	4.12	0.066	8.34	6.91	22.25	671	2.30	1.0	108	
1211	0.33	4.45	0.066	8.35	6.93	22.63	665	2.38	1.0	90	

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
 TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016
 PURGING EQUIPMENT CODES: B = Bailor; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: STEPHEN W. RANDALL	SAMPLER(S) SIGNATURE(S): <i>Stephen W. Randall</i>	SAMPLING INITIATED AT: 1215	SAMPLING ENDED AT: 1234
PUMP OR TUBING DEPTH IN WELL (feet): 17'	TUBING MATERIAL CODE: LDPE	FIELD-FILTERED: Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	FILTER SIZE: _____ μm
FIELD DECONTAMINATION: PUMP Y <input checked="" type="checkbox"/> TUBING Y <input checked="" type="checkbox"/> (replaced)	DUPLICATE: Y <input checked="" type="checkbox"/>		

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
	1	HDPE	1.9L	HNO3	----		9315, 9320, Ra226, Ra228	APP	250
	1	HDPE	1.0L	NONE	----		SM4500, 2540C	APP	250
	1	HDPE	0.25L	HNO3	----		6020, 7470A	APP	250

FIELD SAMPLING CONDITIONS:
 1. Well Sign Present: Yes No
 2. Well Access: **CLEAR**
 3. Sampling & Purging Equipment Condition: **EXCELLENT; PH LOOKS A LITTLE OFF.**
 4. Site Condition that may Affect Sampling Present? Yes (describe below) No

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; HDPE = High Density Polyethylene; LDPE = Low Density Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After (Through) Peristaltic Pump; B = Bailor; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SESDPROC-301-R4)

pH: ± 0.1 units Specific Conductance: ± 5% Dissolved Oxygen: 0.2 mg/L or 10% change in saturation (whichever is greater) Turbidity: readings ≤ 10 NTU; ORP: ± 20 mV.

GROUNDWATER SAMPLING LOG

SITE NAME: CRISP COUNTY POWER COMMISSION	SITE LOCATION: 961 Power Dam Road, Warwick, GA 31796
WELL NO: MW-41	SAMPLE ID: MW-41-20200427
DATE: 4/27/2020	

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 0.25	WELL SCREEN INTERVAL DEPTH: 27 feet to 37 feet	STATIC DEPTH TO WATER (feet): 6.82	PURGE PUMP TYPE OR BAILER: PP
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable) = (37.15 feet - 6.82 feet) X 0.16 gallons/foot = 4.9 gallons				
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable) = _____ gallons + (_____ gallons/foot X _____ feet) + _____ gallons = _____ gallons				
INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 32'	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 32'	PURGING INITIATED AT: 1457	PURGING ENDED AT: 1629	TOTAL VOLUME PURGED (gallons): 5.4

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) μmhos/cm or μS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	ORP (mv)	COLOR (describe)
1457 0439	0.00	0.00	0.066	7.27	2.67	26.90	148	4.83	12	391	CLEAR
1614	4.9	4.9	0.066	7.20	5.98	26.93	143	0.00	1	268	
1619	0.33	5.23	0.066	7.20	6.02	27.00	145	0.00	1	266	
1624	0.33	5.56	0.066	7.20	6.04	27.04	145	0.00	1	266	
1629	0.33	5.89	0.066	7.20	6.05	27.09	145	0.00	1	266	

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016
PURGING EQUIPMENT CODES: B = Bailor; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: STEPHEN W. RANDALL			SAMPLER(S) SIGNATURE(S): <i>Stephen W. Randall</i>			SAMPLING INITIATED AT: 1630		SAMPLING ENDED AT: 1700	
PUMP OR TUBING DEPTH IN WELL (feet): 32'			TUBING MATERIAL CODE: LDPE		FIELD-FILTERED: Y <input checked="" type="radio"/> N		FILTER SIZE: _____ μm		
FIELD DECONTAMINATION: PUMP Y <input checked="" type="radio"/> N			TUBING Y <input checked="" type="radio"/> N (replaced)			DUPLICATE: Y <input checked="" type="radio"/> N			

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
	1	HDPE	1.9L	HNO3	----		9315, 9320, Ra226, Ra228	APP	250
	1	HDPE	1.0L	NONE	----		SM4500, 2540C	APP	250
	1	HDPE	0.25L	HNO3	----		6020, 7470A	APP	250

FIELD SAMPLING CONDITIONS:

1. Well Sign Present: Yes No
2. Well Access: CLEAR
3. Sampling & Purging Equipment Condition: EXCELLENT
4. Site Condition that may Affect Sampling Present? Yes (describe below) No

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; HDPE = High Density Polyethylene; LDPE = Low Density Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After (Through) Peristaltic Pump; B = Bailor; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SESDPROC-301-R4)

pH: ± 0.1 units Specific Conductance: ± 5% Dissolved Oxygen: 0.2 mg/L or 10% change in saturation (whichever is greater) Turbidity: readings ≤ 10 NTU; ORP: ± 20 mV.

November 2020

DAILY FIELD REPORT

PROJECT: ~~Wansley AP-1~~ Crisp County Power Co.
LOCATION: ~~Carrollton, Georgia~~ Warwick, GA PROJECT NO.: ~~GW1327~~ GW6152 PHASE: 03
DESCRIPTION: Well sampling DATE: 19 day 11 month 2020 year
CONTRACTOR(S): Geo
WEATHER, TEMPERATURE: Sunny 65°

0850 ⇒ Connor Cain arrive on site
0855 ⇒ Take water levels at 4 wells, very little change from previous sampling
0947 Arrive at MW-U1 for sampling
0955 Chad on site
1140 MW-U1 Collection started
1207 MW-U1 Collection ended
1212 Arrive at MW-D3
1300 MW-D3 Purge taking longer than last time. DO not stabilizing
1345 Finish at MW-D3
1400 Arrive at MW-D2
1450 Sampling started, this well had about 1ft drawdown
DUP sample taken at MW-D2
1530 Arrive at MW-D1
1630 Sampling of MW-D1 started
1710 off site for day

Daily Health & Safety Report

Project: Crisp County Power Co.

Task: GW6152/03

Date: 11/19/2020

SPECIFIC WORK ACTIVITIES (planned and performed)	Chemical	Physical	Biological	Organics	Air Monit.	Not Req.	SPECIAL CONCERNS
<p>Mob to well sample well (4 wells)</p>	N/A	Yes N/A	N/A			X	<p>Slips, trips, falls wild life Weather</p> <p>If emergency call 911 and say you are at Crisp County Power Co.</p>
<p>TAILGATE TOPIC:</p>							
<p>ATTENDANCE:</p> <p>Connor Cain Chad Russo</p> <p style="text-align: right;">Geo Geo</p>							
<p>END OF DAY SUMMARY:</p>							

Signed: _____

Geosyntec Consultants: Water Level Measurements

Project.: Crisp County Power Company

Date: __/__/2020

Proj.No.: GW6152

Phase No.: 03

Name: C.CAIN

Well	Time	DTW	Well TD	Well	Time	DTW
MW-D3	0855	6.81	22.52			
MW-D2	0901	13.80	22.43			
MW-D1	0905	15.82	22.65			
MW-U1	0910	13.90	37.21			

GROUNDWATER SAMPLING LOG

SITE NAME: CRISP COUNTY POWER COMMISSION	SITE LOCATION: 961 Power Dam Road, Warwick, GA 31796
WELL NO: MW-D1	SAMPLE ID: MW-D1-20201119
DATE: 1/19/2020	

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 0.25	WELL SCREEN INTERVAL DEPTH: 12 feet to 22 feet	STATIC DEPTH TO WATER (feet): 15.82	PURGE PUMP TYPE OR BAILER: PP
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable) = (22 feet - 15.82 feet) X 0.16 0.99 gallons/foot = 1 gallons				
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable) = _____ gallons + (_____ gallons/foot X 15.45 feet) + _____ gallons = _____ gallons				
INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 22	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 22	PURGING INITIATED AT: 15:50	PURGING ENDED AT:	TOTAL VOLUME PURGED (gallons):

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) μmhos/cm or μS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	ORP (mv)	COLOR (describe)
1550	0.25	0.25	220	16.30	7.07	23.46	345	2.66	0.09	216	clear
1555	0.25	0.5	150	16.55	7.02	23.89	341	2.68	0	224	clear
1600	0.25	0.75	150	16.68	6.96	23.78	342	2.30	0	226	
1605	0.25	1	150	16.82	6.96	23.65	342	2	0	226	
1610	0.25	1.25	150	16.97	6.95	23.83	340	1.86	0	227	
1615	0.25	1.5	150	17.02	6.95	23.59	340	1.59	0	227	
1620	0.25	1.75	150	17.11	6.99	23.47	339	1.42	0	226	
1625	0.75	2.5	150	17.21	6.99	23.12	340	1.51	0	225	

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016
PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Canner Cain			SAMPLER(S) SIGNATURE(S): <i>[Signature]</i>			SAMPLING INITIATED AT: 16:20	SAMPLING ENDED AT: 16:45		
PUMP OR TUBING DEPTH IN WELL (feet):			TUBING MATERIAL CODE:		FIELD-FILTERED: Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	FILTER SIZE: _____ μm			
FIELD DECONTAMINATION: PUMP Y <input type="checkbox"/> N <input type="checkbox"/>			TUBING Y <input type="checkbox"/> N (replaced) <input type="checkbox"/>			DUPLICATE: Y <input type="checkbox"/> N <input type="checkbox"/>			
SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			

FIELD SAMPLING CONDITIONS:

- Well Sign Present: _____ Yes _____ No
- Well Access: _____
- Sampling & Purging Equipment Condition: _____
- Site Condition that may Affect Sampling Present? _____ Yes (describe below) _____ No

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; HDPE = High Density Polyethylene; LDPE = Low Density Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After (Through) Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SESDPROC-301-R4)
 pH: ± 0.1 units **Specific Conductance:** ± 5% **Dissolved Oxygen:** 0.2 mg/L or 10% change in saturation (whichever is greater) **Turbidity:** readings ≤ 10 NTU; **ORP:** ± 20 mV.

GROUNDWATER SAMPLING LOG

SITE NAME: CRISP COUNTY POWER COMMISSION	SITE LOCATION: 961 Power Dam Road, Warwick, GA 31796
WELL NO: MW-D3	SAMPLE ID: MW-D3-20201119
DATE: 11/19/2020	

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 0.25	WELL SCREEN INTERVAL DEPTH: 12 feet to 22 feet	STATIC DEPTH TO WATER (feet): 6.78	PURGE PUMP TYPE OR BAILER: PP
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable) = (22 feet - 6.78 feet) X 0.16 2.44 gallons/foot = 2.5 gallons				
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable) = _____ gallons + (_____ gallons/foot X _____ feet) + _____ gallons = _____ gallons				
INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 22		FINAL PUMP OR TUBING DEPTH IN WELL (feet): 22		PURGING INITIATED AT: 1225
				PURGING ENDED AT: _____
TOTAL VOLUME PURGED (gallons): _____				

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) $\mu\text{mhos/cm}$ or $\mu\text{S/cm}$	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	ORP (mv)	COLOR (describe)
1236	0.5	0.5	240	8.65	5.82	23.39	435	4.36	4.57	231	clear
1235	0.25	0.75	240	9.02	6.43	23.43	450	2.60	1.65	200	clear
1240	0.25	1	220	9.04	6.76	23.47	458	1.79	0.54	169	clear
1245	0.25	1.25	220	9.04	6.80	23.60	454	1.44	0.08	158	clear
1250	0.25	1.5	220	9.06	6.81	23.62	454	1.23	0.01	157	clear
1255	0.5	2	220	9.08	6.82	23.58	454	1.01	0.08	151	clear
1300	0.5	2.5	220	9.13	6.83	23.20	454	0.79	0	148	clear
1305	0.5	3	220	9.14	6.83	23.49	454	0.60	0	145	clear
1310	0.25	3.25	220	9.16	6.83	23.75	454	0.47	6	139	clear
1315	0.25	3.5	220	9.16	6.83	23.79	458	0.31	0	136	clear

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Carver Cain				SAMPLER(S) SIGNATURE(S):				SAMPLING INITIATED AT: _____		SAMPLING ENDED AT: _____			
PUMP OR TUBING DEPTH IN WELL (feet): _____				TUBING MATERIAL CODE: _____		FIELD-FILTERED: Y N Filtration Equipment Type: _____		FILTER SIZE: _____ μm					
FIELD DECONTAMINATION: PUMP Y N TUBING Y N (replaced)				DUPLICATE: Y N									
SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)				INTENDED ANALYSIS AND/OR METHOD		SAMPLING EQUIPMENT CODE		SAMPLE PUMP FLOW RATE (mL per minute)	
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH							

FIELD SAMPLING CONDITIONS:

- Well Sign Present: _____ Yes _____ No
- Well Access: _____
- Sampling & Purging Equipment Condition: _____
- Site Condition that may Affect Sampling Present? _____ Yes (describe below) _____ No

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; HDPE = High Density Polyethylene; LDPE = Low Density Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After (Through) Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SESDPROC-301-R4)
pH: ± 0.1 units **Specific Conductance:** $\pm 5\%$ **Dissolved Oxygen:** 0.2 mg/L or 10% change in saturation (whichever is greater) **Turbidity:** readings ≤ 10 NTU; **ORP:** ± 20 mV.

GROUNDWATER SAMPLING LOG

SITE NAME: CRISP COUNTY POWER COMMISSION	SITE LOCATION: 961 Power Dam Road, Warwick, GA 31796
WELL NO: MW-D3	DATE: _____

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 0.25	WELL SCREEN INTERVAL DEPTH: feet to feet	STATIC DEPTH TO WATER (feet):	PURGE PUMP TYPE OR BAILER: PP							
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable) = (feet - feet) X 0.16 gallons/foot = gallons											
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable) = gallons + (gallons/foot X feet) + gallons = gallons											
INITIAL PUMP OR TUBING DEPTH IN WELL (feet):		FINAL PUMP OR TUBING DEPTH IN WELL (feet):		PURGING INITIATED AT:	PURGING ENDED AT:	TOTAL VOLUME PURGED (gallons):					
TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	ORP (mv)	COLOR (describe)
1320	0.25	3.75	220	9.15	6.83	23.79	458	0.26	0	132	clear
1325	0.25	4	220	9.17	6.83	23.84	458	0.13	0	129	clear
WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88 TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016											
PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)											

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: <i>Connor Cain</i>			SAMPLER(S) SIGNATURE(S): <i>[Signature]</i>			SAMPLING INITIATED AT: 1330		SAMPLING ENDED AT: 1345			
PUMP OR TUBING DEPTH IN WELL (feet):			TUBING MATERIAL CODE:			FIELD-FILTERED: Y N Filtration Equipment Type:		FILTER SIZE: _____ µm			
FIELD DECONTAMINATION: PUMP Y N TUBING Y N (replaced)					DUPLICATE: Y N						
SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)				INTENDED ANALYSIS AND/OR METHOD		SAMPLIN G EQUIPME NT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH					
FIELD SAMPLING CONDITIONS:											
1. Well Sign Present: _____ Yes _____ No											
2. Well Access: _____											
3. Sampling & Purging Equipment Condition: _____											
4. Site Condition that may Affect Sampling Present? _____ Yes (describe below) _____ No											

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; HDPE = High Density Polyethylene; LDPE = Low Density Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)											
SAMPLING EQUIPMENT CODES: APP = After (Through) Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)											

NOTES: 1. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SESDPROC-301-R4)
 pH: ± 0.1 units **Specific Conductance:** ± 5% **Dissolved Oxygen:** 0.2 mg/L or 10% change in saturation (whichever is greater) **Turbidity:** readings ≤ 10 NTU; **ORP:** ± 20 mV.

GROUNDWATER SAMPLING LOG

SITE NAME: CRISP COUNTY POWER COMMISSION	SITE LOCATION: 961 Power Dam Road, Warwick, GA 31796
WELL NO: MW-VI	SAMPLE ID: MW-VI-2020 1119
DATE: 11/19/2020	

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 0.25	WELL SCREEN INTERVAL DEPTH: 27 feet to 37 feet	STATIC DEPTH TO WATER (feet): 13.92	PURGE PUMP TYPE OR BAILER: PP
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable) = (37.21 feet - 13.92 feet) X 0.16 gallons/foot = 4 gallons				
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable) = _____ gallons + (_____ gallons/foot X _____ feet) + _____ gallons = _____ gallons				
INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 32'	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 32'	PURGING INITIATED AT: 1036	PURGING ENDED AT: 11:36	TOTAL VOLUME PURGED (gallons): 5

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) μmhos/cm or μS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	ORP (mv)	COLOR (describe)
1050	1	1	250	14.51	7.29	26.77	219.6	5.82	14	219	clear
1055	0.25	1.25	250	14.53	7.4	21.65	0.14	5.75	13.3	228	clear
1100	0.25	1.5	250	14.54	7.47	21.19	0.139	6.576	12.8	226	clear
1105	0.5	2	250	14.55	7.51	21.29	0.139	5.67	11.6	228	clear
1110	0.5	2.5	250	14.56	7.39	21.47	0.138	5.45	13.16	229	clear
1115	0.25	2.75	250	14.56	7.21	21.53	0.138	5.37	10.97	220	clear
1120	0.25	3	250	14.57	7.26	21.60	0.138	5.45	9.63	232	clear
1125	0.25	3.25	250	14.58	7.42	21.49	0.137	5.46	7.18	234	clear
1130	0.25	3.5	250	14.58	7.44	21.65	0.138	5.51	5.92	239	clear
1135	0.25	3.75	250	14.58	7.47	21.67	0.138	5.37	25.08	239	clear

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
 TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016
 PURGING EQUIPMENT CODES: B = Bailor; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Canner Cain			SAMPLER(S) SIGNATURE(S):			SAMPLING INITIATED AT: 1140	SAMPLING ENDED AT: 1207						
PUMP OR TUBING DEPTH IN WELL (feet): _____			TUBING MATERIAL CODE: _____		FIELD-FILTERED: Y N	FILTER SIZE: _____ μm							
FIELD DECONTAMINATION: PUMP Y N TUBING Y N (replaced)			DUPLICATE: Y N										
SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)				INTENDED ANALYSIS AND/OR METHOD		SAMPLING EQUIPMENT CODE		SAMPLE PUMP FLOW RATE (mL per minute)	
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH							

FIELD SAMPLING CONDITIONS:

- Well Sign Present: _____ Yes _____ No
- Well Access: _____
- Sampling & Purging Equipment Condition: _____
- Site Condition that may Affect Sampling Present? _____ Yes (describe below) _____ No

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; HDPE = High Density Polyethylene; LDPE = Low Density Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After (Through) Peristaltic Pump; B = Bailor; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPF = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SESDPROC-301-R4)

pH: ± 0.1 units Specific Conductance: ± 5% Dissolved Oxygen: 0.2 mg/L or 10% change in saturation (whichever is greater) Turbidity: readings ≤ 10 NTU; ORP: ± 20 mV.

GROUNDWATER SAMPLING LOG

SITE NAME: CRISP COUNTY POWER COMMISSION	SITE LOCATION: 961 Power Dam Road, Warwick, GA 31796
WELL NO: MW-02	SAMPLE ID: MW-D2-2020119
DATE: 11/19/2020	

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 0.25	WELL SCREEN INTERVAL DEPTH: 12 feet to 22 feet	STATIC DEPTH TO WATER (feet): 13.77	PURGE PUMP TYPE OR BAILER: PP
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable) = (22 feet - 13.77 feet) X 0.16 gallons/foot = 1.32 gallons				
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable) = _____ gallons + (_____ gallons/foot X _____ feet) + _____ gallons = _____ gallons				
INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 22		FINAL PUMP OR TUBING DEPTH IN WELL (feet): 22		PURGING INITIATED AT: 1410
				PURGING ENDED AT: _____
TOTAL VOLUME PURGED (gallons): _____				

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) μmhos/cm or μS/cm	DISSOLVED OXYGEN (circle units) (mg/L) or % saturation	TURBIDITY (NTUs)	ORP (mv)	COLOR (describe)
1415	0.5	0.5	220	14.48	6.62	24.51	462	1.03	1.56	141	clear
1420	0.5	1	200	14.67	6.54	24.17	468	0.79	0.09	144	1
1425	0.5	1.5	200	14.78	6.37	24.14	471	0.57	0	140	1
1430	0.25	1.75	200	14.95	6.23	24.13	473	0.44	0	134	1
1435	0.25	2	180	15.10	6.31	24.06	473	0.34	8	122	1
1440	0.25	2.25	180	15.17	6.34	23.99	474	0.26	0	117	1
1445	0.25	2.5	180	15.22	6.28	23.99	474	0.20	2.25	108	1

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Connor Cain			SAMPLER(S) SIGNATURE(S):			SAMPLING INITIATED AT: 1450		SAMPLING ENDED AT: 1525		
PUMP OR TUBING DEPTH IN WELL (feet): _____			TUBING MATERIAL CODE: _____		FIELD-FILTERED: Y N		FILTER SIZE: _____ μm			
FIELD DECONTAMINATION: PUMP Y N			TUBING Y N (replaced)			DUPLICATE: Y N				
SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD		SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH				

FIELD SAMPLING CONDITIONS:

1. Well Sign Present: _____ Yes _____ No
2. Well Access: _____
3. Sampling & Purging Equipment Condition: _____
4. Site Condition that may Affect Sampling Present? _____ Yes (describe below) _____ No

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; HDPE = High Density Polyethylene; LDPE = Low Density Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After (Through) Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SESDPROC-301-R4)

pH: ± 0.1 units **Specific Conductance:** ± 5% **Dissolved Oxygen:** 0.2 mg/L or 10% change in saturation (whichever is greater) **Turbidity:** readings ≤ 10 NTU; **ORP:** ± 20 mV.

DUP-15-20201119

GROUNDWATER SAMPLING LOG

SITE NAME: CRISP COUNTY POWER COMMISSION	SITE LOCATION: 961 Power Dam Road, Warwick, GA 31796
WELL NO: MW-D2	SAMPLE ID: MW-D2-20201119 DATE: 11/19/2020

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 0.25	WELL SCREEN INTERVAL DEPTH: 12 feet to 22 feet	STATIC DEPTH TO WATER (feet): 13.77	PURGE PUMP TYPE OR BAILER: PP
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable) = (22 feet - 13.77 feet) X 0.16 1.32 gallons/foot = 1.5 gallons				
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable) = gallons + (gallons/foot X feet) + gallons = gallons				
INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 22	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 22	PURGING INITIATED AT: 1410	PURGING ENDED AT:	TOTAL VOLUME PURGED (gallons):

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) μmhos/cm or μS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	ORP (mv)	COLOR (describe)
1415	0.5	0.5	220	14.48	6.62	24.51	462	1.03	1.56	141	Clear
1420	0.5	1.0	200	14.67	6.54	24.17	468	0.79	0.09	144	
1425	0.5	1.5	200	14.78	6.37	24.14	471	0.57	0	140	
1430	0.25	1.75	200	14.95	6.23	24.13	473	0.44	0	134	
1435	0.25	2	180	15.10	6.31	24.06	473	0.34	0	122	
1440	0.25	2.25	180	15.17	6.34	23.99	474	0.26	0	117	
1445	0.25	2.5	180	15.22	6.28	23.94	474	0.20	2.25	108	

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Connor Cain		SAMPLER(S) SIGNATURE(S): <i>[Signature]</i>		SAMPLING INITIATED AT: 1450	SAMPLING ENDED AT: 1523
PUMP OR TUBING DEPTH IN WELL (feet):		TUBING MATERIAL CODE:	FIELD-FILTERED: Y N	FILTER SIZE: _____ μm	
FIELD DECONTAMINATION: PUMP Y N		TUBING Y N (replaced)	DUPLICATE: Y N		

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			

FIELD SAMPLING CONDITIONS:

- Well Sign Present: _____ Yes _____ No
- Well Access: _____
- Sampling & Purging Equipment Condition: _____
- Site Condition that may Affect Sampling Present? _____ Yes (describe below) _____ No

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; HDPE = High Density Polyethylene; LDPE = Low Density Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After (Through) Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SESDPROC-301-R4)
pH: ± 0.1 units Specific Conductance: ± 5% Dissolved Oxygen: 0.2 mg/L or 10% change in saturation (whichever is greater) Turbidity: readings ≤ 10 NTU; ORP: ± 20 mV.



INSTRUMENT CALIBRATION REPORT

Pine Environmental Services LLC

14141 Airline Highway Oak Alley Building 4 P&Q
Baton Rouge LA 70817
Toll Free: 800-242-3910

Pine Environmental Services, Inc.

Instrument ID 25336
Description Horiba U-52
Calibrated 11/17/2020 10:34:34AM

Group #	5	Range Acc %	0.0000
Group Name	Temperature DO Span	Reading Acc %	0.0000
Stated Accy	Plus / Minus	Plus/Minus	0.00
Nom In Val / In Val	In Type	Out Val	Out Type
23.00 / 23.00	degrees C	9.23	mg/L
		Fnd As	Lft As
		9.23	9.23
		Dev%	Pass/Fail
		0.00%	Pass

<u>Test Instruments Used During the Calibration</u>					<u>(As Of Cal Entry Date)</u>	
<u>Test Standard ID</u>	<u>Description</u>	<u>Manufacturer</u>	<u>Model Number</u>	<u>Serial Number / Lot Number</u>	<u>Last Cal Date / Opened Date</u>	<u>Next Cal Date / Expiration Date</u>
BAT .718 COND LOT 0GC234	BAT .718 COND LOT 0GC234	AquaPhoenix Scientific	.718uS/cm Conductivity std	0GC234		3/31/2021
BAT 1.413 COND	BAT COND 1.413	AquaPhoenix Scientific				10/20/2021
BAT COND 5K	BAT COND 5K	GFS		8GI669		12/12/2020
BAT COND 80K	BAT COND 80K	GFS		8GI671		12/12/2020
BAT ORP 240 HI7021 2062	BAT ORP 240mV HI7021 2062	Hanna	BAT ORP 240mV HI7021	2062		10/31/2022
BAT PH 4	BAT PH 4	GFS				7/31/2021
BAT PH 7	BAT PH 7	GFS				8/31/2021

Notes about this calibration

Calibration Result Calibration Successful
Who Calibrated Larry Harrison

All instruments are calibrated by Pine Environmental Services LLC according to the manufacturer's specifications, but it is the customer's responsibility to calibrate and maintain this unit in accordance with the manufacturer's specifications and/or the customer's own specific needs.

**Notify Pine Environmental Services LLC of any defect within 24 hours of receipt of equipment
Please call 800-301-9663 for Technical Assistance**



INSTRUMENT CALIBRATION REPORT

Pine Environmental Services LLC

1790 Corporate Drive
Suite 300
Norcross, GA 30093
Toll-free: (800) 842-1088

Pine Environmental Services, Inc.

Instrument ID 23455
Description LaMotte 2020WE
Calibrated 11/18/2020 8:28:22AM

Manufacturer LaMotte	State Certified
Model Number 2020WE	Status Pass
Serial Number/ Lot Number 3469-2313	Temp °C 21
Location Georgia	Humidity % 31
Department	

Calibration Specifications

Group # 1
Group Name Turbidity
Stated Accy Pct of Reading

Range Acc % 0.0000
Reading Acc % 3.0000
Plus/Minus 0.00

<u>Nom In Val / In Val</u>	<u>In Type</u>	<u>Out Val</u>	<u>Out Type</u>	<u>End As</u>	<u>Lft As</u>	<u>Dev%</u>	<u>Pass/Fail</u>
1.00 / 1.00	NTU	1.00	NTU	1.04	1.00	0.00%	Pass
10.00 / 10.00	NTU	10.00	NTU	9.88	10.00	0.00%	Pass

Test Instruments Used During the Calibration

(As Of Cal Entry Date)

<u>Test Standard ID</u>	<u>Description</u>	<u>Manufacturer</u>	<u>Model Number</u>	<u>Serial Number / Lot Number</u>	<u>Last Cal Date / Opened Date</u>	<u>Next Cal Date / Expiration Date</u>
GA 0 NTU	0.0 NTU	LaMotte		18324721		4/30/2021
GA 1 NTU	TURBIDITY STANDARD 1 NTU	LaMotte		18324886		2/28/2021
GA 10 NTU	10 NTU	LaMotte		C251211		3/31/2021

Notes about this calibration

Calibration Result Calibration Successful
Who Calibrated Adreana Smith

All instruments are calibrated by Pine Environmental Services LLC according to the manufacturer's specifications, but it is the customer's responsibility to calibrate and maintain this unit in accordance with the manufacturer's specifications and/or the customer's own specific needs.

Notify Pine Environmental Services LLC of any defect within 24 hours of receipt of equipment
Please call 800-301-9663 for Technical Assistance

Pensacola, FL 32514-7045
phone 850.474.1001 fax 850.474.4789

Regulatory Program: DW NPDES RCRA Other:

TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Client Contact		Project Manager: Whitmire, Cheyenne R		Site Contact: Connor Cain		Date: 11/20/2020		Carrier: FedEx		COC No: 1 of 1 COCs	
Email: Cheyenne.Whitmire@Eurofinsat.com		Tel/Fax:		Cheyenne W.		TALS Project #:		Sampler: Connor Cain		For Lab Use Only:	
1255 Roberts Blvd, NW Suite 200		Analysis Turnaround Time		Field Sampling - Field pH		2540C - Total Dissolved Solids		4500_F_C - Fluoride		Walk-in Client:	
Kennesaw GA, 30144		<input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS		6020, 7470A		2540C - Total Dissolved Solids		4500_F_C - Fluoride		Lab Sampling:	
678-202-9509 Phone		TAT # different from Below		6020, 7470A		2540C - Total Dissolved Solids		4500_F_C - Fluoride		Job / SDG No.:	
678-202-9501 FAX		<input type="checkbox"/> 1 week		2540C - Total Dissolved Solids		4500_F_C - Fluoride		4500_F_C - Fluoride		Sample Specific Notes:	
Project Name: Crisp County		<input type="checkbox"/> 2 weeks		2540C - Total Dissolved Solids		4500_F_C - Fluoride		4500_F_C - Fluoride			
Site: Crisp Co. Power		<input type="checkbox"/> 1 day		2540C - Total Dissolved Solids		4500_F_C - Fluoride		4500_F_C - Fluoride			
P O #				2540C - Total Dissolved Solids		4500_F_C - Fluoride		4500_F_C - Fluoride			
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	9315_Ra226, 9320_Ra228	SM4500_Cl_E, SM4500_H+, SM4500_SO4_E	
DUP-15-20201119		11/19/2020	N/A	G	Water	N	N	N	1	1	1
MMW-D2-20201119		11/19/20	1450	G	Water	N	N	N	1	1	1
MMW-D3-20201119		11/19/20	1330	G	Water	N	N	N	1	1	1
MMW-U1-20201119		11/19/20	1140	G	Water	N	N	N	1	1	1
MMW-D1-20201119		11/19/20	1630	G	Water	N	N	N	1	1	1
Preservation Used: 1= Ice, 2= HCl, 3= H2SO4, 4= HNO3, 5= NaOH, 6= Other		1									
Possible Hazard Identification:		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)									
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample		<input type="checkbox"/> Return to Client		<input checked="" type="checkbox"/> Disposal by Lab		<input type="checkbox"/> Archive for		Months			
<input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown											
Special Instructions/QC Requirements & Comments: Deliverable Requested Level II											
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temp. (°C): Obs'd:		Cord:		Therm ID No.:			
Relinquished by: <i>CSZC</i>		Company: <i>Cresyntec</i>		Date/Time: <i>11/20/20 11:15</i>		Received by:		Company:		Date/Time:	
Relinquished by:		Company:		Date/Time:		Received in Laboratory by:		Company:		Date/Time:	

APPENDIX B

Laboratory Analytical Reports

April 2020

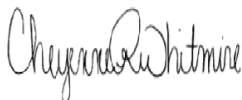
ANALYTICAL REPORT

Eurofins TestAmerica, Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

Laboratory Job ID: 400-187364-1
Laboratory Sample Delivery Group: Crisp Co. Power
Client Project/Site: CCR App.III/IV GW Monitoring

For:
Geosyntec Consultants, Inc.
1255 Roberts Blvd, NW
Suite 200
Kennesaw, Georgia 30144

Attn: Dawit Yifru



Authorized for release by:
5/11/2020 5:39:39 PM

Cheyenne Whitmire, Project Manager II
(850)471-6222
cheyenne.whitmire@testamericainc.com

LINKS

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results through
TotalAccess

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www.eurofinsus.com/Env

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Geosyntec Consultants, Inc.
Project/Site: CCR App.III/IV GW Monitoring

Job ID: 400-187364-1
SDG: Crisp Co. Power

Job ID: 400-187364-1

Laboratory: Eurofins TestAmerica, Pensacola

Narrative

Job Narrative 400-187364-1

Metals

Method 6020: The method blank for preparation batch 400-487579 and analytical batch 400-487841 contained Arsenic above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method 6020: The post digestion spike % recovery for Boron, Calcium, Cadmium and Selenium associated with batch 400-487841 was outside of control limits. The associated sample is: (400-187409-A-13-B PDS ^5).

Method 6020: The ICV for 400-488265 passed recovery/accuracy criteria which serves the ICV purpose of verifying the calibration standards. The replicate RSD for the elements were outside of the criteria for standards but within the criteria for field samples. Data has therefore been reported and narrated accordingly. (ICV 400-488265/13)

Method 6020: The continuing calibration verification (CCV) associated with batch 400-488265 recovered above the upper control limit for Cadmium. The samples associated with this CCV were below the Reporting Limits (RL) and above the Method Detection Limits(MDL); therefore, the data have been reported. The associated sample is impacted: MW-D2-20200427 (400-187364-2).

Method 6020: The post digestion spike % recovery for Arsenic, Boron, Barium, Beryllium, Calcium, Cadmium, Chromium, Cobalt, Molybdenum, Lead, Antimony, Thallium, Selenium and Lithium associated with batch 400-488265 was outside of control limits. The associated sample is: (400-187409-A-13-B PDS ^5).

Method 6020: The method blank for preparation batch 400-487579 and analytical batch 400-488265 contained Arsenic above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

General Chemistry

Methods SM 4500 Cl- E: The following samples were diluted to bring the concentration of target analytes within the calibration range: (400-187491-N-14), (400-187491-N-14 MS) and (400-187491-N-14 MSD). Elevated reporting limits (RLs) are provided.

Methods SM 4500 Cl- E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for analytical batch 400-488428 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

Methods SM 4500 Cl- E: Due to the concentration of chlorides in the the patient sample, the MS/MSD was diluted after the spike. The spike amount was adjusted by the dilution factor. (400-187491-N-14 MS) and (400-187491-N-14 MSD)

Detection Summary

Client: Geosyntec Consultants, Inc.
 Project/Site: CCR App.III/IV GW Monitoring

Job ID: 400-187364-1
 SDG: Crisp Co. Power

Client Sample ID: DUP-14-20200427

Lab Sample ID: 400-187364-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.00019	J B	0.00025	0.000078	mg/L	1		6020	Total Recoverable
Barium	0.016		0.00050	0.00014	mg/L	1		6020	Total Recoverable
Boron	0.14		0.010	0.0036	mg/L	1		6020	Total Recoverable
Calcium	20		0.050	0.025	mg/L	1		6020	Total Recoverable
Total Dissolved Solids	68		5.0	5.0	mg/L	1		SM 2540C	Total/NA
Chloride	2.2		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.060	J	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	21		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA
Field pH	6.08				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-D2-20200427

Lab Sample ID: 400-187364-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.00027	B	0.00025	0.000078	mg/L	1		6020	Total Recoverable
Barium	0.15		0.00050	0.00014	mg/L	1		6020	Total Recoverable
Boron	0.13		0.010	0.0036	mg/L	1		6020	Total Recoverable
Cadmium	0.000075	J ^	0.00020	0.000056	mg/L	1		6020	Total Recoverable
Calcium	120		0.050	0.025	mg/L	1		6020	Total Recoverable
Cobalt	0.0010		0.00050	0.00011	mg/L	1		6020	Total Recoverable
Thallium	0.00013		0.00010	0.000024	mg/L	1		6020	Total Recoverable
Total Dissolved Solids	370		5.0	5.0	mg/L	1		SM 2540C	Total/NA
Chloride	5.1		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.050	J	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	16		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA
Field pH	4.80				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-D3-20200427

Lab Sample ID: 400-187364-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.0010	B	0.00025	0.000078	mg/L	1		6020	Total Recoverable
Barium	0.091		0.00050	0.00014	mg/L	1		6020	Total Recoverable
Boron	0.23		0.010	0.0036	mg/L	1		6020	Total Recoverable
Cadmium	0.000071	J	0.00020	0.000056	mg/L	1		6020	Total Recoverable
Calcium	100		0.050	0.025	mg/L	1		6020	Total Recoverable
Cobalt	0.00035	J	0.00050	0.00011	mg/L	1		6020	Total Recoverable
Lithium	0.00048	J	0.00050	0.00038	mg/L	1		6020	Total Recoverable
Molybdenum	0.0019	J	0.0020	0.00090	mg/L	1		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Pensacola

Detection Summary

Client: Geosyntec Consultants, Inc.
 Project/Site: CCR App.III/IV GW Monitoring

Job ID: 400-187364-1
 SDG: Crisp Co. Power

Client Sample ID: MW-D3-20200427 (Continued)

Lab Sample ID: 400-187364-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Selenium	0.00021	J	0.00025	0.00016	mg/L	1		6020	Total Recoverable
Thallium	0.00012		0.00010	0.000024	mg/L	1		6020	Total Recoverable
Total Dissolved Solids	360		5.0	5.0	mg/L	1		SM 2540C	Total/NA
Chloride	5.1		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.10		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	33		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA
Field pH	6.93				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-D1-20200427

Lab Sample ID: 400-187364-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.015		0.00050	0.00014	mg/L	1		6020	Total Recoverable
Boron	0.13		0.010	0.0036	mg/L	1		6020	Total Recoverable
Calcium	20		0.050	0.025	mg/L	1		6020	Total Recoverable
Total Dissolved Solids	110		5.0	5.0	mg/L	1		SM 2540C	Total/NA
Chloride	2.5		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.040	J	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	20		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA
Field pH	6.08				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-U1-20200427

Lab Sample ID: 400-187364-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.00015	J B	0.00025	0.000078	mg/L	1		6020	Total Recoverable
Barium	0.0022		0.00050	0.00014	mg/L	1		6020	Total Recoverable
Boron	0.0042	J	0.010	0.0036	mg/L	1		6020	Total Recoverable
Calcium	31		0.050	0.025	mg/L	1		6020	Total Recoverable
Chromium	0.0013		0.00050	0.00020	mg/L	1		6020	Total Recoverable
Selenium	0.00061		0.00025	0.00016	mg/L	1		6020	Total Recoverable
Total Dissolved Solids	120		5.0	5.0	mg/L	1		SM 2540C	Total/NA
Chloride	2.4		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.050	J	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	2.6	J	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA
Field pH	6.05				SU	1		Field Sampling	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Pensacola

Method Summary

Client: Geosyntec Consultants, Inc.
Project/Site: CCR App.III/IV GW Monitoring

Job ID: 400-187364-1
SDG: Crisp Co. Power

Method	Method Description	Protocol	Laboratory
6020	Metals (ICP/MS)	SW846	TAL PEN
7470A	Mercury (CVAA)	SW846	TAL PEN
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PEN
SM 4500 Cl- E	Chloride, Total	SM	TAL PEN
SM 4500 F C	Fluoride	SM	TAL PEN
SM 4500 SO4 E	Sulfate, Total	SM	TAL PEN
Field Sampling	Field Sampling	EPA	TAL PEN
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL PEN
7470A	Preparation, Mercury	SW846	TAL PEN

Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PEN = Eurofins TestAmerica, Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Sample Summary

Client: Geosyntec Consultants, Inc.
Project/Site: CCR App.III/IV GW Monitoring

Job ID: 400-187364-1
SDG: Crisp Co. Power

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
400-187364-1	DUP-14-20200427	Water	04/27/20 08:00	04/29/20 09:04	
400-187364-2	MW-D2-20200427	Water	04/27/20 10:30	04/29/20 09:04	
400-187364-3	MW-D3-20200427	Water	04/27/20 12:15	04/29/20 09:04	
400-187364-4	MW-D1-20200427	Water	04/27/20 14:05	04/29/20 09:04	
400-187364-5	MW-U1-20200427	Water	04/27/20 16:30	04/29/20 09:04	

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Client Sample Results

Client: Geosyntec Consultants, Inc.
 Project/Site: CCR App.III/IV GW Monitoring

Job ID: 400-187364-1
 SDG: Crisp Co. Power

Client Sample ID: DUP-14-20200427

Lab Sample ID: 400-187364-1

Date Collected: 04/27/20 08:00

Matrix: Water

Date Received: 04/29/20 09:04

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	^	0.00050	0.00030	mg/L	-	04/30/20 13:06	05/02/20 00:05	1
Arsenic	0.00019	J B	0.00025	0.000078	mg/L	-	04/30/20 13:06	05/05/20 19:27	1
Barium	0.016		0.00050	0.00014	mg/L	-	04/30/20 13:06	05/05/20 19:27	1
Beryllium	ND	^	0.00040	0.000034	mg/L	-	04/30/20 13:06	05/02/20 00:05	1
Boron	0.14		0.010	0.0036	mg/L	-	04/30/20 13:06	05/02/20 00:05	1
Cadmium	ND	^	0.00020	0.000056	mg/L	-	04/30/20 13:06	05/02/20 00:05	1
Calcium	20		0.050	0.025	mg/L	-	04/30/20 13:06	05/02/20 00:05	1
Chromium	ND	^	0.00050	0.00020	mg/L	-	04/30/20 13:06	05/02/20 00:05	1
Cobalt	ND	^	0.00050	0.00011	mg/L	-	04/30/20 13:06	05/02/20 00:05	1
Lead	ND	^	0.00025	0.000058	mg/L	-	04/30/20 13:06	05/02/20 00:05	1
Lithium	ND	^	0.00050	0.00038	mg/L	-	04/30/20 13:06	05/02/20 00:05	1
Molybdenum	ND	^	0.0020	0.00090	mg/L	-	04/30/20 13:06	05/02/20 00:05	1
Selenium	ND	^	0.00025	0.00016	mg/L	-	04/30/20 13:06	05/02/20 00:05	1
Thallium	ND	^	0.00010	0.000024	mg/L	-	04/30/20 13:06	05/02/20 00:05	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000070	mg/L	-	05/11/20 08:04	05/11/20 12:24	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	68		5.0	5.0	mg/L	-		05/04/20 13:44	1
Chloride	2.2		2.0	1.4	mg/L	-		05/07/20 17:06	1
Fluoride	0.060	J	0.10	0.032	mg/L	-		05/01/20 23:32	1
Sulfate	21		5.0	1.4	mg/L	-		05/04/20 11:33	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	6.08				SU	-		04/27/20 07:00	1

Client Sample Results

Client: Geosyntec Consultants, Inc.
Project/Site: CCR App.III/IV GW Monitoring

Job ID: 400-187364-1
SDG: Crisp Co. Power

Client Sample ID: MW-D2-20200427

Lab Sample ID: 400-187364-2

Date Collected: 04/27/20 10:30

Matrix: Water

Date Received: 04/29/20 09:04

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	^	0.00050	0.00030	mg/L	-	04/30/20 13:06	05/02/20 00:08	1
Arsenic	0.00027	B	0.00025	0.000078	mg/L	-	04/30/20 13:06	05/05/20 19:30	1
Barium	0.15		0.00050	0.00014	mg/L	-	04/30/20 13:06	05/05/20 19:30	1
Beryllium	ND	^	0.00040	0.000034	mg/L	-	04/30/20 13:06	05/02/20 00:08	1
Boron	0.13		0.010	0.0036	mg/L	-	04/30/20 13:06	05/02/20 00:08	1
Cadmium	0.000075	J ^	0.00020	0.000056	mg/L	-	04/30/20 13:06	05/05/20 19:30	1
Calcium	120		0.050	0.025	mg/L	-	04/30/20 13:06	05/02/20 00:08	1
Chromium	ND	^	0.00050	0.00020	mg/L	-	04/30/20 13:06	05/02/20 00:08	1
Cobalt	0.0010		0.00050	0.00011	mg/L	-	04/30/20 13:06	05/05/20 19:30	1
Lead	ND	^	0.00025	0.000058	mg/L	-	04/30/20 13:06	05/02/20 00:08	1
Lithium	ND		0.00050	0.00038	mg/L	-	04/30/20 13:06	05/05/20 19:30	1
Molybdenum	ND	^	0.0020	0.00090	mg/L	-	04/30/20 13:06	05/02/20 00:08	1
Selenium	ND		0.00025	0.00016	mg/L	-	04/30/20 13:06	05/02/20 00:08	1
Thallium	0.00013		0.00010	0.000024	mg/L	-	04/30/20 13:06	05/05/20 19:30	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000070	mg/L	-	05/11/20 08:04	05/11/20 12:26	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	370		5.0	5.0	mg/L	-		05/04/20 14:06	1
Chloride	5.1		2.0	1.4	mg/L	-		05/07/20 17:06	1
Fluoride	0.050	J	0.10	0.032	mg/L	-		05/01/20 23:35	1
Sulfate	16		5.0	1.4	mg/L	-		05/04/20 11:33	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	4.80				SU	-		04/27/20 09:30	1

Client Sample Results

Client: Geosyntec Consultants, Inc.
 Project/Site: CCR App.III/IV GW Monitoring

Job ID: 400-187364-1
 SDG: Crisp Co. Power

Client Sample ID: MW-D3-20200427

Lab Sample ID: 400-187364-3

Date Collected: 04/27/20 12:15

Matrix: Water

Date Received: 04/29/20 09:04

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.00050	0.00030	mg/L		04/30/20 13:06	05/05/20 19:34	1
Arsenic	0.0010	B	0.00025	0.000078	mg/L		04/30/20 13:06	05/05/20 19:34	1
Barium	0.091		0.00050	0.00014	mg/L		04/30/20 13:06	05/05/20 19:34	1
Beryllium	ND	^	0.00040	0.000034	mg/L		04/30/20 13:06	05/02/20 00:18	1
Boron	0.23		0.010	0.0036	mg/L		04/30/20 13:06	05/02/20 00:18	1
Cadmium	0.000071	J	0.00020	0.000056	mg/L		04/30/20 13:06	05/02/20 00:18	1
Calcium	100		0.050	0.025	mg/L		04/30/20 13:06	05/02/20 00:18	1
Chromium	ND	^	0.00050	0.00020	mg/L		04/30/20 13:06	05/02/20 00:18	1
Cobalt	0.00035	J	0.00050	0.00011	mg/L		04/30/20 13:06	05/05/20 19:34	1
Lead	ND	^	0.00025	0.000058	mg/L		04/30/20 13:06	05/02/20 00:18	1
Lithium	0.00048	J	0.00050	0.00038	mg/L		04/30/20 13:06	05/05/20 19:34	1
Molybdenum	0.0019	J	0.0020	0.00090	mg/L		04/30/20 13:06	05/05/20 19:34	1
Selenium	0.00021	J	0.00025	0.00016	mg/L		04/30/20 13:06	05/02/20 00:18	1
Thallium	0.00012		0.00010	0.000024	mg/L		04/30/20 13:06	05/05/20 19:34	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000070	mg/L		05/11/20 08:04	05/11/20 12:37	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	360		5.0	5.0	mg/L			05/04/20 14:06	1
Chloride	5.1		2.0	1.4	mg/L			05/07/20 17:06	1
Fluoride	0.10		0.10	0.032	mg/L			05/01/20 23:38	1
Sulfate	33		5.0	1.4	mg/L			05/04/20 11:33	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	6.93				SU			04/27/20 11:15	1

Client Sample Results

Client: Geosyntec Consultants, Inc.
 Project/Site: CCR App.III/IV GW Monitoring

Job ID: 400-187364-1
 SDG: Crisp Co. Power

Client Sample ID: MW-D1-20200427

Lab Sample ID: 400-187364-4

Date Collected: 04/27/20 14:05

Matrix: Water

Date Received: 04/29/20 09:04

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	^	0.00050	0.00030	mg/L	-	04/30/20 13:06	05/02/20 00:22	1
Arsenic	ND	^	0.00025	0.000078	mg/L	-	04/30/20 13:06	05/02/20 00:22	1
Barium	0.015		0.00050	0.00014	mg/L	-	04/30/20 13:06	05/05/20 19:37	1
Beryllium	ND		0.00040	0.000034	mg/L	-	04/30/20 13:06	05/05/20 19:37	1
Boron	0.13		0.010	0.0036	mg/L	-	04/30/20 13:06	05/02/20 00:22	1
Cadmium	ND		0.00020	0.000056	mg/L	-	04/30/20 13:06	05/02/20 00:22	1
Calcium	20		0.050	0.025	mg/L	-	04/30/20 13:06	05/02/20 00:22	1
Chromium	ND	^	0.00050	0.00020	mg/L	-	04/30/20 13:06	05/02/20 00:22	1
Cobalt	ND	^	0.00050	0.00011	mg/L	-	04/30/20 13:06	05/02/20 00:22	1
Lead	ND	^	0.00025	0.000058	mg/L	-	04/30/20 13:06	05/02/20 00:22	1
Lithium	ND	^	0.00050	0.00038	mg/L	-	04/30/20 13:06	05/02/20 00:22	1
Molybdenum	ND	^	0.0020	0.00090	mg/L	-	04/30/20 13:06	05/02/20 00:22	1
Selenium	ND		0.00025	0.00016	mg/L	-	04/30/20 13:06	05/02/20 00:22	1
Thallium	ND	^	0.00010	0.000024	mg/L	-	04/30/20 13:06	05/02/20 00:22	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000070	mg/L	-	05/11/20 08:04	05/11/20 12:39	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	110		5.0	5.0	mg/L	-		05/04/20 14:06	1
Chloride	2.5		2.0	1.4	mg/L	-		05/07/20 17:06	1
Fluoride	0.040	J	0.10	0.032	mg/L	-		05/01/20 23:40	1
Sulfate	20		5.0	1.4	mg/L	-		05/04/20 11:33	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	6.08				SU	-		04/27/20 13:05	1

Client Sample Results

Client: Geosyntec Consultants, Inc.
 Project/Site: CCR App.III/IV GW Monitoring

Job ID: 400-187364-1
 SDG: Crisp Co. Power

Client Sample ID: MW-U1-20200427

Lab Sample ID: 400-187364-5

Date Collected: 04/27/20 16:30

Matrix: Water

Date Received: 04/29/20 09:04

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	^	0.00050	0.00030	mg/L		04/30/20 13:06	05/02/20 00:25	1
Arsenic	0.00015	J B	0.00025	0.000078	mg/L		04/30/20 13:06	05/05/20 19:41	1
Barium	0.0022		0.00050	0.00014	mg/L		04/30/20 13:06	05/05/20 19:41	1
Beryllium	ND	^	0.00040	0.000034	mg/L		04/30/20 13:06	05/02/20 00:25	1
Boron	0.0042	J	0.010	0.0036	mg/L		04/30/20 13:06	05/02/20 00:25	1
Cadmium	ND		0.00020	0.000056	mg/L		04/30/20 13:06	05/02/20 00:25	1
Calcium	31		0.050	0.025	mg/L		04/30/20 13:06	05/02/20 00:25	1
Chromium	0.0013		0.00050	0.00020	mg/L		04/30/20 13:06	05/05/20 19:41	1
Cobalt	ND	^	0.00050	0.00011	mg/L		04/30/20 13:06	05/02/20 00:25	1
Lead	ND	^	0.00025	0.000058	mg/L		04/30/20 13:06	05/02/20 00:25	1
Lithium	ND	^	0.00050	0.00038	mg/L		04/30/20 13:06	05/02/20 00:25	1
Molybdenum	ND	^	0.0020	0.00090	mg/L		04/30/20 13:06	05/02/20 00:25	1
Selenium	0.00061		0.00025	0.00016	mg/L		04/30/20 13:06	05/02/20 00:25	1
Thallium	ND	^	0.00010	0.000024	mg/L		04/30/20 13:06	05/02/20 00:25	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000070	mg/L		05/11/20 08:04	05/11/20 12:41	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	120		5.0	5.0	mg/L			05/04/20 14:06	1
Chloride	2.4		2.0	1.4	mg/L			05/07/20 17:06	1
Fluoride	0.050	J	0.10	0.032	mg/L			05/01/20 23:44	1
Sulfate	2.6	J	5.0	1.4	mg/L			05/04/20 11:33	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	6.05				SU			04/27/20 15:30	1

Definitions/Glossary

Client: Geosyntec Consultants, Inc.
Project/Site: CCR App.III/IV GW Monitoring

Job ID: 400-187364-1
SDG: Crisp Co. Power

Qualifiers

Metals

Qualifier	Qualifier Description
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Geosyntec Consultants, Inc.
Project/Site: CCR App.III/IV GW Monitoring

Job ID: 400-187364-1
SDG: Crisp Co. Power

Client Sample ID: DUP-14-20200427

Lab Sample ID: 400-187364-1

Date Collected: 04/27/20 08:00

Matrix: Water

Date Received: 04/29/20 09:04

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			487579	04/30/20 13:06	NET	TAL PEN
Total Recoverable	Analysis	6020		1	487841	05/02/20 00:05	AW	TAL PEN
Total Recoverable	Prep	3005A			487579	04/30/20 13:06	NET	TAL PEN
Total Recoverable	Analysis	6020		1	488265	05/05/20 19:27	AW	TAL PEN
Total/NA	Prep	7470A			488128	05/11/20 08:04	JAP	TAL PEN
Total/NA	Analysis	7470A		1	488722	05/11/20 12:24	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	487912	05/04/20 13:44	CLB	TAL PEN
Total/NA	Analysis	SM 4500 CI- E		1	488428	05/07/20 17:06	HES	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	487777	05/01/20 23:32	MAF	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	487903	05/04/20 11:33	HES	TAL PEN
Total/NA	Analysis	Field Sampling		1	487440	04/27/20 07:00	EHS	TAL PEN

Client Sample ID: MW-D2-20200427

Lab Sample ID: 400-187364-2

Date Collected: 04/27/20 10:30

Matrix: Water

Date Received: 04/29/20 09:04

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			487579	04/30/20 13:06	NET	TAL PEN
Total Recoverable	Analysis	6020		1	487841	05/02/20 00:08	AW	TAL PEN
Total Recoverable	Prep	3005A			487579	04/30/20 13:06	NET	TAL PEN
Total Recoverable	Analysis	6020		1	488265	05/05/20 19:30	AW	TAL PEN
Total/NA	Prep	7470A			488128	05/11/20 08:04	JAP	TAL PEN
Total/NA	Analysis	7470A		1	488722	05/11/20 12:26	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	487917	05/04/20 14:06	CLB	TAL PEN
Total/NA	Analysis	SM 4500 CI- E		1	488428	05/07/20 17:06	HES	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	487777	05/01/20 23:35	MAF	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	487903	05/04/20 11:33	HES	TAL PEN
Total/NA	Analysis	Field Sampling		1	487440	04/27/20 09:30	EHS	TAL PEN

Client Sample ID: MW-D3-20200427

Lab Sample ID: 400-187364-3

Date Collected: 04/27/20 12:15

Matrix: Water

Date Received: 04/29/20 09:04

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			487579	04/30/20 13:06	NET	TAL PEN
Total Recoverable	Analysis	6020		1	487841	05/02/20 00:18	AW	TAL PEN
Total Recoverable	Prep	3005A			487579	04/30/20 13:06	NET	TAL PEN
Total Recoverable	Analysis	6020		1	488265	05/05/20 19:34	AW	TAL PEN
Total/NA	Prep	7470A			488128	05/11/20 08:04	JAP	TAL PEN
Total/NA	Analysis	7470A		1	488722	05/11/20 12:37	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	487917	05/04/20 14:06	CLB	TAL PEN
Total/NA	Analysis	SM 4500 CI- E		1	488428	05/07/20 17:06	HES	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	487777	05/01/20 23:38	MAF	TAL PEN

Lab Chronicle

Client: Geosyntec Consultants, Inc.
Project/Site: CCR App.III/IV GW Monitoring

Job ID: 400-187364-1
SDG: Crisp Co. Power

Client Sample ID: MW-D3-20200427

Lab Sample ID: 400-187364-3

Date Collected: 04/27/20 12:15

Matrix: Water

Date Received: 04/29/20 09:04

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 SO4 E		1	487903	05/04/20 11:33	HES	TAL PEN
Total/NA	Analysis	Field Sampling		1	487440	04/27/20 11:15	EHS	TAL PEN

Client Sample ID: MW-D1-20200427

Lab Sample ID: 400-187364-4

Date Collected: 04/27/20 14:05

Matrix: Water

Date Received: 04/29/20 09:04

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			487579	04/30/20 13:06	NET	TAL PEN
Total Recoverable	Analysis	6020		1	487841	05/02/20 00:22	AW	TAL PEN
Total Recoverable	Prep	3005A			487579	04/30/20 13:06	NET	TAL PEN
Total Recoverable	Analysis	6020		1	488265	05/05/20 19:37	AW	TAL PEN
Total/NA	Prep	7470A			488128	05/11/20 08:04	JAP	TAL PEN
Total/NA	Analysis	7470A		1	488722	05/11/20 12:39	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	487917	05/04/20 14:06	CLB	TAL PEN
Total/NA	Analysis	SM 4500 CI- E		1	488428	05/07/20 17:06	HES	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	487777	05/01/20 23:40	MAF	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	487903	05/04/20 11:33	HES	TAL PEN
Total/NA	Analysis	Field Sampling		1	487440	04/27/20 13:05	EHS	TAL PEN

Client Sample ID: MW-U1-20200427

Lab Sample ID: 400-187364-5

Date Collected: 04/27/20 16:30

Matrix: Water

Date Received: 04/29/20 09:04

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			487579	04/30/20 13:06	NET	TAL PEN
Total Recoverable	Analysis	6020		1	487841	05/02/20 00:25	AW	TAL PEN
Total Recoverable	Prep	3005A			487579	04/30/20 13:06	NET	TAL PEN
Total Recoverable	Analysis	6020		1	488265	05/05/20 19:41	AW	TAL PEN
Total/NA	Prep	7470A			488128	05/11/20 08:04	JAP	TAL PEN
Total/NA	Analysis	7470A		1	488722	05/11/20 12:41	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	487917	05/04/20 14:06	CLB	TAL PEN
Total/NA	Analysis	SM 4500 CI- E		1	488428	05/07/20 17:06	HES	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	487777	05/01/20 23:44	MAF	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	487903	05/04/20 11:33	HES	TAL PEN
Total/NA	Analysis	Field Sampling		1	487440	04/27/20 15:30	EHS	TAL PEN

Laboratory References:

TAL PEN = Eurofins TestAmerica, Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

QC Association Summary

Client: Geosyntec Consultants, Inc.
Project/Site: CCR App.III/IV GW Monitoring

Job ID: 400-187364-1
SDG: Crisp Co. Power

Metals

Prep Batch: 487579

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-187364-1	DUP-14-20200427	Total Recoverable	Water	3005A	
400-187364-2	MW-D2-20200427	Total Recoverable	Water	3005A	
400-187364-3	MW-D3-20200427	Total Recoverable	Water	3005A	
400-187364-4	MW-D1-20200427	Total Recoverable	Water	3005A	
400-187364-5	MW-U1-20200427	Total Recoverable	Water	3005A	
MB 400-487579/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 400-487579/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-187409-A-13-C MS	Matrix Spike	Total Recoverable	Water	3005A	
400-187409-A-13-D MSD	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Analysis Batch: 487841

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-187364-1	DUP-14-20200427	Total Recoverable	Water	6020	487579
400-187364-2	MW-D2-20200427	Total Recoverable	Water	6020	487579
400-187364-3	MW-D3-20200427	Total Recoverable	Water	6020	487579
400-187364-4	MW-D1-20200427	Total Recoverable	Water	6020	487579
400-187364-5	MW-U1-20200427	Total Recoverable	Water	6020	487579
MB 400-487579/1-A	Method Blank	Total Recoverable	Water	6020	487579
LCS 400-487579/2-A	Lab Control Sample	Total Recoverable	Water	6020	487579
400-187409-A-13-C MS	Matrix Spike	Total Recoverable	Water	6020	487579
400-187409-A-13-D MSD	Matrix Spike Duplicate	Total Recoverable	Water	6020	487579

Prep Batch: 488128

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-187364-1	DUP-14-20200427	Total/NA	Water	7470A	
400-187364-2	MW-D2-20200427	Total/NA	Water	7470A	
400-187364-3	MW-D3-20200427	Total/NA	Water	7470A	
400-187364-4	MW-D1-20200427	Total/NA	Water	7470A	
400-187364-5	MW-U1-20200427	Total/NA	Water	7470A	
MB 400-488128/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-488128/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-187364-2 MS	MW-D2-20200427	Total/NA	Water	7470A	
400-187364-2 MSD	MW-D2-20200427	Total/NA	Water	7470A	

Analysis Batch: 488265

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-187364-1	DUP-14-20200427	Total Recoverable	Water	6020	487579
400-187364-2	MW-D2-20200427	Total Recoverable	Water	6020	487579
400-187364-3	MW-D3-20200427	Total Recoverable	Water	6020	487579
400-187364-4	MW-D1-20200427	Total Recoverable	Water	6020	487579
400-187364-5	MW-U1-20200427	Total Recoverable	Water	6020	487579
MB 400-487579/1-A	Method Blank	Total Recoverable	Water	6020	487579
400-187409-A-13-C MS	Matrix Spike	Total Recoverable	Water	6020	487579
400-187409-A-13-D MSD	Matrix Spike Duplicate	Total Recoverable	Water	6020	487579

Analysis Batch: 488722

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-187364-1	DUP-14-20200427	Total/NA	Water	7470A	488128
400-187364-2	MW-D2-20200427	Total/NA	Water	7470A	488128
400-187364-3	MW-D3-20200427	Total/NA	Water	7470A	488128
400-187364-4	MW-D1-20200427	Total/NA	Water	7470A	488128

Eurofins TestAmerica, Pensacola

QC Association Summary

Client: Geosyntec Consultants, Inc.
Project/Site: CCR App.III/IV GW Monitoring

Job ID: 400-187364-1
SDG: Crisp Co. Power

Metals (Continued)

Analysis Batch: 488722 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-187364-5	MW-U1-20200427	Total/NA	Water	7470A	488128
MB 400-488128/14-A	Method Blank	Total/NA	Water	7470A	488128
LCS 400-488128/15-A	Lab Control Sample	Total/NA	Water	7470A	488128
400-187364-2 MS	MW-D2-20200427	Total/NA	Water	7470A	488128
400-187364-2 MSD	MW-D2-20200427	Total/NA	Water	7470A	488128

General Chemistry

Analysis Batch: 487777

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-187364-1	DUP-14-20200427	Total/NA	Water	SM 4500 F C	
400-187364-2	MW-D2-20200427	Total/NA	Water	SM 4500 F C	
400-187364-3	MW-D3-20200427	Total/NA	Water	SM 4500 F C	
400-187364-4	MW-D1-20200427	Total/NA	Water	SM 4500 F C	
400-187364-5	MW-U1-20200427	Total/NA	Water	SM 4500 F C	
MB 400-487777/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-487777/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-187257-B-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 F C	

Analysis Batch: 487903

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-187364-1	DUP-14-20200427	Total/NA	Water	SM 4500 SO4 E	
400-187364-2	MW-D2-20200427	Total/NA	Water	SM 4500 SO4 E	
400-187364-3	MW-D3-20200427	Total/NA	Water	SM 4500 SO4 E	
400-187364-4	MW-D1-20200427	Total/NA	Water	SM 4500 SO4 E	
400-187364-5	MW-U1-20200427	Total/NA	Water	SM 4500 SO4 E	
MB 400-487903/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-487903/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-487903/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-187364-1 MS	DUP-14-20200427	Total/NA	Water	SM 4500 SO4 E	
400-187364-1 MSD	DUP-14-20200427	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 487912

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-187364-1	DUP-14-20200427	Total/NA	Water	SM 2540C	
MB 400-487912/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-487912/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-187321-D-6 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 487917

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-187364-2	MW-D2-20200427	Total/NA	Water	SM 2540C	
400-187364-3	MW-D3-20200427	Total/NA	Water	SM 2540C	
400-187364-4	MW-D1-20200427	Total/NA	Water	SM 2540C	
400-187364-5	MW-U1-20200427	Total/NA	Water	SM 2540C	
MB 400-487917/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-487917/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-187364-3 DU	MW-D3-20200427	Total/NA	Water	SM 2540C	

QC Association Summary

Client: Geosyntec Consultants, Inc.
Project/Site: CCR App.III/IV GW Monitoring

Job ID: 400-187364-1
SDG: Crisp Co. Power

General Chemistry

Analysis Batch: 488428

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-187364-1	DUP-14-20200427	Total/NA	Water	SM 4500 Cl- E	
400-187364-2	MW-D2-20200427	Total/NA	Water	SM 4500 Cl- E	
400-187364-3	MW-D3-20200427	Total/NA	Water	SM 4500 Cl- E	
400-187364-4	MW-D1-20200427	Total/NA	Water	SM 4500 Cl- E	
400-187364-5	MW-U1-20200427	Total/NA	Water	SM 4500 Cl- E	
MB 400-488428/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-488428/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-488428/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-187491-N-14 MS	Matrix Spike	Total/NA	Water	SM 4500 Cl- E	
400-187491-N-14 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 Cl- E	

Field Service / Mobile Lab

Analysis Batch: 487440

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-187364-1	DUP-14-20200427	Total/NA	Water	Field Sampling	
400-187364-2	MW-D2-20200427	Total/NA	Water	Field Sampling	
400-187364-3	MW-D3-20200427	Total/NA	Water	Field Sampling	
400-187364-4	MW-D1-20200427	Total/NA	Water	Field Sampling	
400-187364-5	MW-U1-20200427	Total/NA	Water	Field Sampling	

QC Sample Results

Client: Geosyntec Consultants, Inc.
Project/Site: CCR App.III/IV GW Monitoring

Job ID: 400-187364-1
SDG: Crisp Co. Power

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-487579/1-A
Matrix: Water
Analysis Batch: 487841

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 487579

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.00050	0.00030	mg/L		04/30/20 13:06	05/01/20 16:12	1
Barium	ND		0.00050	0.00014	mg/L		04/30/20 13:06	05/01/20 16:12	1
Beryllium	ND		0.00040	0.000034	mg/L		04/30/20 13:06	05/01/20 16:12	1
Boron	ND		0.010	0.0036	mg/L		04/30/20 13:06	05/01/20 16:12	1
Cadmium	ND		0.00020	0.000056	mg/L		04/30/20 13:06	05/01/20 16:12	1
Calcium	ND		0.050	0.025	mg/L		04/30/20 13:06	05/01/20 16:12	1
Chromium	ND		0.00050	0.00020	mg/L		04/30/20 13:06	05/01/20 16:12	1
Cobalt	ND		0.00050	0.00011	mg/L		04/30/20 13:06	05/01/20 16:12	1
Lead	ND		0.00025	0.000058	mg/L		04/30/20 13:06	05/01/20 16:12	1
Lithium	ND		0.00050	0.00038	mg/L		04/30/20 13:06	05/01/20 16:12	1
Molybdenum	ND		0.0020	0.00090	mg/L		04/30/20 13:06	05/01/20 16:12	1
Selenium	ND		0.00025	0.00016	mg/L		04/30/20 13:06	05/01/20 16:12	1
Thallium	ND		0.00010	0.000024	mg/L		04/30/20 13:06	05/01/20 16:12	1

Lab Sample ID: MB 400-487579/1-A
Matrix: Water
Analysis Batch: 488265

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 487579

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0000790	J	0.00025	0.000078	mg/L		04/30/20 13:06	05/05/20 13:00	1

Lab Sample ID: LCS 400-487579/2-A
Matrix: Water
Analysis Batch: 487841

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 487579

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0500	0.0524		mg/L		105	80 - 120
Arsenic	0.0500	0.0493		mg/L		99	80 - 120
Barium	0.0500	0.0476		mg/L		95	80 - 120
Beryllium	0.0500	0.0489		mg/L		98	80 - 120
Boron	0.100	0.0910		mg/L		91	80 - 120
Cadmium	0.0500	0.0509		mg/L		102	80 - 120
Calcium	5.00	4.60		mg/L		92	80 - 120
Chromium	0.0500	0.0485		mg/L		97	80 - 120
Cobalt	0.0500	0.0496		mg/L		99	80 - 120
Lead	0.0500	0.0483		mg/L		97	80 - 120
Lithium	0.0500	0.0491		mg/L		98	80 - 120
Molybdenum	0.0500	0.0509		mg/L		102	80 - 120
Selenium	0.0500	0.0480		mg/L		96	80 - 120
Thallium	0.0100	0.00998		mg/L		100	80 - 120

Lab Sample ID: 400-187409-A-13-C MS
Matrix: Water
Analysis Batch: 487841

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 487579

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	0.064		0.100	0.150		mg/L		86	75 - 125
Cadmium	ND		0.0500	0.0498		mg/L		100	75 - 125
Calcium	140		5.00	144	4	mg/L		79	75 - 125

Eurofins TestAmerica, Pensacola

QC Sample Results

Client: Geosyntec Consultants, Inc.
Project/Site: CCR App.III/IV GW Monitoring

Job ID: 400-187364-1
SDG: Crisp Co. Power

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: 400-187409-A-13-C MS
Matrix: Water
Analysis Batch: 487841

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 487579

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Selenium	ND		0.0500	0.0447		mg/L		89	75 - 125

Lab Sample ID: 400-187409-A-13-C MS
Matrix: Water
Analysis Batch: 488265

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 487579

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Antimony	ND		0.0500	0.0561		mg/L		112	75 - 125
Arsenic	0.020	B	0.0500	0.0691		mg/L		97	75 - 125
Barium	0.81		0.0500	0.867	4	mg/L		119	75 - 125
Beryllium	ND		0.0500	0.0462		mg/L		92	75 - 125
Chromium	ND		0.0500	0.0474		mg/L		95	75 - 125
Cobalt	0.0010		0.0500	0.0485		mg/L		95	75 - 125
Lead	ND		0.0500	0.0486		mg/L		97	75 - 125
Lithium	0.046		0.0500	0.0912		mg/L		91	75 - 125
Molybdenum	0.0094		0.0500	0.0613		mg/L		104	75 - 125
Thallium	ND		0.0100	0.00965		mg/L		97	75 - 125

