



Prepared for
Crisp County Power Commission
202 S. 7th Street
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ANNUAL GROUNDWATER MONITORING REPORT

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

Prepared by
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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 CFR §257 of the Federal Hazardous and Solid Waste Management System; Disposal of Coal Combustion Residuals from Electric Utilities; Final Rule (40 CFR §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.

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TABLE OF CONTENTS

| | |
|--|----|
| CERTIFICATION BY QUALIFIED PROFESSIONAL ENGINEER..... | i |
| 1.0 INTRODUCTION | 1 |
| 1.1 Overview | 1 |
| 1.2 Site Background and Location | 1 |
| 1.3 Groundwater Monitoring History..... | 2 |
| 2.0 GROUNDWATER SAMPLING AND LABORATORY ANALYSIS RESULTS | 4 |
| 2.1 Groundwater Sampling and Laboratory Analysis | 4 |
| 2.2 March 2018 Groundwater Monitoring Results..... | 5 |
| 2.3 June 2018 Groundwater Monitoring Results..... | 6 |
| 2.4 November 2018 Groundwater Monitoring Results | 6 |
| 3.0 ASSESSMENT MONITORING STATISTICAL DATA ANALYSIS PROCEDURES | 8 |
| 3.1 Overview | 8 |
| 3.2 GWPS for Appendix IV Constituents | 8 |
| 3.3 Evaluation of SSLs for Appendix IV Constituents | 9 |
| 4.0 STATISTICAL ANALYSIS RESULTS..... | 10 |
| 5.0 FUTURE GROUNDWATER MONITORING PROGRAM..... | 11 |
| 6.0 REFERENCES | 12 |

LIST OF TABLES

| | |
|---------|---|
| Table 1 | Appendix IV Analytical Data Summary – Initial Groundwater Assessment Monitoring Event - Sampling Performed on March 22, 2018 |
| Table 2 | Boron Analytical Data Summary - Sampling Performed on March 22, 2018 |
| Table 3 | Appendix III Analytical Data Summary - First Semi-Annual Groundwater Assessment Monitoring Event – Sampling Performed on June 5, 2018 |

| | |
|---------|---|
| Table 4 | Appendix IV Analytical Data Summary - First Semi-Annual Groundwater Assessment Monitoring Event – Sampling Performed on June 5, 2018 |
| Table 5 | Appendix III Analytical Data Summary - Second Semi-Annual Groundwater Assessment Monitoring Event – Sampling Performed on November 29, 2018 |
| Table 6 | Appendix IV Analytical Data Summary - Second Semi-Annual Groundwater Assessment Monitoring Event – Sampling Performed on November 29, 2018 |
| Table 7 | Summary of Basic Groundwater Statistics and GWPS for Appendix IV Constituents |
| Table 8 | Evaluation of SSLs for Appendix IV Constituents |

LIST OF FIGURES

| | |
|----------|--|
| Figure 1 | Groundwater Monitoring Well Location Map |
| Figure 2 | Potentiometric Surface Map |

LIST OF APPENDICES

| | |
|------------|---|
| Appendix A | Field Groundwater Sampling Forms |
| Appendix B | Laboratory Analytical Reports |
| Appendix C | Statistical Calculations and Time-series Graphs |

LIST OF ACRONYMS

| | |
|--------|---|
| CCPC | Crisp County Power Commission |
| CCR | Coal Combustion Residuals |
| CFR | Code of Federal Regulations |
| DO | Dissolved Oxygen |
| GA EPD | Georgia Environmental Protection Division |
| GWPS | Groundwater Protection Standard |
| MCL | Maximum Contaminant Level |
| MW | Megawatt |
| ORP | Oxidation Reduction Potential |
| RSL | Regional Screening Levels |
| SESD | Science and Ecosystem Support Division |
| SOP | Standard Operating Procedure |
| SSI | Statistically Significant Increase |
| SSL | Statistically Significant Level |
| USEPA | United States Environmental Protection Agency |
| UTL | Upper Tolerance Limit |

1.0 INTRODUCTION

1.1 Overview

Geosyntec Consultants (Geosyntec) of Kennesaw, Georgia, at the request of Crisp County Power Commission (CCPC), prepared this 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. A site location map is provided on **Figure 1**. CCPC installed a groundwater monitoring well network in February 2017 in compliance with the requirements of the 40 Code of Federal Regulations (CFR) §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 CFR §257.94. The first Annual Groundwater Monitoring Report [Geosyntec, 2018] summarizing the results of eight detection groundwater monitoring activities was prepared in January 2018. In compliance with 40 CFR §257.95(a), CCPC initiated an assessment monitoring program for the ash pond. The initial assessment monitoring was performed in March 2018, followed by semi-annual assessment monitoring events performed in June 2018 and November 2018. The March 2018 initial assessment monitoring event was performed for constituents listed in appendix IV to part §257 (referred herein as Appendix IV constituents) (40 CFR §257.95(b)). The June 2018 and November 2018 semi-annual assessment monitoring events were performed for all parameters in appendix III to part §257 (referred herein as Appendix III constituents) and for those constituents in Appendix IV that were detected during the March 2018 initial assessment monitoring (40 CFR §257.95(d)(1)).

The purpose of this report is to present a summary of the March 2018, June 2018, and November 2018 groundwater assessment monitoring activities and associated laboratory and statistical analysis results. The report has been prepared to meet the annual reporting requirements of 40 CFR §257.90 (e) and semi-annual reporting requirements of GA EPD CCR Rule 391-3-4-.10(6)(c).

1.2 Site Background and Location

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 6.1-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 sluicing operation was reduced significantly after August 2015. The coal burn unit was briefly re-activated in 2017 for a short period of time and has been inactive since. On 19 November 2018 CCPC submitted a CCR permit application for the closure of the ash pond by removal in accordance with 40 CFR §257.102(c) and the GA EPD rule 391-3-4-.10.

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 (**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 Groundwater Monitoring History

In compliance with the detection monitoring program of the CCR rule 40 CFR §257.94, CCPC collected eight independent groundwater samples from each background and downgradient well from the Plant Crisp ash pond monitoring well network between February and September 2017. The 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**. The monitoring wells are screened in the uppermost aquifer underlying the ash pond, which is composed of gravel, sand, and clay (Quaternary alluvial sediments). The groundwater monitoring system was designed and constructed to meet the requirements of the groundwater monitoring system 40 CFR §257.91. A groundwater monitoring system certification was prepared in June 2017 and well construction diagrams of the monitoring wells were included in the Annual Groundwater Monitoring Report [Geosyntec, 2018]. Detection groundwater monitoring events were conducted between February and September 2017 and the samples were analyzed for constituents listed in Appendix III and Appendix IV constituents.

Section 2 of this report presents a discussion of the 2018 groundwater assessment monitoring events and laboratory analysis results. A summary of statistical data analysis is provided in Section 3. Statistical data analysis results are discussed in Section 4. Future monitoring program is discussed in Section 5. The groundwater monitoring and statistical analysis were performed consistent with the Groundwater Monitoring and Statistical Analysis Plan prepared for the Plant Crisp ash pond in October 2017.

2.0 GROUNDWATER SAMPLING AND LABORATORY ANALYSIS RESULTS

2.1 Groundwater Sampling and Laboratory Analysis

Data collected during the detection monitoring indicated that statistically significant increases were identified for appendix III constituents over background. In compliance with 40 CFR §257.95(a), CCPC initiated an assessment monitoring program for the ash pond. The groundwater assessment monitoring program involved three sampling events during this reporting period. The initial assessment monitoring (performed in March 2018) was conducted within 90 days of triggering an assessment monitoring program in compliance with 40 CFR §257.95(a). The first semi-annual assessment monitoring performed in June 2018 was conducted within 90 days of obtaining the March 2018 monitoring results in compliance with 40 CFR §257.95(d)(1). The second semi-annual monitoring was performed in November 2018 in compliance with 40 CFR §257.95(d)(1).

The groundwater samples were collected in accordance with the USEPA Science and Ecosystem Support Division (SESD) Standard Operating Procedure (SOP No. SESDPROC-301-R3) [USEPA, Athens, Georgia, 2013]. Prior to sampling, depth to groundwater and total well depth were measured for each monitoring well using an electrical water level indicator. **Figure 2** presents a potentiometric surface map generated using a recent (November 29, 2018) groundwater elevation data. Based on the groundwater elevation data, groundwater flow direction is from southeast towards northwest and the hydraulic gradient is approximately 0.014 ft/ft.

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 turbidimeter. Purging was considered complete when groundwater pH, conductivity, and turbidity measurements equilibrated (as defined by USEPA SESD SOP No. SESDPROC-301-R3) or at least three well volumes were removed. 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 Test America Laboratories in Pensacola, FL, a certified laboratory pursuant to the Georgia State Program. The March 2018 groundwater samples were analyzed for Appendix IV constituents (antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, fluoride, lead, lithium, mercury, molybdenum, radium, selenium, and thallium). The metal constituents were analyzed as total recoverable as the samples were not field filtered. The June 2018 groundwater samples were analyzed for Appendix III constituents (i.e., boron, calcium, chloride, fluoride, sulfate, total dissolved solids, and pH) and Appendix IV constituents that were detected in the downgradient wells during the March 2018 monitoring event (i.e., arsenic, barium, cobalt, fluoride, molybdenum, Radium 226 and 228 combined, and thallium). The November 2018 groundwater samples were analyzed for Appendix III constituents and Appendix IV constituents that were detected in the background or downgradient wells during the March 2018 monitoring event.

2.2 March 2018 Groundwater Monitoring Results

Laboratory analytical results from the March 2018 groundwater assessment monitoring event are summarized in **Table 1**. Laboratory analytical reports are provided as **Appendix B**. Results of the March 2018 groundwater monitoring revealed detections of the following Appendix IV constituents at very low, and in most cases estimated, concentrations at the downgradient well locations:

- Arsenic in MW-D3;
- Barium in MW-D1, MW-D2, and MW-D3;
- Cobalt in MW-D3;
- Fluoride in MW-D1, MW-D2, and MW-D3;
- Molybdenum in MW-D3;
- Radium 226 and 228 Combined in MW-D1, MW-D2, and MW-D3; and
- Thallium in MW-D3.

In addition, barium, chromium, fluoride, lithium, and selenium were detected in the upgradient well MW-U1. The detected concentrations of Appendix IV constituents were below their respective USEPA's maximum contaminant levels (MCLs) for those parameters with an established MCL (Appendix I to 40 CFR §257) or below the groundwater protection standard for cobalt and molybdenum listed under 40 CFR §257.95 (h)(2). The Appendix IV constituents detected in the downgradient wells during the March 2018 monitoring event may be naturally occurring, particularly given the very low concentrations detected and the presence of two of the constituents (barium and fluoride) in the upgradient background well.

The groundwater sample from background monitoring well MW-U1 was also analyzed for boron (an Appendix III constituent) during the March 2018 monitoring to evaluate for the presence of naturally occurring boron. Boron was detected in well MW-U1 at an estimated concentration of 0.0077 mg/L (**Table 2**). The laboratory report for boron is included in **Appendix B**.

2.3 June 2018 Groundwater Monitoring Results

Laboratory analytical results of Appendix III constituents from the June 2018 groundwater assessment monitoring event are summarized in **Table 3**. Laboratory analytical reports are provided as **Appendix B**.

Laboratory analytical results of Appendix IV constituents from the June 2018 groundwater assessment monitoring event are summarized in **Table 4**. The concentrations of Appendix IV constituents that were detected in the downgradient wells were below their respective USEPA's MCLs or below the groundwater protection standard for cobalt and molybdenum listed under 40 CFR §257.95 (h)(2).

2.4 November 2018 Groundwater Monitoring Results

Laboratory analytical results of Appendix III constituents from the November 2018 groundwater assessment monitoring event are summarized in **Table 5**. Laboratory analytical reports are provided as **Appendix B**.

Laboratory analytical results of Appendix IV constituents from the November 2018 groundwater assessment monitoring event are summarized in **Table 6**. The concentrations of Appendix IV constituents that were detected in the downgradient wells

were below their respective USEPA's MCLs or below the groundwater protection standard for cobalt, lithium, and molybdenum listed under 40 CFR §257.95 (h)(2).

The March, June, and November 2018 assessment monitoring results were statistically evaluated in accordance with 40 CFR §257.93(g). The statistical analysis results are discussed in Section 3.

3.0 ASSESSMENT MONITORING STATISTICAL DATA ANALYSIS PROCEDURES

3.1 Overview

Statistical analysis of the groundwater data collected during the assessment monitoring event was performed in accordance with the methods listed in the October 2017 Groundwater Monitoring and Statistical Analysis Plan [Geosyntec, 2018]. The statistical methods meet the requirements of the methods specified in 40 CFR §257.93(f) (1) through (5) and the performance standards specified in 40 CFR §257.93(g). Statistical analysis was performed using Sanitas™ v.9.5.32 software and only 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 CFR §161.62 and 40 CFR §141.66) or the GWPS listed under 40 CFR §257.95(h)(2).
- (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.

3.2 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 the groundwater data was not normally distributed. Results of the outlier screening are presented in **Appendix C**. Outliers in the data were not excluded from the analysis in accordance with the USEPA Unified Guidance which recommends removing outliers from the data only if a

reasonable rationale for the outlier(s) is identified and not solely on a statistical basis [USEPA, 2009]. 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 [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 CFR §257.93(f)(3)]. As a result, the GWPSs for this 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 computed for each constituent using background well data collected during the eight detection monitoring events and the March, June, and November 2018 assessment monitoring events. The UTL value was compared to established MCLs under 40 CFR §141.62 and §141.66 or health-based levels listed under 40 CFR §257.95 (h)(2). Then a GWPS was selected as the higher of the two values.

3.3 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.

4.0 STATISTICAL ANALYSIS RESULTS

The statistical analysis results are summarized in **Table 7**, 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) results of outlier testing; (iv) UTL of each constituent constructed based on the background well data; (v) an MCL value for the constituent and; (vi) the derived GWPS for each constituent.

Table 8 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 GWPS to evaluate if there are any SSLs. Comparison of the lower confidence limit to the GWPS revealed no SSLs. 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 initial assessment monitoring and two semi-annual monitoring events indicated that Appendix IV constituents detected in the downgradient monitoring wells were below their respective GWPS. Pursuant to the CCR Rule 40 CFR §257.95(d)(1), groundwater samples will be collected semi-annually for Appendix III and Appendix IV constituents. The next annual groundwater monitoring report summarizing the 2019 groundwater monitoring results will be submitted by 31 January 2020. 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 2019.

6.0 REFERENCES

- CDM Smith. (2014). “Assessment of Dam Safety of Coal Combustion Surface Impoundments – Final Report: Crisp County Power Commission Plant Crisp Warwick, Georgia.” Prepared for U.S. Environmental Protection Agency Washington, D.C., Rev. 1, February 2014.
- Federal Register (2018) Vol. 83 No. 146, 36435, July 30, 2018. Hazardous and Solid Waste Management System: Disposal of Coal Combustion Residuals from Electric Utilities; Amendments to the National Minimum Criteria (Phase One. Part One). <https://www.gpo.gov/fdsys/pkg/FR-2018-07-30/pdf/2018-16262.pdf>
- Geosyntec Consultants. (2018). “Annual Groundwater Monitoring Report. Plant Crisp Ash Pond.” Prepared for Crisp County Power Commission, January 2018.
- Rizzo Associates. (2015). “Dam Safety Assessment Report Plant Crisp Coal Combustion Waste Impoundment.” Submitted to Crisp County Power Commission, 14-5232, Rev. 0, January 2015.
- USEPA (2009). Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, Unified Guidance.
- USEPA (2013). Science and Ecosystem Support Division (SESD, Athens, Georgia) Standard Operating Procedure (SOP) (SESDPROC-301-R3).

TABLES

**Table 1. Crisp County Power Commission
Plant Crisp Ash Pond
Appendix IV Analytical Data Summary - Initial Groundwater Assessment Monitoring Event
Sampling Performed on March 22, 2018**

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

| Constituent | Unit | MCL ⁽¹⁾ | MDL ⁽³⁾ | Upgradient Well ID | Downgradient Well ID | | |
|-----------------------------|-------|----------------------|-------------------------|--------------------|----------------------|-----------------|---------------------|
| | | | | MW-U1 | MW-D1 | MW-D2 | MW-D3 |
| Antimony | mg/L | 0.006 | 0.0010 | ND | ND | ND | ND |
| Arsenic | mg/L | 0.01 | 0.00046 | ND | ND | ND | <0.0013 (0.00060 J) |
| Barium | mg/L | 2 | 0.00049 | <0.0025 (0.0021 J) | 0.0095 | 0.15 | 0.16 |
| Beryllium | mg/L | 0.004 | 0.00034 | ND | ND | ND | ND |
| Cadmium | mg/L | 0.005 | 0.00034 | ND | ND | ND | ND |
| Chromium | mg/L | 0.1 ⁽⁴⁾ | 0.0011 | <0.0025 (0.0016 J) | ND | ND | ND |
| Cobalt | mg/L | 0.006 ⁽²⁾ | 0.00040 ⁽⁵⁾ | ND | ND | ND | <0.0025 (0.0015 J) |
| Fluoride | mg/L | 4 | 0.032 | <0.10 (0.070 J) | <0.10 (0.080 J) | <0.10 (0.060 J) | 0.11 |
| Lead | mg/L | 0.015 ⁽²⁾ | 0.00035 | ND | ND | ND | ND |
| Lithium | mg/L | 0.04 ⁽²⁾ | 0.0011 ⁽⁶⁾ | <0.001 (0.00034 J) | ND | ND | ND |
| Mercury | mg/L | 0.002 ⁽⁷⁾ | 0.000070 | ND | ND | ND | ND |
| Molybdenum | mg/L | 0.1 ⁽²⁾ | 0.00085 ⁽⁸⁾ | ND | ND | ND | <0.015 (0.0022 J) |
| Radium 226 and 288 Combined | pCi/L | 5 | -- ⁽⁹⁾ | 0.131 U | 0.643 | 0.716 | 1.17 |
| Selenium | mg/L | 0.05 | 0.00024 ⁽¹⁰⁾ | 0.00039 | ND | ND | ND |
| Thallium | mg/L | 0.002 | 0.000085 | ND | ND | ND | <0.0005 (0.00010 J) |

Notes:

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

U - result is less than the sample 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.

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. Value shown represents MDL for MW-D1, MW-D2, and MW-D3. Due to dilution of the sample, the MDL for cobalt in MW-U1 is 0.000080 mg/L.
6. Value shown represents MDL for MW-D1, MW-D2, and MW-D3. Due to dilution of the sample, the MDL for lithium in MW-U1 is 0.00022 mg/L.
7. Value for inorganic mercury.
8. Value shown represents MDL for MW-D1, MW-D2, and MW-D3. Due to dilution of the sample, the MDL for molybdenum in MW-U1 is 0.00017 mg/L.
9. During the analysis of radium, background concentrations are subtracted, thus each sample have a different Minimum Detectable Concentration (MDC). The MDCs were as follows: 0.338 pCi/L for MW-U1, 0.394 pCi/L for MW-D1, 0.359 pCi/L for MW-D2, and 0.437 pCi/L for MW-D3.
10. Value shown represents MDL for MW-D1 and MW-D2. Due to dilution of the sample, the MDL for selenium in MW-U1 and MW-D3 is 0.000048 mg/L.

**Table 2. Crisp County Power Commission
Plant Crisp Ash Pond
Boron Analytical Data Summary
Sampling Performed on March 22, 2018**

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

| Constituent | Unit | MCL ^(1,2) | MDL ⁽³⁾ | Upgradient Well ID | Downgradient Well ID | | |
|--------------|------|----------------------|--------------------|--------------------|----------------------|-------|-------|
| | | | | MW-U1 | MW-D1 | MW-D2 | MW-D3 |
| Boron | mg/L | N/A | 0.0042 | <0.01 (0.0077 J) | -- | -- | -- |

Notes:

"-" indicated wells not sampled for the constituent.

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

1. MCLs indicate USEPA maximum contaminant levels. MCLs are established under 40 CFR §141.62 and 40 CFR§141.66.
2. N/A indicates a substance does not have an MCL.
3. MDL indicates minimum detection limit, which is the minimum concentration of analyte that can be measured and reported.

**Table 3. Crisp County Power Commission
Plant Crisp Ash Pond
Appendix III Analytical Data Summary - First Semi-Annual Groundwater Assessment Monitoring Event
Sampling Performed on June 5, 2018**

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

| Constituent | Unit | MCL ^(1,2) | MDL ⁽³⁾ | Upgradient Well ID | Downgradient Well ID | | |
|-------------------------------|------|----------------------|---------------------|--------------------|----------------------|----------------|-------|
| | | | | MW-U1 | MW-D1 | MW-D2 | MW-D3 |
| Boron | mg/L | N/A | 0.021 | ND | 0.086 | 0.11 | 0.21 |
| Calcium | mg/L | N/A | 0.13 ⁽⁴⁾ | 33 | 22 | 130 | 110 |
| Chloride | mg/L | N/A | 0.6 | <2 (1.8 J) | 2.0 | 5.1 | 4.1 |
| Fluoride | mg/L | 4 | 0.032 | <0.1 (0.060 J) | <0.1 (0.070 J) | <0.1 (0.070 J) | 0.12 |
| Sulfate | mg/L | N/A | 1.4 | <5 (2.9 J) | 16 | 18 | 29 |
| pH | mg/L | N/A | -- | 6.74 | 5.91 | 6.50 | 6.42 |
| Total Dissolved Solids | mg/L | N/A | 3.4 | 110 | 110 | 390 | 370 |

Notes:

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

1. MCLs indicate USEPA maximum contaminant levels. MCLs are established under 40 CFR §141.62 and 40 CFR§141.66.
 2. N/A indicates constituent does not have an MCL.
 3. MDL indicates minimum detection limit, which is the minimum concentration of analyte that can be measured and reported.
 4. Value shown represents MDL for MW-D1 and MW-U1. Due to dilution of the sample, the MDL for calcium in MW-D2 and MW-D3 is 0.63 mg/L.
- There is no MDL for pH.

**Table 4. Crisp County Power Commission
Plant Crisp Ash Pond
Appendix IV Analytical Data Summary - First Semi-Annual Groundwater Assessment Monitoring Event
Sampling Performed on June 5, 2018**

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

| Constituent | Unit | MCL ⁽¹⁾ | MDL ⁽³⁾ | Upgradient Well ID | Downgradient Well ID | | |
|------------------------------------|-------|----------------------|--------------------|-----------------------|----------------------|----------------------|---------------------|
| | | | | MW-U1 | MW-D1 | MW-D2 | MW-D3 |
| Arsenic | mg/L | 0.01 | 0.00046 | ND | ND | ND | <0.0013 (0.00067 J) |
| Barium | mg/L | 2 | 0.00049 | 0.0025 | 0.01 | 0.19 | 0.15 |
| Cobalt | mg/L | 0.006 ⁽²⁾ | 0.00040 | ND | ND | ND | <0.0025 (0.0017 J) |
| Fluoride | mg/L | 4 | 0.032 | <0.10 (0.060 J) | <0.10 (0.070 J) | <0.10 (0.070 J) | 0.12 |
| Molybdenum | mg/L | 0.1 ⁽²⁾ | 0.00085 | ND | ND | ND | <0.01 (0.0022 J) |
| Radium 226 and 288 Combined | pCi/L | 5 | -- ⁽⁴⁾ | -0.0586 U | 0.149 U | 0.0139 U | 0.564 |
| Thallium | mg/L | 0.002 | 0.000085 | ND | ND | <0.0005 (0.000085 J) | <0.0005 (0.00012 J) |

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.

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. During the analysis of radium, background concentrations are subtracted, thus each sample have a different Minimum Detectable Concentration (MDC). The MDCs were as follows: 0.362 pCi/L for MW-U1, 0.407 pCi/L for MW-D1, 0.401 pCi/L for MW-D2, and 0.366 pCi/L for MW-D3.

**Table 5. Crisp County Power Commission
Plant Crisp Ash Pond
Appendix III Analytical Data Summary - Second Semi-Annual Groundwater Assessment Monitoring Event
Sampling Performed on November 29, 2018**

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

| Constituent | Unit | MCL ^(1,2) | MDL ⁽³⁾ | Upgradient Well ID | Downgradient Well ID | | |
|-------------------------------|------|----------------------|---------------------|--------------------|----------------------|---------------|-------|
| | | | | MW-U1 | MW-D1 | MW-D2 | MW-D3 |
| Boron | mg/L | N/A | 0.021 | ND | 0.18 | 0.14 | 0.27 |
| Calcium | mg/L | N/A | 0.13 ⁽⁴⁾ | 32 | 21 | 120 | 110 |
| Chloride | mg/L | N/A | 1.4 | <2 (1.7 J) | <2 (1.5 J) | 5.1 | 4.4 |
| Fluoride | mg/L | 4 | 0.032 | <0.1 (0.040 J) | <0.1 (0.040 J) | <0.1 (0.04 J) | 0.1 |
| Sulfate | mg/L | N/A | 1.4 | <5 (2.0 J) | 11 | 18 | 28 |
| pH | mg/L | N/A | -- | 7.72 | 6.33 | 6.60 | 6.80 |
| Total Dissolved Solids | mg/L | N/A | 3.4 | 66 | 94 | 360 | 350 |

Notes:

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

1. MCLs indicate USEPA maximum contaminant levels. MCLs are established under 40 CFR §141.62 and 40 CFR§141.66.
 2. N/A indicates constituent does not have an MCL.
 3. MDL indicates minimum detection limit, which is the minimum concentration of analyte that can be measured and reported.
 4. Value shown represents MDL for MW-D1, MW-D3, and MW-U1. Due to dilution of the sample, the MDL for calcium in MW-D2 is 0.63 mg/L.
- There is no MDL for pH.

**Table 6. Crisp County Power Commission
Plant Crisp Ash Pond
Appendix IV Analytical Data Summary - Second Semi-Annual Groundwater Assessment Monitoring Event
Sampling Performed on November 29, 2018**

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

| Constituent | Unit | MCL ^(1,2) | MDL ⁽³⁾ | Upgradient Well ID | Downgradient Well ID | | |
|------------------------------------|-------|----------------------|--------------------|--------------------|----------------------|----------------------|---------------------|
| | | | | MW-U1 | MW-D1 | MW-D2 | MW-D3 |
| Arsenic | mg/L | 0.01 | 0.00046 | ND | ND | ND | ND |
| Barium | mg/L | 2 | 0.00049 | <0.0025 (0.0018 J) | 0.0099 | 0.15 | 0.14 |
| Chromium | mg/L | 0.1 ⁽⁴⁾ | 0.0011 | <0.0025 (0.0012 J) | ND | ND | ND |
| Cobalt | mg/L | 0.006 ⁽²⁾ | 0.0004 | ND | ND | ND | <0.0025 (0.00098 J) |
| Fluoride | mg/L | 4 | 0.032 | <0.10 (0.04 J) | <0.10 (0.04 J) | <0.10 (0.040 J) | 0.10 |
| Lithium | mg/L | 0.04 ⁽²⁾ | 0.0011 | ND | ND | ND | ND |
| Molybdenum | mg/L | 0.1 ⁽²⁾ | 0.0020 | ND | ND | ND | ND |
| Radium 226 and 288 Combined | pCi/L | 5 | -- ⁽⁵⁾ | 0.0234 U | 0.0994 U | 0.180 U | 0.0501 U |
| Selenium | mg/L | 0.05 | 0.00071 | ND | ND | ND | ND |
| Thallium | mg/L | 0.002 | 0.000085 | ND | ND | <0.0005 (0.000085 J) | <0.0005 (0.00010 J) |

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.

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: 0.460 pCi/L for MW-U1, 0.451 pCi/L for MW-D1, 0.402 pCi/L for MW-D2, and 0.359 pCi/L for MW-D3.

**Table 7. Crisp County Power Commission
Plant Crisp Ash Pond
Summary of Basic Groundwater Statistics and GWPS for Appendix IV Constituents**

| 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 | 9 | 9 | 100% | <0.0025 | <0.0025 | 0.0025 | 0.006 | 0.006 |
| | MW-D1 | 9 | 9 | 100% | <0.0025 | <0.0025 | | | |
| | MW-D2 | 9 | 9 | 100% | <0.0025 | <0.0025 | | | |
| | MW-D3 | 9 | 9 | 100% | <0.0025 | <0.0025 | | | |
| Arsenic [mg/L] | MW-U1 | 11 | 10 | 91% | 0.00046 (J) | <0.0013 | 0.0013 | 0.01 | 0.01 |
| | MW-D1 | 11 | 11 | 100% | <0.0013 | <0.0013 | | | |
| | MW-D2 | 11 | 8 | 73% | 0.00048 (J) | <0.0013 | | | |
| | MW-D3 | 11 | 2 | 18% | 0.00048 (J) | 0.0016 | | | |
| Barium [mg/L] | MW-U1 | 11 | 0 | 0% | 0.002 | 0.0034 | 0.0039 | 2 | 2 |
| | MW-D1 | 11 | 0 | 0% | 0.0095 | 0.014 | | | |
| | MW-D2 | 11 | 0 | 0% | 0.087 | 0.190 | | | |
| | MW-D3 | 11 | 0 | 0% | 0.140 | 0.230 | | | |
| Beryllium [mg/L] | MW-U1 | 9 | 9 | 100% | <0.002 | <0.0025 | 0.0025 | 0.004 | 0.004 |
| | MW-D1 | 9 | 9 | 100% | <0.002 | <0.0025 | | | |
| | MW-D2 | 9 | 9 | 100% | <0.002 | <0.0025 | | | |
| | MW-D3 | 9 | 9 | 100% | <0.002 | <0.0025 | | | |
| Cadmium [mg/L] | MW-U1 | 9 | 9 | 100% | <0.001 | <0.0025 | 0.0025 | 0.005 | 0.005 |
| | MW-D1 | 9 | 9 | 100% | <0.001 | <0.0025 | | | |
| | MW-D2 | 9 | 9 | 100% | <0.001 | <0.0025 | | | |
| | MW-D3 | 9 | 9 | 100% | <0.001 | <0.0025 | | | |
| Chromium [mg/L] | MW-U1 | 10 | 0 | 0% | 0.0012 | 0.0051 | 0.0051 | 0.1 | 0.1 |
| | MW-D1 | 10 | 9 | 90% | <0.00125 | 0.0034 | | | |
| | MW-D2 | 10 | 9 | 90% | <0.00125 | 0.0038 | | | |
| | MW-D3 | 10 | 9 | 90% | <0.00125 | 0.0029 | | | |
| Cobalt [mg/L] | MW-U1 | 11 | 11 | 100% | <0.0005 | <0.0025 | 0.0025 | 0.006 | 0.006 |
| | MW-D1 | 11 | 11 | 100% | <0.0025 | <0.0025 | | | |
| | MW-D2 | 11 | 10 | 91% | 0.00047 (J) | <0.0025 | | | |
| | MW-D3 | 11 | 0 | 0% | 0.00079 (J) | 0.0017 (J) | | | |
| Fluoride [mg/L] | MW-U1 | 11 | 0 | 0% | 0.040 | 0.070 | 0.089 | 4 | 4 |
| | MW-D1 | 11 | 0 | 0% | 0.040 | 0.110 | | | |
| | MW-D2 | 11 | 0 | 0% | 0.040 | 0.070 | | | |
| | MW-D3 | 11 | 0 | 0% | 0.060 | 0.130 | | | |
| Lead [mg/L] | MW-U1 | 9 | 8 | 89% | 0.00065 (J) | <0.0013 | 0.0013 | 0.015 | 0.015 |
| | MW-D1 | 9 | 8 | 89% | 0.0008 (J) | <0.0013 | | | |
| | MW-D2 | 9 | 7 | 78% | 0.00037 (J) | <0.0013 | | | |
| | MW-D3 | 9 | 9 | 100% | <0.0013 | <0.0013 | | | |
| Lithium [mg/L] | MW-U1 | 10 | 9 | 90% | 0.00034 (J) | <0.0025 | 0.0025 | 0.04 | 0.04 |
| | MW-D1 | 10 | 10 | 100% | <0.0025 | <0.005 | | | |
| | MW-D2 | 10 | 10 | 100% | <0.0025 | <0.005 | | | |
| | MW-D3 | 10 | 10 | 100% | <0.0025 | <0.005 | | | |
| Mercury [mg/L] | MW-U1 | 9 | 8 | 89% | 0.000099 (J) | <0.0002 | 0.0002 | 0.002 | 0.002 |
| | MW-D1 | 9 | 8 | 89% | 0.000077 (J) | <0.0002 | | | |
| | MW-D2 | 9 | 7 | 78% | 0.00011 (J) | <0.0002 | | | |
| | MW-D3 | 9 | 8 | 89% | 0.00011 (J) | <0.0002 | | | |
| Molybdenum [mg/L] | MW-U1 | 11 | 11 | 100% | <0.003 | <0.01 | 0.01 | 0.10 | 0.10 |
| | MW-D1 | 11 | 11 | 100% | <0.01 | <0.015 | | | |
| | MW-D2 | 11 | 8 | 73% | <0.01 | 0.0025 | | | |
| | MW-D3 | 11 | 1 | 9% | <0.01 | 0.0088 | | | |
| Radium 226 and 228 228 Combined [pCi/L] | MW-U1 | 11 | 1 | 9% | 0.000 | 0.614 | 0.807 | 5 | 5 |
| | MW-D1 | 11 | 0 | 0% | 0.099 | 0.816 | | | |
| | MW-D2 | 11 | 0 | 0% | 0.014 | 1.280 | | | |
| | MW-D3 | 11 | 0 | 0% | 0.050 | 1.280 | | | |
| Selenium [mg/L] | MW-U1 | 10 | 4 | 40% | 0.00039 | <0.0013 | 0.001 | 0.05 | 0.05 |
| | MW-D1 | 10 | 9 | 90% | 0.00033 (J) | <0.0013 | | | |
| | MW-D2 | 10 | 7 | 70% | 0.00033 (J) | <0.0013 | | | |
| | MW-D3 | 10 | 7 | 70% | <0.00025 | 0.0028 | | | |
| Thallium [mg/L] | MW-U1 | 11 | 11 | 100% | <0.0005 | <0.0005 | 0.0005 | 0.002 | 0.002 |
| | MW-D1 | 11 | 11 | 100% | <0.0005 | <0.0005 | | | |
| | MW-D2 | 11 | 3 | 27% | 0.000085 (J) | <0.0005 | | | |
| | MW-D3 | 11 | 0 | 0% | 0.000095 (J) | 0.00013 (J) | | | |

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.

**Table 8. Crisp County Power Commission
Plant Crisp Ash Pond
Evaluation of SSLs for Appendix IV Constituents**

| Appendix IV to Part 257 - Constituents for Assessment Monitoring | Well ID | Selected Groundwater Protection Standard (GWPS) for the Site (From Table 7) | Lower Confidence Limit if Detected During the 2018 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 | | ND | No |
| | MW-D2 | | ND | No |
| | MW-D3 | | 0.0005 | No |
| Barium [mg/L] | MW-U1 | 2 | Background Well | |
| | MW-D1 | | 0.010 | No |
| | MW-D2 | | 0.112 | No |
| | MW-D3 | | 0.164 | 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 | | ND | No |
| | MW-D2 | | ND | No |
| | MW-D3 | | ND | No |
| Chromium [mg/L] | MW-U1 | 0.1 | Background Well | |
| | MW-D1 | | ND | No |
| | MW-D2 | | ND | No |
| | MW-D3 | | ND | No |
| Cobalt [mg/L] | MW-U1 | 0.0025 | Background Well | |
| | MW-D1 | | ND | No |
| | MW-D2 | | ND | No |
| | MW-D3 | | 0.001 | No |
| Fluoride [mg/L] | MW-U1 | 4 | Background Well | |
| | MW-D1 | | 0.055 | No |
| | MW-D2 | | 0.040 | No |
| | MW-D3 | | 0.100 | 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 | | ND | No |
| | MW-D2 | | ND | No |
| | MW-D3 | | ND | 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 | | ND | No |
| | MW-D2 | | ND | No |
| | MW-D3 | | 0.002 | No |
| Radium 226 and 228 228 Combined [pCi/L] | MW-U1 | 5 | Background Well | |
| | MW-D1 | | 0.146 | No |
| | MW-D2 | | 0.233 | No |
| | MW-D3 | | 0.313 | No |
| Selenium [mg/L] | MW-U1 | 0.05 | Background Well | |
| | MW-D1 | | ND | No |
| | MW-D2 | | ND | No |
| | MW-D3 | | ND | No |
| Thallium [mg/L] | MW-U1 | 0.002 | Background Well | |
| | MW-D1 | | ND | No |
| | MW-D2 | | ND | 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




N:\Crisp County\GIS\IMXD\2019\GW Monitoring Well Location Map.mxd 1/8/2019 9:01:57 AM AK

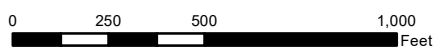


Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community Aerial Photograph from June 2016.



Legend

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



Groundwater Monitoring Well Location Map

Crisp County Power Commission
Warwick, Georgia



| | |
|--------------|-------------------------------------|
| DATE: | JANUARY 2019 |
| PROJECT NO. | GW6152 |
| DOCUMENT NO. | GA 190004 |
| FILE NO. | GW MONITORING WELL LOCATION MAP.MXD |
| FIGURE NO. | 1 |

KENNESAW, GA

N:\Crisp County\GIS\IMXD\2019\November 2018 Potentiometric Surface Map.mxd 1/8/2019 9:05:54 AM AK



Service Layer Credits: Source: Esri, DigitalGlobe, 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 - 29 November 2018 (ft)
- Ash Pond Limits
- CCPC Property Boundary

0 250 500 1,000 Feet

| | | |
|---|--------------|--|
| Potentiometric Surface Map | | |
| Crisp County Power Commission Warwick, Georgia | | |
| Geosyntec consultants | DATE: | JANUARY 2019 |
| | PROJECT NO. | GW6152 |
| KENNESAW, GA | DOCUMENT NO. | GA 190004 |
| | FILE NO. | NOVEMBER 2018 POTENTIOMETRIC SURFACE MAP.MXD |
| | FIGURE NO. | 2 |

APPENDIX A

Field Groundwater Sampling Forms

WATER LEVEL MEASUREMENTS

Site Name: CRISP Co. POWER

Sampling Personnel: S. RANDAL

Location: WARWICK, GA

Field Conditions: COLD, WINDY, SUNNY

Date: 3/22/10

| Well ID | Time | TOC Elevation | Depth to Water (ft) | Well Depth (ft) | GW Elevation | Field Observations |
|-------------------|------|---------------|---------------------|-----------------|--------------|--------------------|
| MW-D3 | 0845 | | 6.13 | 22.52 | | |
| MW-D2 | 0850 | | 12.42 | 22.4 | | |
| MW-D1 | 0855 | | 14.56 | 22.6 | | |
| MW-U1 | 0900 | | 11.0 | 37.15 | | |
| END OF DAY LEVELS | | | | | | |
| MW-D3 | 1400 | | 6.14 | | | |
| MW-D2 | 1405 | | 12.48 | | | |
| MW-D1 | 1410 | | 13.57 | | | |
| MW-U1 | 1415 | | 10.97 | | | |
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DEP Form FD 9000-24: GROUNDWATER SAMPLING LOG

| | |
|--|---|
| SITE NAME: Crisp County Power Commission | SITE LOCATION: 961 Power Dam Rd Warwick, GA 31796 |
| WELL NO: MW-D1 | SAMPLE ID: MW-D1-20180322 |
| DATE: 3/22/18 | |

PURGING DATA

| | | | | | | | | | | | |
|--|--|--|-------------------------------------|--------------------------------|---------------------|------------|--|--|------------------|----------|-----------------------|
| WELL DIAMETER (inches): 2 | TUBING DIAMETER (inches): 0.25 | WELL SCREEN INTERVAL DEPTH: 12.6 feet to 22.6 feet | STATIC DEPTH TO WATER (feet): 14.56 | 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 - 14.56 feet) X 0.16 gallons/foot = 1.3 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: 1145 | PURGING ENDED AT: 1205 | 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/ODOR (describe) |
| 1145 | 0.0 | 0.0 | 0.063 | 14.78 | 7.02 | 20.02 | 215 | 4.53 | 3 | 214 | CLEAR |
| 1150 | 0.063 | 0.063 | 0.063 | 14.75 | 6.65 | 20.26 | 204 | 4.16 | 3 | 197 | CLEAR |
| 1155 | 0.063 | 0.315 | 0.063 | 14.79 | 6.60 | 20.15 | 198 | 4.15 | 1 | 201 | CLEAR |
| 1200 | 0.063 | 0.63 | 0.063 | 14.79 | 6.57 | 19.99 | 196 | 4.17 | 1 | 206 | CLEAR |
| 1205 | 0.063 | 0.95 | 0.063 | 14.8 | 6.54 | 20.19 | 210 | 4.11 | 1 | 211 | 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: Stephen Randall/Geosyntec | SAMPLER(S) SIGNATURE(S): Stephen W. Randall | SAMPLING INITIATED AT: 1210 | SAMPLING ENDED AT: 1221 | | | | | | |
| PUMP OR TUBING DEPTH IN WELL (feet): 17' | TUBING MATERIAL CODE: LDPE | FIELD-FILTERED: Y <input checked="" type="checkbox"/> N | FILTER SIZE: _____ μm | | | | | | |
| FIELD DECONTAMINATION: PUMP Y <input checked="" type="checkbox"/> N | TUBING Y <input checked="" type="checkbox"/> N (replaced) | DUPLICATE: Y <input checked="" type="checkbox"/> N | | | | | | | |
| SAMPLE CONTAINER SPECIFICATION | | | SAMPLE PRESERVATION (including wet ice) | | | | | | |
| SAMPLE ID CODE | # CONTAINERS | MATERIAL CODE | VOLUME | PRESERVATIVE USED | TOTAL VOL ADDED IN FIELD (mL) | FINAL pH | INTENDED ANALYSIS AND/OR METHOD | SAMPLING EQUIPMENT CODE | SAMPLE PUMP FLOW RATE (mL per minute) |
| MW-D1 | 1 | HDPE | 1.9 L | HNO3 | --- | --- | 9315, 9320, Ra226_Ra228 | APP | 250 |
| 2018 | 1 | HDPE | 1 L | --- | --- | --- | SM 4500 | APP | 250 |
| 0322 | 1 | HDPE | 0.25 L | HNO3 | --- | --- | 6020, 7470A | APP | 250 |
| REMARKS: | | | | | | | | | |
| 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. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
 2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
 pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

DEP Form FD 9000-24: GROUNDWATER SAMPLING LOG

| | |
|---|--|
| SITE NAME: Crisp County Power Commission | SITE LOCATION: 961 Power Dam Rd Warwick, GA 31796 |
| WELL NO: MW-D2 | SAMPLE ID: MW-D2-20180322 |
| DATE: 3/22/18 | |

PURGING DATA

| | | | | |
|---|---------------------------------------|--|--|--------------------------------------|
| WELL DIAMETER (inches): 2 | TUBING DIAMETER (inches): 0.25 | WELL SCREEN INTERVAL DEPTH: 12.4 feet to 22.4 feet | STATIC DEPTH TO WATER (feet): 12.42 | 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) = (22.4 feet - 12.42 feet) X 0.16 gallons/foot = 1.6 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: 0940 | PURGING ENDED AT: 1009 | TOTAL VOLUME PURGED (gallons): 1.5 |
|---|---|-----------------------------------|-------------------------------|---|

| 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/ODOR (describe) |
|------|-------------------------|--------------------------------|------------------|-----------------------|---------------------|------------|---|---|------------------|----------|-----------------------|
| 0943 | 0.0 | 0.0 | .060 | 12.78 | 4.71 | 11.63 | 617 | 11.4 | 3 | 222 | CLEAR |
| 0948 | 0.3 | 0.3 | .060 | 13.03 | 4.24 | 13.15 | 622 | 10.09 | 2 | 245 | CLEAR |
| 0953 | 0.3 | 0.6 | .060 | 13.28 | 4.26 | 13.83 | 631 | 8.99 | 2 | 251 | CLEAR |
| 0958 | 0.3 | 0.9 | .060 | 13.41 | 4.46 | 13.73 | 632 | 9.0 | 2 | 245 | CLEAR |
| 1003 | 0.3 | 1.2 | .060 | 14.01 | 4.41 | 13.84 | 632 | 9.94 | 2 | 249 | CLEAR |
| 1008 | 0.3 | 1.5 | .060 | 14.3 | 4.38 | 14.50 | 630 | 9.88 | 2 | 262 | CLEAR |
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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: Stephen Randall/Geosyntec | SAMPLER(S) SIGNATURE(S): <i>Stephen W. Randall</i> | SAMPLING INITIATED AT: 1012 | SAMPLING ENDED AT: 1023 |
| 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"/> N <input type="checkbox"/> TUBING Y <input checked="" type="checkbox"/> N (replaced) <input type="checkbox"/> | 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 | | | |
| MW-D2 | 1 | HDPE | 1.9 L | HNO3 | --- | --- | 9315, 9320, Ra226_Ra228 | APP | 250 |
| 2018 | 1 | HDPE | 1 L | --- | --- | --- | SM 4500 | APP | 250 |
| 0322 | 1 | HDPE | 0.25 L | HNO3 | --- | --- | 6020, 7470A | APP | 250 |
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REMARKS:

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. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
 2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
 pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

DEP Form FD 9000-24: GROUNDWATER SAMPLING LOG

| | |
|--|---|
| SITE NAME: Crisp County Power Commission | SITE LOCATION: 961 Power Dam Rd Warwick, GA 31796 |
| WELL NO: MW-D3 | SAMPLE ID: MW-D3-20180322 |
| DATE: 3/22/18 | |

PURGING DATA

| | | | | |
|---|--|--|------------------------------------|-------------------------------------|
| WELL DIAMETER (inches): 2 | TUBING DIAMETER (inches): 0.25 | WELL SCREEN INTERVAL DEPTH: 12.5 feet to 22.5 feet | STATIC DEPTH TO WATER (feet): 6.13 | 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) = (22.5 feet - 6.13 feet) X 0.16 gallons/foot = 2.6 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: 1042 | PURGING ENDED AT: 1105 | TOTAL VOLUME PURGED (gallons): 1.32 |

| 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/ODOR (describe) |
|------|-------------------------|--------------------------------|------------------|-----------------------|---------------------|------------|--|--|------------------|----------|-----------------------|
| 1045 | 0.0 | 0.0 | 0.066 | 7.28 | 6.9 | 17.02 | 739 | 0.83 | 2 | 178 | CLEAR |
| 1050 | 0.33 | 0.33 | 0.066 | 7.98 | 6.91 | 17.6 | 722 | 0.0 | 2 | 149 | CLEAR |
| 1055 | 0.33 | 0.66 | 0.066 | 8.28 | 6.89 | 18.11 | 714 | 0.0 | 2 | 114 | CLEAR |
| 1100 | 0.33 | 0.99 | 0.066 | 8.50 | 6.91 | 18.67 | 708 | 0.0 | 2 | 101 | CLEAR |
| 1105 | 0.33 | 1.32 | 0.066 | 8.73 | 6.90 | 19.27 | 700 | 0.0 | 2 | 95 | 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: Stephen Randall/Geosyntec | | SAMPLER(S) SIGNATURE(S): <i>Stephen W. Randall</i> | | SAMPLING INITIATED AT: 1110 | SAMPLING ENDED AT: 1129 |
| 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"/> N <input type="checkbox"/> | | TUBING Y <input checked="" type="checkbox"/> N (replaced) <input type="checkbox"/> | | DUPLICATE: <input checked="" type="checkbox"/> Y <input type="checkbox"/> 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 | | | |
| MW-D3 | 1 | HDPE | 1.9 L | HNO3 | --- | --- | 9315, 9320, Ra226_Ra228 | APP | 250 |
| 2018 | 1 | HDPE | 1 L | --- | --- | --- | SM 4500 | APP | 250 |
| 0322 | 1 | HDPE | 0.25 L | HNO3 | --- | --- | 6020, 7470A | APP | 250 |
| DUP9 | 1 | HDPE | 1.9 L | HNO3 | - | - | 9315, 9320, Ra226, Ra228 | APP | 250 |
| 2018 | 1 | HDPE | 1 L | --- | - | - | 6020, 7470A | APP | 250 |
| 0322 | 1 | HDPE | 0.25 L | HNO3 | - | - | SM 4500 | APP | 250 |

REMARKS:

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. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
 2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
 pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

DEP Form FD 9000-24: GROUNDWATER SAMPLING LOG

| | |
|--|---|
| SITE NAME: Crisp County Power Commission | SITE LOCATION: 961 Power Dam Rd Warwick, GA 31796 |
| WELL NO: MW-41 | SAMPLE ID: MW-41-20180322 |
| DATE: 3/22/18 | |

PURGING DATA

| | | | | |
|---|---|--|------------------------------------|-------------------------------------|
| WELL DIAMETER (inches): 2 | TUBING DIAMETER (inches): 0.25 | WELL SCREEN INTERVAL DEPTH: 27.1 feet to 37.1 feet | STATIC DEPTH TO WATER (feet): 11.0 | 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) = (37.1 feet - 11 feet) X 0.16 gallons/foot = 4.48 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): 32.1 | FINAL PUMP OR TUBING DEPTH IN WELL (feet): 32.1 | PURGING INITIATED AT: 1240 | PURGING ENDED AT: 1302 | TOTAL VOLUME PURGED (gallons): 1.27 |

| 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/ODOR (describe) |
|------|-------------------------|--------------------------------|------------------|-----------------------|---------------------|------------|--|--|------------------|----------|-----------------------|
| 1242 | 0.0 | 0.0 | 0.063 | 11.39 | 7.43 | 20.73 | 218 | 6.63 | 2 | 185 | CLEAR |
| 1247 | .315 | .315 | 0.063 | 11.65 | 7.72 | 21.21 | 232 | 6.22 | 1 | 194 | CLEAR |
| 1252 | .315 | 0.63 | 0.063 | 11.67 | 7.84 | 21.38 | 218 | 6.17 | 1 | 197 | CLEAR |
| 1257 | .315 | 0.95 | 0.63 | 11.69 | 7.83 | 21.38 | 216 | 6.11 | 1 | 186 | CLEAR |
| 1302 | .315 | 1.27 | 0.63 | 11.67 | 7.87 | 21.59 | 215 | 6.10 | 1 | 186 | 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: Stephen Randall/Geosyntec | | | SAMPLER(S) SIGNATURE(S): <i>Stephen W. Randall</i> | | | SAMPLING INITIATED AT: 1305 | | SAMPLING ENDED AT: 1320 | |
| PUMP OR TUBING DEPTH IN WELL (feet): 32.1 | | | TUBING MATERIAL CODE: LDPE | | | FIELD-FILTERED: Y <input checked="" type="checkbox"/> N | | FILTER SIZE: _____ μm | |
| FIELD DECONTAMINATION: PUMP Y <input checked="" type="checkbox"/> N | | | TUBING Y <input checked="" type="checkbox"/> N (replaced) | | | DUPLICATE: Y <input checked="" type="checkbox"/> 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 | 1.9 L | HNO3 | --- | --- | 9315, 9320, Ra226_Ra228 | APP | 250 |
| | 1 | HDPE | 1 L | --- | --- | --- | SM 4500 | APP | 250 |
| | 1 | HDPE | 0.25 L | HNO3 | --- | --- | 6020, 7470A | APP | 250 |
| | 1 | HDPE | 0.25L | HNO3 | BORON | --- | | APP | 250 |

REMARKS: BORON SAMPLE COLLECTED AND WILL BE SENT UNDER DIFFERENT COC.

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. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
 2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
 pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

WATER LEVEL MEASUREMENTS

| | |
|-----------------------------------|---------------------------------------|
| Site Name: <u>CRISP Co. POWER</u> | Sampling Personnel: <u>S. RANDALL</u> |
| Location: <u>WARWICK, GA</u> | Field Conditions: <u>SUNNY, CALM</u> |
| Date: <u>6/5/18</u> | |

| Well ID | Time | TOC Elevation | Depth to Water (ft) | Well Depth (ft) | GW Elevation | Field Observations |
|-----------------------------------|------|---------------|---------------------|-----------------|--------------|--------------------|
| MW-D3 | 0845 | | 6.36 | 22.52 | | |
| MW-D2 | 0850 | | 12.75 | 22.4 | | |
| MW-D1 | 0855 | | 14.58 | 22.6 | | |
| MW-U1 | 0900 | | 10.72 | 37.15 | | |
| END OF DAY - TDW LEVELS FOR CHRIS | | | | | | |
| MW-U1 | 1515 | | | 37.37 | | |
| MW-D3 | 1525 | | | 22.73 | | |
| MW-D2 | 1535 | | | 22.64 | | |
| MW-D1 | 1545 | | | 22.85 | | |
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DEP Form FD 9000-24: GROUNDWATER SAMPLING LOG

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|---|--|
| SITE NAME: Crisp County Power Commission | SITE LOCATION: 961 Power Dam Rd Warwick, GA 31796 |
| WELL NO: MW-U1 | SAMPLE ID: MW-U1-20180605 |
| DATE: 6/5/18 | |

PURGING DATA

| | | | | | | | | | | | |
|---|--|--|--|--|---------------------|------------|-----------------------------|--|------------------|----------|-----------------------|
| WELL DIAMETER (Inches): 2 | TUBING DIAMETER (Inches): 0.25 | WELL SCREEN INTERVAL DEPTH: 27.1 feet to 37.1 feet | STATIC DEPTH TO WATER (feet): 10.72 | 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) = (37.1 feet - 10.72 feet) X 26.38 gallons/foot = 4.25 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): 32.1 | FINAL PUMP OR TUBING DEPTH IN WELL (feet): 32.1 | PURGING INITIATED AT: 1315 | PURGING ENDED AT: 1445 | TOTAL VOLUME PURGED (gallons): 5.94 | | | | | | | |
| TIME | VOLUME PURGED (gallons) | CUMUL. VOLUME PURGED (gallons) | PURGE RATE (gpm) | DEPTH TO WATER (feet) | pH (standard units) | TEMP. (°C) | COND. (microhm/cm or µS/cm) | DISSOLVED OXYGEN (circle units) (mg/L or % saturation) | TURBIDITY (NTUs) | ORP (mV) | COLOR/ODOR (describe) |
| 1315 | 0.0 | 0.0 | 0.066 | 10.72 | 6.74 | 27.72 | 192 | 6.33 | 29 | 132 | LT. SAND |
| 1320 | 0.33 | 0.33 | 0.066 | 11.38 | 6.94 | 25.54 | 190 | 6.30 | 14 | 130 | CLEAR |
| 1325 | 0.33 | 0.66 | 0.066 | 11.42 | 6.96 | 25.34 | 190 | 6.64 | 16 | 132 | " |
| 1330 | 0.33 | 0.99 | 0.066 | 11.44 | 7.02 | 24.97 | 189 | 6.52 | 17 | 131 | " |
| 1335 | 0.33 | 1.32 | 0.066 | 11.49 | 7.09 | 23.33 | 184 | 6.65 | 21 | 132 | " |
| 1340 | 0.33 | 1.65 | 0.066 | 11.51 | 7.10 | 23.40 | 181 | 6.66 | 24 | 142 | " |
| 1345 | 0.33 | 1.98 | 0.066 | 11.52 | 6.98 | 24.21 | 187 | 6.62 | 15 | 141 | " |
| 1350 | 0.33 | 2.31 | 0.066 | 11.52 | 7.02 | 24.06 | 186 | 6.74 | 17 | 141 | " |
| 1355 | 0.33 | 2.64 | 0.066 | 11.53 | 7.07 | 23.98 | 185 | 6.77 | 14 | 141 | " |
| 1400 | 0.33 | 2.97 | 0.066 | 11.53 | 7.08 | 24.10 | 185 | 6.71 | 14 | 142 | " |
| 1405 | 0.33 | 3.3 | 0.066 | 11.53 | 7.11 | 24.00 | 185 | 6.69 | 14 | 141 | " |
| 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: Stephen Randall/Geosyntec | | | SAMPLER(S) SIGNATURE(S): <i>Stephen W. Randall</i> | | | SAMPLING INITIATED AT: 1450 | | SAMPLING ENDED AT: 1505 | | |
| PUMP OR TUBING DEPTH IN WELL (feet): | | | TUBING MATERIAL CODE: LDPE | | | FIELD-FILTERED: Y <input checked="" type="checkbox"/> N | | FILTER SIZE: _____ µm | | |
| FIELD DECONTAMINATION: PUMP Y <input checked="" type="checkbox"/> N | | | TUBING Y <input checked="" type="checkbox"/> N (replaced) | | | DUPLICATE: Y <input checked="" type="checkbox"/> 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 | 1.9 L | HNO3 | --- | --- | 9315, 9320, Ra228_Ra228 | | APP 250 | |
| | 1 | HDPE | 1 L | --- | --- | --- | SM 4500 | | APP 250 | |
| | 1 | HDPE | 0.25 L | HNO3 | --- | --- | 6020, 7470A | | APP 250 | |
| REMARKS: | | | | | | | | | | |
| 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. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
 2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
 pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

DEP Form FD 9000-24: GROUNDWATER SAMPLING LOG

| | |
|---|--|
| SITE NAME: Crisp County Power Commission | SITE LOCATION: 961 Power Dam Rd Warwick, GA 31796 |
| WELL NO: MW-U1 | SAMPLE ID: MW-U1-20180605 |
| DATE: 6/5/18 | |

PURGING DATA

| | | | | |
|--|---------------------------------------|--|--|--------------------------------------|
| WELL DIAMETER (Inches): 2 | TUBING DIAMETER (Inches): 0.25 | WELL SCREEN INTERVAL DEPTH: 27.1 feet to 37.1 feet | STATIC DEPTH TO WATER (feet): 10.72 | 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) = (37.1 feet - 10.72 feet) X ^{26.38} 0.16 gallons/foot = 4.25 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): 32.1 | FINAL PUMP OR TUBING DEPTH IN WELL (feet): 32.1 | PURGING INITIATED AT: 13.15 | PURGING ENDED AT: 1445 | TOTAL VOLUME PURGED (gallons): 5.94 |
|--|--|------------------------------------|-------------------------------|--|

| 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/ODOR (describe) |
|------|-------------------------|--------------------------------|------------------|-----------------------|---------------------|------------|---|---|------------------|----------|-----------------------|
| 1410 | 0.33 | 3.63 | 0.066 | 11.67 | 7.07 | 23.93 | 185 | 6.97 | 12 | 144 | Clear |
| 1415 | 0.33 | 3.96 | 0.066 | 11.69 | 7.10 | 24.04 | 185 | 6.96 | 13 | 145 | " |
| 1420 | 0.33 | 4.29 | 0.066 | 11.70 | 7.11 | 24.01 | 185 | 6.87 | 12 | 145 | " |
| 1425 | 0.33 | 4.62 | 0.066 | 11.71 | 7.16 | 24.07 | 185 | 6.61 | 12 | 144 | " |
| 1430 | 0.33 | 4.95 | 0.066 | 11.73 | 7.13 | 24.00 | 185 | 6.60 | 11 | 145 | " |
| 1435 | 0.33 | 5.28 | 0.066 | 11.73 | 7.14 | 23.95 | 184 | 6.40 | 9 | 145 | " |
| 1440 | 0.33 | 5.61 | 0.066 | 11.74 | 7.22 | 23.98 | 184 | 6.52 | 7 | 143 | " |
| 1445 | 0.33 | 5.94 | 0.066 | 11.75 | 7.21 | 24.17 | 184 | 6.50 | 7 | 143 | " |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

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 Randall/Geosyntec | SAMPLER(S) SIGNATURE(S): | SAMPLING INITIATED AT: 1450 | SAMPLING ENDED AT: 1505 |
| 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"/> N <input type="checkbox"/> | TUBING Y <input checked="" type="checkbox"/> N (replaced) <input type="checkbox"/> | 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 | | | |
| | 1 | HDPE | 1.9 L | HNO3 | --- | --- | 9315, 9320, Ra226_Ra228 | APP | 250 |
| | 1 | HDPE | 1 L | --- | --- | --- | SM 4500 | APP | 250 |
| | 1 | HDPE | 0.25 L | HNO3 | --- | --- | 6020, 7470A | APP | 250 |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

REMARKS:

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. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

DEP Form FD 9000-24: GROUNDWATER SAMPLING LOG

| | | | |
|--|---------------------------|---|--|
| SITE NAME: Crisp County Power Commission | | SITE LOCATION: 961 Power Dam Rd Warwick, GA 31796 | |
| WELL NO: MW-D1 | SAMPLE ID: MW-D1-20180605 | DATE: 6/5/18 | |

PURGING DATA

| | | | | |
|---|--------------------------------|--|-------------------------------------|-------------------------------|
| WELL DIAMETER (inches): 2 | TUBING DIAMETER (Inches): 0.25 | WELL SCREEN INTERVAL DEPTH: 12.6 feet to 22.6 feet | STATIC DEPTH TO WATER (feet): 14.58 | 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 - 14.58 feet) X 8.02 gallons/foot = 1.30 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: 1135 | PURGING ENDED AT: 1200 | TOTAL VOLUME PURGED (gallons): 1.65 |
|--|--|----------------------------|------------------------|-------------------------------------|

| 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 % saturation | TURBIDITY (NTUs) | ORP (mV) | COLOR/ODOR (describe) |
|------|-------------------------|--------------------------------|------------------|-----------------------|---------------------|------------|--|---|------------------|----------|-----------------------|
| 1135 | 0.0 | 0.0 | 0.066 | 14.84 | 6.31 | 25.86 | 177 | 6.22 | 1 | 138 | CLEAR |
| 1140 | 0.33 | 0.33 | 0.066 | 14.85 | 6.04 | 25.14 | 164 | 5.92 | 1 | 158 | CLEAR |
| 1145 | 0.33 | 0.66 | 0.066 | 14.88 | 5.95 | 25.00 | 166 | 5.97 | 1 | 162 | CLEAR |
| 1150 | 0.33 | 0.99 | 0.066 | 14.86 | 5.95 | 24.75 | 165 | 5.85 | 1 | 165 | CLEAR |
| 1155 | 0.33 | 1.32 | 0.066 | 14.88 | 5.89 | 24.65 | 165 | 5.65 | 1 | 168 | CLEAR |
| 1200 | 0.33 | 1.65 | 0.066 | 14.89 | 5.91 | 24.90 | 164 | 5.50 | 1 | 170 | 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: Stephen Randall/Geosyntec | SAMPLER(S) SIGNATURE(S): Stephen W. Randall | SAMPLING INITIATED AT: 1210 | SAMPLING ENDED AT: 1245 |
| PUMP OR TUBING DEPTH IN WELL (feet): 17' | TUBING MATERIAL CODE: LDPE | FIELD-FILTERED: Y <input checked="" type="checkbox"/> N | FILTER SIZE: ___ µm |
| FIELD DECONTAMINATION: PUMP Y <input checked="" type="checkbox"/> N | TUBING Y <input checked="" type="checkbox"/> N (replaced) | DUPLICATE: <input checked="" type="checkbox"/> 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 | | | |
| | 1 | HDPE | 1.9 L | HNO3 | --- | --- | 9315, 9320, Ra226_Ra228 | APP | 250 |
| | 1 | HDPE | 1 L | --- | --- | --- | SM 4500 | APP | 250 |
| | 1 | HDPE | 0.25 L | HNO3 | --- | --- | 6020, 7470A | APP | 250 |
| DUP 10 | 1 | HDPE | 1.9 L | HNO3 | - | - | 9315, 9320, RA226, RA228 | APP | 250 |
| 2018 | 1 | HDPE | 1 L | - | - | - | SM 4500 | APP | 250 |
| 0605 | 1 | HDPE | 0.25 L | HNO3 | - | - | 6020, 7470A | APP | 250 |

REMARKS: DUP 10 TIME ON COB 0800

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. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

DEP Form FD 9000-24: GROUNDWATER SAMPLING LOG

| | |
|---|--|
| SITE NAME: Crisp County Power Commission | SITE LOCATION: 961 Power Dam Rd Warwick, GA 31796 |
| WELL NO: MW-D2 | SAMPLE ID: MW-D2-20180605 |
| DATE: 6/5/18 | |

PURGING DATA

| | | | | | | | | | | | |
|---|--|--|--|--|---------------------|--------------|---|--|------------------|-----------|-----------------------|
| WELL DIAMETER (Inches): 2 | TUBING DIAMETER (Inches): 0.25 | WELL SCREEN INTERVAL DEPTH: 12.4 feet to 22.4 feet | STATIC DEPTH TO WATER (feet): 12.75 | 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) = (22.4 feet - 12.75 feet) X ^{9.45} 0.16 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): 17 | FINAL PUMP OR TUBING DEPTH IN WELL (feet): 17 | PURGING INITIATED AT: 0924 | PURGING ENDED AT: 0945 | TOTAL VOLUME PURGED (gallons): 1.32 | | | | | | | |
| 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 % saturation | TURBIDITY (NTUs) | ORP (mV) | COLOR/ODOR (describe) |
| 0924 | 0.0 | 0.0 | 0.066 | 12.75 | 6.50 | 21.31 | 600 | 2.12 | 3 | 38 | CLEAR |
| 0930 | 0.33 | 0.33 | 0.066 | 13.35 | 6.41 | 21.10 | 596 | 2.00 | 1 | 37 | " |
| 0935 | 0.33 | 0.66 | 0.066 | 13.68 | 6.33 | 20.96 | 598 | 1.52 | 1 | 38 | " |
| 0940 | 0.33 | 0.99 | 0.066 | 13.85 | 6.30 | 20.90 | 607 | 1.21 | 1 | 41 | " |
| 0945 | 0.33 | 1.32 | 0.066 | 14.17 | 6.28 | 20.90 | 612 | 1.07 | 1 | 44 | " |
| 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" = 0.0008; 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 = Baller; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify) | | | | | | | | | | | |

SAMPLING DATA

| | | | | | | | | | | |
|---|--------------|---------------|--|---|-------------------------------|--|---------------------------------|--------------------------------|-------------------------|---------------------------------------|
| SAMPLED BY (PRINT) / AFFILIATION: Stephen Randall/Geosyntec | | | SAMPLER(S) SIGNATURE(S): <i>Stephen W. Randall</i> | | | SAMPLING INITIATED AT: 0950 | | SAMPLING ENDED AT: 1003 | | |
| PUMP OR TUBING DEPTH IN WELL (feet): | | | TUBING MATERIAL CODE: LDPE | | | FIELD-FILTERED: Y <input checked="" type="checkbox"/> N | | FILTER SIZE: _____ μm | | |
| FIELD DECONTAMINATION: PUMP Y <input checked="" type="checkbox"/> N | | | TUBING Y <input checked="" type="checkbox"/> 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 | | | | |
| | 1 | HDPE | 1.9 L | HNO3 | --- | --- | 9315, 9320, R#228_R#228 | | APP | 250 |
| | 1 | HDPE | 1 L | --- | --- | --- | SM 4500 | | APP | 250 |
| | 1 | HDPE | 0.25 L | HNO3 | --- | --- | 6020, 7470A | | APP | 250 |
| REMARKS: | | | | | | | | | | |
| 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 = Baller; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify) | | | | | | | | | | |

- NOTES:** 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
 2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

DEP Form FD 9000-24: GROUNDWATER SAMPLING LOG

| | |
|--|---|
| SITE NAME: Crisp County Power Commission | SITE LOCATION: 961 Power Dam Rd Warwick, GA 31796 |
| WELL NO: MW-D3 | SAMPLE ID: MW-D3-20180605 |
| DATE: 6/5/18 | |

PURGING DATA

| | | | | |
|---|---|--|------------------------------------|-------------------------------------|
| WELL DIAMETER (Inches): 2 | TUBING DIAMETER (Inches): 0.25 | WELL SCREEN INTERVAL DEPTH: 12.5 feet to 22.5 feet | STATIC DEPTH TO WATER (feet): 6.36 | 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) = (22.5 feet - 6.36 feet) X 0.16 gallons/foot = 2.6 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: 1018 | PURGING ENDED AT: 1038 | TOTAL VOLUME PURGED (gallons): 1.32 |

| 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 % saturation | TURBIDITY (NTUs) | ORP (mV) | COLOR/ODOR (describe) |
|------|-------------------------|--------------------------------|------------------|-----------------------|---------------------|------------|--|---|------------------|----------|-----------------------|
| 1018 | 0.0 | 0.0 | 0.066 | 7.2 | 6.42 | 22.45 | 591 | 1.87 | 8 | 119 | CLEAR |
| 1023 | 0.33 | 0.33 | 0.066 | 7.88 | 6.39 | 22.66 | 592 | 0.99 | 9 | 113 | " |
| 1028 | 0.33 | 0.66 | 0.066 | 8.52 | 6.39 | 22.51 | 596 | 0.72 | 7 | 88 | " |
| 1033 | 0.33 | 0.99 | 0.066 | 8.88 | 6.39 | 22.56 | 599 | 0.62 | 4 | 66 | " |
| 1038 | 0.33 | 1.32 | 0.066 | 9.05 | 6.40 | 22.62 | 599 | 0.57 | 4 | 54 | " |

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: Stephen Randall/Geosyntec | SAMPLER(S) SIGNATURE(S): <i>Stephen W. Randall</i> | SAMPLING INITIATED AT: 1045 | SAMPLING ENDED AT: 1108 |
| PUMP OR TUBING DEPTH IN WELL (feet): | TUBING MATERIAL CODE: LDPE | FIELD-FILTERED: Y <input checked="" type="checkbox"/> N | FILTER SIZE: ___ μm |
| FIELD DECONTAMINATION: PUMP Y <input checked="" type="checkbox"/> N | TUBING Y <input checked="" type="checkbox"/> N (replaced) | DUPLICATE: Y <input checked="" type="checkbox"/> 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 | 1.9 L | HNO3 | --- | --- | 9315, 9320, Ra226, Re220 | APP | 250 |
| | 1 | HDPE | 1 L | --- | --- | --- | SM 4500 | APP | 250 |
| | 1 | HDPE | 0.25 L | HNO3 | --- | --- | 6020, 7470A | APP | 250 |

REMARKS:

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. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

WATER LEVEL MEASUREMENTS

| | |
|----------------------------------|---------------------------------------|
| Site Name: <u>CRISP CO POWER</u> | Sampling Personnel: <u>S. RANDALL</u> |
| Location: <u>WARWICK, GA</u> | Field Conditions: <u>COLD, CLEAR</u> |
| Date: <u>11/29/18</u> | |

| Well ID | Time | TOC Elevation | Depth to Water (ft) | Well Depth (ft) | GW Elevation | Field Observations |
|-------------------|------|---------------|---------------------|-----------------|--------------|--------------------|
| MW-D3 | 0825 | | 6.29 | 22.52 | | |
| MW-D2 | 0830 | | 12.3 | 22.4 | | |
| MW-D1 | 0835 | | 14.26 | 22.6 | | |
| MW-U1 | 0840 | | 10.25 | 37.15 | | |
| END OF DAY CHECKS | | | | | | |
| MW-D3 | 1505 | | 6.22 | 22.52 | | |
| MW-D2 | 1510 | | 12.25 | 22.4 | | |
| MW-D1 | 1515 | | 14.26 | 22.6 | | |
| MW-U1 | 1520 | | 10.24 | 37.15 | | |
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DEP Form FD 9000-24: GROUNDWATER SAMPLING LOG

| | |
|--|--|
| SITE NAME: Crisp County Power Commision | SITE LOCATION: 961 Power Dam Rd Warwick, GA 31796 |
| WELL NO: MW-01 | SAMPLE ID: MW-01-2018/129 |
| DATE: 11/29/18 | |

PURGING DATA

| WELL DIAMETER (Inches): 2 | TUBING DIAMETER (Inches): 0.25 | WELL SCREEN INTERVAL DEPTH: 22.6 feet to 22.6 feet | STATIC DEPTH TO WATER (feet): 14.26 | 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 - 14.26 feet) X 0.16 gallons/foot = 1.33 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: 1153 | PURGING ENDED AT: 1225 | TOTAL VOLUME PURGED (gallons): 2.65 | | | | | | | |
| 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 % saturation | TURBIDITY (NTUs) | ORP (mV) | COLOR/ODOR (describe) |
| 1153 | 0.0 | 0.0 | 0.066 | 14.38 | 6.33 | 22.54 | 155 | 85.2 | 1 | 142 | CLEAR |
| 1210 | 0.33 | 0.33 | 0.066 | 14.51 | 6.31 | 22.84 | 153 | 65.0 | 1 | 130 | CLEAR |
| 1215 | 0.33 | 0.66 | 0.066 | 14.52 | 6.32 | 22.97 | 154 | 66.2 | 1 | 130 | " |
| 1220 | 0.33 | 0.99 | 0.066 | 14.52 | 6.29 | 22.89 | 155 | 66.3 | 1 | 131 | " |
| 1225 | 0.33 | 1.32 | 0.066 | 14.52 | 6.31 | 22.91 | 154 | 66.1 | 1 | 131 | " |
| 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: Stephen Randall/Geosyntec | | | | SAMPLER(S) SIGNATURE(S): <i>Stephen W. Randall</i> | | | | SAMPLING INITIATED AT: 1230 | | SAMPLING ENDED AT: 1245 | |
|---|--------------|---------------|---------------|--|-------------------------------|------------|---------------------------------|--|-------------------------|---------------------------------------|--|
| 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"/> N <input type="checkbox"/> | | | | TUBING Y <input checked="" type="checkbox"/> N (replaced) <input type="checkbox"/> | | | | 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 | 1.9 L | HNO3 | --- | --- | 9216, 9220, Re216, Re228 | APP | 250 | | |
| | 1 | HDPE | 1 L | --- | --- | --- | SM-4500 | APP | 250 | | |
| | 1 | HDPE | 0.25 L | HNO3 | --- | --- | 6020-7470A | APP | 250 | | |
| SEE COC FOR INFO | | | | | | | | | | | |
| REMARKS: | | | | | | | | | | | |
| 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. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
 2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
 pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

DEP Form FD 9000-24: GROUNDWATER SAMPLING LOG

| | |
|--|--|
| SITE NAME: Crisp County Power Commision | SITE LOCATION: 961 Power Dam Rd Warwick, GA 31796 |
| WELL NO: MW-D2 | SAMPLE ID: MW-D2-20181129 DATE: 11/29/18 |

PURGING DATA

| | | | | |
|--|---------------------------------------|--|---|--------------------------------------|
| WELL DIAMETER (Inches): 2 | TUBING DIAMETER (Inches): 0.25 | WELL SCREEN INTERVAL DEPTH: 12.4 feet to 22.4 feet | STATIC DEPTH TO WATER (feet): 12.3 | 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) = (22.4 feet - 12.3 feet) X 0.16 gallons/foot = 1.6 (1.75) 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: 0910 | PURGING ENDED AT: 0941 | TOTAL VOLUME PURGED (gallons): 3.07 |
|--|--|-----------------------------------|-------------------------------|--|

| 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/ODOR (describe) |
|------|-------------------------|--------------------------------|------------------|-----------------------|---------------------|------------|--|--|------------------|----------|-----------------------|
| 0910 | 0.0 | 0.0 | 0.066 | 12.73 | 6.40 | 19.27 | 648 | 52.3 | 2 | 102 | CLEAR |
| 0926 | 0.33 | 0.33 | 0.066 | 13.4 | 6.50 | 20.27 | 599 | 6.2 | 1 | 131 | " |
| 0931 | 0.33 | 0.66 | 0.066 | 13.62 | 6.57 | 20.82 | 639 | 0.1 | 1 | 123 | " |
| 0936 | 0.33 | 0.99 | 0.066 | 13.85 | 6.53 | 21.02 | 654 | 0.0 | 1 | 119 | " |
| 0941 | 0.33 | 1.32 | 0.066 | 14.35 | 6.55 | 21.08 | 654 | 0.0 | 1 | 118 | " |

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: Stephen Randall/Geosyntec | SAMPLER(S) SIGNATURE(S): <i>Stephen W. Randall</i> | SAMPLING INITIATED AT: 0945 | SAMPLING ENDED AT: 1005 |
| PUMP OR TUBING DEPTH IN WELL (feet): 17 | TUBING MATERIAL CODE: LDPE | FIELD-FILTERED: Y <input checked="" type="checkbox"/> N | FILTER SIZE: _____ µm |
| FIELD DECONTAMINATION: PUMP Y <input checked="" type="checkbox"/> N | TUBING Y <input checked="" type="checkbox"/> N (replaced) | DUPLICATE: Y <input checked="" type="checkbox"/> 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 | --- | --- | 6645-9320-Ra228-Ra228 | APP | 250 |
| | 1 | HDPE | 1L | --- | --- | --- | SM-4508 | APP | 250 |
| | 1 | HDPE | 0.25L | HNO3 | --- | --- | 6920-7476A | APP | 250 |
| Dup 11 | 1 | HDPE | 1.9L | HNO3 | --- | --- | SEE COC | | |
| 2018 | 1 | HDPE | 1L | --- | --- | --- | FOR INFO | | |
| 1129 | 1 | HDPE | 1.25L | HNO3 | --- | --- | | | |

REMARKS: **Dup 11 TIME ON COC 0800 DUP-11-20181129**

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. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
 2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
 pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

DEP Form FD 9000-24: GROUNDWATER SAMPLING LOG

| | |
|--|--|
| SITE NAME: Crisp County Power Commision | SITE LOCATION: 961 Power Dam Rd Warwick, GA 31796 |
| WELL NO: MW-D3 | SAMPLE ID: MW-D3-2018 1129 DATE: 11/29/18 |

PURGING DATA

| | | | | |
|---|---------------------------------------|--|---|--------------------------------------|
| WELL DIAMETER (Inches): 2 | TUBING DIAMETER (Inches): 0.25 | WELL SCREEN INTERVAL DEPTH: 12.5 feet to 22.5 feet | STATIC DEPTH TO WATER (feet): 6.29 | 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) = (22.5 feet - 6.29 feet) X 0.16 gallons/foot = 2.6 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: 1025 | PURGING ENDED AT: 1112 | TOTAL VOLUME PURGED (gallons): 3.92 | | | | | | | |
|--|--|-----------------------------------|-------------------------------|--|---------------------|------------|---|---|------------------|----------|-----------------------|
| 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/ODOR (describe) |
| 1025 | 0.0 | 0.0 | 0.066 | 7.2 | 6.80 | 16.01 | 645 | 27.3 | 6 | 122 | CLEAR |
| 1057 | 0.33 | 0.33 | 0.066 | 8.6 | 6.80 | 19.82 | 627 | 0.0 | 1 | 112 | " |
| 1102 | 0.33 | 0.66 | 0.066 | 8.6 | 6.80 | 20.26 | 623 | 0.0 | 1 | 109 | " |
| 1107 | 0.33 | 0.99 | 0.066 | 8.6 | 6.80 | 20.68 | 618 | 0.0 | 1 | 108 | " |
| 1112 | 0.33 | 1.32 | 0.066 | 8.6 | 6.80 | 20.95 | 617 | 0.0 | 1 | 107 | " |

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" = 0.0008; 3/16" = 0.0014; 1/4" = 0.0028; 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: Stephen Randall/Geosyntec | SAMPLER(S) SIGNATURE(S): <i>Stephen W. Randall</i> | SAMPLING INITIATED AT: 1115 | SAMPLING ENDED AT: 1130 |
| PUMP OR TUBING DEPTH IN WELL (feet): 17 | TUBING MATERIAL CODE: LDPE | FIELD-FILTERED: Y <input checked="" type="checkbox"/> | FILTER SIZE: _____ μm |
| FIELD DECONTAMINATION: PUMP Y <input checked="" type="checkbox"/> | TUBING Y <input checked="" type="checkbox"/> (N(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 | 1.9 L | HNO3 | --- | --- | 9815, 9320, Ra228, Ra228 | APP | 250 |
| | 1 | HDPE | 1 L | --- | --- | --- | SM-4500 | APP | 250 |
| | 1 | HDPE | 0.25 L | HNO3 | --- | --- | 8020, 7476A | APP | 250 |
| | | | | | | | SEE CODE | | |
| | | | | | | | FOR INFO | | |

REMARKS:

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; RFPF = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
 2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
 pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

DEP Form FD 9000-24: GROUNDWATER SAMPLING LOG

| | |
|--|--|
| SITE NAME: Crisp County Power Commision | SITE LOCATION: 961 Power Dam Rd Warwick, GA 31796 |
| WELL NO: MW-11 | SAMPLE ID: MW-11-20181129 |
| DATE: 11/29/18 | |

PURGING DATA

| | | | | |
|---|--|--|--|--|
| WELL DIAMETER (Inches): 2 | TUBING DIAMETER (Inches): 0.25 | WELL SCREEN INTERVAL DEPTH: 10.72 to 37.1 feet | STATIC DEPTH TO WATER (feet): 10.25 | 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) = (37.1 feet - 10.25 feet) X 26.85 gallons/foot = 4.3 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): 32.1 | FINAL PUMP OR TUBING DEPTH IN WELL (feet): 32.1 | PURGING INITIATED AT: 1310 | PURGING ENDED AT: 1435 | TOTAL VOLUME PURGED (gallons): 5.62 |

| 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/ODOR (describe) |
|------|-------------------------|--------------------------------|------------------|-----------------------|---------------------|------------|---|---|------------------|----------|-----------------------|
| 1310 | 0.0 | 0.0 | 0.666 | 10.30 | 7.24 | 23.62 | 190 | 121.7 | 1 | 53 | CLEAR |
| 1420 | 0.33 | 0.33 | 0.666 | 10.87 | 7.72 | 22.60 | 178 | 104.0 | 1 | 105 | " |
| 1425 | 0.33 | 0.66 | 0.666 | 10.82 | 7.70 | 22.45 | 179 | 106.5 | 1 | 105 | " |
| 1430 | 0.33 | 0.99 | 0.666 | 10.82 | 7.72 | 22.53 | 178 | 107.0 | 1 | 105 | " |
| 1435 | 0.33 | 1.32 | 0.666 | 10.82 | 7.72 | 22.58 | 178 | 107.5 | 1 | 103 | " |

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" = 0.0008; 3/16" = 0.0014; 1/4" = 0.0028; 5/16" = 0.004; 3/8" = 0.008; 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: Stephen Randall/Geosyntec | | | | SAMPLER(S) SIGNATURE(S): <i>Stephen W. Randall</i> | | | | SAMPLING INITIATED AT: 1445 | | SAMPLING ENDED AT: 1502 | |
| PUMP OR TUBING DEPTH IN WELL (feet): 32.1 | | | | 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"/> N <input type="checkbox"/> | | | | TUBING Y <input checked="" type="checkbox"/> N (replaced) <input type="checkbox"/> | | | | DUPLICATE: Y <input type="checkbox"/> N <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 | 1.9 L | HNO3 | --- | --- | 9315, 9320, Re228_Re228 | APP | 250 |
| | 1 | HDPE | 1 L | --- | --- | --- | SM 4500 | APP | 250 |
| | 1 | HDPE | 0.25 L | HNO3 | --- | --- | 6020, 7470A | APP | 250 |

REMARKS:

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. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

APPENDIX B

Laboratory Analytical Reports

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-151252-1

Client Project/Site: CCR App.IV GW Monitoring

Revision: 2

For:

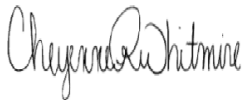
Geosyntec Consultants, Inc.

1255 Roberts Blvd, NW

Suite 200

Kennesaw, Georgia 30144

Attn: Jeremy Gasser



Authorized for release by:

9/13/2018 6:30:33 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

cheyenne.whitmire@testamericainc.com

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Review your project
results through
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Visit us at:
www.testamericainc.com

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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10

11

12

13

14



Table of Contents

| | |
|---------------------------------|----|
| Cover Page | 1 |
| Table of Contents | 2 |
| Case Narrative | 3 |
| Detection Summary | 4 |
| Method Summary | 5 |
| Sample Summary | 6 |
| Client Sample Results | 7 |
| Definitions | 12 |
| Chronicle | 13 |
| QC Association | 15 |
| QC Sample Results | 17 |
| Chain of Custody | 20 |
| Receipt Checklists | 21 |
| Certification Summary | 22 |

Case Narrative

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

TestAmerica Job ID: 400-151252-1

Job ID: 400-151252-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative 400-151252-1

Metals

Method(s) 6020: The method blank for preparation batch 391369 and analytical batch 391638 contained Selenium 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(s) 6020: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 391369 and analytical batch 391638 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.



Detection Summary

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

TestAmerica Job ID: 400-151252-1

Client Sample ID: DUP-9

Lab Sample ID: 400-151252-1

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|------------|---------|-----------|--------|---------|------|---------|---|-------------|----------------------|
| Arsenic | 0.00048 | J | 0.0013 | 0.00046 | mg/L | 5 | | 6020 | Total Recoverable |
| Barium | 0.17 | | 0.0025 | 0.00049 | mg/L | 5 | | 6020 | Total Recoverable |
| Cobalt | 0.0016 | J | 0.0025 | 0.00040 | mg/L | 5 | | 6020 | Total Recoverable |
| Molybdenum | 0.0017 | J | 0.015 | 0.00085 | mg/L | 5 | | 6020 | Total Recoverable |
| Fluoride | 0.12 | | 0.10 | 0.032 | mg/L | 1 | | SM 4500 F C | Total/NA |

Client Sample ID: MW-D1

Lab Sample ID: 400-151252-2

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|----------|--------|-----------|--------|---------|------|---------|---|-------------|----------------------|
| Barium | 0.0095 | | 0.0025 | 0.00049 | mg/L | 5 | | 6020 | Total Recoverable |
| Fluoride | 0.080 | J | 0.10 | 0.032 | mg/L | 1 | | SM 4500 F C | Total/NA |

Client Sample ID: MW-D2

Lab Sample ID: 400-151252-3

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|----------|--------|-----------|--------|---------|------|---------|---|-------------|----------------------|
| Barium | 0.15 | | 0.0025 | 0.00049 | mg/L | 5 | | 6020 | Total Recoverable |
| Fluoride | 0.060 | J | 0.10 | 0.032 | mg/L | 1 | | SM 4500 F C | Total/NA |

Client Sample ID: MW-D3

Lab Sample ID: 400-151252-4

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|------------|---------|-----------|---------|----------|------|---------|---|-------------|----------------------|
| Arsenic | 0.00060 | J | 0.0013 | 0.00046 | mg/L | 5 | | 6020 | Total Recoverable |
| Barium | 0.16 | | 0.0025 | 0.00049 | mg/L | 5 | | 6020 | Total Recoverable |
| Cobalt | 0.0015 | J | 0.0025 | 0.00040 | mg/L | 5 | | 6020 | Total Recoverable |
| Molybdenum | 0.0022 | J | 0.015 | 0.00085 | mg/L | 5 | | 6020 | Total Recoverable |
| Thallium | 0.00010 | J | 0.00050 | 0.000085 | mg/L | 5 | | 6020 | Total Recoverable |
| Fluoride | 0.11 | | 0.10 | 0.032 | mg/L | 1 | | SM 4500 F C | Total/NA |

Client Sample ID: MW-U1

Lab Sample ID: 400-151252-5

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|----------|---------|-----------|---------|----------|------|---------|---|-------------|----------------------|
| Barium | 0.0021 | J | 0.0025 | 0.00049 | mg/L | 5 | | 6020 | Total Recoverable |
| Chromium | 0.0016 | J | 0.0025 | 0.0011 | mg/L | 5 | | 6020 | Total Recoverable |
| Lithium | 0.00034 | J | 0.0010 | 0.00022 | mg/L | 1 | | 6020 | Total Recoverable |
| Selenium | 0.00039 | | 0.00025 | 0.000048 | mg/L | 1 | | 6020 | Total Recoverable |
| Fluoride | 0.070 | J | 0.10 | 0.032 | mg/L | 1 | | SM 4500 F C | Total/NA |

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Method Summary

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

TestAmerica Job ID: 400-151252-1

| Method | Method Description | Protocol | Laboratory |
|-------------|--|----------|------------|
| 6020 | Metals (ICP/MS) | SW846 | TAL PEN |
| 7470A | Mercury (CVAA) | SW846 | TAL PEN |
| SM 4500 F C | Fluoride | SM | TAL PEN |
| 3005A | Preparation, Total Recoverable or Dissolved Metals | SW846 | TAL PEN |
| 7470A | Preparation, Mercury | SW846 | TAL PEN |

Protocol References:

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



Sample Summary

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

TestAmerica Job ID: 400-151252-1

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---------------|------------------|--------|----------------|----------------|
| 400-151252-1 | DUP-9 | Water | 03/22/18 08:00 | 03/23/18 09:03 |
| 400-151252-2 | MW-D1 | Water | 03/22/18 12:10 | 03/23/18 09:03 |
| 400-151252-3 | MW-D2 | Water | 03/22/18 10:12 | 03/23/18 09:03 |
| 400-151252-4 | MW-D3 | Water | 03/22/18 11:10 | 03/23/18 09:03 |
| 400-151252-5 | MW-U1 | Water | 03/22/18 13:05 | 03/23/18 09:03 |

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- 14

Client Sample Results

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

TestAmerica Job ID: 400-151252-1

Client Sample ID: DUP-9

Date Collected: 03/22/18 08:00

Date Received: 03/23/18 09:03

Lab Sample ID: 400-151252-1

Matrix: Water

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------------|----------------|-----------|---------|----------|------|---|----------------|----------------|---------|
| Antimony | ND | | 0.0025 | 0.0010 | mg/L | | 03/25/18 13:50 | 03/26/18 19:53 | 5 |
| Arsenic | 0.00048 | J | 0.0013 | 0.00046 | mg/L | | 03/25/18 13:50 | 03/26/18 19:53 | 5 |
| Barium | 0.17 | | 0.0025 | 0.00049 | mg/L | | 03/25/18 13:50 | 03/26/18 19:53 | 5 |
| Beryllium | ND | | 0.0025 | 0.00034 | mg/L | | 03/25/18 13:50 | 03/26/18 19:53 | 5 |
| Cadmium | ND | | 0.0025 | 0.00034 | mg/L | | 03/25/18 13:50 | 03/26/18 19:53 | 5 |
| Chromium | ND | | 0.0025 | 0.0011 | mg/L | | 03/25/18 13:50 | 03/26/18 19:53 | 5 |
| Cobalt | 0.0016 | J | 0.0025 | 0.00040 | mg/L | | 03/25/18 13:50 | 03/26/18 19:53 | 5 |
| Lead | ND | | 0.0013 | 0.00035 | mg/L | | 03/25/18 13:50 | 03/26/18 19:53 | 5 |
| Lithium | ND | | 0.0050 | 0.0011 | mg/L | | 03/25/18 13:50 | 03/26/18 19:53 | 5 |
| Molybdenum | 0.0017 | J | 0.015 | 0.00085 | mg/L | | 03/25/18 13:50 | 03/26/18 19:53 | 5 |
| Selenium | ND | | 0.0013 | 0.00024 | mg/L | | 03/25/18 13:50 | 03/26/18 19:53 | 5 |
| Thallium | ND | | 0.00050 | 0.000085 | mg/L | | 03/25/18 13:50 | 03/26/18 19:53 | 5 |

Method: 7470A - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------|--------|-----------|---------|----------|------|---|----------------|----------------|---------|
| Mercury | ND | | 0.00020 | 0.000070 | mg/L | | 03/26/18 12:19 | 03/27/18 12:57 | 1 |

General Chemistry

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------------|-------------|-----------|------|-------|------|---|----------|----------------|---------|
| Fluoride | 0.12 | | 0.10 | 0.032 | mg/L | | | 03/27/18 13:16 | 1 |

Client Sample Results

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

TestAmerica Job ID: 400-151252-1

Client Sample ID: MW-D1

Date Collected: 03/22/18 12:10

Date Received: 03/23/18 09:03

Lab Sample ID: 400-151252-2

Matrix: Water

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------------|---------------|-----------|---------|----------|------|---|----------------|----------------|---------|
| Antimony | ND | | 0.0025 | 0.0010 | mg/L | | 03/25/18 13:50 | 03/26/18 19:57 | 5 |
| Arsenic | ND | | 0.0013 | 0.00046 | mg/L | | 03/25/18 13:50 | 03/26/18 19:57 | 5 |
| Barium | 0.0095 | | 0.0025 | 0.00049 | mg/L | | 03/25/18 13:50 | 03/26/18 19:57 | 5 |
| Beryllium | ND | | 0.0025 | 0.00034 | mg/L | | 03/25/18 13:50 | 03/26/18 19:57 | 5 |
| Cadmium | ND | | 0.0025 | 0.00034 | mg/L | | 03/25/18 13:50 | 03/26/18 19:57 | 5 |
| Chromium | ND | | 0.0025 | 0.0011 | mg/L | | 03/25/18 13:50 | 03/26/18 19:57 | 5 |
| Cobalt | ND | | 0.0025 | 0.00040 | mg/L | | 03/25/18 13:50 | 03/26/18 19:57 | 5 |
| Lead | ND | | 0.0013 | 0.00035 | mg/L | | 03/25/18 13:50 | 03/26/18 19:57 | 5 |
| Lithium | ND | | 0.0050 | 0.0011 | mg/L | | 03/25/18 13:50 | 03/26/18 19:57 | 5 |
| Molybdenum | ND | | 0.015 | 0.00085 | mg/L | | 03/25/18 13:50 | 03/26/18 19:57 | 5 |
| Selenium | ND | | 0.0013 | 0.00024 | mg/L | | 03/25/18 13:50 | 03/26/18 19:57 | 5 |
| Thallium | ND | | 0.00050 | 0.000085 | mg/L | | 03/25/18 13:50 | 03/26/18 19:57 | 5 |

Method: 7470A - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------|--------|-----------|---------|----------|------|---|----------------|----------------|---------|
| Mercury | ND | | 0.00020 | 0.000070 | mg/L | | 03/26/18 12:19 | 03/27/18 12:59 | 1 |

General Chemistry

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------------|--------------|-----------|------|-------|------|---|----------|----------------|---------|
| Fluoride | 0.080 | J | 0.10 | 0.032 | mg/L | | | 03/27/18 13:18 | 1 |

Client Sample Results

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

TestAmerica Job ID: 400-151252-1

Client Sample ID: MW-D2

Date Collected: 03/22/18 10:12

Date Received: 03/23/18 09:03

Lab Sample ID: 400-151252-3

Matrix: Water

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------------|-------------|-----------|---------|----------|------|---|----------------|----------------|---------|
| Antimony | ND | | 0.0025 | 0.0010 | mg/L | | 03/25/18 13:50 | 03/26/18 20:02 | 5 |
| Arsenic | ND | | 0.0013 | 0.00046 | mg/L | | 03/25/18 13:50 | 03/26/18 20:02 | 5 |
| Barium | 0.15 | | 0.0025 | 0.00049 | mg/L | | 03/25/18 13:50 | 03/26/18 20:02 | 5 |
| Beryllium | ND | | 0.0025 | 0.00034 | mg/L | | 03/25/18 13:50 | 03/26/18 20:02 | 5 |
| Cadmium | ND | | 0.0025 | 0.00034 | mg/L | | 03/25/18 13:50 | 03/26/18 20:02 | 5 |
| Chromium | ND | | 0.0025 | 0.0011 | mg/L | | 03/25/18 13:50 | 03/26/18 20:02 | 5 |
| Cobalt | ND | | 0.0025 | 0.00040 | mg/L | | 03/25/18 13:50 | 03/26/18 20:02 | 5 |
| Lead | ND | | 0.0013 | 0.00035 | mg/L | | 03/25/18 13:50 | 03/26/18 20:02 | 5 |
| Lithium | ND | | 0.0050 | 0.0011 | mg/L | | 03/25/18 13:50 | 03/26/18 20:02 | 5 |
| Molybdenum | ND | | 0.015 | 0.00085 | mg/L | | 03/25/18 13:50 | 03/26/18 20:02 | 5 |
| Selenium | ND | | 0.0013 | 0.00024 | mg/L | | 03/25/18 13:50 | 03/26/18 20:02 | 5 |
| Thallium | ND | | 0.00050 | 0.000085 | mg/L | | 03/25/18 13:50 | 03/26/18 20:02 | 5 |

Method: 7470A - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------|--------|-----------|---------|----------|------|---|----------------|----------------|---------|
| Mercury | ND | | 0.00020 | 0.000070 | mg/L | | 03/26/18 12:19 | 03/27/18 13:01 | 1 |

General Chemistry

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------------|--------------|-----------|------|-------|------|---|----------|----------------|---------|
| Fluoride | 0.060 | J | 0.10 | 0.032 | mg/L | | | 03/27/18 13:22 | 1 |

Client Sample Results

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

TestAmerica Job ID: 400-151252-1

Client Sample ID: MW-D3

Date Collected: 03/22/18 11:10

Date Received: 03/23/18 09:03

Lab Sample ID: 400-151252-4

Matrix: Water

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------------|----------------|-----------|---------|----------|------|---|----------------|----------------|---------|
| Antimony | ND | | 0.0025 | 0.0010 | mg/L | | 03/25/18 13:50 | 03/26/18 20:29 | 5 |
| Arsenic | 0.00060 | J | 0.0013 | 0.00046 | mg/L | | 03/25/18 13:50 | 03/26/18 20:29 | 5 |
| Barium | 0.16 | | 0.0025 | 0.00049 | mg/L | | 03/25/18 13:50 | 03/26/18 20:29 | 5 |
| Beryllium | ND | | 0.0025 | 0.00034 | mg/L | | 03/25/18 13:50 | 03/26/18 20:29 | 5 |
| Cadmium | ND | | 0.0025 | 0.00034 | mg/L | | 03/25/18 13:50 | 03/26/18 20:29 | 5 |
| Chromium | ND | | 0.0025 | 0.0011 | mg/L | | 03/25/18 13:50 | 03/26/18 20:29 | 5 |
| Cobalt | 0.0015 | J | 0.0025 | 0.00040 | mg/L | | 03/25/18 13:50 | 03/26/18 20:29 | 5 |
| Lead | ND | | 0.0013 | 0.00035 | mg/L | | 03/25/18 13:50 | 03/26/18 20:29 | 5 |
| Lithium | ND | | 0.0050 | 0.0011 | mg/L | | 03/25/18 13:50 | 03/26/18 20:29 | 5 |
| Molybdenum | 0.0022 | J | 0.015 | 0.00085 | mg/L | | 03/25/18 13:50 | 03/26/18 20:29 | 5 |
| Selenium | ND | | 0.00025 | 0.000048 | mg/L | | 03/25/18 13:50 | 03/26/18 21:09 | 1 |
| Thallium | 0.00010 | J | 0.00050 | 0.000085 | mg/L | | 03/25/18 13:50 | 03/26/18 20:29 | 5 |

Method: 7470A - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------|--------|-----------|---------|----------|------|---|----------------|----------------|---------|
| Mercury | ND | | 0.00020 | 0.000070 | mg/L | | 03/26/18 12:24 | 03/27/18 13:02 | 1 |

General Chemistry

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------------|-------------|-----------|------|-------|------|---|----------|----------------|---------|
| Fluoride | 0.11 | | 0.10 | 0.032 | mg/L | | | 03/27/18 13:26 | 1 |

Client Sample Results

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

TestAmerica Job ID: 400-151252-1

Client Sample ID: MW-U1

Date Collected: 03/22/18 13:05

Date Received: 03/23/18 09:03

Lab Sample ID: 400-151252-5

Matrix: Water

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------------|----------------|-----------|---------|----------|------|---|----------------|----------------|---------|
| Antimony | ND | | 0.0025 | 0.0010 | mg/L | | 03/25/18 13:50 | 03/26/18 20:33 | 5 |
| Arsenic | ND | | 0.0013 | 0.00046 | mg/L | | 03/25/18 13:50 | 03/26/18 20:33 | 5 |
| Barium | 0.0021 | J | 0.0025 | 0.00049 | mg/L | | 03/25/18 13:50 | 03/26/18 20:33 | 5 |
| Beryllium | ND | | 0.0025 | 0.00034 | mg/L | | 03/25/18 13:50 | 03/26/18 20:33 | 5 |
| Cadmium | ND | | 0.0025 | 0.00034 | mg/L | | 03/25/18 13:50 | 03/26/18 20:33 | 5 |
| Chromium | 0.0016 | J | 0.0025 | 0.0011 | mg/L | | 03/25/18 13:50 | 03/26/18 20:33 | 5 |
| Cobalt | ND | | 0.00050 | 0.000080 | mg/L | | 03/25/18 13:50 | 03/26/18 21:14 | 1 |
| Lead | ND | | 0.0013 | 0.00035 | mg/L | | 03/25/18 13:50 | 03/26/18 20:33 | 5 |
| Lithium | 0.00034 | J | 0.0010 | 0.00022 | mg/L | | 03/25/18 13:50 | 03/26/18 21:14 | 1 |
| Molybdenum | ND | | 0.0030 | 0.00017 | mg/L | | 03/25/18 13:50 | 03/26/18 21:14 | 1 |
| Selenium | 0.00039 | | 0.00025 | 0.000048 | mg/L | | 03/25/18 13:50 | 03/26/18 21:14 | 1 |
| Thallium | ND | | 0.00050 | 0.000085 | mg/L | | 03/25/18 13:50 | 03/26/18 20:33 | 5 |

Method: 7470A - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------|--------|-----------|---------|----------|------|---|----------------|----------------|---------|
| Mercury | ND | | 0.00020 | 0.000070 | mg/L | | 03/26/18 12:24 | 03/27/18 13:04 | 1 |

General Chemistry

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------------|--------------|-----------|------|-------|------|---|----------|----------------|---------|
| Fluoride | 0.070 | J | 0.10 | 0.032 | mg/L | | | 03/27/18 13:28 | 1 |

Definitions/Glossary

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

TestAmerica Job ID: 400-151252-1

Qualifiers

Metals

| Qualifier | Qualifier Description |
|-----------|--|
| F1 | MS and/or MSD Recovery is outside acceptance limits. |
| 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 |
|-----------|--|
| 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) |
| 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.IV GW Monitoring

TestAmerica Job ID: 400-151252-1

Client Sample ID: DUP-9

Date Collected: 03/22/18 08:00

Date Received: 03/23/18 09:03

Lab Sample ID: 400-151252-1

Matrix: Water

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-------------------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total Recoverable | Prep | 3005A | | | 391369 | 03/25/18 13:50 | DN1 | TAL PEN |
| Total Recoverable | Analysis | 6020 | | 5 | 391638 | 03/26/18 19:53 | DRE | TAL PEN |
| Total/NA | Prep | 7470A | | | 391460 | 03/26/18 12:19 | JAP | TAL PEN |
| Total/NA | Analysis | 7470A | | 1 | 391649 | 03/27/18 12:57 | JAP | TAL PEN |
| Total/NA | Analysis | SM 4500 F C | | 1 | 391669 | 03/27/18 13:16 | BAB | TAL PEN |

Client Sample ID: MW-D1

Date Collected: 03/22/18 12:10

Date Received: 03/23/18 09:03

Lab Sample ID: 400-151252-2

Matrix: Water

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-------------------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total Recoverable | Prep | 3005A | | | 391369 | 03/25/18 13:50 | DN1 | TAL PEN |
| Total Recoverable | Analysis | 6020 | | 5 | 391638 | 03/26/18 19:57 | DRE | TAL PEN |
| Total/NA | Prep | 7470A | | | 391460 | 03/26/18 12:19 | JAP | TAL PEN |
| Total/NA | Analysis | 7470A | | 1 | 391649 | 03/27/18 12:59 | JAP | TAL PEN |
| Total/NA | Analysis | SM 4500 F C | | 1 | 391669 | 03/27/18 13:18 | BAB | TAL PEN |

Client Sample ID: MW-D2

Date Collected: 03/22/18 10:12

Date Received: 03/23/18 09:03

Lab Sample ID: 400-151252-3

Matrix: Water

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-------------------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total Recoverable | Prep | 3005A | | | 391369 | 03/25/18 13:50 | DN1 | TAL PEN |
| Total Recoverable | Analysis | 6020 | | 5 | 391638 | 03/26/18 20:02 | DRE | TAL PEN |
| Total/NA | Prep | 7470A | | | 391460 | 03/26/18 12:19 | JAP | TAL PEN |
| Total/NA | Analysis | 7470A | | 1 | 391649 | 03/27/18 13:01 | JAP | TAL PEN |
| Total/NA | Analysis | SM 4500 F C | | 1 | 391669 | 03/27/18 13:22 | BAB | TAL PEN |

Client Sample ID: MW-D3

Date Collected: 03/22/18 11:10

Date Received: 03/23/18 09:03

Lab Sample ID: 400-151252-4

Matrix: Water

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-------------------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total Recoverable | Prep | 3005A | | | 391369 | 03/25/18 13:50 | DN1 | TAL PEN |
| Total Recoverable | Analysis | 6020 | | 5 | 391638 | 03/26/18 20:29 | DRE | TAL PEN |
| Total Recoverable | Prep | 3005A | | | 391369 | 03/25/18 13:50 | DN1 | TAL PEN |
| Total Recoverable | Analysis | 6020 | | 1 | 391638 | 03/26/18 21:09 | DRE | TAL PEN |
| Total/NA | Prep | 7470A | | | 391460 | 03/26/18 12:24 | JAP | TAL PEN |
| Total/NA | Analysis | 7470A | | 1 | 391649 | 03/27/18 13:02 | JAP | TAL PEN |
| Total/NA | Analysis | SM 4500 F C | | 1 | 391669 | 03/27/18 13:26 | BAB | TAL PEN |

TestAmerica Pensacola

Lab Chronicle

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

TestAmerica Job ID: 400-151252-1

Client Sample ID: MW-U1

Date Collected: 03/22/18 13:05

Date Received: 03/23/18 09:03

Lab Sample ID: 400-151252-5

Matrix: Water

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-------------------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total Recoverable | Prep | 3005A | | | 391369 | 03/25/18 13:50 | DN1 | TAL PEN |
| Total Recoverable | Analysis | 6020 | | 5 | 391638 | 03/26/18 20:33 | DRE | TAL PEN |
| Total Recoverable | Prep | 3005A | | | 391369 | 03/25/18 13:50 | DN1 | TAL PEN |
| Total Recoverable | Analysis | 6020 | | 1 | 391638 | 03/26/18 21:14 | DRE | TAL PEN |
| Total/NA | Prep | 7470A | | | 391460 | 03/26/18 12:24 | JAP | TAL PEN |
| Total/NA | Analysis | 7470A | | 1 | 391649 | 03/27/18 13:04 | JAP | TAL PEN |
| Total/NA | Analysis | SM 4500 F C | | 1 | 391669 | 03/27/18 13:28 | BAB | TAL PEN |

Laboratory References:

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

QC Association Summary

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

TestAmerica Job ID: 400-151252-1

Metals

Prep Batch: 391369

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|-------------------------|------------------------|-------------------|--------|--------|------------|
| 400-151252-1 | DUP-9 | Total Recoverable | Water | 3005A | |
| 400-151252-2 | MW-D1 | Total Recoverable | Water | 3005A | |
| 400-151252-3 | MW-D2 | Total Recoverable | Water | 3005A | |
| 400-151252-4 | MW-D3 | Total Recoverable | Water | 3005A | |
| 400-151252-5 | MW-U1 | Total Recoverable | Water | 3005A | |
| MB 400-391369/1-A ^1 | Method Blank | Total Recoverable | Water | 3005A | |
| MB 400-391369/1-A ^5 | Method Blank | Total Recoverable | Water | 3005A | |
| LCS 400-391369/2-A | Lab Control Sample | Total Recoverable | Water | 3005A | |
| 400-150861-B-1-B MS ^5 | Matrix Spike | Total Recoverable | Water | 3005A | |
| 400-150861-B-1-C MSD ^5 | Matrix Spike Duplicate | Total Recoverable | Water | 3005A | |

Prep Batch: 391460

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|----------------------|------------------------|-----------|--------|--------|------------|
| 400-151252-1 | DUP-9 | Total/NA | Water | 7470A | |
| 400-151252-2 | MW-D1 | Total/NA | Water | 7470A | |
| 400-151252-3 | MW-D2 | Total/NA | Water | 7470A | |
| 400-151252-4 | MW-D3 | Total/NA | Water | 7470A | |
| 400-151252-5 | MW-U1 | Total/NA | Water | 7470A | |
| MB 400-391460/14-A | Method Blank | Total/NA | Water | 7470A | |
| LCS 400-391460/15-A | Lab Control Sample | Total/NA | Water | 7470A | |
| 400-151193-N-2-C MS | Matrix Spike | Total/NA | Water | 7470A | |
| 400-151193-N-2-D MSD | Matrix Spike Duplicate | Total/NA | Water | 7470A | |

Analysis Batch: 391638

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|-------------------------|------------------------|-------------------|--------|--------|------------|
| 400-151252-1 | DUP-9 | Total Recoverable | Water | 6020 | 391369 |
| 400-151252-2 | MW-D1 | Total Recoverable | Water | 6020 | 391369 |
| 400-151252-3 | MW-D2 | Total Recoverable | Water | 6020 | 391369 |
| 400-151252-4 | MW-D3 | Total Recoverable | Water | 6020 | 391369 |
| 400-151252-4 | MW-D3 | Total Recoverable | Water | 6020 | 391369 |
| 400-151252-5 | MW-U1 | Total Recoverable | Water | 6020 | 391369 |
| 400-151252-5 | MW-U1 | Total Recoverable | Water | 6020 | 391369 |
| MB 400-391369/1-A ^1 | Method Blank | Total Recoverable | Water | 6020 | 391369 |
| MB 400-391369/1-A ^5 | Method Blank | Total Recoverable | Water | 6020 | 391369 |
| LCS 400-391369/2-A | Lab Control Sample | Total Recoverable | Water | 6020 | 391369 |
| 400-150861-B-1-B MS ^5 | Matrix Spike | Total Recoverable | Water | 6020 | 391369 |
| 400-150861-B-1-C MSD ^5 | Matrix Spike Duplicate | Total Recoverable | Water | 6020 | 391369 |

Analysis Batch: 391649

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|----------------------|------------------------|-----------|--------|--------|------------|
| 400-151252-1 | DUP-9 | Total/NA | Water | 7470A | 391460 |
| 400-151252-2 | MW-D1 | Total/NA | Water | 7470A | 391460 |
| 400-151252-3 | MW-D2 | Total/NA | Water | 7470A | 391460 |
| 400-151252-4 | MW-D3 | Total/NA | Water | 7470A | 391460 |
| 400-151252-5 | MW-U1 | Total/NA | Water | 7470A | 391460 |
| MB 400-391460/14-A | Method Blank | Total/NA | Water | 7470A | 391460 |
| LCS 400-391460/15-A | Lab Control Sample | Total/NA | Water | 7470A | 391460 |
| 400-151193-N-2-C MS | Matrix Spike | Total/NA | Water | 7470A | 391460 |
| 400-151193-N-2-D MSD | Matrix Spike Duplicate | Total/NA | Water | 7470A | 391460 |

TestAmerica Pensacola

QC Association Summary

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

TestAmerica Job ID: 400-151252-1

General Chemistry

Analysis Batch: 391669

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|-------------------|------------------------|-----------|--------|-------------|------------|
| 400-151252-1 | DUP-9 | Total/NA | Water | SM 4500 F C | |
| 400-151252-2 | MW-D1 | Total/NA | Water | SM 4500 F C | |
| 400-151252-3 | MW-D2 | Total/NA | Water | SM 4500 F C | |
| 400-151252-4 | MW-D3 | Total/NA | Water | SM 4500 F C | |
| 400-151252-5 | MW-U1 | Total/NA | Water | SM 4500 F C | |
| MB 400-391669/3 | Method Blank | Total/NA | Water | SM 4500 F C | |
| LCS 400-391669/4 | Lab Control Sample | Total/NA | Water | SM 4500 F C | |
| 660-86202-B-7 MS | Matrix Spike | Total/NA | Water | SM 4500 F C | |
| 660-86202-B-7 MSD | Matrix Spike Duplicate | Total/NA | Water | SM 4500 F C | |
| 400-150793-A-5 DU | Duplicate | Total/NA | Water | SM 4500 F C | |

QC Sample Results

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

TestAmerica Job ID: 400-151252-1

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-391369/1-A ^1
Matrix: Water
Analysis Batch: 391638

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 391369

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|------------|-----------|--------------|---------|----------|------|---|----------------|----------------|---------|
| Antimony | ND | | 0.00050 | 0.00020 | mg/L | | 03/25/18 13:50 | 03/26/18 20:47 | 1 |
| Arsenic | ND | | 0.00025 | 0.000092 | mg/L | | 03/25/18 13:50 | 03/26/18 20:47 | 1 |
| Barium | ND | | 0.00050 | 0.000098 | mg/L | | 03/25/18 13:50 | 03/26/18 20:47 | 1 |
| Beryllium | ND | | 0.00050 | 0.000068 | mg/L | | 03/25/18 13:50 | 03/26/18 20:47 | 1 |
| Cadmium | ND | | 0.00050 | 0.000068 | mg/L | | 03/25/18 13:50 | 03/26/18 20:47 | 1 |
| Chromium | ND | | 0.00050 | 0.00022 | mg/L | | 03/25/18 13:50 | 03/26/18 20:47 | 1 |
| Cobalt | ND | | 0.00050 | 0.000080 | mg/L | | 03/25/18 13:50 | 03/26/18 20:47 | 1 |
| Lead | ND | | 0.00025 | 0.000070 | mg/L | | 03/25/18 13:50 | 03/26/18 20:47 | 1 |
| Lithium | ND | | 0.0010 | 0.00022 | mg/L | | 03/25/18 13:50 | 03/26/18 20:47 | 1 |
| Molybdenum | ND | | 0.0030 | 0.00017 | mg/L | | 03/25/18 13:50 | 03/26/18 20:47 | 1 |
| Selenium | ND | | 0.00025 | 0.000048 | mg/L | | 03/25/18 13:50 | 03/26/18 20:47 | 1 |
| Thallium | ND | | 0.00010 | 0.000017 | mg/L | | 03/25/18 13:50 | 03/26/18 20:47 | 1 |

Lab Sample ID: MB 400-391369/1-A ^5
Matrix: Water
Analysis Batch: 391638

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 391369

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|------------|-----------|--------------|---------|----------|------|---|----------------|----------------|---------|
| Antimony | ND | | 0.0025 | 0.0010 | mg/L | | 03/25/18 13:50 | 03/26/18 18:09 | 5 |
| Arsenic | ND | | 0.0013 | 0.00046 | mg/L | | 03/25/18 13:50 | 03/26/18 18:09 | 5 |
| Barium | ND | | 0.0025 | 0.00049 | mg/L | | 03/25/18 13:50 | 03/26/18 18:09 | 5 |
| Beryllium | ND | | 0.0025 | 0.00034 | mg/L | | 03/25/18 13:50 | 03/26/18 18:09 | 5 |
| Cadmium | ND | | 0.0025 | 0.00034 | mg/L | | 03/25/18 13:50 | 03/26/18 18:09 | 5 |
| Chromium | ND | | 0.0025 | 0.0011 | mg/L | | 03/25/18 13:50 | 03/26/18 18:09 | 5 |
| Cobalt | ND | | 0.0025 | 0.00040 | mg/L | | 03/25/18 13:50 | 03/26/18 18:09 | 5 |
| Lead | ND | | 0.0013 | 0.00035 | mg/L | | 03/25/18 13:50 | 03/26/18 18:09 | 5 |
| Lithium | ND | | 0.0050 | 0.0011 | mg/L | | 03/25/18 13:50 | 03/26/18 18:09 | 5 |
| Molybdenum | ND | | 0.015 | 0.00085 | mg/L | | 03/25/18 13:50 | 03/26/18 18:09 | 5 |
| Selenium | 0.000275 | J | 0.0013 | 0.00024 | mg/L | | 03/25/18 13:50 | 03/26/18 18:09 | 5 |
| Thallium | ND | | 0.00050 | 0.000085 | mg/L | | 03/25/18 13:50 | 03/26/18 18:09 | 5 |

Lab Sample ID: LCS 400-391369/2-A
Matrix: Water
Analysis Batch: 391638

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 391369

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|------------|-------------|------------|---------------|------|---|------|--------------|
| Antimony | 0.0500 | 0.0530 | | mg/L | | 106 | 80 - 120 |
| Arsenic | 0.0500 | 0.0522 | | mg/L | | 104 | 80 - 120 |
| Barium | 0.0500 | 0.0484 | | mg/L | | 97 | 80 - 120 |
| Beryllium | 0.0500 | 0.0538 | | mg/L | | 108 | 80 - 120 |
| Cadmium | 0.0500 | 0.0510 | | mg/L | | 102 | 80 - 120 |
| Chromium | 0.0500 | 0.0534 | | mg/L | | 107 | 80 - 120 |
| Cobalt | 0.0500 | 0.0511 | | mg/L | | 102 | 80 - 120 |
| Lead | 0.0500 | 0.0481 | | mg/L | | 96 | 80 - 120 |
| Lithium | 0.0500 | 0.0524 | | mg/L | | 105 | 80 - 120 |
| Molybdenum | 0.0500 | 0.0523 | | mg/L | | 105 | 80 - 120 |
| Selenium | 0.0500 | 0.0501 | | mg/L | | 100 | 80 - 120 |
| Thallium | 0.0100 | 0.00956 | | mg/L | | 96 | 80 - 120 |

TestAmerica Pensacola

QC Sample Results

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

TestAmerica Job ID: 400-151252-1

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

Lab Sample ID: 400-150861-B-1-B MS ^5

Matrix: Water
Analysis Batch: 391638

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 391369

| Analyte | Sample | Sample | Spike | MS | MS | Unit | D | %Rec | Limits | RPD | Limit |
|------------|---------|-----------|--------|---------|-----------|------|---|------|----------|-----|-------|
| | Result | Qualifier | Added | Result | Qualifier | | | | | | |
| Antimony | ND | | 0.0500 | 0.0556 | | mg/L | | 111 | 75 - 125 | | |
| Arsenic | ND | | 0.0500 | 0.0522 | | mg/L | | 104 | 75 - 125 | | |
| Barium | 0.0089 | | 0.0500 | 0.0593 | | mg/L | | 101 | 75 - 125 | | |
| Beryllium | ND | | 0.0500 | 0.0543 | | mg/L | | 109 | 75 - 125 | | |
| Cadmium | ND | | 0.0500 | 0.0523 | | mg/L | | 105 | 75 - 125 | | |
| Chromium | ND | | 0.0500 | 0.0534 | | mg/L | | 107 | 75 - 125 | | |
| Cobalt | ND | | 0.0500 | 0.0519 | | mg/L | | 104 | 75 - 125 | | |
| Lead | ND | | 0.0500 | 0.0482 | | mg/L | | 96 | 75 - 125 | | |
| Lithium | ND | F1 | 0.0500 | 0.0673 | F1 | mg/L | | 135 | 75 - 125 | | |
| Molybdenum | ND | | 0.0500 | 0.0552 | | mg/L | | 110 | 75 - 125 | | |
| Selenium | 0.00067 | J B | 0.0500 | 0.0519 | | mg/L | | 102 | 75 - 125 | | |
| Thallium | ND | | 0.0100 | 0.00996 | | mg/L | | 100 | 75 - 125 | | |

Lab Sample ID: 400-150861-B-1-C MSD ^5

Matrix: Water
Analysis Batch: 391638

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 391369

| Analyte | Sample | Sample | Spike | MSD | MSD | Unit | D | %Rec | Limits | RPD | Limit |
|------------|---------|-----------|--------|---------|-----------|------|---|------|----------|-----|-------|
| | Result | Qualifier | Added | Result | Qualifier | | | | | | |
| Antimony | ND | | 0.0500 | 0.0539 | | mg/L | | 108 | 75 - 125 | 3 | 20 |
| Arsenic | ND | | 0.0500 | 0.0515 | | mg/L | | 103 | 75 - 125 | 1 | 20 |
| Barium | 0.0089 | | 0.0500 | 0.0579 | | mg/L | | 98 | 75 - 125 | 2 | 20 |
| Beryllium | ND | | 0.0500 | 0.0540 | | mg/L | | 108 | 75 - 125 | 0 | 20 |
| Cadmium | ND | | 0.0500 | 0.0544 | | mg/L | | 109 | 75 - 125 | 4 | 20 |
| Chromium | ND | | 0.0500 | 0.0529 | | mg/L | | 106 | 75 - 125 | 1 | 20 |
| Cobalt | ND | | 0.0500 | 0.0518 | | mg/L | | 104 | 75 - 125 | 0 | 20 |
| Lead | ND | | 0.0500 | 0.0475 | | mg/L | | 95 | 75 - 125 | 1 | 20 |
| Lithium | ND | F1 | 0.0500 | 0.0661 | F1 | mg/L | | 132 | 75 - 125 | 2 | 20 |
| Molybdenum | ND | | 0.0500 | 0.0541 | | mg/L | | 108 | 75 - 125 | 2 | 20 |
| Selenium | 0.00067 | J B | 0.0500 | 0.0506 | | mg/L | | 100 | 75 - 125 | 3 | 20 |
| Thallium | ND | | 0.0100 | 0.00964 | | mg/L | | 96 | 75 - 125 | 3 | 20 |

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 400-391460/14-A

Matrix: Water
Analysis Batch: 391649

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 391460

| Analyte | MB | MB | RL | MDL | Unit | D | Prepared | Analyzed | Dil | Fac |
|---------|--------|-----------|---------|----------|------|---|----------------|----------------|-----|-----|
| | Result | Qualifier | | | | | | | | |
| Mercury | ND | | 0.00020 | 0.000070 | mg/L | | 03/26/18 12:19 | 03/27/18 12:03 | | 1 |

Lab Sample ID: LCS 400-391460/15-A

Matrix: Water
Analysis Batch: 391649

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 391460

| Analyte | Spike | LCS | LCS | Unit | D | %Rec | Limits |
|---------|---------|---------|-----------|------|---|------|----------|
| | Added | Result | Qualifier | | | | |
| Mercury | 0.00101 | 0.00108 | | mg/L | | 107 | 80 - 120 |

TestAmerica Pensacola

QC Sample Results

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

TestAmerica Job ID: 400-151252-1

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: 400-151193-N-2-C MS
Matrix: Water
Analysis Batch: 391649

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 391460
%Rec.

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | Limits |
|---------|---------------|------------------|-------------|-----------|--------------|------|---|------|----------|
| Mercury | ND | | 0.00201 | 0.00218 | | mg/L | | 108 | 80 - 120 |

Lab Sample ID: 400-151193-N-2-D MSD
Matrix: Water
Analysis Batch: 391649

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 391460
%Rec.

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | Limits | RPD | Limit |
|---------|---------------|------------------|-------------|------------|---------------|------|---|------|----------|-----|-------|
| Mercury | ND | | 0.00201 | 0.00218 | | mg/L | | 108 | 80 - 120 | 0 | 20 |

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 400-391669/3
Matrix: Water
Analysis Batch: 391669

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 | | | 03/27/18 12:43 | 1 |

Lab Sample ID: LCS 400-391669/4
Matrix: Water
Analysis Batch: 391669

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

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | Limits |
|----------|-------------|------------|---------------|------|---|------|----------|
| Fluoride | 4.00 | 4.10 | | mg/L | | 103 | 90 - 110 |

Lab Sample ID: 660-86202-B-7 MS
Matrix: Water
Analysis Batch: 391669

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

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | Limits |
|----------|---------------|------------------|-------------|-----------|--------------|------|---|------|----------|
| Fluoride | 1.6 | | 1.00 | 2.62 | | mg/L | | 106 | 75 - 125 |

Lab Sample ID: 660-86202-B-7 MSD
Matrix: Water
Analysis Batch: 391669

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

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | Limits | RPD | Limit |
|----------|---------------|------------------|-------------|------------|---------------|------|---|------|----------|-----|-------|
| Fluoride | 1.6 | | 1.00 | 2.62 | | mg/L | | 106 | 75 - 125 | 0 | 4 |

Lab Sample ID: 400-150793-A-5 DU
Matrix: Water
Analysis Batch: 391669

Client Sample ID: Duplicate
Prep Type: Total/NA

| Analyte | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit | D | RPD | Limit |
|----------|---------------|------------------|-----------|--------------|------|---|-----|-------|
| Fluoride | 0.10 | | 0.100 | | mg/L | | 0 | 4 |

TestAmerica Pensacola

Chain of Custody Record

| | | | | | | | | | |
|--|---------|---|---|--|---|--|---|---|----------------------------|
| Client Information | | Sampler | | Lab PM | | Carrier Tracking No(s) | | COC No: | |
| Geosyntec Consultants, Inc. | | STEPHEN W. RANDALL | | Whitmore, Cheyenne R | | | | 400-72903-28835.1 | |
| 1255 Roberts Blvd, NW Suite 200 | | Phone: 478-323-6181 | | E-Mail: cheyenne.whitmore@testamericainc.com | | | | Page: Page 1 of 1 | |
| City: Kennesaw | | Due Date Requested: | | Analysis Requested | | | | Job #: 19252 | |
| State, Zip: GA, 30144 | | TAT Requested (days): RUSH 1 DAY AS REQUESTED | | | | | | Preservation Codes: | |
| Phone: 678-202-9583(Tel) | | PO #: Purchase Order not required | | | | | | 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 - EDTA M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify) | |
| Email: clivington@geosyntec.com | | WO #: | | | | | | Other: | |
| Project Name: CCR App IV | | Project #: 40007960 | | | | | | RAD SAMPLE SHIPPED SEPARATE COOLER | |
| Site: | | SSOW#: | | | | | | Special Instructions/Note: | |
| Sample Identification | | Sample Date | | Sample Time | | Sample Type (C=Comp, G=grab) | | Matrix (W=water, S=solid, O=wasteoil, B=Tissue, A=Air) | |
| DUP-9 | 3/22/18 | 0800 | G | Water | N | I | I | PH: 6.89 | Total Number of containers |
| MW-D1 | 3/22/18 | 1210 | G | Water | N | I | I | PH: 6.54 | |
| MW-D2 | 3/22/18 | 1012 | G | Water | N | I | I | PH: 4.38 | |
| MW-D3 | 3/22/18 | 1110 | G | Water | N | I | I | PH: 6.90 | |
| MW-U1 | 3/22/18 | 1305 | G | Water | N | I | I | PH: 7.87 | |
| LAST FRESH | | | | | | | | | |
| 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: <input type="checkbox"/> III, <input type="checkbox"/> IV, Other (specify) | | | | | | | | | |
| 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 | | | | | | | | | |
| Special Instructions/QC Requirements: | | | | | | | | | |
| Empty Kit Relinquished by: | | | | | | | | | |
| Relinquished by: Stephen W. Randall Date/Time: 3/22/18 1745 Company: Geosyntec | | | | | | | | | |
| Relinquished by: Date/Time: Company: | | | | | | | | | |
| Relinquished by: Date/Time: 3/23/18 0903 Company: TH PEN | | | | | | | | | |
| Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Δ <input type="checkbox"/> Δ No | | | | | | | | | |
| Custody Seal No.: Cooler Temperature: °C and Other Remarks: 2. 10. 11. 12. 13. 14. IR-7-Leds Only | | | | | | | | | |



Login Sample Receipt Checklist

Client: Geosyntec Consultants, Inc.

Job Number: 400-151252-1

Login Number: 151252

List Source: TestAmerica Pensacola

List Number: 1

Creator: Edwards, Robin S

| 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 | 2.1°C, IR-7; 18.1°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.IV GW Monitoring

TestAmerica Job ID: 400-151252-1

Laboratory: TestAmerica Pensacola

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

| Authority | Program | EPA Region | Identification Number | Expiration Date |
|------------------------|---------------|------------|-----------------------|-----------------|
| Alabama | State Program | 4 | 40150 | 06-30-19 |
| ANAB | ISO/IEC 17025 | | L2471 | 02-22-20 |
| Arizona | State Program | 9 | AZ0710 | 01-12-19 |
| Arkansas DEQ | State Program | 6 | 88-0689 | 09-01-19 |
| California | State Program | 9 | 2510 | 06-30-19 |
| Florida | NELAP | 4 | E81010 | 06-30-19 |
| Georgia | State Program | 4 | E81010 (FL) | 06-30-19 |
| Illinois | NELAP | 5 | 200041 | 10-09-18 |
| Iowa | State Program | 7 | 367 | 08-01-18 * |
| Kansas | NELAP | 7 | E-10253 | 10-31-18 |
| Kentucky (UST) | State Program | 4 | 53 | 06-30-19 |
| Kentucky (WW) | State Program | 4 | 98030 | 12-31-18 |
| Louisiana | NELAP | 6 | 30976 | 06-30-19 |
| Louisiana (DW) | NELAP | 6 | LA170005 | 12-31-18 |
| Maryland | State Program | 3 | 233 | 09-30-19 |
| Massachusetts | State Program | 1 | M-FL094 | 06-30-19 |
| Michigan | State Program | 5 | 9912 | 06-30-19 |
| New Jersey | NELAP | 2 | FL006 | 06-30-19 |
| North Carolina (WW/SW) | State Program | 4 | 314 | 12-31-18 |
| Oklahoma | State Program | 6 | 9810 | 08-31-19 |
| Pennsylvania | NELAP | 3 | 68-00467 | 01-31-19 |
| Rhode Island | State Program | 1 | LAO00307 | 12-30-18 |
| South Carolina | State Program | 4 | 96026 | 06-30-18 * |
| Tennessee | State Program | 4 | TN02907 | 06-30-19 |
| Texas | NELAP | 6 | T104704286-18-14 | 09-30-18 |
| US Fish & Wildlife | Federal | | LE058448-0 | 07-31-19 |
| USDA | Federal | | P330-18-00148 | 05-17-21 |
| Virginia | NELAP | 3 | 460166 | 06-14-19 |
| Washington | State Program | 10 | C915 | 05-15-19 |
| West Virginia DEP | State Program | 3 | 136 | 06-30-19 |

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

TestAmerica

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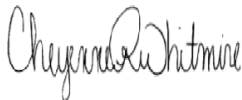
ANALYTICAL REPORT

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

TestAmerica Job ID: 400-151253-1
Client Project/Site: Boron

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

Attn: Jeremy Gasser



Authorized for release by:
3/27/2018 5:48:36 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.

1

2

3

4

5

6

7

8

9

10

11

12

13



Table of Contents

| | |
|---------------------------------|----|
| Cover Page | 1 |
| Table of Contents | 2 |
| Detection Summary | 3 |
| Method Summary | 4 |
| Sample Summary | 5 |
| Client Sample Results | 6 |
| Definitions | 7 |
| Chronicle | 8 |
| QC Association | 9 |
| QC Sample Results | 10 |
| Chain of Custody | 11 |
| Receipt Checklists | 12 |
| Certification Summary | 13 |

Detection Summary

Client: Geosyntec Consultants, Inc.
Project/Site: Boron

TestAmerica Job ID: 400-151253-1

Client Sample ID: MW-U1

Lab Sample ID: 400-151253-1

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-------|--------|------|---------|---|--------|-------------------|
| Boron | 0.0077 | J | 0.010 | 0.0042 | mg/L | 1 | | 6020 | Total Recoverable |

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola



Method Summary

Client: Geosyntec Consultants, Inc.
Project/Site: Boron

TestAmerica Job ID: 400-151253-1

| Method | Method Description | Protocol | Laboratory |
|--------|--------------------|----------|------------|
| 6020 | Metals (ICP/MS) | SW846 | TAL PEN |

Protocol References:

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

Laboratory References:

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



Sample Summary

Client: Geosyntec Consultants, Inc.
Project/Site: Boron

TestAmerica Job ID: 400-151253-1

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---------------|------------------|--------|----------------|----------------|
| 400-151253-1 | MW-U1 | Water | 03/22/18 13:05 | 03/23/18 09:03 |

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Client Sample Results

Client: Geosyntec Consultants, Inc.
Project/Site: Boron

TestAmerica Job ID: 400-151253-1

Client Sample ID: MW-U1
Date Collected: 03/22/18 13:05
Date Received: 03/23/18 09:03

Lab Sample ID: 400-151253-1
Matrix: Water

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------|--------|-----------|-------|--------|------|---|----------------|----------------|---------|
| Boron | 0.0077 | J | 0.010 | 0.0042 | mg/L | | 03/25/18 13:50 | 03/26/18 20:51 | 1 |

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Definitions/Glossary

Client: Geosyntec Consultants, Inc.
Project/Site: Boron

TestAmerica Job ID: 400-151253-1

Qualifiers

Metals

| Qualifier | Qualifier Description |
|-----------|--|
| 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. |
|----------------|---|
| ▫ | 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) |
| 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: Boron

TestAmerica Job ID: 400-151253-1

Client Sample ID: MW-U1

Date Collected: 03/22/18 13:05

Date Received: 03/23/18 09:03

Lab Sample ID: 400-151253-1

Matrix: Water

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-------------------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total Recoverable | Prep | 3005A | | | 391369 | 03/25/18 13:50 | DN1 | TAL PEN |
| Total Recoverable | Analysis | 6020 | | 1 | 391638 | 03/26/18 20:51 | DRE | TAL PEN |

Laboratory References:

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

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

QC Association Summary

Client: Geosyntec Consultants, Inc.
Project/Site: Boron

TestAmerica Job ID: 400-151253-1

Metals

Prep Batch: 391369

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|-------------------------|------------------------|-------------------|--------|--------|------------|
| 400-151253-1 | MW-U1 | Total Recoverable | Water | 3005A | |
| MB 400-391369/1-A ^1 | Method Blank | Total Recoverable | Water | 3005A | |
| MB 400-391369/1-A ^5 | Method Blank | Total Recoverable | Water | 3005A | |
| LCS 400-391369/2-A | Lab Control Sample | Total Recoverable | Water | 3005A | |
| 400-150861-B-1-B MS ^5 | Matrix Spike | Total Recoverable | Water | 3005A | |
| 400-150861-B-1-C MSD ^5 | Matrix Spike Duplicate | Total Recoverable | Water | 3005A | |

Analysis Batch: 391638

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|-------------------------|------------------------|-------------------|--------|--------|------------|
| 400-151253-1 | MW-U1 | Total Recoverable | Water | 6020 | 391369 |
| MB 400-391369/1-A ^1 | Method Blank | Total Recoverable | Water | 6020 | 391369 |
| MB 400-391369/1-A ^5 | Method Blank | Total Recoverable | Water | 6020 | 391369 |
| LCS 400-391369/2-A | Lab Control Sample | Total Recoverable | Water | 6020 | 391369 |
| 400-150861-B-1-B MS ^5 | Matrix Spike | Total Recoverable | Water | 6020 | 391369 |
| 400-150861-B-1-C MSD ^5 | Matrix Spike Duplicate | Total Recoverable | Water | 6020 | 391369 |

QC Sample Results

Client: Geosyntec Consultants, Inc.
Project/Site: Boron

TestAmerica Job ID: 400-151253-1

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-391369/1-A ^1
Matrix: Water
Analysis Batch: 391638

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 391369

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------|-----------|--------------|-------|--------|------|---|----------------|----------------|---------|
| Boron | ND | | 0.010 | 0.0042 | mg/L | | 03/25/18 13:50 | 03/26/18 20:47 | 1 |

Lab Sample ID: MB 400-391369/1-A ^5
Matrix: Water
Analysis Batch: 391638

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 391369

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------|-----------|--------------|-------|-------|------|---|----------------|----------------|---------|
| Boron | ND | | 0.050 | 0.021 | mg/L | | 03/25/18 13:50 | 03/26/18 18:09 | 5 |

Lab Sample ID: LCS 400-391369/2-A
Matrix: Water
Analysis Batch: 391638

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 391369

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | Limits |
|---------|-------------|------------|---------------|------|---|------|----------|
| Boron | 0.100 | 0.109 | | mg/L | | 109 | 80 - 120 |

Lab Sample ID: 400-150861-B-1-B MS ^5
Matrix: Water
Analysis Batch: 391638

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 391369

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | Limits |
|---------|---------------|------------------|-------------|-----------|--------------|------|---|------|----------|
| Boron | ND | | 0.100 | 0.104 | | mg/L | | 104 | 75 - 125 |

Lab Sample ID: 400-150861-B-1-C MSD ^5
Matrix: Water
Analysis Batch: 391638

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 391369


| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | Limits | RPD | Limit |
|---------|---------------|------------------|-------------|------------|---------------|------|---|------|----------|-----|-------|
| Boron | ND | | 0.100 | 0.0990 | | mg/L | | 99 | 75 - 125 | 4 | 20 |

TestAmerica Pensacola

3355 McLemore Drive
Pensacola, FL 32514
Phone (850) 474-1001 Fax (850) 478-2671

Chain of Custody Record



| | | | |
|---|--|--|--|
| Client Information Client Contact: Chris Livingston Company: Geosyntec Consultants, Inc. Address: 1255 Roberts Blvd, NW Suite 200 City: Kennesaw State, Zip: GA, 30144 Phone: 678-202-9583 (Tel) Email: clivingston@geosyntec.com Project Name: Boron Site: | | Lab PM: Whitmire, Cheyenne R E-Mail: cheyenne.whitmire@testamericainc.com Carrier Tracking No(s): COC No: 400-72990-28836.1 Page: Page 1 of 1 Job #: 151253 | |
| Due Date Requested: TAT Requested (days): RUSH 1 DAY AS REQUESTED PO #: Purchase Order not required WO #: 40007960 Project #: 40007960 SSOV#: | | Analysis Requested  | |
| Sample Identification Sample Date: 3/22/18 Sample Time: 1305 Sample Type (C=comp, G=grab): G Matrix (W=water, S=solid, O=waste/soil, BT=tissue, A=Air): Water Preservation Code: | | Field Filled Sample (Yes or No) Perform M/MSD (Yes or No) Total Number of Containers: | |
| 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: <input checked="" type="checkbox"/> I <input type="checkbox"/> II, IV, Other (specify) | | Special Instructions/Note: LAST ITEM | |
| Empty Kit Relinquished by: Relinquished by: <i>Stephen W. Randall</i> Date/Time: 3/22/18 1745 Relinquished by: Company: GEOSYNTEC Relinquished by: Company: | | 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 Special Instructions/QC Requirements: | |
| Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No Custody Seal No.: | | Relinquished by: Company: Company Date/Time: 5-23-18 Date/Time: 0903 Date/Time: Company (A-PEN) Other Temperature(s) °C and Other Remarks: <i>See FB.1</i> | |



Login Sample Receipt Checklist

Client: Geosyntec Consultants, Inc.

Job Number: 400-151253-1

Login Number: 151253

List Source: TestAmerica Pensacola

List Number: 1

Creator: Edwards, Robin S

| 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. | True | |
| 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 | 2.1°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: Boron

TestAmerica Job ID: 400-151253-1

Laboratory: TestAmerica Pensacola

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

| Authority | Program | EPA Region | Identification Number | Expiration Date |
|------------------------|---------------|------------|-----------------------|-----------------|
| Alabama | State Program | 4 | 40150 | 06-30-18 |
| Arizona | State Program | 9 | AZ0710 | 01-12-19 |
| Arkansas DEQ | State Program | 6 | 88-0689 | 09-01-18 |
| California | ELAP | 9 | 2510 | 03-31-18 |
| Florida | NELAP | 4 | E81010 | 06-30-18 |
| Georgia | State Program | 4 | N/A | 06-30-18 |
| Illinois | NELAP | 5 | 200041 | 10-09-18 |
| Iowa | State Program | 7 | 367 | 08-01-18 |
| Kansas | NELAP | 7 | E-10253 | 10-31-18 |
| Kentucky (UST) | State Program | 4 | 53 | 06-30-18 |
| Kentucky (WW) | State Program | 4 | 98030 | 12-31-18 |
| L-A-B | ISO/IEC 17025 | | L2471 | 02-22-20 |
| Louisiana | NELAP | 6 | 30976 | 06-30-18 |
| Louisiana (DW) | NELAP | 6 | LA170005 | 12-31-18 |
| Maryland | State Program | 3 | 233 | 09-30-18 |
| Massachusetts | State Program | 1 | M-FL094 | 06-30-18 |
| Michigan | State Program | 5 | 9912 | 06-30-18 |
| New Jersey | NELAP | 2 | FL006 | 06-30-18 |
| North Carolina (WW/SW) | State Program | 4 | 314 | 12-31-18 |
| Oklahoma | State Program | 6 | 9810 | 08-31-18 |
| Pennsylvania | NELAP | 3 | 68-00467 | 01-31-19 |
| Rhode Island | State Program | 1 | LAO00307 | 12-30-18 |
| South Carolina | State Program | 4 | 96026 | 06-30-18 |
| Tennessee | State Program | 4 | TN02907 | 06-30-18 |
| Texas | NELAP | 6 | T104704286-17-12 | 09-30-18 |
| USDA | Federal | | P330-16-00172 | 05-24-19 |
| Virginia | NELAP | 3 | 460166 | 06-14-18 |
| Washington | State Program | 10 | C915 | 05-15-18 |
| West Virginia DEP | State Program | 3 | 136 | 06-30-18 |

TestAmerica

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ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-151252-2

Client Project/Site: CCR App.IV GW Monitoring

For:

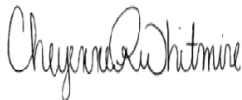
Geosyntec Consultants, Inc.

1255 Roberts Blvd, NW

Suite 200

Kennesaw, Georgia 30144

Attn: Jeremy Gasser



Authorized for release by:

4/20/2018 12:07:04 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.

1

2

3

4

5

6

7

8

9

10

11

12

13



Table of Contents

| | |
|---------------------------------|----|
| Cover Page | 1 |
| Table of Contents | 2 |
| Case Narrative | 3 |
| Method Summary | 4 |
| Sample Summary | 5 |
| Client Sample Results | 6 |
| Definitions | 11 |
| Chronicle | 12 |
| QC Association | 14 |
| QC Sample Results | 15 |
| Chain of Custody | 17 |
| Receipt Checklists | 18 |
| Certification Summary | 19 |

Case Narrative

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

TestAmerica Job ID: 400-151252-2

Job ID: 400-151252-2

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative 400-151252-2

RAD

Method(s) PrecSep_0: Radium 228 Prep Batch 160-357811: Insufficient sample volume was available to perform a sample duplicate (DUP, MS, MSD) for the following samples: DUP-9 (400-151252-1), MW-D1 (400-151252-2), MW-D2 (400-151252-3), MW-D3 (400-151252-4) and MW-U1 (400-151252-5). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

Method(s) PrecSep-21: Radium 226 Prep Batch 160-357806: Insufficient sample volume was available to perform a sample duplicate (DUP, MS, MSD) for the following samples: DUP-9 (400-151252-1), MW-D1 (400-151252-2), MW-D2 (400-151252-3), MW-D3 (400-151252-4) and MW-U1 (400-151252-5). 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.IV GW Monitoring

TestAmerica Job ID: 400-151252-2

| 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 = 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.IV GW Monitoring

TestAmerica Job ID: 400-151252-2

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---------------|------------------|--------|----------------|----------------|
| 400-151252-1 | DUP-9 | Water | 03/22/18 08:00 | 03/23/18 09:03 |
| 400-151252-2 | MW-D1 | Water | 03/22/18 12:10 | 03/23/18 09:03 |
| 400-151252-3 | MW-D2 | Water | 03/22/18 10:12 | 03/23/18 09:03 |
| 400-151252-4 | MW-D3 | Water | 03/22/18 11:10 | 03/23/18 09:03 |
| 400-151252-5 | MW-U1 | Water | 03/22/18 13:05 | 03/23/18 09:03 |

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

Client Sample Results

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

TestAmerica Job ID: 400-151252-2

Client Sample ID: DUP-9

Date Collected: 03/22/18 08:00

Date Received: 03/23/18 09:03

Lab Sample ID: 400-151252-1

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

| Analyte | Result | Qualifier | Count Uncert. (2σ+/-) | Total Uncert. (2σ+/-) | RL | MDC | Unit | Prepared | Analyzed | Dil Fac |
|------------|--------|-----------|-----------------------------|-----------------------------|------|--------|-------|----------------|----------------|---------|
| Radium-226 | 0.225 | | 0.0852 | 0.0876 | 1.00 | 0.0834 | pCi/L | 03/27/18 10:09 | 04/18/18 05:37 | 1 |
| Carrier | %Yield | Qualifier | Limits | | | | | Prepared | Analyzed | Dil Fac |
| Ba Carrier | 99.1 | | 40 - 110 | | | | | 03/27/18 10:09 | 04/18/18 05:37 | 1 |

Method: 9320 - Radium-228 (GFPC)

| Analyte | Result | Qualifier | Count Uncert. (2σ+/-) | Total Uncert. (2σ+/-) | RL | MDC | Unit | Prepared | Analyzed | Dil Fac |
|------------|--------|-----------|-----------------------------|-----------------------------|------|-------|-------|----------------|----------------|---------|
| Radium-228 | 0.491 | | 0.269 | 0.272 | 1.00 | 0.409 | pCi/L | 03/27/18 10:23 | 04/03/18 18:13 | 1 |
| Carrier | %Yield | Qualifier | Limits | | | | | Prepared | Analyzed | Dil Fac |
| Ba Carrier | 99.1 | | 40 - 110 | | | | | 03/27/18 10:23 | 04/03/18 18:13 | 1 |
| Y Carrier | 92.3 | | 40 - 110 | | | | | 03/27/18 10:23 | 04/03/18 18:13 | 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 | 0.716 | | 0.282 | 0.286 | 5.00 | 0.409 | pCi/L | | 04/19/18 17:52 | 1 |

Client Sample Results

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

TestAmerica Job ID: 400-151252-2

Client Sample ID: MW-D1

Date Collected: 03/22/18 12:10

Date Received: 03/23/18 09:03

Lab Sample ID: 400-151252-2

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

| Analyte | Result | Qualifier | Count Uncert. (2σ+/-) | Total Uncert. (2σ+/-) | RL | MDC | Unit | Prepared | Analyzed | Dil Fac |
|------------|--------|-----------|-----------------------------|-----------------------------|------|--------|-------|----------------|----------------|---------|
| Radium-226 | 0.0903 | | 0.0613 | 0.0618 | 1.00 | 0.0800 | pCi/L | 03/27/18 10:09 | 04/18/18 05:37 | 1 |
| Carrier | %Yield | Qualifier | Limits | | | | | Prepared | Analyzed | Dil Fac |
| Ba Carrier | 93.2 | | 40 - 110 | | | | | 03/27/18 10:09 | 04/18/18 05:37 | 1 |

Method: 9320 - Radium-228 (GFPC)

| Analyte | Result | Qualifier | Count Uncert. (2σ+/-) | Total Uncert. (2σ+/-) | RL | MDC | Unit | Prepared | Analyzed | Dil Fac |
|------------|--------|-----------|-----------------------------|-----------------------------|------|-------|-------|----------------|----------------|---------|
| Radium-228 | 0.553 | | 0.268 | 0.272 | 1.00 | 0.394 | pCi/L | 03/27/18 10:23 | 04/03/18 18:13 | 1 |
| Carrier | %Yield | Qualifier | Limits | | | | | Prepared | Analyzed | Dil Fac |
| Ba Carrier | 93.2 | | 40 - 110 | | | | | 03/27/18 10:23 | 04/03/18 18:13 | 1 |
| Y Carrier | 89.0 | | 40 - 110 | | | | | 03/27/18 10:23 | 04/03/18 18:13 | 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 | 0.643 | | 0.275 | 0.279 | 5.00 | 0.394 | pCi/L | | 04/19/18 17:52 | 1 |

Client Sample Results

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

TestAmerica Job ID: 400-151252-2

Client Sample ID: MW-D2

Date Collected: 03/22/18 10:12

Date Received: 03/23/18 09:03

Lab Sample ID: 400-151252-3

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

| Analyte | Result | Qualifier | Count Uncert. (2σ+/-) | Total Uncert. (2σ+/-) | RL | MDC | Unit | Prepared | Analyzed | Dil Fac |
|------------|--------|-----------|-----------------------------|-----------------------------|------|--------|-------|----------------|----------------|---------|
| Radium-226 | 0.105 | | 0.0614 | 0.0621 | 1.00 | 0.0736 | pCi/L | 03/27/18 10:09 | 04/18/18 05:37 | 1 |
| Carrier | %Yield | Qualifier | Limits | | | | | Prepared | Analyzed | Dil Fac |
| Ba Carrier | 98.8 | | 40 - 110 | | | | | 03/27/18 10:09 | 04/18/18 05:37 | 1 |

Method: 9320 - Radium-228 (GFPC)

| Analyte | Result | Qualifier | Count Uncert. (2σ+/-) | Total Uncert. (2σ+/-) | RL | MDC | Unit | Prepared | Analyzed | Dil Fac |
|------------|--------|-----------|-----------------------------|-----------------------------|------|-------|-------|----------------|----------------|---------|
| Radium-228 | 0.610 | | 0.252 | 0.258 | 1.00 | 0.359 | pCi/L | 03/27/18 10:23 | 04/03/18 18:13 | 1 |
| Carrier | %Yield | Qualifier | Limits | | | | | Prepared | Analyzed | Dil Fac |
| Ba Carrier | 98.8 | | 40 - 110 | | | | | 03/27/18 10:23 | 04/03/18 18:13 | 1 |
| Y Carrier | 92.7 | | 40 - 110 | | | | | 03/27/18 10:23 | 04/03/18 18:13 | 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 | 0.716 | | 0.259 | 0.265 | 5.00 | 0.359 | pCi/L | | 04/19/18 17:52 | 1 |

Client Sample Results

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

TestAmerica Job ID: 400-151252-2

Client Sample ID: MW-D3

Date Collected: 03/22/18 11:10

Date Received: 03/23/18 09:03

Lab Sample ID: 400-151252-4

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

| Analyte | Result | Qualifier | Count Uncert. (2σ+/-) | Total Uncert. (2σ+/-) | RL | MDC | Unit | Prepared | Analyzed | Dil Fac |
|------------|--------|-----------|-----------------------------|-----------------------------|------|--------|-------|----------------|----------------|---------|
| Radium-226 | 0.245 | | 0.0823 | 0.0852 | 1.00 | 0.0602 | pCi/L | 03/27/18 10:09 | 04/18/18 05:37 | 1 |
| Carrier | %Yield | Qualifier | Limits | | | | | Prepared | Analyzed | Dil Fac |
| Ba Carrier | 98.5 | | 40 - 110 | | | | | 03/27/18 10:09 | 04/18/18 05:37 | 1 |

Method: 9320 - Radium-228 (GFPC)

| Analyte | Result | Qualifier | Count Uncert. (2σ+/-) | Total Uncert. (2σ+/-) | RL | MDC | Unit | Prepared | Analyzed | Dil Fac |
|------------|--------|-----------|-----------------------------|-----------------------------|------|-------|-------|----------------|----------------|---------|
| Radium-228 | 0.927 | | 0.314 | 0.325 | 1.00 | 0.437 | pCi/L | 03/27/18 10:23 | 04/03/18 18:13 | 1 |
| Carrier | %Yield | Qualifier | Limits | | | | | Prepared | Analyzed | Dil Fac |
| Ba Carrier | 98.5 | | 40 - 110 | | | | | 03/27/18 10:23 | 04/03/18 18:13 | 1 |
| Y Carrier | 86.0 | | 40 - 110 | | | | | 03/27/18 10:23 | 04/03/18 18:13 | 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 | 1.17 | | 0.325 | 0.336 | 5.00 | 0.437 | pCi/L | | 04/19/18 17:52 | 1 |

Client Sample Results

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

TestAmerica Job ID: 400-151252-2

Client Sample ID: MW-U1

Date Collected: 03/22/18 13:05

Date Received: 03/23/18 09:03

Lab Sample ID: 400-151252-5

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

| Analyte | Result | Qualifier | Count Uncert. (2σ+/-) | Total Uncert. (2σ+/-) | RL | MDC | Unit | Prepared | Analyzed | Dil Fac |
|------------|--------|-----------|-----------------------------|-----------------------------|------|--------|-------|----------------|----------------|---------|
| Radium-226 | 0.0141 | U | 0.0375 | 0.0375 | 1.00 | 0.0740 | pCi/L | 03/27/18 10:09 | 04/18/18 05:37 | 1 |
| Carrier | %Yield | Qualifier | Limits | | | | | Prepared | Analyzed | Dil Fac |
| Ba Carrier | 101 | | 40 - 110 | | | | | 03/27/18 10:09 | 04/18/18 05:37 | 1 |

Method: 9320 - Radium-228 (GFPC)

| Analyte | Result | Qualifier | Count Uncert. (2σ+/-) | Total Uncert. (2σ+/-) | RL | MDC | Unit | Prepared | Analyzed | Dil Fac |
|------------|--------|-----------|-----------------------------|-----------------------------|------|-------|-------|----------------|----------------|---------|
| Radium-228 | 0.117 | U | 0.200 | 0.200 | 1.00 | 0.338 | pCi/L | 03/27/18 10:23 | 04/03/18 18:13 | 1 |
| Carrier | %Yield | Qualifier | Limits | | | | | Prepared | Analyzed | Dil Fac |
| Ba Carrier | 101 | | 40 - 110 | | | | | 03/27/18 10:23 | 04/03/18 18:13 | 1 |
| Y Carrier | 93.1 | | 40 - 110 | | | | | 03/27/18 10:23 | 04/03/18 18:13 | 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 | 0.131 | U | 0.203 | 0.203 | 5.00 | 0.338 | pCi/L | | 04/19/18 17:52 | 1 |

Definitions/Glossary

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

TestAmerica Job ID: 400-151252-2

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) |
| 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.IV GW Monitoring

TestAmerica Job ID: 400-151252-2

Client Sample ID: DUP-9

Date Collected: 03/22/18 08:00

Date Received: 03/23/18 09:03

Lab Sample ID: 400-151252-1

Matrix: Water

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|--------|
| Total/NA | Prep | PrecSep-21 | | | 357806 | 03/27/18 10:09 | TJT | TAL SL |
| Total/NA | Analysis | 9315 | | 1 | 361531 | 04/18/18 05:37 | RTM | TAL SL |
| Total/NA | Prep | PrecSep_0 | | | 357811 | 03/27/18 10:23 | TJT | TAL SL |
| Total/NA | Analysis | 9320 | | 1 | 358751 | 04/03/18 18:13 | CDR | TAL SL |
| Total/NA | Analysis | Ra226_Ra228 | | 1 | 361901 | 04/19/18 17:52 | RTM | TAL SL |

Client Sample ID: MW-D1

Date Collected: 03/22/18 12:10

Date Received: 03/23/18 09:03

Lab Sample ID: 400-151252-2

Matrix: Water

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|--------|
| Total/NA | Prep | PrecSep-21 | | | 357806 | 03/27/18 10:09 | TJT | TAL SL |
| Total/NA | Analysis | 9315 | | 1 | 361531 | 04/18/18 05:37 | RTM | TAL SL |
| Total/NA | Prep | PrecSep_0 | | | 357811 | 03/27/18 10:23 | TJT | TAL SL |
| Total/NA | Analysis | 9320 | | 1 | 358751 | 04/03/18 18:13 | CDR | TAL SL |
| Total/NA | Analysis | Ra226_Ra228 | | 1 | 361901 | 04/19/18 17:52 | RTM | TAL SL |

Client Sample ID: MW-D2

Date Collected: 03/22/18 10:12

Date Received: 03/23/18 09:03

Lab Sample ID: 400-151252-3

Matrix: Water

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|--------|
| Total/NA | Prep | PrecSep-21 | | | 357806 | 03/27/18 10:09 | TJT | TAL SL |
| Total/NA | Analysis | 9315 | | 1 | 361531 | 04/18/18 05:37 | RTM | TAL SL |
| Total/NA | Prep | PrecSep_0 | | | 357811 | 03/27/18 10:23 | TJT | TAL SL |
| Total/NA | Analysis | 9320 | | 1 | 358751 | 04/03/18 18:13 | CDR | TAL SL |
| Total/NA | Analysis | Ra226_Ra228 | | 1 | 361901 | 04/19/18 17:52 | RTM | TAL SL |

Client Sample ID: MW-D3

Date Collected: 03/22/18 11:10

Date Received: 03/23/18 09:03

Lab Sample ID: 400-151252-4

Matrix: Water

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|--------|
| Total/NA | Prep | PrecSep-21 | | | 357806 | 03/27/18 10:09 | TJT | TAL SL |
| Total/NA | Analysis | 9315 | | 1 | 361531 | 04/18/18 05:37 | RTM | TAL SL |
| Total/NA | Prep | PrecSep_0 | | | 357811 | 03/27/18 10:23 | TJT | TAL SL |
| Total/NA | Analysis | 9320 | | 1 | 358751 | 04/03/18 18:13 | CDR | TAL SL |
| Total/NA | Analysis | Ra226_Ra228 | | 1 | 361901 | 04/19/18 17:52 | RTM | TAL SL |

Lab Chronicle

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

TestAmerica Job ID: 400-151252-2

Client Sample ID: MW-U1

Date Collected: 03/22/18 13:05

Date Received: 03/23/18 09:03

Lab Sample ID: 400-151252-5

Matrix: Water

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|--------|
| Total/NA | Prep | PrecSep-21 | | | 357806 | 03/27/18 10:09 | TJT | TAL SL |
| Total/NA | Analysis | 9315 | | 1 | 361531 | 04/18/18 05:37 | RTM | TAL SL |
| Total/NA | Prep | PrecSep_0 | | | 357811 | 03/27/18 10:23 | TJT | TAL SL |
| Total/NA | Analysis | 9320 | | 1 | 358751 | 04/03/18 18:13 | CDR | TAL SL |
| Total/NA | Analysis | Ra226_Ra228 | | 1 | 361901 | 04/19/18 17:52 | RTM | TAL SL |

Laboratory References:

TAL SL = 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.IV GW Monitoring

TestAmerica Job ID: 400-151252-2

Rad

Prep Batch: 357806

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|------------------------|-----------|--------|------------|------------|
| 400-151252-1 | DUP-9 | Total/NA | Water | PrecSep-21 | |
| 400-151252-2 | MW-D1 | Total/NA | Water | PrecSep-21 | |
| 400-151252-3 | MW-D2 | Total/NA | Water | PrecSep-21 | |
| 400-151252-4 | MW-D3 | Total/NA | Water | PrecSep-21 | |
| 400-151252-5 | MW-U1 | Total/NA | Water | PrecSep-21 | |
| MB 160-357806/8-A | Method Blank | Total/NA | Water | PrecSep-21 | |
| LCS 160-357806/1-A | Lab Control Sample | Total/NA | Water | PrecSep-21 | |
| LCSD 160-357806/2-A | Lab Control Sample Dup | Total/NA | Water | PrecSep-21 | |

Prep Batch: 357811

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|------------------------|-----------|--------|-----------|------------|
| 400-151252-1 | DUP-9 | Total/NA | Water | PrecSep_0 | |
| 400-151252-2 | MW-D1 | Total/NA | Water | PrecSep_0 | |
| 400-151252-3 | MW-D2 | Total/NA | Water | PrecSep_0 | |
| 400-151252-4 | MW-D3 | Total/NA | Water | PrecSep_0 | |
| 400-151252-5 | MW-U1 | Total/NA | Water | PrecSep_0 | |
| MB 160-357811/8-A | Method Blank | Total/NA | Water | PrecSep_0 | |
| LCS 160-357811/1-A | Lab Control Sample | Total/NA | Water | PrecSep_0 | |
| LCSD 160-357811/2-A | Lab Control Sample Dup | Total/NA | Water | PrecSep_0 | |

QC Sample Results

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

TestAmerica Job ID: 400-151252-2

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-357806/8-A
Matrix: Water
Analysis Batch: 361531

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 357806

| Analyte | MB MB | | Count | Total | RL | MDC | Unit | Prepared | Analyzed | Dil Fac |
|------------|----------|-----------|-----------------|-----------------|----------------|----------------|---------|----------------|----------------|---------|
| | Result | Qualifier | Uncert. (2σ+/-) | Uncert. (2σ+/-) | | | | | | |
| Radium-226 | 0.001252 | U | 0.0393 | 0.0393 | 1.00 | 0.0828 | pCi/L | 03/27/18 10:09 | 04/18/18 05:38 | 1 |
| Carrier | MB MB | | Limits | | Prepared | Analyzed | Dil Fac | | | |
| Ba Carrier | %Yield | Qualifier | Limits | | | | | | | |
| Ba Carrier | 99.1 | | 40 - 110 | | 03/27/18 10:09 | 04/18/18 05:38 | 1 | | | |

Lab Sample ID: LCS 160-357806/1-A
Matrix: Water
Analysis Batch: 361531

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 357806

| Analyte | Spike Added | LCS Result | LCS Qual | Total | RL | MDC | Unit | %Rec | %Rec. Limits |
|------------|-------------|------------|----------|-----------------|----------|----------|---------|------|--------------|
| | | | | Uncert. (2σ+/-) | | | | | |
| Radium-226 | 11.8 | 12.08 | | 1.21 | 1.00 | 0.0700 | pCi/L | 102 | 68 - 137 |
| Carrier | LCS LCS | | Limits | | Prepared | Analyzed | Dil Fac | | |
| Ba Carrier | %Yield | Qualifier | Limits | | | | | | |
| Ba Carrier | 101 | | 40 - 110 | | | | | | |

Lab Sample ID: LCSD 160-357806/2-A
Matrix: Water
Analysis Batch: 361531

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 357806

| Analyte | Spike Added | LCSD Result | LCSD Qual | Total | RL | MDC | Unit | %Rec | %Rec. Limits | RER | RER Limit |
|------------|-------------|-------------|-----------|-----------------|----------|----------|---------|------|--------------|------|-----------|
| | | | | Uncert. (2σ+/-) | | | | | | | |
| Radium-226 | 11.8 | 11.36 | | 1.16 | 1.00 | 0.0674 | pCi/L | 96 | 68 - 137 | 0.31 | 1 |
| Carrier | LCSD LCSD | | Limits | | Prepared | Analyzed | Dil Fac | | | | |
| Ba Carrier | %Yield | Qualifier | Limits | | | | | | | | |
| Ba Carrier | 94.7 | | 40 - 110 | | | | | | | | |

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-357811/8-A
Matrix: Water
Analysis Batch: 358751

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 357811

| Analyte | MB MB | | Count | Total | RL | MDC | Unit | Prepared | Analyzed | Dil Fac |
|------------|--------|-----------|-----------------|-----------------|----------------|----------------|---------|----------------|----------------|---------|
| | Result | Qualifier | Uncert. (2σ+/-) | Uncert. (2σ+/-) | | | | | | |
| Radium-228 | 0.1028 | U | 0.209 | 0.209 | 1.00 | 0.356 | pCi/L | 03/27/18 10:23 | 04/03/18 18:13 | 1 |
| Carrier | MB MB | | Limits | | Prepared | Analyzed | Dil Fac | | | |
| Ba Carrier | %Yield | Qualifier | Limits | | | | | | | |
| Ba Carrier | 99.1 | | 40 - 110 | | 03/27/18 10:23 | 04/03/18 18:13 | 1 | | | |
| Y Carrier | MB MB | | Limits | | Prepared | Analyzed | Dil Fac | | | |
| Y Carrier | %Yield | Qualifier | Limits | | | | | | | |
| Y Carrier | 91.6 | | 40 - 110 | | 03/27/18 10:23 | 04/03/18 18:13 | 1 | | | |

TestAmerica Pensacola

QC Sample Results

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

TestAmerica Job ID: 400-151252-2

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

Lab Sample ID: LCS 160-357811/1-A
Matrix: Water
Analysis Batch: 358718

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 357811

| Analyte | Spike Added | LCS Result | LCS Qual | Total Uncert. (2σ+/-) | RL | MDC | Unit | %Rec | %Rec. Limits |
|------------|-------------|------------|----------|-----------------------|------|-------|-------|------|--------------|
| Radium-228 | 8.42 | 9.327 | | 1.06 | 1.00 | 0.379 | pCi/L | 111 | 56 - 140 |

| Carrier | LCS %Yield | LCS Qualifier | Limits |
|------------|------------|---------------|----------|
| Ba Carrier | 101 | | 40 - 110 |
| Y Carrier | 93.8 | | 40 - 110 |

Lab Sample ID: LCSD 160-357811/2-A
Matrix: Water
Analysis Batch: 358718

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 357811

| Analyte | Spike Added | LCSD Result | LCSD Qual | Total Uncert. (2σ+/-) | RL | MDC | Unit | %Rec | %Rec. Limits | RER | RER Limit |
|------------|-------------|-------------|-----------|-----------------------|------|-------|-------|------|--------------|------|-----------|
| Radium-228 | 8.42 | 8.489 | | 1.02 | 1.00 | 0.426 | pCi/L | 101 | 56 - 140 | 0.40 | 1 |

| Carrier | LCSD %Yield | LCSD Qualifier | Limits |
|------------|-------------|----------------|----------|
| Ba Carrier | 94.7 | | 40 - 110 |
| Y Carrier | 86.7 | | 40 - 110 |

Chain of Custody Record

| | | | | | | | |
|---|--|---|--|---|--|--|--|
| Client Information | | Lab PM: Whitmore, Cheyenne R | | Carmer Tracking No(s) | | COC No: 400-72903-28835.1 | |
| Client Contact: Chris Livingston | | E-Mail: cheyenne.whitmore@testamericainc.com | | Page: Page 1 of 1 | | Job #: 19252 | |
| Company: Geosyntec Consultants, Inc. | | Address: 1255 Roberts Blvd, NW Suite 200 | | City: Kennesaw | | State, Zip: GA, 30144 | |
| Phone: 678-202-9583(Tel) | | Email: clivington@geosyntec.com | | Project #: 40007960 | | SSOW#: | |
| Purchase Order not required | | PO #: | | Project Name: CCR App.IV | | Site: | |
| Due Date Requested: | | TAT Requested (days): RUSH 1 DAY AS REQUESTED | | Due Date Requested: | | TAT Requested (days): | |
| Sample Identification | | Sample Date | | Sample Time | | Sample Type (C=Comp, G=grab) | |
| DUP-9 | | 3/22/18 | | 0800 | | G | |
| MW-D1 | | 3/22/18 | | 1210 | | G | |
| MW-D2 | | 3/22/18 | | 1012 | | G | |
| MW-D3 | | 3/22/18 | | 1110 | | G | |
| MW-U1 | | 3/22/18 | | 1305 | | G | |
| Matrix (W=water, S=solid, O=wastewat, B=Tissue, A=Air) | | Water | | Water | | Water | |
| Preservation Code: | | N | | N | | N | |
| Field Filtered Sample (Yes or No) | | X | | X | | X | |
| Perform MS/MSD (Yes or No) | | D | | D | | D | |
| 9315_Ra226, 9320_Ra228, Ra226Ra228_GFPCC | | 6020-Sb,As,Ba,Be,Cd,Cr,Cu,Pb,LI,Mo,Se,TL, 7470A-Hg | | 4500_F,C-Fluoride | | | |
| Total Number of containers | | X | | X | | X | |
| Special Instructions/Note: RAD SAMPLE SHIPPED SEPARATE COOLER | | PH: 6.89 | | PH: 6.54 | | PH: 4.38 | |
| | | PH: 6.90 | | PH: 7.87 | | | |
| Other: 400-151252 COC | | | | | | | |
| Possible Hazard Identification | | <input checked="" type="checkbox"/> Non-Hazard | | <input type="checkbox"/> Flammable | | <input type="checkbox"/> Skin Irritant | |
| Deliverable Requested: I, II, III, IV, Other (specify) | | <input type="checkbox"/> Poison B | | <input type="checkbox"/> Unknown | | <input type="checkbox"/> Radiological | |
| Empty Kit Relinquished by: | | Date/Time: | | Date/Time: | | Date/Time: | |
| Relinquished by: Stephen W. Randall | | 3/22/18 | | 1745 | | Company: Geosyntec | |
| Relinquished by: | | Date/Time: | | Date/Time: | | Date/Time: | |
| Relinquished by: | | Date/Time: | | Date/Time: | | Date/Time: | |
| Custody Seals Intact: Δ Yes Δ No | | Custody Seal No.: | | Cooler Temperature: °C | | Cooler Other Remarks: IR-7-Rads Only | |
| 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 | | Archive For: _____ Months | |
| Special Instructions/QC Requirements: | | Method of Shipment: | | Received by: | | Date/Time: | |
| | | | | Received by: | | Date/Time: | |
| | | | | Received by: | | Date/Time: | |
| | | | | Received by: | | Date/Time: | |



Login Sample Receipt Checklist

Client: Geosyntec Consultants, Inc.

Job Number: 400-151252-2

Login Number: 151252

List Source: TestAmerica Pensacola

List Number: 1

Creator: Edwards, Robin S

| 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 | 2.1°C, IR-7; 18.1°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.IV GW Monitoring

TestAmerica Job ID: 400-151252-2

Laboratory: TestAmerica Pensacola

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

| Authority | Program | EPA Region | Identification Number | Expiration Date |
|------------------------|---------------|------------|-----------------------|-----------------|
| Alabama | State Program | 4 | 40150 | 06-30-18 |
| ANAB | ISO/IEC 17025 | | L2471 | 02-22-20 |
| Arizona | State Program | 9 | AZ0710 | 01-12-19 |
| Arkansas DEQ | State Program | 6 | 88-0689 | 09-01-18 |
| California | ELAP | 9 | 2510 | 03-31-18 * |
| Florida | NELAP | 4 | E81010 | 06-30-18 |
| Georgia | State Program | 4 | N/A | 06-30-18 |
| Illinois | NELAP | 5 | 200041 | 10-09-18 |
| Iowa | State Program | 7 | 367 | 08-01-18 |
| Kansas | NELAP | 7 | E-10253 | 10-31-18 |
| Kentucky (UST) | State Program | 4 | 53 | 06-30-18 |
| Kentucky (WW) | State Program | 4 | 98030 | 12-31-18 |
| Louisiana | NELAP | 6 | 30976 | 06-30-18 |
| Louisiana (DW) | NELAP | 6 | LA170005 | 12-31-18 |
| Maryland | State Program | 3 | 233 | 09-30-18 |
| Massachusetts | State Program | 1 | M-FL094 | 06-30-18 |
| Michigan | State Program | 5 | 9912 | 06-30-18 |
| New Jersey | NELAP | 2 | FL006 | 06-30-18 |
| North Carolina (WW/SW) | State Program | 4 | 314 | 12-31-18 |
| Oklahoma | State Program | 6 | 9810 | 08-31-18 |
| Pennsylvania | NELAP | 3 | 68-00467 | 01-31-19 |
| Rhode Island | State Program | 1 | LAO00307 | 12-30-18 |
| South Carolina | State Program | 4 | 96026 | 06-30-18 |
| Tennessee | State Program | 4 | TN02907 | 06-30-18 |
| Texas | NELAP | 6 | T104704286-17-12 | 09-30-18 |
| USDA | Federal | | P330-16-00172 | 05-24-19 |
| Virginia | NELAP | 3 | 460166 | 06-14-18 |
| Washington | State Program | 10 | C915 | 05-15-18 |
| West Virginia DEP | State Program | 3 | 136 | 06-30-18 |

Laboratory: TestAmerica St. Louis

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

| Authority | Program | EPA Region | Identification Number | Expiration Date |
|----------------|---------------|------------|-----------------------|-----------------|
| Alaska | State Program | 10 | MO00054 | 06-30-18 * |
| Arizona | State Program | 9 | AZ0813 | 12-08-18 |
| California | State Program | 9 | 2886 | 06-30-18 * |
| Connecticut | State Program | 1 | PH-0241 | 03-31-19 |
| Florida | NELAP | 4 | E87689 | 06-30-18 * |
| Illinois | NELAP | 5 | 200023 | 11-30-18 |
| Iowa | State Program | 7 | 373 | 12-01-18 |
| Kansas | NELAP | 7 | E-10236 | 10-31-18 |
| Kentucky (DW) | State Program | 4 | 90125 | 12-31-18 |
| L-A-B | DoD ELAP | | L2305 | 04-06-19 |
| Louisiana | NELAP | 6 | 04080 | 06-30-18 |
| Louisiana (DW) | NELAP | 6 | LA180017 | 12-31-18 |
| Maryland | State Program | 3 | 310 | 09-30-18 |
| Michigan | State Program | 5 | 9005 | 06-30-18 |
| Missouri | State Program | 7 | 780 | 06-30-18 |
| Nevada | State Program | 9 | MO000542018-1 | 07-31-18 |

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Accreditation/Certification Summary

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

TestAmerica Job ID: 400-151252-2

Laboratory: TestAmerica St. Louis (Continued)

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

| Authority | Program | EPA Region | Identification Number | Expiration Date |
|--------------------|---------------|------------|-----------------------|-----------------|
| New Jersey | NELAP | 2 | MO002 | 06-30-18 * |
| New York | NELAP | 2 | 11616 | 03-31-19 |
| North Dakota | State Program | 8 | R207 | 06-30-18 |
| NRC | NRC | | 24-24817-01 | 12-31-22 |
| Oklahoma | State Program | 6 | 9997 | 08-31-18 |
| Pennsylvania | NELAP | 3 | 68-00540 | 02-28-19 |
| South Carolina | State Program | 4 | 85002001 | 06-30-18 |
| Texas | NELAP | 6 | T104704193-17-11 | 07-31-18 |
| US Fish & Wildlife | Federal | | 058448 | 08-31-18 |
| USDA | Federal | | P330-17-0028 | 02-02-20 |
| Utah | NELAP | 8 | MO000542016-8 | 07-31-18 |
| Virginia | NELAP | 3 | 460230 | 06-14-18 * |
| Washington | State Program | 10 | C592 | 08-30-18 |
| West Virginia DEP | State Program | 3 | 381 | 08-31-18 * |

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-154780-1

Client Project/Site: CCR App.III/IV GW Monitoring

For:

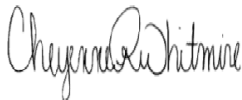
Geosyntec Consultants, Inc.

1255 Roberts Blvd, NW

Suite 200

Kennesaw, Georgia 30144

Attn: Jeremy Gasser



Authorized for release by:

6/21/2018 3:30:18 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

cheyenne.whitmire@testamericainc.com

LINKS

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results through

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www.testamericainc.com

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.

1

2

3

4

5

6

7

8

9

10

11

12

13

14



Table of Contents

| | |
|---------------------------------|----|
| Cover Page | 1 |
| Table of Contents | 2 |
| Case Narrative | 3 |
| Detection Summary | 4 |
| Method Summary | 6 |
| Sample Summary | 7 |
| Client Sample Results | 8 |
| Definitions | 13 |
| Chronicle | 14 |
| QC Association | 16 |
| QC Sample Results | 18 |
| Chain of Custody | 23 |
| Receipt Checklists | 24 |
| Certification Summary | 25 |

Case Narrative

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

TestAmerica Job ID: 400-154780-1

Job ID: 400-154780-1

Laboratory: TestAmerica Pensacola

Narrative

**Job Narrative
400-154780-1**

Metals

Method(s) 6020: The following samples were diluted to bring the concentration of target analytes within the calibration range: MW-D2-20180605 (400-154780-2) and MW-D3-20180605 (400-154780-3). Elevated reporting limits (RLs) are provided.

General Chemistry

Method(s) SM 4500 SO4 E: Due to the high concentration of sulfates the matrix spike / matrix spike duplicate (MS/MSD) could not be evaluated for accuracy and precision. The associated laboratory control sample (LCS) met acceptance criteria.