Lab Sample ID: 400-187409-A-13-D MSD
Matrix: Water
Analysis Batch: 487841

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 487579

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Boron	0.064		0.100	0.148		mg/L		84	75 - 125	2	20
Cadmium	ND		0.0500	0.0484		mg/L		97	75 - 125	3	20
Calcium	140		5.00	144	4	mg/L		83	75 - 125	0	20
Selenium	ND		0.0500	0.0439		mg/L		88	75 - 125	2	20

Lab Sample ID: 400-187409-A-13-D MSD
Matrix: Water
Analysis Batch: 488265

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 487579

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Antimony	ND		0.0500	0.0538		mg/L		108	75 - 125	4	20
Arsenic	0.020	B	0.0500	0.0660		mg/L		91	75 - 125	5	20
Barium	0.81		0.0500	0.853	4	mg/L		90	75 - 125	2	20
Beryllium	ND		0.0500	0.0453		mg/L		91	75 - 125	2	20
Chromium	ND		0.0500	0.0460		mg/L		92	75 - 125	3	20
Cobalt	0.0010		0.0500	0.0463		mg/L		91	75 - 125	5	20
Lead	ND		0.0500	0.0477		mg/L		95	75 - 125	2	20
Lithium	0.046		0.0500	0.0913		mg/L		91	75 - 125	0	20
Molybdenum	0.0094		0.0500	0.0593		mg/L		100	75 - 125	3	20
Thallium	ND		0.0100	0.00955		mg/L		96	75 - 125	1	20

QC Sample Results

Client: Geosyntec Consultants, Inc.
Project/Site: CCR App.III/IV GW Monitoring

Job ID: 400-187364-1
SDG: Crisp Co. Power

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 400-488128/14-A
Matrix: Water
Analysis Batch: 488722

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 488128

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000070	mg/L		05/11/20 08:04	05/11/20 12:20	1

Lab Sample ID: LCS 400-488128/15-A
Matrix: Water
Analysis Batch: 488722

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 488128

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.00101	0.000991		mg/L		98	80 - 120

Lab Sample ID: 400-187364-2 MS
Matrix: Water
Analysis Batch: 488722

Client Sample ID: MW-D2-20200427
Prep Type: Total/NA
Prep Batch: 488128

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Mercury	ND		0.00201	0.00189		mg/L		94	80 - 120

Lab Sample ID: 400-187364-2 MSD
Matrix: Water
Analysis Batch: 488722

Client Sample ID: MW-D2-20200427
Prep Type: Total/NA
Prep Batch: 488128

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Mercury	ND		0.00201	0.00178		mg/L		88	80 - 120	6	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 400-487912/1
Matrix: Water
Analysis Batch: 487912

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		5.0	5.0	mg/L			05/04/20 13:44	1

Lab Sample ID: LCS 400-487912/2
Matrix: Water
Analysis Batch: 487912

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Total Dissolved Solids	293	348		mg/L		119	78 - 122

Lab Sample ID: 400-187321-D-6 DU
Matrix: Water
Analysis Batch: 487912

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Total Dissolved Solids	130		124		mg/L		3	5

QC Sample Results

Client: Geosyntec Consultants, Inc.
 Project/Site: CCR App.III/IV GW Monitoring

Job ID: 400-187364-1
 SDG: Crisp Co. Power

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: MB 400-487917/1
 Matrix: Water
 Analysis Batch: 487917

Client Sample ID: Method Blank
 Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		5.0	5.0	mg/L			05/04/20 14:06	1

Lab Sample ID: LCS 400-487917/2
 Matrix: Water
 Analysis Batch: 487917

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	293	338		mg/L		115	78 - 122

Lab Sample ID: 400-187364-3 DU
 Matrix: Water
 Analysis Batch: 487917

Client Sample ID: MW-D3-20200427
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	360		378		mg/L		4	5

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 400-488428/6
 Matrix: Water
 Analysis Batch: 488428

Client Sample ID: Method Blank
 Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		2.0	1.4	mg/L			05/07/20 16:56	1

Lab Sample ID: LCS 400-488428/7
 Matrix: Water
 Analysis Batch: 488428

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	30.0	32.8		mg/L		109	90 - 110

Lab Sample ID: MRL 400-488428/3
 Matrix: Water
 Analysis Batch: 488428

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	2.00	2.04		mg/L		102	50 - 150

Lab Sample ID: 400-187491-N-14 MS
 Matrix: Water
 Analysis Batch: 488428

Client Sample ID: Matrix Spike
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	150		10.0	152	4	mg/L		49	73 - 120

QC Sample Results

Client: Geosyntec Consultants, Inc.
Project/Site: CCR App.III/IV GW Monitoring

Job ID: 400-187364-1
SDG: Crisp Co. Power

Method: SM 4500 Cl- E - Chloride, Total (Continued)

Lab Sample ID: 400-187491-N-14 MSD
Matrix: Water
Analysis Batch: 488428

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	150		10.0	152	4	mg/L		47	73 - 120	0	8

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 400-487777/3
Matrix: Water
Analysis Batch: 487777

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	ND		0.10	0.032	mg/L			05/01/20 22:23	1

Lab Sample ID: LCS 400-487777/4
Matrix: Water
Analysis Batch: 487777

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	4.00	3.93		mg/L		98	90 - 110

Lab Sample ID: 400-187257-B-1 MSD
Matrix: Water
Analysis Batch: 487777

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	0.43		1.00	1.38		mg/L		95	75 - 125	0	4

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: MB 400-487903/6
Matrix: Water
Analysis Batch: 487903

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		5.0	1.4	mg/L			05/04/20 11:20	1

Lab Sample ID: LCS 400-487903/7
Matrix: Water
Analysis Batch: 487903

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	15.0	15.0		mg/L		100	90 - 110

Lab Sample ID: MRL 400-487903/3
Matrix: Water
Analysis Batch: 487903

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	5.00	5.89		mg/L		118	50 - 150

QC Sample Results

Client: Geosyntec Consultants, Inc.
 Project/Site: CCR App.III/IV GW Monitoring

Job ID: 400-187364-1
 SDG: Crisp Co. Power

Method: SM 4500 SO4 E - Sulfate, Total (Continued)

Lab Sample ID: 400-187364-1 MS
Matrix: Water
Analysis Batch: 487903

Client Sample ID: DUP-14-20200427
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	21		10.0	31.7		mg/L		112	77 - 128

Lab Sample ID: 400-187364-1 MSD
Matrix: Water
Analysis Batch: 487903

Client Sample ID: DUP-14-20200427
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	21		10.0	31.1		mg/L		105	77 - 128	2	5




Client Information
 Company: Geosyntec Consultants, Inc.
 Address: 1255 Roberts Blvd, NW Suite 200
 City: Kennesaw
 State: GA, Zip: 30144
 Phone: 678-202-9500
 Email: dyifru@geosyntec.com
 Project Name: CCR App III/IV GW Monitoring
 Site: CRISP CO POWER

Sampler: STEPHEN W. RANDALL
 Lab PM: Whitmore, Cheyenne R
 Phone: 478-328-6181
 E-Mail: cheyenne.whitmore@testamericainc.com

Carrier Tracking No(s): 1516 9373 2535
 COC No: 400-93295-29334.1
 Page: Page 1 of 1
 Job #:

Due Date Requested:
 TAT Requested (days): STANDARD
 PO #: Purchase Order not required
 WO #:

Analysis Requested
 9315_Ra226, 9320_Ra228, Ra226Ra228_GFPCC
 SM4500_Cl_E - Chloride
 6020_Sb,As,Ba,Be,Ca,Cd,Cr,Cu,LI,Ph,Tl,Se,Mo
 7470A - Mercury
 2540C - Total Dissolved Solids
 4500_F_C - Fluoride
 SM4500_SO4_E - Sulfate
 Field Sampling - Field pH
 400-187364 COC


Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=wastewater, BT=tissue, A=air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315_Ra226, 9320_Ra228, Ra226Ra228_GFPCC	SM4500_Cl_E - Chloride	6020_Sb,As,Ba,Be,Ca,Cd,Cr,Cu,LI,Ph,Tl,Se,Mo	7470A - Mercury	2540C - Total Dissolved Solids	4500_F_C - Fluoride	SM4500_SO4_E - Sulfate	Field Sampling - Field pH	Total Number of Containers	Special Instructions/Note:
DUP-14-20200427	4/27/20	0800	G	Water	N	N									2 PH: 6.08	
MW-D2-20200427	4/27/20	1030	G	Water	N	N									2 PH: 4.90	
MW-D3-20200427	4/27/20	1215	G	Water	N	N									2 PH: 6.93	
MW-D1-20200427	4/27/20	1405	G	Water	N	N									2 PH: 6.08	
MW-U1-20200427	4/27/20	1630	G	Water	N	N									2 PH: 6.05	
ITEM																
LAST																

Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological
 Deliverable Requested: I, II, III, IV, Other (specify) LEVEL II

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For _____ Months

Special Instructions/QC Requirements:
 Empty Kit Relinquished by: _____ Date: _____
 Relinquished by: Stephen W. Randall Date/Time: 4/28/20 1700 Company: Geosyntec
 Relinquished by: _____ Date/Time: _____ Company: _____
 Relinquished by: _____ Date/Time: _____ Company: _____
 Custody Seals Intact: _____ Custody Seal No.: _____
 Cooler Temperature(s) °C and Other Remarks: 0.02 1R7 / 22.50 2019

Chain of Custody Record

Client Information Client Contact: STEPHEN W. RANDALL Phone: 478-328-6181 E-Mail: cheyenne.whitmire@testamericainc.com		Lab PM: Whitmire, Cheyenne R Carrier Tracking No(s): 1516 9323 2524		COC No: 400-93295-29334.1 Page: Page 1 of 1 Job #:											
Due Date Requested: TAT Requested (days): STANDARD		Analysis Requested													
PO #: 678-202-9500 Purchase Order not required WO #:		Total Number of Containers													
Email: dyifru@geosyntec.com Project Name: CCR App.III/IV GW Monitoring SOW#:		Preservation Codes: M - Hexane A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:													
Site: CRISP Co. POWER		Special Instructions/Note:													
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (Water, Solid, Other)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315_Ra226, 9320_Ra228, Ra226Ra228_GFP	SM4500_Cl_E - Chloride	6020 - Sb,As,B, Ba,Be,Ca,Cd,Cr,Cu, Li,Pb, Ti,Se,Mo	7470A - Mercury	2540C - Total Dissolved Solids	4500_F,C - Fluoride	SM4500_SO4_E - Sulfate	Field Sampling - Field pH	
Dupe 14-20200427	4/27/20	0800	G	Water	N	N	I	0	0	0	0	0	0	1	PH: 6.08
MW-D2-20200427	4/27/20	1030	G	Water	N	N	I	0	0	0	0	0	0	1	PH: 4.80
MW-D3-20200427	4/27/20	1215	G	Water	N	N	I	0	0	0	0	0	0	1	PH: 6.93
MW-D1-20200427	4/27/20	1405	G	Water	N	N	I	0	0	0	0	0	0	1	PH: 6.08
MW-U1-20200427	4/27/20	1630	G	Water	N	N	I	0	0	0	0	0	0	1	PH: 6.05
LAST ITEM															
Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months													
Deliverable Requested: I, II, III, IV, Other (specify) LEVEL II		Special Instructions/QC Requirements:													
Empty Kit Relinquished by: Stephen W. Randall Date: 4/28/20 Time:		Method of Shipment:													
Relinquished by: Stephen W. Randall Date/Time: 4/28/20 1400 Company: Geosyntec		Received by:													
Relinquished by:		Received by:													
Relinquished by:		Received by:													
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Cooler Temperature(s) °C and Other Remarks: 22.5 °C, 1R7													

Login Sample Receipt Checklist

Client: Geosyntec Consultants, Inc.

Job Number: 400-187364-1
SDG Number: Crisp Co. Power

Login Number: 187364

List Number: 1

Creator: Perez, Trina M

List Source: Eurofins TestAmerica, Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.0°C, 22.5°C IR-7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Accreditation/Certification Summary

Client: Geosyntec Consultants, Inc.
Project/Site: CCR App.III/IV GW Monitoring

Job ID: 400-187364-1
SDG: Crisp Co. Power

Laboratory: Eurofins TestAmerica, Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alabama	State	40150	07-01-20
ANAB	ISO/IEC 17025	L2471	02-23-23
Arizona	State	AZ0710	01-13-21
Arkansas DEQ	State	88-0689	09-01-20
California	State	2510	07-01-20
Florida	NELAP	E81010	06-30-20
Florida	NELAP	E81010	06-30-20
Georgia	State	E81010(FL)	06-30-20
Illinois	NELAP	004586	10-09-20
Iowa	State	367	08-01-20
Kansas	NELAP	E-10253	08-16-20
Kentucky (UST)	State	53	06-30-20
Kentucky (WW)	State	KY98030	12-31-20
Louisiana	NELAP	30976	06-30-20
Louisiana (DW)	State	LA017	12-31-20
Maryland	State	233	09-30-20
Massachusetts	State	M-FL094	06-30-20
Michigan	State	9912	06-30-20
Minnesota	NELAP	012-999-481	12-31-20
New Jersey	NELAP	FL006	06-30-20
New York	NELAP	12115	04-01-21
North Carolina (WW/SW)	State	314	12-31-20
Oklahoma	State	9810-186	08-31-20
Pennsylvania	NELAP	68-00467	01-31-21
Rhode Island	State	LAO00307	12-30-20
South Carolina	State	96026002	06-30-20
Tennessee	State	TN02907	06-30-20
Texas	NELAP	T104704286	09-30-20
US Fish & Wildlife	US Federal Programs	058448	07-31-20
USDA	US Federal Programs	P330-18-00148	05-17-21
Virginia	NELAP	460166	06-14-20
Washington	State	C915	05-15-20
West Virginia DEP	State	136	06-30-20

ANALYTICAL REPORT

Eurofins TestAmerica, Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

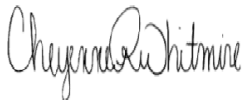
Laboratory Job ID: 400-187364-2

Laboratory Sample Delivery Group: Crisp Co. Power
Client Project/Site: CCR App.III/IV GW Monitoring

For:

Geosyntec Consultants, Inc.
1255 Roberts Blvd, NW
Suite 200
Kennesaw, Georgia 30144

Attn: Dawit Yifru



Authorized for release by:
6/2/2020 2:59:14 PM

Cheyenne Whitmire, Project Manager II
(850)471-6222
cheyenne.whitmire@testamericainc.com

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Geosyntec Consultants, Inc.
Project/Site: CCR App.III/IV GW Monitoring

Job ID: 400-187364-2
SDG: Crisp Co. Power

Job ID: 400-187364-2

Laboratory: Eurofins TestAmerica, Pensacola

Narrative

Job Narrative 400-187364-2

RAD

Methods 9315: Radium-226 Prep Batch 160-469975. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. DUP-14-20200427 (400-187364-1), MW-D2-20200427 (400-187364-2), MW-D3-20200427 (400-187364-3), MW-D1-20200427 (400-187364-4), MW-U1-20200427 (400-187364-5), (LCS 160-469975/1-A), (LCSD 160-469975/2-A) and (MB 160-469975/23-A)

Methods 9320: Ra-228 Prep Batch 160-469977. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. DUP-14-20200427 (400-187364-1), MW-D2-20200427 (400-187364-2), MW-D3-20200427 (400-187364-3), MW-D1-20200427 (400-187364-4), MW-U1-20200427 (400-187364-5), (LCS 160-469977/1-A), (LCSD 160-469977/2-A) and (MB 160-469977/23-A)

Method PrecSep_0: Radium 228 Prep Batch 160-469977. Insufficient sample volume was available to perform a sample duplicate for the following samples: DUP-14-20200427 (400-187364-1), MW-D2-20200427 (400-187364-2), MW-D3-20200427 (400-187364-3), MW-D1-20200427 (400-187364-4) and MW-U1-20200427 (400-187364-5). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

Method PrecSep-21: Radium 226 Prep Batch 160-469975. Insufficient sample volume was available to perform a sample duplicate for the following samples: DUP-14-20200427 (400-187364-1), MW-D2-20200427 (400-187364-2), MW-D3-20200427 (400-187364-3), MW-D1-20200427 (400-187364-4) and MW-U1-20200427 (400-187364-5). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

Method Summary

Client: Geosyntec Consultants, Inc.
Project/Site: CCR App.III/IV GW Monitoring

Job ID: 400-187364-2
SDG: Crisp Co. Power

Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	TAL SL
9320	Radium-228 (GFPC)	SW846	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL
PrecSep_0	Preparation, Precipitate Separation	None	TAL SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	TAL SL

Protocol References:

None = None

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Geosyntec Consultants, Inc.
Project/Site: CCR App.III/IV GW Monitoring

Job ID: 400-187364-2
SDG: Crisp Co. Power

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
400-187364-1	DUP-14-20200427	Water	04/27/20 08:00	04/29/20 09:04	
400-187364-2	MW-D2-20200427	Water	04/27/20 10:30	04/29/20 09:04	
400-187364-3	MW-D3-20200427	Water	04/27/20 12:15	04/29/20 09:04	
400-187364-4	MW-D1-20200427	Water	04/27/20 14:05	04/29/20 09:04	
400-187364-5	MW-U1-20200427	Water	04/27/20 16:30	04/29/20 09:04	

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13

Client Sample Results

Client: Geosyntec Consultants, Inc.
 Project/Site: CCR App.III/IV GW Monitoring

Job ID: 400-187364-2
 SDG: Crisp Co. Power

Client Sample ID: DUP-14-20200427

Lab Sample ID: 400-187364-1

Date Collected: 04/27/20 08:00

Matrix: Water

Date Received: 04/29/20 09:04

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.195		0.105	0.107	1.00	0.138	pCi/L	05/11/20 06:30	06/02/20 04:34	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.0		40 - 110					05/11/20 06:30	06/02/20 04:34	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0789	U	0.203	0.203	1.00	0.350	pCi/L	05/11/20 07:10	05/26/20 11:47	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.0		40 - 110					05/11/20 07:10	05/26/20 11:47	1
Y Carrier	95.7		40 - 110					05/11/20 07:10	05/26/20 11:47	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.274	U	0.229	0.229	5.00	0.350	pCi/L		06/02/20 08:54	1

Client Sample Results

Client: Geosyntec Consultants, Inc.
 Project/Site: CCR App.III/IV GW Monitoring

Job ID: 400-187364-2
 SDG: Crisp Co. Power

Client Sample ID: MW-D2-20200427

Lab Sample ID: 400-187364-2

Date Collected: 04/27/20 10:30

Matrix: Water

Date Received: 04/29/20 09:04

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.108	U	0.0867	0.0872	1.00	0.127	pCi/L	05/11/20 06:30	06/02/20 04:34	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.9		40 - 110					05/11/20 06:30	06/02/20 04:34	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0765	U	0.193	0.193	1.00	0.336	pCi/L	05/11/20 07:10	05/26/20 11:47	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.9		40 - 110					05/11/20 07:10	05/26/20 11:47	1
Y Carrier	93.1		40 - 110					05/11/20 07:10	05/26/20 11:47	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.184	U	0.212	0.212	5.00	0.336	pCi/L		06/02/20 08:54	1

Client Sample Results

Client: Geosyntec Consultants, Inc.
 Project/Site: CCR App.III/IV GW Monitoring

Job ID: 400-187364-2
 SDG: Crisp Co. Power

Client Sample ID: MW-D3-20200427

Lab Sample ID: 400-187364-3

Date Collected: 04/27/20 12:15

Matrix: Water

Date Received: 04/29/20 09:04

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0888	U	0.0849	0.0853	1.00	0.132	pCi/L	05/11/20 06:30	06/02/20 04:34	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.3		40 - 110					05/11/20 06:30	06/02/20 04:34	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.237	U	0.224	0.225	1.00	0.361	pCi/L	05/11/20 07:10	05/26/20 11:47	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.3		40 - 110					05/11/20 07:10	05/26/20 11:47	1
Y Carrier	94.2		40 - 110					05/11/20 07:10	05/26/20 11:47	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.326	U	0.240	0.241	5.00	0.361	pCi/L		06/02/20 08:54	1

Client Sample Results

Client: Geosyntec Consultants, Inc.
 Project/Site: CCR App.III/IV GW Monitoring

Job ID: 400-187364-2
 SDG: Crisp Co. Power

Client Sample ID: MW-D1-20200427

Lab Sample ID: 400-187364-4

Date Collected: 04/27/20 14:05

Matrix: Water

Date Received: 04/29/20 09:04

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.100	U	0.0946	0.0950	1.00	0.147	pCi/L	05/11/20 06:30	06/02/20 04:34	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.6		40 - 110					05/11/20 06:30	06/02/20 04:34	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.301	U	0.244	0.245	1.00	0.387	pCi/L	05/11/20 07:10	05/26/20 11:47	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.6		40 - 110					05/11/20 07:10	05/26/20 11:47	1
Y Carrier	96.1		40 - 110					05/11/20 07:10	05/26/20 11:47	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.401		0.262	0.263	5.00	0.387	pCi/L		06/02/20 08:54	1

Client Sample Results

Client: Geosyntec Consultants, Inc.
 Project/Site: CCR App.III/IV GW Monitoring

Job ID: 400-187364-2
 SDG: Crisp Co. Power

Client Sample ID: MW-U1-20200427

Lab Sample ID: 400-187364-5

Date Collected: 04/27/20 16:30

Matrix: Water

Date Received: 04/29/20 09:04

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0269	U	0.0584	0.0584	1.00	0.134	pCi/L	05/11/20 06:30	06/02/20 06:22	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	82.8		40 - 110					05/11/20 06:30	06/02/20 06:22	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.325	U	0.236	0.238	1.00	0.368	pCi/L	05/11/20 07:10	05/26/20 11:48	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	82.8		40 - 110					05/11/20 07:10	05/26/20 11:48	1
Y Carrier	91.2		40 - 110					05/11/20 07:10	05/26/20 11:48	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.298	U	0.243	0.245	5.00	0.368	pCi/L		06/02/20 08:54	1

Definitions/Glossary

Client: Geosyntec Consultants, Inc.
Project/Site: CCR App.III/IV GW Monitoring

Job ID: 400-187364-2
SDG: Crisp Co. Power

Qualifiers

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
▫	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Geosyntec Consultants, Inc.
 Project/Site: CCR App.III/IV GW Monitoring

Job ID: 400-187364-2
 SDG: Crisp Co. Power

Client Sample ID: DUP-14-20200427

Lab Sample ID: 400-187364-1

Date Collected: 04/27/20 08:00

Matrix: Water

Date Received: 04/29/20 09:04

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			469975	05/11/20 06:30	RBR	TAL SL
Total/NA	Analysis	9315		1	471668	06/02/20 04:34	KLS	TAL SL
Total/NA	Prep	PrecSep_0			469977	05/11/20 07:10	RBR	TAL SL
Total/NA	Analysis	9320		1	471273	05/26/20 11:47	CJQ	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	471673	06/02/20 08:54	SMP	TAL SL

Client Sample ID: MW-D2-20200427

Lab Sample ID: 400-187364-2

Date Collected: 04/27/20 10:30

Matrix: Water

Date Received: 04/29/20 09:04

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			469975	05/11/20 06:30	RBR	TAL SL
Total/NA	Analysis	9315		1	471668	06/02/20 04:34	KLS	TAL SL
Total/NA	Prep	PrecSep_0			469977	05/11/20 07:10	RBR	TAL SL
Total/NA	Analysis	9320		1	471273	05/26/20 11:47	CJQ	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	471673	06/02/20 08:54	SMP	TAL SL

Client Sample ID: MW-D3-20200427

Lab Sample ID: 400-187364-3

Date Collected: 04/27/20 12:15

Matrix: Water

Date Received: 04/29/20 09:04

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			469975	05/11/20 06:30	RBR	TAL SL
Total/NA	Analysis	9315		1	471668	06/02/20 04:34	KLS	TAL SL
Total/NA	Prep	PrecSep_0			469977	05/11/20 07:10	RBR	TAL SL
Total/NA	Analysis	9320		1	471273	05/26/20 11:47	CJQ	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	471673	06/02/20 08:54	SMP	TAL SL

Client Sample ID: MW-D1-20200427

Lab Sample ID: 400-187364-4

Date Collected: 04/27/20 14:05

Matrix: Water

Date Received: 04/29/20 09:04

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			469975	05/11/20 06:30	RBR	TAL SL
Total/NA	Analysis	9315		1	471668	06/02/20 04:34	KLS	TAL SL
Total/NA	Prep	PrecSep_0			469977	05/11/20 07:10	RBR	TAL SL
Total/NA	Analysis	9320		1	471273	05/26/20 11:47	CJQ	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	471673	06/02/20 08:54	SMP	TAL SL

Lab Chronicle

Client: Geosyntec Consultants, Inc.
Project/Site: CCR App.III/IV GW Monitoring

Job ID: 400-187364-2
SDG: Crisp Co. Power

Client Sample ID: MW-U1-20200427

Lab Sample ID: 400-187364-5

Date Collected: 04/27/20 16:30

Matrix: Water

Date Received: 04/29/20 09:04

<u>Prep Type</u>	<u>Batch Type</u>	<u>Batch Method</u>	<u>Run</u>	<u>Dilution Factor</u>	<u>Batch Number</u>	<u>Prepared or Analyzed</u>	<u>Analyst</u>	<u>Lab</u>
Total/NA	Prep	PrecSep-21			469975	05/11/20 06:30	RBR	TAL SL
Total/NA	Analysis	9315		1	471668	06/02/20 06:22	KLS	TAL SL
Total/NA	Prep	PrecSep_0			469977	05/11/20 07:10	RBR	TAL SL
Total/NA	Analysis	9320		1	471275	05/26/20 11:48	CJQ	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	471673	06/02/20 08:54	SMP	TAL SL

Laboratory References:

TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

QC Association Summary

Client: Geosyntec Consultants, Inc.
Project/Site: CCR App.III/IV GW Monitoring

Job ID: 400-187364-2
SDG: Crisp Co. Power

Rad

Prep Batch: 469975

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-187364-1	DUP-14-20200427	Total/NA	Water	PrecSep-21	
400-187364-2	MW-D2-20200427	Total/NA	Water	PrecSep-21	
400-187364-3	MW-D3-20200427	Total/NA	Water	PrecSep-21	
400-187364-4	MW-D1-20200427	Total/NA	Water	PrecSep-21	
400-187364-5	MW-U1-20200427	Total/NA	Water	PrecSep-21	
MB 160-469975/23-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-469975/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-469975/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

Prep Batch: 469977

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-187364-1	DUP-14-20200427	Total/NA	Water	PrecSep_0	
400-187364-2	MW-D2-20200427	Total/NA	Water	PrecSep_0	
400-187364-3	MW-D3-20200427	Total/NA	Water	PrecSep_0	
400-187364-4	MW-D1-20200427	Total/NA	Water	PrecSep_0	
400-187364-5	MW-U1-20200427	Total/NA	Water	PrecSep_0	
MB 160-469977/23-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-469977/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-469977/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

QC Sample Results

Client: Geosyntec Consultants, Inc.
 Project/Site: CCR App.III/IV GW Monitoring

Job ID: 400-187364-2
 SDG: Crisp Co. Power

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-469975/23-A
Matrix: Water
Analysis Batch: 471668

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 469975

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	-0.01029	U	0.0744	0.0744	1.00	0.152	pCi/L	05/11/20 06:30	06/02/20 06:22	1
Carrier	MB MB		Limits			Prepared	Analyzed	Dil Fac		
	%Yield	Qualifier								
Ba Carrier	91.3		40 - 110			05/11/20 06:30	06/02/20 06:22	1		

Lab Sample ID: LCS 160-469975/1-A
Matrix: Water
Analysis Batch: 471668

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 469975

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits
				Uncert. (2σ+/-)					
Radium-226	11.3	9.662		1.03	1.00	0.121	pCi/L	85	75 - 125
Carrier	LCS LCS		Limits			Prepared	Analyzed	Dil Fac	
	%Yield	Qualifier							
Ba Carrier	94.3		40 - 110						

Lab Sample ID: LCSD 160-469975/2-A
Matrix: Water
Analysis Batch: 471668

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 469975

Analyte	Spike Added	LCSD Result	LCSD Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits	RER	Limit
				Uncert. (2σ+/-)							
Radium-226	11.3	9.454		1.02	1.00	0.124	pCi/L	83	75 - 125	0.10	1
Carrier	LCSD LCSD		Limits			Prepared	Analyzed	Dil Fac			
	%Yield	Qualifier									
Ba Carrier	87.0		40 - 110								

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-469977/23-A
Matrix: Water
Analysis Batch: 471275

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 469977

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	-0.07159	U	0.209	0.209	1.00	0.384	pCi/L	05/11/20 07:10	05/26/20 11:49	1
Carrier	MB MB		Limits			Prepared	Analyzed	Dil Fac		
	%Yield	Qualifier								
Ba Carrier	91.3		40 - 110			05/11/20 07:10	05/26/20 11:49	1		
Y Carrier	96.8		40 - 110			05/11/20 07:10	05/26/20 11:49	1		

QC Sample Results

Client: Geosyntec Consultants, Inc.
 Project/Site: CCR App.III/IV GW Monitoring

Job ID: 400-187364-2
 SDG: Crisp Co. Power

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-469977/1-A
Matrix: Water
Analysis Batch: 471273

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 469977

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	8.81	8.061		0.949	1.00	0.365	pCi/L	92	75 - 125

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	94.3		40 - 110
Y Carrier	91.2		40 - 110


Lab Sample ID: LCSD 160-469977/2-A
Matrix: Water
Analysis Batch: 471273

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 469977

Analyte	Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228	8.81	7.920		0.976	1.00	0.425	pCi/L	90	75 - 125	0.07	1

Carrier	LCSD %Yield	LCSD Qualifier	Limits
Ba Carrier	87.0		40 - 110
Y Carrier	83.0		40 - 110

Chain of Custody Record

Client Information Company: Geosyntec Consultants, Inc. Address: 1255 Roberts Blvd, NW Suite 200 City: Kennesaw State: GA, Zip: 30144 Phone: 678-202-9500 Email: dyifru@geosyntec.com		Sampler: STEPHEN W. RANDALL Lab PM: Whitmore, Cheyenne R Phone: 478-328-6181 E-Mail: cheyenne.whitmore@testamericainc.com		Carrier Tracking No(s): 1516 9373 2535 COC No: 400-93295-29334.1 Page: Page 1 of 1 Job #:																											
Due Date Requested: TAT Requested (days): STANDARD PO #: Purchase Order not required WO #:		Analysis Requested 9315_Ra226, 9320_Ra228, Ra226Ra228_GFPCC SM4500_Cl_E - Chloride 6020_Sb,As,Ba,Be,Ca,Cd,Cr,Cu,Li,Pb,Tl,Se,Mo 7470A - Mercury 2540C - Total Dissolved Solids 4500_F_C - Fluoride SM4500_SO4_E - Sulfate Field Sampling - Field pH 400-187364 COC 																													
Sample Identification Dup-14-20200427 MW-D2-20200427 MW-D3-20200427 MW-D1-20200427 MW-U1-20200427		Sample Date 4/27/20 4/27/20 4/27/20 4/27/20 4/27/20		Sample Time 0800 1030 1215 1405 1630		Sample Type (C=Comp, G=grab) G G G G G		Matrix (W=Water, S=solid, O=wastewater, BT=Tissue, A=Air) Water Water Water Water Water Water		Field Filtered Sample (Yes or No) N N N N N		Perform MS/MSD (Yes or No) N N N N N		Field Sampling - Field pH N N N N N		SM4500_SO4_E - Sulfate N N N N N		4500_F_C - Fluoride N N N N N		2540C - Total Dissolved Solids N N N N N		7470A - Mercury N N N N N		6020_Sb,As,Ba,Be,Ca,Cd,Cr,Cu,Li,Pb,Tl,Se,Mo N N N N N		9315_Ra226, 9320_Ra228, Ra226Ra228_GFPCC D N D N D N		Total Number of Containers 2 PH: 6.08 2 PH: 4.80 2 PH: 6.93 2 PH: 6.08 2 PH: 6.05		Special Instructions/Note: ITEM LAST	
Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Deliverable Requested: I, II, III, IV, Other (specify) LEVEL II		Empty Kit Relinquished by:		Date: 4/28/20		Company: Geosyntec		Received by:		Date/Time:		Company:																	
Relinquished by: Stephen W. Randall		Date/Time: 4/28/20		Company: Geosyntec		Received by:		Date/Time:		Company:		Date/Time: 4-29-20 9:09		Company:																	
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:		Company:		Date/Time:		Company:																	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:		Company:																	
Cooler Temperature(s) °C and Other Remarks: 0.02 1R7 / 22.50 2R7		Special Instructions/QC Requirements:		Return To Client: <input type="checkbox"/> <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)		Method of Shipment:		Received by:		Date/Time:		Company:																	

Chain of Custody Record

Client Information Client Contact: STEPHEN W. RANDALL Phone: 478-328-6181 Company: Geosyntec Consultants, Inc. Address: 1255 Roberts Blvd, NW Suite 200 City: Kennesaw State, Zip: GA, 30144 Phone: 678-202-9500 Email: dyifru@geosyntec.com Project Name: CCR App.III/IV GW Monitoring Site: CRISP Co. POWER		Lab PM: Whitmire, Chyenne R E-Mail: cheyenne.whitmire@testamericainc.com Carrier Tracking No(s): 1516 9323 2524 COC No: 400-93295-29334.1 Page: Page 1 of 1 Job #:	
Due Date Requested: TAT Requested (days): STANDARD PO #: 678-202-9500 Purchase Order not required WO #: Project #: 40007960 SOW#:		Analysis Requested 9315_Ra226, 9320_Ra228, Ra226Ra228_GFP SM4500_Cl_E - Chloride 6020 - Sb,As,B, Ba,Be,Ca,Cd,Cr,Co, Li,Pb,Tl,Se,Mo 7470A - Mercury 2540C - Total Dissolved Solids 4500_F,C - Fluoride SM4500_SO4_E - Sulfate Field Sampling - Field pH	
Sample Identification Dupel 14-20200427 MW-D2-20200427 MW-D3-20200427 MW-D1-20200427 MW-U1-20200427		Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> Perform MS/MSD (Yee or No) <input checked="" type="checkbox"/> Total Number of Containers: 1	
Sample Date 4/27/20 4/27/20 4/27/20 4/27/20 4/27/20	Sample Time 0800 1030 1215 1405 1630	Sample Type (C=Comp, G=grab) G G G G G	Matrix (Water, Solid, Other) Water Water Water Water Water
Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested: I, II, III, IV, Other (specify) LEVEL II		Special Instructions/Note: PH: 6.08 PH: 4.80 PH: 6.93 PH: 6.08 PH: 6.05 LAST ITEM	
Empty Kit Relinquished by: Stephen W. Randall Date: 4/28/20 Relinquished by:		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months	
Relinquished by: Stephen W. Randall Date/Time: 4/28/20 1400 Company: Geosyntec		Method of Shipment: Date/Time: _____ Company: _____	
Relinquished by: _____ Date/Time: _____ Company: _____		Received by: _____ Date/Time: _____ Company: _____	
Relinquished by: _____ Date/Time: _____ Company: _____		Received by: _____ Date/Time: 4-29-20 9:04 Company: _____	
Custody Seals Intact: Δ Yes Δ No		Cooler Temperature(s) °C and Other Remarks: 22.5 °C 1R7	



Login Sample Receipt Checklist

Client: Geosyntec Consultants, Inc.

Job Number: 400-187364-2
SDG Number: Crisp Co. Power

Login Number: 187364

List Number: 1

Creator: Perez, Trina M

List Source: Eurofins TestAmerica, Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.0°C, 22.5°C IR-7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Login Sample Receipt Checklist

Client: Geosyntec Consultants, Inc.

Job Number: 400-187364-2
SDG Number: Crisp Co. Power

Login Number: 187364

List Number: 2

Creator: Korrinhizer, Micha L

List Source: Eurofins TestAmerica, St. Louis

List Creation: 04/30/20 07:02 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Accreditation/Certification Summary

Client: Geosyntec Consultants, Inc.
Project/Site: CCR App.III/IV GW Monitoring

Job ID: 400-187364-2
SDG: Crisp Co. Power

Laboratory: Eurofins TestAmerica, Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alabama	State	40150	07-01-20
ANAB	ISO/IEC 17025	L2471	02-23-23
Arizona	State	AZ0710	01-13-21
Arkansas DEQ	State	88-0689	09-01-20
California	State	2510	07-01-20
Florida	NELAP	E81010	06-30-20
Florida	NELAP	E81010	06-30-20
Georgia	State	E81010(FL)	06-30-20
Illinois	NELAP	004586	10-09-20
Iowa	State	367	08-01-20
Kansas	NELAP	E-10253	08-16-20
Kentucky (UST)	State	53	06-30-20
Kentucky (WW)	State	KY98030	12-31-20
Louisiana	NELAP	30976	06-30-20
Louisiana (DW)	State	LA017	12-31-20
Maryland	State	233	09-30-20
Massachusetts	State	M-FL094	06-30-20
Michigan	State	9912	06-30-20
Minnesota	NELAP	012-999-481	12-31-20
New Jersey	NELAP	FL006	06-30-20
New York	NELAP	12115	04-01-21
North Carolina (WW/SW)	State	314	12-31-20
Oklahoma	State	9810-186	08-31-20
Pennsylvania	NELAP	68-00467	01-31-21
Rhode Island	State	LAO00307	12-30-20
South Carolina	State	96026002	06-30-20
Tennessee	State	TN02907	06-30-20
Texas	NELAP	T104704286	09-30-20
US Fish & Wildlife	US Federal Programs	058448	07-31-20
USDA	US Federal Programs	P330-18-00148	05-17-21
Virginia	NELAP	460166	06-14-20
Washington	State	C915	05-15-21
West Virginia DEP	State	136	06-30-20

Accreditation/Certification Summary

Client: Geosyntec Consultants, Inc.
 Project/Site: CCR App.III/IV GW Monitoring

Job ID: 400-187364-2
 SDG: Crisp Co. Power

Laboratory: Eurofins TestAmerica, St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-22
ANAB	Dept. of Defense ELAP	L2305	04-06-22
ANAB	Dept. of Energy	L2305.01	04-06-22
ANAB	ISO/IEC 17025	L2305	04-06-22
Arizona	State	AZ0813	12-08-20
California	Los Angeles County Sanitation Districts	10259	06-30-20
California	State	2886	06-30-20
Connecticut	State	PH-0241	03-31-21
Florida	NELAP	E87689	06-30-20
Florida	NELAP	E87689	06-30-20
HI - RadChem Recognition	State	n/a	06-30-20
Illinois	NELAP	004553	11-30-20
Iowa	State	373	09-17-20
Kansas	NELAP	E-10236	10-31-20
Kentucky (DW)	State	KY90125	12-31-20
Louisiana	NELAP	04080	06-30-20
Louisiana	NELAP	04080	06-30-20
Louisiana (DW)	State	LA011	12-31-20
Maryland	State	310	09-30-20
MI - RadChem Recognition	State	9005	06-30-20
Missouri	State	780	06-30-22
Nevada	State	MO000542020-1	07-31-20
New Jersey	NELAP	MO002	06-30-20
New York	NELAP	11616	04-01-21
North Dakota	State	R-207	06-30-20
NRC	NRC	24-24817-01	12-31-22
Oklahoma	State	9997	08-31-20
Pennsylvania	NELAP	68-00540	02-28-21
South Carolina	State	85002001	06-30-20
Texas	NELAP	T104704193-19-13	07-31-20
US Fish & Wildlife	US Federal Programs	058448	07-31-20
USDA	US Federal Programs	P330-17-00028	03-11-23
Utah	NELAP	MO000542019-11	07-31-20
Virginia	NELAP	10310	06-14-20
Washington	State	C592	08-30-20
West Virginia DEP	State	381	10-31-20

Stage 2A Data Validation Checklist
Crisp County Power Commission
Plant Crisp Ash Pond
Data Validation Performed by Geosyntec Consultants, Knoxville, TN

Project: Crisp Co. Power	Completed by: Kristoffer Henderson	Reviewed by: JK Caprio
Laboratory Name/Report ID: 400-187364-1 and -2	Date: 1/19/2021	Date: 1/19/2021

<i>Item</i>	<i>Y</i>	<i>N</i>	<i>NA</i>	<i>Reviewer</i>	<i>Comments</i>
Chain of Custody (COC)					
1. Is the project name listed?	x				
2. Are the client sample IDs listed?	x				
3. Are the sample matrices listed?	x				
4. Are the date & time of sample collection listed for each sample?	x				
5. Are the sample preservations noted?	x				
6. Are the analyses noted?	x				
7. Are the samples properly relinquished and received?	x				
Report Review					
1. Sample receipt issues noted/described?			x		
2. Date & time of lab receipt noted?	x				
3. Lab IDs match those listed on COC?	x				
4. Lab completed analyses for all samples collected?	x				
5. Did all samples arrive in good condition at the laboratory?	x				
6. Was the sample login information complete and compared to the COC?	x				
7. Is the report narrative present and complete?	x				
8. Did the case narrative flag any issues not noted elsewhere?	x				Method 6020: The initial calibration verification (ICV) for 400-488265 passed recovery/accuracy criteria which serves the ICV purpose of verifying the calibration standards. The replicate relative standard deviation (RSD) for the elements were outside of the criteria for standards but within the criteria for field samples. Data has therefore been reported and narrated accordingly. No qualifications were applied to the data, based on professional and technical judgment.

Stage 2A Data Validation Checklist
Crisp County Power Commission
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<i>Item</i>	<i>Y</i>	<i>N</i>	<i>NA</i>	<i>Reviewer</i>	<i>Comments</i>
					Method 6020: The continuing calibration verification (CCV) associated with batch 400-488265 recovered above the upper control limit for Cadmium. Therefore, the cadmium concentration in sample MW-D2-20200427 was J qualified as estimated.
9. Did the electronic data deliverable (EDD) match the lab report?			x		

Comments: None

Analysis: Metals by USEPA Methods 3005A/6020, Mercury by USEPA Method 7470A, TDS by Standard Method (SM) 2540C, Chloride by SM 4500 Cl-E, Fluoride by SM 4500 F C, Sulfate by SM 4500 SO4 E, Radium-226 by USEPA Method 9315, Radium-228 by USEPA Method 9320 and Combined Radium-226 and Radium-228 by Calculation	<i>Y</i>	<i>N</i>	<i>NA</i>	<i>Reviewer</i>	<i>Comments</i>
A. Initial Review					
1. Are the correct compound lists reported?	x				
2. Are all the compounds reported in the blanks and LCSs?	x				
3. Are the sample results consistently reported to the MDLs or RLs?	x				
4. Are the MDLs at or below the project measurement quality objectives listed in Table 3 of the QAPP?			x		
5. Are the lab flags defined?	x				
6. Are the units correct?	x				
7. Are the times of analyses reported?	x				
8. Are the methods the same as those in the QAPP?			x		
9. Were lab flags correctly applied?	x				
B. Holding Time and Preservation					
1. Holding times met?	x				
2. Samples appropriately preserved?	x				
C. Quality Control (QC) Samples					

Stage 2A Data Validation Checklist
Crisp County Power Commission
Plant Crisp Ash Pond
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Analysis: Metals by USEPA Methods 3005A/6020, Mercury by USEPA Method 7470A, TDS by Standard Method (SM) 2540C, Chloride by SM 4500 Cl-E, Fluoride by SM 4500 F C, Sulfate by SM 4500 SO4 E, Radium-226 by USEPA Method 9315, Radium-228 by USEPA Method 9320 and Combined Radium-226 and Radium-228 by Calculation	<i>Y</i>	<i>N</i>	<i>NA</i>	<i>Reviewer</i>	<i>Comments</i>
1. Blanks: 1/20 samples & should not contain any target analyte at a concentration greater than the MDLs?		x			Arsenic was detected in the method blank in batch 487579 at an estimated concentration greater than the MDL and less than the RL. Therefore, the estimated arsenic concentration in the associated samples were U qualified as not detected at the RL.
a. Review detections in the samples and qualify as appropriate as indicated in the EPA NFG.	x				See C1
2. Surrogates (organic analyses only): in all samples & QC samples and within laboratory limits?	x				Carriers were reported for radium-226 and radium-228.
a. If surrogates outside the limits, qualify as appropriate as indicated in the EPA NFG			x		
3. LCS (& LCSD if presented): 1/20 samples and within laboratory limits?	x				
a. If recoveries outside the limits, qualify associated samples as appropriate as indicated in the EPA NFG	x				
b. If LCSD samples are present, evaluate precision. If relative percent difference (RPD) outside the limits qualify associated samples as appropriate	x				LCSDs were reported for radium-226 and radium-228. The replicate error ratios (RERs) were within the laboratory specified acceptance criteria.
4. MS/MSD: 1/20 samples and within laboratory limits?	x				
a. If recoveries or RPD outside the limits, qualify associated sample as appropriate as indicated in the EPA NFG			x		
5. Laboratory Duplicate: 1/20 sample and within laboratory limits?			x		
a. If RPD outside the limits, qualify associated sample as appropriate as indicated in the EPA NFG			x		
6. Serial dilutions (metals analyses only): within laboratory limits?			x		
a. If outside the limits, qualify associated sample as appropriate as indicated in the EPA NFG			x		

Stage 2A Data Validation Checklist
Crisp County Power Commission
Plant Crisp Ash Pond
Data Validation Performed by Geosyntec Consultants, Knoxville, TN

Analysis: Metals by USEPA Methods 3005A/6020, Mercury by USEPA Method 7470A, TDS by Standard Method (SM) 2540C, Chloride by SM 4500 Cl-E, Fluoride by SM 4500 F C, Sulfate by SM 4500 SO4 E, Radium-226 by USEPA Method 9315, Radium-228 by USEPA Method 9320 and Combined Radium-226 and Radium-228 by Calculation	<i>Y</i>	<i>N</i>	<i>NA</i>	<i>Reviewer</i>	<i>Comments</i>
7. Is the total concentration greater than the dissolved concentration or the RPD < 30%.			x		
a. If dissolved greater than total and outside RPD >30%, qualify associated sample as appropriate			x		
D. Field QC Samples					
1. Field QC analyzed (e.g., field blanks, dups)?	x				
2. Field QC blank results acceptable:					
a. Trip blank?			x		
b. Field blank?			x		
c. Equipment blank?			x		
3. Field duplicate analyzed?	x				DUP-14-20200427 was collected for MW-D1-20200427
4. Field duplicate RPD criteria met (30% RPD aqueous; 40% RPD solid)		x			<p>Arsenic was detected in DUP-14-20200427 at an estimated concentration greater than the MDL and less than the RL and was not detected in MW-D1-20200427, resulting in a noncalculable RPD. Since the arsenic concentration in DUP-14-20200427 was U qualified due to method blank contamination and based on professional and technical judgement, no qualifications were applied to the data.</p> <p>The RPD for TDS was greater than 30%; therefore, the TDS concentrations in DUP-14-20200427 and MW-D1-20200427 were J qualified as estimated.</p>

Comments: None

Stage 2A Data Validation Checklist
Crisp County Power Commission
Plant Crisp Ash Pond
Data Validation Performed by Geosyntec Consultants, Knoxville, TN

The laboratory flagged several samples due to laboratory nonconformances. These nonconformances were evaluated by a qualified data validator and the laboratory flags were replaced with the appropriate validation qualifiers. This evaluation is summarized in the Qualification Table below.

Qualification Table

Sample	Analyte	Laboratory Result	Laboratory Flag	RL	MDL	Unit	Validation Result	Validation Qualifier*	Reason Code
DUP-14-20200427	Antimony	ND	^	0.00050	0.00030	mg/L	0.00030	U	No Qualifications
DUP-14-20200427	Arsenic	0.00019	J B	0.00025	0.000078	mg/L	0.00025	U	Method Blank Contamination
DUP-14-20200427	Beryllium	ND	^	0.00040	0.000034	mg/L	0.000034	U	No Qualifications
DUP-14-20200427	Cadmium	ND	^	0.00020	0.000056	mg/L	0.000056	U	No Qualifications
DUP-14-20200427	Chromium	ND	^	0.00050	0.00020	mg/L	0.00020	U	No Qualifications
DUP-14-20200427	Cobalt	ND	^	0.00050	0.00011	mg/L	0.00011	U	No Qualifications
DUP-14-20200427	Lead	ND	^	0.00025	0.000058	mg/L	0.000058	U	No Qualifications
DUP-14-20200427	Lithium	ND	^	0.00050	0.00038	mg/L	0.00038	U	No Qualifications
DUP-14-20200427	Molybdenum	ND	^	0.0020	0.00090	mg/L	0.00090	U	No Qualifications
DUP-14-20200427	Thallium	ND	^	0.00010	0.000024	mg/L	0.000024	U	No Qualifications
MW-D2-20200427	Antimony	ND	^	0.00050	0.00030	mg/L	0.00030	U	No Qualifications
MW-D2-20200427	Arsenic	0.00027	B	0.00025	0.000078	mg/L	0.00027	NA	No Qualifications
MW-D2-20200427	Beryllium	ND	^	0.00040	0.000034	mg/L	0.000034	U	No Qualifications
MW-D2-20200427	Cadmium	0.000075	J ^	0.00020	0.000056	mg/L	0.000075	J	High CCV Recovery
MW-D2-20200427	Chromium	ND	^	0.00050	0.00020	mg/L	0.00020	U	No Qualifications
MW-D2-20200427	Lead	ND	^	0.00025	0.000058	mg/L	0.000058	U	No Qualifications
MW-D2-20200427	Molybdenum	ND	^	0.0020	0.00090	mg/L	0.00090	U	No Qualifications
MW-D3-20200427	Arsenic	0.001	B	0.00025	0.000078	mg/L	0.0010	NA	No Qualifications
MW-D3-20200427	Beryllium	ND	^	0.00040	0.000034	mg/L	0.000034	U	No Qualifications
MW-D3-20200427	Cadmium	0.000071	J	0.00020	0.000056	mg/L	0.000071	J	
MW-D3-20200427	Chromium	ND	^	0.00050	0.00020	mg/L	0.00020	U	No Qualifications
MW-D3-20200427	Lead	ND	^	0.00025	0.000058	mg/L	0.000058	U	No Qualifications
MW-D1-20200427	Antimony	ND	^	0.00050	0.00030	mg/L	0.00030	U	No Qualifications
MW-D1-20200427	Arsenic	ND	^	0.00025	0.000078	mg/L	0.000078	U	No Qualifications
MW-D1-20200427	Chromium	ND	^	0.00050	0.00020	mg/L	0.00020	U	No Qualifications

Stage 2A Data Validation Checklist
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Data Validation Performed by Geosyntec Consultants, Knoxville, TN

Sample	Analyte	Laboratory Result	Laboratory Flag	RL	MDL	Unit	Validation Result	Validation Qualifier*	Reason Code
MW-D1-20200427	Cobalt	ND	^	0.00050	0.00011	mg/L	0.00011	U	No Qualifications
MW-D1-20200427	Lead	ND	^	0.00025	0.000058	mg/L	0.000058	U	No Qualifications
MW-D1-20200427	Lithium	ND	^	0.00050	0.00038	mg/L	0.00038	U	No Qualifications
MW-D1-20200427	Molybdenum	ND	^	0.0020	0.00090	mg/L	0.00090	U	No Qualifications
MW-U1-20200427	Antimony	ND	^	0.00050	0.00030	mg/L	0.00030	U	No Qualifications
MW-U1-20200427	Arsenic	0.00015	J B	0.00025	0.000078	mg/L	0.00025	U	Method Blank Contamination
MW-U1-20200427	Beryllium	ND	^	0.00040	0.000034	mg/L	0.000034	U	No Qualifications
MW-U1-20200427	Cobalt	ND	^	0.00050	0.00011	mg/L	0.00011	U	No Qualifications
MW-U1-20200427	Lead	ND	^	0.00025	0.000058	mg/L	0.000058	U	No Qualifications
MW-U1-20200427	Lithium	ND	^	0.00050	0.00038	mg/L	0.00038	U	No Qualifications
MW-U1-20200427	Molybdenum	ND	^	0.0020	0.00090	mg/L	0.00090	U	No Qualifications
MW-U1-20200427	Thallium	ND	^	0.00010	0.000024	mg/L	0.000024	U	No Qualifications

mg/L-milligrams per liter

J-estimated concentration greater than the MDL and less than the RL

B-laboratory flag indicating the analyte was detected in both the sample and method blank

^-laboratory flag indicating one or more instrument QC was outside the method criteria

ND-not detected at or above the MDL

* Validation qualifiers are defined in Attachment 1 at the end of this report

Stage 2A Data Validation Checklist
Crisp County Power Commission
Plant Crisp Ash Pond
Data Validation Performed by Geosyntec Consultants, Knoxville, TN

Definitions

CCV - Continuing calibration verification

%D - Percent difference

EPA NFG - USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review, June 2008 (USEPA-540-R-08-01), USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review, January 2010 (OSWER 9240.1-51, EPA 540-R-10-011)

ICV - Initial calibration verification

LCS - Laboratory control sample

MDL - Method detection limit

QAPP - Quality assurance project plan

QC - Quality Control

RL - Reporting limit

**Stage 2A Data Validation Checklist
Crisp County Power Commission
Plant Crisp Ash Pond
Data Validation Performed by Geosyntec Consultants, Knoxville, TN**

**ATTACHMENT 1
DATA VALIDATION QUALIFIER DEFINITIONS
AND INTERPRETATION KEY
Assigned by Geosyntec's Data Validation Team**

DATA QUALIFIER DEFINITIONS

- U The analyte was analyzed for, but was not detected above the reported sample quantitation limit. Upon application of the U qualifier to a reported result, the definition changes to “not detected at or above the reported result”.
- J The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- J+ The analyte was positively identified; however, the associated numerical value is likely to be higher than the concentration of the analyte in the sample due to positive bias of associated QC or calibration data or attributable to matrix interference.
- J- The analyte was positively identified; however, the associated numerical value is likely to be lower than the concentration of the analyte in the sample due to negative bias of associated QC or calibration data or attributable to matrix interference.
- UJ The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

November 2020

ANALYTICAL REPORT

Eurofins TestAmerica, Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

Laboratory Job ID: 400-196175-1
Laboratory Sample Delivery Group: Crisp Co. Power
Client Project/Site: Crisp County
Revision: 1

For:
Geosyntec Consultants, Inc.
1255 Roberts Blvd, NW
Suite 200
Kennesaw, Georgia 30144

Attn: Dawit Yifru



Authorized for release by:
12/16/2020 1:58:25 PM

Cheyenne Whitmire, Project Manager II
(850)471-6222
Cheyenne.Whitmire@Eurofinset.com

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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



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Case Narrative

Client: Geosyntec Consultants, Inc.
Project/Site: Crisp County

Job ID: 400-196175-1
SDG: Crisp Co. Power

Job ID: 400-196175-1

Laboratory: Eurofins TestAmerica, Pensacola

Narrative

Job Narrative 400-196175-1

Metals

Method 6020: The continuing calibration verification (CCV) associated with batch 400-512954 recovered above the upper control limit for Chromium. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: (CCV 400-512954/113) and (CCV 400-512954/125).

Method 6020: The continuing calibration verification (CCV) associated with batch 400-512954 recovered above the upper control limit for Chromium and Molybdenum. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated sample is impacted: (CCV 400-512954/130).

Method 6020: The following samples were diluted due to the nature of the sample matrix: DUP-15-20201119 (400-196175-1), MW-D2-20201119 (400-196175-2), MW-D3-20201119 (400-196175-3), (400-196175-C-1-C MS ^25) and (400-196175-C-1-D MSD ^25). Elevated reporting limits (RLs) are provided.

General Chemistry

Method SM 4500 F C: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 400-513080 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method SM 4500 F C: The matrix spike / matrix spike duplicate / sample duplicate (MS/MSD/DUP) precision for analytical batch 400-513080 was outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory control sample duplicate (LCS/LCSD) precision was within acceptance limits.

Method SM 4500 SO4 E: The following samples were diluted to bring the concentration of target analytes within the calibration range: MW-D3-20201119 (400-196175-3) and MW-D1-20201119 (400-196175-5). Elevated reporting limits (RLs) are provided.

Revision

The report being provided is a revision of the original report sent on 12/15/2020. The report (revision 1) is being revised due to: report revised to edit app iv list to a custom list.

Detection Summary

Client: Geosyntec Consultants, Inc.
Project/Site: Crisp County

Job ID: 400-196175-1
SDG: Crisp Co. Power

Client Sample ID: DUP-15-20201119

Lab Sample ID: 400-196175-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.14		0.0025	0.00070	mg/L	5		6020	Total Recoverable
Boron	0.16		0.050	0.018	mg/L	5		6020	Total Recoverable
Calcium	130		1.3	0.63	mg/L	25		6020	Total Recoverable
Lithium	0.0029		0.0025	0.0019	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	380		5.0	5.0	mg/L	1		SM 2540C	Total/NA
Chloride	7.5		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.060	J	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
pH	7.3	HF			SU	1		SM 4500 H+ B	Total/NA
Temperature	22.8	HF			Degrees C	1		SM 4500 H+ B	Total/NA
Sulfate	19		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: MW-D2-20201119

Lab Sample ID: 400-196175-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.14		0.0025	0.00070	mg/L	5		6020	Total Recoverable
Boron	0.15		0.050	0.018	mg/L	5		6020	Total Recoverable
Calcium	130		1.3	0.63	mg/L	25		6020	Total Recoverable
Lithium	0.0031		0.0025	0.0019	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	410		5.0	5.0	mg/L	1		SM 2540C	Total/NA
Chloride	5.9		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.050	J	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
pH	7.0	HF			SU	1		SM 4500 H+ B	Total/NA
Temperature	25.5	HF			Degrees C	1		SM 4500 H+ B	Total/NA
Sulfate	19		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA
Field pH	6.28				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-D3-20201119

Lab Sample ID: 400-196175-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.0011	J	0.0013	0.00039	mg/L	5		6020	Total Recoverable
Barium	0.084		0.0025	0.00070	mg/L	5		6020	Total Recoverable
Boron	0.25		0.050	0.018	mg/L	5		6020	Total Recoverable
Calcium	110		1.3	0.63	mg/L	25		6020	Total Recoverable
Cobalt	0.00059	J	0.0025	0.00056	mg/L	5		6020	Total Recoverable
Lithium	0.0024	J	0.0025	0.0019	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	410		5.0	5.0	mg/L	1		SM 2540C	Total/NA
Chloride	4.6		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.11		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
pH	7.2	HF			SU	1		SM 4500 H+ B	Total/NA
Temperature	17.1	HF			Degrees C	1		SM 4500 H+ B	Total/NA
Sulfate	33		10	2.8	mg/L	2		SM 4500 SO4 E	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Pensacola

Detection Summary

Client: Geosyntec Consultants, Inc.
Project/Site: Crisp County

Job ID: 400-196175-1
SDG: Crisp Co. Power

Client Sample ID: MW-D3-20201119 (Continued)

Lab Sample ID: 400-196175-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Field pH	6.83				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-U1-20201119

Lab Sample ID: 400-196175-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.0062		0.0025	0.00070	mg/L	5		6020	Total Recoverable
Calcium	36		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0015	J	0.0025	0.0010	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	130		5.0	5.0	mg/L	1		SM 2540C	Total/NA
Chloride	2.4		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.070	J	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
pH	7.9	HF			SU	1		SM 4500 H+ B	Total/NA
Temperature	25.6	HF			Degrees C	1		SM 4500 H+ B	Total/NA
Sulfate	2.3	J	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA
Field pH	7.47				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-D1-20201119

Lab Sample ID: 400-196175-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.024		0.0025	0.00070	mg/L	5		6020	Total Recoverable
Boron	0.19		0.050	0.018	mg/L	5		6020	Total Recoverable
Calcium	88		0.25	0.13	mg/L	5		6020	Total Recoverable
Lithium	0.0023	J	0.0025	0.0019	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	270		5.0	5.0	mg/L	1		SM 2540C	Total/NA
Chloride	3.7		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.10		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
pH	7.3	HF			SU	1		SM 4500 H+ B	Total/NA
Temperature	18.6	HF			Degrees C	1		SM 4500 H+ B	Total/NA
Sulfate	31		10	2.8	mg/L	2		SM 4500 SO4 E	Total/NA
Field pH	6.99				SU	1		Field Sampling	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Pensacola

Method Summary

Client: Geosyntec Consultants, Inc.
Project/Site: Crisp County

Job ID: 400-196175-1
SDG: Crisp Co. Power

Method	Method Description	Protocol	Laboratory
6020	Metals (ICP/MS)	SW846	TAL PEN
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PEN
SM 4500 Cl- E	Chloride, Total	SM	TAL PEN
SM 4500 F C	Fluoride	SM	TAL PEN
SM 4500 H+ B	pH	SM	TAL PEN
SM 4500 SO4 E	Sulfate, Total	SM	TAL PEN
Field Sampling	Field Sampling	EPA	TAL PEN
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL PEN

Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PEN = Eurofins TestAmerica, Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Sample Summary

Client: Geosyntec Consultants, Inc.
Project/Site: Crisp County

Job ID: 400-196175-1
SDG: Crisp Co. Power

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
400-196175-1	DUP-15-20201119	Water	11/19/20 00:00	11/21/20 08:53	
400-196175-2	MW-D2-20201119	Water	11/19/20 14:50	11/21/20 08:53	
400-196175-3	MW-D3-20201119	Water	11/19/20 13:30	11/21/20 08:53	
400-196175-4	MW-U1-20201119	Water	11/19/20 11:40	11/21/20 08:53	
400-196175-5	MW-D1-20201119	Water	11/19/20 16:30	11/21/20 08:53	

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Client Sample Results

Client: Geosyntec Consultants, Inc.
Project/Site: Crisp County

Job ID: 400-196175-1
SDG: Crisp Co. Power

Client Sample ID: DUP-15-20201119

Lab Sample ID: 400-196175-1

Date Collected: 11/19/20 00:00

Matrix: Water

Date Received: 11/21/20 08:53

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.0013	0.00039	mg/L		12/01/20 16:35	12/03/20 15:41	5
Barium	0.14		0.0025	0.00070	mg/L		12/01/20 16:35	12/02/20 23:01	5
Boron	0.16		0.050	0.018	mg/L		12/01/20 16:35	12/03/20 15:41	5
Cadmium	ND		0.0010	0.00028	mg/L		12/01/20 16:35	12/02/20 23:01	5
Calcium	130		1.3	0.63	mg/L		12/01/20 16:35	12/03/20 15:46	25
Chromium	ND	^	0.0025	0.0010	mg/L		12/01/20 16:35	12/02/20 23:01	5
Cobalt	ND		0.0025	0.00056	mg/L		12/01/20 16:35	12/02/20 23:01	5
Lithium	0.0029		0.0025	0.0019	mg/L		12/01/20 16:35	12/03/20 15:41	5
Molybdenum	ND		0.010	0.0045	mg/L		12/01/20 16:35	12/02/20 23:01	5
Selenium	ND		0.0013	0.00082	mg/L		12/01/20 16:35	12/03/20 15:41	5
Thallium	ND		0.00050	0.00012	mg/L		12/01/20 16:35	12/02/20 23:01	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	380		5.0	5.0	mg/L			11/25/20 17:54	1
Chloride	7.5		2.0	1.4	mg/L			12/04/20 01:12	1
Fluoride	0.060	J	0.10	0.032	mg/L			12/03/20 15:59	1
pH	7.3	HF			SU			11/23/20 08:00	1
Temperature	22.8	HF			Degrees C			11/23/20 08:00	1
Sulfate	19		5.0	1.4	mg/L			12/05/20 01:42	1

Client Sample Results

Client: Geosyntec Consultants, Inc.
Project/Site: Crisp County

Job ID: 400-196175-1
SDG: Crisp Co. Power

Client Sample ID: MW-D2-20201119

Lab Sample ID: 400-196175-2

Date Collected: 11/19/20 14:50

Matrix: Water

Date Received: 11/21/20 08:53

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.0013	0.00039	mg/L		12/01/20 16:35	12/02/20 23:27	5
Barium	0.14		0.0025	0.00070	mg/L		12/01/20 16:35	12/02/20 23:27	5
Boron	0.15		0.050	0.018	mg/L		12/01/20 16:35	12/03/20 16:12	5
Cadmium	ND		0.0010	0.00028	mg/L		12/01/20 16:35	12/02/20 23:27	5
Calcium	130		1.3	0.63	mg/L		12/01/20 16:35	12/03/20 16:17	25
Chromium	ND	^	0.0025	0.0010	mg/L		12/01/20 16:35	12/02/20 23:27	5
Cobalt	ND		0.0025	0.00056	mg/L		12/01/20 16:35	12/02/20 23:27	5
Lithium	0.0031		0.0025	0.0019	mg/L		12/01/20 16:35	12/03/20 16:12	5
Molybdenum	ND		0.010	0.0045	mg/L		12/01/20 16:35	12/02/20 23:27	5
Selenium	ND		0.0013	0.00082	mg/L		12/01/20 16:35	12/03/20 16:12	5
Thallium	ND		0.00050	0.00012	mg/L		12/01/20 16:35	12/02/20 23:27	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	410		5.0	5.0	mg/L			11/25/20 17:54	1
Chloride	5.9		2.0	1.4	mg/L			12/04/20 01:12	1
Fluoride	0.050	J	0.10	0.032	mg/L			12/03/20 16:02	1
pH	7.0	HF			SU			11/23/20 08:00	1
Temperature	25.5	HF			Degrees C			11/23/20 08:00	1
Sulfate	19		5.0	1.4	mg/L			12/05/20 01:42	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	6.28				SU			11/19/20 13:50	1

Client Sample Results

Client: Geosyntec Consultants, Inc.
Project/Site: Crisp County

Job ID: 400-196175-1
SDG: Crisp Co. Power

Client Sample ID: MW-D3-20201119

Lab Sample ID: 400-196175-3

Date Collected: 11/19/20 13:30

Matrix: Water

Date Received: 11/21/20 08:53

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0011	J	0.0013	0.00039	mg/L		12/01/20 16:35	12/02/20 23:32	5
Barium	0.084		0.0025	0.00070	mg/L		12/01/20 16:35	12/02/20 23:32	5
Boron	0.25		0.050	0.018	mg/L		12/01/20 16:35	12/03/20 16:33	5
Cadmium	ND		0.0010	0.00028	mg/L		12/01/20 16:35	12/02/20 23:32	5
Calcium	110		1.3	0.63	mg/L		12/01/20 16:35	12/03/20 16:38	25
Chromium	ND	^	0.0025	0.0010	mg/L		12/01/20 16:35	12/02/20 23:32	5
Cobalt	0.00059	J	0.0025	0.00056	mg/L		12/01/20 16:35	12/02/20 23:32	5
Lithium	0.0024	J	0.0025	0.0019	mg/L		12/01/20 16:35	12/03/20 16:33	5
Molybdenum	ND		0.010	0.0045	mg/L		12/01/20 16:35	12/02/20 23:32	5
Selenium	ND		0.0013	0.00082	mg/L		12/01/20 16:35	12/03/20 16:33	5
Thallium	ND		0.00050	0.00012	mg/L		12/01/20 16:35	12/02/20 23:32	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	410		5.0	5.0	mg/L			11/25/20 17:54	1
Chloride	4.6		2.0	1.4	mg/L			12/04/20 01:12	1
Fluoride	0.11		0.10	0.032	mg/L			12/03/20 16:05	1
pH	7.2	HF			SU			11/23/20 10:00	1
Temperature	17.1	HF			Degrees C			11/23/20 10:00	1
Sulfate	33		10	2.8	mg/L			12/05/20 01:55	2

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	6.83				SU			11/19/20 12:30	1

Client Sample Results

Client: Geosyntec Consultants, Inc.
Project/Site: Crisp County

Job ID: 400-196175-1
SDG: Crisp Co. Power

Client Sample ID: MW-U1-20201119

Lab Sample ID: 400-196175-4

Date Collected: 11/19/20 11:40

Matrix: Water

Date Received: 11/21/20 08:53

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.0013	0.00039	mg/L		12/01/20 16:35	12/02/20 23:38	5
Barium	0.0062		0.0025	0.00070	mg/L		12/01/20 16:35	12/02/20 23:38	5
Boron	ND		0.050	0.018	mg/L		12/01/20 16:35	12/03/20 16:43	5
Cadmium	ND		0.0010	0.00028	mg/L		12/01/20 16:35	12/02/20 23:38	5
Calcium	36		0.25	0.13	mg/L		12/01/20 16:35	12/02/20 23:38	5
Chromium	0.0015	J	0.0025	0.0010	mg/L		12/01/20 16:35	12/03/20 16:43	5
Cobalt	ND		0.0025	0.00056	mg/L		12/01/20 16:35	12/02/20 23:38	5
Lithium	ND		0.0025	0.0019	mg/L		12/01/20 16:35	12/03/20 16:43	5
Molybdenum	ND		0.010	0.0045	mg/L		12/01/20 16:35	12/02/20 23:38	5
Selenium	ND		0.0013	0.00082	mg/L		12/01/20 16:35	12/03/20 16:43	5
Thallium	ND		0.00050	0.00012	mg/L		12/01/20 16:35	12/02/20 23:38	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	130		5.0	5.0	mg/L			11/25/20 17:54	1
Chloride	2.4		2.0	1.4	mg/L			12/04/20 01:12	1
Fluoride	0.070	J	0.10	0.032	mg/L			12/14/20 11:47	1
pH	7.9	HF			SU			11/23/20 08:00	1
Temperature	25.6	HF			Degrees C			11/23/20 08:00	1
Sulfate	2.3	J	5.0	1.4	mg/L			12/05/20 01:42	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	7.47				SU			11/19/20 10:40	1