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

Detection Summary

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

TestAmerica Job ID: 400-154780-1

Client Sample ID: DUP-10-20180605

Lab Sample ID: 400-154780-1

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|------------------------|--------|-----------|--------|---------|------|---------|---|----------------|----------------------|
| Barium | 0.0098 | | 0.0025 | 0.00049 | mg/L | 5 | | 6020 | Total Recoverable |
| Boron | 0.090 | | 0.050 | 0.021 | mg/L | 5 | | 6020 | Total Recoverable |
| Calcium | 21 | | 0.25 | 0.13 | mg/L | 5 | | 6020 | Total Recoverable |
| Total Dissolved Solids | 96 | | 5.0 | 3.4 | mg/L | 1 | | SM 2540C | Total/NA |
| Chloride | 1.8 | J | 2.0 | 0.60 | 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 |
| Sulfate | 15 | | 5.0 | 1.4 | mg/L | 1 | | SM 4500 SO4 E | Total/NA |
| Field pH | 6.31 | | | | SU | 1 | | Field Sampling | Total/NA |

Client Sample ID: MW-D2-20180605

Lab Sample ID: 400-154780-2

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|------------------------|----------|-----------|---------|----------|------|---------|---|----------------|----------------------|
| Barium | 0.19 | | 0.0025 | 0.00049 | mg/L | 5 | | 6020 | Total Recoverable |
| Boron | 0.11 | | 0.050 | 0.021 | mg/L | 5 | | 6020 | Total Recoverable |
| Thallium | 0.000085 | J | 0.00050 | 0.000085 | mg/L | 5 | | 6020 | Total Recoverable |
| Calcium - DL | 130 | | 1.3 | 0.63 | mg/L | 25 | | 6020 | Total Recoverable |
| Total Dissolved Solids | 390 | | 5.0 | 3.4 | mg/L | 1 | | SM 2540C | Total/NA |
| Chloride | 5.1 | | 2.0 | 0.60 | 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 |
| Sulfate | 18 | | 5.0 | 1.4 | mg/L | 1 | | SM 4500 SO4 E | Total/NA |
| Field pH | 6.50 | | | | SU | 1 | | Field Sampling | Total/NA |

Client Sample ID: MW-D3-20180605

Lab Sample ID: 400-154780-3

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|------------------------|---------|-----------|---------|----------|------|---------|---|----------------|----------------------|
| Arsenic | 0.00067 | J | 0.0013 | 0.00046 | mg/L | 5 | | 6020 | Total Recoverable |
| Barium | 0.15 | | 0.0025 | 0.00049 | mg/L | 5 | | 6020 | Total Recoverable |
| Boron | 0.21 | | 0.050 | 0.021 | mg/L | 5 | | 6020 | Total Recoverable |
| Cobalt | 0.0017 | J | 0.0025 | 0.00040 | mg/L | 5 | | 6020 | Total Recoverable |
| Molybdenum | 0.0022 | J | 0.010 | 0.00085 | mg/L | 5 | | 6020 | Total Recoverable |
| Thallium | 0.00012 | J | 0.00050 | 0.000085 | mg/L | 5 | | 6020 | Total Recoverable |
| Calcium - DL | 110 | | 1.3 | 0.63 | mg/L | 25 | | 6020 | Total Recoverable |
| Total Dissolved Solids | 370 | | 5.0 | 3.4 | mg/L | 1 | | SM 2540C | Total/NA |
| Chloride | 4.1 | | 2.0 | 0.60 | mg/L | 1 | | SM 4500 Cl- E | Total/NA |
| Fluoride | 0.12 | | 0.10 | 0.032 | mg/L | 1 | | SM 4500 F C | Total/NA |
| Sulfate | 29 | | 5.0 | 1.4 | mg/L | 1 | | SM 4500 SO4 E | Total/NA |
| Field pH | 6.42 | | | | SU | 1 | | Field Sampling | Total/NA |

Client Sample ID: MW-D1-20180605

Lab Sample ID: 400-154780-4

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

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

TestAmerica Job ID: 400-154780-1

Client Sample ID: MW-D1-20180605 (Continued)

Lab Sample ID: 400-154780-4

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|------------------------|--------|-----------|--------|---------|------|---------|---|----------------|----------------------|
| Barium | 0.010 | | 0.0025 | 0.00049 | mg/L | 5 | | 6020 | Total Recoverable |
| Boron | 0.086 | | 0.050 | 0.021 | mg/L | 5 | | 6020 | Total Recoverable |
| Calcium | 22 | | 0.25 | 0.13 | mg/L | 5 | | 6020 | Total Recoverable |
| Total Dissolved Solids | 110 | | 5.0 | 3.4 | mg/L | 1 | | SM 2540C | Total/NA |
| Chloride | 2.0 | | 2.0 | 0.60 | 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 |
| Sulfate | 16 | | 5.0 | 1.4 | mg/L | 1 | | SM 4500 SO4 E | Total/NA |
| Field pH | 5.91 | | | | SU | 1 | | Field Sampling | Total/NA |

Client Sample ID: MW-U1-20180605

Lab Sample ID: 400-154780-5

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|------------------------|--------|-----------|--------|---------|------|---------|---|----------------|----------------------|
| Barium | 0.0025 | | 0.0025 | 0.00049 | mg/L | 5 | | 6020 | Total Recoverable |
| Calcium | 33 | | 0.25 | 0.13 | mg/L | 5 | | 6020 | Total Recoverable |
| Total Dissolved Solids | 110 | | 5.0 | 3.4 | mg/L | 1 | | SM 2540C | Total/NA |
| Chloride | 1.8 | J | 2.0 | 0.60 | 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 | 2.9 | J | 5.0 | 1.4 | mg/L | 1 | | SM 4500 SO4 E | Total/NA |
| Field pH | 6.74 | | | | SU | 1 | | Field Sampling | Total/NA |

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Method Summary

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

TestAmerica Job ID: 400-154780-1

| 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 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 = 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

TestAmerica Job ID: 400-154780-1

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---------------|------------------|--------|----------------|----------------|
| 400-154780-1 | DUP-10-20180605 | Water | 06/05/18 08:00 | 06/07/18 10:09 |
| 400-154780-2 | MW-D2-20180605 | Water | 06/05/18 09:50 | 06/07/18 10:09 |
| 400-154780-3 | MW-D3-20180605 | Water | 06/05/18 10:45 | 06/07/18 10:09 |
| 400-154780-4 | MW-D1-20180605 | Water | 06/05/18 12:10 | 06/07/18 10:09 |
| 400-154780-5 | MW-U1-20180605 | Water | 06/05/18 14:50 | 06/07/18 10:09 |

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

Client Sample Results

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

TestAmerica Job ID: 400-154780-1

Client Sample ID: DUP-10-20180605

Lab Sample ID: 400-154780-1

Date Collected: 06/05/18 08:00

Matrix: Water

Date Received: 06/07/18 10:09

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|----------------|---------------|-----------|---------|----------|------|---|----------------|----------------|---------|
| Arsenic | ND | | 0.0013 | 0.00046 | mg/L | | 06/13/18 08:32 | 06/13/18 15:54 | 5 |
| Barium | 0.0098 | | 0.0025 | 0.00049 | mg/L | | 06/13/18 08:32 | 06/13/18 15:54 | 5 |
| Boron | 0.090 | | 0.050 | 0.021 | mg/L | | 06/13/18 08:32 | 06/13/18 15:54 | 5 |
| Calcium | 21 | | 0.25 | 0.13 | mg/L | | 06/13/18 08:32 | 06/13/18 15:54 | 5 |
| Cobalt | ND | | 0.0025 | 0.00040 | mg/L | | 06/13/18 08:32 | 06/13/18 15:54 | 5 |
| Molybdenum | ND | | 0.010 | 0.00085 | mg/L | | 06/13/18 08:32 | 06/13/18 15:54 | 5 |
| Thallium | ND | | 0.00050 | 0.000085 | mg/L | | 06/13/18 08:32 | 06/13/18 15:54 | 5 |

General Chemistry

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------------------------|--------------|-----------|------|-------|------|---|----------|----------------|---------|
| Total Dissolved Solids | 96 | | 5.0 | 3.4 | mg/L | | | 06/12/18 13:11 | 1 |
| Chloride | 1.8 | J | 2.0 | 0.60 | mg/L | | | 06/17/18 10:16 | 1 |
| Fluoride | 0.070 | J | 0.10 | 0.032 | mg/L | | | 06/19/18 14:19 | 1 |
| Sulfate | 15 | | 5.0 | 1.4 | mg/L | | | 06/17/18 08:53 | 1 |

Method: Field Sampling - Field Sampling

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------------|-------------|-----------|----|-----|------|---|----------|----------------|---------|
| Field pH | 6.31 | | | | SU | | | 06/05/18 07:00 | 1 |

Client Sample Results

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

TestAmerica Job ID: 400-154780-1

Client Sample ID: MW-D2-20180605

Lab Sample ID: 400-154780-2

Date Collected: 06/05/18 09:50

Matrix: Water

Date Received: 06/07/18 10:09

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------------|-----------------|-----------|---------|----------|------|---|----------------|----------------|---------|
| Arsenic | ND | | 0.0013 | 0.00046 | mg/L | | 06/13/18 08:32 | 06/13/18 15:59 | 5 |
| Barium | 0.19 | | 0.0025 | 0.00049 | mg/L | | 06/13/18 08:32 | 06/13/18 15:59 | 5 |
| Boron | 0.11 | | 0.050 | 0.021 | mg/L | | 06/13/18 08:32 | 06/13/18 15:59 | 5 |
| Cobalt | ND | | 0.0025 | 0.00040 | mg/L | | 06/13/18 08:32 | 06/13/18 15:59 | 5 |
| Molybdenum | ND | | 0.010 | 0.00085 | mg/L | | 06/13/18 08:32 | 06/13/18 15:59 | 5 |
| Thallium | 0.000085 | J | 0.00050 | 0.000085 | mg/L | | 06/13/18 08:32 | 06/13/18 15:59 | 5 |

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|----------------|------------|-----------|-----|------|------|---|----------------|----------------|---------|
| Calcium | 130 | | 1.3 | 0.63 | mg/L | | 06/13/18 08:32 | 06/14/18 11:26 | 25 |

General Chemistry

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------------------------|--------------|-----------|------|-------|------|---|----------|----------------|---------|
| Total Dissolved Solids | 390 | | 5.0 | 3.4 | mg/L | | | 06/12/18 13:11 | 1 |
| Chloride | 5.1 | | 2.0 | 0.60 | mg/L | | | 06/17/18 10:06 | 1 |
| Fluoride | 0.070 | J | 0.10 | 0.032 | mg/L | | | 06/19/18 14:31 | 1 |
| Sulfate | 18 | | 5.0 | 1.4 | mg/L | | | 06/17/18 08:53 | 1 |

Method: Field Sampling - Field Sampling

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------------|-------------|-----------|----|-----|------|---|----------|----------------|---------|
| Field pH | 6.50 | | | | SU | | | 06/05/18 08:50 | 1 |

Client Sample Results

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

TestAmerica Job ID: 400-154780-1

Client Sample ID: MW-D3-20180605

Lab Sample ID: 400-154780-3

Date Collected: 06/05/18 10:45

Matrix: Water

Date Received: 06/07/18 10:09

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|------------|---------|-----------|---------|----------|------|---|----------------|----------------|---------|
| Arsenic | 0.00067 | J | 0.0013 | 0.00046 | mg/L | | 06/13/18 08:32 | 06/13/18 16:03 | 5 |
| Barium | 0.15 | | 0.0025 | 0.00049 | mg/L | | 06/13/18 08:32 | 06/13/18 16:03 | 5 |
| Boron | 0.21 | | 0.050 | 0.021 | mg/L | | 06/13/18 08:32 | 06/13/18 16:03 | 5 |
| Cobalt | 0.0017 | J | 0.0025 | 0.00040 | mg/L | | 06/13/18 08:32 | 06/13/18 16:03 | 5 |
| Molybdenum | 0.0022 | J | 0.010 | 0.00085 | mg/L | | 06/13/18 08:32 | 06/13/18 16:03 | 5 |
| Thallium | 0.00012 | J | 0.00050 | 0.000085 | mg/L | | 06/13/18 08:32 | 06/13/18 16:03 | 5 |

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------|--------|-----------|-----|------|------|---|----------------|----------------|---------|
| Calcium | 110 | | 1.3 | 0.63 | mg/L | | 06/13/18 08:32 | 06/14/18 11:30 | 25 |

General Chemistry

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|------------------------|--------|-----------|------|-------|------|---|----------|----------------|---------|
| Total Dissolved Solids | 370 | | 5.0 | 3.4 | mg/L | | | 06/12/18 13:11 | 1 |
| Chloride | 4.1 | | 2.0 | 0.60 | mg/L | | | 06/17/18 10:16 | 1 |
| Fluoride | 0.12 | | 0.10 | 0.032 | mg/L | | | 06/19/18 14:33 | 1 |
| Sulfate | 29 | | 5.0 | 1.4 | mg/L | | | 06/18/18 10:34 | 1 |

Method: Field Sampling - Field Sampling

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|----------|--------|-----------|----|-----|------|---|----------|----------------|---------|
| Field pH | 6.42 | | | | SU | | | 06/05/18 09:45 | 1 |

Client Sample Results

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

TestAmerica Job ID: 400-154780-1

Client Sample ID: MW-D1-20180605

Lab Sample ID: 400-154780-4

Date Collected: 06/05/18 12:10

Matrix: Water

Date Received: 06/07/18 10:09

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|----------------|--------------|-----------|---------|----------|------|---|----------------|----------------|---------|
| Arsenic | ND | | 0.0013 | 0.00046 | mg/L | | 06/13/18 08:32 | 06/13/18 16:08 | 5 |
| Barium | 0.010 | | 0.0025 | 0.00049 | mg/L | | 06/13/18 08:32 | 06/13/18 16:08 | 5 |
| Boron | 0.086 | | 0.050 | 0.021 | mg/L | | 06/13/18 08:32 | 06/13/18 16:08 | 5 |
| Calcium | 22 | | 0.25 | 0.13 | mg/L | | 06/13/18 08:32 | 06/13/18 16:08 | 5 |
| Cobalt | ND | | 0.0025 | 0.00040 | mg/L | | 06/13/18 08:32 | 06/13/18 16:08 | 5 |
| Molybdenum | ND | | 0.010 | 0.00085 | mg/L | | 06/13/18 08:32 | 06/13/18 16:08 | 5 |
| Thallium | ND | | 0.00050 | 0.000085 | mg/L | | 06/13/18 08:32 | 06/13/18 16:08 | 5 |

General Chemistry

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------------------------|--------------|-----------|------|-------|------|---|----------|----------------|---------|
| Total Dissolved Solids | 110 | | 5.0 | 3.4 | mg/L | | | 06/12/18 13:11 | 1 |
| Chloride | 2.0 | | 2.0 | 0.60 | mg/L | | | 06/17/18 10:16 | 1 |
| Fluoride | 0.070 | J | 0.10 | 0.032 | mg/L | | | 06/19/18 14:36 | 1 |
| Sulfate | 16 | | 5.0 | 1.4 | mg/L | | | 06/18/18 10:34 | 1 |

Method: Field Sampling - Field Sampling

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------------|-------------|-----------|----|-----|------|---|----------|----------------|---------|
| Field pH | 5.91 | | | | SU | | | 06/05/18 11:10 | 1 |

Client Sample Results

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

TestAmerica Job ID: 400-154780-1

Client Sample ID: MW-U1-20180605

Lab Sample ID: 400-154780-5

Date Collected: 06/05/18 14:50

Matrix: Water

Date Received: 06/07/18 10:09

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|----------------|---------------|-----------|---------|----------|------|---|----------------|----------------|---------|
| Arsenic | ND | | 0.0013 | 0.00046 | mg/L | | 06/13/18 08:32 | 06/13/18 16:12 | 5 |
| Barium | 0.0025 | | 0.0025 | 0.00049 | mg/L | | 06/13/18 08:32 | 06/13/18 16:12 | 5 |
| Boron | ND | | 0.050 | 0.021 | mg/L | | 06/13/18 08:32 | 06/13/18 16:12 | 5 |
| Calcium | 33 | | 0.25 | 0.13 | mg/L | | 06/13/18 08:32 | 06/13/18 16:12 | 5 |
| Cobalt | ND | | 0.0025 | 0.00040 | mg/L | | 06/13/18 08:32 | 06/13/18 16:12 | 5 |
| Molybdenum | ND | | 0.010 | 0.00085 | mg/L | | 06/13/18 08:32 | 06/13/18 16:12 | 5 |
| Thallium | ND | | 0.00050 | 0.000085 | mg/L | | 06/13/18 08:32 | 06/13/18 16:12 | 5 |

General Chemistry

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------------------------|--------------|-----------|------|-------|------|---|----------|----------------|---------|
| Total Dissolved Solids | 110 | | 5.0 | 3.4 | mg/L | | | 06/12/18 13:11 | 1 |
| Chloride | 1.8 | J | 2.0 | 0.60 | mg/L | | | 06/17/18 10:16 | 1 |
| Fluoride | 0.060 | J | 0.10 | 0.032 | mg/L | | | 06/19/18 14:38 | 1 |
| Sulfate | 2.9 | J | 5.0 | 1.4 | mg/L | | | 06/17/18 08:52 | 1 |

Method: Field Sampling - Field Sampling

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------------|-------------|-----------|----|-----|------|---|----------|----------------|---------|
| Field pH | 6.74 | | | | SU | | | 06/05/18 13:50 | 1 |

Definitions/Glossary

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

TestAmerica Job ID: 400-154780-1

Qualifiers

Metals

| Qualifier | Qualifier Description |
|-----------|---|
| J | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |
| 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. |

General Chemistry

| Qualifier | Qualifier Description |
|-----------|--|
| 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) |
| 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

TestAmerica Job ID: 400-154780-1

Client Sample ID: DUP-10-20180605

Lab Sample ID: 400-154780-1

Date Collected: 06/05/18 08:00

Matrix: Water

Date Received: 06/07/18 10:09

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-------------------|------------|----------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total Recoverable | Prep | 3005A | | | 400907 | 06/13/18 08:32 | DRE | TAL PEN |
| Total Recoverable | Analysis | 6020 | | 5 | 401050 | 06/13/18 15:54 | DRE | TAL PEN |
| Total/NA | Analysis | SM 2540C | | 1 | 400737 | 06/12/18 13:11 | RRC | TAL PEN |
| Total/NA | Analysis | SM 4500 Cl- E | | 1 | 401365 | 06/17/18 10:16 | RRC | TAL PEN |
| Total/NA | Analysis | SM 4500 F C | | 1 | 401670 | 06/19/18 14:19 | BAB | TAL PEN |
| Total/NA | Analysis | SM 4500 SO4 E | | 1 | 401360 | 06/17/18 08:53 | RRC | TAL PEN |
| Total/NA | Analysis | Field Sampling | | 1 | 401946 | 06/05/18 07:00 | AW | TAL PEN |

Client Sample ID: MW-D2-20180605

Lab Sample ID: 400-154780-2

Date Collected: 06/05/18 09:50

Matrix: Water

Date Received: 06/07/18 10:09

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-------------------|------------|----------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total Recoverable | Prep | 3005A | | | 400907 | 06/13/18 08:32 | DRE | TAL PEN |
| Total Recoverable | Analysis | 6020 | | 5 | 401050 | 06/13/18 15:59 | DRE | TAL PEN |
| Total Recoverable | Prep | 3005A | DL | | 400907 | 06/13/18 08:32 | DRE | TAL PEN |
| Total Recoverable | Analysis | 6020 | DL | 25 | 401225 | 06/14/18 11:26 | DRE | TAL PEN |
| Total/NA | Analysis | SM 2540C | | 1 | 400737 | 06/12/18 13:11 | RRC | TAL PEN |
| Total/NA | Analysis | SM 4500 Cl- E | | 1 | 401365 | 06/17/18 10:06 | RRC | TAL PEN |
| Total/NA | Analysis | SM 4500 F C | | 1 | 401670 | 06/19/18 14:31 | BAB | TAL PEN |
| Total/NA | Analysis | SM 4500 SO4 E | | 1 | 401360 | 06/17/18 08:53 | RRC | TAL PEN |
| Total/NA | Analysis | Field Sampling | | 1 | 401946 | 06/05/18 08:50 | AW | TAL PEN |

Client Sample ID: MW-D3-20180605

Lab Sample ID: 400-154780-3

Date Collected: 06/05/18 10:45

Matrix: Water

Date Received: 06/07/18 10:09

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-------------------|------------|----------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total Recoverable | Prep | 3005A | | | 400907 | 06/13/18 08:32 | DRE | TAL PEN |
| Total Recoverable | Analysis | 6020 | | 5 | 401050 | 06/13/18 16:03 | DRE | TAL PEN |
| Total Recoverable | Prep | 3005A | DL | | 400907 | 06/13/18 08:32 | DRE | TAL PEN |
| Total Recoverable | Analysis | 6020 | DL | 25 | 401225 | 06/14/18 11:30 | DRE | TAL PEN |
| Total/NA | Analysis | SM 2540C | | 1 | 400737 | 06/12/18 13:11 | RRC | TAL PEN |
| Total/NA | Analysis | SM 4500 Cl- E | | 1 | 401365 | 06/17/18 10:16 | RRC | TAL PEN |
| Total/NA | Analysis | SM 4500 F C | | 1 | 401670 | 06/19/18 14:33 | BAB | TAL PEN |
| Total/NA | Analysis | SM 4500 SO4 E | | 1 | 401459 | 06/18/18 10:34 | RRC | TAL PEN |
| Total/NA | Analysis | Field Sampling | | 1 | 401946 | 06/05/18 09:45 | AW | TAL PEN |

Lab Chronicle

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

TestAmerica Job ID: 400-154780-1

Client Sample ID: MW-D1-20180605

Lab Sample ID: 400-154780-4

Date Collected: 06/05/18 12:10

Matrix: Water

Date Received: 06/07/18 10:09

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-------------------|------------|----------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total Recoverable | Prep | 3005A | | | 400907 | 06/13/18 08:32 | DRE | TAL PEN |
| Total Recoverable | Analysis | 6020 | | 5 | 401050 | 06/13/18 16:08 | DRE | TAL PEN |
| Total/NA | Analysis | SM 2540C | | 1 | 400737 | 06/12/18 13:11 | RRC | TAL PEN |
| Total/NA | Analysis | SM 4500 Cl- E | | 1 | 401365 | 06/17/18 10:16 | RRC | TAL PEN |
| Total/NA | Analysis | SM 4500 F C | | 1 | 401670 | 06/19/18 14:36 | BAB | TAL PEN |
| Total/NA | Analysis | SM 4500 SO4 E | | 1 | 401459 | 06/18/18 10:34 | RRC | TAL PEN |
| Total/NA | Analysis | Field Sampling | | 1 | 401946 | 06/05/18 11:10 | AW | TAL PEN |

Client Sample ID: MW-U1-20180605

Lab Sample ID: 400-154780-5

Date Collected: 06/05/18 14:50

Matrix: Water

Date Received: 06/07/18 10:09

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-------------------|------------|----------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total Recoverable | Prep | 3005A | | | 400907 | 06/13/18 08:32 | DRE | TAL PEN |
| Total Recoverable | Analysis | 6020 | | 5 | 401050 | 06/13/18 16:12 | DRE | TAL PEN |
| Total/NA | Analysis | SM 2540C | | 1 | 400737 | 06/12/18 13:11 | RRC | TAL PEN |
| Total/NA | Analysis | SM 4500 Cl- E | | 1 | 401365 | 06/17/18 10:16 | RRC | TAL PEN |
| Total/NA | Analysis | SM 4500 F C | | 1 | 401670 | 06/19/18 14:38 | BAB | TAL PEN |
| Total/NA | Analysis | SM 4500 SO4 E | | 1 | 401360 | 06/17/18 08:52 | RRC | TAL PEN |
| Total/NA | Analysis | Field Sampling | | 1 | 401946 | 06/05/18 13:50 | AW | TAL PEN |

Laboratory References:

TAL PEN = 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

TestAmerica Job ID: 400-154780-1

Metals

Prep Batch: 400907

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|-------------------------|------------------------|-------------------|--------|--------|------------|
| 400-154780-1 | DUP-10-20180605 | Total Recoverable | Water | 3005A | |
| 400-154780-2 | MW-D2-20180605 | Total Recoverable | Water | 3005A | |
| 400-154780-2 - DL | MW-D2-20180605 | Total Recoverable | Water | 3005A | |
| 400-154780-3 - DL | MW-D3-20180605 | Total Recoverable | Water | 3005A | |
| 400-154780-3 | MW-D3-20180605 | Total Recoverable | Water | 3005A | |
| 400-154780-4 | MW-D1-20180605 | Total Recoverable | Water | 3005A | |
| 400-154780-5 | MW-U1-20180605 | Total Recoverable | Water | 3005A | |
| MB 400-400907/1-A ^5 | Method Blank | Total Recoverable | Water | 3005A | |
| LCS 400-400907/2-A | Lab Control Sample | Total Recoverable | Water | 3005A | |
| 600-167041-G-1-C MS ^5 | Matrix Spike | Total Recoverable | Water | 3005A | |
| 600-167041-G-1-D MSD ^5 | Matrix Spike Duplicate | Total Recoverable | Water | 3005A | |

Analysis Batch: 401050

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|-------------------------|------------------------|-------------------|--------|--------|------------|
| 400-154780-1 | DUP-10-20180605 | Total Recoverable | Water | 6020 | 400907 |
| 400-154780-2 | MW-D2-20180605 | Total Recoverable | Water | 6020 | 400907 |
| 400-154780-3 | MW-D3-20180605 | Total Recoverable | Water | 6020 | 400907 |
| 400-154780-4 | MW-D1-20180605 | Total Recoverable | Water | 6020 | 400907 |
| 400-154780-5 | MW-U1-20180605 | Total Recoverable | Water | 6020 | 400907 |
| MB 400-400907/1-A ^5 | Method Blank | Total Recoverable | Water | 6020 | 400907 |
| LCS 400-400907/2-A | Lab Control Sample | Total Recoverable | Water | 6020 | 400907 |
| 600-167041-G-1-C MS ^5 | Matrix Spike | Total Recoverable | Water | 6020 | 400907 |
| 600-167041-G-1-D MSD ^5 | Matrix Spike Duplicate | Total Recoverable | Water | 6020 | 400907 |

Analysis Batch: 401225

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|-------------------|------------------|-------------------|--------|--------|------------|
| 400-154780-2 - DL | MW-D2-20180605 | Total Recoverable | Water | 6020 | 400907 |
| 400-154780-3 - DL | MW-D3-20180605 | Total Recoverable | Water | 6020 | 400907 |

General Chemistry

Analysis Batch: 400737

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|------------------|--------------------|-----------|--------|----------|------------|
| 400-154780-1 | DUP-10-20180605 | Total/NA | Water | SM 2540C | |
| 400-154780-2 | MW-D2-20180605 | Total/NA | Water | SM 2540C | |
| 400-154780-3 | MW-D3-20180605 | Total/NA | Water | SM 2540C | |
| 400-154780-4 | MW-D1-20180605 | Total/NA | Water | SM 2540C | |
| 400-154780-5 | MW-U1-20180605 | Total/NA | Water | SM 2540C | |
| MB 400-400737/1 | Method Blank | Total/NA | Water | SM 2540C | |
| LCS 400-400737/2 | Lab Control Sample | Total/NA | Water | SM 2540C | |
| 400-154780-2 DU | MW-D2-20180605 | Total/NA | Water | SM 2540C | |
| 400-154780-3 DU | MW-D3-20180605 | Total/NA | Water | SM 2540C | |

Analysis Batch: 401360

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|---------------|------------|
| 400-154780-1 | DUP-10-20180605 | Total/NA | Water | SM 4500 SO4 E | |
| 400-154780-2 | MW-D2-20180605 | Total/NA | Water | SM 4500 SO4 E | |
| 400-154780-5 | MW-U1-20180605 | Total/NA | Water | SM 4500 SO4 E | |
| MB 400-401360/17 | Method Blank | Total/NA | Water | SM 4500 SO4 E | |
| LCS 400-401360/18 | Lab Control Sample | Total/NA | Water | SM 4500 SO4 E | |

TestAmerica Pensacola

QC Association Summary

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

TestAmerica Job ID: 400-154780-1

General Chemistry (Continued)

Analysis Batch: 401360 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|---------------|------------|
| MRL 400-401360/14 | Lab Control Sample | Total/NA | Water | SM 4500 SO4 E | |
| 400-154780-5 MS | MW-U1-20180605 | Total/NA | Water | SM 4500 SO4 E | |
| 400-154780-5 MSD | MW-U1-20180605 | Total/NA | Water | SM 4500 SO4 E | |

Analysis Batch: 401365

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|------------------|--------------------|-----------|--------|---------------|------------|
| 400-154780-1 | DUP-10-20180605 | Total/NA | Water | SM 4500 Cl- E | |
| 400-154780-2 | MW-D2-20180605 | Total/NA | Water | SM 4500 Cl- E | |
| 400-154780-3 | MW-D3-20180605 | Total/NA | Water | SM 4500 Cl- E | |
| 400-154780-4 | MW-D1-20180605 | Total/NA | Water | SM 4500 Cl- E | |
| 400-154780-5 | MW-U1-20180605 | Total/NA | Water | SM 4500 Cl- E | |
| MB 400-401365/6 | Method Blank | Total/NA | Water | SM 4500 Cl- E | |
| LCS 400-401365/7 | Lab Control Sample | Total/NA | Water | SM 4500 Cl- E | |
| MRL 400-401365/3 | Lab Control Sample | Total/NA | Water | SM 4500 Cl- E | |
| 400-154780-2 MS | MW-D2-20180605 | Total/NA | Water | SM 4500 Cl- E | |
| 400-154780-2 MSD | MW-D2-20180605 | Total/NA | Water | SM 4500 Cl- E | |

Analysis Batch: 401459

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|------------------|--------------------|-----------|--------|---------------|------------|
| 400-154780-3 | MW-D3-20180605 | Total/NA | Water | SM 4500 SO4 E | |
| 400-154780-4 | MW-D1-20180605 | Total/NA | Water | SM 4500 SO4 E | |
| MB 400-401459/6 | Method Blank | Total/NA | Water | SM 4500 SO4 E | |
| LCS 400-401459/7 | Lab Control Sample | Total/NA | Water | SM 4500 SO4 E | |
| MRL 400-401459/3 | Lab Control Sample | Total/NA | Water | SM 4500 SO4 E | |
| 400-154780-3 MS | MW-D3-20180605 | Total/NA | Water | SM 4500 SO4 E | |
| 400-154780-3 MSD | MW-D3-20180605 | Total/NA | Water | SM 4500 SO4 E | |

Analysis Batch: 401670

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|-------------|------------|
| 400-154780-1 | DUP-10-20180605 | Total/NA | Water | SM 4500 F C | |
| 400-154780-2 | MW-D2-20180605 | Total/NA | Water | SM 4500 F C | |
| 400-154780-3 | MW-D3-20180605 | Total/NA | Water | SM 4500 F C | |
| 400-154780-4 | MW-D1-20180605 | Total/NA | Water | SM 4500 F C | |
| 400-154780-5 | MW-U1-20180605 | Total/NA | Water | SM 4500 F C | |
| MB 400-401670/2 | Method Blank | Total/NA | Water | SM 4500 F C | |
| LCS 400-401670/3 | Lab Control Sample | Total/NA | Water | SM 4500 F C | |
| 400-154780-1 MS | DUP-10-20180605 | Total/NA | Water | SM 4500 F C | |
| 400-154780-1 MSD | DUP-10-20180605 | Total/NA | Water | SM 4500 F C | |
| 400-155063-I-4 DU | Duplicate | Total/NA | Water | SM 4500 F C | |

Field Service / Mobile Lab

Analysis Batch: 401946

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|----------------|------------|
| 400-154780-1 | DUP-10-20180605 | Total/NA | Water | Field Sampling | |
| 400-154780-2 | MW-D2-20180605 | Total/NA | Water | Field Sampling | |
| 400-154780-3 | MW-D3-20180605 | Total/NA | Water | Field Sampling | |
| 400-154780-4 | MW-D1-20180605 | Total/NA | Water | Field Sampling | |
| 400-154780-5 | MW-U1-20180605 | Total/NA | Water | Field Sampling | |

TestAmerica Pensacola

QC Sample Results

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

TestAmerica Job ID: 400-154780-1

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-400907/1-A ^5
Matrix: Water
Analysis Batch: 401050

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 400907

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|------------|-----------|--------------|---------|----------|------|---|----------------|----------------|---------|
| Arsenic | ND | | 0.0013 | 0.00046 | mg/L | | 06/13/18 08:32 | 06/13/18 15:41 | 5 |
| Barium | ND | | 0.0025 | 0.00049 | mg/L | | 06/13/18 08:32 | 06/13/18 15:41 | 5 |
| Boron | ND | | 0.050 | 0.021 | mg/L | | 06/13/18 08:32 | 06/13/18 15:41 | 5 |
| Calcium | ND | | 0.25 | 0.13 | mg/L | | 06/13/18 08:32 | 06/13/18 15:41 | 5 |
| Cobalt | ND | | 0.0025 | 0.00040 | mg/L | | 06/13/18 08:32 | 06/13/18 15:41 | 5 |
| Molybdenum | ND | | 0.010 | 0.00085 | mg/L | | 06/13/18 08:32 | 06/13/18 15:41 | 5 |
| Thallium | ND | | 0.00050 | 0.000085 | mg/L | | 06/13/18 08:32 | 06/13/18 15:41 | 5 |

Lab Sample ID: LCS 400-400907/2-A
Matrix: Water
Analysis Batch: 401050

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 400907

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | Limits |
|------------|-------------|------------|---------------|------|---|------|----------|
| Arsenic | 0.0500 | 0.0496 | | mg/L | | 99 | 80 - 120 |
| Barium | 0.0500 | 0.0501 | | mg/L | | 100 | 80 - 120 |
| Boron | 0.100 | 0.0987 | | mg/L | | 99 | 80 - 120 |
| Calcium | 5.00 | 4.77 | | mg/L | | 95 | 80 - 120 |
| Cobalt | 0.0500 | 0.0506 | | mg/L | | 101 | 80 - 120 |
| Molybdenum | 0.0500 | 0.0512 | | mg/L | | 102 | 80 - 120 |
| Thallium | 0.0100 | 0.00984 | | mg/L | | 98 | 80 - 120 |

Lab Sample ID: 600-167041-G-1-C MS ^5
Matrix: Water
Analysis Batch: 401050

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 400907

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | Limits |
|------------|---------------|------------------|-------------|-----------|--------------|------|---|------|----------|
| Arsenic | 0.013 | | 0.0500 | 0.0639 | | mg/L | | 102 | 75 - 125 |
| Barium | 0.25 | | 0.0500 | 0.296 | 4 | mg/L | | 98 | 75 - 125 |
| Boron | 0.028 | J | 0.100 | 0.135 | | mg/L | | 108 | 75 - 125 |
| Calcium | 52 | | 5.00 | 56.6 | 4 | mg/L | | 90 | 75 - 125 |
| Cobalt | 0.0062 | | 0.0500 | 0.0572 | | mg/L | | 102 | 75 - 125 |
| Molybdenum | ND | | 0.0500 | 0.0544 | | mg/L | | 109 | 75 - 125 |
| Thallium | ND | | 0.0100 | 0.00989 | | mg/L | | 99 | 75 - 125 |

Lab Sample ID: 600-167041-G-1-D MSD ^5
Matrix: Water
Analysis Batch: 401050

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 400907

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | Limits | RPD | Limit |
|------------|---------------|------------------|-------------|------------|---------------|------|---|------|----------|-----|-------|
| Arsenic | 0.013 | | 0.0500 | 0.0642 | | mg/L | | 103 | 75 - 125 | 1 | 20 |
| Barium | 0.25 | | 0.0500 | 0.295 | 4 | mg/L | | 95 | 75 - 125 | 0 | 20 |
| Boron | 0.028 | J | 0.100 | 0.130 | | mg/L | | 103 | 75 - 125 | 4 | 20 |
| Calcium | 52 | | 5.00 | 57.8 | 4 | mg/L | | 112 | 75 - 125 | 2 | 20 |
| Cobalt | 0.0062 | | 0.0500 | 0.0577 | | mg/L | | 103 | 75 - 125 | 1 | 20 |
| Molybdenum | ND | | 0.0500 | 0.0529 | | mg/L | | 106 | 75 - 125 | 3 | 20 |
| Thallium | ND | | 0.0100 | 0.0100 | | mg/L | | 100 | 75 - 125 | 1 | 20 |

TestAmerica Pensacola

QC Sample Results

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

TestAmerica Job ID: 400-154780-1

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

Lab Sample ID: MB 400-400737/1
Matrix: Water
Analysis Batch: 400737

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 | 3.4 | mg/L | | | 06/12/18 13:11 | 1 |

Lab Sample ID: LCS 400-400737/2
Matrix: Water
Analysis Batch: 400737

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 | 290 | | mg/L | | 99 | 78 - 122 |

Lab Sample ID: 400-154780-2 DU
Matrix: Water
Analysis Batch: 400737

Client Sample ID: MW-D2-20180605
Prep Type: Total/NA

| Analyte | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit | D | RPD | RPD Limit |
|------------------------|---------------|------------------|-----------|--------------|------|---|-----|-----------|
| Total Dissolved Solids | 390 | | 388 | | mg/L | | 0 | 5 |

Lab Sample ID: 400-154780-3 DU
Matrix: Water
Analysis Batch: 400737

Client Sample ID: MW-D3-20180605
Prep Type: Total/NA

| Analyte | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit | D | RPD | RPD Limit |
|------------------------|---------------|------------------|-----------|--------------|------|---|-----|-----------|
| Total Dissolved Solids | 370 | | 368 | | mg/L | | 0 | 5 |

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 400-401365/6
Matrix: Water
Analysis Batch: 401365

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 | 0.60 | mg/L | | | 06/17/18 10:06 | 1 |

Lab Sample ID: LCS 400-401365/7
Matrix: Water
Analysis Batch: 401365

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 | 30.4 | | mg/L | | 101 | 90 - 110 |

Lab Sample ID: MRL 400-401365/3
Matrix: Water
Analysis Batch: 401365

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 | 1.51 | J | mg/L | | 75 | 50 - 150 |

TestAmerica Pensacola

QC Sample Results

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

TestAmerica Job ID: 400-154780-1

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

Lab Sample ID: 400-154780-2 MS
Matrix: Water
Analysis Batch: 401365

Client Sample ID: MW-D2-20180605
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 | 16.0 | | mg/L | | 110 | 73 - 120 |

Lab Sample ID: 400-154780-2 MSD
Matrix: Water
Analysis Batch: 401365

Client Sample ID: MW-D2-20180605
Prep Type: Total/NA

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|----------|---------------|------------------|-------------|------------|---------------|------|---|------|--------------|-----|-----------|
| Chloride | 5.1 | | 10.0 | 16.1 | | mg/L | | 111 | 73 - 120 | 1 | 8 |

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 400-401670/2
Matrix: Water
Analysis Batch: 401670

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 | | | 06/19/18 14:03 | 1 |

Lab Sample ID: LCS 400-401670/3
Matrix: Water
Analysis Batch: 401670

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 | 3.79 | | mg/L | | 95 | 90 - 110 |

Lab Sample ID: 400-154780-1 MS
Matrix: Water
Analysis Batch: 401670

Client Sample ID: DUP-10-20180605
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 | 1.06 | | mg/L | | 99 | 75 - 125 |

Lab Sample ID: 400-154780-1 MSD
Matrix: Water
Analysis Batch: 401670

Client Sample ID: DUP-10-20180605
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 | 1.06 | | mg/L | | 99 | 75 - 125 | 0 | 4 |

Lab Sample ID: 400-155063-I-4 DU
Matrix: Water
Analysis Batch: 401670

Client Sample ID: Duplicate
Prep Type: Total/NA

| Analyte | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit | D | RPD | RPD Limit |
|----------|---------------|------------------|-----------|--------------|------|---|-----|-----------|
| Fluoride | 0.14 | | 0.140 | | mg/L | | 0 | 4 |

TestAmerica Pensacola

QC Sample Results

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

TestAmerica Job ID: 400-154780-1

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: MB 400-401360/17
Matrix: Water
Analysis Batch: 401360

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 | | | 06/17/18 08:24 | 1 |

Lab Sample ID: LCS 400-401360/18
Matrix: Water
Analysis Batch: 401360

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 | 14.1 | | mg/L | | 94 | 90 - 110 |

Lab Sample ID: MRL 400-401360/14
Matrix: Water
Analysis Batch: 401360

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 | 6.07 | | mg/L | | 121 | 50 - 150 |

Lab Sample ID: 400-154780-5 MS
Matrix: Water
Analysis Batch: 401360

Client Sample ID: MW-U1-20180605
Prep Type: Total/NA

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---------|---------------|------------------|-------------|-----------|--------------|------|---|------|--------------|
| Sulfate | 2.9 | J | 10.0 | 12.9 | | mg/L | | 100 | 77 - 128 |

Lab Sample ID: 400-154780-5 MSD
Matrix: Water
Analysis Batch: 401360

Client Sample ID: MW-U1-20180605
Prep Type: Total/NA

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---------|---------------|------------------|-------------|------------|---------------|------|---|------|--------------|-----|-----------|
| Sulfate | 2.9 | J | 10.0 | 12.9 | | mg/L | | 100 | 77 - 128 | 0 | 5 |

Lab Sample ID: MB 400-401459/6
Matrix: Water
Analysis Batch: 401459

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 | | | 06/18/18 10:34 | 1 |

Lab Sample ID: LCS 400-401459/7
Matrix: Water
Analysis Batch: 401459

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 | 14.5 | | mg/L | | 97 | 90 - 110 |

Lab Sample ID: MRL 400-401459/3
Matrix: Water
Analysis Batch: 401459

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 | 5.05 | | mg/L | | 101 | 50 - 150 |

TestAmerica Pensacola

QC Sample Results

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

TestAmerica Job ID: 400-154780-1

Lab Sample ID: 400-154780-3 MS
Matrix: Water
Analysis Batch: 401459

Client Sample ID: MW-D3-20180605
Prep Type: Total/NA

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---------|---------------|------------------|-------------|-----------|--------------|------|---|------|--------------|
| Sulfate | 29 | | 10.0 | 38.8 | | mg/L | | 99 | 77 - 128 |

Lab Sample ID: 400-154780-3 MSD
Matrix: Water
Analysis Batch: 401459

Client Sample ID: MW-D3-20180605
Prep Type: Total/NA

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---------|---------------|------------------|-------------|------------|---------------|------|---|------|--------------|-----|-----------|
| Sulfate | 29 | | 10.0 | 38.8 | | mg/L | | 99 | 77 - 128 | 0 | 5 |

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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: 678-202-9583 (Tel) Email: igasser@geosyntec.com Project Name: CCR App. III/IV GW Monitoring Site: | | Lab PM: Whitmire, Cheyenne R E-Mail: cheyenne.whitmire@testamericainc.com Carrier Tracking No(s): COC No: 400-74553-29334.1 Page: Page 1 of 1 Job #: | |
| Due Date Requested: TAT Requested (days): STANDARD PO #: Purchase Order not required WO #: | | Analysis Requested Total Number of Containers: | |
| Sample Identification Dup-10-2018 0605 MW-D2-2018 0605 MW-D3-2018 0605 MW-D1-2018 0605 MW-U1-2018 0605 | | Field Filtered Sample (Yes or No) Perform MS/MSD (Yes or No) 9316 Ra226, 9320 Ra228, Ra226Ra228_GFP-C - Radium 5M4500 Cl, E - Chloride, SM4500, SO4, E - Sulfate, 4500 F, C - Fluoride, 2540C - Total Dissolved Solids 6020 - B, Ca, As, Ba, Co, Mo, Ti Field Sampling - Field pH | |
| 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) | | Special Instructions/Note: PH: 6.31 PH: 6.50 PH: 6.42 PH: 5.91 PH: 6.74 | |
| Relinquished by: Stephen W. Randall Date/Time: 6/6/18 1730 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 Archive For: Months | |
| Relinquished by: | | Method of Shipment: | |
| Relinquished by: | | Date/Time: | |
| Relinquished by: | | Date/Time: | |
| Relinquished by: | | Date/Time: | |
| Custody Seals Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Custody Seal No.: 47867 | | Cooler Temperature(s) °C and Other Remarks: | |



Login Sample Receipt Checklist

Client: Geosyntec Consultants, Inc.

Job Number: 400-154780-1

Login Number: 154780

List Source: TestAmerica Pensacola

List Number: 1

Creator: Johnson, Jeremy N

| 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 | 478770 |
| Samples were received on ice. | True | Thermal preservation not required. |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | 26.8°C IR7 0.0°C IR7 |
| 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

TestAmerica Job ID: 400-154780-1

Laboratory: TestAmerica Pensacola

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

| Authority | Program | EPA Region | Identification Number | Expiration Date |
|------------------------|---------------|------------|-----------------------|-----------------|
| Alabama | State Program | 4 | 40150 | 06-30-18 |
| ANAB | ISO/IEC 17025 | | L2471 | 02-22-20 |
| Arizona | State Program | 9 | AZ0710 | 01-12-19 |
| Arkansas DEQ | State Program | 6 | 88-0689 | 09-01-18 |
| California | ELAP | 9 | 2510 | 06-30-18 |
| Florida | NELAP | 4 | E81010 | 06-30-18 |
| Georgia | State Program | 4 | E81010 (FL) | 06-30-19 |
| Illinois | NELAP | 5 | 200041 | 10-09-18 |
| Iowa | State Program | 7 | 367 | 08-01-18 |
| Kansas | NELAP | 7 | E-10253 | 10-31-18 |
| Kentucky (UST) | State Program | 4 | 53 | 06-30-18 |
| Kentucky (WW) | State Program | 4 | 98030 | 12-31-18 |
| Louisiana | NELAP | 6 | 30976 | 06-30-18 |
| Louisiana (DW) | NELAP | 6 | LA170005 | 12-31-18 |
| Maryland | State Program | 3 | 233 | 09-30-18 |
| Massachusetts | State Program | 1 | M-FL094 | 06-30-18 |
| Michigan | State Program | 5 | 9912 | 06-30-18 |
| New Jersey | NELAP | 2 | FL006 | 06-30-18 |
| North Carolina (WW/SW) | State Program | 4 | 314 | 12-31-18 |
| Oklahoma | State Program | 6 | 9810 | 08-31-18 |
| Pennsylvania | NELAP | 3 | 68-00467 | 01-31-19 |
| Rhode Island | State Program | 1 | LAO00307 | 12-30-18 |
| South Carolina | State Program | 4 | 96026 | 06-30-18 |
| Tennessee | State Program | 4 | TN02907 | 06-30-18 |
| Texas | NELAP | 6 | T104704286-18-14 | 09-30-18 |
| USDA | Federal | | P330-16-00172 | 05-24-19 |
| Virginia | NELAP | 3 | 460166 | 06-14-19 |
| Washington | State Program | 10 | C915 | 05-15-19 |

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-154780-2

Client Project/Site: CCR App.III/IV GW Monitoring

For:

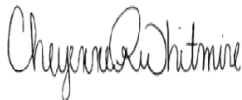
Geosyntec Consultants, Inc.

1255 Roberts Blvd, NW

Suite 200

Kennesaw, Georgia 30144

Attn: Jeremy Gasser



Authorized for release by:

7/12/2018 6:54:30 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

cheyenne.whitmire@testamericainc.com

LINKS

Review your project
results through

TotalAccess

Have a Question?



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www.testamericainc.com

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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12

13



Table of Contents

| | |
|---------------------------------|----|
| Cover Page | 1 |
| Table of Contents | 2 |
| Case Narrative | 3 |
| Method Summary | 4 |
| Sample Summary | 5 |
| Client Sample Results | 6 |
| Definitions | 11 |
| Chronicle | 12 |
| QC Association | 14 |
| QC Sample Results | 15 |
| Chain of Custody | 17 |
| Receipt Checklists | 18 |
| Certification Summary | 19 |

Case Narrative

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

TestAmerica Job ID: 400-154780-2

Job ID: 400-154780-2

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative 400-154780-2

RAD

Method(s) 9315: Radium-226 Prep Batch 160-370867. The following samples have a barium carrier recovery above the 110% QC limit; (310-132147-5: 111%, 400-154780-4: 111%, and 400-154780-5: 111%). Affected samples had a barium correction applied, however, there are higher concentrations of salt-like compounds (i.e. calcium, magnesium, sodium, and strontium) that can interfere with a barium sulfate recovery. The LCS/LCSD (laboratory control sample/Duplicate) have acceptable spike recoveries demonstrating acceptable sample preparation and instrument performance. The samples have been truncated to 100% to reduce any potential bias a high carrier recovery may have. The data have been qualified and reported. MW-D1-20180605 (400-154780-4) and MW-U1-20180605 (400-154780-5)

Method(s) 9320: Radium-228 Prep Batch 160-371033. The following samples have a barium carrier recovery above the 110% QC limit; (310-132147-5: 111%, 400-154780-4: 111%, and 400-154780-5: 111%). Affected samples had a barium correction applied, however, there are higher concentrations of salt-like compounds (i.e. calcium, magnesium, sodium, and strontium) that can interfere with a barium sulfate recovery. The LCS/LCSD (laboratory control sample/Duplicate) have acceptable spike recoveries demonstrating acceptable sample preparation and instrument performance. The samples have been truncated to 100% to reduce any potential bias a high carrier recovery may have. The data have been qualified and reported. MW-D1-20180605 (400-154780-4) and MW-U1-20180605 (400-154780-5)

Method(s) PrecSep_0: Radium 228 Prep Batch 160-371033: Insufficient sample volume was available to perform a sample duplicate (DUP) for the following samples: DUP-10-20180605 (400-154780-1), MW-D2-20180605 (400-154780-2), MW-D3-20180605 (400-154780-3), MW-D1-20180605 (400-154780-4) and MW-U1-20180605 (400-154780-5). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

Method(s) PrecSep_0: Radium-228 Prep Batch 10-371033: The barium carrier recovery is outside the upper control limit (110%) for the following samples: MW-D1-20180605 (400-154780-4) and MW-U1-20180605 (400-154780-5). The QC samples associated with the batch have acceptable carrier recovery indicating the presence of matrix interference. The pellets were noted as larger during the out of ingrowth process.

Method(s) PrecSep-21: Radium 226 Prep Batch 160-370867: Insufficient sample volume was available to perform a sample duplicate (DUP) for the following samples: DUP-10-20180605 (400-154780-1), MW-D2-20180605 (400-154780-2), MW-D3-20180605 (400-154780-3), MW-D1-20180605 (400-154780-4) and MW-U1-20180605 (400-154780-5). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

Method(s) PrecSep-21: Radium-226 Prep Batch 10-370867: The barium carrier recovery is outside the upper control limit (110%) for the following samples: MW-D1-20180605 (400-154780-4) and MW-U1-20180605 (400-154780-5). The QC samples associated with the batch have acceptable carrier recovery indicating the presence of matrix interference. The pellets were noted as larger during the out of ingrowth process.

Method Summary

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

TestAmerica Job ID: 400-154780-2

| 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 = 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

TestAmerica Job ID: 400-154780-2

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---------------|------------------|--------|----------------|----------------|
| 400-154780-1 | DUP-10-20180605 | Water | 06/05/18 08:00 | 06/07/18 10:09 |
| 400-154780-2 | MW-D2-20180605 | Water | 06/05/18 09:50 | 06/07/18 10:09 |
| 400-154780-3 | MW-D3-20180605 | Water | 06/05/18 10:45 | 06/07/18 10:09 |
| 400-154780-4 | MW-D1-20180605 | Water | 06/05/18 12:10 | 06/07/18 10:09 |
| 400-154780-5 | MW-U1-20180605 | Water | 06/05/18 14:50 | 06/07/18 10:09 |

- 1
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- 4
- 5
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- 9
- 10
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- 12
- 13

Client Sample Results

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

TestAmerica Job ID: 400-154780-2

Client Sample ID: DUP-10-20180605

Lab Sample ID: 400-154780-1

Date Collected: 06/05/18 08:00

Matrix: Water

Date Received: 06/07/18 10:09

Method: 9315 - Radium-226 (GFPC)

| Analyte | Result | Qualifier | Count Uncert. (2σ+/-) | Total Uncert. (2σ+/-) | RL | MDC | Unit | Prepared | Analyzed | Dil Fac |
|------------|--------|-----------|-----------------------------|-----------------------------|------|-------|-------|----------------|----------------|---------|
| Radium-226 | 0.0578 | U | 0.147 | 0.147 | 1.00 | 0.277 | pCi/L | 06/18/18 09:20 | 07/11/18 19:17 | 1 |
| Carrier | %Yield | Qualifier | Limits | | | | | Prepared | Analyzed | Dil Fac |
| Ba Carrier | 106 | | 40 - 110 | | | | | 06/18/18 09:20 | 07/11/18 19:17 | 1 |

Method: 9320 - Radium-228 (GFPC)

| Analyte | Result | Qualifier | Count Uncert. (2σ+/-) | Total Uncert. (2σ+/-) | RL | MDC | Unit | Prepared | Analyzed | Dil Fac |
|------------|--------|-----------|-----------------------------|-----------------------------|------|-------|-------|----------------|----------------|---------|
| Radium-228 | -0.103 | U | 0.157 | 0.157 | 1.00 | 0.302 | pCi/L | 06/18/18 12:00 | 07/11/18 15:14 | 1 |
| Carrier | %Yield | Qualifier | Limits | | | | | Prepared | Analyzed | Dil Fac |
| Ba Carrier | 106 | | 40 - 110 | | | | | 06/18/18 12:00 | 07/11/18 15:14 | 1 |
| Y Carrier | 97.2 | | 40 - 110 | | | | | 06/18/18 12:00 | 07/11/18 15:14 | 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 | -0.0447 | U | 0.215 | 0.215 | 5.00 | 0.302 | pCi/L | | 07/12/18 17:53 | 1 |

Client Sample Results

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

TestAmerica Job ID: 400-154780-2

Client Sample ID: MW-D2-20180605

Lab Sample ID: 400-154780-2

Date Collected: 06/05/18 09:50

Matrix: Water

Date Received: 06/07/18 10:09

Method: 9315 - Radium-226 (GFPC)

| Analyte | Result | Qualifier | Count Uncert. (2σ+/-) | Total Uncert. (2σ+/-) | RL | MDC | Unit | Prepared | Analyzed | Dil Fac |
|------------|---------|-----------|-----------------------------|-----------------------------|------|-------|-------|----------------|----------------|---------|
| Radium-226 | -0.0444 | U | 0.119 | 0.119 | 1.00 | 0.283 | pCi/L | 06/18/18 09:20 | 07/11/18 19:17 | 1 |
| Carrier | %Yield | Qualifier | Limits | | | | | Prepared | Analyzed | Dil Fac |
| Ba Carrier | 109 | | 40 - 110 | | | | | 06/18/18 09:20 | 07/11/18 19:17 | 1 |

Method: 9320 - Radium-228 (GFPC)

| Analyte | Result | Qualifier | Count Uncert. (2σ+/-) | Total Uncert. (2σ+/-) | RL | MDC | Unit | Prepared | Analyzed | Dil Fac |
|------------|--------|-----------|-----------------------------|-----------------------------|------|-------|-------|----------------|----------------|---------|
| Radium-228 | 0.0583 | U | 0.232 | 0.232 | 1.00 | 0.401 | pCi/L | 06/18/18 12:00 | 07/11/18 15:14 | 1 |
| Carrier | %Yield | Qualifier | Limits | | | | | Prepared | Analyzed | Dil Fac |
| Ba Carrier | 109 | | 40 - 110 | | | | | 06/18/18 12:00 | 07/11/18 15:14 | 1 |
| Y Carrier | 94.2 | | 40 - 110 | | | | | 06/18/18 12:00 | 07/11/18 15:14 | 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 | 0.0139 | U | 0.261 | 0.261 | 5.00 | 0.401 | pCi/L | | 07/12/18 17:53 | 1 |

Client Sample Results

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

TestAmerica Job ID: 400-154780-2

Client Sample ID: MW-D3-20180605

Lab Sample ID: 400-154780-3

Date Collected: 06/05/18 10:45

Matrix: Water

Date Received: 06/07/18 10:09

Method: 9315 - Radium-226 (GFPC)

| Analyte | Result | Qualifier | Count Uncert. (2σ+/-) | Total Uncert. (2σ+/-) | RL | MDC | Unit | Prepared | Analyzed | Dil Fac |
|------------|--------|-----------|-----------------------------|-----------------------------|------|-------|-------|----------------|----------------|---------|
| Radium-226 | 0.282 | | 0.206 | 0.208 | 1.00 | 0.277 | pCi/L | 06/18/18 09:20 | 07/11/18 19:17 | 1 |
| Carrier | %Yield | Qualifier | Limits | | | | | Prepared | Analyzed | Dil Fac |
| Ba Carrier | 101 | | 40 - 110 | | | | | 06/18/18 09:20 | 07/11/18 19:17 | 1 |

Method: 9320 - Radium-228 (GFPC)

| Analyte | Result | Qualifier | Count Uncert. (2σ+/-) | Total Uncert. (2σ+/-) | RL | MDC | Unit | Prepared | Analyzed | Dil Fac |
|------------|--------|-----------|-----------------------------|-----------------------------|------|-------|-------|----------------|----------------|---------|
| Radium-228 | 0.282 | U | 0.230 | 0.231 | 1.00 | 0.366 | pCi/L | 06/18/18 12:00 | 07/11/18 15:15 | 1 |
| Carrier | %Yield | Qualifier | Limits | | | | | Prepared | Analyzed | Dil Fac |
| Ba Carrier | 101 | | 40 - 110 | | | | | 06/18/18 12:00 | 07/11/18 15:15 | 1 |
| Y Carrier | 95.3 | | 40 - 110 | | | | | 06/18/18 12:00 | 07/11/18 15:15 | 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 | 0.564 | | 0.309 | 0.311 | 5.00 | 0.366 | pCi/L | | 07/12/18 17:53 | 1 |

Client Sample Results

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

TestAmerica Job ID: 400-154780-2

Client Sample ID: MW-D1-20180605

Lab Sample ID: 400-154780-4

Date Collected: 06/05/18 12:10

Matrix: Water

Date Received: 06/07/18 10:09

Method: 9315 - Radium-226 (GFPC)

| Analyte | Result | Qualifier | Count Uncert. (2σ+/-) | Total Uncert. (2σ+/-) | RL | MDC | Unit | Prepared | Analyzed | Dil Fac |
|------------|--------|-----------|-----------------------------|-----------------------------|------|-------|-------|----------------|----------------|---------|
| Radium-226 | 0.0678 | U | 0.181 | 0.181 | 1.00 | 0.340 | pCi/L | 06/18/18 09:20 | 07/11/18 19:18 | 1 |
| Carrier | %Yield | Qualifier | Limits | | | | | Prepared | Analyzed | Dil Fac |
| Ba Carrier | 111 | X | 40 - 110 | | | | | 06/18/18 09:20 | 07/11/18 19:18 | 1 |

Method: 9320 - Radium-228 (GFPC)

| Analyte | Result | Qualifier | Count Uncert. (2σ+/-) | Total Uncert. (2σ+/-) | RL | MDC | Unit | Prepared | Analyzed | Dil Fac |
|------------|--------|-----------|-----------------------------|-----------------------------|------|-------|-------|----------------|----------------|---------|
| Radium-228 | 0.0810 | U | 0.237 | 0.237 | 1.00 | 0.407 | pCi/L | 06/18/18 12:00 | 07/11/18 15:15 | 1 |
| Carrier | %Yield | Qualifier | Limits | | | | | Prepared | Analyzed | Dil Fac |
| Ba Carrier | 111 | X | 40 - 110 | | | | | 06/18/18 12:00 | 07/11/18 15:15 | 1 |
| Y Carrier | 95.0 | | 40 - 110 | | | | | 06/18/18 12:00 | 07/11/18 15:15 | 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 | 0.149 | U | 0.298 | 0.298 | 5.00 | 0.407 | pCi/L | | 07/12/18 17:53 | 1 |

Client Sample Results

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

TestAmerica Job ID: 400-154780-2

Client Sample ID: MW-U1-20180605

Lab Sample ID: 400-154780-5

Date Collected: 06/05/18 14:50

Matrix: Water

Date Received: 06/07/18 10:09

Method: 9315 - Radium-226 (GFPC)

| Analyte | Result | Qualifier | Count Uncert. (2σ+/-) | Total Uncert. (2σ+/-) | RL | MDC | Unit | Prepared | Analyzed | Dil Fac |
|------------|---------|-----------|-----------------------------|-----------------------------|------|-------|-------|----------------|----------------|---------|
| Radium-226 | -0.0416 | U | 0.127 | 0.127 | 1.00 | 0.308 | pCi/L | 06/18/18 09:20 | 07/11/18 19:46 | 1 |
| Carrier | %Yield | Qualifier | Limits | | | | | Prepared | Analyzed | Dil Fac |
| Ba Carrier | 111 | X | 40 - 110 | | | | | 06/18/18 09:20 | 07/11/18 19:46 | 1 |

Method: 9320 - Radium-228 (GFPC)

| Analyte | Result | Qualifier | Count Uncert. (2σ+/-) | Total Uncert. (2σ+/-) | RL | MDC | Unit | Prepared | Analyzed | Dil Fac |
|------------|---------|-----------|-----------------------------|-----------------------------|------|-------|-------|----------------|----------------|---------|
| Radium-228 | -0.0170 | U | 0.201 | 0.201 | 1.00 | 0.362 | pCi/L | 06/18/18 12:00 | 07/11/18 15:15 | 1 |
| Carrier | %Yield | Qualifier | Limits | | | | | Prepared | Analyzed | Dil Fac |
| Ba Carrier | 111 | X | 40 - 110 | | | | | 06/18/18 12:00 | 07/11/18 15:15 | 1 |
| Y Carrier | 96.1 | | 40 - 110 | | | | | 06/18/18 12:00 | 07/11/18 15:15 | 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 | -0.0586 | U | 0.238 | 0.238 | 5.00 | 0.362 | pCi/L | | 07/12/18 17:53 | 1 |

Definitions/Glossary

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

TestAmerica Job ID: 400-154780-2

Qualifiers

Rad

| Qualifier | Qualifier Description |
|-----------|---|
| U | Result is less than the sample detection limit. |
| X | Carrier is outside acceptance limits. |

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) |
| 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

TestAmerica Job ID: 400-154780-2

Client Sample ID: DUP-10-20180605

Lab Sample ID: 400-154780-1

Date Collected: 06/05/18 08:00

Matrix: Water

Date Received: 06/07/18 10:09

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|--------|
| Total/NA | Prep | PrecSep-21 | | | 370867 | 06/18/18 09:20 | JLC | TAL SL |
| Total/NA | Analysis | 9315 | | 1 | 374837 | 07/11/18 19:17 | RTM | TAL SL |
| Total/NA | Prep | PrecSep_0 | | | 371033 | 06/18/18 12:00 | JLC | TAL SL |
| Total/NA | Analysis | 9320 | | 1 | 374834 | 07/11/18 15:14 | CDR | TAL SL |
| Total/NA | Analysis | Ra226_Ra228 | | 1 | 375258 | 07/12/18 17:53 | RTM | TAL SL |

Client Sample ID: MW-D2-20180605

Lab Sample ID: 400-154780-2

Date Collected: 06/05/18 09:50

Matrix: Water

Date Received: 06/07/18 10:09

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|--------|
| Total/NA | Prep | PrecSep-21 | | | 370867 | 06/18/18 09:20 | JLC | TAL SL |
| Total/NA | Analysis | 9315 | | 1 | 374837 | 07/11/18 19:17 | RTM | TAL SL |
| Total/NA | Prep | PrecSep_0 | | | 371033 | 06/18/18 12:00 | JLC | TAL SL |
| Total/NA | Analysis | 9320 | | 1 | 374834 | 07/11/18 15:14 | CDR | TAL SL |
| Total/NA | Analysis | Ra226_Ra228 | | 1 | 375258 | 07/12/18 17:53 | RTM | TAL SL |

Client Sample ID: MW-D3-20180605

Lab Sample ID: 400-154780-3

Date Collected: 06/05/18 10:45

Matrix: Water

Date Received: 06/07/18 10:09

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|--------|
| Total/NA | Prep | PrecSep-21 | | | 370867 | 06/18/18 09:20 | JLC | TAL SL |
| Total/NA | Analysis | 9315 | | 1 | 374837 | 07/11/18 19:17 | RTM | TAL SL |
| Total/NA | Prep | PrecSep_0 | | | 371033 | 06/18/18 12:00 | JLC | TAL SL |
| Total/NA | Analysis | 9320 | | 1 | 374834 | 07/11/18 15:15 | CDR | TAL SL |
| Total/NA | Analysis | Ra226_Ra228 | | 1 | 375258 | 07/12/18 17:53 | RTM | TAL SL |

Client Sample ID: MW-D1-20180605

Lab Sample ID: 400-154780-4

Date Collected: 06/05/18 12:10

Matrix: Water

Date Received: 06/07/18 10:09

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|--------|
| Total/NA | Prep | PrecSep-21 | | | 370867 | 06/18/18 09:20 | JLC | TAL SL |
| Total/NA | Analysis | 9315 | | 1 | 374837 | 07/11/18 19:18 | RTM | TAL SL |
| Total/NA | Prep | PrecSep_0 | | | 371033 | 06/18/18 12:00 | JLC | TAL SL |
| Total/NA | Analysis | 9320 | | 1 | 374834 | 07/11/18 15:15 | CDR | TAL SL |
| Total/NA | Analysis | Ra226_Ra228 | | 1 | 375258 | 07/12/18 17:53 | RTM | TAL SL |

Lab Chronicle

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

TestAmerica Job ID: 400-154780-2

Client Sample ID: MW-U1-20180605

Lab Sample ID: 400-154780-5

Date Collected: 06/05/18 14:50

Matrix: Water

Date Received: 06/07/18 10:09

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|--------|
| Total/NA | Prep | PrecSep-21 | | | 370867 | 06/18/18 09:20 | JLC | TAL SL |
| Total/NA | Analysis | 9315 | | 1 | 374837 | 07/11/18 19:46 | RTM | TAL SL |
| Total/NA | Prep | PrecSep_0 | | | 371033 | 06/18/18 12:00 | JLC | TAL SL |
| Total/NA | Analysis | 9320 | | 1 | 374834 | 07/11/18 15:15 | CDR | TAL SL |
| Total/NA | Analysis | Ra226_Ra228 | | 1 | 375258 | 07/12/18 17:53 | RTM | TAL SL |

Laboratory References:

TAL SL = 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

TestAmerica Job ID: 400-154780-2

Rad

Prep Batch: 370867

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|------------------------|-----------|--------|------------|------------|
| 400-154780-1 | DUP-10-20180605 | Total/NA | Water | PrecSep-21 | |
| 400-154780-2 | MW-D2-20180605 | Total/NA | Water | PrecSep-21 | |
| 400-154780-3 | MW-D3-20180605 | Total/NA | Water | PrecSep-21 | |
| 400-154780-4 | MW-D1-20180605 | Total/NA | Water | PrecSep-21 | |
| 400-154780-5 | MW-U1-20180605 | Total/NA | Water | PrecSep-21 | |
| MB 160-370867/23-A | Method Blank | Total/NA | Water | PrecSep-21 | |
| LCS 160-370867/1-A | Lab Control Sample | Total/NA | Water | PrecSep-21 | |
| LCSD 160-370867/2-A | Lab Control Sample Dup | Total/NA | Water | PrecSep-21 | |

Prep Batch: 371033

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|------------------------|-----------|--------|-----------|------------|
| 400-154780-1 | DUP-10-20180605 | Total/NA | Water | PrecSep_0 | |
| 400-154780-2 | MW-D2-20180605 | Total/NA | Water | PrecSep_0 | |
| 400-154780-3 | MW-D3-20180605 | Total/NA | Water | PrecSep_0 | |
| 400-154780-4 | MW-D1-20180605 | Total/NA | Water | PrecSep_0 | |
| 400-154780-5 | MW-U1-20180605 | Total/NA | Water | PrecSep_0 | |
| MB 160-371033/23-A | Method Blank | Total/NA | Water | PrecSep_0 | |
| LCS 160-371033/1-A | Lab Control Sample | Total/NA | Water | PrecSep_0 | |
| LCSD 160-371033/2-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

TestAmerica Job ID: 400-154780-2

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-370867/23-A
Matrix: Water
Analysis Batch: 374836

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 370867

| Analyte | MB MB | | Count | Total | RL | MDC | Unit | Prepared | Analyzed | Dil Fac |
|------------|---------|-----------|-----------------|-----------------|----------------|----------------|---------|----------------|----------------|---------|
| | Result | Qualifier | Uncert. (2σ+/-) | Uncert. (2σ+/-) | | | | | | |
| Radium-226 | 0.01882 | U | 0.0960 | 0.0960 | 1.00 | 0.202 | pCi/L | 06/18/18 09:20 | 07/11/18 21:30 | 1 |
| Carrier | MB MB | | Limits | | Prepared | Analyzed | Dil Fac | | | |
| Ba Carrier | %Yield | Qualifier | Limits | | | | | | | |
| Ba Carrier | 109 | | 40 - 110 | | 06/18/18 09:20 | 07/11/18 21:30 | 1 | | | |

Lab Sample ID: LCS 160-370867/1-A
Matrix: Water
Analysis Batch: 374836

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 370867

| Analyte | Spike Added | LCS Result | LCS Qual | Total | RL | MDC | Unit | %Rec | %Rec. Limits |
|------------|-------------|------------|----------|-----------------|----------------|----------------|---------|------|--------------|
| | | | | Uncert. (2σ+/-) | | | | | |
| Radium-226 | 11.8 | 8.787 | | 1.15 | 1.00 | 0.229 | pCi/L | 74 | 68 - 137 |
| Carrier | LCS LCS | | Limits | | Prepared | Analyzed | Dil Fac | | |
| Ba Carrier | %Yield | Qualifier | Limits | | | | | | |
| Ba Carrier | 109 | | 40 - 110 | | 06/18/18 09:20 | 07/11/18 21:30 | 1 | | |

Lab Sample ID: LCSD 160-370867/2-A
Matrix: Water
Analysis Batch: 374836

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 370867

| Analyte | Spike Added | LCSD Result | LCSD Qual | Total | RL | MDC | Unit | %Rec | %Rec. Limits | RER | RER Limit |
|------------|-------------|-------------|-----------|-----------------|----------------|----------------|---------|------|--------------|------|-----------|
| | | | | Uncert. (2σ+/-) | | | | | | | |
| Radium-226 | 11.8 | 9.151 | | 1.20 | 1.00 | 0.253 | pCi/L | 78 | 68 - 137 | 0.16 | 1 |
| Carrier | LCSD LCSD | | Limits | | Prepared | Analyzed | Dil Fac | | | | |
| Ba Carrier | %Yield | Qualifier | Limits | | | | | | | | |
| Ba Carrier | 102 | | 40 - 110 | | 06/18/18 12:00 | 07/11/18 15:16 | 1 | | | | |

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-371033/23-A
Matrix: Water
Analysis Batch: 374834

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 371033

| Analyte | MB MB | | Count | Total | RL | MDC | Unit | Prepared | Analyzed | Dil Fac |
|------------|----------|-----------|-----------------|-----------------|----------------|----------------|---------|----------------|----------------|---------|
| | Result | Qualifier | Uncert. (2σ+/-) | Uncert. (2σ+/-) | | | | | | |
| Radium-228 | -0.05769 | U | 0.167 | 0.167 | 1.00 | 0.311 | pCi/L | 06/18/18 12:00 | 07/11/18 15:16 | 1 |
| Carrier | MB MB | | Limits | | Prepared | Analyzed | Dil Fac | | | |
| Ba Carrier | %Yield | Qualifier | Limits | | | | | | | |
| Ba Carrier | 109 | | 40 - 110 | | 06/18/18 12:00 | 07/11/18 15:16 | 1 | | | |
| Y Carrier | MB MB | | Limits | | Prepared | Analyzed | Dil Fac | | | |
| Y Carrier | %Yield | Qualifier | Limits | | | | | | | |
| Y Carrier | 95.0 | | 40 - 110 | | 06/18/18 12:00 | 07/11/18 15:16 | 1 | | | |

QC Sample Results

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

TestAmerica Job ID: 400-154780-2

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

Lab Sample ID: LCS 160-371033/1-A
Matrix: Water
Analysis Batch: 374834

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 371033

| Analyte | Spike Added | LCS Result | LCS Qual | Total Uncert. (2σ+/-) | RL | MDC | Unit | %Rec | %Rec. Limits |
|------------|-------------|------------|----------|-----------------------|------|-------|-------|------|--------------|
| Radium-228 | 8.15 | 6.152 | | 0.761 | 1.00 | 0.342 | pCi/L | 75 | 56 - 140 |

| Carrier | LCS %Yield | LCS Qualifier | Limits |
|------------|------------|---------------|----------|
| Ba Carrier | 109 | | 40 - 110 |
| Y Carrier | 89.7 | | 40 - 110 |

Lab Sample ID: LCSD 160-371033/2-A
Matrix: Water
Analysis Batch: 374834

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 371033

| Analyte | Spike Added | LCSD Result | LCSD Qual | Total Uncert. (2σ+/-) | RL | MDC | Unit | %Rec | %Rec. Limits | RER | RER Limit |
|------------|-------------|-------------|-----------|-----------------------|------|-------|-------|------|--------------|------|-----------|
| Radium-228 | 8.15 | 6.409 | | 0.795 | 1.00 | 0.331 | pCi/L | 79 | 56 - 140 | 0.17 | 1 |

| Carrier | LCSD %Yield | LCSD Qualifier | Limits |
|------------|-------------|----------------|----------|
| Ba Carrier | 102 | | 40 - 110 |
| Y Carrier | 90.5 | | 40 - 110 |

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

Lab Sample ID: 180-78700-A-6 DU
Matrix: Water
Analysis Batch: 375258

Client Sample ID: Duplicate
Prep Type: Total/NA

| Analyte | Sample Result | Sample Qual | DU Result | DU Qual | Total Uncert. (2σ+/-) | RL | MDC | Unit | RER | RER Limit |
|---------------------------|---------------|-------------|-----------|---------|-----------------------|------|-------|-------|------|-----------|
| Combined Radium 226 + 228 | 0.210 | U | 0.5506 | | 0.223 | 5.00 | 0.307 | pCi/L | 0.80 | |

| | | | |
|--|--|--|--|
| Client Information Company: Geosyntec Consultants, Inc. Address: 1255 Roberts Blvd, NW Suite 200 City: Kennesaw State/Zip: GA, 30144 Phone: 678-202-9583(Tel) Email: igasser@geosyntec.com Project Name: CCR App.III/IV GW Monitoring Site: | | Lab PM: Whitmire, Cheyenne R E-Mail: cheyenne.whitmire@testamericainc.com | |
| Sampler: STEPHEN W. RANDALL Phone: 478-328-6181 | | Carrier Tracking No(s): COC No: 400-74553-29334-1 Page: Page 1 of 1 Job #: | |
| Due Date Requested: TAT Requested (days): STANDARD PO #: Purchase Order not required WO #: | | Analysis Requested 9316 Radium 226, 9320 Radium 228, Ra226Ra228 GFCP - Radium 226 + Radium 228 5M4500 Cl ⁻ Chloride, 5M4500 SO ₄ ²⁻ Sulfate, 4500 F ⁻ Fluoride, 2540C - Total Dissolved Solids 6020 - B,Ca,As,Ba,Co,Mo,Tl 400-154780 COC | |
| Sample Identification Dup-10-20180605 MW-D2-20180605 MW-D3-20180605 MW-D1-20180605 MW-U1-20180605 | | Field Filtered Sample (Yes or No) Matrix (W=water, S=solid, O=wastewater, AT=Tissue, A=air) Sample Type (C=Comp, G=grab) Sample Time Sample Date Preservation Code PH: 6.31 PH: 6.30 PH: 6.42 PH: 5.91 PH: 6.74 | |
| Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant Deliverable Requested: I, II, III, IV, Other (specify) | | Special Instructions/Note: PH: 6.31 PH: 6.30 PH: 6.42 PH: 5.91 PH: 6.74 | |
| Empty Kit 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"/> Archive For _____ Months | |
| Relinquished by: Stephen W. Randall | | Method of Shipment: | |
| Relinquished by: | | Date/Time: 6/16/18 1004 | |
| Relinquished by: | | Date/Time: | |
| Relinquished by: | | Date/Time: | |
| Custody Seal No.: 478770 | | Cooler Temperature(s) °C and Other Remarks: | |



Login Sample Receipt Checklist

Client: Geosyntec Consultants, Inc.

Job Number: 400-154780-2

Login Number: 154780

List Source: TestAmerica Pensacola

List Number: 1

Creator: Johnson, Jeremy N

| 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 | 478770 |
| Samples were received on ice. | True | Thermal preservation not required. |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | 26.8°C IR7 0.0°C IR7 |
| 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

TestAmerica Job ID: 400-154780-2

Laboratory: TestAmerica Pensacola

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

| Authority | Program | EPA Region | Identification Number | Expiration Date |
|------------------------|---------------|------------|-----------------------|-----------------|
| Alabama | State Program | 4 | 40150 | 06-30-19 |
| ANAB | ISO/IEC 17025 | | L2471 | 02-22-20 |
| Arizona | State Program | 9 | AZ0710 | 01-12-19 |
| Arkansas DEQ | State Program | 6 | 88-0689 | 09-01-18 |
| California | State Program | 9 | 2510 | 06-30-19 |
| Florida | NELAP | 4 | E81010 | 06-30-19 |
| Georgia | State Program | 4 | E81010 (FL) | 06-30-19 |
| Illinois | NELAP | 5 | 200041 | 10-09-18 |
| Iowa | State Program | 7 | 367 | 08-01-18 |
| Kansas | NELAP | 7 | E-10253 | 10-31-18 |
| Kentucky (UST) | State Program | 4 | 53 | 06-30-19 |
| Kentucky (WW) | State Program | 4 | 98030 | 12-31-18 |
| Louisiana | NELAP | 6 | 30976 | 06-30-19 |
| Louisiana (DW) | NELAP | 6 | LA170005 | 12-31-18 |
| Maryland | State Program | 3 | 233 | 09-30-18 |
| Massachusetts | State Program | 1 | M-FL094 | 06-30-19 |
| Michigan | State Program | 5 | 9912 | 06-30-19 |
| New Jersey | NELAP | 2 | FL006 | 06-30-19 |
| North Carolina (WW/SW) | State Program | 4 | 314 | 12-31-18 |
| Oklahoma | State Program | 6 | 9810 | 08-31-18 |
| Pennsylvania | NELAP | 3 | 68-00467 | 01-31-19 |
| Rhode Island | State Program | 1 | LAO00307 | 12-30-18 |
| South Carolina | State Program | 4 | 96026 | 06-30-18 * |
| Tennessee | State Program | 4 | TN02907 | 06-30-19 |
| Texas | NELAP | 6 | T104704286-18-14 | 09-30-18 |
| US Fish & Wildlife | Federal | | LE058448-0 | 07-31-18 |
| USDA | Federal | | P330-16-00172 | 05-24-19 |
| Virginia | NELAP | 3 | 460166 | 06-14-19 |
| Washington | State Program | 10 | C915 | 05-15-19 |
| West Virginia DEP | State Program | 3 | 136 | 06-30-19 |

Laboratory: TestAmerica St. Louis

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

| Authority | Program | EPA Region | Identification Number | Expiration Date |
|----------------|---------------|------------|-----------------------|-----------------|
| Alaska | State Program | 10 | MO00054 | 06-30-19 |
| ANAB | DoD ELAP | | L2305 | 04-06-19 |
| Arizona | State Program | 9 | AZ0813 | 12-08-18 |
| California | State Program | 9 | 2886 | 06-30-19 |
| Connecticut | State Program | 1 | PH-0241 | 03-31-19 |
| Florida | NELAP | 4 | E87689 | 06-30-19 |
| Illinois | NELAP | 5 | 200023 | 11-30-18 |
| Iowa | State Program | 7 | 373 | 12-01-18 |
| Kansas | NELAP | 7 | E-10236 | 10-31-18 |
| Kentucky (DW) | State Program | 4 | 90125 | 12-31-18 |
| Louisiana | NELAP | 6 | 04080 | 06-30-19 |
| Louisiana (DW) | NELAP | 6 | LA180017 | 12-31-18 |
| Maryland | State Program | 3 | 310 | 09-30-18 |
| Michigan | State Program | 5 | 9005 | 06-30-18 * |
| Missouri | State Program | 7 | 780 | 06-30-18 * |

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Accreditation/Certification Summary

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

TestAmerica Job ID: 400-154780-2

Laboratory: TestAmerica St. Louis (Continued)

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

| Authority | Program | EPA Region | Identification Number | Expiration Date |
|--------------------|---------------|------------|-----------------------|-----------------|
| Nevada | State Program | 9 | MO000542018-1 | 07-31-18 * |
| New Jersey | NELAP | 2 | MO002 | 06-30-19 |
| New York | NELAP | 2 | 11616 | 03-31-19 |
| North Dakota | State Program | 8 | R207 | 06-30-18 * |
| NRC | NRC | | 24-24817-01 | 12-31-22 |
| Oklahoma | State Program | 6 | 9997 | 08-31-18 * |
| Pennsylvania | NELAP | 3 | 68-00540 | 02-28-19 |
| South Carolina | State Program | 4 | 85002001 | 06-30-18 * |
| Texas | NELAP | 6 | T104704193-17-11 | 07-31-18 * |
| US Fish & Wildlife | Federal | | 058448 | 07-31-18 |
| USDA | Federal | | P330-17-0028 | 02-02-20 |
| Utah | NELAP | 8 | MO000542016-8 | 07-31-18 * |
| Virginia | NELAP | 3 | 460230 | 06-14-19 |
| Washington | State Program | 10 | C592 | 08-30-18 |
| West Virginia DEP | State Program | 3 | 381 | 08-31-18 * |

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-162846-1

Client Project/Site: CCR App.III/IV GW Monitoring

For:

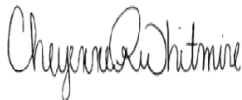
Geosyntec Consultants, Inc.

1255 Roberts Blvd, NW

Suite 200

Kennesaw, Georgia 30144

Attn: Jeremy Gasser



Authorized for release by:

12/17/2018 4:02:48 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

cheyenne.whitmire@testamericainc.com

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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.

1

2

3

4

5

6

7

8

9

10

11

12

13

14



Table of Contents

| | |
|---------------------------------|----|
| Cover Page | 1 |
| Table of Contents | 2 |
| Case Narrative | 3 |
| Detection Summary | 4 |
| Method Summary | 6 |
| Sample Summary | 7 |
| Client Sample Results | 8 |
| Definitions | 13 |
| Chronicle | 14 |
| QC Association | 16 |
| QC Sample Results | 18 |
| Chain of Custody | 22 |
| Receipt Checklists | 23 |
| Certification Summary | 24 |

Case Narrative

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

TestAmerica Job ID: 400-162846-1

Job ID: 400-162846-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative 400-162846-1

Metals

Method(s) 6020: The following samples were diluted to bring the concentration of target analytes within the calibration range: DUP-11-20181129 (400-162846-1) and MW-D2-20181129 (400-162846-2). Elevated reporting limits (RLs) are provided.

General Chemistry

Method(s) SM 4500 F C: The sample duplicate precision for the following sample associated with analytical batch 423145 was outside control limits: (400-162846-A-4 DU). The associated Laboratory Control Sample(LCS)met acceptance criteria.

Method(s) SM 4500 Cl- E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 423230 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.



Detection Summary

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

TestAmerica Job ID: 400-162846-1

Client Sample ID: DUP-11-20181129

Lab Sample ID: 400-162846-1

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|------------------------|--------|-----------|--------|---------|------|---------|---|----------------|----------------------|
| Barium | 0.16 | | 0.0025 | 0.00049 | mg/L | 5 | | 6020 | Total Recoverable |
| Calcium - DL | 120 | | 1.3 | 0.63 | mg/L | 25 | | 6020 | Total Recoverable |
| Boron - RA | 0.15 | | 0.050 | 0.021 | mg/L | 5 | | 6020 | Total Recoverable |
| Total Dissolved Solids | 350 | | 5.0 | 3.4 | mg/L | 1 | | SM 2540C | Total/NA |
| Chloride | 5.1 | | 2.0 | 1.4 | mg/L | 1 | | SM 4500 Cl- E | Total/NA |
| Fluoride | 0.040 | J | 0.10 | 0.032 | mg/L | 1 | | SM 4500 F C | Total/NA |
| Sulfate | 18 | | 5.0 | 1.4 | mg/L | 1 | | SM 4500 SO4 E | Total/NA |
| Field pH | 6.55 | | | | SU | 1 | | Field Sampling | Total/NA |

Client Sample ID: MW-D2-20181129

Lab Sample ID: 400-162846-2

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|------------------------|----------|-----------|---------|----------|------|---------|---|----------------|----------------------|
| Barium | 0.15 | | 0.0025 | 0.00049 | mg/L | 5 | | 6020 | Total Recoverable |
| Thallium | 0.000085 | J | 0.00050 | 0.000085 | mg/L | 5 | | 6020 | Total Recoverable |
| Calcium - DL | 120 | | 1.3 | 0.63 | mg/L | 25 | | 6020 | Total Recoverable |
| Boron - RA | 0.14 | | 0.050 | 0.021 | mg/L | 5 | | 6020 | Total Recoverable |
| Total Dissolved Solids | 360 | | 5.0 | 3.4 | mg/L | 1 | | SM 2540C | Total/NA |
| Chloride | 5.1 | | 2.0 | 1.4 | mg/L | 1 | | SM 4500 Cl- E | Total/NA |
| Fluoride | 0.040 | J | 0.10 | 0.032 | mg/L | 1 | | SM 4500 F C | Total/NA |
| Sulfate | 18 | | 5.0 | 1.4 | mg/L | 1 | | SM 4500 SO4 E | Total/NA |
| Field pH | 6.60 | | | | SU | 1 | | Field Sampling | Total/NA |

Client Sample ID: MW-D3-20181129

Lab Sample ID: 400-162846-3

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|------------------------|---------|-----------|---------|----------|------|---------|---|----------------|----------------------|
| Barium | 0.14 | | 0.0025 | 0.00049 | mg/L | 5 | | 6020 | Total Recoverable |
| Calcium | 110 | | 0.25 | 0.13 | mg/L | 5 | | 6020 | Total Recoverable |
| Cobalt | 0.00098 | J | 0.0025 | 0.00040 | mg/L | 5 | | 6020 | Total Recoverable |
| Thallium | 0.00010 | J | 0.00050 | 0.000085 | mg/L | 5 | | 6020 | Total Recoverable |
| Boron - RA | 0.27 | | 0.050 | 0.021 | mg/L | 5 | | 6020 | Total Recoverable |
| Total Dissolved Solids | 350 | | 5.0 | 3.4 | mg/L | 1 | | SM 2540C | Total/NA |
| Chloride | 4.4 | | 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 | 28 | | 5.0 | 1.4 | mg/L | 1 | | SM 4500 SO4 E | Total/NA |
| Field pH | 6.80 | | | | SU | 1 | | Field Sampling | Total/NA |

Client Sample ID: MW-D1-20181129

Lab Sample ID: 400-162846-4

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|--------|---------|------|---------|---|--------|----------------------|
| Barium | 0.0099 | | 0.0025 | 0.00049 | mg/L | 5 | | 6020 | Total Recoverable |

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

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

TestAmerica Job ID: 400-162846-1

Client Sample ID: MW-D1-20181129 (Continued)

Lab Sample ID: 400-162846-4

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|------------------------|--------|-----------|-------|-------|------|---------|---|----------------|----------------------|
| Calcium | 21 | | 0.25 | 0.13 | mg/L | 5 | | 6020 | Total |
| Boron - RA | 0.18 | | 0.050 | 0.021 | mg/L | 5 | | 6020 | Recoverable Total |
| Total Dissolved Solids | 94 | | 5.0 | 3.4 | mg/L | 1 | | SM 2540C | Total/NA |
| Chloride | 1.5 | J | 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 | 11 | | 5.0 | 1.4 | mg/L | 1 | | SM 4500 SO4 E | Total/NA |
| Field pH | 6.33 | | | | SU | 1 | | Field Sampling | Total/NA |

Client Sample ID: MW-U1-20181129

Lab Sample ID: 400-162846-5

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|------------------------|--------|-----------|--------|---------|------|---------|---|----------------|----------------------|
| Barium | 0.0018 | J | 0.0025 | 0.00049 | mg/L | 5 | | 6020 | Total |
| Calcium | 32 | | 0.25 | 0.13 | mg/L | 5 | | 6020 | Recoverable Total |
| Total Dissolved Solids | 66 | | 5.0 | 3.4 | mg/L | 1 | | SM 2540C | Total/NA |
| Chloride | 1.7 | J | 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 | 2.0 | J | 5.0 | 1.4 | mg/L | 1 | | SM 4500 SO4 E | Total/NA |
| Field pH | 7.72 | | | | SU | 1 | | Field Sampling | Total/NA |

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Method Summary

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

TestAmerica Job ID: 400-162846-1

| 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 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 = 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

TestAmerica Job ID: 400-162846-1

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---------------|------------------|--------|----------------|----------------|
| 400-162846-1 | DUP-11-20181129 | Water | 11/29/18 08:00 | 12/01/18 09:09 |
| 400-162846-2 | MW-D2-20181129 | Water | 11/29/18 09:45 | 12/01/18 09:09 |
| 400-162846-3 | MW-D3-20181129 | Water | 11/29/18 11:15 | 12/01/18 09:09 |
| 400-162846-4 | MW-D1-20181129 | Water | 11/29/18 12:45 | 12/01/18 09:09 |
| 400-162846-5 | MW-U1-20181129 | Water | 11/29/18 14:45 | 12/01/18 09:09 |

- 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

TestAmerica Job ID: 400-162846-1

Client Sample ID: DUP-11-20181129

Lab Sample ID: 400-162846-1

Date Collected: 11/29/18 08:00

Matrix: Water

Date Received: 12/01/18 09:09

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------------|-------------|-----------|---------|----------|------|---|----------------|----------------|---------|
| Arsenic | ND | | 0.0013 | 0.00046 | mg/L | | 12/11/18 09:41 | 12/11/18 22:06 | 5 |
| Barium | 0.16 | | 0.0025 | 0.00049 | mg/L | | 12/11/18 09:41 | 12/11/18 22:06 | 5 |
| Cobalt | ND | | 0.0025 | 0.00040 | mg/L | | 12/11/18 09:41 | 12/11/18 22:06 | 5 |
| Molybdenum | ND | | 0.010 | 0.0020 | mg/L | | 12/11/18 09:41 | 12/11/18 22:06 | 5 |
| Selenium | ND | | 0.0013 | 0.00071 | mg/L | | 12/11/18 09:41 | 12/11/18 22:06 | 5 |
| Thallium | ND | | 0.00050 | 0.000085 | mg/L | | 12/11/18 09:41 | 12/11/18 22:06 | 5 |

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|----------------|------------|-----------|-----|------|------|---|----------------|----------------|---------|
| Calcium | 120 | | 1.3 | 0.63 | mg/L | | 12/11/18 09:41 | 12/12/18 14:30 | 25 |

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|--------------|-------------|-----------|-------|-------|------|---|----------------|----------------|---------|
| Boron | 0.15 | | 0.050 | 0.021 | mg/L | | 12/11/18 09:41 | 12/12/18 14:27 | 5 |

General Chemistry

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------------------------|--------------|-----------|------|-------|------|---|----------|----------------|---------|
| Total Dissolved Solids | 350 | | 5.0 | 3.4 | mg/L | | | 12/03/18 10:50 | 1 |
| Chloride | 5.1 | | 2.0 | 1.4 | mg/L | | | 12/13/18 18:01 | 1 |
| Fluoride | 0.040 | J | 0.10 | 0.032 | mg/L | | | 12/13/18 15:02 | 1 |
| Sulfate | 18 | | 5.0 | 1.4 | mg/L | | | 12/13/18 15:52 | 1 |

Method: Field Sampling - Field Sampling

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------------|-------------|-----------|----|-----|------|---|----------|----------------|---------|
| Field pH | 6.55 | | | | SU | | | 11/29/18 07:00 | 1 |

Client Sample Results

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

TestAmerica Job ID: 400-162846-1

Client Sample ID: MW-D2-20181129

Lab Sample ID: 400-162846-2

Date Collected: 11/29/18 09:45

Matrix: Water

Date Received: 12/01/18 09:09

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------------|-----------------|-----------|---------|----------|------|---|----------------|----------------|---------|
| Arsenic | ND | | 0.0013 | 0.00046 | mg/L | | 12/11/18 09:41 | 12/11/18 22:10 | 5 |
| Barium | 0.15 | | 0.0025 | 0.00049 | mg/L | | 12/11/18 09:41 | 12/11/18 22:10 | 5 |
| Cobalt | ND | | 0.0025 | 0.00040 | mg/L | | 12/11/18 09:41 | 12/11/18 22:10 | 5 |
| Molybdenum | ND | | 0.010 | 0.0020 | mg/L | | 12/11/18 09:41 | 12/11/18 22:10 | 5 |
| Selenium | ND | | 0.0013 | 0.00071 | mg/L | | 12/11/18 09:41 | 12/11/18 22:10 | 5 |
| Thallium | 0.000085 | J | 0.00050 | 0.000085 | mg/L | | 12/11/18 09:41 | 12/11/18 22:10 | 5 |

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|----------------|------------|-----------|-----|------|------|---|----------------|----------------|---------|
| Calcium | 120 | | 1.3 | 0.63 | mg/L | | 12/11/18 09:41 | 12/12/18 14:38 | 25 |

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|--------------|-------------|-----------|-------|-------|------|---|----------------|----------------|---------|
| Boron | 0.14 | | 0.050 | 0.021 | mg/L | | 12/11/18 09:41 | 12/12/18 14:34 | 5 |

General Chemistry

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------------------------|--------------|-----------|------|-------|------|---|----------|----------------|---------|
| Total Dissolved Solids | 360 | | 5.0 | 3.4 | mg/L | | | 12/03/18 10:50 | 1 |
| Chloride | 5.1 | | 2.0 | 1.4 | mg/L | | | 12/13/18 18:01 | 1 |
| Fluoride | 0.040 | J | 0.10 | 0.032 | mg/L | | | 12/13/18 15:04 | 1 |
| Sulfate | 18 | | 5.0 | 1.4 | mg/L | | | 12/13/18 15:52 | 1 |

Method: Field Sampling - Field Sampling

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------------|-------------|-----------|----|-----|------|---|----------|----------------|---------|
| Field pH | 6.60 | | | | SU | | | 11/29/18 08:45 | 1 |

Client Sample Results

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

TestAmerica Job ID: 400-162846-1

Client Sample ID: MW-D3-20181129

Lab Sample ID: 400-162846-3

Date Collected: 11/29/18 11:15

Matrix: Water

Date Received: 12/01/18 09:09

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------------|----------------|-----------|---------|----------|------|---|----------------|----------------|---------|
| Arsenic | ND | | 0.0013 | 0.00046 | mg/L | | 12/11/18 09:41 | 12/11/18 22:31 | 5 |
| Barium | 0.14 | | 0.0025 | 0.00049 | mg/L | | 12/11/18 09:41 | 12/11/18 22:31 | 5 |
| Calcium | 110 | | 0.25 | 0.13 | mg/L | | 12/11/18 09:41 | 12/11/18 22:31 | 5 |
| Cobalt | 0.00098 | J | 0.0025 | 0.00040 | mg/L | | 12/11/18 09:41 | 12/11/18 22:31 | 5 |
| Molybdenum | ND | | 0.010 | 0.0020 | mg/L | | 12/11/18 09:41 | 12/11/18 22:31 | 5 |
| Selenium | ND | | 0.0013 | 0.00071 | mg/L | | 12/11/18 09:41 | 12/11/18 22:31 | 5 |
| Thallium | 0.00010 | J | 0.00050 | 0.000085 | mg/L | | 12/11/18 09:41 | 12/11/18 22:31 | 5 |

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|--------------|-------------|-----------|-------|-------|------|---|----------------|----------------|---------|
| Boron | 0.27 | | 0.050 | 0.021 | mg/L | | 12/11/18 09:41 | 12/12/18 14:41 | 5 |

General Chemistry

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------------------------|-------------|-----------|------|-------|------|---|----------|----------------|---------|
| Total Dissolved Solids | 350 | | 5.0 | 3.4 | mg/L | | | 12/03/18 10:50 | 1 |
| Chloride | 4.4 | | 2.0 | 1.4 | mg/L | | | 12/13/18 18:01 | 1 |
| Fluoride | 0.10 | | 0.10 | 0.032 | mg/L | | | 12/13/18 15:07 | 1 |
| Sulfate | 28 | | 5.0 | 1.4 | mg/L | | | 12/13/18 15:52 | 1 |

Method: Field Sampling - Field Sampling

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------------|-------------|-----------|----|-----|------|---|----------|----------------|---------|
| Field pH | 6.80 | | | | SU | | | 11/29/18 10:15 | 1 |

Client Sample Results

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

TestAmerica Job ID: 400-162846-1

Client Sample ID: MW-D1-20181129

Lab Sample ID: 400-162846-4

Date Collected: 11/29/18 12:45

Matrix: Water

Date Received: 12/01/18 09:09

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|----------------|---------------|-----------|---------|----------|------|---|----------------|----------------|---------|
| Arsenic | ND | | 0.0013 | 0.00046 | mg/L | | 12/11/18 09:41 | 12/11/18 22:35 | 5 |
| Barium | 0.0099 | | 0.0025 | 0.00049 | mg/L | | 12/11/18 09:41 | 12/11/18 22:35 | 5 |
| Calcium | 21 | | 0.25 | 0.13 | mg/L | | 12/11/18 09:41 | 12/11/18 22:35 | 5 |
| Cobalt | ND | | 0.0025 | 0.00040 | mg/L | | 12/11/18 09:41 | 12/11/18 22:35 | 5 |
| Molybdenum | ND | | 0.010 | 0.0020 | mg/L | | 12/11/18 09:41 | 12/11/18 22:35 | 5 |
| Selenium | ND | | 0.0013 | 0.00071 | mg/L | | 12/11/18 09:41 | 12/11/18 22:35 | 5 |
| Thallium | ND | | 0.00050 | 0.000085 | mg/L | | 12/11/18 09:41 | 12/11/18 22:35 | 5 |

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|--------------|-------------|-----------|-------|-------|------|---|----------------|----------------|---------|
| Boron | 0.18 | | 0.050 | 0.021 | mg/L | | 12/11/18 09:41 | 12/12/18 14:45 | 5 |

General Chemistry

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------------------------|--------------|-----------|------|-------|------|---|----------|----------------|---------|
| Total Dissolved Solids | 94 | | 5.0 | 3.4 | mg/L | | | 12/03/18 10:50 | 1 |
| Chloride | 1.5 | J | 2.0 | 1.4 | mg/L | | | 12/13/18 18:01 | 1 |
| Fluoride | 0.040 | J | 0.10 | 0.032 | mg/L | | | 12/13/18 15:16 | 1 |
| Sulfate | 11 | | 5.0 | 1.4 | mg/L | | | 12/13/18 15:52 | 1 |

Method: Field Sampling - Field Sampling

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------------|-------------|-----------|----|-----|------|---|----------|----------------|---------|
| Field pH | 6.33 | | | | SU | | | 11/29/18 11:45 | 1 |

Client Sample Results

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

TestAmerica Job ID: 400-162846-1

Client Sample ID: MW-U1-20181129

Lab Sample ID: 400-162846-5

Date Collected: 11/29/18 14:45

Matrix: Water

Date Received: 12/01/18 09:09

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|----------------|---------------|-----------|---------|----------|------|---|----------------|----------------|---------|
| Arsenic | ND | | 0.0013 | 0.00046 | mg/L | | 12/11/18 09:41 | 12/11/18 22:38 | 5 |
| Barium | 0.0018 | J | 0.0025 | 0.00049 | mg/L | | 12/11/18 09:41 | 12/11/18 22:38 | 5 |
| Calcium | 32 | | 0.25 | 0.13 | mg/L | | 12/11/18 09:41 | 12/11/18 22:38 | 5 |
| Cobalt | ND | | 0.0025 | 0.00040 | mg/L | | 12/11/18 09:41 | 12/11/18 22:38 | 5 |
| Molybdenum | ND | | 0.010 | 0.0020 | mg/L | | 12/11/18 09:41 | 12/11/18 22:38 | 5 |
| Selenium | ND | | 0.0013 | 0.00071 | mg/L | | 12/11/18 09:41 | 12/11/18 22:38 | 5 |
| Thallium | ND | | 0.00050 | 0.000085 | mg/L | | 12/11/18 09:41 | 12/11/18 22:38 | 5 |

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------|--------|-----------|-------|-------|------|---|----------------|----------------|---------|
| Boron | ND | | 0.050 | 0.021 | mg/L | | 12/11/18 09:41 | 12/12/18 14:48 | 5 |

General Chemistry

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------------------------|--------------|-----------|------|-------|------|---|----------|----------------|---------|
| Total Dissolved Solids | 66 | | 5.0 | 3.4 | mg/L | | | 12/03/18 10:50 | 1 |
| Chloride | 1.7 | J | 2.0 | 1.4 | mg/L | | | 12/13/18 18:01 | 1 |
| Fluoride | 0.040 | J | 0.10 | 0.032 | mg/L | | | 12/13/18 15:23 | 1 |
| Sulfate | 2.0 | J | 5.0 | 1.4 | mg/L | | | 12/13/18 15:53 | 1 |

Method: Field Sampling - Field Sampling

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------------|-------------|-----------|----|-----|------|---|----------|----------------|---------|
| Field pH | 7.72 | | | | SU | | | 11/29/18 13:45 | 1 |

Definitions/Glossary

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

TestAmerica Job ID: 400-162846-1

Qualifiers

Metals

| 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. |
| ^ | ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits. |
| E | Result exceeded calibration range. |
| 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 |
|-----------|--|
| J | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |
| F5 | Duplicate RPD exceeds limit, and one or both sample results are less than 5 times RL. The data are considered valid because the absolute difference is less than the RL. |
| F1 | MS and/or MSD Recovery is outside acceptance limits. |