Client Sample Results

Client: Geosyntec Consultants, Inc.
Project/Site: Crisp County

Job ID: 400-196175-1
SDG: Crisp Co. Power

Client Sample ID: MW-D1-20201119

Lab Sample ID: 400-196175-5

Date Collected: 11/19/20 16:30

Matrix: Water

Date Received: 11/21/20 08:53

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.0013	0.00039	mg/L		12/01/20 16:35	12/02/20 23:53	5
Barium	0.024		0.0025	0.00070	mg/L		12/01/20 16:35	12/02/20 23:53	5
Boron	0.19		0.050	0.018	mg/L		12/01/20 16:35	12/03/20 16:53	5
Cadmium	ND		0.0010	0.00028	mg/L		12/01/20 16:35	12/02/20 23:53	5
Calcium	88		0.25	0.13	mg/L		12/01/20 16:35	12/02/20 23:53	5
Chromium	ND	^	0.0025	0.0010	mg/L		12/01/20 16:35	12/02/20 23:53	5
Cobalt	ND		0.0025	0.00056	mg/L		12/01/20 16:35	12/02/20 23:53	5
Lithium	0.0023	J	0.0025	0.0019	mg/L		12/01/20 16:35	12/03/20 16:53	5
Molybdenum	ND	^	0.010	0.0045	mg/L		12/01/20 16:35	12/02/20 23:53	5
Selenium	ND		0.0013	0.00082	mg/L		12/01/20 16:35	12/03/20 16:53	5
Thallium	ND		0.00050	0.00012	mg/L		12/01/20 16:35	12/02/20 23:53	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	270		5.0	5.0	mg/L			11/25/20 17:54	1
Chloride	3.7		2.0	1.4	mg/L			12/04/20 01:12	1
Fluoride	0.10		0.10	0.032	mg/L			12/14/20 11:55	1
pH	7.3	HF			SU			12/03/20 13:00	1
Temperature	18.6	HF			Degrees C			12/03/20 13:00	1
Sulfate	31		10	2.8	mg/L			12/05/20 01:55	2

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	6.99				SU			11/19/20 15:30	1

Definitions/Glossary

Client: Geosyntec Consultants, Inc.
Project/Site: Crisp County

Job ID: 400-196175-1
SDG: Crisp Co. Power

Qualifiers

Metals

Qualifier	Qualifier Description
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Lab Chronicle

Client: Geosyntec Consultants, Inc.
Project/Site: Crisp County

Job ID: 400-196175-1
SDG: Crisp Co. Power

Client Sample ID: DUP-15-20201119
Date Collected: 11/19/20 00:00
Date Received: 11/21/20 08:53

Lab Sample ID: 400-196175-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			512731	12/01/20 16:35	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	512954	12/02/20 23:01	LDC	TAL PEN
Total Recoverable	Prep	3005A			512731	12/01/20 16:35	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	513163	12/03/20 15:41	LDC	TAL PEN
Total Recoverable	Prep	3005A			512731	12/01/20 16:35	KWN	TAL PEN
Total Recoverable	Analysis	6020		25	513163	12/03/20 15:46	LDC	TAL PEN
Total/NA	Analysis	SM 2540C		1	512184	11/25/20 17:54	DEK	TAL PEN
Total/NA	Analysis	SM 4500 CI- E		1	513115	12/04/20 01:12	DN1	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	513080	12/03/20 15:59	RRC	TAL PEN
Total/NA	Analysis	SM 4500 H+ B		1	511886	11/23/20 08:00	RRC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	513272	12/05/20 01:42	DN1	TAL PEN

Client Sample ID: MW-D2-20201119
Date Collected: 11/19/20 14:50
Date Received: 11/21/20 08:53

Lab Sample ID: 400-196175-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			512731	12/01/20 16:35	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	512954	12/02/20 23:27	LDC	TAL PEN
Total Recoverable	Prep	3005A			512731	12/01/20 16:35	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	513163	12/03/20 16:12	LDC	TAL PEN
Total Recoverable	Prep	3005A			512731	12/01/20 16:35	KWN	TAL PEN
Total Recoverable	Analysis	6020		25	513163	12/03/20 16:17	LDC	TAL PEN
Total/NA	Analysis	SM 2540C		1	512184	11/25/20 17:54	DEK	TAL PEN
Total/NA	Analysis	SM 4500 CI- E		1	513115	12/04/20 01:12	DN1	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	513080	12/03/20 16:02	RRC	TAL PEN
Total/NA	Analysis	SM 4500 H+ B		1	511886	11/23/20 08:00	RRC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	513272	12/05/20 01:42	DN1	TAL PEN
Total/NA	Analysis	Field Sampling		1	511587	11/19/20 13:50	EHS	TAL PEN

Client Sample ID: MW-D3-20201119
Date Collected: 11/19/20 13:30
Date Received: 11/21/20 08:53

Lab Sample ID: 400-196175-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			512731	12/01/20 16:35	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	512954	12/02/20 23:32	LDC	TAL PEN
Total Recoverable	Prep	3005A			512731	12/01/20 16:35	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	513163	12/03/20 16:33	LDC	TAL PEN
Total Recoverable	Prep	3005A			512731	12/01/20 16:35	KWN	TAL PEN
Total Recoverable	Analysis	6020		25	513163	12/03/20 16:38	LDC	TAL PEN
Total/NA	Analysis	SM 2540C		1	512184	11/25/20 17:54	DEK	TAL PEN
Total/NA	Analysis	SM 4500 CI- E		1	513115	12/04/20 01:12	DN1	TAL PEN

Lab Chronicle

Client: Geosyntec Consultants, Inc.
Project/Site: Crisp County

Job ID: 400-196175-1
SDG: Crisp Co. Power

Client Sample ID: MW-D3-20201119

Lab Sample ID: 400-196175-3

Date Collected: 11/19/20 13:30

Matrix: Water

Date Received: 11/21/20 08:53

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 F C		1	513080	12/03/20 16:05	RRC	TAL PEN
Total/NA	Analysis	SM 4500 H+ B		1	511887	11/23/20 10:00	RRC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		2	513272	12/05/20 01:55	DN1	TAL PEN
Total/NA	Analysis	Field Sampling		1	511587	11/19/20 12:30	EHS	TAL PEN

Client Sample ID: MW-U1-20201119

Lab Sample ID: 400-196175-4

Date Collected: 11/19/20 11:40

Matrix: Water

Date Received: 11/21/20 08:53

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			512731	12/01/20 16:35	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	512954	12/02/20 23:38	LDC	TAL PEN
Total Recoverable	Prep	3005A			512731	12/01/20 16:35	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	513163	12/03/20 16:43	LDC	TAL PEN
Total/NA	Analysis	SM 2540C		1	512184	11/25/20 17:54	DEK	TAL PEN
Total/NA	Analysis	SM 4500 CI- E		1	513115	12/04/20 01:12	DN1	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	514236	12/14/20 11:47	RRC	TAL PEN
Total/NA	Analysis	SM 4500 H+ B		1	511886	11/23/20 08:00	RRC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	513272	12/05/20 01:42	DN1	TAL PEN
Total/NA	Analysis	Field Sampling		1	511587	11/19/20 10:40	EHS	TAL PEN

Client Sample ID: MW-D1-20201119

Lab Sample ID: 400-196175-5

Date Collected: 11/19/20 16:30

Matrix: Water

Date Received: 11/21/20 08:53

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			512731	12/01/20 16:35	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	512954	12/02/20 23:53	LDC	TAL PEN
Total Recoverable	Prep	3005A			512731	12/01/20 16:35	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	513163	12/03/20 16:53	LDC	TAL PEN
Total/NA	Analysis	SM 2540C		1	512184	11/25/20 17:54	DEK	TAL PEN
Total/NA	Analysis	SM 4500 CI- E		1	513115	12/04/20 01:12	DN1	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	514236	12/14/20 11:55	RRC	TAL PEN
Total/NA	Analysis	SM 4500 H+ B		1	513065	12/03/20 13:00	RRC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		2	513272	12/05/20 01:55	DN1	TAL PEN
Total/NA	Analysis	Field Sampling		1	511587	11/19/20 15:30	EHS	TAL PEN

Laboratory References:

TAL PEN = Eurofins TestAmerica, Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

QC Association Summary

Client: Geosyntec Consultants, Inc.
Project/Site: Crisp County

Job ID: 400-196175-1
SDG: Crisp Co. Power

Metals

Prep Batch: 512731

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-196175-1	DUP-15-20201119	Total Recoverable	Water	3005A	
400-196175-2	MW-D2-20201119	Total Recoverable	Water	3005A	
400-196175-3	MW-D3-20201119	Total Recoverable	Water	3005A	
400-196175-4	MW-U1-20201119	Total Recoverable	Water	3005A	
400-196175-5	MW-D1-20201119	Total Recoverable	Water	3005A	
MB 400-512731/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-512731/2-A ^5	Lab Control Sample	Total Recoverable	Water	3005A	
400-196175-1 MS	DUP-15-20201119	Total Recoverable	Water	3005A	
400-196175-1 MSD	DUP-15-20201119	Total Recoverable	Water	3005A	

Analysis Batch: 512954

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-196175-1	DUP-15-20201119	Total Recoverable	Water	6020	512731
400-196175-2	MW-D2-20201119	Total Recoverable	Water	6020	512731
400-196175-3	MW-D3-20201119	Total Recoverable	Water	6020	512731
400-196175-4	MW-U1-20201119	Total Recoverable	Water	6020	512731
400-196175-5	MW-D1-20201119	Total Recoverable	Water	6020	512731
MB 400-512731/1-A ^5	Method Blank	Total Recoverable	Water	6020	512731
LCS 400-512731/2-A ^5	Lab Control Sample	Total Recoverable	Water	6020	512731
400-196175-1 MS	DUP-15-20201119	Total Recoverable	Water	6020	512731
400-196175-1 MSD	DUP-15-20201119	Total Recoverable	Water	6020	512731

Analysis Batch: 513163

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-196175-1	DUP-15-20201119	Total Recoverable	Water	6020	512731
400-196175-1	DUP-15-20201119	Total Recoverable	Water	6020	512731
400-196175-2	MW-D2-20201119	Total Recoverable	Water	6020	512731
400-196175-2	MW-D2-20201119	Total Recoverable	Water	6020	512731
400-196175-3	MW-D3-20201119	Total Recoverable	Water	6020	512731
400-196175-3	MW-D3-20201119	Total Recoverable	Water	6020	512731
400-196175-4	MW-U1-20201119	Total Recoverable	Water	6020	512731
400-196175-5	MW-D1-20201119	Total Recoverable	Water	6020	512731
MB 400-512731/1-A ^5	Method Blank	Total Recoverable	Water	6020	512731
LCS 400-512731/2-A ^5	Lab Control Sample	Total Recoverable	Water	6020	512731
400-196175-1 MS	DUP-15-20201119	Total Recoverable	Water	6020	512731
400-196175-1 MS	DUP-15-20201119	Total Recoverable	Water	6020	512731
400-196175-1 MSD	DUP-15-20201119	Total Recoverable	Water	6020	512731
400-196175-1 MSD	DUP-15-20201119	Total Recoverable	Water	6020	512731

General Chemistry

Analysis Batch: 511886

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-196175-1	DUP-15-20201119	Total/NA	Water	SM 4500 H+ B	
400-196175-2	MW-D2-20201119	Total/NA	Water	SM 4500 H+ B	
400-196175-4	MW-U1-20201119	Total/NA	Water	SM 4500 H+ B	
LCS 400-511886/4	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
400-196070-D-1 DU	Duplicate	Total/NA	Water	SM 4500 H+ B	
400-196171-A-1 DU	Duplicate	Total/NA	Water	SM 4500 H+ B	

Eurofins TestAmerica, Pensacola

QC Association Summary

Client: Geosyntec Consultants, Inc.
Project/Site: Crisp County

Job ID: 400-196175-1
SDG: Crisp Co. Power

General Chemistry

Analysis Batch: 511887

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-196175-3	MW-D3-20201119	Total/NA	Water	SM 4500 H+ B	
LCS 400-511887/1	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
400-196175-1 DU	DUP-15-20201119	Total/NA	Water	SM 4500 H+ B	

Analysis Batch: 512184

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-196175-1	DUP-15-20201119	Total/NA	Water	SM 2540C	
400-196175-2	MW-D2-20201119	Total/NA	Water	SM 2540C	
400-196175-3	MW-D3-20201119	Total/NA	Water	SM 2540C	
400-196175-4	MW-U1-20201119	Total/NA	Water	SM 2540C	
400-196175-5	MW-D1-20201119	Total/NA	Water	SM 2540C	
MB 400-512184/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-512184/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-196175-1 DU	DUP-15-20201119	Total/NA	Water	SM 2540C	
400-196175-2 DU	MW-D2-20201119	Total/NA	Water	SM 2540C	

Analysis Batch: 513065

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-196175-5	MW-D1-20201119	Total/NA	Water	SM 4500 H+ B	
LCS 400-513065/4	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
400-196273-A-1 DU	Duplicate	Total/NA	Water	SM 4500 H+ B	

Analysis Batch: 513080

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-196175-1	DUP-15-20201119	Total/NA	Water	SM 4500 F C	
400-196175-2	MW-D2-20201119	Total/NA	Water	SM 4500 F C	
400-196175-3	MW-D3-20201119	Total/NA	Water	SM 4500 F C	
MB 400-513080/5	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-513080/9	Lab Control Sample	Total/NA	Water	SM 4500 F C	
240-140461-B-3 MS	Matrix Spike	Total/NA	Water	SM 4500 F C	
240-140461-B-3 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 F C	

Analysis Batch: 513115

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-196175-1	DUP-15-20201119	Total/NA	Water	SM 4500 Cl- E	
400-196175-2	MW-D2-20201119	Total/NA	Water	SM 4500 Cl- E	
400-196175-3	MW-D3-20201119	Total/NA	Water	SM 4500 Cl- E	
400-196175-4	MW-U1-20201119	Total/NA	Water	SM 4500 Cl- E	
400-196175-5	MW-D1-20201119	Total/NA	Water	SM 4500 Cl- E	
MB 400-513115/18	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-513115/19	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-513115/15	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-196173-F-1 MS	Matrix Spike	Total/NA	Water	SM 4500 Cl- E	
400-196173-F-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 513272

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-196175-1	DUP-15-20201119	Total/NA	Water	SM 4500 SO4 E	
400-196175-2	MW-D2-20201119	Total/NA	Water	SM 4500 SO4 E	
400-196175-3	MW-D3-20201119	Total/NA	Water	SM 4500 SO4 E	
400-196175-4	MW-U1-20201119	Total/NA	Water	SM 4500 SO4 E	

Eurofins TestAmerica, Pensacola

QC Association Summary

Client: Geosyntec Consultants, Inc.
Project/Site: Crisp County

Job ID: 400-196175-1
SDG: Crisp Co. Power

General Chemistry (Continued)

Analysis Batch: 513272 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-196175-5	MW-D1-20201119	Total/NA	Water	SM 4500 SO4 E	
MB 400-513272/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-513272/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-513272/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-196175-1 MS	DUP-15-20201119	Total/NA	Water	SM 4500 SO4 E	
400-196175-1 MSD	DUP-15-20201119	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 514236

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-196175-4	MW-U1-20201119	Total/NA	Water	SM 4500 F C	
400-196175-5	MW-D1-20201119	Total/NA	Water	SM 4500 F C	
MB 400-514236/4	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-514236/7	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-196175-4 MS	MW-U1-20201119	Total/NA	Water	SM 4500 F C	
400-196175-4 MSD	MW-U1-20201119	Total/NA	Water	SM 4500 F C	

Field Service / Mobile Lab

Analysis Batch: 511587

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-196175-2	MW-D2-20201119	Total/NA	Water	Field Sampling	
400-196175-3	MW-D3-20201119	Total/NA	Water	Field Sampling	
400-196175-4	MW-U1-20201119	Total/NA	Water	Field Sampling	
400-196175-5	MW-D1-20201119	Total/NA	Water	Field Sampling	

QC Sample Results

Client: Geosyntec Consultants, Inc.
Project/Site: Crisp County

Job ID: 400-196175-1
SDG: Crisp Co. Power

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-512731/1-A ^5
Matrix: Water
Analysis Batch: 512954

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 512731

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Arsenic	ND		0.0013	0.00039	mg/L		12/01/20 16:35	12/02/20 22:51	5
Barium	ND		0.0025	0.00070	mg/L		12/01/20 16:35	12/02/20 22:51	5
Cadmium	ND		0.0010	0.00028	mg/L		12/01/20 16:35	12/02/20 22:51	5
Calcium	ND		0.25	0.13	mg/L		12/01/20 16:35	12/02/20 22:51	5
Chromium	ND	^	0.0025	0.0010	mg/L		12/01/20 16:35	12/02/20 22:51	5
Cobalt	ND		0.0025	0.00056	mg/L		12/01/20 16:35	12/02/20 22:51	5
Molybdenum	ND		0.010	0.0045	mg/L		12/01/20 16:35	12/02/20 22:51	5
Thallium	ND		0.00050	0.00012	mg/L		12/01/20 16:35	12/02/20 22:51	5

Lab Sample ID: MB 400-512731/1-A ^5
Matrix: Water
Analysis Batch: 513163

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 512731

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Arsenic	ND		0.0013	0.00039	mg/L		12/01/20 16:35	12/03/20 15:31	5
Barium	ND		0.0025	0.00070	mg/L		12/01/20 16:35	12/03/20 15:31	5
Boron	ND		0.050	0.018	mg/L		12/01/20 16:35	12/03/20 15:31	5
Cadmium	ND		0.0010	0.00028	mg/L		12/01/20 16:35	12/03/20 15:31	5
Calcium	ND		0.25	0.13	mg/L		12/01/20 16:35	12/03/20 15:31	5
Chromium	ND		0.0025	0.0010	mg/L		12/01/20 16:35	12/03/20 15:31	5
Cobalt	ND		0.0025	0.00056	mg/L		12/01/20 16:35	12/03/20 15:31	5
Lithium	ND		0.0025	0.0019	mg/L		12/01/20 16:35	12/03/20 15:31	5
Molybdenum	ND		0.010	0.0045	mg/L		12/01/20 16:35	12/03/20 15:31	5
Selenium	ND		0.0013	0.00082	mg/L		12/01/20 16:35	12/03/20 15:31	5
Thallium	ND		0.00050	0.00012	mg/L		12/01/20 16:35	12/03/20 15:31	5

Lab Sample ID: LCS 400-512731/2-A ^5
Matrix: Water
Analysis Batch: 512954

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 512731

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.	
							Limits	
Arsenic	0.0500	0.0512		mg/L		102	80 - 120	
Barium	0.0500	0.0466		mg/L		93	80 - 120	
Cadmium	0.0500	0.0542		mg/L		108	80 - 120	
Calcium	5.00	4.95		mg/L		99	80 - 120	
Chromium	0.0500	0.0558	^	mg/L		112	80 - 120	
Cobalt	0.0500	0.0544		mg/L		109	80 - 120	
Molybdenum	0.0500	0.0542		mg/L		108	80 - 120	
Thallium	0.0100	0.0104		mg/L		104	80 - 120	

Lab Sample ID: LCS 400-512731/2-A ^5
Matrix: Water
Analysis Batch: 513163

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 512731

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.	
							Limits	
Arsenic	0.0500	0.0523		mg/L		105	80 - 120	
Barium	0.0500	0.0483		mg/L		97	80 - 120	
Boron	0.100	0.103		mg/L		103	80 - 120	
Cadmium	0.0500	0.0507		mg/L		101	80 - 120	

Eurofins TestAmerica, Pensacola

QC Sample Results

Client: Geosyntec Consultants, Inc.
Project/Site: Crisp County

Job ID: 400-196175-1
SDG: Crisp Co. Power

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 400-512731/2-A ^5
Matrix: Water
Analysis Batch: 513163

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 512731

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium	5.00	4.95		mg/L		99	80 - 120
Chromium	0.0500	0.0512		mg/L		102	80 - 120
Cobalt	0.0500	0.0521		mg/L		104	80 - 120
Lithium	0.0500	0.0557		mg/L		111	80 - 120
Molybdenum	0.0500	0.0515		mg/L		103	80 - 120
Selenium	0.0500	0.0522		mg/L		104	80 - 120
Thallium	0.0100	0.0101		mg/L		101	80 - 120

Lab Sample ID: 400-196175-1 MS
Matrix: Water
Analysis Batch: 512954

Client Sample ID: DUP-15-20201119
Prep Type: Total Recoverable
Prep Batch: 512731

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	ND	L	0.0500	0.0546		mg/L		109	75 - 125
Barium	0.14		0.0500	0.189		mg/L		97	75 - 125
Cadmium	ND		0.0500	0.0533		mg/L		107	75 - 125
Chromium	ND	^	0.0500	0.0550	^	mg/L		110	75 - 125
Cobalt	ND		0.0500	0.0548		mg/L		110	75 - 125
Molybdenum	ND		0.0500	0.0550		mg/L		110	75 - 125
Thallium	ND		0.0100	0.0106		mg/L		106	75 - 125

Lab Sample ID: 400-196175-1 MS
Matrix: Water
Analysis Batch: 513163

Client Sample ID: DUP-15-20201119
Prep Type: Total Recoverable
Prep Batch: 512731

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	ND		0.0500	0.0529		mg/L		106	75 - 125
Boron	0.16		0.100	0.262		mg/L		105	75 - 125
Lithium	0.0029		0.0500	0.0591		mg/L		112	75 - 125
Selenium	ND		0.0500	0.0506		mg/L		101	75 - 125

Lab Sample ID: 400-196175-1 MS
Matrix: Water
Analysis Batch: 513163

Client Sample ID: DUP-15-20201119
Prep Type: Total Recoverable
Prep Batch: 512731

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium	130		5.00	133	4	mg/L		98	75 - 125

Lab Sample ID: 400-196175-1 MSD
Matrix: Water
Analysis Batch: 512954

Client Sample ID: DUP-15-20201119
Prep Type: Total Recoverable
Prep Batch: 512731

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	ND	L	0.0500	0.0504		mg/L		101	75 - 125	8	20
Barium	0.14		0.0500	0.188		mg/L		95	75 - 125	1	20
Cadmium	ND		0.0500	0.0538		mg/L		108	75 - 125	1	20
Chromium	ND	^	0.0500	0.0550	^	mg/L		110	75 - 125	0	20
Cobalt	ND		0.0500	0.0551		mg/L		110	75 - 125	1	20
Molybdenum	ND		0.0500	0.0552		mg/L		110	75 - 125	0	20
Thallium	ND		0.0100	0.0107		mg/L		107	75 - 125	1	20

Eurofins TestAmerica, Pensacola

QC Sample Results

Client: Geosyntec Consultants, Inc.
Project/Site: Crisp County

Job ID: 400-196175-1
SDG: Crisp Co. Power

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: 400-196175-1 MSD
Matrix: Water
Analysis Batch: 513163

Client Sample ID: DUP-15-20201119
Prep Type: Total Recoverable
Prep Batch: 512731

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
Arsenic	ND		0.0500	0.0503		mg/L		101	75 - 125	5	20
Boron	0.16		0.100	0.265		mg/L		107	75 - 125	1	20
Lithium	0.0029		0.0500	0.0568		mg/L		108	75 - 125	4	20
Selenium	ND		0.0500	0.0513		mg/L		103	75 - 125	1	20

Lab Sample ID: 400-196175-1 MSD
Matrix: Water
Analysis Batch: 513163

Client Sample ID: DUP-15-20201119
Prep Type: Total Recoverable
Prep Batch: 512731

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
Calcium	130		5.00	132	4	mg/L		88	75 - 125	0	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 400-512184/1
Matrix: Water
Analysis Batch: 512184

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Total Dissolved Solids	ND		5.0	5.0	mg/L			11/25/20 17:54	1

Lab Sample ID: LCS 400-512184/2
Matrix: Water
Analysis Batch: 512184

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec.
		Result	Qualifier				Limits
Total Dissolved Solids	293	294		mg/L		100	78 - 122

Lab Sample ID: 400-196175-1 DU
Matrix: Water
Analysis Batch: 512184

Client Sample ID: DUP-15-20201119
Prep Type: Total/NA

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Total Dissolved Solids	380		378		mg/L		0.5	5

Lab Sample ID: 400-196175-2 DU
Matrix: Water
Analysis Batch: 512184

Client Sample ID: MW-D2-20201119
Prep Type: Total/NA

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Total Dissolved Solids	410		400		mg/L		3	5

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 400-513115/18
Matrix: Water
Analysis Batch: 513115

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Chloride	ND		2.0	1.4	mg/L			12/04/20 01:28	1

Eurofins TestAmerica, Pensacola

QC Sample Results

Client: Geosyntec Consultants, Inc.
Project/Site: Crisp County

Job ID: 400-196175-1
SDG: Crisp Co. Power

Method: SM 4500 Cl- E - Chloride, Total (Continued)

Lab Sample ID: LCS 400-513115/19
Matrix: Water
Analysis Batch: 513115

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	30.0	30.3		mg/L		101	90 - 110

Lab Sample ID: MRL 400-513115/15
Matrix: Water
Analysis Batch: 513115

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	2.00	2.06		mg/L		103	50 - 150

Lab Sample ID: 400-196173-F-1 MS
Matrix: Water
Analysis Batch: 513115

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	5.1		10.0	16.9		mg/L		118	73 - 120

Lab Sample ID: 400-196173-F-1 MSD
Matrix: Water
Analysis Batch: 513115

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Chloride	5.1		10.0	16.9		mg/L		118	73 - 120	0	8

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 400-513080/5
Matrix: Water
Analysis Batch: 513080

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	ND		0.10	0.032	mg/L			12/03/20 14:02	1

Lab Sample ID: LCS 400-513080/9
Matrix: Water
Analysis Batch: 513080

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	4.00	3.67		mg/L		92	90 - 110

Lab Sample ID: 240-140461-B-3 MS
Matrix: Water
Analysis Batch: 513080

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	0.22	F1 F2	1.00	0.830	F1	mg/L		61	75 - 125

QC Sample Results

Client: Geosyntec Consultants, Inc.
Project/Site: Crisp County

Job ID: 400-196175-1
SDG: Crisp Co. Power

Method: SM 4500 F C - Fluoride (Continued)

Lab Sample ID: 240-140461-B-3 MSD
Matrix: Water
Analysis Batch: 513080

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	0.22	F1 F2	1.00	1.36	F2	mg/L		114	75 - 125	48	4

Lab Sample ID: MB 400-514236/4
Matrix: Water
Analysis Batch: 514236

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	ND		0.10	0.032	mg/L			12/14/20 11:37	1

Lab Sample ID: LCS 400-514236/7
Matrix: Water
Analysis Batch: 514236

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	5.00	4.70		mg/L		94	90 - 110

Lab Sample ID: 400-196175-4 MS
Matrix: Water
Analysis Batch: 514236

Client Sample ID: MW-U1-20201119
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	0.070	J	1.00	1.23		mg/L		116	75 - 125

Lab Sample ID: 400-196175-4 MSD
Matrix: Water
Analysis Batch: 514236

Client Sample ID: MW-U1-20201119
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	0.070	J	1.00	1.23		mg/L		116	75 - 125	0	4

Method: SM 4500 H+ B - pH

Lab Sample ID: LCS 400-511886/4
Matrix: Water
Analysis Batch: 511886

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
pH	7.00	7.1		SU		101	95 - 105

Lab Sample ID: 400-196070-D-1 DU
Matrix: Water
Analysis Batch: 511886

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
pH	7.9		7.9		SU		0.5	5
Temperature	19.8		19.9		Degrees C		0.5	30

QC Sample Results

Client: Geosyntec Consultants, Inc.
Project/Site: Crisp County

Job ID: 400-196175-1
SDG: Crisp Co. Power

Method: SM 4500 H+ B - pH (Continued)

Lab Sample ID: 400-196171-A-1 DU
Matrix: Water
Analysis Batch: 511886

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
pH	8.0		8.0		SU		0.1	5
Temperature	19.8		20.0		Degrees C		1	30

Lab Sample ID: LCS 400-511887/1
Matrix: Water
Analysis Batch: 511887

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
pH	7.00	7.2		SU		102	95 - 105

Lab Sample ID: 400-196175-1 DU
Matrix: Water
Analysis Batch: 511887

Client Sample ID: DUP-15-20201119
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
pH	7.1	HF	7.1		SU		0.1	5
Temperature	16.9	HF	17.0		Degrees C		0.6	30

Lab Sample ID: LCS 400-513065/4
Matrix: Water
Analysis Batch: 513065

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
pH	7.00	6.9		SU		99	95 - 105

Lab Sample ID: 400-196273-A-1 DU
Matrix: Water
Analysis Batch: 513065

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
pH	7.8		7.8		SU		0.4	5
Temperature	19.4		19.6		Degrees C		1	30

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: MB 400-513272/6
Matrix: Water
Analysis Batch: 513272

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		5.0	1.4	mg/L			12/05/20 01:42	1

Lab Sample ID: LCS 400-513272/7
Matrix: Water
Analysis Batch: 513272

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	15.0	15.8		mg/L		105	90 - 110

QC Sample Results

Client: Geosyntec Consultants, Inc.
 Project/Site: Crisp County

Job ID: 400-196175-1
 SDG: Crisp Co. Power

Method: SM 4500 SO4 E - Sulfate, Total (Continued)

Lab Sample ID: MRL 400-513272/3
Matrix: Water
Analysis Batch: 513272

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	5.00	4.42	J	mg/L		88	50 - 150

Lab Sample ID: 400-196175-1 MS
Matrix: Water
Analysis Batch: 513272

Client Sample ID: DUP-15-20201119
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	19		10.0	29.7		mg/L		104	77 - 128

Lab Sample ID: 400-196175-1 MSD
Matrix: Water
Analysis Batch: 513272

Client Sample ID: DUP-15-20201119
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	19		10.0	29.2		mg/L		99	77 - 128	2	5

Pensacola, FL 32514-7045
phone 850.474.1001 fax 850.474.4789

TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Regulatory Program: DW NPDES RCRA Other:

Project Manager: Whitmire, Cheyenne R
Email: Cheyenne.Whitmire@Eurofinset.com

Tel/Fax: _____

Client Contact
1255 Roberts Blvd, NW Suite 200
Kennesaw GA, 30144
678-202-9509 Phone
678-202-9501 FAX
Project Name: Crisp County
Site: Crisp Co. Power
P O # _____

Site Contact: Connor Cain
Cheyenne W.
Date: 11/20/2020
Carrier: FedEx
COC No.: _____ of _____ COCs
TALS Project # _____

Analysis Turnaround Time
 CALENDAR DAYS WORKING DAYS
TAT if different from Below _____
 2 weeks
 1 week
 2 days
 1 day

Sampler: Connor Cain
For Lab Use Only:
Walk-in Client:
Lab Sampling:
Job / SDG No.:

Sample Specific Notes:
pH: ---
pH: 6.28
pH: 6.83
pH: 7.47
pH: 6.99

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.
DUP-15-20201119	11/19/2020	N/A	G	Water	1
MW-D2-20201119	11/19/20	1450	G	Water	1
MW-D3-20201119	11/19/20	1330	G	Water	1
MW-U1-20201119	11/19/20	1140	G	Water	1
MW-D1-20201119	11/19/20	1630	G	Water	1

Filtered Sample (Y/N)	Perform MS/MSD (Y/N)	9315_Ra2226_9320_Ra228	SM4500_Cl_E_SM4500_H+ SM4500_SO4_F	Field Sampling - Field pH	6020_7470A	2540C - Total Dissolved Solids	4500_F_C - Fluoride
N	N	1	1	1	1	1	1
N	N	1	1	1	1	1	1
N	N	1	1	1	1	1	1
N	N	1	1	1	1	1	1
N	N	1	1	1	1	1	1

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other
Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.
 Non-Hazard Flammable Skin Irritant Poison B Unknown
Special Instructions/QC Requirements & Comments: Deliverable Requested Level II

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return to Client Disposal by Lab Archive for _____ Months

Cooler Temp. (°C): Obs'd: _____ Cor'd: _____
Received by: _____ Company: _____ Date/Time: _____
Received by: _____ Company: _____ Date/Time: _____
Received in Laboratory by: _____ Company: _____ Date/Time: _____

Custody Seal No.: _____
Relinquished by: _____ Company: _____ Date/Time: _____
Relinquished by: _____ Company: _____ Date/Time: _____
Relinquished by: _____ Company: _____ Date/Time: _____

175,200c
11-21-20 853



Login Sample Receipt Checklist

Client: Geosyntec Consultants, Inc.

Job Number: 400-196175-1
SDG Number: Crisp Co. Power

Login Number: 196175

List Number: 1

Creator: Hinrichsen, Megan E

List Source: Eurofins TestAmerica, Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.7°C, 2.6°C IR-7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: Geosyntec Consultants, Inc.
Project/Site: Crisp County

Job ID: 400-196175-1
SDG: Crisp Co. Power

Laboratory: Eurofins TestAmerica, Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alabama	State	40150	06-30-21
ANAB	ISO/IEC 17025	L2471	02-23-23
Arizona	State	AZ0710	01-13-21
Arkansas DEQ	State	88-0689	09-02-21
California	State	2510	06-30-21
Florida	NELAP	E81010	06-30-21
Georgia	State	E81010(FL)	06-30-21
Illinois	NELAP	200041	10-09-21
Iowa	State	367	08-01-22
Kansas	NELAP	E-10253	10-31-21
Kentucky (UST)	State	53	06-30-21
Kentucky (WW)	State	KY98030	12-31-20
Louisiana	NELAP	30976	06-30-21
Louisiana (DW)	State	LA017	12-31-20
Maryland	State	233	09-30-21
Massachusetts	State	M-FL094	06-30-21
Michigan	State	9912	06-30-21
Minnesota	NELAP	012-999-481	12-31-20
New Jersey	NELAP	FL006	06-30-21
New York	NELAP	12115	04-01-21
North Carolina (WW/SW)	State	314	12-31-20
Oklahoma	State	9810-186	08-31-21
Pennsylvania	NELAP	68-00467	01-31-21
Rhode Island	State	LAO00307	12-30-20
South Carolina	State	96026002	06-30-21
Tennessee	State	TN02907	06-30-21
Texas	NELAP	T104704286	09-30-21
US Fish & Wildlife	US Federal Programs	058448	07-31-21
USDA	US Federal Programs	P330-18-00148	05-17-21
Virginia	NELAP	460166	06-14-21
Washington	State	C915	05-15-21
West Virginia DEP	State	136	12-31-20

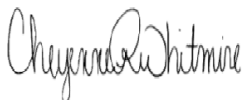
ANALYTICAL REPORT

Eurofins TestAmerica, Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

Laboratory Job ID: 400-196175-2
Laboratory Sample Delivery Group: Crisp Co. Power
Client Project/Site: Crisp County

For:
Geosyntec Consultants, Inc.
1255 Roberts Blvd, NW
Suite 200
Kennesaw, Georgia 30144

Attn: Dawit Yifru



Authorized for release by:
1/6/2021 10:41:57 PM

Cheyenne Whitmire, Project Manager II
(850)471-6222
Cheyenne.Whitmire@Eurofinset.com

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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



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Case Narrative

Client: Geosyntec Consultants, Inc.
Project/Site: Crisp County

Job ID: 400-196175-2
SDG: Crisp Co. Power

Job ID: 400-196175-2

Laboratory: Eurofins TestAmerica, Pensacola

Narrative

Job Narrative 400-196175-2

Receipt

The samples were received on 11/21/2020 8:53 AM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 1.7° C and 2.6° C.

RAD

Method 9315: Prep batch 490902. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. DUP-15-20201119 (400-196175-1), MW-D2-20201119 (400-196175-2), MW-D3-20201119 (400-196175-3), MW-U1-20201119 (400-196175-4) and MW-D1-20201119 (400-196175-5)

Method 9320: Prep batch 490903. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. DUP-15-20201119 (400-196175-1), MW-D2-20201119 (400-196175-2), MW-D3-20201119 (400-196175-3), MW-U1-20201119 (400-196175-4) and MW-D1-20201119 (400-196175-5)

Method PrecSep_0: Radium 228 Prep Batch 160-490903. The following samples were prepared at a reduced aliquot due to yellow discoloration: DUP-15-20201119 (400-196175-1), MW-D2-20201119 (400-196175-2), MW-D3-20201119 (400-196175-3), MW-U1-20201119 (400-196175-4) and MW-D1-20201119 (400-196175-5).

Method PrecSep-21: Radium 226 Prep Batch 160-490. Insufficient sample volume was available to perform a sample duplicate for the following samples: DUP-15-20201119 (400-196175-1), MW-D2-20201119 (400-196175-2), MW-D3-20201119 (400-196175-3), MW-U1-20201119 (400-196175-4) and MW-D1-20201119 (400-196175-5). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

Method Summary

Client: Geosyntec Consultants, Inc.
Project/Site: Crisp County

Job ID: 400-196175-2
SDG: Crisp Co. Power

Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	TAL SL
9320	Radium-228 (GFPC)	SW846	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL
PrecSep_0	Preparation, Precipitate Separation	None	TAL SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	TAL SL

Protocol References:

None = None

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Geosyntec Consultants, Inc.
Project/Site: Crisp County

Job ID: 400-196175-2
SDG: Crisp Co. Power

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
400-196175-1	DUP-15-20201119	Water	11/19/20 00:00	11/21/20 08:53	
400-196175-2	MW-D2-20201119	Water	11/19/20 14:50	11/21/20 08:53	
400-196175-3	MW-D3-20201119	Water	11/19/20 13:30	11/21/20 08:53	
400-196175-4	MW-U1-20201119	Water	11/19/20 11:40	11/21/20 08:53	
400-196175-5	MW-D1-20201119	Water	11/19/20 16:30	11/21/20 08:53	

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13

Client Sample Results

Client: Geosyntec Consultants, Inc.
Project/Site: Crisp County

Job ID: 400-196175-2
SDG: Crisp Co. Power

Client Sample ID: DUP-15-20201119

Lab Sample ID: 400-196175-1

Date Collected: 11/19/20 00:00

Matrix: Water

Date Received: 11/21/20 08:53

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.185	U	0.224	0.224	1.00	0.366	pCi/L	12/04/20 08:38	01/04/21 20:03	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	79.9		40 - 110					12/04/20 08:38	01/04/21 20:03	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.477	U	0.340	0.343	1.00	0.533	pCi/L	12/04/20 09:41	01/04/21 09:08	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	79.9		40 - 110					12/04/20 09:41	01/04/21 09:08	1
Y Carrier	82.2		40 - 110					12/04/20 09:41	01/04/21 09:08	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.662		0.407	0.410	5.00	0.533	pCi/L		01/06/21 21:17	1

Client Sample Results

Client: Geosyntec Consultants, Inc.
Project/Site: Crisp County

Job ID: 400-196175-2
SDG: Crisp Co. Power

Client Sample ID: MW-D2-20201119

Lab Sample ID: 400-196175-2

Date Collected: 11/19/20 14:50

Matrix: Water

Date Received: 11/21/20 08:53

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.109	U	0.314	0.314	1.00	0.570	pCi/L	12/04/20 08:38	01/04/21 20:03	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	78.8		40 - 110					12/04/20 08:38	01/04/21 20:03	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.442	U	0.304	0.307	1.00	0.473	pCi/L	12/04/20 09:41	01/04/21 09:08	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	78.8		40 - 110					12/04/20 09:41	01/04/21 09:08	1
Y Carrier	87.9		40 - 110					12/04/20 09:41	01/04/21 09:08	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.551	U	0.437	0.439	5.00	0.570	pCi/L		01/06/21 21:17	1

Client Sample Results

Client: Geosyntec Consultants, Inc.
Project/Site: Crisp County

Job ID: 400-196175-2
SDG: Crisp Co. Power

Client Sample ID: MW-D3-20201119

Lab Sample ID: 400-196175-3

Date Collected: 11/19/20 13:30

Matrix: Water

Date Received: 11/21/20 08:53

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.340	U	0.287	0.288	1.00	0.431	pCi/L	12/04/20 08:38	01/04/21 20:03	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	75.9		40 - 110					12/04/20 08:38	01/04/21 20:03	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.153	U	0.374	0.374	1.00	0.641	pCi/L	12/04/20 09:41	01/04/21 09:08	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	75.9		40 - 110					12/04/20 09:41	01/04/21 09:08	1
Y Carrier	74.0		40 - 110					12/04/20 09:41	01/04/21 09:08	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.493	U	0.471	0.472	5.00	0.641	pCi/L		01/06/21 21:17	1

Client Sample Results

Client: Geosyntec Consultants, Inc.
Project/Site: Crisp County

Job ID: 400-196175-2
SDG: Crisp Co. Power

Client Sample ID: MW-U1-20201119

Lab Sample ID: 400-196175-4

Date Collected: 11/19/20 11:40

Matrix: Water

Date Received: 11/21/20 08:53

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.304	U	0.307	0.308	1.00	0.488	pCi/L	12/04/20 08:38	01/04/21 20:03	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	83.1		40 - 110					12/04/20 08:38	01/04/21 20:03	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.311	U	0.267	0.268	1.00	0.425	pCi/L	12/04/20 09:41	01/04/21 09:08	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	83.1		40 - 110					12/04/20 09:41	01/04/21 09:08	1
Y Carrier	85.2		40 - 110					12/04/20 09:41	01/04/21 09:08	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.615		0.407	0.408	5.00	0.488	pCi/L		01/06/21 21:17	1

Client Sample Results

Client: Geosyntec Consultants, Inc.
Project/Site: Crisp County

Job ID: 400-196175-2
SDG: Crisp Co. Power

Client Sample ID: MW-D1-20201119

Lab Sample ID: 400-196175-5

Date Collected: 11/19/20 16:30

Matrix: Water

Date Received: 11/21/20 08:53

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.401	U	0.305	0.307	1.00	0.446	pCi/L	12/04/20 08:38	01/04/21 20:03	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.1		40 - 110					12/04/20 08:38	01/04/21 20:03	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.432	U	0.328	0.330	1.00	0.517	pCi/L	12/04/20 09:41	01/04/21 09:08	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.1		40 - 110					12/04/20 09:41	01/04/21 09:08	1
Y Carrier	75.9		40 - 110					12/04/20 09:41	01/04/21 09:08	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.833		0.448	0.451	5.00	0.517	pCi/L		01/06/21 21:17	1

Definitions/Glossary

Client: Geosyntec Consultants, Inc.
Project/Site: Crisp County

Job ID: 400-196175-2
SDG: Crisp Co. Power

Qualifiers

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Lab Chronicle

Client: Geosyntec Consultants, Inc.
Project/Site: Crisp County

Job ID: 400-196175-2
SDG: Crisp Co. Power

Client Sample ID: DUP-15-20201119

Lab Sample ID: 400-196175-1

Date Collected: 11/19/20 00:00

Matrix: Water

Date Received: 11/21/20 08:53

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			490902	12/04/20 08:38	KMP	TAL SL
Total/NA	Analysis	9315		1	493835	01/04/21 20:03	SCB	TAL SL
Total/NA	Prep	PrecSep_0			490903	12/04/20 09:41	KMP	TAL SL
Total/NA	Analysis	9320		1	493723	01/04/21 09:08	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	494124	01/06/21 21:17	GRW	TAL SL

Client Sample ID: MW-D2-20201119

Lab Sample ID: 400-196175-2

Date Collected: 11/19/20 14:50

Matrix: Water

Date Received: 11/21/20 08:53

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			490902	12/04/20 08:38	KMP	TAL SL
Total/NA	Analysis	9315		1	493835	01/04/21 20:03	SCB	TAL SL
Total/NA	Prep	PrecSep_0			490903	12/04/20 09:41	KMP	TAL SL
Total/NA	Analysis	9320		1	493723	01/04/21 09:08	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	494124	01/06/21 21:17	GRW	TAL SL

Client Sample ID: MW-D3-20201119

Lab Sample ID: 400-196175-3

Date Collected: 11/19/20 13:30

Matrix: Water

Date Received: 11/21/20 08:53

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			490902	12/04/20 08:38	KMP	TAL SL
Total/NA	Analysis	9315		1	493835	01/04/21 20:03	SCB	TAL SL
Total/NA	Prep	PrecSep_0			490903	12/04/20 09:41	KMP	TAL SL
Total/NA	Analysis	9320		1	493723	01/04/21 09:08	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	494124	01/06/21 21:17	GRW	TAL SL

Client Sample ID: MW-U1-20201119

Lab Sample ID: 400-196175-4

Date Collected: 11/19/20 11:40

Matrix: Water

Date Received: 11/21/20 08:53

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			490902	12/04/20 08:38	KMP	TAL SL
Total/NA	Analysis	9315		1	493835	01/04/21 20:03	SCB	TAL SL
Total/NA	Prep	PrecSep_0			490903	12/04/20 09:41	KMP	TAL SL
Total/NA	Analysis	9320		1	493723	01/04/21 09:08	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	494124	01/06/21 21:17	GRW	TAL SL

Lab Chronicle

Client: Geosyntec Consultants, Inc.
Project/Site: Crisp County

Job ID: 400-196175-2
SDG: Crisp Co. Power

Client Sample ID: MW-D1-20201119

Lab Sample ID: 400-196175-5

Date Collected: 11/19/20 16:30

Matrix: Water

Date Received: 11/21/20 08:53

<u>Prep Type</u>	<u>Batch Type</u>	<u>Batch Method</u>	<u>Run</u>	<u>Dilution Factor</u>	<u>Batch Number</u>	<u>Prepared or Analyzed</u>	<u>Analyst</u>	<u>Lab</u>
Total/NA	Prep	PrecSep-21			490902	12/04/20 08:38	KMP	TAL SL
Total/NA	Analysis	9315		1	493835	01/04/21 20:03	SCB	TAL SL
Total/NA	Prep	PrecSep_0			490903	12/04/20 09:41	KMP	TAL SL
Total/NA	Analysis	9320		1	493723	01/04/21 09:08	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	494124	01/06/21 21:17	GRW	TAL SL

Laboratory References:

TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566



QC Association Summary

Client: Geosyntec Consultants, Inc.
Project/Site: Crisp County

Job ID: 400-196175-2
SDG: Crisp Co. Power

Rad

Prep Batch: 490902

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-196175-1	DUP-15-20201119	Total/NA	Water	PrecSep-21	
400-196175-2	MW-D2-20201119	Total/NA	Water	PrecSep-21	
400-196175-3	MW-D3-20201119	Total/NA	Water	PrecSep-21	
400-196175-4	MW-U1-20201119	Total/NA	Water	PrecSep-21	
400-196175-5	MW-D1-20201119	Total/NA	Water	PrecSep-21	
MB 160-490902/23-B	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-490902/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-490902/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

Prep Batch: 490903

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-196175-1	DUP-15-20201119	Total/NA	Water	PrecSep_0	
400-196175-2	MW-D2-20201119	Total/NA	Water	PrecSep_0	
400-196175-3	MW-D3-20201119	Total/NA	Water	PrecSep_0	
400-196175-4	MW-U1-20201119	Total/NA	Water	PrecSep_0	
400-196175-5	MW-D1-20201119	Total/NA	Water	PrecSep_0	
MB 160-490903/23-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-490903/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-490903/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

QC Sample Results

Client: Geosyntec Consultants, Inc.
Project/Site: Crisp County

Job ID: 400-196175-2
SDG: Crisp Co. Power

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-490902/23-B
Matrix: Water
Analysis Batch: 493757

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 490902

Analyte	MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	MB Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.2877	U	0.230	0.232	1.00	0.333	pCi/L	12/04/20 08:38	01/04/21 21:56	1
Carrier	MB %Yield	MB Qualifier	Limits		Prepared	Analyzed	Dil Fac			
Ba Carrier	84.2		40 - 110					12/04/20 08:38	01/04/21 21:56	1

Lab Sample ID: LCS 160-490902/1-A
Matrix: Water
Analysis Batch: 493835

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 490902

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits
				Uncert. (2σ+/-)					
Radium-226	11.3	10.43		1.46	1.00	0.472	pCi/L	92	75 - 125
Carrier	LCS %Yield	LCS Qualifier	Limits		Prepared	Analyzed	Dil Fac		
Ba Carrier	75.4		40 - 110					12/04/20 08:38	01/04/21 21:56

Lab Sample ID: LCSD 160-490902/2-A
Matrix: Water
Analysis Batch: 493911

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 490902

Analyte	Spike Added	LCSD Result	LCSD Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER
				Uncert. (2σ+/-)							Limit
Radium-226	11.3	9.614		1.23	1.00	0.303	pCi/L	85	75 - 125	0.30	1
Carrier	LCSD %Yield	LCSD Qualifier	Limits		Prepared	Analyzed	Dil Fac				
Ba Carrier	76.5		40 - 110					12/04/20 09:41	01/04/21 09:12	1	

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-490903/23-A
Matrix: Water
Analysis Batch: 493835

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 490903

Analyte	MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	MB Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	0.2343	U	0.244	0.245	1.00	0.398	pCi/L	12/04/20 09:41	01/04/21 09:12	1
Carrier	MB %Yield	MB Qualifier	Limits		Prepared	Analyzed	Dil Fac			
Ba Carrier	84.2		40 - 110					12/04/20 09:41	01/04/21 09:12	1
Y Carrier	94.2		40 - 110		12/04/20 09:41	01/04/21 09:12	1			

QC Sample Results

Client: Geosyntec Consultants, Inc.
Project/Site: Crisp County

Job ID: 400-196175-2
SDG: Crisp Co. Power

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-490903/1-A
Matrix: Water
Analysis Batch: 493723

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 490903

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	
									75	125
Radium-228	7.53	8.167		1.04	1.00	0.522	pCi/L	108	75	125
LCS LCS										
Carrier	%Yield	Qualifier	Limits							
Ba Carrier	75.4		40 - 110							
Y Carrier	90.1		40 - 110							

Lab Sample ID: LCSD 160-490903/2-A
Matrix: Water
Analysis Batch: 493723

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 490903

Analyte	Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		RER	Limit
									75	125	0.58	1
Radium-228	7.53	9.435		1.16	1.00	0.503	pCi/L	125	75	125	0.58	1
LCSD LCSD												
Carrier	%Yield	Qualifier	Limits									
Ba Carrier	76.5		40 - 110									
Y Carrier	87.1		40 - 110									

Pensacola, FL 32514-7045
phone 850.474.1001 fax 850.474.4789

TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

<p>Client Contact Geosyntec 1255 Roberts Blvd, NW Suite 200 Kennesaw GA, 30144 678-202-9509 Phone 678-202-9501 FAX Project Name: Crisp County Site: Crisp Co. Power P O #</p>	<p>Regulatory Program: <input type="checkbox"/> DW <input type="checkbox"/> NPDES <input type="checkbox"/> RCRA <input type="checkbox"/> Other: Project Manager: Whitmire, Cheyenne R Email: Cheyenne.Whitmire@Eurofins.com Tel/Fax:</p>	<p>Site Contact: Connor Cain Cheyenne W. Date: 11/20/2020 Carrier: FedEx COC No.: 1 of 1 COCs TALS Project #: Sampler: Connor Cain For Lab Use Only: Walk-in Client: Lab Sampling: Job / SDG No.:</p>																																																																																										
<p>Analysis Turnaround Time <input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS TAT if different from Below _____ <input type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day</p>																																																																																												
<p>Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____ 1</p> <p>Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample. <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown</p> <p>Special Instructions/QC Requirements & Comments: Deliverable Requested Level II</p>																																																																																												
<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Sample Identification</th> <th>Sample Date</th> <th>Sample Time</th> <th>Sample Type (C=Comp, G=Grab)</th> <th>Matrix</th> <th># of Cont.</th> </tr> </thead> <tbody> <tr><td>DUP-15-20201119</td><td>11/19/2020</td><td>N/A</td><td>G</td><td>Water</td><td></td></tr> <tr><td>MW-D2-20201119</td><td>11/19/20</td><td>1450</td><td>G</td><td>Water</td><td></td></tr> <tr><td>MW-D3-20201119</td><td>11/19/20</td><td>1330</td><td>G</td><td>Water</td><td></td></tr> <tr><td>MW-U1-20201119</td><td>11/19/20</td><td>1140</td><td>G</td><td>Water</td><td></td></tr> <tr><td>MW-D1-20201119</td><td>11/19/20</td><td>1630</td><td>G</td><td>Water</td><td></td></tr> </tbody> </table>	Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	DUP-15-20201119	11/19/2020	N/A	G	Water		MW-D2-20201119	11/19/20	1450	G	Water		MW-D3-20201119	11/19/20	1330	G	Water		MW-U1-20201119	11/19/20	1140	G	Water		MW-D1-20201119	11/19/20	1630	G	Water		<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Filtered Sample (Y/N)</th> <th>Perform MS / MSD (Y/N)</th> <th>9315_Ra2226_9320_Ra228</th> <th>SM4500_CL_E_SM4500_H+ SM4500_SO4_E</th> <th>Field Sampling - Field pH</th> <th>6020_7470A</th> <th>2540C - Total Dissolved Solids</th> <th>4500_F_C - Fluoride</th> </tr> </thead> <tbody> <tr><td>N</td><td>N</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td></tr> <tr><td>N</td><td>N</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td></tr> <tr><td>N</td><td>N</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td></tr> <tr><td>N</td><td>N</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td></tr> <tr><td>N</td><td>N</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td></tr> </tbody> </table>	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	9315_Ra2226_9320_Ra228	SM4500_CL_E_SM4500_H+ SM4500_SO4_E	Field Sampling - Field pH	6020_7470A	2540C - Total Dissolved Solids	4500_F_C - Fluoride	N	N	1	1	1	1	1	1	N	N	1	1	1	1	1	1	N	N	1	1	1	1	1	1	N	N	1	1	1	1	1	1	N	N	1	1	1	1	1	1	<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Sample Specific Notes:</th> </tr> </thead> <tbody> <tr><td>pH: ---</td></tr> <tr><td>pH: 6.28</td></tr> <tr><td>pH: 6.83</td></tr> <tr><td>pH: 7.47</td></tr> <tr><td>pH: 6.99</td></tr> </tbody> </table>	Sample Specific Notes:	pH: ---	pH: 6.28	pH: 6.83	pH: 7.47	pH: 6.99
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pH: 6.99																																																																																												
<p>Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return to Client <input checked="" type="checkbox"/> Disposal by Lab <input type="checkbox"/> Archive for _____ Months</p>																																																																																												
<p>Custody Seal No.: _____ Relinquished by: <i>Cooper</i> Date/Time: 11/20/20 11:15 Relinquished by: <i>Greasyntec</i> Date/Time: 11/20/20 11:15 Relinquished by: _____ Date/Time: _____</p>																																																																																												
<p>Received by: _____ Company: _____ Date/Time: _____ Received by: _____ Company: _____ Date/Time: _____ Received in Laboratory by: _____ Date/Time: 11-21-20 853</p>																																																																																												



Login Sample Receipt Checklist

Client: Geosyntec Consultants, Inc.

Job Number: 400-196175-2
SDG Number: Crisp Co. Power

Login Number: 196175

List Number: 1

Creator: Hinrichsen, Megan E

List Source: Eurofins TestAmerica, Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.7°C, 2.6°C IR-7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Geosyntec Consultants, Inc.

Job Number: 400-196175-2
SDG Number: Crisp Co. Power

Login Number: 196175

List Number: 2

Creator: O'Gara, Mallory L

List Source: Eurofins TestAmerica, St. Louis

List Creation: 11/24/20 01:50 PM

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: Geosyntec Consultants, Inc.
 Project/Site: Crisp County

Job ID: 400-196175-2
 SDG: Crisp Co. Power

Laboratory: Eurofins TestAmerica, St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-22
ANAB	Dept. of Defense ELAP	L2305	04-06-22
ANAB	Dept. of Energy	L2305.01	04-06-22
ANAB	ISO/IEC 17025	L2305	04-06-22
Arizona	State	AZ0813	12-08-21
California	Los Angeles County Sanitation Districts	10259	06-30-21
California	State	2886	06-30-21
Connecticut	State	PH-0241	03-31-21
Florida	NELAP	E87689	06-30-21
HI - RadChem Recognition	State	n/a	06-30-21
Illinois	NELAP	004553	11-30-21
Iowa	State	373	12-01-22
Kansas	NELAP	E-10236	10-31-21
Kentucky (DW)	State	KY90125	12-31-20 *
Louisiana	NELAP	04080	06-30-21
Louisiana (DW)	State	LA011	12-31-21
Maryland	State	310	09-30-21
MI - RadChem Recognition	State	9005	06-30-21
Missouri	State	780	06-30-22
Nevada	State	MO000542020-1	07-31-21
New Jersey	NELAP	MO002	06-30-21
New York	NELAP	11616	04-01-21
North Dakota	State	R-207	06-30-21
NRC	NRC	24-24817-01	12-31-22
Oklahoma	State	9997	08-31-21
Oregon	NELAP	4157	09-01-21
Pennsylvania	NELAP	68-00540	02-28-21
South Carolina	State	85002001	06-30-21
Texas	NELAP	T104704193-19-13	07-31-21
US Fish & Wildlife	US Federal Programs	058448	07-31-21
USDA	US Federal Programs	P330-17-00028	03-11-23
Utah	NELAP	MO000542019-11	07-31-21
Virginia	NELAP	10310	06-14-21
Washington	State	C592	08-30-21
West Virginia DEP	State	381	10-31-21

* Accreditation/Certification renewal pending - accreditation/certification considered valid.



Stage 2A Data Validation Checklist
Crisp County Power Commission
Plant Crisp Ash Pond
Data Validation Performed by Geosyntec Consultants, Knoxville, TN

Project: Crisp Co. Power	Completed by: Kristoffer Henderson	Final Review: JK Caprio
Laboratory Name/Report ID: 400-196175-1 and -2	Date: 1/19/2021	Date: 1/19/2020

<i>Item</i>	<i>Y</i>	<i>N</i>	<i>NA</i>	<i>Reviewer</i>	<i>Comments</i>
Chain of Custody (COC)					
1. Is the project name listed?	x				
2. Are the client sample IDs listed?	x				
3. Are the sample matrices listed?	x				
4. Are the date & time of sample collection listed for each sample?		x			A collection time was not listed for the field duplicate. The field duplicate was logged in with the collection time of 00:00.
5. Are the sample preservations noted?		x			No preservation issues were noted by the laboratory.
6. Are the analyses noted?	x				
7. Are the samples properly relinquished and received?	x				
Report Review					
1. Sample receipt issues noted/described?			x		
2. Date & time of lab receipt noted?	x				
3. Lab IDs match those listed on COC?	x				
4. Lab completed analyses for all samples collected?	x				
5. Did all samples arrive in good condition at the laboratory?	x				
6. Was the sample login information complete and compared to the COC?	x				
7. Is the report narrative present and complete?	x				
8. Did the case narrative flag any issues not noted elsewhere?	x				Method 6020: The continuing calibration verification (CCV) associated with batch 400-512954 recovered above the upper control limit for Chromium. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. Therefore, no qualifications were applied to the data. Method 6020: The CCV associated with batch 400-512954 recovered above the upper control limit for Chromium and Molybdenum. The samples associated

Stage 2A Data Validation Checklist
Crisp County Power Commission
Plant Crisp Ash Pond
Data Validation Performed by Geosyntec Consultants, Knoxville, TN

<i>Item</i>	<i>Y</i>	<i>N</i>	<i>NA</i>	<i>Reviewer</i>	<i>Comments</i>
					with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated sample is impacted: (CCV 400-512954/130). Therefore, no qualifications were applied to the data.
9. Did the electronic data deliverable (EDD) match the lab report?			x		

Comments: none

Analysis: Metals by USEPA Methods 3005A/6020, TDS by Standard Method (SM) 2540C, Chloride by SM 4500 Cl-E, Fluoride by SM 4500 F C, Sulfate by SM 4500 SO4 E, Radium-226 by USEPA Method 9315, Radium-228 by USEPA Method 9320 and Combined Radium-226 and Radium-228 by Calculation	<i>Y</i>	<i>N</i>	<i>NA</i>	<i>Reviewer</i>	<i>Comments</i>
A. Initial Review					
1. Are the correct compound lists reported?	x				
2. Are all the compounds reported in the blanks and LCSs?	x				
3. Are the sample results consistently reported to the MDLs or RLs?	x				
4. Are the MDLs at or below the project measurement quality objectives listed in Table 3 of the QAPP?			x		
5. Are the lab flags defined?	x				
6. Are the units correct?	x				
7. Are the times of analyses reported?	x				
8. Are the methods the same as those in the QAPP?			x		
9. Were lab flags correctly applied?	x				
B. Holding Time and Preservation					
1. Holding times met?		x			Temperature and pH are field parameters; therefore, they were analyzed outside of the method specified holding time. Therefore, temperature and pH results were J qualified as estimated.

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Analysis: Metals by USEPA Methods 3005A/6020, TDS by Standard Method (SM) 2540C, Chloride by SM 4500 Cl-E, Fluoride by SM 4500 F C, Sulfate by SM 4500 SO4 E, Radium-226 by USEPA Method 9315, Radium-228 by USEPA Method 9320 and Combined Radium-226 and Radium-228 by Calculation	<i>Y</i>	<i>N</i>	<i>NA</i>	<i>Reviewer</i>	<i>Comments</i>
2. Samples appropriately preserved?	x				
C. Quality Control (QC) Samples					
1. Blanks: 1/20 samples & should not contain any target analyte at a concentration greater than the MDLs?	x				
a. Review detections in the samples and qualify as appropriate as indicated in the EPA NFG.			x		
2. Surrogates (organic analyses only): in all samples & QC samples and within laboratory limits?	x				Carriers were reported for radium-226 and radium-228.
a. If surrogates outside the limits, qualify as appropriate as indicated in the EPA NFG			x		
3. LCS (& LCSD if presented): 1/20 samples and within laboratory limits?	x				
a. If recoveries outside the limits, qualify associated samples as appropriate as indicated in the EPA NFG			x		
b. If LCSD samples are present, evaluate precision. If relative percent difference (RPD) outside the limits qualify associated samples as appropriate			x		LCSDs were reported for radium-226 and radium-228 and the replicate error ratios (RERs) were within the laboratory specified acceptance criteria.
4. MS/MSD: 1/20 samples and within laboratory limits?	x				
a. If recoveries or RPD outside of the limits, qualify associated sample as appropriate as indicated in the EPA NFG			x		
5. Laboratory Duplicate: 1/20 sample and within laboratory limits?	x				
a. If RPD outside the limits, qualify associated sample as appropriate as indicated in the EPA NFG			x		
6. Serial dilutions (metals analyses only): within laboratory limits?			x		
a. If outside the limits, qualify associated sample as appropriate as indicated in the EPA NFG			x		

Stage 2A Data Validation Checklist
Crisp County Power Commission
Plant Crisp Ash Pond
Data Validation Performed by Geosyntec Consultants, Knoxville, TN

Analysis: Metals by USEPA Methods 3005A/6020, TDS by Standard Method (SM) 2540C, Chloride by SM 4500 Cl-E, Fluoride by SM 4500 F C, Sulfate by SM 4500 SO4 E, Radium-226 by USEPA Method 9315, Radium-228 by USEPA Method 9320 and Combined Radium-226 and Radium-228 by Calculation	<i>Y</i>	<i>N</i>	<i>NA</i>	<i>Reviewer</i>	<i>Comments</i>
7. Is the total concentration greater than the dissolved concentration or the RPD < 30%.			x		
a. If dissolved greater than total and outside RPD >30%, qualify associated sample as appropriate			x		
D. Field QC Samples					
1. Field QC analyzed (e.g., field blanks, dups)?	x				
2. Field QC blank results acceptable:					
a. Trip blank?			x		
b. Field blank?			x		
c. Equipment blank?			x		
3. Field duplicate analyzed?	x				DUP-15-20201119 was collected for MW-D2-20201119
4. Field duplicate RPD criteria met (30% RPD aqueous; 40% RPD solid)	x				

Comments: None

Stage 2A Data Validation Checklist
Crisp County Power Commission
Plant Crisp Ash Pond
Data Validation Performed by Geosyntec Consultants, Knoxville, TN

The laboratory flagged several samples due to laboratory nonconformances. These nonconformances were evaluated by a qualified data validator and the laboratory flags were replaced with the appropriate validation qualifiers. This evaluation is summarized in the Qualification Table below.

Qualification Table

Sample	Analyte	Laboratory Result	Laboratory Flag	RL	MDL	Unit	Validation Result	Validation Qualifier*	Reason Code
DUP-15-20201119	Chromium	ND	^	0.0025	0.0010	mg/L	0.0010	U	No Qualifications
DUP-15-20201119	pH	7.3	HF	NA	NA	SU	7.3	J	Holding Time Exceedance
DUP-15-20201119	Temperature	22.8	HF	NA	NA	Degrees C	22.8	J	Holding Time Exceedance
MW-D2-20201119	Chromium	ND	^	0.0025	0.0010	mg/L	0.0010	U	No Qualifications
MW-D2-20201119	pH	7.0	HF	NA	NA	SU	7.0	J	Holding Time Exceedance
MW-D2-20201119	Temperature	25.5	HF	NA	NA	Degrees C	25.5	J	Holding Time Exceedance
MW-D3-20201119	Chromium	ND	^	0.0025	0.0010	mg/L	0.0010	U	No Qualifications
MW-D3-20201119	pH	7.2	HF	NA	NA	SU	7.2	J	Holding Time Exceedance
MW-D3-20201119	Temperature	17.1	HF	NA	NA	Degrees C	17.1	J	Holding Time Exceedance
MW-U1-20201119	pH	7.9	HF	NA	NA	SU	7.9	J	Holding Time Exceedance
MW-U1-20201119	Temperature	25.6	HF	NA	NA	Degrees C	25.6	J	Holding Time Exceedance
MW-D1-20201119	Chromium	ND	^	0.0025	0.0010	mg/L	0.0010	U	No Qualifications
MW-D1-20201119	Molybdenum	ND	^	0.010	0.0045	mg/L	0.0045	U	No Qualifications
MW-D1-20201119	pH	7.3	HF	NA	NA	SU	7.3	J	Holding Time Exceedance
MW-D1-20201119	Temperature	18.6	HF	NA	NA	Degrees C	18.6	J	Holding Time Exceedance

mg/L-milligrams per liter

SU-standard unit

C-Centigrade

HF-laboratory flag indicating field parameter with a holding time of 15 minutes

^-laboratory flag indicating one or more instrument QC was outside the method criteria

NA-not applicable

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Crisp County Power Commission
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ND-not detected at or above the MDL

* Validation qualifiers are defined in Attachment 1 at the end of this report

Definitions

CCV - Continuing calibration verification

%D - Percent difference

EPA NFG - USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review, June 2008 (USEPA-540-R-08-01), USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review, January 2010 (OSWER 9240.1-51, EPA 540-R-10-011)

ICV - Initial calibration verification

LCS - Laboratory control sample

MDL - Method detection limit

QAPP - Quality assurance project plan

QC - Quality Control

RL - Reporting limit

Stage 2A Data Validation Checklist
Crisp County Power Commission
Plant Crisp Ash Pond
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ATTACHMENT 1
DATA VALIDATION QUALIFIER DEFINITIONS
AND INTERPRETATION KEY
Assigned by Geosyntec's Data Validation Team

DATA QUALIFIER DEFINITIONS

- U The analyte was analyzed for, but was not detected above the reported sample quantitation limit. Upon application of the U qualifier to a reported result, the definition changes to “not detected at or above the reported result”.
- J The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- J+ The analyte was positively identified; however, the associated numerical value is likely to be higher than the concentration of the analyte in the sample due to positive bias of associated QC or calibration data or attributable to matrix interference.
- J- The analyte was positively identified; however, the associated numerical value is likely to be lower than the concentration of the analyte in the sample due to negative bias of associated QC or calibration data or attributable to matrix interference.
- UJ The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

APPENDIX C

Statistical Calculations and Time-series Graphs

April 2020

Summary Report

Constituent: Antimony Analysis Run 6/10/2020 12:52 PM View: Sanitas_StatisticsSamplingEvents 1 through 14
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

For observations made between 2/28/2017 and 4/27/2020, a summary of the selected data set:

Observations = 44
 ND/Trace = 44
 Wells = 4
 Minimum Value = 0.0005
 Maximum Value = 0.0025
 Mean Value = 0.002318
 Median Value = 0.0025
 Standard Deviation = 0.0005816
 Coefficient of Variation = 0.2509
 Skewness = -2.846

<u>Well</u>	<u>#Obs.</u>	<u>ND/Trace</u>	<u>Min</u>	<u>Max</u>	<u>Mean</u>	<u>Median</u>	<u>Std.Dev.</u>	<u>CV</u>	<u>Skewness</u>
MW-D1	11	11	0.0005	0.0025	0.002318	0.0025	0.000603	0.2601	-2.846
MW-D2	11	11	0.0005	0.0025	0.002318	0.0025	0.000603	0.2601	-2.846
MW-D3	11	11	0.0005	0.0025	0.002318	0.0025	0.000603	0.2601	-2.846
MW-U1 (bg)	11	11	0.0005	0.0025	0.002318	0.0025	0.000603	0.2601	-2.846

Summary Report

Constituent: Antimony (mg/L) Analysis Run 6/10/2020 12:52 PM View: Sanitas_StatisticsSamplingEvents 1 through 14
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

	MW-D1	MW-D2	MW-D3	MW-U1 (bg)
2/28/2017	<0.0025 (**)	<0.0025 (F1)	<0.0025 (**)	<0.0025 (**)
3/27/2017	<0.0025	<0.0025	<0.0025	<0.0025
4/24/2017	<0.0025	<0.0025	<0.0025	<0.0025
5/22/2017	<0.0025	<0.0025	<0.0025	<0.0025
6/19/2017	<0.0025	<0.0025	<0.0025	<0.0025
7/17/2017	<0.0025	<0.0025	<0.0025	<0.0025
8/14/2017	<0.0025	<0.0025	<0.0025	<0.0025
9/13/2017	<0.0025	<0.0025	<0.0025	<0.0025
3/22/2018	<0.0025	<0.0025	<0.0025	<0.0025
4/29/2019	<0.0025	<0.0025	<0.0025	<0.0025
4/27/2020	<0.0005 (^)	<0.0005 (^)	<0.0005	<0.0005 (^)

Summary Report

Constituent: Arsenic Analysis Run 6/10/2020 12:52 PM View: Sanitas_StatisticsSamplingEvents 1 through 14
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

For observations made between 2/28/2017 and 4/27/2020, a summary of the selected data set:

Observations = 53
 ND/Trace = 35
 Wells = 4
 Minimum Value = 0.00015
 Maximum Value = 0.0016
 Mean Value = 0.001092
 Median Value = 0.0013
 Standard Deviation = 0.0003611
 Coefficient of Variation = 0.3307
 Skewness = -1.195

<u>Well</u>	<u>#Obs.</u>	<u>ND/Trace</u>	<u>Min</u>	<u>Max</u>	<u>Mean</u>	<u>Median</u>	<u>Std.Dev.</u>	<u>CV</u>	<u>Skewness</u>
MW-D1	13	13	0.00025	0.0013	0.001219	0.0013	0.0002912	0.2389	-3.175
MW-D2	13	9	0.00027	0.0013	0.001095	0.0013	0.0003569	0.326	-1.405
MW-D3	14	2	0.00048	0.0016	0.0009207	0.000855	0.0003773	0.4098	0.4857
MW-U1 (bg)	13	11	0.00015	0.0013	0.001147	0.0013	0.000379	0.3304	-2.033

Summary Report

Constituent: Arsenic (mg/L) Analysis Run 6/10/2020 12:52 PM View: Sanitas_StatisticsSamplingEvents 1 through 14

CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

	MW-D1	MW-D2	MW-D3	MW-U1 (bg)
2/28/2017	<0.0013	<0.0013	0.0015	<0.0013
3/27/2017	<0.0013	<0.0013	<0.0013	<0.0013
4/24/2017	<0.0013	0.00083 (J)	0.00052 (J)	<0.0013
5/22/2017	<0.0013	0.00048 (J)	0.00092 (J)	<0.0013
6/19/2017	<0.0013	<0.0013	0.00097 (J)	<0.0013
7/17/2017	<0.0013	0.00095 (J)	0.0016	0.00046 (J)
8/14/2017	<0.0013	<0.0013	0.00048 (J)	<0.0013
9/13/2017	<0.0013	<0.0013	0.00079 (J)	<0.0013
3/22/2018	<0.0013	<0.0013	0.0006 (J)	<0.0013
6/5/2018	<0.0013	<0.0013	0.00067 (J)	<0.0013
11/29/2018	<0.0013	<0.0013	<0.0013	<0.0013
4/29/2019	<0.0013	<0.0013	0.00048 (J)	<0.0013
10/23/2019			0.00076 (J)	
4/27/2020	<0.00025 (^)	0.00027 (B)	0.001 (B)	0.00015 (JB)

Summary Report

Constituent: Barium Analysis Run 6/10/2020 12:52 PM View: Sanitas_StatisticsSamplingEvents 1 through 14
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

For observations made between 2/28/2017 and 4/27/2020, a summary of the selected data set:

Observations = 56
ND/Trace = 0
Wells = 4
Minimum Value = 0.0018
Maximum Value = 0.23
Mean Value = 0.08148
Median Value = 0.057
Standard Deviation = 0.07951
Coefficient of Variation = 0.9758
Skewness = 0.3362

<u>Well</u>	<u>#Obs.</u>	<u>ND/Trace</u>	<u>Min</u>	<u>Max</u>	<u>Mean</u>	<u>Median</u>	<u>Std.Dev.</u>	<u>CV</u>	<u>Skewness</u>
MW-D1	14	0	0.0095	0.027	0.01309	0.012	0.004441	0.3392	2.318
MW-D2	14	0	0.087	0.19	0.1391	0.145	0.02601	0.187	-0.1921
MW-D3	14	0	0.091	0.23	0.1715	0.18	0.04421	0.2578	-0.4854
MW-U1 (bg)	14	0	0.0018	0.0034	0.002264	0.0022	0.0004069	0.1797	1.52

Summary Report

Constituent: Barium (mg/L) Analysis Run 6/10/2020 12:52 PM View: Sanitas_StatisticsSamplingEvents 1 through 14

CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

	MW-D1	MW-D2	MW-D3	MW-U1 (bg)
2/28/2017	0.011	0.087	0.22	0.0034
3/27/2017	0.0099	0.11	0.23	0.0026
4/24/2017	0.011	0.15	0.2	0.0022 (J)
5/22/2017	0.013	0.12	0.21	0.002 (J)
6/19/2017	0.012	0.11	0.21	0.0021 (J)
7/17/2017	0.012	0.16	0.2	0.0025
8/14/2017	0.014	0.13	0.18	0.002 (J)
9/13/2017	0.014	0.14	0.18	0.0023 (J)
3/22/2018	0.0095	0.15	0.16	0.0021 (J)
6/5/2018	0.01	0.19	0.15	0.0025
11/29/2018	0.0099	0.15	0.14	0.0018 (J)
4/29/2019	0.015	0.16	0.1	0.0018 (J)
10/23/2019	0.027	0.14	0.13	0.0022 (J)
4/27/2020	0.015	0.15	0.091	0.0022

Summary Report

Constituent: Beryllium Analysis Run 6/10/2020 12:52 PM View: Sanitas_StatisticsSamplingEvents 1 through 14
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

For observations made between 2/28/2017 and 4/27/2020, a summary of the selected data set:

Observations = 44
 ND/Trace = 44
 Wells = 4
 Minimum Value = 0.0004
 Maximum Value = 0.0025
 Mean Value = 0.0019
 Median Value = 0.002
 Standard Deviation = 0.0005012
 Coefficient of Variation = 0.2638
 Skewness = -2.355

<u>Well</u>	<u>#Obs.</u>	<u>ND/Trace</u>	<u>Min</u>	<u>Max</u>	<u>Mean</u>	<u>Median</u>	<u>Std.Dev.</u>	<u>CV</u>	<u>Skewness</u>
MW-D1	11	11	0.0004	0.0025	0.0019	0.002	0.0005196	0.2735	-2.355
MW-D2	11	11	0.0004	0.0025	0.0019	0.002	0.0005196	0.2735	-2.355
MW-D3	11	11	0.0004	0.0025	0.0019	0.002	0.0005196	0.2735	-2.355
MW-U1 (bg)	11	11	0.0004	0.0025	0.0019	0.002	0.0005196	0.2735	-2.355

Summary Report

Constituent: Beryllium (mg/L) Analysis Run 6/10/2020 12:52 PM View: Sanitas_StatisticsSamplingEvents 1 through 14

CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

	MW-D1	MW-D2	MW-D3	MW-U1 (bg)
2/28/2017	<0.002	<0.002	<0.002	<0.002
3/27/2017	<0.002	<0.002	<0.002	<0.002
4/24/2017	<0.002	<0.002	<0.002	<0.002
5/22/2017	<0.002	<0.002	<0.002	<0.002
6/19/2017	<0.002	<0.002	<0.002	<0.002
7/17/2017	<0.002	<0.002	<0.002	<0.002
8/14/2017	<0.002	<0.002	<0.002	<0.002
9/13/2017	<0.002	<0.002	<0.002	<0.002
3/22/2018	<0.0025	<0.0025	<0.0025	<0.0025
4/29/2019	<0.002	<0.002	<0.002	<0.002
4/27/2020	<0.0004	<0.0004 (*)	<0.0004 (*)	<0.0004 (*)

Summary Report

Constituent: Cadmium Analysis Run 6/10/2020 12:52 PM View: Sanitas_StatisticsSamplingEvents 1 through 14
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

For observations made between 2/28/2017 and 4/27/2020, a summary of the selected data set:

Observations = 44
ND/Trace = 42
Wells = 4
Minimum Value = 0.000071
Maximum Value = 0.0025
Mean Value = 0.001058
Median Value = 0.001
Standard Deviation = 0.000525
Coefficient of Variation = 0.4963
Skewness = 1.433

<u>Well</u>	<u>#Obs.</u>	<u>ND/Trace</u>	<u>Min</u>	<u>Max</u>	<u>Mean</u>	<u>Median</u>	<u>Std.Dev.</u>	<u>CV</u>	<u>Skewness</u>
MW-D1	11	11	0.0002	0.0025	0.001064	0.001	0.0005334	0.5015	1.601
MW-D2	11	10	0.000075	0.0025	0.001052	0.001	0.0005546	0.527	1.291
MW-D3	11	10	0.000071	0.0025	0.001052	0.001	0.0005553	0.5279	1.281
MW-U1 (bg)	11	11	0.0002	0.0025	0.001064	0.001	0.0005334	0.5015	1.601

Summary Report

Constituent: Cadmium (mg/L) Analysis Run 6/10/2020 12:52 PM View: Sanitas_StatisticsSamplingEvents 1 through 14
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

	MW-D1	MW-D2	MW-D3	MW-U1 (bg)
2/28/2017	<0.001	<0.001	<0.001	<0.001
3/27/2017	<0.001	<0.001	<0.001	<0.001
4/24/2017	<0.001	<0.001	<0.001	<0.001
5/22/2017	<0.001	<0.001	<0.001	<0.001
6/19/2017	<0.001	<0.001	<0.001	<0.001
7/17/2017	<0.001	<0.001	<0.001	<0.001
8/14/2017	<0.001	<0.001	<0.001	<0.001
9/13/2017	<0.001	<0.001	<0.001	<0.001
3/22/2018	<0.0025	<0.0025	<0.0025	<0.0025
4/29/2019	<0.001	<0.001	<0.001	<0.001
4/27/2020	<0.0002	7.5E-05 (J*)	7.1E-05 (J)	<0.0002

Summary Report

Constituent: Chromium Analysis Run 6/10/2020 12:52 PM View: Sanitas_StatisticsSamplingEvents 1 through 14
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

For observations made between 2/28/2017 and 4/27/2020, a summary of the selected data set:

Observations = 48
 ND/Trace = 33
 Wells = 4
 Minimum Value = 0.0005
 Maximum Value = 0.0051
 Mean Value = 0.002225
 Median Value = 0.0025
 Standard Deviation = 0.000826
 Coefficient of Variation = 0.3713
 Skewness = 0.277

<u>Well</u>	<u>#Obs.</u>	<u>ND/Trace</u>	<u>Min</u>	<u>Max</u>	<u>Mean</u>	<u>Median</u>	<u>Std.Dev.</u>	<u>CV</u>	<u>Skewness</u>
MW-D1	12	11	0.0005	0.0034	0.002408	0.0025	0.0006543	0.2717	-2.023
MW-D2	12	11	0.0005	0.0038	0.002442	0.0025	0.0007166	0.2935	-1.241
MW-D3	12	11	0.0005	0.0029	0.002367	0.0025	0.000599	0.2531	-2.796
MW-U1 (bg)	12	0	0.0011	0.0051	0.001683	0.0014	0.001089	0.6467	2.891

Summary Report

Constituent: Chromium (mg/L) Analysis Run 6/10/2020 12:52 PM View: Sanitas_StatisticsSamplingEvents 1 through 14
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

	MW-D1	MW-D2	MW-D3	MW-U1 (bg)
2/28/2017	0.0034	0.0038	0.0029	0.0051
3/27/2017	<0.0025	<0.0025	<0.0025	0.0017 (J)
4/24/2017	<0.0025	<0.0025	<0.0025	0.0014 (J)
5/22/2017	<0.0025	<0.0025	<0.0025	0.0014 (J)
6/19/2017	<0.0025	<0.0025	<0.0025	0.0014 (J)
7/17/2017	<0.0025	<0.0025	<0.0025	0.0014 (J)
8/14/2017	<0.0025	<0.0025	<0.0025	0.0012 (J)
9/13/2017	<0.0025	<0.0025	<0.0025	0.0014 (J)
3/22/2018	<0.0025	<0.0025	<0.0025	0.0016 (J)
11/29/2018	<0.0025	<0.0025	<0.0025	0.0012 (J)
4/29/2019	<0.0025	<0.0025	<0.0025	0.0011 (J)
4/27/2020	<0.0005 (^)	<0.0005 (^)	<0.0005 (^)	0.0013

Summary Report

Constituent: Cobalt Analysis Run 6/11/2020 9:35 AM View: Sanitas_StatisticsSamplingEvents 1 through 14
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

For observations made between 2/28/2017 and 4/27/2020, a summary of the selected data set:

Observations = 56
 ND/Trace = 40
 Wells = 4
 Minimum Value = 0.00035
 Maximum Value = 0.0025
 Mean Value = 0.002003
 Median Value = 0.0025
 Standard Deviation = 0.0007379
 Coefficient of Variation = 0.3683
 Skewness = -0.9981

<u>Well</u>	<u>#Obs.</u>	<u>ND/Trace</u>	<u>Min</u>	<u>Max</u>	<u>Mean</u>	<u>Median</u>	<u>Std.Dev.</u>	<u>CV</u>	<u>Skewness</u>
MW-D1	14	14	0.0005	0.0025	0.002357	0.0025	0.0005345	0.2268	-3.328
MW-D2	14	12	0.00047	0.0025	0.002248	0.0025	0.0006493	0.2889	-2.149
MW-D3	14	0	0.00035	0.0017	0.001194	0.00125	0.0003418	0.2862	-0.9591
MW-U1 (bg)	14	14	0.0005	0.0025	0.002214	0.0025	0.0007263	0.328	-2.041

Summary Report

Constituent: Cobalt (mg/L) Analysis Run 6/11/2020 9:37 AM View: Sanitas_StatisticsSamplingEvents 1 through 14
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

	MW-D1	MW-D2	MW-D3	MW-U1 (bg)
2/28/2017	<0.0025	0.00047 (J)	0.0011 (J)	<0.0025
3/27/2017	<0.0025	<0.0025	0.00079 (J)	<0.0025
4/24/2017	<0.0025	<0.0025	0.001 (J)	<0.0025
5/22/2017	<0.0025	<0.0025	0.0012 (J)	<0.0025
6/19/2017	<0.0025	<0.0025	0.0015 (J)	<0.0025
7/17/2017	<0.0025	<0.0025	0.0014 (J)	<0.0025
8/14/2017	<0.0025	<0.0025	0.0013 (J)	<0.0025
9/13/2017	<0.0025	<0.0025	0.0014 (J)	<0.0025
3/22/2018	<0.0025	<0.0025	0.0015 (J)	<0.0005
6/5/2018	<0.0025	<0.0025	0.0017 (J)	<0.0025
11/29/2018	<0.0025	<0.0025	0.00098 (J)	<0.0025
4/29/2019	<0.0025	<0.0025	0.0013 (J)	<0.0025
10/23/2019	<0.0025	<0.0025	0.0012 (J)	<0.0025
4/27/2020	<0.0005 (*)	0.001	0.00035 (J)	<0.0005 (*)

Summary Report

Constituent: Combined Radium 226 + 228 Analysis Run 6/10/2020 12:52 PM View: Sanitas_StatisticsSamplingEvents 1 through 14
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

For observations made between 2/28/2017 and 4/27/2020, a summary of the selected data set:

Observations = 56
 ND/Trace = 10
 Wells = 4
 Minimum Value = -0.0586
 Maximum Value = 1.28
 Mean Value = 0.4073
 Median Value = 0.405
 Standard Deviation = 0.2933
 Coefficient of Variation = 0.7202
 Skewness = 1.056

<u>Well</u>	<u>#Obs.</u>	<u>ND/Trace</u>	<u>Min</u>	<u>Max</u>	<u>Mean</u>	<u>Median</u>	<u>Std.Dev.</u>	<u>CV</u>	<u>Skewness</u>
MW-D1	14	2	0.0994	0.816	0.3625	0.344	0.2237	0.6171	0.6185
MW-D2	14	3	0.0139	1.28	0.4786	0.4525	0.3045	0.6363	1.111
MW-D3	14	2	0.0501	1.28	0.5775	0.5395	0.3215	0.5566	0.9099
MW-U1 (bg)	14	3	-0.0586	0.614	0.2106	0.1625	0.1934	0.9181	0.642

Summary Report

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 6/10/2020 12:52 PM View: Sanitas_StatisticsSamplingEvents 1 through 14
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

	MW-D1	MW-D2	MW-D3	MW-U1 (bg)
2/28/2017	0.421	0.506	0.522	0.117
3/27/2017	0.655	1.28	0.557	-0.0198
4/24/2017	0.212	0.756	0.572	0.19
5/22/2017	0.186	0.333	0.457	0.133
6/19/2017	0.156	0.388	0.78	0.135
7/17/2017	0.153	0.534	0.409	0.19
8/14/2017	0.287	0.452	0.339	0.302
9/13/2017	0.816	0.453	1.28	0.614
3/22/2018	0.643	0.716	1.17	0.131
6/5/2018	0.149	0.0139	0.564	-0.0586
11/29/2018	0.0994	0.18	0.0501	0.0234
4/29/2019	<0.457	<0.42	0.594	<0.386
10/23/2019	<0.439	<0.484	<0.465	<0.508
4/27/2020	0.401	<0.184	<0.326	<0.298

Summary Report

Constituent: Fluoride Analysis Run 6/10/2020 12:52 PM View: Sanitas_StatisticsSamplingEvents 1 through 14
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

For observations made between 2/28/2017 and 4/27/2020, a summary of the selected data set:

Observations = 56
ND/Trace = 1
Wells = 4
Minimum Value = 0.04
Maximum Value = 0.13
Mean Value = 0.07418
Median Value = 0.06
Standard Deviation = 0.02648
Coefficient of Variation = 0.357
Skewness = 0.6905

<u>Well</u>	<u>#Obs.</u>	<u>ND/Trace</u>	<u>Min</u>	<u>Max</u>	<u>Mean</u>	<u>Median</u>	<u>Std.Dev.</u>	<u>CV</u>	<u>Skewness</u>
MW-D1	14	0	0.04	0.12	0.07107	0.07	0.02272	0.3196	0.7186
MW-D2	14	0	0.04	0.07	0.05793	0.06	0.008043	0.1388	-0.5599
MW-D3	14	0	0.06	0.13	0.1093	0.11	0.01685	0.1542	-1.785
MW-U1 (bg)	14	1	0.04	0.1	0.05843	0.06	0.0146	0.2498	1.517

Summary Report

Constituent: Fluoride (mg/L) Analysis Run 6/10/2020 12:52 PM View: Sanitas_StatisticsSamplingEvents 1 through 14

CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

	MW-D1	MW-D2	MW-D3	MW-U1 (bg)
2/28/2017	0.06 (J)	0.06 (J)	0.13	0.06 (J)
3/27/2017	0.05 (J)	0.05 (J)	0.11	0.04 (J)
4/24/2017	0.07 (J)	0.07 (J)	0.12	0.06 (J)
5/22/2017	0.07 (J)	0.06 (J)	0.11	0.06 (J)
6/19/2017	0.08 (J)	0.06 (J)	0.12	0.06 (J)
7/17/2017	0.11	0.06 (J)	0.06 (J)	0.06 (J)
8/14/2017	0.07 (J)	0.06 (J)	0.12	0.05 (J)
9/13/2017	0.075 (J)	0.061 (J)	0.12	0.058 (J)
3/22/2018	0.08 (J)	0.06 (J)	0.11	0.07 (J)
6/5/2018	0.07 (J)	0.07 (J)	0.12	0.06 (J)
11/29/2018	0.04 (J)	0.04 (J)	0.1	0.04 (J)
4/29/2019	0.06 (J)	0.06 (J)	0.11	<0.1
10/23/2019	0.12 (B)	0.05 (JB)	0.1 (B)	0.05 (JB)
4/27/2020	0.04 (J)	0.05 (J)	0.1	0.05 (J)

Summary Report

Constituent: Lead Analysis Run 6/10/2020 12:52 PM View: Sanitas_StatisticsSamplingEvents 1 through 14
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

For observations made between 2/28/2017 and 4/27/2020, a summary of the selected data set:

Observations = 44
 ND/Trace = 40
 Wells = 4
 Minimum Value = 0.00025
 Maximum Value = 0.0013
 Mean Value = 0.001139
 Median Value = 0.0013
 Standard Deviation = 0.000356
 Coefficient of Variation = 0.3125
 Skewness = -1.843

<u>Well</u>	<u>#Obs.</u>	<u>ND/Trace</u>	<u>Min</u>	<u>Max</u>	<u>Mean</u>	<u>Median</u>	<u>Std.Dev.</u>	<u>CV</u>	<u>Skewness</u>
MW-D1	11	10	0.00025	0.0013	0.001159	0.0013	0.0003368	0.2905	-2.121
MW-D2	11	9	0.00025	0.0013	0.001047	0.0013	0.0004364	0.4167	-1.075
MW-D3	11	11	0.00025	0.0013	0.001205	0.0013	0.0003166	0.2628	-2.846
MW-U1 (bg)	11	10	0.00025	0.0013	0.001145	0.0013	0.0003553	0.3102	-1.886

Summary Report

Constituent: Lead (mg/L) Analysis Run 6/10/2020 12:52 PM View: Sanitas_StatisticsSamplingEvents 1 through 14
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

	MW-D1	MW-D2	MW-D3	MW-U1 (bg)
2/28/2017	<0.0013 (^)	0.0005 (J)	<0.0013 (^)	<0.0013
3/27/2017	<0.0013	<0.0013	<0.0013	<0.0013
4/24/2017	<0.0013	<0.0013	<0.0013	<0.0013
5/22/2017	<0.0013	<0.0013	<0.0013	0.00065 (J)
6/19/2017	<0.0013	<0.0013	<0.0013	<0.0013
7/17/2017	<0.0013	<0.0013	<0.0013	<0.0013
8/14/2017	0.0008 (J)	0.00037 (J)	<0.0013	<0.0013
9/13/2017	<0.0013	<0.0013	<0.0013	<0.0013
3/22/2018	<0.0013	<0.0013	<0.0013	<0.0013
4/29/2019	<0.0013	<0.0013	<0.0013	<0.0013
4/27/2020	<0.00025 (^)	<0.00025 (^)	<0.00025 (^)	<0.00025 (^)

Summary Report

Constituent: Lithium Analysis Run 6/10/2020 12:52 PM View: Sanitas_StatisticsSamplingEvents 1 through 14
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

For observations made between 2/28/2017 and 4/27/2020, a summary of the selected data set:

Observations = 48
 ND/Trace = 44
 Wells = 4
 Minimum Value = 0.00034
 Maximum Value = 0.005
 Mean Value = 0.00239
 Median Value = 0.0025
 Standard Deviation = 0.0009489
 Coefficient of Variation = 0.397
 Skewness = 0.3552

<u>Well</u>	<u>#Obs.</u>	<u>ND/Trace</u>	<u>Min</u>	<u>Max</u>	<u>Mean</u>	<u>Median</u>	<u>Std.Dev.</u>	<u>CV</u>	<u>Skewness</u>
MW-D1	12	12	0.0005	0.005	0.002542	0.0025	0.0009643	0.3794	0.6719
MW-D2	12	11	0.0005	0.005	0.002425	0.0025	0.001051	0.4333	0.6237
MW-D3	12	10	0.00048	0.005	0.00244	0.0025	0.001033	0.4232	0.6701
MW-U1 (bg)	12	11	0.00034	0.0025	0.002153	0.0025	0.0008104	0.3763	-1.796

Summary Report

Constituent: Lithium (mg/L) Analysis Run 6/10/2020 12:53 PM View: Sanitas_StatisticsSamplingEvents 1 through 14

CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

	MW-D1	MW-D2	MW-D3	MW-U1 (bg)
2/28/2017	<0.0025	<0.0025	<0.0025	<0.0025
3/27/2017	<0.0025	<0.0025	<0.0025	<0.0025
4/24/2017	<0.0025	<0.0025	<0.0025	<0.0025
5/22/2017	<0.0025	<0.0025	<0.0025	<0.0025
6/19/2017	<0.0025	<0.0025	<0.0025	<0.0025
7/17/2017	<0.0025	<0.0025	<0.0025	<0.0025
8/14/2017	<0.0025	<0.0025	<0.0025	<0.0025
9/13/2017	<0.0025	<0.0025	<0.0025	<0.0025
3/22/2018	<0.005	<0.005	<0.005	0.00034 (J)
11/29/2018	<0.0025	<0.0025	<0.0025	<0.0025
4/29/2019	<0.0025	0.0011 (J)	0.0013 (J)	<0.0025
4/27/2020	<0.0005 (^)	<0.0005	0.00048 (J)	<0.0005 (^)

Summary Report

Constituent: Mercury Analysis Run 6/10/2020 12:53 PM View: Sanitas_StatisticsSamplingEvents 1 through 14
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

For observations made between 2/28/2017 and 4/27/2020, a summary of the selected data set:

Observations = 44
 ND/Trace = 38
 Wells = 4
 Minimum Value = 0.000077
 Maximum Value = 0.00129
 Mean Value = 0.0002151
 Median Value = 0.0002
 Standard Deviation = 0.0001684
 Coefficient of Variation = 0.7829
 Skewness = 6.08

<u>Well</u>	<u>#Obs.</u>	<u>ND/Trace</u>	<u>Min</u>	<u>Max</u>	<u>Mean</u>	<u>Median</u>	<u>Std.Dev.</u>	<u>CV</u>	<u>Skewness</u>
MW-D1	11	10	0.000077	0.0002	0.0001888	0.0002	0.00003709	0.1964	-2.846
MW-D2	11	8	0.00011	0.00129	0.0002891	0.0002	0.0003331	1.152	2.81
MW-D3	11	10	0.00011	0.0002	0.0001918	0.0002	0.00002714	0.1415	-2.846
MW-U1 (bg)	11	10	0.000099	0.0002	0.0001908	0.0002	0.00003045	0.1596	-2.846

Summary Report

Constituent: Mercury (mg/L) Analysis Run 6/10/2020 12:53 PM View: Sanitas_StatisticsSamplingEvents 1 through 14

CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

	MW-D1	MW-D2	MW-D3	MW-U1 (bg)
2/28/2017	7.7E-05 (JB)	0.00018 (JB)	0.00011 (JB)	9.9E-05 (JB)
3/27/2017	<0.0002	0.00011 (J)	<0.0002	<0.0002
4/24/2017	<0.0002	<0.0002	<0.0002	<0.0002
5/22/2017	<0.0002	<0.0002	<0.0002	<0.0002
6/19/2017	<0.0002	<0.0002	<0.0002	<0.0002
7/17/2017	<0.0002	<0.0002	<0.0002	<0.0002
8/14/2017	<0.0002	<0.0002	<0.0002	<0.0002
9/13/2017	<0.0002	<0.0002	<0.0002	<0.0002
3/22/2018	<0.0002	<0.0002	<0.0002	<0.0002
4/29/2019	<0.0002	<0.0002	<0.0002	<0.0002
4/27/2020	<0.0002	0.00129 (D)	<0.0002	<0.0002

Summary Report

Constituent: Molybdenum Analysis Run 6/10/2020 12:53 PM View: Sanitas_StatisticsSamplingEvents 1 through 14
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

For observations made between 2/28/2017 and 4/27/2020, a summary of the selected data set:

Observations = 52
 ND/Trace = 38
 Wells = 4
 Minimum Value = 0.0012
 Maximum Value = 0.015
 Mean Value = 0.007642
 Median Value = 0.01
 Standard Deviation = 0.003926
 Coefficient of Variation = 0.5137
 Skewness = -0.5041

<u>Well</u>	<u>#Obs.</u>	<u>ND/Trace</u>	<u>Min</u>	<u>Max</u>	<u>Mean</u>	<u>Median</u>	<u>Std.Dev.</u>	<u>CV</u>	<u>Skewness</u>
MW-D1	13	13	0.002	0.015	0.009769	0.01	0.002713	0.2777	-1.415
MW-D2	13	10	0.0012	0.015	0.007869	0.01	0.004418	0.5614	-0.4627
MW-D3	13	2	0.0017	0.01	0.004085	0.0023	0.003228	0.7903	1.166
MW-U1 (bg)	13	13	0.002	0.01	0.008846	0.01	0.002824	0.3192	-1.94

Summary Report

Constituent: Molybdenum (mg/L) Analysis Run 6/10/2020 12:53 PM View: Sanitas_StatisticsSamplingEvents 1 through 14

CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

	MW-D1	MW-D2	MW-D3	MW-U1 (bg)
2/28/2017	<0.01	0.0012 (J)	0.0088 (J)	<0.01
3/27/2017	<0.01	<0.01	0.0023 (J)	<0.01
4/24/2017	<0.01	<0.01	0.0018 (J)	<0.01
5/22/2017	<0.01	0.0025 (J)	0.0031 (J)	<0.01
6/19/2017	<0.01	0.0016 (J)	0.0043 (J)	<0.01
7/17/2017	<0.01	<0.01	0.0027 (J)	<0.01
8/14/2017	<0.01	<0.01	0.0017 (J)	<0.01
9/13/2017	<0.01	<0.01	0.0021 (J)	<0.01
3/22/2018	<0.015	<0.015	0.0022 (J)	<0.003
6/5/2018	<0.01	<0.01	0.0022 (J)	<0.01
11/29/2018	<0.01	<0.01	<0.01	<0.01
4/29/2019	<0.01	<0.01	<0.01	<0.01
4/27/2020	<0.002 (^)	<0.002 (^)	0.0019 (J)	<0.002 (^)

Summary Report

Constituent: Selenium Analysis Run 6/10/2020 12:53 PM View: Sanitas_StatisticsSamplingEvents 1 through 14
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

For observations made between 2/28/2017 and 4/27/2020, a summary of the selected data set:

Observations = 48
ND/Trace = 33
Wells = 4
Minimum Value = 0.00021
Maximum Value = 0.0028
Mean Value = 0.001051
Median Value = 0.0013
Standard Deviation = 0.0004822
Coefficient of Variation = 0.4588
Skewness = 0.3109

<u>Well</u>	<u>#Obs.</u>	<u>ND/Trace</u>	<u>Min</u>	<u>Max</u>	<u>Mean</u>	<u>Median</u>	<u>Std.Dev.</u>	<u>CV</u>	<u>Skewness</u>
MW-D1	12	11	0.00025	0.0013	0.001132	0.0013	0.0003935	0.3477	-1.796
MW-D2	12	9	0.00025	0.0013	0.001048	0.0013	0.0004126	0.3939	-1.141
MW-D3	12	8	0.00021	0.0028	0.001144	0.0013	0.0006878	0.6012	0.7497
MW-U1 (bg)	12	5	0.00039	0.0013	0.0008808	0.00073	0.0003838	0.4357	0.1228

Summary Report

Constituent: Selenium (mg/L) Analysis Run 6/10/2020 12:53 PM View: Sanitas_StatisticsSamplingEvents 1 through 14

CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

	MW-D1	MW-D2	MW-D3	MW-U1 (bg)
2/28/2017	<0.0013	<0.0013	0.0028	<0.0013
3/27/2017	<0.0013	<0.0013	<0.0013	<0.0013
4/24/2017	<0.0013	<0.0013	<0.0013	<0.0013
5/22/2017	<0.0013	0.001 (J)	0.00037 (J)	0.00076 (J)
6/19/2017	<0.0013	0.00059 (JB)	0.001 (JB)	0.00062 (JB)
7/17/2017	0.00033 (J)	0.00033 (J)	<0.0013	0.0007 (J)
8/14/2017	<0.0013	<0.0013	<0.0013	0.00058 (J)
9/13/2017	<0.0013	<0.0013	<0.0013	0.00041 (J)
3/22/2018	<0.0013	<0.0013	<0.00025	0.00039
11/29/2018	<0.0013	<0.0013	<0.0013	<0.0013
4/29/2019	<0.0013	<0.0013	<0.0013	<0.0013
4/27/2020	<0.00025	<0.00025	0.00021 (J)	0.00061

Summary Report

Constituent: Thallium Analysis Run 6/10/2020 12:53 PM View: Sanitas_StatisticsSamplingEvents 1 through 14
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

For observations made between 2/28/2017 and 4/27/2020, a summary of the selected data set:

Observations = 54
 ND/Trace = 30
 Wells = 4
 Minimum Value = 0.000085
 Maximum Value = 0.0005
 Mean Value = 0.0003166
 Median Value = 0.0005
 Standard Deviation = 0.0001935
 Coefficient of Variation = 0.6112
 Skewness = -0.1087

<u>Well</u>	<u>#Obs.</u>	<u>ND/Trace</u>	<u>Min</u>	<u>Max</u>	<u>Mean</u>	<u>Median</u>	<u>Std.Dev.</u>	<u>CV</u>	<u>Skewness</u>
MW-D1	13	13	0.0001	0.0005	0.0004692	0.0005	0.0001109	0.2364	-3.175
MW-D2	14	4	0.000085	0.0005	0.0002321	0.000125	0.0001806	0.7781	0.8084
MW-D3	14	0	0.000095	0.00017	0.0001175	0.000115	0.00001848	0.1572	1.581
MW-U1 (bg)	13	13	0.0001	0.0005	0.0004692	0.0005	0.0001109	0.2364	-3.175

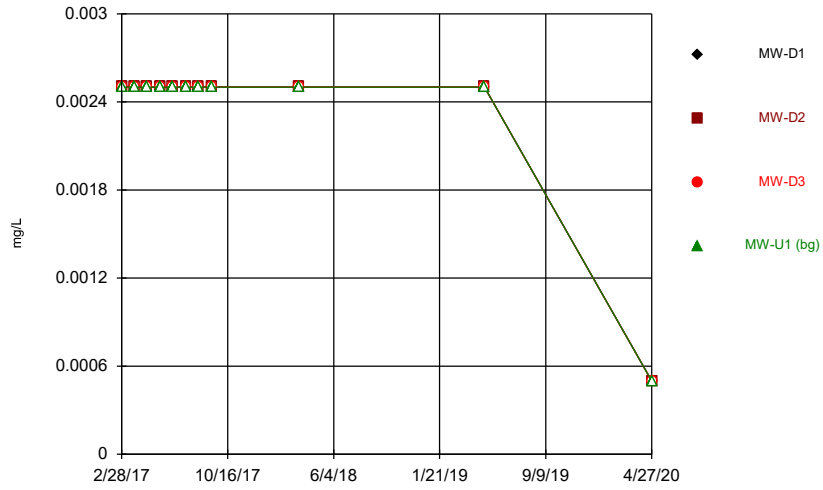
Summary Report

Constituent: Thallium (mg/L) Analysis Run 6/10/2020 12:53 PM View: Sanitas_StatisticsSamplingEvents 1 through 14

CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

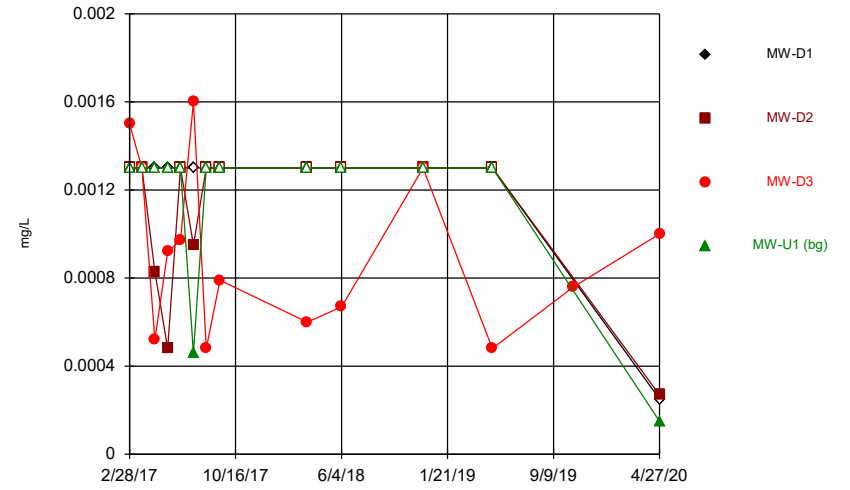
	MW-D1	MW-D2	MW-D3	MW-U1 (bg)
2/28/2017	<0.0005	0.00011 (J)	0.00013 (J)	<0.0005
3/27/2017	<0.0005	<0.0005	0.00011 (J)	<0.0005
4/24/2017	<0.0005	<0.0005	9.5E-05 (J)	<0.0005
5/22/2017	<0.0005	0.00011 (J)	0.00011 (J)	<0.0005
6/19/2017	<0.0005	0.00011 (J)	0.00012 (J)	<0.0005
7/17/2017	<0.0005	0.00011 (J)	0.00012 (J)	<0.0005
8/14/2017	<0.0005	0.00013 (J)	0.00011 (J)	<0.0005
9/13/2017	<0.0005	0.00012 (J)	0.00013 (J)	<0.0005
3/22/2018	<0.0005	<0.0005	0.0001 (J)	<0.0005
6/5/2018	<0.0005	8.5E-05 (J)	0.00012 (J)	<0.0005
11/29/2018	<0.0005	8.5E-05 (J)	0.0001 (J)	<0.0005
4/29/2019	<0.0005	<0.0005	0.00011 (J)	<0.0005
10/23/2019		0.00026 (J)	0.00017 (J)	
4/27/2020	<0.0001 (*)	0.00013	0.00012	<0.0001 (*)

Time Series



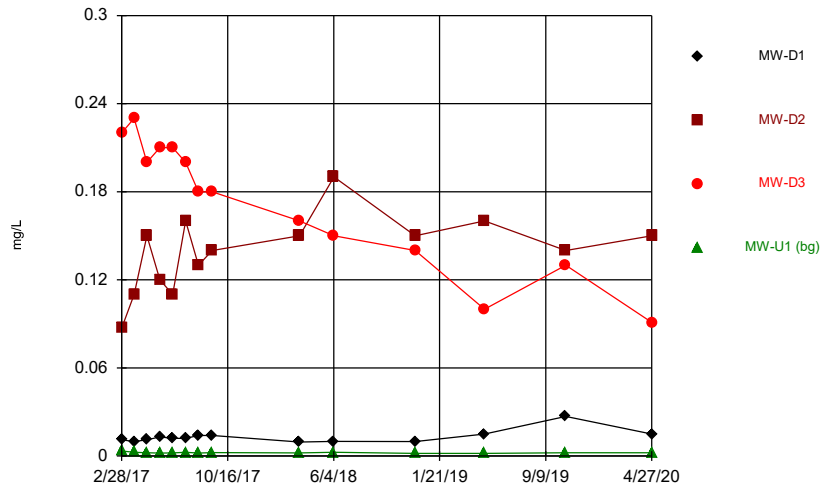
Constituent: Antimony Analysis Run 6/10/2020 12:57 PM View: Sanitas_StatisticsSamplingEvents 1 through 10
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Time Series



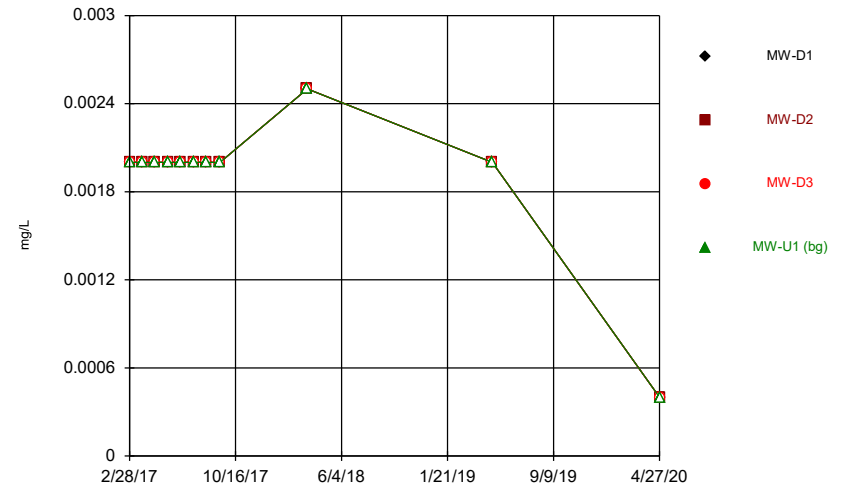
Constituent: Arsenic Analysis Run 6/10/2020 12:57 PM View: Sanitas_StatisticsSamplingEvents 1 through 10
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Time Series



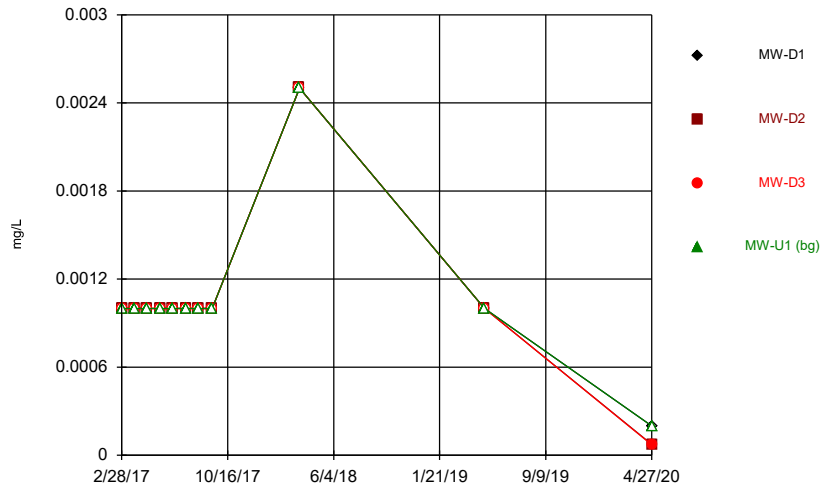
Constituent: Barium Analysis Run 6/10/2020 12:57 PM View: Sanitas_StatisticsSamplingEvents 1 through 10
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Time Series



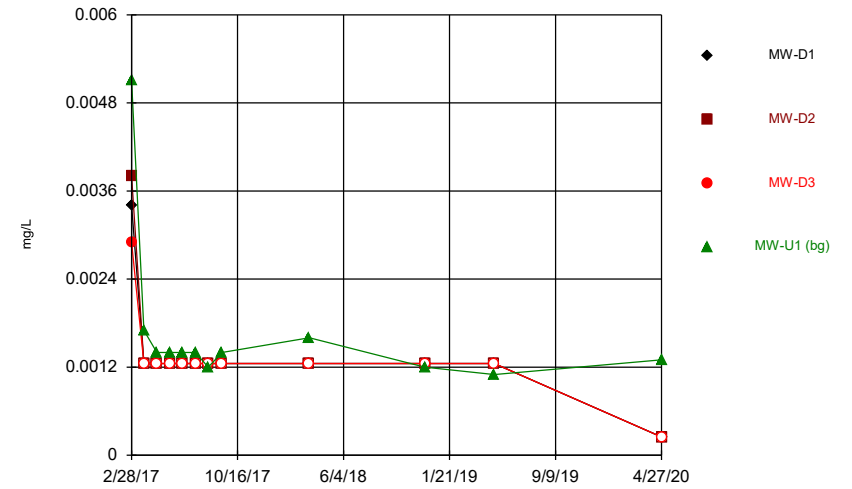
Constituent: Beryllium Analysis Run 6/10/2020 12:57 PM View: Sanitas_StatisticsSamplingEvents 1 through 10
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Time Series



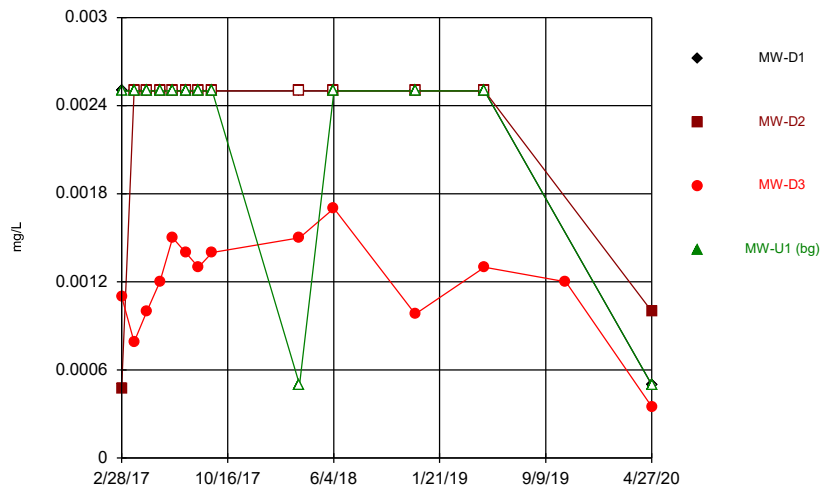
Constituent: Cadmium Analysis Run 6/10/2020 12:57 PM View: Sanitas_StatisticsSamplingEvents 1 thru
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Time Series



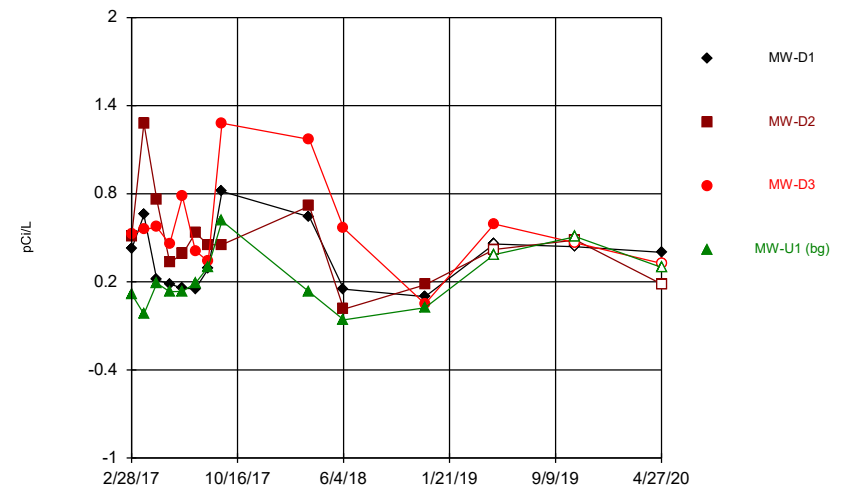
Constituent: Chromium Analysis Run 6/10/2020 12:57 PM View: Sanitas_StatisticsSamplingEvents 1 thru
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Time Series



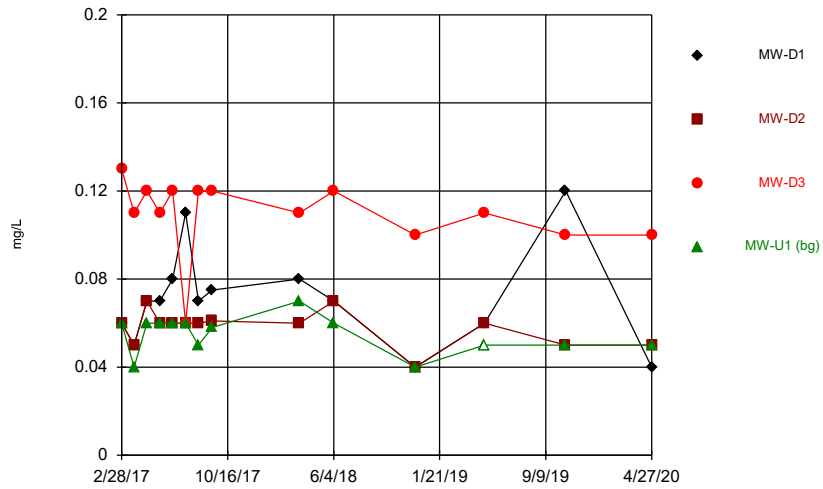
Constituent: Cobalt Analysis Run 6/10/2020 12:57 PM View: Sanitas_StatisticsSamplingEvents 1 through
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Time Series



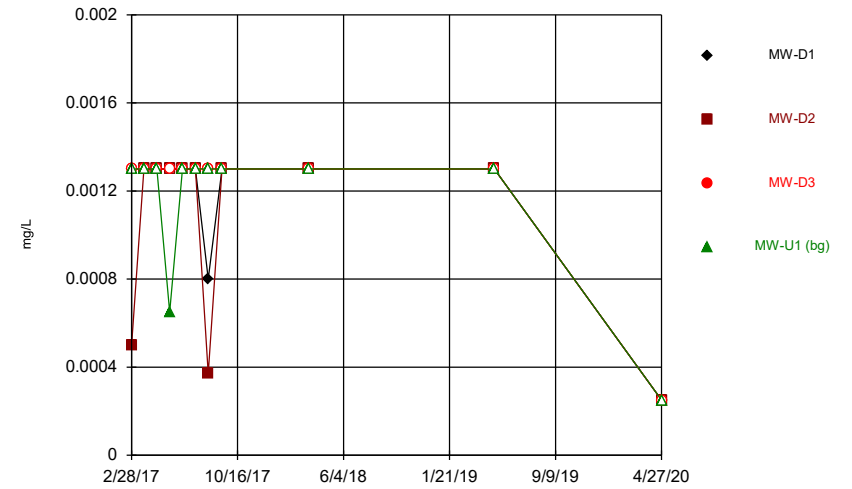
Constituent: Combined Radium 226 + 228 Analysis Run 6/10/2020 12:57 PM View: Sanitas_StatisticsSam
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Time Series



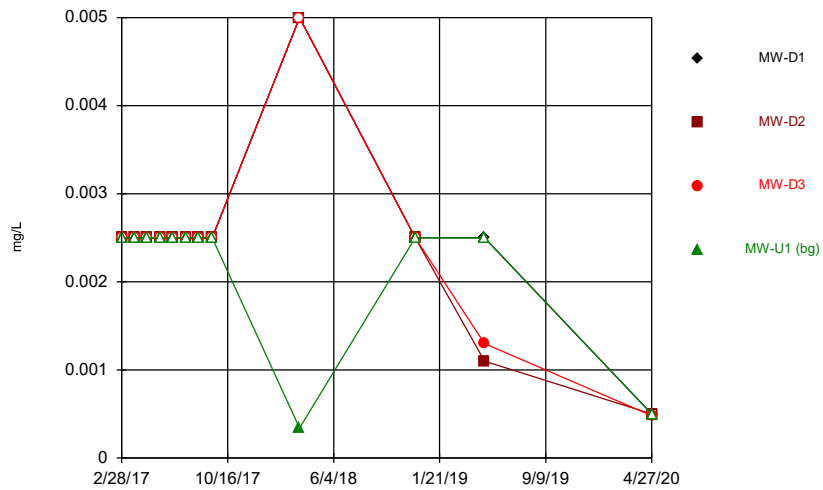
Constituent: Fluoride Analysis Run 6/10/2020 12:57 PM View: Sanitas_StatisticsSamplingEvents 1 through 10
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Time Series



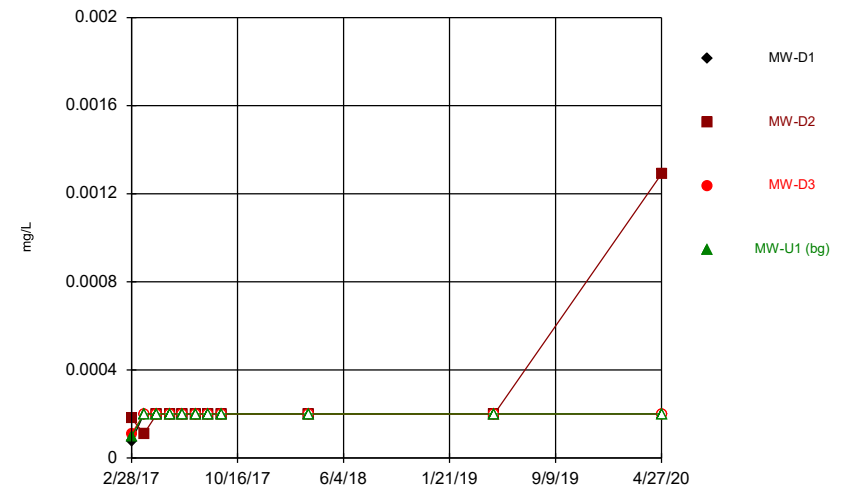
Constituent: Lead Analysis Run 6/10/2020 12:57 PM View: Sanitas_StatisticsSamplingEvents 1 through 1
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Time Series



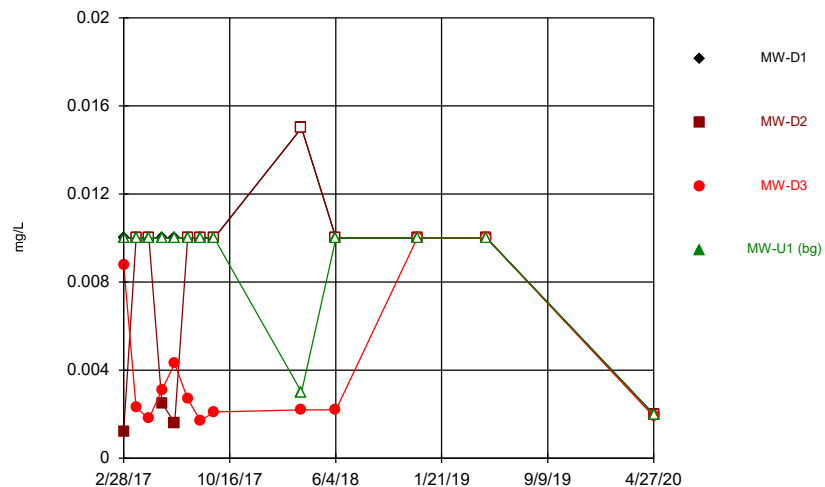
Constituent: Lithium Analysis Run 6/10/2020 12:57 PM View: Sanitas_StatisticsSamplingEvents 1 through 10
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Time Series



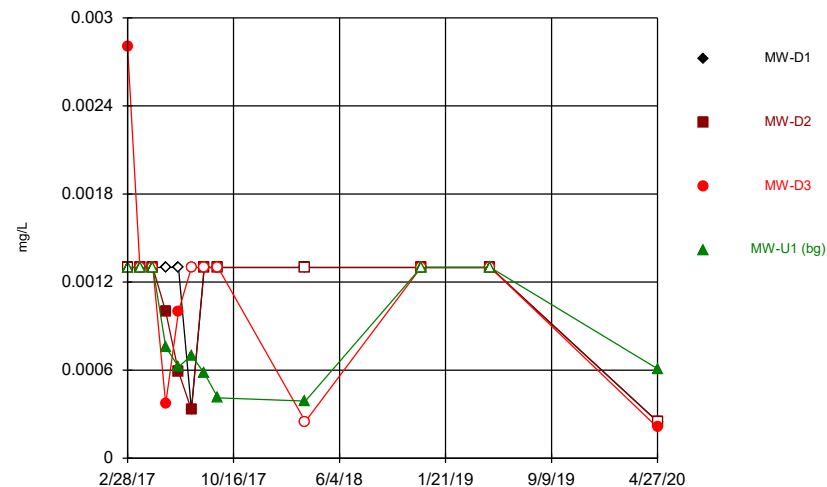
Constituent: Mercury Analysis Run 6/10/2020 12:58 PM View: Sanitas_StatisticsSamplingEvents 1 through 10
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Time Series



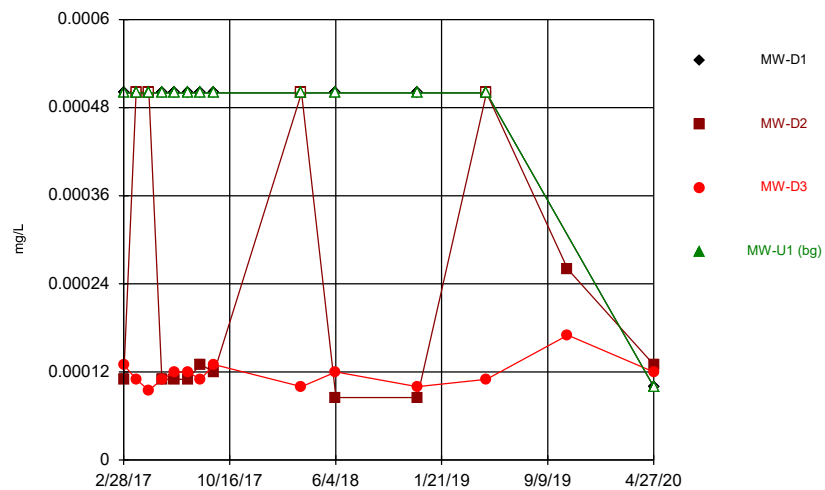
Constituent: Molybdenum Analysis Run 6/10/2020 12:58 PM View: Sanitas_StatisticsSamplingEvents 1 th
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Time Series



Constituent: Selenium Analysis Run 6/10/2020 12:58 PM View: Sanitas_StatisticsSamplingEvents 1 thru
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Time Series



Constituent: Thallium Analysis Run 6/10/2020 12:58 PM View: Sanitas_StatisticsSamplingEvents 1 through
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Outlier Analysis

CCPC Plant Crisp Ash Pond Site

Client: Geosyntec

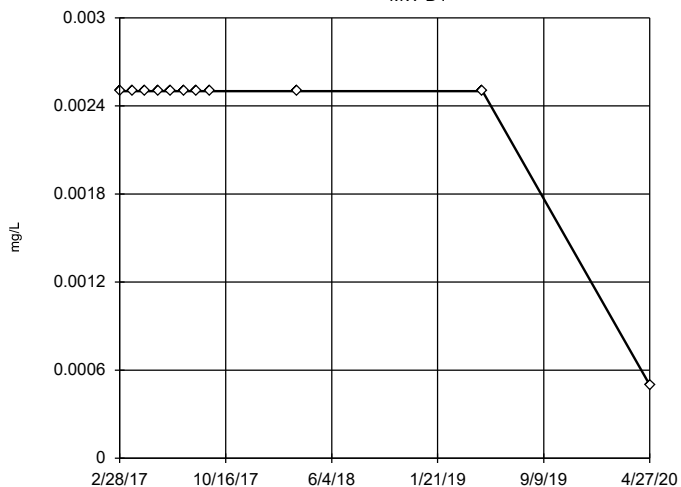
Data: Sanitas_Statistics Sampling Events 1 through 10

Printed 6/10/2020, 1:03 PM

<u>Constituent</u>	<u>Well</u>	<u>Outlier</u>	<u>Value(s)</u>	<u>Date(s)</u>	<u>Method</u>	<u>Alpha</u>	<u>N</u>	<u>Mean</u>	<u>Std. Dev.</u>	<u>Distribution</u>	<u>Normality Test</u>
Barium (mg/L)	MW-D1	Yes	0.027	10/23/2019	EPA 1989	0.05	14	0.01309	0.004441	normal	ShapiroWilk
Barium (mg/L)	MW-U1 (bg)	Yes	0.0034	2/28/2017	EPA 1989	0.05	14	0.002264	0.0004069	normal	ShapiroWilk
Chromium (mg/L)	MW-U1 (bg)	Yes	0.0051	2/28/2017	EPA 1989	0.05	12	0.001683	0.001089	normal	ShapiroWilk
Cobalt (mg/L)	MW-D3	Yes	0.00035	4/27/2020	EPA 1989	0.05	14	0.001194	0.0003418	normal	ShapiroWilk
Combined Radium 226 + 228 (pCi/L)	MW-D2	Yes	0.0139	6/5/2018	EPA 1989	0.05	14	0.4786	0.3045	normal	ShapiroWilk
Combined Radium 226 + 228 (pCi/L)	MW-D3	Yes	0.0501	11/29/2018	EPA 1989	0.05	14	0.5775	0.3215	ln(x)	ShapiroWilk
Fluoride (mg/L)	MW-D3	Yes	0.06	7/17/2017	EPA 1989	0.05	14	0.1093	0.01685	normal	ShapiroWilk
Thallium (mg/L)	MW-D3	Yes	0.00017	10/23/2019	EPA 1989	0.05	14	0.000...	0.0000...	normal	ShapiroWilk

Tukey's Outlier Screening

MW-D1

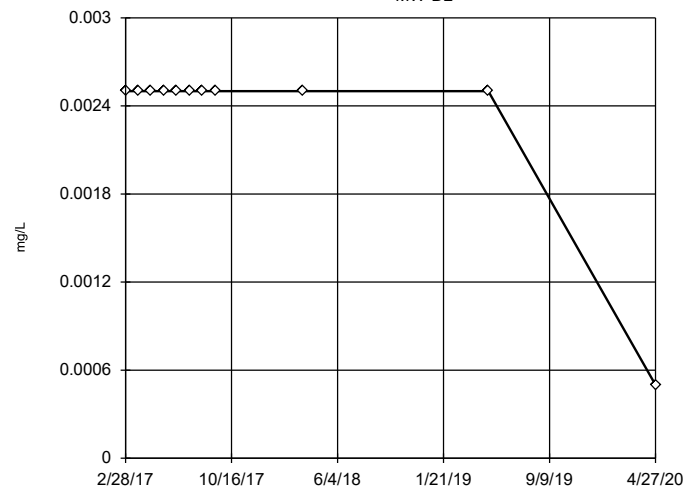


n = 11
No outliers found. Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.01 alpha level.
Data were square transformed to achieve best W statistic (graph shown in original units).
The results were invalidated, because the lower and upper quartiles are equal.

Constituent: Antimony Analysis Run 6/10/2020 12:58 PM View: Sanitas_StatisticsSamplingEvents 1 through 10
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Tukey's Outlier Screening

MW-D2

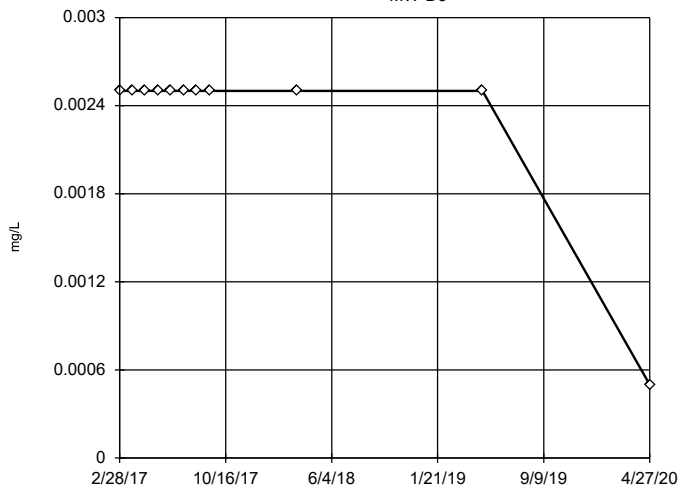


n = 11
No outliers found. Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.01 alpha level.
Data were square transformed to achieve best W statistic (graph shown in original units).
The results were invalidated, because the lower and upper quartiles are equal.

Constituent: Antimony Analysis Run 6/10/2020 12:58 PM View: Sanitas_StatisticsSamplingEvents 1 through 10
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Tukey's Outlier Screening

MW-D3

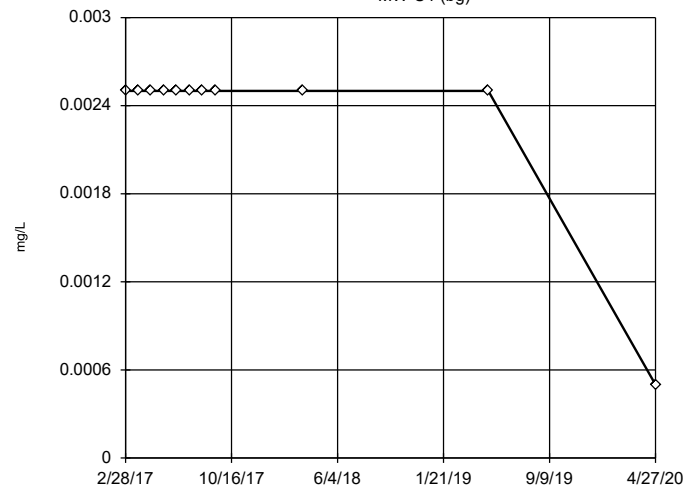


n = 11
No outliers found. Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.01 alpha level.
Data were square transformed to achieve best W statistic (graph shown in original units).
The results were invalidated, because the lower and upper quartiles are equal.

Constituent: Antimony Analysis Run 6/10/2020 12:58 PM View: Sanitas_StatisticsSamplingEvents 1 through 10
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Tukey's Outlier Screening

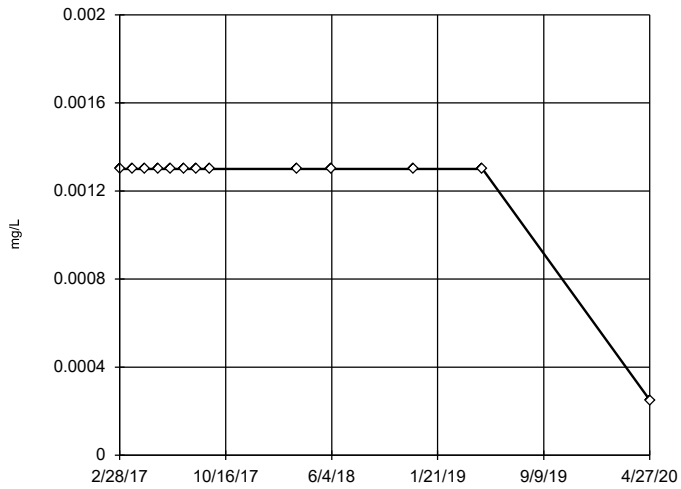
MW-U1 (bg)



n = 11
No outliers found. Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.01 alpha level.
Data were square transformed to achieve best W statistic (graph shown in original units).
The results were invalidated, because the lower and upper quartiles are equal.

Constituent: Antimony Analysis Run 6/10/2020 12:58 PM View: Sanitas_StatisticsSamplingEvents 1 through 10
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Tukey's Outlier Screening MW-D1



EPA 1989 Outlier Screening

MW-D1

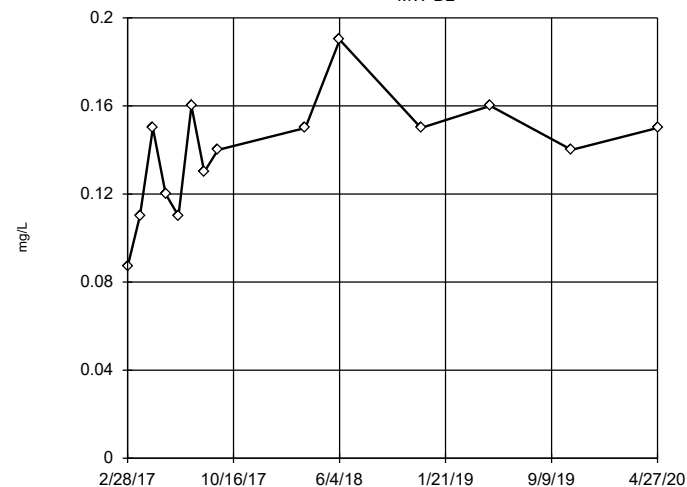


n = 14
 Statistical outlier is drawn as solid.
 Mean 0.01309, std. dev. 0.004441, critical Tn 2.371. After removing suspect data: mean 0.01202, std. dev. 0.002001, Tn 2.331.
 Normality test used: Shapiro Wilk(alpha = 0.01)
 Calculated = 0.9032
 Critical = 0.814
 The distribution, after removal of suspect value, was found to be normally distributed.

Constituent: Barium Analysis Run 6/10/2020 12:59 PM View: Sanitas_StatisticsSamplingEvents 1 through CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

EPA 1989 Outlier Screening

MW-D2



n = 14
 No statistical outliers.
 Mean 0.1391, std. dev. 0.02601, critical Tn 2.371
 Normality test used: Shapiro Wilk(alpha = 0.01)
 Calculated = 0.9586
 Critical = 0.825
 The distribution was found to be normally distributed.

Constituent: Barium Analysis Run 6/10/2020 12:59 PM View: Sanitas_StatisticsSamplingEvents 1 through CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

EPA 1989 Outlier Screening

MW-D3

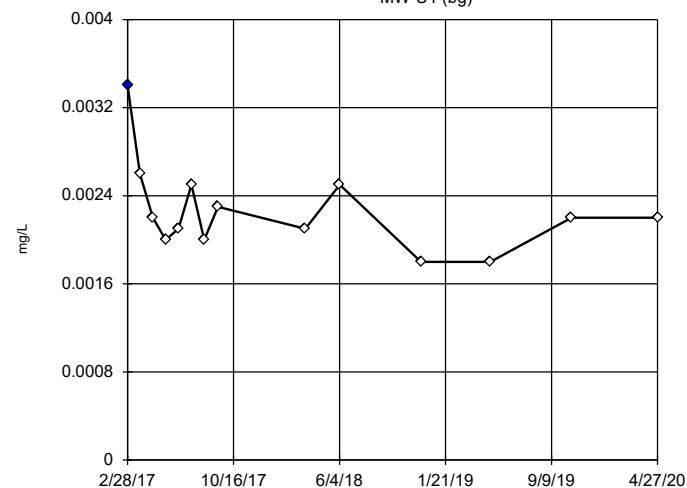


n = 14
 No statistical outliers.
 Mean 0.1715, std. dev. 0.04421, critical Tn 2.371
 Normality test used: Shapiro Wilk(alpha = 0.01)
 Calculated = 0.9359
 Critical = 0.825
 The distribution was found to be normally distributed.

Constituent: Barium Analysis Run 6/10/2020 12:59 PM View: Sanitas_StatisticsSamplingEvents 1 through CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

EPA 1989 Outlier Screening

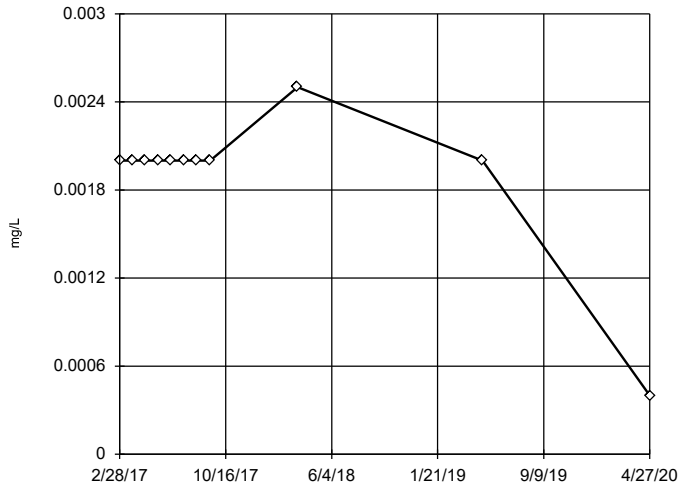
MW-U1 (bg)



n = 14
 Statistical outlier is drawn as solid.
 Mean 0.002264, std. dev. 0.0004069, critical Tn 2.371. After removing suspect data: mean 0.002177, std. dev. 0.0002522, Tn 2.331.
 Normality test used: Shapiro Wilk(alpha = 0.01)
 Calculated = 0.9461
 Critical = 0.814
 The distribution, after removal of suspect value, was found to be normally distributed.