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) |
| 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

TestAmerica Job ID: 400-162846-1

Client Sample ID: DUP-11-20181129

Lab Sample ID: 400-162846-1

Date Collected: 11/29/18 08:00

Matrix: Water

Date Received: 12/01/18 09:09

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-------------------|------------|----------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total Recoverable | Prep | 3005A | | | 422678 | 12/11/18 09:41 | DRE | TAL PEN |
| Total Recoverable | Analysis | 6020 | | 5 | 422857 | 12/11/18 22:06 | DRE | TAL PEN |
| Total Recoverable | Prep | 3005A | RA | | 422678 | 12/11/18 09:41 | DRE | TAL PEN |
| Total Recoverable | Analysis | 6020 | RA | 5 | 423052 | 12/12/18 14:27 | DRE | TAL PEN |
| Total Recoverable | Prep | 3005A | DL | | 422678 | 12/11/18 09:41 | DRE | TAL PEN |
| Total Recoverable | Analysis | 6020 | DL | 25 | 423052 | 12/12/18 14:30 | DRE | TAL PEN |
| Total/NA | Analysis | SM 2540C | | 1 | 421701 | 12/03/18 10:50 | CLB | TAL PEN |
| Total/NA | Analysis | SM 4500 CI- E | | 1 | 423230 | 12/13/18 18:01 | RRC | TAL PEN |
| Total/NA | Analysis | SM 4500 F C | | 1 | 423145 | 12/13/18 15:02 | BAB | TAL PEN |
| Total/NA | Analysis | SM 4500 SO4 E | | 1 | 423149 | 12/13/18 15:52 | RRC | TAL PEN |
| Total/NA | Analysis | Field Sampling | | 1 | 421895 | 11/29/18 07:00 | CDH | TAL PEN |

Client Sample ID: MW-D2-20181129

Lab Sample ID: 400-162846-2

Date Collected: 11/29/18 09:45

Matrix: Water

Date Received: 12/01/18 09:09

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-------------------|------------|----------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total Recoverable | Prep | 3005A | | | 422678 | 12/11/18 09:41 | DRE | TAL PEN |
| Total Recoverable | Analysis | 6020 | | 5 | 422857 | 12/11/18 22:10 | DRE | TAL PEN |
| Total Recoverable | Prep | 3005A | RA | | 422678 | 12/11/18 09:41 | DRE | TAL PEN |
| Total Recoverable | Analysis | 6020 | RA | 5 | 423052 | 12/12/18 14:34 | DRE | TAL PEN |
| Total Recoverable | Prep | 3005A | DL | | 422678 | 12/11/18 09:41 | DRE | TAL PEN |
| Total Recoverable | Analysis | 6020 | DL | 25 | 423052 | 12/12/18 14:38 | DRE | TAL PEN |
| Total/NA | Analysis | SM 2540C | | 1 | 421701 | 12/03/18 10:50 | CLB | TAL PEN |
| Total/NA | Analysis | SM 4500 CI- E | | 1 | 423230 | 12/13/18 18:01 | RRC | TAL PEN |
| Total/NA | Analysis | SM 4500 F C | | 1 | 423145 | 12/13/18 15:04 | BAB | TAL PEN |
| Total/NA | Analysis | SM 4500 SO4 E | | 1 | 423149 | 12/13/18 15:52 | RRC | TAL PEN |
| Total/NA | Analysis | Field Sampling | | 1 | 421895 | 11/29/18 08:45 | CDH | TAL PEN |

Client Sample ID: MW-D3-20181129

Lab Sample ID: 400-162846-3

Date Collected: 11/29/18 11:15

Matrix: Water

Date Received: 12/01/18 09:09

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-------------------|------------|---------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total Recoverable | Prep | 3005A | | | 422678 | 12/11/18 09:41 | DRE | TAL PEN |
| Total Recoverable | Analysis | 6020 | | 5 | 422857 | 12/11/18 22:31 | DRE | TAL PEN |
| Total Recoverable | Prep | 3005A | RA | | 422678 | 12/11/18 09:41 | DRE | TAL PEN |
| Total Recoverable | Analysis | 6020 | RA | 5 | 423052 | 12/12/18 14:41 | DRE | TAL PEN |
| Total/NA | Analysis | SM 2540C | | 1 | 421701 | 12/03/18 10:50 | CLB | TAL PEN |
| Total/NA | Analysis | SM 4500 CI- E | | 1 | 423230 | 12/13/18 18:01 | RRC | TAL PEN |
| Total/NA | Analysis | SM 4500 F C | | 1 | 423145 | 12/13/18 15:07 | BAB | TAL PEN |
| Total/NA | Analysis | SM 4500 SO4 E | | 1 | 423149 | 12/13/18 15:52 | RRC | TAL PEN |

TestAmerica Pensacola

Lab Chronicle

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

TestAmerica Job ID: 400-162846-1

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-----------|------------|----------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA | Analysis | Field Sampling | | 1 | 421895 | 11/29/18 10:15 | CDH | TAL PEN |

Client Sample ID: MW-D1-20181129

Lab Sample ID: 400-162846-4

Date Collected: 11/29/18 12:45

Matrix: Water

Date Received: 12/01/18 09:09

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-------------------|------------|----------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total Recoverable | Prep | 3005A | | | 422678 | 12/11/18 09:41 | DRE | TAL PEN |
| Total Recoverable | Analysis | 6020 | | 5 | 422857 | 12/11/18 22:35 | DRE | TAL PEN |
| Total Recoverable | Prep | 3005A | RA | | 422678 | 12/11/18 09:41 | DRE | TAL PEN |
| Total Recoverable | Analysis | 6020 | RA | 5 | 423052 | 12/12/18 14:45 | DRE | TAL PEN |
| Total/NA | Analysis | SM 2540C | | 1 | 421701 | 12/03/18 10:50 | CLB | TAL PEN |
| Total/NA | Analysis | SM 4500 Cl- E | | 1 | 423230 | 12/13/18 18:01 | RRC | TAL PEN |
| Total/NA | Analysis | SM 4500 F C | | 1 | 423145 | 12/13/18 15:16 | BAB | TAL PEN |
| Total/NA | Analysis | SM 4500 SO4 E | | 1 | 423149 | 12/13/18 15:52 | RRC | TAL PEN |
| Total/NA | Analysis | Field Sampling | | 1 | 421895 | 11/29/18 11:45 | CDH | TAL PEN |

Client Sample ID: MW-U1-20181129

Lab Sample ID: 400-162846-5

Date Collected: 11/29/18 14:45

Matrix: Water

Date Received: 12/01/18 09:09

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-------------------|------------|----------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total Recoverable | Prep | 3005A | | | 422678 | 12/11/18 09:41 | DRE | TAL PEN |
| Total Recoverable | Analysis | 6020 | | 5 | 422857 | 12/11/18 22:38 | DRE | TAL PEN |
| Total Recoverable | Prep | 3005A | RA | | 422678 | 12/11/18 09:41 | DRE | TAL PEN |
| Total Recoverable | Analysis | 6020 | RA | 5 | 423052 | 12/12/18 14:48 | DRE | TAL PEN |
| Total/NA | Analysis | SM 2540C | | 1 | 421701 | 12/03/18 10:50 | CLB | TAL PEN |
| Total/NA | Analysis | SM 4500 Cl- E | | 1 | 423230 | 12/13/18 18:01 | RRC | TAL PEN |
| Total/NA | Analysis | SM 4500 F C | | 1 | 423145 | 12/13/18 15:23 | BAB | TAL PEN |
| Total/NA | Analysis | SM 4500 SO4 E | | 1 | 423149 | 12/13/18 15:53 | RRC | TAL PEN |
| Total/NA | Analysis | Field Sampling | | 1 | 421895 | 11/29/18 13:45 | CDH | TAL PEN |

Laboratory References:

TAL PEN = 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

TestAmerica Job ID: 400-162846-1

Metals

Prep Batch: 422678

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|-------------------------|------------------------|-------------------|--------|--------|------------|
| 400-162846-1 | DUP-11-20181129 | Total Recoverable | Water | 3005A | |
| 400-162846-1 - RA | DUP-11-20181129 | Total Recoverable | Water | 3005A | |
| 400-162846-1 - DL | DUP-11-20181129 | Total Recoverable | Water | 3005A | |
| 400-162846-2 - RA | MW-D2-20181129 | Total Recoverable | Water | 3005A | |
| 400-162846-2 | MW-D2-20181129 | Total Recoverable | Water | 3005A | |
| 400-162846-2 - DL | MW-D2-20181129 | Total Recoverable | Water | 3005A | |
| 400-162846-3 - RA | MW-D3-20181129 | Total Recoverable | Water | 3005A | |
| 400-162846-3 | MW-D3-20181129 | Total Recoverable | Water | 3005A | |
| 400-162846-4 - RA | MW-D1-20181129 | Total Recoverable | Water | 3005A | |
| 400-162846-4 | MW-D1-20181129 | Total Recoverable | Water | 3005A | |
| 400-162846-5 | MW-U1-20181129 | Total Recoverable | Water | 3005A | |
| 400-162846-5 - RA | MW-U1-20181129 | Total Recoverable | Water | 3005A | |
| MB 400-422678/1-A ^5 | Method Blank | Total Recoverable | Water | 3005A | |
| LCS 400-422678/2-A | Lab Control Sample | Total Recoverable | Water | 3005A | |
| 400-162766-A-1-B MS ^5 | Matrix Spike | Total Recoverable | Water | 3005A | |
| 400-162766-A-1-C MSD ^5 | Matrix Spike Duplicate | Total Recoverable | Water | 3005A | |

Analysis Batch: 422857

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|-------------------------|------------------------|-------------------|--------|--------|------------|
| 400-162846-1 | DUP-11-20181129 | Total Recoverable | Water | 6020 | 422678 |
| 400-162846-2 | MW-D2-20181129 | Total Recoverable | Water | 6020 | 422678 |
| 400-162846-3 | MW-D3-20181129 | Total Recoverable | Water | 6020 | 422678 |
| 400-162846-4 | MW-D1-20181129 | Total Recoverable | Water | 6020 | 422678 |
| 400-162846-5 | MW-U1-20181129 | Total Recoverable | Water | 6020 | 422678 |
| MB 400-422678/1-A ^5 | Method Blank | Total Recoverable | Water | 6020 | 422678 |
| LCS 400-422678/2-A | Lab Control Sample | Total Recoverable | Water | 6020 | 422678 |
| 400-162766-A-1-B MS ^5 | Matrix Spike | Total Recoverable | Water | 6020 | 422678 |
| 400-162766-A-1-C MSD ^5 | Matrix Spike Duplicate | Total Recoverable | Water | 6020 | 422678 |

Analysis Batch: 423052

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|-------------------|------------------|-------------------|--------|--------|------------|
| 400-162846-1 - RA | DUP-11-20181129 | Total Recoverable | Water | 6020 | 422678 |
| 400-162846-1 - DL | DUP-11-20181129 | Total Recoverable | Water | 6020 | 422678 |
| 400-162846-2 - RA | MW-D2-20181129 | Total Recoverable | Water | 6020 | 422678 |
| 400-162846-2 - DL | MW-D2-20181129 | Total Recoverable | Water | 6020 | 422678 |
| 400-162846-3 - RA | MW-D3-20181129 | Total Recoverable | Water | 6020 | 422678 |
| 400-162846-4 - RA | MW-D1-20181129 | Total Recoverable | Water | 6020 | 422678 |
| 400-162846-5 - RA | MW-U1-20181129 | Total Recoverable | Water | 6020 | 422678 |

General Chemistry

Analysis Batch: 421701

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|------------------|--------------------|-----------|--------|----------|------------|
| 400-162846-1 | DUP-11-20181129 | Total/NA | Water | SM 2540C | |
| 400-162846-2 | MW-D2-20181129 | Total/NA | Water | SM 2540C | |
| 400-162846-3 | MW-D3-20181129 | Total/NA | Water | SM 2540C | |
| 400-162846-4 | MW-D1-20181129 | Total/NA | Water | SM 2540C | |
| 400-162846-5 | MW-U1-20181129 | Total/NA | Water | SM 2540C | |
| MB 400-421701/1 | Method Blank | Total/NA | Water | SM 2540C | |
| LCS 400-421701/2 | Lab Control Sample | Total/NA | Water | SM 2540C | |

TestAmerica Pensacola

QC Association Summary

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

TestAmerica Job ID: 400-162846-1

General Chemistry (Continued)

Analysis Batch: 421701 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|-----------------|------------------|-----------|--------|----------|------------|
| 400-162846-5 DU | MW-U1-20181129 | Total/NA | Water | SM 2540C | |

Analysis Batch: 423145

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|------------------------|-----------|--------|-------------|------------|
| 400-162846-1 | DUP-11-20181129 | Total/NA | Water | SM 4500 F C | |
| 400-162846-2 | MW-D2-20181129 | Total/NA | Water | SM 4500 F C | |
| 400-162846-3 | MW-D3-20181129 | Total/NA | Water | SM 4500 F C | |
| 400-162846-4 | MW-D1-20181129 | Total/NA | Water | SM 4500 F C | |
| 400-162846-5 | MW-U1-20181129 | Total/NA | Water | SM 4500 F C | |
| MB 400-423145/2 | Method Blank | Total/NA | Water | SM 4500 F C | |
| LCS 400-423145/3 | Lab Control Sample | Total/NA | Water | SM 4500 F C | |
| 400-162856-A-16 MS | Matrix Spike | Total/NA | Water | SM 4500 F C | |
| 400-162856-A-16 MSD | Matrix Spike Duplicate | Total/NA | Water | SM 4500 F C | |
| 400-162846-4 DU | MW-D1-20181129 | Total/NA | Water | SM 4500 F C | |

Analysis Batch: 423149

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|--------------------|------------------------|-----------|--------|---------------|------------|
| 400-162846-1 | DUP-11-20181129 | Total/NA | Water | SM 4500 SO4 E | |
| 400-162846-2 | MW-D2-20181129 | Total/NA | Water | SM 4500 SO4 E | |
| 400-162846-3 | MW-D3-20181129 | Total/NA | Water | SM 4500 SO4 E | |
| 400-162846-4 | MW-D1-20181129 | Total/NA | Water | SM 4500 SO4 E | |
| 400-162846-5 | MW-U1-20181129 | Total/NA | Water | SM 4500 SO4 E | |
| MB 400-423149/6 | Method Blank | Total/NA | Water | SM 4500 SO4 E | |
| LCS 400-423149/7 | Lab Control Sample | Total/NA | Water | SM 4500 SO4 E | |
| MRL 400-423149/3 | Lab Control Sample | Total/NA | Water | SM 4500 SO4 E | |
| 400-163039-D-6 MS | Matrix Spike | Total/NA | Water | SM 4500 SO4 E | |
| 400-163039-D-6 MSD | Matrix Spike Duplicate | Total/NA | Water | SM 4500 SO4 E | |

Analysis Batch: 423230

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|--------------------|------------------------|-----------|--------|---------------|------------|
| 400-162846-1 | DUP-11-20181129 | Total/NA | Water | SM 4500 Cl- E | |
| 400-162846-2 | MW-D2-20181129 | Total/NA | Water | SM 4500 Cl- E | |
| 400-162846-3 | MW-D3-20181129 | Total/NA | Water | SM 4500 Cl- E | |
| 400-162846-4 | MW-D1-20181129 | Total/NA | Water | SM 4500 Cl- E | |
| 400-162846-5 | MW-U1-20181129 | Total/NA | Water | SM 4500 Cl- E | |
| MB 400-423230/6 | Method Blank | Total/NA | Water | SM 4500 Cl- E | |
| LCS 400-423230/41 | Lab Control Sample | Total/NA | Water | SM 4500 Cl- E | |
| MRL 400-423230/3 | Lab Control Sample | Total/NA | Water | SM 4500 Cl- E | |
| 400-163039-D-6 MS | Matrix Spike | Total/NA | Water | SM 4500 Cl- E | |
| 400-163039-D-6 MSD | Matrix Spike Duplicate | Total/NA | Water | SM 4500 Cl- E | |

Field Service / Mobile Lab

Analysis Batch: 421895

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|----------------|------------|
| 400-162846-1 | DUP-11-20181129 | Total/NA | Water | Field Sampling | |
| 400-162846-2 | MW-D2-20181129 | Total/NA | Water | Field Sampling | |
| 400-162846-3 | MW-D3-20181129 | Total/NA | Water | Field Sampling | |
| 400-162846-4 | MW-D1-20181129 | Total/NA | Water | Field Sampling | |
| 400-162846-5 | MW-U1-20181129 | Total/NA | Water | Field Sampling | |

TestAmerica Pensacola

QC Sample Results

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

TestAmerica Job ID: 400-162846-1

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-422678/1-A ^5
Matrix: Water
Analysis Batch: 422857

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 422678

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|------------|-----------|--------------|---------|----------|------|---|----------------|----------------|---------|
| Arsenic | ND | | 0.0013 | 0.00046 | mg/L | | 12/11/18 09:41 | 12/11/18 21:05 | 5 |
| Barium | ND | | 0.0025 | 0.00049 | mg/L | | 12/11/18 09:41 | 12/11/18 21:05 | 5 |
| Boron | ND | | 0.050 | 0.021 | mg/L | | 12/11/18 09:41 | 12/11/18 21:05 | 5 |
| Calcium | ND | | 0.25 | 0.13 | mg/L | | 12/11/18 09:41 | 12/11/18 21:05 | 5 |
| Cobalt | ND | | 0.0025 | 0.00040 | mg/L | | 12/11/18 09:41 | 12/11/18 21:05 | 5 |
| Molybdenum | ND | | 0.010 | 0.0020 | mg/L | | 12/11/18 09:41 | 12/11/18 21:05 | 5 |
| Selenium | ND | | 0.0013 | 0.00071 | mg/L | | 12/11/18 09:41 | 12/11/18 21:05 | 5 |
| Thallium | ND | | 0.00050 | 0.000085 | mg/L | | 12/11/18 09:41 | 12/11/18 21:05 | 5 |

Lab Sample ID: LCS 400-422678/2-A
Matrix: Water
Analysis Batch: 422857

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 422678

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | Limits |
|------------|-------------|------------|---------------|------|---|------|----------|
| Arsenic | 0.0500 | 0.0453 | | mg/L | | 91 | 80 - 120 |
| Barium | 0.0500 | 0.0454 | | mg/L | | 91 | 80 - 120 |
| Boron | 0.100 | 0.101 | | mg/L | | 101 | 80 - 120 |
| Calcium | 5.00 | 4.92 | | mg/L | | 98 | 80 - 120 |
| Cobalt | 0.0500 | 0.0488 | | mg/L | | 98 | 80 - 120 |
| Molybdenum | 0.0500 | 0.0464 | | mg/L | | 93 | 80 - 120 |
| Selenium | 0.0500 | 0.0474 | | mg/L | | 95 | 80 - 120 |
| Thallium | 0.0100 | 0.00933 | | mg/L | | 93 | 80 - 120 |

Lab Sample ID: 400-162766-A-1-B MS ^5
Matrix: Water
Analysis Batch: 422857

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 422678

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | Limits |
|------------|---------------|------------------|-------------|-----------|--------------|------|---|------|----------|
| Arsenic | 0.041 | | 0.0500 | 0.0898 | | mg/L | | 98 | 75 - 125 |
| Barium | 0.25 | | 0.0500 | 0.300 | 4 | mg/L | | 107 | 75 - 125 |
| Boron | 0.043 | J | 0.100 | 0.155 | ^ | mg/L | | 112 | 75 - 125 |
| Calcium | 150 | E | 5.00 | 156 | E 4 | mg/L | | 87 | 75 - 125 |
| Cobalt | ND | | 0.0500 | 0.0493 | | mg/L | | 99 | 75 - 125 |
| Molybdenum | 0.0066 | J | 0.0500 | 0.0564 | | mg/L | | 100 | 75 - 125 |
| Selenium | 0.0017 | | 0.0500 | 0.0491 | | mg/L | | 95 | 75 - 125 |
| Thallium | ND | | 0.0100 | 0.00951 | | mg/L | | 95 | 75 - 125 |

Lab Sample ID: 400-162766-A-1-C MSD ^5
Matrix: Water
Analysis Batch: 422857

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 422678

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | Limits | RPD | Limit |
|------------|---------------|------------------|-------------|------------|---------------|------|---|------|----------|-----|-------|
| Arsenic | 0.041 | | 0.0500 | 0.0906 | | mg/L | | 99 | 75 - 125 | 1 | 20 |
| Barium | 0.25 | | 0.0500 | 0.304 | 4 | mg/L | | 116 | 75 - 125 | 2 | 20 |
| Boron | 0.043 | J | 0.100 | 0.159 | ^ | mg/L | | 116 | 75 - 125 | 2 | 20 |
| Calcium | 150 | E | 5.00 | 157 | E 4 | mg/L | | 96 | 75 - 125 | 0 | 20 |
| Cobalt | ND | | 0.0500 | 0.0498 | | mg/L | | 100 | 75 - 125 | 1 | 20 |
| Molybdenum | 0.0066 | J | 0.0500 | 0.0555 | | mg/L | | 98 | 75 - 125 | 2 | 20 |
| Selenium | 0.0017 | | 0.0500 | 0.0489 | | mg/L | | 94 | 75 - 125 | 0 | 20 |

TestAmerica Pensacola

QC Sample Results

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

TestAmerica Job ID: 400-162846-1

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

Lab Sample ID: 400-162766-A-1-C MSD ^5
 Matrix: Water
 Analysis Batch: 422857

Client Sample ID: Matrix Spike Duplicate
 Prep Type: Total Recoverable
 Prep Batch: 422678

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|----------|---------------|------------------|-------------|------------|---------------|------|---|------|--------------|-----|-----------|
| Thallium | ND | | 0.0100 | 0.00966 | | mg/L | | 97 | 75 - 125 | 2 | 20 |

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

Lab Sample ID: MB 400-421701/1
 Matrix: Water
 Analysis Batch: 421701

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 | 3.4 | mg/L | | | 12/03/18 10:50 | 1 |

Lab Sample ID: LCS 400-421701/2
 Matrix: Water
 Analysis Batch: 421701

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 | 238 | | mg/L | | 81 | 78 - 122 |

Lab Sample ID: 400-162846-5 DU
 Matrix: Water
 Analysis Batch: 421701

Client Sample ID: MW-U1-20181129
 Prep Type: Total/NA

| Analyte | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit | D | RPD | RPD Limit |
|------------------------|---------------|------------------|-----------|--------------|------|---|-----|-----------|
| Total Dissolved Solids | 66 | | 66.0 | | mg/L | | 0 | 5 |

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 400-423230/6
 Matrix: Water
 Analysis Batch: 423230

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 | | | 12/13/18 17:58 | 1 |

Lab Sample ID: LCS 400-423230/41
 Matrix: Water
 Analysis Batch: 423230

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 | 31.3 | | mg/L | | 104 | 90 - 110 |

Lab Sample ID: MRL 400-423230/3
 Matrix: Water
 Analysis Batch: 423230

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 | 1.46 | J | mg/L | | 73 | 50 - 150 |

TestAmerica Pensacola

QC Sample Results

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

TestAmerica Job ID: 400-162846-1

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

Lab Sample ID: 400-163039-D-6 MS
Matrix: Water
Analysis Batch: 423230

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 | 15 | F1 | 10.0 | 14.7 | F1 | mg/L | | -5 | 73 - 120 |

Lab Sample ID: 400-163039-D-6 MSD
Matrix: Water
Analysis Batch: 423230

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 | 15 | F1 | 10.0 | 14.8 | F1 | mg/L | | -5 | 73 - 120 | 0 | 8 |

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 400-423145/2
Matrix: Water
Analysis Batch: 423145

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 | | | 12/13/18 14:30 | 1 |

Lab Sample ID: LCS 400-423145/3
Matrix: Water
Analysis Batch: 423145

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 | 3.84 | | mg/L | | 96 | 90 - 110 |

Lab Sample ID: 400-162856-A-16 MS
Matrix: Water
Analysis Batch: 423145

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 | 0.050 | J | 1.00 | 1.08 | | mg/L | | 103 | 75 - 125 |

Lab Sample ID: 400-162856-A-16 MSD
Matrix: Water
Analysis Batch: 423145

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 | 0.050 | J | 1.00 | 1.08 | | mg/L | | 103 | 75 - 125 | 0 | 4 |

Lab Sample ID: 400-162846-4 DU
Matrix: Water
Analysis Batch: 423145

Client Sample ID: MW-D1-20181129
Prep Type: Total/NA

| Analyte | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit | D | RPD | RPD Limit |
|----------|---------------|------------------|-----------|--------------|------|---|-----|-----------|
| Fluoride | 0.040 | J | 0.0500 | J F5 | mg/L | | 22 | 4 |

TestAmerica Pensacola

QC Sample Results

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

TestAmerica Job ID: 400-162846-1

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: MB 400-423149/6
Matrix: Water
Analysis Batch: 423149

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 | | | 12/13/18 15:46 | 1 |

Lab Sample ID: LCS 400-423149/7
Matrix: Water
Analysis Batch: 423149

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 | 14.5 | | mg/L | | 97 | 90 - 110 |

Lab Sample ID: MRL 400-423149/3
Matrix: Water
Analysis Batch: 423149

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 | 3.89 | J | mg/L | | 78 | 50 - 150 |

Lab Sample ID: 400-163039-D-6 MS
Matrix: Water
Analysis Batch: 423149

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 |
|---------|---------------|------------------|-------------|-----------|--------------|------|---|------|--------------|
| Sulfate | ND | | 10.0 | 9.98 | | mg/L | | 100 | 77 - 128 |

Lab Sample ID: 400-163039-D-6 MSD
Matrix: Water
Analysis Batch: 423149

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 |
|---------|---------------|------------------|-------------|------------|---------------|------|---|------|--------------|-----|-----------|
| Sulfate | ND | | 10.0 | 9.91 | | mg/L | | 99 | 77 - 128 | 1 | 5 |

Chain of Custody Record

| | | | | | | | | | |
|--|--|--|--|--|--|---|--|--|--|
| Client Information | | Sampler: STEPHEN W. RANDALL | | Lab PM: Whitmire, Chyenne R. | | Carrier Tracking No(s): | | COC No: 400-78620-29334 1 | |
| Client Contact: Jeremy Gasser | | Phone: 470-320-6181 | | E-Mail: chyenne.whitmire@testamerica.com | | Page 1 of 1 | | Page 1 of 1 | |
| Company: Geosyntec Consultants, Inc | | Address: 1255 Roberts Blvd, NW Suite 200 | | City: Kennesaw | | State: GA | | Zip: 30144 | |
| Phone: 678-202-9583(Tel) | | Email: igasser@geosyntec.com | | Project Name: CCR App III/IV GW Monitoring | | Site: 40007960 | | SSOW#: | |
| Due Date Requested: | | TAT Requested (days): | | Purchase Order not required | | WO #: | | Project #: | |
| STANDARD | | PO #: | | Purchase Order not required | | WO #: | | Project #: | |
| Analysis Requested | | 6020 - Se, Ba, Be, B, Bi, Br, Cd, Ca, Cr, Co, Pb, Hg, Mo, Se, Ti, Zn, UO4-Hg | | 6020 - Se, Ba, Be, B, Bi, Br, Cd, Ca, Cr, Co, Pb, Hg, Mo, Se, Ti, Zn, UO4-Hg | | 6020 - Se, Ba, Be, B, Bi, Br, Cd, Ca, Cr, Co, Pb, Hg, Mo, Se, Ti, Zn, UO4-Hg | | 6020 - Se, Ba, Be, B, Bi, Br, Cd, Ca, Cr, Co, Pb, Hg, Mo, Se, Ti, Zn, UO4-Hg | |
| Field Filtered Sample (Yes or No) | | Perform MS/MSD (Yes or No) | | 9316, Ra226, 9320, Ra228, Ra228Ra228, GFC - Radium | | 84500, Cl, E, Chloride, S4500, SO4, F, Sulfate, 4500, F, C - Fluoride, 2540C - Total Dissolved Solids | | 4500, F, C - Fluoride, 2540C - Total Dissolved Solids | |
| Sample Identification | | Sample Date | | Sample Time | | Sample Type (C=Comp, G=grab) | | Matrix (W=water, S=solid, O=waste/oil, BT=tissue, A=air) | |
| DUP-11-20181129 | | 11/29/18 | | 0800 | | G | | Water | |
| MW-D2-20181129 | | 11/29/18 | | 0945 | | G | | Water | |
| MW-D3-20181129 | | 11/29/18 | | 1115 | | G | | Water | |
| MW-D1-20181129 | | 11/29/18 | | 1245 | | G | | Water | |
| MW-U1-20181129 | | 11/29/18 | | 1445 | | G | | Water | |
| LAST ITEM | | | | | | | | | |
| Possible Hazard Identification | | Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological <input type="checkbox"/> | | LEVEL II | | Empty Kit Relinquished by: | | Date: 11/30/18 1730 | |
| Deliverable Requested: I, II, III, IV, Other (specify) | | Relinquished by: Stephen W. Randall | | Date/Time: 11/30/18 1730 | | Company: Company | | Method of Shipment: Company | |
| Relinquished by: | | Date/Time: | | Company: | | Method of Shipment: | | Cooler Temperature(s) °C and Other Remarks: 1.622907 | |
| Custody Seals Intact: Δ Yes Δ No | | Custody Seal No.: | | Date/Time: | | Company: | | Cooler Temperature(s) °C and Other Remarks: | |



Login Sample Receipt Checklist

Client: Geosyntec Consultants, Inc.

Job Number: 400-162846-1

Login Number: 162846

List Source: TestAmerica Pensacola

List Number: 1

Creator: Johnson, Jeremy N

| 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. | N/A | Not present |
| 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 | 1.6°C, 18.5°C-RADS 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

TestAmerica Job ID: 400-162846-1

Laboratory: TestAmerica Pensacola

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

| Authority | Program | EPA Region | Identification Number | Expiration Date |
|------------------------|---------------|------------|-----------------------|-----------------|
| Alabama | State Program | 4 | 40150 | 06-30-19 |
| ANAB | ISO/IEC 17025 | | L2471 | 02-22-20 |
| Arizona | State Program | 9 | AZ0710 | 01-12-20 |
| Arkansas DEQ | State Program | 6 | 88-0689 | 09-01-19 |
| California | State Program | 9 | 2510 | 06-30-19 |
| Florida | NELAP | 4 | E81010 | 06-30-19 |
| Georgia | State Program | 4 | E81010 (FL) | 06-30-19 |
| Illinois | NELAP | 5 | 200041 | 10-09-19 |
| Iowa | State Program | 7 | 367 | 08-01-20 |
| Kansas | NELAP | 7 | E-10253 | 12-31-18 |
| Kentucky (UST) | State Program | 4 | 53 | 06-30-19 |
| Kentucky (WW) | State Program | 4 | 98030 | 12-31-18 |
| Louisiana | NELAP | 6 | 30976 | 06-30-19 |
| Louisiana (DW) | NELAP | 6 | LA180023 | 12-31-18 |
| Maryland | State Program | 3 | 233 | 09-30-19 |
| Massachusetts | State Program | 1 | M-FL094 | 06-30-19 |
| Michigan | State Program | 5 | 9912 | 06-30-19 |
| New Jersey | NELAP | 2 | FL006 | 06-30-19 |
| North Carolina (WW/SW) | State Program | 4 | 314 | 12-31-19 |
| Oklahoma | State Program | 6 | 9810 | 08-31-19 |
| Pennsylvania | NELAP | 3 | 68-00467 | 01-31-19 |
| Rhode Island | State Program | 1 | LAO00307 | 12-30-18 |
| South Carolina | State Program | 4 | 96026 | 06-30-19 |
| Tennessee | State Program | 4 | TN02907 | 06-30-19 |
| Texas | NELAP | 6 | T104704286-18-15 | 09-30-19 |
| US Fish & Wildlife | Federal | | LE058448-0 | 07-31-19 |
| USDA | Federal | | P330-18-00148 | 05-17-21 |
| Virginia | NELAP | 3 | 460166 | 06-14-19 |
| Washington | State Program | 10 | C915 | 05-15-19 |
| West Virginia DEP | State Program | 3 | 136 | 06-30-19 |

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-162846-3

Client Project/Site: CCR App.III/IV GW Monitoring

For:

Geosyntec Consultants, Inc.

1255 Roberts Blvd, NW

Suite 200

Kennesaw, Georgia 30144

Attn: Jeremy Gasser



Authorized for release by:

1/3/2019 4:33:38 PM

Carolyn Hooper, Project Manager I

(850)471-6226

carolyn.hooper@testamericainc.com

Designee for

Cheyenne Whitmire, Project Manager II

(850)471-6222

cheyenne.whitmire@testamericainc.com

LINKS

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results through

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Visit us at:

www.testamericainc.com

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.

1

2

3

4

5

6

7

8

9

10

11

12

13

14



Table of Contents

| | |
|---------------------------------|----|
| Cover Page | 1 |
| Table of Contents | 2 |
| Case Narrative | 3 |
| Detection Summary | 4 |
| Method Summary | 5 |
| Sample Summary | 6 |
| Client Sample Results | 7 |
| Definitions | 12 |
| Chronicle | 13 |
| QC Association | 14 |
| QC Sample Results | 15 |
| Chain of Custody | 16 |
| Receipt Checklists | 17 |
| Certification Summary | 18 |

Case Narrative

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

TestAmerica Job ID: 400-162846-3

Job ID: 400-162846-3

Laboratory: TestAmerica Pensacola

Narrative

**Job Narrative
400-162846-3**

Comments

Per client request chromium and lithium have been reported for the following samples under separate report.
DUP-11-20181129 (400-162846-1), MW-D2-20181129 (400-162846-2), MW-D3-20181129 (400-162846-3), MW-D1-20181129 (400-162846-4) and MW-U1-20181129 (400-162846-5).

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

Detection Summary

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

TestAmerica Job ID: 400-162846-3

Client Sample ID: DUP-11-20181129

Lab Sample ID: 400-162846-1

No Detections.

Client Sample ID: MW-D2-20181129

Lab Sample ID: 400-162846-2

No Detections.

Client Sample ID: MW-D3-20181129

Lab Sample ID: 400-162846-3

No Detections.

Client Sample ID: MW-D1-20181129

Lab Sample ID: 400-162846-4

No Detections.

Client Sample ID: MW-U1-20181129

Lab Sample ID: 400-162846-5

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|----------|--------|-----------|--------|--------|------|---------|---|--------|-------------------|
| Chromium | 0.0012 | J | 0.0025 | 0.0011 | mg/L | 5 | | 6020 | Total Recoverable |

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Method Summary

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

TestAmerica Job ID: 400-162846-3

| Method | Method Description | Protocol | Laboratory |
|--------|--|----------|------------|
| 6020 | Metals (ICP/MS) | SW846 | TAL PEN |
| 3005A | Preparation, Total Recoverable or Dissolved Metals | SW846 | TAL PEN |

Protocol References:

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

Laboratory References:

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

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Sample Summary

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

TestAmerica Job ID: 400-162846-3

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---------------|------------------|--------|----------------|----------------|
| 400-162846-1 | DUP-11-20181129 | Water | 11/29/18 08:00 | 12/01/18 09:09 |
| 400-162846-2 | MW-D2-20181129 | Water | 11/29/18 09:45 | 12/01/18 09:09 |
| 400-162846-3 | MW-D3-20181129 | Water | 11/29/18 11:15 | 12/01/18 09:09 |
| 400-162846-4 | MW-D1-20181129 | Water | 11/29/18 12:45 | 12/01/18 09:09 |
| 400-162846-5 | MW-U1-20181129 | Water | 11/29/18 14:45 | 12/01/18 09:09 |

- 1
- 2
- 3
- 4
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- 6
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- 9
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- 11
- 12
- 13
- 14

Client Sample Results

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

TestAmerica Job ID: 400-162846-3

Client Sample ID: DUP-11-20181129

Lab Sample ID: 400-162846-1

Date Collected: 11/29/18 08:00

Matrix: Water

Date Received: 12/01/18 09:09

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|----------|--------|-----------|--------|--------|------|---|----------------|----------------|---------|
| Chromium | ND | | 0.0025 | 0.0011 | mg/L | | 12/11/18 09:41 | 12/11/18 22:06 | 5 |
| Lithium | ND | | 0.0025 | 0.0011 | mg/L | | 12/11/18 09:41 | 12/11/18 22:06 | 5 |

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Client Sample Results

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

TestAmerica Job ID: 400-162846-3

Client Sample ID: MW-D2-20181129

Lab Sample ID: 400-162846-2

Date Collected: 11/29/18 09:45

Matrix: Water

Date Received: 12/01/18 09:09

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|----------|--------|-----------|--------|--------|------|---|----------------|----------------|---------|
| Chromium | ND | | 0.0025 | 0.0011 | mg/L | | 12/11/18 09:41 | 12/11/18 22:10 | 5 |
| Lithium | ND | | 0.0025 | 0.0011 | mg/L | | 12/11/18 09:41 | 12/11/18 22:10 | 5 |

- 1
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- 12
- 13
- 14

Client Sample Results

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

TestAmerica Job ID: 400-162846-3

Client Sample ID: MW-D3-20181129

Lab Sample ID: 400-162846-3

Date Collected: 11/29/18 11:15

Matrix: Water

Date Received: 12/01/18 09:09

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|----------|--------|-----------|--------|--------|------|---|----------------|----------------|---------|
| Chromium | ND | | 0.0025 | 0.0011 | mg/L | | 12/11/18 09:41 | 12/11/18 22:31 | 5 |
| Lithium | ND | | 0.0025 | 0.0011 | mg/L | | 12/11/18 09:41 | 12/11/18 22:31 | 5 |

- 1
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- 13
- 14

Client Sample Results

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

TestAmerica Job ID: 400-162846-3

Client Sample ID: MW-D1-20181129

Lab Sample ID: 400-162846-4

Date Collected: 11/29/18 12:45

Matrix: Water

Date Received: 12/01/18 09:09

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|----------|--------|-----------|--------|--------|------|---|----------------|----------------|---------|
| Chromium | ND | | 0.0025 | 0.0011 | mg/L | | 12/11/18 09:41 | 12/11/18 22:35 | 5 |
| Lithium | ND | | 0.0025 | 0.0011 | mg/L | | 12/11/18 09:41 | 12/11/18 22:35 | 5 |

- 1
- 2
- 3
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- 7
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- 9
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- 11
- 12
- 13
- 14

Client Sample Results

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

TestAmerica Job ID: 400-162846-3

Client Sample ID: MW-U1-20181129

Lab Sample ID: 400-162846-5

Date Collected: 11/29/18 14:45

Matrix: Water

Date Received: 12/01/18 09:09

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|----------|--------|-----------|--------|--------|------|---|----------------|----------------|---------|
| Chromium | 0.0012 | J | 0.0025 | 0.0011 | mg/L | | 12/11/18 09:41 | 12/11/18 22:38 | 5 |
| Lithium | ND | | 0.0025 | 0.0011 | mg/L | | 12/11/18 09:41 | 12/11/18 22:38 | 5 |

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

Definitions/Glossary

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

TestAmerica Job ID: 400-162846-3

Qualifiers

Metals

| Qualifier | Qualifier Description |
|-----------|--|
| 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. |
|----------------|---|
| ▫ | 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) |
| 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

TestAmerica Job ID: 400-162846-3

Client Sample ID: DUP-11-20181129

Date Collected: 11/29/18 08:00

Date Received: 12/01/18 09:09

Lab Sample ID: 400-162846-1

Matrix: Water

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-------------------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total Recoverable | Prep | 3005A | | | 422678 | 12/11/18 09:41 | DRE | TAL PEN |
| Total Recoverable | Analysis | 6020 | | 5 | 422857 | 12/11/18 22:06 | DRE | TAL PEN |

Client Sample ID: MW-D2-20181129

Date Collected: 11/29/18 09:45

Date Received: 12/01/18 09:09

Lab Sample ID: 400-162846-2

Matrix: Water

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-------------------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total Recoverable | Prep | 3005A | | | 422678 | 12/11/18 09:41 | DRE | TAL PEN |
| Total Recoverable | Analysis | 6020 | | 5 | 422857 | 12/11/18 22:10 | DRE | TAL PEN |

Client Sample ID: MW-D3-20181129

Date Collected: 11/29/18 11:15

Date Received: 12/01/18 09:09

Lab Sample ID: 400-162846-3

Matrix: Water

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-------------------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total Recoverable | Prep | 3005A | | | 422678 | 12/11/18 09:41 | DRE | TAL PEN |
| Total Recoverable | Analysis | 6020 | | 5 | 422857 | 12/11/18 22:31 | DRE | TAL PEN |

Client Sample ID: MW-D1-20181129

Date Collected: 11/29/18 12:45

Date Received: 12/01/18 09:09

Lab Sample ID: 400-162846-4

Matrix: Water

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-------------------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total Recoverable | Prep | 3005A | | | 422678 | 12/11/18 09:41 | DRE | TAL PEN |
| Total Recoverable | Analysis | 6020 | | 5 | 422857 | 12/11/18 22:35 | DRE | TAL PEN |

Client Sample ID: MW-U1-20181129

Date Collected: 11/29/18 14:45

Date Received: 12/01/18 09:09

Lab Sample ID: 400-162846-5

Matrix: Water

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-------------------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total Recoverable | Prep | 3005A | | | 422678 | 12/11/18 09:41 | DRE | TAL PEN |
| Total Recoverable | Analysis | 6020 | | 5 | 422857 | 12/11/18 22:38 | DRE | TAL PEN |

Laboratory References:

TAL PEN = 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

TestAmerica Job ID: 400-162846-3

Metals

Prep Batch: 422678

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|-------------------------|------------------------|-------------------|--------|--------|------------|
| 400-162846-1 | DUP-11-20181129 | Total Recoverable | Water | 3005A | |
| 400-162846-2 | MW-D2-20181129 | Total Recoverable | Water | 3005A | |
| 400-162846-3 | MW-D3-20181129 | Total Recoverable | Water | 3005A | |
| 400-162846-4 | MW-D1-20181129 | Total Recoverable | Water | 3005A | |
| 400-162846-5 | MW-U1-20181129 | Total Recoverable | Water | 3005A | |
| MB 400-422678/1-A ^5 | Method Blank | Total Recoverable | Water | 3005A | |
| LCS 400-422678/2-A | Lab Control Sample | Total Recoverable | Water | 3005A | |
| 400-162766-A-1-B MS ^5 | Matrix Spike | Total Recoverable | Water | 3005A | |
| 400-162766-A-1-C MSD ^5 | Matrix Spike Duplicate | Total Recoverable | Water | 3005A | |

Analysis Batch: 422857

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|-------------------------|------------------------|-------------------|--------|--------|------------|
| 400-162846-1 | DUP-11-20181129 | Total Recoverable | Water | 6020 | 422678 |
| 400-162846-2 | MW-D2-20181129 | Total Recoverable | Water | 6020 | 422678 |
| 400-162846-3 | MW-D3-20181129 | Total Recoverable | Water | 6020 | 422678 |
| 400-162846-4 | MW-D1-20181129 | Total Recoverable | Water | 6020 | 422678 |
| 400-162846-5 | MW-U1-20181129 | Total Recoverable | Water | 6020 | 422678 |
| MB 400-422678/1-A ^5 | Method Blank | Total Recoverable | Water | 6020 | 422678 |
| LCS 400-422678/2-A | Lab Control Sample | Total Recoverable | Water | 6020 | 422678 |
| 400-162766-A-1-B MS ^5 | Matrix Spike | Total Recoverable | Water | 6020 | 422678 |
| 400-162766-A-1-C MSD ^5 | Matrix Spike Duplicate | Total Recoverable | Water | 6020 | 422678 |

QC Sample Results

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

TestAmerica Job ID: 400-162846-3

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-422678/1-A ^5
Matrix: Water
Analysis Batch: 422857

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 422678

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|----------|-----------|--------------|--------|--------|------|---|----------------|----------------|---------|
| Chromium | ND | | 0.0025 | 0.0011 | mg/L | | 12/11/18 09:41 | 12/11/18 21:05 | 5 |
| Lithium | ND | | 0.0025 | 0.0011 | mg/L | | 12/11/18 09:41 | 12/11/18 21:05 | 5 |

Lab Sample ID: LCS 400-422678/2-A
Matrix: Water
Analysis Batch: 422857

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 422678

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|----------|-------------|------------|---------------|------|---|------|--------------|
| Chromium | 0.0500 | 0.0469 | | mg/L | | 94 | 80 - 120 |
| Lithium | 0.0500 | 0.0495 | | mg/L | | 99 | 80 - 120 |

Lab Sample ID: 400-162766-A-1-B MS ^5
Matrix: Water
Analysis Batch: 422857

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 422678

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|----------|---------------|------------------|-------------|-----------|--------------|------|---|------|--------------|
| Chromium | ND | | 0.0500 | 0.0478 | | mg/L | | 96 | 75 - 125 |
| Lithium | 0.026 | | 0.0500 | 0.0793 | | mg/L | | 106 | 75 - 125 |

Lab Sample ID: 400-162766-A-1-C MSD ^5
Matrix: Water
Analysis Batch: 422857

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 422678

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|----------|---------------|------------------|-------------|------------|---------------|------|---|------|--------------|-----|-----------|
| Chromium | ND | | 0.0500 | 0.0484 | | mg/L | | 97 | 75 - 125 | 1 | 20 |
| Lithium | 0.026 | | 0.0500 | 0.0801 | | mg/L | | 108 | 75 - 125 | 1 | 20 |

Chain of Custody Record

Client Information
 Client Contact: Jeremy Gasser
 Company: Geosyntec Consultants, Inc.
 Address: 1255 Roberts Blvd, NW Suite 200
 City: Kennesaw
 State: GA, Zip: 30144
 Phone: 678-202-9583(Tel)
 Email: igasser@geosyntec.com
 Project Name: CCR App III/IV GW Monitoring
 Site: 40007960

Sampler: STEPHEN W. RANDALL
 Lab PM: Whitmire, Chyenne R.
 E-Mail: chyenne.whitmire@testamericainc.com
 Phone: 470-320-6181

Due Date Requested: STANDARD
 TAT Requested (days):
 PO #: Purchase Order not required
 WO #:
 Project #: 40007960
 SOW #:

Sample Identification

| Sample ID | Sample Date | Sample Time | Sample Type (C=Comp, G=grab) | Matrix (W=water, S=solid, O=waste/oil, BT=tissue, A=air) | Field Filtered Sample (Yes or No) | Perform MS/MSD (Yes or No) | 9316, Ra226, 9320, Ra228, Ra226Ra228, GFC, Radium | 6M4500, Cl, E, Chloride, SM4500, SO4, F, Sulfate, 4500, F, C - Fluoride, 2540C - Total Dissolved Solids | Field Sampling Field # (SR) | 6020, As, Ba, Be, B, Br, Cd, Ca, Cr, Co, Pb, Hg, Mo, Se, Ti, Zn, Cu, Ni, Hg |
|-----------------|-------------|-------------|------------------------------|--|-----------------------------------|----------------------------|---|---|-----------------------------|---|
| DUP-11-20181129 | 11/29/18 | 0800 | G | Water | N | N | | | | |
| MW-D2-20181129 | 11/29/18 | 0945 | G | Water | N | N | | | | |
| MW-D3-20181129 | 11/29/18 | 1115 | G | Water | N | N | | | | |
| MW-D1-20181129 | 11/29/18 | 1245 | G | Water | N | N | | | | |
| MW-U1-20181129 | 11/29/18 | 1445 | G | Water | N | N | | | | |
| LAST ITEM | | | | | | | | | | |

Special Instructions/Note:
 PH: 6.55
 PH: 6.60
 PH: 6.80
 PH: 6.33
 PH: 7.72

Analysis Requested
 Total Number of Containers: 400-162846 COC

Preservation Codes:
 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:
 M - Hexane
 N - None
 O - AshNaO2
 P - Na2O4S
 Q - Na2SO3
 R - Na2SO4
 S - H2SO4
 T - TSP Dodecylaldehyde
 U - Acetone
 V - MCAA
 W - PH 4-5
 X - other (specify)

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

Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological

Deliverable Requested: I, II, III, IV, Other (specify) **LEVEL II**

Empty Kit Relinquished by: Stephen W. Randall
 Date: 11/30/18 Time: 1730
 Relinquished by: [Signature]
 Relinquished by: [Signature]
 Relinquished by: [Signature]

Received by: [Signature]
 Date/Time: 12/11/18 1904
 Company: [Signature]
 Date/Time: [Signature]
 Company: [Signature]
 Date/Time: [Signature]
 Company: [Signature]

Custody Seal No.: 1622907
 Cooler Temperature(s) °C and Other Remarks: Ver 08/04/2016



Login Sample Receipt Checklist

Client: Geosyntec Consultants, Inc.

Job Number: 400-162846-3

Login Number: 162846

List Source: TestAmerica Pensacola

List Number: 1

Creator: Johnson, Jeremy N

| 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. | N/A | Not present |
| 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 | 1.6°C, 18.5°C-RADS 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

TestAmerica Job ID: 400-162846-3

Laboratory: TestAmerica Pensacola

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

| Authority | Program | EPA Region | Identification Number | Expiration Date |
|------------------------|---------------|------------|-----------------------|-----------------|
| Alabama | State Program | 4 | 40150 | 06-30-19 |
| ANAB | ISO/IEC 17025 | | L2471 | 02-22-20 |
| Arizona | State Program | 9 | AZ0710 | 01-12-20 |
| Arkansas DEQ | State Program | 6 | 88-0689 | 09-01-19 |
| California | State Program | 9 | 2510 | 06-30-19 |
| Florida | NELAP | 4 | E81010 | 06-30-19 |
| Georgia | State Program | 4 | E81010 (FL) | 06-30-19 |
| Illinois | NELAP | 5 | 200041 | 10-09-19 |
| Iowa | State Program | 7 | 367 | 08-01-20 |
| Kansas | NELAP | 7 | E-10253 | 10-31-19 |
| Kentucky (UST) | State Program | 4 | 53 | 06-30-19 |
| Kentucky (WW) | State Program | 4 | 98030 | 12-31-19 |
| Louisiana | NELAP | 6 | 30976 | 06-30-19 |
| Louisiana (DW) | NELAP | 6 | LA017 | 12-31-19 |
| Maryland | State Program | 3 | 233 | 09-30-19 |
| Massachusetts | State Program | 1 | M-FL094 | 06-30-19 |
| Michigan | State Program | 5 | 9912 | 06-30-19 |
| New Jersey | NELAP | 2 | FL006 | 06-30-19 |
| North Carolina (WW/SW) | State Program | 4 | 314 | 12-31-19 |
| Oklahoma | State Program | 6 | 9810 | 08-31-19 |
| Pennsylvania | NELAP | 3 | 68-00467 | 01-31-19 |
| Rhode Island | State Program | 1 | LAO00307 | 12-30-18 * |
| South Carolina | State Program | 4 | 96026 | 06-30-19 |
| Tennessee | State Program | 4 | TN02907 | 06-30-19 |
| Texas | NELAP | 6 | T104704286-18-15 | 09-30-19 |
| US Fish & Wildlife | Federal | | LE058448-0 | 07-31-19 |
| USDA | Federal | | P330-18-00148 | 05-17-21 |
| Virginia | NELAP | 3 | 460166 | 06-14-19 |
| Washington | State Program | 10 | C915 | 05-15-19 |
| West Virginia DEP | State Program | 3 | 136 | 06-30-19 |

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-162846-2

Client Project/Site: CCR App.III/IV GW Monitoring

For:

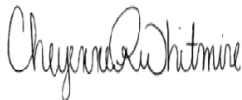
Geosyntec Consultants, Inc.

1255 Roberts Blvd, NW

Suite 200

Kennesaw, Georgia 30144

Attn: Jeremy Gasser



Authorized for release by:

12/31/2018 11:29:54 AM

Cheyenne Whitmire, Project Manager II

(850)471-6222

cheyenne.whitmire@testamericainc.com

LINKS

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results through

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www.testamericainc.com

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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11

12



Table of Contents

| | |
|---------------------------------|----|
| Cover Page | 1 |
| Table of Contents | 2 |
| Method Summary | 3 |
| Sample Summary | 4 |
| Client Sample Results | 5 |
| Definitions | 10 |
| Chronicle | 11 |
| QC Association | 13 |
| QC Sample Results | 14 |
| Chain of Custody | 16 |
| Receipt Checklists | 17 |
| Certification Summary | 19 |

Method Summary

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

TestAmerica Job ID: 400-162846-2

| 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 = 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

TestAmerica Job ID: 400-162846-2

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---------------|------------------|--------|----------------|----------------|
| 400-162846-1 | DUP-11-20181129 | Water | 11/29/18 08:00 | 12/01/18 09:09 |
| 400-162846-2 | MW-D2-20181129 | Water | 11/29/18 09:45 | 12/01/18 09:09 |
| 400-162846-3 | MW-D3-20181129 | Water | 11/29/18 11:15 | 12/01/18 09:09 |
| 400-162846-4 | MW-D1-20181129 | Water | 11/29/18 12:45 | 12/01/18 09:09 |
| 400-162846-5 | MW-U1-20181129 | Water | 11/29/18 14:45 | 12/01/18 09:09 |

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Client Sample Results

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

TestAmerica Job ID: 400-162846-2

Client Sample ID: DUP-11-20181129

Lab Sample ID: 400-162846-1

Date Collected: 11/29/18 08:00

Matrix: Water

Date Received: 12/01/18 09:09

Method: 9315 - Radium-226 (GFPC)

| Analyte | Result | Qualifier | Count Uncert. (2σ+/-) | Total Uncert. (2σ+/-) | RL | MDC | Unit | Prepared | Analyzed | Dil Fac |
|------------|--------|-----------|-----------------------------|-----------------------------|------|-------|-------|----------------|----------------|---------|
| Radium-226 | 0.198 | | 0.0923 | 0.0940 | 1.00 | 0.105 | pCi/L | 12/06/18 13:46 | 12/28/18 07:40 | 1 |
| Carrier | %Yield | Qualifier | Limits | | | | | Prepared | Analyzed | Dil Fac |
| Ba Carrier | 101 | | 40 - 110 | | | | | 12/06/18 13:46 | 12/28/18 07:40 | 1 |

Method: 9320 - Radium-228 (GFPC)

| Analyte | Result | Qualifier | Count Uncert. (2σ+/-) | Total Uncert. (2σ+/-) | RL | MDC | Unit | Prepared | Analyzed | Dil Fac |
|------------|--------|-----------|-----------------------------|-----------------------------|------|-------|-------|----------------|----------------|---------|
| Radium-228 | 0.155 | U | 0.273 | 0.273 | 1.00 | 0.463 | pCi/L | 12/06/18 14:49 | 12/18/18 16:44 | 1 |
| Carrier | %Yield | Qualifier | Limits | | | | | Prepared | Analyzed | Dil Fac |
| Ba Carrier | 101 | | 40 - 110 | | | | | 12/06/18 14:49 | 12/18/18 16:44 | 1 |
| Y Carrier | 74.8 | | 40 - 110 | | | | | 12/06/18 14:49 | 12/18/18 16:44 | 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 | 0.353 | U | 0.288 | 0.289 | 5.00 | 0.463 | pCi/L | | 12/29/18 15:37 | 1 |

Client Sample Results

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

TestAmerica Job ID: 400-162846-2

Client Sample ID: MW-D2-20181129

Lab Sample ID: 400-162846-2

Date Collected: 11/29/18 09:45

Matrix: Water

Date Received: 12/01/18 09:09

Method: 9315 - Radium-226 (GFPC)

| Analyte | Result | Qualifier | Count Uncert. (2σ+/-) | Total Uncert. (2σ+/-) | RL | MDC | Unit | Prepared | Analyzed | Dil Fac |
|------------|--------|-----------|-----------------------------|-----------------------------|------|--------|-------|----------------|----------------|---------|
| Radium-226 | 0.0522 | U | 0.0572 | 0.0574 | 1.00 | 0.0905 | pCi/L | 12/06/18 13:46 | 12/28/18 07:40 | 1 |
| Carrier | %Yield | Qualifier | Limits | | | | | Prepared | Analyzed | Dil Fac |
| Ba Carrier | 98.5 | | 40 - 110 | | | | | 12/06/18 13:46 | 12/28/18 07:40 | 1 |

Method: 9320 - Radium-228 (GFPC)

| Analyte | Result | Qualifier | Count Uncert. (2σ+/-) | Total Uncert. (2σ+/-) | RL | MDC | Unit | Prepared | Analyzed | Dil Fac |
|------------|--------|-----------|-----------------------------|-----------------------------|------|-------|-------|----------------|----------------|---------|
| Radium-228 | 0.128 | U | 0.236 | 0.236 | 1.00 | 0.402 | pCi/L | 12/06/18 14:49 | 12/18/18 16:45 | 1 |
| Carrier | %Yield | Qualifier | Limits | | | | | Prepared | Analyzed | Dil Fac |
| Ba Carrier | 98.5 | | 40 - 110 | | | | | 12/06/18 14:49 | 12/18/18 16:45 | 1 |
| Y Carrier | 84.1 | | 40 - 110 | | | | | 12/06/18 14:49 | 12/18/18 16:45 | 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 | 0.180 | U | 0.243 | 0.243 | 5.00 | 0.402 | pCi/L | | 12/29/18 15:37 | 1 |

Client Sample Results

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

TestAmerica Job ID: 400-162846-2

Client Sample ID: MW-D3-20181129

Lab Sample ID: 400-162846-3

Date Collected: 11/29/18 11:15

Matrix: Water

Date Received: 12/01/18 09:09

Method: 9315 - Radium-226 (GFPC)

| Analyte | Result | Qualifier | Count Uncert. (2σ+/-) | Total Uncert. (2σ+/-) | RL | MDC | Unit | Prepared | Analyzed | Dil Fac |
|------------|--------|-----------|-----------------------------|-----------------------------|------|--------|-------|----------------|----------------|---------|
| Radium-226 | 0.0619 | U | 0.0605 | 0.0607 | 1.00 | 0.0933 | pCi/L | 12/06/18 13:46 | 12/28/18 07:40 | 1 |
| Carrier | %Yield | Qualifier | Limits | | | | | Prepared | Analyzed | Dil Fac |
| Ba Carrier | 104 | | 40 - 110 | | | | | 12/06/18 13:46 | 12/28/18 07:40 | 1 |

Method: 9320 - Radium-228 (GFPC)

| Analyte | Result | Qualifier | Count Uncert. (2σ+/-) | Total Uncert. (2σ+/-) | RL | MDC | Unit | Prepared | Analyzed | Dil Fac |
|------------|---------|-----------|-----------------------------|-----------------------------|------|-------|-------|----------------|----------------|---------|
| Radium-228 | -0.0118 | U | 0.195 | 0.195 | 1.00 | 0.359 | pCi/L | 12/06/18 14:49 | 12/18/18 16:45 | 1 |
| Carrier | %Yield | Qualifier | Limits | | | | | Prepared | Analyzed | Dil Fac |
| Ba Carrier | 104 | | 40 - 110 | | | | | 12/06/18 14:49 | 12/18/18 16:45 | 1 |
| Y Carrier | 81.9 | | 40 - 110 | | | | | 12/06/18 14:49 | 12/18/18 16:45 | 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 | 0.0501 | U | 0.204 | 0.204 | 5.00 | 0.359 | pCi/L | | 12/29/18 15:37 | 1 |

Client Sample Results

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

TestAmerica Job ID: 400-162846-2

Client Sample ID: MW-D1-20181129

Lab Sample ID: 400-162846-4

Date Collected: 11/29/18 12:45

Matrix: Water

Date Received: 12/01/18 09:09

Method: 9315 - Radium-226 (GFPC)

| Analyte | Result | Qualifier | Count Uncert. (2σ+/-) | Total Uncert. (2σ+/-) | RL | MDC | Unit | Prepared | Analyzed | Dil Fac |
|------------|--------|-----------|-----------------------------|-----------------------------|------|--------|-------|----------------|----------------|---------|
| Radium-226 | 0.0687 | U | 0.0639 | 0.0642 | 1.00 | 0.0971 | pCi/L | 12/06/18 13:46 | 12/28/18 07:40 | 1 |
| Carrier | %Yield | Qualifier | Limits | | | | | Prepared | Analyzed | Dil Fac |
| Ba Carrier | 100 | | 40 - 110 | | | | | 12/06/18 13:46 | 12/28/18 07:40 | 1 |

Method: 9320 - Radium-228 (GFPC)

| Analyte | Result | Qualifier | Count Uncert. (2σ+/-) | Total Uncert. (2σ+/-) | RL | MDC | Unit | Prepared | Analyzed | Dil Fac |
|------------|--------|-----------|-----------------------------|-----------------------------|------|-------|-------|----------------|----------------|---------|
| Radium-228 | 0.0308 | U | 0.254 | 0.254 | 1.00 | 0.451 | pCi/L | 12/06/18 14:49 | 12/18/18 16:45 | 1 |
| Carrier | %Yield | Qualifier | Limits | | | | | Prepared | Analyzed | Dil Fac |
| Ba Carrier | 100 | | 40 - 110 | | | | | 12/06/18 14:49 | 12/18/18 16:45 | 1 |
| Y Carrier | 78.5 | | 40 - 110 | | | | | 12/06/18 14:49 | 12/18/18 16:45 | 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 | 0.0994 | U | 0.262 | 0.262 | 5.00 | 0.451 | pCi/L | | 12/29/18 15:37 | 1 |

Client Sample Results

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

TestAmerica Job ID: 400-162846-2

Client Sample ID: MW-U1-20181129

Lab Sample ID: 400-162846-5

Date Collected: 11/29/18 14:45

Matrix: Water

Date Received: 12/01/18 09:09

Method: 9315 - Radium-226 (GFPC)

| Analyte | Result | Qualifier | Count Uncert. (2σ+/-) | Total Uncert. (2σ+/-) | RL | MDC | Unit | Prepared | Analyzed | Dil Fac |
|------------|--------|-----------|-----------------------------|-----------------------------|------|-------|-------|----------------|----------------|---------|
| Radium-226 | 0.0284 | U | 0.0585 | 0.0585 | 1.00 | 0.106 | pCi/L | 12/06/18 13:46 | 12/28/18 07:40 | 1 |
| Carrier | %Yield | Qualifier | Limits | | | | | Prepared | Analyzed | Dil Fac |
| Ba Carrier | 103 | | 40 - 110 | | | | | 12/06/18 13:46 | 12/28/18 07:40 | 1 |

Method: 9320 - Radium-228 (GFPC)

| Analyte | Result | Qualifier | Count Uncert. (2σ+/-) | Total Uncert. (2σ+/-) | RL | MDC | Unit | Prepared | Analyzed | Dil Fac |
|------------|----------|-----------|-----------------------------|-----------------------------|------|-------|-------|----------------|----------------|---------|
| Radium-228 | -0.00504 | U | 0.256 | 0.256 | 1.00 | 0.460 | pCi/L | 12/06/18 14:49 | 12/18/18 16:45 | 1 |
| Carrier | %Yield | Qualifier | Limits | | | | | Prepared | Analyzed | Dil Fac |
| Ba Carrier | 103 | | 40 - 110 | | | | | 12/06/18 14:49 | 12/18/18 16:45 | 1 |
| Y Carrier | 77.0 | | 40 - 110 | | | | | 12/06/18 14:49 | 12/18/18 16:45 | 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 | 0.0234 | U | 0.263 | 0.263 | 5.00 | 0.460 | pCi/L | | 12/29/18 15:37 | 1 |

Definitions/Glossary

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

TestAmerica Job ID: 400-162846-2

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) |
| 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

TestAmerica Job ID: 400-162846-2

Client Sample ID: DUP-11-20181129

Lab Sample ID: 400-162846-1

Date Collected: 11/29/18 08:00

Matrix: Water

Date Received: 12/01/18 09:09

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|--------|
| Total/NA | Prep | PrecSep-21 | | | 404475 | 12/06/18 13:46 | CLP | TAL SL |
| Total/NA | Analysis | 9315 | | 1 | 407777 | 12/28/18 07:40 | KLS | TAL SL |
| Total/NA | Prep | PrecSep_0 | | | 404487 | 12/06/18 14:49 | CLP | TAL SL |
| Total/NA | Analysis | 9320 | | 1 | 406293 | 12/18/18 16:44 | CDR | TAL SL |
| Total/NA | Analysis | Ra226_Ra228 | | 1 | 408243 | 12/29/18 15:37 | RTM | TAL SL |

Client Sample ID: MW-D2-20181129

Lab Sample ID: 400-162846-2

Date Collected: 11/29/18 09:45

Matrix: Water

Date Received: 12/01/18 09:09

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|--------|
| Total/NA | Prep | PrecSep-21 | | | 404475 | 12/06/18 13:46 | CLP | TAL SL |
| Total/NA | Analysis | 9315 | | 1 | 407777 | 12/28/18 07:40 | KLS | TAL SL |
| Total/NA | Prep | PrecSep_0 | | | 404487 | 12/06/18 14:49 | CLP | TAL SL |
| Total/NA | Analysis | 9320 | | 1 | 406293 | 12/18/18 16:45 | CDR | TAL SL |
| Total/NA | Analysis | Ra226_Ra228 | | 1 | 408243 | 12/29/18 15:37 | RTM | TAL SL |

Client Sample ID: MW-D3-20181129

Lab Sample ID: 400-162846-3

Date Collected: 11/29/18 11:15

Matrix: Water

Date Received: 12/01/18 09:09

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|--------|
| Total/NA | Prep | PrecSep-21 | | | 404475 | 12/06/18 13:46 | CLP | TAL SL |
| Total/NA | Analysis | 9315 | | 1 | 407777 | 12/28/18 07:40 | KLS | TAL SL |
| Total/NA | Prep | PrecSep_0 | | | 404487 | 12/06/18 14:49 | CLP | TAL SL |
| Total/NA | Analysis | 9320 | | 1 | 406293 | 12/18/18 16:45 | CDR | TAL SL |
| Total/NA | Analysis | Ra226_Ra228 | | 1 | 408243 | 12/29/18 15:37 | RTM | TAL SL |

Client Sample ID: MW-D1-20181129

Lab Sample ID: 400-162846-4

Date Collected: 11/29/18 12:45

Matrix: Water

Date Received: 12/01/18 09:09

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|--------|
| Total/NA | Prep | PrecSep-21 | | | 404475 | 12/06/18 13:46 | CLP | TAL SL |
| Total/NA | Analysis | 9315 | | 1 | 407777 | 12/28/18 07:40 | KLS | TAL SL |
| Total/NA | Prep | PrecSep_0 | | | 404487 | 12/06/18 14:49 | CLP | TAL SL |
| Total/NA | Analysis | 9320 | | 1 | 406293 | 12/18/18 16:45 | CDR | TAL SL |
| Total/NA | Analysis | Ra226_Ra228 | | 1 | 408243 | 12/29/18 15:37 | RTM | TAL SL |

Lab Chronicle

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

TestAmerica Job ID: 400-162846-2

Client Sample ID: MW-U1-20181129

Lab Sample ID: 400-162846-5

Date Collected: 11/29/18 14:45

Matrix: Water

Date Received: 12/01/18 09:09

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|--------|
| Total/NA | Prep | PrecSep-21 | | | 404475 | 12/06/18 13:46 | CLP | TAL SL |
| Total/NA | Analysis | 9315 | | 1 | 407777 | 12/28/18 07:40 | KLS | TAL SL |
| Total/NA | Prep | PrecSep_0 | | | 404487 | 12/06/18 14:49 | CLP | TAL SL |
| Total/NA | Analysis | 9320 | | 1 | 406293 | 12/18/18 16:45 | CDR | TAL SL |
| Total/NA | Analysis | Ra226_Ra228 | | 1 | 408243 | 12/29/18 15:37 | RTM | TAL SL |

Laboratory References:

TAL SL = 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

TestAmerica Job ID: 400-162846-2

Rad

Prep Batch: 404475

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|----------------------|--------------------|-----------|--------|------------|------------|
| 400-162846-1 | DUP-11-20181129 | Total/NA | Water | PrecSep-21 | |
| 400-162846-2 | MW-D2-20181129 | Total/NA | Water | PrecSep-21 | |
| 400-162846-3 | MW-D3-20181129 | Total/NA | Water | PrecSep-21 | |
| 400-162846-4 | MW-D1-20181129 | Total/NA | Water | PrecSep-21 | |
| 400-162846-5 | MW-U1-20181129 | Total/NA | Water | PrecSep-21 | |
| MB 160-404475/20-A | Method Blank | Total/NA | Water | PrecSep-21 | |
| LCS 160-404475/1-A | Lab Control Sample | Total/NA | Water | PrecSep-21 | |
| 400-162856-A-21-A DU | Duplicate | Total/NA | Water | PrecSep-21 | |

Prep Batch: 404487

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|----------------------|--------------------|-----------|--------|-----------|------------|
| 400-162846-1 | DUP-11-20181129 | Total/NA | Water | PrecSep_0 | |
| 400-162846-2 | MW-D2-20181129 | Total/NA | Water | PrecSep_0 | |
| 400-162846-3 | MW-D3-20181129 | Total/NA | Water | PrecSep_0 | |
| 400-162846-4 | MW-D1-20181129 | Total/NA | Water | PrecSep_0 | |
| 400-162846-5 | MW-U1-20181129 | Total/NA | Water | PrecSep_0 | |
| MB 160-404487/20-A | Method Blank | Total/NA | Water | PrecSep_0 | |
| LCS 160-404487/1-A | Lab Control Sample | Total/NA | Water | PrecSep_0 | |
| 400-162856-A-21-B DU | Duplicate | Total/NA | Water | PrecSep_0 | |

QC Sample Results

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

TestAmerica Job ID: 400-162846-2

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-404475/20-A
Matrix: Water
Analysis Batch: 407767

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 404475

| Analyte | MB MB | | Count | Total | RL | MDC | Unit | Prepared | Analyzed | Dil Fac |
|------------|-----------|-----------|-----------------|-----------------|----------------|----------------|---------|----------------|----------------|---------|
| | Result | Qualifier | Uncert. (2σ+/-) | Uncert. (2σ+/-) | | | | | | |
| Radium-226 | -0.007710 | U | 0.0363 | 0.0363 | 1.00 | 0.0855 | pCi/L | 12/06/18 13:46 | 12/28/18 07:42 | 1 |
| Carrier | MB MB | | Limits | | Prepared | Analyzed | Dil Fac | | | |
| Ba Carrier | %Yield | Qualifier | Limits | | | | | | | |
| Ba Carrier | 95.3 | | 40 - 110 | | 12/06/18 13:46 | 12/28/18 07:42 | 1 | | | |

Lab Sample ID: LCS 160-404475/1-A
Matrix: Water
Analysis Batch: 407777

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 404475

| Analyte | Spike Added | LCS Result | LCS Qual | Total | RL | MDC | Unit | %Rec | %Rec. Limits |
|------------|-------------|------------|----------|-----------------|----------------|----------------|---------|------|--------------|
| | | | | Uncert. (2σ+/-) | | | | | |
| Radium-226 | 11.4 | 11.18 | | 1.16 | 1.00 | 0.0986 | pCi/L | 98 | 68 - 137 |
| Carrier | LCS LCS | | Limits | | Prepared | Analyzed | Dil Fac | | |
| Ba Carrier | %Yield | Qualifier | Limits | | | | | | |
| Ba Carrier | 92.3 | | 40 - 110 | | 12/06/18 13:46 | 12/28/18 07:42 | 1 | | |

Lab Sample ID: 400-162856-A-21-A DU
Matrix: Water
Analysis Batch: 407767

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 404475

| Analyte | Sample Sample | | DU | DU | Total | RL | MDC | Unit | RER | RER Limit |
|------------|---------------|-----------|----------|------|-----------------|----------------|---------|-------|------|-----------|
| | Result | Qual | Result | Qual | Uncert. (2σ+/-) | | | | | |
| Radium-226 | 0.254 | | 0.2371 | | 0.104 | 1.00 | 0.106 | pCi/L | 0.08 | 1 |
| Carrier | DU DU | | Limits | | Prepared | Analyzed | Dil Fac | | | |
| Ba Carrier | %Yield | Qualifier | Limits | | | | | | | |
| Ba Carrier | 108 | | 40 - 110 | | 12/06/18 14:49 | 12/18/18 16:45 | 1 | | | |

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-404487/20-A
Matrix: Water
Analysis Batch: 406293

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 404487

| Analyte | MB MB | | Count | Total | RL | MDC | Unit | Prepared | Analyzed | Dil Fac |
|------------|--------|-----------|-----------------|-----------------|----------------|----------------|---------|----------------|----------------|---------|
| | Result | Qualifier | Uncert. (2σ+/-) | Uncert. (2σ+/-) | | | | | | |
| Radium-228 | 0.2499 | U | 0.241 | 0.242 | 1.00 | 0.388 | pCi/L | 12/06/18 14:49 | 12/18/18 16:45 | 1 |
| Carrier | MB MB | | Limits | | Prepared | Analyzed | Dil Fac | | | |
| Ba Carrier | %Yield | Qualifier | Limits | | | | | | | |
| Ba Carrier | 95.3 | | 40 - 110 | | 12/06/18 14:49 | 12/18/18 16:45 | 1 | | | |
| Y Carrier | MB MB | | Limits | | Prepared | Analyzed | Dil Fac | | | |
| Y Carrier | %Yield | Qualifier | Limits | | | | | | | |
| Y Carrier | 81.5 | | 40 - 110 | | 12/06/18 14:49 | 12/18/18 16:45 | 1 | | | |

TestAmerica Pensacola

QC Sample Results

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

TestAmerica Job ID: 400-162846-2

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

Lab Sample ID: LCS 160-404487/1-A
Matrix: Water
Analysis Batch: 406293

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 404487

| Analyte | Spike Added | LCS Result | LCS Qual | Total Uncert. (2σ+/-) | RL | MDC | Unit | %Rec | %Rec. Limits |
|------------|-------------|------------|----------|-----------------------|------|-------|-------|------|--------------|
| Radium-228 | 9.11 | 8.772 | | 1.13 | 1.00 | 0.566 | pCi/L | 96 | 56 - 140 |

| Carrier | LCS %Yield | LCS Qualifier | Limits |
|------------|------------|---------------|----------|
| Ba Carrier | 92.3 | | 40 - 110 |
| Y Carrier | 70.7 | | 40 - 110 |

Lab Sample ID: 400-162856-A-21-B DU
Matrix: Water
Analysis Batch: 406293

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 404487

| Analyte | Sample Result | Sample Qual | DU Result | DU Qual | Total Uncert. (2σ+/-) | RL | MDC | Unit | RER | RER Limit |
|------------|---------------|-------------|-----------|---------|-----------------------|------|-------|-------|------|-----------|
| Radium-228 | -0.0224 | U | 0.6454 | | 0.378 | 1.00 | 0.567 | pCi/L | 0.97 | 1 |

| Carrier | DU %Yield | DU Qualifier | Limits |
|------------|-----------|--------------|----------|
| Ba Carrier | 108 | | 40 - 110 |
| Y Carrier | 81.9 | | 40 - 110 |

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

Lab Sample ID: 400-162856-A-21 DU
Matrix: Water
Analysis Batch: 408243

Client Sample ID: Duplicate
Prep Type: Total/NA

| Analyte | Sample Result | Sample Qual | DU Result | DU Qual | Total Uncert. (2σ+/-) | RL | MDC | Unit | RER | RER Limit |
|---------------------------|---------------|-------------|-----------|---------|-----------------------|------|-------|-------|------|-----------|
| Combined Radium 226 + 228 | 0.232 | U | 0.8825 | | 0.392 | 5.00 | 0.567 | pCi/L | 0.90 | |

Chain of Custody Record



| | | | | | | |
|---|--|--|--|---|---|---|
| Client Information Client Contact: Jeremy Gasser Company: Geosyntec Consultants, Inc Address: 1255 Roberts Blvd, NW Suite 200 City: Kennesaw State/Zip: GA, 30144 Phone: 678-202-9583(Tel) Email: igasser@geosyntec.com Project Name: CCR App III/IV GW Monitoring Site: | | Sampler STEPHEN W. RANDALL Lab PM Whitmire, Chyenne R. E-Mail chyennewhitmire@testamerica.com Phone: 470-320-6181 | | COC No 400-78620-29334 1 Page Page 1 of 1 Job # | | |
| Due Date Requested: TAT Requested (days): STANDARD PO # Purchase Order not required WO # Project # 40007960 SSO# | | Carrier Tracking No(s) | | | | |
| Analysis Requested 6020-96, As, Ba, Be, B, Br, Cd, Ca, Cr, Co, Pb, Hg, Mo, Se, Ti, Zn, UO4-Hg 4500 F, C - Fluoride, 2540C - Total Dissolved Solids 6M4500 Cl, E - Chloride, 5M4500 SO4, E - Sulfate, 9316, Ra226, 9320, Ra228, Ra226Ra228, GFC - Radium 9326 + Radium 228 Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/> YES Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> YES | | Total Number of containers 400-162846 COC | | | | |
| Sample Identification Sample ID: DUP-11-20181129 MW-D2-20181129 MW-D3-20181129 MW-D1-20181129 MW-U1-20181129 | | Sample Date 11/29/18 11/29/18 11/29/18 11/29/18 | Sample Time 0800 0945 1115 1245 1445 | Sample Type (C=Comp, G=grab) G G G G G | Matrix (W=water, S=solid, O=waste/oil, BT=tissue, A=air) Water Water Water Water Water | Preservation Code: PH: 6.55 PH: 6.60 PH: 6.80 PH: 6.33 PH: 7.72 |
| 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 | | Method of Shipment | | | | |
| Relinquished by: Stephen W. Randall Relinquished by: | | Date/Time: 11/30/18 1730 | | Company | | |
| Relinquished by: | | Date/Time: | | Company | | |
| Relinquished by: | | Date/Time: | | Company | | |
| Custody Seals Intact: Δ Yes Δ No | | Cooler Temperature(s) °C and Other Remarks: 1.622907 | | | | |

Login Sample Receipt Checklist

Client: Geosyntec Consultants, Inc.

Job Number: 400-162846-2

Login Number: 162846

List Source: TestAmerica Pensacola

List Number: 1

Creator: Johnson, Jeremy N

| 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. | N/A | Not present |
| 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 | 1.6°C, 18.5°C-RADS 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 | |



Login Sample Receipt Checklist

Client: Geosyntec Consultants, Inc.

Job Number: 400-162846-2

Login Number: 162846

List Number: 2

Creator: Dupart, Lacey S

List Source: TestAmerica St. Louis

List Creation: 12/04/18 11:06 AM

| 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. | 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 | 18.0 |
| 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? | N/A | |
| 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. | N/A | |
| 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

TestAmerica Job ID: 400-162846-2

Laboratory: TestAmerica Pensacola

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

| Authority | Program | EPA Region | Identification Number | Expiration Date |
|------------------------|---------------|------------|-----------------------|-----------------|
| Alabama | State Program | 4 | 40150 | 06-30-19 |
| ANAB | ISO/IEC 17025 | | L2471 | 02-22-20 |
| Arizona | State Program | 9 | AZ0710 | 01-12-20 |
| Arkansas DEQ | State Program | 6 | 88-0689 | 09-01-19 |
| California | State Program | 9 | 2510 | 06-30-19 |
| Florida | NELAP | 4 | E81010 | 06-30-19 |
| Georgia | State Program | 4 | E81010 (FL) | 06-30-19 |
| Illinois | NELAP | 5 | 200041 | 10-09-19 |
| Iowa | State Program | 7 | 367 | 08-01-20 |
| Kansas | NELAP | 7 | E-10253 | 12-31-18 * |
| Kentucky (UST) | State Program | 4 | 53 | 06-30-19 |
| Kentucky (WW) | State Program | 4 | 98030 | 12-31-19 |
| Louisiana | NELAP | 6 | 30976 | 06-30-19 |
| Louisiana (DW) | NELAP | 6 | LA017 | 12-31-19 |
| Maryland | State Program | 3 | 233 | 09-30-19 |
| Massachusetts | State Program | 1 | M-FL094 | 06-30-19 |
| Michigan | State Program | 5 | 9912 | 06-30-19 |
| New Jersey | NELAP | 2 | FL006 | 06-30-19 |
| North Carolina (WW/SW) | State Program | 4 | 314 | 12-31-19 |
| Oklahoma | State Program | 6 | 9810 | 08-31-19 |
| Pennsylvania | NELAP | 3 | 68-00467 | 01-31-19 |
| Rhode Island | State Program | 1 | LAO00307 | 12-30-18 * |
| South Carolina | State Program | 4 | 96026 | 06-30-19 |
| Tennessee | State Program | 4 | TN02907 | 06-30-19 |
| Texas | NELAP | 6 | T104704286-18-15 | 09-30-19 |
| US Fish & Wildlife | Federal | | LE058448-0 | 07-31-19 |
| USDA | Federal | | P330-18-00148 | 05-17-21 |
| Virginia | NELAP | 3 | 460166 | 06-14-19 |
| Washington | State Program | 10 | C915 | 05-15-19 |
| West Virginia DEP | State Program | 3 | 136 | 06-30-19 |

Laboratory: TestAmerica St. Louis

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

| Authority | Program | EPA Region | Identification Number | Expiration Date |
|----------------|---------------|------------|-----------------------|-----------------|
| Alaska | State Program | 10 | MO00054 | 06-30-19 |
| ANAB | DoD ELAP | | L2305 | 04-06-19 |
| Arizona | State Program | 9 | AZ0813 | 12-08-19 |
| California | State Program | 9 | 2886 | 06-30-19 |
| Connecticut | State Program | 1 | PH-0241 | 03-31-19 |
| Florida | NELAP | 4 | E87689 | 06-30-19 |
| Illinois | NELAP | 5 | 200023 | 11-30-18 * |
| Iowa | State Program | 7 | 373 | 12-01-18 * |
| Kansas | NELAP | 7 | E-10236 | 10-31-19 |
| Kentucky (DW) | State Program | 4 | 90125 | 12-31-18 * |
| Louisiana | NELAP | 6 | 04080 | 06-30-19 |
| Louisiana (DW) | NELAP | 6 | LA180017 | 12-31-18 * |
| Maryland | State Program | 3 | 310 | 09-30-19 |
| Michigan | State Program | 5 | 9005 | 06-30-19 |
| Missouri | State Program | 7 | 780 | 06-30-19 |

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

TestAmerica Pensacola

Accreditation/Certification Summary

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

TestAmerica Job ID: 400-162846-2

Laboratory: TestAmerica St. Louis (Continued)

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

| Authority | Program | EPA Region | Identification Number | Expiration Date |
|--------------------|---------------|------------|-----------------------|-----------------|
| Nevada | State Program | 9 | MO000542018-1 | 07-31-19 |
| New Jersey | NELAP | 2 | MO002 | 06-30-19 |
| New York | NELAP | 2 | 11616 | 03-31-19 |
| North Dakota | State Program | 8 | R207 | 06-30-19 |
| NRC | NRC | | 24-24817-01 | 12-31-22 |
| Oklahoma | State Program | 6 | 9997 | 08-31-19 |
| Pennsylvania | NELAP | 3 | 68-00540 | 02-28-19 * |
| South Carolina | State Program | 4 | 85002001 | 06-30-19 |
| Texas | NELAP | 6 | T104704193-18-12 | 07-31-19 |
| US Fish & Wildlife | Federal | | 058448 | 07-31-19 |
| USDA | Federal | | P330-17-0028 | 02-02-20 |
| Utah | NELAP | 8 | MO000542018-10 | 07-31-19 |
| Virginia | NELAP | 3 | 460230 | 06-14-19 |
| Washington | State Program | 10 | C592 | 08-30-19 |
| West Virginia DEP | State Program | 3 | 381 | 08-31-19 |

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

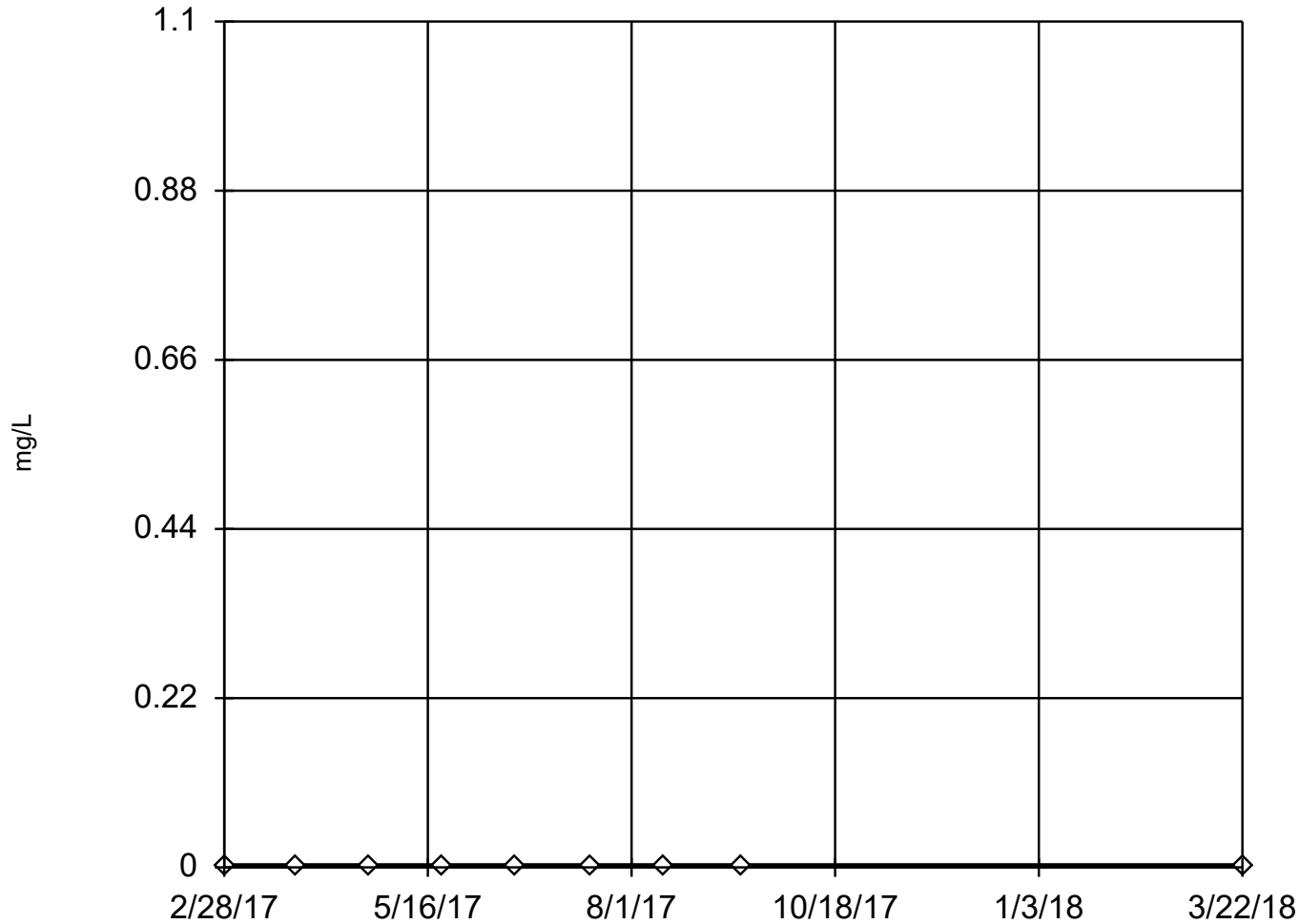
APPENDIX C

Statistical Calculations and Time-series Graphs

Outlier Testing

Tukey's Outlier Screening

MW-D1



n = 9

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: Antimony Analysis Run 1/7/2019 4:15 PM View: Sanitas_Statistics Sampling Events 1 through

CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

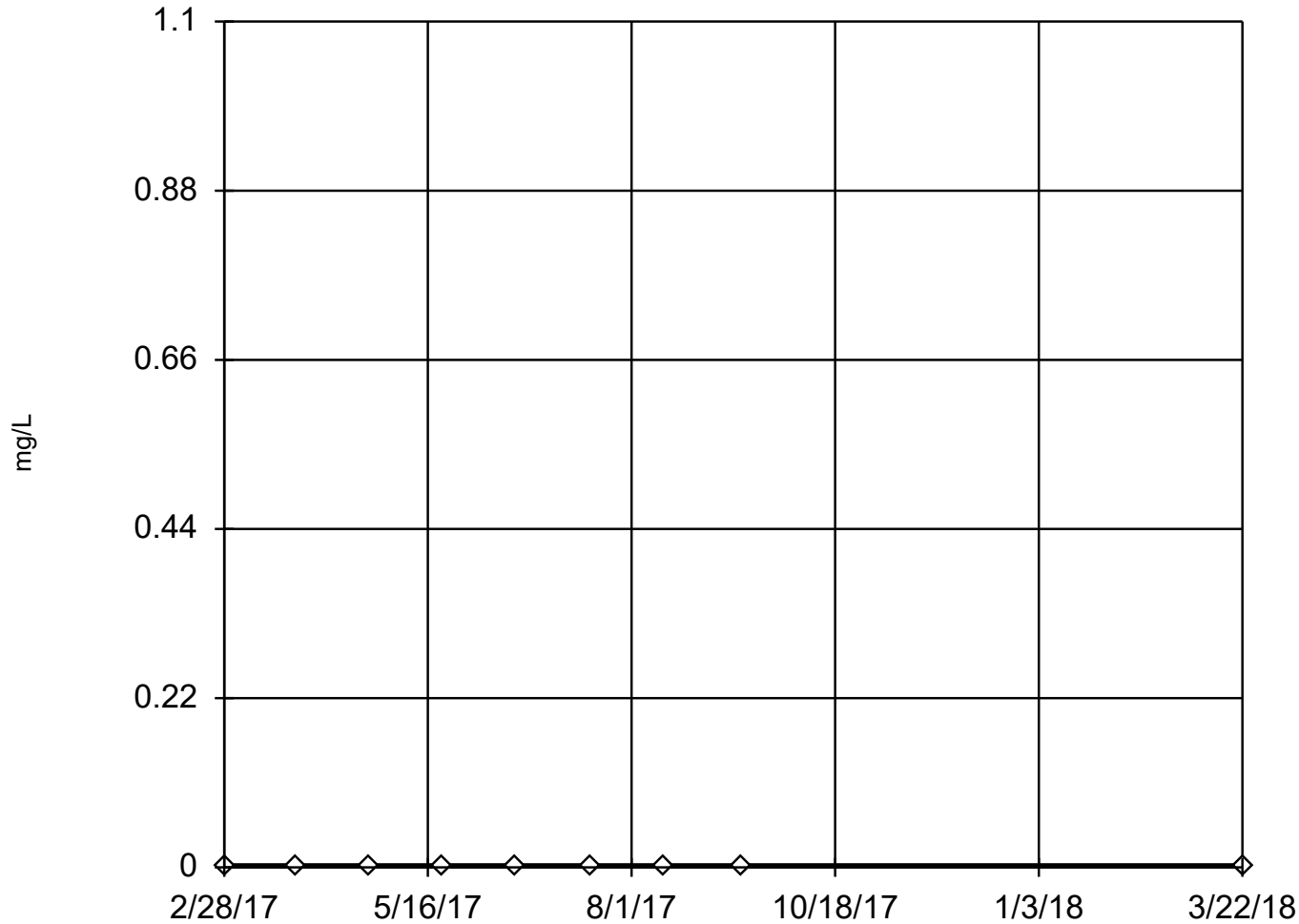
Tukey's Outlier Screening

Constituent: Antimony (mg/L) Analysis Run 1/7/2019 4:19 PM View: Sanitas_Statistics Sampling Events 1 through 11
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

| | MW-D1 |
|-----------|--------------|
| 2/28/2017 | <0.0025 (**) |
| 3/27/2017 | <0.0025 |
| 4/24/2017 | <0.0025 |
| 5/22/2017 | <0.0025 |
| 6/19/2017 | <0.0025 |
| 7/17/2017 | <0.0025 |
| 8/14/2017 | <0.0025 |
| 9/13/2017 | <0.0025 |
| 3/22/2018 | <0.0025 |

Tukey's Outlier Screening

MW-D2



n = 9

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: Antimony Analysis Run 1/7/2019 4:15 PM View: Sanitas_Statistics Sampling Events 1 through

CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

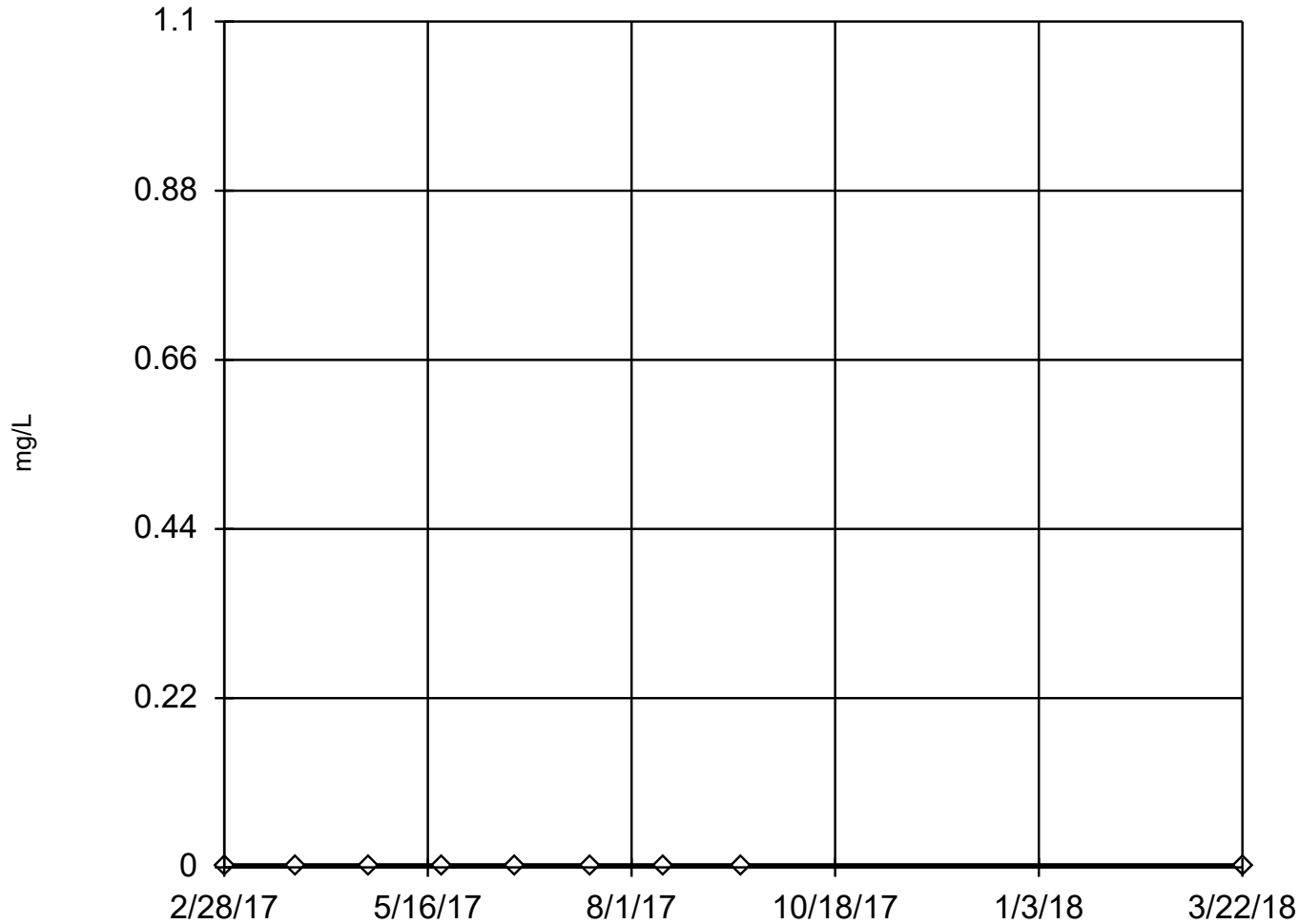
Tukey's Outlier Screening

Constituent: Antimony (mg/L) Analysis Run 1/7/2019 4:19 PM View: Sanitas_Statistics Sampling Events 1 through 11
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

| | MW-D2 |
|-----------|--------------|
| 2/28/2017 | <0.0025 (F1) |
| 3/27/2017 | <0.0025 |
| 4/24/2017 | <0.0025 |
| 5/22/2017 | <0.0025 |
| 6/19/2017 | <0.0025 |
| 7/17/2017 | <0.0025 |
| 8/14/2017 | <0.0025 |
| 9/13/2017 | <0.0025 |
| 3/22/2018 | <0.0025 |

Tukey's Outlier Screening

MW-D3



n = 9

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: Antimony Analysis Run 1/7/2019 4:15 PM View: Sanitas_Statistics Sampling Events 1 through

CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

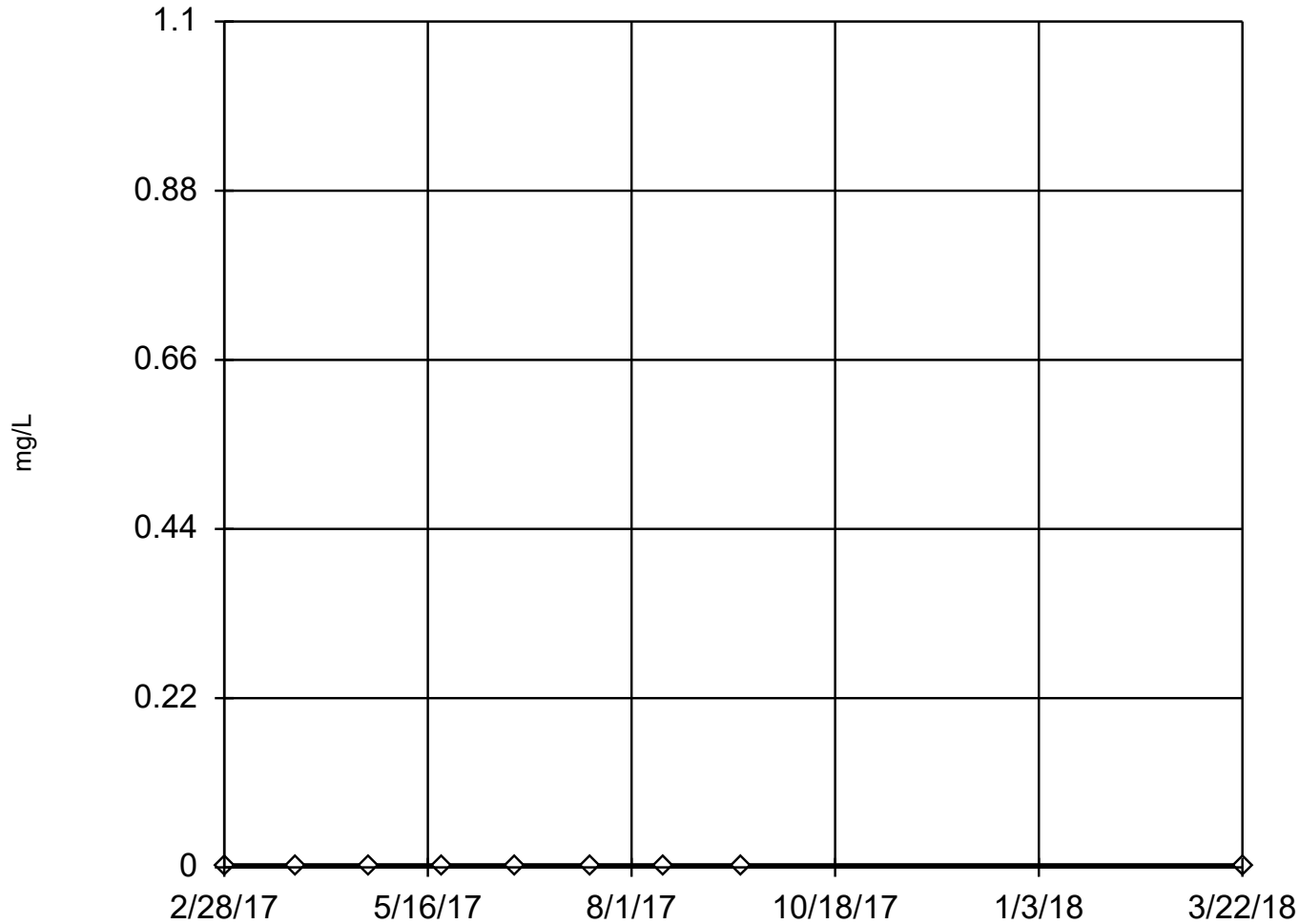
Tukey's Outlier Screening

Constituent: Antimony (mg/L) Analysis Run 1/7/2019 4:19 PM View: Sanitas_Statistics Sampling Events 1 through 11
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

| | MW-D3 |
|-----------|--------------|
| 2/28/2017 | <0.0025 (**) |
| 3/27/2017 | <0.0025 |
| 4/24/2017 | <0.0025 |
| 5/22/2017 | <0.0025 |
| 6/19/2017 | <0.0025 |
| 7/17/2017 | <0.0025 |
| 8/14/2017 | <0.0025 |
| 9/13/2017 | <0.0025 |
| 3/22/2018 | <0.0025 |

Tukey's Outlier Screening

MW-U1 (bg)



n = 9

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: Antimony Analysis Run 1/7/2019 4:15 PM View: Sanitas_Statistics Sampling Events 1 through

CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

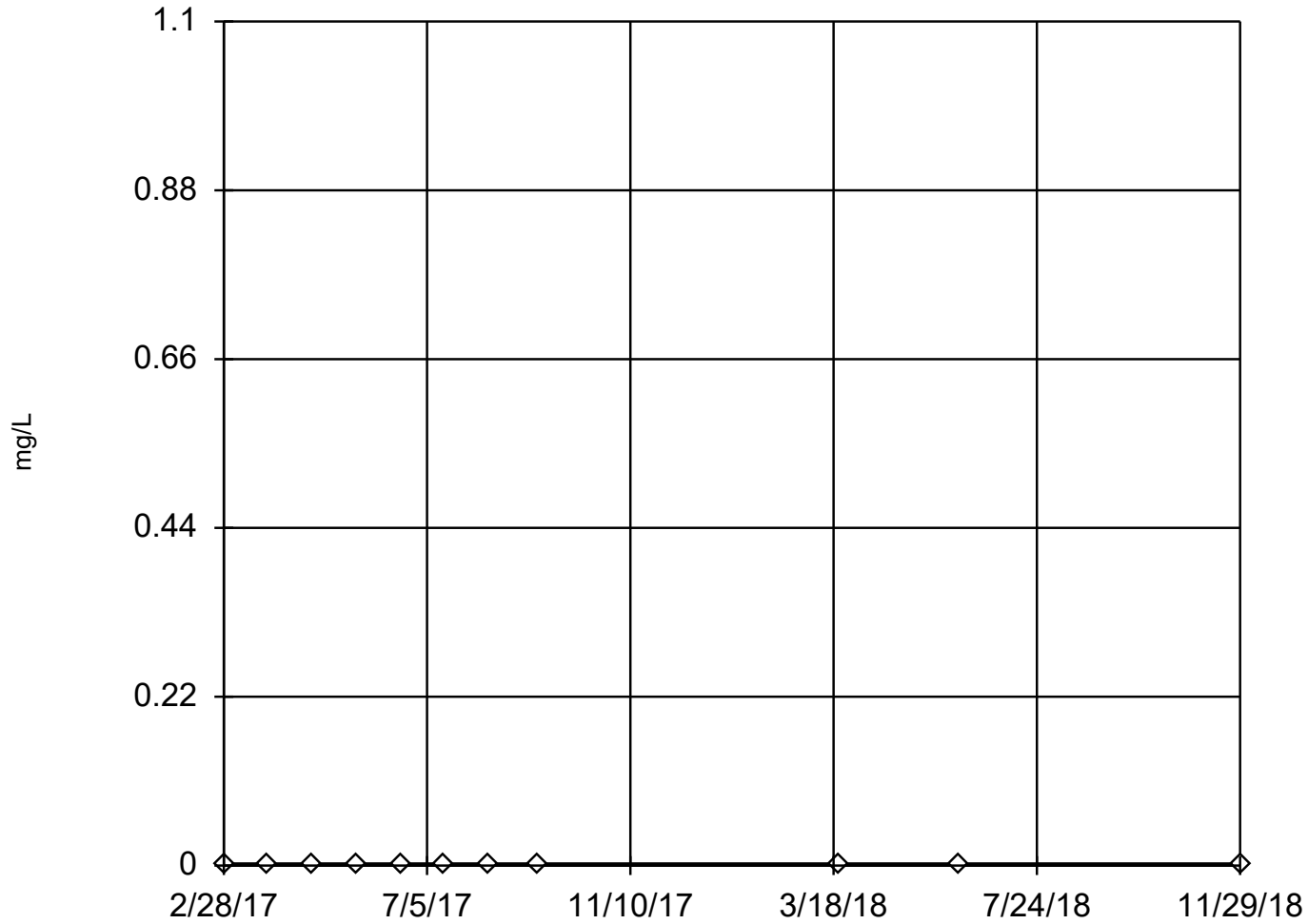
Tukey's Outlier Screening

Constituent: Antimony (mg/L) Analysis Run 1/7/2019 4:19 PM View: Sanitas_Statistics Sampling Events 1 through 11
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

| | MW-U1 (bg) |
|-----------|--------------|
| 2/28/2017 | <0.0025 (**) |
| 3/27/2017 | <0.0025 |
| 4/24/2017 | <0.0025 |
| 5/22/2017 | <0.0025 |
| 6/19/2017 | <0.0025 |
| 7/17/2017 | <0.0025 |
| 8/14/2017 | <0.0025 |
| 9/13/2017 | <0.0025 |
| 3/22/2018 | <0.0025 |

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 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: Arsenic Analysis Run 1/7/2019 4:15 PM View: Sanitas_Statistics Sampling Events 1 through

CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

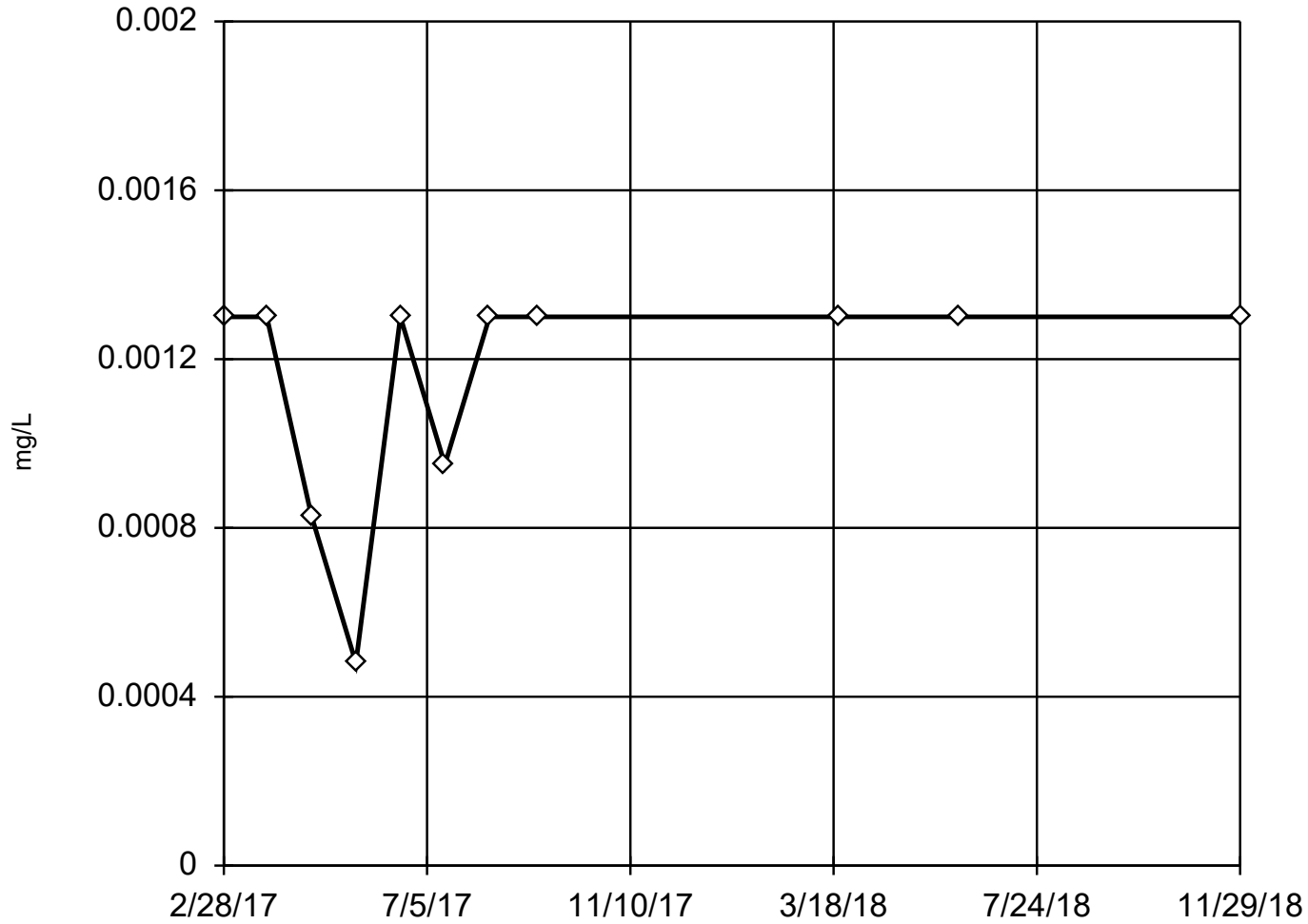
Tukey's Outlier Screening

Constituent: Arsenic (mg/L) Analysis Run 1/7/2019 4:19 PM View: Sanitas_Statistics Sampling Events 1 through 11
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

| | MW-D1 |
|------------|---------|
| 2/28/2017 | <0.0013 |
| 3/27/2017 | <0.0013 |
| 4/24/2017 | <0.0013 |
| 5/22/2017 | <0.0013 |
| 6/19/2017 | <0.0013 |
| 7/17/2017 | <0.0013 |
| 8/14/2017 | <0.0013 |
| 9/13/2017 | <0.0013 |
| 3/22/2018 | <0.0013 |
| 6/5/2018 | <0.0013 |
| 11/29/2018 | <0.0013 |

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).

High cutoff = 0.002013,
low cutoff = -0.001208,
based on IQR multiplier of 3.

Constituent: Arsenic Analysis Run 1/7/2019 4:15 PM View: Sanitas_Statistics Sampling Events 1 through

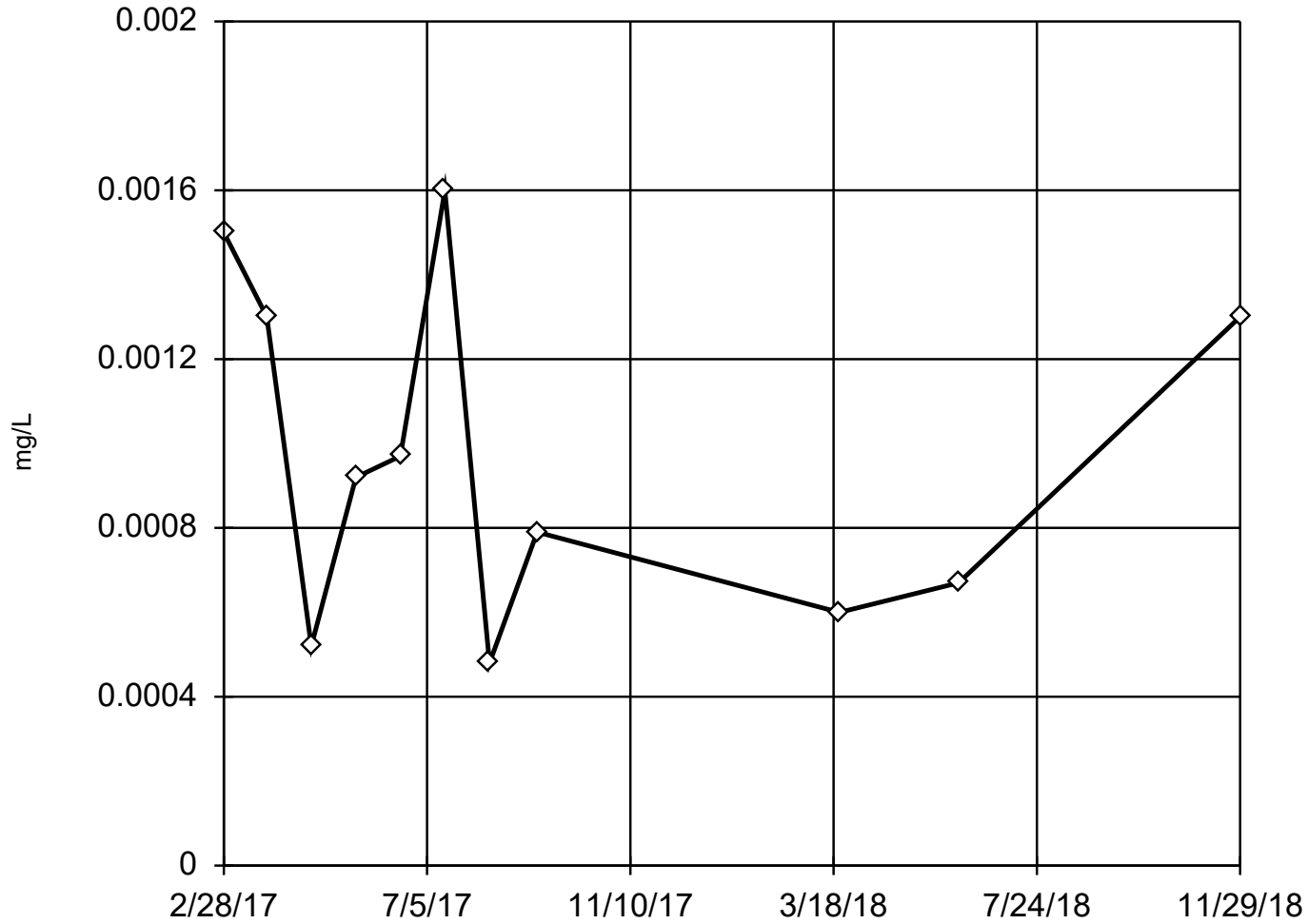
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Tukey's Outlier Screening

Constituent: Arsenic (mg/L) Analysis Run 1/7/2019 4:19 PM View: Sanitas_Statistics Sampling Events 1 through 11
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

| | MW-D2 |
|------------|-------------|
| 2/28/2017 | <0.0013 |
| 3/27/2017 | <0.0013 |
| 4/24/2017 | 0.00083 (J) |
| 5/22/2017 | 0.00048 (J) |
| 6/19/2017 | <0.0013 |
| 7/17/2017 | 0.00095 (J) |
| 8/14/2017 | <0.0013 |
| 9/13/2017 | <0.0013 |
| 3/22/2018 | <0.0013 |
| 6/5/2018 | <0.0013 |
| 11/29/2018 | <0.0013 |

EPA 1989 Outlier Screening MW-D3



n = 11
No statistical outliers.
Mean 0.0009682, std. dev. 0.0004, critical Tn 2.234
Normality test used:
Shapiro Wilk@alpha = 0.01
Calculated = 0.9195
Critical = 0.792
The distribution was found to be normally distributed.

Constituent: Arsenic Analysis Run 1/7/2019 4:15 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

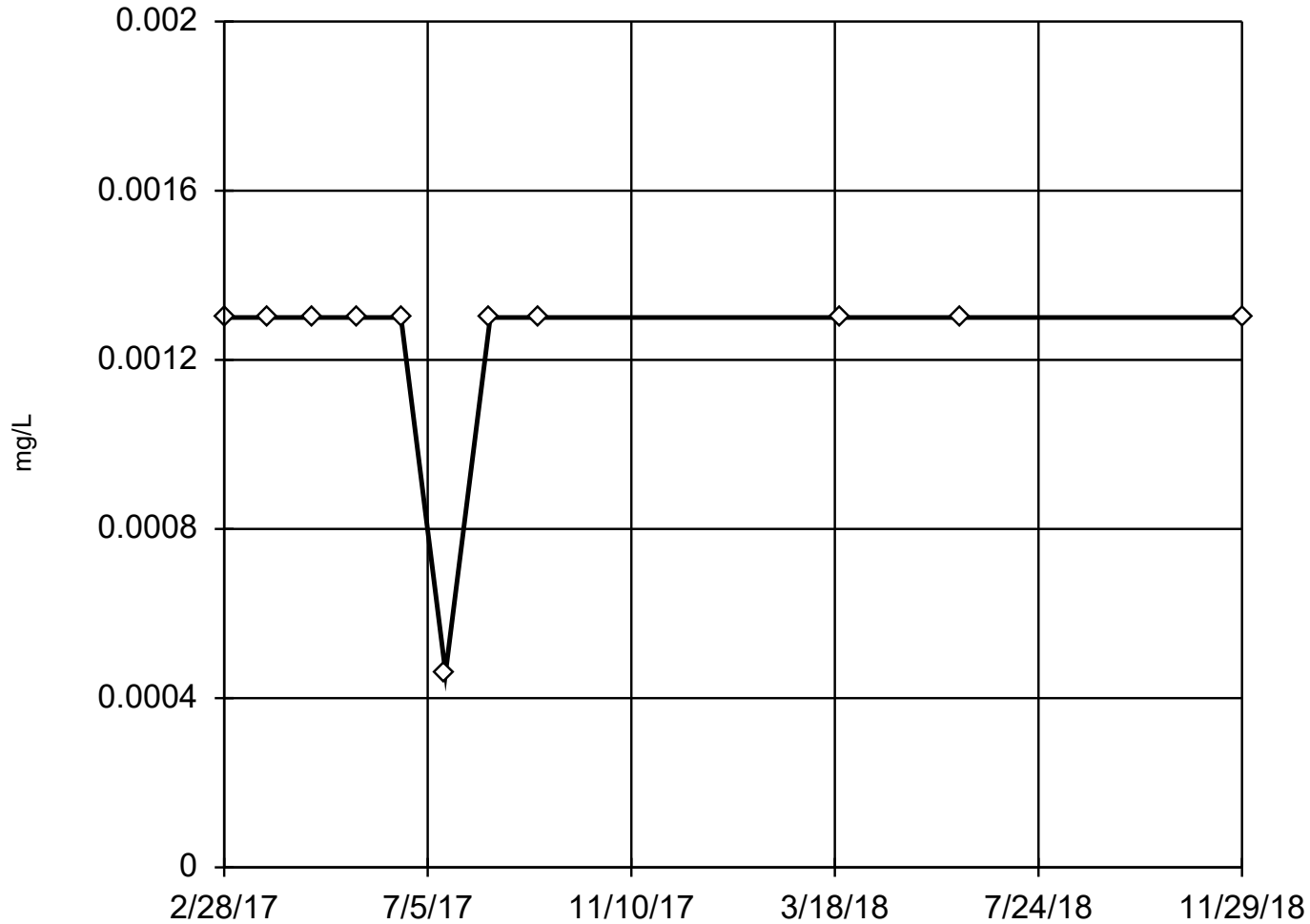
EPA 1989 Outlier Screening

Constituent: Arsenic (mg/L) Analysis Run 1/7/2019 4:19 PM View: Sanitas_Statistics Sampling Events 1 through 11
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

| | MW-D3 | Tn |
|------------|-------------|---------|
| 2/28/2017 | 0.0015 | 1.212 |
| 3/27/2017 | <0.0013 | 0.8781 |
| 4/24/2017 | 0.00052 (J) | -1.262 |
| 5/22/2017 | 0.00092 (J) | 0.07037 |
| 6/19/2017 | 0.00097 (J) | 0.194 |
| 7/17/2017 | 0.0016 | 1.363 |
| 8/14/2017 | 0.00048 (J) | -1.449 |
| 9/13/2017 | 0.00079 (J) | -0.2855 |
| 3/22/2018 | 0.0006 (J) | -0.9282 |
| 6/5/2018 | 0.00067 (J) | -0.6704 |
| 11/29/2018 | <0.0013 | 0.8781 |

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: Arsenic Analysis Run 1/7/2019 4:15 PM View: Sanitas_Statistics Sampling Events 1 through

CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

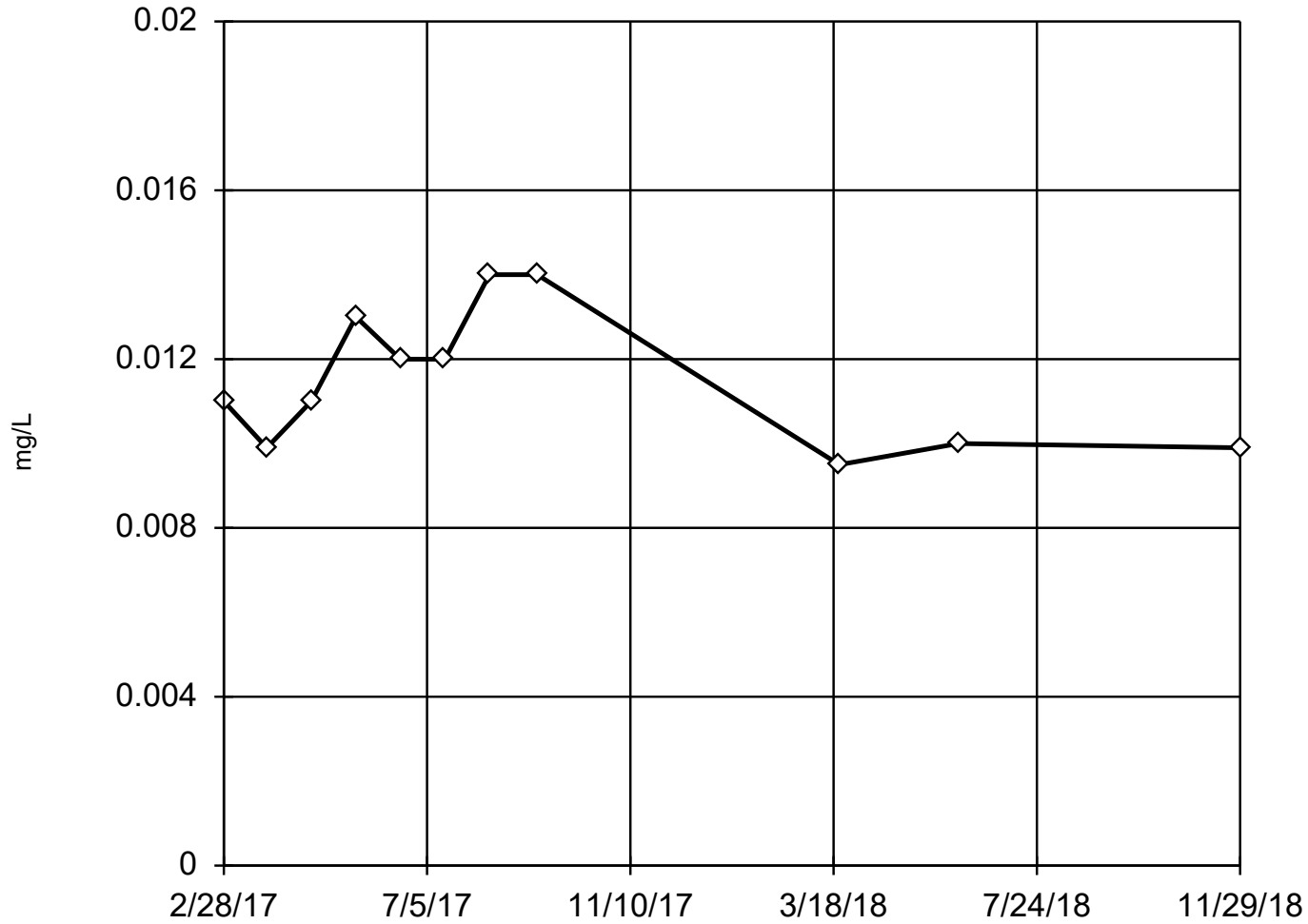
Tukey's Outlier Screening

Constituent: Arsenic (mg/L) Analysis Run 1/7/2019 4:19 PM View: Sanitas_Statistics Sampling Events 1 through 11
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

| | MW-U1 (bg) |
|------------|-------------|
| 2/28/2017 | <0.0013 |
| 3/27/2017 | <0.0013 |
| 4/24/2017 | <0.0013 |
| 5/22/2017 | <0.0013 |
| 6/19/2017 | <0.0013 |
| 7/17/2017 | 0.00046 (J) |
| 8/14/2017 | <0.0013 |
| 9/13/2017 | <0.0013 |
| 3/22/2018 | <0.0013 |
| 6/5/2018 | <0.0013 |
| 11/29/2018 | <0.0013 |

EPA 1989 Outlier Screening

MW-D1



n = 11

No statistical outliers.
Mean 0.01148, std. dev.
0.001647, critical Tn
2.234

Normality test used:
Shapiro Wilk@alpha = 0.01
Calculated = 0.8983
Critical = 0.792
The distribution was found
to be normally distrib-
uted.

Constituent: Barium Analysis Run 1/7/2019 4:15 PM View: Sanitas_Statistics Sampling Events 1 through

CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

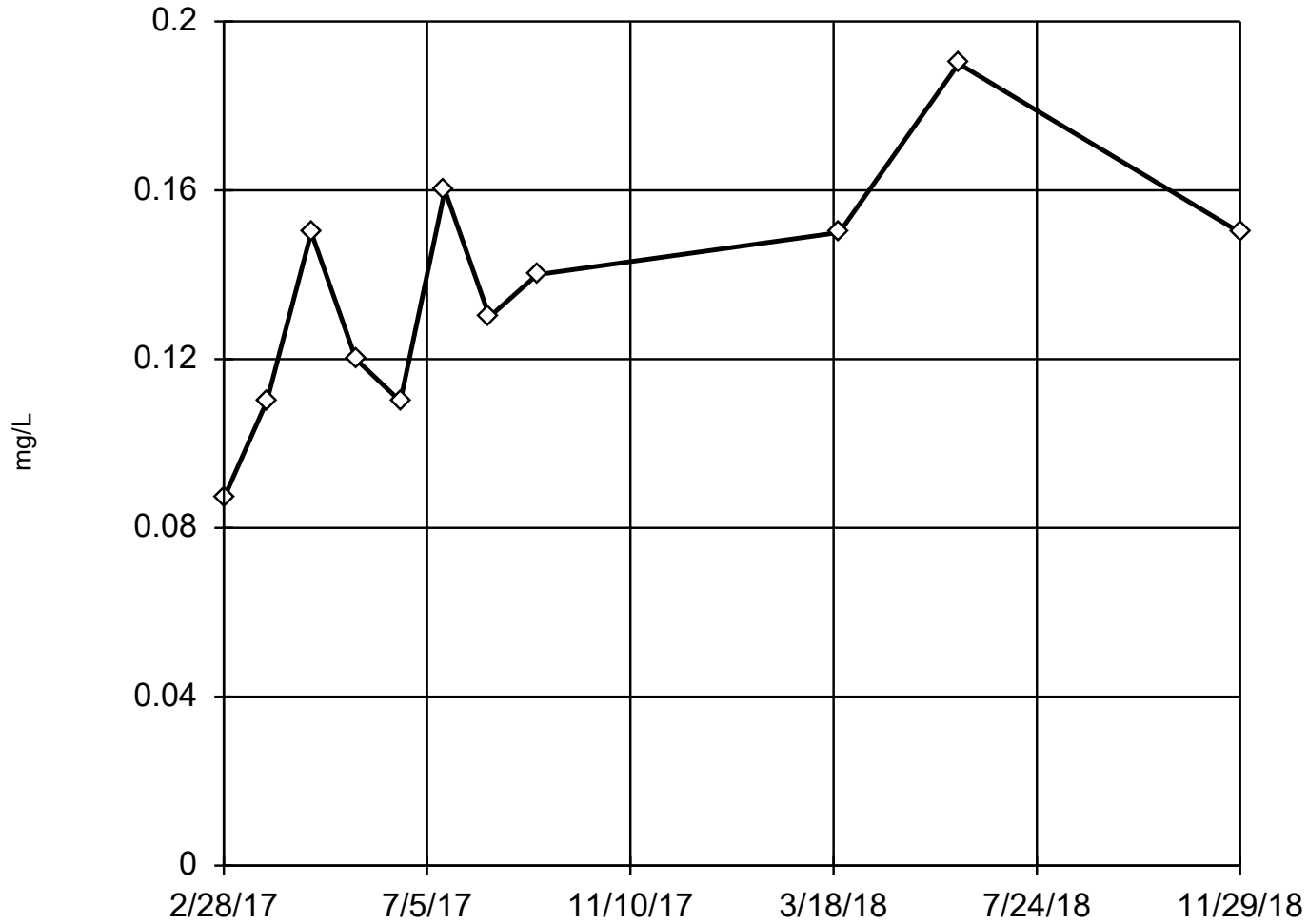
EPA 1989 Outlier Screening

Constituent: Barium (mg/L) Analysis Run 1/7/2019 4:19 PM View: Sanitas_Statistics Sampling Events 1 through 11
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

| | MW-D1 | Tn |
|------------|--------|---------|
| 2/28/2017 | 0.011 | -0.2385 |
| 3/27/2017 | 0.0099 | -0.9842 |
| 4/24/2017 | 0.011 | -0.2385 |
| 5/22/2017 | 0.013 | 0.9437 |
| 6/19/2017 | 0.012 | 0.3773 |
| 7/17/2017 | 0.012 | 0.3773 |
| 8/14/2017 | 0.014 | 1.468 |
| 9/13/2017 | 0.014 | 1.468 |
| 3/22/2018 | 0.0095 | -1.276 |
| 6/5/2018 | 0.01 | -0.9131 |
| 11/29/2018 | 0.0099 | -0.9842 |

EPA 1989 Outlier Screening

MW-D2



n = 11

No statistical outliers.
Mean 0.1361, std. dev.
0.02853, critical Tn 2.234

Normality test used:
Shapiro Wilk@alpha = 0.01
Calculated = 0.9726
Critical = 0.792
The distribution was found
to be normally distrib-
uted.

Constituent: Barium Analysis Run 1/7/2019 4:15 PM View: Sanitas_Statistics Sampling Events 1 through

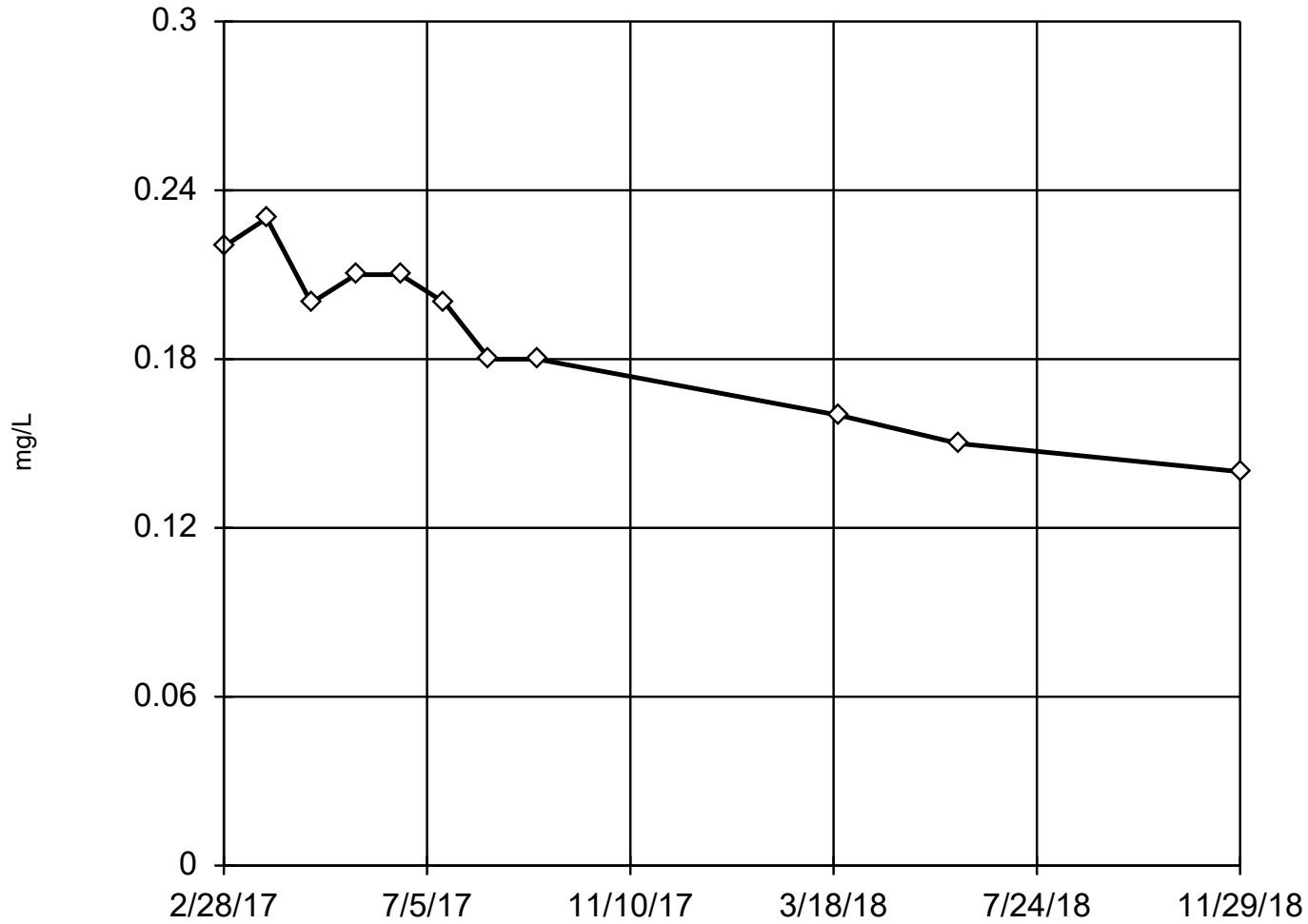
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

EPA 1989 Outlier Screening

Constituent: Barium (mg/L) Analysis Run 1/7/2019 4:19 PM View: Sanitas_Statistics Sampling Events 1 through 11
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

| | MW-D2 | Tn |
|------------|-------|---------|
| 2/28/2017 | 0.087 | -1.966 |
| 3/27/2017 | 0.11 | -0.8851 |
| 4/24/2017 | 0.15 | 0.5444 |
| 5/22/2017 | 0.12 | -0.4841 |
| 6/19/2017 | 0.11 | -0.8851 |
| 7/17/2017 | 0.16 | 0.8419 |
| 8/14/2017 | 0.13 | -0.1151 |
| 9/13/2017 | 0.14 | 0.2264 |
| 3/22/2018 | 0.15 | 0.5444 |
| 6/5/2018 | 0.19 | 1.634 |
| 11/29/2018 | 0.15 | 0.5444 |

EPA 1989 Outlier Screening MW-D3



n = 11

No statistical outliers.
Mean 0.1891, std. dev.
0.02948, critical Tn 2.234

Normality test used:
Shapiro Wilk@alpha = 0.01
Calculated = 0.9443
Critical = 0.792
The distribution was found
to be normally distrib-
uted.

Constituent: Barium Analysis Run 1/7/2019 4:15 PM View: Sanitas_Statistics Sampling Events 1 through
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

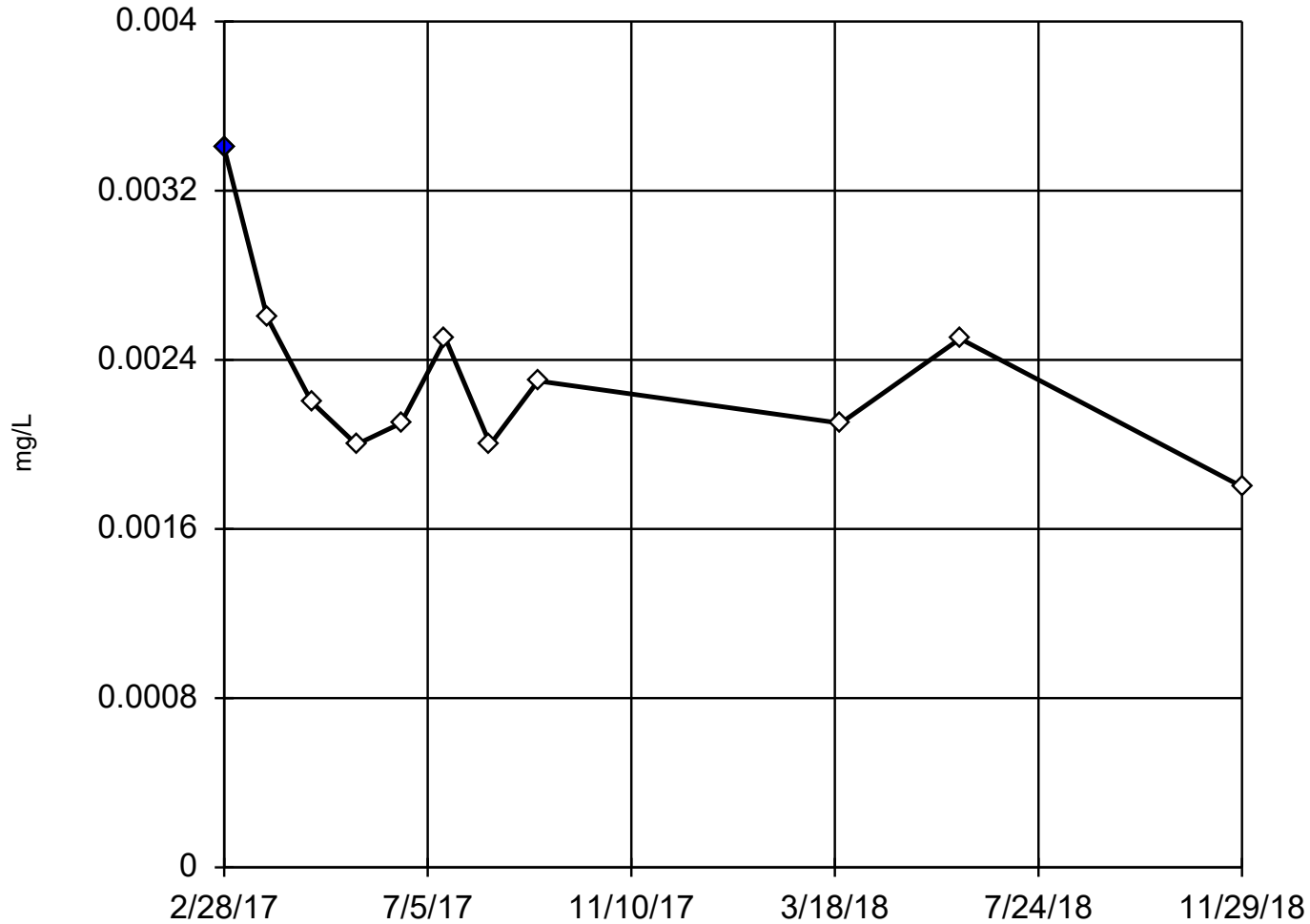
EPA 1989 Outlier Screening

Constituent: Barium (mg/L) Analysis Run 1/7/2019 4:19 PM View: Sanitas_Statistics Sampling Events 1 through 11
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

| | MW-D3 | Tn |
|------------|-------|---------|
| 2/28/2017 | 0.22 | 1.002 |
| 3/27/2017 | 0.23 | 1.275 |
| 4/24/2017 | 0.2 | 0.4165 |
| 5/22/2017 | 0.21 | 0.7163 |
| 6/19/2017 | 0.21 | 0.7163 |
| 7/17/2017 | 0.2 | 0.4165 |
| 8/14/2017 | 0.18 | -0.2309 |
| 9/13/2017 | 0.18 | -0.2309 |
| 3/22/2018 | 0.16 | -0.9547 |
| 6/5/2018 | 0.15 | -1.351 |
| 11/29/2018 | 0.14 | -1.775 |

EPA 1989 Outlier Screening

MW-U1 (bg)



n = 11

Statistical outlier is drawn as solid.
Mean 0.002318, std. dev. 0.0004355, critical Tn 2.234. After removing suspect data: mean 0.00221, std. dev. 0.0002601, Tn 2.176.

Normality test used:
Shapiro Wilk@alpha = 0.01
Calculated = 0.9464
Critical = 0.781
The distribution, after removal of suspect value, was found to be normally distributed.

Constituent: Barium Analysis Run 1/7/2019 4:15 PM View: Sanitas_Statistics Sampling Events 1 through

CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

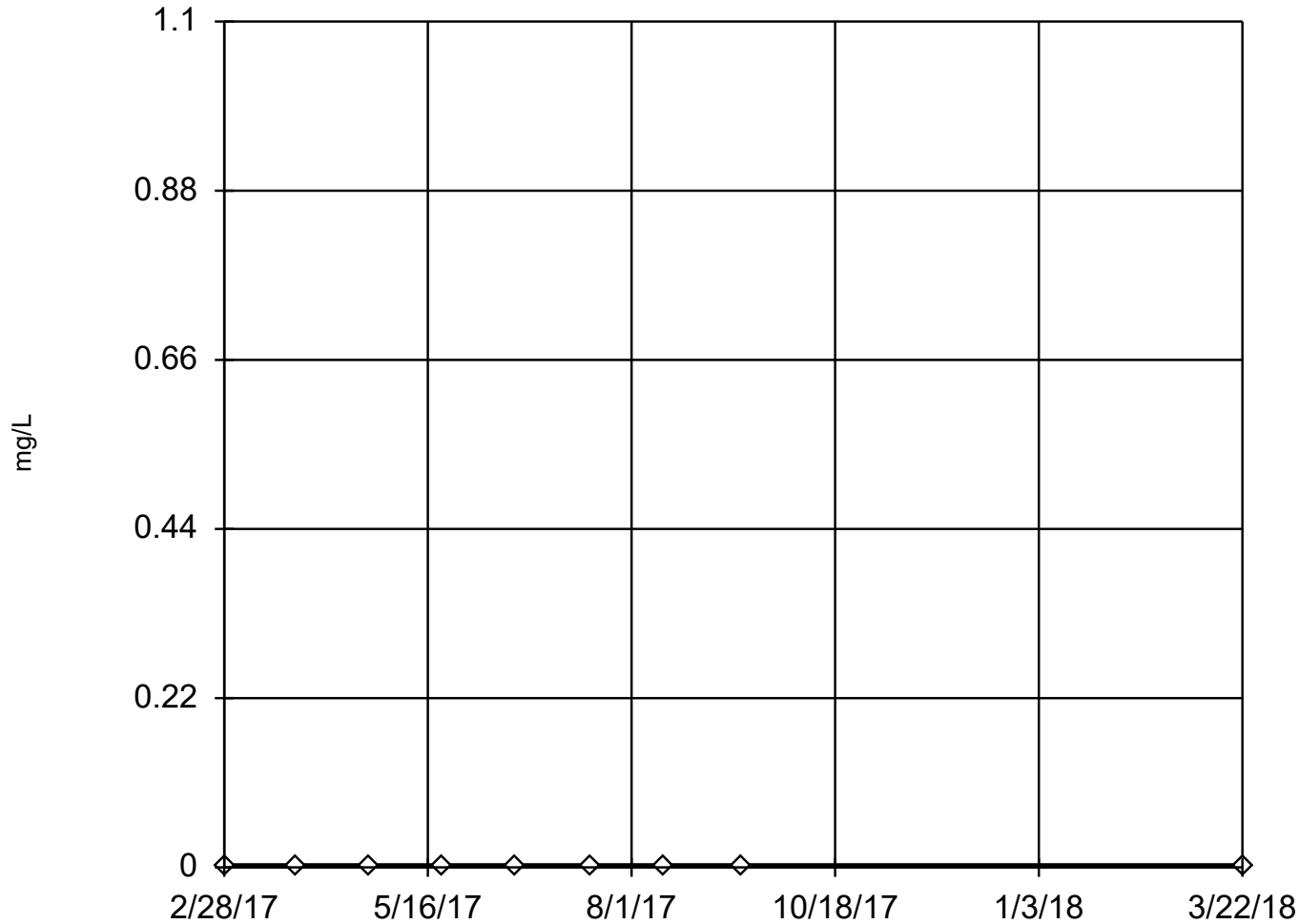
EPA 1989 Outlier Screening

Constituent: Barium (mg/L) Analysis Run 1/7/2019 4:19 PM View: Sanitas_Statistics Sampling Events 1 through 11
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

| | MW-U1 (bg) | Tn | Tn |
|------------|------------|-----------|---------|
| 2/28/2017 | 0.0034 (O) | 2.298 (O) | |
| 3/27/2017 | 0.0026 | 0.7463 | 1.43 |
| 4/24/2017 | 0.0022 (J) | -0.2199 | 0.01454 |
| 5/22/2017 | 0.002 (J) | -0.7711 | -0.7932 |
| 6/19/2017 | 0.0021 (J) | -0.4889 | -0.3797 |
| 7/17/2017 | 0.0025 | 0.5195 | 1.098 |
| 8/14/2017 | 0.002 (J) | -0.7711 | -0.7932 |
| 9/13/2017 | 0.0023 (J) | 0.03723 | 0.3913 |
| 3/22/2018 | 0.0021 (J) | -0.4889 | -0.3797 |
| 6/5/2018 | 0.0025 | 0.5195 | 1.098 |
| 11/29/2018 | 0.0018 (J) | -1.38 | -1.686 |

Tukey's Outlier Screening

MW-D1



n = 9

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: Beryllium Analysis Run 1/7/2019 4:15 PM View: Sanitas_Statistics Sampling Events 1 through

CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

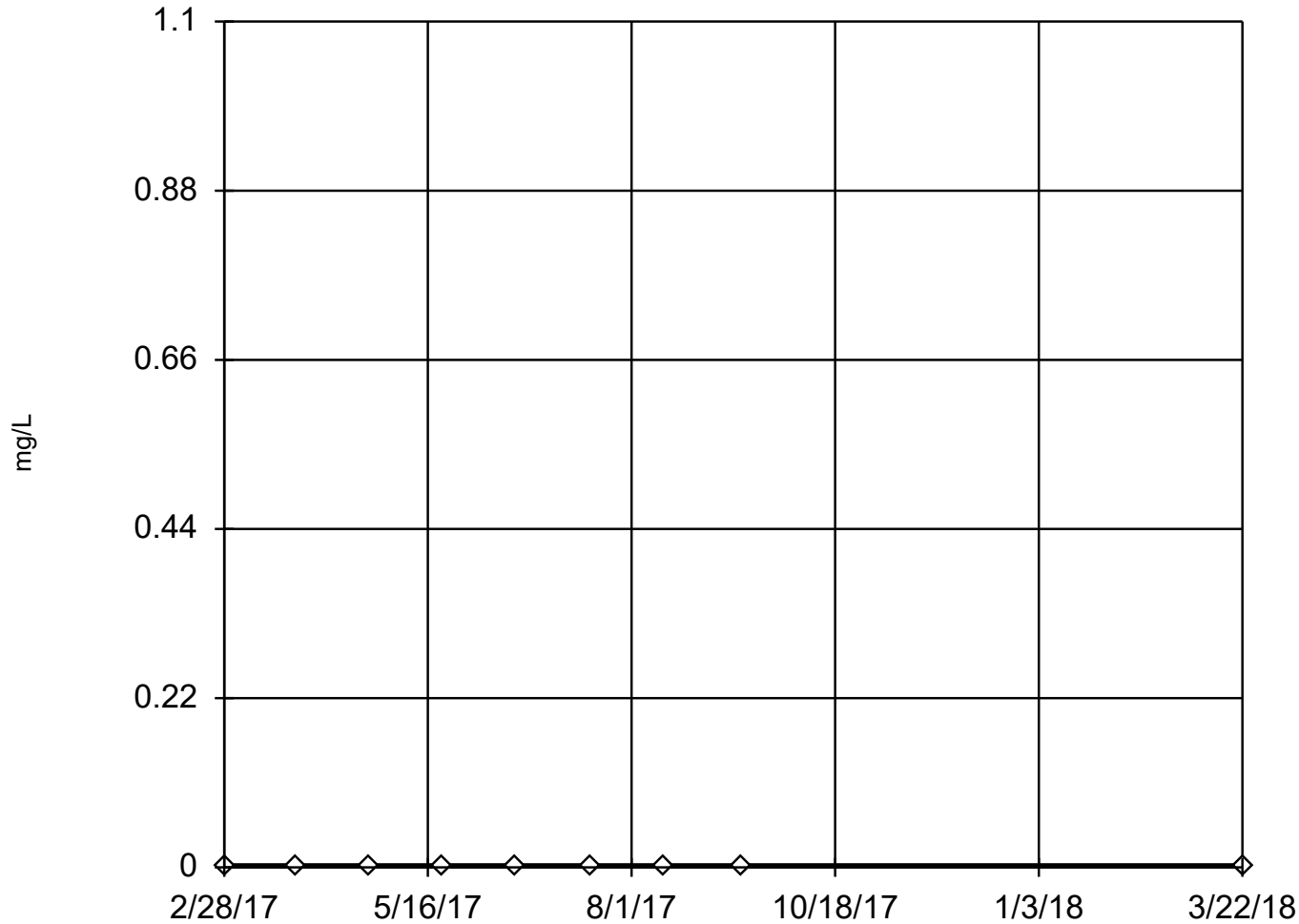
Tukey's Outlier Screening

Constituent: Beryllium (mg/L) Analysis Run 1/7/2019 4:19 PM View: Sanitas_Statistics Sampling Events 1 through 11
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

| | MW-D1 |
|-----------|---------|
| 2/28/2017 | <0.0025 |
| 3/27/2017 | <0.0025 |
| 4/24/2017 | <0.0025 |
| 5/22/2017 | <0.0025 |
| 6/19/2017 | <0.0025 |
| 7/17/2017 | <0.0025 |
| 8/14/2017 | <0.0025 |
| 9/13/2017 | <0.0025 |
| 3/22/2018 | <0.0025 |

Tukey's Outlier Screening

MW-D2



n = 9

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: Beryllium Analysis Run 1/7/2019 4:15 PM View: Sanitas_Statistics Sampling Events 1 through

CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

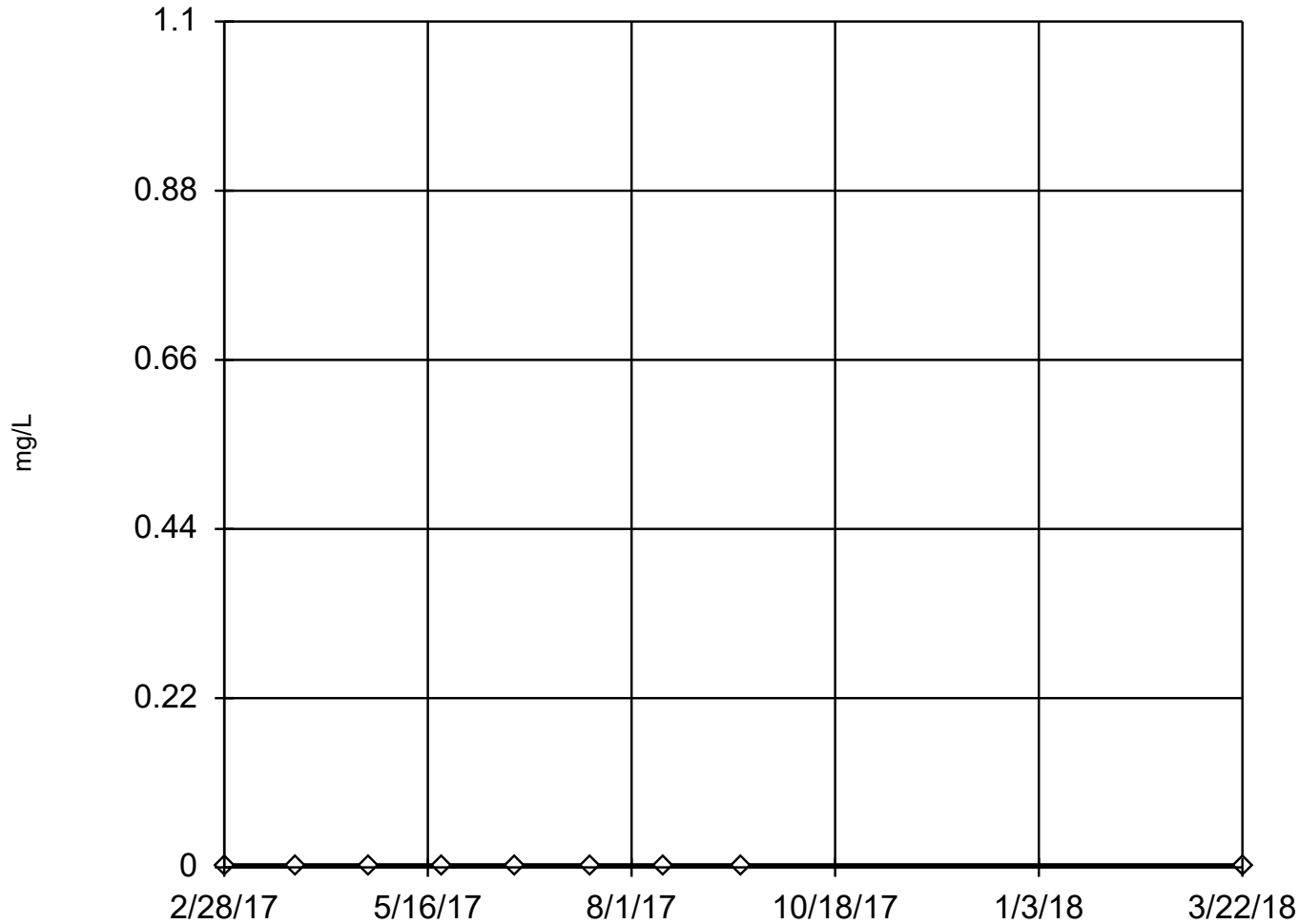
Tukey's Outlier Screening

Constituent: Beryllium (mg/L) Analysis Run 1/7/2019 4:19 PM View: Sanitas_Statistics Sampling Events 1 through 11
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

| | MW-D2 |
|-----------|---------|
| 2/28/2017 | <0.0025 |
| 3/27/2017 | <0.0025 |
| 4/24/2017 | <0.0025 |
| 5/22/2017 | <0.0025 |
| 6/19/2017 | <0.0025 |
| 7/17/2017 | <0.0025 |
| 8/14/2017 | <0.0025 |
| 9/13/2017 | <0.0025 |
| 3/22/2018 | <0.0025 |

Tukey's Outlier Screening

MW-D3



n = 9

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: Beryllium Analysis Run 1/7/2019 4:15 PM View: Sanitas_Statistics Sampling Events 1 through

CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

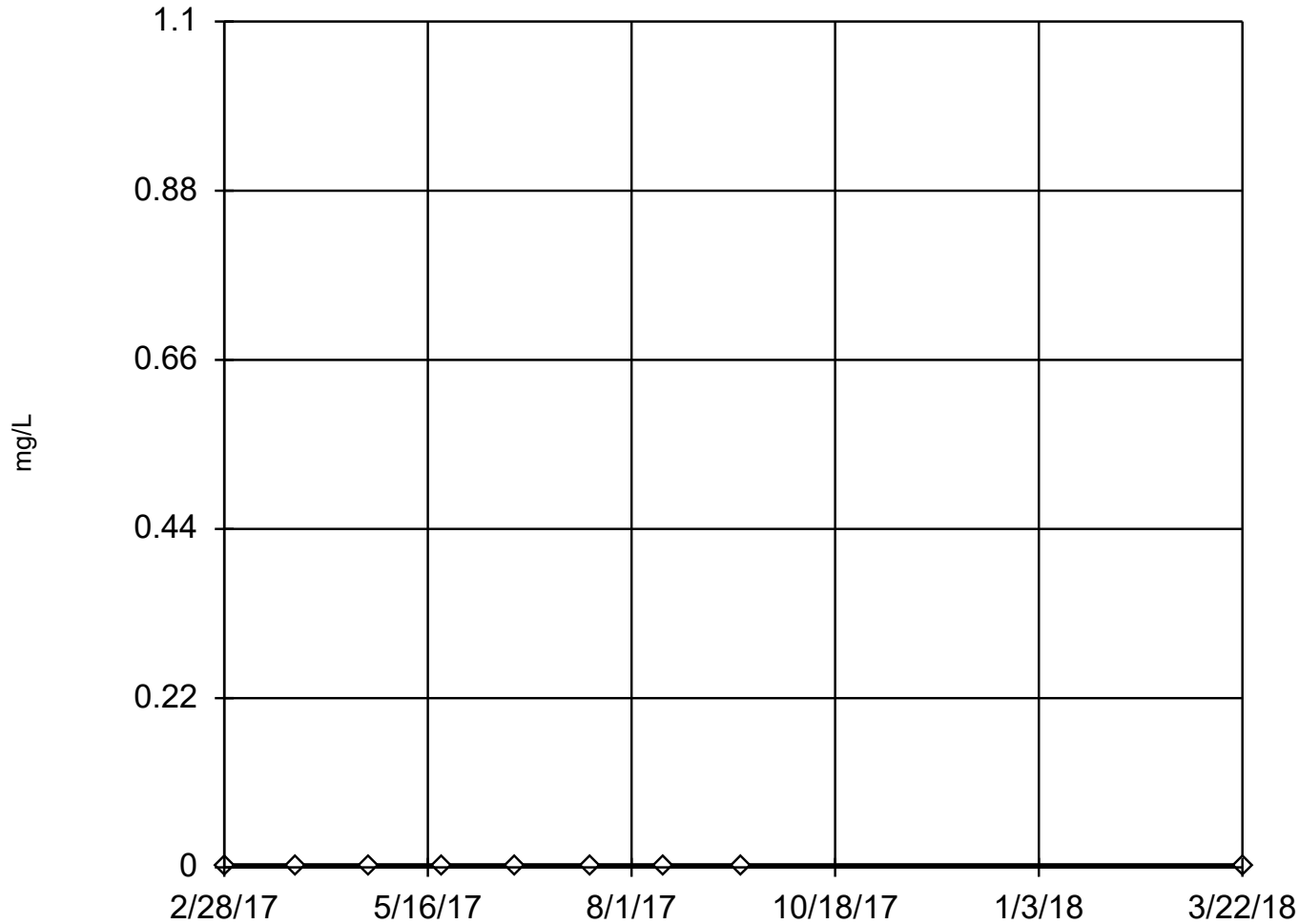
Tukey's Outlier Screening

Constituent: Beryllium (mg/L) Analysis Run 1/7/2019 4:19 PM View: Sanitas_Statistics Sampling Events 1 through 11
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

| | MW-D3 |
|-----------|---------|
| 2/28/2017 | <0.0025 |
| 3/27/2017 | <0.0025 |
| 4/24/2017 | <0.0025 |
| 5/22/2017 | <0.0025 |
| 6/19/2017 | <0.0025 |
| 7/17/2017 | <0.0025 |
| 8/14/2017 | <0.0025 |
| 9/13/2017 | <0.0025 |
| 3/22/2018 | <0.0025 |

Tukey's Outlier Screening

MW-U1 (bg)



n = 9

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: Beryllium Analysis Run 1/7/2019 4:15 PM View: Sanitas_Statistics Sampling Events 1 through

CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

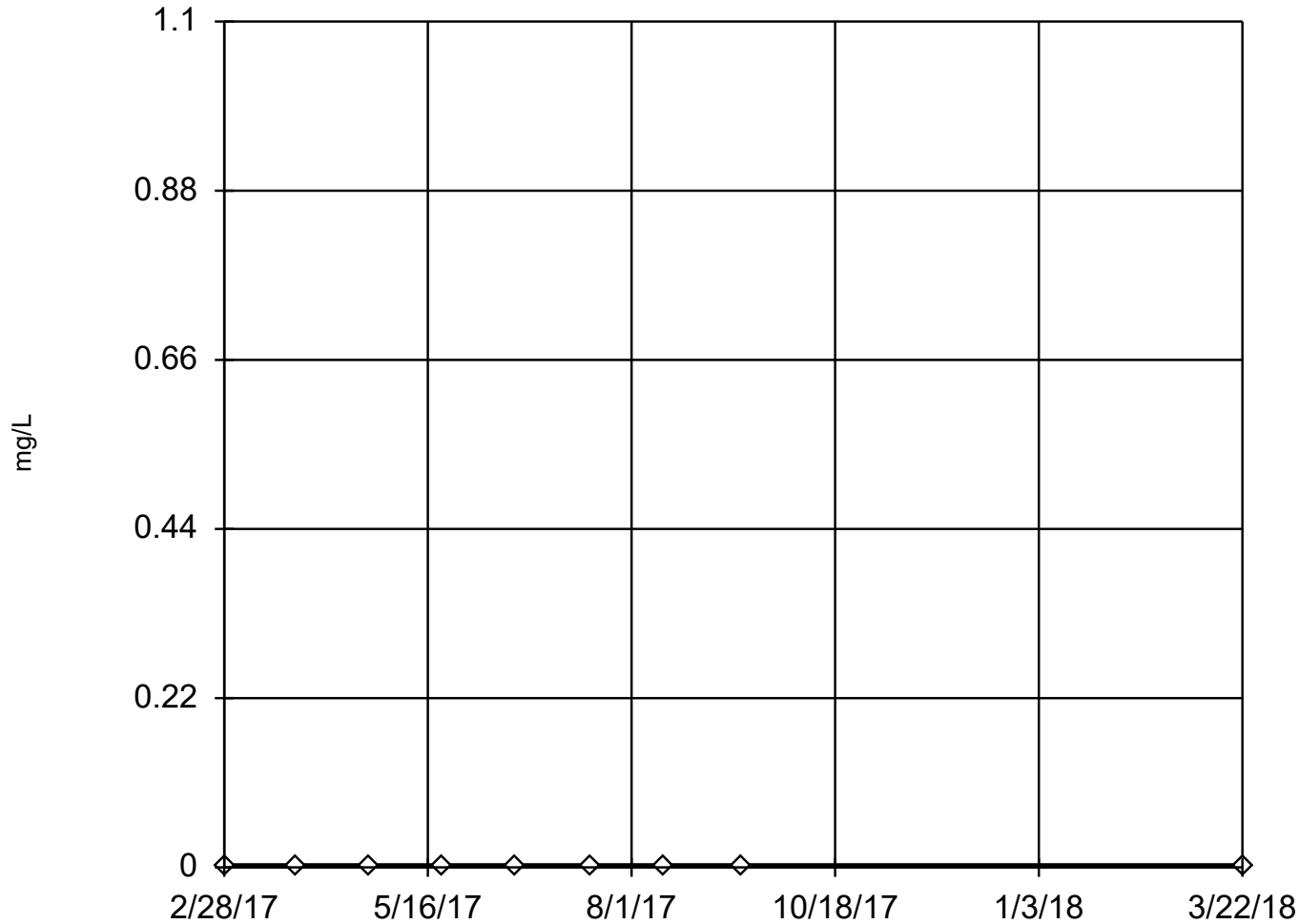
Tukey's Outlier Screening

Constituent: Beryllium (mg/L) Analysis Run 1/7/2019 4:19 PM View: Sanitas_Statistics Sampling Events 1 through 11
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

| | MW-U1 (bg) |
|-----------|------------|
| 2/28/2017 | <0.0025 |
| 3/27/2017 | <0.0025 |
| 4/24/2017 | <0.0025 |
| 5/22/2017 | <0.0025 |
| 6/19/2017 | <0.0025 |
| 7/17/2017 | <0.0025 |
| 8/14/2017 | <0.0025 |
| 9/13/2017 | <0.0025 |
| 3/22/2018 | <0.0025 |

Tukey's Outlier Screening

MW-D1



n = 9

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.

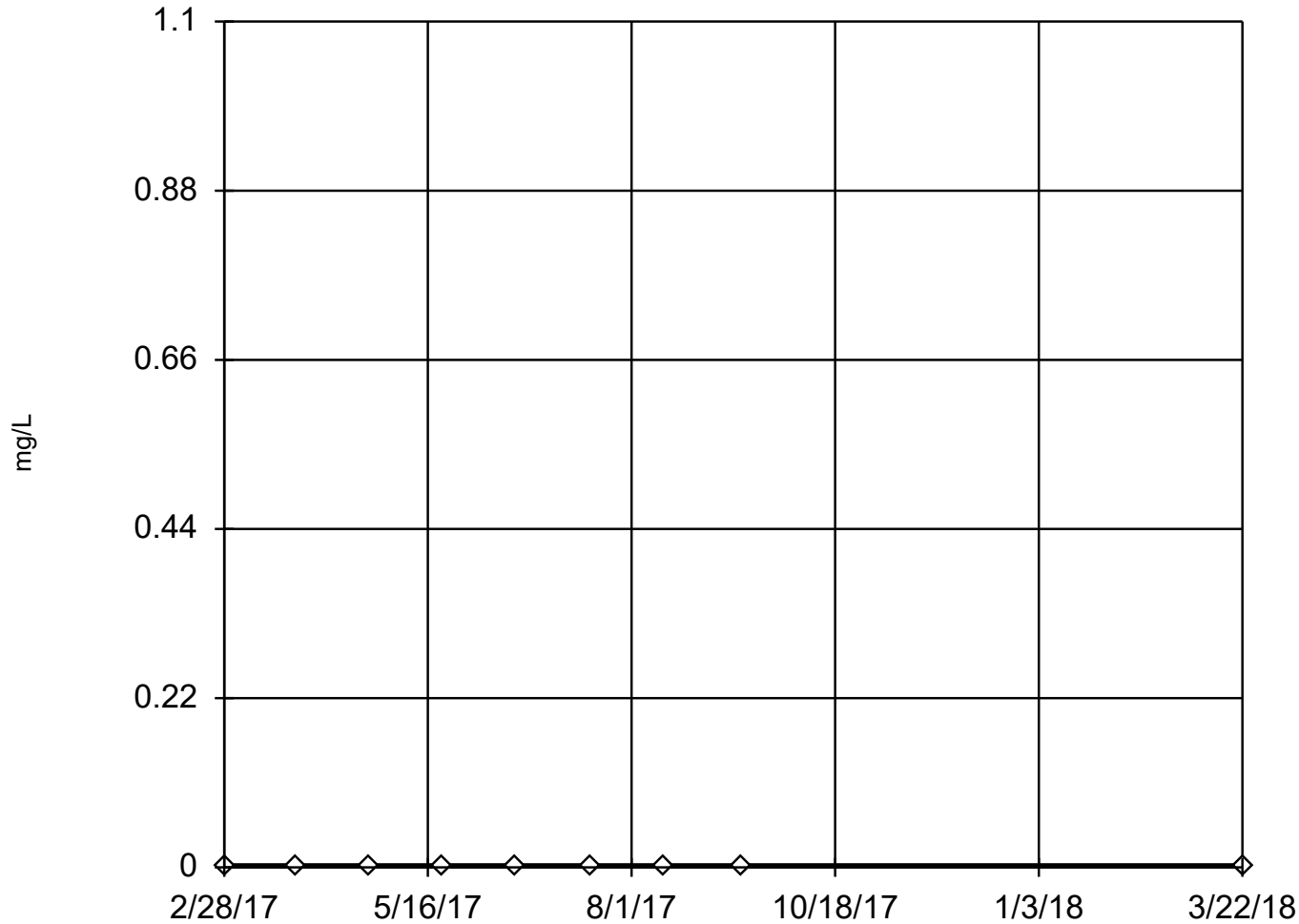
Tukey's Outlier Screening

Constituent: Cadmium (mg/L) Analysis Run 1/7/2019 4:19 PM View: Sanitas_Statistics Sampling Events 1 through 11
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

| | MW-D1 |
|-----------|---------|
| 2/28/2017 | <0.0025 |
| 3/27/2017 | <0.0025 |
| 4/24/2017 | <0.0025 |
| 5/22/2017 | <0.0025 |
| 6/19/2017 | <0.0025 |
| 7/17/2017 | <0.0025 |
| 8/14/2017 | <0.0025 |
| 9/13/2017 | <0.0025 |
| 3/22/2018 | <0.0025 |

Tukey's Outlier Screening

MW-D2



n = 9

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: Cadmium Analysis Run 1/7/2019 4:15 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

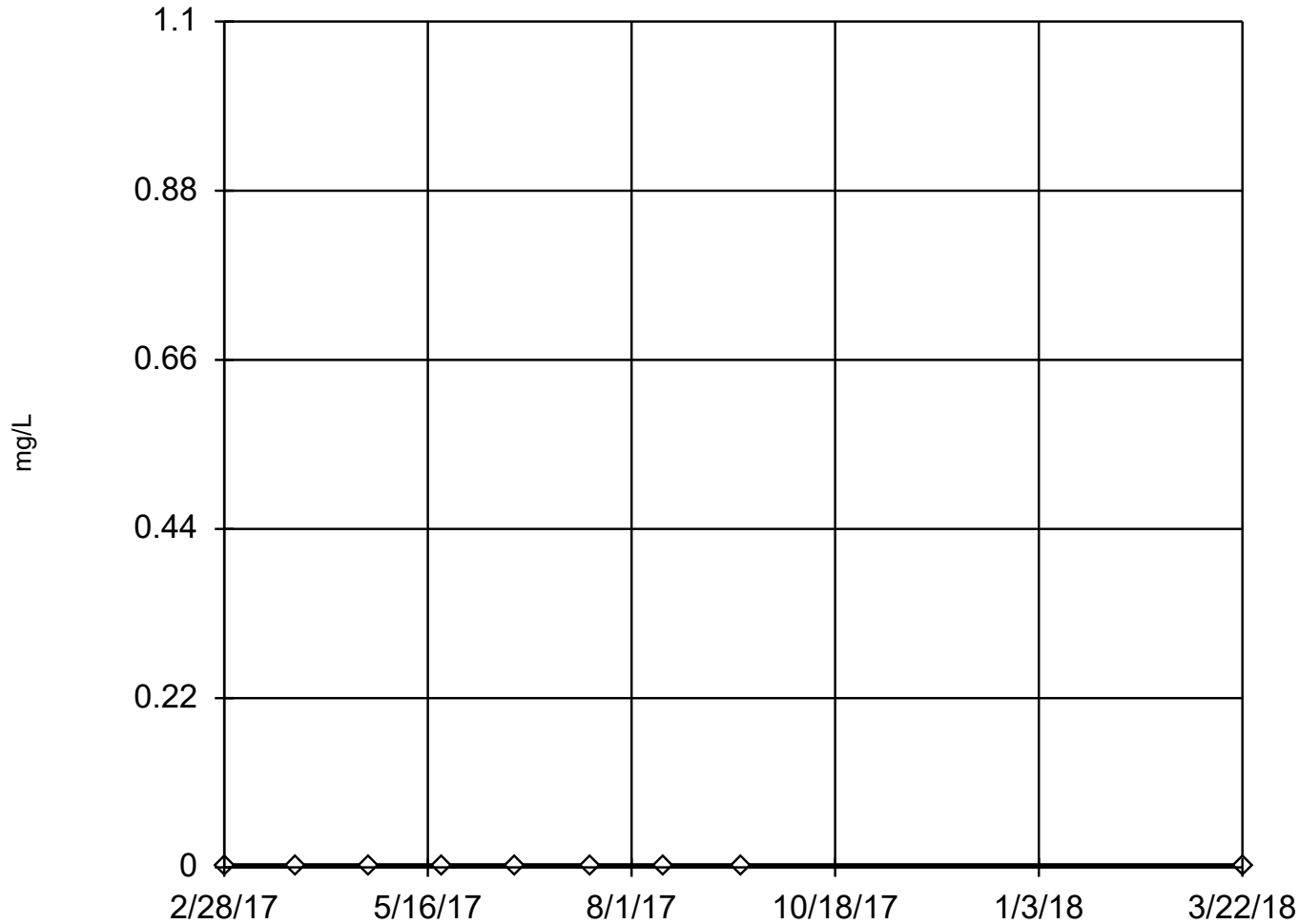
Tukey's Outlier Screening

Constituent: Cadmium (mg/L) Analysis Run 1/7/2019 4:19 PM View: Sanitas_Statistics Sampling Events 1 through 11
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

| | MW-D2 |
|-----------|---------|
| 2/28/2017 | <0.0025 |
| 3/27/2017 | <0.0025 |
| 4/24/2017 | <0.0025 |
| 5/22/2017 | <0.0025 |
| 6/19/2017 | <0.0025 |
| 7/17/2017 | <0.0025 |
| 8/14/2017 | <0.0025 |
| 9/13/2017 | <0.0025 |
| 3/22/2018 | <0.0025 |

Tukey's Outlier Screening

MW-D3



n = 9

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: Cadmium Analysis Run 1/7/2019 4:15 PM View: Sanitas_Statistics Sampling Events 1 through

CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

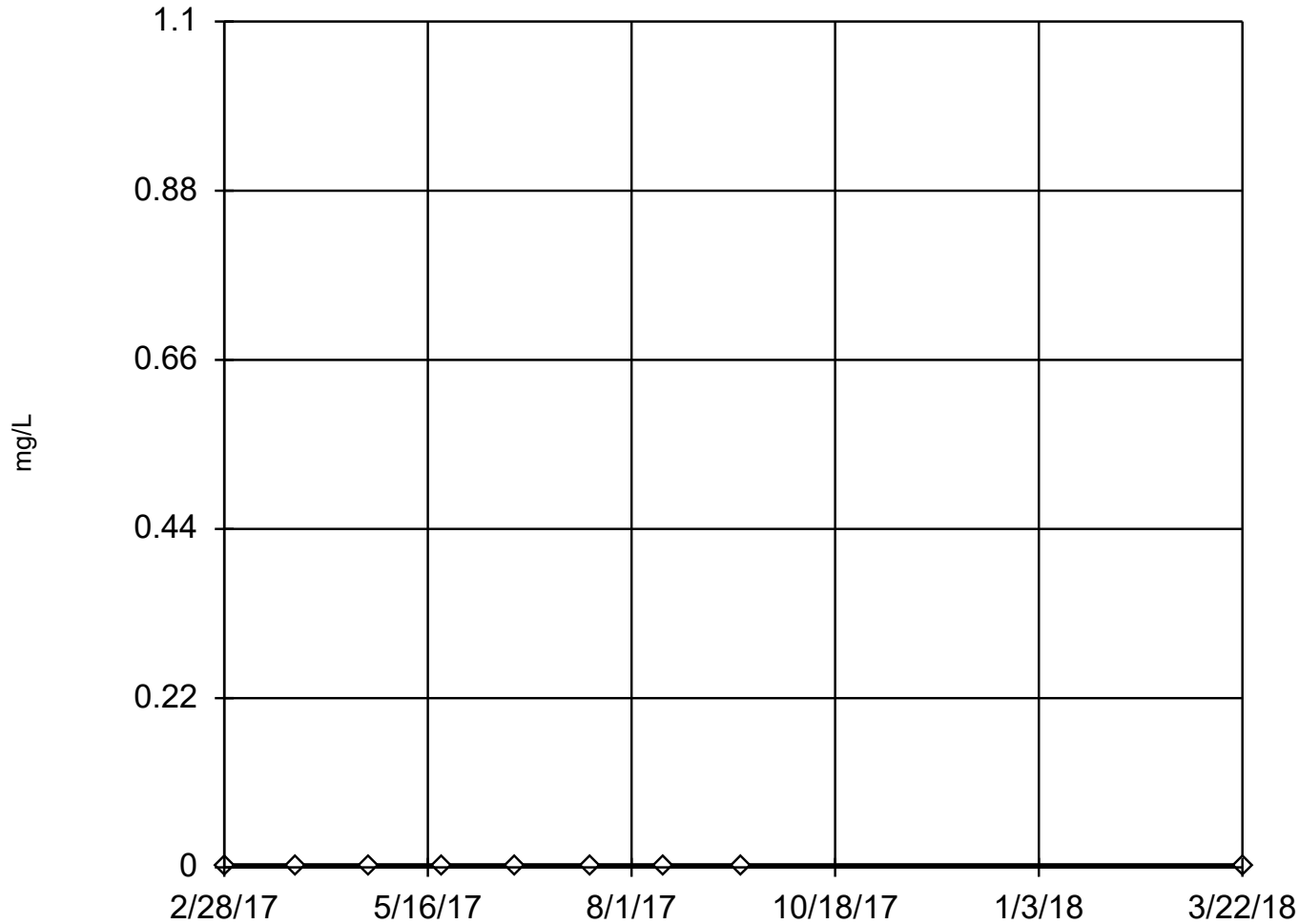
Tukey's Outlier Screening

Constituent: Cadmium (mg/L) Analysis Run 1/7/2019 4:19 PM View: Sanitas_Statistics Sampling Events 1 through 11
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

| | MW-D3 |
|-----------|---------|
| 2/28/2017 | <0.0025 |
| 3/27/2017 | <0.0025 |
| 4/24/2017 | <0.0025 |
| 5/22/2017 | <0.0025 |
| 6/19/2017 | <0.0025 |
| 7/17/2017 | <0.0025 |
| 8/14/2017 | <0.0025 |
| 9/13/2017 | <0.0025 |
| 3/22/2018 | <0.0025 |

Tukey's Outlier Screening

MW-U1 (bg)



n = 9

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: Cadmium Analysis Run 1/7/2019 4:15 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

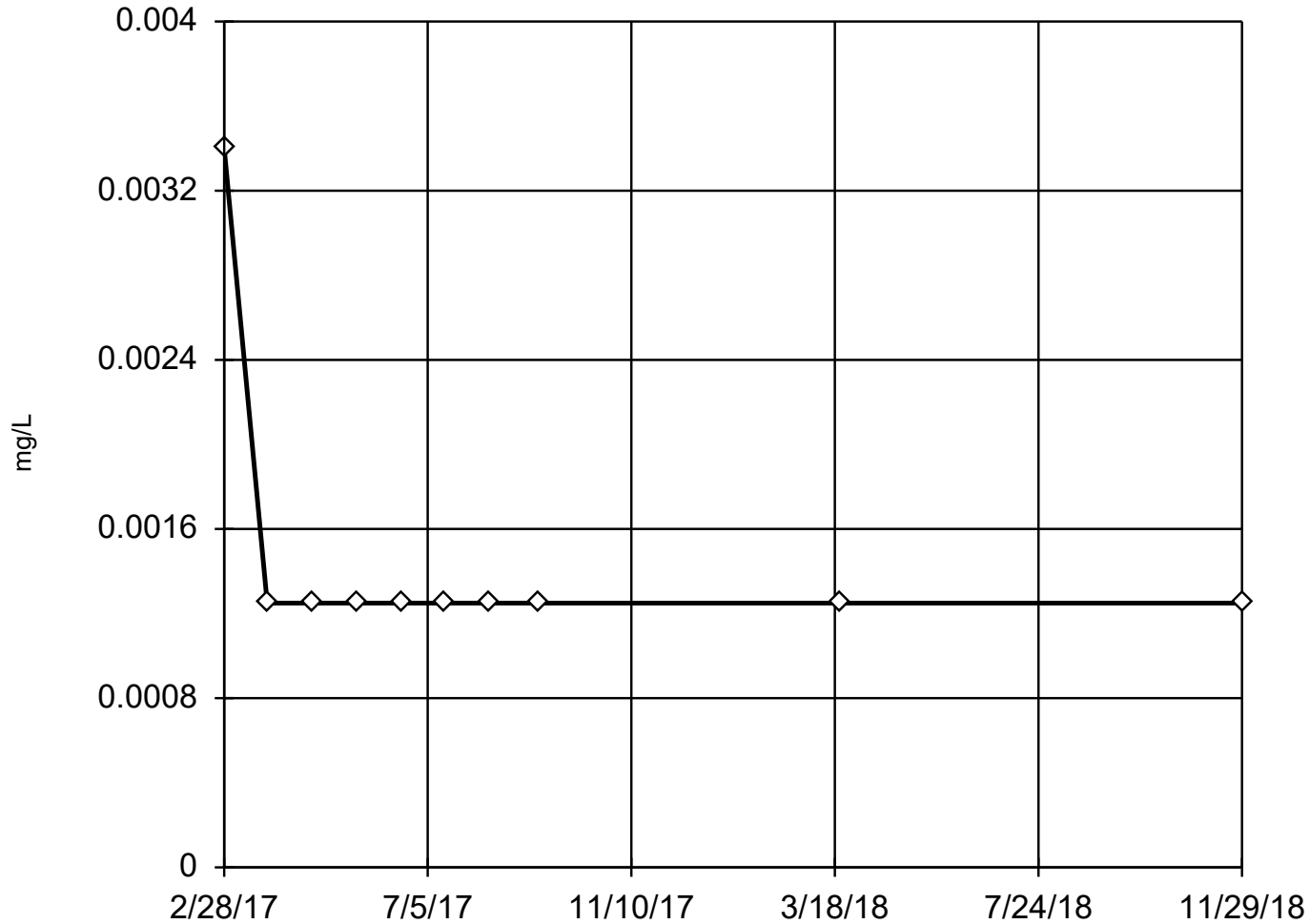
Tukey's Outlier Screening

Constituent: Cadmium (mg/L) Analysis Run 1/7/2019 4:19 PM View: Sanitas_Statistics Sampling Events 1 through 11
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

| | MW-U1 (bg) |
|-----------|------------|
| 2/28/2017 | <0.0025 |
| 3/27/2017 | <0.0025 |
| 4/24/2017 | <0.0025 |
| 5/22/2017 | <0.0025 |
| 6/19/2017 | <0.0025 |
| 7/17/2017 | <0.0025 |
| 8/14/2017 | <0.0025 |
| 9/13/2017 | <0.0025 |
| 3/22/2018 | <0.0025 |

Tukey's Outlier Screening

MW-D1



n = 10

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 x⁵ transformed to achieve best W statistic (graph shown in original units).

The results were invalidated, because the lower and upper quartiles are equal.