Constituent: Barium Analysis Run 6/10/2020 12:59 PM View: Sanitas_StatisticsSamplingEvents 1 through CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

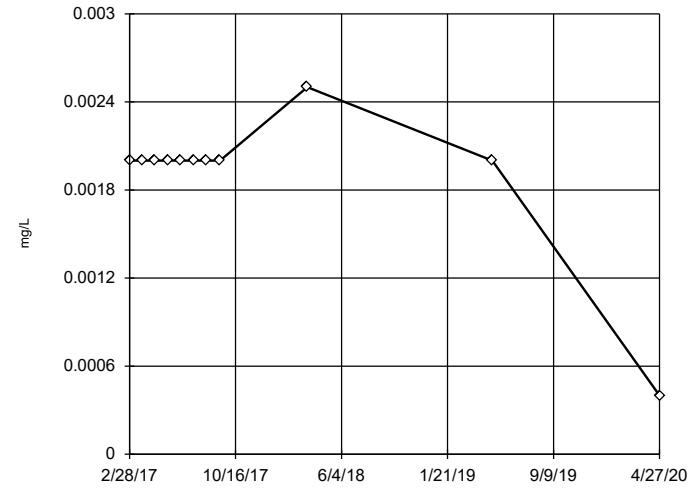
Tukey's Outlier Screening MW-D1



n = 11
 No outliers found. Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.01 alpha level.
 Data were cube transformed to achieve best W statistic (graph shown in original units).
 The results were invalidated, because the lower and upper quartiles are equal.

Constituent: Beryllium Analysis Run 6/10/2020 12:59 PM View: Sanitas_StatisticsSamplingEvents 1 thru
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

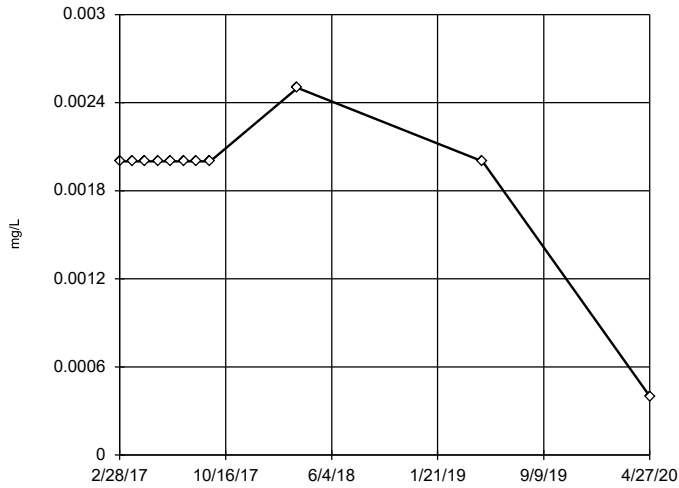
Tukey's Outlier Screening MW-D2



n = 11
 No outliers found. Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.01 alpha level.
 Data were cube transformed to achieve best W statistic (graph shown in original units).
 The results were invalidated, because the lower and upper quartiles are equal.

Constituent: Beryllium Analysis Run 6/10/2020 12:59 PM View: Sanitas_StatisticsSamplingEvents 1 thru
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

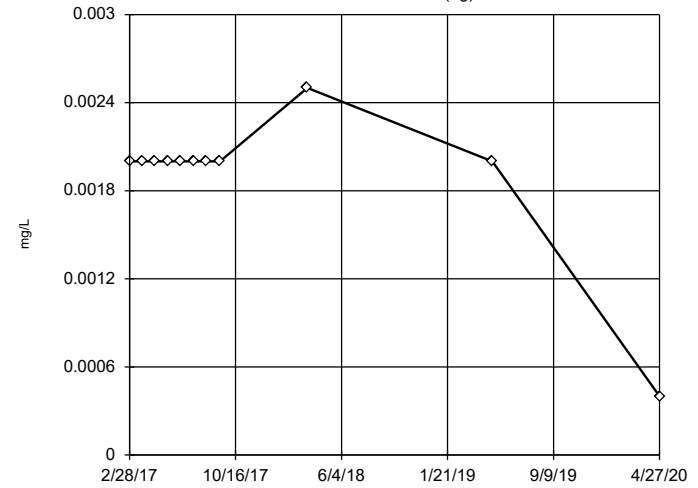
Tukey's Outlier Screening MW-D3



n = 11
 No outliers found. Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.01 alpha level.
 Data were cube transformed to achieve best W statistic (graph shown in original units).
 The results were invalidated, because the lower and upper quartiles are equal.

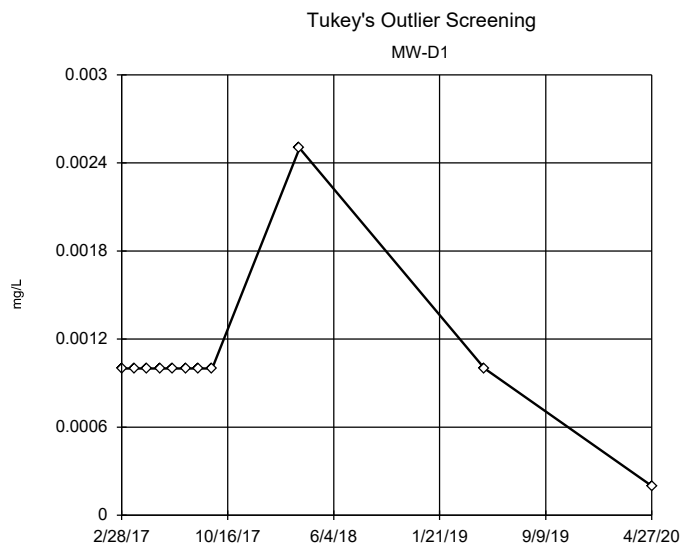
Constituent: Beryllium Analysis Run 6/10/2020 12:59 PM View: Sanitas_StatisticsSamplingEvents 1 thru
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Tukey's Outlier Screening MW-U1 (bg)



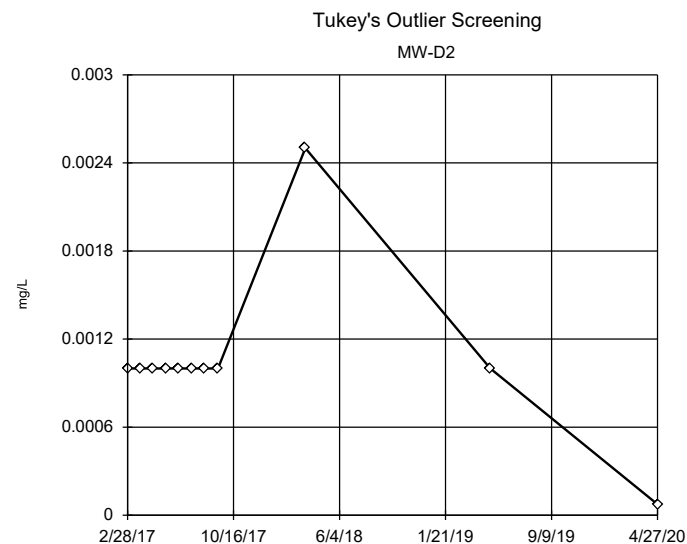
n = 11
 No outliers found. Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.01 alpha level.
 Data were cube transformed to achieve best W statistic (graph shown in original units).
 The results were invalidated, because the lower and upper quartiles are equal.

Constituent: Beryllium Analysis Run 6/10/2020 12:59 PM View: Sanitas_StatisticsSamplingEvents 1 thru
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10



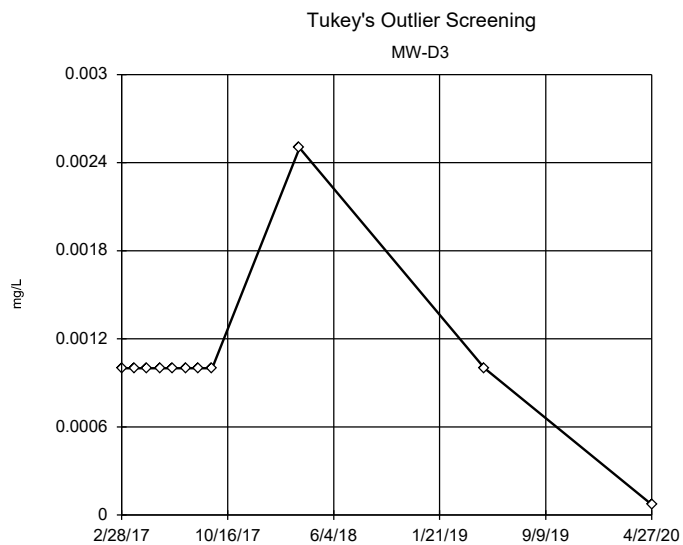
n = 11
 No outliers found. Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.01 alpha level.
 Data were square root transformed to achieve best W statistic (graph shown in original units).
 The results were invalidated, because the lower and upper quartiles are equal.

Constituent: Cadmium Analysis Run 6/10/2020 12:59 PM View: Sanitas_StatisticsSamplingEvents 1 through 11
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10



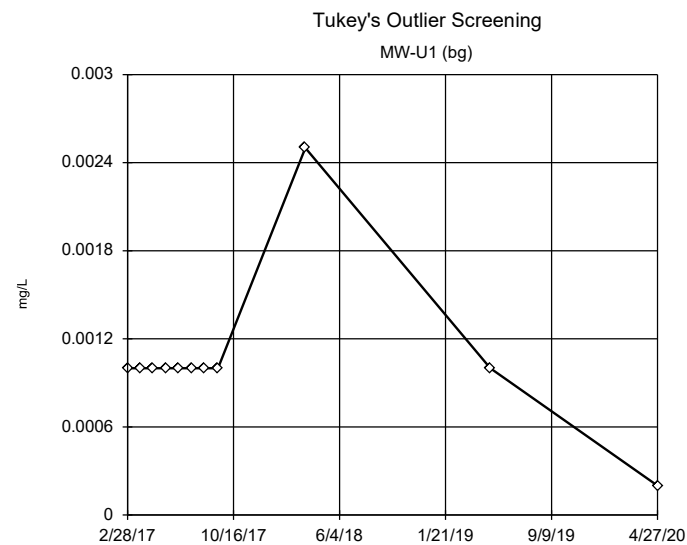
n = 11
 No outliers found. Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.01 alpha level.
 Data were square root transformed to achieve best W statistic (graph shown in original units).
 The results were invalidated, because the lower and upper quartiles are equal.

Constituent: Cadmium Analysis Run 6/10/2020 12:59 PM View: Sanitas_StatisticsSamplingEvents 1 through 11
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10



n = 11
 No outliers found. Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.01 alpha level.
 Data were square root transformed to achieve best W statistic (graph shown in original units).
 The results were invalidated, because the lower and upper quartiles are equal.

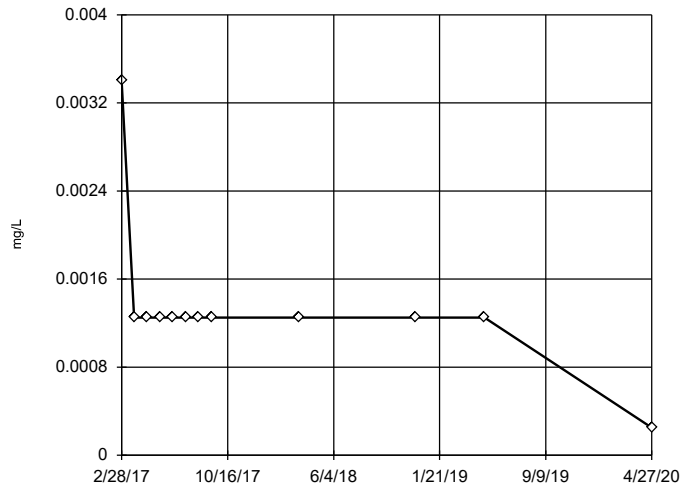
Constituent: Cadmium Analysis Run 6/10/2020 12:59 PM View: Sanitas_StatisticsSamplingEvents 1 through 11
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10



n = 11
 No outliers found. Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.01 alpha level.
 Data were square root transformed to achieve best W statistic (graph shown in original units).
 The results were invalidated, because the lower and upper quartiles are equal.

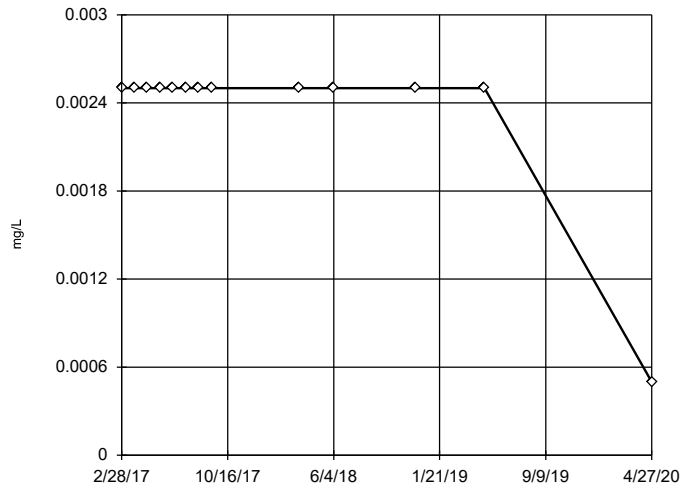
Constituent: Cadmium Analysis Run 6/10/2020 12:59 PM View: Sanitas_StatisticsSamplingEvents 1 through 11
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Tukey's Outlier Screening
MW-D1



Tukey's Outlier Screening

MW-D1

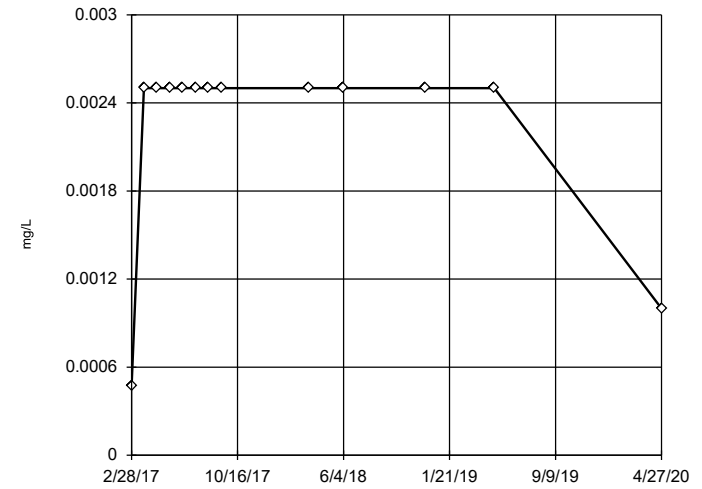


n = 13
 No outliers found.
 Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.01 alpha level.
 Data were cube transformed to achieve best W statistic (graph shown in original units).
 The results were invalidated, because the lower and upper quartiles are equal.

Constituent: Cobalt Analysis Run 6/10/2020 1:00 PM View: Sanitas_StatisticsSamplingEvents 1 through 1
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Tukey's Outlier Screening

MW-D2

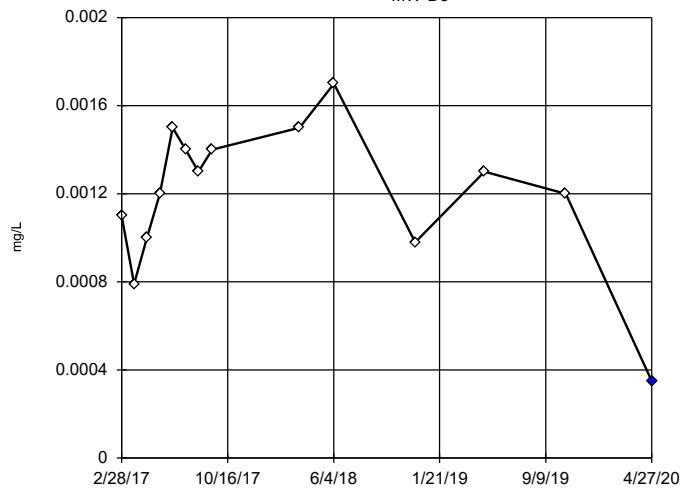


n = 13
 No outliers found.
 Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.01 alpha level.
 Data were square root transformed to achieve best W statistic (graph shown in original units).
 The results were invalidated, because the lower and upper quartiles are equal.

Constituent: Cobalt Analysis Run 6/10/2020 1:00 PM View: Sanitas_StatisticsSamplingEvents 1 through 1
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

EPA 1989 Outlier Screening

MW-D3

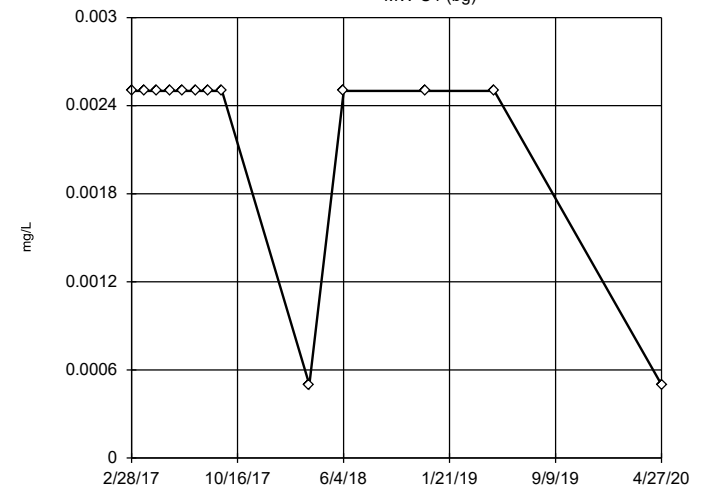


n = 14
 Statistical outlier is drawn as solid.
 Mean 0.001194, std. dev. 0.0003418, critical Tn 2.371. After removing suspect data: mean 0.001259, std. dev. 0.0002501, Tn 2.331.
 Normality test used: Shapiro Wilk (alpha = 0.01) Calculated = 0.9844 Critical = 0.614. The distribution, after removal of suspect value, was found to be normally distributed.

Constituent: Cobalt Analysis Run 6/10/2020 1:00 PM View: Sanitas_StatisticsSamplingEvents 1 through 1
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Tukey's Outlier Screening

MW-U1 (bg)

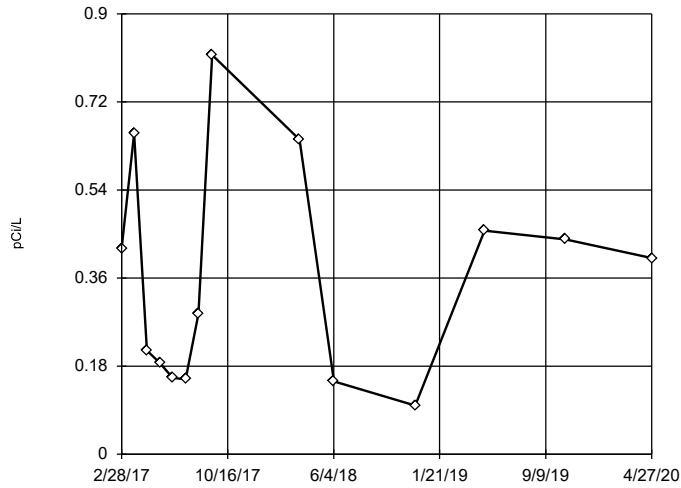


n = 13
 No outliers found.
 Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.01 alpha level.
 Data were square transformed to achieve best W statistic (graph shown in original units).
 The results were invalidated, because the lower and upper quartiles are equal.

Constituent: Cobalt Analysis Run 6/10/2020 1:00 PM View: Sanitas_StatisticsSamplingEvents 1 through 1
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

EPA 1989 Outlier Screening

MW-D1

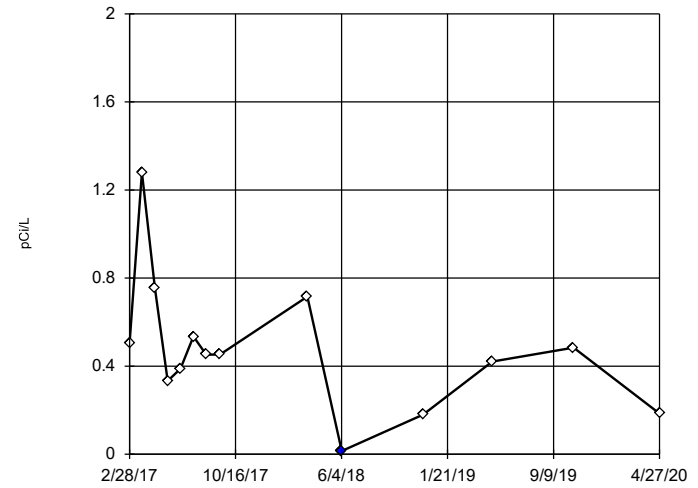


n = 14
 No statistical outliers.
 Mean 0.3625, std. dev. 0.2237, critical Tn 2.371
 Normality test used: Shapiro Wilk@alpha = 0.01
 Calculated = 0.9074
 Critical = 0.825
 The distribution was found to be normally distributed.

Constituent: Combined Radium 226 + 228 Analysis Run 6/10/2020 1:00 PM View: Sanitas_StatisticsSamp
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

EPA 1989 Outlier Screening

MW-D2

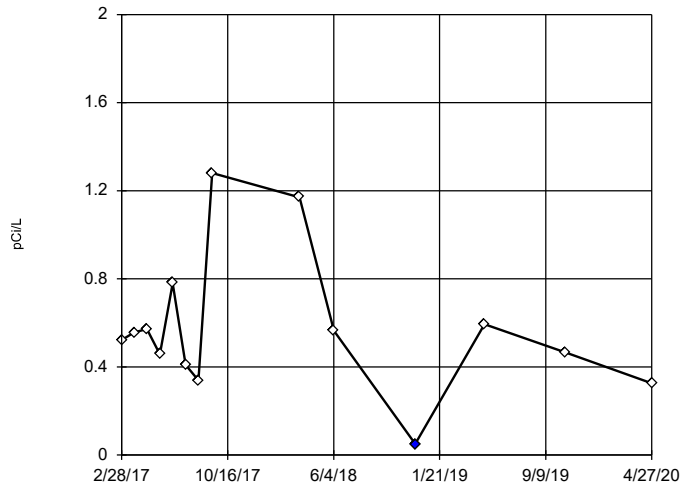


n = 14
 Statistical outlier is drawn as solid.
 Mean 0.4786, std. dev. 0.3045, critical Tn 2.371.
 After removing suspect data: mean 0.5143, std. dev. 0.2847, Tn 2.331.
 Normality test used: Shapiro Wilk@alpha = 0.01
 Calculated = 0.8477
 Critical = 0.814
 The distribution, after removal of suspect value, was found to be normally distributed.

Constituent: Combined Radium 226 + 228 Analysis Run 6/10/2020 1:00 PM View: Sanitas_StatisticsSamp
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

EPA 1989 Outlier Screening

MW-D3

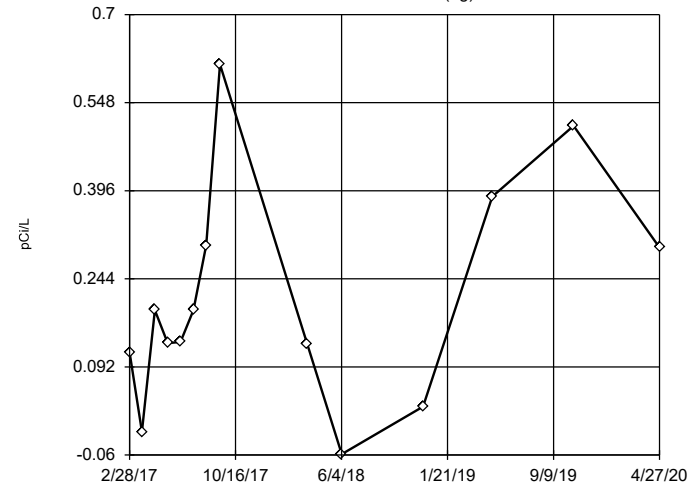


n = 14
 Statistical outlier is drawn as solid.
 Mean 0.5775, std. dev. 0.3215, critical Tn 2.371.
 After removing suspect data: mean 0.6181, std. dev. 0.2949, Tn 2.331.
 Normality test used: Shapiro Wilk@alpha = 0.01
 Calculated = 0.9131
 Critical = 0.814 (after natural log transformation)
 The distribution, after removal of suspect value, was found to be log-normal.

Constituent: Combined Radium 226 + 228 Analysis Run 6/10/2020 1:00 PM View: Sanitas_StatisticsSamp
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

EPA 1989 Outlier Screening

MW-U1 (bg)

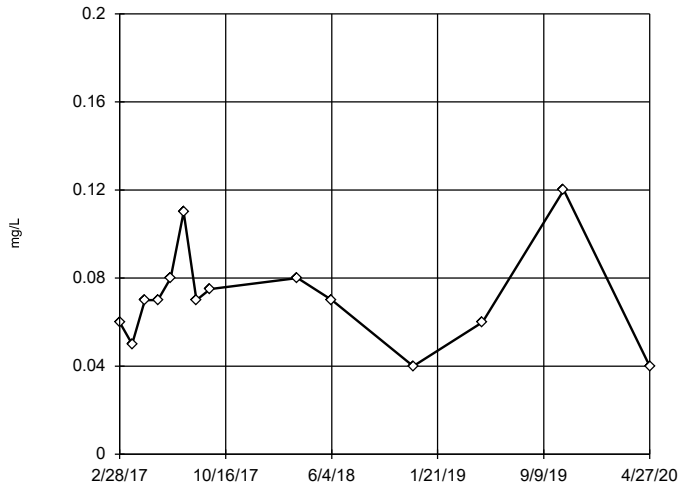


n = 14
 No statistical outliers.
 Mean 0.2106, std. dev. 0.1934, critical Tn 2.371
 Normality test used: Shapiro Wilk@alpha = 0.01
 Calculated = 0.9427
 Critical = 0.825
 The distribution was found to be normally distributed.

Constituent: Combined Radium 226 + 228 Analysis Run 6/10/2020 1:00 PM View: Sanitas_StatisticsSamp
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

EPA 1989 Outlier Screening

MW-D1

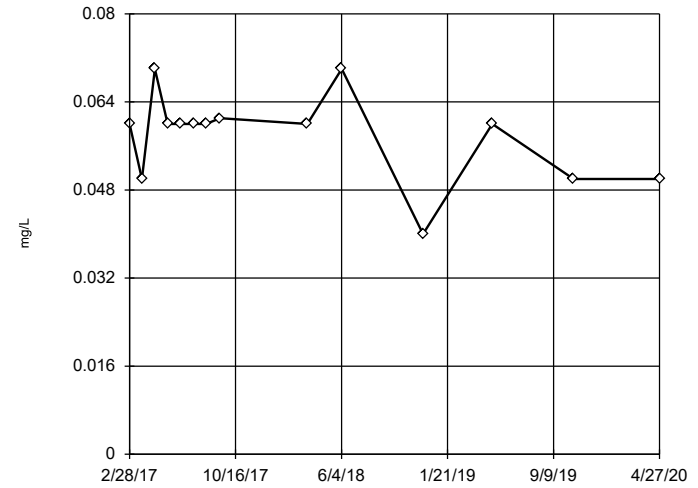


n = 14
 No statistical outliers.
 Mean 0.07107, std. dev. 0.02272, critical Tn 2.371
 Normality test used:
 Shapiro Wilk@alpha = 0.01
 Calculated = 0.9087
 Critical = 0.825
 The distribution was found to be normally distributed.

Constituent: Fluoride Analysis Run 6/10/2020 1:00 PM View: Sanitas_StatisticsSamplingEvents 1 through CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Tukey's Outlier Screening

MW-D2

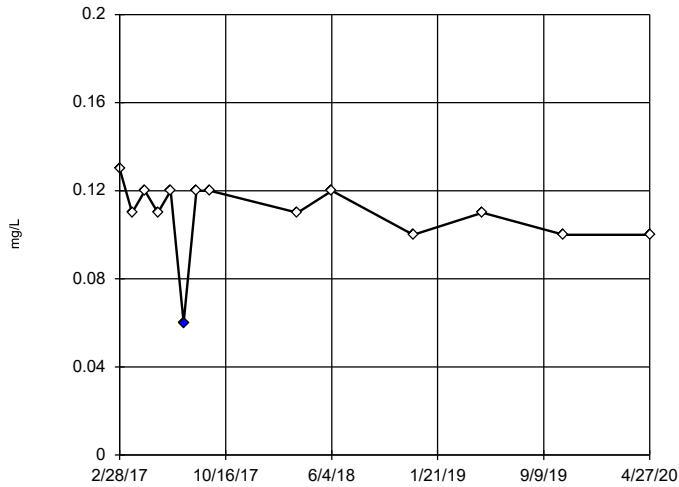


n = 14
 No outliers found.
 Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.01 alpha level.
 Data were square transformed to achieve best W statistic (graph shown in original units).
 High cutoff = 0.08451, low cutoff = -0.03133, based on IQR multiplier of 3.

Constituent: Fluoride Analysis Run 6/10/2020 1:00 PM View: Sanitas_StatisticsSamplingEvents 1 through CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

EPA 1989 Outlier Screening

MW-D3

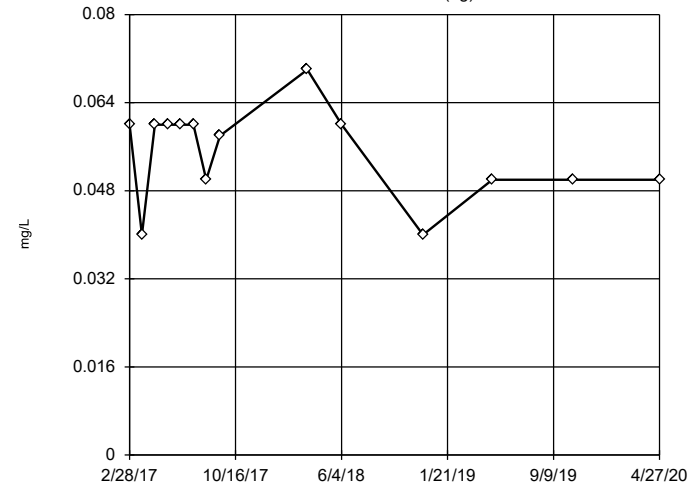


n = 14
 Statistical outlier is drawn as solid.
 Mean 0.1093, std. dev. 0.01685, critical Tn 2.371.
 After removing suspect data: mean 0.1131, std. dev. 0.009473, Tn 2.331.
 Normality test used:
 Shapiro Wilk@alpha = 0.01
 Calculated = 0.8864
 Critical = 0.814
 The distribution, after removal of suspect value, was found to be normally distributed.

Constituent: Fluoride Analysis Run 6/10/2020 1:00 PM View: Sanitas_StatisticsSamplingEvents 1 through CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

EPA 1989 Outlier Screening

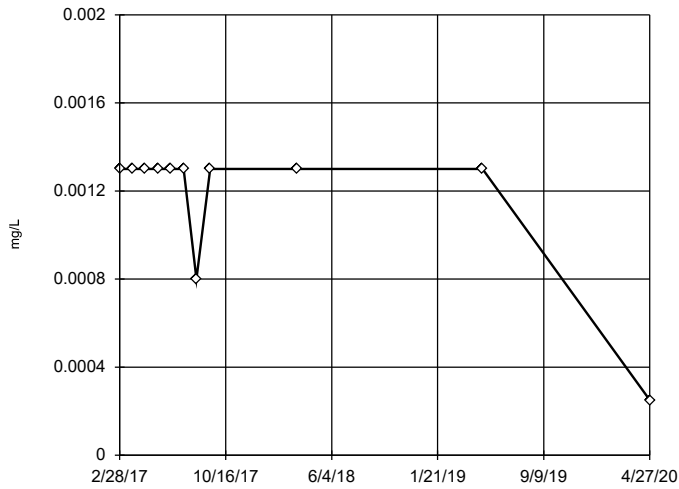
MW-U1 (bg)



n = 14
 No statistical outliers.
 Mean 0.05486, std. dev. 0.008475, critical Tn 2.371
 Normality test used:
 Shapiro Wilk@alpha = 0.01
 Calculated = 0.8801
 Critical = 0.825
 The distribution was found to be normally distributed.

Constituent: Fluoride Analysis Run 6/10/2020 1:00 PM View: Sanitas_StatisticsSamplingEvents 1 through CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

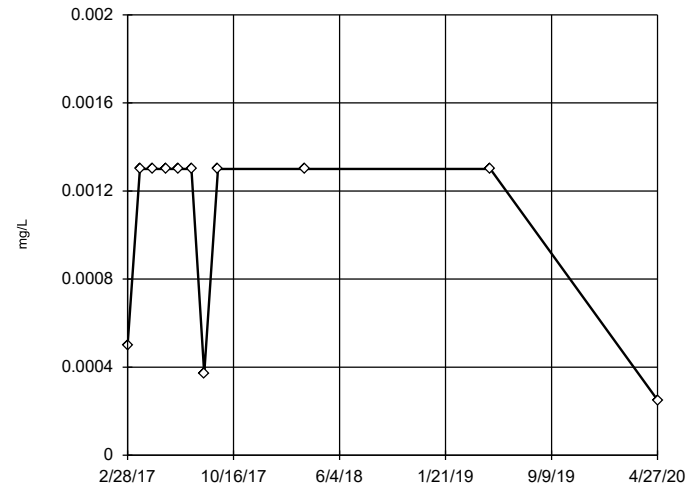
Tukey's Outlier Screening
MW-D1



n = 11
No outliers found.
Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.01 alpha level.
Data were square transformed to achieve best W statistic (graph shown in original units).
The results were invalidated, because the lower and upper quartiles are equal.

Constituent: Lead Analysis Run 6/10/2020 1:00 PM View: Sanitas_StatisticsSamplingEvents 1 through 14
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

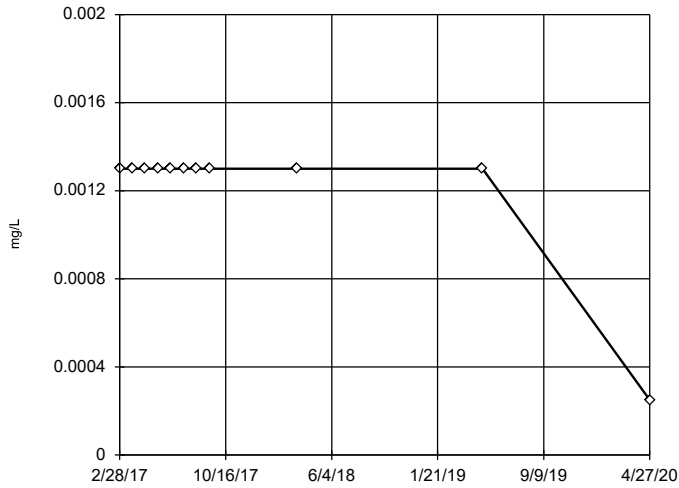
Tukey's Outlier Screening
MW-D2



n = 11
No outliers found.
Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.01 alpha level.
Data were natural log transformed to achieve best W statistic (graph shown in original units).
High cutoff = 0.02285, low cutoff = 0.00002845, based on IQR multiplier of 3.

Constituent: Lead Analysis Run 6/10/2020 1:00 PM View: Sanitas_StatisticsSamplingEvents 1 through 14
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

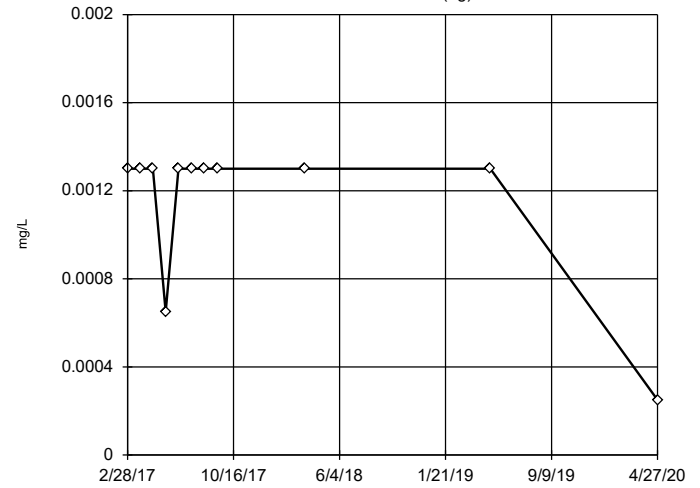
Tukey's Outlier Screening
MW-D3



n = 11
No outliers found.
Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.01 alpha level.
Ladder of Powers transformations did not improve normality; analysis run on raw data.
The results were invalidated, because the lower and upper quartiles are equal.

Constituent: Lead Analysis Run 6/10/2020 1:01 PM View: Sanitas_StatisticsSamplingEvents 1 through 14
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

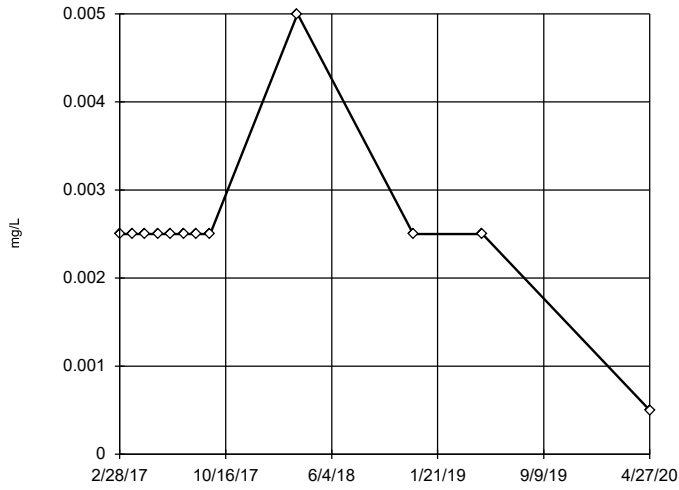
Tukey's Outlier Screening
MW-U1 (bg)



n = 11
No outliers found.
Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.01 alpha level.
Ladder of Powers transformations did not improve normality; analysis run on raw data.
The results were invalidated, because the lower and upper quartiles are equal.

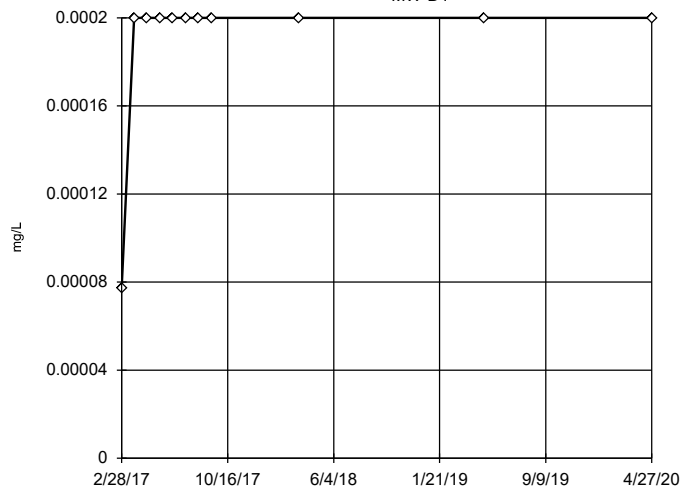
Constituent: Lead Analysis Run 6/10/2020 1:01 PM View: Sanitas_StatisticsSamplingEvents 1 through 14
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Tukey's Outlier Screening MW-D1



Tukey's Outlier Screening

MW-D1

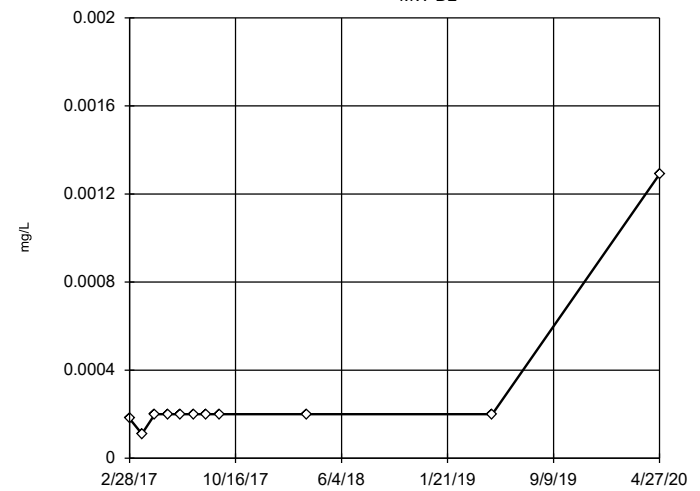


n = 11
 No outliers found. Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.01 alpha level.
 Ladder of Powers transformations did not improve normality; analysis run on raw data.
 The results were invalidated, because the lower and upper quartiles are equal.

Constituent: Mercury Analysis Run 6/10/2020 1:01 PM View: Sanitas_StatisticsSamplingEvents 1 through CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Tukey's Outlier Screening

MW-D2

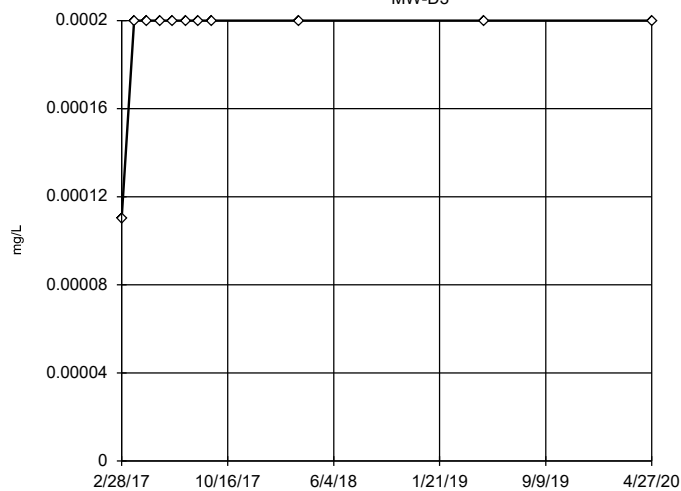


n = 11
 No outliers found. Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.01 alpha level.
 Data were natural log transformed to achieve best W statistic (graph shown in original units).
 The results were invalidated, because the lower and upper quartiles are equal.

Constituent: Mercury Analysis Run 6/10/2020 1:01 PM View: Sanitas_StatisticsSamplingEvents 1 through CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Tukey's Outlier Screening

MW-D3

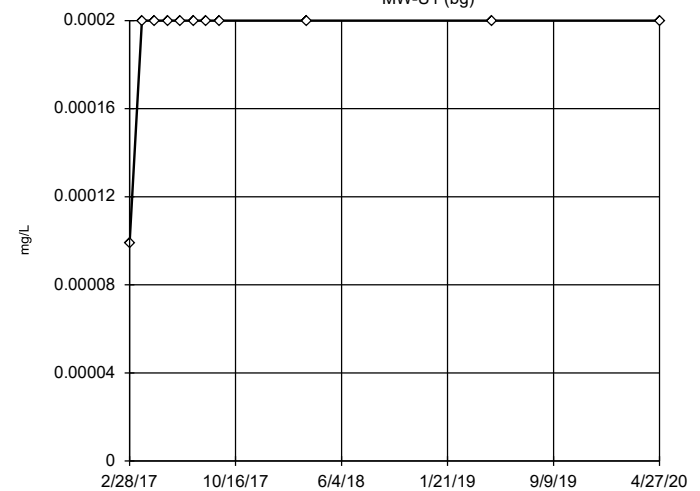


n = 11
 No outliers found. Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.01 alpha level.
 Data were natural log transformed to achieve best W statistic (graph shown in original units).
 The results were invalidated, because the lower and upper quartiles are equal.

Constituent: Mercury Analysis Run 6/10/2020 1:01 PM View: Sanitas_StatisticsSamplingEvents 1 through CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Tukey's Outlier Screening

MW-U1 (bg)

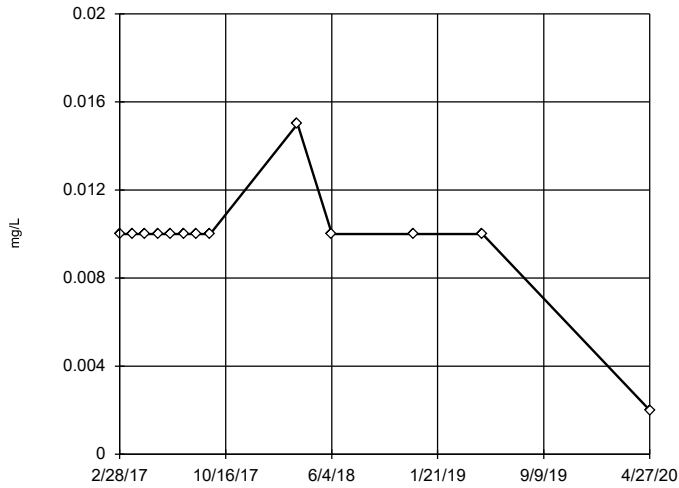


n = 11
 No outliers found. Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.01 alpha level.
 Data were cube transformed to achieve best W statistic (graph shown in original units).
 The results were invalidated, because the lower and upper quartiles are equal.

Constituent: Mercury Analysis Run 6/10/2020 1:01 PM View: Sanitas_StatisticsSamplingEvents 1 through CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Tukey's Outlier Screening

MW-D1

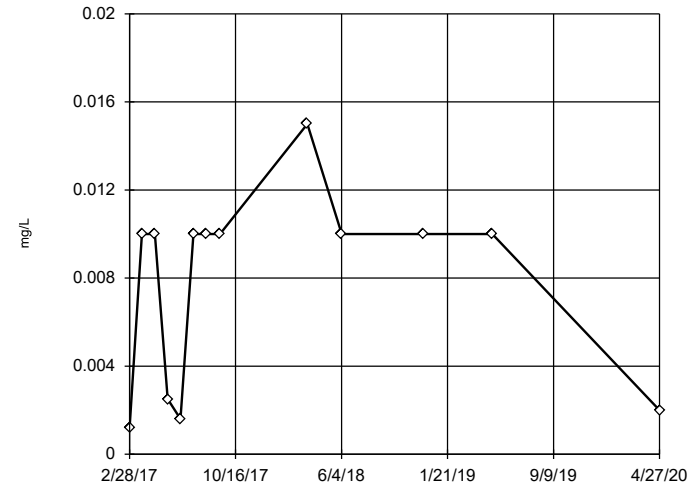


n = 13
No outliers found. Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.01 alpha level.
Data were square transformed to achieve best W statistic (graph shown in original units).
The results were invalidated, because the lower and upper quartiles are equal.

Constituent: Molybdenum Analysis Run 6/10/2020 1:01 PM View: Sanitas_StatisticsSamplingEvents 1 thr
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Tukey's Outlier Screening

MW-D2

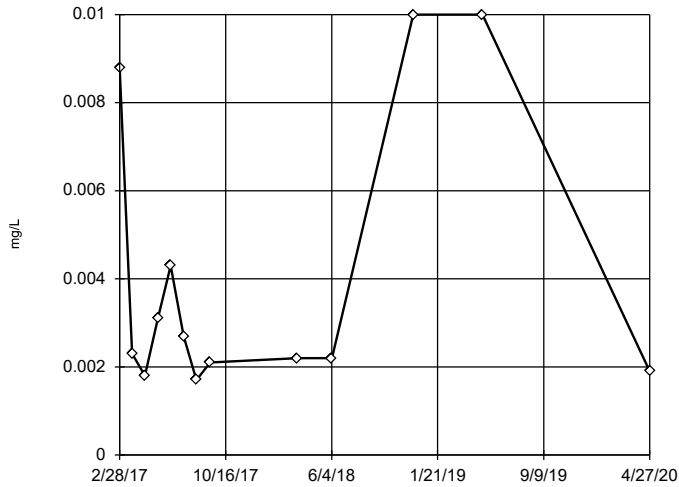


n = 13
No outliers found. Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.01 alpha level.
Data were square transformed to achieve best W statistic (graph shown in original units).
High cutoff = 0.01961, low cutoff = -0.01672, based on IQR multiplier of 3.

Constituent: Molybdenum Analysis Run 6/10/2020 1:01 PM View: Sanitas_StatisticsSamplingEvents 1 thr
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Tukey's Outlier Screening

MW-D3

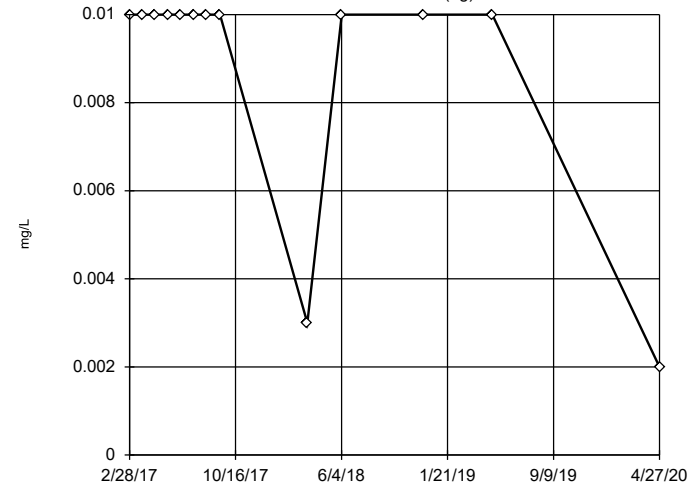


n = 13
No outliers found. Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.01 alpha level.
Data were natural log transformed to achieve best W statistic (graph shown in original units).
High cutoff = 0.1797, low cutoff = 0.0006839, based on IQR multiplier of 3.

Constituent: Molybdenum Analysis Run 6/10/2020 1:01 PM View: Sanitas_StatisticsSamplingEvents 1 thr
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Tukey's Outlier Screening

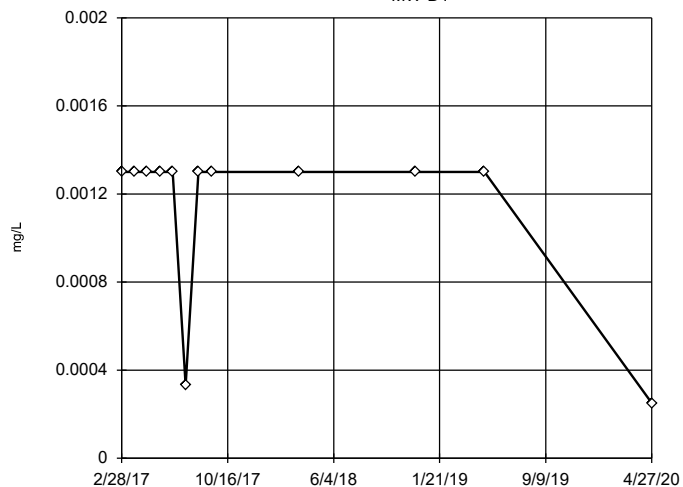
MW-U1 (bg)



n = 13
No outliers found. Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.01 alpha level.
Data were natural log transformed to achieve best W statistic (graph shown in original units).
The results were invalidated, because the lower and upper quartiles are equal.

Constituent: Molybdenum Analysis Run 6/10/2020 1:01 PM View: Sanitas_StatisticsSamplingEvents 1 thr
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

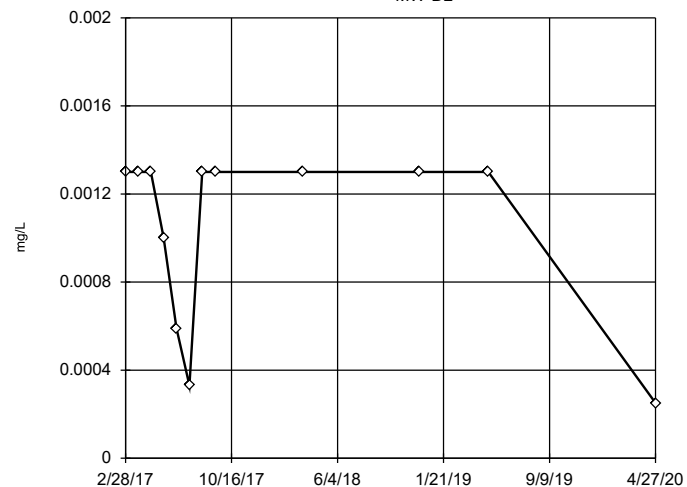
Tukey's Outlier Screening MW-D1



n = 12
No outliers found.
Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.01 alpha level.
Data were natural log transformed to achieve best W statistic (graph shown in original units).
The results were invalidated, because the lower and upper quartiles are equal.

Constituent: Selenium Analysis Run 6/10/2020 1:01 PM View: Sanitas_StatisticsSamplingEvents 1 through 10
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

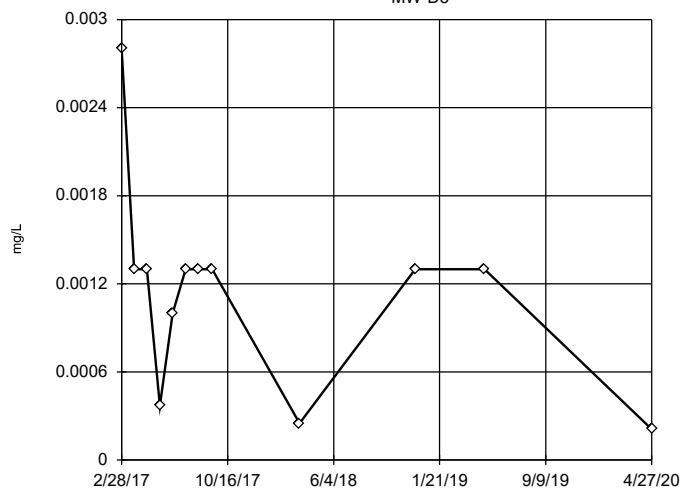
Tukey's Outlier Screening MW-D2



n = 12
No outliers found.
Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.01 alpha level.
Ladder of Powers transformations did not improve normality; analysis run on raw data.
High cutoff = 0.002815, low cutoff = -0.00072, based on IQR multiplier of 3.

Constituent: Selenium Analysis Run 6/10/2020 1:01 PM View: Sanitas_StatisticsSamplingEvents 1 through 10
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

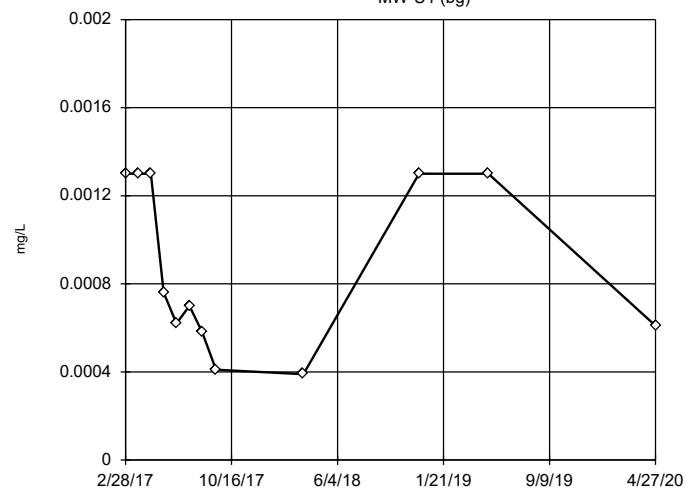
Tukey's Outlier Screening MW-D3



n = 12
No outliers found.
Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.01 alpha level.
Data were square root transformed to achieve best W statistic (graph shown in original units).
High cutoff = 0.004615, low cutoff = -0.00004161, based on IQR multiplier of 3.

Constituent: Selenium Analysis Run 6/10/2020 1:01 PM View: Sanitas_StatisticsSamplingEvents 1 through 10
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

EPA 1989 Outlier Screening MW-U1 (bg)



n = 12
No statistical outliers.
Mean 0.0008008, std. dev. 0.0003839, critical Tn 2.285
Normality test used: Shapiro Wilk(alpha = 0.01) Calculated = 0.8424
Critical = 0.805 (after natural log transformation)
The distribution was found to be log-normal.

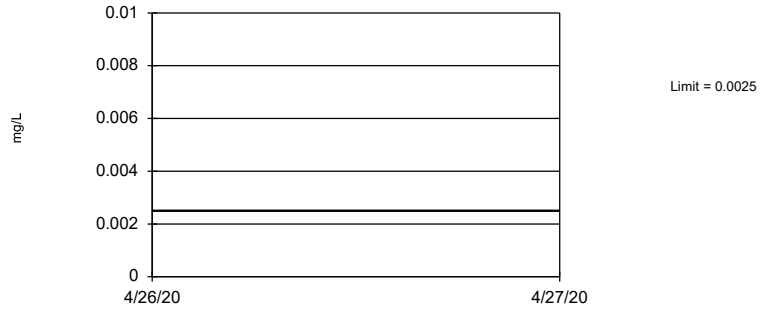
Constituent: Selenium Analysis Run 6/10/2020 1:01 PM View: Sanitas_StatisticsSamplingEvents 1 through 10
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Tolerance Limit

CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10 Printed 6/10/2020, 12:56 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Date</u>	<u>Observ.</u>	<u>Sig.</u>	<u>Bg N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Antimony (mg/L)	n/a	0.0025	n/a	n/a	n/a	11	100	n/a	0.5688	NP Inter(NDs)
Arsenic (mg/L)	n/a	0.0013	n/a	n/a	n/a	13	84.62	n/a	0.5133	NP Inter(NDs)
Barium (mg/L)	n/a	0.003562	n/a	n/a	n/a	14	0	No	0.01	Inter
Beryllium (mg/L)	n/a	0.0025	n/a	n/a	n/a	11	100	n/a	0.5688	NP Inter(NDs)
Cadmium (mg/L)	n/a	0.0025	n/a	n/a	n/a	11	100	n/a	0.5688	NP Inter(NDs)
Chromium (mg/L)	n/a	0.0051	n/a	n/a	n/a	12	0	n/a	0.5404	NP Inter(normal...
Cobalt (mg/L)	n/a	0.0025	n/a	n/a	n/a	13	100	n/a	0.5133	NP Inter(NDs)
Combined Radium 226 + 228 (pCi/L)	n/a	0.6604	n/a	n/a	n/a	14	21.43	No	0.01	Inter
Fluoride (mg/L)	n/a	0.08188	n/a	n/a	n/a	14	7.143	No	0.01	Inter
Lead (mg/L)	n/a	0.0013	n/a	n/a	n/a	11	90.91	n/a	0.5688	NP Inter(NDs)
Lithium (mg/L)	n/a	0.0025	n/a	n/a	n/a	12	91.67	n/a	0.5404	NP Inter(NDs)
Mercury (mg/L)	n/a	0.0002	n/a	n/a	n/a	11	90.91	n/a	0.5688	NP Inter(NDs)
Molybdenum (mg/L)	n/a	0.01	n/a	n/a	n/a	13	100	n/a	0.5133	NP Inter(NDs)
Selenium (mg/L)	n/a	0.001107	n/a	n/a	n/a	12	41.67	sqrt(x)	0.01	Inter
Thallium (mg/L)	n/a	0.0005	n/a	n/a	n/a	13	100	n/a	0.5133	NP Inter(NDs)

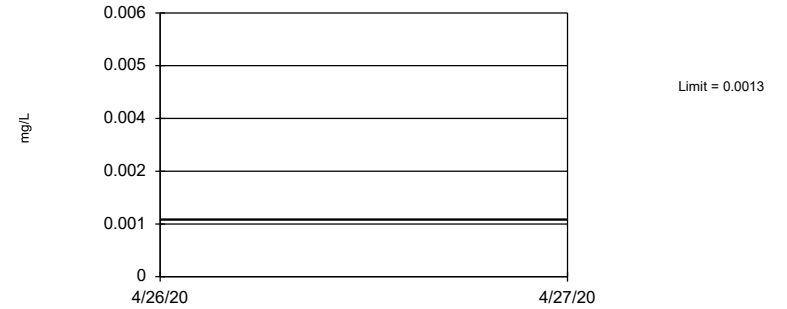
Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 11 background values. 100% NDs. 65.82% coverage at alpha=0.01; 75.98% coverage at alpha=0.05; 93.95% coverage at alpha=0.5. Report alpha = 0.5688.

Constituent: Antimony Analysis Run 6/10/2020 12:53 PM View: Sanitas_StatisticsSamplingEvents 1 through 10
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

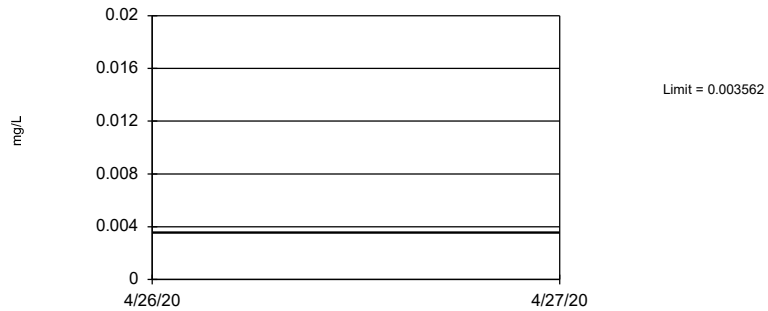
Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 13 background values. 84.62% NDs. 70.12% coverage at alpha=0.01; 79.49% coverage at alpha=0.05; 94.73% coverage at alpha=0.5. Report alpha = 0.5133.

Constituent: Arsenic Analysis Run 6/10/2020 12:53 PM View: Sanitas_StatisticsSamplingEvents 1 through 10
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

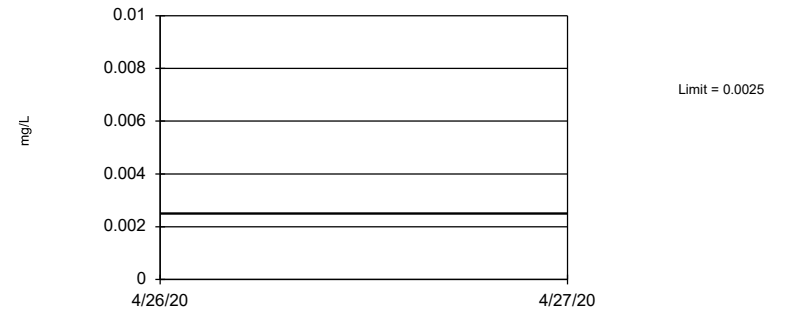
Tolerance Limit Interwell Parametric



95% coverage. Background Data Summary: Mean=0.002264, Std. Dev.=0.0004069, n=14. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8478, critical = 0.825. Report alpha = 0.01.

Constituent: Barium Analysis Run 6/10/2020 12:53 PM View: Sanitas_StatisticsSamplingEvents 1 through 10
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

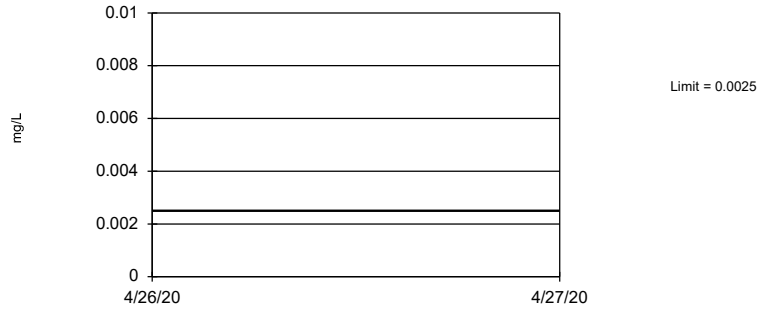
Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 11 background values. 100% NDs. 65.82% coverage at alpha=0.01; 75.98% coverage at alpha=0.05; 93.95% coverage at alpha=0.5. Report alpha = 0.5688.

Constituent: Beryllium Analysis Run 6/10/2020 12:53 PM View: Sanitas_StatisticsSamplingEvents 1 through 10
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

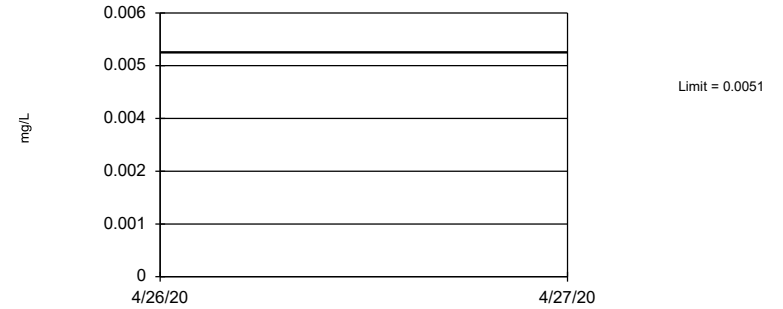
Tolerance Limit
Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 11 background values. 100% NDs. 65.82% coverage at alpha=0.01; 75.98% coverage at alpha=0.05; 93.95% coverage at alpha=0.5. Report alpha = 0.5688.

Constituent: Cadmium Analysis Run 6/10/2020 12:54 PM View: Sanitas_StatisticsSamplingEvents 1 through 10
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

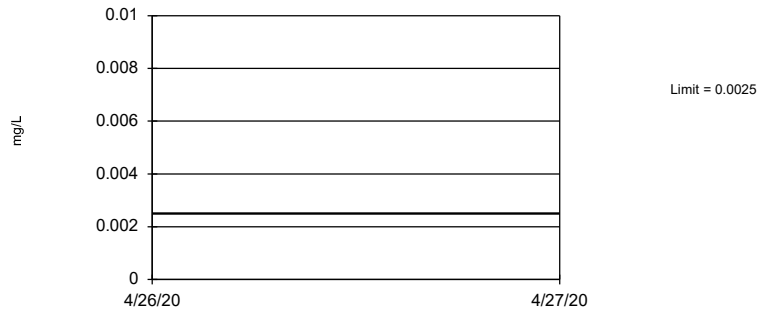
Tolerance Limit
Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 12 background values. 68.16% coverage at alpha=0.01; 77.93% coverage at alpha=0.05; 94.34% coverage at alpha=0.5. Report alpha = 0.5404.

Constituent: Chromium Analysis Run 6/10/2020 12:54 PM View: Sanitas_StatisticsSamplingEvents 1 through 10
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

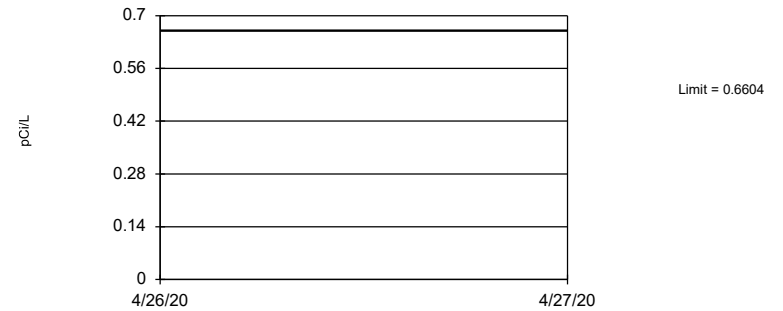
Tolerance Limit
Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 13 background values. 100% NDs. 70.12% coverage at alpha=0.01; 79.49% coverage at alpha=0.05; 94.73% coverage at alpha=0.5. Report alpha = 0.5133.

Constituent: Cobalt Analysis Run 6/10/2020 12:54 PM View: Sanitas_StatisticsSamplingEvents 1 through 10
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

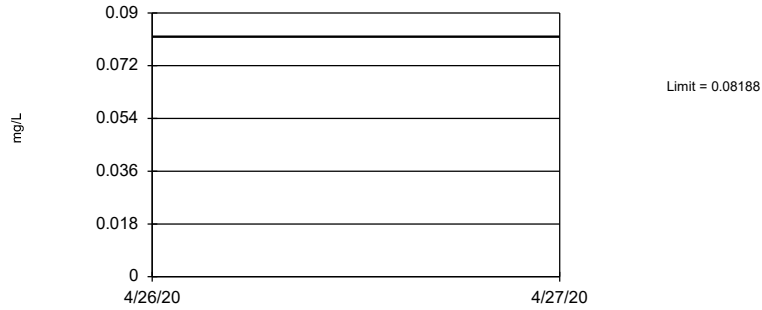
Tolerance Limit
Interwell Parametric



95% coverage. Background Data Summary (after Kaplan-Meier Adjustment): Mean=0.1366, Std. Dev.=0.1643, n=14, 21.43% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9427, critical = 0.825. Report alpha = 0.01.

Constituent: Combined Radium 226 + 228 Analysis Run 6/10/2020 12:54 PM View: Sanitas_StatisticsSam
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

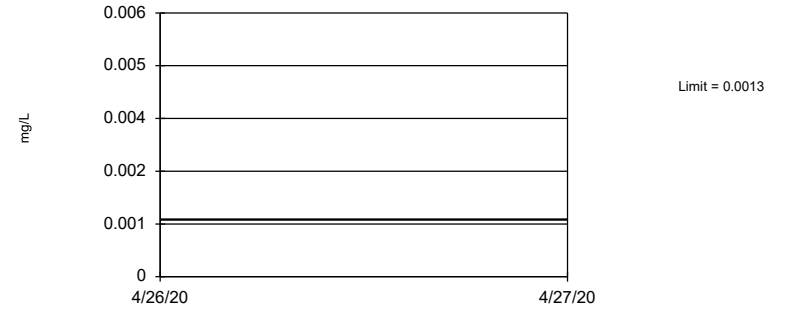
Tolerance Limit
Interwell Parametric



95% coverage. Background Data Summary: Mean=0.05486, Std. Dev.=0.008475, n=14, 7.143% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8801, critical = 0.825. Report alpha = 0.01.