Constituent: Chromium Analysis Run 1/7/2019 4:15 PM View: Sanitas_Statistics Sampling Events 1 thru

CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

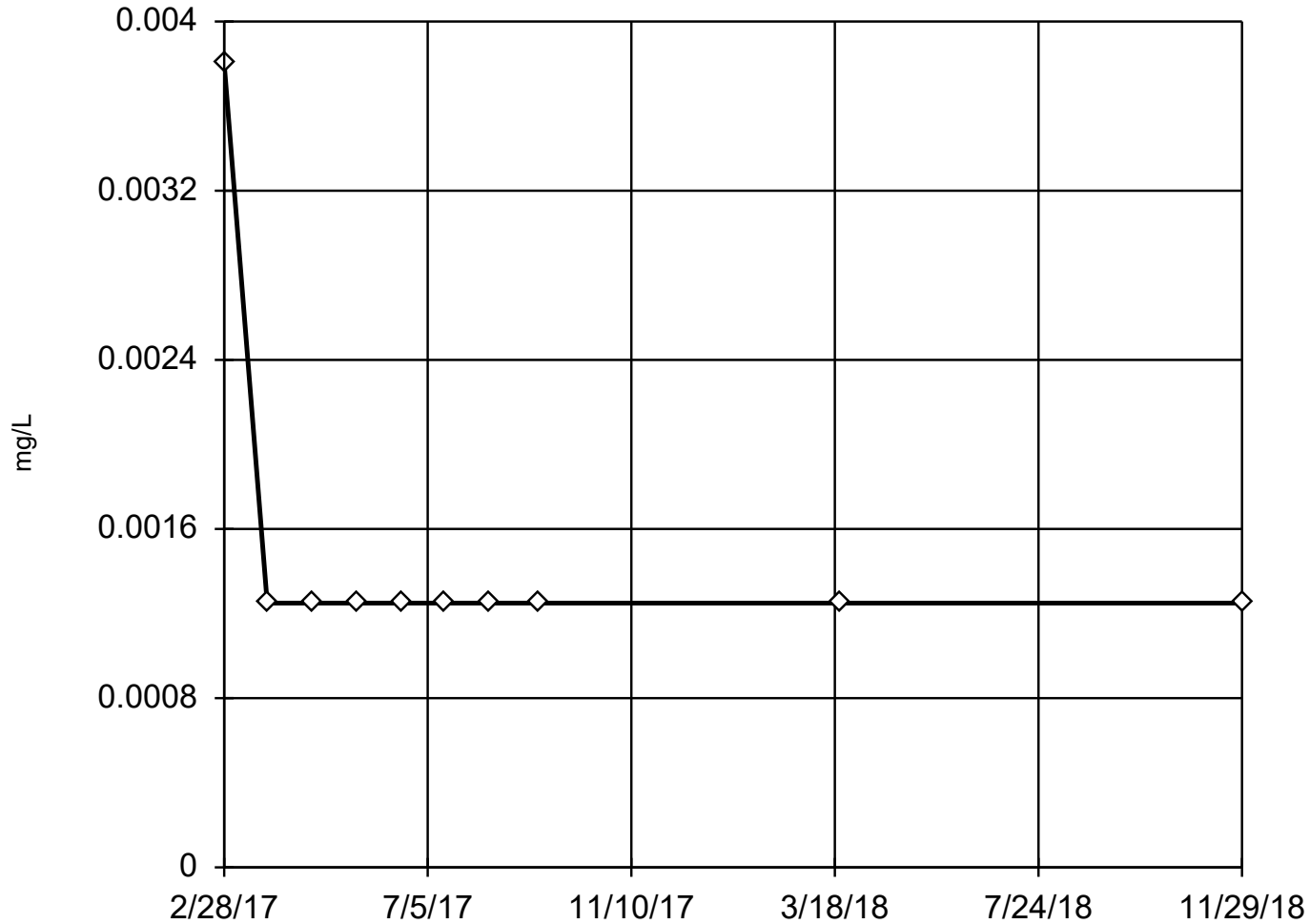
Tukey's Outlier Screening

Constituent: Chromium (mg/L) Analysis Run 1/7/2019 4:19 PM View: Sanitas_Statistics Sampling Events 1 through 11
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

| | MW-D1 |
|------------|---------|
| 2/28/2017 | 0.0034 |
| 3/27/2017 | <0.0025 |
| 4/24/2017 | <0.0025 |
| 5/22/2017 | <0.0025 |
| 6/19/2017 | <0.0025 |
| 7/17/2017 | <0.0025 |
| 8/14/2017 | <0.0025 |
| 9/13/2017 | <0.0025 |
| 3/22/2018 | <0.0025 |
| 11/29/2018 | <0.0025 |

Tukey's Outlier Screening

MW-D2



n = 10

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: Chromium Analysis Run 1/7/2019 4:15 PM View: Sanitas_Statistics Sampling Events 1 thru

CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

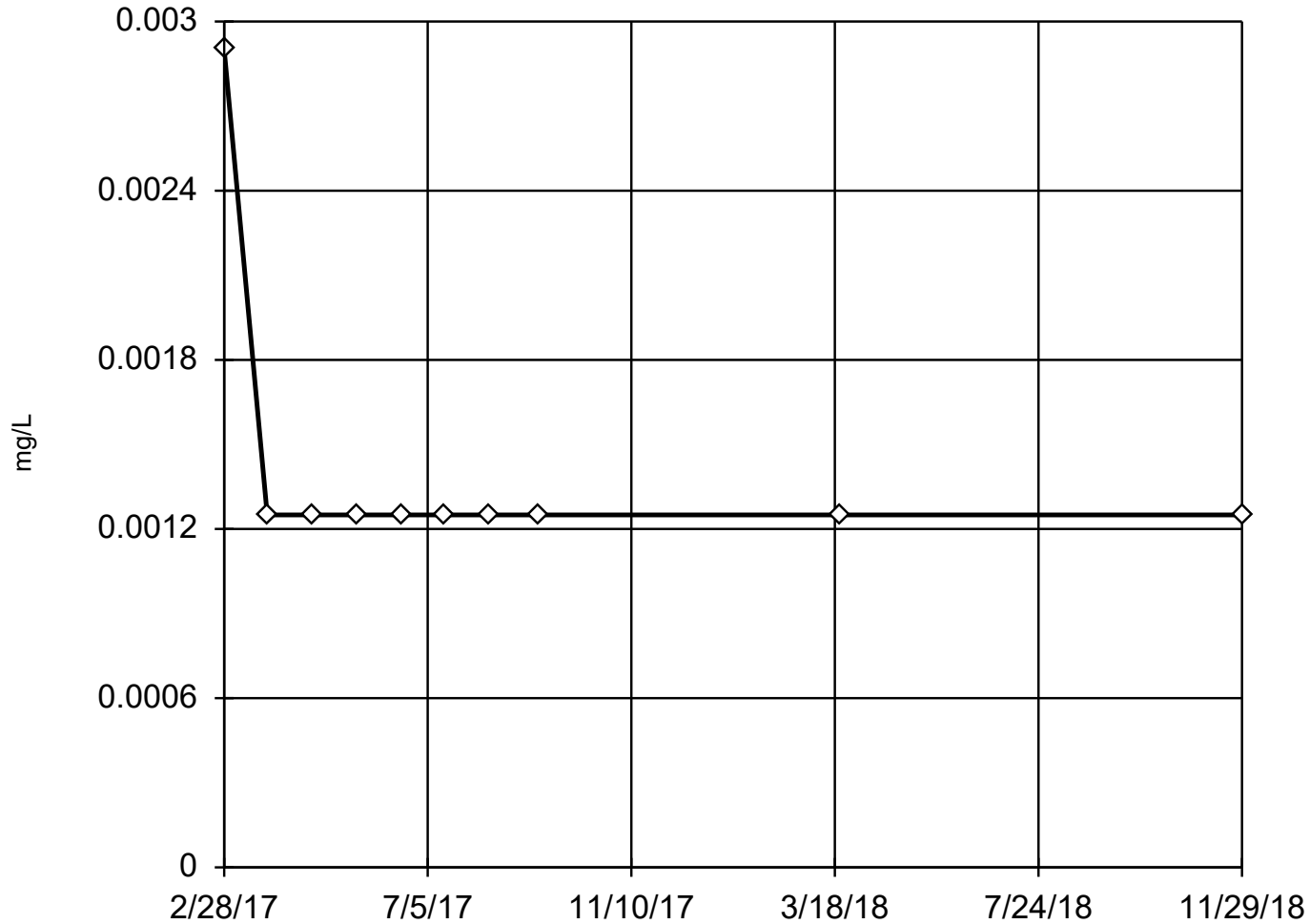
Tukey's Outlier Screening

Constituent: Chromium (mg/L) Analysis Run 1/7/2019 4:19 PM View: Sanitas_Statistics Sampling Events 1 through 11
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

| | MW-D2 |
|------------|---------|
| 2/28/2017 | 0.0038 |
| 3/27/2017 | <0.0025 |
| 4/24/2017 | <0.0025 |
| 5/22/2017 | <0.0025 |
| 6/19/2017 | <0.0025 |
| 7/17/2017 | <0.0025 |
| 8/14/2017 | <0.0025 |
| 9/13/2017 | <0.0025 |
| 3/22/2018 | <0.0025 |
| 11/29/2018 | <0.0025 |

Tukey's Outlier Screening

MW-D3



n = 10

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: Chromium Analysis Run 1/7/2019 4:16 PM View: Sanitas_Statistics Sampling Events 1 thru

CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

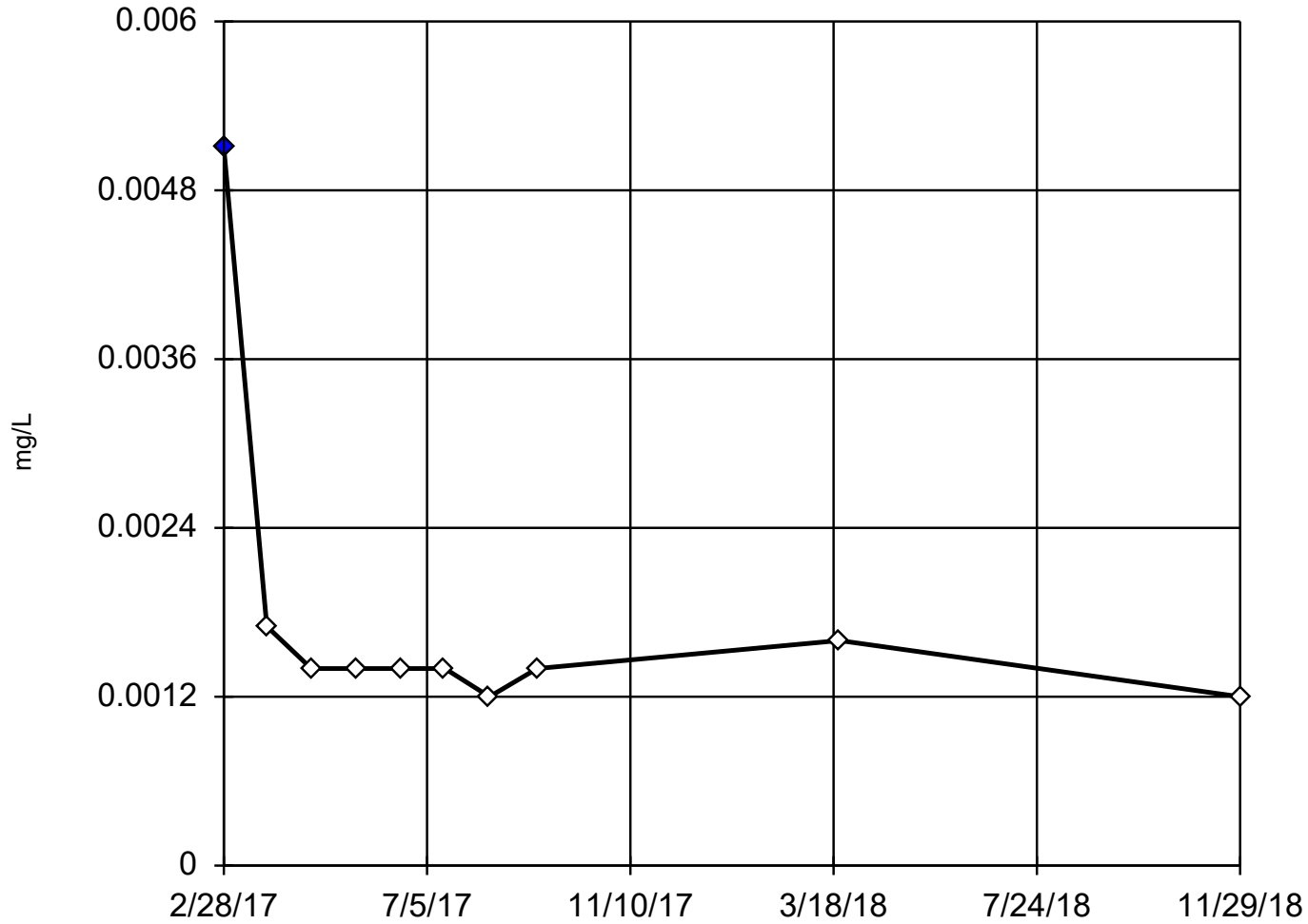
Tukey's Outlier Screening

Constituent: Chromium (mg/L) Analysis Run 1/7/2019 4:19 PM View: Sanitas_Statistics Sampling Events 1 through 11
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

| | MW-D3 |
|------------|---------|
| 2/28/2017 | 0.0029 |
| 3/27/2017 | <0.0025 |
| 4/24/2017 | <0.0025 |
| 5/22/2017 | <0.0025 |
| 6/19/2017 | <0.0025 |
| 7/17/2017 | <0.0025 |
| 8/14/2017 | <0.0025 |
| 9/13/2017 | <0.0025 |
| 3/22/2018 | <0.0025 |
| 11/29/2018 | <0.0025 |

EPA 1989 Outlier Screening

MW-U1 (bg)



n = 10

Statistical outlier is drawn as solid.
Mean 0.00178, std. dev. 0.001176, critical Tn 2.176. After removing suspect data: mean 0.001411, std. dev. 0.0001616, Tn 2.11.

Normality test used:
Shapiro Wilk@alpha = 0.01
Calculated = 0.8613
Critical = 0.764
The distribution, after removal of suspect value, was found to be normally distributed.

Constituent: Chromium Analysis Run 1/7/2019 4:16 PM View: Sanitas_Statistics Sampling Events 1 thru

CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

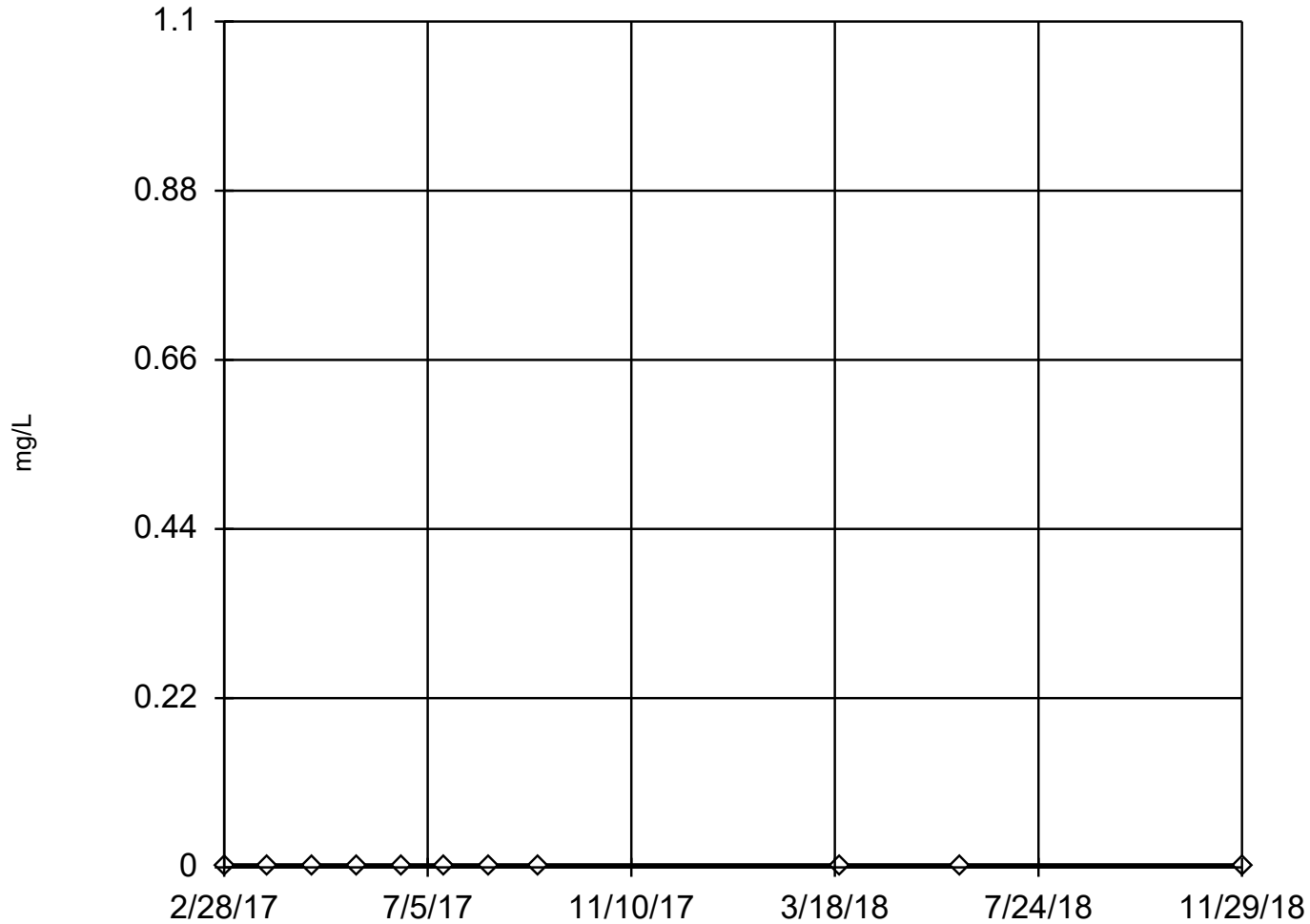
EPA 1989 Outlier Screening

Constituent: Chromium (mg/L) Analysis Run 1/7/2019 4:19 PM View: Sanitas_Statistics Sampling Events 1 through 11
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

| | MW-U1 (bg) | Tn | Tn |
|------------|------------|-----------|----------|
| 2/28/2017 | 0.0051 (O) | 2.753 (O) | |
| 3/27/2017 | 0.0017 (J) | 0.1492 | 1.692 |
| 4/24/2017 | 0.0014 (J) | -0.311 | -0.01898 |
| 5/22/2017 | 0.0014 (J) | -0.311 | -0.01898 |
| 6/19/2017 | 0.0014 (J) | -0.311 | -0.01898 |
| 7/17/2017 | 0.0014 (J) | -0.311 | -0.01898 |
| 8/14/2017 | 0.0012 (J) | -0.6764 | -1.377 |
| 9/13/2017 | 0.0014 (J) | -0.311 | -0.01898 |
| 3/22/2018 | 0.0016 (J) | 0.005489 | 1.158 |
| 11/29/2018 | 0.0012 (J) | -0.6764 | -1.377 |

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 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 1/7/2019 4:16 PM View: Sanitas_Statistics Sampling Events 1 through 1

CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

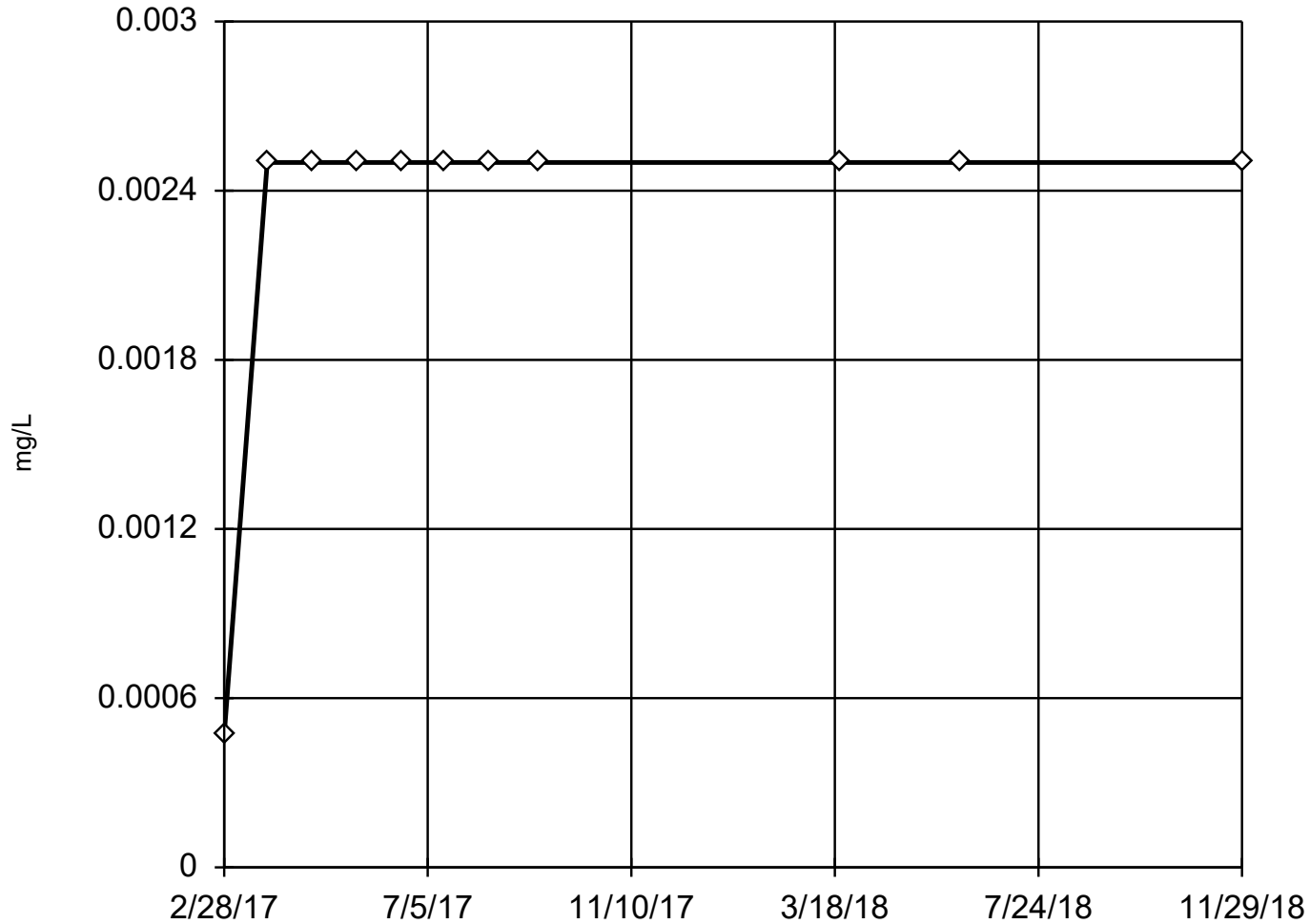
Tukey's Outlier Screening

Constituent: Cobalt (mg/L) Analysis Run 1/7/2019 4:19 PM View: Sanitas_Statistics Sampling Events 1 through 11
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

| | MW-D1 |
|------------|---------|
| 2/28/2017 | <0.0025 |
| 3/27/2017 | <0.0025 |
| 4/24/2017 | <0.0025 |
| 5/22/2017 | <0.0025 |
| 6/19/2017 | <0.0025 |
| 7/17/2017 | <0.0025 |
| 8/14/2017 | <0.0025 |
| 9/13/2017 | <0.0025 |
| 3/22/2018 | <0.0025 |
| 6/5/2018 | <0.0025 |
| 11/29/2018 | <0.0025 |

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 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 1/7/2019 4:16 PM View: Sanitas_Statistics Sampling Events 1 through 1

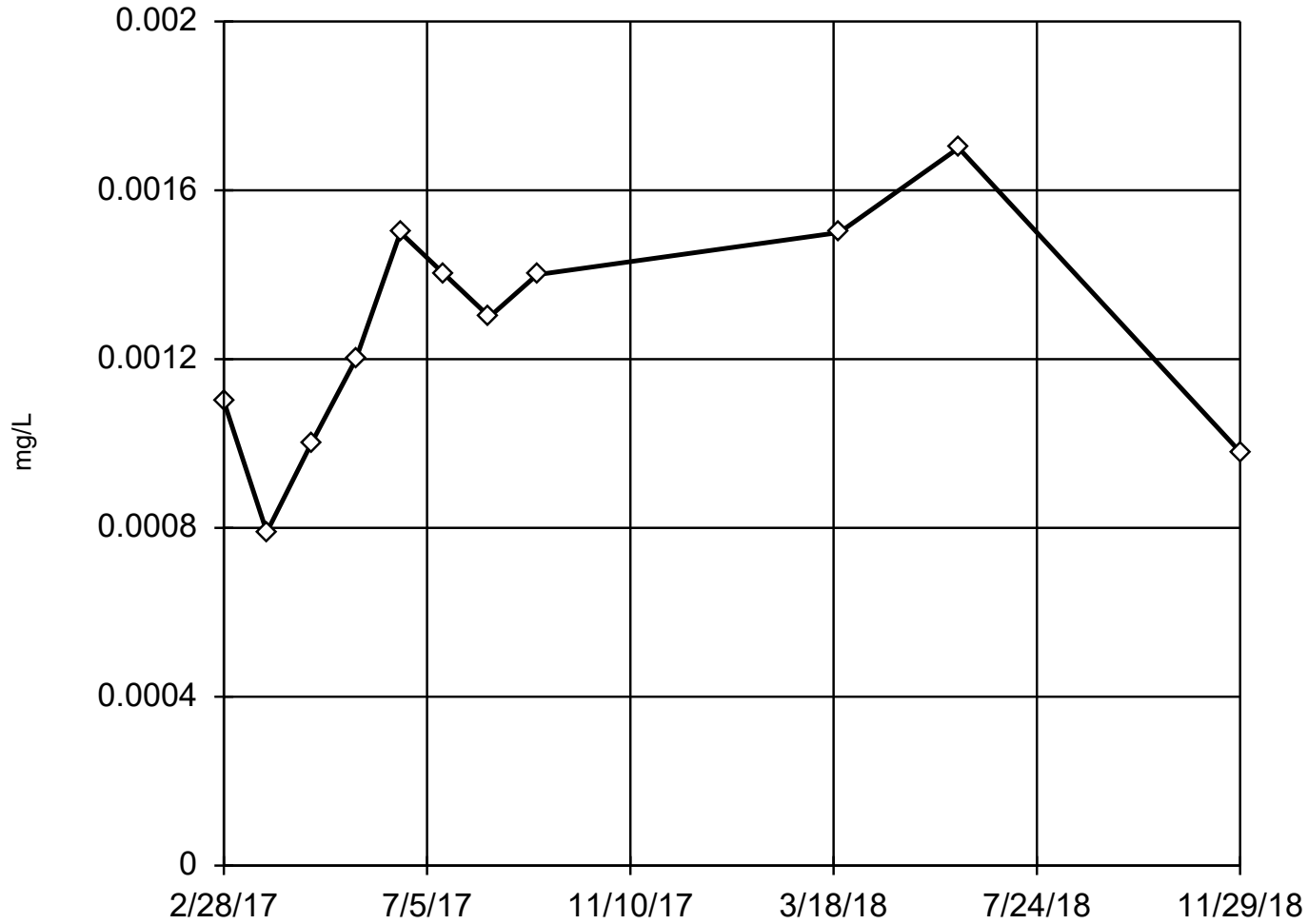
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Tukey's Outlier Screening

Constituent: Cobalt (mg/L) Analysis Run 1/7/2019 4:19 PM View: Sanitas_Statistics Sampling Events 1 through 11
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

| | MW-D2 |
|------------|-------------|
| 2/28/2017 | 0.00047 (J) |
| 3/27/2017 | <0.0025 |
| 4/24/2017 | <0.0025 |
| 5/22/2017 | <0.0025 |
| 6/19/2017 | <0.0025 |
| 7/17/2017 | <0.0025 |
| 8/14/2017 | <0.0025 |
| 9/13/2017 | <0.0025 |
| 3/22/2018 | <0.0025 |
| 6/5/2018 | <0.0025 |
| 11/29/2018 | <0.0025 |

EPA 1989 Outlier Screening MW-D3



n = 11
No statistical outliers.
Mean 0.001261, std. dev.
0.0002731, critical Tn
2.234
Normality test used:
Shapiro Wilk@alpha = 0.01
Calculated = 0.9731
Critical = 0.792
The distribution was found
to be normally distrib-
uted.

Constituent: Cobalt Analysis Run 1/7/2019 4:16 PM View: Sanitas_Statistics Sampling Events 1 through 1
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

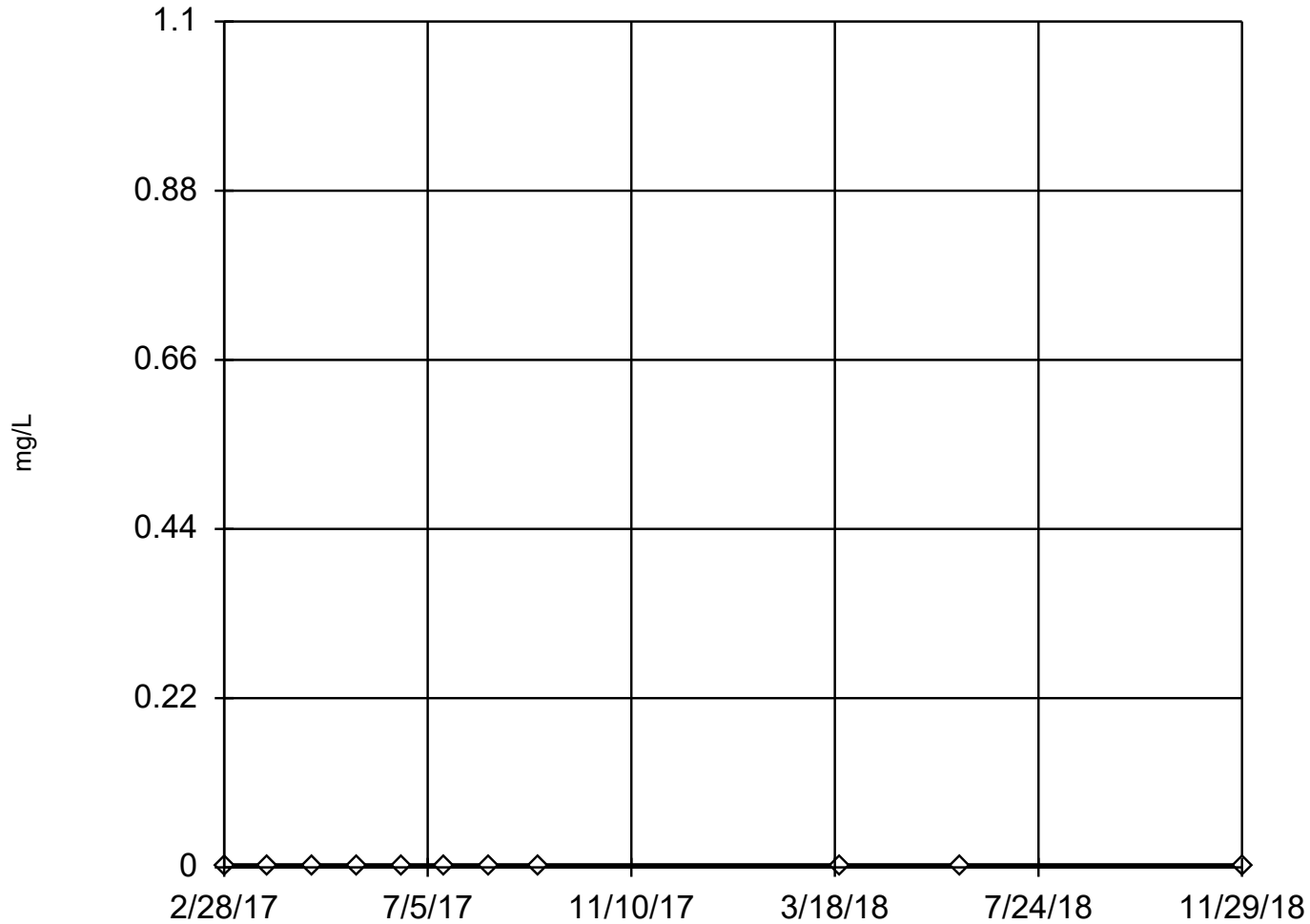
EPA 1989 Outlier Screening

Constituent: Cobalt (mg/L) Analysis Run 1/7/2019 4:19 PM View: Sanitas_Statistics Sampling Events 1 through 11
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

| | MW-D3 | Tn |
|------------|-------------|---------|
| 2/28/2017 | 0.0011 (J) | -0.4967 |
| 3/27/2017 | 0.00079 (J) | -1.943 |
| 4/24/2017 | 0.001 (J) | -0.9132 |
| 5/22/2017 | 0.0012 (J) | -0.1164 |
| 6/19/2017 | 0.0015 (J) | 0.8587 |
| 7/17/2017 | 0.0014 (J) | 0.5572 |
| 8/14/2017 | 0.0013 (J) | 0.2334 |
| 9/13/2017 | 0.0014 (J) | 0.5572 |
| 3/22/2018 | 0.0015 (J) | 0.8587 |
| 6/5/2018 | 0.0017 (J) | 1.406 |
| 11/29/2018 | 0.00098 (J) | -1.001 |

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 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 1/7/2019 4:16 PM View: Sanitas_Statistics Sampling Events 1 through 1

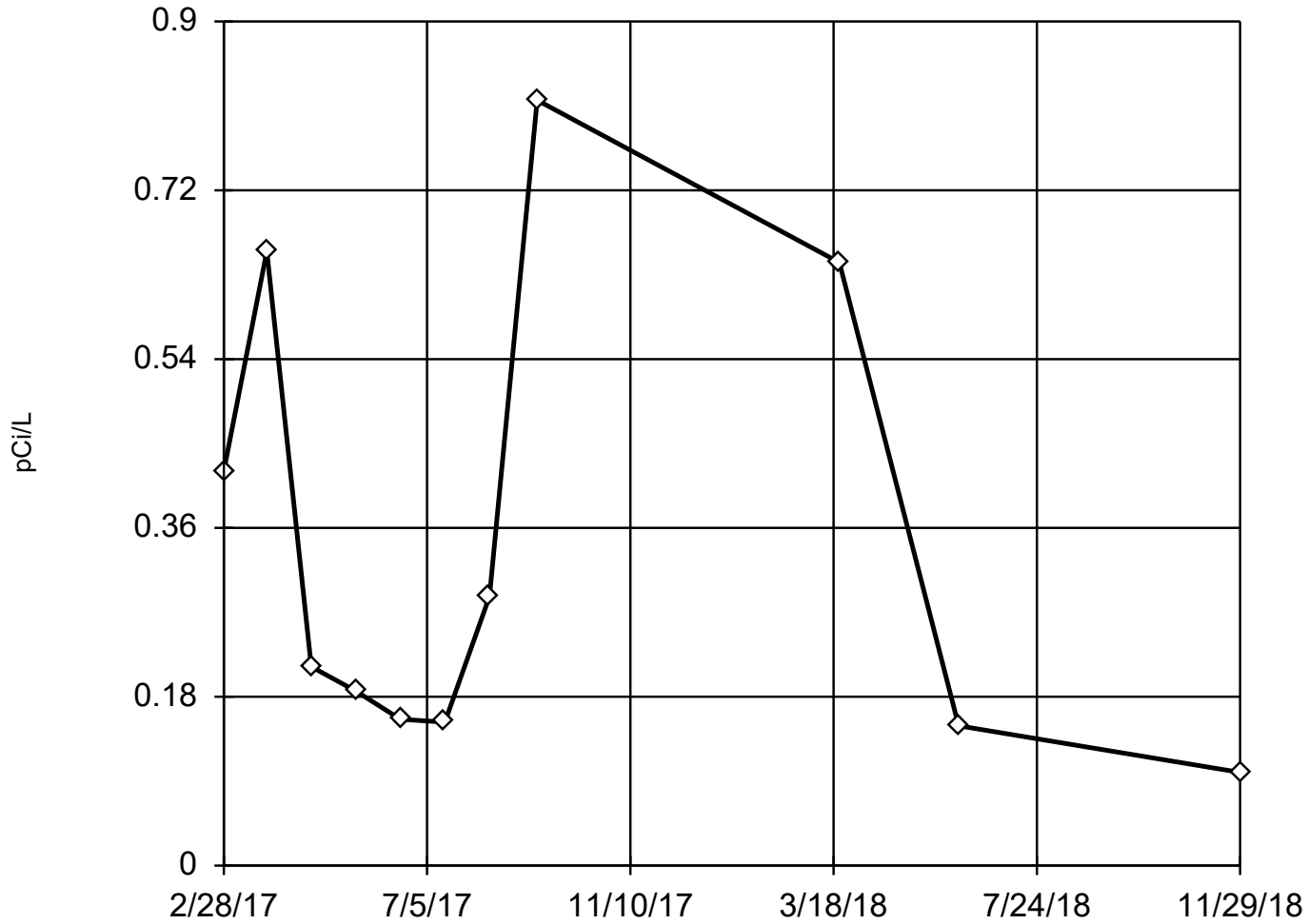
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Tukey's Outlier Screening

Constituent: Cobalt (mg/L) Analysis Run 1/7/2019 4:19 PM View: Sanitas_Statistics Sampling Events 1 through 11
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

| | MW-U1 (bg) |
|------------|------------|
| 2/28/2017 | <0.0025 |
| 3/27/2017 | <0.0025 |
| 4/24/2017 | <0.0025 |
| 5/22/2017 | <0.0025 |
| 6/19/2017 | <0.0025 |
| 7/17/2017 | <0.0025 |
| 8/14/2017 | <0.0025 |
| 9/13/2017 | <0.0025 |
| 3/22/2018 | <0.0025 |
| 6/5/2018 | <0.0025 |
| 11/29/2018 | <0.0025 |

EPA 1989 Outlier Screening MW-D1



n = 11
No statistical outliers.
Mean 0.3434, std. dev.
0.251, critical Tn 2.234

Normality test used:
Shapiro Wilk@alpha = 0.01
Calculated = 0.8335
Critical = 0.792
The distribution was found
to be normally distrib-
uted.

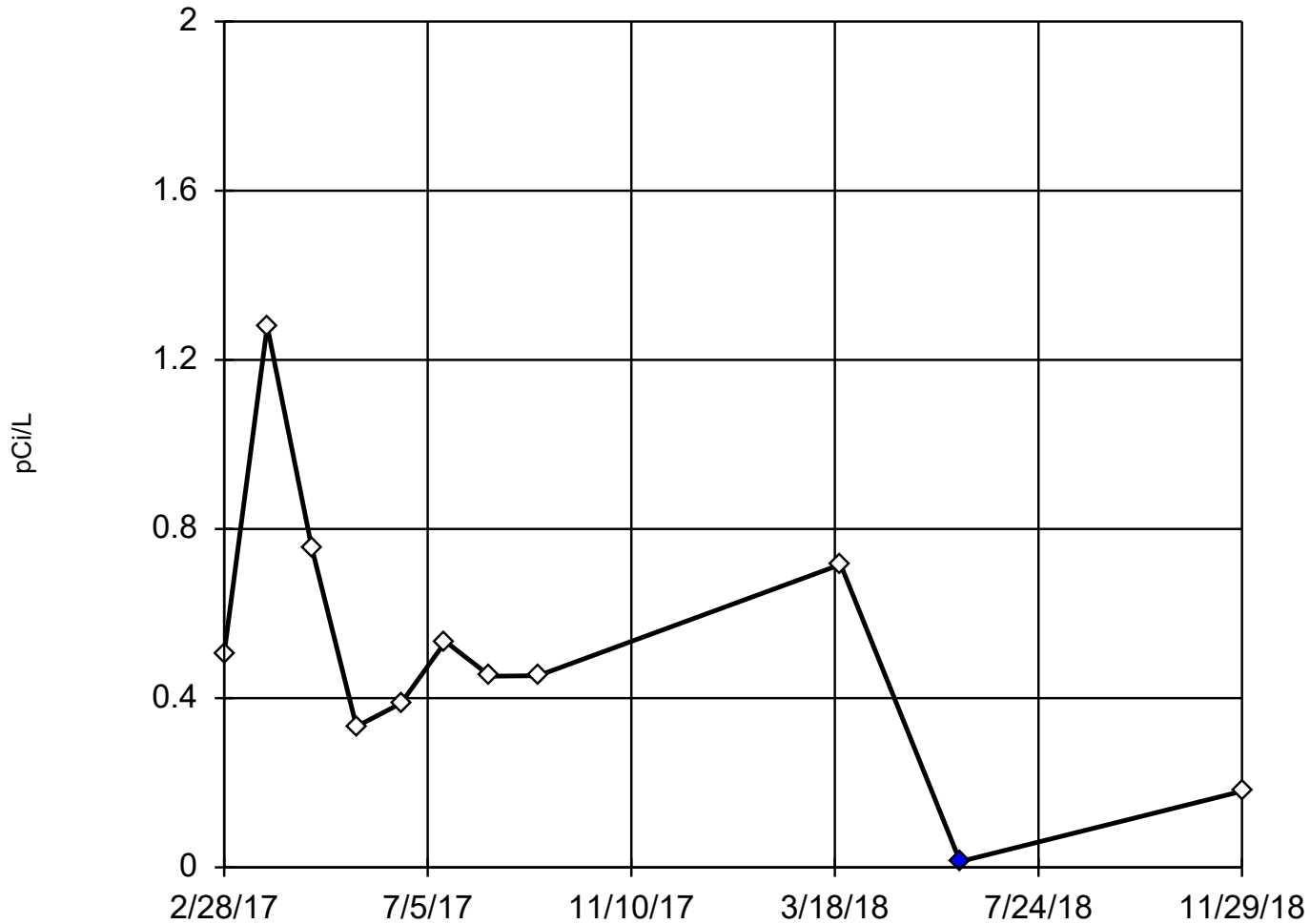
Constituent: Combined Radium 226 + 228 Analysis Run 1/7/2019 4:16 PM View: Sanitas_Statistics Sampl
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

EPA 1989 Outlier Screening

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 1/7/2019 4:19 PM View: Sanitas_Statistics Sampling Events 1 through 11
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

| | MW-D1 | Tn |
|------------|--------|---------|
| 2/28/2017 | 0.421 | 0.6148 |
| 3/27/2017 | 0.655 | 1.232 |
| 4/24/2017 | 0.212 | -0.3426 |
| 5/22/2017 | 0.186 | -0.5252 |
| 6/19/2017 | 0.156 | -0.7706 |
| 7/17/2017 | 0.153 | -0.7977 |
| 8/14/2017 | 0.287 | 0.08008 |
| 9/13/2017 | 0.816 | 1.538 |
| 3/22/2018 | 0.643 | 1.206 |
| 6/5/2018 | 0.149 | -0.8347 |
| 11/29/2018 | 0.0994 | -1.4 |

EPA 1989 Outlier Screening MW-D2



n = 11

Statistical outlier is drawn as solid.
Mean 0.5102, std. dev. 0.3323, critical Tn 2.234.
After removing suspect data: mean 0.5598, std. dev. 0.3043, Tn 2.176.

Normality test used:
Shapiro Wilk@alpha = 0.01
Calculated = 0.8728
Critical = 0.781
The distribution, after removal of suspect value, was found to be normally distributed.

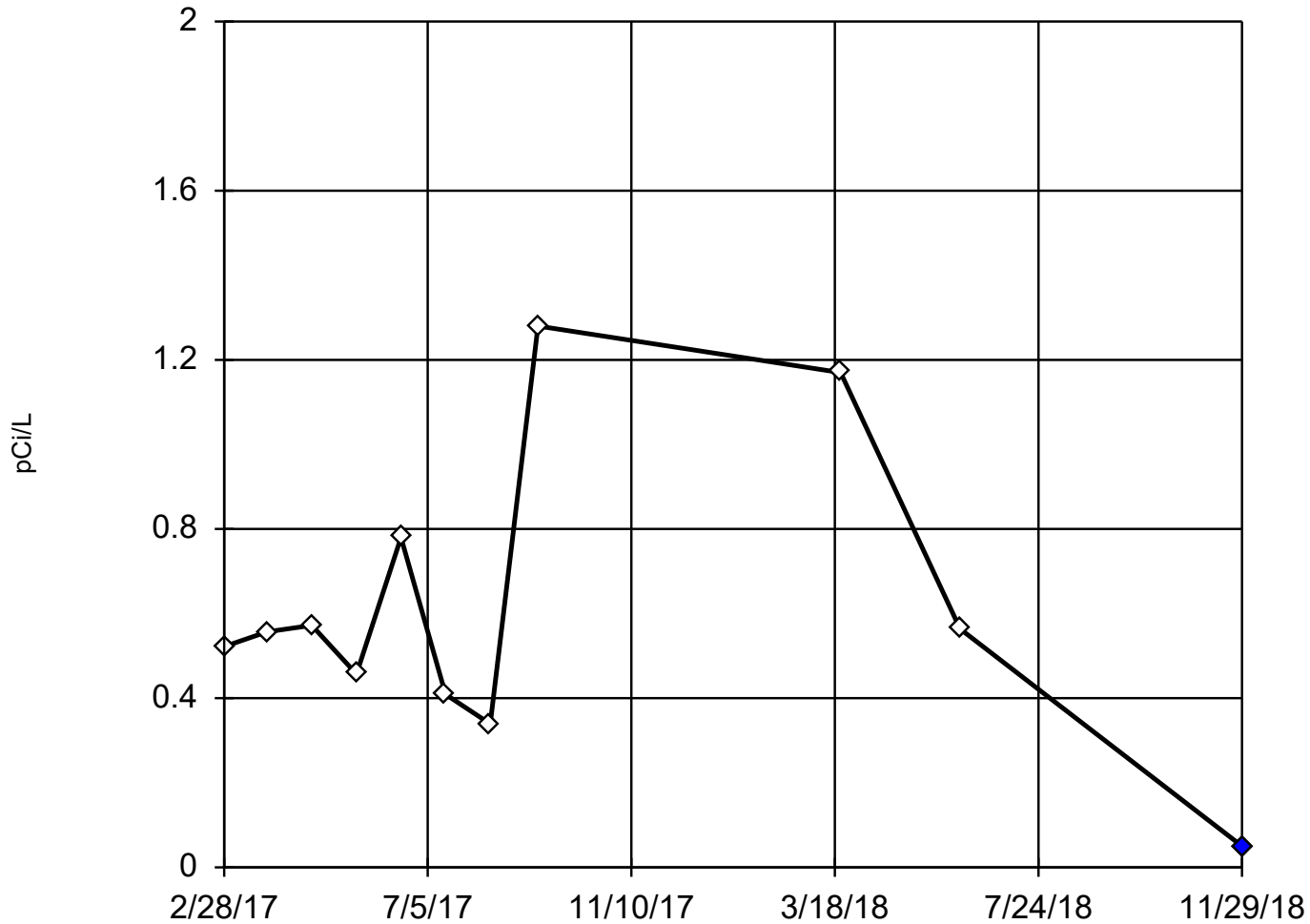
Constituent: Combined Radium 226 + 228 Analysis Run 1/7/2019 4:16 PM View: Sanitas_Statistics Sampl
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

EPA 1989 Outlier Screening

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 1/7/2019 4:19 PM View: Sanitas_Statistics Sampling Events 1 through 11
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

| | MW-D2 | Tn | Tn |
|------------|------------|------------|---------|
| 2/28/2017 | 0.506 | 0.2914 | 0.04008 |
| 3/27/2017 | 1.28 | 1.073 | 1.808 |
| 4/24/2017 | 0.756 | 0.6297 | 0.8049 |
| 5/22/2017 | 0.333 | -0.06106 | -0.7569 |
| 6/19/2017 | 0.388 | 0.06772 | -0.4657 |
| 7/17/2017 | 0.534 | 0.3368 | 0.1427 |
| 8/14/2017 | 0.452 | 0.1963 | -0.1749 |
| 9/13/2017 | 0.453 | 0.1982 | -0.1707 |
| 3/22/2018 | 0.716 | 0.5839 | 0.7013 |
| 6/5/2018 | 0.0139 (O) | -2.737 (O) | |
| 11/29/2018 | 0.18 | -0.5793 | -1.929 |

EPA 1989 Outlier Screening MW-D3



n = 11

Statistical outlier is drawn as solid.
Mean 0.6091, std. dev. 0.3544, critical Tn 2.234.
After removing suspect data: mean 0.665, std. dev. 0.3184, Tn 2.176.

Normality test used:
Shapiro Wilk@alpha = 0.01
Calculated = 0.8219
Critical = 0.781
The distribution, after removal of suspect value, was found to be normally distributed.

Constituent: Combined Radium 226 + 228 Analysis Run 1/7/2019 4:16 PM View: Sanitas_Statistics Sampl

CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

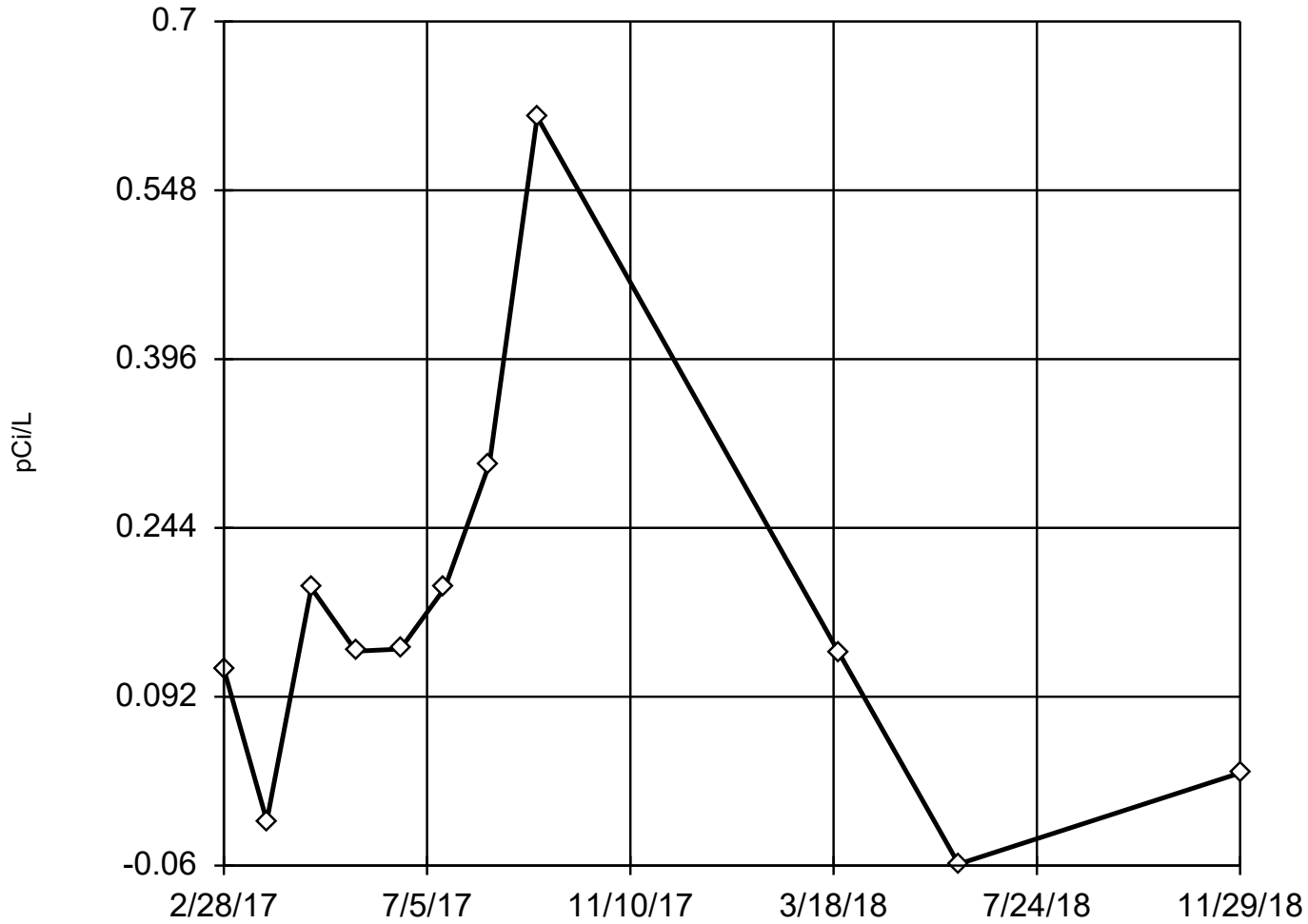
EPA 1989 Outlier Screening

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 1/7/2019 4:19 PM View: Sanitas_Statistics Sampling Events 1 through 11
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

| | MW-D3 | Tn | Tn |
|------------|------------|------------|---------|
| 2/28/2017 | 0.522 | 0.0863 | -0.3559 |
| 3/27/2017 | 0.557 | 0.1621 | -0.205 |
| 4/24/2017 | 0.572 | 0.1931 | -0.1432 |
| 5/22/2017 | 0.457 | -0.06901 | -0.6651 |
| 6/19/2017 | 0.78 | 0.5553 | 0.5779 |
| 7/17/2017 | 0.409 | -0.1986 | -0.9231 |
| 8/14/2017 | 0.339 | -0.4178 | -1.36 |
| 9/13/2017 | 1.28 | 1.134 | 1.729 |
| 3/22/2018 | 1.17 | 1.029 | 1.521 |
| 6/5/2018 | 0.564 | 0.1767 | -0.176 |
| 11/29/2018 | 0.0501 (O) | -2.651 (O) | |

EPA 1989 Outlier Screening

MW-U1 (bg)



n = 11
No statistical outliers.
Mean 0.1597, std. dev.
0.1819, critical Tn 2.234

Normality test used:
Shapiro Wilk@alpha = 0.01
Calculated = 0.8546
Critical = 0.792
The distribution was found
to be normally distrib-
uted.

Constituent: Combined Radium 226 + 228 Analysis Run 1/7/2019 4:16 PM View: Sanitas_Statistics Sampl

CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

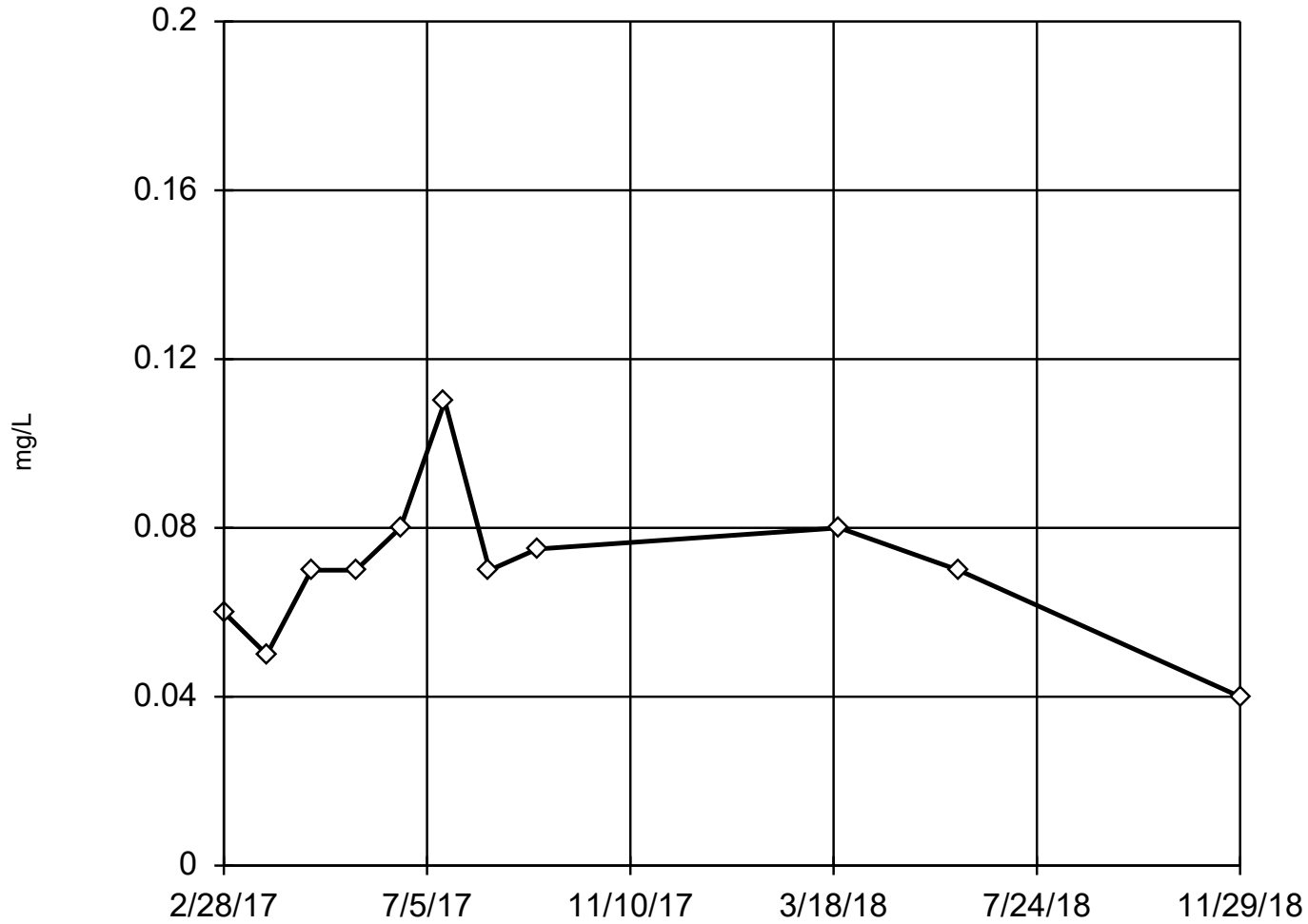
EPA 1989 Outlier Screening

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 1/7/2019 4:19 PM View: Sanitas_Statistics Sampling Events 1 through 11
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

| | MW-U1 (bg) | Tn |
|------------|------------|----|
| 2/28/2017 | 0.117 | 0 |
| 3/27/2017 | -0.0198 | 0 |
| 4/24/2017 | 0.19 | 0 |
| 5/22/2017 | 0.133 | 0 |
| 6/19/2017 | 0.135 | 0 |
| 7/17/2017 | 0.19 | 0 |
| 8/14/2017 | 0.302 | 0 |
| 9/13/2017 | 0.614 | 0 |
| 3/22/2018 | 0.131 | 0 |
| 6/5/2018 | -0.0586 | 0 |
| 11/29/2018 | 0.0234 | 0 |

EPA 1989 Outlier Screening

MW-D1



n = 11

No statistical outliers.
Mean 0.07045, std. dev.
0.01795, critical Tn 2.234

Normality test used:
Shapiro Wilk@alpha = 0.01
Calculated = 0.9178
Critical = 0.792
The distribution was found
to be normally distrib-
uted.

Constituent: Fluoride Analysis Run 1/7/2019 4:16 PM View: Sanitas_Statistics Sampling Events 1 through

CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

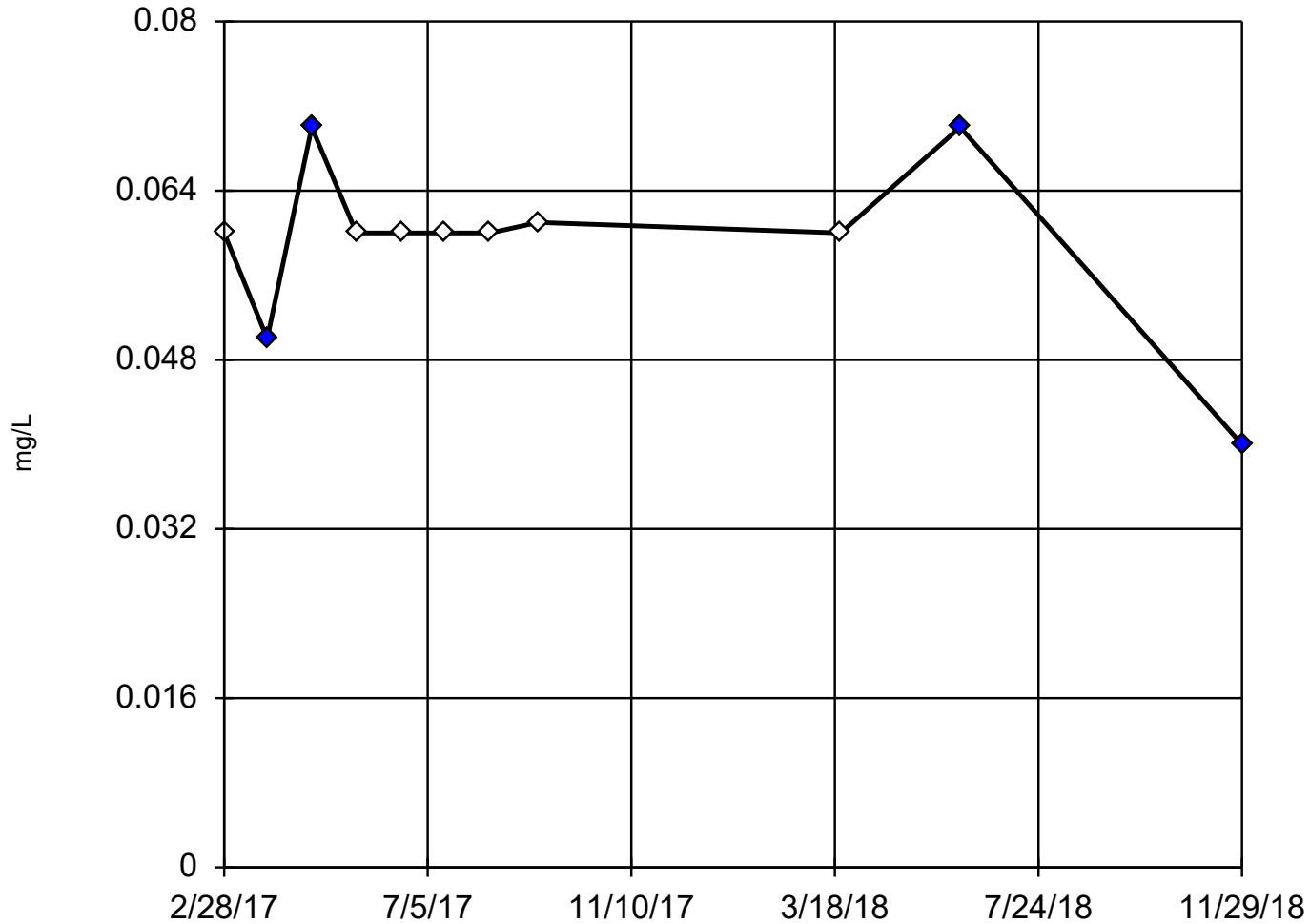
EPA 1989 Outlier Screening

Constituent: Fluoride (mg/L) Analysis Run 1/7/2019 4:19 PM View: Sanitas_Statistics Sampling Events 1 through 11
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

| | MW-D1 | Tn |
|------------|-----------|---------|
| 2/28/2017 | 0.06 (J) | -0.4966 |
| 3/27/2017 | 0.05 (J) | -1.191 |
| 4/24/2017 | 0.07 (J) | 0.09083 |
| 5/22/2017 | 0.07 (J) | 0.09083 |
| 6/19/2017 | 0.08 (J) | 0.5997 |
| 7/17/2017 | 0.11 | 1.813 |
| 8/14/2017 | 0.07 (J) | 0.09083 |
| 9/13/2017 | 0.075 (J) | 0.3538 |
| 3/22/2018 | 0.08 (J) | 0.5997 |
| 6/5/2018 | 0.07 (J) | 0.09083 |
| 11/29/2018 | 0.04 (J) | -2.042 |

Tukey's Outlier Screening

MW-D2



n = 11

Outliers are drawn as solid.
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).

High cutoff = 0.06382,
low cutoff = 0.05678,
based on IQR multiplier of 3.

Constituent: Fluoride Analysis Run 1/7/2019 4:16 PM View: Sanitas_Statistics Sampling Events 1 through

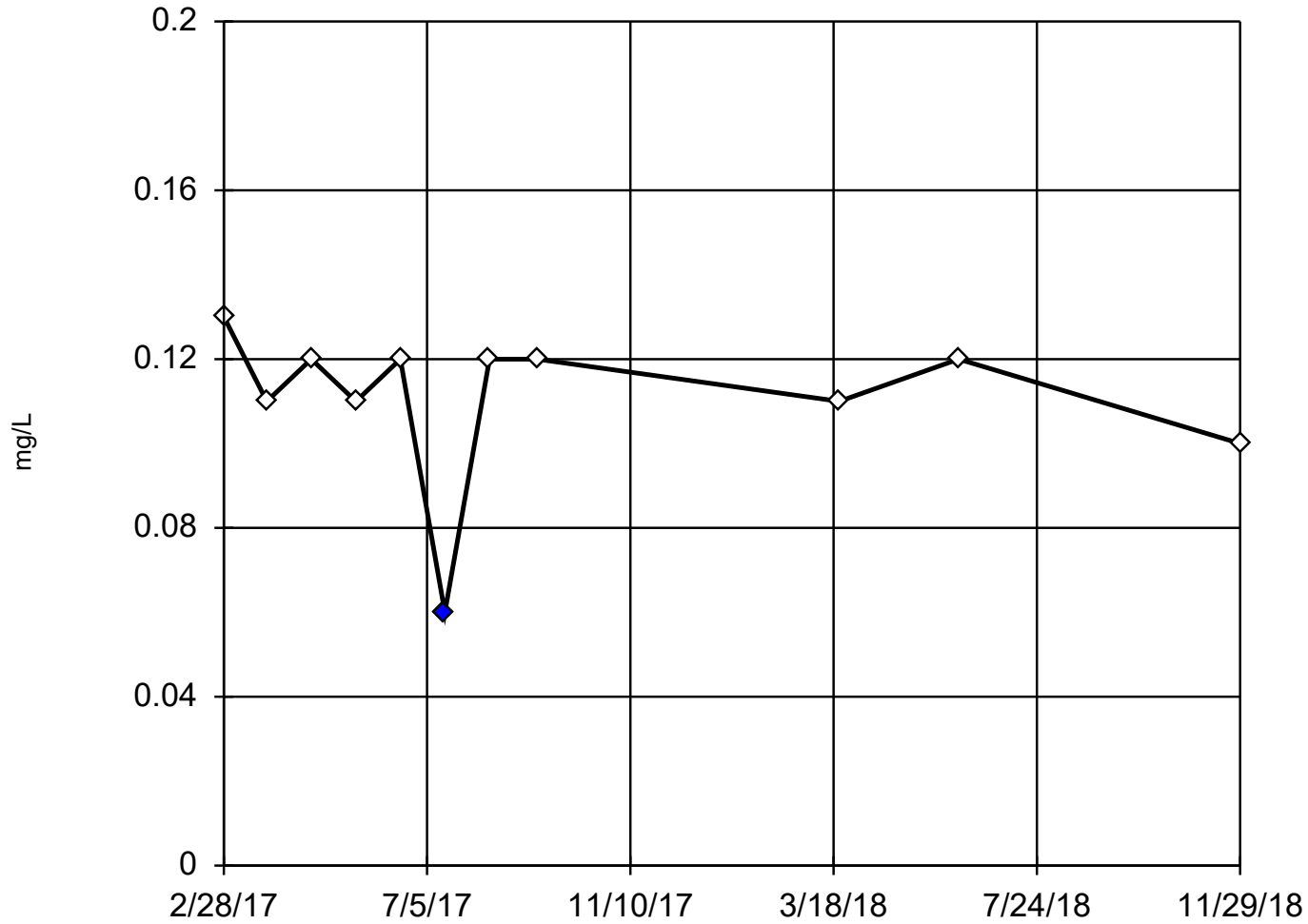
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Tukey's Outlier Screening

Constituent: Fluoride (mg/L) Analysis Run 1/7/2019 4:19 PM View: Sanitas_Statistics Sampling Events 1 through 11
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

| | MW-D2 |
|------------|-----------|
| 2/28/2017 | 0.06 (J) |
| 3/27/2017 | 0.05 (JO) |
| 4/24/2017 | 0.07 (JO) |
| 5/22/2017 | 0.06 (J) |
| 6/19/2017 | 0.06 (J) |
| 7/17/2017 | 0.06 (J) |
| 8/14/2017 | 0.06 (J) |
| 9/13/2017 | 0.061 (J) |
| 3/22/2018 | 0.06 (J) |
| 6/5/2018 | 0.07 (JO) |
| 11/29/2018 | 0.04 (JO) |

EPA 1989 Outlier Screening MW-D3



n = 11

Statistical outlier is drawn as solid.
Mean 0.1109, std. dev. 0.01868, critical Tn 2.234.
After removing suspect data: mean 0.116, std. dev. 0.008433, Tn 2.176.

Normality test used:
Shapiro Wilk@alpha = 0.01
Calculated = 0.8905
Critical = 0.781
The distribution, after removal of suspect value, was found to be normally distributed.

Constituent: Fluoride Analysis Run 1/7/2019 4:16 PM View: Sanitas_Statistics Sampling Events 1 through
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

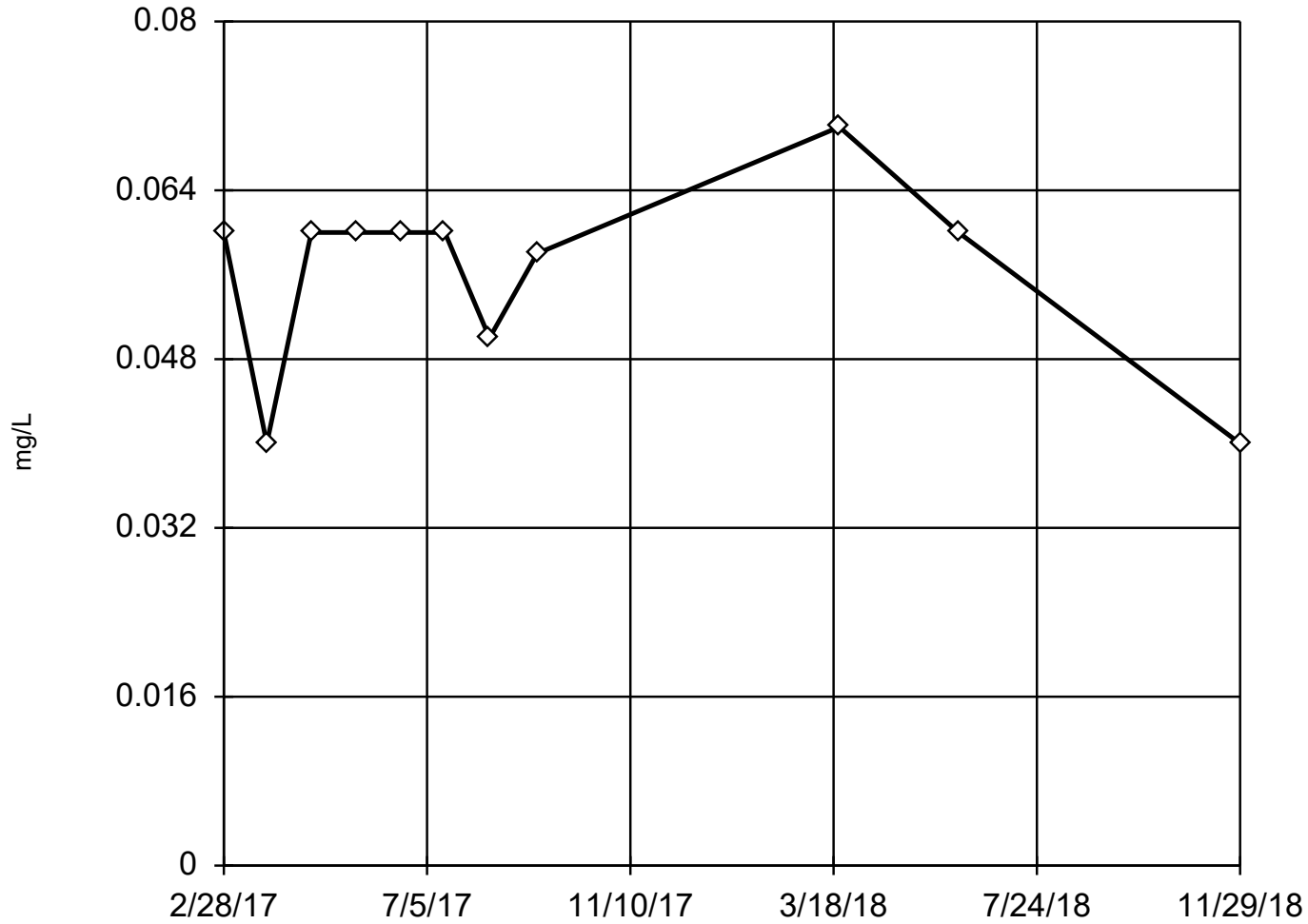
EPA 1989 Outlier Screening

Constituent: Fluoride (mg/L) Analysis Run 1/7/2019 4:19 PM View: Sanitas_Statistics Sampling Events 1 through 11
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

| | MW-D3 | Tn | Tn |
|------------|-----------|------------|---------|
| 2/28/2017 | 0.13 | 0.8382 | 1.575 |
| 3/27/2017 | 0.11 | 0.04299 | -0.6857 |
| 4/24/2017 | 0.12 | 0.4572 | 0.4916 |
| 5/22/2017 | 0.11 | 0.04299 | -0.6857 |
| 6/19/2017 | 0.12 | 0.4572 | 0.4916 |
| 7/17/2017 | 0.06 (JO) | -2.842 (O) | |
| 8/14/2017 | 0.12 | 0.4572 | 0.4916 |
| 9/13/2017 | 0.12 | 0.4572 | 0.4916 |
| 3/22/2018 | 0.11 | 0.04299 | -0.6857 |
| 6/5/2018 | 0.12 | 0.4572 | 0.4916 |
| 11/29/2018 | 0.1 | -0.4107 | -1.975 |

EPA 1989 Outlier Screening

MW-U1 (bg)



n = 11

No statistical outliers.
Mean 0.05618, std. dev.
0.009185, critical Tn
2.234

Normality test used:
Shapiro Wilk@alpha = 0.01
Calculated = 0.8
Critical = 0.792
The distribution was found
to be normally distrib-
uted.

Constituent: Fluoride Analysis Run 1/7/2019 4:16 PM View: Sanitas_Statistics Sampling Events 1 through

CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

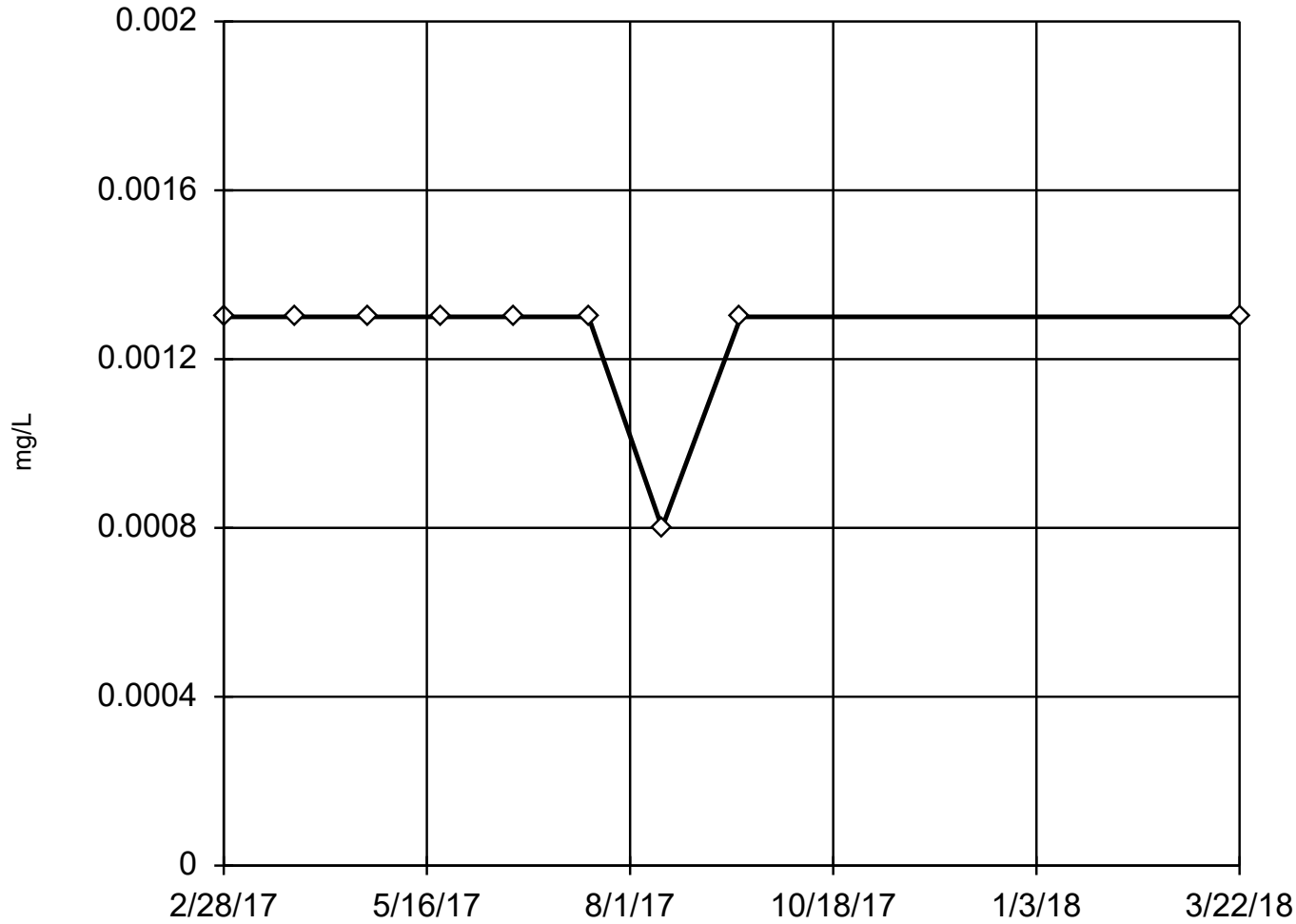
EPA 1989 Outlier Screening

Constituent: Fluoride (mg/L) Analysis Run 1/7/2019 4:19 PM View: Sanitas_Statistics Sampling Events 1 through 11
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

| | MW-U1 (bg) | Tn |
|------------|------------|---------|
| 2/28/2017 | 0.06 (J) | 0.4453 |
| 3/27/2017 | 0.04 (J) | -1.83 |
| 4/24/2017 | 0.06 (J) | 0.4453 |
| 5/22/2017 | 0.06 (J) | 0.4453 |
| 6/19/2017 | 0.06 (J) | 0.4453 |
| 7/17/2017 | 0.06 (J) | 0.4453 |
| 8/14/2017 | 0.05 (J) | -0.5777 |
| 9/13/2017 | 0.058 (J) | 0.2551 |
| 3/22/2018 | 0.07 (J) | 1.31 |
| 6/5/2018 | 0.06 (J) | 0.4453 |
| 11/29/2018 | 0.04 (J) | -1.83 |

Tukey's Outlier Screening

MW-D1



n = 9

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: Lead Analysis Run 1/7/2019 4:16 PM View: Sanitas_Statistics Sampling Events 1 through 11

CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

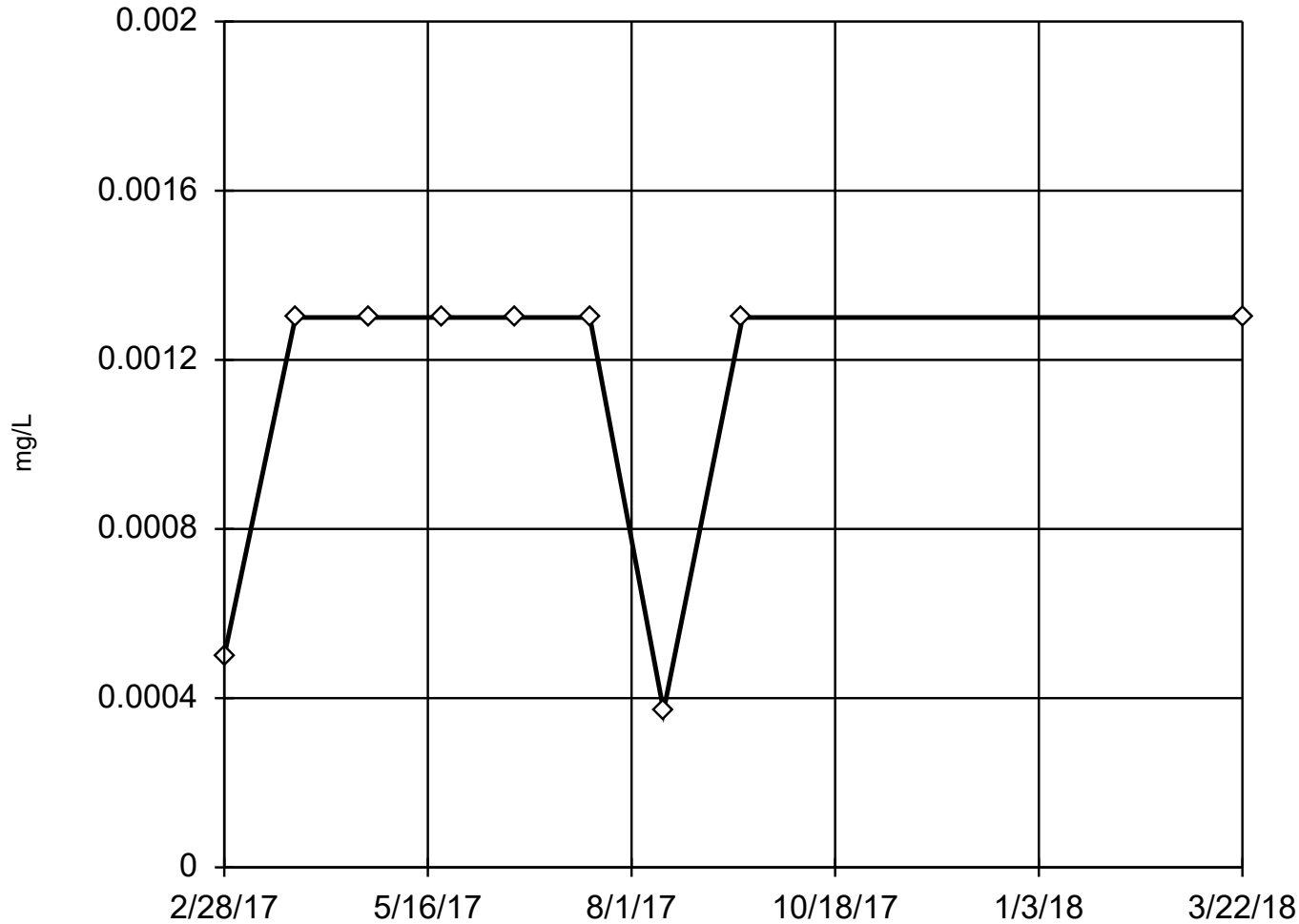
Tukey's Outlier Screening

Constituent: Lead (mg/L) Analysis Run 1/7/2019 4:19 PM View: Sanitas_Statistics Sampling Events 1 through 11
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

| | MW-D1 |
|-----------|-------------|
| 2/28/2017 | <0.0013 (^) |
| 3/27/2017 | <0.0013 |
| 4/24/2017 | <0.0013 |
| 5/22/2017 | <0.0013 |
| 6/19/2017 | <0.0013 |
| 7/17/2017 | <0.0013 |
| 8/14/2017 | 0.0008 (J) |
| 9/13/2017 | <0.0013 |
| 3/22/2018 | <0.0013 |

Tukey's Outlier Screening

MW-D2



n = 9

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 = 0.00545,
low cutoff = 0.0001923,
based on IQR multiplier of 3.