Constituent: Fluoride Analysis Run 6/10/2020 12:54 PM View: Sanitas_StatisticsSamplingEvents 1 through 10
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

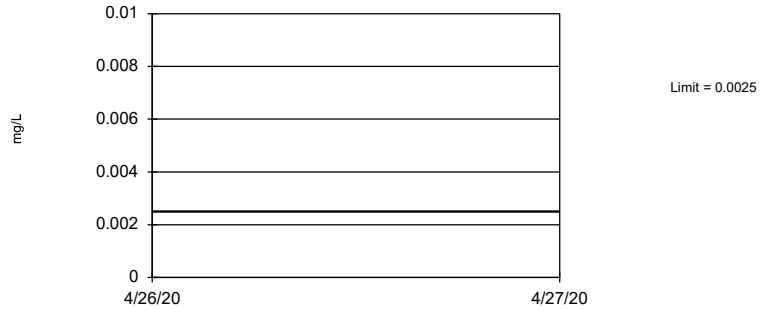
Tolerance Limit
Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 11 background values. 90.91% NDs. 65.82% coverage at alpha=0.01; 75.98% coverage at alpha=0.05; 93.95% coverage at alpha=0.5. Report alpha = 0.5688.

Constituent: Lead Analysis Run 6/10/2020 12:54 PM View: Sanitas_StatisticsSamplingEvents 1 through 10
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

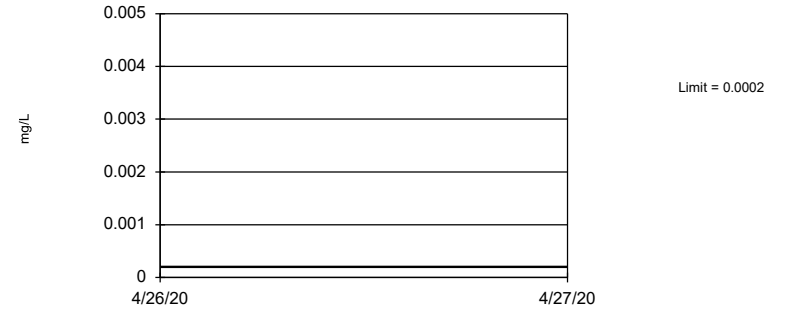
Tolerance Limit
Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 12 background values. 91.67% NDs. 68.16% coverage at alpha=0.01; 77.93% coverage at alpha=0.05; 94.34% coverage at alpha=0.5. Report alpha = 0.5404.

Constituent: Lithium Analysis Run 6/10/2020 12:54 PM View: Sanitas_StatisticsSamplingEvents 1 through 10
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Tolerance Limit
Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 11 background values. 90.91% NDs. 65.82% coverage at alpha=0.01; 75.98% coverage at alpha=0.05; 93.95% coverage at alpha=0.5. Report alpha = 0.5688.

Constituent: Mercury Analysis Run 6/10/2020 12:54 PM View: Sanitas_StatisticsSamplingEvents 1 through 10
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

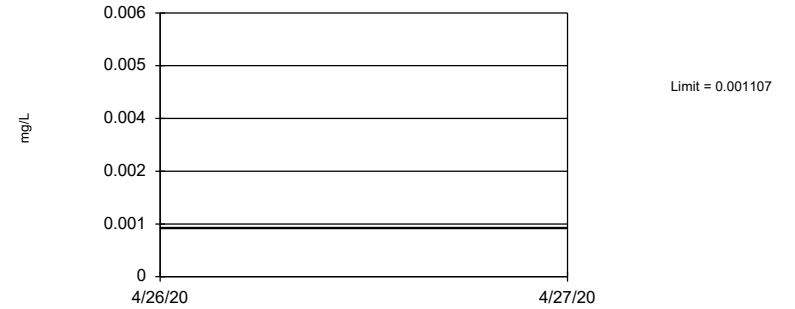
Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 13 background values. 100% NDs. 70.12% coverage at alpha=0.01; 79.49% coverage at alpha=0.05; 94.73% coverage at alpha=0.5. Report alpha = 0.5133.

Constituent: Molybdenum Analysis Run 6/10/2020 12:54 PM View: Sanitas_StatisticsSamplingEvents 1 th
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

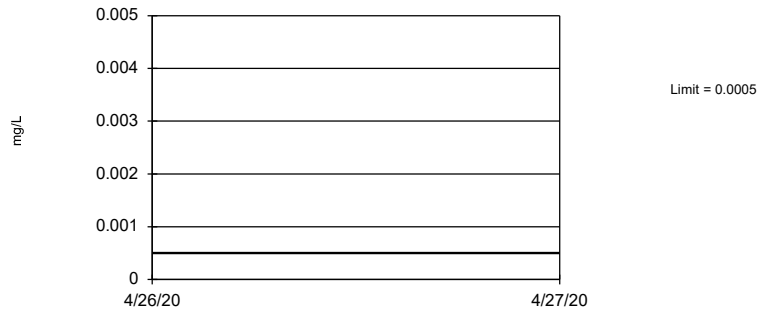
Tolerance Limit Interwell Parametric



95% coverage. Background Data Summary (based on square root transformation) (after Kaplan-Meier Adjustment): Mean=0.02396, Std. Dev.=0.002731, n=12, 41.67% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8231, critical = 0.805. Report alpha = 0.01.

Constituent: Selenium Analysis Run 6/10/2020 12:54 PM View: Sanitas_StatisticsSamplingEvents 1 thro
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 13 background values. 100% NDs. 70.12% coverage at alpha=0.01; 79.49% coverage at alpha=0.05; 94.73% coverage at alpha=0.5. Report alpha = 0.5133.

Constituent: Thallium Analysis Run 6/10/2020 12:54 PM View: Sanitas_StatisticsSamplingEvents 1 throug
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

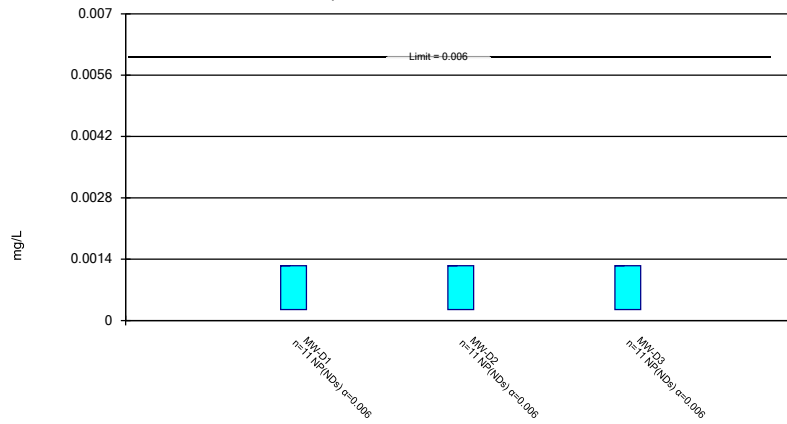
Confidence Interval

CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10 Printed 6/10/2020, 1:07 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Compliance</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Antimony (mg/L)	MW-D1	0.00125	0.00025	0.006	No	11	100	No	0.006	NP (NDs)
Antimony (mg/L)	MW-D2	0.00125	0.00025	0.006	No	11	100	No	0.006	NP (NDs)
Antimony (mg/L)	MW-D3	0.00125	0.00025	0.006	No	11	100	No	0.006	NP (NDs)
Arsenic (mg/L)	MW-D1	0.00065	0.000125	0.01	No	13	100	No	0.01	NP (NDs)
Arsenic (mg/L)	MW-D2	0.00083	0.00048	0.01	No	13	69.23	No	0.01	NP (normality)
Arsenic (mg/L)	MW-D3	0.001041	0.0005874	0.01	No	14	14.29	sqrt(x)	0.01	Param.
Barium (mg/L)	MW-D1	0.015	0.0099	2	No	14	0	No	0.01	NP (normality)
Barium (mg/L)	MW-D2	0.1575	0.1206	2	No	14	0	No	0.01	Param.
Barium (mg/L)	MW-D3	0.2028	0.1402	2	No	14	0	No	0.01	Param.
Beryllium (mg/L)	MW-D1	0.001	0.0002	0.004	No	11	100	No	0.006	NP (NDs)
Beryllium (mg/L)	MW-D2	0.001	0.0002	0.004	No	11	100	No	0.006	NP (NDs)
Beryllium (mg/L)	MW-D3	0.001	0.0002	0.004	No	11	100	No	0.006	NP (NDs)
Cadmium (mg/L)	MW-D1	0.0005	0.0001	0.005	No	11	100	No	0.006	NP (NDs)
Cadmium (mg/L)	MW-D2	0.0005	0.000075	0.005	No	11	90.91	No	0.006	NP (NDs)
Cadmium (mg/L)	MW-D3	0.0005	0.000071	0.005	No	11	90.91	No	0.006	NP (NDs)
Chromium (mg/L)	MW-D1	0.0034	0.00025	0.1	No	12	91.67	No	0.01	NP (NDs)
Chromium (mg/L)	MW-D2	0.0038	0.00025	0.1	No	12	91.67	No	0.01	NP (NDs)
Chromium (mg/L)	MW-D3	0.0029	0.00025	0.1	No	12	91.67	No	0.01	NP (NDs)
Cobalt (mg/L)	MW-D1	0.00125	0.00025	0.0025	No	13	100	No	0.01	NP (NDs)
Cobalt (mg/L)	MW-D2	0.00125	0.001	0.0025	No	13	84.62	No	0.01	NP (NDs)
Cobalt (mg/L)	MW-D3	0.001436	0.0009522	0.0025	No	14	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MW-D1	0.4582	0.1739	5	No	14	14.29	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MW-D2	0.6698	0.2096	5	No	14	21.43	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MW-D3	0.7936	0.3049	5	No	14	14.29	No	0.01	Param.
Fluoride (mg/L)	MW-D1	0.08716	0.05498	4	No	14	0	No	0.01	Param.
Fluoride (mg/L)	MW-D2	0.061	0.05	4	No	14	0	No	0.01	NP (normality)
Fluoride (mg/L)	MW-D3	0.12	0.1013	4	No	14	0	x^3	0.01	Param.
Lead (mg/L)	MW-D1	0.00065	0.000125	0.0013	No	11	90.91	No	0.006	NP (NDs)
Lead (mg/L)	MW-D2	0.00065	0.000125	0.0013	No	11	81.82	No	0.006	NP (NDs)
Lead (mg/L)	MW-D3	0.00065	0.000125	0.0013	No	11	100	No	0.006	NP (NDs)
Lithium (mg/L)	MW-D1	0.0025	0.00025	0.0025	No	12	100	No	0.01	NP (NDs)
Lithium (mg/L)	MW-D2	0.0025	0.0011	0.0025	No	12	91.67	No	0.01	NP (NDs)
Lithium (mg/L)	MW-D3	0.0013	0.00048	0.0025	No	12	83.33	No	0.01	NP (NDs)
Mercury (mg/L)	MW-D1	0.0001	0.000077	0.002	No	11	90.91	No	0.006	NP (NDs)
Mercury (mg/L)	MW-D2	0.00018	0.0001	0.002	No	11	72.73	No	0.006	NP (normality)
Mercury (mg/L)	MW-D3	0.0001	0.0001	0.002	No	11	90.91	No	0.006	NP (NDs)
Molybdenum (mg/L)	MW-D1	0.0075	0.001	0.01	No	13	100	No	0.01	NP (NDs)
Molybdenum (mg/L)	MW-D2	0.0075	0.0012	0.01	No	13	76.92	No	0.01	NP (NDs)
Molybdenum (mg/L)	MW-D3	0.005	0.0018	0.01	No	13	15.38	No	0.01	NP (Cohens/xfrm)
Selenium (mg/L)	MW-D1	0.00065	0.00033	0.05	No	12	91.67	No	0.01	NP (NDs)
Selenium (mg/L)	MW-D2	0.001	0.00033	0.05	No	12	75	No	0.01	NP (normality)
Selenium (mg/L)	MW-D3	0.001	0.00021	0.05	No	12	66.67	No	0.01	NP (normality)
Thallium (mg/L)	MW-D1	0.00025	0.00005	0.002	No	13	100	No	0.01	NP (NDs)
Thallium (mg/L)	MW-D2	0.00025	0.000085	0.002	No	14	28.57	No	0.01	NP (normality)
Thallium (mg/L)	MW-D3	0.0001288	0.000105	0.002	No	14	0	ln(x)	0.01	Param.

Non-Parametric Confidence Interval

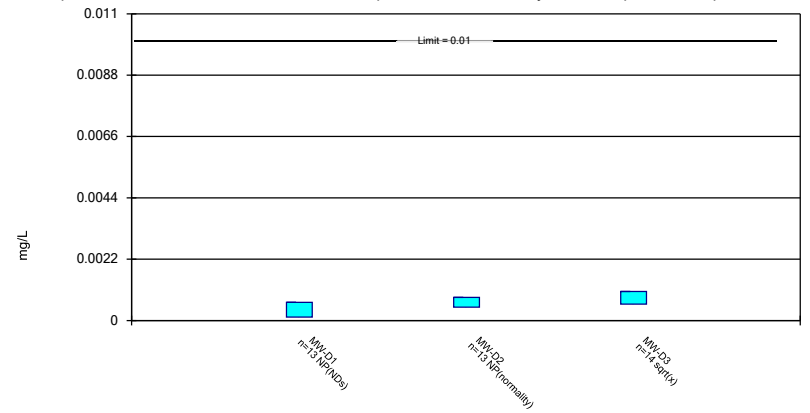
Compliance Limit is not exceeded.



Constituent: Antimony Analysis Run 6/10/2020 1:05 PM View: Sanitas_StatisticsSamplingEvents 1 through 10
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Parametric and Non-Parametric (NP) Confidence Interval

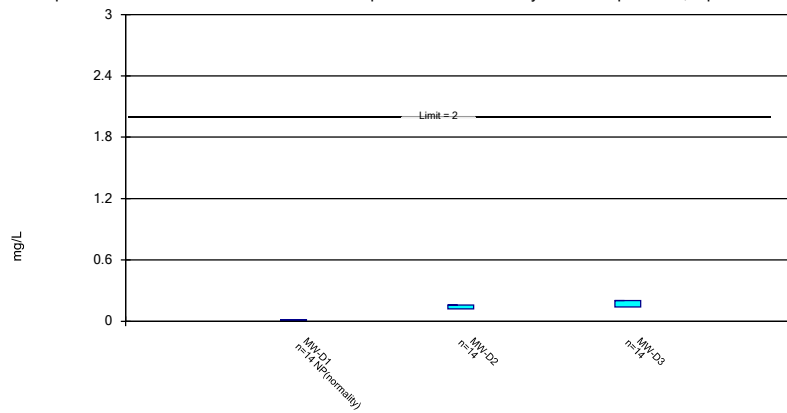
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Arsenic Analysis Run 6/10/2020 1:05 PM View: Sanitas_StatisticsSamplingEvents 1 through 10
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Parametric and Non-Parametric (NP) Confidence Interval

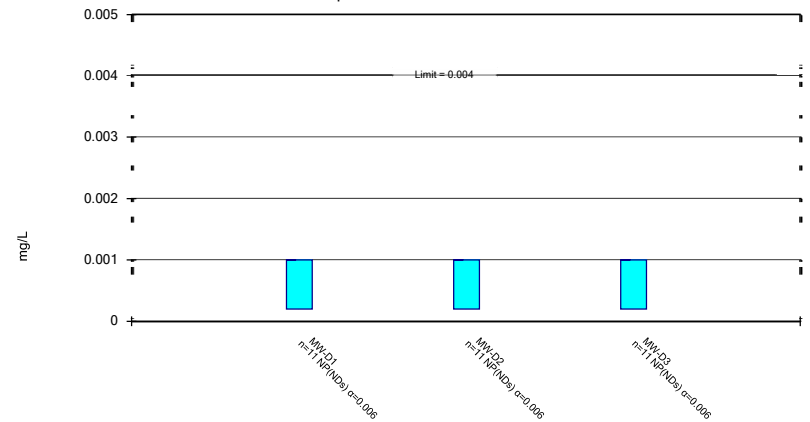
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Barium Analysis Run 6/10/2020 1:05 PM View: Sanitas_StatisticsSamplingEvents 1 through 10
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Non-Parametric Confidence Interval

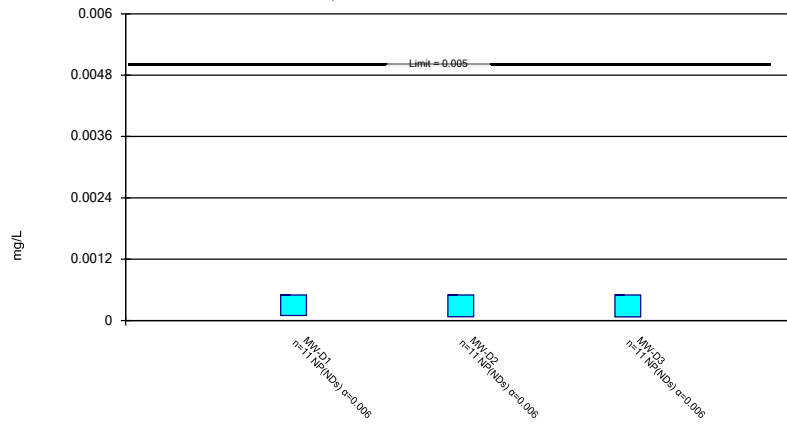
Compliance Limit is not exceeded.



Constituent: Beryllium Analysis Run 6/10/2020 1:05 PM View: Sanitas_StatisticsSamplingEvents 1 through 10
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Non-Parametric Confidence Interval

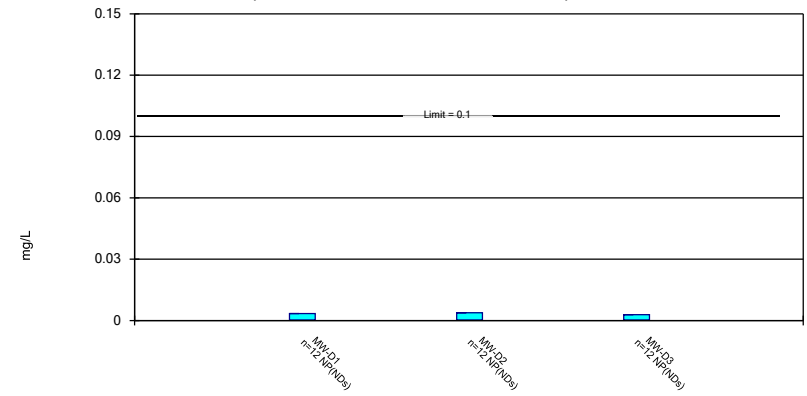
Compliance Limit is not exceeded.



Constituent: Cadmium Analysis Run 6/10/2020 1:06 PM View: Sanitas_StatisticsSamplingEvents 1 through 10
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Non-Parametric Confidence Interval

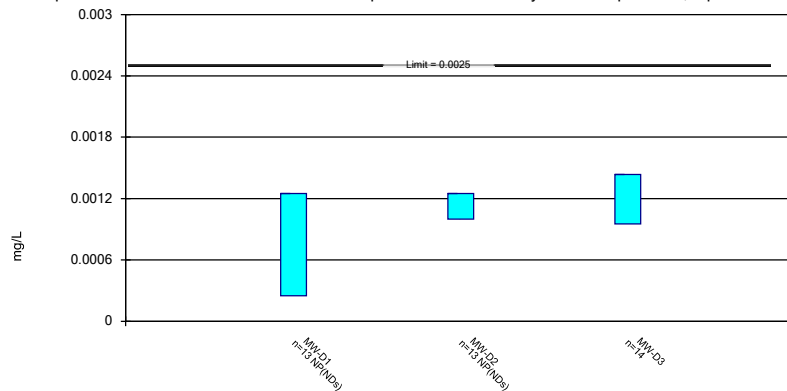
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Chromium Analysis Run 6/10/2020 1:06 PM View: Sanitas_StatisticsSamplingEvents 1 through 10
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Parametric and Non-Parametric (NP) Confidence Interval

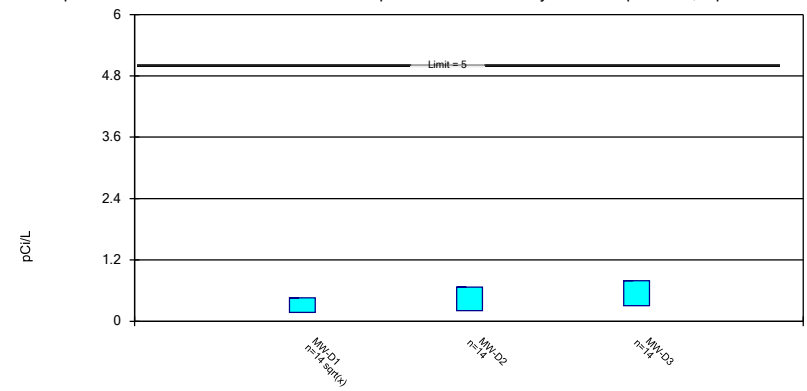
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cobalt Analysis Run 6/10/2020 1:06 PM View: Sanitas_StatisticsSamplingEvents 1 through 1
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Parametric Confidence Interval

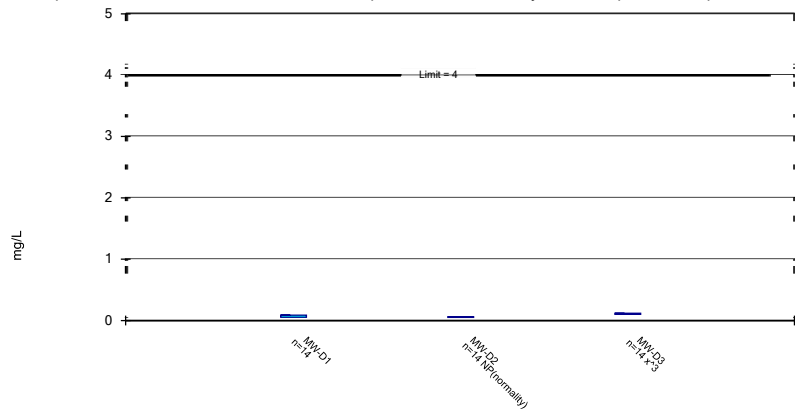
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Combined Radium 226 + 228 Analysis Run 6/10/2020 1:06 PM View: Sanitas_StatisticsSamp
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Parametric and Non-Parametric (NP) Confidence Interval

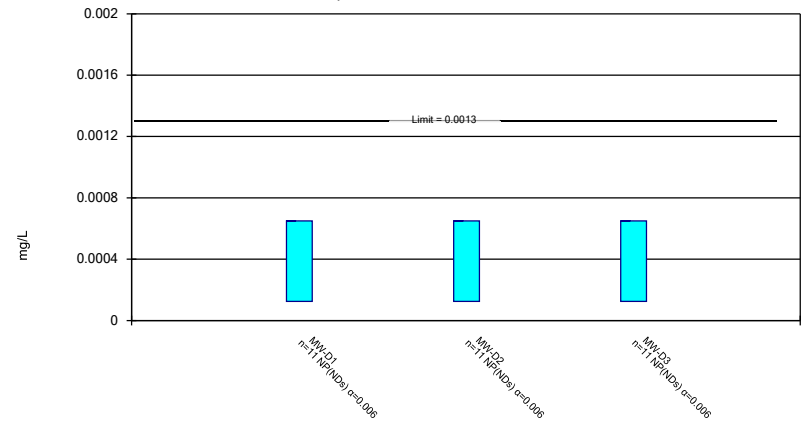
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Fluoride Analysis Run 6/10/2020 1:06 PM View: Sanitas_StatisticsSamplingEvents 1 through 10
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Non-Parametric Confidence Interval

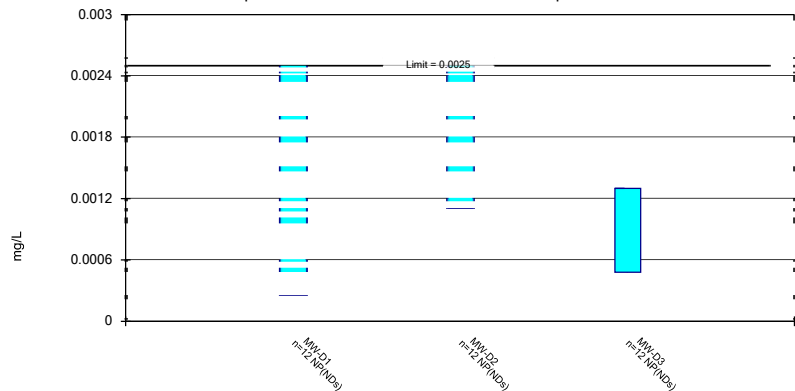
Compliance Limit is not exceeded.



Constituent: Lead Analysis Run 6/10/2020 1:06 PM View: Sanitas_StatisticsSamplingEvents 1 through 14
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Non-Parametric Confidence Interval

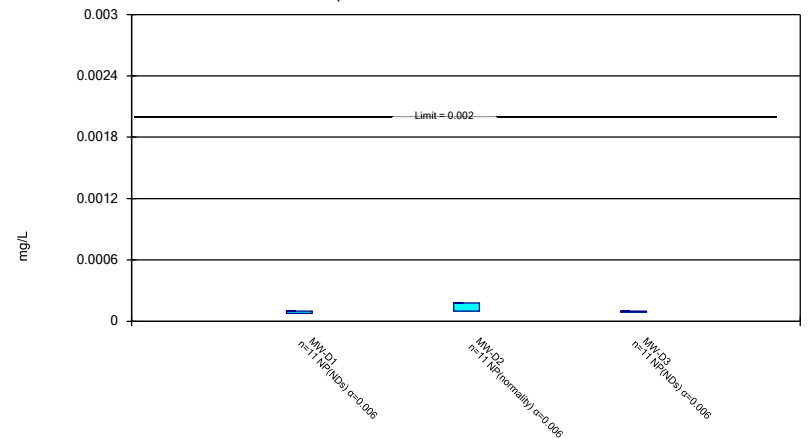
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Lithium Analysis Run 6/10/2020 1:06 PM View: Sanitas_StatisticsSamplingEvents 1 through 10
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Non-Parametric Confidence Interval

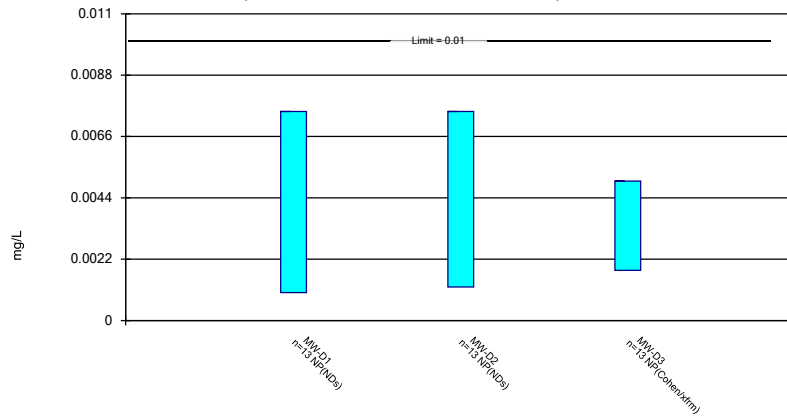
Compliance Limit is not exceeded.



Constituent: Mercury Analysis Run 6/10/2020 1:06 PM View: Sanitas_StatisticsSamplingEvents 1 through 10
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Non-Parametric Confidence Interval

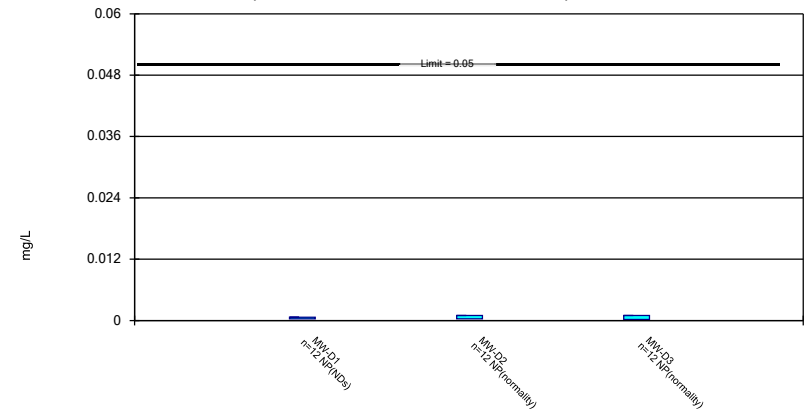
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Molybdenum Analysis Run 6/10/2020 1:06 PM View: Sanitas_StatisticsSamplingEvents 1 thr
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Non-Parametric Confidence Interval

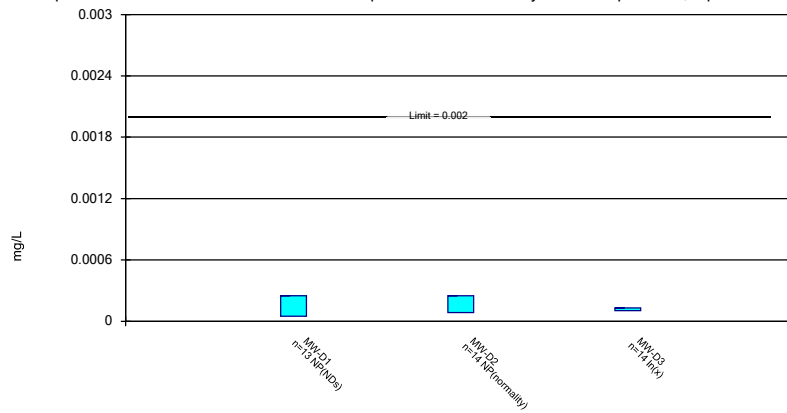
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Selenium Analysis Run 6/10/2020 1:06 PM View: Sanitas_StatisticsSamplingEvents 1 through
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Thallium Analysis Run 6/10/2020 1:06 PM View: Sanitas_StatisticsSamplingEvents 1 through
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

November 2020

Summary Report

Constituent: Antimony Analysis Run 1/19/2021 12:09 PM View: Sanitas_Statistics Sampling Events 1 through 15
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

For observations made between 2/28/2017 and 4/27/2020, a summary of the selected data set:

Observations = 44
 ND/Trace = 44
 Wells = 4
 Minimum Value = 0.0005
 Maximum Value = 0.0025
 Mean Value = 0.002318
 Median Value = 0.0025
 Standard Deviation = 0.0005816
 Coefficient of Variation = 0.2509
 Skewness = -2.846

<u>Well</u>	<u>#Obs.</u>	<u>ND/Trace</u>	<u>Min</u>	<u>Max</u>	<u>Mean</u>	<u>Median</u>	<u>Std.Dev.</u>	<u>CV</u>	<u>Skewness</u>
MW-D1	11	11	0.0005	0.0025	0.002318	0.0025	0.000603	0.2601	-2.846
MW-D2	11	11	0.0005	0.0025	0.002318	0.0025	0.000603	0.2601	-2.846
MW-D3	11	11	0.0005	0.0025	0.002318	0.0025	0.000603	0.2601	-2.846
MW-U1 (bg)	11	11	0.0005	0.0025	0.002318	0.0025	0.000603	0.2601	-2.846

Summary Report

Constituent: Antimony (mg/L) Analysis Run 1/19/2021 12:09 PM View: Sanitas_Statistics Sampling Events 1 through 15
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

	MW-D1	MW-D2	MW-D3	MW-U1 (bg)
2/28/2017	<0.0025 (**)	<0.0025 (F1)	<0.0025 (**)	<0.0025 (**)
3/27/2017	<0.0025	<0.0025	<0.0025	<0.0025
4/24/2017	<0.0025	<0.0025	<0.0025	<0.0025
5/22/2017	<0.0025	<0.0025	<0.0025	<0.0025
6/19/2017	<0.0025	<0.0025	<0.0025	<0.0025
7/17/2017	<0.0025	<0.0025	<0.0025	<0.0025
8/14/2017	<0.0025	<0.0025	<0.0025	<0.0025
9/13/2017	<0.0025	<0.0025	<0.0025	<0.0025
3/22/2018	<0.0025	<0.0025	<0.0025	<0.0025
4/29/2019	<0.0025	<0.0025	<0.0025	<0.0025
4/27/2020	<0.0005 (^)	<0.0005 (^)	<0.0005	<0.0005 (^)

Summary Report

Constituent: Arsenic Analysis Run 1/19/2021 12:09 PM View: Sanitas_Statistics Sampling Events 1 through 15
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

For observations made between 2/28/2017 and 11/19/2020, a summary of the selected data set:

Observations = 60
 ND/Trace = 41
 Wells = 4
 Minimum Value = 0.00015
 Maximum Value = 0.0016
 Mean Value = 0.001113
 Median Value = 0.0013
 Standard Deviation = 0.0003448
 Coefficient of Variation = 0.3098
 Skewness = -1.37

<u>Well</u>	<u>#Obs.</u>	<u>ND/Trace</u>	<u>Min</u>	<u>Max</u>	<u>Mean</u>	<u>Median</u>	<u>Std.Dev.</u>	<u>CV</u>	<u>Skewness</u>
MW-D1	15	15	0.00025	0.0013	0.00123	0.0013	0.0002711	0.2204	-3.474
MW-D2	15	11	0.00027	0.0013	0.001122	0.0013	0.0003382	0.3014	-1.626
MW-D3	15	2	0.00048	0.0016	0.0009327	0.00092	0.0003666	0.393	0.3981
MW-U1 (bg)	15	13	0.00015	0.0013	0.001167	0.0013	0.000355	0.3041	-2.275

Summary Report

Constituent: Arsenic (mg/L) Analysis Run 1/19/2021 12:09 PM View: Sanitas_Statistics Sampling Events 1 through 15

CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

	MW-D1	MW-D2	MW-D3	MW-U1 (bg)
2/28/2017	<0.0013	<0.0013	0.0015	<0.0013
3/27/2017	<0.0013	<0.0013	<0.0013	<0.0013
4/24/2017	<0.0013	0.00083 (J)	0.00052 (J)	<0.0013
5/22/2017	<0.0013	0.00048 (J)	0.00092 (J)	<0.0013
6/19/2017	<0.0013	<0.0013	0.00097 (J)	<0.0013
7/17/2017	<0.0013	0.00095 (J)	0.0016	0.00046 (J)
8/14/2017	<0.0013	<0.0013	0.00048 (J)	<0.0013
9/13/2017	<0.0013	<0.0013	0.00079 (J)	<0.0013
3/22/2018	<0.0013	<0.0013	0.0006 (J)	<0.0013
6/5/2018	<0.0013	<0.0013	0.00067 (J)	<0.0013
11/29/2018	<0.0013	<0.0013	<0.0013	<0.0013
4/29/2019	<0.0013	<0.0013	0.00048 (J)	<0.0013
10/23/2019	<0.0013	<0.0013	0.00076 (J)	<0.0013
4/27/2020	<0.00025 (*)	0.00027 (B)	0.001 (B)	0.00015 (JB)
11/19/2020	<0.0013	<0.0013	0.0011 (J)	<0.0013

Summary Report

Constituent: Barium Analysis Run 1/19/2021 12:09 PM View: Sanitas_Statistics Sampling Events 1 through 15
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

For observations made between 2/28/2017 and 11/19/2020, a summary of the selected data set:

Observations = 60
ND/Trace = 0
Wells = 4
Minimum Value = 0.0018
Maximum Value = 0.23
Mean Value = 0.08029
Median Value = 0.0555
Standard Deviation = 0.07811
Coefficient of Variation = 0.9729
Skewness = 0.3617

<u>Well</u>	<u>#Obs.</u>	<u>ND/Trace</u>	<u>Min</u>	<u>Max</u>	<u>Mean</u>	<u>Median</u>	<u>Std.Dev.</u>	<u>CV</u>	<u>Skewness</u>
MW-D1	15	0	0.0095	0.027	0.01382	0.012	0.005123	0.3707	1.668
MW-D2	15	0	0.087	0.19	0.1391	0.14	0.02507	0.1802	-0.2065
MW-D3	15	0	0.084	0.23	0.1657	0.18	0.04822	0.2911	-0.4105
MW-U1 (bg)	15	0	0.0018	0.0062	0.002527	0.0022	0.001089	0.4311	2.798

Summary Report

Constituent: Barium (mg/L) Analysis Run 1/19/2021 12:09 PM View: Sanitas_Statistics Sampling Events 1 through 15
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

	MW-D1	MW-D2	MW-D3	MW-U1 (bg)
2/28/2017	0.011	0.087	0.22	0.0034
3/27/2017	0.0099	0.11	0.23	0.0026
4/24/2017	0.011	0.15	0.2	0.0022 (J)
5/22/2017	0.013	0.12	0.21	0.002 (J)
6/19/2017	0.012	0.11	0.21	0.0021 (J)
7/17/2017	0.012	0.16	0.2	0.0025
8/14/2017	0.014	0.13	0.18	0.002 (J)
9/13/2017	0.014	0.14	0.18	0.0023 (J)
3/22/2018	0.0095	0.15	0.16	0.0021 (J)
6/5/2018	0.01	0.19	0.15	0.0025
11/29/2018	0.0099	0.15	0.14	0.0018 (J)
4/29/2019	0.015	0.16	0.1	0.0018 (J)
10/23/2019	0.027	0.14	0.13	0.0022 (J)
4/27/2020	0.015	0.15	0.091	0.0022
11/19/2020	0.024	0.14	0.084	0.0062

Summary Report

Constituent: Beryllium Analysis Run 1/19/2021 12:09 PM View: Sanitas_Statistics Sampling Events 1 through 15
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

For observations made between 2/28/2017 and 4/27/2020, a summary of the selected data set:

Observations = 44
ND/Trace = 44
Wells = 4
Minimum Value = 0.0004
Maximum Value = 0.0025
Mean Value = 0.0019
Median Value = 0.002
Standard Deviation = 0.0005012
Coefficient of Variation = 0.2638
Skewness = -2.355

<u>Well</u>	<u>#Obs.</u>	<u>ND/Trace</u>	<u>Min</u>	<u>Max</u>	<u>Mean</u>	<u>Median</u>	<u>Std.Dev.</u>	<u>CV</u>	<u>Skewness</u>
MW-D1	11	11	0.0004	0.0025	0.0019	0.002	0.0005196	0.2735	-2.355
MW-D2	11	11	0.0004	0.0025	0.0019	0.002	0.0005196	0.2735	-2.355
MW-D3	11	11	0.0004	0.0025	0.0019	0.002	0.0005196	0.2735	-2.355
MW-U1 (bg)	11	11	0.0004	0.0025	0.0019	0.002	0.0005196	0.2735	-2.355

Summary Report

Constituent: Beryllium (mg/L) Analysis Run 1/19/2021 12:09 PM View: Sanitas_Statistics Sampling Events 1 through 15
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

	MW-D1	MW-D2	MW-D3	MW-U1 (bg)
2/28/2017	<0.002	<0.002	<0.002	<0.002
3/27/2017	<0.002	<0.002	<0.002	<0.002
4/24/2017	<0.002	<0.002	<0.002	<0.002
5/22/2017	<0.002	<0.002	<0.002	<0.002
6/19/2017	<0.002	<0.002	<0.002	<0.002
7/17/2017	<0.002	<0.002	<0.002	<0.002
8/14/2017	<0.002	<0.002	<0.002	<0.002
9/13/2017	<0.002	<0.002	<0.002	<0.002
3/22/2018	<0.0025	<0.0025	<0.0025	<0.0025
4/29/2019	<0.002	<0.002	<0.002	<0.002
4/27/2020	<0.0004	<0.0004 (*)	<0.0004 (*)	<0.0004 (*)

Summary Report

Constituent: Cadmium Analysis Run 1/19/2021 12:09 PM View: Sanitas_Statistics Sampling Events 1 through 15
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

For observations made between 2/28/2017 and 11/19/2020, a summary of the selected data set:

Observations = 48
 ND/Trace = 46
 Wells = 4
 Minimum Value = 0.000071
 Maximum Value = 0.0025
 Mean Value = 0.001053
 Median Value = 0.001
 Standard Deviation = 0.0005024
 Coefficient of Variation = 0.4771
 Skewness = 1.524

<u>Well</u>	<u>#Obs.</u>	<u>ND/Trace</u>	<u>Min</u>	<u>Max</u>	<u>Mean</u>	<u>Median</u>	<u>Std.Dev.</u>	<u>CV</u>	<u>Skewness</u>
MW-D1	12	12	0.0002	0.0025	0.001058	0.001	0.0005089	0.4809	1.701
MW-D2	12	11	0.000075	0.0025	0.001048	0.001	0.000529	0.5048	1.373
MW-D3	12	11	0.000071	0.0025	0.001048	0.001	0.0005297	0.5056	1.362
MW-U1 (bg)	12	12	0.0002	0.0025	0.001058	0.001	0.0005089	0.4809	1.701

Summary Report

Constituent: Cadmium (mg/L) Analysis Run 1/19/2021 12:09 PM View: Sanitas_Statistics Sampling Events 1 through 15

CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

	MW-D1	MW-D2	MW-D3	MW-U1 (bg)
2/28/2017	<0.001	<0.001	<0.001	<0.001
3/27/2017	<0.001	<0.001	<0.001	<0.001
4/24/2017	<0.001	<0.001	<0.001	<0.001
5/22/2017	<0.001	<0.001	<0.001	<0.001
6/19/2017	<0.001	<0.001	<0.001	<0.001
7/17/2017	<0.001	<0.001	<0.001	<0.001
8/14/2017	<0.001	<0.001	<0.001	<0.001
9/13/2017	<0.001	<0.001	<0.001	<0.001
3/22/2018	<0.0025	<0.0025	<0.0025	<0.0025
4/29/2019	<0.001	<0.001	<0.001	<0.001
4/27/2020	<0.0002	7.5E-05 (J*)	7.1E-05 (J)	<0.0002
11/19/2020	<0.001	<0.001	<0.001	<0.001

Summary Report

Constituent: Chromium Analysis Run 1/19/2021 12:09 PM View: Sanitas_Statistics Sampling Events 1 through 15
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

For observations made between 2/28/2017 and 11/19/2020, a summary of the selected data set:

Observations = 52
ND/Trace = 36
Wells = 4
Minimum Value = 0.0005
Maximum Value = 0.0051
Mean Value = 0.002227
Median Value = 0.0025
Standard Deviation = 0.0008022
Coefficient of Variation = 0.3602
Skewness = 0.2589

<u>Well</u>	<u>#Obs.</u>	<u>ND/Trace</u>	<u>Min</u>	<u>Max</u>	<u>Mean</u>	<u>Median</u>	<u>Std.Dev.</u>	<u>CV</u>	<u>Skewness</u>
MW-D1	13	12	0.0005	0.0034	0.002415	0.0025	0.000627	0.2596	-2.135
MW-D2	13	12	0.0005	0.0038	0.002446	0.0025	0.0006863	0.2806	-1.311
MW-D3	13	12	0.0005	0.0029	0.002377	0.0025	0.0005747	0.2418	-2.947
MW-U1 (bg)	13	0	0.0011	0.0051	0.001669	0.0014	0.001044	0.6252	3.041

Summary Report

Constituent: Chromium (mg/L) Analysis Run 1/19/2021 12:09 PM View: Sanitas_Statistics Sampling Events 1 through 15

CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

	MW-D1	MW-D2	MW-D3	MW-U1 (bg)
2/28/2017	0.0034	0.0038	0.0029	0.0051
3/27/2017	<0.0025	<0.0025	<0.0025	0.0017 (J)
4/24/2017	<0.0025	<0.0025	<0.0025	0.0014 (J)
5/22/2017	<0.0025	<0.0025	<0.0025	0.0014 (J)
6/19/2017	<0.0025	<0.0025	<0.0025	0.0014 (J)
7/17/2017	<0.0025	<0.0025	<0.0025	0.0014 (J)
8/14/2017	<0.0025	<0.0025	<0.0025	0.0012 (J)
9/13/2017	<0.0025	<0.0025	<0.0025	0.0014 (J)
3/22/2018	<0.0025	<0.0025	<0.0025	0.0016 (J)
11/29/2018	<0.0025	<0.0025	<0.0025	0.0012 (J)
4/29/2019	<0.0025	<0.0025	<0.0025	0.0011 (J)
4/27/2020	<0.0005 (^)	<0.0005 (^)	<0.0005 (^)	0.0013
11/19/2020	<0.0025 (^)	<0.0025 (^)	<0.0025 (^)	0.0015 (J)

Summary Report

Constituent: Cobalt Analysis Run 1/19/2021 12:09 PM View: Sanitas_Statistics Sampling Events 1 through 15
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

For observations made between 2/28/2017 and 11/19/2020, a summary of the selected data set:

Observations = 60
 ND/Trace = 43
 Wells = 4
 Minimum Value = 0.00035
 Maximum Value = 0.0025
 Mean Value = 0.002005
 Median Value = 0.0025
 Standard Deviation = 0.0007443
 Coefficient of Variation = 0.3713
 Skewness = -1.013

<u>Well</u>	<u>#Obs.</u>	<u>ND/Trace</u>	<u>Min</u>	<u>Max</u>	<u>Mean</u>	<u>Median</u>	<u>Std.Dev.</u>	<u>CV</u>	<u>Skewness</u>
MW-D1	15	15	0.0005	0.0025	0.002367	0.0025	0.0005164	0.2182	-3.474
MW-D2	15	13	0.00047	0.0025	0.002265	0.0025	0.0006291	0.2778	-2.267
MW-D3	15	0	0.00035	0.0017	0.001154	0.0012	0.0003644	0.3158	-0.725
MW-U1 (bg)	15	15	0.0005	0.0025	0.002233	0.0025	0.0007037	0.3151	-2.157

Summary Report

Constituent: Cobalt (mg/L) Analysis Run 1/19/2021 12:09 PM View: Sanitas_Statistics Sampling Events 1 through 15
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

	MW-D1	MW-D2	MW-D3	MW-U1 (bg)
2/28/2017	<0.0025	0.00047 (J)	0.0011 (J)	<0.0025
3/27/2017	<0.0025	<0.0025	0.00079 (J)	<0.0025
4/24/2017	<0.0025	<0.0025	0.001 (J)	<0.0025
5/22/2017	<0.0025	<0.0025	0.0012 (J)	<0.0025
6/19/2017	<0.0025	<0.0025	0.0015 (J)	<0.0025
7/17/2017	<0.0025	<0.0025	0.0014 (J)	<0.0025
8/14/2017	<0.0025	<0.0025	0.0013 (J)	<0.0025
9/13/2017	<0.0025	<0.0025	0.0014 (J)	<0.0025
3/22/2018	<0.0025	<0.0025	0.0015 (J)	<0.0005
6/5/2018	<0.0025	<0.0025	0.0017 (J)	<0.0025
11/29/2018	<0.0025	<0.0025	0.00098 (J)	<0.0025
4/29/2019	<0.0025	<0.0025	0.0013 (J)	<0.0025
10/23/2019	<0.0025	<0.0025	0.0012 (J)	<0.0025
4/27/2020	<0.0005 (*)	0.001	0.00035 (J)	<0.0005 (*)
11/19/2020	<0.0025	<0.0025	0.00059 (J)	<0.0025

Summary Report

Constituent: Combined Radium 226 + 228 Analysis Run 1/19/2021 12:09 PM View: Sanitas_Statistics Sampling Events 1 through 15
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

For observations made between 2/28/2017 and 11/19/2020, a summary of the selected data set:

Observations = 60
 ND/Trace = 12
 Wells = 4
 Minimum Value = -0.0586
 Maximum Value = 5
 Mean Value = 0.5709
 Median Value = 0.4205
 Standard Deviation = 0.8785
 Coefficient of Variation = 1.539
 Skewness = 4.353

<u>Well</u>	<u>#Obs.</u>	<u>ND/Trace</u>	<u>Min</u>	<u>Max</u>	<u>Mean</u>	<u>Median</u>	<u>Std.Dev.</u>	<u>CV</u>	<u>Skewness</u>
MW-D1	15	2	0.0994	0.833	0.3938	0.401	0.2474	0.6283	0.5358
MW-D2	15	4	0.0139	5	0.78	0.453	1.204	1.543	3.14
MW-D3	15	3	0.0501	5	0.8723	0.557	1.183	1.356	3.087
MW-U1 (bg)	15	3	-0.0586	0.615	0.2376	0.19	0.2136	0.899	0.5487

Summary Report

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 1/19/2021 12:09 PM View: Sanitas_Statistics Sampling Events 1 through 15
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

	MW-D1	MW-D2	MW-D3	MW-U1 (bg)
2/28/2017	0.421	0.506	0.522	0.117
3/27/2017	0.655	1.28	0.557	-0.0198
4/24/2017	0.212	0.756	0.572	0.19
5/22/2017	0.186	0.333	0.457	0.133
6/19/2017	0.156	0.388	0.78	0.135
7/17/2017	0.153	0.534	0.409	0.19
8/14/2017	0.287	0.452	0.339	0.302
9/13/2017	0.816	0.453	1.28	0.614
3/22/2018	0.643	0.716	1.17	0.131
6/5/2018	0.149	0.0139	0.564	-0.0586
11/29/2018	0.0994	0.18	0.0501	0.0234
4/29/2019	<0.457	<0.42	0.594	<0.386
10/23/2019	<0.439	<0.484	<0.465	<0.508
4/27/2020	0.401	<0.184	<0.326	<0.298
11/19/2020	0.833	<5	<5	0.615

Summary Report

Constituent: Fluoride Analysis Run 1/19/2021 12:09 PM View: Sanitas_Statistics Sampling Events 1 through 15
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

For observations made between 2/28/2017 and 11/19/2020, a summary of the selected data set:

Observations = 60
 ND/Trace = 1
 Wells = 4
 Minimum Value = 0.04
 Maximum Value = 0.13
 Mean Value = 0.07473
 Median Value = 0.0605
 Standard Deviation = 0.0264
 Coefficient of Variation = 0.3532
 Skewness = 0.6317

<u>Well</u>	<u>#Obs.</u>	<u>ND/Trace</u>	<u>Min</u>	<u>Max</u>	<u>Mean</u>	<u>Median</u>	<u>Std.Dev.</u>	<u>CV</u>	<u>Skewness</u>
MW-D1	15	0	0.04	0.12	0.073	0.07	0.02313	0.3169	0.5157
MW-D2	15	0	0.04	0.07	0.0574	0.06	0.008016	0.1397	-0.3902
MW-D3	15	0	0.06	0.13	0.1093	0.11	0.01624	0.1486	-1.857
MW-U1 (bg)	15	1	0.04	0.1	0.0592	0.06	0.01438	0.2429	1.342

Summary Report

Constituent: Fluoride (mg/L) Analysis Run 1/19/2021 12:09 PM View: Sanitas_Statistics Sampling Events 1 through 15

CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

	MW-D1	MW-D2	MW-D3	MW-U1 (bg)
2/28/2017	0.06 (J)	0.06 (J)	0.13	0.06 (J)
3/27/2017	0.05 (J)	0.05 (J)	0.11	0.04 (J)
4/24/2017	0.07 (J)	0.07 (J)	0.12	0.06 (J)
5/22/2017	0.07 (J)	0.06 (J)	0.11	0.06 (J)
6/19/2017	0.08 (J)	0.06 (J)	0.12	0.06 (J)
7/17/2017	0.11	0.06 (J)	0.06 (J)	0.06 (J)
8/14/2017	0.07 (J)	0.06 (J)	0.12	0.05 (J)
9/13/2017	0.075 (J)	0.061 (J)	0.12	0.058 (J)
3/22/2018	0.08 (J)	0.06 (J)	0.11	0.07 (J)
6/5/2018	0.07 (J)	0.07 (J)	0.12	0.06 (J)
11/29/2018	0.04 (J)	0.04 (J)	0.1	0.04 (J)
4/29/2019	0.06 (J)	0.06 (J)	0.11	<0.1
10/23/2019	0.12 (B)	0.05 (JB)	0.1 (B)	0.05 (JB)
4/27/2020	0.04 (J)	0.05 (J)	0.1	0.05 (J)
11/19/2020	0.1	0.05 (J)	0.11	0.07 (J)

Summary Report

Constituent: Lead Analysis Run 1/19/2021 12:10 PM View: Sanitas_Statistics Sampling Events 1 through 15
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

For observations made between 2/28/2017 and 4/27/2020, a summary of the selected data set:

Observations = 44
 ND/Trace = 40
 Wells = 4
 Minimum Value = 0.00025
 Maximum Value = 0.0013
 Mean Value = 0.001139
 Median Value = 0.0013
 Standard Deviation = 0.000356
 Coefficient of Variation = 0.3125
 Skewness = -1.843

<u>Well</u>	<u>#Obs.</u>	<u>ND/Trace</u>	<u>Min</u>	<u>Max</u>	<u>Mean</u>	<u>Median</u>	<u>Std.Dev.</u>	<u>CV</u>	<u>Skewness</u>
MW-D1	11	10	0.00025	0.0013	0.001159	0.0013	0.0003368	0.2905	-2.121
MW-D2	11	9	0.00025	0.0013	0.001047	0.0013	0.0004364	0.4167	-1.075
MW-D3	11	11	0.00025	0.0013	0.001205	0.0013	0.0003166	0.2628	-2.846
MW-U1 (bg)	11	10	0.00025	0.0013	0.001145	0.0013	0.0003553	0.3102	-1.886

Summary Report

Constituent: Lead (mg/L) Analysis Run 1/19/2021 12:10 PM View: Sanitas_Statistics Sampling Events 1 through 15
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

	MW-D1	MW-D2	MW-D3	MW-U1 (bg)
2/28/2017	<0.0013 (^)	0.0005 (J)	<0.0013 (^)	<0.0013
3/27/2017	<0.0013	<0.0013	<0.0013	<0.0013
4/24/2017	<0.0013	<0.0013	<0.0013	<0.0013
5/22/2017	<0.0013	<0.0013	<0.0013	0.00065 (J)
6/19/2017	<0.0013	<0.0013	<0.0013	<0.0013
7/17/2017	<0.0013	<0.0013	<0.0013	<0.0013
8/14/2017	0.0008 (J)	0.00037 (J)	<0.0013	<0.0013
9/13/2017	<0.0013	<0.0013	<0.0013	<0.0013
3/22/2018	<0.0013	<0.0013	<0.0013	<0.0013
4/29/2019	<0.0013	<0.0013	<0.0013	<0.0013
4/27/2020	<0.00025 (^)	<0.00025 (^)	<0.00025 (^)	<0.00025 (^)

Summary Report

Constituent: Lithium Analysis Run 1/19/2021 12:10 PM View: Sanitas_Statistics Sampling Events 1 through 15
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

For observations made between 2/28/2017 and 11/19/2020, a summary of the selected data set:

Observations = 52
 ND/Trace = 45
 Wells = 4
 Minimum Value = 0.00034
 Maximum Value = 0.005
 Mean Value = 0.002404
 Median Value = 0.0025
 Standard Deviation = 0.0009164
 Coefficient of Variation = 0.3812
 Skewness = 0.3252

<u>Well</u>	<u>#Obs.</u>	<u>ND/Trace</u>	<u>Min</u>	<u>Max</u>	<u>Mean</u>	<u>Median</u>	<u>Std.Dev.</u>	<u>CV</u>	<u>Skewness</u>
MW-D1	13	12	0.0005	0.005	0.002523	0.0025	0.0009257	0.3669	0.755
MW-D2	13	11	0.0005	0.005	0.002477	0.0025	0.001023	0.4131	0.4831
MW-D3	13	10	0.00048	0.005	0.002437	0.0025	0.0009886	0.4057	0.707
MW-U1 (bg)	13	12	0.00034	0.0025	0.00218	0.0025	0.0007818	0.3586	-1.926

Summary Report

Constituent: Lithium (mg/L) Analysis Run 1/19/2021 12:10 PM View: Sanitas_Statistics Sampling Events 1 through 15

CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

	MW-D1	MW-D2	MW-D3	MW-U1 (bg)
2/28/2017	<0.0025	<0.0025	<0.0025	<0.0025
3/27/2017	<0.0025	<0.0025	<0.0025	<0.0025
4/24/2017	<0.0025	<0.0025	<0.0025	<0.0025
5/22/2017	<0.0025	<0.0025	<0.0025	<0.0025
6/19/2017	<0.0025	<0.0025	<0.0025	<0.0025
7/17/2017	<0.0025	<0.0025	<0.0025	<0.0025
8/14/2017	<0.0025	<0.0025	<0.0025	<0.0025
9/13/2017	<0.0025	<0.0025	<0.0025	<0.0025
3/22/2018	<0.005	<0.005	<0.005	0.00034 (J)
11/29/2018	<0.0025	<0.0025	<0.0025	<0.0025
4/29/2019	<0.0025	0.0011 (J)	0.0013 (J)	<0.0025
4/27/2020	<0.0005 (^)	<0.0005	0.00048 (J)	<0.0005 (^)
11/19/2020	0.0023 (J)	0.0031	0.0024 (J)	<0.0025

Summary Report

Constituent: Mercury Analysis Run 1/19/2021 12:10 PM View: Sanitas_Statistics Sampling Events 1 through 15
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

For observations made between 2/28/2017 and 4/27/2020, a summary of the selected data set:

Observations = 44
 ND/Trace = 39
 Wells = 4
 Minimum Value = 0.000077
 Maximum Value = 0.0002
 Mean Value = 0.0001904
 Median Value = 0.0002
 Standard Deviation = 0.00002967
 Coefficient of Variation = 0.1558
 Skewness = -2.905

<u>Well</u>	<u>#Obs.</u>	<u>ND/Trace</u>	<u>Min</u>	<u>Max</u>	<u>Mean</u>	<u>Median</u>	<u>Std.Dev.</u>	<u>CV</u>	<u>Skewness</u>
MW-D1	11	10	0.000077	0.0002	0.0001888	0.0002	0.00003709	0.1964	-2.846
MW-D2	11	9	0.00011	0.0002	0.00019	0.0002	0.0000272	0.1432	-2.626
MW-D3	11	10	0.00011	0.0002	0.0001918	0.0002	0.00002714	0.1415	-2.846
MW-U1 (bg)	11	10	0.000099	0.0002	0.0001908	0.0002	0.00003045	0.1596	-2.846

Summary Report

Constituent: Mercury (mg/L) Analysis Run 1/19/2021 12:10 PM View: Sanitas_Statistics Sampling Events 1 through 15

CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

	MW-D1	MW-D2	MW-D3	MW-U1 (bg)
2/28/2017	7.7E-05 (JB)	0.00018 (JB)	0.00011 (JB)	9.9E-05 (JB)
3/27/2017	<0.0002	0.00011 (J)	<0.0002	<0.0002
4/24/2017	<0.0002	<0.0002	<0.0002	<0.0002
5/22/2017	<0.0002	<0.0002	<0.0002	<0.0002
6/19/2017	<0.0002	<0.0002	<0.0002	<0.0002
7/17/2017	<0.0002	<0.0002	<0.0002	<0.0002
8/14/2017	<0.0002	<0.0002	<0.0002	<0.0002
9/13/2017	<0.0002	<0.0002	<0.0002	<0.0002
3/22/2018	<0.0002	<0.0002	<0.0002	<0.0002
4/29/2019	<0.0002	<0.0002	<0.0002	<0.0002
4/27/2020	<0.0002	<0.0002	<0.0002	<0.0002

Summary Report

Constituent: Molybdenum Analysis Run 1/19/2021 12:10 PM View: Sanitas_Statistics Sampling Events 1 through 15
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

For observations made between 2/28/2017 and 11/19/2020, a summary of the selected data set:

Observations = 56
 ND/Trace = 42
 Wells = 4
 Minimum Value = 0.0012
 Maximum Value = 0.015
 Mean Value = 0.007811
 Median Value = 0.01
 Standard Deviation = 0.00383
 Coefficient of Variation = 0.4904
 Skewness = -0.6192

<u>Well</u>	<u>#Obs.</u>	<u>ND/Trace</u>	<u>Min</u>	<u>Max</u>	<u>Mean</u>	<u>Median</u>	<u>Std.Dev.</u>	<u>CV</u>	<u>Skewness</u>
MW-D1	14	14	0.002	0.015	0.009786	0.01	0.002607	0.2664	-1.487
MW-D2	14	11	0.0012	0.015	0.008021	0.01	0.004283	0.5339	-0.5683
MW-D3	14	3	0.0017	0.01	0.004507	0.0025	0.003481	0.7724	0.8678
MW-U1 (bg)	14	14	0.002	0.01	0.008929	0.01	0.002731	0.3058	-2.063

Summary Report

Constituent: Molybdenum (mg/L) Analysis Run 1/19/2021 12:10 PM View: Sanitas_Statistics Sampling Events 1 through 15
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

	MW-D1	MW-D2	MW-D3	MW-U1 (bg)
2/28/2017	<0.01	0.0012 (J)	0.0088 (J)	<0.01
3/27/2017	<0.01	<0.01	0.0023 (J)	<0.01
4/24/2017	<0.01	<0.01	0.0018 (J)	<0.01
5/22/2017	<0.01	0.0025 (J)	0.0031 (J)	<0.01
6/19/2017	<0.01	0.0016 (J)	0.0043 (J)	<0.01
7/17/2017	<0.01	<0.01	0.0027 (J)	<0.01
8/14/2017	<0.01	<0.01	0.0017 (J)	<0.01
9/13/2017	<0.01	<0.01	0.0021 (J)	<0.01
3/22/2018	<0.015	<0.015	0.0022 (J)	<0.003
6/5/2018	<0.01	<0.01	0.0022 (J)	<0.01
11/29/2018	<0.01	<0.01	<0.01	<0.01
4/29/2019	<0.01	<0.01	<0.01	<0.01
4/27/2020	<0.002 (^)	<0.002 (^)	0.0019 (J)	<0.002 (^)
11/19/2020	<0.01 (^)	<0.01	<0.01	<0.01

Summary Report

Constituent: Selenium Analysis Run 1/19/2021 12:10 PM View: Sanitas_Statistics Sampling Events 1 through 15
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

For observations made between 2/28/2017 and 11/19/2020, a summary of the selected data set:

Observations = 52
ND/Trace = 37
Wells = 4
Minimum Value = 0.00021
Maximum Value = 0.0028
Mean Value = 0.00107
Median Value = 0.0013
Standard Deviation = 0.0004678
Coefficient of Variation = 0.4371
Skewness = 0.2015

<u>Well</u>	<u>#Obs.</u>	<u>ND/Trace</u>	<u>Min</u>	<u>Max</u>	<u>Mean</u>	<u>Median</u>	<u>Std.Dev.</u>	<u>CV</u>	<u>Skewness</u>
MW-D1	13	12	0.00025	0.0013	0.001145	0.0013	0.0003796	0.3317	-1.926
MW-D2	13	10	0.00025	0.0013	0.001067	0.0013	0.0004012	0.376	-1.263
MW-D3	13	9	0.00021	0.0028	0.001156	0.0013	0.00066	0.5708	0.7197
MW-U1 (bg)	13	6	0.00039	0.0013	0.0009131	0.00076	0.0003854	0.4221	-0.03956

Summary Report

Constituent: Selenium (mg/L) Analysis Run 1/19/2021 12:10 PM View: Sanitas_Statistics Sampling Events 1 through 15
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

	MW-D1	MW-D2	MW-D3	MW-U1 (bg)
2/28/2017	<0.0013	<0.0013	0.0028	<0.0013
3/27/2017	<0.0013	<0.0013	<0.0013	<0.0013
4/24/2017	<0.0013	<0.0013	<0.0013	<0.0013
5/22/2017	<0.0013	0.001 (J)	0.00037 (J)	0.00076 (J)
6/19/2017	<0.0013	0.00059 (JB)	0.001 (JB)	0.00062 (JB)
7/17/2017	0.00033 (J)	0.00033 (J)	<0.0013	0.0007 (J)
8/14/2017	<0.0013	<0.0013	<0.0013	0.00058 (J)
9/13/2017	<0.0013	<0.0013	<0.0013	0.00041 (J)
3/22/2018	<0.0013	<0.0013	<0.00025	0.00039
11/29/2018	<0.0013	<0.0013	<0.0013	<0.0013
4/29/2019	<0.0013	<0.0013	<0.0013	<0.0013
4/27/2020	<0.00025	<0.00025	0.00021 (J)	0.00061
11/19/2020	<0.0013	<0.0013	<0.0013	<0.0013

Summary Report

Constituent: Thallium Analysis Run 1/19/2021 12:10 PM View: Sanitas_Statistics Sampling Events 1 through 15
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

For observations made between 2/28/2017 and 11/19/2020, a summary of the selected data set:

Observations = 60
 ND/Trace = 36
 Wells = 4
 Minimum Value = 0.000085
 Maximum Value = 0.0005
 Mean Value = 0.0003349
 Median Value = 0.0005
 Standard Deviation = 0.0001916
 Coefficient of Variation = 0.5721
 Skewness = -0.301

<u>Well</u>	<u>#Obs.</u>	<u>ND/Trace</u>	<u>Min</u>	<u>Max</u>	<u>Mean</u>	<u>Median</u>	<u>Std.Dev.</u>	<u>CV</u>	<u>Skewness</u>
MW-D1	15	15	0.0001	0.0005	0.0004733	0.0005	0.0001033	0.2182	-3.474
MW-D2	15	5	0.000085	0.0005	0.00025	0.00013	0.0001873	0.7492	0.5909
MW-D3	15	1	0.000095	0.0005	0.000143	0.00012	0.0001004	0.7018	3.296
MW-U1 (bg)	15	15	0.0001	0.0005	0.0004733	0.0005	0.0001033	0.2182	-3.474

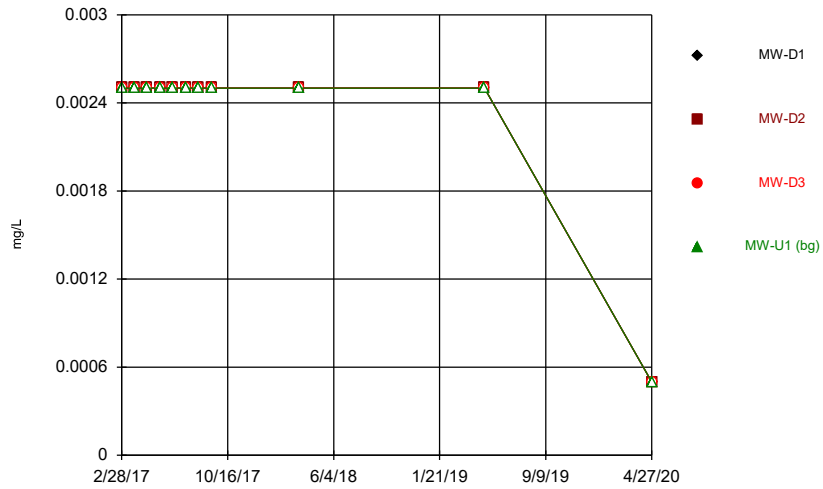
Summary Report

Constituent: Thallium (mg/L) Analysis Run 1/19/2021 12:10 PM View: Sanitas_Statistics Sampling Events 1 through 15

CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

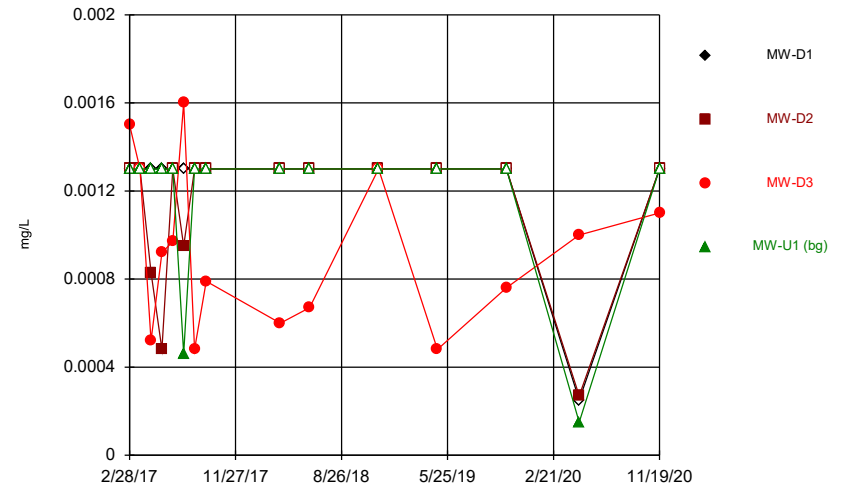
	MW-D1	MW-D2	MW-D3	MW-U1 (bg)
2/28/2017	<0.0005	0.00011 (J)	0.00013 (J)	<0.0005
3/27/2017	<0.0005	<0.0005	0.00011 (J)	<0.0005
4/24/2017	<0.0005	<0.0005	9.5E-05 (J)	<0.0005
5/22/2017	<0.0005	0.00011 (J)	0.00011 (J)	<0.0005
6/19/2017	<0.0005	0.00011 (J)	0.00012 (J)	<0.0005
7/17/2017	<0.0005	0.00011 (J)	0.00012 (J)	<0.0005
8/14/2017	<0.0005	0.00013 (J)	0.00011 (J)	<0.0005
9/13/2017	<0.0005	0.00012 (J)	0.00013 (J)	<0.0005
3/22/2018	<0.0005	<0.0005	0.0001 (J)	<0.0005
6/5/2018	<0.0005	8.5E-05 (J)	0.00012 (J)	<0.0005
11/29/2018	<0.0005	8.5E-05 (J)	0.0001 (J)	<0.0005
4/29/2019	<0.0005	<0.0005	0.00011 (J)	<0.0005
10/23/2019	<0.0005	0.00026 (J)	0.00017 (J)	<0.0005
4/27/2020	<0.0001 (*)	0.00013	0.00012	<0.0001 (*)
11/19/2020	<0.0005	<0.0005	<0.0005	<0.0005

Time Series



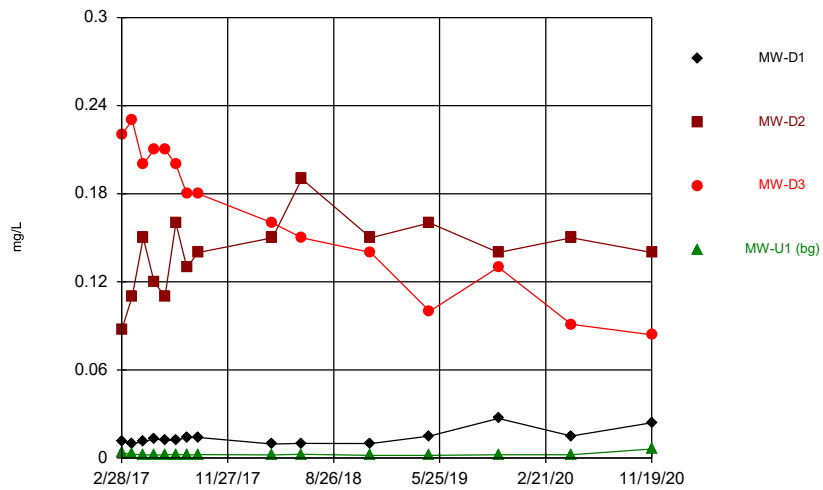
Constituent: Antimony Analysis Run 1/19/2021 12:14 PM View: Sanitas_Statistics Sampling Events 1 thro
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Time Series



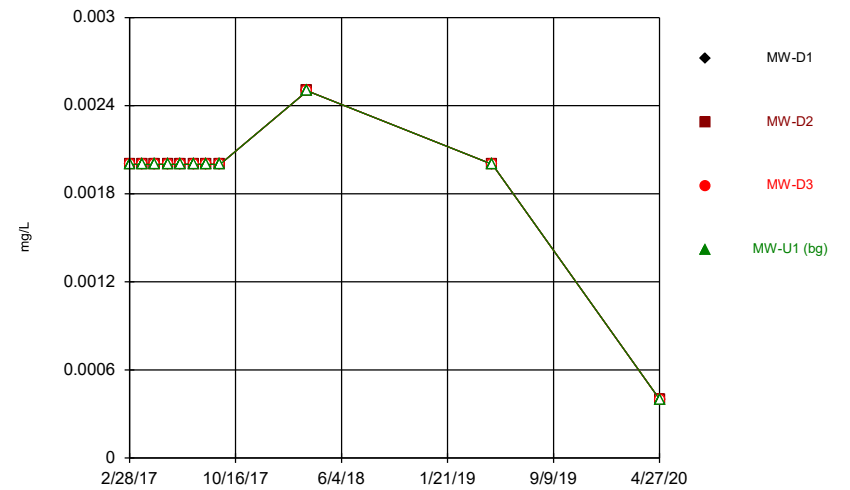
Constituent: Arsenic Analysis Run 1/19/2021 12:14 PM View: Sanitas_Statistics Sampling Events 1 through
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Time Series



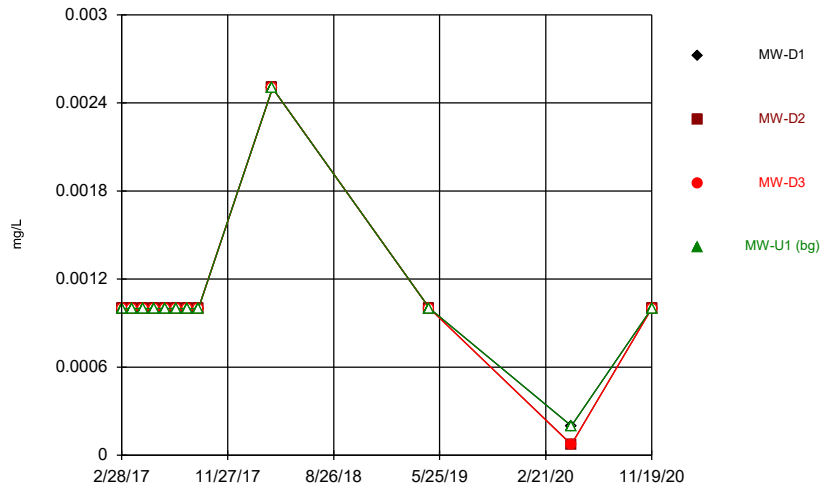
Constituent: Barium Analysis Run 1/19/2021 12:14 PM View: Sanitas_Statistics Sampling Events 1 through
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Time Series



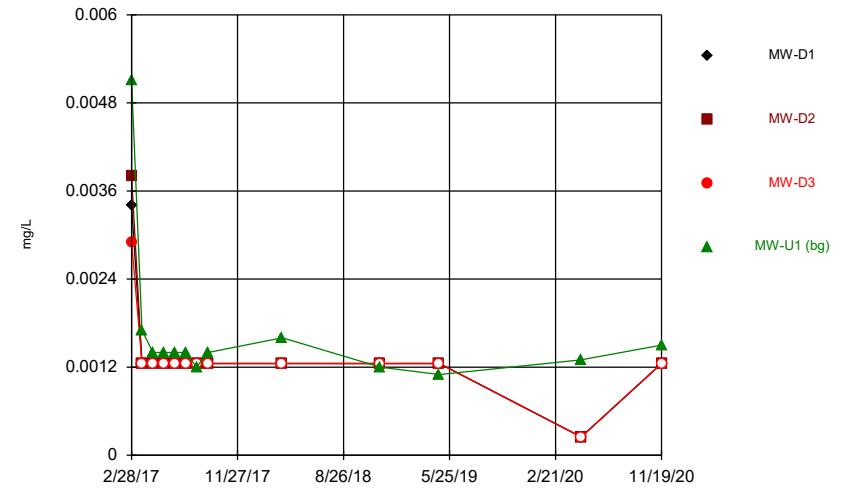
Constituent: Beryllium Analysis Run 1/19/2021 12:14 PM View: Sanitas_Statistics Sampling Events 1 thro
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Time Series



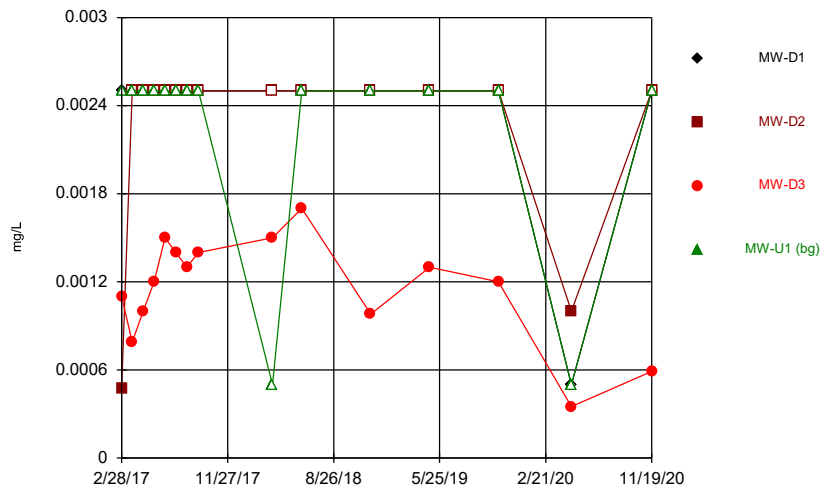
Constituent: Cadmium Analysis Run 1/19/2021 12:14 PM View: Sanitas_Statistics Sampling Events 1 thro
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Time Series



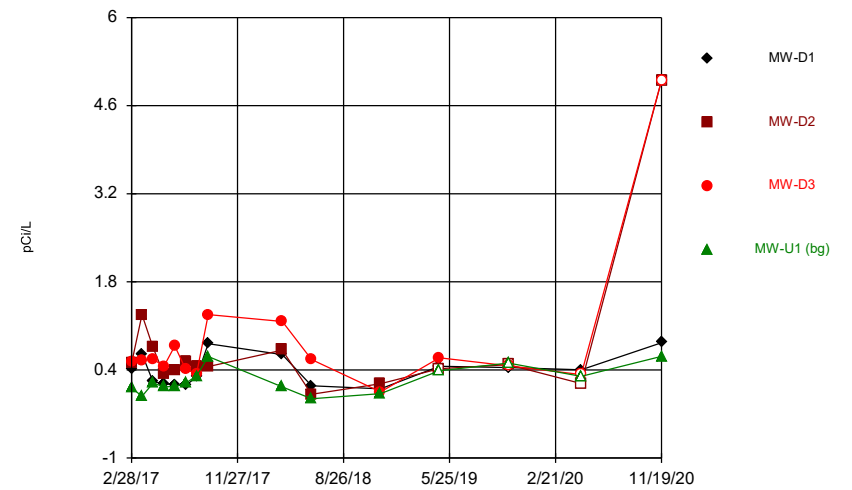
Constituent: Chromium Analysis Run 1/19/2021 12:14 PM View: Sanitas_Statistics Sampling Events 1 thr
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Time Series



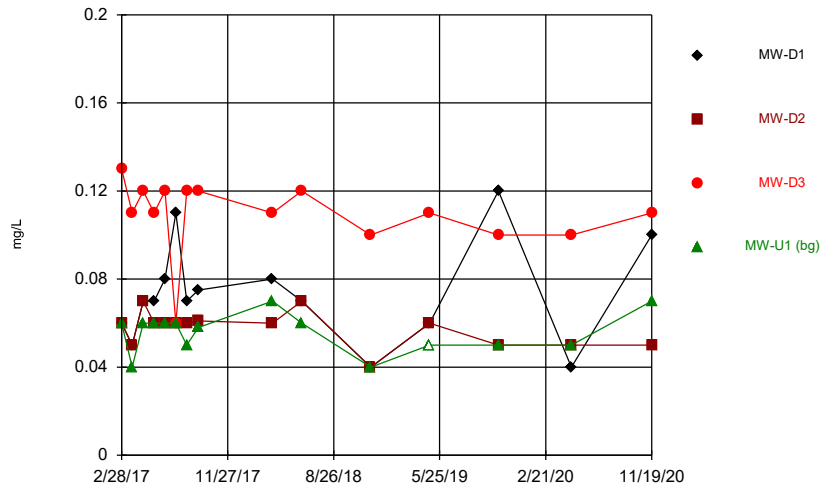
Constituent: Cobalt Analysis Run 1/19/2021 12:14 PM View: Sanitas_Statistics Sampling Events 1 through
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Time Series



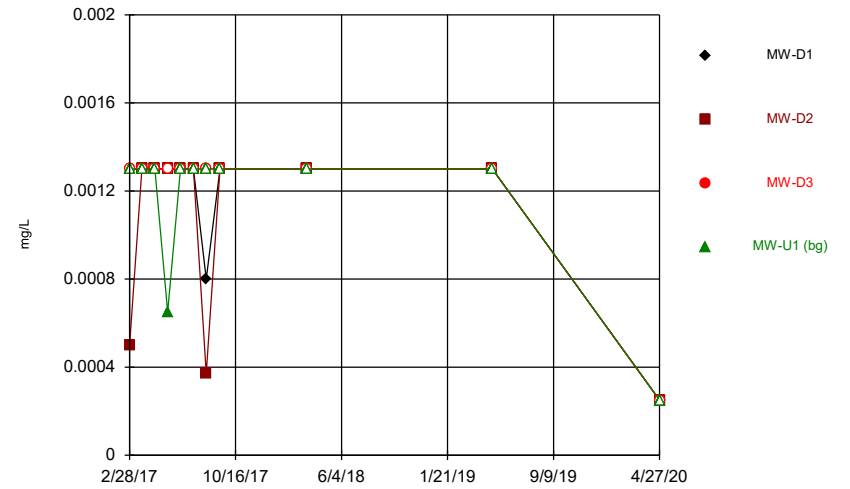
Constituent: Combined Radium 226 + 228 Analysis Run 1/19/2021 12:14 PM View: Sanitas_Statistics Sa
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Time Series



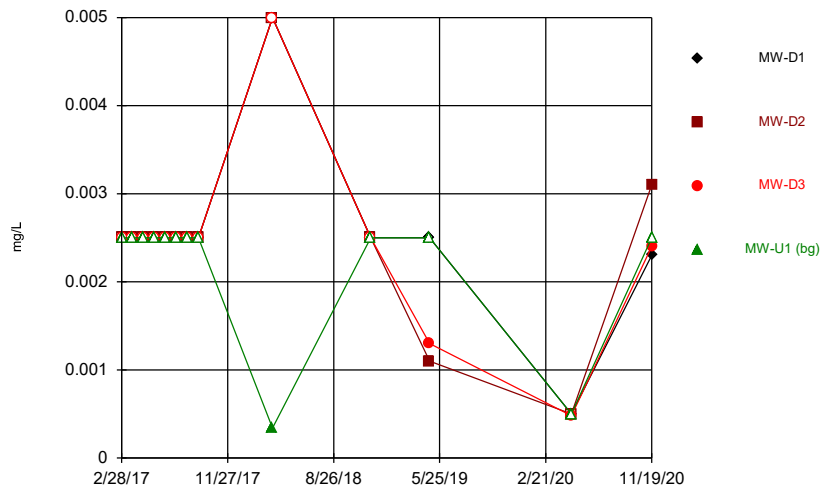
Constituent: Fluoride Analysis Run 1/19/2021 12:14 PM View: Sanitas_Statistics Sampling Events 1 through 10
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Time Series



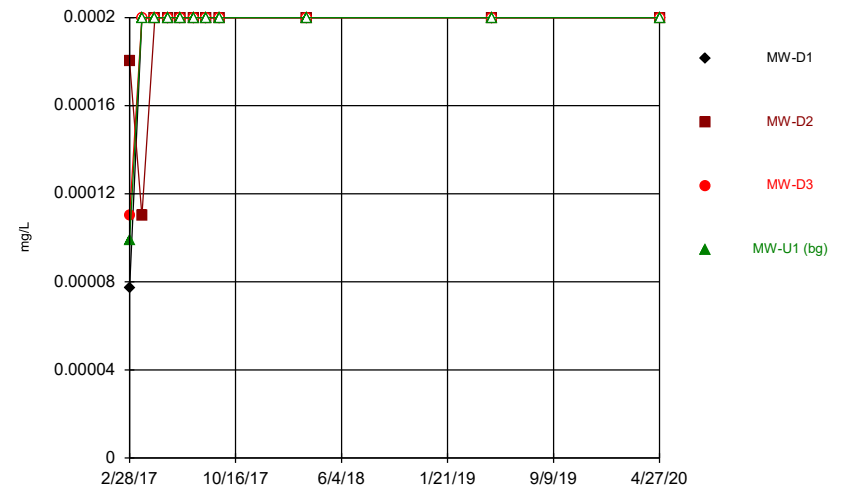
Constituent: Lead Analysis Run 1/19/2021 12:14 PM View: Sanitas_Statistics Sampling Events 1 through 10
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Time Series



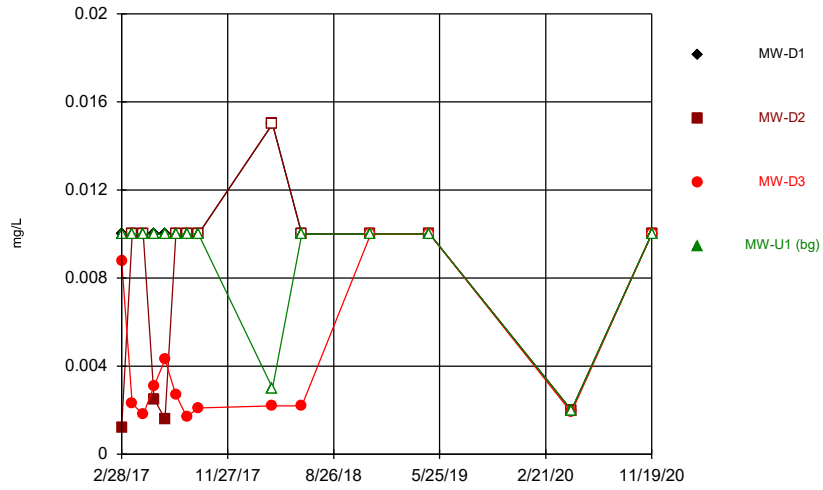
Constituent: Lithium Analysis Run 1/19/2021 12:14 PM View: Sanitas_Statistics Sampling Events 1 through 10
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Time Series



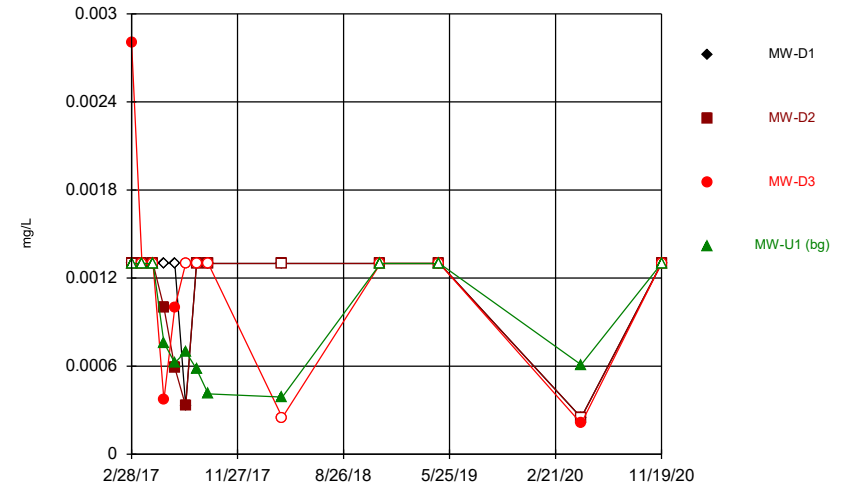
Constituent: Mercury Analysis Run 1/19/2021 12:14 PM View: Sanitas_Statistics Sampling Events 1 through 10
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Time Series



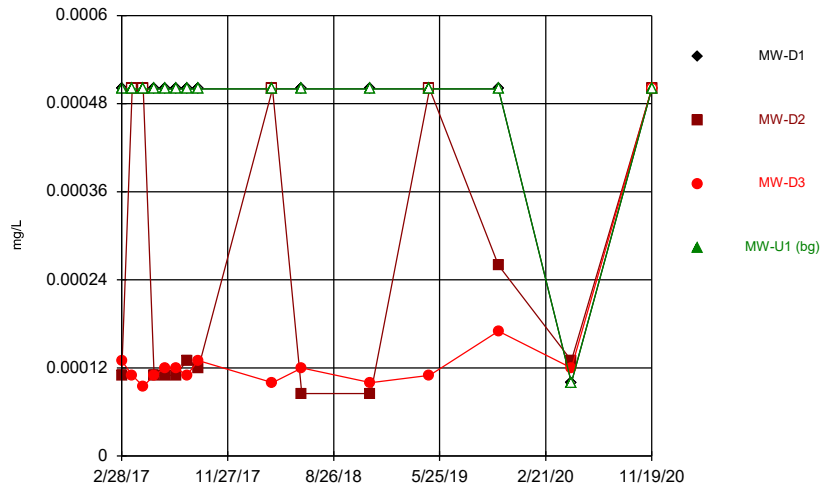
Constituent: Molybdenum Analysis Run 1/19/2021 12:14 PM View: Sanitas_Statistics Sampling Events 1 t
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Time Series



Constituent: Selenium Analysis Run 1/19/2021 12:14 PM View: Sanitas_Statistics Sampling Events 1 thro
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Time Series



Constituent: Thallium Analysis Run 1/19/2021 12:14 PM View: Sanitas_Statistics Sampling Events 1 thro
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Outlier Analysis

CCPC Plant Crisp Ash Pond Site

Client: Geosyntec

Data: Sanitas_Statistics Sampling Events 1 through 10

Printed 1/19/2021, 12:31 PM

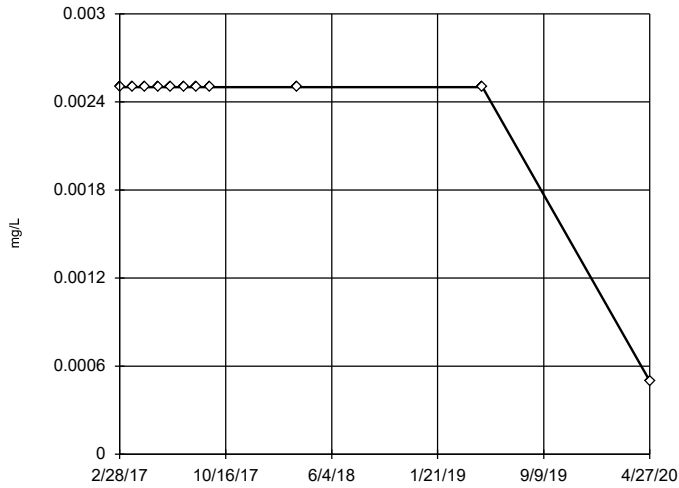
Constituent	Well	Outlier	Value(s)	Date(s)	Method	Alpha	N	Mean	Std. Dev.	Distribution	Normality Test
Antimony (mg/L)	MW-D1	n/a	n/a	n/a	NP (nrm)	NaN	11	0.002318	0.000603	unknown	ShapiroWilk
Antimony (mg/L)	MW-D2	n/a	n/a	n/a	NP (nrm)	NaN	11	0.002318	0.000603	unknown	ShapiroWilk
Antimony (mg/L)	MW-D3	n/a	n/a	n/a	NP (nrm)	NaN	11	0.002318	0.000603	unknown	ShapiroWilk
Antimony (mg/L)	MW-U1 (bg)	n/a	n/a	n/a	NP (nrm)	NaN	11	0.002318	0.000603	unknown	ShapiroWilk
Arsenic (mg/L)	MW-D1	n/a	n/a	n/a	NP (nrm)	NaN	15	0.00123	0.0002711	unknown	ShapiroWilk
Arsenic (mg/L)	MW-D2	No	n/a	n/a	NP (nrm)	NaN	15	0.001122	0.0003382	unknown	ShapiroWilk
Arsenic (mg/L)	MW-D3	No	n/a	n/a	NP	NaN	15	0.000...	0.0003666	normal	ShapiroWilk
Arsenic (mg/L)	MW-U1 (bg)	n/a	n/a	n/a	NP (nrm)	NaN	15	0.001167	0.000355	unknown	ShapiroWilk
Barium (mg/L)	MW-D1	No	n/a	n/a	NP (nrm)	NaN	15	0.01382	0.005123	unknown	ShapiroWilk
Barium (mg/L)	MW-D2	No	n/a	n/a	NP	NaN	15	0.1391	0.02507	normal	ShapiroWilk
Barium (mg/L)	MW-D3	No	n/a	n/a	NP	NaN	15	0.1657	0.04822	normal	ShapiroWilk
Barium (mg/L)	MW-U1 (bg)	No	n/a	n/a	NP (nrm)	NaN	15	0.002527	0.001089	unknown	ShapiroWilk
Beryllium (mg/L)	MW-D1	n/a	n/a	n/a	NP (nrm)	NaN	11	0.0019	0.0005196	unknown	ShapiroWilk
Beryllium (mg/L)	MW-D2	n/a	n/a	n/a	NP (nrm)	NaN	11	0.0019	0.0005196	unknown	ShapiroWilk
Beryllium (mg/L)	MW-D3	n/a	n/a	n/a	NP (nrm)	NaN	11	0.0019	0.0005196	unknown	ShapiroWilk
Beryllium (mg/L)	MW-U1 (bg)	n/a	n/a	n/a	NP (nrm)	NaN	11	0.0019	0.0005196	unknown	ShapiroWilk
Cadmium (mg/L)	MW-D1	n/a	n/a	n/a	NP (nrm)	NaN	12	0.001058	0.0005089	unknown	ShapiroWilk
Cadmium (mg/L)	MW-D2	n/a	n/a	n/a	NP (nrm)	NaN	12	0.001048	0.000529	unknown	ShapiroWilk
Cadmium (mg/L)	MW-D3	n/a	n/a	n/a	NP (nrm)	NaN	12	0.001048	0.0005297	unknown	ShapiroWilk
Cadmium (mg/L)	MW-U1 (bg)	n/a	n/a	n/a	NP (nrm)	NaN	12	0.001058	0.0005089	unknown	ShapiroWilk
Chromium (mg/L)	MW-D1	n/a	n/a	n/a	NP (nrm)	NaN	13	0.001338	0.0006783	unknown	ShapiroWilk
Chromium (mg/L)	MW-D2	n/a	n/a	n/a	NP (nrm)	NaN	13	0.001369	0.0007809	unknown	ShapiroWilk
Chromium (mg/L)	MW-D3	n/a	n/a	n/a	NP (nrm)	NaN	13	0.0013	0.0005545	unknown	ShapiroWilk
Chromium (mg/L)	MW-U1 (bg)	Yes	0.0051	2/28/2017	NP	NaN	13	0.001669	0.001044	normal	ShapiroWilk
Cobalt (mg/L)	MW-D1	n/a	n/a	n/a	NP (nrm)	NaN	15	0.002367	0.0005164	unknown	ShapiroWilk
Cobalt (mg/L)	MW-D2	n/a	n/a	n/a	NP (nrm)	NaN	15	0.002265	0.0006291	unknown	ShapiroWilk
Cobalt (mg/L)	MW-D3	No	n/a	n/a	NP	NaN	15	0.001154	0.0003644	normal	ShapiroWilk
Cobalt (mg/L)	MW-U1 (bg)	n/a	n/a	n/a	NP (nrm)	NaN	15	0.002233	0.0007037	unknown	ShapiroWilk
Combined Radium 226 + 228 (pCi/L)	MW-D1	No	n/a	n/a	NP	NaN	15	0.3938	0.2474	normal	ShapiroWilk
Combined Radium 226 + 228 (pCi/L)	MW-D2	Yes	5	11/19/2020	NP	NaN	15	0.78	1.204	normal	ShapiroWilk
Combined Radium 226 + 228 (pCi/L)	MW-D3	Yes	5	11/19/2020	NP	NaN	15	0.8723	1.183	normal	ShapiroWilk
Combined Radium 226 + 228 (pCi/L)	MW-U1 (bg)	No	n/a	n/a	NP	NaN	15	0.2376	0.2136	normal	ShapiroWilk
Fluoride (mg/L)	MW-D1	No	n/a	n/a	NP	NaN	15	0.073	0.02313	normal	ShapiroWilk
Fluoride (mg/L)	MW-D2	No	n/a	n/a	NP (nrm)	NaN	15	0.0574	0.008016	unknown	ShapiroWilk
Fluoride (mg/L)	MW-D3	No	n/a	n/a	NP (nrm)	NaN	15	0.1093	0.01624	unknown	ShapiroWilk
Fluoride (mg/L)	MW-U1 (bg)	No	n/a	n/a	NP	NaN	15	0.05587	0.009054	normal	ShapiroWilk
Lead (mg/L)	MW-D1	n/a	n/a	n/a	NP (nrm)	NaN	11	0.001159	0.0003368	unknown	ShapiroWilk
Lead (mg/L)	MW-D2	No	n/a	n/a	NP (nrm)	NaN	11	0.001047	0.0004364	unknown	ShapiroWilk
Lead (mg/L)	MW-D3	n/a	n/a	n/a	NP (nrm)	NaN	11	0.001205	0.0003166	unknown	ShapiroWilk
Lead (mg/L)	MW-U1 (bg)	n/a	n/a	n/a	NP (nrm)	NaN	11	0.001145	0.0003553	unknown	ShapiroWilk
Lithium (mg/L)	MW-D1	n/a	n/a	n/a	NP (nrm)	NaN	13	0.002523	0.0009257	unknown	ShapiroWilk
Lithium (mg/L)	MW-D2	n/a	n/a	n/a	NP (nrm)	NaN	13	0.002477	0.001023	unknown	ShapiroWilk
Lithium (mg/L)	MW-D3	Yes	0.00048	4/27/2020	NP (nrm)	NaN	13	0.002437	0.0009886	unknown	ShapiroWilk
Lithium (mg/L)	MW-U1 (bg)	n/a	n/a	n/a	NP (nrm)	NaN	13	0.00218	0.0007818	unknown	ShapiroWilk
Mercury (mg/L)	MW-D1	n/a	n/a	n/a	NP (nrm)	NaN	11	0.000...	0.0000...	unknown	ShapiroWilk
Mercury (mg/L)	MW-D2	n/a	n/a	n/a	NP (nrm)	NaN	11	0.00019	0.0000272	unknown	ShapiroWilk
Mercury (mg/L)	MW-D3	n/a	n/a	n/a	NP (nrm)	NaN	11	0.000...	0.0000...	unknown	ShapiroWilk
Mercury (mg/L)	MW-U1 (bg)	n/a	n/a	n/a	NP (nrm)	NaN	11	0.000...	0.0000...	unknown	ShapiroWilk
Molybdenum (mg/L)	MW-D1	n/a	n/a	n/a	NP (nrm)	NaN	14	0.009786	0.002607	unknown	ShapiroWilk
Molybdenum (mg/L)	MW-D2	No	n/a	n/a	NP (nrm)	NaN	14	0.008021	0.004283	unknown	ShapiroWilk

Outlier Analysis

CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10 Printed 1/19/2021, 12:31 PM

<u>Constituent</u>	<u>Well</u>	<u>Outlier</u>	<u>Value(s)</u>	<u>Date(s)</u>	<u>Method</u>	<u>Alpha</u>	<u>N</u>	<u>Mean</u>	<u>Std. Dev.</u>	<u>Distribution</u>	<u>Normality Test</u>
Molybdenum (mg/L)	MW-D3	No	n/a	n/a	NP (nrm)	NaN	14	0.004507	0.003481	unknown	ShapiroWilk
Molybdenum (mg/L)	MW-U1 (bg)	n/a	n/a	n/a	NP (nrm)	NaN	14	0.008929	0.002731	unknown	ShapiroWilk
Selenium (mg/L)	MW-D1	n/a	n/a	n/a	NP (nrm)	NaN	13	0.001145	0.0003796	unknown	ShapiroWilk
Selenium (mg/L)	MW-D2	No	n/a	n/a	NP (nrm)	NaN	13	0.001067	0.0004012	unknown	ShapiroWilk
Selenium (mg/L)	MW-D3	No	n/a	n/a	NP (nrm)	NaN	13	0.001156	0.00066	unknown	ShapiroWilk
Selenium (mg/L)	MW-U1 (bg)	No	n/a	n/a	NP (nrm)	NaN	13	0.000...	0.0003854	unknown	ShapiroWilk
Thallium (mg/L)	MW-D1	n/a	n/a	n/a	NP (nrm)	NaN	15	0.000...	0.0001033	unknown	ShapiroWilk
Thallium (mg/L)	MW-D2	No	n/a	n/a	NP (nrm)	NaN	15	0.00025	0.0001873	unknown	ShapiroWilk
Thallium (mg/L)	MW-D3	Yes	0.0005	11/19/2020	NP	NaN	15	0.000143	0.0001004	normal	ShapiroWilk
Thallium (mg/L)	MW-U1 (bg)	n/a	n/a	n/a	NP (nrm)	NaN	15	0.000...	0.0001033	unknown	ShapiroWilk

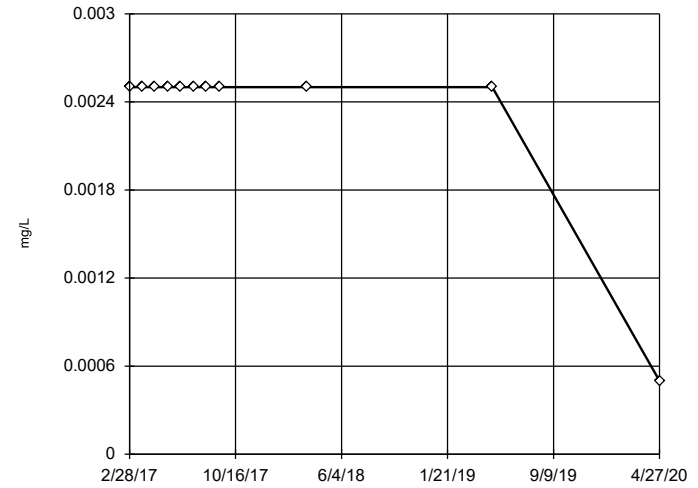
Tukey's Outlier Screening
MW-D1



n = 11
No outliers found.
Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.05 alpha level.
The results were invalidated, because the lower and upper quartiles are equal.

Constituent: Antimony Analysis Run 1/19/2021 12:25 PM View: Sanitas_Statistics Sampling Events 1 thro
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

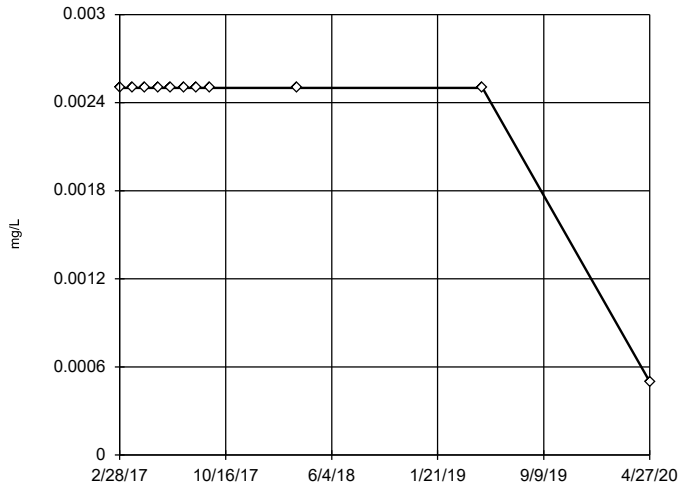
Tukey's Outlier Screening
MW-D2



n = 11
No outliers found.
Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.05 alpha level.
The results were invalidated, because the lower and upper quartiles are equal.

Constituent: Antimony Analysis Run 1/19/2021 12:25 PM View: Sanitas_Statistics Sampling Events 1 thro
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

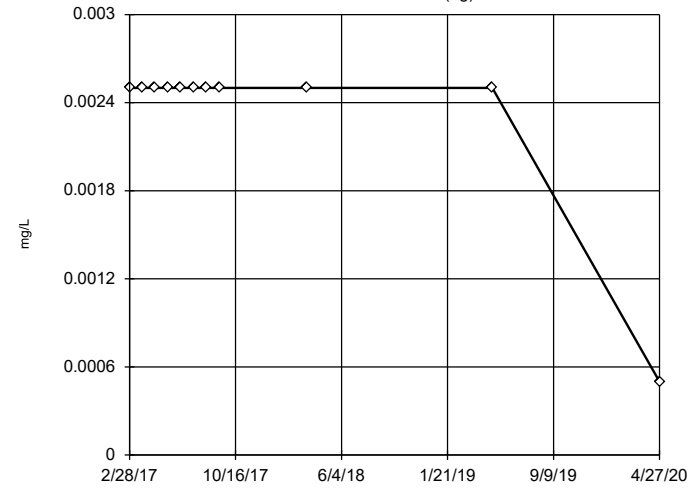
Tukey's Outlier Screening
MW-D3



n = 11
No outliers found.
Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.05 alpha level.
The results were invalidated, because the lower and upper quartiles are equal.

Constituent: Antimony Analysis Run 1/19/2021 12:25 PM View: Sanitas_Statistics Sampling Events 1 thro
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

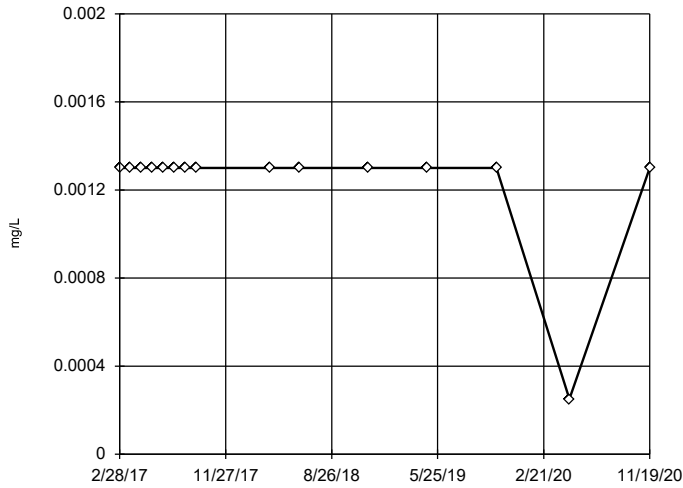
Tukey's Outlier Screening
MW-U1 (bg)



n = 11
No outliers found.
Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.05 alpha level.
The results were invalidated, because the lower and upper quartiles are equal.

Constituent: Antimony Analysis Run 1/19/2021 12:25 PM View: Sanitas_Statistics Sampling Events 1 thro
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

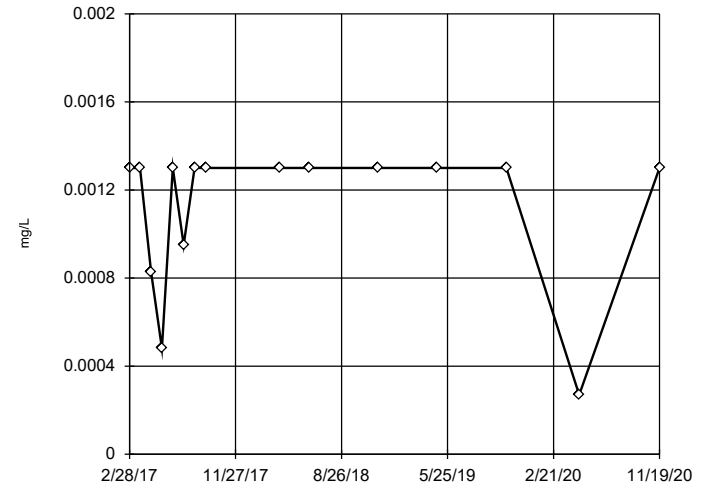
Tukey's Outlier Screening
MW-D1



n = 15
No outliers found. Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.05 alpha level.
The results were invalidated, because the lower and upper quartiles are equal.

Constituent: Arsenic Analysis Run 1/19/2021 12:25 PM View: Sanitas_Statistics Sampling Events 1 through CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

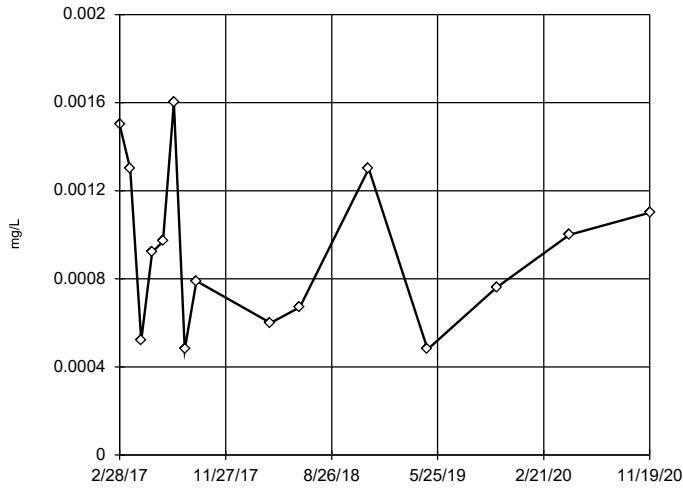
Tukey's Outlier Screening
MW-D2



n = 15
No outliers found. Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.05 alpha level.
High cutoff = 0.00235, low cutoff = -0.0001, based on IQR multiplier of 3.

Constituent: Arsenic Analysis Run 1/19/2021 12:25 PM View: Sanitas_Statistics Sampling Events 1 through CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

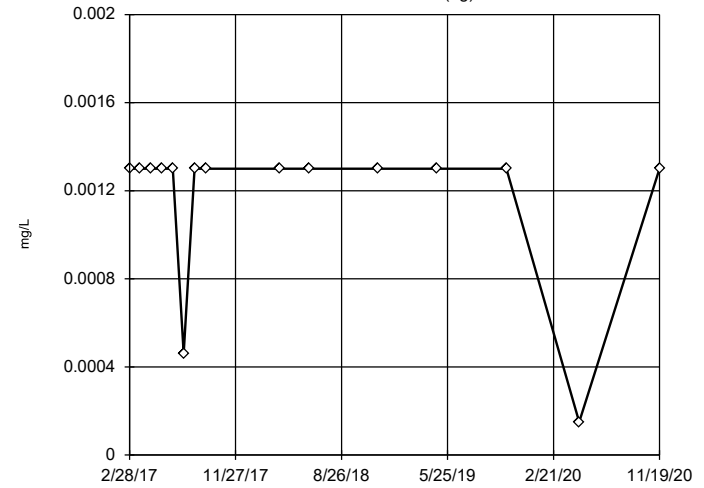
Tukey's Outlier Screening
MW-D3



n = 15
No outliers found. Tukey's method selected by user.
High cutoff = 0.0034, low cutoff = -0.0015, based on IQR multiplier of 3.

Constituent: Arsenic Analysis Run 1/19/2021 12:25 PM View: Sanitas_Statistics Sampling Events 1 through CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Tukey's Outlier Screening
MW-U1 (bg)

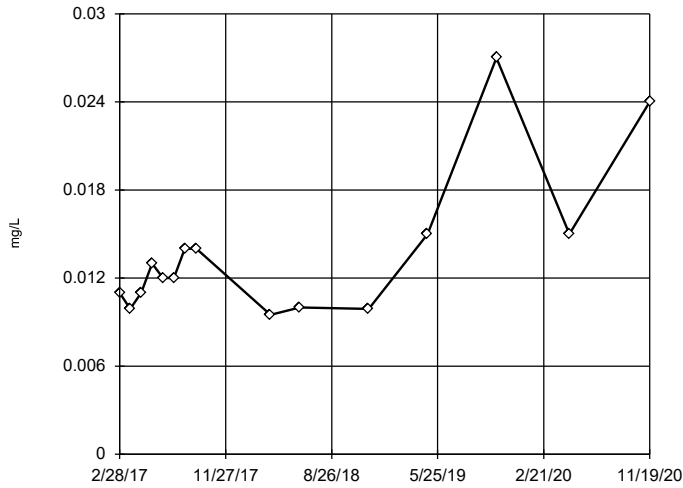


n = 15
No outliers found. Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.05 alpha level.
The results were invalidated, because the lower and upper quartiles are equal.

Constituent: Arsenic Analysis Run 1/19/2021 12:25 PM View: Sanitas_Statistics Sampling Events 1 through CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Tukey's Outlier Screening

MW-D1

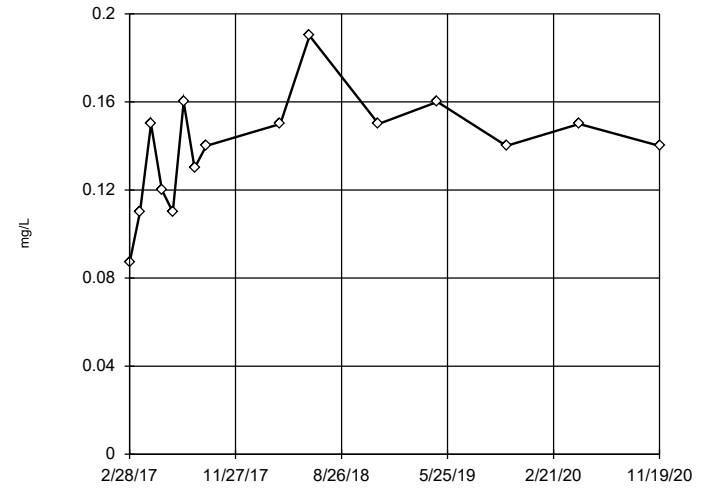


n = 15
 No outliers found.
 Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.05 alpha level.
 High cutoff = 0.03, low cutoff = -0.005, based on IQR multiplier of 3.

Constituent: Barium Analysis Run 1/19/2021 12:26 PM View: Sanitas_Statistics Sampling Events 1 through CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Tukey's Outlier Screening

MW-D2



n = 15
 No outliers found.
 Tukey's method selected by user.
 High cutoff = 0.24, low cutoff = 0.03, based on IQR multiplier of 3.

Constituent: Barium Analysis Run 1/19/2021 12:26 PM View: Sanitas_Statistics Sampling Events 1 through CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Tukey's Outlier Screening

MW-D3



n = 15
 No outliers found.
 Tukey's method selected by user.
 High cutoff = 0.45, low cutoff = -0.11, based on IQR multiplier of 3.

Constituent: Barium Analysis Run 1/19/2021 12:26 PM View: Sanitas_Statistics Sampling Events 1 through CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Tukey's Outlier Screening

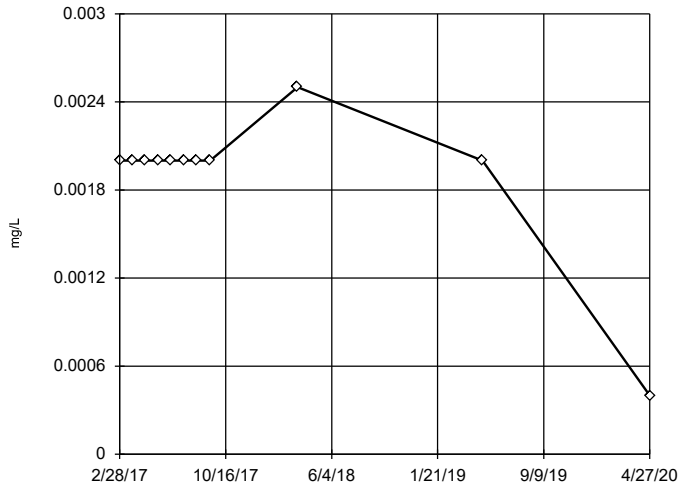
MW-U1 (bg)



n = 15
 No outliers found.
 Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.05 alpha level.
 High cutoff = 0.004, low cutoff = 0.0005, based on IQR multiplier of 3.
 At least one potential outlier was rejected as < 3.0 x median.

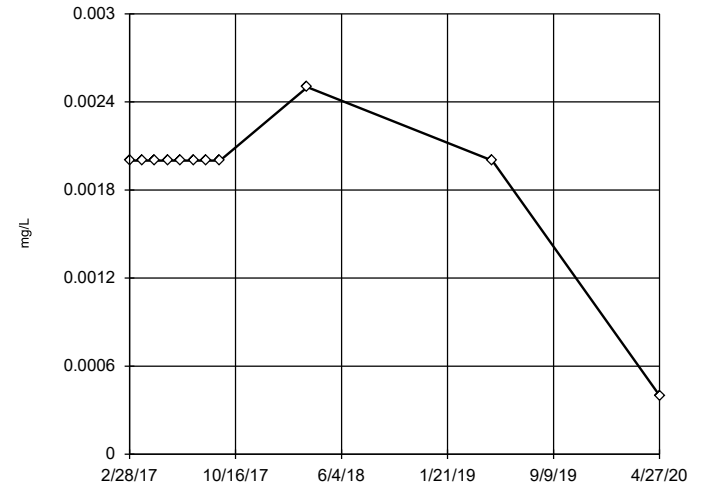
Constituent: Barium Analysis Run 1/19/2021 12:26 PM View: Sanitas_Statistics Sampling Events 1 through CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Tukey's Outlier Screening MW-D1



n = 11
No outliers found.
Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.05 alpha level.
The results were invalidated, because the lower and upper quartiles are equal.

Tukey's Outlier Screening MW-D2

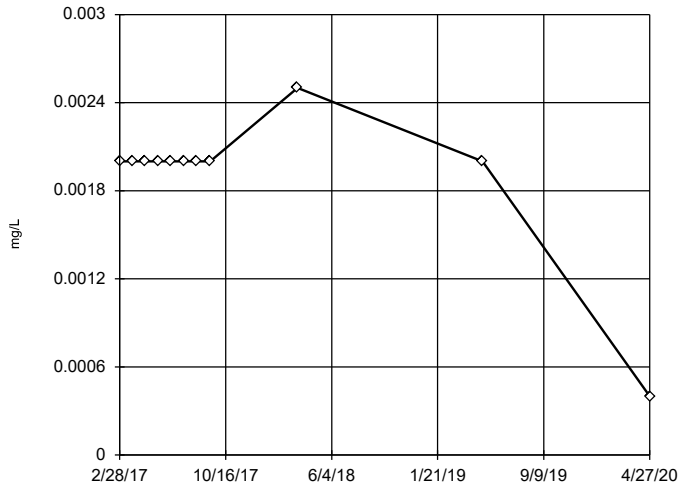


n = 11
No outliers found.
Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.05 alpha level.
The results were invalidated, because the lower and upper quartiles are equal.

Constituent: Beryllium Analysis Run 1/19/2021 12:26 PM View: Sanitas_Statistics Sampling Events 1 thro
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

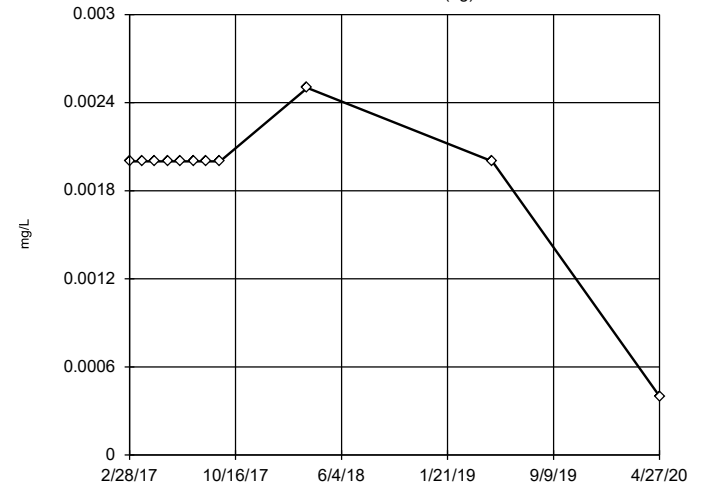
Constituent: Beryllium Analysis Run 1/19/2021 12:26 PM View: Sanitas_Statistics Sampling Events 1 thro
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Tukey's Outlier Screening MW-D3



n = 11
No outliers found.
Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.05 alpha level.
The results were invalidated, because the lower and upper quartiles are equal.

Tukey's Outlier Screening MW-U1 (bg)

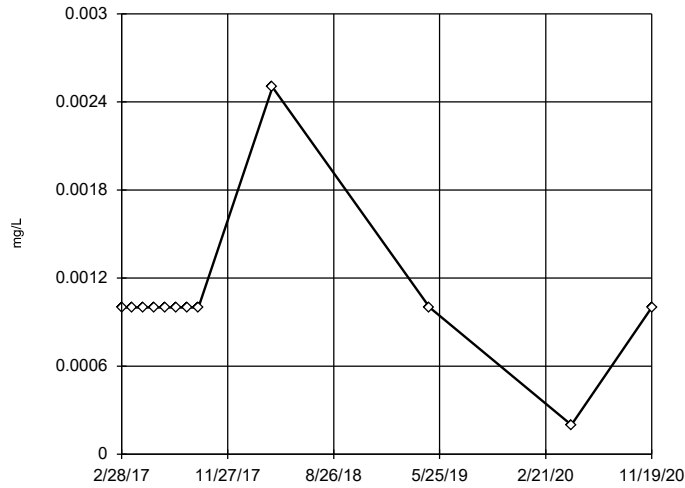


n = 11
No outliers found.
Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.05 alpha level.
The results were invalidated, because the lower and upper quartiles are equal.

Constituent: Beryllium Analysis Run 1/19/2021 12:26 PM View: Sanitas_Statistics Sampling Events 1 thro
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Constituent: Beryllium Analysis Run 1/19/2021 12:26 PM View: Sanitas_Statistics Sampling Events 1 thro
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

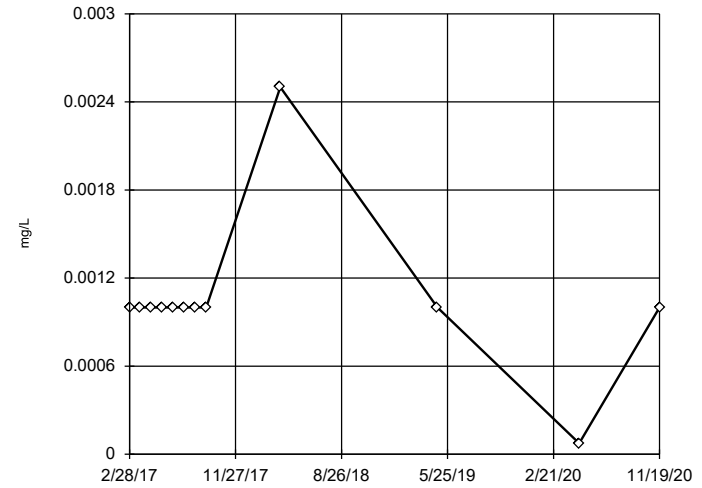
Tukey's Outlier Screening
MW-D1



n = 12
No outliers found. Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.05 alpha level. The results were invalidated, because the lower and upper quartiles are equal.

Constituent: Cadmium Analysis Run 1/19/2021 12:26 PM View: Sanitas_Statistics Sampling Events 1 thro
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

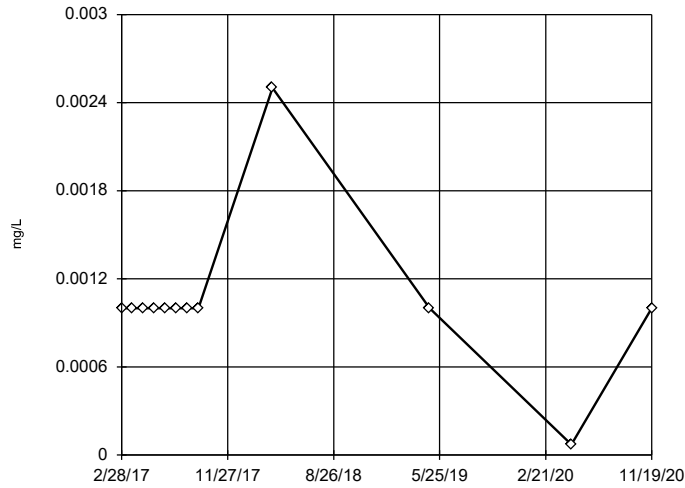
Tukey's Outlier Screening
MW-D2



n = 12
No outliers found. Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.05 alpha level. The results were invalidated, because the lower and upper quartiles are equal.

Constituent: Cadmium Analysis Run 1/19/2021 12:26 PM View: Sanitas_Statistics Sampling Events 1 thro
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

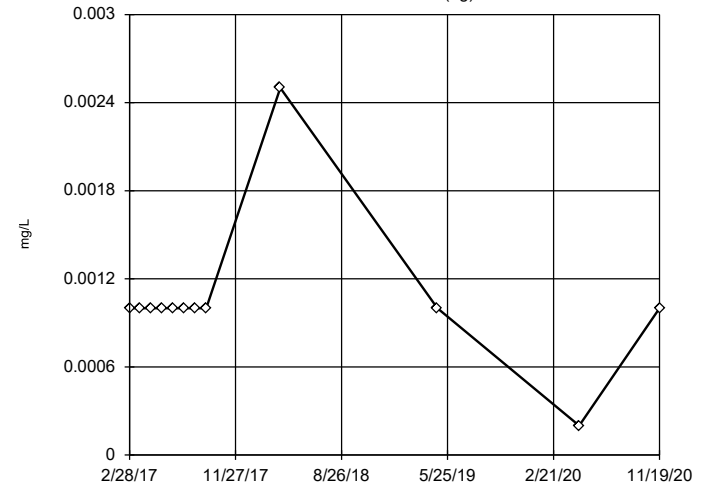
Tukey's Outlier Screening
MW-D3



n = 12
No outliers found. Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.05 alpha level. The results were invalidated, because the lower and upper quartiles are equal.

Constituent: Cadmium Analysis Run 1/19/2021 12:26 PM View: Sanitas_Statistics Sampling Events 1 thro
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

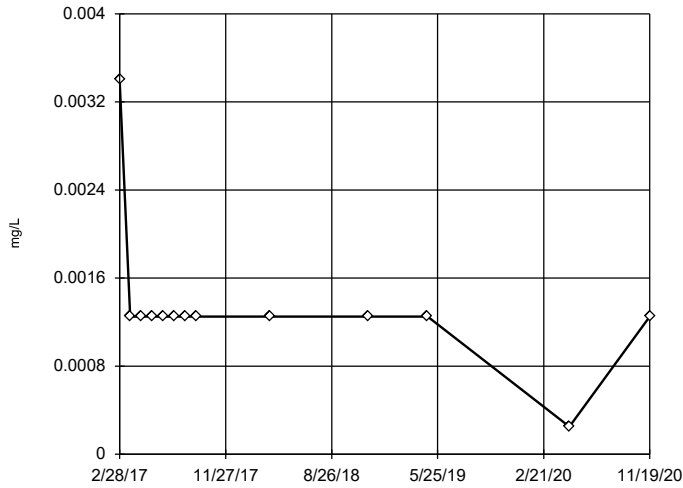
Tukey's Outlier Screening
MW-U1 (bg)



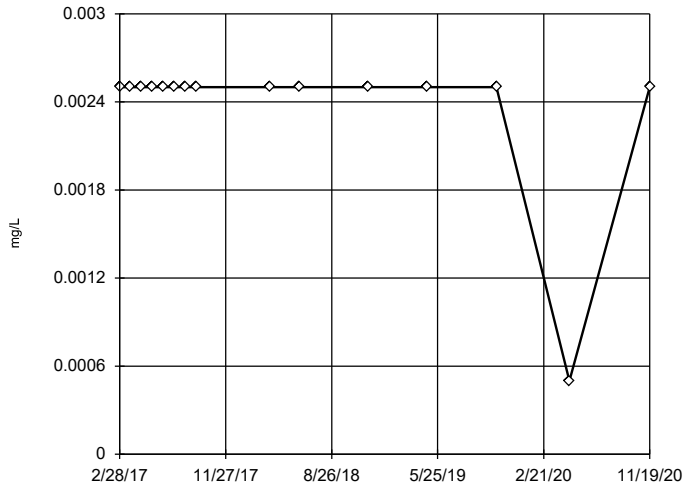
n = 12
No outliers found. Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.05 alpha level. The results were invalidated, because the lower and upper quartiles are equal.

Constituent: Cadmium Analysis Run 1/19/2021 12:26 PM View: Sanitas_Statistics Sampling Events 1 thro
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Tukey's Outlier Screening MW-D1



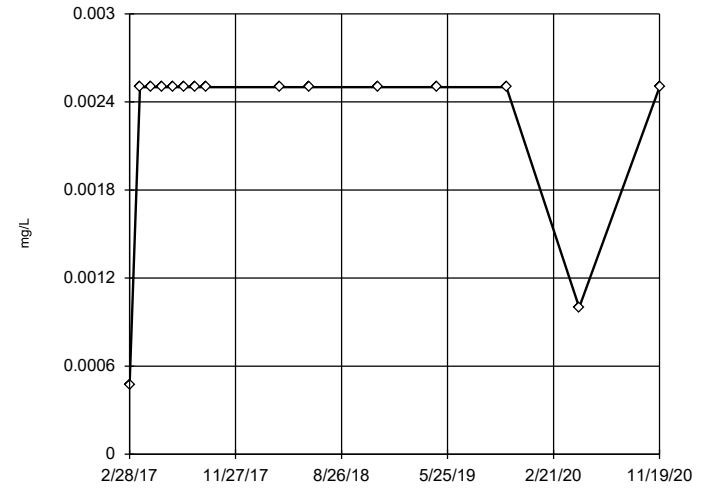
Tukey's Outlier Screening MW-D1



n = 15
No outliers found. Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.05 alpha level.
The results were invalidated, because the lower and upper quartiles are equal.

Constituent: Cobalt Analysis Run 1/19/2021 12:26 PM View: Sanitas_Statistics Sampling Events 1 through CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

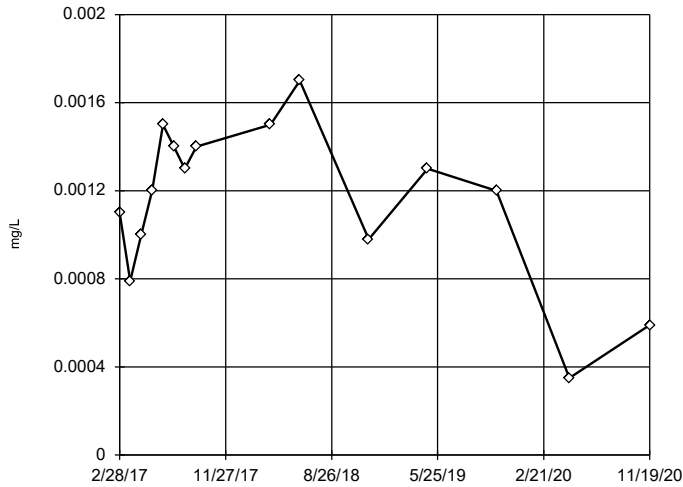
Tukey's Outlier Screening MW-D2



n = 15
No outliers found. Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.05 alpha level.
The results were invalidated, because the lower and upper quartiles are equal.

Constituent: Cobalt Analysis Run 1/19/2021 12:26 PM View: Sanitas_Statistics Sampling Events 1 through CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

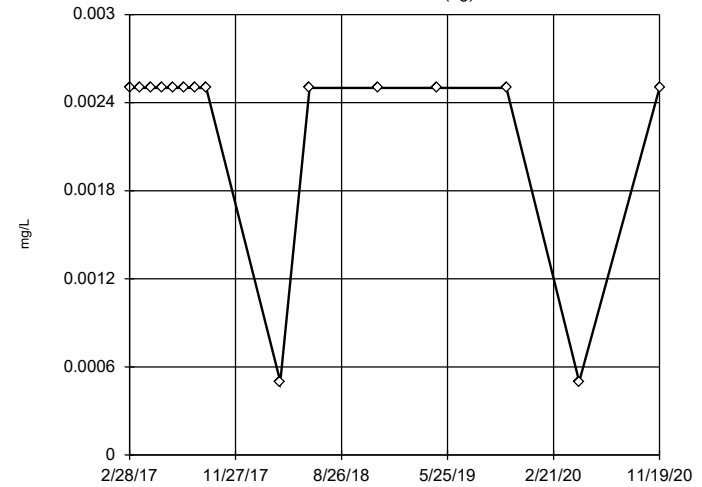
Tukey's Outlier Screening MW-D3



n = 15
No outliers found. Tukey's method selected by user.
High cutoff = 0.00266, low cutoff = -0.00028, based on IQR multiplier of 3.

Constituent: Cobalt Analysis Run 1/19/2021 12:26 PM View: Sanitas_Statistics Sampling Events 1 through CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

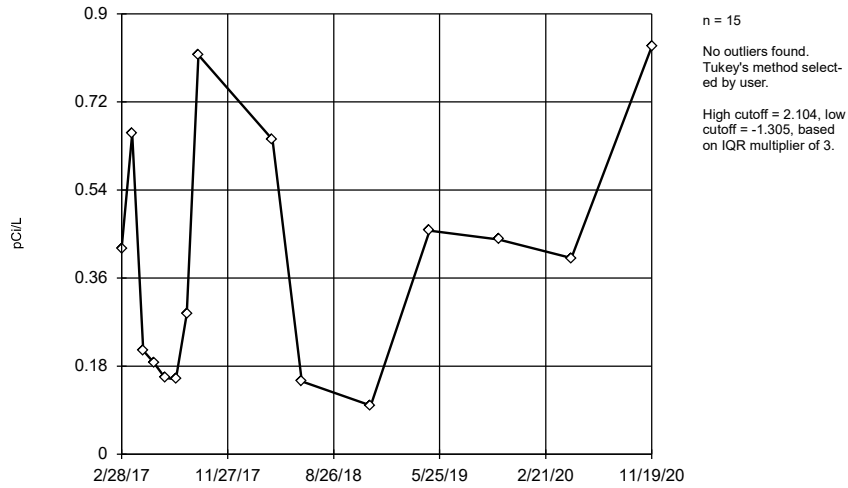
Tukey's Outlier Screening MW-U1 (bg)



n = 15
No outliers found. Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.05 alpha level.
The results were invalidated, because the lower and upper quartiles are equal.

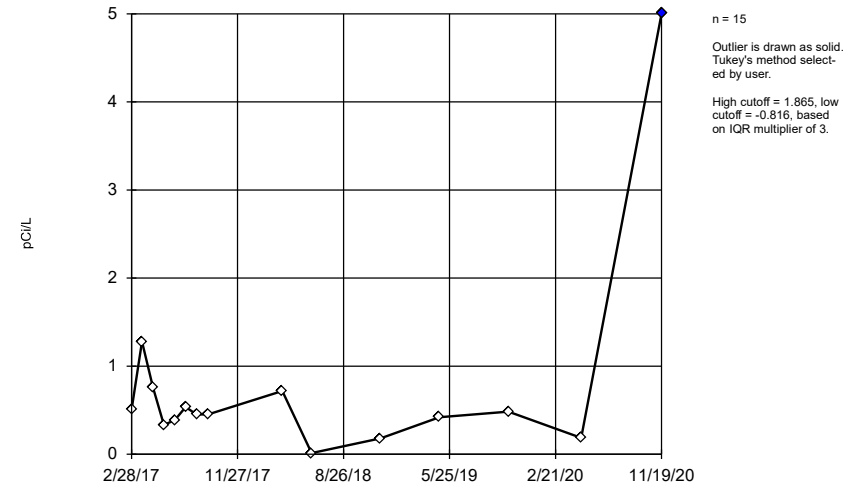
Constituent: Cobalt Analysis Run 1/19/2021 12:26 PM View: Sanitas_Statistics Sampling Events 1 through CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Tukey's Outlier Screening MW-D1



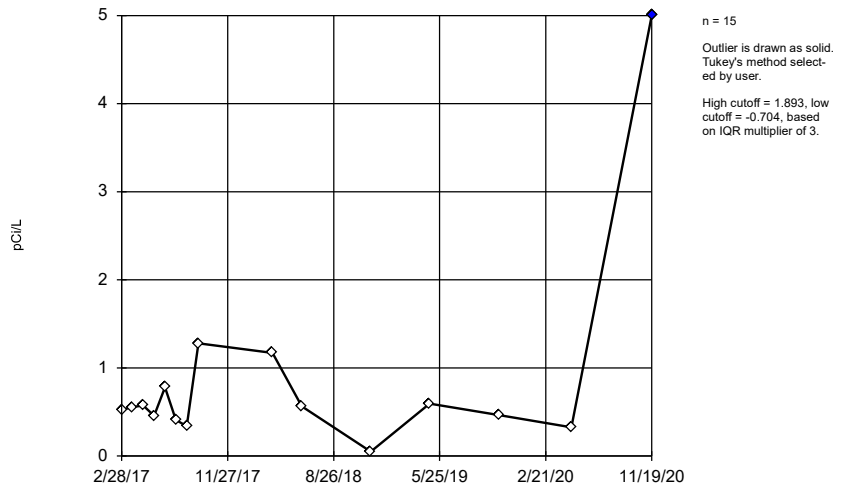
Constituent: Combined Radium 226 + 228 Analysis Run 1/19/2021 12:26 PM View: Sanitas_Statistics Sa
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Tukey's Outlier Screening MW-D2



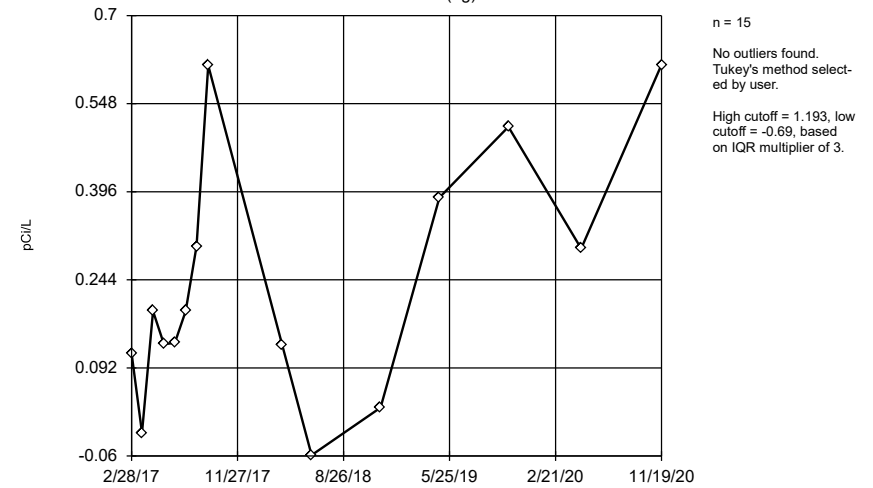
Constituent: Combined Radium 226 + 228 Analysis Run 1/19/2021 12:26 PM View: Sanitas_Statistics Sa
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Tukey's Outlier Screening MW-D3



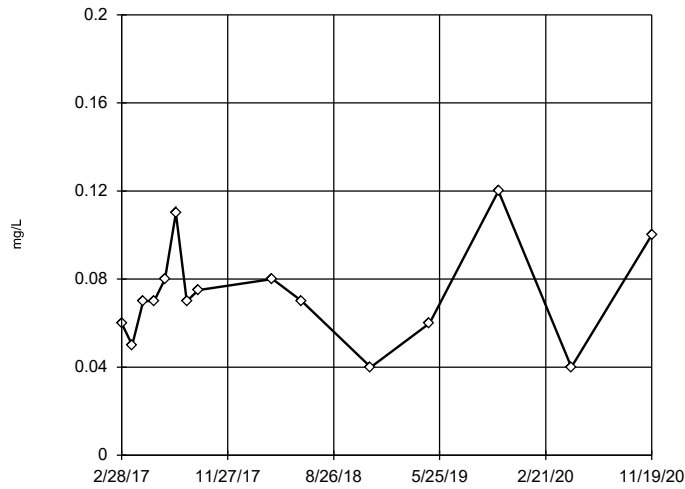
Constituent: Combined Radium 226 + 228 Analysis Run 1/19/2021 12:26 PM View: Sanitas_Statistics Sa
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Tukey's Outlier Screening MW-U1 (bg)



Constituent: Combined Radium 226 + 228 Analysis Run 1/19/2021 12:26 PM View: Sanitas_Statistics Sa
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

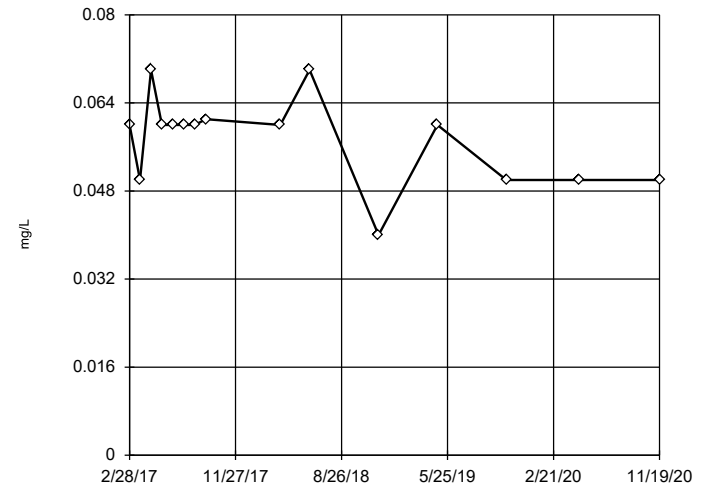
Tukey's Outlier Screening MW-D1



n = 15
No outliers found.
Tukey's method selected by user.
High cutoff = 0.14, low cutoff = -1.4e-17, based on IQR multiplier of 3.