Constituent: Lead Analysis Run 1/7/2019 4:16 PM View: Sanitas_Statistics Sampling Events 1 through 11

CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

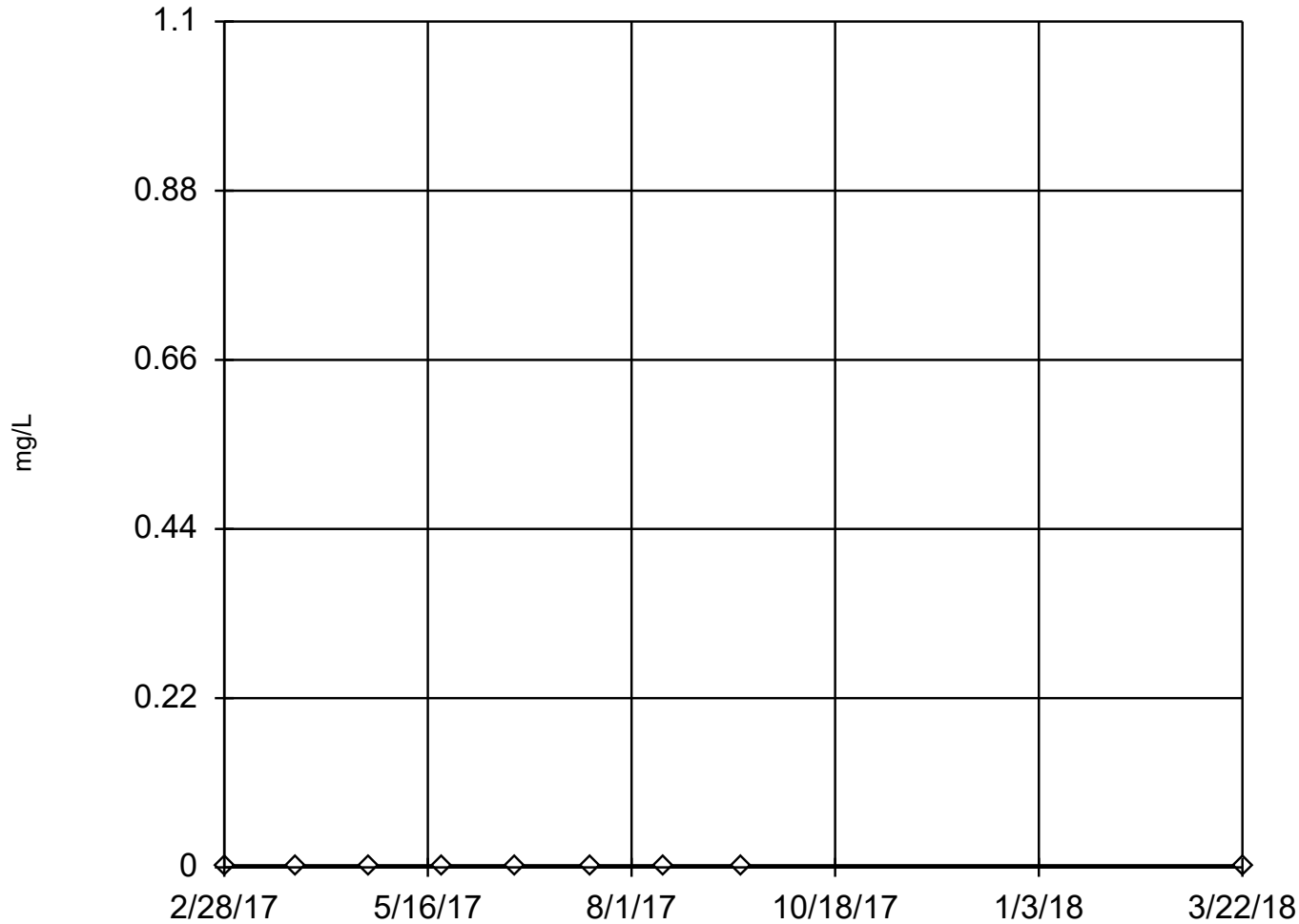
Tukey's Outlier Screening

Constituent: Lead (mg/L) Analysis Run 1/7/2019 4:19 PM View: Sanitas_Statistics Sampling Events 1 through 11
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

| | MW-D2 |
|-----------|-------------|
| 2/28/2017 | 0.0005 (J) |
| 3/27/2017 | <0.0013 |
| 4/24/2017 | <0.0013 |
| 5/22/2017 | <0.0013 |
| 6/19/2017 | <0.0013 |
| 7/17/2017 | <0.0013 |
| 8/14/2017 | 0.00037 (J) |
| 9/13/2017 | <0.0013 |
| 3/22/2018 | <0.0013 |

Tukey's Outlier Screening

MW-D3



n = 9

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 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: Lead Analysis Run 1/7/2019 4:16 PM View: Sanitas_Statistics Sampling Events 1 through 11

CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

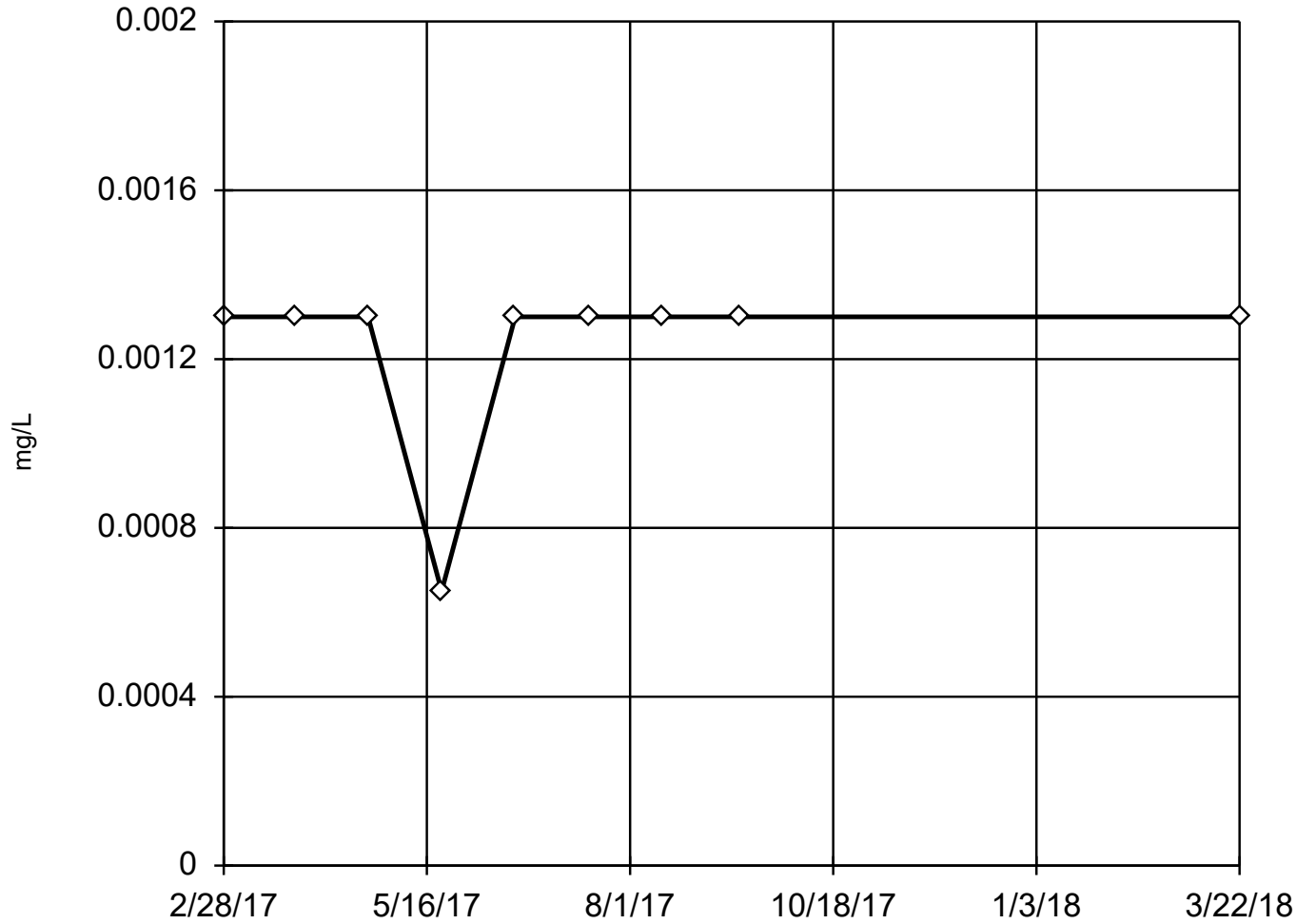
Tukey's Outlier Screening

Constituent: Lead (mg/L) Analysis Run 1/7/2019 4:19 PM View: Sanitas_Statistics Sampling Events 1 through 11
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

| | MW-D3 |
|-----------|-------------|
| 2/28/2017 | <0.0013 (^) |
| 3/27/2017 | <0.0013 |
| 4/24/2017 | <0.0013 |
| 5/22/2017 | <0.0013 |
| 6/19/2017 | <0.0013 |
| 7/17/2017 | <0.0013 |
| 8/14/2017 | <0.0013 |
| 9/13/2017 | <0.0013 |
| 3/22/2018 | <0.0013 |

Tukey's Outlier Screening

MW-U1 (bg)



n = 9

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 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: Lead Analysis Run 1/7/2019 4:16 PM View: Sanitas_Statistics Sampling Events 1 through 11

CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

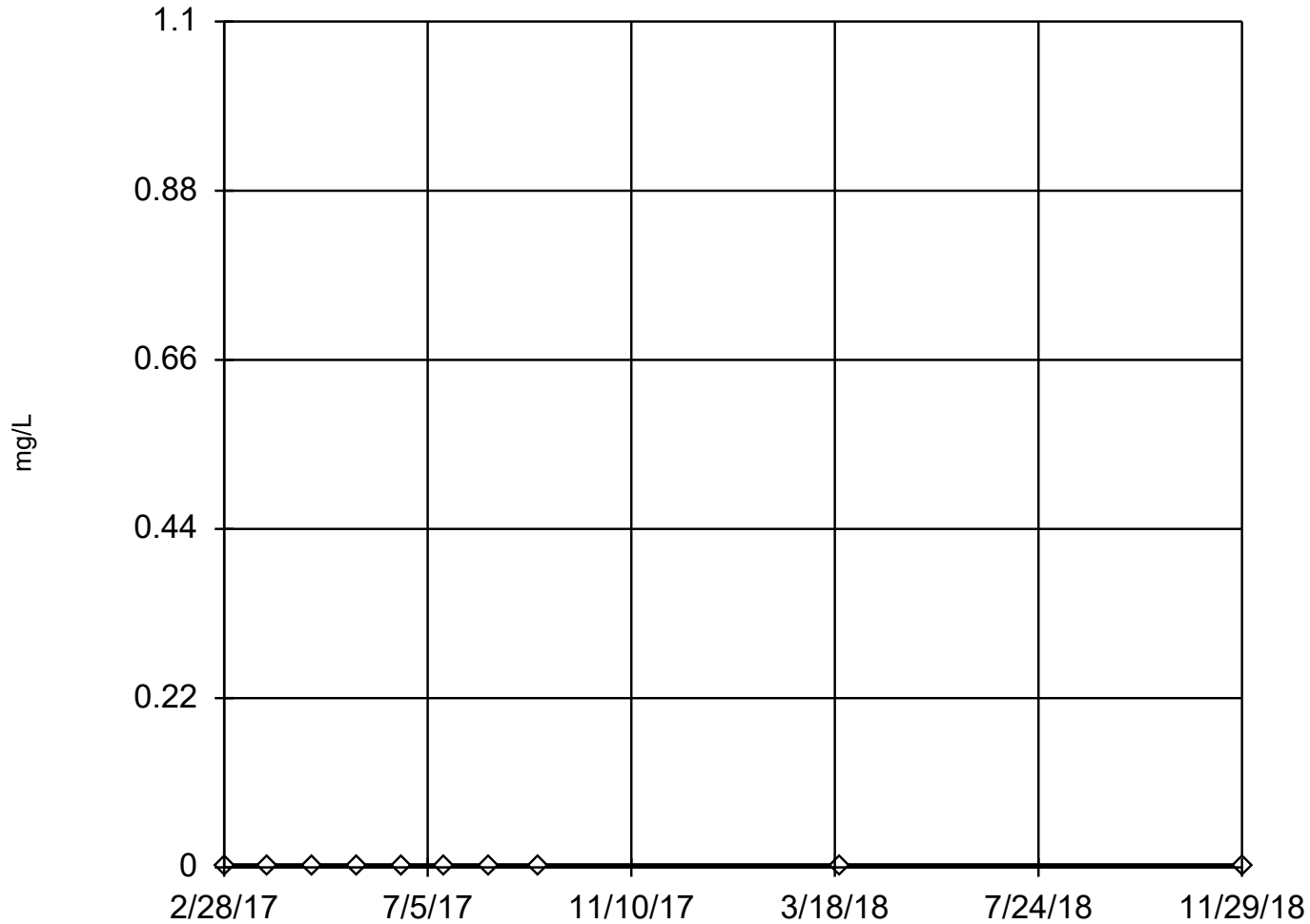
Tukey's Outlier Screening

Constituent: Lead (mg/L) Analysis Run 1/7/2019 4:19 PM View: Sanitas_Statistics Sampling Events 1 through 11
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

| | MW-U1 (bg) |
|-----------|-------------|
| 2/28/2017 | <0.0013 |
| 3/27/2017 | <0.0013 |
| 4/24/2017 | <0.0013 |
| 5/22/2017 | 0.00065 (J) |
| 6/19/2017 | <0.0013 |
| 7/17/2017 | <0.0013 |
| 8/14/2017 | <0.0013 |
| 9/13/2017 | <0.0013 |
| 3/22/2018 | <0.0013 |

Tukey's Outlier Screening

MW-D1



n = 10

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: Lithium Analysis Run 1/7/2019 4:16 PM View: Sanitas_Statistics Sampling Events 1 through

CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

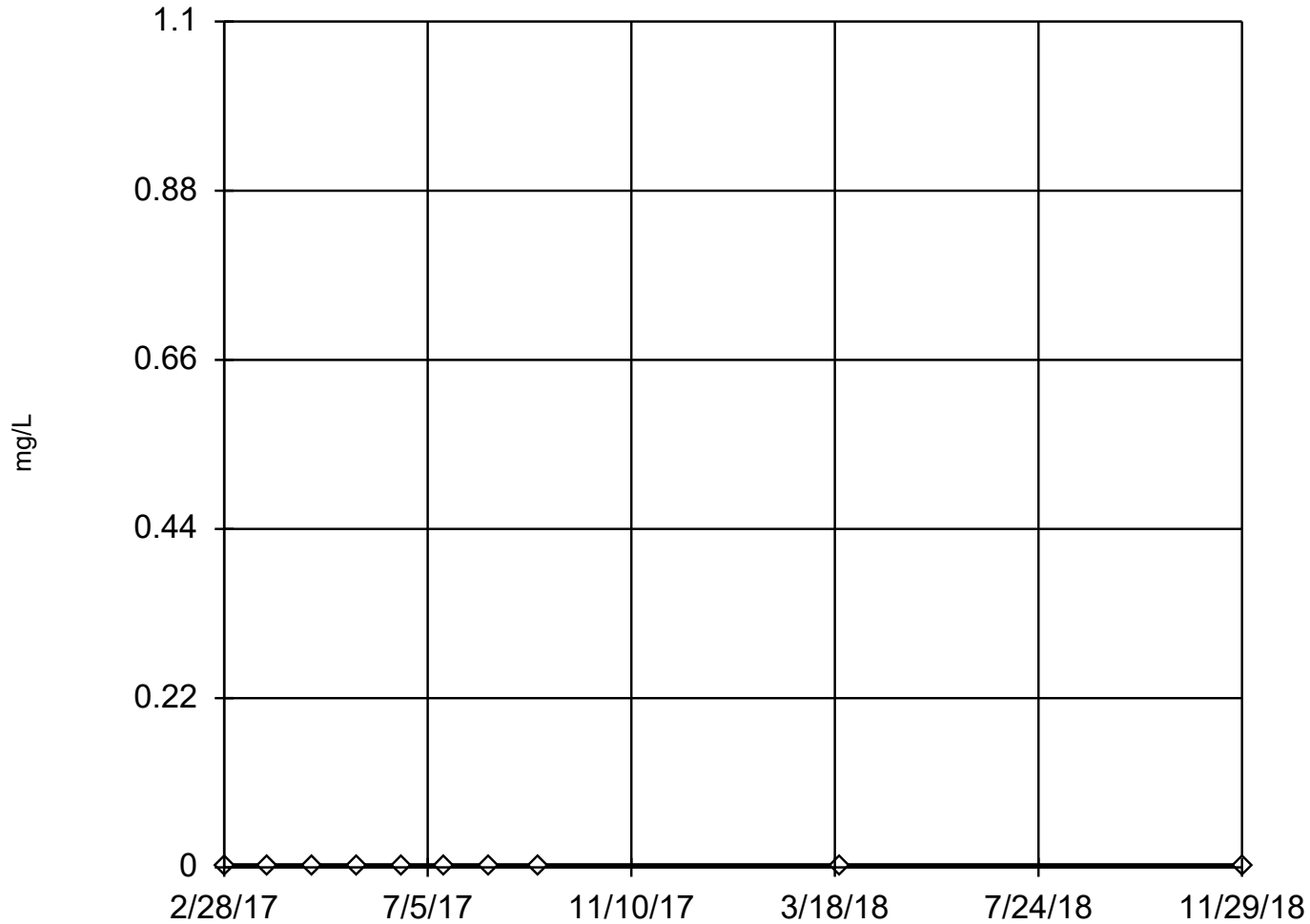
Tukey's Outlier Screening

Constituent: Lithium (mg/L) Analysis Run 1/7/2019 4:19 PM View: Sanitas_Statistics Sampling Events 1 through 11
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

| | MW-D1 |
|------------|---------|
| 2/28/2017 | <0.0025 |
| 3/27/2017 | <0.0025 |
| 4/24/2017 | <0.0025 |
| 5/22/2017 | <0.0025 |
| 6/19/2017 | <0.0025 |
| 7/17/2017 | <0.0025 |
| 8/14/2017 | <0.0025 |
| 9/13/2017 | <0.0025 |
| 3/22/2018 | <0.0025 |
| 11/29/2018 | <0.0025 |

Tukey's Outlier Screening

MW-D2



n = 10

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: Lithium Analysis Run 1/7/2019 4:16 PM View: Sanitas_Statistics Sampling Events 1 through

CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

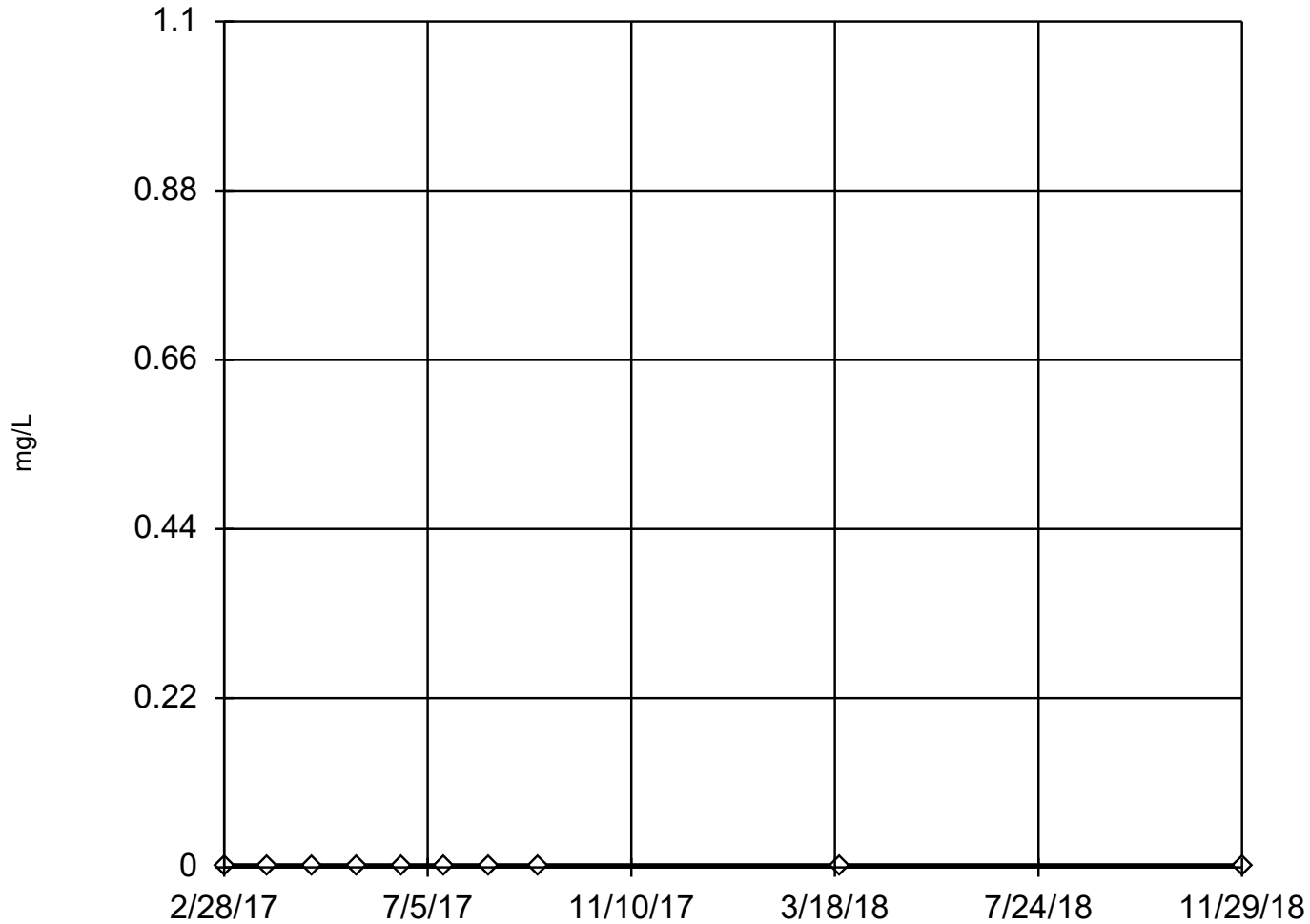
Tukey's Outlier Screening

Constituent: Lithium (mg/L) Analysis Run 1/7/2019 4:19 PM View: Sanitas_Statistics Sampling Events 1 through 11
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

| | MW-D2 |
|------------|---------|
| 2/28/2017 | <0.0025 |
| 3/27/2017 | <0.0025 |
| 4/24/2017 | <0.0025 |
| 5/22/2017 | <0.0025 |
| 6/19/2017 | <0.0025 |
| 7/17/2017 | <0.0025 |
| 8/14/2017 | <0.0025 |
| 9/13/2017 | <0.0025 |
| 3/22/2018 | <0.0025 |
| 11/29/2018 | <0.0025 |

Tukey's Outlier Screening

MW-D3



n = 10

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: Lithium Analysis Run 1/7/2019 4:16 PM View: Sanitas_Statistics Sampling Events 1 through

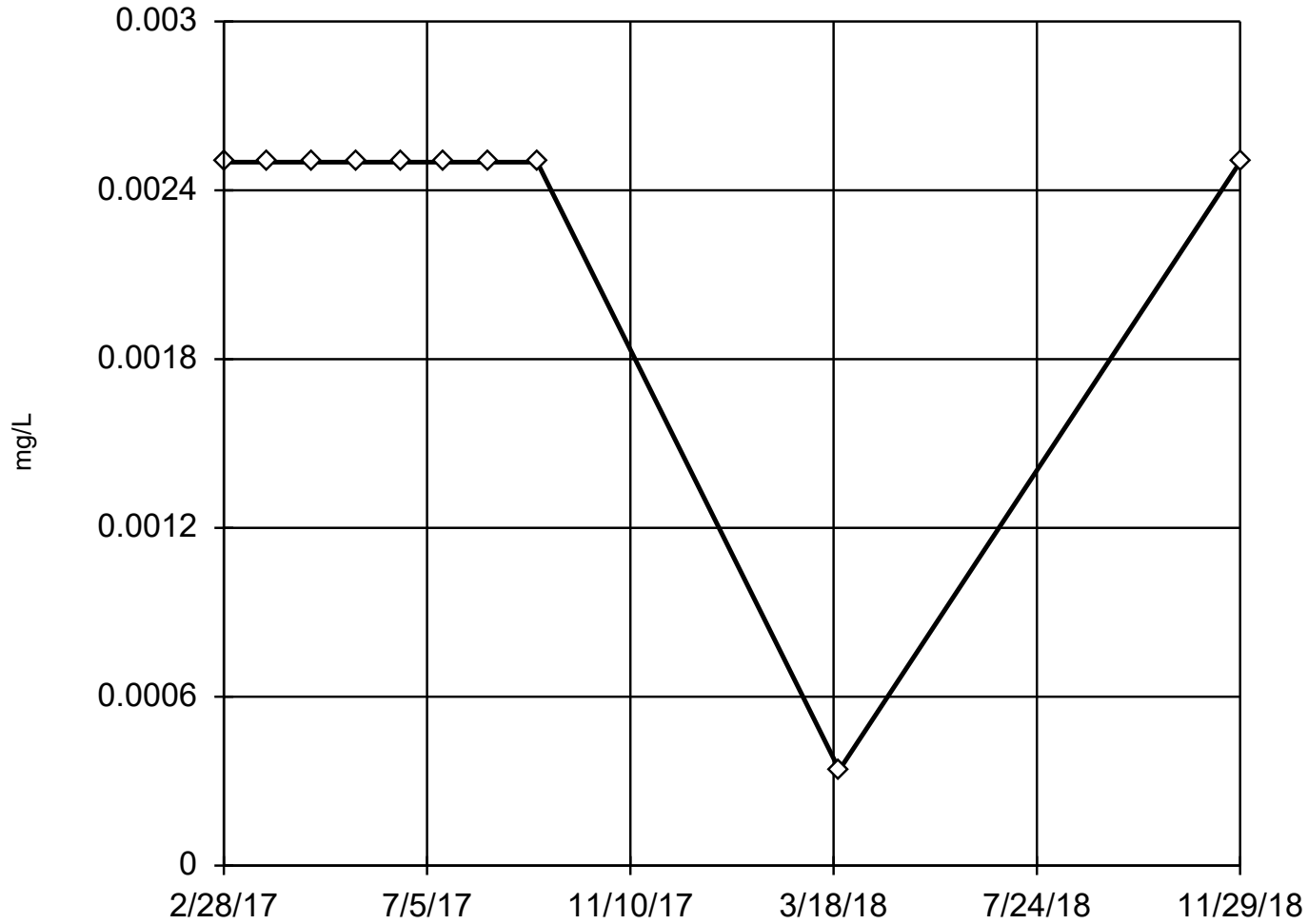
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Tukey's Outlier Screening

Constituent: Lithium (mg/L) Analysis Run 1/7/2019 4:19 PM View: Sanitas_Statistics Sampling Events 1 through 11
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

| | MW-D3 |
|------------|---------|
| 2/28/2017 | <0.0025 |
| 3/27/2017 | <0.0025 |
| 4/24/2017 | <0.0025 |
| 5/22/2017 | <0.0025 |
| 6/19/2017 | <0.0025 |
| 7/17/2017 | <0.0025 |
| 8/14/2017 | <0.0025 |
| 9/13/2017 | <0.0025 |
| 3/22/2018 | <0.0025 |
| 11/29/2018 | <0.0025 |

Tukey's Outlier Screening MW-U1 (bg)



n = 10

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.

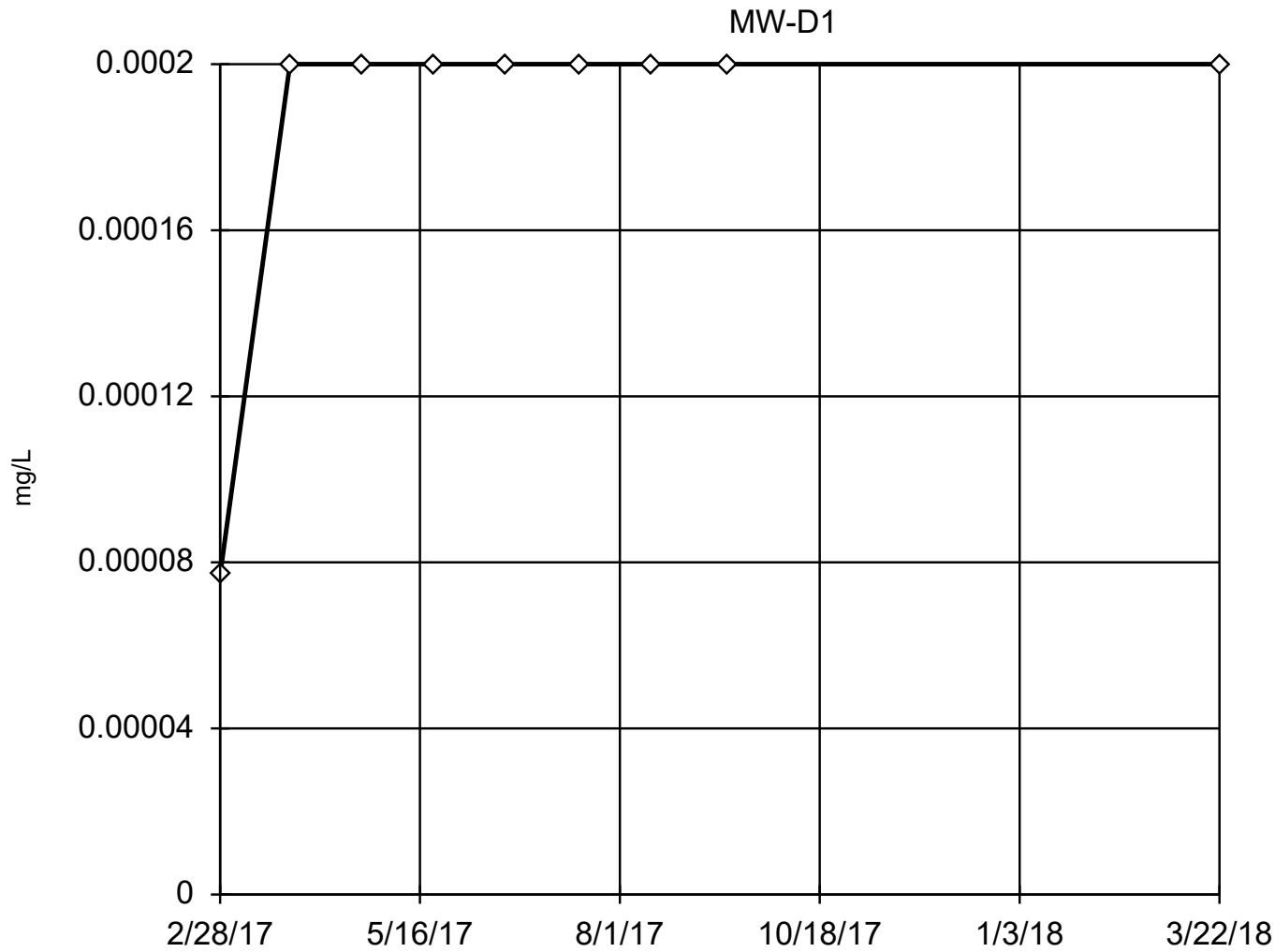
Constituent: Lithium Analysis Run 1/7/2019 4:16 PM View: Sanitas_Statistics Sampling Events 1 through 10
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Tukey's Outlier Screening

Constituent: Lithium (mg/L) Analysis Run 1/7/2019 4:19 PM View: Sanitas_Statistics Sampling Events 1 through 11
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

| | MW-U1 (bg) |
|------------|-------------|
| 2/28/2017 | <0.0025 |
| 3/27/2017 | <0.0025 |
| 4/24/2017 | <0.0025 |
| 5/22/2017 | <0.0025 |
| 6/19/2017 | <0.0025 |
| 7/17/2017 | <0.0025 |
| 8/14/2017 | <0.0025 |
| 9/13/2017 | <0.0025 |
| 3/22/2018 | 0.00034 (J) |
| 11/29/2018 | <0.0025 |

Tukey's Outlier Screening



n = 9

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 x^4 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 1/7/2019 4:16 PM View: Sanitas_Statistics Sampling Events 1 through

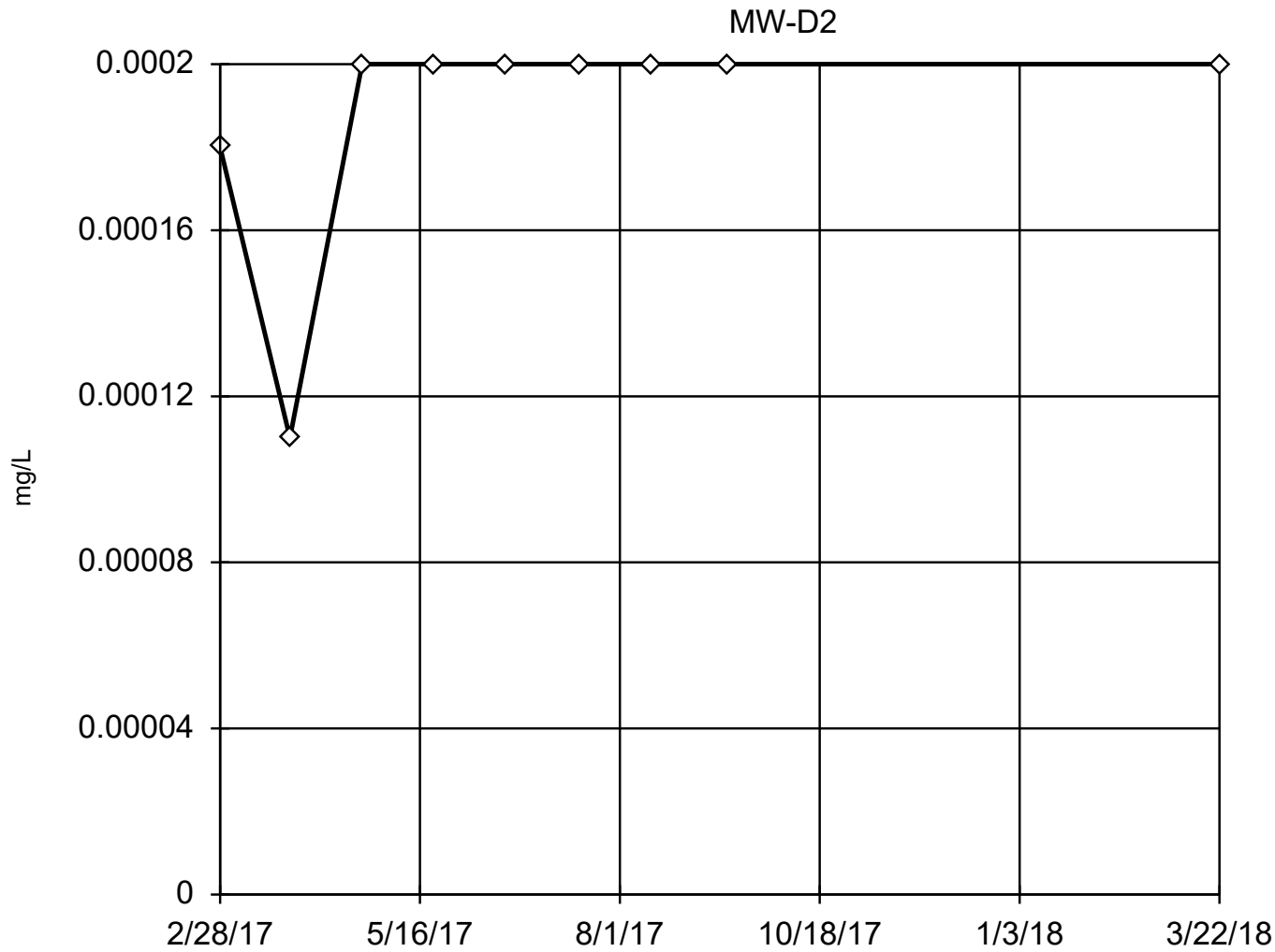
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Tukey's Outlier Screening

Constituent: Mercury (mg/L) Analysis Run 1/7/2019 4:19 PM View: Sanitas_Statistics Sampling Events 1 through 11
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

| | |
|-----------|--------------|
| | MW-D1 |
| 2/28/2017 | 7.7E-05 (JB) |
| 3/27/2017 | <0.0002 |
| 4/24/2017 | <0.0002 |
| 5/22/2017 | <0.0002 |
| 6/19/2017 | <0.0002 |
| 7/17/2017 | <0.0002 |
| 8/14/2017 | <0.0002 |
| 9/13/2017 | <0.0002 |
| 3/22/2018 | <0.0002 |

Tukey's Outlier Screening



n = 9

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 x⁵ transformed to achieve best W statistic (graph shown in original units).

The results were invalidated, because both the lower and upper quartiles represent reporting limits.

Constituent: Mercury Analysis Run 1/7/2019 4:16 PM View: Sanitas_Statistics Sampling Events 1 through

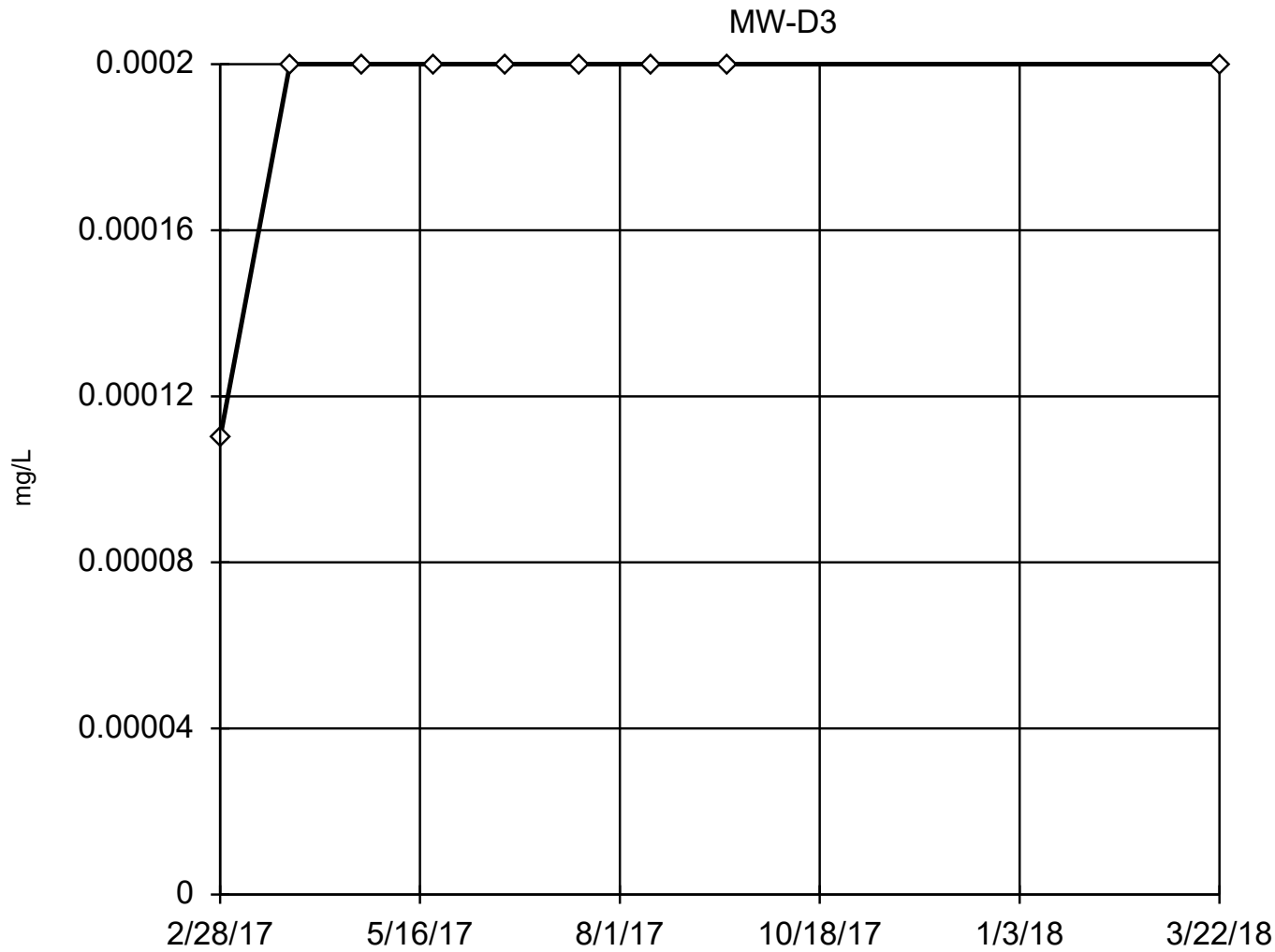
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Tukey's Outlier Screening

Constituent: Mercury (mg/L) Analysis Run 1/7/2019 4:19 PM View: Sanitas_Statistics Sampling Events 1 through 11
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

| | MW-D2 |
|-----------|--------------|
| 2/28/2017 | 0.00018 (JB) |
| 3/27/2017 | 0.00011 (J) |
| 4/24/2017 | <0.0002 |
| 5/22/2017 | <0.0002 |
| 6/19/2017 | <0.0002 |
| 7/17/2017 | <0.0002 |
| 8/14/2017 | <0.0002 |
| 9/13/2017 | <0.0002 |
| 3/22/2018 | <0.0002 |

Tukey's Outlier Screening



n = 9

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 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: Mercury Analysis Run 1/7/2019 4:16 PM View: Sanitas_Statistics Sampling Events 1 through

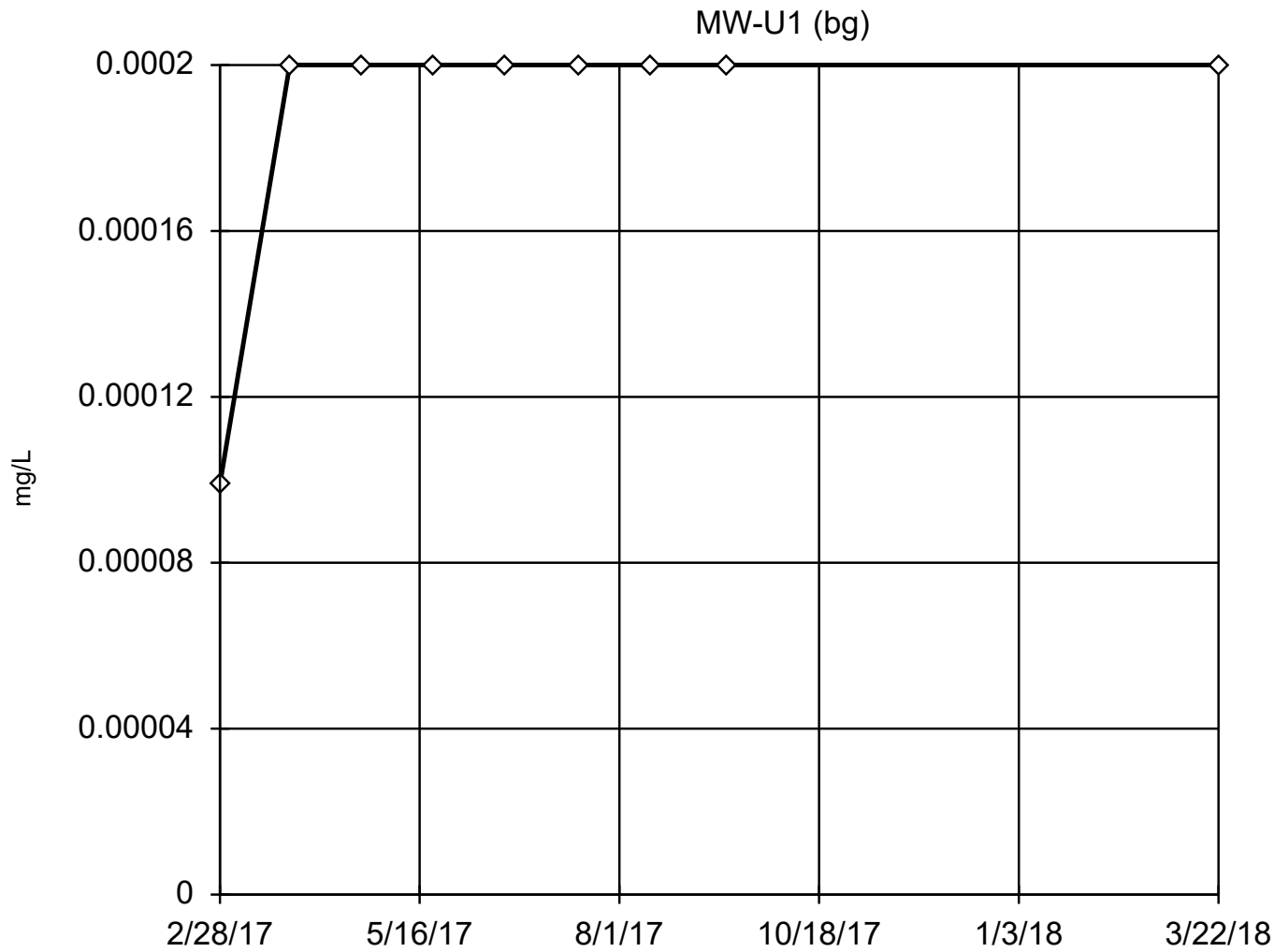
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Tukey's Outlier Screening

Constituent: Mercury (mg/L) Analysis Run 1/7/2019 4:19 PM View: Sanitas_Statistics Sampling Events 1 through 11
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

| | MW-D3 |
|-----------|--------------|
| 2/28/2017 | 0.00011 (JB) |
| 3/27/2017 | <0.0002 |
| 4/24/2017 | <0.0002 |
| 5/22/2017 | <0.0002 |
| 6/19/2017 | <0.0002 |
| 7/17/2017 | <0.0002 |
| 8/14/2017 | <0.0002 |
| 9/13/2017 | <0.0002 |
| 3/22/2018 | <0.0002 |

Tukey's Outlier Screening



n = 9

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: Mercury Analysis Run 1/7/2019 4:16 PM View: Sanitas_Statistics Sampling Events 1 through

CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

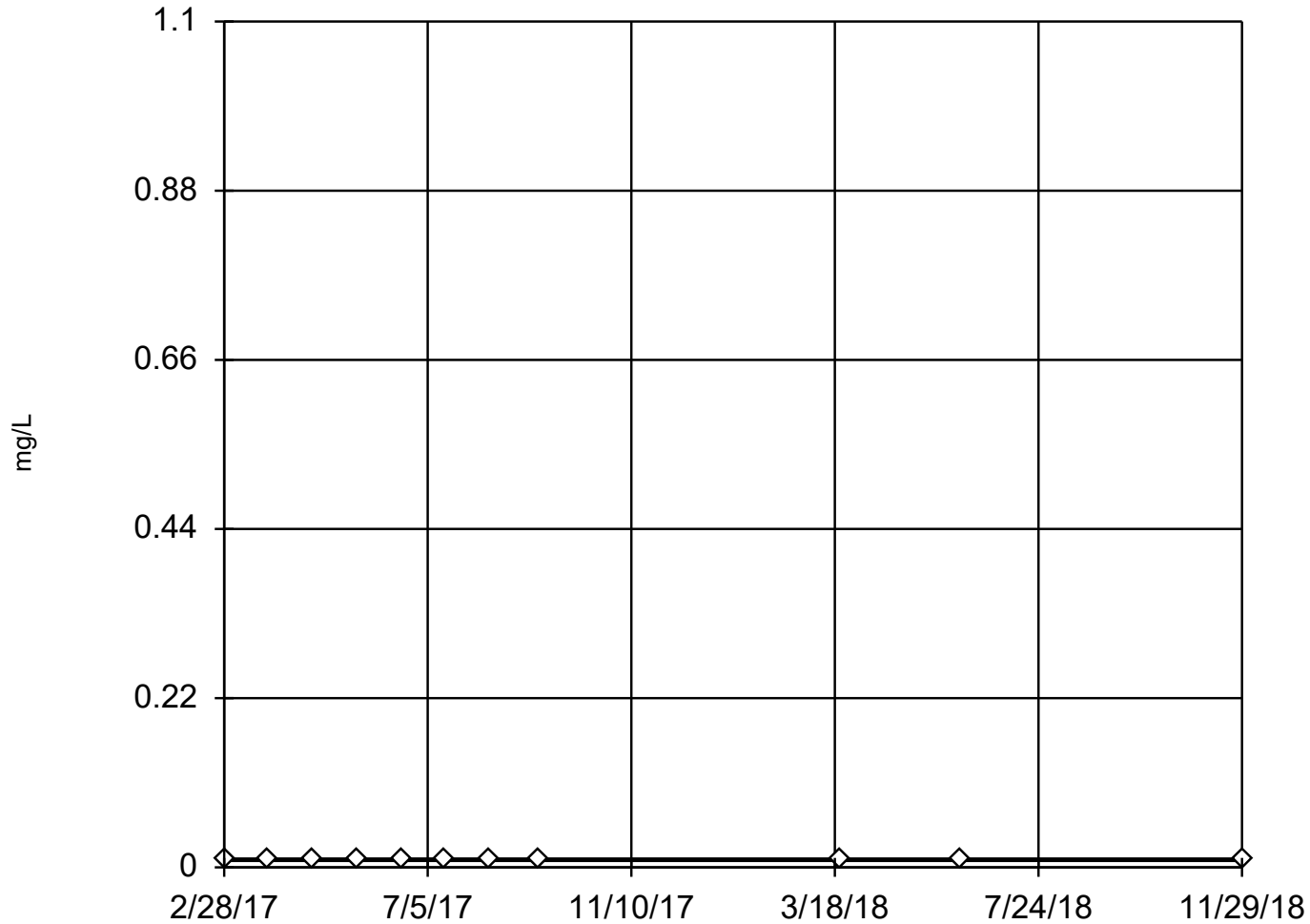
Tukey's Outlier Screening

Constituent: Mercury (mg/L) Analysis Run 1/7/2019 4:19 PM View: Sanitas_Statistics Sampling Events 1 through 11
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

| | |
|-----------|--------------|
| | MW-U1 (bg) |
| 2/28/2017 | 9.9E-05 (JB) |
| 3/27/2017 | <0.0002 |
| 4/24/2017 | <0.0002 |
| 5/22/2017 | <0.0002 |
| 6/19/2017 | <0.0002 |
| 7/17/2017 | <0.0002 |
| 8/14/2017 | <0.0002 |
| 9/13/2017 | <0.0002 |
| 3/22/2018 | <0.0002 |

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 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: Molybdenum Analysis Run 1/7/2019 4:16 PM View: Sanitas_Statistics Sampling Events 1 thr

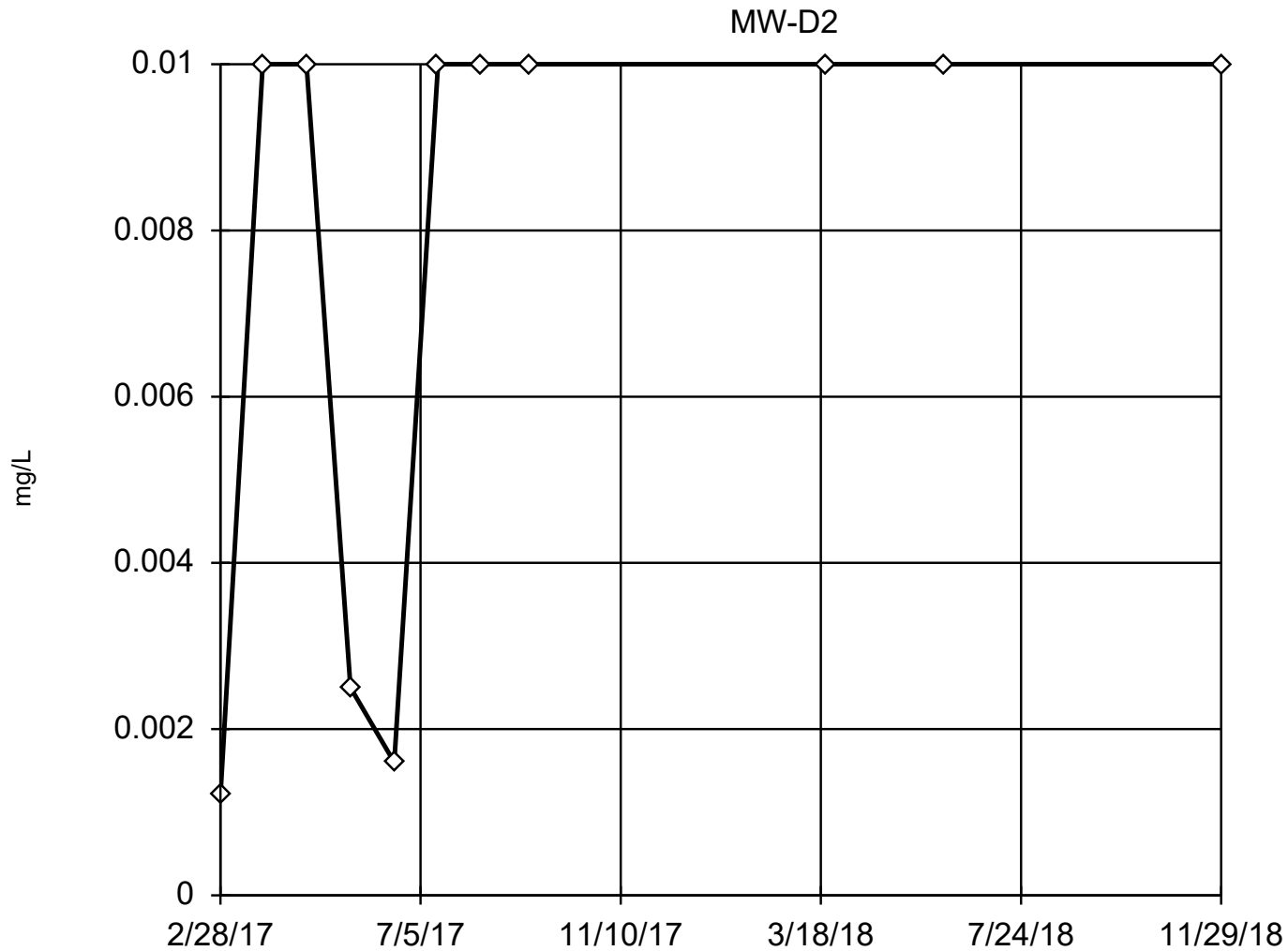
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Tukey's Outlier Screening

Constituent: Molybdenum (mg/L) Analysis Run 1/7/2019 4:19 PM View: Sanitas_Statistics Sampling Events 1 through 11
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

| | MW-D1 |
|------------|-------|
| 2/28/2017 | <0.01 |
| 3/27/2017 | <0.01 |
| 4/24/2017 | <0.01 |
| 5/22/2017 | <0.01 |
| 6/19/2017 | <0.01 |
| 7/17/2017 | <0.01 |
| 8/14/2017 | <0.01 |
| 9/13/2017 | <0.01 |
| 3/22/2018 | <0.01 |
| 6/5/2018 | <0.01 |
| 11/29/2018 | <0.01 |

Tukey's Outlier Screening



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 = 0.64, low cutoff = 0.00003906, based on IQR multiplier of 3.

Constituent: Molybdenum Analysis Run 1/7/2019 4:16 PM View: Sanitas_Statistics Sampling Events 1 thr

CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

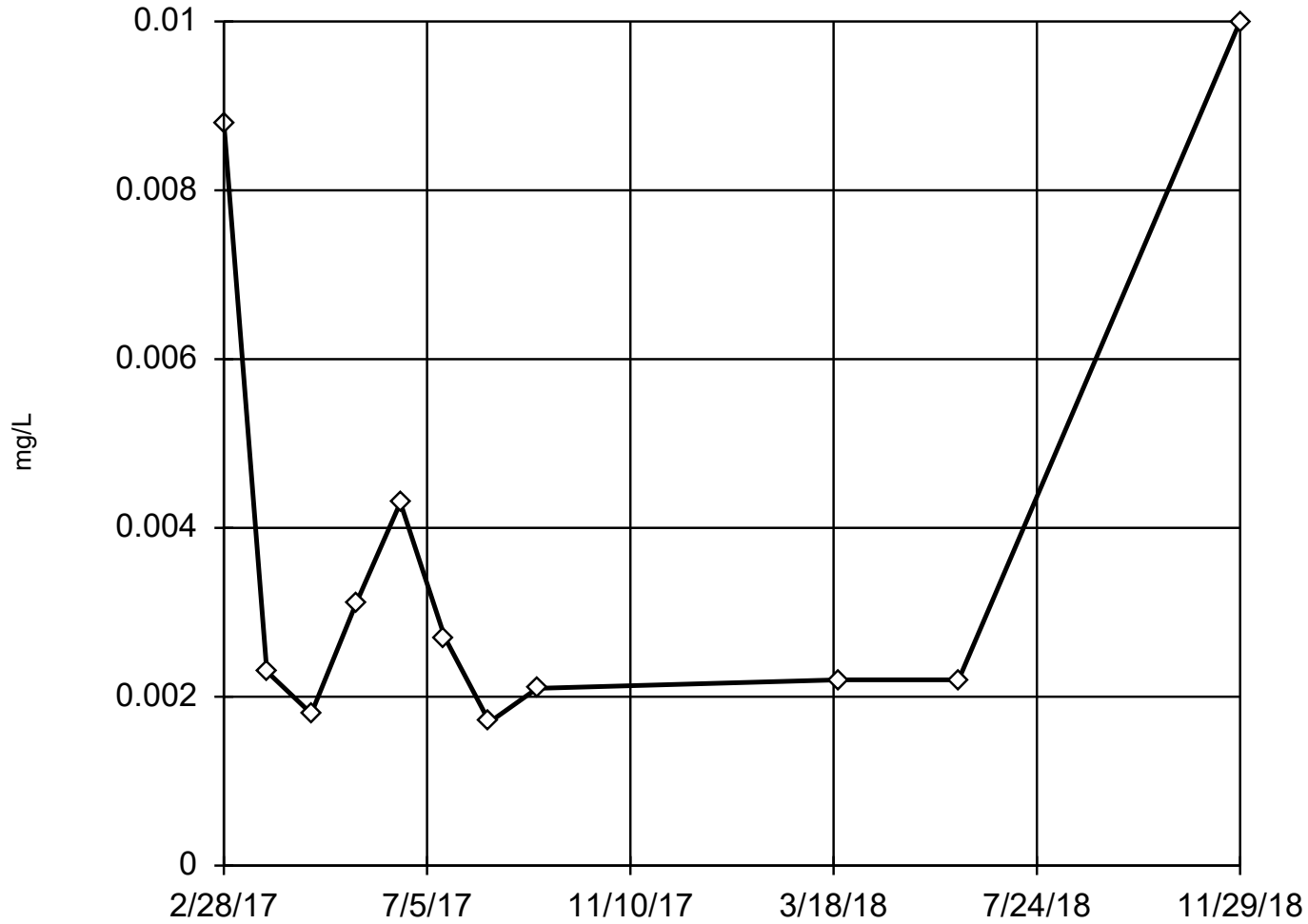
Tukey's Outlier Screening

Constituent: Molybdenum (mg/L) Analysis Run 1/7/2019 4:19 PM View: Sanitas_Statistics Sampling Events 1 through 11
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

| | MW-D2 |
|------------|------------|
| 2/28/2017 | 0.0012 (J) |
| 3/27/2017 | <0.01 |
| 4/24/2017 | <0.01 |
| 5/22/2017 | 0.0025 (J) |
| 6/19/2017 | 0.0016 (J) |
| 7/17/2017 | <0.01 |
| 8/14/2017 | <0.01 |
| 9/13/2017 | <0.01 |
| 3/22/2018 | <0.01 |
| 6/5/2018 | <0.01 |
| 11/29/2018 | <0.01 |

EPA 1989 Outlier Screening

MW-D3



n = 11

No statistical outliers.
Mean 0.003745, std. dev.
0.002899, critical Tn
2.234

Normality test used:
Shapiro Wilk@alpha = 0.01
Calculated = 0.8179
Critical = 0.792 (after
natural log transforma-
tion)
The distribution was found
to be log-normal.

Constituent: Molybdenum Analysis Run 1/7/2019 4:16 PM View: Sanitas_Statistics Sampling Events 1 thr

CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

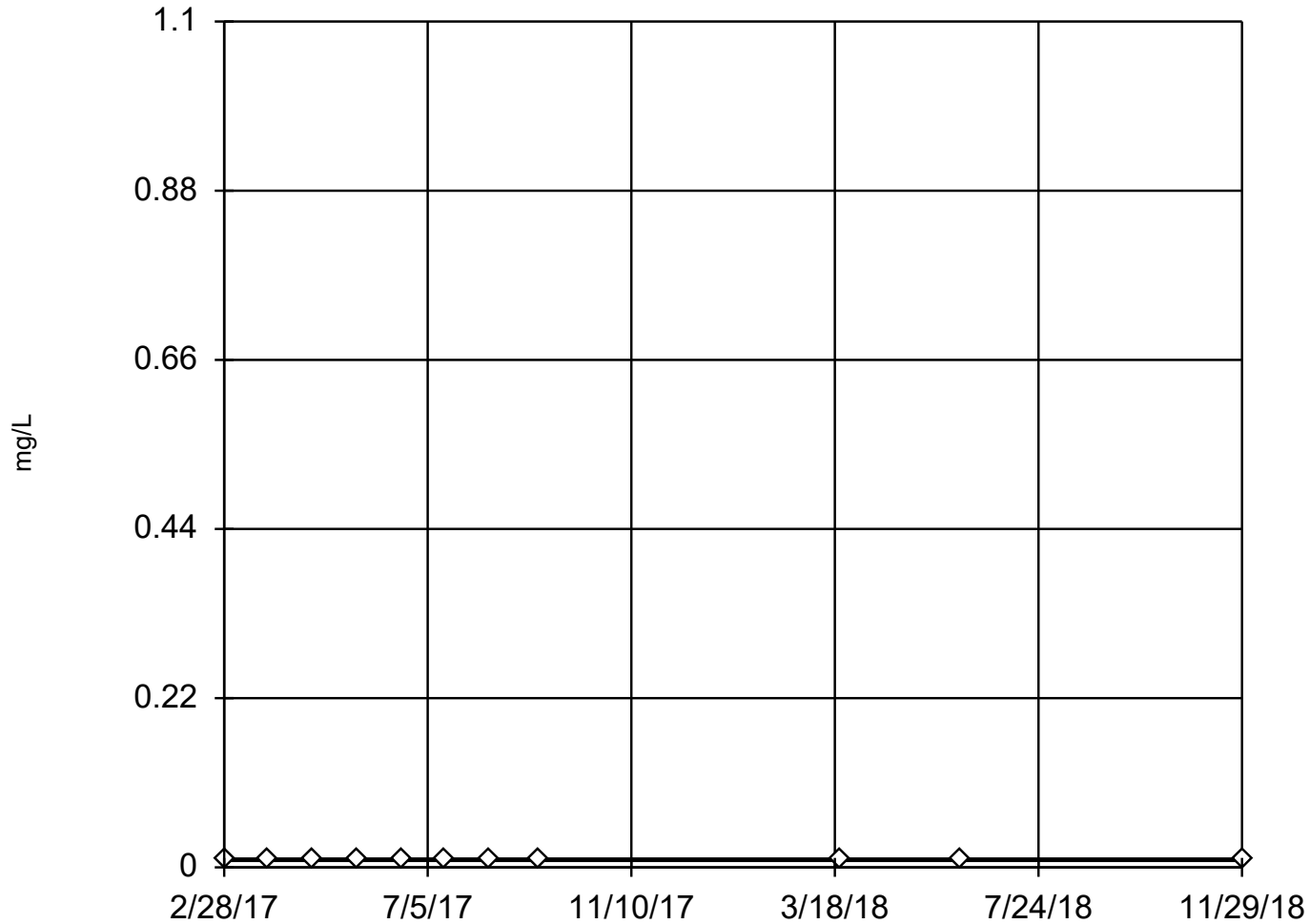
EPA 1989 Outlier Screening

Constituent: Molybdenum (mg/L) Analysis Run 1/7/2019 4:19 PM View: Sanitas_Statistics Sampling Events 1 through 11
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

| | MW-D3 | Tn |
|------------|------------|---------|
| 2/28/2017 | 0.0088 (J) | 1.728 |
| 3/27/2017 | 0.0023 (J) | -0.4725 |
| 4/24/2017 | 0.0018 (J) | -0.8745 |
| 5/22/2017 | 0.0031 (J) | 0.01709 |
| 6/19/2017 | 0.0043 (J) | 0.5537 |
| 7/17/2017 | 0.0027 (J) | -0.2095 |
| 8/14/2017 | 0.0017 (J) | -0.9682 |
| 9/13/2017 | 0.0021 (J) | -0.6217 |
| 3/22/2018 | 0.0022 (J) | -0.5454 |
| 6/5/2018 | 0.0022 (J) | -0.5454 |
| 11/29/2018 | <0.01 | 1.938 |

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 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: Molybdenum Analysis Run 1/7/2019 4:16 PM View: Sanitas_Statistics Sampling Events 1 thr

CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

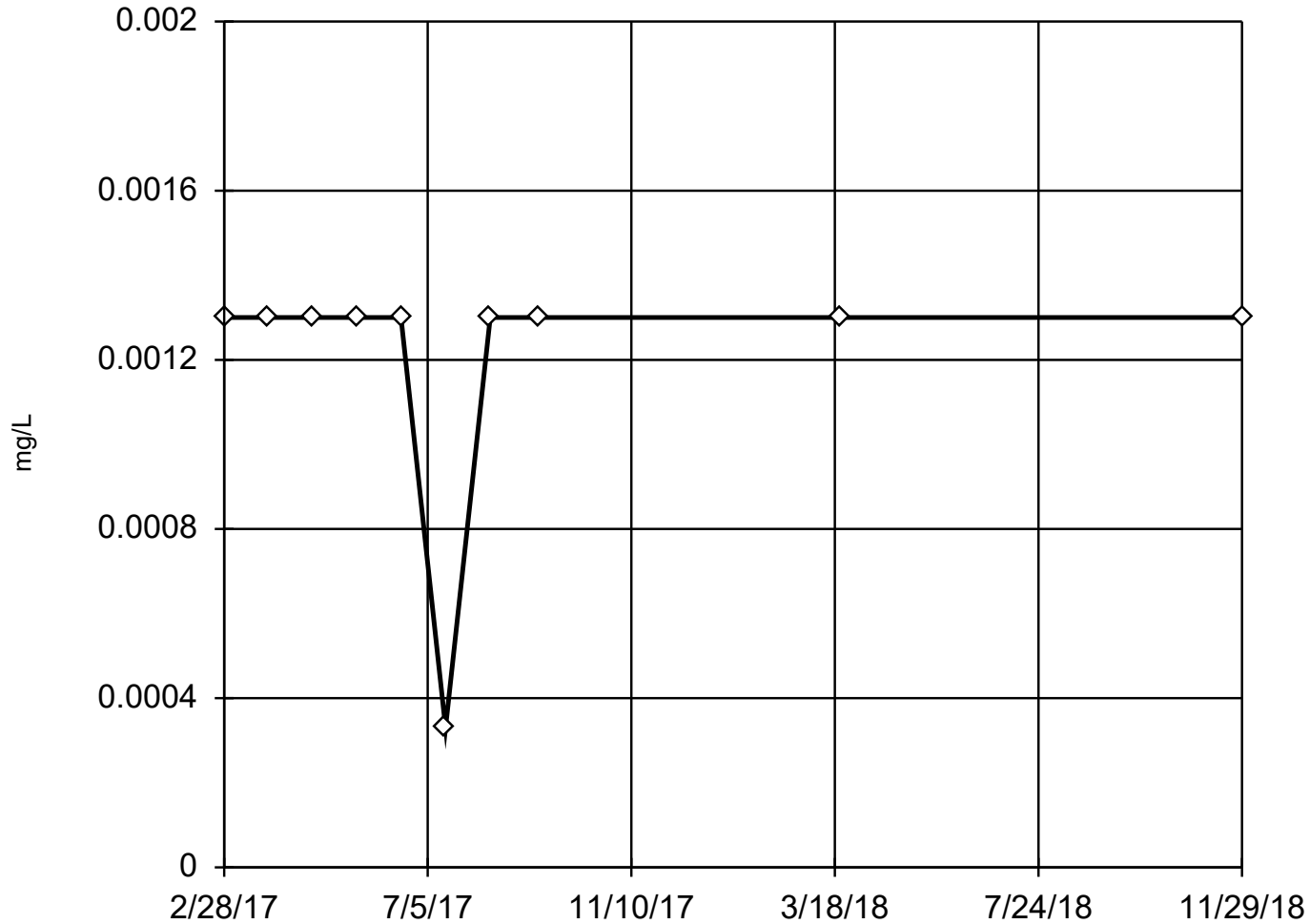
Tukey's Outlier Screening

Constituent: Molybdenum (mg/L) Analysis Run 1/7/2019 4:19 PM View: Sanitas_Statistics Sampling Events 1 through 11
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

| | MW-U1 (bg) |
|------------|------------|
| 2/28/2017 | <0.01 |
| 3/27/2017 | <0.01 |
| 4/24/2017 | <0.01 |
| 5/22/2017 | <0.01 |
| 6/19/2017 | <0.01 |
| 7/17/2017 | <0.01 |
| 8/14/2017 | <0.01 |
| 9/13/2017 | <0.01 |
| 3/22/2018 | <0.01 |
| 6/5/2018 | <0.01 |
| 11/29/2018 | <0.01 |

Tukey's Outlier Screening

MW-D1



n = 10

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 x^4 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 1/7/2019 4:16 PM View: Sanitas_Statistics Sampling Events 1 through

CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

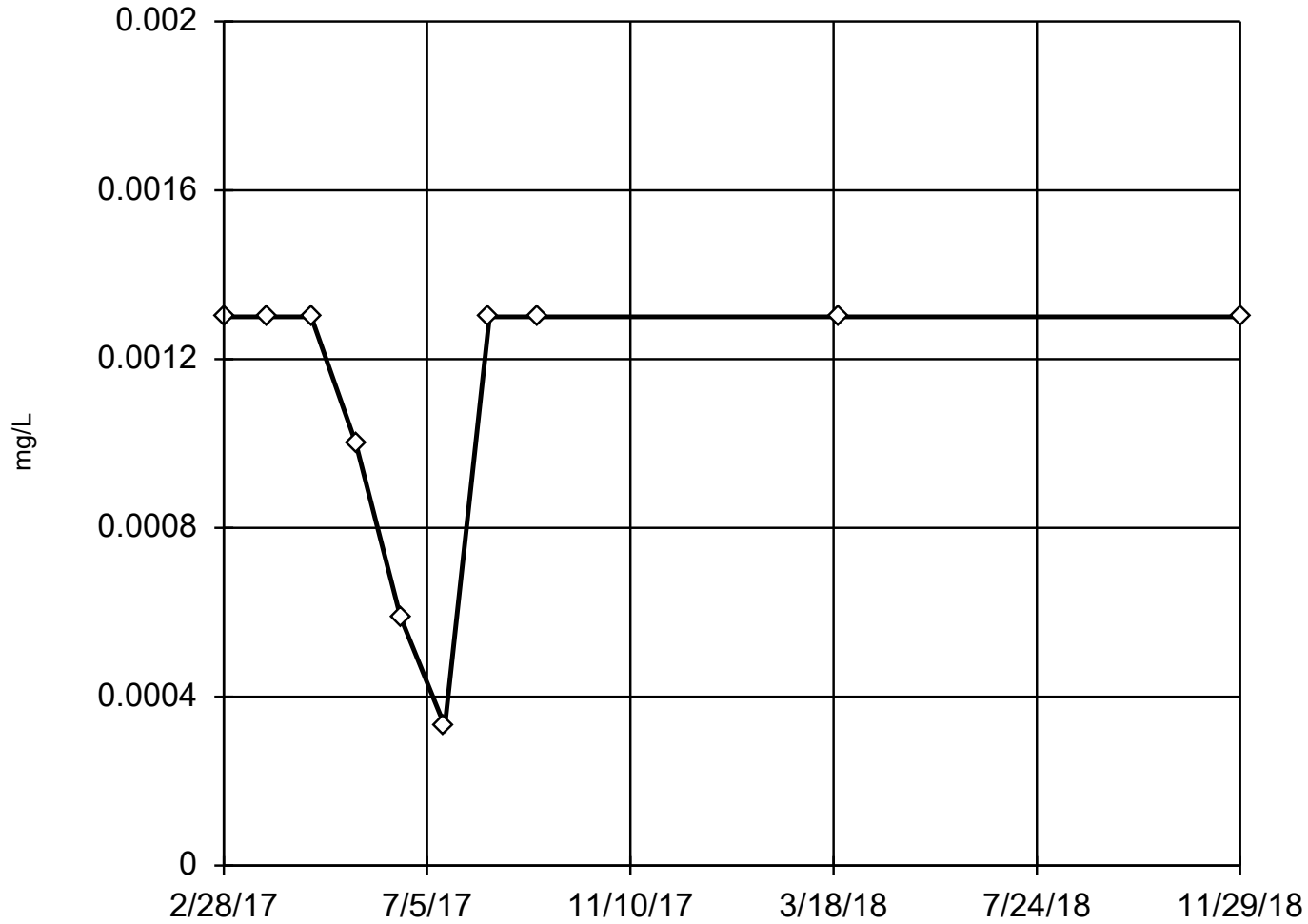
Tukey's Outlier Screening

Constituent: Selenium (mg/L) Analysis Run 1/7/2019 4:19 PM View: Sanitas_Statistics Sampling Events 1 through 11
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

| | MW-D1 |
|------------|-------------|
| 2/28/2017 | <0.0013 |
| 3/27/2017 | <0.0013 |
| 4/24/2017 | <0.0013 |
| 5/22/2017 | <0.0013 |
| 6/19/2017 | <0.0013 |
| 7/17/2017 | 0.00033 (J) |
| 8/14/2017 | <0.0013 |
| 9/13/2017 | <0.0013 |
| 3/22/2018 | <0.0013 |
| 11/29/2018 | <0.0013 |

Tukey's Outlier Screening

MW-D2



n = 10

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 = 0.002177,
low cutoff = -0.001541,
based on IQR multiplier of 3.

Constituent: Selenium Analysis Run 1/7/2019 4:16 PM View: Sanitas_Statistics Sampling Events 1 through

CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

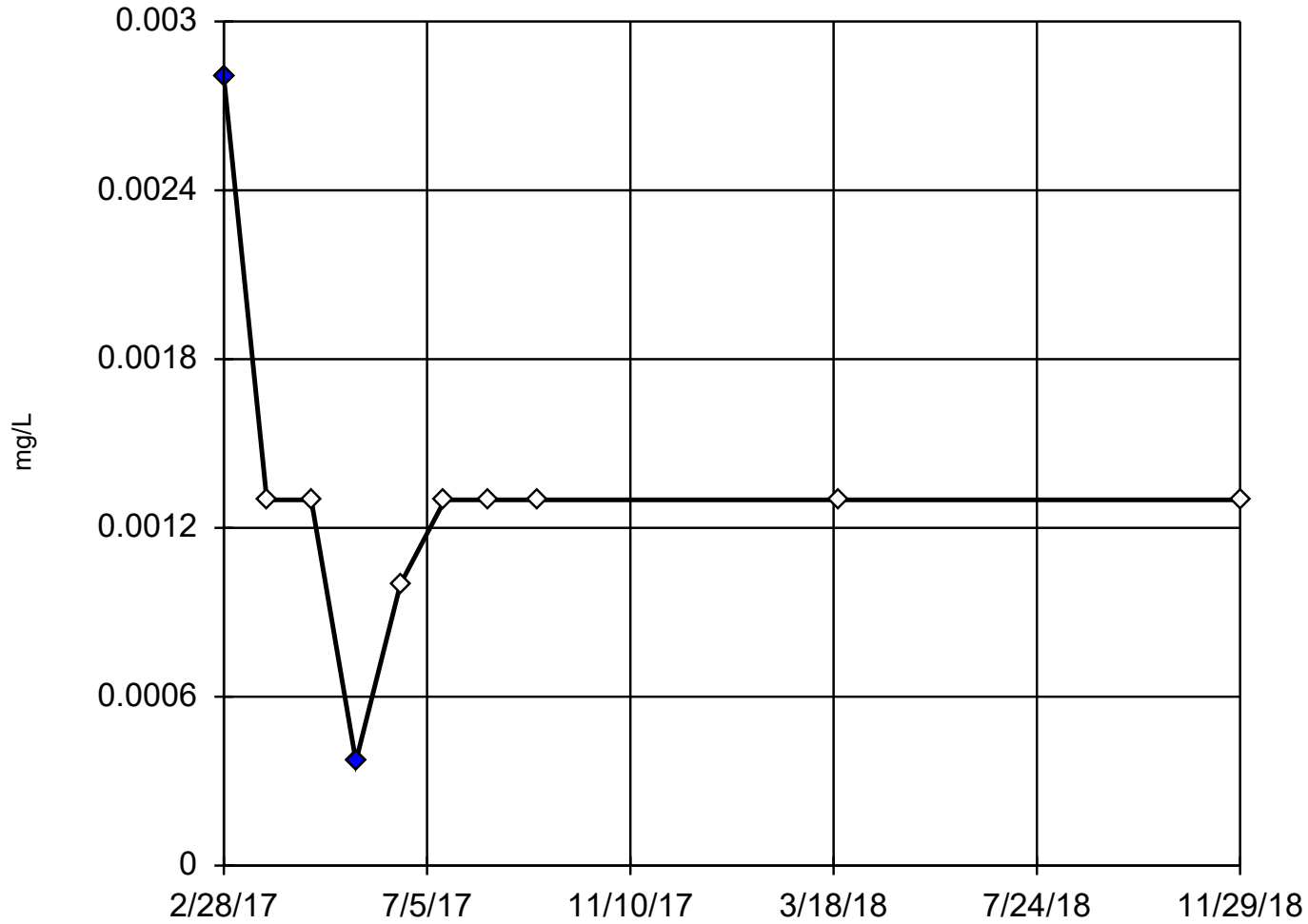
Tukey's Outlier Screening

Constituent: Selenium (mg/L) Analysis Run 1/7/2019 4:19 PM View: Sanitas_Statistics Sampling Events 1 through 11
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

| | MW-D2 |
|------------|--------------|
| 2/28/2017 | <0.0013 |
| 3/27/2017 | <0.0013 |
| 4/24/2017 | <0.0013 |
| 5/22/2017 | 0.001 (J) |
| 6/19/2017 | 0.00059 (JB) |
| 7/17/2017 | 0.00033 (J) |
| 8/14/2017 | <0.0013 |
| 9/13/2017 | <0.0013 |
| 3/22/2018 | <0.0013 |
| 11/29/2018 | <0.0013 |

Tukey's Outlier Screening

MW-D3



n = 10

Outliers are drawn as solid.
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 = 0.001824,
low cutoff = 0.0007393,
based on IQR multiplier of 3.

Constituent: Selenium Analysis Run 1/7/2019 4:16 PM View: Sanitas_Statistics Sampling Events 1 through

CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

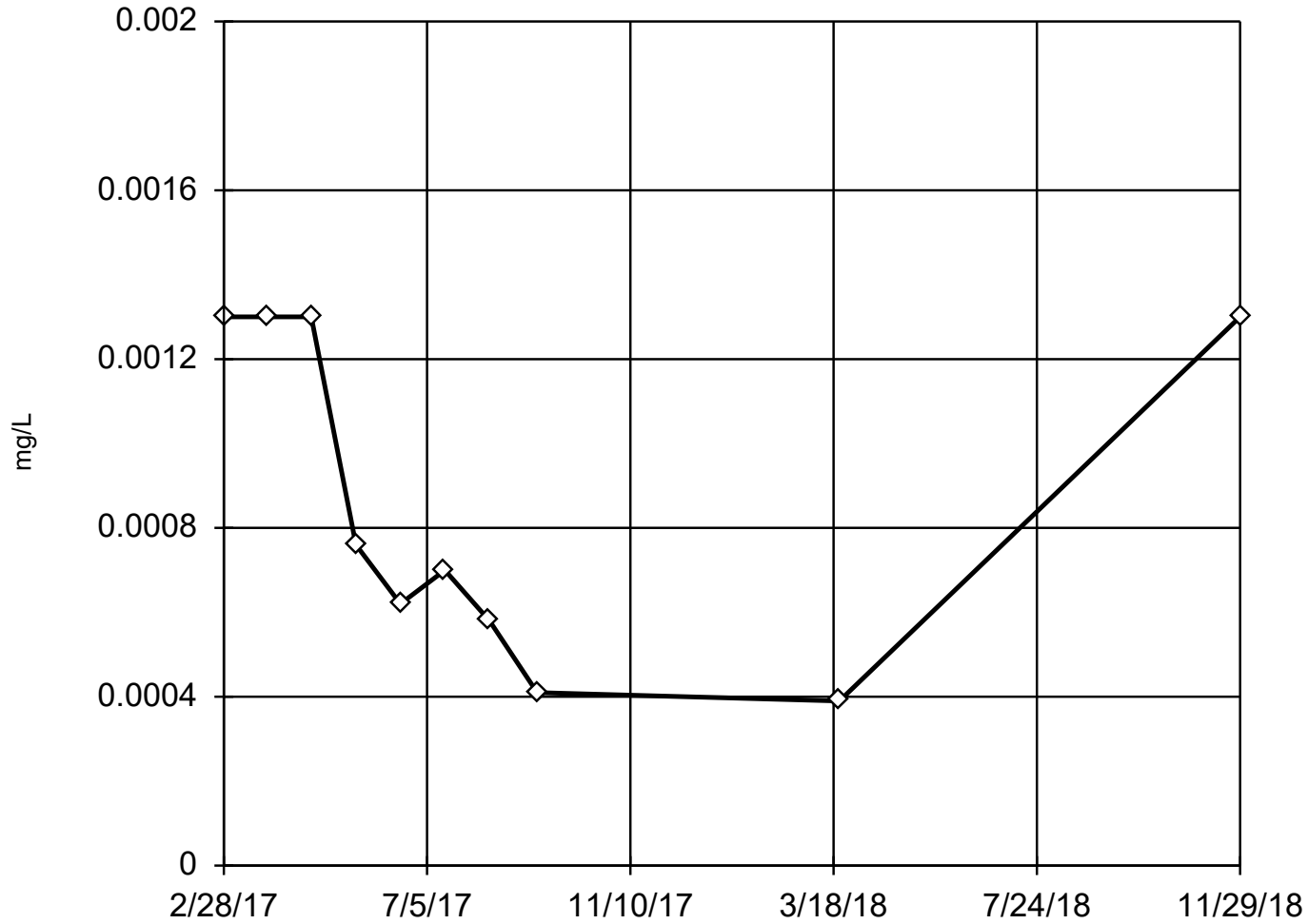
Tukey's Outlier Screening

Constituent: Selenium (mg/L) Analysis Run 1/7/2019 4:19 PM View: Sanitas_Statistics Sampling Events 1 through 11
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

| | MW-D3 |
|------------|--------------|
| 2/28/2017 | 0.0028 (O) |
| 3/27/2017 | <0.0013 |
| 4/24/2017 | <0.0013 |
| 5/22/2017 | 0.00037 (JO) |
| 6/19/2017 | 0.001 (JB) |
| 7/17/2017 | <0.0013 |
| 8/14/2017 | <0.0013 |
| 9/13/2017 | <0.0013 |
| 3/22/2018 | <0.0013 |
| 11/29/2018 | <0.0013 |

EPA 1989 Outlier Screening

MW-U1 (bg)



n = 10

No statistical outliers.
Mean 0.000866, std. dev.
0.00039, critical Tn 2.176

Normality test used:
Shapiro Wilk@alpha = 0.01
Calculated = 0.8129
Critical = 0.781
The distribution was found
to be normally distrib-
uted.

Constituent: Selenium Analysis Run 1/7/2019 4:16 PM View: Sanitas_Statistics Sampling Events 1 through

CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

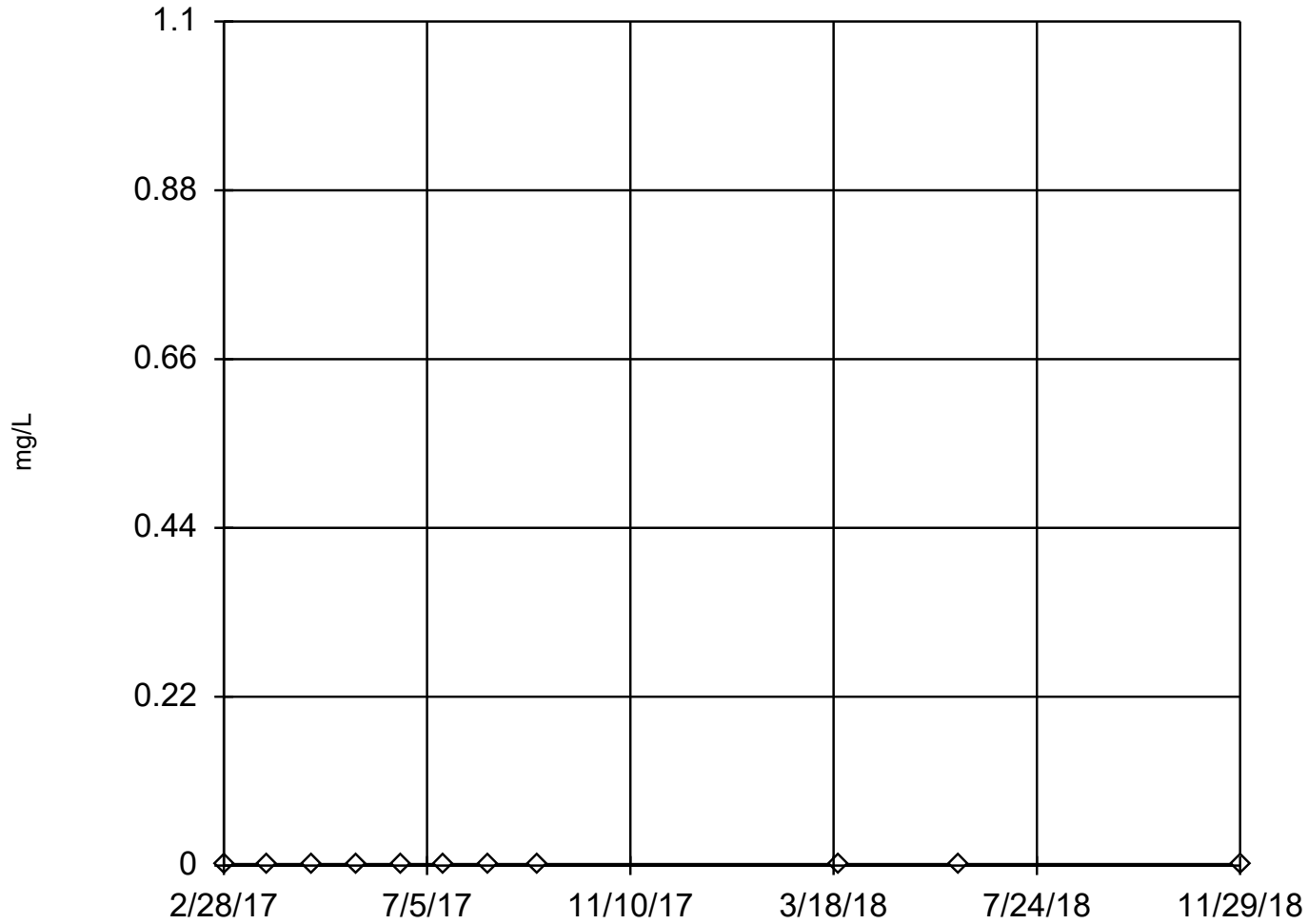
EPA 1989 Outlier Screening

Constituent: Selenium (mg/L) Analysis Run 1/7/2019 4:19 PM View: Sanitas_Statistics Sampling Events 1 through 11
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

| | MW-U1 (bg) | Tn |
|------------|--------------|----------|
| 2/28/2017 | <0.0013 | 1.05 |
| 3/27/2017 | <0.0013 | 1.05 |
| 4/24/2017 | <0.0013 | 1.05 |
| 5/22/2017 | 0.00076 (J) | -0.06365 |
| 6/19/2017 | 0.00062 (JB) | -0.4861 |
| 7/17/2017 | 0.0007 (J) | -0.2343 |
| 8/14/2017 | 0.00058 (J) | -0.6245 |
| 9/13/2017 | 0.00041 (J) | -1.344 |
| 3/22/2018 | 0.00039 | -1.448 |
| 11/29/2018 | <0.0013 | 1.05 |

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 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: Thallium Analysis Run 1/7/2019 4:16 PM View: Sanitas_Statistics Sampling Events 1 through

CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

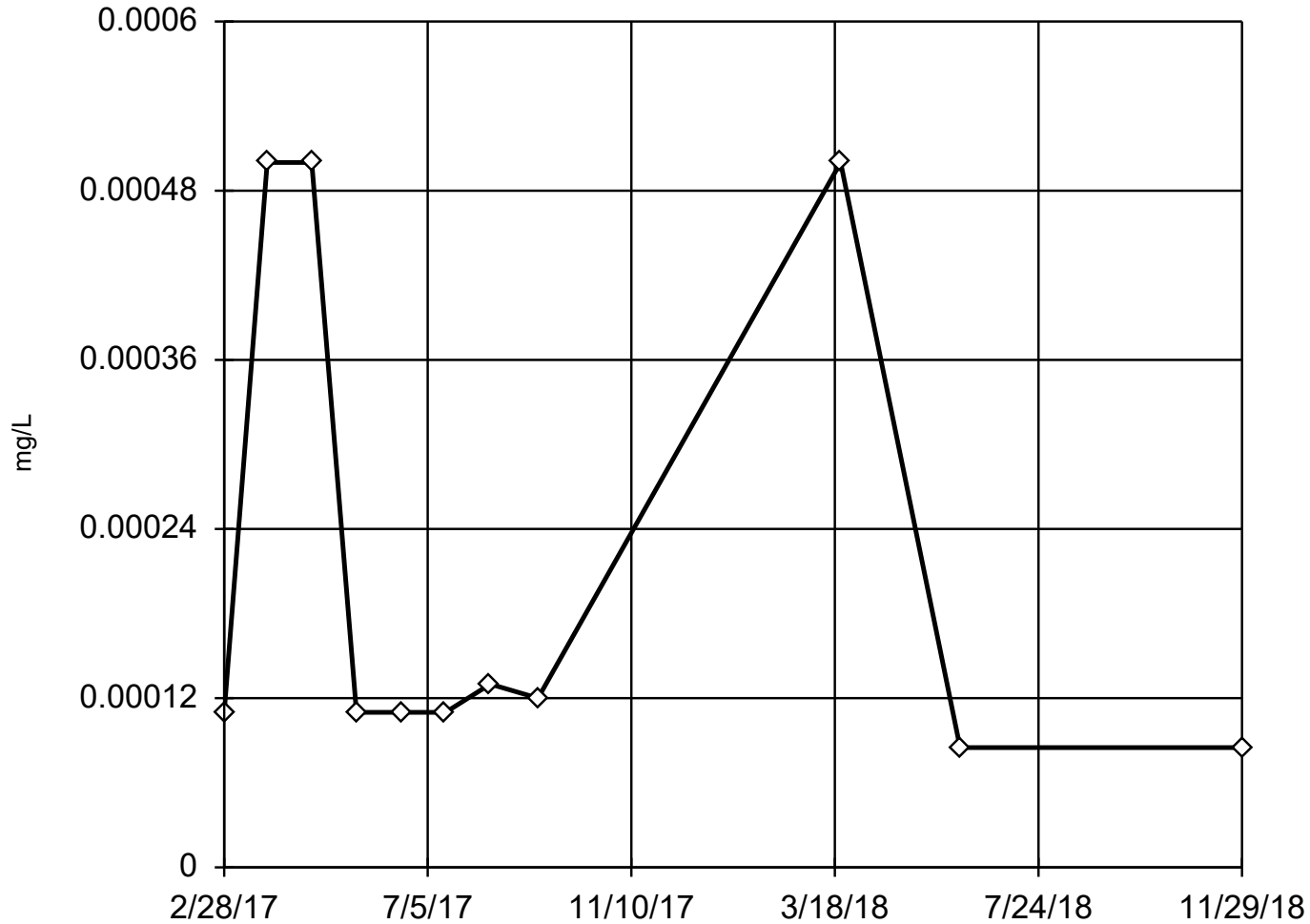
Tukey's Outlier Screening

Constituent: Thallium (mg/L) Analysis Run 1/7/2019 4:19 PM View: Sanitas_Statistics Sampling Events 1 through 11
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

| | MW-D1 |
|------------|---------|
| 2/28/2017 | <0.0005 |
| 3/27/2017 | <0.0005 |
| 4/24/2017 | <0.0005 |
| 5/22/2017 | <0.0005 |
| 6/19/2017 | <0.0005 |
| 7/17/2017 | <0.0005 |
| 8/14/2017 | <0.0005 |
| 9/13/2017 | <0.0005 |
| 3/22/2018 | <0.0005 |
| 6/5/2018 | <0.0005 |
| 11/29/2018 | <0.0005 |

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 = 0.04696,
low cutoff = 0.000001171,
based on IQR multiplier of 3.

Constituent: Thallium Analysis Run 1/7/2019 4:16 PM View: Sanitas_Statistics Sampling Events 1 through

CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

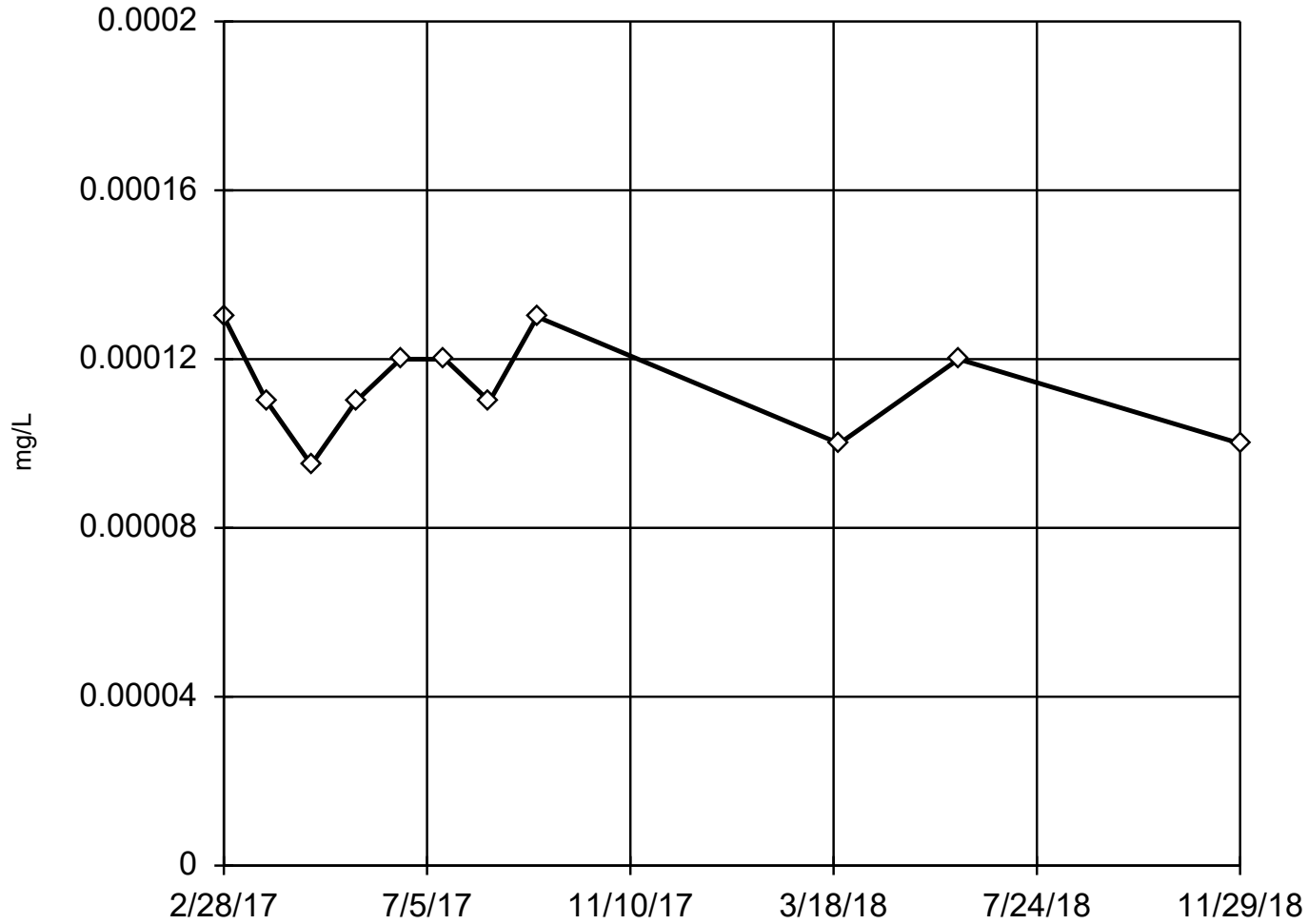
Tukey's Outlier Screening

Constituent: Thallium (mg/L) Analysis Run 1/7/2019 4:19 PM View: Sanitas_Statistics Sampling Events 1 through 11
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

| | MW-D2 |
|------------|-------------|
| 2/28/2017 | 0.00011 (J) |
| 3/27/2017 | <0.0005 |
| 4/24/2017 | <0.0005 |
| 5/22/2017 | 0.00011 (J) |
| 6/19/2017 | 0.00011 (J) |
| 7/17/2017 | 0.00011 (J) |
| 8/14/2017 | 0.00013 (J) |
| 9/13/2017 | 0.00012 (J) |
| 3/22/2018 | <0.0005 |
| 6/5/2018 | 8.5E-05 (J) |
| 11/29/2018 | 8.5E-05 (J) |

EPA 1989 Outlier Screening

MW-D3



n = 11

No statistical outliers.
Mean 0.0001132, std. dev.
0.00001189, critical Tn
2.234

Normality test used:
Shapiro Wilk@alpha = 0.01
Calculated = 0.9266
Critical = 0.792
The distribution was found
to be normally distrib-
uted.

Constituent: Thallium Analysis Run 1/7/2019 4:16 PM View: Sanitas_Statistics Sampling Events 1 through

CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

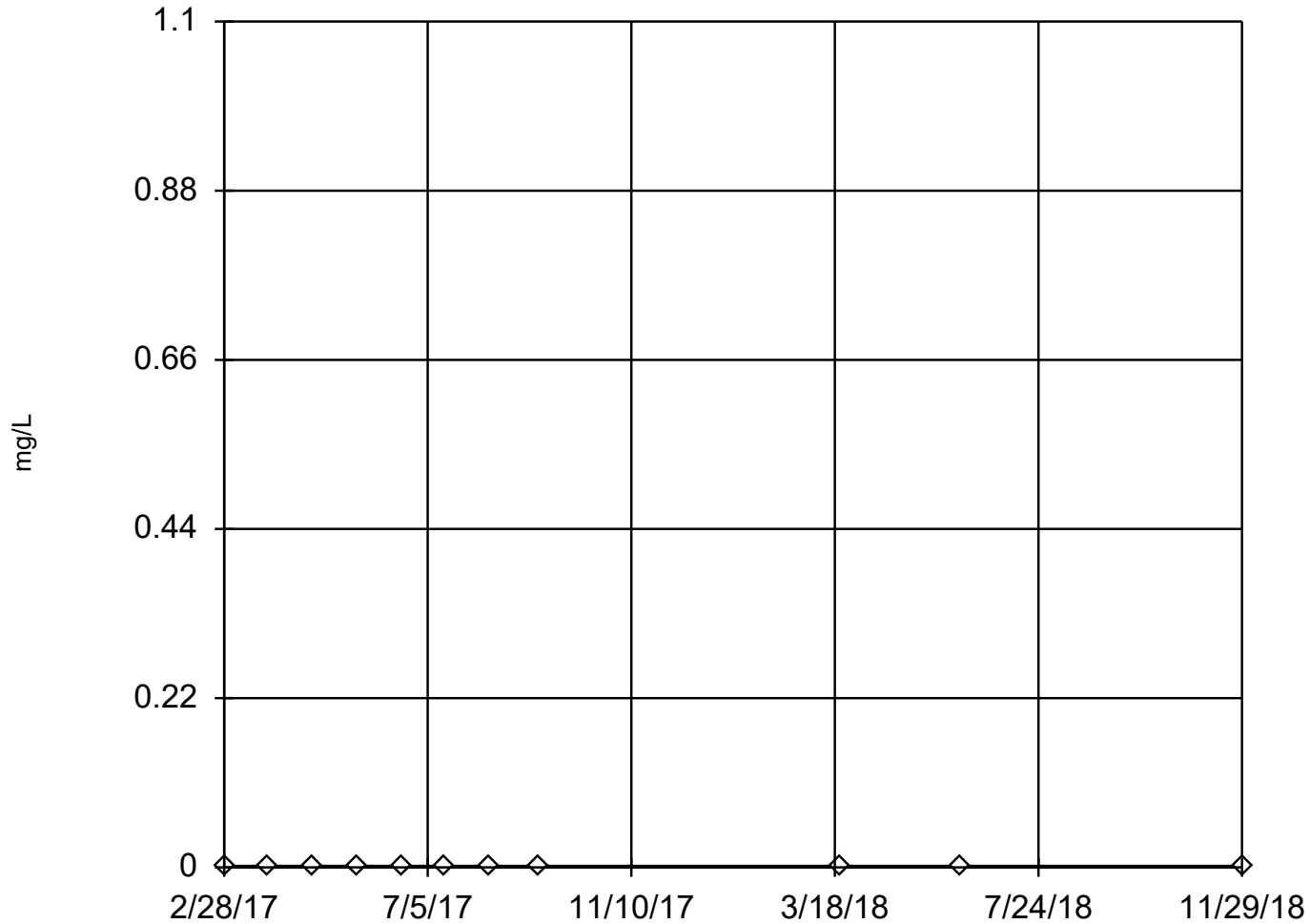
EPA 1989 Outlier Screening

Constituent: Thallium (mg/L) Analysis Run 1/7/2019 4:19 PM View: Sanitas_Statistics Sampling Events 1 through 11
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

| | MW-D3 | Tn |
|------------|-------------|---------|
| 2/28/2017 | 0.00013 (J) | 1.356 |
| 3/27/2017 | 0.00011 (J) | -0.2214 |
| 4/24/2017 | 9.5E-05 (J) | -1.606 |
| 5/22/2017 | 0.00011 (J) | -0.2214 |
| 6/19/2017 | 0.00012 (J) | 0.6002 |
| 7/17/2017 | 0.00012 (J) | 0.6002 |
| 8/14/2017 | 0.00011 (J) | -0.2214 |
| 9/13/2017 | 0.00013 (J) | 1.356 |
| 3/22/2018 | 0.0001 (J) | -1.121 |
| 6/5/2018 | 0.00012 (J) | 0.6002 |
| 11/29/2018 | 0.0001 (J) | -1.121 |

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 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: Thallium Analysis Run 1/7/2019 4:16 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

Constituent: Thallium (mg/L) Analysis Run 1/7/2019 4:19 PM View: Sanitas_Statistics Sampling Events 1 through 11
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

| | MW-U1 (bg) |
|------------|------------|
| 2/28/2017 | <0.0005 |
| 3/27/2017 | <0.0005 |
| 4/24/2017 | <0.0005 |
| 5/22/2017 | <0.0005 |
| 6/19/2017 | <0.0005 |
| 7/17/2017 | <0.0005 |
| 8/14/2017 | <0.0005 |
| 9/13/2017 | <0.0005 |
| 3/22/2018 | <0.0005 |
| 6/5/2018 | <0.0005 |
| 11/29/2018 | <0.0005 |

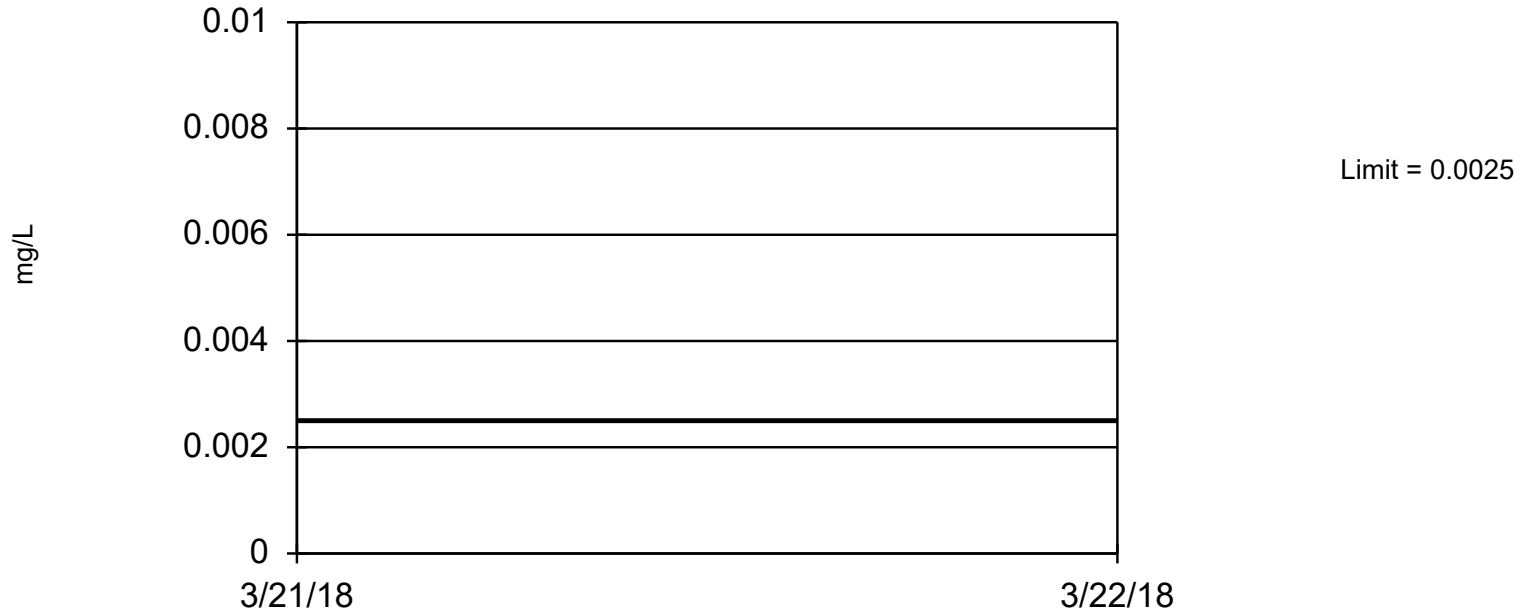
Tolerance Limit

Tolerance Limit

CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10 Printed 1/7/2019, 4:14 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 | 9 | 100 | n/a | 0.6302 | NP Inter(NDs) |
| Arsenic (mg/L) | n/a | 0.0013 | n/a | n/a | n/a | 11 | 90.91 | n/a | 0.5688 | NP Inter(NDs) |
| Barium (mg/L) | n/a | 0.003867 | n/a | n/a | n/a | 11 | 0 | No | 0.01 | Inter |
| Beryllium (mg/L) | n/a | 0.0025 | n/a | n/a | n/a | 9 | 100 | n/a | 0.6302 | NP Inter(NDs) |
| Cadmium (mg/L) | n/a | 0.0025 | n/a | n/a | n/a | 9 | 100 | n/a | 0.6302 | NP Inter(NDs) |
| Chromium (mg/L) | n/a | 0.0051 | n/a | n/a | n/a | 10 | 0 | n/a | 0.5987 | NP Inter(normal... |
| Cobalt (mg/L) | n/a | 0.0025 | n/a | n/a | n/a | 11 | 100 | n/a | 0.5688 | NP Inter(NDs) |
| Combined Radium 226 + 228 (pCi/L) | n/a | 0.8068 | n/a | n/a | n/a | 11 | 0 | No | 0.01 | Inter |
| Fluoride (mg/L) | n/a | 0.08885 | n/a | n/a | n/a | 11 | 0 | No | 0.01 | Inter |
| Lead (mg/L) | n/a | 0.0013 | n/a | n/a | n/a | 9 | 88.89 | n/a | 0.6302 | NP Inter(NDs) |
| Lithium (mg/L) | n/a | 0.0025 | n/a | n/a | n/a | 10 | 90 | n/a | 0.5987 | NP Inter(NDs) |
| Mercury (mg/L) | n/a | 0.0002 | n/a | n/a | n/a | 9 | 88.89 | n/a | 0.6302 | NP Inter(NDs) |
| Molybdenum (mg/L) | n/a | 0.01 | n/a | n/a | n/a | 11 | 100 | n/a | 0.5688 | NP Inter(NDs) |
| Selenium (mg/L) | n/a | 0.001091 | n/a | n/a | n/a | 10 | 40 | No | 0.01 | Inter |
| Thallium (mg/L) | n/a | 0.0005 | n/a | n/a | n/a | 11 | 100 | n/a | 0.5688 | 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 9 background values. 100% NDs. 59.96% coverage at alpha=0.01; 71.68% coverage at alpha=0.05; 92.77% coverage at alpha=0.5. Report alpha = 0.6302.