Constituent: Fluoride Analysis Run 1/19/2021 12:26 PM View: Sanitas_Statistics Sampling Events 1 through 10
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

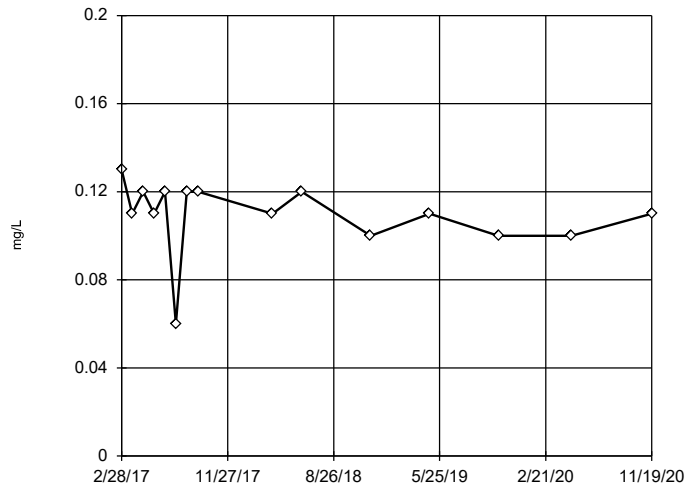
Tukey's Outlier Screening MW-D2



n = 15
No outliers found.
Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.05 alpha level.
High cutoff = 0.09, low cutoff = 0.02, based on IQR multiplier of 3.

Constituent: Fluoride Analysis Run 1/19/2021 12:27 PM View: Sanitas_Statistics Sampling Events 1 through 10
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

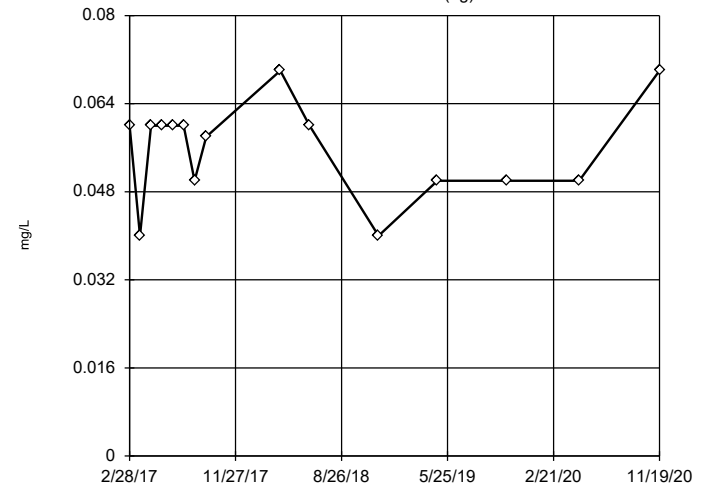
Tukey's Outlier Screening MW-D3



n = 15
No outliers found.
Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.05 alpha level.
High cutoff = 0.18, low cutoff = 0.04, based on IQR multiplier of 3.

Constituent: Fluoride Analysis Run 1/19/2021 12:27 PM View: Sanitas_Statistics Sampling Events 1 through 10
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

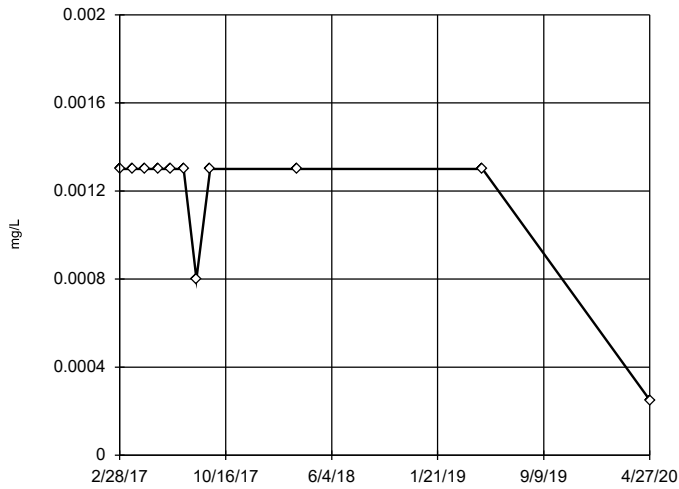
Tukey's Outlier Screening MW-U1 (bg)



n = 15
No outliers found.
Tukey's method selected by user.
High cutoff = 0.09, low cutoff = 0.02, based on IQR multiplier of 3.

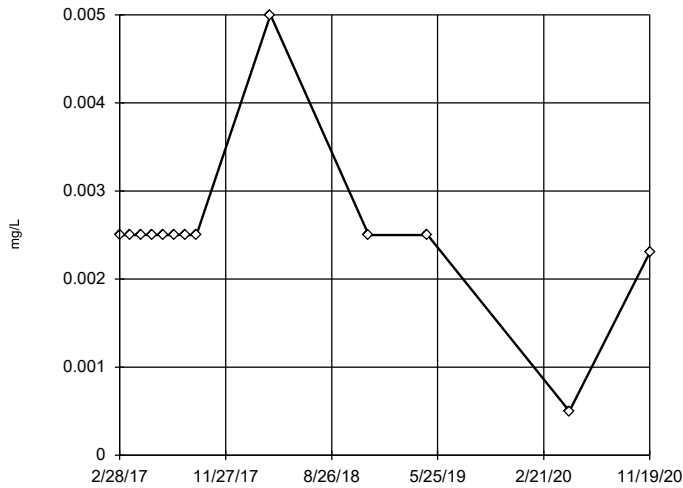
Constituent: Fluoride Analysis Run 1/19/2021 12:27 PM View: Sanitas_Statistics Sampling Events 1 through 10
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Tukey's Outlier Screening
MW-D1



Tukey's Outlier Screening

MW-D1

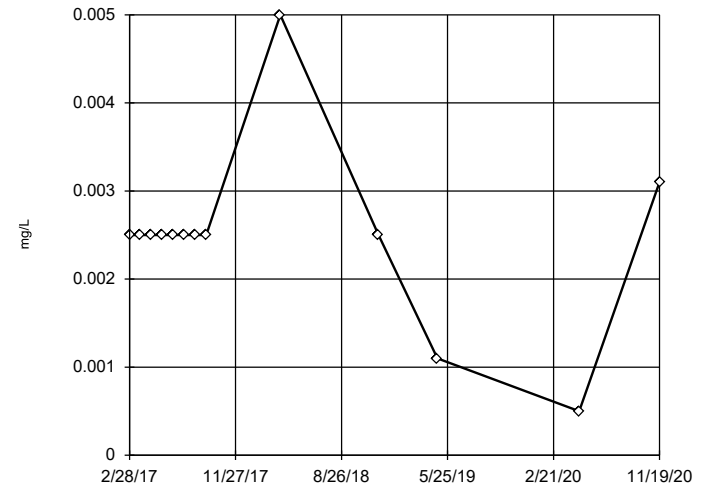


n = 13
 No outliers found.
 Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.05 alpha level.
 The results were invalidated, because the lower and upper quartiles are equal.

Constituent: Lithium Analysis Run 1/19/2021 12:27 PM View: Sanitas_Statistics Sampling Events 1 through 10
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Tukey's Outlier Screening

MW-D2

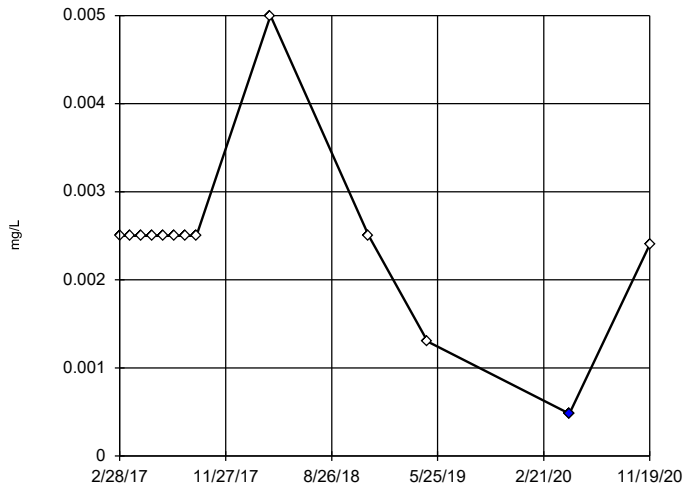


n = 13
 No outliers found.
 Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.05 alpha level.
 The results were invalidated, because the lower and upper quartiles are equal.

Constituent: Lithium Analysis Run 1/19/2021 12:27 PM View: Sanitas_Statistics Sampling Events 1 through 10
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Tukey's Outlier Screening

MW-D3

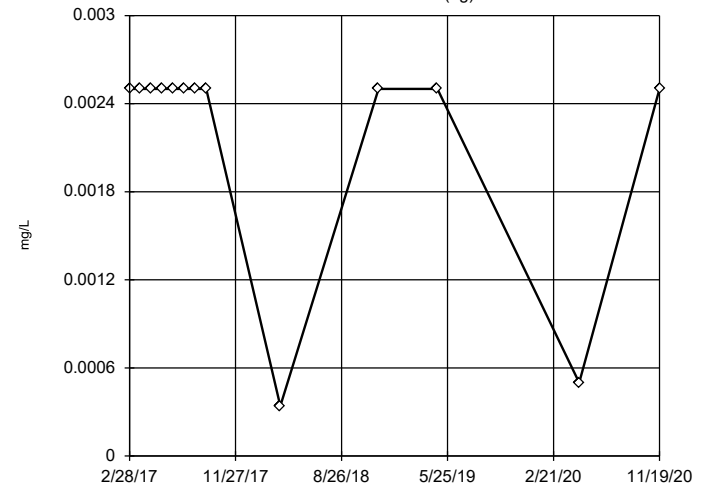


n = 13
 Outlier is drawn as solid.
 Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.05 alpha level.
 High cutoff = 0.00265, low cutoff = 0.0023, based on IQR multiplier of 3.
 At least one potential outlier was rejected as < 3.0 x median.

Constituent: Lithium Analysis Run 1/19/2021 12:27 PM View: Sanitas_Statistics Sampling Events 1 through 10
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

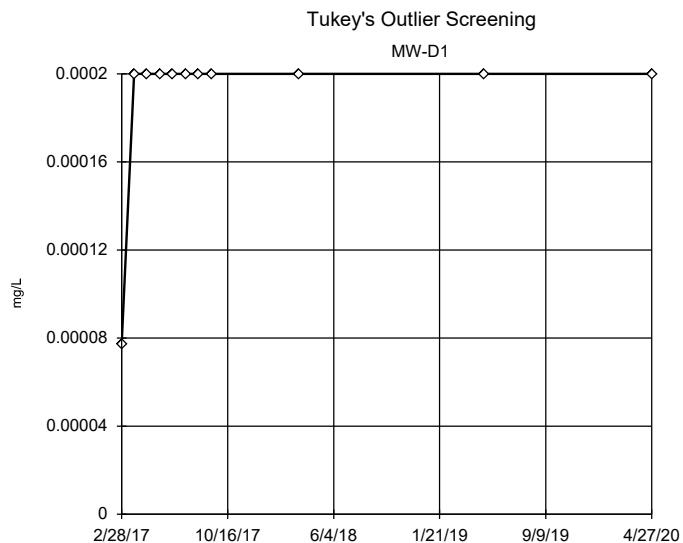
Tukey's Outlier Screening

MW-U1 (bg)



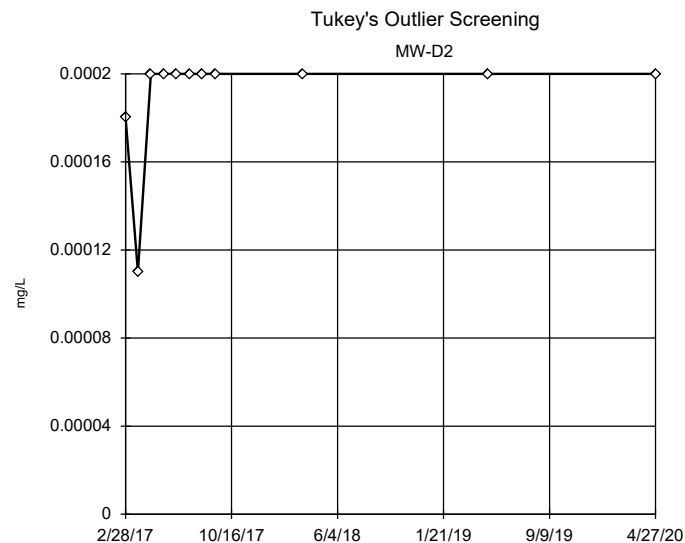
n = 13
 No outliers found.
 Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.05 alpha level.
 The results were invalidated, because the lower and upper quartiles are equal.

Constituent: Lithium Analysis Run 1/19/2021 12:27 PM View: Sanitas_Statistics Sampling Events 1 through 10
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10



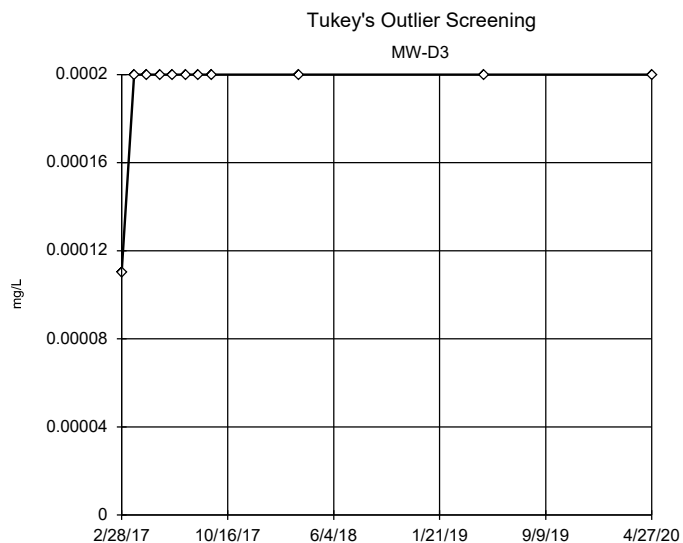
n = 11
 No outliers found. Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.05 alpha level.
 The results were invalidated, because the lower and upper quartiles are equal.

Constituent: Mercury Analysis Run 1/19/2021 12:27 PM View: Sanitas_Statistics Sampling Events 1 thru
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10



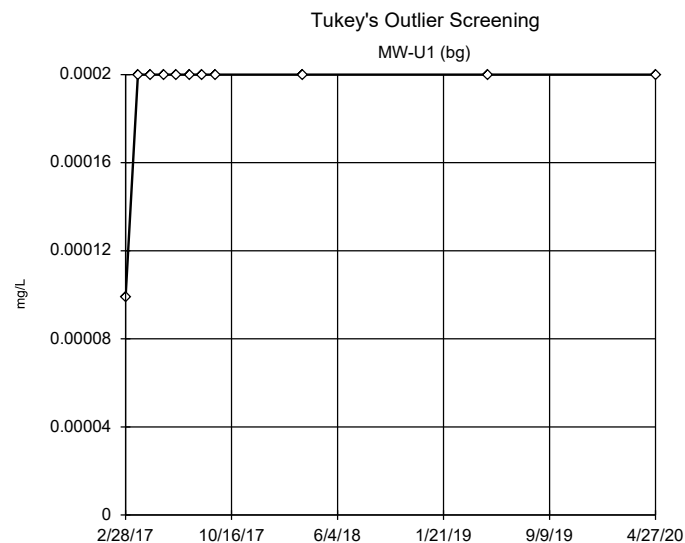
n = 11
 No outliers found. Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.05 alpha level.
 The results were invalidated, because the lower and upper quartiles are equal.

Constituent: Mercury Analysis Run 1/19/2021 12:27 PM View: Sanitas_Statistics Sampling Events 1 thru
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10



n = 11
 No outliers found. Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.05 alpha level.
 The results were invalidated, because the lower and upper quartiles are equal.

Constituent: Mercury Analysis Run 1/19/2021 12:27 PM View: Sanitas_Statistics Sampling Events 1 thru
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

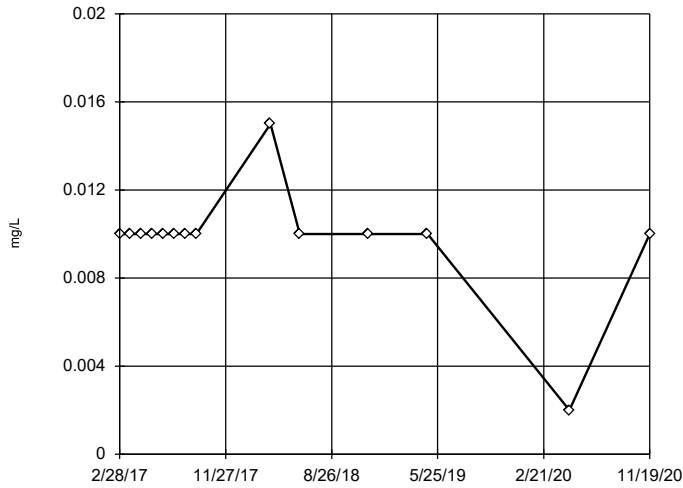


n = 11
 No outliers found. Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.05 alpha level.
 The results were invalidated, because the lower and upper quartiles are equal.

Constituent: Mercury Analysis Run 1/19/2021 12:27 PM View: Sanitas_Statistics Sampling Events 1 thru
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Tukey's Outlier Screening

MW-D1

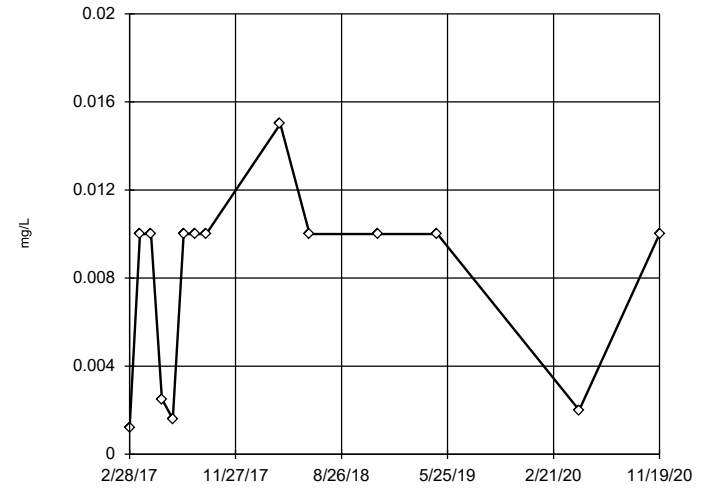


n = 14
 No outliers found.
 Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.05 alpha level.
 The results were invalidated, because the lower and upper quartiles are equal.

Constituent: Molybdenum Analysis Run 1/19/2021 12:27 PM View: Sanitas_Statistics Sampling Events 1 t
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Tukey's Outlier Screening

MW-D2

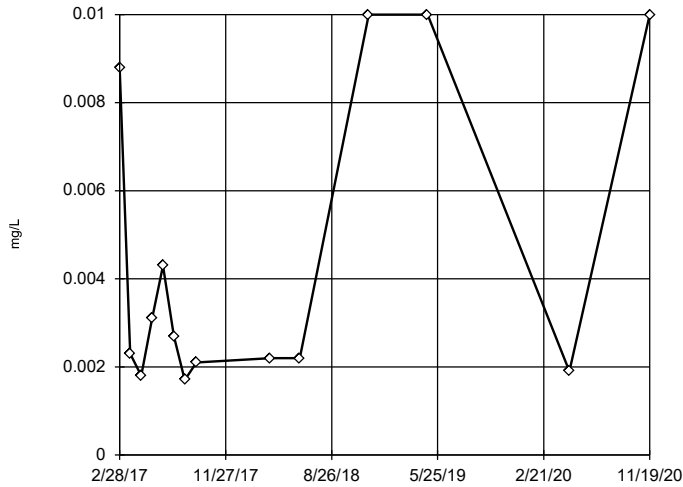


n = 14
 No outliers found.
 Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.05 alpha level.
 High cutoff = 0.03325, low cutoff = -0.021, based on IQR multiplier of 3.

Constituent: Molybdenum Analysis Run 1/19/2021 12:27 PM View: Sanitas_Statistics Sampling Events 1 t
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Tukey's Outlier Screening

MW-D3

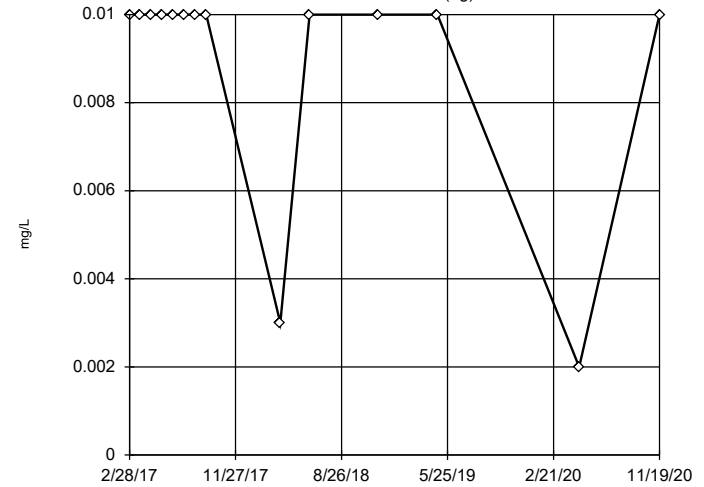


n = 14
 No outliers found.
 Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.05 alpha level.
 High cutoff = 0.0316, low cutoff = -0.0202, based on IQR multiplier of 3.

Constituent: Molybdenum Analysis Run 1/19/2021 12:27 PM View: Sanitas_Statistics Sampling Events 1 t
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Tukey's Outlier Screening

MW-U1 (bg)

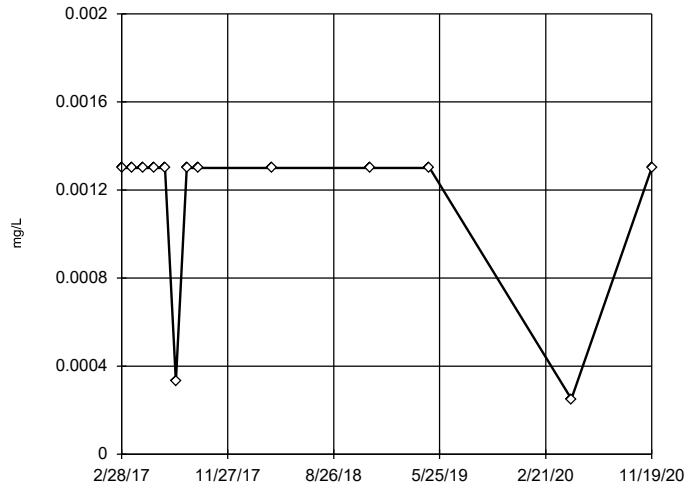


n = 14
 No outliers found.
 Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.05 alpha level.
 The results were invalidated, because the lower and upper quartiles are equal.

Constituent: Molybdenum Analysis Run 1/19/2021 12:27 PM View: Sanitas_Statistics Sampling Events 1 t
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Tukey's Outlier Screening

MW-D1

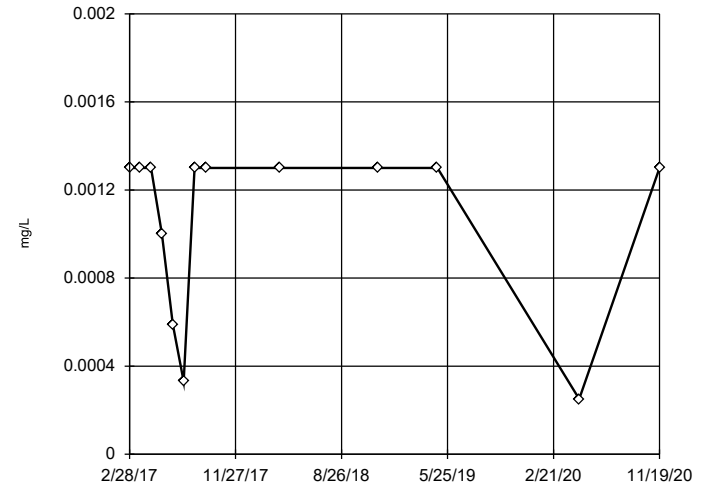


n = 13
 No outliers found. Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.05 alpha level.
 The results were invalidated, because the lower and upper quartiles are equal.

Constituent: Selenium Analysis Run 1/19/2021 12:27 PM View: Sanitas_Statistics Sampling Events 1 thro
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Tukey's Outlier Screening

MW-D2

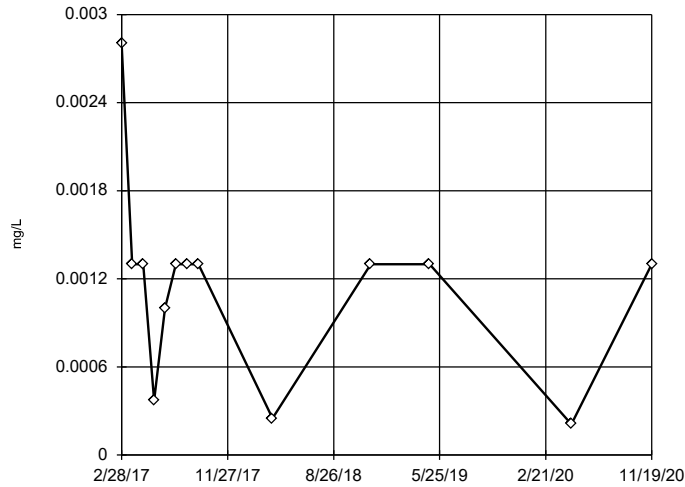


n = 13
 No outliers found. Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.05 alpha level.
 High cutoff = 0.002815, low cutoff = -0.00072, based on IQR multiplier of 3.

Constituent: Selenium Analysis Run 1/19/2021 12:27 PM View: Sanitas_Statistics Sampling Events 1 thro
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Tukey's Outlier Screening

MW-D3

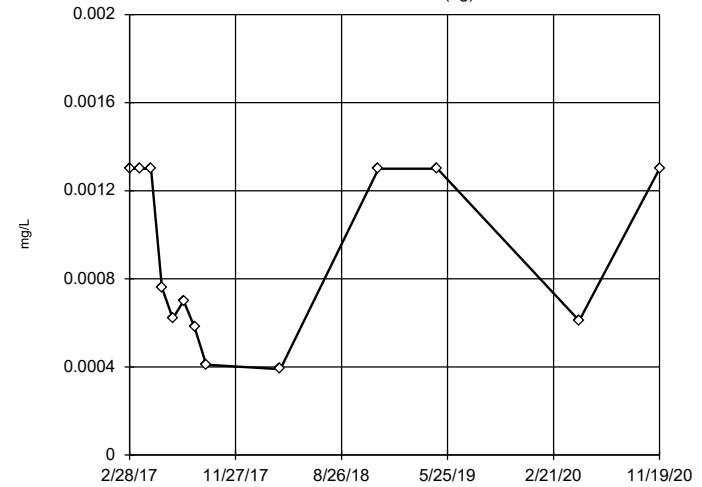


n = 13
 No outliers found. Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.05 alpha level.
 High cutoff = 0.003145, low cutoff = -0.00116, based on IQR multiplier of 3.

Constituent: Selenium Analysis Run 1/19/2021 12:27 PM View: Sanitas_Statistics Sampling Events 1 thro
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Tukey's Outlier Screening

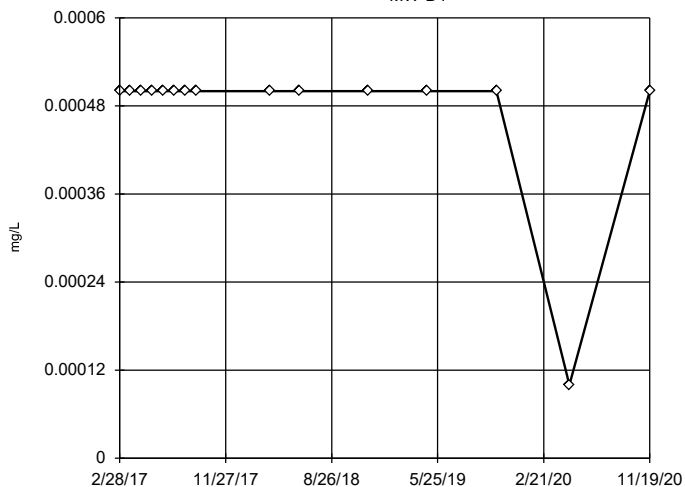
MW-U1 (bg)



n = 13
 No outliers found. Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.05 alpha level.
 High cutoff = 0.003415, low cutoff = -0.00152, based on IQR multiplier of 3.

Constituent: Selenium Analysis Run 1/19/2021 12:27 PM View: Sanitas_Statistics Sampling Events 1 thro
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Tukey's Outlier Screening MW-D1



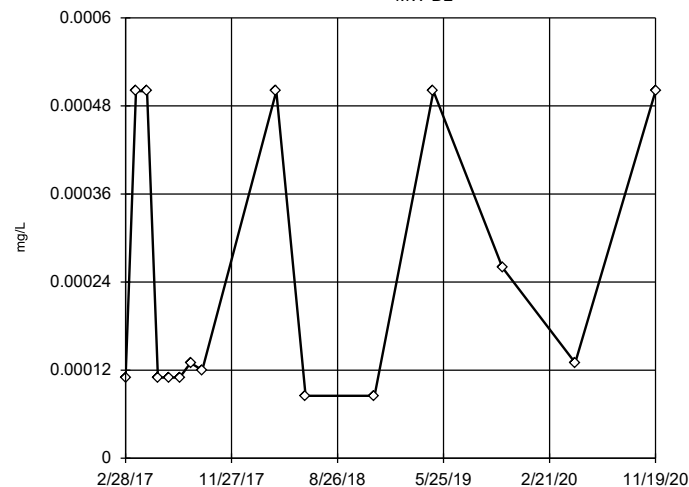
n = 15

No outliers found. Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.05 alpha level.

The results were invalidated, because the lower and upper quartiles are equal.

Constituent: Thallium Analysis Run 1/19/2021 12:27 PM View: Sanitas_Statistics Sampling Events 1 through 15
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Tukey's Outlier Screening MW-D2



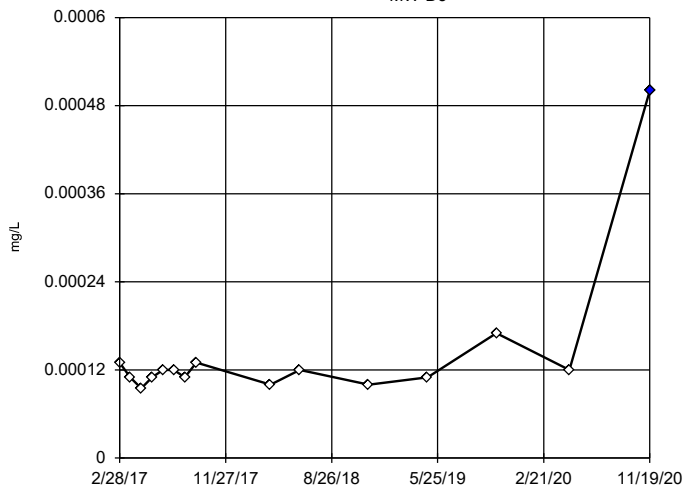
n = 15

No outliers found. Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.05 alpha level.

High cutoff = 0.00167, low cutoff = -0.00106, based on IQR multiplier of 3.

Constituent: Thallium Analysis Run 1/19/2021 12:27 PM View: Sanitas_Statistics Sampling Events 1 through 15
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Tukey's Outlier Screening MW-D3



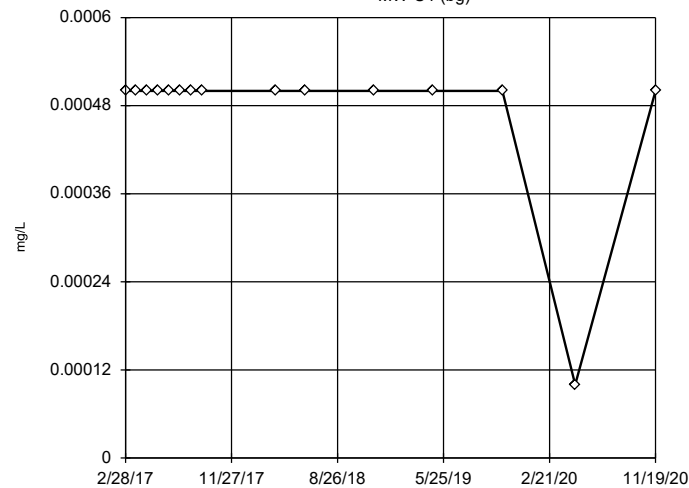
n = 15

Outlier is drawn as solid. Tukey's method selected by user.

High cutoff = 0.00019, low cutoff = 0.00005, based on IQR multiplier of 3.

Constituent: Thallium Analysis Run 1/19/2021 12:27 PM View: Sanitas_Statistics Sampling Events 1 through 15
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Tukey's Outlier Screening MW-U1 (bg)

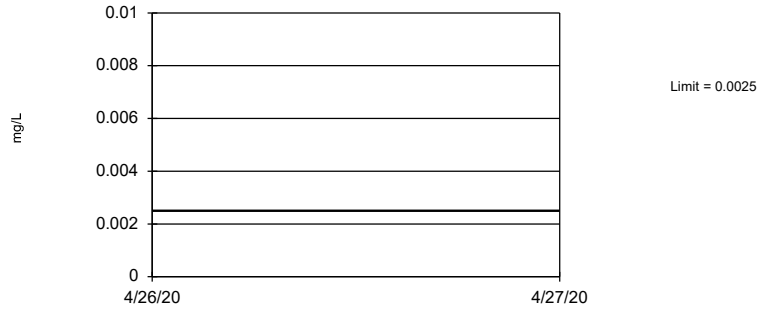


Tolerance Limit

CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10 Printed 1/19/2021, 12:23 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Date</u>	<u>Observ.</u>	<u>Sig.</u>	<u>Bg N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Antimony (mg/L)	n/a	0.0025	n/a	n/a	n/a	11	100	n/a	0.5688	NP Inter(NDs)
Arsenic (mg/L)	n/a	0.0013	n/a	n/a	n/a	15	86.67	n/a	0.4633	NP Inter(NDs)
Barium (mg/L)	n/a	0.0062	n/a	n/a	n/a	15	0	n/a	0.4633	NP Inter(normal...
Beryllium (mg/L)	n/a	0.0025	n/a	n/a	n/a	11	100	n/a	0.5688	NP Inter(NDs)
Cadmium (mg/L)	n/a	0.0025	n/a	n/a	n/a	12	100	n/a	0.5404	NP Inter(NDs)
Chromium (mg/L)	n/a	0.0051	n/a	n/a	n/a	13	0	n/a	0.5133	NP Inter(normal...
Cobalt (mg/L)	n/a	0.0025	n/a	n/a	n/a	15	100	n/a	0.4633	NP Inter(NDs)
Combined Radium 226 + 228 (pCi/L)	n/a	0.7844	n/a	n/a	n/a	15	20	No	0.01	Inter
Fluoride (mg/L)	n/a	0.08395	n/a	n/a	n/a	15	6.667	No	0.01	Inter
Lead (mg/L)	n/a	0.0013	n/a	n/a	n/a	11	90.91	n/a	0.5688	NP Inter(NDs)
Lithium (mg/L)	n/a	0.0025	n/a	n/a	n/a	13	92.31	n/a	0.5133	NP Inter(NDs)
Mercury (mg/L)	n/a	0.0002	n/a	n/a	n/a	11	90.91	n/a	0.5688	NP Inter(NDs)
Molybdenum (mg/L)	n/a	0.01	n/a	n/a	n/a	14	100	n/a	0.4877	NP Inter(NDs)
Selenium (mg/L)	n/a	0.0013	n/a	n/a	n/a	13	46.15	n/a	0.5133	NP Inter(normal...
Thallium (mg/L)	n/a	0.0005	n/a	n/a	n/a	15	100	n/a	0.4633	NP Inter(NDs)

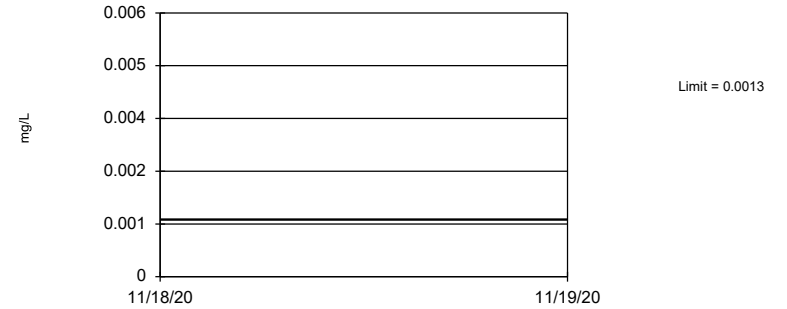
Tolerance Limit
Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 11 background values. 100% NDs. 65.82% coverage at alpha=0.01; 75.98% coverage at alpha=0.05; 93.95% coverage at alpha=0.5. Report alpha = 0.5688.

Constituent: Antimony Analysis Run 1/19/2021 12:22 PM View: Sanitas_Statistics Sampling Events 1 thro
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

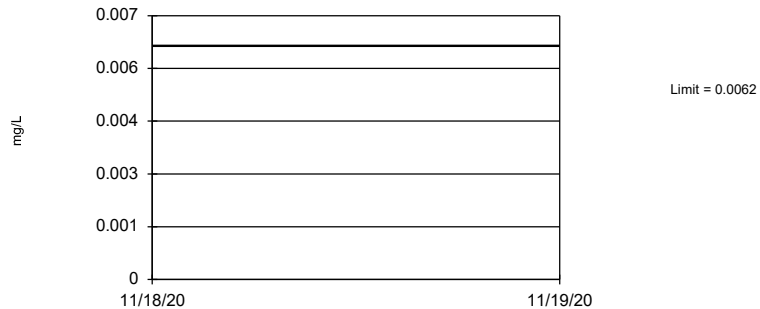
Tolerance Limit
Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 15 background values. 86.67% NDs. 73.63% coverage at alpha=0.01; 81.84% coverage at alpha=0.05; 95.51% coverage at alpha=0.5. Report alpha = 0.4633.

Constituent: Arsenic Analysis Run 1/19/2021 12:22 PM View: Sanitas_Statistics Sampling Events 1 through
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

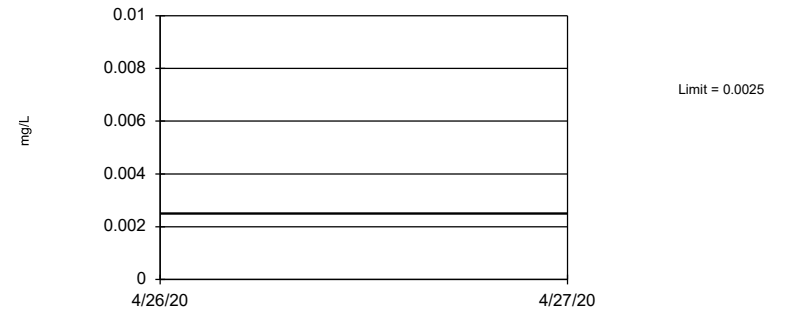
Tolerance Limit
Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.05 alpha level. Limit is highest of 15 background values. 73.63% coverage at alpha=0.01; 81.84% coverage at alpha=0.05; 95.51% coverage at alpha=0.5. Report alpha = 0.4633.

Constituent: Barium Analysis Run 1/19/2021 12:22 PM View: Sanitas_Statistics Sampling Events 1 through
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

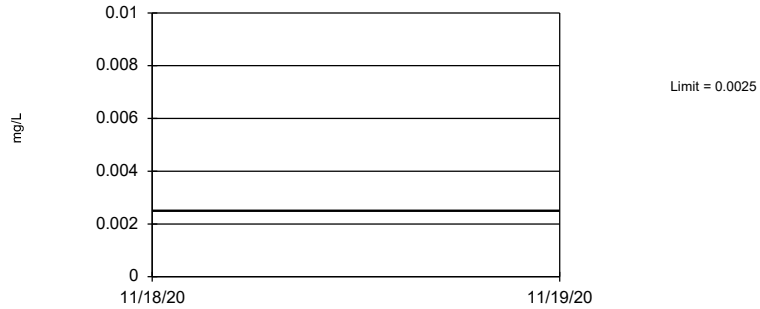
Tolerance Limit
Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 11 background values. 100% NDs. 65.82% coverage at alpha=0.01; 75.98% coverage at alpha=0.05; 93.95% coverage at alpha=0.5. Report alpha = 0.5688.

Constituent: Beryllium Analysis Run 1/19/2021 12:22 PM View: Sanitas_Statistics Sampling Events 1 thro
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

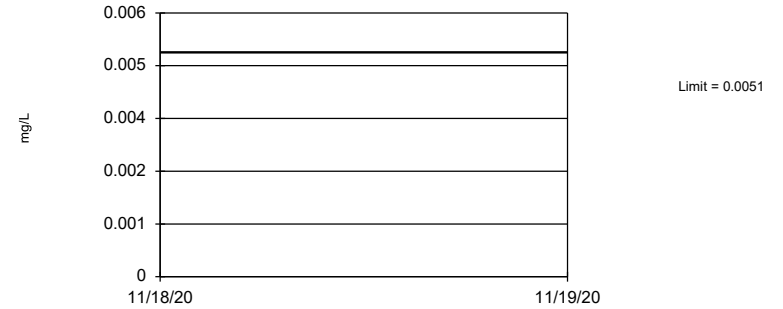
Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 12 background values. 100% NDs. 68.16% coverage at alpha=0.01; 77.93% coverage at alpha=0.05; 94.34% coverage at alpha=0.5. Report alpha = 0.5404.

Constituent: Cadmium Analysis Run 1/19/2021 12:22 PM View: Sanitas_Statistics Sampling Events 1 thro
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

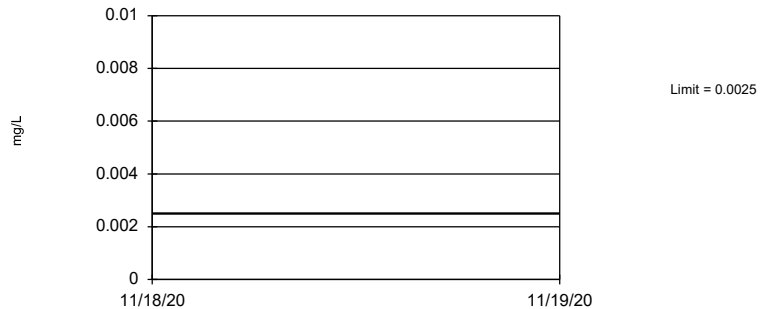
Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.05 alpha level. Limit is highest of 13 background values. 70.12% coverage at alpha=0.01; 79.49% coverage at alpha=0.05; 94.73% coverage at alpha=0.5. Report alpha = 0.5133.

Constituent: Chromium Analysis Run 1/19/2021 12:22 PM View: Sanitas_Statistics Sampling Events 1 thr
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 15 background values. 100% NDs. 73.63% coverage at alpha=0.01; 81.84% coverage at alpha=0.05; 95.51% coverage at alpha=0.5. Report alpha = 0.4633.

Constituent: Cobalt Analysis Run 1/19/2021 12:22 PM View: Sanitas_Statistics Sampling Events 1 thro
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

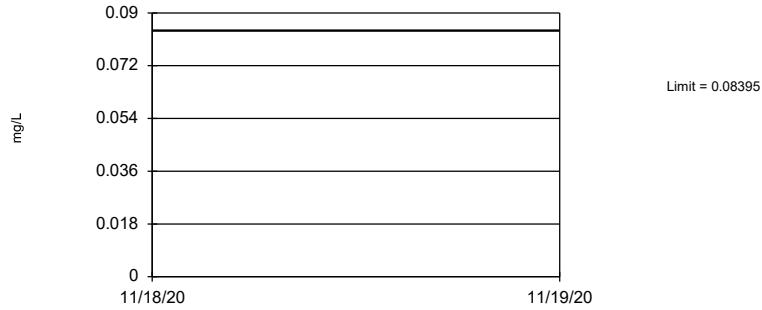
Tolerance Limit Interwell Parametric



95% coverage. Background Data Summary (after Kaplan-Meier Adjustment): Mean=0.1685, Std. Dev.=0.1986, n=15, 20% NDs. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9231, critical = 0.881. Report alpha = 0.01.

Constituent: Combined Radium 226 + 228 Analysis Run 1/19/2021 12:22 PM View: Sanitas_Statistics Sa
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

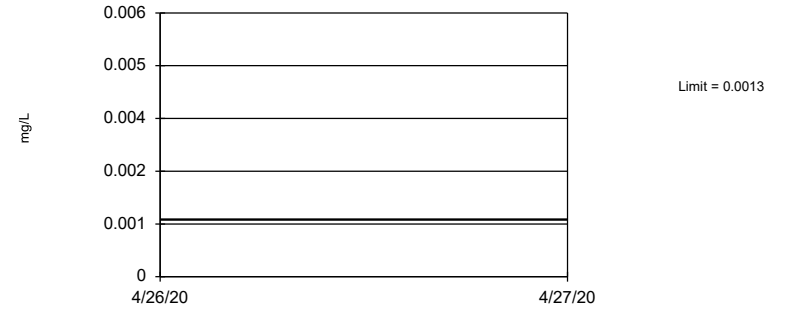
Tolerance Limit Interwell Parametric



95% coverage. Background Data Summary: Mean=0.05587, Std. Dev.=0.009054, n=15, 6.667% NDs. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.8956, critical = 0.881. Report alpha = 0.01.

Constituent: Fluoride Analysis Run 1/19/2021 12:22 PM View: Sanitas_Statistics Sampling Events 1 through 10
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

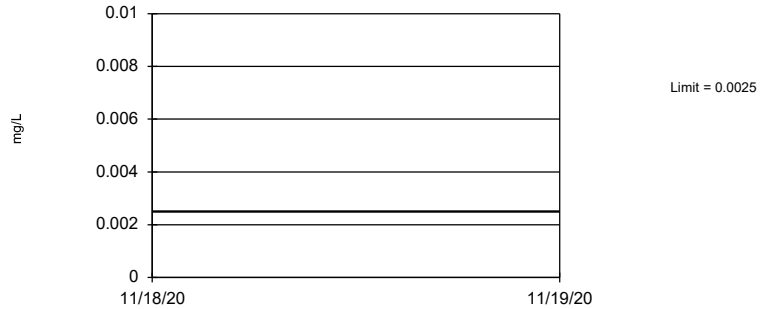
Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 11 background values. 90.91% NDs. 65.82% coverage at alpha=0.01; 75.98% coverage at alpha=0.05; 93.95% coverage at alpha=0.5. Report alpha = 0.5688.

Constituent: Lead Analysis Run 1/19/2021 12:22 PM View: Sanitas_Statistics Sampling Events 1 through 10
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

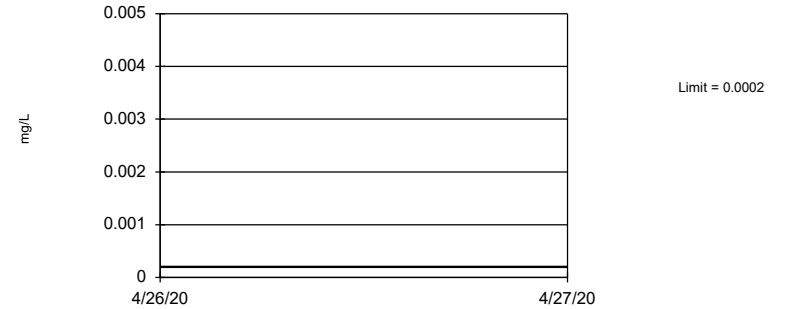
Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 13 background values. 92.31% NDs. 70.12% coverage at alpha=0.01; 79.49% coverage at alpha=0.05; 94.73% coverage at alpha=0.5. Report alpha = 0.5133.

Constituent: Lithium Analysis Run 1/19/2021 12:22 PM View: Sanitas_Statistics Sampling Events 1 through 10
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

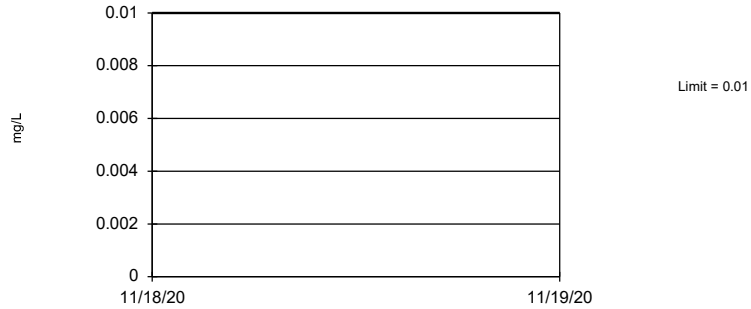
Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 11 background values. 90.91% NDs. 65.82% coverage at alpha=0.01; 75.98% coverage at alpha=0.05; 93.95% coverage at alpha=0.5. Report alpha = 0.5688.

Constituent: Mercury Analysis Run 1/19/2021 12:22 PM View: Sanitas_Statistics Sampling Events 1 through 10
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

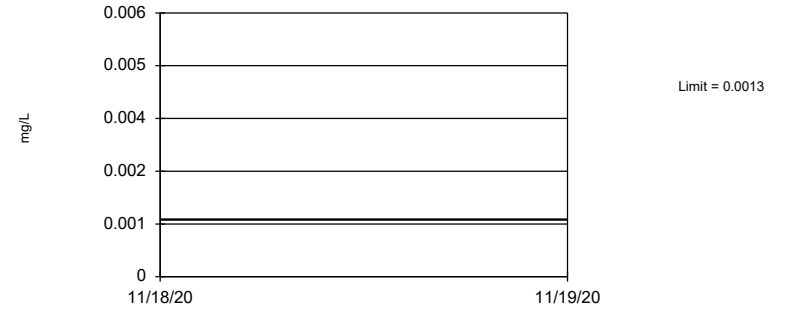
Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 14 background values. 100% NDs. 72.07% coverage at alpha=0.01; 80.66% coverage at alpha=0.05; 95.12% coverage at alpha=0.5. Report alpha = 0.4877.

Constituent: Molybdenum Analysis Run 1/19/2021 12:22 PM View: Sanitas_Statistics Sampling Events 1 t
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

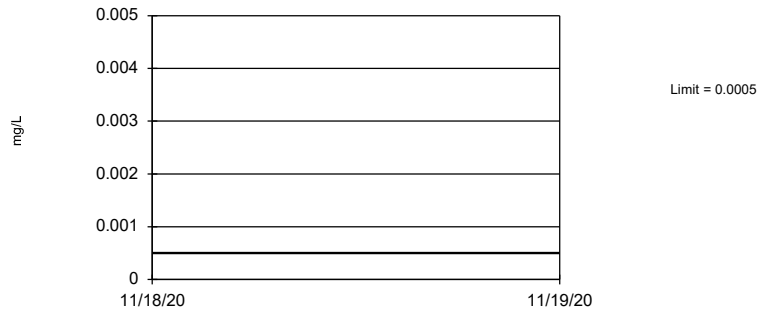
Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.05 alpha level. Limit is highest of 13 background values. 46.15% NDs. 70.12% coverage at alpha=0.01; 79.49% coverage at alpha=0.05; 94.73% coverage at alpha=0.5. Report alpha = 0.5133.

Constituent: Selenium Analysis Run 1/19/2021 12:22 PM View: Sanitas_Statistics Sampling Events 1 thro
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 15 background values. 100% NDs. 73.63% coverage at alpha=0.01; 81.84% coverage at alpha=0.05; 95.51% coverage at alpha=0.5. Report alpha = 0.4633.

Constituent: Thallium Analysis Run 1/19/2021 12:22 PM View: Sanitas_Statistics Sampling Events 1 thro
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

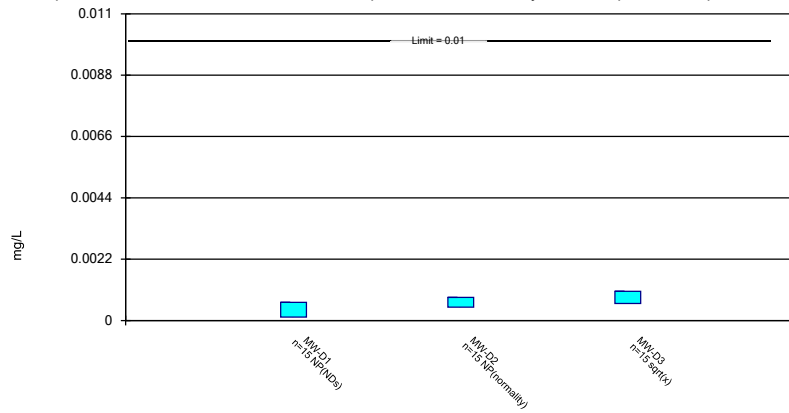
Confidence Interval

CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10 Printed 1/19/2021, 12:36 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Compliance</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Arsenic (mg/L)	MW-D1	0.00065	0.000125	0.01	No	15	100	No	0.01	NP (NDs)
Arsenic (mg/L)	MW-D2	0.00083	0.00048	0.01	No	15	73.33	No	0.01	NP (normality)
Arsenic (mg/L)	MW-D3	0.001048	0.000614	0.01	No	15	13.33	sqrt(x)	0.01	Param.
Barium (mg/L)	MW-D1	0.015	0.0099	2	No	15	0	No	0.01	NP (normality)
Barium (mg/L)	MW-D2	0.1561	0.1221	2	No	15	0	No	0.01	Param.
Barium (mg/L)	MW-D3	0.1983	0.133	2	No	15	0	No	0.01	Param.
Cadmium (mg/L)	MW-D1	0.00125	0.0001	0.005	No	12	100	No	0.01	NP (NDs)
Cadmium (mg/L)	MW-D2	0.00125	0.000075	0.005	No	12	91.67	No	0.01	NP (NDs)
Cadmium (mg/L)	MW-D3	0.00125	0.000071	0.005	No	12	91.67	No	0.01	NP (NDs)
Chromium (mg/L)	MW-D1	0.0034	0.00025	0.1	No	13	92.31	No	0.01	NP (NDs)
Chromium (mg/L)	MW-D2	0.0038	0.00025	0.1	No	13	92.31	No	0.01	NP (NDs)
Chromium (mg/L)	MW-D3	0.0029	0.00025	0.1	No	13	92.31	No	0.01	NP (NDs)
Cobalt (mg/L)	MW-D1	0.00125	0.00025	0.0025	No	15	100	No	0.01	NP (NDs)
Cobalt (mg/L)	MW-D2	0.00125	0.001	0.0025	No	15	86.67	No	0.01	NP (NDs)
Cobalt (mg/L)	MW-D3	0.001401	0.000907	0.0025	No	15	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MW-D1	0.5001	0.1897	5	No	15	13.33	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MW-D2	0.756	0.18	5	No	15	26.67	No	0.01	NP (Cohens/xfrm)
Combined Radium 226 + 228 (pCi/L)	MW-D3	1.17	0.2325	5	No	15	20	No	0.01	NP (Cohens/xfrm)
Fluoride (mg/L)	MW-D1	0.08867	0.05733	4	No	15	0	No	0.01	Param.
Fluoride (mg/L)	MW-D2	0.061	0.05	4	No	15	0	No	0.01	NP (normality)
Fluoride (mg/L)	MW-D3	0.1193	0.1021	4	No	15	0	x^3	0.01	Param.
Lithium (mg/L)	MW-D1	0.0023	0.00025	0.0025	No	13	92.31	No	0.01	NP (NDs)
Lithium (mg/L)	MW-D2	0.0025	0.0011	0.0025	No	13	84.62	No	0.01	NP (NDs)
Lithium (mg/L)	MW-D3	0.0024	0.00048	0.0025	No	13	76.92	No	0.01	NP (NDs)
Molybdenum (mg/L)	MW-D1	0.0075	0.001	0.01	No	14	100	No	0.01	NP (NDs)
Molybdenum (mg/L)	MW-D2	0.0075	0.0016	0.01	No	14	78.57	No	0.01	NP (NDs)
Molybdenum (mg/L)	MW-D3	0.005	0.0019	0.01	No	14	21.43	No	0.01	NP (Cohens/xfrm)
Selenium (mg/L)	MW-D1	0.00065	0.00033	0.05	No	13	92.31	No	0.01	NP (NDs)
Selenium (mg/L)	MW-D2	0.001	0.00033	0.05	No	13	76.92	No	0.01	NP (NDs)
Selenium (mg/L)	MW-D3	0.001	0.00021	0.05	No	13	69.23	No	0.01	NP (normality)
Thallium (mg/L)	MW-D1	0.00025	0.00005	0.002	No	15	100	No	0.01	NP (NDs)
Thallium (mg/L)	MW-D2	0.00025	0.000085	0.002	No	15	33.33	No	0.01	NP (normality)
Thallium (mg/L)	MW-D3	0.00013	0.0001	0.002	No	15	6.667	No	0.01	NP (normality)

Parametric and Non-Parametric (NP) Confidence Interval

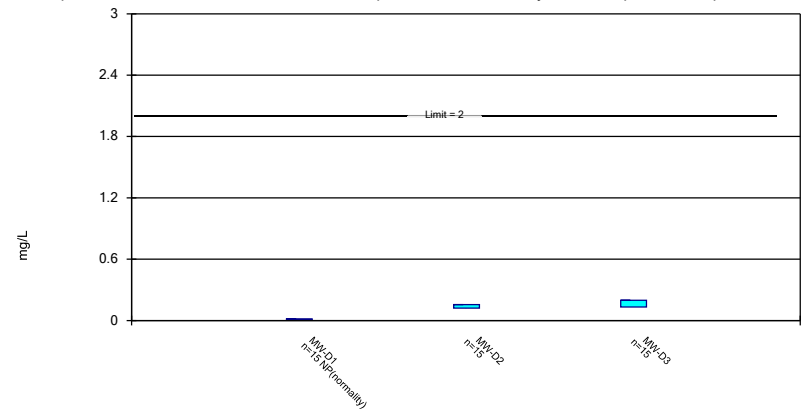
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Arsenic Analysis Run 1/19/2021 12:35 PM View: Sanitas_Statistics Sampling Events 1 through 10
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Parametric and Non-Parametric (NP) Confidence Interval

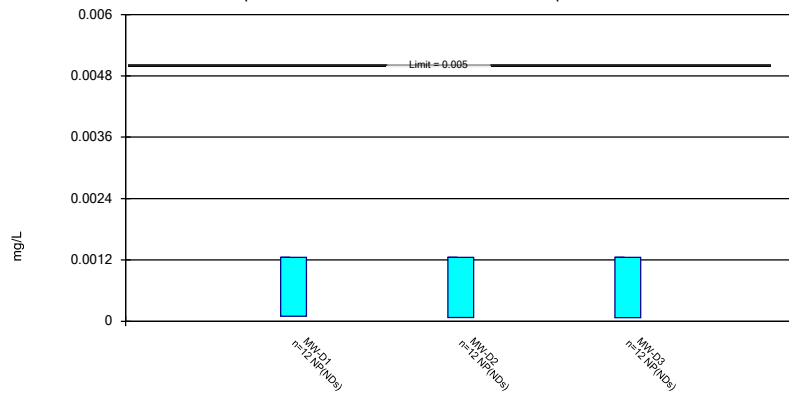
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Barium Analysis Run 1/19/2021 12:35 PM View: Sanitas_Statistics Sampling Events 1 through 10
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Non-Parametric Confidence Interval

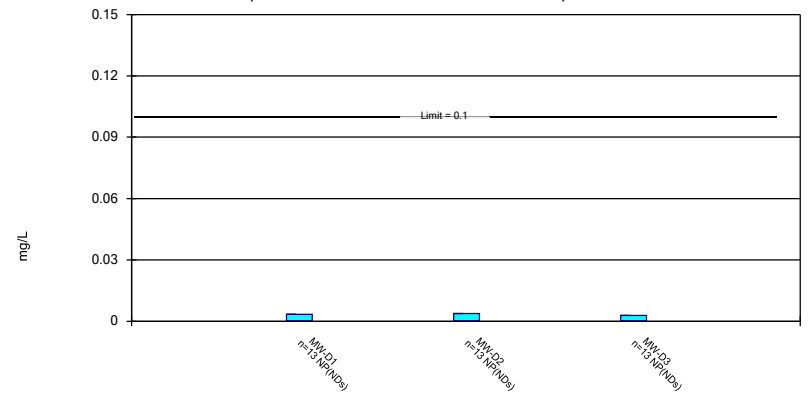
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Cadmium Analysis Run 1/19/2021 12:35 PM View: Sanitas_Statistics Sampling Events 1 through 10
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Non-Parametric Confidence Interval

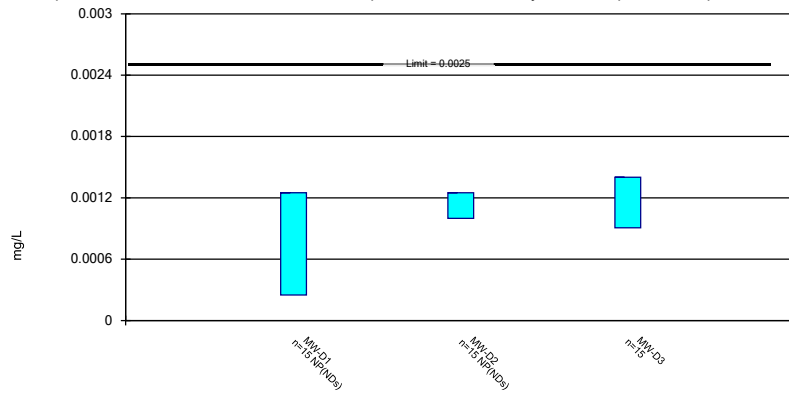
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Chromium Analysis Run 1/19/2021 12:35 PM View: Sanitas_Statistics Sampling Events 1 through 10
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Parametric and Non-Parametric (NP) Confidence Interval

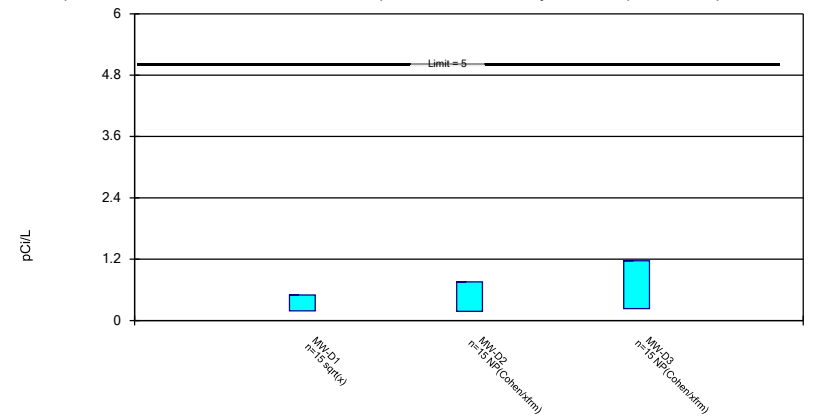
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cobalt Analysis Run 1/19/2021 12:35 PM View: Sanitas_Statistics Sampling Events 1 through 10
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Parametric and Non-Parametric (NP) Confidence Interval

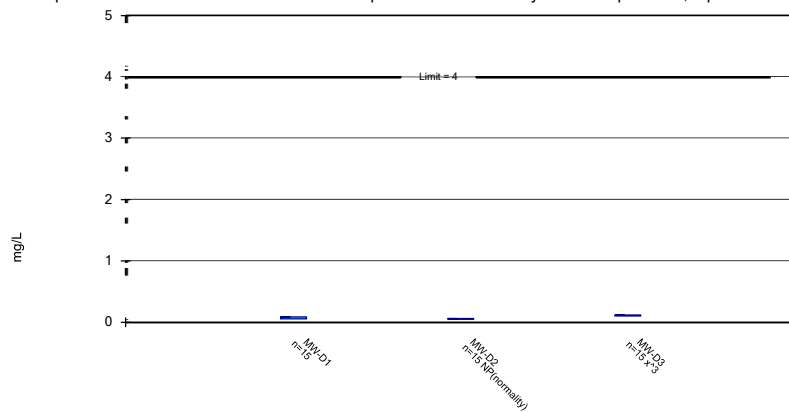
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Combined Radium 226 + 228 Analysis Run 1/19/2021 12:35 PM View: Sanitas_Statistics Sa
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Parametric and Non-Parametric (NP) Confidence Interval

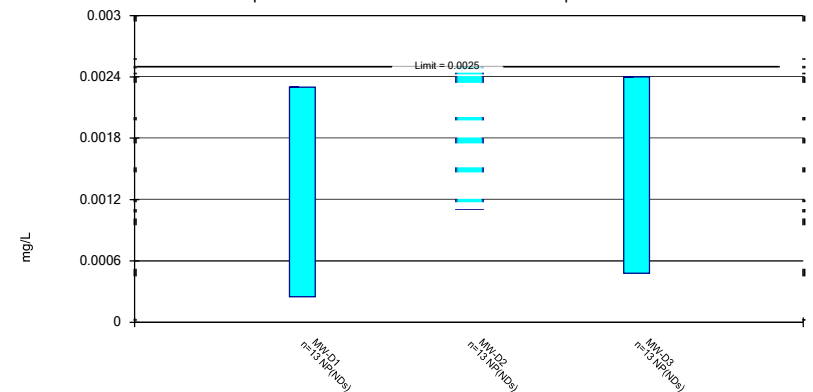
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Fluoride Analysis Run 1/19/2021 12:35 PM View: Sanitas_Statistics Sampling Events 1 through 10
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Non-Parametric Confidence Interval

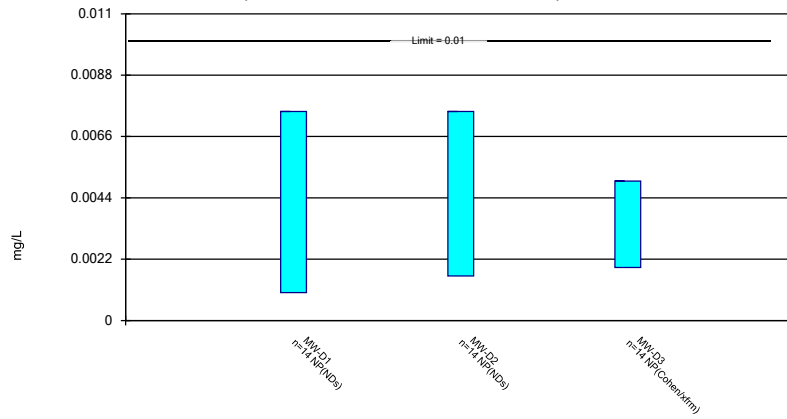
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Lithium Analysis Run 1/19/2021 12:35 PM View: Sanitas_Statistics Sampling Events 1 through 10
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Non-Parametric Confidence Interval

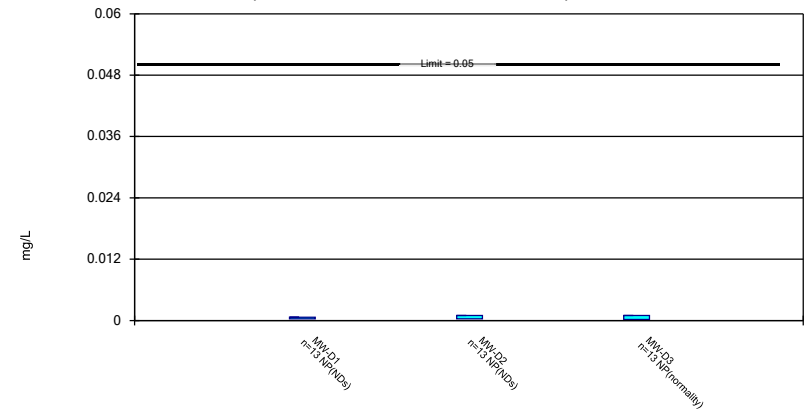
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Molybdenum Analysis Run 1/19/2021 12:35 PM View: Sanitas_Statistics Sampling Events 1 t
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Non-Parametric Confidence Interval

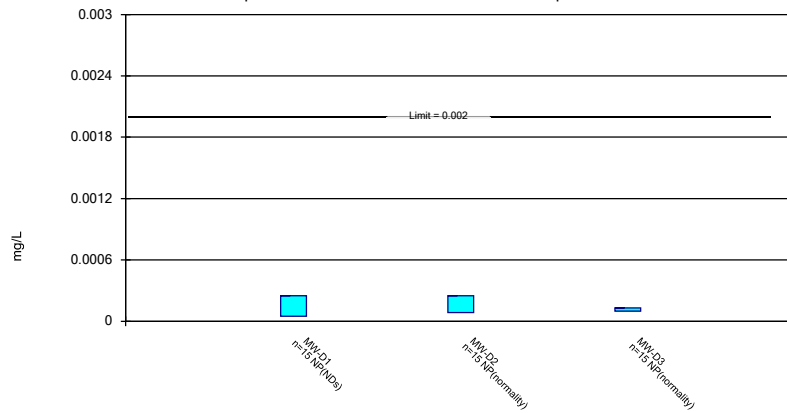
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Selenium Analysis Run 1/19/2021 12:35 PM View: Sanitas_Statistics Sampling Events 1 thro
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Thallium Analysis Run 1/19/2021 12:35 PM View: Sanitas_Statistics Sampling Events 1 thro
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10