Tolerance Limit

Constituent: Antimony (mg/L) Analysis Run 1/7/2019 4:14 PM View: Sanitas_Statistics Sampling Events 1 through 11
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

| | MW-U1 (bg) |
|-----------|--------------|
| 2/28/2017 | <0.0025 (**) |
| 3/27/2017 | <0.0025 |
| 4/24/2017 | <0.0025 |
| 5/22/2017 | <0.0025 |
| 6/19/2017 | <0.0025 |
| 7/17/2017 | <0.0025 |
| 8/14/2017 | <0.0025 |
| 9/13/2017 | <0.0025 |
| 3/22/2018 | <0.0025 |

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: Arsenic Analysis Run 1/7/2019 4:13 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

Constituent: Arsenic (mg/L) Analysis Run 1/7/2019 4:14 PM View: Sanitas_Statistics Sampling Events 1 through 11
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

| | MW-U1 (bg) |
|------------|-------------|
| 2/28/2017 | <0.0013 |
| 3/27/2017 | <0.0013 |
| 4/24/2017 | <0.0013 |
| 5/22/2017 | <0.0013 |
| 6/19/2017 | <0.0013 |
| 7/17/2017 | 0.00046 (J) |
| 8/14/2017 | <0.0013 |
| 9/13/2017 | <0.0013 |
| 3/22/2018 | <0.0013 |
| 6/5/2018 | <0.0013 |
| 11/29/2018 | <0.0013 |

Tolerance Limit Interwell Parametric



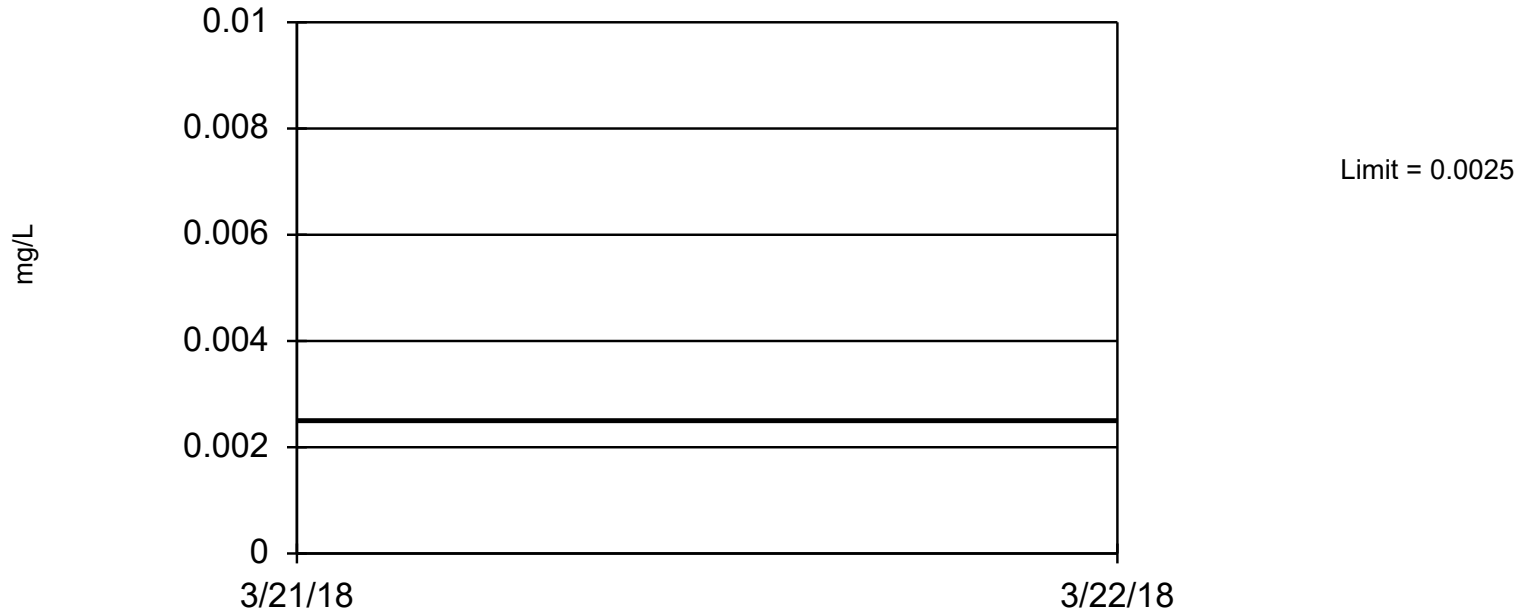
95% coverage. Background Data Summary: Mean=0.002318, Std. Dev.=0.0004355, n=11. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8628, critical = 0.792. Report alpha = 0.01.

Tolerance Limit

Constituent: Barium (mg/L) Analysis Run 1/7/2019 4:14 PM View: Sanitas_Statistics Sampling Events 1 through 11
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

| | MW-U1 (bg) |
|------------|------------|
| 2/28/2017 | 0.0034 |
| 3/27/2017 | 0.0026 |
| 4/24/2017 | 0.0022 (J) |
| 5/22/2017 | 0.002 (J) |
| 6/19/2017 | 0.0021 (J) |
| 7/17/2017 | 0.0025 |
| 8/14/2017 | 0.002 (J) |
| 9/13/2017 | 0.0023 (J) |
| 3/22/2018 | 0.0021 (J) |
| 6/5/2018 | 0.0025 |
| 11/29/2018 | 0.0018 (J) |

Tolerance Limit Interwell Non-parametric



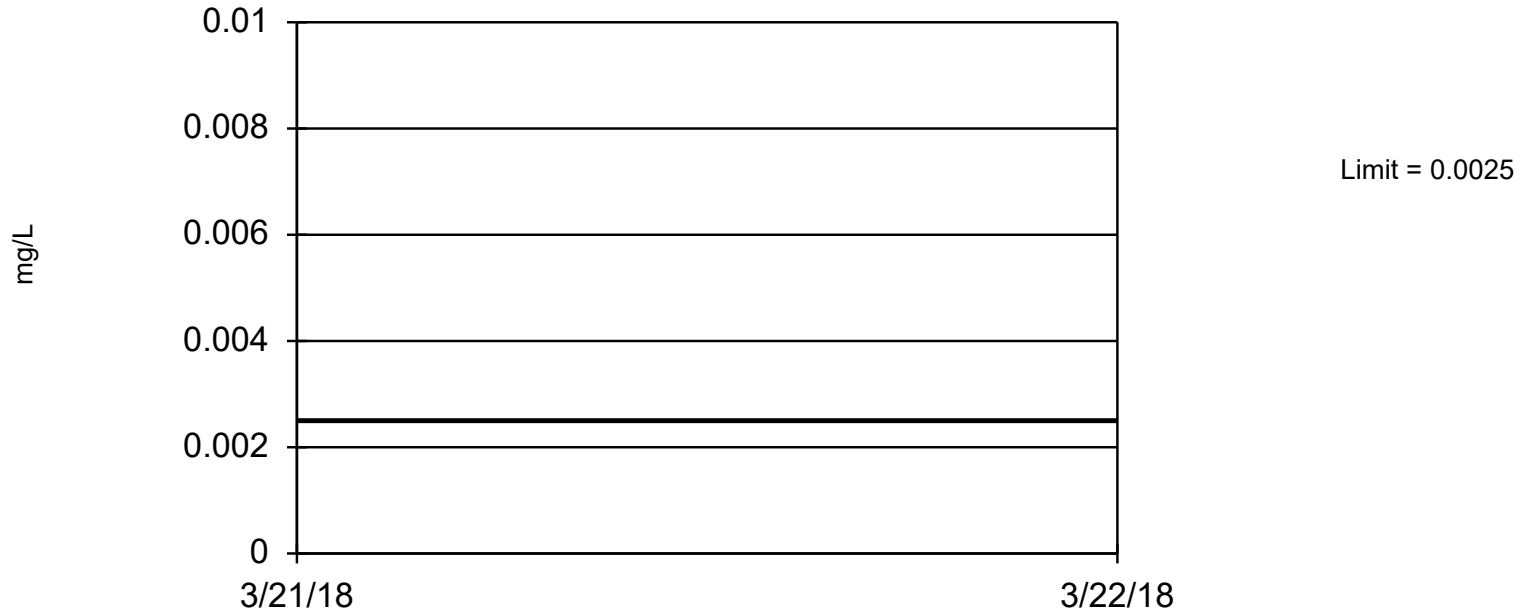
Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 9 background values. 100% NDs. 59.96% coverage at alpha=0.01; 71.68% coverage at alpha=0.05; 92.77% coverage at alpha=0.5. Report alpha = 0.6302.

Tolerance Limit

Constituent: Beryllium (mg/L) Analysis Run 1/7/2019 4:14 PM View: Sanitas_Statistics Sampling Events 1 through 11
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

| | MW-U1 (bg) |
|-----------|------------|
| 2/28/2017 | <0.0025 |
| 3/27/2017 | <0.0025 |
| 4/24/2017 | <0.0025 |
| 5/22/2017 | <0.0025 |
| 6/19/2017 | <0.0025 |
| 7/17/2017 | <0.0025 |
| 8/14/2017 | <0.0025 |
| 9/13/2017 | <0.0025 |
| 3/22/2018 | <0.0025 |

Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 9 background values. 100% NDs. 59.96% coverage at alpha=0.01; 71.68% coverage at alpha=0.05; 92.77% coverage at alpha=0.5. Report alpha = 0.6302.

Constituent: Cadmium Analysis Run 1/7/2019 4:13 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

Constituent: Cadmium (mg/L) Analysis Run 1/7/2019 4:14 PM View: Sanitas_Statistics Sampling Events 1 through 11
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

| | MW-U1 (bg) |
|-----------|------------|
| 2/28/2017 | <0.0025 |
| 3/27/2017 | <0.0025 |
| 4/24/2017 | <0.0025 |
| 5/22/2017 | <0.0025 |
| 6/19/2017 | <0.0025 |
| 7/17/2017 | <0.0025 |
| 8/14/2017 | <0.0025 |
| 9/13/2017 | <0.0025 |
| 3/22/2018 | <0.0025 |

Tolerance Limit Interwell Non-parametric



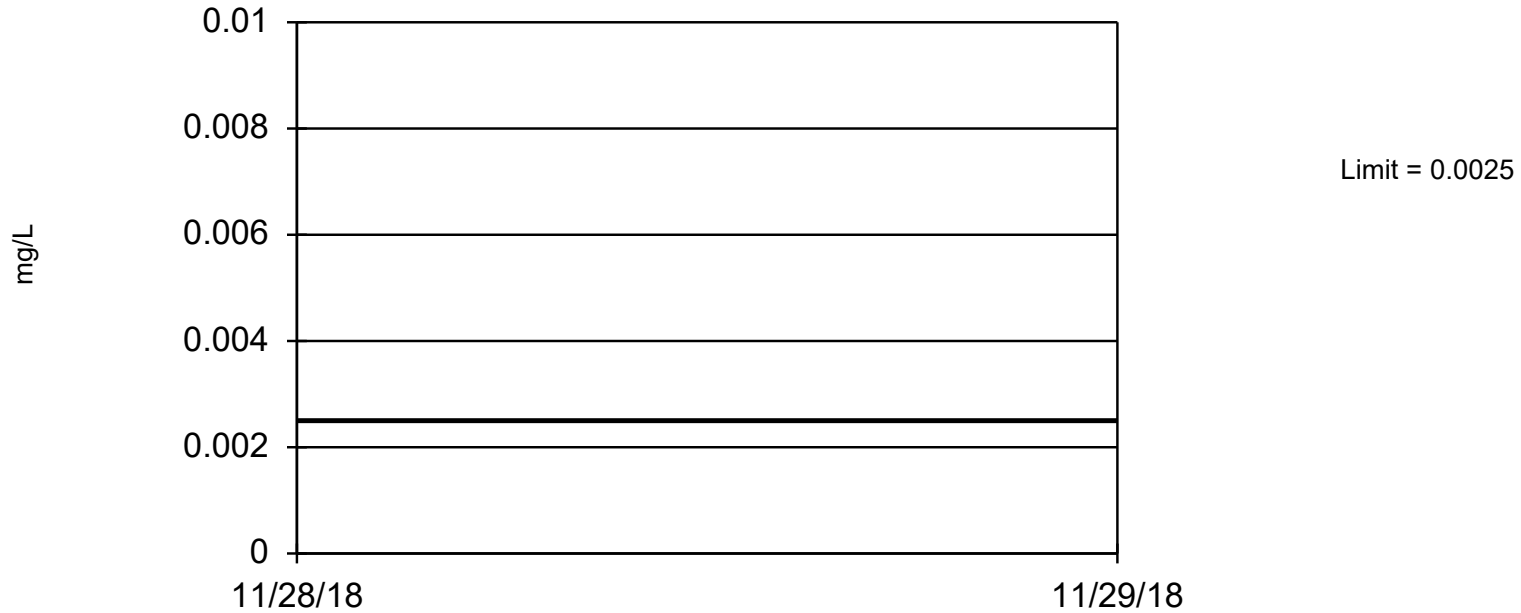
Non-parametric test used in lieu of parametric tolerance limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 10 background values. 63.09% coverage at alpha=0.01; 74.02% coverage at alpha=0.05; 93.16% coverage at alpha=0.5. Report alpha = 0.5987.

Tolerance Limit

Constituent: Chromium (mg/L) Analysis Run 1/7/2019 4:14 PM View: Sanitas_Statistics Sampling Events 1 through 11
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

| | MW-U1 (bg) |
|------------|------------|
| 2/28/2017 | 0.0051 |
| 3/27/2017 | 0.0017 (J) |
| 4/24/2017 | 0.0014 (J) |
| 5/22/2017 | 0.0014 (J) |
| 6/19/2017 | 0.0014 (J) |
| 7/17/2017 | 0.0014 (J) |
| 8/14/2017 | 0.0012 (J) |
| 9/13/2017 | 0.0014 (J) |
| 3/22/2018 | 0.0016 (J) |
| 11/29/2018 | 0.0012 (J) |

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: Cobalt Analysis Run 1/7/2019 4:13 PM View: Sanitas_Statistics Sampling Events 1 through 1
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Tolerance Limit

Constituent: Cobalt (mg/L) Analysis Run 1/7/2019 4:14 PM View: Sanitas_Statistics Sampling Events 1 through 11
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

| | MW-U1 (bg) |
|------------|------------|
| 2/28/2017 | <0.0025 |
| 3/27/2017 | <0.0025 |
| 4/24/2017 | <0.0025 |
| 5/22/2017 | <0.0025 |
| 6/19/2017 | <0.0025 |
| 7/17/2017 | <0.0025 |
| 8/14/2017 | <0.0025 |
| 9/13/2017 | <0.0025 |
| 3/22/2018 | <0.0025 |
| 6/5/2018 | <0.0025 |
| 11/29/2018 | <0.0025 |

Tolerance Limit Interwell Parametric



95% coverage. Background Data Summary: Mean=0.1597, Std. Dev.=0.1819, n=11. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8546, critical = 0.792. Report alpha = 0.01.

Constituent: Combined Radium 226 + 228 Analysis Run 1/7/2019 4:13 PM View: Sanitas_Statistics Sampl

CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Tolerance Limit

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 1/7/2019 4:14 PM View: Sanitas_Statistics Sampling Events 1 through 11
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

| | MW-U1 (bg) |
|------------|------------|
| 2/28/2017 | 0.117 |
| 3/27/2017 | -0.0198 |
| 4/24/2017 | 0.19 |
| 5/22/2017 | 0.133 |
| 6/19/2017 | 0.135 |
| 7/17/2017 | 0.19 |
| 8/14/2017 | 0.302 |
| 9/13/2017 | 0.614 |
| 3/22/2018 | 0.131 |
| 6/5/2018 | -0.0586 |
| 11/29/2018 | 0.0234 |

Tolerance Limit Interwell Parametric



95% coverage. Background Data Summary: Mean=0.05618, Std. Dev.=0.009185, n=11. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8, critical = 0.792. Report alpha = 0.01.

Tolerance Limit

Constituent: Fluoride (mg/L) Analysis Run 1/7/2019 4:14 PM View: Sanitas_Statistics Sampling Events 1 through 11
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

| | MW-U1 (bg) |
|------------|------------|
| 2/28/2017 | 0.06 (J) |
| 3/27/2017 | 0.04 (J) |
| 4/24/2017 | 0.06 (J) |
| 5/22/2017 | 0.06 (J) |
| 6/19/2017 | 0.06 (J) |
| 7/17/2017 | 0.06 (J) |
| 8/14/2017 | 0.05 (J) |
| 9/13/2017 | 0.058 (J) |
| 3/22/2018 | 0.07 (J) |
| 6/5/2018 | 0.06 (J) |
| 11/29/2018 | 0.04 (J) |

Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 9 background values. 88.89% NDs. 59.96% coverage at alpha=0.01; 71.68% coverage at alpha=0.05; 92.77% coverage at alpha=0.5. Report alpha = 0.6302.

Constituent: Lead Analysis Run 1/7/2019 4:13 PM View: Sanitas_Statistics Sampling Events 1 through 11

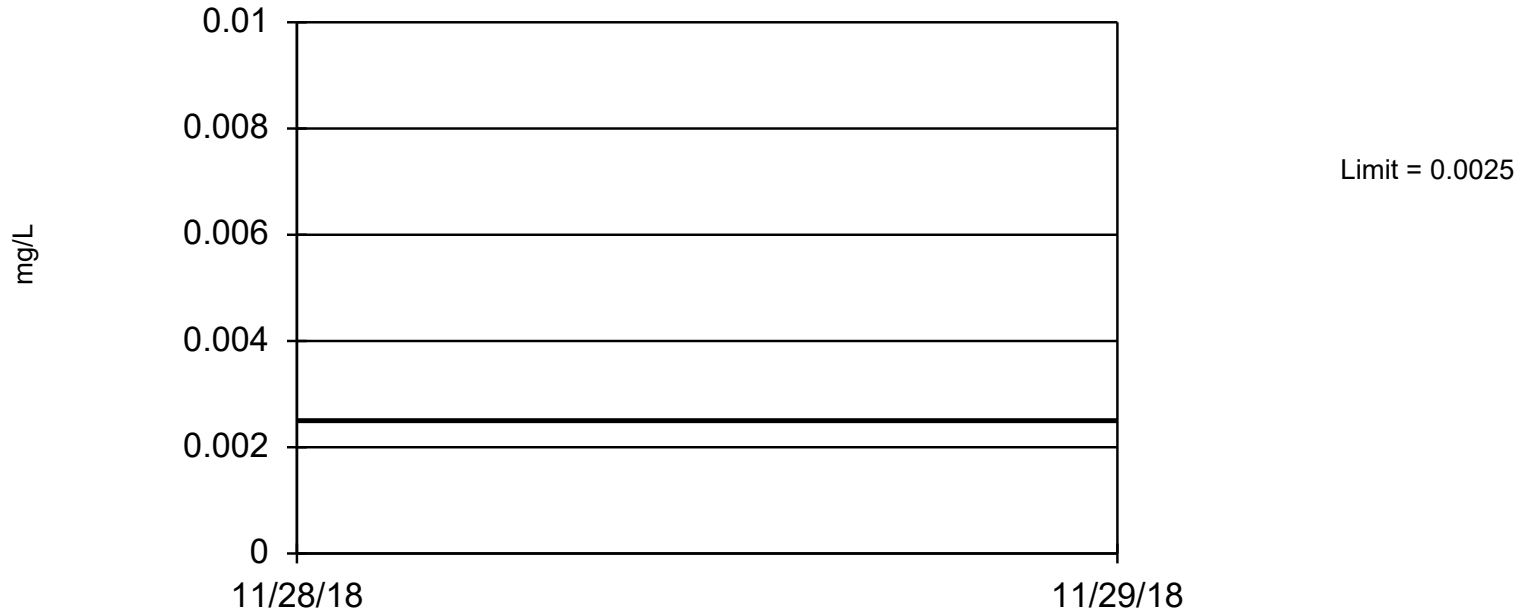
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Tolerance Limit

Constituent: Lead (mg/L) Analysis Run 1/7/2019 4:14 PM View: Sanitas_Statistics Sampling Events 1 through 11
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

| | MW-U1 (bg) |
|-----------|-------------|
| 2/28/2017 | <0.0013 |
| 3/27/2017 | <0.0013 |
| 4/24/2017 | <0.0013 |
| 5/22/2017 | 0.00065 (J) |
| 6/19/2017 | <0.0013 |
| 7/17/2017 | <0.0013 |
| 8/14/2017 | <0.0013 |
| 9/13/2017 | <0.0013 |
| 3/22/2018 | <0.0013 |

Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 10 background values. 90% NDs. 63.09% coverage at alpha=0.01; 74.02% coverage at alpha=0.05; 93.16% coverage at alpha=0.5. Report alpha = 0.5987.

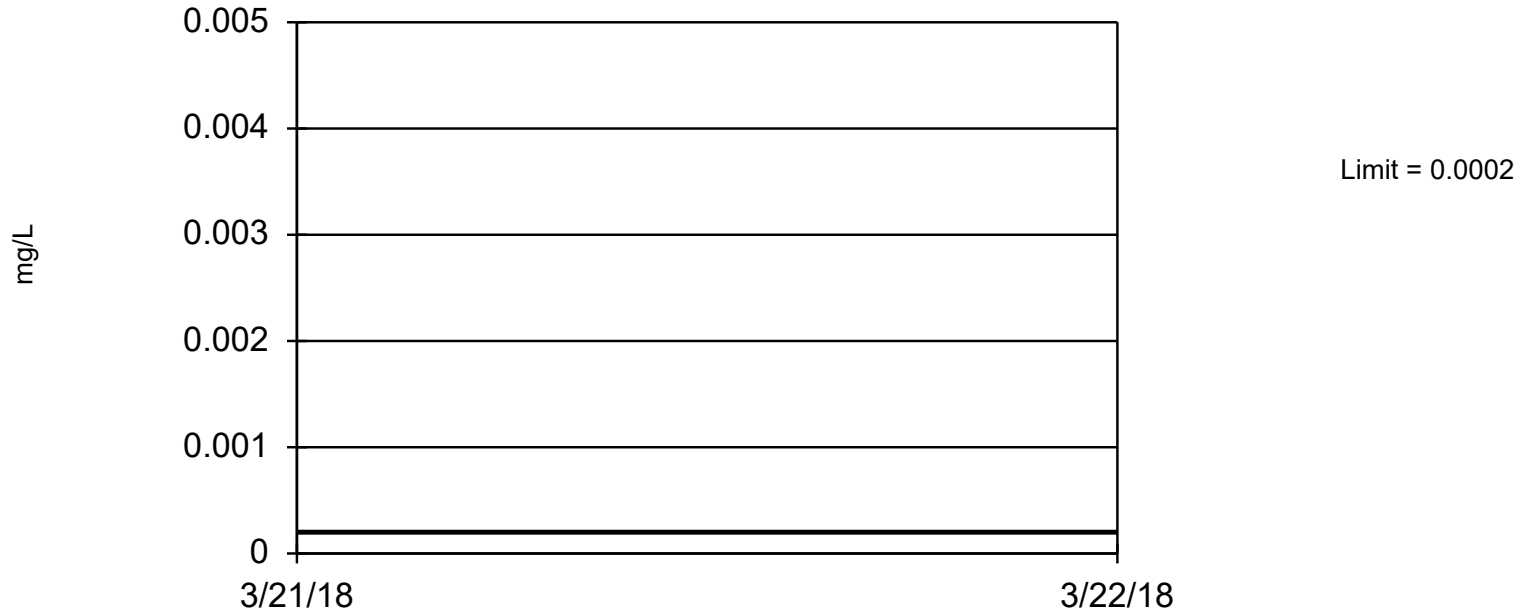
Constituent: Lithium Analysis Run 1/7/2019 4:13 PM View: Sanitas_Statistics Sampling Events 1 through
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Tolerance Limit

Constituent: Lithium (mg/L) Analysis Run 1/7/2019 4:14 PM View: Sanitas_Statistics Sampling Events 1 through 11
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

| | MW-U1 (bg) |
|------------|-------------|
| 2/28/2017 | <0.0025 |
| 3/27/2017 | <0.0025 |
| 4/24/2017 | <0.0025 |
| 5/22/2017 | <0.0025 |
| 6/19/2017 | <0.0025 |
| 7/17/2017 | <0.0025 |
| 8/14/2017 | <0.0025 |
| 9/13/2017 | <0.0025 |
| 3/22/2018 | 0.00034 (J) |
| 11/29/2018 | <0.0025 |

Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 9 background values. 88.89% NDs. 59.96% coverage at alpha=0.01; 71.68% coverage at alpha=0.05; 92.77% coverage at alpha=0.5. Report alpha = 0.6302.

Constituent: Mercury Analysis Run 1/7/2019 4:13 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

Constituent: Mercury (mg/L) Analysis Run 1/7/2019 4:14 PM View: Sanitas_Statistics Sampling Events 1 through 11
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

| | MW-U1 (bg) |
|-----------|--------------|
| 2/28/2017 | 9.9E-05 (JB) |
| 3/27/2017 | <0.0002 |
| 4/24/2017 | <0.0002 |
| 5/22/2017 | <0.0002 |
| 6/19/2017 | <0.0002 |
| 7/17/2017 | <0.0002 |
| 8/14/2017 | <0.0002 |
| 9/13/2017 | <0.0002 |
| 3/22/2018 | <0.0002 |

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: Molybdenum Analysis Run 1/7/2019 4:13 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

Constituent: Molybdenum (mg/L) Analysis Run 1/7/2019 4:14 PM View: Sanitas_Statistics Sampling Events 1 through 11
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

| | MW-U1 (bg) |
|------------|------------|
| 2/28/2017 | <0.01 |
| 3/27/2017 | <0.01 |
| 4/24/2017 | <0.01 |
| 5/22/2017 | <0.01 |
| 6/19/2017 | <0.01 |
| 7/17/2017 | <0.01 |
| 8/14/2017 | <0.01 |
| 9/13/2017 | <0.01 |
| 3/22/2018 | <0.01 |
| 6/5/2018 | <0.01 |
| 11/29/2018 | <0.01 |

Tolerance Limit Interwell Parametric



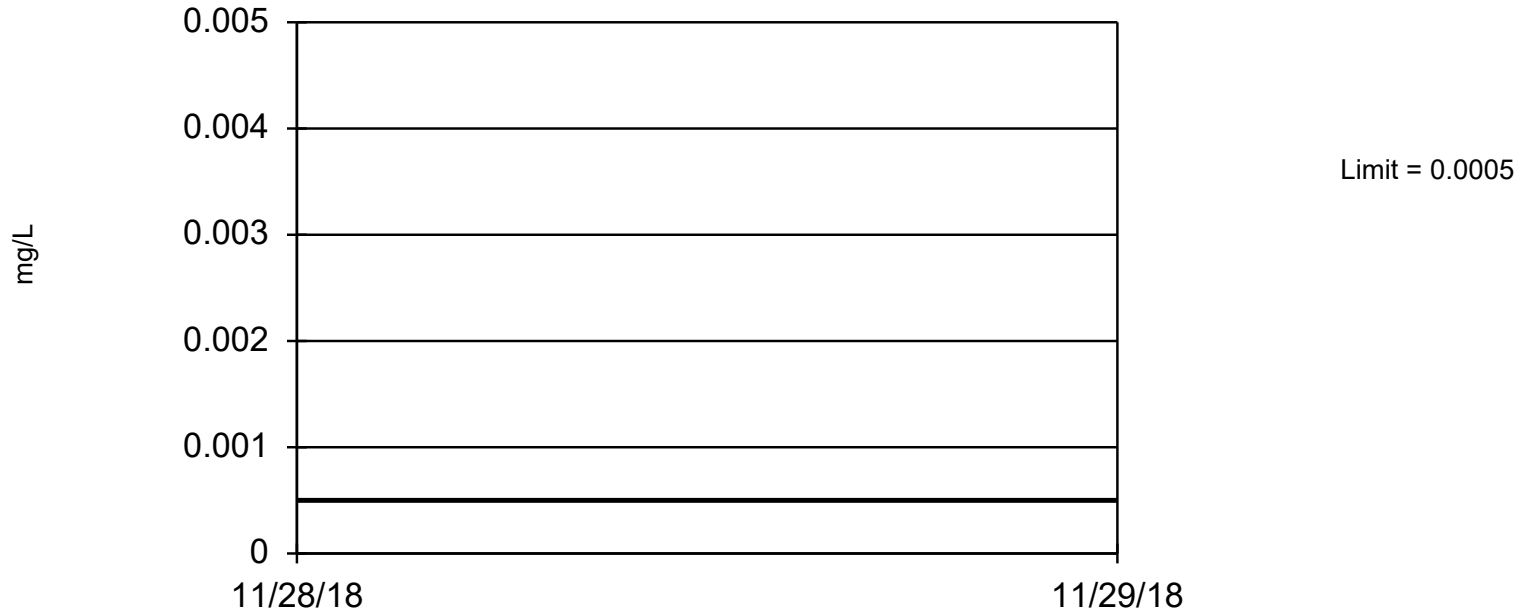
95% coverage. Background Data Summary (after Kaplan-Meier Adjustment): Mean=0.0005767, Std. Dev.=0.0001374, n=10, 40% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8129, critical = 0.781. Report alpha = 0.01.

Tolerance Limit

Constituent: Selenium (mg/L) Analysis Run 1/7/2019 4:14 PM View: Sanitas_Statistics Sampling Events 1 through 11
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

| | MW-U1 (bg) |
|------------|--------------|
| 2/28/2017 | <0.0013 |
| 3/27/2017 | <0.0013 |
| 4/24/2017 | <0.0013 |
| 5/22/2017 | 0.00076 (J) |
| 6/19/2017 | 0.00062 (JB) |
| 7/17/2017 | 0.0007 (J) |
| 8/14/2017 | 0.00058 (J) |
| 9/13/2017 | 0.00041 (J) |
| 3/22/2018 | 0.00039 |
| 11/29/2018 | <0.0013 |

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: Thallium Analysis Run 1/7/2019 4:13 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

Constituent: Thallium (mg/L) Analysis Run 1/7/2019 4:14 PM View: Sanitas_Statistics Sampling Events 1 through 11
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

| | MW-U1 (bg) |
|------------|------------|
| 2/28/2017 | <0.0005 |
| 3/27/2017 | <0.0005 |
| 4/24/2017 | <0.0005 |
| 5/22/2017 | <0.0005 |
| 6/19/2017 | <0.0005 |
| 7/17/2017 | <0.0005 |
| 8/14/2017 | <0.0005 |
| 9/13/2017 | <0.0005 |
| 3/22/2018 | <0.0005 |
| 6/5/2018 | <0.0005 |
| 11/29/2018 | <0.0005 |

Confidence Interval

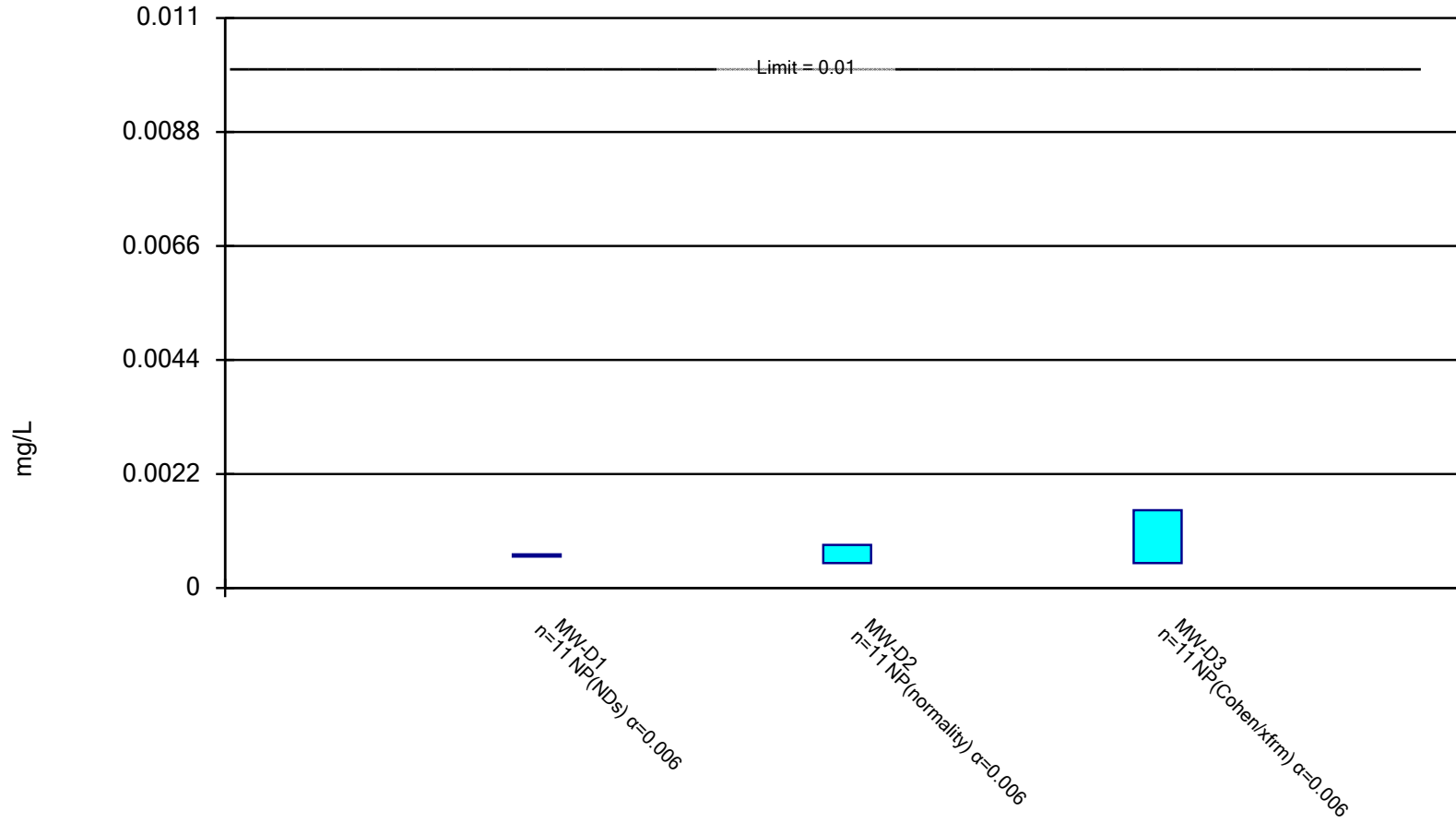
Confidence Interval

CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10 Printed 1/7/2019, 4:42 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 | 0.00065 | 0.01 | No | 11 | 100 | No | 0.006 | NP (NDs) |
| Arsenic (mg/L) | MW-D2 | 0.00083 | 0.00048 | 0.01 | No | 11 | 72.73 | No | 0.006 | NP (normality) |
| Arsenic (mg/L) | MW-D3 | 0.0015 | 0.00048 | 0.01 | No | 11 | 18.18 | No | 0.006 | NP (Cohens/xfrm) |
| Barium (mg/L) | MW-D1 | 0.01285 | 0.01011 | 2 | No | 11 | 0 | No | 0.01 | Param. |
| Barium (mg/L) | MW-D2 | 0.1599 | 0.1123 | 2 | No | 11 | 0 | No | 0.01 | Param. |
| Barium (mg/L) | MW-D3 | 0.2137 | 0.1645 | 2 | No | 11 | 0 | No | 0.01 | Param. |
| Chromium (mg/L) | MW-D1 | 0.00125 | 0.00125 | 0.1 | No | 10 | 90 | No | 0.011 | NP (NDs) |
| Chromium (mg/L) | MW-D2 | 0.00125 | 0.00125 | 0.1 | No | 10 | 90 | No | 0.011 | NP (NDs) |
| Chromium (mg/L) | MW-D3 | 0.00125 | 0.00125 | 0.1 | No | 10 | 90 | No | 0.011 | NP (NDs) |
| Cobalt (mg/L) | MW-D1 | 0.00125 | 0.00125 | 0.006 | No | 11 | 100 | No | 0.006 | NP (NDs) |
| Cobalt (mg/L) | MW-D2 | 0.00125 | 0.00047 | 0.006 | No | 11 | 90.91 | No | 0.006 | NP (NDs) |
| Cobalt (mg/L) | MW-D3 | 0.001488 | 0.001033 | 0.006 | No | 11 | 0 | No | 0.01 | Param. |
| Combined Radium 226 + 228 (pCi/L) | MW-D1 | 0.5229 | 0.1459 | 5 | No | 11 | 0 | sqrt(x) | 0.01 | Param. |
| Combined Radium 226 + 228 (pCi/L) | MW-D2 | 0.7871 | 0.2333 | 5 | No | 11 | 0 | No | 0.01 | Param. |
| Combined Radium 226 + 228 (pCi/L) | MW-D3 | 0.9045 | 0.3137 | 5 | No | 11 | 0 | No | 0.01 | Param. |
| Fluoride (mg/L) | MW-D1 | 0.08541 | 0.0555 | 4 | No | 11 | 0 | No | 0.01 | Param. |
| Fluoride (mg/L) | MW-D2 | 0.07 | 0.04 | 4 | No | 11 | 0 | No | 0.006 | NP (normality) |
| Fluoride (mg/L) | MW-D3 | 0.1237 | 0.1008 | 4 | No | 11 | 0 | x^3 | 0.01 | Param. |
| Lithium (mg/L) | MW-D1 | 0.00125 | 0.00125 | 0.04 | No | 10 | 100 | No | 0.011 | NP (NDs) |
| Lithium (mg/L) | MW-D2 | 0.00125 | 0.00125 | 0.04 | No | 10 | 100 | No | 0.011 | NP (NDs) |
| Lithium (mg/L) | MW-D3 | 0.00125 | 0.00125 | 0.04 | No | 10 | 100 | No | 0.011 | NP (NDs) |
| Molybdenum (mg/L) | MW-D1 | 0.005 | 0.005 | 0.1 | No | 11 | 100 | No | 0.006 | NP (NDs) |
| Molybdenum (mg/L) | MW-D2 | 0.005 | 0.0012 | 0.1 | No | 11 | 72.73 | No | 0.006 | NP (normality) |
| Molybdenum (mg/L) | MW-D3 | 0.004375 | 0.001896 | 0.1 | No | 11 | 9.091 | ln(x) | 0.01 | Param. |
| Selenium (mg/L) | MW-D1 | 0.00065 | 0.00033 | 0.05 | No | 10 | 90 | No | 0.011 | NP (NDs) |
| Selenium (mg/L) | MW-D2 | 0.00065 | 0.00033 | 0.05 | No | 10 | 70 | No | 0.011 | NP (normality) |
| Selenium (mg/L) | MW-D3 | 0.001 | 0.00037 | 0.05 | No | 10 | 70 | No | 0.011 | NP (normality) |
| Thallium (mg/L) | MW-D1 | 0.00025 | 0.00025 | 0.002 | No | 11 | 100 | No | 0.006 | NP (NDs) |
| Thallium (mg/L) | MW-D2 | 0.00025 | 0.000085 | 0.002 | No | 11 | 27.27 | No | 0.006 | NP (normality) |
| Thallium (mg/L) | MW-D3 | 0.0001231 | 0.0001033 | 0.002 | No | 11 | 0 | No | 0.01 | Param. |

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.



Constituent: Arsenic Analysis Run 1/7/2019 4:42 PM View: Sanitas_Statistics Sampling Events 1 through

CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

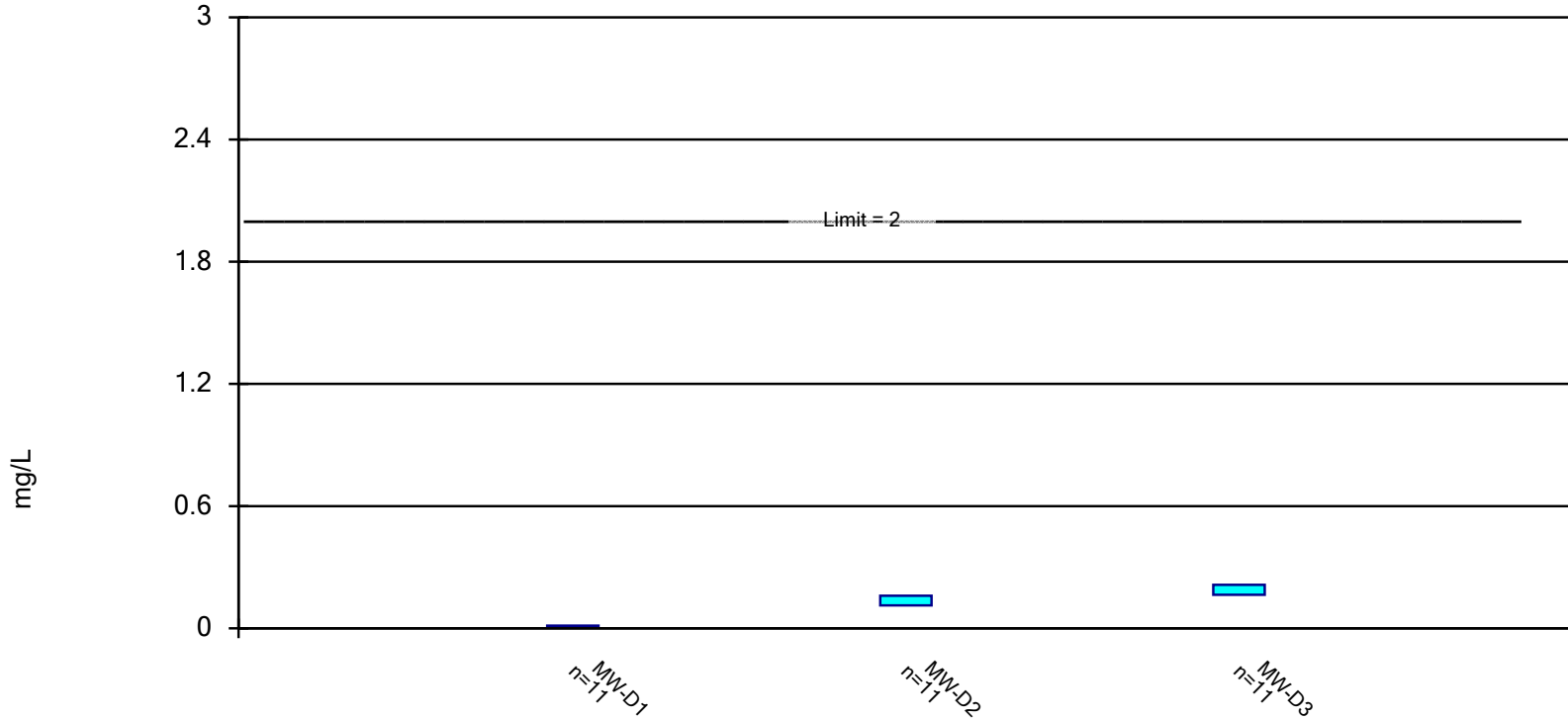
Confidence Interval

Constituent: Arsenic (mg/L) Analysis Run 1/7/2019 4:42 PM View: Sanitas_Statistics Sampling Events 1 through 11
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

| | MW-D1 | MW-D2 | MW-D3 |
|-------------------|---------|-------------|-------------|
| 2/28/2017 | <0.0013 | <0.0013 | 0.0015 |
| 3/27/2017 | <0.0013 | <0.0013 | <0.0013 |
| 4/24/2017 | <0.0013 | 0.00083 (J) | 0.00052 (J) |
| 5/22/2017 | <0.0013 | 0.00048 (J) | 0.00092 (J) |
| 6/19/2017 | <0.0013 | <0.0013 | 0.00097 (J) |
| 7/17/2017 | <0.0013 | 0.00095 (J) | 0.0016 |
| 8/14/2017 | <0.0013 | <0.0013 | 0.00048 (J) |
| 9/13/2017 | <0.0013 | <0.0013 | 0.00079 (J) |
| 3/22/2018 | <0.0013 | <0.0013 | 0.0006 (J) |
| 6/5/2018 | <0.0013 | <0.0013 | 0.00067 (J) |
| 11/29/2018 | <0.0013 | <0.0013 | <0.0013 |
| Mean | 0.00065 | 0.0006782 | 0.00085 |
| Std. Dev. | 0 | 0.0001194 | 0.000378 |
| Upper Lim. | 0.00065 | 0.00083 | 0.0015 |
| Lower Lim. | 0.00065 | 0.00048 | 0.00048 |

Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Barium Analysis Run 1/7/2019 4:42 PM View: Sanitas_Statistics Sampling Events 1 through

CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

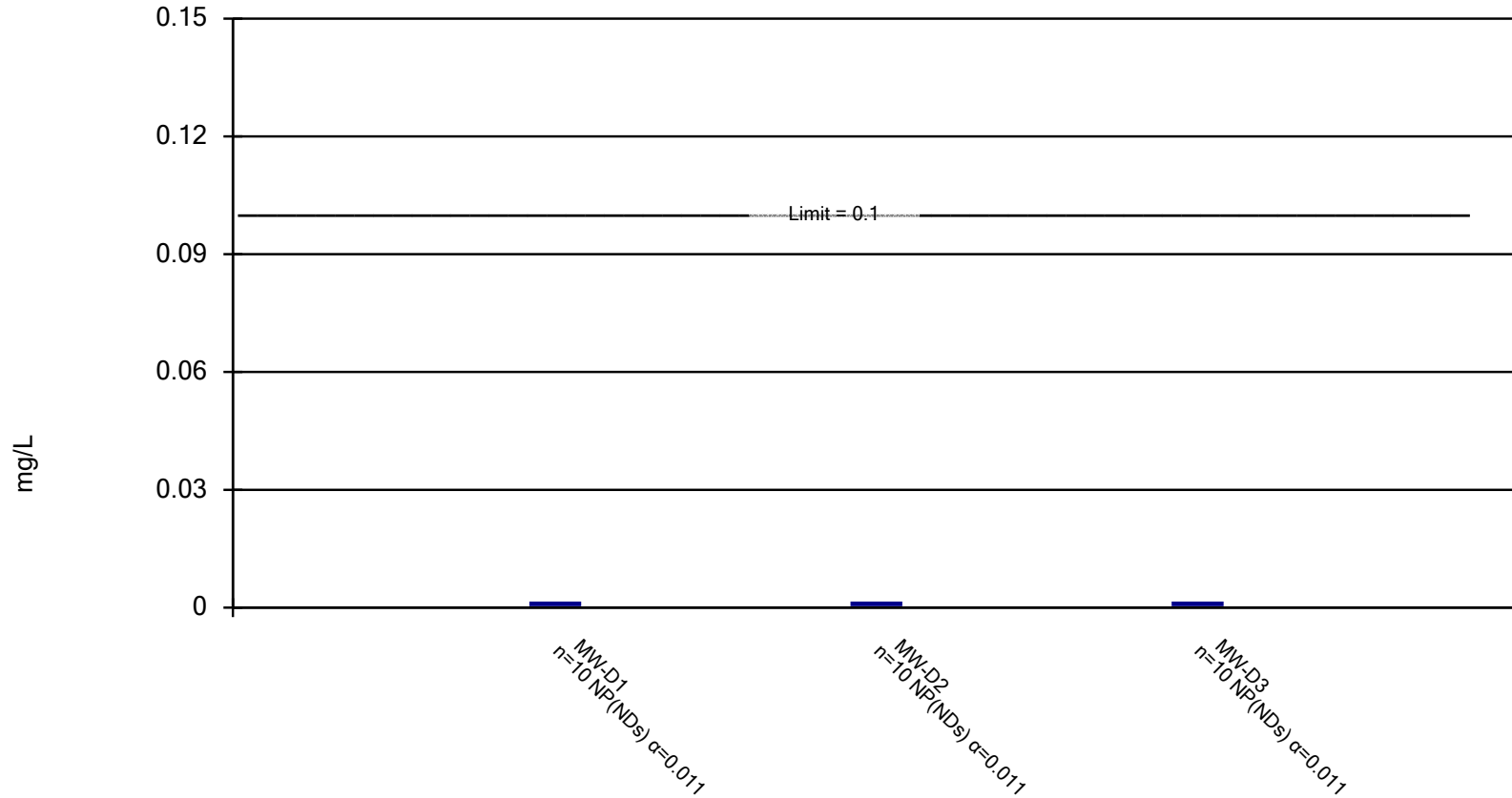
Confidence Interval

Constituent: Barium (mg/L) Analysis Run 1/7/2019 4:42 PM View: Sanitas_Statistics Sampling Events 1 through 11
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

| | MW-D1 | MW-D2 | MW-D3 |
|-------------------|----------|---------|---------|
| 2/28/2017 | 0.011 | 0.087 | 0.22 |
| 3/27/2017 | 0.0099 | 0.11 | 0.23 |
| 4/24/2017 | 0.011 | 0.15 | 0.2 |
| 5/22/2017 | 0.013 | 0.12 | 0.21 |
| 6/19/2017 | 0.012 | 0.11 | 0.21 |
| 7/17/2017 | 0.012 | 0.16 | 0.2 |
| 8/14/2017 | 0.014 | 0.13 | 0.18 |
| 9/13/2017 | 0.014 | 0.14 | 0.18 |
| 3/22/2018 | 0.0095 | 0.15 | 0.16 |
| 6/5/2018 | 0.01 | 0.19 | 0.15 |
| 11/29/2018 | 0.0099 | 0.15 | 0.14 |
| Mean | 0.01148 | 0.1361 | 0.1891 |
| Std. Dev. | 0.001647 | 0.02853 | 0.02948 |
| Upper Lim. | 0.01285 | 0.1599 | 0.2137 |
| Lower Lim. | 0.01011 | 0.1123 | 0.1645 |

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.



Constituent: Chromium Analysis Run 1/7/2019 4:42 PM View: Sanitas_Statistics Sampling Events 1 thru

CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Confidence Interval

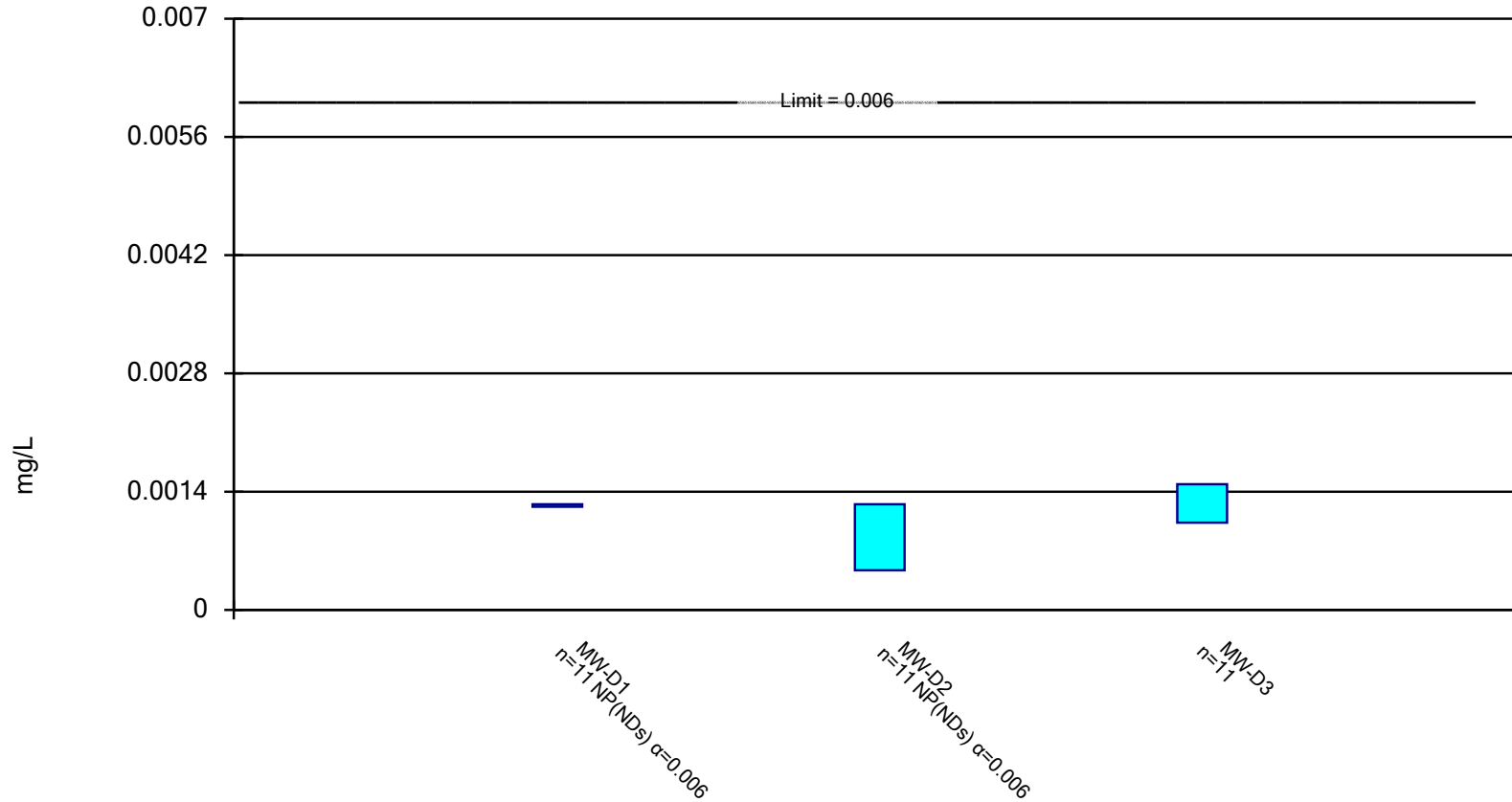
Constituent: Chromium (mg/L) Analysis Run 1/7/2019 4:42 PM View: Sanitas_Statistics Sampling Events 1 through 11

CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

| | MW-D1 | MW-D2 | MW-D3 |
|-------------------|-----------|-----------|-----------|
| 2/28/2017 | 0.0034 | 0.0038 | 0.0029 |
| 3/27/2017 | <0.0025 | <0.0025 | <0.0025 |
| 4/24/2017 | <0.0025 | <0.0025 | <0.0025 |
| 5/22/2017 | <0.0025 | <0.0025 | <0.0025 |
| 6/19/2017 | <0.0025 | <0.0025 | <0.0025 |
| 7/17/2017 | <0.0025 | <0.0025 | <0.0025 |
| 8/14/2017 | <0.0025 | <0.0025 | <0.0025 |
| 9/13/2017 | <0.0025 | <0.0025 | <0.0025 |
| 3/22/2018 | <0.0025 | <0.0025 | <0.0025 |
| 11/29/2018 | <0.0025 | <0.0025 | <0.0025 |
| Mean | 0.001465 | 0.001505 | 0.001415 |
| Std. Dev. | 0.0006799 | 0.0008064 | 0.0005218 |
| Upper Lim. | 0.00125 | 0.00125 | 0.00125 |
| Lower Lim. | 0.00125 | 0.00125 | 0.00125 |

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cobalt Analysis Run 1/7/2019 4:42 PM View: Sanitas_Statistics Sampling Events 1 through 1

CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Confidence Interval

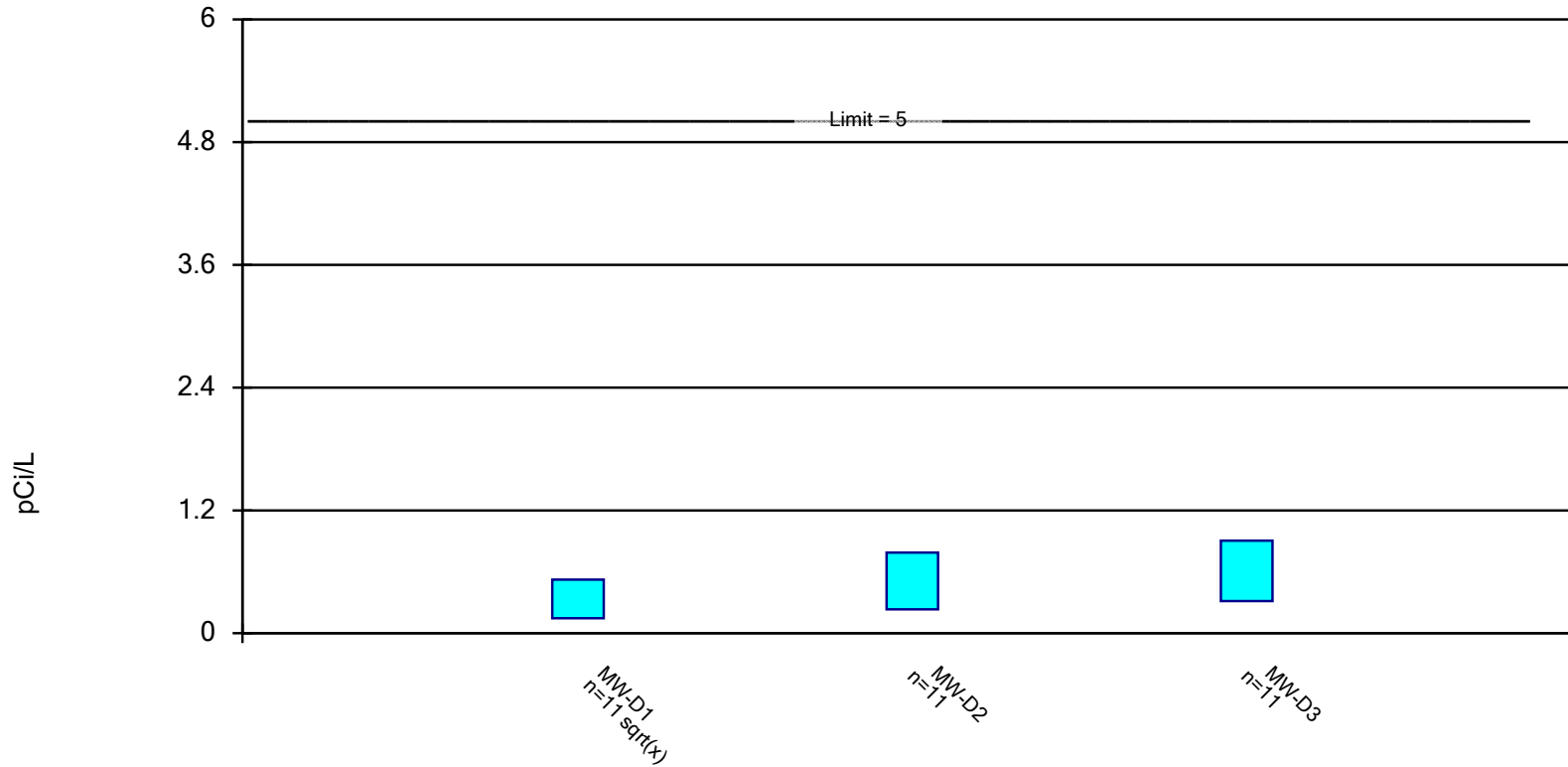
Constituent: Cobalt (mg/L) Analysis Run 1/7/2019 4:42 PM View: Sanitas_Statistics Sampling Events 1 through 11

CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

| | MW-D1 | MW-D2 | MW-D3 |
|-------------------|---------|-------------|-------------|
| 2/28/2017 | <0.0025 | 0.00047 (J) | 0.0011 (J) |
| 3/27/2017 | <0.0025 | <0.0025 | 0.00079 (J) |
| 4/24/2017 | <0.0025 | <0.0025 | 0.001 (J) |
| 5/22/2017 | <0.0025 | <0.0025 | 0.0012 (J) |
| 6/19/2017 | <0.0025 | <0.0025 | 0.0015 (J) |
| 7/17/2017 | <0.0025 | <0.0025 | 0.0014 (J) |
| 8/14/2017 | <0.0025 | <0.0025 | 0.0013 (J) |
| 9/13/2017 | <0.0025 | <0.0025 | 0.0014 (J) |
| 3/22/2018 | <0.0025 | <0.0025 | 0.0015 (J) |
| 6/5/2018 | <0.0025 | <0.0025 | 0.0017 (J) |
| 11/29/2018 | <0.0025 | <0.0025 | 0.00098 (J) |
| Mean | 0.00125 | 0.001179 | 0.001261 |
| Std. Dev. | 0 | 0.0002352 | 0.0002731 |
| Upper Lim. | 0.00125 | 0.00125 | 0.001488 |
| Lower Lim. | 0.00125 | 0.00047 | 0.001033 |

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 1/7/2019 4:42 PM View: Sanitas_Statistics Sampl

CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

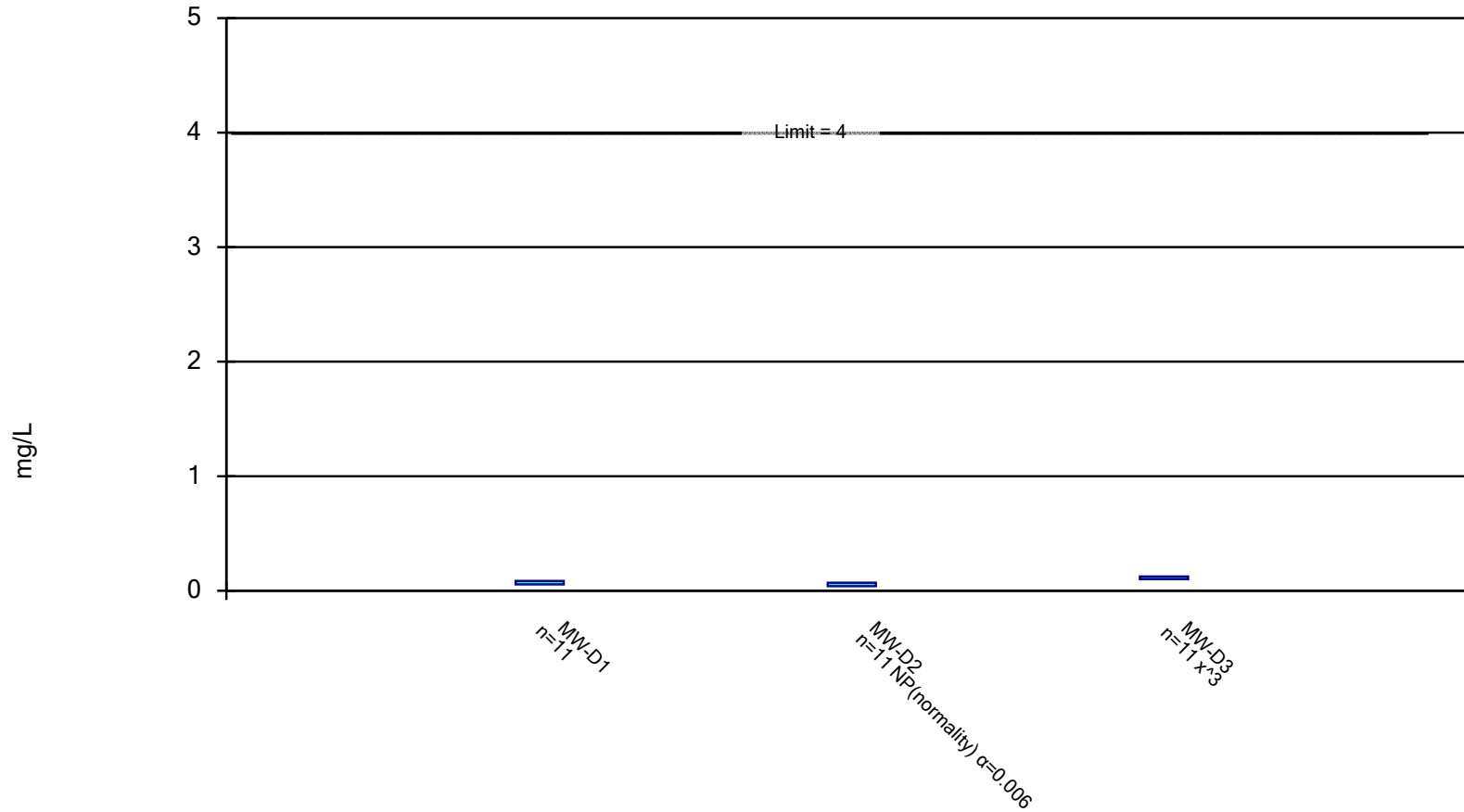
Confidence Interval

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 1/7/2019 4:42 PM View: Sanitas_Statistics Sampling Events 1 through 11
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

| | MW-D1 | MW-D2 | MW-D3 |
|-------------------|--------|--------|--------|
| 2/28/2017 | 0.421 | 0.506 | 0.522 |
| 3/27/2017 | 0.655 | 1.28 | 0.557 |
| 4/24/2017 | 0.212 | 0.756 | 0.572 |
| 5/22/2017 | 0.186 | 0.333 | 0.457 |
| 6/19/2017 | 0.156 | 0.388 | 0.78 |
| 7/17/2017 | 0.153 | 0.534 | 0.409 |
| 8/14/2017 | 0.287 | 0.452 | 0.339 |
| 9/13/2017 | 0.816 | 0.453 | 1.28 |
| 3/22/2018 | 0.643 | 0.716 | 1.17 |
| 6/5/2018 | 0.149 | 0.0139 | 0.564 |
| 11/29/2018 | 0.0994 | 0.18 | 0.0501 |
| Mean | 0.3434 | 0.5102 | 0.6091 |
| Std. Dev. | 0.251 | 0.3323 | 0.3544 |
| Upper Lim. | 0.5229 | 0.7871 | 0.9045 |
| Lower Lim. | 0.1459 | 0.2333 | 0.3137 |

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Fluoride Analysis Run 1/7/2019 4:42 PM View: Sanitas_Statistics Sampling Events 1 through

CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Confidence Interval

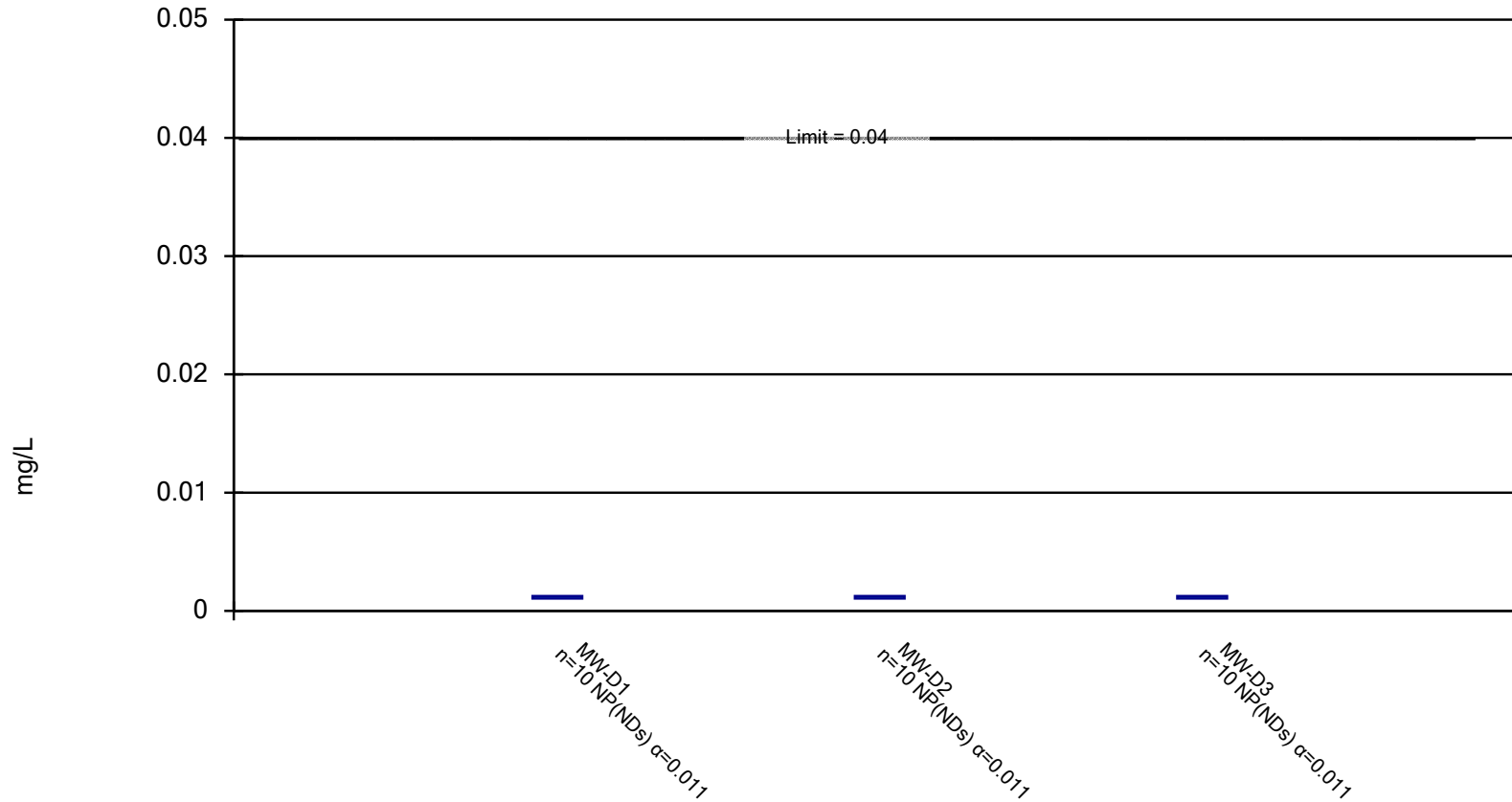
Constituent: Fluoride (mg/L) Analysis Run 1/7/2019 4:42 PM View: Sanitas_Statistics Sampling Events 1 through 11

CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

| | MW-D1 | MW-D2 | MW-D3 |
|-------------------|-----------|-----------|----------|
| 2/28/2017 | 0.06 (J) | 0.06 (J) | 0.13 |
| 3/27/2017 | 0.05 (J) | 0.05 (J) | 0.11 |
| 4/24/2017 | 0.07 (J) | 0.07 (J) | 0.12 |
| 5/22/2017 | 0.07 (J) | 0.06 (J) | 0.11 |
| 6/19/2017 | 0.08 (J) | 0.06 (J) | 0.12 |
| 7/17/2017 | 0.11 | 0.06 (J) | 0.06 (J) |
| 8/14/2017 | 0.07 (J) | 0.06 (J) | 0.12 |
| 9/13/2017 | 0.075 (J) | 0.061 (J) | 0.12 |
| 3/22/2018 | 0.08 (J) | 0.06 (J) | 0.11 |
| 6/5/2018 | 0.07 (J) | 0.07 (J) | 0.12 |
| 11/29/2018 | 0.04 (J) | 0.04 (J) | 0.1 |
| Mean | 0.07045 | 0.05918 | 0.1109 |
| Std. Dev. | 0.01795 | 0.008328 | 0.01868 |
| Upper Lim. | 0.08541 | 0.07 | 0.1237 |
| Lower Lim. | 0.0555 | 0.04 | 0.1008 |

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.



Constituent: Lithium Analysis Run 1/7/2019 4:42 PM View: Sanitas_Statistics Sampling Events 1 through

CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

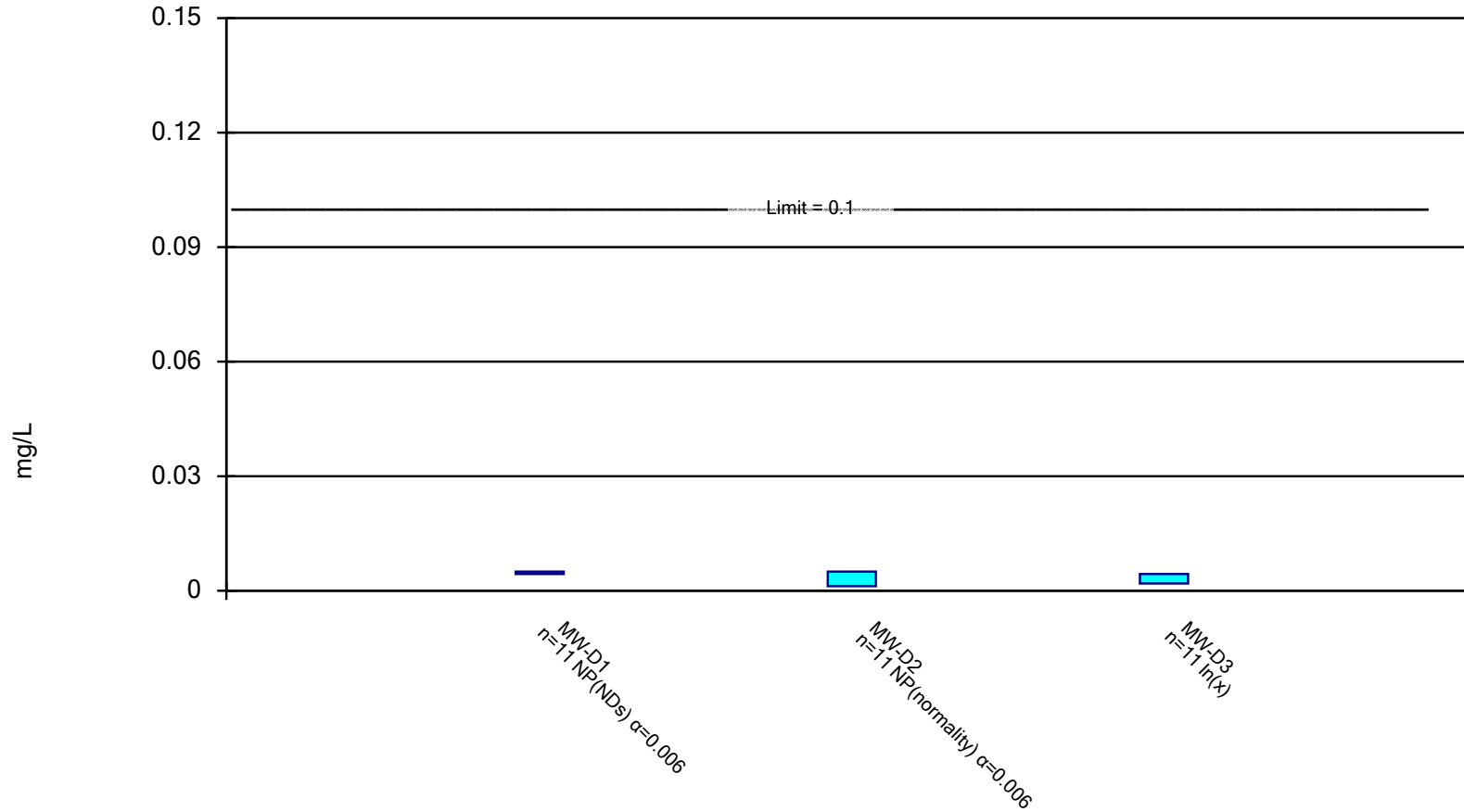
Confidence Interval

Constituent: Lithium (mg/L) Analysis Run 1/7/2019 4:42 PM View: Sanitas_Statistics Sampling Events 1 through 11
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

| | MW-D1 | MW-D2 | MW-D3 |
|-------------------|---------|---------|---------|
| 2/28/2017 | <0.0025 | <0.0025 | <0.0025 |
| 3/27/2017 | <0.0025 | <0.0025 | <0.0025 |
| 4/24/2017 | <0.0025 | <0.0025 | <0.0025 |
| 5/22/2017 | <0.0025 | <0.0025 | <0.0025 |
| 6/19/2017 | <0.0025 | <0.0025 | <0.0025 |
| 7/17/2017 | <0.0025 | <0.0025 | <0.0025 |
| 8/14/2017 | <0.0025 | <0.0025 | <0.0025 |
| 9/13/2017 | <0.0025 | <0.0025 | <0.0025 |
| 3/22/2018 | <0.0025 | <0.0025 | <0.0025 |
| 11/29/2018 | <0.0025 | <0.0025 | <0.0025 |
| Mean | 0.00125 | 0.00125 | 0.00125 |
| Std. Dev. | 0 | 0 | 0 |
| Upper Lim. | 0.00125 | 0.00125 | 0.00125 |
| Lower Lim. | 0.00125 | 0.00125 | 0.00125 |

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Molybdenum Analysis Run 1/7/2019 4:42 PM View: Sanitas_Statistics Sampling Events 1 thr

CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

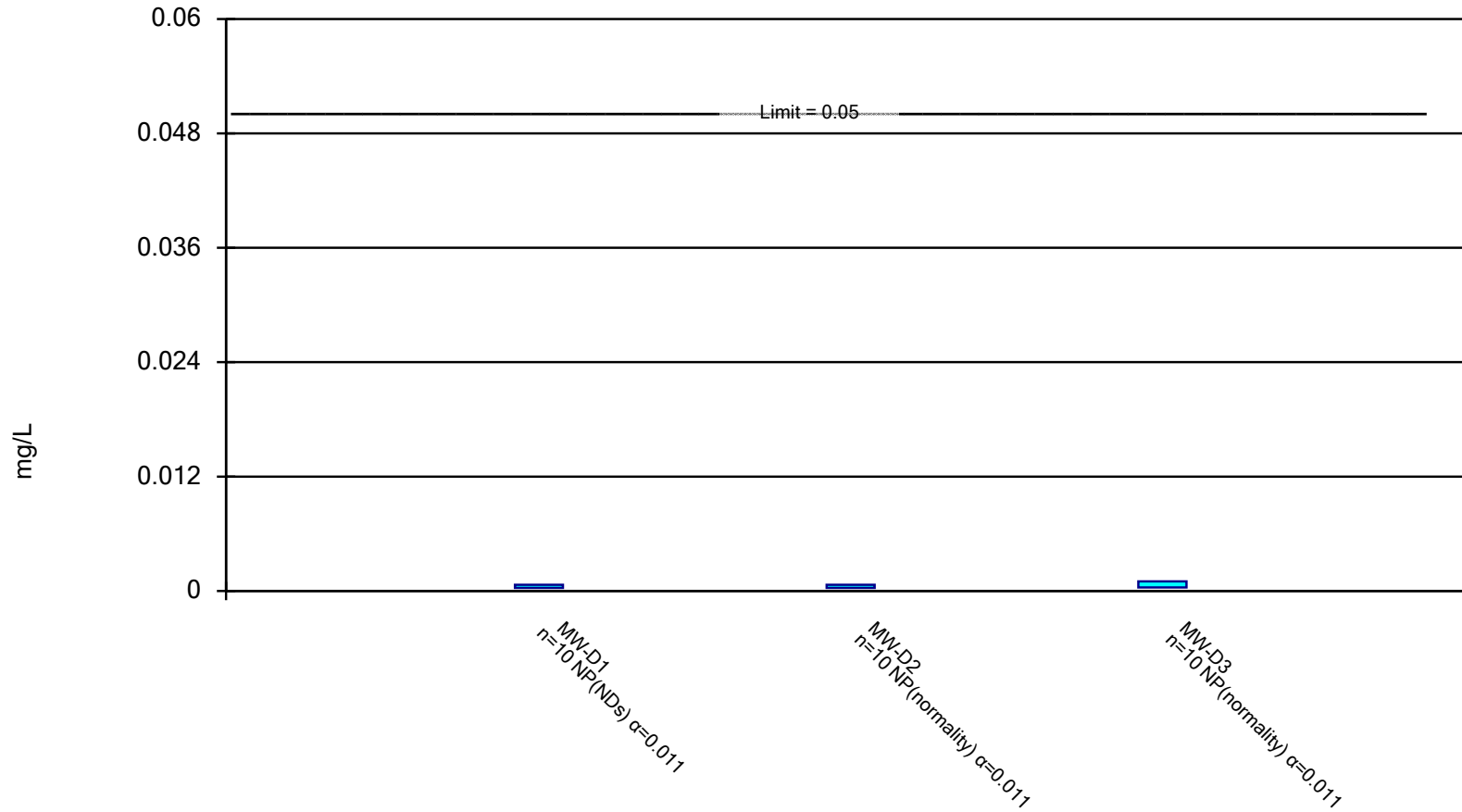
Confidence Interval

Constituent: Molybdenum (mg/L) Analysis Run 1/7/2019 4:42 PM View: Sanitas_Statistics Sampling Events 1 through 11
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

| | MW-D1 | MW-D2 | MW-D3 |
|-------------------|-------|------------|------------|
| 2/28/2017 | <0.01 | 0.0012 (J) | 0.0088 (J) |
| 3/27/2017 | <0.01 | <0.01 | 0.0023 (J) |
| 4/24/2017 | <0.01 | <0.01 | 0.0018 (J) |
| 5/22/2017 | <0.01 | 0.0025 (J) | 0.0031 (J) |
| 6/19/2017 | <0.01 | 0.0016 (J) | 0.0043 (J) |
| 7/17/2017 | <0.01 | <0.01 | 0.0027 (J) |
| 8/14/2017 | <0.01 | <0.01 | 0.0017 (J) |
| 9/13/2017 | <0.01 | <0.01 | 0.0021 (J) |
| 3/22/2018 | <0.01 | <0.01 | 0.0022 (J) |
| 6/5/2018 | <0.01 | <0.01 | 0.0022 (J) |
| 11/29/2018 | <0.01 | <0.01 | <0.01 |
| Mean | 0.005 | 0.004118 | 0.003291 |
| Std. Dev. | 0 | 0.001539 | 0.002103 |
| Upper Lim. | 0.005 | 0.005 | 0.004375 |
| Lower Lim. | 0.005 | 0.0012 | 0.001896 |

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.



Constituent: Selenium Analysis Run 1/7/2019 4:42 PM View: Sanitas_Statistics Sampling Events 1 through

CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Confidence Interval

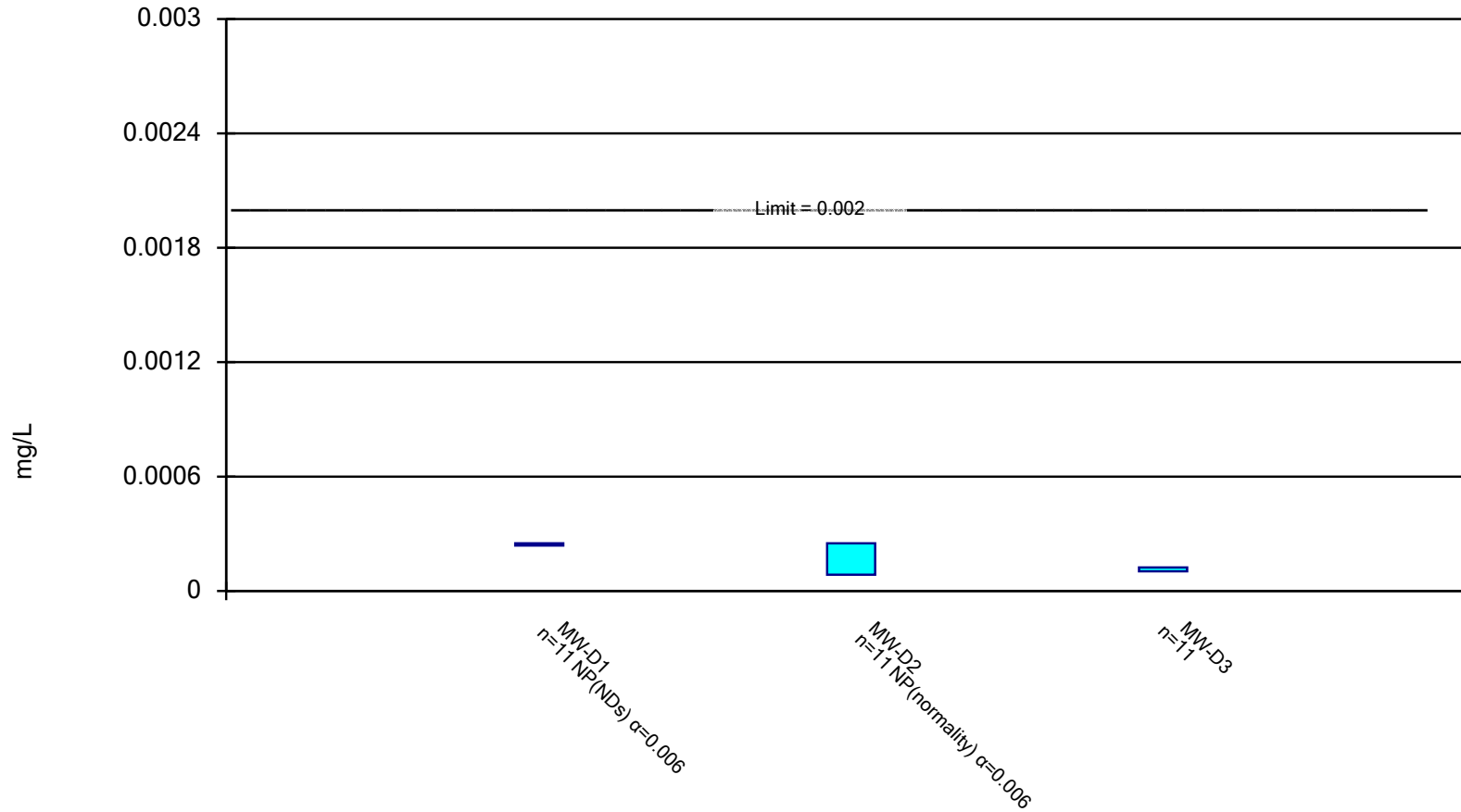
Constituent: Selenium (mg/L) Analysis Run 1/7/2019 4:42 PM View: Sanitas_Statistics Sampling Events 1 through 11

CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

| | MW-D1 | MW-D2 | MW-D3 |
|-------------------|-------------|--------------|-------------|
| 2/28/2017 | <0.0013 | <0.0013 | 0.0028 |
| 3/27/2017 | <0.0013 | <0.0013 | <0.0013 |
| 4/24/2017 | <0.0013 | <0.0013 | <0.0013 |
| 5/22/2017 | <0.0013 | 0.001 (J) | 0.00037 (J) |
| 6/19/2017 | <0.0013 | 0.00059 (JB) | 0.001 (JB) |
| 7/17/2017 | 0.00033 (J) | 0.00033 (J) | <0.0013 |
| 8/14/2017 | <0.0013 | <0.0013 | <0.0013 |
| 9/13/2017 | <0.0013 | <0.0013 | <0.0013 |
| 3/22/2018 | <0.0013 | <0.0013 | <0.0013 |
| 11/29/2018 | <0.0013 | <0.0013 | <0.0013 |
| Mean | 0.000618 | 0.000647 | 0.000872 |
| Std. Dev. | 0.0001012 | 0.0001593 | 0.0006937 |
| Upper Lim. | 0.00065 | 0.00065 | 0.001 |
| Lower Lim. | 0.00033 | 0.00033 | 0.00037 |

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Thallium Analysis Run 1/7/2019 4:42 PM View: Sanitas_Statistics Sampling Events 1 through

CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Confidence Interval

Constituent: Thallium (mg/L) Analysis Run 1/7/2019 4:42 PM View: Sanitas_Statistics Sampling Events 1 through 11

CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

| | MW-D1 | MW-D2 | MW-D3 |
|-------------------|---------|-------------|-------------|
| 2/28/2017 | <0.0005 | 0.00011 (J) | 0.00013 (J) |
| 3/27/2017 | <0.0005 | <0.0005 | 0.00011 (J) |
| 4/24/2017 | <0.0005 | <0.0005 | 9.5E-05 (J) |
| 5/22/2017 | <0.0005 | 0.00011 (J) | 0.00011 (J) |
| 6/19/2017 | <0.0005 | 0.00011 (J) | 0.00012 (J) |
| 7/17/2017 | <0.0005 | 0.00011 (J) | 0.00012 (J) |
| 8/14/2017 | <0.0005 | 0.00013 (J) | 0.00011 (J) |
| 9/13/2017 | <0.0005 | 0.00012 (J) | 0.00013 (J) |
| 3/22/2018 | <0.0005 | <0.0005 | 0.0001 (J) |
| 6/5/2018 | <0.0005 | 8.5E-05 (J) | 0.00012 (J) |
| 11/29/2018 | <0.0005 | 8.5E-05 (J) | 0.0001 (J) |
| Mean | 0.00025 | 0.0001464 | 0.0001132 |
| Std. Dev. | 0 | 6.783E-05 | 1.189E-05 |
| Upper Lim. | 0.00025 | 0.00025 | 0.0001231 |
| Lower Lim. | 0.00025 | 8.5E-05 | 0.0001033 |